Full wwPDB EM Validation Report

Mar 6, 2026 – 06:46 PM UTC

PDB ID	:	8WLN / pdb_00008wln
EMDB ID	:	EMD-37625
Title	:	Cryo-EM structure of the MS ring with export apparatus and proximal rod within the motor-hook complex in the CCW state
Authors	:	Tan, J.X.; Zhang, L.; Zhou, Y.; Zhu, Y.Q.
Deposited on	:	2023-09-30
Resolution	:	4.30 Å(reported)
Based on initial models	:	?, .

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 (i) 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 (i)) were used in the production of this report:

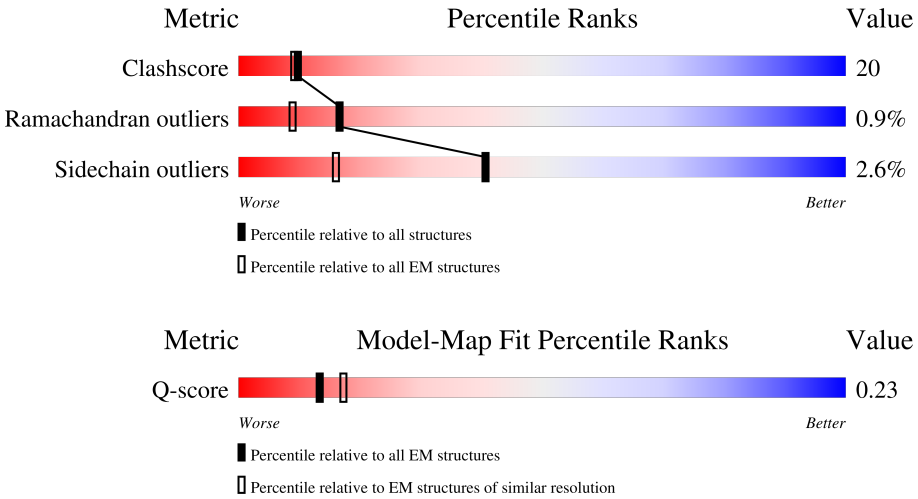
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh &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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.30 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	4585 (3.80 - 4.80)

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	0	560	23% 6% 71%
1	1	560	22% 8% 71%
1	2	560	22% 7% 71%
1	3	560	23% 6% 71%

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Mol	Chain	Length	Quality of chain
1	4	560	22% 7% 71%
1	5	560	22% 7% 71%
1	6	560	22% 7% 71%
1	7	560	22% 7% 71%
1	8	560	23% 7% 71%
1	9	560	23% 6% 71%
1	AA	560	23% 6% 71%
1	AB	560	22% 7% 71%
1	AC	560	23% 7% 71%
1	AD	560	23% 6% 71%
1	AE	560	22% 7% 71%
1	AF	560	23% 6% 71%
1	AG	560	23% 7% 71%
1	AH	560	22% 7% 71%
1	AI	560	22% 7% 71%
1	AJ	560	23% 6% 71%
1	AK	560	23% 6% 71%
1	AL	560	22% 7% 71%
1	AM	560	23% 7% 71%
1	AN	560	23% 6% 71%
1	AO	560	23% 7% 71%
1	AP	560	22% 7% 71%
1	AQ	560	23% 6% 71%
1	UI	560	13% 15% 10% 72%
1	UJ	560	12% 14% 11% 72%

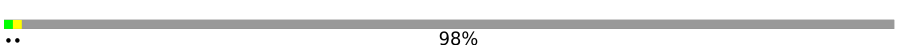
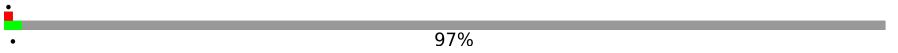
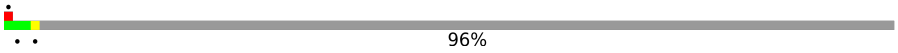
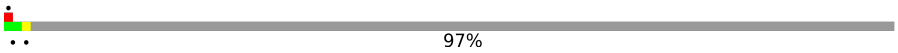
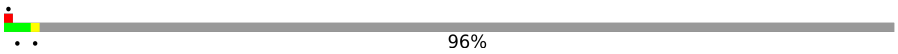
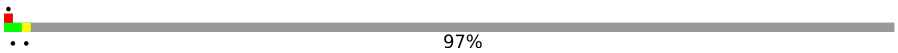
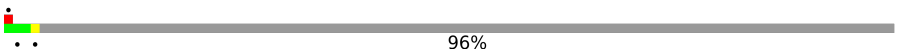
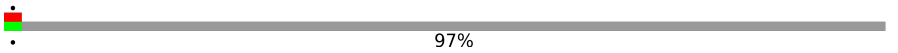
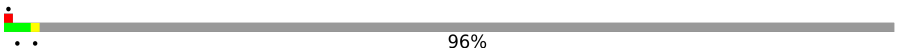
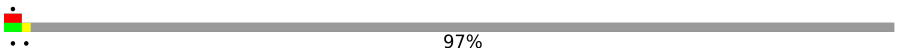
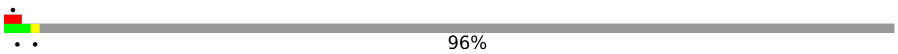
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Mol	Chain	Length	Quality of chain
1	UK	560	16% 14% 11% 72%
1	UL	560	15% 15% 10% 72%
1	UM	560	20% 15% 10% 72%
1	UN	560	14% 15% 10% 72%
1	UO	560	13% 15% 10% 72%
1	UP	560	12% 15% 10% 72%
1	WA	560	11% 8% 80%
1	WB	560	10% 8% 80%
1	WC	560	10% 8% 81%
1	WD	560	10% 9% 80%
1	WE	560	12% 6% 80%
1	WF	560	10% 9% 80%
1	WG	560	10% 8% 80%
1	WH	560	10% 7% 83%
1	WI	560	8% 7% 83%
1	WJ	560	9% 8% 82%
1	WK	560	8% 8% 82%
1	WL	560	8% 6% 85%
1	WM	560	8% 6% 85%
1	WN	560	8% 6% 85%
1	WO	560	10% 6% 83%
1	WP	560	10% 7% 82%
1	WQ	560	10% 9% 80%
1	WR	560	10% 8% 80%
1	WS	560	9% 9% 80%

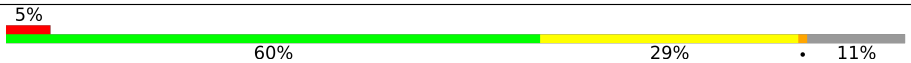
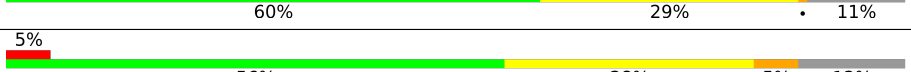
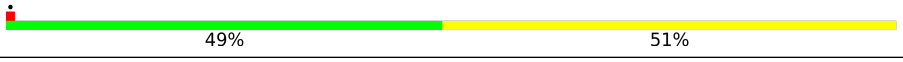
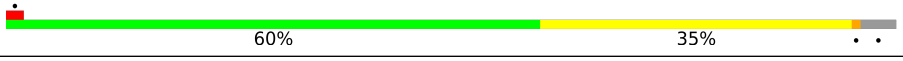
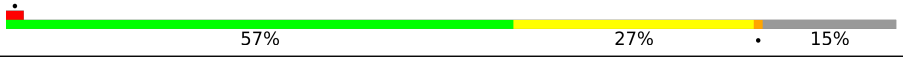
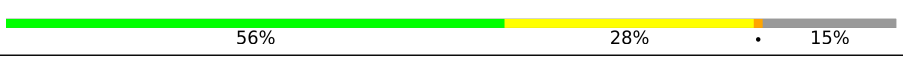
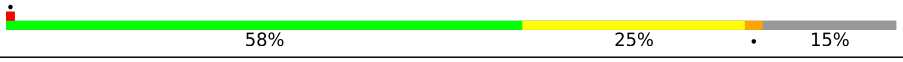
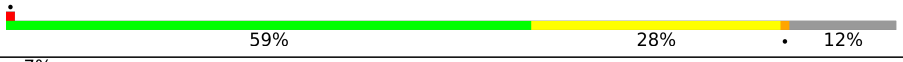
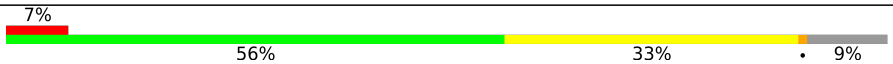
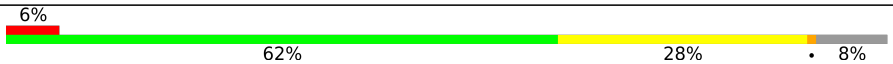
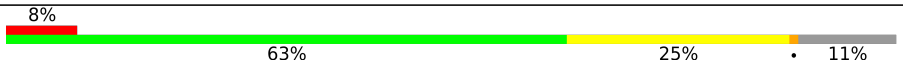
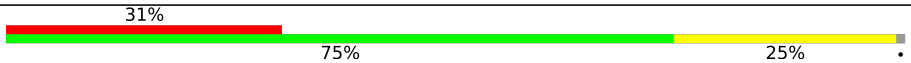
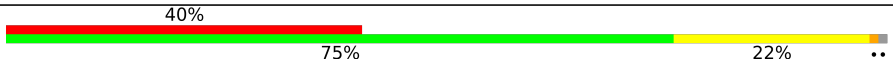
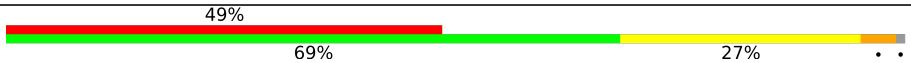
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Mol	Chain	Length	Quality of chain
1	WT	560	
1	WU	560	
1	WV	560	
1	WW	560	
1	b	560	
1	c	560	
1	d	560	
1	e	560	
1	f	560	
1	g	560	
1	h	560	
1	i	560	
1	j	560	
1	k	560	
1	l	560	
1	t	560	
1	u	560	
1	v	560	
1	w	560	
1	x	560	
1	y	560	
1	z	560	
2	K	104	
2	L	104	
2	M	104	

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Mol	Chain	Length	Quality of chain
2	N	104	
2	O	104	
2	P	104	
3	A	89	
3	B	89	
3	C	89	
3	D	89	
4	E	264	
5	F	245	
5	G	245	
5	H	245	
5	I	245	
5	J	245	
6	Q	138	
6	R	138	
6	S	138	
6	T	138	
6	U	138	
7	V	134	
7	W	134	
7	X	134	
7	Y	134	
7	Z	134	
7	a	134	

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 99060 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 Flagellar M-ring protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	1	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	2	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	3	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	4	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	5	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	6	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	7	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	8	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	9	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AA	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AB	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AC	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AD	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AE	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AF	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AG	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	AH	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AI	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AJ	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AK	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AL	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AM	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AN	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AO	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AP	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	AQ	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		
1	UI	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UJ	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UK	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UL	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UM	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UN	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UO	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	UP	155	Total	C	N	O	S	0	0
			1172	733	211	226	2		
1	WA	113	Total	C	N	O	S	0	0
			849	534	148	166	1		
1	WB	111	Total	C	N	O	S	0	0
			836	526	146	163	1		
1	WC	108	Total	C	N	O	S	0	0
			812	510	142	159	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	WD	110	Total	C	N	O	S	0	0
			827	522	144	160	1		
1	WE	112	Total	C	N	O	S	0	0
			843	531	147	164	1		
1	WF	111	Total	C	N	O	S	0	0
			834	526	145	162	1		
1	WG	112	Total	C	N	O	S	0	0
			843	531	147	164	1		
1	WH	95	Total	C	N	O	S	0	0
			703	439	126	137	1		
1	WI	95	Total	C	N	O	S	0	0
			703	439	126	137	1		
1	WJ	99	Total	C	N	O	S	0	0
			737	462	131	143	1		
1	WK	98	Total	C	N	O	S	0	0
			729	456	130	142	1		
1	WL	85	Total	C	N	O	S	0	0
			622	389	110	122	1		
1	WM	82	Total	C	N	O	S	0	0
			596	372	107	116	1		
1	WN	84	Total	C	N	O	S	0	0
			611	380	109	121	1		
1	WO	96	Total	C	N	O	S	0	0
			714	448	127	138	1		
1	WP	100	Total	C	N	O	S	0	0
			741	464	132	144	1		
1	WQ	111	Total	C	N	O	S	0	0
			834	526	145	162	1		
1	WR	111	Total	C	N	O	S	0	0
			834	526	145	162	1		
1	WS	111	Total	C	N	O	S	0	0
			834	526	145	162	1		
1	WT	111	Total	C	N	O	S	0	0
			834	526	145	162	1		
1	WU	112	Total	C	N	O	S	0	0
			843	531	147	164	1		
1	WV	110	Total	C	N	O	S	0	0
			827	521	144	161	1		
1	WW	111	Total	C	N	O	S	0	0
			834	526	145	162	1		
1	t	164	Total	C	N	O	S	0	0
			1275	776	237	259	3		

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Mol	Chain	Residues	Atoms	AltConf	Trace
1	u	164	Total C N O S 1275 776 237 259 3	0	0
1	v	164	Total C N O S 1275 776 237 259 3	0	0
1	w	164	Total C N O S 1275 776 237 259 3	0	0
1	x	164	Total C N O S 1275 776 237 259 3	0	0
1	y	164	Total C N O S 1275 776 237 259 3	0	0
1	z	164	Total C N O S 1275 776 237 259 3	0	0
1	b	13	Total C N O 81 50 15 16	0	0
1	c	16	Total C N O 103 64 19 20	0	0
1	d	20	Total C N O 133 83 23 27	0	0
1	e	16	Total C N O 103 64 19 20	0	0
1	f	21	Total C N O 140 88 24 28	0	0
1	g	16	Total C N O 103 64 19 20	0	0
1	h	21	Total C N O 140 88 24 28	0	0
1	i	16	Total C N O 103 64 19 20	0	0
1	j	20	Total C N O 133 83 23 27	0	0
1	k	16	Total C N O 103 64 19 20	0	0
1	l	21	Total C N O 140 88 24 28	0	0

- Molecule 2 is a protein called Flagellar hook-basal body complex protein FliE.

Mol	Chain	Residues	Atoms	AltConf	Trace
2	K	59	Total C N O S 429 265 74 83 7	0	0
2	L	91	Total C N O S 672 415 121 129 7	0	0

Continued on next page...

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	M	93	Total	C	N	O	S	0	0
			686	424	123	132	7		
2	N	93	Total	C	N	O	S	0	0
			686	424	123	132	7		
2	O	93	Total	C	N	O	S	0	0
			686	424	123	132	7		
2	P	92	Total	C	N	O	S	0	0
			679	420	122	130	7		

- Molecule 3 is a protein called Flagellar biosynthetic protein FliQ.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A	89	Total	C	N	O	S	0	0
			670	449	100	114	7		
3	B	89	Total	C	N	O	S	0	0
			670	449	100	114	7		
3	C	89	Total	C	N	O	S	0	0
			670	449	100	114	7		
3	D	89	Total	C	N	O	S	0	0
			670	449	100	114	7		

- Molecule 4 is a protein called Flagellar biosynthetic protein FliR.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	E	253	Total	C	N	O	S	0	0
			1945	1305	307	318	15		

- Molecule 5 is a protein called Flagellar biosynthetic protein FliP.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	F	207	Total	C	N	O	S	0	0
			1605	1072	249	272	12		
5	G	209	Total	C	N	O	S	0	0
			1626	1086	252	276	12		
5	H	208	Total	C	N	O	S	0	0
			1614	1077	251	274	12		
5	I	208	Total	C	N	O	S	0	0
			1614	1077	251	274	12		
5	J	209	Total	C	N	O	S	0	0
			1623	1084	251	276	12		

- Molecule 6 is a protein called Flagellar basal body rod protein FlgB.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	Q	134	Total	C	N	O	S	0	0
			1030	633	189	203	5		
6	R	121	Total	C	N	O	S	0	0
			942	583	172	182	5		
6	S	125	Total	C	N	O	S	0	0
			967	598	177	187	5		
6	T	127	Total	C	N	O	S	0	0
			982	606	182	189	5		
6	U	123	Total	C	N	O	S	0	0
			950	588	172	185	5		

- Molecule 7 is a protein called Flagellar basal-body rod protein FlgC.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	V	133	Total	C	N	O	S	0	0
			969	604	167	193	5		
7	W	132	Total	C	N	O	S	0	0
			964	601	166	192	5		
7	X	133	Total	C	N	O	S	0	0
			969	604	167	193	5		
7	Y	133	Total	C	N	O	S	0	0
			969	604	167	193	5		
7	Z	131	Total	C	N	O	S	0	0
			956	595	165	191	5		
7	a	133	Total	C	N	O	S	0	0
			969	604	167	193	5		

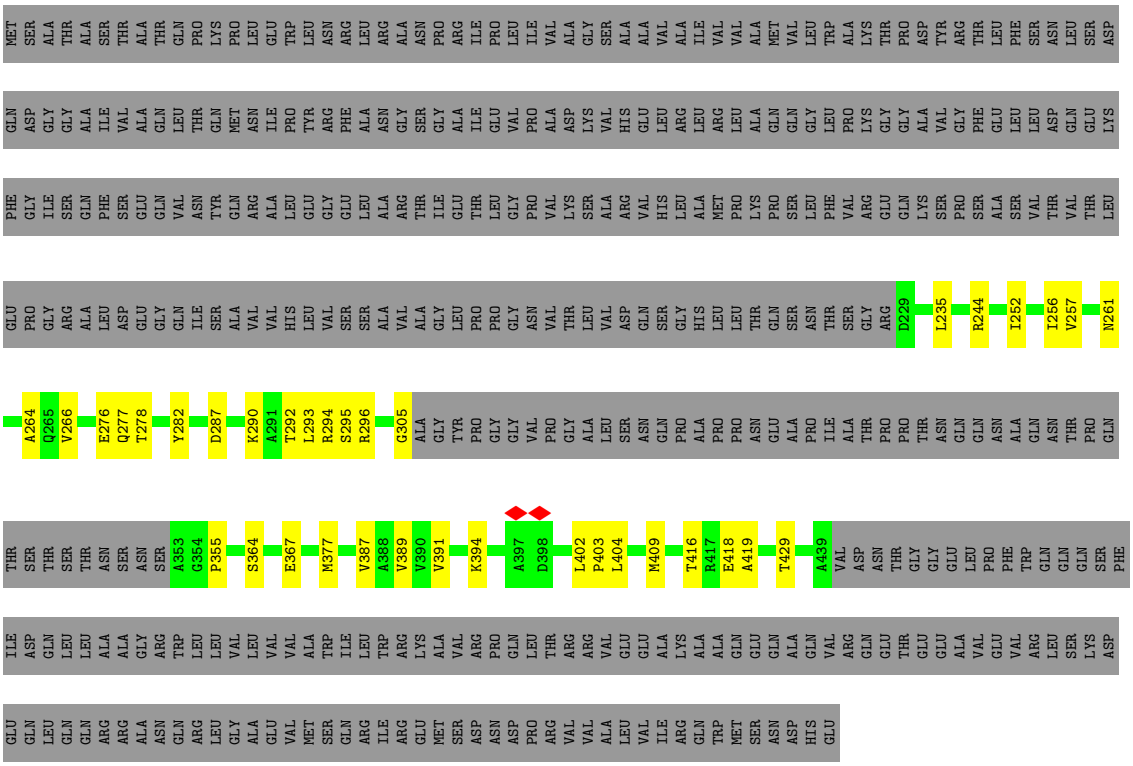
3 Residue-property plots (i)

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: Flagellar M-ring protein

Chain 0:

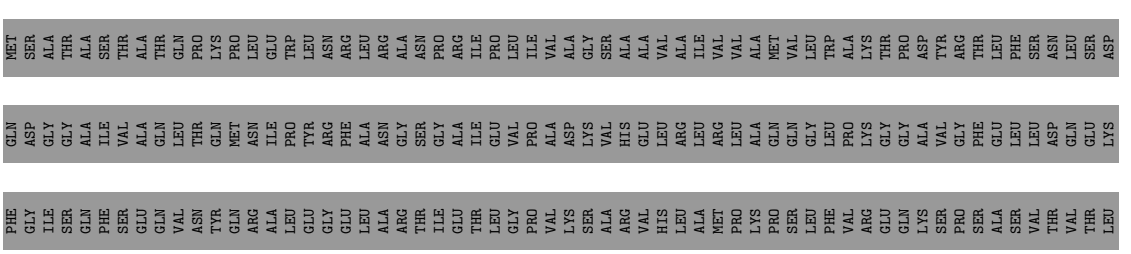


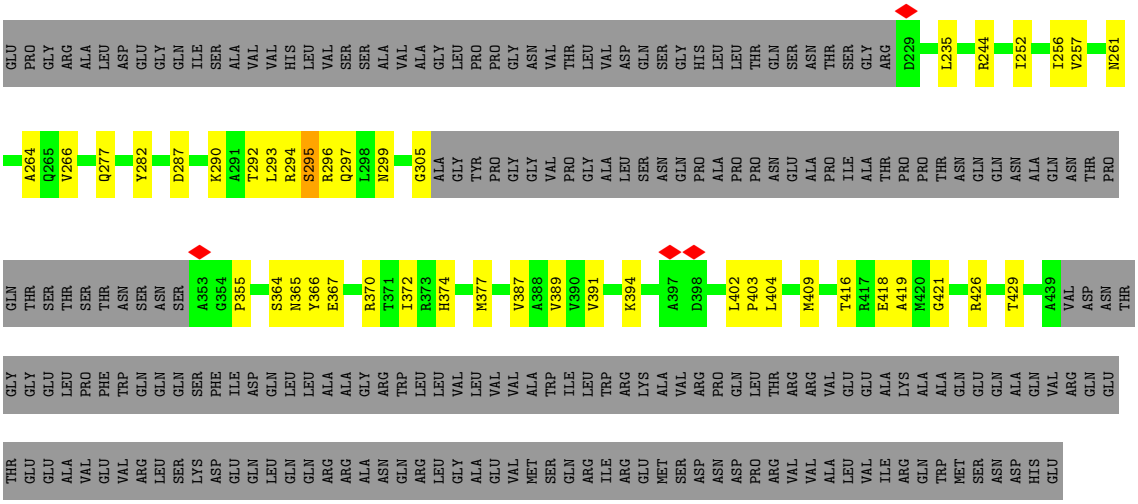


• Molecule 1: Flagellar M-ring protein

Chain 1:



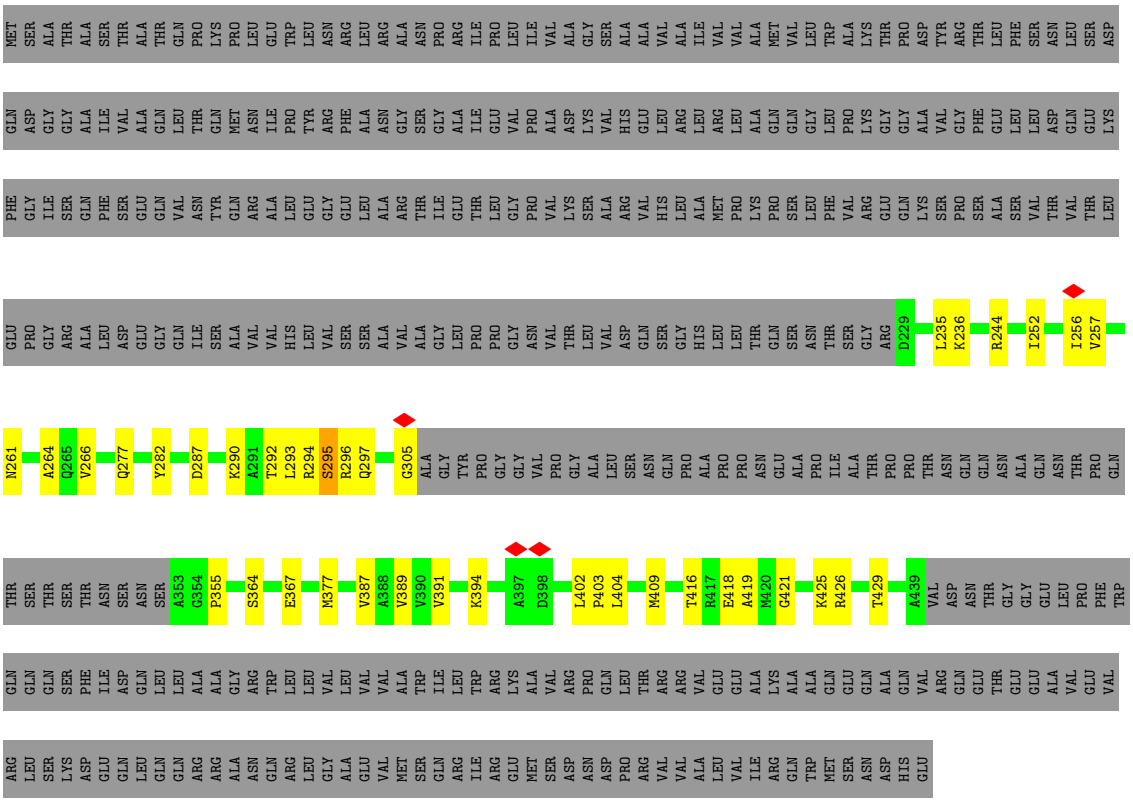




• Molecule 1: Flagellar M-ring protein

Chain 2:

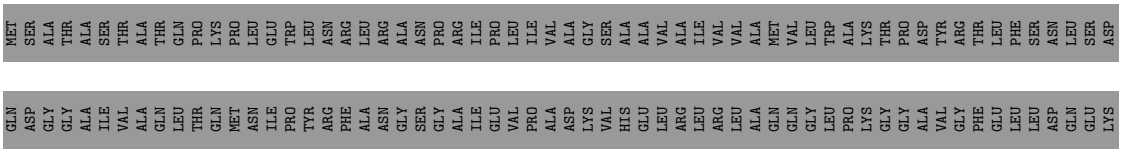


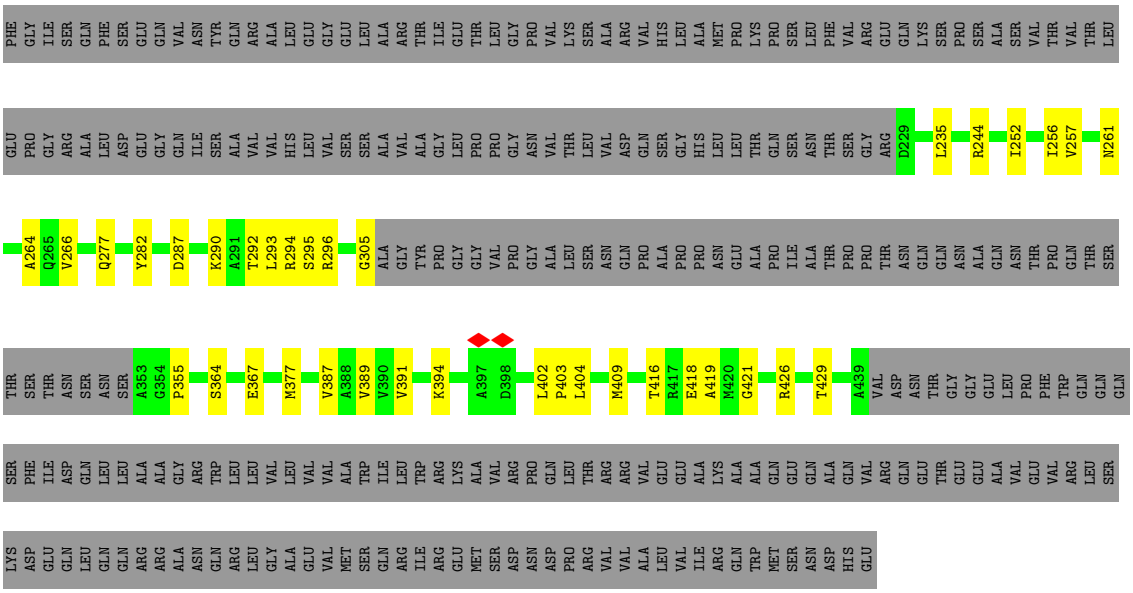


• Molecule 1: Flagellar M-ring protein

Chain 3:



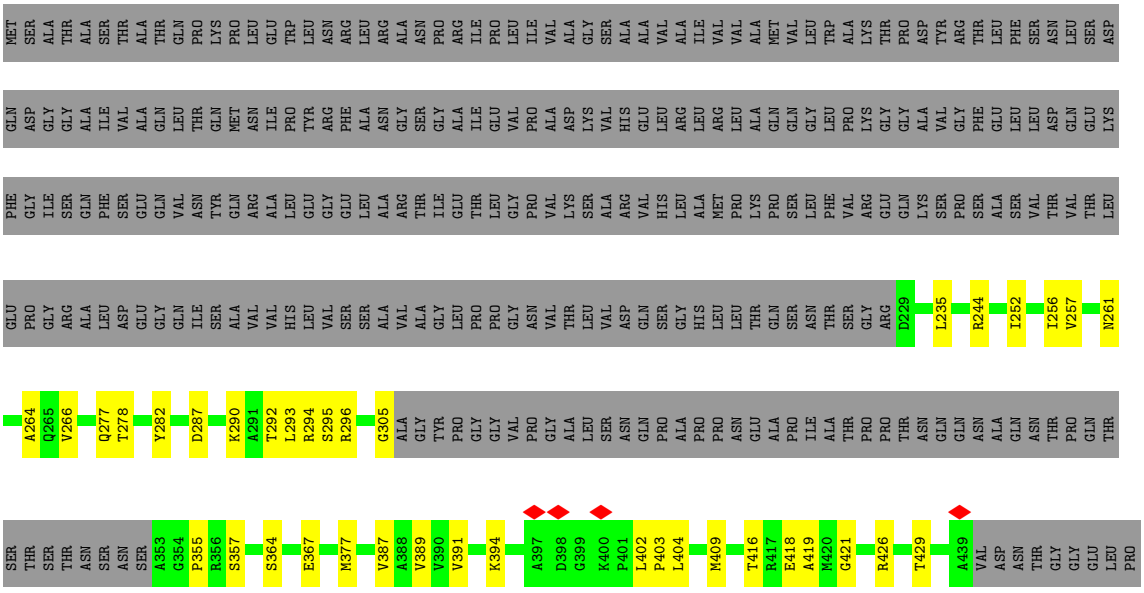




• Molecule 1: Flagellar M-ring protein

Chain 4:

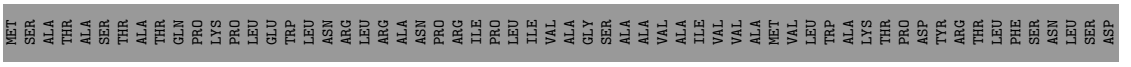


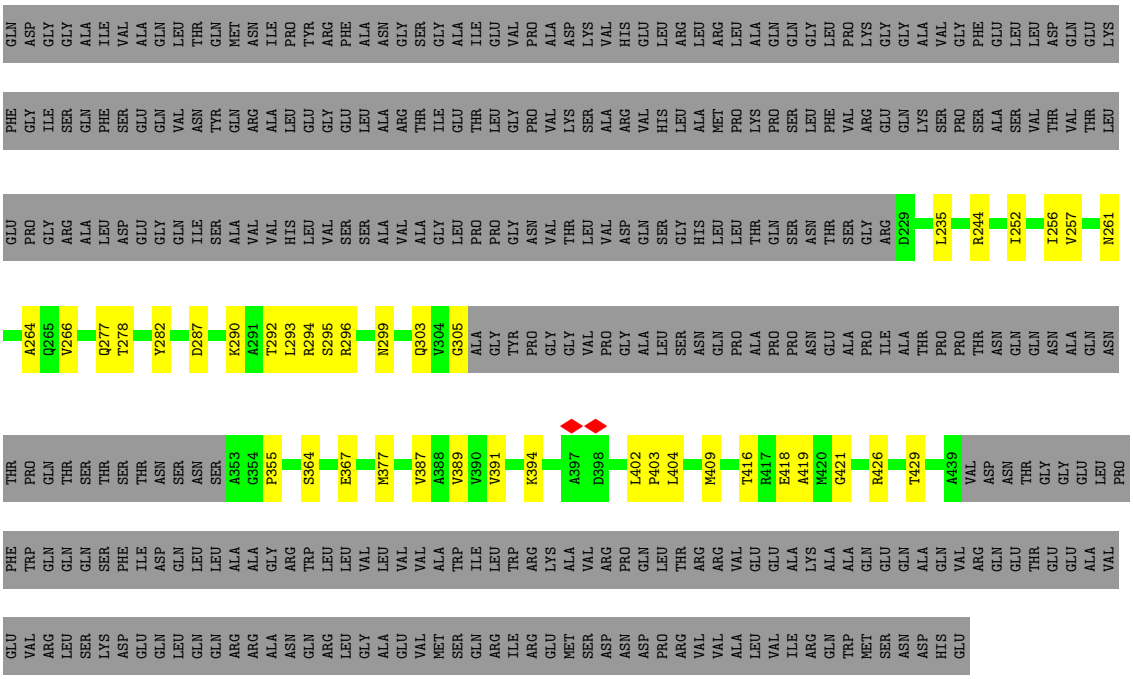


• Molecule 1: Flagellar M-ring protein

Chain 5:



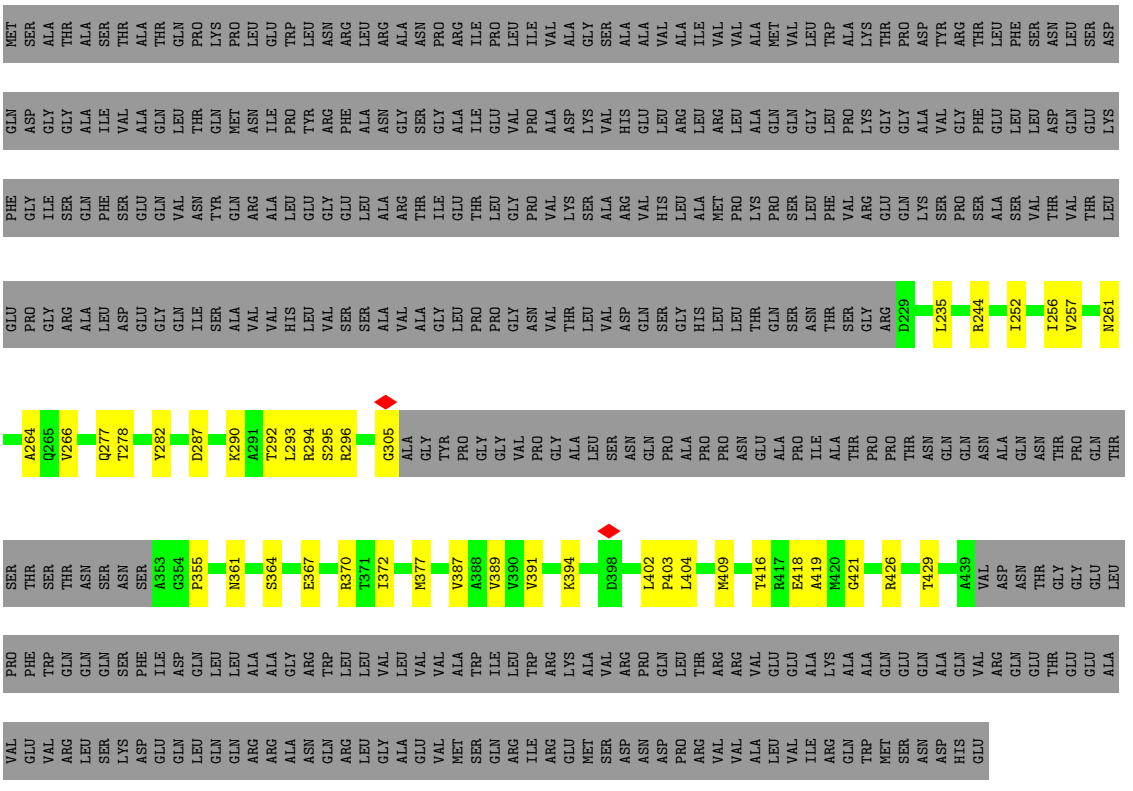




• Molecule 1: Flagellar M-ring protein

Chain 6:

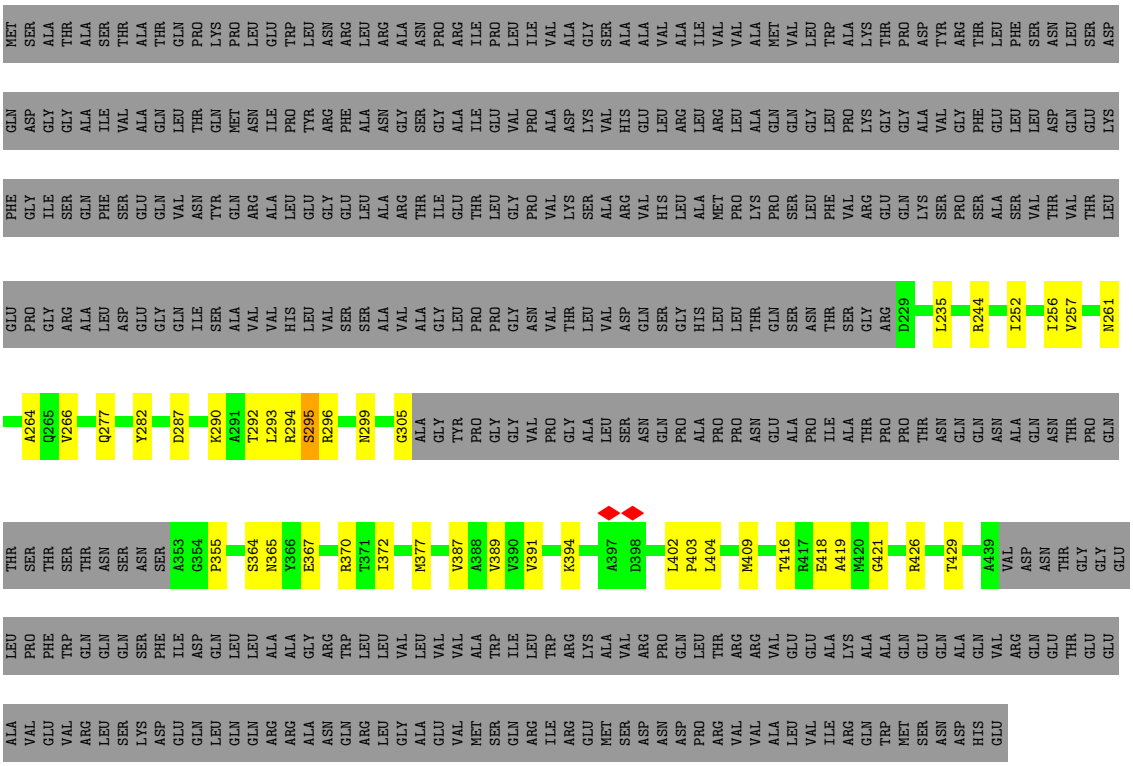




• Molecule 1: Flagellar M-ring protein

Chain 7:

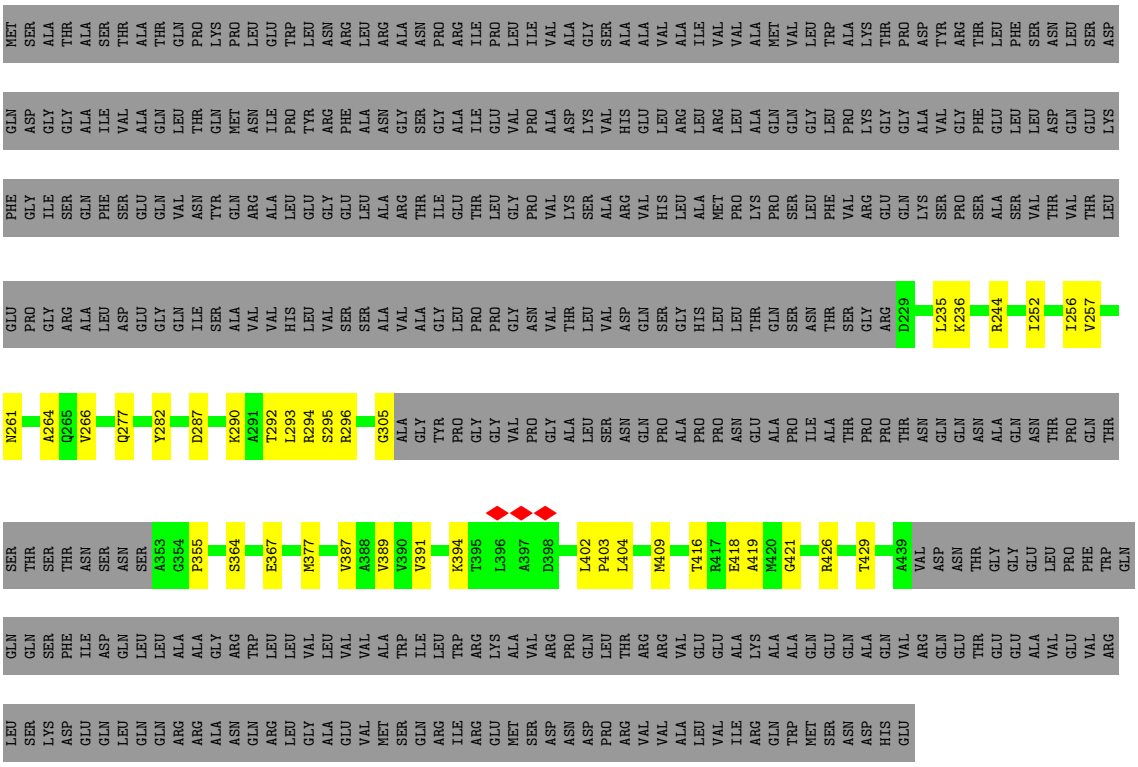




• Molecule 1: Flagellar M-ring protein

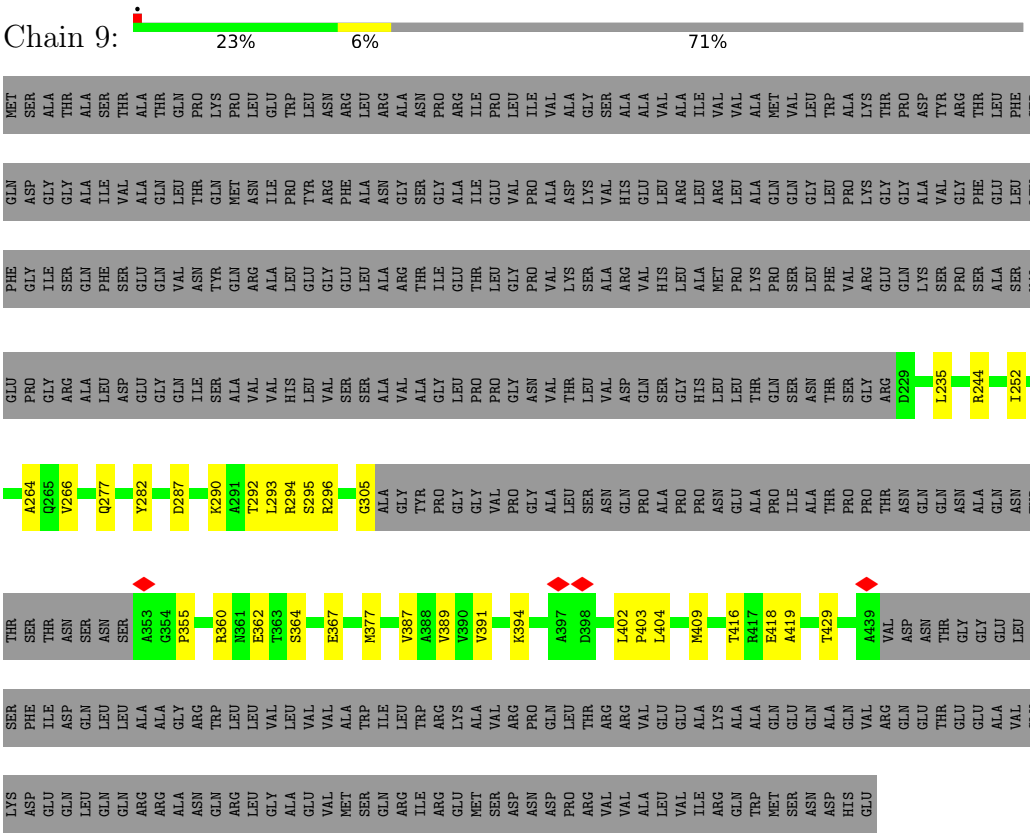
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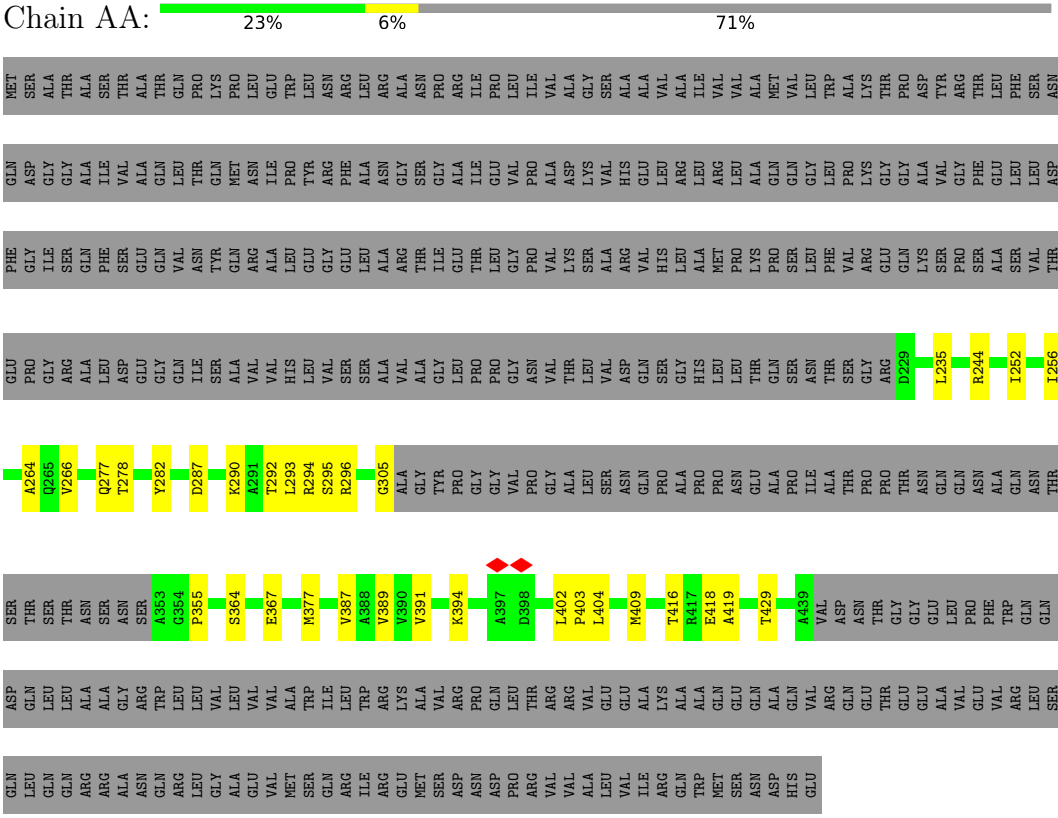
• Molecule 1: Flagellar M-ring protein

Chain 9:



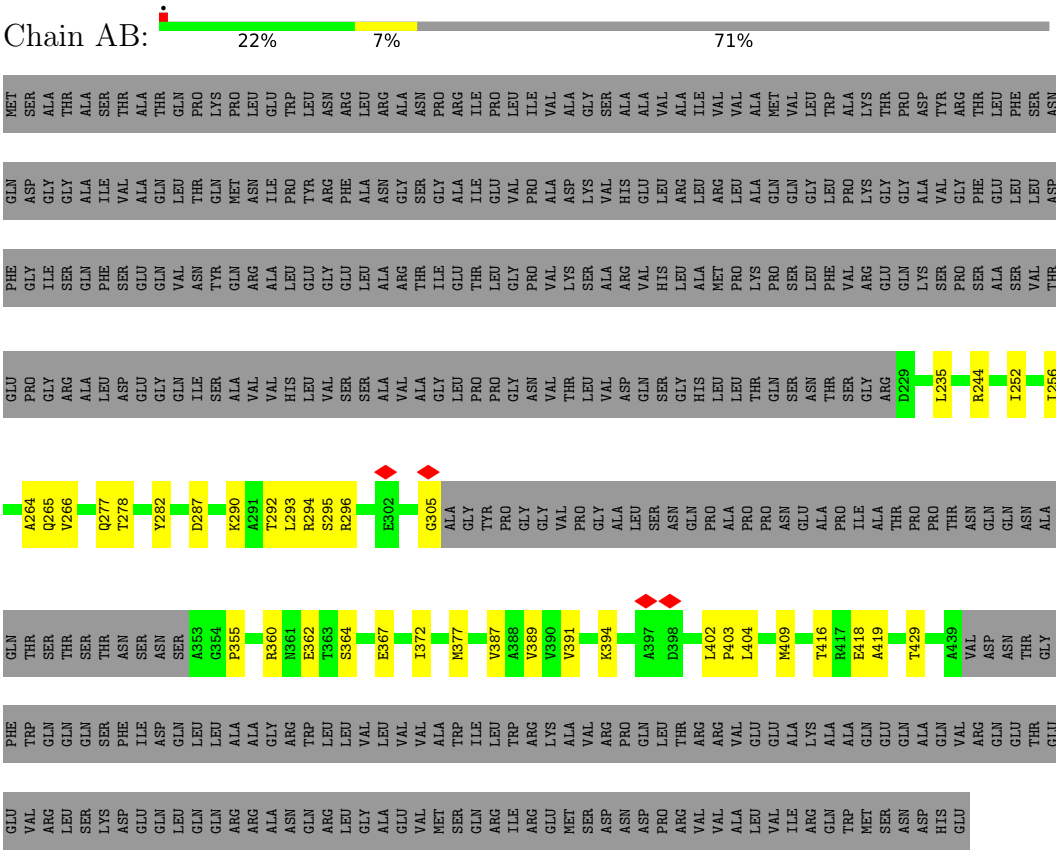
• Molecule 1: Flagellar M-ring protein

Chain AA:



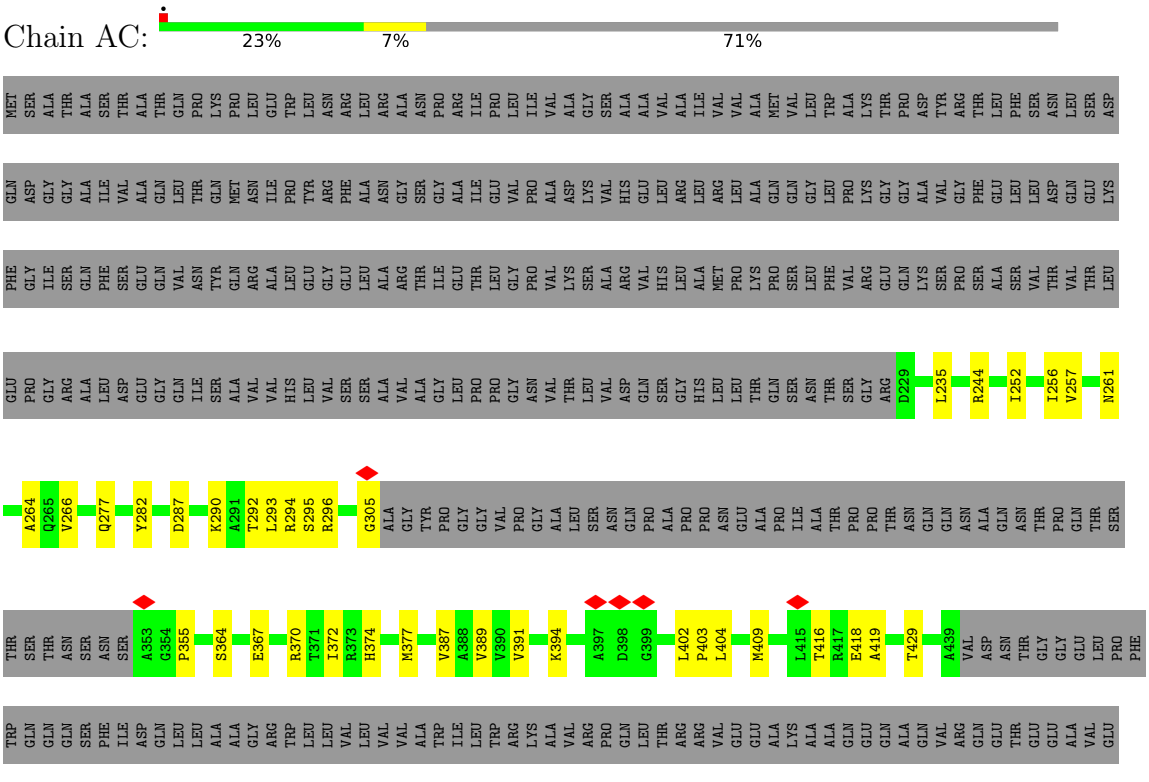
• Molecule 1: Flagellar M-ring protein

Chain AB:



• Molecule 1: Flagellar M-ring protein

Chain AC:

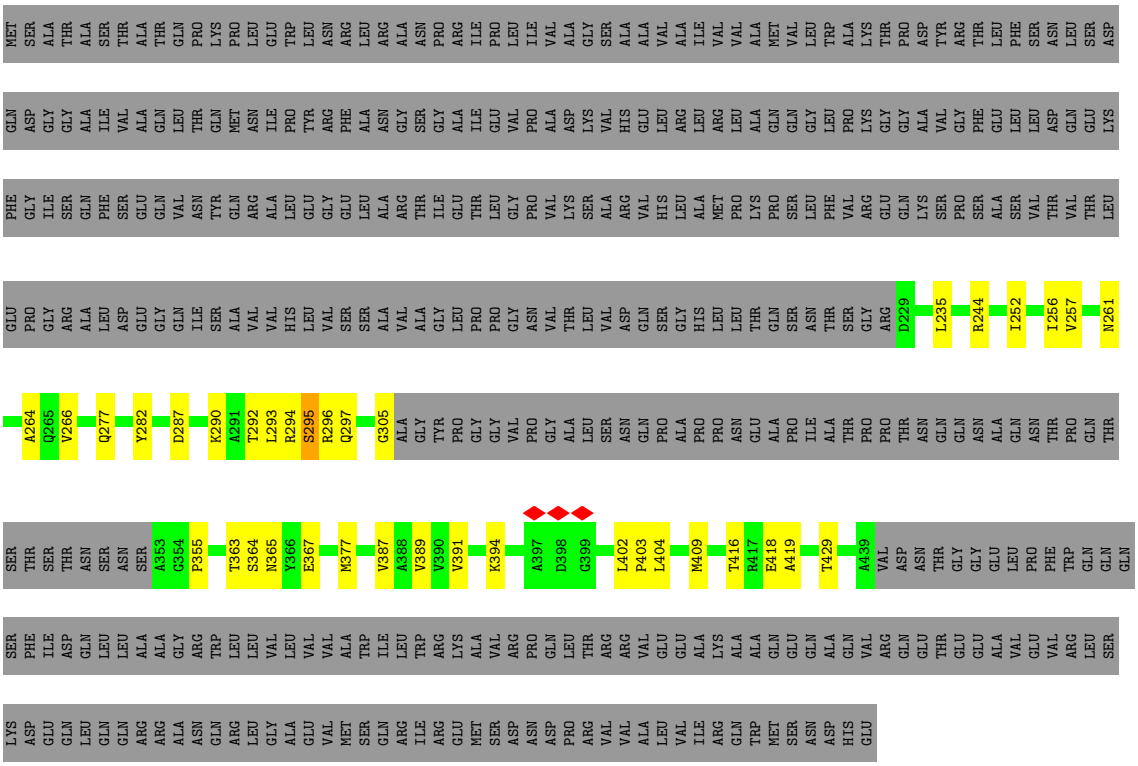




• Molecule 1: Flagellar M-ring protein

Chain AD:

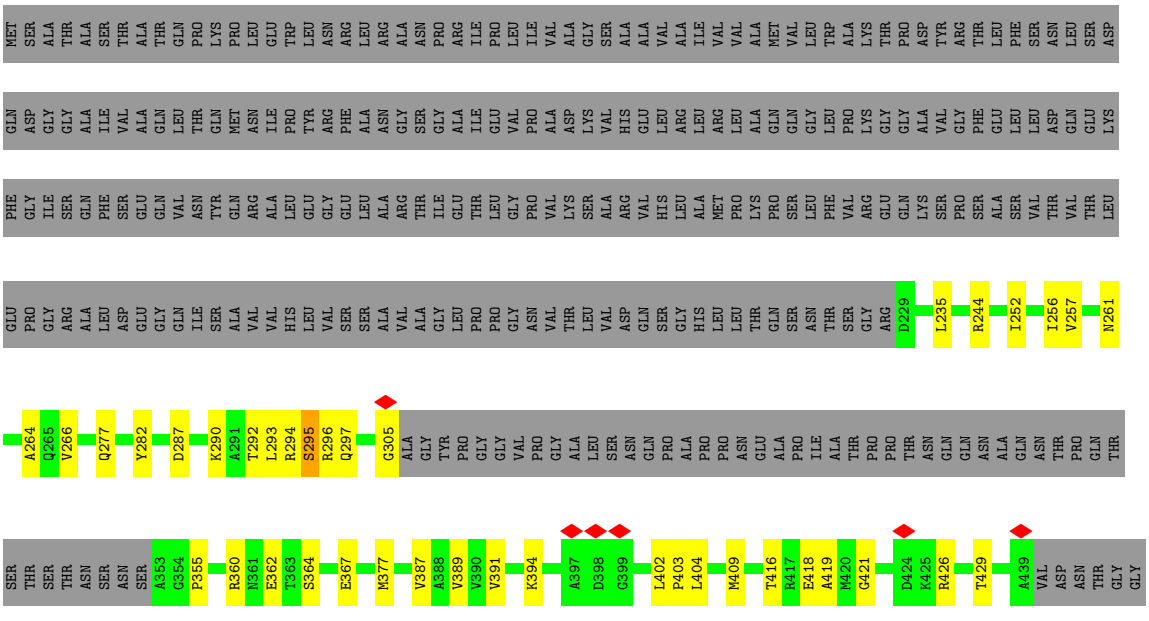


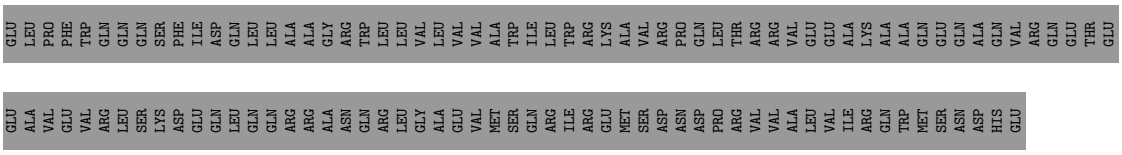


• Molecule 1: Flagellar M-ring protein

Chain AE:



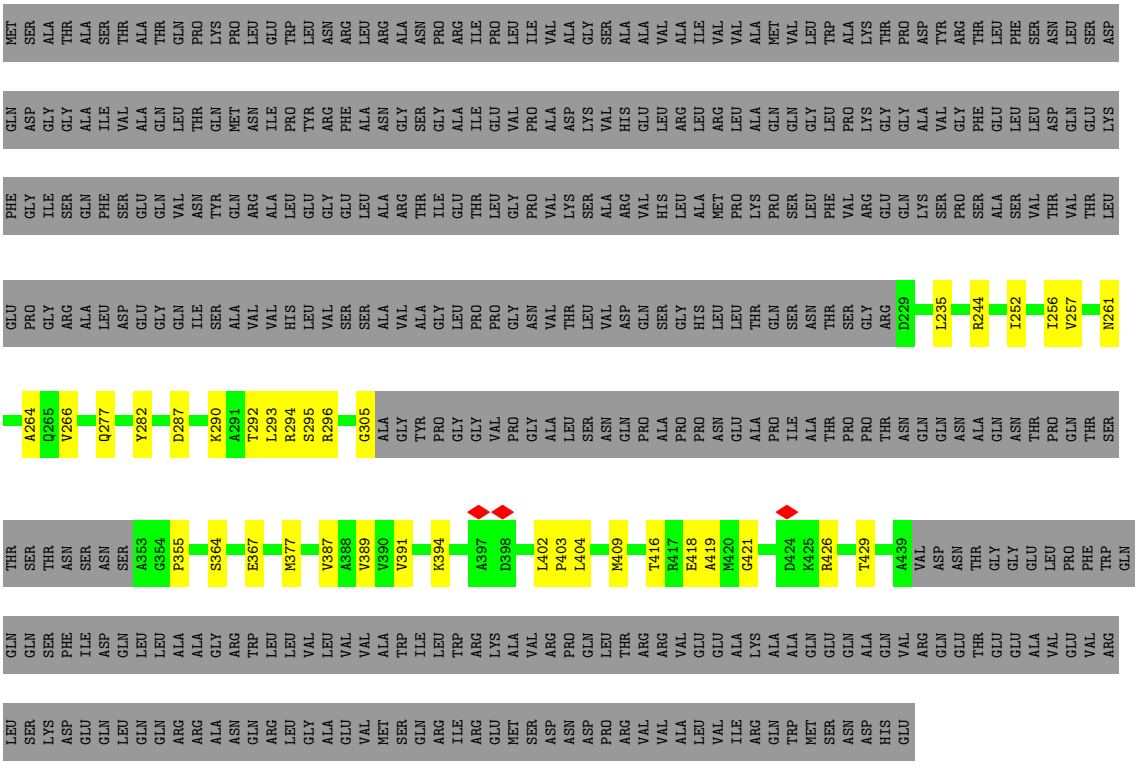




• Molecule 1: Flagellar M-ring protein

Chain AF:

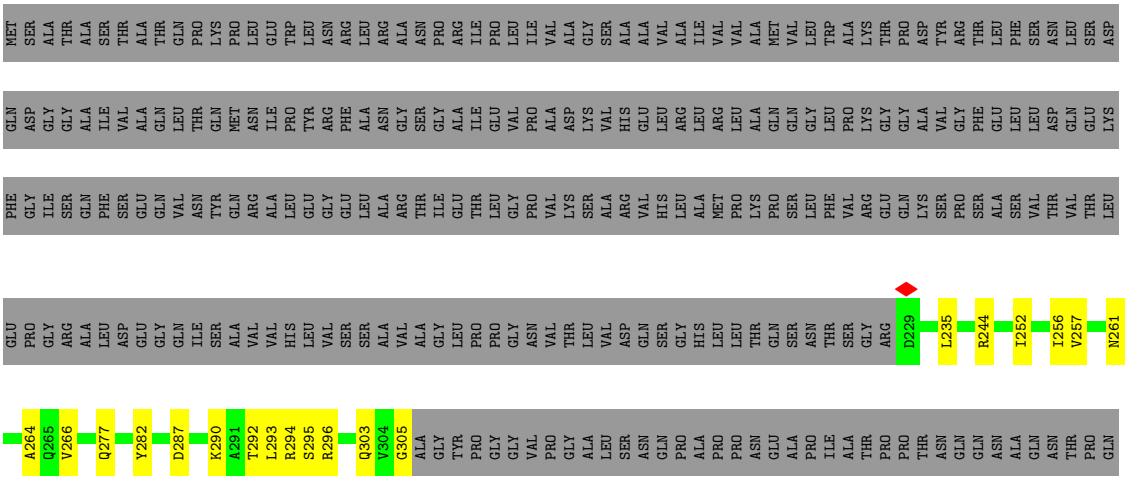


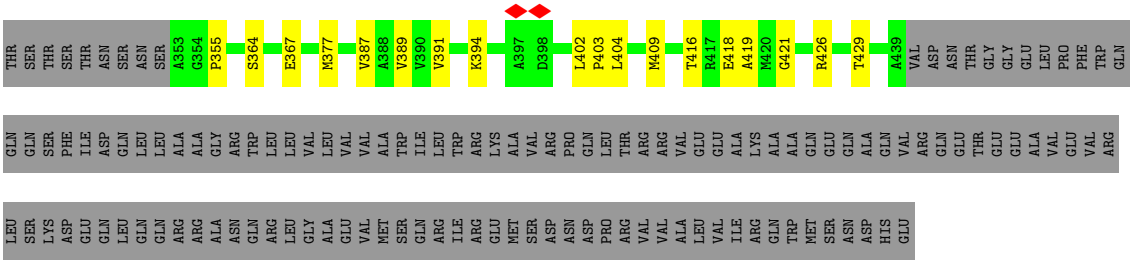


• Molecule 1: Flagellar M-ring protein

Chain AG:



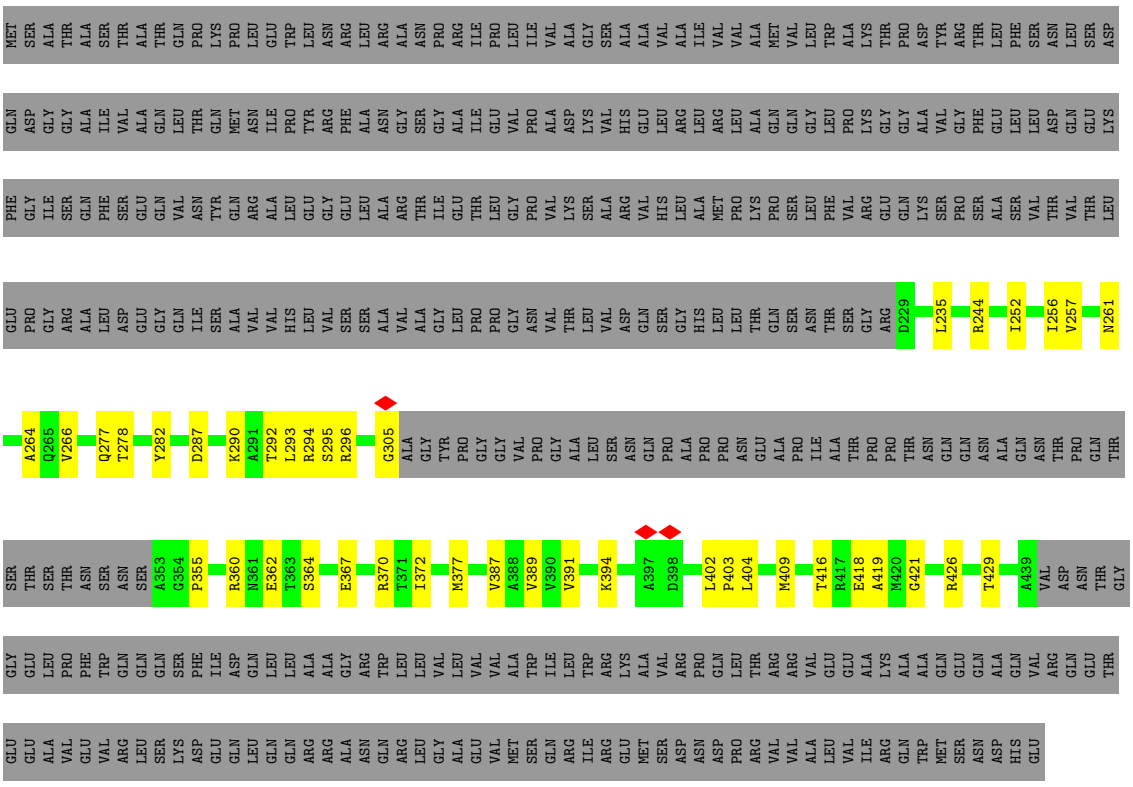




• Molecule 1: Flagellar M-ring protein

Chain AH:

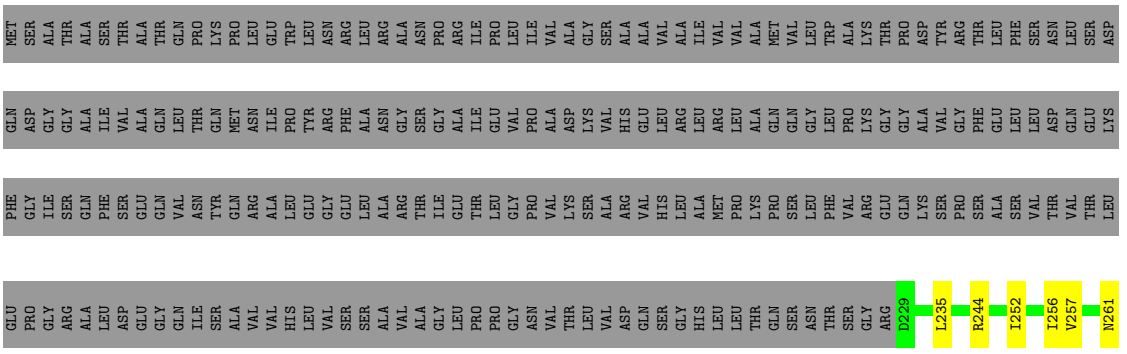


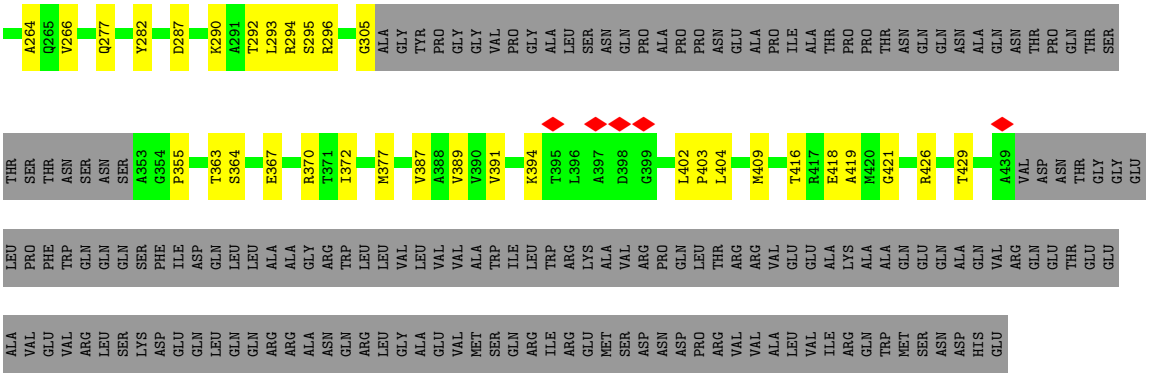


• Molecule 1: Flagellar M-ring protein

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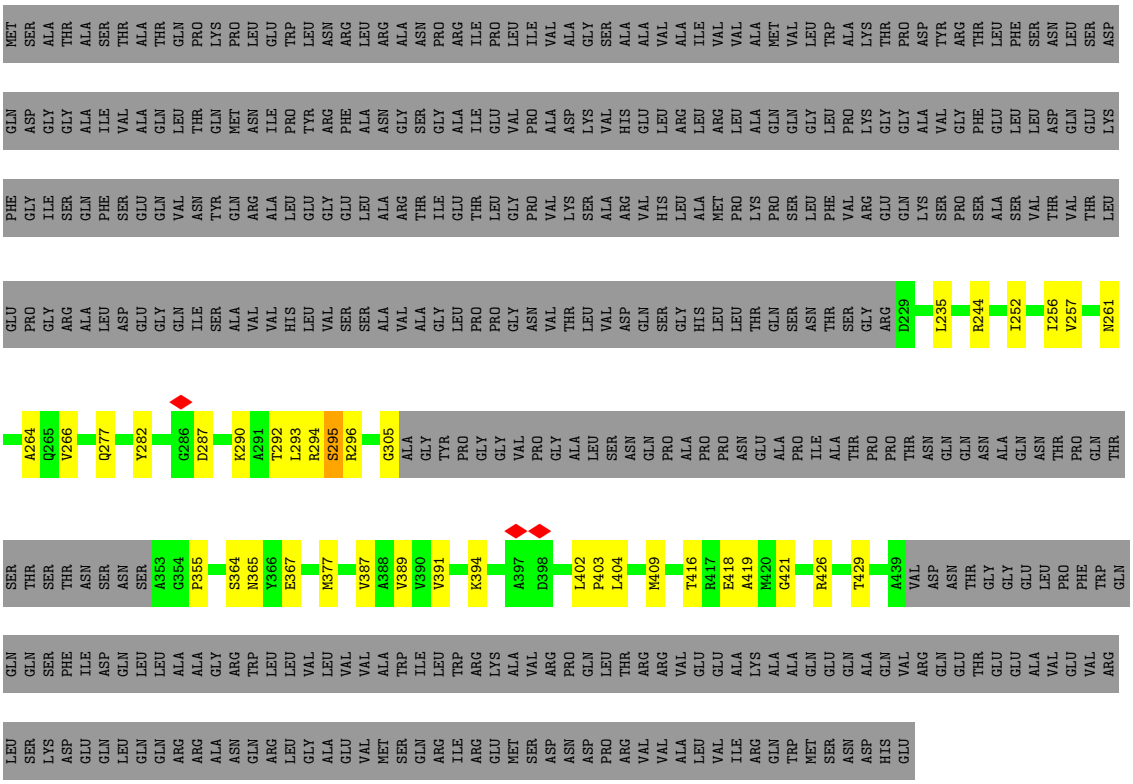




• Molecule 1: Flagellar M-ring protein

Chain AJ:

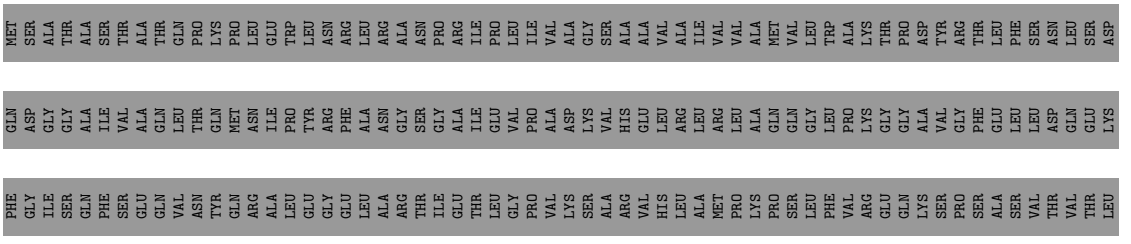


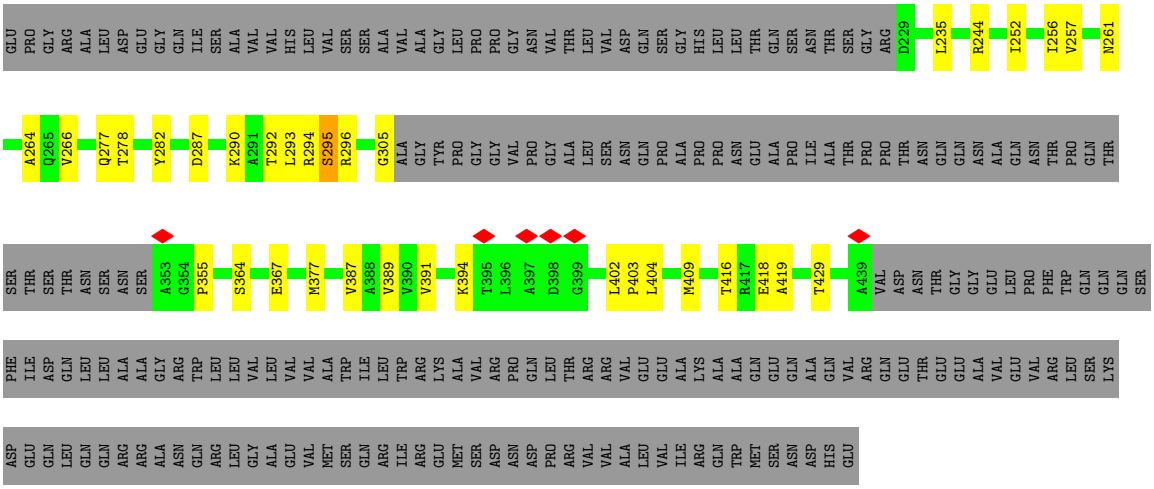


• Molecule 1: Flagellar M-ring protein

Chain AK:



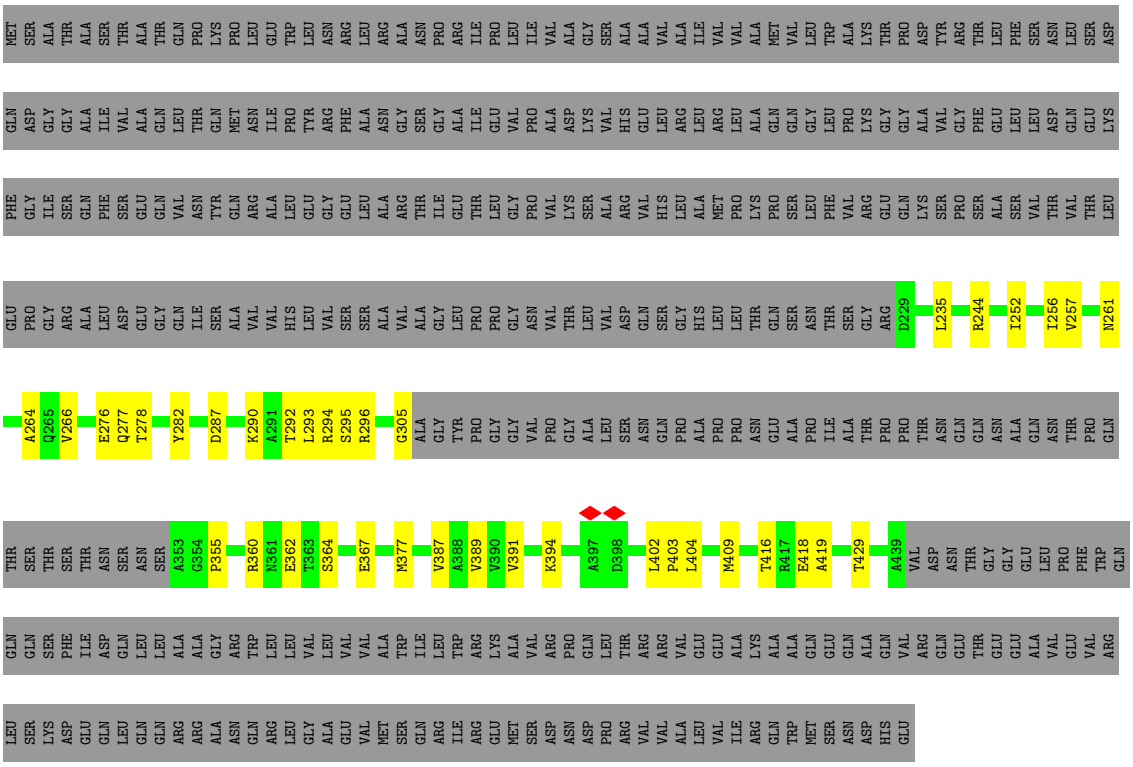




• Molecule 1: Flagellar M-ring protein

Chain AL:

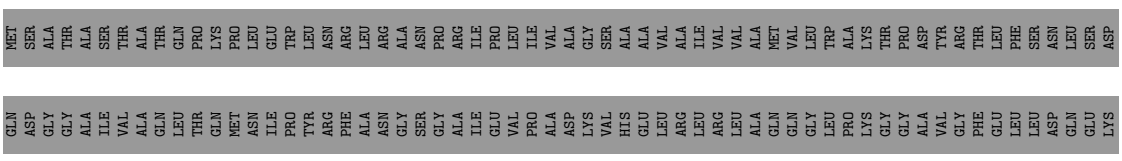


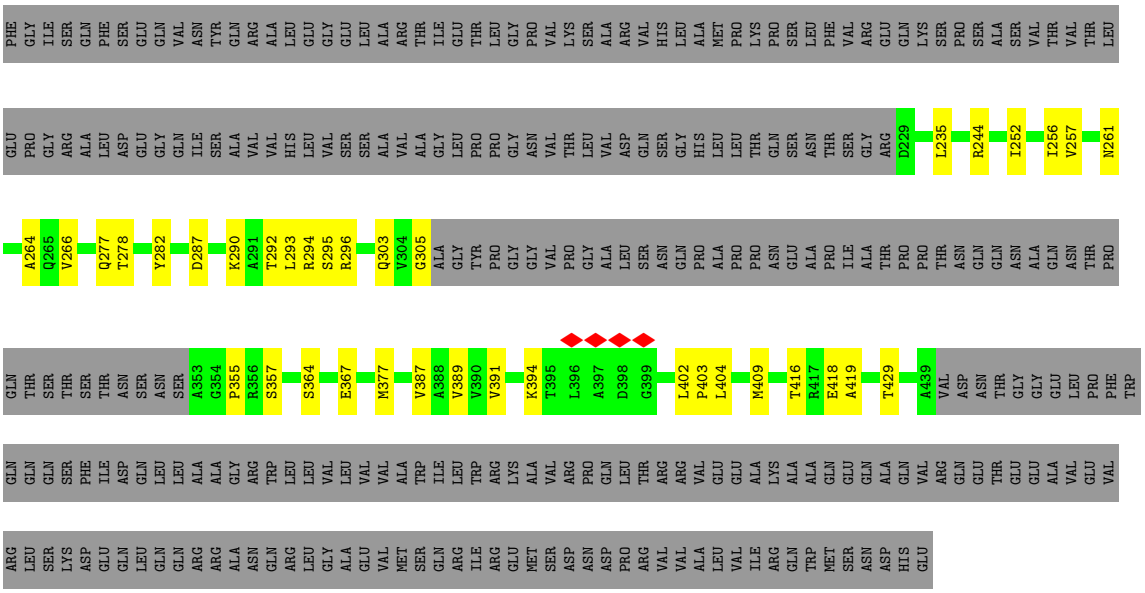


• Molecule 1: Flagellar M-ring protein

Chain AM:



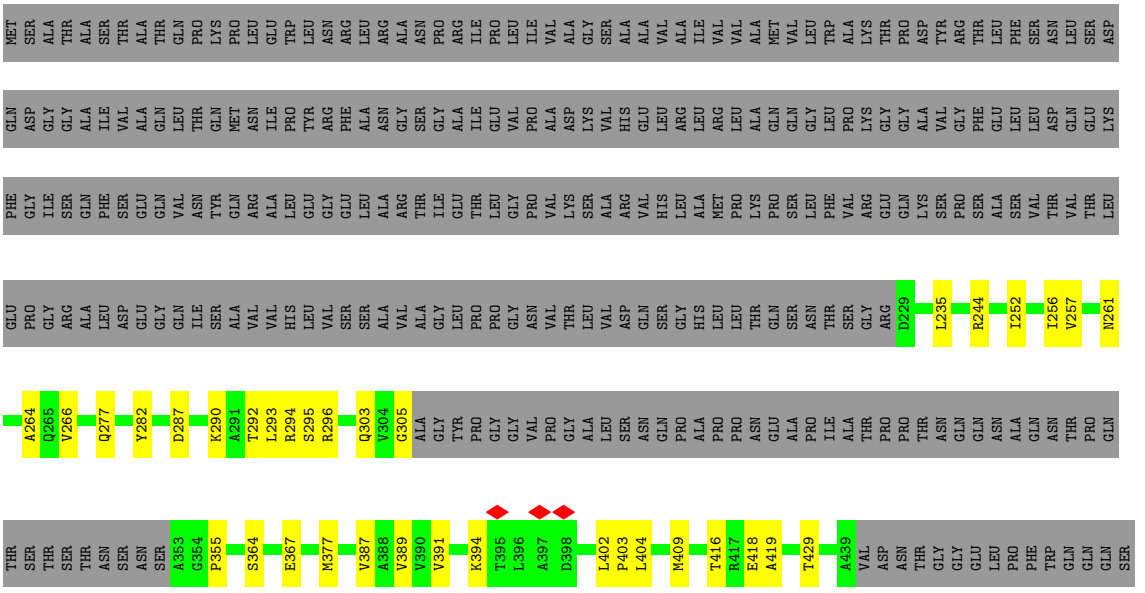




• Molecule 1: Flagellar M-ring protein

Chain AN:

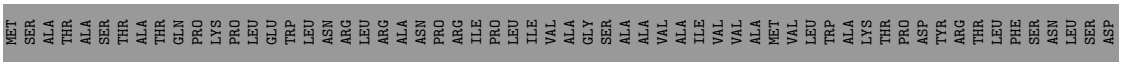


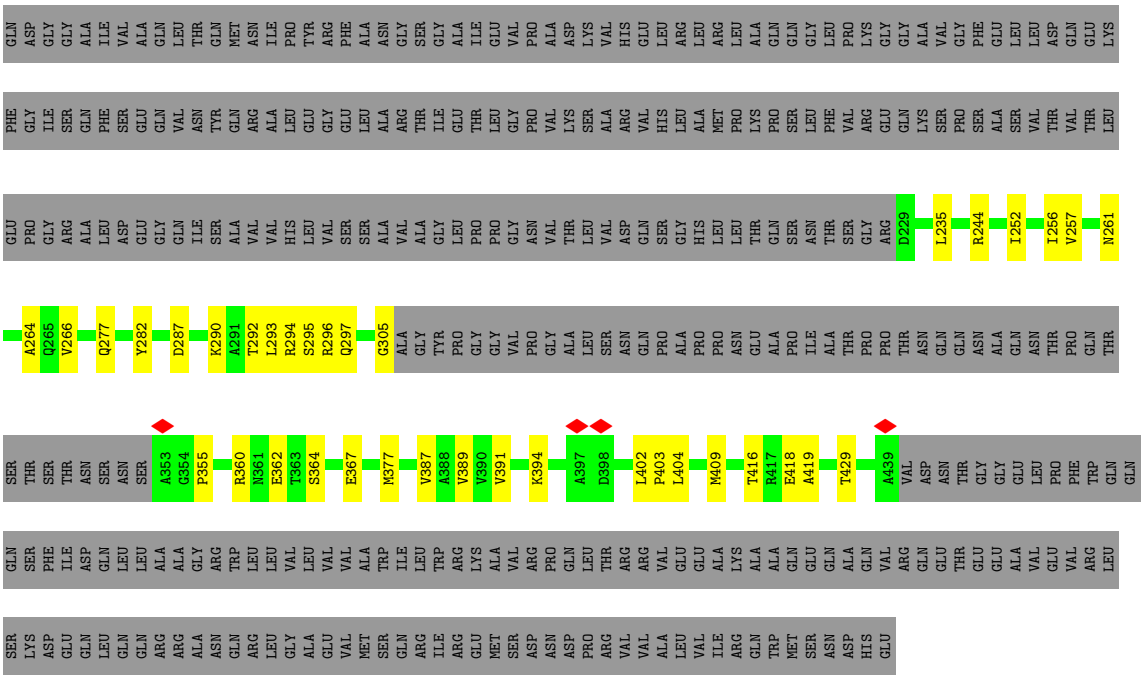


• Molecule 1: Flagellar M-ring protein

Chain AO:



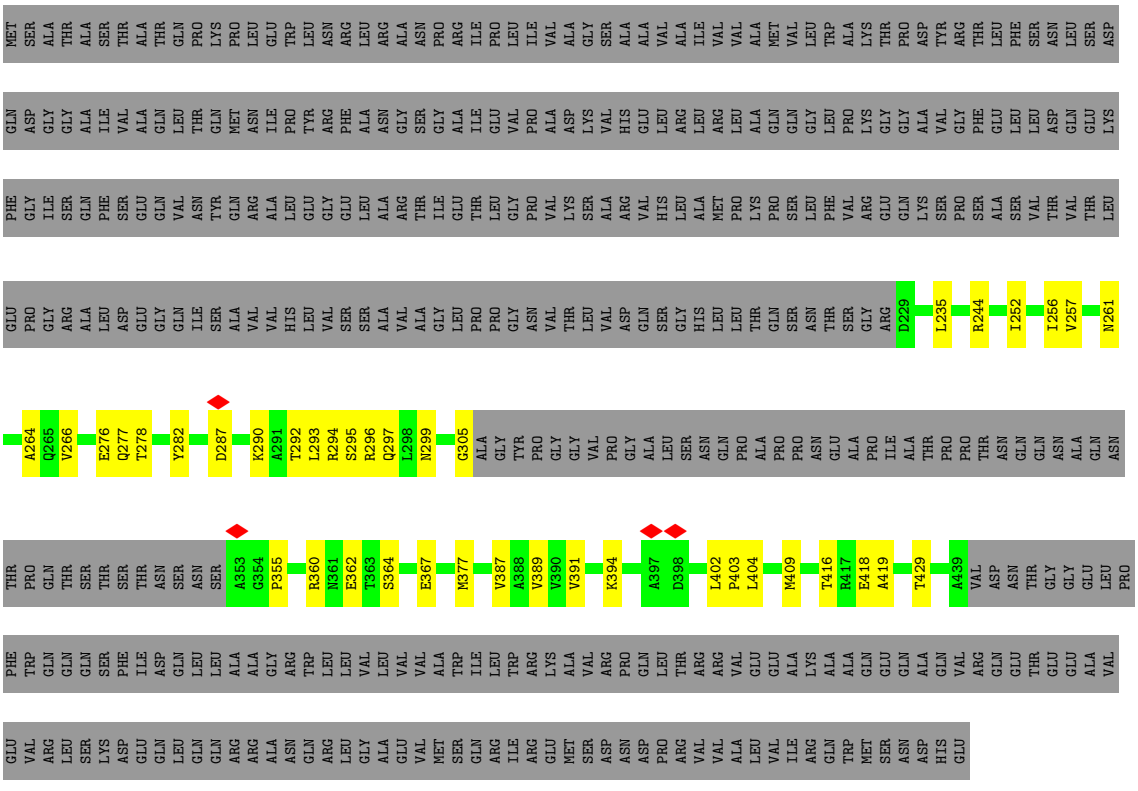




• Molecule 1: Flagellar M-ring protein

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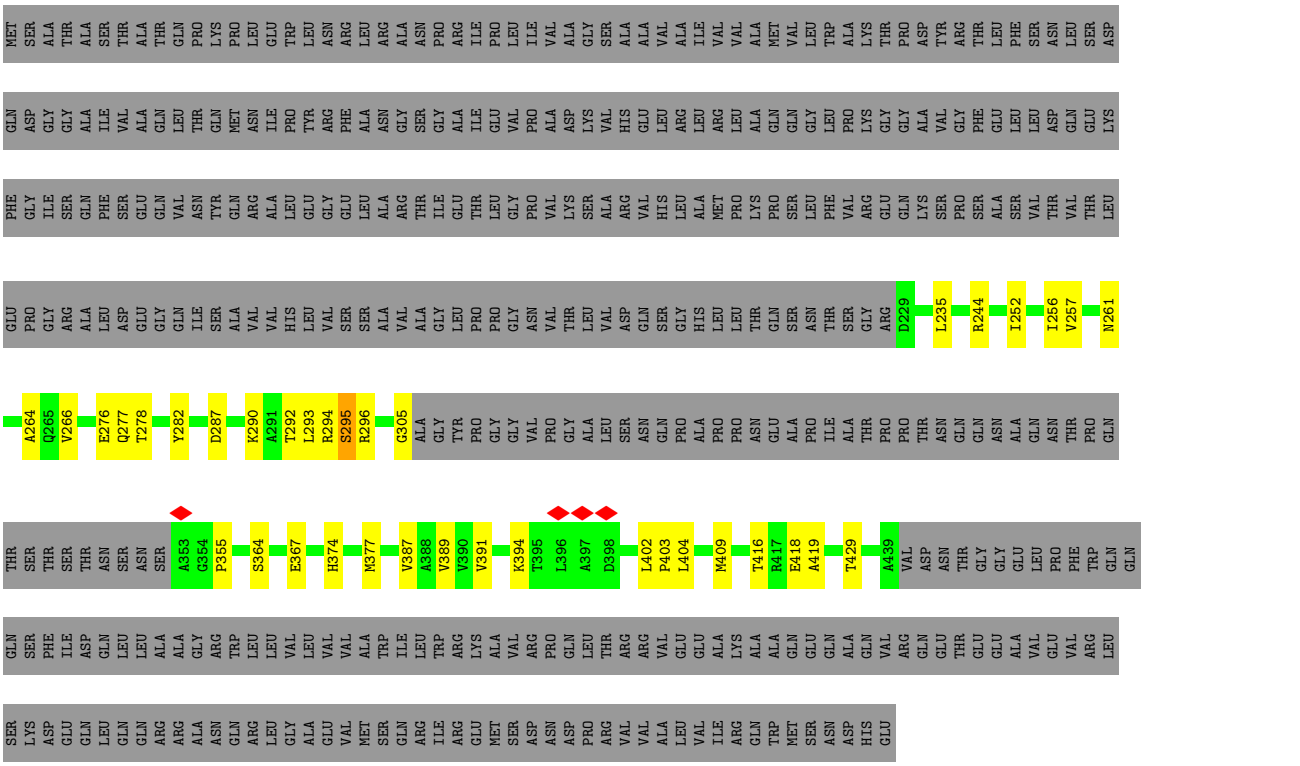




