Full wwPDB EM Validation Report ⓘ

May 20, 2026 – 12:37 AM JST

PDB ID	:	9V95 / pdb_00009v95
EMDB ID	:	EMD-64861
Title	:	Cryo-EM structure of the ArlB filament of Haloarcula marismortui
Authors	:	Meshcheryakov, V.A.; Hyun, J.; Syutkin, A.S.; Pyatibratov, M.G.; Wolf, M.
Deposited on	:	2025-05-30
Resolution	:	3.18 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

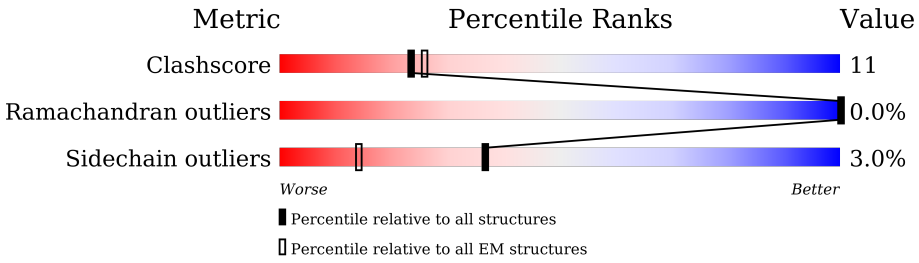
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

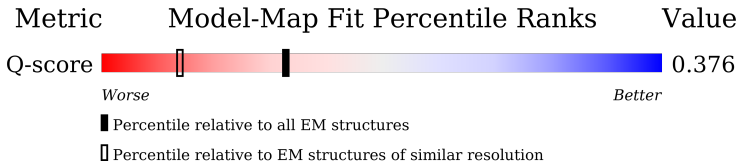
1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.18 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	14470 (2.68 - 3.68)

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	454	78% 19%
1	B	454	11% 71% 25%
1	C	454	11% 73% 22% 5%
1	D	454	5% 70% 26%

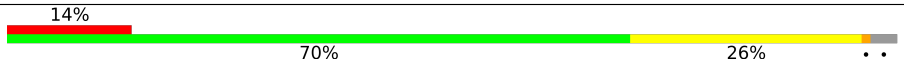
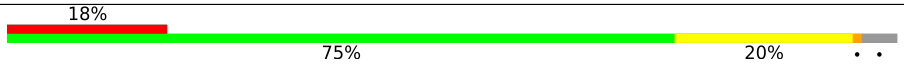
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	E	454	7% 70% 26%
1	F	454	13% 75% 21%
1	G	454	11% 76% 20%
1	H	454	15% 80% 16%
1	I	454	13% 73% 23%
1	J	454	13% 73% 24%
1	K	454	11% 73% 24%
1	M	454	7% 73% 24%
1	N	454	9% 70% 25%
1	O	454	9% 71% 25%
1	Q	454	11% 75% 21%
1	S	454	66% 30%
1	U	454	11% 74% 22%
1	V	454	6% 71% 24%
1	W	454	8% 69% 26%
1	Y	454	71% 26%
1	Z	454	67% 28%
1	a	454	13% 75% 22%
1	c	454	8% 74% 23%
1	d	454	9% 68% 28%
1	e	454	76% 21%
1	f	454	6% 73% 23%
1	g	454	70% 27%
1	h	454	75% 22%
1	i	454	76% 20%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	k	454	
1	l	454	
1	m	454	
1	n	454	

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 104772 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 Flagellin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	B	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	C	432	Total	C	N	O	S	0	0
			3122	1879	502	738	3		
1	D	440	Total	C	N	O	S	0	0
			3172	1907	510	752	3		
1	E	440	Total	C	N	O	S	0	0
			3164	1901	509	751	3		
1	F	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	G	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	H	439	Total	C	N	O	S	0	0
			3163	1902	509	749	3		
1	I	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	J	440	Total	C	N	O	S	0	0
			3172	1907	510	752	3		
1	K	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	M	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	N	439	Total	C	N	O	S	0	0
			3164	1903	509	749	3		
1	O	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	Q	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	S	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	U	440	Total	C	N	O	S	0	0
			3172	1907	510	752	3		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					AltConf	Trace
1	V	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	W	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	Y	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	Z	440	Total	C	N	O	S	0	0
			3172	1907	510	752	3		
1	a	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	c	441	Total	C	N	O	S	0	0
			3176	1909	511	753	3		
1	d	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	e	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	f	439	Total	C	N	O	S	0	0
			3166	1904	509	750	3		
1	g	440	Total	C	N	O	S	0	0
			3172	1907	510	752	3		
1	h	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	i	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	k	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	l	439	Total	C	N	O	S	0	0
			3165	1903	509	750	3		
1	m	442	Total	C	N	O	S	0	0
			3180	1911	512	754	3		
1	n	438	Total	C	N	O	S	0	0
			3159	1900	508	748	3		

- Molecule 2 is SODIUM ION (CCD ID: NA) (formula: Na).

Mol	Chain	Residues	Atoms		AltConf
2	A	1	Total	Na	0
			1	1	
2	B	1	Total	Na	0
			1	1	
2	C	1	Total	Na	0
			1	1	

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	AltConf
2	D	1	Total Na 1 1	0
2	E	1	Total Na 1 1	0
2	F	1	Total Na 1 1	0
2	G	1	Total Na 1 1	0
2	H	1	Total Na 1 1	0
2	I	1	Total Na 1 1	0
2	J	1	Total Na 1 1	0
2	K	1	Total Na 1 1	0
2	M	1	Total Na 1 1	0
2	N	1	Total Na 1 1	0
2	O	1	Total Na 1 1	0
2	Q	1	Total Na 1 1	0
2	S	1	Total Na 1 1	0
2	U	1	Total Na 1 1	0
2	V	1	Total Na 1 1	0
2	W	1	Total Na 1 1	0
2	Y	1	Total Na 1 1	0
2	Z	1	Total Na 1 1	0
2	a	1	Total Na 1 1	0
2	c	1	Total Na 1 1	0
2	d	1	Total Na 1 1	0

Continued on next page...

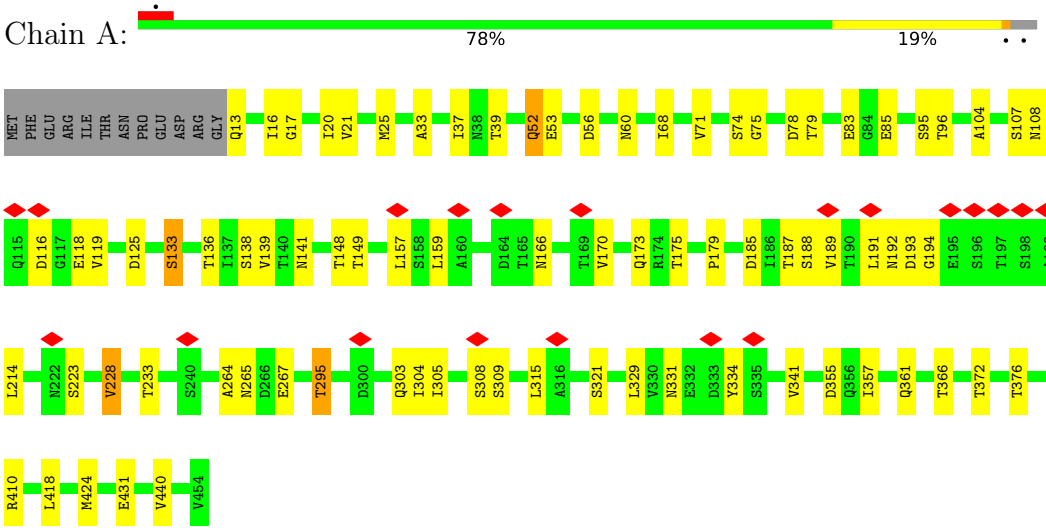
Continued from previous page...

Mol	Chain	Residues	Atoms	AltConf
2	e	1	Total Na 1 1	0
2	f	1	Total Na 1 1	0
2	g	1	Total Na 1 1	0
2	h	1	Total Na 1 1	0
2	i	1	Total Na 1 1	0
2	k	1	Total Na 1 1	0
2	l	1	Total Na 1 1	0
2	m	1	Total Na 1 1	0
2	n	1	Total Na 1 1	0

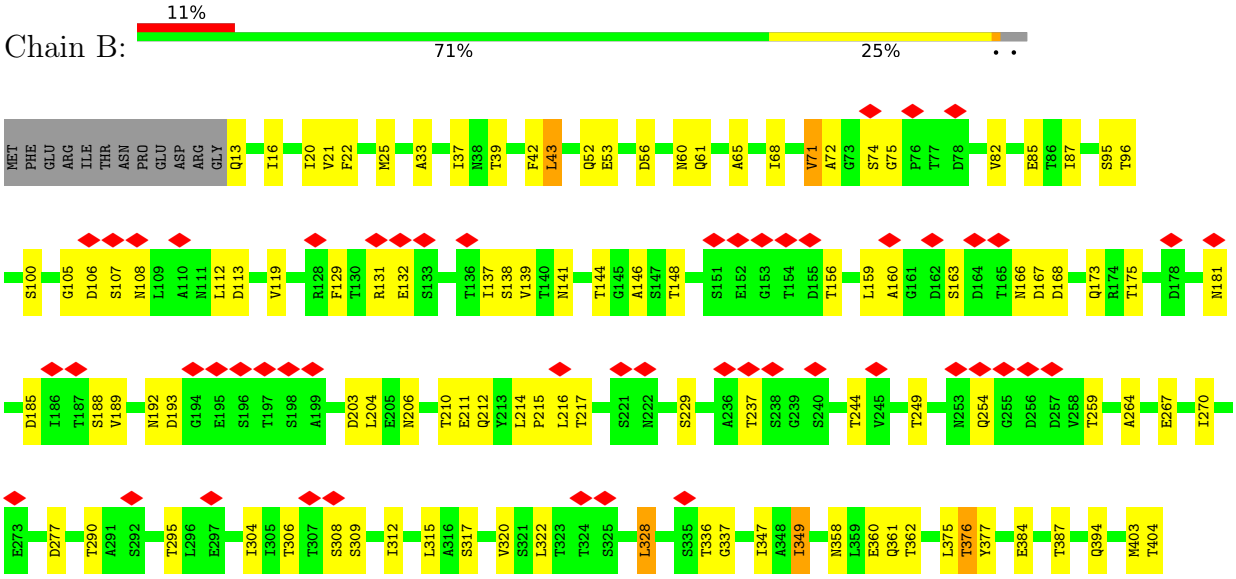
3 Residue-property plots (i)

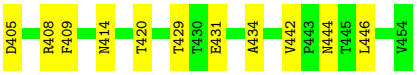
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: Flagellin



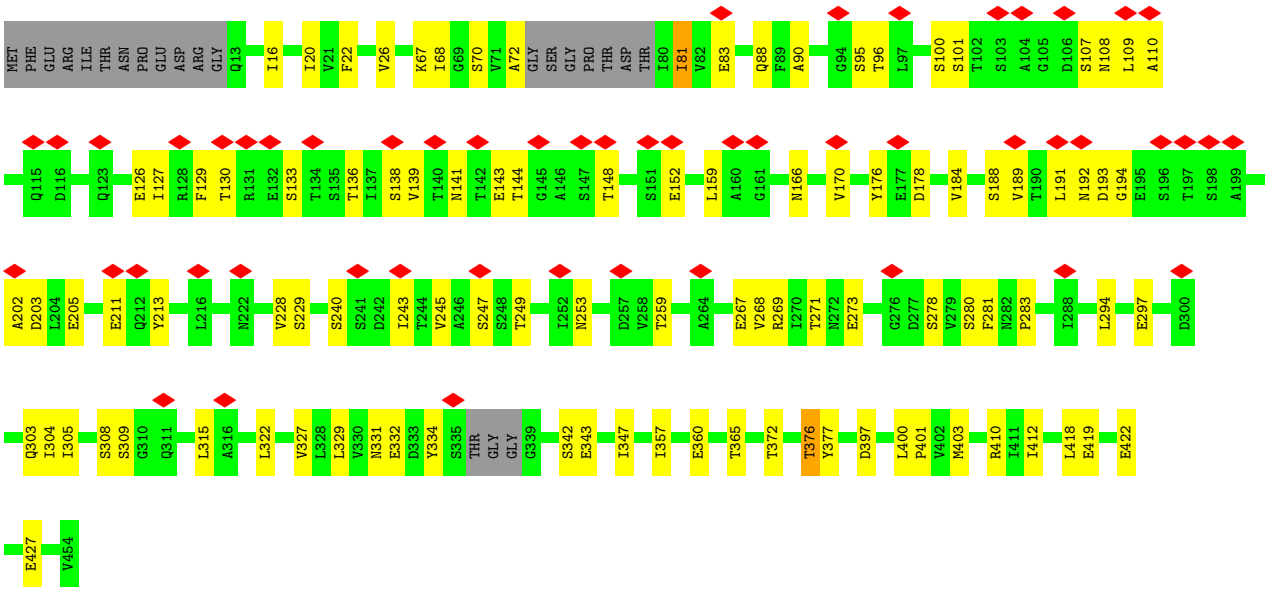
• Molecule 1: Flagellin





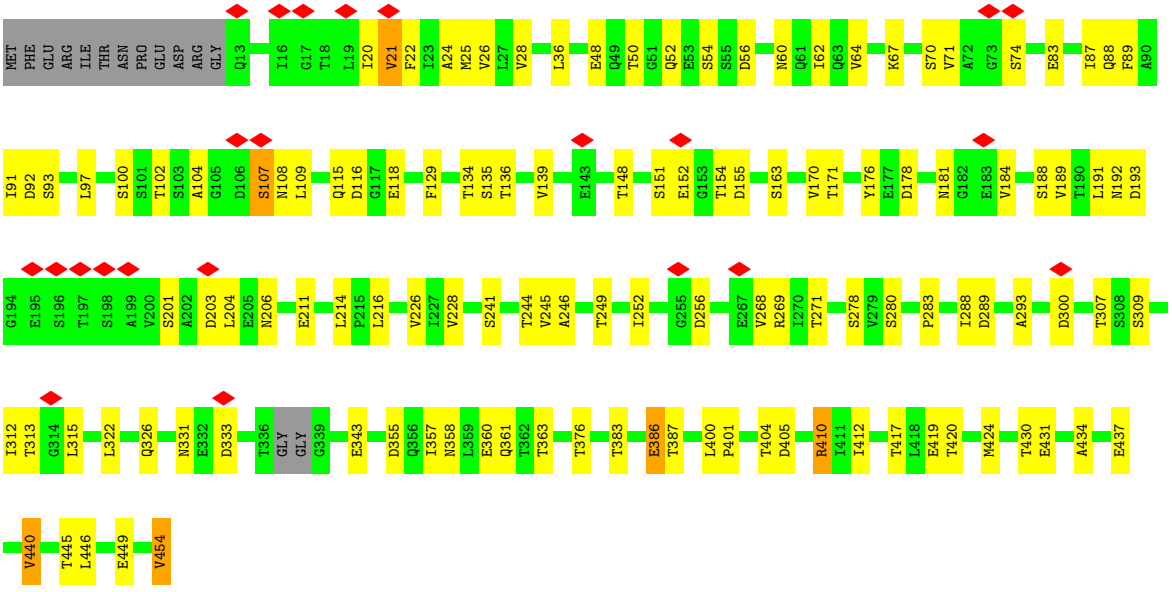
• Molecule 1: Flagellin

Chain C:



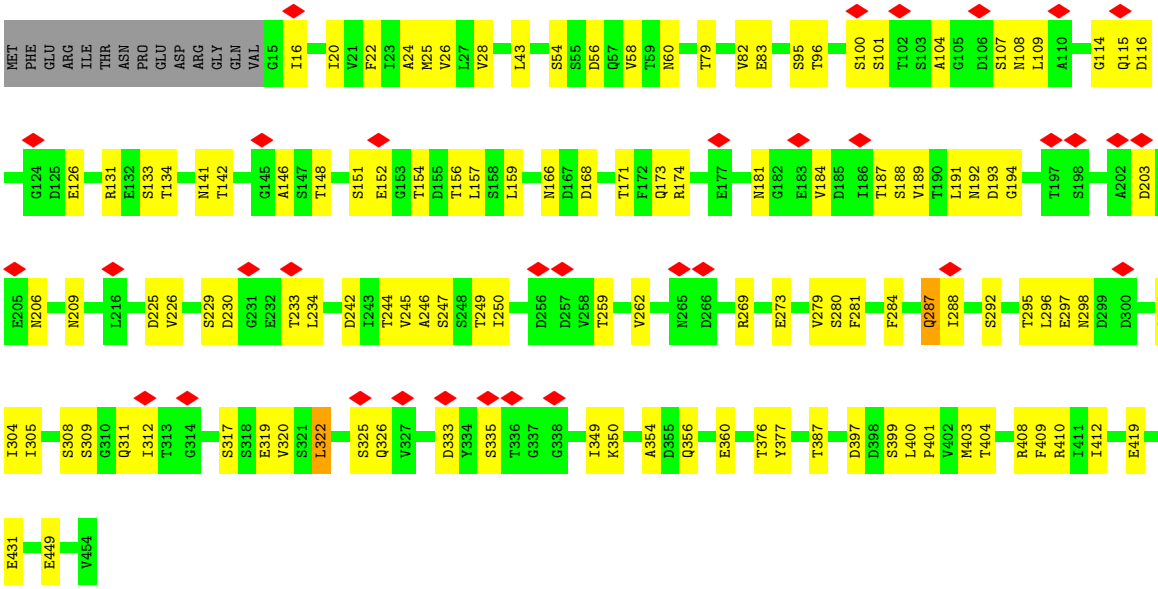
• Molecule 1: Flagellin

Chain D:



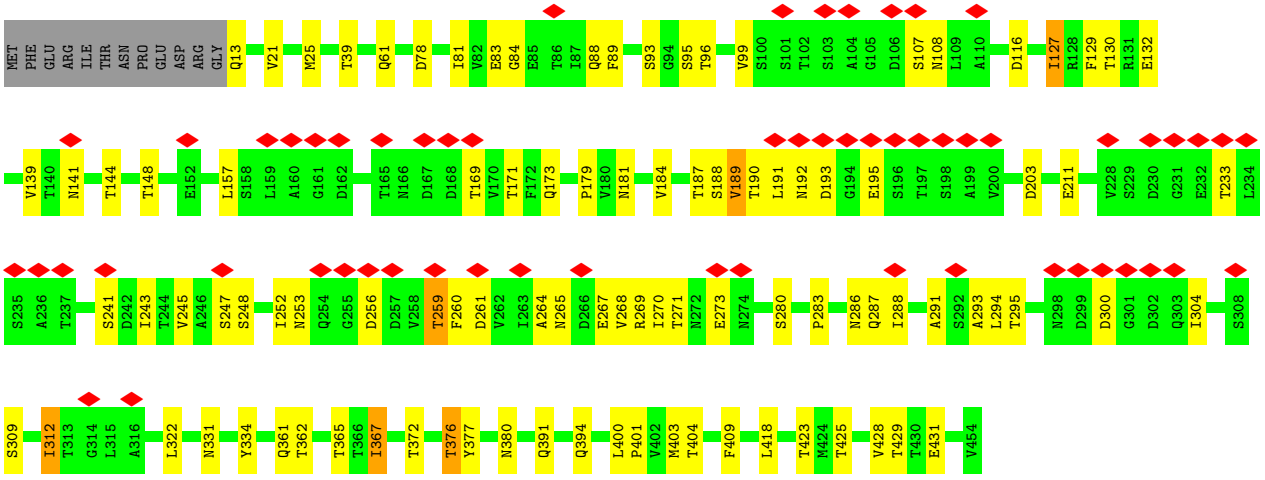
• Molecule 1: Flagellin

Chain E:



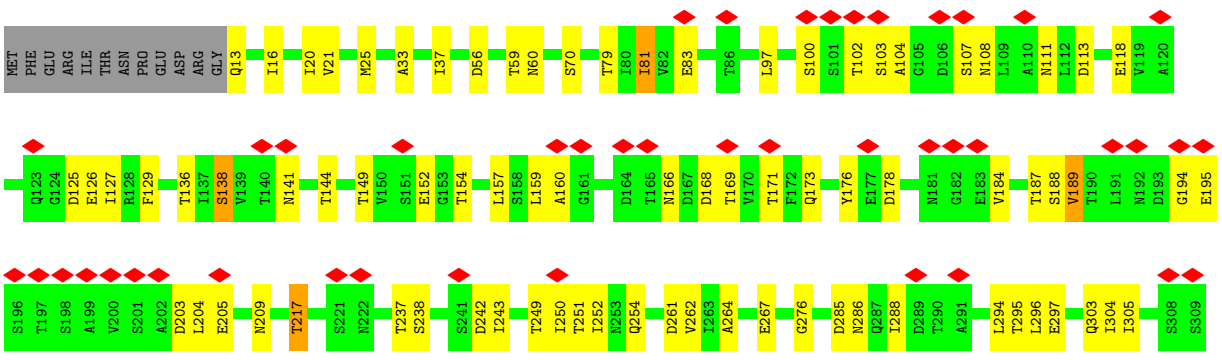
• Molecule 1: Flagellin

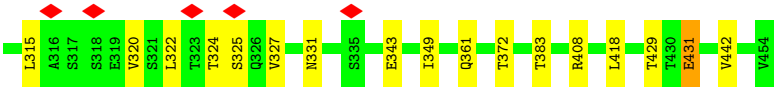
Chain F:



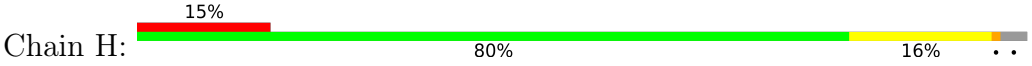
• Molecule 1: Flagellin

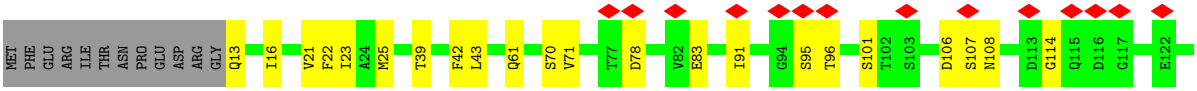
Chain G:

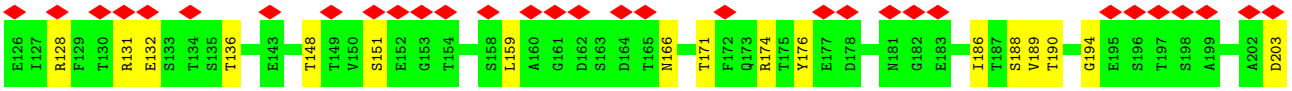


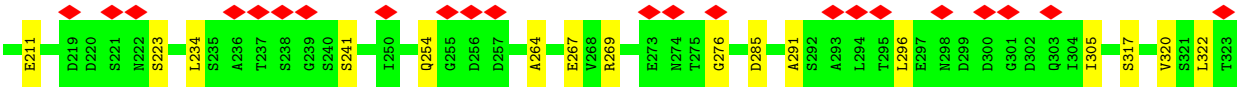


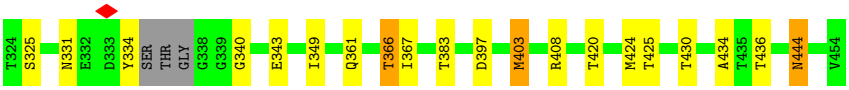
• Molecule 1: Flagellin



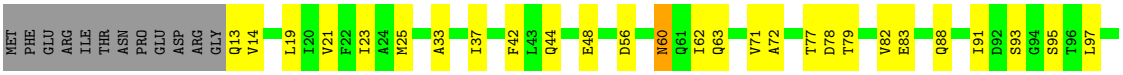


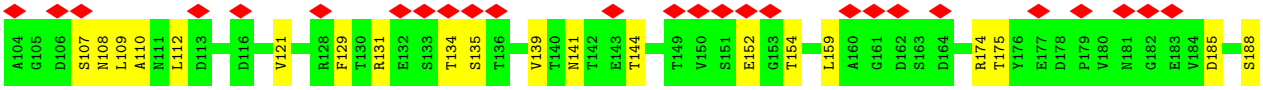


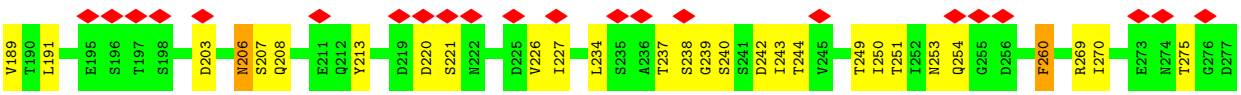


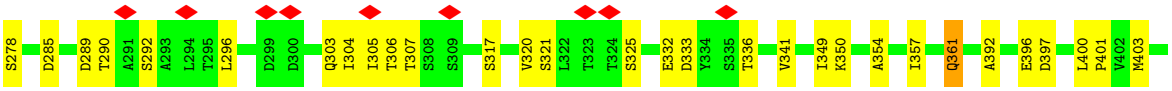


• Molecule 1: Flagellin

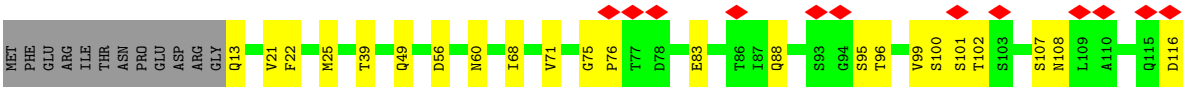


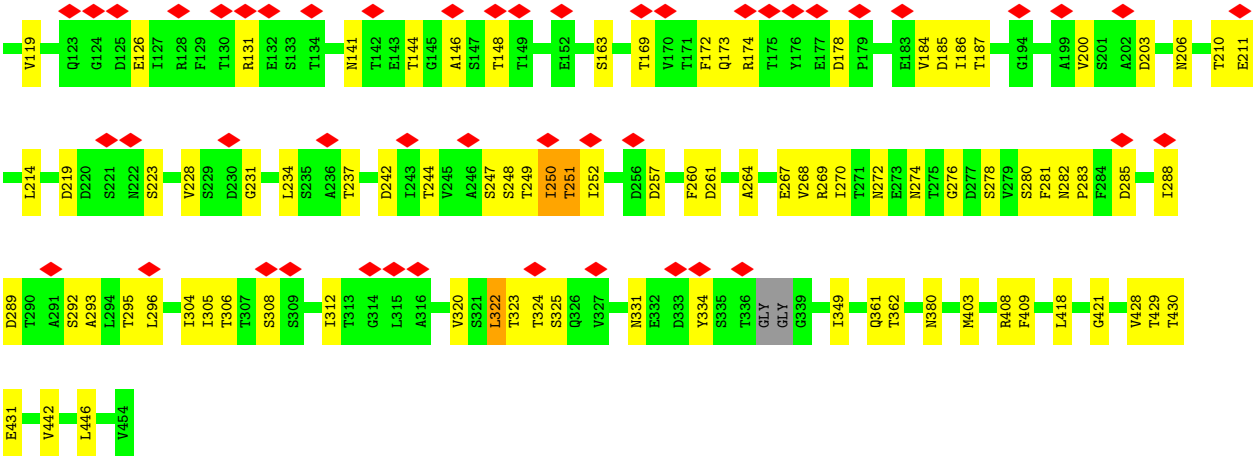






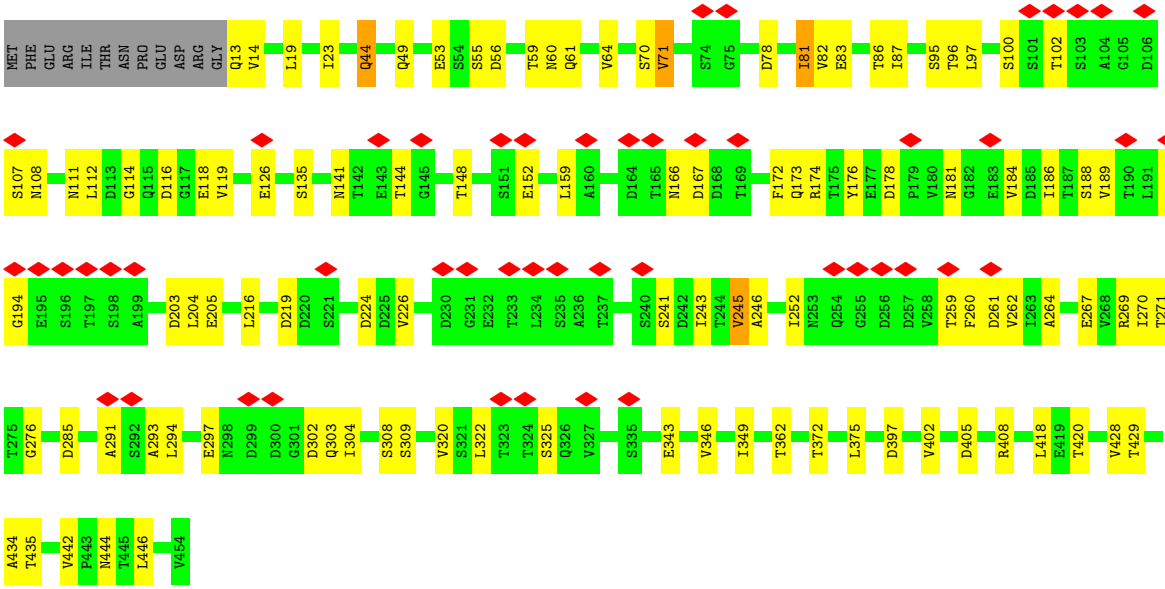
• Molecule 1: Flagellin





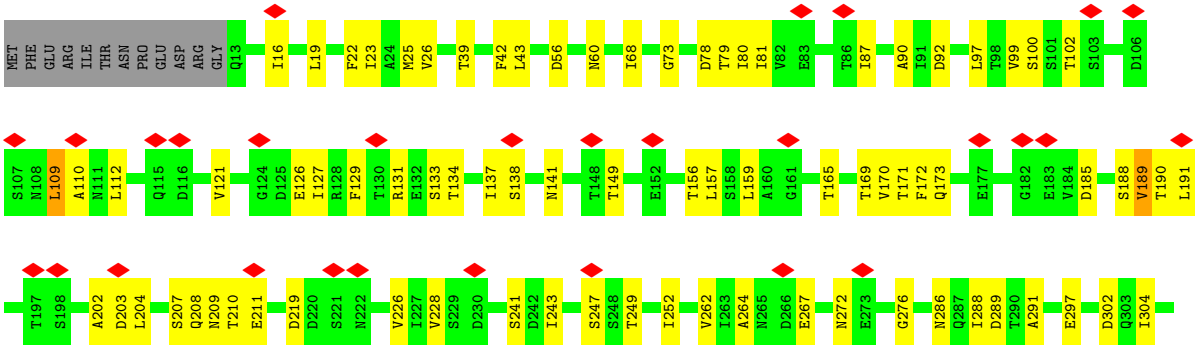
• Molecule 1: Flagellin

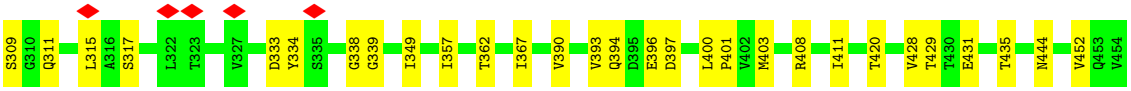
Chain K:



• Molecule 1: Flagellin

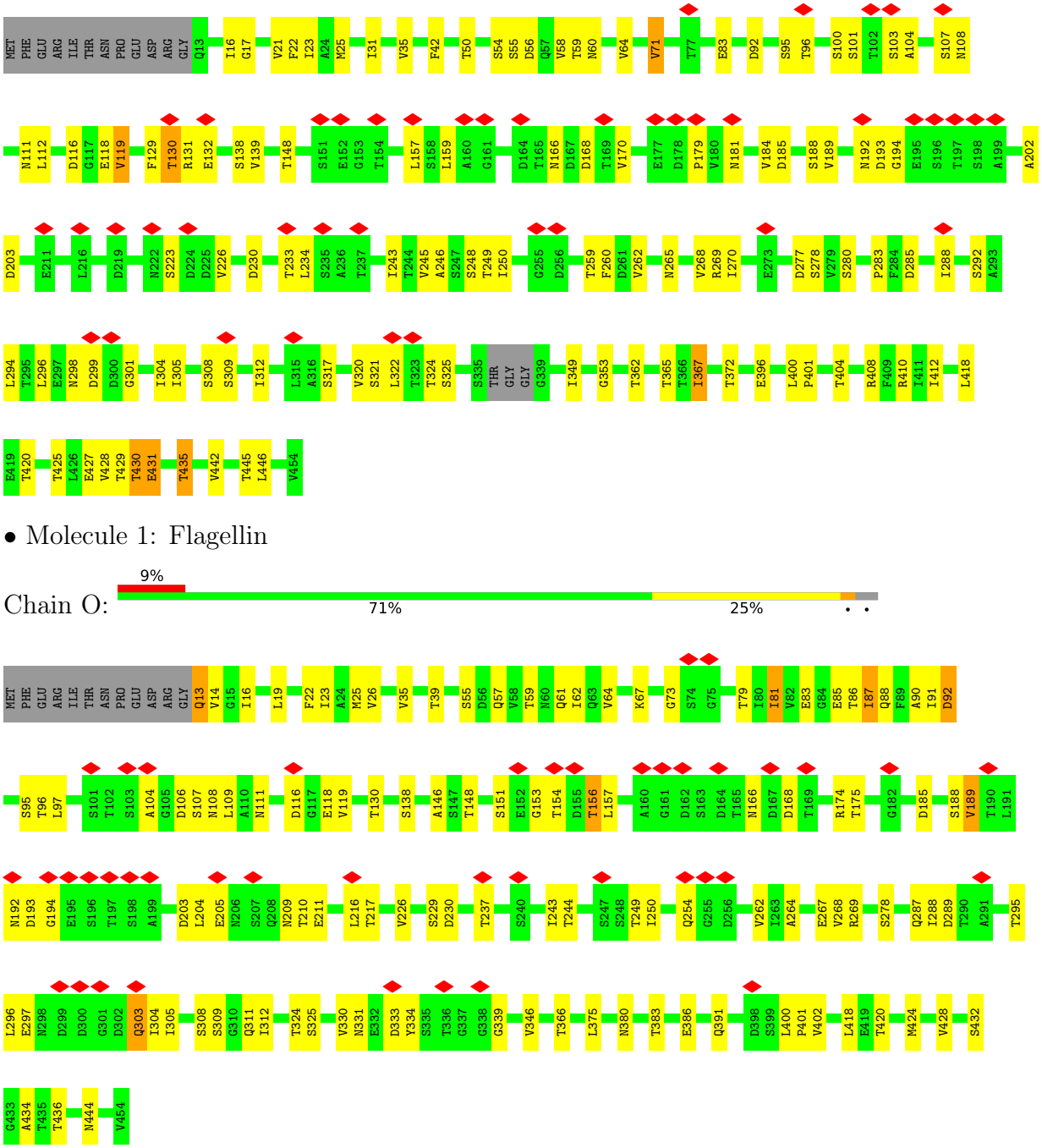
Chain M:





• Molecule 1: Flagellin

Chain N:

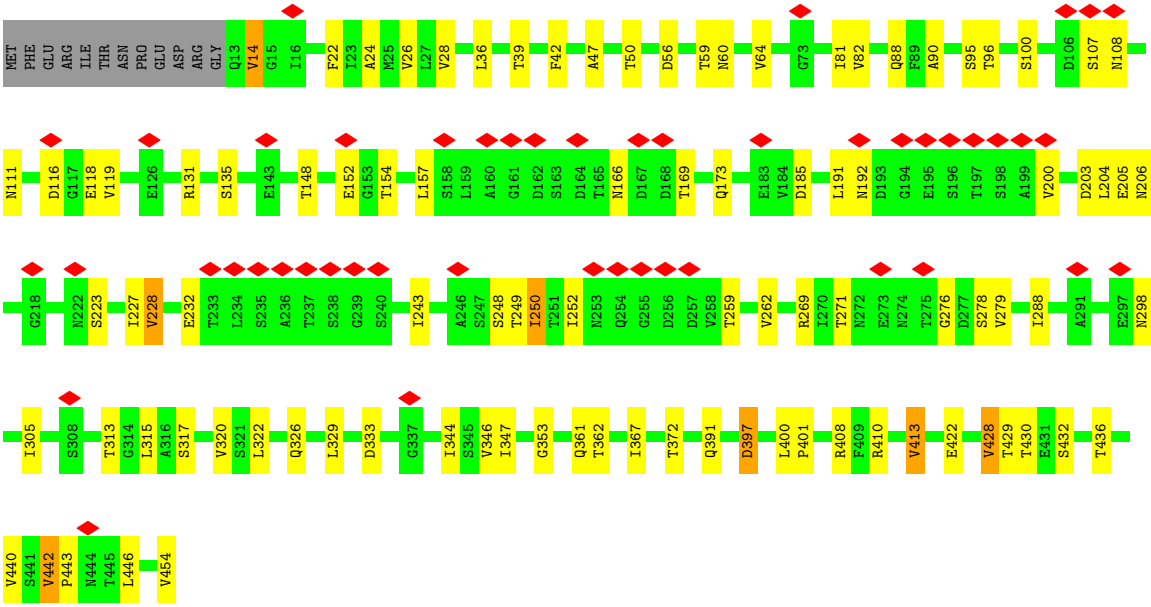


• Molecule 1: Flagellin

Chain O:

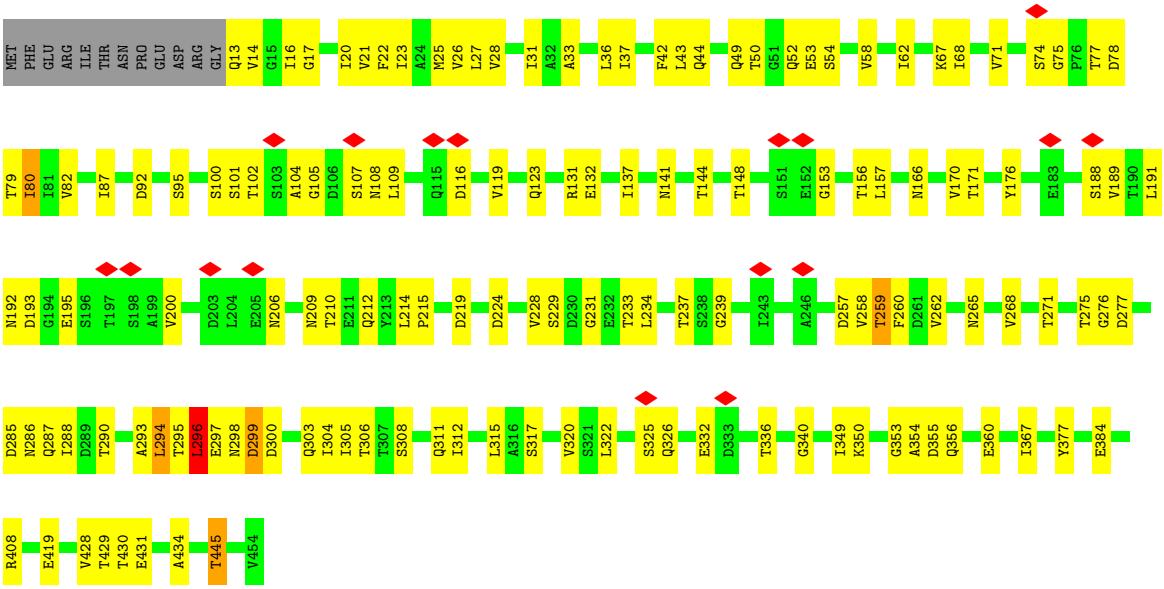
• Molecule 1: Flagellin

Chain Q:



