



Full wwPDB EM Validation Report ⓘ

Mar 29, 2026 – 01:58 PM UTC

PDB ID : 8XQB / pdb_00008xqb
EMDB ID : EMD-38572
Title : Mature virion portal vertex of bacteriophage lambda
Authors : Wang, J.W.; Gu, Z.W.
Deposited on : 2024-01-05
Resolution : 4.07 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>

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:

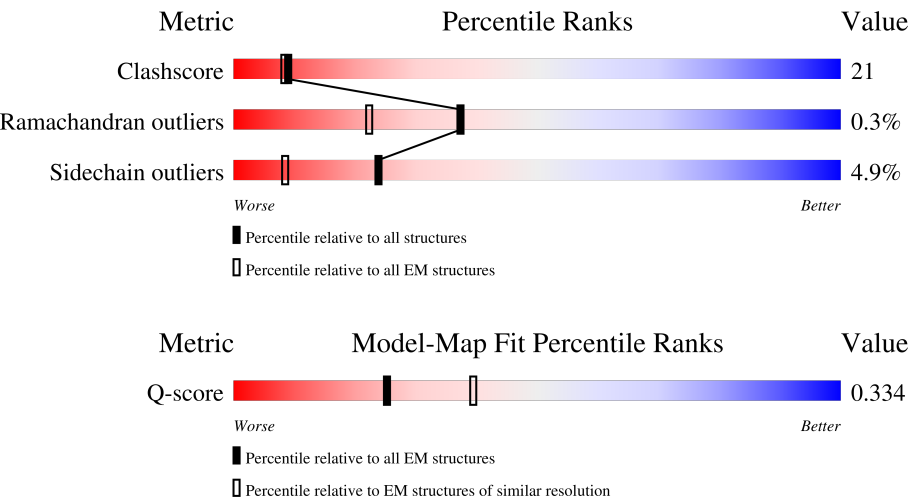
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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:
ELECTRON MICROSCOPY

The reported resolution of this entry is 4.07 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.



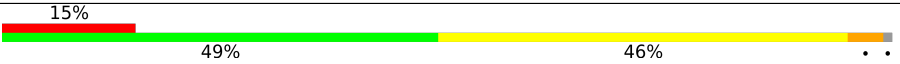
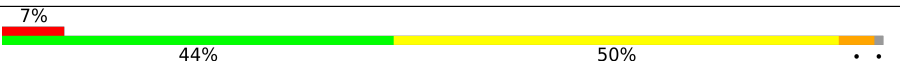
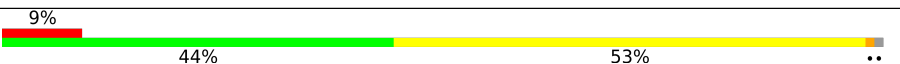
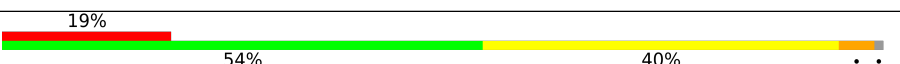
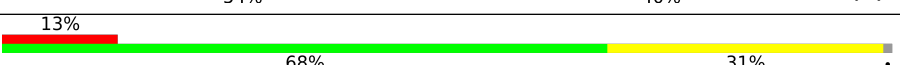
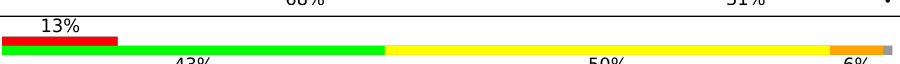
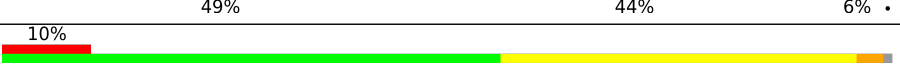
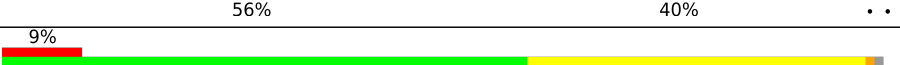
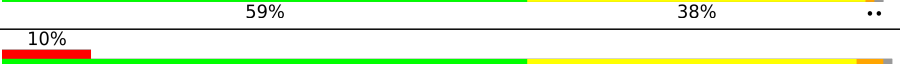
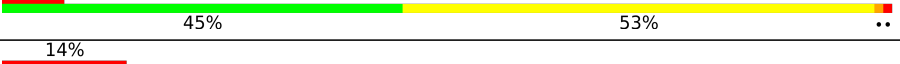
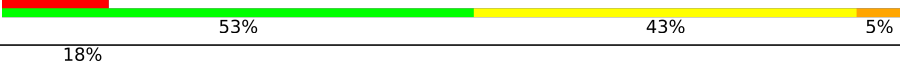
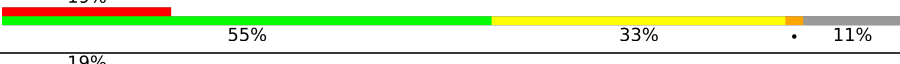
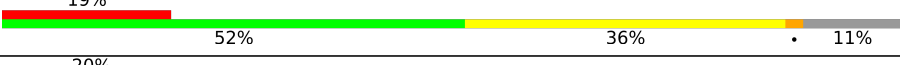
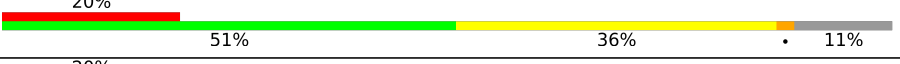
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	6427 (3.58 - 4.57)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	f	117	7% 56% 38% • •
1	f1	117	12% 57% 39% • •
1	f2	117	10% 55% 41% • •
1	f3	117	9% 51% 40% 6% •

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Mol	Chain	Length	Quality of chain
1	f4	117	
1	f5	117	
2	W	68	
2	W1	68	
2	W2	68	
2	W3	68	
2	W4	68	
2	W5	68	
2	w	68	
2	w1	68	
2	w2	68	
2	w3	68	
2	w4	68	
2	w5	68	
3	U	131	
3	U1	131	
3	U2	131	
3	U3	131	
3	U4	131	
3	U5	131	
4	B	533	
4	B1	533	
4	B2	533	
4	B3	533	
4	B4	533	

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Mol	Chain	Length	Quality of chain
4	B5	533	
4	b	533	
4	b1	533	
4	b2	533	
4	b3	533	
4	b4	533	
4	b5	533	
5	A0	341	
5	A1	341	
5	A2	341	
5	A3	341	
5	A4	341	
5	C0	341	
5	C1	341	
5	C2	341	
5	C3	341	
5	C4	341	
5	G0	341	
5	G1	341	
5	G2	341	
5	G3	341	
5	G4	341	
6	H0	110	
6	H1	110	
6	H2	110	

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Mol	Chain	Length	Quality of chain
6	H3	110	
6	H4	110	
6	I0	110	
6	I1	110	
6	I2	110	
6	I3	110	
6	I4	110	
6	J0	110	
6	J1	110	
6	J2	110	
6	J3	110	
6	J4	110	
6	N0	110	
6	N1	110	
6	N2	110	
6	N3	110	
6	N4	110	

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 118514 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Head-tail connector protein FII.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	f	114	Total	C	N	O	S	0	0
			872	535	161	174	2		
1	f1	114	Total	C	N	O	S	0	0
			872	535	161	174	2		
1	f2	114	Total	C	N	O	S	0	0
			872	535	161	174	2		
1	f3	114	Total	C	N	O	S	0	0
			872	535	161	174	2		
1	f4	114	Total	C	N	O	S	0	0
			872	535	161	174	2		
1	f5	114	Total	C	N	O	S	0	0
			872	535	161	174	2		

- Molecule 2 is a protein called Head completion protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	W	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	w	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	W1	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	w1	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	W2	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	w2	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	W3	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	w3	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	W4	67	Total	C	N	O	S	0	0
			524	323	101	98	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	w4	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	W5	67	Total	C	N	O	S	0	0
			524	323	101	98	2		
2	w5	67	Total	C	N	O	S	0	0
			524	323	101	98	2		

- Molecule 3 is a protein called Tail tube terminator protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	U	131	Total	C	N	O	S	0	0
			1032	655	159	213	5		
3	U1	131	Total	C	N	O	S	0	0
			1032	655	159	213	5		
3	U2	131	Total	C	N	O	S	0	0
			1032	655	159	213	5		
3	U3	131	Total	C	N	O	S	0	0
			1032	655	159	213	5		
3	U4	131	Total	C	N	O	S	0	0
			1032	655	159	213	5		
3	U5	131	Total	C	N	O	S	0	0
			1032	655	159	213	5		

- Molecule 4 is a protein called Portal protein B.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	B	475	Total	C	N	O	S	0	0
			3727	2328	671	704	24		
4	b	473	Total	C	N	O	S	0	0
			3710	2316	669	701	24		
4	B1	475	Total	C	N	O	S	0	0
			3727	2328	671	704	24		
4	b1	473	Total	C	N	O	S	0	0
			3710	2316	669	701	24		
4	B2	475	Total	C	N	O	S	0	0
			3727	2328	671	704	24		
4	b2	473	Total	C	N	O	S	0	0
			3710	2316	669	701	24		
4	B3	475	Total	C	N	O	S	0	0
			3727	2328	671	704	24		
4	b3	473	Total	C	N	O	S	0	0
			3710	2316	669	701	24		

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	B4	475	Total	C	N	O	S	0	0
			3727	2328	671	704	24		
4	b4	473	Total	C	N	O	S	0	0
			3710	2316	669	701	24		
4	B5	475	Total	C	N	O	S	0	0
			3727	2328	671	704	24		
4	b5	473	Total	C	N	O	S	0	0
			3710	2316	669	701	24		

- Molecule 5 is a protein called Major capsid protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	A0	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	G0	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	C0	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	A1	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	G1	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	C1	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	A2	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	G2	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	C2	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	A3	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	G3	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	C3	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	A4	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	G4	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		
5	C4	339	Total	C	N	O	S	0	0
			2669	1682	457	517	13		

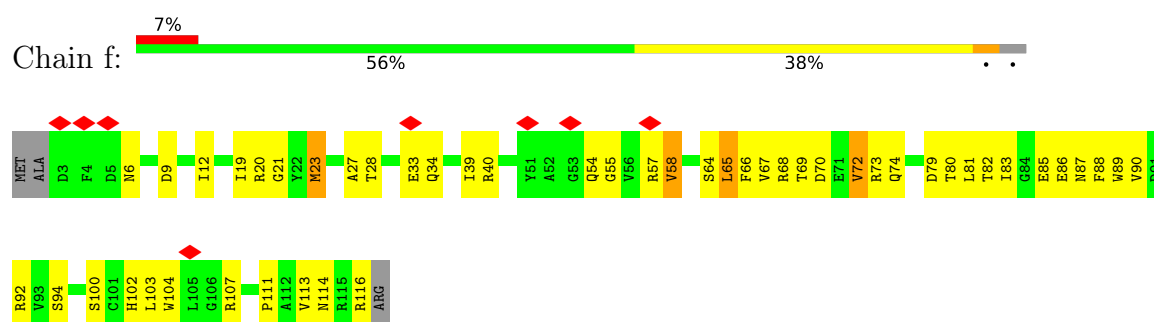
- Molecule 6 is a protein called Capsid decoration protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	H0	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	I0	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	J0	108	Total 802	C 504	N 133	O 163	S 2	1	0
6	N0	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	H1	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	I1	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	J1	108	Total 802	C 504	N 133	O 163	S 2	1	0
6	N1	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	H2	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	I2	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	J2	108	Total 802	C 504	N 133	O 163	S 2	1	0
6	N2	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	H3	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	I3	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	J3	108	Total 802	C 504	N 133	O 163	S 2	1	0
6	N3	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	H4	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	I4	109	Total 809	C 508	N 134	O 165	S 2	1	0
6	J4	108	Total 802	C 504	N 133	O 163	S 2	1	0
6	N4	109	Total 809	C 508	N 134	O 165	S 2	1	0

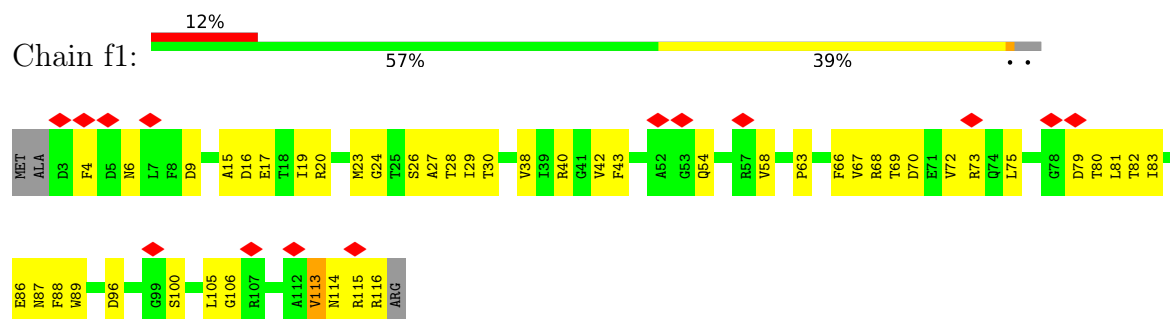
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

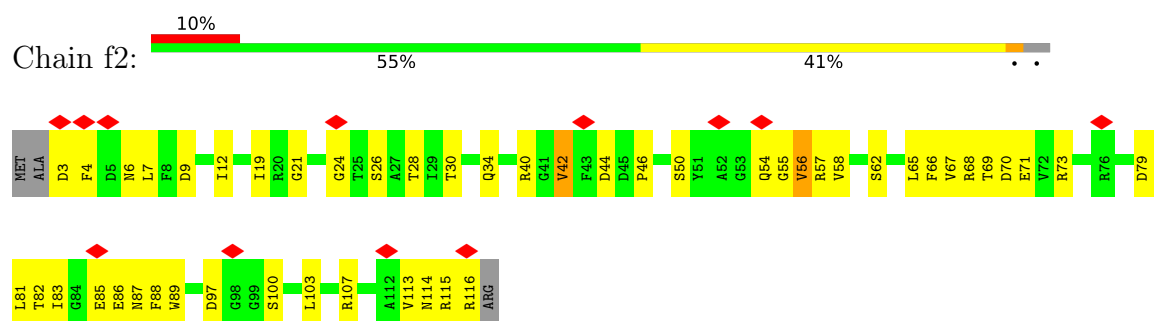
- Molecule 1: Head-tail connector protein FII



- Molecule 1: Head-tail connector protein FII

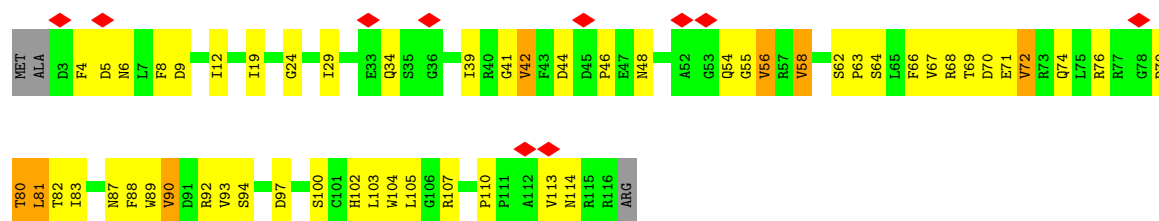


- Molecule 1: Head-tail connector protein FII

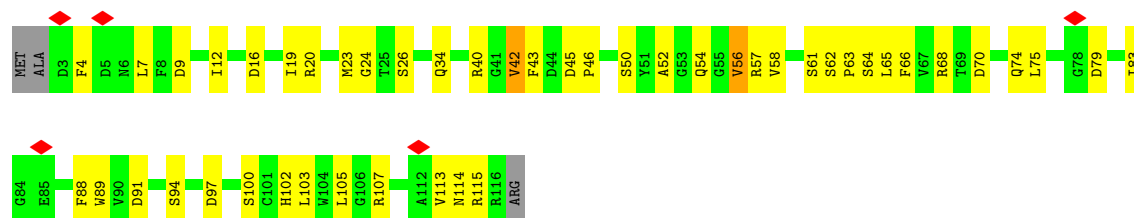


- Molecule 1: Head-tail connector protein FII

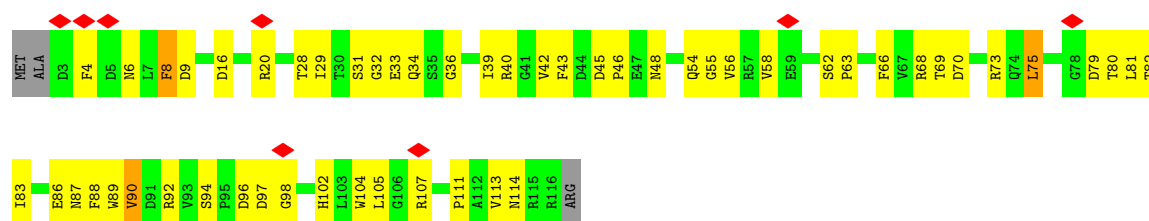




- Molecule 1: Head-tail connector protein FII



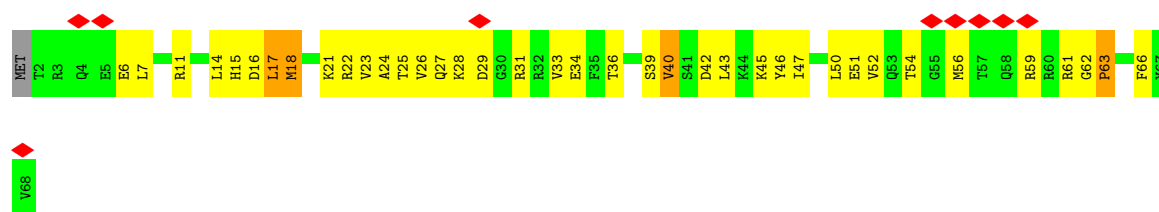
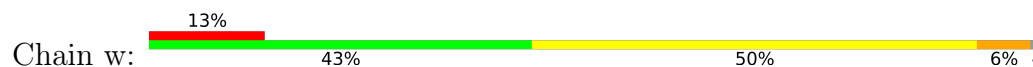
- Molecule 1: Head-tail connector protein FII



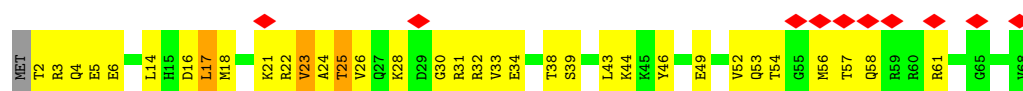
- Molecule 2: Head completion protein



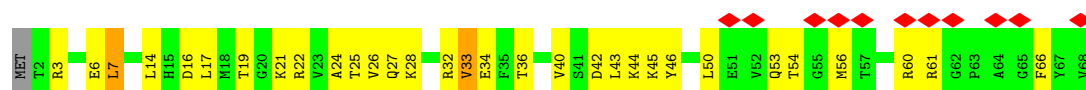
- Molecule 2: Head completion protein



- Molecule 2: Head completion protein



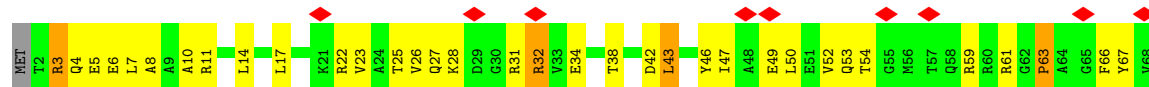
- Molecule 2: Head completion protein



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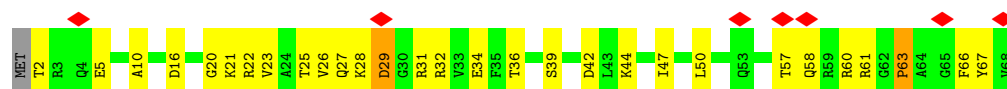
- Molecule 2: Head completion protein



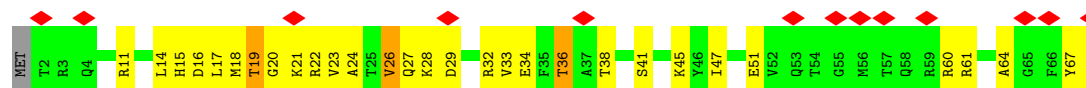
- Molecule 2: Head completion protein



- Molecule 2: Head completion protein



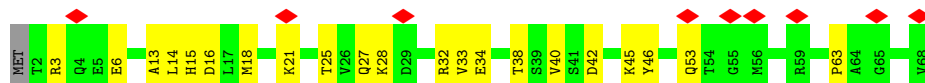
- Molecule 2: Head completion protein



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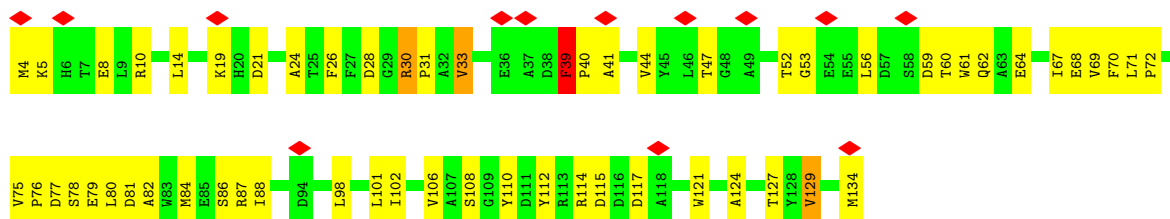
- Molecule 2: Head completion protein



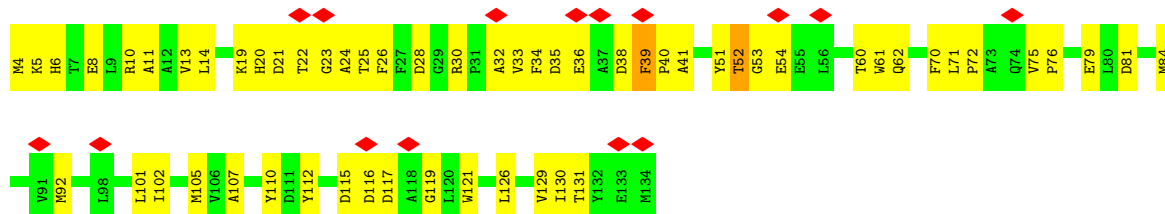
- Molecule 2: Head completion protein



- Molecule 3: Tail tube terminator protein

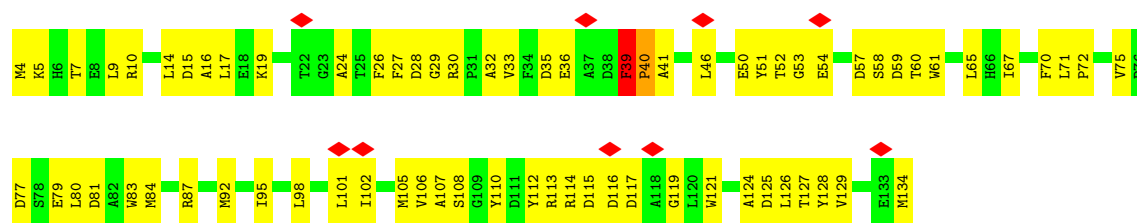


- Molecule 3: Tail tube terminator protein

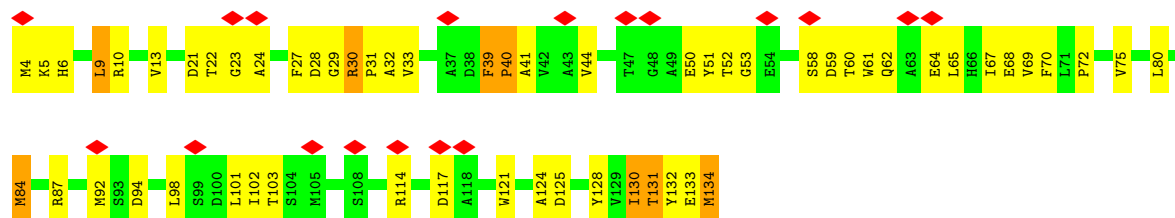


- Molecule 3: Tail tube terminator protein

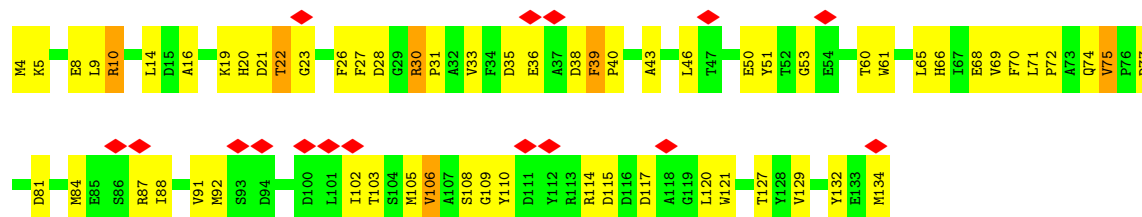




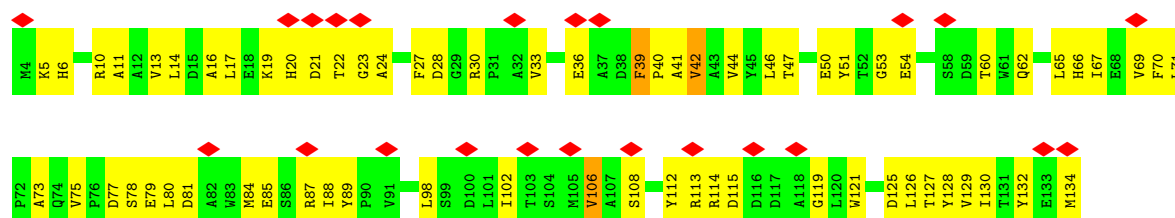
• Molecule 3: Tail tube terminator protein



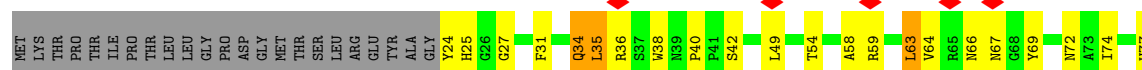
• Molecule 3: Tail tube terminator protein