• Molecule 1: Flagellar M-ring protein

Chain AQ:

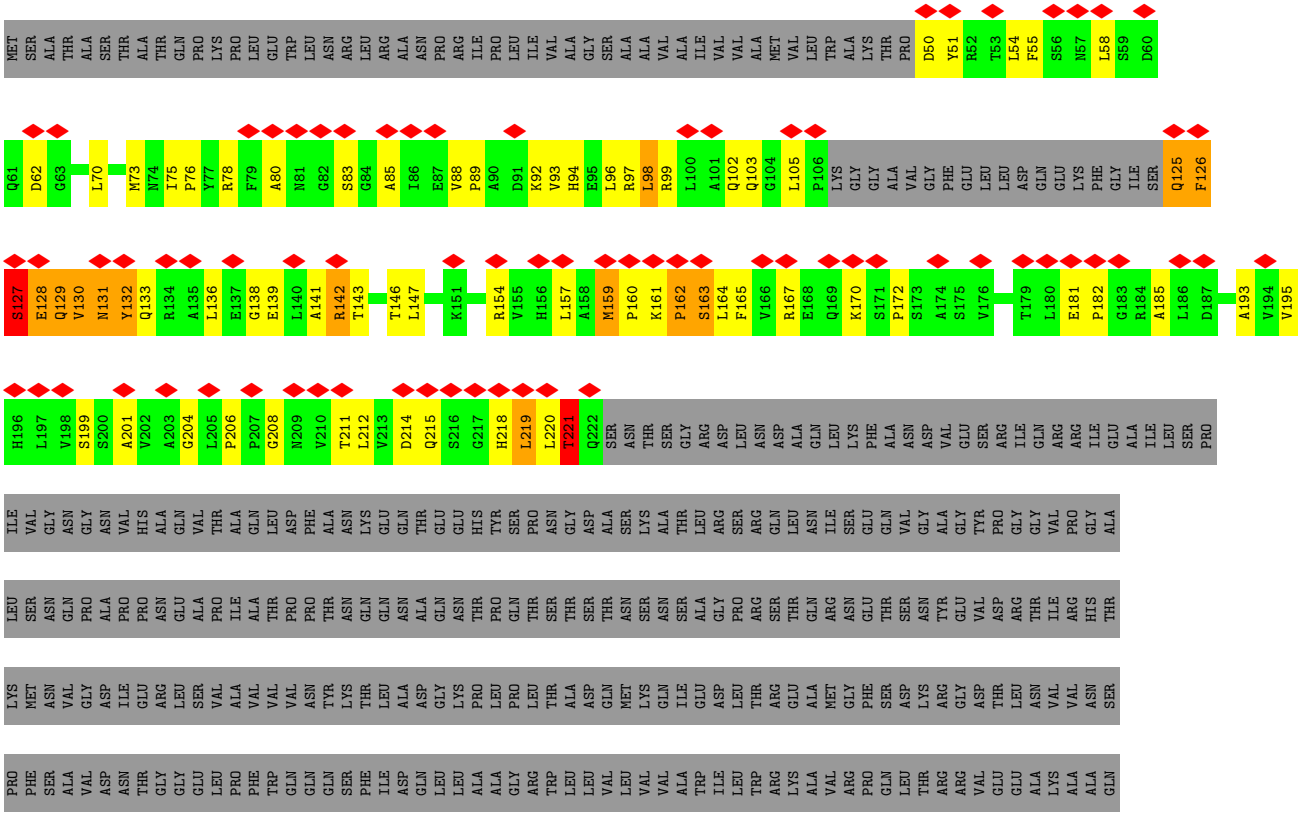


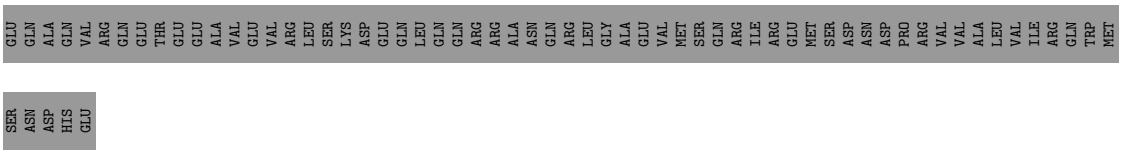


• Molecule 1: Flagellar M-ring protein

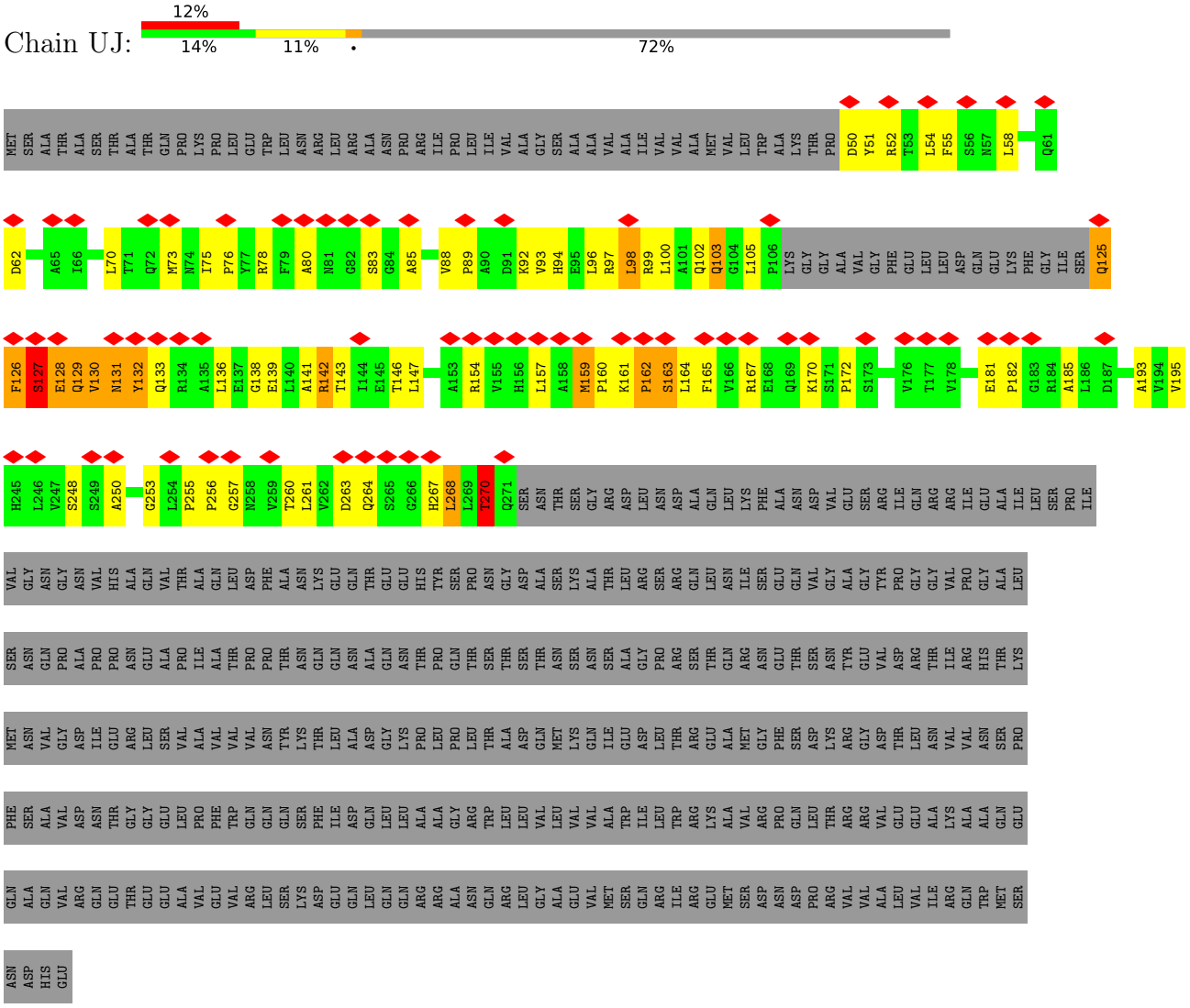
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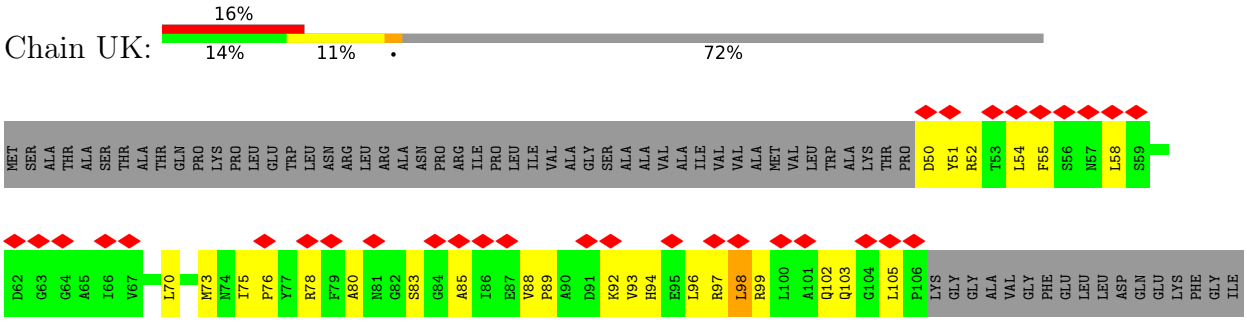


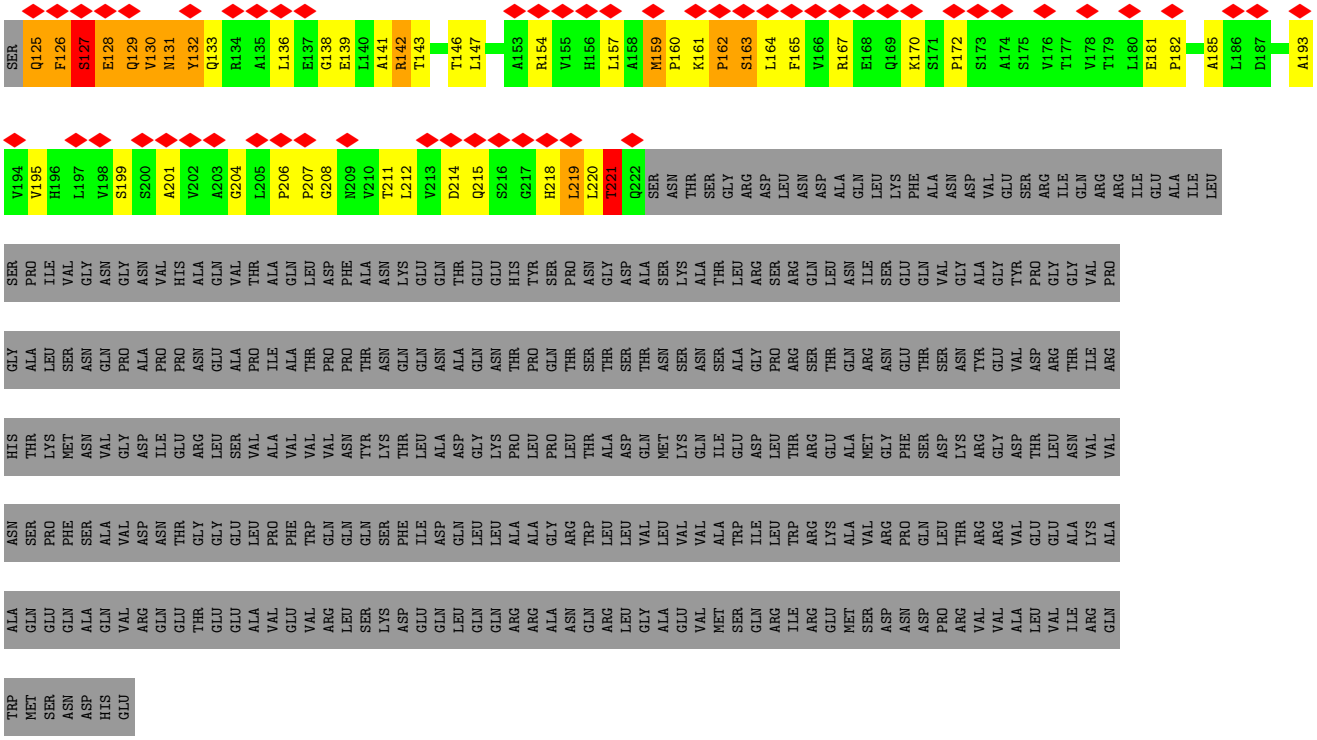


• Molecule 1: Flagellar M-ring protein



• Molecule 1: Flagellar M-ring protein

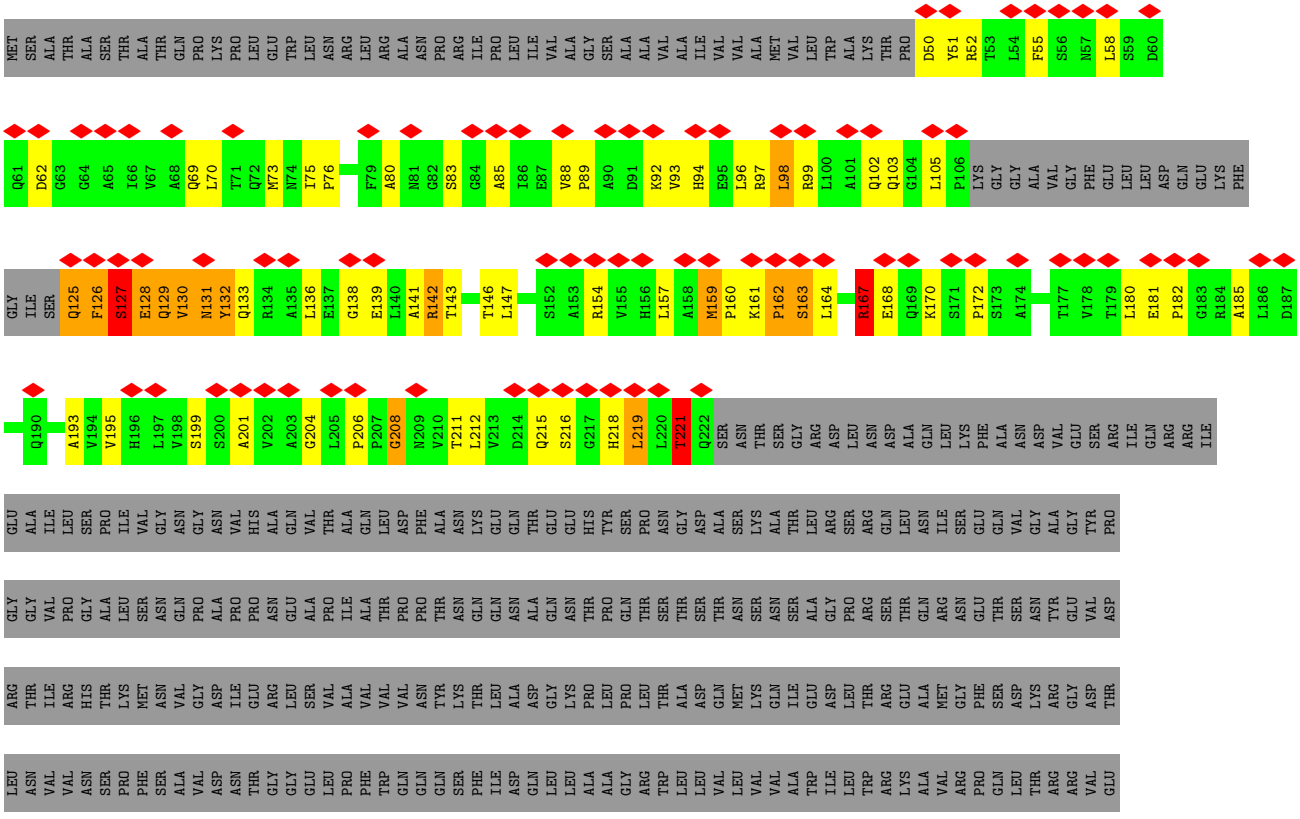


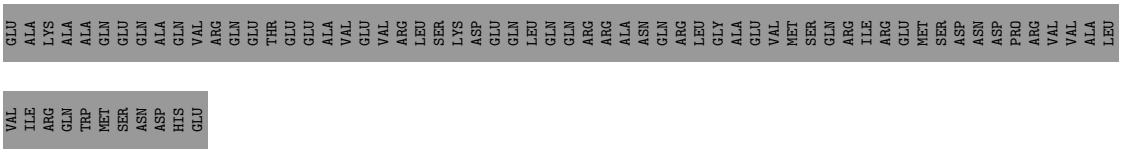


• Molecule 1: Flagellar M-ring protein

Chain UL:



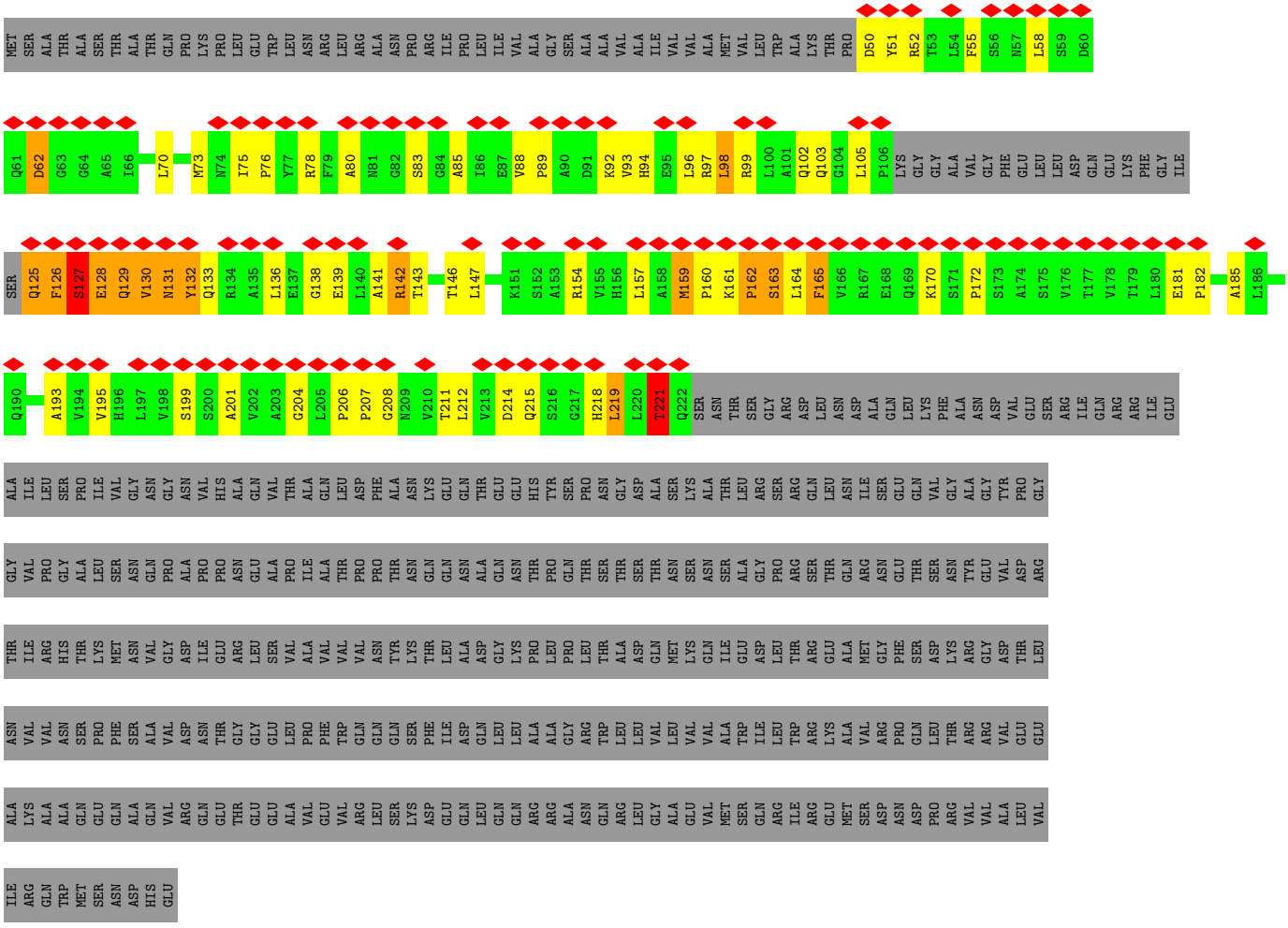




• Molecule 1: Flagellar M-ring protein

Chain UM:

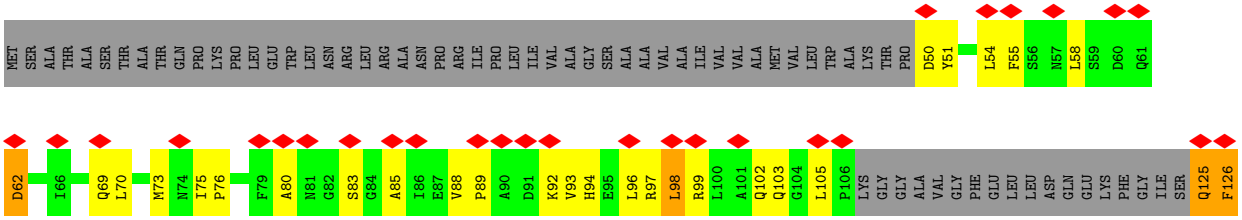


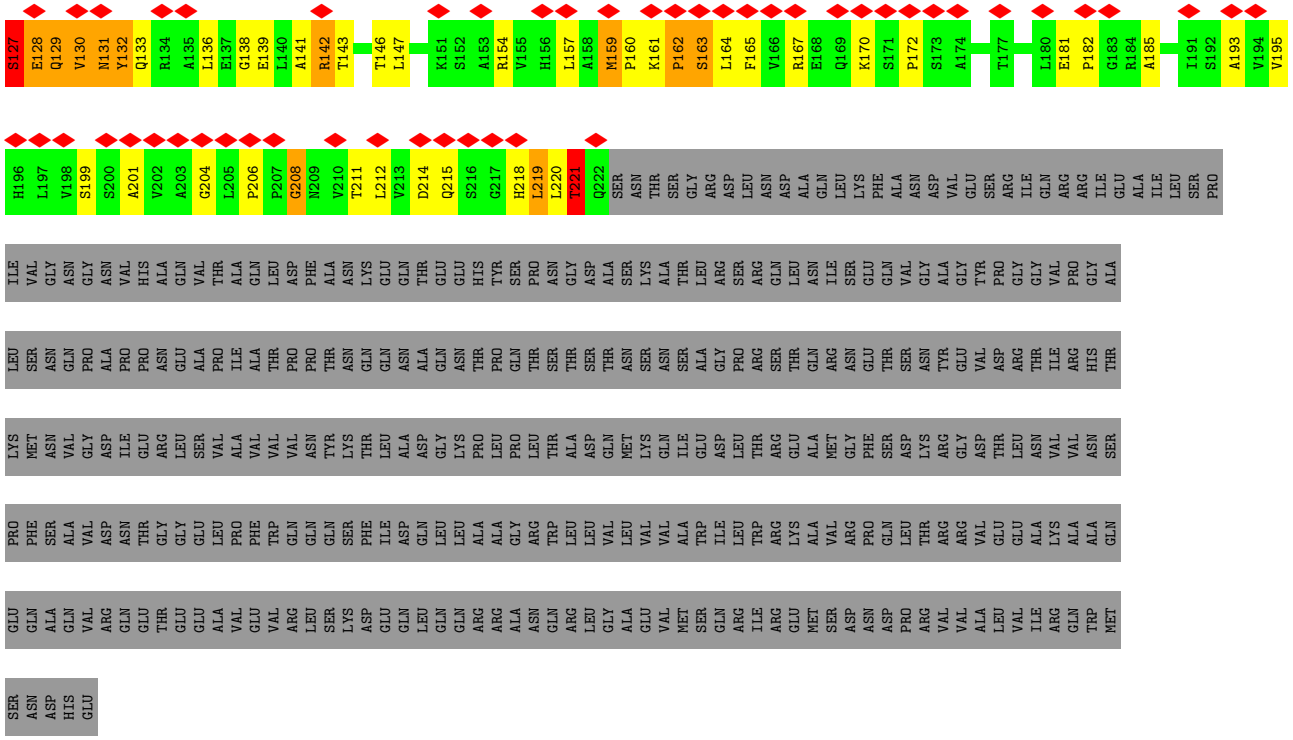


• Molecule 1: Flagellar M-ring protein

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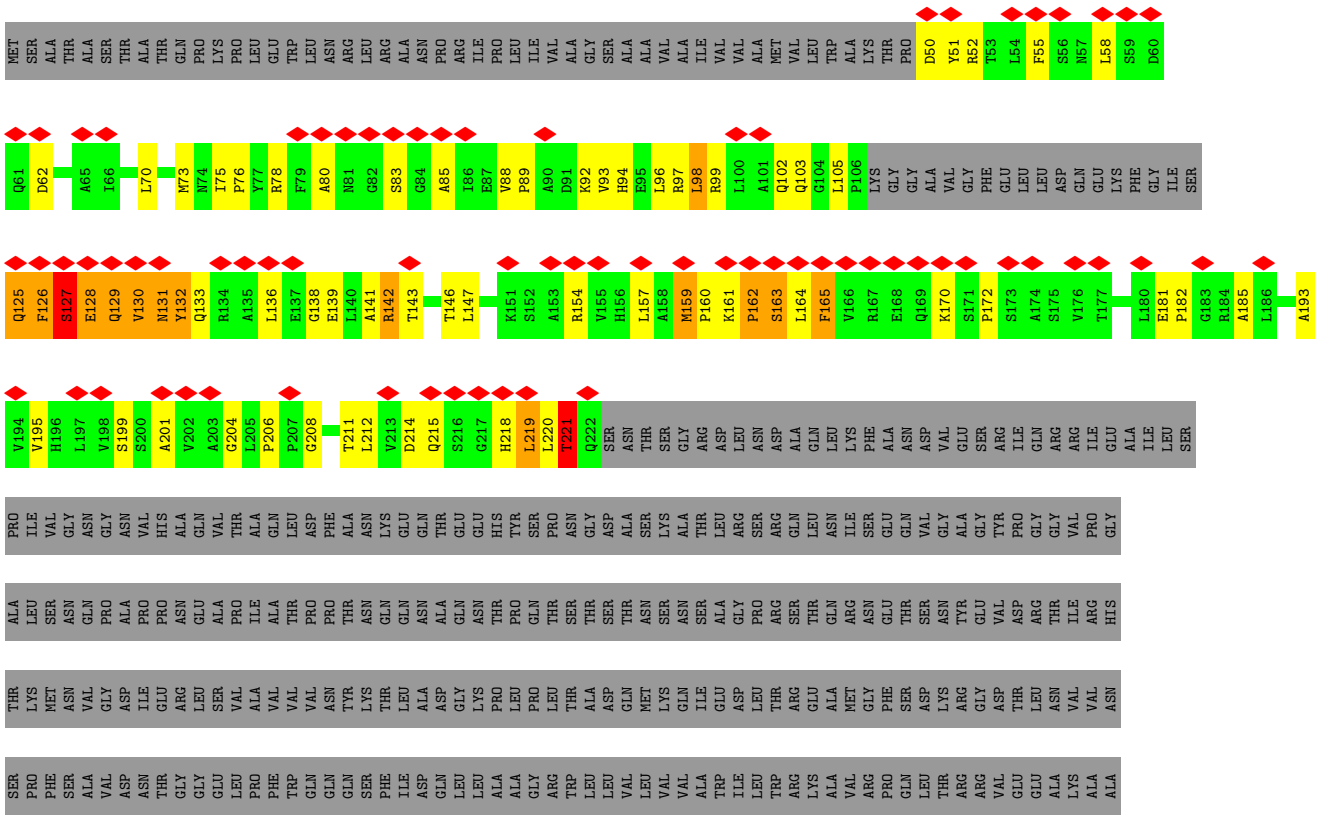


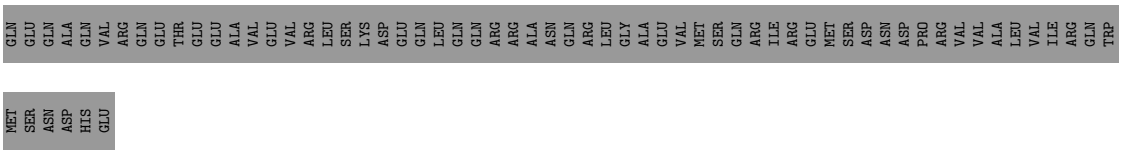


• Molecule 1: Flagellar M-ring protein

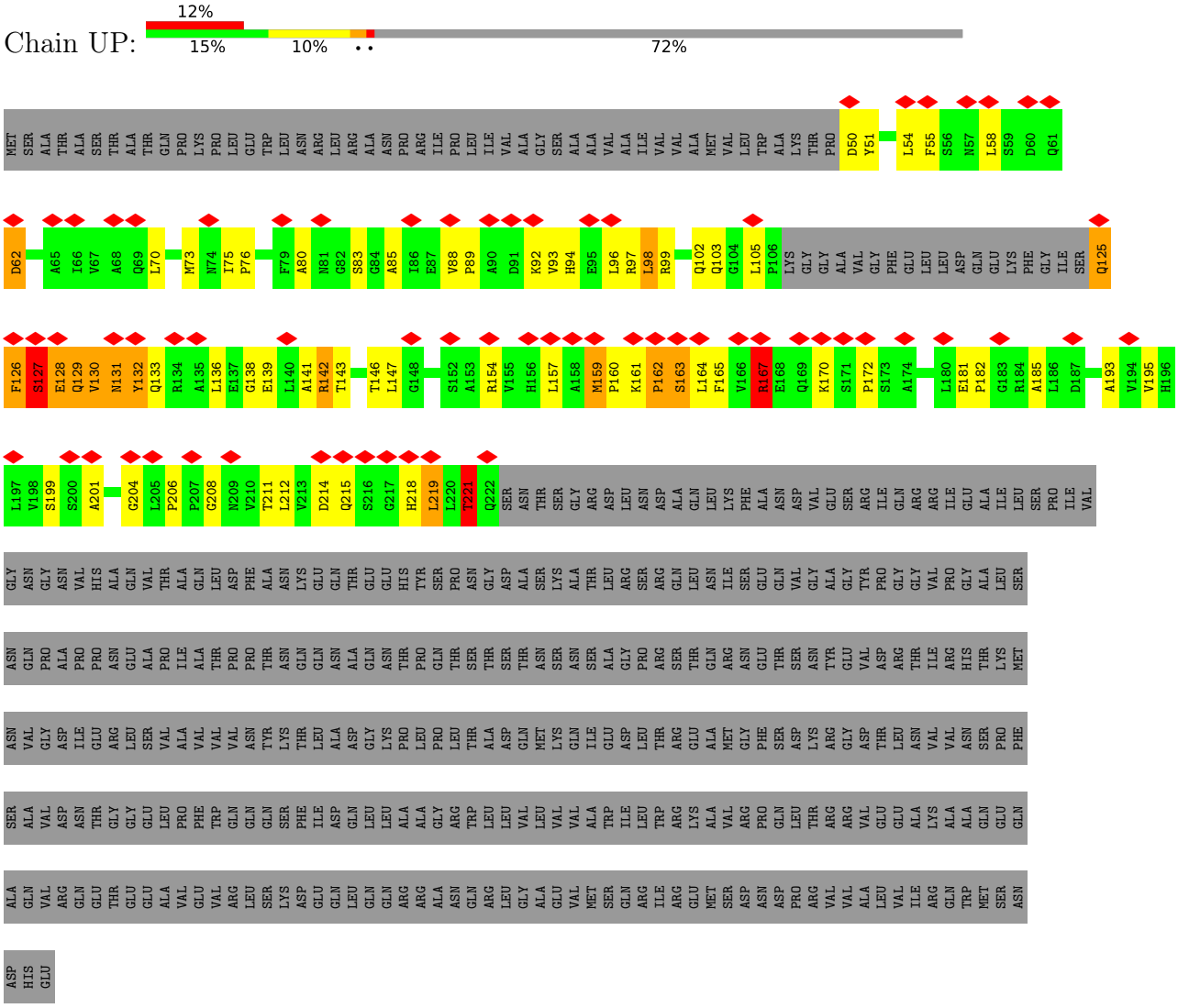
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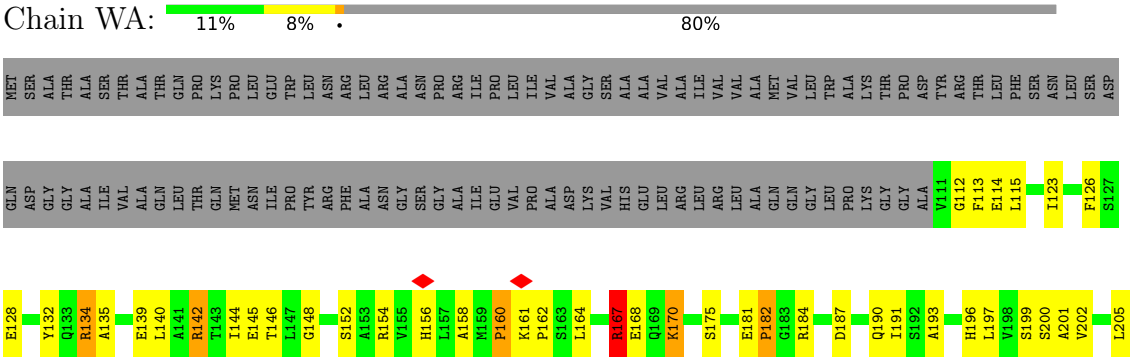




• Molecule 1: Flagellar M-ring protein



• Molecule 1: Flagellar M-ring protein

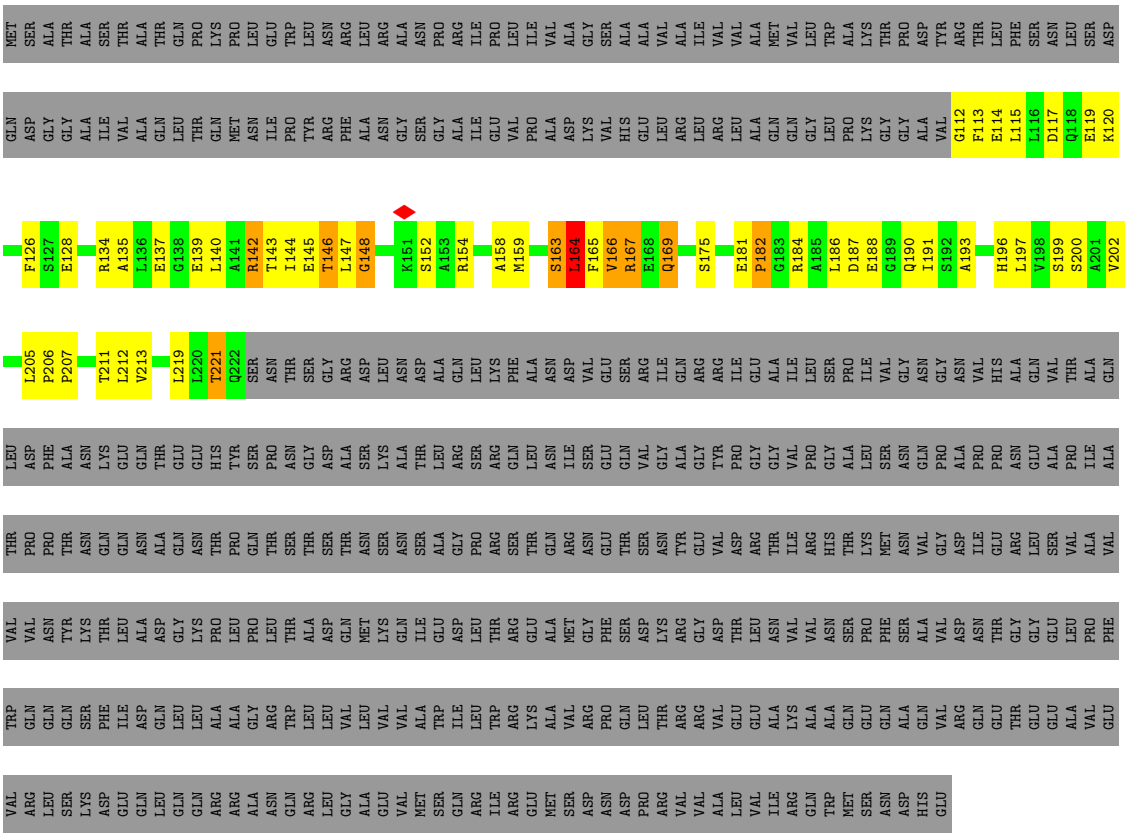




• Molecule 1: Flagellar M-ring protein

Chain WB:

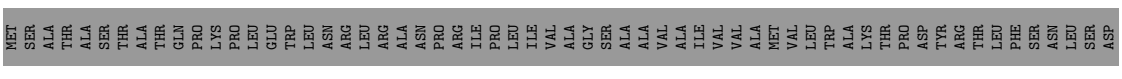


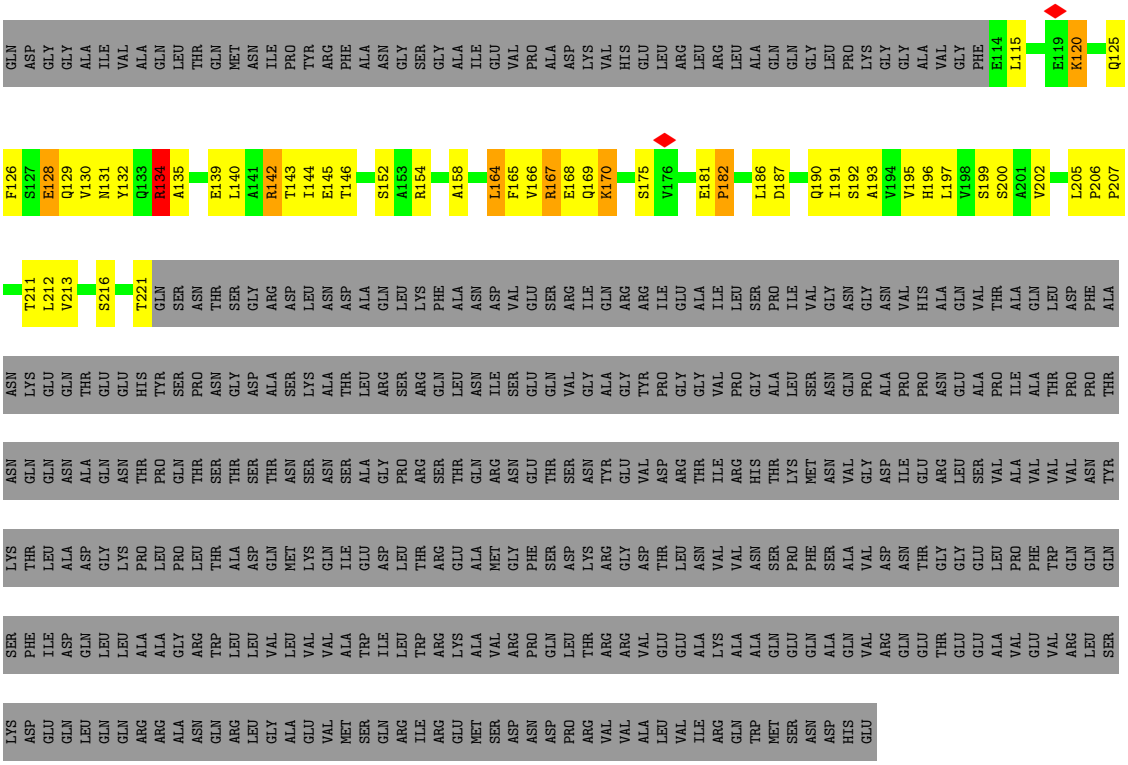


• Molecule 1: Flagellar M-ring protein

Chain WC:

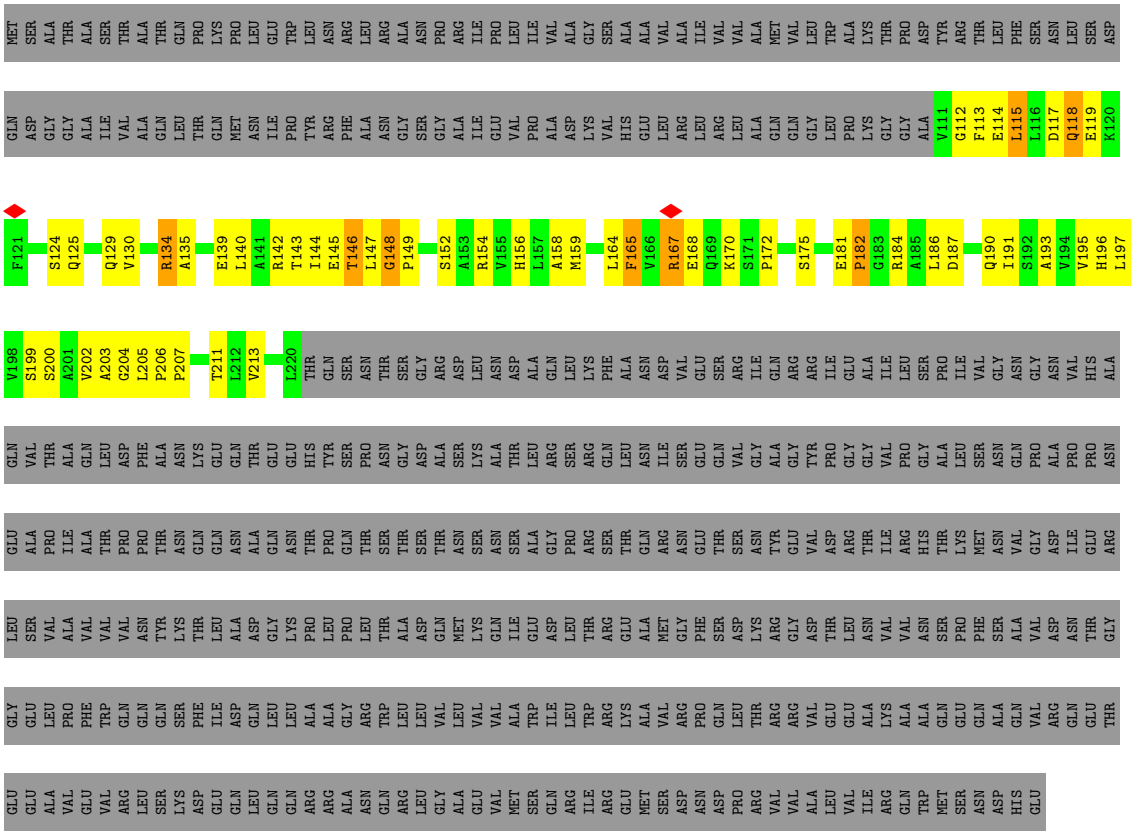






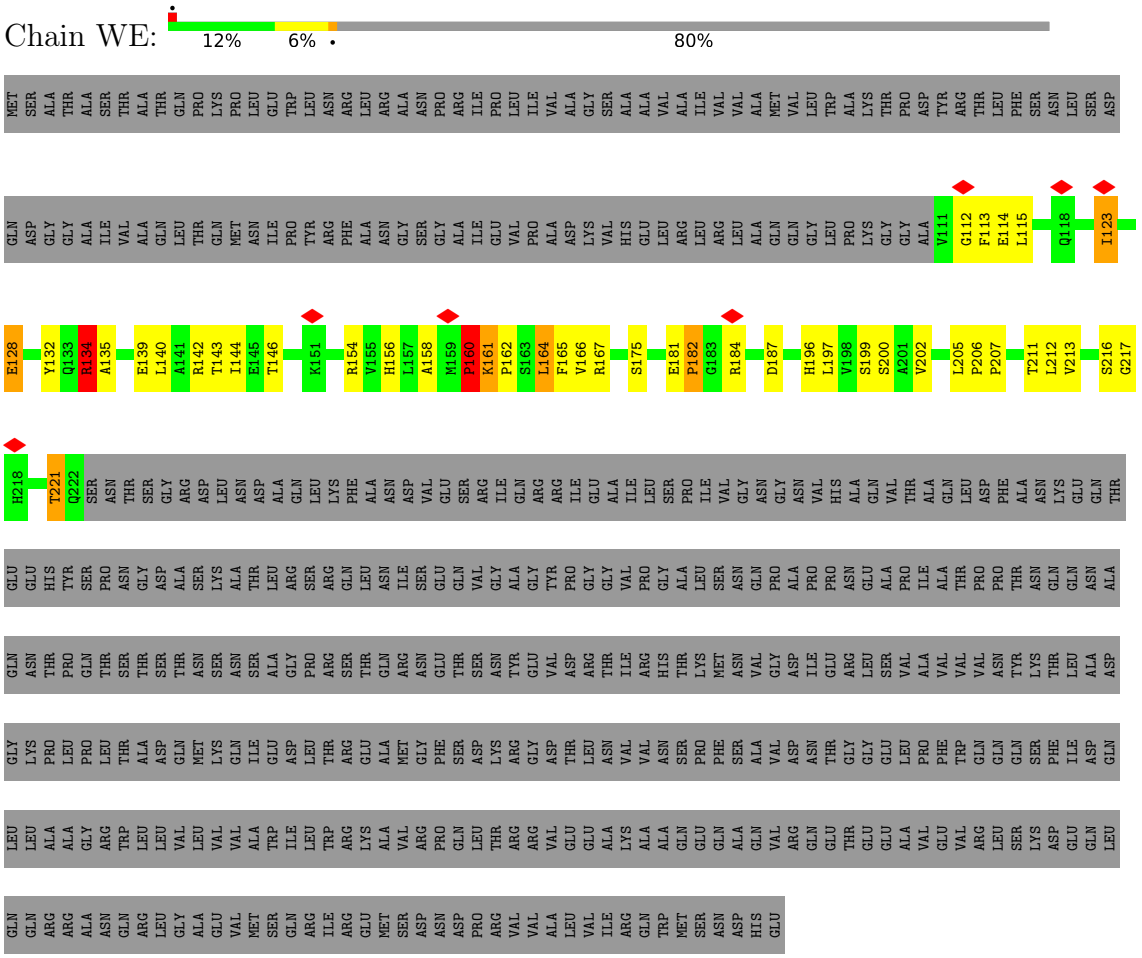
• Molecule 1: Flagellar M-ring protein

Chain WD: 10% 9% • 80%



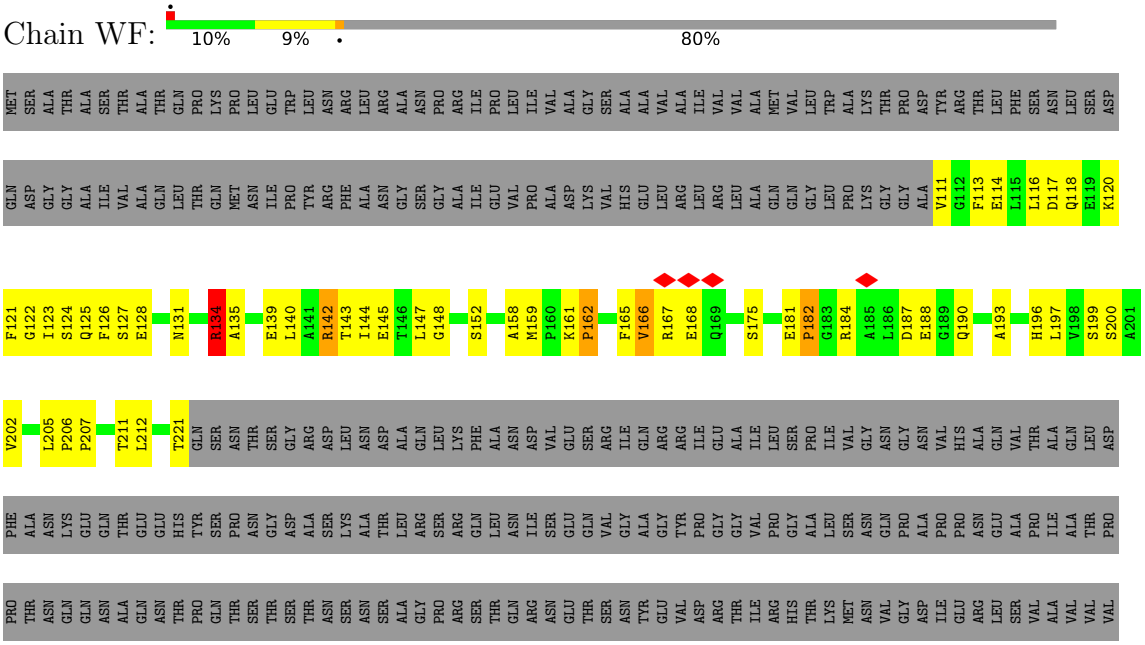
• Molecule 1: Flagellar M-ring protein

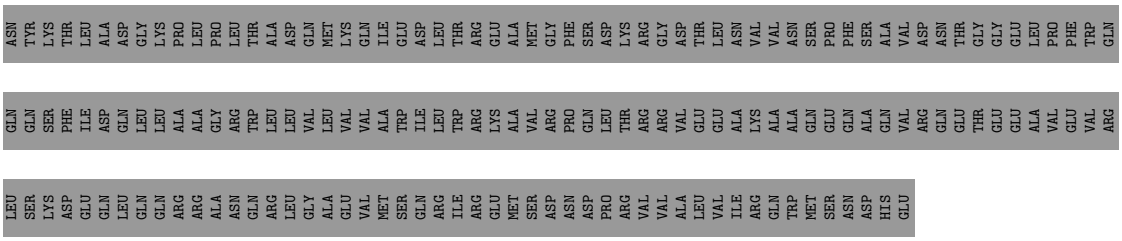
Chain WE:



• Molecule 1: Flagellar M-ring protein

Chain WF:

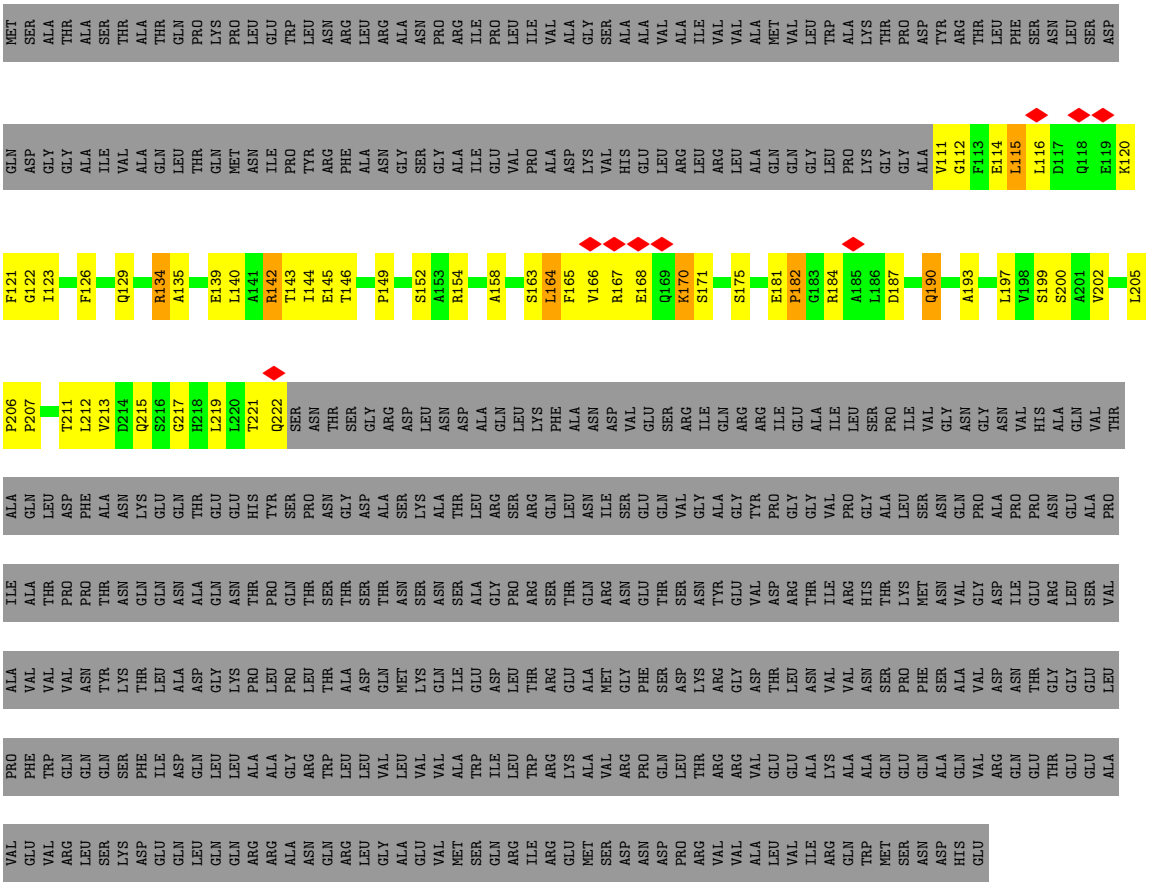




• Molecule 1: Flagellar M-ring protein

Chain WG:

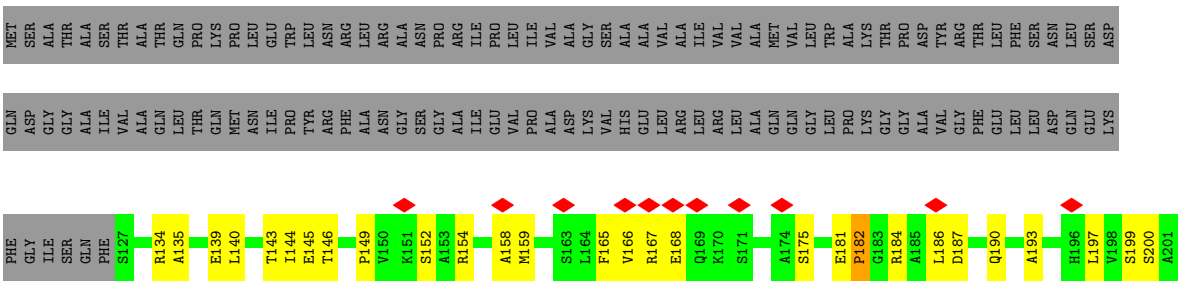


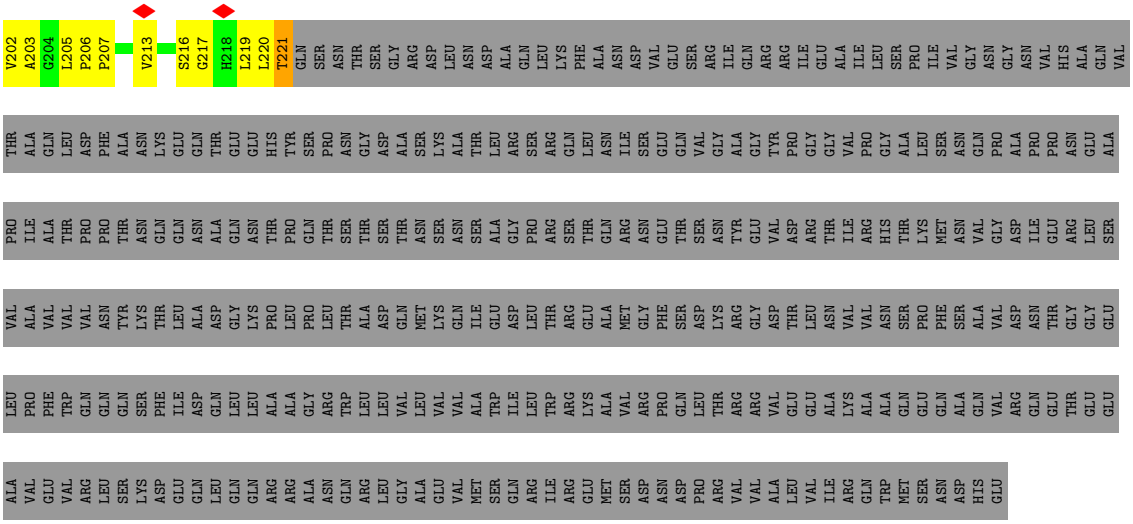


• Molecule 1: Flagellar M-ring protein

Chain WH:



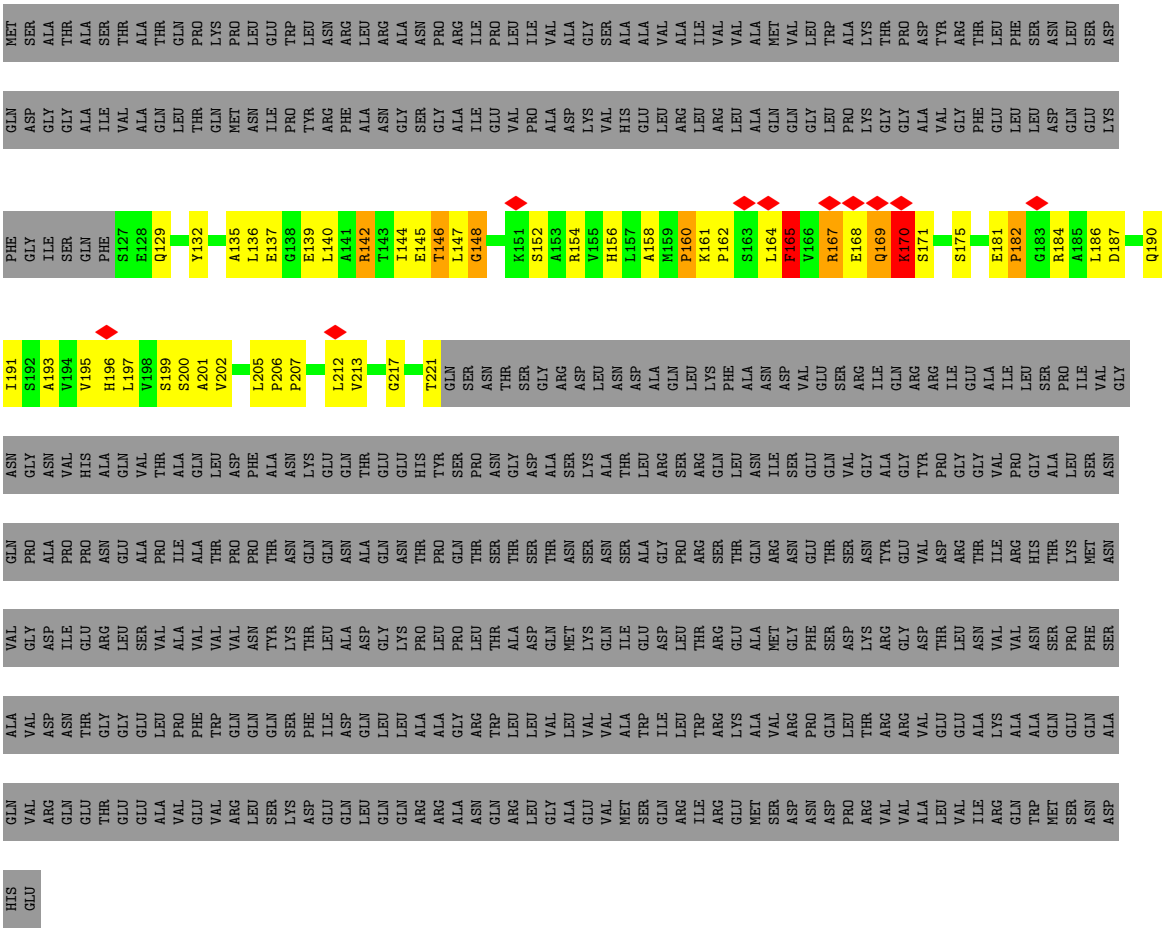




• Molecule 1: Flagellar M-ring protein

Chain WI:

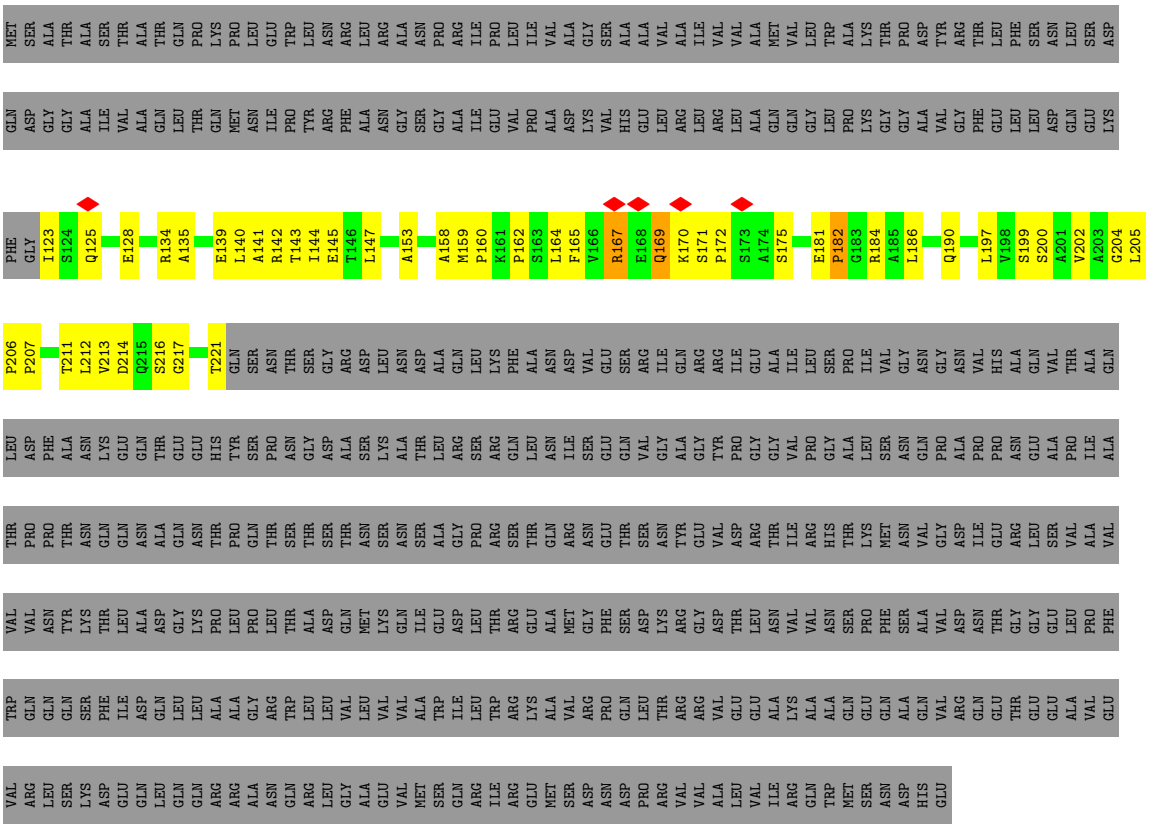




• Molecule 1: Flagellar M-ring protein

Chain WJ:

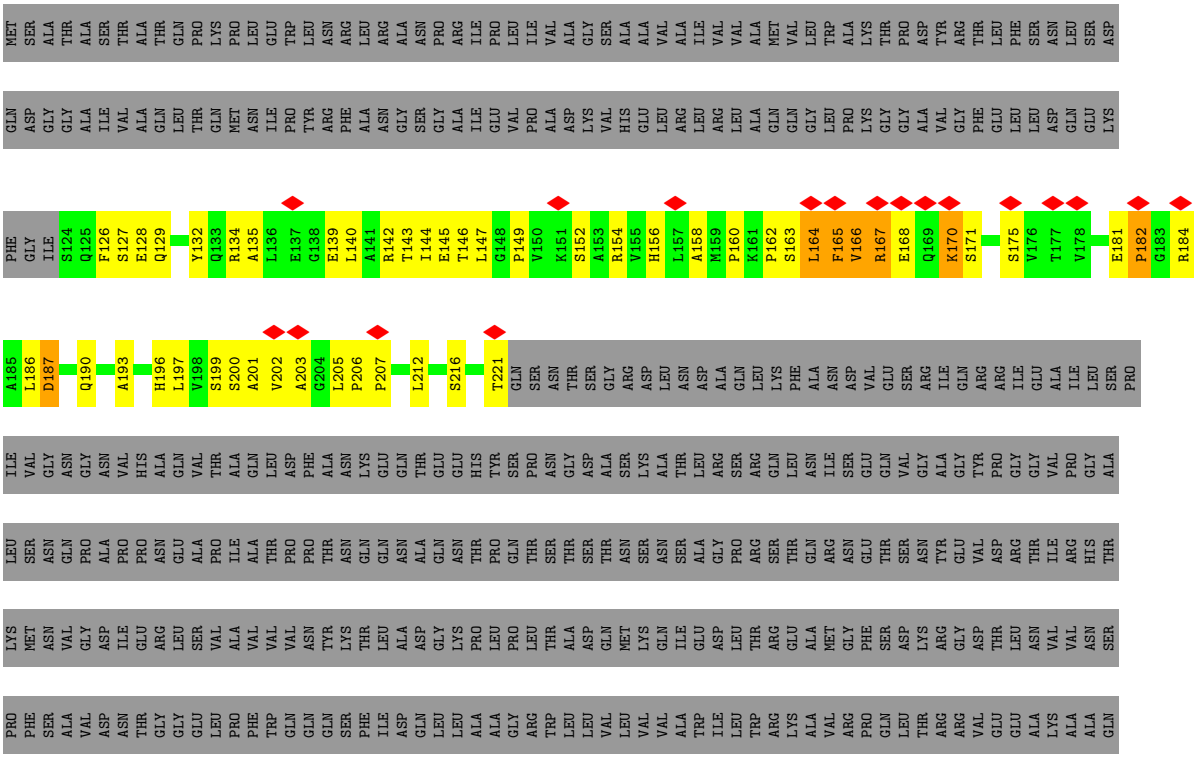


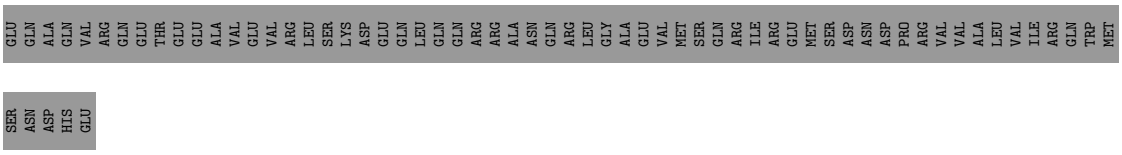


• Molecule 1: Flagellar M-ring protein

Chain WK:



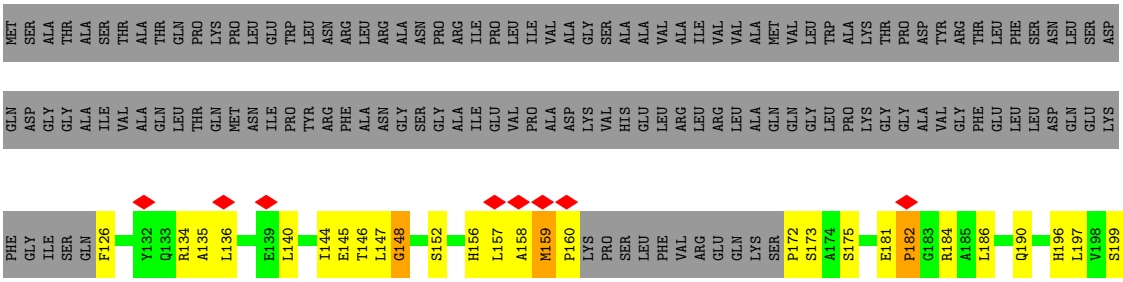


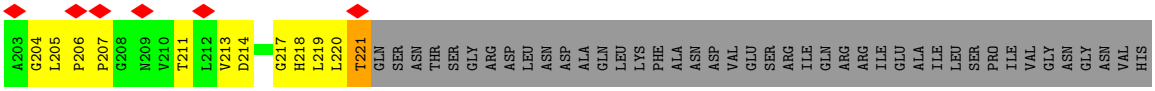


• Molecule 1: Flagellar M-ring protein

Chain WL:













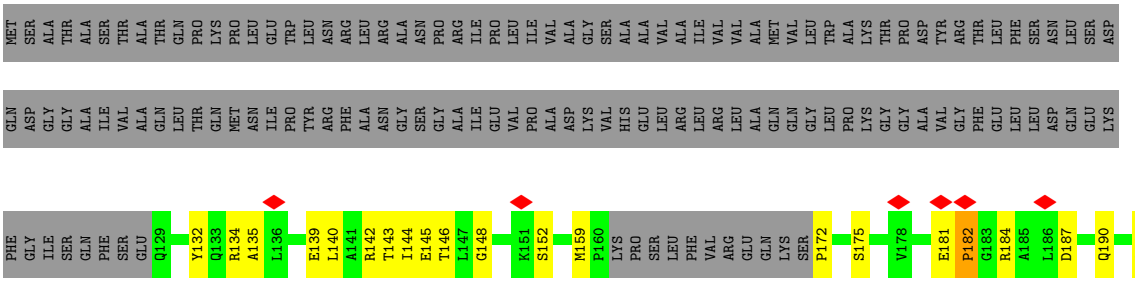


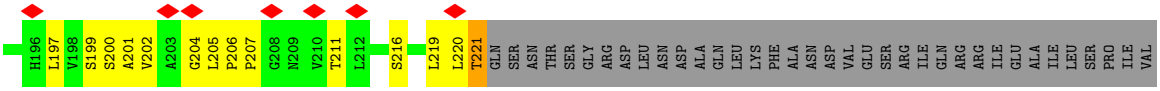


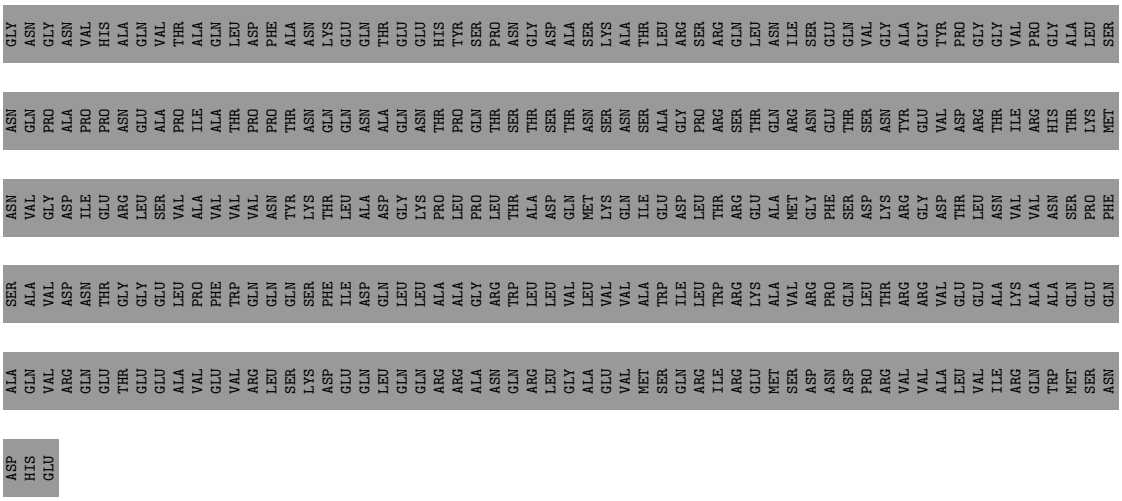
• Molecule 1: Flagellar M-ring protein

Chain WM:





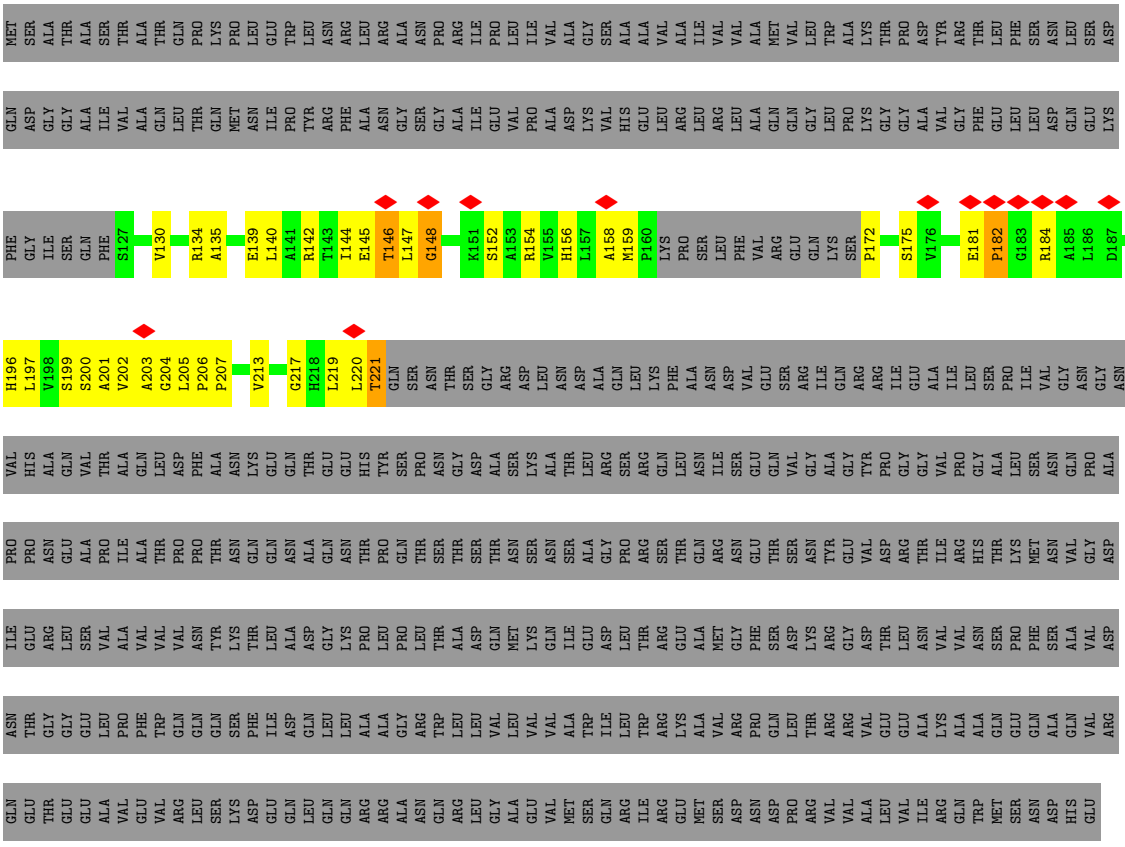




• Molecule 1: Flagellar M-ring protein

Chain WN:

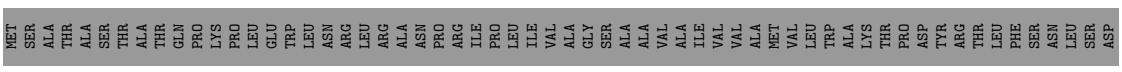


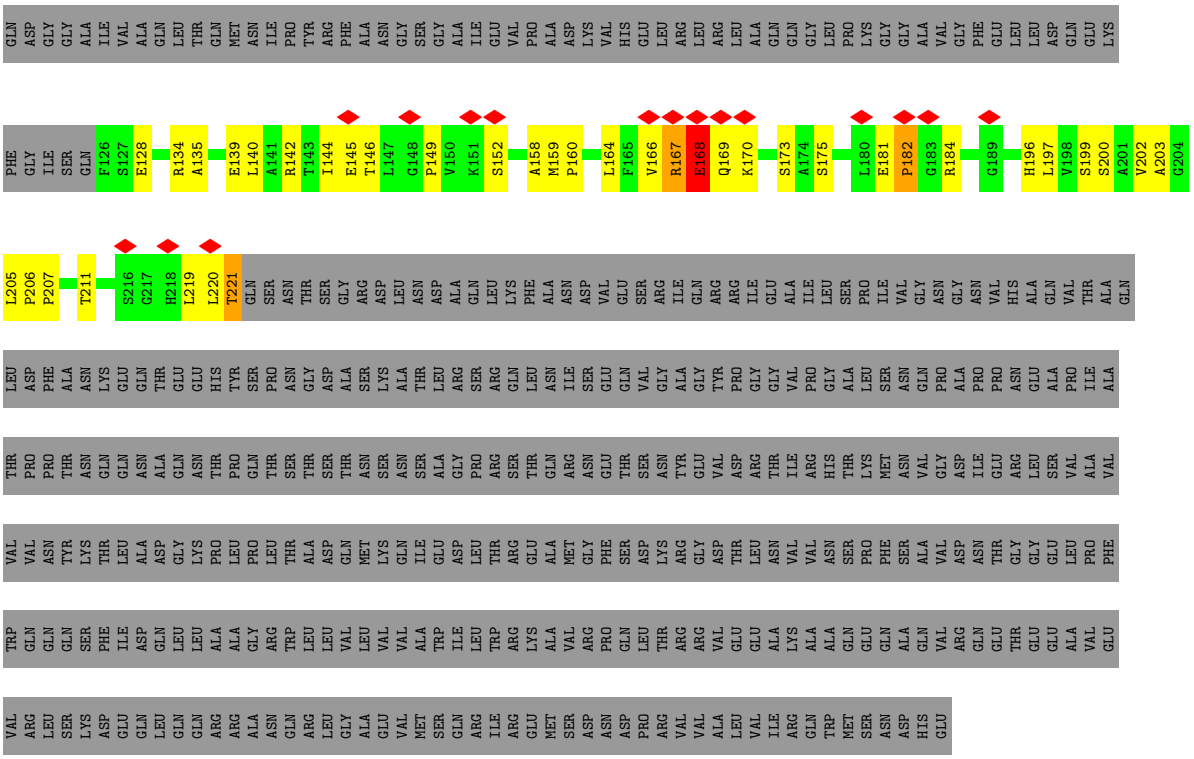


• Molecule 1: Flagellar M-ring protein

Chain WO:



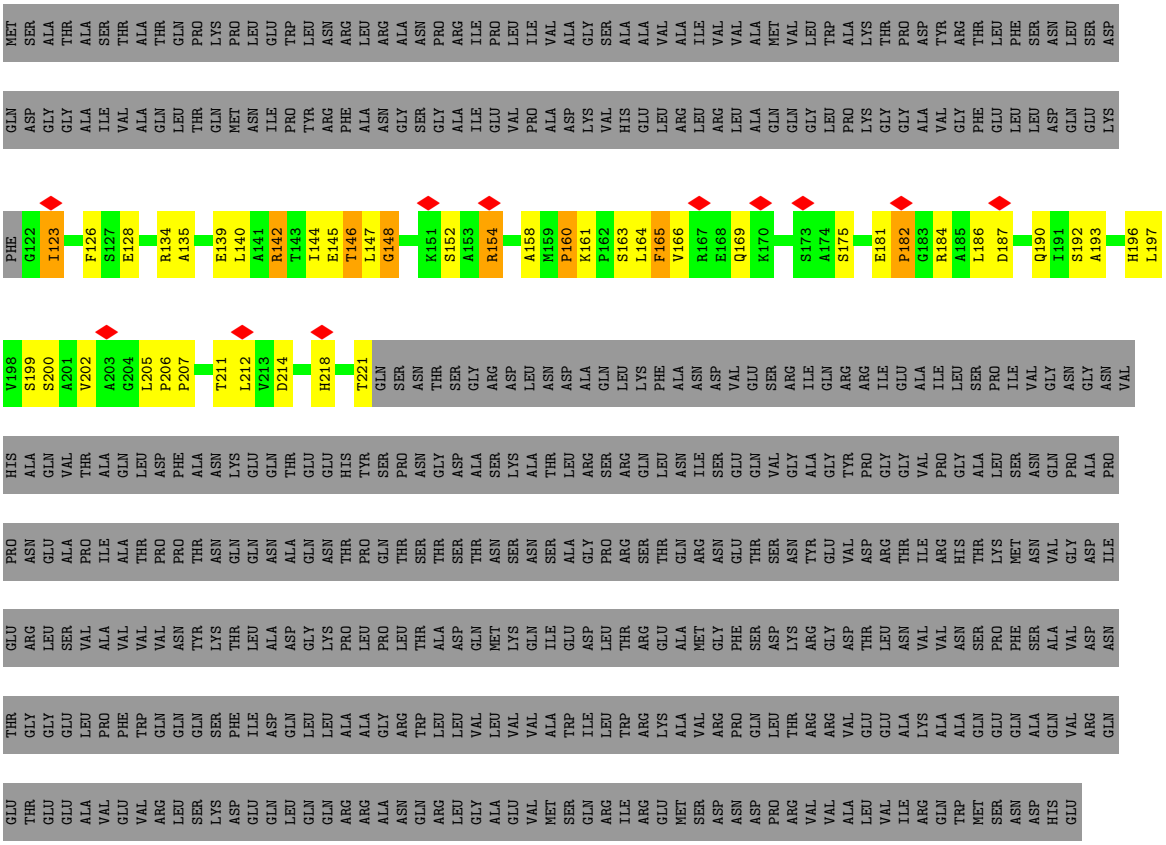




• Molecule 1: Flagellar M-ring protein

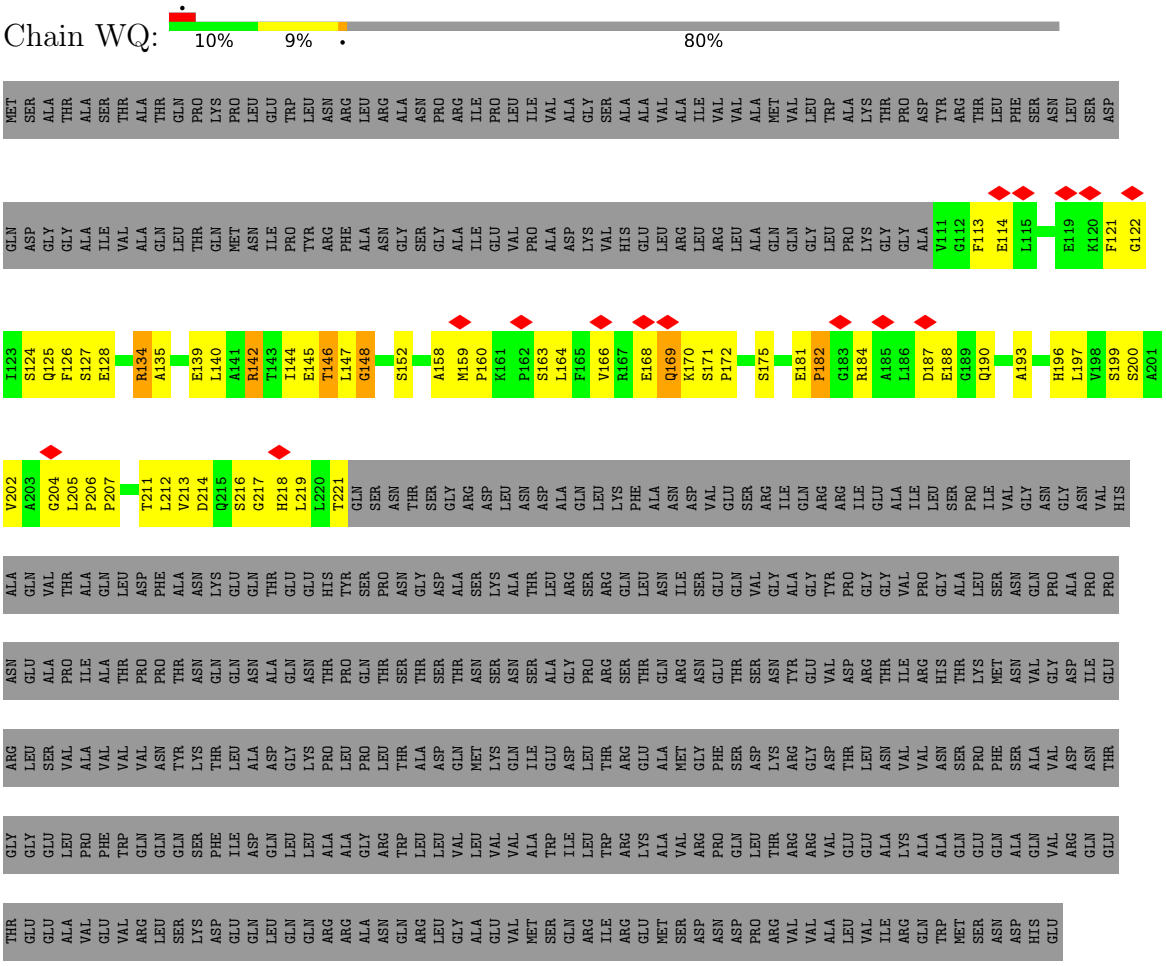
Chain WP:





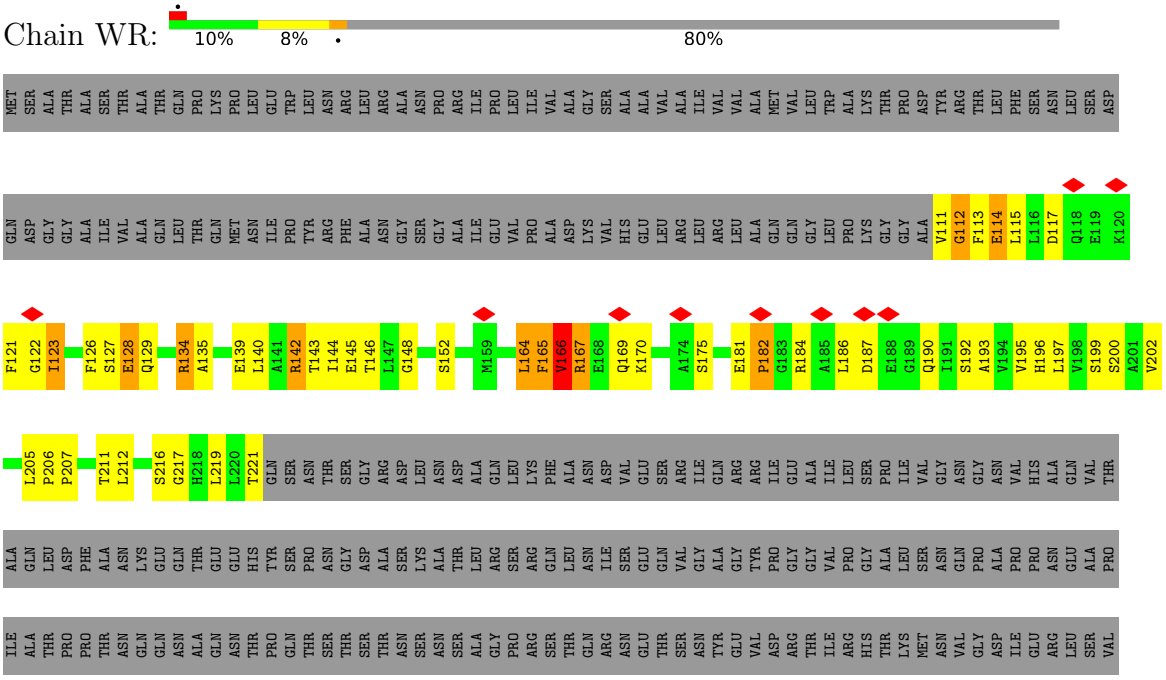
• Molecule 1: Flagellar M-ring protein

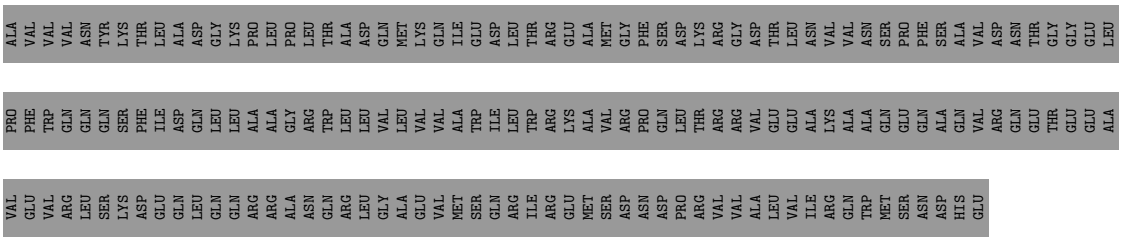
Chain WQ:



• Molecule 1: Flagellar M-ring protein

Chain WR:

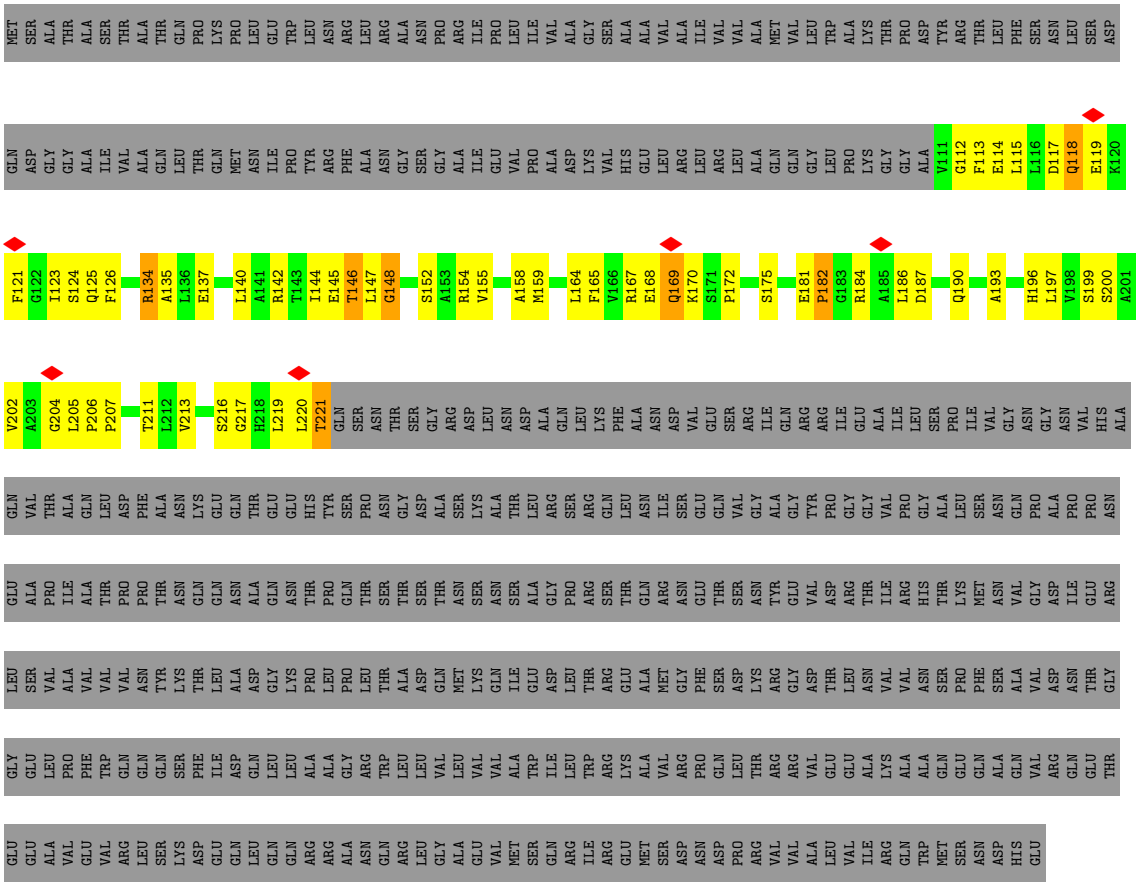




• Molecule 1: Flagellar M-ring protein

Chain WS:

