Full wwPDB EM Validation Report

Nov 18, 2026 – 04:44 PM JST

PDB ID	:	24LR / pdb_000024lr
EMDB ID	:	EMD-69628
Title	:	Cryo-EM Structure of Mysterious baseplate Complex
Authors	:	Ho, M.C.; Lowary, T.L.; Tewary, S.K.; Wang, C.H.; Melvin, C.S.; Tsai, L.A.; Maharana, J.
Deposited on	:	2026-03-10
Resolution	:	3.13 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:

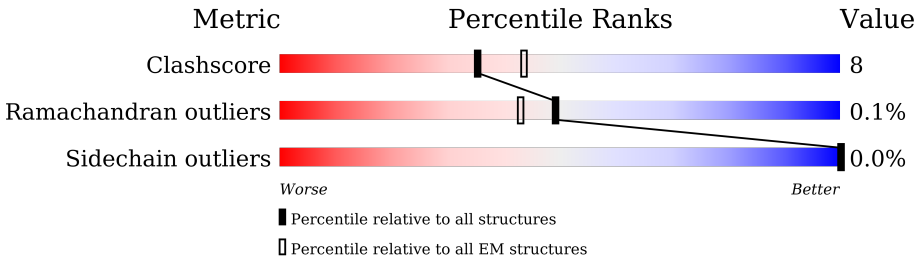
EMDB validation analysis	:	0.0.1.dev133
MolProbity	:	4-5-2 with Phenix2.2
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.51

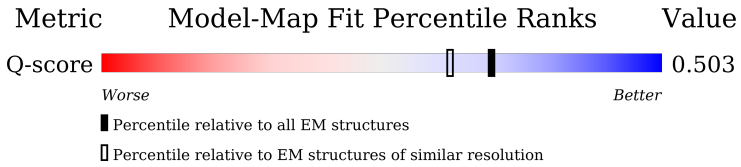
1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.13 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	14478 (2.63 - 3.63)

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 <=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	A	266	86% 14%
1	B	266	83% 17%
1	C	266	86% 14%
1	D	266	83% 17%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	E	266	86% 14%
1	F	266	82% 18%
2	AA	135	79% 21%
2	AB	135	81% 19%
2	AC	135	78% 22%
2	AD	135	75% 25%
2	AE	135	84% 16%
2	AF	135	84% 16%
2	AG	135	79% 21%
2	P	135	78% 22%
2	Q	135	73% 27%
2	R	135	79% 21%
2	S	135	79% 20%
2	T	135	82% 17%
2	U	135	79% 21%
2	V	135	84% 16%
2	W	135	81% 19%
2	X	135	79% 21%
2	Y	135	75% 25%
2	Z	135	81% 19%
3	AH	377	86% 14%
3	AI	377	80% 20%
3	AJ	377	80% 20%
3	AK	377	84% 16%
3	AL	377	81% 19%

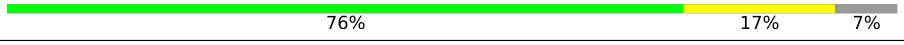
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	AM	377	85% 15%
4	AN	63	90% 10%
4	AO	63	5% 83% 17%
4	AP	63	65% 35%
5	AQ	208	78% 22%
5	AR	208	74% 26%
5	AS	208	85% 15%
5	AT	208	82% 18%
5	AU	208	86% 14%
5	AV	208	82% 17%
6	AW	202	80% 20%
6	AX	202	80% 19%
6	AY	202	80% 20%
6	AZ	202	75% 25%
6	BA	202	77% 23%
6	BB	202	85% 15%
7	BC	205	79% 21%
7	BD	205	83% 17%
7	BE	205	75% 25%
7	BF	205	79% 21%
7	BG	205	85% 15%
7	BH	205	79% 21%
8	G	476	73% 20% 7%
8	H	476	75% 19% 7%
8	I	476	74% 20% 7%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	J	476	
8	K	476	
8	L	476	
9	M	358	
9	N	358	
9	O	358	

2 Entry composition (i)

There are 9 unique types of molecules in this entry. The entry contains 105215 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 Major tail protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	266	Total	C	N	O	S	0	0
			2010	1262	339	402	7		
1	B	266	Total	C	N	O	S	0	0
			2010	1262	339	402	7		
1	C	266	Total	C	N	O	S	0	0
			2010	1262	339	402	7		
1	D	266	Total	C	N	O	S	0	0
			2010	1262	339	402	7		
1	E	266	Total	C	N	O	S	0	0
			2010	1262	339	402	7		
1	F	266	Total	C	N	O	S	0	0
			2010	1262	339	402	7		

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	38	PRO	ALA	conflict	UNP S5Z5I3
B	38	PRO	ALA	conflict	UNP S5Z5I3
C	38	PRO	ALA	conflict	UNP S5Z5I3
D	38	PRO	ALA	conflict	UNP S5Z5I3
E	38	PRO	ALA	conflict	UNP S5Z5I3
F	38	PRO	ALA	conflict	UNP S5Z5I3

- Molecule 2 is a protein called Mysterious baseplate outer tail filber-like protein gp40.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AA	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	AB	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	AC	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	AD	135	Total	C	N	O	S	0	0
			983	611	161	207	4		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AE	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	AF	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	AG	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	P	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	Q	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	R	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	S	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	T	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	U	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	V	135	Total	C	N	O	S	0	0
			982	611	161	206	4		
2	W	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	X	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	Y	135	Total	C	N	O	S	0	0
			983	611	161	207	4		
2	Z	135	Total	C	N	O	S	0	0
			983	611	161	207	4		

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	51	ARG	LYS	conflict	UNP S5Y1A6
AB	51	ARG	LYS	conflict	UNP S5Y1A6
AC	51	ARG	LYS	conflict	UNP S5Y1A6
AD	51	ARG	LYS	conflict	UNP S5Y1A6
AE	51	ARG	LYS	conflict	UNP S5Y1A6
AF	51	ARG	LYS	conflict	UNP S5Y1A6
AG	51	ARG	LYS	conflict	UNP S5Y1A6
P	51	ARG	LYS	conflict	UNP S5Y1A6
Q	51	ARG	LYS	conflict	UNP S5Y1A6
R	51	ARG	LYS	conflict	UNP S5Y1A6
S	51	ARG	LYS	conflict	UNP S5Y1A6

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
T	51	ARG	LYS	conflict	UNP S5Y1A6
U	51	ARG	LYS	conflict	UNP S5Y1A6
V	51	ARG	LYS	conflict	UNP S5Y1A6
W	51	ARG	LYS	conflict	UNP S5Y1A6
X	51	ARG	LYS	conflict	UNP S5Y1A6
Y	51	ARG	LYS	conflict	UNP S5Y1A6
Z	51	ARG	LYS	conflict	UNP S5Y1A6

- Molecule 3 is a protein called Mysterious baseplate terminator protein gp41.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AH	377	Total	C	N	O	S	0	0
			2805	1763	489	543	10		
3	AI	377	Total	C	N	O	S	0	0
			2805	1763	489	543	10		
3	AJ	377	Total	C	N	O	S	0	0
			2805	1763	489	543	10		
3	AK	377	Total	C	N	O	S	0	0
			2805	1763	489	543	10		
3	AL	377	Total	C	N	O	S	0	0
			2805	1763	489	543	10		
3	AM	377	Total	C	N	O	S	0	0
			2805	1763	489	543	10		

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AH	95	SER	GLY	conflict	UNP S5YDP5
AI	95	SER	GLY	conflict	UNP S5YDP5
AJ	95	SER	GLY	conflict	UNP S5YDP5
AK	95	SER	GLY	conflict	UNP S5YDP5
AL	95	SER	GLY	conflict	UNP S5YDP5
AM	95	SER	GLY	conflict	UNP S5YDP5

- Molecule 4 is a protein called Minor tail protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AN	63	Total	C	N	O	S	0	0
			479	294	92	92	1		
4	AO	63	Total	C	N	O	S	0	0
			479	294	92	92	1		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AP	63	Total	C	N	O	S	0	0
			479	294	92	92	1		

- Molecule 5 is a protein called DUF7172 domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AQ	208	Total	C	N	O	S	0	0
			1632	1028	292	309	3		
5	AR	208	Total	C	N	O	S	0	0
			1632	1028	292	309	3		
5	AS	208	Total	C	N	O	S	0	0
			1632	1028	292	309	3		
5	AT	208	Total	C	N	O	S	0	0
			1632	1028	292	309	3		
5	AU	208	Total	C	N	O	S	0	0
			1632	1028	292	309	3		
5	AV	208	Total	C	N	O	S	0	0
			1632	1028	292	309	3		

- Molecule 6 is a protein called DUF7172 domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AW	202	Total	C	N	O	S	0	0
			1580	1004	277	296	3		
6	AX	202	Total	C	N	O	S	0	0
			1580	1004	277	296	3		
6	AY	202	Total	C	N	O	S	0	0
			1580	1004	277	296	3		
6	AZ	202	Total	C	N	O	S	0	0
			1580	1004	277	296	3		
6	BA	202	Total	C	N	O	S	0	0
			1580	1004	277	296	3		
6	BB	202	Total	C	N	O	S	0	0
			1580	1004	277	296	3		

- Molecule 7 is a protein called DUF7172 domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BC	205	Total	C	N	O	S	0	0
			1540	968	274	292	6		
7	BD	205	Total	C	N	O	S	0	0
			1540	968	274	292	6		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BE	205	Total	C	N	O	S	0	0
			1540	968	274	292	6		
7	BF	205	Total	C	N	O	S	0	0
			1540	968	274	292	6		
7	BG	205	Total	C	N	O	S	0	0
			1540	968	274	292	6		
7	BH	205	Total	C	N	O	S	0	0
			1540	968	274	292	6		

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BC	195	ALA	GLY	conflict	UNP S5Z8Z2
BD	195	ALA	GLY	conflict	UNP S5Z8Z2
BE	195	ALA	GLY	conflict	UNP S5Z8Z2
BF	195	ALA	GLY	conflict	UNP S5Z8Z2
BG	195	ALA	GLY	conflict	UNP S5Z8Z2
BH	195	ALA	GLY	conflict	UNP S5Z8Z2

- Molecule 8 is a protein called gp28 DTP.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	G	445	Total	C	N	O	S	0	0
			3394	2146	595	637	16		
8	H	445	Total	C	N	O	S	0	0
			3394	2146	595	637	16		
8	I	445	Total	C	N	O	S	0	0
			3394	2146	595	637	16		
8	J	445	Total	C	N	O	S	0	0
			3394	2146	595	637	16		
8	K	445	Total	C	N	O	S	0	0
			3394	2146	595	637	16		
8	L	445	Total	C	N	O	S	0	0
			3394	2146	595	637	16		

- Molecule 9 is a protein called Minor tail protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	M	358	Total	C	N	O	S	0	0
			2773	1729	494	542	8		
9	N	358	Total	C	N	O	S	0	0
			2773	1729	494	542	8		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
9	O	358	Total	C	N	O	S	0	0
			2773	1729	494	542	8		

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
M	42	GLN	SER	conflict	UNP S5YQW9
M	288	ARG	SER	conflict	UNP S5YQW9
N	42	GLN	SER	conflict	UNP S5YQW9
N	288	ARG	SER	conflict	UNP S5YQW9
O	42	GLN	SER	conflict	UNP S5YQW9
O	288	ARG	SER	conflict	UNP S5YQW9

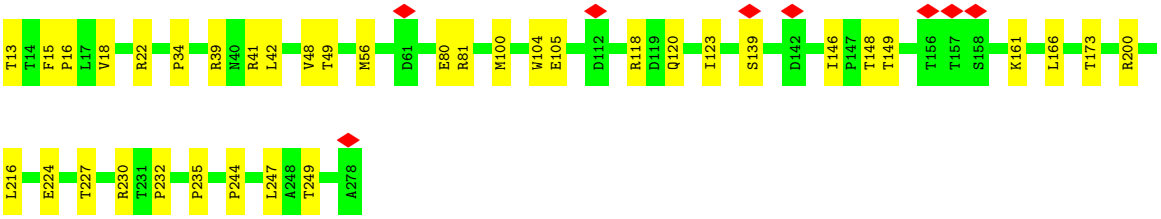
3 Residue-property plots (i)

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: Major tail protein

Chain A:

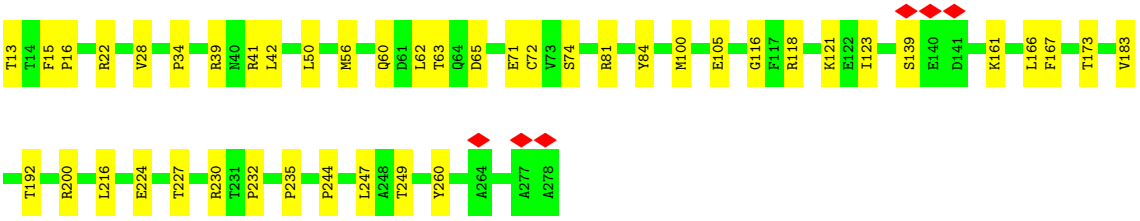




• Molecule 1: Major tail protein

Chain B:

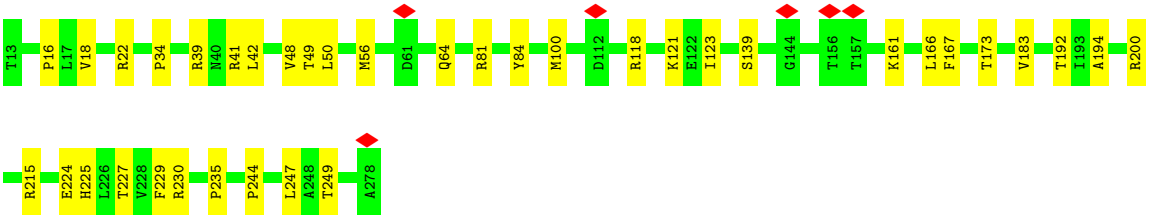




• Molecule 1: Major tail protein

Chain C:

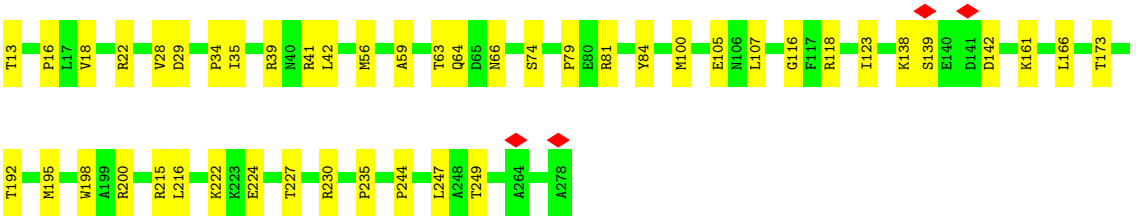




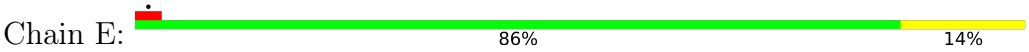
• Molecule 1: Major tail protein

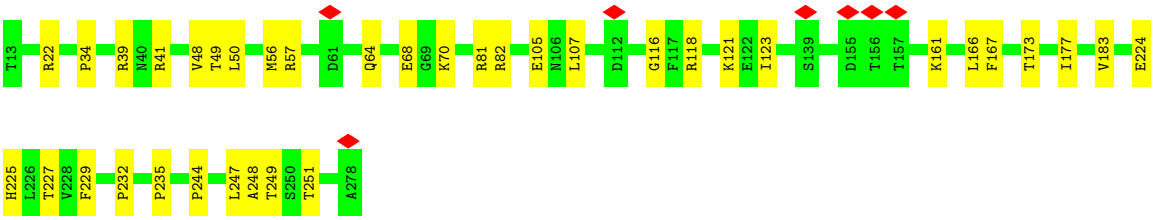
Chain D:



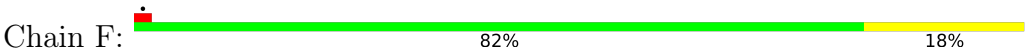


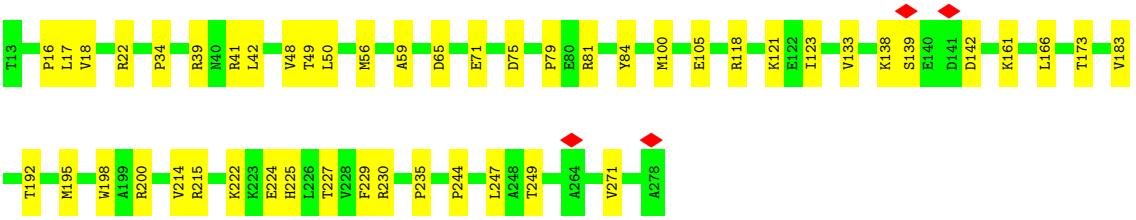
• Molecule 1: Major tail protein



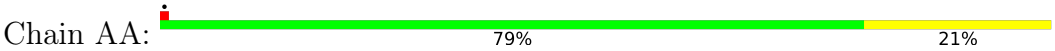


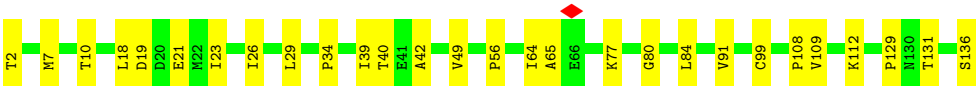
• Molecule 1: Major tail protein



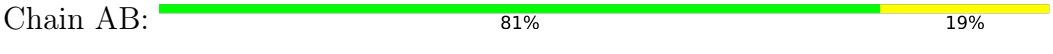


• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40



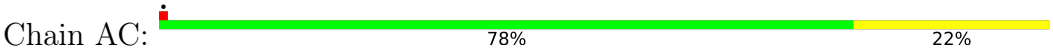


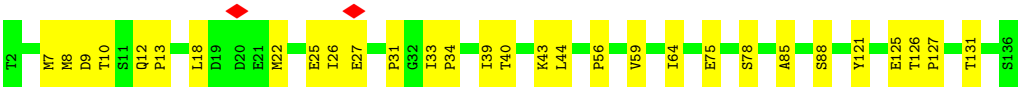
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40





• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

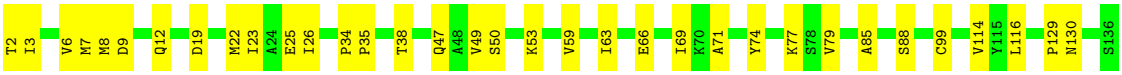




• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain AD:

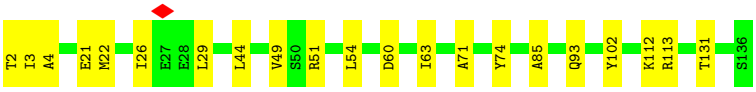




• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain AE:

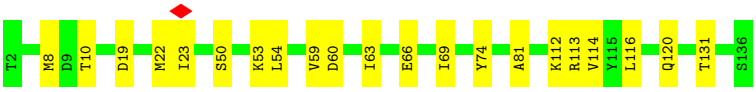




• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain AF:

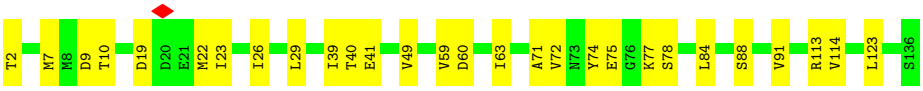




• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain AG:

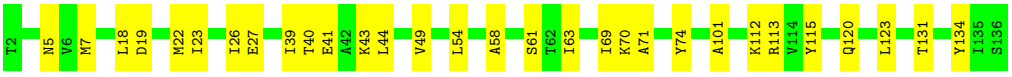




• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain P:

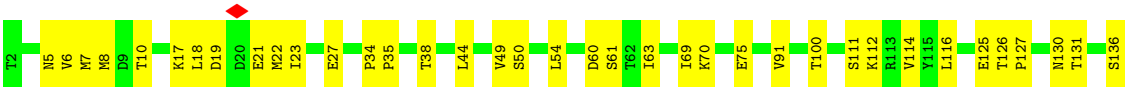




• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

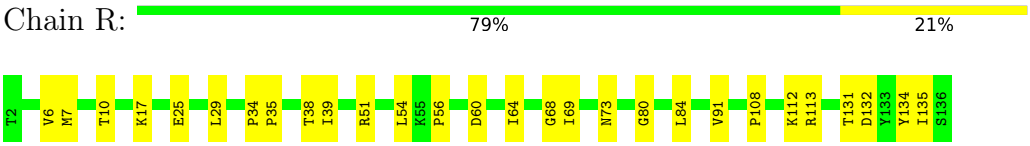
Chain Q:





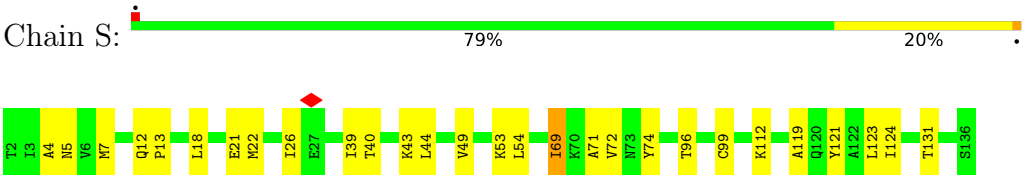
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain R:



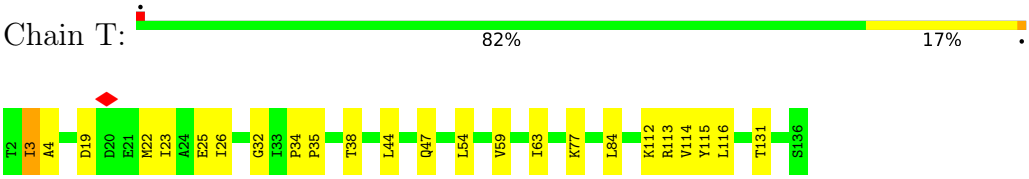
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain S:



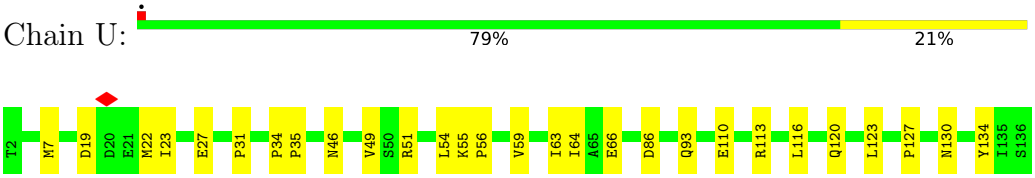
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain T:



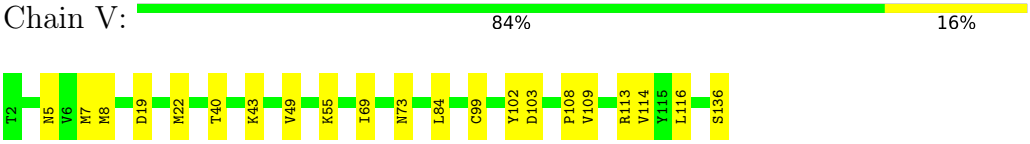
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain U:



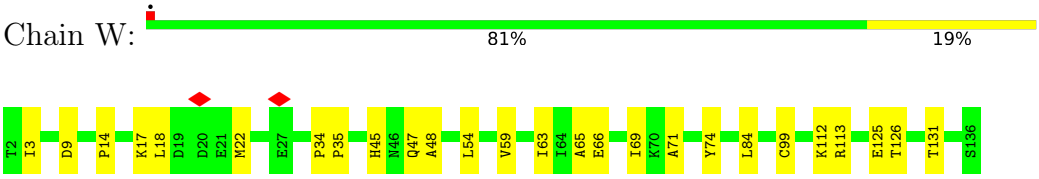
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain V:



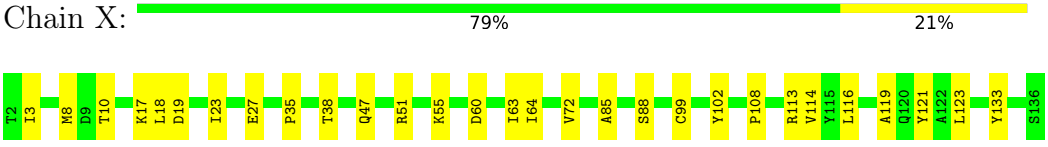
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain W:



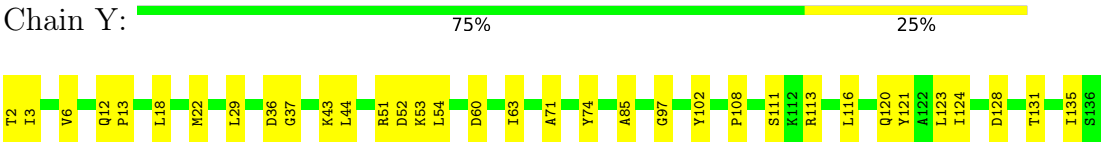
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain X:



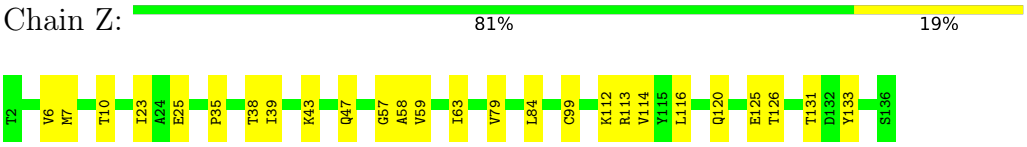
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain Y:



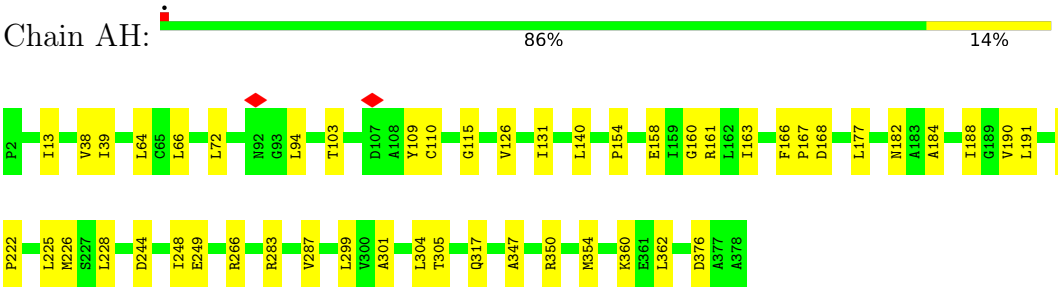
• Molecule 2: Mysterious baseplate outer tail filber-like protein gp40

Chain Z:



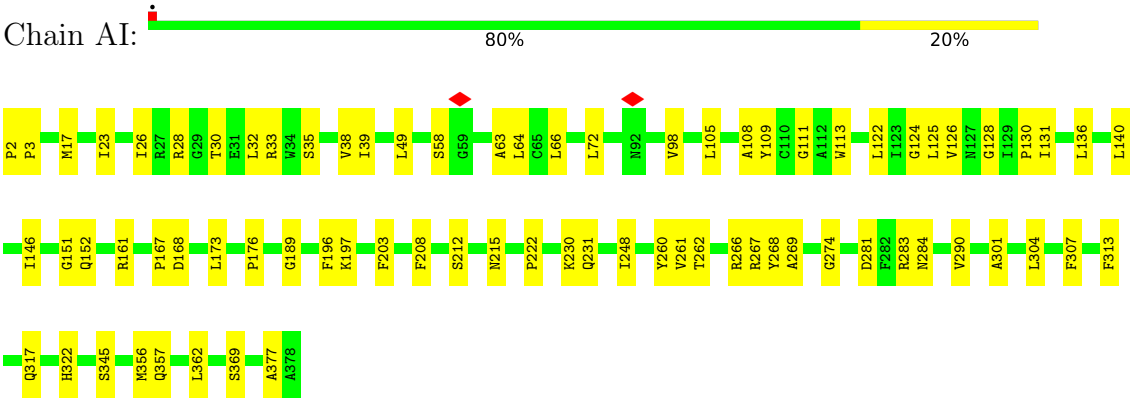
• Molecule 3: Mysterious baseplate terminator protein gp41

Chain AH:



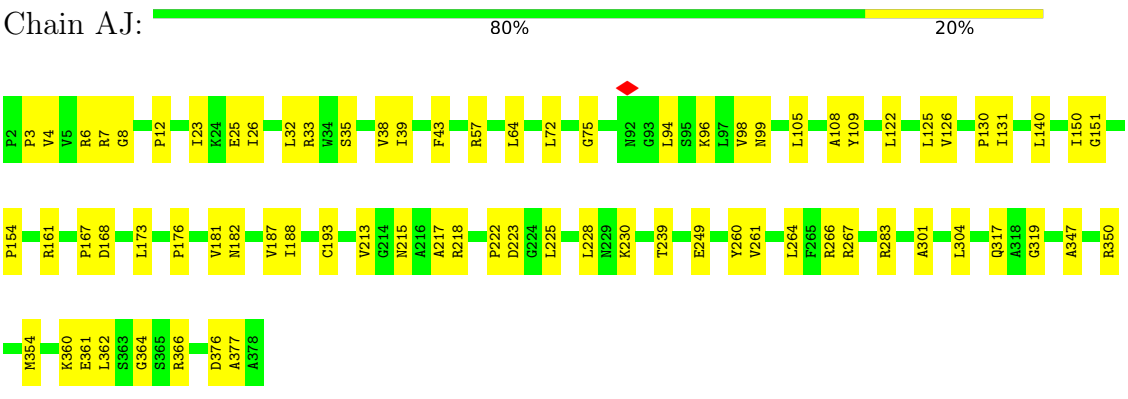
• Molecule 3: Mysterious baseplate terminator protein gp41

Chain AI:



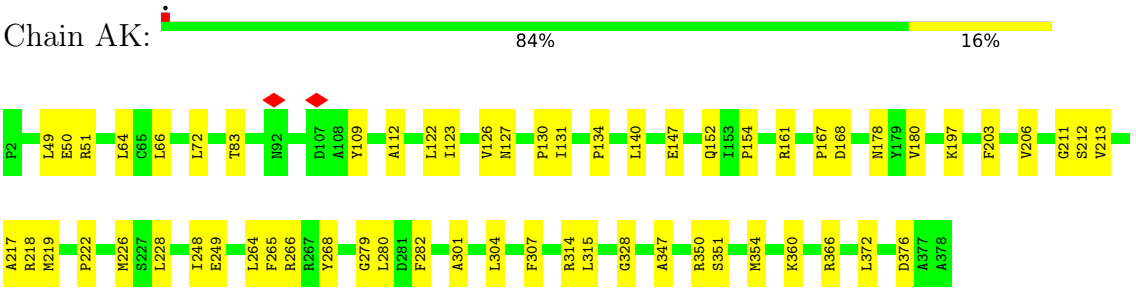
• Molecule 3: Mysterious baseplate terminator protein gp41

Chain AJ:



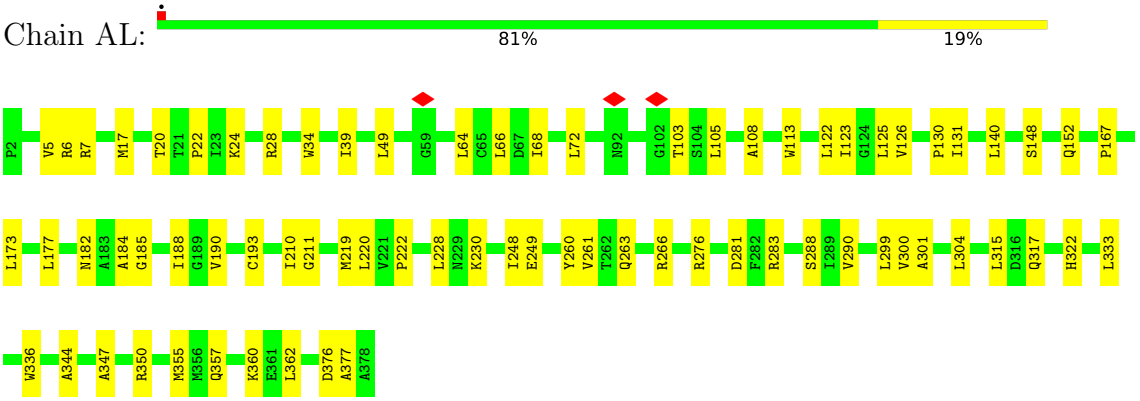
• Molecule 3: Mysterious baseplate terminator protein gp41

Chain AK:



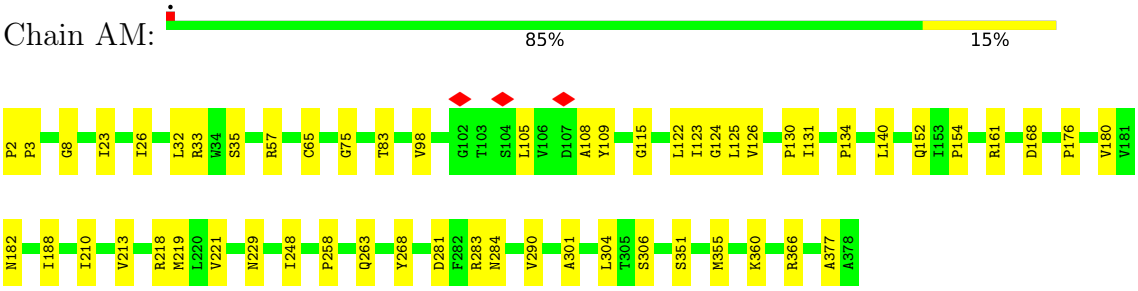
• Molecule 3: Mysterious baseplate terminator protein gp41