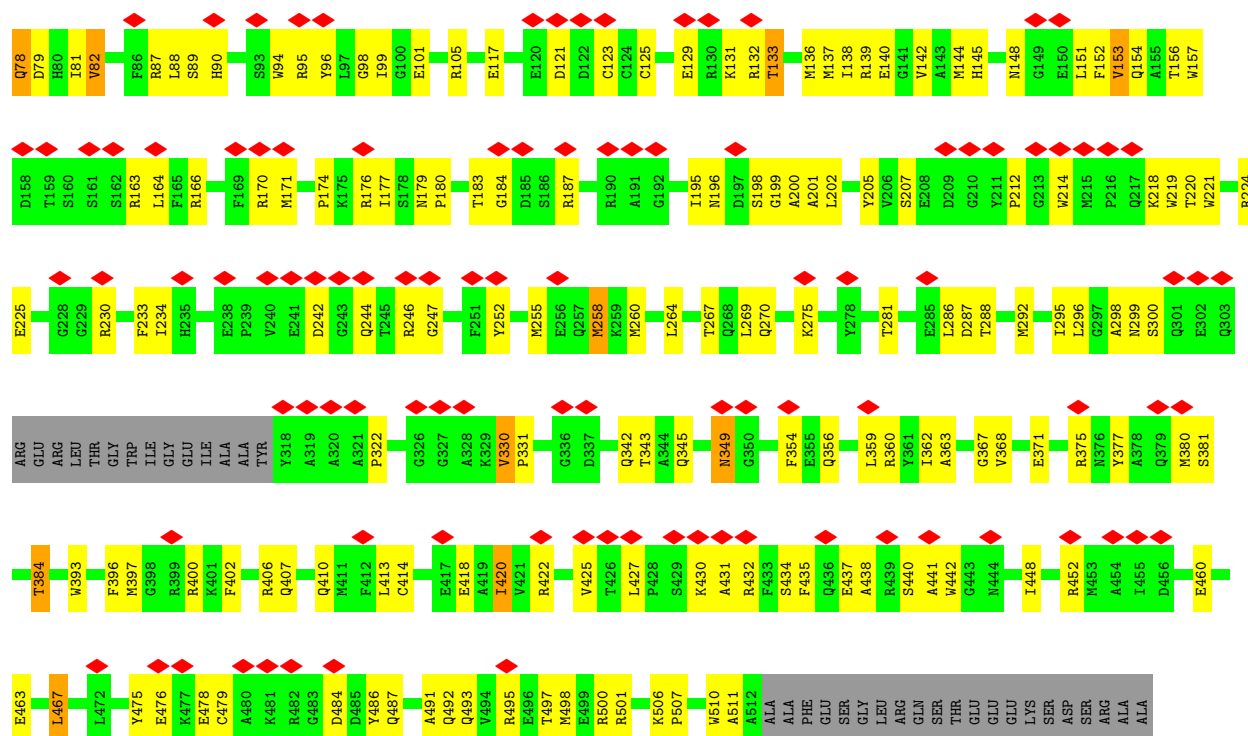


• Molecule 3: Tail tube terminator protein

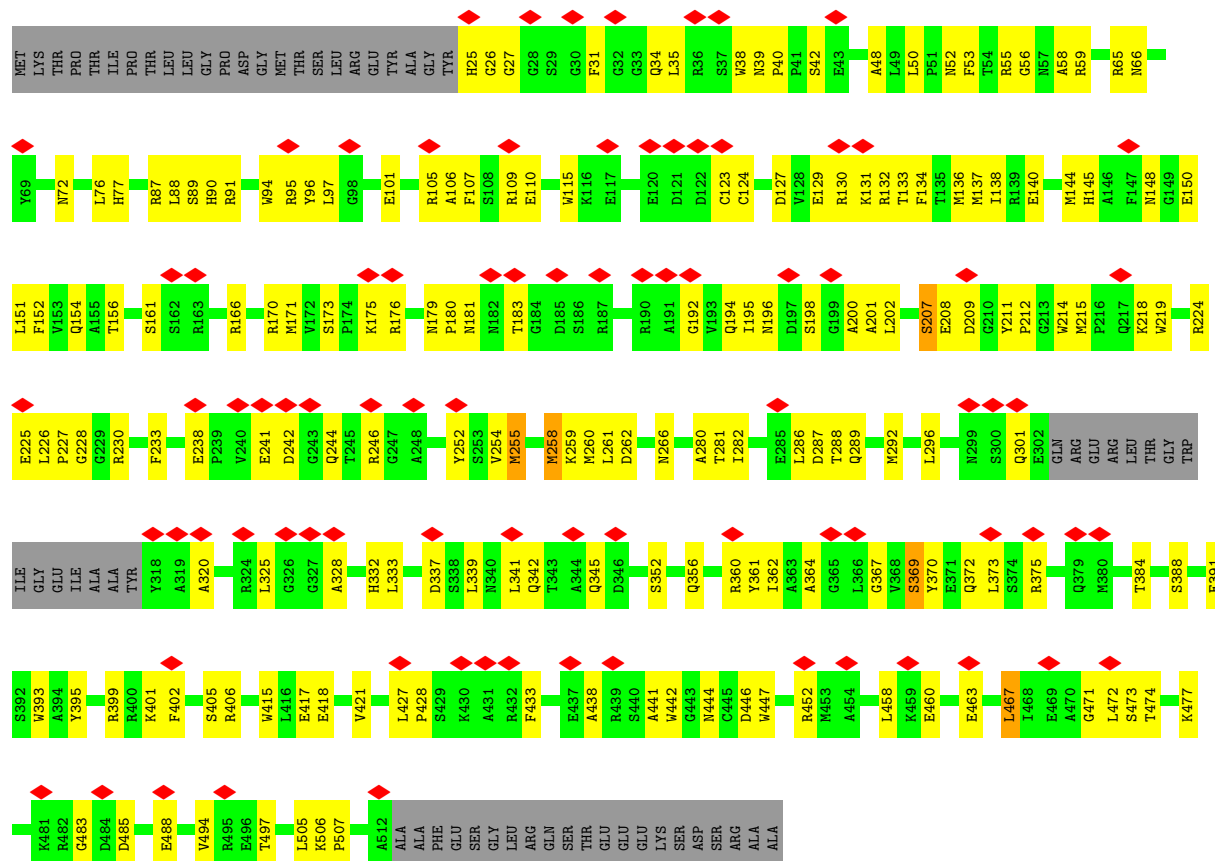


• Molecule 4: Portal protein B

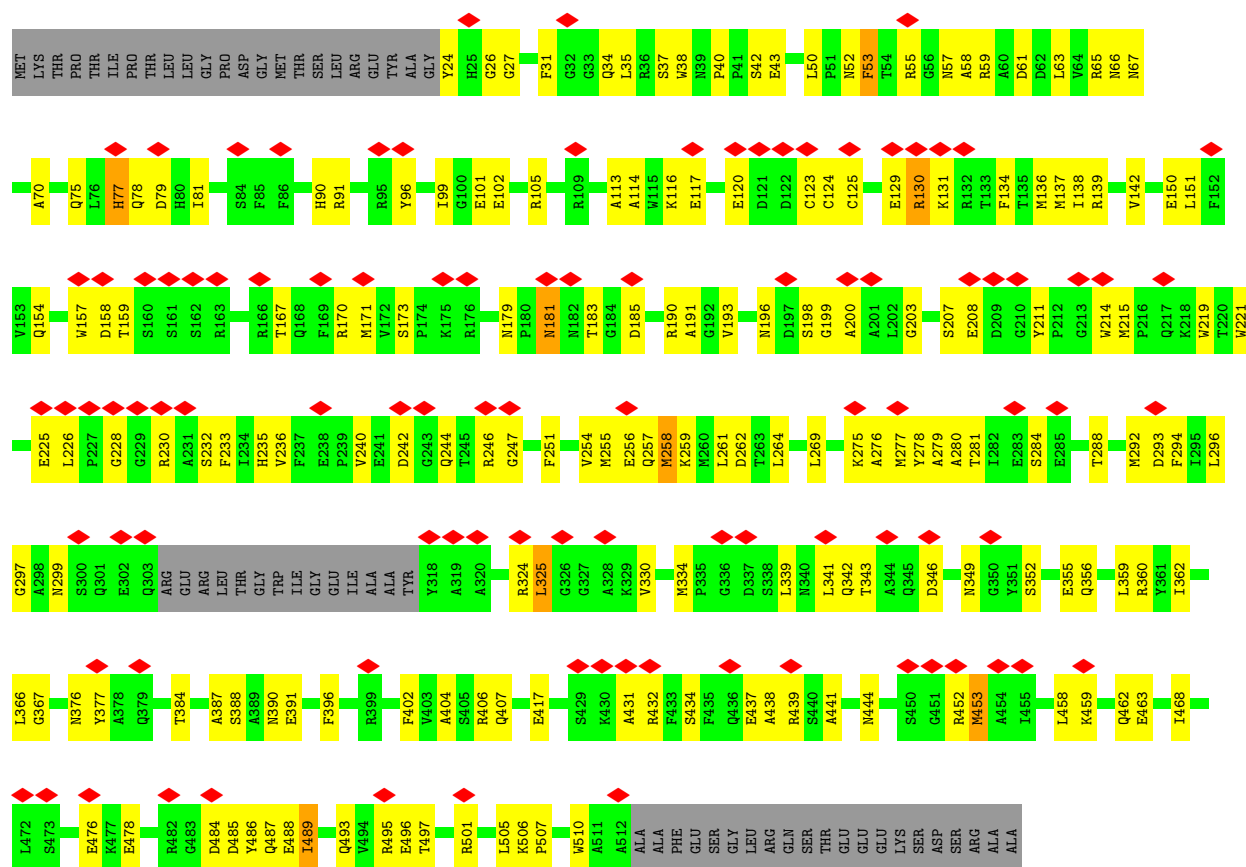




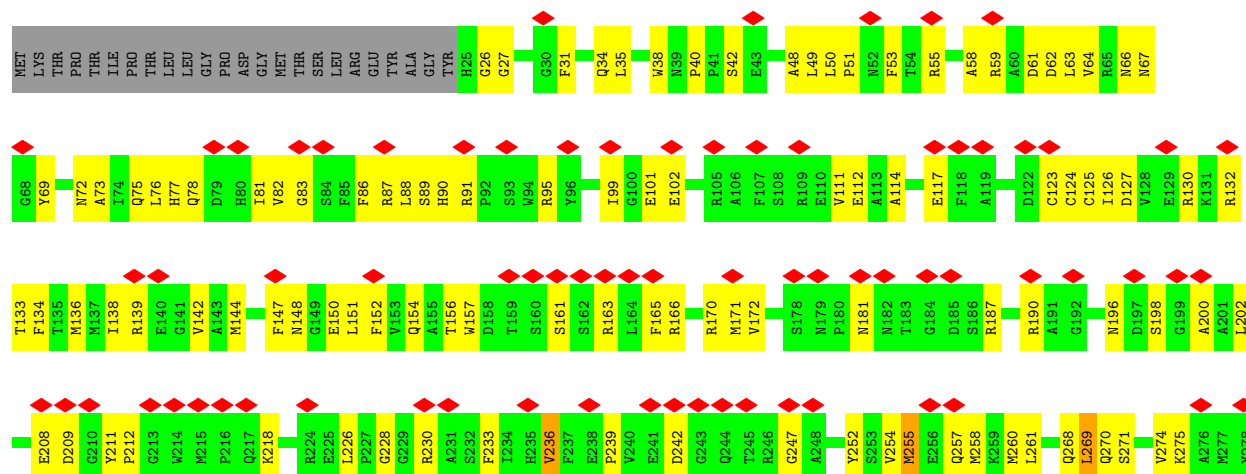
Molecule 4: Portal protein B

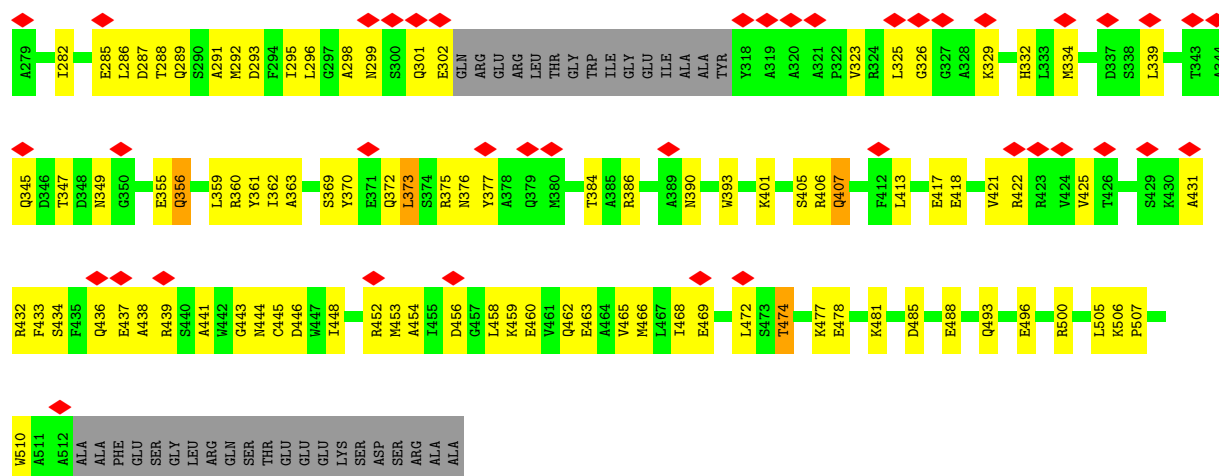


- Molecule 4: Portal protein B

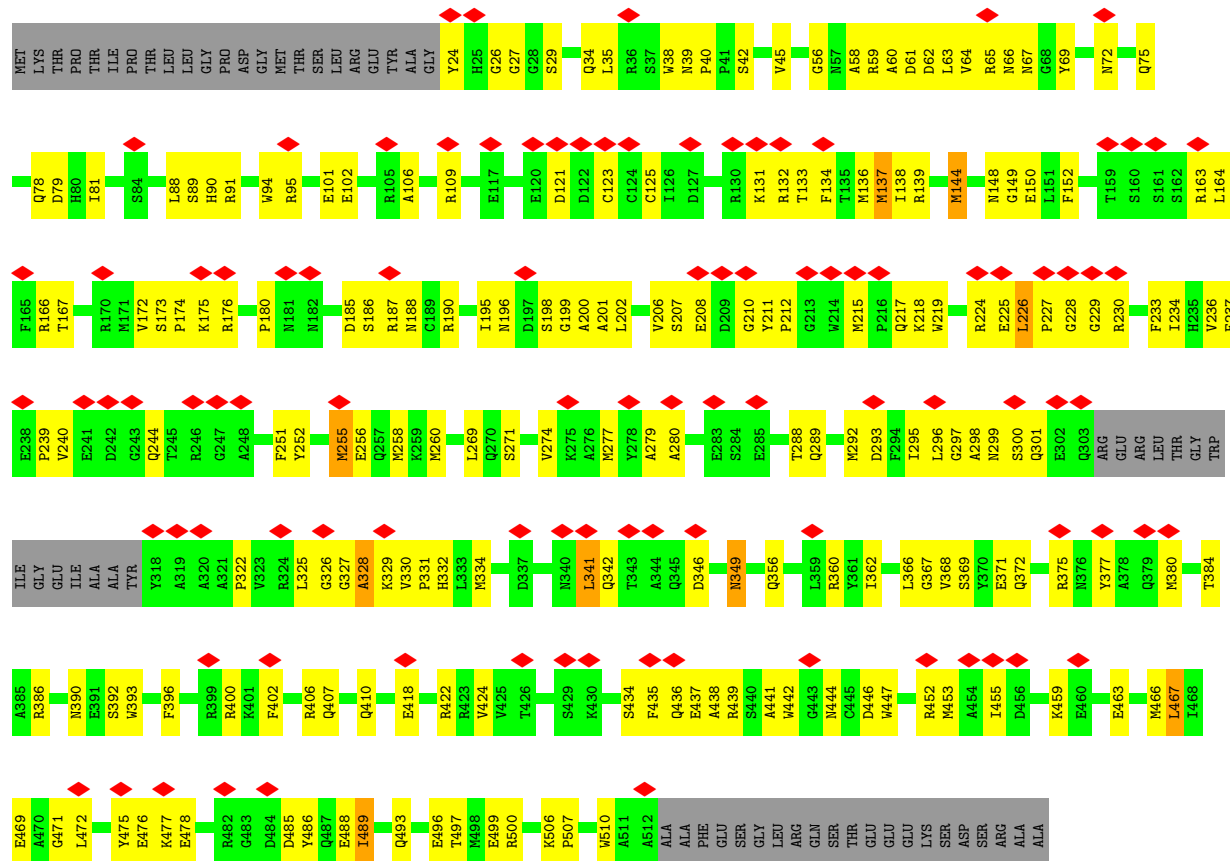


- Molecule 4: Portal protein B



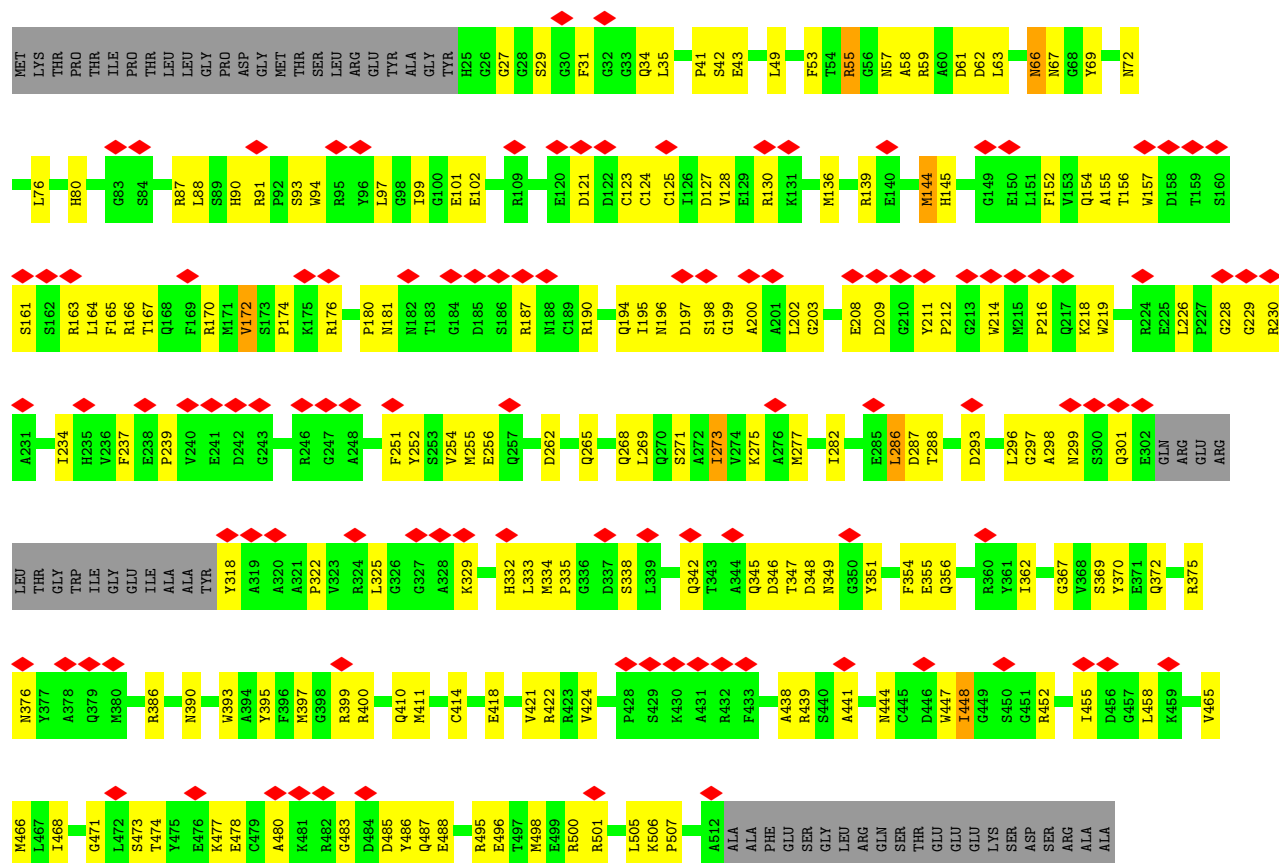


• Molecule 4: Portal protein B

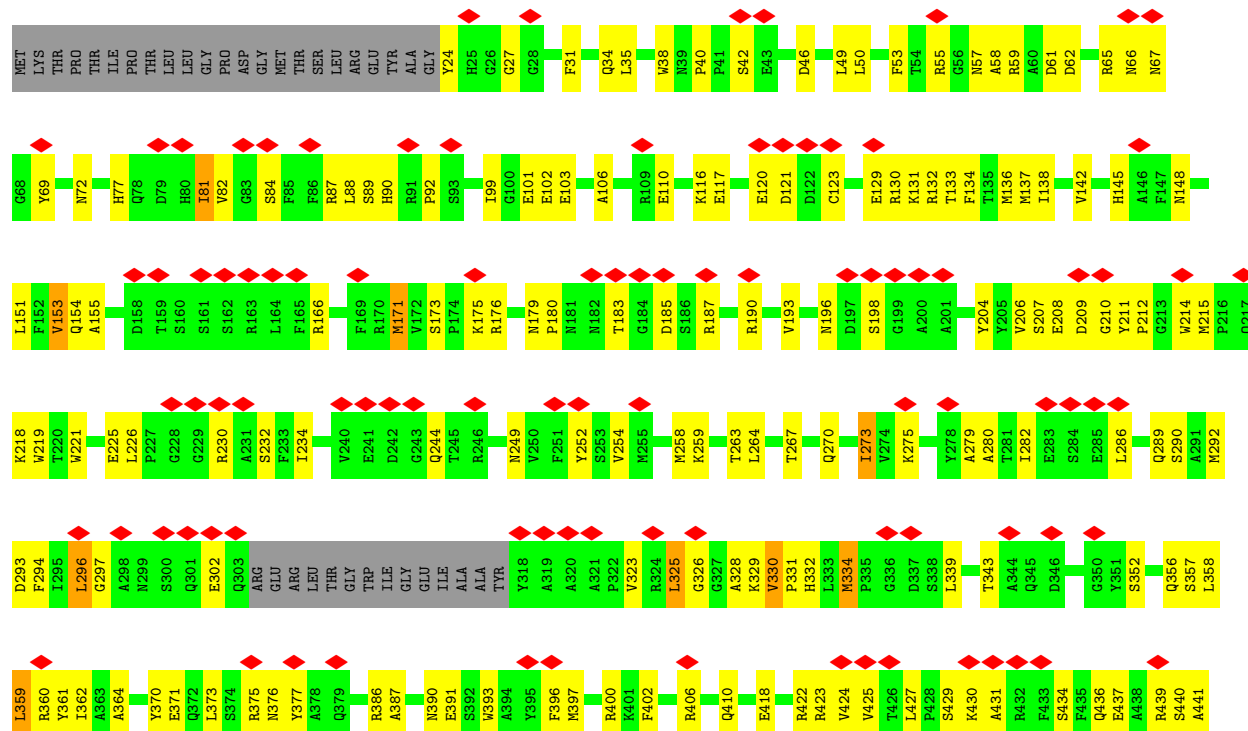


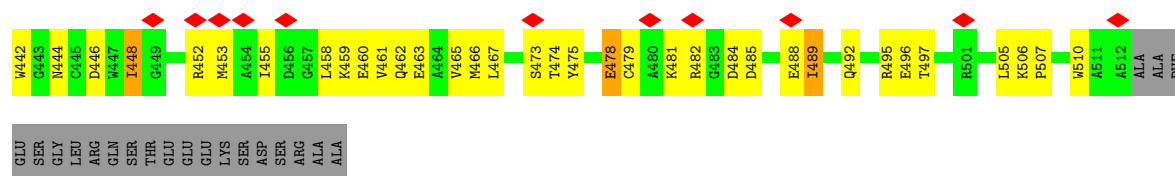
• Molecule 4: Portal protein B



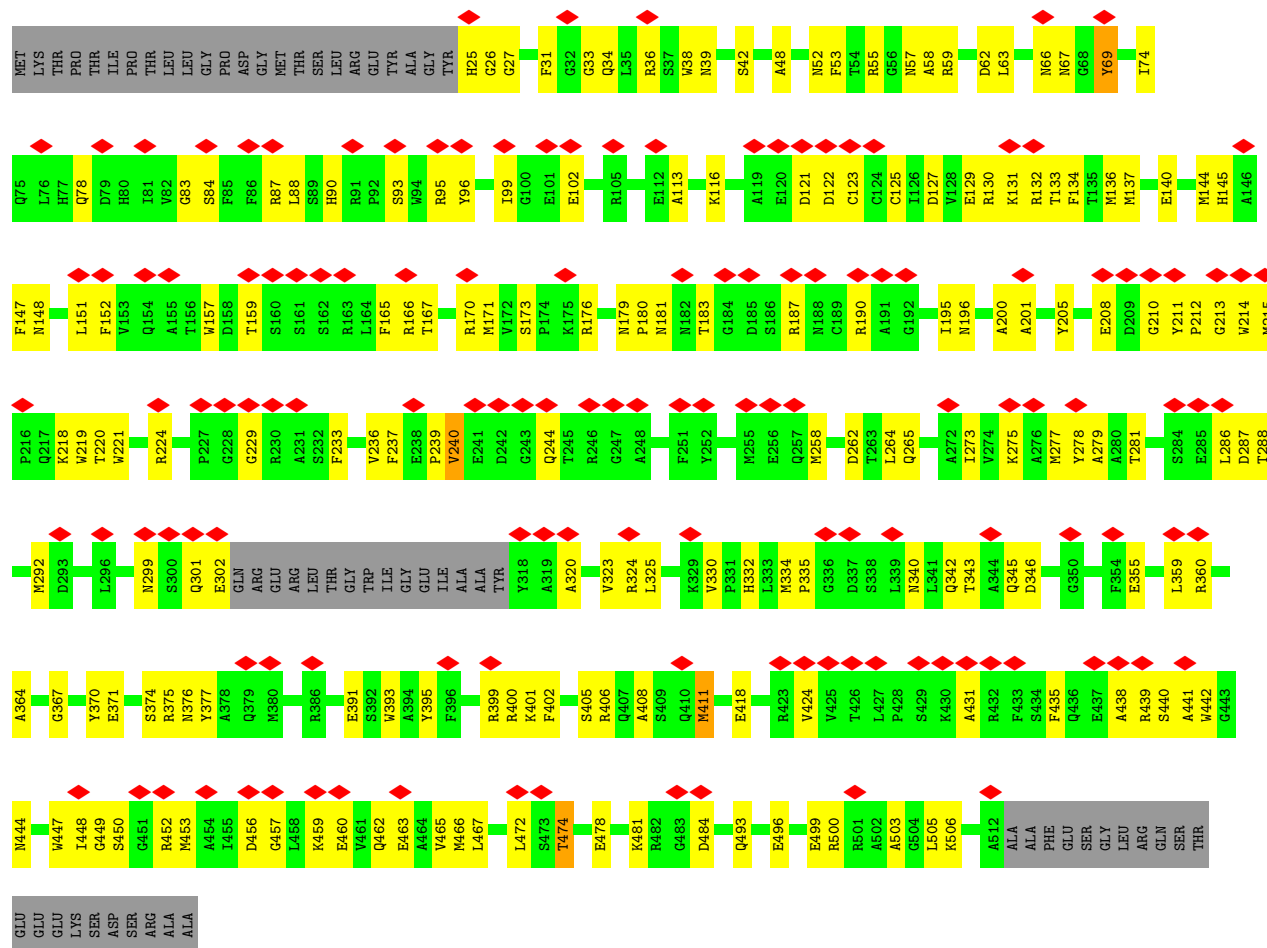


• Molecule 4: Portal protein B

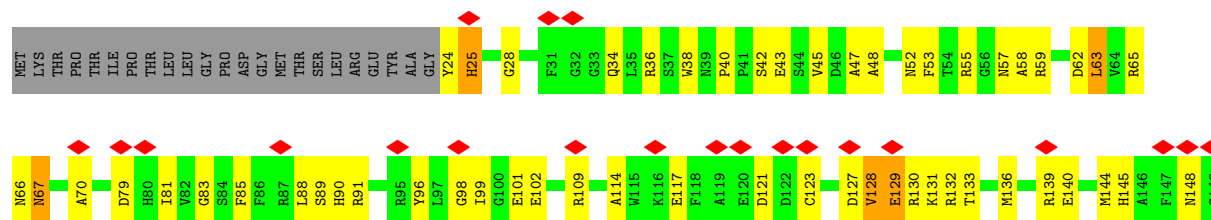


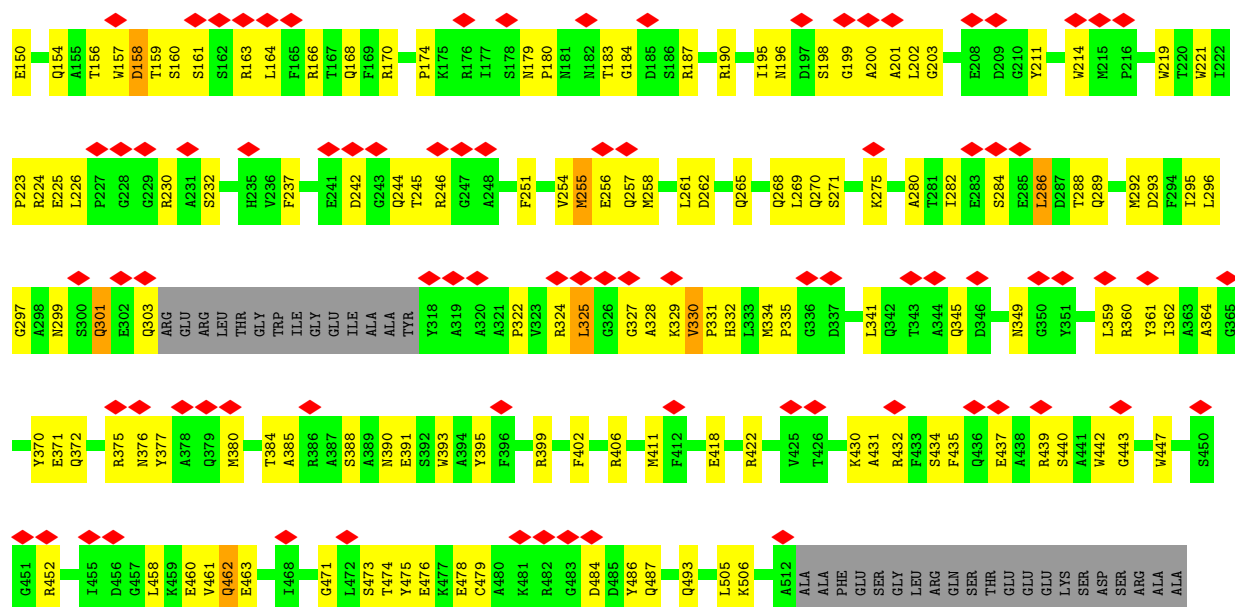


• Molecule 4: Portal protein B

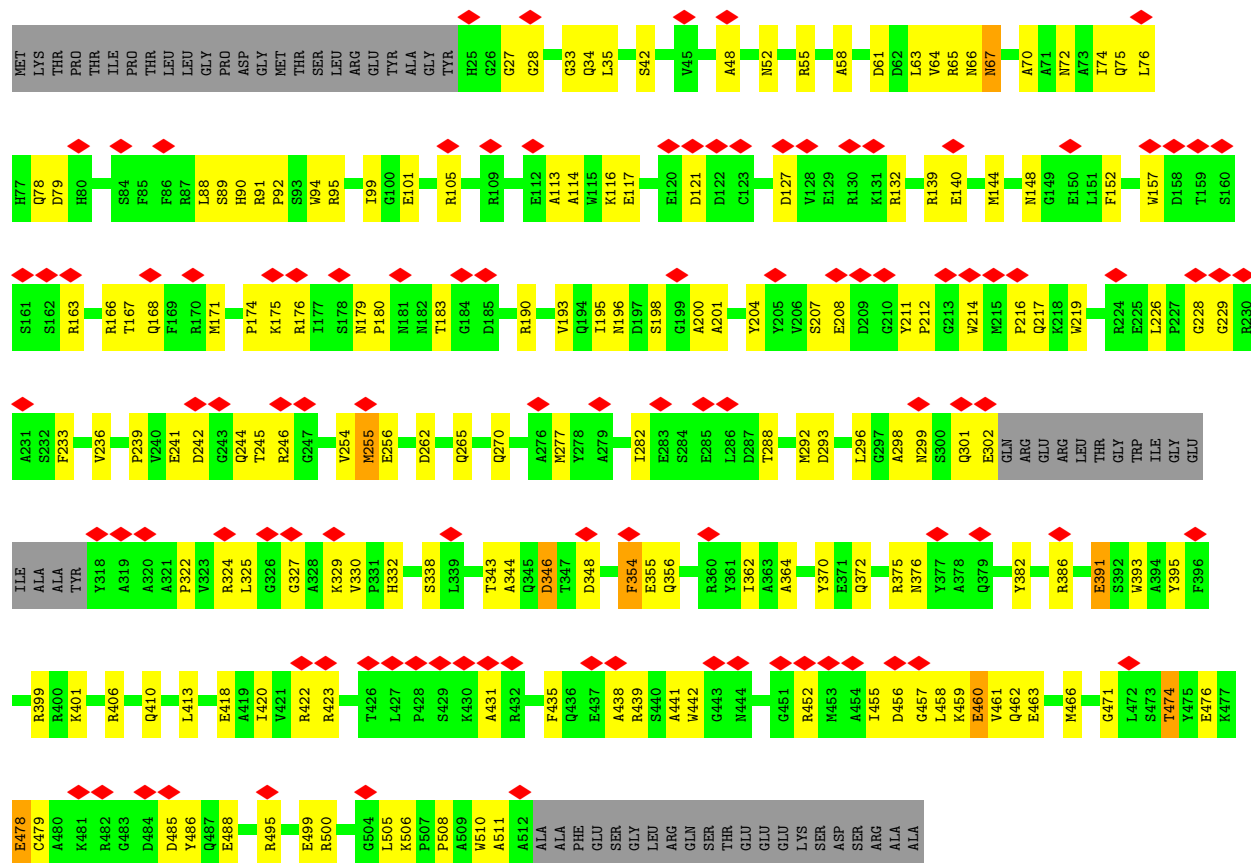


• Molecule 4: Portal protein B

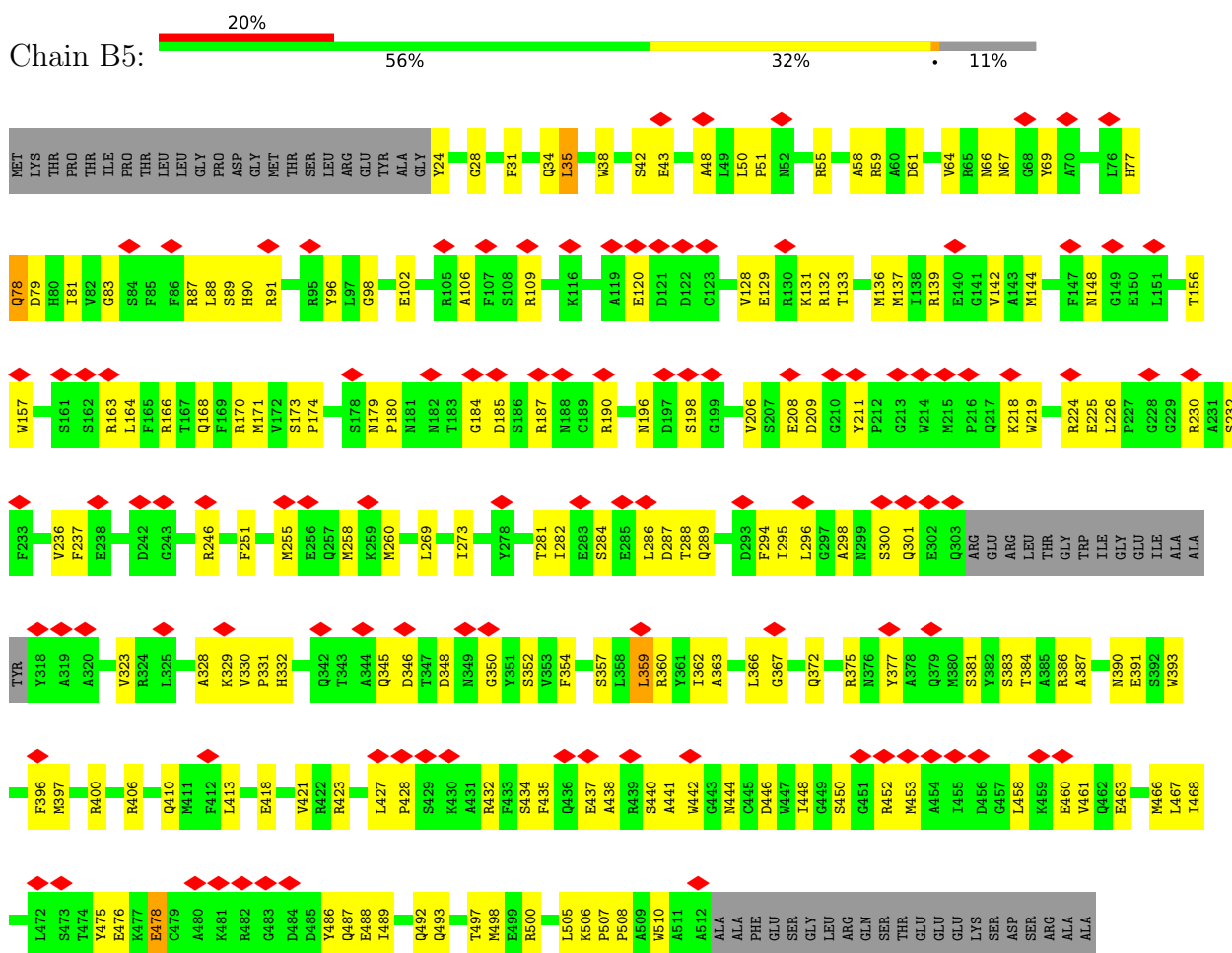




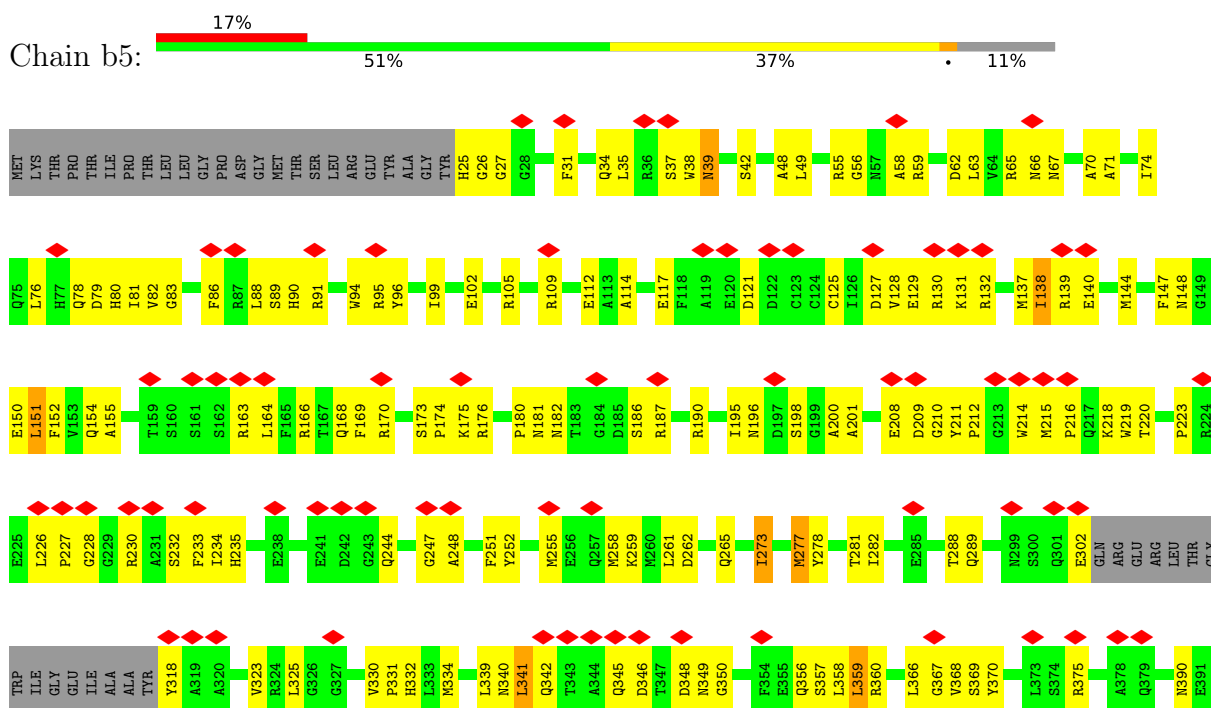
• Molecule 4: Portal protein B

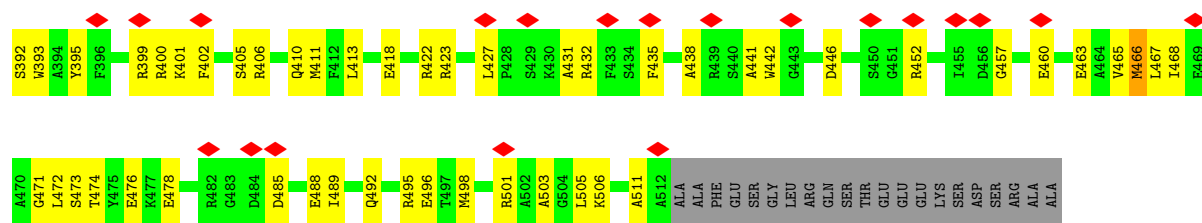


• Molecule 4: Portal protein B

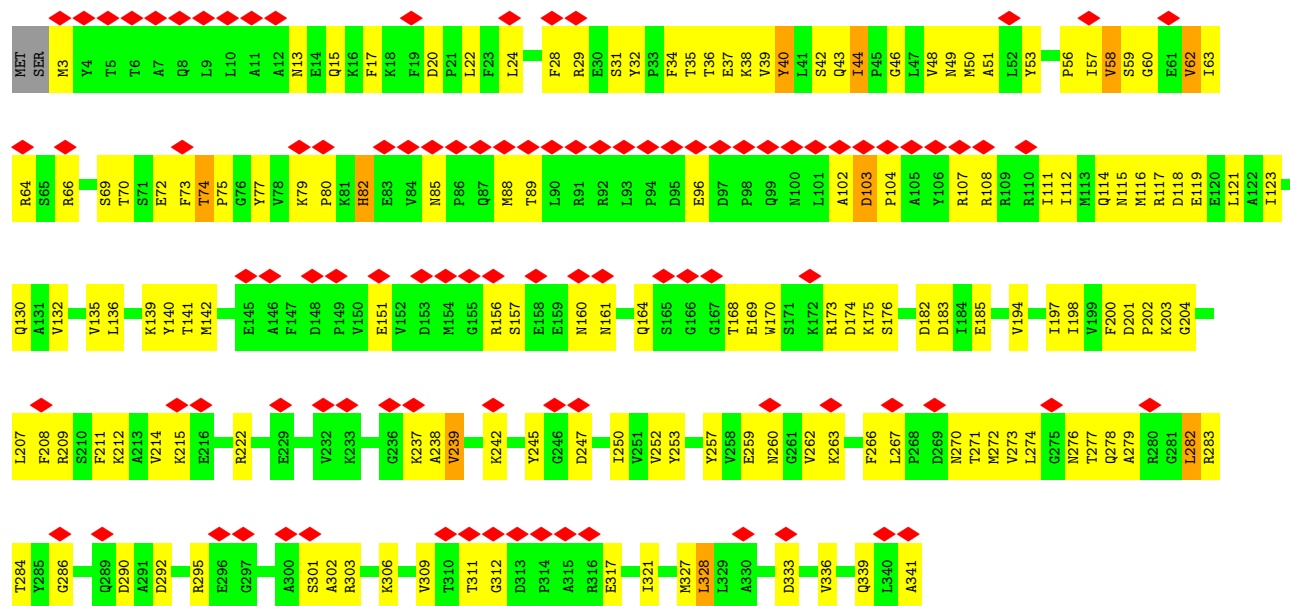


• Molecule 4: Portal protein B

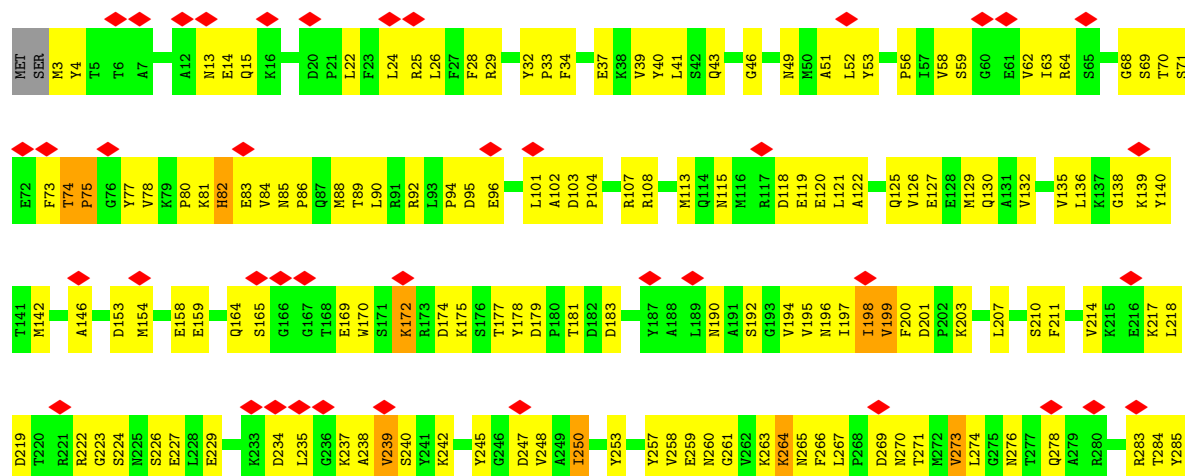


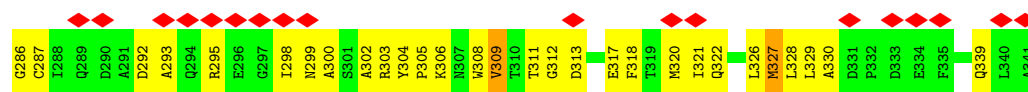


• Molecule 5: Major capsid protein

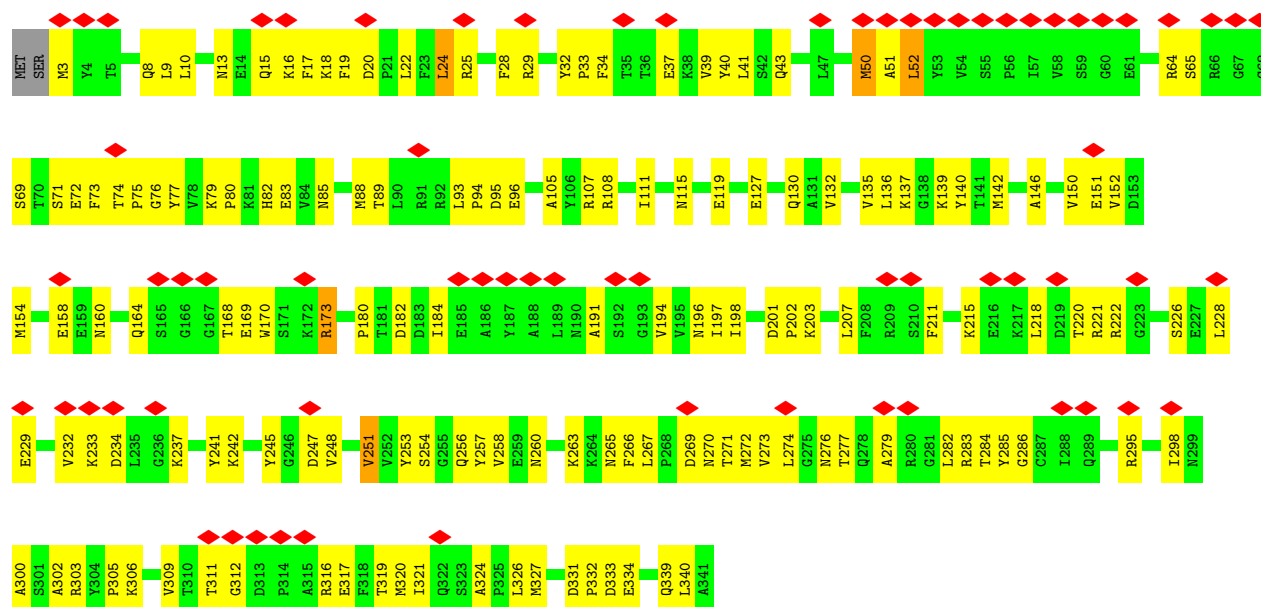


• Molecule 5: Major capsid protein

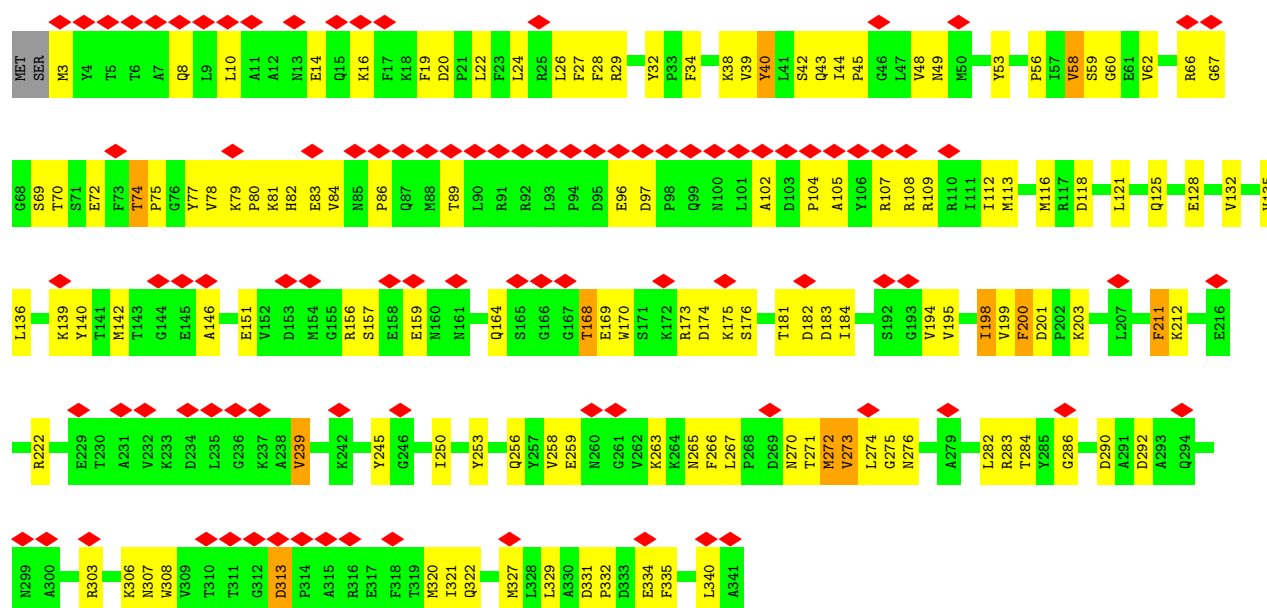




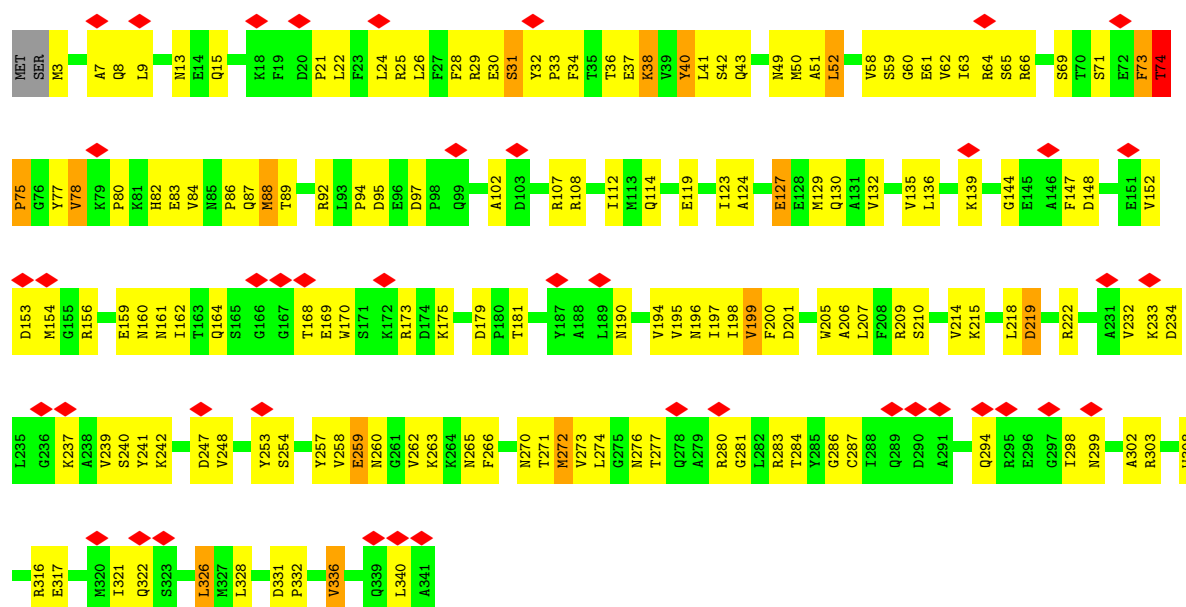
• Molecule 5: Major capsid protein



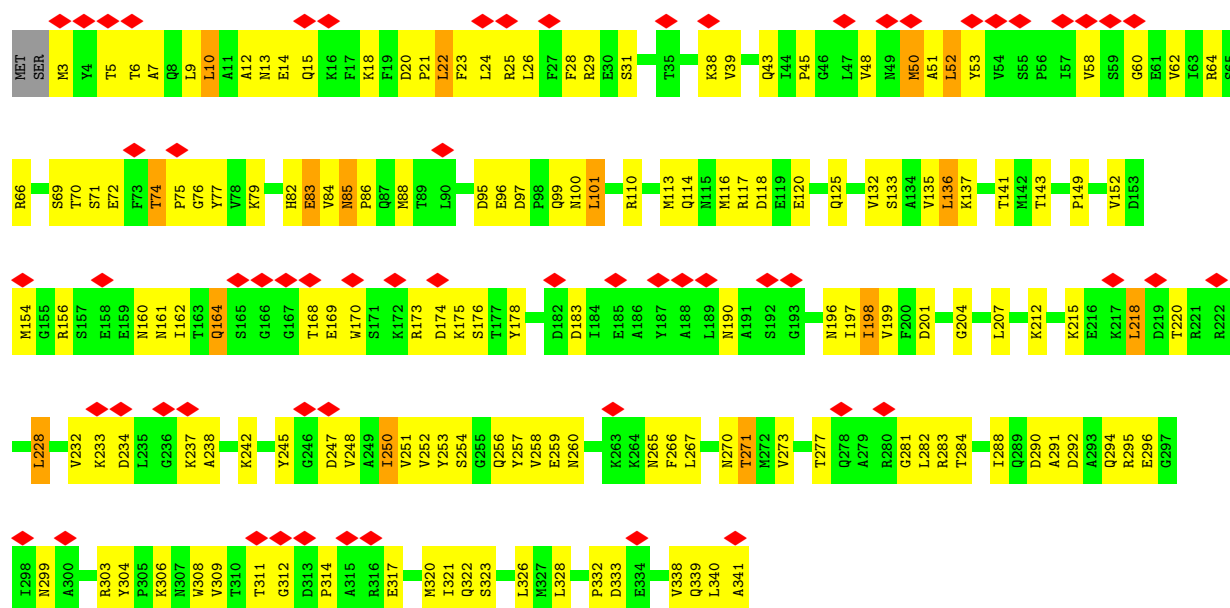
• Molecule 5: Major capsid protein



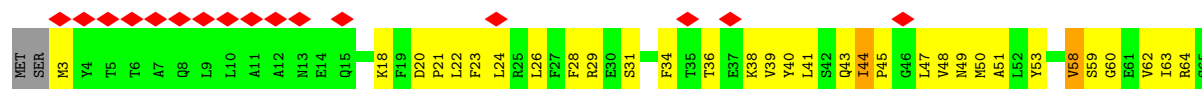
• Molecule 5: Major capsid protein

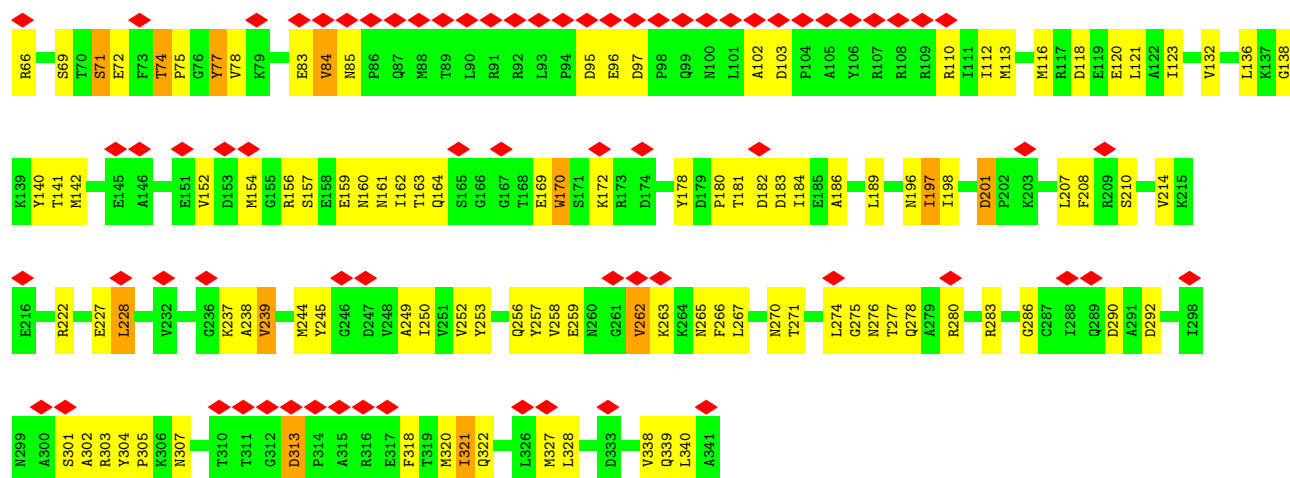


• Molecule 5: Major capsid protein

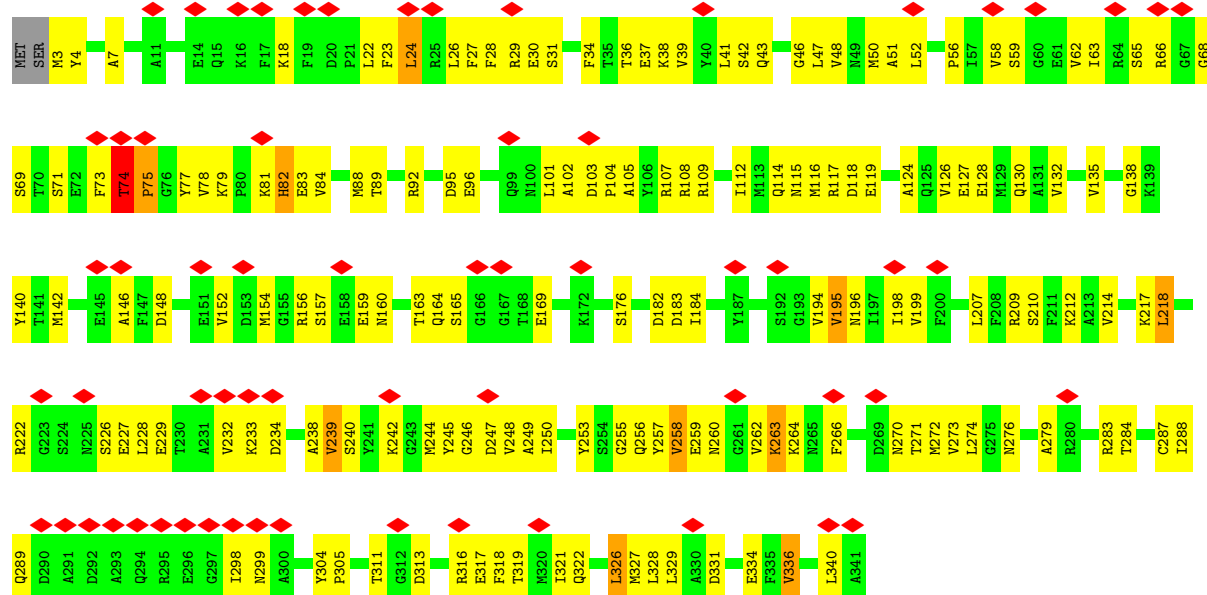


• Molecule 5: Major capsid protein

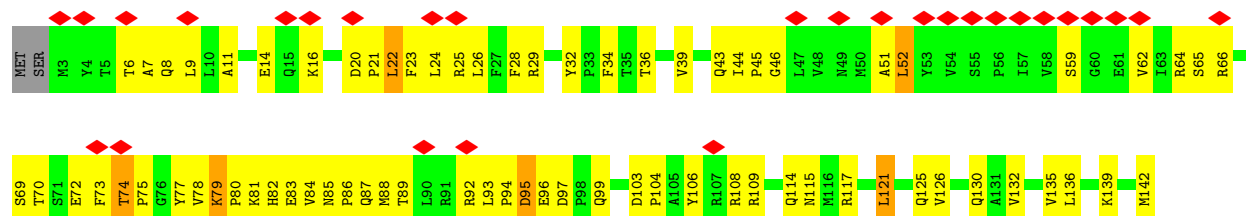


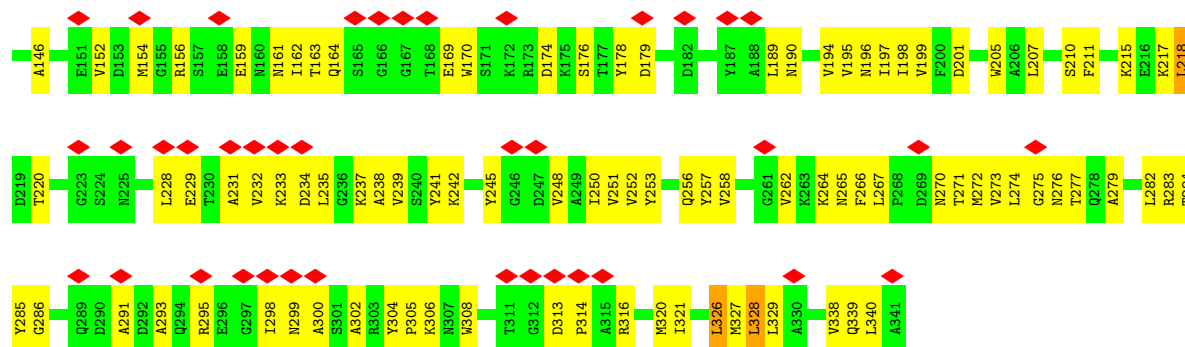


• Molecule 5: Major capsid protein

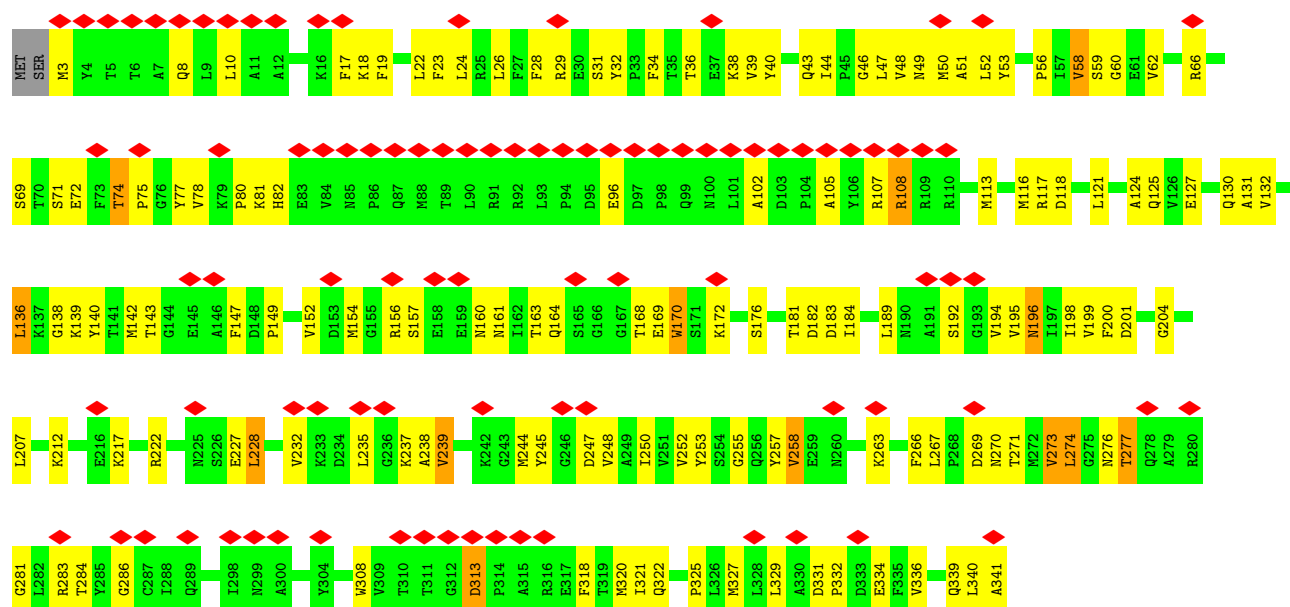


• Molecule 5: Major capsid protein

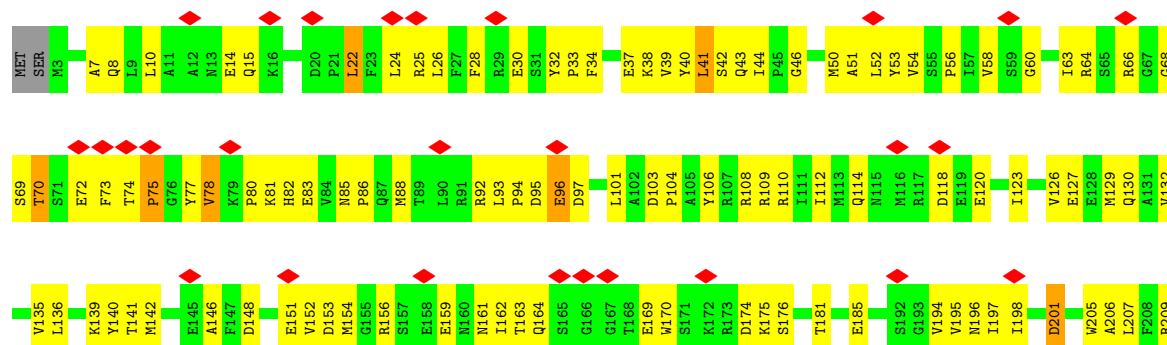


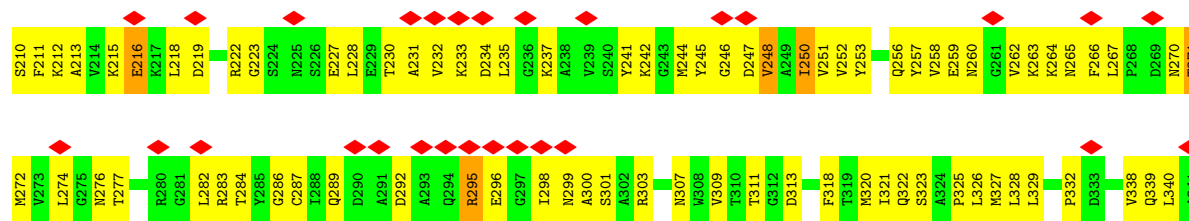


• Molecule 5: Major capsid protein

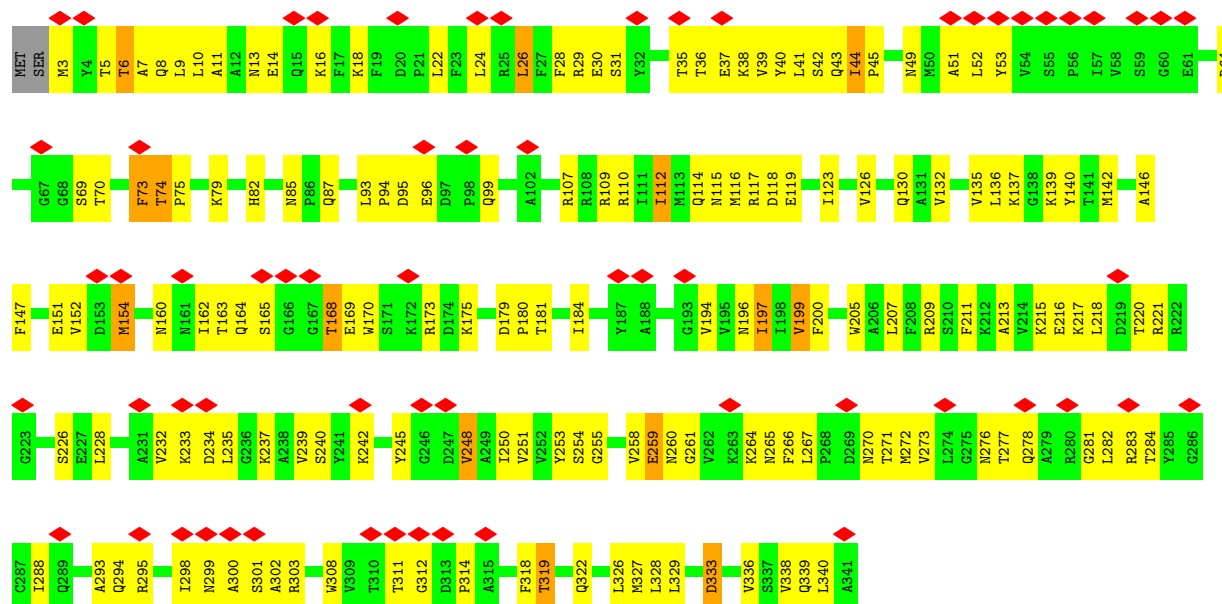


• Molecule 5: Major capsid protein

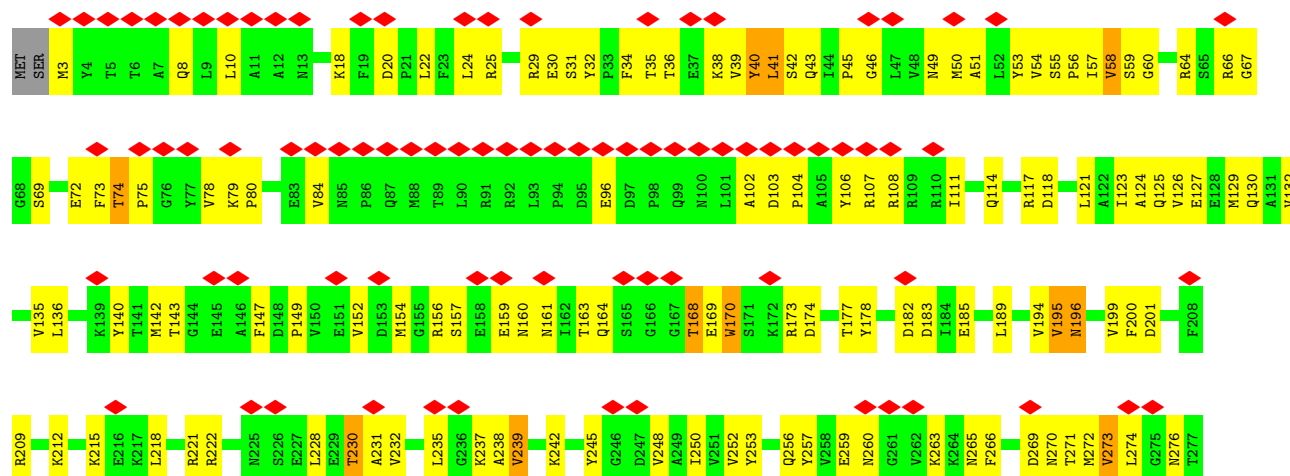


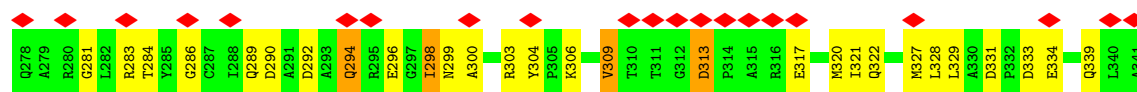


• Molecule 5: Major capsid protein

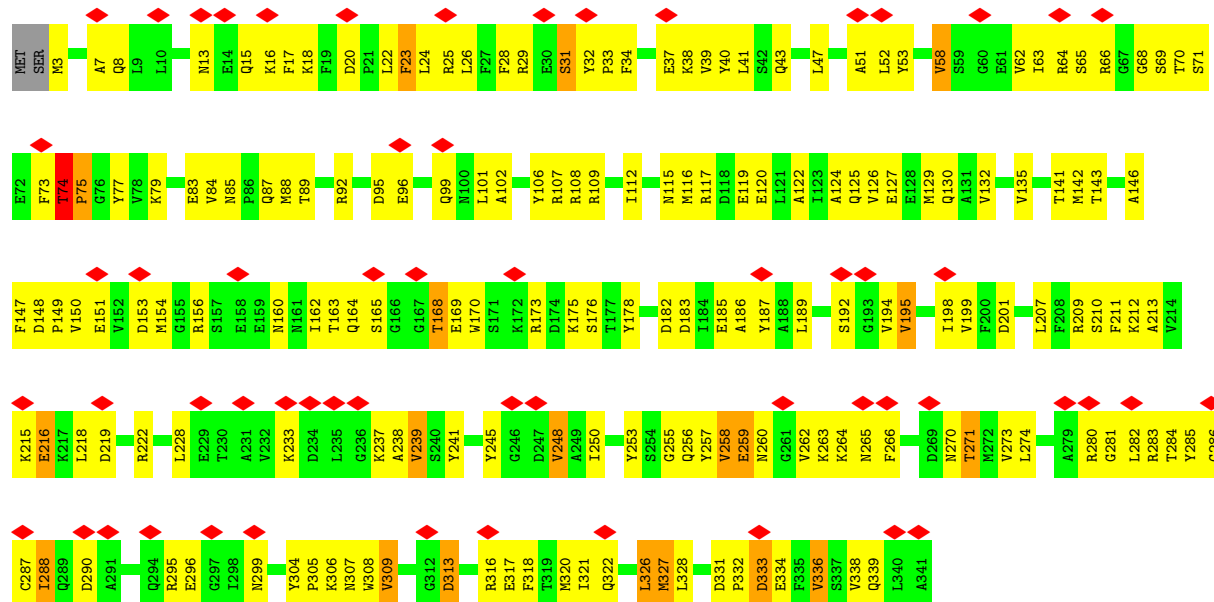


• Molecule 5: Major capsid protein

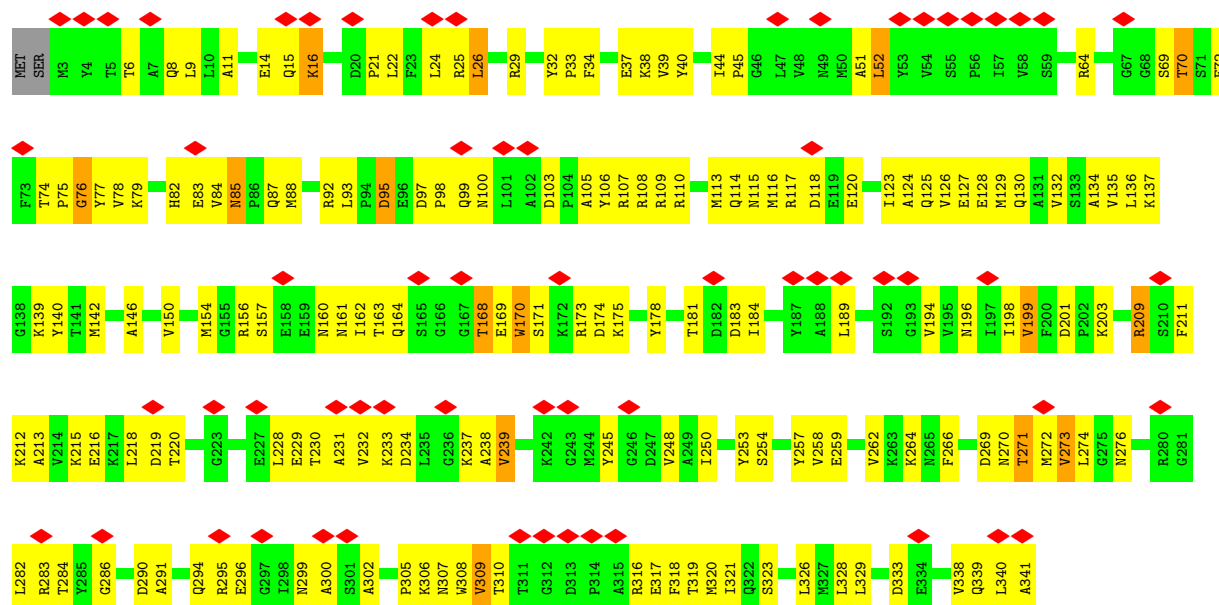




• Molecule 5: Major capsid protein



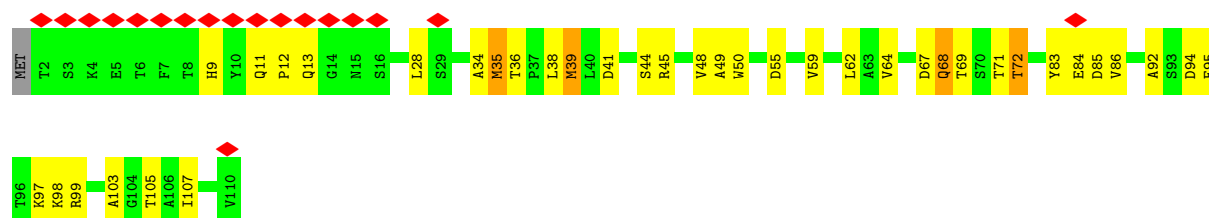
• Molecule 5: Major capsid protein



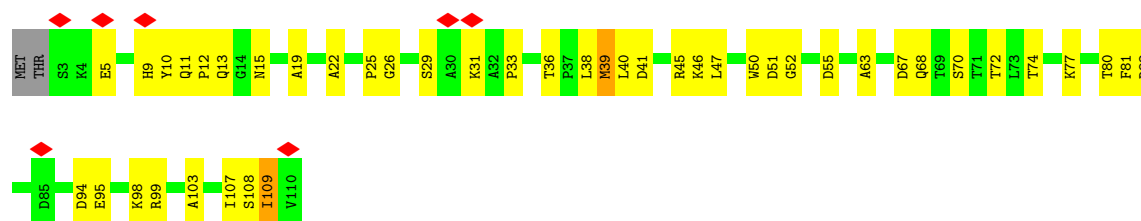
• Molecule 6: Capsid decoration protein



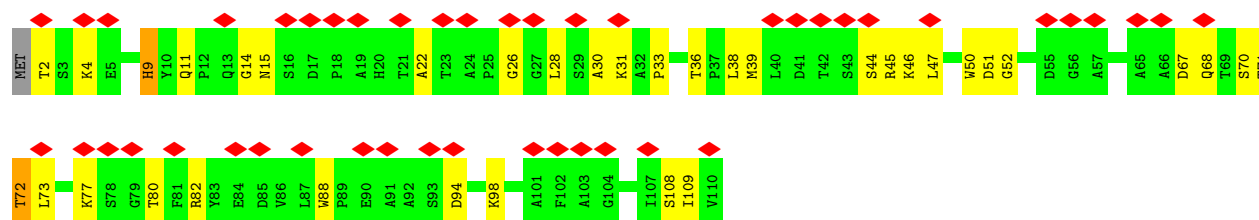
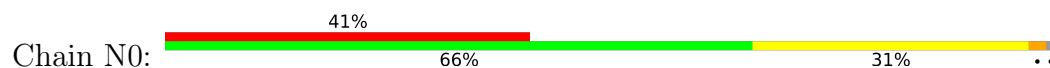
• Molecule 6: Capsid decoration protein



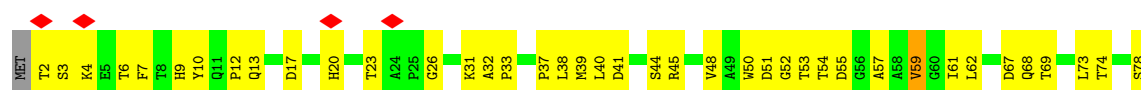
• Molecule 6: Capsid decoration protein

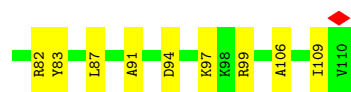


• Molecule 6: Capsid decoration protein

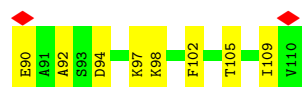


• Molecule 6: Capsid decoration protein

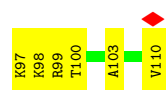
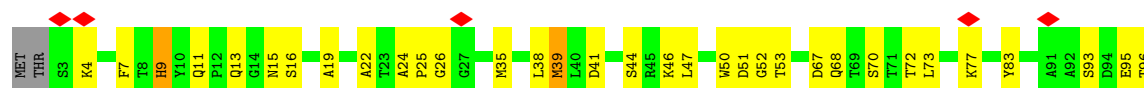




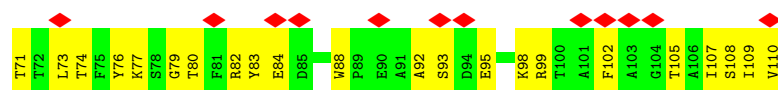
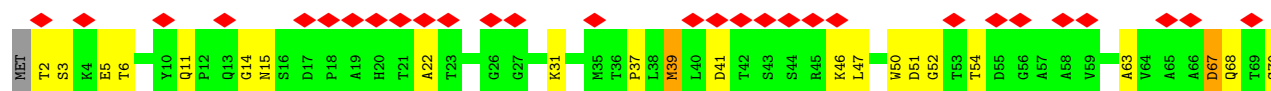
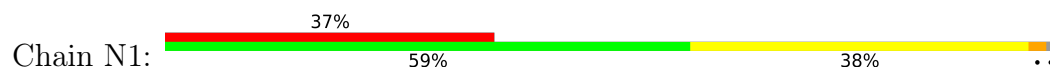
- Molecule 6: Capsid decoration protein



- Molecule 6: Capsid decoration protein



- Molecule 6: Capsid decoration protein

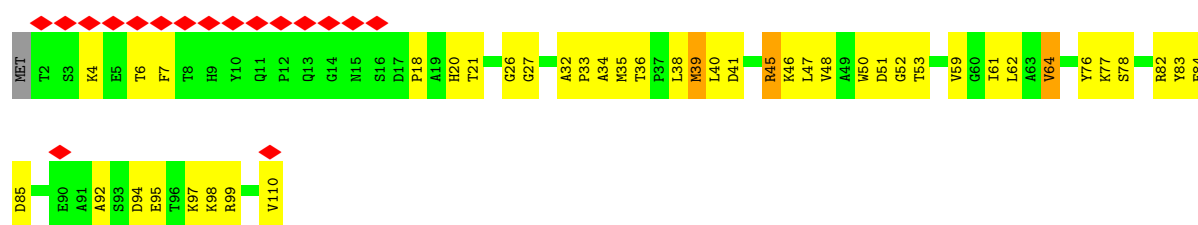


- Molecule 6: Capsid decoration protein



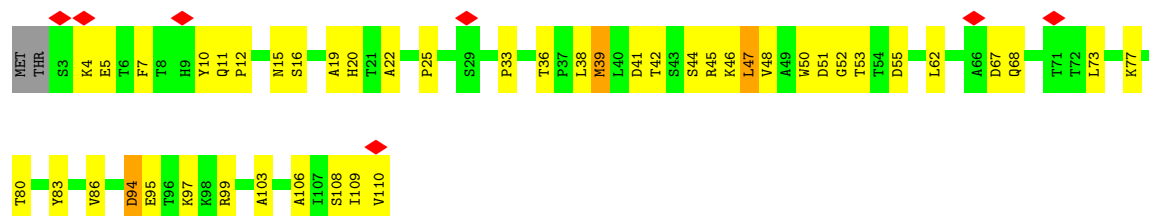
- Molecule 6: Capsid decoration protein

Chain I2: 



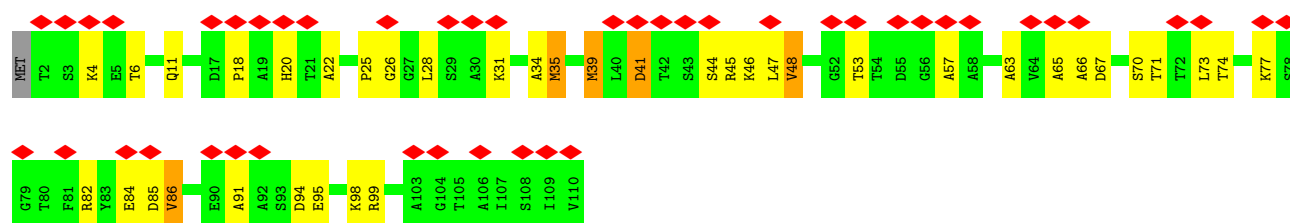
• Molecule 6: Capsid decoration protein

Chain J2: 



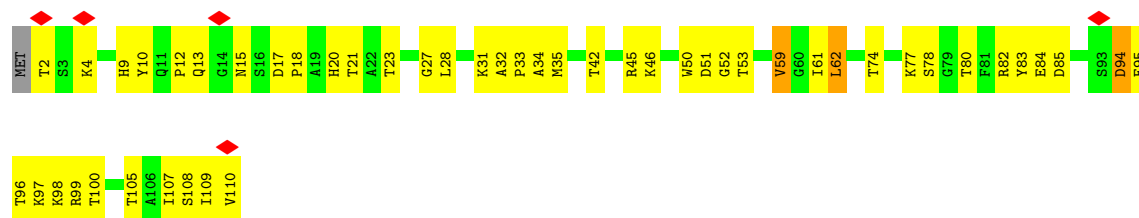
• Molecule 6: Capsid decoration protein

Chain N2: 



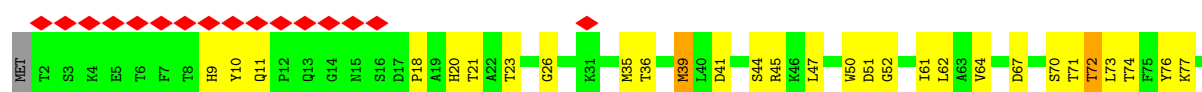
• Molecule 6: Capsid decoration protein

Chain H3: 



• Molecule 6: Capsid decoration protein

Chain I3: 

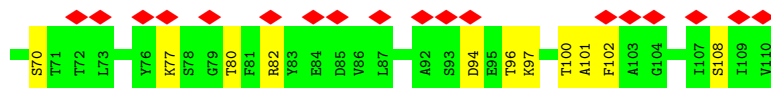
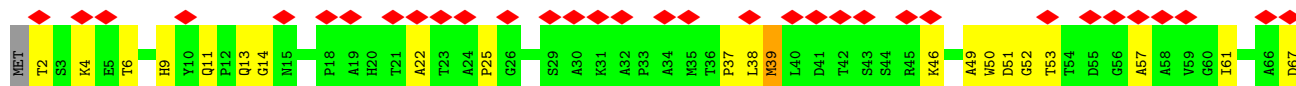




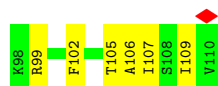
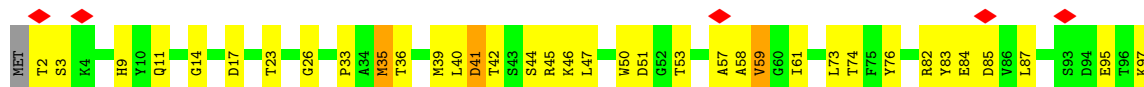
- Molecule 6: Capsid decoration protein



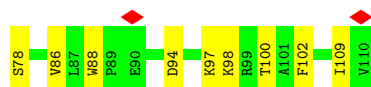
- Molecule 6: Capsid decoration protein



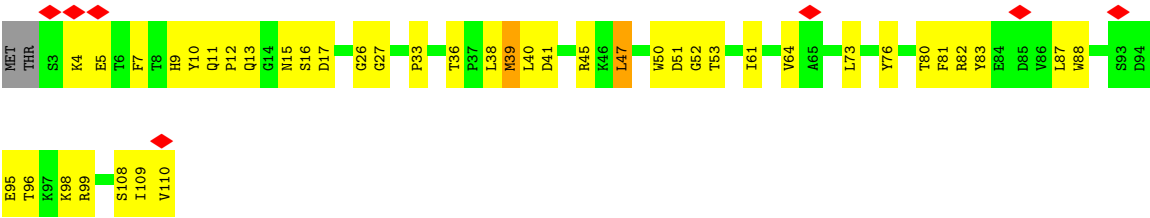
- Molecule 6: Capsid decoration protein



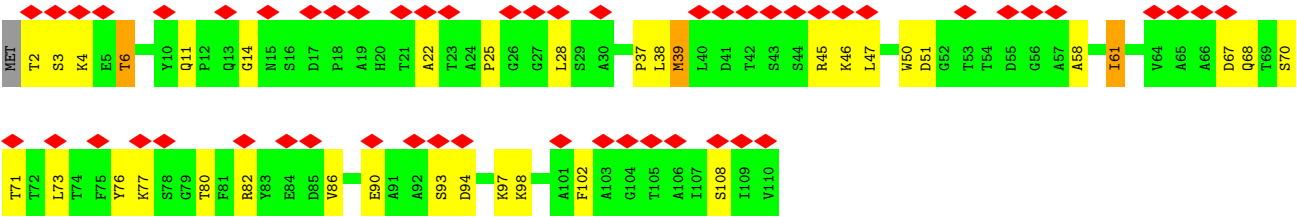
- Molecule 6: Capsid decoration protein



- Molecule 6: Capsid decoration protein



● Molecule 6: Capsid decoration protein



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	9851	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.954	Depositor
Minimum map value	-0.571	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.101	Depositor
Recommended contour level	0.3	Depositor
Map size ($\text{\AA}$)	343.74402, 343.74402, 343.74402	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.0742, 1.0742, 1.0742	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	f	0.15	0/888	0.33	0/1204
1	f1	0.15	0/888	0.42	0/1204
1	f2	0.15	0/888	0.37	0/1204
1	f3	0.14	0/888	0.34	0/1204
1	f4	0.13	0/888	0.36	0/1204
1	f5	0.15	0/888	0.36	0/1204
2	W	0.15	0/529	0.47	0/709
2	W1	0.15	0/529	0.35	0/709
2	W2	0.15	0/529	0.42	0/709
2	W3	0.16	0/529	0.42	0/709
2	W4	0.14	0/529	0.36	0/709
2	W5	0.16	0/529	0.41	0/709
2	w	0.16	0/529	0.42	0/709
2	w1	0.14	0/529	0.34	0/709
2	w2	0.18	0/529	0.45	0/709
2	w3	0.16	0/529	0.37	0/709
2	w4	0.17	0/529	0.42	0/709
2	w5	0.17	0/529	0.48	0/709
3	U	0.14	0/1058	0.38	0/1444
3	U1	0.15	0/1058	0.40	0/1444
3	U2	0.15	0/1058	0.37	0/1444
3	U3	0.16	0/1058	0.40	0/1444
3	U4	0.15	0/1058	0.36	0/1444
3	U5	0.16	0/1058	0.41	1/1444 (0.1%)
4	B	0.15	0/3811	0.31	1/5151 (0.0%)
4	B1	0.15	0/3811	0.31	0/5151
4	B2	0.15	0/3811	0.33	1/5151 (0.0%)
4	B3	0.14	0/3811	0.29	0/5151
4	B4	0.15	0/3811	0.31	0/5151
4	B5	0.14	0/3811	0.31	0/5151
4	b	0.15	0/3793	0.31	0/5126
4	b1	0.14	0/3793	0.32	0/5126
4	b2	0.15	0/3793	0.30	0/5126
4	b3	0.14	0/3793	0.30	0/5126

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
4	b4	0.15	0/3793	0.33	0/5126
4	b5	0.15	0/3793	0.32	0/5126
5	A0	0.14	0/2722	0.36	0/3685
5	A1	0.14	0/2722	0.37	0/3685
5	A2	0.15	0/2722	0.38	0/3685
5	A3	0.15	0/2722	0.39	1/3685 (0.0%)
5	A4	0.14	0/2722	0.37	0/3685
5	C0	0.16	0/2722	0.41	0/3685
5	C1	0.16	0/2722	0.40	0/3685
5	C2	0.17	0/2722	0.41	0/3685
5	C3	0.16	0/2722	0.41	0/3685
5	C4	0.16	0/2722	0.41	0/3685
5	G0	0.17	0/2722	0.39	0/3685
5	G1	0.16	0/2722	0.42	0/3685
5	G2	0.17	0/2722	0.42	0/3685
5	G3	0.17	0/2722	0.42	0/3685
5	G4	0.17	0/2722	0.40	0/3685
6	H0	0.14	0/832	0.26	0/1135
6	H1	0.14	0/832	0.27	0/1135
6	H2	0.14	0/832	0.29	0/1135
6	H3	0.14	0/832	0.28	0/1135
6	H4	0.15	0/832	0.29	0/1135
6	I0	0.13	0/832	0.30	0/1135
6	I1	0.14	0/832	0.27	0/1135
6	I2	0.14	0/832	0.32	0/1135
6	I3	0.14	0/832	0.29	0/1135
6	I4	0.15	0/832	0.32	0/1135
6	J0	0.14	0/825	0.28	0/1125
6	J1	0.14	0/825	0.26	0/1125
6	J2	0.15	0/825	0.28	0/1125
6	J3	0.14	0/825	0.30	0/1125
6	J4	0.14	0/825	0.27	0/1125
6	N0	0.12	0/832	0.28	0/1135
6	N1	0.12	0/832	0.29	0/1135
6	N2	0.13	0/832	0.32	0/1135
6	N3	0.11	0/832	0.28	0/1135
6	N4	0.12	0/832	0.28	0/1135
All	All	0.15	0/121083	0.35	4/163983 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
3	U	0	1
3	U1	0	1
3	U2	0	1
3	U3	0	1
3	U4	0	1
3	U5	0	1
5	A0	0	2
5	A1	0	2
5	A2	0	1
5	A3	0	1
5	A4	0	2
5	C0	0	2
5	C1	0	3
5	C2	0	3
5	C3	0	3
5	C4	0	2
5	G0	0	2
5	G1	0	2
5	G2	0	3
5	G3	0	2
5	G4	0	2
All	All	0	38

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A3	136	LEU	N-CA-C	-6.25	107.50	114.62
3	U5	73	ALA	CB-CA-C	-5.88	109.81	116.63
4	B2	298	ALA	CB-CA-C	-5.14	110.25	117.23
4	B	298	ALA	CB-CA-C	-5.11	110.28	117.23

There are no chirality outliers.

All (38) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	A0	135	VAL	Peptide
5	A0	74	THR	Peptide
5	A1	135	VAL	Peptide
5	A1	74	THR	Peptide
5	A2	74	THR	Peptide
5	A3	74	THR	Peptide

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Mol	Chain	Res	Type	Group
5	A4	135	VAL	Peptide
5	A4	74	THR	Peptide
5	C0	135	VAL	Peptide
5	C0	51	ALA	Peptide
5	C1	135	VAL	Peptide
5	C1	51	ALA	Peptide
5	C1	74	THR	Peptide
5	C2	135	VAL	Peptide
5	C2	51	ALA	Peptide
5	C2	74	THR	Peptide
5	C3	135	VAL	Peptide
5	C3	51	ALA	Peptide
5	C3	74	THR	Peptide
5	C4	135	VAL	Peptide
5	C4	51	ALA	Peptide
5	G0	135	VAL	Peptide
5	G0	51	ALA	Peptide
5	G1	135	VAL	Peptide
5	G1	51	ALA	Peptide
5	G2	135	VAL	Peptide
5	G2	51	ALA	Peptide
5	G2	74	THR	Peptide
5	G3	135	VAL	Peptide
5	G3	51	ALA	Peptide
5	G4	135	VAL	Peptide
5	G4	51	ALA	Peptide
3	U	39	PHE	Peptide
3	U1	39	PHE	Peptide
3	U2	39	PHE	Peptide
3	U3	39	PHE	Peptide
3	U4	39	PHE	Peptide
3	U5	39	PHE	Peptide

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	f	872	0	823	44	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	f1	872	0	823	43	0
1	f2	872	0	823	41	0
1	f3	872	0	823	47	0
1	f4	872	0	823	38	0
1	f5	872	0	823	51	0
2	W	524	0	536	31	0
2	W1	524	0	536	29	0
2	W2	524	0	536	33	0
2	W3	524	0	536	36	0
2	W4	524	0	536	27	0
2	W5	524	0	536	20	0
2	w	524	0	536	35	0
2	w1	524	0	536	24	0
2	w2	524	0	536	41	0
2	w3	524	0	536	35	0
2	w4	524	0	536	30	0
2	w5	524	0	536	25	0
3	U	1032	0	956	53	0
3	U1	1032	0	956	43	0
3	U2	1032	0	956	54	0
3	U3	1032	0	956	48	0
3	U4	1032	0	956	51	0
3	U5	1032	0	956	54	0
4	B	3727	0	3562	157	0
4	B1	3727	0	3562	158	0
4	B2	3727	0	3562	162	0
4	B3	3727	0	3562	180	0
4	B4	3727	0	3562	184	0
4	B5	3727	0	3562	150	0
4	b	3710	0	3551	154	0
4	b1	3710	0	3551	172	0
4	b2	3710	0	3551	146	0
4	b3	3710	0	3551	170	0
4	b4	3710	0	3551	140	0
4	b5	3710	0	3551	176	0
5	A0	2669	0	2633	113	0
5	A1	2669	0	2633	111	0
5	A2	2669	0	2633	112	0
5	A3	2669	0	2633	128	0
5	A4	2669	0	2633	119	0
5	C0	2669	0	2633	150	0
5	C1	2669	0	2633	141	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	C2	2669	0	2633	142	0
5	C3	2669	0	2633	152	0
5	C4	2669	0	2633	150	0
5	G0	2669	0	2633	167	0
5	G1	2669	0	2633	137	0
5	G2	2669	0	2633	144	0
5	G3	2669	0	2633	168	0
5	G4	2669	0	2633	169	0
6	H0	809	0	790	41	0
6	H1	809	0	790	43	0
6	H2	809	0	790	37	0
6	H3	809	0	790	46	0
6	H4	809	0	790	34	0
6	I0	809	0	790	31	0
6	I1	809	0	790	34	0
6	I2	809	0	790	39	0
6	I3	809	0	790	33	0
6	I4	809	0	790	29	0
6	J0	802	0	783	42	0
6	J1	802	0	783	37	0
6	J2	802	0	783	51	0
6	J3	802	0	783	47	0
6	J4	802	0	783	40	0
6	N0	809	0	790	28	0
6	N1	809	0	790	36	0
6	N2	809	0	790	30	0
6	N3	809	0	790	24	0
6	N4	809	0	790	29	0
All	All	118514	0	115044	4824	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 21.