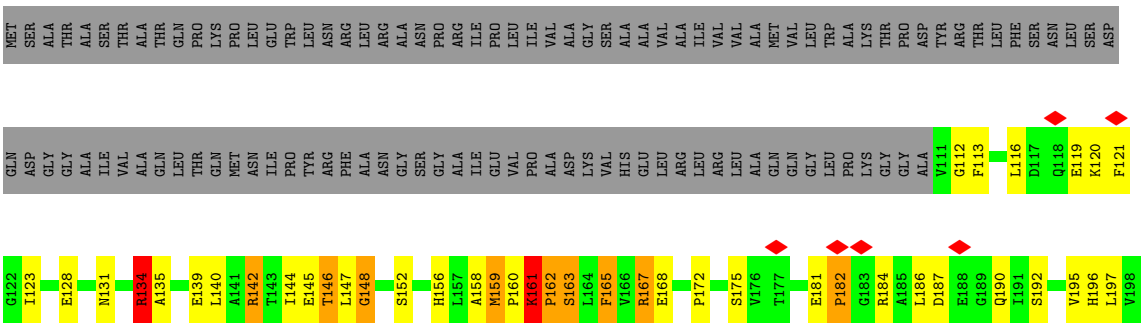


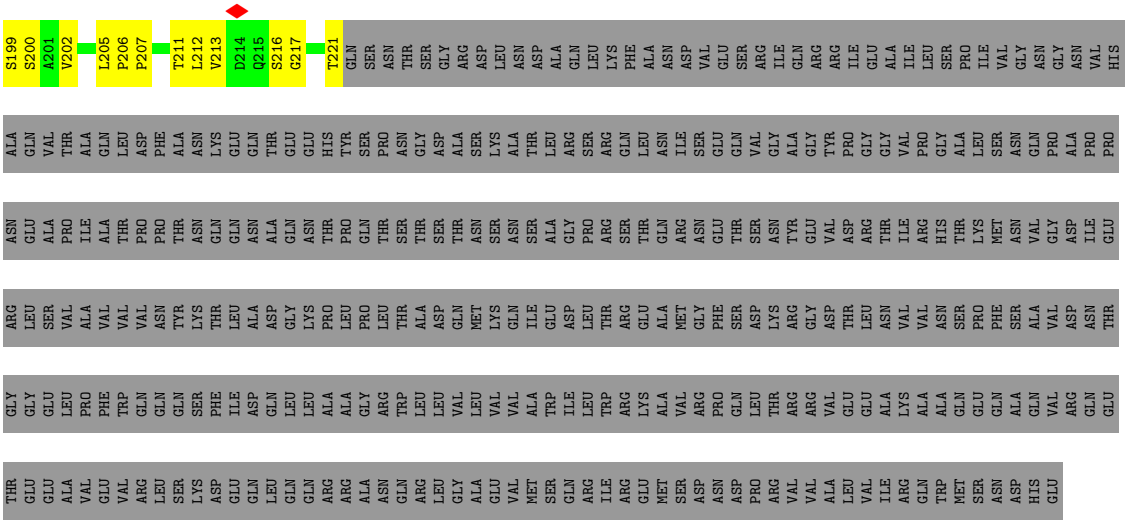


• Molecule 1: Flagellar M-ring protein

Chain WT:



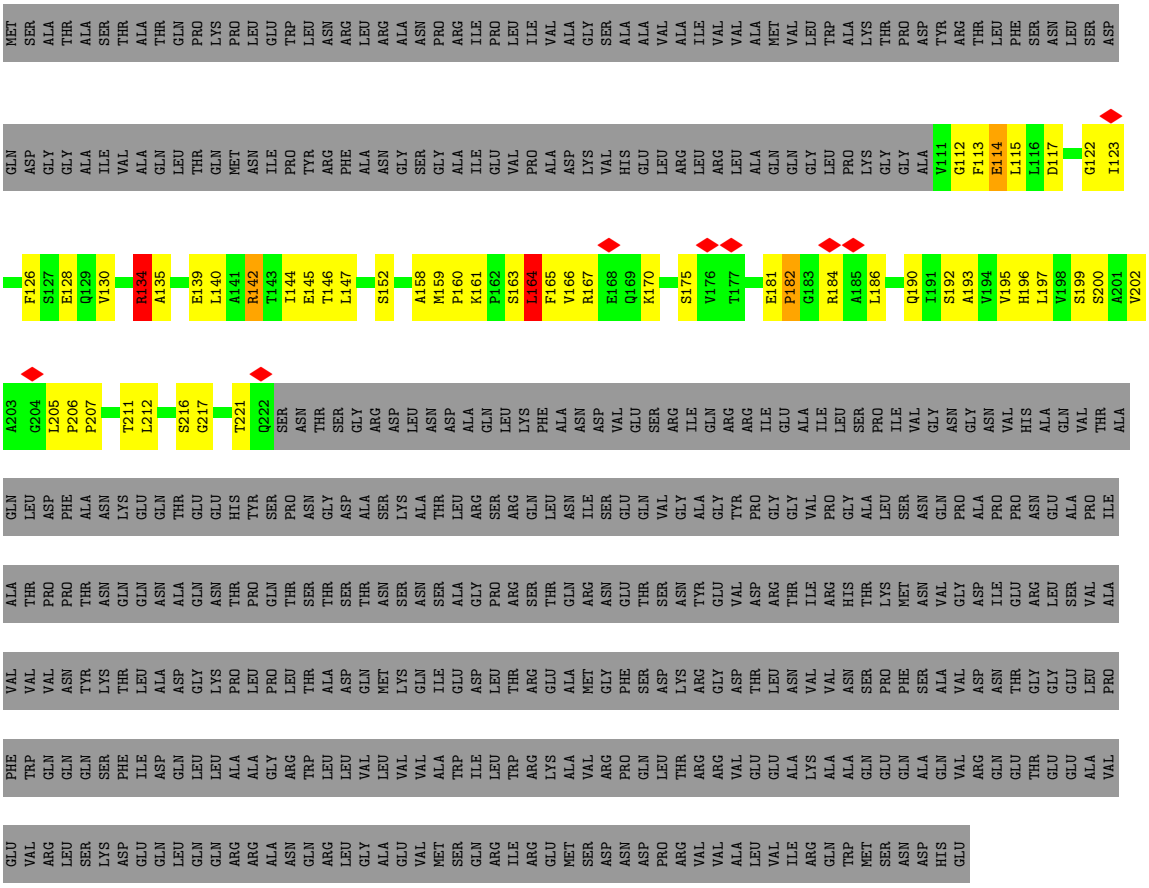




• Molecule 1: Flagellar M-ring protein

Chain WU:

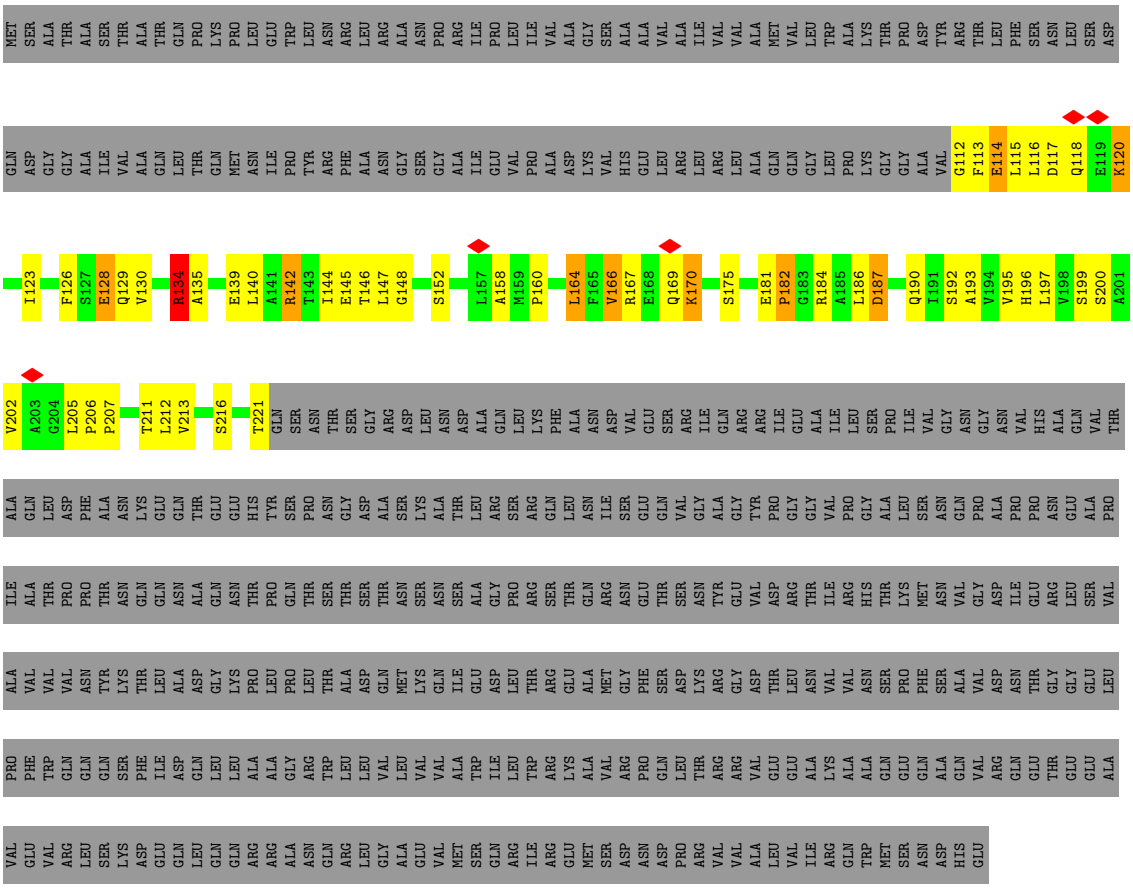




• Molecule 1: Flagellar M-ring protein

Chain WV:

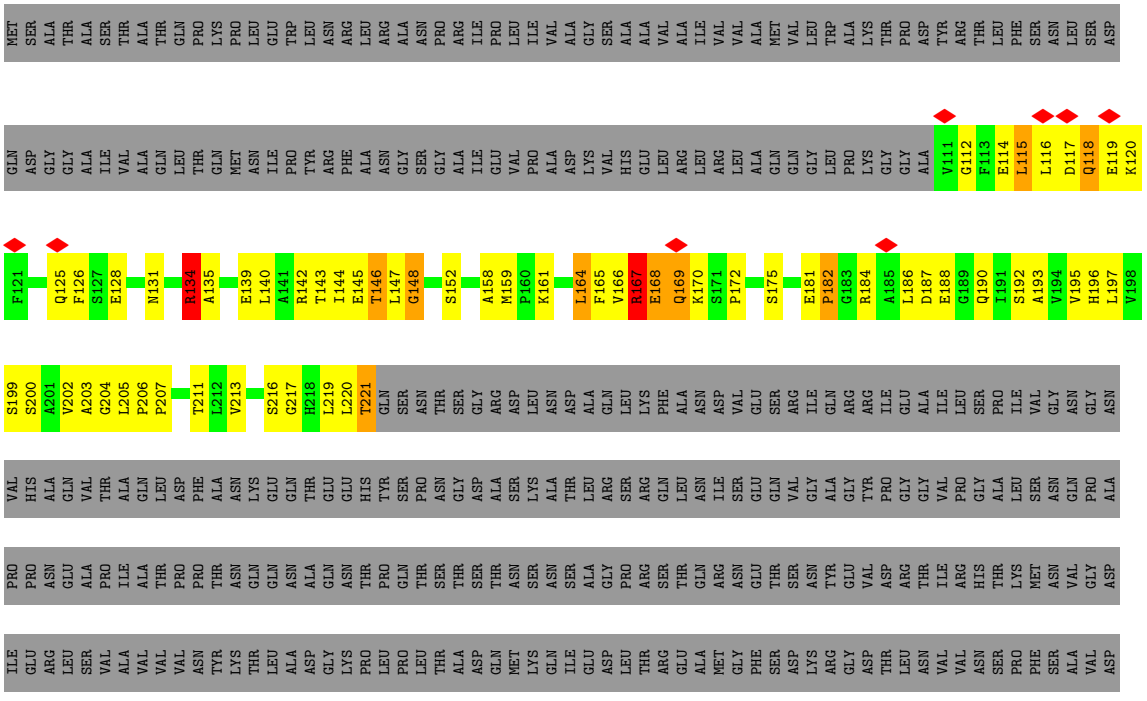


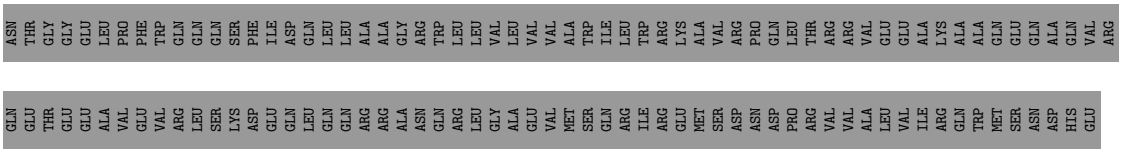


• Molecule 1: Flagellar M-ring protein

Chain WW:



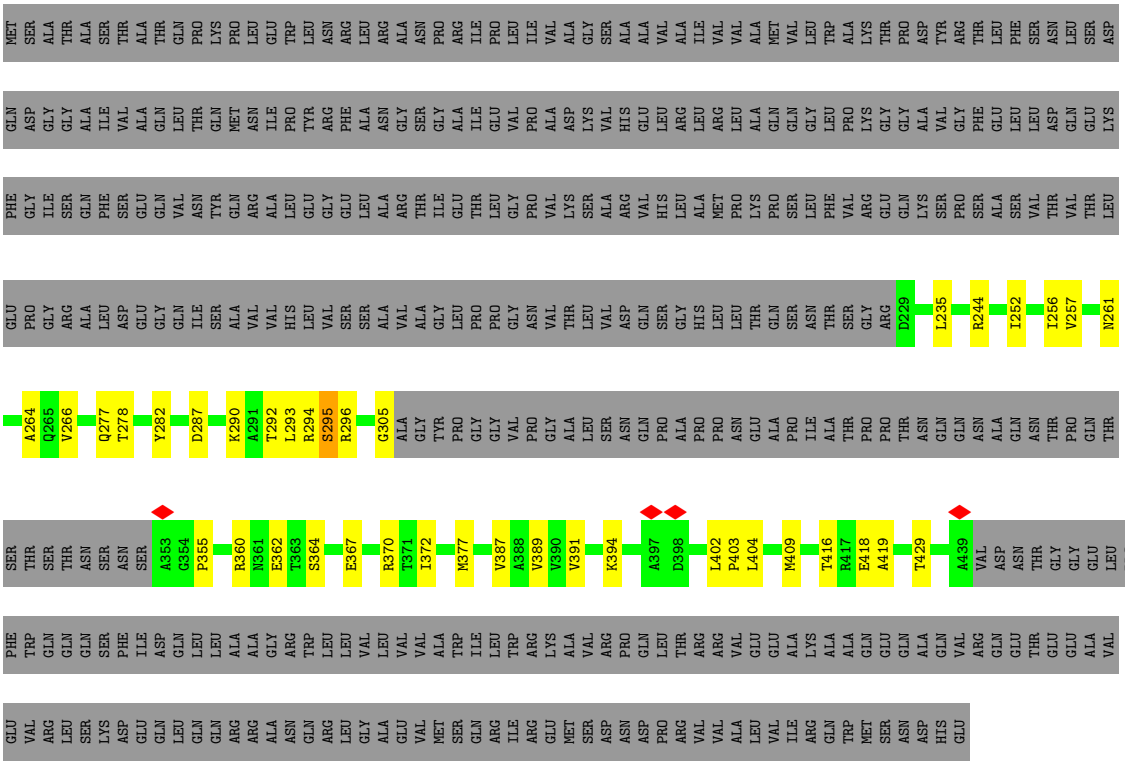




• Molecule 1: Flagellar M-ring protein

Chain t:

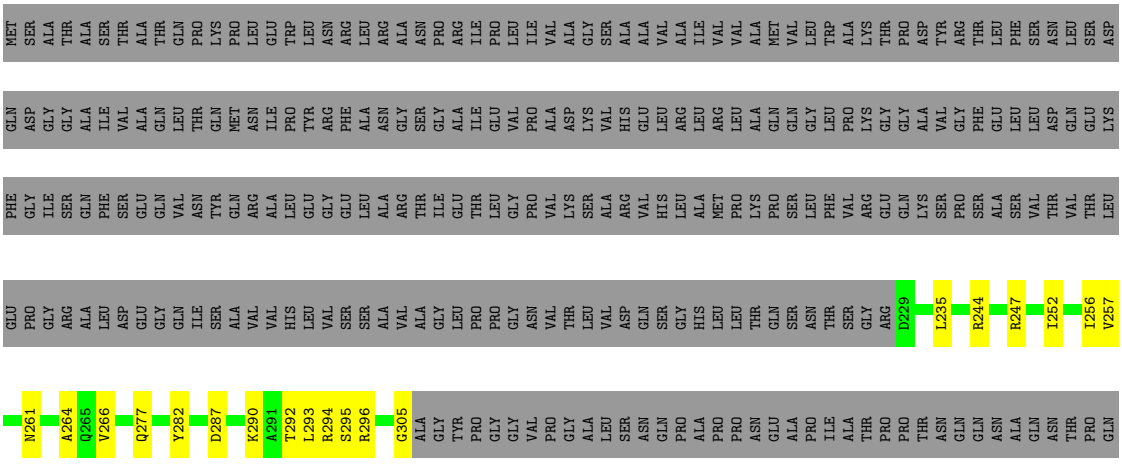


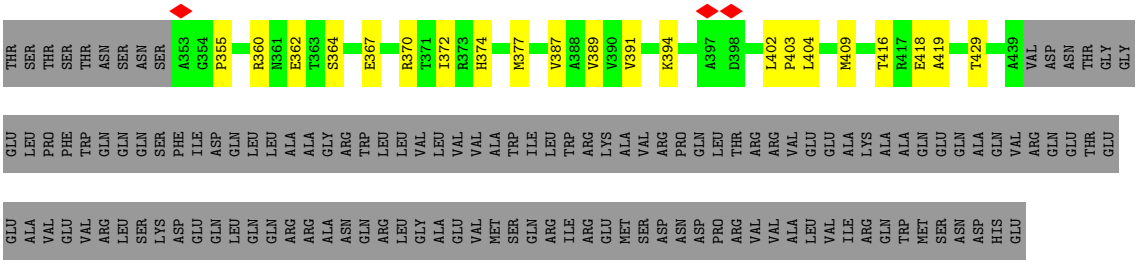


• Molecule 1: Flagellar M-ring protein

Chain u:



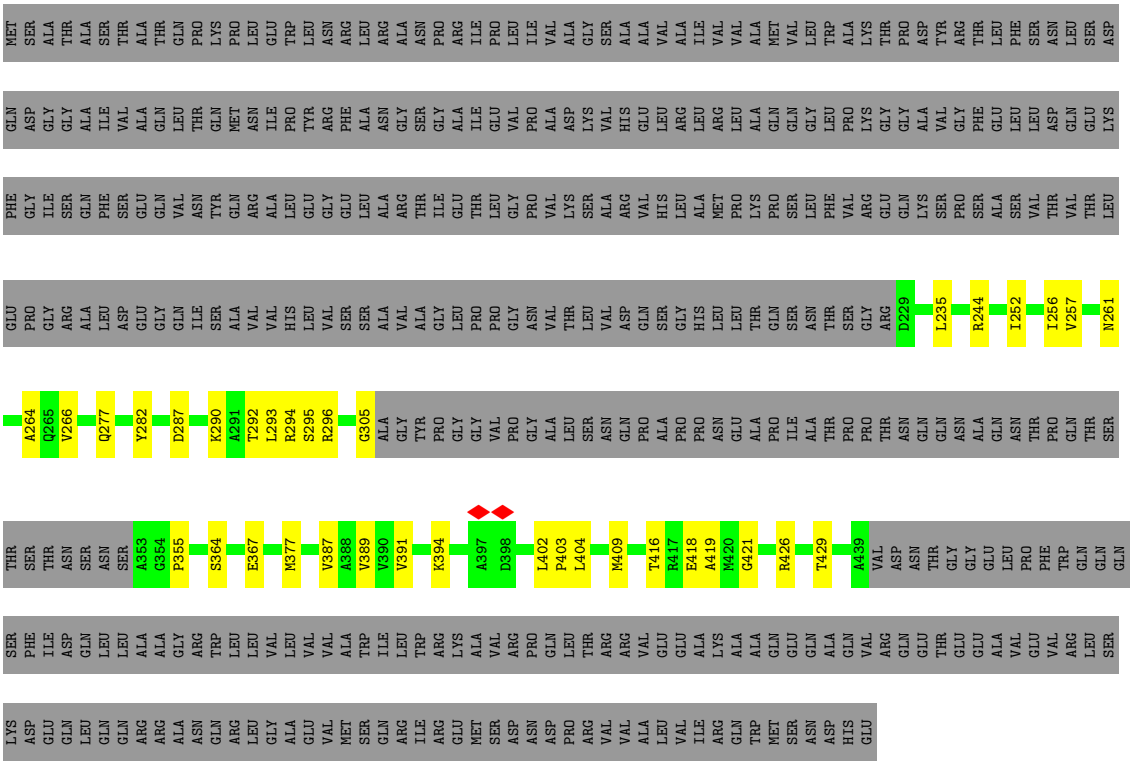




• Molecule 1: Flagellar M-ring protein

Chain v:

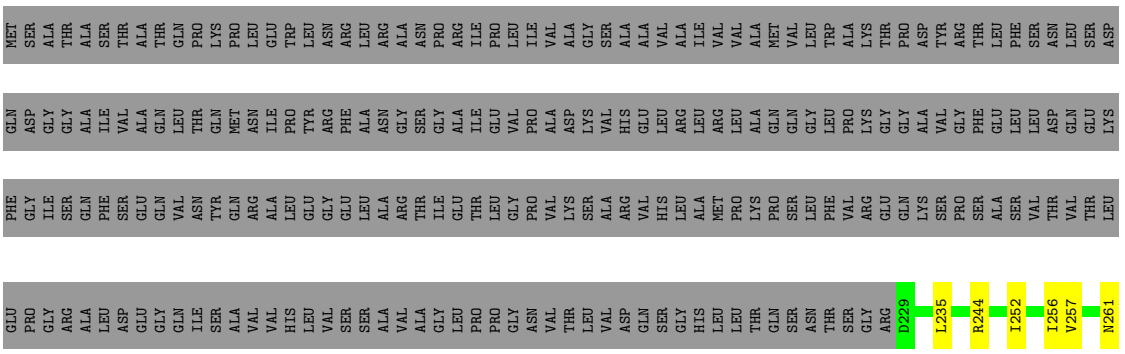


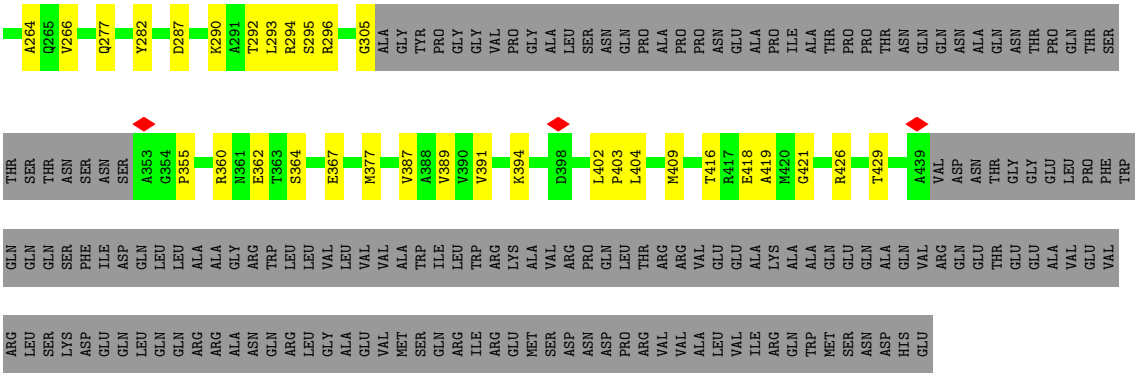


• Molecule 1: Flagellar M-ring protein

Chain w:



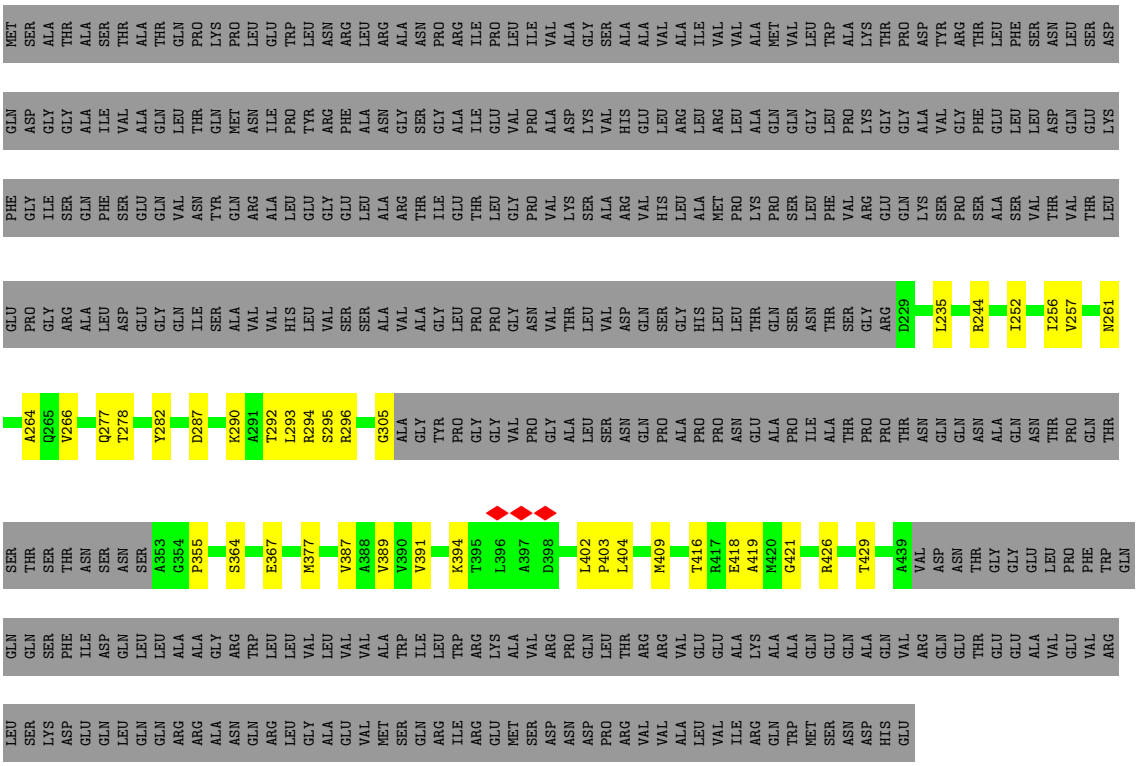




• Molecule 1: Flagellar M-ring protein

Chain x:

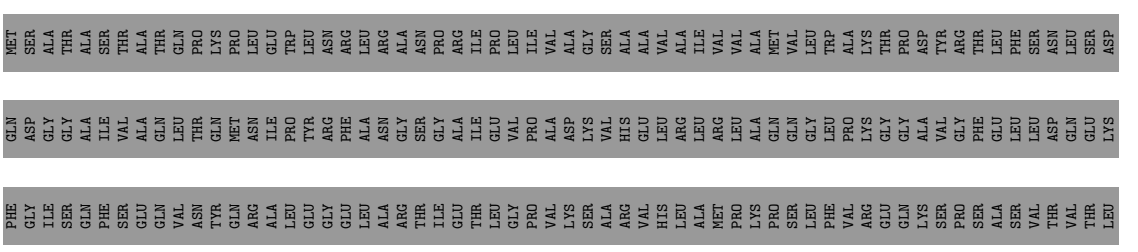


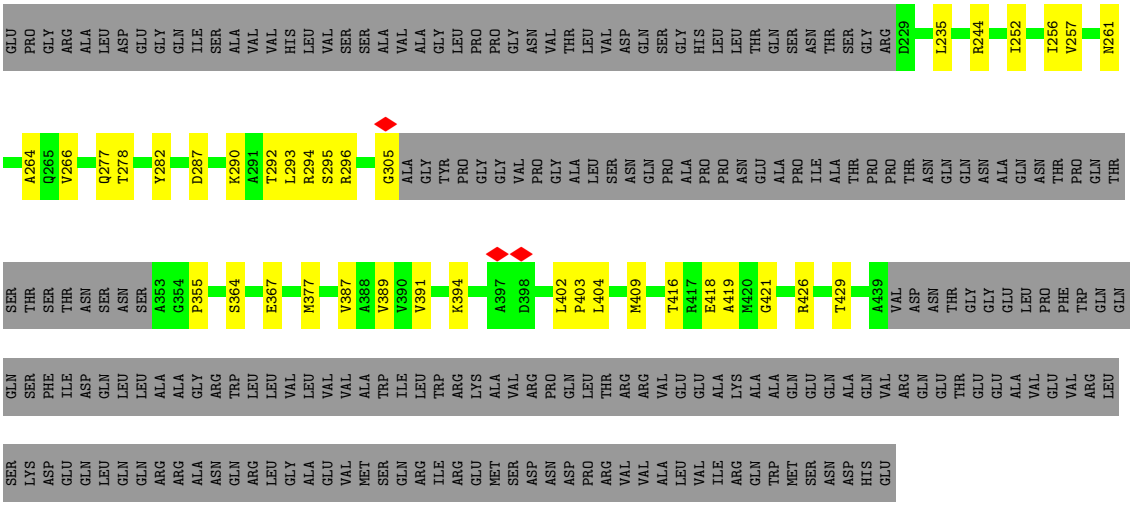


• Molecule 1: Flagellar M-ring protein

Chain y:



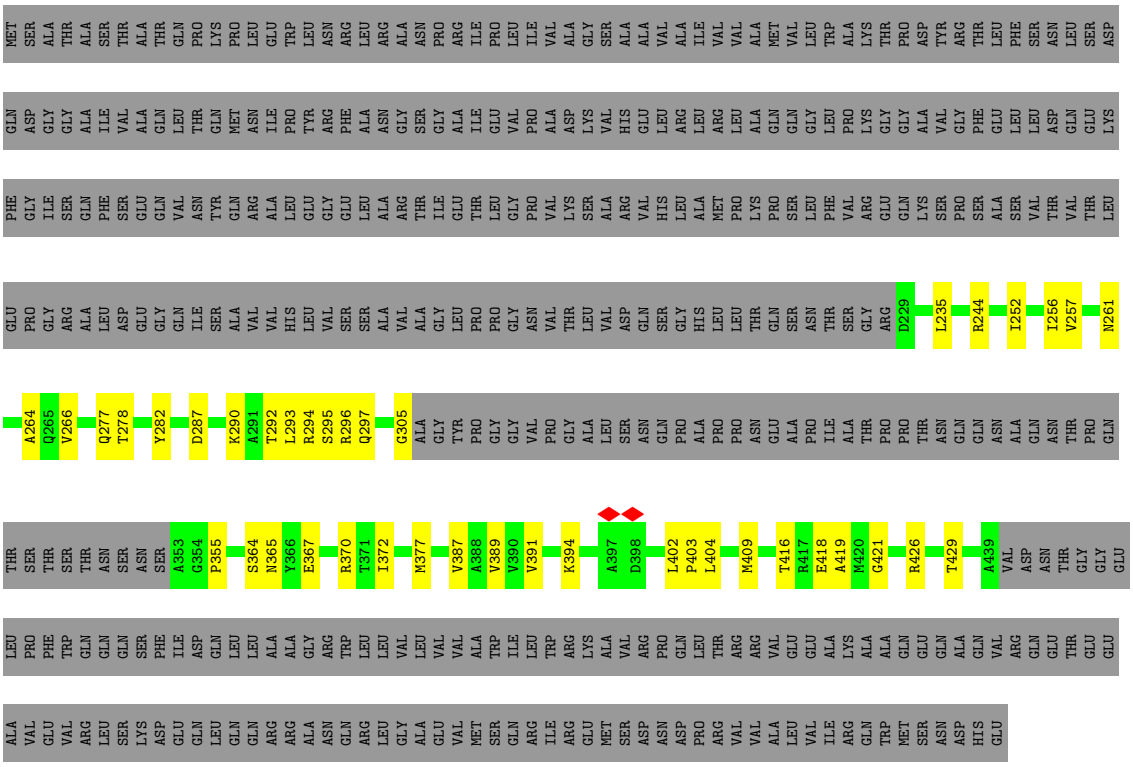




• Molecule 1: Flagellar M-ring protein

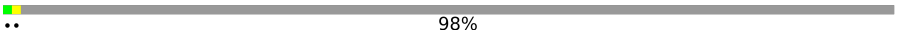
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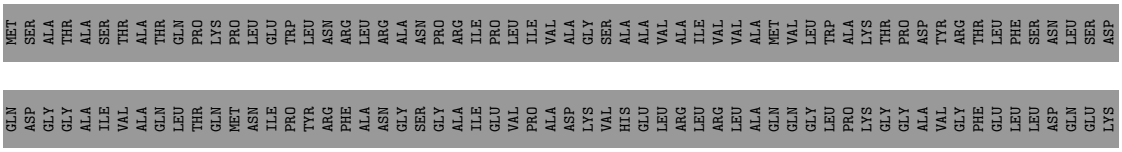


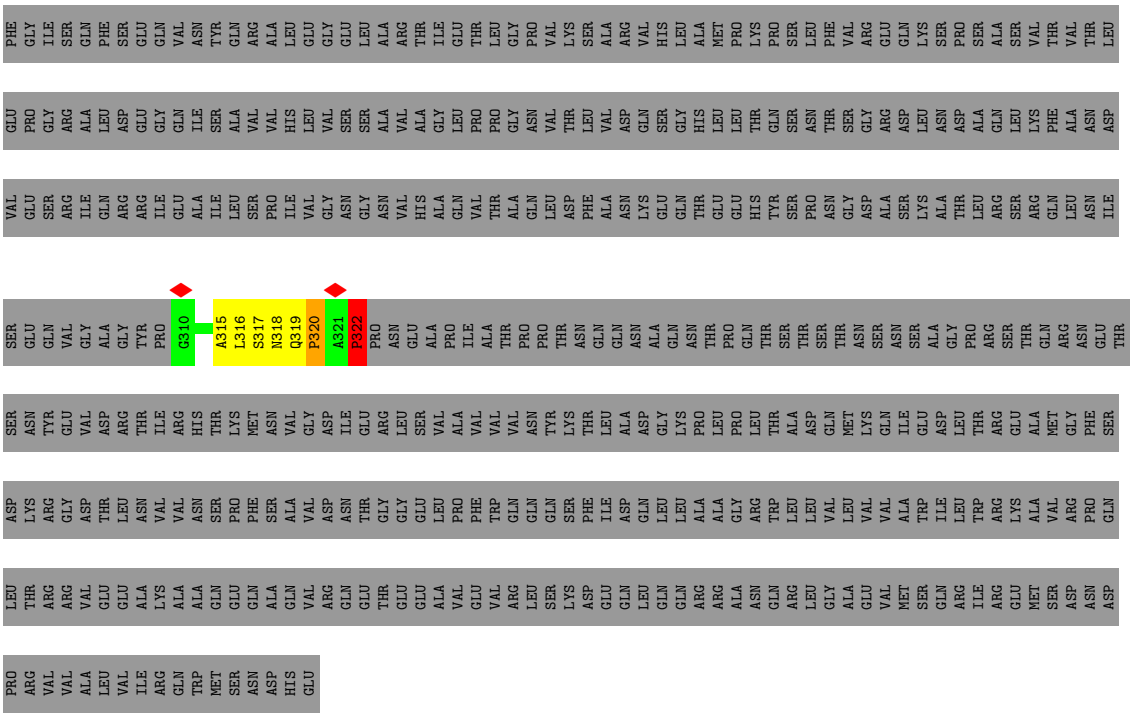


• Molecule 1: Flagellar M-ring protein

Chain b:

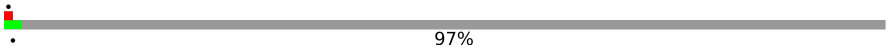


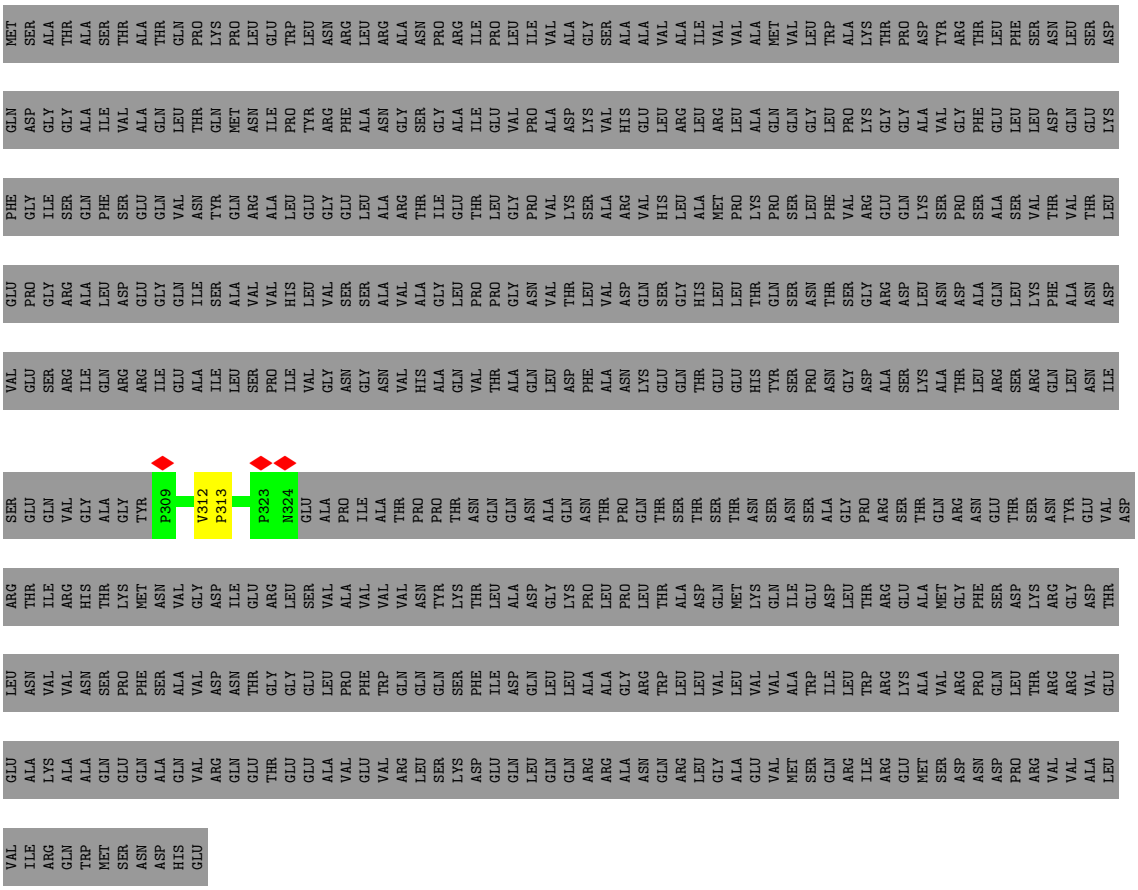




• Molecule 1: Flagellar M-ring protein

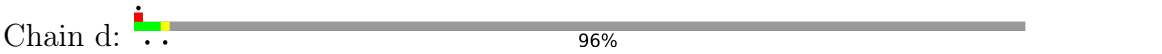
Chain c:

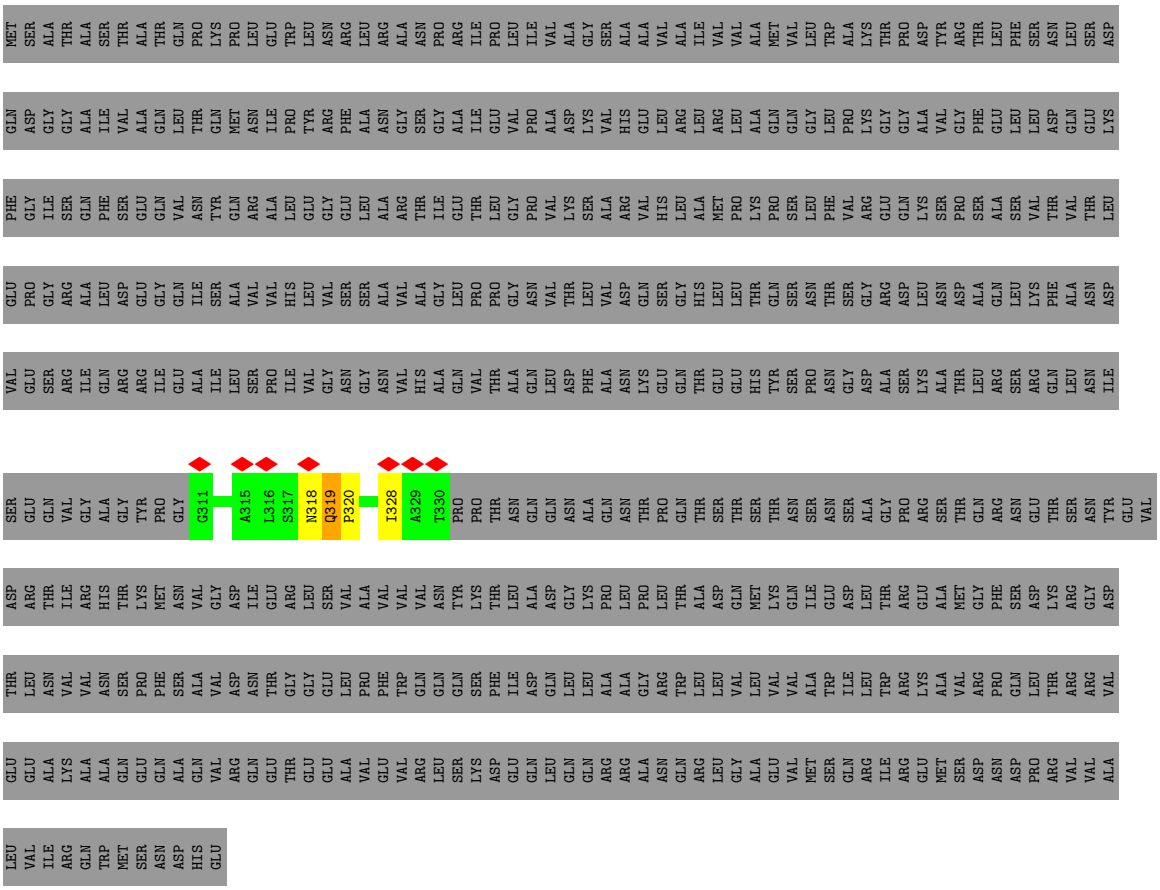




• Molecule 1: Flagellar M-ring protein

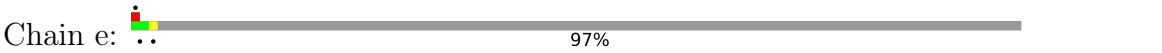
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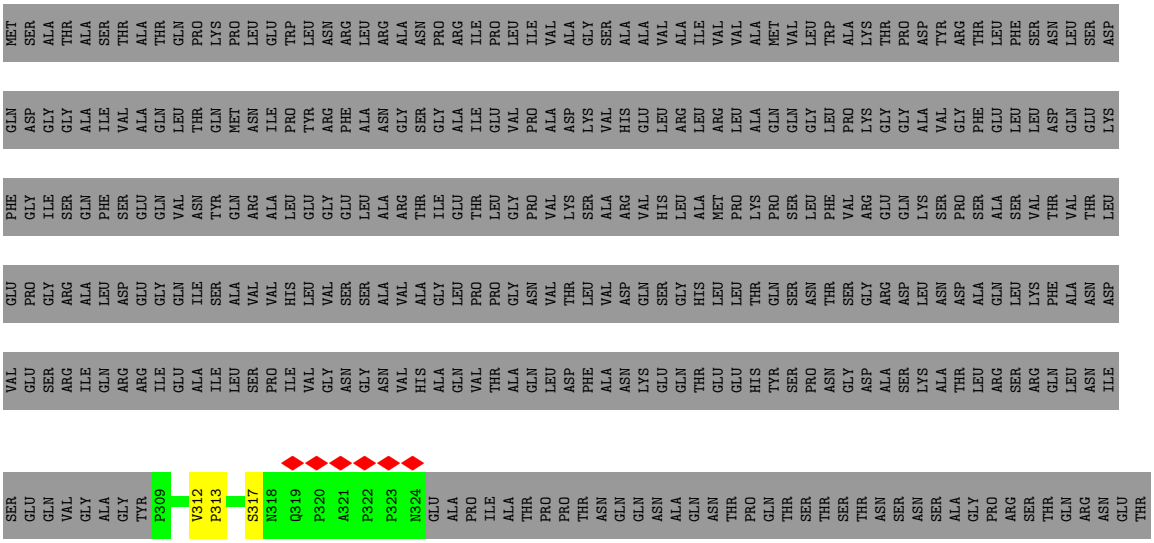


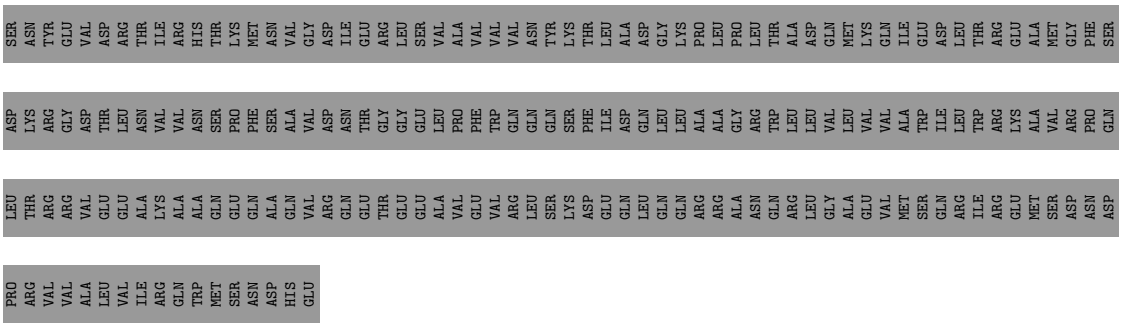


• Molecule 1: Flagellar M-ring protein

Chain e:

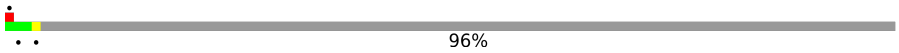


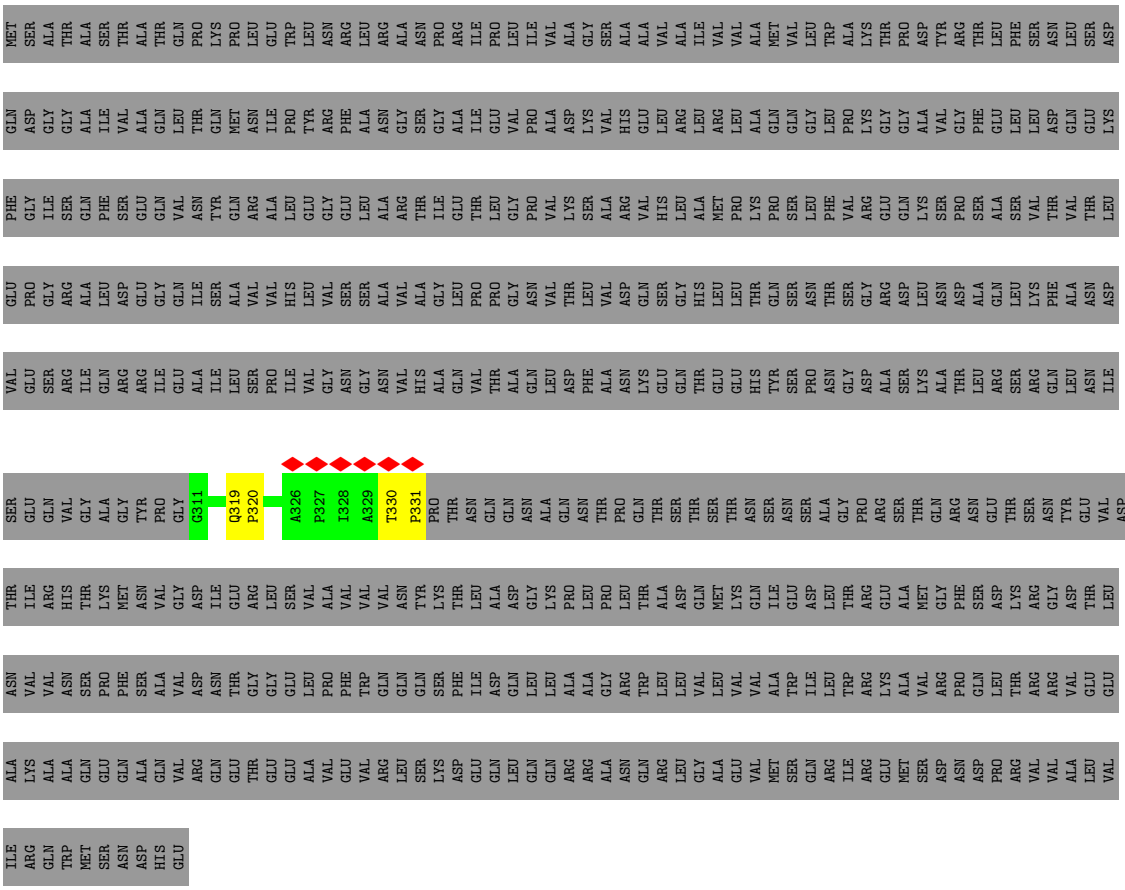




• Molecule 1: Flagellar M-ring protein

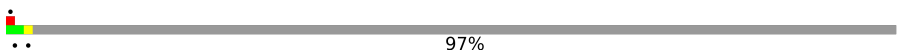
Chain f:

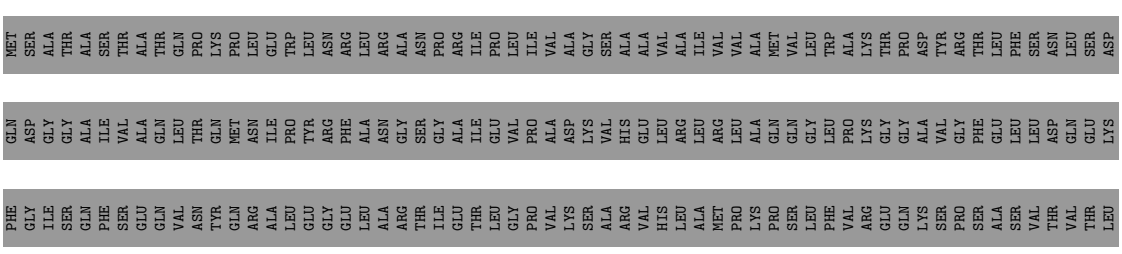


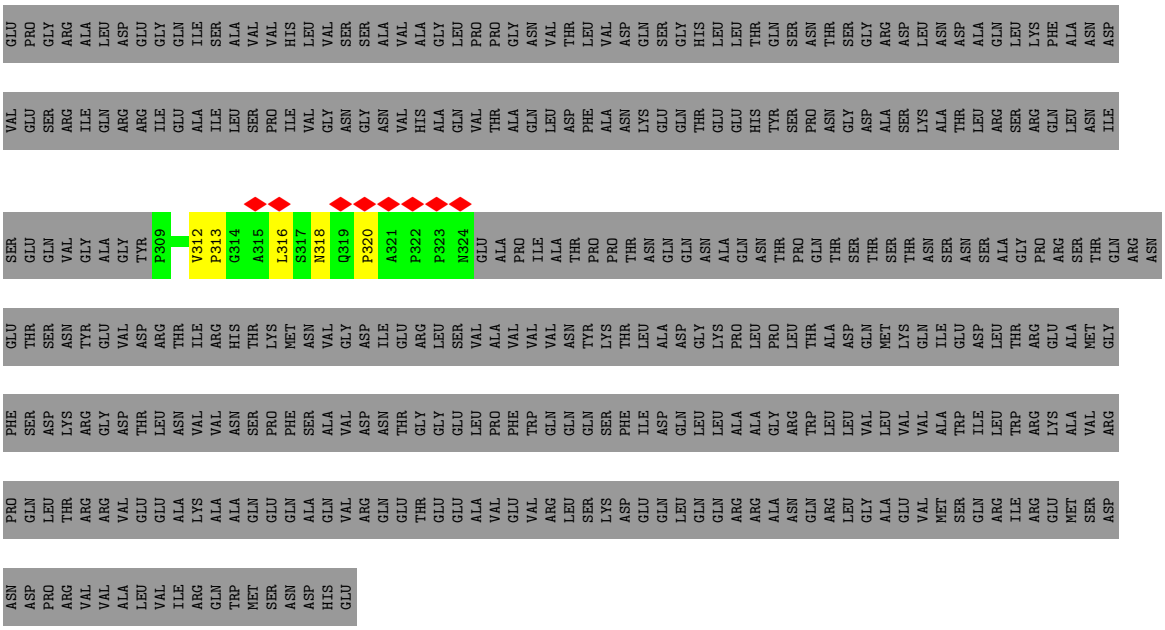


• Molecule 1: Flagellar M-ring protein

Chain g:

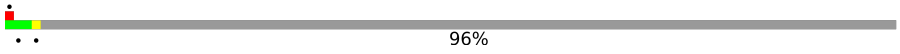


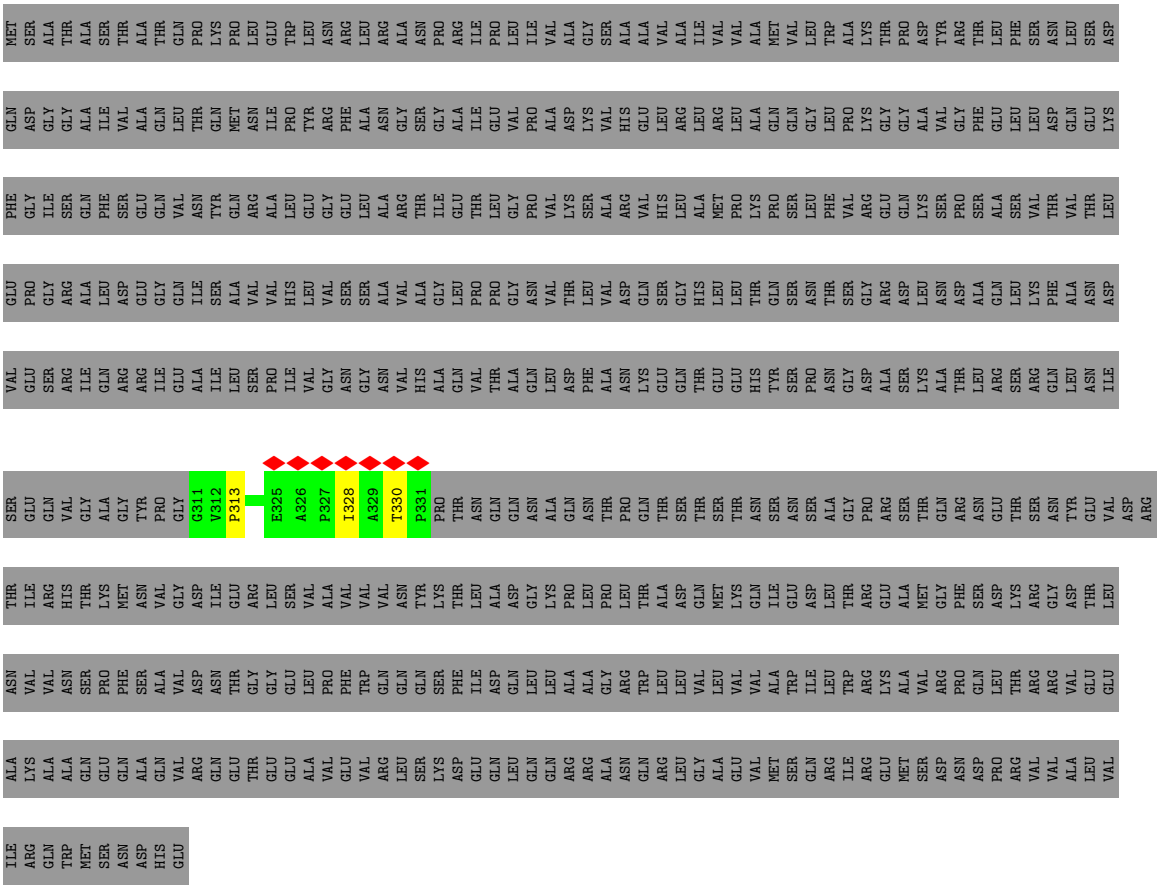




• Molecule 1: Flagellar M-ring protein

Chain h:

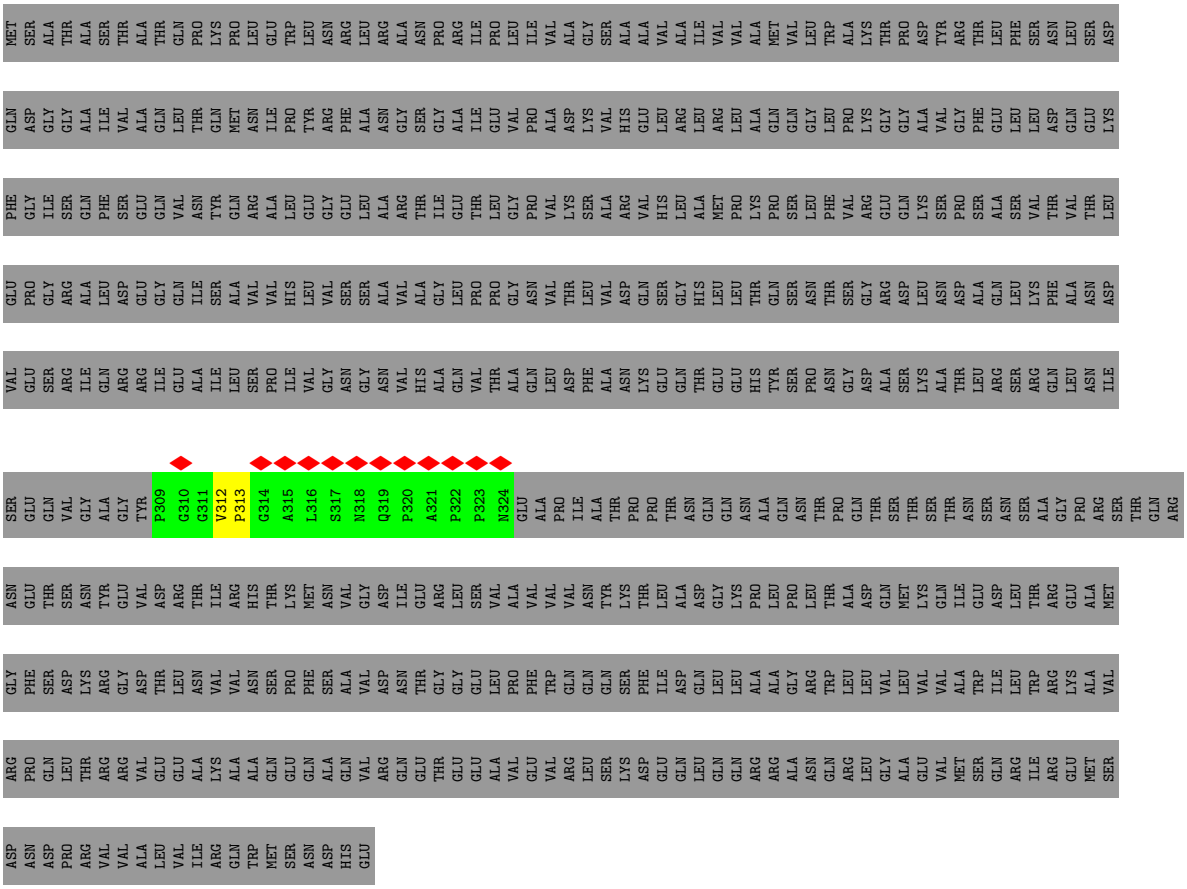




• Molecule 1: Flagellar M-ring protein

Chain i:

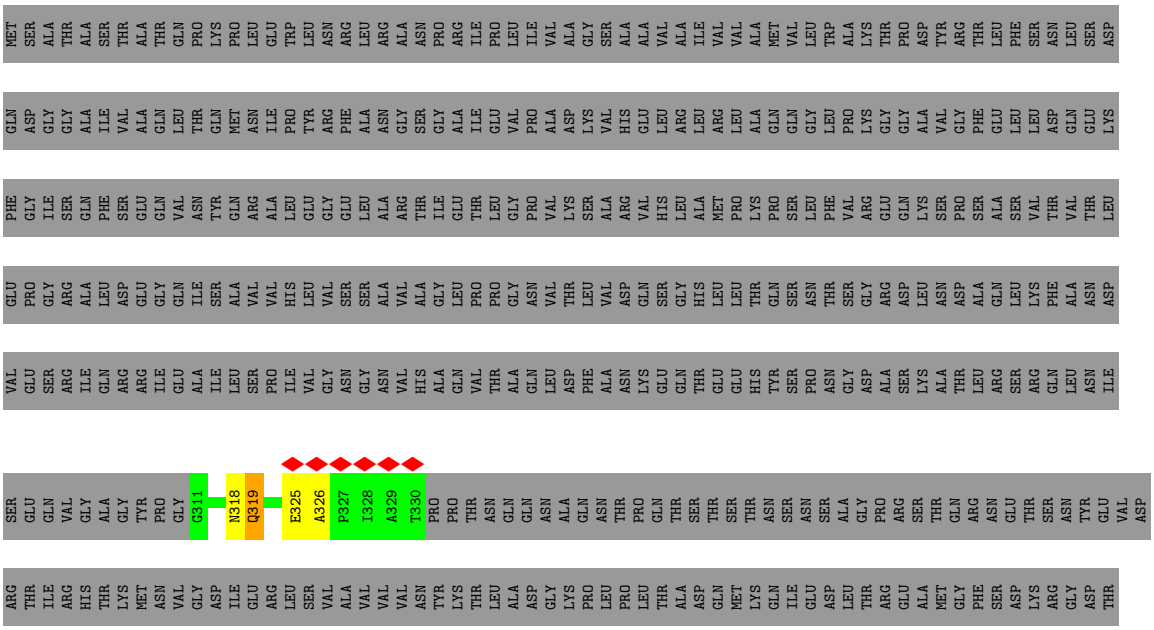


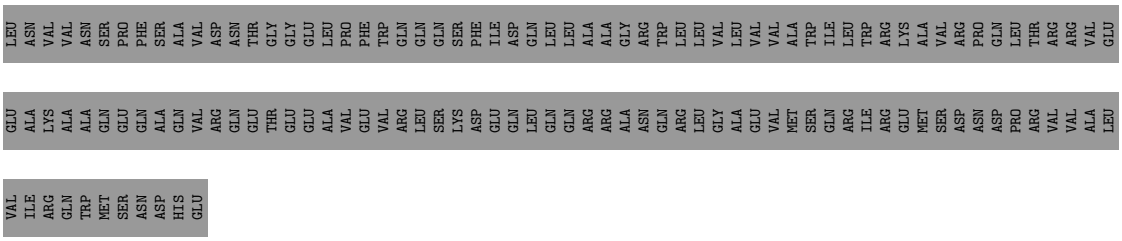


• Molecule 1: Flagellar M-ring protein

Chain j:

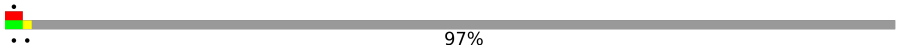


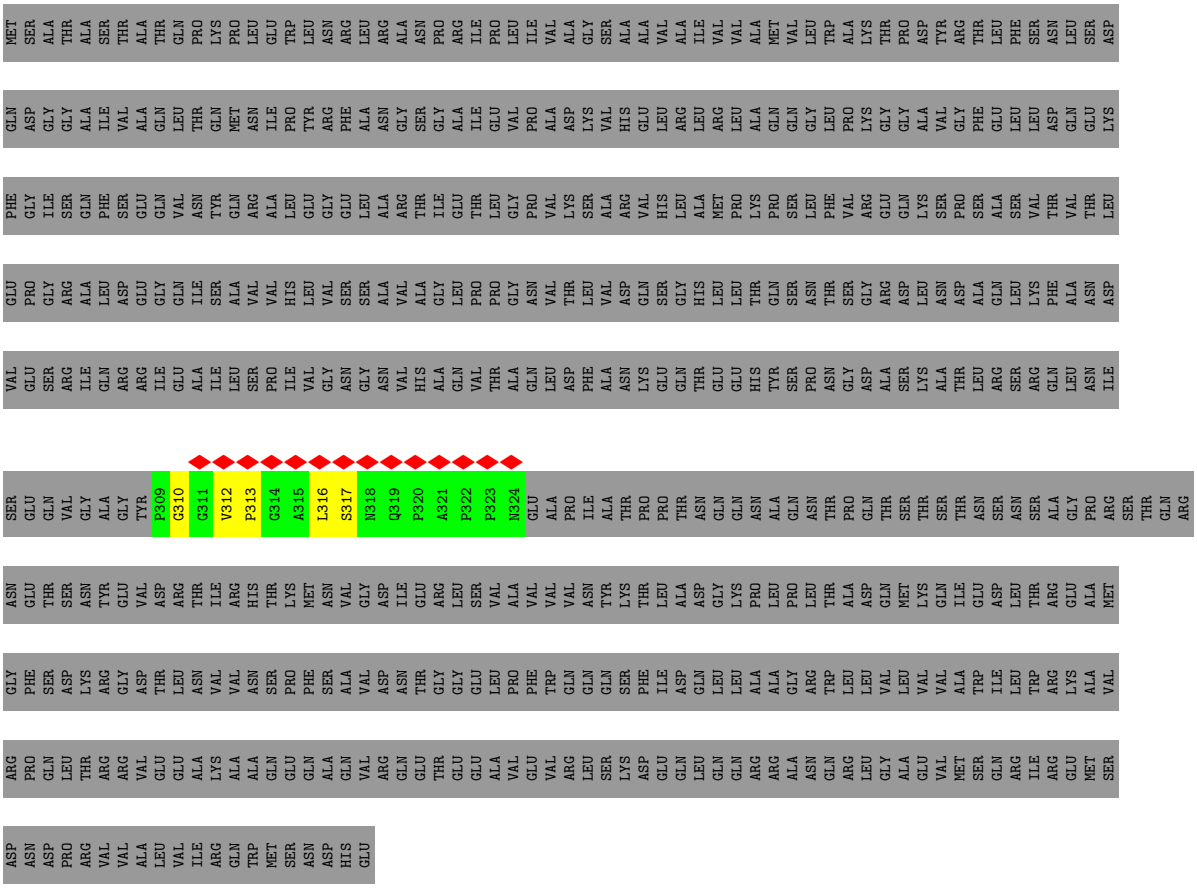




• Molecule 1: Flagellar M-ring protein

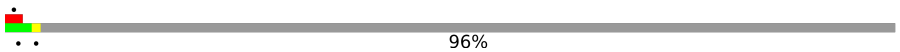
Chain k:

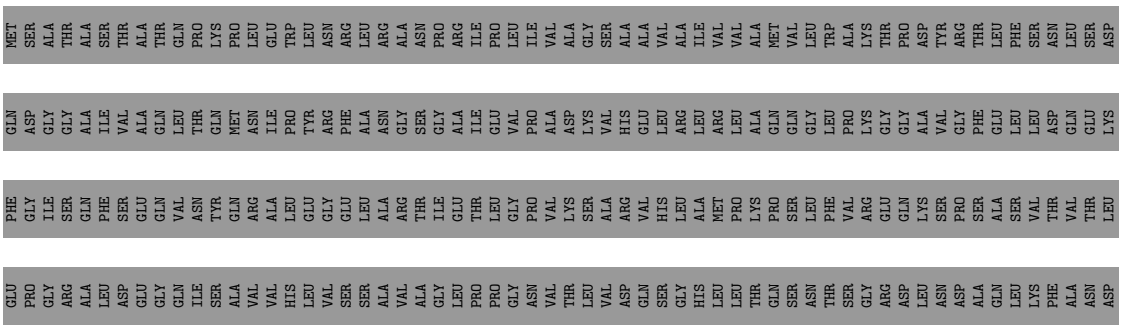




• Molecule 1: Flagellar M-ring protein

Chain l:

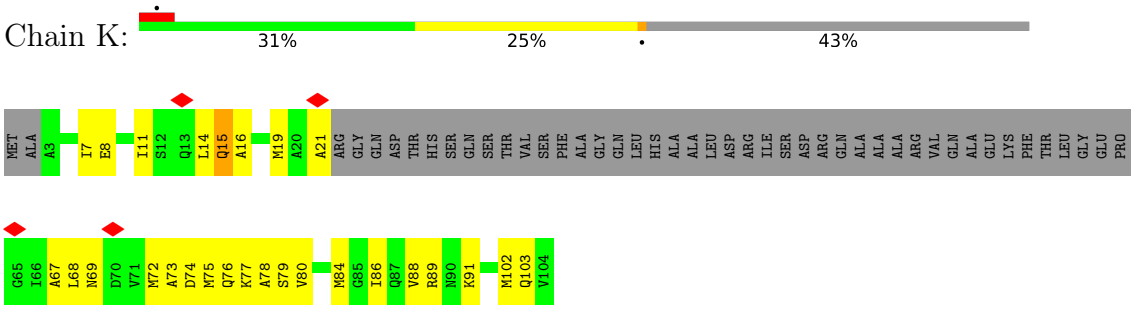






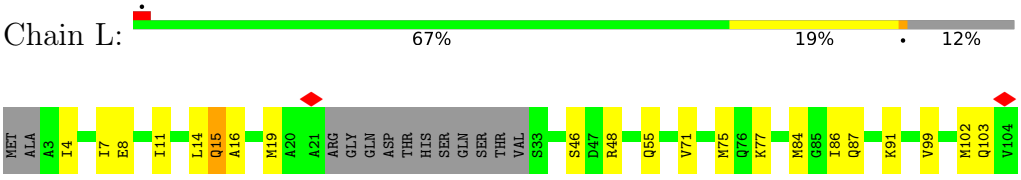
• Molecule 2: Flagellar hook-basal body complex protein FliE

Chain K:



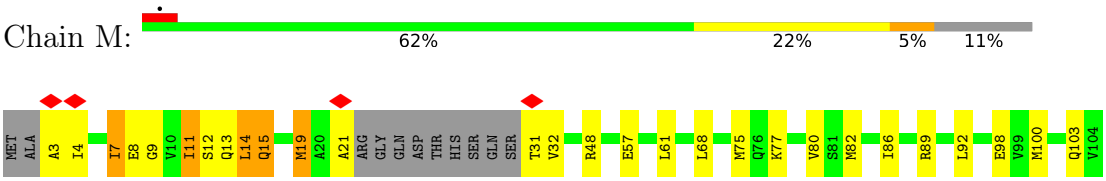
• Molecule 2: Flagellar hook-basal body complex protein FliE

Chain L:



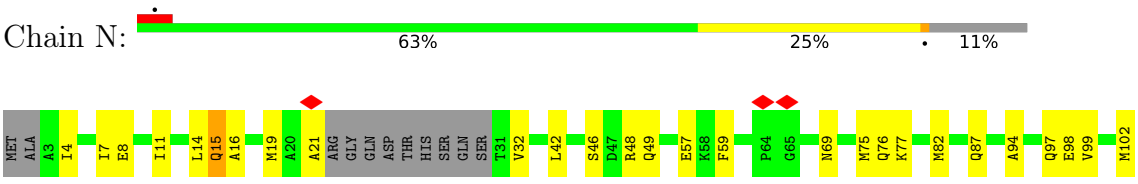
• Molecule 2: Flagellar hook-basal body complex protein FliE

Chain M:



• Molecule 2: Flagellar hook-basal body complex protein FliE

Chain N:

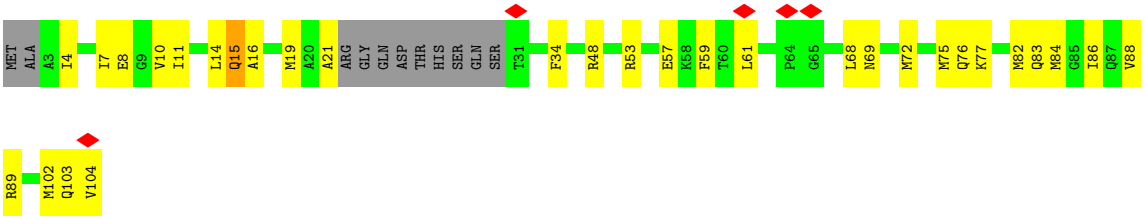




• Molecule 2: Flagellar hook-basal body complex protein FliE

Chain O:

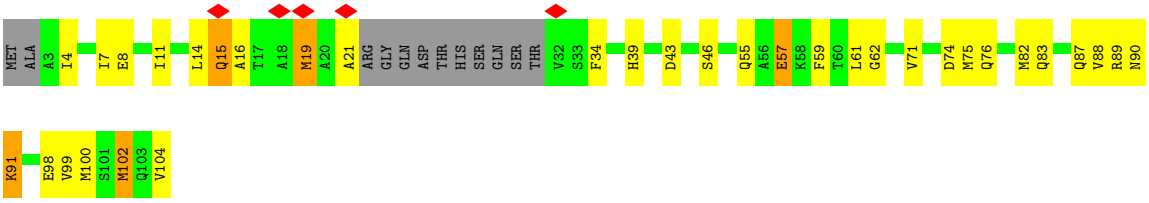




• Molecule 2: Flagellar hook-basal body complex protein FliE

Chain P:

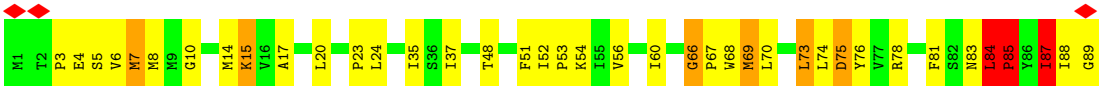




• Molecule 3: Flagellar biosynthetic protein FliQ

Chain A:

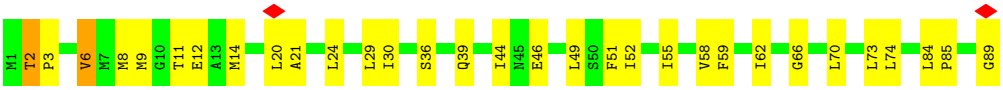




• Molecule 3: Flagellar biosynthetic protein FliQ

Chain B:

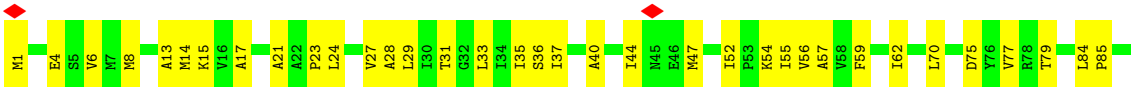




• Molecule 3: Flagellar biosynthetic protein FliQ

Chain C:



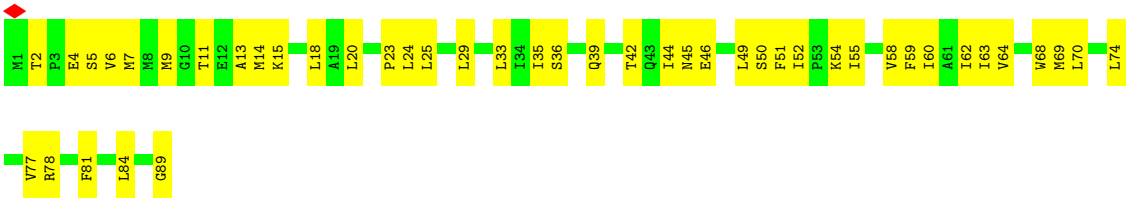




• Molecule 3: Flagellar biosynthetic protein FliQ

Chain D:

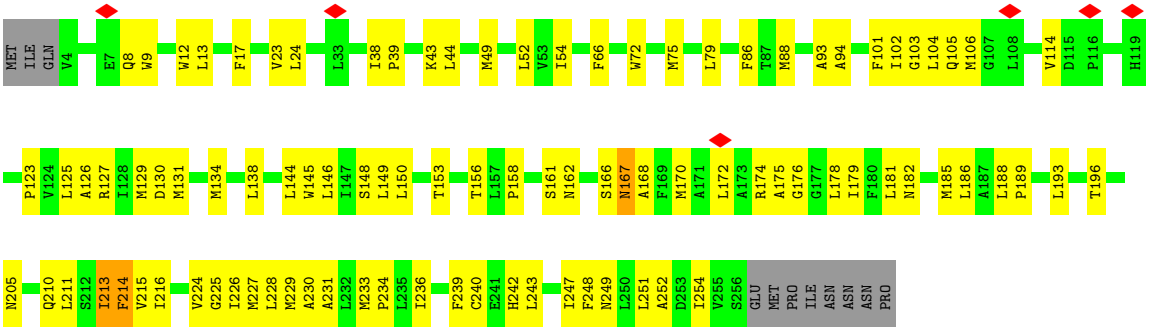




• Molecule 4: Flagellar biosynthetic protein FliR

Chain E:

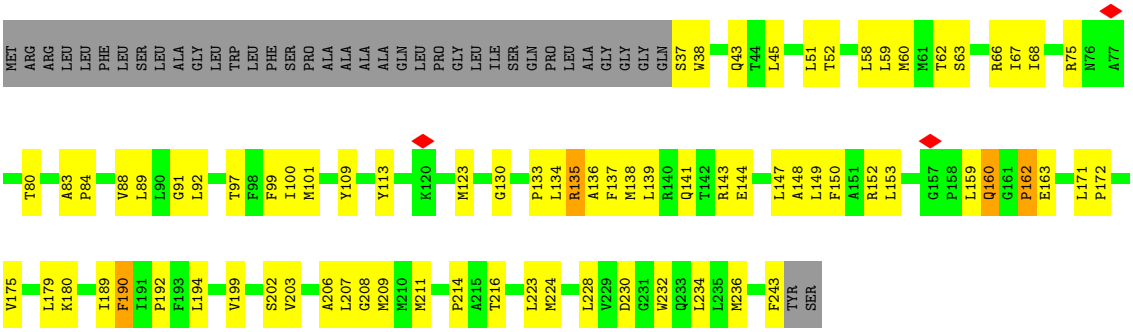




• Molecule 5: Flagellar biosynthetic protein FliP

Chain F:

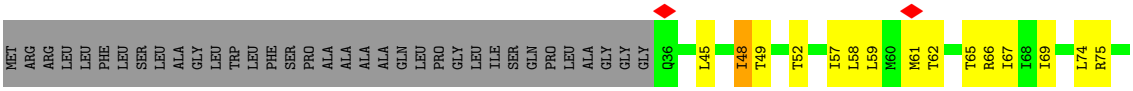


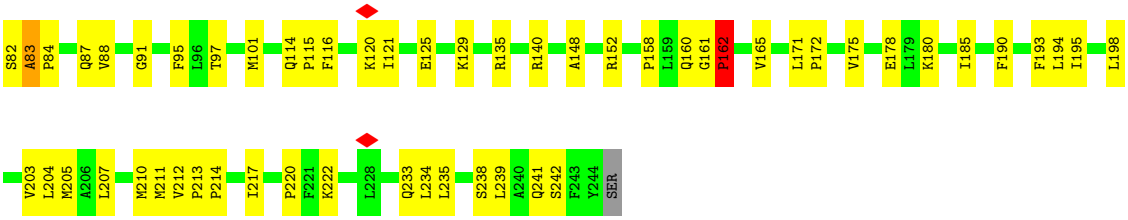


• Molecule 5: Flagellar biosynthetic protein FliP

Chain G:



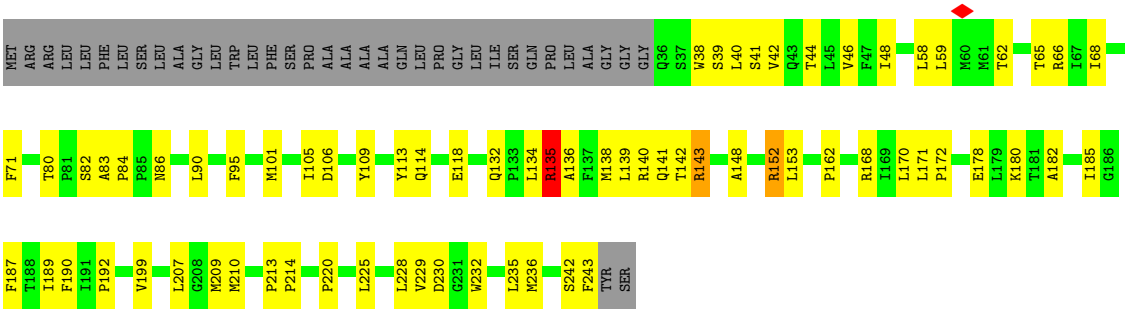




• Molecule 5: Flagellar biosynthetic protein FliP

Chain H:

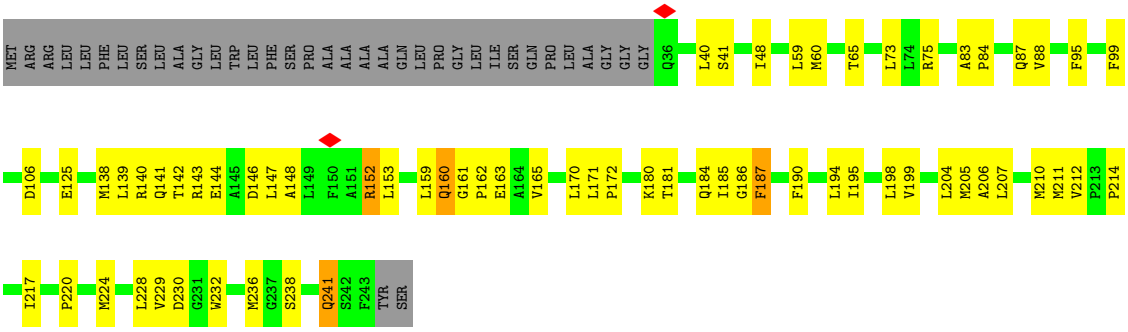




• Molecule 5: Flagellar biosynthetic protein FliP

Chain I:

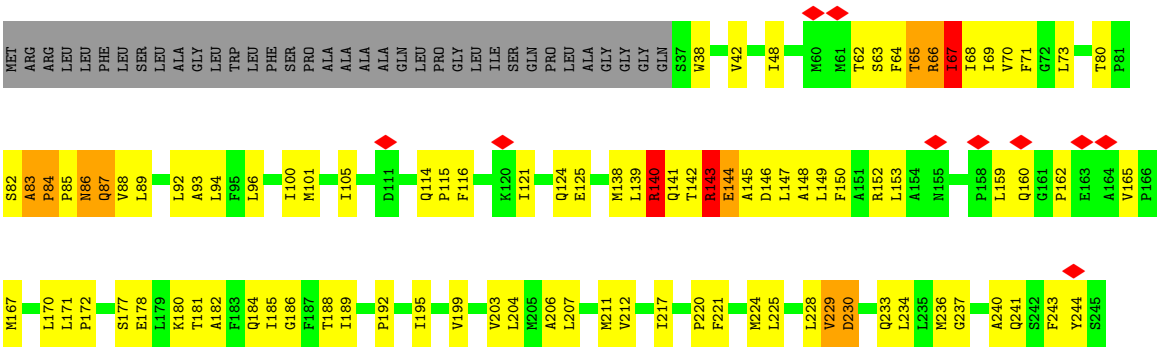




• Molecule 5: Flagellar biosynthetic protein FliP

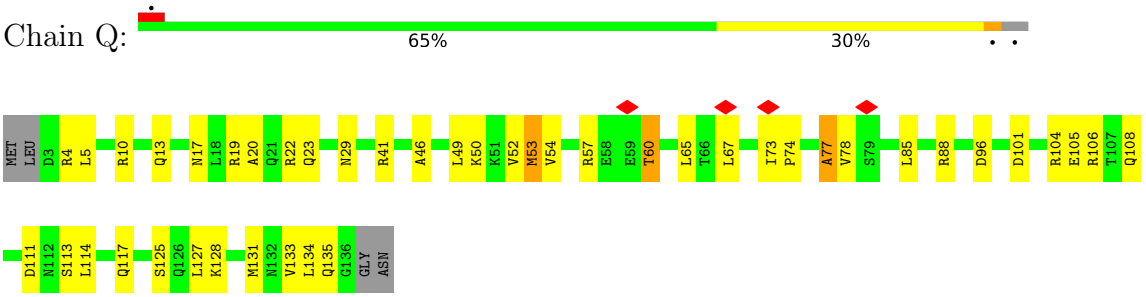
Chain J:





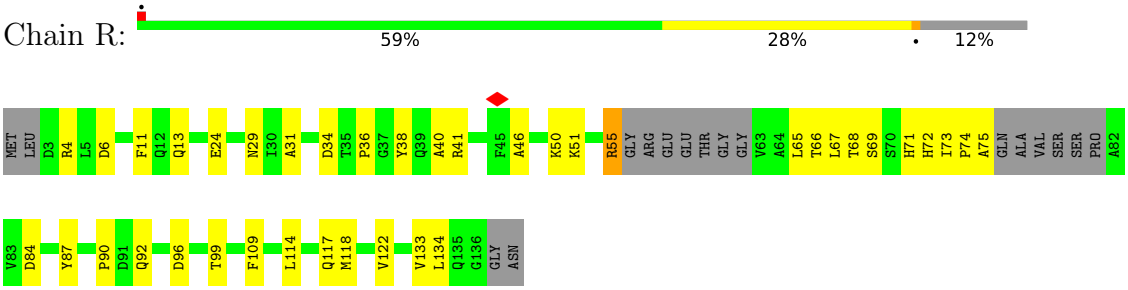
• Molecule 6: Flagellar basal body rod protein FlgB

Chain Q:



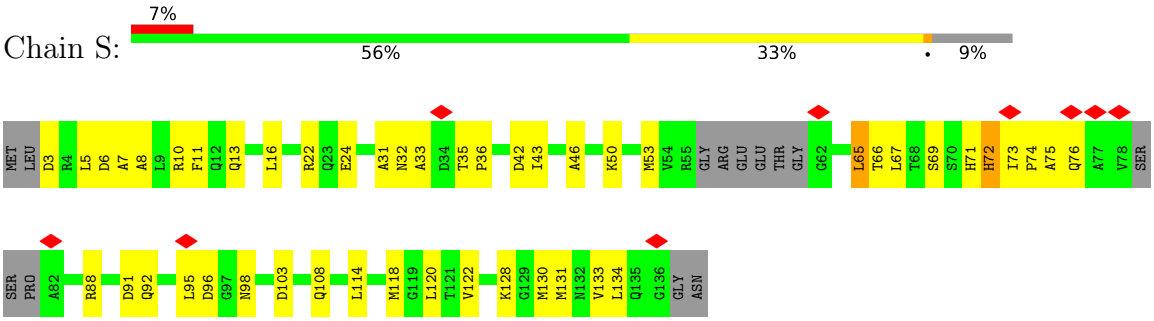
• Molecule 6: Flagellar basal body rod protein FlgB

Chain R:



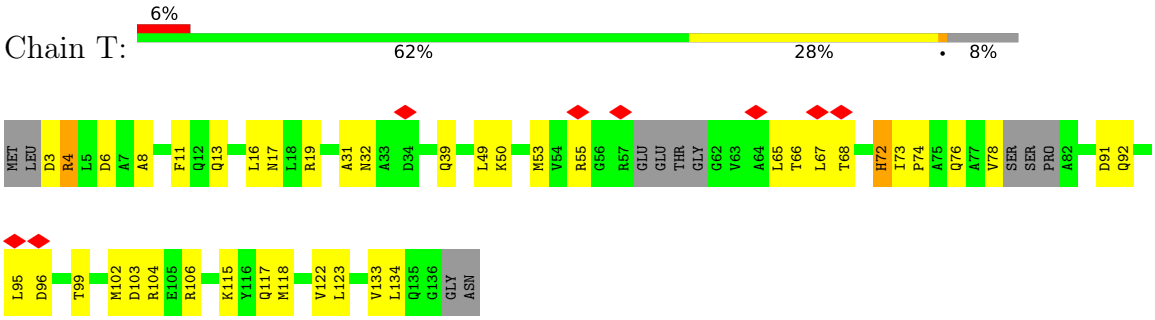
• Molecule 6: Flagellar basal body rod protein FlgB

Chain S:



• Molecule 6: Flagellar basal body rod protein FlgB

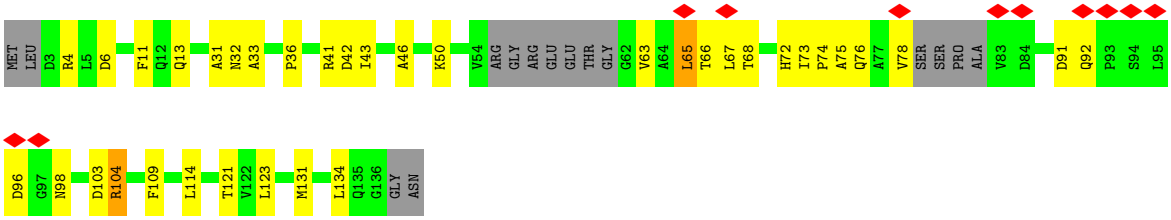
Chain T:



• Molecule 6: Flagellar basal body rod protein FlgB

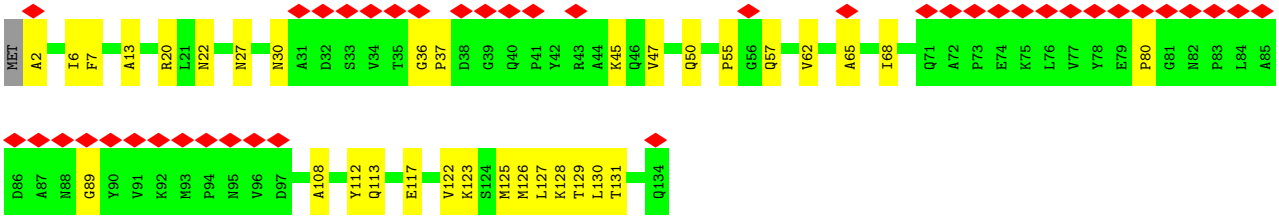
Chain U:



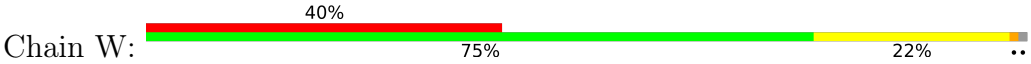


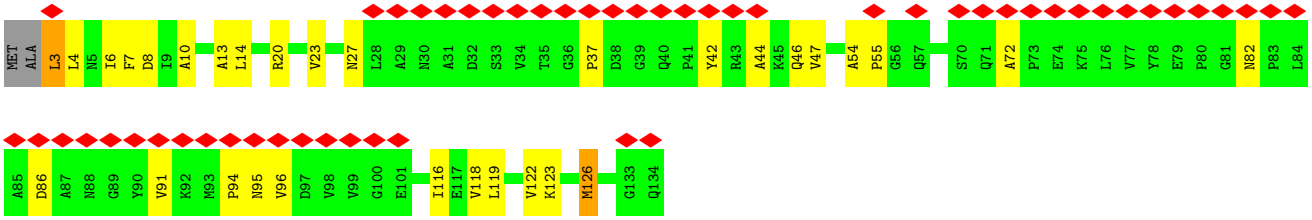
• Molecule 7: Flagellar basal-body rod protein FlgC