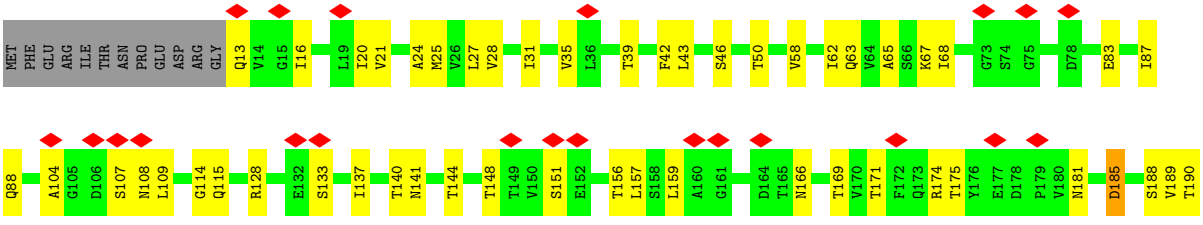
• Molecule 1: Flagellin

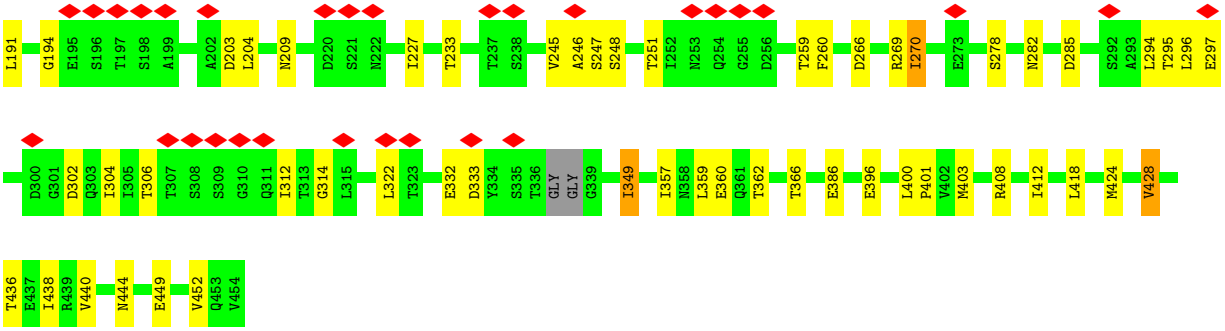
Chain S:



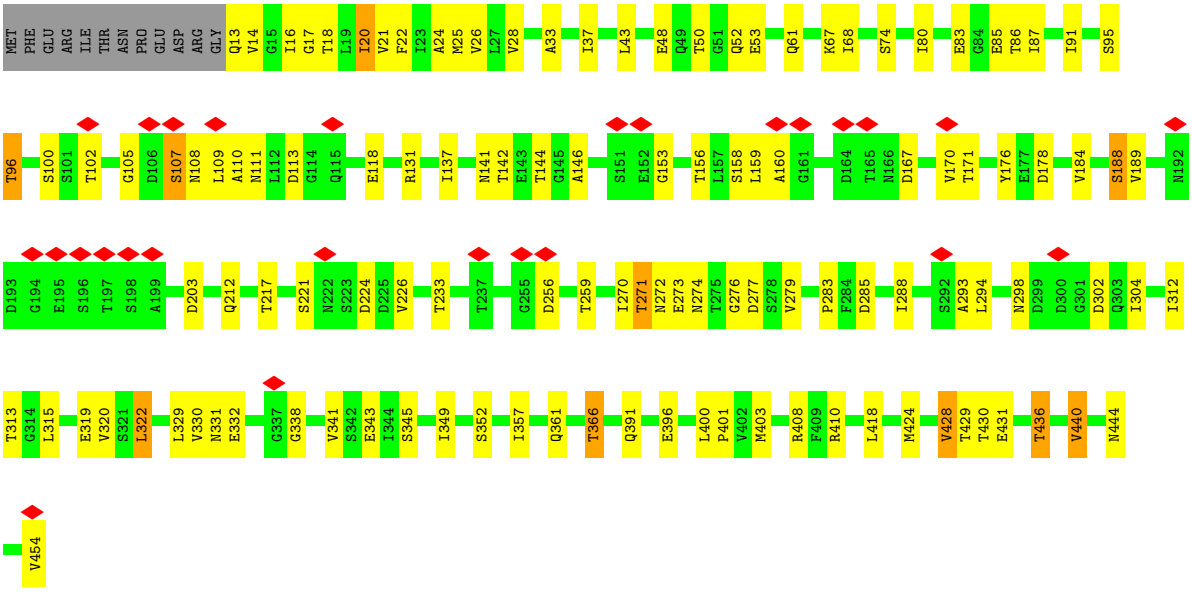
• Molecule 1: Flagellin

Chain U:

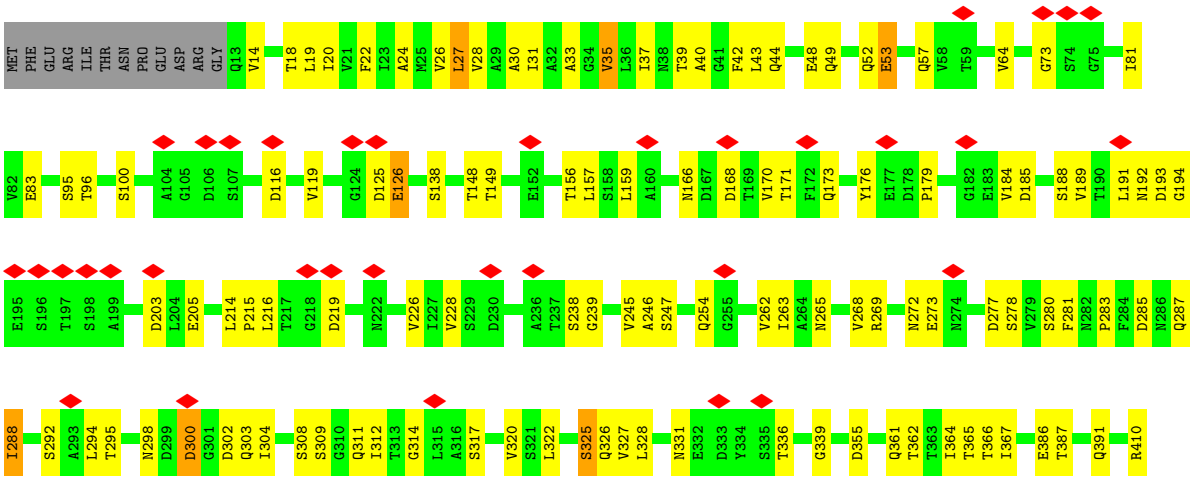


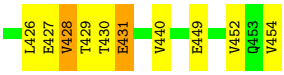


• Molecule 1: Flagellin



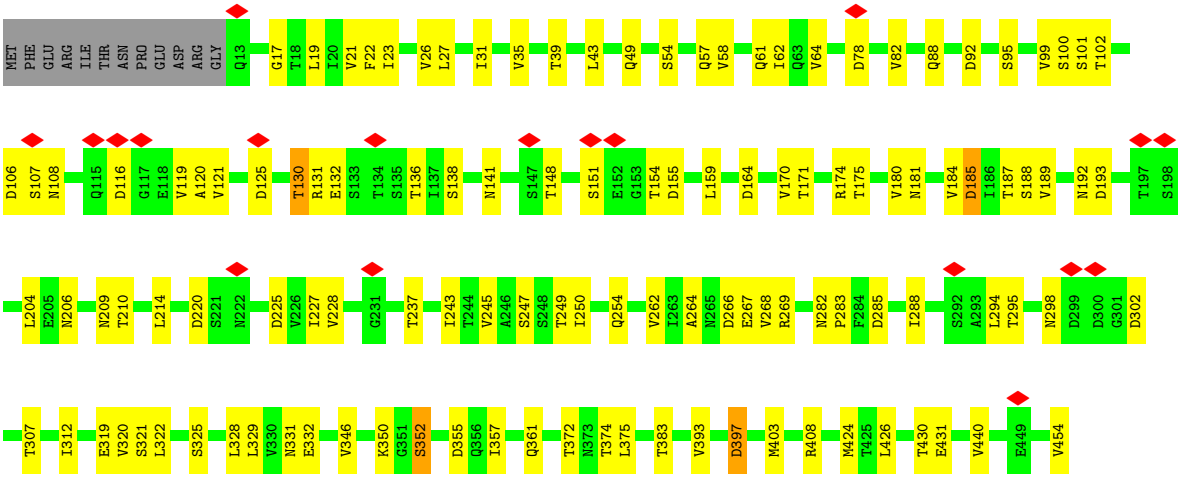
• Molecule 1: Flagellin





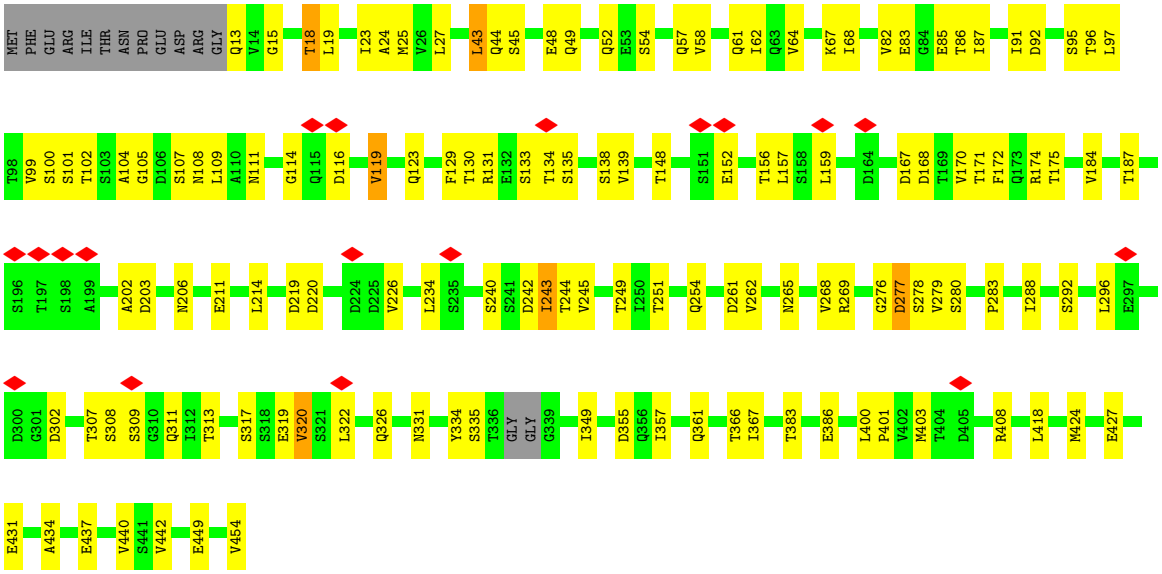
• Molecule 1: Flagellin

Chain Y:



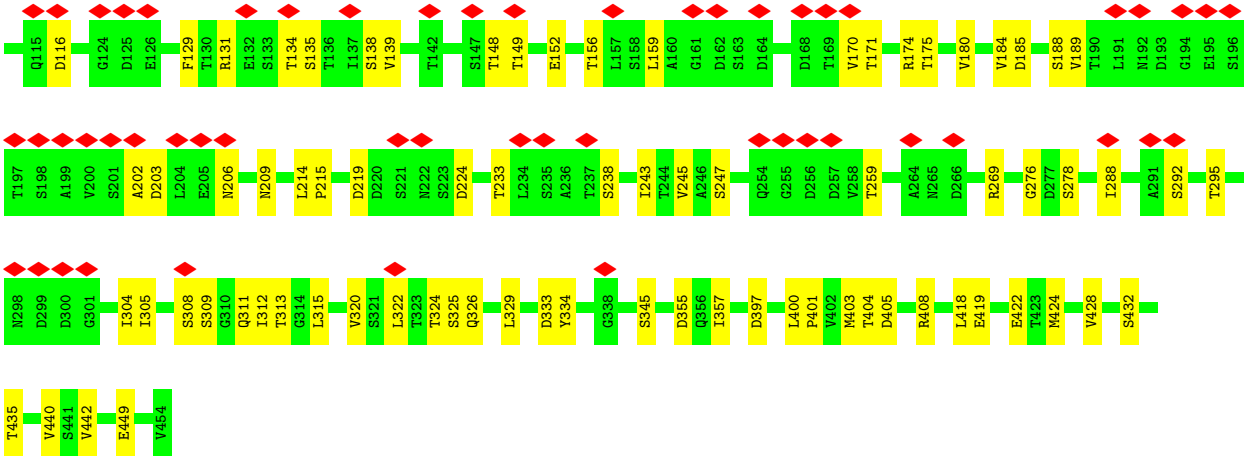
• Molecule 1: Flagellin

Chain Z:



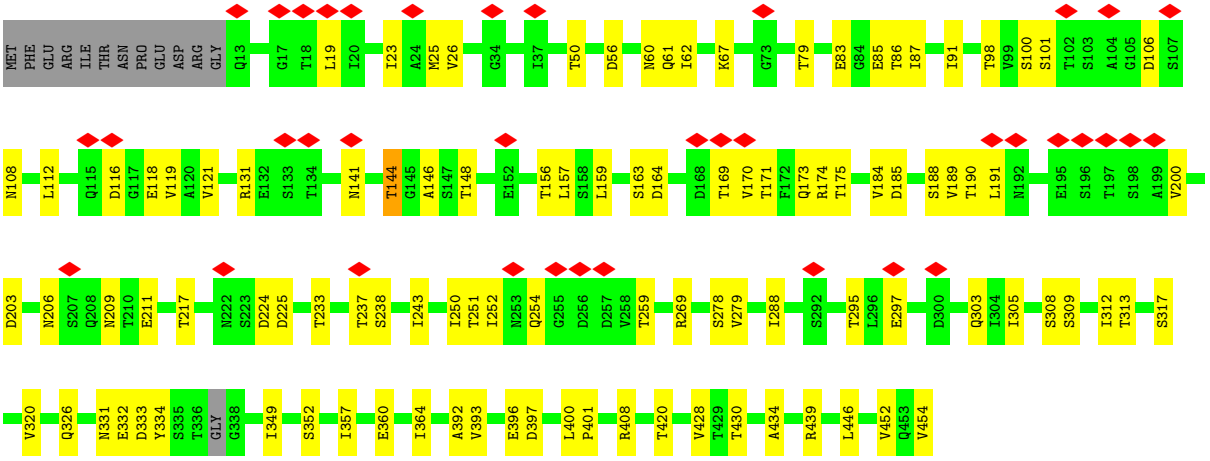
• Molecule 1: Flagellin

Chain a:



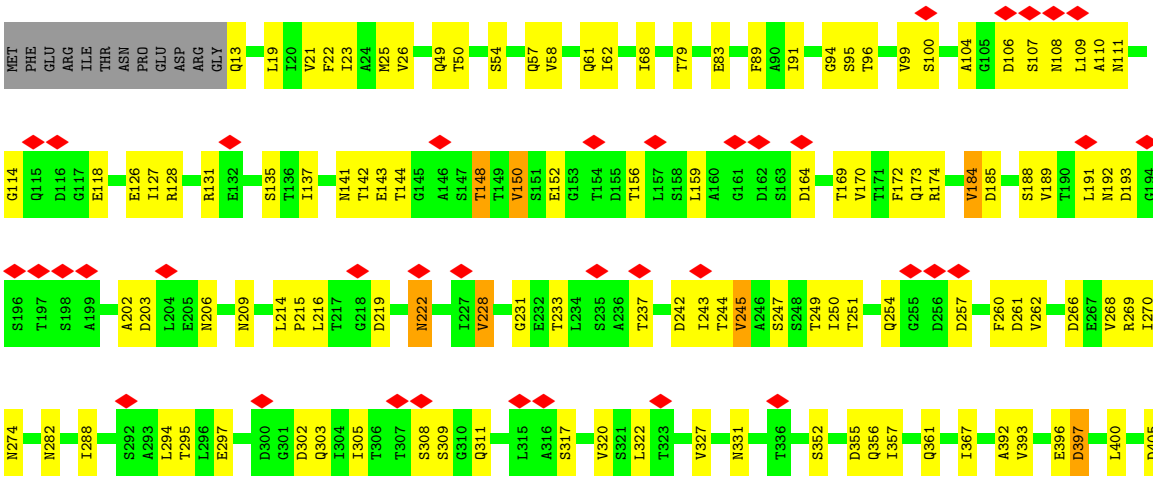
• Molecule 1: Flagellin

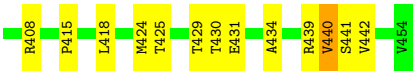
Chain c:



• Molecule 1: Flagellin

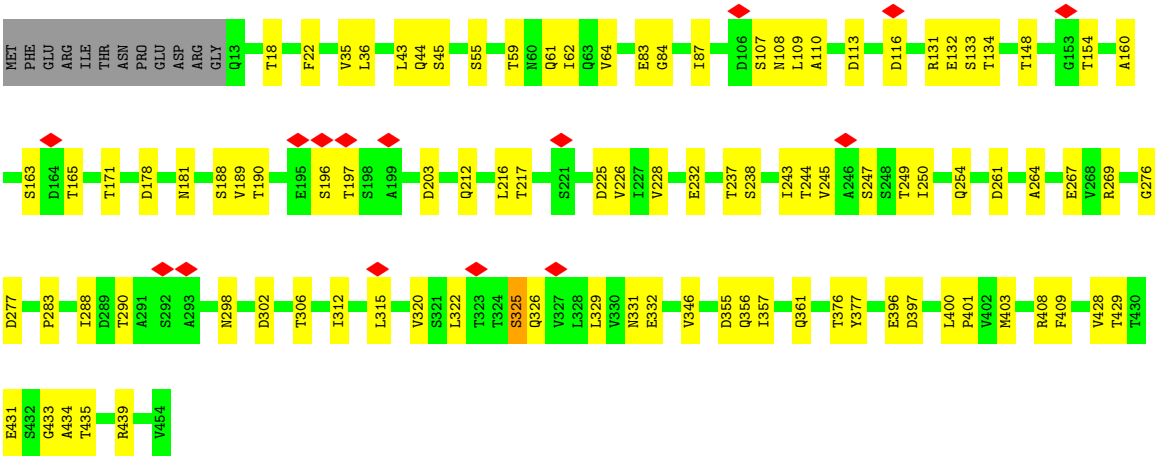
Chain d:





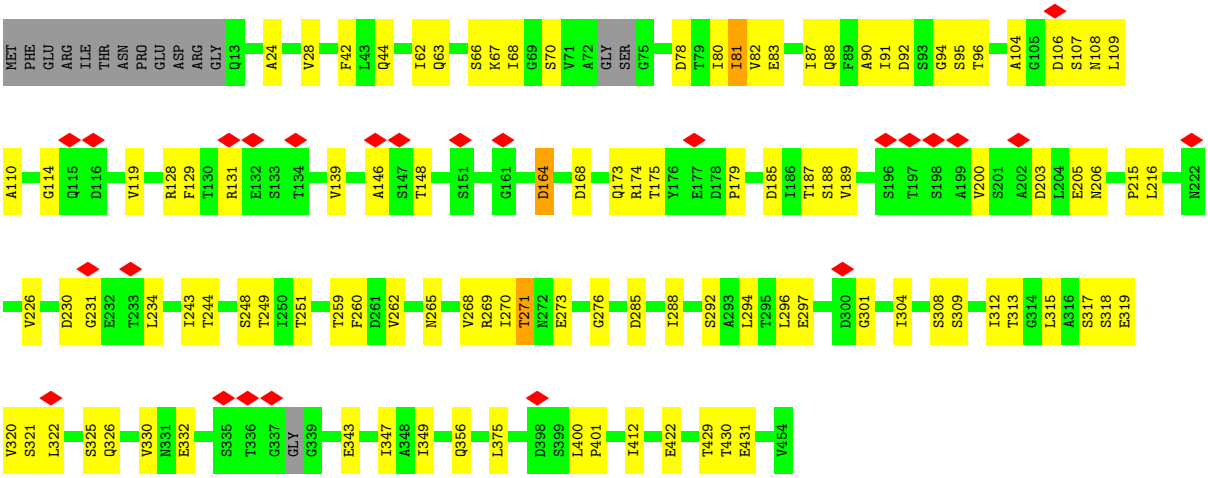
• Molecule 1: Flagellin

Chain e:



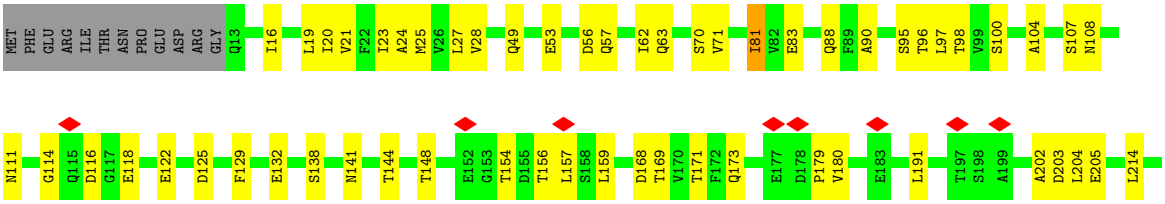
• Molecule 1: Flagellin

Chain f:



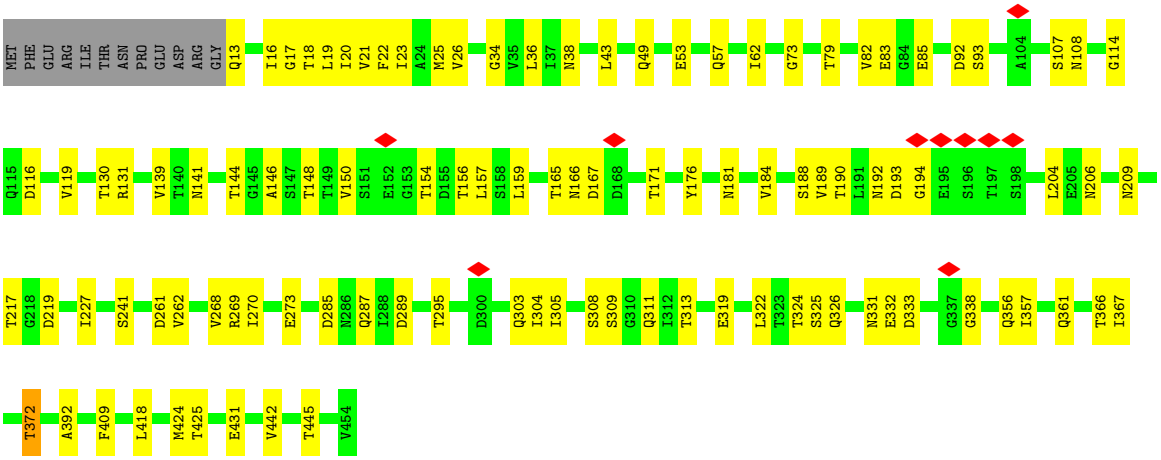
• Molecule 1: Flagellin

Chain g:



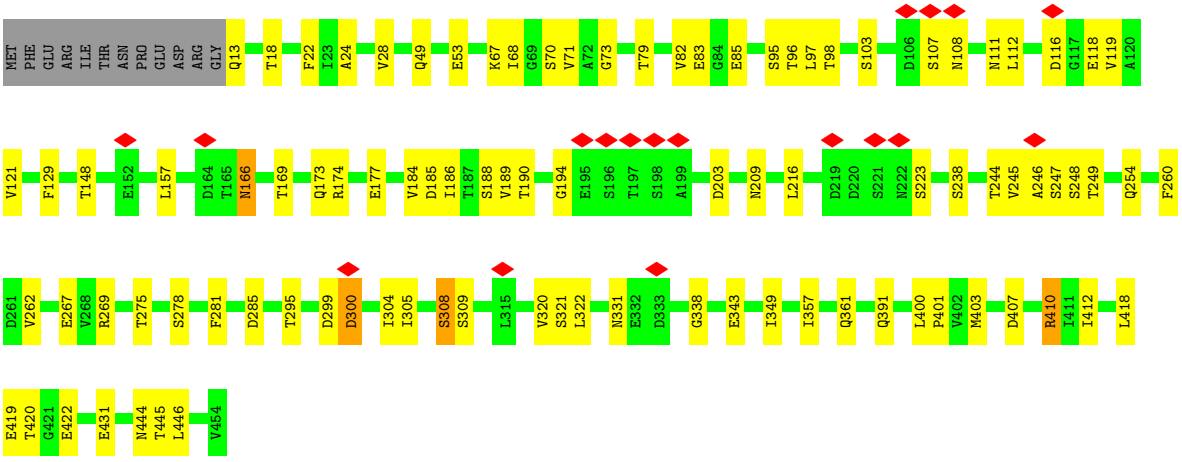
• Molecule 1: Flagellin

Chain h:



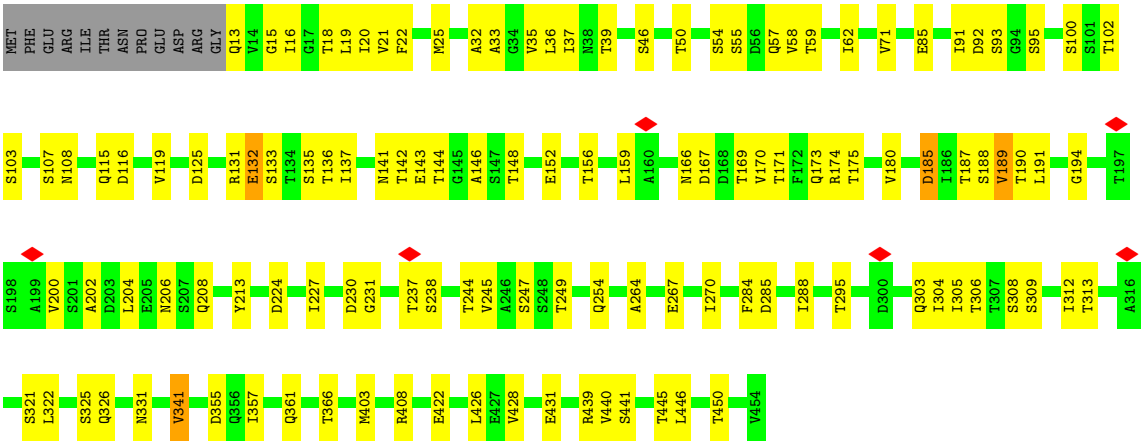
• Molecule 1: Flagellin

Chain i:



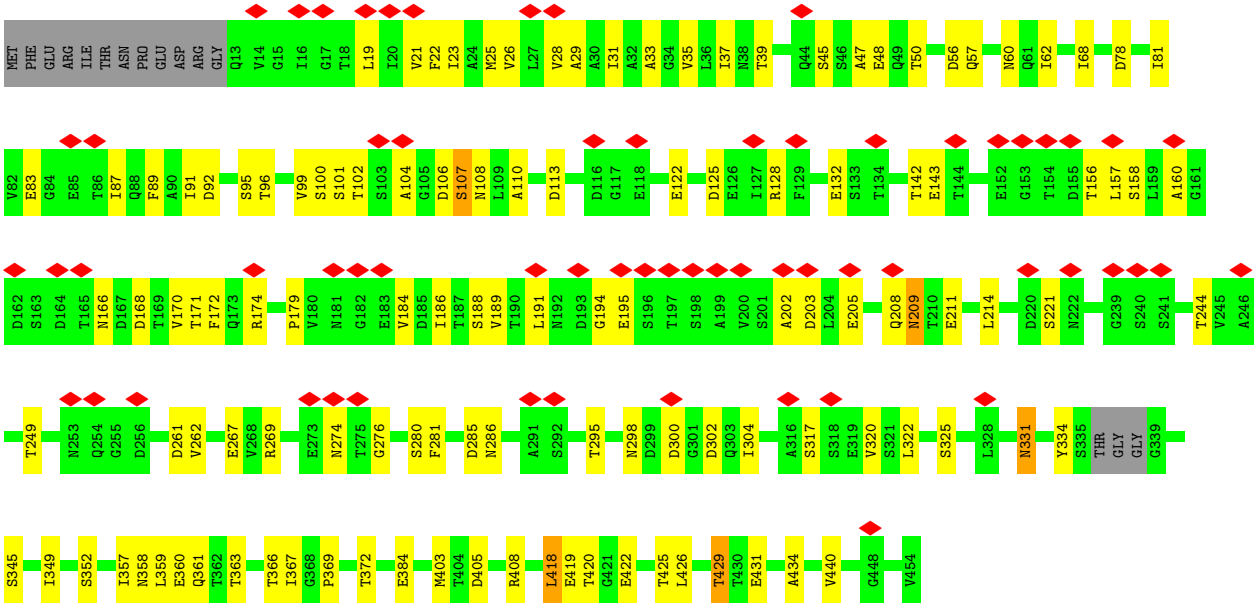
• Molecule 1: Flagellin

Chain k:



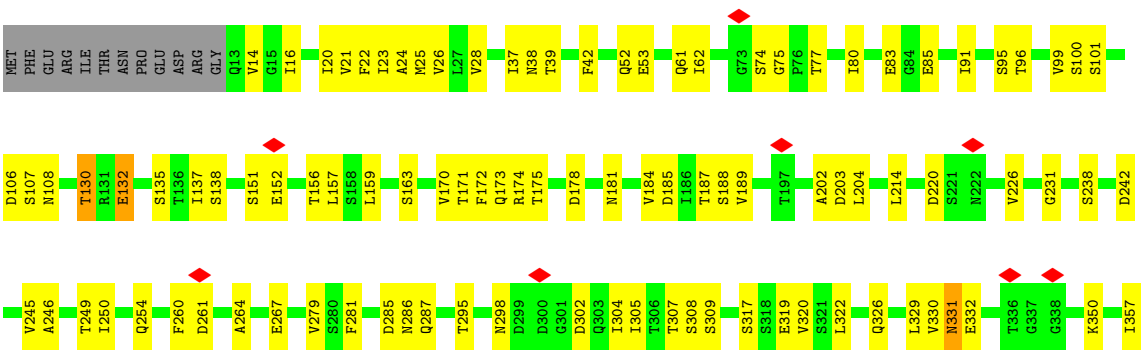
• Molecule 1: Flagellin

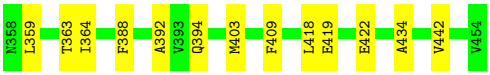
Chain l:



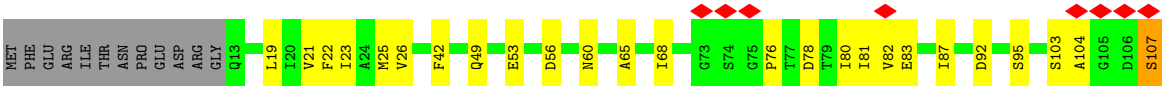
• Molecule 1: Flagellin

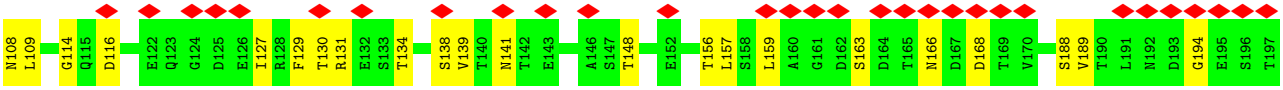
Chain m:

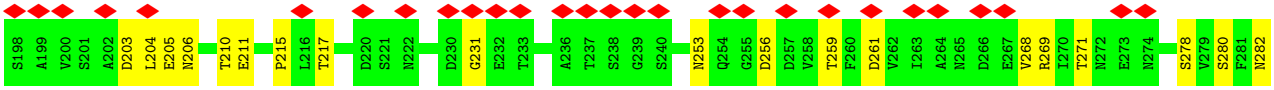


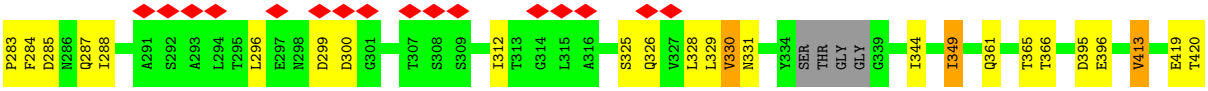


• Molecule 1: Flagellin









4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	372368	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 ($e^-/Å^2$)	30	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	3.121	Depositor
Minimum map value	-2.132	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.121	Depositor
Recommended contour level	0.35	Depositor
Map size (Å)	433.19998, 433.19998, 433.19998	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.083, 1.083, 1.083	Depositor

5 Model quality

5.1 Standard geometry

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

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	0.13	0/3201	0.35	0/4376
1	B	0.14	0/3201	0.39	0/4376
1	C	0.15	0/3140	0.39	0/4289
1	D	0.15	0/3192	0.41	1/4363 (0.0%)
1	E	0.14	0/3185	0.38	0/4354
1	F	0.15	0/3201	0.41	0/4376
1	G	0.14	0/3201	0.36	0/4376
1	H	0.14	0/3183	0.36	0/4350
1	I	0.15	0/3201	0.41	1/4376 (0.0%)
1	J	0.14	0/3192	0.36	0/4363
1	K	0.14	0/3201	0.36	0/4376
1	M	0.17	0/3201	0.42	0/4376
1	N	0.14	0/3184	0.38	0/4352
1	O	0.14	0/3201	0.37	0/4376
1	Q	0.15	0/3201	0.38	0/4376
1	S	0.15	0/3201	0.43	3/4376 (0.1%)
1	U	0.15	0/3192	0.41	0/4363
1	V	0.15	0/3201	0.40	1/4376 (0.0%)
1	W	0.15	0/3201	0.40	0/4376
1	Y	0.15	0/3201	0.39	0/4376
1	Z	0.15	0/3192	0.39	0/4363
1	a	0.13	0/3201	0.36	0/4376
1	c	0.15	0/3196	0.39	0/4368
1	d	0.20	0/3201	0.42	0/4376
1	e	0.15	0/3201	0.37	0/4376
1	f	0.16	0/3185	0.41	0/4352
1	g	0.14	0/3192	0.38	0/4363
1	h	0.14	0/3201	0.35	0/4376
1	i	0.14	0/3201	0.39	1/4376 (0.0%)
1	k	0.15	0/3201	0.37	0/4376
1	l	0.15	0/3185	0.41	0/4353
1	m	0.15	0/3201	0.38	0/4376

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	n	0.15	0/3179	0.38	1/4345 (0.0%)
All	All	0.15	0/105417	0.39	8/144098 (0.0%)

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	I	154	THR	CB-CA-C	-5.48	110.28	116.63
1	V	107	SER	CB-CA-C	-5.16	110.22	117.23
1	i	308	SER	CB-CA-C	-5.12	110.65	116.54
1	S	299	ASP	CA-C-N	5.12	135.22	126.32
1	S	299	ASP	C-N-CA	5.12	135.22	126.32
1	n	107	SER	CB-CA-C	-5.11	110.29	117.23
1	D	107	SER	CB-CA-C	-5.05	110.37	117.23
1	S	308	SER	CB-CA-C	-5.00	109.83	115.79

There are no chirality outliers.

There are no planarity outliers.

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	3180	0	3008	52	0
1	B	3180	0	3008	77	0
1	C	3122	0	2958	65	0
1	D	3172	0	3001	76	0
1	E	3164	0	2991	79	0
1	F	3180	0	3008	67	0
1	G	3180	0	3008	66	0
1	H	3163	0	2992	45	0
1	I	3180	0	3007	70	0
1	J	3172	0	3001	74	0
1	K	3180	0	3008	72	0
1	M	3180	0	3008	64	0
1	N	3164	0	2991	86	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	O	3180	0	3008	80	0
1	Q	3180	0	3008	73	0
1	S	3180	0	3008	102	0
1	U	3172	0	3001	64	0
1	V	3180	0	3008	77	0
1	W	3180	0	3008	95	0
1	Y	3180	0	3008	78	0
1	Z	3172	0	3001	97	0
1	a	3180	0	3008	60	0
1	c	3176	0	3003	71	0
1	d	3180	0	3007	97	0
1	e	3180	0	3008	65	0
1	f	3166	0	2995	66	0
1	g	3172	0	3001	87	0
1	h	3180	0	3008	64	0
1	i	3180	0	3008	64	0
1	k	3180	0	3008	76	0
1	l	3165	0	2993	74	0
1	m	3180	0	3007	73	0
1	n	3159	0	2989	61	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
2	E	1	0	0	0	0
2	F	1	0	0	0	0
2	G	1	0	0	0	0
2	H	1	0	0	0	0
2	I	1	0	0	0	0
2	J	1	0	0	0	0
2	K	1	0	0	0	0
2	M	1	0	0	0	0
2	N	1	0	0	0	0
2	O	1	0	0	0	0
2	Q	1	0	0	0	0
2	S	1	0	0	0	0
2	U	1	0	0	0	0
2	V	1	0	0	0	0
2	W	1	0	0	0	0
2	Y	1	0	0	0	0
2	Z	1	0	0	0	0
2	a	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	c	1	0	0	0	0
2	d	1	0	0	0	0
2	e	1	0	0	0	0
2	f	1	0	0	0	0
2	g	1	0	0	0	0
2	h	1	0	0	0	0
2	i	1	0	0	0	0
2	k	1	0	0	0	0
2	l	1	0	0	0	0
2	m	1	0	0	0	0
2	n	1	0	0	0	0
All	All	104772	0	99074	2235	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 11.