All (4824) 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)
4:B3:252:TYR:HH	4:b3:25:HIS:N	1.52	1.07
4:B:252:TYR:HH	4:b:25:HIS:N	1.60	1.00
4:b2:212:PRO:HD3	4:B3:190:ARG:HH12	1.30	0.95
2:W2:16:ASP:HB2	2:W2:21:LYS:HB2	1.54	0.89
3:U2:40:PRO:HA	3:U2:70:PHE:O	1.71	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C3:22:LEU:O	5:C3:26:LEU:HB2	1.73	0.88
5:A2:18:LYS:H	5:A2:263:LYS:HZ1	1.23	0.87
5:C0:40:TYR:HH	5:G4:3:MET:N	1.71	0.86
5:C2:132:VAL:O	5:C2:136:LEU:HB2	1.76	0.85
5:G2:104:PRO:HB2	5:C3:294:GLN:HE22	1.42	0.84
3:U5:47:THR:HG1	3:U5:66:HIS:HE2	1.23	0.84
4:b4:332:HIS:HE2	4:B5:284:SER:HG	1.25	0.84
2:w2:28:LYS:HB2	2:w2:31:ARG:HB2	1.60	0.84
5:A0:245:TYR:HB2	5:A0:250:ILE:HD11	1.60	0.84
2:W3:16:ASP:HB2	2:W3:21:LYS:HB2	1.57	0.83
5:G1:22:LEU:O	5:G1:26:LEU:HB2	1.78	0.83
3:U4:40:PRO:HA	3:U4:70:PHE:O	1.79	0.82
5:C4:22:LEU:O	5:C4:26:LEU:HB2	1.79	0.82
5:G1:317:GLU:HG2	5:C2:295:ARG:HH22	1.44	0.81
4:b4:216:PRO:HA	5:C3:295:ARG:HH21	1.46	0.81
5:C3:82:HIS:HB3	5:C3:115:ASN:HD21	1.45	0.81
5:G1:34:PHE:HB2	5:G1:286:GLY:HA2	1.63	0.81
5:C1:143:THR:HG22	5:C1:149:PRO:HB3	1.61	0.81
2:w1:16:ASP:HB3	2:w1:21:LYS:HB2	1.60	0.80
4:B:157:TRP:HB2	4:B:230:ARG:HH12	1.48	0.79
4:B:187:ARG:NH2	4:b5:215:MET:SD	2.56	0.79
5:A4:154:MET:HE1	5:A4:329:LEU:HG	1.64	0.79
4:b5:402:PHE:O	4:b5:406:ARG:NH1	2.16	0.79
5:G3:325:PRO:HB2	5:G3:327:MET:HE1	1.65	0.79
5:G4:245:TYR:HB2	5:G4:250:ILE:HD11	1.65	0.79
6:N0:80:THR:HG22	6:N0:108:SER:HB3	1.64	0.78
5:A3:245:TYR:HB2	5:A3:250:ILE:HD11	1.62	0.78
4:B1:225:GLU:HA	4:B1:232:SER:H	1.47	0.78
4:B1:376:ASN:HB2	4:b1:360:ARG:HH22	1.46	0.78
5:C1:50:MET:N	5:C1:50:MET:SD	2.55	0.78
4:B4:214:TRP:HE1	5:C3:110:ARG:HA	1.49	0.78
5:G1:41:LEU:HB2	5:G1:71:SER:HB2	1.66	0.77
5:A3:132:VAL:O	5:A3:136:LEU:HB2	1.84	0.77
4:B:67:ASN:ND2	4:B:258:MET:SD	2.58	0.77
5:G4:122:ALA:HA	5:G4:125:GLN:HE21	1.48	0.77
5:C0:50:MET:SD	5:C0:50:MET:N	2.58	0.77
5:A4:209:ARG:HD2	5:A4:230:THR:HG23	1.65	0.77
4:b3:213:GLY:H	5:G3:298:ILE:HG12	1.50	0.76
3:U2:24:ALA:HB1	3:U2:41:ALA:HA	1.67	0.76
5:G0:222:ARG:HH22	5:C0:220:THR:H	1.34	0.76
2:W2:17:LEU:HD12	2:W2:22:ARG:HD3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b2:212:PRO:HD2	4:B3:187:ARG:HD3	1.66	0.76
4:b4:140:GLU:HB3	4:b4:171:MET:HE1	1.67	0.76
5:G2:130:GLN:HE22	5:G2:326:LEU:HA	1.49	0.76
5:C3:245:TYR:HB2	5:C3:250:ILE:HD11	1.68	0.76
4:B1:59:ARG:NH1	4:b1:27:GLY:O	2.19	0.76
5:A0:43:GLN:HG2	5:G0:13:ASN:HB3	1.68	0.76
4:b:65:ARG:HH12	4:b1:26:GLY:H	1.34	0.75
3:U5:40:PRO:HA	3:U5:70:PHE:O	1.86	0.75
5:G2:164:GLN:HB3	5:G2:169:GLU:HB3	1.69	0.75
4:b:356:GLN:HE22	4:B1:360:ARG:HH22	1.33	0.75
4:B:163:ARG:O	4:B:166:ARG:NH1	2.20	0.75
2:w2:27:GLN:HE22	2:w2:32:ARG:HB2	1.48	0.75
4:b2:214:TRP:HA	5:G4:33:PRO:HD2	1.68	0.75
5:G3:198:ILE:HG12	5:G3:248:VAL:HG21	1.68	0.75
4:b:133:THR:H	4:b:136:MET:HE2	1.52	0.75
1:f1:67:VAL:HB	1:f1:72:VAL:HG11	1.69	0.75
5:G1:240:SER:OG	5:G1:242:LYS:NZ	2.20	0.75
5:G0:85:ASN:HB3	5:G0:88:MET:HE3	1.68	0.75
5:C2:14:GLU:HB3	5:C2:16:LYS:HG2	1.69	0.75
5:G1:37:GLU:HG2	5:G1:38:LYS:HG2	1.67	0.74
5:C1:212:LYS:HG3	5:C1:215:LYS:HE3	1.68	0.74
5:C3:22:LEU:HD22	5:C3:239:VAL:HG21	1.68	0.74
2:W:16:ASP:HB2	2:W:21:LYS:HB2	1.68	0.74
4:B:170:ARG:HH22	4:B:176:ARG:HH12	1.34	0.74
4:B5:144:MET:O	4:B5:148:ASN:HB2	1.87	0.74
5:G2:274:LEU:HB2	5:G2:336:VAL:HG23	1.68	0.74
2:W3:27:GLN:HB3	2:w3:32:ARG:HB2	1.69	0.74
4:B3:59:ARG:NH1	4:b3:27:GLY:O	2.21	0.74
4:b4:375:ARG:HH22	4:B5:367:GLY:HA2	1.51	0.74
5:A3:228:LEU:HD11	5:A3:250:ILE:HD13	1.70	0.74
5:A4:168:THR:O	5:A4:173:ARG:NH2	2.21	0.74
4:b1:62:ASP:OD1	4:b1:66:ASN:ND2	2.21	0.74
5:A3:139:LYS:HZ1	5:A3:156:ARG:H	1.33	0.74
6:N1:88:TRP:HZ3	6:N1:98:LYS:HB3	1.51	0.74
4:B:153:VAL:HG23	4:B:234:ILE:HB	1.68	0.74
4:B4:53:PHE:O	4:B4:57:ASN:ND2	2.21	0.74
5:C0:18:LYS:NZ	5:C0:254:SER:O	2.21	0.74
5:G2:232:VAL:HG22	5:G2:234:ASP:H	1.53	0.74
4:b:332:HIS:HD2	4:B1:288:THR:HA	1.53	0.73
4:B2:375:ARG:HH22	4:b2:367:GLY:HA2	1.53	0.73
4:b4:163:ARG:O	4:b4:166:ARG:NH1	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A1:222:ARG:NH1	5:G1:218:LEU:O	2.20	0.73
5:C3:38:LYS:HE2	5:C3:74:THR:HG21	1.70	0.73
6:N3:94:ASP:HB3	6:N3:97:LYS:HG2	1.69	0.73
5:C4:38:LYS:HD3	5:C4:74:THR:HG21	1.69	0.73
5:G1:62:VAL:HG21	5:C1:83:GLU:HB3	1.69	0.73
2:W3:47:ILE:HD12	2:W3:50:LEU:HD11	1.69	0.73
4:b3:58:ALA:HB2	4:B4:42:SER:HB2	1.71	0.73
5:A0:48:VAL:HG11	5:G0:121:LEU:HD22	1.71	0.73
5:A4:221:ARG:HH21	5:G4:219:ASP:HA	1.53	0.73
4:b2:458:LEU:HD21	4:B3:459:LYS:HB3	1.71	0.72
5:G0:195:VAL:HG21	5:G0:274:LEU:HB3	1.71	0.72
6:J1:13:GLN:NE2	5:C2:83:GLU:OE2	2.22	0.72
5:A2:222:ARG:NH1	5:G2:218:LEU:O	2.22	0.72
5:G4:85:ASN:HB3	5:G4:88:MET:HE3	1.70	0.72
2:W:25:THR:HG22	2:w:34:GLU:HG2	1.71	0.72
6:J2:41:ASP:HB3	6:J2:46:LYS:H	1.55	0.72
6:I4:39:MET:HE1	6:I4:51:ASP:H	1.53	0.72
1:f3:92:ARG:HD3	1:f4:57:ARG:HH12	1.54	0.72
6:J1:26:GLY:HA2	6:J1:47[A]:LEU:HB2	1.71	0.72
5:G2:317:GLU:OE2	5:C3:295:ARG:NH1	2.21	0.72
5:G3:38:LYS:HD2	5:G3:72:GLU:HA	1.70	0.72
6:I4:26:GLY:HA3	6:I4:73:LEU:HD23	1.71	0.72
2:W:22:ARG:HH12	2:W:37:ALA:HA	1.55	0.72
4:B:125:CYS:SG	4:B:163:ARG:NH1	2.63	0.72
5:A2:38:LYS:HD2	5:A2:74:THR:HG21	1.70	0.72
6:I2:94:ASP:HB3	6:I2:97:LYS:HG2	1.72	0.72
5:C4:163:THR:HG23	5:C4:339:GLN:HB3	1.71	0.72
5:C3:37:GLU:HG3	5:C3:38:LYS:HG2	1.72	0.72
5:C4:245:TYR:HB2	5:C4:250:ILE:HD11	1.71	0.72
5:G3:164:GLN:HB3	5:G3:169:GLU:HB3	1.72	0.71
4:B4:63:LEU:HD21	4:B4:258:MET:HG3	1.72	0.71
2:w4:26:VAL:HA	2:W5:33:VAL:HG12	1.72	0.71
6:N1:2:THR:N	5:C2:72:GLU:O	2.23	0.71
5:G3:34:PHE:HB2	5:G3:286:GLY:HA2	1.71	0.71
5:G4:274:LEU:HB3	5:G4:336:VAL:HG23	1.69	0.71
4:b5:226:LEU:HD23	4:b5:228:GLY:H	1.55	0.71
5:C1:245:TYR:HB2	5:C1:250:ILE:HD11	1.72	0.71
6:H3:13:GLN:O	6:H3:82:ARG:NH1	2.24	0.71
5:G2:222:ARG:HH22	5:C2:220:THR:H	1.39	0.71
6:H1:13:GLN:O	6:H1:82:ARG:NH1	2.24	0.71
6:J1:26:GLY:HA2	6:J1:47[B]:LEU:HB2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U2:80:LEU:HD23	3:U2:124:ALA:HB2	1.73	0.71
1:f3:68:ARG:HD2	1:f3:70:ASP:H	1.55	0.71
5:G0:104:PRO:HB2	5:C1:294:GLN:HE22	1.56	0.71
5:G1:259:GLU:N	5:G1:262:VAL:O	2.20	0.71
5:C1:199:VAL:HA	5:C1:251:VAL:O	1.90	0.71
4:b1:83:GLY:O	4:b1:139:ARG:NH2	2.24	0.71
5:C3:170:TRP:HE1	5:C3:340:LEU:HD22	1.53	0.71
5:G0:292:ASP:OD1	5:G0:295:ARG:NH2	2.23	0.71
6:J0:15:ASN:ND2	5:G1:60:GLY:O	2.24	0.71
6:J4:99:ARG:HA	6:J4:109:ILE:HD11	1.73	0.71
4:B4:52:ASN:HD21	4:B4:55:ARG:HD2	1.54	0.70
5:C0:140:TYR:HB3	5:C0:152:VAL:HB	1.72	0.70
6:N0:9:HIS:O	5:C1:64:ARG:NH2	2.24	0.70
5:C1:45:PRO:O	5:C1:66:ARG:NH1	2.24	0.70
5:C4:239:VAL:HG12	5:C4:254:SER:H	1.56	0.70
6:H0:26:GLY:HA3	6:H0:73:LEU:HD13	1.72	0.70
5:A3:62:VAL:O	6:H3:82:ARG:NH2	2.23	0.70
4:b5:79:ASP:OD1	4:b5:80:HIS:ND1	2.24	0.70
5:A2:169:GLU:HG2	5:A2:170:TRP:H	1.56	0.70
6:H2:23:THR:HG22	6:H2:74:THR:HG22	1.73	0.70
5:A3:72:GLU:O	6:H3:2:THR:N	2.25	0.70
6:N3:80:THR:HG22	6:N3:108:SER:HB2	1.71	0.70
4:B3:506:LYS:NZ	4:B3:507:PRO:O	2.24	0.70
6:J2:94:ASP:OD1	6:J2:94:ASP:N	2.21	0.70
4:b:58:ALA:HB2	4:B1:42:SER:HB2	1.73	0.70
4:b4:75:GLN:HA	4:b4:78:GLN:HE21	1.56	0.70
5:A4:64:ARG:HH21	6:H4:82:ARG:HD3	1.54	0.70
4:b3:402:PHE:O	4:b3:406:ARG:NH1	2.25	0.70
2:W5:18:MET:HE1	2:W5:40:VAL:HG12	1.74	0.70
3:U1:40:PRO:HG3	3:U1:72:PRO:HD3	1.72	0.70
4:B1:157:TRP:HB2	4:B1:230:ARG:HH12	1.54	0.70
4:B5:48:ALA:HB1	4:b5:25:HIS:HE1	1.57	0.70
5:C1:232:VAL:HG22	5:C1:234:ASP:H	1.57	0.70
5:G3:327:MET:N	5:G3:327:MET:SD	2.64	0.70
1:f1:116:ARG:NH2	3:U2:15:ASP:OD1	2.25	0.70
2:W1:22:ARG:HH12	2:W1:38:THR:H	1.37	0.70
5:C0:32:TYR:HB2	5:C0:284:THR:HG22	1.73	0.70
5:A2:31:SER:HA	5:A2:283:ARG:HB2	1.73	0.70
5:C1:253:TYR:HB3	5:C1:267:LEU:HD11	1.74	0.70
5:A2:169:GLU:OE2	5:A2:172:LYS:NZ	2.24	0.70
5:A3:222:ARG:NH1	5:G3:218:LEU:O	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B1:179:ASN:HB2	4:B1:191:ALA:HA	1.73	0.69
5:G0:304:TYR:HB3	5:G0:322:GLN:HG2	1.73	0.69
5:C0:169:GLU:HG2	5:C0:170:TRP:H	1.57	0.69
5:A2:154:MET:N	5:A2:154:MET:SD	2.65	0.69
5:A3:39:VAL:H	5:A3:74:THR:HG22	1.56	0.69
4:b2:474:THR:HG23	4:b2:477:LYS:H	1.55	0.69
5:C0:295:ARG:NH1	5:G4:317:GLU:OE2	2.25	0.69
4:B5:131:LYS:NZ	4:b5:244:GLN:O	2.25	0.69
4:b5:261:LEU:HD12	4:b5:358:LEU:HB3	1.75	0.69
2:w:16:ASP:HB3	2:w:21:LYS:HG3	1.73	0.69
4:B5:497:THR:OG1	4:B5:510:TRP:NE1	2.24	0.69
4:b5:216:PRO:HB3	5:C2:305:PRO:HD2	1.73	0.69
5:G3:287:CYS:SG	5:G3:299:ASN:ND2	2.66	0.69
4:B3:87:ARG:HB3	4:B3:448:ILE:HG13	1.75	0.69
5:C0:33:PRO:HB2	5:C0:300:ALA:HB1	1.72	0.69
5:G1:30:GLU:HB2	5:G1:281:GLY:O	1.93	0.69
5:G3:41:LEU:HD21	5:G3:328:LEU:HD21	1.75	0.69
6:J3:41:ASP:HB3	6:J3:46:LYS:H	1.57	0.69
2:w:11:ARG:NH2	2:w:51:GLU:OE2	2.25	0.69
5:C3:28:PHE:HD1	5:C3:281:GLY:HA3	1.57	0.69
4:B:81:ILE:HG21	4:B:142:VAL:HG11	1.75	0.69
6:J2:4:LYS:NZ	6:J2:5:GLU:O	2.25	0.69
3:U:24:ALA:HB1	3:U:41:ALA:HA	1.75	0.69
5:C4:32:TYR:HB2	5:C4:284:THR:HG22	1.74	0.69
4:b:194:GLN:HE22	4:b:202:LEU:HD12	1.58	0.68
4:b:356:GLN:OE1	4:b:370:TYR:OH	2.12	0.68
4:B5:357:SER:HA	4:B5:360:ARG:HD3	1.74	0.68
6:N1:22:ALA:HB2	6:N1:77:LYS:HD2	1.76	0.68
5:C1:290:ASP:OD2	5:C1:306:LYS:NZ	2.26	0.68
6:I3:11:GLN:O	6:I3:82:ARG:NH1	2.25	0.68
5:A4:195:VAL:HG21	5:A4:274:LEU:HB3	1.75	0.68
4:b1:55:ARG:NH2	4:B2:38:TRP:O	2.26	0.68
2:w4:3:ARG:HD3	2:w4:53:GLN:HE22	1.57	0.68
5:A0:168:THR:OG1	5:A0:173:ARG:NH2	2.26	0.68
2:W3:19:THR:O	2:w3:22:ARG:NH1	2.26	0.68
4:b4:386:ARG:HH21	4:b4:455:ILE:HG22	1.59	0.68
6:H1:26:GLY:HA3	6:H1:73:LEU:HD23	1.74	0.68
3:U2:81:ASP:OD1	3:U2:112:TYR:OH	2.11	0.68
2:w4:17:LEU:HA	2:w4:22:ARG:HB2	1.76	0.68
5:A2:307:ASN:ND2	5:A2:318:PHE:O	2.27	0.68
6:N3:2:THR:N	5:C4:72:GLU:O	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B2:493:GLN:NE2	4:b2:471:GLY:O	2.26	0.68
4:b3:179:ASN:ND2	4:b3:183:THR:O	2.26	0.68
5:G3:24:LEU:O	5:G3:283:ARG:NH2	2.27	0.68
5:G3:78:VAL:HG21	5:G3:123:ILE:HD11	1.76	0.68
6:H3:97:LYS:HG3	6:I3:45:ARG:HD3	1.74	0.68
4:B1:138:ILE:HD12	4:B1:407:GLN:HE22	1.58	0.68
4:b1:460:GLU:OE1	4:b1:460:GLU:N	2.26	0.68
4:b:179:ASN:OD1	4:b:192:GLY:N	2.27	0.68
5:G4:164:GLN:NE2	5:G4:169:GLU:O	2.26	0.68
6:H0:23:THR:HG22	6:H0:74:THR:HG22	1.75	0.68
2:w:25:THR:HG22	2:W1:34:GLU:HG2	1.74	0.68
5:G0:270:ASN:O	5:G0:339:GLN:NE2	2.26	0.67
1:f:72:VAL:HG21	1:f:103:LEU:HD21	1.76	0.67
4:b:89:SER:OG	4:b:91:ARG:NH1	2.27	0.67
4:b1:369:SER:H	4:b1:372:GLN:HE21	1.41	0.67
4:b2:375:ARG:HE	4:B3:364:ALA:HA	1.58	0.67
1:f3:4:PHE:HB2	1:f3:6:ASN:HD22	1.58	0.67
4:B3:497:THR:OG1	4:B3:510:TRP:NE1	2.27	0.67
5:A1:43:GLN:HG2	5:G1:13:ASN:HB2	1.76	0.67
1:f5:68:ARG:NH2	1:f5:70:ASP:OD2	2.27	0.67
5:C0:306:LYS:HB3	5:C0:320:MET:HB3	1.74	0.67
5:G3:245:TYR:HB3	5:G3:248:VAL:HG13	1.77	0.67
5:A4:78:VAL:HG22	5:A4:80:PRO:HD3	1.76	0.67
4:b:39:ASN:ND2	5:G1:294:GLN:O	2.26	0.67
4:B2:438:ALA:HB1	4:B2:441:ALA:HB3	1.76	0.67
4:B5:98:GLY:HA3	4:B5:432:ARG:HD3	1.75	0.67
6:I2:20:HIS:ND1	6:I2:78:SER:OG	2.27	0.67
5:G4:164:GLN:HB3	5:G4:169:GLU:HB3	1.75	0.67
4:B1:96:TYR:O	4:B1:432:ARG:NH1	2.27	0.67
4:b4:63:LEU:O	4:b4:67:ASN:HB3	1.94	0.67
5:G0:198:ILE:HG23	5:G0:248:VAL:HG21	1.77	0.67
5:G1:22:LEU:O	5:G1:26:LEU:CB	2.43	0.67
5:G3:22:LEU:O	5:G3:26:LEU:HB2	1.93	0.67
4:B:129:GLU:OE1	4:B:132:ARG:NH1	2.25	0.67
4:b1:151:LEU:HB3	4:b1:236:VAL:HG13	1.77	0.67
2:w2:22:ARG:HH12	2:w2:38:THR:H	1.43	0.67
5:G3:223:GLY:HA2	5:C3:218:LEU:HD13	1.76	0.67
5:C4:108:ARG:NH2	5:C4:317:GLU:OE2	2.27	0.67
4:B1:196:ASN:OD1	4:B1:200:ALA:N	2.27	0.67
4:b2:55:ARG:NH2	5:G4:295:ARG:O	2.27	0.67
5:G0:199:VAL:HG13	5:G0:273:VAL:HG13	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C2:232:VAL:HG22	5:C2:234:ASP:H	1.60	0.67
6:N2:6:THR:HA	5:C3:69:SER:HA	1.77	0.67
5:G3:259:GLU:N	5:G3:262:VAL:O	2.26	0.67
3:U2:75:VAL:O	3:U3:30:ARG:NH2	2.27	0.67
4:b3:214:TRP:CD2	5:G3:301:SER:HB3	2.30	0.67
5:A1:62:VAL:HG23	6:H1:82:ARG:HH22	1.58	0.67
5:A3:43:GLN:O	5:A3:69:SER:OG	2.12	0.67
3:U4:21:ASP:O	3:U4:87:ARG:NH2	2.28	0.67
4:B5:438:ALA:HB1	4:B5:441:ALA:HB3	1.77	0.67
4:B:270:GLN:NE2	4:B1:34:GLN:OE1	2.28	0.67
2:W4:61:ARG:HH12	4:B4:289:GLN:HB2	1.60	0.67
6:I2:40:LEU:HD23	6:I2:59:VAL:HG21	1.76	0.67
6:J3:41:ASP:OD2	6:J3:44:SER:N	2.27	0.67
2:w1:19:THR:O	2:W2:22:ARG:NH1	2.28	0.66
3:U4:114:ARG:HD2	1:f5:54:GLN:HB2	1.77	0.66
5:A2:283:ARG:HG2	5:A2:327:MET:HE1	1.75	0.66
5:G3:201:ASP:OD2	5:G3:271:THR:N	2.28	0.66
2:W2:16:ASP:OD1	2:W2:17:LEU:N	2.29	0.66
4:B3:153:VAL:HG23	4:B3:234:ILE:HB	1.77	0.66
4:b5:176:ARG:NH2	4:b5:208:GLU:O	2.23	0.66
6:I0:9:HIS:HB3	6:I0:11:GLN:HE22	1.59	0.66
5:C2:159:GLU:OE2	5:C2:190:ASN:ND2	2.29	0.66
5:C3:160:ASN:HD22	5:C3:336:VAL:HG22	1.59	0.66
5:A4:143:THR:HG22	5:A4:149:PRO:HB3	1.77	0.66
4:b5:81:ILE:O	4:b5:400:ARG:NE	2.28	0.66
5:A0:24:LEU:O	5:A0:283:ARG:NH2	2.28	0.66
5:C4:173:ARG:O	5:C4:175:LYS:NZ	2.27	0.66
4:b2:163:ARG:NH1	4:b2:165:PHE:O	2.29	0.66
4:b2:212:PRO:O	4:B3:187:ARG:NH1	2.29	0.66
5:A0:28:PHE:O	5:A0:283:ARG:NE	2.29	0.66
5:A3:22:LEU:HD13	5:A3:239:VAL:HG11	1.78	0.66
5:G4:16:LYS:NZ	5:G4:17:PHE:O	2.28	0.66
4:B:58:ALA:HB2	4:b:42:SER:HB2	1.77	0.66
4:b:280:ALA:HB2	4:b:341:LEU:HD13	1.77	0.66
3:U4:40:PRO:HG3	3:U4:72:PRO:HD3	1.77	0.66
4:B4:154:GLN:HE21	4:B4:170:ARG:HB3	1.60	0.66
4:B2:224:ARG:NH1	4:B2:225:GLU:OE2	2.29	0.66
3:U3:75:VAL:O	3:U3:114:ARG:NH2	2.28	0.66
4:B4:59:ARG:NH1	4:b4:27:GLY:O	2.29	0.66
5:A0:72:GLU:O	6:H0:2:THR:N	2.28	0.66
6:H3:42:THR:HA	6:H3:45:ARG:HH21	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f2:4:PHE:HB3	1:f2:9:ASP:HB2	1.78	0.66
1:f2:88:PHE:HE1	1:f2:107:ARG:HG2	1.60	0.66
2:w2:26:VAL:HA	2:W3:33:VAL:HG12	1.78	0.66
4:b2:58:ALA:HB2	4:B3:42:SER:HB3	1.76	0.66
5:G1:316:ARG:NH2	6:H1:17:ASP:O	2.29	0.66
2:W5:14:LEU:HD12	2:W5:18:MET:HE3	1.76	0.66
5:A1:245:TYR:HB2	5:A1:250:ILE:HD11	1.76	0.66
5:C3:73:PHE:HB3	5:C3:152:VAL:HG22	1.76	0.66
4:B1:356:GLN:HE22	4:B1:360:ARG:HH11	1.44	0.66
4:B1:377:TYR:HB3	4:b1:384:THR:HB	1.77	0.66
5:G0:292:ASP:OD2	5:G0:306:LYS:NZ	2.29	0.66
5:C0:22:LEU:HA	5:C0:25:ARG:HE	1.60	0.66
5:C0:282:LEU:HB3	5:C0:284:THR:HG23	1.76	0.66
5:C1:304:TYR:HB3	5:C1:322:GLN:HB2	1.76	0.66
5:G4:198:ILE:HG13	5:G4:248:VAL:HG21	1.76	0.66
4:b2:229:GLY:O	4:b2:439:ARG:NH1	2.29	0.66
4:B3:465:VAL:HG11	4:b3:466:MET:HE1	1.76	0.66
5:C0:85:ASN:OD1	6:J4:11:GLN:NE2	2.29	0.66
5:A2:320:MET:HE3	5:A2:322:GLN:HG3	1.78	0.66
4:B2:62:ASP:OD1	4:B2:66:ASN:ND2	2.29	0.65
3:U2:113:ARG:HE	3:U2:114:ARG:H	1.45	0.65
5:A0:168:THR:O	5:A0:173:ARG:NH2	2.28	0.65
5:A0:270:ASN:O	5:A0:339:GLN:NE2	2.30	0.65
5:C0:43:GLN:NE2	5:C0:69:SER:OG	2.28	0.65
6:I0:41:ASP:OD2	6:I0:44:SER:N	2.27	0.65
5:A1:168:THR:OG1	5:A1:173:ARG:NH2	2.29	0.65
4:B:25:HIS:HB3	4:B5:66:ASN:HD21	1.62	0.65
4:B:164:LEU:O	4:B:422:ARG:NH1	2.28	0.65
4:b3:127:ASP:OD1	4:b3:130:ARG:N	2.29	0.65
4:b3:375:ARG:HE	4:B4:364:ALA:HA	1.61	0.65
5:G1:209:ARG:O	5:G1:215:LYS:NZ	2.29	0.65
5:A2:156:ARG:NH1	5:A2:161:ASN:OD1	2.29	0.65
5:A3:105:ALA:HA	5:A3:108:ARG:HD3	1.78	0.65
6:N4:61:ILE:HG23	6:N4:76:TYR:HB2	1.78	0.65
1:f3:66:PHE:HA	1:f3:102:HIS:HA	1.78	0.65
4:b5:89:SER:OG	4:b5:91:ARG:NH1	2.30	0.65
5:G2:240:SER:OG	5:G2:242:LYS:NZ	2.30	0.65
5:C2:95:ASP:OD1	5:C2:95:ASP:N	2.21	0.65
6:J4:15:ASN:OD1	6:J4:16:SER:N	2.30	0.65
4:B1:53:PHE:O	4:B1:57:ASN:ND2	2.27	0.65
4:B3:211:TYR:O	4:b3:190:ARG:NH2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b5:182:ASN:O	5:C2:117:ARG:NH1	2.30	0.65
5:G0:132:VAL:O	5:G0:136:LEU:HB2	1.97	0.65
6:N0:71:THR:HG23	6:N0:72:THR:HG22	1.79	0.65
5:A2:63:ILE:HB	5:G2:82:HIS:HE1	1.62	0.65
6:H4:105:THR:HG23	6:H4:107:ILE:H	1.62	0.65
6:I4:41:ASP:OD2	6:I4:44:SER:N	2.28	0.65
1:f2:24:GLY:HA3	1:f2:42:VAL:HA	1.77	0.65
4:B2:164:LEU:O	4:B2:422:ARG:NH1	2.30	0.65
1:f4:68:ARG:NH2	1:f4:70:ASP:OD2	2.29	0.65
4:B4:458:LEU:HG	4:B4:462:GLN:HE22	1.61	0.65
2:W5:3:ARG:HD3	2:W5:53:GLN:HE22	1.62	0.65
5:G0:108:ARG:NH1	5:C1:291:ALA:O	2.30	0.65
5:C0:64:ARG:HH11	6:N4:82:ARG:HD3	1.60	0.65
6:J0:19:ALA:HB3	5:C1:314:PRO:HG3	1.78	0.65
5:A1:89:THR:HB	5:A1:107:ARG:HD2	1.78	0.65
6:H2:40:LEU:HB3	6:H2:45:ARG:HH21	1.60	0.65
4:B1:136:MET:HE1	4:b1:239:PRO:HD2	1.78	0.65
4:b3:157:TRP:HE1	4:b3:166:ARG:HD3	1.60	0.65
5:C0:3:MET:N	5:C0:3:MET:SD	2.70	0.65
6:I3:26:GLY:HA2	6:I3:47[A]:LEU:HB2	1.77	0.65
5:A4:164:GLN:NE2	5:A4:169:GLU:O	2.29	0.65
5:C4:14:GLU:HB3	5:C4:16:LYS:HG3	1.78	0.65
4:b2:376:ASN:HB2	4:B3:360:ARG:HD3	1.79	0.65
3:U3:40:PRO:HG3	3:U3:72:PRO:HD3	1.78	0.65
5:A2:39:VAL:H	5:A2:74:THR:HG22	1.62	0.65
5:G2:26:LEU:O	5:G2:29:ARG:NH1	2.30	0.65
6:J3:25:PRO:HB2	6:J3:46:LYS:HZ2	1.61	0.65
4:b1:196:ASN:HB3	4:b1:202:LEU:HD21	1.79	0.65
4:b3:279:ALA:HB1	4:B4:275:LYS:HE3	1.78	0.65
4:B4:136:MET:SD	4:b4:406:ARG:NH1	2.70	0.65
4:b4:293:ASP:HA	4:b4:298:ALA:HB3	1.79	0.65
5:C1:169:GLU:HG2	5:C1:170:TRP:H	1.62	0.65
5:G2:3:MET:N	5:G2:3:MET:SD	2.70	0.65
5:G2:102:ALA:O	5:G2:107:ARG:NH2	2.30	0.65
5:G3:270:ASN:HB3	5:G3:340:LEU:HB2	1.78	0.65
1:f1:82:THR:HA	1:f1:87:ASN:HA	1.79	0.65
4:b3:438:ALA:HB1	4:b3:441:ALA:HB3	1.79	0.65
4:B4:179:ASN:ND2	4:B4:183:THR:OG1	2.29	0.65
5:C1:28:PHE:O	5:C1:283:ARG:NH1	2.29	0.65
5:A2:239:VAL:HA	5:A2:252:VAL:O	1.97	0.65
5:C2:84:VAL:HG22	5:C2:108:ARG:HH11	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:78:SER:HB3	3:U1:10:ARG:HH22	1.61	0.64
5:C0:24:LEU:O	5:C0:283:ARG:NH2	2.31	0.64
6:N0:11:GLN:O	6:N0:82:ARG:NH1	2.31	0.64
5:G2:29:ARG:NH2	5:G2:279:ALA:O	2.30	0.64
5:G3:198:ILE:HA	5:G3:272:MET:HE1	1.78	0.64
6:I3:10:TYR:OH	6:I3:35:MET:SD	2.55	0.64
6:N4:22:ALA:HB2	6:N4:77:LYS:HD2	1.78	0.64
4:b4:58:ALA:HB2	4:B5:42:SER:HB3	1.78	0.64
5:A4:201:ASP:OD2	5:A4:271:THR:N	2.31	0.64
4:B3:61:ASP:OD2	4:B3:65:ARG:NH1	2.30	0.64
4:b3:324:ARG:NH1	4:b3:325:LEU:O	2.30	0.64
4:b4:438:ALA:HB1	4:b4:441:ALA:HB3	1.79	0.64
5:A0:222:ARG:NH1	5:G0:218:LEU:O	2.27	0.64
5:A4:170:TRP:HA	5:A4:173:ARG:HE	1.62	0.64
5:A4:212:LYS:HD3	5:A4:215:LYS:HZ1	1.62	0.64
6:J4:13:GLN:NE2	6:J4:80:THR:O	2.30	0.64
4:B:195:ILE:HD12	4:B:199:GLY:HA2	1.79	0.64
3:U1:5:LYS:NZ	3:U1:101:LEU:O	2.29	0.64
3:U3:24:ALA:HB1	3:U3:41:ALA:HA	1.78	0.64
4:B3:81:ILE:HG21	4:B3:142:VAL:HG21	1.78	0.64
1:f5:54:GLN:HG2	1:f5:55:GLY:H	1.61	0.64
5:A1:62:VAL:O	6:H1:82:ARG:NH2	2.31	0.64
5:G1:62:VAL:HG23	5:C1:82:HIS:HA	1.78	0.64
5:C2:257:TYR:HB3	5:C2:266:PHE:HE1	1.62	0.64
6:I2:26:GLY:HA2	6:I2:47[A]:LEU:HB2	1.79	0.64
5:G3:209:ARG:O	5:G3:215:LYS:NZ	2.27	0.64
4:b1:226:LEU:HD23	4:b1:228:GLY:H	1.62	0.64
4:B4:83:GLY:O	4:B4:139:ARG:NH1	2.30	0.64
4:b5:438:ALA:HB1	4:b5:441:ALA:HB3	1.78	0.64
5:G0:92:ARG:NH1	5:G0:95:ASP:O	2.30	0.64
5:G2:218:LEU:HD11	5:G2:228:LEU:HB2	1.79	0.64
5:G4:26:LEU:O	5:G4:29:ARG:NH1	2.28	0.64
5:G4:270:ASN:O	5:G4:339:GLN:NE2	2.30	0.64
3:U:52:THR:O	3:U:60:THR:OG1	2.14	0.64
2:w2:17:LEU:HB2	2:w2:22:ARG:HB2	1.79	0.64
5:A0:156:ARG:NH1	5:A0:161:ASN:OD1	2.29	0.64
5:A1:320:MET:HE3	5:A1:322:GLN:HB3	1.78	0.64
5:G1:258:VAL:HA	5:G1:263:LYS:HA	1.80	0.64
5:C2:103:ASP:OD1	5:C2:106:TYR:N	2.28	0.64
5:C3:272:MET:HG2	5:C3:340:LEU:HD21	1.79	0.64
4:b:393:TRP:CE2	4:b:452:ARG:HG2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b1:299:ASN:OD1	4:b1:301:GLN:NE2	2.31	0.64
1:f2:21:GLY:HA2	1:f2:40:ARG:HD3	1.78	0.64
2:w2:7:LEU:HD21	2:w2:11:ARG:HH21	1.63	0.64
4:b2:226:LEU:HD23	4:b2:228:GLY:H	1.63	0.64
4:B4:458:LEU:HD13	4:b4:462:GLN:HE22	1.62	0.64
5:A0:140:TYR:OH	5:A0:142:MET:SD	2.56	0.64
5:A0:160:ASN:ND2	5:A0:333:ASP:OD1	2.30	0.64
5:A3:31:SER:HA	5:A3:283:ARG:HB3	1.79	0.64
3:U:10:ARG:NH2	3:U5:78:SER:OG	2.31	0.64
2:W3:61:ARG:NH2	4:B3:289:GLN:OE1	2.27	0.64
2:W4:61:ARG:H	4:B4:288:THR:HG21	1.62	0.64
2:W5:42:ASP:HA	2:W5:45:LYS:HG2	1.79	0.64
6:J1:41:ASP:HB3	6:J1:46:LYS:H	1.63	0.64
4:b:438:ALA:HB1	4:b:441:ALA:HB3	1.80	0.64
1:f4:94:SER:OG	1:f4:102:HIS:N	2.30	0.64
3:U5:50:GLU:OE2	3:U5:62:GLN:NE2	2.31	0.64
5:A3:199:VAL:HB	5:A3:273:VAL:HG13	1.80	0.64
5:C3:163:THR:HG23	5:C3:339:GLN:HB3	1.80	0.64
5:C3:270:ASN:O	5:C3:339:GLN:NE2	2.30	0.64
6:J4:47[A]:LEU:HD23	6:J4:73:LEU:HD11	1.80	0.64
4:B:96:TYR:O	4:B:432:ARG:NH2	2.31	0.64
4:b2:333:LEU:HD12	4:b2:338:SER:HA	1.79	0.64
5:A3:164:GLN:HG3	5:A3:340:LEU:HA	1.80	0.64
5:G3:212:LYS:NZ	5:G3:216:GLU:OE1	2.27	0.64
4:b1:144:MET:O	4:b1:148:ASN:HB2	1.98	0.63
2:w4:27:GLN:HB2	2:w4:32:ARG:HG2	1.79	0.63
4:B4:157:TRP:HE1	4:B4:166:ARG:HE	1.47	0.63
5:C0:198:ILE:HD13	5:C0:274:LEU:HD13	1.79	0.63
5:C1:218:LEU:HD11	5:C1:228:LEU:H	1.62	0.63
6:J1:9:HIS:ND1	5:G2:65:SER:OG	2.31	0.63
6:H2:84:GLU:OE1	6:H2:84:GLU:N	2.30	0.63
5:C3:245:TYR:HB3	5:C3:248:VAL:HG13	1.80	0.63
4:B:275:LYS:HE3	4:B:345:GLN:HE21	1.63	0.63
4:b2:76:LEU:O	4:b2:80:HIS:ND1	2.30	0.63
1:f4:114:ASN:ND2	3:U5:28:ASP:O	2.27	0.63
4:b4:229:GLY:O	4:b4:439:ARG:NH1	2.31	0.63
4:B5:421:VAL:O	4:B5:423:ARG:NH1	2.31	0.63
4:b5:96:TYR:O	4:b5:432:ARG:NH1	2.28	0.63
5:C1:282:LEU:HB3	5:C1:284:THR:HG23	1.81	0.63
5:A4:18:LYS:H	5:A4:263:LYS:HZ1	1.46	0.63
1:f:114:ASN:ND2	3:U1:28:ASP:O	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U1:115:ASP:HB3	3:U1:119:GLY:HA2	1.80	0.63
4:B2:152:PHE:HB2	4:B2:172:VAL:HB	1.80	0.63
4:b3:493:GLN:NE2	4:B4:471:GLY:O	2.30	0.63
3:U4:106:VAL:HG13	3:U4:129:VAL:HB	1.80	0.63
4:b4:89:SER:OG	4:b4:91:ARG:NH1	2.32	0.63
5:G1:43:GLN:NE2	5:C1:14:GLU:O	2.31	0.63
5:C3:194:VAL:O	5:C3:276:ASN:ND2	2.30	0.63
4:B:99:ILE:HD11	4:B:431:ALA:HA	1.79	0.63
4:B3:302:GLU:HB3	5:C3:3:MET:HE2	1.79	0.63
2:w5:27:GLN:HB2	2:w5:32:ARG:HG2	1.80	0.63
3:U5:106:VAL:HG13	3:U5:129:VAL:HB	1.80	0.63
5:C1:154:MET:HE1	5:C1:328:LEU:HA	1.79	0.63
6:H3:80:THR:OG1	6:I3:77:LYS:NZ	2.32	0.63
5:A4:58:VAL:HG12	6:I4:21:THR:HG21	1.81	0.63
2:w:63:PRO:HA	4:B:331:PRO:HA	1.81	0.63
1:f4:43:PHE:HE1	1:f4:63:PRO:HB3	1.64	0.63
2:W4:22:ARG:NH1	2:W4:38:THR:OG1	2.31	0.63
5:G2:63:ILE:O	5:C2:82:HIS:NE2	2.31	0.63
5:G0:130:GLN:HG2	5:G0:140:TYR:CZ	2.34	0.63
5:C0:83:GLU:OE2	5:C0:316:ARG:NE	2.30	0.63
5:C0:137:LYS:HG3	5:C0:139:LYS:H	1.62	0.63
5:A2:38:LYS:HB3	5:G2:7:ALA:HA	1.81	0.63
6:J3:15:ASN:O	5:C4:316:ARG:NH2	2.29	0.63
4:b1:332:HIS:O	2:W2:60:ARG:NH2	2.32	0.63
4:b3:214:TRP:NE1	5:G3:298:ILE:O	2.28	0.63
6:I0:105:THR:HG23	6:I0:107:ILE:H	1.63	0.63
6:J2:11:GLN:OE1	5:C3:85:ASN:ND2	2.31	0.63
5:A3:138:GLY:O	5:A3:139:LYS:NZ	2.31	0.63
3:U:21:ASP:O	3:U:87:ARG:NH2	2.32	0.63
4:B:187:ARG:HH12	4:b5:211:TYR:H	1.47	0.63
2:w1:3:ARG:HE	2:w1:53:GLN:HE22	1.47	0.63
4:B3:53:PHE:O	4:B3:57:ASN:ND2	2.29	0.63
1:f4:16:ASP:OD1	1:f4:20:ARG:NE	2.26	0.63
2:w4:17:LEU:HD12	2:w4:22:ARG:HG2	1.81	0.63
5:C1:58:VAL:HG22	5:C1:60:GLY:H	1.63	0.63
6:J3:7:PHE:H	5:G4:68:GLY:HA2	1.62	0.63
5:C4:232:VAL:HG22	5:C4:234:ASP:H	1.64	0.63
4:b:301:GLN:HB2	5:C0:3:MET:HE1	1.81	0.63
4:B1:75:GLN:OE1	4:B1:78:GLN:NE2	2.31	0.63
4:B3:252:TYR:OH	4:b3:25:HIS:N	2.28	0.63
4:b3:229:GLY:O	4:b3:439:ARG:NH1	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b4:101:GLU:OE1	4:b4:105:ARG:NH1	2.31	0.63
6:H4:23:THR:HG22	6:H4:74:THR:HG22	1.81	0.63
4:B:79:ASP:OD1	4:B:139:ARG:NH2	2.32	0.62
4:B:363:ALA:O	4:b5:375:ARG:NH1	2.32	0.62
4:B4:161:SER:HB3	4:B4:166:ARG:HH11	1.64	0.62
4:b4:226:LEU:HD23	4:b4:228:GLY:H	1.64	0.62
4:B5:187:ARG:O	4:B5:190:ARG:NH1	2.32	0.62
5:G0:276:ASN:OD1	5:G0:278:GLN:NE2	2.31	0.62
5:C0:160:ASN:ND2	5:C0:333:ASP:OD1	2.29	0.62
6:I2:36:THR:H	6:I2:62:LEU:HG	1.64	0.62
5:A3:194:VAL:O	5:A3:276:ASN:ND2	2.30	0.62
5:C4:257:TYR:HB3	5:C4:266:PHE:HE1	1.64	0.62
5:C4:307:ASN:ND2	5:C4:318:PHE:O	2.32	0.62
2:W1:3:ARG:HD3	2:W1:53:GLN:HE22	1.64	0.62
3:U3:62:GLN:HE21	3:U3:131:THR:HB	1.62	0.62
4:B3:234:ILE:HD13	4:B3:410:GLN:HB3	1.81	0.62
4:b3:401:LYS:O	4:b3:405:SER:OG	2.16	0.62
4:B4:473:SER:OG	4:B4:478:GLU:OE2	2.14	0.62
5:A2:43:GLN:O	5:A2:69:SER:OG	2.17	0.62
5:A3:196:ASN:OD1	5:A3:196:ASN:N	2.32	0.62
5:G3:140:TYR:CZ	5:G3:142:MET:HB3	2.34	0.62
5:C3:232:VAL:HG22	5:C3:234:ASP:H	1.63	0.62
5:A4:24:LEU:O	5:A4:283:ARG:NH2	2.32	0.62
5:C4:82:HIS:HB3	5:C4:115:ASN:HD21	1.63	0.62
4:b1:356:GLN:NE2	4:b1:370:TYR:OH	2.32	0.62
4:B2:58:ALA:HB2	4:b2:42:SER:HB3	1.81	0.62
2:w5:60:ARG:HA	4:b5:288:THR:HB	1.82	0.62
5:A0:82:HIS:ND1	5:A0:119:GLU:OE2	2.28	0.62
5:C1:9:LEU:HB3	5:C1:97:ASP:HB3	1.80	0.62
5:A2:182:ASP:OD1	5:A2:183:ASP:N	2.31	0.62
5:C3:35:THR:HG23	5:C3:36:THR:HG23	1.81	0.62
4:b:230:ARG:HH21	4:b:417:GLU:HG2	1.65	0.62
1:f1:27:ALA:O	1:f1:38:VAL:HA	1.99	0.62
4:B1:495:ARG:NH2	4:b1:101:GLU:OE2	2.31	0.62
1:f2:114:ASN:ND2	3:U3:28:ASP:O	2.32	0.62
4:b3:55:ARG:HH21	4:b3:59:ARG:HH22	1.48	0.62
4:b3:131:LYS:HD2	4:B4:237:PHE:HE1	1.64	0.62
5:A3:26:LEU:O	5:A3:29:ARG:NH1	2.31	0.62
5:G3:103:ASP:OD1	5:G3:106:TYR:N	2.30	0.62
4:B1:31:PHE:O	4:B1:34:GLN:NE2	2.29	0.62
4:B5:251:PHE:HB3	4:B5:255:MET:HE3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b5:62:ASP:OD1	4:b5:66:ASN:ND2	2.33	0.62
6:J0:95:GLU:HA	6:J0:98:LYS:HE2	1.81	0.62
6:J1:15:ASN:OD1	6:J1:16:SER:N	2.31	0.62
6:N4:38:LEU:HD23	6:N4:47[B]:LEU:HB3	1.80	0.62
2:w2:53:GLN:NE2	2:w2:54:THR:OG1	2.33	0.62
4:B3:171:MET:N	4:B3:171:MET:SD	2.71	0.62
4:b3:218:LYS:NZ	4:b3:220:THR:OG1	2.29	0.62
4:b:211:TYR:O	4:B1:190:ARG:NH2	2.31	0.62
4:b2:166:ARG:N	4:b2:418:GLU:OE2	2.28	0.62
4:b4:166:ARG:N	4:b4:418:GLU:OE2	2.27	0.62
5:G0:229:GLU:N	5:G0:242:LYS:O	2.31	0.62
5:A2:197:ILE:HG22	5:A2:249:ALA:HB3	1.80	0.62
6:N3:22:ALA:HB2	6:N3:77:LYS:HD2	1.81	0.62
5:G4:38:LYS:HB3	5:G4:74:THR:HG22	1.81	0.62
6:N4:25:PRO:HB2	6:N4:46:LYS:HE3	1.80	0.62
4:B1:462:GLN:NE2	4:b1:466:MET:SD	2.73	0.62
4:b1:154:GLN:OE1	4:b1:156:THR:OG1	2.18	0.62
5:G2:41:LEU:HB2	5:G2:71:SER:HB3	1.81	0.62
5:A3:24:LEU:HD13	5:A3:28:PHE:HB2	1.82	0.62
5:G3:85:ASN:ND2	6:H3:10:TYR:O	2.32	0.62
5:G4:18:LYS:HE2	5:G4:238:ALA:HA	1.80	0.62
1:f2:19:ILE:HD11	2:W2:28:LYS:HB2	1.82	0.62
4:B2:212:PRO:O	4:b2:187:ARG:NH2	2.33	0.62
2:w3:16:ASP:HB3	2:w3:21:LYS:HB2	1.82	0.62
4:B4:372:GLN:NE2	4:b4:391:GLU:OE1	2.29	0.62
5:G1:206:ALA:HA	5:G1:209:ARG:HE	1.64	0.62
5:C1:160:ASN:ND2	5:C1:333:ASP:OD1	2.33	0.62
5:A3:24:LEU:HA	5:A3:28:PHE:HB2	1.81	0.62
5:C3:14:GLU:HB3	5:C3:16:LYS:HG3	1.81	0.62
6:I4:67:ASP:O	6:I4:70:SER:OG	2.18	0.62
4:b1:401:LYS:O	4:b1:405:SER:OG	2.18	0.62
5:A3:34:PHE:HB3	5:A3:286:GLY:HA2	1.81	0.62
5:C3:235:LEU:O	5:C3:237:LYS:NZ	2.32	0.62
4:B:123:CYS:SG	4:B:163:ARG:NH1	2.73	0.61
4:B:218:LYS:NZ	4:B:220:THR:OG1	2.33	0.61
4:b2:214:TRP:HE3	5:G4:33:PRO:HD2	1.64	0.61
4:B3:62:ASP:OD1	4:B3:66:ASN:ND2	2.33	0.61
5:G0:62:VAL:HG23	5:G0:64:ARG:HH12	1.65	0.61
5:A1:72:GLU:O	6:H1:2:THR:N	2.33	0.61
5:A1:199:VAL:HB	5:A1:273:VAL:HG13	1.82	0.61
5:G2:154:MET:HE1	5:G2:329:LEU:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C2:82:HIS:HB3	5:C2:115:ASN:HD21	1.65	0.61
5:G3:66:ARG:NH2	5:C3:114:GLN:OE1	2.32	0.61
6:H3:23:THR:HG22	6:H3:74:THR:HG22	1.82	0.61
1:f1:114:ASN:HD21	3:U2:29:GLY:HA3	1.64	0.61
4:b1:89:SER:OG	4:b1:91:ARG:NH1	2.33	0.61
5:G0:41:LEU:HB2	5:G0:71:SER:HB2	1.80	0.61
5:G1:274:LEU:HB2	5:G1:336:VAL:HG23	1.82	0.61
6:H1:23:THR:HG22	6:H1:74:THR:HG22	1.80	0.61
6:I1:102:PHE:HB2	6:I1:109:ILE:HD11	1.81	0.61
5:G4:127:GLU:O	5:G4:130:GLN:NE2	2.23	0.61
5:C4:115:ASN:ND2	5:C4:319:THR:OG1	2.33	0.61
3:U4:9:LEU:HD11	3:U4:46:LEU:HD21	1.81	0.61
3:U5:24:ALA:HB1	3:U5:41:ALA:HA	1.82	0.61
5:G0:303:ARG:HB3	5:G0:321:ILE:HD11	1.82	0.61
5:A1:164:GLN:HB3	5:A1:169:GLU:HA	1.82	0.61
5:C2:245:TYR:HB2	5:C2:250:ILE:HD11	1.83	0.61
3:U:4:MET:N	3:U:4:MET:SD	2.73	0.61
4:B2:131:LYS:HD3	4:b2:239:PRO:HG3	1.81	0.61
4:b2:438:ALA:HB1	4:b2:441:ALA:HB3	1.82	0.61
2:w4:63:PRO:HA	4:B4:331:PRO:HA	1.81	0.61
4:b4:75:GLN:OE1	4:b4:78:GLN:NE2	2.34	0.61
5:A1:43:GLN:O	5:A1:69:SER:OG	2.17	0.61
5:C1:198:ILE:HD11	5:C1:248:VAL:HB	1.81	0.61
2:W:60:ARG:HG3	4:B:288:THR:HG21	1.82	0.61
4:B2:436:GLN:OE1	4:B2:439:ARG:NH2	2.34	0.61
3:U5:21:ASP:O	3:U5:87:ARG:NH2	2.33	0.61
5:C2:89:THR:H	5:C2:108:ARG:NH2	1.99	0.61
5:A4:20:ASP:O	5:A4:253:TYR:OH	2.16	0.61
5:A4:157:SER:OG	5:A4:160:ASN:OD1	2.18	0.61
5:A4:289:GLN:HA	5:A4:294:GLN:HE22	1.65	0.61
5:G4:89:THR:O	5:G4:107:ARG:NH1	2.34	0.61
4:B2:256:GLU:OE1	4:B2:256:GLU:N	2.28	0.61
2:W3:28:LYS:HZ3	2:w3:31:ARG:HG2	1.64	0.61
4:B3:58:ALA:HB2	4:b3:42:SER:HB3	1.82	0.61
4:B3:423:ARG:NH1	4:B3:425:VAL:O	2.33	0.61
3:U4:30:ARG:H	3:U4:31:PRO:HD2	1.65	0.61
1:f5:20:ARG:HH12	1:f5:68:ARG:H	1.47	0.61
5:A0:43:GLN:O	5:A0:69:SER:OG	2.16	0.61
5:A2:228:LEU:HD11	5:A2:250:ILE:HG13	1.82	0.61
5:C2:201:ASP:OD2	5:C2:271:THR:N	2.33	0.61
6:H2:105:THR:HG23	6:H2:107:ILE:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I3:41:ASP:OD2	6:I3:44:SER:N	2.33	0.61
5:A4:34:PHE:HD2	5:A4:286:GLY:HA2	1.64	0.61
5:G4:22:LEU:HD11	5:G4:239:VAL:HG11	1.82	0.61
4:B1:244:GLN:HE21	4:B1:247:GLY:HA2	1.66	0.61
4:b3:196:ASN:HD21	4:b3:200:ALA:HB3	1.66	0.61
4:B4:144:MET:HE2	4:B4:174:PRO:HD3	1.82	0.61
4:B5:372:GLN:OE1	4:B5:377:TYR:OH	2.19	0.61
5:A1:265:ASN:ND2	5:A1:267:LEU:O	2.33	0.61
6:H1:99:ARG:HD3	6:H1:109:ILE:HD13	1.81	0.61
6:J1:25:PRO:HA	6:J1:72:THR:HA	1.82	0.61
5:G4:185:GLU:OE2	5:C4:209:ARG:NH1	2.28	0.61
4:B3:77:HIS:HA	4:B3:396:PHE:HE2	1.66	0.61
4:B3:132:ARG:NH2	4:B3:171:MET:SD	2.74	0.61
1:f5:83:ILE:N	1:f5:86:GLU:O	2.34	0.61
4:b5:318:TYR:HA	6:I1:6:THR:HA	1.82	0.61
5:A0:169:GLU:HG2	5:A0:170:TRP:H	1.64	0.61
6:J0:11:GLN:OE1	5:G1:64:ARG:NH1	2.34	0.61
5:A1:20:ASP:O	5:A1:253:TYR:OH	2.12	0.61
5:C2:39:VAL:HG23	5:C2:74:THR:HG22	1.81	0.61
4:B:98:GLY:HA3	4:B:432:ARG:HH12	1.64	0.61
4:B2:496:GLU:OE2	4:b2:474:THR:OG1	2.18	0.61
4:B5:300:SER:HG	6:I1:9:HIS:HD1	1.48	0.61
4:b5:99:ILE:HD11	4:b5:431:ALA:HA	1.82	0.61
6:H0:13:GLN:O	6:H0:82:ARG:NH1	2.34	0.61
5:A1:38:LYS:HD2	5:A1:74:THR:HG21	1.81	0.61
5:C1:38:LYS:HD3	5:C1:74:THR:HG21	1.82	0.61
5:C2:8:GLN:HG3	5:C2:99:GLN:HG2	1.82	0.61
5:C3:168:THR:OG1	5:C3:173:ARG:NE	2.25	0.61
6:I4:26:GLY:HA2	6:I4:47[A]:LEU:HB2	1.83	0.61
4:B:252:TYR:OH	4:b:25:HIS:N	2.32	0.61
5:G0:306:LYS:HB3	5:G0:320:MET:HB2	1.83	0.61
5:A1:22:LEU:HD13	5:A1:239:VAL:HG11	1.83	0.61
5:G1:199:VAL:HG13	5:G1:273:VAL:HB	1.83	0.61
5:C1:120:GLU:OE1	5:C1:303:ARG:NH1	2.33	0.61
4:B2:166:ARG:N	4:B2:418:GLU:OE2	2.34	0.60
4:b3:121:ASP:OD1	4:B4:440:SER:OG	2.18	0.60
3:U5:108:SER:HB3	3:U5:129:VAL:HG23	1.83	0.60
5:A0:64:ARG:NH2	6:H0:84:GLU:OE2	2.34	0.60
5:C0:28:PHE:O	5:C0:283:ARG:NH2	2.34	0.60
6:H1:53:THR:HG23	6:H1:91:ALA:HB1	1.82	0.60
5:A2:64:ARG:HH21	6:H2:82:ARG:HD3	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G4:130:GLN:NE2	5:G4:327:MET:HG3	2.16	0.60
5:C4:194:VAL:O	5:C4:276:ASN:ND2	2.33	0.60
2:w:17:LEU:HD12	2:w:22:ARG:HG2	1.81	0.60
4:B:224:ARG:HH12	4:b5:130:ARG:HE	1.49	0.60
4:B5:58:ALA:HB2	4:b5:42:SER:HB3	1.83	0.60
4:B5:67:ASN:HD21	4:B5:69:TYR:HB2	1.64	0.60
4:b5:127:ASP:OD1	4:b5:130:ARG:N	2.34	0.60
5:G1:108:ARG:HH22	5:C2:295:ARG:HA	1.66	0.60
6:I1:41:ASP:OD2	6:I1:44:SER:OG	2.17	0.60
5:A3:62:VAL:HG23	6:H3:82:ARG:HH22	1.65	0.60
5:C4:130:GLN:NE2	5:C4:140:TYR:OH	2.33	0.60
1:f:81:LEU:O	1:f:88:PHE:N	2.29	0.60
4:B:244:GLN:NE2	4:B:246:ARG:O	2.34	0.60
4:B2:75:GLN:HA	4:B2:78:GLN:HE21	1.64	0.60
4:B3:279:ALA:HB1	4:b3:275:LYS:HE2	1.82	0.60
3:U4:39:PHE:HB3	3:U4:40:PRO:HD3	1.81	0.60
6:H3:94:ASP:OD1	6:H3:94:ASP:N	2.33	0.60
5:A4:72:GLU:O	6:H4:2:THR:N	2.34	0.60
5:A4:182:ASP:OD1	5:A4:183:ASP:N	2.35	0.60
4:B:195:ILE:HG22	4:B:201:ALA:HA	1.82	0.60
4:b1:258:MET:HB3	4:b1:362:ILE:HD12	1.84	0.60
4:b1:295:ILE:HD11	4:b1:339:LEU:HD22	1.82	0.60
4:B2:195:ILE:HD12	4:B2:199:GLY:HA2	1.83	0.60
5:A0:64:ARG:HG3	6:H0:11:GLN:HE21	1.64	0.60
5:G0:43:GLN:N	5:G0:69:SER:OG	2.32	0.60
5:G1:160:ASN:HA	5:G1:336:VAL:HG12	1.83	0.60
5:G1:164:GLN:NE2	5:G1:169:GLU:O	2.33	0.60
5:A3:24:LEU:O	5:A3:283:ARG:NH2	2.34	0.60
5:G3:22:LEU:O	5:G3:26:LEU:CB	2.49	0.60
5:G3:259:GLU:OE1	5:G3:264:LYS:NZ	2.25	0.60
4:B:224:ARG:NH1	4:B:225:GLU:OE2	2.35	0.60
4:B:434:SER:N	4:B:437:GLU:OE2	2.32	0.60
4:B1:292:MET:HG3	4:B1:296:LEU:HD12	1.83	0.60
4:B3:87:ARG:NH1	4:B3:88:LEU:O	2.35	0.60
4:B3:136:MET:SD	4:b3:406:ARG:NH2	2.74	0.60
4:B5:59:ARG:NH1	4:b5:27:GLY:O	2.35	0.60
5:A0:209:ARG:O	5:A0:215:LYS:NZ	2.34	0.60
5:G0:240:SER:OG	5:G0:242:LYS:NZ	2.35	0.60
5:C1:170:TRP:O	5:C1:175:LYS:NZ	2.33	0.60
5:G3:195:VAL:HG11	5:G3:274:LEU:HB3	1.82	0.60
3:U:8:GLU:OE1	3:U:8:GLU:N	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B1:214:TRP:CD1	5:G0:306:LYS:HA	2.35	0.60
2:W2:3:ARG:HD3	2:W2:53:GLN:HE22	1.66	0.60
4:B4:96:TYR:O	4:B4:432:ARG:NH1	2.34	0.60
5:G1:207:LEU:O	5:G1:210:SER:OG	2.18	0.60
5:G2:73:PHE:HD2	5:G2:326:LEU:HD13	1.66	0.60
5:G3:292:ASP:HA	5:G3:295:ARG:HD3	1.82	0.60
3:U:79:GLU:OE1	3:U:79:GLU:N	2.35	0.60
2:w1:61:ARG:H	4:b1:288:THR:HG21	1.66	0.60
4:B1:484:ASP:OD1	4:b1:477:LYS:NZ	2.34	0.60
4:b2:214:TRP:HB3	5:G4:31:SER:O	2.01	0.60
4:B4:179:ASN:ND2	4:B4:184:GLY:O	2.34	0.60
4:B5:81:ILE:O	4:B5:400:ARG:NE	2.27	0.60
5:G0:24:LEU:HA	5:G0:28:PHE:HB2	1.82	0.60
6:H0:37:PRO:HB2	6:H0:50:TRP:HB3	1.82	0.60
6:N0:39:MET:HE1	6:N0:51:ASP:H	1.67	0.60
6:I1:11:GLN:O	6:I1:82:ARG:NH1	2.27	0.60
5:C4:306:LYS:HB3	5:C4:320:MET:HB3	1.83	0.60
1:f57:ARG:HB2	3:U:33:VAL:HG22	1.83	0.60
4:B:288:THR:HG22	4:b5:332:HIS:HD1	1.65	0.60
4:B1:324:ARG:HE	4:B1:325:LEU:H	1.48	0.60
4:B1:417:GLU:OE1	4:B1:439:ARG:NH1	2.33	0.60
3:U3:64:GLU:OE2	3:U3:128:TYR:N	2.34	0.60
1:f4:97:ASP:OD2	2:w4:31:ARG:NH2	2.35	0.60
4:b4:127:ASP:OD2	4:b4:132:ARG:NH1	2.34	0.60
1:f5:82:THR:HA	1:f5:87:ASN:HA	1.83	0.60
6:N2:67:ASP:O	6:N2:70:SER:OG	2.19	0.60
6:N4:68:GLN:OE1	6:N4:68:GLN:N	2.33	0.60
2:w:29:ASP:N	2:W1:30:GLY:O	2.35	0.60
4:B2:75:GLN:OE1	4:B2:78:GLN:NE2	2.34	0.60
5:C1:178:TYR:OH	5:C1:183:ASP:OD2	2.20	0.60
6:N1:88:TRP:CZ3	6:N1:98:LYS:HB3	2.36	0.60
5:C4:209:ARG:O	5:C4:215:LYS:NZ	2.35	0.60
1:f:94:SER:OG	1:f:102:HIS:N	2.35	0.60
3:U3:103:THR:OG1	3:U3:131:THR:OG1	2.19	0.60
4:B5:87:ARG:HB2	4:B5:448:ILE:HG13	1.83	0.60
5:C3:31:SER:HB2	5:C3:283:ARG:HH11	1.67	0.60
5:C3:139:LYS:NZ	5:C3:151:GLU:OE1	2.35	0.60
5:C4:290:ASP:OD2	5:C4:306:LYS:NZ	2.33	0.60
1:f:94:SER:HG	1:f:102:HIS:N	2.00	0.59
3:U:30:ARG:H	3:U:31:PRO:HD3	1.67	0.59
1:f2:65:LEU:HB3	1:f2:103:LEU:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b3:345:GLN:NE2	4:b3:346:ASP:OD1	2.32	0.59
4:b5:195:ILE:HG22	4:b5:201:ALA:HA	1.84	0.59
4:B:180:PRO:HA	4:B:219:TRP:CE2	2.36	0.59
2:W4:15:HIS:O	2:W4:19:THR:HG22	2.01	0.59
2:w4:25:THR:OG1	2:W5:34:GLU:OE1	2.15	0.59
5:A1:49:ASN:ND2	5:G1:260:ASN:O	2.35	0.59
5:G1:28:PHE:O	5:G1:283:ARG:NE	2.35	0.59
5:G1:78:VAL:HG22	5:G1:80:PRO:HD3	1.84	0.59
5:A2:138:GLY:HA3	5:A2:156:ARG:HB2	1.83	0.59
5:A3:113:MET:SD	5:A3:117:ARG:NH2	2.76	0.59
5:A4:199:VAL:HB	5:A4:273:VAL:HG13	1.84	0.59
2:w:24:ALA:HB3	2:W1:34:GLU:HG3	1.84	0.59
3:U:30:ARG:H	3:U:31:PRO:CD	2.15	0.59
2:W1:23:VAL:HG21	2:W1:26:VAL:HG13	1.84	0.59
4:b1:257:GLN:HG3	4:b1:361:TYR:HE2	1.66	0.59
4:b1:474:THR:HG23	4:b1:477:LYS:H	1.65	0.59
4:b2:72:ASN:OD1	4:b2:375:ARG:NH2	2.35	0.59
1:f3:97:ASP:OD2	2:w3:31:ARG:NH2	2.35	0.59
4:b4:52:ASN:HD22	4:B5:28:GLY:HA2	1.67	0.59
5:C0:85:ASN:ND2	5:C0:88:MET:HB2	2.17	0.59
5:C0:182:ASP:N	5:C0:182:ASP:OD1	2.31	0.59
5:G2:43:GLN:N	5:G2:69:SER:OG	2.30	0.59
6:H2:20:HIS:ND1	6:H2:78:SER:OG	2.31	0.59
5:G4:24:LEU:HA	5:G4:28:PHE:HB2	1.84	0.59
5:C4:203:LYS:HE2	5:C4:269:ASP:HB2	1.84	0.59
6:N4:38:LEU:HD23	6:N4:47[A]:LEU:HB3	1.85	0.59
4:B:105:ARG:HD3	4:b5:495:ARG:HH22	1.67	0.59
4:b:90:HIS:NE2	4:b:442:TRP:O	2.28	0.59
4:B1:203:GLY:HA3	4:B1:221:TRP:HE1	1.65	0.59
4:b1:376:ASN:HA	4:B2:360:ARG:HH21	1.68	0.59
3:U3:22:THR:OG1	3:U3:23:GLY:N	2.35	0.59
3:U3:52:THR:OG1	3:U3:62:GLN:OE1	2.21	0.59
5:C1:201:ASP:OD2	5:C1:271:THR:N	2.35	0.59
6:J1:41:ASP:OD2	6:J1:44:SER:N	2.33	0.59
5:G3:46:GLY:HA2	5:G3:66:ARG:HD3	1.85	0.59
5:G3:198:ILE:HG12	5:G3:248:VAL:CG2	2.33	0.59
5:A4:196:ASN:HA	5:A4:248:VAL:HG22	1.84	0.59
4:b2:345:GLN:NE2	4:b2:346:ASP:OD1	2.35	0.59
1:f3:94:SER:OG	1:f3:102:HIS:N	2.35	0.59
2:W3:26:VAL:O	2:W3:32:ARG:HA	2.01	0.59
4:B3:101:GLU:OE1	4:B3:101:GLU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f4:20:ARG:O	1:f4:40:ARG:NE	2.32	0.59
5:A0:282:LEU:HD12	5:A0:328:LEU:HB3	1.85	0.59
5:G2:46:GLY:HA2	5:G2:66:ARG:HH12	1.68	0.59
5:G3:81:LYS:O	5:G3:82:HIS:ND1	2.35	0.59
5:C4:139:LYS:NZ	5:C4:140:TYR:O	2.35	0.59
2:w:27:GLN:HB3	2:W1:32:ARG:HG2	1.85	0.59
4:b4:500:ARG:HH21	4:b4:506:LYS:HB3	1.66	0.59
5:A2:63:ILE:HB	5:G2:82:HIS:CE1	2.37	0.59
5:G4:259:GLU:N	5:G4:262:VAL:O	2.33	0.59
4:B:244:GLN:HE22	4:B:247:GLY:HA2	1.65	0.59
4:B:440:SER:OG	4:b5:121:ASP:OD1	2.19	0.59
2:W2:41:SER:O	2:W2:45:LYS:HG2	2.01	0.59
3:U2:53:GLY:O	3:U2:60:THR:OG1	2.19	0.59
4:B3:462:GLN:HA	4:B3:465:VAL:HG12	1.83	0.59
4:B5:332:HIS:HD1	4:b5:288:THR:HG1	1.50	0.59
6:J1:22:ALA:HB2	6:J1:77:LYS:HD2	1.84	0.59
6:N2:28:LEU:HA	6:N2:48:VAL:HG13	1.84	0.59
5:G3:320:MET:HE3	5:G3:321:ILE:H	1.67	0.59
5:G4:245:TYR:HB3	5:G4:248:VAL:HG13	1.85	0.59
4:b2:196:ASN:ND2	4:b2:198:SER:OG	2.31	0.59
4:B3:461:VAL:HG11	4:b3:463:GLU:HB2	1.85	0.59
4:b3:345:GLN:NE2	4:b3:346:ASP:O	2.36	0.59
5:A0:24:LEU:HA	5:A0:28:PHE:HB2	1.85	0.59
5:C2:270:ASN:O	5:C2:339:GLN:NE2	2.36	0.59
5:G4:333:ASP:N	5:G4:333:ASP:OD1	2.27	0.59
3:U:62:GLN:HE21	3:U:129:VAL:HG23	1.66	0.59
4:B1:181:ASN:ND2	5:C1:292:ASP:OD1	2.36	0.59
4:B2:90:HIS:NE2	4:B2:442:TRP:O	2.32	0.59
4:b3:123:CYS:SG	4:b3:125:CYS:N	2.72	0.59
5:G0:49:ASN:ND2	5:C0:260:ASN:O	2.35	0.59
6:H2:37:PRO:HB2	6:H2:50:TRP:HB3	1.85	0.59
5:C3:18:LYS:NZ	5:C3:254:SER:O	2.35	0.59
5:C4:78:VAL:HG21	5:C4:126:VAL:HG11	1.85	0.59
4:B:356:GLN:OE1	4:B:360:ARG:NH2	2.36	0.59
3:U4:20:HIS:HB2	3:U4:87:ARG:HH22	1.68	0.59
5:G0:102:ALA:O	5:G0:107:ARG:NH2	2.35	0.59
5:G2:207:LEU:O	5:G2:210:SER:OG	2.18	0.59
6:J2:25:PRO:HB2	6:J2:46:LYS:HE2	1.85	0.59
5:C3:42:SER:HB2	5:C3:70:THR:HG23	1.85	0.59
5:G4:228:LEU:HD21	5:G4:245:TYR:HD1	1.68	0.59
5:C4:37:GLU:HG3	5:C4:38:LYS:HG2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:303:ARG:HB3	5:A0:321:ILE:HD11	1.84	0.58
5:C0:89:THR:O	5:C0:107:ARG:NH1	2.36	0.58
5:C3:39:VAL:HG12	5:C3:74:THR:HG22	1.84	0.58
5:A4:30:GLU:N	5:A4:30:GLU:OE1	2.36	0.58
5:G4:92:ARG:NH1	5:G4:95:ASP:O	2.36	0.58
4:b1:208:GLU:HG2	4:b1:218:LYS:H	1.68	0.58
5:A0:29:ARG:NH2	5:A0:279:ALA:O	2.37	0.58
5:A1:329:LEU:HD11	5:A1:332:PRO:HA	1.84	0.58
5:C1:156:ARG:NH1	5:C1:161:ASN:OD1	2.36	0.58
6:H1:55:ASP:OD1	6:I1:45:ARG:NH1	2.36	0.58
5:C2:194:VAL:O	5:C2:276:ASN:ND2	2.35	0.58
4:B1:63:LEU:O	4:B1:67:ASN:HB3	2.03	0.58
4:b1:127:ASP:OD1	4:b1:130:ARG:N	2.36	0.58
2:w2:34:GLU:OE1	2:w2:34:GLU:N	2.37	0.58
4:b4:176:ARG:O	4:b4:207:SER:N	2.35	0.58
4:b4:236:VAL:HG13	4:b4:406:ARG:HH21	1.68	0.58
5:C2:156:ARG:NH1	5:C2:161:ASN:OD1	2.33	0.58
5:G4:280:ARG:H	5:G4:280:ARG:HD3	1.68	0.58
1:f1:20:ARG:NH1	1:f1:66:PHE:O	2.35	0.58
4:b1:31:PHE:O	4:b1:34:GLN:NE2	2.36	0.58
4:b1:454:ALA:O	4:B2:390:ASN:ND2	2.36	0.58
5:A1:164:GLN:NE2	5:A1:169:GLU:O	2.36	0.58
5:G2:115:ASN:O	5:G2:119:GLU:HG2	2.03	0.58
5:G2:229:GLU:HG3	5:G2:233:LYS:HD2	1.85	0.58
5:C2:306:LYS:HB3	5:C2:320:MET:HB3	1.84	0.58
5:G3:259:GLU:HG3	5:G3:260:ASN:H	1.68	0.58
4:B1:434:SER:N	4:B1:437:GLU:OE2	2.34	0.58
4:b1:438:ALA:HB1	4:b1:441:ALA:HB3	1.85	0.58
4:B3:57:ASN:OD1	4:B3:148:ASN:ND2	2.36	0.58
4:B3:424:VAL:HG23	4:B3:425:VAL:HG23	1.85	0.58
5:A0:34:PHE:HB2	5:A0:286:GLY:HA2	1.85	0.58
5:G2:148:ASP:N	5:G2:148:ASP:OD1	2.36	0.58
5:G3:196:ASN:C	5:G3:248:VAL:HG23	2.27	0.58
5:C3:260:ASN:OD1	5:C3:261:GLY:N	2.37	0.58
5:G4:43:GLN:NE2	5:C4:14:GLU:O	2.37	0.58
3:U:77:ASP:N	3:U:77:ASP:OD1	2.36	0.58
4:B:497:THR:OG1	4:B:510:TRP:NE1	2.37	0.58
4:B2:293:ASP:OD2	4:B2:299:ASN:ND2	2.35	0.58
4:B2:434:SER:N	4:B2:437:GLU:OE2	2.33	0.58
4:B4:329:LYS:NZ	4:b4:277:MET:SD	2.77	0.58
5:C0:317:GLU:OE1	5:C0:317:GLU:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G2:270:ASN:HB3	5:G2:340:LEU:HB2	1.85	0.58
6:H3:95:GLU:OE2	6:H3:99:ARG:NE	2.35	0.58
6:J3:38:LEU:HA	6:J3:50:TRP:H	1.68	0.58
5:C4:169:GLU:HG2	5:C4:170:TRP:H	1.67	0.58
4:b:506:LYS:HD3	4:b:507:PRO:HD2	1.84	0.58
2:w3:26:VAL:HA	2:W4:33:VAL:HG12	1.85	0.58
1:f5:20:ARG:O	1:f5:40:ARG:NH2	2.36	0.58
5:C0:65:SER:H	6:N4:11:GLN:HE22	1.51	0.58
5:A1:174:ASP:OD2	5:A1:176:SER:OG	2.18	0.58
5:A1:270:ASN:HB2	5:A1:340:LEU:HB2	1.85	0.58
6:I1:67:ASP:O	6:I1:70:SER:OG	2.22	0.58
5:C2:169:GLU:HG2	5:C2:170:TRP:H	1.68	0.58
5:C3:209:ARG:O	5:C3:215:LYS:NZ	2.33	0.58
5:G4:31:SER:HA	5:G4:283:ARG:HB3	1.84	0.58
5:C4:95:ASP:OD1	5:C4:95:ASP:N	2.24	0.58
1:f1:68:ARG:NH2	1:f1:70:ASP:OD2	2.34	0.58
4:b1:99:ILE:HD11	4:b1:431:ALA:HA	1.86	0.58
1:f2:114:ASN:HD21	3:U3:29:GLY:HA3	1.67	0.58
3:U3:6:HIS:HE2	3:U3:132:TYR:HH	1.51	0.58
6:J0:41:ASP:HB3	6:J0:46:LYS:H	1.68	0.58
6:N1:92:ALA:HB1	6:N1:98:LYS:HG2	1.84	0.58
5:A2:181:THR:OG1	5:G2:209:ARG:NH2	2.37	0.58
6:N3:14:GLY:N	6:N3:80:THR:O	2.34	0.58
2:W2:25:THR:OG1	2:W2:27:GLN:OE1	2.22	0.58
4:B2:138:ILE:HG12	4:B2:407:GLN:HE22	1.67	0.58
4:b2:157:TRP:HE1	4:b2:230:ARG:CZ	2.17	0.58
3:U5:81:ASP:OD1	3:U5:112:TYR:OH	2.15	0.58
5:G0:37:GLU:OE1	5:G0:37:GLU:N	2.37	0.58
5:A1:303:ARG:HB3	5:A1:321:ILE:HD11	1.85	0.58
5:A1:313:ASP:OD1	5:A1:313:ASP:N	2.28	0.58
6:H1:94:ASP:HB3	6:H1:97:LYS:HB2	1.86	0.58
5:A3:168:THR:HA	5:A3:172:LYS:HB2	1.86	0.58
5:A3:201:ASP:OD2	5:A3:271:THR:N	2.36	0.58
5:A3:217:LYS:HZ3	5:G3:230:THR:HB	1.69	0.58
6:J4:95:GLU:HA	6:J4:98:LYS:HE2	1.86	0.58
1:f1:20:ARG:HH22	1:f1:67:VAL:HA	1.69	0.58
4:b1:73:ALA:O	4:b1:77:HIS:ND1	2.36	0.58
4:b2:187:ARG:HD3	4:b2:190:ARG:HH22	1.68	0.58
4:B3:356:GLN:OE1	4:B3:370:TYR:OH	2.21	0.58
2:W4:41:SER:O	2:W4:45:LYS:HG2	2.04	0.58
3:U5:79:GLU:OE1	3:U5:79:GLU:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A1:198:ILE:HB	5:A1:250:ILE:HG23	1.85	0.58
5:C2:282:LEU:HB3	5:C2:284:THR:HG23	1.86	0.58
6:I3:106:ALA:O	6:J3:77:LYS:NZ	2.37	0.58
6:N4:28:LEU:HD21	6:N4:38:LEU:HD21	1.85	0.58
4:B:367:GLY:HA2	4:b5:375:ARG:HH22	1.68	0.57
4:b:76:LEU:HD13	4:b:372:GLN:HG3	1.85	0.57
4:B2:196:ASN:HB3	4:B2:202:LEU:HD21	1.85	0.57
4:b2:496:GLU:OE2	4:B3:475:TYR:N	2.37	0.57
2:w3:60:ARG:HG2	4:B3:294:PHE:CG	2.39	0.57
4:B3:72:ASN:OD1	4:B3:375:ARG:NH2	2.37	0.57
4:B4:275:LYS:NZ	4:B4:345:GLN:OE1	2.37	0.57
5:A1:182:ASP:OD1	5:A1:183:ASP:N	2.37	0.57
5:C1:169:GLU:CD	5:C1:169:GLU:H	2.12	0.57
5:C3:163:THR:HG22	5:C3:165:SER:H	1.69	0.57
5:C3:333:ASP:OD1	5:C3:333:ASP:N	2.36	0.57
6:N3:4:LYS:HD2	5:C4:69:SER:HB2	1.86	0.57
5:G4:115:ASN:O	5:G4:119:GLU:HG2	2.04	0.57
5:C4:106:TYR:OH	5:C4:110:ARG:NH2	2.36	0.57
2:W3:27:GLN:HE21	2:W3:28:LYS:N	2.02	0.57
4:b4:55:ARG:NH2	4:B5:38:TRP:O	2.36	0.57
3:U5:77:ASP:HA	3:U5:80:LEU:HD13	1.85	0.57
5:G0:64:ARG:HE	6:J4:82:ARG:HD2	1.68	0.57
5:G1:42:SER:HB3	5:C1:12:ALA:HA	1.85	0.57
5:A2:163:THR:HG23	5:A2:339:GLN:HB3	1.85	0.57
5:G2:259:GLU:N	5:G2:262:VAL:O	2.36	0.57
5:A3:17:PHE:HZ	5:A3:257:TYR:HA	1.68	0.57
5:G3:74:THR:HB	5:G3:75:PRO:HD3	1.85	0.57
6:I3:23:THR:HB	6:I3:74:THR:HG22	1.85	0.57
5:G4:43:GLN:N	5:G4:69:SER:OG	2.36	0.57
4:b:341:LEU:HD12	4:B1:275:LYS:HG2	1.86	0.57
4:B2:301:GLN:OE1	4:B2:301:GLN:N	2.34	0.57
4:b2:473:SER:OG	4:b2:474:THR:N	2.35	0.57
5:C0:201:ASP:OD2	5:C0:271:THR:N	2.36	0.57
5:G2:124:ALA:O	5:G2:128:GLU:HG2	2.03	0.57
1:f:23:MET:HE2	2:W:31:ARG:HD3	1.85	0.57
1:f1:4:PHE:HB2	1:f1:6:ASN:HD22	1.69	0.57
5:G1:92:ARG:NH1	5:G1:95:ASP:O	2.38	0.57
5:C2:285:TYR:HD2	5:C2:302:ALA:HA	1.69	0.57
6:I2:99:ARG:NH1	6:I2:110:VAL:OXT	2.37	0.57
5:A4:306:LYS:N	5:A4:320:MET:O	2.36	0.57
5:C4:87:GLN:CD	5:C4:87:GLN:H	2.11	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J4:51:ASP:OD2	6:J4:53:THR:OG1	2.20	0.57
2:w:61:ARG:HH21	4:b:320:ALA:H	1.52	0.57
4:B3:441:ALA:O	4:B3:444:ASN:ND2	2.37	0.57
4:b3:359:LEU:HD23	4:b3:374:SER:HB3	1.86	0.57
4:b4:382:TYR:HE1	4:b4:455:ILE:HG21	1.69	0.57
2:w5:66:PHE:HB3	4:b5:325:LEU:HD21	1.86	0.57
3:U5:42:VAL:HG13	3:U5:69:VAL:HG22	1.86	0.57
5:G0:120:GLU:OE2	5:G0:303:ARG:NH1	2.37	0.57
5:G3:156:ARG:HG2	5:G3:161:ASN:HD21	1.70	0.57
5:G4:85:ASN:OD1	5:G4:87:GLN:NE2	2.35	0.57
5:C4:198:ILE:HB	5:C4:250:ILE:HA	1.86	0.57
6:H4:39:MET:HB3	6:H4:50:TRP:HD1	1.69	0.57
4:B2:131:LYS:HG3	4:B2:132:ARG:HG3	1.86	0.57
4:B5:59:ARG:NH2	4:b5:38:TRP:O	2.38	0.57
5:C1:84:VAL:HG22	5:C1:317:GLU:H	1.68	0.57
5:G2:46:GLY:HA3	5:C2:16:LYS:HD2	1.87	0.57
5:A3:217:LYS:HD3	5:G3:231:ALA:HB2	1.86	0.57
5:A3:239:VAL:HB	5:A3:253:TYR:HD1	1.69	0.57
4:b1:181:ASN:ND2	5:G0:29:ARG:O	2.37	0.57
4:b1:326:GLY:H	4:b1:329:LYS:HZ1	1.53	0.57
4:B3:204:TYR:O	4:B3:221:TRP:HA	2.04	0.57
4:B4:461:VAL:HG11	4:b4:463:GLU:HB2	1.85	0.57
5:C0:8:GLN:NE2	5:C0:9:LEU:O	2.37	0.57
5:C0:72:GLU:OE2	6:N4:3:SER:N	2.36	0.57
5:G2:42:SER:HB2	5:C2:9:LEU:HD11	1.87	0.57
5:G3:120:GLU:OE1	5:G3:303:ARG:NH1	2.38	0.57
1:f:116:ARG:HG3	3:U1:26:PHE:HB2	1.85	0.57
4:B1:78:GLN:O	4:B1:139:ARG:NH1	2.37	0.57
4:B3:429:SER:OG	4:B3:430:LYS:NZ	2.38	0.57
4:b3:171:MET:N	4:b3:171:MET:SD	2.75	0.57
3:U4:87:ARG:HB2	3:U4:88:ILE:HD12	1.85	0.57
5:G0:22:LEU:HD11	5:G0:239:VAL:HG11	1.84	0.57
5:A1:39:VAL:HG12	5:A1:74:THR:HG22	1.86	0.57
6:H2:38:LEU:HD13	6:H2:47[A]:LEU:HD21	1.86	0.57
5:G3:42:SER:OG	5:C3:11:ALA:O	2.22	0.57
5:G3:292:ASP:O	5:G3:295:ARG:NH1	2.34	0.57
5:A4:164:GLN:HB3	5:A4:169:GLU:HB3	1.86	0.57
6:I4:94:ASP:HB3	6:I4:97:LYS:HG2	1.85	0.57
4:B:27:GLY:O	4:b5:59:ARG:NH1	2.38	0.57
4:B:42:SER:HB3	4:b5:58:ALA:HB2	1.87	0.57
4:B:368:VAL:O	4:b5:375:ARG:NH1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b2:196:ASN:OD1	4:b2:200:ALA:N	2.37	0.57
5:C0:85:ASN:HD21	5:C0:88:MET:HB2	1.70	0.57
5:C0:265:ASN:ND2	5:C0:267:LEU:O	2.37	0.57
5:A3:105:ALA:O	5:A3:108:ARG:NH1	2.34	0.57
4:B1:150:GLU:HB2	4:B1:235:HIS:HE1	1.70	0.57
1:f5:70:ASP:HA	1:f5:73:ARG:HE	1.70	0.57
5:A1:102:ALA:O	5:A1:107:ARG:NH2	2.37	0.57
5:C2:79:LYS:HG2	5:C2:320:MET:HE2	1.87	0.57
6:H2:55:ASP:HB3	6:I2:45:ARG:HH21	1.69	0.57
5:A3:181:THR:HG21	5:A3:217:LYS:HZ1	1.69	0.57
5:G3:256:GLN:HA	5:G3:265:ASN:HA	1.85	0.57
5:C3:49:ASN:HB3	5:C3:52:LEU:HD21	1.87	0.57
6:I3:9:HIS:HB3	6:I3:11:GLN:HE22	1.70	0.57
6:I3:61:ILE:HG23	6:I3:76:TYR:HB2	1.86	0.57
6:J3:15:ASN:OD1	6:J3:16:SER:N	2.38	0.57
5:C4:156:ARG:NH1	5:C4:161:ASN:OD1	2.38	0.57
6:I4:23:THR:HG22	6:I4:74:THR:HG22	1.87	0.57
4:B2:144:MET:O	4:B2:148:ASN:HB2	2.05	0.56
2:W4:19:THR:HG23	2:W4:20:GLY:H	1.70	0.56
1:f5:97:ASP:OD2	2:w5:31:ARG:NH1	2.37	0.56
1:f5:111:PRO:HB3	3:U5:75:VAL:HG12	1.87	0.56
5:G0:88:MET:SD	6:H0:9:HIS:ND1	2.78	0.56
6:H0:20:HIS:ND1	6:H0:78:SER:OG	2.28	0.56
5:A2:64:ARG:HE	6:H2:82:ARG:NE	2.03	0.56
6:J2:47[A]:LEU:HD23	6:J2:73:LEU:HD21	1.87	0.56
5:A3:163:THR:OG1	5:A3:339:GLN:NE2	2.38	0.56
5:G3:95:ASP:O	5:G3:96:GLU:HG3	2.04	0.56
5:C3:302:ALA:O	5:C3:303:ARG:NE	2.34	0.56
5:C4:178:TYR:OH	5:C4:183:ASP:OD2	2.18	0.56
4:B:166:ARG:N	4:B:418:GLU:OE2	2.38	0.56
4:B1:181:ASN:H	5:C1:296:GLU:HG2	1.70	0.56
4:B1:226:LEU:HG	4:B1:228:GLY:H	1.69	0.56
4:b2:418:GLU:OE2	4:b2:422:ARG:NH2	2.38	0.56
4:B4:123:CYS:SG	4:B4:130:ARG:NH1	2.73	0.56
4:B4:195:ILE:HD12	4:B4:199:GLY:HA2	1.87	0.56
5:G0:34:PHE:HB2	5:G0:286:GLY:HA2	1.86	0.56
5:C1:306:LYS:N	5:C1:320:MET:O	2.38	0.56
6:H4:84:GLU:OE1	6:H4:84:GLU:N	2.26	0.56
4:B:214:TRP:CD1	5:G1:31:SER:HG	2.22	0.56
4:B2:72:ASN:OD1	4:B2:375:ARG:NH2	2.38	0.56
1:f3:9:ASP:HA	1:f3:12:ILE:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f3:39:ILE:HD12	1:f3:71:GLU:HG3	1.86	0.56
4:B4:52:ASN:HD22	4:b4:28:GLY:HA2	1.71	0.56
3:U5:84:MET:HE3	3:U5:89:TYR:HB2	1.87	0.56
4:b5:223:PRO:O	4:b5:232:SER:OG	2.23	0.56
5:G0:169:GLU:OE1	5:G0:172:LYS:NZ	2.34	0.56
6:J0:68:GLN:N	6:J0:68:GLN:OE1	2.35	0.56
5:A1:43:GLN:NE2	5:G1:15:GLN:OE1	2.38	0.56
5:A1:140:TYR:OH	5:A1:142:MET:SD	2.62	0.56
5:G1:233:LYS:HE3	5:G1:240:SER:HB2	1.87	0.56
5:C2:257:TYR:HB3	5:C2:266:PHE:CE1	2.40	0.56
6:H2:45:ARG:NH1	6:J2:55:ASP:OD2	2.38	0.56
5:G3:63:ILE:HB	5:C3:82:HIS:CE1	2.40	0.56
5:G3:207:LEU:O	5:G3:210:SER:OG	2.21	0.56
5:G3:257:TYR:HB3	5:G3:266:PHE:CZ	2.40	0.56
5:A4:299:ASN:OD1	5:A4:300:ALA:N	2.38	0.56
6:J4:39:MET:HE1	6:J4:51:ASP:H	1.70	0.56
4:b:180:PRO:HA	4:b:219:TRP:CD2	2.40	0.56
1:f2:80:THR:HA	1:f2:89:TRP:HA	1.87	0.56
4:B2:226:LEU:HD23	4:B2:228:GLY:H	1.71	0.56
4:b2:369:SER:H	4:b2:372:GLN:HE21	1.52	0.56
1:f4:4:PHE:HB3	1:f4:9:ASP:HB2	1.87	0.56
3:U4:51:TYR:HD1	3:U4:61:TRP:HE1	1.54	0.56
4:b5:173:SER:HB3	4:b5:176:ARG:HG2	1.86	0.56
5:G0:74:THR:HB	5:G0:75:PRO:HD3	1.87	0.56
5:G0:154:MET:HE1	5:G0:328:LEU:HB3	1.88	0.56
6:J2:25:PRO:C	6:J2:46:LYS:HZ1	2.12	0.56
5:G3:258:VAL:HA	5:G3:263:LYS:HA	1.87	0.56
6:I3:26:GLY:HA3	6:I3:73:LEU:HG	1.87	0.56
6:J3:36:THR:HB	6:J3:62:LEU:HD21	1.87	0.56
3:U:106:VAL:HB	3:U:129:VAL:HG13	1.86	0.56
1:f2:100:SER:OG	2:w2:31:ARG:NH1	2.38	0.56
4:B3:179:ASN:OD1	4:B3:183:THR:N	2.38	0.56
4:B3:482:ARG:NH1	4:B3:484:ASP:OD2	2.39	0.56
4:B4:251:PHE:O	4:B4:255:MET:HG3	2.05	0.56
5:G1:239:VAL:HG12	5:G1:254:SER:H	1.70	0.56
5:A2:207:LEU:O	5:A2:210:SER:OG	2.22	0.56
5:C2:9:LEU:HB3	5:C2:97:ASP:HB3	1.87	0.56
5:C2:285:TYR:CD2	5:C2:302:ALA:HA	2.40	0.56
4:B:187:ARG:HH22	4:b5:210:GLY:HA2	1.70	0.56
4:B:214:TRP:HH2	5:G1:33:PRO:HB3	1.70	0.56
4:B1:81:ILE:HG21	4:B1:142:VAL:HG21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U2:79:GLU:OE1	3:U2:79:GLU:N	2.39	0.56
4:b2:154:GLN:NE2	4:b2:155:ALA:O	2.39	0.56
4:b2:194:GLN:HB2	4:b2:203:GLY:H	1.71	0.56
1:f3:80:THR:OG1	1:f3:81:LEU:N	2.39	0.56
4:B3:423:ARG:HH12	4:B3:427:LEU:H	1.54	0.56
4:b4:485:ASP:HB3	4:b4:488:GLU:CD	2.31	0.56
6:H0:99:ARG:HA	6:H0:109:ILE:HG21	1.88	0.56
5:C1:24:LEU:O	5:C1:283:ARG:NH1	2.38	0.56
6:J1:51:ASP:OD2	6:J1:53:THR:OG1	2.23	0.56
5:A2:72:GLU:OE2	6:H2:3:SER:N	2.36	0.56
5:G2:89:THR:O	5:G2:107:ARG:NH1	2.30	0.56
5:G2:157:SER:OG	5:G2:160:ASN:OD1	2.20	0.56
5:C2:154:MET:HE1	5:C2:328:LEU:HA	1.88	0.56
5:A3:269:ASP:OD1	5:A3:270:ASN:N	2.38	0.56
5:A4:29:ARG:HD3	5:A4:29:ARG:H	1.71	0.56
5:C4:39:VAL:H	5:C4:74:THR:HG22	1.71	0.56
1:f1:69:THR:HB	1:f1:73:ARG:HE	1.70	0.56
2:W2:2:THR:OG1	2:W2:5:GLU:OE2	2.23	0.56
4:B2:59:ARG:NH1	4:b2:27:GLY:O	2.39	0.56
1:f3:114:ASN:ND2	3:U4:28:ASP:O	2.39	0.56
3:U4:35:ASP:OD1	3:U4:36:GLU:N	2.37	0.56
4:b5:196:ASN:HD21	4:b5:200:ALA:HB3	1.70	0.56
4:b5:216:PRO:HA	5:C2:305:PRO:HG2	1.88	0.56
5:G0:192:SER:O	5:C0:15:GLN:NE2	2.39	0.56
5:G0:201:ASP:OD2	5:G0:271:THR:N	2.34	0.56
5:G0:226:SER:HB2	5:G0:245:TYR:HA	1.88	0.56
6:H0:2:THR:OG1	6:H0:3:SER:N	2.38	0.56
5:A1:66:ARG:HH11	5:G1:114:GLN:HE21	1.54	0.56
5:G1:156:ARG:HD2	5:G1:160:ASN:HB2	1.86	0.56
5:C2:92:ARG:NE	5:C2:93:LEU:O	2.37	0.56
5:A3:140:TYR:OH	5:A3:142:MET:SD	2.63	0.56
1:f:65:LEU:HD23	1:f:67:VAL:HB	1.88	0.56
4:b:180:PRO:O	4:b:183:THR:OG1	2.18	0.56
2:w1:27:GLN:HB3	2:W2:32:ARG:HG2	1.88	0.56
4:b1:48:ALA:O	4:B2:24:TYR:N	2.39	0.56
1:f2:26:SER:HA	1:f2:40:ARG:HA	1.87	0.56
2:W3:2:THR:O	2:W3:6:GLU:HG2	2.06	0.56
2:W3:22:ARG:HH12	2:W3:37:ALA:HA	1.71	0.56
3:U4:102:ILE:HD11	3:U4:105:MET:HB2	1.88	0.56
4:B4:223:PRO:O	4:B4:232:SER:OG	2.23	0.56
4:B4:380:MET:HE2	4:B4:385:ALA:HA	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b4:460:GLU:O	4:b4:463:GLU:HG3	2.06	0.56
4:B5:170:ARG:NH2	4:b5:198:SER:O	2.39	0.56
5:G1:331:ASP:OD2	5:C1:15:GLN:NE2	2.39	0.56
6:I1:94:ASP:HB3	6:I1:97:LYS:HG2	1.88	0.56
6:N1:83:TYR:N	6:N1:110:VAL:O	2.39	0.56
5:C2:32:TYR:HB2	5:C2:284:THR:HG22	1.87	0.56
6:J3:38:LEU:HA	6:J3:50:TRP:N	2.21	0.56
2:W3:23:VAL:HG21	2:W3:26:VAL:HG13	1.87	0.56
4:B3:67:ASN:HD21	4:B3:69:TYR:HB2	1.71	0.56
4:b3:435:PHE:HA	4:b3:442:TRP:CD1	2.40	0.56
3:U4:117:ASP:N	3:U4:117:ASP:OD1	2.37	0.56
4:B4:434:SER:N	4:B4:437:GLU:OE2	2.36	0.56
5:A0:103:ASP:OD1	5:A0:103:ASP:N	2.38	0.56
5:G0:239:VAL:HG23	5:G0:253:TYR:HA	1.87	0.56
5:C1:97:ASP:OD2	5:C1:99:GLN:NE2	2.31	0.56
6:J2:83:TYR:N	6:J2:110:VAL:O	2.38	0.56
5:C4:282:LEU:HB3	5:C4:284:THR:HG23	1.88	0.56
4:b1:493:GLN:NE2	4:B2:471:GLY:O	2.30	0.56
3:U4:84:MET:HA	3:U4:88:ILE:HD13	1.86	0.56
4:B4:81:ILE:HD12	4:B4:399:ARG:HB2	1.88	0.56
5:A0:63:ILE:HB	5:G0:82:HIS:NE2	2.21	0.56
5:G0:245:TYR:HB3	5:G0:248:VAL:HG13	1.88	0.56
5:A1:56:PRO:HB3	5:G1:77:TYR:CZ	2.40	0.56
6:I1:51:ASP:OD1	6:I1:52:GLY:N	2.39	0.56
5:G3:53:TYR:OH	5:C3:140:TYR:OH	2.24	0.56
6:J3:13:GLN:NE2	6:J3:15:ASN:O	2.31	0.56
5:G4:41:LEU:HB2	5:G4:71:SER:HB2	1.88	0.56
4:b:224:ARG:NH1	4:b:225:GLU:OE2	2.39	0.55
1:f1:83:ILE:N	1:f1:86:GLU:O	2.33	0.55
3:U2:83:TRP:HA	3:U2:87:ARG:HH11	1.70	0.55
4:B3:211:TYR:O	4:b3:187:ARG:NH1	2.39	0.55
4:b4:244:GLN:OE1	4:b4:245:THR:N	2.39	0.55
2:w5:61:ARG:NH2	6:I1:5:GLU:O	2.40	0.55
4:b5:144:MET:O	4:b5:148:ASN:HB2	2.06	0.55
5:C2:320:MET:HE3	5:C2:321:ILE:H	1.71	0.55
6:H3:105:THR:HG23	6:H3:107:ILE:H	1.70	0.55
4:B:196:ASN:OD1	4:B:200:ALA:N	2.38	0.55
4:b:467:LEU:HB3	4:b:473:SER:HB3	1.88	0.55
4:B1:226:LEU:N	4:B1:230:ARG:O	2.35	0.55
3:U4:16:ALA:HA	3:U4:19:LYS:HD2	1.87	0.55
4:B4:58:ALA:HB2	4:b4:42:SER:HB3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B4:196:ASN:HB3	4:B4:202:LEU:HD21	1.88	0.55
4:B4:301:GLN:HB2	6:I2:7:PHE:HB3	1.87	0.55
4:B5:163:ARG:NH1	4:B5:164:LEU:H	2.04	0.55
5:A0:174:ASP:OD2	5:A0:176:SER:OG	2.23	0.55
5:G0:159:GLU:HB2	5:G0:190:ASN:HD22	1.70	0.55
5:C0:247:ASP:OD1	5:C0:247:ASP:N	2.39	0.55
5:C0:270:ASN:HB3	5:C0:340:LEU:HB2	1.88	0.55
6:I0:95:GLU:OE2	6:I0:99:ARG:NE	2.39	0.55
5:A2:95:ASP:OD2	5:A2:110:ARG:NH2	2.39	0.55
6:N2:28:LEU:H	6:N2:28:LEU:HD23	1.71	0.55
5:G3:163:THR:HG23	5:G3:339:GLN:HB3	1.88	0.55
6:H3:20:HIS:ND1	6:H3:78:SER:OG	2.34	0.55
5:G4:257:TYR:HB3	5:G4:266:PHE:CZ	2.40	0.55
4:b:145:HIS:NE2	4:b:238:GLU:OE1	2.39	0.55
4:B1:211:TYR:O	4:b1:190:ARG:NH2	2.39	0.55
4:B5:493:GLN:NE2	4:b5:471:GLY:O	2.30	0.55
4:b5:63:LEU:O	4:b5:67:ASN:HB3	2.06	0.55
6:I0:39:MET:HA	6:I0:59:VAL:HG12	1.89	0.55
5:A2:237:LYS:NZ	5:A2:239:VAL:O	2.39	0.55
6:J2:42:THR:HA	6:J2:45:ARG:HH21	1.71	0.55
4:B:288:THR:O	4:B:292:MET:HG2	2.05	0.55
1:f1:30:THR:OG1	1:f1:80:THR:OG1	2.25	0.55
2:w2:38:THR:OG1	2:w2:42:ASP:OD2	2.24	0.55
4:b2:348:ASP:OD1	4:b2:351:TYR:N	2.39	0.55
4:B3:130:ARG:HE	4:b3:224:ARG:HH12	1.55	0.55
4:B3:329:LYS:HG3	4:b3:278:TYR:HE1	1.71	0.55
4:b3:129:GLU:OE1	4:b3:170:ARG:NH2	2.40	0.55
4:B4:370:TYR:OH	4:B4:376:ASN:ND2	2.37	0.55
4:b5:90:HIS:N	4:b5:112:GLU:OE2	2.38	0.55
5:A0:20:ASP:O	5:A0:253:TYR:OH	2.17	0.55
5:A0:104:PRO:HA	5:A0:107:ARG:HG2	1.88	0.55
5:C0:203:LYS:NZ	5:C0:270:ASN:OD1	2.36	0.55
6:J2:62:LEU:HD13	6:J2:73:LEU:HD12	1.89	0.55
5:A3:140:TYR:HB3	5:A3:152:VAL:HB	1.87	0.55
5:A3:169:GLU:HG2	5:A3:170:TRP:H	1.72	0.55
6:J3:9:HIS:CG	5:C4:88:MET:HE3	2.41	0.55
5:G4:182:ASP:OD1	5:G4:183:ASP:N	2.39	0.55
5:G4:201:ASP:OD2	5:G4:271:THR:N	2.35	0.55
3:U:40:PRO:HA	3:U:70:PHE:O	2.06	0.55
4:b1:506:LYS:NZ	4:b1:507:PRO:O	2.40	0.55
3:U2:108:SER:OG	3:U2:127:THR:O	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f3:6:ASN:OD1	1:f3:9:ASP:N	2.39	0.55
1:f3:54:GLN:HG2	1:f3:55:GLY:H	1.71	0.55
4:B3:492:GLN:OE1	4:B3:495:ARG:NH2	2.31	0.55
1:f5:28:THR:O	1:f5:82:THR:OG1	2.22	0.55
4:B5:77:HIS:HA	4:B5:396:PHE:HE1	1.71	0.55
4:b5:125:CYS:O	4:b5:168:GLN:NE2	2.38	0.55
5:C2:43:GLN:OE1	5:C2:43:GLN:N	2.40	0.55
5:C2:130:GLN:HG2	5:C2:327:MET:HB2	1.88	0.55
5:A3:3:MET:N	5:A3:3:MET:SD	2.80	0.55
5:A3:72:GLU:OE2	6:H3:2:THR:OG1	2.23	0.55
6:J3:10:TYR:CZ	6:J3:12:PRO:HG3	2.42	0.55
5:A4:140:TYR:OH	5:A4:142:MET:SD	2.55	0.55
5:G4:32:TYR:HB2	5:G4:284:THR:HG22	1.89	0.55
5:G4:233:LYS:HZ3	5:G4:241:TYR:H	1.53	0.55
4:B:179:ASN:ND2	4:B:183:THR:OG1	2.40	0.55
4:B:501:ARG:O	4:B:501:ARG:NH1	2.32	0.55
4:b:170:ARG:NH2	4:B1:198:SER:O	2.40	0.55
4:b1:161:SER:HA	4:b1:166:ARG:HE	1.72	0.55
4:b1:211:TYR:O	4:B2:190:ARG:NH2	2.35	0.55
2:w2:14:LEU:HD22	2:w2:43:LEU:HD13	1.87	0.55
4:b3:456:ASP:OD2	4:b3:459:LYS:NZ	2.28	0.55
1:f4:52:ALA:HB3	1:f4:56:VAL:HB	1.87	0.55
2:w4:32:ARG:HH12	2:W5:32:ARG:HD3	1.72	0.55
4:b4:459:LYS:O	4:b4:462:GLN:NE2	2.38	0.55
5:G0:28:PHE:HB3	5:G0:283:ARG:HG3	1.89	0.55
5:G0:257:TYR:HB3	5:G0:266:PHE:CZ	2.41	0.55
6:J0:82:ARG:NH2	5:G1:62:VAL:O	2.40	0.55
5:A1:256:GLN:HB3	5:A1:263:LYS:HD2	1.89	0.55
6:H2:33:PRO:O	6:H2:36:THR:OG1	2.20	0.55
6:N2:35:MET:SD	6:N2:86:VAL:HA	2.47	0.55
5:A3:40:TYR:N	5:G3:8:GLN:O	2.33	0.55
5:A4:54:VAL:HG13	5:G4:79:LYS:HZ3	1.72	0.55
4:B:78:GLN:NE2	4:B:139:ARG:O	2.40	0.55
3:U1:52:THR:OG1	3:U1:54:GLU:OE1	2.24	0.55
4:B2:226:LEU:HD13	4:B2:230:ARG:HH11	1.71	0.55
4:b2:262:ASP:OD1	4:b2:265:GLN:NE2	2.38	0.55
4:b2:468:ILE:HD11	4:b2:478:GLU:HG3	1.89	0.55
4:B3:132:ARG:HD2	4:b3:239:PRO:HG2	1.88	0.55
4:b3:127:ASP:HB3	4:b3:137:MET:HE1	1.87	0.55
5:G1:38:LYS:HG3	5:C1:7:ALA:HB2	1.88	0.55
5:G1:284:THR:HG23	5:G1:326:LEU:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:80:THR:OG1	1:f:88:PHE:O	2.23	0.55
2:W1:17:LEU:HD21	2:W1:22:ARG:HD2	1.88	0.55
4:b1:196:ASN:OD1	4:b1:200:ALA:N	2.39	0.55
4:B3:460:GLU:OE1	4:B3:460:GLU:N	2.31	0.55
1:f4:58:VAL:HG21	3:U4:121:TRP:HD1	1.72	0.55
4:B4:505:LEU:HG	4:b4:510:TRP:HB2	1.89	0.55
5:A1:43:GLN:NE2	5:A1:44:ILE:O	2.40	0.55
6:H4:51:ASP:OD2	6:H4:53:THR:OG1	2.18	0.55
4:B:187:ARG:NH2	4:b5:209:ASP:O	2.39	0.55
4:b:195:ILE:HG22	4:b:201:ALA:HA	1.89	0.55
4:B1:134:PHE:O	4:B1:138:ILE:HG12	2.07	0.55
4:b2:505:LEU:HB2	4:B3:510:TRP:HD1	1.71	0.55
4:b4:463:GLU:HA	4:b4:466:MET:HG2	1.89	0.55
4:b5:140:GLU:O	4:b5:144:MET:HG3	2.07	0.55
5:A0:169:GLU:H	5:A0:169:GLU:CD	2.14	0.55
5:G1:52:LEU:H	5:G1:52:LEU:HD12	1.71	0.55
6:I2:92:ALA:O	6:I2:98:LYS:NZ	2.39	0.55
5:G3:37:GLU:OE1	5:C3:6:THR:OG1	2.23	0.55
5:G3:244:MET:HG3	5:G3:246:GLY:H	1.71	0.55
5:C3:119:GLU:OE2	5:C3:319:THR:OG1	2.24	0.55
6:J3:95:GLU:OE2	6:J3:99:ARG:NH1	2.40	0.55
5:A4:46:GLY:HA2	5:A4:66:ARG:HH12	1.72	0.55
3:U:110:TYR:OH	3:U:112:TYR:OH	2.22	0.55
4:b:474:THR:HG22	4:b:477:LYS:HG2	1.89	0.55
4:b1:252:TYR:CZ	4:B2:24:TYR:HB2	2.42	0.55
1:f3:63:PRO:HG2	1:f3:105:LEU:HB2	1.89	0.55
5:G0:258:VAL:HA	5:G0:263:LYS:HA	1.89	0.55
5:C0:71:SER:HB3	6:N4:4:LYS:HZ2	1.71	0.55
5:C1:196:ASN:HA	5:C1:248:VAL:HG12	1.87	0.55
5:G3:174:ASP:OD2	5:G3:176:SER:OG	2.23	0.55
4:b2:53:PHE:O	4:b2:57:ASN:ND2	2.39	0.54
4:b3:59:ARG:NH2	4:B4:38:TRP:O	2.41	0.54
4:B4:89:SER:OG	4:B4:91:ARG:NH1	2.40	0.54
4:b4:180:PRO:O	4:b4:183:THR:OG1	2.20	0.54
5:A0:96:GLU:OE2	5:A0:102:ALA:N	2.40	0.54
5:A0:176:SER:HA	5:A0:212:LYS:HB2	1.87	0.54
5:G0:108:ARG:HD2	5:C1:294:GLN:HG3	1.88	0.54
5:C0:130:GLN:HG2	5:C0:327:MET:HB2	1.89	0.54
5:A2:72:GLU:OE2	6:H2:2:THR:OG1	2.22	0.54
5:A2:290:ASP:OD1	5:A2:292:ASP:N	2.39	0.54
5:C2:44:ILE:HD12	5:C2:45:PRO:HD2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J2:68:GLN:OE1	6:J2:68:GLN:N	2.38	0.54
5:A4:3:MET:SD	5:A4:3:MET:N	2.80	0.54
5:A4:35:THR:HG23	5:A4:36:THR:HG23	1.90	0.54
5:G4:62:VAL:HB	5:C4:82:HIS:HA	1.88	0.54
4:b2:254:VAL:HG21	4:b2:362:ILE:HA	1.88	0.54
4:b3:496:GLU:OE2	4:B4:475:TYR:N	2.40	0.54
1:f4:34:GLN:HE22	1:f4:74:GLN:HG2	1.71	0.54
4:B4:196:ASN:OD1	4:B4:200:ALA:N	2.40	0.54
4:b4:67:ASN:OD1	4:b4:70:ALA:N	2.32	0.54
4:b4:179:ASN:ND2	4:b4:183:THR:O	2.40	0.54
1:f5:92:ARG:HG2	1:f5:104:TRP:HB2	1.88	0.54
5:C0:69:SER:HA	6:N4:6:THR:HA	1.90	0.54
5:G1:74:THR:OG1	5:G1:75:PRO:HD3	2.07	0.54
6:J1:24:ALA:HB3	6:J1:47[B]:LEU:HD11	1.88	0.54
5:A2:3:MET:N	5:A2:3:MET:SD	2.80	0.54
5:G2:195:VAL:HG21	5:G2:274:LEU:HB3	1.88	0.54
5:G3:329:LEU:HD11	5:G3:332:PRO:HA	1.89	0.54
6:H3:15:ASN:HD22	6:H3:17:ASP:H	1.54	0.54
6:J4:95:GLU:OE2	6:J4:99:ARG:NE	2.40	0.54
6:N4:67:ASP:O	6:N4:70:SER:OG	2.25	0.54
4:b:255:MET:SD	4:b:255:MET:N	2.78	0.54
1:f1:16:ASP:HA	1:f1:19:ILE:HG12	1.89	0.54
4:b1:88:LEU:HD11	4:b1:445:CYS:HB2	1.89	0.54
4:B2:488:GLU:OE1	4:B2:488:GLU:N	2.40	0.54
4:b2:208:GLU:OE2	4:b2:218:LYS:N	2.33	0.54
4:b2:293:ASP:HA	4:b2:298:ALA:HB3	1.89	0.54
4:b2:301:GLN:CD	4:b2:301:GLN:H	2.16	0.54
1:f3:80:THR:HA	1:f3:89:TRP:HA	1.90	0.54
4:b3:211:TYR:O	4:B4:187:ARG:NH2	2.40	0.54
2:w4:32:ARG:HH12	2:W5:32:ARG:HH11	1.53	0.54
4:B4:62:ASP:OD1	4:B4:66:ASN:ND2	2.40	0.54
4:B4:244:GLN:OE1	4:B4:245:THR:N	2.40	0.54
5:A0:64:ARG:HG3	6:H0:11:GLN:NE2	2.22	0.54
5:C0:269:ASP:OD1	5:C0:270:ASN:N	2.40	0.54
5:G1:159:GLU:HB3	5:G1:190:ASN:HD22	1.71	0.54
6:I3:67:ASP:O	6:I3:70:SER:OG	2.24	0.54
6:I3:71:THR:HG23	6:I3:72:THR:HG22	1.87	0.54
5:A4:30:GLU:OE2	5:A4:281:GLY:N	2.34	0.54
4:b1:298:ALA:HA	4:b1:323:VAL:HG22	1.89	0.54
4:b4:33:GLY:O	4:b4:35:LEU:N	2.40	0.54
4:b5:467:LEU:HD23	4:b5:472:LEU:HD21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:201:ASP:OD2	5:A0:203:LYS:HG2	2.06	0.54
5:A1:79:LYS:HA	5:A1:320:MET:HE1	1.88	0.54
5:A1:170:TRP:HE1	5:A1:340:LEU:HD22	1.73	0.54
5:C1:133:SER:HA	5:C1:136:LEU:HD23	1.90	0.54
6:N1:39:MET:HE1	6:N1:51:ASP:H	1.71	0.54
5:G2:304:TYR:HB3	5:G2:322:GLN:HB3	1.90	0.54
6:N3:51:ASP:OD2	6:N3:53:THR:OG1	2.25	0.54
5:A4:39:VAL:H	5:A4:74:THR:HG22	1.71	0.54
5:C4:160:ASN:ND2	5:C4:333:ASP:OD1	2.31	0.54
4:B:434:SER:OG	4:B:437:GLU:OE1	2.18	0.54
4:B:475:TYR:N	4:b5:496:GLU:OE2	2.38	0.54
1:f2:97:ASP:OD2	2:w2:31:ARG:NH2	2.41	0.54
4:b2:152:PHE:HB2	4:b2:172:VAL:HG13	1.89	0.54
3:U5:115:ASP:HB3	3:U5:119:GLY:HA2	1.90	0.54
4:B5:237:PHE:O	4:B5:406:ARG:NH2	2.33	0.54
5:A1:34:PHE:HB2	5:A1:286:GLY:HA2	1.88	0.54
5:G1:148:ASP:N	5:G1:148:ASP:OD1	2.40	0.54
6:H1:74:THR:HG21	5:C2:146:ALA:HB2	1.90	0.54
6:J1:7:PHE:H	5:G2:68:GLY:HA2	1.72	0.54
6:J2:41:ASP:OD2	6:J2:44:SER:N	2.31	0.54
5:A4:38:LYS:HB3	5:G4:7:ALA:HA	1.90	0.54
5:G4:34:PHE:CE1	5:G4:284:THR:HB	2.42	0.54
5:C4:310:THR:HG23	5:C4:318:PHE:HE1	1.72	0.54
4:B:420:ILE:HG13	4:B:427:LEU:HD21	1.90	0.54
4:B2:61:ASP:HA	4:B2:64:VAL:HG22	1.90	0.54
4:b3:167:THR:OG1	4:b3:418:GLU:OE1	2.21	0.54
4:b3:340:ASN:O	4:b3:342:GLN:NE2	2.41	0.54
4:B4:129:GLU:OE1	4:B4:131:LYS:N	2.40	0.54
5:G0:52:LEU:H	5:G0:52:LEU:HD12	1.73	0.54
5:G0:237:LYS:HG2	5:G0:238:ALA:H	1.71	0.54
5:C0:241:TYR:HD1	5:C0:251:VAL:HG13	1.73	0.54
5:A1:24:LEU:O	5:A1:283:ARG:NH2	2.41	0.54
6:N1:67:ASP:O	6:N1:70:SER:OG	2.23	0.54
6:N1:82:ARG:HD2	5:C2:64:ARG:HE	1.72	0.54
5:G2:108:ARG:HD2	5:C3:294:GLN:HG3	1.90	0.54
5:C3:288:ILE:HD12	5:C3:322:GLN:HG3	1.89	0.54
5:G4:73:PHE:HB2	5:G4:326:LEU:HD21	1.90	0.54
4:b:154:GLN:NE2	4:b:156:THR:OG1	2.41	0.54
4:b1:55:ARG:NH2	4:B2:39:ASN:OD1	2.40	0.54
3:U2:40:PRO:HG3	3:U2:72:PRO:HD3	1.90	0.54
3:U2:117:ASP:O	3:U2:119:GLY:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f3:88:PHE:HB3	1:f3:105:LEU:HD12	1.89	0.54
4:B3:176:ARG:HH21	4:B3:208:GLU:HA	1.72	0.54
4:B3:446:ASP:N	4:B3:446:ASP:OD1	2.41	0.54
4:b3:122:ASP:OD1	4:B4:440:SER:OG	2.25	0.54
4:b3:187:ARG:O	4:b3:190:ARG:NH1	2.40	0.54
4:b5:244:GLN:HE21	4:b5:247:GLY:HA2	1.73	0.54
5:A1:3:MET:SD	5:A1:3:MET:N	2.80	0.54
6:N1:80:THR:HG22	6:N1:108:SER:HB2	1.90	0.54
5:G2:169:GLU:H	5:G2:169:GLU:CD	2.16	0.54
5:G2:232:VAL:HG23	5:G2:242:LYS:HE3	1.89	0.54
5:G3:40:TYR:HB2	5:C3:9:LEU:HB2	1.89	0.54
5:G3:154:MET:HB3	5:G3:332:PRO:HB3	1.90	0.54
5:G3:282:LEU:HD12	5:G3:328:LEU:HD23	1.88	0.54
5:G4:96:GLU:OE2	5:G4:102:ALA:N	2.34	0.54
5:C4:168:THR:OG1	5:C4:173:ARG:NH1	2.41	0.54
6:I4:102:PHE:HD2	6:I4:109:ILE:HD11	1.72	0.54
2:W1:4:GLN:OE1	2:W1:54:THR:OG1	2.24	0.54
4:b1:196:ASN:ND2	4:b1:198:SER:OG	2.34	0.54
4:B3:358:LEU:O	4:B3:362:ILE:HG12	2.08	0.54
4:B3:458:LEU:HD22	4:b3:462:GLN:HE21	1.72	0.54
4:B4:145:HIS:HE1	4:B4:237:PHE:HA	1.72	0.54
4:b4:207:SER:OG	4:b4:217:GLN:OE1	2.26	0.54
4:B5:460:GLU:OE1	4:B5:460:GLU:N	2.31	0.54
5:G0:104:PRO:HB2	5:C1:294:GLN:NE2	2.23	0.54
6:J0:22:ALA:HB2	6:J0:77:LYS:HD2	1.90	0.54
5:G1:25:ARG:NH2	5:G1:241:TYR:OH	2.41	0.54
5:C1:288:ILE:HD13	5:C1:322:GLN:HB3	1.90	0.54
5:A2:156:ARG:HD2	5:A2:160:ASN:HB2	1.88	0.54
5:C2:237:LYS:HG2	5:C2:238:ALA:H	1.72	0.54
6:J2:19:ALA:HB3	5:C3:314:PRO:HG3	1.89	0.54
6:N2:84:GLU:OE2	5:C3:64:ARG:NH2	2.40	0.54
5:A3:239:VAL:HA	5:A3:252:VAL:O	2.07	0.54
5:G3:108:ARG:HH12	5:C4:295:ARG:HA	1.72	0.54
5:C3:30:GLU:OE1	5:C3:30:GLU:N	2.40	0.54
5:A4:174:ASP:HB3	5:A4:177:THR:HG22	1.89	0.54
5:C4:8:GLN:NE2	5:C4:9:LEU:O	2.40	0.54
3:U:114:ARG:HE	3:U1:30:ARG:HG2	1.73	0.54
4:B:63:LEU:HD11	4:B:258:MET:HG2	1.90	0.54
4:B1:346:ASP:HA	4:b1:349:ASN:HB2	1.90	0.54
4:b2:121:ASP:OD1	4:B3:440:SER:OG	2.24	0.54
4:b3:334:MET:HE3	4:b3:335:PRO:HD2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b4:348:ASP:HB2	4:B5:354:PHE:HB2	1.90	0.54
2:w5:42:ASP:HA	2:w5:45:LYS:HG2	1.89	0.54
5:G0:40:TYR:HB2	5:C0:9:LEU:HB2	1.89	0.54
5:G0:223:GLY:HA3	5:C0:218:LEU:HD13	1.90	0.54
5:A1:80:PRO:HG2	5:A1:321:ILE:HG23	1.89	0.54
5:A1:201:ASP:OD1	5:A1:203:LYS:N	2.40	0.54
5:C1:28:PHE:HB2	5:C1:283:ARG:NH1	2.22	0.54
5:G2:222:ARG:NH1	5:C2:218:LEU:O	2.41	0.54
5:C2:196:ASN:HA	5:C2:248:VAL:HG22	1.89	0.54
6:J2:25:PRO:O	6:J2:46:LYS:NZ	2.31	0.54
5:A3:29:ARG:HD3	5:A3:29:ARG:H	1.72	0.54
5:G3:265:ASN:ND2	5:G3:267:LEU:O	2.41	0.54
5:G4:52:LEU:HG	5:G4:53:TYR:CD2	2.42	0.54
2:W:14:LEU:HD12	2:W:43:LEU:HD22	1.90	0.54
3:U:40:PRO:HB3	3:U:71:LEU:HA	1.90	0.54
4:b:333:LEU:HB2	4:b:337:ASP:HB2	1.90	0.54
4:b1:67:ASN:HD21	4:b1:69:TYR:HB2	1.73	0.54
4:B2:234:ILE:HD13	4:B2:410:GLN:HB3	1.89	0.54
4:B3:386:ARG:HH12	4:B3:390:ASN:HB3	1.72	0.54
4:b3:67:ASN:HD21	4:b3:69:TYR:HB2	1.73	0.54
2:W4:27:GLN:OE1	2:w4:32:ARG:N	2.40	0.54
3:U5:65:LEU:HD23	3:U5:130:ILE:HD11	1.90	0.54
5:G0:46:GLY:HA3	5:C0:16:LYS:HE2	1.89	0.54
6:H0:26:GLY:HA2	6:H0:47[A]:LEU:HB2	1.88	0.54
5:A1:146:ALA:HB2	6:N1:74:THR:HG21	1.90	0.54
5:G2:18:LYS:HZ2	5:G2:255:GLY:HA2	1.73	0.54
5:A3:28:PHE:HD1	5:A3:281:GLY:HA3	1.73	0.54
5:C4:103:ASP:OD1	5:C4:106:TYR:N	2.34	0.54
2:W:63:PRO:HA	4:b5:331:PRO:HA	1.89	0.53
4:B:36:ARG:HH21	4:b4:322:PRO:HB3	1.72	0.53
4:b1:166:ARG:HG3	4:b1:422:ARG:HH12	1.73	0.53
4:B2:196:ASN:OD1	4:B2:200:ALA:N	2.40	0.53
3:U5:53:GLY:O	3:U5:54:GLU:HG3	2.08	0.53
6:N0:2:THR:HG21	5:C1:152:VAL:HA	1.90	0.53
5:G1:247:ASP:HB2	5:C1:233:LYS:HD3	1.89	0.53
5:C2:195:VAL:HG11	5:C2:274:LEU:HB3	1.90	0.53
6:J2:7:PHE:H	5:G3:68:GLY:CA	2.21	0.53
6:J2:7:PHE:H	5:G3:68:GLY:HA2	1.73	0.53
5:G3:44:ILE:HG22	5:G3:66:ARG:HD2	1.90	0.53
6:J3:9:HIS:ND1	5:G4:65:SER:OG	2.34	0.53
5:G4:148:ASP:N	5:G4:148:ASP:OD1	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G4:253:TYR:CZ	5:G4:255:GLY:HA3	2.43	0.53
2:w:6:GLU:OE2	2:w:46:TYR:OH	2.27	0.53
4:B2:78:GLN:O	4:B2:139:ARG:NH1	2.41	0.53
4:B2:180:PRO:HA	4:B2:219:TRP:CD2	2.44	0.53
3:U3:134:MET:N	3:U3:134:MET:SD	2.81	0.53
5:A1:256:GLN:HG2	5:A1:265:ASN:HA	1.90	0.53
6:N1:11:GLN:NE2	5:C2:65:SER:OG	2.41	0.53
5:G2:259:GLU:HG3	5:G2:260:ASN:H	1.72	0.53
5:A4:194:VAL:O	5:A4:276:ASN:ND2	2.42	0.53
5:C4:85:ASN:O	5:C4:88:MET:HG2	2.08	0.53
3:U:47:THR:OG1	3:U:64:GLU:OE1	2.25	0.53
2:w3:61:ARG:HH21	4:b3:320:ALA:H	1.55	0.53
4:b3:214:TRP:CG	5:G3:301:SER:HB3	2.44	0.53
5:G0:41:LEU:HD23	5:G0:73:PHE:HE2	1.73	0.53
5:C0:64:ARG:HD2	6:N4:82:ARG:HD3	1.90	0.53
5:C1:326:LEU:O	5:C1:328:LEU:HG	2.08	0.53
5:C3:205:TRP:HH2	5:C3:228:LEU:HD21	1.72	0.53
6:N3:13:GLN:O	5:C4:64:ARG:NH2	2.38	0.53
5:A4:309:VAL:HA	5:A4:317:GLU:HA	1.91	0.53
5:A4:313:ASP:OD1	5:A4:313:ASP:N	2.26	0.53
5:G4:160:ASN:HA	5:G4:336:VAL:HG12	1.91	0.53
5:G4:195:VAL:HG21	5:G4:274:LEU:HG	1.90	0.53
5:G4:237:LYS:HG2	5:G4:238:ALA:H	1.73	0.53
5:C4:77:TYR:HE2	5:C4:79:LYS:HD2	1.74	0.53
5:C4:87:GLN:OE1	5:C4:87:GLN:N	2.36	0.53
1:f1:115:ARG:HG2	3:U2:27:PHE:HE1	1.74	0.53
4:b1:293:ASP:HA	4:b1:298:ALA:HB3	1.90	0.53
2:W2:28:LYS:NZ	2:W2:29:ASP:OD1	2.31	0.53
4:B2:152:PHE:HB3	4:B2:233:PHE:CZ	2.44	0.53
4:B2:292:MET:O	4:B2:297:GLY:N	2.38	0.53
4:B2:332:HIS:HA	4:b2:282:ILE:HG13	1.90	0.53
6:J0:80:THR:HA	6:J0:108:SER:O	2.08	0.53
5:G1:61:GLU:OE1	5:G1:61:GLU:N	2.41	0.53
5:G1:219:ASP:OD1	5:G1:219:ASP:N	2.31	0.53
5:A2:169:GLU:H	5:A2:169:GLU:CD	2.13	0.53
5:C2:34:PHE:HD2	5:C2:286:GLY:HA2	1.73	0.53
6:I2:50:TRP:CZ2	6:I2:52:GLY:HA2	2.44	0.53
5:G4:124:ALA:O	5:G4:127:GLU:HG2	2.09	0.53
6:H4:95:GLU:OE2	6:H4:99:ARG:NE	2.41	0.53
4:B:179:ASN:ND2	4:B:184:GLY:O	2.41	0.53
4:B:460:GLU:OE1	4:B:460:GLU:N	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:460:GLU:O	4:b:463:GLU:HG2	2.08	0.53
3:U1:62:GLN:HG3	3:U1:131:THR:HG22	1.90	0.53
3:U2:77:ASP:HA	3:U2:80:LEU:HD13	1.91	0.53
3:U2:102:ILE:HD11	3:U2:105:MET:HB2	1.91	0.53
4:B4:226:LEU:HD12	4:B4:230:ARG:HB3	1.91	0.53
4:B4:244:GLN:OE1	4:B4:246:ARG:N	2.31	0.53
4:b4:343:THR:HA	4:B5:345:GLN:HG2	1.89	0.53
4:b4:395:TYR:OH	4:b4:399:ARG:NH1	2.42	0.53
4:B5:488:GLU:OE1	4:B5:488:GLU:N	2.42	0.53
5:A1:168:THR:OG1	5:A1:168:THR:O	2.24	0.53
5:C1:125:GLN:HE22	5:C1:258:VAL:H	1.55	0.53
5:G2:34:PHE:CZ	5:G2:284:THR:HB	2.43	0.53
5:G2:43:GLN:NE2	5:C2:14:GLU:O	2.42	0.53
5:C2:308:TRP:HZ3	5:C2:320:MET:HB2	1.73	0.53
5:A3:182:ASP:OD1	5:A3:183:ASP:N	2.42	0.53
5:C3:142:MET:HE2	5:C3:147:PHE:CZ	2.43	0.53
5:A4:303:ARG:HB3	5:A4:321:ILE:HD11	1.90	0.53
4:B:105:ARG:HH11	4:b5:495:ARG:HH12	1.57	0.53
4:b1:58:ALA:HB2	4:B2:42:SER:HB3	1.90	0.53
2:w2:63:PRO:HA	4:B2:331:PRO:HA	1.91	0.53
4:b2:342:GLN:O	4:B3:275:LYS:NZ	2.38	0.53
1:f3:89:TRP:HB2	1:f3:110:PRO:HG3	1.90	0.53
4:b3:180:PRO:HA	4:b3:219:TRP:CG	2.43	0.53
2:w4:18:MET:HA	2:W5:38:THR:HG21	1.91	0.53
4:b4:72:ASN:OD1	4:b4:375:ARG:NH2	2.41	0.53
5:C0:201:ASP:CG	5:C0:271:THR:H	2.16	0.53
5:C1:95:ASP:OD2	5:C1:110:ARG:NH1	2.42	0.53
6:N1:83:TYR:HA	6:N1:109:ILE:HD11	1.90	0.53
5:C3:28:PHE:CD1	5:C3:281:GLY:HA3	2.42	0.53
5:C3:168:THR:OG1	5:C3:168:THR:O	2.23	0.53
6:N3:38:LEU:HG	6:N3:49:ALA:HA	1.91	0.53
5:C4:22:LEU:HD12	5:C4:25:ARG:HE	1.74	0.53
5:C4:34:PHE:HB2	5:C4:286:GLY:HA2	1.90	0.53
5:C4:171:SER:O	5:C4:175:LYS:NZ	2.28	0.53
5:C4:198:ILE:HG23	5:C4:272:MET:HE1	1.90	0.53
4:b:467:LEU:HD12	4:b:472:LEU:HB2	1.91	0.53
4:B1:171:MET:SD	4:B1:171:MET:N	2.70	0.53
2:w2:25:THR:HG23	2:w2:34:GLU:HB3	1.90	0.53
4:B3:180:PRO:HA	4:B3:219:TRP:CD2	2.44	0.53
3:U4:36:GLU:HA	3:U4:39:PHE:HE2	1.73	0.53
4:b5:356:GLN:HE21	4:b5:360:ARG:NH2	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b5:446:ASP:OD1	4:b5:446:ASP:N	2.40	0.53
5:A0:62:VAL:O	6:H0:82:ARG:NH2	2.39	0.53
5:C0:194:VAL:O	5:C0:276:ASN:ND2	2.35	0.53
5:G1:144:GLY:H	5:G1:147:PHE:HD2	1.55	0.53
5:G2:245:TYR:HB2	5:G2:250:ILE:HD11	1.90	0.53
5:C2:169:GLU:H	5:C2:169:GLU:CD	2.17	0.53
6:H4:99:ARG:HD3	6:H4:109:ILE:HD13	1.91	0.53
1:f2:68:ARG:NH2	1:f2:71:GLU:OE2	2.41	0.53
2:W2:61:ARG:H	4:B2:288:THR:HG21	1.73	0.53
3:U2:84:MET:HG2	3:U2:110:TYR:CE1	2.44	0.53
2:w3:61:ARG:H	4:b3:288:THR:HG21	1.74	0.53
4:B4:67:ASN:OD1	4:B4:70:ALA:N	2.33	0.53
2:w5:29:ASP:N	2:w5:29:ASP:OD1	2.41	0.53
5:A0:31:SER:HA	5:A0:283:ARG:HB2	1.91	0.53
5:C1:77:TYR:HE2	5:C1:79:LYS:HE3	1.72	0.53
6:N1:15:ASN:HD21	5:C2:59:SER:HB3	1.74	0.53
5:A2:257:TYR:HB3	5:A2:266:PHE:CZ	2.43	0.53
5:G2:198:ILE:HD12	5:G2:274:LEU:HG	1.90	0.53
5:A3:227:GLU:N	5:A3:244:MET:O	2.39	0.53
6:H3:10:TYR:CZ	6:H3:12:PRO:HG3	2.43	0.53
5:A4:96:GLU:OE2	5:A4:102:ALA:N	2.42	0.53
5:G4:258:VAL:HA	5:G4:263:LYS:HA	1.90	0.53
4:B:330:VAL:HG23	4:b:281:THR:HA	1.90	0.53
2:w3:2:THR:OG1	2:w3:5:GLU:OE2	2.26	0.53
4:B3:129:GLU:HG3	4:B3:131:LYS:HE2	1.90	0.53
4:b5:83:GLY:O	4:b5:139:ARG:NH1	2.41	0.53
6:H0:55:ASP:HB2	6:I0:45:ARG:HH21	1.74	0.53
5:A1:198:ILE:HG22	5:A1:272:MET:HE1	1.91	0.53
5:G1:29:ARG:NH1	5:G1:277:THR:O	2.36	0.53
5:G1:159:GLU:OE1	5:G1:159:GLU:N	2.42	0.53
5:A2:313:ASP:OD1	5:A2:313:ASP:N	2.28	0.53
6:N2:26:GLY:N	6:N2:71:THR:O	2.33	0.53
5:A3:237:LYS:HG2	5:A3:238:ALA:H	1.73	0.53
5:C3:28:PHE:O	5:C3:283:ARG:NH2	2.42	0.53
6:J3:4:LYS:NZ	5:G4:153:ASP:OD2	2.40	0.53
4:B:380:MET:SD	4:B:384:THR:OG1	2.57	0.53
4:b:26:GLY:N	4:b5:66:ASN:OD1	2.39	0.53
1:f1:63:PRO:HB2	1:f1:105:LEU:HB2	1.91	0.53
1:f1:69:THR:HA	1:f1:72:VAL:HG22	1.91	0.53
4:B2:134:PHE:CZ	4:B2:138:ILE:HD11	2.43	0.53
4:B3:436:GLN:O	4:B3:439:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:232:VAL:HG22	5:C0:234:ASP:H	1.74	0.53
5:C1:256:GLN:HA	5:C1:265:ASN:HA	1.90	0.53
5:G2:79:LYS:HB3	5:G2:322:GLN:OE1	2.09	0.53
5:C2:24:LEU:O	5:C2:283:ARG:NH2	2.42	0.53
6:H2:55:ASP:HB3	6:I2:45:ARG:NH2	2.24	0.53
5:A3:59:SER:OG	5:A3:60:GLY:N	2.42	0.53
5:A3:169:GLU:H	5:A3:169:GLU:CD	2.17	0.53
5:G4:41:LEU:HD12	5:C4:11:ALA:HB3	1.90	0.53
5:G4:207:LEU:O	5:G4:210:SER:OG	2.18	0.53
5:G4:218:LEU:HD11	5:G4:228:LEU:HB2	1.90	0.53
6:N4:80:THR:HG22	6:N4:108:SER:HB2	1.90	0.53
4:B1:279:ALA:O	4:B1:342:GLN:N	2.39	0.52
4:b1:291:ALA:O	4:b1:295:ILE:HG22	2.10	0.52
2:w2:5:GLU:OE1	2:w2:5:GLU:N	2.34	0.52
1:f3:29:ILE:HD13	1:f3:34:GLN:HB2	1.92	0.52
4:b3:125:CYS:HA	4:b3:130:ARG:HD2	1.91	0.52
4:b3:131:LYS:NZ	4:B4:244:GLN:O	2.34	0.52
1:f4:115:ARG:HD2	3:U5:27:PHE:HE1	1.74	0.52
4:B4:133:THR:H	4:B4:136:MET:HB2	1.74	0.52
4:B4:341:LEU:HD11	4:b4:344:ALA:HA	1.91	0.52
4:b5:401:LYS:O	4:b5:405:SER:OG	2.27	0.52
5:A0:292:ASP:HA	5:A0:295:ARG:HH11	1.74	0.52
5:C0:169:GLU:OE1	5:C0:169:GLU:N	2.31	0.52
5:A2:39:VAL:HG12	5:A2:74:THR:HG22	1.90	0.52
5:A2:64:ARG:NH2	6:H2:84:GLU:OE2	2.42	0.52
5:G2:104:PRO:HA	5:G2:107:ARG:HG2	1.91	0.52
5:G3:106:TYR:OH	5:G3:110:ARG:NH2	2.40	0.52
5:G3:206:ALA:HA	5:G3:209:ARG:HE	1.74	0.52
6:H3:108:SER:OG	6:I3:77:LYS:NZ	2.27	0.52
5:A4:156:ARG:NH1	5:A4:161:ASN:OD1	2.42	0.52
4:B1:123:CYS:SG	4:B1:125:CYS:N	2.69	0.52
3:U3:53:GLY:O	3:U3:60:THR:OG1	2.23	0.52
4:b4:356:GLN:OE1	4:b4:370:TYR:OH	2.27	0.52
1:f5:4:PHE:HD2	1:f5:6:ASN:HB3	1.74	0.52
5:G2:81:LYS:O	5:G2:82:HIS:ND1	2.41	0.52
6:I2:83:TYR:N	6:I2:110:VAL:O	2.42	0.52
5:A4:256:GLN:HA	5:A4:265:ASN:HA	1.90	0.52
5:G4:239:VAL:HG23	5:G4:253:TYR:HA	1.90	0.52
6:H4:42:THR:HA	6:H4:45:ARG:HH22	1.74	0.52
1:f:34:GLN:HE22	1:f:74:GLN:HG2	1.74	0.52
1:f:80:THR:HA	1:f:89:TRP:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:50:LEU:HA	4:b:53:PHE:HB2	1.91	0.52
4:b1:48:ALA:HB1	4:B2:24:TYR:HA	1.91	0.52
4:b2:87:ARG:HB3	4:b2:448:ILE:HG23	1.89	0.52
4:b2:448:ILE:HD12	4:b2:480:ALA:HA	1.91	0.52
4:b3:93:SER:OG	4:b3:444:ASN:OD1	2.19	0.52
3:U5:50:GLU:N	3:U5:50:GLU:OE1	2.41	0.52
4:b5:281:THR:OG1	4:b5:340:ASN:OD1	2.22	0.52
5:C1:247:ASP:OD1	5:C1:247:ASP:N	2.39	0.52
5:A3:38:LYS:HB3	5:G3:7:ALA:HA	1.91	0.52
5:G3:33:PRO:HB2	5:G3:300:ALA:HB1	1.91	0.52
5:C3:22:LEU:HG	5:C3:26:LEU:HD12	1.90	0.52
5:G4:143:THR:HG22	5:G4:149:PRO:HB3	1.89	0.52
6:I4:38:LEU:HA	6:I4:50:TRP:N	2.23	0.52
2:W:22:ARG:NH2	2:W:36:THR:O	2.42	0.52
4:B:81:ILE:O	4:B:400:ARG:NE	2.29	0.52
4:b:196:ASN:HB3	4:b:202:LEU:HD11	1.90	0.52
1:f2:82:THR:HA	1:f2:87:ASN:HA	1.92	0.52
1:f2:88:PHE:CE1	1:f2:107:ARG:HG2	2.41	0.52
4:b2:59:ARG:NH1	4:B3:27:GLY:O	2.42	0.52
4:b2:397:MET:HE2	4:b2:397:MET:HA	1.91	0.52
1:f4:19:ILE:HG22	2:W4:26:VAL:HG23	1.90	0.52
4:B4:288:THR:O	4:B4:292:MET:HG2	2.10	0.52
5:A0:3:MET:N	5:A0:3:MET:SD	2.82	0.52
5:G0:3:MET:SD	5:G0:4:TYR:N	2.73	0.52
5:C1:24:LEU:HA	5:C1:283:ARG:NH2	2.24	0.52
6:I1:15:ASN:ND2	5:C2:313:ASP:OD2	2.42	0.52
6:J1:95:GLU:HA	6:J1:98:LYS:HE2	1.91	0.52
5:G3:148:ASP:OD1	5:G3:148:ASP:N	2.40	0.52
6:J3:15:ASN:HB3	6:J3:80:THR:HB	1.92	0.52
5:A4:256:GLN:HG2	5:A4:263:LYS:HG2	1.90	0.52
3:U:81:ASP:OD1	3:U:112:TYR:OH	2.18	0.52
3:U1:117:ASP:O	3:U1:119:GLY:N	2.41	0.52
4:b1:212:PRO:HD3	4:B2:190:ARG:HH12	1.74	0.52
4:b1:295:ILE:HG23	4:b1:296:LEU:HG	1.90	0.52
2:W2:67:TYR:HD1	4:B2:322:PRO:HB2	1.74	0.52
4:b3:393:TRP:CD2	4:b3:452:ARG:HD3	2.43	0.52
4:B4:132:ARG:HE	4:b4:239:PRO:HG2	1.74	0.52
5:G0:84:VAL:HG11	5:G0:317:GLU:HB2	1.91	0.52
5:G0:265:ASN:ND2	5:G0:267:LEU:O	2.42	0.52
6:H0:20:HIS:HD1	6:H0:78:SER:HG	1.52	0.52
5:G1:38:LYS:HB3	5:G1:74:THR:HG22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I1:40:LEU:HG	6:I1:45:ARG:HH21	1.73	0.52
6:N1:102:PHE:CE2	6:N1:107:ILE:HB	2.44	0.52
5:A3:77:TYR:HB3	5:A3:147:PHE:HE2	1.73	0.52
5:G4:142:MET:HG3	5:G4:150:VAL:HB	1.91	0.52
5:C4:169:GLU:OE1	5:C4:169:GLU:N	2.36	0.52
4:b:212:PRO:HB2	4:b:214:TRP:CE3	2.45	0.52
4:b:259:LYS:HE3	4:B1:38:TRP:CD2	2.44	0.52
4:B1:120:GLU:OE1	4:B1:120:GLU:N	2.42	0.52
4:B2:506:LYS:HD3	4:B2:507:PRO:HD2	1.91	0.52
5:A0:277:THR:OG1	5:A0:278:GLN:OE1	2.26	0.52
5:G2:41:LEU:HD12	5:C2:11:ALA:HB3	1.92	0.52
6:N2:53:THR:HG23	6:N2:91:ALA:HB1	1.92	0.52
5:A4:49:ASN:OD1	5:A4:50:MET:N	2.43	0.52
5:A4:230:THR:HG22	5:A4:231:ALA:H	1.74	0.52
4:B:77:HIS:HA	4:B:396:PHE:HE2	1.75	0.52
2:w1:6:GLU:OE2	2:w1:46:TYR:OH	2.26	0.52
2:w1:7:LEU:HB2	2:w1:50:LEU:HD22	1.90	0.52
1:f3:6:ASN:OD1	1:f3:8:PHE:N	2.42	0.52
2:W3:34:GLU:OE1	2:W3:34:GLU:N	2.42	0.52
3:U4:5:LYS:HE2	3:U4:134:MET:HA	1.90	0.52
4:B5:224:ARG:O	4:B5:232:SER:N	2.43	0.52
5:A0:222:ARG:HD3	5:G0:227:GLU:HA	1.92	0.52
5:A1:306:LYS:NZ	5:A1:307:ASN:O	2.39	0.52
5:G1:24:LEU:O	5:G1:283:ARG:NH1	2.42	0.52
6:H1:62:LEU:HD11	6:H1:73:LEU:HD12	1.92	0.52
5:A2:259:GLU:HB2	5:A2:262:VAL:HG13	1.91	0.52
5:A4:45:PRO:HD2	5:A4:67:GLY:HA2	1.92	0.52
5:A4:306:LYS:O	5:A4:320:MET:N	2.39	0.52
5:G4:283:ARG:HG3	5:G4:327:MET:SD	2.50	0.52
4:b:339:LEU:HD21	4:B1:281:THR:HG21	1.91	0.52
1:f1:58:VAL:HG23	3:U1:34:PHE:HB3	1.91	0.52
4:b1:35:LEU:HD23	4:b1:35:LEU:H	1.74	0.52
4:B2:295:ILE:HG22	4:B2:296:LEU:HD13	1.92	0.52
1:f3:64:SER:HA	1:f3:103:LEU:O	2.10	0.52
4:b3:377:TYR:HB3	4:B4:384:THR:OG1	2.09	0.52
1:f4:7:LEU:HD11	2:w4:21:LYS:HG2	1.92	0.52
4:B4:303:GLN:C	6:I2:7:PHE:HA	2.35	0.52
4:B5:359:LEU:HA	4:B5:362:ILE:HG22	1.92	0.52
4:b5:31:PHE:N	4:b5:34:GLN:OE1	2.42	0.52
4:b5:102:GLU:HA	4:b5:105:ARG:NE	2.24	0.52
4:b5:129:GLU:HG3	4:b5:131:LYS:HE2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:175:LYS:HA	5:A0:211:PHE:HD1	1.74	0.52
5:G0:28:PHE:O	5:G0:283:ARG:NE	2.27	0.52
5:G0:247:ASP:HB2	5:C0:233:LYS:C	2.33	0.52
5:A1:32:TYR:HB2	5:A1:284:THR:HG22	1.91	0.52
5:C1:22:LEU:HD12	5:C1:25:ARG:HE	1.74	0.52
6:H2:13:GLN:O	6:H2:82:ARG:NH1	2.42	0.52
5:C3:179:ASP:OD2	5:C3:181:THR:OG1	2.28	0.52
5:C4:219:ASP:N	5:C4:219:ASP:OD1	2.43	0.52
6:H4:41:ASP:OD2	6:H4:44:SER:OG	2.28	0.52
4:b:35:LEU:HD23	4:b:35:LEU:H	1.74	0.52
4:b1:296:LEU:O	4:b1:298:ALA:N	2.41	0.52
3:U2:35:ASP:OD1	3:U2:36:GLU:N	2.36	0.52
1:f3:79:ASP:OD1	1:f3:79:ASP:N	2.42	0.52
4:B4:435:PHE:HA	4:B4:442:TRP:CD1	2.45	0.52
4:b4:35:LEU:HD23	4:b4:35:LEU:H	1.75	0.52
4:b4:66:ASN:OD1	4:b5:26:GLY:N	2.39	0.52
1:f5:16:ASP:O	1:f5:20:ARG:HG2	2.09	0.52
5:A0:259:GLU:N	5:A0:262:VAL:O	2.36	0.52
5:C0:168:THR:OG1	5:C0:173:ARG:NE	2.43	0.52
5:G2:92:ARG:NH1	5:G2:96:GLU:O	2.43	0.52
5:C2:86:PRO:HD2	5:C2:316:ARG:HG3	1.91	0.52
5:A3:102:ALA:O	5:A3:107:ARG:NH1	2.43	0.52
5:C3:169:GLU:OE1	5:C3:169:GLU:N	2.34	0.52
5:C3:181:THR:HG21	5:C3:217:LYS:HE3	1.90	0.52
5:A4:239:VAL:HB	5:A4:253:TYR:CD1	2.45	0.52
5:C4:257:TYR:CZ	5:C4:264:LYS:HG3	2.45	0.52
6:J4:38:LEU:HD12	6:J4:47[A]:LEU:HG	1.92	0.52
6:N4:94:ASP:HB3	6:N4:97:LYS:HB2	1.92	0.52
2:w:59:ARG:NH1	4:b:287:ASP:HA	2.25	0.52
4:b:209:ASP:OD2	4:B1:190:ARG:NH2	2.42	0.52
4:b:226:LEU:HG	4:b:228:GLY:H	1.75	0.52
2:w1:44:LYS:NZ	4:b1:285:GLU:OE2	2.41	0.52
2:w1:54:THR:HG23	2:w1:56:MET:HG3	1.91	0.52
4:B1:506:LYS:HD3	4:B1:507:PRO:HD2	1.91	0.52
4:B2:377:TYR:HA	4:B2:380:MET:HE2	1.91	0.52
4:b2:209:ASP:O	4:B3:187:ARG:NH2	2.43	0.52
4:b2:255:MET:SD	4:b2:256:GLU:N	2.83	0.52
4:b5:212:PRO:HB2	4:b5:214:TRP:HD1	1.75	0.52
5:A2:164:GLN:HB3	5:A2:169:GLU:HB2	1.92	0.52
5:G2:176:SER:HB2	5:G2:212:LYS:HE3	1.92	0.52
5:C2:95:ASP:O	5:C2:96:GLU:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:333:ASP:N	5:A4:333:ASP:OD1	2.42	0.52
5:G4:304:TYR:HB3	5:G4:322:GLN:HB2	1.92	0.52
4:B:59:ARG:HA	4:b:40:PRO:HG3	1.92	0.51
4:b:132:ARG:NH1	4:b:140:GLU:OE1	2.42	0.51
4:b:418:GLU:HA	4:b:421:VAL:HG12	1.92	0.51
4:B2:485:ASP:OD1	4:B2:486:TYR:N	2.42	0.51
1:f3:74:GLN:HA	1:f3:76:ARG:HH12	1.75	0.51
4:b3:211:TYR:HD1	4:B4:47:ALA:HB2	1.75	0.51
4:B5:180:PRO:HA	4:B5:219:TRP:CD2	2.44	0.51
5:A0:169:GLU:HG3	5:A0:341:ALA:HB3	1.92	0.51
5:G0:132:VAL:O	5:G0:136:LEU:CB	2.58	0.51
5:C0:132:VAL:O	5:C0:136:LEU:HB2	2.10	0.51
6:I3:85:ASP:OD1	6:I3:86:VAL:N	2.43	0.51
6:N3:67:ASP:O	6:N3:70:SER:OG	2.22	0.51
4:B:506:LYS:HD3	4:B:507:PRO:HD2	1.92	0.51
4:B2:186:SER:OG	4:B2:188:ASN:OD1	2.21	0.51
4:b2:458:LEU:HD13	4:B3:463:GLU:HG2	1.91	0.51
1:f3:41:GLY:HA3	1:f3:67:VAL:HG12	1.92	0.51
4:B3:145:HIS:HB2	4:B3:151:LEU:HD22	1.91	0.51
4:B3:212:PRO:HB2	4:B3:214:TRP:HE3	1.76	0.51
4:B3:359:LEU:HD12	4:B3:373:LEU:HD21	1.91	0.51
4:b3:395:TYR:O	4:b3:399:ARG:HG2	2.10	0.51
4:b3:440:SER:O	4:b3:444:ASN:ND2	2.42	0.51
1:f:68:ARG:NH2	1:f:70:ASP:OD2	2.38	0.51
2:w:17:LEU:HA	2:w:22:ARG:HB2	1.91	0.51
4:B:497:THR:HG1	4:B:510:TRP:NE1	2.09	0.51
4:b1:138:ILE:HD11	4:b1:407:GLN:HE22	1.73	0.51
4:b1:418:GLU:HA	4:b1:421:VAL:HG22	1.90	0.51
4:B2:226:LEU:HG	4:B2:227:PRO:HD2	1.92	0.51
2:w4:2:THR:OG1	2:w4:5:GLU:OE2	2.28	0.51
4:B4:375:ARG:HE	4:b4:364:ALA:HA	1.75	0.51
4:B5:180:PRO:HA	4:B5:219:TRP:CE2	2.46	0.51
4:b5:435:PHE:HA	4:b5:442:TRP:CD1	2.46	0.51
5:G1:201:ASP:OD2	5:G1:271:THR:N	2.38	0.51
5:A2:34:PHE:HB3	5:A2:286:GLY:HA2	1.92	0.51
5:G2:38:LYS:HZ3	5:G2:74:THR:HA	1.76	0.51
6:I2:52:GLY:HA3	6:I2:92:ALA:HB2	1.93	0.51
5:C3:29:ARG:NH1	5:C3:277:THR:O	2.44	0.51
5:G4:20:ASP:OD1	5:G4:20:ASP:N	2.42	0.51
5:G4:39:VAL:HA	5:C4:8:GLN:O	2.10	0.51
5:C4:125:GLN:OE1	5:C4:258:VAL:N	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H4:97:LYS:HD3	6:I4:45:ARG:HD2	1.92	0.51
4:B:131:LYS:NZ	4:b:244:GLN:O	2.30	0.51
4:B:511:ALA:H	4:b5:506:LYS:HE2	1.76	0.51
4:b:494:VAL:HA	4:b:497:THR:HG22	1.92	0.51
4:B1:240:VAL:N	4:B1:244:GLN:OE1	2.40	0.51
2:w3:25:THR:HG22	2:W4:34:GLU:HG3	1.93	0.51
4:b3:90:HIS:NE2	4:b3:442:TRP:O	2.35	0.51
4:B4:45:VAL:HA	4:B4:48:ALA:HB3	1.91	0.51
2:w5:63:PRO:HA	4:B5:331:PRO:HA	1.93	0.51
4:b5:472:LEU:HD23	4:b5:472:LEU:H	1.76	0.51
5:C0:64:ARG:HH12	6:N4:14:GLY:HA2	1.75	0.51
5:C0:180:PRO:O	5:C0:184:ILE:HG12	2.10	0.51
5:C2:178:TYR:HB3	5:C2:211:PHE:HE2	1.75	0.51
6:N2:20:HIS:O	6:N2:77:LYS:N	2.32	0.51
5:G3:232:VAL:HG22	5:G3:234:ASP:H	1.75	0.51
6:H3:77:LYS:NZ	6:J3:106:ALA:O	2.43	0.51
6:H4:33:PRO:O	6:H4:36:THR:OG1	2.28	0.51
3:U:30:ARG:NH2	3:U5:75:VAL:O	2.43	0.51
4:b:388:SER:O	4:b:391:GLU:HG3	2.11	0.51
1:f1:81:LEU:O	1:f1:88:PHE:N	2.37	0.51
2:W1:22:ARG:HH12	2:W1:38:THR:HG22	1.76	0.51
4:b1:252:TYR:CE2	4:B2:24:TYR:HB2	2.46	0.51
1:f2:115:ARG:HG2	1:f2:116:ARG:HG3	1.92	0.51
4:b4:211:TYR:O	4:B5:190:ARG:NH2	2.43	0.51
4:b5:150:GLU:HB2	4:b5:235:HIS:HE1	1.76	0.51
4:b5:186:SER:O	4:b5:190:ARG:NH1	2.43	0.51
4:b5:187:ARG:HD3	4:b5:190:ARG:HH22	1.75	0.51
5:A2:47:LEU:HD11	5:G2:258:VAL:HG21	1.91	0.51
5:G2:257:TYR:HB3	5:G2:266:PHE:CZ	2.46	0.51
5:G2:331:ASP:CG	5:G2:334:GLU:HB2	2.36	0.51
6:J2:7:PHE:CD2	5:C3:94:PRO:HD3	2.45	0.51
5:A3:156:ARG:NH1	5:A3:161:ASN:OD1	2.36	0.51
6:J4:5:GLU:N	6:J4:5:GLU:OE1	2.43	0.51
2:W:34:GLU:HB3	2:w5:25:THR:HG22	1.92	0.51
3:U:114:ARG:HG2	1:f1:54:GLN:HB2	1.92	0.51
4:b:212:PRO:HG2	4:b:215:MET:HE1	1.93	0.51
3:U1:102:ILE:HD11	3:U1:105:MET:HB2	1.92	0.51
4:B1:497:THR:OG1	4:B1:510:TRP:NE1	2.43	0.51
4:b1:55:ARG:NH2	4:b1:59:ARG:HH21	2.08	0.51
1:f2:34:GLN:NE2	1:f2:73:ARG:O	2.33	0.51
2:W2:42:ASP:N	2:W2:42:ASP:OD1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b2:506:LYS:HD3	4:b2:507:PRO:HD2	1.91	0.51
3:U3:40:PRO:HA	3:U3:70:PHE:O	2.11	0.51
4:b3:229:GLY:HA3	4:b3:439:ARG:HH22	1.76	0.51
4:b4:216:PRO:HB3	5:C3:295:ARG:HE	1.75	0.51
4:B5:296:LEU:HB3	4:B5:323:VAL:HG21	1.93	0.51
5:A0:49:ASN:OD1	5:A0:50:MET:N	2.44	0.51
5:C0:29:ARG:NH1	5:C0:279:ALA:O	2.43	0.51
5:C0:142:MET:HB3	5:C0:150:VAL:HG23	1.91	0.51
5:C0:164:GLN:HB3	5:C0:169:GLU:HB2	1.92	0.51
6:N0:15:ASN:HA	5:C1:62:VAL:HG23	1.92	0.51
6:N0:68:GLN:H	6:N0:68:GLN:CD	2.17	0.51
5:G2:105:ALA:HA	5:G2:108:ARG:HG2	1.93	0.51
5:C3:43:GLN:OE1	5:C3:43:GLN:N	2.44	0.51
4:b:31:PHE:N	4:b:34:GLN:OE1	2.35	0.51
2:W1:2:THR:O	2:W1:6:GLU:HG2	2.10	0.51
4:B1:65:ARG:HD3	4:B2:24:TYR:CD1	2.46	0.51
4:b1:359:LEU:HA	4:b1:362:ILE:HG22	1.92	0.51
3:U2:50:GLU:OE1	3:U2:52:THR:N	2.44	0.51
4:b2:69:TYR:CZ	4:B3:361:TYR:HD1	2.29	0.51
4:b2:422:ARG:HB3	4:b2:424:VAL:HG23	1.92	0.51
2:W3:58:GLN:NE2	2:W3:61:ARG:HD3	2.25	0.51
4:B4:43:GLU:OE1	4:B4:47:ALA:HB3	2.11	0.51
4:B5:493:GLN:NE2	4:b5:473:SER:O	2.36	0.51
5:C1:125:GLN:NE2	5:C1:258:VAL:H	2.09	0.51
5:C1:164:GLN:HE22	5:C1:170:TRP:CG	2.29	0.51
6:J1:95:GLU:O	6:J1:99:ARG:HG2	2.11	0.51
5:G2:109:ARG:HA	5:G2:112:ILE:HG12	1.91	0.51
5:G2:124:ALA:O	5:G2:127:GLU:HG2	2.09	0.51
5:C2:45:PRO:O	5:C2:66:ARG:NH2	2.43	0.51
6:J2:95:GLU:O	6:J2:99:ARG:HG2	2.10	0.51
6:N2:63:ALA:HB3	6:N2:74:THR:HG23	1.93	0.51
5:A3:196:ASN:C	5:A3:248:VAL:HG13	2.36	0.51
5:G3:32:TYR:HB2	5:G3:284:THR:HG22	1.92	0.51
5:G3:66:ARG:NH2	5:C3:118:ASP:OD2	2.32	0.51
6:J3:61:ILE:O	6:J3:76:TYR:N	2.43	0.51
6:J4:80:THR:HA	6:J4:108:SER:O	2.11	0.51
3:U1:51:TYR:HD1	3:U1:61:TRP:HE1	1.58	0.51
4:B1:438:ALA:HB1	4:B1:441:ALA:HB3	1.92	0.51
2:W2:18:MET:HG2	2:W2:19:THR:N	2.25	0.51
4:B2:208:GLU:HG2	4:B2:218:LYS:H	1.76	0.51
4:b2:181:ASN:H	4:b2:219:TRP:NE1	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b3:287:ASP:OD1	4:b3:288:THR:N	2.43	0.51
4:B4:52:ASN:ND2	4:B4:55:ARG:HD2	2.24	0.51
4:b4:455:ILE:HD11	4:B5:383:SER:O	2.11	0.51
5:A0:194:VAL:O	5:A0:276:ASN:ND2	2.44	0.51
5:G0:174:ASP:OD2	5:G0:177:THR:OG1	2.22	0.51
5:C0:169:GLU:H	5:C0:169:GLU:CD	2.18	0.51
5:A1:306:LYS:N	5:A1:320:MET:O	2.39	0.51
5:A2:29:ARG:HE	5:A2:29:ARG:H	1.58	0.51
5:A3:71:SER:HB2	6:H3:4:LYS:HE2	1.92	0.51
5:A3:164:GLN:HB3	5:A3:169:GLU:HB2	1.93	0.51
5:C3:79:LYS:HB3	5:C3:322:GLN:HE22	1.75	0.51
6:I3:81:PHE:HE2	6:I3:107:ILE:HG23	1.76	0.51
5:G4:24:LEU:HD12	5:G4:283:ARG:HD3	1.93	0.51
5:G4:141:THR:OG1	5:G4:151:GLU:OE1	2.24	0.51
5:C4:93:LEU:HD23	5:C4:107:ARG:HD3	1.93	0.51
4:b:342:GLN:O	4:B1:275:LYS:NZ	2.41	0.51
4:B1:154:GLN:HE21	4:B1:170:ARG:HD2	1.75	0.51
3:U4:108:SER:HB3	3:U4:129:VAL:HG23	1.93	0.51
4:B4:159:THR:O	4:B4:166:ARG:NH1	2.44	0.51
4:B4:166:ARG:N	4:B4:418:GLU:OE2	2.44	0.51
4:b4:176:ARG:HH21	4:b4:208:GLU:HA	1.75	0.51
1:f5:43:PHE:HE1	1:f5:63:PRO:HB3	1.75	0.51
1:f5:96:ASP:OD1	1:f5:98:GLY:N	2.37	0.51
4:B5:381:SER:HB3	4:B5:384:THR:HG23	1.93	0.51
4:b5:422:ARG:O	4:b5:423:ARG:HG2	2.11	0.51
5:G2:160:ASN:HA	5:G2:336:VAL:HG12	1.93	0.51
5:A4:259:GLU:HG3	5:A4:260:ASN:H	1.75	0.51
1:f1:19:ILE:O	1:f1:23:MET:HB2	2.11	0.51
4:b1:144:MET:HA	4:b1:147:PHE:CE2	2.46	0.51
2:W3:28:LYS:NZ	2:w3:31:ARG:HG2	2.27	0.51
4:B3:190:ARG:N	4:B3:193:VAL:O	2.43	0.51
4:B4:341:LEU:HD23	4:B4:341:LEU:H	1.75	0.51
4:b4:460:GLU:OE1	4:b4:460:GLU:N	2.44	0.51
1:f5:4:PHE:HB3	1:f5:6:ASN:HD22	1.76	0.51
1:f5:69:THR:HG21	1:f5:96:ASP:HB2	1.92	0.51
4:B5:90:HIS:NE2	4:B5:442:TRP:O	2.41	0.51
4:b5:251:PHE:HE1	4:b5:366:LEU:HD11	1.76	0.51
5:G0:34:PHE:HE2	5:G0:284:THR:HB	1.76	0.51
5:G2:258:VAL:HA	5:G2:263:LYS:HA	1.92	0.51
6:J2:51:ASP:OD2	6:J2:53:THR:OG1	2.28	0.51
6:J2:80:THR:HA	6:J2:108:SER:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G3:77:TYR:OH	5:G3:322:GLN:NE2	2.44	0.51
5:C3:199:VAL:HA	5:C3:251:VAL:O	2.11	0.51
5:C3:234:ASP:HB3	5:C3:240:SER:HB2	1.93	0.51
6:N3:97:LYS:O	6:N3:101:ALA:HB2	2.10	0.51
5:G4:127:GLU:HA	5:G4:130:GLN:HG3	1.93	0.51
5:C4:164:GLN:HB3	5:C4:169:GLU:HB2	1.93	0.51
5:C4:317:GLU:OE1	5:C4:317:GLU:N	2.44	0.51
4:B:82:VAL:HG11	4:B:139:ARG:HG2	1.92	0.50
4:B:196:ASN:ND2	4:B:198:SER:OG	2.31	0.50
2:w4:66:PHE:HE1	4:B4:330:VAL:HG12	1.75	0.50
4:B5:251:PHE:O	4:B5:255:MET:HG2	2.11	0.50
5:A0:257:TYR:HB3	5:A0:266:PHE:CZ	2.45	0.50
5:C1:43:GLN:NE2	5:C1:69:SER:OG	2.44	0.50
6:J1:38:LEU:HA	6:J1:50:TRP:N	2.26	0.50
5:A2:276:ASN:HD21	5:A2:278:GLN:HB2	1.75	0.50
5:C2:164:GLN:CD	5:C2:340:LEU:HA	2.36	0.50
5:C3:270:ASN:HB3	5:C3:340:LEU:HB2	1.92	0.50
1:f:69:THR:HA	1:f:72:VAL:HG12	1.93	0.50
2:W:35:PHE:HE1	2:w5:23:VAL:HG22	1.76	0.50
4:b1:166:ARG:HB2	4:b1:422:ARG:HH22	1.75	0.50
4:b1:375:ARG:NH1	4:B2:368:VAL:O	2.45	0.50
4:B2:29:SER:O	4:B2:35:LEU:HG	2.11	0.50
4:b2:234:ILE:HG12	4:b2:410:GLN:CD	2.36	0.50
3:U3:44:VAL:HG22	3:U3:67:ILE:HG12	1.94	0.50
4:B4:334:MET:HB3	4:B4:335:PRO:HD2	1.93	0.50
4:b4:90:HIS:CD2	4:b4:92:PRO:HD3	2.46	0.50
1:f5:33:GLU:OE2	1:f5:34:GLN:NE2	2.44	0.50
5:A0:237:LYS:HG2	5:A0:238:ALA:H	1.76	0.50
5:G0:64:ARG:NH2	6:J4:13:GLN:O	2.44	0.50
6:J0:38:LEU:HA	6:J0:50:TRP:N	2.26	0.50
5:G2:182:ASP:OD1	5:G2:183:ASP:N	2.43	0.50
5:G3:256:GLN:HG3	5:G3:264:LYS:C	2.36	0.50
5:C3:8:GLN:HG2	5:C3:99:GLN:HG2	1.93	0.50
5:C3:39:VAL:H	5:C3:74:THR:HG22	1.75	0.50
5:A4:35:THR:H	5:G4:8:GLN:HE22	1.59	0.50
5:G4:84:VAL:HG21	5:G4:317:GLU:HB3	1.94	0.50
6:H4:2:THR:OG1	6:H4:3:SER:N	2.44	0.50
6:N4:50:TRP:CD1	6:N4:58:ALA:HB2	2.46	0.50
4:b:94:TRP:CZ3	4:b:101:GLU:HB3	2.46	0.50
3:U2:115:ASP:HB3	3:U2:119:GLY:HA2	1.93	0.50
4:b2:322:PRO:HB3	4:B4:36:ARG:HH21	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w3:22:ARG:HD3	2:W4:36:THR:HG21	1.93	0.50
4:B3:38:TRP:CD1	4:B3:40:PRO:HD3	2.47	0.50
2:w4:46:TYR:O	2:w4:49:GLU:HG2	2.12	0.50
4:B5:120:GLU:OE1	4:B5:120:GLU:N	2.45	0.50
4:B5:196:ASN:ND2	4:B5:198:SER:OG	2.43	0.50
4:B5:393:TRP:HD1	4:B5:397:MET:HE2	1.76	0.50
4:B5:434:SER:N	4:B5:437:GLU:OE2	2.42	0.50
4:B5:460:GLU:O	4:B5:463:GLU:HG2	2.10	0.50
6:N0:67:ASP:O	6:N0:70:SER:OG	2.25	0.50
5:G1:22:LEU:HD12	5:G1:253:TYR:HD1	1.76	0.50
6:H1:10:TYR:CZ	6:H1:12:PRO:HG3	2.46	0.50
5:G2:56:PRO:HB3	5:C2:77:TYR:CZ	2.47	0.50
6:J2:80:THR:OG1	6:J2:108:SER:OG	2.29	0.50
5:A3:39:VAL:HG23	5:G3:10:LEU:HD23	1.94	0.50
5:A4:54:VAL:O	5:G4:79:LYS:NZ	2.45	0.50
5:A4:58:VAL:HG23	5:A4:59:SER:H	1.77	0.50
2:w:26:VAL:HA	2:W1:33:VAL:HG12	1.92	0.50
4:b:48:ALA:O	4:B1:24:TYR:N	2.45	0.50
4:B2:329:LYS:HG2	4:b2:277:MET:HE3	1.94	0.50
4:b3:212:PRO:C	4:b3:214:TRP:H	2.18	0.50
4:b3:457:GLY:O	4:b3:460:GLU:HG3	2.12	0.50
4:b4:167:THR:OG1	4:b4:418:GLU:OE1	2.28	0.50
1:f5:81:LEU:O	1:f5:88:PHE:N	2.27	0.50
2:w5:22:ARG:HH12	2:w5:38:THR:H	1.58	0.50
5:G0:159:GLU:OE1	5:G0:159:GLU:N	2.34	0.50
6:H0:55:ASP:HB2	6:I0:45:ARG:NH2	2.27	0.50
6:I1:84:GLU:OE1	6:I1:84:GLU:N	2.44	0.50
5:C2:207:LEU:O	5:C2:210:SER:OG	2.20	0.50
5:C2:262:VAL:HG13	5:C2:264:LYS:HZ1	1.77	0.50
5:G3:43:GLN:N	5:G3:69:SER:OG	2.43	0.50
5:G3:104:PRO:HB2	5:C4:294:GLN:HE22	1.77	0.50
6:H3:108:SER:HG	6:I3:77:LYS:HZ3	1.52	0.50
5:G4:8:GLN:HA	5:G4:99:GLN:HE22	1.76	0.50
5:C4:22:LEU:HD22	5:C4:239:VAL:HG21	1.92	0.50
5:C4:24:LEU:O	5:C4:283:ARG:NH2	2.45	0.50
4:b:59:ARG:NH1	4:B1:27:GLY:O	2.45	0.50
4:b1:75:GLN:HA	4:b1:78:GLN:HE21	1.76	0.50
2:W4:29:ASP:N	2:W4:29:ASP:OD1	2.45	0.50
4:b4:113:ALA:HA	4:b4:116:LYS:HE3	1.92	0.50
4:b5:302:GLU:O	6:I1:3:SER:OG	2.29	0.50
5:A0:51:ALA:HB3	5:G0:126:VAL:HG21	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:115:ASN:ND2	5:C0:319:THR:OG1	2.45	0.50
5:C1:79:LYS:HB3	5:C1:322:GLN:HE22	1.77	0.50
5:C1:169:GLU:OE1	5:C1:169:GLU:N	2.35	0.50
5:C1:257:TYR:HB3	5:C1:266:PHE:CE1	2.46	0.50
6:H1:2:THR:OG1	6:H1:3:SER:N	2.39	0.50
6:H3:35:MET:HA	6:H3:61:ILE:HD11	1.93	0.50
5:G4:34:PHE:HB2	5:G4:286:GLY:HA2	1.93	0.50
5:G4:43:GLN:HE21	5:C4:15:GLN:HB2	1.77	0.50
1:f:79:ASP:N	1:f:79:ASP:OD1	2.45	0.50
4:B:359:LEU:HA	4:B:362:ILE:HG22	1.92	0.50
4:b:133:THR:O	4:b:137:MET:HG2	2.12	0.50
4:b:332:HIS:CD2	4:B1:288:THR:HA	2.41	0.50
4:B1:65:ARG:HD3	4:B2:24:TYR:CG	2.47	0.50
4:B1:434:SER:OG	4:B1:437:GLU:OE1	2.23	0.50
4:b1:456:ASP:OD1	4:b1:456:ASP:N	2.44	0.50
4:B2:229:GLY:O	4:B2:439:ARG:NH1	2.44	0.50
2:W3:7:LEU:HD22	2:W3:50:LEU:HD13	1.91	0.50
4:b3:170:ARG:NH2	4:B4:198:SER:O	2.44	0.50
4:b3:180:PRO:HA	4:b3:219:TRP:CD2	2.46	0.50
4:B4:299:ASN:OD1	4:B4:301:GLN:NE2	2.45	0.50
4:B5:224:ARG:NH1	4:B5:225:GLU:OE2	2.45	0.50
5:A0:157:SER:OG	5:A0:160:ASN:ND2	2.45	0.50
5:A0:276:ASN:OD1	5:A0:278:GLN:N	2.42	0.50
5:G0:64:ARG:H	5:G0:64:ARG:HD2	1.75	0.50
5:C0:311:THR:OG1	5:C0:312:GLY:N	2.44	0.50
5:G2:62:VAL:HG12	5:C2:81:LYS:HG3	1.94	0.50
5:C2:218:LEU:HD21	5:C2:228:LEU:HB2	1.94	0.50
5:A3:248:VAL:HG21	5:G3:235:LEU:HD21	1.92	0.50
5:A3:274:LEU:HD12	5:A3:336:VAL:HB	1.93	0.50
5:C4:228:LEU:HD21	5:C4:250:ILE:HD13	1.91	0.50
2:W:22:ARG:HB3	2:w:36:THR:HG22	1.94	0.50
4:b:258:MET:HG3	4:b:362:ILE:HD13	1.94	0.50
3:U1:116:ASP:N	3:U1:116:ASP:OD1	2.44	0.50
4:B2:269:LEU:HD13	4:b2:354:PHE:HE2	1.77	0.50
4:b2:325:LEU:HD13	4:B3:273:ILE:HG21	1.94	0.50
1:f3:58:VAL:HG21	3:U3:121:TRP:HD1	1.77	0.50
4:B4:237:PHE:HE2	4:B4:244:GLN:HG3	1.76	0.50
5:A0:290:ASP:OD2	5:A0:306:LYS:NZ	2.38	0.50
5:G0:127:GLU:OE2	5:G0:285:TYR:OH	2.30	0.50
5:C0:285:TYR:CD2	5:C0:302:ALA:HA	2.46	0.50
5:A2:22:LEU:HD13	5:A2:239:VAL:HG11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A2:198:ILE:HG22	5:A2:250:ILE:HA	1.93	0.50
5:G3:245:TYR:HB2	5:G3:250:ILE:HD11	1.94	0.50
6:I3:84:GLU:N	6:I3:84:GLU:OE1	2.44	0.50
4:B:176:ARG:O	4:B:207:SER:N	2.43	0.50
4:B2:81:ILE:O	4:B2:400:ARG:NE	2.45	0.50
3:U3:5:LYS:NZ	3:U3:101:LEU:O	2.41	0.50
4:B3:66:ASN:HD21	4:B4:25:HIS:HB3	1.77	0.50
5:A0:182:ASP:OD1	5:A0:183:ASP:N	2.41	0.50
5:G0:64:ARG:HH21	6:J4:82:ARG:HD2	1.77	0.50
5:G0:194:VAL:HG22	5:C0:237:LYS:HB3	1.94	0.50
6:J0:5:GLU:OE1	6:J0:5:GLU:N	2.45	0.50
5:A1:44:ILE:HG13	5:A1:66:ARG:HH22	1.76	0.50
5:C1:270:ASN:O	5:C1:339:GLN:NE2	2.45	0.50
5:G2:198:ILE:HB	5:G2:248:VAL:HG21	1.94	0.50
5:G2:199:VAL:HG13	5:G2:273:VAL:HB	1.94	0.50
5:C2:73:PHE:HB3	5:C2:152:VAL:HG22	1.93	0.50
5:A3:38:LYS:HD3	5:A3:74:THR:HG21	1.92	0.50
5:G4:168:THR:O	5:G4:173:ARG:NH2	2.45	0.50
4:B4:62:ASP:HA	4:B4:65:ARG:HH11	1.76	0.50
4:B4:158:ASP:HB3	4:B4:163:ARG:HH22	1.76	0.50
1:f5:20:ARG:NH1	1:f5:68:ARG:HG3	2.27	0.50
1:f5:88:PHE:CE1	1:f5:107:ARG:HG2	2.46	0.50
5:C0:20:ASP:OD1	5:C0:25:ARG:NH2	2.44	0.50
6:J1:7:PHE:CD2	5:C2:94:PRO:HD3	2.46	0.50
6:N1:95:GLU:O	6:N1:99:ARG:HG2	2.11	0.50
5:G2:163:THR:HG22	5:G2:165:SER:H	1.77	0.50
5:C2:86:PRO:HA	5:C2:108:ARG:CZ	2.41	0.50
6:I2:97:LYS:HD2	6:J2:45:ARG:HG3	1.93	0.50
6:J2:5:GLU:HG3	5:G3:70:THR:OG1	2.12	0.50
5:C3:326:LEU:O	5:C3:328:LEU:HG	2.11	0.50
6:J3:95:GLU:HA	6:J3:98:LYS:HE2	1.92	0.50
5:C4:134:ALA:O	5:C4:156:ARG:NH2	2.45	0.50
4:b:87:ARG:NH1	4:b:483:GLY:O	2.45	0.49
4:b1:270:GLN:O	4:b1:274:VAL:HG13	2.11	0.49
4:B3:330:VAL:HG23	4:b3:281:THR:HA	1.94	0.49
4:b3:181:ASN:O	5:C4:295:ARG:NH2	2.45	0.49
2:W4:16:ASP:OD1	2:W4:17:LEU:N	2.44	0.49
4:B4:145:HIS:CE1	4:B4:237:PHE:HA	2.48	0.49
4:B4:268:GLN:HG3	4:b4:354:PHE:HZ	1.77	0.49
4:B5:390:ASN:HA	4:B5:452:ARG:HH22	1.76	0.49
5:G0:32:TYR:HD2	5:C0:10:LEU:HD12	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A3:18:LYS:HB3	5:A3:263:LYS:HZ1	1.76	0.49
5:A3:44:ILE:HG22	5:G3:14:GLU:HA	1.92	0.49
5:A3:196:ASN:HA	5:A3:248:VAL:HG22	1.93	0.49
6:H3:83:TYR:HA	6:H3:109:ILE:HD11	1.92	0.49
6:N3:14:GLY:HA2	5:C4:64:ARG:HH22	1.77	0.49
5:A4:123:ILE:HA	5:A4:126:VAL:HG22	1.94	0.49
5:A4:239:VAL:HB	5:A4:253:TYR:HD1	1.77	0.49
5:G4:88:MET:SD	6:H4:9:HIS:ND1	2.85	0.49
5:G4:256:GLN:HA	5:G4:265:ASN:HA	1.94	0.49
4:B:59:ARG:NH1	4:b:27:GLY:O	2.45	0.49
4:B1:388:SER:O	4:B1:391:GLU:HG3	2.12	0.49
4:b1:254:VAL:HG11	4:b1:362:ILE:HG13	1.94	0.49
4:b2:180:PRO:HA	4:b2:219:TRP:CD2	2.47	0.49
4:b3:144:MET:HA	4:b3:147:PHE:CD1	2.47	0.49
4:B4:99:ILE:HD11	4:B4:431:ALA:HA	1.93	0.49
4:B4:301:GLN:HE21	6:I2:6:THR:HA	1.78	0.49
4:b4:99:ILE:HD11	4:b4:431:ALA:HA	1.95	0.49
5:G0:58:VAL:HG11	5:C0:146:ALA:HB1	1.92	0.49
6:H0:95:GLU:O	6:H0:99:ARG:HG2	2.12	0.49
5:C2:265:ASN:ND2	5:C2:267:LEU:O	2.45	0.49
4:B:275:LYS:NZ	4:b5:342:GLN:O	2.33	0.49
4:B1:150:GLU:OE2	4:B1:246:ARG:NH2	2.45	0.49
4:b1:38:TRP:CD1	4:b1:40:PRO:HD3	2.46	0.49
2:w2:10:ALA:O	2:w2:14:LEU:HG	2.13	0.49
4:b2:172:VAL:HG23	4:b2:176:ARG:HD3	1.94	0.49
4:b3:93:SER:HB3	4:b3:96:TYR:HB3	1.93	0.49
4:b3:144:MET:O	4:b3:148:ASN:HB2	2.12	0.49
5:C0:201:ASP:OD1	5:C0:271:THR:OG1	2.29	0.49
5:G1:102:ALA:O	5:G1:107:ARG:NH2	2.45	0.49
6:J1:67:ASP:O	6:J1:70:SER:OG	2.31	0.49
5:A2:170:TRP:NE1	5:A2:183:ASP:OD2	2.36	0.49
5:A3:143:THR:HG22	5:A3:149:PRO:HB3	1.93	0.49
5:A3:169:GLU:HG3	5:A3:341:ALA:HB3	1.94	0.49
5:A3:331:ASP:HB3	5:A3:334:GLU:HG2	1.92	0.49
6:H3:18:PRO:HB2	6:H3:20:HIS:CE1	2.46	0.49
3:U1:53:GLY:O	3:U1:60:THR:OG1	2.27	0.49
3:U2:116:ASP:N	3:U2:116:ASP:OD1	2.45	0.49
3:U3:68:GLU:OE1	3:U3:125:ASP:HB3	2.12	0.49
4:B3:90:HIS:NE2	4:B3:442:TRP:O	2.33	0.49
4:b4:144:MET:O	4:b4:148:ASN:HB2	2.12	0.49
4:B5:79:ASP:HA	4:B5:139:ARG:HH12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:56:PRO:HB3	5:G0:77:TYR:CZ	2.47	0.49
5:C0:168:THR:OG1	5:C0:168:THR:O	2.30	0.49
6:J0:33:PRO:O	6:J0:36:THR:OG1	2.30	0.49
6:J0:67:ASP:O	6:J0:70:SER:OG	2.21	0.49
5:G1:89:THR:O	5:G1:107:ARG:NH1	2.37	0.49
5:G1:322:GLN:N	5:G1:322:GLN:OE1	2.45	0.49
5:G1:326:LEU:O	5:G1:328:LEU:HG	2.13	0.49
5:G2:22:LEU:HD13	5:G2:239:VAL:HG11	1.93	0.49
6:I2:82:ARG:HG2	6:I2:84:GLU:H	1.78	0.49
5:G3:130:GLN:HG2	5:G3:140:TYR:CE1	2.48	0.49
5:C3:282:LEU:HB3	5:C3:284:THR:HG23	1.93	0.49
6:I3:95:GLU:OE2	6:I3:99:ARG:NH2	2.42	0.49
4:B:49:LEU:HD12	4:b5:65:ARG:HH22	1.76	0.49
4:B:354:PHE:HB2	4:b5:348:ASP:HB2	1.94	0.49
4:B:393:TRP:CE2	4:B:452:ARG:HB2	2.47	0.49
4:b1:87:ARG:HB3	4:b1:448:ILE:HG13	1.93	0.49
1:f2:73:ARG:NH1	1:f2:73:ARG:HA	2.28	0.49
4:b2:91:ARG:NH1	4:b2:91:ARG:HA	2.27	0.49
4:b2:286:LEU:HD11	2:W3:52:VAL:HG11	1.95	0.49
4:b3:52:ASN:ND2	4:B4:28:GLY:HA2	2.27	0.49
5:A0:80:PRO:HD2	5:A0:321:ILE:O	2.12	0.49
6:I0:92:ALA:O	6:I0:98:LYS:NZ	2.36	0.49
6:I0:103:ALA:HB3	6:J0:40:LEU:HD22	1.92	0.49
5:A1:45:PRO:C	5:A1:66:ARG:HH21	2.20	0.49
5:G1:197:ILE:HG22	5:G1:199:VAL:HG12	1.95	0.49
6:I1:82:ARG:HG2	6:I1:85:ASP:CG	2.37	0.49
6:N1:51:ASP:OD2	6:N1:54:THR:OG1	2.29	0.49
5:C2:20:ASP:OD1	5:C2:25:ARG:NH1	2.28	0.49
5:A4:196:ASN:OD1	5:A4:196:ASN:N	2.43	0.49
5:G4:106:TYR:HA	5:G4:109:ARG:HE	1.77	0.49
3:U:69:VAL:HG13	3:U:124:ALA:HB3	1.94	0.49
4:b:196:ASN:HD21	4:b:198:SER:HB2	1.77	0.49
2:w1:25:THR:HG22	2:W2:34:GLU:HG3	1.93	0.49
4:B1:496:GLU:OE2	4:b1:474:THR:OG1	2.31	0.49
4:b1:268:GLN:NE2	4:b1:347:THR:O	2.42	0.49
2:w3:27:GLN:HB2	2:w3:32:ARG:HH11	1.77	0.49
3:U3:84:MET:N	3:U3:84:MET:SD	2.86	0.49
3:U4:8:GLU:OE1	3:U4:8:GLU:N	2.36	0.49
4:B4:88:LEU:HD21	4:B4:90:HIS:HB2	1.95	0.49
4:B4:88:LEU:HD12	4:B4:447:TRP:CH2	2.47	0.49
4:b5:485:ASP:HB3	4:b5:488:GLU:OE1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:164:GLN:O	5:A0:169:GLU:HB3	2.12	0.49
5:C0:139:LYS:NZ	5:C0:151:GLU:OE1	2.34	0.49
6:J2:33:PRO:O	6:J2:36:THR:OG1	2.20	0.49
3:U:14:LEU:HD11	3:U:26:PHE:HB3	1.93	0.49
4:b:176:ARG:HH21	4:b:208:GLU:HA	1.78	0.49
2:w1:25:THR:OG1	2:w1:33:VAL:O	2.23	0.49
4:b1:95:ARG:NH1	4:b1:95:ARG:HA	2.28	0.49
1:f3:42:VAL:HG23	1:f3:66:PHE:HB3	1.95	0.49
2:w3:63:PRO:HA	4:B3:331:PRO:HA	1.94	0.49
4:B3:478:GLU:HA	4:B3:481:LYS:HG2	1.95	0.49
3:U4:36:GLU:HA	3:U4:39:PHE:CE2	2.48	0.49
4:B4:280:ALA:HA	4:B4:341:LEU:HA	1.95	0.49
4:b4:76:LEU:HD11	4:b4:372:GLN:HB2	1.94	0.49
4:b4:332:HIS:NE2	4:B5:284:SER:OG	2.29	0.49
4:B5:298:ALA:HB2	4:B5:323:VAL:HA	1.94	0.49
4:b5:208:GLU:OE1	4:b5:208:GLU:N	2.42	0.49
4:b5:209:ASP:OD1	4:b5:210:GLY:N	2.46	0.49
5:C0:229:GLU:HG3	5:C0:233:LYS:HD3	1.94	0.49
5:A1:29:ARG:HD3	5:A1:29:ARG:H	1.78	0.49
6:N1:5:GLU:H	6:N1:5:GLU:CD	2.21	0.49
6:N1:15:ASN:N	6:N1:80:THR:OG1	2.44	0.49
6:N1:79:GLY:O	6:N1:107:ILE:HA	2.12	0.49
5:A2:72:GLU:O	6:H2:2:THR:N	2.45	0.49
5:G2:59:SER:HB2	5:C2:81:LYS:HD3	1.93	0.49
6:J2:7:PHE:HD2	5:C3:94:PRO:HD3	1.77	0.49
6:J2:11:GLN:HB3	5:G3:64:ARG:HH11	1.76	0.49
5:C3:170:TRP:NE1	5:C3:340:LEU:HD22	2.22	0.49
6:J3:83:TYR:N	6:J3:110:VAL:O	2.45	0.49
5:A4:39:VAL:HG12	5:A4:74:THR:HG22	1.94	0.49
5:C4:309:VAL:HB	5:C4:317:GLU:HB3	1.95	0.49
6:J4:26:GLY:HA2	6:J4:47[A]:LEU:HB2	1.94	0.49
4:b:127:ASP:OD2	4:b:130:ARG:N	2.45	0.49
1:f2:83:ILE:N	1:f2:86:GLU:O	2.46	0.49
4:B3:46:ASP:HA	4:B3:50:LEU:HD23	1.95	0.49
4:B3:185:ASP:OD2	4:B3:190:ARG:NH1	2.46	0.49
4:B3:209:ASP:OD1	4:B3:210:GLY:N	2.45	0.49
4:B4:196:ASN:ND2	4:B4:198:SER:OG	2.35	0.49
5:C0:105:ALA:O	5:C0:108:ARG:HG3	2.12	0.49
5:C2:46:GLY:HA2	5:C2:66:ARG:HH21	1.76	0.49
6:J2:22:ALA:HB2	6:J2:77:LYS:HE3	1.93	0.49
5:A3:164:GLN:NE2	5:A3:169:GLU:O	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A3:247:ASP:CG	5:A3:248:VAL:HG23	2.38	0.49
5:G4:71:SER:HB3	5:G4:73:PHE:CE2	2.48	0.49
6:H4:83:TYR:HA	6:H4:109:ILE:HD11	1.95	0.49
4:B1:113:ALA:O	4:B1:116:LYS:HG3	2.13	0.49
4:b2:296:LEU:O	4:b2:298:ALA:N	2.46	0.49
4:b3:499:GLU:OE1	4:B4:487:GLN:NE2	2.46	0.49
4:b4:180:PRO:HA	4:b4:219:TRP:CD2	2.47	0.49
1:f5:66:PHE:HA	1:f5:102:HIS:HA	1.94	0.49
2:w5:5:GLU:H	2:w5:5:GLU:CD	2.21	0.49
4:b5:261:LEU:HD11	4:b5:359:LEU:HD22	1.93	0.49
5:A0:185:GLU:HA	5:G0:235:LEU:HD11	1.94	0.49
5:C0:79:LYS:NZ	5:G4:313:ASP:OD1	2.44	0.49
5:C1:132:VAL:O	5:C1:136:LEU:HB3	2.13	0.49
5:C1:169:GLU:HG3	5:C1:341:ALA:HB3	1.95	0.49
5:G2:311:THR:HB	5:C3:308:TRP:CD1	2.47	0.49
6:I2:41:ASP:HB3	6:I2:46:LYS:H	1.78	0.49
5:A3:181:THR:HG21	5:A3:217:LYS:NZ	2.28	0.49
6:J3:50:TRP:CH2	6:J3:52:GLY:HA2	2.48	0.49
6:N3:96:THR:O	6:N3:100:THR:HG22	2.13	0.49
2:w1:27:GLN:HG3	2:w1:32:ARG:CZ	2.43	0.49
2:w2:66:PHE:HB3	4:b2:325:LEU:HD21	1.95	0.49
4:b3:113:ALA:O	4:b3:116:LYS:HG3	2.13	0.49
4:b3:159:THR:O	4:b3:166:ARG:NH2	2.46	0.49
4:b3:332:HIS:ND1	4:B4:288:THR:HG22	2.28	0.49
2:w4:29:ASP:N	2:w4:29:ASP:OD1	2.46	0.49
4:b4:435:PHE:HA	4:b4:442:TRP:CD1	2.48	0.49
4:b5:144:MET:HE2	4:b5:174:PRO:HD3	1.95	0.49
5:G1:50:MET:HE1	5:C1:125:GLN:HB3	1.93	0.49
5:A2:162:ILE:O	5:A2:338:VAL:HA	2.12	0.49
5:G2:92:ARG:NH1	5:G2:95:ASP:O	2.46	0.49
5:G2:114:GLN:O	5:G2:117:ARG:HG2	2.13	0.49
6:J2:38:LEU:HA	6:J2:50:TRP:N	2.27	0.49
5:C4:181:THR:O	5:C4:184:ILE:HG12	2.13	0.49
5:C4:196:ASN:HA	5:C4:248:VAL:HG13	1.93	0.49
6:I4:61:ILE:HG23	6:I4:76:TYR:HB2	1.95	0.49
3:U2:84:MET:HE2	3:U2:126:LEU:HB2	1.95	0.48
4:B2:175:LYS:NZ	4:b2:43:GLU:O	2.44	0.48
4:b2:164:LEU:O	4:b2:422:ARG:NH1	2.45	0.48
3:U3:30:ARG:NH2	3:U3:31:PRO:HG3	2.27	0.48
4:B3:273:ILE:HG12	4:b3:264:LEU:HD13	1.95	0.48
4:b3:460:GLU:O	4:b3:463:GLU:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f4:26:SER:HA	1:f4:40:ARG:HA	1.95	0.48
5:A0:112:ILE:O	5:A0:116:MET:HG2	2.13	0.48
6:H0:94:ASP:O	6:H0:98:LYS:HG3	2.12	0.48
6:J0:99:ARG:HA	6:J0:109:ILE:HD11	1.94	0.48
5:G1:303:ARG:HB3	5:G1:321:ILE:HD12	1.95	0.48
5:A2:23:PHE:HB3	5:A2:28:PHE:HE2	1.78	0.48
5:C2:22:LEU:O	5:C2:26:LEU:CB	2.61	0.48
5:C2:199:VAL:HA	5:C2:251:VAL:O	2.13	0.48
6:H2:61:ILE:HG22	6:H2:76:TYR:HB2	1.95	0.48
5:G3:93:LEU:HG	5:G3:94:PRO:HD2	1.95	0.48
5:C3:162:ILE:O	5:C3:338:VAL:HA	2.13	0.48
6:J3:63:ALA:H	6:J3:75:PHE:HA	1.78	0.48
5:C4:203:LYS:HE3	5:C4:270:ASN:HB3	1.95	0.48
6:J4:61:ILE:O	6:J4:76:TYR:N	2.42	0.48
4:B1:134:PHE:O	4:B1:137:MET:HG3	2.13	0.48
4:b1:478:GLU:O	4:b1:481:LYS:HG3	2.13	0.48
4:b2:90:HIS:ND1	4:b2:444:ASN:O	2.42	0.48
4:b2:102:GLU:H	4:b2:102:GLU:CD	2.20	0.48
4:b2:286:LEU:HD23	4:b2:287:ASP:H	1.78	0.48
2:w3:60:ARG:HH12	4:B3:334:MET:H	1.61	0.48
3:U3:5:LYS:HD3	3:U3:132:TYR:HD2	1.79	0.48
3:U4:66:HIS:HD1	3:U4:127:THR:HG22	1.78	0.48
3:U5:47:THR:OG1	3:U5:66:HIS:NE2	2.27	0.48
3:U5:65:LEU:O	3:U5:127:THR:HA	2.12	0.48
3:U5:84:MET:HE1	3:U5:126:LEU:HD22	1.94	0.48
4:B5:157:TRP:CZ2	4:B5:166:ARG:HD2	2.48	0.48
5:G0:285:TYR:CG	5:G0:302:ALA:HA	2.47	0.48
5:G0:293:ALA:HB2	5:G0:304:TYR:CE2	2.47	0.48
5:G0:308:TRP:CZ3	5:G0:320:MET:HG3	2.48	0.48
5:C0:73:PHE:CD1	5:C0:152:VAL:HG13	2.48	0.48
5:C0:258:VAL:HG22	5:C0:263:LYS:HG2	1.96	0.48
6:J0:38:LEU:HA	6:J0:50:TRP:H	1.78	0.48
5:A1:105:ALA:O	5:A1:109:ARG:HG2	2.13	0.48
5:G1:28:PHE:HA	5:G1:281:GLY:HA3	1.94	0.48
6:N3:51:ASP:OD1	6:N3:52:GLY:N	2.46	0.48
5:G4:117:ARG:O	5:G4:120:GLU:HG3	2.12	0.48
2:w:28:LYS:HB3	2:w:31:ARG:HG3	1.96	0.48
2:w:66:PHE:HB3	4:b:325:LEU:HD21	1.95	0.48
4:B:349:ASN:HB2	4:b5:346:ASP:HA	1.95	0.48
4:B:402:PHE:O	4:B:406:ARG:HD3	2.14	0.48
4:b:175:LYS:NZ	4:B1:43:GLU:O	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:215:MET:N	4:b:215:MET:SD	2.86	0.48
1:f1:43:PHE:HE1	1:f1:63:PRO:HB3	1.76	0.48
2:w2:59:ARG:HH12	4:b2:287:ASP:HA	1.78	0.48
4:b2:196:ASN:HB3	4:b2:202:LEU:HD11	1.95	0.48
4:B3:270:GLN:HE21	4:B4:34:GLN:HE21	1.61	0.48
4:b4:166:ARG:NE	4:b4:422:ARG:HH12	2.10	0.48
4:b4:327:GLY:O	4:b4:329:LYS:NZ	2.35	0.48
4:B5:301:GLN:O	6:I1:11:GLN:NE2	2.43	0.48
4:B5:435:PHE:HA	4:B5:442:TRP:CD1	2.48	0.48
4:b5:181:ASN:H	4:b5:219:TRP:NE1	2.10	0.48
5:G0:78:VAL:HG22	5:G0:80:PRO:HD3	1.95	0.48
5:C0:29:ARG:H	5:C0:29:ARG:HD3	1.79	0.48
6:J0:63:ALA:HB3	6:J0:74:THR:HG23	1.95	0.48
5:A1:72:GLU:OE2	6:H1:3:SER:OG	2.26	0.48
5:A1:96:GLU:OE1	5:A1:107:ARG:NH1	2.46	0.48
5:A1:327:MET:SD	5:A1:327:MET:N	2.77	0.48
5:C1:137:LYS:HE2	5:C1:137:LYS:HA	1.95	0.48
5:A2:132:VAL:O	5:A2:136:LEU:CB	2.62	0.48
5:G2:47:LEU:HB3	5:C2:258:VAL:HG11	1.95	0.48
5:G2:75:PRO:C	5:G2:326:LEU:HD12	2.38	0.48
6:I2:39:MET:HE3	6:I2:50:TRP:HA	1.95	0.48
5:G3:22:LEU:HB3	5:G3:253:TYR:HE1	1.77	0.48
5:C3:232:VAL:HG23	5:C3:242:LYS:HE2	1.95	0.48
5:A4:72:GLU:OE2	6:H4:2:THR:OG1	2.31	0.48
5:G4:23:PHE:HE2	5:G4:132:VAL:HA	1.78	0.48
5:C4:92:ARG:NH1	5:C4:98:PRO:HG3	2.27	0.48
5:C4:169:GLU:HG3	5:C4:341:ALA:HB3	1.94	0.48
3:U:39:PHE:CZ	3:U:72:PRO:HA	2.49	0.48
3:U:78:SER:HB3	3:U1:10:ARG:NH2	2.29	0.48
4:B:493:GLN:NE2	4:b:471:GLY:O	2.46	0.48
4:B1:256:GLU:OE1	4:B1:256:GLU:N	2.41	0.48
4:b1:144:MET:HA	4:b1:147:PHE:CD2	2.49	0.48
4:b1:334:MET:SD	2:W2:60:ARG:NH1	2.86	0.48
4:B2:121:ASP:OD1	4:B2:121:ASP:N	2.46	0.48
4:B2:289:GLN:O	4:B2:292:MET:HG3	2.13	0.48
4:b2:448:ILE:HD11	4:b2:483:GLY:HA2	1.96	0.48
3:U3:58:SER:HB2	3:U3:133:GLU:CD	2.38	0.48
4:b3:195:ILE:HG22	4:b3:201:ALA:HA	1.95	0.48
1:f4:46:PRO:HD2	1:f4:62:SER:O	2.14	0.48
4:B4:127:ASP:N	4:B4:127:ASP:OD1	2.46	0.48
4:b4:88:LEU:HD23	4:b4:89:SER:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b4:301:GLN:HG2	4:b4:302:GLU:HG3	1.95	0.48
4:B5:209:ASP:N	4:B5:209:ASP:OD1	2.45	0.48
4:b5:154:GLN:NE2	4:b5:155:ALA:O	2.46	0.48
4:b5:175:LYS:HG3	4:b5:176:ARG:HD2	1.95	0.48
5:A0:35:THR:HG23	5:A0:36:THR:HG23	1.95	0.48
5:G0:4:TYR:OH	5:C1:70:THR:OG1	2.24	0.48
5:G0:81:LYS:HG2	5:G0:320:MET:SD	2.53	0.48
5:G0:313:ASP:OD2	5:C1:79:LYS:NZ	2.34	0.48
5:C0:115:ASN:O	5:C0:119:GLU:HG2	2.13	0.48
6:J0:81:PHE:HE1	6:J0:107:ILE:HD12	1.77	0.48
5:G1:3:MET:HE2	6:N1:5:GLU:HG3	1.95	0.48
5:G1:37:GLU:H	5:G1:37:GLU:CD	2.21	0.48
5:G1:66:ARG:NH1	5:C1:118:ASP:OD1	2.44	0.48
6:H1:39:MET:HG3	6:H1:48:VAL:HG23	1.94	0.48
5:A2:22:LEU:O	5:A2:26:LEU:HB3	2.12	0.48
5:C2:293:ALA:O	5:C2:298:ILE:HG22	2.13	0.48
6:H2:18:PRO:HB2	6:H2:20:HIS:CE1	2.48	0.48
5:A3:192:SER:OG	5:A3:334:GLU:OE2	2.22	0.48
5:G4:309:VAL:HA	5:G4:317:GLU:HA	1.95	0.48
2:W:28:LYS:HB3	2:W:31:ARG:HG3	1.94	0.48
4:B:393:TRP:CG	4:B:452:ARG:HD3	2.49	0.48
4:b:207:SER:OG	4:b:218:LYS:O	2.30	0.48
4:b2:268:GLN:NE2	4:b2:347:THR:O	2.47	0.48
1:f3:6:ASN:CG	1:f3:9:ASP:H	2.21	0.48
2:W3:41:SER:O	2:W3:45:LYS:HG2	2.13	0.48
4:B3:208:GLU:HG2	4:B3:218:LYS:H	1.78	0.48
4:B3:475:TYR:HA	4:B3:478:GLU:CD	2.38	0.48
2:W5:16:ASP:HB2	2:W5:21:LYS:HB2	1.94	0.48
3:U5:47:THR:HG1	3:U5:66:HIS:CD2	2.32	0.48
4:B5:258:MET:HE2	4:B5:258:MET:HA	1.95	0.48
4:b5:163:ARG:NH1	4:b5:164:LEU:H	2.11	0.48
5:A0:89:THR:HB	5:A0:107:ARG:HD2	1.95	0.48
5:G0:96:GLU:OE2	5:G0:102:ALA:N	2.46	0.48
5:G0:146:ALA:HA	6:I0:64:VAL:HG21	1.94	0.48
6:I0:39:MET:SD	6:I0:50:TRP:HA	2.53	0.48
5:C1:114:GLN:NE2	5:C1:118:ASP:OD2	2.47	0.48
5:C1:303:ARG:HD3	5:C1:323:SER:OG	2.13	0.48
6:N2:25:PRO:C	6:N2:46:LYS:HZ1	2.20	0.48
5:G3:86:PRO:HG3	5:C4:291:ALA:HB2	1.96	0.48
5:C3:44:ILE:HD12	5:C3:45:PRO:HD2	1.94	0.48
6:H3:84:GLU:OE1	6:H3:84:GLU:N	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I3:39:MET:HE3	6:I3:50:TRP:CD1	2.49	0.48
5:G4:331:ASP:CG	5:G4:334:GLU:HB2	2.39	0.48
1:f:6:ASN:OD1	1:f1:23:MET:HA	2.13	0.48
2:W:40:VAL:O	2:W:44:LYS:HG2	2.13	0.48
4:b:196:ASN:OD1	4:b:200:ALA:N	2.46	0.48
4:B1:52:ASN:HB2	4:B1:55:ARG:HG2	1.96	0.48
4:B1:324:ARG:HE	4:B1:325:LEU:N	2.11	0.48
4:b1:81:ILE:HD13	4:b1:142:VAL:HG21	1.96	0.48
4:B2:163:ARG:O	4:B2:166:ARG:NH1	2.46	0.48
4:B2:208:GLU:CD	4:B2:218:LYS:HG2	2.39	0.48
4:b2:124:CYS:O	4:b2:130:ARG:HA	2.14	0.48
4:b2:216:PRO:HG3	5:G4:283:ARG:HH12	1.78	0.48
1:f3:74:GLN:HA	1:f3:76:ARG:NH1	2.28	0.48
4:b3:145:HIS:CE1	4:b3:237:PHE:HA	2.49	0.48
4:b4:282:ILE:HD11	4:b4:296:LEU:HD21	1.95	0.48
4:B5:55:ARG:HH22	4:B5:59:ARG:HH22	1.60	0.48
4:B5:461:VAL:HG11	4:b5:463:GLU:HG3	1.95	0.48
5:A1:174:ASP:CG	5:A1:176:SER:HG	2.21	0.48
5:C1:84:VAL:HG23	5:C1:86:PRO:HD3	1.95	0.48
5:A2:257:TYR:HE1	5:A2:266:PHE:HA	1.79	0.48
5:G2:66:ARG:HD2	5:C2:114:GLN:HG2	1.95	0.48
5:C2:22:LEU:O	5:C2:26:LEU:HB2	2.13	0.48
6:J3:5:GLU:N	5:G4:70:THR:OG1	2.47	0.48
5:A4:31:SER:HB3	5:A4:283:ARG:HB3	1.95	0.48
5:A4:257:TYR:HB3	5:A4:266:PHE:CZ	2.48	0.48
6:J4:33:PRO:O	6:J4:36:THR:OG1	2.31	0.48
1:f:66:PHE:HA	1:f:102:HIS:HA	1.96	0.48
4:b:145:HIS:HB2	4:b:151:LEU:HD23	1.96	0.48
3:U2:113:ARG:NE	3:U2:114:ARG:H	2.08	0.48
4:B2:45:VAL:HG23	4:B2:244:GLN:HB3	1.94	0.48
4:B2:133:THR:H	4:B2:136:MET:CG	2.26	0.48
1:f3:24:GLY:HA3	1:f3:42:VAL:HA	1.95	0.48
4:b4:332:HIS:ND1	4:B5:288:THR:HA	2.28	0.48
4:b5:88:LEU:HD23	4:b5:89:SER:N	2.28	0.48
5:G0:309:VAL:HB	5:G0:317:GLU:HG2	1.95	0.48
5:C0:18:LYS:HZ1	5:C0:256:GLN:N	2.12	0.48
6:H0:84:GLU:OE1	6:H0:84:GLU:N	2.44	0.48
5:C1:20:ASP:OD2	5:C1:25:ARG:NH2	2.46	0.48
5:C1:113:MET:HB3	5:C1:117:ARG:HH12	1.79	0.48
5:G3:108:ARG:HH22	5:C4:295:ARG:HA	1.79	0.48
5:G3:213:ALA:O	5:G3:216:GLU:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:173:ARG:HD3	5:A4:178:TYR:CZ	2.49	0.48
5:A4:245:TYR:HB2	5:A4:250:ILE:HD11	1.94	0.48
1:f:92:ARG:HB3	1:f:104:TRP:HD1	1.79	0.48
3:U1:81:ASP:OD1	3:U1:112:TYR:OH	2.23	0.48
4:B1:485:ASP:HB3	4:B1:488:GLU:OE1	2.14	0.48
4:b1:144:MET:SD	4:b1:151:LEU:HA	2.54	0.48
4:B2:328:ALA:N	4:b2:277:MET:SD	2.86	0.48
1:f3:82:THR:HA	1:f3:87:ASN:HA	1.95	0.48
4:B3:375:ARG:NH1	4:b3:391:GLU:OE2	2.46	0.48
3:U4:106:VAL:O	3:U4:129:VAL:N	2.42	0.48
4:B5:476:GLU:HB3	4:B5:486:TYR:CD1	2.48	0.48
5:G0:63:ILE:O	5:C0:82:HIS:NE2	2.46	0.48
6:N0:38:LEU:HD22	6:N0:47[A]:LEU:HG	1.95	0.48
5:A1:81:LYS:O	5:A1:82:HIS:ND1	2.46	0.48
5:G1:222:ARG:HH22	5:C1:220:THR:H	1.61	0.48
6:J1:39:MET:HE1	6:J1:51:ASP:H	1.79	0.48
5:G2:176:SER:HA	5:G2:212:LYS:HG2	1.94	0.48
5:A3:130:GLN:HG2	5:A3:140:TYR:CE2	2.48	0.48
5:G3:24:LEU:HD12	5:G3:283:ARG:HG3	1.95	0.48
5:G3:241:TYR:HD1	5:G3:251:VAL:HG13	1.79	0.48
2:W:67:TYR:CE1	4:B:322:PRO:HB2	2.49	0.48
3:U:82:ALA:O	3:U:86:SER:OG	2.25	0.48