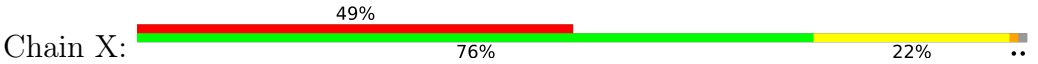


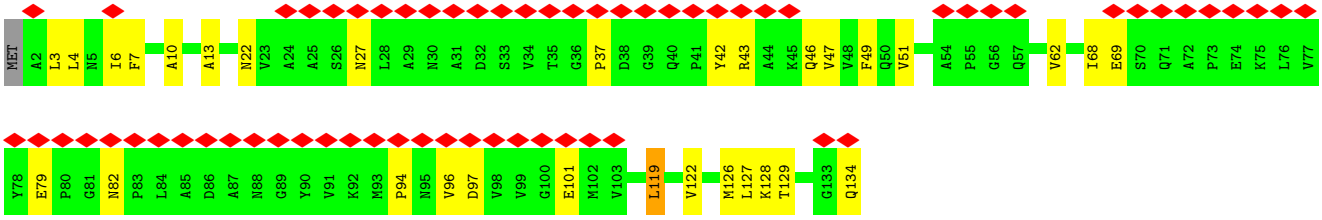
• Molecule 7: Flagellar basal-body rod protein FlgC





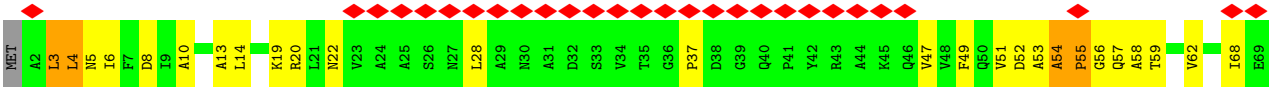
• Molecule 7: Flagellar basal-body rod protein FlgC

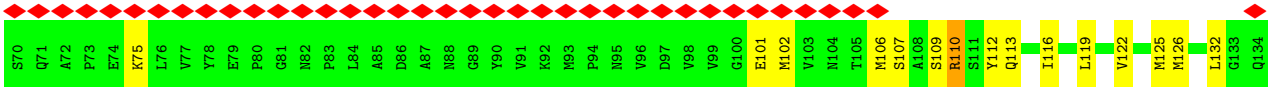




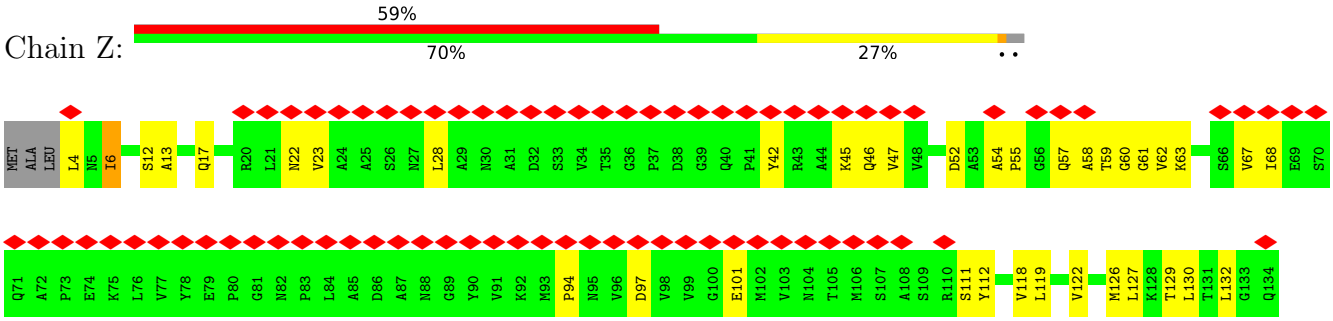
• Molecule 7: Flagellar basal-body rod protein FlgC



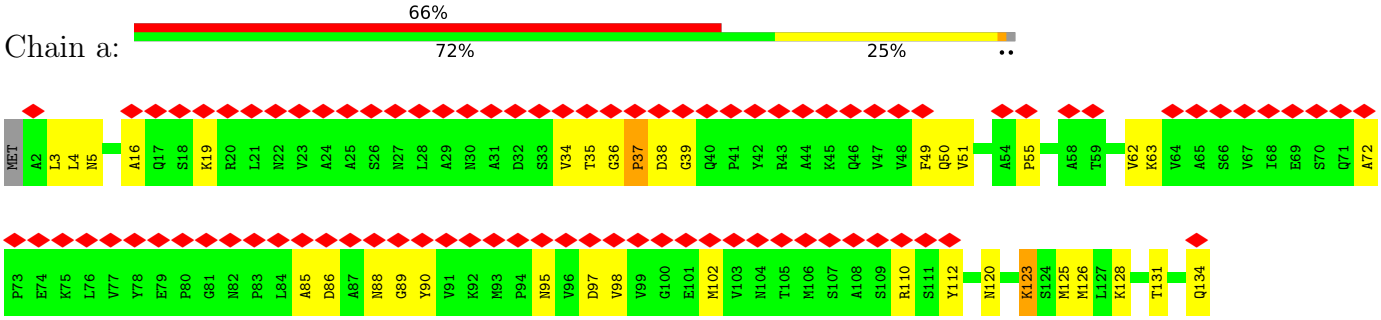




• Molecule 7: Flagellar basal-body rod protein FlgC



• Molecule 7: Flagellar basal-body rod protein FlgC



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	11858	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	45	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	105000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.689	Depositor
Minimum map value	-0.642	Depositor
Average map value	-0.003	Depositor
Map value standard deviation	0.078	Depositor
Recommended contour level	0.35	Depositor
Map size (Å)	681.984, 681.984, 681.984	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.332, 1.332, 1.332	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	0	0.23	0/1289	0.44	1/1741 (0.1%)
1	1	0.22	0/1289	0.44	1/1741 (0.1%)
1	2	0.23	0/1289	0.44	1/1741 (0.1%)
1	3	0.23	0/1289	0.44	1/1741 (0.1%)
1	4	0.23	0/1289	0.44	1/1741 (0.1%)
1	5	0.23	0/1289	0.44	1/1741 (0.1%)
1	6	0.23	0/1289	0.44	1/1741 (0.1%)
1	7	0.23	0/1289	0.44	1/1741 (0.1%)
1	8	0.23	0/1289	0.44	1/1741 (0.1%)
1	9	0.23	0/1289	0.44	1/1741 (0.1%)
1	AA	0.23	0/1289	0.44	1/1741 (0.1%)
1	AB	0.23	0/1289	0.44	1/1741 (0.1%)
1	AC	0.23	0/1289	0.44	1/1741 (0.1%)
1	AD	0.23	0/1289	0.44	1/1741 (0.1%)
1	AE	0.23	0/1289	0.44	1/1741 (0.1%)
1	AF	0.23	0/1289	0.44	1/1741 (0.1%)
1	AG	0.23	0/1289	0.44	1/1741 (0.1%)
1	AH	0.23	0/1289	0.44	1/1741 (0.1%)
1	AI	0.23	0/1289	0.44	1/1741 (0.1%)
1	AJ	0.23	0/1289	0.44	1/1741 (0.1%)
1	AK	0.23	0/1289	0.44	1/1741 (0.1%)
1	AL	0.23	0/1289	0.44	1/1741 (0.1%)
1	AM	0.22	0/1289	0.44	1/1741 (0.1%)
1	AN	0.23	0/1289	0.44	1/1741 (0.1%)
1	AO	0.23	0/1289	0.44	1/1741 (0.1%)
1	AP	0.23	0/1289	0.44	1/1741 (0.1%)
1	AQ	0.23	0/1289	0.44	1/1741 (0.1%)
1	UI	1.26	19/1191 (1.6%)	1.29	19/1618 (1.2%)
1	UJ	1.27	20/1191 (1.7%)	1.29	18/1618 (1.1%)
1	UK	1.26	19/1191 (1.6%)	1.29	19/1618 (1.2%)
1	UL	1.24	18/1191 (1.5%)	1.30	19/1618 (1.2%)
1	UM	1.27	20/1191 (1.7%)	1.29	19/1618 (1.2%)
1	UN	1.27	20/1191 (1.7%)	1.28	18/1618 (1.1%)
1	UO	1.26	19/1191 (1.6%)	1.28	18/1618 (1.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	UP	1.27	20/1191 (1.7%)	1.28	19/1618 (1.2%)
1	WA	0.89	0/863	1.20	2/1172 (0.2%)
1	WB	0.91	0/850	1.21	1/1154 (0.1%)
1	WC	0.89	0/825	1.15	0/1121
1	WD	0.91	0/841	1.16	0/1142
1	WE	0.88	0/857	1.17	1/1164 (0.1%)
1	WF	0.89	0/848	1.17	0/1152
1	WG	0.89	0/857	1.16	0/1164
1	WH	0.90	0/714	1.15	1/973 (0.1%)
1	WI	0.88	0/714	1.20	2/973 (0.2%)
1	WJ	0.90	0/749	1.19	1/1020 (0.1%)
1	WK	0.90	0/741	1.16	0/1009
1	WL	0.89	0/631	1.15	1/860 (0.1%)
1	WM	0.88	0/604	1.15	1/824 (0.1%)
1	WN	0.89	0/619	1.17	1/844 (0.1%)
1	WO	0.89	0/726	1.19	3/989 (0.3%)
1	WP	0.89	0/753	1.16	0/1025
1	WQ	0.90	0/848	1.19	0/1152
1	WR	0.89	0/848	1.14	0/1152
1	WS	0.91	0/848	1.19	1/1152 (0.1%)
1	WT	0.89	0/848	1.18	0/1152
1	WU	0.89	0/857	1.16	1/1164 (0.1%)
1	WV	0.91	0/841	1.17	0/1142
1	WW	0.91	0/848	1.19	2/1152 (0.2%)
1	b	0.58	0/83	1.23	2/114 (1.8%)
1	c	0.17	0/107	0.37	0/148
1	d	0.27	0/137	0.52	0/191
1	e	0.21	0/107	0.45	0/148
1	f	0.48	0/145	0.69	0/203
1	g	0.23	0/107	0.57	0/148
1	h	0.14	0/145	0.29	0/203
1	i	0.16	0/107	0.41	0/148
1	j	0.35	0/137	0.93	0/191
1	k	0.17	0/107	0.30	0/148
1	l	0.27	0/145	0.44	0/203
1	t	0.23	0/1289	0.44	1/1741 (0.1%)
1	u	0.23	0/1289	0.44	1/1741 (0.1%)
1	v	0.22	0/1289	0.44	1/1741 (0.1%)
1	w	0.23	0/1289	0.44	1/1741 (0.1%)
1	x	0.23	0/1289	0.44	1/1741 (0.1%)
1	y	0.22	0/1289	0.44	1/1741 (0.1%)
1	z	0.23	0/1289	0.44	1/1741 (0.1%)
2	K	0.54	0/428	0.89	0/572

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	L	0.42	0/675	0.64	0/905
2	M	0.43	0/689	0.70	0/925
2	N	0.42	0/689	0.64	0/925
2	O	0.42	0/689	0.66	0/925
2	P	0.48	0/682	0.70	0/915
3	A	0.62	0/681	1.03	4/930 (0.4%)
3	B	0.33	0/681	0.60	0/930
3	C	0.24	0/681	0.53	1/930 (0.1%)
3	D	0.19	0/681	0.45	0/930
4	E	0.29	0/1994	0.52	0/2724
5	F	0.32	0/1643	0.64	5/2237 (0.2%)
5	G	0.27	0/1665	0.46	2/2267 (0.1%)
5	H	0.24	0/1652	0.48	3/2249 (0.1%)
5	I	0.24	0/1652	0.45	0/2249
5	J	0.36	0/1662	0.62	4/2263 (0.2%)
6	Q	0.45	0/1042	0.67	2/1408 (0.1%)
6	R	0.37	0/951	0.50	0/1282
6	S	0.41	0/976	0.60	0/1316
6	T	0.41	0/991	0.65	3/1335 (0.2%)
6	U	0.40	0/959	0.53	0/1293
7	V	0.22	0/981	0.41	0/1334
7	W	0.24	0/976	0.48	0/1327
7	X	0.35	0/981	0.55	0/1334
7	Y	0.32	0/981	0.65	1/1334 (0.1%)
7	Z	0.24	0/968	0.43	0/1316
7	a	0.40	0/981	0.55	1/1334 (0.1%)
All	All	0.59	155/100442 (0.2%)	0.77	229/136124 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	UI	0	2
1	UJ	0	2
1	UK	0	3
1	UL	0	3
1	UM	0	2
1	UN	0	2
1	UO	0	2
1	UP	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	WA	0	3
1	WB	0	4
1	WC	0	3
1	WD	0	1
1	WE	0	2
1	WF	0	3
1	WG	0	3
1	WI	0	1
1	WJ	0	3
1	WK	0	2
1	WL	0	2
1	WM	0	1
1	WN	0	1
1	WO	0	1
1	WP	0	3
1	WQ	0	2
1	WR	0	3
1	WS	0	1
1	WT	0	2
1	WU	0	2
1	WV	0	3
1	WW	0	2
5	H	0	2
5	J	0	2
6	Q	0	1
6	R	0	1
6	T	0	1
6	U	0	1
7	Y	0	1
7	a	0	1
All	All	0	77

All (155) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	UJ	125	GLN	C-N	13.67	1.51	1.33
1	UO	125	GLN	C-N	13.59	1.51	1.33
1	UK	125	GLN	C-N	13.59	1.51	1.33
1	UI	125	GLN	C-N	13.54	1.51	1.33
1	UP	125	GLN	C-N	13.52	1.51	1.33
1	UM	125	GLN	C-N	13.51	1.51	1.33
1	UL	125	GLN	C-N	13.50	1.51	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	UN	125	GLN	C-N	13.46	1.51	1.33
1	UM	172	PRO	N-CD	-9.49	1.34	1.47
1	UL	172	PRO	N-CD	-9.45	1.34	1.47
1	UO	172	PRO	N-CD	-9.41	1.34	1.47
1	UP	172	PRO	N-CD	-9.41	1.34	1.47
1	UJ	172	PRO	N-CD	-9.40	1.34	1.47
1	UN	172	PRO	N-CD	-9.40	1.34	1.47
1	UI	172	PRO	N-CD	-9.36	1.34	1.47
1	UK	172	PRO	N-CD	-9.33	1.34	1.47
1	UM	93	VAL	C-N	-7.36	1.24	1.33
1	UN	93	VAL	C-N	-7.32	1.24	1.33
1	UP	93	VAL	C-N	-7.29	1.24	1.33
1	UI	93	VAL	C-N	-7.27	1.24	1.33
1	UL	93	VAL	C-N	-7.25	1.24	1.33
1	UJ	93	VAL	C-N	-7.23	1.24	1.33
1	UK	93	VAL	C-N	-7.21	1.24	1.33
1	UO	93	VAL	C-N	-7.14	1.24	1.33
1	UI	172	PRO	C-N	-6.96	1.23	1.33
1	UJ	172	PRO	C-N	-6.94	1.23	1.33
1	UK	172	PRO	C-N	-6.94	1.23	1.33
1	UP	172	PRO	C-N	-6.94	1.23	1.33
1	UL	172	PRO	C-N	-6.94	1.23	1.33
1	UO	172	PRO	C-N	-6.91	1.23	1.33
1	UN	172	PRO	C-N	-6.90	1.23	1.33
1	UM	172	PRO	C-N	-6.89	1.23	1.33
1	UO	141	ALA	C-N	-6.88	1.25	1.33
1	UP	141	ALA	C-N	-6.86	1.25	1.33
1	UJ	138	GLY	C-N	-6.86	1.25	1.33
1	UI	141	ALA	C-N	-6.82	1.25	1.33
1	UI	138	GLY	C-N	-6.81	1.25	1.33
1	UN	138	GLY	C-N	-6.81	1.25	1.33
1	UK	141	ALA	C-N	-6.79	1.25	1.33
1	UN	141	ALA	C-N	-6.79	1.25	1.33
1	UO	138	GLY	C-N	-6.79	1.25	1.33
1	UK	138	GLY	C-N	-6.79	1.25	1.33
1	UJ	141	ALA	C-N	-6.78	1.25	1.33
1	UM	138	GLY	C-N	-6.77	1.25	1.33
1	UP	138	GLY	C-N	-6.75	1.25	1.33
1	UL	141	ALA	C-N	-6.72	1.25	1.33
1	UM	141	ALA	C-N	-6.71	1.25	1.33
1	UL	138	GLY	C-N	-6.69	1.25	1.33
1	UO	92	LYS	C-N	-6.45	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	UJ	92	LYS	C-N	-6.41	1.25	1.33
1	UP	92	LYS	C-N	-6.41	1.25	1.33
1	UL	92	LYS	C-N	-6.40	1.25	1.33
1	UI	92	LYS	C-N	-6.38	1.25	1.33
1	UK	92	LYS	C-N	-6.37	1.25	1.33
1	UM	92	LYS	C-N	-6.34	1.25	1.33
1	UN	92	LYS	C-N	-6.32	1.25	1.33
1	UL	201	ALA	C-N	-6.21	1.25	1.33
1	UP	195	VAL	C-N	-6.20	1.25	1.33
1	UJ	195	VAL	C-N	-6.20	1.25	1.33
1	UI	201	ALA	C-N	-6.16	1.25	1.33
1	UK	195	VAL	C-N	-6.14	1.25	1.33
1	UL	195	VAL	C-N	-6.14	1.25	1.33
1	UM	201	ALA	C-N	-6.13	1.25	1.33
1	UP	201	ALA	C-N	-6.12	1.25	1.33
1	UI	195	VAL	C-N	-6.10	1.25	1.33
1	UK	201	ALA	C-N	-6.10	1.25	1.33
1	UM	195	VAL	C-N	-6.07	1.25	1.33
1	UJ	105	LEU	C-N	-6.07	1.24	1.34
1	UN	201	ALA	C-N	-6.07	1.25	1.33
1	UO	195	VAL	C-N	-6.06	1.25	1.33
1	UJ	250	ALA	C-N	-6.05	1.25	1.33
1	UO	201	ALA	C-N	-6.04	1.25	1.33
1	UN	195	VAL	C-N	-6.04	1.25	1.33
1	UM	105	LEU	C-N	-6.04	1.24	1.34
1	UJ	182	PRO	C-N	-6.02	1.24	1.33
1	UI	182	PRO	C-N	-6.01	1.24	1.33
1	UM	182	PRO	C-N	-6.01	1.24	1.33
1	UK	105	LEU	C-N	-6.00	1.25	1.34
1	UP	105	LEU	C-N	-5.99	1.25	1.34
1	UL	105	LEU	C-N	-5.99	1.25	1.34
1	UN	105	LEU	C-N	-5.99	1.25	1.34
1	UN	199	SER	C-N	-5.98	1.25	1.33
1	UO	182	PRO	C-N	-5.98	1.24	1.33
1	UO	105	LEU	C-N	-5.97	1.25	1.34
1	UL	182	PRO	C-N	-5.96	1.24	1.33
1	UN	182	PRO	C-N	-5.96	1.24	1.33
1	UI	105	LEU	C-N	-5.95	1.25	1.34
1	UK	182	PRO	C-N	-5.94	1.25	1.33
1	UP	182	PRO	C-N	-5.91	1.25	1.33
1	UP	199	SER	C-N	-5.91	1.25	1.33
1	UI	199	SER	C-N	-5.89	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	UJ	248	SER	C-N	-5.88	1.25	1.33
1	UL	199	SER	C-N	-5.88	1.25	1.33
1	UM	199	SER	C-N	-5.87	1.25	1.33
1	UP	62	ASP	C-N	-5.87	1.26	1.33
1	UK	199	SER	C-N	-5.86	1.25	1.33
1	UK	142	ARG	C-N	-5.86	1.26	1.33
1	UI	97	ARG	C-N	-5.84	1.26	1.33
1	UM	97	ARG	C-N	-5.80	1.26	1.33
1	UO	199	SER	C-N	-5.80	1.25	1.33
1	UM	62	ASP	C-N	-5.78	1.26	1.33
1	UK	97	ARG	C-N	-5.77	1.26	1.33
1	UP	142	ARG	C-N	-5.77	1.26	1.33
1	UJ	97	ARG	C-N	-5.76	1.26	1.33
1	UL	97	ARG	C-N	-5.76	1.26	1.33
1	UP	97	ARG	C-N	-5.74	1.26	1.33
1	UJ	62	ASP	C-N	-5.73	1.26	1.33
1	UL	142	ARG	C-N	-5.73	1.26	1.33
1	UI	131	ASN	C-N	-5.72	1.26	1.33
1	UI	142	ARG	C-N	-5.70	1.26	1.33
1	UN	62	ASP	C-N	-5.69	1.26	1.33
1	UN	97	ARG	C-N	-5.69	1.26	1.33
1	UJ	142	ARG	C-N	-5.68	1.26	1.33
1	UL	131	ASN	C-N	-5.68	1.26	1.33
1	UO	131	ASN	C-N	-5.66	1.26	1.33
1	UK	131	ASN	C-N	-5.66	1.26	1.33
1	UN	185	ALA	C-N	-5.66	1.25	1.33
1	UM	142	ARG	C-N	-5.65	1.26	1.33
1	UO	185	ALA	C-N	-5.63	1.25	1.33
1	UN	142	ARG	C-N	-5.62	1.26	1.33
1	UP	131	ASN	C-N	-5.62	1.26	1.33
1	UK	215	GLN	C-N	-5.62	1.25	1.33
1	UP	185	ALA	C-N	-5.61	1.25	1.33
1	UJ	131	ASN	C-N	-5.59	1.26	1.33
1	UL	185	ALA	C-N	-5.59	1.25	1.33
1	UM	208	GLY	C-N	-5.58	1.26	1.33
1	UN	131	ASN	C-N	-5.58	1.26	1.33
1	UI	185	ALA	C-N	-5.58	1.25	1.33
1	UK	185	ALA	C-N	-5.57	1.25	1.33
1	UJ	185	ALA	C-N	-5.55	1.25	1.33
1	UM	131	ASN	C-N	-5.55	1.26	1.33
1	UO	215	GLN	C-N	-5.55	1.25	1.33
1	UI	215	GLN	C-N	-5.54	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	UJ	257	GLY	C-N	-5.54	1.26	1.33
1	UM	185	ALA	C-N	-5.54	1.25	1.33
1	UO	97	ARG	C-N	-5.54	1.26	1.33
1	UK	208	GLY	C-N	-5.53	1.26	1.33
1	UP	208	GLY	C-N	-5.52	1.26	1.33
1	UJ	264	GLN	C-N	-5.51	1.25	1.33
1	UO	142	ARG	C-N	-5.51	1.26	1.33
1	UI	208	GLY	C-N	-5.51	1.26	1.33
1	UO	70	LEU	C-N	-5.51	1.26	1.33
1	UP	215	GLN	C-N	-5.50	1.25	1.33
1	UN	215	GLN	C-N	-5.49	1.25	1.33
1	UL	208	GLY	C-N	-5.49	1.26	1.33
1	UN	70	LEU	C-N	-5.48	1.26	1.33
1	UN	208	GLY	C-N	-5.47	1.26	1.33
1	UM	215	GLN	C-N	-5.47	1.25	1.33
1	UO	208	GLY	C-N	-5.46	1.26	1.33
1	UK	70	LEU	C-N	-5.45	1.26	1.33
1	UM	70	LEU	C-N	-5.44	1.26	1.33
1	UJ	70	LEU	C-N	-5.43	1.26	1.33
1	UI	70	LEU	C-N	-5.39	1.26	1.33
1	UL	70	LEU	C-N	-5.38	1.26	1.33
1	UP	70	LEU	C-N	-5.36	1.26	1.33

All (229) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	UK	126	PHE	O-C-N	13.87	136.82	122.12
1	UN	126	PHE	O-C-N	13.84	136.79	122.12
1	UO	126	PHE	O-C-N	13.84	136.78	122.12
1	UL	126	PHE	O-C-N	13.83	136.78	122.12
1	UI	126	PHE	O-C-N	13.82	136.77	122.12
1	UJ	126	PHE	O-C-N	13.82	136.77	122.12
1	UM	126	PHE	O-C-N	13.81	136.76	122.12
1	UP	126	PHE	O-C-N	13.80	136.75	122.12
5	F	162	PRO	CA-N-CD	-12.36	94.69	112.00
1	UP	129	GLN	O-C-N	10.56	132.94	122.07
1	UK	129	GLN	O-C-N	10.52	132.91	122.07
1	UO	129	GLN	O-C-N	10.49	132.87	122.07
1	UN	129	GLN	O-C-N	10.41	132.79	122.07
1	UL	129	GLN	O-C-N	10.40	132.78	122.07
1	UM	129	GLN	O-C-N	10.40	132.78	122.07
1	UJ	129	GLN	O-C-N	10.39	132.77	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	UI	129	GLN	O-C-N	10.39	132.77	122.07
1	b	320	PRO	N-CA-C	-9.23	101.19	113.65
1	UL	126	PHE	CA-C-N	-9.12	107.34	120.29
1	UL	126	PHE	C-N-CA	-9.12	107.34	120.29
1	UM	126	PHE	CA-C-N	-9.09	107.38	120.29
1	UM	126	PHE	C-N-CA	-9.09	107.38	120.29
1	UO	126	PHE	CA-C-N	-9.09	107.38	120.29
1	UO	126	PHE	C-N-CA	-9.09	107.38	120.29
1	UP	126	PHE	CA-C-N	-9.09	107.38	120.29
1	UP	126	PHE	C-N-CA	-9.09	107.38	120.29
1	UK	126	PHE	CA-C-N	-9.09	107.39	120.29
1	UK	126	PHE	C-N-CA	-9.09	107.39	120.29
1	UN	126	PHE	CA-C-N	-9.08	107.40	120.29
1	UN	126	PHE	C-N-CA	-9.08	107.40	120.29
1	UJ	126	PHE	CA-C-N	-9.08	107.40	120.29
1	UJ	126	PHE	C-N-CA	-9.08	107.40	120.29
1	UI	126	PHE	CA-C-N	-9.07	107.41	120.29
1	UI	126	PHE	C-N-CA	-9.07	107.41	120.29
1	UI	130	VAL	O-C-N	8.68	130.29	121.87
1	UL	130	VAL	O-C-N	8.63	130.24	121.87
1	UJ	130	VAL	O-C-N	8.63	130.24	121.87
1	UN	130	VAL	O-C-N	8.62	130.24	121.87
1	UK	130	VAL	O-C-N	8.62	130.23	121.87
1	UP	130	VAL	O-C-N	8.57	130.19	121.87
1	UO	130	VAL	O-C-N	8.57	130.18	121.87
1	UM	130	VAL	O-C-N	8.56	130.17	121.87
3	A	66	GLY	O-C-N	-7.86	118.24	121.07
1	WA	162	PRO	N-CA-C	7.75	128.44	112.47
6	T	72	HIS	CA-C-N	-7.46	116.17	123.04
6	T	72	HIS	C-N-CA	-7.46	116.17	123.04
3	C	15	LYS	N-CA-C	-7.35	102.87	111.03
6	T	72	HIS	CA-CB-CG	-7.32	106.48	113.80
3	A	84	LEU	O-C-N	-7.12	113.13	121.32
7	Y	5	ASN	CB-CA-C	-7.04	108.45	116.54
5	F	135	ARG	N-CA-C	-6.83	103.44	111.03
1	UI	129	GLN	CA-C-N	-6.73	111.23	120.46
1	UI	129	GLN	C-N-CA	-6.73	111.23	120.46
1	UP	129	GLN	CA-C-N	-6.71	111.27	120.46
1	UP	129	GLN	C-N-CA	-6.71	111.27	120.46
1	UK	129	GLN	CA-C-N	-6.70	111.28	120.46
1	UK	129	GLN	C-N-CA	-6.70	111.28	120.46
1	UO	129	GLN	CA-C-N	-6.70	111.28	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	UO	129	GLN	C-N-CA	-6.70	111.28	120.46
1	UJ	129	GLN	CA-C-N	-6.69	111.30	120.46
1	UJ	129	GLN	C-N-CA	-6.69	111.30	120.46
1	UM	129	GLN	CA-C-N	-6.67	111.33	120.46
1	UM	129	GLN	C-N-CA	-6.67	111.33	120.46
1	WA	162	PRO	CB-CA-C	-6.66	100.57	111.56
1	UL	129	GLN	CA-C-N	-6.66	111.34	120.46
1	UL	129	GLN	C-N-CA	-6.66	111.34	120.46
1	UN	129	GLN	CA-C-N	-6.65	111.35	120.46
1	UN	129	GLN	C-N-CA	-6.65	111.35	120.46
5	F	162	PRO	N-CD-CG	-6.59	93.32	103.20
1	UI	181	GLU	O-C-N	6.41	127.91	121.30
1	UN	181	GLU	O-C-N	6.39	127.89	121.30
5	F	134	LEU	CA-C-N	-6.39	111.94	120.63
5	F	134	LEU	C-N-CA	-6.39	111.94	120.63
1	UK	181	GLU	O-C-N	6.38	127.87	121.30
1	UL	131	ASN	O-C-N	6.37	129.41	122.15
1	UJ	181	GLU	O-C-N	6.37	127.86	121.30
1	UL	181	GLU	O-C-N	6.33	127.82	121.30
1	UN	131	ASN	O-C-N	6.31	129.34	122.15
1	UP	181	GLU	O-C-N	6.30	127.79	121.30
7	a	37	PRO	N-CA-C	-6.30	104.46	113.47
1	UP	131	ASN	O-C-N	6.30	129.33	122.15
1	UK	131	ASN	O-C-N	6.29	129.32	122.15
1	UM	181	GLU	O-C-N	6.29	127.78	121.30
1	UO	131	ASN	O-C-N	6.27	129.29	122.15
1	UK	221	THR	O-C-N	-6.26	115.71	123.04
1	UN	221	THR	O-C-N	-6.26	115.71	123.04
1	UL	221	THR	O-C-N	-6.26	115.72	123.04
1	UJ	270	THR	O-C-N	-6.26	115.72	123.04
1	UO	181	GLU	O-C-N	6.25	127.74	121.30
1	UJ	131	ASN	O-C-N	6.24	129.27	122.15
3	A	85	PRO	CA-N-CD	-6.23	103.27	112.00
1	UP	221	THR	O-C-N	-6.22	115.76	123.04
1	UM	221	THR	O-C-N	-6.21	115.77	123.04
1	UM	131	ASN	O-C-N	6.21	129.23	122.15
1	UI	221	THR	O-C-N	-6.19	115.79	123.04
1	UI	131	ASN	O-C-N	6.19	129.21	122.15
1	UO	221	THR	O-C-N	-6.18	115.81	123.04
5	G	162	PRO	N-CA-CB	-6.18	96.76	103.25
3	A	87	ILE	N-CA-C	-6.15	107.30	113.20
1	UO	127	SER	O-C-N	6.14	129.16	122.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	UJ	127	SER	O-C-N	6.14	129.15	122.15
1	UM	127	SER	O-C-N	6.14	129.15	122.15
1	UL	127	SER	O-C-N	6.12	129.13	122.15
1	UN	127	SER	O-C-N	6.12	129.13	122.15
1	UK	127	SER	O-C-N	6.12	129.12	122.15
1	UI	127	SER	O-C-N	6.09	129.09	122.15
5	J	84	PRO	N-CA-C	-6.01	103.37	110.70
6	Q	52	VAL	CA-C-N	-6.00	110.69	120.71
6	Q	52	VAL	C-N-CA	-6.00	110.69	120.71
1	UP	127	SER	O-C-N	5.95	128.93	122.15
1	UK	132	TYR	O-C-N	5.82	128.07	122.07
1	UI	132	TYR	O-C-N	5.77	128.02	122.07
1	UP	132	TYR	O-C-N	5.75	127.99	122.07
1	UJ	132	TYR	O-C-N	5.74	127.98	122.07
1	UM	132	TYR	O-C-N	5.72	127.96	122.07
1	UL	132	TYR	O-C-N	5.71	127.95	122.07
1	UN	132	TYR	O-C-N	5.70	127.94	122.07
1	UO	132	TYR	O-C-N	5.67	127.92	122.07
1	WB	221	THR	CB-CA-C	-5.60	109.01	117.07
1	WI	167	ARG	CB-CA-C	-5.60	109.61	117.23
5	G	120	LYS	N-CA-C	-5.59	104.28	113.50
1	b	322	PRO	N-CA-CB	-5.59	96.86	103.00
1	WJ	214	ASP	CB-CA-C	-5.54	99.97	113.15
1	UI	125	GLN	CA-C-N	-5.47	112.88	120.38
1	UI	125	GLN	C-N-CA	-5.47	112.88	120.38
1	UJ	125	GLN	CA-C-N	-5.47	112.88	120.38
1	UJ	125	GLN	C-N-CA	-5.47	112.88	120.38
1	UK	125	GLN	CA-C-N	-5.47	112.88	120.38
1	UK	125	GLN	C-N-CA	-5.47	112.88	120.38
1	UO	125	GLN	CA-C-N	-5.47	112.89	120.38
1	UO	125	GLN	C-N-CA	-5.47	112.89	120.38
1	UN	125	GLN	CA-C-N	-5.46	112.89	120.38
1	UN	125	GLN	C-N-CA	-5.46	112.89	120.38
1	UP	125	GLN	CA-C-N	-5.46	112.90	120.38
1	UP	125	GLN	C-N-CA	-5.46	112.90	120.38
1	UL	125	GLN	CA-C-N	-5.45	112.91	120.38
1	UL	125	GLN	C-N-CA	-5.45	112.91	120.38
1	4	261	ASN	N-CA-C	-5.44	106.49	113.02
1	WM	220	LEU	N-CA-C	-5.42	106.64	113.20
1	AI	261	ASN	N-CA-C	-5.41	106.53	113.02
1	UM	125	GLN	CA-C-N	-5.41	112.97	120.38
1	UM	125	GLN	C-N-CA	-5.41	112.97	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	0	261	ASN	N-CA-C	-5.41	106.53	113.02
1	AB	261	ASN	N-CA-C	-5.40	106.54	113.02
1	AQ	261	ASN	N-CA-C	-5.40	106.54	113.02
1	WW	220	LEU	N-CA-C	-5.39	106.68	113.20
1	AK	261	ASN	N-CA-C	-5.39	106.55	113.02
1	AM	261	ASN	N-CA-C	-5.39	106.55	113.02
1	8	261	ASN	N-CA-C	-5.38	106.56	113.02
1	AP	261	ASN	N-CA-C	-5.38	106.56	113.02
1	7	261	ASN	N-CA-C	-5.38	106.56	113.02
1	AH	261	ASN	N-CA-C	-5.38	106.56	113.02
1	x	261	ASN	N-CA-C	-5.38	106.56	113.02
1	z	261	ASN	N-CA-C	-5.38	106.57	113.02
1	WS	220	LEU	N-CA-C	-5.37	106.70	113.20
1	WO	220	LEU	N-CA-C	-5.36	106.71	113.20
1	u	261	ASN	N-CA-C	-5.36	106.59	113.02
1	2	261	ASN	N-CA-C	-5.36	106.59	113.02
1	y	261	ASN	N-CA-C	-5.36	106.59	113.02
1	AD	261	ASN	N-CA-C	-5.35	106.59	113.02
1	WH	220	LEU	N-CA-C	-5.35	106.72	113.20
1	AC	261	ASN	N-CA-C	-5.35	106.60	113.02
5	J	66	ARG	N-CA-C	-5.35	106.60	113.02
1	AL	261	ASN	N-CA-C	-5.34	106.61	113.02
1	AF	261	ASN	N-CA-C	-5.33	106.62	113.02
1	AO	261	ASN	N-CA-C	-5.33	106.62	113.02
1	w	261	ASN	N-CA-C	-5.33	106.62	113.02
1	3	261	ASN	N-CA-C	-5.33	106.63	113.02
1	AN	261	ASN	N-CA-C	-5.33	106.63	113.02
1	WL	220	LEU	N-CA-C	-5.33	106.76	113.20
1	AA	261	ASN	N-CA-C	-5.32	106.63	113.02
1	UN	130	VAL	CA-C-N	-5.32	112.73	120.29
1	UN	130	VAL	C-N-CA	-5.32	112.73	120.29
1	6	261	ASN	N-CA-C	-5.32	106.64	113.02
1	v	261	ASN	N-CA-C	-5.32	106.64	113.02
1	1	261	ASN	N-CA-C	-5.32	106.64	113.02
1	AG	261	ASN	N-CA-C	-5.31	106.65	113.02
1	WE	160	PRO	N-CA-CB	-5.31	97.68	103.25
1	AJ	261	ASN	N-CA-C	-5.30	106.66	113.02
1	UI	130	VAL	CA-C-N	-5.30	112.76	120.29
1	UI	130	VAL	C-N-CA	-5.30	112.76	120.29
1	5	261	ASN	N-CA-C	-5.30	106.67	113.02
1	t	261	ASN	N-CA-C	-5.30	106.67	113.02
1	UK	130	VAL	CA-C-N	-5.29	112.77	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	UK	130	VAL	C-N-CA	-5.29	112.77	120.29
1	UO	130	VAL	CA-C-N	-5.29	112.77	120.29
1	UO	130	VAL	C-N-CA	-5.29	112.77	120.29
5	H	134	LEU	CA-C-N	-5.29	113.24	120.44
5	H	134	LEU	C-N-CA	-5.29	113.24	120.44
1	9	261	ASN	N-CA-C	-5.28	106.68	113.02
1	UL	130	VAL	CA-C-N	-5.28	112.80	120.29
1	UL	130	VAL	C-N-CA	-5.28	112.80	120.29
1	UM	130	VAL	CA-C-N	-5.27	112.80	120.29
1	UM	130	VAL	C-N-CA	-5.27	112.80	120.29
1	AE	261	ASN	N-CA-C	-5.26	106.71	113.02
1	UP	130	VAL	CA-C-N	-5.26	112.82	120.29
1	UP	130	VAL	C-N-CA	-5.26	112.82	120.29
1	WN	220	LEU	N-CA-C	-5.26	106.84	113.20
1	UJ	130	VAL	CA-C-N	-5.25	112.83	120.29
1	UJ	130	VAL	C-N-CA	-5.25	112.83	120.29
5	J	143	ARG	CB-CG-CD	-5.22	99.29	111.30
5	H	135	ARG	N-CA-C	-5.21	105.51	111.14
1	WI	165	PHE	CB-CA-C	5.19	119.71	111.51
1	UL	128	GLU	O-C-N	5.18	127.68	122.09
1	WO	167	ARG	CA-C-O	-5.16	114.88	120.09
1	UL	128	GLU	CA-C-N	-5.15	113.74	120.44
1	UL	128	GLU	C-N-CA	-5.15	113.74	120.44
1	UI	128	GLU	CA-C-N	-5.15	113.75	120.44
1	UI	128	GLU	C-N-CA	-5.15	113.75	120.44
1	UM	128	GLU	CA-C-N	-5.13	113.77	120.44
1	UM	128	GLU	C-N-CA	-5.13	113.77	120.44
1	UP	128	GLU	CA-C-N	-5.12	113.79	120.44
1	UP	128	GLU	C-N-CA	-5.12	113.79	120.44
1	WU	164	LEU	N-CA-C	-5.12	106.99	113.18
1	UK	128	GLU	CA-C-N	-5.11	113.80	120.44
1	UK	128	GLU	C-N-CA	-5.11	113.80	120.44
1	UJ	128	GLU	CA-C-N	-5.10	113.81	120.44
1	UJ	128	GLU	C-N-CA	-5.10	113.81	120.44
1	UN	128	GLU	CA-C-N	-5.09	113.82	120.44
1	UN	128	GLU	C-N-CA	-5.09	113.82	120.44
1	WO	168	GLU	CB-CA-C	-5.09	100.29	110.42
1	UM	128	GLU	O-C-N	5.08	127.58	122.09
1	UK	128	GLU	O-C-N	5.08	127.58	122.09
5	J	67	ILE	N-CA-C	-5.07	105.94	113.39
1	UO	128	GLU	CA-C-N	-5.07	113.85	120.44
1	UO	128	GLU	C-N-CA	-5.07	113.85	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	UI	128	GLU	O-C-N	5.06	127.55	122.09
1	UP	128	GLU	O-C-N	5.04	127.53	122.09
1	WW	164	LEU	N-CA-C	-5.02	106.41	112.88

There are no chirality outliers.

All (77) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	H	135	ARG	Sidechain
5	H	143	ARG	Sidechain
5	J	140	ARG	Sidechain
5	J	143	ARG	Sidechain
6	Q	106	ARG	Sidechain
6	R	55	ARG	Sidechain
6	T	4	ARG	Sidechain
6	U	104	ARG	Sidechain
1	UI	221	THR	Mainchain
1	UI	50	ASP	Mainchain
1	UJ	270	THR	Mainchain
1	UJ	50	ASP	Mainchain
1	UK	167	ARG	Sidechain
1	UK	221	THR	Mainchain
1	UK	50	ASP	Mainchain
1	UL	167	ARG	Sidechain
1	UL	221	THR	Mainchain
1	UL	50	ASP	Mainchain
1	UM	221	THR	Mainchain
1	UM	50	ASP	Mainchain
1	UN	221	THR	Mainchain
1	UN	50	ASP	Mainchain
1	UO	221	THR	Mainchain
1	UO	50	ASP	Mainchain
1	UP	167	ARG	Sidechain
1	UP	221	THR	Mainchain
1	UP	50	ASP	Mainchain
1	WA	134	ARG	Sidechain
1	WA	142	ARG	Sidechain
1	WA	167	ARG	Sidechain
1	WB	134	ARG	Sidechain
1	WB	142	ARG	Sidechain
1	WB	154	ARG	Sidechain
1	WB	167	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	WC	134	ARG	Sidechain
1	WC	142	ARG	Sidechain
1	WC	167	ARG	Sidechain
1	WD	134	ARG	Sidechain
1	WE	134	ARG	Sidechain
1	WE	142	ARG	Sidechain
1	WF	134	ARG	Sidechain
1	WF	142	ARG	Sidechain
1	WF	167	ARG	Sidechain
1	WG	134	ARG	Sidechain
1	WG	142	ARG	Sidechain
1	WG	167	ARG	Sidechain
1	WI	142	ARG	Sidechain
1	WJ	134	ARG	Sidechain
1	WJ	142	ARG	Sidechain
1	WJ	167	ARG	Sidechain
1	WK	134	ARG	Sidechain
1	WK	142	ARG	Sidechain
1	WL	134	ARG	Sidechain
1	WL	157	LEU	Mainchain
1	WM	134	ARG	Sidechain
1	WN	134	ARG	Sidechain
1	WO	134	ARG	Sidechain
1	WP	134	ARG	Sidechain
1	WP	142	ARG	Sidechain
1	WP	154	ARG	Sidechain
1	WQ	134	ARG	Sidechain
1	WQ	142	ARG	Sidechain
1	WR	134	ARG	Sidechain
1	WR	142	ARG	Sidechain
1	WR	167	ARG	Sidechain
1	WS	167	ARG	Sidechain
1	WT	134	ARG	Sidechain
1	WT	142	ARG	Sidechain
1	WU	134	ARG	Sidechain
1	WU	142	ARG	Sidechain
1	WV	134	ARG	Sidechain
1	WV	142	ARG	Sidechain
1	WV	167	ARG	Sidechain
1	WW	134	ARG	Sidechain
1	WW	167	ARG	Sidechain
7	Y	110	ARG	Sidechain

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Mol	Chain	Res	Type	Group
7	a	110	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	1275	0	1254	33	0
1	1	1275	0	1254	60	0
1	2	1275	0	1254	42	0
1	3	1275	0	1254	29	0
1	4	1275	0	1254	43	0
1	5	1275	0	1254	40	0
1	6	1275	0	1254	49	0
1	7	1275	0	1254	54	0
1	8	1275	0	1254	34	0
1	9	1275	0	1254	29	0
1	AA	1275	0	1254	31	0
1	AB	1275	0	1254	44	0
1	AC	1275	0	1254	47	0
1	AD	1275	0	1254	47	0
1	AE	1275	0	1254	45	0
1	AF	1275	0	1254	30	0
1	AG	1275	0	1254	37	0
1	AH	1275	0	1254	55	0
1	AI	1275	0	1254	49	0
1	AJ	1275	0	1254	44	0
1	AK	1275	0	1254	39	0
1	AL	1275	0	1254	40	0
1	AM	1275	0	1254	40	0
1	AN	1275	0	1254	29	0
1	AO	1275	0	1254	31	0
1	AP	1275	0	1254	39	0
1	AQ	1275	0	1254	34	0
1	UI	1172	0	1181	67	0
1	UJ	1172	0	1181	81	0
1	UK	1172	0	1181	78	0
1	UL	1172	0	1181	72	0
1	UM	1172	0	1181	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	UN	1172	0	1181	73	0
1	UO	1172	0	1181	68	0
1	UP	1172	0	1181	68	0
1	WA	849	0	860	80	0
1	WB	836	0	846	83	0
1	WC	812	0	826	61	0
1	WD	827	0	840	105	0
1	WE	843	0	855	96	0
1	WF	834	0	847	63	0
1	WG	843	0	855	76	0
1	WH	703	0	722	67	0
1	WI	703	0	722	79	0
1	WJ	737	0	755	92	0
1	WK	729	0	744	85	0
1	WL	622	0	632	61	0
1	WM	596	0	612	47	0
1	WN	611	0	623	58	0
1	WO	714	0	731	48	0
1	WP	741	0	758	70	0
1	WQ	834	0	847	70	0
1	WR	834	0	847	64	0
1	WS	834	0	847	85	0
1	WT	834	0	847	71	0
1	WU	843	0	855	67	0
1	WV	827	0	838	66	0
1	WW	834	0	847	97	0
1	b	81	0	78	11	0
1	c	103	0	99	3	0
1	d	133	0	129	8	0
1	e	103	0	99	3	0
1	f	140	0	136	8	0
1	g	103	0	99	9	0
1	h	140	0	136	4	0
1	i	103	0	99	7	0
1	j	133	0	129	10	0
1	k	103	0	99	8	0
1	l	140	0	136	4	0
1	t	1275	0	1254	47	0
1	u	1275	0	1254	34	0
1	v	1275	0	1254	29	0
1	w	1275	0	1254	30	0
1	x	1275	0	1254	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	y	1275	0	1254	36	0
1	z	1275	0	1254	52	0
2	K	429	0	445	57	0
2	L	672	0	684	62	0
2	M	686	0	700	72	0
2	N	686	0	700	54	0
2	O	686	0	700	66	0
2	P	679	0	693	64	0
3	A	670	0	739	74	0
3	B	670	0	739	53	0
3	C	670	0	739	51	0
3	D	670	0	739	88	0
4	E	1945	0	2063	138	0
5	F	1605	0	1701	89	0
5	G	1626	0	1718	89	0
5	H	1614	0	1709	87	0
5	I	1614	0	1709	117	0
5	J	1623	0	1715	150	0
6	Q	1030	0	1025	42	0
6	R	942	0	943	84	0
6	S	967	0	968	86	0
6	T	982	0	984	68	0
6	U	950	0	946	73	0
7	V	969	0	981	32	0
7	W	964	0	976	34	0
7	X	969	0	981	37	0
7	Y	969	0	981	44	0
7	Z	956	0	965	34	0
7	a	969	0	981	32	0
All	All	99060	0	99703	3907	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 20.

