



Full wwPDB EM Validation Report ⓘ

Mar 24, 2026 – 04:40 AM UTC

PDB ID : 7CGO / pdb_00007cgo
EMDB ID : EMD-30359
Title : Cryo-EM structure of the flagellar motor-hook complex from Salmonella
Authors : Tan, J.X.; Chang, S.H.; Wang, X.F.; Xu, C.H.; Zhou, Y.; Zhang, X.; Zhu, Y.Q.
Deposited on : 2020-07-01
Resolution : 3.90 Å(reported)

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

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A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
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

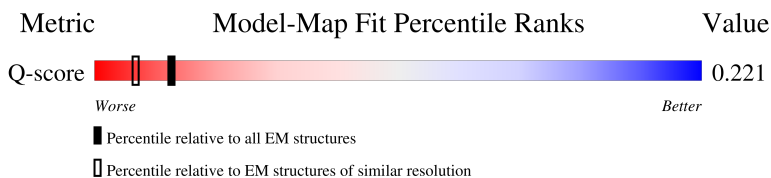
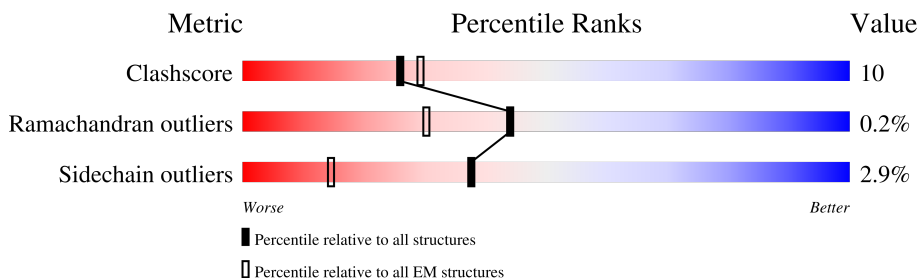
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

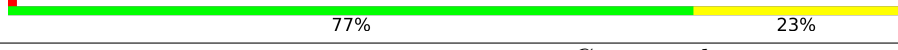
The reported resolution of this entry is 3.90 Å.

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.



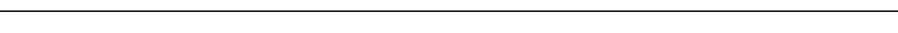
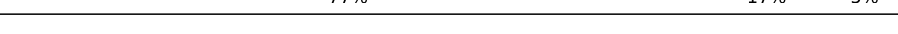
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	8855 (3.40 - 4.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	260	
1	B	260	
1	C	260	
1	D	260	

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Mol	Chain	Length	Quality of chain
1	E	260	 78% 21% .
1	F	260	 78% 22%
1	G	260	 76% 23% .
1	H	260	 78% 22% .
1	I	260	 80% 19%
1	J	260	 81% 18% .
1	K	260	 83% 16% .
1	L	260	 79% 20%
1	M	260	 85% 15%
1	N	260	 76% 21% .
1	O	260	 78% 18% . .
1	P	260	 79% 17% 5%
1	Q	260	 77% 17% . 5%
1	R	260	 77% 18% . .
1	S	260	 77% 17% 5%
1	T	260	 78% 20% .
1	U	260	 78% 22%
1	V	260	 73% 25% .
1	W	260	 78% 20% .
1	X	260	 82% 17%
2	a	251	 78% 21% .
2	b	251	 73% 24% . .
2	c	251	 77% 22% .
2	d	251	 79% 20% . .
2	e	251	 81% 18% .