4:B:180:PRO:HA	4:B:219:TRP:CD2	2.49	0.48
3:U1:8:GLU:OE1	3:U1:8:GLU:N	2.47	0.48
3:U1:30:ARG:HA	3:U1:30:ARG:HH11	1.78	0.48
4:B2:368:VAL:HG23	4:B2:396:PHE:HZ	1.78	0.48
4:b2:62:ASP:OD1	4:b2:66:ASN:ND2	2.46	0.48
4:b2:88:LEU:HD12	4:b2:447:TRP:CH2	2.48	0.48
4:b2:495:ARG:HA	4:b2:498:MET:HE2	1.95	0.48
4:B3:280:ALA:HB1	4:B3:339:LEU:HD11	1.96	0.48
1:f5:46:PRO:HG2	1:f5:62:SER:OG	2.14	0.48
4:b5:102:GLU:H	4:b5:102:GLU:CD	2.20	0.48
5:A0:257:TYR:HE1	5:A0:266:PHE:HA	1.78	0.48
5:C1:259:GLU:HG3	5:C1:260:ASN:H	1.78	0.48
5:C3:95:ASP:O	5:C3:96:GLU:HG3	2.13	0.48
6:J3:50:TRP:HE1	6:J3:57:ALA:HB3	1.78	0.48
5:A4:103:ASP:OD1	5:A4:106:TYR:N	2.37	0.48
5:C4:130:GLN:HG3	5:C4:140:TYR:CZ	2.49	0.48
4:B1:196:ASN:OD1	4:B1:199:GLY:N	2.47	0.48
4:B1:244:GLN:NE2	4:B1:247:GLY:HA2	2.29	0.48
4:b1:302:GLU:HG2	6:I4:9:HIS:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B2:106:ALA:O	4:B2:109:ARG:HG2	2.14	0.48
4:b2:230:ARG:NH2	4:b2:414:CYS:SG	2.87	0.48
4:B4:101:GLU:H	4:B4:101:GLU:CD	2.22	0.48
4:B4:128:VAL:HG21	4:B4:170:ARG:HD2	1.96	0.48
4:b4:65:ARG:NH1	4:b4:66:ASN:OD1	2.47	0.48
4:b4:196:ASN:ND2	4:b4:198:SER:OG	2.44	0.48
1:f5:90:VAL:HA	1:f5:105:LEU:HD13	1.95	0.48
5:A0:140:TYR:CE2	5:A0:142:MET:HB2	2.48	0.48
5:G0:122:ALA:HA	5:G0:125:GLN:NE2	2.28	0.48
5:G0:207:LEU:O	5:G0:210:SER:OG	2.20	0.48
6:J1:51:ASP:CG	6:J1:53:THR:HG1	2.21	0.48
5:C2:85:ASN:OD1	5:C2:88:MET:HB2	2.14	0.48
5:G4:40:TYR:HB2	5:C4:9:LEU:HB2	1.95	0.48
2:w:29:ASP:N	2:w:29:ASP:OD1	2.47	0.47
4:b:55:ARG:O	4:b:59:ARG:HG3	2.13	0.47
4:b:259:LYS:HE3	4:B1:38:TRP:CE2	2.49	0.47
4:B2:349:ASN:OD1	4:B2:349:ASN:N	2.45	0.47
4:B2:390:ASN:OD1	4:B2:452:ARG:NH2	2.47	0.47
4:B2:402:PHE:O	4:B2:406:ARG:HD3	2.13	0.47
4:b2:211:TYR:O	4:B3:190:ARG:NH2	2.47	0.47
3:U4:81:ASP:OD2	3:U5:10:ARG:NH2	2.43	0.47
4:b4:375:ARG:NH1	4:B5:363:ALA:O	2.47	0.47
4:b4:393:TRP:CE2	4:b4:452:ARG:HB2	2.48	0.47
4:B5:88:LEU:HD23	4:B5:89:SER:N	2.28	0.47
4:b5:78:GLN:HB3	4:b5:139:ARG:NH2	2.28	0.47
4:b5:90:HIS:NE2	4:b5:442:TRP:O	2.37	0.47
4:b5:152:PHE:HB3	4:b5:233:PHE:CZ	2.49	0.47
5:G0:222:ARG:NH2	5:C0:220:THR:H	2.07	0.47
5:A2:24:LEU:O	5:A2:283:ARG:NH2	2.43	0.47
5:A2:132:VAL:O	5:A2:136:LEU:HB2	2.14	0.47
5:C3:31:SER:HB2	5:C3:283:ARG:HB3	1.96	0.47
5:G4:163:THR:HG22	5:G4:165:SER:H	1.79	0.47
5:C4:237:LYS:HG2	5:C4:238:ALA:H	1.78	0.47
4:b:474:THR:HG23	4:b:477:LYS:H	1.78	0.47
1:f1:79:ASP:OD1	1:f1:79:ASP:N	2.46	0.47
4:b1:252:TYR:HA	4:b1:255:MET:HE3	1.97	0.47
4:b1:326:GLY:N	4:b1:329:LYS:HZ1	2.12	0.47
4:b1:375:ARG:HH22	4:B2:367:GLY:HA2	1.78	0.47
3:U2:107:ALA:HA	3:U2:128:TYR:CD1	2.50	0.47
4:B2:327:GLY:N	4:b2:277:MET:HE1	2.29	0.47
4:B2:327:GLY:O	4:B2:329:LYS:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b2:161:SER:HB3	4:b2:166:ARG:HH22	1.79	0.47
1:f3:100:SER:OG	2:w3:31:ARG:NH2	2.46	0.47
3:U3:114:ARG:HB2	1:f4:54:GLN:HB3	1.95	0.47
4:B3:31:PHE:O	4:B3:34:GLN:HB2	2.14	0.47
4:B3:81:ILE:O	4:B3:400:ARG:NE	2.31	0.47
4:B3:212:PRO:HB2	4:B3:214:TRP:CE3	2.49	0.47
1:f5:92:ARG:HH22	1:f5:94:SER:HA	1.79	0.47
5:C0:295:ARG:HG2	5:G4:108:ARG:NH2	2.28	0.47
6:N0:44:SER:O	6:N0:45:ARG:HG3	2.14	0.47
6:I1:20:HIS:O	6:I1:77:LYS:N	2.42	0.47
6:J1:25:PRO:HB2	6:J1:46:LYS:HE3	1.95	0.47
5:G2:253:TYR:CZ	5:G2:255:GLY:HA3	2.47	0.47
5:A3:124:ALA:O	5:A3:127:GLU:HG2	2.14	0.47
5:C4:115:ASN:HA	5:C4:118:ASP:OD2	2.15	0.47
3:U:5:LYS:NZ	3:U:101:LEU:O	2.46	0.47
3:U:59:ASP:HB2	3:U:61:TRP:CD1	2.48	0.47
4:B:31:PHE:O	4:B:34:GLN:HB2	2.13	0.47
4:b:95:ARG:NH1	4:b:95:ARG:HA	2.29	0.47
4:b:101:GLU:HG2	4:b:105:ARG:HH12	1.78	0.47
4:b:301:GLN:H	4:b:301:GLN:CD	2.22	0.47
1:f1:29:ILE:HG13	1:f1:81:LEU:HD13	1.96	0.47
2:W1:46:TYR:O	2:W1:49:GLU:HG3	2.14	0.47
4:B1:453:MET:SD	4:b1:390:ASN:HB3	2.54	0.47
4:b1:51:PRO:HB3	5:G0:298:ILE:HD13	1.96	0.47
4:b1:187:ARG:O	4:b1:190:ARG:NE	2.42	0.47
4:b2:334:MET:H	2:W3:60:ARG:HH22	1.62	0.47
4:B3:99:ILE:HD11	4:B3:431:ALA:HA	1.95	0.47
4:B3:132:ARG:HA	4:B3:136:MET:HE2	1.95	0.47
4:B3:215:MET:HB2	4:b3:187:ARG:HH21	1.79	0.47
3:U4:22:THR:HG23	3:U4:26:PHE:HE2	1.80	0.47
4:B4:479:CYS:HB2	4:B4:484:ASP:HB2	1.97	0.47
4:B5:296:LEU:HA	4:b5:278:TYR:OH	2.14	0.47
4:B5:453:MET:SD	4:b5:390:ASN:HB3	2.54	0.47
4:b5:410:GLN:O	4:b5:413:LEU:HG	2.14	0.47
5:A0:112:ILE:HA	5:A0:115:ASN:HD22	1.79	0.47
5:A1:26:LEU:O	5:A1:29:ARG:NH1	2.47	0.47
5:G1:139:LYS:HD2	5:G1:153:ASP:HA	1.95	0.47
5:G1:196:ASN:C	5:G1:248:VAL:HG23	2.39	0.47
5:C1:201:ASP:OD2	5:C1:271:THR:OG1	2.31	0.47
5:C1:204:GLY:O	5:C1:207:LEU:HG	2.14	0.47
5:A2:84:VAL:HB	5:A2:112:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G2:272:MET:HG3	5:G2:340:LEU:HD21	1.95	0.47
5:C3:8:GLN:NE2	5:C3:9:LEU:O	2.47	0.47
5:C3:109:ARG:O	5:C3:112:ILE:HG22	2.15	0.47
1:f:111:PRO:HB2	3:U:75:VAL:HA	1.96	0.47
4:b:56:GLY:HA3	4:b:252:TYR:HE1	1.79	0.47
4:B1:61:ASP:HB2	4:B1:65:ARG:HH22	1.78	0.47
4:B1:359:LEU:HA	4:B1:362:ILE:HG22	1.95	0.47
4:b1:90:HIS:N	4:b1:112:GLU:OE2	2.47	0.47
2:W2:7:LEU:HD11	2:W2:11:ARG:NH2	2.29	0.47
4:b2:123:CYS:SG	4:b2:125:CYS:N	2.66	0.47
4:B3:132:ARG:HB2	4:B3:137:MET:HE3	1.96	0.47
1:f4:23:MET:HE1	2:W4:28:LYS:HB2	1.97	0.47
4:B4:85:PHE:HB3	4:b4:401:LYS:NZ	2.28	0.47
4:B5:348:ASP:OD2	4:B5:352:SER:OG	2.32	0.47
5:G0:33:PRO:HB2	5:G0:300:ALA:HB1	1.96	0.47
5:C2:164:GLN:HB3	5:C2:169:GLU:HG3	1.96	0.47
6:I2:82:ARG:HH11	6:I2:84:GLU:HB2	1.78	0.47
5:G3:140:TYR:HB3	5:G3:152:VAL:HB	1.96	0.47
5:G3:222:ARG:HH21	5:C3:220:THR:H	1.63	0.47
5:G3:311:THR:HB	5:C4:308:TRP:CD1	2.48	0.47
5:C3:169:GLU:HG2	5:C3:170:TRP:H	1.79	0.47
4:B:476:GLU:HG3	4:B:486:TYR:CD1	2.49	0.47
4:B:500:ARG:NE	4:B:506:LYS:O	2.41	0.47
4:b:150:GLU:CD	4:b:246:ARG:HE	2.22	0.47
3:U1:115:ASP:HB2	3:U1:121:TRP:NE1	2.30	0.47
4:B1:99:ILE:HD11	4:B1:431:ALA:HA	1.97	0.47
4:B4:270:GLN:NE2	4:B5:34:GLN:OE1	2.48	0.47
1:f5:6:ASN:OD1	1:f5:9:ASP:N	2.48	0.47
2:W5:15:HIS:NE2	2:w5:6:GLU:HB2	2.29	0.47
4:B5:226:LEU:HD12	4:B5:230:ARG:HB3	1.96	0.47
4:b5:226:LEU:HD13	4:b5:230:ARG:HD2	1.95	0.47
5:A0:108:ARG:HA	5:A0:111:ILE:HG22	1.95	0.47
5:G0:53:TYR:CE2	5:C0:142:MET:HG3	2.49	0.47
5:G0:164:GLN:HG3	5:G0:170:TRP:CD1	2.49	0.47
5:G1:119:GLU:O	5:G1:123:ILE:HG22	2.14	0.47
5:G1:205:TRP:CZ2	5:G1:209:ARG:HD3	2.49	0.47
6:H1:31:LYS:HD2	6:H1:67:ASP:HB3	1.96	0.47
6:H1:87:LEU:HD23	6:H1:87:LEU:H	1.80	0.47
5:G2:81:LYS:NZ	5:G2:318:PHE:HB3	2.29	0.47
5:G2:108:ARG:HG3	5:G2:109:ARG:N	2.27	0.47
6:J2:20:HIS:HB3	6:J2:77:LYS:HZ3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:38:LYS:O	5:G4:8:GLN:HG2	2.14	0.47
5:C4:21:PRO:O	5:C4:253:TYR:OH	2.32	0.47
5:C4:129:MET:HA	5:C4:132:VAL:HG22	1.97	0.47
2:w:25:THR:OG1	2:w:33:VAL:O	2.24	0.47
4:B:349:ASN:OD1	4:B:349:ASN:N	2.43	0.47
4:B:475:TYR:HA	4:B:478:GLU:CD	2.39	0.47
4:b:255:MET:HA	4:b:258:MET:HE2	1.97	0.47
4:b:375:ARG:HH21	4:B1:367:GLY:HA2	1.79	0.47
4:b:427:LEU:HD12	4:b:428:PRO:HD2	1.97	0.47
3:U1:25:THR:OG1	3:U1:38:ASP:OD1	2.29	0.47
4:B2:211:TYR:HE2	4:b2:190:ARG:HD3	1.80	0.47
4:b2:418:GLU:HA	4:b2:421:VAL:HG12	1.96	0.47
3:U3:98:LEU:O	3:U3:102:ILE:N	2.48	0.47
4:B3:92:PRO:HA	4:B3:444:ASN:HD22	1.79	0.47
4:b3:31:PHE:O	4:b3:34:GLN:HB2	2.13	0.47
4:b3:102:GLU:CD	4:b3:102:GLU:H	2.23	0.47
4:b3:332:HIS:ND1	4:B4:288:THR:HA	2.29	0.47
4:B4:159:THR:HA	4:B4:166:ARG:NH2	2.29	0.47
4:B4:360:ARG:HD2	4:B4:370:TYR:CD1	2.50	0.47
4:b4:195:ILE:HA	4:b4:201:ALA:HA	1.96	0.47
4:b4:212:PRO:HB2	4:b4:214:TRP:CE3	2.50	0.47
4:b5:105:ARG:HG3	4:b5:109:ARG:NH2	2.30	0.47
5:G0:103:ASP:CG	5:C1:299:ASN:HD21	2.22	0.47
6:H0:18:PRO:HB2	6:H0:20:HIS:CE1	2.50	0.47
6:H0:21:THR:HG21	5:G1:58:VAL:HG12	1.97	0.47
5:A1:267:LEU:HB3	5:A1:271:THR:HG21	1.97	0.47
5:C1:24:LEU:HA	5:C1:283:ARG:HH22	1.78	0.47
5:C2:24:LEU:HB3	5:C2:283:ARG:CZ	2.45	0.47
5:C3:114:GLN:HA	5:C3:117:ARG:HG2	1.97	0.47
5:C3:164:GLN:NE2	5:C3:164:GLN:O	2.44	0.47
6:H3:59:VAL:HG21	6:J3:103:ALA:HB1	1.97	0.47
5:G4:37:GLU:OE2	5:C4:6:THR:N	2.42	0.47
5:C4:83:GLU:HG2	5:C4:84:VAL:H	1.80	0.47
6:H4:106:ALA:O	6:I4:77:LYS:NZ	2.44	0.47
6:I4:40:LEU:HD21	6:I4:45:ARG:HG3	1.96	0.47
6:I4:51:ASP:OD2	6:I4:53:THR:OG1	2.30	0.47
4:B:67:ASN:HD21	4:B:69:TYR:HB2	1.79	0.47
4:B:438:ALA:HB1	4:B:441:ALA:HB3	1.97	0.47
4:b:144:MET:O	4:b:148:ASN:HB2	2.14	0.47
4:b:181:ASN:H	4:b:219:TRP:NE1	2.12	0.47
1:f1:16:ASP:OD1	1:f1:17:GLU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B1:66:ASN:OD1	4:B2:26:GLY:N	2.47	0.47
4:B1:67:ASN:OD1	4:B1:70:ALA:N	2.34	0.47
4:B1:102:GLU:H	4:B1:102:GLU:CD	2.22	0.47
4:B1:136:MET:HA	4:B1:139:ARG:HD3	1.95	0.47
4:B1:387:ALA:HA	4:B1:390:ASN:HD21	1.80	0.47
4:b1:254:VAL:HG21	4:b1:362:ILE:HA	1.97	0.47
4:B2:210:GLY:HA3	4:B2:217:GLN:HE21	1.79	0.47
4:B3:485:ASP:HB3	4:B3:488:GLU:OE2	2.15	0.47
1:f4:16:ASP:OD2	1:f4:100:SER:OG	2.29	0.47
4:B4:359:LEU:HD23	4:B4:362:ILE:HD12	1.97	0.47
4:b4:211:TYR:HB3	4:B5:190:ARG:HH21	1.78	0.47
4:b4:255:MET:HG2	4:b4:256:GLU:N	2.29	0.47
3:U5:5:LYS:HZ2	3:U5:132:TYR:HB2	1.80	0.47
3:U5:17:LEU:O	3:U5:20:HIS:ND1	2.48	0.47
4:B5:102:GLU:H	4:B5:102:GLU:CD	2.23	0.47
4:B5:179:ASN:ND2	4:B5:184:GLY:O	2.48	0.47
4:b5:94:TRP:CH2	4:b5:95:ARG:HD3	2.50	0.47
4:b5:150:GLU:HB2	4:b5:235:HIS:CE1	2.50	0.47
4:b5:212:PRO:HB2	4:b5:214:TRP:CD1	2.49	0.47
5:C0:82:HIS:HB3	5:C0:115:ASN:HD21	1.79	0.47
5:C0:93:LEU:HD12	5:C0:94:PRO:HD2	1.95	0.47
5:C0:295:ARG:HA	5:G4:108:ARG:CZ	2.45	0.47
6:H0:83:TYR:N	6:H0:110:VAL:O	2.47	0.47
6:N0:31:LYS:HA	6:N0:67:ASP:HA	1.96	0.47
5:A1:44:ILE:HG13	5:A1:66:ARG:NH2	2.30	0.47
5:C1:29:ARG:NH1	5:C1:277:THR:O	2.48	0.47
5:A2:118:ASP:O	5:A2:121:LEU:HG	2.14	0.47
5:A2:237:LYS:HD2	5:A2:238:ALA:N	2.30	0.47
5:G2:31:SER:HA	5:G2:283:ARG:HB2	1.97	0.47
5:A3:125:GLN:OE1	5:A3:258:VAL:N	2.45	0.47
5:G3:159:GLU:OE1	5:G3:159:GLU:N	2.36	0.47
5:C3:24:LEU:HA	5:C3:28:PHE:HD2	1.79	0.47
5:A4:49:ASN:ND2	5:G4:260:ASN:HA	2.29	0.47
5:G4:213:ALA:O	5:G4:216:GLU:HG2	2.14	0.47
1:f58:VAL:HG21	3:U:121:TRP:CD1	2.50	0.47
3:U:53:GLY:O	3:U:60:THR:OG1	2.33	0.47
4:B:214:TRP:HA	5:G1:302:ALA:HB2	1.96	0.47
3:U1:110:TYR:HB2	3:U1:126:LEU:HD13	1.96	0.47
4:B1:52:ASN:OD1	4:B1:52:ASN:N	2.48	0.47
4:B1:214:TRP:CE3	5:G0:305:PRO:HG2	2.49	0.47
4:b1:76:LEU:HD13	4:b1:372:GLN:HG3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w2:61:ARG:NH2	4:b2:318:TYR:O	2.48	0.47
4:B2:371:GLU:HB2	4:B2:377:TYR:CE1	2.50	0.47
4:b2:31:PHE:O	4:b2:34:GLN:HB2	2.14	0.47
1:f4:66:PHE:HB2	1:f4:102:HIS:CE1	2.50	0.47
3:U4:22:THR:HG22	3:U4:23:GLY:H	1.80	0.47
3:U4:53:GLY:O	3:U4:60:THR:OG1	2.32	0.47
4:B4:286:LEU:HD23	4:B4:286:LEU:H	1.80	0.47
4:b4:61:ASP:HA	4:b4:64:VAL:HG12	1.96	0.47
2:W5:25:THR:HG22	2:W5:34:GLU:HB2	1.96	0.47
4:b5:234:ILE:HG13	4:b5:410:GLN:HG2	1.97	0.47
4:b5:282:ILE:HD13	4:b5:339:LEU:HB2	1.97	0.47
4:b5:390:ASN:OD1	4:b5:452:ARG:NH2	2.42	0.47
5:G0:3:MET:HE2	5:G0:4:TYR:HD1	1.80	0.47
5:C0:69:SER:HB3	6:N4:6:THR:HG23	1.96	0.47
5:A1:59:SER:OG	5:A1:60:GLY:N	2.48	0.47
5:A1:86:PRO:O	5:A1:89:THR:OG1	2.29	0.47
5:A1:175:LYS:HA	5:A1:211:PHE:CD1	2.50	0.47
6:N1:14:GLY:HA2	5:C2:64:ARG:HH22	1.79	0.47
5:A2:41:LEU:O	5:A2:71:SER:N	2.46	0.47
5:A3:96:GLU:OE2	5:A3:102:ALA:N	2.47	0.47
6:H3:96:THR:O	6:H3:100:THR:HG22	2.14	0.47
5:G4:186:ALA:HA	5:G4:189:LEU:HD23	1.97	0.47
6:I4:45:ARG:HH11	6:I4:45:ARG:HB2	1.80	0.47
1:f:70:ASP:HA	1:f:73:ARG:NE	2.30	0.47
3:U:134:MET:HE2	3:U:134:MET:HB2	1.75	0.47
1:f2:79:ASP:OD1	1:f2:79:ASP:N	2.48	0.47
3:U5:87:ARG:HB2	3:U5:88:ILE:HD12	1.97	0.47
4:b5:63:LEU:HD13	4:b5:258:MET:SD	2.55	0.47
5:C0:270:ASN:O	5:C0:339:GLN:NE2	2.48	0.47
5:G1:257:TYR:HB3	5:G1:266:PHE:CZ	2.50	0.47
5:C1:164:GLN:O	5:C1:169:GLU:HB3	2.15	0.47
5:A2:44:ILE:HD12	5:A2:45:PRO:HD2	1.96	0.47
5:C2:14:GLU:OE1	5:C2:14:GLU:N	2.47	0.47
5:C2:95:ASP:C	5:C2:96:GLU:HG3	2.39	0.47
5:C2:234:ASP:OD1	5:C2:237:LYS:HB3	2.14	0.47
5:C3:169:GLU:H	5:C3:169:GLU:CD	2.19	0.47
5:A4:43:GLN:NE2	5:A4:69:SER:OG	2.48	0.47
6:I4:34:ALA:O	6:I4:35:MET:HG3	2.14	0.47
1:f:19:ILE:HG22	2:W:26:VAL:HG13	1.96	0.47
4:b:289:GLN:O	4:b:292:MET:HG2	2.14	0.47
1:f1:115:ARG:HG2	3:U2:27:PHE:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w1:17:LEU:HD12	2:w1:22:ARG:HG2	1.96	0.47
3:U1:22:THR:OG1	3:U1:23:GLY:N	2.45	0.47
4:B1:91:ARG:HD3	4:B1:91:ARG:H	1.80	0.47
4:B1:138:ILE:HD12	4:B1:407:GLN:NE2	2.29	0.47
4:B2:101:GLU:OE1	4:B2:101:GLU:N	2.39	0.47
4:b2:128:VAL:HG22	4:b2:170:ARG:HB2	1.97	0.47
4:b3:332:HIS:NE2	4:B4:284:SER:O	2.44	0.47
3:U5:20:HIS:CD2	3:U5:87:ARG:HE	2.33	0.47
6:I0:68:GLN:NE2	6:I0:68:GLN:H	2.13	0.47
5:A1:194:VAL:HG22	5:G1:237:LYS:HB3	1.96	0.47
5:G3:92:ARG:NH1	5:G3:95:ASP:O	2.48	0.47
5:G3:93:LEU:HB3	5:G3:95:ASP:OD1	2.15	0.47
5:G3:219:ASP:OD1	5:G3:219:ASP:N	2.46	0.47
6:H3:74:THR:HG21	5:C4:146:ALA:HB2	1.97	0.47
6:H3:94:ASP:O	6:H3:98:LYS:HG3	2.15	0.47
6:I3:26:GLY:H	6:I3:72:THR:HA	1.80	0.47
5:C4:201:ASP:OD2	5:C4:271:THR:N	2.47	0.47
1:f:64:SER:HA	1:f:103:LEU:O	2.14	0.46
4:B:87:ARG:HB2	4:B:448:ILE:HG13	1.97	0.46
4:B:140:GLU:HG3	4:B:171:MET:HE3	1.96	0.46
4:b:34:GLN:HB3	4:b:35:LEU:HD23	1.96	0.46
4:b:183:THR:HA	5:G1:280:ARG:HH12	1.80	0.46
4:b:393:TRP:CD2	4:b:452:ARG:HG2	2.50	0.46
2:W1:54:THR:HG23	2:W1:56:MET:H	1.79	0.46
2:w1:24:ALA:N	2:W2:34:GLU:O	2.47	0.46
3:U1:54:GLU:OE2	3:U1:62:GLN:NE2	2.48	0.46
4:B2:173:SER:HB3	4:B2:176:ARG:HG2	1.97	0.46
4:B2:386:ARG:HH12	4:B2:452:ARG:HH22	1.62	0.46
1:f3:90:VAL:HA	1:f3:105:LEU:HD13	1.96	0.46
4:B3:131:LYS:NZ	4:b3:244:GLN:O	2.47	0.46
4:B4:109:ARG:HH22	4:b4:95:ARG:HG3	1.79	0.46
4:B4:395:TYR:O	4:B4:399:ARG:HG2	2.14	0.46
2:w5:56:MET:SD	2:w5:57:THR:N	2.88	0.46
4:B5:410:GLN:O	4:B5:413:LEU:HG	2.15	0.46
6:J0:9:HIS:NE2	5:C1:85:ASN:OD1	2.49	0.46
6:N0:39:MET:HE3	6:N0:50:TRP:HD1	1.79	0.46
5:A1:72:GLU:OE2	6:H1:2:THR:OG1	2.33	0.46
5:A3:113:MET:HE3	5:A3:113:MET:HB3	1.84	0.46
5:C3:259:GLU:HB2	5:C3:264:LYS:HZ2	1.81	0.46
5:C3:281:GLY:O	5:C3:282:LEU:HD13	2.14	0.46
5:A4:22:LEU:H	5:A4:25:ARG:NH1	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C4:24:LEU:HB3	5:C4:283:ARG:CZ	2.44	0.46
5:C4:213:ALA:O	5:C4:216:GLU:HG2	2.15	0.46
4:B:242:ASP:HA	4:b5:132:ARG:HH22	1.79	0.46
4:B:356:GLN:O	4:B:360:ARG:HG3	2.15	0.46
4:b:395:TYR:O	4:b:399:ARG:HG2	2.15	0.46
4:b1:157:TRP:HB2	4:b1:230:ARG:NH2	2.29	0.46
4:b1:289:GLN:O	4:b1:292:MET:HG2	2.15	0.46
2:w2:3:ARG:NE	2:w2:6:GLU:OE2	2.38	0.46
3:U2:107:ALA:HA	3:U2:128:TYR:HD1	1.79	0.46
4:B3:175:LYS:HB3	4:B3:175:LYS:HE2	1.67	0.46
4:B3:359:LEU:HD13	4:B3:359:LEU:HA	1.78	0.46
4:b3:212:PRO:HB2	4:b3:214:TRP:CD1	2.50	0.46
3:U4:115:ASP:OD2	3:U4:120:LEU:N	2.32	0.46
4:b4:474:THR:OG1	4:b4:476:GLU:OE1	2.23	0.46
4:b4:505:LEU:HD23	4:b4:505:LEU:H	1.81	0.46
4:B5:393:TRP:CZ2	4:B5:452:ARG:HA	2.50	0.46
4:b5:356:GLN:CD	4:b5:370:TYR:HH	2.17	0.46
5:A0:39:VAL:H	5:A0:74:THR:HG22	1.79	0.46
5:C0:93:LEU:HD23	5:C0:95:ASP:HB3	1.96	0.46
6:H0:50:TRP:CH2	6:H0:52:GLY:HA2	2.51	0.46
5:G1:159:GLU:O	5:G1:190:ASN:ND2	2.48	0.46
5:G1:205:TRP:CH2	5:G1:209:ARG:HD3	2.50	0.46
5:C1:52:LEU:HD23	5:C1:52:LEU:H	1.80	0.46
6:J1:93:SER:N	6:J1:97:LYS:HZ1	2.13	0.46
5:A2:239:VAL:HB	5:A2:253:TYR:CD1	2.50	0.46
5:G2:214:VAL:O	5:G2:218:LEU:HD23	2.15	0.46
5:A3:48:VAL:HG22	5:A3:49:ASN:H	1.80	0.46
5:A3:154:MET:SD	5:A3:332:PRO:HB3	2.56	0.46
5:G3:194:VAL:O	5:G3:276:ASN:ND2	2.43	0.46
6:I3:50:TRP:CH2	6:I3:52:GLY:HA2	2.50	0.46
5:A4:163:THR:HG23	5:A4:339:GLN:HB2	1.97	0.46
5:G4:176:SER:HA	5:G4:212:LYS:HG2	1.97	0.46
4:b:115:TRP:HD1	4:b:415:TRP:CE3	2.33	0.46
4:b:171:MET:HG2	4:B1:242:ASP:HB3	1.98	0.46
4:B1:390:ASN:HB3	4:B1:452:ARG:HH22	1.79	0.46
4:B2:346:ASP:HA	4:b2:349:ASN:HB2	1.97	0.46
4:b2:334:MET:HG3	4:b2:335:PRO:HD2	1.97	0.46
1:f3:19:ILE:HD11	2:W3:28:LYS:HB2	1.97	0.46
4:B3:180:PRO:HA	4:B3:219:TRP:CE2	2.51	0.46
4:B3:434:SER:N	4:B3:437:GLU:OE2	2.45	0.46
3:U4:71:LEU:HB3	3:U4:75:VAL:HG11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b5:357:SER:O	4:b5:360:ARG:HG2	2.15	0.46
6:J0:82:ARG:HH21	5:G1:62:VAL:HG13	1.79	0.46
5:A1:222:ARG:HG3	5:G1:218:LEU:HD12	1.97	0.46
6:H1:50:TRP:HE1	6:H1:57:ALA:HB3	1.81	0.46
6:N2:4:LYS:HE3	5:C3:69:SER:HB2	1.98	0.46
5:G3:50:MET:HE1	5:C3:126:VAL:HA	1.98	0.46
6:J3:80:THR:HA	6:J3:108:SER:O	2.15	0.46
5:C4:29:ARG:HD3	5:C4:29:ARG:H	1.81	0.46
4:B1:207:SER:HA	4:B1:219:TRP:HA	1.98	0.46
4:B1:342:GLN:O	4:b1:275:LYS:NZ	2.39	0.46
4:B1:458:LEU:N	4:b1:463:GLU:OE2	2.49	0.46
4:B1:493:GLN:O	4:B1:497:THR:OG1	2.26	0.46
4:b1:78:GLN:HB2	4:b1:139:ARG:NE	2.30	0.46
2:w2:27:GLN:NE2	2:w2:32:ARG:HE	2.13	0.46
4:b2:195:ILE:HG23	4:b2:199:GLY:HA2	1.98	0.46
2:W3:11:ARG:NH2	2:W3:51:GLU:OE1	2.49	0.46
4:B3:325:LEU:HD13	4:B3:325:LEU:HA	1.82	0.46
4:B3:441:ALA:HA	4:B3:444:ASN:HD21	1.80	0.46
4:b3:58:ALA:HB1	4:B4:40:PRO:HB2	1.96	0.46
4:b3:484:ASP:OD1	4:b3:484:ASP:N	2.48	0.46
4:B5:506:LYS:HE2	4:b5:511:ALA:H	1.81	0.46
4:b5:251:PHE:CE1	4:b5:366:LEU:HD11	2.51	0.46
5:A0:118:ASP:O	5:A0:121:LEU:HG	2.16	0.46
5:G0:29:ARG:C	5:G0:283:ARG:HH21	2.22	0.46
5:G0:115:ASN:HA	5:G0:118:ASP:OD2	2.16	0.46
5:G0:179:ASP:OD2	5:G0:181:THR:OG1	2.33	0.46
6:H0:4:LYS:NZ	6:H0:6:THR:HG22	2.31	0.46
6:N0:28:LEU:H	6:N0:28:LEU:HD12	1.80	0.46
5:A1:104:PRO:HA	5:A1:107:ARG:HG2	1.98	0.46
5:G1:63:ILE:HB	5:C1:82:HIS:NE2	2.30	0.46
5:G1:234:ASP:HB3	5:G1:240:SER:HB3	1.97	0.46
6:H1:40:LEU:HD23	6:H1:45:ARG:HH21	1.80	0.46
5:A2:20:ASP:O	5:A2:253:TYR:OH	2.15	0.46
6:I2:39:MET:SD	6:I2:48:VAL:HG23	2.55	0.46
5:A3:118:ASP:O	5:A3:121:LEU:HG	2.15	0.46
5:A3:322:GLN:OE1	5:A3:322:GLN:N	2.48	0.46
5:G3:146:ALA:HB2	6:I3:74:THR:HG21	1.98	0.46
5:C3:175:LYS:HD2	5:C3:211:PHE:HE1	1.80	0.46
5:G4:31:SER:HB3	5:G4:283:ARG:HB3	1.96	0.46
5:G4:106:TYR:O	5:G4:109:ARG:HG2	2.16	0.46
4:B:152:PHE:HB3	4:B:233:PHE:CZ	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:52:ASN:HD22	4:b:55:ARG:HE	1.62	0.46
1:f1:42:VAL:HG23	1:f1:66:PHE:HB3	1.98	0.46
4:b1:61:ASP:HA	4:b1:64:VAL:HG12	1.97	0.46
2:w2:14:LEU:HD13	2:w2:43:LEU:HD13	1.96	0.46
4:b2:127:ASP:N	4:b2:127:ASP:OD1	2.48	0.46
4:b2:212:PRO:C	4:b2:214:TRP:H	2.23	0.46
4:b3:33:GLY:HA3	4:b3:36:ARG:HD2	1.97	0.46
2:w4:7:LEU:HB2	2:w4:50:LEU:HD22	1.98	0.46
4:b4:460:GLU:CD	4:b4:460:GLU:H	2.23	0.46
2:w5:3:ARG:NH2	2:w5:6:GLU:OE2	2.49	0.46
4:b5:395:TYR:OH	4:b5:399:ARG:NH1	2.48	0.46
5:C0:127:GLU:OE1	5:C0:303:ARG:NH2	2.48	0.46
6:H0:51:ASP:CG	6:H0:53:THR:H	2.22	0.46
5:G1:201:ASP:CG	5:G1:271:THR:H	2.24	0.46
5:A2:257:TYR:CE1	5:A2:266:PHE:HA	2.51	0.46
5:G2:227:GLU:O	5:G2:244:MET:N	2.36	0.46
5:A3:28:PHE:HE2	5:A3:131:ALA:HB1	1.80	0.46
6:H4:39:MET:HA	6:H4:59:VAL:HG12	1.98	0.46
6:I4:50:TRP:CZ3	6:I4:52:GLY:HA2	2.50	0.46
2:W:56:MET:HE3	2:W:56:MET:HB3	1.87	0.46
4:B:24:TYR:N	4:b5:48:ALA:O	2.49	0.46
4:B:99:ILE:HA	4:B:430:LYS:NZ	2.30	0.46
4:B:497:THR:HG1	4:B:510:TRP:CD1	2.32	0.46
3:U1:84:MET:HG2	3:U1:110:TYR:OH	2.15	0.46
4:B1:254:VAL:HB	4:B1:362:ILE:HD12	1.97	0.46
4:b1:282:ILE:HD11	4:b1:296:LEU:HD11	1.97	0.46
4:b2:66:ASN:OD1	4:b3:26:GLY:N	2.48	0.46
4:B3:55:ARG:NH2	5:C4:100:ASN:OD1	2.42	0.46
4:b3:299:ASN:OD1	4:b3:301:GLN:NE2	2.48	0.46
2:W4:61:ARG:NH1	4:B4:289:GLN:OE1	2.49	0.46
4:B4:393:TRP:CD2	4:B4:452:ARG:HD2	2.51	0.46
3:U5:44:VAL:HB	3:U5:67:ILE:HD13	1.98	0.46
5:G0:203:LYS:NZ	5:G0:269:ASP:HB2	2.30	0.46
5:C0:305:PRO:HA	5:C0:321:ILE:HD13	1.97	0.46
6:H0:55:ASP:OD1	6:H0:55:ASP:N	2.41	0.46
5:A1:118:ASP:O	5:A1:121:LEU:HG	2.15	0.46
5:C1:21:PRO:C	5:C1:23:PHE:H	2.23	0.46
6:H1:59:VAL:HG21	6:J1:103:ALA:HB1	1.98	0.46
5:A2:96:GLU:OE2	5:A2:102:ALA:N	2.49	0.46
6:N2:41:ASP:OD1	6:N2:41:ASP:N	2.49	0.46
5:C3:87:GLN:OE1	5:C3:87:GLN:N	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C3:170:TRP:HB3	5:C3:207:LEU:HD21	1.96	0.46
6:J3:94:ASP:OD1	6:J3:94:ASP:N	2.40	0.46
5:A4:237:LYS:HG2	5:A4:238:ALA:H	1.81	0.46
5:C4:142:MET:HB3	5:C4:150:VAL:HB	1.97	0.46
2:W:15:HIS:CE1	2:w:6:GLU:HG2	2.51	0.46
2:W1:18:MET:HG2	2:w1:46:TYR:CD1	2.51	0.46
4:b1:124:CYS:SG	4:b1:132:ARG:N	2.89	0.46
2:W2:15:HIS:HA	2:W2:18:MET:SD	2.56	0.46
3:U2:9:LEU:HD12	3:U2:101:LEU:HD13	1.98	0.46
3:U2:106:VAL:HG23	3:U2:129:VAL:HB	1.97	0.46
4:B2:79:ASP:OD1	4:B2:139:ARG:NH2	2.40	0.46
4:B2:88:LEU:HD12	4:B2:447:TRP:CH2	2.50	0.46
4:B2:280:ALA:HA	4:B2:341:LEU:HA	1.97	0.46
4:B3:393:TRP:CZ3	4:B3:397:MET:HG2	2.50	0.46
4:b5:262:ASP:O	4:b5:265:GLN:HG3	2.15	0.46
5:A0:38:LYS:HD2	5:A0:72:GLU:HG2	1.98	0.46
5:G0:259:GLU:HG3	5:G0:260:ASN:H	1.81	0.46
5:A1:62:VAL:HG23	6:H1:82:ARG:NH2	2.29	0.46
5:A2:83:GLU:OE1	5:A2:85:ASN:N	2.48	0.46
6:J3:10:TYR:CE2	6:J3:12:PRO:HG3	2.50	0.46
5:G4:40:TYR:HA	5:G4:71:SER:O	2.16	0.46
1:f:83:ILE:N	1:f:86:GLU:O	2.45	0.46
4:B1:404:ALA:HA	4:B1:407:GLN:HE21	1.80	0.46
1:f2:54:GLN:CD	3:U2:30:ARG:HH21	2.23	0.46
4:b3:99:ILE:HD11	4:b3:431:ALA:HA	1.98	0.46
4:B5:332:HIS:CE1	4:b5:288:THR:HG1	2.33	0.46
4:B5:386:ARG:NH1	4:B5:386:ARG:O	2.49	0.46
5:A0:53:TYR:OH	5:G0:140:TYR:OH	2.28	0.46
5:A0:309:VAL:HA	5:A0:317:GLU:HA	1.96	0.46
5:C0:80:PRO:HB2	5:C0:119:GLU:OE1	2.15	0.46
6:J1:11:GLN:NE2	5:C2:88:MET:HE1	2.30	0.46
5:A2:51:ALA:HB3	5:G2:126:VAL:HG21	1.98	0.46
5:G3:295:ARG:NH1	5:G3:296:GLU:HB2	2.31	0.46
4:B:117:GLU:O	4:B:121:ASP:HB3	2.16	0.46
4:b:144:MET:HE1	4:b:173:SER:HA	1.97	0.46
4:B1:251:PHE:O	4:B1:255:MET:HG3	2.16	0.46
4:B1:341:LEU:HD23	4:b1:275:LYS:HD3	1.98	0.46
4:b1:126:ILE:HA	4:b1:163:ARG:HH12	1.81	0.46
3:U3:65:LEU:HD23	3:U3:130:ILE:HG12	1.97	0.46
1:f4:79:ASP:N	1:f4:79:ASP:OD1	2.49	0.46
4:B4:52:ASN:ND2	4:b4:28:GLY:HA2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B4:434:SER:OG	4:B4:437:GLU:OE1	2.22	0.46
4:b5:176:ARG:HH22	4:b5:208:GLU:C	2.18	0.46
5:A1:8:GLN:HE22	5:A1:10:LEU:HD13	1.80	0.46
5:A1:139:LYS:NZ	5:A1:151:GLU:OE1	2.46	0.46
5:G1:94:PRO:HD3	6:H1:7:PHE:HD2	1.81	0.46
5:C1:28:PHE:HB2	5:C1:283:ARG:CZ	2.46	0.46
5:C1:270:ASN:HB3	5:C1:340:LEU:HB2	1.98	0.46
5:A2:132:VAL:HG21	5:A2:266:PHE:HB3	1.96	0.46
5:A2:302:ALA:O	5:A2:303:ARG:NH1	2.40	0.46
5:G2:77:TYR:OH	5:G2:289:GLN:HG3	2.16	0.46
5:G2:184:ILE:HD11	5:G2:198:ILE:HD11	1.98	0.46
6:H2:51:ASP:CG	6:H2:53:THR:H	2.23	0.46
5:A4:114:GLN:HA	5:A4:117:ARG:NH1	2.31	0.46
4:B:101:GLU:H	4:B:101:GLU:CD	2.24	0.46
4:b:166:ARG:N	4:b:418:GLU:OE2	2.29	0.46
1:f1:68:ARG:HA	1:f1:100:SER:HA	1.98	0.46
4:b1:355:GLU:HG2	4:b1:359:LEU:HD13	1.98	0.46
4:b1:460:GLU:H	4:b1:460:GLU:CD	2.18	0.46
1:f2:68:ARG:HD2	1:f2:70:ASP:H	1.81	0.46
3:U2:14:LEU:HD11	3:U2:28:ASP:HB2	1.98	0.46
3:U3:51:TYR:HE1	3:U3:59:ASP:HA	1.80	0.46
4:B3:196:ASN:ND2	4:B3:198:SER:OG	2.46	0.46
4:b3:55:ARG:NH2	4:B4:28:GLY:O	2.50	0.46
4:b4:478:GLU:HG2	4:b4:479:CYS:N	2.31	0.46
4:b5:144:MET:HE1	4:b5:151:LEU:HA	1.98	0.46
5:A0:42:SER:OG	5:G0:94:PRO:HB2	2.15	0.46
5:A0:130:GLN:HG3	5:A0:327:MET:HB2	1.98	0.46
5:A1:200:PHE:HE1	5:A1:272:MET:HB2	1.81	0.46
6:J1:68:GLN:H	6:J1:68:GLN:CD	2.23	0.46
6:N1:41:ASP:HB3	6:N1:46:LYS:H	1.81	0.46
5:C2:163:THR:HG23	5:C2:339:GLN:HB3	1.97	0.46
6:N2:95:GLU:O	6:N2:99:ARG:HG2	2.15	0.46
5:A3:204:GLY:O	5:A3:207:LEU:HG	2.16	0.46
6:N3:11:GLN:H	6:N3:82:ARG:HH21	1.64	0.46
5:A4:8:GLN:HE22	5:A4:10:LEU:HD13	1.81	0.46
6:I4:51:ASP:OD1	6:I4:52:GLY:N	2.49	0.46
1:f2:54:GLN:HG2	1:f2:55:GLY:H	1.80	0.45
2:W2:22:ARG:NH2	2:W2:36:THR:O	2.48	0.45
4:B2:386:ARG:HD3	4:B2:455:ILE:HG21	1.97	0.45
4:b3:132:ARG:HG3	4:b3:137:MET:HE2	1.97	0.45
1:f5:31:SER:OG	1:f5:32:GLY:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:259:GLU:HG2	5:A0:260:ASN:H	1.80	0.45
5:G0:69:SER:HA	6:J4:4:LYS:HZ2	1.80	0.45
5:C0:64:ARG:NE	6:N4:11:GLN:OE1	2.37	0.45
6:H0:41:ASP:OD2	6:H0:43:SER:OG	2.31	0.45
6:H0:50:TRP:HE1	6:H0:57:ALA:HB3	1.81	0.45
5:C1:311:THR:OG1	5:C1:312:GLY:N	2.48	0.45
6:N1:3:SER:OG	5:C2:72:GLU:OE2	2.34	0.45
6:N1:31:LYS:HA	6:N1:67:ASP:HA	1.97	0.45
5:G2:112:ILE:O	5:G2:116:MET:HG2	2.15	0.45
5:G2:247:ASP:HB2	5:C2:233:LYS:C	2.41	0.45
5:C2:339:GLN:NE2	5:C2:340:LEU:O	2.41	0.45
5:A3:17:PHE:CE2	5:A3:19:PHE:HB2	2.51	0.45
5:G3:46:GLY:H	5:C3:16:LYS:HA	1.81	0.45
5:G3:307:ASN:HA	5:G3:318:PHE:O	2.16	0.45
6:N4:90:GLU:H	6:N4:90:GLU:CD	2.23	0.45
1:f:82:THR:HA	1:f:87:ASN:HA	1.97	0.45
3:U1:39:PHE:HB3	3:U1:40:PRO:CD	2.45	0.45
4:b1:81:ILE:HG21	4:b1:142:VAL:HG21	1.98	0.45
4:b1:485:ASP:HB3	4:b1:488:GLU:OE1	2.17	0.45
1:f2:115:ARG:HG3	3:U3:27:PHE:HE1	1.81	0.45
2:w2:46:TYR:O	2:w2:49:GLU:HG3	2.16	0.45
1:f3:56:VAL:O	1:f3:58:VAL:HG13	2.16	0.45
4:b3:52:ASN:HD22	4:B4:28:GLY:HA2	1.80	0.45
4:b3:408:ALA:HA	4:b3:411:MET:HE2	1.99	0.45
1:f4:24:GLY:HA3	1:f4:42:VAL:HA	1.99	0.45
1:f4:56:VAL:O	1:f4:58:VAL:HG13	2.16	0.45
2:w4:49:GLU:HA	2:w4:52:VAL:HG12	1.98	0.45
4:B4:334:MET:HE2	4:B4:334:MET:HB2	1.90	0.45
5:G0:80:PRO:HB2	5:G0:119:GLU:OE1	2.15	0.45
5:G1:201:ASP:OD1	5:G1:271:THR:OG1	2.31	0.45
6:I1:31:LYS:NZ	6:I1:65:ALA:HB1	2.31	0.45
5:A2:169:GLU:OE1	5:A2:169:GLU:N	2.35	0.45
5:G2:50:MET:HE3	5:C2:126:VAL:HG12	1.98	0.45
5:G2:194:VAL:O	5:G2:276:ASN:ND2	2.48	0.45
6:J2:11:GLN:HE22	5:C3:85:ASN:HB3	1.81	0.45
5:A4:232:VAL:HG23	5:A4:235:LEU:HD11	1.98	0.45
6:J4:83:TYR:N	6:J4:110:VAL:O	2.48	0.45
6:J4:88:TRP:CE3	6:J4:98:LYS:HG2	2.52	0.45
4:B:260:MET:HE3	4:b:34:GLN:HG2	1.97	0.45
4:b:333:LEU:H	4:b:333:LEU:HD23	1.82	0.45
4:b:485:ASP:HB3	4:b:488:GLU:OE1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b1:436:GLN:HG3	4:b1:439:ARG:NH2	2.31	0.45
2:w2:4:GLN:OE1	2:w2:4:GLN:N	2.44	0.45
4:B2:215:MET:HB3	4:b2:187:ARG:NH2	2.32	0.45
4:B2:369:SER:HB3	4:B2:392:SER:OG	2.16	0.45
2:W4:68:VAL:O	4:b5:37:SER:OG	2.33	0.45
4:B4:439:ARG:O	4:B4:443:GLY:N	2.46	0.45
1:f5:89:TRP:NE1	1:f5:107:ARG:O	2.44	0.45
3:U5:10:ARG:HA	3:U5:13:VAL:HG12	1.99	0.45
3:U5:53:GLY:O	3:U5:60:THR:OG1	2.28	0.45
5:A0:242:LYS:HE2	5:A0:252:VAL:HG21	1.97	0.45
5:C0:43:GLN:HE21	5:C0:69:SER:HG	1.62	0.45
5:G1:43:GLN:HA	5:C1:13:ASN:O	2.16	0.45
5:G1:88:MET:HG3	6:H1:9:HIS:ND1	2.31	0.45
5:G1:162:ILE:H	5:G1:162:ILE:HD12	1.81	0.45
5:C1:18:LYS:NZ	5:C1:254:SER:O	2.43	0.45
6:I1:68:GLN:N	6:I1:68:GLN:OE1	2.49	0.45
5:C2:78:VAL:HG12	5:C2:80:PRO:HD3	1.99	0.45
5:C2:272:MET:HB2	5:C2:340:LEU:HD11	1.98	0.45
5:G3:43:GLN:H	5:G3:69:SER:CB	2.30	0.45
3:U:108:SER:OG	3:U:127:THR:OG1	2.28	0.45
4:B:375:ARG:HH21	4:b:367:GLY:HA2	1.82	0.45
4:B1:77:HIS:HA	4:B1:396:PHE:HE2	1.81	0.45
4:b1:49:LEU:HB2	4:B2:24:TYR:CE1	2.51	0.45
3:U2:40:PRO:CA	3:U2:70:PHE:O	2.54	0.45
4:b2:156:THR:O	4:b2:167:THR:HA	2.16	0.45
4:B3:166:ARG:N	4:B3:418:GLU:OE2	2.50	0.45
4:B3:211:TYR:HD2	4:b3:190:ARG:HE	1.64	0.45
4:B3:296:LEU:HA	4:B3:329:LYS:HZ1	1.81	0.45
4:b3:218:LYS:HB3	4:b3:218:LYS:HE3	1.55	0.45
4:b4:75:GLN:NE2	4:b4:79:ASP:OD2	2.50	0.45
3:U5:22:THR:OG1	3:U5:23:GLY:N	2.48	0.45
3:U5:113:ARG:HH12	3:U5:125:ASP:HB2	1.81	0.45
4:B5:144:MET:HE3	4:B5:173:SER:HA	1.98	0.45
4:b5:251:PHE:HB3	4:b5:255:MET:SD	2.56	0.45
5:C0:37:GLU:O	5:C0:74:THR:HG23	2.16	0.45
5:A1:70:THR:N	6:H1:4:LYS:HZ3	2.12	0.45
5:A1:331:ASP:HB3	5:A1:334:GLU:HG2	1.98	0.45
5:G1:154:MET:O	5:G1:332:PRO:HG3	2.16	0.45
5:A2:48:VAL:HG23	5:G2:118:ASP:OD1	2.16	0.45
5:G2:217:LYS:HD2	5:C2:231:ALA:HB2	1.98	0.45
5:G3:127:GLU:HG3	5:G3:327:MET:HE2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G4:162:ILE:O	5:G4:338:VAL:HA	2.16	0.45
6:H4:82:ARG:HG3	6:H4:85:ASP:HB3	1.98	0.45
1:f:69:THR:O	1:f:73:ARG:HG3	2.15	0.45
4:B:72:ASN:OD1	4:B:375:ARG:NH2	2.50	0.45
4:b1:102:GLU:CD	4:b1:102:GLU:H	2.24	0.45
2:w2:42:ASP:OD1	2:w2:43:LEU:N	2.48	0.45
3:U2:4:MET:HB3	3:U2:5:LYS:H	1.66	0.45
4:B2:195:ILE:HG22	4:B2:201:ALA:HA	1.97	0.45
4:b2:485:ASP:HB2	4:b2:488:GLU:HG3	1.99	0.45
4:B3:461:VAL:HG21	4:b3:467:LEU:HB2	1.97	0.45
4:B3:479:CYS:SG	4:B3:489:ILE:HD12	2.57	0.45
1:f4:63:PRO:HB2	1:f4:105:LEU:HB2	1.99	0.45
2:w4:24:ALA:HB3	2:W5:34:GLU:OE2	2.17	0.45
3:U4:88:ILE:O	3:U4:91:VAL:HG22	2.17	0.45
4:b4:74:ILE:HG13	4:b4:75:GLN:N	2.32	0.45
4:b5:56:GLY:HA3	4:b5:252:TYR:OH	2.16	0.45
5:G0:41:LEU:HD13	5:G0:41:LEU:HA	1.83	0.45
6:I0:67:ASP:OD1	6:I0:69:THR:OG1	2.29	0.45
5:C1:95:ASP:C	5:C1:96:GLU:HG3	2.41	0.45
5:C1:201:ASP:CG	5:C1:271:THR:H	2.24	0.45
5:A2:103:ASP:OD1	5:A2:103:ASP:N	2.49	0.45
5:G2:89:THR:O	5:G2:107:ARG:HD2	2.16	0.45
5:C3:196:ASN:N	5:C3:196:ASN:OD1	2.48	0.45
6:J3:82:ARG:HD2	5:G4:64:ARG:NH2	2.32	0.45
5:C4:116:MET:HE2	5:C4:116:MET:HB2	1.80	0.45
5:C4:229:GLU:HG3	5:C4:233:LYS:HD3	1.99	0.45
6:H4:11:GLN:OE1	6:H4:11:GLN:N	2.50	0.45
6:H4:14:GLY:HA2	6:H4:82:ARG:NH2	2.32	0.45
4:B:187:ARG:HH22	4:b5:210:GLY:CA	2.29	0.45
4:B:205:TYR:CE1	4:B:221:TRP:HB2	2.52	0.45
4:b:34:GLN:HB3	4:b:35:LEU:H	1.59	0.45
4:b:96:TYR:HD1	4:b:97:LEU:HD22	1.81	0.45
4:b:260:MET:HE1	4:B1:34:GLN:OE1	2.17	0.45
1:f1:6:ASN:OD1	1:f1:9:ASP:N	2.49	0.45
3:U1:4:MET:HE3	3:U1:6:HIS:CE1	2.51	0.45
3:U1:24:ALA:HB1	3:U1:41:ALA:HA	1.99	0.45
4:B1:362:ILE:HG13	4:B1:366:LEU:HD23	1.98	0.45
4:b1:50:LEU:HA	4:b1:53:PHE:HB2	1.98	0.45
3:U2:71:LEU:HB3	3:U2:72:PRO:HD2	1.98	0.45
4:B2:459:LYS:O	4:B2:463:GLU:HG3	2.16	0.45
1:f4:9:ASP:O	1:f4:12:ILE:HG22	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B4:102:GLU:H	4:B4:102:GLU:CD	2.25	0.45
4:B4:434:SER:HG	4:B4:437:GLU:CD	2.17	0.45
4:B4:460:GLU:HA	4:B4:463:GLU:HG3	1.99	0.45
4:b4:121:ASP:OD1	4:B5:440:SER:OG	2.24	0.45
4:b4:393:TRP:CD2	4:b4:452:ARG:HD3	2.51	0.45
5:A0:274:LEU:HB2	5:A0:336:VAL:HB	1.99	0.45
5:G0:169:GLU:CD	5:G0:169:GLU:H	2.24	0.45
5:C0:17:PHE:CE2	5:C0:19:PHE:HB2	2.51	0.45
5:C0:39:VAL:HG23	5:C0:74:THR:HA	1.98	0.45
5:A1:24:LEU:HD12	5:A1:283:ARG:HG3	1.98	0.45
5:A1:265:ASN:OD1	5:A1:266:PHE:N	2.50	0.45
5:C1:164:GLN:HB2	5:C1:340:LEU:HA	1.97	0.45
5:G2:18:LYS:NZ	5:G2:238:ALA:HA	2.32	0.45
5:G2:24:LEU:H	5:G2:24:LEU:HD22	1.81	0.45
5:C2:29:ARG:HD3	5:C2:29:ARG:H	1.81	0.45
6:J2:15:ASN:HB3	6:J2:80:THR:HB	1.98	0.45
5:A3:339:GLN:N	5:A3:339:GLN:OE1	2.50	0.45
5:G3:58:VAL:HG21	5:C3:146:ALA:HB1	1.98	0.45
5:G3:205:TRP:CD1	5:G3:242:LYS:HE3	2.51	0.45
5:G4:222:ARG:NH2	5:C4:220:THR:H	2.14	0.45
3:U:98:LEU:O	3:U:102:ILE:HG12	2.17	0.45
4:B:88:LEU:HD23	4:B:89:SER:N	2.31	0.45
4:b:161:SER:N	4:b:166:ARG:HH21	2.15	0.45
1:f1:17:GLU:OE1	1:f1:68:ARG:NH1	2.49	0.45
4:B1:170:ARG:NH2	4:b1:198:SER:O	2.49	0.45
4:B1:489:ILE:HD12	4:B1:489:ILE:HA	1.81	0.45
4:B2:435:PHE:HA	4:B2:442:TRP:CD1	2.52	0.45
4:b2:395:TYR:O	4:b2:399:ARG:HG2	2.17	0.45
4:B3:434:SER:OG	4:B3:437:GLU:OE1	2.31	0.45
4:b3:183:THR:OG1	5:C4:296:GLU:OE2	2.27	0.45
4:b3:214:TRP:CE2	5:G3:301:SER:HB3	2.52	0.45
4:b3:459:LYS:O	4:b3:462:GLN:HG2	2.17	0.45
4:B4:156:THR:O	4:B4:168:GLN:N	2.50	0.45
4:B4:301:GLN:CD	4:B4:301:GLN:H	2.24	0.45
3:U5:65:LEU:HG	3:U5:128:TYR:HB2	1.99	0.45
3:U5:77:ASP:N	3:U5:77:ASP:OD1	2.49	0.45
4:B5:157:TRP:HZ3	4:B5:418:GLU:HG3	1.80	0.45
4:B5:287:ASP:OD1	4:B5:289:GLN:HG3	2.16	0.45
4:B5:492:GLN:NE2	4:b5:476:GLU:HG2	2.32	0.45
4:B5:500:ARG:HH22	4:B5:508:PRO:HB3	1.80	0.45
4:b5:82:VAL:HG21	4:b5:138:ILE:HG21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I0:38:LEU:HG	6:I0:49:ALA:HA	1.98	0.45
6:J0:41:ASP:HB3	6:J0:46:LYS:N	2.31	0.45
5:A1:42:SER:HB2	5:A1:70:THR:HG22	1.99	0.45
5:C1:39:VAL:HG23	5:C1:74:THR:HG22	1.98	0.45
5:G2:138:GLY:HA3	5:G2:156:ARG:HB2	1.99	0.45
6:H2:45:ARG:HG3	6:J2:97:LYS:HD3	1.98	0.45
6:H2:77:LYS:NZ	6:J2:106:ALA:O	2.49	0.45
5:G3:106:TYR:O	5:G3:109:ARG:HG2	2.17	0.45
5:C3:164:GLN:NE2	5:C3:169:GLU:HA	2.32	0.45
5:A4:118:ASP:O	5:A4:121:LEU:HG	2.16	0.45
5:A4:304:TYR:HB3	5:A4:322:GLN:HB2	1.98	0.45
5:G4:41:LEU:HD23	5:G4:73:PHE:HE2	1.81	0.45
6:J4:40:LEU:HD21	6:J4:45:ARG:HD2	1.98	0.45
2:W:48:ALA:O	2:W:51:GLU:HG2	2.16	0.45
4:B:137:MET:O	4:B:140:GLU:HG2	2.16	0.45
4:B:435:PHE:HA	4:B:442:TRP:CD1	2.52	0.45
2:W1:25:THR:HG22	2:w1:34:GLU:OE1	2.17	0.45
3:U1:40:PRO:HA	3:U1:70:PHE:O	2.17	0.45
2:W2:29:ASP:OD1	2:W2:29:ASP:N	2.49	0.45
4:B2:164:LEU:HD21	4:B2:424:VAL:HG11	1.99	0.45
4:b2:93:SER:HB2	4:b2:441:ALA:HB1	1.98	0.45
4:b2:262:ASP:O	4:b2:265:GLN:HG3	2.17	0.45
1:f3:81:LEU:HD21	1:f3:105:LEU:HD11	1.98	0.45
4:B3:286:LEU:HB3	4:B3:290:SER:OG	2.17	0.45
4:b4:299:ASN:OD1	4:b4:301:GLN:NE2	2.50	0.45
4:b4:456:ASP:OD2	4:b4:459:LYS:NZ	2.49	0.45
4:b4:495:ARG:O	4:b4:499:GLU:HG3	2.17	0.45
4:B5:506:LYS:HD3	4:B5:507:PRO:HD2	1.99	0.45
5:C0:198:ILE:HD11	5:C0:272:MET:HE3	1.99	0.45
6:I0:94:ASP:HB3	6:I0:97:LYS:HB2	1.99	0.45
5:A1:96:GLU:OE2	5:A1:102:ALA:N	2.34	0.45
5:A2:196:ASN:ND2	5:A2:276:ASN:OD1	2.46	0.45
5:A2:201:ASP:HB2	5:A2:267:LEU:HD11	1.99	0.45
5:A2:237:LYS:HE3	5:A2:237:LYS:HB3	1.83	0.45
5:G2:316:ARG:HH12	6:H2:13:GLN:HB2	1.81	0.45
5:C2:29:ARG:NH1	5:C2:279:ALA:O	2.50	0.45
5:C2:308:TRP:CZ3	5:C2:320:MET:HB2	2.51	0.45
6:I2:38:LEU:HD13	6:I2:47[A]:LEU:HG	1.99	0.45
6:I2:95:GLU:HA	6:I2:98:LYS:HE2	1.99	0.45
6:J2:10:TYR:CZ	6:J2:12:PRO:HG3	2.52	0.45
5:A3:17:PHE:HE1	5:A3:258:VAL:HG23	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G3:197:ILE:HD11	5:G3:277:THR:HG22	1.99	0.45
6:J3:11:GLN:HG3	5:C4:88:MET:HE2	1.99	0.45
5:A4:73:PHE:HB3	5:A4:152:VAL:HG22	1.97	0.45
5:G4:74:THR:CB	5:G4:75:PRO:HD3	2.47	0.45
5:G4:119:GLU:HB3	5:G4:321:ILE:HG13	1.99	0.45
5:G4:153:ASP:OD1	5:G4:153:ASP:N	2.48	0.45
5:G4:175:LYS:HA	5:G4:211:PHE:HD1	1.81	0.45
5:C4:137:LYS:HZ2	5:C4:139:LYS:C	2.24	0.45
1:f:33:GLU:OE1	1:f:33:GLU:N	2.39	0.45
4:B:264:LEU:HA	4:B:267:THR:HG22	1.98	0.45
4:B:287:ASP:OD1	4:B:288:THR:N	2.50	0.45
1:f2:6:ASN:HD21	1:f3:24:GLY:H	1.65	0.45
1:f2:54:GLN:CD	1:f2:54:GLN:H	2.24	0.45
4:B2:102:GLU:H	4:B2:102:GLU:CD	2.24	0.45
4:B2:176:ARG:NH2	4:B2:207:SER:O	2.39	0.45
4:b2:251:PHE:O	4:b2:255:MET:HB3	2.17	0.45
2:W3:27:GLN:HE21	2:W3:28:LYS:H	1.64	0.45
4:B3:496:GLU:OE2	4:b3:474:THR:OG1	2.35	0.45
4:b3:237:PHE:CZ	4:b3:239:PRO:HG3	2.52	0.45
5:A0:46:GLY:H	5:G0:15:GLN:HB3	1.82	0.45
5:A0:239:VAL:HA	5:A0:252:VAL:O	2.17	0.45
5:G0:43:GLN:HA	5:C0:13:ASN:O	2.16	0.45
5:G0:68:GLY:HA2	6:J4:7:PHE:HB3	1.98	0.45
5:G0:264:LYS:HZ2	5:G0:264:LYS:N	2.15	0.45
5:G0:320:MET:HE3	5:G0:320:MET:HB3	1.73	0.45
5:C0:77:TYR:HA	5:C0:324:ALA:HA	1.99	0.45
5:A1:56:PRO:HB3	5:G1:77:TYR:CE1	2.52	0.45
6:H2:96:THR:HG21	6:I2:46:LYS:HD2	1.98	0.45
6:J2:55:ASP:HA	6:J2:97:LYS:NZ	2.32	0.45
5:A3:198:ILE:HD11	5:A3:248:VAL:HG11	1.99	0.45
5:G3:43:GLN:HA	5:C3:13:ASN:O	2.17	0.45
5:A4:56:PRO:HB3	5:G4:77:TYR:CE2	2.52	0.45
5:C4:16:LYS:HE2	5:C4:16:LYS:HB2	1.83	0.45
5:C4:326:LEU:O	5:C4:328:LEU:HG	2.17	0.45
6:J4:17:ASP:N	6:J4:17:ASP:OD1	2.50	0.45
3:U:115:ASP:HB2	3:U:121:TRP:CE2	2.52	0.45
4:B:95:ARG:NE	4:B:95:ARG:HA	2.32	0.45
1:f2:56:VAL:O	1:f2:58:VAL:HG13	2.17	0.45
3:U2:17:LEU:HB3	3:U2:26:PHE:HE1	1.81	0.45
2:w3:27:GLN:OE1	2:W4:32:ARG:N	2.51	0.45
2:w3:29:ASP:OD1	2:w3:29:ASP:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U3:4:MET:HE3	3:U3:4:MET:HB3	1.88	0.45
4:b3:133:THR:O	4:b3:137:MET:HG2	2.17	0.45
4:b3:467:LEU:HD11	4:b3:472:LEU:HB2	1.99	0.45
3:U4:74:GLN:HA	3:U5:30:ARG:NH1	2.32	0.45
3:U4:103:THR:HG23	3:U4:132:TYR:HA	1.98	0.45
4:b4:242:ASP:OD1	4:b4:242:ASP:N	2.48	0.45
5:A0:283:ARG:HA	5:A0:327:MET:SD	2.57	0.45
5:C0:65:SER:H	6:N4:11:GLN:NE2	2.15	0.45
5:G1:200:PHE:CE1	5:G1:272:MET:HE1	2.52	0.45
5:C1:174:ASP:CG	5:C1:176:SER:H	2.24	0.45
5:A2:339:GLN:NE2	5:A2:340:LEU:O	2.37	0.45
5:G2:23:PHE:HA	5:G2:27:PHE:HD1	1.81	0.45
5:G2:84:VAL:HG21	5:G2:317:GLU:HB2	1.99	0.45
6:H2:108:SER:HB3	6:I2:77:LYS:HD3	1.99	0.45
6:I2:20:HIS:O	6:I2:77:LYS:N	2.49	0.45
6:N2:82:ARG:HB2	6:N2:85:ASP:HB2	1.98	0.45
5:A3:125:GLN:HG3	5:A3:257:TYR:HB2	1.99	0.45
5:A3:271:THR:HG22	5:A3:339:GLN:HA	1.98	0.45
5:A3:313:ASP:OD1	5:A3:313:ASP:N	2.28	0.45
6:H3:27:GLY:HA3	6:H3:46:LYS:HB3	1.99	0.45
5:G4:37:GLU:H	5:G4:37:GLU:CD	2.24	0.45
5:G4:154:MET:O	5:G4:332:PRO:HG3	2.16	0.45
5:C4:24:LEU:H	5:C4:24:LEU:HD22	1.81	0.45
6:N4:37:PRO:HB3	6:N4:102:PHE:HZ	1.82	0.45
1:f1:28:THR:O	1:f1:82:THR:OG1	2.26	0.44
1:f1:89:TRP:CE2	1:f1:106:GLY:HA3	2.52	0.44
4:B1:402:PHE:O	4:B1:406:ARG:HD3	2.18	0.44
4:b1:111:VAL:HG12	4:b1:425:VAL:HG21	1.99	0.44
4:B2:91:ARG:O	4:B2:444:ASN:ND2	2.50	0.44
4:b2:252:TYR:HB3	4:B3:24:TYR:CD2	2.52	0.44
4:b2:397:MET:HE1	4:b2:400:ARG:NH1	2.31	0.44
4:b3:240:VAL:HG12	4:b3:244:GLN:NE2	2.33	0.44
3:U4:10:ARG:NH2	3:U4:28:ASP:OD2	2.37	0.44
4:B4:128:VAL:HG12	4:B4:168:GLN:HB3	1.99	0.44
1:f5:75:LEU:HD23	1:f5:75:LEU:HA	1.82	0.44
4:B5:148:ASN:HB3	4:B5:174:PRO:HG2	2.00	0.44
4:B5:387:ALA:HA	4:B5:390:ASN:ND2	2.32	0.44
4:B5:390:ASN:OD1	4:B5:391:GLU:N	2.50	0.44
4:b5:152:PHE:HD2	4:b5:233:PHE:HE1	1.65	0.44
5:G0:129:MET:HA	5:G0:132:VAL:HG22	2.00	0.44
5:G0:276:ASN:OD1	5:G0:278:GLN:N	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:139:LYS:HA	5:C0:139:LYS:HD2	1.73	0.44
6:J0:10:TYR:CZ	6:J0:12:PRO:HG3	2.52	0.44
5:C1:168:THR:O	5:C1:173:ARG:NE	2.49	0.44
5:A2:270:ASN:O	5:A2:339:GLN:NE2	2.49	0.44
5:A3:49:ASN:OD1	5:A3:50:MET:N	2.50	0.44
5:C3:95:ASP:C	5:C3:96:GLU:HG3	2.42	0.44
5:A4:54:VAL:HG13	5:G4:79:LYS:NZ	2.32	0.44
5:A4:182:ASP:O	5:A4:185:GLU:HG2	2.17	0.44
5:A4:283:ARG:HG3	5:A4:327:MET:HE1	1.99	0.44
5:A4:296:GLU:HB3	5:A4:298:ILE:HG12	1.99	0.44
5:G4:33:PRO:HA	5:G4:285:TYR:O	2.16	0.44
2:W:42:ASP:OD1	2:W:42:ASP:N	2.49	0.44
4:b:123:CYS:HB2	4:b:130:ARG:HH21	1.81	0.44
4:B1:278:TYR:O	4:B1:280:ALA:N	2.48	0.44
4:b1:292:MET:HA	4:b1:295:ILE:HG22	1.99	0.44
4:B2:38:TRP:CD1	4:B2:40:PRO:HD3	2.52	0.44
1:f3:56:VAL:HG11	3:U3:70:PHE:CZ	2.52	0.44
2:W3:17:LEU:HB2	2:W3:22:ARG:HD2	1.97	0.44
4:B3:293:ASP:HA	4:B3:297:GLY:O	2.17	0.44
4:b4:48:ALA:O	4:B5:24:TYR:N	2.50	0.44
4:b4:262:ASP:O	4:b4:265:GLN:HG2	2.17	0.44
4:B5:81:ILE:HG21	4:B5:142:VAL:HG21	2.00	0.44
4:B5:129:GLU:CD	4:B5:131:LYS:HE2	2.42	0.44
4:B5:208:GLU:HG2	4:B5:218:LYS:H	1.82	0.44
4:b5:492:GLN:HE22	4:b5:495:ARG:HE	1.65	0.44
5:A0:201:ASP:HA	5:A0:267:LEU:HD11	1.99	0.44
5:G0:211:PHE:O	5:G0:214:VAL:HG22	2.17	0.44
5:C0:29:ARG:NH1	5:C0:277:THR:O	2.50	0.44
6:H0:38:LEU:HD13	6:H0:38:LEU:HA	1.84	0.44
6:I0:71:THR:HG23	6:I0:72:THR:HG22	1.99	0.44
6:J0:51:ASP:OD1	6:J0:52:GLY:N	2.50	0.44
5:A1:14:GLU:HB2	5:A1:16:LYS:NZ	2.33	0.44
5:G1:88:MET:HE2	6:H1:9:HIS:HB3	2.00	0.44
6:H1:106:ALA:O	6:I1:77:LYS:NZ	2.48	0.44
5:C2:229:GLU:HG3	5:C2:233:LYS:HD2	1.99	0.44
5:A3:329:LEU:H	5:A3:329:LEU:HD23	1.81	0.44
6:H3:85:ASP:N	6:H3:85:ASP:OD1	2.50	0.44
6:N3:50:TRP:CZ2	6:N3:52:GLY:HA2	2.52	0.44
5:C4:124:ALA:O	5:C4:127:GLU:HG3	2.18	0.44
6:I4:20:HIS:N	6:I4:78:SER:OG	2.51	0.44
6:J4:81:PHE:O	6:J4:109:ILE:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:39:PHE:HD1	3:U:39:PHE:HA	1.62	0.44
4:B:218:LYS:HE2	4:B:218:LYS:HB2	1.88	0.44
4:b:65:ARG:NH1	4:b:66:ASN:OD1	2.51	0.44
4:b:262:ASP:OD1	4:B1:257:GLN:NE2	2.50	0.44
4:B2:211:TYR:CE2	4:b2:190:ARG:HD3	2.53	0.44
4:B2:332:HIS:CG	4:b2:288:THR:HG22	2.53	0.44
4:B2:393:TRP:CE2	4:B2:452:ARG:HB2	2.52	0.44
3:U3:114:ARG:HH22	3:U4:31:PRO:HD3	1.81	0.44
4:B3:352:SER:O	4:B3:356:GLN:HG2	2.17	0.44
4:b3:240:VAL:HG12	4:b3:244:GLN:HE21	1.81	0.44
2:W4:67:TYR:OH	4:B4:324:ARG:NH2	2.45	0.44
5:A0:46:GLY:O	5:G0:15:GLN:NE2	2.50	0.44
5:G0:25:ARG:HG3	5:G0:26:LEU:HD12	1.98	0.44
6:N1:51:ASP:OD1	6:N1:52:GLY:N	2.50	0.44
5:A2:227:GLU:O	5:A2:244:MET:N	2.45	0.44
5:G2:88:MET:HE3	6:H2:9:HIS:HB3	2.00	0.44
5:G2:105:ALA:O	5:G2:109:ARG:HG2	2.17	0.44
5:G2:132:VAL:HG21	5:G2:266:PHE:HD2	1.82	0.44
5:C2:179:ASP:OD1	5:C2:217:LYS:NZ	2.50	0.44
6:J2:38:LEU:HA	6:J2:50:TRP:H	1.81	0.44
5:A4:42:SER:OG	5:A4:43:GLN:N	2.51	0.44
5:C4:77:TYR:CE2	5:C4:79:LYS:HD2	2.52	0.44
5:C4:125:GLN:O	5:C4:128:GLU:HG3	2.18	0.44
5:C4:230:THR:HG22	5:C4:231:ALA:H	1.82	0.44
1:f:28:THR:O	1:f:82:THR:OG1	2.32	0.44
1:f:57:ARG:NH2	1:f5:92:ARG:HD2	2.32	0.44
1:f:114:ASN:ND2	3:U:76:PRO:HB3	2.33	0.44
3:U:44:VAL:HG23	3:U:67:ILE:HG13	2.00	0.44
4:B:148:ASN:HB3	4:B:174:PRO:HG2	1.99	0.44
4:B:343:THR:HB	4:b:345:GLN:HG3	1.99	0.44
4:B1:173:SER:N	4:b1:242:ASP:OD2	2.35	0.44
4:B1:334:MET:SD	4:B1:334:MET:N	2.91	0.44
4:b1:439:ARG:O	4:b1:443:GLY:N	2.48	0.44
2:w2:49:GLU:HA	2:w2:52:VAL:HG12	1.98	0.44
4:B2:196:ASN:ND2	4:B2:198:SER:OG	2.50	0.44
4:b2:299:ASN:O	4:b2:299:ASN:ND2	2.51	0.44
4:B3:479:CYS:HB3	4:B3:484:ASP:C	2.42	0.44
3:U4:27:PHE:O	3:U4:43:ALA:HA	2.17	0.44
4:B4:393:TRP:NE1	4:B4:452:ARG:HB2	2.32	0.44
4:b4:195:ILE:HG23	4:b4:200:ALA:C	2.42	0.44
2:W5:13:ALA:HA	2:W5:16:ASP:OD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w5:56:MET:SD	2:w5:57:THR:HG22	2.57	0.44
5:C0:52:LEU:HD23	5:C0:52:LEU:H	1.83	0.44
5:C0:302:ALA:C	5:C0:303:ARG:HD2	2.42	0.44
5:C1:31:SER:HA	5:C1:283:ARG:HB2	2.00	0.44
6:N1:93:SER:O	6:N1:98:LYS:NZ	2.50	0.44
5:A2:120:GLU:O	5:A2:123:ILE:HG22	2.17	0.44
5:G2:226:SER:HB2	5:G2:245:TYR:HA	1.98	0.44
5:C2:28:PHE:O	5:C2:283:ARG:NH2	2.48	0.44
6:I2:51:ASP:OD2	6:I2:53:THR:OG1	2.35	0.44
5:G3:198:ILE:HG22	5:G3:198:ILE:O	2.17	0.44
6:H3:17:ASP:OD2	6:I3:77:LYS:NZ	2.46	0.44
6:H3:51:ASP:OD1	6:H3:52:GLY:N	2.51	0.44
5:C4:76:GLY:O	5:C4:77:TYR:HB2	2.18	0.44
6:H4:17:ASP:OD1	6:H4:17:ASP:N	2.49	0.44
6:H4:35:MET:HE3	6:H4:35:MET:HB3	1.63	0.44
6:H4:39:MET:HE3	6:H4:57:ALA:HB1	1.99	0.44
1:f:88:PHE:CE1	1:f:107:ARG:HG2	2.52	0.44
2:W:15:HIS:ND1	2:w:6:GLU:OE2	2.51	0.44
4:B:59:ARG:NH2	4:b:38:TRP:O	2.47	0.44
4:B:397:MET:HE3	4:B:397:MET:HB3	1.91	0.44
4:b:150:GLU:OE2	4:b:246:ARG:NE	2.46	0.44
4:b:369:SER:H	4:b:372:GLN:NE2	2.15	0.44
2:W1:44:LYS:HE2	2:W1:44:LYS:HB2	1.81	0.44
4:B1:276:ALA:O	4:b1:271:SER:OG	2.22	0.44
4:B1:376:ASN:HA	4:b1:360:ARG:HH12	1.82	0.44
4:b2:214:TRP:CE3	5:G4:32:TYR:HA	2.52	0.44
1:f3:72:VAL:HG21	1:f3:103:LEU:HD21	1.99	0.44
4:B3:226:LEU:HD12	4:B3:230:ARG:HB3	1.98	0.44
4:B3:376:ASN:HB2	4:b3:360:ARG:HD3	1.99	0.44
4:b3:95:ARG:NH2	4:b3:99:ILE:O	2.47	0.44
4:b3:173:SER:N	4:B4:242:ASP:OD2	2.39	0.44
3:U4:46:LEU:HD13	3:U4:65:LEU:HA	1.99	0.44
4:b5:169:PHE:CZ	4:b5:411:MET:HG3	2.53	0.44
4:b5:466:MET:HG3	4:b5:467:LEU:N	2.31	0.44
5:C0:260:ASN:OD1	5:C0:260:ASN:N	2.50	0.44
6:N0:94:ASP:O	6:N0:98:LYS:HG3	2.18	0.44
6:H1:67:ASP:OD1	6:H1:69:THR:OG1	2.33	0.44
6:I1:21:THR:HG22	6:I1:76:TYR:HD1	1.81	0.44
6:J1:38:LEU:HA	6:J1:50:TRP:H	1.80	0.44
5:A2:66:ARG:CZ	5:G2:114:GLN:HE21	2.30	0.44
5:G2:288:ILE:HG23	5:G2:322:GLN:HG2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I2:18:PRO:HB2	6:I2:20:HIS:CE1	2.52	0.44
6:I3:18:PRO:HB2	6:I3:20:HIS:CE1	2.53	0.44
6:J3:51:ASP:OD2	6:J3:53:THR:OG1	2.26	0.44
5:A4:164:GLN:HG2	5:A4:339:GLN:O	2.18	0.44
5:C4:85:ASN:O	5:C4:87:GLN:N	2.50	0.44
5:C4:120:GLU:O	5:C4:123:ILE:HG22	2.17	0.44
3:U:84:MET:HG3	3:U:110:TYR:CE1	2.53	0.44
4:B:38:TRP:NE1	4:B:40:PRO:HG3	2.32	0.44
4:b:328:ALA:H	4:b1:270:GLN:NE2	2.15	0.44
1:f1:81:LEU:HD23	1:f1:105:LEU:HD21	1.98	0.44
1:f1:113:VAL:HG22	1:f1:115:ARG:H	1.82	0.44
4:B1:259:LYS:HA	4:B1:262:ASP:OD2	2.18	0.44
4:b1:123:CYS:SG	4:b1:125:CYS:N	2.73	0.44
4:b1:413:LEU:O	4:b1:417:GLU:HG2	2.18	0.44
1:f2:34:GLN:N	1:f2:34:GLN:OE1	2.50	0.44
2:w2:50:LEU:O	2:w2:53:GLN:HG3	2.18	0.44
4:b2:390:ASN:HA	4:b2:452:ARG:HH12	1.83	0.44
2:w3:39:SER:HB3	2:w3:42:ASP:OD2	2.16	0.44
4:b3:145:HIS:HB2	4:b3:151:LEU:HD23	1.99	0.44
4:b3:171:MET:H	4:b3:171:MET:CE	2.30	0.44
1:f4:45:ASP:OD1	1:f4:61:SER:HB2	2.17	0.44
3:U4:4:MET:HE3	3:U4:4:MET:HB3	1.91	0.44
4:b4:174:PRO:HB3	4:b4:246:ARG:HH21	1.82	0.44
1:f5:58:VAL:HG21	3:U5:121:TRP:HD1	1.81	0.44
4:B5:463:GLU:HA	4:B5:466:MET:HG2	2.00	0.44
4:b5:345:GLN:NE2	4:b5:346:ASP:O	2.50	0.44
5:A0:77:TYR:HE2	5:A0:79:LYS:HD2	1.82	0.44
5:C0:202:PRO:HD3	5:C0:253:TYR:O	2.17	0.44
6:I0:84:GLU:OE1	6:I0:84:GLU:N	2.50	0.44
6:J0:31:LYS:HZ3	6:J0:67:ASP:HB3	1.82	0.44
6:J0:94:ASP:OD1	6:J0:94:ASP:N	2.49	0.44
5:G1:66:ARG:HH11	5:C1:114:GLN:HE21	1.65	0.44
5:C1:197:ILE:HD11	5:C1:277:THR:HG22	2.00	0.44
5:G2:28:PHE:HB3	5:G2:283:ARG:HG2	1.99	0.44
5:G2:48:VAL:HG21	5:C2:121:LEU:HB3	1.99	0.44
5:C2:283:ARG:HD3	5:C2:327:MET:SD	2.57	0.44
5:A3:8:GLN:HE22	5:A3:10:LEU:HD13	1.83	0.44
5:G4:96:GLU:HG2	5:G4:101:LEU:HA	1.99	0.44
5:C4:164:GLN:HE22	5:C4:170:TRP:CG	2.35	0.44
6:H4:46:LYS:HG2	6:J4:96:THR:HG21	1.99	0.44
6:I4:88:TRP:CE3	6:I4:98:LYS:HG2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J4:39:MET:HE3	6:J4:50:TRP:CD1	2.53	0.44
6:J4:50:TRP:CZ3	6:J4:52:GLY:HA2	2.53	0.44
4:B:69:TYR:CZ	4:b:361:TYR:HD2	2.36	0.44
4:b:152:PHE:HB3	4:b:233:PHE:CZ	2.53	0.44
3:U1:107:ALA:HB3	3:U2:51:TYR:CD2	2.53	0.44
4:B1:37:SER:OG	2:w5:68:VAL:O	2.35	0.44
2:W2:26:VAL:HG13	2:W2:33:VAL:HG23	1.99	0.44
2:w2:27:GLN:HG3	2:W3:32:ARG:HG2	2.00	0.44
4:B2:477:LYS:HA	4:B2:477:LYS:HD3	1.85	0.44
4:b2:273:ILE:HG12	4:B3:264:LEU:HD13	2.00	0.44
3:U3:94:ASP:N	3:U3:94:ASP:OD1	2.50	0.44
4:B3:249:ASN:OD1	4:B3:252:TYR:N	2.51	0.44
4:b3:288:THR:O	4:b3:292:MET:HG2	2.17	0.44
4:B4:271:SER:O	4:B4:275:LYS:HG2	2.18	0.44
4:B4:395:TYR:OH	4:B4:399:ARG:NH1	2.51	0.44
5:A0:175:LYS:HA	5:A0:211:PHE:CD1	2.52	0.44
5:G0:287:CYS:HB2	5:G0:299:ASN:HB2	1.99	0.44
5:G0:330:ALA:HB1	5:C0:13:ASN:HB2	1.99	0.44
5:C0:316:ARG:CZ	6:J4:13:GLN:HG2	2.48	0.44
5:A1:40:TYR:N	5:G1:8:GLN:O	2.31	0.44
5:A1:194:VAL:O	5:A1:276:ASN:ND2	2.48	0.44
5:C1:3:MET:HG3	6:I1:5:GLU:HG3	2.00	0.44
5:G2:37:GLU:OE2	5:C2:6:THR:N	2.45	0.44
5:G2:38:LYS:C	5:C2:7:ALA:HA	2.42	0.44
6:H2:15:ASN:HB3	6:H2:80:THR:HB	1.98	0.44
5:C3:123:ILE:HD12	5:C3:303:ARG:HD2	2.00	0.44
6:N3:14:GLY:HA2	5:C4:64:ARG:NH2	2.32	0.44
5:A4:43:GLN:HB2	5:G4:13:ASN:HB3	1.98	0.44
5:A4:104:PRO:O	5:A4:107:ARG:HG2	2.18	0.44
5:G4:53:TYR:CE2	5:C4:142:MET:HA	2.52	0.44
5:C4:199:VAL:HG13	5:C4:273:VAL:HG23	2.00	0.44
1:f:68:ARG:HA	1:f:100:SER:HA	1.99	0.44
4:B:133:THR:N	4:B:136:MET:SD	2.84	0.44
4:b:286:LEU:HD11	2:W1:52:VAL:HG11	1.99	0.44
3:U1:19:LYS:HE3	3:U1:19:LYS:HB3	1.76	0.44
4:b1:132:ARG:HH21	4:B2:239:PRO:HB2	1.82	0.44
2:w2:8:ALA:HA	2:w2:11:ARG:HG2	2.00	0.44
3:U2:39:PHE:HB3	3:U2:40:PRO:HD3	2.00	0.44
3:U2:51:TYR:CE1	3:U2:59:ASP:HB2	2.53	0.44
3:U2:57:ASP:OD1	3:U2:58:SER:N	2.51	0.44
4:B2:279:ALA:O	4:B2:342:GLN:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f3:54:GLN:H	1:f3:54:GLN:CD	2.26	0.44
2:W3:5:GLU:OE1	2:W3:5:GLU:N	2.41	0.44
3:U3:50:GLU:HG2	3:U3:51:TYR:H	1.82	0.44
4:B3:357:SER:HA	4:B3:360:ARG:NH1	2.33	0.44
4:B3:473:SER:OG	4:B3:474:THR:N	2.50	0.44
4:b3:466:MET:HE2	4:b3:466:MET:HB2	1.71	0.44
4:b3:503:ALA:HB3	4:b3:505:LEU:HD22	2.00	0.44
1:f4:89:TRP:CZ3	1:f4:91:ASP:HB3	2.53	0.44
4:b4:163:ARG:HH21	4:b4:168:GLN:HE21	1.66	0.44
4:b4:256:GLU:N	4:b4:256:GLU:OE1	2.33	0.44
4:B5:31:PHE:O	4:B5:34:GLN:HB2	2.18	0.44
4:B5:50:LEU:N	4:B5:51:PRO:HD2	2.33	0.44
5:G1:22:LEU:HD22	5:G1:25:ARG:HH21	1.82	0.44
6:H1:20:HIS:N	6:H1:78:SER:OG	2.51	0.44
5:C2:174:ASP:OD2	5:C2:176:SER:OG	2.35	0.44
6:I2:21:THR:HG22	6:I2:76:TYR:HA	1.99	0.44
6:N2:44:SER:O	6:N2:45:ARG:HG3	2.17	0.44
5:A3:113:MET:O	5:A3:116:MET:HG2	2.17	0.44
5:A4:53:TYR:HE2	5:G4:142:MET:HE2	1.82	0.44
5:G4:22:LEU:HD22	5:G4:25:ARG:HH22	1.83	0.44
5:G4:218:LEU:HD11	5:G4:228:LEU:H	1.83	0.44
5:G4:288:ILE:HG12	5:G4:299:ASN:HA	2.00	0.44
4:b:55:ARG:HH22	5:C1:100:ASN:HB2	1.83	0.44
1:f1:15:ALA:O	1:f1:19:ILE:HG23	2.18	0.44
3:U1:92:MET:HE1	3:U1:105:MET:HE3	2.00	0.44
4:B1:154:GLN:HB3	4:B1:233:PHE:CE1	2.53	0.44
4:b1:500:ARG:NH1	4:B2:475:TYR:OH	2.51	0.44
4:B2:299:ASN:OD1	4:B2:300:SER:N	2.50	0.44
2:w3:10:ALA:HB3	2:w3:47:ILE:HD13	1.99	0.44
2:w4:15:HIS:ND1	2:W5:6:GLU:OE2	2.51	0.44
4:B4:293:ASP:HA	4:B4:297:GLY:O	2.18	0.44
2:W5:27:GLN:NE2	2:W5:32:ARG:HD2	2.32	0.44
4:B5:346:ASP:OD1	4:b5:350:GLY:HA3	2.18	0.44
4:b5:359:LEU:HD13	4:b5:359:LEU:HA	1.87	0.44
5:C0:211:PHE:O	5:C0:215:LYS:NZ	2.50	0.44
6:H0:88:TRP:CG	6:H0:98:LYS:HZ1	2.36	0.44
5:A1:44:ILE:HD12	5:A1:44:ILE:HA	1.82	0.44
5:G1:9:LEU:HB3	5:G1:97:ASP:HB3	1.99	0.44
5:C1:38:LYS:HD3	5:C1:38:LYS:HA	1.67	0.44
5:C1:95:ASP:O	5:C1:96:GLU:HG3	2.18	0.44
6:H1:61:ILE:HD13	6:H1:61:ILE:HA	1.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C2:52:LEU:HD23	5:C2:52:LEU:H	1.83	0.44
6:J2:47[B]:LEU:HD12	6:J2:73:LEU:HD21	2.00	0.44
5:A3:17:PHE:CZ	5:A3:257:TYR:HA	2.51	0.44
5:A3:253:TYR:CZ	5:A3:255:GLY:HA3	2.53	0.44
5:G4:192:SER:O	5:C4:15:GLN:NE2	2.51	0.44
5:C4:40:TYR:HD1	5:C4:70:THR:HG21	1.82	0.44
2:w:59:ARG:HH12	4:b:287:ASP:HA	1.83	0.43
4:b1:34:GLN:HB3	4:b1:35:LEU:HD23	1.98	0.43
4:b1:271:SER:O	4:b1:275:LYS:HG2	2.17	0.43
4:b1:386:ARG:NH1	4:b1:390:ASN:HD21	2.16	0.43
1:f2:68:ARG:HD2	1:f2:69:THR:N	2.33	0.43
2:W2:27:GLN:HB2	2:w2:32:ARG:HG2	2.00	0.43
2:W4:67:TYR:CD1	4:B4:322:PRO:HB2	2.53	0.43
4:B4:486:TYR:CZ	4:B4:487:GLN:HG2	2.52	0.43
1:f5:6:ASN:OD1	1:f5:8:PHE:N	2.51	0.43
3:U5:132:TYR:HE2	3:U5:134:MET:HG2	1.83	0.43
4:B5:185:ASP:N	4:B5:185:ASP:OD1	2.51	0.43
5:C0:88:MET:HE2	6:J4:9:HIS:ND1	2.33	0.43
6:I0:28:LEU:HD13	6:I0:28:LEU:HA	1.88	0.43
6:N0:47[A]:LEU:HD23	6:N0:73:LEU:HD11	2.00	0.43
5:A1:58:VAL:HG23	5:A1:59:SER:H	1.82	0.43
5:G1:156:ARG:HG2	5:G1:161:ASN:HD21	1.82	0.43
6:J1:83:TYR:N	6:J1:110:VAL:O	2.49	0.43
5:A2:140:TYR:OH	5:A2:142:MET:SD	2.60	0.43
5:G2:108:ARG:O	5:G2:112:ILE:HG23	2.18	0.43
5:C2:197:ILE:HB	5:C2:275:GLY:O	2.18	0.43
5:G3:52:LEU:HD22	5:G3:52:LEU:H	1.82	0.43
5:C3:154:MET:HE1	5:C3:328:LEU:HB3	2.00	0.43
5:C3:276:ASN:ND2	5:C3:278:GLN:HE21	2.16	0.43
6:I3:39:MET:HE1	6:I3:51:ASP:H	1.82	0.43
6:N3:39:MET:HB3	6:N3:57:ALA:O	2.18	0.43
5:A4:269:ASP:OD1	5:A4:270:ASN:N	2.51	0.43
5:G4:169:GLU:H	5:G4:169:GLU:CD	2.25	0.43
6:N4:94:ASP:O	6:N4:98:LYS:HG2	2.18	0.43
1:f39:ILE:HD12	1:f39:ILE:HA	1.84	0.43
2:W:46:TYR:O	2:W:49:GLU:HG2	2.18	0.43
2:w:39:SER:OG	2:w:40:VAL:N	2.51	0.43
4:B:78:GLN:HA	4:B:78:GLN:HE21	1.83	0.43
4:b:356:GLN:HB3	4:b:360:ARG:HH12	1.84	0.43
4:B1:114:ALA:O	4:B1:117:GLU:HG3	2.18	0.43
4:b1:72:ASN:OD1	4:b1:375:ARG:NH2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b1:163:ARG:NE	4:b1:165:PHE:O	2.34	0.43
4:b1:286:LEU:HD12	4:b1:287:ASP:H	1.83	0.43
1:f2:9:ASP:HA	1:f2:12:ILE:HG22	2.00	0.43
3:U2:39:PHE:CZ	3:U2:72:PRO:HA	2.53	0.43
3:U2:92:MET:HA	3:U2:95:ILE:HD11	2.00	0.43
4:B2:132:ARG:HD2	4:B2:137:MET:HE3	2.00	0.43
4:B2:466:MET:HA	4:B2:469:GLU:HG3	1.99	0.43
4:B2:486:TYR:O	4:B2:489:ILE:HG22	2.18	0.43
3:U3:117:ASP:OD1	3:U3:117:ASP:N	2.44	0.43
4:B3:505:LEU:HD23	4:B3:506:LYS:HB3	2.00	0.43
4:b3:83:GLY:HA3	4:b3:450:SER:OG	2.18	0.43
4:B4:479:CYS:O	4:B4:484:ASP:N	2.34	0.43
3:U5:98:LEU:O	3:U5:102:ILE:HG12	2.18	0.43
4:B5:375:ARG:NH1	4:b5:368:VAL:O	2.51	0.43
4:b5:457:GLY:O	4:b5:460:GLU:HG3	2.19	0.43
5:A0:222:ARG:HB2	5:G0:227:GLU:HG2	2.00	0.43
5:G0:139:LYS:NZ	5:G0:153:ASP:HB3	2.33	0.43
5:G0:269:ASP:OD1	5:G0:269:ASP:N	2.51	0.43
5:C0:137:LYS:HE3	5:C0:137:LYS:HB3	1.93	0.43
5:C0:309:VAL:HB	5:C0:317:GLU:HB3	2.00	0.43
5:C0:331:ASP:OD2	5:C0:334:GLU:N	2.50	0.43
6:I0:34:ALA:O	6:I0:35:MET:HG3	2.18	0.43
6:J0:9:HIS:HA	5:C1:88:MET:HE3	2.00	0.43
6:N0:30:ALA:HA	6:N0:68:GLN:HE21	1.82	0.43
6:N0:39:MET:SD	6:N0:50:TRP:HA	2.58	0.43
5:A1:156:ARG:HE	5:A1:332:PRO:HB2	1.83	0.43
5:G1:43:GLN:H	5:G1:69:SER:CB	2.31	0.43
6:N1:63:ALA:HA	6:N1:76:TYR:CE2	2.53	0.43
5:A2:180:PRO:O	5:A2:184:ILE:HG12	2.18	0.43
5:A2:197:ILE:HG12	5:A2:275:GLY:O	2.19	0.43
5:G2:198:ILE:HG22	5:G2:249:ALA:O	2.18	0.43
5:G2:260:ASN:OD1	5:G2:260:ASN:N	2.50	0.43
5:C2:169:GLU:HG2	5:C2:170:TRP:N	2.34	0.43
6:J2:46:LYS:HD2	6:J2:46:LYS:HA	1.72	0.43
6:N2:66:ALA:HB1	6:N2:70:SER:OG	2.18	0.43
5:A3:140:TYR:CE1	5:A3:142:MET:HB2	2.53	0.43
5:A3:325:PRO:HB3	5:A3:327:MET:HE3	2.01	0.43
5:G3:164:GLN:HG3	5:G3:340:LEU:HA	1.99	0.43
5:C3:265:ASN:OD1	5:C3:267:LEU:N	2.44	0.43
5:A4:80:PRO:HG2	5:A4:321:ILE:HG23	1.99	0.43
5:C4:33:PRO:HB2	5:C4:300:ALA:HB1	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C4:52:LEU:HD23	5:C4:52:LEU:H	1.83	0.43
5:C4:123:ILE:HA	5:C4:126:VAL:HG12	2.00	0.43
4:B:145:HIS:HB2	4:B:151:LEU:HD23	2.00	0.43
4:B1:181:ASN:HB3	4:B1:183:THR:HG23	2.00	0.43
4:B1:293:ASP:HA	4:B1:297:GLY:O	2.17	0.43
4:b1:286:LEU:HD13	2:W2:52:VAL:HG13	2.00	0.43
4:B2:467:LEU:HD12	4:B2:472:LEU:HB2	2.00	0.43
4:b3:214:TRP:HB3	5:G3:303:ARG:O	2.19	0.43
4:B4:303:GLN:H	6:I2:7:PHE:HB2	1.83	0.43
4:B4:506:LYS:HE2	4:b4:511:ALA:H	1.83	0.43
4:b4:79:ASP:HA	4:b4:139:ARG:HH12	1.84	0.43
4:b4:166:ARG:HD3	4:b4:422:ARG:HH22	1.82	0.43
4:B5:96:TYR:O	4:B5:432:ARG:NH1	2.49	0.43
4:b5:289:GLN:NE2	6:I1:4:LYS:HE3	2.33	0.43
5:C0:22:LEU:HD12	5:C0:25:ARG:HE	1.83	0.43
5:C0:34:PHE:HD2	5:C0:286:GLY:HA2	1.83	0.43
5:C0:72:GLU:O	6:N4:2:THR:N	2.51	0.43
5:C0:93:LEU:HB3	5:C0:96:GLU:HG2	2.00	0.43
5:C0:164:GLN:HB3	5:C0:169:GLU:CB	2.48	0.43
6:I0:55:ASP:HB3	6:J0:45:ARG:NH1	2.33	0.43
5:G1:65:SER:HB2	5:C1:114:GLN:OE1	2.18	0.43
5:G1:129:MET:HA	5:G1:132:VAL:HG22	1.99	0.43
5:G1:179:ASP:OD2	5:G1:181:THR:OG1	2.36	0.43
5:C1:101:LEU:HD13	5:C1:101:LEU:HA	1.87	0.43
6:J1:95:GLU:OE2	6:J1:99:ARG:NH1	2.41	0.43
5:A2:322:GLN:N	5:A2:322:GLN:OE1	2.51	0.43
5:G2:287:CYS:SG	5:G2:299:ASN:ND2	2.91	0.43
6:J3:62:LEU:HA	6:J3:75:PHE:HA	2.00	0.43
6:N3:61:ILE:HD11	6:N3:102:PHE:CZ	2.53	0.43
5:A4:331:ASP:HB3	5:A4:334:GLU:HG2	1.99	0.43
5:C4:154:MET:HE3	5:C4:329:LEU:HG	2.00	0.43
6:I4:21:THR:HG22	6:I4:76:TYR:HA	1.99	0.43
1:f:20:ARG:O	1:f:40:ARG:NE	2.51	0.43
2:W2:27:GLN:HG3	2:W2:32:ARG:HB2	2.00	0.43
2:w2:14:LEU:HD11	2:w2:47:ILE:HG13	2.00	0.43
3:U2:61:TRP:HB2	3:U2:134:MET:HE1	1.99	0.43
4:B2:251:PHE:O	4:B2:255:MET:HG3	2.17	0.43
3:U3:5:LYS:O	3:U3:9:LEU:HG	2.19	0.43
3:U3:6:HIS:HB3	3:U3:10:ARG:HH12	1.83	0.43
4:B3:133:THR:N	4:B3:136:MET:HE2	2.33	0.43
4:b3:240:VAL:H	4:b3:244:GLN:NE2	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b3:481:LYS:HE3	4:b3:481:LYS:HB3	1.76	0.43
1:f4:12:ILE:HD12	1:f4:12:ILE:HA	1.83	0.43
3:U4:39:PHE:HB3	3:U4:40:PRO:CD	2.48	0.43
4:B4:203:GLY:HA3	4:B4:221:TRP:CH2	2.53	0.43
4:b4:288:THR:O	4:b4:292:MET:HG2	2.19	0.43
4:B5:83:GLY:HA3	4:B5:450:SER:OG	2.18	0.43
4:B5:282:ILE:HD12	4:B5:295:ILE:HG21	2.00	0.43
4:b5:39:ASN:N	4:b5:39:ASN:OD1	2.51	0.43
5:G0:313:ASP:OD2	5:G1:59:SER:HB3	2.18	0.43
5:G1:194:VAL:O	5:G1:276:ASN:HB2	2.18	0.43
5:C1:303:ARG:HB3	5:C1:321:ILE:HD11	1.99	0.43
5:G2:36:THR:HB	5:C2:6:THR:OG1	2.18	0.43
5:G2:73:PHE:CD2	5:G2:326:LEU:HD13	2.49	0.43
5:G2:103:ASP:CG	5:C3:299:ASN:HD21	2.25	0.43
5:G2:146:ALA:HA	6:I2:64:VAL:HG11	1.99	0.43
6:N2:11:GLN:HB3	6:N2:82:ARG:HH21	1.84	0.43
6:N2:94:ASP:O	6:N2:98:LYS:HG3	2.18	0.43
5:G3:222:ARG:HH22	5:C3:221:ARG:H	1.64	0.43
5:C3:132:VAL:O	5:C3:136:LEU:HB2	2.19	0.43
3:U:28:ASP:O	1:f5:114:ASN:ND2	2.51	0.43
4:B:205:TYR:HE1	4:B:221:TRP:HB2	1.83	0.43
4:B1:343:THR:HA	4:b1:345:GLN:HG3	2.00	0.43
4:b1:152:PHE:HB2	4:b1:172:VAL:O	2.19	0.43
4:B2:371:GLU:OE1	4:B2:372:GLN:HG3	2.19	0.43
4:b2:297:GLY:N	4:b2:329:LYS:HZ1	2.16	0.43
2:w3:66:PHE:CD1	4:b3:323:VAL:HB	2.53	0.43
4:B4:325:LEU:HD13	4:B4:325:LEU:HA	1.78	0.43
4:B4:349:ASN:OD1	4:B4:349:ASN:N	2.43	0.43
4:B4:390:ASN:OD1	4:B4:452:ARG:NH2	2.51	0.43
4:B4:402:PHE:O	4:B4:406:ARG:HD3	2.18	0.43
1:f5:58:VAL:HG21	3:U5:121:TRP:CD1	2.54	0.43
4:B5:446:ASP:OD1	4:B5:446:ASP:N	2.50	0.43
4:b5:369:SER:HB3	4:b5:392:SER:OG	2.19	0.43
5:A0:58:VAL:HG23	5:A0:59:SER:H	1.83	0.43
5:A0:69:SER:HB2	6:H0:4:LYS:HZ1	1.83	0.43
5:A0:139:LYS:HA	5:A0:139:LYS:HD3	1.83	0.43
5:A1:132:VAL:O	5:A1:136:LEU:HB3	2.18	0.43
5:G1:265:ASN:OD1	5:G1:266:PHE:N	2.52	0.43
5:C1:52:LEU:HG	5:C1:53:TYR:H	1.83	0.43
5:C1:164:GLN:CD	5:C1:169:GLU:HB2	2.43	0.43
5:G2:104:PRO:HG2	5:C3:299:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G3:141:THR:HG22	5:G3:151:GLU:HG2	2.01	0.43
5:G3:233:LYS:NZ	5:G3:241:TYR:O	2.51	0.43
5:C4:44:ILE:HD12	5:C4:45:PRO:HD2	1.99	0.43
5:C4:105:ALA:O	5:C4:108:ARG:HG2	2.18	0.43
1:f:9:ASP:HA	1:f:12:ILE:HG22	2.01	0.43
4:b:129:GLU:HB3	4:b:131:LYS:NZ	2.33	0.43
2:W1:5:GLU:OE1	2:W1:5:GLU:N	2.46	0.43
2:w2:67:TYR:O	4:b2:325:LEU:HG	2.18	0.43
4:B2:500:ARG:NE	4:B2:506:LYS:O	2.51	0.43
4:b2:145:HIS:NE2	4:b2:237:PHE:HA	2.34	0.43
4:b2:386:ARG:HG2	4:b2:455:ILE:HD11	2.00	0.43
2:W3:56:MET:SD	2:W3:57:THR:N	2.91	0.43
4:b3:87:ARG:HB3	4:b3:448:ILE:HB	2.01	0.43
1:f4:66:PHE:HA	1:f4:102:HIS:HA	1.99	0.43
3:U4:27:PHE:HE2	3:U4:38:ASP:HB3	1.84	0.43
4:B4:371:GLU:HG3	4:B4:380:MET:SD	2.59	0.43
4:B4:388:SER:O	4:B4:391:GLU:HG3	2.18	0.43
4:b5:102:GLU:O	4:b5:105:ARG:HG2	2.18	0.43
4:b5:128:VAL:HG22	4:b5:170:ARG:HD3	2.00	0.43
4:b5:498:MET:SD	4:b5:501:ARG:NE	2.90	0.43
5:G0:175:LYS:HA	5:G0:211:PHE:CD1	2.53	0.43
5:G0:178:TYR:OH	5:G0:183:ASP:OD2	2.28	0.43
5:A1:170:TRP:NE1	5:A1:340:LEU:HD22	2.32	0.43
5:A1:282:LEU:O	5:A1:327:MET:HA	2.19	0.43
5:C1:28:PHE:CD1	5:C1:281:GLY:HA3	2.53	0.43
6:I1:92:ALA:O	6:I1:98:LYS:HE2	2.19	0.43
6:N1:68:GLN:H	6:N1:68:GLN:CD	2.26	0.43
5:A2:159:GLU:OE1	5:A2:159:GLU:N	2.48	0.43
5:G2:244:MET:HG3	5:G2:246:GLY:H	1.83	0.43
6:I2:85:ASP:N	6:I2:85:ASP:OD1	2.50	0.43
6:J2:16:SER:HA	5:C3:318:PHE:CZ	2.54	0.43
5:A3:81:LYS:HA	5:A3:320:MET:HG2	2.00	0.43
5:C3:162:ILE:HG23	5:C3:338:VAL:HG22	2.01	0.43
6:N3:37:PRO:HB2	6:N3:50:TRP:HB3	1.99	0.43
5:A4:46:GLY:H	5:G4:15:GLN:HB3	1.83	0.43
5:A4:132:VAL:O	5:A4:136:LEU:CB	2.66	0.43
5:G4:156:ARG:HD2	5:G4:160:ASN:HB2	2.00	0.43
5:C4:174:ASP:O	5:C4:178:TYR:HB3	2.18	0.43
2:W:50:LEU:O	2:W:53:GLN:HG3	2.19	0.43
2:w:7:LEU:HD11	2:w:51:GLU:HG3	2.01	0.43
4:B:154:GLN:OE1	4:B:156:THR:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:479:CYS:O	4:B:484:ASP:N	2.35	0.43
4:b:59:ARG:HA	4:B1:40:PRO:HG3	2.01	0.43
4:B1:154:GLN:NE2	4:B1:170:ARG:HB3	2.34	0.43
4:b1:91:ARG:O	4:b1:444:ASN:ND2	2.46	0.43
4:b1:114:ALA:HA	4:b1:117:GLU:CD	2.43	0.43
4:b1:295:ILE:HG23	4:b1:296:LEU:N	2.34	0.43
1:f3:5:ASP:OD1	1:f3:5:ASP:N	2.52	0.43
4:B3:259:LYS:HG3	4:b3:38:TRP:CZ3	2.53	0.43
4:B3:332:HIS:CG	4:b3:288:THR:HG22	2.53	0.43
4:b3:63:LEU:HD13	4:b3:258:MET:SD	2.59	0.43
4:B4:164:LEU:O	4:B4:422:ARG:NH2	2.50	0.43
4:B4:262:ASP:O	4:B4:265:GLN:HG3	2.18	0.43
4:B4:476:GLU:HG3	4:B4:486:TYR:CD1	2.53	0.43
4:B4:493:GLN:NE2	4:b4:471:GLY:O	2.48	0.43
4:b4:332:HIS:HB3	4:B5:288:THR:HG22	2.01	0.43
3:U5:39:PHE:HB3	3:U5:40:PRO:CD	2.49	0.43
4:b5:427:LEU:HD11	4:b5:435:PHE:HB2	2.01	0.43
5:A0:59:SER:OG	5:A0:60:GLY:N	2.50	0.43
5:G1:40:TYR:HB3	5:C1:9:LEU:HD12	2.00	0.43
5:C1:281:GLY:C	5:C1:282:LEU:HD22	2.44	0.43
6:H1:50:TRP:CZ3	6:H1:52:GLY:HA2	2.54	0.43
6:J1:97:LYS:HA	6:J1:100:THR:HG22	2.00	0.43
5:G3:139:LYS:NZ	5:G3:153:ASP:OD1	2.51	0.43
5:G3:194:VAL:HG22	5:C3:237:LYS:HE3	2.00	0.43
5:G3:222:ARG:NH2	5:C3:220:THR:H	2.15	0.43
6:J3:50:TRP:NE1	6:J3:57:ALA:HB3	2.34	0.43
5:G4:146:ALA:HB2	6:I4:74:THR:HG21	2.00	0.43
5:G4:326:LEU:O	5:G4:328:LEU:HG	2.18	0.43
5:C4:305:PRO:HA	5:C4:321:ILE:HD13	2.01	0.43
6:H4:40:LEU:HD12	6:H4:46:LYS:O	2.19	0.43
1:f:80:THR:OG1	1:f:81:LEU:N	2.52	0.43
4:b:287:ASP:OD1	4:b:288:THR:N	2.51	0.43
4:b:352:SER:O	4:b:356:GLN:HG2	2.18	0.43
2:W1:58:GLN:NE2	2:W1:61:ARG:HG2	2.33	0.43
4:b1:124:CYS:O	4:b1:130:ARG:HA	2.18	0.43
4:b1:459:LYS:O	4:b1:463:GLU:HG3	2.19	0.43
4:b1:462:GLN:HA	4:b1:465:VAL:HG12	2.01	0.43
4:b1:505:LEU:HD23	4:b1:505:LEU:H	1.83	0.43
3:U2:115:ASP:HB2	3:U2:121:TRP:CE2	2.54	0.43
4:B2:476:GLU:HG3	4:B2:486:TYR:CD1	2.54	0.43
4:b2:29:SER:O	4:b2:35:LEU:HG	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w3:47:ILE:HD12	2:w3:50:LEU:HD11	2.00	0.43
4:B3:292:MET:O	4:B3:297:GLY:N	2.48	0.43
4:B3:402:PHE:O	4:B3:406:ARG:HD3	2.18	0.43
4:b3:239:PRO:HB3	4:b3:244:GLN:HB2	2.01	0.43
4:B4:458:LEU:HD13	4:b4:462:GLN:NE2	2.30	0.43
4:b4:270:GLN:HE22	4:B5:260:MET:HE1	1.83	0.43
4:b4:296:LEU:O	4:b4:298:ALA:N	2.51	0.43
4:b4:376:ASN:CG	4:B5:360:ARG:HH12	2.27	0.43
4:b4:410:GLN:O	4:b4:413:LEU:HG	2.19	0.43
3:U5:11:ALA:O	3:U5:14:LEU:HG	2.19	0.43
4:B5:387:ALA:HA	4:B5:390:ASN:HD21	1.83	0.43
5:G0:64:ARG:HD2	5:G0:64:ARG:N	2.33	0.43
5:G0:165:SER:HA	5:G0:169:GLU:HG2	1.99	0.43
6:H0:45:ARG:NH1	6:J0:55:ASP:HB3	2.33	0.43
6:H0:51:ASP:OD2	6:H0:53:THR:OG1	2.30	0.43
6:N0:14:GLY:N	6:N0:80:THR:O	2.48	0.43
5:A1:109:ARG:O	5:A1:112:ILE:HG22	2.18	0.43
5:G1:82:HIS:CD2	5:G1:83:GLU:H	2.37	0.43
6:I1:35:MET:HG2	6:I1:86:VAL:HA	2.00	0.43
5:A2:58:VAL:HG23	5:A2:59:SER:H	1.83	0.43
5:G2:109:ARG:O	5:G2:112:ILE:HG12	2.19	0.43
5:C2:85:ASN:O	5:C2:87:GLN:N	2.51	0.43
6:N2:11:GLN:O	6:N2:82:ARG:NE	2.46	0.43
5:A3:44:ILE:HG13	5:A3:66:ARG:HH21	1.84	0.43
5:G3:237:LYS:HD2	5:G3:237:LYS:HA	1.79	0.43
5:G3:287:CYS:HA	5:G3:299:ASN:O	2.18	0.43
6:H3:28:LEU:HD21	6:H3:32:ALA:HB3	2.01	0.43
5:A4:130:GLN:HG3	5:A4:327:MET:HB2	2.00	0.43
5:C4:16:LYS:NZ	5:C4:16:LYS:H	2.17	0.43
5:C4:168:THR:OG1	5:C4:168:THR:O	2.26	0.43
5:C4:259:GLU:HB2	5:C4:264:LYS:HZ3	1.83	0.43
6:H4:58:ALA:HB1	6:H4:102:PHE:HE1	1.84	0.43
6:N4:39:MET:HE3	6:N4:50:TRP:HD1	1.83	0.43
1:f:54:GLN:HE21	3:U:30:ARG:HB2	1.83	0.43
2:W:2:THR:OG1	2:W:5:GLU:OE2	2.31	0.43
3:U:40:PRO:HB3	3:U:72:PRO:HD3	2.00	0.43
2:W1:18:MET:SD	2:w1:43:LEU:HA	2.59	0.43
3:U1:84:MET:HE2	3:U1:84:MET:HB2	1.75	0.43
1:f2:56:VAL:HG11	3:U2:70:PHE:CZ	2.54	0.43
1:f3:69:THR:O	1:f3:72:VAL:HG12	2.19	0.43
2:W3:25:THR:N	2:w3:34:GLU:OE2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w3:44:LYS:HA	2:w3:47:ILE:HG22	2.01	0.43
4:b3:205:TYR:CE1	4:b3:221:TRP:HB2	2.53	0.43
2:w4:2:THR:HG23	2:w4:3:ARG:NH2	2.34	0.43
3:U4:109:GLY:HA2	3:U5:50:GLU:HA	2.01	0.43
4:B4:224:ARG:NE	4:B4:225:GLU:OE2	2.52	0.43
1:f5:34:GLN:NE2	1:f5:73:ARG:O	2.52	0.43
3:U5:16:ALA:O	3:U5:19:LYS:HG2	2.19	0.43
6:N0:4:LYS:HD2	5:C1:71:SER:HB2	2.01	0.43
5:A1:104:PRO:O	5:A1:107:ARG:HG2	2.19	0.43
5:G1:73:PHE:CD1	5:G1:152:VAL:HG13	2.53	0.43
5:G1:214:VAL:O	5:G1:218:LEU:HD23	2.18	0.43
5:A2:157:SER:OG	5:A2:160:ASN:OD1	2.34	0.43
5:A2:280:ARG:H	5:A2:280:ARG:HG2	1.65	0.43
5:G2:196:ASN:C	5:G2:248:VAL:HG23	2.43	0.43
5:G2:305:PRO:HA	5:G2:321:ILE:HD13	2.01	0.43
6:N2:46:LYS:HA	6:N2:46:LYS:HD2	1.79	0.43
5:A3:32:TYR:O	5:A3:284:THR:HA	2.19	0.43
5:G3:40:TYR:HB3	5:C3:9:LEU:HD12	2.01	0.43
5:G3:175:LYS:HA	5:G3:211:PHE:HD1	1.84	0.43
6:H3:80:THR:HA	6:H3:108:SER:O	2.19	0.43
5:A4:129:MET:HA	5:A4:132:VAL:HG12	2.00	0.43
5:A4:200:PHE:CE1	5:A4:272:MET:HG3	2.54	0.43
5:G4:154:MET:HE2	5:G4:154:MET:HA	2.01	0.43
5:C4:212:LYS:HD2	5:C4:215:LYS:HE2	2.00	0.43
6:J4:41:ASP:O	6:J4:45:ARG:HD3	2.19	0.43
4:B:410:GLN:O	4:B:413:LEU:HG	2.19	0.43
4:b:427:LEU:HD11	4:b:442:TRP:CZ3	2.53	0.43
2:w1:14:LEU:HB2	2:w1:43:LEU:HD22	2.01	0.43
3:U1:40:PRO:HB3	3:U1:71:LEU:HD13	2.00	0.43
4:B2:106:ALA:HA	4:B2:109:ARG:NE	2.34	0.43
4:B2:236:VAL:HG13	4:B2:406:ARG:NH2	2.34	0.43
1:f3:58:VAL:HG21	3:U3:121:TRP:CD1	2.54	0.43
2:w3:34:GLU:OE1	2:w3:34:GLU:N	2.52	0.43
2:w4:3:ARG:HD3	2:w4:53:GLN:NE2	2.29	0.43
1:f5:63:PRO:HB2	1:f5:105:LEU:HB2	2.00	0.43
2:w5:3:ARG:HA	2:w5:6:GLU:OE2	2.19	0.43
2:w5:22:ARG:NH1	2:w5:38:THR:H	2.17	0.43
3:U5:51:TYR:CG	3:U5:51:TYR:O	2.72	0.43
4:B5:486:TYR:O	4:B5:489:ILE:HG22	2.18	0.43
5:A0:13:ASN:HB2	5:A0:15:GLN:HE22	1.84	0.43
5:C0:164:GLN:HG3	5:C0:340:LEU:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I0:85:ASP:OD1	6:I0:85:ASP:N	2.51	0.43
5:G1:21:PRO:O	5:G1:22:LEU:HB2	2.18	0.43
5:G1:164:GLN:O	5:G1:169:GLU:HG3	2.19	0.43
6:H1:83:TYR:HA	6:H1:109:ILE:HD11	2.01	0.43
5:G2:3:MET:HG2	5:G2:4:TYR:HD1	1.83	0.43
5:C2:139:LYS:NZ	5:C2:156:ARG:O	2.36	0.43
5:C2:201:ASP:CG	5:C2:271:THR:H	2.24	0.43
5:G3:222:ARG:NH2	5:C3:221:ARG:H	2.17	0.43
5:C3:82:HIS:HB3	5:C3:115:ASN:ND2	2.24	0.43
5:A4:209:ARG:HH12	5:A4:232:VAL:HG13	1.84	0.43
5:G4:209:ARG:O	5:G4:215:LYS:NZ	2.49	0.43
5:G4:307:ASN:ND2	5:G4:317:GLU:OE2	2.52	0.43
5:G4:320:MET:HB3	5:G4:322:GLN:NE2	2.33	0.43
5:C4:308:TRP:HZ3	5:C4:320:MET:HB2	1.84	0.43
4:B:498:MET:HE3	4:B:498:MET:HB3	1.88	0.42
1:f1:26:SER:HA	1:f1:40:ARG:HA	2.01	0.42
1:f2:28:THR:O	1:f2:81:LEU:HB2	2.19	0.42
1:f2:44:ASP:OD1	1:f2:44:ASP:N	2.51	0.42
1:f2:50:SER:O	1:f2:57:ARG:HA	2.18	0.42
2:W2:4:GLN:H	2:W2:4:GLN:CD	2.23	0.42
2:W2:27:GLN:HE21	2:w2:32:ARG:HG2	1.83	0.42
2:W2:67:TYR:O	4:B2:325:LEU:HG	2.19	0.42
4:B2:89:SER:HB3	4:B2:446:ASP:OD1	2.18	0.42
4:B3:81:ILE:HD13	4:B3:142:VAL:HG21	2.01	0.42
4:b3:210:GLY:HA2	4:b3:215:MET:SD	2.59	0.42
2:W4:18:MET:HG2	2:w4:46:TYR:CD2	2.53	0.42
4:B4:63:LEU:O	4:B4:67:ASN:HB3	2.19	0.42
2:W5:27:GLN:OE1	2:W5:28:LYS:N	2.51	0.42
4:B5:166:ARG:N	4:B5:418:GLU:OE2	2.39	0.42
4:b5:114:ALA:O	4:b5:117:GLU:HG3	2.19	0.42
4:b5:325:LEU:HD13	4:b5:325:LEU:HA	1.81	0.42
4:b5:503:ALA:HB3	4:b5:505:LEU:HD22	2.00	0.42
5:A0:57:ILE:HG23	5:A0:58:VAL:HG22	2.00	0.42
5:A0:62:VAL:HG23	5:G0:82:HIS:HA	2.00	0.42
5:G0:159:GLU:H	5:G0:159:GLU:CD	2.20	0.42
5:G0:164:GLN:HB3	5:G0:169:GLU:HB3	2.01	0.42
5:A1:258:VAL:HG22	5:A1:259:GLU:O	2.19	0.42
5:C1:234:ASP:OD1	5:C1:237:LYS:HD3	2.19	0.42
5:A2:53:TYR:CE2	5:G2:142:MET:HG3	2.54	0.42
5:A3:169:GLU:OE2	5:A3:172:LYS:NZ	2.38	0.42
5:A3:253:TYR:HD2	5:A3:267:LEU:HD23	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G3:258:VAL:HG22	5:G3:259:GLU:O	2.19	0.42
5:G3:326:LEU:HA	5:G3:326:LEU:HD12	1.80	0.42
5:C3:93:LEU:HG	5:C3:107:ARG:HD3	2.01	0.42
5:A4:292:ASP:OD2	5:A4:306:LYS:NZ	2.33	0.42
5:G4:83:GLU:HG2	5:G4:318:PHE:CE1	2.54	0.42
5:G4:164:GLN:CD	5:G4:187:TYR:HH	2.26	0.42
5:G4:256:GLN:HG3	5:G4:264:LYS:C	2.44	0.42
6:H4:39:MET:HB3	6:H4:50:TRP:CD1	2.52	0.42
6:J4:45:ARG:HD3	6:J4:45:ARG:HA	1.78	0.42
4:B:476:GLU:HG3	4:B:486:TYR:CG	2.54	0.42
4:b:242:ASP:N	4:b:242:ASP:OD1	2.49	0.42
4:b:446:ASP:N	4:b:446:ASP:OD1	2.50	0.42
4:b1:377:TYR:HB3	4:B2:384:THR:OG1	2.19	0.42
1:f2:85:GLU:H	1:f2:85:GLU:CD	2.27	0.42
4:B2:326:GLY:C	4:b2:277:MET:HE1	2.44	0.42
4:b2:94:TRP:CZ3	4:b2:101:GLU:HB2	2.53	0.42
4:B4:129:GLU:H	4:B4:129:GLU:HG3	1.61	0.42
4:B4:129:GLU:HB2	4:B4:131:LYS:NZ	2.34	0.42
4:b4:420:ILE:O	4:b4:423:ARG:NE	2.52	0.42
1:f5:107:ARG:HD2	3:U5:36:GLU:CD	2.44	0.42
4:B5:375:ARG:HH22	4:b5:367:GLY:HA2	1.83	0.42
5:G0:108:ARG:HD3	5:C1:295:ARG:NH1	2.35	0.42
5:C0:24:LEU:HB3	5:C0:283:ARG:CZ	2.49	0.42
5:C0:196:ASN:C	5:C0:248:VAL:HG23	2.44	0.42
6:H0:84:GLU:H	6:H0:84:GLU:CD	2.28	0.42
5:A1:38:LYS:HB3	5:G1:7:ALA:HA	2.01	0.42
5:A1:53:TYR:OH	5:G1:130:GLN:NE2	2.52	0.42
6:H1:45:ARG:HB3	6:J1:100:THR:HG21	2.01	0.42
6:H1:99:ARG:HA	6:H1:109:ILE:HG21	1.99	0.42
6:N1:11:GLN:O	6:N1:82:ARG:HD2	2.19	0.42
5:A2:59:SER:OG	5:A2:60:GLY:N	2.51	0.42
5:C2:104:PRO:O	5:C2:108:ARG:HG2	2.18	0.42
5:C2:305:PRO:HA	5:C2:320:MET:O	2.18	0.42
5:A3:169:GLU:OE1	5:A3:169:GLU:N	2.35	0.42
5:A3:181:THR:HA	5:A3:184:ILE:HG12	2.01	0.42
5:C3:16:LYS:HE2	5:C3:16:LYS:HB2	1.90	0.42
5:C3:40:TYR:CE2	5:C3:70:THR:HG21	2.54	0.42
5:C3:259:GLU:HB2	5:C3:264:LYS:NZ	2.34	0.42
6:N4:93:SER:O	6:N4:98:LYS:NZ	2.52	0.42
1:f:21:GLY:HA2	1:f:40:ARG:HE	1.84	0.42
2:w:56:MET:HE1	2:w:59:ARG:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:332:HIS:HB3	4:B1:288:THR:HG22	2.01	0.42
4:b:473:SER:OG	4:b:474:THR:N	2.52	0.42
1:f1:69:THR:OG1	1:f1:96:ASP:OD2	2.28	0.42
4:B1:190:ARG:O	4:B1:193:VAL:HG12	2.18	0.42
4:B1:293:ASP:OD1	4:B1:299:ASN:HB2	2.20	0.42
4:B1:486:TYR:CZ	4:B1:487:GLN:HG3	2.54	0.42
2:w2:22:ARG:NH1	2:w2:38:THR:H	2.13	0.42
4:b2:486:TYR:CE1	4:b2:487:GLN:HG3	2.54	0.42
4:B3:326:GLY:H	4:b3:277:MET:HE1	1.84	0.42
2:w4:28:LYS:HG3	2:w4:29:ASP:OD1	2.19	0.42
4:B4:327:GLY:O	4:B4:329:LYS:N	2.52	0.42
4:b4:393:TRP:CG	4:b4:452:ARG:HD3	2.54	0.42
1:f5:4:PHE:CD2	1:f5:6:ASN:HB3	2.54	0.42
1:f5:28:THR:HG23	1:f5:82:THR:OG1	2.19	0.42
4:B5:78:GLN:O	4:B5:139:ARG:NH1	2.52	0.42
4:b5:359:LEU:HB3	4:b5:370:TYR:HE1	1.85	0.42
4:b5:489:ILE:HD13	4:b5:489:ILE:HA	1.86	0.42
5:A0:114:GLN:HA	5:A0:117:ARG:NH1	2.34	0.42
5:A0:132:VAL:O	5:A0:136:LEU:HB2	2.19	0.42
5:G0:138:GLY:O	5:G0:154:MET:HG2	2.20	0.42
6:H0:59:VAL:HG21	6:J0:103:ALA:HB1	2.01	0.42
5:C1:97:ASP:OD1	5:C1:97:ASP:N	2.51	0.42
5:C1:125:GLN:HE21	5:C1:257:TYR:HB2	1.84	0.42
5:C1:156:ARG:HD3	5:C1:332:PRO:HB2	2.01	0.42
6:H2:61:ILE:O	6:H2:75:PHE:HB2	2.19	0.42
5:A3:80:PRO:HD2	5:A3:321:ILE:O	2.19	0.42
5:G3:247:ASP:HB2	5:C3:233:LYS:C	2.44	0.42
5:C3:3:MET:O	5:C3:5:THR:N	2.48	0.42
5:C3:132:VAL:HG21	5:C3:266:PHE:HD1	1.84	0.42
5:C3:258:VAL:HG12	5:C3:259:GLU:O	2.19	0.42
6:J3:38:LEU:HD12	6:J3:47[A]:LEU:HB3	2.01	0.42
6:J3:39:MET:HE3	6:J3:51:ASP:H	1.84	0.42
5:A4:168:THR:HG1	5:A4:173:ARG:NH2	2.17	0.42
5:C4:114:GLN:HE22	5:C4:117:ARG:HH22	1.67	0.42
4:b:124:CYS:SG	4:b:132:ARG:N	2.92	0.42
4:b:154:GLN:HE21	4:b:170:ARG:HB3	1.83	0.42
2:W1:56:MET:SD	2:W1:57:THR:N	2.93	0.42
3:U1:71:LEU:HB3	3:U1:75:VAL:HG21	2.02	0.42
4:B1:281:THR:O	4:B1:339:LEU:HD12	2.18	0.42
2:w2:25:THR:HB	2:W3:34:GLU:CD	2.45	0.42
4:B2:499:GLU:OE2	4:B2:500:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b2:465:VAL:HG21	4:B3:466:MET:HE1	2.02	0.42
4:B3:88:LEU:HD23	4:B3:89:SER:N	2.34	0.42
4:B3:390:ASN:OD1	4:B3:391:GLU:N	2.52	0.42
4:B3:393:TRP:CE2	4:B3:452:ARG:HB2	2.54	0.42
1:f4:58:VAL:HG21	3:U4:121:TRP:CD1	2.51	0.42
1:f4:65:LEU:HB3	1:f4:103:LEU:HB2	2.02	0.42
2:W4:11:ARG:NH2	2:W4:51:GLU:OE1	2.52	0.42
4:B4:65:ARG:HG3	4:B5:24:TYR:CD2	2.54	0.42
4:B4:254:VAL:O	4:B4:258:MET:HG2	2.19	0.42
1:f5:29:ILE:O	1:f5:36:GLY:HA2	2.19	0.42
2:w5:60:ARG:NH2	4:B5:294:PHE:HB3	2.34	0.42
4:B5:55:ARG:NH1	4:B5:59:ARG:HH12	2.17	0.42
4:b5:31:PHE:O	4:b5:34:GLN:HG3	2.19	0.42
4:b5:71:ALA:HA	4:b5:74:ILE:HG12	2.01	0.42
5:G0:158:GLU:OE1	5:G0:158:GLU:N	2.46	0.42
5:G0:219:ASP:OD1	5:G0:219:ASP:N	2.42	0.42
5:C0:95:ASP:OD1	5:C0:96:GLU:N	2.47	0.42
5:C0:191:ALA:O	5:C0:334:GLU:HA	2.19	0.42
6:J0:46:LYS:HE3	6:J0:46:LYS:HB3	1.88	0.42
5:G1:43:GLN:N	5:G1:69:SER:OG	2.40	0.42
5:G1:49:ASN:O	5:G1:50:MET:HE2	2.20	0.42
5:G3:38:LYS:HB3	5:C3:7:ALA:HA	2.01	0.42
6:H3:15:ASN:ND2	6:H3:17:ASP:H	2.17	0.42
5:G4:129:MET:HE3	5:G4:129:MET:HB3	1.93	0.42
5:C4:109:ARG:O	5:C4:113:MET:HG2	2.19	0.42
5:C4:296:GLU:OE1	5:C4:296:GLU:N	2.52	0.42
6:H4:41:ASP:OD1	6:H4:41:ASP:N	2.52	0.42
1:f1:24:GLY:HA3	1:f1:42:VAL:HA	2.02	0.42
2:W1:24:ALA:HB3	2:w1:34:GLU:HG2	2.00	0.42
4:b1:271:SER:O	4:b1:274:VAL:HG22	2.19	0.42
4:b1:393:TRP:CD2	4:b1:452:ARG:HD3	2.53	0.42
4:b2:500:ARG:NH1	4:B3:475:TYR:OH	2.53	0.42
2:w3:61:ARG:NH1	2:w3:61:ARG:HA	2.34	0.42
4:B3:46:ASP:OD1	4:B3:244:GLN:HA	2.19	0.42
4:b3:48:ALA:O	4:B4:24:TYR:N	2.53	0.42
1:f4:50:SER:O	1:f4:57:ARG:HA	2.19	0.42
4:B4:195:ILE:HG22	4:B4:201:ALA:HA	2.00	0.42
4:b4:324:ARG:NH2	4:b4:325:LEU:O	2.43	0.42
4:b4:476:GLU:HA	4:b4:479:CYS:SG	2.59	0.42
3:U5:40:PRO:HB3	3:U5:71:LEU:HG	2.02	0.42
4:b5:67:ASN:OD1	4:b5:70:ALA:N	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:85:ASN:HB3	5:A0:88:MET:HE1	2.02	0.42
5:G0:86:PRO:O	5:G0:89:THR:OG1	2.30	0.42
5:G0:113:MET:HE2	5:G0:113:MET:HA	2.02	0.42
6:H0:4:LYS:HZ2	6:H0:6:THR:HG22	1.84	0.42
6:I0:83:TYR:OH	6:I0:95:GLU:HG2	2.19	0.42
5:A1:24:LEU:HA	5:A1:28:PHE:HB2	2.02	0.42
5:A1:39:VAL:H	5:A1:74:THR:HG22	1.84	0.42
5:A1:181:THR:HA	5:A1:184:ILE:HG22	2.02	0.42
5:G1:36:THR:OG1	5:G1:38:LYS:O	2.37	0.42
5:A2:283:ARG:HA	5:A2:327:MET:SD	2.59	0.42
5:A3:56:PRO:HB3	5:G3:77:TYR:CE1	2.54	0.42
5:G3:56:PRO:HA	5:C3:79:LYS:HZ3	1.84	0.42
6:H3:99:ARG:NH1	6:H3:110:VAL:OXT	2.53	0.42
5:A4:142:MET:HB3	5:A4:147:PHE:CE2	2.53	0.42
5:G4:175:LYS:HA	5:G4:211:PHE:CD1	2.53	0.42
5:C4:157:SER:OG	5:C4:160:ASN:ND2	2.53	0.42
6:N4:39:MET:HE1	6:N4:51:ASP:H	1.83	0.42
1:f:34:GLN:NE2	1:f:74:GLN:HG2	2.34	0.42
1:f:70:ASP:OD1	1:f:73:ARG:NH2	2.53	0.42
3:U:80:LEU:HD23	3:U:124:ALA:HB2	2.01	0.42
4:B:299:ASN:OD1	4:B:300:SER:N	2.53	0.42
4:B:491:ALA:HB1	4:B:495:ARG:NH1	2.35	0.42
4:B1:158:ASP:OD1	4:B1:159:THR:N	2.53	0.42
4:b1:69:TYR:OH	4:b1:359:LEU:HD21	2.20	0.42
4:b1:432:ARG:HD2	4:b1:433:PHE:CE1	2.55	0.42
4:b1:474:THR:O	4:b1:478:GLU:HG2	2.20	0.42
4:B2:60:ALA:O	4:B2:64:VAL:HG13	2.19	0.42
4:B3:485:ASP:HB3	4:B3:488:GLU:CD	2.44	0.42
4:b3:74:ILE:O	4:b3:78:GLN:HG2	2.20	0.42
3:U4:92:MET:HE3	3:U4:92:MET:HB3	1.86	0.42
4:B4:79:ASP:OD1	4:B4:139:ARG:NH2	2.36	0.42
4:B4:180:PRO:HA	4:B4:219:TRP:CE2	2.55	0.42
4:B4:268:GLN:CG	4:b4:354:PHE:HZ	2.33	0.42
4:B5:106:ALA:HA	4:B5:109:ARG:NH1	2.34	0.42
4:B5:139:ARG:HA	4:B5:142:VAL:HG12	2.01	0.42
5:A0:17:PHE:HB3	5:A0:263:LYS:NZ	2.35	0.42
5:C0:203:LYS:HE2	5:C0:203:LYS:HB2	1.90	0.42
6:I0:68:GLN:H	6:I0:68:GLN:CD	2.27	0.42
5:C1:162:ILE:O	5:C1:338:VAL:HA	2.20	0.42
5:C1:242:LYS:HG3	5:C1:252:VAL:HG23	2.02	0.42
6:N1:6:THR:HA	5:C2:69:SER:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A2:301:SER:OG	5:A2:302:ALA:N	2.53	0.42
6:H2:13:GLN:NE2	6:H2:80:THR:O	2.52	0.42
6:H2:80:THR:OG1	6:H2:108:SER:OG	2.37	0.42
5:A3:39:VAL:HG12	5:A3:74:THR:HG22	2.00	0.42
5:G3:129:MET:HE3	5:G3:129:MET:HB3	1.88	0.42
5:A4:132:VAL:O	5:A4:136:LEU:HB2	2.18	0.42
6:H4:39:MET:HG2	6:H4:50:TRP:HA	2.00	0.42
6:I4:51:ASP:CG	6:I4:54:THR:H	2.28	0.42
1:f:27:ALA:HB1	1:f:81:LEU:HD11	2.00	0.42
4:B:212:PRO:HB2	4:B:214:TRP:NE1	2.35	0.42
4:B:255:MET:HE3	4:B:255:MET:HB2	1.75	0.42
4:B:467:LEU:HD13	4:B:467:LEU:HA	1.85	0.42
4:b:226:LEU:HD12	4:b:227:PRO:HD2	2.02	0.42
4:b:259:LYS:HB2	4:b:259:LYS:HE2	1.82	0.42
4:b:505:LEU:HD23	4:b:505:LEU:H	1.83	0.42
1:f1:69:THR:HG21	1:f1:96:ASP:HB2	2.02	0.42
4:B1:277:MET:HE2	4:B1:277:MET:HB2	1.97	0.42
4:b1:209:ASP:N	4:B2:187:ARG:HH22	2.18	0.42
4:b1:252:TYR:OH	4:B2:27:GLY:N	2.49	0.42
4:B2:274:VAL:HA	4:B2:277:MET:HG2	2.01	0.42
1:f3:89:TRP:HE1	1:f3:107:ARG:H	1.68	0.42
4:B3:343:THR:HA	4:b3:345:GLN:HG3	2.00	0.42
4:B3:371:GLU:HB2	4:B3:377:TYR:CD1	2.55	0.42
4:B3:387:ALA:HA	4:B3:390:ASN:HD21	1.85	0.42
4:b3:165:PHE:HE1	4:b3:424:VAL:HG11	1.84	0.42
4:B4:269:LEU:HD12	4:B4:269:LEU:HA	1.86	0.42
4:B4:371:GLU:HG2	4:B4:377:TYR:CD1	2.54	0.42
2:w5:46:TYR:O	2:w5:49:GLU:HG2	2.19	0.42
4:B5:35:LEU:H	4:B5:35:LEU:HG	1.59	0.42
4:B5:137:MET:HA	4:B5:171:MET:HE1	2.01	0.42
4:B5:437:GLU:OE1	4:B5:437:GLU:N	2.34	0.42
4:b5:144:MET:HA	4:b5:147:PHE:CE2	2.54	0.42
5:A0:119:GLU:O	5:A0:123:ILE:HG12	2.20	0.42
5:A0:198:ILE:HG22	5:A0:250:ILE:HA	2.02	0.42
5:A0:273:VAL:HA	5:A0:336:VAL:O	2.19	0.42
5:G0:56:PRO:HG3	5:C0:77:TYR:CG	2.55	0.42
5:G0:130:GLN:OE1	5:G0:327:MET:HB2	2.20	0.42
5:C0:41:LEU:HD13	5:C0:41:LEU:HA	1.88	0.42
6:N0:33:PRO:O	6:N0:36:THR:OG1	2.23	0.42
5:G1:38:LYS:HD3	5:C1:5:THR:HG23	2.02	0.42
5:G1:86:PRO:HG3	5:C2:291:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J1:47[A]:LEU:HD23	6:J1:73:LEU:HD11	2.01	0.42
5:C2:21:PRO:C	5:C2:23:PHE:H	2.28	0.42
5:G3:53:TYR:CD1	5:C3:142:MET:HE3	2.55	0.42
5:G3:272:MET:HB3	5:G3:338:VAL:HG23	2.01	0.42
5:G4:130:GLN:HE22	5:G4:327:MET:HG3	1.83	0.42
5:G4:199:VAL:HG13	5:G4:273:VAL:HB	2.02	0.42
5:G4:305:PRO:HA	5:G4:320:MET:O	2.20	0.42
5:C4:97:ASP:OD1	5:C4:97:ASP:N	2.52	0.42
5:C4:262:VAL:HG23	5:C4:264:LYS:NZ	2.34	0.42
6:I4:51:ASP:CG	6:I4:53:THR:H	2.28	0.42
4:B:144:MET:HE3	4:B:151:LEU:HA	2.01	0.42
4:B:295:ILE:HB	4:B:296:LEU:HD12	2.02	0.42
4:B:486:TYR:OH	4:B:487:GLN:NE2	2.53	0.42
4:b:72:ASN:ND2	4:b:373:LEU:O	2.52	0.42
4:b:171:MET:HE3	4:b:171:MET:HB3	1.83	0.42
4:b:332:HIS:CE1	4:B1:284:SER:HB3	2.55	0.42
1:f1:4:PHE:HB2	1:f1:6:ASN:ND2	2.35	0.42
3:U1:10:ARG:HA	3:U1:13:VAL:HG12	2.02	0.42
4:b1:82:VAL:HG23	4:b1:86:PHE:CD2	2.55	0.42
2:W2:58:GLN:NE2	2:W2:61:ARG:HG3	2.34	0.42
3:U2:98:LEU:O	3:U2:102:ILE:HG12	2.20	0.42
4:b2:49:LEU:HD13	4:b2:49:LEU:HA	1.90	0.42
1:f4:34:GLN:NE2	1:f4:74:GLN:HG2	2.33	0.42
4:B4:140:GLU:O	4:B4:144:MET:HG3	2.20	0.42
4:B4:180:PRO:HA	4:B4:219:TRP:CD2	2.55	0.42
4:b4:330:VAL:HG13	4:B5:281:THR:HA	2.02	0.42
2:w5:64:ALA:O	4:B5:329:LYS:HA	2.20	0.42
4:B5:236:VAL:HG13	4:B5:406:ARG:HE	1.85	0.42
4:b5:180:PRO:HA	4:b5:219:TRP:CE2	2.55	0.42
5:A0:22:LEU:HD13	5:A0:239:VAL:HG11	2.01	0.42
5:A0:200:PHE:CE2	5:A0:272:MET:HG3	2.55	0.42
5:G0:56:PRO:HA	5:C0:79:LYS:HZ3	1.85	0.42
5:G0:234:ASP:HB3	5:G0:240:SER:HB3	2.02	0.42
6:I0:55:ASP:HB3	6:J0:45:ARG:HH12	1.84	0.42
5:C1:10:LEU:HD13	5:C1:10:LEU:HA	1.87	0.42
5:A2:77:TYR:HD1	5:A2:77:TYR:HA	1.76	0.42
5:A2:196:ASN:ND2	5:A2:277:THR:HG22	2.35	0.42
5:A2:208:PHE:CZ	5:A2:214:VAL:HG11	2.54	0.42
6:H2:58:ALA:HB1	6:H2:102:PHE:CE1	2.55	0.42
6:J2:4:LYS:HE2	5:G3:70:THR:H	1.84	0.42
6:N2:31:LYS:HD3	6:N2:67:ASP:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A3:58:VAL:HG23	5:A3:59:SER:H	1.84	0.42
5:A3:157:SER:OG	5:A3:160:ASN:OD1	2.27	0.42
5:C3:311:THR:OG1	5:C3:312:GLY:N	2.52	0.42
6:J3:38:LEU:HD11	6:J3:47[A]:LEU:HD23	2.00	0.42
5:A4:38:LYS:HD2	5:G4:7:ALA:HB2	2.02	0.42
5:A4:222:ARG:HG3	5:G4:218:LEU:HD12	2.00	0.42
5:G4:308:TRP:HZ3	5:G4:320:MET:HG2	1.84	0.42
1:f:55:GLY:O	3:U5:114:ARG:NH2	2.47	0.42
1:f:92:ARG:HB3	1:f:104:TRP:CD1	2.54	0.42
2:W:28:LYS:NZ	2:w:31:ARG:HE	2.18	0.42
4:b:88:LEU:HD12	4:b:447:TRP:CH2	2.54	0.42
4:B1:359:LEU:O	4:B1:362:ILE:HG22	2.20	0.42
4:B1:476:GLU:HG3	4:B1:486:TYR:CD1	2.54	0.42
4:B1:505:LEU:HG	4:b1:510:TRP:HB2	2.01	0.42
4:b1:63:LEU:HD12	4:b1:63:LEU:HA	1.88	0.42
4:b1:133:THR:OG1	4:b1:134:PHE:N	2.52	0.42
4:B2:58:ALA:HA	4:B2:61:ASP:OD2	2.20	0.42
4:B2:163:ARG:CZ	4:B2:164:LEU:H	2.33	0.42
4:b2:139:ARG:HD2	4:B3:402:PHE:CZ	2.55	0.42
4:B3:329:LYS:HG2	4:b3:277:MET:HE3	2.01	0.42
4:b3:462:GLN:HA	4:b3:465:VAL:HG12	2.00	0.42
2:W4:24:ALA:HB3	2:w4:34:GLU:OE1	2.19	0.42
4:b4:114:ALA:O	4:b4:117:GLU:HG3	2.19	0.42
4:b4:180:PRO:HA	4:b4:219:TRP:CE2	2.55	0.42
4:b4:346:ASP:OD1	4:B5:350:GLY:HA3	2.20	0.42
1:f5:80:THR:HA	1:f5:89:TRP:HA	2.02	0.42
2:W5:14:LEU:O	2:W5:18:MET:HG2	2.19	0.42
4:B5:61:ASP:HA	4:B5:64:VAL:HG12	2.01	0.42
4:B5:133:THR:HG21	4:b5:406:ARG:HH21	1.85	0.42
4:B5:489:ILE:HD12	4:B5:489:ILE:HA	1.93	0.42
4:b5:334:MET:N	4:b5:334:MET:SD	2.93	0.42
5:A0:311:THR:OG1	5:A0:312:GLY:N	2.53	0.42
5:G0:86:PRO:HG3	5:C1:291:ALA:HB2	2.02	0.42
5:C0:88:MET:HG2	6:J4:9:HIS:CE1	2.55	0.42
6:I0:39:MET:SD	6:I0:48:VAL:HG13	2.60	0.42
5:C1:308:TRP:N	5:C1:317:GLU:OE2	2.53	0.42
6:H1:37:PRO:HB2	6:H1:50:TRP:HB3	2.02	0.42
6:N1:37:PRO:HB2	6:N1:50:TRP:HB3	2.01	0.42
5:A2:49:ASN:OD1	5:A2:50:MET:N	2.53	0.42
5:A2:304:TYR:O	5:A2:321:ILE:HA	2.20	0.42
5:A2:305:PRO:HA	5:A2:321:ILE:HG13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C2:211:PHE:O	5:C2:215:LYS:NZ	2.49	0.42
6:H2:33:PRO:O	6:H2:62:LEU:HD23	2.20	0.42
6:I2:39:MET:HA	6:I2:59:VAL:HB	2.01	0.42
5:A3:52:LEU:HD13	5:A3:52:LEU:HA	1.86	0.42
5:A3:156:ARG:HA	5:A3:332:PRO:HB2	2.01	0.42
5:G3:162:ILE:H	5:G3:162:ILE:HD12	1.84	0.42
5:C3:196:ASN:C	5:C3:197:ILE:HD12	2.45	0.42
6:H3:51:ASP:OD2	6:H3:53:THR:OG1	2.25	0.42
5:G4:63:ILE:HG12	5:C4:82:HIS:HD2	1.84	0.42
4:B:63:LEU:HD21	4:B:258:MET:HG2	2.01	0.42
4:b:402:PHE:O	4:b:406:ARG:HD3	2.20	0.42
2:w1:66:PHE:HB3	4:b1:325:LEU:HD11	2.02	0.42
4:b1:132:ARG:HB2	4:b1:136:MET:HB2	2.02	0.42
4:b1:236:VAL:HG23	4:b1:406:ARG:HH21	1.85	0.42
4:b1:332:HIS:HB3	4:B2:288:THR:HG22	2.01	0.42
4:b1:496:GLU:OE2	4:B2:475:TYR:N	2.51	0.42
2:w2:27:GLN:NE2	2:w2:32:ARG:HB2	2.26	0.42
4:B2:180:PRO:HA	4:B2:219:TRP:CE2	2.54	0.42
4:B2:366:LEU:HD13	4:B2:366:LEU:HA	1.92	0.42
3:U3:5:LYS:HD3	3:U3:134:MET:HG3	2.02	0.42
4:B3:207:SER:HB3	4:B3:219:TRP:NE1	2.35	0.42
4:B3:264:LEU:HA	4:B3:267:THR:HG22	2.02	0.42
4:b3:334:MET:H	2:W4:60:ARG:NH2	2.17	0.42
4:b3:400:ARG:CZ	4:b3:449:GLY:HA3	2.50	0.42
4:B4:98:GLY:O	4:B4:430:LYS:NZ	2.53	0.42
4:B4:179:ASN:OD1	4:B4:180:PRO:HD2	2.20	0.42
4:b4:212:PRO:HB2	4:b4:214:TRP:HE3	1.85	0.42
1:f5:4:PHE:HB3	1:f5:6:ASN:ND2	2.35	0.42
1:f5:68:ARG:HH12	1:f5:70:ASP:HB2	1.85	0.42
4:b5:340:ASN:OD1	4:b5:340:ASN:N	2.53	0.42
5:A0:208:PHE:CZ	5:A0:214:VAL:HG11	2.55	0.42
5:G0:58:VAL:O	5:G0:59:SER:C	2.63	0.42
5:C0:40:TYR:OH	5:G4:3:MET:N	2.46	0.42
5:C0:228:LEU:HD21	5:C0:245:TYR:HD1	1.85	0.42
6:I0:34:ALA:C	6:I0:35:MET:HG3	2.45	0.42
5:A1:211:PHE:HD1	5:A1:211:PHE:HA	1.78	0.42
5:G1:287:CYS:SG	5:G1:299:ASN:HB2	2.59	0.42
5:C1:22:LEU:HD12	5:C1:25:ARG:HH21	1.85	0.42
5:C1:85:ASN:O	5:C1:88:MET:HG3	2.20	0.42
5:A2:186:ALA:HA	5:A2:189:LEU:HD23	2.02	0.42
5:G2:239:VAL:HB	5:G2:253:TYR:HD1	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H2:51:ASP:OD2	6:H2:53:THR:OG1	2.23	0.42
5:A3:38:LYS:O	5:G3:8:GLN:N	2.51	0.42
5:A3:56:PRO:HB3	5:G3:77:TYR:CD1	2.55	0.42
5:G3:132:VAL:O	5:G3:136:LEU:HB2	2.20	0.42
5:C3:41:LEU:HD13	5:C3:41:LEU:HA	1.93	0.42
5:C3:213:ALA:O	5:C3:216:GLU:HG2	2.20	0.42
6:I3:36:THR:HG23	6:I3:87:LEU:HD11	2.02	0.42
6:J3:7:PHE:H	5:G4:68:GLY:CA	2.32	0.42
6:J3:51:ASP:O	6:J3:91:ALA:HB3	2.20	0.42
5:A4:159:GLU:OE1	5:A4:159:GLU:N	2.53	0.42
5:A4:290:ASP:H	5:A4:294:GLN:HE22	1.66	0.42
5:G4:31:SER:CA	5:G4:283:ARG:HB3	2.50	0.42
2:W1:14:LEU:HB2	2:W1:43:LEU:HD22	2.01	0.41
1:f2:46:PRO:HD2	1:f2:62:SER:O	2.21	0.41
4:B2:34:GLN:HB3	4:B2:35:LEU:HD23	2.02	0.41
4:B2:62:ASP:HA	4:B2:65:ARG:HG2	2.01	0.41
4:b2:63:LEU:O	4:b2:67:ASN:HB3	2.20	0.41
4:B3:129:GLU:HA	4:b3:200:ALA:HB2	2.02	0.41
4:B4:160:SER:O	4:B4:163:ARG:NH1	2.52	0.41
4:B4:262:ASP:OD1	4:B4:265:GLN:NE2	2.44	0.41
1:f5:70:ASP:OD1	1:f5:73:ARG:NH2	2.40	0.41
4:B5:174:PRO:HB3	4:B5:246:ARG:HH21	1.85	0.41
4:B5:458:LEU:HD23	4:B5:458:LEU:HA	1.84	0.41
4:B5:506:LYS:HE2	4:B5:506:LYS:HB2	1.92	0.41
4:b5:150:GLU:OE1	4:b5:150:GLU:N	2.53	0.41
4:b5:465:VAL:HA	4:b5:468:ILE:HG22	2.00	0.41
5:C0:158:GLU:OE1	5:C0:158:GLU:N	2.49	0.41
6:J0:29:SER:O	6:J0:68:GLN:NE2	2.53	0.41
6:J0:39:MET:SD	6:J0:50:TRP:HA	2.59	0.41
6:J0:50:TRP:CH2	6:J0:52:GLY:HA2	2.55	0.41
5:G1:124:ALA:O	5:G1:127:GLU:HG2	2.20	0.41
5:A2:123:ILE:HD12	5:A2:123:ILE:HA	1.92	0.41
6:I2:34:ALA:C	6:I2:35:MET:HG3	2.45	0.41
6:N2:34:ALA:HB2	6:N2:65:ALA:N	2.36	0.41
6:N2:82:ARG:O	6:N2:86:VAL:HG12	2.19	0.41
5:A3:46:GLY:HA3	5:G3:15:GLN:O	2.20	0.41
5:A3:222:ARG:HD3	5:G3:227:GLU:HA	2.02	0.41
5:G3:88:MET:HE2	6:H3:10:TYR:HB3	2.02	0.41
5:C3:130:GLN:OE1	5:C3:327:MET:N	2.53	0.41
5:A4:108:ARG:O	5:A4:111:ILE:HG22	2.20	0.41
5:G4:306:LYS:HE3	5:G4:306:LYS:HB3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C4:299:ASN:OD1	5:C4:300:ALA:N	2.51	0.41
5:C4:302:ALA:O	5:C4:323:SER:OG	2.32	0.41
1:f1:54:GLN:NE2	3:U1:30:ARG:HE	2.19	0.41
1:f1:82:THR:HG22	1:f1:87:ASN:HB2	2.01	0.41
4:b1:269:LEU:HD22	4:B2:260:MET:HB3	2.02	0.41
1:f2:42:VAL:HG23	1:f2:66:PHE:HB3	2.01	0.41
2:w2:17:LEU:CB	2:w2:22:ARG:HB2	2.47	0.41
4:B2:271:SER:HA	4:B2:274:VAL:HG22	2.02	0.41
4:B3:459:LYS:HA	4:B3:462:GLN:NE2	2.34	0.41
4:b4:457:GLY:O	4:b4:460:GLU:HG2	2.19	0.41
4:b5:218:LYS:NZ	4:b5:220:THR:OG1	2.54	0.41
6:J0:25:PRO:HA	6:J0:72:THR:HA	2.02	0.41
6:N0:51:ASP:OD1	6:N0:52:GLY:N	2.54	0.41
5:A1:84:VAL:HG21	5:A1:108:ARG:HG3	2.01	0.41
5:C1:290:ASP:OD1	5:C1:292:ASP:N	2.53	0.41
5:G2:37:GLU:OE1	5:G2:37:GLU:N	2.51	0.41
5:C2:196:ASN:HD21	5:C2:277:THR:HG22	1.84	0.41
6:J2:50:TRP:CH2	6:J2:52:GLY:HA2	2.56	0.41
6:N2:35:MET:HB3	6:N2:35:MET:HE3	1.84	0.41
5:C3:73:PHE:O	5:C3:326:LEU:HD21	2.19	0.41
6:H3:50:TRP:CH2	6:H3:52:GLY:HA2	2.55	0.41
6:N3:46:LYS:HD3	6:N3:46:LYS:HA	1.94	0.41
5:A4:59:SER:OG	5:A4:60:GLY:N	2.52	0.41
5:A4:221:ARG:HH22	5:A4:222:ARG:NH1	2.18	0.41
5:G4:178:TYR:OH	5:G4:183:ASP:OD2	2.29	0.41
2:w:14:LEU:HG	2:w:18:MET:HE1	2.02	0.41
3:U:68:GLU:HB2	3:U:70:PHE:CZ	2.56	0.41
4:B:90:HIS:NE2	4:B:442:TRP:O	2.32	0.41
4:B:492:GLN:HG2	4:b:474:THR:HG21	2.03	0.41
4:B1:58:ALA:HB2	4:b1:42:SER:HB3	2.01	0.41
4:B1:352:SER:O	4:B1:355:GLU:HG3	2.20	0.41
2:w3:28:LYS:HB3	2:w3:31:ARG:HB2	2.01	0.41
4:B3:423:ARG:HH22	4:B3:427:LEU:H	1.68	0.41
4:b3:151:LEU:HG	4:b3:236:VAL:HB	2.02	0.41
1:f4:88:PHE:CE1	1:f4:107:ARG:HG2	2.56	0.41
1:f5:45:ASP:OD2	1:f5:107:ARG:NH2	2.53	0.41
1:f5:48:ASN:OD1	1:f5:48:ASN:N	2.53	0.41
4:B5:486:TYR:CE1	4:B5:487:GLN:HG3	2.56	0.41
4:b5:212:PRO:HD2	4:b5:215:MET:HE1	2.01	0.41
5:A0:204:GLY:O	5:A0:207:LEU:HG	2.20	0.41
5:G0:103:ASP:OD1	5:G0:104:PRO:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G0:298:ILE:HD12	5:G0:298:ILE:HA	1.96	0.41
5:C0:24:LEU:HD22	5:C0:24:LEU:H	1.85	0.41
5:C0:76:GLY:O	5:C0:77:TYR:HB2	2.20	0.41
6:I0:84:GLU:H	6:I0:84:GLU:CD	2.29	0.41
6:J0:26:GLY:HA2	6:J0:47[A]:LEU:HB2	2.02	0.41
5:A1:45:PRO:HD2	5:A1:67:GLY:HA2	2.02	0.41
5:G1:36:THR:HB	5:C1:6:THR:HB	2.03	0.41
6:J1:4:LYS:HA	6:J1:4:LYS:HD2	1.82	0.41
5:A2:21:PRO:C	5:A2:23:PHE:H	2.29	0.41
5:G2:218:LEU:HD21	5:G2:228:LEU:HD23	2.01	0.41
5:C2:62:VAL:HB	5:C2:64:ARG:HH12	1.85	0.41
6:I2:4:LYS:HZ2	6:I2:4:LYS:HG3	1.68	0.41
6:J2:67:ASP:N	6:J2:67:ASP:OD1	2.53	0.41
5:A3:29:ARG:NH1	5:A3:277:THR:O	2.50	0.41
5:A3:47:LEU:H	5:A3:66:ARG:NH1	2.19	0.41
5:A3:154:MET:HE2	5:A3:154:MET:HB2	1.78	0.41
5:A3:156:ARG:HD2	5:A3:160:ASN:HB2	2.01	0.41
5:G3:24:LEU:HA	5:G3:28:PHE:HB2	2.01	0.41
5:G3:289:GLN:OE1	5:G3:289:GLN:N	2.53	0.41
5:C3:180:PRO:O	5:C3:184:ILE:HG12	2.21	0.41
6:H3:34:ALA:HA	6:H3:62:LEU:HD23	2.02	0.41
5:G4:290:ASP:OD1	5:G4:290:ASP:N	2.53	0.41
6:J4:36:THR:HG23	6:J4:87:LEU:HD11	2.01	0.41
2:W:22:ARG:NH1	2:W:37:ALA:HA	2.28	0.41
2:w:43:LEU:O	2:w:47:ILE:HG12	2.19	0.41
4:B:24:TYR:HB3	4:B:25:HIS:H	1.61	0.41
4:B:342:GLN:HB3	4:b5:341:LEU:HD21	2.02	0.41
4:B1:50:LEU:HA	4:B1:50:LEU:HD13	1.84	0.41
4:B1:124:CYS:O	4:B1:130:ARG:HA	2.20	0.41
4:B1:258:MET:HB3	4:B1:362:ILE:HD13	2.02	0.41
4:B1:269:LEU:HD22	4:b1:260:MET:HB3	2.01	0.41
4:b1:363:ALA:HB2	4:b1:373:LEU:HD22	2.01	0.41
4:b2:226:LEU:N	4:b2:230:ARG:O	2.51	0.41
4:b2:273:ILE:HD11	4:B3:263:THR:HG23	2.03	0.41
4:B3:65:ARG:HD3	4:B4:24:TYR:CZ	2.56	0.41
4:b3:214:TRP:HE3	5:G3:303:ARG:C	2.29	0.41
3:U4:66:HIS:HB3	3:U4:68:GLU:OE2	2.20	0.41
4:b4:152:PHE:HB3	4:b4:233:PHE:CZ	2.55	0.41
4:b4:301:GLN:H	4:b4:301:GLN:CD	2.29	0.41
2:W5:6:GLU:OE2	2:W5:46:TYR:OH	2.30	0.41
4:B5:156:THR:OG1	4:B5:157:TRP:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b5:349:ASN:OD1	4:b5:349:ASN:N	2.44	0.41
5:G0:122:ALA:HA	5:G0:125:GLN:HE21	1.84	0.41
5:G1:32:TYR:O	5:G1:284:THR:HA	2.20	0.41
5:G1:108:ARG:HH12	5:C2:295:ARG:HA	1.84	0.41
5:G1:308:TRP:N	5:G1:317:GLU:OE2	2.54	0.41
5:C1:72:GLU:N	5:C1:72:GLU:OE1	2.54	0.41
5:A2:178:TYR:OH	5:A2:183:ASP:OD1	2.37	0.41
5:C2:298:ILE:HD12	5:C2:298:ILE:HA	1.94	0.41
6:J2:39:MET:SD	6:J2:48:VAL:HG23	2.60	0.41
5:A3:308:TRP:CZ2	5:A3:318:PHE:HB2	2.55	0.41
6:H3:97:LYS:HG3	6:I3:45:ARG:HH11	1.85	0.41
5:A4:41:LEU:HD13	5:A4:41:LEU:HA	1.83	0.41
5:A4:196:ASN:C	5:A4:248:VAL:HG13	2.45	0.41
5:G4:65:SER:O	5:G4:66:ARG:HG2	2.20	0.41
5:C4:270:ASN:HB2	5:C4:340:LEU:HB2	2.02	0.41
6:I4:36:THR:H	6:I4:62:LEU:HB3	1.85	0.41
2:W:4:GLN:OE1	2:W:4:GLN:N	2.50	0.41
4:b:91:ARG:O	4:b:444:ASN:ND2	2.42	0.41
4:b:356:GLN:HB3	4:b:360:ARG:NH1	2.35	0.41
4:b:460:GLU:OE1	4:b:460:GLU:N	2.45	0.41
3:U1:35:ASP:OD1	3:U1:36:GLU:N	2.51	0.41
3:U1:76:PRO:O	3:U1:79:GLU:HG3	2.20	0.41
4:B1:136:MET:HE2	4:B1:136:MET:HB2	1.89	0.41
4:B1:501:ARG:O	4:B1:501:ARG:NH1	2.49	0.41
4:b1:170:ARG:NH2	4:B2:198:SER:O	2.53	0.41
2:W2:41:SER:HA	2:W2:44:LYS:NZ	2.35	0.41
4:B2:148:ASN:HB3	4:B2:174:PRO:HG3	2.03	0.41
1:f3:34:GLN:HE22	1:f3:74:GLN:HG2	1.85	0.41
2:W3:66:PHE:HD2	4:B3:325:LEU:HD21	1.84	0.41
2:w3:67:TYR:O	4:b3:325:LEU:HG	2.19	0.41
3:U3:6:HIS:HB3	3:U3:10:ARG:NH1	2.35	0.41
4:b3:343:THR:O	4:B4:345:GLN:NE2	2.54	0.41
3:U4:77:ASP:N	3:U4:77:ASP:OD1	2.54	0.41
4:B4:158:ASP:OD2	4:B4:163:ARG:NH1	2.48	0.41
2:w5:4:GLN:OE1	2:w5:4:GLN:N	2.45	0.41
5:G0:32:TYR:O	5:G0:284:THR:HA	2.20	0.41
5:G0:68:GLY:CA	6:J4:7:PHE:H	2.33	0.41
5:C0:32:TYR:HD2	5:C0:282:LEU:HD23	1.84	0.41
6:H0:39:MET:HE3	6:H0:50:TRP:HD1	1.86	0.41
6:J0:25:PRO:HB2	6:J0:46:LYS:NZ	2.35	0.41
5:G1:83:GLU:OE1	5:G1:84:VAL:N	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G1:298:ILE:HD12	5:G1:298:ILE:HA	1.93	0.41
6:H1:41:ASP:OD2	6:H1:44:SER:N	2.30	0.41
6:I1:39:MET:HA	6:I1:59:VAL:HG12	2.03	0.41
6:I1:50:TRP:O	6:I1:89:PRO:HG3	2.20	0.41
5:G2:264:LYS:HE2	5:G2:264:LYS:HB2	1.86	0.41
5:C2:162:ILE:O	5:C2:338:VAL:HA	2.20	0.41
6:I2:99:ARG:HG2	6:J2:25:PRO:HD3	2.01	0.41
5:C3:276:ASN:OD1	5:C3:278:GLN:HG3	2.21	0.41
5:C3:299:ASN:OD1	5:C3:300:ALA:N	2.53	0.41
6:J3:40:LEU:HD12	6:J3:46:LYS:O	2.19	0.41
5:G4:87:GLN:NE2	5:G4:87:GLN:H	2.17	0.41
5:G4:260:ASN:N	5:G4:260:ASN:OD1	2.52	0.41
5:C4:198:ILE:HD13	5:C4:274:LEU:HD13	2.01	0.41
6:I4:100:THR:HG21	6:J4:45:ARG:HB3	2.02	0.41
2:w:42:ASP:HA	2:w:45:LYS:HG2	2.02	0.41
3:U:61:TRP:CD1	3:U:134:MET:HE1	2.55	0.41
4:B:132:ARG:HG2	4:B:136:MET:HE1	2.02	0.41
4:B:281:THR:N	4:B:342:GLN:HE22	2.19	0.41
4:b:97:LEU:HD11	4:b:433:PHE:HB2	2.03	0.41
4:b:107:PHE:O	4:b:110:GLU:HG3	2.20	0.41
4:b:254:VAL:HG23	4:b:258:MET:HE1	2.03	0.41
4:b:282:ILE:HG21	4:b:296:LEU:HD21	2.01	0.41
2:W1:16:ASP:HB3	2:W1:21:LYS:HB2	2.03	0.41
1:f2:54:GLN:HE21	3:U2:30:ARG:HE	1.67	0.41
1:f2:67:VAL:HG12	1:f2:103:LEU:HD23	2.03	0.41
3:U2:52:THR:OG1	3:U2:54:GLU:OE2	2.22	0.41
1:f3:56:VAL:HA	3:U3:32:ALA:HB3	2.01	0.41
2:W3:24:ALA:HB3	2:w3:34:GLU:OE2	2.20	0.41
2:W3:46:TYR:O	2:W3:50:LEU:HG	2.20	0.41
2:w3:57:THR:OG1	2:w3:58:GLN:N	2.53	0.41
4:B3:117:GLU:HG2	4:b3:96:TYR:CD1	2.56	0.41
4:B3:386:ARG:HD3	4:B3:455:ILE:HG21	2.02	0.41
4:b3:39:ASN:OD1	4:b3:39:ASN:N	2.54	0.41
4:b3:88:LEU:HD12	4:b3:447:TRP:CH2	2.55	0.41
4:b3:500:ARG:HH21	4:b3:506:LYS:HB3	1.85	0.41
4:B4:211:TYR:HB3	4:b4:190:ARG:NH2	2.35	0.41
1:f5:56:VAL:O	1:f5:58:VAL:HG13	2.20	0.41
4:B5:78:GLN:NE2	4:B5:139:ARG:O	2.54	0.41
4:b5:226:LEU:HG	4:b5:227:PRO:HD2	2.03	0.41
5:G0:83:GLU:HG3	5:G0:318:PHE:CE1	2.56	0.41
5:C0:220:THR:C	5:C0:222:ARG:H	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C0:257:TYR:HB3	5:C0:266:PHE:CZ	2.55	0.41
5:C0:339:GLN:NE2	5:C0:340:LEU:O	2.44	0.41
6:I0:12:PRO:HB2	6:I0:13:GLN:NE2	2.35	0.41
6:J0:13:GLN:OE1	6:J0:13:GLN:N	2.53	0.41
6:J0:39:MET:HE3	6:J0:51:ASP:H	1.85	0.41
6:N0:22:ALA:HB2	6:N0:77:LYS:HD2	2.03	0.41
5:A1:290:ASP:OD1	5:A1:292:ASP:N	2.50	0.41
6:N1:50:TRP:CH2	6:N1:52:GLY:HA2	2.56	0.41
5:G2:152:VAL:HG11	5:G2:328:LEU:HD21	2.02	0.41
5:G2:256:GLN:CD	5:G2:263:LYS:HD3	2.46	0.41
5:C2:174:ASP:CG	5:C2:176:SER:HG	2.28	0.41
5:C2:239:VAL:HB	5:C2:253:TYR:CD1	2.56	0.41
5:A3:195:VAL:HG11	5:A3:274:LEU:HB3	2.01	0.41
5:G3:22:LEU:HA	5:G3:25:ARG:NE	2.36	0.41
5:G3:53:TYR:HH	5:C3:140:TYR:HH	1.59	0.41
6:H3:35:MET:HE2	6:H3:35:MET:HB2	1.95	0.41
5:A4:79:LYS:HG2	5:A4:322:GLN:HE22	1.85	0.41
5:C4:209:ARG:HH21	5:C4:230:THR:HA	1.85	0.41
1:f:85:GLU:OE1	1:f:85:GLU:N	2.49	0.41
2:w:15:HIS:NE2	2:W1:6:GLU:OE1	2.53	0.41
4:b:134:PHE:O	4:b:138:ILE:HG12	2.21	0.41
2:W1:17:LEU:HD22	2:W1:22:ARG:HB2	2.03	0.41
2:w1:27:GLN:NE2	2:w1:28:LYS:O	2.54	0.41
4:B1:185:ASP:OD1	4:B1:190:ARG:HA	2.20	0.41
4:B1:387:ALA:HA	4:B1:390:ASN:ND2	2.35	0.41
4:b1:34:GLN:HB3	4:b1:35:LEU:H	1.60	0.41
4:b1:434:SER:O	4:b1:437:GLU:HG2	2.20	0.41
3:U2:16:ALA:O	3:U2:19:LYS:HG3	2.21	0.41
3:U2:59:ASP:OD1	3:U2:60:THR:N	2.54	0.41
4:b2:97:LEU:HB2	4:b2:99:ILE:HG12	2.03	0.41
4:B3:286:LEU:HD13	4:B3:286:LEU:HA	1.92	0.41
4:B3:393:TRP:CZ2	4:B3:452:ARG:HB2	2.55	0.41
1:f4:64:SER:HA	1:f4:103:LEU:O	2.21	0.41
4:B4:144:MET:O	4:B4:148:ASN:HB2	2.21	0.41
4:B4:150:GLU:OE1	4:B4:150:GLU:N	2.53	0.41
5:A0:301:SER:OG	5:A0:302:ALA:N	2.54	0.41
6:N0:26:GLY:N	6:N0:72:THR:HA	2.36	0.41
5:A1:275:GLY:HA3	5:A1:335:PHE:CE2	2.56	0.41
5:G1:87:GLN:OE1	5:G1:87:GLN:N	2.54	0.41
5:G1:108:ARG:CZ	5:C2:295:ARG:HE	2.34	0.41
6:H1:51:ASP:CG	6:H1:53:THR:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A2:50:MET:HE1	5:G2:126:VAL:HA	2.03	0.41
5:A2:274:LEU:HD12	5:A2:274:LEU:H	1.85	0.41
5:G2:30:GLU:OE1	5:G2:30:GLU:N	2.54	0.41
5:G2:34:PHE:CE1	5:G2:39:VAL:HG21	2.56	0.41
5:G2:50:MET:SD	5:C2:125:GLN:HB3	2.61	0.41
5:C2:106:TYR:O	5:C2:109:ARG:HG2	2.21	0.41
5:C3:139:LYS:HD2	5:C3:139:LYS:HA	1.85	0.41
5:C3:226:SER:HB2	5:C3:245:TYR:HA	2.02	0.41
6:I3:82:ARG:HB2	6:I3:85:ASP:CG	2.45	0.41
6:J3:84:GLU:OE1	6:J3:84:GLU:N	2.48	0.41
5:A4:51:ALA:HB3	5:G4:126:VAL:HG21	2.03	0.41
5:A4:228:LEU:HD11	5:A4:250:ILE:HG13	2.02	0.41
5:G4:74:THR:HB	5:G4:75:PRO:HD3	2.03	0.41
5:G4:262:VAL:HG23	5:G4:264:LYS:HZ3	1.85	0.41
5:C4:162:ILE:O	5:C4:338:VAL:HA	2.21	0.41
5:C4:269:ASP:OD1	5:C4:269:ASP:N	2.53	0.41
6:N4:37:PRO:HB2	6:N4:50:TRP:HB3	2.03	0.41
2:w:52:VAL:HG11	4:B:286:LEU:HD22	2.02	0.41
3:U:71:LEU:HB3	3:U:75:VAL:HG11	2.02	0.41
4:B:64:VAL:HG21	4:B:74:ILE:HG13	2.02	0.41
4:B:264:LEU:HD13	4:b5:273:ILE:HG12	2.02	0.41
3:U1:20:HIS:ND1	3:U1:21:ASP:O	2.53	0.41
4:B1:236:VAL:HG21	4:B1:407:GLN:HB3	2.01	0.41
4:B1:486:TYR:CE1	4:B1:487:GLN:HG3	2.56	0.41
3:U2:7:THR:HA	3:U2:10:ARG:NH1	2.34	0.41
4:b2:136:MET:SD	4:B3:406:ARG:NH1	2.94	0.41
4:b2:466:MET:HE2	4:b2:466:MET:HB2	1.92	0.41
2:W3:25:THR:HG22	2:w3:34:GLU:OE1	2.20	0.41
2:w3:60:ARG:HG3	2:w3:61:ARG:N	2.35	0.41
4:B3:134:PHE:O	4:B3:138:ILE:HG12	2.20	0.41
4:B3:136:MET:HG3	4:b3:402:PHE:CE2	2.56	0.41
4:B3:423:ARG:NH1	4:B3:427:LEU:H	2.17	0.41
2:W4:64:ALA:HB3	4:B4:292:MET:HE2	2.02	0.41
2:w4:2:THR:HG23	2:w4:3:ARG:HH22	1.85	0.41
3:U4:39:PHE:CD1	3:U4:72:PRO:HB3	2.55	0.41
4:B4:257:GLN:HG2	4:B4:361:TYR:HE2	1.86	0.41
4:B4:282:ILE:HG13	4:B4:284:SER:H	1.85	0.41
4:B5:211:TYR:HD2	4:b5:190:ARG:NH1	2.18	0.41
4:b5:166:ARG:N	4:b5:418:GLU:OE2	2.41	0.41
4:b5:473:SER:OG	4:b5:474:THR:N	2.53	0.41
5:A0:31:SER:OG	5:A0:283:ARG:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A0:39:VAL:HG22	5:A0:74:THR:HG22	2.02	0.41
5:G0:22:LEU:HG	5:G0:239:VAL:HG21	2.03	0.41
5:G0:101:LEU:HD13	5:G0:101:LEU:HA	1.95	0.41
5:C0:74:THR:O	5:C0:326:LEU:HD11	2.21	0.41
5:C0:107:ARG:O	5:C0:111:ILE:HG12	2.21	0.41
5:C0:232:VAL:HG23	5:C0:242:LYS:NZ	2.36	0.41
6:H0:51:ASP:OD1	6:H0:52:GLY:N	2.54	0.41
6:I0:12:PRO:HB2	6:I0:13:GLN:HE21	1.85	0.41
5:C1:26:LEU:HD23	5:C1:26:LEU:HA	1.81	0.41
6:H1:38:LEU:HD21	6:H1:62:LEU:HB2	2.02	0.41
5:A2:113:MET:O	5:A2:116:MET:HG2	2.21	0.41
5:A2:152:VAL:HG12	5:A2:154:MET:SD	2.60	0.41
5:G2:159:GLU:OE1	5:G2:159:GLU:N	2.36	0.41
5:C2:257:TYR:CE1	5:C2:264:LYS:HG3	2.56	0.41
6:I2:32:ALA:HA	6:I2:33:PRO:HD3	1.96	0.41
6:I2:34:ALA:O	6:I2:35:MET:HG3	2.20	0.41
5:A3:51:ALA:HB3	5:G3:126:VAL:HG21	2.02	0.41
5:A3:53:TYR:CZ	5:G3:142:MET:HB2	2.56	0.41
5:G3:80:PRO:HD2	5:G3:321:ILE:O	2.20	0.41
5:G3:276:ASN:OD1	5:G3:277:THR:N	2.54	0.41
6:I3:20:HIS:HB2	6:I3:77:LYS:HG2	2.03	0.41
6:I3:62:LEU:HD21	6:I3:64:VAL:C	2.46	0.41
5:C4:8:GLN:HG2	5:C4:99:GLN:HG2	2.03	0.41
2:W:27:GLN:NE2	2:W:30:GLY:H	2.19	0.41
2:W:28:LYS:HZ3	2:w:31:ARG:HB3	1.86	0.41
4:b:123:CYS:HB2	4:b:130:ARG:NH2	2.36	0.41
2:w1:50:LEU:HA	2:w1:53:GLN:HG3	2.01	0.41
4:B1:90:HIS:ND1	4:B1:444:ASN:O	2.44	0.41
4:B1:129:GLU:HG2	4:B1:131:LYS:H	1.85	0.41
4:B1:349:ASN:OD1	4:B1:349:ASN:N	2.54	0.41
4:B1:486:TYR:O	4:B1:489:ILE:HG22	2.21	0.41
4:b1:458:LEU:N	4:B2:463:GLU:OE2	2.54	0.41
1:f2:30:THR:H	1:f2:81:LEU:HA	1.86	0.41
3:U2:83:TRP:HA	3:U2:87:ARG:NH1	2.35	0.41
4:B2:63:LEU:O	4:B2:67:ASN:HB3	2.21	0.41
4:B2:94:TRP:CZ3	4:B2:95:ARG:HD2	2.56	0.41
4:B2:497:THR:HG1	4:B2:510:TRP:CD1	2.38	0.41
4:b2:498:MET:HA	4:b2:501:ARG:NH1	2.36	0.41
1:f3:44:ASP:OD1	1:f3:44:ASP:N	2.53	0.41
1:f3:103:LEU:HD13	1:f3:103:LEU:HA	1.89	0.41
2:W3:16:ASP:OD1	2:W3:17:LEU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:w3:20:GLY:HA2	2:W4:22:ARG:HH21	1.86	0.41
3:U3:10:ARG:HA	3:U3:13:VAL:HG12	2.02	0.41
3:U3:22:THR:O	3:U3:87:ARG:NH2	2.54	0.41
3:U3:61:TRP:HB2	3:U3:134:MET:SD	2.60	0.41
4:B3:154:GLN:NE2	4:B3:155:ALA:O	2.54	0.41
4:B3:166:ARG:HG3	4:B3:422:ARG:HH12	1.85	0.41
4:b3:133:THR:HG22	4:b3:136:MET:HE2	2.03	0.41
3:U4:10:ARG:HE	3:U4:28:ASP:CG	2.29	0.41
3:U4:21:ASP:OD1	3:U4:22:THR:N	2.54	0.41
4:B4:256:GLU:OE1	4:B4:256:GLU:N	2.44	0.41
4:b4:74:ILE:O	4:b4:78:GLN:HG2	2.21	0.41
4:b4:175:LYS:HE3	4:B5:43:GLU:C	2.46	0.41
4:B5:211:TYR:O	4:b5:190:ARG:NH1	2.54	0.41
4:b5:35:LEU:HD23	4:b5:35:LEU:H	1.86	0.41
5:A0:247:ASP:OD1	5:A0:247:ASP:N	2.53	0.41
5:A0:271:THR:HG22	5:A0:339:GLN:HA	2.03	0.41
5:G0:196:ASN:C	5:G0:248:VAL:HG23	2.46	0.41
5:G0:196:ASN:OD1	5:G0:276:ASN:HA	2.20	0.41
5:C0:154:MET:HE2	5:C0:332:PRO:HD3	2.03	0.41
5:C0:197:ILE:HD11	5:C0:277:THR:HB	2.03	0.41
5:A1:97:ASP:OD1	5:A1:97:ASP:N	2.53	0.41
5:A1:157:SER:OG	5:A1:159:GLU:OE2	2.30	0.41
5:A1:195:VAL:HG11	5:A1:274:LEU:HB3	2.03	0.41
5:A1:200:PHE:HD1	5:A1:200:PHE:HA	1.68	0.41
5:G1:37:GLU:OE2	5:C1:6:THR:N	2.45	0.41
5:G1:168:THR:O	5:G1:173:ARG:NH2	2.54	0.41
5:C1:76:GLY:O	5:C1:77:TYR:HB2	2.20	0.41
5:C1:339:GLN:NE2	5:C1:340:LEU:O	2.39	0.41
6:I1:2:THR:OG1	6:I1:3:SER:N	2.51	0.41
6:I1:50:TRP:NE1	6:I1:52:GLY:HA2	2.35	0.41
6:I1:90:GLU:H	6:I1:90:GLU:CD	2.29	0.41
6:J1:19:ALA:H	5:C2:314:PRO:HG3	1.85	0.41
6:N1:39:MET:HE3	6:N1:50:TRP:HD1	1.85	0.41
5:G2:37:GLU:H	5:G2:37:GLU:CD	2.29	0.41
5:G2:222:ARG:NH2	5:C2:220:THR:H	2.13	0.41
5:G2:263:LYS:HE3	5:G2:263:LYS:HB3	1.91	0.41
5:C2:85:ASN:O	5:C2:88:MET:N	2.51	0.41
5:C2:256:GLN:HA	5:C2:265:ASN:HA	2.02	0.41
6:N2:67:ASP:N	6:N2:67:ASP:OD1	2.54	0.41
5:A3:23:PHE:CE2	5:A3:132:VAL:HG12	2.56	0.41
5:A3:130:GLN:OE1	5:A3:327:MET:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A3:132:VAL:HG21	5:A3:266:PHE:HD1	1.84	0.41
5:A3:176:SER:HA	5:A3:212:LYS:HB3	2.03	0.41
5:G3:83:GLU:OE1	5:G3:85:ASN:N	2.54	0.41
5:G3:97:ASP:N	5:G3:97:ASP:OD1	2.53	0.41
5:G3:114:GLN:NE2	5:G3:118:ASP:OD2	2.53	0.41
5:G3:194:VAL:HG22	5:C3:237:LYS:HB3	2.03	0.41
5:C3:95:ASP:OD1	5:C3:95:ASP:N	2.53	0.41
5:C3:194:VAL:HG13	5:C3:276:ASN:HD21	1.86	0.41
5:C3:194:VAL:HG13	5:C3:276:ASN:ND2	2.35	0.41
5:C3:253:TYR:CZ	5:C3:255:GLY:HA3	2.56	0.41
6:H3:31:LYS:NZ	6:H3:33:PRO:HG3	2.35	0.41
6:I3:21:THR:HG22	6:I3:76:TYR:CD1	2.56	0.41
6:J3:46:LYS:HB3	6:J3:46:LYS:HE3	1.85	0.41
6:N3:25:PRO:HB2	6:N3:46:LYS:HD2	2.03	0.41
5:A4:242:LYS:HE2	5:A4:252:VAL:HG11	2.02	0.41
5:G4:37:GLU:OE1	5:G4:37:GLU:N	2.53	0.41
5:G4:173:ARG:HD3	5:G4:178:TYR:CZ	2.56	0.41
5:G4:281:GLY:O	5:G4:282:LEU:HD13	2.21	0.41
5:C4:139:LYS:HD2	5:C4:139:LYS:HA	1.86	0.41
5:C4:211:PHE:O	5:C4:215:LYS:NZ	2.52	0.41
5:C4:257:TYR:CE1	5:C4:264:LYS:HG3	2.56	0.41
2:w:62:GLY:O	2:w:63:PRO:C	2.64	0.41
4:B:34:GLN:HB3	4:B:35:LEU:H	1.72	0.41
4:B:371:GLU:HB3	4:B:377:TYR:CE1	2.56	0.41
2:W1:3:ARG:HD3	2:W1:53:GLN:NE2	2.34	0.41
2:w1:42:ASP:HA	2:w1:45:LYS:HG2	2.03	0.41
4:B1:75:GLN:CD	4:B1:78:GLN:HE21	2.27	0.41
4:b1:89:SER:HB3	4:b1:446:ASP:OD1	2.21	0.41
2:w2:14:LEU:HD22	2:w2:43:LEU:HD22	2.03	0.41
4:b2:197:ASP:OD1	4:b2:197:ASP:N	2.53	0.41
1:f3:92:ARG:HB2	1:f3:104:TRP:HB2	2.03	0.41
3:U3:84:MET:HE3	3:U3:124:ALA:HB3	2.03	0.41
4:B3:106:ALA:O	4:B3:110:GLU:HG2	2.21	0.41
4:B3:423:ARG:HH22	4:B3:427:LEU:N	2.19	0.41
4:b3:134:PHE:O	4:b3:137:MET:HB2	2.21	0.41
4:B4:121:ASP:OD2	4:B4:123:CYS:HB3	2.21	0.41
4:B4:187:ARG:HH21	4:B4:190:ARG:NH2	2.18	0.41
4:b4:94:TRP:HE3	4:b4:99:ILE:O	2.03	0.41
4:b4:157:TRP:HA	4:b4:166:ARG:O	2.21	0.41
1:f5:80:THR:OG1	1:f5:81:LEU:N	2.54	0.41
3:U5:46:LEU:HD13	3:U5:65:LEU:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B5:128:VAL:HG12	4:B5:168:GLN:HE21	1.86	0.41
4:B5:458:LEU:O	4:B5:461:VAL:HG12	2.21	0.41
4:B5:475:TYR:O	4:B5:478:GLU:HG2	2.21	0.41
5:A0:32:TYR:HB2	5:A0:284:THR:HG22	2.03	0.41
5:A0:141:THR:HG22	5:A0:151:GLU:OE1	2.21	0.41
5:G0:56:PRO:HG3	5:C0:77:TYR:CD2	2.55	0.41
5:C0:164:GLN:O	5:C0:169:GLU:HB3	2.21	0.41
6:I0:36:THR:H	6:I0:62:LEU:HB3	1.85	0.41
6:J0:15:ASN:HB3	6:J0:80:THR:HB	2.02	0.41
6:N0:88:TRP:HB3	6:N0:98:LYS:HZ1	1.86	0.41
5:A1:175:LYS:HA	5:A1:211:PHE:HD1	1.86	0.41
5:G1:175:LYS:HB3	5:G1:210:SER:O	2.21	0.41
5:C1:237:LYS:HG2	5:C1:238:ALA:H	1.86	0.41
6:H1:51:ASP:OD2	6:H1:54:THR:N	2.44	0.41
5:A2:178:TYR:HH	5:A2:183:ASP:CG	2.28	0.41
5:A2:228:LEU:HD21	5:A2:245:TYR:HD1	1.84	0.41
6:J2:41:ASP:HB3	6:J2:46:LYS:N	2.31	0.41
5:G3:78:VAL:HG23	5:G3:323:SER:HB3	2.02	0.41
5:G3:218:LEU:HD21	5:G3:228:LEU:HB2	2.02	0.41
5:G3:259:GLU:HB2	5:G3:264:LYS:HZ2	1.86	0.41
6:H3:20:HIS:HD2	6:J3:17:ASP:HB2	1.86	0.41
6:J3:31:LYS:HA	6:J3:31:LYS:HD2	1.87	0.41
6:J3:39:MET:HE3	6:J3:50:TRP:HA	2.02	0.41
5:A4:124:ALA:O	5:A4:127:GLU:HG2	2.21	0.41
5:G4:112:ILE:O	5:G4:116:MET:HG2	2.20	0.41
5:G4:287:CYS:HB2	5:G4:299:ASN:HB2	2.03	0.41
2:W:2:THR:OG1	2:W:2:THR:O	2.33	0.40
2:W:54:THR:HG23	2:W:56:MET:H	1.86	0.40
3:U:4:MET:HG3	3:U5:85:GLU:OE1	2.22	0.40
3:U:40:PRO:HD3	3:U:72:PRO:HG3	2.02	0.40
3:U:117:ASP:OD1	3:U:117:ASP:N	2.54	0.40
2:w1:60:ARG:NH2	4:B1:294:PHE:HB3	2.35	0.40
3:U1:11:ALA:O	3:U1:14:LEU:HG	2.21	0.40
3:U1:39:PHE:HB3	3:U1:40:PRO:HD3	2.02	0.40
3:U1:105:MET:HE1	3:U1:130:ILE:HD11	2.03	0.40
4:B1:34:GLN:HB2	4:B1:35:LEU:H	1.66	0.40
4:b1:171:MET:HE3	4:b1:171:MET:HB2	1.96	0.40
1:f2:54:GLN:NE2	3:U2:30:ARG:HE	2.19	0.40
2:w2:28:LYS:NZ	2:W3:31:ARG:HD3	2.36	0.40
3:U2:67:ILE:O	3:U2:125:ASP:HA	2.21	0.40
4:B2:150:GLU:N	4:B2:150:GLU:OE1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B2:393:TRP:CZ2	4:B2:452:ARG:HB2	2.56	0.40
4:b2:271:SER:O	4:b2:275:LYS:HG3	2.21	0.40
2:W3:7:LEU:HD12	2:W3:11:ARG:HE	1.86	0.40
3:U3:92:MET:HE2	3:U3:92:MET:HB2	1.94	0.40
4:B3:102:GLU:HG2	4:B3:103:GLU:N	2.36	0.40
4:B3:121:ASP:OD2	4:B3:123:CYS:HB3	2.21	0.40
4:b3:262:ASP:O	4:b3:265:GLN:NE2	2.54	0.40
2:w4:2:THR:OG1	2:w4:2:THR:O	2.30	0.40
2:w4:32:ARG:NH1	2:W5:32:ARG:HH11	2.19	0.40
3:U4:114:ARG:HE	3:U5:30:ARG:CZ	2.34	0.40
1:f5:79:ASP:OD1	1:f5:79:ASP:N	2.53	0.40
4:B5:128:VAL:HG22	4:B5:170:ARG:HB2	2.02	0.40
4:B5:133:THR:O	4:B5:137:MET:HG2	2.21	0.40
4:b5:356:GLN:HE21	4:b5:360:ARG:HH22	1.70	0.40
4:b5:427:LEU:HD22	4:b5:442:TRP:CZ3	2.56	0.40
5:G0:172:LYS:HE3	5:G0:172:LYS:HB3	1.89	0.40
5:G0:198:ILE:HD11	5:G0:250:ILE:HG13	2.04	0.40
5:G0:258:VAL:HG22	5:G0:259:GLU:O	2.21	0.40
5:C0:94:PRO:HD3	6:J4:7:PHE:CD2	2.56	0.40
6:J0:31:LYS:HE2	6:J0:67:ASP:HB3	2.02	0.40
5:A1:48:VAL:HG22	5:A1:49:ASN:H	1.86	0.40
5:A1:306:LYS:NZ	5:A1:308:TRP:HB3	2.36	0.40
5:G1:139:LYS:HE3	5:G1:153:ASP:HB3	2.02	0.40
5:G1:270:ASN:HB3	5:G1:340:LEU:HB2	2.02	0.40
6:H1:68:GLN:OE1	6:H1:68:GLN:N	2.53	0.40
6:I1:26:GLY:HA3	6:I1:73:LEU:HG	2.03	0.40
5:G2:214:VAL:HA	5:G2:217:LYS:HE3	2.03	0.40
6:N2:18:PRO:HB2	6:N2:20:HIS:CD2	2.56	0.40
6:N2:39:MET:HB2	6:N2:57:ALA:HB1	2.01	0.40
5:A3:232:VAL:HG13	5:A3:235:LEU:HD11	2.02	0.40
5:C3:116:MET:HE2	5:C3:116:MET:HA	2.02	0.40
5:C3:136:LEU:HD23	5:C3:137:LYS:HG3	2.03	0.40
5:C3:301:SER:OG	5:C3:303:ARG:O	2.34	0.40
6:I3:94:ASP:OD2	6:I3:97:LYS:HG2	2.21	0.40
5:A4:169:GLU:CD	5:A4:169:GLU:H	2.29	0.40
5:G4:327:MET:H	5:G4:327:MET:HG2	1.52	0.40
6:I4:39:MET:HA	6:I4:59:VAL:HB	2.03	0.40
6:J4:10:TYR:CZ	6:J4:12:PRO:HG3	2.56	0.40
2:W:13:ALA:HA	2:W:16:ASP:OD2	2.21	0.40
2:w:50:LEU:O	2:w:54:THR:OG1	2.36	0.40
3:U:40:PRO:HB3	3:U:71:LEU:HD13	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:66:ASN:OD1	4:B1:26:GLY:N	2.36	0.40
4:B:138:ILE:HG23	4:B:407:GLN:HE21	1.86	0.40
4:b:356:GLN:NE2	4:B1:360:ARG:HH22	2.11	0.40
4:B1:181:ASN:OD1	5:C1:296:GLU:HB2	2.21	0.40
4:B1:459:LYS:O	4:B1:463:GLU:HG2	2.22	0.40
2:W2:48:ALA:O	2:W2:51:GLU:HG2	2.21	0.40
4:B2:34:GLN:HB3	4:B2:35:LEU:H	1.68	0.40
4:B2:467:LEU:HD13	4:B2:467:LEU:HA	1.91	0.40
4:b2:356:GLN:OE1	4:b2:370:TYR:OH	2.34	0.40
4:B3:35:LEU:H	4:B3:35:LEU:HD23	1.86	0.40
4:B3:81:ILE:HG23	4:B3:82:VAL:HG13	2.04	0.40
4:B3:393:TRP:CG	4:B3:452:ARG:HD3	2.56	0.40
4:b3:131:LYS:HD2	4:B4:237:PHE:CE1	2.49	0.40
4:b3:370:TYR:OH	4:b3:376:ASN:ND2	2.50	0.40
2:W4:21:LYS:HE2	2:W4:21:LYS:HB2	1.94	0.40
4:B4:437:GLU:OE1	4:B4:437:GLU:N	2.47	0.40
4:B4:474:THR:O	4:B4:478:GLU:HG2	2.21	0.40
4:b4:461:VAL:HG21	4:B5:467:LEU:HG	2.02	0.40
1:f5:88:PHE:HE1	1:f5:107:ARG:HG2	1.86	0.40
2:w5:46:TYR:HA	2:w5:49:GLU:CD	2.45	0.40
4:B5:91:ARG:O	4:B5:444:ASN:ND2	2.55	0.40
4:B5:427:LEU:HD12	4:B5:428:PRO:HD2	2.03	0.40
4:b5:49:LEU:HD22	4:b5:248:ALA:HB2	2.03	0.40
4:b5:216:PRO:HD3	5:C2:304:TYR:HA	2.03	0.40
4:b5:218:LYS:HZ3	4:b5:219:TRP:C	2.29	0.40
5:A0:40:TYR:HD1	5:A0:40:TYR:HA	1.78	0.40
5:A0:202:PRO:HD3	5:A0:253:TYR:O	2.21	0.40
5:G0:81:LYS:HG2	5:G0:320:MET:HE1	2.04	0.40
5:G0:311:THR:OG1	5:G0:312:GLY:N	2.54	0.40
5:G0:326:LEU:HD12	5:G0:326:LEU:HA	1.89	0.40
5:C0:265:ASN:OD1	5:C0:266:PHE:N	2.55	0.40
5:A1:113:MET:O	5:A1:116:MET:HG2	2.21	0.40
6:H1:32:ALA:HA	6:H1:33:PRO:HD3	1.92	0.40
6:I1:31:LYS:NZ	6:I1:32:ALA:O	2.54	0.40
6:I1:85:ASP:OD1	6:I1:86:VAL:N	2.54	0.40
6:J1:50:TRP:CH2	6:J1:52:GLY:HA2	2.56	0.40
5:A2:140:TYR:CE2	5:A2:142:MET:HB2	2.56	0.40
5:A2:258:VAL:HA	5:A2:263:LYS:HA	2.03	0.40
5:C2:205:TRP:CE3	5:C2:252:VAL:HG21	2.57	0.40
5:G3:53:TYR:CE1	5:C3:142:MET:HG3	2.56	0.40
5:A4:32:TYR:HB2	5:A4:284:THR:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H4:61:ILE:HG23	6:H4:76:TYR:HB2	2.03	0.40
3:U:4:MET:HA	3:U5:85:GLU:HG2	2.03	0.40
3:U:19:LYS:HE3	3:U:19:LYS:HB3	1.77	0.40
4:B:25:HIS:HB3	4:B5:66:ASN:ND2	2.34	0.40
4:B:196:ASN:HB3	4:B:202:LEU:HD11	2.03	0.40
4:b:458:LEU:HA	4:B1:463:GLU:OE1	2.21	0.40
1:f1:63:PRO:HD2	1:f1:105:LEU:O	2.21	0.40
4:B1:101:GLU:HB2	4:B1:105:ARG:HH21	1.85	0.40
4:b1:150:GLU:OE2	4:b1:247:GLY:N	2.54	0.40
4:b1:466:MET:HA	4:b1:469:GLU:HG3	2.03	0.40
4:B2:167:THR:HG23	4:B2:418:GLU:OE1	2.21	0.40
4:B2:371:GLU:HB2	4:B2:377:TYR:HE1	1.87	0.40
4:b2:88:LEU:HB2	4:b2:447:TRP:CZ3	2.56	0.40
4:b2:393:TRP:CG	4:b2:452:ARG:HD2	2.56	0.40
3:U3:21:ASP:OD1	3:U3:21:ASP:N	2.53	0.40
4:B3:116:LYS:O	4:B3:120:GLU:HB2	2.21	0.40
4:B3:190:ARG:HB2	4:B3:193:VAL:HB	2.02	0.40
4:B3:375:ARG:NE	4:b3:364:ALA:HA	2.37	0.40
4:b3:299:ASN:OD1	4:b3:302:GLU:HB2	2.21	0.40
4:B4:295:ILE:HB	4:B4:296:LEU:HD12	2.04	0.40
4:B5:286:LEU:HD12	4:B5:286:LEU:H	1.87	0.40
5:A0:44:ILE:HG23	5:G0:14:GLU:HA	2.03	0.40
5:G0:129:MET:HE3	5:G0:129:MET:HB3	1.84	0.40
5:C0:226:SER:HB2	5:C0:245:TYR:HA	2.03	0.40
6:N0:46:LYS:HE3	6:N0:46:LYS:HB3	1.88	0.40
5:A1:19:PHE:HE1	5:A1:128:GLU:HG3	1.85	0.40
5:A1:27:PHE:HA	5:A1:29:ARG:HH11	1.86	0.40
6:I1:39:MET:HE1	6:I1:51:ASP:OD1	2.22	0.40
6:J1:9:HIS:HB3	6:J1:11:GLN:HE22	1.86	0.40
6:J1:35:MET:HE2	6:J1:35:MET:HB2	1.96	0.40
6:N1:82:ARG:NH2	6:N1:84:GLU:OE2	2.54	0.40
5:C2:241:TYR:C	5:C2:242:LYS:HZ2	2.29	0.40
5:A3:28:PHE:HA	5:A3:281:GLY:HA3	2.03	0.40
5:G3:112:ILE:HD13	5:G3:112:ILE:HA	1.91	0.40
6:J3:94:ASP:O	6:J3:98:LYS:NZ	2.44	0.40
6:N3:6:THR:HA	5:C4:69:SER:HA	2.02	0.40
5:A4:152:VAL:HG11	5:A4:328:LEU:HD21	2.04	0.40
5:G4:245:TYR:CE2	5:C4:231:ALA:HB1	2.57	0.40
4:B:94:TRP:CZ3	4:B:101:GLU:HB3	2.56	0.40
4:B:138:ILE:HG23	4:B:407:GLN:NE2	2.37	0.40
4:B:375:ARG:NE	4:b:364:ALA:HA	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W1:28:LYS:HB3	2:W1:31:ARG:HG2	2.04	0.40
4:B1:75:GLN:NE2	4:B1:79:ASP:OD2	2.49	0.40
4:b1:152:PHE:HB3	4:b1:233:PHE:HZ	1.86	0.40
4:b1:465:VAL:HA	4:b1:468:ILE:HG22	2.03	0.40
2:w2:3:ARG:O	2:w2:6:GLU:HG2	2.21	0.40
2:w2:22:ARG:O	2:W3:35:PHE:HA	2.22	0.40
3:U2:46:LEU:HD23	3:U2:65:LEU:HA	2.02	0.40
4:B2:56:GLY:HA3	4:B2:252:TYR:OH	2.21	0.40
4:b2:144:MET:HE1	4:b2:174:PRO:HB3	2.03	0.40
4:b2:332:HIS:HA	4:B3:282:ILE:HG13	2.03	0.40
1:f3:46:PRO:HG2	1:f3:62:SER:OG	2.21	0.40
3:U3:5:LYS:HZ3	3:U3:132:TYR:HB2	1.86	0.40
3:U3:75:VAL:HG23	3:U3:80:LEU:HD11	2.02	0.40
4:B3:171:MET:HE3	4:B3:171:MET:HB3	1.90	0.40
4:B3:209:ASP:OD2	4:b3:190:ARG:NH2	2.55	0.40
4:B3:225:GLU:HA	4:B3:232:SER:H	1.87	0.40
4:B3:375:ARG:NH2	4:b3:367:GLY:HA2	2.37	0.40
4:b3:53:PHE:O	4:b3:57:ASN:ND2	2.55	0.40
4:b3:62:ASP:OD1	4:b3:66:ASN:ND2	2.54	0.40
4:b3:371:GLU:OE1	4:b3:371:GLU:N	2.42	0.40
1:f4:12:ILE:HD11	2:w4:28:LYS:HB2	2.02	0.40
1:f4:83:ILE:HD13	1:f4:88:PHE:CD2	2.56	0.40
4:b4:52:ASN:ND2	4:B5:28:GLY:HA2	2.35	0.40
4:b4:254:VAL:HG11	4:b4:362:ILE:HG23	2.02	0.40
4:B5:461:VAL:HG21	4:b5:467:LEU:HG	2.03	0.40
4:b5:76:LEU:HA	4:b5:79:ASP:OD2	2.22	0.40
4:b5:393:TRP:CD2	4:b5:452:ARG:HD3	2.57	0.40
5:A0:70:THR:OG1	6:H0:5:GLU:HG3	2.20	0.40
5:G0:222:ARG:NH2	5:C0:221:ARG:H	2.20	0.40
5:G0:260:ASN:OD1	5:G0:261:GLY:N	2.55	0.40
5:C0:136:LEU:HB3	5:C0:137:LYS:NZ	2.35	0.40
6:H0:103:ALA:HB1	6:I0:59:VAL:HG21	2.04	0.40
6:N0:109:ILE:HD12	6:N0:109:ILE:HA	1.97	0.40
5:G1:26:LEU:O	5:G1:29:ARG:NH1	2.54	0.40
5:G2:140:TYR:OH	5:G2:142:MET:SD	2.73	0.40
5:C2:299:ASN:OD1	5:C2:300:ALA:N	2.53	0.40
5:C2:326:LEU:HD13	5:C2:326:LEU:HA	1.92	0.40
6:H2:59:VAL:HG21	6:J2:103:ALA:HB1	2.03	0.40
6:N2:44:SER:C	6:N2:45:ARG:HG3	2.46	0.40
5:G3:181:THR:O	5:G3:185:GLU:HG2	2.21	0.40
5:C3:130:GLN:HG3	5:C3:140:TYR:CZ	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H3:21:THR:HG21	5:G4:58:VAL:HG13	2.03	0.40
6:J3:85:ASP:OD1	6:J3:85:ASP:N	2.36	0.40
6:N3:9:HIS:HB3	6:N3:11:GLN:OE1	2.22	0.40
5:G4:316:ARG:HE	5:G4:318:PHE:HZ	1.69	0.40
5:C4:209:ARG:NE	5:C4:230:THR:HG23	2.36	0.40
2:w:42:ASP:OD1	2:w:43:LEU:N	2.52	0.40
4:b:106:ALA:HA	4:b:109:ARG:CZ	2.51	0.40
4:b:401:LYS:O	4:b:405:SER:HB2	2.22	0.40
4:B1:35:LEU:H	4:B1:35:LEU:HD23	1.85	0.40
4:B1:376:ASN:CA	4:b1:360:ARG:HH12	2.35	0.40
4:B2:149:GLY:O	4:B2:237:PHE:HB2	2.22	0.40
4:B2:185:ASP:OD1	4:B2:185:ASP:N	2.50	0.40
4:B2:334:MET:HE2	4:B2:334:MET:HB2	2.00	0.40
2:w3:66:PHE:HB3	4:b3:325:LEU:HD21	2.03	0.40
4:b3:152:PHE:HB3	4:b3:233:PHE:CZ	2.56	0.40
4:b3:176:ARG:NH2	4:b3:208:GLU:HA	2.37	0.40
4:b3:335:PRO:HB2	2:W4:45:LYS:NZ	2.37	0.40
3:U4:84:MET:HG3	3:U4:110:TYR:CE1	2.57	0.40
4:B4:38:TRP:NE1	4:B4:40:PRO:HG3	2.36	0.40
4:B4:114:ALA:O	4:B4:117:GLU:HG2	2.21	0.40
4:B4:332:HIS:CG	4:b4:288:THR:HG22	2.56	0.40
4:b4:193:VAL:HG13	4:b4:204:TYR:HE1	1.87	0.40
4:b4:500:ARG:HD3	4:b4:508:PRO:HD3	2.03	0.40
2:w5:27:GLN:HA	2:w5:31:ARG:O	2.22	0.40
4:B5:132:ARG:HA	4:B5:136:MET:SD	2.62	0.40
4:B5:386:ARG:HH12	4:B5:390:ASN:HB3	1.85	0.40
4:b5:55:ARG:HH12	5:C2:103:ASP:CG	2.29	0.40
4:b5:277:MET:HB2	4:b5:277:MET:HE2	1.71	0.40
4:b5:366:LEU:HD13	4:b5:366:LEU:HA	1.92	0.40
5:A0:46:GLY:HA2	5:A0:66:ARG:NH2	2.36	0.40
5:A0:272:MET:HE3	5:A0:272:MET:HB3	2.01	0.40
5:G0:81:LYS:HB3	5:G0:81:LYS:HE2	1.81	0.40
5:G0:217:LYS:O	5:G0:224:SER:OG	2.31	0.40
5:C0:88:MET:HG2	6:J4:9:HIS:NE2	2.36	0.40
6:J0:9:HIS:CE1	5:C1:85:ASN:HD21	2.39	0.40
5:A1:176:SER:HA	5:A1:212:LYS:HB3	2.03	0.40
6:J1:41:ASP:N	6:J1:46:LYS:O	2.40	0.40
5:A2:97:ASP:N	5:A2:97:ASP:OD1	2.53	0.40
5:A2:123:ILE:HG21	5:A2:303:ARG:HE	1.87	0.40
5:A2:256:GLN:HE22	5:A2:265:ASN:HB3	1.86	0.40
5:G2:83:GLU:HG2	5:G2:317:GLU:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J2:15:ASN:ND2	5:G3:60:GLY:O	2.55	0.40
6:N2:22:ALA:HB2	6:N2:77:LYS:HD2	2.02	0.40
5:A3:283:ARG:HG3	5:A3:327:MET:SD	2.62	0.40
5:G3:85:ASN:HB3	6:H3:9:HIS:NE2	2.36	0.40
5:G3:169:GLU:H	5:G3:169:GLU:CD	2.27	0.40
5:G3:298:ILE:HD12	5:G3:298:ILE:HA	1.94	0.40
5:C3:293:ALA:O	5:C3:298:ILE:HG12	2.21	0.40
5:A4:40:TYR:HD1	5:A4:40:TYR:HA	1.82	0.40
5:A4:55:SER:OG	5:G4:147:PHE:HA	2.22	0.40
5:G4:295:ARG:NH2	5:G4:296:GLU:HB2	2.36	0.40
6:H4:26:GLY:HA3	6:H4:73:LEU:HD13	2.03	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 PDB entries followed by that with respect to all EM entries.