All (3907) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:51:LYS:HB3	6:R:55:ARG:NH2	1.13	1.43
1:WD:168:GLU:CD	1:WD:170:LYS:HE3	1.41	1.41
1:WJ:164:LEU:HD22	4:E:145:TRP:CD1	1.54	1.41
1:WW:165:PHE:CE1	3:B:89:GLY:HA2	1.57	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:365:ASN:HB3	6:U:72:HIS:CD2	1.64	1.33
1:AH:372:ILE:CD1	2:L:11:ILE:HG22	1.58	1.33
2:O:7:ILE:HG21	1:z:278:THR:CG2	1.56	1.32
1:UP:103:GLN:CG	1:WW:182:PRO:HB3	1.56	1.32
1:UP:103:GLN:HG2	1:WW:182:PRO:CB	1.58	1.32
1:AE:297:GLN:HB2	6:S:73:ILE:CD1	1.61	1.30
1:WD:165:PHE:CB	5:I:143:ARG:HA	1.63	1.28
1:WF:197:LEU:HD12	1:WG:175:SER:OG	1.34	1.28
1:AJ:365:ASN:HB3	6:R:72:HIS:ND1	1.47	1.28
1:WJ:164:LEU:CD2	4:E:145:TRP:HD1	1.47	1.27
2:O:7:ILE:CG2	1:z:278:THR:HG21	1.65	1.26
6:Q:111:ASP:OD1	7:W:3:LEU:HB2	1.19	1.26
1:WR:197:LEU:HD12	1:WS:175:SER:OG	1.36	1.26
1:WD:168:GLU:CG	1:WD:170:LYS:HE3	1.64	1.25
1:WQ:124:SER:HA	3:A:75:ASP:OD1	1.23	1.24
1:AI:370:ARG:NH2	2:L:7:ILE:HD11	1.54	1.22
1:AH:372:ILE:HG21	2:L:11:ILE:CG2	1.68	1.22
1:AM:278:THR:CG2	2:K:7:ILE:HG21	1.69	1.22
1:WA:128:GLU:HG2	1:WB:126:PHE:CD2	1.74	1.22
1:WA:128:GLU:CG	1:WB:126:PHE:CD2	2.23	1.21
3:D:55:ILE:HD11	5:I:205:MET:CE	1.70	1.21
1:WE:167:ARG:CD	5:I:161:GLY:HA2	1.71	1.20
1:WG:164:LEU:O	5:J:241:GLN:HG2	1.38	1.20
2:P:7:ILE:CG2	1:t:278:THR:HG21	1.70	1.20
1:WD:165:PHE:HB2	5:I:142:THR:O	1.39	1.19
1:AH:370:ARG:HH21	2:L:14:LEU:HD21	1.07	1.19
1:WQ:197:LEU:HD12	1:WR:175:SER:OG	1.39	1.18
1:WP:166:VAL:CG2	5:F:160:GLN:HB3	1.72	1.18
1:WI:197:LEU:HD12	1:WJ:175:SER:CB	1.74	1.18
1:WP:166:VAL:HG22	5:F:160:GLN:CB	1.72	1.17
1:1:299:ASN:HD22	6:U:78:VAL:CG1	1.58	1.17
1:7:365:ASN:HB3	6:T:72:HIS:CD2	1.79	1.17
1:AG:303:GLN:NE2	1:f:319:GLN:HB3	1.60	1.17
1:WJ:197:LEU:HD12	1:WK:175:SER:OG	1.41	1.17
1:AH:372:ILE:CG2	2:L:11:ILE:HG21	1.74	1.16
3:D:55:ILE:CD1	5:I:205:MET:HE1	1.74	1.16
6:R:51:LYS:CB	6:R:55:ARG:NH2	2.09	1.16
1:WK:193:ALA:HB1	1:WL:213:VAL:HG21	1.28	1.15
1:WS:200:SER:O	1:WT:158:ALA:HB2	1.46	1.15
1:1:299:ASN:ND2	6:U:78:VAL:HG11	1.61	1.15
1:WA:128:GLU:CG	1:WB:126:PHE:HD2	1.56	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WK:197:LEU:HD12	1:WL:175:SER:CB	1.77	1.15
1:WR:197:LEU:HD12	1:WS:175:SER:CB	1.75	1.14
1:WD:168:GLU:CD	1:WD:170:LYS:CE	2.21	1.14
1:WT:181:GLU:HB2	1:WT:184:ARG:HG3	1.14	1.14
2:P:7:ILE:HG21	1:t:278:THR:HG21	1.21	1.14
1:WR:181:GLU:HB2	1:WR:184:ARG:HG3	1.14	1.14
2:O:21:ALA:CB	1:x:278:THR:HG21	1.78	1.13
1:WQ:181:GLU:HB2	1:WQ:184:ARG:HG3	1.14	1.13
1:WS:181:GLU:HB2	1:WS:184:ARG:HG3	1.14	1.13
1:AL:278:THR:CG2	2:K:14:LEU:HD23	1.78	1.13
1:WA:158:ALA:HB2	1:WW:200:SER:O	1.44	1.13
1:WI:197:LEU:HD12	1:WJ:175:SER:OG	1.47	1.13
1:WR:112:GLY:HA2	1:WR:135:ALA:HA	1.27	1.13
3:C:36:SER:OG	3:D:44:ILE:HG23	1.45	1.13
6:R:51:LYS:HB3	6:R:55:ARG:CZ	1.79	1.13
1:WA:128:GLU:HG2	1:WB:126:PHE:HD2	0.96	1.13
2:M:11:ILE:HD12	2:M:12:SER:N	1.64	1.12
1:WH:181:GLU:HB2	1:WH:184:ARG:HG3	1.13	1.12
1:WK:167:ARG:HG2	4:E:156:THR:HG22	1.31	1.12
1:AB:278:THR:HG21	2:M:7:ILE:HB	1.16	1.12
1:AI:370:ARG:HH21	2:L:7:ILE:HD11	1.00	1.12
1:WE:181:GLU:HB2	1:WE:184:ARG:HG3	1.14	1.12
1:WF:181:GLU:HB2	1:WF:184:ARG:HG3	1.14	1.12
1:WJ:164:LEU:HB2	4:E:145:TRP:NE1	1.65	1.12
1:WW:165:PHE:HE1	3:B:89:GLY:CA	1.63	1.12
3:D:58:VAL:HG11	5:J:207:LEU:CD1	1.79	1.12
1:7:367:GLU:OE1	6:T:68:THR:HG21	1.49	1.12
1:WA:181:GLU:HB2	1:WA:184:ARG:HG3	1.14	1.12
1:WU:181:GLU:HB2	1:WU:184:ARG:HG3	1.14	1.12
1:WV:181:GLU:HB2	1:WV:184:ARG:HG3	1.14	1.12
1:AG:303:GLN:HE22	1:f:319:GLN:CB	1.63	1.12
1:WG:181:GLU:HB2	1:WG:184:ARG:HG3	1.14	1.12
1:WW:181:GLU:HB2	1:WW:184:ARG:HG3	1.14	1.11
1:WJ:164:LEU:HD13	4:E:145:TRP:CD1	1.86	1.11
1:AP:278:THR:HG21	2:P:21:ALA:HB1	1.29	1.11
1:WE:112:GLY:HA2	1:WE:135:ALA:HA	1.31	1.11
6:S:35:THR:HG22	7:X:49:PHE:HB3	1.32	1.11
1:AP:278:THR:HG21	2:P:21:ALA:CB	1.80	1.10
1:WD:181:GLU:HB2	1:WD:184:ARG:HG3	1.13	1.10
1:WP:181:GLU:HB2	1:WP:184:ARG:HG3	1.14	1.10
1:AI:372:ILE:CG2	2:L:4:ILE:HG12	1.81	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WO:200:SER:OG	1:WP:175:SER:HB2	1.50	1.10
1:WU:197:LEU:HD12	1:WV:175:SER:OG	1.51	1.10
1:AP:276:GLU:OE2	2:P:19:MET:HA	1.51	1.10
1:UJ:103:GLN:HB3	1:WD:182:PRO:HB3	1.20	1.10
1:WC:164:LEU:O	5:I:241:GLN:HG2	1.51	1.10
1:WL:197:LEU:HD12	1:WM:175:SER:OG	1.49	1.10
1:WS:112:GLY:HA2	1:WS:135:ALA:HA	1.12	1.10
1:WI:181:GLU:HB2	1:WI:184:ARG:HG3	1.14	1.10
1:1:299:ASN:ND2	6:U:78:VAL:CG1	2.14	1.10
1:1:367:GLU:OE1	6:U:68:THR:HG21	1.49	1.10
1:WJ:181:GLU:HB2	1:WJ:184:ARG:HG3	1.13	1.09
1:WA:197:LEU:HD12	1:WB:175:SER:OG	1.50	1.09
1:WJ:197:LEU:HD12	1:WK:175:SER:CB	1.82	1.09
1:WO:181:GLU:HB2	1:WO:184:ARG:HG3	1.14	1.09
2:O:7:ILE:CG2	1:z:278:THR:CG2	2.25	1.08
1:WK:181:GLU:HB2	1:WK:184:ARG:HG3	1.14	1.08
1:UN:167:ARG:NH2	1:WQ:188:GLU:HB3	1.68	1.08
1:WA:158:ALA:CB	1:WW:200:SER:O	2.00	1.08
1:WB:181:GLU:HB2	1:WB:184:ARG:HG3	1.14	1.08
1:AD:365:ASN:HB3	6:S:72:HIS:ND1	1.67	1.08
1:WK:196:HIS:HB3	1:WL:211:THR:HG21	1.33	1.08
1:WN:196:HIS:HB3	1:WO:211:THR:HG21	1.34	1.08
1:4:278:THR:HG21	2:N:21:ALA:CB	1.84	1.08
2:O:77:LYS:HE3	6:U:13:GLN:NE2	1.69	1.08
6:T:68:THR:OG1	6:T:72:HIS:CE1	2.07	1.08
1:AH:372:ILE:HD13	2:L:11:ILE:HG22	1.36	1.07
1:AD:295:SER:HB2	6:S:65:LEU:HB2	1.35	1.07
1:AM:278:THR:HG21	2:K:7:ILE:HG21	1.20	1.07
1:WN:181:GLU:HB2	1:WN:184:ARG:HG3	1.14	1.07
1:UK:207:PRO:HD2	1:WE:187:ASP:CG	1.80	1.07
1:WG:200:SER:OG	1:WH:175:SER:HB2	1.54	1.06
1:WM:181:GLU:HB2	1:WM:184:ARG:HG3	1.14	1.06
1:WL:181:GLU:HB2	1:WL:184:ARG:HG3	1.14	1.06
1:AK:278:THR:HG21	2:K:21:ALA:CB	1.83	1.06
1:AL:278:THR:HG21	2:K:14:LEU:HD23	1.37	1.06
1:AI:370:ARG:HH21	2:L:7:ILE:CD1	1.67	1.06
1:WC:186:LEU:HD22	1:WC:190:GLN:HG2	1.38	1.06
1:WN:201:ALA:HA	1:WO:158:ALA:HB2	1.33	1.06
3:D:58:VAL:HG11	5:J:207:LEU:HD11	1.07	1.06
1:AH:372:ILE:HD12	2:L:11:ILE:HG22	1.38	1.05
1:WA:160:PRO:HB3	1:WW:203:ALA:HB1	1.38	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:74:LEU:HD11	5:J:228:LEU:HD13	1.38	1.05
1:AM:278:THR:HG21	2:K:7:ILE:CG2	1.85	1.05
1:UK:207:PRO:CB	1:WE:187:ASP:OD1	2.04	1.05
1:UJ:103:GLN:HB3	1:WD:182:PRO:CB	1.86	1.05
1:WE:167:ARG:HD3	5:I:161:GLY:CA	1.87	1.05
1:UK:207:PRO:HB2	1:WE:187:ASP:OD1	1.56	1.04
1:AE:295:SER:HB3	6:S:72:HIS:CB	1.87	1.04
2:P:7:ILE:HG21	1:t:278:THR:CG2	1.87	1.04
1:WM:200:SER:OG	1:WN:175:SER:HB2	1.58	1.04
1:WM:143:THR:OG1	1:WN:154:ARG:HG2	1.57	1.04
1:AH:372:ILE:HG21	2:L:11:ILE:HG21	1.34	1.03
1:WL:197:LEU:HD12	1:WM:175:SER:CB	1.88	1.03
2:O:7:ILE:HG21	1:z:278:THR:HG22	1.36	1.03
1:WJ:128:GLU:HG2	1:WK:126:PHE:HD2	1.22	1.03
1:WV:112:GLY:HA2	1:WV:135:ALA:HA	1.40	1.03
1:AB:372:ILE:CG2	2:M:11:ILE:HG22	1.87	1.03
1:UJ:103:GLN:OE1	1:WD:182:PRO:HB3	1.58	1.03
1:WD:165:PHE:HB3	5:I:143:ARG:HA	1.04	1.03
1:WJ:164:LEU:CD2	4:E:145:TRP:CD1	2.30	1.03
1:WD:200:SER:O	1:WE:158:ALA:HB2	1.58	1.02
1:WL:197:LEU:CD1	1:WM:175:SER:OG	2.06	1.02
1:WO:197:LEU:HD12	1:WP:175:SER:OG	1.58	1.02
1:WD:168:GLU:CG	1:WD:170:LYS:CE	2.37	1.02
1:WG:165:PHE:HE1	5:J:240:ALA:HB3	1.21	1.02
1:WT:197:LEU:HD12	1:WU:175:SER:OG	1.57	1.02
1:WF:197:LEU:HD12	1:WG:175:SER:CB	1.89	1.02
1:WG:112:GLY:HA2	1:WG:135:ALA:HA	1.36	1.02
1:1:297:GLN:HB2	6:U:65:LEU:CD2	1.90	1.02
2:M:11:ILE:HD12	2:M:11:ILE:C	1.84	1.02
1:WH:203:ALA:HB1	1:WI:160:PRO:HB3	1.39	1.02
1:WN:200:SER:O	1:WO:158:ALA:HB3	1.59	1.02
1:7:365:ASN:HB3	6:T:72:HIS:HD2	1.15	1.01
1:WG:165:PHE:CE1	5:J:240:ALA:HB3	1.95	1.01
1:WQ:124:SER:CA	3:A:75:ASP:OD1	2.08	1.01
1:WA:128:GLU:HG3	1:WB:126:PHE:CE2	1.95	1.01
1:WJ:164:LEU:C	5:J:152:ARG:HH22	1.65	1.01
1:WK:197:LEU:HD12	1:WL:175:SER:HB3	1.07	1.01
1:WR:197:LEU:CD1	1:WS:175:SER:OG	2.07	1.01
6:Q:111:ASP:OD1	7:W:3:LEU:CB	2.09	1.01
2:N:76:GLN:NE2	7:Y:132:LEU:O	1.93	1.01
1:WN:200:SER:O	1:WO:158:ALA:CB	2.07	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WT:196:HIS:HB3	1:WU:211:THR:HG21	1.41	1.01
1:WA:112:GLY:HA2	1:WA:135:ALA:HA	1.41	1.00
1:WE:167:ARG:CD	5:I:161:GLY:CA	2.38	1.00
1:WS:200:SER:O	1:WT:158:ALA:CB	2.09	1.00
1:WA:128:GLU:HG3	1:WB:126:PHE:CD2	1.96	1.00
1:UP:62:ASP:OD2	1:WV:184:ARG:NH2	1.95	1.00
1:WW:164:LEU:HD12	3:B:89:GLY:O	1.61	1.00
1:AK:295:SER:HB2	6:R:73:ILE:HG13	1.38	1.00
1:WD:200:SER:OG	1:WE:175:SER:HB2	1.59	1.00
1:7:299:ASN:HD21	6:T:78:VAL:C	1.70	0.99
1:WM:193:ALA:HB1	1:WN:213:VAL:HG11	1.44	0.99
7:Y:68:ILE:HD11	1:i:312:VAL:CG2	1.92	0.99
6:R:51:LYS:HE3	6:R:55:ARG:HH12	1.25	0.99
1:1:299:ASN:HD22	6:U:78:VAL:HG11	0.86	0.99
1:UO:103:GLN:CD	1:WU:182:PRO:HB3	1.87	0.99
1:WS:124:SER:HB2	3:A:8:MET:CE	1.93	0.99
1:WS:165:PHE:HE1	3:A:89:GLY:HA3	1.24	0.99
6:R:51:LYS:HE2	6:R:55:ARG:HH22	1.24	0.99
1:5:299:ASN:ND2	6:T:55:ARG:NH2	2.11	0.99
1:AB:372:ILE:HG21	2:M:11:ILE:CG2	1.92	0.98
1:WD:168:GLU:HG2	1:WD:170:LYS:HE3	1.42	0.98
1:AB:372:ILE:HG21	2:M:11:ILE:HG22	1.43	0.98
1:WH:200:SER:O	1:WI:158:ALA:HB2	1.62	0.98
1:WE:197:LEU:HD12	1:WF:175:SER:OG	1.63	0.98
1:4:278:THR:HG21	2:N:21:ALA:HB3	1.43	0.98
1:AB:372:ILE:CG2	2:M:11:ILE:CG2	2.42	0.98
1:UP:73:MET:CE	1:UP:99:ARG:HD3	1.93	0.98
1:WI:196:HIS:HB3	1:WJ:211:THR:HG21	1.45	0.98
1:WF:197:LEU:CD1	1:WG:175:SER:OG	2.11	0.98
1:UK:207:PRO:HD2	1:WE:187:ASP:OD2	1.61	0.97
1:UN:73:MET:CE	1:UN:99:ARG:HD3	1.93	0.97
1:WA:200:SER:OG	1:WB:175:SER:HB2	1.64	0.97
1:UI:125:GLN:O	1:UI:129:GLN:N	1.97	0.97
1:UL:219:LEU:HD22	1:u:247:ARG:NH1	1.79	0.97
1:UO:73:MET:CE	1:UO:99:ARG:HD3	1.93	0.97
1:UI:73:MET:CE	1:UI:99:ARG:HD3	1.93	0.97
1:UJ:73:MET:CE	1:UJ:99:ARG:HD3	1.93	0.97
1:WI:197:LEU:CD1	1:WJ:175:SER:OG	2.12	0.97
1:WJ:197:LEU:CD1	1:WK:175:SER:OG	2.11	0.97
1:UM:125:GLN:O	1:UM:129:GLN:N	1.97	0.97
1:UM:73:MET:CE	1:UM:99:ARG:HD3	1.93	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:77:LYS:HE3	6:U:13:GLN:HE22	1.23	0.97
1:UJ:125:GLN:O	1:UJ:129:GLN:N	1.97	0.97
2:O:14:LEU:HD11	1:z:370:ARG:HH21	1.29	0.97
1:AH:372:ILE:CG2	2:L:11:ILE:CG2	2.38	0.97
1:UN:125:GLN:O	1:UN:129:GLN:N	1.97	0.97
1:WH:166:VAL:HG11	5:J:147:LEU:HD12	1.47	0.97
1:WT:197:LEU:HD12	1:WU:175:SER:CB	1.94	0.97
1:WE:167:ARG:HD3	5:I:161:GLY:HA2	0.98	0.96
1:UP:125:GLN:O	1:UP:129:GLN:N	1.97	0.96
1:UK:125:GLN:O	1:UK:129:GLN:N	1.97	0.96
1:UO:125:GLN:O	1:UO:129:GLN:N	1.97	0.96
1:UL:125:GLN:O	1:UL:129:GLN:N	1.97	0.96
1:UK:73:MET:CE	1:UK:99:ARG:HD3	1.93	0.96
1:WH:193:ALA:HB1	1:WI:213:VAL:HG11	1.46	0.96
2:O:21:ALA:HB1	1:x:278:THR:HG21	1.43	0.96
1:UL:73:MET:CE	1:UL:99:ARG:HD3	1.93	0.96
1:WH:166:VAL:CG1	5:J:147:LEU:HD12	1.96	0.96
1:AM:357:SER:OG	1:d:319:GLN:NE2	1.98	0.95
3:D:52:ILE:CD1	5:I:206:ALA:HB1	1.96	0.95
1:AA:278:THR:HG21	2:M:14:LEU:HB3	1.45	0.95
1:WH:166:VAL:HG11	5:J:147:LEU:CD1	1.96	0.95
1:WI:197:LEU:HD12	1:WJ:175:SER:HB3	1.47	0.95
1:WP:166:VAL:HG22	5:F:160:GLN:HB3	0.96	0.95
1:WW:125:GLN:CD	3:B:2:THR:HG21	1.91	0.95
1:WK:197:LEU:CD1	1:WL:175:SER:HB3	1.96	0.95
1:WT:112:GLY:HA2	1:WT:135:ALA:HA	1.48	0.95
1:1:365:ASN:HB3	6:U:72:HIS:HD2	0.98	0.95
1:7:299:ASN:ND2	6:T:78:VAL:O	1.99	0.95
1:AJ:365:ASN:HB3	6:R:72:HIS:CE1	2.02	0.95
3:D:55:ILE:HD11	5:I:205:MET:HE1	0.95	0.95
1:AI:372:ILE:CG2	2:L:4:ILE:CG1	2.44	0.95
1:UM:62:ASP:OD2	1:WP:184:ARG:NH2	1.99	0.94
1:UO:133:GLN:NE2	1:UO:157:LEU:O	2.00	0.94
1:WH:200:SER:OG	1:WI:175:SER:HB2	1.67	0.94
1:UN:133:GLN:NE2	1:UN:157:LEU:O	2.00	0.94
1:WC:200:SER:O	1:WD:158:ALA:HB2	1.64	0.94
3:A:81:PHE:O	3:A:85:PRO:HD2	1.67	0.94
1:UI:133:GLN:NE2	1:UI:157:LEU:O	2.00	0.94
1:UL:133:GLN:NE2	1:UL:157:LEU:O	2.00	0.94
1:AE:295:SER:HB3	6:S:72:HIS:HB2	1.48	0.94
1:AQ:295:SER:HB2	6:Q:65:LEU:HD22	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WT:200:SER:O	1:WU:158:ALA:CB	2.15	0.94
1:UK:133:GLN:NE2	1:UK:157:LEU:O	2.00	0.94
1:UM:103:GLN:CD	1:WQ:182:PRO:HB3	1.93	0.94
1:UM:133:GLN:NE2	1:UM:157:LEU:O	2.00	0.94
1:UJ:133:GLN:NE2	1:UJ:157:LEU:O	2.00	0.94
2:L:46:SER:OG	5:F:38:TRP:HB2	1.67	0.93
1:WS:112:GLY:CA	1:WS:135:ALA:HA	1.97	0.93
3:A:52:ILE:HD11	5:F:206:ALA:CB	1.98	0.93
1:UP:133:GLN:NE2	1:UP:157:LEU:O	2.00	0.93
1:AI:372:ILE:CB	2:L:4:ILE:HG12	1.99	0.93
1:WS:112:GLY:HA2	1:WS:135:ALA:CA	1.99	0.93
1:WE:200:SER:OG	1:WF:175:SER:HB2	1.67	0.93
1:WJ:164:LEU:CD1	4:E:145:TRP:CD1	2.52	0.93
1:WP:200:SER:OG	1:WQ:175:SER:HB2	1.69	0.93
1:UK:207:PRO:CG	1:WE:187:ASP:OD1	2.16	0.92
1:WR:112:GLY:CA	1:WR:135:ALA:HA	2.00	0.92
1:WA:197:LEU:HD12	1:WB:175:SER:CB	1.99	0.92
1:WQ:181:GLU:CB	1:WQ:184:ARG:HG3	2.00	0.92
1:UN:62:ASP:OD2	1:WR:184:ARG:NH2	2.02	0.91
1:WF:181:GLU:CB	1:WF:184:ARG:HG3	2.00	0.91
1:WU:181:GLU:CB	1:WU:184:ARG:HG3	2.00	0.91
4:E:158:PRO:HG2	4:E:162:ASN:HD21	1.34	0.91
1:WG:181:GLU:CB	1:WG:184:ARG:HG3	2.01	0.91
1:WJ:164:LEU:HB2	4:E:145:TRP:HE1	1.29	0.91
1:WK:181:GLU:CB	1:WK:184:ARG:HG3	2.01	0.91
1:WN:181:GLU:CB	1:WN:184:ARG:HG3	2.01	0.91
1:WO:181:GLU:CB	1:WO:184:ARG:HG3	2.00	0.91
3:C:14:MET:HE3	3:D:63:ILE:CD1	2.00	0.91
1:AH:370:ARG:HH21	2:L:14:LEU:CD2	1.83	0.91
1:AL:278:THR:HG21	2:K:14:LEU:CD2	2.01	0.91
1:AM:357:SER:OG	1:d:319:GLN:CD	2.13	0.91
1:WD:181:GLU:CB	1:WD:184:ARG:HG3	2.01	0.91
1:WR:181:GLU:CB	1:WR:184:ARG:HG3	2.01	0.91
1:WL:181:GLU:CB	1:WL:184:ARG:HG3	2.01	0.91
1:WV:181:GLU:CB	1:WV:184:ARG:HG3	2.01	0.91
1:AE:297:GLN:HB2	6:S:73:ILE:HD13	1.53	0.91
1:WJ:128:GLU:CG	1:WK:126:PHE:HD2	1.84	0.91
1:WM:181:GLU:CB	1:WM:184:ARG:HG3	2.00	0.90
2:O:14:LEU:HB3	1:y:278:THR:HG21	1.52	0.90
1:WS:124:SER:CA	3:A:8:MET:HE2	2.01	0.90
1:WS:181:GLU:CB	1:WS:184:ARG:HG3	2.00	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WH:181:GLU:CB	1:WH:184:ARG:HG3	2.00	0.90
1:AG:303:GLN:HE22	1:f:319:GLN:HB3	0.76	0.90
1:AI:372:ILE:HG22	2:L:4:ILE:HD11	1.49	0.90
1:WD:168:GLU:HG2	1:WD:170:LYS:CE	2.00	0.90
2:O:7:ILE:CB	1:z:278:THR:HG21	2.01	0.90
1:WJ:164:LEU:CG	4:E:145:TRP:CD1	2.54	0.90
1:WR:197:LEU:HD12	1:WS:175:SER:HB3	1.54	0.90
1:WW:181:GLU:CB	1:WW:184:ARG:HG3	2.01	0.90
1:WI:164:LEU:HD22	5:J:148:ALA:CB	2.02	0.89
1:WS:121:PHE:HE1	1:WT:120:LYS:HZ3	0.94	0.89
1:WB:197:LEU:HD12	1:WC:175:SER:OG	1.72	0.89
3:D:7:MET:HE2	4:E:233:MET:C	1.97	0.89
1:WA:167:ARG:HH21	5:H:162:PRO:HD3	1.38	0.89
1:WJ:181:GLU:CB	1:WJ:184:ARG:HG3	2.00	0.89
1:4:355:PRO:HB2	1:j:319:GLN:NE2	1.87	0.89
1:WP:181:GLU:CB	1:WP:184:ARG:HG3	2.01	0.89
1:WD:164:LEU:O	5:I:144:GLU:HG2	1.73	0.89
1:WE:181:GLU:CB	1:WE:184:ARG:HG3	2.01	0.89
2:O:21:ALA:HB3	1:x:278:THR:HG21	1.53	0.89
7:X:6:ILE:HG21	7:X:122:VAL:HG21	1.55	0.89
1:WD:200:SER:O	1:WE:158:ALA:CB	2.20	0.88
1:AD:295:SER:CB	6:S:65:LEU:HB2	2.03	0.88
1:WJ:164:LEU:CG	4:E:145:TRP:HD1	1.86	0.88
1:WM:197:LEU:HD12	1:WN:175:SER:OG	1.72	0.88
1:7:365:ASN:CB	6:T:72:HIS:HD2	1.87	0.88
3:C:40:ALA:HB2	3:D:44:ILE:HD13	1.55	0.88
1:WB:181:GLU:CB	1:WB:184:ARG:HG3	2.01	0.88
1:UN:126:PHE:CE1	1:UN:130:VAL:HG21	2.09	0.88
1:UP:126:PHE:CE1	1:UP:130:VAL:HG21	2.09	0.88
1:WA:181:GLU:CB	1:WA:184:ARG:HG3	2.01	0.88
4:E:114:VAL:HG21	5:I:211:MET:HE1	1.53	0.88
1:WD:115:LEU:HD22	1:WD:134:ARG:HD2	1.54	0.88
1:WT:181:GLU:CB	1:WT:184:ARG:HG3	2.01	0.88
1:WR:196:HIS:HB3	1:WS:211:THR:HG21	1.56	0.88
1:WT:121:PHE:CZ	1:WU:122:GLY:O	2.27	0.88
1:UM:126:PHE:O	1:UM:130:VAL:N	2.07	0.87
1:WI:181:GLU:CB	1:WI:184:ARG:HG3	2.01	0.87
7:V:22:ASN:HB2	1:b:315:ALA:HB2	1.54	0.87
1:UK:126:PHE:CE1	1:UK:130:VAL:HG21	2.09	0.87
1:UO:126:PHE:CE1	1:UO:130:VAL:HG21	2.09	0.87
1:UN:126:PHE:O	1:UN:130:VAL:N	2.07	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WV:200:SER:O	1:WW:158:ALA:HB2	1.73	0.87
1:UI:126:PHE:CE1	1:UI:130:VAL:HG21	2.09	0.87
1:UI:126:PHE:O	1:UI:130:VAL:N	2.07	0.87
1:UJ:103:GLN:CB	1:WD:182:PRO:HB3	2.04	0.87
1:UO:126:PHE:O	1:UO:130:VAL:N	2.07	0.87
1:WE:167:ARG:HH21	5:I:162:PRO:HD3	1.39	0.87
3:B:59:PHE:HZ	5:G:198:LEU:HD21	1.39	0.87
6:R:51:LYS:HB3	6:R:55:ARG:HH22	1.13	0.87
1:1:365:ASN:CB	6:U:72:HIS:HD2	1.88	0.87
1:6:361:ASN:HD22	6:T:78:VAL:HG12	1.40	0.87
1:WC:200:SER:O	1:WD:158:ALA:CB	2.23	0.87
1:WI:167:ARG:HG3	5:J:160:GLN:O	1.75	0.87
1:WD:203:ALA:HB1	1:WE:160:PRO:HB3	1.57	0.87
1:UJ:126:PHE:CE1	1:UJ:130:VAL:HG21	2.09	0.87
1:WM:197:LEU:HD12	1:WN:175:SER:CB	2.05	0.87
1:WV:120:LYS:HZ3	1:WV:123:ILE:HD11	1.39	0.87
1:AI:372:ILE:HB	2:L:4:ILE:HG12	1.54	0.86
1:WE:167:ARG:HH21	5:I:162:PRO:CD	1.87	0.86
1:AK:278:THR:HG21	2:K:21:ALA:HB1	1.56	0.86
1:UK:126:PHE:O	1:UK:130:VAL:N	2.07	0.86
1:UL:126:PHE:CE1	1:UL:130:VAL:HG21	2.09	0.86
1:UM:126:PHE:CE1	1:UM:130:VAL:HG21	2.09	0.86
1:WA:196:HIS:HB3	1:WB:211:THR:HG21	1.57	0.86
1:UJ:126:PHE:O	1:UJ:130:VAL:N	2.07	0.86
1:WK:132:TYR:HB2	1:WL:126:PHE:HZ	1.40	0.86
1:WS:165:PHE:CE1	3:A:89:GLY:HA3	2.09	0.86
1:UP:126:PHE:O	1:UP:130:VAL:N	2.07	0.86
1:WB:200:SER:OG	1:WC:175:SER:HB2	1.76	0.86
1:WM:139:GLU:HB3	1:WN:154:ARG:HH21	1.39	0.86
1:4:357:SER:OG	1:j:318:ASN:ND2	2.09	0.86
1:AL:278:THR:HG22	2:K:14:LEU:HD23	1.55	0.86
1:UL:126:PHE:O	1:UL:130:VAL:N	2.07	0.86
1:WK:200:SER:O	1:WL:158:ALA:HB3	1.75	0.86
7:Y:68:ILE:HD11	1:i:312:VAL:HG21	1.55	0.86
1:AI:372:ILE:HG21	2:L:4:ILE:CG1	2.04	0.85
1:AE:297:GLN:HB2	6:S:73:ILE:HD12	1.57	0.85
2:O:68:LEU:HD23	7:Z:126:MET:HE2	1.57	0.85
1:WA:175:SER:HB2	1:WW:200:SER:OG	1.76	0.85
1:AH:370:ARG:NH2	2:L:14:LEU:HD21	1.91	0.85
1:WR:200:SER:O	1:WS:158:ALA:CB	2.24	0.85
1:UM:103:GLN:CG	1:WQ:182:PRO:HB3	2.06	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WW:125:GLN:OE1	3:B:2:THR:CG2	2.25	0.85
1:UK:126:PHE:O	1:UK:130:VAL:HG23	1.77	0.85
1:WD:165:PHE:HB2	5:I:143:ARG:HA	1.59	0.85
1:WK:193:ALA:HB1	1:WL:213:VAL:CG2	2.06	0.85
1:UL:126:PHE:O	1:UL:130:VAL:HG23	1.77	0.85
1:WH:200:SER:O	1:WI:158:ALA:CB	2.23	0.85
1:WS:121:PHE:HE1	1:WT:120:LYS:NZ	1.74	0.85
1:WC:164:LEU:O	5:I:241:GLN:CG	2.23	0.85
1:WP:165:PHE:HB3	5:F:160:GLN:O	1.77	0.85
1:1:297:GLN:HB2	6:U:65:LEU:HD22	1.57	0.85
1:UJ:126:PHE:O	1:UJ:130:VAL:HG23	1.77	0.85
1:WT:200:SER:O	1:WU:158:ALA:HB2	1.77	0.85
1:WU:197:LEU:HD12	1:WV:175:SER:CB	2.07	0.85
1:WV:200:SER:O	1:WW:158:ALA:CB	2.25	0.85
6:Q:88:ARG:NH1	6:Q:105:GLU:OE1	2.10	0.85
7:W:3:LEU:N	7:W:8:ASP:OD1	2.09	0.84
1:UN:126:PHE:O	1:UN:130:VAL:HG23	1.77	0.84
3:D:52:ILE:HD13	5:I:206:ALA:HB1	1.58	0.84
7:Z:47:VAL:O	1:k:313:PRO:HD2	1.76	0.84
1:UJ:167:ARG:NH2	1:WB:188:GLU:HB3	1.92	0.84
1:UO:103:GLN:NE2	1:WU:182:PRO:HB3	1.92	0.84
1:UP:126:PHE:O	1:UP:130:VAL:HG23	1.77	0.84
1:WE:167:ARG:HG3	5:I:160:GLN:C	2.03	0.84
1:UI:126:PHE:O	1:UI:130:VAL:HG23	1.77	0.84
1:UK:207:PRO:CD	1:WE:187:ASP:CG	2.51	0.84
3:C:14:MET:HE3	3:D:63:ILE:HD13	1.58	0.84
1:WA:175:SER:CB	1:WW:197:LEU:HD12	2.08	0.84
1:WB:166:VAL:O	5:H:152:ARG:HD2	1.77	0.84
1:AD:297:GLN:OE1	6:S:76:GLN:O	1.96	0.84
1:AI:372:ILE:HG22	2:L:4:ILE:CD1	2.08	0.84
1:WQ:200:SER:OG	1:WR:175:SER:HB2	1.78	0.84
1:WH:167:ARG:HH22	5:J:162:PRO:HG3	1.41	0.83
3:A:37:ILE:HD13	3:B:44:ILE:HD11	1.59	0.83
1:WD:165:PHE:CB	5:I:143:ARG:CA	2.54	0.83
5:J:138:MET:HE1	5:J:171:LEU:HD23	1.60	0.83
1:WS:124:SER:HB2	3:A:8:MET:HE3	1.61	0.83
1:UM:103:GLN:HG2	1:WQ:182:PRO:HB3	1.61	0.83
1:WK:164:LEU:HD12	4:E:248:PHE:HB3	1.59	0.83
1:UN:94:HIS:HB3	1:UN:146:THR:HG21	1.60	0.83
1:UP:94:HIS:HB3	1:UP:146:THR:HG21	1.60	0.83
1:UM:126:PHE:O	1:UM:130:VAL:HG23	1.77	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WG:200:SER:O	1:WH:158:ALA:HB2	1.79	0.82
7:Z:6:ILE:HG21	7:Z:122:VAL:HG11	1.59	0.82
1:AI:370:ARG:CZ	2:L:7:ILE:HD11	2.08	0.82
1:UJ:103:GLN:OE1	1:WD:182:PRO:CB	2.26	0.82
1:WT:197:LEU:CD1	1:WU:175:SER:OG	2.27	0.82
6:R:51:LYS:HE3	6:R:55:ARG:NH1	1.93	0.82
1:1:299:ASN:ND2	6:U:78:VAL:HG12	1.93	0.82
1:UJ:94:HIS:HB3	1:UJ:146:THR:HG21	1.60	0.82
1:UO:126:PHE:O	1:UO:130:VAL:HG23	1.77	0.82
3:D:36:SER:OG	4:E:211:LEU:O	1.97	0.82
2:O:14:LEU:HD23	1:y:278:THR:CG2	2.09	0.82
2:O:48:ARG:NH2	6:U:6:ASP:OD1	2.12	0.82
1:UI:94:HIS:HB3	1:UI:146:THR:HG21	1.61	0.82
3:D:84:LEU:HD21	5:J:185:ILE:HG23	1.59	0.82
1:0:278:THR:HG21	2:M:21:ALA:HB1	1.62	0.82
1:UO:94:HIS:HB3	1:UO:146:THR:HG21	1.60	0.82
1:UK:207:PRO:CD	1:WE:187:ASP:OD1	2.27	0.82
1:AB:278:THR:CG2	2:M:7:ILE:HB	2.06	0.82
1:WH:167:ARG:HH22	5:J:162:PRO:CG	1.92	0.82
3:D:74:LEU:HD11	5:J:228:LEU:CD1	2.09	0.82
1:AJ:365:ASN:CB	6:R:72:HIS:ND1	2.40	0.82
1:WE:167:ARG:HD2	5:I:161:GLY:CA	2.08	0.82
3:D:7:MET:HE1	4:E:233:MET:HB3	1.62	0.82
1:UK:94:HIS:HB3	1:UK:146:THR:HG21	1.61	0.81
1:UM:127:SER:O	1:UM:131:ASN:N	2.13	0.81
1:WW:167:ARG:HD2	5:H:140:ARG:O	1.80	0.81
1:WW:167:ARG:CD	5:H:140:ARG:O	2.28	0.81
1:6:372:ILE:HD12	2:N:11:ILE:HG22	1.62	0.81
1:UK:127:SER:O	1:UK:131:ASN:N	2.13	0.81
1:UL:127:SER:O	1:UL:131:ASN:N	2.13	0.81
1:UM:73:MET:HE1	1:UM:99:ARG:HD3	1.62	0.81
1:UN:127:SER:O	1:UN:131:ASN:N	2.13	0.81
1:UO:73:MET:HE1	1:UO:99:ARG:HD3	1.62	0.81
3:A:17:ALA:HB2	5:G:195:ILE:HD12	1.62	0.81
6:R:51:LYS:CE	6:R:55:ARG:HH22	1.93	0.81
1:UO:127:SER:O	1:UO:131:ASN:N	2.13	0.81
1:WI:200:SER:O	1:WJ:158:ALA:CB	2.29	0.81
1:UJ:167:ARG:HH22	1:WB:188:GLU:HB3	1.44	0.81
1:WP:200:SER:O	1:WQ:158:ALA:HB2	1.80	0.81
3:C:28:ALA:HB1	3:C:54:LYS:HE3	1.60	0.81
1:UP:127:SER:O	1:UP:131:ASN:N	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WK:143:THR:CB	1:WL:156:HIS:HE2	1.94	0.81
1:WT:121:PHE:CE1	1:WU:122:GLY:O	2.34	0.81
1:UK:73:MET:HE1	1:UK:99:ARG:HD3	1.62	0.81
1:WF:200:SER:OG	1:WG:175:SER:HB2	1.81	0.81
1:WS:124:SER:HB2	3:A:8:MET:HE2	1.61	0.81
1:UM:128:GLU:O	1:UM:132:TYR:N	2.13	0.81
6:T:68:THR:HG1	6:T:72:HIS:CE1	1.95	0.81
1:UL:73:MET:HE1	1:UL:99:ARG:HD3	1.62	0.80
3:A:74:LEU:HD13	3:A:78:ARG:HH22	1.44	0.80
2:M:68:LEU:HD13	6:R:118:MET:SD	2.21	0.80
1:UI:127:SER:O	1:UI:131:ASN:N	2.13	0.80
3:D:29:LEU:HD12	4:E:216:ILE:HG13	1.62	0.80
6:U:33:ALA:O	6:U:98:ASN:ND2	2.13	0.80
1:WJ:197:LEU:HD12	1:WK:175:SER:HB3	1.63	0.80
1:WA:197:LEU:CD1	1:WB:175:SER:OG	2.28	0.80
1:WB:181:GLU:HB2	1:WB:184:ARG:CG	2.07	0.80
1:AI:372:ILE:HG21	2:L:4:ILE:HG12	1.57	0.80
1:UJ:73:MET:HE1	1:UJ:99:ARG:HD3	1.61	0.80
1:UJ:127:SER:O	1:UJ:131:ASN:N	2.13	0.80
1:WG:197:LEU:HD12	1:WH:175:SER:OG	1.82	0.80
1:UI:73:MET:HE1	1:UI:99:ARG:HD3	1.62	0.80
1:UL:128:GLU:O	1:UL:132:TYR:N	2.13	0.80
1:WG:181:GLU:HB2	1:WG:184:ARG:CG	2.07	0.80
1:UK:128:GLU:O	1:UK:132:TYR:N	2.13	0.80
1:UL:94:HIS:HB3	1:UL:146:THR:HG21	1.61	0.80
1:UM:94:HIS:HB3	1:UM:146:THR:HG21	1.61	0.80
1:WU:200:SER:OG	1:WV:175:SER:HB2	1.82	0.80
1:WO:166:VAL:HG23	5:F:139:LEU:O	1.81	0.80
3:D:58:VAL:CG1	5:J:207:LEU:HD11	2.02	0.80
1:WJ:125:GLN:HG3	4:E:242:HIS:ND1	1.95	0.80
1:AC:370:ARG:HE	2:M:7:ILE:HD11	1.46	0.79
2:P:7:ILE:CG2	1:t:278:THR:CG2	2.52	0.79
1:UJ:128:GLU:O	1:UJ:132:TYR:N	2.13	0.79
1:UN:167:ARG:HH22	1:WQ:188:GLU:HB3	1.47	0.79
1:WK:164:LEU:HD12	4:E:248:PHE:CB	2.12	0.79
1:WK:196:HIS:CB	1:WL:211:THR:HG21	2.10	0.79
3:A:52:ILE:HD11	5:F:206:ALA:HB2	1.64	0.79
5:F:141:GLN:HE22	5:F:243:PHE:HB3	1.48	0.79
1:AB:372:ILE:CB	2:M:11:ILE:HG22	2.11	0.79
1:AM:278:THR:CG2	2:K:7:ILE:CG2	2.53	0.79
1:WD:181:GLU:HB2	1:WD:184:ARG:CG	2.07	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WE:181:GLU:HB2	1:WE:184:ARG:CG	2.07	0.79
1:WH:143:THR:OG1	1:WI:154:ARG:HG2	1.82	0.79
5:F:43:GLN:OE1	6:Q:4:ARG:NH1	2.14	0.79
1:WF:181:GLU:HB2	1:WF:184:ARG:CG	2.07	0.79
1:WJ:164:LEU:HB2	4:E:145:TRP:CD1	2.18	0.79
3:D:52:ILE:HD11	5:I:206:ALA:HB1	1.63	0.79
6:U:123:LEU:HD23	7:Z:132:LEU:HD11	1.63	0.79
1:WA:175:SER:OG	1:WW:197:LEU:HD12	1.83	0.79
1:WA:181:GLU:HB2	1:WA:184:ARG:CG	2.07	0.79
1:WW:181:GLU:HB2	1:WW:184:ARG:CG	2.07	0.79
1:UO:128:GLU:O	1:UO:132:TYR:N	2.14	0.79
5:I:194:LEU:HD11	5:J:220:PRO:HG2	1.63	0.79
1:AQ:278:THR:HG21	2:P:14:LEU:HB3	1.64	0.79
1:WQ:197:LEU:CD1	1:WR:175:SER:OG	2.26	0.79
3:B:39:GLN:NE2	3:B:46:GLU:O	2.13	0.79
1:AP:299:ASN:HD22	7:V:55:PRO:HB2	1.45	0.79
1:UP:73:MET:HE1	1:UP:99:ARG:HD3	1.62	0.79
1:WP:197:LEU:HD12	1:WQ:175:SER:OG	1.83	0.79
1:WU:181:GLU:HB2	1:WU:184:ARG:CG	2.07	0.79
1:WV:181:GLU:HB2	1:WV:184:ARG:CG	2.07	0.79
1:UI:128:GLU:O	1:UI:132:TYR:N	2.13	0.78
1:WS:200:SER:OG	1:WT:175:SER:HB2	1.83	0.78
6:R:51:LYS:CE	6:R:55:ARG:HH12	1.96	0.78
6:R:67:LEU:HD11	6:R:74:PRO:HA	1.64	0.78
1:AP:278:THR:CG2	2:P:21:ALA:HB1	2.10	0.78
1:UM:98:LEU:HD22	1:UM:147:LEU:HD21	1.66	0.78
1:UN:128:GLU:O	1:UN:132:TYR:N	2.13	0.78
1:WF:128:GLU:HG2	1:WG:126:PHE:HD2	1.48	0.78
1:WH:167:ARG:NH2	5:J:162:PRO:HG2	1.98	0.78
7:Y:6:ILE:HG21	7:Y:122:VAL:HG21	1.63	0.78
1:UN:73:MET:HE1	1:UN:99:ARG:HD3	1.62	0.78
1:WV:197:LEU:HD12	1:WW:175:SER:CB	2.12	0.78
3:D:25:LEU:HD23	5:J:206:ALA:HB2	1.64	0.78
1:WA:167:ARG:NH2	1:WA:168:GLU:OE2	2.17	0.78
1:WG:143:THR:OG1	1:WH:154:ARG:HG2	1.83	0.78
1:WP:200:SER:O	1:WQ:158:ALA:CB	2.31	0.78
1:AE:295:SER:OG	6:S:72:HIS:HA	1.83	0.78
1:WD:165:PHE:HB3	5:I:143:ARG:CA	2.00	0.78
1:WH:181:GLU:HB2	1:WH:184:ARG:CG	2.07	0.78
1:WK:197:LEU:CD1	1:WL:175:SER:CB	2.58	0.78
2:M:77:LYS:NZ	6:S:13:GLN:OE1	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:303:GLN:CD	1:d:319:GLN:OE1	2.26	0.78
2:M:61:LEU:HD13	6:R:50:LYS:NZ	1.99	0.78
1:WQ:113:PHE:HB3	1:WR:134:ARG:HE	1.48	0.78
3:A:48:THR:HG21	5:F:208:GLY:HA2	1.65	0.78
3:D:7:MET:CE	4:E:233:MET:HB3	2.13	0.78
2:P:43:ASP:OD1	5:J:38:TRP:NE1	2.16	0.78
1:WV:120:LYS:NZ	1:WV:123:ILE:HD11	1.99	0.78
6:U:103:ASP:OD1	7:a:112:TYR:OH	2.00	0.78
2:L:77:LYS:NZ	6:R:13:GLN:OE1	2.14	0.78
1:WA:175:SER:HB3	1:WW:197:LEU:HD12	1.64	0.78
3:C:29:LEU:HB2	3:D:52:ILE:HG21	1.66	0.78
1:6:372:ILE:CD1	2:N:11:ILE:HG22	2.14	0.77
1:UL:98:LEU:HD22	1:UL:147:LEU:HD21	1.66	0.77
1:UP:128:GLU:O	1:UP:132:TYR:N	2.13	0.77
1:WU:197:LEU:CD1	1:WV:175:SER:OG	2.29	0.77
5:G:116:PHE:CE2	6:R:4:ARG:CZ	2.66	0.77
5:J:62:THR:HG23	5:J:101:MET:HE2	1.66	0.77
1:UJ:103:GLN:HB3	1:WD:182:PRO:CA	2.13	0.77
1:UK:98:LEU:HD22	1:UK:147:LEU:HD21	1.66	0.77
1:UK:207:PRO:CD	1:WE:187:ASP:OD2	2.31	0.77
1:WB:163:SER:HB2	1:WB:166:VAL:HG22	1.66	0.77
1:WJ:181:GLU:HB2	1:WJ:184:ARG:CG	2.07	0.77
1:WL:181:GLU:HB2	1:WL:184:ARG:CG	2.07	0.77
1:UJ:98:LEU:HD22	1:UJ:147:LEU:HD21	1.66	0.77
1:WC:165:PHE:HD2	5:H:152:ARG:HH21	1.28	0.77
1:WM:181:GLU:HB2	1:WM:184:ARG:CG	2.07	0.77
1:WF:187:ASP:HB3	1:WF:190:GLN:HG3	1.66	0.77
1:WJ:143:THR:OG1	1:WK:154:ARG:HG2	1.83	0.77
1:WG:165:PHE:CE1	5:J:240:ALA:CB	2.67	0.77
1:WO:203:ALA:HB1	1:WP:160:PRO:HB3	1.67	0.77
1:WS:124:SER:CB	3:A:8:MET:HE2	2.14	0.77
1:WT:200:SER:O	1:WU:158:ALA:HB3	1.84	0.77
1:UO:98:LEU:HD22	1:UO:147:LEU:HD21	1.65	0.77
1:WI:181:GLU:HB2	1:WI:184:ARG:CG	2.07	0.77
3:D:54:LYS:HZ2	4:E:215:VAL:HA	1.50	0.77
1:UN:98:LEU:HD22	1:UN:147:LEU:HD21	1.66	0.77
1:WJ:128:GLU:CG	1:WK:126:PHE:CD2	2.67	0.77
1:WN:201:ALA:CA	1:WO:158:ALA:HB2	2.13	0.77
1:WT:160:PRO:HD3	1:WT:172:PRO:HA	1.66	0.77
1:4:278:THR:HG21	2:N:21:ALA:HB1	1.65	0.77
1:WA:167:ARG:HH21	5:H:162:PRO:CD	1.98	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Y:37:PRO:HB2	1:h:330:THR:CG2	2.14	0.77
2:L:102:MET:HE1	5:G:59:LEU:HD11	1.67	0.77
1:WW:125:GLN:OE1	3:B:2:THR:HG23	1.84	0.77
6:R:51:LYS:CB	6:R:55:ARG:HH22	1.85	0.77
1:WD:197:LEU:HD12	1:WE:175:SER:OG	1.85	0.77
1:WF:196:HIS:HB3	1:WG:211:THR:HG21	1.67	0.77
1:WM:197:LEU:HD12	1:WN:175:SER:HB3	1.67	0.77
1:WN:200:SER:HA	1:WO:173:SER:OG	1.85	0.77
1:2:236:LYS:NZ	1:UJ:167:ARG:HH11	1.83	0.76
1:AE:297:GLN:HB2	6:S:73:ILE:HD11	1.63	0.76
1:2:295:SER:HB2	6:U:73:ILE:HG13	1.67	0.76
1:UJ:261:LEU:HB3	1:UJ:270:THR:HG23	1.67	0.76
7:V:128:LYS:O	7:V:131:THR:N	2.18	0.76
1:WN:181:GLU:HB2	1:WN:184:ARG:CG	2.07	0.76
1:WW:164:LEU:CD1	3:B:89:GLY:O	2.32	0.76
2:O:14:LEU:HD23	1:y:278:THR:HG22	1.66	0.76
1:WD:112:GLY:HA2	1:WD:135:ALA:HA	1.67	0.76
1:UP:98:LEU:HD22	1:UP:147:LEU:HD21	1.66	0.76
1:AK:295:SER:CB	6:R:73:ILE:HG13	2.14	0.76
1:UI:98:LEU:HD22	1:UI:147:LEU:HD21	1.66	0.76
1:UM:212:LEU:HB3	1:UM:221:THR:HG23	1.67	0.76
1:WN:197:LEU:HD12	1:WO:175:SER:HB3	1.68	0.76
1:WT:181:GLU:HB2	1:WT:184:ARG:CG	2.07	0.76
2:L:48:ARG:HH22	6:R:6:ASP:CG	1.93	0.76
1:WR:181:GLU:HB2	1:WR:184:ARG:CG	2.07	0.76
1:WS:181:GLU:HB2	1:WS:184:ARG:CG	2.07	0.76
1:WE:166:VAL:HG22	5:I:160:GLN:N	1.99	0.76
1:WE:199:SER:HA	1:WE:205:LEU:HD23	1.68	0.76
1:AK:278:THR:CG2	2:K:21:ALA:CB	2.64	0.76
2:N:32:VAL:HG23	5:I:106:ASP:OD2	1.86	0.75
2:P:61:LEU:HD21	6:U:50:LYS:HZ3	1.51	0.75
1:WK:199:SER:HA	1:WK:205:LEU:HD23	1.68	0.75
2:P:4:ILE:CD1	1:u:374:HIS:HB2	2.16	0.75
1:WA:128:GLU:CG	1:WB:126:PHE:CE2	2.64	0.75
1:0:278:THR:HG21	2:M:21:ALA:CB	2.16	0.75
1:6:278:THR:HG21	2:N:7:ILE:CG2	2.17	0.75
1:6:278:THR:CG2	2:N:7:ILE:HG21	2.15	0.75
1:AK:278:THR:CG2	2:K:21:ALA:HB1	2.17	0.75
1:WQ:181:GLU:HB2	1:WQ:184:ARG:CG	2.07	0.75
1:WT:197:LEU:HD12	1:WU:175:SER:HB3	1.65	0.75
1:WA:199:SER:HA	1:WA:205:LEU:HD23	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WD:193:ALA:HB1	1:WE:213:VAL:HG11	1.67	0.75
1:WD:199:SER:HA	1:WD:205:LEU:HD23	1.69	0.75
1:WF:199:SER:HA	1:WF:205:LEU:HD23	1.68	0.75
1:WP:199:SER:HA	1:WP:205:LEU:HD23	1.69	0.75
1:UP:212:LEU:HB3	1:UP:221:THR:HG23	1.67	0.75
1:WC:193:ALA:HB1	1:WD:213:VAL:HG11	1.68	0.75
1:WQ:199:SER:HA	1:WQ:205:LEU:HD23	1.69	0.75
1:AD:365:ASN:CB	6:S:72:HIS:ND1	2.47	0.75
1:UK:212:LEU:HB3	1:UK:221:THR:HG23	1.67	0.75
1:UL:212:LEU:HB3	1:UL:221:THR:HG23	1.67	0.75
1:WD:165:PHE:HB2	5:I:142:THR:C	2.10	0.75
1:WG:199:SER:HA	1:WG:205:LEU:HD23	1.69	0.75
1:WO:199:SER:HA	1:WO:205:LEU:HD23	1.69	0.75
1:WW:199:SER:HA	1:WW:205:LEU:HD23	1.69	0.75
1:AE:297:GLN:CB	6:S:73:ILE:CD1	2.56	0.75
1:AP:276:GLU:OE2	2:P:19:MET:CA	2.32	0.75
1:UI:212:LEU:HB3	1:UI:221:THR:HG23	1.67	0.75
1:UL:167:ARG:NH1	1:WF:188:GLU:OE2	2.19	0.75
1:UO:212:LEU:HB3	1:UO:221:THR:HG23	1.67	0.75
1:WC:199:SER:HA	1:WC:205:LEU:HD23	1.69	0.75
1:WP:196:HIS:HB3	1:WQ:211:THR:HG21	1.66	0.75
1:WR:199:SER:HA	1:WR:205:LEU:HD23	1.69	0.75
1:AC:372:ILE:HB	2:M:4:ILE:HG12	1.68	0.75
1:WA:211:THR:HG21	1:WW:196:HIS:HB3	1.67	0.75
1:WC:200:SER:OG	1:WD:175:SER:HB2	1.86	0.75
1:5:299:ASN:HD21	6:T:55:ARG:NH2	1.81	0.75
1:AC:374:HIS:HB2	2:M:4:ILE:HD12	1.68	0.75
1:WI:164:LEU:HD22	5:J:148:ALA:HB2	1.66	0.75
1:WS:199:SER:HA	1:WS:205:LEU:HD23	1.69	0.75
7:Y:37:PRO:HB2	1:h:330:THR:HG23	1.68	0.75
1:UN:139:GLU:OE1	1:UN:142:ARG:NH2	2.20	0.74
1:UO:139:GLU:OE1	1:UO:142:ARG:NH2	2.20	0.74
1:WH:167:ARG:NH2	5:J:162:PRO:CG	2.50	0.74
1:WK:181:GLU:HB2	1:WK:184:ARG:CG	2.07	0.74
1:WM:199:SER:HA	1:WM:205:LEU:HD23	1.69	0.74
1:WT:199:SER:HA	1:WT:205:LEU:HD23	1.69	0.74
1:UJ:73:MET:HE1	1:UJ:99:ARG:CD	2.17	0.74
1:WK:193:ALA:CB	1:WL:213:VAL:HG21	2.13	0.74
2:N:57:GLU:HG2	6:S:11:PHE:CE2	2.22	0.74
1:UK:73:MET:HE1	1:UK:99:ARG:CD	2.17	0.74
1:UK:103:GLN:NE2	1:WF:182:PRO:HB3	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UP:139:GLU:OE1	1:UP:142:ARG:NH2	2.20	0.74
1:WL:199:SER:HA	1:WL:205:LEU:HD23	1.69	0.74
5:G:135:ARG:NH2	5:G:165:VAL:O	2.21	0.74
1:AM:303:GLN:OE1	1:d:319:GLN:OE1	2.05	0.74
1:WA:158:ALA:HB3	1:WW:200:SER:O	1.87	0.74
2:P:61:LEU:HD21	6:U:50:LYS:NZ	2.02	0.74
1:UL:73:MET:HE1	1:UL:99:ARG:CD	2.17	0.74
1:UN:212:LEU:HB3	1:UN:221:THR:HG23	1.67	0.74
1:WB:164:LEU:O	5:H:152:ARG:HD3	1.88	0.74
1:WN:199:SER:HA	1:WN:205:LEU:HD23	1.69	0.74
1:WP:166:VAL:CG2	5:F:160:GLN:CB	2.48	0.74
1:UI:139:GLU:OE1	1:UI:142:ARG:NH2	2.20	0.74
1:WB:199:SER:HA	1:WB:205:LEU:HD23	1.68	0.74
1:WK:132:TYR:HB2	1:WL:126:PHE:CZ	2.23	0.74
1:WV:199:SER:HA	1:WV:205:LEU:HD23	1.69	0.74
6:S:103:ASP:OD1	7:Y:112:TYR:OH	2.06	0.74
1:e:312:VAL:O	1:e:317:SER:OG	2.05	0.74
1:WB:163:SER:HB3	1:WB:169:GLN:HG2	1.70	0.74
1:WP:165:PHE:HA	5:F:160:GLN:O	1.87	0.74
1:WR:200:SER:O	1:WS:158:ALA:HB2	1.87	0.74
4:E:66:PHE:CE1	6:Q:5:LEU:HD13	2.23	0.74
1:1:294:ARG:CD	6:U:68:THR:CG2	2.65	0.74
1:UL:94:HIS:CB	1:UL:146:THR:HG21	2.17	0.74
1:WP:181:GLU:HB2	1:WP:184:ARG:CG	2.07	0.74
1:WU:199:SER:HA	1:WU:205:LEU:HD23	1.69	0.74
2:O:7:ILE:HB	1:z:278:THR:HG21	1.70	0.74
1:UK:94:HIS:CB	1:UK:146:THR:HG21	2.17	0.74
1:WD:149:PRO:HG2	1:WD:190:GLN:HE22	1.52	0.74
1:WV:197:LEU:HD12	1:WW:175:SER:OG	1.88	0.74
2:N:94:ALA:O	2:N:98:GLU:HG3	1.88	0.74
1:UI:94:HIS:CB	1:UI:146:THR:HG21	2.17	0.74
1:UJ:94:HIS:CB	1:UJ:146:THR:HG21	2.17	0.74
1:UM:139:GLU:OE1	1:UM:142:ARG:NH2	2.20	0.74
1:UO:94:HIS:CB	1:UO:146:THR:HG21	2.17	0.74
1:WO:181:GLU:HB2	1:WO:184:ARG:CG	2.07	0.74
1:1:295:SER:HB2	6:U:65:LEU:HB2	1.69	0.73
1:UM:73:MET:HE1	1:UM:99:ARG:CD	2.17	0.73
1:UP:94:HIS:CB	1:UP:146:THR:HG21	2.17	0.73
1:WH:199:SER:HA	1:WH:205:LEU:HD23	1.68	0.73
1:WI:200:SER:O	1:WJ:158:ALA:HB3	1.87	0.73
1:UN:94:HIS:CB	1:UN:146:THR:HG21	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Z:6:ILE:HD13	7:Z:122:VAL:HG21	1.70	0.73
1:UM:94:HIS:CB	1:UM:146:THR:HG21	2.17	0.73
1:WE:166:VAL:CG2	5:I:160:GLN:HA	2.18	0.73
1:WI:199:SER:HA	1:WI:205:LEU:HD23	1.69	0.73
1:WJ:164:LEU:CB	4:E:145:TRP:HE1	2.01	0.73
2:M:61:LEU:HD13	6:R:50:LYS:HZ1	1.53	0.73
1:UO:73:MET:HE1	1:UO:99:ARG:CD	2.17	0.73
1:UP:73:MET:HE1	1:UP:99:ARG:CD	2.17	0.73
1:WC:197:LEU:HD12	1:WD:175:SER:CB	2.18	0.73
1:WD:197:LEU:HA	1:WE:175:SER:OG	1.89	0.73
1:WJ:199:SER:HA	1:WJ:205:LEU:HD23	1.69	0.73
1:UI:73:MET:HE1	1:UI:99:ARG:CD	2.17	0.73
1:UK:73:MET:CE	1:UK:99:ARG:CD	2.66	0.73
1:UL:73:MET:CE	1:UL:99:ARG:CD	2.66	0.73
1:UM:73:MET:CE	1:UM:99:ARG:CD	2.67	0.73
1:UN:73:MET:HE1	1:UN:99:ARG:CD	2.17	0.73
1:UP:73:MET:CE	1:UP:99:ARG:CD	2.66	0.73
1:WB:197:LEU:HD12	1:WC:175:SER:CB	2.18	0.73
1:WC:197:LEU:HD12	1:WD:175:SER:OG	1.88	0.73
1:WJ:164:LEU:CB	4:E:145:TRP:NE1	2.48	0.73
1:WN:197:LEU:HD12	1:WO:175:SER:CB	2.17	0.73
1:WR:200:SER:OG	1:WS:175:SER:HB2	1.88	0.73
1:WU:167:ARG:HH12	5:G:158:PRO:HD3	1.53	0.73
3:D:29:LEU:CD1	4:E:216:ILE:HG13	2.18	0.73
4:E:23:VAL:HA	4:E:150:LEU:HD21	1.69	0.73
1:AH:372:ILE:CB	2:L:11:ILE:HG21	2.18	0.73
1:WB:166:VAL:O	5:H:152:ARG:CD	2.37	0.73
1:WS:124:SER:CB	3:A:8:MET:CE	2.67	0.73
1:WT:200:SER:OG	1:WU:175:SER:HB2	1.88	0.73
1:UK:139:GLU:OE1	1:UK:142:ARG:NH2	2.20	0.72
7:X:79:GLU:HG2	7:X:82:ASN:HB2	1.70	0.72
1:UO:73:MET:CE	1:UO:99:ARG:CD	2.66	0.72
1:AH:372:ILE:HD13	2:L:11:ILE:CG2	2.16	0.72
1:UI:73:MET:CE	1:UI:99:ARG:CD	2.66	0.72
1:UJ:139:GLU:OE1	1:UJ:142:ARG:NH2	2.20	0.72
1:UL:139:GLU:OE1	1:UL:142:ARG:NH2	2.20	0.72
1:AC:372:ILE:CG2	2:M:4:ILE:HG13	2.20	0.72
1:AH:372:ILE:CB	2:L:11:ILE:CG2	2.67	0.72
1:WM:197:LEU:HA	1:WN:175:SER:OG	1.89	0.72
1:WV:197:LEU:HD12	1:WW:175:SER:HB3	1.71	0.72
1:WE:128:GLU:HB3	1:WF:126:PHE:CE2	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WJ:164:LEU:C	5:J:152:ARG:NH2	2.45	0.72
6:R:46:ALA:O	6:R:50:LYS:HG3	1.90	0.72
1:WH:193:ALA:HB1	1:WI:213:VAL:CG1	2.18	0.72
1:UN:73:MET:CE	1:UN:99:ARG:CD	2.66	0.71
1:WV:164:LEU:HB3	5:G:152:ARG:NH1	2.05	0.71
6:S:42:ASP:OD2	6:S:43:ILE:N	2.22	0.71
1:2:294:ARG:HG3	6:U:72:HIS:CE1	2.25	0.71
1:UI:62:ASP:OD2	1:WA:184:ARG:NH2	2.24	0.71
1:UJ:73:MET:CE	1:UJ:99:ARG:CD	2.66	0.71
1:UJ:98:LEU:CD1	1:UJ:146:THR:OG1	2.38	0.71
1:UL:98:LEU:CD1	1:UL:146:THR:OG1	2.38	0.71
1:UN:98:LEU:CD1	1:UN:146:THR:OG1	2.39	0.71
1:WD:190:GLN:HG3	1:WE:217:GLY:HA3	1.72	0.71
1:WM:200:SER:O	1:WN:158:ALA:CB	2.37	0.71
3:A:52:ILE:HD11	5:F:206:ALA:HB1	1.70	0.71
2:M:11:ILE:C	2:M:11:ILE:CD1	2.57	0.71
7:W:6:ILE:HG21	7:W:122:VAL:HG21	1.72	0.71
1:UI:98:LEU:CD1	1:UI:146:THR:OG1	2.39	0.71
2:O:14:LEU:HD11	1:z:370:ARG:NH2	2.02	0.71
1:2:236:LYS:HZ3	1:UJ:167:ARG:HH11	1.38	0.71
2:P:7:ILE:HG22	1:t:278:THR:HG21	1.73	0.71
1:WK:143:THR:HG1	1:WL:156:HIS:CE1	2.04	0.71
1:WS:124:SER:HA	3:A:8:MET:HE2	1.70	0.71
2:P:11:ILE:CG2	1:t:372:ILE:HG21	2.21	0.71
1:UO:98:LEU:CD1	1:UO:146:THR:OG1	2.38	0.71
1:UP:98:LEU:CD1	1:UP:146:THR:OG1	2.38	0.71
1:WW:125:GLN:CD	3:B:2:THR:CG2	2.64	0.71
1:UO:126:PHE:CD1	1:UO:130:VAL:HG21	2.26	0.71
1:WS:123:ILE:C	3:A:8:MET:HE1	2.16	0.71
3:A:37:ILE:HD13	3:B:44:ILE:CD1	2.20	0.71
1:UI:126:PHE:CD1	1:UI:130:VAL:HG21	2.26	0.71
1:1:294:ARG:HD2	6:U:68:THR:HG21	1.71	0.70
1:UM:98:LEU:CD1	1:UM:146:THR:OG1	2.39	0.70
1:WS:121:PHE:CE1	1:WT:120:LYS:NZ	2.55	0.70
3:B:39:GLN:HE21	3:B:49:LEU:HD12	1.56	0.70
1:UJ:126:PHE:CD1	1:UJ:130:VAL:HG21	2.26	0.70
1:WE:197:LEU:HD12	1:WF:175:SER:CB	2.21	0.70
7:Y:47:VAL:O	1:i:313:PRO:HD2	1.92	0.70
7:Y:57:GLN:C	7:Y:59:THR:H	1.98	0.70
1:AC:374:HIS:HB2	2:M:4:ILE:CD1	2.20	0.70
1:UL:126:PHE:CD1	1:UL:130:VAL:HG21	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UP:126:PHE:CD1	1:UP:130:VAL:HG21	2.26	0.70
1:WE:166:VAL:HG22	5:I:160:GLN:H	1.53	0.70
1:WK:165:PHE:HA	4:E:149:LEU:CD1	2.21	0.70
1:1:297:GLN:HB2	6:U:65:LEU:HD21	1.73	0.70
1:UK:126:PHE:O	1:UK:130:VAL:CG2	2.40	0.70
1:UL:126:PHE:O	1:UL:130:VAL:CG2	2.40	0.70
1:UM:126:PHE:CD1	1:UM:130:VAL:HG21	2.26	0.70
1:WK:200:SER:HA	1:WL:173:SER:OG	1.91	0.70
1:WR:200:SER:O	1:WS:158:ALA:HB3	1.91	0.70
1:AE:295:SER:HB3	6:S:72:HIS:HB3	1.72	0.70
1:UL:103:GLN:HG2	1:WH:182:PRO:HB3	1.72	0.70
1:WA:200:SER:O	1:WB:158:ALA:CB	2.40	0.70
1:WG:165:PHE:HE1	5:J:240:ALA:CB	2.00	0.70
2:M:86:ILE:HG12	5:G:45:LEU:CD1	2.22	0.70
1:UN:126:PHE:CD1	1:UN:130:VAL:HG21	2.26	0.70
1:AP:278:THR:HG21	2:P:21:ALA:HB3	1.73	0.70
1:UJ:126:PHE:O	1:UJ:130:VAL:CG2	2.39	0.70
1:UK:98:LEU:CD1	1:UK:146:THR:OG1	2.38	0.70
1:WK:163:SER:O	4:E:252:ALA:CB	2.40	0.70
1:UI:167:ARG:HH22	1:WW:188:GLU:HB3	1.57	0.70
1:WM:139:GLU:HB3	1:WN:154:ARG:NH2	2.06	0.70
5:H:132:GLN:HA	5:H:135:ARG:HD2	1.73	0.70
2:K:77:LYS:HG3	6:Q:5:LEU:HD21	1.73	0.70
1:UI:126:PHE:O	1:UI:130:VAL:CG2	2.40	0.70
1:UM:126:PHE:O	1:UM:130:VAL:CG2	2.40	0.70
1:WB:200:SER:O	1:WC:158:ALA:HB2	1.91	0.70
1:WJ:164:LEU:CB	4:E:145:TRP:CD1	2.74	0.70
1:WK:167:ARG:CG	4:E:156:THR:HG22	2.18	0.70
5:H:190:PHE:CD1	5:I:220:PRO:HG3	2.26	0.70
1:5:299:ASN:HD22	6:T:55:ARG:NH2	1.90	0.70
1:AK:294:ARG:HG2	6:R:71:HIS:HB2	1.74	0.70
1:AL:278:THR:HG21	2:K:14:LEU:HB3	1.72	0.70
1:WA:128:GLU:HG3	1:WB:126:PHE:HE2	1.54	0.70
1:6:361:ASN:ND2	6:T:78:VAL:HG12	2.06	0.69
1:UL:62:ASP:OD2	1:WG:184:ARG:NH2	2.25	0.69
1:UM:139:GLU:CD	1:UM:142:ARG:HH21	2.00	0.69
1:WW:125:GLN:OE1	3:B:2:THR:HG21	1.89	0.69
1:WE:167:ARG:NH2	5:I:162:PRO:CD	2.54	0.69
1:WP:193:ALA:HB1	1:WQ:213:VAL:HG11	1.74	0.69
1:UJ:139:GLU:CD	1:UJ:142:ARG:HH21	2.00	0.69
1:UO:126:PHE:O	1:UO:130:VAL:CG2	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:54:LYS:NZ	4:E:215:VAL:HA	2.06	0.69
1:UJ:126:PHE:O	1:UJ:130:VAL:CB	2.41	0.69
1:UK:126:PHE:CD1	1:UK:130:VAL:HG21	2.26	0.69
1:UK:139:GLU:CD	1:UK:142:ARG:HH21	2.00	0.69
1:UL:139:GLU:CD	1:UL:142:ARG:HH21	2.00	0.69
1:UN:139:GLU:CD	1:UN:142:ARG:HH21	2.00	0.69
1:UO:139:GLU:CD	1:UO:142:ARG:HH21	2.00	0.69
1:WE:134:ARG:HB3	1:WE:134:ARG:HH21	1.58	0.69
1:WN:196:HIS:CB	1:WO:211:THR:HG21	2.19	0.69
6:S:128:LYS:HE2	7:X:134:GLN:HG2	1.74	0.69
6:T:91:ASP:OD2	6:T:104:ARG:NH1	2.25	0.69
1:AB:372:ILE:HB	2:M:11:ILE:HG22	1.74	0.69
1:AJ:294:ARG:HD3	6:R:68:THR:CG2	2.23	0.69
1:UN:126:PHE:O	1:UN:130:VAL:CB	2.41	0.69
5:G:116:PHE:CE2	6:R:4:ARG:NH2	2.61	0.69
2:O:21:ALA:HB1	1:x:278:THR:CG2	2.22	0.69
1:UI:126:PHE:O	1:UI:130:VAL:CB	2.41	0.69
1:UN:126:PHE:O	1:UN:130:VAL:CG2	2.39	0.69
1:WA:175:SER:OG	1:WW:197:LEU:HA	1.93	0.69
1:WM:193:ALA:HB1	1:WN:213:VAL:CG1	2.21	0.69
1:UL:126:PHE:O	1:UL:130:VAL:CB	2.41	0.69
1:UP:126:PHE:O	1:UP:130:VAL:CG2	2.40	0.69
1:UP:139:GLU:CD	1:UP:142:ARG:HH21	2.00	0.69
1:WL:197:LEU:HD13	1:WM:175:SER:OG	1.91	0.69
1:UM:126:PHE:O	1:UM:130:VAL:CB	2.41	0.69
1:UN:103:GLN:HG2	1:WS:182:PRO:HB3	1.75	0.69
1:WA:213:VAL:HG11	1:WW:193:ALA:HB1	1.73	0.69
1:WD:193:ALA:HB1	1:WE:213:VAL:CG1	2.23	0.69
5:J:143:ARG:HH22	5:J:177:SER:HA	1.58	0.69
2:M:86:ILE:HG12	5:G:45:LEU:HD13	1.73	0.69
1:UO:126:PHE:O	1:UO:130:VAL:CB	2.41	0.69
1:WR:112:GLY:HA2	1:WR:135:ALA:CA	2.16	0.69
1:1:294:ARG:HD3	6:U:68:THR:HG22	1.73	0.68
2:O:7:ILE:HG21	1:z:278:THR:HG21	1.31	0.68
1:WG:164:LEU:O	5:J:241:GLN:CG	2.31	0.68
1:1:297:GLN:HE22	6:U:76:GLN:N	1.91	0.68
2:M:48:ARG:NH2	6:S:6:ASP:OD2	2.26	0.68
1:UK:126:PHE:O	1:UK:130:VAL:CB	2.41	0.68
1:WB:193:ALA:HB1	1:WC:213:VAL:HG11	1.76	0.68
1:WK:197:LEU:HA	1:WL:175:SER:HB2	1.74	0.68
5:F:60:MET:HE1	5:G:91:GLY:HA3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:109:TYR:HA	5:F:113:TYR:HB2	1.74	0.68
7:Z:68:ILE:HD11	1:k:312:VAL:CG2	2.24	0.68
2:P:46:SER:OG	5:J:38:TRP:HA	1.93	0.68
1:UP:126:PHE:O	1:UP:130:VAL:CB	2.41	0.68
1:WC:197:LEU:HD12	1:WD:175:SER:HB3	1.76	0.68
1:WP:190:GLN:HG2	1:WQ:217:GLY:HA3	1.75	0.68
3:B:14:MET:HG3	3:C:59:PHE:HE1	1.56	0.68
3:D:78:ARG:HE	5:J:229:VAL:HG12	1.58	0.68
1:AC:372:ILE:CG2	2:M:4:ILE:CG1	2.70	0.68
1:AK:278:THR:HG21	2:K:21:ALA:HB3	1.71	0.68
1:UI:139:GLU:CD	1:UI:142:ARG:HH21	2.00	0.68
1:WA:197:LEU:HD12	1:WB:175:SER:HB3	1.75	0.68
3:C:40:ALA:HB2	3:D:44:ILE:CD1	2.24	0.68
1:4:355:PRO:HB2	1:j:319:GLN:CD	2.19	0.68
2:M:80:VAL:HG22	6:S:131:MET:HG2	1.76	0.68
2:O:104:VAL:HG12	5:J:68:ILE:HD11	1.75	0.68
1:WS:197:LEU:HD12	1:WT:175:SER:OG	1.94	0.68
1:b:320:PRO:O	1:b:322:PRO:HD3	1.93	0.68
3:B:59:PHE:CZ	5:G:198:LEU:HD21	2.25	0.68
1:6:278:THR:HG21	2:N:7:ILE:HG21	1.76	0.68
1:WR:113:PHE:HA	1:WS:134:ARG:HH12	1.58	0.68
4:E:166:SER:O	4:E:168:ALA:N	2.26	0.68
5:J:116:PHE:CE1	6:U:4:ARG:NH2	2.61	0.68
5:J:144:GLU:O	5:J:147:LEU:N	2.26	0.68
1:WN:200:SER:CA	1:WO:173:SER:OG	2.41	0.68
6:T:32:ASN:HD22	7:Y:62:VAL:HG12	1.59	0.68
1:1:370:ARG:HE	2:O:7:ILE:HD11	1.58	0.68
1:UK:125:GLN:HA	1:UK:128:GLU:HB2	1.76	0.68
1:UM:98:LEU:HD12	1:UM:146:THR:OG1	1.94	0.68
1:WD:196:HIS:HB3	1:WE:211:THR:HG21	1.75	0.68
1:WH:166:VAL:HG12	5:J:147:LEU:HD12	1.76	0.68
5:J:86:ASN:O	5:J:88:VAL:N	2.27	0.68
1:WB:190:GLN:HG2	1:WC:216:SER:O	1.94	0.67
1:WN:200:SER:O	1:WO:173:SER:OG	2.12	0.67
1:WS:197:LEU:HD12	1:WT:175:SER:CB	2.24	0.67
1:WD:197:LEU:HD12	1:WE:175:SER:CB	2.23	0.67
2:K:73:ALA:HB1	2:K:77:LYS:HZ3	1.59	0.67
1:UJ:125:GLN:HA	1:UJ:128:GLU:HB2	1.76	0.67
1:UM:125:GLN:HA	1:UM:128:GLU:HB2	1.76	0.67
1:UO:98:LEU:HD12	1:UO:146:THR:OG1	1.94	0.67
1:WW:165:PHE:HE1	3:B:89:GLY:HA2	0.69	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AK:295:SER:HB2	6:R:73:ILE:CG1	2.22	0.67
1:UK:98:LEU:HD12	1:UK:146:THR:OG1	1.94	0.67
1:WG:200:SER:O	1:WH:158:ALA:CB	2.42	0.67
1:WO:167:ARG:O	1:WO:168:GLU:HB2	1.93	0.67
1:WQ:197:LEU:HD12	1:WR:175:SER:CB	2.23	0.67
1:UL:98:LEU:HD12	1:UL:146:THR:OG1	1.94	0.67
1:UN:125:GLN:HA	1:UN:128:GLU:HB2	1.76	0.67
1:WD:168:GLU:OE2	1:WD:170:LYS:HE3	1.94	0.67
1:UJ:98:LEU:HD12	1:UJ:146:THR:OG1	1.94	0.67
6:U:36:PRO:HB3	6:U:96:ASP:HB2	1.77	0.67
1:WH:203:ALA:CB	1:WI:160:PRO:HB3	2.19	0.67
1:AQ:374:HIS:CD2	2:P:15:GLN:HB2	2.30	0.67
2:N:75:MET:SD	6:S:122:VAL:HG22	2.35	0.67
1:UI:125:GLN:HA	1:UI:128:GLU:HB2	1.76	0.67
7:V:6:ILE:HG21	7:V:122:VAL:HG21	1.76	0.67
1:WP:197:LEU:HD12	1:WQ:175:SER:CB	2.25	0.67
1:WT:128:GLU:HG2	1:WU:126:PHE:HD2	1.60	0.67
6:S:31:ALA:HB1	7:X:13:ALA:HB2	1.75	0.67
1:AM:278:THR:HG21	2:K:7:ILE:CB	2.24	0.67
1:UP:125:GLN:HA	1:UP:128:GLU:HB2	1.77	0.67
1:WA:200:SER:O	1:WB:158:ALA:HB3	1.95	0.67
1:WH:166:VAL:HG11	5:J:147:LEU:HD11	1.77	0.67
1:UI:98:LEU:HD12	1:UI:146:THR:OG1	1.94	0.66
3:B:21:ALA:HB2	5:H:199:VAL:HG23	1.77	0.66
1:WS:125:GLN:HB2	3:A:4:GLU:HB2	1.76	0.66
1:WW:186:LEU:HA	1:WW:190:GLN:OE1	1.95	0.66
7:V:68:ILE:HD11	1:c:312:VAL:CG2	2.26	0.66
2:K:75:MET:HE1	2:P:88:VAL:HG22	1.76	0.66
1:WE:112:GLY:HA3	1:WE:139:GLU:OE1	1.95	0.66
1:AL:278:THR:CG2	2:K:14:LEU:CD2	2.62	0.66
1:WF:128:GLU:HG2	1:WG:126:PHE:CD2	2.29	0.66
3:A:48:THR:CG2	5:F:208:GLY:HA2	2.25	0.66
7:W:122:VAL:O	7:W:126:MET:HG2	1.96	0.66
1:UL:125:GLN:HA	1:UL:128:GLU:HB2	1.76	0.66
1:UO:62:ASP:OD2	1:WT:184:ARG:NH2	2.28	0.66
2:M:75:MET:HE1	6:R:122:VAL:HG13	1.77	0.66
1:v:391:VAL:HG21	1:v:409:MET:HE1	1.78	0.66
1:UK:207:PRO:CG	1:WE:187:ASP:CG	2.68	0.66
1:WA:112:GLY:HA3	1:WA:139:GLU:OE1	1.95	0.66
1:1:294:ARG:HD2	6:U:68:THR:CG2	2.25	0.66
1:AC:391:VAL:HG21	1:AC:409:MET:HE1	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UP:98:LEU:HD12	1:UP:146:THR:OG1	1.94	0.66
1:w:391:VAL:HG21	1:w:409:MET:HE1	1.78	0.66
1:x:391:VAL:HG21	1:x:409:MET:HE1	1.78	0.66
1:AA:391:VAL:HG21	1:AA:409:MET:HE1	1.78	0.66
1:WF:197:LEU:HD12	1:WG:175:SER:HB3	1.74	0.66
1:WJ:165:PHE:HA	5:J:152:ARG:HH21	1.60	0.66
1:t:391:VAL:HG21	1:t:409:MET:HE1	1.78	0.66
1:u:391:VAL:HG21	1:u:409:MET:HE1	1.78	0.66
5:G:116:PHE:HE2	6:R:4:ARG:CZ	2.08	0.66
5:J:143:ARG:NH2	5:J:177:SER:HA	2.10	0.66
1:AD:391:VAL:HG21	1:AD:409:MET:HE1	1.78	0.66
1:AG:391:VAL:HG21	1:AG:409:MET:HE1	1.78	0.66
5:J:68:ILE:O	5:J:71:PHE:N	2.29	0.66
1:AB:391:VAL:HG21	1:AB:409:MET:HE1	1.78	0.65
1:AE:391:VAL:HG21	1:AE:409:MET:HE1	1.78	0.65
1:AI:391:VAL:HG21	1:AI:409:MET:HE1	1.78	0.65
1:WR:122:GLY:O	1:WR:123:ILE:C	2.39	0.65
1:y:391:VAL:HG21	1:y:409:MET:HE1	1.78	0.65
1:2:294:ARG:HE	6:U:72:HIS:HE1	1.43	0.65
1:AF:391:VAL:HG21	1:AF:409:MET:HE1	1.78	0.65
1:AP:391:VAL:HG21	1:AP:409:MET:HE1	1.78	0.65
1:AQ:391:VAL:HG21	1:AQ:409:MET:HE1	1.78	0.65
1:UN:98:LEU:HD12	1:UN:146:THR:OG1	1.94	0.65
1:UO:125:GLN:HA	1:UO:128:GLU:HB2	1.77	0.65
4:E:193:LEU:HD22	4:E:228:LEU:HD11	1.77	0.65
1:9:391:VAL:HG21	1:9:409:MET:HE1	1.78	0.65
1:AH:391:VAL:HG21	1:AH:409:MET:HE1	1.78	0.65
1:AJ:391:VAL:HG21	1:AJ:409:MET:HE1	1.78	0.65
1:z:391:VAL:HG21	1:z:409:MET:HE1	1.78	0.65
1:k:312:VAL:O	1:k:317:SER:OG	2.11	0.65
1:0:391:VAL:HG21	1:0:409:MET:HE1	1.78	0.65
1:3:391:VAL:HG21	1:3:409:MET:HE1	1.78	0.65
1:AK:391:VAL:HG21	1:AK:409:MET:HE1	1.78	0.65
1:AL:391:VAL:HG21	1:AL:409:MET:HE1	1.78	0.65
1:AO:391:VAL:HG21	1:AO:409:MET:HE1	1.78	0.65
1:WO:197:LEU:HD12	1:WP:175:SER:CB	2.26	0.65
3:A:83:ASN:O	3:A:87:ILE:HG23	1.97	0.65
5:H:66:ARG:NH2	5:H:242:SER:OG	2.30	0.65
1:5:278:THR:HG21	2:N:14:LEU:HB3	1.77	0.65
1:7:391:VAL:HG21	1:7:409:MET:HE1	1.78	0.65
1:8:391:VAL:HG21	1:8:409:MET:HE1	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AG:389:VAL:HG21	1:AG:416:THR:HG21	1.79	0.65
1:AM:391:VAL:HG21	1:AM:409:MET:HE1	1.78	0.65
1:AN:391:VAL:HG21	1:AN:409:MET:HE1	1.78	0.65
5:I:204:LEU:HD22	5:I:212:VAL:HG11	1.78	0.65
1:AJ:389:VAL:HG21	1:AJ:416:THR:HG21	1.79	0.65
2:O:11:ILE:HG22	1:z:372:ILE:HB	1.77	0.65
1:WP:123:ILE:HG23	3:A:67:PRO:HB3	1.78	0.65
1:WQ:124:SER:CB	3:A:75:ASP:OD1	2.45	0.65
1:z:389:VAL:HG21	1:z:416:THR:HG21	1.79	0.65
1:1:389:VAL:HG21	1:1:416:THR:HG21	1.79	0.65
1:2:391:VAL:HG21	1:2:409:MET:HE1	1.78	0.65
1:4:391:VAL:HG21	1:4:409:MET:HE1	1.78	0.65
1:5:391:VAL:HG21	1:5:409:MET:HE1	1.78	0.65
1:6:391:VAL:HG21	1:6:409:MET:HE1	1.78	0.65
1:AE:295:SER:CB	6:S:72:HIS:HA	2.27	0.65
1:AI:389:VAL:HG21	1:AI:416:THR:HG21	1.79	0.65
1:WD:115:LEU:CD2	1:WD:134:ARG:HD2	2.24	0.65
1:WH:197:LEU:HA	1:WI:175:SER:OG	1.97	0.65
1:WJ:128:GLU:HG2	1:WK:126:PHE:CD2	2.15	0.65
1:y:389:VAL:HG21	1:y:416:THR:HG21	1.79	0.65
5:F:58:LEU:O	5:F:62:THR:OG1	2.14	0.65
1:1:391:VAL:HG21	1:1:409:MET:HE1	1.78	0.65
1:2:389:VAL:HG21	1:2:416:THR:HG21	1.79	0.65
1:AE:389:VAL:HG21	1:AE:416:THR:HG21	1.79	0.65
1:WM:143:THR:OG1	1:WN:154:ARG:CG	2.41	0.65
1:AL:389:VAL:HG21	1:AL:416:THR:HG21	1.79	0.65
1:w:389:VAL:HG21	1:w:416:THR:HG21	1.79	0.65
1:4:389:VAL:HG21	1:4:416:THR:HG21	1.79	0.65
1:AH:389:VAL:HG21	1:AH:416:THR:HG21	1.79	0.65
2:O:76:GLN:NE2	7:Z:132:LEU:O	2.29	0.65
1:WB:200:SER:O	1:WC:158:ALA:CB	2.45	0.65
1:WH:197:LEU:HD12	1:WI:175:SER:OG	1.97	0.65
1:3:389:VAL:HG21	1:3:416:THR:HG21	1.79	0.64
1:AN:389:VAL:HG21	1:AN:416:THR:HG21	1.79	0.64
1:UK:103:GLN:CD	1:WF:182:PRO:HB3	2.21	0.64
1:WE:123:ILE:HB	1:WE:128:GLU:OE1	1.96	0.64
1:WP:165:PHE:CB	5:F:160:GLN:O	2.45	0.64
1:WW:134:ARG:HB3	1:WW:134:ARG:HH21	1.61	0.64
1:x:389:VAL:HG21	1:x:416:THR:HG21	1.79	0.64
5:J:85:PRO:O	5:J:86:ASN:C	2.40	0.64
1:AM:389:VAL:HG21	1:AM:416:THR:HG21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:86:ASN:O	5:J:89:LEU:N	2.29	0.64
1:AK:389:VAL:HG21	1:AK:416:THR:HG21	1.79	0.64
1:u:389:VAL:HG21	1:u:416:THR:HG21	1.79	0.64
3:B:58:VAL:HG21	5:H:207:LEU:HD11	1.79	0.64
5:J:82:SER:O	5:J:83:ALA:C	2.41	0.64
1:AF:389:VAL:HG21	1:AF:416:THR:HG21	1.79	0.64
2:K:91:LYS:NZ	5:F:52:THR:OG1	2.31	0.64
1:WA:154:ARG:HG2	1:WW:143:THR:OG1	1.97	0.64
1:WS:123:ILE:C	3:A:8:MET:CE	2.70	0.64
5:G:116:PHE:CE2	6:R:4:ARG:NH1	2.66	0.64
6:S:95:LEU:HD23	1:g:318:ASN:C	2.21	0.64
1:6:372:ILE:HG21	2:N:11:ILE:CG2	2.28	0.64
1:8:394:LYS:HA	1:8:394:LYS:HE3	1.80	0.64
1:AA:394:LYS:HE3	1:AA:394:LYS:HA	1.80	0.64
1:AC:389:VAL:HG21	1:AC:416:THR:HG21	1.79	0.64
1:AP:389:VAL:HG21	1:AP:416:THR:HG21	1.79	0.64
1:WD:165:PHE:HE2	5:I:141:GLN:HA	1.62	0.64
1:v:389:VAL:HG21	1:v:416:THR:HG21	1.79	0.64
6:R:36:PRO:HB3	6:R:96:ASP:HB2	1.79	0.64
1:6:389:VAL:HG21	1:6:416:THR:HG21	1.79	0.64
1:7:370:ARG:HE	2:N:7:ILE:HD11	1.62	0.64
1:AO:389:VAL:HG21	1:AO:416:THR:HG21	1.79	0.64
1:AQ:389:VAL:HG21	1:AQ:416:THR:HG21	1.79	0.64
1:3:394:LYS:HE3	1:3:394:LYS:HA	1.80	0.64
1:6:394:LYS:HA	1:6:394:LYS:HE3	1.80	0.64
1:AC:372:ILE:CD1	2:M:3:ALA:C	2.70	0.64
1:AD:389:VAL:HG21	1:AD:416:THR:HG21	1.79	0.64
1:AG:235:LEU:HD22	1:AH:244:ARG:HH12	1.63	0.64
1:WM:200:SER:O	1:WN:158:ALA:HB2	1.97	0.64
1:WO:166:VAL:CG2	5:F:139:LEU:O	2.46	0.64
1:t:389:VAL:HG21	1:t:416:THR:HG21	1.79	0.64
1:0:394:LYS:HA	1:0:394:LYS:HE3	1.80	0.64
1:1:394:LYS:HA	1:1:394:LYS:HE3	1.80	0.64
1:2:394:LYS:HA	1:2:394:LYS:HE3	1.80	0.64
1:4:394:LYS:HA	1:4:394:LYS:HE3	1.80	0.64
1:5:389:VAL:HG21	1:5:416:THR:HG21	1.79	0.64
1:7:389:VAL:HG21	1:7:416:THR:HG21	1.79	0.64
1:9:394:LYS:HA	1:9:394:LYS:HE3	1.80	0.64
1:AA:389:VAL:HG21	1:AA:416:THR:HG21	1.79	0.64
1:AB:389:VAL:HG21	1:AB:416:THR:HG21	1.79	0.64
1:AC:235:LEU:HD22	1:AD:244:ARG:HH12	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AC:372:ILE:HG21	2:M:4:ILE:HG13	1.79	0.64
1:AC:394:LYS:HA	1:AC:394:LYS:HE3	1.80	0.64
1:AH:372:ILE:HG21	2:L:11:ILE:HG23	1.76	0.64
1:WD:124:SER:OG	3:C:8:MET:HG2	1.98	0.64
1:WE:167:ARG:HH21	5:I:162:PRO:HD2	1.63	0.64
1:WH:197:LEU:HD12	1:WI:175:SER:CB	2.28	0.64
1:WR:143:THR:OG1	1:WS:154:ARG:HG2	1.97	0.64
3:A:85:PRO:HD3	5:G:238:SER:OG	1.98	0.64
1:1:297:GLN:NE2	6:U:76:GLN:H	1.95	0.64
1:4:235:LEU:HD22	1:5:244:ARG:HH12	1.63	0.64
1:4:287:ASP:HB3	1:4:290:LYS:HE2	1.80	0.64
1:AE:235:LEU:HD22	1:AF:244:ARG:HH12	1.63	0.64
1:AI:235:LEU:HD22	1:AJ:244:ARG:HH12	1.63	0.64
1:AM:287:ASP:HB3	1:AM:290:LYS:HE2	1.80	0.64
1:WK:165:PHE:HA	4:E:149:LEU:HD13	1.80	0.64
1:WU:165:PHE:HA	5:G:148:ALA:HB1	1.79	0.64
1:x:235:LEU:HD22	1:y:244:ARG:HH12	1.63	0.64
5:J:139:LEU:HA	5:J:142:THR:HG22	1.78	0.64
1:2:235:LEU:HD22	1:3:244:ARG:HH12	1.63	0.64
1:5:287:ASP:HB3	1:5:290:LYS:HE2	1.80	0.64
1:8:389:VAL:HG21	1:8:416:THR:HG21	1.79	0.64
1:AH:287:ASP:HB3	1:AH:290:LYS:HE2	1.80	0.64
1:WG:139:GLU:HB3	1:WH:154:ARG:HH21	1.63	0.64
1:WG:165:PHE:HD2	5:I:152:ARG:HD3	1.61	0.64
3:A:17:ALA:HB2	5:G:195:ILE:CD1	2.28	0.64
3:C:36:SER:HG	3:D:44:ILE:HG23	1.62	0.64
1:1:244:ARG:HH12	1:z:235:LEU:HD22	1.63	0.63
1:5:394:LYS:HA	1:5:394:LYS:HE3	1.80	0.63
1:6:235:LEU:HD22	1:7:244:ARG:HH12	1.63	0.63
1:8:235:LEU:HD22	1:9:244:ARG:HH12	1.63	0.63
1:9:389:VAL:HG21	1:9:416:THR:HG21	1.79	0.63
1:AE:394:LYS:HA	1:AE:394:LYS:HE3	1.80	0.63
1:AQ:235:LEU:HD22	1:t:244:ARG:HH12	1.63	0.63
4:E:144:LEU:HB3	5:J:149:LEU:HD22	1.79	0.63
1:0:235:LEU:HD22	1:AA:244:ARG:HH12	1.63	0.63
1:7:294:ARG:HG2	6:T:66:THR:OG1	1.98	0.63
1:AD:394:LYS:HE3	1:AD:394:LYS:HA	1.80	0.63
1:AK:235:LEU:HD22	1:AL:244:ARG:HH12	1.63	0.63
1:AL:235:LEU:HD22	1:AM:244:ARG:HH12	1.63	0.63
1:t:235:LEU:HD22	1:u:244:ARG:HH12	1.63	0.63
1:u:235:LEU:HD22	1:v:244:ARG:HH12	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:244:ARG:HH12	1:9:235:LEU:HD22	1.63	0.63
1:0:389:VAL:HG21	1:0:416:THR:HG21	1.79	0.63
1:3:287:ASP:HB3	1:3:290:LYS:HE2	1.80	0.63
1:6:287:ASP:HB3	1:6:290:LYS:HE2	1.80	0.63
1:7:394:LYS:HA	1:7:394:LYS:HE3	1.80	0.63
1:AB:394:LYS:HA	1:AB:394:LYS:HE3	1.80	0.63
1:AG:287:ASP:HB3	1:AG:290:LYS:HE2	1.80	0.63
1:AN:287:ASP:HB3	1:AN:290:LYS:HE2	1.80	0.63
1:AO:235:LEU:HD22	1:AP:244:ARG:HH12	1.63	0.63
2:O:11:ILE:CG2	1:z:372:ILE:HG21	2.28	0.63
1:WW:164:LEU:CG	3:B:89:GLY:O	2.46	0.63
1:v:235:LEU:HD22	1:w:244:ARG:HH12	1.63	0.63
3:C:36:SER:OG	3:D:44:ILE:CG2	2.35	0.63
1:7:365:ASN:CB	6:T:72:HIS:CD2	2.66	0.63
1:AA:235:LEU:HD22	1:AB:244:ARG:HH12	1.63	0.63
1:AF:394:LYS:HA	1:AF:394:LYS:HE3	1.80	0.63
1:AI:287:ASP:HB3	1:AI:290:LYS:HE2	1.80	0.63
1:AP:235:LEU:HD22	1:AQ:244:ARG:HH12	1.63	0.63
2:P:7:ILE:HD12	1:u:372:ILE:HD12	1.80	0.63
1:WG:193:ALA:HB1	1:WH:213:VAL:HG11	1.81	0.63
1:y:394:LYS:HE3	1:y:394:LYS:HA	1.80	0.63
3:B:14:MET:HG3	3:C:59:PHE:CE1	2.33	0.63
1:7:235:LEU:HD22	1:8:244:ARG:HH12	1.63	0.63
1:7:370:ARG:HH21	2:N:7:ILE:HD11	1.61	0.63
1:AB:235:LEU:HD22	1:AC:244:ARG:HH12	1.63	0.63
1:AL:287:ASP:HB3	1:AL:290:LYS:HE2	1.80	0.63
2:P:55:GLN:NE2	2:P:74:ASP:OD2	2.31	0.63
1:WG:139:GLU:HB3	1:WH:154:ARG:NH2	2.14	0.63
1:WU:128:GLU:HG2	1:WV:126:PHE:HD2	1.64	0.63
1:x:287:ASP:HB3	1:x:290:LYS:HE2	1.80	0.63
3:A:84:LEU:HB3	3:A:85:PRO:CD	2.28	0.63
3:D:20:LEU:HD23	5:J:199:VAL:HG21	1.80	0.63
5:J:229:VAL:O	5:J:230:ASP:C	2.41	0.63
6:R:74:PRO:O	6:R:75:ALA:C	2.40	0.63
7:Z:47:VAL:O	1:k:313:PRO:CD	2.46	0.63
1:AN:235:LEU:HD22	1:AO:244:ARG:HH12	1.63	0.63
1:AO:287:ASP:HB3	1:AO:290:LYS:HE2	1.80	0.63
1:WE:167:ARG:NH2	5:I:162:PRO:HD2	2.13	0.63
1:WP:128:GLU:HG3	1:WQ:126:PHE:HE2	1.62	0.63
1:z:394:LYS:HA	1:z:394:LYS:HE3	1.80	0.63
1:AC:372:ILE:HG22	2:M:4:ILE:CG1	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AG:394:LYS:HA	1:AG:394:LYS:HE3	1.80	0.63
1:AJ:235:LEU:HD22	1:AK:244:ARG:HH12	1.63	0.63
1:AN:394:LYS:HA	1:AN:394:LYS:HE3	1.80	0.63
1:w:235:LEU:HD22	1:x:244:ARG:HH12	1.63	0.63
1:w:287:ASP:HB3	1:w:290:LYS:HE2	1.80	0.63
1:x:394:LYS:HA	1:x:394:LYS:HE3	1.80	0.63
1:y:287:ASP:HB3	1:y:290:LYS:HE2	1.80	0.63
3:C:14:MET:CE	3:D:63:ILE:HD13	2.29	0.63
3:D:13:ALA:HB1	5:J:195:ILE:HD11	1.81	0.63
1:5:235:LEU:HD22	1:6:244:ARG:HH12	1.63	0.63
1:AM:235:LEU:HD22	1:AN:244:ARG:HH12	1.63	0.63
1:AQ:394:LYS:HA	1:AQ:394:LYS:HE3	1.80	0.63
1:WE:197:LEU:CD1	1:WF:175:SER:OG	2.44	0.63
1:WO:197:LEU:CD1	1:WP:175:SER:OG	2.42	0.63
1:WW:165:PHE:CE1	3:B:89:GLY:CA	2.53	0.63
3:C:23:PRO:O	3:C:27:VAL:HG12	1.99	0.63
3:C:75:ASP:O	3:C:79:THR:HG23	1.98	0.63
1:8:236:LYS:HE2	1:UP:167:ARG:HH11	1.63	0.63
1:9:287:ASP:HB3	1:9:290:LYS:HE2	1.80	0.63
1:UP:103:GLN:HG2	1:WW:182:PRO:HB3	0.71	0.63
3:C:36:SER:O	3:D:44:ILE:HD12	1.99	0.63
6:T:32:ASN:HD22	7:Y:62:VAL:CG1	2.12	0.63
1:AD:235:LEU:HD22	1:AE:244:ARG:HH12	1.63	0.62
1:WD:165:PHE:HB2	5:I:143:ARG:CA	2.23	0.62
1:WP:214:ASP:OD1	1:WP:218:HIS:HB2	1.99	0.62
1:WS:168:GLU:HB3	1:WS:170:LYS:HE3	1.81	0.62
1:w:394:LYS:HA	1:w:394:LYS:HE3	1.80	0.62
3:B:73:LEU:HD21	5:H:225:LEU:HD13	1.80	0.62
6:S:22:ARG:NH2	6:S:108:GLN:OE1	2.31	0.62
1:0:287:ASP:HB3	1:0:290:LYS:HE2	1.80	0.62
1:AF:287:ASP:HB3	1:AF:290:LYS:HE2	1.80	0.62
1:AH:394:LYS:HA	1:AH:394:LYS:HE3	1.80	0.62
1:AM:394:LYS:HA	1:AM:394:LYS:HE3	1.80	0.62
1:WE:112:GLY:HA2	1:WE:135:ALA:CA	2.18	0.62
1:WH:197:LEU:HD11	1:WI:156:HIS:HD2	1.63	0.62
1:z:287:ASP:HB3	1:z:290:LYS:HE2	1.80	0.62
4:E:185:MET:HA	4:E:188:LEU:HD23	1.80	0.62
1:5:299:ASN:ND2	6:T:55:ARG:CZ	2.62	0.62
1:7:287:ASP:HB3	1:7:290:LYS:HE2	1.80	0.62
1:AD:287:ASP:HB3	1:AD:290:LYS:HE2	1.80	0.62
1:AK:287:ASP:HB3	1:AK:290:LYS:HE2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UI:167:ARG:NH2	1:WW:188:GLU:HB3	2.13	0.62
1:WA:187:ASP:CG	1:WA:190:GLN:HG3	2.24	0.62
1:y:235:LEU:HD22	1:z:244:ARG:HH12	1.63	0.62
5:J:66:ARG:HB3	5:J:178:GLU:OE1	2.00	0.62
1:AD:365:ASN:HB3	6:S:72:HIS:CE1	2.33	0.62
1:AJ:287:ASP:HB3	1:AJ:290:LYS:HE2	1.80	0.62
1:AP:394:LYS:HA	1:AP:394:LYS:HE3	1.80	0.62
1:WE:167:ARG:CD	5:I:161:GLY:N	2.61	0.62
1:WQ:128:GLU:HG2	1:WR:126:PHE:HD2	1.65	0.62
1:v:287:ASP:HB3	1:v:290:LYS:HE2	1.81	0.62
7:Y:68:ILE:CD1	1:i:312:VAL:CG2	2.75	0.62
1:2:287:ASP:HB3	1:2:290:LYS:HE2	1.80	0.62
1:8:287:ASP:HB3	1:8:290:LYS:HE2	1.80	0.62
1:AC:287:ASP:HB3	1:AC:290:LYS:HE2	1.80	0.62
1:AF:235:LEU:HD22	1:AG:244:ARG:HH12	1.63	0.62
1:AK:394:LYS:HA	1:AK:394:LYS:HE3	1.80	0.62
1:AP:287:ASP:HB3	1:AP:290:LYS:HE2	1.81	0.62
1:WK:197:LEU:HD11	1:WL:156:HIS:HD2	1.63	0.62
1:WT:128:GLU:HG2	1:WU:126:PHE:CD2	2.35	0.62
6:R:51:LYS:CB	6:R:55:ARG:CZ	2.66	0.62
1:3:235:LEU:HD22	1:4:244:ARG:HH12	1.63	0.62
1:AH:235:LEU:HD22	1:AI:244:ARG:HH12	1.63	0.62
1:AI:363:THR:HG23	6:R:65:LEU:HD21	1.80	0.62
1:WO:196:HIS:HB3	1:WP:211:THR:HG21	1.80	0.62
1:AA:287:ASP:HB3	1:AA:290:LYS:HE2	1.80	0.62
1:UP:73:MET:HE3	1:UP:99:ARG:HD3	1.81	0.62
1:WE:165:PHE:HD1	5:I:159:LEU:HD23	1.65	0.62
1:WQ:128:GLU:HG2	1:WR:126:PHE:CD2	2.34	0.62
1:AI:394:LYS:HA	1:AI:394:LYS:HE3	1.80	0.62
1:WI:200:SER:OG	1:WJ:175:SER:HB2	1.99	0.62
1:WJ:186:LEU:HA	1:WJ:190:GLN:OE1	2.00	0.62
1:v:394:LYS:HA	1:v:394:LYS:HE3	1.80	0.62
4:E:158:PRO:CG	4:E:162:ASN:HD21	2.09	0.62
5:G:67:ILE:HD12	5:G:239:LEU:HD13	1.81	0.62
1:AB:287:ASP:HB3	1:AB:290:LYS:HE2	1.80	0.62
1:AJ:394:LYS:HA	1:AJ:394:LYS:HE3	1.80	0.62
1:UK:161:LYS:O	1:UK:162:PRO:C	2.43	0.62
1:UM:161:LYS:O	1:UM:162:PRO:C	2.43	0.62
1:WE:166:VAL:HG22	5:I:160:GLN:CA	2.30	0.62
1:WE:166:VAL:HG22	5:I:160:GLN:HA	1.81	0.62
1:WI:190:GLN:NE2	1:WJ:216:SER:O	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:67:ILE:HD11	5:J:96:LEU:HB3	1.81	0.62
1:1:287:ASP:HB3	1:1:290:LYS:HE2	1.80	0.62
1:AE:287:ASP:HB3	1:AE:290:LYS:HE2	1.80	0.62
1:UO:103:GLN:NE2	1:WU:182:PRO:CB	2.63	0.62
1:WG:165:PHE:CZ	5:I:153:LEU:HD21	2.35	0.62
1:WP:128:GLU:HG3	1:WQ:126:PHE:CE2	2.35	0.62
1:WS:197:LEU:HD12	1:WT:175:SER:HB3	1.81	0.62
1:u:394:LYS:HA	1:u:394:LYS:HE3	1.80	0.62
3:B:24:LEU:HD22	3:B:58:VAL:HG13	1.81	0.62
4:E:105:GLN:NE2	5:F:216:THR:O	2.33	0.62
1:1:299:ASN:HD21	6:U:78:VAL:HG12	1.62	0.61
1:WM:200:SER:HG	1:WN:175:SER:HB2	1.63	0.61
1:u:287:ASP:HB3	1:u:290:LYS:HE2	1.80	0.61
3:D:46:GLU:HB2	3:D:49:LEU:HD23	1.82	0.61
1:1:235:LEU:HD22	1:2:244:ARG:HH12	1.63	0.61
1:AA:277:GLN:HB3	1:AA:377:MET:HE1	1.83	0.61
1:AF:277:GLN:HB3	1:AF:377:MET:HE1	1.82	0.61
1:AO:297:GLN:HE22	6:Q:60:THR:HG23	1.66	0.61
2:L:48:ARG:NH2	6:R:6:ASP:OD1	2.32	0.61
2:P:11:ILE:CG2	1:t:372:ILE:CG2	2.78	0.61
3:D:70:LEU:O	3:D:74:LEU:HG	2.01	0.61
1:UL:161:LYS:O	1:UL:162:PRO:C	2.43	0.61
1:WA:197:LEU:HA	1:WB:175:SER:OG	2.00	0.61
1:WL:186:LEU:HA	1:WL:190:GLN:OE1	1.99	0.61
1:WO:128:GLU:HG2	1:WP:126:PHE:HD2	1.64	0.61
1:AE:295:SER:CB	6:S:72:HIS:CB	2.73	0.61
1:AO:394:LYS:HE3	1:AO:394:LYS:HA	1.80	0.61
1:UO:161:LYS:O	1:UO:162:PRO:C	2.43	0.61
1:WW:164:LEU:HD12	3:B:89:GLY:C	2.24	0.61
5:G:66:ARG:NE	5:G:178:GLU:OE1	2.33	0.61
6:T:103:ASP:OD1	7:Z:112:TYR:OH	2.11	0.61
1:9:277:GLN:HB3	1:9:377:MET:HE1	1.83	0.61
1:AC:277:GLN:HB3	1:AC:377:MET:HE1	1.83	0.61
1:AD:277:GLN:HB3	1:AD:377:MET:HE1	1.83	0.61
1:AE:277:GLN:HB3	1:AE:377:MET:HE1	1.83	0.61
1:AQ:287:ASP:HB3	1:AQ:290:LYS:HE2	1.80	0.61
1:UN:73:MET:HE3	1:UN:99:ARG:HD3	1.81	0.61
1:WK:193:ALA:CB	1:WL:213:VAL:CG2	2.76	0.61
7:X:3:LEU:HB3	7:X:7:PHE:HB3	1.82	0.61
1:AH:277:GLN:HB3	1:AH:377:MET:HE1	1.83	0.61
1:UM:103:GLN:CD	1:WQ:182:PRO:CB	2.71	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WB:212:LEU:HB3	1:WB:221:THR:HG23	1.81	0.61
4:E:106:MET:SD	4:E:225:GLY:HA3	2.40	0.61
1:0:277:GLN:HB3	1:0:377:MET:HE1	1.83	0.61
1:AB:277:GLN:HB3	1:AB:377:MET:HE1	1.83	0.61
1:AI:277:GLN:HB3	1:AI:377:MET:HE1	1.83	0.61
2:M:31:THR:N	5:H:106:ASP:OD2	2.33	0.61
1:UP:161:LYS:O	1:UP:162:PRO:C	2.43	0.61
1:WD:117:ASP:O	1:WD:118:GLN:C	2.44	0.61
1:WG:212:LEU:HB3	1:WG:221:THR:HG23	1.82	0.61
1:t:394:LYS:HA	1:t:394:LYS:HE3	1.80	0.61
3:C:21:ALA:HB2	5:I:199:VAL:HG22	1.81	0.61
6:R:51:LYS:NZ	6:R:84:ASP:OD1	2.34	0.61
1:8:236:LYS:HE2	1:UP:167:ARG:NH1	2.15	0.61
1:AG:277:GLN:HB3	1:AG:377:MET:HE1	1.83	0.61
1:WH:193:ALA:CB	1:WI:213:VAL:HG11	2.26	0.61
1:WJ:165:PHE:HA	5:J:152:ARG:NH2	2.16	0.61
1:WM:200:SER:O	1:WN:158:ALA:HB3	2.01	0.61
1:WP:190:GLN:NE2	1:WQ:216:SER:O	2.33	0.61
1:x:277:GLN:HB3	1:x:377:MET:HE1	1.83	0.61
3:A:56:VAL:O	3:A:60:ILE:HG12	2.01	0.61
3:D:14:MET:CE	4:E:229:MET:SD	2.89	0.61
4:E:178:LEU:HD12	4:E:182:ASN:HD21	1.65	0.61
7:Y:68:ILE:HD11	1:i:312:VAL:HG22	1.83	0.61
1:7:277:GLN:HB3	1:7:377:MET:HE1	1.83	0.61
1:8:277:GLN:HB3	1:8:377:MET:HE1	1.83	0.61
1:AL:394:LYS:HA	1:AL:394:LYS:HE3	1.80	0.61
1:WE:166:VAL:HG23	5:I:160:GLN:HA	1.81	0.61
1:WF:190:GLN:HA	1:WG:217:GLY:O	2.01	0.61
1:WV:164:LEU:HB3	5:G:152:ARG:HH12	1.64	0.61
1:WV:190:GLN:NE2	1:WW:216:SER:O	2.34	0.61
1:t:287:ASP:HB3	1:t:290:LYS:HE2	1.80	0.61
6:Q:22:ARG:HH22	7:W:3:LEU:HD21	1.66	0.61
2:O:14:LEU:HD23	1:y:278:THR:HG21	1.83	0.61
6:S:65:LEU:C	6:S:65:LEU:HD12	2.25	0.61
1:AJ:277:GLN:HB3	1:AJ:377:MET:HE1	1.83	0.60
1:AQ:277:GLN:HB3	1:AQ:377:MET:HE1	1.82	0.60
2:M:11:ILE:HD12	2:M:12:SER:CA	2.31	0.60
2:O:77:LYS:CE	6:U:13:GLN:HE22	2.08	0.60
1:UO:73:MET:HE3	1:UO:99:ARG:HD3	1.81	0.60
1:WH:197:LEU:HD12	1:WI:175:SER:HB3	1.83	0.60
1:WI:190:GLN:HG2	1:WJ:217:GLY:HA3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:y:277:GLN:HB3	1:y:377:MET:HE1	1.83	0.60
1:AB:372:ILE:HG22	2:M:11:ILE:CG2	2.31	0.60
1:AD:297:GLN:HE22	6:S:76:GLN:H	1.46	0.60
2:L:48:ARG:NH2	6:R:6:ASP:CG	2.59	0.60
1:UI:73:MET:HE3	1:UI:99:ARG:HD3	1.81	0.60
1:WJ:165:PHE:N	5:J:152:ARG:HH22	1.98	0.60
1:WR:212:LEU:HB3	1:WR:221:THR:HG23	1.82	0.60
3:D:14:MET:HE2	4:E:229:MET:SD	2.41	0.60
5:F:162:PRO:HD2	5:F:163:GLU:N	2.14	0.60
1:7:299:ASN:ND2	6:T:78:VAL:C	2.48	0.60
1:UI:161:LYS:O	1:UI:162:PRO:C	2.43	0.60
1:UL:127:SER:O	1:UL:131:ASN:CB	2.50	0.60
1:WW:117:ASP:O	1:WW:118:GLN:C	2.44	0.60
1:t:277:GLN:HB3	1:t:377:MET:HE1	1.83	0.60
1:w:277:GLN:HB3	1:w:377:MET:HE1	1.83	0.60
4:E:114:VAL:HG12	5:G:213:PRO:HB3	1.81	0.60
1:5:277:GLN:HB3	1:5:377:MET:HE1	1.83	0.60
1:6:277:GLN:HB3	1:6:377:MET:HE1	1.83	0.60
1:AK:277:GLN:HB3	1:AK:377:MET:HE1	1.83	0.60
2:K:86:ILE:HD13	2:P:98:GLU:HG3	1.81	0.60
7:Z:12:SER:OG	7:Z:62:VAL:O	2.20	0.60
7:Z:68:ILE:HD11	1:k:312:VAL:HG21	1.84	0.60
1:AC:372:ILE:HD13	2:M:3:ALA:C	2.26	0.60
1:AL:277:GLN:HB3	1:AL:377:MET:HE1	1.83	0.60
1:AP:278:THR:CG2	2:P:21:ALA:CB	2.67	0.60
1:UL:126:PHE:CE1	1:UL:130:VAL:CG2	2.84	0.60
1:UM:127:SER:O	1:UM:131:ASN:CB	2.50	0.60
1:WG:165:PHE:CD2	5:I:152:ARG:HD3	2.36	0.60
1:WK:197:LEU:HA	1:WL:175:SER:CB	2.32	0.60
3:A:54:LYS:HD2	5:G:207:LEU:HD23	1.82	0.60
5:I:83:ALA:HB3	5:I:84:PRO:HD3	1.84	0.60
1:AJ:402:LEU:HD12	1:AJ:403:PRO:HD2	1.84	0.60
1:UL:208:GLY:N	1:WG:187:ASP:OD2	2.33	0.60
1:UN:161:LYS:O	1:UN:162:PRO:C	2.43	0.60
1:UP:127:SER:O	1:UP:131:ASN:CB	2.50	0.60
1:WI:164:LEU:HD23	1:WI:165:PHE:HB3	1.83	0.60
1:WR:186:LEU:HA	1:WR:190:GLN:OE1	2.00	0.60
1:1:402:LEU:HD12	1:1:403:PRO:HD2	1.84	0.60
1:UN:127:SER:O	1:UN:131:ASN:CB	2.50	0.60
1:WC:193:ALA:HB1	1:WD:213:VAL:CG1	2.30	0.60
1:WK:197:LEU:HD11	1:WL:156:HIS:CD2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:W:27:ASN:OD1	7:W:42:TYR:OH	2.19	0.60
1:4:402:LEU:HD12	1:4:403:PRO:HD2	1.84	0.60
1:AI:372:ILE:HG21	2:L:4:ILE:HG13	1.82	0.60
2:O:34:PHE:HZ	5:J:105:ILE:HD13	1.67	0.60
1:UJ:161:LYS:O	1:UJ:162:PRO:C	2.43	0.60
1:WD:168:GLU:CG	1:WD:170:LYS:HE2	2.31	0.60
1:WP:165:PHE:CA	5:F:160:GLN:O	2.49	0.60
3:B:74:LEU:HD22	5:H:229:VAL:CG1	2.31	0.60
7:Y:109:SER:O	7:Y:113:GLN:HG3	2.02	0.60
1:5:402:LEU:HD12	1:5:403:PRO:HD2	1.84	0.60
1:AI:402:LEU:HD12	1:AI:403:PRO:HD2	1.84	0.60
1:UI:127:SER:O	1:UI:131:ASN:CB	2.50	0.60
1:WI:186:LEU:HA	1:WI:190:GLN:OE1	2.02	0.60
1:WS:117:ASP:O	1:WS:118:GLN:C	2.44	0.60
1:WS:193:ALA:HB1	1:WT:213:VAL:HG11	1.84	0.60
1:u:277:GLN:HB3	1:u:377:MET:HE1	1.83	0.60
5:J:184:GLN:O	5:J:188:THR:HG23	2.02	0.60
1:2:402:LEU:HD12	1:2:403:PRO:HD2	1.84	0.60
1:7:295:SER:CB	6:T:65:LEU:HB2	2.32	0.60
1:AJ:294:ARG:CD	6:R:68:THR:CG2	2.80	0.60
1:AP:277:GLN:HB3	1:AP:377:MET:HE1	1.83	0.60
2:K:79:SER:HB2	2:P:91:LYS:NZ	2.16	0.60
1:UO:127:SER:O	1:UO:131:ASN:CB	2.50	0.60
1:y:402:LEU:HD12	1:y:403:PRO:HD2	1.84	0.60
1:z:402:LEU:HD12	1:z:403:PRO:HD2	1.84	0.60
3:C:36:SER:O	3:D:44:ILE:CD1	2.50	0.60
5:I:232:TRP:O	5:I:236:MET:HG2	2.02	0.60
6:S:114:LEU:HD21	7:Y:126:MET:CE	2.32	0.60
1:4:277:GLN:HB3	1:4:377:MET:HE1	1.83	0.59
1:AI:372:ILE:HG22	2:L:4:ILE:CG1	2.25	0.59
1:AK:402:LEU:HD12	1:AK:403:PRO:HD2	1.84	0.59
2:O:14:LEU:CD1	1:z:370:ARG:HH21	2.10	0.59
1:UK:127:SER:O	1:UK:131:ASN:CB	2.50	0.59
1:WW:167:ARG:HD3	5:H:140:ARG:O	2.02	0.59
3:A:74:LEU:HD13	3:A:78:ARG:NH2	2.13	0.59
3:D:89:GLY:C	5:J:143:ARG:HE	2.10	0.59
5:G:48:ILE:HD12	6:R:134:LEU:HD23	1.84	0.59
1:2:277:GLN:HB3	1:2:377:MET:HE1	1.83	0.59
1:3:402:LEU:HD12	1:3:403:PRO:HD2	1.84	0.59
1:5:299:ASN:HD21	6:T:55:ARG:CZ	2.14	0.59
1:AD:402:LEU:HD12	1:AD:403:PRO:HD2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:277:GLN:HB3	1:AM:377:MET:HE1	1.83	0.59
1:WI:212:LEU:HB3	1:WI:221:THR:HG23	1.84	0.59
1:WP:128:GLU:HG2	1:WQ:126:PHE:CD2	2.37	0.59
3:D:7:MET:HE2	4:E:233:MET:O	2.02	0.59
5:F:66:ARG:NH2	5:F:243:PHE:O	2.36	0.59
6:T:123:LEU:HD23	7:Y:132:LEU:HD11	1.84	0.59
7:V:112:TYR:CD1	7:a:125:MET:HG3	2.38	0.59
1:6:402:LEU:HD12	1:6:403:PRO:HD2	1.84	0.59
1:7:295:SER:HB2	6:T:65:LEU:HB2	1.84	0.59
1:AE:402:LEU:HD12	1:AE:403:PRO:HD2	1.84	0.59
1:AH:402:LEU:HD12	1:AH:403:PRO:HD2	1.84	0.59
1:AJ:294:ARG:HG2	6:R:66:THR:OG1	2.02	0.59
1:UJ:73:MET:HE3	1:UJ:99:ARG:HD3	1.81	0.59
1:UL:73:MET:HE3	1:UL:99:ARG:HD3	1.81	0.59
1:WB:197:LEU:CD1	1:WC:175:SER:OG	2.48	0.59
1:WS:124:SER:CA	3:A:8:MET:CE	2.78	0.59
1:WS:124:SER:N	3:A:8:MET:CE	2.65	0.59
1:x:402:LEU:HD12	1:x:403:PRO:HD2	1.84	0.59
1:z:277:GLN:HB3	1:z:377:MET:HE1	1.83	0.59
1:7:402:LEU:HD12	1:7:403:PRO:HD2	1.84	0.59
1:8:402:LEU:HD12	1:8:403:PRO:HD2	1.84	0.59
1:AC:402:LEU:HD12	1:AC:403:PRO:HD2	1.84	0.59
1:AN:277:GLN:HB3	1:AN:377:MET:HE1	1.83	0.59
2:O:75:MET:HE1	6:T:122:VAL:HG22	1.84	0.59
1:UJ:127:SER:O	1:UJ:131:ASN:CB	2.50	0.59
1:UN:126:PHE:CE1	1:UN:130:VAL:CG2	2.84	0.59
1:WA:175:SER:CB	1:WW:197:LEU:HA	2.31	0.59
1:WI:200:SER:O	1:WJ:158:ALA:HB2	2.02	0.59
1:WL:197:LEU:CD1	1:WM:175:SER:CB	2.72	0.59
3:D:51:PHE:HB3	5:I:205:MET:HE3	1.84	0.59
5:J:116:PHE:CZ	6:U:4:ARG:NH1	2.68	0.59
6:S:91:ASP:OD1	7:Y:19:LYS:NZ	2.30	0.59
7:V:20:ARG:HD3	7:V:108:ALA:HB2	1.84	0.59
1:UJ:126:PHE:CE1	1:UJ:130:VAL:CG2	2.84	0.59
1:UM:103:GLN:NE2	1:WQ:182:PRO:HB3	2.17	0.59
1:UP:126:PHE:CE1	1:UP:130:VAL:CG2	2.84	0.59
4:E:114:VAL:CG2	5:I:211:MET:HE1	2.29	0.59
1:3:277:GLN:HB3	1:3:377:MET:HE1	1.83	0.59
1:WJ:128:GLU:OE2	1:WK:127:SER:OG	2.20	0.59
1:WP:193:ALA:HB1	1:WQ:213:VAL:CG1	2.32	0.59
1:v:277:GLN:HB3	1:v:377:MET:HE1	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:w:402:LEU:HD12	1:w:403:PRO:HD2	1.84	0.59
3:D:78:ARG:HG3	5:J:234:LEU:HD11	1.83	0.59
4:E:188:LEU:HG	4:E:189:PRO:HD3	1.84	0.59
6:U:32:ASN:ND2	7:Z:60:GLY:O	2.35	0.59
1:AL:402:LEU:HD12	1:AL:403:PRO:HD2	1.84	0.59
2:K:73:ALA:HB1	2:K:77:LYS:NZ	2.18	0.59
1:WA:213:VAL:CG1	1:WW:193:ALA:HB1	2.32	0.59
1:WK:203:ALA:HB1	1:WL:160:PRO:HA	1.84	0.59
1:WK:212:LEU:HB3	1:WK:221:THR:HG23	1.84	0.59
1:WL:197:LEU:HD12	1:WM:175:SER:HB3	1.80	0.59
1:WS:165:PHE:HE1	3:A:89:GLY:CA	2.07	0.59
1:u:402:LEU:HD12	1:u:403:PRO:HD2	1.84	0.59
1:v:402:LEU:HD12	1:v:403:PRO:HD2	1.84	0.59
6:Q:46:ALA:O	6:Q:50:LYS:HG3	2.02	0.59
1:AF:252:ILE:HD11	1:AF:419:ALA:HB2	1.85	0.59
1:AF:402:LEU:HD12	1:AF:403:PRO:HD2	1.84	0.59
1:AH:278:THR:HG21	2:L:7:ILE:CG2	2.33	0.59
1:AO:402:LEU:HD12	1:AO:403:PRO:HD2	1.84	0.59
1:AP:402:LEU:HD12	1:AP:403:PRO:HD2	1.84	0.59
2:M:61:LEU:HD22	6:R:50:LYS:HE2	1.83	0.59
2:O:89:ARG:HH12	5:I:48:ILE:HD11	1.68	0.59
1:WS:196:HIS:HB3	1:WT:211:THR:HG21	1.84	0.59
3:A:35:ILE:HD11	3:A:53:PRO:HB2	1.85	0.59
5:H:83:ALA:HB3	5:H:84:PRO:HD3	1.84	0.59
7:V:50:GLN:HG3	7:V:65:ALA:HB2	1.85	0.59
1:AE:252:ILE:HD11	1:AE:419:ALA:HB2	1.85	0.59
5:G:116:PHE:CD2	6:R:4:ARG:NH2	2.71	0.59
1:0:377:MET:N	1:0:377:MET:SD	2.76	0.59
1:AI:370:ARG:NE	2:L:7:ILE:HD11	2.17	0.59
1:AN:402:LEU:HD12	1:AN:403:PRO:HD2	1.84	0.59
1:AO:277:GLN:HB3	1:AO:377:MET:HE1	1.83	0.59
1:UM:126:PHE:CE1	1:UM:130:VAL:CG2	2.84	0.59
1:WK:197:LEU:CD1	1:WL:175:SER:OG	2.51	0.59
1:WM:197:LEU:CD1	1:WN:175:SER:OG	2.48	0.59
1:WP:212:LEU:HB3	1:WP:221:THR:HG23	1.85	0.59
1:WT:116:LEU:HD13	1:WT:135:ALA:HB2	1.85	0.59
1:1:277:GLN:HB3	1:1:377:MET:HE1	1.83	0.58
1:3:377:MET:N	1:3:377:MET:SD	2.76	0.58
1:8:377:MET:N	1:8:377:MET:SD	2.76	0.58
1:AB:377:MET:SD	1:AB:377:MET:N	2.76	0.58
1:AN:377:MET:N	1:AN:377:MET:SD	2.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:377:MET:SD	1:AP:377:MET:N	2.76	0.58
2:M:61:LEU:CD1	6:R:50:LYS:NZ	2.66	0.58
1:WD:197:LEU:HD12	1:WE:175:SER:HB3	1.85	0.58
1:WK:186:LEU:HD22	1:WK:190:GLN:CD	2.28	0.58
1:WU:212:LEU:HB3	1:WU:221:THR:HG23	1.84	0.58
1:x:252:ILE:HD11	1:x:419:ALA:HB2	1.85	0.58
6:Q:127:LEU:O	6:Q:131:MET:HG2	2.03	0.58
1:0:252:ILE:HD11	1:0:419:ALA:HB2	1.85	0.58
1:1:252:ILE:HD11	1:1:419:ALA:HB2	1.85	0.58
1:9:402:LEU:HD12	1:9:403:PRO:HD2	1.84	0.58
1:AA:305:GLY:HA3	1:AA:355:PRO:HG2	1.86	0.58
1:AB:402:LEU:HD12	1:AB:403:PRO:HD2	1.84	0.58
1:AD:377:MET:N	1:AD:377:MET:SD	2.76	0.58
1:AG:252:ILE:HD11	1:AG:419:ALA:HB2	1.85	0.58
1:AK:252:ILE:HD11	1:AK:419:ALA:HB2	1.85	0.58
1:AL:252:ILE:HD11	1:AL:419:ALA:HB2	1.85	0.58
1:AL:377:MET:N	1:AL:377:MET:SD	2.76	0.58
1:WE:167:ARG:NH2	5:I:162:PRO:HD3	2.13	0.58
1:w:252:ILE:HD11	1:w:419:ALA:HB2	1.85	0.58
3:C:52:ILE:O	3:C:56:VAL:HG22	2.02	0.58
1:1:377:MET:N	1:1:377:MET:SD	2.76	0.58
1:5:377:MET:N	1:5:377:MET:SD	2.76	0.58
1:AA:252:ILE:HD11	1:AA:419:ALA:HB2	1.85	0.58
1:AB:305:GLY:HA3	1:AB:355:PRO:HG2	1.86	0.58
1:WI:165:PHE:HD2	5:J:159:LEU:HB2	1.69	0.58
1:WJ:164:LEU:CD1	4:E:145:TRP:HD1	2.02	0.58
1:WJ:212:LEU:HB3	1:WJ:221:THR:HG23	1.84	0.58
1:WM:193:ALA:CB	1:WN:213:VAL:HG11	2.27	0.58
1:WT:212:LEU:HB3	1:WT:221:THR:HG23	1.84	0.58
1:t:402:LEU:HD12	1:t:403:PRO:HD2	1.84	0.58
1:u:377:MET:SD	1:u:377:MET:N	2.76	0.58
6:S:120:LEU:HD11	7:X:129:THR:OG1	2.03	0.58
1:1:305:GLY:HA3	1:1:355:PRO:HG2	1.86	0.58
1:6:305:GLY:HA3	1:6:355:PRO:HG2	1.86	0.58
1:AG:402:LEU:HD12	1:AG:403:PRO:HD2	1.84	0.58
1:AQ:377:MET:N	1:AQ:377:MET:SD	2.76	0.58
1:WI:164:LEU:HD22	5:J:148:ALA:CA	2.33	0.58
1:z:252:ILE:HD11	1:z:419:ALA:HB2	1.85	0.58
6:Q:67:LEU:HD11	6:Q:74:PRO:HA	1.85	0.58
1:6:377:MET:N	1:6:377:MET:SD	2.76	0.58
1:7:305:GLY:HA3	1:7:355:PRO:HG2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:7:377:MET:SD	1:7:377:MET:N	2.76	0.58
2:K:69:ASN:HD21	6:Q:20:ALA:HB2	1.68	0.58
3:B:51:PHE:CZ	3:B:55:ILE:HD11	2.38	0.58
1:4:377:MET:SD	1:4:377:MET:N	2.76	0.58
1:9:252:ILE:HD11	1:9:419:ALA:HB2	1.85	0.58
1:AC:377:MET:N	1:AC:377:MET:SD	2.76	0.58
1:AE:377:MET:SD	1:AE:377:MET:N	2.76	0.58
1:AM:252:ILE:HD11	1:AM:419:ALA:HB2	1.85	0.58
1:AQ:402:LEU:HD12	1:AQ:403:PRO:HD2	1.84	0.58
1:UN:208:GLY:N	1:WR:187:ASP:OD1	2.35	0.58
1:UO:126:PHE:CE1	1:UO:130:VAL:CG2	2.84	0.58
1:WA:175:SER:OG	1:WW:197:LEU:CD1	2.51	0.58
1:WD:168:GLU:OE1	1:WD:170:LYS:CE	2.51	0.58
1:WO:200:SER:O	1:WP:158:ALA:HB2	2.04	0.58
1:WS:145:GLU:C	1:WS:147:LEU:H	2.12	0.58
1:WT:145:GLU:C	1:WT:147:LEU:H	2.12	0.58
6:S:42:ASP:OD1	6:S:88:ARG:NH2	2.36	0.58
1:0:402:LEU:HD12	1:0:403:PRO:HD2	1.84	0.58
1:3:252:ILE:HD11	1:3:419:ALA:HB2	1.85	0.58
1:AD:252:ILE:HD11	1:AD:419:ALA:HB2	1.85	0.58
1:AF:377:MET:N	1:AF:377:MET:SD	2.76	0.58
1:AH:252:ILE:HD11	1:AH:419:ALA:HB2	1.85	0.58
1:AH:372:ILE:HB	2:L:11:ILE:CG2	2.33	0.58
1:AJ:252:ILE:HD11	1:AJ:419:ALA:HB2	1.85	0.58
1:t:252:ILE:HD11	1:t:419:ALA:HB2	1.85	0.58
1:t:377:MET:N	1:t:377:MET:SD	2.76	0.58
1:u:252:ILE:HD11	1:u:419:ALA:HB2	1.85	0.58
1:y:252:ILE:HD11	1:y:419:ALA:HB2	1.85	0.58
3:A:48:THR:HG21	5:F:208:GLY:CA	2.34	0.58
1:2:252:ILE:HD11	1:2:419:ALA:HB2	1.85	0.58
1:2:305:GLY:HA3	1:2:355:PRO:HG2	1.86	0.58
1:AJ:377:MET:N	1:AJ:377:MET:SD	2.76	0.58
1:AK:377:MET:N	1:AK:377:MET:SD	2.76	0.58
1:AL:276:GLU:OE2	2:K:11:ILE:CD1	2.52	0.58
1:AM:402:LEU:HD12	1:AM:403:PRO:HD2	1.84	0.58
1:WA:212:LEU:HB3	1:WA:221:THR:HG23	1.84	0.58
1:v:252:ILE:HD11	1:v:419:ALA:HB2	1.85	0.58
1:w:377:MET:N	1:w:377:MET:SD	2.76	0.58
1:z:305:GLY:HA3	1:z:355:PRO:HG2	1.85	0.58
4:E:167:ASN:HD21	4:E:174:ARG:HH12	1.52	0.58
5:J:83:ALA:O	5:J:84:PRO:C	2.46	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:114:LEU:HD21	7:X:126:MET:SD	2.43	0.58
7:W:94:PRO:HB2	7:W:96:VAL:HG23	1.86	0.58
1:0:305:GLY:HA3	1:0:355:PRO:HG2	1.86	0.58
1:AA:402:LEU:HD12	1:AA:403:PRO:HD2	1.84	0.58
1:AO:377:MET:N	1:AO:377:MET:SD	2.76	0.58
1:WE:128:GLU:HB3	1:WF:126:PHE:CD2	2.38	0.58
1:WV:212:LEU:HB3	1:WV:221:THR:HG23	1.84	0.58
5:J:116:PHE:CE1	6:U:4:ARG:NH1	2.69	0.58
1:2:377:MET:N	1:2:377:MET:SD	2.76	0.58
1:5:305:GLY:HA3	1:5:355:PRO:HG2	1.86	0.58
1:AB:252:ILE:HD11	1:AB:419:ALA:HB2	1.85	0.58
1:AF:305:GLY:HA3	1:AF:355:PRO:HG2	1.86	0.58
1:AG:305:GLY:HA3	1:AG:355:PRO:HG2	1.86	0.58
1:AI:377:MET:N	1:AI:377:MET:SD	2.76	0.58
1:WA:167:ARG:NH2	5:H:162:PRO:HD3	2.13	0.58
1:WC:212:LEU:HB3	1:WC:221:THR:HG23	1.84	0.58
1:WS:190:GLN:NE2	1:WT:216:SER:O	2.36	0.58
1:4:252:ILE:HD11	1:4:419:ALA:HB2	1.85	0.57
1:9:377:MET:N	1:9:377:MET:SD	2.76	0.57
1:AE:305:GLY:HA3	1:AE:355:PRO:HG2	1.86	0.57
1:UJ:167:ARG:CZ	1:WB:188:GLU:OE2	2.52	0.57
1:UM:73:MET:HE3	1:UM:99:ARG:HD3	1.81	0.57
1:WV:134:ARG:HB3	1:WV:134:ARG:HH21	1.69	0.57
1:y:377:MET:N	1:y:377:MET:SD	2.77	0.57
7:Y:47:VAL:O	1:i:313:PRO:CD	2.51	0.57
1:8:305:GLY:HA3	1:8:355:PRO:HG2	1.86	0.57
1:AC:305:GLY:HA3	1:AC:355:PRO:HG2	1.86	0.57
2:O:11:ILE:HG22	1:z:372:ILE:CB	2.34	0.57
1:WB:186:LEU:HA	1:WB:190:GLN:OE1	2.04	0.57
1:WG:166:VAL:HG12	1:WG:168:GLU:HB3	1.86	0.57
3:D:52:ILE:HD13	5:I:206:ALA:CB	2.32	0.57
5:I:40:LEU:HD22	6:T:8:ALA:CB	2.34	0.57
1:3:305:GLY:HA3	1:3:355:PRO:HG2	1.86	0.57
1:AH:377:MET:SD	1:AH:377:MET:N	2.76	0.57
1:AM:377:MET:N	1:AM:377:MET:SD	2.76	0.57
1:AQ:305:GLY:HA3	1:AQ:355:PRO:HG2	1.85	0.57
1:WN:203:ALA:HB2	1:WO:160:PRO:HA	1.86	0.57
1:8:252:ILE:HD11	1:8:419:ALA:HB2	1.85	0.57
1:AC:252:ILE:HD11	1:AC:419:ALA:HB2	1.85	0.57
1:AG:377:MET:N	1:AG:377:MET:SD	2.77	0.57
1:AP:305:GLY:HA3	1:AP:355:PRO:HG2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UL:69:GLN:HE22	1:WH:182:PRO:HG2	1.69	0.57
1:WA:213:VAL:HG21	1:WW:193:ALA:HB1	1.86	0.57
1:WI:170:LYS:O	1:WI:171:SER:OG	2.21	0.57
1:WJ:164:LEU:CD2	4:E:144:LEU:HB2	2.34	0.57
1:WK:196:HIS:HB3	1:WL:211:THR:CG2	2.22	0.57
6:S:67:LEU:HA	6:S:72:HIS:NE2	2.18	0.57
1:5:252:ILE:HD11	1:5:419:ALA:HB2	1.85	0.57
1:AH:305:GLY:HA3	1:AH:355:PRO:HG2	1.86	0.57
1:WC:196:HIS:HB3	1:WD:211:THR:HG21	1.87	0.57
1:WE:200:SER:O	1:WF:158:ALA:CB	2.52	0.57
1:WU:200:SER:O	1:WV:158:ALA:CB	2.52	0.57
1:WV:197:LEU:CD1	1:WW:175:SER:OG	2.53	0.57
1:z:377:MET:SD	1:z:377:MET:N	2.76	0.57
3:D:55:ILE:CD1	5:I:205:MET:CE	2.54	0.57
6:U:42:ASP:OD1	6:U:43:ILE:N	2.38	0.57
1:0:276:GLU:OE2	2:M:19:MET:HA	2.04	0.57
1:2:294:ARG:NE	6:U:72:HIS:HE1	2.02	0.57
1:AN:305:GLY:HA3	1:AN:355:PRO:HG2	1.86	0.57
1:x:355:PRO:HB3	1:l:319:GLN:NE2	2.19	0.57
1:4:305:GLY:HA3	1:4:355:PRO:HG2	1.86	0.57
1:AA:377:MET:N	1:AA:377:MET:SD	2.77	0.57
1:AD:365:ASN:ND2	6:S:65:LEU:CD1	2.67	0.57
1:AO:305:GLY:HA3	1:AO:355:PRO:HG2	1.86	0.57
1:AP:252:ILE:HD11	1:AP:419:ALA:HB2	1.85	0.57
1:AQ:252:ILE:HD11	1:AQ:419:ALA:HB2	1.85	0.57
1:UJ:103:GLN:CD	1:WD:182:PRO:HB3	2.27	0.57
1:UN:208:GLY:HA3	1:WR:187:ASP:OD1	2.04	0.57
1:WV:160:PRO:HB2	1:WV:170:LYS:HB2	1.87	0.57
1:t:305:GLY:HA3	1:t:355:PRO:HG2	1.86	0.57
6:S:32:ASN:ND2	7:X:62:VAL:HG22	2.20	0.57
1:4:355:PRO:CB	1:j:319:GLN:NE2	2.67	0.57
1:6:252:ILE:HD11	1:6:419:ALA:HB2	1.85	0.57
1:AC:372:ILE:CB	2:M:4:ILE:HG12	2.34	0.57
1:AL:305:GLY:HA3	1:AL:355:PRO:HG2	1.86	0.57
1:WA:201:ALA:C	1:WB:158:ALA:HB2	2.28	0.57
1:WG:149:PRO:HG2	1:WG:190:GLN:NE2	2.19	0.57
6:T:117:GLN:HE22	7:Y:125:MET:CG	2.17	0.57
1:AB:278:THR:HG21	2:M:7:ILE:CB	2.11	0.57
2:P:11:ILE:HG22	1:t:372:ILE:HG21	1.85	0.57
1:x:377:MET:N	1:x:377:MET:SD	2.76	0.57
1:y:305:GLY:HA3	1:y:355:PRO:HG2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:278:THR:CG2	2:N:21:ALA:HB1	2.35	0.57
1:9:305:GLY:HA3	1:9:355:PRO:HG2	1.86	0.57
1:AL:278:THR:HG21	2:K:14:LEU:CB	2.35	0.57
1:AN:252:ILE:HD11	1:AN:419:ALA:HB2	1.85	0.57
1:AO:252:ILE:HD11	1:AO:419:ALA:HB2	1.85	0.57
1:UK:207:PRO:HG2	1:WE:187:ASP:CG	2.29	0.57
1:UN:126:PHE:O	1:UN:130:VAL:HB	2.05	0.57
1:UP:126:PHE:O	1:UP:130:VAL:HB	2.05	0.57
1:WB:187:ASP:CG	1:WB:190:GLN:HG3	2.30	0.57
1:WE:212:LEU:HB3	1:WE:221:THR:HG23	1.85	0.57
1:WJ:162:PRO:HA	1:WJ:169:GLN:CD	2.30	0.57
1:WU:197:LEU:HD12	1:WV:175:SER:HB3	1.87	0.57
5:H:66:ARG:HG3	5:H:182:ALA:HB2	1.87	0.57
1:7:252:ILE:HD11	1:7:419:ALA:HB2	1.85	0.56
1:AD:305:GLY:HA3	1:AD:355:PRO:HG2	1.86	0.56
1:AM:305:GLY:HA3	1:AM:355:PRO:HG2	1.86	0.56
2:M:11:ILE:CD1	2:M:12:SER:N	2.55	0.56
1:UO:51:TYR:OH	1:UO:76:PRO:HB2	2.05	0.56
1:WG:197:LEU:HD12	1:WH:175:SER:CB	2.35	0.56
1:v:377:MET:N	1:v:377:MET:SD	2.76	0.56
1:1:365:ASN:CB	6:U:72:HIS:CD2	2.60	0.56
1:AH:372:ILE:HB	2:L:11:ILE:HG21	1.87	0.56
1:AI:252:ILE:HD11	1:AI:419:ALA:HB2	1.86	0.56
2:P:8:GLU:O	2:P:11:ILE:HG13	2.05	0.56
1:UK:73:MET:HE3	1:UK:99:ARG:HD3	1.81	0.56
1:WD:165:PHE:CB	5:I:142:THR:O	2.33	0.56
1:WJ:165:PHE:CA	5:J:152:ARG:NH2	2.69	0.56
1:v:305:GLY:HA3	1:v:355:PRO:HG2	1.86	0.56
1:w:305:GLY:HA3	1:w:355:PRO:HG2	1.86	0.56
1:AK:305:GLY:HA3	1:AK:355:PRO:HG2	1.86	0.56
1:UJ:126:PHE:O	1:UJ:130:VAL:HB	2.05	0.56
1:UK:126:PHE:CE1	1:UK:130:VAL:CG2	2.84	0.56
1:UK:207:PRO:HG2	1:WE:187:ASP:OD2	2.05	0.56
1:UN:51:TYR:OH	1:UN:76:PRO:HB2	2.05	0.56
1:UO:126:PHE:O	1:UO:130:VAL:HB	2.05	0.56
1:UP:51:TYR:OH	1:UP:76:PRO:HB2	2.06	0.56
1:WP:145:GLU:C	1:WP:147:LEU:H	2.14	0.56
1:WU:200:SER:O	1:WV:158:ALA:HB2	2.05	0.56
1:u:305:GLY:HA3	1:u:355:PRO:HG2	1.86	0.56
3:D:24:LEU:HD13	5:J:203:VAL:HG21	1.87	0.56
4:E:149:LEU:O	4:E:153:THR:HG23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:166:SER:C	4:E:168:ALA:N	2.64	0.56
6:R:34:ASP:OD1	7:W:20:ARG:NH2	2.37	0.56
6:U:114:LEU:HD22	7:a:126:MET:SD	2.45	0.56
7:Y:57:GLN:O	7:Y:59:THR:N	2.36	0.56
2:O:11:ILE:CG2	1:z:372:ILE:CG2	2.83	0.56
1:WE:167:ARG:HD2	5:I:161:GLY:N	2.21	0.56
1:WV:164:LEU:CB	5:G:152:ARG:HH12	2.17	0.56
6:Q:114:LEU:HD11	7:W:7:PHE:CZ	2.39	0.56
7:V:22:ASN:CB	1:b:315:ALA:HB2	2.32	0.56
7:a:86:ASP:OD1	7:a:86:ASP:N	2.38	0.56
1:AI:305:GLY:HA3	1:AI:355:PRO:HG2	1.86	0.56
1:AJ:305:GLY:HA3	1:AJ:355:PRO:HG2	1.86	0.56
2:L:8:GLU:O	2:L:11:ILE:HG13	2.06	0.56
1:UJ:55:PHE:HB2	1:UJ:58:LEU:HD11	1.88	0.56
1:WA:216:SER:O	1:WW:190:GLN:NE2	2.39	0.56
1:WK:170:LYS:O	1:WK:171:SER:C	2.47	0.56
1:WM:201:ALA:C	1:WN:158:ALA:HB2	2.30	0.56
4:E:101:PHE:CE2	5:F:223:LEU:HD11	2.40	0.56
2:O:8:GLU:O	2:O:11:ILE:HG13	2.06	0.56
1:UI:51:TYR:OH	1:UI:76:PRO:HB2	2.05	0.56
1:WG:197:LEU:HA	1:WH:175:SER:OG	2.05	0.56
1:WO:166:VAL:HG11	5:F:147:LEU:HD12	1.87	0.56
3:C:4:GLU:C	3:C:6:VAL:H	2.13	0.56
1:1:294:ARG:HD3	6:U:68:THR:CG2	2.30	0.56
1:UI:126:PHE:CE1	1:UI:130:VAL:CG2	2.84	0.56
3:A:51:PHE:CZ	5:F:202:SER:HA	2.41	0.56
2:N:8:GLU:O	2:N:11:ILE:HG13	2.05	0.56
1:UI:126:PHE:O	1:UI:130:VAL:HB	2.05	0.56
1:UM:51:TYR:OH	1:UM:76:PRO:HB2	2.05	0.56
1:WQ:145:GLU:C	1:WQ:147:LEU:H	2.13	0.56
1:WW:164:LEU:HB2	3:B:89:GLY:O	2.05	0.56
1:x:305:GLY:HA3	1:x:355:PRO:HG2	1.86	0.56
2:O:14:LEU:CB	1:y:278:THR:HG21	2.31	0.56
1:WC:170:LYS:H	1:WC:170:LYS:HD2	1.69	0.56
1:WJ:164:LEU:HD13	4:E:145:TRP:CG	2.37	0.56
4:E:176:GLY:HA2	4:E:179:ILE:HD12	1.86	0.56
7:W:72:ALA:O	7:W:95:ASN:ND2	2.38	0.56
1:UO:102:GLN:HG2	1:UO:193:ALA:HB2	1.88	0.56
1:WD:118:GLN:O	1:WD:119:GLU:C	2.49	0.56
1:WO:128:GLU:HG2	1:WP:126:PHE:CD2	2.40	0.56
3:A:84:LEU:HD21	5:G:185:ILE:HG23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:86:ASN:O	5:J:87:GLN:C	2.49	0.56
6:R:51:LYS:HG2	6:R:55:ARG:NH1	2.20	0.56
7:Z:17:GLN:NE2	7:Z:111:SER:OG	2.39	0.56
1:AH:372:ILE:CG1	2:L:11:ILE:HG22	2.32	0.55
2:M:61:LEU:CD1	6:R:50:LYS:HZ3	2.18	0.55
1:UJ:102:GLN:HG2	1:UJ:193:ALA:HB2	1.88	0.55
1:WA:156:HIS:HD2	1:WW:197:LEU:HD11	1.71	0.55
1:WF:122:GLY:HA2	3:D:68:TRP:HE1	1.71	0.55
1:WI:145:GLU:C	1:WI:147:LEU:H	2.13	0.55
1:WM:190:GLN:HG3	1:WN:217:GLY:HA3	1.88	0.55
1:WQ:196:HIS:CD2	1:WR:219:LEU:HD22	2.40	0.55
3:D:24:LEU:CD1	5:J:203:VAL:HG21	2.36	0.55
4:E:158:PRO:HG2	4:E:162:ASN:ND2	2.15	0.55
1:6:278:THR:CG2	2:N:7:ILE:CG2	2.80	0.55
2:L:87:GLN:O	2:L:91:LYS:HG2	2.06	0.55
2:M:12:SER:O	2:M:15:GLN:HG3	2.06	0.55
1:UK:126:PHE:CD1	1:UK:130:VAL:CG2	2.90	0.55
1:UL:55:PHE:HB2	1:UL:58:LEU:HD11	1.88	0.55
1:UL:216:SER:C	1:UL:218:HIS:H	2.14	0.55
1:UM:102:GLN:HG2	1:UM:193:ALA:HB2	1.88	0.55
1:WB:197:LEU:HD12	1:WC:175:SER:HB3	1.87	0.55
1:WK:187:ASP:OD1	1:WK:187:ASP:N	2.38	0.55
1:WM:197:LEU:HD11	1:WN:156:HIS:HD2	1.71	0.55
4:E:170:MET:O	4:E:174:ARG:N	2.26	0.55
5:G:58:LEU:O	5:G:62:THR:OG1	2.22	0.55
6:R:51:LYS:CE	6:R:55:ARG:NH2	2.67	0.55
6:U:36:PRO:O	1:k:310:GLY:HA2	2.06	0.55
1:4:264:ALA:HB2	1:4:389:VAL:HG13	1.89	0.55
1:6:372:ILE:HB	2:N:11:ILE:HG22	1.88	0.55
1:AJ:295:SER:HB2	6:R:65:LEU:HD22	1.86	0.55
1:AO:264:ALA:HB2	1:AO:389:VAL:HG13	1.89	0.55
2:M:32:VAL:HG21	5:H:109:TYR:CB	2.37	0.55
1:UI:55:PHE:HB2	1:UI:58:LEU:HD11	1.88	0.55
1:UP:55:PHE:HB2	1:UP:58:LEU:HD11	1.88	0.55
1:WB:193:ALA:HB1	1:WC:213:VAL:CG1	2.36	0.55
1:WG:190:GLN:NE2	1:WH:216:SER:O	2.39	0.55
1:WT:190:GLN:NE2	1:WU:216:SER:O	2.39	0.55
1:WW:118:GLN:O	1:WW:119:GLU:C	2.49	0.55
1:t:264:ALA:HB2	1:t:389:VAL:HG13	1.89	0.55
4:E:166:SER:O	4:E:167:ASN:C	2.49	0.55
6:S:3:ASP:O	6:S:7:ALA:N	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:32:ASN:ND2	7:Y:62:VAL:HG12	2.21	0.55
2:K:8:GLU:O	2:K:11:ILE:HG13	2.06	0.55
1:UK:126:PHE:O	1:UK:130:VAL:HB	2.05	0.55
1:WJ:164:LEU:CD2	4:E:144:LEU:CB	2.84	0.55
1:WV:128:GLU:HG3	1:WW:126:PHE:CE2	2.41	0.55
3:D:59:PHE:HZ	5:I:198:LEU:HD12	1.71	0.55
5:J:67:ILE:CD1	5:J:96:LEU:HB3	2.37	0.55
1:UI:211:THR:HG23	1:UI:219:LEU:HD11	1.89	0.55
1:UJ:51:TYR:OH	1:UJ:76:PRO:HB2	2.06	0.55
1:UN:102:GLN:HG2	1:UN:193:ALA:HB2	1.89	0.55
1:UP:102:GLN:HG2	1:UP:193:ALA:HB2	1.89	0.55
1:WB:143:THR:OG1	1:WC:154:ARG:HG2	2.06	0.55
1:WD:143:THR:OG1	1:WE:154:ARG:HG2	2.06	0.55
1:WL:190:GLN:NE2	1:WM:216:SER:O	2.39	0.55
1:t:295:SER:HB2	6:Q:73:ILE:HG13	1.88	0.55
3:C:84:LEU:HD21	5:I:185:ILE:HG23	1.89	0.55
5:F:135:ARG:O	5:F:136:ALA:C	2.48	0.55
1:6:370:ARG:HH21	2:N:14:LEU:HD11	1.71	0.55
1:7:264:ALA:HB2	1:7:389:VAL:HG13	1.89	0.55
1:AM:409:MET:HE2	1:AM:409:MET:HA	1.89	0.55
1:AO:409:MET:HE2	1:AO:409:MET:HA	1.89	0.55
1:UI:102:GLN:HG2	1:UI:193:ALA:HB2	1.89	0.55
1:UK:102:GLN:HG2	1:UK:193:ALA:HB2	1.88	0.55
1:UL:51:TYR:OH	1:UL:76:PRO:HB2	2.05	0.55
1:UM:55:PHE:HB2	1:UM:58:LEU:HD11	1.88	0.55
1:UM:211:THR:HG23	1:UM:219:LEU:HD11	1.89	0.55
1:UN:55:PHE:HB2	1:UN:58:LEU:HD11	1.88	0.55
1:UO:211:THR:HG23	1:UO:219:LEU:HD11	1.89	0.55
1:WI:165:PHE:CD2	5:J:159:LEU:HB2	2.42	0.55
1:WJ:200:SER:O	1:WK:158:ALA:CB	2.54	0.55
1:WQ:124:SER:O	1:WQ:127:SER:N	2.37	0.55
1:w:264:ALA:HB2	1:w:389:VAL:HG13	1.89	0.55
3:A:6:VAL:HG21	5:H:228:LEU:HD21	1.88	0.55
3:B:74:LEU:HD22	5:H:229:VAL:HG13	1.88	0.55
5:I:163:GLU:N	5:I:163:GLU:OE2	2.39	0.55
6:R:90:PRO:HB3	6:R:99:THR:HB	1.88	0.55
6:U:31:ALA:HB1	7:Z:13:ALA:HB2	1.88	0.55
1:1:264:ALA:HB2	1:1:389:VAL:HG13	1.89	0.55
1:3:264:ALA:HB2	1:3:389:VAL:HG13	1.89	0.55
1:6:264:ALA:HB2	1:6:389:VAL:HG13	1.89	0.55
1:AH:372:ILE:CB	2:L:11:ILE:HG22	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:264:ALA:HB2	1:AM:389:VAL:HG13	1.89	0.55
1:AP:409:MET:HE2	1:AP:409:MET:HA	1.89	0.55
2:K:72:MET:O	2:K:76:GLN:HG2	2.06	0.55
1:UJ:260:THR:HG23	1:UJ:268:LEU:HD11	1.89	0.55
1:UN:211:THR:HG23	1:UN:219:LEU:HD11	1.89	0.55
1:WA:193:ALA:HB1	1:WB:213:VAL:HG11	1.89	0.55
1:z:264:ALA:HB2	1:z:389:VAL:HG13	1.89	0.55
5:F:83:ALA:HB3	5:F:84:PRO:HD3	1.88	0.55
1:AL:409:MET:HE2	1:AL:409:MET:HA	1.89	0.55
1:AN:409:MET:HE2	1:AN:409:MET:HA	1.89	0.55
1:AP:264:ALA:HB2	1:AP:389:VAL:HG13	1.89	0.55
2:P:89:ARG:NH2	2:P:90:ASN:OD1	2.39	0.55
1:UL:126:PHE:O	1:UL:130:VAL:HB	2.05	0.55
1:UO:55:PHE:HB2	1:UO:58:LEU:HD11	1.88	0.55
1:WP:197:LEU:HD12	1:WQ:175:SER:HB3	1.89	0.55
1:WR:197:LEU:HA	1:WS:175:SER:OG	2.07	0.55
5:J:66:ARG:HG2	5:J:243:PHE:HZ	1.72	0.55
1:AJ:409:MET:HA	1:AJ:409:MET:HE2	1.89	0.55
1:AK:409:MET:HE2	1:AK:409:MET:HA	1.89	0.55
2:N:57:GLU:HG2	6:S:11:PHE:CD2	2.42	0.55
2:O:7:ILE:HG22	1:z:278:THR:HG21	1.78	0.55
1:UI:126:PHE:CD1	1:UI:130:VAL:CG2	2.90	0.55
1:UK:51:TYR:OH	1:UK:76:PRO:HB2	2.05	0.55
1:UK:55:PHE:HB2	1:UK:58:LEU:HD11	1.88	0.55
1:UL:102:GLN:HG2	1:UL:193:ALA:HB2	1.88	0.55
1:UP:211:THR:HG23	1:UP:219:LEU:HD11	1.89	0.55
1:WJ:139:GLU:HB3	1:WK:154:ARG:HH21	1.70	0.55
1:WR:123:ILE:HB	1:WR:127:SER:OG	2.06	0.55
1:WS:145:GLU:O	1:WS:147:LEU:N	2.39	0.55
1:WT:145:GLU:O	1:WT:147:LEU:N	2.40	0.55
1:u:409:MET:HE2	1:u:409:MET:HA	1.89	0.55
7:W:47:VAL:O	1:e:313:PRO:HD2	2.06	0.55
1:9:264:ALA:HB2	1:9:389:VAL:HG13	1.89	0.55
1:AO:297:GLN:NE2	6:Q:60:THR:HG23	2.21	0.55
1:UL:126:PHE:CD1	1:UL:130:VAL:CG2	2.90	0.55
1:UL:167:ARG:O	1:UL:168:GLU:C	2.49	0.55
1:UP:103:GLN:CB	1:WW:182:PRO:HB3	2.33	0.55
1:WF:200:SER:O	1:WG:158:ALA:CB	2.55	0.55
1:WP:197:LEU:HA	1:WQ:175:SER:OG	2.07	0.55
1:WQ:172:PRO:HD2	1:WQ:204:GLY:O	2.07	0.55
1:WS:172:PRO:HD2	1:WS:204:GLY:O	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WU:130:VAL:O	1:WU:134:ARG:HG3	2.07	0.55
1:v:409:MET:HE2	1:v:409:MET:HA	1.89	0.55
1:x:264:ALA:HB2	1:x:389:VAL:HG13	1.89	0.55
5:J:143:ARG:HB2	5:J:146:ASP:OD2	2.07	0.55
1:7:409:MET:HE2	1:7:409:MET:HA	1.89	0.54
1:AI:409:MET:HE2	1:AI:409:MET:HA	1.89	0.54
1:WE:166:VAL:CG2	5:I:160:GLN:CA	2.84	0.54
1:WH:186:LEU:HD22	1:WH:190:GLN:CD	2.32	0.54
1:WI:167:ARG:CG	5:J:160:GLN:O	2.50	0.54
1:WV:113:PHE:O	1:WV:116:LEU:HB3	2.07	0.54
1:u:264:ALA:HB2	1:u:389:VAL:HG13	1.89	0.54
1:w:409:MET:HA	1:w:409:MET:HE2	1.89	0.54
1:x:409:MET:HE2	1:x:409:MET:HA	1.89	0.54
7:a:3:LEU:H	1:b:319:GLN:HE21	1.55	0.54
1:UJ:126:PHE:CD1	1:UJ:130:VAL:CG2	2.90	0.54
1:UM:126:PHE:O	1:UM:130:VAL:HB	2.05	0.54
1:WJ:190:GLN:HG2	1:WK:216:SER:O	2.07	0.54
1:WQ:124:SER:O	1:WQ:125:GLN:C	2.50	0.54
1:t:409:MET:HA	1:t:409:MET:HE2	1.89	0.54
3:C:84:LEU:HD23	5:I:238:SER:OG	2.07	0.54
4:E:233:MET:O	4:E:236:ILE:HG12	2.07	0.54
5:J:68:ILE:O	5:J:69:ILE:C	2.50	0.54
7:X:6:ILE:CG2	7:X:122:VAL:HG21	2.34	0.54
1:9:409:MET:HA	1:9:409:MET:HE2	1.89	0.54
1:AH:409:MET:HE2	1:AH:409:MET:HA	1.89	0.54
1:AL:264:ALA:HB2	1:AL:389:VAL:HG13	1.89	0.54
1:AQ:409:MET:HE2	1:AQ:409:MET:HA	1.89	0.54
2:O:7:ILE:HG22	1:z:278:THR:CG2	2.32	0.54
1:WD:145:GLU:C	1:WD:147:LEU:H	2.15	0.54
1:WK:143:THR:OG1	1:WL:156:HIS:NE2	1.94	0.54
1:WK:162:PRO:HB2	4:E:249:ASN:HB2	1.89	0.54
1:WV:128:GLU:HG3	1:WW:126:PHE:CD2	2.43	0.54
1:f:330:THR:HB	1:f:331:PRO:HD3	1.88	0.54
1:0:264:ALA:HB2	1:0:389:VAL:HG13	1.89	0.54
1:AJ:264:ALA:HB2	1:AJ:389:VAL:HG13	1.89	0.54
1:AQ:264:ALA:HB2	1:AQ:389:VAL:HG13	1.89	0.54
1:UK:211:THR:HG23	1:UK:219:LEU:HD11	1.89	0.54
1:UO:126:PHE:CD1	1:UO:130:VAL:CG2	2.90	0.54
1:WD:186:LEU:HD22	1:WD:190:GLN:CD	2.32	0.54
1:WR:164:LEU:HG	5:F:152:ARG:NH1	2.23	0.54
1:y:409:MET:HE2	1:y:409:MET:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:36:SER:C	3:D:44:ILE:HD12	2.33	0.54
6:S:36:PRO:HB3	6:S:96:ASP:HB2	1.89	0.54
7:V:113:GLN:O	7:V:117:GLU:HG2	2.07	0.54
7:a:85:ALA:HB1	7:a:89:GLY:HA2	1.89	0.54
1:UL:211:THR:HG23	1:UL:219:LEU:HD11	1.89	0.54
1:WF:212:LEU:HB3	1:WF:221:THR:HG23	1.90	0.54
1:WI:164:LEU:HD22	5:J:148:ALA:HA	1.88	0.54
1:WJ:165:PHE:N	5:J:152:ARG:NH2	2.55	0.54
1:v:264:ALA:HB2	1:v:389:VAL:HG13	1.89	0.54
1:5:264:ALA:HB2	1:5:389:VAL:HG13	1.89	0.54
1:AC:372:ILE:CG2	2:M:4:ILE:HG12	2.37	0.54
1:AG:409:MET:HA	1:AG:409:MET:HE2	1.89	0.54
1:AN:264:ALA:HB2	1:AN:389:VAL:HG13	1.89	0.54
2:K:69:ASN:HD21	6:Q:20:ALA:CB	2.20	0.54
1:WN:145:GLU:C	1:WN:147:LEU:H	2.15	0.54
1:WO:197:LEU:HA	1:WP:175:SER:OG	2.07	0.54
5:J:63:SER:O	5:J:67:ILE:HB	2.07	0.54
1:5:409:MET:HE2	1:5:409:MET:HA	1.89	0.54
2:O:75:MET:CE	6:T:122:VAL:HG22	2.37	0.54
1:UM:103:GLN:NE2	1:WQ:182:PRO:CB	2.71	0.54
1:UM:126:PHE:CD1	1:UM:130:VAL:CG2	2.90	0.54
1:WO:200:SER:O	1:WP:158:ALA:CB	2.55	0.54
1:z:409:MET:HE2	1:z:409:MET:HA	1.89	0.54
3:B:62:ILE:O	3:B:66:GLY:N	2.39	0.54
4:E:38:ILE:HB	4:E:43:LYS:HE2	1.90	0.54
4:E:236:ILE:O	4:E:240:CYS:N	2.36	0.54
7:V:80:PRO:HB3	7:V:89:GLY:HA3	1.90	0.54
7:Y:57:GLN:C	7:Y:59:THR:N	2.63	0.54
1:2:264:ALA:HB2	1:2:389:VAL:HG13	1.89	0.54
1:4:409:MET:HE2	1:4:409:MET:HA	1.89	0.54
1:AB:409:MET:HE2	1:AB:409:MET:HA	1.89	0.54
1:WU:196:HIS:HB3	1:WV:211:THR:HG21	1.89	0.54
3:D:58:VAL:HB	5:J:207:LEU:HD21	1.89	0.54
6:T:115:LYS:HE2	7:Z:4:LEU:HD21	1.90	0.54
1:0:409:MET:HE2	1:0:409:MET:HA	1.89	0.54
1:AB:264:ALA:HB2	1:AB:389:VAL:HG13	1.89	0.54
1:AF:282:TYR:HB3	1:AG:292:THR:HG21	1.90	0.54
1:WK:196:HIS:CG	1:WL:211:THR:HG21	2.42	0.54
1:y:282:TYR:HB3	1:z:292:THR:HG21	1.90	0.54
5:F:75:ARG:HD2	5:F:84:PRO:HD2	1.89	0.54
5:J:64:PHE:O	5:J:67:ILE:HG22	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:230:ASP:OD2	5:J:230:ASP:N	2.40	0.54
6:T:117:GLN:HE22	7:Y:125:MET:HG3	1.73	0.54
1:0:282:TYR:HB3	1:AA:292:THR:HG21	1.90	0.54
1:0:292:THR:HG21	1:9:282:TYR:HB3	1.90	0.54
1:1:409:MET:HA	1:1:409:MET:HE2	1.89	0.54
1:AA:282:TYR:HB3	1:AB:292:THR:HG21	1.90	0.54
1:AB:282:TYR:HB3	1:AC:292:THR:HG21	1.90	0.54
1:AF:409:MET:HE2	1:AF:409:MET:HA	1.89	0.54
2:O:86:ILE:HD11	6:T:133:VAL:CG2	2.38	0.54
1:WK:171:SER:HB3	1:WK:206:PRO:HG3	1.89	0.54
1:5:303:GLN:NE2	1:j:318:ASN:O	2.41	0.53
1:8:264:ALA:HB2	1:8:389:VAL:HG13	1.89	0.53
1:AD:264:ALA:HB2	1:AD:389:VAL:HG13	1.89	0.53
1:AD:282:TYR:HB3	1:AE:292:THR:HG21	1.90	0.53
1:AE:264:ALA:HB2	1:AE:389:VAL:HG13	1.89	0.53
1:AE:282:TYR:HB3	1:AF:292:THR:HG21	1.90	0.53
1:AG:264:ALA:HB2	1:AG:389:VAL:HG13	1.89	0.53
2:M:98:GLU:OE2	5:I:87:GLN:NE2	2.39	0.53
1:WB:165:PHE:HA	5:H:148:ALA:HB1	1.90	0.53
1:WF:193:ALA:HB1	1:WG:213:VAL:CG1	2.38	0.53
1:v:282:TYR:HB3	1:w:292:THR:HG21	1.90	0.53
3:D:42:THR:HG22	3:D:44:ILE:HG12	1.90	0.53
5:I:139:LEU:HG	5:I:170:LEU:HD21	1.90	0.53
7:Z:57:GLN:O	7:Z:59:THR:N	2.40	0.53
1:AD:365:ASN:ND2	6:S:65:LEU:HD13	2.23	0.53
2:O:10:VAL:HG12	1:z:372:ILE:CD1	2.39	0.53
2:P:4:ILE:HD11	1:u:374:HIS:HB2	1.90	0.53
1:UN:126:PHE:CD1	1:UN:130:VAL:CG2	2.90	0.53
1:UP:126:PHE:CD1	1:UP:130:VAL:CG2	2.90	0.53
1:WO:149:PRO:HB3	1:WO:184:ARG:HB3	1.90	0.53
1:WP:145:GLU:HG2	1:WP:152:SER:HA	1.90	0.53
1:WS:145:GLU:HG2	1:WS:152:SER:HA	1.91	0.53
1:WT:145:GLU:HG2	1:WT:152:SER:HA	1.91	0.53
1:6:409:MET:HA	1:6:409:MET:HE2	1.89	0.53
1:AE:409:MET:HE2	1:AE:409:MET:HA	1.89	0.53
1:AF:264:ALA:HB2	1:AF:389:VAL:HG13	1.89	0.53
1:AG:282:TYR:HB3	1:AH:292:THR:HG21	1.90	0.53
1:AH:282:TYR:HB3	1:AI:292:THR:HG21	1.90	0.53
1:AI:264:ALA:HB2	1:AI:389:VAL:HG13	1.89	0.53
1:WE:200:SER:O	1:WF:158:ALA:HB2	2.09	0.53
1:WJ:190:GLN:NE2	1:WK:216:SER:O	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WW:145:GLU:HG2	1:WW:152:SER:HA	1.90	0.53
1:t:282:TYR:HB3	1:u:292:THR:HG21	1.91	0.53
1:8:282:TYR:HB3	1:9:292:THR:HG21	1.90	0.53
2:O:68:LEU:CD2	7:Z:126:MET:HE2	2.36	0.53
1:WQ:145:GLU:HG2	1:WQ:152:SER:HA	1.90	0.53
1:WQ:212:LEU:HB3	1:WQ:221:THR:HG23	1.90	0.53
1:w:282:TYR:HB3	1:x:292:THR:HG21	1.90	0.53
1:y:264:ALA:HB2	1:y:389:VAL:HG13	1.89	0.53
4:E:127:ARG:O	4:E:131:MET:HE3	2.08	0.53
5:H:168:ARG:O	5:I:99:PHE:HZ	1.91	0.53
6:Q:10:ARG:NH1	6:Q:53:MET:HE3	2.24	0.53
7:X:68:ILE:HD11	1:g:312:VAL:CG2	2.38	0.53
1:2:409:MET:HE2	1:2:409:MET:HA	1.89	0.53
1:4:357:SER:CB	1:j:318:ASN:HD21	2.22	0.53
1:AA:264:ALA:HB2	1:AA:389:VAL:HG13	1.89	0.53
1:AA:409:MET:HE2	1:AA:409:MET:HA	1.89	0.53
1:AC:282:TYR:HB3	1:AD:292:THR:HG21	1.90	0.53
2:N:49:GLN:OE1	5:H:39:SER:OG	2.16	0.53
1:UP:80:ALA:HB3	1:UP:83:SER:HB3	1.91	0.53
1:WA:200:SER:O	1:WB:158:ALA:HB2	2.08	0.53
1:WE:196:HIS:HB3	1:WF:211:THR:HG21	1.90	0.53
1:WU:113:PHE:HB3	1:WV:134:ARG:CZ	2.39	0.53
1:WU:114:GLU:O	1:WU:117:ASP:N	2.41	0.53
1:WU:145:GLU:HG2	1:WU:152:SER:HA	1.91	0.53
1:WV:120:LYS:HZ3	1:WV:123:ILE:CD1	2.17	0.53
5:F:60:MET:CE	5:G:91:GLY:HA3	2.38	0.53
5:F:179:LEU:HD22	5:G:84:PRO:HG3	1.90	0.53
7:Y:10:ALA:HB3	7:Y:119:LEU:HD13	1.90	0.53
1:6:372:ILE:CG2	2:N:11:ILE:CG2	2.87	0.53