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Mol	Chain	Length	Quality of chain
3	0	15	100%
3	1	15	93% 7%
3	2	15	93% 7%
3	3	15	100%
3	4	15	87% 13%
4	5	21	90% 10%
4	6	21	14% 95% 5%
4	7	21	86% 14%
4	8	21	86% 14%
4	9	21	10% 86% 14%
5	f	134	69% 27% .
5	g	134	74% 21% . .
5	h	134	66% 28% . .
5	i	134	77% 19% .
5	j	134	76% 18% . 5%
5	p	134	78% 18% .
6	k	138	61% 17% 22%
6	l	138	62% 14% . 23%
6	m	138	56% 21% 23%
6	n	138	59% 18% . 22%
6	o	138	64% 15% 21%
7	q	104	59% 10% 32%
7	r	104	57% 11% 33%
7	s	104	65% . 31%
7	t	104	61% 9% 31%

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Mol	Chain	Length	Quality of chain
7	u	104	
7	v	104	
8	DA	403	
8	DB	403	
8	DC	403	
8	DD	403	
8	DE	403	
8	DF	403	
8	DG	403	
8	DH	403	
8	DI	403	
8	DJ	403	
8	DK	403	
8	DL	403	
8	DM	403	
8	DN	403	
8	DO	403	
8	DP	403	
8	DQ	403	
8	DR	403	
8	DS	403	
8	DT	403	
8	DU	403	
8	DV	403	
8	DW	403	

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Mol	Chain	Length	Quality of chain
8	DX	403	75% 67%33%
8	DY	403	75% 70%29%
8	DZ	403	77% 72%28%
8	EA	403	84% 74%26%
8	EB	403	81% 66%34%
8	EC	403	86% 72%27%
8	ED	403	88% 69%31%
8	EE	403	86% 72%27%
8	EF	403	93% 70%30%
8	EG	403	93% 71%28%
9	CE	264	17% 65%33%
10	CA	89	76% 24%
10	CB	89	6% 74%25%
10	CC	89	66% 34%
10	CD	89	20% 80%20%
11	CF	245	64% 21%14%
11	w	245	62% 24%14%
11	x	245	7% 67%17%14%
11	y	245	55% 30%14%
11	z	245	64% 22%14%
12	Ca	560	9% 21%6%73%
12	Cb	560	9% 20%7%73%
12	Cc	560	9% 20%7%73%
12	Cd	560	12% 20%6%73%
12	Ce	560	10% 20%6%73%

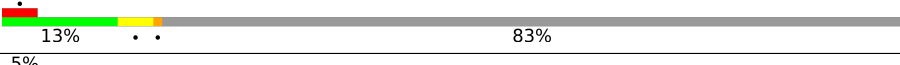
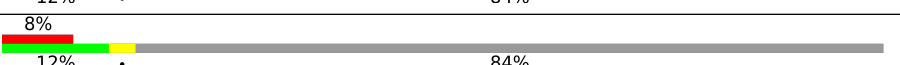
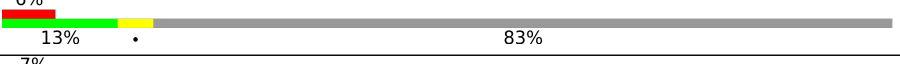
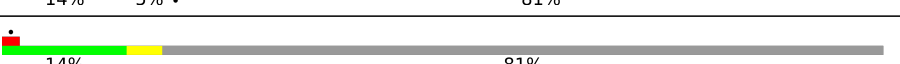
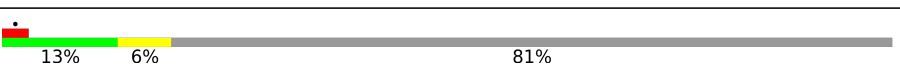
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Mol	Chain	Length	Quality of chain
12	Cf	560	
12	Cg	560	
12	Ch	560	
12	Ci	560	
12	Cj	560	
12	Ck	560	
12	Cl	560	
12	Cm	560	
12	Cn	560	
12	Co	560	
12	Cp	560	
12	Cq	560	
12	Cr	560	
12	Cs	560	
12	Ct	560	
12	Cu	560	
12	Cv	560	
12	Cw	560	
12	Cx	560	
12	Cy	560	
12	Cz	560	
12	Da	560	
12	Db	560	
12	Dc	560	
12	Dd	560	