All (2235) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:13:GLN:N	1:O:13:GLN:HE21	1.49	1.09
1:Z:92:ASP:HB2	1:Z:95:SER:HB2	1.56	0.86
1:f:179:PRO:HG2	1:f:265:ASN:HD21	1.41	0.85
1:S:295:THR:HA	1:S:304:ILE:O	1.79	0.83
1:Y:361:GLN:HB2	1:Y:431:GLU:HG3	1.62	0.82
1:Q:56:ASP:O	1:Q:60:ASN:HB2	1.79	0.82
1:U:13:GLN:N	1:c:25:MET:SD	2.53	0.81
1:V:100:SER:HG	1:V:171:THR:HG1	1.28	0.81
1:E:56:ASP:O	1:E:60:ASN:HB2	1.81	0.81
1:a:313:THR:HG22	1:a:326:GLN:HE22	1.46	0.80
1:O:13:GLN:N	1:O:13:GLN:NE2	2.30	0.79
1:H:234:LEU:HG	1:H:296:LEU:HD12	1.64	0.79
1:f:243:ILE:HD11	1:f:288:ILE:HG22	1.64	0.79
1:B:87:ILE:HD12	1:B:217:THR:HG21	1.64	0.79
1:D:244:THR:HB	1:D:289:ASP:HB3	1.65	0.78
1:A:111:ASN:HB2	1:A:118:GLU:HG3	1.66	0.78
1:U:83:GLU:HB3	1:U:203:ASP:HB2	1.64	0.77
1:m:287:GLN:HB3	1:m:326:GLN:HE21	1.50	0.77
1:N:83:GLU:HB3	1:N:203:ASP:HB2	1.67	0.77
1:S:33:ALA:HB2	1:W:24:ALA:HB1	1.66	0.77
1:I:244:THR:HB	1:I:289:ASP:HB3	1.69	0.75
1:S:44:GLN:HB2	1:W:35:VAL:HG21	1.69	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:361:GLN:HB2	1:Z:431:GLU:HG3	1.68	0.75
1:V:37:ILE:HD11	1:Z:24:ALA:HB1	1.69	0.74
1:W:179:PRO:HG2	1:W:265:ASN:HD21	1.52	0.74
1:E:131:ARG:HH21	1:E:206:ASN:HB3	1.52	0.74
1:Y:175:THR:HG22	1:Y:185:ASP:HB3	1.70	0.74
1:d:262:VAL:HG12	1:d:268:VAL:HG22	1.70	0.74
1:N:56:ASP:O	1:N:60:ASN:HB2	1.88	0.74
1:D:100:SER:HG	1:D:171:THR:HG1	1.33	0.74
1:W:269:ARG:HD2	1:W:278:SER:HB3	1.70	0.73
1:V:428:VAL:HG13	1:V:436:THR:HG23	1.71	0.73
1:k:361:GLN:HB2	1:k:431:GLU:HG3	1.70	0.73
1:W:366:THR:HG22	1:W:426:LEU:HD23	1.70	0.73
1:l:363:THR:H	1:l:429:THR:HG22	1.53	0.73
1:F:179:PRO:HG2	1:F:265:ASN:HD21	1.52	0.73
1:G:70:SER:HB3	1:G:343:GLU:HB3	1.71	0.73
1:d:361:GLN:HB2	1:d:431:GLU:HG3	1.70	0.73
1:E:245:VAL:HG13	1:E:247:SER:H	1.54	0.73
1:J:211:GLU:HG3	1:J:334:TYR:HB2	1.70	0.73
1:c:175:THR:HG22	1:c:185:ASP:HB3	1.69	0.73
1:O:243:ILE:HB	1:O:288:ILE:HD11	1.70	0.72
1:U:418:LEU:HD11	1:U:424:MET:HE3	1.71	0.72
1:g:179:PRO:HG2	1:g:265:ASN:HD21	1.54	0.72
1:I:72:ALA:HB1	1:I:336:THR:HA	1.72	0.72
1:Y:108:ASN:HB3	1:c:118:GLU:HB2	1.70	0.72
1:d:118:GLU:HB2	1:g:108:ASN:HB3	1.73	0.71
1:M:56:ASP:O	1:M:60:ASN:HB2	1.90	0.71
1:Z:184:VAL:HG21	1:Z:322:LEU:HD23	1.73	0.71
1:n:87:ILE:HD12	1:n:217:THR:HG21	1.72	0.71
1:J:56:ASP:O	1:J:60:ASN:HB2	1.90	0.71
1:k:21:VAL:O	1:k:25:MET:HG2	1.91	0.71
1:K:166:ASN:HB2	1:K:194:GLY:HA2	1.73	0.70
1:S:156:THR:HG22	1:S:157:LEU:H	1.55	0.70
1:a:184:VAL:HG21	1:a:322:LEU:HD23	1.72	0.70
1:f:70:SER:HB3	1:f:343:GLU:HB3	1.73	0.70
1:N:179:PRO:HG2	1:N:265:ASN:HD21	1.57	0.70
1:Z:49:GLN:HG3	1:d:439:ARG:HH11	1.55	0.70
1:W:287:GLN:HB3	1:W:326:GLN:HG2	1.74	0.70
1:g:49:GLN:O	1:g:53:GLU:HG2	1.91	0.70
1:E:287:GLN:HE22	1:E:311:GLN:HB3	1.56	0.70
1:g:269:ARG:HD2	1:g:278:SER:HB2	1.73	0.70
1:S:295:THR:HB	1:S:305:ILE:HG22	1.72	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:37:ILE:HD11	1:W:27:LEU:HD21	1.74	0.70
1:V:276:GLY:O	1:Y:269:ARG:NH1	2.25	0.70
1:D:20:ILE:HG21	1:l:29:ALA:HB1	1.73	0.69
1:A:138:SER:HB2	1:A:149:THR:HG22	1.74	0.69
1:K:56:ASP:O	1:K:60:ASN:HB2	1.91	0.69
1:M:289:ASP:HB3	1:M:311:GLN:HG3	1.72	0.69
1:e:62:ILE:HG22	1:e:357:ILE:HD13	1.75	0.69
1:k:366:THR:HG22	1:k:426:LEU:HD23	1.74	0.69
1:H:96:THR:HG22	1:H:128:ARG:HH21	1.58	0.69
1:V:259:THR:HB	1:V:271:THR:HG22	1.75	0.69
1:c:396:GLU:N	1:c:396:GLU:OE2	2.25	0.69
1:C:83:GLU:HG2	1:C:203:ASP:H	1.58	0.68
1:S:87:ILE:HG21	1:S:315:LEU:HA	1.74	0.68
1:k:208:GLN:OE1	1:k:208:GLN:N	2.25	0.68
1:n:21:VAL:O	1:n:25:MET:HG2	1.93	0.68
1:i:361:GLN:HB2	1:i:431:GLU:HG3	1.75	0.68
1:I:226:VAL:HG21	1:I:304:ILE:HD11	1.76	0.68
1:K:349:ILE:HG22	1:K:408:ARG:HG2	1.74	0.68
1:V:283:PRO:HG2	1:V:329:LEU:HD22	1.74	0.68
1:c:392:ALA:HB2	1:c:400:LEU:HD13	1.76	0.68
1:k:131:ARG:HH21	1:k:206:ASN:HB3	1.58	0.68
1:A:56:ASP:O	1:A:60:ASN:HB2	1.94	0.68
1:A:361:GLN:HB2	1:A:431:GLU:HG3	1.75	0.68
1:I:361:GLN:HB2	1:I:431:GLU:HG3	1.76	0.68
1:M:156:THR:HG23	1:M:157:LEU:HD12	1.75	0.68
1:l:361:GLN:HB2	1:l:431:GLU:HG3	1.76	0.68
1:J:269:ARG:HD2	1:J:278:SER:HB3	1.75	0.67
1:k:100:SER:HB3	1:k:173:GLN:HB2	1.76	0.67
1:K:320:VAL:HG12	1:K:322:LEU:H	1.59	0.67
1:Q:116:ASP:HB3	1:Q:148:THR:HA	1.75	0.67
1:C:81:ILE:HG23	1:C:205:GLU:HB2	1.77	0.67
1:K:61:GLN:HG2	1:K:434:ALA:HB1	1.76	0.67
1:Z:234:LEU:HB3	1:Z:296:LEU:HD12	1.76	0.67
1:d:83:GLU:HG2	1:d:203:ASP:H	1.60	0.67
1:e:237:THR:O	1:e:254:GLN:NE2	2.27	0.67
1:g:23:ILE:HD11	1:l:47:ALA:HA	1.74	0.67
1:m:83:GLU:HB3	1:m:203:ASP:HB2	1.75	0.67
1:B:394:GLN:NE2	1:G:361:GLN:OE1	2.27	0.67
1:D:154:THR:N	1:D:204:LEU:O	2.28	0.67
1:V:68:ILE:HD12	1:Z:367:ILE:HD11	1.76	0.67
1:g:83:GLU:HB3	1:g:203:ASP:HB2	1.75	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:238:SER:HA	1:m:254:GLN:HE22	1.60	0.67
1:J:361:GLN:HB2	1:J:431:GLU:HG3	1.75	0.66
1:k:103:SER:O	1:k:169:THR:OG1	2.12	0.66
1:N:250:ILE:HD12	1:N:277:ASP:HB3	1.76	0.66
1:W:48:GLU:O	1:W:52:GLN:HG3	1.95	0.66
1:Z:156:THR:HG22	1:Z:157:LEU:H	1.60	0.66
1:c:79:THR:HG21	1:c:209:ASN:HB2	1.77	0.66
1:g:63:GLN:HE22	1:k:57:GLN:HE22	1.43	0.66
1:U:174:ARG:HH12	1:U:332:GLU:HG3	1.59	0.66
1:C:184:VAL:HG21	1:C:322:LEU:HD23	1.78	0.66
1:F:259:THR:HG1	1:F:271:THR:HG1	1.36	0.66
1:I:83:GLU:HB3	1:I:203:ASP:HB2	1.77	0.65
1:J:223:SER:HB2	1:J:305:ILE:H	1.61	0.65
1:W:269:ARG:HH21	1:W:280:SER:HB3	1.60	0.65
1:G:141:ASN:HD21	1:G:144:THR:HB	1.62	0.65
1:Z:95:SER:OG	1:Z:174:ARG:NH2	2.29	0.65
1:n:344:ILE:HB	1:n:413:VAL:HG12	1.78	0.65
1:O:420:THR:HB	1:O:444:ASN:HA	1.78	0.65
1:m:264:ALA:HB3	1:m:267:GLU:HB3	1.78	0.65
1:g:81:ILE:HG23	1:g:205:GLU:HB2	1.78	0.65
1:F:245:VAL:HG13	1:F:247:SER:H	1.61	0.65
1:S:233:THR:HG22	1:S:259:THR:HB	1.78	0.65
1:B:21:VAL:O	1:B:25:MET:HG2	1.97	0.65
1:F:288:ILE:HB	1:F:312:ILE:HG22	1.79	0.65
1:C:357:ILE:HB	1:C:403:MET:HB3	1.77	0.65
1:h:34:GLY:O	1:h:38:ASN:ND2	2.29	0.65
1:I:254:GLN:HE22	1:J:237:THR:HB	1.62	0.65
1:N:184:VAL:HG11	1:N:322:LEU:HD22	1.79	0.65
1:I:269:ARG:HD3	1:I:278:SER:HB2	1.79	0.65
1:U:245:VAL:HG13	1:U:247:SER:H	1.60	0.65
1:Y:408:ARG:HH22	1:d:431:GLU:HA	1.61	0.65
1:Z:45:SER:HB3	1:d:439:ARG:HD2	1.79	0.65
1:I:234:LEU:HB3	1:I:296:LEU:HG	1.78	0.65
1:U:16:ILE:O	1:U:20:ILE:HG13	1.97	0.65
1:A:107:SER:OG	1:A:108:ASN:N	2.30	0.64
1:J:186:ILE:HG22	1:J:320:VAL:HG12	1.79	0.64
1:S:80:ILE:HD12	1:S:137:ILE:HD13	1.79	0.64
1:Z:83:GLU:HB3	1:Z:203:ASP:HB2	1.80	0.64
1:e:361:GLN:HB2	1:e:431:GLU:HG3	1.77	0.64
1:I:21:VAL:O	1:I:25:MET:HG2	1.97	0.64
1:Y:174:ARG:NH1	1:Y:332:GLU:OE2	2.30	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:350:LYS:HG3	1:Y:357:ILE:HD12	1.77	0.64
1:W:440:VAL:HG13	1:W:454:VAL:HB	1.79	0.64
1:Z:49:GLN:HG3	1:d:439:ARG:NH1	2.13	0.64
1:W:83:GLU:HB3	1:W:203:ASP:HB2	1.79	0.64
1:O:107:SER:OG	1:O:108:ASN:N	2.31	0.64
1:C:245:VAL:HG13	1:C:247:SER:H	1.62	0.64
1:D:135:SER:HB2	1:D:152:GLU:HA	1.79	0.64
1:W:314:GLY:H	1:W:326:GLN:HE22	1.44	0.64
1:C:107:SER:OG	1:C:108:ASN:N	2.31	0.64
1:H:107:SER:OG	1:H:108:ASN:N	2.30	0.64
1:J:68:ILE:HG21	1:N:372:THR:HG21	1.80	0.64
1:h:303:GLN:HB3	1:h:305:ILE:HD11	1.79	0.64
1:l:357:ILE:HB	1:l:403:MET:HB2	1.79	0.64
1:H:136:THR:HG22	1:H:151:SER:HA	1.79	0.64
1:D:56:ASP:O	1:D:60:ASN:HB2	1.98	0.64
1:S:141:ASN:HD21	1:S:144:THR:HB	1.63	0.64
1:B:25:MET:HE1	1:i:13:GLN:HG2	1.78	0.63
1:H:70:SER:HB2	1:H:343:GLU:HB3	1.79	0.63
1:S:68:ILE:HD12	1:W:367:ILE:HD11	1.77	0.63
1:Z:243:ILE:HG22	1:Z:288:ILE:HG22	1.80	0.63
1:k:135:SER:HB2	1:k:152:GLU:HA	1.80	0.63
1:n:156:THR:HG22	1:n:157:LEU:H	1.62	0.63
1:I:303:GLN:HB3	1:I:305:ILE:HD11	1.80	0.63
1:S:275:THR:OG1	1:S:277:ASP:OD1	2.15	0.63
1:c:295:THR:HG22	1:c:305:ILE:HG23	1.80	0.63
1:e:332:GLU:N	1:e:332:GLU:OE2	2.26	0.63
1:G:13:GLN:NE2	1:N:25:MET:SD	2.71	0.63
1:G:118:GLU:OE2	1:J:108:ASN:ND2	2.31	0.63
1:I:290:THR:HG21	1:I:306:THR:HG21	1.79	0.63
1:c:91:ILE:HB	1:c:174:ARG:HH12	1.63	0.63
1:c:191:LEU:HD23	1:c:200:VAL:HG12	1.79	0.63
1:f:107:SER:OG	1:f:108:ASN:N	2.32	0.63
1:h:85:GLU:HG3	1:h:319:GLU:HB3	1.80	0.63
1:a:62:ILE:HG22	1:a:357:ILE:HD13	1.79	0.63
1:a:288:ILE:HB	1:a:312:ILE:HB	1.79	0.63
1:F:107:SER:OG	1:F:108:ASN:N	2.32	0.63
1:S:107:SER:OG	1:S:108:ASN:N	2.31	0.63
1:Y:288:ILE:H	1:Y:288:ILE:HD12	1.63	0.63
1:i:420:THR:HG23	1:i:444:ASN:HA	1.81	0.63
1:D:440:VAL:HB	1:D:454:VAL:HG13	1.80	0.63
1:g:141:ASN:ND2	1:g:144:THR:OG1	2.32	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:419:GLU:OE1	1:D:419:GLU:N	2.32	0.63
1:K:107:SER:OG	1:K:108:ASN:N	2.32	0.63
1:M:159:LEU:HD11	1:M:170:VAL:HG23	1.80	0.63
1:N:21:VAL:O	1:N:25:MET:HG2	1.99	0.63
1:V:17:GLY:O	1:V:21:VAL:HG23	1.99	0.63
1:V:24:ALA:O	1:V:28:VAL:HG23	1.99	0.63
1:e:320:VAL:HG12	1:e:322:LEU:H	1.64	0.63
1:F:181:ASN:HD22	1:F:322:LEU:HD21	1.64	0.63
1:M:169:THR:HA	1:M:191:LEU:O	1.99	0.63
1:S:52:GLN:HG3	1:W:42:PHE:HZ	1.64	0.63
1:U:21:VAL:O	1:U:25:MET:HG2	1.99	0.63
1:a:101:SER:H	1:a:171:THR:HG1	1.45	0.63
1:c:61:GLN:HG2	1:c:434:ALA:HB1	1.80	0.63
1:D:184:VAL:HG11	1:D:322:LEU:HB3	1.79	0.62
1:Q:271:THR:HG22	1:Q:278:SER:HB2	1.81	0.62
1:l:33:ALA:O	1:l:37:ILE:HG12	1.98	0.62
1:W:39:THR:O	1:W:43:LEU:HD22	2.00	0.62
1:d:231:GLY:HA2	1:d:260:PHE:O	1.99	0.62
1:k:35:VAL:O	1:k:39:THR:HG23	1.99	0.62
1:G:83:GLU:HB3	1:G:203:ASP:HB2	1.79	0.62
1:G:361:GLN:HB2	1:G:431:GLU:HB2	1.82	0.62
1:K:96:THR:O	1:K:174:ARG:NH1	2.31	0.62
1:W:273:GLU:N	1:W:273:GLU:OE2	2.32	0.62
1:N:234:LEU:HD22	1:N:298:ASN:HB3	1.81	0.62
1:Y:440:VAL:HG13	1:Y:454:VAL:HB	1.82	0.62
1:J:231:GLY:HA2	1:J:260:PHE:O	1.99	0.62
1:K:260:PHE:CE1	1:K:270:ILE:HG12	2.33	0.62
1:N:92:ASP:HB2	1:N:95:SER:HB2	1.81	0.62
1:Y:209:ASN:OD1	1:Y:210:THR:N	2.31	0.62
1:e:264:ALA:HB3	1:e:267:GLU:HB3	1.82	0.62
1:C:72:ALA:HB2	1:C:342:SER:HB2	1.81	0.62
1:F:171:THR:HG22	1:F:190:THR:HG23	1.82	0.62
1:F:264:ALA:HB3	1:F:267:GLU:HB2	1.80	0.62
1:K:81:ILE:HG23	1:K:205:GLU:HB2	1.82	0.62
1:Z:308:SER:OG	1:Z:309:SER:N	2.32	0.62
1:a:449:GLU:N	1:a:449:GLU:OE2	2.33	0.62
1:g:62:ILE:HG22	1:g:357:ILE:HD13	1.82	0.62
1:g:111:ASN:HD22	1:g:118:GLU:HB3	1.63	0.62
1:N:324:THR:HG22	1:N:325:SER:H	1.64	0.62
1:V:391:GLN:OE1	1:V:410:ARG:NH2	2.32	0.62
1:g:361:GLN:HB2	1:g:431:GLU:HG3	1.82	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:i:308:SER:OG	1:i:309:SER:N	2.32	0.62
1:K:261:ASP:OD2	1:K:262:VAL:N	2.33	0.62
1:i:73:GLY:HA3	1:i:338:GLY:HA2	1.82	0.62
1:E:104:ALA:HB3	1:E:109:LEU:HG	1.82	0.62
1:W:44:GLN:HB3	1:a:35:VAL:HG21	1.81	0.62
1:c:420:THR:HG22	1:c:446:LEU:HD12	1.79	0.62
1:i:83:GLU:HB3	1:i:203:ASP:HB2	1.82	0.62
1:D:288:ILE:HB	1:D:312:ILE:HB	1.82	0.61
1:F:253:ASN:N	1:F:256:ASP:OD2	2.33	0.61
1:K:70:SER:HB2	1:K:343:GLU:HB3	1.80	0.61
1:K:241:SER:HB2	1:K:291:ALA:HB3	1.81	0.61
1:Z:449:GLU:N	1:Z:449:GLU:OE2	2.32	0.61
1:S:288:ILE:HB	1:S:312:ILE:HB	1.81	0.61
1:Z:102:THR:OG1	1:Z:123:GLN:OE1	2.18	0.61
1:O:380:ASN:O	1:O:391:GLN:NE2	2.33	0.61
1:d:62:ILE:HD11	1:d:357:ILE:HG21	1.82	0.61
1:h:166:ASN:HB2	1:h:194:GLY:HA2	1.81	0.61
1:I:185:ASP:OD1	1:I:321:SER:OG	2.16	0.61
1:S:290:THR:HG21	1:S:306:THR:HB	1.81	0.61
1:Y:184:VAL:HG11	1:Y:322:LEU:HD22	1.82	0.61
1:e:290:THR:HG21	1:e:306:THR:HB	1.83	0.61
1:k:237:THR:O	1:k:254:GLN:NE2	2.34	0.61
1:m:61:GLN:HG2	1:m:434:ALA:HB1	1.83	0.61
1:Q:440:VAL:HG13	1:Q:454:VAL:HB	1.82	0.61
1:m:184:VAL:HG21	1:m:322:LEU:HB2	1.83	0.61
1:Y:408:ARG:HH21	1:d:429:THR:HG22	1.65	0.61
1:C:249:THR:HG22	1:G:249:THR:HG22	1.83	0.61
1:E:295:THR:HG22	1:E:305:ILE:HG23	1.83	0.61
1:N:159:LEU:HD11	1:N:170:VAL:HG13	1.83	0.61
1:N:408:ARG:HH21	1:S:429:THR:HG22	1.66	0.61
1:Q:391:GLN:OE1	1:Q:410:ARG:NH2	2.33	0.61
1:a:209:ASN:ND2	1:a:334:TYR:OH	2.34	0.61
1:c:408:ARG:HH22	1:g:431:GLU:HA	1.66	0.61
1:d:22:PHE:HA	1:h:13:GLN:HG2	1.82	0.61
1:i:98:THR:HG23	1:i:173:GLN:HB3	1.83	0.60
1:F:130:THR:OG1	1:F:132:GLU:OE2	2.19	0.60
1:F:273:GLU:OE2	1:F:273:GLU:N	2.32	0.60
1:G:217:THR:HA	1:G:304:ILE:HD11	1.82	0.60
1:H:21:VAL:O	1:H:25:MET:HG2	2.00	0.60
1:U:107:SER:OG	1:U:108:ASN:N	2.33	0.60
1:Z:13:GLN:HG2	1:h:25:MET:HE1	1.83	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:107:SER:OG	1:Z:108:ASN:N	2.34	0.60
1:I:83:GLU:HA	1:I:88:GLN:HG2	1.83	0.60
1:O:230:ASP:OD1	1:O:230:ASP:N	2.35	0.60
1:S:22:PHE:O	1:S:26:VAL:HG23	2.01	0.60
1:S:28:VAL:HA	1:S:31:ILE:HD12	1.82	0.60
1:e:376:THR:HG22	1:e:377:TYR:H	1.66	0.60
1:d:107:SER:OG	1:d:108:ASN:N	2.34	0.60
1:E:259:THR:OG1	1:E:273:GLU:OE1	2.14	0.60
1:M:126:GLU:OE1	1:M:126:GLU:N	2.32	0.60
1:Q:14:VAL:HG21	1:d:21:VAL:HG21	1.83	0.60
1:Q:169:THR:OG1	1:Q:192:ASN:OD1	2.19	0.60
1:c:237:THR:O	1:c:254:GLN:NE2	2.35	0.60
1:E:269:ARG:NE	1:E:280:SER:OG	2.34	0.60
1:G:107:SER:OG	1:G:108:ASN:N	2.35	0.60
1:U:137:ILE:HG13	1:U:204:LEU:HD21	1.84	0.60
1:d:245:VAL:HG13	1:d:247:SER:H	1.67	0.60
1:d:297:GLU:OE1	1:d:303:GLN:NE2	2.34	0.60
1:D:83:GLU:HB3	1:D:203:ASP:HB2	1.83	0.60
1:J:126:GLU:N	1:J:126:GLU:OE2	2.34	0.60
1:A:357:ILE:HB	1:A:403:MET:HB2	1.83	0.60
1:F:367:ILE:HD13	1:F:372:THR:HG22	1.84	0.60
1:M:264:ALA:HB3	1:M:267:GLU:HB2	1.84	0.60
1:W:33:ALA:O	1:W:37:ILE:HG12	2.01	0.60
1:Y:185:ASP:OD2	1:Y:185:ASP:N	2.33	0.60
1:f:92:ASP:HB2	1:f:95:SER:HB2	1.83	0.60
1:N:107:SER:OG	1:N:108:ASN:N	2.32	0.60
1:O:269:ARG:NH1	1:O:278:SER:OG	2.35	0.60
1:a:131:ARG:HH21	1:a:134:THR:HA	1.66	0.60
1:h:141:ASN:ND2	1:h:144:THR:OG1	2.35	0.60
1:n:107:SER:OG	1:n:108:ASN:N	2.35	0.60
1:B:87:ILE:HB	1:B:315:LEU:HD13	1.83	0.60
1:Y:185:ASP:OD2	1:Y:321:SER:OG	2.18	0.60
1:c:100:SER:OG	1:c:171:THR:OG1	2.19	0.60
1:D:410:ARG:HE	1:D:412:ILE:HD11	1.67	0.59
1:H:61:GLN:HB3	1:H:434:ALA:HB1	1.84	0.59
1:M:243:ILE:HG13	1:M:252:ILE:HD11	1.83	0.59
1:O:295:THR:HB	1:O:305:ILE:HD13	1.83	0.59
1:e:107:SER:OG	1:e:108:ASN:N	2.33	0.59
1:h:107:SER:OG	1:h:108:ASN:N	2.32	0.59
1:l:405:ASP:OD1	1:l:405:ASP:N	2.35	0.59
1:B:106:ASP:OD1	1:B:106:ASP:N	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:111:ASN:HB2	1:O:118:GLU:HG3	1.84	0.59
1:Q:111:ASN:HB2	1:Q:118:GLU:HG3	1.83	0.59
1:Z:269:ARG:HD2	1:Z:278:SER:HB2	1.83	0.59
1:c:364:ILE:HG12	1:c:428:VAL:HG12	1.84	0.59
1:l:285:ASP:HA	1:l:325:SER:HB2	1.82	0.59
1:l:349:ILE:HD12	1:l:408:ARG:HG2	1.83	0.59
1:M:78:ASP:OD1	1:M:131:ARG:NH1	2.34	0.59
1:O:79:THR:HG21	1:O:209:ASN:HB2	1.85	0.59
1:Q:26:VAL:HG12	1:U:58:VAL:HG21	1.84	0.59
1:Q:408:ARG:NH2	1:V:429:THR:OG1	2.35	0.59
1:G:285:ASP:OD2	1:G:286:ASN:ND2	2.36	0.59
1:Q:135:SER:HB2	1:Q:152:GLU:HA	1.84	0.59
1:W:184:VAL:HG11	1:W:322:LEU:HD22	1.84	0.59
1:d:68:ILE:HD12	1:h:367:ILE:HD11	1.84	0.59
1:g:16:ILE:O	1:g:20:ILE:HG12	2.03	0.59
1:h:23:ILE:HG23	1:k:50:THR:HG21	1.84	0.59
1:i:173:GLN:OE1	1:i:174:ARG:N	2.35	0.59
1:F:39:THR:HG21	1:m:22:PHE:HZ	1.67	0.59
1:J:141:ASN:OD1	1:J:146:ALA:N	2.35	0.59
1:N:269:ARG:NH1	1:Q:276:GLY:O	2.35	0.59
1:U:181:ASN:HD22	1:U:322:LEU:HD22	1.67	0.59
1:d:100:SER:HB3	1:d:173:GLN:HB2	1.85	0.59
1:e:83:GLU:HG3	1:e:203:ASP:H	1.67	0.59
1:F:99:VAL:HG23	1:F:127:ILE:HD11	1.83	0.59
1:g:83:GLU:HA	1:g:88:GLN:HG2	1.85	0.59
1:k:62:ILE:HG22	1:k:357:ILE:HD13	1.82	0.59
1:m:107:SER:OG	1:m:108:ASN:N	2.32	0.59
1:n:287:GLN:HG3	1:n:326:GLN:HG3	1.83	0.59
1:D:118:GLU:H	1:k:108:ASN:HB3	1.67	0.59
1:F:269:ARG:NE	1:F:280:SER:OG	2.35	0.59
1:I:317:SER:HA	1:I:320:VAL:HG12	1.83	0.59
1:Y:352:SER:OG	1:d:57:GLN:OE1	2.19	0.59
1:M:209:ASN:OD1	1:M:210:THR:N	2.36	0.59
1:O:287:GLN:HE22	1:O:289:ASP:HB3	1.68	0.59
1:k:357:ILE:HB	1:k:403:MET:HB2	1.84	0.59
1:n:365:THR:HG22	1:n:427:GLU:HB2	1.84	0.59
1:G:21:VAL:HG11	1:i:18:THR:HG21	1.84	0.59
1:M:19:LEU:O	1:M:23:ILE:HG13	2.03	0.59
1:S:293:ALA:HA	1:S:306:THR:O	2.02	0.59
1:U:46:SER:O	1:U:50:THR:HG23	2.02	0.59
1:g:116:ASP:HB2	1:g:148:THR:HA	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:137:ILE:HD12	1:k:204:LEU:HB3	1.85	0.59
1:A:366:THR:HB	1:A:424:MET:HE3	1.85	0.58
1:Z:366:THR:HB	1:Z:424:MET:HE2	1.85	0.58
1:g:16:ILE:HG21	1:l:39:THR:HG22	1.84	0.58
1:F:83:GLU:HG2	1:F:203:ASP:H	1.67	0.58
1:F:361:GLN:HB2	1:F:431:GLU:HG3	1.85	0.58
1:f:175:THR:HG22	1:f:185:ASP:HB3	1.85	0.58
1:D:21:VAL:O	1:D:25:MET:HG3	2.03	0.58
1:K:78:ASP:N	1:K:78:ASP:OD1	2.35	0.58
1:N:71:VAL:HG21	1:N:446:LEU:HD13	1.85	0.58
1:U:25:MET:HA	1:U:28:VAL:HG22	1.85	0.58
1:W:238:SER:OG	1:W:239:GLY:N	2.33	0.58
1:M:97:LEU:HD12	1:M:129:PHE:CE1	2.38	0.58
1:Y:430:THR:O	1:Y:430:THR:HG22	2.03	0.58
1:d:173:GLN:HE21	1:d:185:ASP:HB3	1.68	0.58
1:k:33:ALA:O	1:k:37:ILE:HG13	2.04	0.58
1:C:133:SER:OG	1:C:136:THR:OG1	2.20	0.58
1:I:260:PHE:HZ	1:I:296:LEU:HD21	1.68	0.58
1:K:97:LEU:HD13	1:K:172:PHE:HB3	1.84	0.58
1:d:91:ILE:HB	1:d:174:ARG:HH21	1.68	0.58
1:S:119:VAL:HG23	1:S:148:THR:HG23	1.83	0.58
1:V:176:TYR:HE2	1:V:178:ASP:HB3	1.69	0.58
1:g:241:SER:OG	1:g:242:ASP:N	2.36	0.58
1:l:83:GLU:HB3	1:l:203:ASP:HB2	1.86	0.58
1:H:269:ARG:NH1	1:K:276:GLY:O	2.36	0.58
1:Q:64:VAL:HG13	1:Q:346:VAL:HG13	1.85	0.58
1:Q:81:ILE:HA	1:Q:90:ALA:HA	1.84	0.58
1:a:308:SER:OG	1:a:309:SER:N	2.35	0.58
1:f:114:GLY:HA3	1:f:148:THR:HG23	1.85	0.58
1:g:264:ALA:HB3	1:g:267:GLU:HB2	1.83	0.58
1:A:79:THR:HG21	1:A:209:ASN:HB2	1.86	0.58
1:C:130:THR:HG1	1:C:138:SER:HG	1.50	0.58
1:D:431:GLU:HA	1:l:408:ARG:HH22	1.68	0.58
1:O:104:ALA:HB3	1:O:109:LEU:HD22	1.86	0.58
1:Y:54:SER:O	1:Y:58:VAL:HG23	2.04	0.58
1:a:355:ASP:OD1	1:a:355:ASP:N	2.37	0.58
1:d:367:ILE:HG12	1:d:425:THR:HB	1.85	0.58
1:f:313:THR:HB	1:f:326:GLN:HE22	1.68	0.58
1:B:56:ASP:O	1:B:60:ASN:HB2	2.03	0.58
1:f:104:ALA:HA	1:f:168:ASP:HA	1.85	0.58
1:l:369:PRO:HG3	1:l:422:GLU:OE2	2.04	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:133:SER:OG	1:A:136:THR:OG1	2.21	0.58
1:C:81:ILE:HA	1:C:90:ALA:HA	1.86	0.58
1:D:361:GLN:HB2	1:D:431:GLU:HG3	1.84	0.58
1:I:107:SER:OG	1:I:108:ASN:N	2.35	0.58
1:I:350:LYS:HG2	1:I:354:ALA:HB3	1.86	0.58
1:Q:250:ILE:HD11	1:Q:279:VAL:HB	1.85	0.58
1:V:33:ALA:O	1:V:37:ILE:HG12	2.04	0.58
1:m:178:ASP:OD1	1:m:181:ASN:N	2.35	0.58
1:B:137:ILE:HD12	1:B:204:LEU:HB3	1.85	0.57
1:V:352:SER:OG	1:Z:57:GLN:OE1	2.20	0.57
1:F:286:ASN:OD1	1:F:287:GLN:N	2.36	0.57
1:N:23:ILE:HG23	1:Q:50:THR:HG21	1.86	0.57
1:Z:288:ILE:O	1:Z:311:GLN:NE2	2.37	0.57
1:k:295:THR:OG1	1:k:303:GLN:OE1	2.22	0.57
1:m:245:VAL:HG22	1:m:246:ALA:H	1.69	0.57
1:O:61:GLN:HG2	1:O:434:ALA:HB1	1.86	0.57
1:Z:313:THR:HG22	1:Z:326:GLN:HE22	1.67	0.57
1:I:79:THR:O	1:I:131:ARG:NH2	2.36	0.57
1:d:242:ASP:HA	1:d:251:THR:HA	1.87	0.57
1:h:79:THR:HG21	1:h:209:ASN:HB2	1.86	0.57
1:i:410:ARG:HH21	1:i:412:ILE:HD11	1.69	0.57
1:k:71:VAL:HA	1:k:341:VAL:HA	1.85	0.57
1:E:308:SER:OG	1:E:309:SER:N	2.31	0.57
1:c:141:ASN:HD21	1:c:144:THR:HB	1.69	0.57
1:l:113:ASP:OD1	1:l:158:SER:N	2.37	0.57
1:B:37:ILE:HG21	1:F:61:GLN:HE22	1.68	0.57
1:B:405:ASP:OD1	1:B:405:ASP:N	2.35	0.57
1:M:286:ASN:HD22	1:M:288:ILE:HG12	1.69	0.57
1:M:420:THR:HG23	1:M:444:ASN:HA	1.85	0.57
1:Y:237:THR:O	1:Y:254:GLN:NE2	2.32	0.57
1:D:313:THR:OG1	1:D:326:GLN:OE1	2.22	0.57
1:F:248:SER:HA	1:I:249:THR:O	2.04	0.57
1:Q:107:SER:OG	1:Q:108:ASN:N	2.32	0.57
1:W:239:GLY:HA3	1:W:294:LEU:HA	1.87	0.57
1:i:269:ARG:HD2	1:i:278:SER:HB2	1.86	0.57
1:k:173:GLN:HG3	1:k:187:THR:HG22	1.86	0.57
1:k:238:SER:HA	1:k:254:GLN:HE21	1.69	0.57
1:B:113:ASP:HB3	1:B:160:ALA:HB2	1.85	0.57
1:B:317:SER:HA	1:B:320:VAL:HG22	1.86	0.57
1:a:408:ARG:HH22	1:f:431:GLU:HA	1.70	0.57
1:g:267:GLU:OE1	1:g:280:SER:OG	2.22	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:317:SER:HA	1:l:320:VAL:HG22	1.87	0.57
1:n:420:THR:HB	1:n:444:ASN:HA	1.87	0.57
1:F:260:PHE:CE1	1:F:270:ILE:HG12	2.40	0.57
1:I:159:LEU:HD11	1:I:191:LEU:HB3	1.86	0.57
1:N:427:GLU:OE1	1:N:427:GLU:N	2.38	0.57
1:V:113:ASP:OD1	1:V:158:SER:N	2.37	0.57
1:A:179:PRO:HG2	1:A:265:ASN:HD21	1.70	0.56
1:C:136:THR:HG22	1:C:152:GLU:H	1.70	0.56
1:C:213:TYR:OH	1:C:332:GLU:OE1	2.17	0.56
1:M:87:ILE:HB	1:M:315:LEU:HD13	1.86	0.56
1:O:95:SER:OG	1:O:174:ARG:NH1	2.38	0.56
1:U:114:GLY:HA3	1:U:148:THR:HG21	1.86	0.56
1:i:85:GLU:N	1:i:188:SER:O	2.38	0.56
1:m:317:SER:HA	1:m:320:VAL:HG12	1.87	0.56
1:D:116:ASP:HB2	1:D:148:THR:HA	1.87	0.56
1:K:23:ILE:HG23	1:N:50:THR:HG21	1.87	0.56
1:V:217:THR:N	1:V:313:THR:O	2.38	0.56
1:D:107:SER:OG	1:D:108:ASN:N	2.32	0.56
1:Q:344:ILE:HB	1:Q:413:VAL:HG22	1.88	0.56
1:S:262:VAL:HG22	1:S:268:VAL:HG22	1.87	0.56
1:V:86:THR:HG23	1:V:87:ILE:HG12	1.87	0.56
1:W:386:GLU:HG3	1:W:387:THR:HG23	1.87	0.56
1:Y:120:ALA:O	1:Y:141:ASN:ND2	2.38	0.56
1:a:405:ASP:N	1:a:405:ASP:OD1	2.38	0.56
1:m:418:LEU:HB3	1:m:442:VAL:HG21	1.88	0.56
1:n:107:SER:HG	1:n:108:ASN:H	1.53	0.56
1:A:391:GLN:OE1	1:A:410:ARG:NH1	2.39	0.56
1:I:95:SER:OG	1:I:174:ARG:NH1	2.39	0.56
1:f:188:SER:OG	1:f:189:VAL:N	2.38	0.56
1:B:141:ASN:HD21	1:B:144:THR:HB	1.71	0.56
1:G:173:GLN:OE1	1:G:187:THR:OG1	2.22	0.56
1:N:130:THR:HG23	1:N:138:SER:HB3	1.87	0.56
1:U:428:VAL:HG13	1:U:436:THR:HG23	1.86	0.56
1:Z:276:GLY:O	1:d:269:ARG:NH1	2.39	0.56
1:Z:277:ASP:N	1:Z:277:ASP:OD1	2.39	0.56
1:m:106:ASP:OD1	1:m:106:ASP:N	2.37	0.56
1:N:420:THR:HG22	1:N:446:LEU:HD23	1.87	0.56
1:S:285:ASP:OD1	1:S:286:ASN:N	2.39	0.56
1:V:14:VAL:O	1:V:18:THR:OG1	2.20	0.56
1:l:419:GLU:N	1:l:422:GLU:OE1	2.39	0.56
1:B:68:ILE:HG21	1:G:372:THR:HG21	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:19:LEU:O	1:I:23:ILE:HG12	2.05	0.56
1:V:396:GLU:OE1	1:V:396:GLU:N	2.38	0.56
1:c:144:THR:HG22	1:c:146:ALA:H	1.71	0.56
1:e:216:LEU:HB2	1:e:226:VAL:HG12	1.87	0.56
1:h:16:ILE:O	1:h:20:ILE:HG13	2.04	0.56
1:l:21:VAL:O	1:l:25:MET:HG3	2.06	0.56
1:W:355:ASP:N	1:W:355:ASP:OD1	2.38	0.56
1:d:114:GLY:HA3	1:d:148:THR:HB	1.86	0.56
1:m:135:SER:HB2	1:m:152:GLU:HA	1.88	0.56
1:F:188:SER:OG	1:F:189:VAL:N	2.38	0.56
1:N:262:VAL:HG12	1:N:268:VAL:HG22	1.88	0.56
1:d:79:THR:HG21	1:d:209:ASN:HB2	1.88	0.56
1:e:244:THR:HG23	1:e:249:THR:HB	1.88	0.56
1:E:22:PHE:HA	1:I:13:GLN:OE1	2.05	0.56
1:K:245:VAL:HG12	1:K:246:ALA:H	1.71	0.56
1:S:20:ILE:HA	1:S:23:ILE:HD12	1.88	0.56
1:U:156:THR:OG1	1:U:157:LEU:N	2.38	0.56
1:g:333:ASP:N	1:g:333:ASP:OD1	2.37	0.56
1:E:287:GLN:NE2	1:E:312:ILE:O	2.39	0.55
1:G:104:ALA:HA	1:G:168:ASP:HA	1.89	0.55
1:J:231:GLY:CA	1:J:260:PHE:O	2.52	0.55
1:V:188:SER:OG	1:V:189:VAL:N	2.38	0.55
1:Y:107:SER:OG	1:Y:108:ASN:N	2.34	0.55
1:d:172:PHE:HB2	1:d:188:SER:OG	2.06	0.55
1:k:264:ALA:HB3	1:k:267:GLU:HG3	1.87	0.55
1:B:185:ASP:OD1	1:B:185:ASP:N	2.39	0.55
1:I:63:GLN:HG3	1:I:349:ILE:HG13	1.89	0.55
1:A:16:ILE:HD12	1:E:43:LEU:HD12	1.88	0.55
1:W:263:ILE:HD11	1:W:269:ARG:HB3	1.88	0.55
1:l:366:THR:HB	1:l:426:LEU:HD23	1.88	0.55
1:C:95:SER:OG	1:C:96:THR:N	2.40	0.55
1:C:141:ASN:HB2	1:C:143:GLU:OE1	2.06	0.55
1:D:430:THR:HG22	1:D:434:ALA:HB3	1.88	0.55
1:N:59:THR:O	1:N:59:THR:OG1	2.25	0.55
1:U:357:ILE:HB	1:U:403:MET:HB3	1.89	0.55
1:Z:245:VAL:HG22	1:Z:288:ILE:HD12	1.87	0.55
1:f:288:ILE:HB	1:f:312:ILE:HB	1.89	0.55
1:g:100:SER:HG	1:g:171:THR:HG1	1.48	0.55
1:i:188:SER:OG	1:i:189:VAL:N	2.40	0.55
1:M:188:SER:OG	1:M:189:VAL:N	2.39	0.55
1:N:249:THR:HG22	1:Q:249:THR:HG22	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:396:GLU:OE2	1:U:396:GLU:N	2.39	0.55
1:V:83:GLU:HG2	1:V:203:ASP:H	1.71	0.55
1:k:100:SER:OG	1:k:171:THR:OG1	2.22	0.55
1:m:137:ILE:HD13	1:m:204:LEU:HG	1.88	0.55
1:G:252:ILE:HB	1:G:294:LEU:HD21	1.88	0.55
1:H:171:THR:HG22	1:H:190:THR:HG22	1.87	0.55
1:S:54:SER:O	1:S:58:VAL:HG23	2.07	0.55
1:U:360:GLU:HG2	1:U:401:PRO:HB3	1.89	0.55
1:a:116:ASP:HB3	1:a:148:THR:HA	1.89	0.55
1:d:274:ASN:OD1	1:d:274:ASN:N	2.40	0.55
1:h:209:ASN:HD21	1:h:227:ILE:HG21	1.72	0.55
1:I:91:ILE:HD13	1:I:97:LEU:HD11	1.89	0.55
1:I:134:THR:O	1:I:206:ASN:ND2	2.40	0.55
1:J:107:SER:OG	1:J:108:ASN:N	2.39	0.55
1:U:141:ASN:HD21	1:U:144:THR:HB	1.72	0.55
1:Y:62:ILE:HG22	1:Y:357:ILE:HD13	1.88	0.55
1:d:19:LEU:O	1:d:23:ILE:HG13	2.07	0.55
1:k:175:THR:HG22	1:k:185:ASP:HB3	1.88	0.55
1:C:372:THR:HG21	1:n:68:ILE:HD13	1.88	0.55
1:N:269:ARG:NH2	1:N:280:SER:HB3	2.22	0.55
1:Y:285:ASP:HA	1:Y:325:SER:HB2	1.89	0.55
1:c:56:ASP:OD1	1:c:60:ASN:ND2	2.30	0.55
1:d:184:VAL:HG21	1:d:322:LEU:HB2	1.88	0.55
1:n:127:ILE:HD12	1:n:141:ASN:HB3	1.89	0.55
1:d:188:SER:OG	1:d:189:VAL:N	2.40	0.55
1:k:191:LEU:HD12	1:k:200:VAL:HG23	1.88	0.55
1:k:321:SER:O	1:k:321:SER:OG	2.21	0.55
1:E:107:SER:OG	1:E:108:ASN:N	2.33	0.55
1:F:394:GLN:NE2	1:J:361:GLN:OE1	2.40	0.55
1:I:71:VAL:HG21	1:I:446:LEU:HB3	1.88	0.55
1:U:269:ARG:NH1	1:U:278:SER:OG	2.40	0.55
1:a:320:VAL:HG12	1:a:322:LEU:H	1.72	0.55
1:h:119:VAL:HG13	1:h:146:ALA:HB3	1.87	0.55
1:n:114:GLY:HA3	1:n:148:THR:HG21	1.87	0.55
1:Z:159:LEU:HD11	1:Z:170:VAL:HG13	1.89	0.54
1:l:100:SER:OG	1:l:171:THR:OG1	2.24	0.54
1:A:33:ALA:O	1:A:37:ILE:HG13	2.07	0.54
1:S:49:GLN:O	1:S:53:GLU:HG3	2.07	0.54
1:h:92:ASP:OD2	1:h:93:SER:N	2.40	0.54
1:h:367:ILE:HB	1:h:425:THR:HG22	1.88	0.54
1:m:159:LEU:HD11	1:m:170:VAL:HG23	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:420:THR:HB	1:K:444:ASN:HA	1.88	0.54
1:O:83:GLU:HB3	1:O:203:ASP:HB2	1.90	0.54
1:a:83:GLU:HA	1:a:88:GLN:HG2	1.90	0.54
1:O:210:THR:OG1	1:O:229:SER:OG	2.22	0.54
1:k:355:ASP:OD1	1:k:355:ASP:N	2.39	0.54
1:Q:269:ARG:HD2	1:Q:278:SER:HB2	1.89	0.54
1:S:153:GLY:O	1:S:156:THR:OG1	2.24	0.54
1:U:35:VAL:O	1:U:39:THR:HG23	2.08	0.54
1:a:107:SER:OG	1:a:108:ASN:N	2.33	0.54
1:f:83:GLU:HB2	1:f:203:ASP:HB2	1.89	0.54
1:V:159:LEU:HD11	1:V:170:VAL:HG22	1.89	0.54
1:Z:61:GLN:HG2	1:Z:434:ALA:HB1	1.90	0.54
1:C:269:ARG:NH2	1:C:278:SER:OG	2.41	0.54
1:M:390:VAL:HG22	1:M:411:ILE:HG22	1.89	0.54
1:Q:347:ILE:HD13	1:Q:410:ARG:HG2	1.90	0.54
1:V:61:GLN:NE2	1:V:352:SER:O	2.41	0.54
1:W:391:GLN:OE1	1:W:410:ARG:NH1	2.41	0.54
1:Z:19:LEU:O	1:Z:23:ILE:HG13	2.08	0.54
1:f:234:LEU:HD13	1:f:296:LEU:HD21	1.89	0.54
1:J:83:GLU:HA	1:J:88:GLN:HG3	1.88	0.54
1:Q:362:THR:OG1	1:Q:429:THR:O	2.25	0.54
1:S:224:ASP:OD1	1:S:224:ASP:N	2.41	0.54
1:Z:114:GLY:HA3	1:Z:148:THR:HB	1.89	0.54
1:c:303:GLN:HB3	1:c:305:ILE:HD11	1.89	0.54
1:B:210:THR:OG1	1:B:212:GLN:O	2.25	0.54
1:d:317:SER:HA	1:d:320:VAL:HG12	1.90	0.54
1:A:13:GLN:HG3	1:I:25:MET:HE1	1.90	0.54
1:E:188:SER:OG	1:E:189:VAL:N	2.41	0.54
1:I:239:GLY:H	1:I:254:GLN:HB3	1.73	0.54
1:I:260:PHE:HD1	1:I:270:ILE:HG13	1.73	0.54
1:M:211:GLU:OE2	1:M:338:GLY:N	2.41	0.54
1:g:107:SER:OG	1:g:108:ASN:N	2.36	0.54
1:i:238:SER:HA	1:i:254:GLN:HE22	1.73	0.54
1:F:116:ASP:HB3	1:F:148:THR:HA	1.89	0.53
1:I:408:ARG:HH22	1:M:431:GLU:HA	1.74	0.53
1:W:214:LEU:HB2	1:W:228:VAL:HG22	1.91	0.53
1:W:281:PHE:HZ	1:W:328:LEU:HD22	1.73	0.53
1:n:108:ASN:O	1:n:163:SER:OG	2.24	0.53
1:K:95:SER:OG	1:K:96:THR:N	2.41	0.53
1:c:188:SER:OG	1:c:189:VAL:N	2.41	0.53
1:c:297:GLU:N	1:c:297:GLU:OE2	2.41	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:15:GLY:O	1:k:19:LEU:HG	2.07	0.53
1:m:156:THR:O	1:m:202:ALA:N	2.42	0.53
1:n:56:ASP:O	1:n:60:ASN:HB2	2.08	0.53
1:K:112:LEU:HB2	1:K:119:VAL:HG23	1.91	0.53
1:O:296:LEU:HB2	1:O:304:ILE:HG23	1.90	0.53
1:Q:317:SER:HA	1:Q:320:VAL:HG12	1.89	0.53
1:W:159:LEU:HD13	1:W:168:ASP:HB2	1.90	0.53
1:a:357:ILE:HB	1:a:403:MET:HB2	1.89	0.53
1:d:13:GLN:HG2	1:k:25:MET:HE1	1.90	0.53
1:d:94:GLY:O	1:d:128:ARG:NH1	2.42	0.53
1:h:331:ASN:N	1:h:331:ASN:OD1	2.41	0.53
1:D:188:SER:OG	1:D:189:VAL:N	2.41	0.53
1:H:114:GLY:HA3	1:H:148:THR:HB	1.90	0.53
1:O:211:GLU:HG3	1:O:334:TYR:HB2	1.90	0.53
1:S:188:SER:OG	1:S:189:VAL:N	2.42	0.53
1:U:159:LEU:HG	1:U:191:LEU:HD23	1.91	0.53
1:Y:331:ASN:N	1:Y:331:ASN:OD1	2.41	0.53
1:H:349:ILE:HG22	1:H:408:ARG:HG2	1.90	0.53
1:I:56:ASP:O	1:I:60:ASN:HB2	2.08	0.53
1:M:138:SER:HB2	1:M:149:THR:HG22	1.91	0.53
1:O:333:ASP:OD1	1:O:333:ASP:N	2.38	0.53
1:Y:220:ASP:OD2	1:Y:307:THR:OG1	2.19	0.53
1:Y:254:GLN:HE21	1:Z:254:GLN:HE21	1.57	0.53
1:d:295:THR:HG22	1:d:305:ILE:HG13	1.90	0.53
1:h:116:ASP:HB3	1:h:148:THR:HA	1.90	0.53
1:k:107:SER:OG	1:k:108:ASN:N	2.34	0.53
1:k:188:SER:OG	1:k:189:VAL:N	2.39	0.53
1:D:269:ARG:HH21	1:D:280:SER:HB3	1.74	0.53
1:E:309:SER:O	1:E:309:SER:OG	2.27	0.53
1:I:400:LEU:HB3	1:I:401:PRO:HD3	1.89	0.53
1:K:259:THR:HB	1:K:271:THR:HG22	1.91	0.53
1:S:74:SER:OG	1:S:75:GLY:N	2.42	0.53
1:d:288:ILE:H	1:d:288:ILE:HD12	1.74	0.53
1:g:269:ARG:NH2	1:l:276:GLY:O	2.42	0.53
1:k:303:GLN:HB3	1:k:305:ILE:HD11	1.91	0.53
1:m:80:ILE:O	1:m:91:ILE:N	2.42	0.53
1:m:173:GLN:NE2	1:m:185:ASP:OD2	2.41	0.53
1:G:33:ALA:O	1:G:37:ILE:HD12	2.08	0.53
1:H:101:SER:H	1:H:171:THR:HG1	1.55	0.53
1:S:214:LEU:HB2	1:S:228:VAL:HG22	1.90	0.53
1:S:237:THR:N	1:S:296:LEU:O	2.35	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:260:PHE:HD2	1:U:270:ILE:HG22	1.73	0.53
1:V:91:ILE:HD12	1:V:95:SER:HB3	1.90	0.53
1:W:31:ILE:O	1:W:35:VAL:HG12	2.07	0.53
1:W:245:VAL:O	1:W:247:SER:N	2.41	0.53
1:d:61:GLN:HG2	1:d:434:ALA:HB1	1.91	0.53
1:d:243:ILE:HD13	1:d:294:LEU:HD11	1.91	0.53
1:g:366:THR:HB	1:g:424:MET:HE3	1.90	0.53
1:G:97:LEU:HB3	1:G:127:ILE:HG22	1.90	0.53
1:H:166:ASN:HB2	1:H:194:GLY:HA2	1.90	0.53
1:H:188:SER:OG	1:H:189:VAL:N	2.41	0.53
1:M:73:GLY:HA3	1:M:339:GLY:HA2	1.90	0.53
1:M:272:ASN:O	1:M:276:GLY:N	2.41	0.53
1:O:104:ALA:HA	1:O:168:ASP:HA	1.90	0.53
1:Y:262:VAL:HG12	1:Y:268:VAL:HG22	1.90	0.53
1:Z:100:SER:OG	1:Z:171:THR:OG1	2.23	0.53
1:e:116:ASP:HB3	1:e:148:THR:HA	1.91	0.53
1:g:156:THR:O	1:g:202:ALA:N	2.42	0.53
1:g:243:ILE:HD11	1:g:252:ILE:HD13	1.91	0.53
1:i:107:SER:OG	1:i:108:ASN:N	2.40	0.53
1:k:55:SER:O	1:k:59:THR:HG23	2.08	0.53
1:B:188:SER:OG	1:B:189:VAL:N	2.41	0.53
1:H:264:ALA:HB3	1:H:267:GLU:HB2	1.90	0.53
1:N:367:ILE:HG23	1:N:425:THR:HB	1.91	0.53
1:U:294:LEU:HD11	1:U:296:LEU:HG	1.90	0.53
1:W:81:ILE:HG23	1:W:205:GLU:HB2	1.89	0.53
1:W:188:SER:OG	1:W:189:VAL:N	2.41	0.53
1:F:261:ASP:OD1	1:F:269:ARG:HB3	2.08	0.53
1:G:154:THR:N	1:G:204:LEU:O	2.34	0.53
1:O:210:THR:HG1	1:O:229:SER:HG	1.51	0.53
1:f:81:ILE:HG23	1:f:205:GLU:HB3	1.91	0.53
1:f:400:LEU:HB3	1:f:401:PRO:HD3	1.89	0.53
1:A:39:THR:HG21	1:h:22:PHE:HZ	1.74	0.52
1:B:52:GLN:HG3	1:B:53:GLU:N	2.25	0.52
1:I:243:ILE:HG12	1:I:250:ILE:H	1.74	0.52
1:U:65:ALA:HB2	1:U:349:ILE:HD11	1.90	0.52
1:V:408:ARG:HH22	1:Z:431:GLU:HA	1.73	0.52
1:W:44:GLN:HG3	1:a:31:ILE:HG22	1.90	0.52
1:W:138:SER:HB2	1:W:149:THR:HG22	1.89	0.52
1:D:87:ILE:HD13	1:D:315:LEU:HA	1.91	0.52
1:H:430:THR:O	1:H:430:THR:HG22	2.09	0.52
1:O:116:ASP:HB3	1:O:148:THR:HA	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:107:SER:OG	1:V:108:ASN:N	2.33	0.52
1:Y:188:SER:OG	1:Y:189:VAL:N	2.42	0.52
1:Z:95:SER:OG	1:Z:96:THR:N	2.38	0.52
1:Z:131:ARG:HH21	1:Z:206:ASN:HB3	1.73	0.52
1:d:237:THR:O	1:d:254:GLN:NE2	2.42	0.52
1:e:238:SER:HA	1:e:254:GLN:HE22	1.74	0.52
1:h:184:VAL:HB	1:h:322:LEU:HD13	1.90	0.52
1:i:245:VAL:HG13	1:i:247:SER:H	1.74	0.52
1:l:78:ASP:N	1:l:78:ASP:OD1	2.43	0.52
1:D:70:SER:HB2	1:D:343:GLU:HB3	1.92	0.52
1:D:244:THR:HA	1:D:249:THR:HG22	1.91	0.52
1:G:79:THR:HG21	1:G:209:ASN:HB2	1.91	0.52
1:N:188:SER:OG	1:N:189:VAL:N	2.41	0.52
1:V:184:VAL:HG21	1:V:322:LEU:HB2	1.91	0.52
1:W:20:ILE:HD11	1:Z:43:LEU:HD11	1.92	0.52
1:e:132:GLU:OE1	1:e:132:GLU:N	2.42	0.52
1:g:269:ARG:HE	1:g:279:VAL:C	2.17	0.52
1:i:295:THR:HA	1:i:304:ILE:O	2.09	0.52
1:A:188:SER:OG	1:A:189:VAL:N	2.42	0.52
1:B:72:ALA:HB1	1:B:337:GLY:N	2.24	0.52
1:J:83:GLU:HB2	1:J:203:ASP:HB2	1.92	0.52
1:M:357:ILE:HB	1:M:403:MET:HB2	1.91	0.52
1:W:100:SER:HB3	1:W:173:GLN:HB2	1.90	0.52
1:Y:64:VAL:HG13	1:Y:346:VAL:HG13	1.91	0.52
1:c:159:LEU:HD11	1:c:170:VAL:HG22	1.91	0.52
1:e:188:SER:OG	1:e:189:VAL:N	2.41	0.52
1:m:21:VAL:O	1:m:25:MET:HG2	2.08	0.52
1:B:408:ARG:HH21	1:G:429:THR:HG22	1.74	0.52
1:E:95:SER:OG	1:E:96:THR:N	2.42	0.52
1:N:31:ILE:O	1:N:35:VAL:HG13	2.09	0.52
1:N:245:VAL:HG22	1:N:246:ALA:H	1.75	0.52
1:Q:22:PHE:O	1:Q:26:VAL:HG23	2.09	0.52
1:W:40:ALA:O	1:W:44:GLN:HG2	2.09	0.52
1:W:116:ASP:HB2	1:W:148:THR:HA	1.91	0.52
1:g:21:VAL:HG12	1:k:13:GLN:HE22	1.73	0.52
1:h:49:GLN:O	1:h:53:GLU:HG3	2.10	0.52
1:i:216:LEU:HD21	1:i:260:PHE:HE1	1.74	0.52
1:l:184:VAL:HG11	1:l:322:LEU:HD23	1.92	0.52
1:C:243:ILE:HG22	1:C:294:LEU:HD11	1.91	0.52
1:G:184:VAL:HG21	1:G:322:LEU:HD23	1.90	0.52
1:Q:39:THR:HA	1:Q:42:PHE:CE1	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:173:GLN:HE21	1:f:187:THR:HG1	1.55	0.52
1:g:276:GLY:O	1:l:269:ARG:NH1	2.42	0.52
1:n:166:ASN:HB3	1:n:194:GLY:HA2	1.90	0.52
1:B:39:THR:HG21	1:i:22:PHE:HZ	1.74	0.52
1:D:62:ILE:HG22	1:D:357:ILE:HD13	1.91	0.52
1:E:24:ALA:O	1:E:28:VAL:HG23	2.10	0.52
1:I:188:SER:OG	1:I:189:VAL:N	2.42	0.52
1:J:421:GLY:H	1:J:442:VAL:HG23	1.73	0.52
1:Q:26:VAL:HA	1:V:20:ILE:HD13	1.92	0.52
1:S:26:VAL:HG22	1:W:20:ILE:HD12	1.92	0.52
1:S:100:SER:OG	1:S:171:THR:OG1	2.18	0.52
1:S:431:GLU:OE1	1:V:444:ASN:ND2	2.42	0.52
1:W:22:PHE:O	1:W:26:VAL:HG12	2.10	0.52
1:c:62:ILE:HG22	1:c:357:ILE:HD13	1.90	0.52
1:c:108:ASN:O	1:c:163:SER:OG	2.27	0.52
1:c:185:ASP:N	1:c:185:ASP:OD1	2.40	0.52
1:l:188:SER:OG	1:l:189:VAL:N	2.41	0.52
1:B:39:THR:HA	1:B:42:PHE:CE2	2.45	0.52
1:F:243:ILE:HD12	1:F:252:ILE:HD13	1.91	0.52
1:F:376:THR:HG22	1:F:377:TYR:H	1.75	0.52
1:G:237:THR:O	1:H:254:GLN:NE2	2.42	0.52
1:J:22:PHE:HE1	1:N:16:ILE:HG12	1.75	0.52
1:N:269:ARG:HD2	1:N:278:SER:HB2	1.92	0.52
1:c:19:LEU:O	1:c:23:ILE:HG13	2.09	0.52
1:n:188:SER:OG	1:n:189:VAL:N	2.41	0.52
1:C:410:ARG:HE	1:C:412:ILE:HD11	1.74	0.52
1:D:83:GLU:OE2	1:D:203:ASP:N	2.39	0.52
1:D:115:GLN:OE1	1:D:115:GLN:N	2.43	0.52
1:Z:357:ILE:HB	1:Z:403:MET:HB3	1.92	0.52
1:h:219:ASP:CG	1:h:311:GLN:H	2.17	0.52
1:k:166:ASN:HB2	1:k:194:GLY:HA2	1.92	0.52
1:m:220:ASP:OD2	1:m:307:THR:OG1	2.25	0.52
1:F:13:GLN:N	1:M:25:MET:SD	2.83	0.52
1:N:233:THR:HG22	1:N:259:THR:HG23	1.92	0.52
1:e:61:GLN:HG3	1:e:434:ALA:HB1	1.91	0.52
1:n:269:ARG:HD3	1:n:278:SER:HB2	1.91	0.52
1:F:265:ASN:OD1	1:F:331:ASN:ND2	2.42	0.51