1:AD:409:MET:HA	1:AD:409:MET:HE2	1.89	0.53
1:AH:264:ALA:HB2	1:AH:389:VAL:HG13	1.89	0.53
1:AJ:295:SER:HB2	6:R:65:LEU:HB3	1.90	0.53
1:AO:282:TYR:HB3	1:AP:292:THR:HG21	1.90	0.53
1:AP:282:TYR:HB3	1:AQ:292:THR:HG21	1.90	0.53
1:UN:159:MET:N	1:UN:159:MET:SD	2.82	0.53
1:WB:145:GLU:HG2	1:WB:152:SER:HA	1.91	0.53
1:WI:145:GLU:O	1:WI:147:LEU:N	2.41	0.53
1:WR:145:GLU:HG2	1:WR:152:SER:HA	1.91	0.53
1:WS:186:LEU:HA	1:WS:190:GLN:OE1	2.08	0.53
1:WV:145:GLU:HG2	1:WV:152:SER:HA	1.91	0.53
1:WV:193:ALA:HB1	1:WW:213:VAL:HG11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:207:LEU:HD23	5:F:209:MET:HE1	1.91	0.53
7:X:47:VAL:O	1:g:313:PRO:HD2	2.07	0.53
1:1:282:TYR:HB3	1:2:292:THR:HG21	1.90	0.53
1:8:409:MET:HE2	1:8:409:MET:HA	1.89	0.53
1:AA:293:LEU:HD21	1:AA:364:SER:HB3	1.91	0.53
1:AB:372:ILE:HG22	2:M:11:ILE:HG21	1.91	0.53
1:AI:282:TYR:HB3	1:AJ:292:THR:HG21	1.90	0.53
2:M:68:LEU:CD1	6:R:118:MET:SD	2.96	0.53
2:P:87:GLN:HG2	7:V:130:LEU:O	2.08	0.53
1:UN:80:ALA:HB3	1:UN:83:SER:HB3	1.90	0.53
1:UP:88:VAL:HB	1:UP:89:PRO:HD2	1.90	0.53
1:UP:159:MET:SD	1:UP:159:MET:N	2.82	0.53
1:WP:200:SER:O	1:WQ:158:ALA:HB3	2.09	0.53
1:WS:118:GLN:O	1:WS:119:GLU:C	2.49	0.53
7:Z:28:LEU:HD21	7:Z:101:GLU:HB2	1.91	0.53
1:1:293:LEU:HD21	1:1:364:SER:HB3	1.91	0.53
1:AJ:282:TYR:HB3	1:AK:292:THR:HG21	1.90	0.53
1:AK:264:ALA:HB2	1:AK:389:VAL:HG13	1.89	0.53
2:M:8:GLU:O	2:M:11:ILE:HG13	2.09	0.53
2:P:61:LEU:CD2	6:U:50:LYS:HZ3	2.21	0.53
1:UK:207:PRO:HD2	1:WE:187:ASP:OD1	1.98	0.53
1:UK:207:PRO:CG	1:WE:187:ASP:OD2	2.57	0.53
1:WF:116:LEU:HD21	1:WF:134:ARG:CZ	2.38	0.53
1:WK:145:GLU:HG2	1:WK:152:SER:HA	1.91	0.53
1:WU:160:PRO:HG2	1:WU:170:LYS:O	2.08	0.53
1:2:282:TYR:HB3	1:3:292:THR:HG21	1.90	0.53
1:7:282:TYR:HB3	1:8:292:THR:HG21	1.91	0.53
1:9:293:LEU:HD21	1:9:364:SER:HB3	1.91	0.53
1:AC:264:ALA:HB2	1:AC:389:VAL:HG13	1.89	0.53
1:UJ:127:SER:O	1:UJ:131:ASN:CG	2.52	0.53
1:UO:80:ALA:HB3	1:UO:83:SER:HB3	1.90	0.53
1:WA:145:GLU:HG2	1:WA:152:SER:HA	1.91	0.53
1:y:293:LEU:HD21	1:y:364:SER:HB3	1.91	0.53
6:S:46:ALA:O	6:S:50:LYS:HG3	2.09	0.53
1:0:293:LEU:HD21	1:0:364:SER:HB3	1.91	0.53
1:3:293:LEU:HD21	1:3:364:SER:HB3	1.91	0.53
1:6:282:TYR:HB3	1:7:292:THR:HG21	1.90	0.53
1:8:293:LEU:HD21	1:8:364:SER:HB3	1.91	0.53
1:UN:98:LEU:CD1	1:UN:146:THR:HG1	2.22	0.53
1:WD:168:GLU:CD	1:WD:170:LYS:NZ	2.67	0.53
1:WG:165:PHE:CE2	5:I:153:LEU:HD21	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WO:145:GLU:HG2	1:WO:152:SER:HA	1.91	0.53
1:WR:165:PHE:CE2	5:F:153:LEU:HD23	2.44	0.53
1:WT:161:LYS:HB3	1:WT:162:PRO:HD2	1.91	0.53
1:WV:142:ARG:O	1:WV:146:THR:HG23	2.09	0.53
5:I:214:PRO:HD2	5:J:211:MET:O	2.09	0.53
1:4:293:LEU:HD21	1:4:364:SER:HB3	1.91	0.52
1:6:293:LEU:HD21	1:6:364:SER:HB3	1.91	0.52
1:AC:293:LEU:HD21	1:AC:364:SER:HB3	1.91	0.52
1:AH:372:ILE:CD1	2:L:11:ILE:CG2	2.54	0.52
1:AM:282:TYR:HB3	1:AN:292:THR:HG21	1.90	0.52
1:WS:165:PHE:CE1	3:A:89:GLY:CA	2.89	0.52
1:w:293:LEU:HD21	1:w:364:SER:HB3	1.91	0.52
1:x:282:TYR:HB3	1:y:292:THR:HG21	1.91	0.52
3:A:54:LYS:CD	5:G:207:LEU:HD23	2.39	0.52
5:G:59:LEU:O	5:G:65:THR:OG1	2.21	0.52
5:J:144:GLU:O	5:J:145:ALA:C	2.52	0.52
1:AC:409:MET:HE2	1:AC:409:MET:HA	1.89	0.52
1:AQ:282:TYR:HB3	1:t:292:THR:HG21	1.90	0.52
1:UJ:80:ALA:HB3	1:UJ:83:SER:HB3	1.91	0.52
1:UK:159:MET:N	1:UK:159:MET:SD	2.82	0.52
1:UL:159:MET:SD	1:UL:159:MET:N	2.82	0.52
1:WC:145:GLU:HG2	1:WC:152:SER:HA	1.91	0.52
1:WP:166:VAL:HA	1:WP:169:GLN:HB2	1.91	0.52
1:WU:186:LEU:HA	1:WU:190:GLN:OE1	2.10	0.52
1:v:293:LEU:HD21	1:v:364:SER:HB3	1.91	0.52
1:x:293:LEU:HD21	1:x:364:SER:HB3	1.91	0.52
1:z:293:LEU:HD21	1:z:364:SER:HB3	1.91	0.52
4:E:227:MET:SD	4:E:228:LEU:N	2.82	0.52
5:H:153:LEU:HD22	5:I:99:PHE:HB3	1.90	0.52
7:X:47:VAL:O	1:g:313:PRO:CD	2.57	0.52
1:2:293:LEU:HD21	1:2:364:SER:HB3	1.91	0.52
1:5:282:TYR:HB3	1:6:292:THR:HG21	1.90	0.52
1:UI:80:ALA:HB3	1:UI:83:SER:HB3	1.91	0.52
1:UN:127:SER:O	1:UN:131:ASN:CG	2.52	0.52
1:WD:165:PHE:CE1	5:I:143:ARG:NH1	2.77	0.52
1:WN:145:GLU:HG2	1:WN:152:SER:HA	1.90	0.52
1:WQ:145:GLU:O	1:WQ:147:LEU:N	2.43	0.52
1:WQ:168:GLU:O	1:WQ:169:GLN:C	2.52	0.52
1:u:282:TYR:HB3	1:v:292:THR:HG21	1.90	0.52
5:H:232:TRP:O	5:H:236:MET:HG3	2.09	0.52
5:I:180:LYS:O	5:I:184:GLN:HG3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:66:ARG:HG2	5:J:243:PHE:CZ	2.44	0.52
7:a:120:ASN:O	7:a:123:LYS:HG2	2.08	0.52
1:3:409:MET:HE2	1:3:409:MET:HA	1.89	0.52
1:AK:282:TYR:HB3	1:AL:292:THR:HG21	1.90	0.52
2:K:77:LYS:O	2:K:80:VAL:N	2.42	0.52
1:UK:88:VAL:HB	1:UK:89:PRO:HD2	1.90	0.52
1:UL:88:VAL:HB	1:UL:89:PRO:HD2	1.90	0.52
1:UL:127:SER:O	1:UL:131:ASN:CG	2.52	0.52
1:UM:127:SER:O	1:UM:131:ASN:CG	2.52	0.52
1:WM:145:GLU:HG2	1:WM:152:SER:HA	1.91	0.52
1:WT:187:ASP:OD1	1:WT:190:GLN:N	2.39	0.52
1:u:293:LEU:HD21	1:u:364:SER:HB3	1.91	0.52
5:H:80:THR:O	5:H:80:THR:OG1	2.26	0.52
5:J:138:MET:HE1	5:J:171:LEU:HA	1.90	0.52
1:1:292:THR:HG21	1:z:282:TYR:HB3	1.90	0.52
1:4:282:TYR:HB3	1:5:292:THR:HG21	1.90	0.52
1:7:293:LEU:HD21	1:7:364:SER:HB3	1.92	0.52
1:7:365:ASN:CG	6:T:72:HIS:HD2	2.16	0.52
1:UI:88:VAL:HB	1:UI:89:PRO:HD2	1.90	0.52
1:UL:80:ALA:HB3	1:UL:83:SER:HB3	1.91	0.52
1:UN:88:VAL:HB	1:UN:89:PRO:HD2	1.90	0.52
3:C:85:PRO:CG	5:I:241:GLN:HB3	2.39	0.52
5:G:74:LEU:HD22	5:G:235:LEU:HD22	1.91	0.52
5:J:68:ILE:HG23	5:J:69:ILE:N	2.24	0.52
6:Q:50:LYS:O	6:Q:54:VAL:HG22	2.09	0.52
7:W:23:VAL:HG21	7:W:47:VAL:HG13	1.91	0.52
1:2:235:LEU:HB3	1:3:244:ARG:HH22	1.75	0.52
1:5:293:LEU:HD21	1:5:364:SER:HB3	1.91	0.52
1:AB:293:LEU:HD21	1:AB:364:SER:HB3	1.91	0.52
1:AH:372:ILE:HG22	2:L:11:ILE:HG21	1.82	0.52
1:WJ:128:GLU:HG3	1:WK:126:PHE:CD2	2.43	0.52
1:WL:145:GLU:HG2	1:WL:152:SER:HA	1.91	0.52
5:G:205:MET:HE3	5:H:209:MET:HA	1.91	0.52
1:AO:235:LEU:HB3	1:AP:244:ARG:HH22	1.75	0.52
1:UI:159:MET:N	1:UI:159:MET:SD	2.82	0.52
1:UJ:88:VAL:HB	1:UJ:89:PRO:HD2	1.90	0.52
1:UK:127:SER:O	1:UK:131:ASN:CG	2.52	0.52
1:UM:80:ALA:HB3	1:UM:83:SER:HB3	1.91	0.52
1:WD:145:GLU:HG2	1:WD:152:SER:HA	1.91	0.52
1:WP:145:GLU:O	1:WP:147:LEU:N	2.42	0.52
1:w:235:LEU:HB3	1:x:244:ARG:HH22	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:37:ILE:CD1	3:B:44:ILE:HD11	2.35	0.52
3:D:54:LYS:HZ1	4:E:215:VAL:C	2.18	0.52
5:I:40:LEU:HD22	6:T:8:ALA:HB3	1.92	0.52
6:Q:29:ASN:ND2	6:Q:41:ARG:O	2.36	0.52
1:AD:293:LEU:HD21	1:AD:364:SER:HB3	1.92	0.52
1:AE:293:LEU:HD21	1:AE:364:SER:HB3	1.92	0.52
1:AF:235:LEU:HB3	1:AG:244:ARG:HH22	1.75	0.52
1:AL:235:LEU:HB3	1:AM:244:ARG:HH22	1.75	0.52
1:AL:282:TYR:HB3	1:AM:292:THR:HG21	1.90	0.52
1:WD:168:GLU:OE1	1:WD:170:LYS:NZ	2.42	0.52
1:WF:197:LEU:HA	1:WG:175:SER:OG	2.10	0.52
1:t:235:LEU:HB3	1:u:244:ARG:HH22	1.75	0.52
5:F:67:ILE:H	5:F:67:ILE:HD12	1.75	0.52
1:UK:80:ALA:HB3	1:UK:83:SER:HB3	1.91	0.52
1:UO:88:VAL:HB	1:UO:89:PRO:HD2	1.90	0.52
1:WV:186:LEU:HA	1:WV:190:GLN:OE1	2.10	0.52
1:t:293:LEU:HD21	1:t:364:SER:HB3	1.91	0.52
5:F:199:VAL:O	5:F:203:VAL:HG23	2.09	0.52
5:H:58:LEU:O	5:H:62:THR:OG1	2.23	0.52
6:U:41:ARG:HG3	7:Z:59:THR:HG21	1.92	0.52
1:8:235:LEU:HB3	1:9:244:ARG:HH22	1.75	0.52
1:AC:370:ARG:NE	2:M:7:ILE:HD11	2.23	0.52
1:AI:235:LEU:HB3	1:AJ:244:ARG:HH22	1.75	0.52
1:AK:235:LEU:HB3	1:AL:244:ARG:HH22	1.75	0.52
2:L:91:LYS:HE2	5:G:52:THR:HG22	1.91	0.52
2:O:89:ARG:HH12	5:I:48:ILE:CD1	2.23	0.52
1:UI:127:SER:O	1:UI:131:ASN:CG	2.52	0.52
1:UO:127:SER:O	1:UO:131:ASN:CG	2.52	0.52
1:UP:127:SER:O	1:UP:131:ASN:CG	2.53	0.52
1:WD:149:PRO:HG2	1:WD:190:GLN:NE2	2.23	0.52
1:WP:164:LEU:HD13	5:F:148:ALA:HA	1.91	0.52
1:WS:190:GLN:HG2	1:WT:217:GLY:HA3	1.91	0.52
1:u:235:LEU:HB3	1:v:244:ARG:HH22	1.75	0.52
1:y:235:LEU:HB3	1:z:244:ARG:HH22	1.75	0.52
3:C:4:GLU:C	3:C:6:VAL:N	2.67	0.52
3:D:35:ILE:HG21	3:D:50:SER:HA	1.92	0.52
5:G:83:ALA:HB1	5:G:84:PRO:HD2	1.92	0.52
5:J:138:MET:HE2	5:J:170:LEU:HG	1.92	0.52
7:a:72:ALA:HB3	7:a:95:ASN:HD22	1.74	0.52
1:j:325:GLU:OE1	1:j:325:GLU:N	2.42	0.52
1:AC:235:LEU:HB3	1:AD:244:ARG:HH22	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:235:LEU:HB3	1:AI:244:ARG:HH22	1.75	0.51
1:AJ:293:LEU:HD21	1:AJ:364:SER:HB3	1.91	0.51
1:AN:282:TYR:HB3	1:AO:292:THR:HG21	1.90	0.51
1:AQ:293:LEU:HD21	1:AQ:364:SER:HB3	1.91	0.51
1:WF:125:GLN:O	1:WF:126:PHE:C	2.53	0.51
1:WG:145:GLU:HG2	1:WG:152:SER:HA	1.91	0.51
1:WJ:141:ALA:O	1:WJ:145:GLU:HG3	2.09	0.51
3:C:40:ALA:CB	3:D:44:ILE:CD1	2.88	0.51
1:1:244:ARG:HH22	1:z:235:LEU:HB3	1.75	0.51
1:3:282:TYR:HB3	1:4:292:THR:HG21	1.90	0.51
1:5:235:LEU:HB3	1:6:244:ARG:HH22	1.75	0.51
1:AN:235:LEU:HB3	1:AO:244:ARG:HH22	1.75	0.51
1:UM:88:VAL:HB	1:UM:89:PRO:HD2	1.90	0.51
1:UM:159:MET:N	1:UM:159:MET:SD	2.82	0.51
1:UO:159:MET:N	1:UO:159:MET:SD	2.82	0.51
1:WR:165:PHE:C	1:WR:167:ARG:H	2.18	0.51
1:x:235:LEU:HB3	1:y:244:ARG:HH22	1.75	0.51
3:C:13:ALA:HB1	5:I:195:ILE:HD11	1.93	0.51
7:Y:20:ARG:NH2	7:Y:107:SER:HB2	2.24	0.51
1:0:244:ARG:HH22	1:9:235:LEU:HB3	1.75	0.51
1:AD:235:LEU:HB3	1:AE:244:ARG:HH22	1.75	0.51
1:AF:293:LEU:HD21	1:AF:364:SER:HB3	1.91	0.51
1:AG:293:LEU:HD21	1:AG:364:SER:HB3	1.91	0.51
1:AM:235:LEU:HB3	1:AN:244:ARG:HH22	1.75	0.51
1:AM:278:THR:HG22	2:K:7:ILE:HG21	1.81	0.51
1:AM:293:LEU:HD21	1:AM:364:SER:HB3	1.91	0.51
1:WD:142:ARG:O	1:WD:146:THR:HG23	2.10	0.51
1:WQ:125:GLN:O	1:WQ:128:GLU:N	2.43	0.51
4:E:130:ASP:O	4:E:134:MET:HG2	2.10	0.51
5:G:193:PHE:HB3	5:G:222:LYS:HD3	1.92	0.51
1:AP:235:LEU:HB3	1:AQ:244:ARG:HH22	1.75	0.51
2:K:89:ARG:HH12	2:P:104:VAL:HG22	1.76	0.51
1:WC:197:LEU:CD1	1:WD:175:SER:OG	2.58	0.51
1:WF:125:GLN:O	1:WF:128:GLU:N	2.43	0.51
1:WL:145:GLU:O	1:WL:146:THR:C	2.53	0.51
1:WR:111:VAL:HB	1:WR:114:GLU:HB3	1.91	0.51
1:WR:190:GLN:NE2	1:WS:216:SER:O	2.43	0.51
3:C:6:VAL:HG22	5:I:187:PHE:HZ	1.75	0.51
7:Z:23:VAL:HG21	7:Z:47:VAL:HG13	1.91	0.51
1:AA:235:LEU:HB3	1:AB:244:ARG:HH22	1.75	0.51
1:AK:256:ILE:HG13	1:AK:257:VAL:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UI:204:GLY:O	1:UI:206:PRO:HD3	2.11	0.51
1:UK:204:GLY:O	1:UK:206:PRO:HD3	2.11	0.51
1:WH:145:GLU:HG2	1:WH:152:SER:HA	1.91	0.51
3:C:77:VAL:HG12	5:I:229:VAL:HG11	1.91	0.51
6:U:91:ASP:OD2	7:a:19:LYS:HE2	2.11	0.51
1:3:256:ILE:HG13	1:3:257:VAL:N	2.26	0.51
1:4:256:ILE:HG13	1:4:257:VAL:N	2.26	0.51
1:6:235:LEU:HB3	1:7:244:ARG:HH22	1.75	0.51
1:AK:293:LEU:HD21	1:AK:364:SER:HB3	1.91	0.51
2:K:89:ARG:NH2	4:E:24:LEU:HB3	2.26	0.51
2:O:59:PHE:CD2	6:T:118:MET:HE2	2.46	0.51
1:UL:204:GLY:O	1:UL:206:PRO:HD3	2.11	0.51
1:UM:204:GLY:O	1:UM:206:PRO:HD3	2.11	0.51
1:UO:204:GLY:O	1:UO:206:PRO:HD3	2.11	0.51
1:WD:149:PRO:CG	1:WD:190:GLN:HE22	2.23	0.51
1:WF:116:LEU:CD2	1:WF:134:ARG:HD3	2.41	0.51
1:WI:145:GLU:HG2	1:WI:152:SER:HA	1.91	0.51
1:v:235:LEU:HB3	1:w:244:ARG:HH22	1.75	0.51
5:I:73:LEU:HD13	5:I:186:GLY:HA3	1.92	0.51
6:S:67:LEU:HA	6:S:72:HIS:HE2	1.74	0.51
7:V:131:THR:O	7:V:131:THR:HG22	2.09	0.51
1:1:235:LEU:HB3	1:2:244:ARG:HH22	1.75	0.51
1:AN:256:ILE:HG13	1:AN:257:VAL:N	2.26	0.51
1:AP:293:LEU:HD21	1:AP:364:SER:HB3	1.92	0.51
2:P:57:GLU:HB2	6:U:11:PHE:CE2	2.46	0.51
2:P:83:GLN:HG3	7:V:127:LEU:HD11	1.92	0.51
1:WC:197:LEU:HA	1:WD:175:SER:OG	2.11	0.51
1:WD:197:LEU:HA	1:WE:175:SER:CB	2.40	0.51
1:WN:200:SER:HB2	1:WO:173:SER:HB2	1.92	0.51
1:WQ:125:GLN:O	1:WQ:126:PHE:C	2.53	0.51
4:E:88:MET:HG2	4:E:146:LEU:HD11	1.93	0.51
7:V:22:ASN:HB2	1:b:315:ALA:CB	2.35	0.51
7:W:7:PHE:HZ	7:W:123:LYS:HB2	1.76	0.51
1:4:235:LEU:HB3	1:5:244:ARG:HH22	1.75	0.51
1:AA:256:ILE:HG13	1:AA:257:VAL:N	2.26	0.51
1:AB:235:LEU:HB3	1:AC:244:ARG:HH22	1.75	0.51
1:AC:256:ILE:HG13	1:AC:257:VAL:N	2.26	0.51
1:AE:235:LEU:HB3	1:AF:244:ARG:HH22	1.75	0.51
1:AE:297:GLN:CB	6:S:73:ILE:HD13	2.35	0.51
1:AG:235:LEU:HB3	1:AH:244:ARG:HH22	1.75	0.51
1:AH:256:ILE:HG13	1:AH:257:VAL:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:293:LEU:HD21	1:AH:364:SER:HB3	1.91	0.51
1:AN:303:GLN:OE1	1:d:320:PRO:HG2	2.10	0.51
1:AO:293:LEU:HD21	1:AO:364:SER:HB3	1.91	0.51
1:UM:129:GLN:O	1:UM:133:GLN:N	2.29	0.51
1:UN:204:GLY:O	1:UN:206:PRO:HD3	2.11	0.51
1:WU:114:GLU:O	1:WU:115:LEU:C	2.54	0.51
1:WV:200:SER:OG	1:WW:175:SER:HB2	2.11	0.51
6:R:67:LEU:HG	6:R:72:HIS:HB3	1.92	0.51
1:1:256:ILE:HG13	1:1:257:VAL:N	2.26	0.51
1:AJ:294:ARG:HD2	6:R:68:THR:HG21	1.92	0.51
1:AN:293:LEU:HD21	1:AN:364:SER:HB3	1.92	0.51
2:P:39:HIS:CD2	5:J:38:TRP:HZ2	2.29	0.51
1:WB:187:ASP:OD1	1:WB:190:GLN:N	2.41	0.51
1:WN:203:ALA:HB1	1:WO:160:PRO:HB3	1.93	0.51
5:H:48:ILE:CD1	6:S:134:LEU:HD23	2.40	0.51
5:J:66:ARG:HB2	5:J:182:ALA:HB2	1.92	0.51
1:3:235:LEU:HB3	1:4:244:ARG:HH22	1.75	0.51
1:6:372:ILE:CB	2:N:11:ILE:HG22	2.40	0.51
1:7:235:LEU:HB3	1:8:244:ARG:HH22	1.75	0.51
1:9:256:ILE:HG13	1:9:257:VAL:N	2.26	0.51
1:AI:256:ILE:HG13	1:AI:257:VAL:N	2.26	0.51
1:AI:293:LEU:HD21	1:AI:364:SER:HB3	1.91	0.51
1:AI:370:ARG:HE	2:L:7:ILE:CD1	2.24	0.51
1:AL:256:ILE:HG13	1:AL:257:VAL:N	2.26	0.51
2:N:46:SER:OG	5:H:38:TRP:HA	2.11	0.51
1:WM:132:TYR:CD1	1:WN:130:VAL:HG22	2.45	0.51
1:WW:145:GLU:C	1:WW:147:LEU:H	2.19	0.51
3:D:89:GLY:O	5:J:143:ARG:NE	2.44	0.51
5:H:40:LEU:HG	6:S:130:MET:HE1	1.93	0.51
7:X:4:LEU:HD13	7:X:126:MET:HE1	1.91	0.51
1:0:235:LEU:HB3	1:AA:244:ARG:HH22	1.75	0.50
1:1:295:SER:HB2	6:U:65:LEU:CB	2.39	0.50
1:6:278:THR:HG22	2:N:7:ILE:HG21	1.91	0.50
1:7:256:ILE:HG13	1:7:257:VAL:N	2.26	0.50
1:AJ:256:ILE:HG13	1:AJ:257:VAL:N	2.26	0.50
1:AQ:235:LEU:HB3	1:t:244:ARG:HH22	1.75	0.50
2:P:11:ILE:HG22	1:t:372:ILE:CG2	2.41	0.50
1:WB:190:GLN:NE2	1:WC:216:SER:O	2.44	0.50
5:G:75:ARG:NH2	5:G:84:PRO:O	2.44	0.50
6:S:128:LYS:CE	7:X:134:GLN:HE21	2.24	0.50
1:g:320:PRO:C	1:h:328:ILE:HD11	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:256:ILE:HG13	1:5:257:VAL:N	2.26	0.50
1:6:256:ILE:HG13	1:6:257:VAL:N	2.26	0.50
1:UI:98:LEU:HD22	1:UI:147:LEU:CD2	2.39	0.50
1:UP:129:GLN:O	1:UP:133:GLN:N	2.29	0.50
1:UP:204:GLY:O	1:UP:206:PRO:HD3	2.11	0.50
1:WK:200:SER:CA	1:WL:173:SER:OG	2.59	0.50
1:WP:128:GLU:CG	1:WQ:126:PHE:CE2	2.93	0.50
1:WV:196:HIS:HB3	1:WW:211:THR:HG21	1.93	0.50
3:D:58:VAL:O	3:D:62:ILE:HD12	2.12	0.50
5:I:204:LEU:HD11	5:I:217:ILE:HD12	1.93	0.50
7:W:37:PRO:HA	1:d:328:ILE:O	2.11	0.50
1:4:278:THR:CG2	2:N:21:ALA:CB	2.74	0.50
1:UO:129:GLN:O	1:UO:133:GLN:N	2.29	0.50
1:UP:162:PRO:O	1:UP:163:SER:C	2.55	0.50
1:WR:115:LEU:HD22	1:WR:134:ARG:HH11	1.75	0.50
1:x:256:ILE:HG13	1:x:257:VAL:N	2.26	0.50
1:z:256:ILE:HG13	1:z:257:VAL:N	2.26	0.50
4:E:205:ASN:HB3	5:F:209:MET:HG3	1.92	0.50
6:S:31:ALA:CB	7:X:13:ALA:HB2	2.42	0.50
1:AC:372:ILE:HG22	2:M:4:ILE:HG13	1.92	0.50
1:AF:256:ILE:HG13	1:AF:257:VAL:N	2.26	0.50
1:AQ:256:ILE:HG13	1:AQ:257:VAL:N	2.26	0.50
2:O:86:ILE:HD11	6:T:133:VAL:HG22	1.92	0.50
1:UI:162:PRO:O	1:UI:163:SER:C	2.55	0.50
1:UL:162:PRO:O	1:UL:163:SER:C	2.55	0.50
1:WI:193:ALA:HB1	1:WJ:213:VAL:HG21	1.93	0.50
1:WJ:139:GLU:HB3	1:WK:156:HIS:HE1	1.76	0.50
1:WQ:163:SER:HB3	1:WQ:166:VAL:HG23	1.94	0.50
1:WT:162:PRO:O	1:WT:163:SER:HB3	2.11	0.50
5:J:143:ARG:NE	5:J:180:LYS:HE2	2.27	0.50
6:U:46:ALA:O	6:U:50:LYS:HG2	2.11	0.50
7:W:54:ALA:HB3	7:W:55:PRO:HD3	1.93	0.50
1:AJ:235:LEU:HB3	1:AK:244:ARG:HH22	1.75	0.50
1:AL:293:LEU:HD21	1:AL:364:SER:HB3	1.91	0.50
1:WK:160:PRO:HB3	1:WK:170:LYS:HB2	1.94	0.50
5:F:232:TRP:NE1	5:F:236:MET:HE3	2.27	0.50
5:J:167:MET:HG3	5:J:171:LEU:HG	1.93	0.50
6:S:92:GLN:NE2	7:Y:22:ASN:HD22	2.09	0.50
1:AD:297:GLN:HE22	6:S:76:GLN:N	2.08	0.50
1:UJ:253:GLY:O	1:UJ:255:PRO:HD3	2.11	0.50
1:WM:197:LEU:HA	1:WN:175:SER:CB	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WQ:190:GLN:HG2	1:WR:216:SER:O	2.11	0.50
5:I:59:LEU:O	5:I:65:THR:OG1	2.28	0.50
6:Q:133:VAL:C	6:Q:135:GLN:H	2.19	0.50
7:X:68:ILE:HD11	1:g:312:VAL:HG22	1.93	0.50
2:K:80:VAL:HG11	6:Q:5:LEU:HD11	1.93	0.50
2:O:83:GLN:HG3	6:U:131:MET:SD	2.52	0.50
2:P:55:GLN:HG2	2:P:71:VAL:HG22	1.94	0.50
1:WF:116:LEU:HD22	1:WF:131:ASN:HA	1.94	0.50
1:WG:115:LEU:HG	1:WG:116:LEU:N	2.25	0.50
1:WH:193:ALA:CB	1:WI:213:VAL:CG1	2.88	0.50
1:u:256:ILE:HG13	1:u:257:VAL:N	2.26	0.50
1:AD:256:ILE:HG13	1:AD:257:VAL:N	2.26	0.50
1:AM:256:ILE:HG13	1:AM:257:VAL:N	2.26	0.50
2:O:53:ARG:O	2:O:57:GLU:HG2	2.11	0.50
1:UJ:73:MET:HE3	1:UJ:99:ARG:CD	2.41	0.50
1:UN:162:PRO:O	1:UN:163:SER:C	2.55	0.50
1:WA:112:GLY:O	1:WA:115:LEU:HB3	2.12	0.50
1:WA:132:TYR:HB2	1:WB:126:PHE:HZ	1.75	0.50
1:WB:114:GLU:O	1:WB:115:LEU:C	2.55	0.50
1:WC:181:GLU:O	1:WC:182:PRO:C	2.53	0.50
1:WQ:147:LEU:O	1:WQ:148:GLY:C	2.54	0.50
1:WS:197:LEU:HA	1:WT:175:SER:OG	2.11	0.50
1:WT:160:PRO:HD3	1:WT:172:PRO:CA	2.38	0.50
5:F:224:MET:O	5:F:228:LEU:HB2	2.12	0.50
6:S:128:LYS:HE2	7:X:134:GLN:HE21	1.76	0.50
1:5:299:ASN:HD22	6:T:55:ARG:HH22	1.56	0.50
1:AE:256:ILE:HG13	1:AE:257:VAL:N	2.26	0.50
1:AP:256:ILE:HG13	1:AP:257:VAL:N	2.26	0.50
2:K:103:GLN:HE21	5:G:82:SER:HA	1.77	0.50
2:M:32:VAL:HB	5:H:105:ILE:HG22	1.94	0.50
1:UJ:159:MET:N	1:UJ:159:MET:SD	2.82	0.50
1:UP:98:LEU:HD22	1:UP:147:LEU:CD2	2.39	0.50
1:WP:163:SER:C	1:WP:165:PHE:H	2.18	0.50
1:y:256:ILE:HG13	1:y:257:VAL:N	2.26	0.50
1:y:294:ARG:HD2	1:y:367:GLU:OE1	2.12	0.50
4:E:229:MET:O	4:E:233:MET:HG2	2.12	0.50
6:Q:17:ASN:HD22	6:Q:57:ARG:NH1	2.10	0.50
7:Y:106:MET:O	7:Y:110:ARG:HG2	2.12	0.50
1:AD:294:ARG:HG2	6:S:66:THR:OG1	2.11	0.49
1:AJ:294:ARG:HD2	1:AJ:367:GLU:OE1	2.12	0.49
1:AO:256:ILE:HG13	1:AO:257:VAL:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:294:ARG:HD2	1:AP:367:GLU:OE1	2.12	0.49
2:L:55:GLN:HG2	2:L:71:VAL:HG22	1.94	0.49
1:UM:98:LEU:HD22	1:UM:147:LEU:CD2	2.39	0.49
1:UN:69:GLN:HE22	1:WS:182:PRO:HG2	1.77	0.49
1:WA:213:VAL:CG2	1:WW:193:ALA:HB1	2.42	0.49
1:WD:197:LEU:CD1	1:WE:175:SER:OG	2.59	0.49
1:WO:142:ARG:O	1:WO:146:THR:HG23	2.11	0.49
1:v:256:ILE:HG13	1:v:257:VAL:N	2.26	0.49
1:w:256:ILE:HG13	1:w:257:VAL:N	2.26	0.49
1:x:294:ARG:HD2	1:x:367:GLU:OE1	2.12	0.49
3:D:2:THR:HG23	3:D:5:SER:H	1.76	0.49
1:2:256:ILE:HG13	1:2:257:VAL:N	2.26	0.49
1:AB:256:ILE:HG13	1:AB:257:VAL:N	2.26	0.49
1:AG:256:ILE:HG13	1:AG:257:VAL:N	2.26	0.49
1:AJ:294:ARG:CD	6:R:68:THR:HG21	2.42	0.49
1:AK:294:ARG:HD2	1:AK:367:GLU:OE1	2.12	0.49
1:AQ:276:GLU:CD	2:P:11:ILE:HD11	2.38	0.49
2:N:99:VAL:O	2:N:102:MET:HG2	2.12	0.49
1:WH:202:VAL:HB	1:WH:205:LEU:HB2	1.95	0.49
1:WN:202:VAL:HB	1:WN:205:LEU:HB2	1.94	0.49
1:z:294:ARG:HD2	1:z:367:GLU:OE1	2.12	0.49
3:B:9:MET:O	3:B:12:GLU:HG2	2.12	0.49
3:D:11:THR:O	3:D:15:LYS:HG3	2.11	0.49
3:D:81:PHE:CZ	5:J:189:ILE:HD13	2.47	0.49
5:F:101:MET:HE1	5:F:137:PHE:CZ	2.47	0.49
5:F:143:ARG:HH21	5:F:180:LYS:HB3	1.77	0.49
5:J:64:PHE:CE1	5:J:94:LEU:HD22	2.47	0.49
6:R:87:TYR:CE2	1:f:320:PRO:HB3	2.47	0.49
1:0:256:ILE:HG13	1:0:257:VAL:N	2.26	0.49
1:1:372:ILE:CG2	2:O:4:ILE:HG12	2.43	0.49
1:8:256:ILE:HG13	1:8:257:VAL:N	2.26	0.49
1:AI:294:ARG:HD2	1:AI:367:GLU:OE1	2.12	0.49
1:AQ:294:ARG:HD2	1:AQ:367:GLU:OE1	2.13	0.49
2:O:84:MET:O	2:O:88:VAL:HG23	2.11	0.49
1:UK:162:PRO:O	1:UK:163:SER:C	2.55	0.49
1:UM:162:PRO:O	1:UM:163:SER:C	2.55	0.49
1:UN:208:GLY:CA	1:WR:187:ASP:OD1	2.60	0.49
1:WB:187:ASP:OD1	1:WB:190:GLN:HG3	2.11	0.49
1:WC:143:THR:OG1	1:WD:154:ARG:HG2	2.12	0.49
1:WF:116:LEU:HD21	1:WF:134:ARG:HD3	1.93	0.49
1:WJ:164:LEU:HD11	4:E:145:TRP:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WK:132:TYR:CB	1:WL:126:PHE:HZ	2.19	0.49
1:WP:164:LEU:O	5:F:159:LEU:O	2.30	0.49
1:WT:206:PRO:O	1:WT:207:PRO:C	2.56	0.49
1:t:256:ILE:HG13	1:t:257:VAL:N	2.26	0.49
3:A:74:LEU:C	3:A:76:TYR:N	2.68	0.49
3:B:85:PRO:HB3	5:H:242:SER:CA	2.43	0.49
5:F:211:MET:SD	5:G:211:MET:HE3	2.53	0.49
5:G:48:ILE:CD1	6:R:134:LEU:HD23	2.43	0.49
6:U:32:ASN:HD21	7:Z:61:GLY:C	2.20	0.49
1:7:372:ILE:CG2	2:N:4:ILE:HG12	2.43	0.49
1:9:294:ARG:HD2	1:9:367:GLU:OE1	2.12	0.49
1:UJ:103:GLN:HB3	1:WD:182:PRO:HA	1.91	0.49
1:UK:98:LEU:HD22	1:UK:147:LEU:CD2	2.39	0.49
1:UO:103:GLN:CG	1:WU:182:PRO:HB3	2.42	0.49
1:WD:167:ARG:HH21	1:WD:168:GLU:HA	1.77	0.49
1:WI:206:PRO:O	1:WI:207:PRO:C	2.56	0.49
1:WO:200:SER:HG	1:WP:175:SER:HB2	1.69	0.49
1:WQ:142:ARG:O	1:WQ:146:THR:HG23	2.12	0.49
1:WR:206:PRO:O	1:WR:207:PRO:C	2.56	0.49
6:R:96:ASP:OD1	6:R:96:ASP:N	2.39	0.49
6:T:31:ALA:HB1	7:Y:13:ALA:HB2	1.94	0.49
7:W:86:ASP:OD1	7:W:86:ASP:N	2.41	0.49
1:AA:294:ARG:HD2	1:AA:367:GLU:OE1	2.12	0.49
1:AB:294:ARG:HD2	1:AB:367:GLU:OE1	2.12	0.49
1:AO:294:ARG:HD2	1:AO:367:GLU:OE1	2.12	0.49
2:N:48:ARG:NH2	6:T:6:ASP:OD2	2.46	0.49
1:UK:73:MET:HE1	1:UK:99:ARG:HD2	1.95	0.49
1:UN:73:MET:HE1	1:UN:99:ARG:HD2	1.95	0.49
1:WB:202:VAL:HB	1:WB:205:LEU:HB2	1.94	0.49
1:WL:202:VAL:HB	1:WL:205:LEU:HB2	1.95	0.49
1:WU:202:VAL:HB	1:WU:205:LEU:HB2	1.94	0.49
5:J:65:THR:O	5:J:68:ILE:HG22	2.12	0.49
7:Y:10:ALA:O	7:Y:14:LEU:HG	2.12	0.49
1:0:294:ARG:HD2	1:0:367:GLU:OE1	2.13	0.49
1:1:294:ARG:HD2	1:1:367:GLU:OE1	2.12	0.49
1:4:355:PRO:CB	1:j:319:GLN:CD	2.86	0.49
1:WH:206:PRO:O	1:WH:207:PRO:C	2.55	0.49
1:WK:202:VAL:HB	1:WK:205:LEU:HB2	1.95	0.49
1:WL:206:PRO:O	1:WL:207:PRO:C	2.56	0.49
1:WP:206:PRO:O	1:WP:207:PRO:C	2.56	0.49
1:WV:206:PRO:O	1:WV:207:PRO:C	2.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:t:294:ARG:HD2	1:t:367:GLU:OE1	2.13	0.49
1:v:294:ARG:HD2	1:v:367:GLU:OE1	2.12	0.49
1:w:294:ARG:HD2	1:w:367:GLU:OE1	2.12	0.49
1:z:365:ASN:ND2	6:U:66:THR:HG23	2.27	0.49
5:H:65:THR:O	5:H:68:ILE:HG22	2.12	0.49
5:J:84:PRO:HG2	5:J:89:LEU:HD11	1.94	0.49
7:V:128:LYS:O	7:V:129:THR:C	2.55	0.49
1:8:236:LYS:CE	1:UP:167:ARG:NH1	2.76	0.49
1:AN:294:ARG:HD2	1:AN:367:GLU:OE1	2.12	0.49
1:UJ:162:PRO:O	1:UJ:163:SER:C	2.55	0.49
1:UO:162:PRO:O	1:UO:163:SER:C	2.55	0.49
1:UP:73:MET:HE1	1:UP:99:ARG:HD2	1.95	0.49
1:WA:206:PRO:O	1:WA:207:PRO:C	2.56	0.49
1:WC:128:GLU:HG2	1:WC:129:GLN:N	2.28	0.49
1:WD:200:SER:O	1:WE:158:ALA:HB3	2.10	0.49
1:WO:206:PRO:O	1:WO:207:PRO:C	2.56	0.49
1:WQ:202:VAL:HB	1:WQ:205:LEU:HB2	1.94	0.49
1:u:294:ARG:HD2	1:u:367:GLU:OE1	2.12	0.49
1:w:266:VAL:HG22	1:w:387:VAL:HG22	1.95	0.49
6:T:102:MET:HB3	6:T:106:ARG:HH21	1.77	0.49
7:Y:51:VAL:O	7:Y:52:ASP:C	2.56	0.49
1:AC:266:VAL:HG22	1:AC:387:VAL:HG22	1.95	0.49
1:AC:294:ARG:HD2	1:AC:367:GLU:OE1	2.12	0.49
1:AL:294:ARG:HD2	1:AL:367:GLU:OE1	2.13	0.49
2:O:82:MET:HE2	5:I:41:SER:HB3	1.95	0.49
1:UK:73:MET:HE3	1:UK:99:ARG:CD	2.41	0.49
1:WD:145:GLU:O	1:WD:147:LEU:N	2.46	0.49
1:WJ:206:PRO:O	1:WJ:207:PRO:C	2.56	0.49
1:WN:206:PRO:O	1:WN:207:PRO:C	2.56	0.49
3:D:33:LEU:HB2	4:E:216:ILE:HD12	1.95	0.49
5:I:211:MET:O	5:J:211:MET:HE2	2.12	0.49
1:8:294:ARG:HD2	1:8:367:GLU:OE1	2.13	0.49
1:AB:266:VAL:HG22	1:AB:387:VAL:HG22	1.95	0.49
1:UJ:256:PRO:HD2	1:WC:187:ASP:HB3	1.94	0.49
1:UL:80:ALA:CB	1:UL:83:SER:HB3	2.43	0.49
1:WE:206:PRO:O	1:WE:207:PRO:C	2.56	0.49
1:WF:145:GLU:HG2	1:WF:152:SER:HA	1.95	0.49
1:WG:206:PRO:O	1:WG:207:PRO:C	2.56	0.49
1:WK:206:PRO:O	1:WK:207:PRO:C	2.55	0.49
1:WM:145:GLU:O	1:WM:146:THR:C	2.54	0.49
6:T:67:LEU:HD21	6:T:74:PRO:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:7:294:ARG:HD2	1:7:367:GLU:OE1	2.13	0.49
1:AD:365:ASN:CG	6:S:72:HIS:ND1	2.70	0.49
1:AM:294:ARG:HD2	1:AM:367:GLU:OE1	2.13	0.49
1:AP:266:VAL:HG22	1:AP:387:VAL:HG22	1.95	0.49
2:M:48:ARG:HH11	6:S:5:LEU:HD23	1.77	0.49
1:WE:112:GLY:O	1:WE:115:LEU:HB3	2.12	0.49
1:WE:202:VAL:HB	1:WE:205:LEU:HB2	1.95	0.49
1:WG:219:LEU:HD21	1:WG:222:GLN:O	2.13	0.49
1:WI:202:VAL:HB	1:WI:205:LEU:HB2	1.94	0.49
1:WN:145:GLU:O	1:WN:147:LEU:N	2.46	0.49
1:x:266:VAL:HG22	1:x:387:VAL:HG22	1.95	0.49
4:E:93:ALA:HB2	5:F:88:VAL:HG21	1.94	0.49
5:H:48:ILE:HD11	6:S:134:LEU:CD2	2.43	0.49
5:J:143:ARG:NH2	5:J:180:LYS:HB3	2.28	0.49
7:Y:3:LEU:H	7:Y:3:LEU:HD12	1.77	0.49
1:6:266:VAL:HG22	1:6:387:VAL:HG22	1.95	0.48
1:6:294:ARG:HD2	1:6:367:GLU:OE1	2.12	0.48
1:AE:294:ARG:HD2	1:AE:367:GLU:OE1	2.12	0.48
1:AH:294:ARG:HD2	1:AH:367:GLU:OE1	2.12	0.48
1:UI:80:ALA:CB	1:UI:83:SER:HB3	2.43	0.48
1:UK:80:ALA:CB	1:UK:83:SER:HB3	2.43	0.48
1:UO:80:ALA:CB	1:UO:83:SER:HB3	2.43	0.48
1:WI:197:LEU:HD13	1:WJ:175:SER:OG	2.09	0.48
1:WM:206:PRO:O	1:WM:207:PRO:C	2.56	0.48
1:WS:202:VAL:HB	1:WS:205:LEU:HB2	1.94	0.48
5:F:92:LEU:HD13	5:F:232:TRP:HZ2	1.77	0.48
5:F:130:GLY:O	5:F:133:PRO:HD2	2.13	0.48
5:J:73:LEU:HD13	5:J:186:GLY:HA3	1.94	0.48
5:J:84:PRO:O	5:J:85:PRO:C	2.54	0.48
5:J:143:ARG:HH22	5:J:180:LYS:HB3	1.78	0.48
7:X:27:ASN:OD1	7:X:42:TYR:OH	2.27	0.48
1:2:294:ARG:HD2	1:2:367:GLU:OE1	2.12	0.48
1:4:294:ARG:HD2	1:4:367:GLU:OE1	2.12	0.48
1:AD:266:VAL:HG22	1:AD:387:VAL:HG22	1.95	0.48
1:AD:294:ARG:HD2	1:AD:367:GLU:OE1	2.13	0.48
1:WB:197:LEU:HA	1:WC:175:SER:OG	2.13	0.48
1:WC:197:LEU:HD11	1:WD:156:HIS:HD2	1.78	0.48
1:WF:202:VAL:HB	1:WF:205:LEU:HB2	1.94	0.48
1:WK:163:SER:O	4:E:252:ALA:HB3	2.14	0.48
1:WR:202:VAL:HB	1:WR:205:LEU:HB2	1.95	0.48
1:WV:202:VAL:HB	1:WV:205:LEU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WW:115:LEU:HA	1:WW:118:GLN:OE1	2.13	0.48
1:WW:202:VAL:HB	1:WW:205:LEU:HB2	1.95	0.48
1:y:266:VAL:HG22	1:y:387:VAL:HG22	1.95	0.48
6:T:11:PHE:CD1	6:T:53:MET:HE2	2.48	0.48
6:T:49:LEU:O	6:T:53:MET:HG2	2.13	0.48
1:5:294:ARG:HD2	1:5:367:GLU:OE1	2.12	0.48
1:AA:266:VAL:HG22	1:AA:387:VAL:HG22	1.95	0.48
1:AJ:294:ARG:HH11	6:R:68:THR:HG21	1.78	0.48
1:AO:266:VAL:HG22	1:AO:387:VAL:HG22	1.95	0.48
1:AQ:266:VAL:HG22	1:AQ:387:VAL:HG22	1.95	0.48
1:UK:98:LEU:HD12	1:UK:146:THR:HG1	1.78	0.48
1:WA:196:HIS:CD2	1:WB:219:LEU:HD22	2.49	0.48
1:WB:145:GLU:C	1:WB:147:LEU:H	2.22	0.48
1:WF:193:ALA:HB1	1:WG:213:VAL:HG11	1.94	0.48
1:WJ:200:SER:OG	1:WK:175:SER:HB2	2.13	0.48
1:WM:202:VAL:HB	1:WM:205:LEU:HB2	1.94	0.48
1:WT:145:GLU:C	1:WT:147:LEU:N	2.72	0.48
1:WT:202:VAL:HB	1:WT:205:LEU:HB2	1.95	0.48
1:WV:192:SER:O	1:WV:195:VAL:N	2.47	0.48
1:v:266:VAL:HG22	1:v:387:VAL:HG22	1.95	0.48
3:A:51:PHE:CE2	5:F:202:SER:HA	2.47	0.48
4:E:106:MET:HE1	4:E:226:ILE:HG13	1.93	0.48
6:S:128:LYS:NZ	7:X:134:GLN:HE21	2.11	0.48
1:5:266:VAL:HG22	1:5:387:VAL:HG22	1.95	0.48
1:AG:303:GLN:NE2	1:f:319:GLN:CB	2.43	0.48
1:UK:129:GLN:O	1:UK:133:GLN:N	2.29	0.48
1:UL:127:SER:O	1:UL:131:ASN:HB2	2.14	0.48
1:WA:202:VAL:HB	1:WA:205:LEU:HB2	1.94	0.48
1:WJ:202:VAL:HB	1:WJ:205:LEU:HB2	1.95	0.48
3:D:55:ILE:HD11	5:I:205:MET:HE2	1.84	0.48
3:D:74:LEU:HD13	5:J:228:LEU:HB3	1.95	0.48
6:R:51:LYS:CG	6:R:55:ARG:NH1	2.75	0.48
6:T:102:MET:HE3	6:T:106:ARG:HE	1.78	0.48
7:V:27:ASN:ND2	7:V:45:LYS:O	2.33	0.48
1:3:294:ARG:HD2	1:3:367:GLU:OE1	2.13	0.48
1:4:266:VAL:HG22	1:4:387:VAL:HG22	1.95	0.48
1:7:266:VAL:HG22	1:7:387:VAL:HG22	1.95	0.48
1:UJ:98:LEU:HD22	1:UJ:147:LEU:CD2	2.39	0.48
1:WF:206:PRO:O	1:WF:207:PRO:C	2.56	0.48
1:WK:193:ALA:CB	1:WL:213:VAL:HG11	2.44	0.48
1:WS:200:SER:O	1:WT:158:ALA:HB3	2.05	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WT:196:HIS:HB3	1:WU:211:THR:CG2	2.30	0.48
1:WW:206:PRO:O	1:WW:207:PRO:C	2.56	0.48
5:I:161:GLY:C	5:I:163:GLU:N	2.69	0.48
6:S:96:ASP:HB3	1:g:318:ASN:OD1	2.13	0.48
7:Y:54:ALA:HB1	7:Y:55:PRO:CD	2.43	0.48
1:2:294:ARG:CG	6:U:72:HIS:CE1	2.96	0.48
1:7:294:ARG:CD	6:T:68:THR:CG2	2.91	0.48
2:M:86:ILE:HD11	6:R:133:VAL:CG2	2.44	0.48
1:UM:80:ALA:CB	1:UM:83:SER:HB3	2.43	0.48
1:UN:80:ALA:CB	1:UN:83:SER:HB3	2.43	0.48
1:WC:206:PRO:O	1:WC:207:PRO:C	2.56	0.48
1:WS:197:LEU:HD11	1:WT:156:HIS:HD2	1.78	0.48
7:X:94:PRO:HB2	7:X:96:VAL:HG23	1.94	0.48
7:X:97:ASP:O	7:X:101:GLU:HG2	2.13	0.48
1:8:266:VAL:HG22	1:8:387:VAL:HG22	1.95	0.48
1:AD:365:ASN:HD21	6:S:65:LEU:HD11	1.78	0.48
1:UK:127:SER:O	1:UK:131:ASN:HB2	2.14	0.48
1:UP:127:SER:O	1:UP:131:ASN:HB2	2.14	0.48
1:WA:164:LEU:HD13	5:H:148:ALA:HA	1.95	0.48
1:WA:196:HIS:HB3	1:WB:211:THR:CG2	2.36	0.48
1:WB:128:GLU:HG2	1:WC:126:PHE:HD2	1.79	0.48
1:WF:143:THR:OG1	1:WG:154:ARG:HG2	2.14	0.48
1:WG:200:SER:OG	1:WH:175:SER:CB	2.45	0.48
1:WP:144:ILE:O	1:WP:147:LEU:HB2	2.13	0.48
3:C:17:ALA:HB2	5:I:195:ILE:HG23	1.96	0.48
5:J:71:PHE:CZ	5:J:236:MET:HE1	2.49	0.48
7:W:44:ALA:HB2	7:W:96:VAL:HG22	1.96	0.48
1:AF:294:ARG:HD2	1:AF:367:GLU:OE1	2.12	0.48
1:AG:294:ARG:HD2	1:AG:367:GLU:OE1	2.12	0.48
2:K:69:ASN:ND2	6:Q:20:ALA:HB2	2.29	0.48
2:M:31:THR:HA	5:H:106:ASP:OD1	2.14	0.48
1:UJ:80:ALA:CB	1:UJ:83:SER:HB3	2.43	0.48
1:UL:98:LEU:CD1	1:UL:146:THR:HG1	2.27	0.48
1:WC:187:ASP:O	1:WC:190:GLN:HB3	2.14	0.48
1:WF:147:LEU:HA	1:WG:215:GLN:O	2.14	0.48
1:WN:200:SER:CB	1:WO:173:SER:HB2	2.44	0.48
1:WP:202:VAL:HB	1:WP:205:LEU:HB2	1.94	0.48
3:D:60:ILE:HA	3:D:63:ILE:HG12	1.96	0.48
4:E:182:ASN:HB3	4:E:239:PHE:HZ	1.79	0.48
1:AG:266:VAL:HG22	1:AG:387:VAL:HG22	1.95	0.48
1:AG:296:ARG:HG2	1:AG:296:ARG:HH11	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UL:180:LEU:HB2	1:UL:215:GLN:HE22	1.79	0.48
1:UP:80:ALA:CB	1:UP:83:SER:HB3	2.43	0.48
1:WD:206:PRO:O	1:WD:207:PRO:C	2.56	0.48
1:WS:124:SER:N	3:A:8:MET:HE2	2.29	0.48
1:z:266:VAL:HG22	1:z:387:VAL:HG22	1.95	0.48
4:E:86:PHE:CZ	5:F:88:VAL:HA	2.48	0.48
5:G:180:LYS:NZ	5:H:230:ASP:OD1	2.27	0.48
5:I:161:GLY:C	5:I:163:GLU:H	2.20	0.48
1:0:296:ARG:HG2	1:0:296:ARG:HH11	1.79	0.48
1:AN:266:VAL:HG22	1:AN:387:VAL:HG22	1.95	0.48
1:WH:187:ASP:OD2	1:WH:190:GLN:HB2	2.14	0.48
1:WJ:171:SER:HB3	1:WJ:206:PRO:HG3	1.96	0.48
1:t:266:VAL:HG22	1:t:387:VAL:HG22	1.95	0.48
1:u:266:VAL:HG22	1:u:387:VAL:HG22	1.95	0.48
4:E:205:ASN:HD21	5:F:211:MET:HB2	1.79	0.48
5:F:99:PHE:C	5:F:99:PHE:CD2	2.91	0.48
1:0:266:VAL:HG22	1:0:387:VAL:HG22	1.95	0.47
1:5:296:ARG:HG2	1:5:296:ARG:HH11	1.79	0.47
1:AC:296:ARG:HG2	1:AC:296:ARG:HH11	1.79	0.47
1:AE:266:VAL:HG22	1:AE:387:VAL:HG22	1.95	0.47
1:AF:266:VAL:HG22	1:AF:387:VAL:HG22	1.95	0.47
1:AH:266:VAL:HG22	1:AH:387:VAL:HG22	1.95	0.47
1:AO:296:ARG:HG2	1:AO:296:ARG:HH11	1.79	0.47
1:UN:127:SER:O	1:UN:131:ASN:HB2	2.14	0.47
1:WA:216:SER:O	1:WW:190:GLN:HG2	2.14	0.47
1:WC:145:GLU:O	1:WC:146:THR:C	2.56	0.47
1:WG:165:PHE:CE2	5:I:153:LEU:CD2	2.96	0.47
1:WS:206:PRO:O	1:WS:207:PRO:C	2.56	0.47
1:WU:142:ARG:O	1:WU:146:THR:HG23	2.14	0.47
1:WU:190:GLN:NE2	1:WV:216:SER:O	2.47	0.47
1:WU:206:PRO:O	1:WU:207:PRO:C	2.56	0.47
3:B:70:LEU:O	3:B:74:LEU:HG	2.14	0.47
3:C:14:MET:HE3	3:D:63:ILE:HD11	1.88	0.47
5:J:150:PHE:CE1	5:J:172:PRO:HB2	2.48	0.47
7:Y:28:LEU:HD21	7:Y:102:MET:HE2	1.96	0.47
1:AG:303:GLN:NE2	1:f:319:GLN:CD	2.72	0.47
1:AJ:296:ARG:HG2	1:AJ:296:ARG:HH11	1.79	0.47
2:N:82:MET:HE3	5:H:41:SER:HB2	1.95	0.47
1:UL:103:GLN:CG	1:WH:182:PRO:HB3	2.43	0.47
1:WA:170:LYS:H	1:WA:170:LYS:HD2	1.80	0.47
1:WC:169:GLN:NE2	1:WC:170:LYS:O	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WG:202:VAL:HB	1:WG:205:LEU:HB2	1.94	0.47
1:WI:193:ALA:HB1	1:WJ:213:VAL:HG11	1.94	0.47
1:WI:201:ALA:C	1:WJ:158:ALA:HB2	2.39	0.47
1:WU:115:LEU:HD21	1:WU:134:ARG:HD3	1.95	0.47
4:E:9:TRP:CD1	4:E:9:TRP:H	2.31	0.47
5:I:159:LEU:O	5:I:160:GLN:HB2	2.14	0.47
5:J:67:ILE:HG23	5:J:93:ALA:HB1	1.97	0.47
5:J:80:THR:HB	5:J:83:ALA:HB2	1.96	0.47
5:J:142:THR:HG21	5:J:170:LEU:CD1	2.44	0.47
6:Q:22:ARG:NH2	6:Q:108:GLN:OE1	2.47	0.47
6:S:24:GLU:HA	7:X:6:ILE:HG12	1.96	0.47
1:AD:296:ARG:HG2	1:AD:296:ARG:HH11	1.80	0.47
1:AK:296:ARG:HH11	1:AK:296:ARG:HG2	1.79	0.47
1:WA:142:ARG:O	1:WA:146:THR:HG23	2.13	0.47
1:WA:193:ALA:HB1	1:WB:213:VAL:CG1	2.43	0.47
1:WI:165:PHE:HD2	5:J:159:LEU:CB	2.26	0.47
1:WJ:164:LEU:HD21	4:E:144:LEU:C	2.39	0.47
1:WP:145:GLU:C	1:WP:147:LEU:N	2.72	0.47
3:A:74:LEU:HB3	3:A:78:ARG:NH1	2.30	0.47
3:B:73:LEU:CD2	5:H:225:LEU:HD13	2.44	0.47
4:E:178:LEU:HD13	4:E:181:LEU:HD23	1.95	0.47
6:S:91:ASP:OD1	1:h:313:PRO:HB3	2.14	0.47
7:Z:42:TYR:O	7:Z:94:PRO:HB3	2.14	0.47
1:2:296:ARG:HH11	1:2:296:ARG:HG2	1.80	0.47
1:7:296:ARG:HG2	1:7:296:ARG:HH11	1.80	0.47
1:AK:266:VAL:HG22	1:AK:387:VAL:HG22	1.95	0.47
1:AL:266:VAL:HG22	1:AL:387:VAL:HG22	1.95	0.47
1:AL:296:ARG:HG2	1:AL:296:ARG:HH11	1.80	0.47
2:K:76:GLN:O	2:K:77:LYS:C	2.57	0.47
2:K:77:LYS:HG3	6:Q:5:LEU:CD2	2.43	0.47
1:UL:129:GLN:O	1:UL:133:GLN:N	2.29	0.47
1:WA:200:SER:HG	1:WB:175:SER:HB2	1.76	0.47
1:WC:190:GLN:C	1:WC:192:SER:N	2.72	0.47
1:WD:125:GLN:HB2	3:C:4:GLU:HB3	1.95	0.47
3:D:2:THR:OG1	3:D:4:GLU:OE1	2.29	0.47
5:J:86:ASN:C	5:J:88:VAL:N	2.72	0.47
1:3:266:VAL:HG22	1:3:387:VAL:HG22	1.95	0.47
1:9:266:VAL:HG22	1:9:387:VAL:HG22	1.95	0.47
1:UN:98:LEU:HD22	1:UN:147:LEU:CD2	2.39	0.47
1:UO:127:SER:O	1:UO:131:ASN:HB2	2.14	0.47
1:WW:142:ARG:O	1:WW:146:THR:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:t:296:ARG:HG2	1:t:296:ARG:HH11	1.79	0.47
5:I:75:ARG:HD2	5:I:84:PRO:HD2	1.95	0.47
6:S:10:ARG:HE	6:S:53:MET:HE1	1.79	0.47
7:X:46:GLN:HB3	1:g:312:VAL:HG13	1.95	0.47
1:AJ:266:VAL:HG22	1:AJ:387:VAL:HG22	1.95	0.47
1:AM:266:VAL:HG22	1:AM:387:VAL:HG22	1.95	0.47
1:AQ:296:ARG:HG2	1:AQ:296:ARG:HH11	1.80	0.47
2:L:99:VAL:HA	2:L:102:MET:HE3	1.96	0.47
1:UJ:73:MET:HE1	1:UJ:99:ARG:HD2	1.94	0.47
1:UL:98:LEU:HD22	1:UL:147:LEU:CD2	2.39	0.47
1:WF:187:ASP:H	1:WF:190:GLN:CD	2.22	0.47
1:WJ:200:SER:O	1:WK:158:ALA:HB2	2.15	0.47
1:WK:145:GLU:O	1:WK:146:THR:C	2.58	0.47
1:y:296:ARG:HG2	1:y:296:ARG:HH11	1.79	0.47
3:B:29:LEU:HD23	3:B:30:ILE:HD13	1.96	0.47
5:G:66:ARG:NH2	5:G:178:GLU:OE1	2.45	0.47
1:d:319:GLN:HG2	1:d:320:PRO:HD2	1.95	0.47
1:1:266:VAL:HG22	1:1:387:VAL:HG22	1.95	0.47
1:2:297:GLN:OE1	6:U:76:GLN:OE1	2.33	0.47
1:4:296:ARG:HG2	1:4:296:ARG:HH11	1.79	0.47
1:7:372:ILE:HB	2:N:4:ILE:HG12	1.96	0.47
1:8:296:ARG:HG2	1:8:296:ARG:HH11	1.80	0.47
1:AA:296:ARG:HG2	1:AA:296:ARG:HH11	1.80	0.47
1:AD:295:SER:OG	6:S:65:LEU:HD13	2.14	0.47
1:AF:296:ARG:HG2	1:AF:296:ARG:HH11	1.80	0.47
1:AI:266:VAL:HG22	1:AI:387:VAL:HG22	1.95	0.47
1:AL:276:GLU:CD	2:K:11:ILE:CD1	2.87	0.47
1:AM:296:ARG:HG2	1:AM:296:ARG:HH11	1.79	0.47
1:AM:357:SER:OG	1:d:319:GLN:OE1	2.30	0.47
1:AN:296:ARG:HG2	1:AN:296:ARG:HH11	1.80	0.47
2:L:102:MET:CE	5:G:59:LEU:HD11	2.43	0.47
1:UI:127:SER:O	1:UI:131:ASN:HB2	2.14	0.47
1:UK:207:PRO:HG2	1:WE:187:ASP:OD1	2.10	0.47
1:UM:127:SER:O	1:UM:131:ASN:HB2	2.14	0.47
1:UN:94:HIS:HB2	1:UN:146:THR:HG21	1.97	0.47
1:WA:190:GLN:O	1:WA:191:ILE:C	2.57	0.47
1:WB:206:PRO:O	1:WB:207:PRO:C	2.56	0.47
1:WH:200:SER:HG	1:WI:175:SER:HB2	1.77	0.47
1:WO:164:LEU:O	5:F:144:GLU:N	2.43	0.47
1:WO:202:VAL:HB	1:WO:205:LEU:HB2	1.95	0.47
1:WQ:206:PRO:O	1:WQ:207:PRO:C	2.56	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WT:186:LEU:HA	1:WT:190:GLN:OE1	2.15	0.47
1:v:296:ARG:HG2	1:v:296:ARG:HH11	1.80	0.47
1:w:296:ARG:HG2	1:w:296:ARG:HH11	1.79	0.47
3:A:85:PRO:CD	5:G:238:SER:OG	2.61	0.47
4:E:94:ALA:HB2	4:E:179:ILE:HA	1.96	0.47
5:G:205:MET:CE	5:H:209:MET:HA	2.45	0.47
6:R:51:LYS:CD	6:R:55:ARG:HH12	2.27	0.47
6:R:117:GLN:HE22	7:X:127:LEU:HD21	1.79	0.47
6:T:11:PHE:HD1	6:T:53:MET:HE2	1.80	0.47
7:a:5:ASN:N	1:b:317:SER:O	2.48	0.47
1:6:372:ILE:HB	2:N:11:ILE:CG2	2.45	0.47
2:K:69:ASN:ND2	6:Q:20:ALA:CB	2.78	0.47
1:UJ:127:SER:O	1:UJ:131:ASN:HB2	2.14	0.47
1:WF:165:PHE:CD1	5:I:148:ALA:HB1	2.49	0.47
1:WG:112:GLY:HA3	1:WG:139:GLU:OE1	2.15	0.47
1:WI:196:HIS:HB3	1:WJ:211:THR:CG2	2.32	0.47
1:WN:142:ARG:O	1:WN:146:THR:HG23	2.14	0.47
1:WR:165:PHE:HE2	5:F:153:LEU:HD23	1.80	0.47
1:WU:190:GLN:HG2	1:WV:216:SER:O	2.15	0.47
1:WW:145:GLU:O	1:WW:147:LEU:N	2.48	0.47
3:B:11:THR:HA	3:B:14:MET:HE3	1.96	0.47
3:C:6:VAL:HG22	5:I:187:PHE:CZ	2.50	0.47
7:W:14:LEU:HD21	7:W:116:ILE:HG13	1.97	0.47
7:Z:47:VAL:HG12	7:Z:67:VAL:HG22	1.96	0.47
2:N:87:GLN:NE2	6:T:134:LEU:O	2.48	0.47
1:UM:98:LEU:CD1	1:UM:146:THR:HG1	2.28	0.47
1:WA:187:ASP:OD1	1:WA:190:GLN:N	2.42	0.47
1:WB:145:GLU:O	1:WB:147:LEU:N	2.48	0.47
1:WC:202:VAL:HB	1:WC:205:LEU:HB2	1.95	0.47
1:WD:202:VAL:HB	1:WD:205:LEU:HB2	1.94	0.47
1:WE:134:ARG:HB3	1:WE:134:ARG:NH2	2.27	0.47
1:WU:164:LEU:HA	5:G:152:ARG:HG3	1.97	0.47
1:z:296:ARG:HG2	1:z:296:ARG:HH11	1.79	0.47
3:A:17:ALA:HB2	5:G:195:ILE:HG23	1.97	0.47
3:B:8:MET:O	3:B:9:MET:C	2.57	0.47
3:C:31:THR:O	3:C:35:ILE:HG12	2.14	0.47
6:Q:23:GLN:NE2	7:V:125:MET:HE1	2.30	0.47
6:T:73:ILE:HD12	6:T:74:PRO:HD2	1.95	0.47
7:X:10:ALA:HB3	7:X:119:LEU:HG	1.97	0.47
1:2:266:VAL:HG22	1:2:387:VAL:HG22	1.95	0.47
1:AB:296:ARG:HG2	1:AB:296:ARG:HH11	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:278:THR:HG21	2:K:7:ILE:CD1	2.44	0.47
2:N:15:GLN:HG3	2:N:16:ALA:N	2.30	0.47
1:UL:73:MET:HE3	1:UL:99:ARG:CD	2.41	0.47
3:B:85:PRO:HB3	5:H:242:SER:HA	1.96	0.47
6:T:95:LEU:HD13	1:j:326:ALA:HB3	1.97	0.47
1:AE:296:ARG:HG2	1:AE:296:ARG:HH11	1.80	0.46
1:AH:296:ARG:HG2	1:AH:296:ARG:HH11	1.80	0.46
2:P:7:ILE:HG21	1:t:278:THR:HG22	1.88	0.46
1:UO:136:LEU:HD23	1:UO:157:LEU:CD1	2.45	0.46
1:UP:98:LEU:CD1	1:UP:146:THR:HG1	2.27	0.46
1:WG:122:GLY:O	1:WG:123:ILE:C	2.58	0.46
1:WG:142:ARG:O	1:WG:146:THR:HG23	2.14	0.46
1:WM:187:ASP:OD1	1:WM:190:GLN:N	2.44	0.46
1:u:296:ARG:HG2	1:u:296:ARG:HH11	1.79	0.46
5:F:68:ILE:HD12	5:F:68:ILE:HA	1.82	0.46
1:3:296:ARG:HG2	1:3:296:ARG:HH11	1.80	0.46
1:9:296:ARG:HG2	1:9:296:ARG:HH11	1.80	0.46
1:AI:296:ARG:HG2	1:AI:296:ARG:HH11	1.79	0.46
1:UN:136:LEU:HD23	1:UN:157:LEU:CD1	2.46	0.46
1:UO:98:LEU:HD22	1:UO:147:LEU:CD2	2.39	0.46
1:WF:196:HIS:CD2	1:WG:219:LEU:HD22	2.51	0.46
1:WJ:197:LEU:HD13	1:WK:175:SER:OG	2.09	0.46
1:WQ:164:LEU:HD23	5:F:149:LEU:HB2	1.96	0.46
1:WT:197:LEU:HA	1:WU:175:SER:OG	2.16	0.46
1:WU:113:PHE:CE2	1:WU:139:GLU:HG3	2.48	0.46
3:A:84:LEU:HB3	5:G:238:SER:OG	2.15	0.46
3:B:6:VAL:HG21	5:I:228:LEU:HD21	1.96	0.46
3:D:81:PHE:CE2	5:J:189:ILE:HD13	2.50	0.46
5:F:75:ARG:HD3	5:F:89:LEU:HD11	1.97	0.46
5:H:101:MET:HE3	5:H:101:MET:HB3	1.77	0.46
5:H:138:MET:HE2	5:H:170:LEU:HG	1.98	0.46
5:J:139:LEU:O	5:J:141:GLN:N	2.49	0.46
6:T:96:ASP:OD2	6:T:96:ASP:N	2.48	0.46
7:X:3:LEU:O	7:X:4:LEU:C	2.58	0.46
1:6:296:ARG:HG2	1:6:296:ARG:HH11	1.79	0.46
2:M:7:ILE:O	2:M:11:ILE:HG23	2.16	0.46
1:WD:200:SER:OG	1:WE:175:SER:CB	2.47	0.46
1:WF:124:SER:O	1:WF:127:SER:N	2.46	0.46
1:WH:145:GLU:O	1:WH:146:THR:C	2.57	0.46
3:C:24:LEU:HD11	3:C:62:ILE:HD11	1.96	0.46
3:C:84:LEU:HD11	5:I:185:ILE:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:144:LEU:HD11	5:J:146:ASP:OD1	2.15	0.46
7:X:43:ARG:HD2	7:X:69:GLU:OE2	2.14	0.46
1:1:296:ARG:HG2	1:1:296:ARG:HH11	1.79	0.46
1:AE:295:SER:CB	6:S:72:HIS:CA	2.93	0.46
1:AP:296:ARG:HG2	1:AP:296:ARG:HH11	1.79	0.46
1:UI:129:GLN:O	1:UI:133:GLN:N	2.29	0.46
1:UN:103:GLN:CG	1:WS:182:PRO:HB3	2.44	0.46
1:UP:136:LEU:HD23	1:UP:157:LEU:CD1	2.45	0.46
1:WH:197:LEU:HA	1:WI:175:SER:CB	2.46	0.46
1:WI:193:ALA:HB1	1:WJ:213:VAL:CG2	2.45	0.46
1:WU:167:ARG:NH1	5:G:158:PRO:HD3	2.26	0.46
1:WV:164:LEU:HD12	1:WV:164:LEU:HA	1.76	0.46
1:WW:115:LEU:O	1:WW:116:LEU:C	2.57	0.46
1:WW:147:LEU:O	1:WW:148:GLY:C	2.59	0.46
1:x:296:ARG:HH11	1:x:296:ARG:HG2	1.80	0.46
3:B:9:MET:HA	3:B:12:GLU:OE1	2.15	0.46
5:F:190:PHE:CG	5:G:220:PRO:HG3	2.51	0.46
5:J:139:LEU:C	5:J:141:GLN:N	2.74	0.46
6:U:67:LEU:HD11	6:U:74:PRO:HA	1.97	0.46
2:N:42:LEU:CD1	5:H:46:VAL:HG22	2.45	0.46
1:UM:73:MET:HE3	1:UM:99:ARG:CD	2.41	0.46
1:WD:190:GLN:NE2	1:WE:216:SER:O	2.49	0.46
1:WF:128:GLU:CG	1:WG:126:PHE:CD2	2.98	0.46
1:WN:200:SER:HB2	1:WO:173:SER:CB	2.45	0.46
4:E:72:TRP:HE1	4:E:161:SER:HB2	1.80	0.46
4:E:103:GLY:O	4:E:106:MET:HB2	2.16	0.46
5:F:189:ILE:O	5:F:192:PRO:HD2	2.14	0.46
5:J:159:LEU:HD13	5:J:165:VAL:HG22	1.98	0.46
7:V:36:GLY:HA2	7:a:51:VAL:HG12	1.97	0.46
1:1:235:LEU:HD13	1:2:244:ARG:HH22	1.81	0.46
1:6:235:LEU:HD13	1:7:244:ARG:HH22	1.81	0.46
1:7:370:ARG:NH2	2:N:7:ILE:HD11	2.30	0.46
1:8:235:LEU:HD13	1:9:244:ARG:HH22	1.81	0.46
1:AP:235:LEU:HD13	1:AQ:244:ARG:HH22	1.81	0.46
2:O:15:GLN:HG3	2:O:16:ALA:N	2.30	0.46
1:UI:98:LEU:CD1	1:UI:146:THR:HG1	2.28	0.46
1:UJ:136:LEU:HD23	1:UJ:157:LEU:CD1	2.46	0.46
1:UM:136:LEU:HD23	1:UM:157:LEU:CD1	2.45	0.46
1:WD:187:ASP:OD1	1:WD:190:GLN:N	2.46	0.46
1:WF:135:ALA:O	1:WF:139:GLU:HG2	2.16	0.46
1:WG:149:PRO:HG2	1:WG:190:GLN:HE22	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WK:201:ALA:HA	1:WL:158:ALA:HB2	1.98	0.46
1:WR:145:GLU:O	1:WR:146:THR:C	2.59	0.46
1:WV:120:LYS:NZ	1:WV:123:ILE:CD1	2.74	0.46
5:H:40:LEU:HD22	6:S:8:ALA:HB2	1.96	0.46
6:R:92:GLN:HE22	7:X:22:ASN:HB2	1.80	0.46
6:S:128:LYS:HE2	7:X:134:GLN:CG	2.45	0.46
6:U:65:LEU:HG	6:U:75:ALA:CA	2.46	0.46
1:AA:235:LEU:HD13	1:AB:244:ARG:HH22	1.81	0.46
1:AD:297:GLN:NE2	6:S:76:GLN:H	2.12	0.46
1:AF:235:LEU:HD13	1:AG:244:ARG:HH22	1.81	0.46
1:AG:235:LEU:HD13	1:AH:244:ARG:HH22	1.81	0.46
1:AI:235:LEU:HD13	1:AJ:244:ARG:HH22	1.81	0.46
1:AJ:235:LEU:HD13	1:AK:244:ARG:HH22	1.81	0.46
1:AM:235:LEU:HD13	1:AN:244:ARG:HH22	1.81	0.46
1:WK:197:LEU:HD13	1:WL:175:SER:OG	2.16	0.46
1:WN:135:ALA:O	1:WN:139:GLU:HG2	2.16	0.46
1:WQ:135:ALA:O	1:WQ:139:GLU:HG2	2.16	0.46
1:WW:187:ASP:N	1:WW:190:GLN:HB2	2.31	0.46
1:y:235:LEU:HD13	1:z:244:ARG:HH22	1.81	0.46
3:C:88:ILE:HB	5:I:181:THR:HG23	1.98	0.46
5:F:150:PHE:CZ	5:F:172:PRO:HB2	2.51	0.46
5:G:171:LEU:HB3	5:G:172:PRO:HD3	1.97	0.46
6:Q:113:SER:O	6:Q:117:GLN:HG3	2.15	0.46
6:R:109:PHE:CZ	7:W:118:VAL:HG13	2.51	0.46
7:W:4:LEU:HB3	7:W:7:PHE:HB2	1.98	0.46
2:L:15:GLN:HG3	2:L:16:ALA:N	2.30	0.46
1:UJ:98:LEU:HD12	1:UJ:146:THR:HG1	1.77	0.46
1:UL:136:LEU:HD23	1:UL:157:LEU:CD1	2.45	0.46
1:WA:112:GLY:HA2	1:WA:135:ALA:CA	2.27	0.46
1:WA:187:ASP:OD2	1:WA:190:GLN:HG3	2.16	0.46
1:WD:135:ALA:O	1:WD:139:GLU:HG2	2.16	0.46
1:WG:135:ALA:O	1:WG:139:GLU:HG2	2.16	0.46
1:WH:139:GLU:HB3	1:WI:154:ARG:HH21	1.80	0.46
1:WP:190:GLN:C	1:WP:192:SER:N	2.73	0.46
1:WT:135:ALA:O	1:WT:139:GLU:HG2	2.16	0.46
1:WV:135:ALA:O	1:WV:139:GLU:HG2	2.16	0.46
3:C:29:LEU:HB2	3:D:52:ILE:HG13	1.97	0.46
5:F:149:LEU:HD22	5:G:233:GLN:HG3	1.96	0.46
5:H:132:GLN:O	5:H:135:ARG:HG2	2.15	0.46
6:R:29:ASN:HD21	6:R:41:ARG:H	1.61	0.46
7:Y:4:LEU:HD21	7:Y:126:MET:HE1	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:82:MET:HE3	6:R:133:VAL:CG2	2.46	0.46
1:UI:94:HIS:HB2	1:UI:146:THR:HG21	1.97	0.46
1:UI:136:LEU:HD23	1:UI:157:LEU:CD1	2.45	0.46
1:UL:73:MET:HE1	1:UL:99:ARG:HD2	1.94	0.46
1:WC:135:ALA:O	1:WC:139:GLU:HG2	2.16	0.46
1:WM:135:ALA:O	1:WM:139:GLU:HG2	2.16	0.46
5:H:109:TYR:HA	5:H:113:TYR:HB3	1.98	0.46
1:4:235:LEU:HD13	1:5:244:ARG:HH22	1.81	0.46
1:AD:235:LEU:HD13	1:AE:244:ARG:HH22	1.81	0.46
1:AJ:294:ARG:CG	6:R:66:THR:OG1	2.64	0.46
1:UJ:98:LEU:HD11	1:UJ:143:THR:O	2.16	0.46
1:UK:98:LEU:HD11	1:UK:143:THR:O	2.16	0.46
1:WB:147:LEU:O	1:WB:148:GLY:C	2.58	0.46
1:WD:147:LEU:O	1:WD:148:GLY:C	2.59	0.46
1:WI:197:LEU:HA	1:WJ:175:SER:OG	2.15	0.46
1:WK:135:ALA:O	1:WK:139:GLU:HG2	2.16	0.46
1:WK:145:GLU:O	1:WK:147:LEU:N	2.49	0.46
1:WP:135:ALA:O	1:WP:139:GLU:HG2	2.16	0.46
1:WQ:160:PRO:HG2	1:WQ:170:LYS:O	2.16	0.46
1:WR:135:ALA:O	1:WR:139:GLU:HG2	2.16	0.46
1:x:235:LEU:HD13	1:y:244:ARG:HH22	1.81	0.46
3:A:81:PHE:CD2	5:G:234:LEU:HB3	2.50	0.46
4:E:86:PHE:CZ	5:F:91:GLY:HA3	2.51	0.46
5:F:100:ILE:HG23	5:F:101:MET:HE2	1.98	0.46
5:H:44:THR:HG23	6:S:133:VAL:HG11	1.96	0.46
5:J:83:ALA:CB	5:J:84:PRO:CD	2.94	0.46
6:S:73:ILE:HG22	6:S:75:ALA:H	1.80	0.46
7:V:30:ASN:ND2	7:a:62:VAL:HB	2.31	0.46
1:AH:372:ILE:HD12	2:L:11:ILE:CG2	2.28	0.45
2:M:89:ARG:HG3	5:G:49:THR:CG2	2.45	0.45
2:O:14:LEU:CD2	1:y:278:THR:HG21	2.46	0.45
1:UI:73:MET:HE3	1:UI:99:ARG:CD	2.41	0.45
1:UK:136:LEU:HD23	1:UK:157:LEU:CD1	2.45	0.45
1:UL:98:LEU:HD11	1:UL:143:THR:O	2.16	0.45
1:WI:193:ALA:HB1	1:WJ:213:VAL:CG1	2.45	0.45
1:WP:147:LEU:O	1:WP:148:GLY:C	2.58	0.45
1:WR:142:ARG:O	1:WR:146:THR:HG23	2.16	0.45
1:WS:137:GLU:HG3	1:WS:155:VAL:O	2.16	0.45
1:y:305:GLY:O	1:l:319:GLN:NE2	2.49	0.45
3:A:54:LYS:HB3	5:G:207:LEU:CD2	2.46	0.45
6:Q:128:LYS:HA	6:Q:128:LYS:HD2	1.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:a:88:ASN:HB2	7:a:90:TYR:CD2	2.50	0.45
1:0:244:ARG:HH22	1:9:235:LEU:HD13	1.81	0.45
1:3:235:LEU:HD13	1:4:244:ARG:HH22	1.81	0.45
2:M:100:MET:HA	5:H:90:LEU:HD13	1.98	0.45
2:O:102:MET:SD	4:E:39:PRO:HB3	2.56	0.45
2:P:7:ILE:HD11	1:u:370:ARG:HH21	1.82	0.45
2:P:62:GLY:HA2	1:b:318:ASN:ND2	2.31	0.45
1:UP:73:MET:HE3	1:UP:99:ARG:CD	2.41	0.45
1:WJ:164:LEU:CD1	4:E:145:TRP:HA	2.46	0.45
1:WJ:181:GLU:O	1:WJ:182:PRO:C	2.60	0.45
1:WN:145:GLU:C	1:WN:147:LEU:N	2.73	0.45
1:WN:197:LEU:CD1	1:WO:175:SER:HB3	2.42	0.45
1:WT:128:GLU:CG	1:WU:126:PHE:CD2	2.99	0.45
1:WV:187:ASP:N	1:WV:190:GLN:HB2	2.31	0.45
1:WV:190:GLN:HG2	1:WW:217:GLY:HA3	1.98	0.45
1:v:235:LEU:HD13	1:w:244:ARG:HH22	1.81	0.45
3:A:84:LEU:HD11	5:G:185:ILE:HG23	1.97	0.45
3:D:2:THR:O	3:D:5:SER:OG	2.24	0.45
7:X:37:PRO:O	1:f:330:THR:OG1	2.33	0.45
1:AO:235:LEU:HD13	1:AP:244:ARG:HH22	1.81	0.45
2:O:72:MET:HE3	7:Z:130:LEU:CD2	2.47	0.45
1:UJ:103:GLN:OE1	1:WD:182:PRO:CG	2.65	0.45
1:UM:80:ALA:N	1:UM:85:ALA:O	2.49	0.45
1:UN:80:ALA:N	1:UN:85:ALA:O	2.49	0.45
1:UN:129:GLN:O	1:UN:133:GLN:N	2.29	0.45
1:WA:181:GLU:O	1:WA:182:PRO:C	2.60	0.45
1:WF:166:VAL:HG22	1:WF:168:GLU:H	1.82	0.45
1:WJ:135:ALA:O	1:WJ:139:GLU:HG2	2.16	0.45
1:WP:142:ARG:O	1:WP:146:THR:HG23	2.16	0.45
1:WP:197:LEU:CD1	1:WQ:175:SER:OG	2.58	0.45
1:WT:190:GLN:HG2	1:WU:217:GLY:HA3	1.98	0.45
1:WU:181:GLU:O	1:WU:182:PRO:C	2.60	0.45
1:t:235:LEU:HD13	1:u:244:ARG:HH22	1.81	0.45
3:A:88:ILE:HG21	5:G:242:SER:HB2	1.98	0.45
5:F:230:ASP:O	5:F:234:LEU:HG	2.15	0.45
7:Z:68:ILE:HD11	1:k:312:VAL:HG22	1.98	0.45
1:7:372:ILE:HG21	2:N:4:ILE:CG1	2.45	0.45
1:AL:235:LEU:HD13	1:AM:244:ARG:HH22	1.81	0.45
2:K:15:GLN:HG3	2:K:16:ALA:N	2.30	0.45
2:L:84:MET:HE2	2:L:84:MET:HB2	1.87	0.45
2:P:75:MET:HE2	2:P:75:MET:HB2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UO:164:LEU:HD22	1:UO:164:LEU:H	1.82	0.45
1:WJ:164:LEU:HD21	4:E:144:LEU:CB	2.46	0.45
1:WS:181:GLU:O	1:WS:182:PRO:C	2.60	0.45
1:WU:112:GLY:HA2	1:WU:139:GLU:OE1	2.17	0.45
1:WW:135:ALA:O	1:WW:139:GLU:HG2	2.16	0.45
3:D:45:ASN:HB2	4:E:210:GLN:OE1	2.17	0.45
5:F:59:LEU:HD12	5:G:88:VAL:CG2	2.46	0.45
6:Q:104:ARG:O	6:Q:108:GLN:HG2	2.17	0.45
6:R:117:GLN:NE2	7:X:127:LEU:HD21	2.31	0.45
1:2:235:LEU:HD13	1:3:244:ARG:HH22	1.81	0.45
1:AB:372:ILE:HG21	2:M:11:ILE:HG23	1.89	0.45
1:AC:235:LEU:HD13	1:AD:244:ARG:HH22	1.81	0.45
1:AK:278:THR:CG2	2:K:21:ALA:HB3	2.39	0.45
2:P:15:GLN:HG3	2:P:16:ALA:N	2.30	0.45
1:UJ:129:GLN:O	1:UJ:133:GLN:N	2.29	0.45
1:UM:164:LEU:HD22	1:UM:164:LEU:H	1.82	0.45
1:UO:88:VAL:O	1:UO:89:PRO:C	2.60	0.45
1:WB:113:PHE:CE2	1:WB:139:GLU:HG3	2.52	0.45
1:WE:135:ALA:O	1:WE:139:GLU:HG2	2.16	0.45
1:WF:165:PHE:HD1	5:I:148:ALA:HB1	1.82	0.45
1:WJ:159:MET:HE3	1:WJ:159:MET:HB3	1.78	0.45
1:WK:193:ALA:HB1	1:WL:213:VAL:HG11	1.98	0.45
1:WM:181:GLU:O	1:WM:182:PRO:C	2.60	0.45
1:WO:135:ALA:O	1:WO:139:GLU:HG2	2.16	0.45
1:WQ:181:GLU:O	1:WQ:182:PRO:C	2.60	0.45
1:WU:135:ALA:O	1:WU:139:GLU:HG2	2.16	0.45
1:u:235:LEU:HD13	1:v:244:ARG:HH22	1.81	0.45
3:B:3:PRO:HB3	3:C:70:LEU:HD23	1.99	0.45
5:G:97:THR:O	5:G:101:MET:HG2	2.16	0.45
5:H:59:LEU:HD22	5:I:88:VAL:HG23	1.99	0.45
5:J:83:ALA:O	5:J:85:PRO:N	2.50	0.45
7:a:120:ASN:HA	7:a:123:LYS:HE2	1.98	0.45
1:AD:363:THR:HG23	6:S:73:ILE:HD12	1.98	0.45
2:L:87:GLN:NE2	6:R:134:LEU:O	2.49	0.45
1:UI:98:LEU:HD11	1:UI:143:THR:O	2.16	0.45
1:UJ:94:HIS:HB2	1:UJ:146:THR:HG21	1.97	0.45
1:UN:73:MET:HE3	1:UN:99:ARG:CD	2.41	0.45
1:WA:217:GLY:HA3	1:WW:190:GLN:HG2	1.98	0.45
1:WC:131:ASN:O	1:WC:132:TYR:C	2.60	0.45
1:WC:193:ALA:HB1	1:WD:213:VAL:HG21	1.98	0.45
1:WI:147:LEU:O	1:WI:148:GLY:C	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WO:181:GLU:O	1:WO:182:PRO:C	2.60	0.45
1:WO:219:LEU:HG	1:WO:221:THR:H	1.82	0.45
1:WP:166:VAL:CG2	5:F:160:GLN:HB2	2.44	0.45
1:WP:190:GLN:C	1:WP:192:SER:H	2.24	0.45
1:w:235:LEU:HD13	1:x:244:ARG:HH22	1.81	0.45
3:B:44:ILE:HA	3:B:44:ILE:HD13	1.74	0.45
5:J:142:THR:HG21	5:J:170:LEU:HD11	1.97	0.45
1:g:316:LEU:HD12	1:g:316:LEU:HA	1.77	0.45
1:0:235:LEU:HD13	1:AA:244:ARG:HH22	1.81	0.45
2:L:86:ILE:HG12	5:F:45:LEU:HD13	1.98	0.45
1:UN:164:LEU:H	1:UN:164:LEU:HD22	1.82	0.45
1:UP:80:ALA:N	1:UP:85:ALA:O	2.49	0.45
1:WB:112:GLY:HA2	1:WB:139:GLU:OE1	2.17	0.45
1:WC:190:GLN:C	1:WC:192:SER:H	2.23	0.45
1:WD:167:ARG:C	1:WD:167:ARG:HE	2.25	0.45
1:WE:161:LYS:H	1:WE:161:LYS:HD3	1.82	0.45
1:WQ:214:ASP:OD1	1:WQ:218:HIS:N	2.49	0.45
4:E:66:PHE:O	6:Q:4:ARG:HG3	2.17	0.45
4:E:158:PRO:HD2	4:E:162:ASN:ND2	2.32	0.45
5:F:135:ARG:O	5:F:138:MET:N	2.50	0.45
5:H:187:PHE:CE1	5:I:224:MET:HB2	2.52	0.45
6:S:33:ALA:O	6:S:98:ASN:ND2	2.50	0.45
1:5:235:LEU:HD13	1:6:244:ARG:HH22	1.81	0.45
1:AN:235:LEU:HD13	1:AO:244:ARG:HH22	1.81	0.45
1:AQ:235:LEU:HD13	1:t:244:ARG:HH22	1.81	0.45
1:UO:73:MET:HE1	1:UO:99:ARG:HD2	1.95	0.45
1:UO:73:MET:HE3	1:UO:99:ARG:CD	2.41	0.45
1:WB:167:ARG:C	1:WB:169:GLN:H	2.25	0.45
1:WD:145:GLU:C	1:WD:147:LEU:N	2.74	0.45
1:WE:143:THR:HA	1:WE:146:THR:HG23	1.97	0.45
1:WK:164:LEU:HD12	4:E:248:PHE:HB2	1.93	0.45
1:WV:181:GLU:O	1:WV:182:PRO:C	2.60	0.45
3:A:10:GLY:O	3:A:14:MET:HG2	2.16	0.45
3:A:66:GLY:O	3:A:67:PRO:C	2.59	0.45
3:D:6:VAL:O	3:D:9:MET:HG3	2.16	0.45
1:4:278:THR:CG2	2:N:21:ALA:HB3	2.31	0.45
2:K:79:SER:HB2	2:P:91:LYS:CE	2.47	0.45
2:O:77:LYS:CE	6:U:13:GLN:NE2	2.61	0.45
1:UL:164:LEU:HD22	1:UL:164:LEU:H	1.82	0.45
1:WB:181:GLU:O	1:WB:182:PRO:C	2.60	0.45
1:WG:190:GLN:HG3	1:WH:217:GLY:HA3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WH:135:ALA:O	1:WH:139:GLU:HG2	2.16	0.45
1:WJ:164:LEU:O	5:J:152:ARG:NH2	2.50	0.45
1:WL:181:GLU:O	1:WL:182:PRO:C	2.60	0.45
1:WN:200:SER:C	1:WO:173:SER:OG	2.60	0.45
1:WT:159:MET:HE3	1:WT:159:MET:HB2	1.83	0.45
3:B:84:LEU:HD22	5:H:185:ILE:HG23	1.99	0.45
7:V:37:PRO:HD3	7:a:51:VAL:HG13	1.99	0.45
7:a:128:LYS:O	7:a:131:THR:HG22	2.17	0.45
1:1:244:ARG:HH22	1:z:235:LEU:HD13	1.81	0.45
1:8:236:LYS:CE	1:UP:167:ARG:HH11	2.29	0.45
1:AK:235:LEU:HD13	1:AL:244:ARG:HH22	1.81	0.45
2:K:79:SER:HB2	2:P:91:LYS:HE3	1.99	0.45
2:P:59:PHE:HZ	7:a:4:LEU:HD21	1.81	0.45
1:UL:80:ALA:N	1:UL:85:ALA:O	2.49	0.45
1:UM:88:VAL:O	1:UM:89:PRO:C	2.60	0.45
1:UO:94:HIS:HB2	1:UO:146:THR:HG21	1.97	0.45
1:WI:165:PHE:HB2	5:J:159:LEU:O	2.17	0.45
1:WL:159:MET:HE3	1:WL:159:MET:HB2	1.68	0.45
1:WT:181:GLU:O	1:WT:182:PRO:C	2.60	0.45
1:WW:181:GLU:O	1:WW:182:PRO:C	2.60	0.45
5:J:221:PHE:O	5:J:224:MET:HE2	2.17	0.45
1:AE:295:SER:HB3	6:S:72:HIS:CA	2.45	0.44
2:L:91:LYS:CE	5:G:52:THR:HG22	2.46	0.44
1:UI:164:LEU:HD22	1:UI:164:LEU:H	1.82	0.44
1:UK:94:HIS:HB2	1:UK:146:THR:HG21	1.97	0.44
1:UK:164:LEU:H	1:UK:164:LEU:HD22	1.82	0.44
1:UM:98:LEU:HD11	1:UM:143:THR:O	2.17	0.44
1:WF:124:SER:O	1:WF:125:GLN:C	2.58	0.44
1:WF:148:GLY:N	1:WG:215:GLN:O	2.39	0.44
1:WI:145:GLU:C	1:WI:147:LEU:N	2.74	0.44
1:WP:181:GLU:O	1:WP:182:PRO:C	2.60	0.44
1:WS:219:LEU:HG	1:WS:221:THR:H	1.82	0.44
1:WW:192:SER:O	1:WW:195:VAL:HB	2.17	0.44
3:B:52:ILE:HD13	3:B:52:ILE:HA	1.84	0.44
3:C:37:ILE:HA	3:D:44:ILE:HD11	1.99	0.44
4:E:123:PRO:HB2	4:E:126:ALA:HB3	1.99	0.44
5:G:57:ILE:O	5:G:61:MET:HB2	2.17	0.44
6:Q:49:LEU:O	6:Q:53:MET:HG2	2.17	0.44
7:Z:119:LEU:HD23	7:Z:119:LEU:HA	1.67	0.44
1:AC:372:ILE:HD12	2:M:3:ALA:C	2.42	0.44
1:UI:55:PHE:O	1:UI:85:ALA:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UL:88:VAL:O	1:UL:89:PRO:C	2.60	0.44
1:UM:73:MET:HE1	1:UM:99:ARG:HD2	1.95	0.44
1:UN:88:VAL:O	1:UN:89:PRO:C	2.60	0.44
1:WD:129:GLN:O	1:WD:130:VAL:C	2.60	0.44
1:WE:200:SER:O	1:WF:158:ALA:HB3	2.18	0.44
1:WF:114:GLU:HA	1:WF:117:ASP:HB2	1.99	0.44
1:WJ:125:GLN:HB2	4:E:242:HIS:CG	2.52	0.44
1:WP:186:LEU:HA	1:WP:190:GLN:OE1	2.17	0.44
1:WW:165:PHE:HA	5:H:143:ARG:HA	1.99	0.44
3:A:83:ASN:O	3:A:84:LEU:C	2.60	0.44
5:G:204:LEU:HD12	5:G:214:PRO:HB3	1.99	0.44
5:I:147:LEU:HD21	5:I:165:VAL:HG11	1.99	0.44
1:6:370:ARG:NH2	2:N:14:LEU:HD11	2.32	0.44
2:K:77:LYS:O	2:K:78:ALA:C	2.58	0.44
2:K:88:VAL:HG13	5:F:51:LEU:HD21	1.98	0.44
2:O:103:GLN:HA	5:J:86:ASN:ND2	2.32	0.44
1:UM:75:ILE:HG21	1:UM:96:LEU:HD11	2.00	0.44
1:UO:55:PHE:O	1:UO:85:ALA:HA	2.18	0.44
1:UO:98:LEU:HD11	1:UO:143:THR:O	2.17	0.44
1:UP:164:LEU:H	1:UP:164:LEU:HD22	1.81	0.44
1:WN:219:LEU:HG	1:WN:221:THR:H	1.82	0.44
1:WT:167:ARG:HG2	1:WT:168:GLU:N	2.31	0.44
4:E:75:MET:O	4:E:79:LEU:HG	2.17	0.44
5:H:66:ARG:HB2	5:H:178:GLU:OE1	2.17	0.44
5:J:114:GLN:HB3	5:J:115:PRO:HD3	2.00	0.44
2:P:76:GLN:HE21	7:V:123:LYS:HB2	1.82	0.44
1:UI:73:MET:HE1	1:UI:99:ARG:HD2	1.95	0.44
1:UI:103:GLN:NE2	1:WB:182:PRO:HB3	2.32	0.44
1:UK:80:ALA:N	1:UK:85:ALA:O	2.49	0.44
1:UP:75:ILE:HG21	1:UP:96:LEU:HD11	2.00	0.44
1:WC:130:VAL:HG12	1:WC:134:ARG:HD2	1.99	0.44
1:WC:167:ARG:HE	5:I:140:ARG:HD3	1.82	0.44
1:WE:181:GLU:O	1:WE:182:PRO:C	2.60	0.44
1:WF:200:SER:O	1:WG:158:ALA:HB2	2.16	0.44
1:WH:181:GLU:O	1:WH:182:PRO:C	2.60	0.44
1:WP:196:HIS:CD2	1:WQ:219:LEU:HD13	2.52	0.44
1:WR:181:GLU:O	1:WR:182:PRO:C	2.60	0.44
1:WW:134:ARG:HH21	1:WW:134:ARG:CB	2.30	0.44
3:B:20:LEU:HD11	3:B:73:LEU:HD13	2.00	0.44
4:E:8:GLN:O	4:E:12:TRP:HD1	2.00	0.44
5:I:194:LEU:HD11	5:J:220:PRO:CG	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:51:LYS:O	6:R:55:ARG:HG2	2.18	0.44
1:7:235:LEU:HD13	1:8:244:ARG:HH22	1.81	0.44
1:AB:265:GLN:NE2	1:UN:218:HIS:NE2	2.65	0.44
2:O:86:ILE:HD11	6:T:133:VAL:HA	1.99	0.44
2:P:14:LEU:HD21	1:t:370:ARG:HH21	1.83	0.44
2:P:59:PHE:CZ	7:a:4:LEU:HD21	2.52	0.44
1:UK:88:VAL:O	1:UK:89:PRO:C	2.60	0.44
1:UL:94:HIS:HB2	1:UL:146:THR:HG21	1.97	0.44
1:UM:55:PHE:O	1:UM:85:ALA:HA	2.18	0.44
1:UN:55:PHE:O	1:UN:85:ALA:HA	2.18	0.44
1:WE:165:PHE:CD1	5:I:159:LEU:CD2	3.01	0.44
1:WE:167:ARG:HG3	5:I:160:GLN:CA	2.46	0.44
1:WH:219:LEU:HG	1:WH:221:THR:H	1.82	0.44
1:WI:181:GLU:O	1:WI:182:PRO:C	2.60	0.44
1:WQ:187:ASP:OD1	1:WQ:188:GLU:N	2.51	0.44
1:WS:124:SER:CB	3:A:8:MET:HE3	2.37	0.44
3:A:85:PRO:HB3	5:G:241:GLN:HG3	2.00	0.44
3:D:60:ILE:O	3:D:64:VAL:HG22	2.17	0.44
5:I:214:PRO:HG2	5:J:212:VAL:HG23	1.98	0.44
6:S:88:ARG:HH12	6:S:108:GLN:HG3	1.83	0.44
1:7:294:ARG:HD2	6:T:68:THR:CG2	2.48	0.44
1:AB:235:LEU:HD13	1:AC:244:ARG:HH22	1.81	0.44
1:AC:374:HIS:CB	2:M:4:ILE:CD1	2.93	0.44
1:AE:235:LEU:HD13	1:AF:244:ARG:HH22	1.81	0.44
1:AH:235:LEU:HD13	1:AI:244:ARG:HH22	1.81	0.44
1:AH:370:ARG:NH2	2:L:14:LEU:CD2	2.67	0.44
1:AI:370:ARG:HH21	2:L:7:ILE:CG1	2.26	0.44
2:O:84:MET:SD	6:U:134:LEU:HD21	2.58	0.44
1:UO:75:ILE:HG21	1:UO:96:LEU:HD11	2.00	0.44
1:UO:80:ALA:N	1:UO:85:ALA:O	2.49	0.44
1:WB:142:ARG:O	1:WB:146:THR:HG23	2.17	0.44
1:WC:131:ASN:O	1:WC:134:ARG:N	2.51	0.44
1:WG:181:GLU:O	1:WG:182:PRO:C	2.60	0.44
1:WS:168:GLU:O	1:WS:169:GLN:HB3	2.18	0.44
1:WV:192:SER:O	1:WV:195:VAL:HB	2.18	0.44
5:G:211:MET:HE1	5:H:210:MET:CE	2.48	0.44
7:V:122:VAL:O	7:V:126:MET:HG2	2.18	0.44
1:AO:429:THR:OG1	1:AP:418:GLU:OE2	2.36	0.44
2:K:67:ALA:HB2	7:V:2:ALA:HA	2.00	0.44
2:M:57:GLU:HG2	6:R:11:PHE:CD2	2.52	0.44
1:UK:55:PHE:O	1:UK:85:ALA:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UL:160:PRO:HG2	1:UL:170:LYS:HB3	2.00	0.44
1:UP:55:PHE:O	1:UP:85:ALA:HA	2.18	0.44
1:WD:191:ILE:O	1:WD:195:VAL:HG23	2.18	0.44
1:WP:163:SER:C	1:WP:165:PHE:N	2.76	0.44
1:WQ:171:SER:HB3	1:WQ:206:PRO:HD3	2.00	0.44
1:WT:192:SER:O	1:WT:195:VAL:HB	2.18	0.44
1:WW:219:LEU:HG	1:WW:221:THR:H	1.82	0.44
1:v:429:THR:OG1	1:w:418:GLU:OE2	2.36	0.44
4:E:88:MET:HA	4:E:247:ILE:HG21	1.99	0.44
5:F:214:PRO:HG2	5:G:212:VAL:HG22	1.99	0.44
6:R:51:LYS:HE2	6:R:55:ARG:NH2	2.09	0.44
7:a:36:GLY:O	7:a:37:PRO:C	2.60	0.44
1:0:278:THR:HG21	2:M:21:ALA:HB3	1.97	0.44
1:AQ:429:THR:OG1	1:t:418:GLU:OE2	2.36	0.44
1:UJ:55:PHE:O	1:UJ:85:ALA:HA	2.18	0.44
1:UK:160:PRO:HG2	1:UK:170:LYS:HB3	2.00	0.44
1:UL:216:SER:C	1:UL:218:HIS:N	2.75	0.44
1:UN:75:ILE:HG21	1:UN:96:LEU:HD11	2.00	0.44
1:UN:98:LEU:HD11	1:UN:143:THR:O	2.17	0.44
1:UO:98:LEU:CD1	1:UO:146:THR:HG1	2.28	0.44
1:WA:160:PRO:O	1:WA:161:LYS:C	2.61	0.44
1:WJ:125:GLN:CB	4:E:242:HIS:HB2	2.48	0.44
1:WJ:145:GLU:HG2	1:WJ:153:ALA:N	2.33	0.44
1:y:429:THR:OG1	1:z:418:GLU:OE2	2.36	0.44
3:A:84:LEU:HB3	3:A:85:PRO:HD2	1.98	0.44
3:C:27:VAL:HG22	3:C:57:ALA:HB1	1.99	0.44
3:D:7:MET:HG3	4:E:234:PRO:HA	1.99	0.44
1:AD:365:ASN:ND2	6:S:65:LEU:HD11	2.32	0.44
1:AL:429:THR:OG1	1:AM:418:GLU:OE2	2.36	0.44
1:UI:75:ILE:HG21	1:UI:96:LEU:HD11	2.00	0.44
1:UJ:103:GLN:CB	1:WD:182:PRO:HA	2.48	0.44
1:UM:160:PRO:HG2	1:UM:170:LYS:HB3	2.00	0.44
1:UN:160:PRO:HG2	1:UN:170:LYS:HB3	2.00	0.44
1:UO:52:ARG:O	1:UO:88:VAL:N	2.38	0.44
1:UP:98:LEU:HD11	1:UP:143:THR:O	2.16	0.44
1:WE:164:LEU:HD13	1:WE:165:PHE:H	1.82	0.44
1:WE:197:LEU:HD12	1:WF:175:SER:HB3	1.99	0.44
1:WF:181:GLU:O	1:WF:182:PRO:C	2.60	0.44
1:WN:181:GLU:O	1:WN:182:PRO:C	2.60	0.44
3:A:15:LYS:HE2	3:A:15:LYS:HB3	1.88	0.44
5:I:40:LEU:HD13	6:T:4:ARG:HG2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Q:78:VAL:HG11	7:V:57:GLN:HA	2.00	0.44
6:S:67:LEU:HD21	6:S:74:PRO:HA	2.00	0.44
6:T:117:GLN:HE22	7:Y:125:MET:HG2	1.83	0.44
1:AA:429:THR:OG1	1:AB:418:GLU:OE2	2.36	0.43
1:AC:429:THR:OG1	1:AD:418:GLU:OE2	2.36	0.43
1:UI:80:ALA:N	1:UI:85:ALA:O	2.49	0.43
1:UI:160:PRO:HG2	1:UI:170:LYS:HB3	2.00	0.43
1:UL:55:PHE:O	1:UL:85:ALA:HA	2.18	0.43
1:UO:160:PRO:HG2	1:UO:170:LYS:HB3	2.00	0.43
1:WA:196:HIS:NE2	1:WB:219:LEU:HD22	2.32	0.43
1:WJ:160:PRO:HG2	1:WJ:170:LYS:O	2.18	0.43
1:WT:131:ASN:HA	1:WT:134:ARG:HD3	1.99	0.43
1:WV:130:VAL:HG12	1:WV:134:ARG:HD2	1.99	0.43
1:t:429:THR:OG1	1:u:418:GLU:OE2	2.36	0.43
4:E:104:LEU:HD12	4:E:104:LEU:HA	1.78	0.43
5:H:135:ARG:O	5:H:136:ALA:C	2.59	0.43
5:H:171:LEU:HD23	5:I:95:PHE:CZ	2.53	0.43
6:U:109:PHE:CZ	7:Z:118:VAL:HG13	2.53	0.43
7:W:4:LEU:HD23	7:W:7:PHE:HD1	1.82	0.43
7:Y:56:GLY:O	7:Y:57:GLN:HG2	2.18	0.43
2:O:61:LEU:HD13	6:T:50:LYS:HE3	2.00	0.43
2:P:34:PHE:HB2	4:E:12:TRP:CZ3	2.53	0.43
1:UP:160:PRO:HG2	1:UP:170:LYS:HB3	2.00	0.43
1:WE:132:TYR:HB2	1:WF:126:PHE:HZ	1.83	0.43
1:WR:190:GLN:HG2	1:WS:217:GLY:HA3	2.01	0.43
1:WS:142:ARG:O	1:WS:146:THR:HG23	2.17	0.43
1:WS:197:LEU:CD1	1:WT:175:SER:OG	2.64	0.43
3:A:3:PRO:HG3	5:H:228:LEU:HD12	1.99	0.43
4:E:205:ASN:ND2	5:F:211:MET:HB2	2.33	0.43
5:F:100:ILE:HG23	5:F:101:MET:CE	2.47	0.43
5:I:212:VAL:HG21	5:I:217:ILE:HD11	2.00	0.43
6:S:35:THR:HG22	7:X:49:PHE:CB	2.23	0.43
6:T:19:ARG:NH2	6:T:115:LYS:HD3	2.33	0.43
1:0:429:THR:OG1	1:AA:418:GLU:OE2	2.36	0.43
1:1:429:THR:OG1	1:2:418:GLU:OE2	2.36	0.43
1:AI:421:GLY:O	1:AI:426:ARG:NH2	2.51	0.43
1:AN:429:THR:OG1	1:AO:418:GLU:OE2	2.36	0.43
2:P:99:VAL:O	2:P:102:MET:HB2	2.18	0.43
1:UI:125:GLN:C	1:UI:128:GLU:H	2.27	0.43
1:UJ:80:ALA:N	1:UJ:85:ALA:O	2.49	0.43
1:UM:94:HIS:HB2	1:UM:146:THR:HG21	1.97	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UN:99:ARG:O	1:UN:103:GLN:HG3	2.18	0.43
1:UO:125:GLN:C	1:UO:128:GLU:H	2.27	0.43
1:WB:113:PHE:HB3	1:WC:134:ARG:CZ	2.48	0.43
1:WC:142:ARG:O	1:WC:146:THR:HG23	2.18	0.43
1:WD:181:GLU:O	1:WD:182:PRO:C	2.60	0.43
1:WL:172:PRO:HD2	1:WL:204:GLY:O	2.19	0.43
1:WM:219:LEU:HG	1:WM:221:THR:H	1.82	0.43
1:WQ:145:GLU:C	1:WQ:147:LEU:N	2.75	0.43
1:x:429:THR:OG1	1:y:418:GLU:OE2	2.36	0.43
1:z:297:GLN:NE2	6:U:63:VAL:H	2.16	0.43
3:C:29:LEU:CB	3:D:52:ILE:HG21	2.44	0.43
3:C:52:ILE:O	3:C:55:ILE:HG22	2.18	0.43
7:Z:97:ASP:O	7:Z:101:GLU:HG2	2.18	0.43
1:AJ:421:GLY:O	1:AJ:426:ARG:NH2	2.51	0.43
2:K:103:GLN:NE2	5:G:82:SER:HA	2.33	0.43
1:UJ:88:VAL:O	1:UJ:89:PRO:C	2.60	0.43
1:UJ:125:GLN:C	1:UJ:128:GLU:H	2.27	0.43
1:UJ:160:PRO:HG2	1:UJ:170:LYS:HB3	2.00	0.43
1:UJ:164:LEU:HD22	1:UJ:164:LEU:H	1.81	0.43
1:UK:125:GLN:C	1:UK:128:GLU:H	2.27	0.43
1:UP:125:GLN:C	1:UP:128:GLU:H	2.27	0.43
1:WM:142:ARG:O	1:WM:146:THR:HG23	2.18	0.43
1:WT:134:ARG:HH21	1:WT:134:ARG:HB3	1.83	0.43
3:D:45:ASN:OD1	3:D:45:ASN:N	2.50	0.43
5:F:59:LEU:HD12	5:G:88:VAL:HG23	2.00	0.43
7:V:68:ILE:HD11	1:c:312:VAL:HG21	2.00	0.43
7:W:82:ASN:HD22	7:W:91:VAL:HG21	1.83	0.43
1:8:429:THR:OG1	1:9:418:GLU:OE2	2.36	0.43
1:AE:429:THR:OG1	1:AF:418:GLU:OE2	2.36	0.43
2:L:103:GLN:O	5:H:82:SER:HB2	2.18	0.43
1:UL:125:GLN:C	1:UL:128:GLU:H	2.27	0.43
1:UP:88:VAL:O	1:UP:89:PRO:C	2.60	0.43
1:WE:113:PHE:CE2	1:WE:139:GLU:HG3	2.54	0.43
1:WG:166:VAL:HG12	1:WG:168:GLU:H	1.83	0.43
1:w:429:THR:OG1	1:x:418:GLU:OE2	2.36	0.43
5:H:59:LEU:O	5:H:65:THR:OG1	2.30	0.43
5:I:146:ASP:OD1	5:J:233:GLN:NE2	2.51	0.43
5:J:204:LEU:HD11	5:J:217:ILE:HD12	1.99	0.43
1:2:429:THR:OG1	1:3:418:GLU:OE2	2.36	0.43
2:N:42:LEU:HD22	5:H:42:VAL:HG13	2.01	0.43
1:UK:102:GLN:CG	1:UK:193:ALA:HB2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WL:147:LEU:O	1:WL:148:GLY:C	2.61	0.43
1:WR:192:SER:O	1:WR:195:VAL:HB	2.19	0.43
1:WU:158:ALA:O	1:WU:160:PRO:HD3	2.18	0.43
1:WV:113:PHE:HB3	1:WW:134:ARG:NH1	2.33	0.43
1:WV:117:ASP:OD1	1:WW:120:LYS:NZ	2.51	0.43
1:u:429:THR:OG1	1:v:418:GLU:OE2	2.36	0.43
4:E:54:ILE:HD11	5:J:153:LEU:HB3	2.01	0.43
5:G:116:PHE:HE2	6:R:4:ARG:NH1	2.12	0.43
5:J:66:ARG:NH2	5:J:181:THR:HG21	2.33	0.43
7:Y:54:ALA:CB	7:Y:55:PRO:CD	2.97	0.43
1:0:418:GLU:OE2	1:9:429:THR:OG1	2.36	0.43
1:6:429:THR:OG1	1:7:418:GLU:OE2	2.36	0.43
1:AG:421:GLY:O	1:AG:426:ARG:NH2	2.51	0.43
1:AM:429:THR:OG1	1:AN:418:GLU:OE2	2.36	0.43
1:AQ:374:HIS:CG	2:P:15:GLN:HB2	2.53	0.43
2:O:75:MET:SD	6:T:122:VAL:HG22	2.59	0.43
1:UJ:100:LEU:HD23	1:UJ:103:GLN:HE21	1.83	0.43
1:WA:113:PHE:CE2	1:WA:139:GLU:HG3	2.54	0.43
1:WA:115:LEU:HD22	1:WA:134:ARG:HD2	2.01	0.43
1:WB:190:GLN:O	1:WB:191:ILE:C	2.61	0.43
1:WG:166:VAL:CG1	1:WG:168:GLU:HB3	2.49	0.43
1:WI:136:LEU:O	1:WI:137:GLU:C	2.62	0.43
1:WL:219:LEU:HG	1:WL:221:THR:H	1.82	0.43
1:WN:147:LEU:O	1:WN:148:GLY:C	2.60	0.43
1:WS:193:ALA:HB1	1:WT:213:VAL:CG1	2.48	0.43
1:WW:164:LEU:CB	3:B:89:GLY:O	2.65	0.43
5:G:114:GLN:HB3	5:G:115:PRO:HD3	2.01	0.43
7:W:7:PHE:CD2	7:W:119:LEU:HD11	2.54	0.43
7:X:7:PHE:HA	7:X:119:LEU:HD21	2.00	0.43
7:a:125:MET:HE3	1:b:316:LEU:HD11	2.00	0.43
1:AB:429:THR:OG1	1:AC:418:GLU:OE2	2.36	0.43
1:AF:421:GLY:O	1:AF:426:ARG:NH2	2.51	0.43
1:AF:429:THR:OG1	1:AG:418:GLU:OE2	2.36	0.43
1:AH:421:GLY:O	1:AH:426:ARG:NH2	2.51	0.43
2:K:74:ASP:N	2:K:74:ASP:OD2	2.52	0.43
1:WH:186:LEU:HD22	1:WH:190:GLN:HG2	2.00	0.43
1:WI:191:ILE:O	1:WI:195:VAL:HG23	2.19	0.43
1:WM:190:GLN:HA	1:WN:217:GLY:HA3	2.00	0.43
1:WR:143:THR:O	1:WR:146:THR:OG1	2.30	0.43
1:WS:113:PHE:HB3	1:WT:134:ARG:CZ	2.49	0.43
1:WT:113:PHE:CE1	1:WU:134:ARG:HG2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WW:166:VAL:HG23	5:H:142:THR:HG23	2.00	0.43
3:A:20:LEU:HD11	3:A:73:LEU:CD2	2.49	0.43
5:J:68:ILE:O	5:J:70:VAL:N	2.52	0.43
6:S:32:ASN:ND2	7:X:51:VAL:HG12	2.34	0.43
6:S:65:LEU:HD23	6:S:75:ALA:CB	2.49	0.43
1:AI:429:THR:OG1	1:AJ:418:GLU:OE2	2.36	0.43
2:N:77:LYS:NZ	6:T:13:GLN:OE1	2.36	0.43
2:O:11:ILE:HG22	1:z:372:ILE:CG2	2.47	0.43
2:O:48:ARG:HH22	6:U:6:ASP:CG	2.23	0.43
1:UL:75:ILE:HG21	1:UL:96:LEU:HD11	2.00	0.43
1:UN:125:GLN:C	1:UN:128:GLU:H	2.27	0.43
1:WH:139:GLU:HB3	1:WI:154:ARG:NH2	2.34	0.43
1:WK:165:PHE:O	1:WK:166:VAL:HB	2.19	0.43
1:WK:181:GLU:O	1:WK:182:PRO:C	2.60	0.43
1:WM:172:PRO:HD2	1:WM:204:GLY:O	2.19	0.43
5:F:171:LEU:HB3	5:F:172:PRO:HD3	2.01	0.43
5:G:190:PHE:CD1	5:H:220:PRO:HG3	2.54	0.43
1:2:421:GLY:O	1:2:426:ARG:NH2	2.51	0.43
1:4:429:THR:OG1	1:5:418:GLU:OE2	2.36	0.43
1:AG:290:LYS:HE3	1:AG:290:LYS:HB2	1.93	0.43
1:AJ:429:THR:OG1	1:AK:418:GLU:OE2	2.36	0.43
1:AK:429:THR:OG1	1:AL:418:GLU:OE2	2.36	0.43
2:N:59:PHE:CD2	6:S:118:MET:HE1	2.54	0.43
1:UI:88:VAL:O	1:UI:89:PRO:C	2.60	0.43
1:UK:75:ILE:HG21	1:UK:96:LEU:HD11	2.00	0.43
1:UM:125:GLN:C	1:UM:128:GLU:H	2.27	0.43
1:WD:172:PRO:HD2	1:WD:204:GLY:O	2.18	0.43
5:F:37:SER:HA	5:F:123:MET:HG3	2.01	0.43
5:G:194:LEU:HD23	5:G:194:LEU:HA	1.83	0.43
5:G:204:LEU:HD11	5:G:217:ILE:HD12	2.01	0.43
5:I:60:MET:HE3	5:I:60:MET:HB3	1.87	0.43
5:J:195:ILE:O	5:J:199:VAL:HG13	2.18	0.43
1:3:421:GLY:O	1:3:426:ARG:NH2	2.51	0.42
1:4:357:SER:OG	1:j:318:ASN:CG	2.62	0.42
1:AD:429:THR:OG1	1:AE:418:GLU:OE2	2.36	0.42
1:AE:421:GLY:O	1:AE:426:ARG:NH2	2.51	0.42
1:AG:296:ARG:HG2	1:AG:296:ARG:NH1	2.34	0.42
1:AJ:294:ARG:HD2	6:R:68:THR:CG2	2.49	0.42
1:AL:290:LYS:HE3	1:AL:290:LYS:HB2	1.93	0.42
1:AP:429:THR:OG1	1:AQ:418:GLU:OE2	2.36	0.42
2:L:75:MET:HE3	2:L:75:MET:HB3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UJ:75:ILE:HG21	1:UJ:96:LEU:HD11	2.00	0.42
1:UL:52:ARG:O	1:UL:88:VAL:N	2.38	0.42
1:WD:113:PHE:HB3	1:WE:134:ARG:NH1	2.34	0.42
1:WG:145:GLU:O	1:WG:146:THR:C	2.62	0.42
1:WI:142:ARG:O	1:WI:146:THR:HG23	2.19	0.42
1:WW:169:GLN:NE2	1:WW:170:LYS:O	2.52	0.42
1:z:421:GLY:O	1:z:426:ARG:NH2	2.51	0.42
4:E:49:MET:HE2	4:E:49:MET:HB2	1.86	0.42
4:E:224:VAL:O	4:E:228:LEU:HB2	2.18	0.42
5:G:161:GLY:O	5:G:162:PRO:C	2.61	0.42
5:H:172:PRO:HG2	5:I:99:PHE:HE2	1.84	0.42
6:Q:85:LEU:HD23	6:Q:85:LEU:HA	1.81	0.42
1:1:418:GLU:OE2	1:z:429:THR:OG1	2.36	0.42
1:AG:429:THR:OG1	1:AH:418:GLU:OE2	2.36	0.42
2:K:102:MET:HG3	5:G:87:GLN:HE22	1.85	0.42
1:WB:166:VAL:CG2	1:WB:169:GLN:HA	2.49	0.42
1:WF:120:LYS:HB3	1:WF:121:PHE:H	1.66	0.42
1:WU:192:SER:O	1:WU:195:VAL:HB	2.19	0.42
4:E:166:SER:C	4:E:168:ALA:H	2.27	0.42
4:E:186:LEU:HD11	4:E:236:ILE:HG22	2.01	0.42
5:F:63:SER:O	5:F:67:ILE:HD12	2.19	0.42
5:F:171:LEU:HD23	5:G:95:PHE:CZ	2.54	0.42
5:J:138:MET:CE	5:J:171:LEU:HD23	2.41	0.42
6:R:29:ASN:ND2	6:R:40:ALA:HA	2.34	0.42
7:X:127:LEU:HD23	7:X:127:LEU:HA	1.89	0.42
1:4:421:GLY:O	1:4:426:ARG:NH2	2.51	0.42
1:7:294:ARG:HD2	6:T:68:THR:HG21	2.01	0.42
1:AH:429:THR:OG1	1:AI:418:GLU:OE2	2.36	0.42
2:N:59:PHE:CD2	2:N:59:PHE:C	2.97	0.42
1:WA:140:LEU:O	1:WA:144:ILE:HG13	2.19	0.42
1:WB:135:ALA:O	1:WB:139:GLU:HG2	2.18	0.42
1:WC:120:LYS:HE2	1:WC:120:LYS:HA	2.00	0.42
1:WD:193:ALA:HB1	1:WE:213:VAL:HG21	2.00	0.42
1:WF:165:PHE:CD1	5:I:148:ALA:CB	3.03	0.42
1:WR:197:LEU:HA	1:WS:175:SER:CB	2.50	0.42
1:WT:142:ARG:O	1:WT:146:THR:HG23	2.20	0.42
1:t:290:LYS:HE3	1:t:290:LYS:HB2	1.93	0.42
3:D:52:ILE:HD13	3:D:52:ILE:HA	1.83	0.42
5:H:213:PRO:HA	5:H:214:PRO:HD3	1.93	0.42
5:I:138:MET:O	5:I:142:THR:OG1	2.28	0.42
1:b:318:ASN:O	1:b:319:GLN:C	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:295:SER:OG	6:U:66:THR:O	2.36	0.42
1:1:421:GLY:O	1:1:426:ARG:NH2	2.51	0.42
1:5:278:THR:CG2	2:N:14:LEU:HD23	2.49	0.42
1:7:372:ILE:HG21	2:N:4:ILE:HG12	2.02	0.42
1:AF:296:ARG:HG2	1:AF:296:ARG:NH1	2.35	0.42
1:AH:296:ARG:HG2	1:AH:296:ARG:NH1	2.35	0.42
1:AK:294:ARG:HD3	6:R:69:SER:OG	2.19	0.42
1:AK:296:ARG:HG2	1:AK:296:ARG:NH1	2.34	0.42
1:AM:296:ARG:HG2	1:AM:296:ARG:NH1	2.35	0.42
1:AN:296:ARG:HG2	1:AN:296:ARG:NH1	2.35	0.42
2:K:73:ALA:CB	6:Q:13:GLN:NE2	2.82	0.42
2:M:9:GLY:O	2:M:13:GLN:HG3	2.18	0.42
2:P:7:ILE:CB	1:t:278:THR:HG21	2.41	0.42
1:UN:69:GLN:HG3	1:UN:103:GLN:OE1	2.19	0.42
1:WC:191:ILE:O	1:WC:195:VAL:HG23	2.20	0.42
1:WF:140:LEU:O	1:WF:144:ILE:HG13	2.19	0.42
1:WI:161:LYS:HA	1:WI:162:PRO:HD3	1.89	0.42
1:WK:149:PRO:HD2	1:WK:190:GLN:HE22	1.84	0.42
1:WL:214:ASP:OD1	1:WL:218:HIS:N	2.49	0.42
1:WN:172:PRO:HD2	1:WN:204:GLY:O	2.18	0.42
1:WO:140:LEU:O	1:WO:144:ILE:HG13	2.20	0.42
1:WQ:193:ALA:CB	1:WR:217:GLY:O	2.67	0.42
1:WQ:196:HIS:HB3	1:WR:211:THR:HG21	2.02	0.42
1:WT:162:PRO:HB2	1:WT:163:SER:H	1.66	0.42
1:WV:112:GLY:HA2	1:WV:135:ALA:CA	2.28	0.42
1:WV:164:LEU:O	1:WV:166:VAL:N	2.49	0.42
1:WW:140:LEU:O	1:WW:144:ILE:HG13	2.20	0.42
1:WW:161:LYS:HE3	1:WW:161:LYS:HB2	1.93	0.42
3:C:47:MET:HE3	5:G:210:MET:HE1	2.02	0.42
4:E:251:LEU:HD23	4:E:251:LEU:HA	1.84	0.42
5:H:114:GLN:O	5:H:118:GLU:HG2	2.19	0.42
1:7:294:ARG:HD3	6:T:68:THR:HG22	2.01	0.42
1:AI:296:ARG:HG2	1:AI:296:ARG:NH1	2.35	0.42
1:AJ:296:ARG:HG2	1:AJ:296:ARG:NH1	2.35	0.42
1:AK:404:LEU:HD22	1:AK:409:MET:HE3	2.02	0.42
2:O:69:ASN:OD1	2:O:69:ASN:N	2.52	0.42
1:UI:102:GLN:CG	1:UI:193:ALA:HB2	2.49	0.42
1:UM:52:ARG:O	1:UM:88:VAL:N	2.38	0.42
1:UM:102:GLN:CG	1:UM:193:ALA:HB2	2.49	0.42
1:UM:207:PRO:HD2	1:WP:187:ASP:HB3	2.02	0.42
1:WB:196:HIS:HB3	1:WC:211:THR:HG21	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WG:140:LEU:O	1:WG:144:ILE:HG13	2.20	0.42
1:WJ:140:LEU:O	1:WJ:144:ILE:HG13	2.20	0.42
1:WJ:172:PRO:HD2	1:WJ:204:GLY:O	2.19	0.42
1:WN:140:LEU:O	1:WN:144:ILE:HG13	2.20	0.42
3:D:89:GLY:C	5:J:143:ARG:NE	2.77	0.42
4:E:125:LEU:O	4:E:129:MET:HG3	2.20	0.42
4:E:148:SER:HB2	5:J:149:LEU:HD11	2.01	0.42
5:G:217:ILE:O	5:G:220:PRO:HD2	2.19	0.42
5:H:139:LEU:HD23	5:H:139:LEU:HA	1.86	0.42
5:H:141:GLN:NE2	5:H:243:PHE:HA	2.34	0.42
5:J:48:ILE:HD13	5:J:48:ILE:HA	1.83	0.42
5:J:189:ILE:O	5:J:192:PRO:HD2	2.19	0.42
7:W:4:LEU:HD22	7:W:126:MET:HE1	2.00	0.42
1:1:296:ARG:HG2	1:1:296:ARG:NH1	2.35	0.42
1:1:374:HIS:HB2	2:O:4:ILE:CD1	2.50	0.42
1:2:296:ARG:HG2	1:2:296:ARG:NH1	2.35	0.42
1:5:429:THR:OG1	1:6:418:GLU:OE2	2.36	0.42
1:6:296:ARG:HG2	1:6:296:ARG:NH1	2.35	0.42
1:7:296:ARG:HG2	1:7:296:ARG:NH1	2.35	0.42
1:AA:296:ARG:HG2	1:AA:296:ARG:NH1	2.35	0.42
1:AC:290:LYS:HE3	1:AC:290:LYS:HB2	1.93	0.42
1:AC:296:ARG:HG2	1:AC:296:ARG:NH1	2.35	0.42
1:AH:278:THR:HG21	2:L:7:ILE:HG22	2.01	0.42
1:AM:404:LEU:HD22	1:AM:409:MET:HE3	2.02	0.42
2:O:59:PHE:CZ	7:Z:4:LEU:HD22	2.55	0.42
1:WB:140:LEU:O	1:WB:144:ILE:HG13	2.20	0.42
1:WE:140:LEU:O	1:WE:144:ILE:HG13	2.20	0.42
1:WK:128:GLU:OE1	1:WL:126:PHE:CE2	2.73	0.42
1:WM:140:LEU:O	1:WM:144:ILE:HG13	2.19	0.42
1:WW:131:ASN:HA	1:WW:134:ARG:HD3	2.01	0.42
1:WW:172:PRO:HD2	1:WW:204:GLY:O	2.19	0.42
1:t:296:ARG:HG2	1:t:296:ARG:NH1	2.35	0.42
1:u:296:ARG:HG2	1:u:296:ARG:NH1	2.35	0.42
1:y:421:GLY:O	1:y:426:ARG:NH2	2.51	0.42
3:A:7:MET:HE3	3:B:66:GLY:HA3	2.01	0.42
3:A:23:PRO:HG3	3:A:68:TRP:HZ3	1.85	0.42
5:I:190:PHE:CD1	5:J:220:PRO:HG3	2.55	0.42
5:J:83:ALA:HB3	5:J:84:PRO:CD	2.50	0.42
5:J:121:ILE:HG23	5:J:125:GLU:HB3	2.02	0.42
7:V:13:ALA:HA	7:V:62:VAL:HG12	2.02	0.42
7:Y:53:ALA:O	7:Y:54:ALA:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:312:VAL:HG12	1:l:315:ALA:HB2	2.01	0.42
1:2:295:SER:CB	6:U:73:ILE:HG13	2.43	0.42
1:3:429:THR:OG1	1:4:418:GLU:OE2	2.36	0.42
1:5:421:GLY:O	1:5:426:ARG:NH2	2.51	0.42
1:7:290:LYS:HE3	1:7:290:LYS:HB2	1.93	0.42
1:AB:296:ARG:HG2	1:AB:296:ARG:NH1	2.35	0.42
1:AD:296:ARG:HG2	1:AD:296:ARG:NH1	2.35	0.42
1:AE:296:ARG:HG2	1:AE:296:ARG:NH1	2.35	0.42
1:AI:404:LEU:HD22	1:AI:409:MET:HE3	2.02	0.42
1:AL:404:LEU:HD22	1:AL:409:MET:HE3	2.02	0.42
1:AN:404:LEU:HD22	1:AN:409:MET:HE3	2.02	0.42
2:N:69:ASN:HD21	6:T:17:ASN:HA	1.84	0.42
2:P:11:ILE:HG22	1:t:372:ILE:CB	2.49	0.42
1:WC:140:LEU:O	1:WC:144:ILE:HG13	2.19	0.42
1:WD:140:LEU:O	1:WD:144:ILE:HG13	2.20	0.42
1:WI:165:PHE:O	1:WI:165:PHE:CG	2.73	0.42
1:WP:140:LEU:O	1:WP:144:ILE:HG13	2.20	0.42
1:WW:187:ASP:H	1:WW:190:GLN:CD	2.26	0.42
3:A:52:ILE:N	3:A:52:ILE:HD12	2.35	0.42
4:E:52:LEU:HD23	4:E:52:LEU:HA	1.87	0.42
4:E:138:LEU:HG	5:J:180:LYS:HG3	2.01	0.42
5:F:63:SER:HB2	5:F:66:ARG:HH21	1.84	0.42
5:H:40:LEU:HD21	6:S:5:LEU:HA	2.01	0.42
5:I:171:LEU:HB3	5:I:172:PRO:HD3	2.01	0.42
6:U:121:THR:HG23	7:a:134:GLN:HG2	2.01	0.42
7:V:127:LEU:O	7:V:128:LYS:C	2.57	0.42
7:a:16:ALA:HB1	7:a:49:PHE:CE1	2.55	0.42
7:a:34:VAL:HG13	7:a:35:THR:HG22	2.02	0.42
1:0:296:ARG:HG2	1:0:296:ARG:NH1	2.35	0.42
1:3:296:ARG:HG2	1:3:296:ARG:NH1	2.35	0.42
1:6:361:ASN:ND2	6:T:78:VAL:CG1	2.78	0.42
1:9:296:ARG:HG2	1:9:296:ARG:NH1	2.35	0.42
1:AJ:404:LEU:HD22	1:AJ:409:MET:HE3	2.02	0.42
1:AO:296:ARG:HG2	1:AO:296:ARG:NH1	2.35	0.42
1:WA:126:PHE:HD2	1:WW:128:GLU:HG2	1.84	0.42
1:WB:166:VAL:HG21	1:WB:169:GLN:HA	2.01	0.42
1:WD:190:GLN:HA	1:WE:217:GLY:O	2.19	0.42
1:WG:170:LYS:HB2	1:WG:171:SER:H	1.78	0.42
1:WG:193:ALA:HB1	1:WH:213:VAL:CG1	2.48	0.42
1:WI:144:ILE:O	1:WI:147:LEU:HB2	2.20	0.42
1:WI:187:ASP:H	1:WI:190:GLN:CD	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WT:161:LYS:CB	1:WT:162:PRO:HD2	2.49	0.42
1:WU:128:GLU:HG2	1:WV:126:PHE:CD2	2.48	0.42
1:WW:112:GLY:HA3	1:WW:135:ALA:HA	2.00	0.42
1:z:365:ASN:CG	6:U:66:THR:HG23	2.45	0.42
3:A:24:LEU:HD22	5:G:203:VAL:HG22	2.01	0.42
4:E:254:ILE:HD13	4:E:254:ILE:HA	1.86	0.42
5:H:180:LYS:HD2	5:I:230:ASP:OD1	2.20	0.42
5:J:92:LEU:HA	5:J:92:LEU:HD12	1.78	0.42
5:J:225:LEU:HD12	5:J:229:VAL:HG22	2.01	0.42
6:T:3:ASP:O	6:T:4:ARG:C	2.62	0.42
7:W:126:MET:HE3	7:W:126:MET:HB3	1.80	0.42
1:1:294:ARG:CD	6:U:68:THR:HG22	2.37	0.42
1:1:372:ILE:HB	2:O:4:ILE:HG12	2.00	0.42
1:7:429:THR:OG1	1:8:418:GLU:OE2	2.36	0.42
1:8:296:ARG:HG2	1:8:296:ARG:NH1	2.35	0.42
1:AD:404:LEU:HD22	1:AD:409:MET:HE3	2.02	0.42
1:AE:404:LEU:HD22	1:AE:409:MET:HE3	2.02	0.42
1:AF:404:LEU:HD22	1:AF:409:MET:HE3	2.02	0.42
1:AH:404:LEU:HD22	1:AH:409:MET:HE3	2.02	0.42
1:AL:296:ARG:HG2	1:AL:296:ARG:NH1	2.35	0.42
1:AO:404:LEU:HD22	1:AO:409:MET:HE3	2.02	0.42
1:UJ:125:GLN:C	1:UJ:127:SER:N	2.77	0.42
1:WB:166:VAL:O	5:H:152:ARG:CG	2.67	0.42
1:WF:187:ASP:HB3	1:WF:190:GLN:CG	2.44	0.42
1:WI:140:LEU:O	1:WI:144:ILE:HG13	2.20	0.42
1:WI:164:LEU:HD13	5:J:148:ALA:HB1	2.01	0.42
1:WU:140:LEU:O	1:WU:144:ILE:HG13	2.20	0.42
1:WV:140:LEU:O	1:WV:144:ILE:HG13	2.20	0.42
5:G:121:ILE:HG12	5:G:125:GLU:HB3	2.02	0.42
1:4:404:LEU:HD22	1:4:409:MET:HE3	2.02	0.42
1:6:278:THR:HG21	2:N:7:ILE:CB	2.50	0.42
1:AC:404:LEU:HD22	1:AC:409:MET:HE3	2.02	0.42
2:K:84:MET:HE2	6:Q:134:LEU:HD21	2.02	0.42
2:P:11:ILE:HG22	1:t:372:ILE:HB	2.02	0.42
2:P:76:GLN:NE2	7:V:7:PHE:HE1	2.18	0.42
1:UK:214:ASP:OD2	1:UK:218:HIS:HB2	2.20	0.42
1:UM:214:ASP:OD2	1:UM:218:HIS:HB2	2.20	0.42
1:UO:102:GLN:CG	1:UO:193:ALA:HB2	2.49	0.42
1:UP:214:ASP:OD2	1:UP:218:HIS:HB2	2.20	0.42
1:WG:121:PHE:CE2	1:WG:123:ILE:HA	2.55	0.42
1:WH:190:GLN:HG3	1:WI:217:GLY:HA3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WL:140:LEU:O	1:WL:144:ILE:HG13	2.20	0.42
1:WL:181:GLU:CB	1:WL:184:ARG:CG	2.85	0.42
1:WR:165:PHE:O	1:WR:166:VAL:HG22	2.19	0.42
1:WV:114:GLU:O	1:WV:118:GLN:HG3	2.20	0.42
1:v:296:ARG:HG2	1:v:296:ARG:NH1	2.35	0.42
1:z:296:ARG:HG2	1:z:296:ARG:NH1	2.35	0.42
3:C:1:MET:HE2	3:C:1:MET:HB3	1.91	0.42
5:F:162:PRO:CD	5:F:163:GLU:N	2.82	0.42
5:G:129:LYS:HD3	5:G:129:LYS:HA	1.79	0.42
6:R:34:ASP:OD1	7:W:20:ARG:NH1	2.51	0.42
1:4:296:ARG:HG2	1:4:296:ARG:NH1	2.35	0.41
1:6:421:GLY:O	1:6:426:ARG:NH2	2.51	0.41
1:AB:290:LYS:HE3	1:AB:290:LYS:HB2	1.93	0.41
1:AG:404:LEU:HD22	1:AG:409:MET:HE3	2.02	0.41
1:AP:404:LEU:HD22	1:AP:409:MET:HE3	2.02	0.41
2:K:68:LEU:H	2:K:68:LEU:HD12	1.85	0.41
1:UL:102:GLN:CG	1:UL:193:ALA:HB2	2.49	0.41
1:WB:164:LEU:HD23	1:WB:164:LEU:HA	1.75	0.41
1:WR:181:GLU:CB	1:WR:184:ARG:CG	2.85	0.41
1:w:296:ARG:HG2	1:w:296:ARG:NH1	2.35	0.41
1:x:421:GLY:O	1:x:426:ARG:NH2	2.51	0.41
3:B:36:SER:HB3	3:C:44:ILE:HG23	2.02	0.41
3:D:18:LEU:CD2	4:E:227:MET:HB3	2.50	0.41
3:D:77:VAL:HG11	5:J:225:LEU:HD11	2.02	0.41
5:F:163:GLU:H	5:F:163:GLU:HG2	1.77	0.41
5:G:171:LEU:HD23	5:H:95:PHE:CZ	2.55	0.41
6:R:24:GLU:HG2	7:W:6:ILE:HD11	2.02	0.41
6:T:92:GLN:CD	7:Z:22:ASN:HD22	2.28	0.41
6:U:92:GLN:HE21	7:a:19:LYS:HG2	1.85	0.41
1:1:404:LEU:HD22	1:1:409:MET:HE3	2.02	0.41
1:6:404:LEU:HD22	1:6:409:MET:HE3	2.02	0.41
1:AQ:404:LEU:HD22	1:AQ:409:MET:HE3	2.02	0.41
1:UJ:52:ARG:O	1:UJ:88:VAL:N	2.38	0.41
1:UJ:102:GLN:CG	1:UJ:193:ALA:HB2	2.49	0.41
1:UP:102:GLN:CG	1:UP:193:ALA:HB2	2.49	0.41
1:WK:145:GLU:C	1:WK:147:LEU:N	2.76	0.41
1:WK:190:GLN:HA	1:WL:217:GLY:O	2.20	0.41
1:WS:140:LEU:O	1:WS:144:ILE:HG13	2.20	0.41
4:E:178:LEU:HD12	4:E:182:ASN:ND2	2.33	0.41
1:AQ:296:ARG:HG2	1:AQ:296:ARG:NH1	2.35	0.41
1:UJ:103:GLN:H	1:UJ:103:GLN:HG2	1.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:UO:125:GLN:C	1:UO:127:SER:N	2.77	0.41
1:WE:164:LEU:HD13	1:WE:165:PHE:N	2.35	0.41
1:WH:140:LEU:O	1:WH:144:ILE:HG13	2.20	0.41
1:WI:129:GLN:HE22	1:WI:132:TYR:HD2	1.68	0.41
1:WL:135:ALA:O	1:WL:136:LEU:C	2.63	0.41
1:WT:140:LEU:O	1:WT:144:ILE:HG13	2.20	0.41
1:WT:147:LEU:O	1:WT:148:GLY:C	2.64	0.41
1:y:404:LEU:HD22	1:y:409:MET:HE3	2.02	0.41
1:z:290:LYS:HE3	1:z:290:LYS:HB2	1.93	0.41
3:D:18:LEU:HD22	4:E:227:MET:HB3	2.01	0.41
5:F:194:LEU:HD12	5:G:220:PRO:HG2	2.02	0.41
5:H:68:ILE:HD12	5:H:68:ILE:HA	1.83	0.41
5:J:143:ARG:CZ	5:J:180:LYS:HE2	2.51	0.41
6:Q:133:VAL:C	6:Q:135:GLN:N	2.78	0.41
7:W:47:VAL:O	1:e:313:PRO:CD	2.68	0.41
1:2:236:LYS:NZ	1:UJ:167:ARG:NH1	2.60	0.41
1:3:404:LEU:HD22	1:3:409:MET:HE3	2.02	0.41
1:5:296:ARG:HG2	1:5:296:ARG:NH1	2.35	0.41
1:AI:370:ARG:HE	2:L:7:ILE:HD11	1.79	0.41
2:K:86:ILE:CD1	2:P:98:GLU:HG3	2.47	0.41
1:UK:52:ARG:O	1:UK:88:VAL:N	2.38	0.41
1:UL:125:GLN:C	1:UL:127:SER:N	2.77	0.41
1:UO:214:ASP:OD2	1:UO:218:HIS:HB2	2.20	0.41
1:UP:94:HIS:HB2	1:UP:146:THR:HG21	1.97	0.41
1:WD:197:LEU:HD11	1:WE:156:HIS:HD2	1.84	0.41
1:WG:165:PHE:CZ	5:I:153:LEU:CD2	3.01	0.41
1:WI:135:ALA:O	1:WI:139:GLU:HG2	2.21	0.41
1:WL:196:HIS:HB3	1:WM:211:THR:HG21	2.03	0.41
1:WR:140:LEU:O	1:WR:144:ILE:HG13	2.20	0.41
1:WT:128:GLU:HG3	1:WU:126:PHE:CE2	2.55	0.41
1:WV:187:ASP:O	1:WV:190:GLN:HB2	2.20	0.41
1:t:404:LEU:HD22	1:t:409:MET:HE3	2.02	0.41
1:w:421:GLY:O	1:w:426:ARG:NH2	2.51	0.41
3:C:40:ALA:CB	3:D:44:ILE:HD11	2.50	0.41
3:D:14:MET:HG2	4:E:230:ALA:HB2	2.02	0.41
4:E:101:PHE:CE2	5:F:80:THR:HG21	2.55	0.41
5:F:175:VAL:O	5:F:179:LEU:HG	2.20	0.41
5:J:124:GLN:H	5:J:124:GLN:HG2	1.67	0.41
5:J:217:ILE:O	5:J:220:PRO:HD2	2.20	0.41
7:W:95:ASN:OD1	7:W:95:ASN:N	2.43	0.41
1:AB:404:LEU:HD22	1:AB:409:MET:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:299:ASN:ND2	7:V:55:PRO:O	2.54	0.41
2:L:46:SER:CB	5:F:38:TRP:HB2	2.46	0.41
2:P:82:MET:HE2	2:P:82:MET:HA	2.03	0.41
1:UI:214:ASP:OD2	1:UI:218:HIS:HB2	2.20	0.41
1:UN:214:ASP:OD2	1:UN:218:HIS:HB2	2.20	0.41
1:WG:165:PHE:HZ	5:J:237:GLY:HA2	1.85	0.41
1:WH:149:PRO:CD	1:WH:190:GLN:HE22	2.33	0.41
1:WK:190:GLN:CG	1:WL:217:GLY:HA3	2.51	0.41
1:WR:192:SER:O	1:WR:195:VAL:N	2.53	0.41
6:S:16:LEU:HD11	6:S:120:LEU:HG	2.02	0.41
1:2:404:LEU:HD22	1:2:409:MET:HE3	2.02	0.41
1:AJ:295:SER:CB	6:R:65:LEU:HB3	2.50	0.41
1:x:355:PRO:CB	1:l:319:GLN:NE2	2.83	0.41
1:y:296:ARG:HG2	1:y:296:ARG:NH1	2.35	0.41
3:C:54:LYS:HZ1	5:I:207:LEU:HA	1.86	0.41
4:E:104:LEU:CD2	5:F:80:THR:HG22	2.51	0.41
5:F:97:THR:HA	5:F:100:ILE:HG22	2.01	0.41
5:J:100:ILE:O	5:J:244:TYR:OH	2.34	0.41
6:Q:111:ASP:OD1	7:W:3:LEU:HD23	2.21	0.41
6:T:39:GLN:HA	6:T:99:THR:HB	2.01	0.41
1:AP:296:ARG:HG2	1:AP:296:ARG:NH1	2.35	0.41
2:K:86:ILE:HD11	2:P:99:VAL:HG22	2.03	0.41
1:UI:167:ARG:HA	1:UI:167:ARG:HD2	1.91	0.41
1:WA:196:HIS:CD2	1:WB:219:LEU:HD13	2.56	0.41
1:WC:125:GLN:O	1:WC:128:GLU:HG2	2.20	0.41
1:WK:140:LEU:O	1:WK:144:ILE:HG13	2.20	0.41
1:WQ:140:LEU:O	1:WQ:144:ILE:HG13	2.20	0.41
1:WR:165:PHE:O	1:WR:167:ARG:N	2.53	0.41
1:WV:145:GLU:C	1:WV:147:LEU:N	2.78	0.41
3:A:69:MET:O	3:A:70:LEU:C	2.63	0.41
3:C:47:MET:CE	5:G:210:MET:HE1	2.50	0.41
4:E:172:LEU:O	4:E:175:ALA:HB3	2.21	0.41
4:E:179:ILE:H	4:E:179:ILE:HG13	1.69	0.41
5:J:139:LEU:C	5:J:141:GLN:H	2.28	0.41
6:S:92:GLN:NE2	7:Y:22:ASN:ND2	2.68	0.41
7:Y:112:TYR:CE2	7:Y:116:ILE:HD11	2.55	0.41
1:4:235:LEU:HB3	1:5:244:ARG:NH2	2.36	0.41
1:AA:404:LEU:HD22	1:AA:409:MET:HE3	2.02	0.41
2:M:103:GLN:HA	5:H:86:ASN:HD22	1.84	0.41
2:P:61:LEU:HD11	6:U:50:LYS:HZ2	1.86	0.41
1:UN:102:GLN:CG	1:UN:193:ALA:HB2	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WB:114:GLU:O	1:WB:117:ASP:N	2.54	0.41
1:WB:163:SER:CB	1:WB:166:VAL:HG22	2.45	0.41
1:WD:193:ALA:HB1	1:WE:213:VAL:CG2	2.50	0.41
1:WE:165:PHE:HD1	5:I:159:LEU:CD2	2.32	0.41
1:WH:166:VAL:CG1	5:J:147:LEU:CD1	2.71	0.41
1:WP:186:LEU:HA	1:WP:186:LEU:HD23	1.93	0.41
1:WS:147:LEU:O	1:WS:148:GLY:C	2.63	0.41
1:WU:193:ALA:HB1	1:WV:213:VAL:HG11	2.03	0.41
1:x:296:ARG:HG2	1:x:296:ARG:NH1	2.35	0.41
3:C:33:LEU:HD12	3:C:33:LEU:HA	1.95	0.41
5:G:213:PRO:HA	5:G:214:PRO:HD3	1.88	0.41
5:G:234:LEU:HD12	5:G:234:LEU:HA	1.92	0.41
7:W:126:MET:HG2	7:W:126:MET:H	1.60	0.41
7:Z:52:ASP:HB2	7:Z:63:LYS:HB3	2.03	0.41
1:6:278:THR:HG21	2:N:7:ILE:HB	2.02	0.41
1:7:235:LEU:HB3	1:8:244:ARG:NH2	2.36	0.41
1:7:404:LEU:HD22	1:7:409:MET:HE3	2.02	0.41
1:7:421:GLY:O	1:7:426:ARG:NH2	2.51	0.41
1:9:404:LEU:HD22	1:9:409:MET:HE3	2.02	0.41
1:AC:372:ILE:HD13	2:M:3:ALA:HA	2.02	0.41
1:AD:235:LEU:HB3	1:AE:244:ARG:NH2	2.36	0.41
1:AG:235:LEU:HB3	1:AH:244:ARG:NH2	2.36	0.41
1:AL:276:GLU:CD	2:K:11:ILE:HD13	2.46	0.41
2:M:48:ARG:NH1	6:S:5:LEU:HD23	2.35	0.41
2:M:86:ILE:HD11	6:R:133:VAL:HG22	2.02	0.41
2:M:89:ARG:HG3	5:G:49:THR:HG21	2.03	0.41
2:N:69:ASN:HB2	6:T:16:LEU:HD23	2.02	0.41
2:P:11:ILE:HG21	1:t:372:ILE:CG2	2.49	0.41
2:P:46:SER:HB2	5:J:42:VAL:HG21	2.03	0.41
2:P:100:MET:HA	4:E:44:LEU:CD2	2.51	0.41
1:UI:125:GLN:C	1:UI:127:SER:N	2.77	0.41
1:UJ:51:TYR:HB2	1:UJ:78:ARG:CZ	2.51	0.41
1:UK:51:TYR:HB2	1:UK:78:ARG:CZ	2.51	0.41
1:UL:69:GLN:NE2	1:WH:182:PRO:CG	2.84	0.41
1:UL:216:SER:HB2	1:UL:218:HIS:ND1	2.36	0.41
1:UO:165:PHE:HD1	1:UO:165:PHE:HA	1.77	0.41
1:WD:190:GLN:O	1:WD:191:ILE:C	2.64	0.41
1:WH:200:SER:O	1:WI:158:ALA:HB3	2.13	0.41
1:WR:128:GLU:HB3	1:WS:126:PHE:CE2	2.55	0.41
1:WS:124:SER:HB2	3:A:8:MET:HG2	2.03	0.41
1:WU:163:SER:O	1:WU:166:VAL:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WU:181:GLU:CB	1:WU:184:ARG:CG	2.85	0.41
3:C:40:ALA:HB3	3:D:44:ILE:HD11	2.03	0.41
3:D:39:GLN:CB	4:E:211:LEU:HD22	2.50	0.41
3:D:39:GLN:HB3	4:E:211:LEU:HD22	2.02	0.41
4:E:213:ILE:HG21	5:F:211:MET:O	2.20	0.41
4:E:214:PHE:CE1	5:I:210:MET:SD	3.14	0.41
4:E:243:LEU:HD23	4:E:243:LEU:HA	1.81	0.41
5:G:211:MET:HE1	5:H:210:MET:HE2	2.03	0.41
6:Q:96:ASP:OD1	6:Q:96:ASP:N	2.53	0.41
6:R:29:ASN:HD22	6:R:38:TYR:HE2	1.69	0.41
6:T:117:GLN:NE2	7:Y:125:MET:HG2	2.36	0.41
6:U:121:THR:HG23	7:a:134:GLN:CG	2.51	0.41
7:V:22:ASN:HD21	7:a:5:ASN:ND2	2.19	0.41
7:Y:49:PHE:CG	1:i:313:PRO:HG3	2.55	0.41
7:Z:54:ALA:HB3	7:Z:55:PRO:HD3	2.02	0.41
7:Z:126:MET:O	7:Z:129:THR:HG22	2.21	0.41
7:a:98:VAL:O	7:a:102:MET:HG2	2.21	0.41
1:2:295:SER:HB3	6:U:72:HIS:HA	2.02	0.41
1:AA:235:LEU:HB3	1:AB:244:ARG:NH2	2.36	0.41
1:AC:235:LEU:HB3	1:AD:244:ARG:NH2	2.36	0.41
1:AO:360:ARG:NH1	1:AO:362:GLU:OE1	2.54	0.41
2:M:92:LEU:HD23	2:M:92:LEU:HA	1.82	0.41
1:UN:54:LEU:HG	1:UN:55:PHE:CD2	2.56	0.41
1:UN:125:GLN:C	1:UN:127:SER:N	2.77	0.41
1:UP:54:LEU:HG	1:UP:55:PHE:CD2	2.56	0.41
1:WC:165:PHE:HD2	5:H:152:ARG:NH2	2.06	0.41
1:WC:193:ALA:CB	1:WD:213:VAL:HG11	2.44	0.41
1:WG:164:LEU:HD12	5:J:241:GLN:NE2	2.36	0.41
1:WQ:121:PHE:O	1:WQ:122:GLY:C	2.64	0.41
1:WW:164:LEU:CD1	3:B:89:GLY:C	2.92	0.41
1:u:404:LEU:HD22	1:u:409:MET:HE3	2.02	0.41
1:v:404:LEU:HD22	1:v:409:MET:HE3	2.02	0.41
3:B:74:LEU:HD22	5:H:229:VAL:HG12	2.03	0.41
5:G:171:LEU:O	5:G:175:VAL:HG23	2.21	0.41
5:H:189:ILE:HD13	5:H:235:LEU:HD11	2.03	0.41
7:V:47:VAL:O	1:c:313:PRO:HD2	2.21	0.41
7:a:55:PRO:HG2	1:b:320:PRO:CB	2.51	0.41
1:0:235:LEU:HB3	1:AA:244:ARG:NH2	2.36	0.40
1:0:404:LEU:HD22	1:0:409:MET:HE3	2.02	0.40
1:1:235:LEU:HB3	1:2:244:ARG:NH2	2.36	0.40
1:8:404:LEU:HD22	1:8:409:MET:HE3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AF:235:LEU:HB3	1:AG:244:ARG:NH2	2.36	0.40
2:O:7:ILE:O	2:O:11:ILE:HG23	2.21	0.40
1:WL:190:GLN:HG2	1:WM:216:SER:O	2.21	0.40
1:WR:193:ALA:HB1	1:WS:213:VAL:HG21	2.03	0.40
1:WV:128:GLU:CG	1:WW:126:PHE:CE2	3.02	0.40
1:x:404:LEU:HD22	1:x:409:MET:HE3	2.02	0.40
3:D:23:PRO:HG2	3:D:69:MET:HE2	2.03	0.40
4:E:102:ILE:O	4:E:106:MET:HG2	2.21	0.40
4:E:231:ALA:O	4:E:234:PRO:HD2	2.21	0.40
5:H:189:ILE:O	5:H:192:PRO:HD2	2.21	0.40
7:Y:8:ASP:C	7:Y:8:ASP:OD2	2.64	0.40
1:k:316:LEU:HD12	1:k:316:LEU:HA	1.87	0.40
1:1:366:TYR:O	6:U:72:HIS:CE1	2.74	0.40
1:6:290:LYS:HE3	1:6:290:LYS:HB2	1.93	0.40
1:9:360:ARG:NH1	1:9:362:GLU:OE1	2.55	0.40
1:AB:360:ARG:NH1	1:AB:362:GLU:OE1	2.55	0.40
1:AE:360:ARG:NH1	1:AE:362:GLU:OE1	2.55	0.40
1:AL:360:ARG:NH1	1:AL:362:GLU:OE1	2.55	0.40
1:UI:51:TYR:HB2	1:UI:78:ARG:CZ	2.51	0.40
1:UI:54:LEU:HG	1:UI:55:PHE:CD2	2.57	0.40
1:UI:212:LEU:HG	1:UI:220:LEU:HD12	2.04	0.40
1:UK:54:LEU:HG	1:UK:55:PHE:CD2	2.57	0.40
1:UK:212:LEU:HG	1:UK:220:LEU:HD12	2.04	0.40
1:UM:51:TYR:HB2	1:UM:78:ARG:CZ	2.52	0.40
1:UO:51:TYR:HB2	1:UO:78:ARG:CZ	2.51	0.40
1:UO:212:LEU:HG	1:UO:220:LEU:HD12	2.03	0.40
1:WK:163:SER:O	4:E:252:ALA:HB2	2.21	0.40
1:WS:164:LEU:HD23	1:WS:164:LEU:HA	1.87	0.40
1:u:360:ARG:NH1	1:u:362:GLU:OE1	2.55	0.40
1:z:297:GLN:HE22	6:U:63:VAL:H	1.69	0.40
3:A:69:MET:HE3	3:A:69:MET:HB3	1.72	0.40
4:E:13:LEU:O	4:E:17:PHE:HB2	2.22	0.40
4:E:176:GLY:HA2	4:E:179:ILE:CD1	2.49	0.40
5:G:69:ILE:HG12	5:H:83:ALA:O	2.22	0.40
6:R:29:ASN:HD22	6:R:29:ASN:HA	1.77	0.40
7:W:10:ALA:HB3	7:W:119:LEU:HD13	2.02	0.40
7:Z:45:LYS:C	7:Z:46:GLN:HG2	2.46	0.40
1:AI:235:LEU:HB3	1:AJ:244:ARG:NH2	2.36	0.40
2:N:7:ILE:O	2:N:11:ILE:HG23	2.21	0.40
1:WA:168:GLU:OE1	1:WW:169:GLN:HB2	2.21	0.40
1:WG:200:SER:HG	1:WH:175:SER:HB2	1.77	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WH:186:LEU:HD22	1:WH:190:GLN:CG	2.52	0.40
1:WJ:164:LEU:CD2	4:E:144:LEU:HB3	2.51	0.40
1:WU:145:GLU:O	1:WU:147:LEU:N	2.54	0.40
1:t:360:ARG:NH1	1:t:362:GLU:OE1	2.55	0.40
1:v:421:GLY:O	1:v:426:ARG:NH2	2.51	0.40
3:A:4:GLU:O	3:A:5:SER:C	2.65	0.40
3:B:39:GLN:NE2	3:B:49:LEU:HD12	2.30	0.40
3:D:24:LEU:HD13	5:J:203:VAL:CG2	2.52	0.40
4:E:193:LEU:O	4:E:196:THR:OG1	2.26	0.40
7:a:50:GLN:OE1	7:a:63:LYS:NZ	2.46	0.40
7:a:55:PRO:HG2	1:b:320:PRO:HB3	2.03	0.40
1:2:425:LYS:HE3	1:2:425:LYS:HB3	1.97	0.40
1:5:278:THR:HG22	2:N:14:LEU:HD23	2.04	0.40
1:5:404:LEU:HD22	1:5:409:MET:HE3	2.02	0.40
1:AH:360:ARG:NH1	1:AH:362:GLU:OE1	2.55	0.40
1:AP:360:ARG:NH1	1:AP:362:GLU:OE1	2.55	0.40
1:UJ:263:ASP:OD2	1:UJ:267:HIS:HB2	2.20	0.40
1:UM:165:PHE:HD1	1:UM:165:PHE:HA	1.77	0.40
1:WA:167:ARG:HH21	5:H:162:PRO:HD2	1.84	0.40
1:WG:187:ASP:HB3	1:WG:190:GLN:H	1.87	0.40
1:WI:181:GLU:CB	1:WI:184:ARG:CG	2.85	0.40
1:WJ:144:ILE:O	1:WJ:147:LEU:HB2	2.21	0.40
1:WJ:164:LEU:HD21	4:E:144:LEU:HB3	2.04	0.40
1:w:360:ARG:NH1	1:w:362:GLU:OE1	2.55	0.40
1:w:404:LEU:HD22	1:w:409:MET:HE3	2.02	0.40
3:A:20:LEU:HD11	3:A:73:LEU:HD21	2.04	0.40
6:Q:19:ARG:HD3	6:Q:19:ARG:HA	1.89	0.40
6:R:31:ALA:HB1	7:W:13:ALA:HB2	2.04	0.40
6:S:67:LEU:CA	6:S:72:HIS:HE2	2.34	0.40
7:a:35:THR:OG1	7:a:39:GLY:HA2	2.22	0.40
7:a:97:ASP:OD1	7:a:97:ASP:N	2.45	0.40
1:8:421:GLY:O	1:8:426:ARG:NH2	2.51	0.40
1:AP:297:GLN:HE22	6:Q:77:ALA:CB	2.34	0.40
1:AQ:235:LEU:HB3	1:t:244:ARG:NH2	2.36	0.40
1:UJ:54:LEU:HG	1:UJ:55:PHE:CD2	2.57	0.40
1:UN:212:LEU:HG	1:UN:220:LEU:HD12	2.03	0.40
1:WC:193:ALA:CB	1:WD:213:VAL:CG1	3.00	0.40
1:WI:162:PRO:HG2	1:WJ:165:PHE:HZ	1.86	0.40
1:WR:193:ALA:HB1	1:WS:213:VAL:CG2	2.52	0.40
1:WS:115:LEU:HA	1:WS:118:GLN:OE1	2.21	0.40
1:WV:145:GLU:O	1:WV:147:LEU:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WW:165:PHE:CZ	5:H:143:ARG:NH1	2.90	0.40
1:z:404:LEU:HD22	1:z:409:MET:HE3	2.02	0.40
3:A:84:LEU:O	3:A:85:PRO:C	2.63	0.40
3:B:51:PHE:CE2	3:B:55:ILE:HD11	2.56	0.40
4:E:175:ALA:HA	4:E:178:LEU:HD23	2.02	0.40
5:H:71:PHE:HD1	5:H:71:PHE:HA	1.80	0.40
6:S:32:ASN:HA	7:X:62:VAL:CG2	2.52	0.40
6:S:92:GLN:NE2	7:Y:19:LYS:HA	2.37	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	0	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	1	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	2	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	3	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	4	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	5	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	6	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	7	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	8	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	9	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AA	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AB	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AC	160/560 (29%)	158 (99%)	2 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AD	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AE	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AF	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AG	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AH	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AI	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AJ	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AK	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AL	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AM	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AN	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AO	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AP	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	AQ	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	UI	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	UJ	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	UK	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	UL	151/560 (27%)	142 (94%)	7 (5%)	2 (1%)	9	41
1	UM	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	UN	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	UO	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	UP	151/560 (27%)	146 (97%)	3 (2%)	2 (1%)	9	41
1	WA	111/560 (20%)	99 (89%)	9 (8%)	3 (3%)	4	25
1	WB	109/560 (20%)	94 (86%)	10 (9%)	5 (5%)	2	17
1	WC	106/560 (19%)	96 (91%)	9 (8%)	1 (1%)	14	49
1	WD	108/560 (19%)	99 (92%)	4 (4%)	5 (5%)	2	17
1	WE	110/560 (20%)	98 (89%)	8 (7%)	4 (4%)	2	20
1	WF	109/560 (20%)	98 (90%)	8 (7%)	3 (3%)	4	24
1	WG	110/560 (20%)	98 (89%)	10 (9%)	2 (2%)	6	33
1	WH	93/560 (17%)	86 (92%)	5 (5%)	2 (2%)	5	29
1	WI	93/560 (17%)	82 (88%)	5 (5%)	6 (6%)	1	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	WJ	97/560 (17%)	89 (92%)	7 (7%)	1 (1%)	12	47
1	WK	96/560 (17%)	84 (88%)	9 (9%)	3 (3%)	3	22
1	WL	81/560 (14%)	75 (93%)	4 (5%)	2 (2%)	4	26
1	WM	78/560 (14%)	72 (92%)	4 (5%)	2 (3%)	4	25
1	WN	80/560 (14%)	75 (94%)	2 (2%)	3 (4%)	2	19
1	WO	94/560 (17%)	85 (90%)	7 (7%)	2 (2%)	5	30
1	WP	98/560 (18%)	87 (89%)	6 (6%)	5 (5%)	1	15
1	WQ	109/560 (20%)	100 (92%)	5 (5%)	4 (4%)	2	20
1	WR	109/560 (20%)	94 (86%)	8 (7%)	7 (6%)	1	13
1	WS	109/560 (20%)	96 (88%)	7 (6%)	6 (6%)	1	15
1	WT	109/560 (20%)	97 (89%)	5 (5%)	7 (6%)	1	13
1	WU	110/560 (20%)	101 (92%)	8 (7%)	1 (1%)	14	49
1	WV	108/560 (19%)	97 (90%)	9 (8%)	2 (2%)	6	32
1	WW	109/560 (20%)	95 (87%)	9 (8%)	5 (5%)	2	17
1	b	11/560 (2%)	9 (82%)	2 (18%)	0	100	100
1	c	14/560 (2%)	12 (86%)	2 (14%)	0	100	100
1	d	18/560 (3%)	18 (100%)	0	0	100	100
1	e	14/560 (2%)	14 (100%)	0	0	100	100
1	f	19/560 (3%)	17 (90%)	2 (10%)	0	100	100
1	g	14/560 (2%)	13 (93%)	1 (7%)	0	100	100
1	h	19/560 (3%)	19 (100%)	0	0	100	100
1	i	14/560 (2%)	14 (100%)	0	0	100	100
1	j	18/560 (3%)	18 (100%)	0	0	100	100
1	k	14/560 (2%)	14 (100%)	0	0	100	100
1	l	19/560 (3%)	19 (100%)	0	0	100	100
1	t	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	u	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	v	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	w	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	x	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
1	y	160/560 (29%)	158 (99%)	2 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	z	160/560 (29%)	158 (99%)	2 (1%)	0	100	100
2	K	55/104 (53%)	52 (94%)	3 (6%)	0	100	100
2	L	87/104 (84%)	87 (100%)	0	0	100	100
2	M	89/104 (86%)	87 (98%)	2 (2%)	0	100	100
2	N	89/104 (86%)	89 (100%)	0	0	100	100
2	O	89/104 (86%)	89 (100%)	0	0	100	100
2	P	88/104 (85%)	88 (100%)	0	0	100	100
3	A	87/89 (98%)	81 (93%)	4 (5%)	2 (2%)	5	28
3	B	87/89 (98%)	86 (99%)	1 (1%)	0	100	100
3	C	87/89 (98%)	86 (99%)	1 (1%)	0	100	100
3	D	87/89 (98%)	85 (98%)	2 (2%)	0	100	100
4	E	251/264 (95%)	233 (93%)	16 (6%)	2 (1%)	16	52
5	F	205/245 (84%)	197 (96%)	8 (4%)	0	100	100
5	G	207/245 (84%)	199 (96%)	6 (3%)	2 (1%)	12	47
5	H	206/245 (84%)	201 (98%)	5 (2%)	0	100	100
5	I	206/245 (84%)	199 (97%)	6 (3%)	1 (0%)	24	62
5	J	207/245 (84%)	192 (93%)	10 (5%)	5 (2%)	4	27
6	Q	132/138 (96%)	127 (96%)	4 (3%)	1 (1%)	16	52
6	R	115/138 (83%)	114 (99%)	1 (1%)	0	100	100
6	S	119/138 (86%)	116 (98%)	3 (2%)	0	100	100
6	T	121/138 (88%)	119 (98%)	2 (2%)	0	100	100
6	U	117/138 (85%)	115 (98%)	2 (2%)	0	100	100
7	V	131/134 (98%)	122 (93%)	9 (7%)	0	100	100
7	W	130/134 (97%)	123 (95%)	7 (5%)	0	100	100
7	X	131/134 (98%)	124 (95%)	7 (5%)	0	100	100
7	Y	131/134 (98%)	121 (92%)	7 (5%)	3 (2%)	5	28
7	Z	129/134 (96%)	123 (95%)	5 (4%)	1 (1%)	16	52
7	a	131/134 (98%)	124 (95%)	7 (5%)	0	100	100
All	All	12672/46523 (27%)	12179 (96%)	379 (3%)	114 (1%)	16	49