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	f	112/117 (96%)	96 (86%)	16 (14%)	0	100	100
1	f1	112/117 (96%)	92 (82%)	20 (18%)	0	100	100
1	f2	112/117 (96%)	93 (83%)	19 (17%)	0	100	100
1	f3	112/117 (96%)	93 (83%)	19 (17%)	0	100	100
1	f4	112/117 (96%)	94 (84%)	18 (16%)	0	100	100
1	f5	112/117 (96%)	92 (82%)	20 (18%)	0	100	100
2	W	65/68 (96%)	58 (89%)	6 (9%)	1 (2%)	8	39
2	W1	65/68 (96%)	62 (95%)	3 (5%)	0	100	100
2	W2	65/68 (96%)	59 (91%)	5 (8%)	1 (2%)	8	39
2	W3	65/68 (96%)	58 (89%)	6 (9%)	1 (2%)	8	39
2	W4	65/68 (96%)	62 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	W5	65/68 (96%)	60 (92%)	4 (6%)	1 (2%)	8	39
2	w	65/68 (96%)	60 (92%)	4 (6%)	1 (2%)	8	39
2	w1	65/68 (96%)	58 (89%)	7 (11%)	0	100	100
2	w2	65/68 (96%)	57 (88%)	7 (11%)	1 (2%)	8	39
2	w3	65/68 (96%)	57 (88%)	7 (11%)	1 (2%)	8	39
2	w4	65/68 (96%)	57 (88%)	7 (11%)	1 (2%)	8	39
2	w5	65/68 (96%)	59 (91%)	4 (6%)	2 (3%)	3	25
3	U	129/131 (98%)	108 (84%)	19 (15%)	2 (2%)	7	38
3	U1	129/131 (98%)	107 (83%)	20 (16%)	2 (2%)	7	38
3	U2	129/131 (98%)	108 (84%)	18 (14%)	3 (2%)	5	31
3	U3	129/131 (98%)	108 (84%)	18 (14%)	3 (2%)	5	31
3	U4	129/131 (98%)	108 (84%)	19 (15%)	2 (2%)	7	38
3	U5	129/131 (98%)	107 (83%)	21 (16%)	1 (1%)	16	52
4	B	471/533 (88%)	446 (95%)	24 (5%)	1 (0%)	43	75
4	B1	471/533 (88%)	441 (94%)	30 (6%)	0	100	100
4	B2	471/533 (88%)	443 (94%)	27 (6%)	1 (0%)	43	75
4	B3	471/533 (88%)	444 (94%)	26 (6%)	1 (0%)	43	75
4	B4	471/533 (88%)	441 (94%)	29 (6%)	1 (0%)	43	75
4	B5	471/533 (88%)	444 (94%)	26 (6%)	1 (0%)	43	75
4	b	469/533 (88%)	443 (94%)	26 (6%)	0	100	100
4	b1	469/533 (88%)	442 (94%)	27 (6%)	0	100	100
4	b2	469/533 (88%)	444 (95%)	25 (5%)	0	100	100
4	b3	469/533 (88%)	445 (95%)	24 (5%)	0	100	100
4	b4	469/533 (88%)	442 (94%)	26 (6%)	1 (0%)	43	75
4	b5	469/533 (88%)	437 (93%)	32 (7%)	0	100	100
5	A0	337/341 (99%)	292 (87%)	44 (13%)	1 (0%)	36	70
5	A1	337/341 (99%)	298 (88%)	38 (11%)	1 (0%)	36	70
5	A2	337/341 (99%)	289 (86%)	47 (14%)	1 (0%)	36	70
5	A3	337/341 (99%)	288 (86%)	48 (14%)	1 (0%)	36	70
5	A4	337/341 (99%)	294 (87%)	42 (12%)	1 (0%)	36	70
5	C0	337/341 (99%)	284 (84%)	52 (15%)	1 (0%)	36	70