1:G:103:SER:N	1:G:169:THR:O	2.39	0.51
1:Y:61:GLN:OE1	1:Y:61:GLN:N	2.43	0.51
1:F:245:VAL:HG12	1:F:248:SER:H	1.76	0.51
1:I:285:ASP:HA	1:I:325:SER:HB2	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:55:SER:O	1:K:59:THR:HG22	2.09	0.51
1:W:119:VAL:HG13	1:W:148:THR:HG23	1.91	0.51
1:c:352:SER:OG	1:g:57:GLN:OE1	2.27	0.51
1:e:212:GLN:HG2	1:e:331:ASN:HB3	1.93	0.51
1:g:352:SER:OG	1:k:57:GLN:OE1	2.26	0.51
1:n:210:THR:HG22	1:n:211:GLU:H	1.75	0.51
1:F:195:GLU:N	1:F:195:GLU:OE2	2.43	0.51
1:J:60:ASN:O	1:J:430:THR:HG21	2.10	0.51
1:S:285:ASP:OD1	1:S:286:ASN:ND2	2.44	0.51
1:U:62:ILE:HD12	1:U:63:GLN:H	1.74	0.51
1:a:215:PRO:HG2	1:a:315:LEU:HD13	1.92	0.51
1:g:98:THR:HG23	1:g:173:GLN:HG2	1.90	0.51
1:g:418:LEU:HB3	1:g:442:VAL:HG21	1.91	0.51
1:l:367:ILE:HG12	1:l:425:THR:HB	1.91	0.51
1:D:420:THR:HG22	1:D:446:LEU:HD13	1.92	0.51
1:D:424:MET:HB3	1:D:440:VAL:HG22	1.91	0.51
1:E:152:GLU:OE2	1:E:154:THR:OG1	2.29	0.51
1:F:241:SER:HB2	1:F:291:ALA:HB3	1.93	0.51
1:J:108:ASN:HD21	1:J:163:SER:HA	1.75	0.51
1:V:361:GLN:HB2	1:V:431:GLU:HG2	1.92	0.51
1:e:356:GLN:OE1	1:h:445:THR:OG1	2.28	0.51
1:A:173:GLN:HG2	1:A:187:THR:HA	1.92	0.51
1:B:244:THR:HG23	1:B:249:THR:HG22	1.91	0.51
1:C:26:VAL:HG22	1:H:16:ILE:HG21	1.93	0.51
1:D:192:ASN:OD1	1:D:193:ASP:N	2.44	0.51
1:E:60:ASN:ND2	1:E:356:GLN:O	2.44	0.51
1:E:95:SER:OG	1:E:174:ARG:NH1	2.43	0.51
1:M:81:ILE:HA	1:M:90:ALA:HA	1.93	0.51
1:Q:223:SER:HB2	1:Q:305:ILE:H	1.76	0.51
1:Q:353:GLY:H	1:V:53:GLU:HG2	1.76	0.51
1:Q:400:LEU:HB3	1:Q:401:PRO:HD3	1.92	0.51
1:V:271:THR:OG1	1:V:277:ASP:O	2.20	0.51
1:W:317:SER:HA	1:W:320:VAL:HG22	1.92	0.51
1:B:107:SER:OG	1:B:108:ASN:N	2.36	0.51
1:M:127:ILE:HD12	1:M:141:ASN:HB3	1.92	0.51
1:m:188:SER:OG	1:m:189:VAL:N	2.42	0.51
1:G:242:ASP:HA	1:G:251:THR:HA	1.93	0.51
1:M:396:GLU:OE2	1:M:396:GLU:N	2.43	0.51
1:a:188:SER:OG	1:a:189:VAL:N	2.43	0.51
1:f:82:VAL:O	1:f:88:GLN:HG3	2.10	0.51
1:g:355:ASP:OD1	1:g:355:ASP:N	2.43	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:62:ILE:HG22	1:l:357:ILE:HD13	1.93	0.51
1:B:16:ILE:HG13	1:m:22:PHE:HE1	1.75	0.51
1:D:449:GLU:OE1	1:D:449:GLU:N	2.44	0.51
1:G:81:ILE:HG23	1:G:205:GLU:HB2	1.92	0.51
1:J:173:GLN:HG2	1:J:187:THR:HA	1.91	0.51
1:J:264:ALA:HB3	1:J:267:GLU:HB3	1.92	0.51
1:N:408:ARG:HH22	1:S:431:GLU:HA	1.76	0.51
1:O:308:SER:OG	1:O:309:SER:N	2.44	0.51
1:Z:102:THR:HG22	1:Z:170:VAL:HG12	1.93	0.51
1:a:92:ASP:HB2	1:a:95:SER:HB2	1.92	0.51
1:d:219:ASP:CG	1:d:311:GLN:H	2.18	0.51
1:f:185:ASP:H	1:f:321:SER:HG	1.59	0.51
1:k:116:ASP:HB3	1:k:148:THR:HA	1.92	0.51
1:l:56:ASP:O	1:l:60:ASN:HB2	2.11	0.51
1:m:298:ASN:ND2	1:m:302:ASP:HB2	2.25	0.51
1:n:231:GLY:HA2	1:n:261:ASP:HB3	1.93	0.51
1:C:376:THR:HG22	1:C:377:TYR:H	1.75	0.51
1:E:181:ASN:HB3	1:E:322:LEU:HD21	1.93	0.51
1:G:138:SER:HB2	1:G:149:THR:HG22	1.92	0.51
1:M:97:LEU:HD12	1:M:129:PHE:HE1	1.75	0.51
1:Z:211:GLU:HA	1:Z:334:TYR:CD1	2.45	0.51
1:e:355:ASP:OD1	1:e:355:ASP:N	2.44	0.51
1:f:174:ARG:NH2	1:f:332:GLU:OE1	2.44	0.51
1:i:83:GLU:HG3	1:i:189:VAL:HG21	1.93	0.51
1:i:166:ASN:ND2	1:i:194:GLY:HA2	2.25	0.51
1:A:185:ASP:OD1	1:A:321:SER:OG	2.28	0.51
1:K:184:VAL:HG21	1:K:322:LEU:HB2	1.93	0.51
1:K:188:SER:OG	1:K:189:VAL:N	2.44	0.51
1:U:185:ASP:OD1	1:U:185:ASP:N	2.44	0.51
1:h:156:THR:OG1	1:h:157:LEU:N	2.43	0.51
1:i:343:GLU:OE1	1:i:412:ILE:HG23	2.11	0.51
1:l:358:ASN:OD1	1:l:360:GLU:HG2	2.11	0.51
1:n:129:PHE:HD2	1:n:139:VAL:HG22	1.74	0.51
1:A:21:VAL:O	1:A:25:MET:HG3	2.11	0.50
1:I:207:SER:OG	1:I:208:GLN:N	2.44	0.50
1:K:82:VAL:HG12	1:K:204:LEU:HG	1.93	0.50
1:O:366:THR:HB	1:O:424:MET:HE3	1.93	0.50
1:S:349:ILE:HG22	1:S:408:ARG:HG3	1.93	0.50
1:U:166:ASN:HB3	1:U:194:GLY:HA2	1.93	0.50
1:Y:320:VAL:HG22	1:Y:322:LEU:H	1.76	0.50
1:n:283:PRO:HD2	1:n:329:LEU:HD11	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:13:GLN:OE1	1:B:13:GLN:N	2.44	0.50
1:F:78:ASP:O	1:F:93:SER:OG	2.21	0.50
1:H:366:THR:HB	1:H:424:MET:HE2	1.93	0.50
1:Q:39:THR:HA	1:Q:42:PHE:CZ	2.46	0.50
1:Y:27:LEU:O	1:Y:31:ILE:HG12	2.11	0.50
1:g:244:THR:HB	1:g:289:ASP:HB3	1.93	0.50
1:h:165:THR:OG1	1:h:167:ASP:OD2	2.29	0.50
1:B:74:SER:OG	1:B:75:GLY:N	2.44	0.50
1:B:192:ASN:OD1	1:B:193:ASP:N	2.45	0.50
1:D:20:ILE:HD13	1:l:29:ALA:HB1	1.94	0.50
1:E:79:THR:HG21	1:E:209:ASN:ND2	2.26	0.50
1:W:157:LEU:HD23	1:W:157:LEU:O	2.11	0.50
1:g:21:VAL:O	1:g:25:MET:HG2	2.11	0.50
1:m:151:SER:O	1:m:152:GLU:HG3	2.12	0.50
1:B:163:SER:OG	1:B:166:ASN:O	2.28	0.50
1:H:83:GLU:HG2	1:H:203:ASP:H	1.77	0.50
1:O:119:VAL:HG23	1:O:146:ALA:HB3	1.94	0.50
1:S:101:SER:HA	1:S:123:GLN:HE22	1.75	0.50
1:f:273:GLU:H	1:f:273:GLU:CD	2.19	0.50
1:h:22:PHE:O	1:h:26:VAL:HG13	2.11	0.50
1:i:184:VAL:HG21	1:i:322:LEU:HD23	1.92	0.50
1:i:322:LEU:HD12	1:i:322:LEU:O	2.11	0.50
1:k:244:THR:HG23	1:k:249:THR:HB	1.93	0.50
1:H:78:ASP:OD2	1:H:131:ARG:HD3	2.12	0.50
1:K:114:GLY:HA3	1:K:148:THR:HB	1.93	0.50
1:U:306:THR:HG21	1:U:312:ILE:HD11	1.93	0.50
1:U:359:LEU:HD11	1:U:403:MET:HE2	1.93	0.50
1:Y:17:GLY:O	1:Y:21:VAL:HG13	2.10	0.50
1:a:304:ILE:C	1:a:305:ILE:HD13	2.36	0.50
1:c:156:THR:OG1	1:c:157:LEU:N	2.40	0.50
1:g:122:GLU:N	1:g:125:ASP:OD2	2.44	0.50
1:D:102:THR:HG22	1:D:170:VAL:HA	1.92	0.50
1:E:16:ILE:O	1:E:20:ILE:HG23	2.11	0.50
1:J:242:ASP:HA	1:J:252:ILE:H	1.76	0.50
1:J:293:ALA:HA	1:J:306:THR:O	2.11	0.50
1:M:207:SER:OG	1:M:208:GLN:N	2.45	0.50
1:c:116:ASP:HB2	1:c:148:THR:HA	1.94	0.50
1:e:113:ASP:HB3	1:e:160:ALA:HB2	1.93	0.50
1:i:186:ILE:HD12	1:i:320:VAL:HG12	1.93	0.50
1:i:244:THR:HG23	1:i:249:THR:HB	1.93	0.50
1:l:156:THR:O	1:l:202:ALA:N	2.45	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:74:SER:OG	1:m:75:GLY:N	2.45	0.50
1:n:92:ASP:HB3	1:n:95:SER:HB2	1.92	0.50
1:A:166:ASN:HB2	1:A:194:GLY:HA2	1.94	0.50
1:D:48:GLU:O	1:D:52:GLN:HG3	2.12	0.50
1:J:269:ARG:NE	1:J:280:SER:OG	2.44	0.50
1:W:22:PHE:CD2	1:e:36:LEU:HD13	2.47	0.50
1:h:308:SER:OG	1:h:309:SER:N	2.45	0.50
1:k:171:THR:HG22	1:k:190:THR:HA	1.94	0.50
1:l:298:ASN:OD1	1:l:302:ASP:HB2	2.12	0.50
1:M:68:ILE:HG21	1:Q:372:THR:HG21	1.94	0.50
1:M:309:SER:O	1:M:309:SER:OG	2.30	0.50
1:U:128:ARG:HE	1:U:140:THR:HG22	1.77	0.50
1:W:73:GLY:O	1:W:339:GLY:N	2.45	0.50
1:g:24:ALA:O	1:g:28:VAL:HG13	2.12	0.50
1:A:116:ASP:HB2	1:A:148:THR:HA	1.94	0.50
1:A:431:GLU:HA	1:k:408:ARG:HH22	1.77	0.50
1:B:71:VAL:HB	1:B:446:LEU:HD22	1.92	0.50
1:C:315:LEU:HD23	1:C:327:VAL:HG11	1.94	0.50
1:K:111:ASN:HB2	1:K:118:GLU:HG3	1.94	0.50
1:O:331:ASN:OD1	1:O:331:ASN:N	2.43	0.50
1:U:333:ASP:N	1:U:333:ASP:OD1	2.45	0.50
1:W:449:GLU:HG3	1:W:452:VAL:HG12	1.94	0.50
1:Y:100:SER:OG	1:Y:171:THR:OG1	2.22	0.50
1:a:219:ASP:CG	1:a:311:GLN:H	2.19	0.50
1:h:285:ASP:HA	1:h:325:SER:HB2	1.94	0.50
1:i:71:VAL:HG21	1:i:446:LEU:HD12	1.94	0.50
1:i:185:ASP:OD1	1:i:321:SER:OG	2.21	0.50
1:m:419:GLU:N	1:m:422:GLU:OE1	2.42	0.50
1:D:178:ASP:OD2	1:D:181:ASN:N	2.24	0.49
1:I:141:ASN:ND2	1:I:144:THR:OG1	2.45	0.49
1:O:81:ILE:HA	1:O:90:ALA:HA	1.92	0.49
1:U:386:GLU:N	1:U:386:GLU:OE2	2.45	0.49
1:k:422:GLU:N	1:k:422:GLU:OE2	2.42	0.49
1:m:285:ASP:OD1	1:m:285:ASP:N	2.44	0.49
1:B:376:THR:HG22	1:B:377:TYR:H	1.77	0.49
1:E:166:ASN:HB2	1:E:194:GLY:HA2	1.95	0.49
1:G:296:LEU:HB2	1:G:304:ILE:HG22	1.93	0.49
1:I:109:LEU:HD12	1:I:110:ALA:H	1.76	0.49
1:J:102:THR:OG1	1:J:169:THR:O	2.22	0.49
1:M:100:SER:OG	1:M:173:GLN:NE2	2.46	0.49
1:N:54:SER:O	1:N:58:VAL:HG23	2.11	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:350:LYS:HG2	1:S:354:ALA:HB3	1.93	0.49
1:Z:408:ARG:HH22	1:e:431:GLU:HA	1.77	0.49
1:a:44:GLN:O	1:a:48:GLU:HG2	2.12	0.49
1:a:214:LEU:HG	1:a:329:LEU:HD12	1.93	0.49
1:a:269:ARG:NH1	1:e:276:GLY:O	2.45	0.49
1:g:229:SER:OG	1:g:232:GLU:OE1	2.28	0.49
1:h:171:THR:HG22	1:h:190:THR:HG22	1.94	0.49
1:l:89:PHE:HE2	1:l:188:SER:HA	1.77	0.49
1:B:215:PRO:HD2	1:B:328:LEU:O	2.13	0.49
1:C:192:ASN:OD1	1:C:193:ASP:N	2.46	0.49
1:D:245:VAL:HG12	1:D:246:ALA:H	1.77	0.49
1:E:308:SER:HG	1:E:309:SER:H	1.57	0.49
1:F:268:VAL:HG23	1:F:283:PRO:HG3	1.94	0.49
1:H:106:ASP:N	1:H:106:ASP:OD1	2.44	0.49
1:N:248:SER:OG	1:N:249:THR:N	2.44	0.49
1:O:153:GLY:O	1:O:156:THR:OG1	2.27	0.49
1:a:13:GLN:OE1	1:a:13:GLN:N	2.45	0.49
1:i:267:GLU:OE2	1:i:281:PHE:N	2.45	0.49
1:l:195:GLU:OE1	1:l:195:GLU:N	2.45	0.49
1:C:188:SER:OG	1:C:189:VAL:N	2.45	0.49
1:E:449:GLU:OE1	1:E:449:GLU:N	2.45	0.49
1:I:14:VAL:HG11	1:U:21:VAL:HG21	1.94	0.49
1:M:173:GLN:HB3	1:M:185:ASP:OD2	2.12	0.49
1:S:36:LEU:HB3	1:W:28:VAL:HG11	1.93	0.49
1:e:133:SER:OG	1:e:134:THR:N	2.45	0.49
1:f:262:VAL:HG12	1:f:268:VAL:HG23	1.95	0.49
1:g:97:LEU:HD22	1:g:129:PHE:HE2	1.76	0.49
1:m:287:GLN:OE1	1:m:326:GLN:NE2	2.45	0.49
1:C:269:ARG:NH2	1:G:276:GLY:O	2.45	0.49
1:D:269:ARG:HE	1:D:280:SER:HB3	1.78	0.49
1:N:317:SER:HA	1:N:320:VAL:HG22	1.94	0.49
1:N:353:GLY:N	1:S:53:GLU:OE2	2.36	0.49
1:S:23:ILE:O	1:S:27:LEU:HG	2.12	0.49
1:Z:23:ILE:HG23	1:d:50:THR:HG21	1.94	0.49
1:i:79:THR:HG21	1:i:209:ASN:HB2	1.94	0.49
1:m:261:ASP:OD1	1:m:261:ASP:N	2.45	0.49
1:B:132:GLU:OE2	1:B:138:SER:N	2.45	0.49
1:F:95:SER:OG	1:F:96:THR:N	2.46	0.49
1:F:184:VAL:HG21	1:F:322:LEU:HD22	1.94	0.49
1:J:116:ASP:HB3	1:J:148:THR:HA	1.95	0.49
1:K:135:SER:HB2	1:K:152:GLU:HA	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:293:ALA:O	1:K:294:LEU:HD13	2.13	0.49
1:M:333:ASP:O	1:M:334:TYR:CD1	2.65	0.49
1:Q:192:ASN:H	1:Q:200:VAL:HG12	1.77	0.49
1:S:92:ASP:HB2	1:S:95:SER:HB2	1.93	0.49
1:V:349:ILE:HD12	1:V:408:ARG:HG2	1.95	0.49
1:Y:31:ILE:O	1:Y:35:VAL:HG13	2.13	0.49
1:Z:355:ASP:OD2	1:Z:355:ASP:N	2.40	0.49
1:d:54:SER:O	1:d:58:VAL:HG23	2.12	0.49
1:n:156:THR:HG22	1:n:157:LEU:N	2.28	0.49
1:D:83:GLU:HA	1:D:88:GLN:HG2	1.95	0.49
1:D:309:SER:O	1:D:309:SER:OG	2.31	0.49
1:E:410:ARG:HD2	1:E:412:ILE:HD11	1.94	0.49
1:K:176:TYR:HE1	1:K:178:ASP:HB2	1.78	0.49
1:M:349:ILE:HG22	1:M:408:ARG:HG3	1.95	0.49
1:O:95:SER:OG	1:O:96:THR:N	2.45	0.49
1:d:355:ASP:OD1	1:d:356:GLN:N	2.46	0.49
1:d:430:THR:O	1:d:430:THR:HG22	2.13	0.49
1:f:94:GLY:N	1:f:129:PHE:O	2.34	0.49
1:h:188:SER:OG	1:h:189:VAL:N	2.44	0.49
1:G:100:SER:HB3	1:G:173:GLN:HB2	1.94	0.49
1:U:188:SER:OG	1:U:189:VAL:N	2.44	0.49
1:Y:266:ASP:OD2	1:Y:282:ASN:ND2	2.46	0.49
1:Z:243:ILE:H	1:Z:243:ILE:HD12	1.78	0.49
1:Z:320:VAL:HG13	1:Z:322:LEU:HG	1.95	0.49
1:h:361:GLN:HB2	1:h:431:GLU:HG3	1.95	0.49
1:h:366:THR:HB	1:h:424:MET:HE2	1.95	0.49
1:k:245:VAL:HG23	1:k:247:SER:H	1.78	0.49
1:l:45:SER:O	1:l:48:GLU:HG3	2.12	0.49
1:l:102:THR:HG22	1:l:170:VAL:HG12	1.95	0.49
1:I:44:GLN:O	1:I:48:GLU:HG2	2.13	0.49
1:K:49:GLN:O	1:K:53:GLU:HG3	2.12	0.49
1:K:264:ALA:HB3	1:K:267:GLU:HB2	1.95	0.49
1:V:320:VAL:HG12	1:V:322:LEU:H	1.78	0.49
1:Y:121:VAL:HG12	1:Y:141:ASN:HD21	1.78	0.49
1:c:333:ASP:OD1	1:c:333:ASP:N	2.43	0.49
1:f:66:SER:HB3	1:f:347:ILE:HD13	1.95	0.49
1:g:281:PHE:HZ	1:g:328:LEU:HD23	1.78	0.49
1:l:81:ILE:HG23	1:l:205:GLU:HB2	1.94	0.49
1:m:62:ILE:HG22	1:m:357:ILE:HD13	1.94	0.49
1:A:175:THR:HG22	1:A:185:ASP:HB3	1.95	0.49
1:D:405:ASP:OD1	1:D:405:ASP:N	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:116:ASP:HB3	1:E:148:THR:HA	1.94	0.49
1:V:105:GLY:N	1:V:167:ASP:O	2.46	0.49
1:Y:82:VAL:HG12	1:Y:204:LEU:HG	1.95	0.49
1:Y:355:ASP:OD1	1:Y:355:ASP:N	2.42	0.49
1:c:171:THR:HG22	1:c:190:THR:HG22	1.94	0.49
1:c:349:ILE:HG22	1:c:408:ARG:HG2	1.95	0.49
1:g:81:ILE:HA	1:g:90:ALA:HA	1.94	0.49
1:m:175:THR:HG22	1:m:185:ASP:HB3	1.93	0.49
1:E:25:MET:HB2	1:I:13:GLN:OE1	2.12	0.48
1:H:285:ASP:OD1	1:H:285:ASP:N	2.45	0.48
1:M:80:ILE:HG12	1:M:137:ILE:HD13	1.95	0.48
1:U:175:THR:HG22	1:U:185:ASP:HB3	1.94	0.48
1:e:261:ASP:OD1	1:e:269:ARG:HB3	2.13	0.48
1:k:92:ASP:OD1	1:k:93:SER:N	2.46	0.48
1:m:174:ARG:HG3	1:m:175:THR:N	2.27	0.48
1:E:431:GLU:O	1:E:431:GLU:HG2	2.12	0.48
1:I:397:ASP:OD1	1:I:397:ASP:N	2.46	0.48
1:M:289:ASP:OD1	1:M:289:ASP:N	2.45	0.48
1:O:288:ILE:HG23	1:O:312:ILE:HB	1.94	0.48
1:a:418:LEU:HB3	1:a:442:VAL:HG21	1.94	0.48
1:e:325:SER:OG	1:e:326:GLN:N	2.45	0.48
1:g:440:VAL:HG13	1:g:454:VAL:HB	1.93	0.48
1:h:418:LEU:HB3	1:h:442:VAL:HG21	1.95	0.48
1:l:104:ALA:HA	1:l:168:ASP:HA	1.95	0.48
1:m:156:THR:OG1	1:m:157:LEU:N	2.42	0.48
1:B:112:LEU:HB2	1:B:119:VAL:HG22	1.94	0.48
1:D:24:ALA:O	1:D:28:VAL:HG22	2.13	0.48
1:D:104:ALA:HB3	1:D:109:LEU:HG	1.95	0.48
1:E:173:GLN:OE1	1:E:187:THR:OG1	2.21	0.48
1:I:240:SER:O	1:I:292:SER:OG	2.31	0.48
1:N:349:ILE:HG22	1:N:408:ARG:HG2	1.94	0.48
1:O:64:VAL:HG13	1:O:346:VAL:HG13	1.96	0.48
1:W:265:ASN:OD1	1:W:331:ASN:ND2	2.47	0.48
1:Z:91:ILE:HB	1:Z:174:ARG:NH2	2.28	0.48
1:n:299:ASP:OD1	1:n:299:ASP:N	2.45	0.48
1:E:350:LYS:HG2	1:E:354:ALA:HB3	1.95	0.48
1:N:260:PHE:HD1	1:N:270:ILE:HG22	1.77	0.48
1:S:219:ASP:OD2	1:S:311:GLN:N	2.45	0.48
1:S:360:GLU:HA	1:S:377:TYR:CG	2.48	0.48
1:c:317:SER:HA	1:c:320:VAL:HG12	1.95	0.48
1:l:156:THR:OG1	1:l:157:LEU:N	2.38	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:33:ALA:O	1:B:37:ILE:HG13	2.12	0.48
1:M:133:SER:OG	1:M:134:THR:N	2.46	0.48
1:M:241:SER:HG	1:M:291:ALA:H	1.60	0.48
1:N:226:VAL:HG22	1:N:304:ILE:HD11	1.95	0.48
1:Z:242:ASP:HA	1:Z:251:THR:HA	1.95	0.48
1:d:99:VAL:HG23	1:d:127:ILE:HD11	1.94	0.48
1:f:106:ASP:N	1:f:164:ASP:OD2	2.46	0.48
1:C:70:SER:HB2	1:C:343:GLU:HB3	1.95	0.48
1:F:21:VAL:HG11	1:h:18:THR:HG21	1.96	0.48
1:G:136:THR:HA	1:G:152:GLU:H	1.79	0.48
1:H:71:VAL:HA	1:H:340:GLY:O	2.14	0.48
1:H:317:SER:HA	1:H:320:VAL:HG12	1.95	0.48
1:W:219:ASP:CG	1:W:311:GLN:H	2.21	0.48
1:Y:49:GLN:HG3	1:c:439:ARG:NH1	2.29	0.48
1:Z:268:VAL:HG23	1:Z:283:PRO:HG3	1.95	0.48
1:e:44:GLN:HG3	1:e:45:SER:N	2.27	0.48
1:A:95:SER:OG	1:A:96:THR:N	2.47	0.48
1:F:304:ILE:HG21	1:F:312:ILE:HD11	1.95	0.48
1:G:315:LEU:HG	1:G:320:VAL:HG21	1.95	0.48
1:K:44:GLN:HB2	1:O:35:VAL:HG21	1.96	0.48
1:a:134:THR:O	1:a:206:ASN:ND2	2.36	0.48
1:d:127:ILE:HD13	1:d:172:PHE:CZ	2.49	0.48
1:e:396:GLU:HA	1:e:396:GLU:OE2	2.13	0.48
1:D:21:VAL:HG13	1:D:25:MET:HE3	1.95	0.48
1:O:216:LEU:HB2	1:O:226:VAL:HG23	1.95	0.48
1:U:266:ASP:OD1	1:U:282:ASN:ND2	2.47	0.48
1:W:238:SER:HA	1:W:254:GLN:NE2	2.29	0.48
1:W:314:GLY:H	1:W:326:GLN:NE2	2.12	0.48
1:f:80:ILE:HD12	1:f:129:PHE:HB3	1.96	0.48
1:f:276:GLY:O	1:i:278:SER:OG	2.32	0.48
1:m:174:ARG:NH1	1:m:332:GLU:OE2	2.47	0.48
1:E:287:GLN:NE2	1:E:311:GLN:HB3	2.28	0.48
1:G:188:SER:OG	1:G:189:VAL:N	2.44	0.48
1:J:362:THR:HG23	1:J:429:THR:O	2.14	0.48
1:K:116:ASP:HB2	1:K:148:THR:HA	1.95	0.48
1:K:273:GLU:OE1	1:K:273:GLU:N	2.35	0.48
1:K:397:ASP:OD1	1:K:397:ASP:N	2.35	0.48
1:N:243:ILE:HD11	1:N:294:LEU:HD22	1.95	0.48
1:S:131:ARG:HH12	1:S:206:ASN:HB3	1.79	0.48
1:S:294:LEU:HD21	1:S:296:LEU:HG	1.96	0.48
1:f:119:VAL:HG23	1:f:146:ALA:HB3	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:322:LEU:O	1:f:322:LEU:HG	2.14	0.48
1:g:249:THR:HG22	1:l:249:THR:HG22	1.96	0.48
1:l:166:ASN:HB2	1:l:194:GLY:HA2	1.95	0.48
1:m:95:SER:OG	1:m:174:ARG:NH2	2.47	0.48
1:n:256:ASP:OD1	1:n:256:ASP:N	2.45	0.48
1:n:283:PRO:HB2	1:n:328:LEU:HB2	1.96	0.48
1:C:308:SER:OG	1:C:309:SER:N	2.31	0.48
1:C:16:ILE:HG13	1:n:22:PHE:HE2	1.79	0.47
1:G:297:GLU:HB2	1:G:303:GLN:HE21	1.79	0.47
1:M:400:LEU:HB3	1:M:401:PRO:HD3	1.96	0.47
1:Y:136:THR:HG22	1:Y:151:SER:HA	1.96	0.47
1:Z:292:SER:O	1:Z:308:SER:N	2.47	0.47
1:c:112:LEU:HD23	1:c:157:LEU:HD12	1.95	0.47
1:d:415:PRO:HB3	1:d:424:MET:HE1	1.96	0.47
1:e:228:VAL:HG13	1:e:232:GLU:HB3	1.96	0.47
1:l:31:ILE:O	1:l:35:VAL:HG22	2.13	0.47
1:l:267:GLU:OE1	1:l:280:SER:OG	2.31	0.47
1:m:22:PHE:O	1:m:26:VAL:HG13	2.14	0.47
1:m:37:ILE:HG13	1:m:38:ASN:N	2.29	0.47
1:H:367:ILE:HG13	1:H:425:THR:HB	1.95	0.47
1:N:418:LEU:HB3	1:N:442:VAL:HG21	1.96	0.47
1:O:83:GLU:HA	1:O:88:GLN:HG2	1.95	0.47
1:Y:116:ASP:HB2	1:Y:148:THR:HA	1.96	0.47
1:i:299:ASP:OD1	1:i:300:ASP:N	2.47	0.47
1:n:116:ASP:HB3	1:n:148:THR:HA	1.95	0.47
1:A:341:VAL:HG22	1:A:418:LEU:HB2	1.96	0.47
1:D:91:ILE:HD13	1:D:97:LEU:HD21	1.94	0.47
1:G:176:TYR:HE1	1:G:178:ASP:HB3	1.79	0.47
1:N:55:SER:O	1:N:59:THR:HG22	2.14	0.47
1:Q:59:THR:HG21	1:V:50:THR:HG21	1.95	0.47
1:W:19:LEU:HD21	1:e:35:VAL:HG21	1.96	0.47
1:Z:288:ILE:C	1:Z:311:GLN:HE22	2.21	0.47
1:c:360:GLU:HG3	1:c:401:PRO:HB3	1.95	0.47
1:d:243:ILE:HD11	1:d:288:ILE:HG22	1.95	0.47
1:g:400:LEU:HB3	1:g:401:PRO:HD3	1.96	0.47
1:n:361:GLN:HB2	1:n:431:GLU:HB2	1.96	0.47
1:E:317:SER:HA	1:E:320:VAL:HG22	1.96	0.47
1:G:16:ILE:O	1:G:20:ILE:HG13	2.14	0.47
1:K:83:GLU:HB3	1:K:203:ASP:HB2	1.96	0.47
1:K:260:PHE:HE1	1:K:270:ILE:HG12	1.79	0.47
1:O:188:SER:OG	1:O:189:VAL:N	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:269:ARG:NH1	1:S:276:GLY:O	2.46	0.47
1:Q:215:PRO:HG2	1:Q:315:LEU:HD23	1.95	0.47
1:S:210:THR:HG23	1:S:229:SER:HB3	1.96	0.47
1:V:226:VAL:HG11	1:V:304:ILE:HD11	1.95	0.47
1:V:273:GLU:H	1:V:273:GLU:CD	2.21	0.47
1:Z:44:GLN:O	1:Z:48:GLU:HG2	2.15	0.47
1:Z:308:SER:HG	1:Z:309:SER:H	1.62	0.47
1:c:313:THR:HG23	1:c:326:GLN:HE22	1.79	0.47
1:e:64:VAL:HG13	1:e:346:VAL:HG13	1.96	0.47
1:f:67:LYS:O	1:f:68:ILE:HD13	2.13	0.47
1:f:249:THR:HG22	1:i:249:THR:HG22	1.96	0.47
1:n:81:ILE:HG13	1:n:205:GLU:HB2	1.96	0.47
1:B:119:VAL:HG13	1:B:148:THR:HG23	1.97	0.47
1:D:271:THR:HG22	1:D:278:SER:HB2	1.95	0.47
1:I:237:THR:OG1	1:I:238:SER:N	2.48	0.47
1:N:116:ASP:HB3	1:N:148:THR:HA	1.97	0.47
1:O:243:ILE:HD11	1:O:250:ILE:HG12	1.95	0.47
1:Q:157:LEU:HB2	1:Q:204:LEU:HD11	1.97	0.47
1:U:67:LYS:HZ1	1:U:438:ILE:HG22	1.78	0.47
1:Y:131:ARG:HH21	1:Y:206:ASN:HB3	1.79	0.47
1:h:13:GLN:OE1	1:h:13:GLN:N	2.47	0.47
1:h:333:ASP:OD2	1:h:333:ASP:N	2.47	0.47
1:A:192:ASN:OD1	1:A:193:ASP:N	2.48	0.47
1:J:178:ASP:HB2	1:J:331:ASN:HD21	1.79	0.47
1:O:83:GLU:HG2	1:O:203:ASP:H	1.80	0.47
1:f:230:ASP:OD2	1:f:231:GLY:N	2.48	0.47
1:g:114:GLY:HA3	1:g:148:THR:HB	1.97	0.47
1:k:439:ARG:NH2	1:k:441:SER:OG	2.47	0.47
1:A:74:SER:OG	1:A:75:GLY:N	2.48	0.47
1:A:139:VAL:HG21	1:A:157:LEU:HD11	1.97	0.47
1:B:203:ASP:O	1:B:204:LEU:HD23	2.14	0.47
1:C:213:TYR:HA	1:C:229:SER:HA	1.96	0.47
1:C:329:LEU:HD21	1:C:331:ASN:HD21	1.79	0.47
1:D:383:THR:HG23	1:D:386:GLU:HB2	1.97	0.47
1:E:234:LEU:HD22	1:E:298:ASN:HB2	1.97	0.47
1:E:376:THR:HG23	1:E:387:THR:HG22	1.96	0.47
1:G:331:ASN:OD1	1:G:331:ASN:N	2.48	0.47
1:J:21:VAL:O	1:J:25:MET:HG2	2.15	0.47
1:N:269:ARG:NH1	1:N:278:SER:OG	2.48	0.47
1:O:55:SER:O	1:O:59:THR:HG23	2.15	0.47
1:Q:24:ALA:O	1:Q:28:VAL:HG13	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:13:GLN:HG2	1:Z:25:MET:HE1	1.95	0.47
1:U:245:VAL:HG22	1:U:246:ALA:H	1.80	0.47
1:V:212:GLN:HG3	1:V:331:ASN:HB3	1.97	0.47
1:V:288:ILE:HG23	1:V:312:ILE:HB	1.96	0.47
1:W:179:PRO:HG2	1:W:265:ASN:ND2	2.26	0.47
1:Y:245:VAL:HG13	1:Y:247:SER:H	1.79	0.47
1:Z:49:GLN:HE22	1:d:441:SER:HB3	1.80	0.47
1:Z:91:ILE:HD11	1:Z:129:PHE:HD2	1.79	0.47
1:a:408:ARG:HH21	1:f:429:THR:HG22	1.80	0.47
1:a:428:VAL:O	1:a:435:THR:HA	2.15	0.47
1:d:408:ARG:HH22	1:h:431:GLU:HA	1.80	0.47
1:g:83:GLU:CD	1:g:203:ASP:H	2.22	0.47
1:k:159:LEU:HD11	1:k:170:VAL:HG22	1.97	0.47
1:m:331:ASN:OD1	1:m:331:ASN:N	2.47	0.47
1:n:103:SER:O	1:n:103:SER:OG	2.28	0.47
1:B:361:GLN:HB2	1:B:431:GLU:HG3	1.97	0.47
1:G:304:ILE:C	1:G:305:ILE:HD13	2.40	0.47
1:a:138:SER:HB2	1:a:149:THR:HG22	1.97	0.47
1:g:104:ALA:HA	1:g:168:ASP:HA	1.97	0.47
1:k:285:ASP:HA	1:k:325:SER:HB2	1.97	0.47
1:n:288:ILE:HB	1:n:312:ILE:HB	1.96	0.47
1:A:119:VAL:HG13	1:A:148:THR:HG23	1.96	0.47
1:G:56:ASP:O	1:G:60:ASN:HB2	2.15	0.47
1:J:119:VAL:HG12	1:J:146:ALA:HB1	1.96	0.47
1:J:214:LEU:HB2	1:J:228:VAL:HG13	1.97	0.47
1:N:185:ASP:OD1	1:N:321:SER:OG	2.28	0.47
1:N:396:GLU:OE1	1:N:396:GLU:N	2.46	0.47
1:O:16:ILE:HA	1:O:19:LEU:HD12	1.96	0.47
1:W:48:GLU:HG3	1:W:49:GLN:N	2.30	0.47
1:Y:88:GLN:HG2	1:Y:225:ASP:OD1	2.15	0.47
1:Y:264:ALA:HB3	1:Y:267:GLU:HG3	1.97	0.47
1:a:269:ARG:NH1	1:a:278:SER:OG	2.48	0.47
1:c:243:ILE:HG23	1:c:288:ILE:HG23	1.96	0.47
1:k:92:ASP:HB3	1:k:95:SER:HB2	1.95	0.47
1:A:104:ALA:HB1	1:A:109:LEU:HB2	1.97	0.47
1:G:261:ASP:OD1	1:G:262:VAL:N	2.46	0.47
1:J:131:ARG:CZ	1:J:206:ASN:HB3	2.45	0.47
1:J:244:THR:HB	1:J:289:ASP:O	2.15	0.47
1:Q:191:LEU:HD23	1:Q:200:VAL:HG13	1.98	0.47
1:S:210:THR:OG1	1:S:212:GLN:O	2.33	0.47
1:Z:408:ARG:NH2	1:e:429:THR:OG1	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:154:THR:N	1:h:204:LEU:O	2.44	0.47
1:l:107:SER:OG	1:l:108:ASN:N	2.48	0.47
1:C:259:THR:OG1	1:C:273:GLU:OE2	2.27	0.46
1:E:244:THR:HB	1:E:249:THR:HG22	1.97	0.46
1:J:324:THR:OG1	1:J:325:SER:N	2.49	0.46
1:Y:22:PHE:O	1:Y:26:VAL:HG23	2.15	0.46
1:e:403:MET:HG2	1:e:409:PHE:CE2	2.51	0.46
1:i:111:ASN:HB3	1:i:119:VAL:O	2.15	0.46
1:I:78:ASP:O	1:I:93:SER:OG	2.23	0.46
1:M:112:LEU:HD13	1:M:121:VAL:HG21	1.97	0.46
1:N:95:SER:OG	1:N:96:THR:N	2.48	0.46
1:Q:228:VAL:HG23	1:Q:232:GLU:HB3	1.96	0.46
1:S:52:GLN:HG3	1:W:42:PHE:CZ	2.45	0.46
1:c:400:LEU:HB3	1:c:401:PRO:HD3	1.96	0.46
1:d:159:LEU:HD11	1:d:170:VAL:HG22	1.97	0.46
1:d:320:VAL:HG13	1:d:322:LEU:H	1.80	0.46
1:g:294:LEU:HB2	1:g:306:THR:HG22	1.97	0.46
1:i:70:SER:OG	1:i:343:GLU:HB3	2.15	0.46
1:D:136:THR:HG22	1:D:151:SER:HA	1.96	0.46
1:G:264:ALA:HB3	1:G:267:GLU:HB2	1.97	0.46
1:H:403:MET:HE2	1:H:403:MET:HB2	1.77	0.46
1:O:175:THR:HG22	1:O:185:ASP:HB3	1.98	0.46
1:U:233:THR:HG22	1:U:259:THR:HG23	1.97	0.46
1:Z:220:ASP:OD2	1:Z:307:THR:OG1	2.30	0.46
1:d:192:ASN:OD1	1:d:193:ASP:N	2.48	0.46
1:l:408:ARG:HH11	1:l:408:ARG:HG3	1.80	0.46
1:m:39:THR:HA	1:m:42:PHE:CE2	2.50	0.46
1:M:226:VAL:HG11	1:M:304:ILE:HD11	1.96	0.46
1:N:104:ALA:HA	1:N:168:ASP:HA	1.98	0.46
1:N:181:ASN:HD22	1:N:322:LEU:HD21	1.81	0.46
1:O:23:ILE:HG23	1:S:50:THR:HG21	1.96	0.46
1:S:17:GLY:O	1:S:21:VAL:HG23	2.14	0.46
1:f:216:LEU:HD23	1:f:304:ILE:HG12	1.98	0.46
1:i:400:LEU:HB3	1:i:401:PRO:HD3	1.96	0.46
1:E:159:LEU:HD13	1:E:168:ASP:HB2	1.97	0.46
1:F:233:THR:HG22	1:F:259:THR:HG22	1.98	0.46
1:G:238:SER:HA	1:G:254:GLN:HE22	1.80	0.46
1:G:320:VAL:HG12	1:G:322:LEU:H	1.80	0.46
1:G:349:ILE:HG22	1:G:408:ARG:HG2	1.97	0.46
1:I:83:GLU:HG2	1:I:203:ASP:H	1.81	0.46
1:J:76:PRO:HD3	1:J:210:THR:HG22	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:298:ASN:OD1	1:W:302:ASP:N	2.48	0.46
1:W:320:VAL:HB	1:W:322:LEU:HD23	1.98	0.46
1:Z:269:ARG:HE	1:Z:280:SER:HB3	1.81	0.46
1:Z:427:GLU:HG2	1:Z:437:GLU:HG2	1.96	0.46
1:d:261:ASP:OD2	1:d:269:ARG:HB3	2.15	0.46
1:f:185:ASP:OD1	1:f:185:ASP:N	2.49	0.46
1:f:215:PRO:HG2	1:f:315:LEU:HD13	1.98	0.46
1:i:391:GLN:OE1	1:i:410:ARG:NH2	2.48	0.46
1:k:131:ARG:NH2	1:k:206:ASN:HB3	2.28	0.46
1:C:191:LEU:HD11	1:C:202:ALA:HB2	1.96	0.46
1:E:151:SER:O	1:E:152:GLU:HG3	2.16	0.46
1:H:22:PHE:HZ	1:O:39:THR:HG21	1.80	0.46
1:I:403:MET:HE3	1:I:409:PHE:HB2	1.98	0.46
1:J:21:VAL:HG21	1:m:14:VAL:HG12	1.98	0.46
1:J:418:LEU:HD23	1:J:418:LEU:HA	1.81	0.46
1:W:30:ALA:HB2	1:Z:54:SER:OG	2.15	0.46
1:W:83:GLU:HG2	1:W:203:ASP:H	1.80	0.46
1:Y:35:VAL:O	1:Y:39:THR:HG23	2.15	0.46
1:e:245:VAL:HG23	1:e:247:SER:H	1.80	0.46
1:i:116:ASP:HB3	1:i:148:THR:HA	1.97	0.46
1:A:125:ASP:OD2	1:A:141:ASN:ND2	2.48	0.46
1:N:285:ASP:HA	1:N:325:SER:HB2	1.97	0.46
1:O:106:ASP:OD2	1:O:106:ASP:N	2.49	0.46
1:O:303:GLN:HE21	1:O:303:GLN:HB2	1.59	0.46
1:Q:152:GLU:OE2	1:Q:154:THR:OG1	2.33	0.46
1:V:144:THR:HG22	1:V:146:ALA:H	1.80	0.46
1:V:357:ILE:HB	1:V:403:MET:HB3	1.96	0.46
1:c:169:THR:HA	1:c:191:LEU:O	2.16	0.46
1:f:24:ALA:O	1:f:28:VAL:HG13	2.15	0.46
1:f:317:SER:HA	1:f:320:VAL:HG22	1.98	0.46
1:h:303:GLN:OE1	1:h:303:GLN:N	2.49	0.46
1:B:175:THR:HG22	1:B:185:ASP:HB3	1.98	0.46
1:B:403:MET:HG2	1:B:409:PHE:CE2	2.50	0.46
1:E:159:LEU:HG	1:E:191:LEU:HD23	1.96	0.46
1:I:392:ALA:HB2	1:I:400:LEU:HD23	1.97	0.46
1:J:100:SER:HB3	1:J:173:GLN:HG3	1.96	0.46
1:Q:81:ILE:HD11	1:Q:88:GLN:HB3	1.97	0.46
1:U:21:VAL:HG23	1:U:25:MET:HE3	1.98	0.46
1:a:400:LEU:HB3	1:a:401:PRO:HD3	1.97	0.46
1:c:250:ILE:HD11	1:c:279:VAL:HG23	1.97	0.46
1:g:292:SER:O	1:g:308:SER:N	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:262:VAL:HG12	1:h:268:VAL:HG22	1.98	0.46
1:i:112:LEU:HD12	1:i:121:VAL:HG21	1.96	0.46
1:A:308:SER:OG	1:A:309:SER:N	2.48	0.46
1:F:400:LEU:HB3	1:F:401:PRO:HD3	1.98	0.46
1:G:315:LEU:HB3	1:G:327:VAL:HB	1.98	0.46
1:N:299:ASP:C	1:N:301:GLY:H	2.24	0.46
1:N:309:SER:O	1:N:309:SER:OG	2.31	0.46
1:N:446:LEU:HD12	1:N:446:LEU:O	2.15	0.46
1:S:108:ASN:ND2	1:V:118:GLU:HB2	2.30	0.46
1:S:233:THR:HB	1:S:257:ASP:OD1	2.16	0.46
1:V:366:THR:HB	1:V:424:MET:HE3	1.98	0.46
1:Y:119:VAL:HG23	1:Y:148:THR:HG23	1.98	0.46
1:a:15:GLY:HA2	1:a:18:THR:HG22	1.98	0.46
1:d:131:ARG:HE	1:d:206:ASN:ND2	2.14	0.46
1:e:171:THR:HG22	1:e:190:THR:HA	1.97	0.46
1:k:309:SER:O	1:k:309:SER:OG	2.32	0.46
1:l:170:VAL:HG23	1:l:191:LEU:HB2	1.98	0.46
1:l:295:THR:HA	1:l:304:ILE:O	2.16	0.46
1:m:101:SER:H	1:m:171:THR:HG1	1.64	0.46
1:C:268:VAL:HG23	1:C:283:PRO:HG3	1.96	0.46
1:D:97:LEU:HD23	1:D:129:PHE:CE1	2.50	0.46
1:F:269:ARG:NH2	1:I:275:THR:O	2.48	0.46
1:J:184:VAL:HG11	1:J:322:LEU:HD23	1.97	0.46
1:K:418:LEU:HB3	1:K:442:VAL:HG21	1.97	0.46
1:V:141:ASN:OD1	1:V:142:THR:N	2.49	0.46
1:a:49:GLN:HB2	1:e:439:ARG:CZ	2.45	0.46
1:n:82:VAL:HG22	1:n:204:LEU:HG	1.98	0.46
1:A:264:ALA:HB3	1:A:267:GLU:HB2	1.98	0.45
1:D:74:SER:HB2	1:D:211:GLU:HB2	1.98	0.45
1:D:241:SER:OG	1:D:293:ALA:O	2.34	0.45
1:E:184:VAL:HG21	1:E:322:LEU:HB2	1.98	0.45
1:I:77:THR:O	1:I:79:THR:HG23	2.16	0.45
1:J:408:ARG:HH22	1:N:431:GLU:HA	1.81	0.45
1:N:192:ASN:OD1	1:N:193:ASP:N	2.49	0.45
1:O:402:VAL:HG11	1:S:445:THR:HG21	1.97	0.45
1:S:44:GLN:HB2	1:W:35:VAL:CG2	2.43	0.45
1:S:234:LEU:HD22	1:S:298:ASN:HB2	1.97	0.45
1:U:408:ARG:HH22	1:Y:431:GLU:HA	1.81	0.45
1:Y:102:THR:O	1:Y:102:THR:OG1	2.29	0.45
1:Y:294:LEU:HD23	1:Y:295:THR:N	2.30	0.45
1:Z:86:THR:OG1	1:Z:87:ILE:HD12	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:91:ILE:HB	1:Z:174:ARG:HH21	1.80	0.45
1:Z:174:ARG:HG3	1:Z:175:THR:N	2.30	0.45
1:f:259:THR:HB	1:f:271:THR:HG23	1.99	0.45
1:l:244:THR:HG23	1:l:249:THR:HB	1.98	0.45
1:E:250:ILE:HD11	1:E:279:VAL:HB	1.98	0.45
1:F:241:SER:OG	1:F:294:LEU:HD21	2.16	0.45
1:G:111:ASN:HD22	1:G:118:GLU:HG3	1.81	0.45
1:G:159:LEU:HD23	1:G:159:LEU:HA	1.83	0.45
1:G:315:LEU:HD23	1:G:327:VAL:HG11	1.98	0.45
1:K:13:GLN:N	1:S:25:MET:SD	2.89	0.45
1:M:156:THR:O	1:M:202:ALA:N	2.49	0.45
1:N:132:GLU:OE2	1:N:138:SER:HB2	2.16	0.45
1:U:171:THR:HG22	1:U:190:THR:HG22	1.98	0.45
1:V:43:LEU:HD12	1:V:43:LEU:HA	1.67	0.45
1:c:83:GLU:HB3	1:c:203:ASP:HB2	1.98	0.45
1:c:100:SER:HB3	1:c:173:GLN:HB2	1.98	0.45
1:f:343:GLU:OE2	1:f:412:ILE:HG23	2.16	0.45
1:i:103:SER:HB2	1:i:169:THR:HB	1.98	0.45
1:i:357:ILE:HB	1:i:403:MET:HB2	1.97	0.45
1:H:285:ASP:HA	1:H:325:SER:HB2	1.97	0.45
1:J:288:ILE:HB	1:J:312:ILE:HB	1.99	0.45
1:J:349:ILE:HG22	1:J:408:ARG:HG2	1.97	0.45
1:O:237:THR:C	1:O:254:GLN:HE22	2.25	0.45
1:c:238:SER:O	1:c:295:THR:OG1	2.31	0.45
1:d:397:ASP:OD1	1:d:397:ASP:N	2.34	0.45
1:f:128:ARG:HH11	1:f:128:ARG:HG3	1.80	0.45
1:f:292:SER:O	1:f:308:SER:N	2.45	0.45
1:g:392:ALA:HB2	1:g:400:LEU:HD13	1.97	0.45
1:i:24:ALA:O	1:i:28:VAL:HG13	2.16	0.45
1:B:61:GLN:HG2	1:B:434:ALA:HB1	1.97	0.45
1:B:95:SER:OG	1:B:96:THR:N	2.50	0.45
1:C:16:ILE:O	1:C:20:ILE:HG13	2.17	0.45
1:C:176:TYR:CD1	1:C:332:GLU:HA	2.51	0.45
1:D:376:THR:HG22	1:D:387:THR:HB	1.97	0.45
1:E:400:LEU:HB3	1:E:401:PRO:HD3	1.97	0.45
1:F:84:GLY:HA2	1:F:188:SER:O	2.17	0.45
1:G:59:THR:HG22	1:H:23:ILE:HG21	1.99	0.45
1:H:132:GLU:N	1:H:132:GLU:OE1	2.50	0.45
1:M:452:VAL:HA	1:Q:367:ILE:HD11	1.99	0.45
1:N:230:ASP:OD2	1:N:230:ASP:N	2.45	0.45
1:U:65:ALA:HB2	1:U:349:ILE:CD1	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:319:GLU:HG2	1:Y:319:GLU:O	2.16	0.45
1:Z:92:ASP:OD2	1:Z:335:SER:OG	2.29	0.45
1:d:214:LEU:HB2	1:d:228:VAL:HG13	1.98	0.45
1:g:100:SER:OG	1:g:171:THR:OG1	2.22	0.45
1:g:154:THR:N	1:g:204:LEU:O	2.48	0.45
1:g:180:VAL:HG11	1:g:284:PHE:HE2	1.81	0.45
1:i:83:GLU:HG2	1:i:203:ASP:H	1.81	0.45
1:B:277:ASP:HA	1:n:278:SER:O	2.16	0.45
1:C:159:LEU:HD11	1:C:170:VAL:HG22	1.98	0.45
1:D:134:THR:O	1:D:206:ASN:ND2	2.50	0.45
1:H:241:SER:HB2	1:H:291:ALA:HB3	1.98	0.45
1:Q:213:TYR:HB2	1:Q:227:ILE:HD11	1.98	0.45
1:Q:422:GLU:H	1:Q:442:VAL:HG13	1.79	0.45
1:S:176:TYR:CG	1:S:332:GLU:HG2	2.51	0.45
1:S:303:GLN:N	1:S:303:GLN:OE1	2.49	0.45
1:Y:130:THR:HG23	1:Y:138:SER:HB3	1.99	0.45
1:c:217:THR:HB	1:c:225:ASP:HB3	1.97	0.45
1:c:233:THR:HG22	1:c:259:THR:HG22	1.98	0.45
1:d:89:PHE:HE2	1:d:188:SER:HA	1.82	0.45
1:n:78:ASP:N	1:n:78:ASP:OD1	2.42	0.45
1:B:100:SER:HB3	1:B:173:GLN:HB2	1.98	0.45
1:B:181:ASN:ND2	1:B:322:LEU:HD21	2.32	0.45
1:D:22:PHE:O	1:D:26:VAL:HG13	2.17	0.45
1:D:191:LEU:HD12	1:D:192:ASN:N	2.31	0.45
1:D:437:GLU:OE2	1:D:437:GLU:N	2.49	0.45
1:E:397:ASP:OD2	1:E:399:SER:OG	2.33	0.45
1:F:81:ILE:HD11	1:F:88:GLN:HB3	1.99	0.45
1:I:333:ASP:N	1:I:333:ASP:OD1	2.46	0.45
1:N:249:THR:O	1:Q:248:SER:HB2	2.16	0.45
1:N:292:SER:O	1:N:308:SER:N	2.50	0.45
1:S:26:VAL:HG22	1:W:20:ILE:CD1	2.46	0.45
1:V:80:ILE:HD11	1:V:137:ILE:HD12	1.99	0.45
1:Z:67:LYS:C	1:Z:68:ILE:HD12	2.42	0.45
1:d:156:THR:O	1:d:202:ALA:N	2.50	0.45
1:d:231:GLY:CA	1:d:260:PHE:O	2.64	0.45
1:e:22:PHE:HZ	1:m:39:THR:HG21	1.82	0.45
1:i:309:SER:O	1:i:309:SER:OG	2.34	0.45
1:l:19:LEU:O	1:l:23:ILE:HG22	2.16	0.45
1:n:285:ASP:HA	1:n:325:SER:HB2	1.98	0.45
1:C:83:GLU:HB3	1:C:203:ASP:HB2	1.98	0.45
1:E:245:VAL:HG22	1:E:246:ALA:H	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:220:ASP:HB2	1:I:307:THR:OG1	2.17	0.45
1:M:109:LEU:HD12	1:M:110:ALA:N	2.30	0.45
1:Z:249:THR:HG22	1:d:249:THR:HG22	1.98	0.45
1:a:156:THR:O	1:a:202:ALA:N	2.49	0.45
1:d:222:ASN:O	1:d:222:ASN:ND2	2.42	0.45
1:l:384:GLU:N	1:l:384:GLU:OE2	2.50	0.45
1:n:159:LEU:HA	1:n:159:LEU:HD23	1.86	0.45
1:C:166:ASN:HB2	1:C:194:GLY:HA2	1.98	0.45
1:E:292:SER:O	1:E:308:SER:N	2.50	0.45
1:F:129:PHE:CD1	1:F:139:VAL:HG23	2.51	0.45
1:F:295:THR:O	1:F:295:THR:OG1	2.34	0.45
1:I:332:GLU:N	1:I:332:GLU:OE2	2.49	0.45
1:K:224:ASP:N	1:K:303:GLN:O	2.50	0.45
1:K:273:GLU:H	1:K:273:GLU:CD	2.23	0.45
1:S:14:VAL:HG11	1:e:18:THR:HG22	1.99	0.45
1:S:353:GLY:H	1:W:53:GLU:CD	2.23	0.45
1:U:174:ARG:NH1	1:U:332:GLU:HG3	2.30	0.45
1:V:332:GLU:OE1	1:V:332:GLU:N	2.45	0.45
1:a:324:THR:OG1	1:a:325:SER:N	2.50	0.45
1:h:261:ASP:OD2	1:h:269:ARG:HB3	2.17	0.45
1:k:32:ALA:O	1:k:35:VAL:HG12	2.16	0.45
1:k:180:VAL:HG11	1:k:284:PHE:HE2	1.82	0.45
1:n:104:ALA:HA	1:n:168:ASP:HA	1.99	0.45
1:n:259:THR:HB	1:n:271:THR:HB	1.98	0.45
1:B:65:ALA:HB2	1:B:349:ILE:HD11	1.98	0.45
1:C:176:TYR:CE1	1:C:178:ASP:HB3	2.51	0.45
1:G:113:ASP:HB3	1:G:160:ALA:HB3	1.99	0.45
1:J:247:SER:O	1:M:249:THR:OG1	2.30	0.45
1:J:274:ASN:OD1	1:J:274:ASN:N	2.50	0.45
1:K:96:THR:OG1	1:K:126:GLU:OE2	2.28	0.45
1:O:210:THR:OG1	1:O:230:ASP:OD1	2.26	0.45
1:S:239:GLY:HA3	1:S:294:LEU:HA	1.98	0.45
1:Z:383:THR:HG23	1:Z:386:GLU:HB2	1.98	0.45
1:d:233:THR:HB	1:d:257:ASP:OD2	2.16	0.45
1:i:245:VAL:HG22	1:i:246:ALA:H	1.81	0.45
1:m:52:GLN:HG3	1:m:53:GLU:N	2.32	0.45
1:E:234:LEU:HB3	1:E:296:LEU:HD21	1.99	0.45
1:E:349:ILE:HG22	1:E:408:ARG:HG2	1.99	0.45
1:I:129:PHE:CD2	1:I:139:VAL:HG22	2.52	0.45
1:J:234:LEU:HD13	1:J:296:LEU:HD22	1.99	0.45
1:K:97:LEU:HD23	1:K:97:LEU:HA	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:104:ALA:HB3	1:S:109:LEU:HD22	1.98	0.45
1:V:95:SER:OG	1:V:96:THR:N	2.50	0.45
1:Z:156:THR:O	1:Z:202:ALA:N	2.50	0.45
1:a:70:SER:O	1:a:70:SER:OG	2.35	0.45
1:a:95:SER:OG	1:a:174:ARG:NH1	2.45	0.45
1:d:137:ILE:HB	1:d:150:VAL:HG13	1.99	0.45
1:g:424:MET:HE2	1:g:426:LEU:HD21	1.99	0.45
1:i:112:LEU:HD22	1:i:157:LEU:HD12	1.99	0.45
1:l:87:ILE:HD13	1:l:87:ILE:HA	1.84	0.45
1:m:99:VAL:HG22	1:m:172:PHE:HE1	1.82	0.45
1:D:430:THR:HG23	1:D:430:THR:O	2.18	0.44
1:N:234:LEU:HB2	1:N:296:LEU:HD12	1.99	0.44
1:S:419:GLU:OE1	1:S:419:GLU:HA	2.17	0.44
1:V:48:GLU:O	1:V:52:GLN:HG3	2.17	0.44
1:V:440:VAL:HG23	1:V:454:VAL:HB	1.98	0.44
1:W:170:VAL:HG23	1:W:191:LEU:HB2	1.98	0.44
1:Y:23:ILE:HG23	1:c:50:THR:HG21	1.99	0.44
1:a:276:GLY:O	1:e:269:ARG:NH1	2.50	0.44
1:c:67:LYS:HB3	1:c:454:VAL:HG23	1.99	0.44
1:c:251:THR:O	1:c:252:ILE:HD13	2.17	0.44
1:d:135:SER:O	1:d:135:SER:OG	2.32	0.44
1:d:141:ASN:ND2	1:d:144:THR:HB	2.32	0.44
1:k:230:ASP:OD1	1:k:231:GLY:N	2.50	0.44
1:C:96:THR:HB	1:C:126:GLU:CD	2.42	0.44
1:K:71:VAL:HB	1:K:446:LEU:HD22	1.99	0.44
1:O:130:THR:HG23	1:O:138:SER:HB3	1.99	0.44
1:W:298:ASN:CG	1:W:302:ASP:HB2	2.43	0.44
1:Z:18:THR:HG21	1:m:21:VAL:HG11	1.99	0.44
1:Z:97:LEU:HD12	1:Z:97:LEU:HA	1.83	0.44
1:a:292:SER:O	1:a:308:SER:N	2.50	0.44
1:i:418:LEU:HD23	1:i:418:LEU:HA	1.82	0.44
1:k:16:ILE:O	1:k:20:ILE:HD12	2.17	0.44
1:l:331:ASN:OD1	1:l:331:ASN:N	2.50	0.44
1:m:100:SER:HB3	1:m:173:GLN:HG3	1.98	0.44
1:C:347:ILE:HD13	1:C:410:ARG:HG2	1.99	0.44
1:D:129:PHE:HD2	1:D:139:VAL:HG12	1.82	0.44
1:D:211:GLU:OE1	1:D:333:ASP:HA	2.17	0.44
1:E:141:ASN:OD1	1:E:146:ALA:N	2.50	0.44
1:G:295:THR:OG1	1:G:303:GLN:OE1	2.32	0.44
1:K:181:ASN:HB3	1:K:322:LEU:HD11	1.99	0.44
1:V:293:ALA:O	1:V:294:LEU:HD13	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:100:SER:OG	1:W:171:THR:OG1	2.31	0.44
1:Y:288:ILE:HB	1:Y:312:ILE:HB	1.99	0.44
1:f:318:SER:OG	1:f:319:GLU:OE1	2.28	0.44
1:g:261:ASP:OD1	1:g:269:ARG:HB3	2.16	0.44
1:h:21:VAL:O	1:h:25:MET:HG3	2.18	0.44
1:l:174:ARG:HB3	1:l:186:ILE:HD11	1.98	0.44
1:A:159:LEU:HD23	1:A:159:LEU:HA	1.88	0.44
1:A:214:LEU:HB2	1:A:228:VAL:HG13	1.99	0.44
1:B:403:MET:HE2	1:B:403:MET:HB3	1.91	0.44
1:D:216:LEU:HB2	1:D:226:VAL:HG23	2.00	0.44
1:E:192:ASN:OD1	1:E:193:ASP:N	2.51	0.44
1:G:100:SER:OG	1:G:171:THR:OG1	2.30	0.44
1:H:269:ARG:HH22	1:K:276:GLY:HA3	1.83	0.44
1:I:220:ASP:OD1	1:I:221:SER:N	2.51	0.44
1:K:216:LEU:HD11	1:K:260:PHE:HE2	1.83	0.44
1:M:22:PHE:O	1:M:26:VAL:HG23	2.17	0.44