Chain AL:



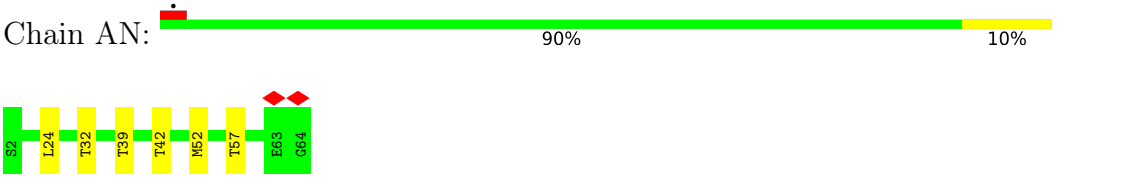
• Molecule 3: Mysterious baseplate terminator protein gp41

Chain AM:



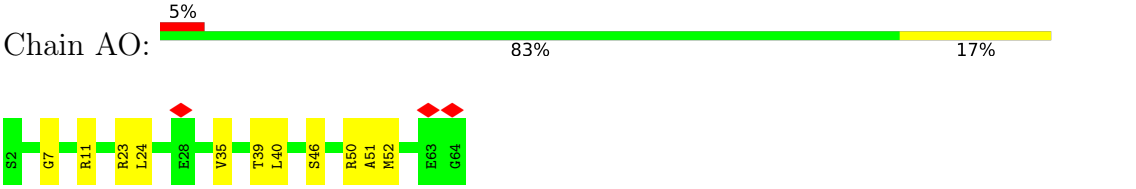
• Molecule 4: Minor tail protein

Chain AN:



• Molecule 4: Minor tail protein

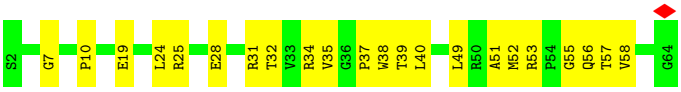
Chain AO:



• Molecule 4: Minor tail protein

Chain AP:

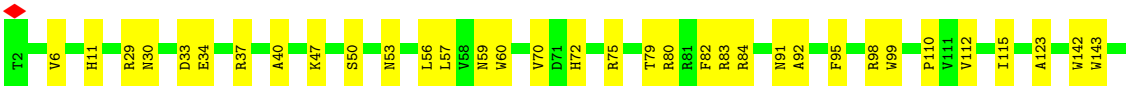




• Molecule 5: DUF7172 domain-containing protein

Chain AQ:

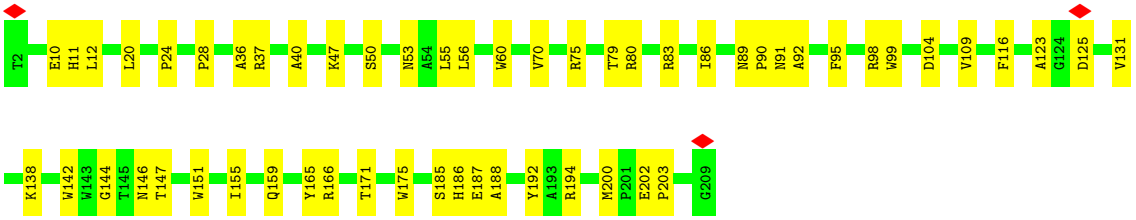




• Molecule 5: DUF7172 domain-containing protein

Chain AR:

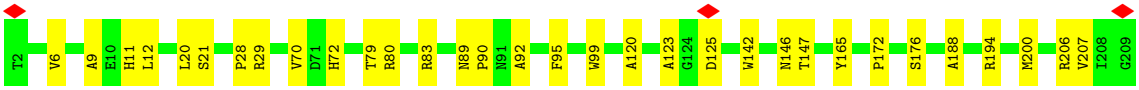




• Molecule 5: DUF7172 domain-containing protein

Chain AS:

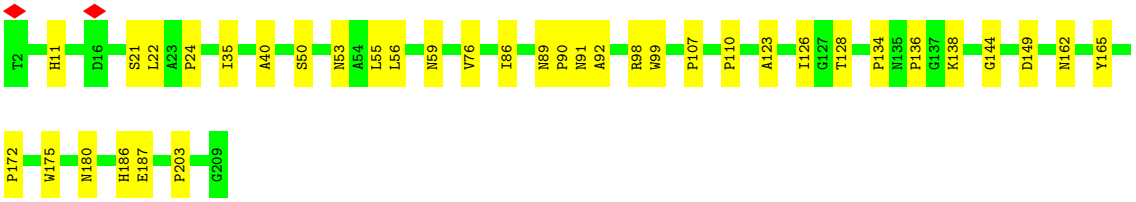




• Molecule 5: DUF7172 domain-containing protein

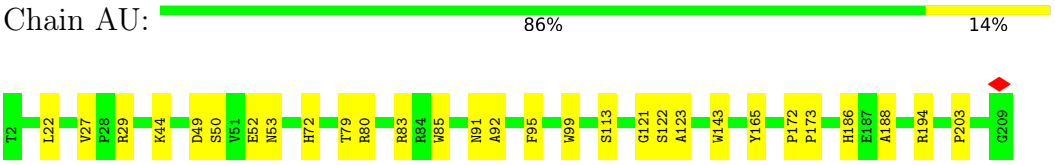
Chain AT:





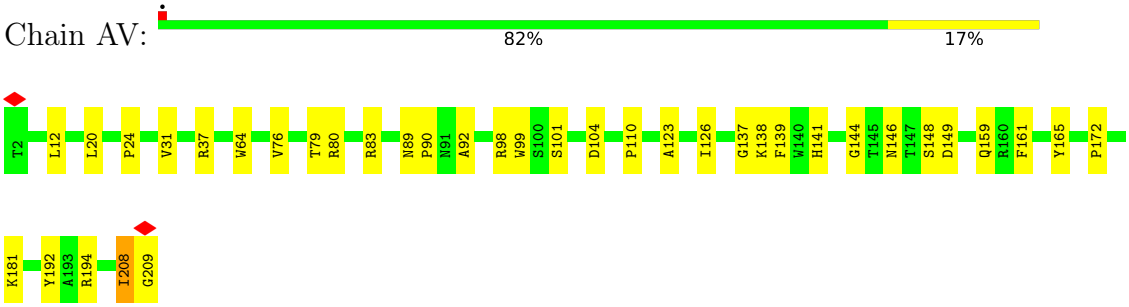
• Molecule 5: DUF7172 domain-containing protein

Chain AU:



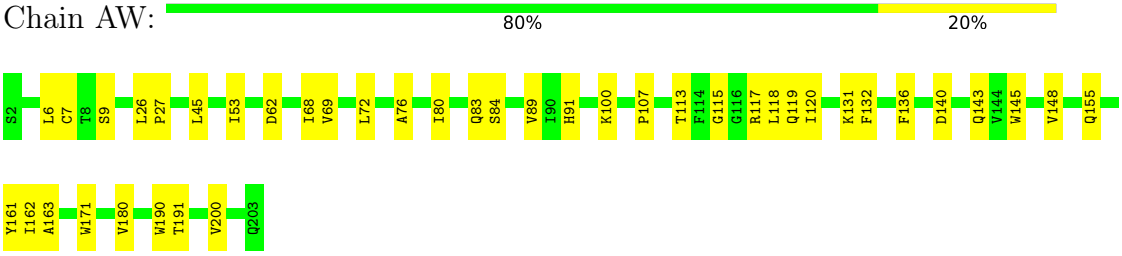
• Molecule 5: DUF7172 domain-containing protein

Chain AV:



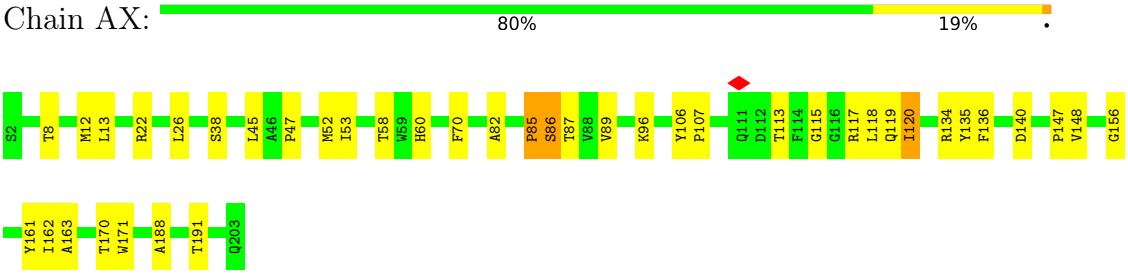
• Molecule 6: DUF7172 domain-containing protein

Chain AW:



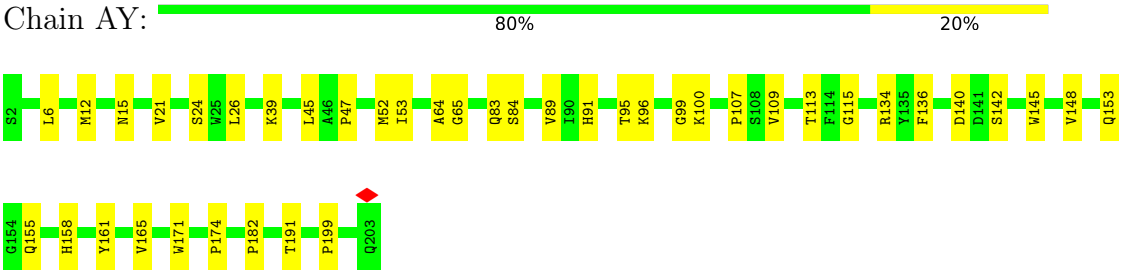
• Molecule 6: DUF7172 domain-containing protein

Chain AX:



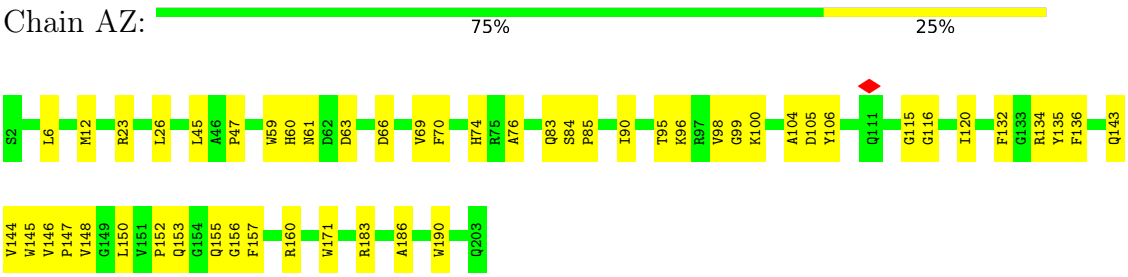
• Molecule 6: DUF7172 domain-containing protein

Chain AY:



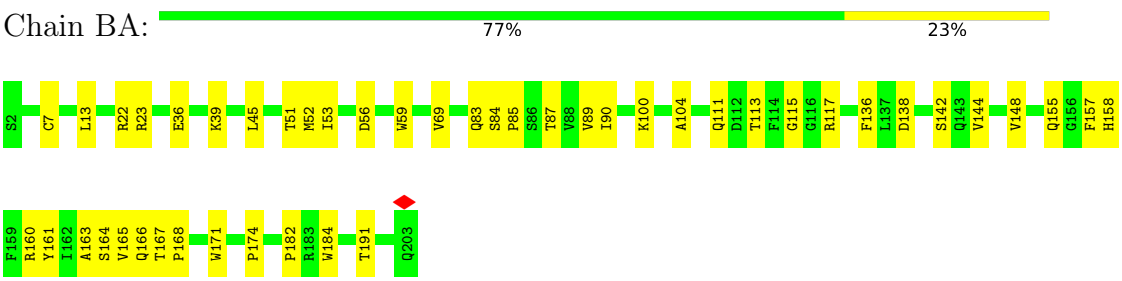
• Molecule 6: DUF7172 domain-containing protein

Chain AZ:



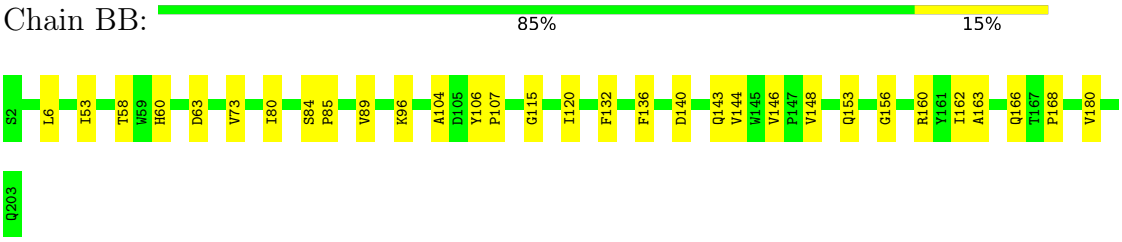
• Molecule 6: DUF7172 domain-containing protein

Chain BA:



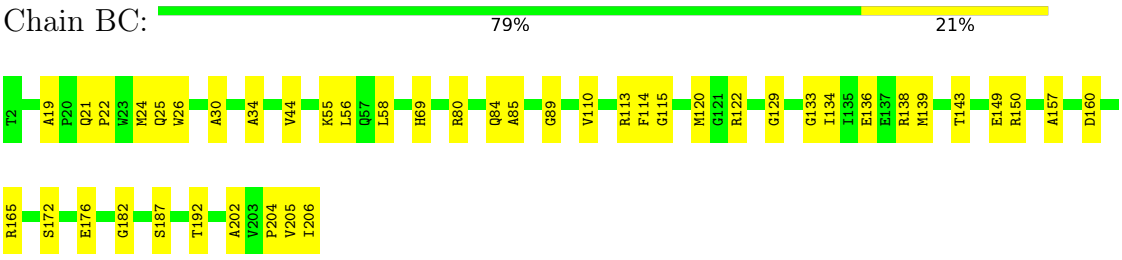
• Molecule 6: DUF7172 domain-containing protein

Chain BB:



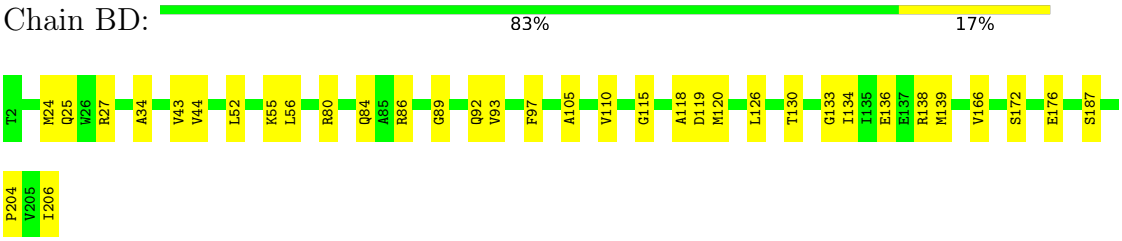
• Molecule 7: DUF7172 domain-containing protein

Chain BC:



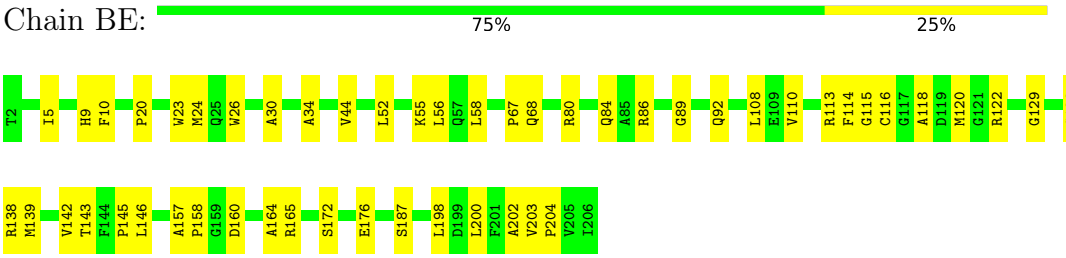
• Molecule 7: DUF7172 domain-containing protein

Chain BD:



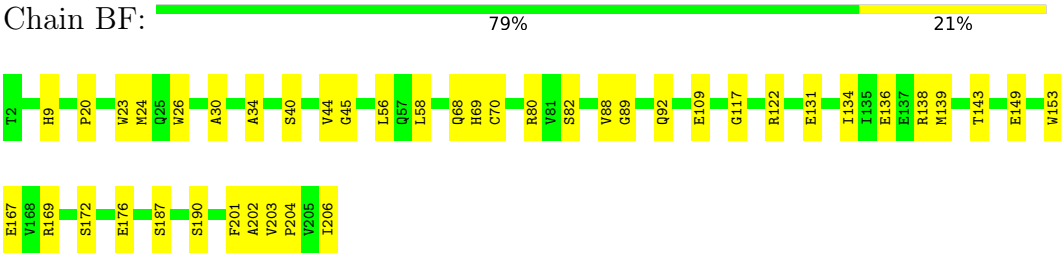
• Molecule 7: DUF7172 domain-containing protein

Chain BE:



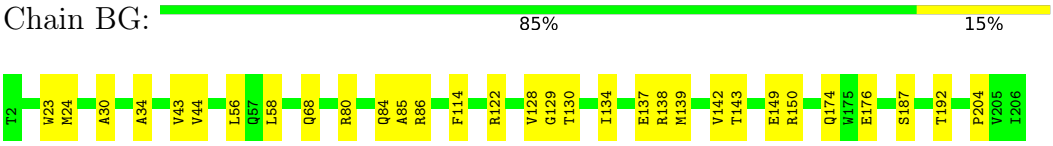
• Molecule 7: DUF7172 domain-containing protein

Chain BF:



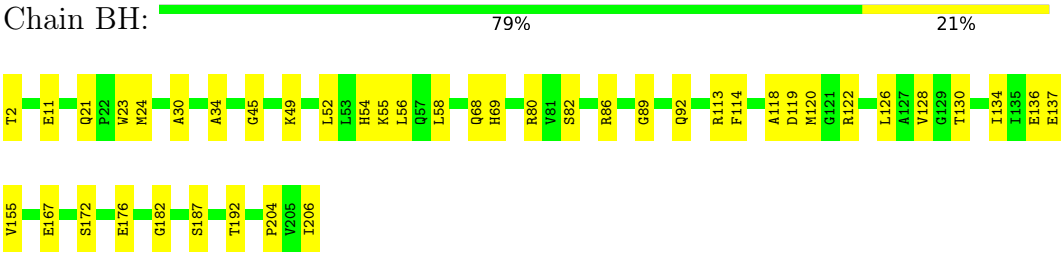
• Molecule 7: DUF7172 domain-containing protein

Chain BG:



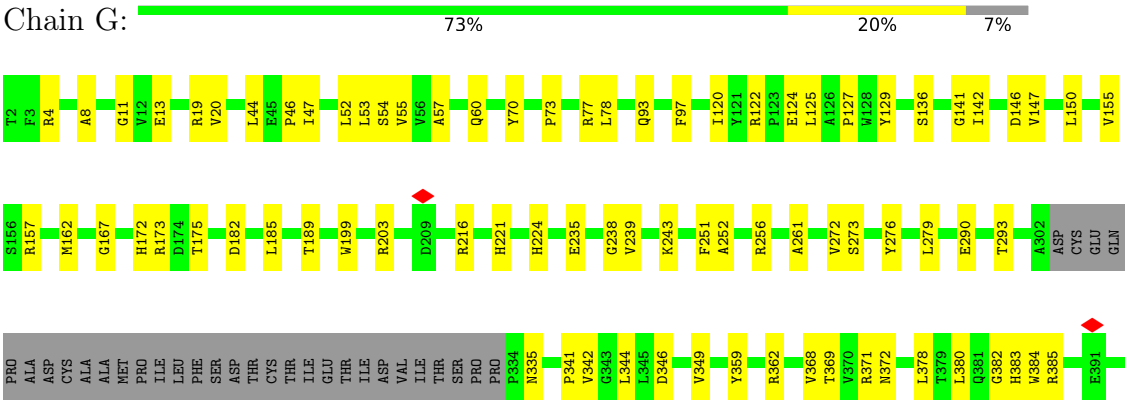
• Molecule 7: DUF7172 domain-containing protein

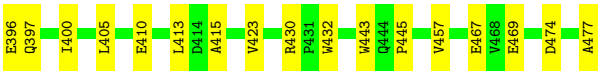
Chain BH:



• Molecule 8: gp28 DTP

Chain G:

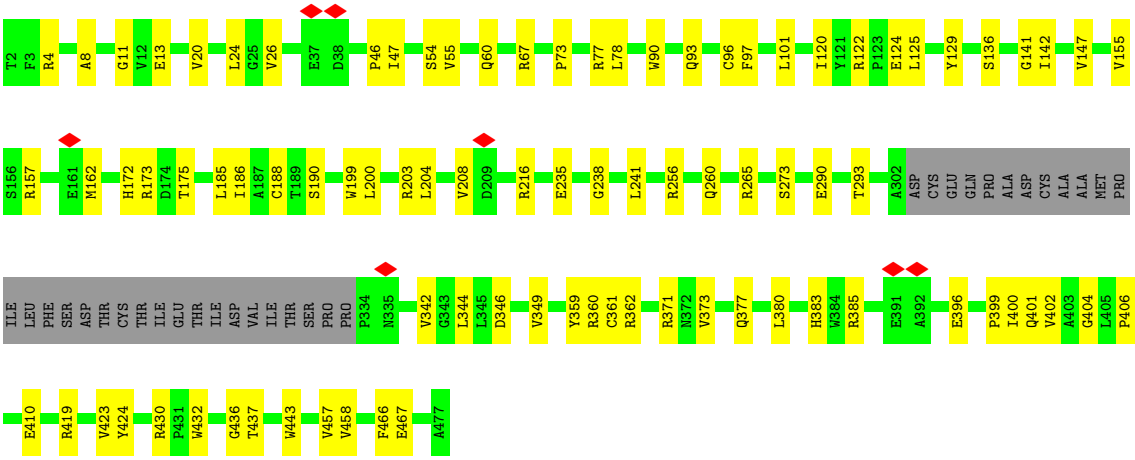




• Molecule 8: gp28 DTP

Chain H:





• Molecule 8: gp28 DTP

Chain I:

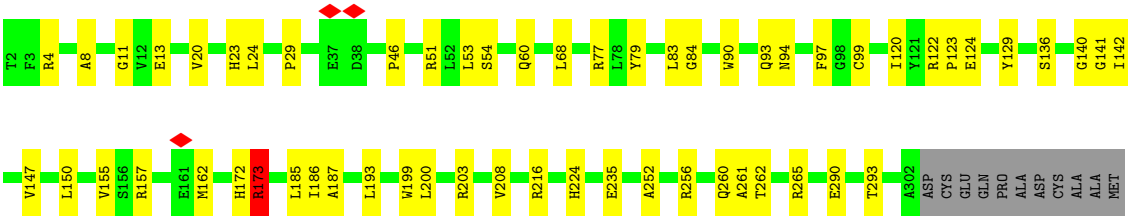


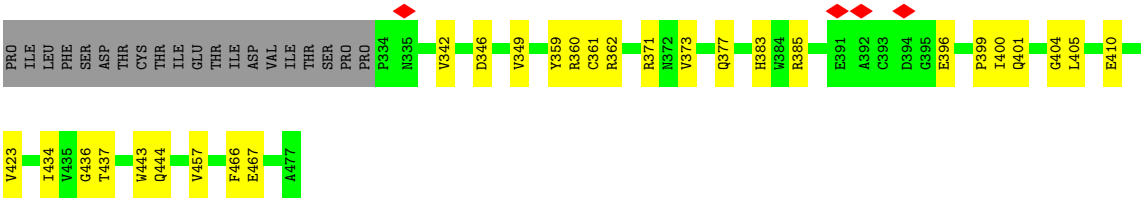


• Molecule 8: gp28 DTP

Chain J:

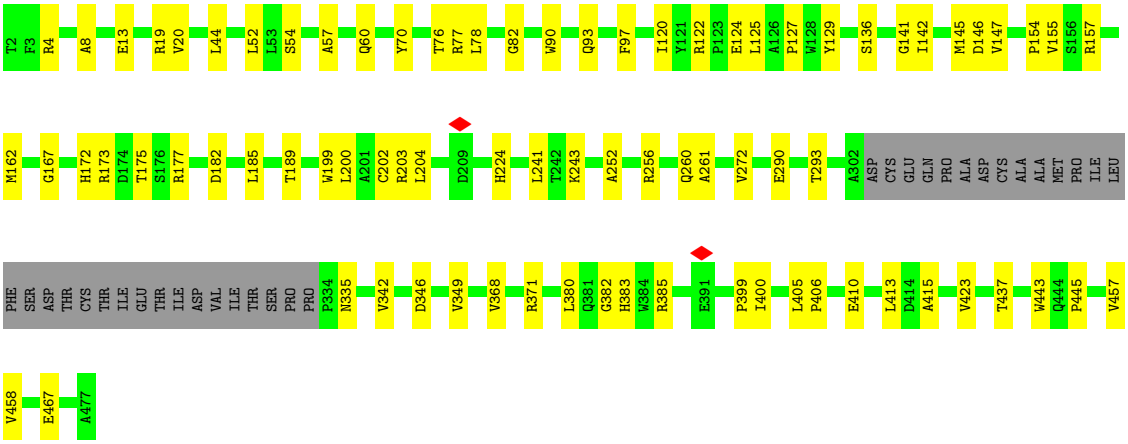






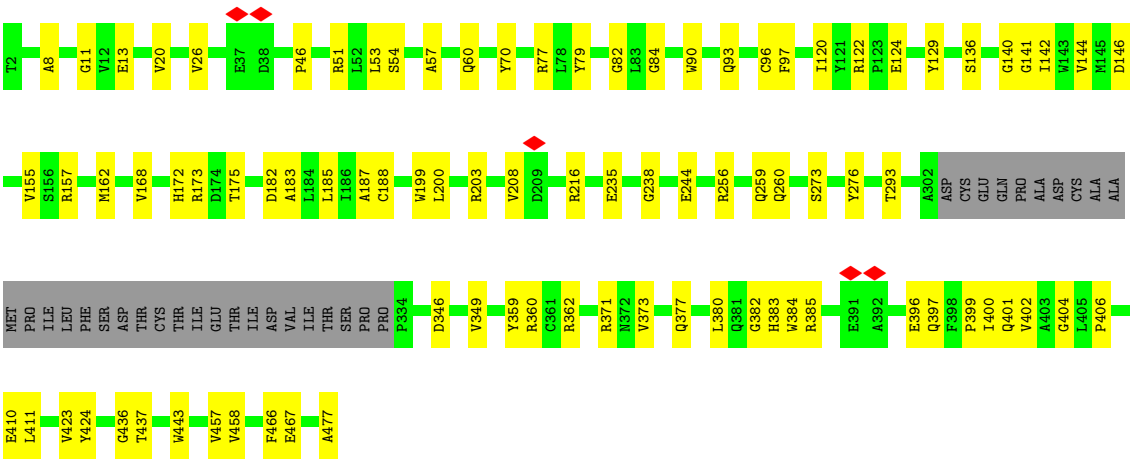
• Molecule 8: gp28 DTP



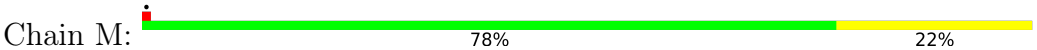


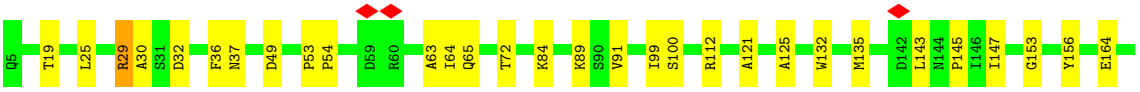
• Molecule 8: gp28 DTP

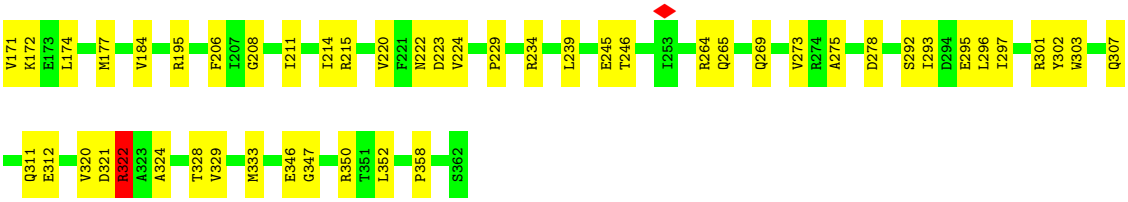




• Molecule 9: Minor tail protein



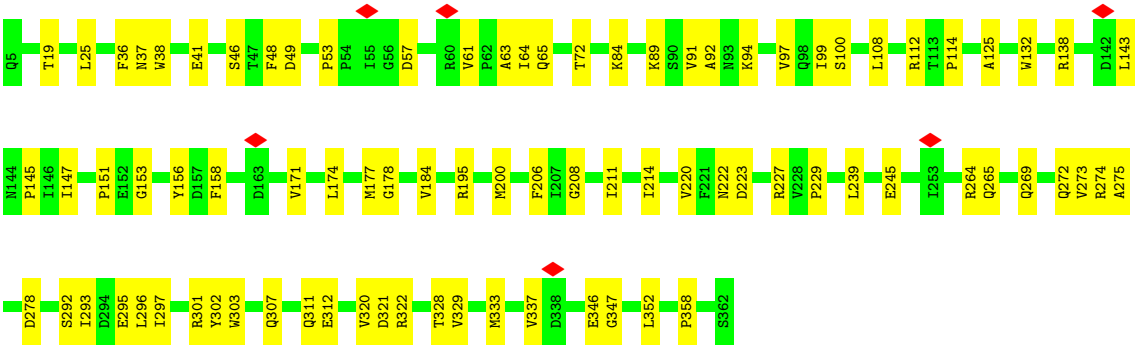




• Molecule 9: Minor tail protein

Chain N:

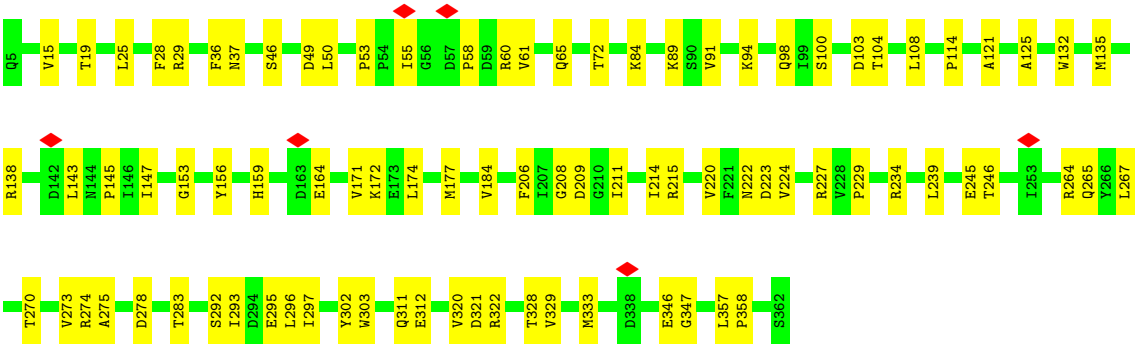




• Molecule 9: Minor tail protein

Chain O:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	14824	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	33.13	Depositor
Minimum defocus (nm)	350	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	2.046	Depositor
Minimum map value	-1.056	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.073	Depositor
Recommended contour level	0.3	Depositor
Map size (Å)	543.232, 543.232, 543.232	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.061, 1.061, 1.061	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	A	0.11	0/2056	0.25	0/2815
1	B	0.10	0/2056	0.24	0/2815
1	C	0.10	0/2056	0.25	0/2815
1	D	0.11	0/2056	0.27	0/2815
1	E	0.12	0/2056	0.29	0/2815
1	F	0.10	0/2056	0.25	0/2815
2	AA	0.11	0/999	0.29	0/1362
2	AB	0.10	0/999	0.24	0/1362
2	AC	0.11	0/999	0.33	0/1362
2	AD	0.10	0/999	0.26	0/1362
2	AE	0.09	0/999	0.26	0/1362
2	AF	0.10	0/999	0.30	0/1362
2	AG	0.11	0/999	0.30	0/1362
2	P	0.11	0/999	0.30	0/1362
2	Q	0.12	0/999	0.35	0/1362
2	R	0.12	0/999	0.29	0/1362
2	S	0.10	0/999	0.29	0/1362
2	T	0.11	0/999	0.28	0/1362
2	U	0.11	0/999	0.29	0/1362
2	V	0.09	0/998	0.28	0/1362
2	W	0.10	0/999	0.27	0/1362
2	X	0.10	0/999	0.26	0/1362
2	Y	0.10	0/999	0.28	0/1362
2	Z	0.10	0/999	0.30	0/1362
3	AH	0.10	0/2858	0.25	0/3885
3	AI	0.10	0/2858	0.26	0/3885
3	AJ	0.11	0/2858	0.28	0/3885
3	AK	0.10	0/2858	0.24	0/3885
3	AL	0.10	0/2858	0.26	0/3885
3	AM	0.10	0/2858	0.26	0/3885
4	AN	0.10	0/488	0.28	0/666
4	AO	0.10	0/488	0.27	0/666
4	AP	0.11	0/488	0.33	0/666
5	AQ	0.13	0/1683	0.29	0/2312

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
5	AR	0.13	0/1683	0.33	0/2312
5	AS	0.13	0/1683	0.31	0/2312
5	AT	0.13	0/1683	0.35	0/2312
5	AU	0.13	0/1683	0.32	0/2312
5	AV	0.12	0/1683	0.29	0/2312
6	AW	0.12	0/1625	0.28	0/2220
6	AX	0.13	0/1625	0.34	1/2220 (0.0%)
6	AY	0.12	0/1625	0.26	0/2220
6	AZ	0.12	0/1625	0.27	0/2220
6	BA	0.12	0/1625	0.30	0/2220
6	BB	0.14	0/1625	0.27	0/2220
7	BC	0.11	0/1578	0.26	0/2150
7	BD	0.11	0/1578	0.26	0/2150
7	BE	0.10	0/1578	0.25	0/2150
7	BF	0.11	0/1578	0.29	0/2150
7	BG	0.11	0/1578	0.26	0/2150
7	BH	0.11	0/1578	0.24	0/2150
8	G	0.11	0/3494	0.27	0/4780
8	H	0.11	0/3494	0.27	0/4780
8	I	0.17	0/3494	0.34	1/4780 (0.0%)
8	J	0.12	0/3494	0.29	0/4780
8	K	0.11	0/3494	0.28	0/4780
8	L	0.11	0/3494	0.27	0/4780
9	M	0.23	0/2829	0.41	0/3867
9	N	0.12	0/2829	0.29	0/3867
9	O	0.12	0/2829	0.30	0/3867
All	All	0.12	0/107696	0.28	2/147087 (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
8	J	0	1
9	M	0	2
All	All	0	3

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AX	120	ILE	N-CA-C	-6.06	107.35	113.47
8	I	163	ALA	N-CA-C	-5.54	107.06	113.88

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
8	J	173	ARG	Sidechain
9	M	29	ARG	Sidechain
9	M	322	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2010	0	1955	27	0
1	B	2010	0	1955	31	0
1	C	2010	0	1955	27	0
1	D	2010	0	1955	33	0
1	E	2010	0	1955	31	0
1	F	2010	0	1955	36	0
2	AA	983	0	963	25	0
2	AB	983	0	963	22	0
2	AC	983	0	964	29	0
2	AD	983	0	963	29	0
2	AE	983	0	964	20	0
2	AF	983	0	964	19	0
2	AG	983	0	964	21	0
2	P	983	0	963	28	0
2	Q	983	0	964	31	0
2	R	983	0	963	27	0
2	S	983	0	964	23	0
2	T	983	0	963	20	0
2	U	983	0	963	27	0
2	V	982	0	964	19	0
2	W	983	0	963	23	0
2	X	983	0	963	26	0
2	Y	983	0	964	28	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	Z	983	0	963	24	0
3	AH	2805	0	2774	33	0
3	AI	2805	0	2774	53	0
3	AJ	2805	0	2773	57	0
3	AK	2805	0	2773	38	0
3	AL	2805	0	2773	47	0
3	AM	2805	0	2773	40	0
4	AN	479	0	479	7	0
4	AO	479	0	479	10	0
4	AP	479	0	479	20	0
5	AQ	1632	0	1556	33	0
5	AR	1632	0	1556	39	0
5	AS	1632	0	1556	27	0
5	AT	1632	0	1556	26	0
5	AU	1632	0	1556	18	0
5	AV	1632	0	1556	28	0
6	AW	1580	0	1532	32	0
6	AX	1580	0	1532	33	0
6	AY	1580	0	1532	33	0
6	AZ	1580	0	1532	35	0
6	BA	1580	0	1532	32	0
6	BB	1580	0	1532	20	0
7	BC	1540	0	1505	31	0
7	BD	1540	0	1505	29	0
7	BE	1540	0	1505	36	0
7	BF	1540	0	1505	32	0
7	BG	1540	0	1505	23	0
7	BH	1540	0	1505	30	0
8	G	3394	0	3254	66	0
8	H	3394	0	3254	61	0
8	I	3394	0	3254	70	0
8	J	3394	0	3254	64	0
8	K	3394	0	3254	59	0
8	L	3394	0	3254	64	0
9	M	2773	0	2727	57	0
9	N	2773	0	2727	60	0
9	O	2773	0	2727	62	0
All	All	105215	0	102412	1641	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 8.