All (114) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	WO	168	GLU
1	WR	123	ILE
1	WR	165	PHE
1	WR	166	VAL
1	WS	187	ASP
3	A	84	LEU
5	J	83	ALA
5	J	87	GLN
1	WB	148	GLY
1	WB	163	SER
1	WD	146	THR
1	WD	148	GLY
1	WF	118	GLN
1	WI	146	THR
1	WI	160	PRO
1	WI	170	LYS
1	WK	166	VAL
1	WM	148	GLY
1	WN	146	THR
1	WN	148	GLY
1	WP	146	THR
1	WQ	146	THR
1	WQ	148	GLY
1	WQ	169	GLN
1	WS	146	THR
1	WT	146	THR
1	WT	162	PRO
1	WW	146	THR
1	WW	148	GLY
4	E	167	ASN
4	E	213	ILE
5	G	83	ALA
5	I	160	GLN
5	J	86	ASN
7	Y	54	ALA
1	UI	162	PRO
1	UJ	162	PRO
1	UK	162	PRO
1	UL	162	PRO
1	UM	162	PRO
1	UN	162	PRO
1	UO	162	PRO
1	UP	162	PRO

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Mol	Chain	Res	Type
1	WB	146	THR
1	WB	164	LEU
1	WD	118	GLN
1	WE	160	PRO
1	WE	162	PRO
1	WI	148	GLY
1	WP	148	GLY
1	WS	118	GLN
1	WS	169	GLN
1	WT	165	PHE
1	WW	118	GLN
1	WW	168	GLU
5	J	140	ARG
6	Q	77	ALA
7	Y	58	ALA
1	UI	163	SER
1	UJ	163	SER
1	UK	163	SER
1	UL	163	SER
1	UM	163	SER
1	UN	163	SER
1	UO	163	SER
1	UP	163	SER
1	WA	182	PRO
1	WB	182	PRO
1	WD	165	PHE
1	WD	182	PRO
1	WE	182	PRO
1	WF	182	PRO
1	WG	182	PRO
1	WH	165	PHE
1	WH	182	PRO
1	WI	169	GLN
1	WI	182	PRO
1	WJ	182	PRO
1	WK	182	PRO
1	WL	182	PRO
1	WM	182	PRO
1	WN	182	PRO
1	WO	182	PRO
1	WP	182	PRO
1	WQ	182	PRO