1:N:428:VAL:O	1:N:435:THR:HA	2.17	0.44
1:O:156:THR:HG22	1:O:157:LEU:H	1.83	0.44
1:Q:259:THR:HB	1:Q:271:THR:OG1	2.16	0.44
1:S:195:GLU:OE1	1:S:195:GLU:N	2.50	0.44
1:U:209:ASN:HD21	1:U:227:ILE:HG22	1.83	0.44
1:V:87:ILE:HG13	1:V:315:LEU:HA	1.99	0.44
1:W:288:ILE:HB	1:W:312:ILE:HB	1.99	0.44
1:Z:104:ALA:HB2	1:Z:109:LEU:HD13	1.99	0.44
1:Z:240:SER:OG	1:Z:254:GLN:N	2.49	0.44
1:c:98:THR:HG23	1:c:173:GLN:HB3	1.98	0.44
1:c:131:ARG:HG3	1:c:206:ASN:ND2	2.32	0.44
1:d:49:GLN:CD	1:g:439:ARG:HH12	2.25	0.44
1:h:392:ALA:HA	1:h:409:PHE:HD1	1.82	0.44
1:l:122:GLU:H	1:l:125:ASP:HB2	1.82	0.44
1:A:16:ILE:HG13	1:k:22:PHE:CZ	2.52	0.44
1:A:83:GLU:HB3	1:A:203:ASP:HB3	1.99	0.44
1:C:143:GLU:HG2	1:C:144:THR:N	2.33	0.44
1:H:211:GLU:HG3	1:H:334:TYR:HB2	2.00	0.44
1:Q:344:ILE:HD12	1:Q:454:VAL:HG21	2.00	0.44
1:S:79:THR:OG1	1:S:209:ASN:OD1	2.26	0.44
1:W:95:SER:OG	1:W:96:THR:N	2.50	0.44
1:W:125:ASP:OD1	1:W:126:GLU:N	2.50	0.44
1:W:166:ASN:HB2	1:W:194:GLY:HA2	1.99	0.44
1:e:400:LEU:HB3	1:e:401:PRO:HD3	1.98	0.44
1:e:428:VAL:O	1:e:435:THR:HA	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:208:GLN:C	1:l:209:ASN:HD22	2.25	0.44
1:A:295:THR:HA	1:A:304:ILE:O	2.17	0.44
1:E:333:ASP:OD1	1:E:335:SER:N	2.47	0.44
1:G:166:ASN:HB2	1:G:194:GLY:HA2	1.99	0.44
1:I:33:ALA:O	1:I:37:ILE:HG12	2.18	0.44
1:I:185:ASP:OD1	1:I:185:ASP:N	2.48	0.44
1:N:17:GLY:O	1:N:21:VAL:HG23	2.18	0.44
1:O:85:GLU:CD	1:O:86:THR:HG23	2.42	0.44
1:Q:288:ILE:H	1:Q:288:ILE:HD12	1.82	0.44
1:V:109:LEU:HD12	1:V:110:ALA:N	2.33	0.44
1:Y:214:LEU:HB2	1:Y:228:VAL:HG22	2.00	0.44
1:m:242:ASP:OD1	1:m:249:THR:OG1	2.35	0.44
1:n:65:ALA:HB2	1:n:349:ILE:HD11	1.99	0.44
1:B:214:LEU:HG	1:B:216:LEU:HD21	2.00	0.44
1:E:100:SER:OG	1:E:171:THR:OG1	2.30	0.44
1:G:83:GLU:HG2	1:G:203:ASP:H	1.82	0.44
1:G:100:SER:HG	1:G:171:THR:HG1	1.63	0.44
1:J:261:ASP:OD1	1:J:261:ASP:N	2.49	0.44
1:S:215:PRO:HG2	1:S:315:LEU:HD13	2.00	0.44
1:S:287:GLN:HB3	1:S:326:GLN:HG3	1.99	0.44
1:W:35:VAL:O	1:W:39:THR:HG23	2.17	0.44
1:Z:119:VAL:HG13	1:Z:148:THR:HG23	1.99	0.44
1:Z:133:SER:OG	1:Z:134:THR:N	2.50	0.44
1:Z:262:VAL:HG12	1:Z:268:VAL:HG22	2.00	0.44
1:Z:265:ASN:OD1	1:Z:331:ASN:ND2	2.50	0.44
1:i:177:GLU:OE1	1:i:177:GLU:N	2.51	0.44
1:k:91:ILE:HB	1:k:174:ARG:HH21	1.82	0.44
1:m:364:ILE:HD12	1:m:388:PHE:CD1	2.53	0.44
1:F:173:GLN:HG2	1:F:187:THR:HA	2.00	0.44
1:M:39:THR:HA	1:M:42:PHE:CE2	2.53	0.44
1:Q:397:ASP:OD1	1:Q:397:ASP:N	2.40	0.44
1:V:400:LEU:HB3	1:V:401:PRO:HD3	1.99	0.44
1:c:86:THR:OG1	1:c:87:ILE:HD12	2.18	0.44
1:c:211:GLU:OE2	1:c:334:TYR:N	2.47	0.44
1:c:396:GLU:OE1	1:g:361:GLN:NE2	2.51	0.44
1:B:16:ILE:O	1:B:20:ILE:HG13	2.18	0.44
1:I:242:ASP:HA	1:I:251:THR:HA	1.99	0.44
1:U:104:ALA:HB2	1:U:109:LEU:HD13	2.00	0.44
1:V:298:ASN:OD1	1:V:302:ASP:HB2	2.18	0.44
1:Z:135:SER:HB3	1:Z:152:GLU:HA	1.99	0.44
1:d:104:ALA:HB2	1:d:109:LEU:HD13	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:63:GLN:NE2	1:k:57:GLN:HE22	2.12	0.44
1:h:192:ASN:OD1	1:h:193:ASP:N	2.51	0.44
1:m:132:GLU:OE1	1:m:132:GLU:N	2.51	0.44
1:m:308:SER:OG	1:m:309:SER:N	2.51	0.44
1:A:405:ASP:OD1	1:A:405:ASP:N	2.51	0.43
1:B:43:LEU:HB3	1:n:19:LEU:HD13	2.00	0.43
1:F:83:GLU:HB3	1:F:203:ASP:HB2	2.00	0.43
1:F:129:PHE:HD1	1:F:139:VAL:HG23	1.83	0.43
1:M:219:ASP:OD1	1:M:219:ASP:N	2.49	0.43
1:U:67:LYS:NZ	1:U:438:ILE:HG22	2.33	0.43
1:Y:192:ASN:OD1	1:Y:193:ASP:N	2.51	0.43
1:Y:298:ASN:ND2	1:Y:302:ASP:HB2	2.33	0.43
1:Z:440:VAL:HG13	1:Z:454:VAL:HB	2.00	0.43
1:d:244:THR:HG23	1:d:249:THR:HB	2.00	0.43
1:h:181:ASN:HB3	1:h:322:LEU:HD11	1.99	0.43
1:l:95:SER:OG	1:l:96:THR:N	2.51	0.43
1:l:99:VAL:HG22	1:l:172:PHE:HE1	1.82	0.43
1:n:22:PHE:O	1:n:26:VAL:HG13	2.17	0.43
1:B:264:ALA:HB3	1:B:267:GLU:HB3	2.00	0.43
1:C:259:THR:HB	1:C:271:THR:HG23	2.01	0.43
1:E:273:GLU:OE2	1:E:273:GLU:N	2.48	0.43
1:I:91:ILE:HG22	1:I:174:ARG:HD3	2.00	0.43
1:J:71:VAL:HB	1:J:446:LEU:HD22	2.00	0.43
1:J:295:THR:HA	1:J:304:ILE:O	2.19	0.43
1:K:100:SER:HB2	1:K:173:GLN:HB2	1.99	0.43
1:N:157:LEU:HD23	1:N:202:ALA:HB3	1.99	0.43
1:O:262:VAL:HG22	1:O:268:VAL:HG12	2.00	0.43
1:Q:185:ASP:N	1:Q:185:ASP:OD1	2.50	0.43
1:Z:104:ALA:HA	1:Z:168:ASP:HA	1.99	0.43
1:d:266:ASP:HB3	1:d:282:ASN:HD21	1.83	0.43
1:i:173:GLN:CD	1:i:185:ASP:HB2	2.43	0.43
1:k:313:THR:HG23	1:k:326:GLN:HE22	1.82	0.43
1:n:288:ILE:HG22	1:n:312:ILE:HD13	2.00	0.43
1:B:72:ALA:HB1	1:B:337:GLY:H	1.83	0.43
1:D:89:PHE:C	1:D:89:PHE:CD2	2.96	0.43
1:E:419:GLU:OE2	1:E:419:GLU:N	2.51	0.43
1:F:89:PHE:HE2	1:F:188:SER:HA	1.84	0.43
1:J:251:THR:HG22	1:M:247:SER:HB3	2.00	0.43
1:K:362:THR:HG23	1:K:429:THR:O	2.17	0.43
1:S:132:GLU:N	1:S:132:GLU:OE2	2.52	0.43
1:W:14:VAL:O	1:W:18:THR:OG1	2.36	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:33:ALA:HB1	1:Z:58:VAL:HG21	2.01	0.43
1:a:43:LEU:HD23	1:a:43:LEU:HA	1.79	0.43
1:d:25:MET:HE3	1:d:25:MET:HB3	1.83	0.43
1:g:419:GLU:N	1:g:422:GLU:OE2	2.45	0.43
1:m:24:ALA:O	1:m:28:VAL:HG23	2.18	0.43
1:n:268:VAL:CG2	1:n:329:LEU:HD21	2.48	0.43
1:A:68:ILE:HG21	1:F:372:THR:HG21	2.00	0.43
1:B:159:LEU:HD13	1:B:168:ASP:HB2	2.00	0.43
1:B:336:THR:O	1:B:336:THR:OG1	2.30	0.43
1:E:229:SER:OG	1:E:230:ASP:N	2.50	0.43
1:F:260:PHE:HE1	1:F:270:ILE:HG12	1.82	0.43
1:F:293:ALA:O	1:F:294:LEU:HD23	2.19	0.43
1:S:102:THR:HG21	1:S:109:LEU:HD13	2.01	0.43
1:U:400:LEU:HB3	1:U:401:PRO:HD3	1.99	0.43
1:V:331:ASN:OD1	1:V:331:ASN:N	2.51	0.43
1:a:135:SER:HB2	1:a:152:GLU:HA	2.01	0.43
1:e:87:ILE:HG21	1:e:315:LEU:HA	2.00	0.43
1:k:141:ASN:OD1	1:k:142:THR:N	2.51	0.43
1:C:83:GLU:HA	1:C:88:GLN:HG2	2.00	0.43
1:E:297:GLU:HG3	1:E:303:GLN:HE22	1.84	0.43
1:K:308:SER:OG	1:K:309:SER:N	2.51	0.43
1:N:100:SER:OG	1:N:101:SER:N	2.50	0.43
1:N:166:ASN:HB2	1:N:194:GLY:HA2	1.99	0.43
1:V:233:THR:HG22	1:V:259:THR:OG1	2.18	0.43
1:W:176:TYR:CE1	1:W:184:VAL:HB	2.53	0.43
1:c:331:ASN:N	1:c:331:ASN:OD1	2.50	0.43
1:d:424:MET:HB3	1:d:440:VAL:HG22	2.00	0.43
1:e:250:ILE:HD13	1:e:277:ASP:HB3	1.99	0.43
1:e:298:ASN:OD1	1:e:302:ASP:HB3	2.18	0.43
1:h:356:GLN:NE2	1:k:445:THR:HG21	2.34	0.43
1:i:67:LYS:O	1:i:68:ILE:HD13	2.18	0.43
1:i:349:ILE:HG22	1:i:407:ASP:O	2.18	0.43
1:J:248:SER:HA	1:M:249:THR:OG1	2.19	0.43
1:K:226:VAL:HG11	1:K:304:ILE:HD11	2.00	0.43
1:O:264:ALA:HB3	1:O:267:GLU:HB3	1.99	0.43
1:Q:333:ASP:N	1:Q:333:ASP:OD1	2.48	0.43
1:S:67:LYS:C	1:S:68:ILE:HD13	2.43	0.43
1:Y:250:ILE:HD13	1:Y:250:ILE:HA	1.90	0.43
1:Z:129:PHE:CE1	1:Z:139:VAL:HG22	2.54	0.43
1:d:62:ILE:HD13	1:d:357:ILE:HD13	2.00	0.43
1:e:84:GLY:HA3	1:e:87:ILE:O	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:85:GLU:HG2	1:h:188:SER:O	2.18	0.43
1:A:424:MET:HB3	1:A:440:VAL:HG22	2.01	0.43
1:E:288:ILE:HB	1:E:312:ILE:HB	2.01	0.43
1:F:141:ASN:HD21	1:F:144:THR:HB	1.83	0.43
1:J:185:ASP:OD1	1:J:186:ILE:N	2.51	0.43
1:K:159:LEU:HD23	1:K:159:LEU:HA	1.83	0.43
1:M:408:ARG:NH2	1:Q:429:THR:OG1	2.44	0.43
1:O:400:LEU:HB3	1:O:401:PRO:HD3	2.01	0.43
1:U:87:ILE:HG13	1:U:314:GLY:O	2.19	0.43
1:Y:283:PRO:HB2	1:Y:328:LEU:HB2	2.01	0.43
1:Y:397:ASP:OD1	1:Y:397:ASP:N	2.42	0.43
1:a:83:GLU:HB3	1:a:203:ASP:HB2	2.00	0.43
1:d:49:GLN:OE1	1:g:439:ARG:NH1	2.41	0.43
1:h:62:ILE:HG22	1:h:357:ILE:HD13	2.00	0.43
1:h:273:GLU:OE1	1:h:273:GLU:N	2.46	0.43
1:k:115:GLN:OE1	1:k:115:GLN:N	2.52	0.43
1:A:211:GLU:CD	1:A:334:TYR:HB2	2.44	0.43
1:B:375:LEU:HB3	1:B:387:THR:HA	2.00	0.43
1:E:325:SER:O	1:E:326:GLN:HG2	2.19	0.43
1:I:213:TYR:HD2	1:I:227:ILE:HG23	1.83	0.43
1:K:82:VAL:HA	1:K:203:ASP:O	2.19	0.43
1:M:137:ILE:HD12	1:M:204:LEU:HG	2.00	0.43
1:S:192:ASN:OD1	1:S:193:ASP:N	2.52	0.43
1:V:256:ASP:HA	1:V:274:ASN:HD22	1.84	0.43
1:V:361:GLN:HB2	1:V:431:GLU:CG	2.48	0.43
1:W:272:ASN:HB3	1:W:277:ASP:OD1	2.18	0.43
1:Z:105:GLY:HA2	1:Z:167:ASP:HB2	2.00	0.43
1:a:159:LEU:HD11	1:a:170:VAL:HG22	2.01	0.43
1:a:233:THR:HG22	1:a:259:THR:HG22	2.00	0.43
1:d:109:LEU:HD12	1:d:110:ALA:H	1.83	0.43
1:d:308:SER:OG	1:d:309:SER:N	2.52	0.43
1:f:308:SER:OG	1:f:309:SER:N	2.51	0.43
1:g:439:ARG:HE	1:g:439:ARG:HB3	1.61	0.43
1:l:28:VAL:O	1:l:31:ILE:HG22	2.18	0.43
1:l:429:THR:HA	1:l:434:ALA:O	2.19	0.43
1:D:60:ASN:O	1:D:430:THR:HG21	2.19	0.43
1:D:363:THR:OG1	1:l:408:ARG:NE	2.52	0.43
1:E:156:THR:OG1	1:E:157:LEU:N	2.52	0.43
1:F:211:GLU:HA	1:F:334:TYR:CE2	2.54	0.43
1:H:176:TYR:HE1	1:H:186:ILE:HD11	1.84	0.43
1:Q:95:SER:OG	1:Q:96:THR:N	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:132:GLU:OE1	1:Y:132:GLU:N	2.52	0.43
1:Z:244:THR:HG23	1:Z:249:THR:HB	2.01	0.43
1:d:126:GLU:HB3	1:d:142:THR:HB	2.01	0.43
1:l:157:LEU:HB3	1:l:202:ALA:HB3	2.01	0.43
1:m:281:PHE:HD2	1:m:286:ASN:HB2	1.83	0.43
1:n:109:LEU:HD12	1:n:109:LEU:H	1.84	0.43
1:C:269:ARG:NH1	1:C:280:SER:HB2	2.34	0.43
1:D:163:SER:O	1:D:163:SER:OG	2.37	0.43
1:E:83:GLU:HG2	1:E:203:ASP:H	1.84	0.43
1:E:287:GLN:HG3	1:E:326:GLN:HG3	2.01	0.43
1:H:43:LEU:HD23	1:H:43:LEU:HA	1.92	0.43
1:I:238:SER:HA	1:I:254:GLN:HB2	2.00	0.43
1:J:292:SER:O	1:J:308:SER:N	2.41	0.43
1:N:25:MET:HB2	1:S:16:ILE:HD11	2.01	0.43
1:O:81:ILE:HG23	1:O:205:GLU:HB2	2.00	0.43
1:O:244:THR:HG23	1:O:249:THR:HB	2.01	0.43
1:U:169:THR:HA	1:U:191:LEU:O	2.19	0.43
1:V:341:VAL:N	1:V:418:LEU:O	2.52	0.43
1:W:326:GLN:OE1	1:W:327:VAL:N	2.52	0.43
1:W:364:ILE:HG12	1:W:428:VAL:HB	2.01	0.43
1:f:294:LEU:HD12	1:f:294:LEU:HA	1.89	0.43
1:g:111:ASN:ND2	1:g:118:GLU:HB3	2.31	0.43
1:g:383:THR:OG1	1:g:386:GLU:HB2	2.19	0.43
1:h:17:GLY:O	1:h:21:VAL:HG13	2.18	0.43
1:h:176:TYR:CG	1:h:332:GLU:HG2	2.54	0.43
1:k:119:VAL:HG22	1:k:146:ALA:HB1	2.01	0.43
1:B:16:ILE:HG13	1:m:22:PHE:CE1	2.52	0.42
1:D:64:VAL:HG11	1:D:67:LYS:HE2	2.02	0.42
1:E:284:PHE:N	1:E:284:PHE:CD1	2.86	0.42
1:N:129:PHE:HD1	1:N:139:VAL:HG22	1.84	0.42
1:N:159:LEU:HD23	1:N:159:LEU:HA	1.82	0.42
1:N:223:SER:HB2	1:N:305:ILE:HB	2.00	0.42
1:O:87:ILE:HD12	1:O:87:ILE:HA	1.88	0.42
1:Q:22:PHE:HE2	1:Y:43:LEU:HD11	1.84	0.42
1:Q:430:THR:C	1:Q:432:SER:H	2.27	0.42
1:S:71:VAL:HG23	1:S:340:GLY:HA2	1.99	0.42
1:Z:418:LEU:HB3	1:Z:442:VAL:HG21	2.01	0.42
1:a:50:THR:O	1:a:54:SER:OG	2.33	0.42
1:a:397:ASP:OD1	1:a:397:ASP:N	2.36	0.42
1:c:26:VAL:HG22	1:g:16:ILE:HD11	2.01	0.42
1:d:143:GLU:OE1	1:d:144:THR:OG1	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:352:SER:OG	1:h:57:GLN:OE1	2.37	0.42
1:f:248:SER:HB2	1:i:249:THR:O	2.19	0.42
1:m:173:GLN:HG2	1:m:187:THR:HA	1.99	0.42
1:n:76:PRO:HD3	1:n:210:THR:HG23	2.00	0.42
1:n:419:GLU:N	1:n:422:GLU:OE2	2.51	0.42
1:C:267:GLU:OE2	1:C:281:PHE:N	2.52	0.42
1:G:418:LEU:HB3	1:G:442:VAL:HG21	2.01	0.42
1:I:112:LEU:HD11	1:I:121:VAL:HB	2.00	0.42
1:N:268:VAL:HG23	1:N:283:PRO:HG3	2.01	0.42
1:Q:298:ASN:OD1	1:Q:302:ASP:HB2	2.18	0.42
1:U:31:ILE:O	1:U:35:VAL:HG22	2.18	0.42
1:V:21:VAL:O	1:V:25:MET:HG2	2.19	0.42
1:W:314:GLY:N	1:W:326:GLN:HE22	2.13	0.42
1:c:397:ASP:OD1	1:c:397:ASP:N	2.49	0.42
1:d:270:ILE:HD12	1:d:270:ILE:HA	1.80	0.42
1:f:216:LEU:HB3	1:f:226:VAL:HG23	2.01	0.42
1:f:297:GLU:CD	1:f:301:GLY:HA2	2.44	0.42
1:g:299:ASP:OD1	1:g:300:ASP:N	2.52	0.42
1:g:420:THR:HG22	1:g:446:LEU:HG	2.01	0.42
1:h:73:GLY:HA2	1:h:338:GLY:HA3	2.00	0.42
1:D:268:VAL:HG23	1:D:283:PRO:HG3	2.00	0.42
1:E:54:SER:O	1:E:58:VAL:HG23	2.19	0.42
1:E:114:GLY:HA3	1:E:148:THR:HB	2.01	0.42
1:K:86:THR:O	1:K:87:ILE:HD13	2.18	0.42
1:M:171:THR:HG22	1:M:190:THR:HG22	2.01	0.42
1:N:157:LEU:HG	1:N:157:LEU:O	2.20	0.42
1:Q:353:GLY:N	1:V:53:GLU:HG2	2.34	0.42
1:S:77:THR:HG21	1:S:336:THR:HB	2.01	0.42
1:V:176:TYR:CE2	1:V:178:ASP:HB3	2.52	0.42
1:Z:99:VAL:HG22	1:Z:172:PHE:CE1	2.53	0.42
1:Z:317:SER:HA	1:Z:320:VAL:HB	2.01	0.42
1:e:397:ASP:OD1	1:e:397:ASP:N	2.44	0.42
1:h:287:GLN:NE2	1:h:289:ASP:OD1	2.51	0.42
1:k:36:LEU:HD23	1:k:36:LEU:HA	1.88	0.42
1:k:125:ASP:OD2	1:k:141:ASN:ND2	2.43	0.42
1:l:99:VAL:HG22	1:l:172:PHE:CE1	2.55	0.42
1:l:281:PHE:HD1	1:l:286:ASN:HB2	1.83	0.42
1:m:16:ILE:O	1:m:20:ILE:HG13	2.19	0.42
1:B:358:ASN:ND2	1:B:360:GLU:OE1	2.50	0.42
1:D:400:LEU:HB3	1:D:401:PRO:HD3	2.01	0.42
1:F:169:THR:HA	1:F:191:LEU:O	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:135:SER:HA	1:I:206:ASN:HD21	1.85	0.42
1:J:267:GLU:OE2	1:J:281:PHE:N	2.52	0.42
1:O:428:VAL:HB	1:O:436:THR:HG22	2.01	0.42
1:Q:320:VAL:HG13	1:Q:322:LEU:H	1.84	0.42
1:U:159:LEU:HD23	1:U:159:LEU:HA	1.82	0.42
1:W:245:VAL:HG22	1:W:246:ALA:H	1.83	0.42
1:W:300:ASP:C	1:W:300:ASP:OD2	2.62	0.42
1:a:57:GLN:HG3	1:a:432:SER:O	2.19	0.42
1:d:159:LEU:HD23	1:d:159:LEU:HA	1.83	0.42
1:d:215:PRO:C	1:d:216:LEU:HD23	2.43	0.42
1:f:422:GLU:HA	1:f:422:GLU:OE1	2.18	0.42
1:g:397:ASP:OD1	1:g:397:ASP:N	2.52	0.42
1:l:179:PRO:HD2	1:l:331:ASN:ND2	2.35	0.42
1:n:23:ILE:O	1:n:26:VAL:HG22	2.18	0.42
1:B:420:THR:HB	1:B:444:ASN:HA	2.01	0.42
1:C:67:LYS:C	1:C:68:ILE:HD13	2.44	0.42
1:E:126:GLU:O	1:E:142:THR:HG23	2.20	0.42
1:G:97:LEU:HD22	1:G:129:PHE:HZ	1.83	0.42
1:G:294:LEU:HD12	1:G:294:LEU:HA	1.87	0.42
1:J:100:SER:OG	1:J:101:SER:N	2.51	0.42
1:K:141:ASN:HD21	1:K:144:THR:HB	1.85	0.42
1:K:405:ASP:OD2	1:K:405:ASP:N	2.52	0.42
1:Q:36:LEU:HB2	1:V:28:VAL:HG11	2.01	0.42
1:Q:322:LEU:HD12	1:Q:322:LEU:HA	1.85	0.42
1:S:353:GLY:N	1:W:53:GLU:OE1	2.37	0.42
1:U:449:GLU:HG3	1:U:452:VAL:HB	2.02	0.42
1:W:268:VAL:HG23	1:W:283:PRO:HG3	2.00	0.42
1:Y:214:LEU:HD21	1:Y:329:LEU:HD12	2.00	0.42
1:c:112:LEU:HD13	1:c:121:VAL:HG21	2.02	0.42
1:e:55:SER:O	1:e:59:THR:HG23	2.19	0.42
1:g:132:GLU:OE2	1:g:138:SER:N	2.53	0.42
1:k:288:ILE:HB	1:k:312:ILE:HB	2.02	0.42
1:k:295:THR:HA	1:k:304:ILE:O	2.20	0.42
1:l:110:ALA:HB1	1:l:160:ALA:O	2.19	0.42
1:l:128:ARG:HH12	1:l:142:THR:HG22	1.85	0.42
1:A:85:GLU:N	1:A:188:SER:O	2.52	0.42
1:B:105:GLY:N	1:B:167:ASP:O	2.52	0.42
1:E:100:SER:OG	1:E:101:SER:N	2.53	0.42
1:J:219:ASP:OD1	1:J:219:ASP:N	2.53	0.42
1:K:14:VAL:HG21	1:W:18:THR:HG22	2.01	0.42
1:N:111:ASN:HD22	1:N:118:GLU:HB3	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:418:LEU:HD23	1:N:418:LEU:HA	1.86	0.42
1:O:154:THR:N	1:O:204:LEU:O	2.47	0.42
1:O:383:THR:OG1	1:O:386:GLU:HB2	2.19	0.42
1:Q:22:PHE:CD2	1:V:16:ILE:HD12	2.54	0.42
1:S:430:THR:O	1:S:430:THR:OG1	2.35	0.42
1:Y:181:ASN:HB3	1:Y:322:LEU:HD11	2.01	0.42
1:Y:187:THR:O	1:Y:319:GLU:HG3	2.20	0.42
1:Z:85:GLU:HG3	1:Z:319:GLU:HB3	2.02	0.42
1:c:332:GLU:OE1	1:c:332:GLU:N	2.42	0.42
1:e:108:ASN:HD21	1:e:163:SER:HA	1.83	0.42
1:f:356:GLN:NE2	1:i:445:THR:HB	2.35	0.42
1:h:295:THR:HA	1:h:304:ILE:O	2.18	0.42
1:E:319:GLU:OE1	1:E:319:GLU:N	2.53	0.42
1:I:62:ILE:HG22	1:I:357:ILE:HD13	2.01	0.42
1:N:430:THR:O	1:N:430:THR:OG1	2.36	0.42
1:S:286:ASN:N	1:S:286:ASN:HD22	2.18	0.42
1:U:115:GLN:HE22	1:U:151:SER:H	1.67	0.42
1:d:392:ALA:HB2	1:d:400:LEU:HD13	2.02	0.42
1:e:87:ILE:HD12	1:e:87:ILE:HA	1.88	0.42
1:f:62:ILE:HG23	1:f:430:THR:HG21	2.00	0.42
1:f:87:ILE:HB	1:f:315:LEU:HD12	2.01	0.42
1:m:250:ILE:HD13	1:m:279:VAL:HG23	2.02	0.42
1:m:350:LYS:HB3	1:m:350:LYS:HE3	1.84	0.42
1:n:80:ILE:HG12	1:n:206:ASN:OD1	2.20	0.42
1:B:71:VAL:HG21	1:B:446:LEU:HB3	2.00	0.42
1:B:163:SER:OG	1:B:168:ASP:OD1	2.37	0.42
1:C:297:GLU:HB2	1:C:303:GLN:HE22	1.85	0.42
1:C:400:LEU:HB3	1:C:401:PRO:HD3	2.02	0.42
1:E:104:ALA:HA	1:E:168:ASP:HA	2.01	0.42
1:E:303:GLN:OE1	1:E:303:GLN:HA	2.20	0.42
1:I:135:SER:HB2	1:I:152:GLU:HA	2.01	0.42
1:K:166:ASN:HB2	1:K:167:ASP:H	1.62	0.42
1:O:418:LEU:HD23	1:O:418:LEU:HA	1.85	0.42
1:Q:100:SER:HB3	1:Q:173:GLN:HG3	2.02	0.42
1:Q:243:ILE:HG23	1:Q:252:ILE:HD13	2.01	0.42
1:S:259:THR:HG23	1:S:271:THR:HB	2.02	0.42
1:U:245:VAL:HG12	1:U:248:SER:H	1.84	0.42
1:W:159:LEU:HD11	1:W:170:VAL:HG22	2.02	0.42
1:d:418:LEU:HB3	1:d:442:VAL:HG21	2.01	0.42
1:g:70:SER:HB2	1:g:343:GLU:HB2	2.01	0.42
1:g:214:LEU:HD21	1:g:268:VAL:HG21	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:132:GLU:OE1	1:k:136:THR:OG1	2.36	0.42
1:k:308:SER:OG	1:k:309:SER:N	2.49	0.42
1:D:92:ASP:OD1	1:D:93:SER:N	2.52	0.42
1:J:173:GLN:OE1	1:J:187:THR:OG1	2.24	0.42
1:J:231:GLY:N	1:J:260:PHE:O	2.53	0.42
1:O:67:LYS:HB2	1:O:67:LYS:HE2	1.82	0.42
1:Q:428:VAL:HG13	1:Q:436:THR:HB	2.01	0.42
1:Y:243:ILE:O	1:Y:249:THR:HA	2.20	0.42
1:Z:100:SER:OG	1:Z:101:SER:N	2.52	0.42
1:a:129:PHE:HD1	1:a:139:VAL:HG12	1.84	0.42
1:e:43:LEU:HD23	1:e:43:LEU:HA	1.87	0.42
1:k:85:GLU:N	1:k:188:SER:O	2.53	0.42
1:E:159:LEU:HA	1:E:159:LEU:HD23	1.83	0.42
1:F:21:VAL:O	1:F:25:MET:HG2	2.19	0.42
1:G:125:ASP:OD1	1:G:126:GLU:N	2.52	0.42
1:G:243:ILE:HB	1:G:288:ILE:HG23	2.02	0.42
1:H:322:LEU:HD12	1:H:322:LEU:HA	1.83	0.42
1:J:268:VAL:HG23	1:J:283:PRO:HG3	2.01	0.42
1:J:282:ASN:OD1	1:J:285:ASP:N	2.51	0.42
1:O:92:ASP:N	1:O:92:ASP:OD1	2.51	0.42
1:Q:313:THR:HG22	1:Q:326:GLN:HE22	1.84	0.42
1:W:365:THR:HB	1:W:427:GLU:HG2	2.02	0.42
1:Z:130:THR:OG1	1:Z:138:SER:HB3	2.19	0.42
1:c:309:SER:O	1:c:309:SER:OG	2.32	0.42
1:c:446:LEU:HD22	1:c:452:VAL:HG11	2.01	0.42
1:g:141:ASN:HD21	1:g:144:THR:HG1	1.62	0.42
1:g:262:VAL:HG22	1:g:268:VAL:HG22	2.02	0.42
1:n:83:GLU:CD	1:n:203:ASP:H	2.28	0.42
1:n:131:ARG:HH22	1:n:134:THR:HA	1.85	0.42
1:B:211:GLU:N	1:B:211:GLU:OE2	2.51	0.41
1:D:176:TYR:C	1:D:176:TYR:CD1	2.98	0.41
1:K:219:ASP:OD1	1:K:219:ASP:N	2.53	0.41
1:M:129:PHE:HA	1:M:138:SER:O	2.20	0.41
1:O:185:ASP:OD1	1:O:185:ASP:N	2.49	0.41
1:U:27:LEU:O	1:U:31:ILE:HG12	2.19	0.41
1:V:345:SER:OG	1:V:410:ARG:HD2	2.20	0.41
1:Z:62:ILE:HD11	1:Z:357:ILE:HG21	2.02	0.41
1:a:159:LEU:HD23	1:a:159:LEU:HA	1.87	0.41
1:a:333:ASP:OD1	1:a:333:ASP:N	2.44	0.41
1:f:91:ILE:HB	1:f:174:ARG:HH12	1.85	0.41
1:h:19:LEU:O	1:h:23:ILE:HG13	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:114:GLY:HA3	1:h:148:THR:HG21	2.01	0.41
1:k:445:THR:O	1:k:446:LEU:HD12	2.20	0.41
1:B:22:PHE:HZ	1:J:39:THR:HG21	1.84	0.41
1:B:85:GLU:N	1:B:188:SER:O	2.53	0.41
1:F:25:MET:HE3	1:J:13:GLN:HB3	2.01	0.41
1:H:276:GLY:O	1:K:269:ARG:NH1	2.53	0.41
1:H:420:THR:HB	1:H:444:ASN:HA	2.01	0.41
1:K:141:ASN:ND2	1:K:144:THR:HB	2.34	0.41
1:W:295:THR:OG1	1:W:303:GLN:OE1	2.38	0.41
1:W:362:THR:HG23	1:W:429:THR:O	2.20	0.41
1:a:95:SER:OG	1:a:96:THR:N	2.53	0.41
1:e:178:ASP:OD2	1:e:181:ASN:N	2.38	0.41
1:f:243:ILE:HD12	1:f:244:THR:H	1.85	0.41
1:l:92:ASP:N	1:l:92:ASP:OD1	2.53	0.41
1:m:23:ILE:O	1:m:26:VAL:HG22	2.20	0.41
1:n:215:PRO:HD3	1:n:330:VAL:HG12	2.02	0.41
1:n:282:ASN:OD1	1:n:284:PHE:HB2	2.20	0.41
1:A:52:GLN:HG3	1:A:53:GLU:N	2.35	0.41
1:A:303:GLN:HG3	1:A:305:ILE:HG12	2.02	0.41
1:B:37:ILE:HG21	1:F:61:GLN:NE2	2.33	0.41
1:B:237:THR:O	1:B:254:GLN:NE2	2.47	0.41
1:B:295:THR:HA	1:B:304:ILE:O	2.20	0.41
1:C:365:THR:CG2	1:C:427:GLU:HB2	2.50	0.41
1:D:89:PHE:HE1	1:D:188:SER:HA	1.85	0.41
1:E:225:ASP:OD1	1:E:226:VAL:N	2.54	0.41
1:F:380:ASN:O	1:F:391:GLN:NE2	2.50	0.41
1:F:418:LEU:HD23	1:F:418:LEU:HA	1.85	0.41
1:H:39:THR:HA	1:H:42:PHE:CE2	2.56	0.41
1:I:341:VAL:N	1:I:418:LEU:O	2.45	0.41
1:I:396:GLU:N	1:I:396:GLU:OE2	2.53	0.41
1:K:192:ASN:OD1	1:K:193:ASP:N	2.53	0.41
1:K:297:GLU:HA	1:K:302:ASP:O	2.21	0.41
1:M:173:GLN:OE1	1:M:173:GLN:N	2.53	0.41
1:N:22:PHE:CE2	1:Q:47:ALA:HB1	2.55	0.41
1:N:71:VAL:CG2	1:N:446:LEU:HD13	2.50	0.41
1:N:288:ILE:HB	1:N:312:ILE:HD13	2.03	0.41
1:O:192:ASN:OD1	1:O:193:ASP:N	2.53	0.41
1:Q:214:LEU:HD23	1:Q:329:LEU:HB2	2.03	0.41
1:S:231:GLY:HA2	1:S:260:PHE:O	2.21	0.41
1:S:355:ASP:O	1:S:356:GLN:HG3	2.20	0.41
1:S:430:THR:HG22	1:S:434:ALA:O	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:83:GLU:HB3	1:d:203:ASP:HB2	2.01	0.41
1:e:243:ILE:HD12	1:e:288:ILE:HD12	2.03	0.41
1:e:283:PRO:HG2	1:e:329:LEU:HB3	2.01	0.41
1:f:139:VAL:HG22	1:f:148:THR:HB	2.01	0.41
1:g:308:SER:OG	1:g:309:SER:N	2.51	0.41
1:h:23:ILE:O	1:h:26:VAL:HG22	2.20	0.41
1:n:366:THR:HB	1:n:424:MET:HE2	2.03	0.41
1:C:109:LEU:HD12	1:C:110:ALA:N	2.36	0.41
1:J:141:ASN:HD21	1:J:144:THR:HB	1.85	0.41
1:J:403:MET:HG2	1:J:409:PHE:CE2	2.55	0.41
1:K:19:LEU:O	1:K:23:ILE:HG13	2.21	0.41
1:M:99:VAL:HG22	1:M:172:PHE:CE1	2.55	0.41
1:Q:131:ARG:NH2	1:Q:206:ASN:HB3	2.35	0.41
1:S:285:ASP:HA	1:S:325:SER:HB2	2.01	0.41
1:S:317:SER:HA	1:S:320:VAL:HG22	2.01	0.41
1:V:37:ILE:HD11	1:Z:24:ALA:CB	2.45	0.41
1:W:19:LEU:HD23	1:W:19:LEU:HA	1.91	0.41
1:Z:219:ASP:CG	1:Z:311:GLN:H	2.29	0.41
1:c:269:ARG:HD2	1:c:278:SER:HB2	2.01	0.41
1:d:357:ILE:HG23	1:d:430:THR:HG23	2.01	0.41
1:e:408:ARG:HH22	1:i:431:GLU:HA	1.86	0.41
1:f:63:GLN:HB3	1:f:349:ILE:HG13	2.03	0.41
1:f:81:ILE:HA	1:f:90:ALA:HA	2.02	0.41
1:f:243:ILE:HD11	1:f:288:ILE:CG2	2.45	0.41
1:g:95:SER:OG	1:g:96:THR:N	2.53	0.41
1:g:169:THR:HA	1:g:191:LEU:O	2.20	0.41
1:g:290:THR:HG21	1:g:306:THR:HG23	2.01	0.41
1:g:317:SER:HA	1:g:320:VAL:HG12	2.01	0.41
1:i:419:GLU:N	1:i:422:GLU:OE2	2.54	0.41
1:k:156:THR:O	1:k:202:ALA:N	2.54	0.41
1:l:100:SER:OG	1:l:101:SER:N	2.53	0.41
1:C:22:PHE:O	1:C:26:VAL:HG23	2.21	0.41
1:F:309:SER:O	1:F:309:SER:OG	2.36	0.41
1:J:99:VAL:HG22	1:J:172:PHE:CE2	2.55	0.41
1:K:402:VAL:HG11	1:N:445:THR:OG1	2.19	0.41
1:M:79:THR:HA	1:M:92:ASP:HA	2.03	0.41
1:S:170:VAL:HG23	1:S:191:LEU:HB2	2.02	0.41
1:U:24:ALA:O	1:U:28:VAL:HG13	2.20	0.41
1:U:297:GLU:HA	1:U:302:ASP:O	2.21	0.41
1:V:74:SER:HB2	1:V:338:GLY:O	2.21	0.41
1:a:419:GLU:N	1:a:422:GLU:OE1	2.53	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:405:ASP:N	1:d:405:ASP:OD1	2.53	0.41
1:e:288:ILE:HB	1:e:312:ILE:HB	2.03	0.41
1:f:131:ARG:HE	1:f:206:ASN:ND2	2.18	0.41
1:k:54:SER:O	1:k:58:VAL:HG23	2.19	0.41
1:n:83:GLU:HB3	1:n:203:ASP:HB2	2.03	0.41
1:n:395:ASP:OD1	1:n:396:GLU:N	2.54	0.41
1:B:131:ARG:CZ	1:B:206:ASN:HB3	2.51	0.41
1:B:290:THR:HG21	1:B:306:THR:HB	2.02	0.41
1:C:211:GLU:OE2	1:C:334:TYR:HB2	2.21	0.41
1:E:360:GLU:HA	1:E:377:TYR:CG	2.56	0.41
1:J:249:THR:C	1:J:250:ILE:HD12	2.45	0.41
1:J:430:THR:O	1:J:430:THR:HG23	2.20	0.41
1:K:418:LEU:HD23	1:K:418:LEU:HA	1.87	0.41
1:M:79:THR:OG1	1:M:209:ASN:HB3	2.21	0.41
1:N:103:SER:O	1:N:103:SER:OG	2.36	0.41
1:N:112:LEU:HB2	1:N:119:VAL:HG13	2.01	0.41
1:S:14:VAL:HG21	1:e:18:THR:HG23	2.02	0.41
1:Y:154:THR:HB	1:Y:155:ASP:H	1.62	0.41
1:Y:159:LEU:HD11	1:Y:170:VAL:HG22	2.03	0.41
1:d:243:ILE:N	1:d:250:ILE:O	2.54	0.41
1:g:159:LEU:HD23	1:g:159:LEU:HA	1.78	0.41
1:m:100:SER:OG	1:m:101:SER:N	2.53	0.41
1:A:223:SER:HB2	1:A:305:ILE:HB	2.03	0.41
1:B:308:SER:OG	1:B:309:SER:N	2.52	0.41
1:C:360:GLU:HA	1:C:377:TYR:CG	2.55	0.41
1:E:115:GLN:OE1	1:E:115:GLN:N	2.53	0.41
1:N:400:LEU:HB3	1:N:401:PRO:HD3	2.02	0.41
1:O:57:GLN:HG3	1:O:432:SER:O	2.20	0.41
1:O:97:LEU:HD12	1:O:174:ARG:HB2	2.02	0.41
1:Q:82:VAL:HA	1:Q:203:ASP:O	2.21	0.41
1:S:231:GLY:CA	1:S:260:PHE:O	2.69	0.41
1:V:153:GLY:O	1:V:156:THR:OG1	2.33	0.41
1:W:185:ASP:OD1	1:W:185:ASP:N	2.53	0.41
1:W:215:PRO:O	1:W:216:LEU:HD23	2.21	0.41
1:a:91:ILE:HD12	1:a:95:SER:HB3	2.02	0.41
1:c:393:VAL:HG11	1:g:374:THR:HG21	2.03	0.41
1:d:22:PHE:O	1:d:26:VAL:HG23	2.21	0.41
1:d:266:ASP:HB3	1:d:282:ASN:ND2	2.36	0.41
1:d:273:GLU:N	1:d:273:GLU:OE2	2.53	0.41
1:d:297:GLU:HA	1:d:302:ASP:O	2.21	0.41
1:d:430:THR:O	1:d:430:THR:CG2	2.68	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:217:THR:HB	1:e:225:ASP:HB3	2.03	0.41
1:g:157:LEU:HB2	1:g:202:ALA:HB3	2.02	0.41
1:h:131:ARG:HH21	1:h:206:ASN:HB3	1.85	0.41
1:i:95:SER:OG	1:i:96:THR:N	2.54	0.41
1:k:71:VAL:HG22	1:k:450:THR:O	2.19	0.41
1:l:68:ILE:HG23	1:l:345:SER:OG	2.21	0.41
1:m:173:GLN:HE21	1:m:173:GLN:HB3	1.58	0.41
1:n:49:GLN:O	1:n:53:GLU:HG3	2.20	0.41
1:n:268:VAL:O	1:n:280:SER:HA	2.20	0.41
1:n:300:ASP:C	1:n:300:ASP:OD1	2.63	0.41
1:A:17:GLY:O	1:A:21:VAL:HG13	2.21	0.41
1:C:100:SER:OG	1:C:101:SER:N	2.54	0.41
1:C:240:SER:HA	1:C:253:ASN:HA	2.01	0.41
1:D:252:ILE:HG23	1:D:256:ASP:OD2	2.20	0.41
1:F:245:VAL:HG12	1:F:248:SER:O	2.21	0.41
1:G:418:LEU:HD23	1:G:418:LEU:HA	1.85	0.41
1:H:91:ILE:HB	1:H:174:ARG:CZ	2.51	0.41
1:J:95:SER:OG	1:J:174:ARG:NH1	2.46	0.41
1:J:95:SER:OG	1:J:96:THR:N	2.54	0.41
1:K:428:VAL:O	1:K:435:THR:HA	2.21	0.41
1:O:22:PHE:O	1:O:26:VAL:HG23	2.20	0.41
1:U:295:THR:HA	1:U:304:ILE:O	2.21	0.41
1:V:113:ASP:HB3	1:V:160:ALA:HB2	2.03	0.41
1:Y:101:SER:N	1:Y:171:THR:OG1	2.45	0.41
1:Z:15:GLY:O	1:Z:18:THR:OG1	2.39	0.41
1:Z:23:ILE:O	1:Z:27:LEU:HG	2.19	0.41
1:a:243:ILE:HG23	1:a:288:ILE:HG23	2.03	0.41
1:c:25:MET:HE3	1:c:25:MET:HB3	1.91	0.41
1:f:95:SER:OG	1:f:96:THR:N	2.52	0.41
1:g:290:THR:OG1	1:g:291:ALA:N	2.54	0.41
1:h:159:LEU:HD23	1:h:159:LEU:HA	1.86	0.41
1:i:97:LEU:HD22	1:i:129:PHE:CE1	2.56	0.41
1:l:83:GLU:CD	1:l:202:ALA:HA	2.46	0.41
1:A:13:GLN:OE1	1:k:21:VAL:HG23	2.21	0.41
1:A:16:ILE:O	1:A:20:ILE:HG13	2.20	0.41
1:B:129:PHE:HD1	1:B:139:VAL:HG22	1.85	0.41
1:B:384:GLU:HG2	1:B:414:ASN:O	2.21	0.41
1:C:126:GLU:O	1:C:127:ILE:HD13	2.19	0.41
1:C:303:GLN:HB3	1:C:305:ILE:HD11	2.03	0.41
1:D:50:THR:O	1:D:54:SER:OG	2.26	0.41
1:D:155:ASP:HB2	1:D:201:SER:OG	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:242:ASP:OD1	1:E:242:ASP:N	2.51	0.41
1:F:362:THR:HG23	1:F:429:THR:O	2.20	0.41
1:H:13:GLN:OE1	1:O:25:MET:HE2	2.20	0.41
1:K:285:ASP:HA	1:K:325:SER:HB2	2.02	0.41
1:M:16:ILE:H	1:M:16:ILE:HG12	1.61	0.41
1:M:25:MET:HE3	1:M:25:MET:HB3	1.83	0.41
1:M:297:GLU:OE1	1:M:302:ASP:N	2.48	0.41
1:M:362:THR:HG23	1:M:429:THR:O	2.20	0.41
1:N:362:THR:HG23	1:N:429:THR:O	2.21	0.41
1:S:62:ILE:HD11	1:S:430:THR:HB	2.03	0.41
1:S:105:GLY:HA3	1:S:166:ASN:O	2.21	0.41
1:U:83:GLU:HA	1:U:88:GLN:HG2	2.03	0.41
1:V:85:GLU:CD	1:V:319:GLU:HB3	2.46	0.41
1:W:192:ASN:OD1	1:W:193:ASP:N	2.54	0.41
1:W:361:GLN:HB2	1:W:431:GLU:HB2	2.03	0.41
1:Y:424:MET:HE2	1:Y:426:LEU:HD21	2.03	0.41
1:a:245:VAL:HG12	1:a:247:SER:H	1.86	0.41
1:a:424:MET:HB3	1:a:440:VAL:HG22	2.03	0.41
1:c:85:GLU:HG2	1:c:188:SER:O	2.21	0.41
1:c:308:SER:OG	1:c:309:SER:N	2.52	0.41
1:c:313:THR:HG23	1:c:326:GLN:NE2	2.36	0.41
1:d:169:THR:HA	1:d:191:LEU:O	2.21	0.41
1:e:109:LEU:HD12	1:e:110:ALA:H	1.86	0.41
1:e:181:ASN:HD22	1:e:322:LEU:HD13	1.86	0.41
1:f:109:LEU:HD12	1:f:110:ALA:H	1.85	0.41
1:f:249:THR:O	1:i:248:SER:HB2	2.20	0.41
1:h:43:LEU:HD23	1:h:43:LEU:HA	1.86	0.41
1:i:223:SER:HB2	1:i:305:ILE:HB	2.03	0.41
1:k:18:THR:HA	1:k:21:VAL:HG22	2.02	0.41
1:l:22:PHE:O	1:l:26:VAL:HG23	2.21	0.41
1:m:392:ALA:HA	1:m:409:PHE:HD2	1.86	0.41
1:m:403:MET:HG2	1:m:409:PHE:CD1	2.55	0.41
1:B:82:VAL:HA	1:B:203:ASP:O	2.22	0.41
1:B:210:THR:HG23	1:B:229:SER:HB3	2.02	0.41
1:E:82:VAL:HA	1:E:203:ASP:O	2.21	0.41
1:E:376:THR:OG1	1:E:377:TYR:N	2.53	0.41
1:E:403:MET:HE2	1:E:409:PHE:CD2	2.56	0.41
1:G:250:ILE:HD12	1:G:251:THR:H	1.85	0.41
1:G:324:THR:OG1	1:G:325:SER:N	2.52	0.41
1:H:95:SER:OG	1:H:96:THR:N	2.54	0.41
1:J:75:GLY:H	1:J:76:PRO:HD2	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:42:PHE:CD1	1:N:42:PHE:C	2.99	0.41
1:O:81:ILE:HD11	1:O:88:GLN:HB3	2.03	0.41
1:S:285:ASP:OD1	1:S:285:ASP:C	2.64	0.41
1:U:285:ASP:N	1:U:285:ASP:OD1	2.53	0.41
1:V:22:PHE:O	1:V:26:VAL:HG23	2.21	0.41
1:V:131:ARG:HA	1:V:137:ILE:HD13	2.02	0.41
1:V:256:ASP:HB2	1:V:272:ASN:HD21	1.85	0.41
1:Y:374:THR:O	1:Y:374:THR:OG1	2.38	0.41
1:c:100:SER:OG	1:c:101:SER:N	2.54	0.41
1:e:154:THR:O	1:e:203:ASP:HA	2.21	0.41
1:f:269:ARG:NH2	1:i:275:THR:O	2.46	0.41
1:f:285:ASP:HA	1:f:325:SER:HB2	2.02	0.41
1:i:97:LEU:HD12	1:i:174:ARG:HG2	2.03	0.41
1:k:143:GLU:HG3	1:k:144:THR:HG23	2.02	0.41
1:l:186:ILE:HD12	1:l:186:ILE:O	2.21	0.41
1:l:418:LEU:HD23	1:l:418:LEU:HA	1.82	0.41
1:m:85:GLU:HG3	1:m:319:GLU:HB3	2.02	0.41
1:m:130:THR:HG23	1:m:138:SER:HB3	2.02	0.41
1:m:357:ILE:HB	1:m:403:MET:HB2	2.03	0.41
1:A:170:VAL:HG23	1:A:191:LEU:HB2	2.04	0.40
1:A:173:GLN:NE2	1:A:187:THR:OG1	2.53	0.40
1:B:361:GLN:NE2	1:m:394:GLN:OE1	2.54	0.40
1:B:362:THR:HG23	1:B:429:THR:O	2.21	0.40
1:D:358:ASN:HB3	1:D:360:GLU:OE2	2.21	0.40
1:E:226:VAL:HG11	1:E:304:ILE:HD11	2.03	0.40
1:E:233:THR:HG22	1:E:259:THR:OG1	2.21	0.40
1:I:175:THR:HG22	1:I:185:ASP:HB3	2.02	0.40
1:I:243:ILE:O	1:I:249:THR:OG1	2.36	0.40
1:J:272:ASN:O	1:J:276:GLY:N	2.54	0.40
1:K:64:VAL:HG13	1:K:346:VAL:HG13	2.03	0.40
1:N:322:LEU:HD12	1:N:322:LEU:HA	1.86	0.40
1:O:73:GLY:HA2	1:O:339:GLY:HA2	2.03	0.40
1:O:229:SER:OG	1:O:230:ASP:OD1	2.39	0.40
1:Q:119:VAL:HG13	1:Q:148:THR:HG23	2.02	0.40
1:Q:443:PRO:HD2	1:Q:446:LEU:HD21	2.03	0.40
1:Y:159:LEU:HD23	1:Y:159:LEU:HA	1.82	0.40
1:Z:116:ASP:HB3	1:Z:148:THR:HA	2.02	0.40
1:c:83:GLU:HG2	1:c:203:ASP:H	1.86	0.40
1:g:71:VAL:HG22	1:g:341:VAL:HA	2.01	0.40
1:g:100:SER:HB3	1:g:173:GLN:HB3	2.04	0.40
1:h:324:THR:OG1	1:h:325:SER:N	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:181:ASN:HB3	1:m:322:LEU:HD11	2.04	0.40
1:n:296:LEU:HD12	1:n:296:LEU:HA	1.83	0.40
1:A:355:ASP:N	1:A:355:ASP:OD2	2.54	0.40
1:C:322:LEU:HD12	1:C:322:LEU:O	2.21	0.40
1:C:365:THR:HG22	1:C:427:GLU:HB2	2.02	0.40
1:C:418:LEU:HD23	1:C:419:GLU:O	2.22	0.40
1:D:355:ASP:OD2	1:D:355:ASP:N	2.54	0.40
1:F:192:ASN:OD1	1:F:193:ASP:N	2.53	0.40
1:G:195:GLU:H	1:G:195:GLU:CD	2.28	0.40
1:H:159:LEU:HA	1:H:159:LEU:HD23	1.84	0.40
1:J:270:ILE:HD12	1:J:270:ILE:HA	1.85	0.40
1:M:394:GLN:NE2	1:Q:361:GLN:OE1	2.54	0.40
1:O:297:GLU:OE1	1:O:303:GLN:HA	2.21	0.40
1:Q:81:ILE:HG23	1:Q:205:GLU:HB2	2.03	0.40
1:Q:430:THR:HG22	1:Q:430:THR:O	2.21	0.40
1:S:299:ASP:O	1:S:300:ASP:OD2	2.40	0.40
1:Y:99:VAL:HG23	1:Y:125:ASP:O	2.21	0.40
1:Z:400:LEU:HB3	1:Z:401:PRO:HD3	2.02	0.40
1:e:196:SER:O	1:e:197:THR:HG22	2.22	0.40
1:e:332:GLU:H	1:e:332:GLU:CD	2.25	0.40
1:g:19:LEU:HD23	1:g:19:LEU:HA	1.95	0.40
1:i:49:GLN:O	1:i:53:GLU:HG3	2.22	0.40
1:i:111:ASN:HB2	1:i:118:GLU:HG2	2.03	0.40
1:l:186:ILE:HG22	1:l:320:VAL:HG12	2.04	0.40
1:m:95:SER:OG	1:m:96:THR:N	2.54	0.40
1:m:231:GLY:HA2	1:m:260:PHE:O	2.21	0.40
1:B:141:ASN:OD1	1:B:146:ALA:N	2.54	0.40
1:C:159:LEU:HD23	1:C:159:LEU:HA	1.91	0.40
1:F:157:LEU:HD12	1:F:157:LEU:HA	1.84	0.40
1:F:403:MET:HG2	1:F:409:PHE:CE2	2.56	0.40
1:G:304:ILE:HD12	1:G:304:ILE:HA	1.87	0.40
1:H:223:SER:HB2	1:H:305:ILE:HB	2.04	0.40
1:J:331:ASN:OD1	1:J:331:ASN:N	2.45	0.40
1:K:243:ILE:HG12	1:K:252:ILE:HD11	2.04	0.40
1:N:130:THR:OG1	1:N:131:ARG:N	2.54	0.40
1:O:16:ILE:HG22	1:S:43:LEU:HD22	2.03	0.40
1:S:355:ASP:OD1	1:S:355:ASP:N	2.52	0.40
1:W:292:SER:O	1:W:308:SER:N	2.53	0.40
1:Y:19:LEU:O	1:Y:23:ILE:HG13	2.22	0.40
1:Y:131:ARG:NH2	1:Y:206:ASN:HB3	2.36	0.40
1:Z:226:VAL:HG22	1:Z:302:ASP:OD2	2.22	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:130:THR:HG23	1:n:138:SER:HB3	2.04	0.40
1:C:129:PHE:HD2	1:C:139:VAL:HG12	1.86	0.40
1:C:419:GLU:HB2	1:C:422:GLU:OE1	2.21	0.40
1:D:214:LEU:HB2	1:D:228:VAL:HG12	2.02	0.40
1:G:21:VAL:O	1:G:25:MET:HG2	2.20	0.40
1:O:229:SER:OG	1:O:230:ASP:N	2.55	0.40
1:O:289:ASP:HB3	1:O:311:GLN:HG3	2.02	0.40
1:O:324:THR:OG1	1:O:325:SER:N	2.54	0.40
1:V:176:TYR:OH	1:V:330:VAL:HG23	2.21	0.40
1:W:285:ASP:HA	1:W:325:SER:HB3	2.04	0.40
1:W:308:SER:OG	1:W:309:SER:N	2.54	0.40
1:Y:49:GLN:HG3	1:c:439:ARG:HH12	1.86	0.40
1:c:288:ILE:HB	1:c:312:ILE:HB	2.03	0.40
1:d:95:SER:OG	1:d:96:THR:N	2.54	0.40
1:d:111:ASN:HB3	1:d:118:GLU:HB3	2.03	0.40
1:f:260:PHE:CE1	1:f:270:ILE:HG23	2.57	0.40
1:h:367:ILE:HD13	1:h:372:THR:HB	2.04	0.40
1:l:211:GLU:HG3	1:l:334:TYR:HB2	2.04	0.40
1:m:220:ASP:HB3	1:m:305:ILE:HB	2.03	0.40
1:m:226:VAL:HG12	1:m:304:ILE:HD11	2.04	0.40
1:m:329:LEU:HD12	1:m:330:VAL:N	2.37	0.40
1:C:304:ILE:HD13	1:C:304:ILE:HA	1.98	0.40
1:K:186:ILE:HG22	1:K:320:VAL:HG22	2.03	0.40
1:O:79:THR:OG1	1:O:91:ILE:O	2.24	0.40
1:O:166:ASN:HB2	1:O:194:GLY:HA2	2.04	0.40
1:S:116:ASP:HB3	1:S:148:THR:HA	2.03	0.40
1:S:131:ARG:NH1	1:S:206:ASN:HB3	2.37	0.40
1:S:191:LEU:HD23	1:S:200:VAL:HG23	2.04	0.40
1:S:265:ASN:C	1:S:265:ASN:HD22	2.28	0.40
1:U:444:ASN:OD1	1:U:444:ASN:C	2.65	0.40
1:V:67:LYS:O	1:V:68:ILE:HD13	2.21	0.40
1:W:226:VAL:HG11	1:W:304:ILE:HD11	2.03	0.40
1:Y:357:ILE:HB	1:Y:403:MET:HB3	2.04	0.40
1:Z:349:ILE:HD12	1:e:433:GLY:HA2	2.02	0.40
1:d:214:LEU:HB3	1:d:216:LEU:HD21	2.03	0.40
1:e:131:ARG:HH12	1:e:134:THR:HA	1.86	0.40
1:f:251:THR:HG21	1:i:247:SER:HB2	2.02	0.40
1:g:303:GLN:HG3	1:g:305:ILE:HG12	2.03	0.40
1:h:313:THR:HG23	1:h:326:GLN:HE22	1.86	0.40
1:k:213:TYR:CD1	1:k:227:ILE:HG23	2.57	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	440/454 (97%)	409 (93%)	31 (7%)	0	100	100
1	B	440/454 (97%)	413 (94%)	27 (6%)	0	100	100
1	C	426/454 (94%)	404 (95%)	22 (5%)	0	100	100
1	D	436/454 (96%)	403 (92%)	33 (8%)	0	100	100
1	E	438/454 (96%)	405 (92%)	33 (8%)	0	100	100
1	F	440/454 (97%)	413 (94%)	27 (6%)	0	100	100
1	G	440/454 (97%)	415 (94%)	25 (6%)	0	100	100
1	H	435/454 (96%)	404 (93%)	31 (7%)	0	100	100
1	I	440/454 (97%)	403 (92%)	37 (8%)	0	100	100
1	J	436/454 (96%)	405 (93%)	31 (7%)	0	100	100
1	K	440/454 (97%)	404 (92%)	36 (8%)	0	100	100
1	M	440/454 (97%)	409 (93%)	31 (7%)	0	100	100
1	N	435/454 (96%)	401 (92%)	34 (8%)	0	100	100
1	O	440/454 (97%)	405 (92%)	35 (8%)	0	100	100
1	Q	440/454 (97%)	409 (93%)	30 (7%)	1 (0%)	43	72
1	S	440/454 (97%)	405 (92%)	33 (8%)	2 (0%)	24	57
1	U	436/454 (96%)	405 (93%)	31 (7%)	0	100	100
1	V	440/454 (97%)	413 (94%)	27 (6%)	0	100	100
1	W	440/454 (97%)	403 (92%)	37 (8%)	0	100	100
1	Y	440/454 (97%)	407 (92%)	33 (8%)	0	100	100
1	Z	436/454 (96%)	404 (93%)	32 (7%)	0	100	100
1	a	440/454 (97%)	417 (95%)	23 (5%)	0	100	100
1	c	437/454 (96%)	406 (93%)	31 (7%)	0	100	100
1	d	440/454 (97%)	414 (94%)	26 (6%)	0	100	100
1	e	440/454 (97%)	409 (93%)	31 (7%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	f	433/454 (95%)	412 (95%)	21 (5%)	0	100	100
1	g	436/454 (96%)	406 (93%)	30 (7%)	0	100	100
1	h	440/454 (97%)	406 (92%)	34 (8%)	0	100	100
1	i	440/454 (97%)	412 (94%)	27 (6%)	1 (0%)	43	72
1	k	440/454 (97%)	408 (93%)	32 (7%)	0	100	100
1	l	435/454 (96%)	408 (94%)	26 (6%)	1 (0%)	43	72
1	m	440/454 (97%)	413 (94%)	27 (6%)	0	100	100
1	n	434/454 (96%)	407 (94%)	27 (6%)	0	100	100
All	All	14453/14982 (96%)	13457 (93%)	991 (7%)	5 (0%)	100	100