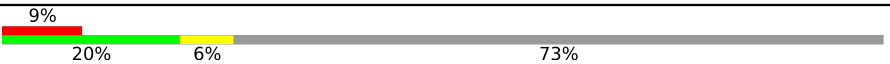
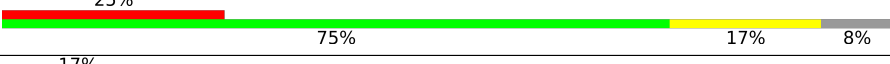
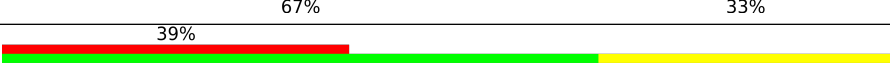
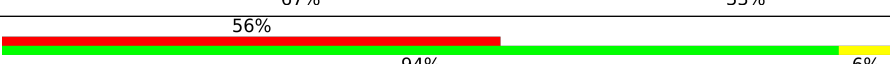
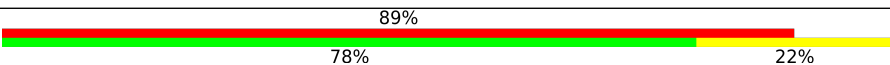
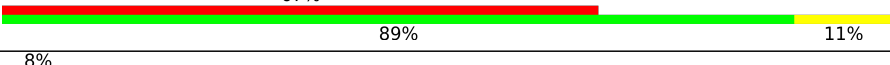
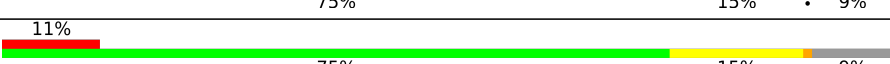
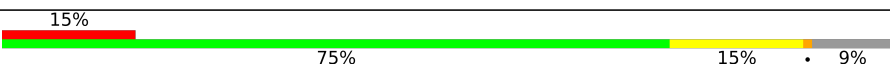
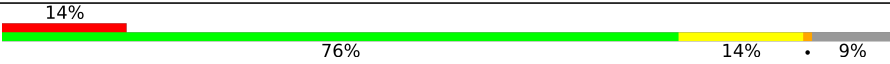
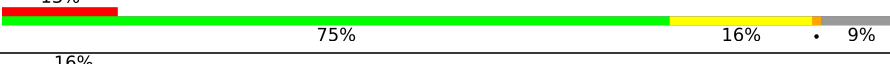
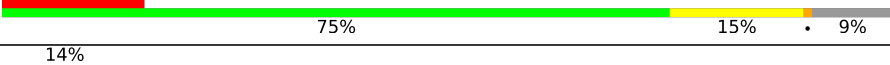
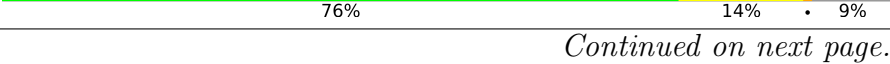
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Mol	Chain	Length	Quality of chain
12	De	560	
12	Df	560	
12	Dg	560	
12	Dh	560	
12	Di	560	
12	Dj	560	
12	Dk	560	
12	Dl	560	
12	Dm	560	
12	Dn	560	
12	Do	560	
12	Dp	560	
12	Dq	560	
12	Dr	560	
12	Ds	560	
12	Dt	560	
12	Du	560	
12	Dv	560	
12	Dw	560	
12	Ea	560	
12	Eb	560	
12	Ec	560	
12	Ed	560	
12	Ee	560	
12	Ef	560	