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Mol	Chain	Res	Type
1	WR	112	GLY
1	WR	182	PRO
1	WS	182	PRO
1	WT	182	PRO
1	WU	182	PRO
1	WV	148	GLY
1	WV	182	PRO
1	WW	182	PRO
7	Y	55	PRO
1	WK	168	GLU
1	WR	121	PHE
1	WT	163	SER
3	A	85	PRO
5	G	162	PRO
1	WC	182	PRO
1	WE	221	THR
1	WF	162	PRO
1	WG	163	SER
7	Z	58	ALA
1	WA	160	PRO
1	WL	148	GLY
1	WS	148	GLY
1	WT	148	GLY
1	WA	148	GLY
1	WP	123	ILE
1	WR	148	GLY
1	WP	160	PRO
1	WT	161	LYS
5	J	229	VAL

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	0	141/467 (30%)	140 (99%)	1 (1%)	76 79
1	1	141/467 (30%)	140 (99%)	1 (1%)	76 79

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	2	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	3	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	4	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	5	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	6	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	7	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	8	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	9	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AA	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AB	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AC	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AD	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AE	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AF	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AG	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AH	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AI	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AJ	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AK	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AL	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AM	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AN	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AO	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AP	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	AQ	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	UI	128/467 (27%)	122 (95%)	6 (5%)	23	46
1	UJ	128/467 (27%)	121 (94%)	7 (6%)	19	43
1	UK	128/467 (27%)	122 (95%)	6 (5%)	23	46
1	UL	128/467 (27%)	122 (95%)	6 (5%)	23	46
1	UM	128/467 (27%)	122 (95%)	6 (5%)	23	46
1	UN	128/467 (27%)	122 (95%)	6 (5%)	23	46

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	UO	128/467 (27%)	122 (95%)	6 (5%)	23 46
1	UP	128/467 (27%)	121 (94%)	7 (6%)	19 43
1	WA	95/467 (20%)	91 (96%)	4 (4%)	26 48
1	WB	93/467 (20%)	86 (92%)	7 (8%)	12 33
1	WC	91/467 (20%)	83 (91%)	8 (9%)	9 29
1	WD	92/467 (20%)	88 (96%)	4 (4%)	26 48
1	WE	94/467 (20%)	87 (93%)	7 (7%)	13 34
1	WF	93/467 (20%)	84 (90%)	9 (10%)	8 25
1	WG	94/467 (20%)	85 (90%)	9 (10%)	8 26
1	WH	79/467 (17%)	75 (95%)	4 (5%)	21 44
1	WI	79/467 (17%)	75 (95%)	4 (5%)	21 44
1	WJ	83/467 (18%)	80 (96%)	3 (4%)	31 52
1	WK	82/467 (18%)	76 (93%)	6 (7%)	13 34
1	WL	69/467 (15%)	67 (97%)	2 (3%)	37 58
1	WM	66/467 (14%)	64 (97%)	2 (3%)	36 57
1	WN	68/467 (15%)	66 (97%)	2 (3%)	37 58
1	WO	80/467 (17%)	76 (95%)	4 (5%)	22 44
1	WP	83/467 (18%)	80 (96%)	3 (4%)	31 52
1	WQ	93/467 (20%)	90 (97%)	3 (3%)	34 56
1	WR	93/467 (20%)	85 (91%)	8 (9%)	10 30
1	WS	93/467 (20%)	89 (96%)	4 (4%)	26 48
1	WT	93/467 (20%)	86 (92%)	7 (8%)	12 33
1	WU	94/467 (20%)	88 (94%)	6 (6%)	16 38
1	WV	92/467 (20%)	81 (88%)	11 (12%)	5 19
1	WW	93/467 (20%)	85 (91%)	8 (9%)	10 30
1	b	8/467 (2%)	7 (88%)	1 (12%)	4 18
1	c	11/467 (2%)	11 (100%)	0	100 100
1	d	14/467 (3%)	12 (86%)	2 (14%)	3 15
1	e	11/467 (2%)	11 (100%)	0	100 100
1	f	15/467 (3%)	15 (100%)	0	100 100
1	g	11/467 (2%)	11 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	h	15/467 (3%)	15 (100%)	0	100	100
1	i	11/467 (2%)	11 (100%)	0	100	100
1	j	14/467 (3%)	13 (93%)	1 (7%)	13	36
1	k	11/467 (2%)	11 (100%)	0	100	100
1	l	15/467 (3%)	14 (93%)	1 (7%)	15	37
1	t	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	u	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	v	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	w	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	x	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	y	141/467 (30%)	140 (99%)	1 (1%)	76	79
1	z	141/467 (30%)	140 (99%)	1 (1%)	76	79
2	K	45/79 (57%)	43 (96%)	2 (4%)	25	47
2	L	68/79 (86%)	66 (97%)	2 (3%)	37	58
2	M	70/79 (89%)	65 (93%)	5 (7%)	13	36
2	N	70/79 (89%)	67 (96%)	3 (4%)	26	48
2	O	70/79 (89%)	68 (97%)	2 (3%)	37	58
2	P	69/79 (87%)	64 (93%)	5 (7%)	13	35
3	A	74/74 (100%)	67 (90%)	7 (10%)	8	26
3	B	74/74 (100%)	72 (97%)	2 (3%)	39	60
3	C	74/74 (100%)	74 (100%)	0	100	100
3	D	74/74 (100%)	74 (100%)	0	100	100
4	E	210/221 (95%)	209 (100%)	1 (0%)	81	81
5	F	177/204 (87%)	175 (99%)	2 (1%)	65	74
5	G	179/204 (88%)	175 (98%)	4 (2%)	45	64
5	H	178/204 (87%)	176 (99%)	2 (1%)	65	74
5	I	178/204 (87%)	174 (98%)	4 (2%)	45	64
5	J	179/204 (88%)	174 (97%)	5 (3%)	38	59
6	Q	110/113 (97%)	106 (96%)	4 (4%)	31	52
6	R	101/113 (89%)	101 (100%)	0	100	100
6	S	103/113 (91%)	99 (96%)	4 (4%)	28	50

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
6	T	104/113 (92%)	103 (99%)	1 (1%)	68 76
6	U	102/113 (90%)	100 (98%)	2 (2%)	48 66
7	V	104/105 (99%)	104 (100%)	0	100 100
7	W	104/105 (99%)	101 (97%)	3 (3%)	37 58
7	X	104/105 (99%)	102 (98%)	2 (2%)	50 66
7	Y	104/105 (99%)	100 (96%)	4 (4%)	29 51
7	Z	103/105 (98%)	101 (98%)	2 (2%)	50 66
7	a	104/105 (99%)	102 (98%)	2 (2%)	50 66
All	All	10878/38698 (28%)	10594 (97%)	284 (3%)	41 60

All (284) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	0	295	SER
1	1	295	SER
1	2	295	SER
1	3	295	SER
1	4	295	SER
1	5	295	SER
1	6	295	SER
1	7	295	SER
1	8	295	SER
1	9	295	SER
1	AA	295	SER
1	AB	295	SER
1	AC	295	SER
1	AD	295	SER
1	AE	295	SER
1	AF	295	SER
1	AG	295	SER
1	AH	295	SER
1	AI	295	SER
1	AJ	295	SER
1	AK	295	SER
1	AL	295	SER
1	AM	295	SER
1	AN	295	SER
1	AO	295	SER
1	AP	295	SER

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Mol	Chain	Res	Type
1	AQ	295	SER
2	K	15	GLN
2	K	19	MET
2	L	15	GLN
2	L	19	MET
2	M	7	ILE
2	M	11	ILE
2	M	14	LEU
2	M	15	GLN
2	M	19	MET
2	N	15	GLN
2	N	19	MET
2	N	97	GLN
2	O	15	GLN
2	O	19	MET
2	P	15	GLN
2	P	19	MET
2	P	57	GLU
2	P	91	LYS
2	P	102	MET
1	UI	98	LEU
1	UI	127	SER
1	UI	154	ARG
1	UI	159	MET
1	UI	165	PHE
1	UI	219	LEU
1	UJ	98	LEU
1	UJ	103	GLN
1	UJ	127	SER
1	UJ	154	ARG
1	UJ	159	MET
1	UJ	165	PHE
1	UJ	268	LEU
1	UK	98	LEU
1	UK	127	SER
1	UK	154	ARG
1	UK	159	MET
1	UK	165	PHE
1	UK	219	LEU
1	UL	98	LEU
1	UL	127	SER
1	UL	154	ARG

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Mol	Chain	Res	Type
1	UL	159	MET
1	UL	167	ARG
1	UL	219	LEU
1	UM	98	LEU
1	UM	127	SER
1	UM	154	ARG
1	UM	159	MET
1	UM	165	PHE
1	UM	219	LEU
1	UN	98	LEU
1	UN	127	SER
1	UN	154	ARG
1	UN	159	MET
1	UN	165	PHE
1	UN	219	LEU
1	UO	98	LEU
1	UO	127	SER
1	UO	154	ARG
1	UO	159	MET
1	UO	165	PHE
1	UO	219	LEU
1	UP	98	LEU
1	UP	127	SER
1	UP	154	ARG
1	UP	159	MET
1	UP	165	PHE
1	UP	167	ARG
1	UP	219	LEU
1	WA	114	GLU
1	WA	123	ILE
1	WA	167	ARG
1	WA	170	LYS
1	WB	119	GLU
1	WB	120	LYS
1	WB	137	GLU
1	WB	159	MET
1	WB	164	LEU
1	WB	166	VAL
1	WB	169	GLN
1	WC	115	LEU
1	WC	120	LYS
1	WC	128	GLU

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Mol	Chain	Res	Type
1	WC	134	ARG
1	WC	164	LEU
1	WC	166	VAL
1	WC	168	GLU
1	WC	170	LYS
1	WD	114	GLU
1	WD	115	LEU
1	WD	159	MET
1	WD	167	ARG
1	WE	114	GLU
1	WE	123	ILE
1	WE	128	GLU
1	WE	134	ARG
1	WE	160	PRO
1	WE	161	LYS
1	WE	164	LEU
1	WF	111	VAL
1	WF	113	PHE
1	WF	123	ILE
1	WF	134	ARG
1	WF	142	ARG
1	WF	159	MET
1	WF	161	LYS
1	WF	162	PRO
1	WF	166	VAL
1	WG	111	VAL
1	WG	114	GLU
1	WG	115	LEU
1	WG	120	LYS
1	WG	129	GLN
1	WG	134	ARG
1	WG	164	LEU
1	WG	170	LYS
1	WG	190	GLN
1	WH	134	ARG
1	WH	159	MET
1	WH	168	GLU
1	WH	221	THR
1	WI	165	PHE
1	WI	168	GLU
1	WI	169	GLN
1	WI	170	LYS

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Mol	Chain	Res	Type
1	WJ	123	ILE
1	WJ	167	ARG
1	WJ	169	GLN
1	WK	129	GLN
1	WK	164	LEU
1	WK	165	PHE
1	WK	167	ARG
1	WK	170	LYS
1	WK	187	ASP
1	WL	159	MET
1	WL	221	THR
1	WM	159	MET
1	WM	221	THR
1	WN	159	MET
1	WN	221	THR
1	WO	159	MET
1	WO	169	GLN
1	WO	170	LYS
1	WO	221	THR
1	WP	154	ARG
1	WP	161	LYS
1	WP	165	PHE
1	WQ	114	GLU
1	WQ	134	ARG
1	WQ	159	MET
1	WR	114	GLU
1	WR	117	ASP
1	WR	128	GLU
1	WR	129	GLN
1	WR	164	LEU
1	WR	166	VAL
1	WR	169	GLN
1	WR	170	LYS
1	WS	114	GLU
1	WS	134	ARG
1	WS	159	MET
1	WS	221	THR
1	WT	119	GLU
1	WT	123	ILE
1	WT	134	ARG
1	WT	159	MET
1	WT	161	LYS

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Mol	Chain	Res	Type
1	WT	165	PHE
1	WT	167	ARG
1	WU	114	GLU
1	WU	123	ILE
1	WU	134	ARG
1	WU	159	MET
1	WU	161	LYS
1	WU	164	LEU
1	WV	114	GLU
1	WV	115	LEU
1	WV	120	LYS
1	WV	128	GLU
1	WV	129	GLN
1	WV	134	ARG
1	WV	164	LEU
1	WV	166	VAL
1	WV	169	GLN
1	WV	170	LYS
1	WV	187	ASP
1	WW	114	GLU
1	WW	115	LEU
1	WW	134	ARG
1	WW	159	MET
1	WW	167	ARG
1	WW	168	GLU
1	WW	169	GLN
1	WW	221	THR
1	t	295	SER
1	u	295	SER
1	v	295	SER
1	w	295	SER
1	x	295	SER
1	y	295	SER
1	z	295	SER
3	A	7	MET
3	A	15	LYS
3	A	69	MET
3	A	73	LEU
3	A	75	ASP
3	A	85	PRO
3	A	87	ILE
3	B	2	THR

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Mol	Chain	Res	Type
3	B	6	VAL
4	E	214	PHE
5	F	160	GLN
5	F	190	PHE
5	G	48	ILE
5	G	140	ARG
5	G	160	GLN
5	G	162	PRO
5	H	135	ARG
5	H	152	ARG
5	I	125	GLU
5	I	152	ARG
5	I	187	PHE
5	I	241	GLN
5	J	65	THR
5	J	67	ILE
5	J	140	ARG
5	J	144	GLU
5	J	230	ASP
6	Q	53	MET
6	Q	60	THR
6	Q	101	ASP
6	Q	125	SER
6	S	65	LEU
6	S	69	SER
6	S	71	HIS
6	S	72	HIS
6	T	76	GLN
6	U	65	LEU
6	U	104	ARG
7	W	3	LEU
7	W	46	GLN
7	W	126	MET
7	X	119	LEU
7	X	128	LYS
7	Y	3	LEU
7	Y	4	LEU
7	Y	75	LYS
7	Y	101	GLU
7	Z	6	ILE
7	Z	127	LEU
7	a	38	ASP

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Mol	Chain	Res	Type
7	a	123	LYS
1	b	322	PRO
1	d	318	ASN
1	d	319	GLN
1	j	319	GLN
1	l	318	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (337) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	231	ASN
1	0	234	GLN
1	0	246	GLN
1	0	281	HIS
1	0	303	GLN
1	0	374	HIS
1	0	378	ASN
1	0	434	ASN
1	1	231	ASN
1	1	234	GLN
1	1	263	HIS
1	1	297	GLN
1	1	299	ASN
1	1	303	GLN
1	1	374	HIS
1	1	378	ASN
1	1	434	ASN
1	2	231	ASN
1	2	234	GLN
1	2	263	HIS
1	2	303	GLN
1	2	374	HIS
1	2	378	ASN
1	2	434	ASN
1	3	231	ASN
1	3	234	GLN
1	3	281	HIS
1	3	303	GLN
1	3	374	HIS
1	3	378	ASN
1	3	434	ASN
1	4	231	ASN

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Mol	Chain	Res	Type
1	4	234	GLN
1	4	303	GLN
1	4	374	HIS
1	4	378	ASN
1	4	434	ASN
1	5	231	ASN
1	5	234	GLN
1	5	297	GLN
1	5	299	ASN
1	5	303	GLN
1	5	374	HIS
1	5	378	ASN
1	5	434	ASN
1	6	231	ASN
1	6	234	GLN
1	6	281	HIS
1	6	297	GLN
1	6	303	GLN
1	6	374	HIS
1	6	378	ASN
1	6	434	ASN
1	7	231	ASN
1	7	234	GLN
1	7	299	ASN
1	7	303	GLN
1	7	374	HIS
1	7	378	ASN
1	7	434	ASN
1	8	231	ASN
1	8	234	GLN
1	8	303	GLN
1	8	374	HIS
1	8	378	ASN
1	8	434	ASN
1	9	231	ASN
1	9	234	GLN
1	9	303	GLN
1	9	374	HIS
1	9	378	ASN
1	9	434	ASN
1	AA	231	ASN
1	AA	234	GLN

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Mol	Chain	Res	Type
1	AA	374	HIS
1	AA	378	ASN
1	AA	434	ASN
1	AB	231	ASN
1	AB	234	GLN
1	AB	246	GLN
1	AB	265	GLN
1	AB	303	GLN
1	AB	374	HIS
1	AB	378	ASN
1	AB	434	ASN
1	AC	231	ASN
1	AC	234	GLN
1	AC	246	GLN
1	AC	303	GLN
1	AC	374	HIS
1	AC	378	ASN
1	AC	434	ASN
1	AD	231	ASN
1	AD	234	GLN
1	AD	281	HIS
1	AD	297	GLN
1	AD	303	GLN
1	AD	365	ASN
1	AD	374	HIS
1	AD	378	ASN
1	AD	434	ASN
1	AE	231	ASN
1	AE	234	GLN
1	AE	281	HIS
1	AE	297	GLN
1	AE	303	GLN
1	AE	374	HIS
1	AE	378	ASN
1	AE	434	ASN
1	AF	231	ASN
1	AF	234	GLN
1	AF	303	GLN
1	AF	374	HIS
1	AF	378	ASN
1	AF	434	ASN
1	AG	231	ASN

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Mol	Chain	Res	Type
1	AG	234	GLN
1	AG	281	HIS
1	AG	303	GLN
1	AG	378	ASN
1	AG	434	ASN
1	AH	231	ASN
1	AH	234	GLN
1	AH	303	GLN
1	AH	374	HIS
1	AH	378	ASN
1	AH	434	ASN
1	AI	231	ASN
1	AI	234	GLN
1	AI	303	GLN
1	AI	374	HIS
1	AI	378	ASN
1	AI	434	ASN
1	AJ	234	GLN
1	AJ	281	HIS
1	AJ	303	GLN
1	AJ	374	HIS
1	AJ	378	ASN
1	AJ	434	ASN
1	AK	234	GLN
1	AK	303	GLN
1	AK	374	HIS
1	AK	378	ASN
1	AK	434	ASN
1	AL	234	GLN
1	AL	303	GLN
1	AL	378	ASN
1	AL	434	ASN
1	AM	234	GLN
1	AM	374	HIS
1	AM	378	ASN
1	AM	434	ASN
1	AN	234	GLN
1	AN	374	HIS
1	AN	378	ASN
1	AN	434	ASN
1	AO	234	GLN
1	AO	297	GLN

Continued on next page...

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Mol	Chain	Res	Type
1	AO	303	GLN
1	AO	374	HIS
1	AO	378	ASN
1	AO	434	ASN
1	AP	234	GLN
1	AP	297	GLN
1	AP	299	ASN
1	AP	303	GLN
1	AP	374	HIS
1	AP	378	ASN
1	AP	434	ASN
1	AQ	234	GLN
1	AQ	303	GLN
1	AQ	374	HIS
1	AQ	378	ASN
1	AQ	434	ASN
2	K	69	ASN
2	K	83	GLN
2	K	103	GLN
2	M	13	GLN
2	M	15	GLN
2	M	103	GLN
2	N	87	GLN
2	O	39	HIS
2	O	55	GLN
2	O	83	GLN
2	O	87	GLN
2	P	55	GLN
2	P	87	GLN
1	UI	69	GLN
1	UI	94	HIS
1	UI	196	HIS
1	UJ	94	HIS
1	UJ	245	HIS
1	UK	94	HIS
1	UK	196	HIS
1	UL	69	GLN
1	UL	94	HIS
1	UL	196	HIS
1	UM	94	HIS
1	UM	196	HIS
1	UN	69	GLN

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Mol	Chain	Res	Type
1	UN	94	HIS
1	UN	196	HIS
1	UO	69	GLN
1	UO	94	HIS
1	UO	196	HIS
1	UP	94	HIS
1	UP	196	HIS
1	WA	156	HIS
1	WB	169	GLN
1	WC	129	GLN
1	WC	190	GLN
1	WE	156	HIS
1	WE	209	ASN
1	WF	118	GLN
1	WG	118	GLN
1	WH	156	HIS
1	WI	129	GLN
1	WI	156	HIS
1	WI	209	ASN
1	WJ	169	GLN
1	WJ	209	ASN
1	WO	209	ASN
1	WP	169	GLN
1	WP	209	ASN
1	WR	129	GLN
1	WR	156	HIS
1	WT	156	HIS
1	WT	209	ASN
1	WV	118	GLN
1	WV	169	GLN
1	t	234	GLN
1	t	303	GLN
1	t	374	HIS
1	t	378	ASN
1	t	434	ASN
1	u	234	GLN
1	u	303	GLN
1	u	374	HIS
1	u	378	ASN
1	u	434	ASN
1	v	234	GLN
1	v	303	GLN

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Mol	Chain	Res	Type
1	v	378	ASN
1	v	434	ASN
1	w	231	ASN
1	w	234	GLN
1	w	281	HIS
1	w	303	GLN
1	w	374	HIS
1	w	378	ASN
1	w	434	ASN
1	x	231	ASN
1	x	234	GLN
1	x	281	HIS
1	x	303	GLN
1	x	374	HIS
1	x	378	ASN
1	x	434	ASN
1	y	231	ASN
1	y	234	GLN
1	y	303	GLN
1	y	374	HIS
1	y	378	ASN
1	y	431	ASN
1	y	434	ASN
1	z	231	ASN
1	z	234	GLN
1	z	281	HIS
1	z	303	GLN
1	z	374	HIS
1	z	378	ASN
1	z	434	ASN
3	D	39	GLN
4	E	119	HIS
4	E	141	ASN
4	E	162	ASN
4	E	182	ASN
4	E	205	ASN
5	F	119	GLN
5	F	124	GLN
5	F	141	GLN
5	F	160	GLN
5	G	87	GLN
5	G	124	GLN

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Mol	Chain	Res	Type
5	G	160	GLN
5	G	241	GLN
5	H	160	GLN
5	H	184	GLN
5	I	160	GLN
5	I	184	GLN
5	J	87	GLN
5	J	114	GLN
5	J	155	ASN
5	J	241	GLN
6	Q	17	ASN
6	Q	71	HIS
6	R	21	GLN
6	R	29	ASN
6	R	92	GLN
6	R	98	ASN
6	R	117	GLN
6	S	29	ASN
6	S	32	ASN
6	S	76	GLN
6	S	92	GLN
6	T	21	GLN
6	T	32	ASN
6	T	39	GLN
6	T	72	HIS
6	T	76	GLN
6	T	98	ASN
6	T	117	GLN
6	U	72	HIS
6	U	76	GLN
6	U	92	GLN
6	U	112	ASN
7	V	30	ASN
7	W	5	ASN
7	X	40	GLN
7	X	50	GLN
7	X	57	GLN
7	X	134	GLN
7	Y	22	ASN
7	Y	82	ASN
7	Z	17	GLN
7	Z	22	ASN

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Mol	Chain	Res	Type
7	a	57	GLN
7	a	115	ASN
1	b	318	ASN
1	b	319	GLN
1	d	319	GLN
1	e	318	ASN
1	e	324	ASN
1	i	318	ASN
1	j	318	ASN
1	k	318	ASN
1	l	319	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

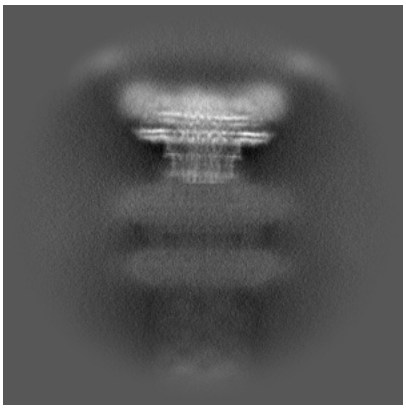
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-37625. These allow visual inspection of the internal detail of the map and identification of artifacts.

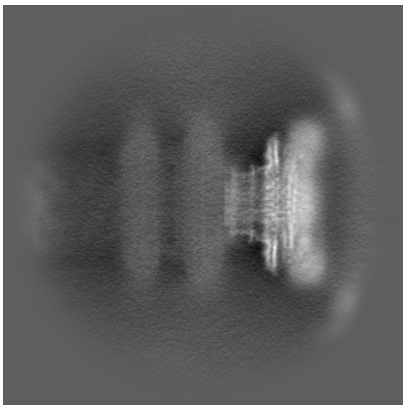
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

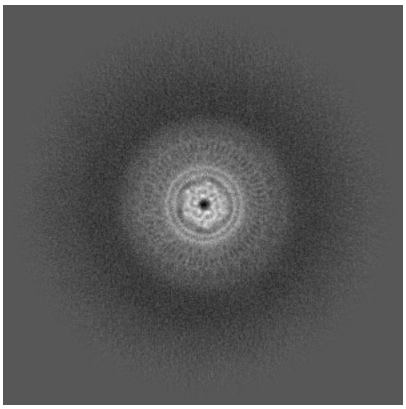
6.1.1 Primary map



X

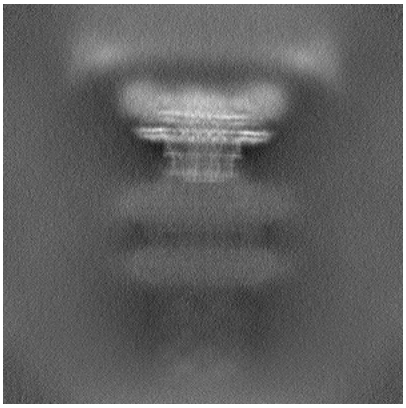


Y

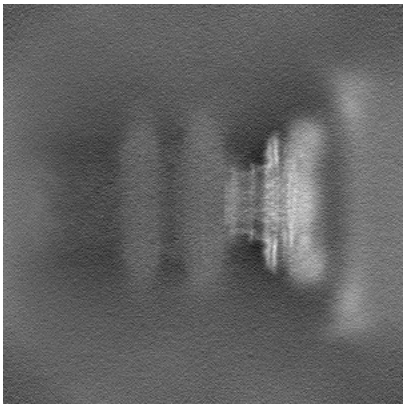


Z

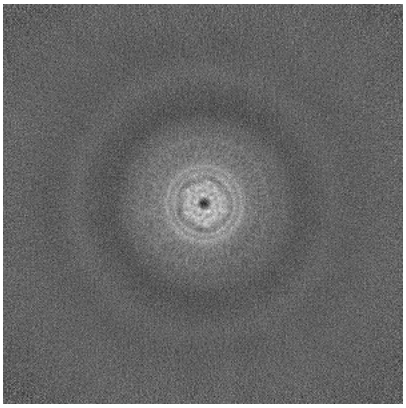
6.1.2 Raw map



X



Y

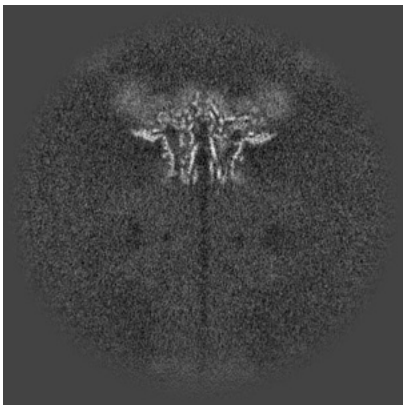


Z

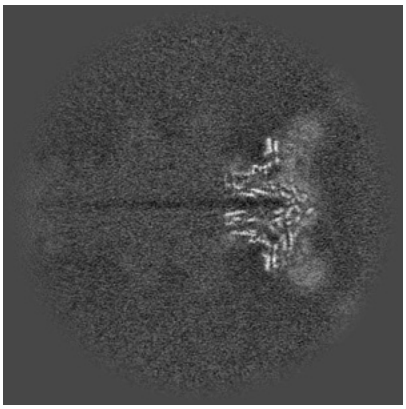
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

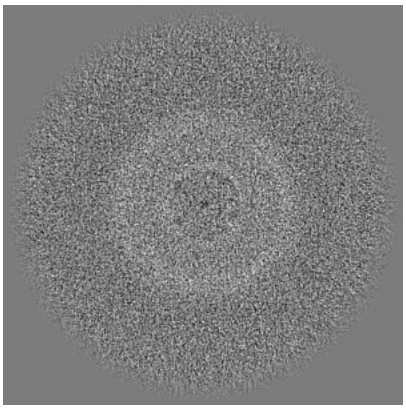
6.2.1 Primary map



X Index: 256

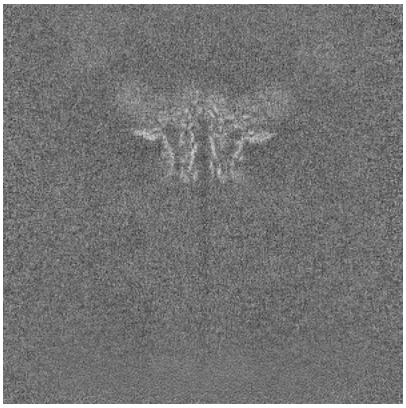


Y Index: 256

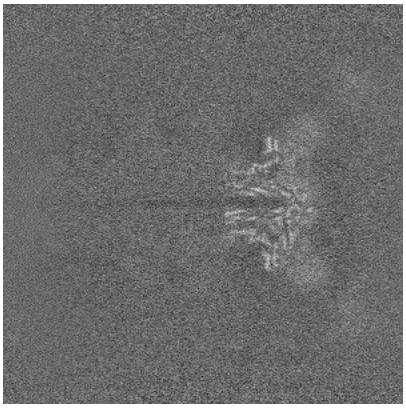


Z Index: 256

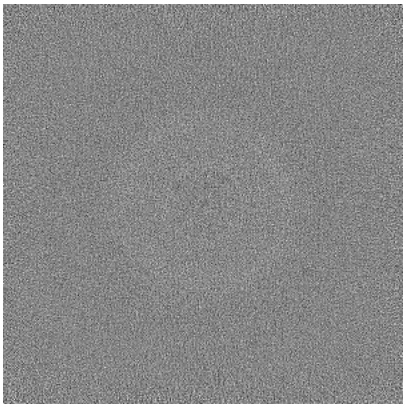
6.2.2 Raw map



X Index: 256



Y Index: 256

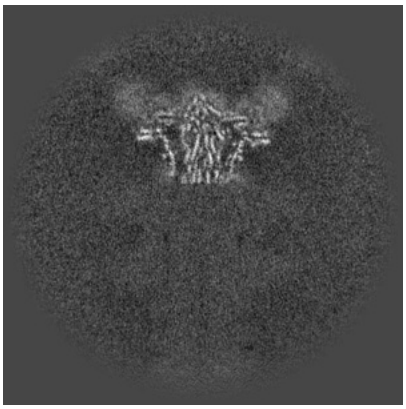


Z Index: 256

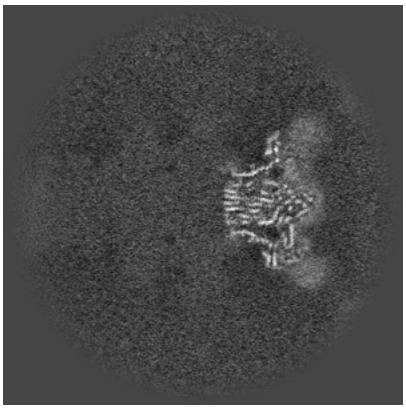
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

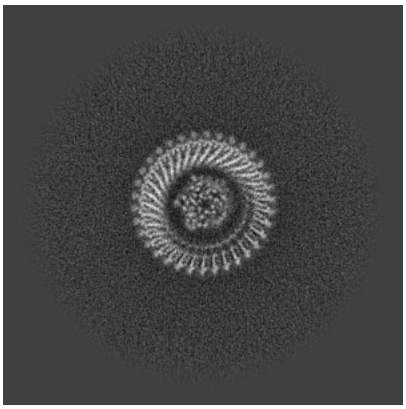
6.3.1 Primary map



X Index: 249

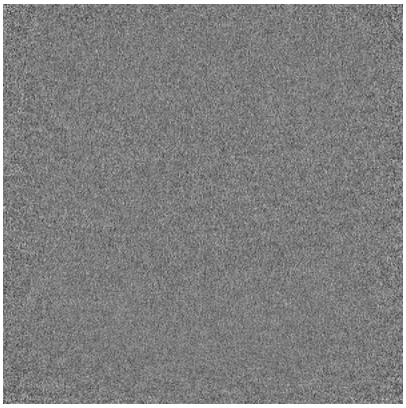


Y Index: 244

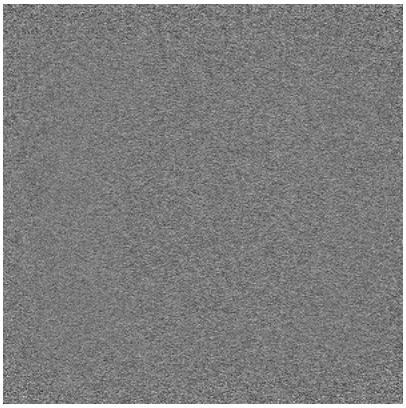


Z Index: 347

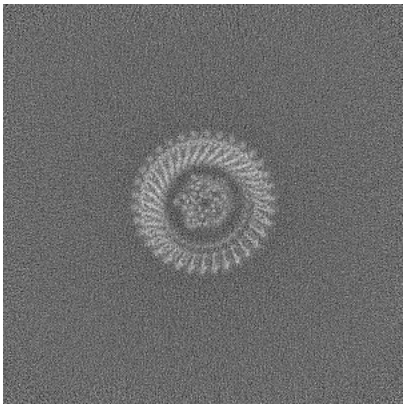
6.3.2 Raw map



X Index: 0



Y Index: 0

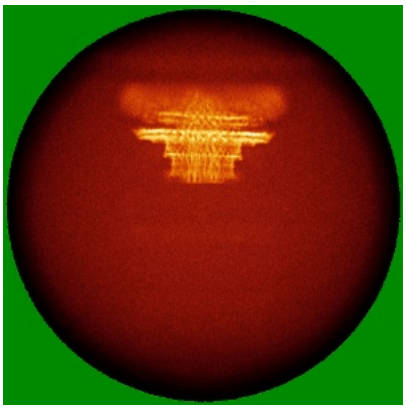


Z Index: 347

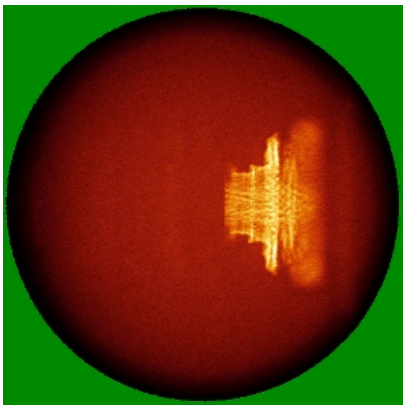
The images above show the largest variance slices of the map in three orthogonal directions.

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

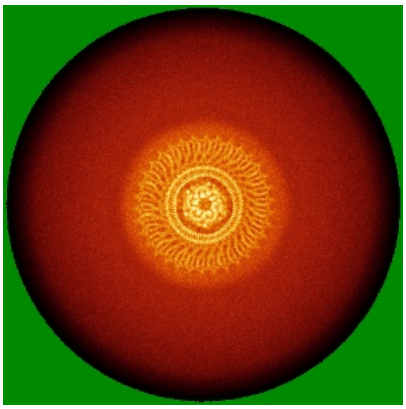
6.4.1 Primary map



X

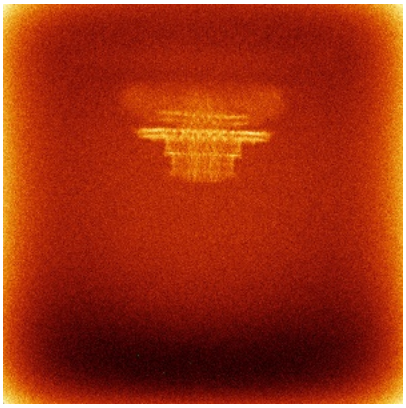


Y

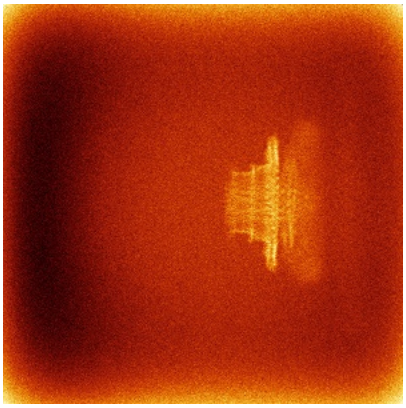


Z

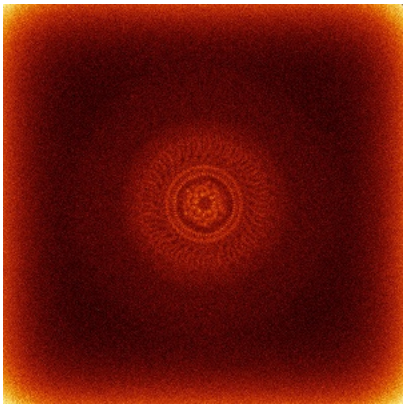
6.4.2 Raw map



X



Y

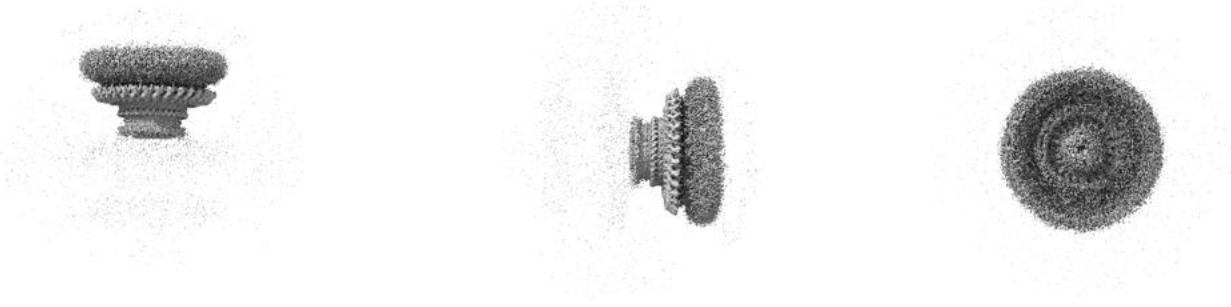


Z

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)

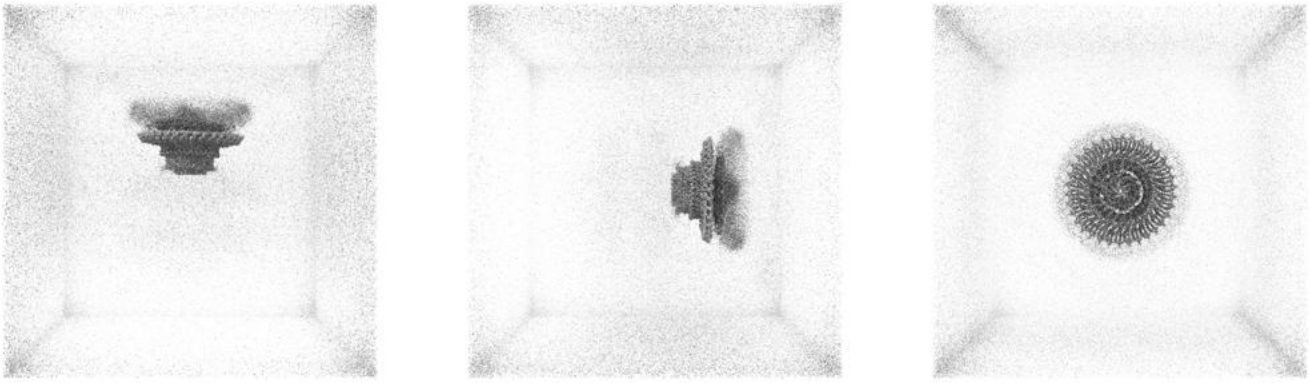
6.5.1 Primary map



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.

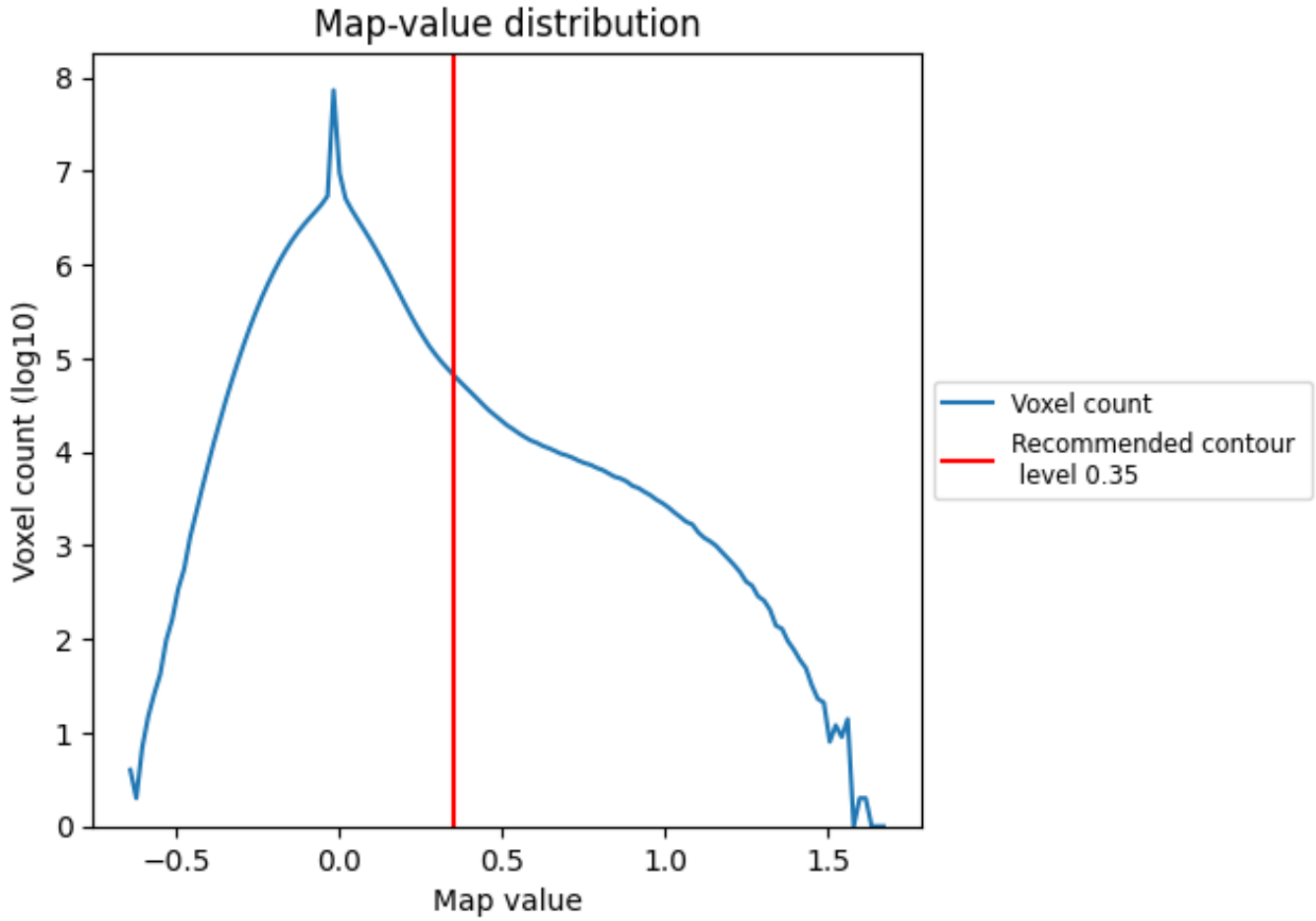
6.6 Mask visualisation (i)

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

7 Map analysis

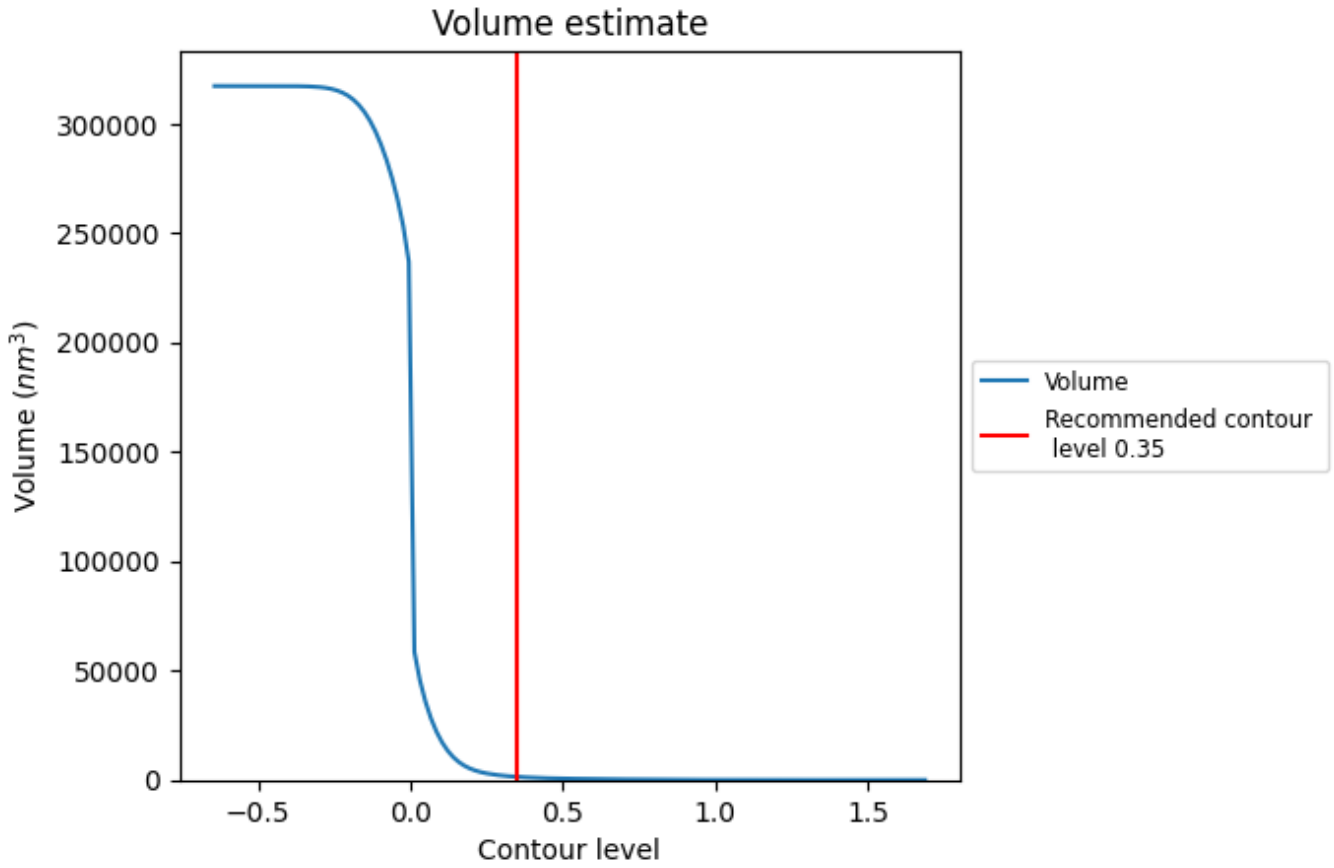
This section contains the results of statistical analysis of the map.

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.

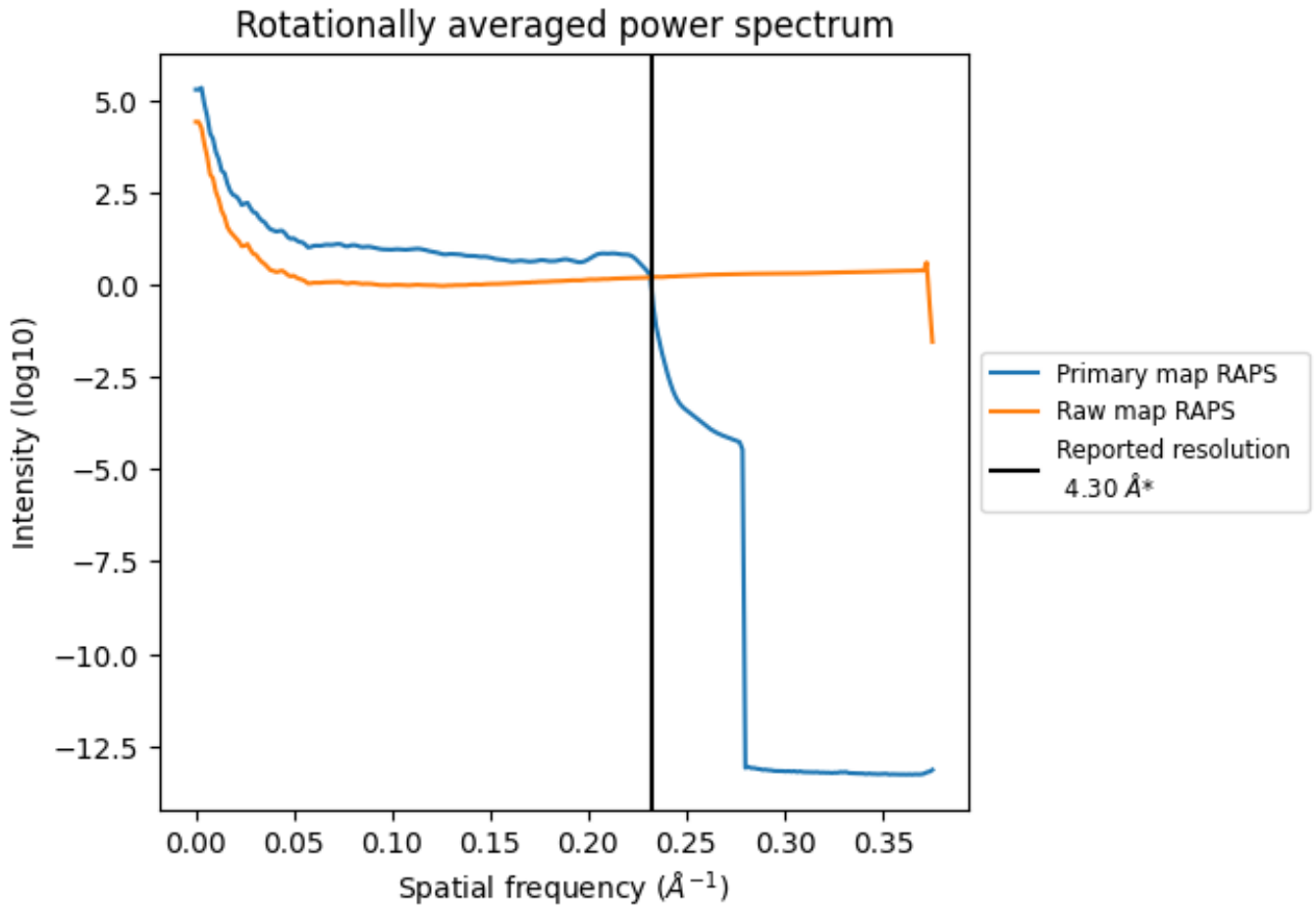
7.2 Volume estimate



The volume at the recommended contour level is 1439 nm^3; this corresponds to an approximate mass of 1300 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)

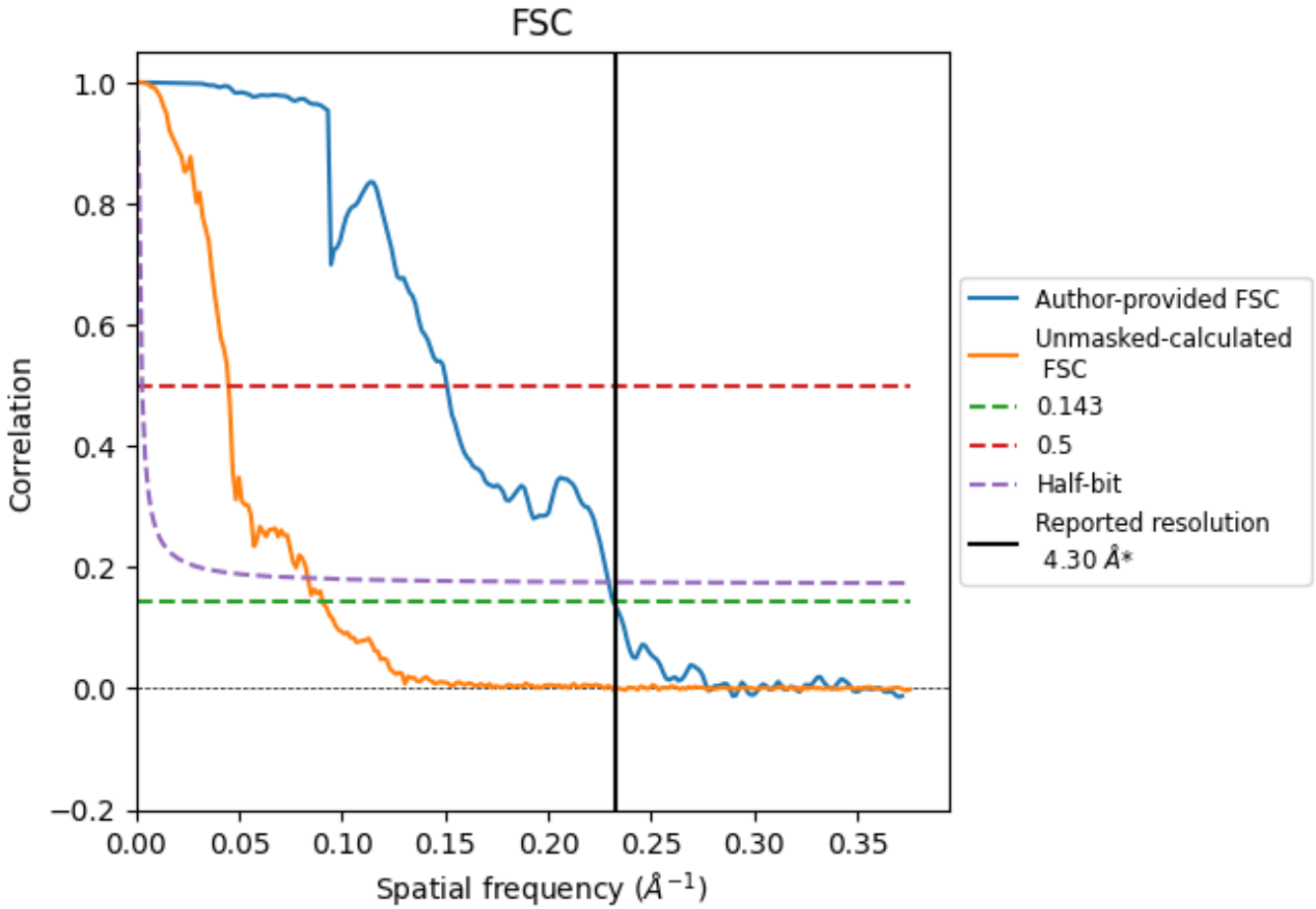


*Reported resolution corresponds to spatial frequency of 0.233 $Å^{-1}$

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 0.233 Å^{-1}

8.2 Resolution estimates (i)

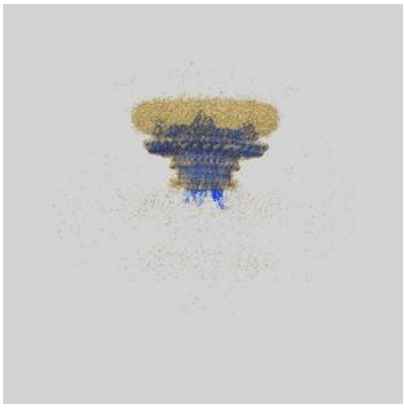
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.30	-	-
Author-provided FSC curve	4.31	6.63	4.36
Unmasked-calculated*	11.04	22.32	11.99

*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 11.04 differs from the reported value 4.3 by more than 10 %

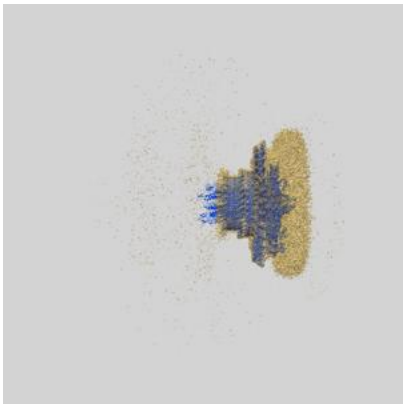
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-37625 and PDB model 8WLN. Per-residue inclusion information can be found in section 3 on page 13.

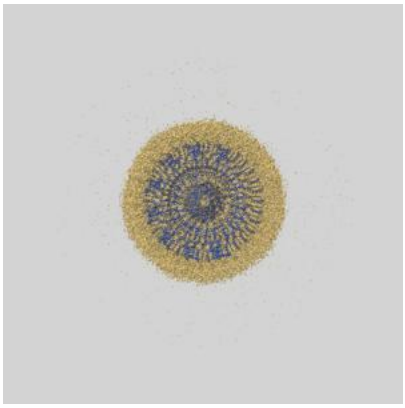
9.1 Map-model overlay



X



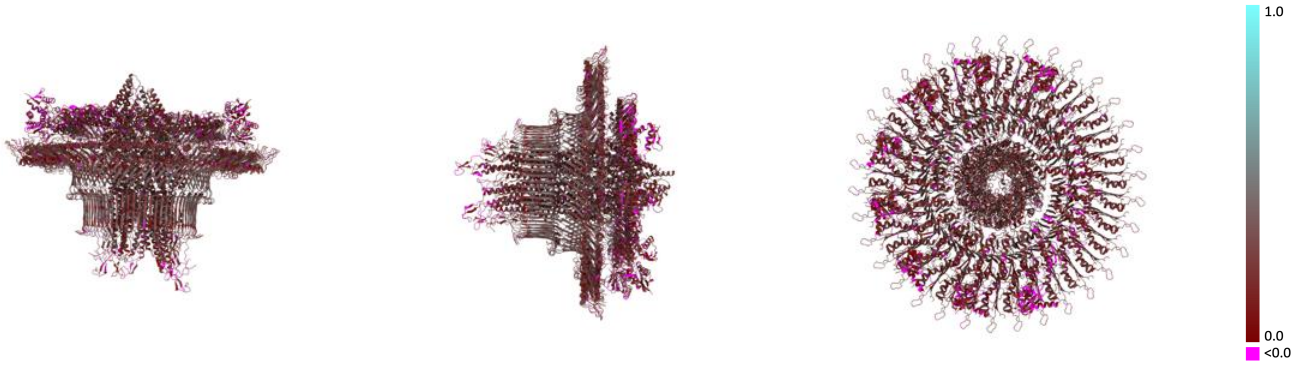
Y



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.

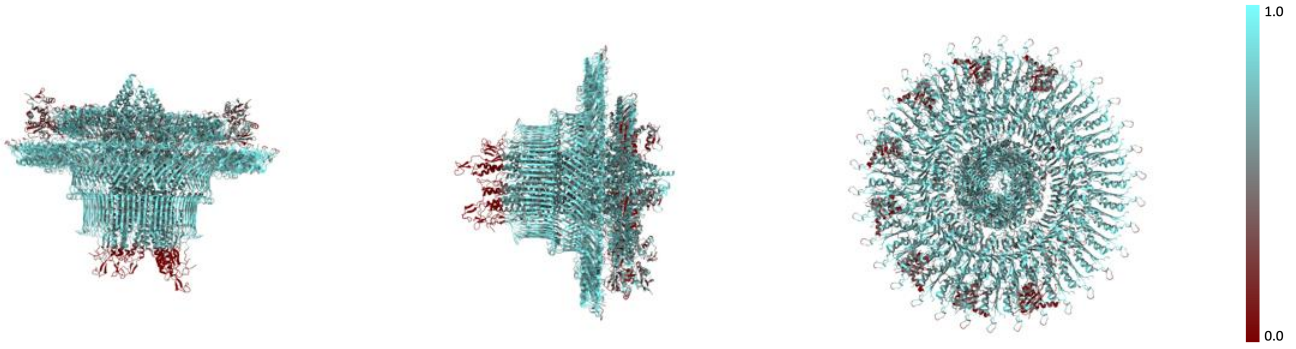
9.2 Q-score mapped to coordinate model (i)



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.

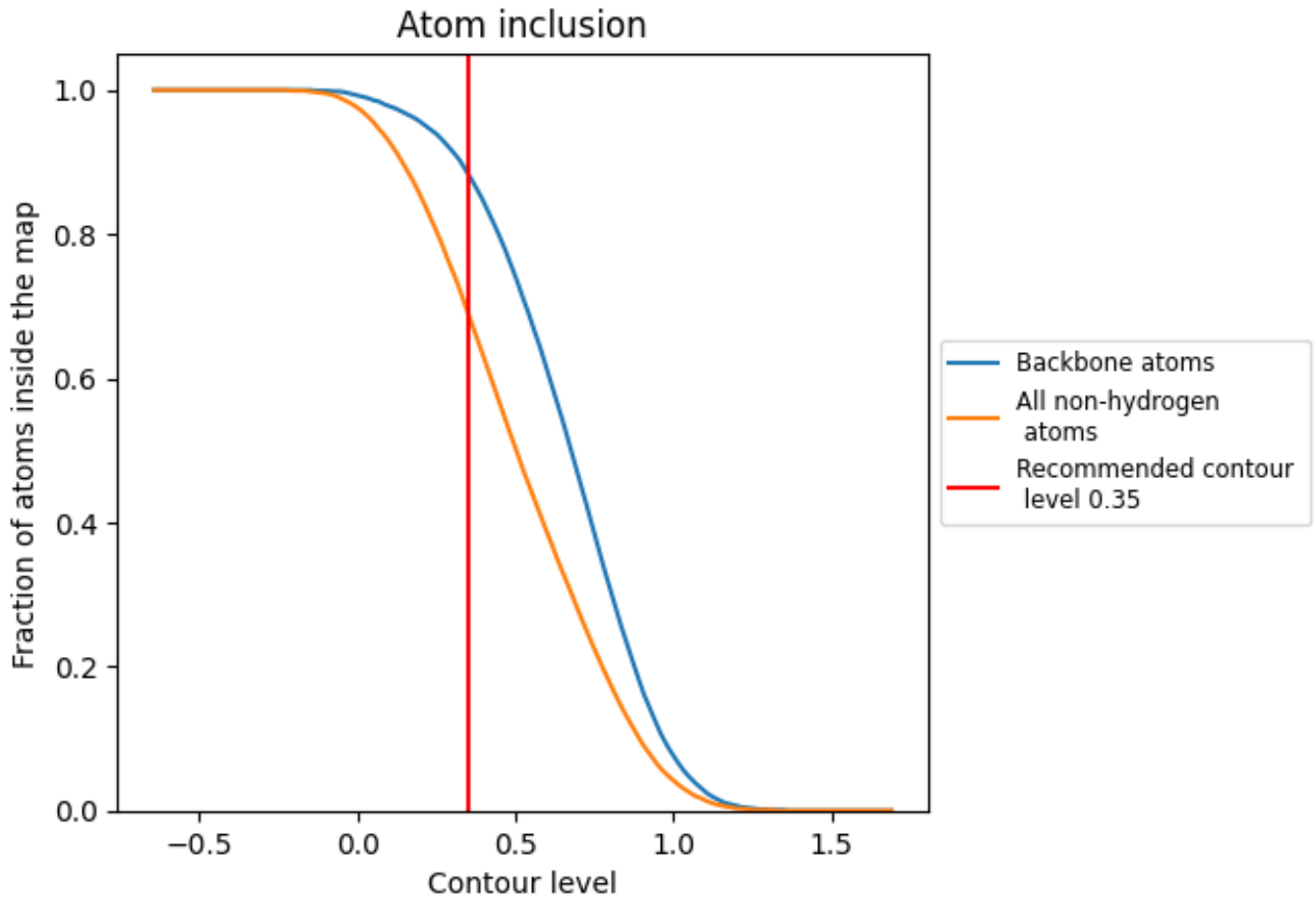
9.3 Atom inclusion mapped to coordinate model (i)



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, 88% of all backbone atoms, 69% 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	0.6910	0.2300
0	0.7850	0.2680
1	0.7820	0.2640
2	0.8010	0.2690
3	0.7770	0.2700
4	0.7880	0.2600
5	0.7960	0.2700
6	0.7780	0.2560
7	0.8000	0.2690
8	0.7920	0.2740
9	0.7870	0.2720
A	0.7280	0.2250
AA	0.7840	0.2710
AB	0.7820	0.2730
AC	0.7740	0.2520
AD	0.7940	0.2550
AE	0.7990	0.2640
AF	0.7860	0.2490
AG	0.7920	0.2470
AH	0.7780	0.2470
AI	0.7610	0.2430
AJ	0.7780	0.2430
AK	0.7750	0.2530
AL	0.7720	0.2590
AM	0.7690	0.2500
AN	0.7790	0.2600
AO	0.7880	0.2670
AP	0.7760	0.2600
AQ	0.7840	0.2720
B	0.7460	0.2500
C	0.7440	0.2360
D	0.7350	0.2270
E	0.7390	0.2560
F	0.7450	0.2530
G	0.7270	0.2590



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Chain	Atom inclusion	Q-score
H	0.7260	0.2540
I	0.7120	0.2400
J	0.7190	0.2570
K	0.6740	0.2340
L	0.7040	0.2490
M	0.7150	0.2610
N	0.7030	0.2420
O	0.6790	0.2380
P	0.6840	0.2430
Q	0.7010	0.2740
R	0.7160	0.2590
S	0.6970	0.2530
T	0.6920	0.2440
U	0.6370	0.2460
UI	0.4250	0.1280
UJ	0.4330	0.1430
UK	0.3790	0.1290
UL	0.3740	0.1060
UM	0.2750	0.0510
UN	0.4210	0.1180
UO	0.4140	0.1210
UP	0.4600	0.1050
V	0.5170	0.2300
W	0.4370	0.2280
WA	0.7290	0.2050
WB	0.7350	0.2200
WC	0.7660	0.2330
WD	0.7600	0.2270
WE	0.7380	0.2270
WF	0.7410	0.2360
WG	0.7160	0.2290
WH	0.6860	0.2070
WI	0.6880	0.1910
WJ	0.7290	0.2140
WK	0.6090	0.1490
WL	0.6490	0.1350
WM	0.6900	0.1310
WN	0.6530	0.1150
WO	0.6440	0.1230
WP	0.7210	0.1890
WQ	0.6840	0.1910
WR	0.6950	0.1920

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Chain	Atom inclusion	Q-score
WS	0.7280	0.2010
WT	0.7170	0.2000
WU	0.7080	0.2140
WV	0.7340	0.2110
WW	0.7400	0.2270
X	0.3970	0.2070
Y	0.3460	0.1830
Z	0.2900	0.1570
a	0.2470	0.1730
b	0.6420	0.2240
c	0.5920	0.2860
d	0.5040	0.2360
e	0.4950	0.2290
f	0.5430	0.2330
g	0.3590	0.1800
h	0.4860	0.2200
i	0.1650	0.1660
j	0.5040	0.2610
k	0.0780	0.1140
l	0.3430	0.2040
t	0.7880	0.2830
u	0.7920	0.2790
v	0.7980	0.2840
w	0.8070	0.2830
x	0.7960	0.2770
y	0.7940	0.2850
z	0.7860	0.2800