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	l	107	SER
1	Q	166	ASN
1	S	296	LEU
1	S	297	GLU
1	i	166	ASN

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	369/380 (97%)	356 (96%)	13 (4%)	32	61
1	B	369/380 (97%)	357 (97%)	12 (3%)	33	62
1	C	363/380 (96%)	358 (99%)	5 (1%)	59	74
1	D	369/380 (97%)	356 (96%)	13 (4%)	32	61
1	E	367/380 (97%)	359 (98%)	8 (2%)	45	68
1	F	369/380 (97%)	357 (97%)	12 (3%)	33	62
1	G	369/380 (97%)	361 (98%)	8 (2%)	45	68

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	H	367/380 (97%)	359 (98%)	8 (2%)	45	68
1	I	369/380 (97%)	360 (98%)	9 (2%)	43	67
1	J	369/380 (97%)	360 (98%)	9 (2%)	43	67
1	K	369/380 (97%)	362 (98%)	7 (2%)	50	70
1	M	369/380 (97%)	355 (96%)	14 (4%)	29	59
1	N	367/380 (97%)	355 (97%)	12 (3%)	33	62
1	O	369/380 (97%)	356 (96%)	13 (4%)	32	61
1	Q	369/380 (97%)	361 (98%)	8 (2%)	45	68
1	S	369/380 (97%)	356 (96%)	13 (4%)	32	61
1	U	369/380 (97%)	356 (96%)	13 (4%)	32	61
1	V	369/380 (97%)	350 (95%)	19 (5%)	21	51
1	W	369/380 (97%)	354 (96%)	15 (4%)	27	57
1	Y	369/380 (97%)	353 (96%)	16 (4%)	26	56
1	Z	369/380 (97%)	355 (96%)	14 (4%)	29	59
1	a	369/380 (97%)	356 (96%)	13 (4%)	32	61
1	c	369/380 (97%)	362 (98%)	7 (2%)	50	70
1	d	369/380 (97%)	354 (96%)	15 (4%)	27	57
1	e	369/380 (97%)	367 (100%)	2 (0%)	81	83
1	f	368/380 (97%)	359 (98%)	9 (2%)	43	67
1	g	369/380 (97%)	362 (98%)	7 (2%)	50	70
1	h	369/380 (97%)	359 (97%)	10 (3%)	39	65
1	i	369/380 (97%)	362 (98%)	7 (2%)	50	70
1	k	369/380 (97%)	354 (96%)	15 (4%)	27	57
1	l	368/380 (97%)	347 (94%)	21 (6%)	18	48
1	m	369/380 (97%)	360 (98%)	9 (2%)	43	67
1	n	367/380 (97%)	361 (98%)	6 (2%)	55	72
All	All	12161/12540 (97%)	11799 (97%)	362 (3%)	37	63