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	C1	337/341 (99%)	288 (86%)	48 (14%)	1 (0%)	36	70
5	C2	337/341 (99%)	284 (84%)	52 (15%)	1 (0%)	36	70
5	C3	337/341 (99%)	284 (84%)	52 (15%)	1 (0%)	36	70
5	C4	337/341 (99%)	280 (83%)	55 (16%)	2 (1%)	21	58
5	G0	337/341 (99%)	290 (86%)	45 (13%)	2 (1%)	21	58
5	G1	337/341 (99%)	278 (82%)	57 (17%)	2 (1%)	21	58
5	G2	337/341 (99%)	286 (85%)	49 (14%)	2 (1%)	21	58
5	G3	337/341 (99%)	284 (84%)	52 (15%)	1 (0%)	36	70
5	G4	337/341 (99%)	284 (84%)	51 (15%)	2 (1%)	21	58
6	H0	108/110 (98%)	104 (96%)	4 (4%)	0	100	100
6	H1	108/110 (98%)	103 (95%)	5 (5%)	0	100	100
6	H2	108/110 (98%)	106 (98%)	2 (2%)	0	100	100
6	H3	108/110 (98%)	103 (95%)	5 (5%)	0	100	100
6	H4	108/110 (98%)	104 (96%)	4 (4%)	0	100	100
6	I0	108/110 (98%)	102 (94%)	6 (6%)	0	100	100
6	I1	108/110 (98%)	106 (98%)	2 (2%)	0	100	100
6	I2	108/110 (98%)	104 (96%)	4 (4%)	0	100	100
6	I3	108/110 (98%)	100 (93%)	8 (7%)	0	100	100
6	I4	108/110 (98%)	103 (95%)	5 (5%)	0	100	100
6	J0	107/110 (97%)	101 (94%)	6 (6%)	0	100	100
6	J1	107/110 (97%)	102 (95%)	5 (5%)	0	100	100
6	J2	107/110 (97%)	105 (98%)	2 (2%)	0	100	100
6	J3	107/110 (97%)	102 (95%)	5 (5%)	0	100	100
6	J4	107/110 (97%)	104 (97%)	3 (3%)	0	100	100
6	N0	108/110 (98%)	102 (94%)	6 (6%)	0	100	100
6	N1	108/110 (98%)	101 (94%)	7 (6%)	0	100	100
6	N2	108/110 (98%)	103 (95%)	5 (5%)	0	100	100
6	N3	108/110 (98%)	105 (97%)	3 (3%)	0	100	100
6	N4	108/110 (98%)	102 (94%)	6 (6%)	0	100	100
All	All	15076/16015 (94%)	13590 (90%)	1437 (10%)	49 (0%)	37	70