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Mol	Chain	Length	Quality of chain
12	Eg	560	
12	Eh	560	
13	GA	12	
13	GB	12	
13	GC	12	
13	GD	12	
13	GE	12	
14	GF	18	
14	GG	18	
14	GH	18	
14	GI	18	
14	GJ	18	
14	GK	18	
15	AA	232	
15	AB	232	
15	AC	232	
15	AD	232	
15	AE	232	
15	AF	232	
15	AG	232	
15	AH	232	
15	AI	232	
15	AJ	232	
15	AK	232	
15	AL	232	

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Mol	Chain	Length	Quality of chain
15	AM	232	
15	AN	232	
15	AO	232	
15	AP	232	
15	AQ	232	
15	AR	232	
15	AS	232	
15	AT	232	
15	AU	232	
15	AV	232	
15	AW	232	
15	AX	232	
15	AY	232	
15	AZ	232	
16	BA	365	
16	BB	365	
16	BC	365	
16	BD	365	
16	BE	365	
16	BF	365	
16	BG	365	
16	BH	365	
16	BI	365	
16	BJ	365	
16	BK	365	

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Mol	Chain	Length	Quality of chain
16	BL	365	
16	BM	365	
16	BN	365	
16	BO	365	
16	BP	365	
16	BQ	365	
16	BR	365	
16	BS	365	
16	BT	365	
16	BU	365	
16	BV	365	
16	BW	365	
16	BX	365	
16	BY	365	
16	BZ	365	

2 Entry composition [i](#)

There are 16 unique types of molecules in this entry. The entry contains 335722 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 basal-body rod protein FlgG.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	B	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	C	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	D	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	E	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	F	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	G	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	H	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	I	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	J	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	K	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	L	259	Total 1941	C 1197	N 340	O 399	S 5	0	0
1	M	260	Total 1949	C 1202	N 341	O 400	S 6	0	0
1	N	251	Total 1887	C 1167	N 330	O 384	S 6	0	0
1	O	252	Total 1894	C 1172	N 331	O 385	S 6	0	0
1	P	248	Total 1862	C 1151	N 327	O 379	S 5	0	0
1	Q	247	Total 1858	C 1149	N 326	O 378	S 5	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	250	Total	C	N	O	S	0	0
			1875	1159	329	382	5		
1	S	247	Total	C	N	O	S	0	0
			1858	1149	326	378	5		
1	T	253	Total	C	N	O	S	0	0
			1902	1176	333	388	5		
1	U	259	Total	C	N	O	S	0	0
			1941	1197	340	399	5		
1	V	259	Total	C	N	O	S	0	0
			1941	1197	340	399	5		
1	W	259	Total	C	N	O	S	0	0
			1941	1197	340	399	5		
1	X	259	Total	C	N	O	S	0	0
			1941	1197	340	399	5		

- Molecule 2 is a protein called Flagellar basal-body rod protein FlgF.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	a	249	Total	C	N	O	S	0	0
			1812	1111	325	368	8		
2	b	248	Total	C	N	O	S	0	0
			1804	1106	324	367	7		
2	c	249	Total	C	N	O	S	0	0
			1812	1111	325	368	8		
2	d	249	Total	C	N	O	S	0	0
			1812	1111	325	368	8		
2	e	249	Total	C	N	O	S	0	0
			1812	1111	325	368	8		

- Molecule 3 is a protein called Flagellar MS ring L2.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	0	15	Total	C	N	O	0	0
			75	45	15	15		
3	1	15	Total	C	N	O	0	0
			75	45	15	15		
3	2	15	Total	C	N	O	0	0
			75	45	15	15		
3	3	15	Total	C	N	O	0	0
			75	45	15	15		
3	4	15	Total	C	N	O	0	0
			75	45	15	15		

- Molecule 4 is a protein called Flagellar MS ring L1.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	5	21	Total	C	N	O	0	0
			140	88	24	28		
4	6	21	Total	C	N	O	0	0
			140	88	24	28		
4	7	21	Total	C	N	O	0	0
			140	88	24	28		
4	9	21	Total	C	N	O	0	0
			140	88	24	28		
4	8	21	Total	C	N	O	0	0
			140	88	24	28		