All (1641) 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)
6:AY:24:SER:HB3	6:AY:64:ALA:HB1	1.57	0.86
1:D:64:GLN:HG2	8:I:265:ARG:HD2	1.62	0.80
8:H:4:ARG:HH21	8:I:260:GLN:HG3	1.45	0.80
8:K:154:PRO:HA	8:L:244:GLU:HG2	1.63	0.80
3:AI:269:ALA:HB3	3:AI:274:GLY:HA2	1.65	0.78
3:AJ:99:ASN:H	3:AJ:151:GLY:HA2	1.49	0.78
8:I:4:ARG:HH21	8:J:260:GLN:HG3	1.49	0.77
3:AJ:266:ARG:HH11	3:AJ:317:GLN:HE21	1.33	0.77
8:I:60:GLN:HE22	2:V:5:ASN:HD21	1.33	0.76
8:J:4:ARG:HH21	8:K:260:GLN:HG3	1.50	0.74
9:M:63:ALA:HB1	9:O:215:ARG:HH12	1.52	0.74
6:BA:83:GLN:HG3	6:BA:84:SER:H	1.52	0.74
1:A:16:PRO:HG3	1:A:139:SER:HB3	1.70	0.73
2:P:40:THR:HG22	2:P:43:LYS:HG2	1.70	0.73
2:Z:112:LYS:HB3	2:Z:131:THR:HG22	1.70	0.73
2:R:112:LYS:HB2	2:R:131:THR:HG22	1.70	0.73
3:AJ:26:ILE:HD11	2:R:132:ASP:HB3	1.70	0.73
8:K:4:ARG:HH21	8:L:260:GLN:HG3	1.52	0.73
5:AR:144:GLY:H	7:BD:139:MET:HE1	1.54	0.72
6:AW:27:PRO:HD3	7:BC:25:GLN:HE22	1.54	0.72
6:BA:13:LEU:HD23	6:BA:22:ARG:HG3	1.72	0.72
3:AM:32:LEU:HD21	3:AM:35:SER:HB3	1.71	0.72
3:AH:126:VAL:HG12	3:AH:131:ILE:HD11	1.70	0.71
8:J:162:MET:HA	9:M:208:GLY:H	1.54	0.71
3:AJ:126:VAL:HG12	3:AJ:131:ILE:HD11	1.72	0.71
1:D:16:PRO:HG3	1:D:139:SER:HB3	1.72	0.70
2:AB:18:LEU:HD11	2:AC:22:MET:HE1	1.73	0.70
3:AL:283:ARG:HH22	3:AL:299:LEU:HD11	1.56	0.70
5:AT:89:ASN:HD21	5:AT:126:ILE:HB	1.55	0.70
8:J:173:ARG:HH21	9:M:324:ALA:HB1	1.56	0.70
8:G:224:HIS:HB3	8:H:256:ARG:HH21	1.55	0.70
8:K:54:SER:HB3	2:P:5:ASN:HB2	1.73	0.70
3:AK:126:VAL:HG12	3:AK:131:ILE:HD11	1.74	0.70
3:AH:64:LEU:HD23	3:AH:72:LEU:HD21	1.73	0.70
5:AU:123:ALA:HB3	6:BA:136:PHE:HB2	1.73	0.70
8:G:4:ARG:HH21	8:H:260:GLN:HG3	1.57	0.70
8:H:162:MET:HA	9:O:208:GLY:H	1.55	0.70
2:Z:125:GLU:HG2	2:Z:126:THR:HG23	1.73	0.69
4:AN:39:THR:HG21	9:M:229:PRO:HA	1.74	0.69
8:I:54:SER:HB3	2:V:5:ASN:HB2	1.74	0.69
3:AJ:125:LEU:HB2	3:AJ:150:ILE:HD13	1.75	0.69
3:AJ:8:GLY:HA2	2:Q:127:PRO:HB2	1.75	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:138:LYS:HE3	1:F:142:ASP:H	1.55	0.69
2:AD:6:VAL:HG11	2:AD:22:MET:HE2	1.72	0.69
4:AP:39:THR:HG21	9:O:229:PRO:HA	1.75	0.69
7:BC:34:ALA:HB2	7:BC:56:LEU:HD21	1.75	0.68
3:AL:49:LEU:HG	3:AL:211:GLY:HA2	1.75	0.68
7:BC:84:GLN:HG3	7:BC:85:ALA:H	1.59	0.68
2:S:39:ILE:HD11	2:T:44:LEU:HD13	1.75	0.68
3:AL:126:VAL:HG12	3:AL:131:ILE:HD11	1.76	0.68
6:AY:52:MET:HE1	6:AY:165:VAL:HG23	1.75	0.68
8:H:129:TYR:HA	8:H:136:SER:HB3	1.76	0.68
7:BD:86:ARG:HG3	7:BD:130:THR:HG22	1.75	0.68
6:BA:69:VAL:HG23	6:BA:148:VAL:HB	1.76	0.68
9:M:89:LYS:HB2	9:M:100:SER:HB3	1.76	0.67
7:BE:44:VAL:HG12	7:BE:176:GLU:HG2	1.75	0.67
8:K:93:GLN:HB3	8:K:97:PHE:HA	1.76	0.67
2:AB:112:LYS:HB2	2:AB:131:THR:HG22	1.75	0.67
6:AW:107:PRO:HG2	6:AW:162:ILE:HD12	1.77	0.67
3:AM:126:VAL:HG12	3:AM:131:ILE:HD11	1.75	0.67
7:BE:80:ARG:HG2	7:BE:138:ARG:HG2	1.77	0.67
2:AB:19:ASP:HB2	8:G:52:LEU:HB2	1.77	0.67
5:AT:144:GLY:H	7:BF:139:MET:HE1	1.60	0.67
8:G:46:PRO:HA	8:G:54:SER:HA	1.76	0.67
5:AV:146:ASN:HD21	6:BB:140:ASP:HB3	1.60	0.67
3:AI:284:ASN:HD21	7:BF:45:GLY:HA3	1.61	0.66
8:L:129:TYR:HA	8:L:136:SER:HB3	1.78	0.66
9:N:89:LYS:HB2	9:N:100:SER:HB3	1.77	0.66
3:AL:105:LEU:HD21	3:AL:125:LEU:HD13	1.77	0.66
8:H:155:VAL:HG13	8:H:172:HIS:HE1	1.60	0.66
3:AM:57:ARG:HH12	3:AM:65:CYS:HB2	1.60	0.66
2:AC:127:PRO:HB3	3:AL:6:ARG:HH22	1.61	0.66
7:BG:34:ALA:HB2	7:BG:56:LEU:HD21	1.77	0.66
8:J:129:TYR:HA	8:J:136:SER:HB3	1.77	0.66
2:V:40:THR:HG22	2:V:43:LYS:HG2	1.78	0.66
2:AC:33:ILE:HG13	2:AD:34:PRO:HB3	1.77	0.66
3:AJ:249:GLU:HB2	3:AJ:376:ASP:HB2	1.78	0.66
6:BB:89:VAL:HG12	6:BB:115:GLY:HA3	1.78	0.66
8:J:293:THR:HA	8:J:346:ASP:HA	1.78	0.66
6:AZ:69:VAL:HG23	6:AZ:148:VAL:HB	1.78	0.66
8:H:293:THR:HA	8:H:346:ASP:HA	1.78	0.66
8:I:129:TYR:HA	8:I:136:SER:HB3	1.78	0.65
8:J:216:ARG:HG2	8:J:235:GLU:HG3	1.78	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AU:22:LEU:HD12	7:BG:24:MET:HE3	1.77	0.65
2:R:113:ARG:HG2	2:R:134:TYR:HE1	1.60	0.65
2:T:59:VAL:HA	2:T:63:ILE:HD12	1.79	0.65
2:AD:130:ASN:HA	3:AL:28:ARG:HE	1.61	0.65
7:BE:26:TRP:HB2	7:BE:203:VAL:HG22	1.79	0.65
8:G:129:TYR:HA	8:G:136:SER:HB3	1.78	0.65
8:H:216:ARG:HG2	8:H:235:GLU:HG3	1.79	0.65
8:K:129:TYR:HA	8:K:136:SER:HB3	1.79	0.65
3:AI:17:MET:HA	3:AI:23:ILE:HG12	1.79	0.65
8:G:293:THR:HA	8:G:346:ASP:HA	1.77	0.65
8:J:155:VAL:HG13	8:J:172:HIS:HE1	1.61	0.65
2:AF:50:SER:HB3	2:AF:53:LYS:HG2	1.79	0.65
6:AY:89:VAL:HG12	6:AY:115:GLY:HA3	1.78	0.65
8:H:46:PRO:HA	8:H:54:SER:HA	1.77	0.65
9:N:275:ALA:HB3	9:N:311:GLN:HE22	1.61	0.64
2:Z:39:ILE:HG23	2:Z:43:LYS:HB2	1.79	0.64
3:AM:210:ILE:HD13	3:AM:219:MET:HB3	1.79	0.64
8:G:216:ARG:HG2	8:G:235:GLU:HG3	1.79	0.64
3:AL:105:LEU:HD13	3:AL:108:ALA:HB3	1.77	0.64
5:AV:126:ILE:HD12	6:BB:120:ILE:HD11	1.78	0.64
3:AK:211:GLY:H	3:AK:219:MET:HA	1.62	0.64
2:P:5:ASN:HA	2:R:7:MET:HG3	1.79	0.64
2:AA:40:THR:HG22	2:AA:42:ALA:H	1.62	0.64
8:L:293:THR:HA	8:L:346:ASP:HA	1.79	0.64
9:O:91:VAL:HB	9:O:98:GLN:HB2	1.78	0.64
2:P:113:ARG:HH21	2:Q:111:SER:HB2	1.63	0.64
6:BA:89:VAL:HG12	6:BA:115:GLY:HA3	1.80	0.64
8:L:216:ARG:HG2	8:L:235:GLU:HG3	1.78	0.64
7:BH:52:LEU:HD21	7:BH:55:LYS:HG3	1.78	0.63
8:K:293:THR:HA	8:K:346:ASP:HA	1.79	0.63
2:W:14:PRO:HA	2:W:17:LYS:HE2	1.79	0.63
2:S:5:ASN:HA	2:U:7:MET:HG3	1.78	0.63
4:AO:39:THR:HG21	9:N:229:PRO:HA	1.81	0.63
8:J:46:PRO:HA	8:J:54:SER:HA	1.81	0.63
9:N:307:GLN:HB3	9:O:61:VAL:HG21	1.80	0.63
3:AK:301:ALA:HB1	3:AK:304:LEU:HD21	1.80	0.63
8:I:68:LEU:HB2	2:X:19:ASP:HB2	1.78	0.63
9:M:275:ALA:HB3	9:M:311:GLN:HE22	1.63	0.63
3:AI:98:VAL:HG12	3:AI:152:GLN:HG2	1.79	0.63
2:AF:112:LYS:HB3	2:AF:131:THR:HG22	1.81	0.63
3:AL:249:GLU:HB2	3:AL:376:ASP:HB3	1.81	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AR:89:ASN:HB3	5:AR:90:PRO:HD3	1.80	0.63
5:AR:109:VAL:HG13	5:AR:166:ARG:HH12	1.63	0.63
2:X:35:PRO:HG2	2:X:38:THR:HG21	1.81	0.63
2:AE:113:ARG:HH12	2:AF:113:ARG:HD2	1.64	0.63
6:AZ:152:PRO:HD2	6:AZ:155:GLN:HE21	1.64	0.63
6:BA:36:GLU:HG3	9:O:357:LEU:HD11	1.81	0.63
7:BD:34:ALA:HB2	7:BD:56:LEU:HD21	1.80	0.62
8:H:93:GLN:HB3	8:H:97:PHE:HA	1.81	0.62
3:AJ:193:CYS:HB2	3:AJ:228:LEU:HA	1.81	0.62
8:G:162:MET:HG2	8:G:167:GLY:HA2	1.79	0.62
2:W:9:ASP:HB3	2:X:3:ILE:HD13	1.82	0.62
5:AR:146:ASN:HD21	6:AX:140:ASP:HB3	1.62	0.62
6:AW:89:VAL:HG12	6:AW:115:GLY:HA3	1.81	0.62
2:AC:85:ALA:HB3	2:AC:88:SER:HB3	1.80	0.62
3:AL:281:ASP:HB2	3:AL:290:VAL:HG13	1.81	0.62
5:AQ:146:ASN:HD21	6:AW:140:ASP:HB3	1.64	0.62
2:W:47:GLN:HG3	2:X:55:LYS:HA	1.81	0.62
8:K:162:MET:HG2	8:K:167:GLY:HA2	1.81	0.62
8:I:216:ARG:HG2	8:I:235:GLU:HG3	1.80	0.62
2:W:18:LEU:HD12	2:W:22:MET:HG3	1.82	0.62
6:AZ:74:HIS:HA	6:AZ:143:GLN:HG2	1.81	0.62
7:BG:85:ALA:HB1	7:BG:130:THR:HG21	1.82	0.62
7:BH:34:ALA:HB2	7:BH:56:LEU:HD21	1.81	0.62
5:AS:79:THR:HB	5:AS:194:ARG:HB3	1.80	0.62
6:AZ:12:MET:HE2	7:BF:20:PRO:HD3	1.82	0.62
2:AA:136:SER:HB3	3:AM:23:ILE:HD13	1.80	0.62
3:AJ:182:ASN:HB3	3:AJ:188:ILE:HD11	1.80	0.62
6:AX:85:PRO:HB3	6:AX:170:THR:HG23	1.82	0.61
2:AC:22:MET:HE2	2:AC:22:MET:HA	1.81	0.61
2:AC:75:GLU:HB3	2:AC:78:SER:HB3	1.83	0.61
7:BH:122:ARG:HB3	7:BH:128:VAL:HG23	1.81	0.61
8:I:23:HIS:HD2	8:I:123:PRO:HG3	1.65	0.61
8:I:293:THR:HA	8:I:346:ASP:HA	1.82	0.61
8:I:383:HIS:HB3	8:I:457:VAL:HB	1.82	0.61
6:AW:120:ILE:HD12	6:AW:131:LYS:HD2	1.82	0.61
9:O:220:VAL:HG21	9:O:273:VAL:HG12	1.82	0.61
5:AT:98:ARG:HH11	5:AT:110:PRO:HA	1.66	0.61
3:AJ:39:ILE:HB	3:AJ:377:ALA:HB3	1.81	0.61
5:AR:79:THR:HB	5:AR:194:ARG:HB3	1.82	0.61
8:J:60:GLN:HE22	2:S:5:ASN:HD21	1.46	0.61
8:L:155:VAL:HG13	8:L:172:HIS:HE1	1.66	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:28:ARG:HE	2:U:130:ASN:HA	1.64	0.61
9:M:220:VAL:HG21	9:M:273:VAL:HG12	1.82	0.61
3:AM:123:ILE:HG22	3:AM:152:GLN:HB2	1.83	0.61
6:AZ:63:ASP:HA	6:AZ:153:GLN:HE22	1.63	0.61
1:E:166:LEU:HB3	1:E:227:THR:HB	1.83	0.61
4:AN:24:LEU:HD11	4:AP:24:LEU:HD22	1.82	0.60
1:C:16:PRO:HD3	1:C:139:SER:HB3	1.83	0.60
6:AZ:96:LYS:HD2	6:AZ:148:VAL:HA	1.82	0.60
8:G:44:LEU:HD11	8:G:57:ALA:HB2	1.83	0.60
8:J:79:TYR:H	8:J:84:GLY:HA2	1.66	0.60
8:K:383:HIS:HB3	8:K:457:VAL:HB	1.83	0.60
8:L:46:PRO:HA	8:L:54:SER:HA	1.83	0.60
4:AO:50:ARG:HH11	4:AO:52:MET:HE2	1.67	0.60
7:BC:80:ARG:HB3	7:BC:192:THR:HB	1.84	0.60
8:G:382:GLY:HA3	8:G:400:ILE:HG12	1.84	0.60
2:S:112:LYS:HB2	2:S:131:THR:HG22	1.84	0.60
2:U:120:GLN:HA	2:U:123:LEU:HD23	1.82	0.60
8:G:146:ASP:HB3	8:G:182:ASP:HB3	1.82	0.60
3:AM:301:ALA:HB1	3:AM:304:LEU:HD21	1.83	0.60
8:K:189:THR:HG22	8:K:256:ARG:HH22	1.67	0.60
8:L:162:MET:HA	9:N:208:GLY:H	1.67	0.60
3:AI:38:VAL:HG23	3:AI:39:ILE:HG13	1.84	0.60
3:AI:301:ALA:HB1	3:AI:304:LEU:HD21	1.84	0.60
2:AE:44:LEU:HA	2:AG:39:ILE:HB	1.84	0.60
8:K:162:MET:HE1	9:N:53:PRO:HD3	1.84	0.60
6:BA:90:ILE:HG12	6:BA:165:VAL:HG22	1.83	0.60
8:J:83:LEU:HD13	2:T:4:ALA:HB1	1.83	0.60
9:O:89:LYS:HB2	9:O:100:SER:HB3	1.84	0.60
2:R:35:PRO:HG2	2:R:38:THR:HG21	1.83	0.60
2:S:18:LEU:HD23	2:T:25:GLU:HG2	1.84	0.60
7:BG:44:VAL:HG12	7:BG:176:GLU:HG2	1.83	0.59
8:J:383:HIS:HB3	8:J:457:VAL:HB	1.83	0.59
2:P:120:GLN:HA	2:P:123:LEU:HD12	1.83	0.59
3:AJ:32:LEU:HD21	3:AJ:35:SER:HB3	1.84	0.59
5:AR:123:ALA:HB3	6:AX:136:PHE:HB2	1.83	0.59
6:AW:53:ILE:HB	6:AW:163:ALA:HB3	1.84	0.59
2:AE:49:VAL:HG13	2:AF:54:LEU:HD23	1.84	0.59
7:BE:23:TRP:HB2	7:BE:68:GLN:HE22	1.67	0.59
8:L:146:ASP:HB3	8:L:182:ASP:HB3	1.84	0.59
1:F:105:GLU:HB2	1:F:118:ARG:HB3	1.85	0.59
8:G:252:ALA:HB2	8:G:261:ALA:HA	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:252:ALA:HB2	8:I:261:ALA:HA	1.84	0.59
9:O:275:ALA:HB3	9:O:311:GLN:HE22	1.65	0.59
2:V:55:LYS:HA	2:X:47:GLN:HG2	1.84	0.59
2:AF:59:VAL:HG23	2:AF:63:ILE:HB	1.84	0.59
3:AH:182:ASN:HB3	3:AH:188:ILE:HD13	1.84	0.59
3:AJ:161:ARG:HH12	3:AJ:168:ASP:HA	1.67	0.59
3:AL:103:THR:HG21	3:AL:184:ALA:HA	1.84	0.59
3:AL:210:ILE:HG12	3:AL:219:MET:HB3	1.85	0.59
7:BH:86:ARG:HG3	7:BH:130:THR:HG22	1.84	0.59
2:AE:113:ARG:NH1	2:AF:113:ARG:HD2	2.18	0.59
9:O:53:PRO:HG2	9:O:55:ILE:HB	1.84	0.59
3:AI:362:LEU:HD22	3:AJ:122:LEU:HD22	1.84	0.59
7:BE:146:LEU:HD12	7:BE:198:LEU:HD11	1.85	0.59
1:E:64:GLN:HG3	8:H:265:ARG:HD2	1.84	0.59
9:M:184:VAL:HG21	9:M:297:ILE:HG23	1.85	0.59
2:P:69:ILE:HG22	2:R:64:ILE:HG13	1.85	0.59
3:AH:301:ALA:HB1	3:AH:304:LEU:HD21	1.85	0.59
3:AJ:223:ASP:HA	3:AJ:366:ARG:HD3	1.85	0.59
3:AJ:264:LEU:HD13	3:AJ:354:MET:HG2	1.84	0.59
6:AY:12:MET:HE2	7:BE:20:PRO:HD3	1.83	0.59
3:AJ:261:VAL:HG22	3:AJ:283:ARG:HD3	1.85	0.59
5:AQ:98:ARG:HH11	5:AQ:110:PRO:HA	1.67	0.58
1:E:22:ARG:HG3	1:E:235:PRO:HB2	1.84	0.58
4:AO:35:VAL:HG23	4:AP:32:THR:HA	1.86	0.58
7:BC:84:GLN:HE22	7:BC:187:SER:HB3	1.66	0.58
5:AV:123:ALA:HB3	6:BB:136:PHE:HB2	1.85	0.58
5:AQ:123:ALA:HB3	6:AW:136:PHE:HB2	1.84	0.58
5:AS:28:PRO:HB3	5:AS:200:MET:HE1	1.85	0.58
5:AT:22:LEU:HD12	7:BF:24:MET:HE2	1.84	0.58
7:BC:149:GLU:HG2	7:BC:150:ARG:HG2	1.85	0.58
1:F:166:LEU:HB3	1:F:227:THR:HB	1.85	0.58
3:AJ:301:ALA:HB1	3:AJ:304:LEU:HD21	1.85	0.58
8:K:8:ALA:HA	8:K:13:GLU:HA	1.85	0.58
3:AL:167:PRO:HD3	3:AM:130:PRO:HG2	1.84	0.58
3:AM:283:ARG:HG2	3:AM:284:ASN:H	1.69	0.58
6:BA:100:LYS:HD2	6:BA:155:GLN:HG2	1.86	0.58
8:H:383:HIS:HB3	8:H:457:VAL:HB	1.85	0.58
8:I:224:HIS:HB3	8:J:256:ARG:HH21	1.68	0.58
8:L:256:ARG:HD2	8:L:259:GLN:NE2	2.19	0.58
8:L:383:HIS:HB3	8:L:457:VAL:HB	1.84	0.58
3:AL:39:ILE:HB	3:AL:377:ALA:HB3	1.86	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AV:99:TRP:HB3	5:AV:165:TYR:HD1	1.69	0.58
2:AB:40:THR:HG22	2:AB:43:LYS:HG2	1.85	0.58
7:BF:23:TRP:HB2	7:BF:68:GLN:HE22	1.69	0.58
7:BF:134:ILE:HD11	7:BF:187:SER:HA	1.86	0.58
8:H:399:PRO:HG2	8:H:437:THR:HG23	1.86	0.58
2:P:112:LYS:HB2	2:P:131:THR:HG22	1.86	0.58
5:AR:28:PRO:HB3	5:AR:200:MET:HE1	1.86	0.57
6:BA:53:ILE:HB	6:BA:163:ALA:HB3	1.86	0.57
9:M:307:GLN:HE21	9:N:61:VAL:HG11	1.69	0.57
6:AZ:134:ARG:HH12	6:AZ:183:ARG:HB3	1.68	0.57
3:AK:178:ASN:HD21	3:AK:226:MET:H	1.52	0.57
6:AW:83:GLN:HG3	6:AW:84:SER:H	1.70	0.57
1:B:166:LEU:HB3	1:B:227:THR:HB	1.85	0.57
6:BB:166:GLN:HG3	6:BB:168:PRO:HD3	1.86	0.57
7:BE:34:ALA:HB2	7:BE:56:LEU:HD21	1.85	0.57
1:D:166:LEU:HB3	1:D:227:THR:HB	1.85	0.57
8:G:8:ALA:HA	8:G:13:GLU:HA	1.85	0.57
8:G:157:ARG:HG2	8:G:172:HIS:HA	1.86	0.57
8:G:189:THR:HG22	8:G:256:ARG:HH22	1.69	0.57
2:AC:18:LEU:HD23	2:AC:22:MET:HG3	1.87	0.57
6:AY:12:MET:HG2	6:AY:21:VAL:HA	1.86	0.57
5:AV:12:LEU:HB3	5:AV:20:LEU:HD11	1.86	0.57
6:AX:89:VAL:HG12	6:AX:115:GLY:HA3	1.85	0.57
8:G:93:GLN:HB3	8:G:97:PHE:HA	1.86	0.57
9:N:320:VAL:HG22	9:N:329:VAL:HG22	1.86	0.57
2:W:112:LYS:HB3	2:W:131:THR:HA	1.85	0.57
1:A:18:VAL:HG23	1:F:183:VAL:HG22	1.86	0.57
2:AA:112:LYS:HB3	2:AA:131:THR:HG22	1.85	0.57
8:I:146:ASP:HB3	8:I:182:ASP:HB3	1.85	0.57
3:AJ:361:GLU:HG3	3:AJ:364:GLY:HA3	1.86	0.57
3:AL:301:ALA:HB1	3:AL:304:LEU:HD21	1.87	0.57
8:G:383:HIS:HB3	8:G:457:VAL:HB	1.86	0.57
7:BE:89:GLY:HA2	7:BE:172:SER:HA	1.87	0.57
8:G:400:ILE:HG22	8:G:443:TRP:CD1	2.40	0.57
8:L:93:GLN:HB3	8:L:97:PHE:HA	1.87	0.57
6:BB:84:SER:HB3	6:BB:85:PRO:HD3	1.86	0.57
8:K:157:ARG:HG2	8:K:172:HIS:HA	1.86	0.57
2:S:18:LEU:HD12	2:S:22:MET:HG3	1.87	0.57
1:F:16:PRO:HG3	1:F:139:SER:HB3	1.87	0.56
2:T:84:LEU:HB2	2:U:93:GLN:HG2	1.86	0.56
2:AD:35:PRO:HG2	2:AD:38:THR:HG21	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AS:89:ASN:HB3	5:AS:90:PRO:HD3	1.87	0.56
5:AT:11:HIS:CE1	6:AZ:26:LEU:HD11	2.40	0.56
7:BG:149:GLU:HG2	7:BG:150:ARG:HG2	1.86	0.56
1:A:166:LEU:HB3	1:A:227:THR:HB	1.87	0.56
2:AD:8:MET:HE3	8:G:53:LEU:HD21	1.87	0.56
3:AJ:7:ARG:HD2	2:P:115:TYR:CD2	2.40	0.56
3:AM:57:ARG:HH21	3:AM:75:GLY:HA2	1.68	0.56
5:AQ:37:ARG:HG2	5:AQ:192:TYR:HB3	1.86	0.56
6:BB:104:ALA:HB3	6:BB:160:ARG:HG3	1.88	0.56
7:BH:80:ARG:HB3	7:BH:192:THR:HB	1.87	0.56
7:BH:82:SER:HB2	7:BH:136:GLU:HG3	1.87	0.56
8:L:377:GLN:HB2	8:L:404:GLY:HA2	1.86	0.56
3:AK:249:GLU:HB3	3:AK:376:ASP:HB3	1.88	0.56
8:J:399:PRO:HG2	8:J:437:THR:HG23	1.88	0.56
6:AX:13:LEU:HD23	6:AX:22:ARG:HG3	1.86	0.56
6:AZ:59:TRP:HH2	6:AZ:61:ASN:HD22	1.53	0.56
7:BF:34:ALA:HB2	7:BF:56:LEU:HD21	1.85	0.56
8:J:23:HIS:HD2	8:J:123:PRO:HG3	1.70	0.56
8:K:382:GLY:HA3	8:K:400:ILE:HG12	1.86	0.56
8:K:400:ILE:HG22	8:K:443:TRP:CD1	2.41	0.56
2:AE:102:TYR:HB2	2:AG:114:VAL:HG22	1.86	0.56
1:C:166:LEU:HB3	1:C:227:THR:HB	1.86	0.56
7:BC:114:PHE:CE1	7:BC:139:MET:HG3	2.39	0.56
3:AK:123:ILE:HG22	3:AK:152:GLN:HB2	1.87	0.56
8:L:173:ARG:HH12	8:L:175:THR:HG22	1.71	0.56
8:I:77:ARG:HG2	8:I:124:GLU:HB3	1.88	0.56
9:M:215:ARG:HH12	9:N:63:ALA:HB1	1.70	0.56
9:N:206:PHE:HB2	9:N:211:ILE:HD11	1.88	0.56
3:AK:161:ARG:HH12	3:AK:168:ASP:HA	1.71	0.55
1:B:34:PRO:HB2	1:B:249:THR:HG21	1.88	0.55
8:H:290:GLU:HB3	8:H:349:VAL:HB	1.87	0.55
8:I:157:ARG:HG2	8:I:172:HIS:HA	1.88	0.55
2:AC:10:THR:HG1	2:AD:2:THR:N	2.05	0.55
2:AE:29:LEU:HD21	2:AG:26:ILE:HD11	1.88	0.55
3:AH:248:ILE:HG23	3:AH:266:ARG:HD2	1.86	0.55
5:AR:144:GLY:N	7:BD:139:MET:HE1	2.20	0.55
5:AV:89:ASN:HD21	5:AV:126:ILE:HB	1.70	0.55
8:I:94:ASN:HD21	8:I:99:CYS:HA	1.70	0.55
2:AC:7:MET:HE2	2:AD:3:ILE:HG22	1.87	0.55
3:AM:105:LEU:HD11	3:AM:125:LEU:HD22	1.88	0.55
7:BF:82:SER:HB2	7:BF:136:GLU:HG3	1.88	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:O:72:THR:HG22	9:O:84:LYS:HG3	1.87	0.55
3:AJ:3:PRO:HA	2:Q:136:SER:HA	1.89	0.55
8:J:93:GLN:HB3	8:J:97:PHE:HA	1.89	0.55
9:M:72:THR:HG22	9:M:84:LYS:HG3	1.88	0.55
9:N:220:VAL:HG21	9:N:273:VAL:HG12	1.87	0.55
5:AV:98:ARG:HH11	5:AV:110:PRO:HA	1.72	0.55
1:A:22:ARG:HG3	1:A:235:PRO:HB2	1.89	0.55
1:E:118:ARG:CZ	1:F:224:GLU:HB3	2.37	0.55
5:AQ:79:THR:HB	5:AQ:194:ARG:HB3	1.87	0.55
5:AT:99:TRP:HB3	5:AT:165:TYR:HD1	1.72	0.55
6:AX:53:ILE:HB	6:AX:163:ALA:HB3	1.89	0.55
8:J:405:LEU:HD23	8:J:434:ILE:HD13	1.88	0.55
3:AH:140:LEU:HD23	3:AH:158:GLU:HB2	1.87	0.55
1:C:22:ARG:HG3	1:C:235:PRO:HB2	1.89	0.55
2:AC:33:ILE:H	2:AC:33:ILE:HD12	1.71	0.55
5:AU:50:SER:HB3	5:AU:53:ASN:HB3	1.89	0.55
7:BH:24:MET:HE1	7:BH:206:ILE:HD11	1.89	0.55
2:W:125:GLU:HG2	2:W:126:THR:HG23	1.87	0.55
2:AA:129:PRO:HD3	5:AQ:56:LEU:HD22	1.88	0.55
3:AJ:64:LEU:HD12	3:AJ:72:LEU:HB3	1.89	0.55
1:B:22:ARG:HG3	1:B:235:PRO:HB2	1.89	0.55
7:BG:114:PHE:CE1	7:BG:139:MET:HG3	2.41	0.55
8:L:410:GLU:HB2	8:L:423:VAL:H	1.71	0.55
2:T:113:ARG:NH1	2:U:113:ARG:HH21	2.05	0.55
3:AK:280:LEU:HD11	3:AK:315:LEU:HB2	1.89	0.54
8:K:224:HIS:CG	8:L:256:ARG:HD3	2.42	0.54
3:AH:161:ARG:HE	3:AH:168:ASP:HA	1.72	0.54
5:AV:89:ASN:HB3	5:AV:90:PRO:HD3	1.89	0.54
1:D:173:THR:HB	1:E:56:MET:HE1	1.89	0.54
8:H:8:ALA:HA	8:H:13:GLU:HA	1.90	0.54
8:L:400:ILE:HG22	8:L:443:TRP:HD1	1.73	0.54
3:AI:33:ARG:HH22	2:T:115:TYR:HB3	1.71	0.54
3:AM:26:ILE:HG23	3:AM:33:ARG:HB2	1.89	0.54
3:AM:366:ARG:HH12	5:AQ:181:LYS:HG3	1.72	0.54
5:AV:79:THR:HB	5:AV:194:ARG:HB3	1.89	0.54
6:BB:60:HIS:HA	6:BB:156:GLY:HA3	1.89	0.54
7:BE:68:GLN:HG2	7:BE:204:PRO:HA	1.89	0.54
9:N:72:THR:HG22	9:N:84:LYS:HG3	1.90	0.54
7:BE:122:ARG:HD2	7:BE:129:GLY:HA3	1.88	0.54
7:BF:68:GLN:HG2	7:BF:204:PRO:HA	1.89	0.54
7:BD:134:ILE:HD11	7:BD:187:SER:HA	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:114:VAL:HG12	2:Z:116:LEU:HD22	1.89	0.54
2:AE:85:ALA:HA	2:AG:77:LYS:HA	1.89	0.54
6:BB:96:LYS:HD2	6:BB:148:VAL:HA	1.90	0.54
2:P:49:VAL:HG13	2:Q:54:LEU:HD13	1.89	0.54
5:AS:146:ASN:HD21	6:AY:140:ASP:HB3	1.73	0.54
8:G:335:ASN:HD21	9:N:303:TRP:CD1	2.24	0.54
7:BD:44:VAL:HG12	7:BD:176:GLU:HG2	1.90	0.54
7:BH:92:GLN:HE22	7:BH:113:ARG:HE	1.55	0.54
8:I:382:GLY:HA3	8:I:400:ILE:HG12	1.88	0.54
9:M:206:PHE:HB2	9:M:211:ILE:HD11	1.89	0.54
2:S:99:CYS:HB3	2:U:113:ARG:HH12	1.73	0.54
6:AX:45:LEU:HD13	6:AX:171:TRP:CG	2.43	0.54
3:AH:109:TYR:HA	3:AM:176:PRO:HG2	1.90	0.53
3:AJ:267:ARG:HH22	3:AJ:319:GLY:H	1.56	0.53
1:B:60:GLN:HG2	1:B:62:LEU:HG	1.90	0.53
8:H:400:ILE:HG22	8:H:443:TRP:HD1	1.73	0.53
3:AI:260:TYR:HA	3:AI:357:GLN:HE21	1.73	0.53
5:AS:120:ALA:HB2	6:AY:140:ASP:HB2	1.89	0.53
1:D:22:ARG:HG3	1:D:235:PRO:HB2	1.90	0.53
8:G:120:ILE:HG22	8:G:122:ARG:HG3	1.90	0.53
2:AC:18:LEU:HD13	2:AD:25:GLU:HG2	1.89	0.53
2:AD:114:VAL:HG12	2:AD:116:LEU:HD22	1.89	0.53
5:AV:139:PHE:HB3	5:AV:141:HIS:HE1	1.74	0.53
7:BF:80:ARG:HG2	7:BF:138:ARG:HG2	1.90	0.53
8:J:410:GLU:HB2	8:J:423:VAL:H	1.72	0.53
6:AX:60:HIS:HA	6:AX:156:GLY:HA3	1.89	0.53
1:E:50:LEU:HD21	1:E:167:PHE:HZ	1.73	0.53
8:I:20:VAL:HG22	8:I:141:GLY:HA3	1.91	0.53
9:O:320:VAL:HG22	9:O:329:VAL:HG22	1.90	0.53
2:Q:112:LYS:HB2	2:Q:131:THR:HG22	1.90	0.53
3:AK:264:LEU:HD13	3:AK:354:MET:HG2	1.90	0.53
5:AV:92:ALA:HB3	5:AV:172:PRO:HD2	1.91	0.53
5:AV:144:GLY:HA3	7:BH:139:MET:HE1	1.89	0.53
1:B:65:ASP:HA	1:B:71:GLU:HA	1.89	0.53
7:BC:44:VAL:HG12	7:BC:176:GLU:HG2	1.90	0.53
9:M:234:ARG:HH11	9:N:112:ARG:HH22	1.57	0.53
9:O:293:ILE:HA	9:O:296:LEU:HD12	1.91	0.53
2:T:59:VAL:HG12	2:U:63:ILE:HG22	1.89	0.53
9:O:36:PHE:HB3	9:O:322:ARG:HB3	1.89	0.53
3:AJ:25:GLU:HB2	2:R:135:ILE:HD12	1.91	0.53
8:I:421:TRP:CD1	8:I:428:LYS:HZ2	2.27	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AS:125:ASP:HB3	6:AY:134:ARG:HB2	1.91	0.53
5:AT:91:ASN:HD22	5:AT:186:HIS:CE1	2.26	0.53
1:B:118:ARG:CZ	1:C:224:GLU:HB3	2.39	0.53
2:AB:47:GLN:HG2	2:AC:56:PRO:HD3	1.91	0.53
5:AR:50:SER:HB3	5:AR:53:ASN:HB2	1.91	0.53
6:BA:51:THR:HA	6:BA:164:SER:HA	1.91	0.53
2:P:44:LEU:HA	2:R:39:ILE:HB	1.91	0.53
2:U:51:ARG:HA	2:U:54:LEU:HD12	1.89	0.53
2:V:114:VAL:HG12	2:V:116:LEU:HD22	1.89	0.53
3:AM:161:ARG:HE	3:AM:168:ASP:HA	1.73	0.53
4:AN:32:THR:HA	4:AP:35:VAL:HG23	1.91	0.53
4:AP:10:PRO:HG3	4:AP:19:GLU:HG2	1.91	0.53
6:BA:142:SER:HB2	7:BG:142:VAL:HG23	1.91	0.53
7:BD:56:LEU:HB2	7:BD:166:VAL:HB	1.91	0.53
1:C:34:PRO:HB2	1:C:249:THR:HG21	1.90	0.53
8:L:399:PRO:HG2	8:L:437:THR:HG23	1.91	0.53
9:O:184:VAL:HG21	9:O:297:ILE:HG23	1.90	0.53
5:AR:86:ILE:HD12	5:AR:187:GLU:OE2	2.09	0.52
1:E:34:PRO:HB2	1:E:249:THR:HG21	1.90	0.52
2:AB:113:ARG:HG3	2:AB:134:TYR:CE1	2.45	0.52
3:AH:103:THR:HG21	3:AH:184:ALA:HA	1.90	0.52
3:AL:281:ASP:HB3	3:AL:288:SER:HB2	1.90	0.52
6:BB:132:PHE:HD1	6:BB:180:VAL:HG23	1.75	0.52
7:BC:122:ARG:HB2	7:BC:129:GLY:C	2.34	0.52
8:K:410:GLU:HB2	8:K:423:VAL:H	1.74	0.52
2:AF:81:ALA:H	2:AG:88:SER:HB2	1.74	0.52
7:BG:68:GLN:HG2	7:BG:204:PRO:HA	1.91	0.52
1:F:56:MET:HA	1:F:81:ARG:HA	1.90	0.52
8:I:335:ASN:HD21	9:O:303:TRP:CD1	2.28	0.52
1:A:224:GLU:HB3	1:F:118:ARG:NH1	2.25	0.52
2:AE:113:ARG:HH11	2:AG:113:ARG:NH1	2.06	0.52
6:AW:27:PRO:HD3	7:BC:25:GLN:NE2	2.23	0.52
7:BD:92:GLN:HE22	7:BD:110:VAL:HG13	1.73	0.52
7:BG:24:MET:HA	7:BG:204:PRO:HG3	1.91	0.52
1:E:81:ARG:HH12	1:E:225:HIS:CD2	2.28	0.52
8:H:155:VAL:HG13	8:H:172:HIS:CE1	2.44	0.52
8:L:57:ALA:HB3	8:L:60:GLN:HG3	1.92	0.52
5:AQ:84:ARG:HG3	5:AQ:142:TRP:CE2	2.45	0.52
8:I:120:ILE:HG22	8:I:122:ARG:HG3	1.90	0.52
1:A:41:ARG:HB2	1:A:247:LEU:HB2	1.91	0.52
3:AK:228:LEU:HB3	3:AK:360:LYS:HB3	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:41:ARG:HB2	1:C:247:LEU:HB2	1.91	0.52
8:G:383:HIS:HE1	8:G:385:ARG:HH21	1.57	0.52
9:M:222:ASN:HD22	9:M:239:LEU:HB3	1.73	0.52
2:Q:49:VAL:HB	2:R:54:LEU:HA	1.92	0.52
2:U:22:MET:HE2	2:U:22:MET:HA	1.92	0.52
3:AJ:7:ARG:HD2	2:P:115:TYR:CE2	2.45	0.52
4:AP:52:MET:HE1	4:AP:57:THR:HG23	1.91	0.52
5:AQ:29:ARG:HH12	5:AQ:72:HIS:CE1	2.28	0.52
5:AU:29:ARG:HH22	5:AU:72:HIS:CE1	2.28	0.52
7:BH:89:GLY:HA2	7:BH:172:SER:HA	1.90	0.52
9:N:171:VAL:HA	9:N:174:LEU:HD12	1.90	0.52
2:T:32:GLY:HA3	2:U:31:PRO:HD2	1.92	0.52
2:W:99:CYS:HB2	2:X:113:ARG:HH12	1.74	0.52
5:AR:56:LEU:HD11	5:AR:166:ARG:HE	1.74	0.52
5:AS:123:ALA:HB3	6:AY:136:PHE:HB2	1.91	0.52
8:J:94:ASN:HD21	8:J:99:CYS:HA	1.74	0.52
2:S:54:LEU:HD23	2:U:49:VAL:HB	1.92	0.52
1:A:34:PRO:HB2	1:A:249:THR:HG21	1.92	0.52
2:AF:114:VAL:HG12	2:AF:116:LEU:HD22	1.91	0.52
3:AK:49:LEU:HD21	3:AK:212:SER:HB2	1.92	0.52
7:BD:80:ARG:HG2	7:BD:138:ARG:HG2	1.92	0.52
8:J:8:ALA:HA	8:J:13:GLU:HA	1.91	0.52
2:AG:7:MET:HE3	8:L:70:TYR:HB2	1.91	0.52
3:AI:124:GLY:HA2	3:AI:151:GLY:HA3	1.92	0.52
3:AJ:167:PRO:HD3	3:AK:130:PRO:HG2	1.92	0.52
3:AL:64:LEU:HD12	3:AL:72:LEU:HB3	1.90	0.52
9:M:307:GLN:HG2	9:N:61:VAL:HG21	1.92	0.52
2:AB:94:ALA:HB1	2:AB:98:VAL:HG11	1.92	0.51
3:AM:2:PRO:HG2	3:AM:3:PRO:HD3	1.92	0.51
5:AV:24:PRO:HA	7:BH:206:ILE:HB	1.92	0.51
6:AZ:60:HIS:HA	6:AZ:156:GLY:HA3	1.91	0.51
9:O:264:ARG:HH11	9:O:346:GLU:HB3	1.74	0.51
3:AH:64:LEU:HB3	3:AH:72:LEU:HD11	1.92	0.51
1:D:105:GLU:HB2	1:D:118:ARG:HB3	1.91	0.51
8:H:20:VAL:HG22	8:H:141:GLY:HA3	1.91	0.51
8:J:53:LEU:HD23	2:S:4:ALA:HB3	1.90	0.51
6:AZ:144:VAL:HA	7:BF:143:THR:HG23	1.93	0.51
7:BE:30:ALA:HB3	7:BE:200:LEU:HD12	1.92	0.51
1:C:118:ARG:NH1	1:D:224:GLU:HB3	2.25	0.51
9:N:184:VAL:HG21	9:N:297:ILE:HG23	1.91	0.51
1:A:118:ARG:NH1	1:B:224:GLU:HB3	2.25	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AP:53:ARG:HG2	4:AP:55:GLY:H	1.75	0.51
5:AQ:99:TRP:HB3	5:AQ:165:TYR:HD1	1.75	0.51
5:AQ:112:VAL:HG22	5:AQ:168:TYR:HD2	1.75	0.51
6:AX:107:PRO:HG2	6:AX:162:ILE:HD12	1.92	0.51
9:O:214:ILE:HD13	9:O:278:ASP:HB3	1.92	0.51
2:AE:4:ALA:HB3	8:L:53:LEU:HD23	1.93	0.51
3:AI:248:ILE:HB	3:AI:266:ARG:HD2	1.93	0.51
8:I:383:HIS:HE1	8:I:385:ARG:HH21	1.58	0.51
8:J:444:GLN:HE22	9:M:29:ARG:HD3	1.74	0.51
8:K:383:HIS:HE1	8:K:385:ARG:HH21	1.57	0.51
2:Z:59:VAL:HA	2:Z:63:ILE:HD12	1.93	0.51
1:A:173:THR:HB	1:B:56:MET:HE1	1.93	0.51
6:AY:45:LEU:HD13	6:AY:171:TRP:CD2	2.46	0.51
1:E:39:ARG:HB3	1:E:244:PRO:HB2	1.93	0.51
8:G:199:TRP:CZ2	8:G:203:ARG:HD2	2.46	0.51
8:K:399:PRO:HG2	8:K:437:THR:HG23	1.93	0.51
2:S:49:VAL:HG13	2:T:54:LEU:HD13	1.92	0.51
2:AA:39:ILE:HB	2:Y:44:LEU:HA	1.93	0.51
3:AI:113:TRP:CD1	3:AI:122:LEU:HD23	2.46	0.51
3:AK:268:TYR:HB3	3:AK:351:SER:HB2	1.91	0.51
1:F:22:ARG:HG3	1:F:235:PRO:HB2	1.93	0.51
1:F:34:PRO:HB2	1:F:249:THR:HG21	1.93	0.51
8:K:120:ILE:HG22	8:K:122:ARG:HG3	1.93	0.51
8:L:8:ALA:HA	8:L:13:GLU:HA	1.91	0.51
9:N:64:ILE:HD13	9:N:99:ILE:HD11	1.93	0.51
1:A:56:MET:HE1	1:F:173:THR:HB	1.93	0.51
2:AA:80:GLY:HA2	2:AA:84:LEU:HD23	1.92	0.51
2:AA:84:LEU:HD11	2:Z:84:LEU:HD21	1.93	0.51
3:AK:265:PHE:HA	3:AK:279:GLY:HA3	1.93	0.51
3:AL:182:ASN:HB3	3:AL:188:ILE:HD11	1.93	0.51
1:E:105:GLU:HB2	1:E:118:ARG:HB3	1.93	0.51
8:G:290:GLU:HB3	8:G:349:VAL:HB	1.92	0.51
9:O:37:ASN:HB2	9:O:49:ASP:OD1	2.11	0.51
3:AK:360:LYS:HD3	3:AK:366:ARG:HG2	1.92	0.51
3:AL:123:ILE:HG13	3:AL:152:GLN:HB3	1.91	0.51
5:AR:37:ARG:HD3	5:AR:192:TYR:HB3	1.93	0.51
5:AU:91:ASN:HD22	5:AU:186:HIS:CE1	2.29	0.51
6:AX:118:LEU:HB2	6:AX:135:TYR:HB2	1.92	0.51
9:O:206:PHE:HB2	9:O:211:ILE:HD11	1.92	0.51
2:T:113:ARG:HH11	2:U:113:ARG:HH21	1.59	0.51
2:W:59:VAL:HG23	2:W:63:ILE:HB	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AH:38:VAL:HG13	3:AH:39:ILE:HG13	1.93	0.51
3:AM:115:GLY:HA3	7:BC:182:GLY:H	1.76	0.51
9:M:37:ASN:HB2	9:M:49:ASP:OD1	2.11	0.51
3:AH:66:LEU:HD11	3:AH:191:LEU:HD11	1.91	0.50
5:AQ:56:LEU:HD21	5:AQ:59:ASN:HB2	1.93	0.50
9:M:320:VAL:HG22	9:M:329:VAL:HG22	1.93	0.50
3:AJ:228:LEU:HB3	3:AJ:360:LYS:HB3	1.92	0.50
5:AR:138:LYS:HE2	5:AR:185:SER:HB3	1.93	0.50
5:AS:11:HIS:HE1	6:AY:26:LEU:HD11	1.76	0.50
7:BD:52:LEU:HD21	7:BD:55:LYS:HG2	1.92	0.50
1:D:41:ARG:HB2	1:D:247:LEU:HB2	1.94	0.50
8:K:20:VAL:HG22	8:K:141:GLY:HA3	1.92	0.50
9:M:36:PHE:HB3	9:M:322:ARG:HB3	1.93	0.50
9:O:171:VAL:HA	9:O:174:LEU:HD12	1.93	0.50
9:O:302:TYR:HB2	9:O:333:MET:HE1	1.93	0.50
2:Q:6:VAL:HG13	2:R:6:VAL:HB	1.94	0.50
2:Y:120:GLN:HA	2:Y:123:LEU:HD12	1.93	0.50
5:AQ:91:ASN:HD22	5:AQ:186:HIS:CE1	2.29	0.50
6:AW:68:ILE:HG12	6:AW:200:VAL:HG22	1.93	0.50
6:AW:117:ARG:N	7:BC:136:GLU:HB3	2.25	0.50
8:J:120:ILE:HG22	8:J:122:ARG:HG3	1.93	0.50
2:Z:116:LEU:HD12	2:Z:120:GLN:HB2	1.93	0.50
1:E:68:GLU:OE1	1:E:70:LYS:HG2	2.11	0.50
8:I:8:ALA:HA	8:I:13:GLU:HA	1.93	0.50
8:I:400:ILE:HG22	8:I:443:TRP:CD1	2.47	0.50
2:P:58:ALA:HB1	2:R:51:ARG:H	1.76	0.50
2:S:12:GLN:OE1	2:S:13:PRO:HD2	2.12	0.50
5:AT:136:PRO:O	5:AT:180:ASN:HA	2.11	0.50
1:E:173:THR:HB	1:F:56:MET:HE1	1.93	0.50
2:AA:26:ILE:HD11	2:Y:29:LEU:HD11	1.92	0.50
2:AA:77:LYS:HA	2:Y:85:ALA:HA	1.94	0.50
3:AK:66:LEU:HD13	3:AK:222:PRO:HG2	1.93	0.50
4:AO:11:ARG:HH11	9:N:278:ASP:HB2	1.76	0.50
5:AT:50:SER:HB3	5:AT:53:ASN:HB2	1.94	0.50
7:BD:92:GLN:HE21	7:BD:93:VAL:H	1.59	0.50
8:K:52:LEU:HB2	2:P:19:ASP:HB2	1.93	0.50
8:K:199:TRP:CZ2	8:K:203:ARG:HD2	2.47	0.50
9:N:153:GLY:HA2	9:N:265:GLN:HE22	1.76	0.50
2:AA:65:ALA:HA	2:Z:57:GLY:HA2	1.94	0.50
2:AB:77:LYS:HA	2:AC:85:ALA:HA	1.94	0.50
2:AC:12:GLN:OE1	2:AC:13:PRO:HD2	2.11	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AL:66:LEU:HD13	3:AL:222:PRO:HG2	1.94	0.50
5:AT:92:ALA:HB3	5:AT:172:PRO:HD2	1.94	0.50
6:AZ:100:LYS:HE2	6:AZ:155:GLN:HB3	1.93	0.50
1:B:16:PRO:HG3	1:B:139:SER:HB3	1.92	0.50
8:J:20:VAL:HG22	8:J:141:GLY:HA3	1.93	0.50
9:M:64:ILE:HD13	9:M:99:ILE:HD11	1.92	0.50
2:AC:40:THR:H	2:AC:43:LYS:HG2	1.77	0.50
7:BE:86:ARG:HB2	7:BE:176:GLU:OE1	2.12	0.50
2:T:112:LYS:HB3	2:T:131:THR:HG22	1.92	0.50
2:AA:18:LEU:HD21	2:Y:22:MET:HE1	1.93	0.50
3:AI:2:PRO:HG2	3:AI:3:PRO:HD3	1.94	0.50
3:AK:213:VAL:HG22	3:AK:218:ARG:HB3	1.94	0.50
3:AI:131:ILE:HG23	3:AI:136:LEU:HD21	1.93	0.49
3:AK:64:LEU:HD12	3:AK:72:LEU:HB3	1.93	0.49
3:AM:268:TYR:HB3	3:AM:351:SER:HB2	1.93	0.49
1:B:50:LEU:HD21	1:B:167:PHE:HZ	1.77	0.49
8:H:157:ARG:HG2	8:H:172:HIS:HA	1.94	0.49
9:N:36:PHE:HB3	9:N:322:ARG:HB3	1.93	0.49
2:R:91:VAL:HG11	2:R:108:PRO:HG3	1.93	0.49
2:Y:12:GLN:HG2	2:Y:13:PRO:HD2	1.94	0.49
3:AJ:38:VAL:HG13	3:AJ:39:ILE:HG13	1.94	0.49
3:AM:57:ARG:NH1	3:AM:65:CYS:HB2	2.27	0.49
1:C:183:VAL:HG22	1:D:18:VAL:HG23	1.94	0.49
1:F:65:ASP:HA	1:F:71:GLU:HA	1.94	0.49
8:G:239:VAL:HG22	8:G:272:VAL:HG22	1.94	0.49
8:H:204:LEU:HB3	8:H:241:LEU:HD13	1.94	0.49
3:AI:105:LEU:HD12	3:AI:108:ALA:HB3	1.93	0.49
3:AI:268:TYR:CZ	3:AI:274:GLY:HA3	2.47	0.49
3:AM:258:PRO:HA	3:AM:284:ASN:HB3	1.94	0.49
3:AM:281:ASP:HB2	3:AM:290:VAL:HB	1.94	0.49
5:AU:79:THR:HB	5:AU:194:ARG:HB3	1.94	0.49
5:AV:208:ILE:HG12	5:AV:209:GLY:H	1.77	0.49
6:AX:115:GLY:H	7:BD:138:ARG:HB2	1.76	0.49
8:H:173:ARG:HH12	8:H:175:THR:HG22	1.78	0.49
8:J:224:HIS:HB2	8:K:256:ARG:HH21	1.78	0.49
8:J:349:VAL:HG22	8:J:457:VAL:HG22	1.94	0.49
8:K:413:LEU:HB3	8:K:443:TRP:CZ2	2.47	0.49
8:L:400:ILE:HG22	8:L:443:TRP:CD1	2.48	0.49
9:M:112:ARG:HH22	9:O:234:ARG:HH11	1.60	0.49
2:V:8:MET:HE1	2:W:22:MET:SD	2.52	0.49
3:AK:347:ALA:HA	3:AK:350:ARG:NH1	2.28	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AL:177:LEU:HD12	3:AL:190:VAL:HG11	1.94	0.49
6:AY:96:LYS:HD3	6:AY:148:VAL:HA	1.95	0.49
8:G:430:ARG:HD2	8:G:432:TRP:H	1.78	0.49
8:I:173:ARG:NH2	8:I:175:THR:HG22	2.27	0.49
8:K:173:ARG:NH2	8:K:175:THR:HG22	2.27	0.49
3:AH:177:LEU:HB2	3:AH:190:VAL:HG13	1.94	0.49
3:AH:347:ALA:HA	3:AH:350:ARG:HH11	1.77	0.49
3:AM:134:PRO:HA	3:AM:154:PRO:HG2	1.94	0.49
6:AW:6:LEU:HB3	8:G:342:VAL:HG22	1.94	0.49
6:AW:69:VAL:HG23	6:AW:148:VAL:HB	1.94	0.49
6:AX:113:THR:HG23	7:BD:138:ARG:HD3	1.95	0.49
6:BA:39:LYS:H	6:BA:52:MET:HB2	1.77	0.49
8:J:199:TRP:CZ2	8:J:203:ARG:HD2	2.48	0.49
8:J:359:TYR:HB2	8:J:362:ARG:HH11	1.77	0.49
9:M:19:THR:HB	9:M:25:LEU:HD11	1.95	0.49
9:M:171:VAL:HA	9:M:174:LEU:HD12	1.95	0.49
3:AI:261:VAL:HG12	3:AI:283:ARG:HG3	1.93	0.49
3:AL:148:SER:HA	3:AL:185:GLY:O	2.12	0.49
5:AU:92:ALA:HB3	5:AU:172:PRO:HD2	1.94	0.49
5:AU:95:PHE:CZ	5:AU:188:ALA:HB1	2.47	0.49
6:AY:142:SER:HB2	7:BE:142:VAL:HG23	1.93	0.49
7:BC:24:MET:C	7:BC:204:PRO:HG3	2.37	0.49
8:H:377:GLN:HB2	8:H:404:GLY:HA2	1.93	0.49
9:M:264:ARG:HH11	9:M:346:GLU:HB3	1.76	0.49
9:N:37:ASN:HB2	9:N:49:ASP:OD1	2.12	0.49
2:X:85:ALA:HB3	2:X:88:SER:HB3	1.95	0.49
5:AS:21:SER:HB2	7:BE:9:HIS:ND1	2.28	0.49
5:AT:40:ALA:HB1	5:AT:55:LEU:HD11	1.95	0.49
7:BH:69:HIS:CD2	7:BH:155:VAL:HG22	2.48	0.49
2:AA:34:PRO:HB2	2:Y:43:LYS:HD2	1.94	0.49
3:AK:167:PRO:HD3	3:AL:130:PRO:HG2	1.94	0.49
5:AT:123:ALA:HB3	6:AZ:136:PHE:HB2	1.93	0.49
6:AW:132:PHE:HD1	6:AW:180:VAL:HG23	1.77	0.49
1:B:123:ILE:HD13	1:B:173:THR:HG22	1.94	0.49
6:BB:53:ILE:HB	6:BB:163:ALA:HB3	1.93	0.49
7:BH:24:MET:C	7:BH:204:PRO:HG3	2.38	0.49
7:BH:130:THR:HG21	7:BH:176:GLU:HG3	1.93	0.49
1:D:123:ILE:HD13	1:D:173:THR:HG22	1.95	0.49
8:G:20:VAL:HG22	8:G:141:GLY:HA3	1.93	0.49
8:H:24:LEU:HD11	8:H:186:ILE:HG21	1.95	0.49
8:J:383:HIS:HE1	8:J:385:ARG:HH21	1.61	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:J:400:ILE:HG22	8:J:443:TRP:HD1	1.77	0.49
3:AM:83:THR:HG22	3:AM:180:VAL:HG22	1.94	0.49
4:AP:24:LEU:O	4:AP:28:GLU:HG2	2.13	0.49
5:AQ:56:LEU:HG	5:AQ:168:TYR:HE1	1.78	0.49
5:AS:20:LEU:HD21	7:BE:5:ILE:HG22	1.95	0.49
1:C:118:ARG:CZ	1:D:224:GLU:HB3	2.42	0.49
8:H:410:GLU:HB2	8:H:423:VAL:H	1.78	0.49
8:K:335:ASN:HD21	9:M:303:TRP:CD1	2.29	0.49
8:L:120:ILE:HG22	8:L:122:ARG:HG3	1.94	0.49
8:L:199:TRP:CZ2	8:L:203:ARG:HD2	2.48	0.49
8:L:383:HIS:HE1	8:L:385:ARG:HH21	1.59	0.49
2:U:59:VAL:HA	2:U:63:ILE:HD13	1.93	0.49
1:A:56:MET:HA	1:A:81:ARG:HA	1.95	0.49
3:AI:261:VAL:H	3:AI:357:GLN:HE21	1.60	0.49
4:AP:51:ALA:HB3	4:AP:58:VAL:HB	1.94	0.49
1:B:118:ARG:NH1	1:C:224:GLU:HB3	2.28	0.49
7:BC:84:GLN:HG3	7:BC:85:ALA:N	2.28	0.48
2:Q:19:ASP:OD2	2:Q:21:GLU:HG3	2.13	0.48
2:T:114:VAL:HG12	2:T:116:LEU:HD22	1.95	0.48
2:X:23:ILE:O	2:X:27:GLU:HG2	2.13	0.48
3:AH:249:GLU:HB2	3:AH:376:ASP:HB3	1.95	0.48
3:AL:276:ARG:HG2	3:AL:344:ALA:HB3	1.94	0.48
7:BF:89:GLY:HA2	7:BF:172:SER:HA	1.95	0.48
8:J:155:VAL:HG13	8:J:172:HIS:CE1	2.44	0.48
1:A:13:THR:HG23	1:A:230:ARG:HH21	1.79	0.48
2:AF:69:ILE:HD12	2:AF:74:TYR:HE1	1.78	0.48
4:AN:42:THR:HG22	4:AP:38:TRP:HD1	1.79	0.48
1:C:64:GLN:HG3	8:J:265:ARG:HD2	1.95	0.48
8:G:410:GLU:HB2	8:G:423:VAL:H	1.78	0.48
8:I:199:TRP:CZ2	8:I:203:ARG:HD2	2.47	0.48
2:Q:23:ILE:O	2:Q:27:GLU:HG3	2.12	0.48
2:AC:121:TYR:HE1	3:AL:6:ARG:NH2	2.11	0.48
3:AI:32:LEU:HD21	3:AI:35:SER:HB3	1.96	0.48
6:AY:52:MET:HG2	6:AY:53:ILE:HG13	1.94	0.48
6:AZ:132:PHE:HZ	6:AZ:134:ARG:HE	1.62	0.48
2:AB:56:PRO:HD3	2:AD:47:GLN:HG3	1.94	0.48
2:AG:75:GLU:HG2	2:AG:78:SER:HB3	1.94	0.48
3:AJ:361:GLU:HA	3:AK:112:ALA:HB1	1.94	0.48
1:C:123:ILE:HD13	1:C:173:THR:HG22	1.95	0.48
1:D:118:ARG:CZ	1:E:224:GLU:HB3	2.44	0.48
8:G:77:ARG:HG2	8:G:124:GLU:HB3	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:G:372:ASN:HB2	8:G:405:LEU:HD22	1.95	0.48
8:G:413:LEU:HB3	8:G:443:TRP:CZ2	2.48	0.48
8:H:383:HIS:HE1	8:H:385:ARG:HH21	1.61	0.48
8:I:204:LEU:HB3	8:I:241:LEU:HD13	1.95	0.48
2:Q:34:PRO:HB2	2:Q:38:THR:HB	1.94	0.48
2:AB:59:VAL:HB	2:AC:64:ILE:HA	1.96	0.48
3:AK:248:ILE:HG12	3:AK:266:ARG:HD2	1.96	0.48
5:AQ:6:VAL:HG21	6:AW:6:LEU:HD11	1.95	0.48
5:AR:24:PRO:HA	7:BD:206:ILE:HB	1.95	0.48
7:BH:23:TRP:HB2	7:BH:68:GLN:HE22	1.79	0.48
8:I:372:ASN:HB2	8:I:405:LEU:HD22	1.96	0.48
8:J:90:TRP:HB3	8:J:122:ARG:NH2	2.29	0.48
2:P:101:ALA:HB2	2:R:113:ARG:HH12	1.79	0.48
5:AR:47:LYS:HE2	5:AR:175:TRP:CD1	2.49	0.48
5:AR:95:PHE:CZ	5:AR:188:ALA:HB1	2.49	0.48
5:AV:139:PHE:HB3	5:AV:141:HIS:CE1	2.48	0.48
5:AV:181:LYS:HB2	7:BH:126:LEU:HD12	1.96	0.48
6:AX:96:LYS:HD3	6:AX:148:VAL:HA	1.96	0.48
6:AX:117:ARG:HH21	7:BD:134:ILE:HG21	1.79	0.48
7:BE:24:MET:C	7:BE:204:PRO:HG3	2.39	0.48
7:BG:30:ALA:HB1	7:BG:58:LEU:HD11	1.96	0.48
7:BH:118:ALA:HB1	7:BH:120:MET:SD	2.54	0.48
9:O:15:VAL:HG11	9:O:50:LEU:HD22	1.96	0.48
2:V:113:ARG:NH1	2:W:113:ARG:HH21	2.12	0.48
2:AA:56:PRO:HD3	2:Z:47:GLN:OE1	2.13	0.48
3:AI:105:LEU:O	3:AI:111:GLY:HA2	2.13	0.48
3:AL:317:GLN:HG2	3:AL:322:HIS:ND1	2.29	0.48
5:AQ:146:ASN:ND2	6:AW:140:ASP:HB3	2.28	0.48
5:AU:85:TRP:HE1	5:AU:122:SER:HB3	1.79	0.48
7:BG:80:ARG:HB3	7:BG:192:THR:HB	1.96	0.48
8:K:290:GLU:HB3	8:K:349:VAL:HB	1.96	0.48
9:M:293:ILE:HA	9:M:296:LEU:HD12	1.95	0.48
9:N:36:PHE:HD2	9:N:322:ARG:HB3	1.78	0.48
2:X:116:LEU:HD21	2:X:133:TYR:HD1	1.79	0.48
2:AE:54:LEU:HD23	2:AG:49:VAL:HB	1.94	0.48
5:AT:86:ILE:HD12	5:AT:187:GLU:OE2	2.14	0.48
8:J:157:ARG:HG2	8:J:172:HIS:HA	1.96	0.48
2:Y:71:ALA:HA	2:Y:74:TYR:HD2	1.77	0.48
3:AI:136:LEU:HD12	3:AI:140:LEU:HD13	1.96	0.48
3:AL:355:MET:HE1	3:AL:357:GLN:HE21	1.79	0.48
6:BB:6:LEU:HB3	8:H:342:VAL:HG22	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:L:155:VAL:HG13	8:L:172:HIS:CE1	2.48	0.48
2:AF:23:ILE:HD12	2:AG:29:LEU:HD11	1.96	0.47
3:AK:197:LYS:HB2	3:AK:203:PHE:HD1	1.78	0.47
5:AR:131:VAL:O	5:AR:131:VAL:HG12	2.13	0.47
1:F:81:ARG:HH12	1:F:225:HIS:CE1	2.32	0.47
8:H:199:TRP:CZ2	8:H:203:ARG:HD2	2.48	0.47
8:J:77:ARG:HG2	8:J:124:GLU:HB3	1.96	0.47
2:V:69:ILE:HG13	2:W:69:ILE:HD11	1.96	0.47
2:W:45:HIS:HB3	2:W:48:ALA:HB2	1.96	0.47
2:W:59:VAL:HG12	2:X:63:ILE:HG22	1.95	0.47
5:AV:101:SER:HB2	5:AV:161:PHE:HE1	1.79	0.47
6:AZ:70:PHE:CD1	6:AZ:147:PRO:HA	2.49	0.47
8:H:24:LEU:HD22	8:H:101:LEU:HD23	1.96	0.47
8:K:77:ARG:HG2	8:K:124:GLU:HB3	1.95	0.47
9:M:36:PHE:HD2	9:M:322:ARG:HB3	1.79	0.47
2:Y:128:ASP:HB3	2:Y:131:THR:HB	1.96	0.47
2:AE:93:GLN:HG2	2:AG:84:LEU:HB2	1.95	0.47
3:AM:98:VAL:HG22	3:AM:152:GLN:HG2	1.96	0.47
4:AO:46:SER:HA	6:AX:38:SER:HB2	1.95	0.47
5:AS:9:ALA:HA	5:AS:206:ARG:HH21	1.79	0.47
8:H:430:ARG:HD2	8:H:432:TRP:H	1.79	0.47
8:I:290:GLU:HB3	8:I:349:VAL:HB	1.97	0.47
9:M:125:ALA:HB1	9:M:147:ILE:HG23	1.95	0.47
9:N:19:THR:HB	9:N:25:LEU:HD11	1.95	0.47
9:N:41:GLU:HG2	9:N:46:SER:HA	1.95	0.47
2:AC:59:VAL:HG12	2:AD:63:ILE:HG22	1.95	0.47
6:AW:62:ASP:HB2	9:N:151:PRO:HB3	1.95	0.47
6:AZ:83:GLN:HG3	6:AZ:84:SER:H	1.79	0.47
7:BC:25:GLN:HG3	7:BC:26:TRP:N	2.29	0.47
1:C:39:ARG:HB3	1:C:244:PRO:HB2	1.96	0.47
1:C:173:THR:HB	1:D:56:MET:HE1	1.95	0.47
1:E:81:ARG:HH22	1:E:225:HIS:HD2	1.60	0.47
2:AB:54:LEU:HD23	2:AD:49:VAL:HB	1.97	0.47
5:AR:155:ILE:HA	5:AR:159:GLN:HE21	1.79	0.47
1:B:72:CYS:HB2	8:K:145:MET:HE1	1.95	0.47
2:V:99:CYS:HB2	2:X:99:CYS:HB2	1.97	0.47
7:BC:69:HIS:CD2	7:BC:205:VAL:HG22	2.50	0.47
8:K:76:THR:HG21	2:Q:7:MET:HE1	1.96	0.47
1:A:123:ILE:HD13	1:A:173:THR:HG22	1.96	0.47
1:A:224:GLU:HB3	1:F:118:ARG:CZ	2.44	0.47
2:AD:7:MET:HE1	8:G:70:TYR:H	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:112:LYS:HB2	2:AE:131:THR:HG22	1.96	0.47
2:AF:69:ILE:HD12	2:AF:74:TYR:CE1	2.50	0.47
3:AI:26:ILE:HD12	2:U:134:TYR:CD1	2.49	0.47
3:AJ:222:PRO:HD2	3:AJ:225:LEU:HD11	1.96	0.47
1:B:39:ARG:HB3	1:B:244:PRO:HB2	1.97	0.47
1:B:173:THR:HB	1:C:56:MET:HE1	1.95	0.47
6:BA:7:CYS:HA	8:I:339:CYS:HB2	1.97	0.47
6:BB:96:LYS:HD3	6:BB:146:VAL:HG12	1.97	0.47
7:BE:116:CYS:SG	7:BE:137:GLU:HG3	2.55	0.47
1:D:118:ARG:NH1	1:E:224:GLU:HB3	2.30	0.47
1:E:118:ARG:NH1	1:F:224:GLU:HB3	2.29	0.47
8:G:60:GLN:HE21	8:G:73:PRO:HD3	1.80	0.47
8:H:77:ARG:HG2	8:H:124:GLU:HB3	1.96	0.47
8:L:162:MET:HE2	8:L:168:VAL:HG23	1.96	0.47
2:P:115:TYR:CD1	2:P:134:TYR:HB2	2.49	0.47
2:Q:23:ILE:HD12	2:R:29:LEU:HD21	1.96	0.47
2:Y:113:ARG:NH1	2:Z:113:ARG:HH11	2.12	0.47
3:AH:210:ILE:HG21	3:AH:354:MET:HE3	1.97	0.47
5:AS:11:HIS:CD2	5:AS:70:VAL:HG11	2.50	0.47
5:AS:99:TRP:HB3	5:AS:165:TYR:HD1	1.80	0.47
6:BB:73:VAL:HB	6:BB:144:VAL:HG22	1.97	0.47
1:F:75:ASP:HB3	8:G:251:PHE:HE2	1.80	0.47
8:K:78:LEU:HD13	8:K:125:LEU:HA	1.97	0.47
9:N:264:ARG:HH11	9:N:346:GLU:HB3	1.78	0.47
2:U:55:LYS:HD3	2:U:56:PRO:HD2	1.95	0.47
2:Y:54:LEU:HD12	2:Z:63:ILE:HD13	1.97	0.47
2:AA:49:VAL:HB	2:Y:54:LEU:HD23	1.96	0.47
3:AK:217:ALA:HB3	3:AK:372:LEU:H	1.79	0.47
3:AL:230:LYS:HE2	3:AL:260:TYR:CE1	2.50	0.47
3:AL:333:LEU:HD23	3:AL:333:LEU:H	1.79	0.47
4:AP:31:ARG:HH22	9:O:159:HIS:CE1	2.33	0.47
5:AU:203:PRO:HG2	6:BA:23:ARG:HH11	1.79	0.47
6:AX:106:TYR:CE2	9:M:358:PRO:HG3	2.50	0.47
6:AZ:45:LEU:HD13	6:AZ:171:TRP:CD2	2.50	0.47
1:E:183:VAL:HG22	1:F:18:VAL:HG23	1.96	0.47
2:S:40:THR:H	2:S:43:LYS:HB3	1.80	0.47
2:V:49:VAL:HG23	2:W:54:LEU:HD13	1.96	0.47
2:X:10:THR:HA	2:X:17:LYS:NZ	2.30	0.47
2:Y:121:TYR:HB2	2:Y:135:ILE:HD11	1.96	0.47
2:Z:7:MET:HA	2:Z:7:MET:HE3	1.97	0.47
3:AH:210:ILE:HA	3:AH:219:MET:HA	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:248:ILE:HG13	3:AI:377:ALA:HB2	1.97	0.47
5:AU:27:VAL:HG11	7:BG:204:PRO:HG2	1.96	0.47
8:L:77:ARG:HG2	8:L:124:GLU:HB3	1.97	0.47
3:AK:127:ASN:ND2	3:AK:147:GLU:HB3	2.30	0.46
3:AK:197:LYS:HB2	3:AK:203:PHE:CD1	2.49	0.46
5:AR:98:ARG:HB2	5:AR:116:PHE:HA	1.96	0.46
5:AT:24:PRO:HA	7:BF:206:ILE:HB	1.96	0.46
6:AZ:104:ALA:HB3	6:AZ:160:ARG:HG3	1.97	0.46
7:BC:89:GLY:HA2	7:BC:172:SER:HA	1.96	0.46
7:BE:67:PRO:HG3	7:BE:158:PRO:HD3	1.98	0.46
8:J:142:ILE:HG12	8:J:185:LEU:HD22	1.96	0.46
8:L:157:ARG:HG2	8:L:172:HIS:HA	1.97	0.46
2:AC:131:THR:H	3:AL:7:ARG:HH22	1.62	0.46
3:AJ:362:LEU:HD22	3:AK:122:LEU:HD11	1.98	0.46
5:AR:99:TRP:HB3	5:AR:165:TYR:HD1	1.79	0.46
5:AV:80:ARG:HD3	5:AV:83:ARG:NH2	2.30	0.46
6:AX:87:THR:OG1	6:AX:117:ARG:HD3	2.14	0.46
6:AY:174:PRO:HG2	6:AY:182:PRO:HG3	1.97	0.46
6:BA:56:ASP:HB3	6:BA:160:ARG:HD2	1.96	0.46
7:BF:44:VAL:HG12	7:BF:176:GLU:HG2	1.95	0.46
8:I:413:LEU:HB3	8:I:443:TRP:CZ2	2.49	0.46
2:S:22:MET:O	2:S:26:ILE:HG12	2.14	0.46
3:AI:317:GLN:HG2	3:AI:322:HIS:ND1	2.30	0.46
6:AX:118:LEU:HG	6:AX:120:ILE:HD11	1.96	0.46
7:BH:54:HIS:O	7:BH:167:GLU:HB2	2.16	0.46
1:E:56:MET:HA	1:E:81:ARG:HA	1.96	0.46
1:F:161:LYS:HB2	1:F:230:ARG:CZ	2.46	0.46
2:V:102:TYR:HA	2:V:108:PRO:HA	1.97	0.46
3:AH:283:ARG:HH12	3:AH:299:LEU:HD11	1.80	0.46
3:AL:362:LEU:HD22	3:AM:122:LEU:HD22	1.96	0.46