All (49) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	W	63	PRO
2	w	63	PRO
3	U	30	ARG
2	W2	63	PRO
2	w2	63	PRO
3	U2	33	VAL
2	W3	63	PRO
2	w3	63	PRO
3	U3	30	ARG
2	w4	63	PRO
2	W5	63	PRO
2	w5	63	PRO
5	G0	75	PRO
4	b4	34	GLN
5	G1	75	PRO
5	G2	75	PRO
5	G3	75	PRO
5	G4	75	PRO
3	U2	32	ALA
3	U4	30	ARG
4	B5	328	ALA
5	G0	74	THR
5	C0	75	PRO
5	C1	75	PRO
5	G2	74	THR
4	B4	328	ALA
5	C2	75	PRO
5	A3	75	PRO
5	C4	75	PRO
3	U	33	VAL
4	B2	328	ALA
3	U3	33	VAL
3	U4	33	VAL
3	U5	33	VAL
5	A0	75	PRO
5	C3	75	PRO
5	G4	74	THR
4	B	34	GLN
3	U1	32	ALA
3	U1	33	VAL
4	B3	328	ALA
2	w5	20	GLY
5	A1	75	PRO

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Mol	Chain	Res	Type
5	A2	75	PRO
5	A4	75	PRO
3	U2	40	PRO
3	U3	40	PRO
5	G1	74	THR
5	C4	76	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	f	91/94 (97%)	85 (93%)	6 (7%)	15	39
1	f1	91/94 (97%)	89 (98%)	2 (2%)	45	65
1	f2	91/94 (97%)	86 (94%)	5 (6%)	19	44
1	f3	91/94 (97%)	80 (88%)	11 (12%)	5	20
1	f4	91/94 (97%)	87 (96%)	4 (4%)	25	48
1	f5	91/94 (97%)	85 (93%)	6 (7%)	15	39
2	W	53/54 (98%)	52 (98%)	1 (2%)	50	67
2	W1	53/54 (98%)	49 (92%)	4 (8%)	12	35
2	W2	53/54 (98%)	48 (91%)	5 (9%)	8	28
2	W3	53/54 (98%)	51 (96%)	2 (4%)	29	51
2	W4	53/54 (98%)	47 (89%)	6 (11%)	5	22
2	W5	53/54 (98%)	53 (100%)	0	100	100
2	w	53/54 (98%)	49 (92%)	4 (8%)	12	35
2	w1	53/54 (98%)	48 (91%)	5 (9%)	8	28
2	w2	53/54 (98%)	49 (92%)	4 (8%)	12	35
2	w3	53/54 (98%)	50 (94%)	3 (6%)	18	43
2	w4	53/54 (98%)	51 (96%)	2 (4%)	29	51
2	w5	53/54 (98%)	50 (94%)	3 (6%)	18	43
3	U	109/109 (100%)	105 (96%)	4 (4%)	30	52