- Molecule 5 is a protein called Flagellar basal-body rod protein FlgC.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	f	128	Total	C	N	O	S	0	0
			936	585	160	186	5		
5	g	130	Total	C	N	O	S	0	0
			949	592	163	189	5		
5	h	128	Total	C	N	O	S	0	0
			935	584	160	186	5		
5	j	127	Total	C	N	O	S	0	0
			931	582	159	185	5		
5	p	129	Total	C	N	O	S	0	0
			940	587	161	187	5		
5	i	129	Total	C	N	O	S	0	0
			944	589	162	188	5		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
6	l	106	Total	C	N	O	S	0	0
			833	515	150	163	5		
6	m	106	Total	C	N	O	S	0	0
			833	515	150	163	5		
6	o	109	Total	C	N	O	S	0	0
			856	529	156	166	5		
6	k	108	Total	C	N	O	S	0	0
			852	527	155	165	5		
6	n	107	Total	C	N	O	S	0	0
			844	521	154	164	5		

- Molecule 7 is a protein called Flagellar hook-basal body complex protein FliE.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	q	71	Total	C	N	O	S	0	0
			536	330	98	102	6		
7	r	70	Total	C	N	O	S	0	0
			526	323	97	100	6		
7	s	72	Total	C	N	O	S	0	0
			543	335	99	103	6		
7	t	72	Total	C	N	O	S	0	0
			543	335	99	103	6		
7	u	72	Total	C	N	O	S	0	0
			543	335	99	103	6		
7	v	38	Total	C	N	O	S	0	0
			289	178	50	55	6		

- Molecule 8 is a protein called Flagellar hook protein FlgE.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	DA	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DB	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DC	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DD	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DE	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DF	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DG	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DH	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DI	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DJ	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DK	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DL	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DM	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DN	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	DO	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DP	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DQ	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DR	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DS	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DT	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DU	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DV	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DW	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DX	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DY	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	DZ	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	EA	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	EB	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	EC	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	ED	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	EE	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	EF	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		
8	EG	401	Total	C	N	O	S	0	0
			2947	1814	507	618	8		

- Molecule 9 is a protein called Flagellar biosynthetic protein FliR.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	CE	260	Total	C	N	O	S	0	0
			2002	1339	317	330	16		

- Molecule 10 is a protein called Flagellar biosynthetic protein FliQ.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	CA	89	Total	C	N	O	S	0	0
			670	449	100	114	7		
10	CB	89	Total	C	N	O	S	0	0
			670	449	100	114	7		
10	CC	89	Total	C	N	O	S	0	0
			670	449	100	114	7		
10	CD	89	Total	C	N	O	S	0	0
			670	449	100	114	7		

- Molecule 11 is a protein called Flagellar biosynthetic protein FliP.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	w	211	Total	C	N	O	S	0	0
			1636	1091	254	279	12		
11	x	211	Total	C	N	O	S	0	0
			1636	1091	254	279	12		
11	y	211	Total	C	N	O	S	0	0
			1636	1091	254	279	12		
11	z	211	Total	C	N	O	S	0	0
			1636	1091	254	279	12		
11	CF	211	Total	C	N	O	S	0	0
			1636	1091	254	279	12		

- Molecule 12 is a protein called Flagellar M-ring protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	Da	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Db	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dc	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dd	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	De	99	Total	C	N	O	S	0	0
			696	432	125	138	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
12	Df	97	Total	C	N	O	S	0	0
			687	427	123	136	1		
12	Dg	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Dh	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Di	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Dj	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Dk	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Dl	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Dm	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Dn	87	Total	C	N	O	S	0	0
			637	397	113	126	1		
12	Do	97	Total	C	N	O	S	0	0
			687	427	123	136	1		
12	Dp	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dq	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dr	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Ds	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dt	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Du	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dv	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Dw	109	Total	C	N	O	S	0	0
			746	462	135	148	1		
12	Ca	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Cb	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Cc	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		