4:AN:42:THR:HG21	4:AP:37:PRO:HD2	1.97	0.46
1:B:42:LEU:HB3	1:B:100:MET:HE1	1.97	0.46
8:I:224:HIS:HB3	8:J:256:ARG:NH2	2.30	0.46
8:K:380:LEU:HB3	8:K:458:VAL:HG13	1.97	0.46
9:M:224:VAL:HG23	9:M:246:THR:HG23	1.97	0.46
9:N:272:GLN:HG3	9:N:337:VAL:HG11	1.98	0.46
1:A:39:ARG:HB3	1:A:244:PRO:HB2	1.97	0.46
2:AF:10:THR:HG1	2:AG:2:THR:N	2.12	0.46
3:AI:230:LYS:HE2	3:AI:260:TYR:CE2	2.50	0.46
3:AK:83:THR:HG22	3:AK:180:VAL:HG22	1.97	0.46
3:AM:140:LEU:HD23	3:AM:140:LEU:H	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AN:52:MET:HG2	4:AN:57:THR:HG23	1.98	0.46
6:BA:117:ARG:HH21	7:BG:134:ILE:HG21	1.80	0.46
1:D:28:VAL:HG12	1:D:34:PRO:HA	1.98	0.46
8:J:383:HIS:NE2	8:J:396:GLU:HA	2.31	0.46
9:M:303:TRP:CE2	9:M:312:GLU:HB2	2.51	0.46
2:AA:2:THR:N	2:Z:10:THR:HG1	2.13	0.46
3:AL:228:LEU:HB3	3:AL:360:LYS:H	1.80	0.46
5:AQ:11:HIS:CD2	5:AQ:70:VAL:HG11	2.50	0.46
5:AQ:95:PHE:CZ	5:AQ:188:ALA:HB1	2.51	0.46
5:AS:95:PHE:CZ	5:AS:188:ALA:HB1	2.51	0.46
5:AS:142:TRP:HB2	7:BE:115:GLY:H	1.80	0.46
5:AT:89:ASN:ND2	5:AT:126:ILE:HB	2.29	0.46
6:BA:161:TYR:CZ	6:BA:191:THR:HG21	2.50	0.46
1:E:41:ARG:HB2	1:E:247:LEU:HB2	1.98	0.46
1:E:81:ARG:NH2	1:E:225:HIS:HD2	2.13	0.46
8:I:142:ILE:HG12	8:I:185:LEU:HD22	1.96	0.46
8:K:177:ARG:HB2	8:K:272:VAL:HB	1.97	0.46
9:M:29:ARG:O	9:M:30:ALA:C	2.57	0.46
9:O:222:ASN:HD22	9:O:239:LEU:HB3	1.80	0.46
2:AD:50:SER:H	2:AD:53:LYS:HG3	1.81	0.46
3:AI:317:GLN:HE21	3:AI:322:HIS:CE1	2.34	0.46
3:AJ:26:ILE:HG23	3:AJ:33:ARG:HB2	1.98	0.46
3:AL:347:ALA:HA	3:AL:350:ARG:NH1	2.30	0.46
5:AR:12:LEU:HB3	5:AR:20:LEU:HD11	1.96	0.46
5:AS:29:ARG:HH12	5:AS:72:HIS:HE1	1.64	0.46
5:AV:104:ASP:OD1	5:AV:159:GLN:HB2	2.15	0.46
1:B:161:LYS:NZ	1:B:232:PRO:HG3	2.31	0.46
8:H:96:CYS:HB2	8:H:188:CYS:SG	2.56	0.46
8:H:359:TYR:HB2	8:H:362:ARG:HH11	1.81	0.46
8:I:11:GLY:HA2	8:I:216:ARG:HH22	1.81	0.46
8:I:96:CYS:HB2	8:I:188:CYS:SG	2.55	0.46
8:L:20:VAL:HG22	8:L:141:GLY:HA3	1.98	0.46
8:L:90:TRP:HB3	8:L:122:ARG:NH2	2.31	0.46
9:M:91:VAL:HG22	9:O:214:ILE:HG13	1.98	0.46
9:O:264:ARG:HD3	9:O:347:GLY:H	1.80	0.46
2:P:39:ILE:HB	2:Q:44:LEU:HG	1.96	0.46
2:AD:9:ASP:HB3	2:AD:12:GLN:HG2	1.98	0.46
3:AH:167:PRO:HD3	3:AI:130:PRO:HG2	1.97	0.46
6:AW:45:LEU:HD13	6:AW:171:TRP:CD2	2.51	0.46
7:BF:24:MET:C	7:BF:204:PRO:HG3	2.41	0.46
8:I:60:GLN:HE21	8:I:73:PRO:HD3	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:M:302:TYR:HB2	9:M:333:MET:HE1	1.98	0.46
9:N:114:PRO:HB3	9:N:138:ARG:HE	1.81	0.46
9:O:58:PRO:O	9:O:60:ARG:HD3	2.16	0.46
2:T:47:GLN:HB3	2:U:55:LYS:NZ	2.31	0.46
3:AK:50:GLU:HG2	3:AK:51:ARG:HG3	1.97	0.46
5:AS:207:VAL:HG23	6:AY:15:ASN:HD21	1.81	0.46
6:AZ:96:LYS:HD3	6:AZ:146:VAL:HG12	1.98	0.46
1:B:105:GLU:HB2	1:B:118:ARG:HB3	1.98	0.46
2:R:51:ARG:NE	2:R:51:ARG:HA	2.31	0.46
1:A:105:GLU:HB2	1:A:118:ARG:HB3	1.97	0.46
1:A:118:ARG:CZ	1:B:224:GLU:HB3	2.46	0.46
2:AB:72:VAL:HG22	2:AD:66:GLU:OE1	2.16	0.46
5:AR:11:HIS:CE1	6:AX:26:LEU:HD11	2.51	0.46
6:AW:161:TYR:CZ	6:AW:191:THR:HG21	2.51	0.46
6:AY:6:LEU:HB3	8:K:342:VAL:HG22	1.97	0.46
8:I:60:GLN:HB3	8:I:70:TYR:HB3	1.98	0.46
8:L:383:HIS:NE2	8:L:396:GLU:HA	2.31	0.46
9:O:222:ASN:HD22	9:O:239:LEU:HD23	1.80	0.46
2:AA:29:LEU:HD11	2:Z:23:ILE:HD12	1.98	0.45
3:AH:163:ILE:HD12	3:AH:226:MET:HE1	1.98	0.45
3:AL:140:LEU:HD23	3:AL:140:LEU:H	1.80	0.45
5:AR:75:ARG:HD2	5:AR:151:TRP:CZ2	2.51	0.45
6:AX:117:ARG:HB3	7:BD:136:GLU:HB3	1.97	0.45
6:BB:107:PRO:HG2	6:BB:162:ILE:HD12	1.97	0.45
1:C:48:VAL:HG12	1:C:49:THR:HG23	1.97	0.45
1:F:42:LEU:HB3	1:F:100:MET:HE1	1.96	0.45
8:I:204:LEU:HD22	8:I:270:LEU:HD21	1.97	0.45
2:R:10:THR:HA	2:R:17:LYS:HE3	1.98	0.45
2:S:7:MET:HB2	2:T:3:ILE:O	2.17	0.45
2:AE:3:ILE:HD13	2:AG:9:ASP:HB3	1.98	0.45
5:AT:107:PRO:HD3	5:AT:162:ASN:HB3	1.98	0.45
5:AT:128:THR:HG22	5:AT:134:PRO:HA	1.98	0.45
6:AW:72:LEU:HD23	6:AW:143:GLN:NE2	2.31	0.45
6:AY:39:LYS:H	6:AY:52:MET:HB2	1.81	0.45
7:BC:30:ALA:HB1	7:BC:58:LEU:HD11	1.98	0.45
7:BC:120:MET:HE3	7:BC:120:MET:HB2	1.89	0.45
7:BD:92:GLN:NE2	7:BD:110:VAL:HG13	2.31	0.45
1:E:177:ILE:HG23	1:F:17:LEU:HD11	1.97	0.45
8:L:256:ARG:HD2	8:L:259:GLN:HE21	1.81	0.45
9:M:214:ILE:HG13	9:N:91:VAL:HG22	1.98	0.45
9:M:223:ASP:HB2	9:M:245:GLU:HG2	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:O:224:VAL:HG23	9:O:246:THR:HG23	1.97	0.45
2:W:65:ALA:HB2	2:X:51:ARG:HH22	1.81	0.45
3:AK:140:LEU:HD23	3:AK:140:LEU:H	1.81	0.45
5:AS:6:VAL:HG21	6:AY:6:LEU:HD11	1.97	0.45
1:B:183:VAL:HG22	1:C:18:VAL:HG23	1.98	0.45
6:BA:59:TRP:HB3	6:BA:157:PHE:CE1	2.51	0.45
7:BE:118:ALA:HB1	7:BE:120:MET:HE2	1.97	0.45
1:F:195:MET:HB3	1:F:198:TRP:HB2	1.99	0.45
8:L:373:VAL:HG22	8:L:466:PHE:HA	1.97	0.45
3:AL:17:MET:HE1	3:AL:20:THR:HA	1.98	0.45
5:AU:80:ARG:HD3	5:AU:83:ARG:NH2	2.32	0.45
6:AZ:90:ILE:HD11	6:AZ:186:ALA:HB1	1.98	0.45
6:AZ:115:GLY:H	7:BF:138:ARG:HB2	1.81	0.45
6:AZ:134:ARG:HH12	6:AZ:183:ARG:HD3	1.81	0.45
7:BC:24:MET:HE1	7:BC:206:ILE:HD11	1.99	0.45
7:BD:97:PHE:HA	7:BD:105:ALA:HB1	1.97	0.45
8:H:142:ILE:HG12	8:H:185:LEU:HD22	1.97	0.45
8:I:335:ASN:HD21	9:O:303:TRP:NE1	2.15	0.45
8:K:44:LEU:HD11	8:K:57:ALA:HB2	1.98	0.45
9:N:125:ALA:HB1	9:N:147:ILE:HG23	1.99	0.45
2:Q:18:LEU:HD22	2:Q:22:MET:HG2	1.98	0.45
2:AA:91:VAL:HG11	2:AA:108:PRO:HB3	1.99	0.45
3:AJ:140:LEU:HD23	3:AJ:140:LEU:H	1.82	0.45
6:AW:45:LEU:HD13	6:AW:171:TRP:CG	2.51	0.45
6:AX:58:THR:HG21	9:M:352:LEU:HD21	1.99	0.45
6:BA:52:MET:HG2	6:BA:53:ILE:HG13	1.99	0.45
7:BD:89:GLY:HA2	7:BD:172:SER:HA	1.98	0.45
7:BF:88:VAL:HG22	7:BF:117:GLY:HA3	1.99	0.45
7:BH:134:ILE:HD11	7:BH:187:SER:HA	1.98	0.45
8:H:142:ILE:HD13	8:H:200:LEU:HD13	1.98	0.45
9:N:94:LYS:HE2	9:N:94:LYS:HB2	1.74	0.45
9:N:143:LEU:HD12	9:N:145:PRO:HD3	1.99	0.45
9:N:302:TYR:HB2	9:N:333:MET:HE1	1.99	0.45
2:Y:121:TYR:O	2:Y:124:ILE:HG22	2.17	0.45
2:AF:116:LEU:HD12	2:AF:120:GLN:HB2	1.99	0.45
3:AL:5:VAL:HG23	3:AL:34:TRP:HB2	1.98	0.45
5:AQ:80:ARG:HD3	5:AQ:83:ARG:NH2	2.32	0.45
5:AS:92:ALA:HB3	5:AS:172:PRO:HD2	1.98	0.45
6:AW:100:LYS:HD2	6:AW:155:GLN:HG2	1.98	0.45
7:BE:52:LEU:HD21	7:BE:55:LYS:HG3	1.98	0.45
7:BH:11:GLU:HB3	7:BH:21:GLN:NE2	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:K:82:GLY:HA3	2:Q:19:ASP:HB2	1.98	0.45
8:L:383:HIS:HE2	8:L:396:GLU:HA	1.82	0.45
9:N:214:ILE:HG13	9:O:91:VAL:HG22	1.99	0.45
9:N:222:ASN:HD22	9:N:239:LEU:HD23	1.82	0.45
3:AJ:105:LEU:HD22	3:AJ:108:ALA:HB3	1.99	0.45
5:AR:146:ASN:ND2	6:AX:140:ASP:HB3	2.30	0.45
5:AS:29:ARG:HH12	5:AS:72:HIS:CE1	2.35	0.45
6:BA:166:GLN:HG3	6:BA:168:PRO:HD3	1.98	0.45
8:H:60:GLN:HE21	8:H:73:PRO:HD3	1.81	0.45
8:K:155:VAL:HG13	8:K:172:HIS:HE2	1.82	0.45
2:Q:114:VAL:HG12	2:Q:116:LEU:HD22	1.99	0.45
2:AB:49:VAL:HG21	2:AD:49:VAL:HG21	1.99	0.45
3:AJ:7:ARG:HH21	2:Q:130:ASN:HA	1.81	0.45
5:AQ:50:SER:HB3	5:AQ:53:ASN:HB2	1.99	0.45
5:AS:90:PRO:HG2	5:AS:176:SER:HB2	1.98	0.45
6:BB:63:ASP:HA	6:BB:153:GLN:HE22	1.81	0.45
7:BE:30:ALA:HB1	7:BE:58:LEU:HD11	1.99	0.45
7:BF:70:CYS:HA	7:BF:201:PHE:O	2.17	0.45
1:D:29:ASP:HB3	1:D:35:ILE:HD11	1.99	0.45
8:H:47:ILE:HG13	8:H:55:VAL:HG12	1.98	0.45
8:I:173:ARG:NH1	8:I:175:THR:HA	2.32	0.45
8:J:51:ARG:HH21	2:S:21:GLU:HG3	1.81	0.45
8:J:252:ALA:HB2	8:J:261:ALA:HA	1.98	0.45
9:M:143:LEU:HD12	9:M:145:PRO:HD3	1.98	0.45
4:AP:7:GLY:C	9:O:274:ARG:HH22	2.25	0.45
6:AW:9:SER:OG	7:BC:19:ALA:HB2	2.17	0.45
6:BB:106:TYR:CD2	9:N:358:PRO:HG3	2.52	0.45
1:F:48:VAL:HG12	1:F:49:THR:HG23	1.98	0.45
8:I:90:TRP:HB3	8:I:122:ARG:NH2	2.32	0.45
3:AI:49:LEU:HD21	3:AI:212:SER:HB2	1.99	0.45
7:BE:146:LEU:HD11	7:BE:164:ALA:HB1	1.98	0.45
1:C:50:LEU:HD21	1:C:167:PHE:HZ	1.81	0.45
1:D:66:ASN:HD22	8:I:4:ARG:HH22	1.63	0.45
8:L:11:GLY:HA2	8:L:216:ARG:HH22	1.82	0.45
9:O:108:LEU:HD22	9:O:171:VAL:HG21	1.98	0.45
2:U:116:LEU:HD12	2:U:120:GLN:HG3	1.98	0.45
2:W:112:LYS:HD2	2:X:102:TYR:CD2	2.52	0.45
2:AA:10:THR:HG1	2:Y:2:THR:N	2.15	0.44
2:AG:19:ASP:O	2:AG:23:ILE:HG12	2.18	0.44
3:AJ:23:ILE:HG21	2:R:134:TYR:HD2	1.81	0.44
6:BA:45:LEU:HD13	6:BA:171:TRP:CD2	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:26:TRP:HA	7:BE:202:ALA:O	2.17	0.44
7:BE:108:LEU:HD11	7:BE:165:ARG:HD3	1.98	0.44
7:BE:110:VAL:HG21	7:BE:113:ARG:HE	1.82	0.44
1:F:39:ARG:HB3	1:F:244:PRO:HB2	1.99	0.44
1:F:59:ALA:HB2	1:F:79:PRO:HG3	1.98	0.44
8:G:142:ILE:HG12	8:G:185:LEU:HD22	2.00	0.44
8:J:401:GLN:HG2	8:J:436:GLY:O	2.18	0.44
9:N:303:TRP:CE2	9:N:312:GLU:HB2	2.51	0.44
9:O:303:TRP:CE2	9:O:312:GLU:HB2	2.52	0.44
1:A:15:PHE:HB3	1:A:230:ARG:HD3	1.99	0.44
4:AP:34:ARG:CZ	9:O:227:ARG:HD3	2.48	0.44
5:AQ:82:PHE:HA	5:AQ:143:TRP:O	2.17	0.44
8:J:371:ARG:HD2	8:J:467:GLU:OE2	2.18	0.44
8:K:4:ARG:HG2	8:K:147:VAL:HG23	1.99	0.44
2:Q:69:ILE:O	2:Q:69:ILE:HG13	2.18	0.44
2:S:53:LYS:HD3	2:U:46:ASN:HA	1.99	0.44
2:Y:18:LEU:HD23	2:Z:25:GLU:HG2	2.00	0.44
2:AA:84:LEU:HD13	2:Z:79:VAL:HG13	2.00	0.44
3:AI:140:LEU:HD23	3:AI:140:LEU:H	1.83	0.44
5:AT:91:ASN:OD1	5:AT:175:TRP:HA	2.18	0.44
6:AW:119:GLN:O	7:BC:133:GLY:HA2	2.17	0.44
7:BE:114:PHE:CE1	7:BE:139:MET:HB2	2.52	0.44
1:D:116:GLY:HA3	1:E:229:PHE:HA	1.99	0.44
8:H:373:VAL:HG22	8:H:466:PHE:HA	2.00	0.44
9:N:222:ASN:HD22	9:N:239:LEU:HB3	1.82	0.44
9:N:227:ARG:HH22	9:O:164:GLU:HA	1.82	0.44
9:O:267:LEU:HA	9:O:270:THR:HG22	1.99	0.44
2:R:80:GLY:HA2	2:R:84:LEU:HD23	1.99	0.44
2:T:35:PRO:HD2	2:T:38:THR:HG21	2.00	0.44
2:AE:21:GLU:HG3	8:L:51:ARG:HH21	1.83	0.44
3:AI:267:ARG:HD3	3:AI:345:SER:HB3	2.00	0.44
3:AM:306:SER:HB3	7:BH:49:LYS:HD2	2.00	0.44
6:AY:95:THR:HG23	6:AY:107:PRO:HB3	1.99	0.44
7:BF:26:TRP:HA	7:BF:202:ALA:O	2.17	0.44
1:E:107:LEU:HD21	1:E:118:ARG:HD3	1.99	0.44
1:F:41:ARG:HB2	1:F:247:LEU:HB2	1.98	0.44
8:H:120:ILE:HG22	8:H:122:ARG:HG3	2.00	0.44
8:H:383:HIS:NE2	8:H:396:GLU:HA	2.32	0.44
8:I:383:HIS:HE1	8:I:385:ARG:NH2	2.16	0.44
2:V:84:LEU:HD21	2:W:84:LEU:HD11	1.98	0.44
2:W:112:LYS:HD2	2:X:102:TYR:HD2	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:18:LEU:HD23	2:AB:22:MET:HG2	1.98	0.44
2:AC:121:TYR:HE1	3:AL:6:ARG:HH21	1.65	0.44
3:AJ:96:LYS:HE3	3:AJ:98:VAL:CG1	2.48	0.44
5:AS:146:ASN:ND2	6:AY:140:ASP:HB3	2.32	0.44
1:B:200:ARG:HA	1:B:216:LEU:HB2	2.00	0.44
6:BA:115:GLY:H	7:BG:138:ARG:HB2	1.83	0.44
7:BE:92:GLN:HG3	7:BE:110:VAL:HG23	1.99	0.44
7:BF:92:GLN:HB2	7:BF:169:ARG:HB2	1.99	0.44
8:G:78:LEU:HD13	8:G:125:LEU:HA	2.00	0.44
9:O:114:PRO:HB3	9:O:138:ARG:HE	1.83	0.44
2:P:23:ILE:O	2:P:27:GLU:OE1	2.35	0.44
2:S:96:THR:HA	2:U:110:GLU:HB3	1.99	0.44
2:AB:123:LEU:HD23	2:AB:123:LEU:H	1.83	0.44
3:AH:110:CYS:HB3	3:AM:229:ASN:HB3	2.00	0.44
3:AI:66:LEU:HD13	3:AI:222:PRO:HG2	1.99	0.44
3:AL:173:LEU:HD21	3:AM:109:TYR:CE1	2.53	0.44
3:AL:300:VAL:HG21	3:AL:336:TRP:CE2	2.52	0.44
3:AM:221:VAL:HG12	3:AM:366:ARG:HD2	2.00	0.44
4:AN:24:LEU:HD22	4:AO:24:LEU:HD21	2.00	0.44
1:C:42:LEU:HB3	1:C:100:MET:HE1	2.00	0.44
1:C:194:ALA:HB2	1:C:225:HIS:CE1	2.53	0.44
8:H:78:LEU:HD13	8:H:125:LEU:HA	2.00	0.44
8:J:24:LEU:HD11	8:J:186:ILE:HG21	1.99	0.44
8:L:401:GLN:HG2	8:L:436:GLY:O	2.17	0.44
2:Q:91:VAL:HG12	2:Q:100:THR:HB	1.99	0.44
2:R:60:ASP:O	2:R:64:ILE:HG12	2.18	0.44
2:V:22:MET:HB2	2:X:8:MET:HE1	1.99	0.44
2:AA:21:GLU:HG3	8:H:67:ARG:HH22	1.83	0.44
2:AA:109:VAL:O	2:Y:97:GLY:HA2	2.18	0.44
2:AE:60:ASP:OD1	2:AE:63:ILE:HG12	2.18	0.44
3:AJ:347:ALA:HA	3:AJ:350:ARG:NH1	2.32	0.44
3:AL:261:VAL:HG22	3:AL:283:ARG:HE	1.82	0.44
5:AQ:34:GLU:HB2	5:AQ:60:TRP:HE1	1.82	0.44
5:AR:202:GLU:CD	5:AR:203:PRO:HD2	2.43	0.44
7:BC:55:LYS:HE2	7:BC:165:ARG:NH2	2.33	0.44
7:BH:68:GLN:HG2	7:BH:204:PRO:HA	1.99	0.44
2:AF:8:MET:SD	2:AG:22:MET:HE3	2.58	0.44
3:AI:125:LEU:HD21	3:AI:128:GLY:HA2	1.99	0.44
5:AS:20:LEU:HD23	5:AS:20:LEU:H	1.83	0.44
6:AX:82:ALA:O	6:AX:134:ARG:HA	2.17	0.44
6:AY:45:LEU:HG	6:AY:47:PRO:HD3	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BA:83:GLN:HG3	6:BA:84:SER:N	2.27	0.44
1:D:39:ARG:HB3	1:D:244:PRO:HB2	2.00	0.44
1:E:123:ILE:HD13	1:E:173:THR:HG22	2.00	0.44
8:H:90:TRP:HB3	8:H:122:ARG:NH2	2.32	0.44
8:H:383:HIS:HE2	8:H:396:GLU:HA	1.81	0.44
9:N:293:ILE:HA	9:N:296:LEU:HD12	2.00	0.44
9:N:321:ASP:HB3	9:N:328:THR:OG1	2.18	0.44
1:A:146:ILE:H	1:A:146:ILE:HD12	1.83	0.44
1:A:148:THR:HG23	1:A:149:THR:HG23	2.00	0.44
2:AC:39:ILE:HG22	2:AC:44:LEU:HD22	1.99	0.44
3:AJ:4:VAL:HG12	3:AJ:6:ARG:HG3	2.00	0.44
3:AM:105:LEU:HG	3:AM:108:ALA:HB3	1.99	0.44
5:AS:80:ARG:HD3	5:AS:83:ARG:NH2	2.33	0.44
6:AZ:106:TYR:CD2	9:O:358:PRO:HG3	2.52	0.44
7:BC:134:ILE:HD11	7:BC:187:SER:HA	2.00	0.44
8:G:383:HIS:HE1	8:G:385:ARG:NH2	2.15	0.44
8:I:140:GLY:H	8:I:187:ALA:HA	1.83	0.44
8:I:155:VAL:HG13	8:I:172:HIS:HE2	1.83	0.44
2:Y:6:VAL:HG21	2:Y:22:MET:HE3	2.00	0.44
2:Y:36:ASP:CG	2:Y:37:GLY:H	2.26	0.44
3:AH:244:ASP:H	3:AH:350:ARG:HH21	1.65	0.43
5:AR:138:LYS:HB3	7:BD:119:ASP:HB3	2.00	0.43
5:AT:35:ILE:HD11	7:BF:149:GLU:O	2.18	0.43
6:AY:91:HIS:ND1	6:AY:109:VAL:HB	2.33	0.43
6:AY:100:LYS:HD2	6:AY:155:GLN:HG2	2.00	0.43
8:G:368:VAL:HB	8:G:413:LEU:HD12	2.00	0.43
8:I:142:ILE:HD13	8:I:200:LEU:HD13	2.00	0.43
8:J:373:VAL:HG22	8:J:466:PHE:HA	1.99	0.43
8:L:380:LEU:HB2	8:L:402:VAL:HG12	2.00	0.43
9:O:125:ALA:HB1	9:O:147:ILE:HG23	2.00	0.43
2:P:63:ILE:HA	2:R:56:PRO:HA	2.00	0.43
2:Q:60:ASP:CG	2:Q:61:SER:H	2.26	0.43
2:AB:9:ASP:OD2	2:AB:12:GLN:HG2	2.18	0.43
3:AI:176:PRO:HG3	3:AJ:109:TYR:HD1	1.83	0.43
3:AJ:4:VAL:HG13	3:AJ:12:PRO:HB3	2.00	0.43
3:AJ:96:LYS:HE3	3:AJ:98:VAL:HG12	1.99	0.43
3:AM:124:GLY:HA3	3:AM:152:GLN:H	1.82	0.43
5:AQ:98:ARG:HD2	5:AQ:115:ILE:O	2.19	0.43
5:AR:79:THR:HA	5:AR:147:THR:HG22	1.99	0.43
6:AY:83:GLN:HG3	6:AY:84:SER:H	1.82	0.43
6:AZ:98:VAL:HG12	6:AZ:157:PHE:HB3	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:M:264:ARG:HD3	9:M:347:GLY:H	1.83	0.43
2:S:69:ILE:HG12	2:U:64:ILE:HD13	1.99	0.43
2:V:43:LYS:HD3	2:V:43:LYS:HA	1.75	0.43
2:X:19:ASP:O	2:X:23:ILE:HG12	2.18	0.43
2:AD:77:LYS:HD3	2:AD:77:LYS:N	2.33	0.43
3:AH:94:LEU:HD11	3:AH:154:PRO:HB3	2.00	0.43
3:AM:360:LYS:HG2	3:AM:366:ARG:HG2	2.01	0.43
5:AU:49:ASP:OD1	5:AU:173:PRO:HA	2.18	0.43
6:BA:104:ALA:HB3	6:BA:160:ARG:HG2	2.00	0.43
7:BH:30:ALA:HB3	7:BH:58:LEU:HD21	2.01	0.43
8:G:173:ARG:NH1	8:G:175:THR:HA	2.33	0.43
8:G:243:LYS:HE2	8:G:243:LYS:HB3	1.81	0.43
9:N:214:ILE:HD13	9:N:278:ASP:HB3	1.99	0.43
2:P:54:LEU:HB2	2:Q:63:ILE:HD12	1.99	0.43
3:AH:362:LEU:HD13	3:AI:109:TYR:CD1	2.54	0.43
3:AI:197:LYS:HB2	3:AI:203:PHE:CD1	2.53	0.43
3:AJ:43:PHE:CE2	3:AJ:217:ALA:HB2	2.54	0.43
5:AR:80:ARG:HD3	5:AR:83:ARG:NH2	2.32	0.43
1:D:200:ARG:HB2	1:D:215:ARG:HH21	1.84	0.43
8:H:4:ARG:HG2	8:H:147:VAL:HG23	2.00	0.43
9:O:143:LEU:HD12	9:O:145:PRO:HD3	1.99	0.43
2:Q:10:THR:HA	2:Q:17:LYS:HD3	2.00	0.43
2:Y:111:SER:HB3	2:Z:99:CYS:HA	2.00	0.43
5:AQ:75:ARG:HD2	5:AQ:151:TRP:CZ2	2.53	0.43
5:AR:36:ALA:HB2	5:AR:60:TRP:HD1	1.84	0.43
6:BA:158:HIS:CE1	9:O:121:ALA:HB2	2.54	0.43
1:D:84:TYR:H	1:D:192:THR:HB	1.83	0.43
8:G:359:TYR:HB2	8:G:362:ARG:HH11	1.83	0.43
8:J:383:HIS:HE2	8:J:396:GLU:HA	1.83	0.43
8:K:173:ARG:NH1	8:K:175:THR:HA	2.34	0.43
8:L:142:ILE:HG12	8:L:185:LEU:HD22	2.00	0.43
8:L:382:GLY:HA3	8:L:400:ILE:HG12	2.01	0.43
9:N:264:ARG:HD3	9:N:347:GLY:H	1.84	0.43
9:N:273:VAL:HG21	9:O:65:GLN:OE1	2.19	0.43
2:P:22:MET:O	2:P:26:ILE:HG12	2.19	0.43
2:P:61:SER:HB2	2:Q:70:LYS:HD3	2.00	0.43
2:Q:5:ASN:HB2	2:Q:7:MET:HE3	2.00	0.43
3:AH:266:ARG:HD3	3:AH:317:GLN:OE1	2.18	0.43
3:AJ:38:VAL:HG22	3:AJ:239:THR:HG21	1.99	0.43
3:AJ:125:LEU:HG	3:AJ:130:PRO:HA	2.00	0.43
3:AK:248:ILE:O	3:AK:314:ARG:HA	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AT:203:PRO:HG2	6:AZ:23:ARG:HG3	2.01	0.43
5:AV:137:GLY:HA2	7:BH:120:MET:HA	2.01	0.43
6:BB:58:THR:HG21	9:N:352:LEU:HD21	2.01	0.43
7:BD:24:MET:HA	7:BD:204:PRO:HG3	2.01	0.43
7:BF:44:VAL:HA	7:BF:176:GLU:HB3	1.99	0.43
8:H:401:GLN:HG2	8:H:436:GLY:O	2.18	0.43
8:L:79:TYR:H	8:L:84:GLY:HA2	1.84	0.43
8:L:383:HIS:HE1	8:L:385:ARG:NH2	2.16	0.43
9:M:156:TYR:CE2	9:M:177:MET:HB3	2.52	0.43
9:O:172:LYS:HA	9:O:172:LYS:HD2	1.90	0.43
2:Z:35:PRO:HD2	2:Z:38:THR:HG21	2.00	0.43
3:AI:167:PRO:HD3	3:AJ:130:PRO:HG2	2.00	0.43
6:AX:45:LEU:HG	6:AX:47:PRO:HD3	2.01	0.43
1:D:161:LYS:HD3	1:D:230:ARG:NH1	2.33	0.43
1:F:200:ARG:HB2	1:F:215:ARG:HH21	1.83	0.43
8:G:155:VAL:HG13	8:G:172:HIS:HE2	1.83	0.43
8:G:172:HIS:CE1	8:H:208:VAL:HG22	2.54	0.43
9:M:321:ASP:HB3	9:M:328:THR:OG1	2.19	0.43
2:R:34:PRO:HG2	2:R:39:ILE:HD11	2.00	0.43
2:U:19:ASP:O	2:U:23:ILE:HG12	2.18	0.43
1:A:161:LYS:HD3	1:A:230:ARG:NH1	2.33	0.43
2:AE:51:ARG:HH12	2:AF:60:ASP:HB3	1.84	0.43
3:AI:173:LEU:HD21	3:AJ:109:TYR:CZ	2.53	0.43
3:AM:125:LEU:HG	3:AM:130:PRO:HA	2.01	0.43
6:AW:76:ALA:HB2	6:AW:190:TRP:CD2	2.54	0.43
1:B:41:ARG:HB2	1:B:247:LEU:HB2	2.01	0.43
7:BF:30:ALA:HB1	7:BF:58:LEU:HD11	2.00	0.43
8:J:410:GLU:HG3	8:J:423:VAL:HB	2.01	0.43
2:X:114:VAL:HG12	2:X:116:LEU:HD23	2.01	0.43
2:AA:64:ILE:HD13	2:Z:59:VAL:HG13	2.00	0.43
2:AB:63:ILE:HG22	2:AD:59:VAL:HG12	2.01	0.43
2:AD:129:PRO:HD3	5:AR:56:LEU:HD22	2.00	0.43
2:AF:53:LYS:HA	2:AF:53:LYS:HD2	1.89	0.43
3:AH:94:LEU:HD23	3:AH:94:LEU:H	1.84	0.43
5:AV:31:VAL:HB	5:AV:64:TRP:CD1	2.54	0.43
6:AW:91:HIS:HA	6:AW:113:THR:HG22	2.00	0.43
1:B:13:THR:HG23	1:B:230:ARG:HH21	1.84	0.43
8:G:11:GLY:HA2	8:G:216:ARG:HH22	1.84	0.43
9:M:292:SER:HB3	9:M:295:GLU:OE1	2.18	0.43
9:N:92:ALA:HA	9:N:97:VAL:HG12	2.01	0.43
2:P:19:ASP:O	2:P:23:ILE:HG13	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:22:MET:O	2:T:26:ILE:HG12	2.19	0.43
2:AB:99:CYS:HB2	2:AD:99:CYS:HB3	1.73	0.43
2:AD:69:ILE:O	2:AD:69:ILE:HG13	2.19	0.43
3:AL:193:CYS:HB2	3:AL:228:LEU:HA	1.99	0.43
5:AT:126:ILE:HD12	6:AZ:120:ILE:HD13	2.00	0.43
8:G:371:ARG:HD2	8:G:467:GLU:OE2	2.18	0.43
8:H:380:LEU:HD13	8:H:458:VAL:HG11	2.00	0.43
8:I:368:VAL:HB	8:I:413:LEU:HD12	2.01	0.43
8:J:383:HIS:HE1	8:J:385:ARG:NH2	2.17	0.43
8:K:252:ALA:HB2	8:K:261:ALA:HA	2.01	0.43
9:M:53:PRO:O	9:M:54:PRO:C	2.61	0.43
9:N:195:ARG:HG2	9:N:301:ARG:HE	1.84	0.43
2:Y:102:TYR:HA	2:Y:108:PRO:HA	2.00	0.43
2:AG:71:ALA:HA	2:AG:74:TYR:HD2	1.84	0.42
5:AQ:92:ALA:HB3	5:AQ:172:PRO:HD2	2.00	0.42
5:AR:40:ALA:HB1	5:AR:55:LEU:HD11	2.00	0.42
6:AX:106:TYR:CD2	9:M:358:PRO:HG3	2.54	0.42
6:AY:99:GLY:O	6:AY:155:GLN:HB3	2.19	0.42
6:AZ:145:TRP:H	7:BF:143:THR:HG21	1.83	0.42
6:BA:111:GLN:O	6:BA:113:THR:HG22	2.19	0.42
7:BF:165:ARG:HD2	7:BF:167:GLU:OE2	2.19	0.42
7:BG:43:VAL:HG11	7:BG:187:SER:HB3	2.01	0.42
7:BH:2:THR:HG21	8:H:344:LEU:H	1.83	0.42
8:H:360:ARG:HH22	8:I:203:ARG:HG2	1.84	0.42
4:AP:56:GLN:OE1	4:AP:58:VAL:HG23	2.19	0.42
5:AQ:112:VAL:HG22	5:AQ:168:TYR:CD2	2.52	0.42
5:AS:147:THR:HG21	7:BE:145:PRO:HD3	2.01	0.42
5:AV:37:ARG:HD2	5:AV:192:TYR:HB3	2.02	0.42
5:AV:148:SER:HA	6:BB:143:GLN:HE22	1.84	0.42
6:AY:65:GLY:H	6:AY:153:GLN:NE2	2.17	0.42
7:BD:118:ALA:HB1	7:BD:120:MET:SD	2.59	0.42
9:M:65:GLN:OE1	9:O:273:VAL:HG21	2.18	0.42
9:M:153:GLY:HA2	9:M:265:GLN:HE22	1.84	0.42
2:Q:34:PRO:HA	2:Q:35:PRO:HD3	1.94	0.42
2:U:23:ILE:O	2:U:27:GLU:HG2	2.20	0.42
2:AA:7:MET:HE3	2:Y:3:ILE:HG22	2.02	0.42
2:AC:27:GLU:HA	2:AC:31:PRO:HA	2.01	0.42
3:AM:182:ASN:HD22	3:AM:188:ILE:HD11	1.85	0.42
5:AS:207:VAL:HG13	5:AS:207:VAL:O	2.20	0.42
5:AT:76:VAL:O	5:AT:149:ASP:HA	2.19	0.42
6:AY:161:TYR:CZ	6:AY:191:THR:HG21	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:84:GLN:OE1	7:BE:187:SER:HB3	2.20	0.42
7:BF:122:ARG:HA	7:BF:131:GLU:HG3	1.99	0.42
7:BH:23:TRP:HB2	7:BH:68:GLN:NE2	2.34	0.42
8:L:144:VAL:HA	8:L:183:ALA:HA	2.01	0.42
8:L:359:TYR:HB2	8:L:362:ARG:HH11	1.84	0.42
2:P:70:LYS:HG2	2:Q:75:GLU:OE1	2.19	0.42
2:V:103:ASP:HB2	2:V:109:VAL:HG13	2.01	0.42
2:X:119:ALA:O	2:X:123:LEU:HG	2.18	0.42
2:AE:71:ALA:HA	2:AE:74:TYR:CD2	2.54	0.42
3:AI:215:ASN:HB2	5:AU:44:LYS:HD3	2.01	0.42
5:AT:21:SER:HB2	7:BF:9:HIS:HD2	1.84	0.42
6:AZ:76:ALA:HB2	6:AZ:190:TRP:CD2	2.54	0.42
6:BA:45:LEU:HD13	6:BA:171:TRP:CG	2.55	0.42
6:BA:182:PRO:HB3	6:BA:184:TRP:CH2	2.54	0.42
8:H:383:HIS:HE1	8:H:385:ARG:NH2	2.17	0.42
9:N:223:ASP:HB2	9:N:245:GLU:HG2	2.01	0.42
2:V:73:ASN:HB3	2:X:64:ILE:HG21	2.00	0.42
2:AF:66:GLU:OE1	2:AG:72:VAL:HG22	2.19	0.42
3:AH:222:PRO:HG2	3:AH:225:LEU:HD13	2.01	0.42
5:AT:56:LEU:HD21	5:AT:59:ASN:HB2	2.02	0.42
5:AV:138:LYS:HB2	7:BH:119:ASP:HB3	2.01	0.42
6:AW:118:LEU:HD12	6:AW:118:LEU:HA	1.94	0.42
6:AX:70:PHE:CZ	6:AX:147:PRO:HB3	2.55	0.42
1:B:116:GLY:HA3	1:C:229:PHE:HA	2.01	0.42
6:BB:80:ILE:HD13	6:BB:115:GLY:HA2	2.01	0.42
7:BG:122:ARG:HB2	7:BG:129:GLY:C	2.45	0.42
1:E:57:ARG:NH1	1:E:82:ARG:HG2	2.35	0.42
1:F:161:LYS:HE2	1:F:161:LYS:HB3	1.88	0.42
8:G:276:TYR:HD1	8:G:477:ALA:HA	1.85	0.42
8:G:279:LEU:HD12	8:G:474:ASP:HB2	2.00	0.42
8:K:142:ILE:HD13	8:K:200:LEU:HD13	2.01	0.42
8:L:96:CYS:SG	8:L:188:CYS:HB3	2.59	0.42
9:O:15:VAL:HB	9:O:28:PHE:HB2	2.01	0.42
9:O:94:LYS:HE2	9:O:94:LYS:HB2	1.74	0.42
9:O:357:LEU:HD23	9:O:357:LEU:HA	1.92	0.42
3:AL:22:PRO:HG2	3:AL:24:LYS:NZ	2.35	0.42
4:AP:40:LEU:HB3	4:AP:49:LEU:HD11	2.00	0.42
5:AR:56:LEU:HD11	5:AR:166:ARG:NE	2.34	0.42
6:AY:113:THR:OG1	7:BE:138:ARG:HD3	2.19	0.42
7:BD:126:LEU:HD23	7:BD:126:LEU:H	1.84	0.42
7:BE:157:ALA:HB3	7:BE:160:ASP:OD2	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:K:70:TYR:HB2	2:R:7:MET:HE1	2.01	0.42
9:O:132:TRP:HA	9:O:135:MET:HG2	2.01	0.42
1:A:48:VAL:HG12	1:A:49:THR:HG23	2.02	0.42
3:AH:160:GLY:HA3	3:AH:166:PHE:CD2	2.55	0.42
5:AQ:112:VAL:HA	5:AQ:115:ILE:O	2.20	0.42
5:AT:89:ASN:HB3	5:AT:90:PRO:HD3	2.01	0.42
6:AZ:99:GLY:O	6:AZ:155:GLN:HB2	2.19	0.42
1:E:161:LYS:NZ	1:E:232:PRO:HG3	2.35	0.42
8:L:349:VAL:HG22	8:L:457:VAL:HG22	2.02	0.42
2:P:71:ALA:HA	2:P:74:TYR:HD2	1.85	0.42
2:U:34:PRO:HA	2:U:35:PRO:HD3	1.93	0.42
2:W:99:CYS:HB3	2:X:99:CYS:HB2	1.99	0.42
1:A:42:LEU:HB3	1:A:100:MET:HE1	2.02	0.42
1:A:200:ARG:HA	1:A:216:LEU:HB2	2.01	0.42
3:AI:357:GLN:O	3:AI:369:SER:HB2	2.19	0.42
4:AP:34:ARG:HD2	4:AP:38:TRP:O	2.20	0.42
6:AZ:116:GLY:HA3	6:AZ:135:TYR:HE2	1.84	0.42
1:D:34:PRO:HB2	1:D:249:THR:HG21	2.02	0.42
8:H:173:ARG:NH1	8:H:175:THR:HG22	2.34	0.42
8:I:47:ILE:HG13	8:I:55:VAL:HG12	2.02	0.42
2:Q:125:GLU:OE2	2:Q:126:THR:HG22	2.20	0.42
2:T:34:PRO:HB2	2:T:38:THR:OG1	2.20	0.42
2:X:60:ASP:O	2:X:64:ILE:HG12	2.20	0.42
4:AO:40:LEU:HG	4:AO:51:ALA:HB2	2.00	0.42
5:AU:52:GLU:HB3	5:AU:113:SER:HB3	2.01	0.42
5:AV:181:LYS:HD2	5:AV:181:LYS:HA	1.76	0.42
6:AX:86:SER:HA	6:AX:171:TRP:CZ3	2.54	0.42
6:AY:24:SER:O	6:AY:199:PRO:HD3	2.19	0.42
8:I:4:ARG:HG2	8:I:147:VAL:HG23	2.01	0.42
8:I:151:GLY:HA3	8:I:152:PRO:HD2	1.95	0.42
8:I:279:LEU:HD12	8:I:474:ASP:HB2	2.02	0.42
8:I:384:TRP:HB2	8:I:397:GLN:O	2.20	0.42
9:N:292:SER:HB3	9:N:295:GLU:OE1	2.19	0.42
3:AJ:173:LEU:HD21	3:AK:109:TYR:CE1	2.54	0.42
3:AM:213:VAL:HG12	3:AM:218:ARG:HB3	2.02	0.42
3:AM:248:ILE:HD12	3:AM:377:ALA:HB2	2.02	0.42
3:AM:284:ASN:ND2	7:BH:45:GLY:HA3	2.35	0.42
5:AV:76:VAL:O	5:AV:149:ASP:HA	2.19	0.42
6:AW:145:TRP:H	7:BC:143:THR:HG21	1.85	0.42
6:AX:8:THR:OG1	6:AX:12:MET:HB2	2.20	0.42
6:BA:144:VAL:HA	7:BG:143:THR:HG23	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:63:THR:HG22	1:D:74:SER:HA	2.02	0.42
1:E:56:MET:HG2	1:E:81:ARG:HB3	2.01	0.42
1:E:121:LYS:HA	1:F:81:ARG:NE	2.35	0.42
8:I:52:LEU:HB2	2:V:19:ASP:HB2	2.01	0.42
8:I:172:HIS:CE1	8:J:208:VAL:HG22	2.55	0.42
8:L:371:ARG:HD2	8:L:467:GLU:OE2	2.20	0.42
8:L:380:LEU:HD13	8:L:458:VAL:HG11	2.01	0.42
2:P:18:LEU:HD11	2:Q:22:MET:HE1	2.02	0.42
2:V:7:MET:HG2	2:W:3:ILE:HG13	2.01	0.42
2:AB:85:ALA:HA	2:AD:77:LYS:HA	2.02	0.41
2:AC:34:PRO:HG2	2:AC:39:ILE:HD11	2.01	0.41
2:AD:19:ASP:O	2:AD:23:ILE:HG12	2.20	0.41
3:AI:173:LEU:HD21	3:AJ:109:TYR:CE1	2.55	0.41
3:AJ:43:PHE:O	3:AJ:215:ASN:HA	2.19	0.41
3:AK:66:LEU:HG	3:AK:206:VAL:HG11	2.02	0.41
5:AQ:11:HIS:CE1	6:AW:26:LEU:HD11	2.55	0.41
1:C:121:LYS:HA	1:D:81:ARG:NE	2.35	0.41
1:D:59:ALA:HB2	1:D:79:PRO:HG3	2.02	0.41
8:G:4:ARG:HG2	8:G:147:VAL:HG23	2.01	0.41
8:G:47:ILE:HD12	8:G:47:ILE:H	1.85	0.41
8:J:193:LEU:HD22	8:J:262:THR:C	2.45	0.41
8:J:377:GLN:HB2	8:J:404:GLY:HA2	2.01	0.41
8:K:142:ILE:HG12	8:K:185:LEU:HD22	2.02	0.41
8:K:383:HIS:HE1	8:K:385:ARG:NH2	2.16	0.41
8:L:173:ARG:NH1	8:L:175:THR:HG22	2.34	0.41
8:L:411:LEU:HD12	8:L:411:LEU:HA	1.84	0.41
9:N:178:GLY:HA2	9:N:269:GLN:NE2	2.36	0.41
9:N:265:GLN:O	9:N:269:GLN:HG3	2.20	0.41
9:O:156:TYR:CE2	9:O:177:MET:HB3	2.55	0.41
2:AA:19:ASP:O	2:AA:23:ILE:HG12	2.20	0.41
2:AG:40:THR:HG22	2:AG:41:GLU:N	2.35	0.41
3:AJ:267:ARG:HH22	3:AJ:319:GLY:N	2.17	0.41
3:AL:263:GLN:HG2	3:AL:355:MET:HG3	2.02	0.41
7:BC:110:VAL:HG21	7:BC:113:ARG:HE	1.85	0.41
7:BD:43:VAL:HB	7:BD:84:GLN:HE21	1.85	0.41
7:BD:86:ARG:HB2	7:BD:176:GLU:OE1	2.20	0.41
7:BF:69:HIS:HB3	7:BF:153:TRP:HB3	2.02	0.41
1:D:13:THR:HG23	1:D:230:ARG:HH21	1.84	0.41
1:D:107:LEU:HD11	1:D:118:ARG:HD3	2.02	0.41
8:H:380:LEU:HB2	8:H:402:VAL:HG12	2.01	0.41
8:H:406:PRO:HB2	8:H:424:TYR:CE1	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:344:LEU:HD12	8:I:344:LEU:HA	1.90	0.41
8:J:4:ARG:HG2	8:J:147:VAL:HG23	2.01	0.41
8:J:400:ILE:HG22	8:J:443:TRP:CD1	2.54	0.41
8:K:204:LEU:HB3	8:K:241:LEU:HD13	2.01	0.41
8:L:406:PRO:HB2	8:L:424:TYR:CE1	2.55	0.41
9:M:132:TRP:HA	9:M:135:MET:HG2	2.01	0.41
2:S:119:ALA:O	2:S:123:LEU:HG	2.20	0.41
2:Y:37:GLY:HA2	2:Z:43:LYS:C	2.45	0.41
2:AC:22:MET:O	2:AC:26:ILE:HG12	2.20	0.41
3:AI:161:ARG:NH1	3:AI:168:ASP:HA	2.36	0.41
3:AI:262:THR:HG23	3:AI:356:MET:HG2	2.01	0.41
6:AZ:66:ASP:HB3	6:AZ:150:LEU:HD11	2.02	0.41
6:AZ:95:THR:HG21	6:AZ:105:ASP:N	2.36	0.41
1:B:15:PHE:HB3	1:B:230:ARG:HD3	2.01	0.41
7:BD:130:THR:HG21	7:BD:176:GLU:OE2	2.19	0.41
7:BG:114:PHE:CZ	7:BG:137:GLU:HG3	2.56	0.41
1:F:50:LEU:HD23	1:F:133:VAL:HG21	2.02	0.41
8:G:203:ARG:HG2	8:L:360:ARG:NH2	2.35	0.41
8:G:384:TRP:HB2	8:G:397:GLN:O	2.20	0.41
8:I:371:ARG:HD2	8:I:467:GLU:OE2	2.20	0.41
8:K:90:TRP:HB3	8:K:122:ARG:NH2	2.35	0.41
8:K:371:ARG:HD2	8:K:467:GLU:OE2	2.21	0.41
8:K:405:LEU:HD23	8:K:406:PRO:O	2.21	0.41
9:N:114:PRO:HA	9:N:138:ARG:HH21	1.85	0.41
9:O:209:ASP:N	9:O:283:THR:HG22	2.35	0.41
2:S:71:ALA:HA	2:S:74:TYR:CD2	2.56	0.41
2:W:71:ALA:HA	2:W:74:TYR:CE2	2.55	0.41
2:AA:99:CYS:HB2	2:Z:99:CYS:HB3	1.69	0.41
2:AD:85:ALA:HB3	2:AD:88:SER:HB3	2.02	0.41
2:AE:3:ILE:HG21	8:L:70:TYR:CE2	2.55	0.41
3:AI:197:LYS:HB3	3:AI:197:LYS:HE3	1.79	0.41
3:AI:281:ASP:HB2	3:AI:290:VAL:HG13	2.03	0.41
5:AU:143:TRP:CH2	7:BG:139:MET:HG2	2.55	0.41
6:AX:118:LEU:HD12	6:AX:118:LEU:HA	1.88	0.41
7:BC:69:HIS:O	7:BC:202:ALA:HA	2.20	0.41
1:E:116:GLY:HA3	1:F:229:PHE:HA	2.02	0.41
8:G:369:THR:HB	8:G:469:GLU:HB3	2.02	0.41
8:G:400:ILE:HG22	8:G:443:TRP:HD1	1.84	0.41
8:H:371:ARG:HD2	8:H:467:GLU:OE2	2.20	0.41
8:I:44:LEU:HD11	8:I:57:ALA:HB2	2.01	0.41
8:J:140:GLY:H	8:J:187:ALA:HA	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:J:142:ILE:HD13	8:J:200:LEU:HD13	2.01	0.41
8:K:415:ALA:HA	8:K:445:PRO:HB3	2.01	0.41
9:N:108:LEU:HD21	9:N:132:TRP:CE2	2.56	0.41
2:T:77:LYS:HG2	2:U:86:ASP:OD1	2.20	0.41
3:AH:228:LEU:HB3	3:AH:360:LYS:HB3	2.02	0.41
3:AI:30:THR:HG22	2:U:127:PRO:HG2	2.02	0.41
3:AI:58:SER:HB3	3:AI:63:ALA:HB2	2.03	0.41
3:AI:64:LEU:HD12	3:AI:72:LEU:HD23	2.02	0.41
3:AJ:213:VAL:HB	3:AJ:218:ARG:HD3	2.02	0.41
3:AL:113:TRP:CD1	3:AL:122:LEU:HD23	2.54	0.41
6:AY:145:TRP:H	7:BE:143:THR:HG21	1.85	0.41
6:AZ:84:SER:HB3	6:AZ:85:PRO:HD3	2.01	0.41
1:B:84:TYR:H	1:B:192:THR:HB	1.84	0.41
7:BE:84:GLN:NE2	7:BE:133:GLY:H	2.19	0.41
7:BF:40:SER:HB3	7:BF:190:SER:HB3	2.01	0.41
1:C:84:TYR:H	1:C:192:THR:HB	1.86	0.41
1:D:138:LYS:HD2	1:D:142:ASP:CG	2.46	0.41
1:E:48:VAL:HG12	1:E:49:THR:HG23	2.03	0.41
8:G:383:HIS:NE2	8:G:396:GLU:HA	2.36	0.41
9:N:38:TRP:HB3	9:N:48:PHE:HD1	1.86	0.41
9:O:104:THR:HG21	9:O:143:LEU:HD22	2.02	0.41
9:O:321:ASP:HB3	9:O:328:THR:OG1	2.21	0.41
2:P:41:GLU:OE1	2:Q:50:SER:HB2	2.21	0.41
2:X:18:LEU:HB2	2:X:23:ILE:HD11	2.02	0.41
2:AF:19:ASP:HB2	8:L:82:GLY:HA3	2.02	0.41
2:AF:22:MET:HE2	2:AF:22:MET:N	2.35	0.41
3:AJ:176:PRO:HG3	3:AK:109:TYR:HD1	1.86	0.41
3:AJ:360:LYS:HD3	3:AJ:366:ARG:HG2	2.02	0.41
3:AK:134:PRO:HA	3:AK:154:PRO:HG2	2.01	0.41
3:AM:263:GLN:OE1	3:AM:355:MET:HE3	2.20	0.41
4:AO:7:GLY:C	9:N:274:ARG:HH22	2.29	0.41
4:AP:37:PRO:HG3	9:M:164:GLU:OE2	2.21	0.41
6:AX:52:MET:HE3	6:AX:188:ALA:HB2	2.01	0.41
6:AZ:45:LEU:HG	6:AZ:47:PRO:HD3	2.01	0.41
7:BF:26:TRP:HB2	7:BF:203:VAL:HG22	2.03	0.41
1:F:214:VAL:HG12	1:F:271:VAL:HG22	2.02	0.41
8:G:44:LEU:HB3	8:G:54:SER:OG	2.21	0.41
8:K:172:HIS:CE1	8:L:208:VAL:HG22	2.55	0.41
8:K:243:LYS:HB3	8:K:243:LYS:HE2	1.91	0.41
8:L:384:TRP:HB2	8:L:397:GLN:O	2.20	0.41
9:O:292:SER:HB3	9:O:295:GLU:OE1	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:6:VAL:HG13	2:Z:6:VAL:HG12	2.02	0.41
1:A:161:LYS:NZ	1:A:232:PRO:HG3	2.36	0.41
2:AB:43:LYS:HA	2:AB:43:LYS:HD3	1.84	0.41
3:AH:13:ILE:HA	2:V:136:SER:C	2.45	0.41
3:AI:307:PHE:HB3	3:AI:313:PHE:HZ	1.86	0.41
4:AO:23:ARG:HH22	4:AP:25:ARG:HG2	1.86	0.41
5:AR:92:ALA:HB2	5:AR:123:ALA:HB2	2.02	0.41
6:AW:115:GLY:H	7:BC:138:ARG:HB2	1.85	0.41
1:D:222:LYS:HD3	8:H:26:VAL:O	2.21	0.41
1:F:222:LYS:HD3	8:L:26:VAL:O	2.21	0.41
8:H:238:GLY:HA3	8:H:273:SER:OG	2.20	0.41
8:J:11:GLY:HA2	8:J:216:ARG:HH22	1.86	0.41
8:K:57:ALA:HB3	8:K:60:GLN:HG3	2.03	0.41
9:M:265:GLN:O	9:M:269:GLN:HG3	2.20	0.41
9:M:350:ARG:H	9:M:350:ARG:HG2	1.66	0.41
9:N:158:PHE:CD2	9:N:177:MET:HE1	2.56	0.41
9:O:153:GLY:HA2	9:O:265:GLN:HE22	1.85	0.41
2:W:34:PRO:HA	2:W:35:PRO:HD3	1.92	0.41
2:Y:60:ASP:H	2:Y:63:ILE:HD13	1.84	0.41
1:A:80:GLU:OE2	1:F:121:LYS:HG3	2.21	0.41
2:AC:9:ASP:HB3	2:AD:3:ILE:HD13	2.02	0.41
2:AC:131:THR:N	3:AL:7:ARG:HH22	2.17	0.41
2:AD:71:ALA:HA	2:AD:74:TYR:HD2	1.85	0.41
3:AJ:181:VAL:HG12	3:AJ:187:VAL:HA	2.02	0.41
3:AJ:230:LYS:HE2	3:AJ:260:TYR:CE1	2.56	0.41
3:AL:266:ARG:HD3	3:AL:317:GLN:OE1	2.21	0.41
5:AQ:142:TRP:HB2	7:BC:115:GLY:H	1.86	0.41
5:AR:125:ASP:CB	6:AX:134:ARG:HB2	2.51	0.41
5:AT:144:GLY:N	7:BF:139:MET:HE1	2.32	0.41
1:B:121:LYS:HA	1:C:81:ARG:NE	2.36	0.41
7:BH:114:PHE:CZ	7:BH:137:GLU:HG2	2.56	0.41
1:D:42:LEU:HB3	1:D:100:MET:HE1	2.02	0.41
1:D:195:MET:HB3	1:D:198:TRP:HB2	2.03	0.41
1:E:248:ALA:HB1	1:E:251:THR:HB	2.03	0.41
8:G:221:HIS:HB3	8:H:190:SER:OG	2.21	0.41
8:I:383:HIS:NE2	8:I:396:GLU:HA	2.35	0.41
2:T:19:ASP:O	2:T:23:ILE:HG12	2.21	0.41
1:A:104:TRP:CD1	1:A:120:GLN:HB3	2.55	0.41
2:AB:18:LEU:HD13	2:AC:25:GLU:HG2	2.01	0.41
2:AC:125:GLU:HG3	2:AC:126:THR:HG22	2.02	0.41
2:AE:2:THR:N	2:AG:10:THR:HG1	2.18	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:208:PHE:CE2	3:AI:231:GLN:HG3	2.56	0.41
5:AQ:47:LYS:HG3	5:AQ:175:TRP:CD1	2.56	0.41
5:AR:142:TRP:HB2	7:BD:115:GLY:H	1.85	0.41
5:AS:12:LEU:HD11	7:BE:10:PHE:HZ	1.86	0.41
5:AV:98:ARG:NH1	5:AV:110:PRO:HA	2.35	0.41
6:AY:89:VAL:HG11	7:BE:138:ARG:NH1	2.36	0.41
6:AY:158:HIS:CE1	9:M:121:ALA:HB2	2.56	0.41
1:B:28:VAL:HG12	1:B:34:PRO:HA	2.03	0.41
1:C:200:ARG:HB2	1:C:215:ARG:HH21	1.85	0.41
1:F:84:TYR:H	1:F:192:THR:HB	1.85	0.41
1:F:123:ILE:HD13	1:F:173:THR:HG22	2.03	0.41
8:G:203:ARG:HG2	8:L:360:ARG:HH21	1.85	0.41
8:G:378:LEU:HD21	8:G:380:LEU:HG	2.01	0.41
8:H:11:GLY:HA2	8:H:216:ARG:HH22	1.85	0.41
8:H:419:ARG:HH21	9:O:29:ARG:HH11	1.68	0.41
8:I:109:TRP:CE2	8:I:111:GLN:HB2	2.56	0.41
8:J:290:GLU:HB3	8:J:349:VAL:HB	2.02	0.41
8:J:360:ARG:NH2	8:K:203:ARG:HG2	2.36	0.41
8:L:238:GLY:HA3	8:L:273:SER:OG	2.21	0.41
9:M:112:ARG:HH22	9:O:234:ARG:NH1	2.19	0.41
9:M:172:LYS:HA	9:M:172:LYS:HD2	1.91	0.41
9:M:195:ARG:HG2	9:M:301:ARG:HE	1.86	0.41
9:M:214:ILE:HD13	9:M:278:ASP:HB3	2.02	0.41
9:M:222:ASN:HD22	9:M:239:LEU:HD23	1.86	0.41
2:Q:61:SER:HB2	2:R:68:GLY:O	2.21	0.41
2:R:17:LYS:HE2	2:R:17:LYS:HB3	1.67	0.41
2:S:121:TYR:O	2:S:124:ILE:HG22	2.20	0.41
2:X:102:TYR:HE1	2:X:108:PRO:HG3	1.85	0.41
2:Y:52:ASP:O	2:Y:53:LYS:HD3	2.21	0.41
2:AC:8:MET:HE2	2:AC:8:MET:HB3	1.85	0.41
2:AD:22:MET:O	2:AD:26:ILE:HG12	2.21	0.41
2:AG:60:ASP:OD1	2:AG:63:ILE:HG12	2.21	0.41
3:AL:68:ILE:HG12	3:AL:220:LEU:HG	2.03	0.41
8:G:150:LEU:HD23	8:G:150:LEU:HA	1.91	0.41
8:G:238:GLY:HA3	8:G:273:SER:OG	2.21	0.41
8:H:361:CYS:SG	8:I:202:CYS:HB2	2.61	0.41
8:I:383:HIS:HE2	8:I:396:GLU:HA	1.86	0.41
9:O:46:SER:H	9:O:103:ASP:CG	2.29	0.41
9:O:223:ASP:HB2	9:O:245:GLU:HG2	2.03	0.41
2:W:66:GLU:HG2	2:X:72:VAL:HG22	2.02	0.41
2:Y:116:LEU:HD12	2:Y:120:GLN:HB3	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AK:282:PHE:HB3	3:AK:307:PHE:CZ	2.56	0.40
4:AP:38:TRP:NE1	4:AP:53:ARG:HH21	2.19	0.40
5:AR:104:ASP:OD1	5:AR:159:GLN:HB2	2.21	0.40
5:AU:121:GLY:H	6:BA:138:ASP:HB2	1.86	0.40
6:AW:7:CYS:SG	8:G:341:PRO:HA	2.61	0.40
6:AW:80:ILE:HD13	6:AW:115:GLY:HA2	2.02	0.40
8:G:19:ARG:NH1	8:G:127:PRO:HD3	2.36	0.40
8:G:344:LEU:HD12	8:G:344:LEU:HA	1.90	0.40
8:I:430:ARG:HE	8:I:430:ARG:HB3	1.74	0.40
8:K:146:ASP:HB3	8:K:182:ASP:HB3	2.03	0.40
2:Y:51:ARG:HG3	2:Z:58:ALA:O	2.21	0.40
3:AH:115:GLY:HA3	7:BH:182:GLY:H	1.86	0.40
3:AH:287:VAL:HG12	3:AH:305:THR:O	2.21	0.40
3:AK:161:ARG:NH1	3:AK:168:ASP:HA	2.34	0.40
5:AR:91:ASN:HB2	5:AR:186:HIS:NE2	2.36	0.40
6:AX:119:GLN:O	7:BD:133:GLY:HA2	2.21	0.40
7:BG:23:TRP:HB2	7:BG:68:GLN:HE22	1.86	0.40
8:G:47:ILE:HG13	8:G:55:VAL:HG12	2.03	0.40
8:K:19:ARG:NH1	8:K:127:PRO:HD3	2.36	0.40
8:K:54:SER:HB2	2:P:7:MET:SD	2.61	0.40
8:L:140:GLY:H	8:L:187:ALA:HA	1.86	0.40
8:L:142:ILE:HD13	8:L:200:LEU:HD13	2.02	0.40
8:L:276:TYR:HD1	8:L:477:ALA:HA	1.86	0.40
9:N:156:TYR:CE2	9:N:177:MET:HB3	2.57	0.40
2:P:113:ARG:HD2	2:P:115:TYR:CZ	2.56	0.40
2:R:113:ARG:HG2	2:R:134:TYR:CE1	2.47	0.40
3:AJ:94:LEU:HD11	3:AJ:154:PRO:HB3	2.04	0.40
5:AQ:29:ARG:HH22	5:AQ:72:HIS:CE1	2.39	0.40
5:AQ:30:ASN:HD21	5:AQ:33:ASP:HB2	1.87	0.40
6:AX:161:TYR:CZ	6:AX:191:THR:HG21	2.56	0.40
7:BD:25:GLN:O	7:BD:27:ARG:HG3	2.21	0.40
8:I:200:LEU:HD21	8:I:268:TRP:CZ3	2.57	0.40
8:J:68:LEU:HB2	2:U:19:ASP:HB2	2.03	0.40
8:J:361:CYS:SG	8:K:202:CYS:HB2	2.61	0.40
9:O:19:THR:HB	9:O:25:LEU:HD11	2.04	0.40
2:S:72:VAL:HB	2:U:66:GLU:OE1	2.21	0.40
2:AB:84:LEU:HD23	2:AD:79:VAL:HB	2.04	0.40
2:AE:22:MET:O	2:AE:26:ILE:HG12	2.21	0.40
2:AG:123:LEU:HD22	3:AK:328:GLY:HA3	2.03	0.40
3:AJ:57:ARG:HH22	3:AJ:75:GLY:HA2	1.85	0.40
3:AL:248:ILE:HG22	3:AL:315:LEU:HB3	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AM:8:GLY:HA2	2:Z:133:TYR:HE2	1.87	0.40
4:AO:24:LEU:HD23	4:AO:24:LEU:HA	1.92	0.40
6:AZ:6:LEU:HD22	8:J:342:VAL:HG22	2.03	0.40
1:B:63:THR:HG22	1:B:74:SER:HA	2.03	0.40
7:BC:21:GLN:HA	7:BC:22:PRO:HD3	1.95	0.40
7:BF:109:GLU:HB3	7:BF:149:GLU:OE2	2.21	0.40
7:BG:122:ARG:HB3	7:BG:128:VAL:HG23	2.04	0.40
8:G:415:ALA:HA	8:G:445:PRO:HB3	2.03	0.40
8:I:415:ALA:HA	8:I:445:PRO:HB3	2.04	0.40
9:M:273:VAL:HG21	9:N:65:GLN:OE1	2.21	0.40
9:N:200:MET:SD	9:N:303:TRP:HB2	2.62	0.40
2:Q:8:MET:HE3	2:R:25:GLU:HG3	2.02	0.40
2:S:39:ILE:HD12	2:S:44:LEU:HD21	2.04	0.40
2:X:116:LEU:HD11	2:X:121:TYR:HB2	2.04	0.40
3:AH:244:ASP:N	3:AH:350:ARG:HH21	2.20	0.40
3:AI:126:VAL:HG21	3:AI:146:ILE:HD12	2.04	0.40
3:AI:189:GLY:HA3	3:AI:196:PHE:CZ	2.57	0.40
3:AI:261:VAL:HG12	3:AI:283:ARG:HB2	2.03	0.40
5:AQ:40:ALA:HB3	5:AQ:57:LEU:HD23	2.04	0.40
5:AR:10:GLU:HG3	5:AR:70:VAL:HG22	2.04	0.40
5:AR:171:THR:HG21	5:AR:175:TRP:HZ3	1.86	0.40
5:AU:99:TRP:HB3	5:AU:165:TYR:HD1	1.85	0.40
5:AV:208:ILE:HG23	5:AV:209:GLY:H	1.86	0.40
1:B:56:MET:HA	1:B:81:ARG:HA	2.04	0.40
1:B:260:TYR:CD1	8:J:29:PRO:HB2	2.57	0.40
6:BA:87:THR:O	6:BA:167:THR:HA	2.21	0.40
6:BA:174:PRO:HG2	6:BA:182:PRO:HG3	2.02	0.40
7:BC:157:ALA:HB3	7:BC:160:ASP:OD2	2.21	0.40
7:BG:84:GLN:NE2	7:BG:187:SER:HB3	2.36	0.40
7:BG:86:ARG:O	7:BG:174:GLN:HG3	2.21	0.40
1:C:161:LYS:HB2	1:C:230:ARG:CZ	2.50	0.40
1:C:194:ALA:HB2	1:C:225:HIS:HE1	1.86	0.40
1:D:200:ARG:HA	1:D:216:LEU:HB2	2.04	0.40
8:H:344:LEU:HD12	8:H:344:LEU:HA	1.90	0.40
8:I:19:ARG:NH1	8:I:127:PRO:HD3	2.37	0.40
8:I:47:ILE:H	8:I:47:ILE:HD12	1.87	0.40
8:I:150:LEU:HD23	8:I:150:LEU:HA	1.90	0.40
8:I:164:GLY:O	8:J:173:ARG:HD3	2.21	0.40
8:J:150:LEU:HD23	8:J:150:LEU:HA	1.90	0.40
8:K:368:VAL:HB	8:K:413:LEU:HD12	2.03	0.40
2:R:69:ILE:HG23	2:R:73:ASN:HB2	2.04	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	A	264/266 (99%)	250 (95%)	14 (5%)	0	100	100
1	B	264/266 (99%)	249 (94%)	15 (6%)	0	100	100
1	C	264/266 (99%)	251 (95%)	13 (5%)	0	100	100
1	D	264/266 (99%)	250 (95%)	14 (5%)	0	100	100
1	E	264/266 (99%)	249 (94%)	15 (6%)	0	100	100
1	F	264/266 (99%)	248 (94%)	16 (6%)	0	100	100
2	AA	133/135 (98%)	129 (97%)	4 (3%)	0	100	100
2	AB	133/135 (98%)	127 (96%)	6 (4%)	0	100	100
2	AC	133/135 (98%)	123 (92%)	10 (8%)	0	100	100
2	AD	133/135 (98%)	128 (96%)	5 (4%)	0	100	100
2	AE	133/135 (98%)	119 (90%)	14 (10%)	0	100	100
2	AF	133/135 (98%)	120 (90%)	13 (10%)	0	100	100
2	AG	133/135 (98%)	128 (96%)	3 (2%)	2 (2%)	8	29
2	P	133/135 (98%)	129 (97%)	4 (3%)	0	100	100
2	Q	133/135 (98%)	123 (92%)	10 (8%)	0	100	100
2	R	133/135 (98%)	128 (96%)	5 (4%)	0	100	100
2	S	133/135 (98%)	129 (97%)	3 (2%)	1 (1%)	16	44
2	T	133/135 (98%)	127 (96%)	5 (4%)	1 (1%)	16	44
2	U	133/135 (98%)	129 (97%)	4 (3%)	0	100	100
2	V	133/135 (98%)	124 (93%)	9 (7%)	0	100	100
2	W	133/135 (98%)	131 (98%)	2 (2%)	0	100	100
2	X	133/135 (98%)	128 (96%)	5 (4%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	Y	133/135 (98%)	124 (93%)	9 (7%)	0	100	100
2	Z	133/135 (98%)	123 (92%)	10 (8%)	0	100	100
3	AH	375/377 (100%)	364 (97%)	11 (3%)	0	100	100
3	AI	375/377 (100%)	363 (97%)	12 (3%)	0	100	100
3	AJ	375/377 (100%)	355 (95%)	20 (5%)	0	100	100
3	AK	375/377 (100%)	365 (97%)	10 (3%)	0	100	100
3	AL	375/377 (100%)	355 (95%)	20 (5%)	0	100	100
3	AM	375/377 (100%)	356 (95%)	19 (5%)	0	100	100
4	AN	61/63 (97%)	61 (100%)	0	0	100	100
4	AO	61/63 (97%)	60 (98%)	1 (2%)	0	100	100
4	AP	61/63 (97%)	60 (98%)	1 (2%)	0	100	100
5	AQ	206/208 (99%)	194 (94%)	12 (6%)	0	100	100
5	AR	206/208 (99%)	192 (93%)	14 (7%)	0	100	100
5	AS	206/208 (99%)	190 (92%)	16 (8%)	0	100	100
5	AT	206/208 (99%)	193 (94%)	12 (6%)	1 (0%)	24	54
5	AU	206/208 (99%)	194 (94%)	12 (6%)	0	100	100
5	AV	206/208 (99%)	194 (94%)	11 (5%)	1 (0%)	24	54
6	AW	200/202 (99%)	189 (94%)	11 (6%)	0	100	100
6	AX	200/202 (99%)	188 (94%)	10 (5%)	2 (1%)	12	38
6	AY	200/202 (99%)	191 (96%)	9 (4%)	0	100	100
6	AZ	200/202 (99%)	192 (96%)	8 (4%)	0	100	100
6	BA	200/202 (99%)	193 (96%)	6 (3%)	1 (0%)	24	54
6	BB	200/202 (99%)	191 (96%)	9 (4%)	0	100	100
7	BC	203/205 (99%)	194 (96%)	9 (4%)	0	100	100
7	BD	203/205 (99%)	198 (98%)	5 (2%)	0	100	100
7	BE	203/205 (99%)	195 (96%)	8 (4%)	0	100	100
7	BF	203/205 (99%)	196 (97%)	7 (3%)	0	100	100
7	BG	203/205 (99%)	198 (98%)	5 (2%)	0	100	100
7	BH	203/205 (99%)	197 (97%)	6 (3%)	0	100	100
8	G	441/476 (93%)	419 (95%)	22 (5%)	0	100	100
8	H	441/476 (93%)	419 (95%)	22 (5%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	I	441/476 (93%)	415 (94%)	26 (6%)	0	100	100
8	J	441/476 (93%)	416 (94%)	25 (6%)	0	100	100
8	K	441/476 (93%)	416 (94%)	25 (6%)	0	100	100
8	L	441/476 (93%)	416 (94%)	25 (6%)	0	100	100
9	M	356/358 (99%)	328 (92%)	28 (8%)	0	100	100
9	N	356/358 (99%)	321 (90%)	34 (10%)	1 (0%)	36	64
9	O	356/358 (99%)	332 (93%)	24 (7%)	0	100	100
All	All	13779/14097 (98%)	13066 (95%)	703 (5%)	10 (0%)	49	76