All (362) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	52	GLN
1	A	71	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	78	ASP
1	A	111	ASN
1	A	133	SER
1	A	228	VAL
1	A	233	THR
1	A	295	THR
1	A	315	LEU
1	A	329	LEU
1	A	331	ASN
1	A	372	THR
1	A	376	THR
1	B	43	LEU
1	B	71	VAL
1	B	156	THR
1	B	259	THR
1	B	270	ILE
1	B	312	ILE
1	B	328	LEU
1	B	347	ILE
1	B	349	ILE
1	B	376	THR
1	B	404	THR
1	B	442	VAL
1	C	81	ILE
1	C	148	THR
1	C	228	VAL
1	C	376	THR
1	C	397	ASP
1	D	21	VAL
1	D	36	LEU
1	D	71	VAL
1	D	300	ASP
1	D	307	THR
1	D	331	ASN
1	D	386	GLU
1	D	404	THR
1	D	410	ARG
1	D	417	THR
1	D	440	VAL
1	D	445	THR
1	D	454	VAL
1	E	26	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	133	SER
1	E	134	THR
1	E	262	VAL
1	E	281	PHE
1	E	287	GLN
1	E	322	LEU
1	E	404	THR
1	F	127	ILE
1	F	189	VAL
1	F	259	THR
1	F	300	ASP
1	F	312	ILE
1	F	365	THR
1	F	367	ILE
1	F	376	THR
1	F	404	THR
1	F	423	THR
1	F	425	THR
1	F	428	VAL
1	G	81	ILE
1	G	102	THR
1	G	138	SER
1	G	157	LEU
1	G	189	VAL
1	G	217	THR
1	G	383	THR
1	G	431	GLU
1	H	331	ASN
1	H	361	GLN
1	H	366	THR
1	H	383	THR
1	H	397	ASP
1	H	403	MET
1	H	436	THR
1	H	444	ASN
1	I	42	PHE
1	I	60	ASN
1	I	82	VAL
1	I	206	ASN
1	I	253	ASN
1	I	260	PHE
1	I	361	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	I	408	ARG
1	I	428	VAL
1	J	49	GLN
1	J	200	VAL
1	J	250	ILE
1	J	251	THR
1	J	257	ASP
1	J	322	LEU
1	J	323	THR
1	J	380	ASN
1	J	428	VAL
1	K	44	GLN
1	K	71	VAL
1	K	81	ILE
1	K	102	THR
1	K	245	VAL
1	K	372	THR
1	K	375	LEU
1	M	43	LEU
1	M	102	THR
1	M	109	LEU
1	M	165	THR
1	M	189	VAL
1	M	203	ASP
1	M	228	VAL
1	M	262	VAL
1	M	317	SER
1	M	367	ILE
1	M	393	VAL
1	M	397	ASP
1	M	428	VAL
1	M	435	THR
1	N	64	VAL
1	N	71	VAL
1	N	119	VAL
1	N	130	THR
1	N	365	THR
1	N	367	ILE
1	N	404	THR
1	N	410	ARG
1	N	412	ILE
1	N	430	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	N	431	GLU
1	N	435	THR
1	O	13	GLN
1	O	14	VAL
1	O	62	ILE
1	O	81	ILE
1	O	87	ILE
1	O	92	ASP
1	O	151	SER
1	O	156	THR
1	O	189	VAL
1	O	217	THR
1	O	303	GLN
1	O	330	VAL
1	O	375	LEU
1	Q	14	VAL
1	Q	228	VAL
1	Q	250	ILE
1	Q	262	VAL
1	Q	397	ASP
1	Q	413	VAL
1	Q	428	VAL
1	Q	442	VAL
1	S	42	PHE
1	S	78	ASP
1	S	80	ILE
1	S	82	VAL
1	S	258	VAL
1	S	259	THR
1	S	294	LEU
1	S	296	LEU
1	S	322	LEU
1	S	367	ILE
1	S	384	GLU
1	S	428	VAL
1	S	445	THR
1	U	42	PHE
1	U	43	LEU
1	U	68	ILE
1	U	133	SER
1	U	185	ASP
1	U	251	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	U	270	ILE
1	U	349	ILE
1	U	362	THR
1	U	366	THR
1	U	412	ILE
1	U	428	VAL
1	U	440	VAL
1	V	13	GLN
1	V	20	ILE
1	V	96	THR
1	V	102	THR
1	V	111	ASN
1	V	188	SER
1	V	221	SER
1	V	224	ASP
1	V	270	ILE
1	V	271	THR
1	V	279	VAL
1	V	285	ASP
1	V	322	LEU
1	V	343	GLU
1	V	366	THR
1	V	428	VAL
1	V	430	THR
1	V	436	THR
1	V	440	VAL
1	W	27	LEU
1	W	35	VAL
1	W	53	GLU
1	W	57	GLN
1	W	64	VAL
1	W	126	GLU
1	W	156	THR
1	W	262	VAL
1	W	288	ILE
1	W	300	ASP
1	W	325	SER
1	W	336	THR
1	W	428	VAL
1	W	430	THR
1	W	431	GLU
1	Y	57	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	Y	78	ASP
1	Y	92	ASP
1	Y	95	SER
1	Y	106	ASP
1	Y	130	THR
1	Y	164	ASP
1	Y	180	VAL
1	Y	185	ASP
1	Y	227	ILE
1	Y	352	SER
1	Y	372	THR
1	Y	375	LEU
1	Y	383	THR
1	Y	393	VAL
1	Y	397	ASP
1	Z	18	THR
1	Z	43	LEU
1	Z	52	GLN
1	Z	64	VAL
1	Z	82	VAL
1	Z	111	ASN
1	Z	119	VAL
1	Z	187	THR
1	Z	214	LEU
1	Z	243	ILE
1	Z	261	ASP
1	Z	277	ASP
1	Z	279	VAL
1	Z	320	VAL
1	a	25	MET
1	a	54	SER
1	a	81	ILE
1	a	91	ILE
1	a	102	THR
1	a	175	THR
1	a	180	VAL
1	a	185	ASP
1	a	224	ASP
1	a	238	SER
1	a	295	THR
1	a	345	SER
1	a	404	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	c	106	ASP
1	c	119	VAL
1	c	144	THR
1	c	164	ASP
1	c	184	VAL
1	c	224	ASP
1	c	430	THR
1	d	106	ASP
1	d	148	THR
1	d	150	VAL
1	d	152	GLU
1	d	164	ASP
1	d	184	VAL
1	d	222	ASN
1	d	228	VAL
1	d	245	VAL
1	d	327	VAL
1	d	331	ASN
1	d	393	VAL
1	d	396	GLU
1	d	397	ASP
1	d	440	VAL
1	e	165	THR
1	e	325	SER
1	f	42	PHE
1	f	44	GLN
1	f	78	ASP
1	f	81	ILE
1	f	164	ASP
1	f	200	VAL
1	f	271	THR
1	f	330	VAL
1	f	375	LEU
1	g	27	LEU
1	g	56	ASP
1	g	81	ILE
1	g	227	ILE
1	g	295	THR
1	g	333	ASP
1	g	428	VAL
1	h	36	LEU
1	h	82	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	h	83	GLU
1	h	130	THR
1	h	139	VAL
1	h	150	VAL
1	h	217	THR
1	h	241	SER
1	h	270	ILE
1	h	372	THR
1	i	82	VAL
1	i	190	THR
1	i	262	VAL
1	i	285	ASP
1	i	300	ASP
1	i	331	ASN
1	i	410	ARG
1	k	46	SER
1	k	102	THR
1	k	132	GLU
1	k	133	SER
1	k	167	ASP
1	k	185	ASP
1	k	189	VAL
1	k	224	ASP
1	k	270	ILE
1	k	306	THR
1	k	322	LEU
1	k	331	ASN
1	k	341	VAL
1	k	428	VAL
1	k	440	VAL
1	l	50	THR
1	l	57	GLN
1	l	91	ILE
1	l	106	ASP
1	l	132	GLU
1	l	143	GLU
1	l	209	ASN
1	l	214	LEU
1	l	221	SER
1	l	261	ASP
1	l	262	VAL
1	l	274	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	l	300	ASP
1	l	331	ASN
1	l	352	SER
1	l	359	LEU
1	l	372	THR
1	l	418	LEU
1	l	420	THR
1	l	429	THR
1	l	440	VAL
1	m	77	THR
1	m	130	THR
1	m	132	GLU
1	m	163	SER
1	m	214	LEU
1	m	295	THR
1	m	331	ASN
1	m	359	LEU
1	m	363	THR
1	n	42	PHE
1	n	253	ASN
1	n	330	VAL
1	n	331	ASN
1	n	349	ILE
1	n	413	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (127) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	57	GLN
1	A	361	GLN
1	B	13	GLN
1	B	57	GLN
1	B	166	ASN
1	B	173	GLN
1	B	181	ASN
1	B	286	ASN
1	B	361	GLN
1	B	394	GLN
1	C	63	GLN
1	C	173	GLN
1	C	181	ASN
1	C	303	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	391	GLN
1	D	57	GLN
1	D	212	GLN
1	D	356	GLN
1	D	380	ASN
1	E	272	ASN
1	E	331	ASN
1	E	380	ASN
1	F	61	GLN
1	F	208	GLN
1	F	265	ASN
1	F	272	ASN
1	F	326	GLN
1	F	331	ASN
1	G	13	GLN
1	G	63	GLN
1	G	286	ASN
1	G	394	GLN
1	H	181	ASN
1	H	272	ASN
1	I	57	GLN
1	I	63	GLN
1	I	206	ASN
1	I	254	GLN
1	I	326	GLN
1	I	358	ASN
1	I	394	GLN
1	J	63	GLN
1	J	356	GLN
1	K	44	GLN
1	K	212	GLN
1	K	358	ASN
1	M	60	ASN
1	M	173	GLN
1	M	272	ASN
1	M	287	GLN
1	M	303	GLN
1	M	391	GLN
1	M	394	GLN
1	N	60	ASN
1	N	111	ASN
1	N	265	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	N	331	ASN
1	N	380	ASN
1	O	57	GLN
1	Q	49	GLN
1	S	123	GLN
1	S	286	ASN
1	U	253	ASN
1	U	331	ASN
1	U	380	ASN
1	V	49	GLN
1	W	44	GLN
1	W	265	ASN
1	W	331	ASN
1	W	361	GLN
1	Y	141	ASN
1	Y	222	ASN
1	Y	326	GLN
1	Z	63	GLN
1	Z	254	GLN
1	Z	326	GLN
1	Z	331	ASN
1	Z	394	GLN
1	a	57	GLN
1	a	209	ASN
1	a	272	ASN
1	a	326	GLN
1	a	358	ASN
1	a	394	GLN
1	d	173	GLN
1	d	286	ASN
1	e	57	GLN
1	e	61	GLN
1	e	123	GLN
1	e	265	ASN
1	e	380	ASN
1	f	52	GLN
1	f	265	ASN
1	f	272	ASN
1	f	286	ASN
1	f	326	GLN
1	f	356	GLN
1	f	358	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	g	63	GLN
1	g	111	ASN
1	g	265	ASN
1	g	272	ASN
1	g	286	ASN
1	g	444	ASN
1	h	208	GLN
1	h	209	ASN
1	h	253	ASN
1	i	181	ASN
1	i	356	GLN
1	k	60	ASN
1	k	166	ASN
1	k	173	GLN
1	k	181	ASN
1	k	254	GLN
1	k	272	ASN
1	k	326	GLN
1	k	373	ASN
1	l	192	ASN
1	l	209	ASN
1	l	414	ASN
1	m	38	ASN
1	m	63	GLN
1	m	88	GLN
1	m	326	GLN
1	n	286	ASN
1	n	303	GLN
1	n	331	ASN

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

Of 33 ligands modelled in this entry, 33 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

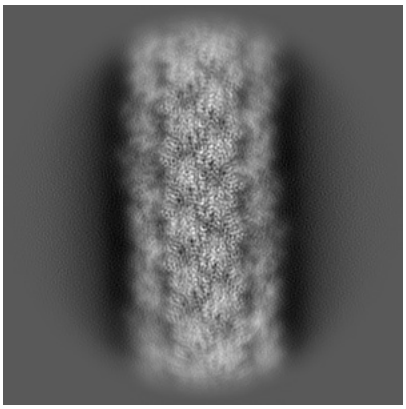
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-64861. These allow visual inspection of the internal detail of the map and identification of artifacts.