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	U1	109/109 (100%)	107 (98%)	2 (2%)	51	68
3	U2	109/109 (100%)	108 (99%)	1 (1%)	70	77
3	U3	109/109 (100%)	102 (94%)	7 (6%)	16	40
3	U4	109/109 (100%)	102 (94%)	7 (6%)	16	40
3	U5	109/109 (100%)	106 (97%)	3 (3%)	38	59
4	B	381/428 (89%)	362 (95%)	19 (5%)	22	45
4	B1	381/428 (89%)	363 (95%)	18 (5%)	23	47
4	B2	381/428 (89%)	362 (95%)	19 (5%)	22	45
4	B3	381/428 (89%)	360 (94%)	21 (6%)	19	44
4	B4	381/428 (89%)	367 (96%)	14 (4%)	30	52
4	B5	381/428 (89%)	369 (97%)	12 (3%)	35	57
4	b	380/428 (89%)	370 (97%)	10 (3%)	40	61
4	b1	380/428 (89%)	370 (97%)	10 (3%)	40	61
4	b2	380/428 (89%)	368 (97%)	12 (3%)	34	56
4	b3	380/428 (89%)	368 (97%)	12 (3%)	34	56
4	b4	380/428 (89%)	367 (97%)	13 (3%)	32	55
4	b5	380/428 (89%)	366 (96%)	14 (4%)	30	52
5	A0	288/290 (99%)	276 (96%)	12 (4%)	26	49
5	A1	288/290 (99%)	274 (95%)	14 (5%)	22	46
5	A2	288/290 (99%)	268 (93%)	20 (7%)	14	38
5	A3	288/290 (99%)	272 (94%)	16 (6%)	19	43
5	A4	288/290 (99%)	269 (93%)	19 (7%)	15	39
5	C0	288/290 (99%)	280 (97%)	8 (3%)	38	59
5	C1	288/290 (99%)	268 (93%)	20 (7%)	14	38
5	C2	288/290 (99%)	272 (94%)	16 (6%)	19	43
5	C3	288/290 (99%)	269 (93%)	19 (7%)	15	39
5	C4	288/290 (99%)	271 (94%)	17 (6%)	18	42
5	G0	288/290 (99%)	271 (94%)	17 (6%)	18	42
5	G1	288/290 (99%)	267 (93%)	21 (7%)	13	36
5	G2	288/290 (99%)	270 (94%)	18 (6%)	16	40
5	G3	288/290 (99%)	268 (93%)	20 (7%)	14	38

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	G4	288/290 (99%)	266 (92%)	22 (8%)	12	35
6	H0	85/85 (100%)	82 (96%)	3 (4%)	32	54
6	H1	85/85 (100%)	83 (98%)	2 (2%)	43	63
6	H2	85/85 (100%)	82 (96%)	3 (4%)	32	54
6	H3	85/85 (100%)	82 (96%)	3 (4%)	32	54
6	H4	85/85 (100%)	79 (93%)	6 (7%)	13	37
6	I0	85/85 (100%)	80 (94%)	5 (6%)	18	42
6	I1	85/85 (100%)	80 (94%)	5 (6%)	18	42
6	I2	85/85 (100%)	81 (95%)	4 (5%)	23	47
6	I3	85/85 (100%)	83 (98%)	2 (2%)	43	63
6	I4	85/85 (100%)	83 (98%)	2 (2%)	43	63
6	J0	84/85 (99%)	82 (98%)	2 (2%)	43	63
6	J1	84/85 (99%)	81 (96%)	3 (4%)	31	53
6	J2	84/85 (99%)	78 (93%)	6 (7%)	13	37
6	J3	84/85 (99%)	80 (95%)	4 (5%)	23	46
6	J4	84/85 (99%)	80 (95%)	4 (5%)	23	46
6	N0	85/85 (100%)	83 (98%)	2 (2%)	43	63
6	N1	85/85 (100%)	80 (94%)	5 (6%)	18	42
6	N2	85/85 (100%)	77 (91%)	8 (9%)	8	28
6	N3	85/85 (100%)	84 (99%)	1 (1%)	63	73
6	N4	85/85 (100%)	78 (92%)	7 (8%)	10	33
All	All	12417/13052 (95%)	11810 (95%)	607 (5%)	24	46

All (607) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	f	23	MET
1	f	58	VAL
1	f	65	LEU
1	f	72	VAL
1	f	90	VAL
1	f	113	VAL
2	W	50	LEU
2	w	17	LEU
2	w	18	MET

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Mol	Chain	Res	Type
2	w	23	VAL
2	w	40	VAL
3	U	39	PHE
3	U	56	LEU
3	U	88	ILE
3	U	129	VAL
4	B	35	LEU
4	B	54	THR
4	B	63	LEU
4	B	78	GLN
4	B	82	VAL
4	B	133	THR
4	B	153	VAL
4	B	177	ILE
4	B	258	MET
4	B	269	LEU
4	B	330	VAL
4	B	349	ASN
4	B	381	SER
4	B	384	THR
4	B	414	CYS
4	B	420	ILE
4	B	425	VAL
4	B	463	GLU
4	B	467	LEU
4	b	77	HIS
4	b	207	SER
4	b	241	GLU
4	b	255	MET
4	b	258	MET
4	b	261	LEU
4	b	266	ASN
4	b	369	SER
4	b	384	THR
4	b	467	LEU
1	f1	75	LEU
1	f1	113	VAL
2	W1	17	LEU
2	W1	23	VAL
2	W1	25	THR
2	W1	39	SER
2	w1	7	LEU

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Mol	Chain	Res	Type
2	w1	26	VAL
2	w1	33	VAL
2	w1	36	THR
2	w1	40	VAL
3	U1	52	THR
3	U1	129	VAL
4	B1	53	PHE
4	B1	77	HIS
4	B1	130	ARG
4	B1	151	LEU
4	B1	167	THR
4	B1	181	ASN
4	B1	208	GLU
4	B1	215	MET
4	B1	258	MET
4	B1	261	LEU
4	B1	264	LEU
4	B1	325	LEU
4	B1	330	VAL
4	B1	384	THR
4	B1	453	MET
4	B1	468	ILE
4	B1	478	GLU
4	B1	489	ILE
4	b1	236	VAL
4	b1	255	MET
4	b1	261	LEU
4	b1	269	LEU
4	b1	356	GLN
4	b1	373	LEU
4	b1	407	GLN
4	b1	453	MET
4	b1	472	LEU
4	b1	474	THR
1	f2	3	ASP
1	f2	7	LEU
1	f2	42	VAL
1	f2	56	VAL
1	f2	113	VAL
2	W2	18	MET
2	W2	23	VAL
2	W2	26	VAL

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Mol	Chain	Res	Type
2	W2	33	VAL
2	W2	50	LEU
2	w2	3	ARG
2	w2	23	VAL
2	w2	32	ARG
2	w2	43	LEU
3	U2	39	PHE
4	B2	69	TYR
4	B2	123	CYS
4	B2	125	CYS
4	B2	137	MET
4	B2	144	MET
4	B2	206	VAL
4	B2	226	LEU
4	B2	240	VAL
4	B2	255	MET
4	B2	258	MET
4	B2	330	VAL
4	B2	341	LEU
4	B2	349	ASN
4	B2	356	GLN
4	B2	362	ILE
4	B2	453	MET
4	B2	467	LEU
4	B2	478	GLU
4	B2	489	ILE
4	b2	41	PRO
4	b2	55	ARG
4	b2	61	ASP
4	b2	66	ASN
4	b2	144	MET
4	b2	172	VAL
4	b2	269	LEU
4	b2	273	ILE
4	b2	286	LEU
4	b2	355	GLU
4	b2	411	MET
4	b2	448	ILE
1	f3	42	VAL
1	f3	48	ASN
1	f3	56	VAL
1	f3	58	VAL

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Mol	Chain	Res	Type
1	f3	72	VAL
1	f3	80	THR
1	f3	81	LEU
1	f3	83	ILE
1	f3	90	VAL
1	f3	93	VAL
1	f3	113	VAL
2	W3	25	THR
2	W3	39	SER
2	w3	23	VAL
2	w3	29	ASP
2	w3	36	THR
3	U3	9	LEU
3	U3	39	PHE
3	U3	69	VAL
3	U3	84	MET
3	U3	130	ILE
3	U3	131	THR
3	U3	134	MET
4	B3	49	LEU
4	B3	81	ILE
4	B3	84	SER
4	B3	153	VAL
4	B3	171	MET
4	B3	173	SER
4	B3	206	VAL
4	B3	254	VAL
4	B3	258	MET
4	B3	273	ILE
4	B3	296	LEU
4	B3	323	VAL
4	B3	325	LEU
4	B3	330	VAL
4	B3	334	MET
4	B3	359	LEU
4	B3	448	ILE
4	B3	453	MET
4	B3	467	LEU
4	B3	478	GLU
4	B3	489	ILE
4	b3	69	TYR
4	b3	84	SER

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Mol	Chain	Res	Type
4	b3	140	GLU
4	b3	240	VAL
4	b3	273	ILE
4	b3	286	LEU
4	b3	330	VAL
4	b3	355	GLU
4	b3	411	MET
4	b3	453	MET
4	b3	474	THR
4	b3	478	GLU
1	f4	42	VAL
1	f4	56	VAL
1	f4	75	LEU
1	f4	113	VAL
2	W4	14	LEU
2	W4	19	THR
2	W4	23	VAL
2	W4	26	VAL
2	W4	36	THR
2	W4	47	ILE
2	w4	23	VAL
2	w4	33	VAL
3	U4	10	ARG
3	U4	14	LEU
3	U4	22	THR
3	U4	50	GLU
3	U4	69	VAL
3	U4	75	VAL
3	U4	106	VAL
4	B4	25	HIS
4	B4	63	LEU
4	B4	67	ASN
4	B4	128	VAL
4	B4	129	GLU
4	B4	158	ASP
4	B4	255	MET
4	B4	261	LEU
4	B4	286	LEU
4	B4	301	GLN
4	B4	325	LEU
4	B4	330	VAL
4	B4	411	MET

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Mol	Chain	Res	Type
4	B4	462	GLN
4	b4	67	ASN
4	b4	241	GLU
4	b4	255	MET
4	b4	338	SER
4	b4	346	ASP
4	b4	354	PHE
4	b4	355	GLU
4	b4	391	GLU
4	b4	458	LEU
4	b4	460	GLU
4	b4	474	THR
4	b4	478	GLU
4	b4	486	TYR
1	f5	8	PHE
1	f5	39	ILE
1	f5	42	VAL
1	f5	75	LEU
1	f5	90	VAL
1	f5	113	VAL
2	w5	29	ASP
2	w5	33	VAL
2	w5	34	GLU
3	U5	6	HIS
3	U5	42	VAL
3	U5	106	VAL
4	B5	35	LEU
4	B5	78	GLN
4	B5	206	VAL
4	B5	269	LEU
4	B5	273	ILE
4	B5	330	VAL
4	B5	359	LEU
4	B5	366	LEU
4	B5	468	ILE
4	B5	478	GLU
4	B5	498	MET
4	B5	505	LEU
4	b5	39	ASN
4	b5	86	PHE
4	b5	137	MET
4	b5	138	ILE

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Mol	Chain	Res	Type
4	b5	151	LEU
4	b5	259	LYS
4	b5	273	ILE
4	b5	277	MET
4	b5	323	VAL
4	b5	330	VAL
4	b5	341	LEU
4	b5	359	LEU
4	b5	466	MET
4	b5	478	GLU
5	A0	37	GLU
5	A0	40	TYR
5	A0	44	ILE
5	A0	58	VAL
5	A0	62	VAL
5	A0	73	PHE
5	A0	82	HIS
5	A0	103	ASP
5	A0	197	ILE
5	A0	239	VAL
5	A0	282	LEU
5	A0	328	LEU
5	G0	39	VAL
5	G0	70	THR
5	G0	82	HIS
5	G0	90	LEU
5	G0	142	MET
5	G0	172	LYS
5	G0	197	ILE
5	G0	198	ILE
5	G0	199	VAL
5	G0	200	PHE
5	G0	239	VAL
5	G0	250	ILE
5	G0	264	LYS
5	G0	273	VAL
5	G0	309	VAL
5	G0	327	MET
5	G0	329	LEU
5	C0	24	LEU
5	C0	50	MET
5	C0	52	LEU

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Mol	Chain	Res	Type
5	C0	173	ARG
5	C0	207	LEU
5	C0	251	VAL
5	C0	273	VAL
5	C0	298	ILE
6	H0	38	LEU
6	H0	39	MET
6	H0	71	THR
6	I0	35	MET
6	I0	39	MET
6	I0	68	GLN
6	I0	72	THR
6	I0	86	VAL
6	J0	39	MET
6	J0	109	ILE
6	N0	9	HIS
6	N0	72	THR
5	A1	40	TYR
5	A1	58	VAL
5	A1	77	TYR
5	A1	78	VAL
5	A1	83	GLU
5	A1	125	GLN
5	A1	168	THR
5	A1	198	ILE
5	A1	200	PHE
5	A1	211	PHE
5	A1	239	VAL
5	A1	272	MET
5	A1	273	VAL
5	A1	313	ASP
5	G1	31	SER
5	G1	38	LYS
5	G1	40	TYR
5	G1	52	LEU
5	G1	73	PHE
5	G1	74	THR
5	G1	78	VAL
5	G1	88	MET
5	G1	112	ILE
5	G1	127	GLU
5	G1	136	LEU

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Mol	Chain	Res	Type
5	G1	170	TRP
5	G1	195	VAL
5	G1	198	ILE
5	G1	199	VAL
5	G1	219	ASP
5	G1	232	VAL
5	G1	259	GLU
5	G1	272	MET
5	G1	326	LEU
5	G1	336	VAL
5	C1	10	LEU
5	C1	22	LEU
5	C1	48	VAL
5	C1	50	MET
5	C1	52	LEU
5	C1	83	GLU
5	C1	85	ASN
5	C1	101	LEU
5	C1	116	MET
5	C1	136	LEU
5	C1	141	THR
5	C1	164	GLN
5	C1	190	ASN
5	C1	198	ILE
5	C1	218	LEU
5	C1	228	LEU
5	C1	250	ILE
5	C1	271	THR
5	C1	273	VAL
5	C1	309	VAL
6	H1	6	THR
6	H1	59	VAL
6	I1	39	MET
6	I1	64	VAL
6	I1	68	GLN
6	I1	86	VAL
6	I1	105	THR
6	J1	9	HIS
6	J1	39	MET
6	J1	96	THR
6	N1	39	MET
6	N1	67	ASP

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Mol	Chain	Res	Type
6	N1	71	THR
6	N1	73	LEU
6	N1	105	THR
5	A2	36	THR
5	A2	40	TYR
5	A2	44	ILE
5	A2	58	VAL
5	A2	62	VAL
5	A2	71	SER
5	A2	77	TYR
5	A2	78	VAL
5	A2	84	VAL
5	A2	141	THR
5	A2	170	TRP
5	A2	197	ILE
5	A2	201	ASP
5	A2	228	LEU
5	A2	239	VAL
5	A2	262	VAL
5	A2	271	THR
5	A2	313	ASP
5	A2	321	ILE
5	A2	328	LEU
5	G2	24	LEU
5	G2	52	LEU
5	G2	58	VAL
5	G2	78	VAL
5	G2	82	HIS
5	G2	101	LEU
5	G2	195	VAL
5	G2	218	LEU
5	G2	239	VAL
5	G2	258	VAL
5	G2	263	LYS
5	G2	271	THR
5	G2	298	ILE
5	G2	313	ASP
5	G2	319	THR
5	G2	326	LEU
5	G2	327	MET
5	G2	336	VAL
5	C2	22	LEU

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Mol	Chain	Res	Type
5	C2	36	THR
5	C2	52	LEU
5	C2	70	THR
5	C2	79	LYS
5	C2	95	ASP
5	C2	121	LEU
5	C2	142	MET
5	C2	189	LEU
5	C2	198	ILE
5	C2	218	LEU
5	C2	235	LEU
5	C2	273	VAL
5	C2	326	LEU
5	C2	328	LEU
5	C2	329	LEU
6	H2	6	THR
6	H2	41	ASP
6	H2	59	VAL
6	I2	39	MET
6	I2	45	ARG
6	I2	61	ILE
6	I2	64	VAL
6	J2	39	MET
6	J2	47[A]	LEU
6	J2	47[B]	LEU
6	J2	86	VAL
6	J2	94	ASP
6	J2	109	ILE
6	N2	35	MET
6	N2	39	MET
6	N2	41	ASP
6	N2	47[A]	LEU
6	N2	47[B]	LEU
6	N2	48	VAL
6	N2	73	LEU
6	N2	86	VAL
5	A3	36	THR
5	A3	58	VAL
5	A3	78	VAL
5	A3	82	HIS
5	A3	108	ARG
5	A3	170	TRP

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Mol	Chain	Res	Type
5	A3	189	LEU
5	A3	196	ASN
5	A3	200	PHE
5	A3	228	LEU
5	A3	239	VAL
5	A3	258	VAL
5	A3	273	VAL
5	A3	274	LEU
5	A3	277	THR
5	A3	313	ASP
5	G3	22	LEU
5	G3	30	GLU
5	G3	39	VAL
5	G3	41	LEU
5	G3	54	VAL
5	G3	70	THR
5	G3	73	PHE
5	G3	78	VAL
5	G3	96	GLU
5	G3	101	LEU
5	G3	170	TRP
5	G3	201	ASP
5	G3	216	GLU
5	G3	248	VAL
5	G3	250	ILE
5	G3	252	VAL
5	G3	271	THR
5	G3	295	ARG
5	G3	309	VAL
5	G3	313	ASP
5	C3	6	THR
5	C3	10	LEU
5	C3	26	LEU
5	C3	44	ILE
5	C3	53	TYR
5	C3	73	PHE
5	C3	112	ILE
5	C3	154	MET
5	C3	168	THR
5	C3	197	ILE
5	C3	199	VAL
5	C3	200	PHE

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Mol	Chain	Res	Type
5	C3	248	VAL
5	C3	259	GLU
5	C3	271	THR
5	C3	273	VAL
5	C3	319	THR
5	C3	329	LEU
5	C3	333	ASP
6	H3	59	VAL
6	H3	62	LEU
6	H3	94	ASP
6	I3	39	MET
6	I3	72	THR
6	J3	9	HIS
6	J3	39	MET
6	J3	62	LEU
6	J3	109	ILE
6	N3	39	MET
5	A4	40	TYR
5	A4	41	LEU
5	A4	57	ILE
5	A4	58	VAL
5	A4	84	VAL
5	A4	125	GLN
5	A4	168	THR
5	A4	170	TRP
5	A4	189	LEU
5	A4	195	VAL
5	A4	196	ASN
5	A4	218	LEU
5	A4	230	THR
5	A4	239	VAL
5	A4	273	VAL
5	A4	294	GLN
5	A4	298	ILE
5	A4	309	VAL
5	A4	313	ASP
5	G4	23	PHE
5	G4	31	SER
5	G4	47	LEU
5	G4	58	VAL
5	G4	74	THR
5	G4	168	THR

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Mol	Chain	Res	Type
5	G4	170	TRP
5	G4	194	VAL
5	G4	195	VAL
5	G4	216	GLU
5	G4	239	VAL
5	G4	248	VAL
5	G4	258	VAL
5	G4	259	GLU
5	G4	271	THR
5	G4	288	ILE
5	G4	309	VAL
5	G4	313	ASP
5	G4	326	LEU
5	G4	327	MET
5	G4	333	ASP
5	G4	336	VAL
5	C4	16	LYS
5	C4	26	LEU
5	C4	52	LEU
5	C4	70	THR
5	C4	85	ASN
5	C4	95	ASP
5	C4	136	LEU
5	C4	168	THR
5	C4	170	TRP
5	C4	189	LEU
5	C4	199	VAL
5	C4	209	ARG
5	C4	218	LEU
5	C4	239	VAL
5	C4	271	THR
5	C4	273	VAL
5	C4	309	VAL
6	H4	35	MET
6	H4	41	ASP
6	H4	47[A]	LEU
6	H4	47[B]	LEU
6	H4	59	VAL
6	H4	87	LEU
6	I4	35	MET
6	I4	86	VAL
6	J4	39	MET

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Mol	Chain	Res	Type
6	J4	47[A]	LEU
6	J4	47[B]	LEU
6	J4	64	VAL
6	N4	6	THR
6	N4	39	MET
6	N4	45	ARG
6	N4	61	ILE
6	N4	71	THR
6	N4	73	LEU
6	N4	86	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (171) such sidechains are listed below:

Mol	Chain	Res	Type
3	U	6	HIS
3	U	62	GLN
4	B	25	HIS
4	B	39	ASN
4	B	67	ASN
4	B	78	GLN
4	B	179	ASN
4	B	244	GLN
4	B	265	GLN
4	B	301	GLN
4	B	340	ASN
4	B	342	GLN
4	B	487	GLN
4	b	52	ASN
4	b	75	GLN
4	b	154	GLN
4	b	194	GLN
4	b	217	GLN
4	b	249	ASN
4	b	332	HIS
4	b	372	GLN
1	f1	114	ASN
2	W1	53	GLN
3	U1	6	HIS
4	B1	39	ASN
4	B1	182	ASN
4	B1	235	HIS
4	B1	265	GLN

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Mol	Chain	Res	Type
4	B1	407	GLN
4	b1	67	ASN
4	b1	78	GLN
4	b1	181	ASN
4	b1	194	GLN
4	b1	265	GLN
4	b1	289	GLN
4	b1	345	GLN
4	b1	356	GLN
4	b1	372	GLN
4	b1	376	ASN
4	b1	390	ASN
4	b1	407	GLN
4	b1	436	GLN
1	f2	87	ASN
1	f2	114	ASN
2	W2	58	GLN
2	w2	53	GLN
4	B2	78	GLN
4	B2	244	GLN
4	B2	289	GLN
4	B2	407	GLN
4	B2	444	ASN
4	b2	67	ASN
4	b2	75	GLN
4	b2	181	ASN
4	b2	217	GLN
4	b2	249	ASN
4	b2	372	GLN
2	W3	27	GLN
4	B3	270	GLN
4	B3	376	ASN
4	B3	444	ASN
4	b3	67	ASN
4	b3	194	GLN
4	b3	244	GLN
4	b3	342	GLN
4	b3	462	GLN
4	b3	487	GLN
2	w4	53	GLN
4	B4	52	ASN
4	B4	75	GLN

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Mol	Chain	Res	Type
4	B4	145	HIS
4	B4	179	ASN
4	B4	194	GLN
4	B4	270	GLN
4	B4	407	GLN
4	B4	444	ASN
4	B4	462	GLN
4	B4	487	GLN
4	b4	25	HIS
4	b4	78	GLN
4	b4	90	HIS
4	b4	168	GLN
4	b4	182	ASN
4	b4	444	ASN
2	W5	53	GLN
4	B5	66	ASN
4	B5	168	GLN
4	B5	235	HIS
4	B5	444	ASN
4	b5	52	ASN
4	b5	289	GLN
4	b5	301	GLN
4	b5	342	GLN
5	A0	43	GLN
5	A0	87	GLN
5	A0	115	ASN
5	A0	130	GLN
5	A0	160	ASN
5	G0	8	GLN
5	G0	278	GLN
5	C0	15	GLN
5	C0	43	GLN
5	C0	115	ASN
5	C0	278	GLN
5	C0	294	GLN
6	I0	11	GLN
6	I0	13	GLN
6	I0	68	GLN
6	N0	68	GLN
5	A1	15	GLN
5	A1	161	ASN
5	A1	164	GLN

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Mol	Chain	Res	Type
5	A1	256	GLN
5	A1	289	GLN
5	G1	8	GLN
5	G1	130	GLN
5	G1	294	GLN
5	C1	13	ASN
5	C1	43	GLN
5	C1	125	GLN
5	C1	130	GLN
5	C1	160	ASN
5	C1	270	ASN
6	J1	13	GLN
6	N1	13	GLN
5	A2	82	HIS
5	A2	130	GLN
5	A2	164	GLN
5	A2	256	GLN
5	G2	43	GLN
5	G2	130	GLN
5	G2	278	GLN
5	G2	289	GLN
5	G2	307	ASN
5	G2	339	GLN
5	C2	125	GLN
5	C2	130	GLN
5	C2	294	GLN
6	H2	13	GLN
5	A3	85	ASN
5	A3	87	GLN
5	A3	339	GLN
5	G3	87	GLN
5	G3	299	ASN
5	C3	256	GLN
5	C3	270	ASN
5	C3	278	GLN
5	C3	289	GLN
6	H3	15	ASN
6	I3	11	GLN
5	A4	43	GLN
5	A4	85	ASN
5	A4	87	GLN
5	A4	164	GLN

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Mol	Chain	Res	Type
5	A4	256	GLN
5	A4	289	GLN
5	A4	294	GLN
5	A4	322	GLN
5	G4	43	GLN
5	G4	125	GLN
5	G4	270	ASN
5	G4	294	GLN
5	G4	322	GLN
5	G4	339	GLN
5	C4	115	ASN
5	C4	160	ASN
5	C4	307	ASN
5	C4	339	GLN
6	H4	13	GLN
6	I4	9	HIS
6	J4	20	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

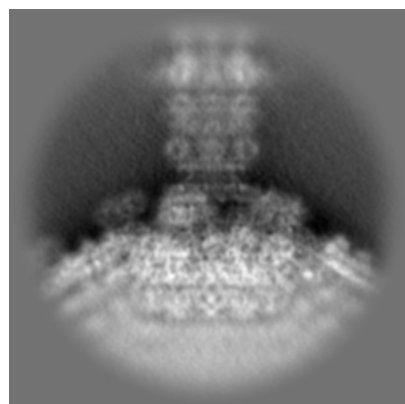
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-38572. These allow visual inspection of the internal detail of the map and identification of artifacts.

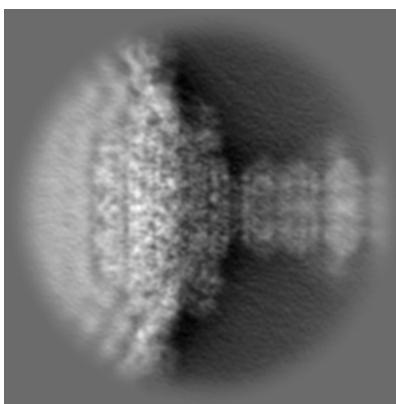
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

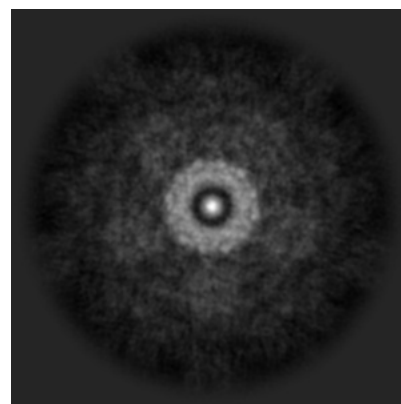
6.1.1 Primary map



X

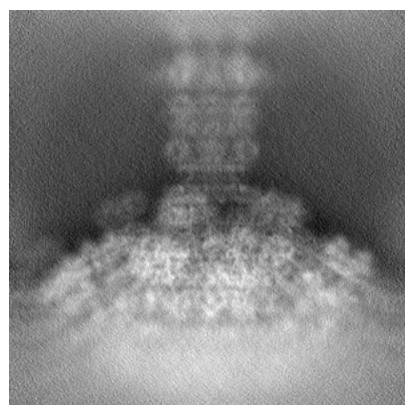


Y

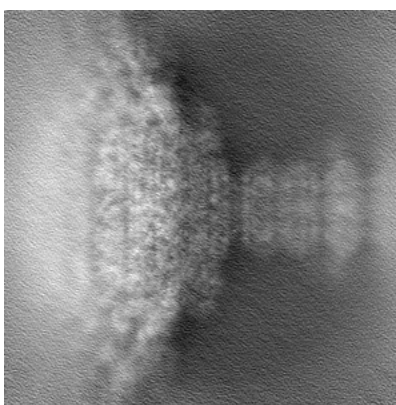


Z

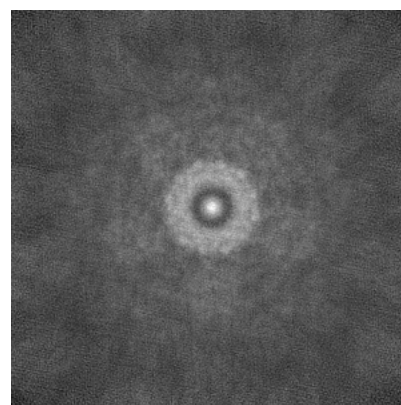
6.1.2 Raw map



X



Y

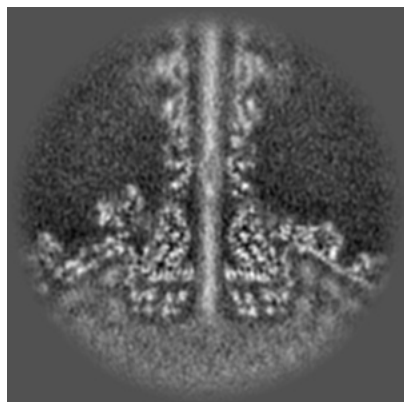


Z

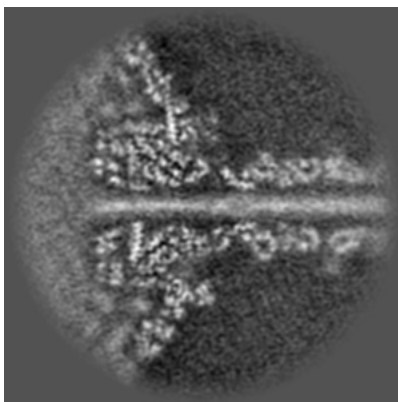
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

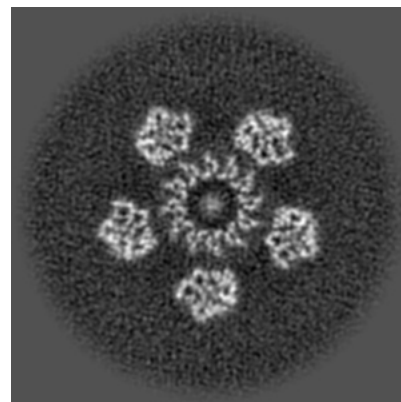
6.2.1 Primary map



X Index: 160

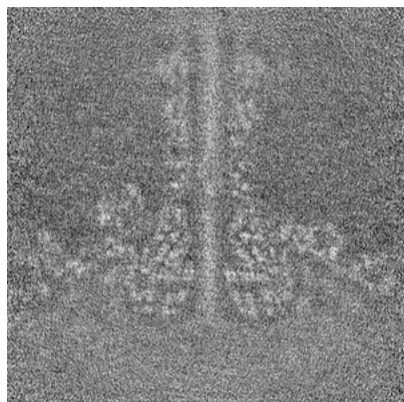


Y Index: 160

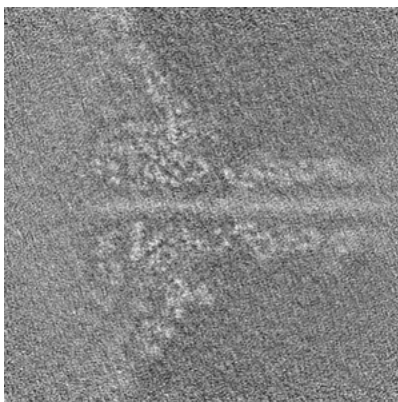


Z Index: 160

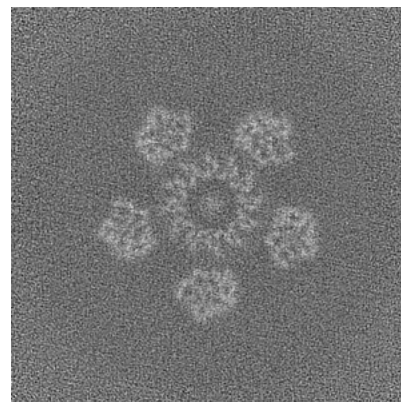
6.2.2 Raw map



X Index: 160



Y Index: 160

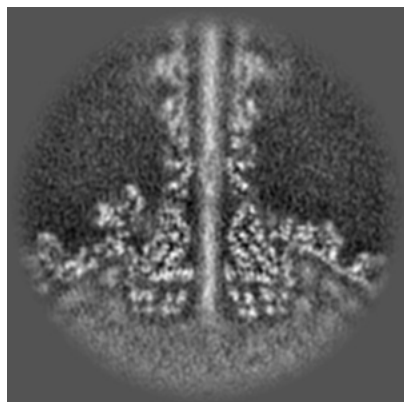


Z Index: 160

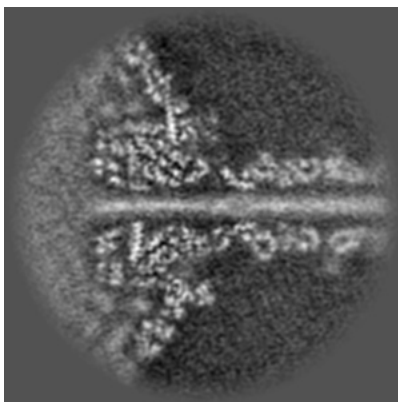
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

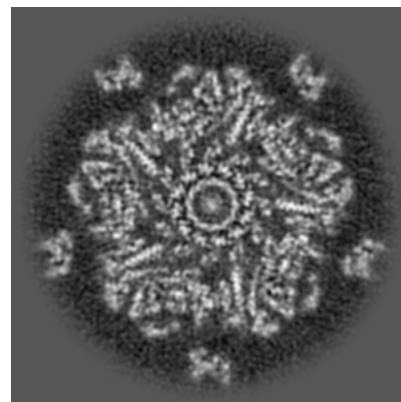
6.3.1 Primary map



X Index: 161

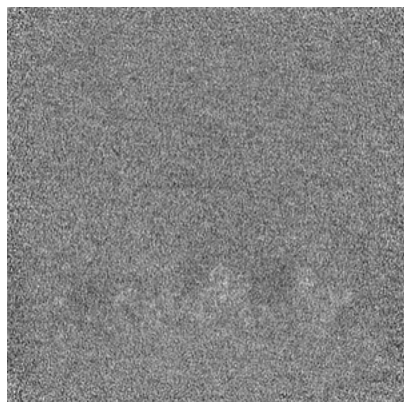


Y Index: 160

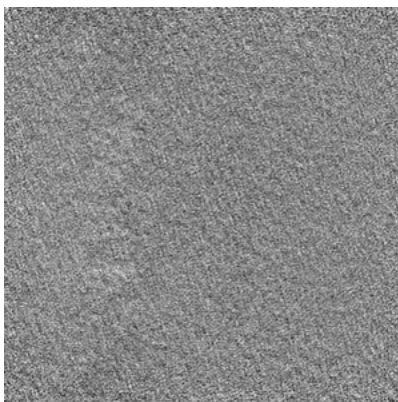


Z Index: 133

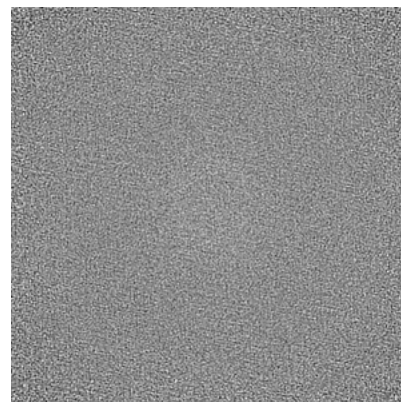
6.3.2 Raw map



X Index: 0



Y Index: 0

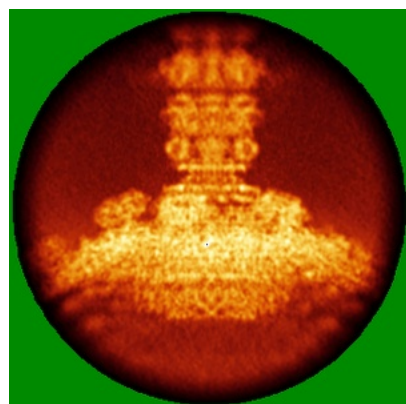


Z Index: 0

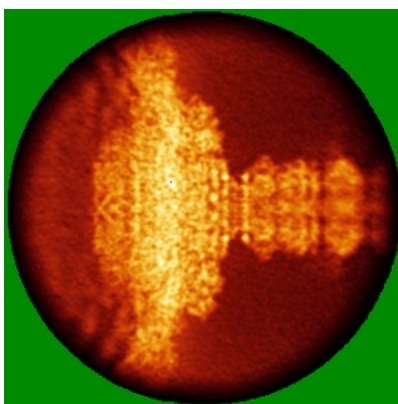
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

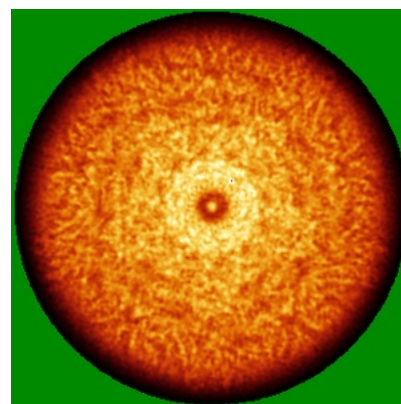
6.4.1 Primary map



X

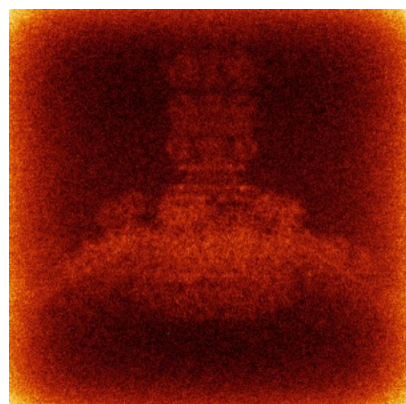


Y

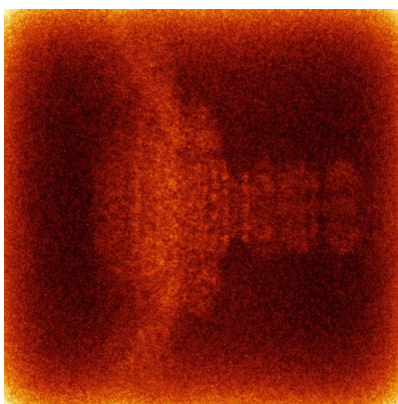


Z

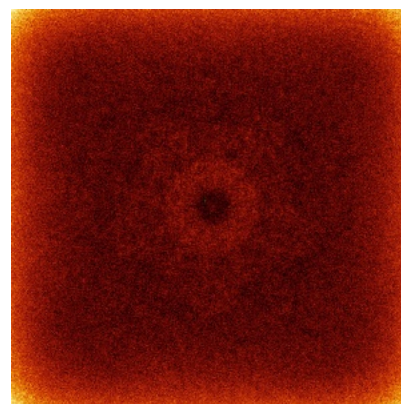
6.4.2 Raw map



X



Y

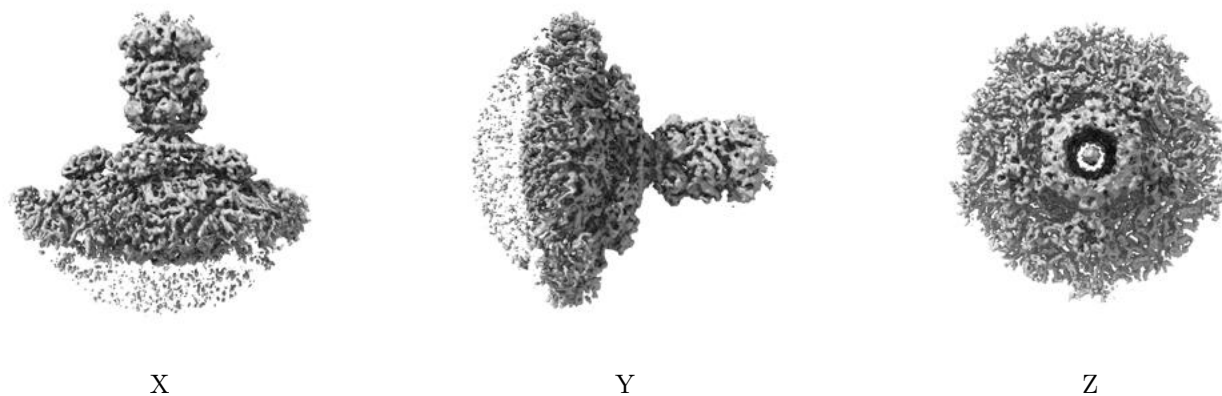


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

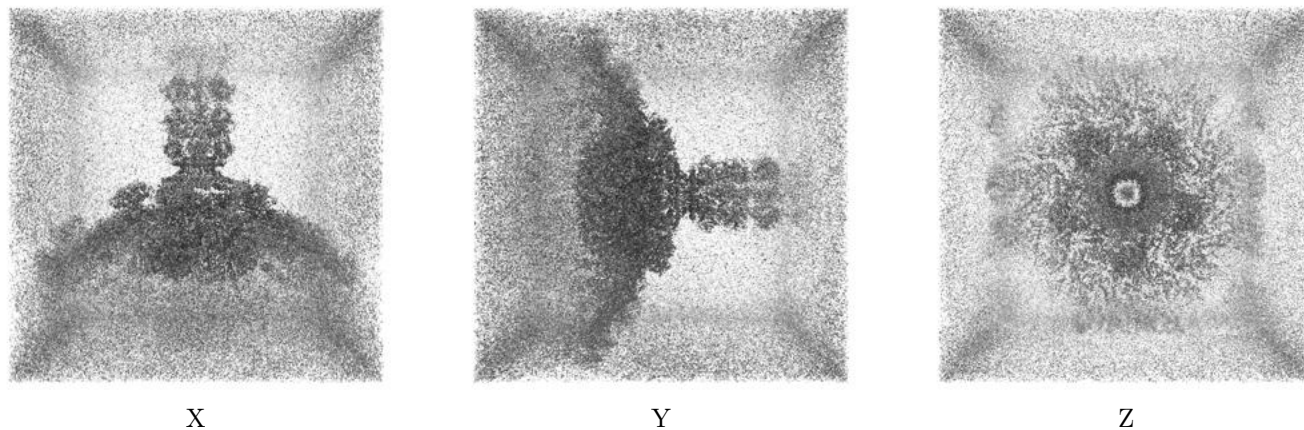
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

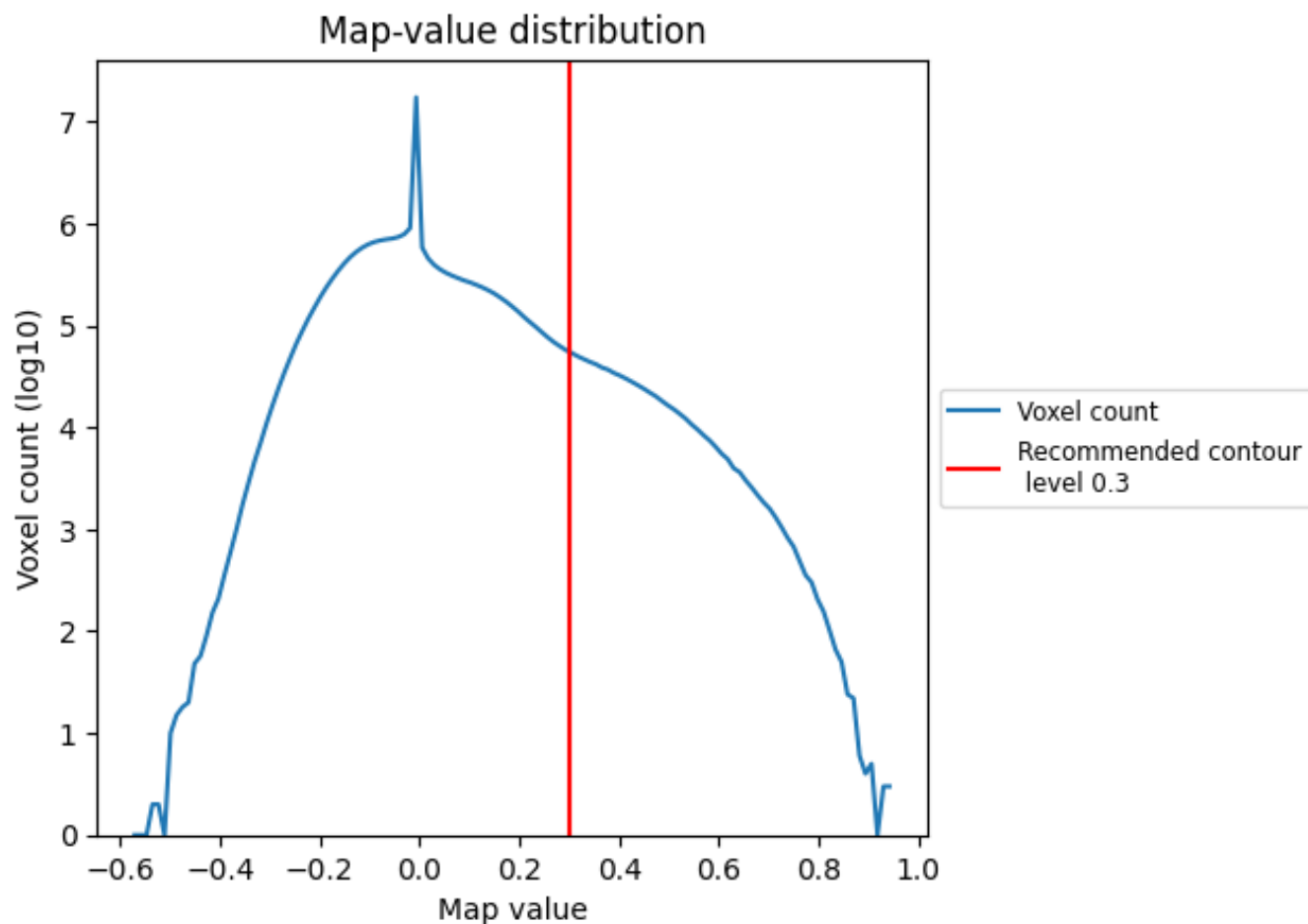
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

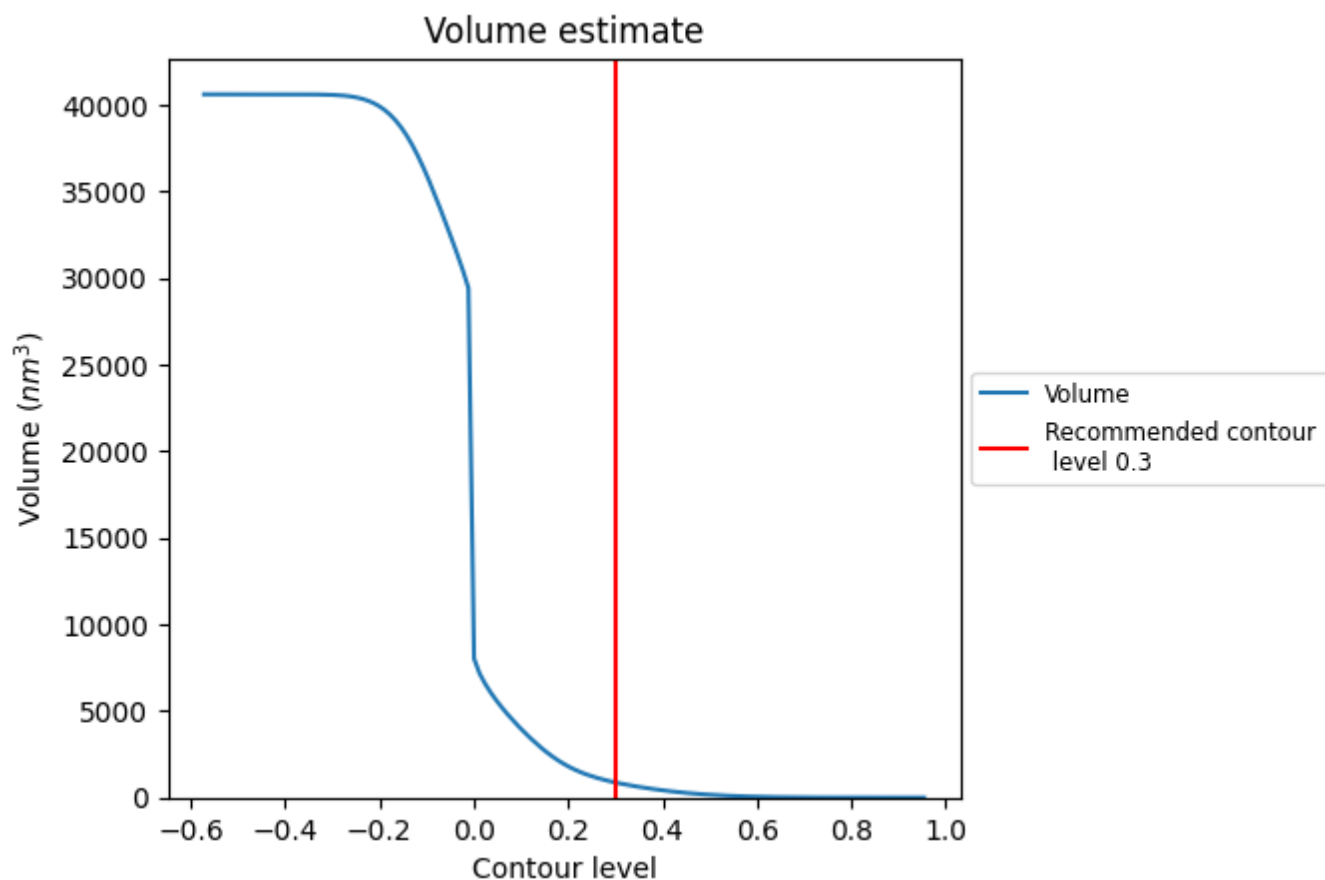
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

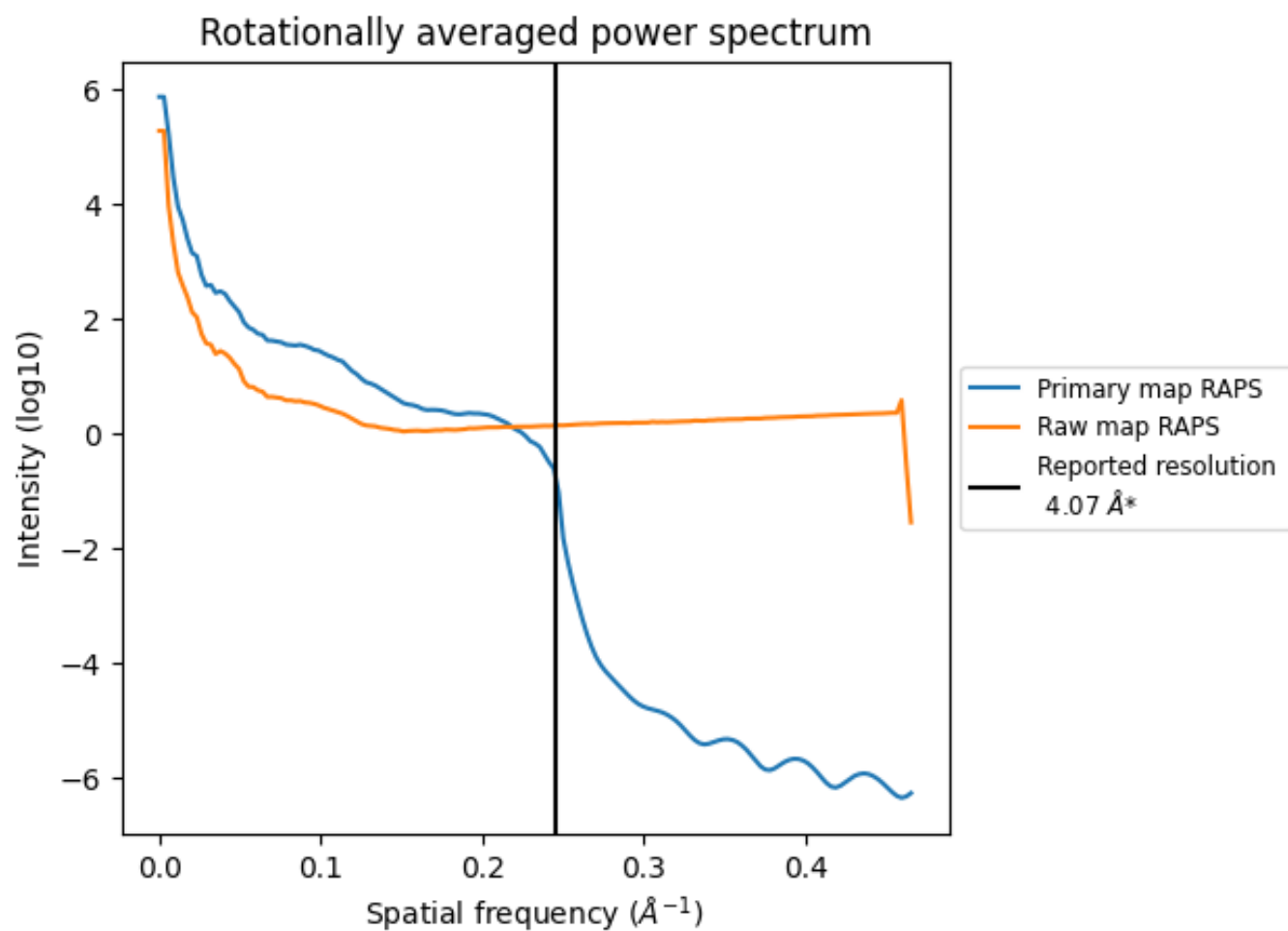
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 871 nm^3 ; this corresponds to an approximate mass of 787 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

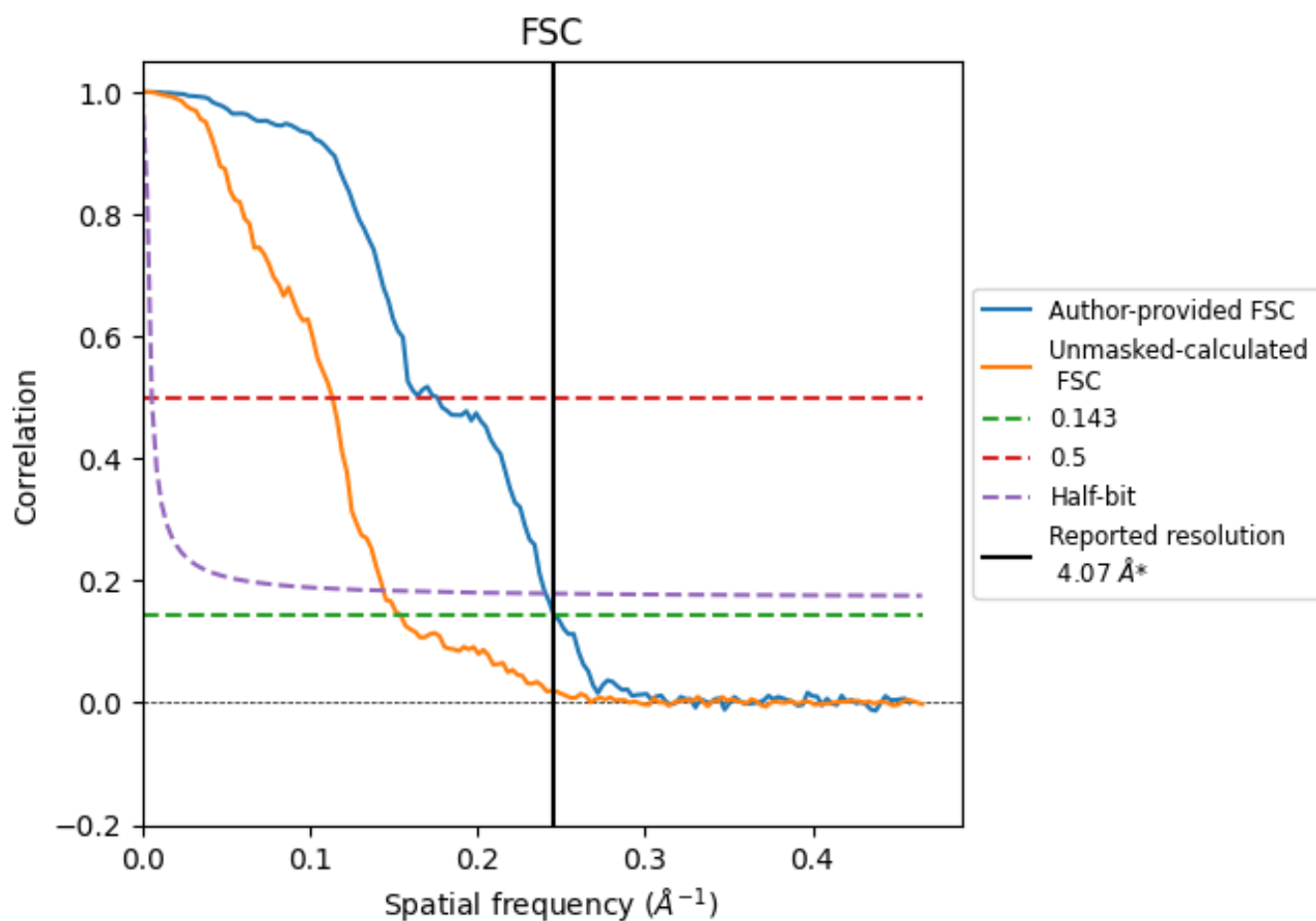


*Reported resolution corresponds to spatial frequency of 0.246 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of $0.246 \text{ \AA}^{-1}$

8.2 Resolution estimates [i](#)

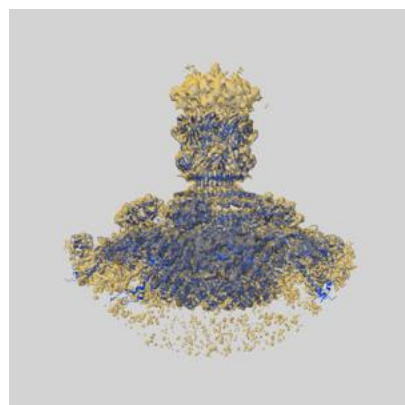
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.07	-	-
Author-provided FSC curve	4.07	5.68	4.15
Unmasked-calculated*	6.48	8.81	6.94

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.48 differs from the reported value 4.07 by more than 10 %

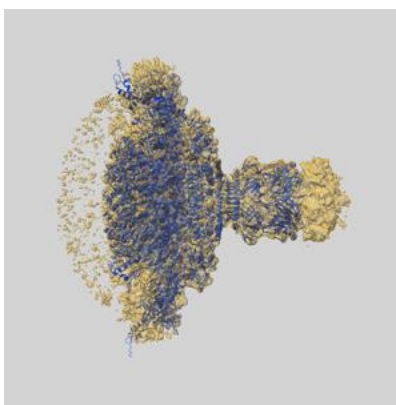
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-38572 and PDB model 8XQB. Per-residue inclusion information can be found in section [3](#) on page [10](#).

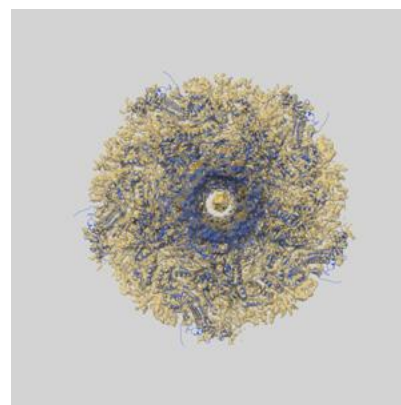
9.1 Map-model overlay [i](#)



X



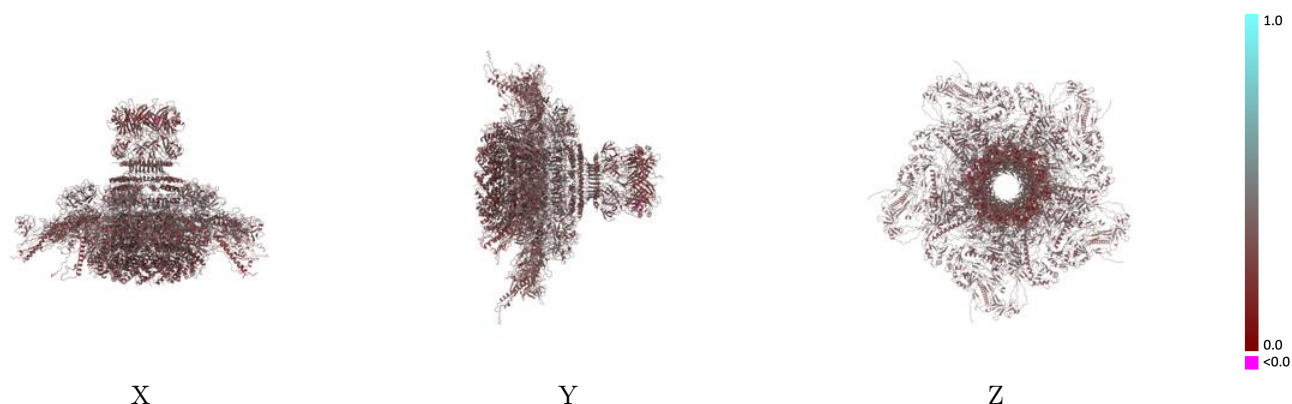
Y



Z

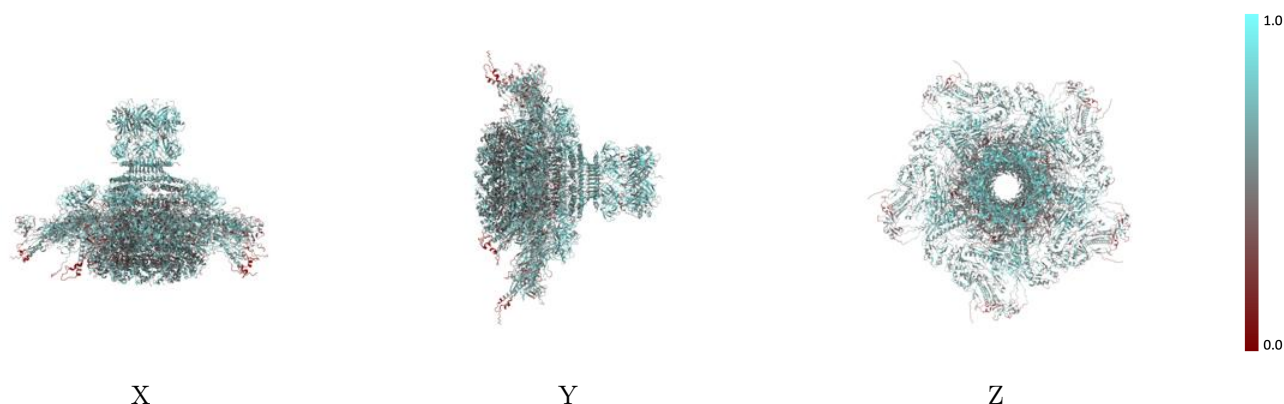
The images above show the 3D surface view of the map at the recommended contour level 0.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



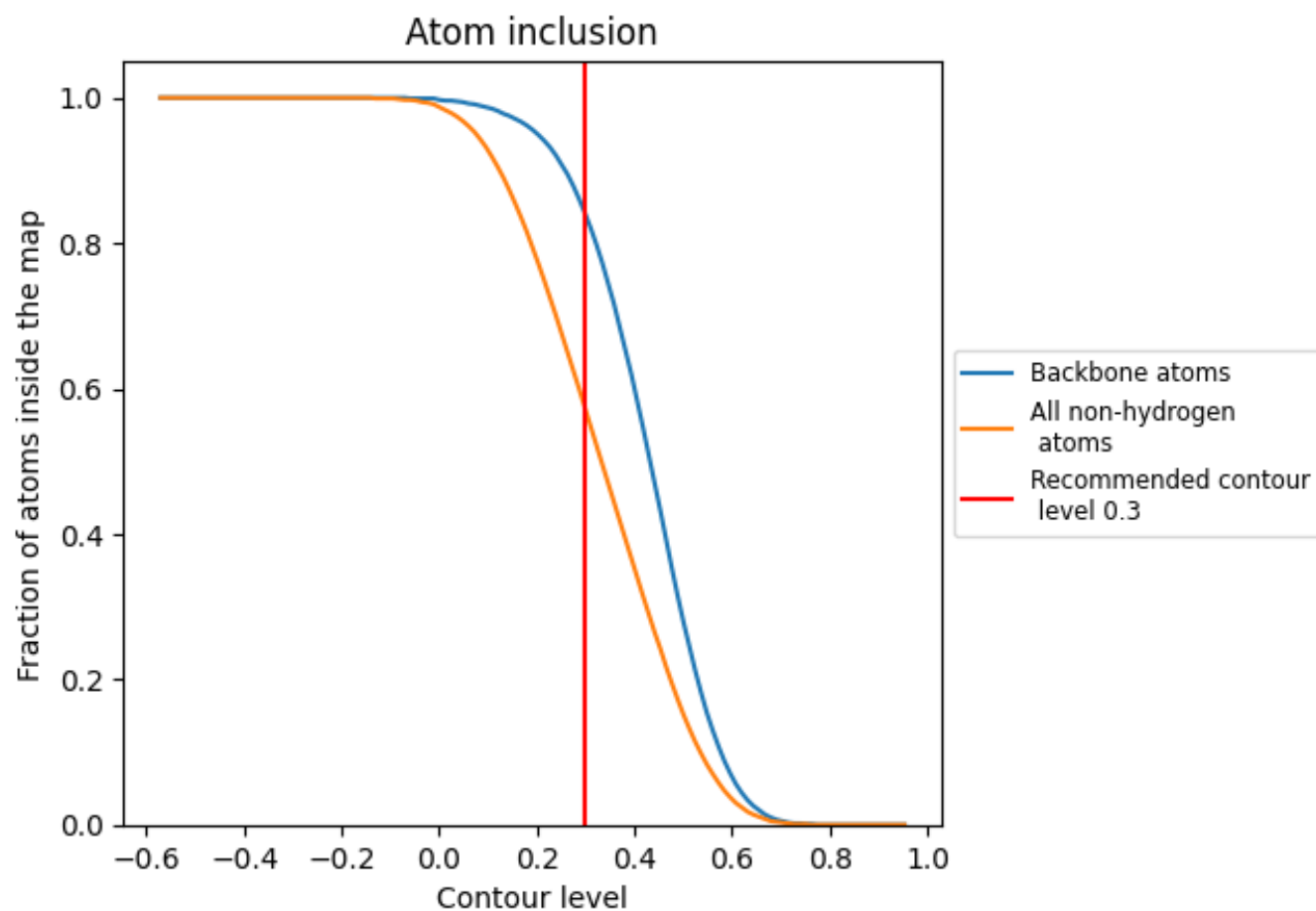
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.3).

9.4 Atom inclusion [i](#)



At the recommended contour level, 84% of all backbone atoms, 57% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.3) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5710	 0.3340
A0	 0.4890	 0.3180
A1	 0.5170	 0.3240
A2	 0.5190	 0.3140
A3	 0.5000	 0.3110
A4	 0.4870	 0.3120
B	 0.5400	 0.3420
B1	 0.5490	 0.3400
B2	 0.5580	 0.3350
B3	 0.5490	 0.3310
B4	 0.5510	 0.3400
B5	 0.5460	 0.3360
C0	 0.5720	 0.3330
C1	 0.5780	 0.3430
C2	 0.5700	 0.3380
C3	 0.5780	 0.3340
C4	 0.5700	 0.3310
G0	 0.5670	 0.3490
G1	 0.5920	 0.3470
G2	 0.5790	 0.3420
G3	 0.5920	 0.3450
G4	 0.5720	 0.3350
H0	 0.6890	 0.3790
H1	 0.7080	 0.3740
H2	 0.7070	 0.3720
H3	 0.7120	 0.3690
H4	 0.6930	 0.3700
I0	 0.6010	 0.3520
I1	 0.5850	 0.3430
I2	 0.5990	 0.3430
I3	 0.5940	 0.3220
I4	 0.5670	 0.3440
J0	 0.6990	 0.3780
J1	 0.6620	 0.3710
J2	 0.6750	 0.3590



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Chain	Atom inclusion	Q-score
J3	 0.6980	 0.3760
J4	 0.7090	 0.3650
N0	 0.4470	 0.3430
N1	 0.4750	 0.3430
N2	 0.4440	 0.3320
N3	 0.4130	 0.3360
N4	 0.4090	 0.3350
U	 0.6650	 0.2680
U1	 0.6760	 0.2690
U2	 0.6650	 0.2630
U3	 0.6480	 0.2590
U4	 0.6450	 0.2730
U5	 0.6480	 0.2650
W	 0.6150	 0.3470
W1	 0.5990	 0.3540
W2	 0.6150	 0.3390
W3	 0.6130	 0.3600
W4	 0.5790	 0.3620
W5	 0.6050	 0.3500
b	 0.5810	 0.3370
b1	 0.5330	 0.3370
b2	 0.5250	 0.3350
b3	 0.5180	 0.3360
b4	 0.5310	 0.3370
b5	 0.5670	 0.3410
f	 0.7010	 0.3390
f1	 0.6820	 0.3200
f2	 0.6880	 0.3210
f3	 0.6920	 0.3230
f4	 0.7000	 0.3340
f5	 0.6840	 0.3330
w	 0.5890	 0.3420
w1	 0.5770	 0.3320
w2	 0.5850	 0.3360
w3	 0.5930	 0.3530
w4	 0.5910	 0.3470
w5	 0.6090	 0.3510