All (10) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	AT	138	LYS
6	BA	85	PRO
2	AG	91	VAL
5	AV	208	ILE
2	T	3	ILE
6	AX	86	SER
2	AG	59	VAL
2	S	69	ILE
9	N	57	ASP
6	AX	85	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	A	213/213 (100%)	213 (100%)	0	100	100
1	B	213/213 (100%)	213 (100%)	0	100	100
1	C	213/213 (100%)	213 (100%)	0	100	100
1	D	213/213 (100%)	213 (100%)	0	100	100
1	E	213/213 (100%)	213 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	F	213/213 (100%)	213 (100%)	0	100	100
2	AA	104/104 (100%)	104 (100%)	0	100	100
2	AB	104/104 (100%)	104 (100%)	0	100	100
2	AC	104/104 (100%)	104 (100%)	0	100	100
2	AD	104/104 (100%)	104 (100%)	0	100	100
2	AE	104/104 (100%)	104 (100%)	0	100	100
2	AF	104/104 (100%)	104 (100%)	0	100	100
2	AG	104/104 (100%)	104 (100%)	0	100	100
2	P	104/104 (100%)	104 (100%)	0	100	100
2	Q	104/104 (100%)	104 (100%)	0	100	100
2	R	104/104 (100%)	104 (100%)	0	100	100
2	S	104/104 (100%)	104 (100%)	0	100	100
2	T	104/104 (100%)	104 (100%)	0	100	100
2	U	104/104 (100%)	104 (100%)	0	100	100
2	V	104/104 (100%)	104 (100%)	0	100	100
2	W	104/104 (100%)	104 (100%)	0	100	100
2	X	104/104 (100%)	104 (100%)	0	100	100
2	Y	104/104 (100%)	104 (100%)	0	100	100
2	Z	104/104 (100%)	104 (100%)	0	100	100
3	AH	299/299 (100%)	299 (100%)	0	100	100
3	AI	299/299 (100%)	299 (100%)	0	100	100
3	AJ	299/299 (100%)	299 (100%)	0	100	100
3	AK	299/299 (100%)	299 (100%)	0	100	100
3	AL	299/299 (100%)	299 (100%)	0	100	100
3	AM	299/299 (100%)	299 (100%)	0	100	100
4	AN	52/52 (100%)	52 (100%)	0	100	100
4	AO	52/52 (100%)	52 (100%)	0	100	100
4	AP	52/52 (100%)	52 (100%)	0	100	100
5	AQ	177/177 (100%)	177 (100%)	0	100	100
5	AR	177/177 (100%)	177 (100%)	0	100	100
5	AS	177/177 (100%)	177 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	AT	177/177 (100%)	177 (100%)	0	100	100
5	AU	177/177 (100%)	177 (100%)	0	100	100
5	AV	177/177 (100%)	177 (100%)	0	100	100
6	AW	170/170 (100%)	170 (100%)	0	100	100
6	AX	170/170 (100%)	170 (100%)	0	100	100
6	AY	170/170 (100%)	170 (100%)	0	100	100
6	AZ	170/170 (100%)	170 (100%)	0	100	100
6	BA	170/170 (100%)	170 (100%)	0	100	100
6	BB	170/170 (100%)	170 (100%)	0	100	100
7	BC	162/162 (100%)	162 (100%)	0	100	100
7	BD	162/162 (100%)	162 (100%)	0	100	100
7	BE	162/162 (100%)	162 (100%)	0	100	100
7	BF	162/162 (100%)	162 (100%)	0	100	100
7	BG	162/162 (100%)	162 (100%)	0	100	100
7	BH	162/162 (100%)	162 (100%)	0	100	100
8	G	356/384 (93%)	356 (100%)	0	100	100
8	H	356/384 (93%)	356 (100%)	0	100	100
8	I	356/384 (93%)	355 (100%)	1 (0%)	86	85
8	J	356/384 (93%)	355 (100%)	1 (0%)	86	85
8	K	356/384 (93%)	356 (100%)	0	100	100
8	L	356/384 (93%)	356 (100%)	0	100	100
9	M	303/303 (100%)	301 (99%)	2 (1%)	76	79
9	N	303/303 (100%)	303 (100%)	0	100	100
9	O	303/303 (100%)	303 (100%)	0	100	100
All	All	11199/11367 (98%)	11195 (100%)	4 (0%)	100	100