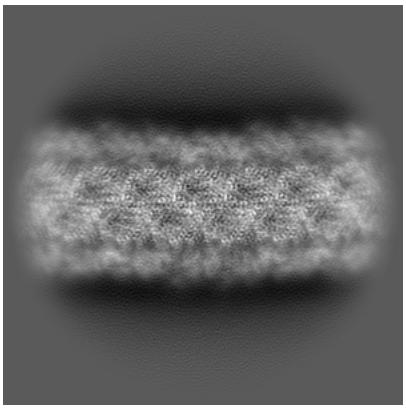
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

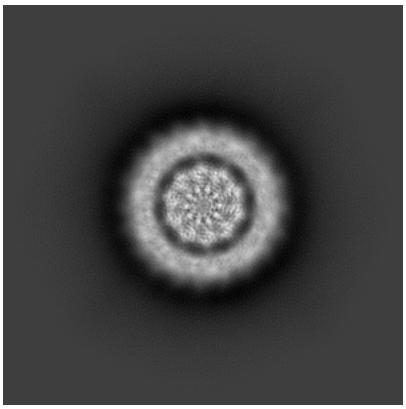
6.1.1 Primary map



X

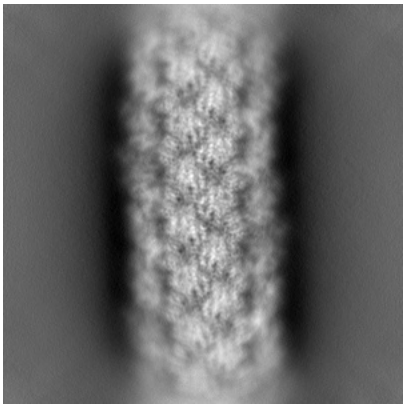


Y

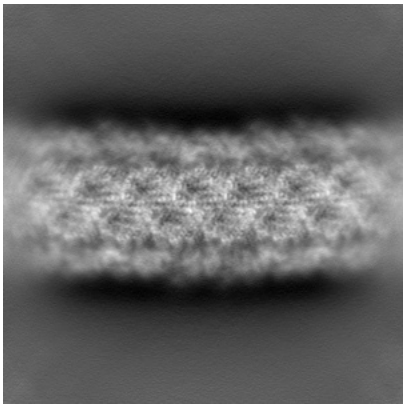


Z

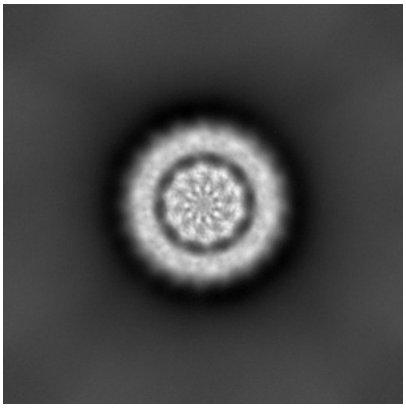
6.1.2 Raw map



X



Y

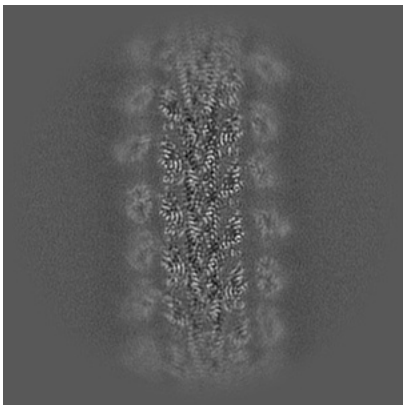


Z

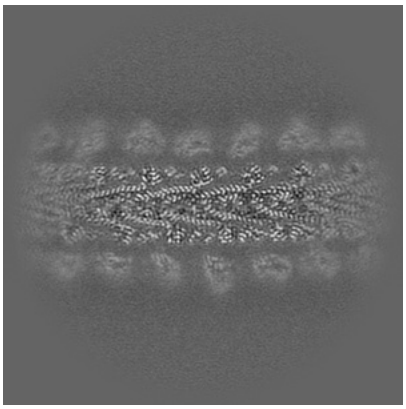
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

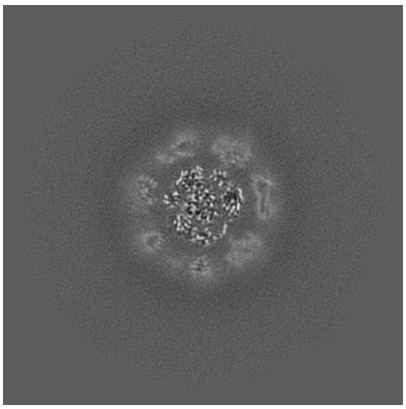
6.2.1 Primary map



X Index: 200

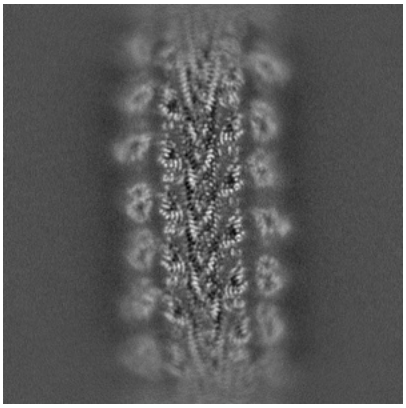


Y Index: 200

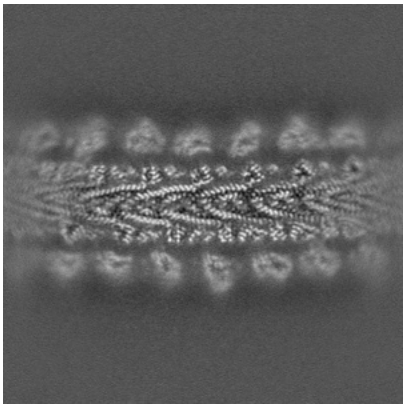


Z Index: 200

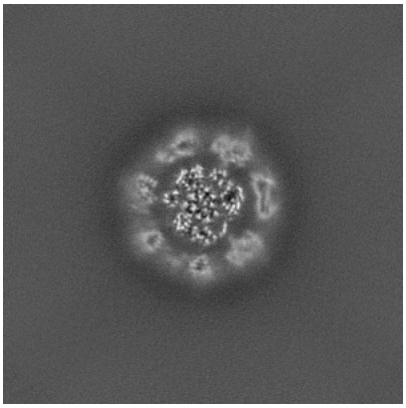
6.2.2 Raw map



X Index: 200



Y Index: 200

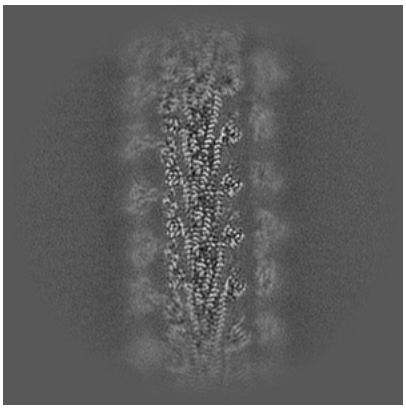


Z Index: 200

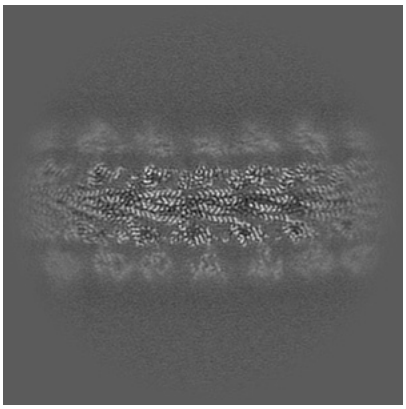
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

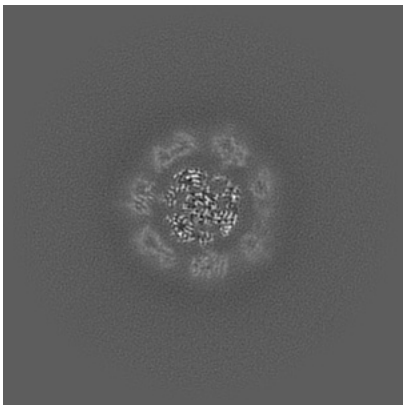
6.3.1 Primary map



X Index: 206

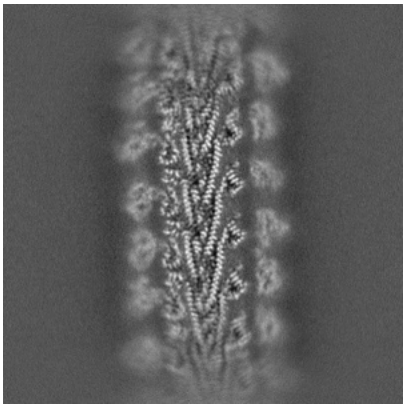


Y Index: 209

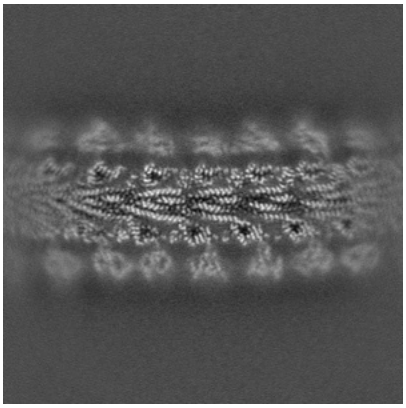


Z Index: 207

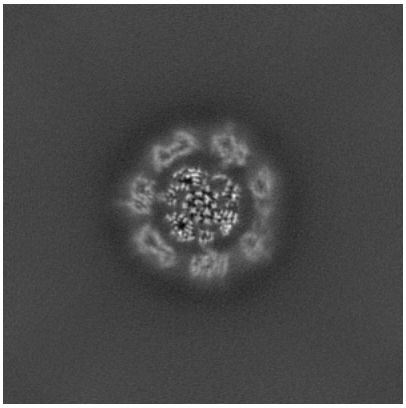
6.3.2 Raw map



X Index: 204



Y Index: 209

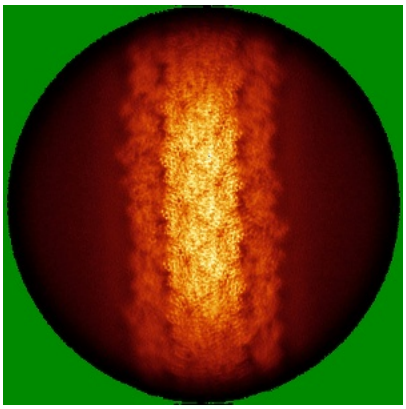


Z Index: 207

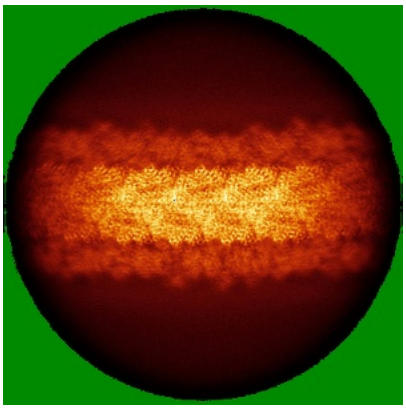
The images above show the largest variance slices of the map in three orthogonal directions.

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

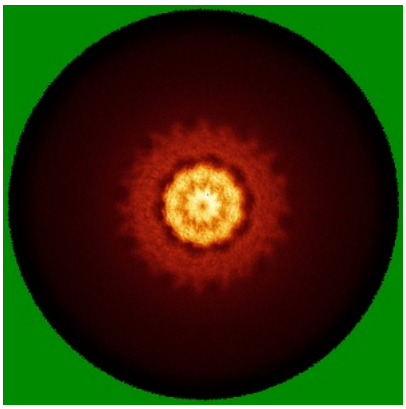
6.4.1 Primary map



X

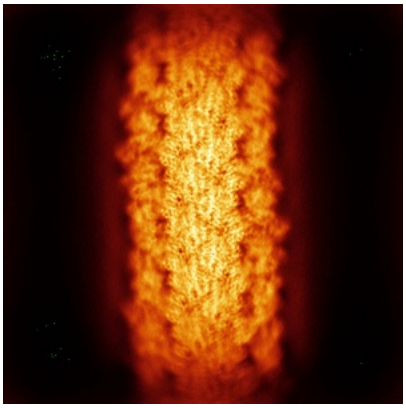


Y

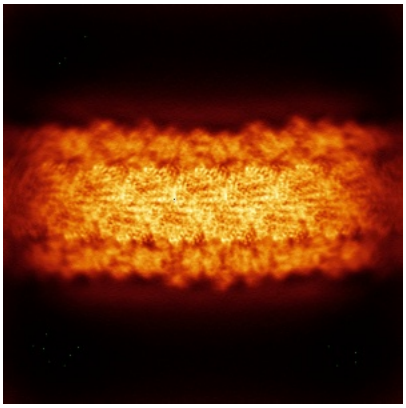


Z

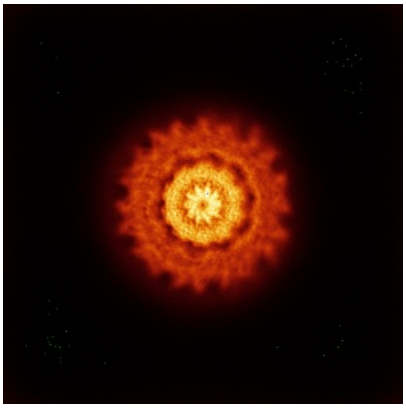
6.4.2 Raw map



X



Y

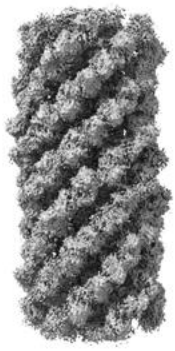


Z

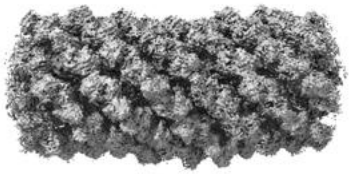
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

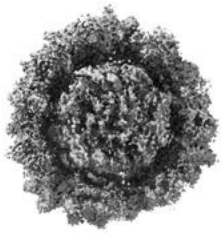
6.5.1 Primary map



X



Y

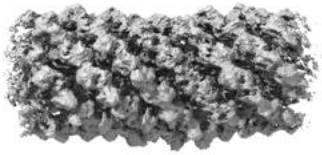


Z

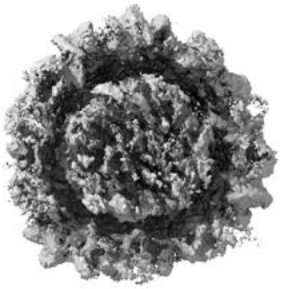
The images above show the 3D surface view of the map at the recommended contour level 0.35. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

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.

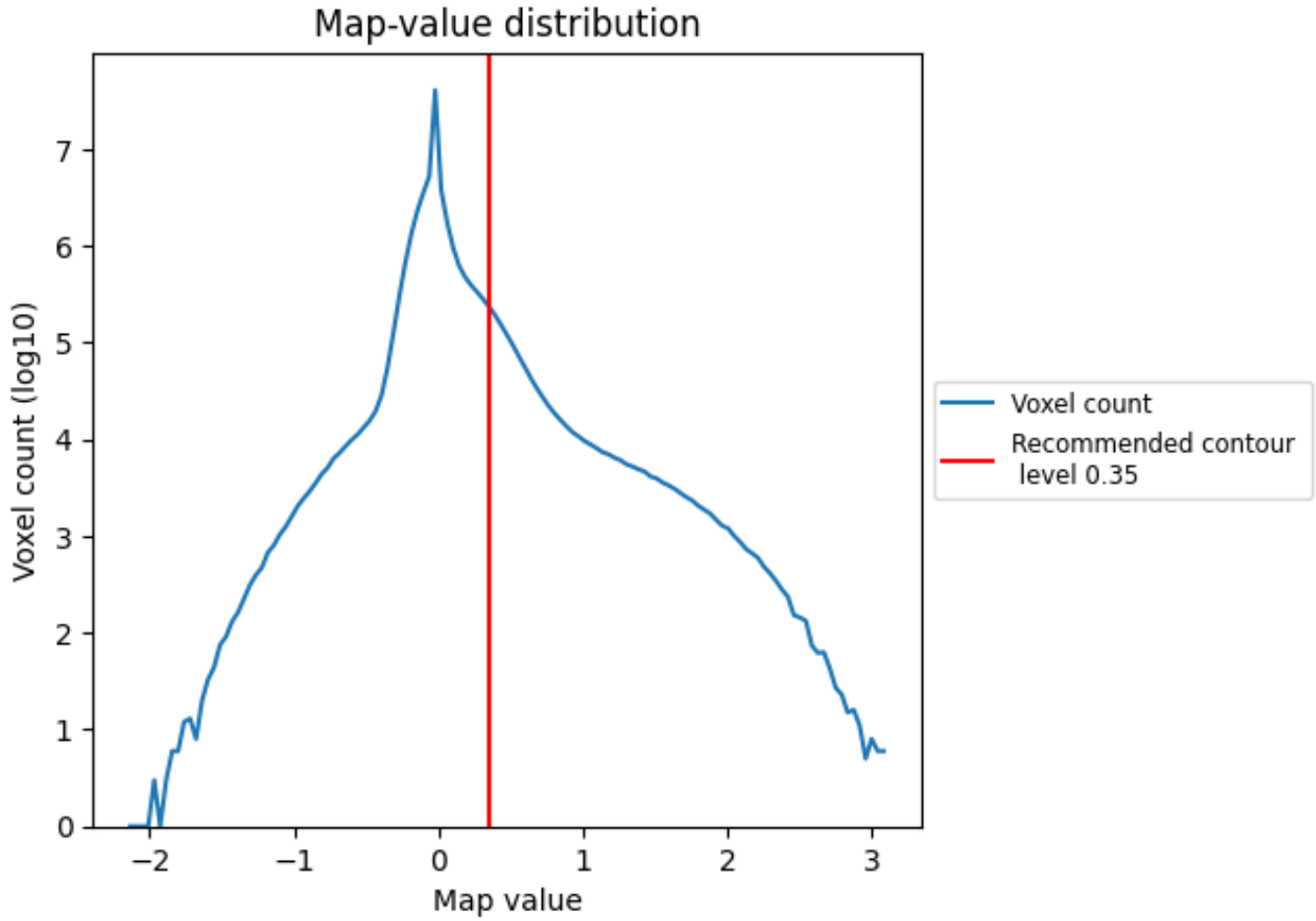
6.6 Mask visualisation (i)

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

7 Map analysis

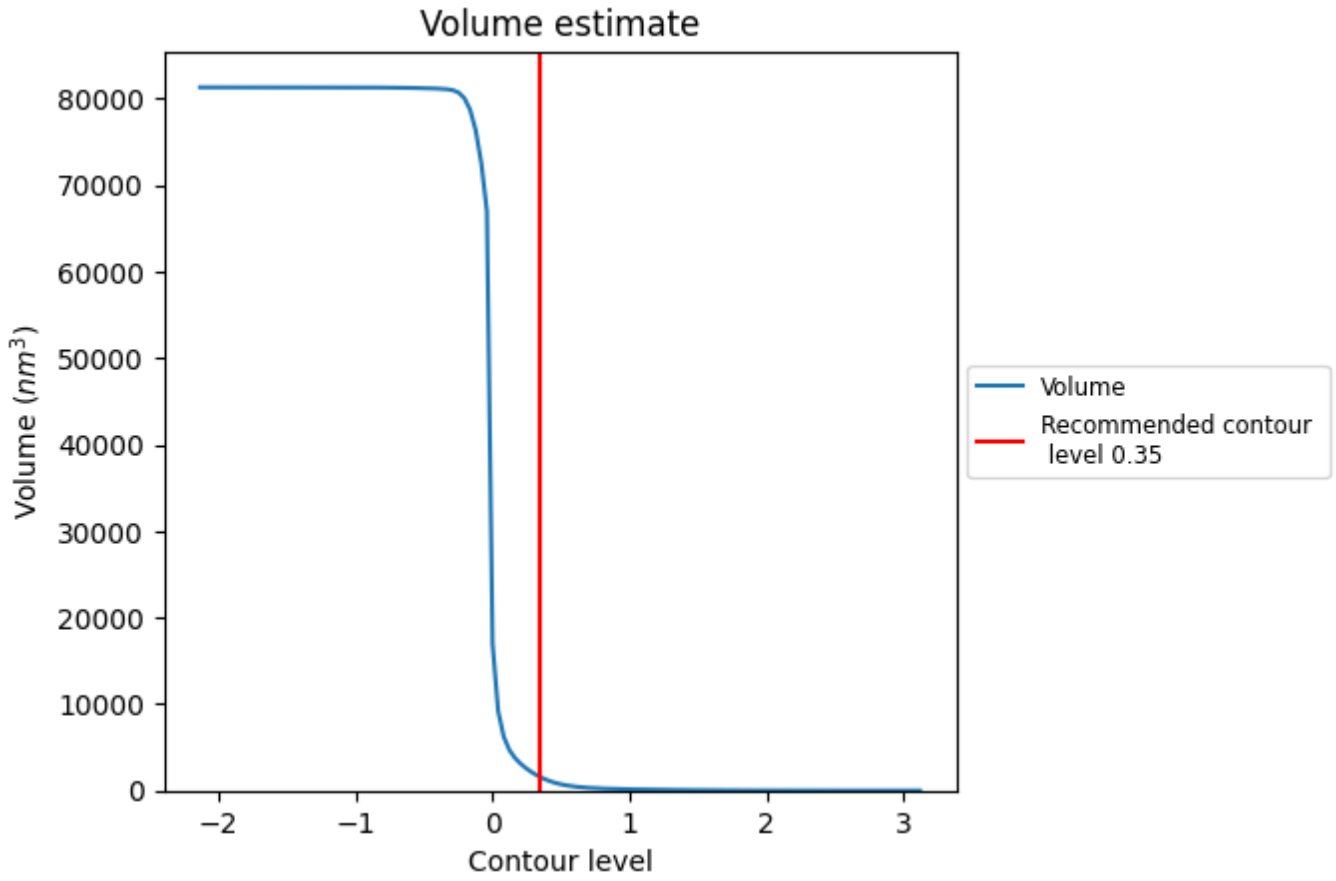
This section contains the results of statistical analysis of the map.

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.

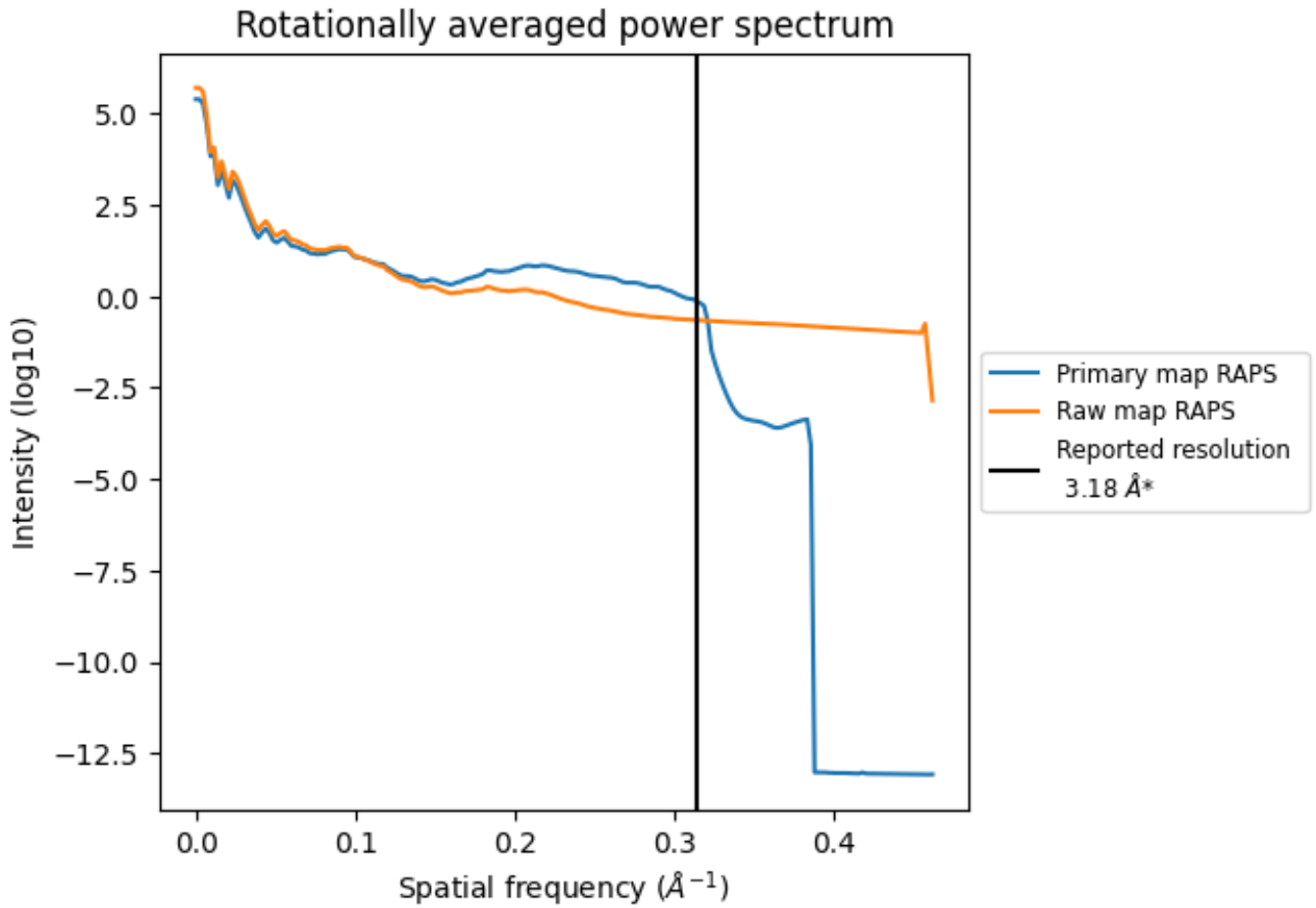
7.2 Volume estimate



The volume at the recommended contour level is 1567 nm^3; this corresponds to an approximate mass of 1416 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)

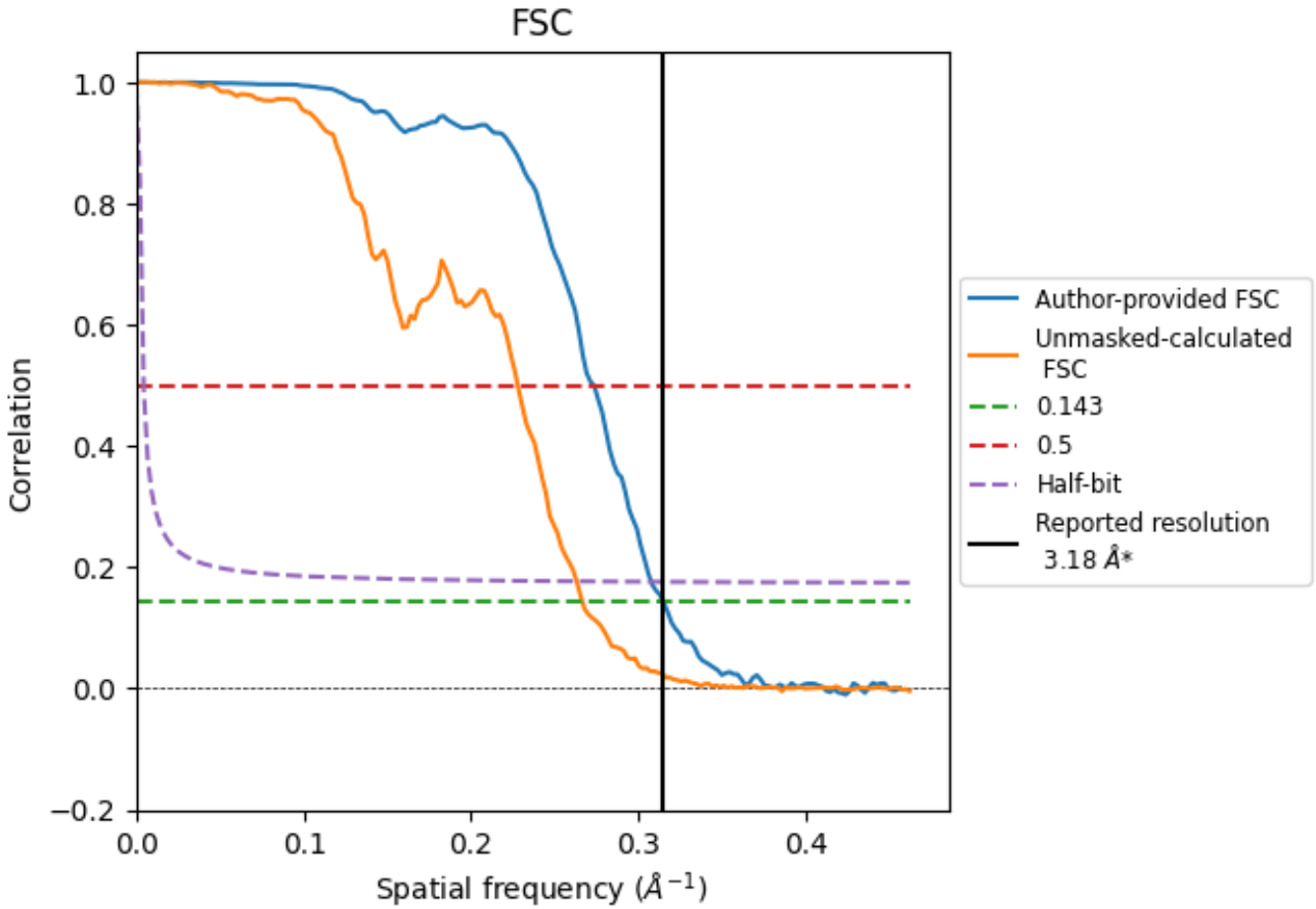


*Reported resolution corresponds to spatial frequency of 0.314 $Å^{-1}$

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 0.314 Å^{-1}

8.2 Resolution estimates (i)

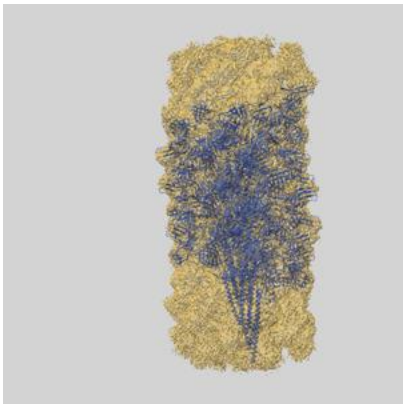
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.18	-	-
Author-provided FSC curve	3.18	3.66	3.25
Unmasked-calculated*	3.75	4.39	3.80

*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 3.75 differs from the reported value 3.18 by more than 10 %

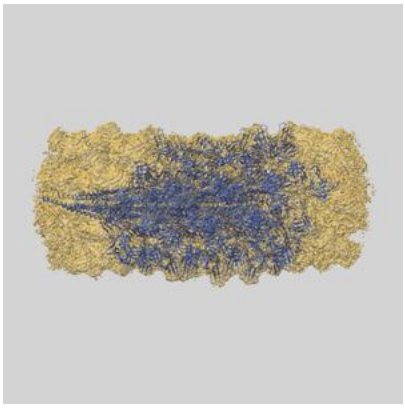
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-64861 and PDB model 9V95. Per-residue inclusion information can be found in section 3 on page 9.

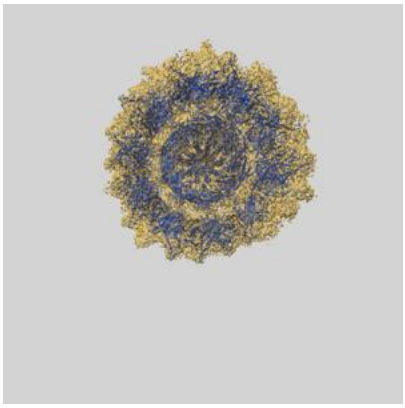
9.1 Map-model overlay



X



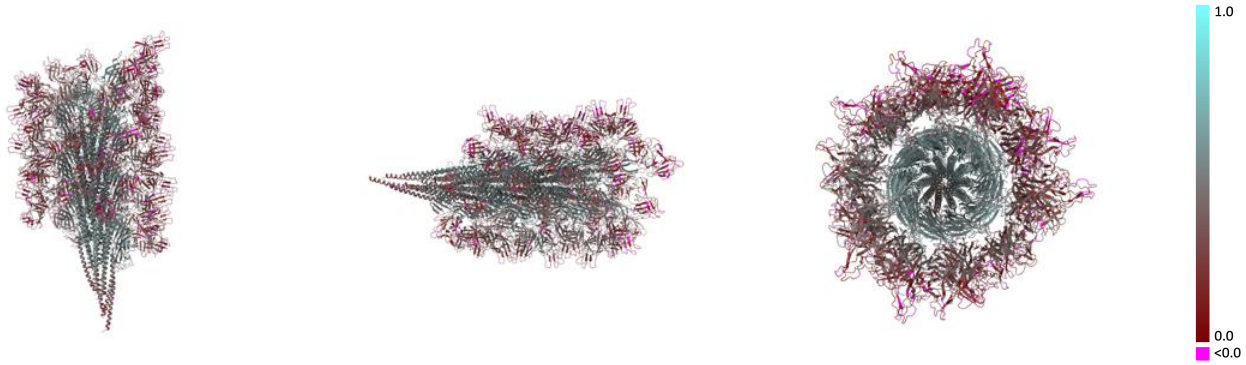
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.35 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.

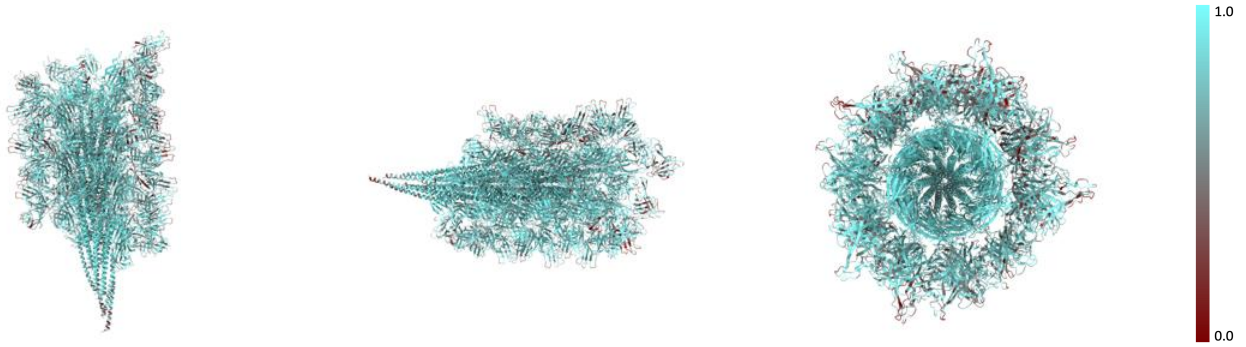
9.2 Q-score mapped to coordinate model (i)



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.

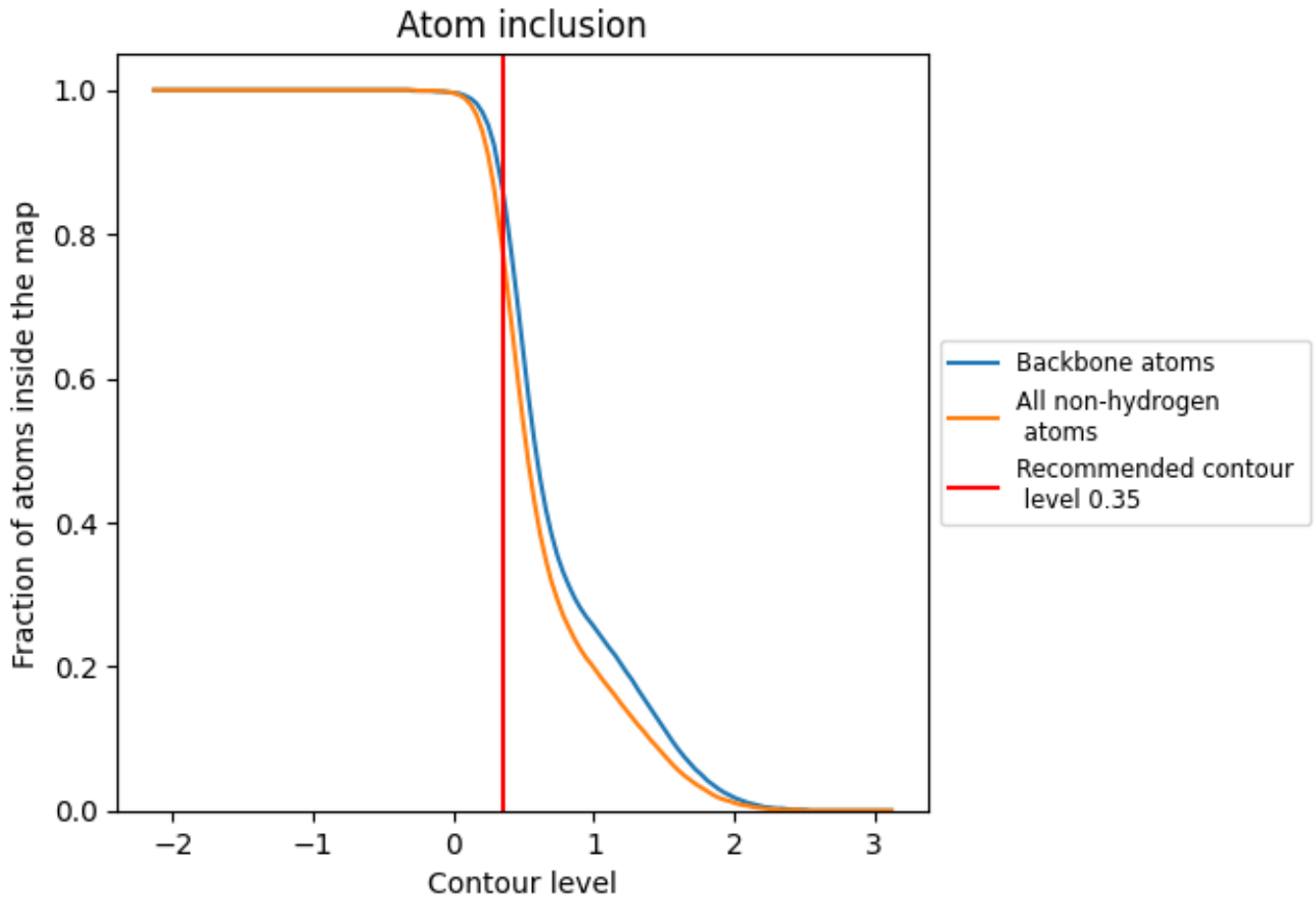
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.35).

9.4 Atom inclusion (i)



At the recommended contour level, 86% of all backbone atoms, 78% 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 (0.35) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7780	0.3760
A	0.8170	0.4000
B	0.7580	0.3860
C	0.7410	0.3270
D	0.7920	0.3710
E	0.7680	0.3500
F	0.7390	0.3690
G	0.7670	0.3580
H	0.7180	0.3290
I	0.7400	0.3490
J	0.7410	0.3370
K	0.7640	0.3570
M	0.7780	0.3730
N	0.7660	0.3720
O	0.7750	0.3880
Q	0.7410	0.3430
S	0.7970	0.3910
U	0.7200	0.3190
V	0.7920	0.3930
W	0.7530	0.3360
Y	0.8100	0.4060
Z	0.8090	0.3980
a	0.7460	0.3620
c	0.7830	0.3940
d	0.7910	0.3700
e	0.8370	0.4210
f	0.8040	0.3930
g	0.8040	0.3920
h	0.8660	0.4710
i	0.8370	0.4190
k	0.8490	0.4600
l	0.7030	0.2980
m	0.8600	0.4360
n	0.7160	0.3340