All (4) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
8	I	162	MET
8	J	173	ARG
9	M	32	ASP
9	M	322	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (107) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	206	GLN
2	AB	120	GLN
2	AC	45	HIS
2	AD	47	GLN
2	AE	12	GLN
2	AG	47	GLN
3	AH	40	HIS
3	AH	54	ASN
3	AH	303	ASN
3	AI	78	ASN
3	AI	231	GLN
3	AI	284	ASN
3	AI	303	ASN
3	AI	357	GLN
3	AJ	317	GLN
3	AK	40	HIS
3	AK	312	GLN
3	AM	303	ASN
4	AN	29	ASN
5	AQ	11	HIS
5	AQ	30	ASN
5	AQ	135	ASN
5	AQ	146	ASN
5	AR	146	ASN
5	AR	159	GLN
5	AR	198	HIS
5	AS	11	HIS
5	AT	30	ASN
5	AT	146	ASN
5	AU	159	GLN
5	AV	141	HIS
5	AV	146	ASN
6	AW	153	GLN
6	AY	166	GLN
6	AZ	153	GLN
6	AZ	155	GLN
1	B	178	ASN
1	B	206	GLN
6	BB	83	GLN
6	BB	166	GLN
7	BC	25	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	BC	28	HIS
7	BC	57	GLN
7	BC	69	HIS
7	BC	84	GLN
7	BD	63	ASN
7	BD	173	GLN
7	BE	69	HIS
7	BE	92	GLN
7	BF	48	ASN
7	BG	69	HIS
7	BG	100	ASN
1	C	64	GLN
1	C	206	GLN
1	C	225	HIS
1	E	60	GLN
1	E	64	GLN
1	E	178	ASN
1	E	225	HIS
1	F	178	ASN
1	F	206	GLN
1	F	225	HIS
8	G	224	HIS
8	G	274	GLN
8	G	281	GLN
8	G	335	ASN
8	G	383	HIS
8	H	60	GLN
8	H	274	GLN
8	H	281	GLN
8	H	383	HIS
8	H	401	GLN
8	I	23	HIS
8	I	60	GLN
8	I	274	GLN
8	I	335	ASN
8	I	383	HIS
8	J	172	HIS
8	J	281	GLN
8	J	383	HIS
8	J	401	GLN
8	J	444	GLN
8	K	93	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	K	281	GLN
8	K	335	ASN
8	K	383	HIS
8	L	224	HIS
8	L	259	GLN
8	L	351	ASN
8	L	383	HIS
9	M	13	GLN
9	M	272	GLN
9	N	13	GLN
9	N	33	GLN
9	N	165	GLN
9	N	169	GLN
9	N	258	ASN
9	N	272	GLN
9	O	13	GLN
9	O	272	GLN
2	P	87	HIS
2	Q	47	GLN
2	S	5	ASN
2	U	46	ASN
2	U	120	GLN
2	V	12	GLN
2	V	45	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

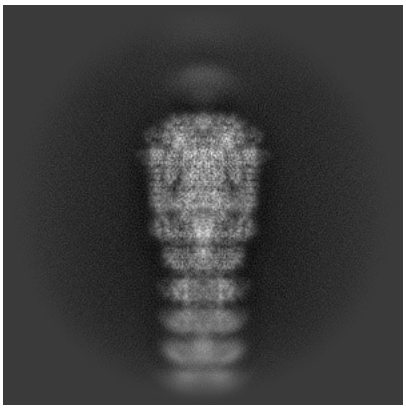
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-69628. These allow visual inspection of the internal detail of the map and identification of artifacts.

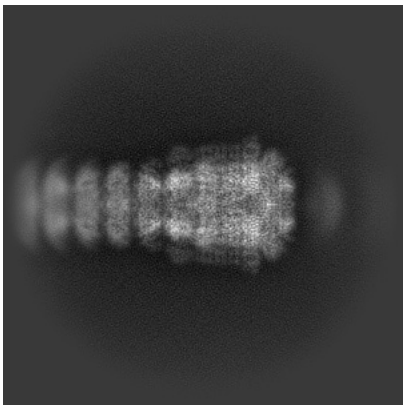
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

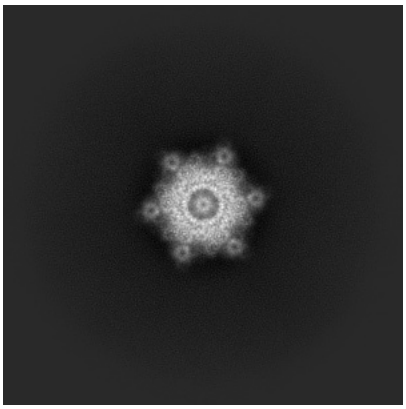
6.1.1 Primary map



X

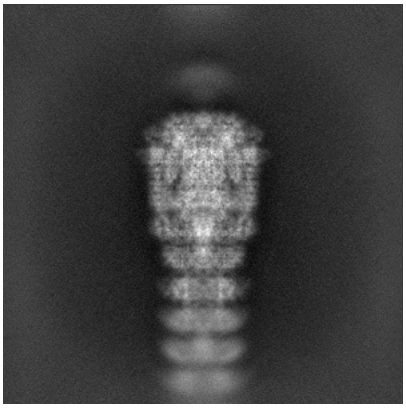


Y

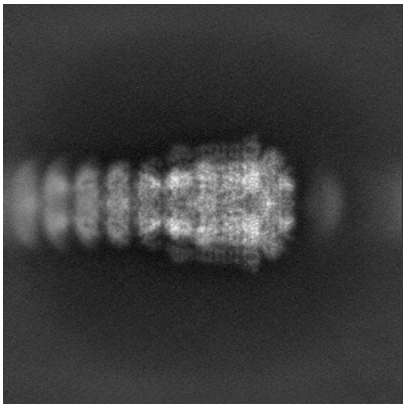


Z

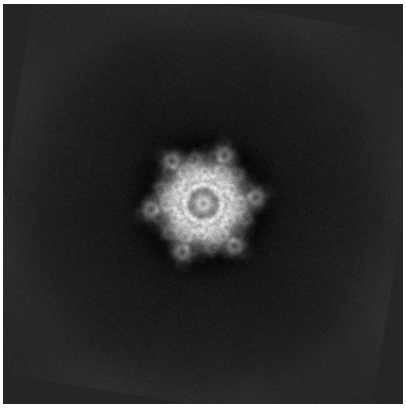
6.1.2 Raw map



X



Y

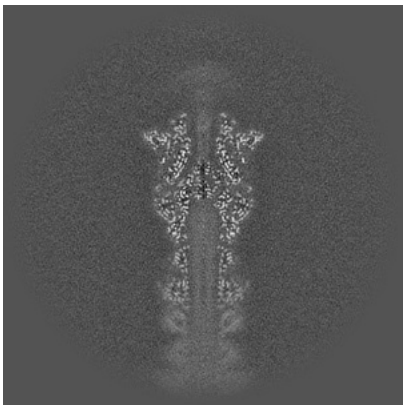


Z

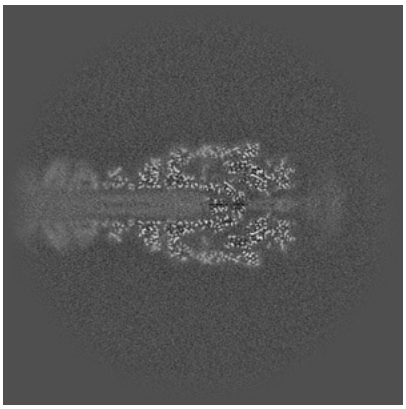
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

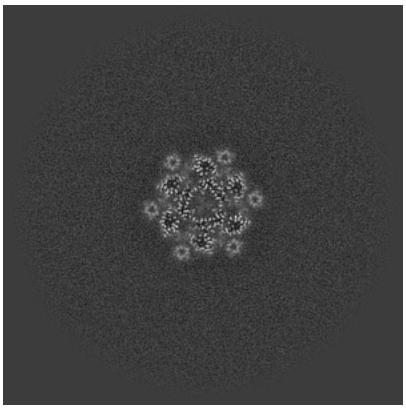
6.2.1 Primary map



X Index: 256

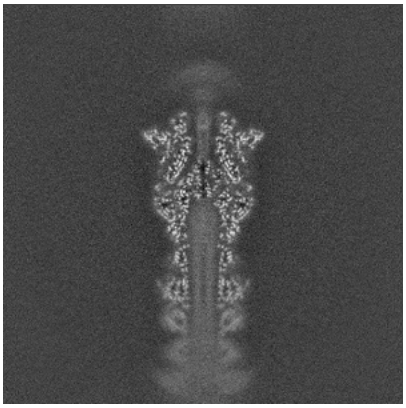


Y Index: 256

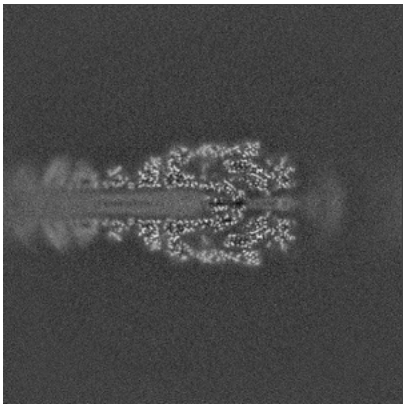


Z Index: 256

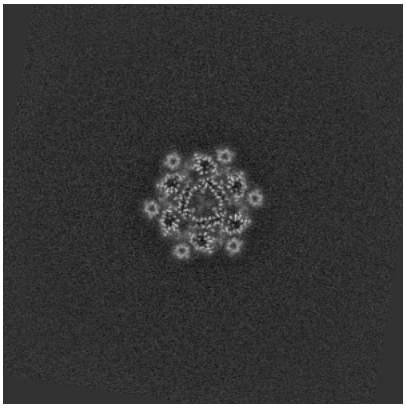
6.2.2 Raw map



X Index: 256



Y Index: 256

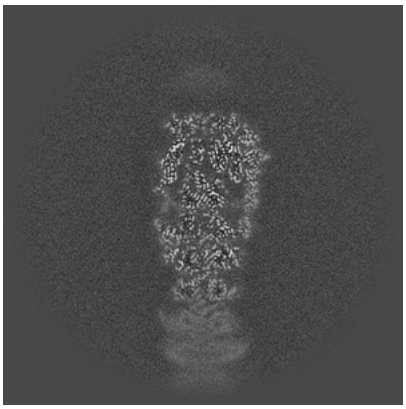


Z Index: 256

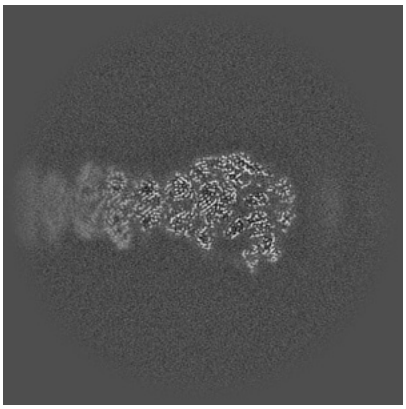
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

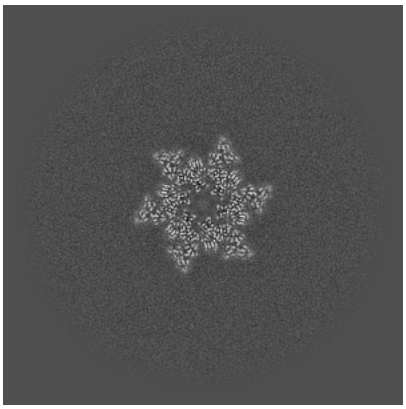
6.3.1 Primary map



X Index: 277

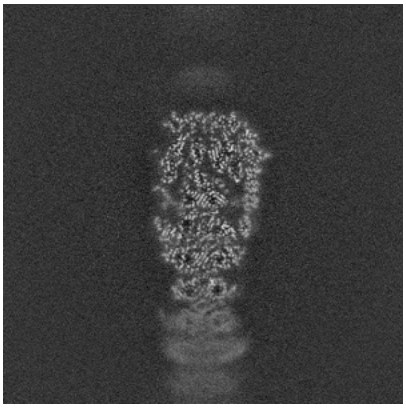


Y Index: 235

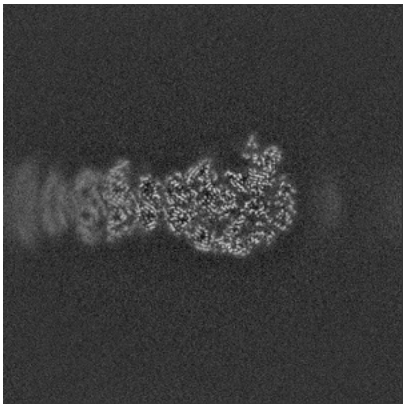


Z Index: 319

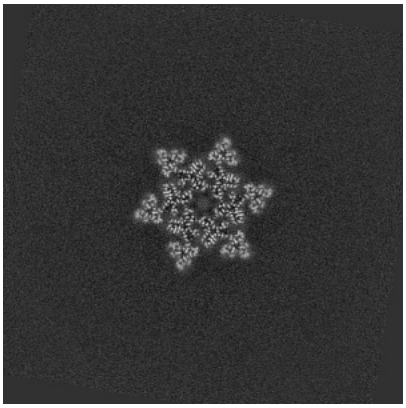
6.3.2 Raw map



X Index: 278



Y Index: 279

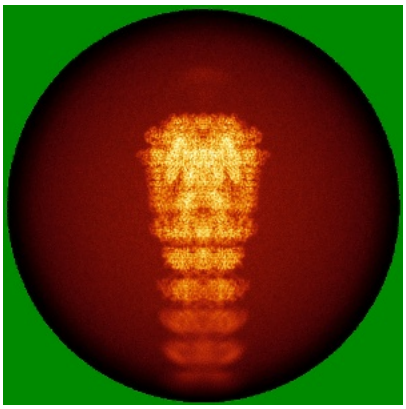


Z Index: 323

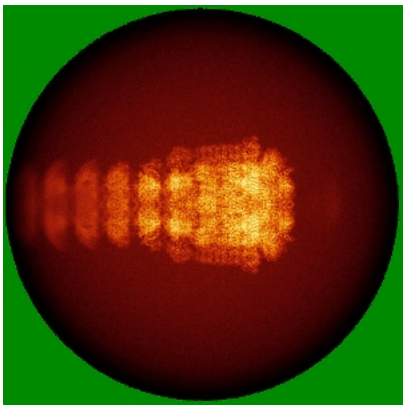
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

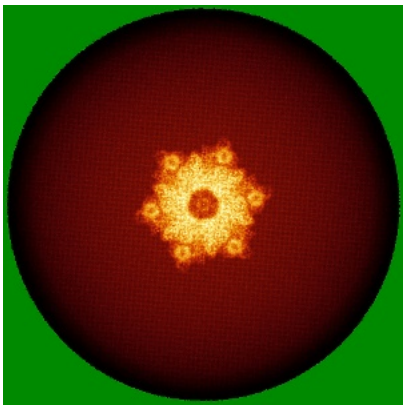
6.4.1 Primary map



X

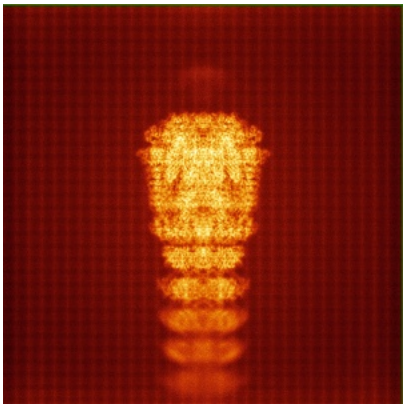


Y

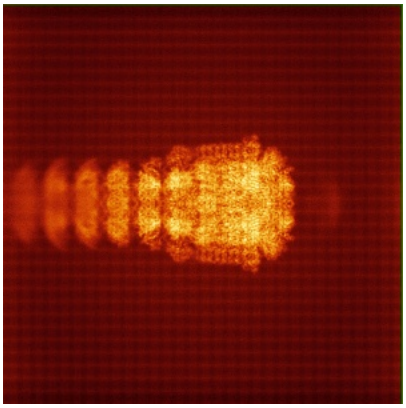


Z

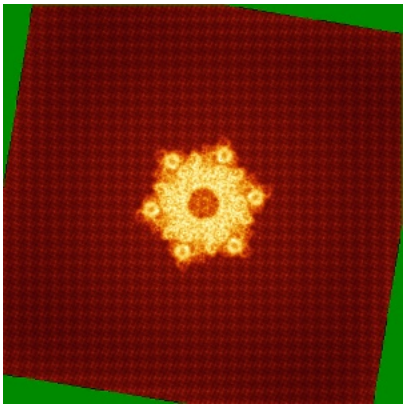
6.4.2 Raw map



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)

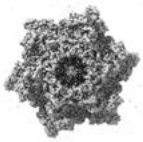
6.5.1 Primary map



X



Y



Z

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.

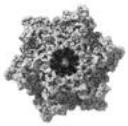
6.5.2 Raw map



X



Y



Z

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.

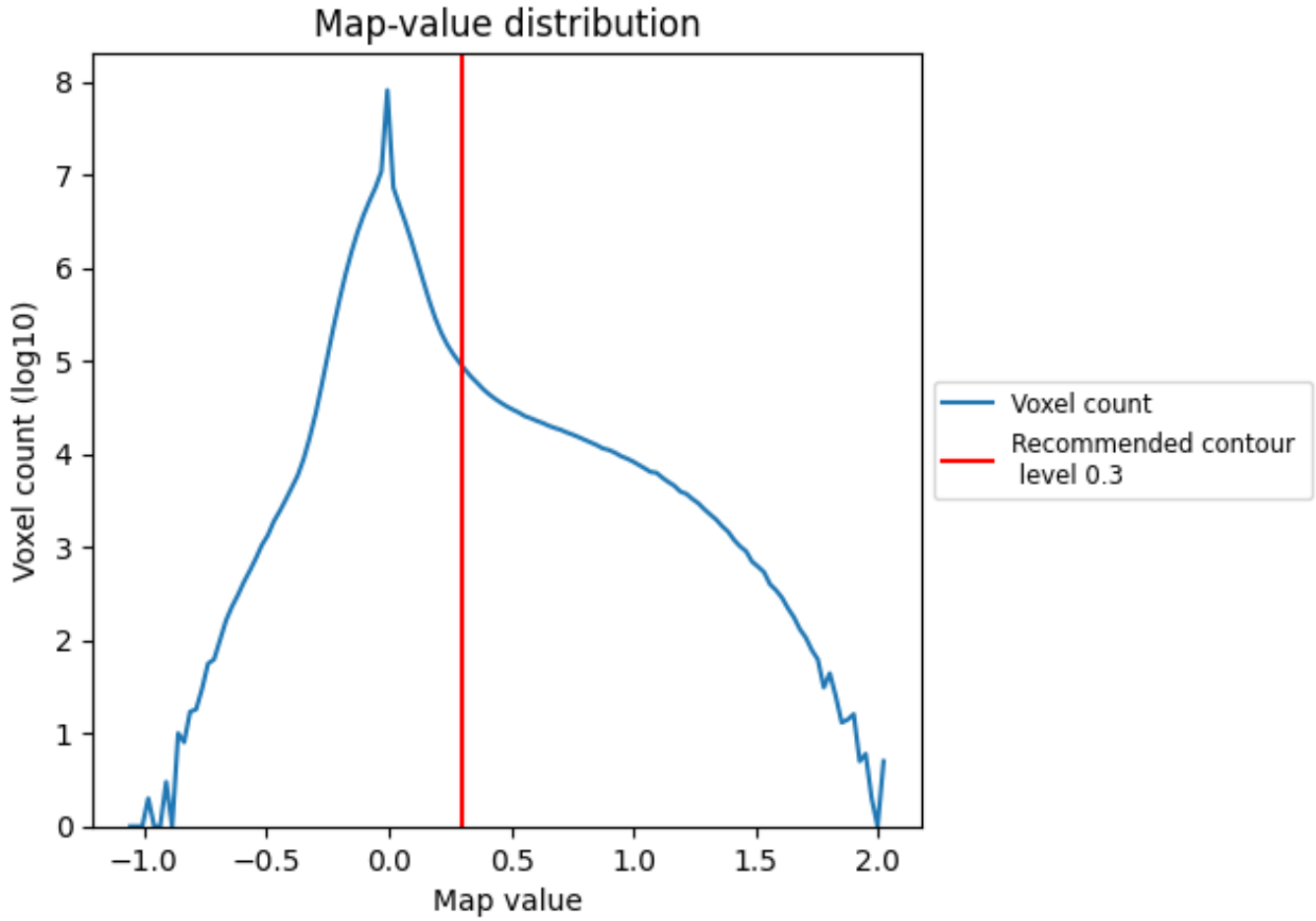
6.6 Mask visualisation (i)

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

7 Map analysis

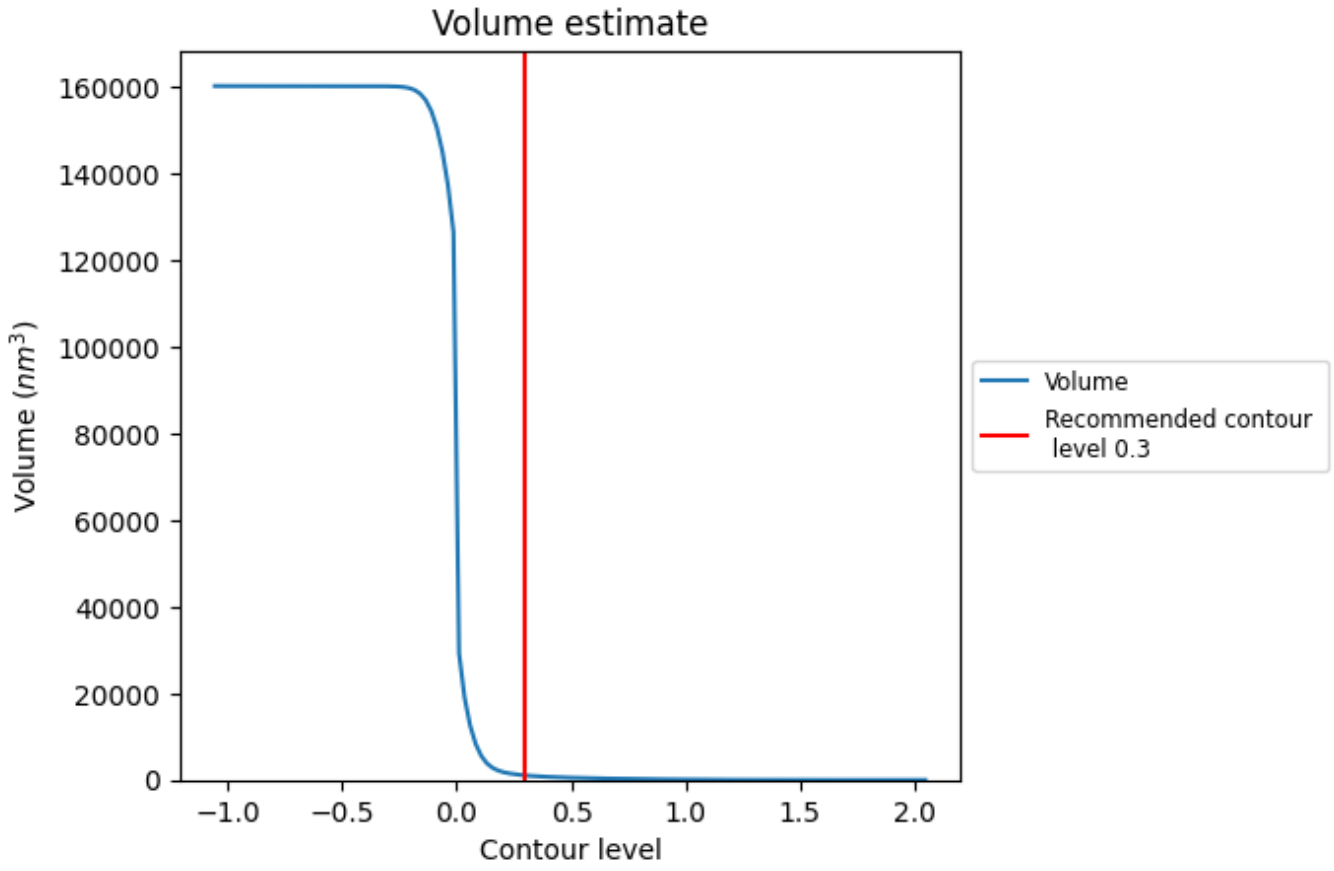
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

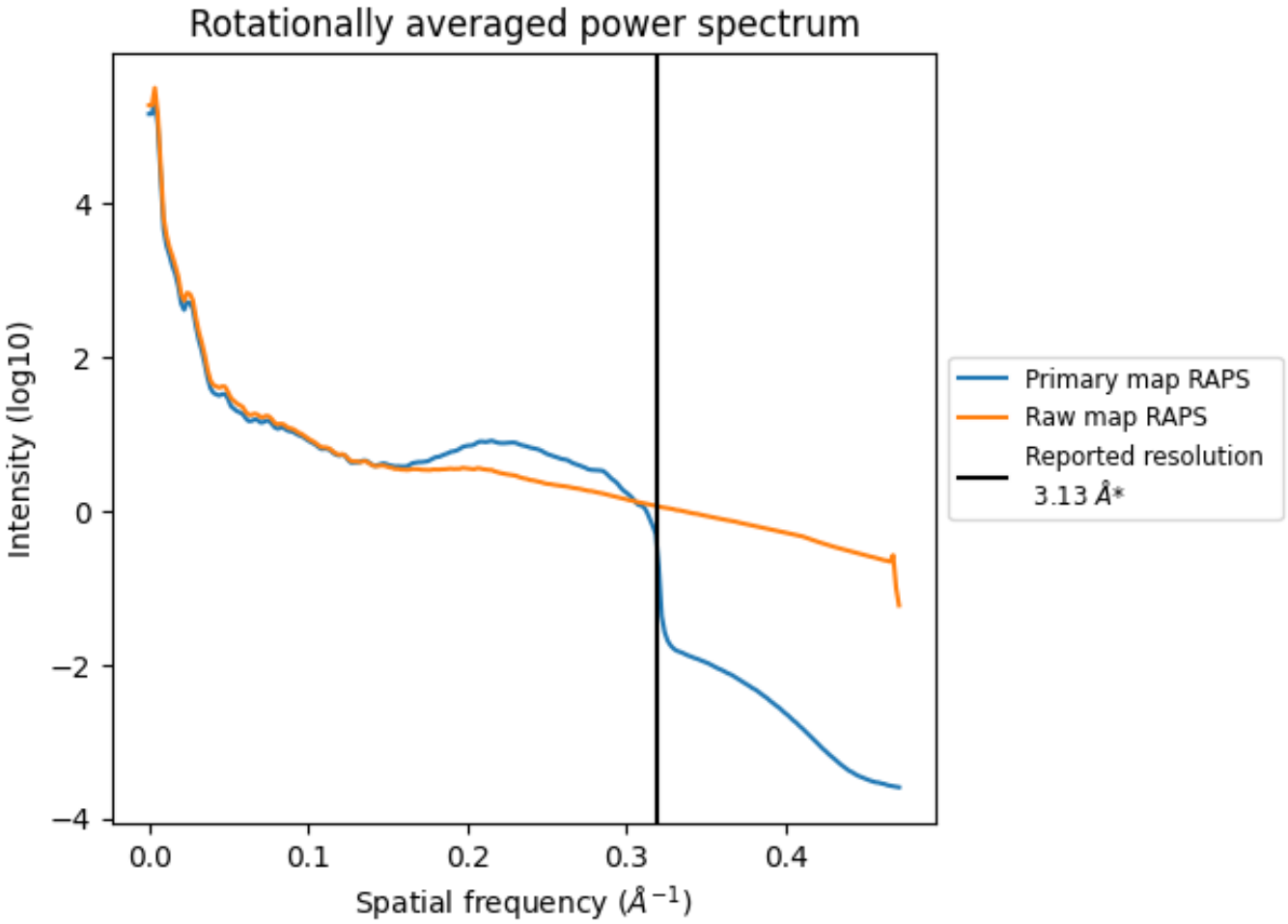
7.2 Volume estimate



The volume at the recommended contour level is 1052 nm^3; this corresponds to an approximate mass of 950 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 (i)

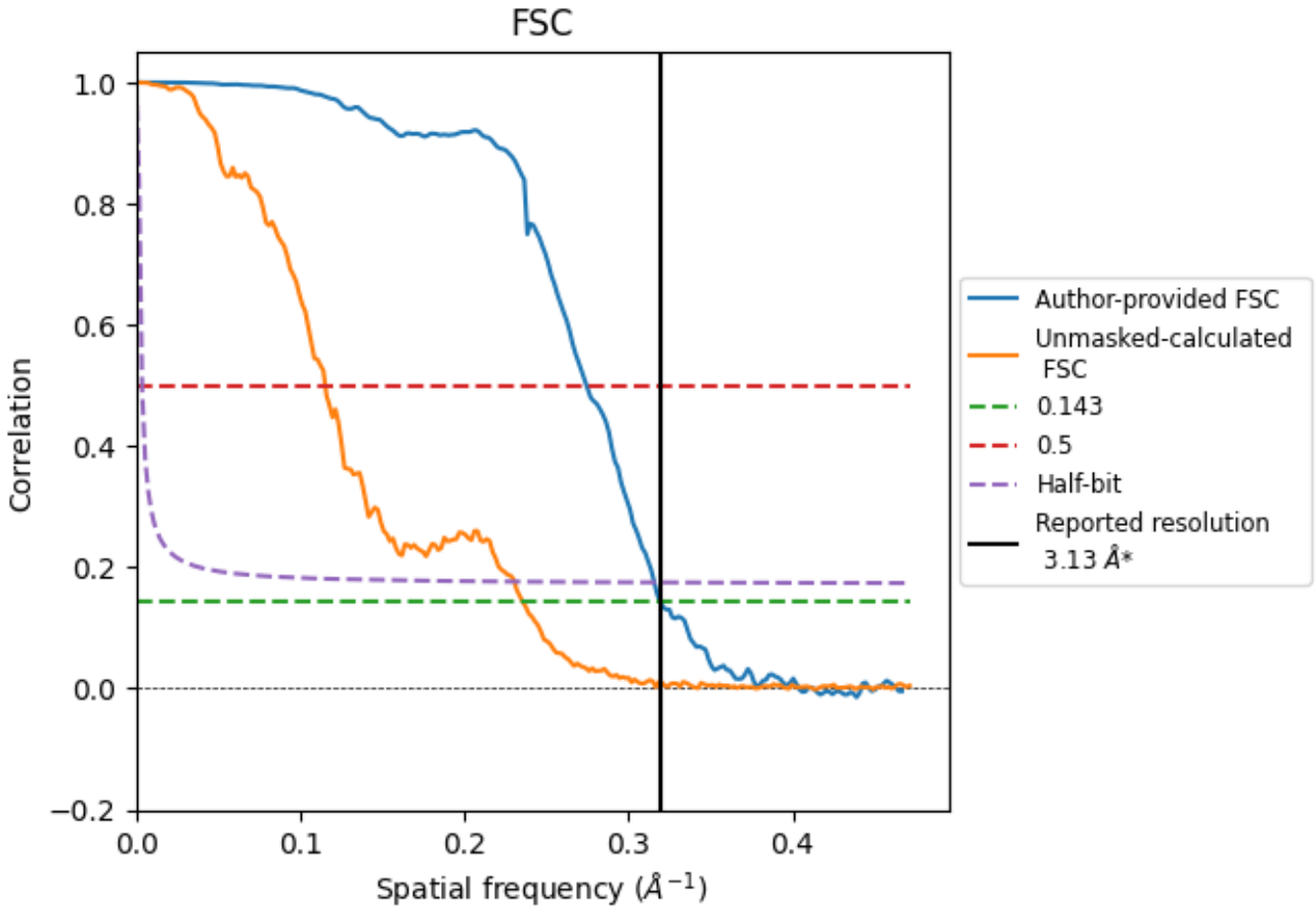


*Reported resolution corresponds to spatial frequency of 0.319 $Å^{-1}$

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.319 Å^{-1}

8.2 Resolution estimates (i)

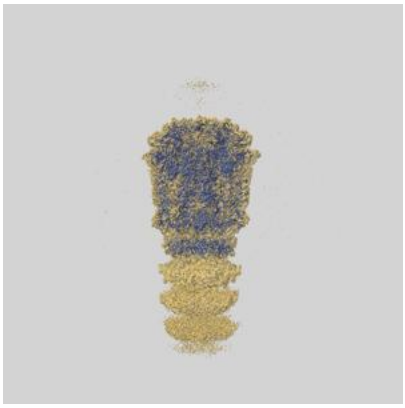
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.13	-	-
Author-provided FSC curve	3.13	3.64	3.17
Unmasked-calculated*	4.24	8.68	4.34

*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 4.24 differs from the reported value 3.13 by more than 10 %

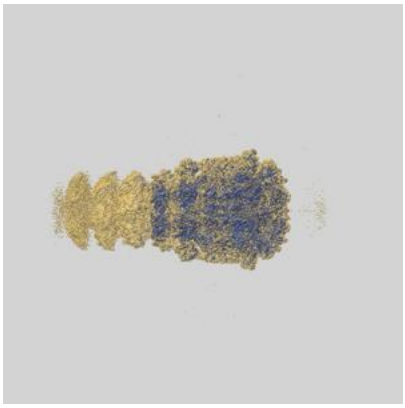
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-69628 and PDB model 24LR. Per-residue inclusion information can be found in section 3 on page 12.

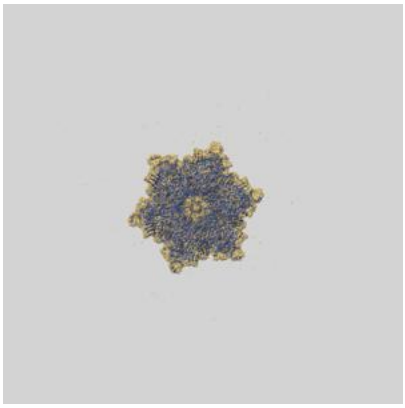
9.1 Map-model overlay



X



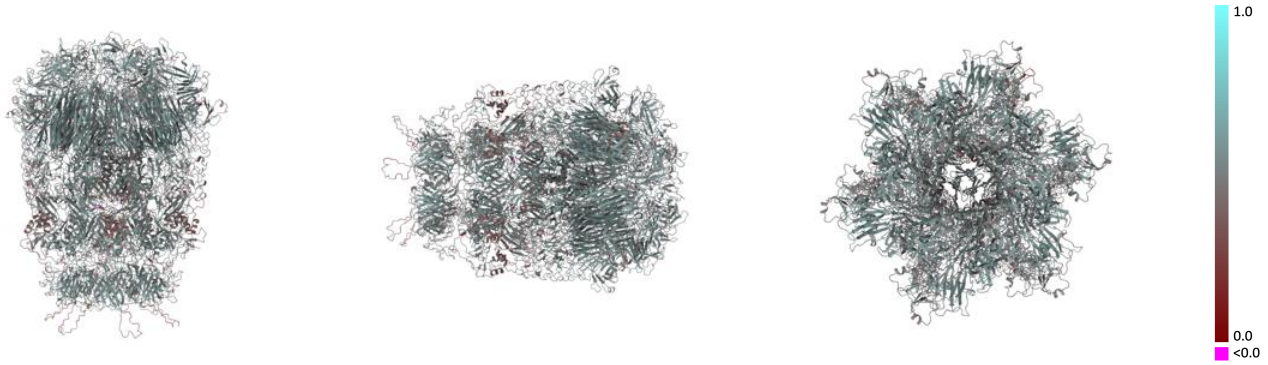
Y



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.

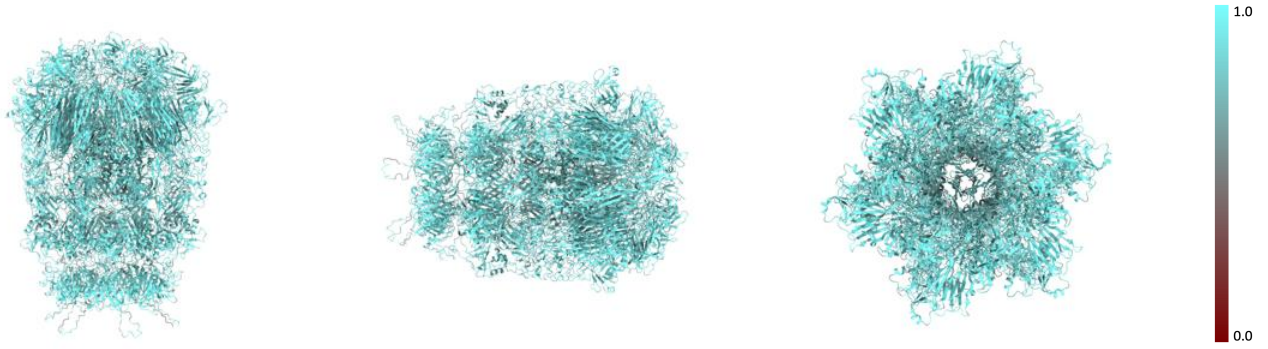
9.2 Q-score mapped to coordinate model (i)



X Y Z

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.

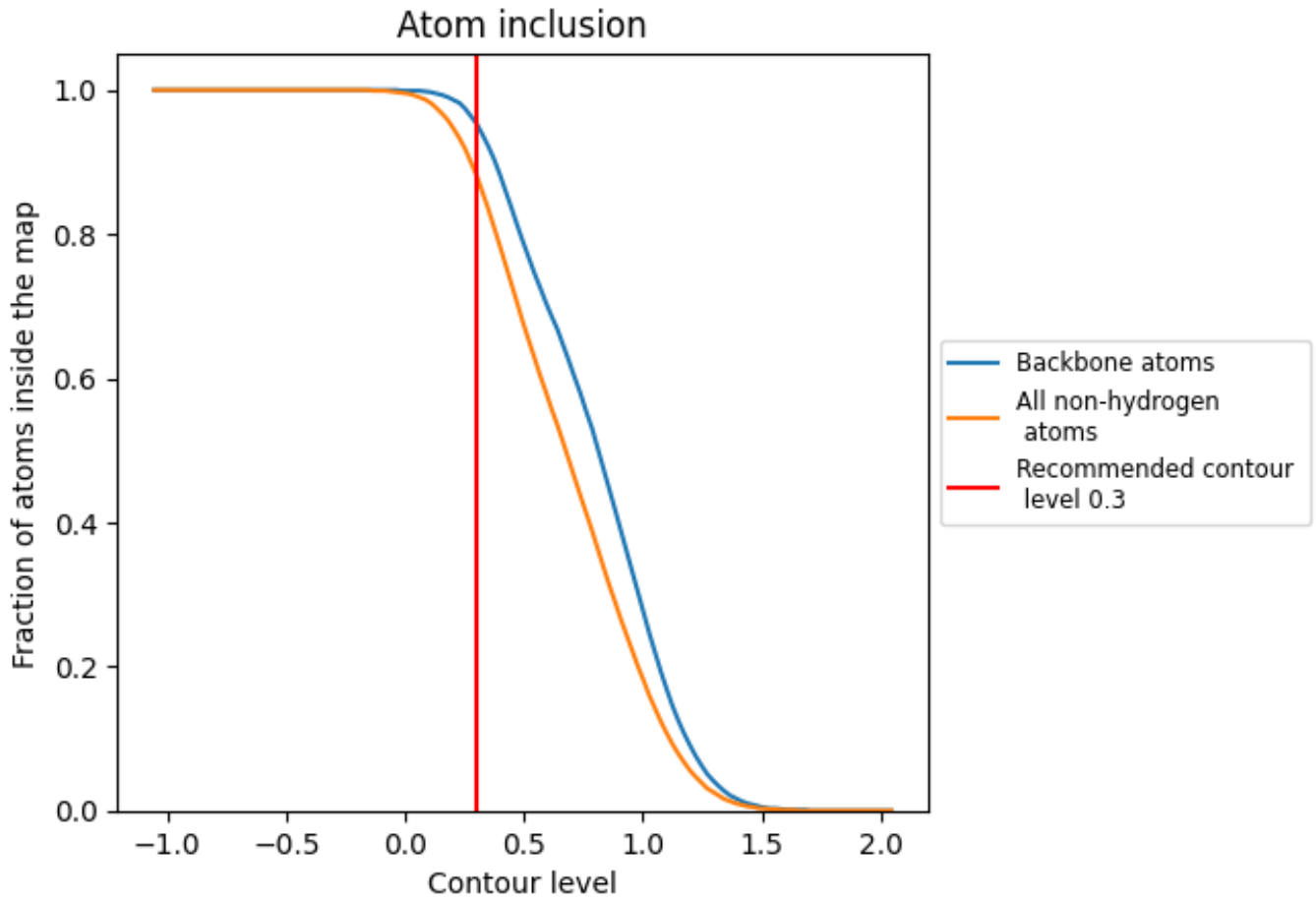
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

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, 95% of all backbone atoms, 88% 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	0.8820	0.5030
A	0.8640	0.4920
AA	0.8880	0.4700
AB	0.8780	0.4620
AC	0.8790	0.4680
AD	0.8840	0.4780
AE	0.8790	0.4640
AF	0.8510	0.4490
AG	0.8840	0.4710
AH	0.8810	0.5120
AI	0.8840	0.5080
AJ	0.8800	0.5030
AK	0.8900	0.5130
AL	0.8820	0.5040
AM	0.8810	0.5110
AN	0.8530	0.5100
AO	0.8590	0.5090
AP	0.8330	0.4990
AQ	0.8960	0.5290
AR	0.8960	0.5220
AS	0.8900	0.5270
AT	0.8930	0.5250
AU	0.8930	0.5280
AV	0.8950	0.5250
AW	0.8870	0.5300
AX	0.8880	0.5300
AY	0.8950	0.5380
AZ	0.8860	0.5330
B	0.8650	0.4900
BA	0.8920	0.5300
BB	0.8830	0.5320
BC	0.9220	0.5370
BD	0.9160	0.5360
BE	0.9240	0.5330
BF	0.9180	0.5340



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
BG	0.9150	0.5290
BH	0.9210	0.5370
C	0.8620	0.4940
D	0.8600	0.4860
E	0.8610	0.4910
F	0.8620	0.4860
G	0.8960	0.5060
H	0.8800	0.4900
I	0.8990	0.5060
J	0.8810	0.4890
K	0.8990	0.5070
L	0.8810	0.4910
M	0.8460	0.5110
N	0.8360	0.5080
O	0.8410	0.5060
P	0.8750	0.4620
Q	0.8740	0.4700
R	0.8840	0.4770
S	0.8840	0.4620
T	0.8490	0.4620
U	0.8770	0.4700
V	0.8850	0.4680
W	0.8930	0.4790
X	0.8880	0.4840
Y	0.8730	0.4590
Z	0.8620	0.4590