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Mol	Chain	Residues	Atoms					AltConf	Trace
12	Cd	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Ce	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cf	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cg	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Ch	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Ci	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cj	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Ck	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cl	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cm	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cn	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Co	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cp	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cq	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cr	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cs	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Ct	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cu	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cv	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cw	150	Total 1185	C 722	N 221	O 239	S 3	0	0
12	Cx	150	Total 1185	C 722	N 221	O 239	S 3	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
12	Cy	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Cz	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Ea	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Eb	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Ec	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Ed	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Ee	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Ef	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Eg	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		
12	Eh	150	Total	C	N	O	S	0	0
			1185	722	221	239	3		

- Molecule 13 is a protein called FlgB-Dc loop.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	GA	11	Total	C	N	O	0	0
			55	33	11	11		
13	GC	11	Total	C	N	O	0	0
			55	33	11	11		
13	GE	12	Total	C	N	O	0	0
			60	36	12	12		
13	GD	10	Total	C	N	O	0	0
			50	30	10	10		
13	GB	5	Total	C	N	O	0	0
			25	15	5	5		

- Molecule 14 is a protein called FliE helix 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	GF	18	Total	C	N	O	0	0
			90	54	18	18		
14	GG	18	Total	C	N	O	0	0
			90	54	18	18		

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Mol	Chain	Residues	Atoms				AltConf	Trace
14	GH	18	Total	C	N	O	0	0
			90	54	18	18		
14	GI	15	Total	C	N	O	0	0
			75	45	15	15		
14	GJ	18	Total	C	N	O	0	0
			90	54	18	18		
14	GK	18	Total	C	N	O	0	0
			90	54	18	18		

- Molecule 15 is a protein called Flagellar L-ring protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AA	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AB	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AC	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AD	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AE	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AF	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AG	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AH	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AI	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AJ	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AK	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AL	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AM	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AN	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AO	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		

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Mol	Chain	Residues	Atoms					AltConf	Trace
15	AP	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AQ	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AR	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AS	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AT	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AU	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AV	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AW	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AX	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AY	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		
15	AZ	211	Total	C	N	O	S	0	0
			1589	993	282	310	4		

- Molecule 16 is a protein called Flagellar P-ring protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	BA	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BB	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BC	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BD	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BE	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BF	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BG	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		
16	BH	303	Total	C	N	O	S	0	0
			2228	1364	405	446	13		

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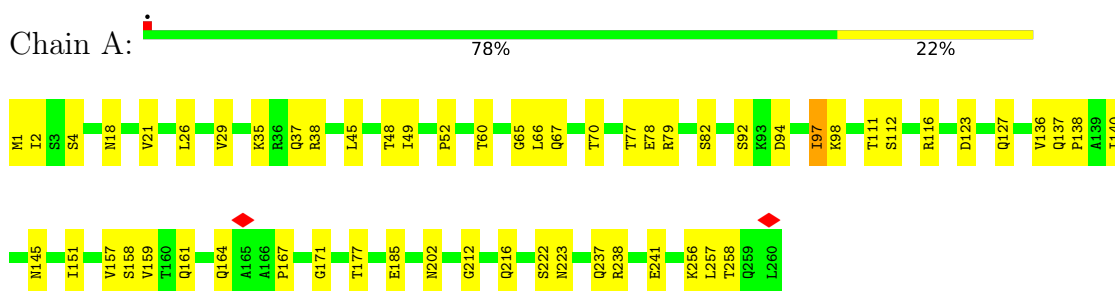
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Mol	Chain	Residues	Atoms					AltConf	Trace
16	BI	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BJ	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BK	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BL	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BM	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BN	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BO	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BP	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BQ	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BR	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BS	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BT	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BU	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BV	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BW	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BX	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BY	303	Total 2228	C 1364	N 405	O 446	S 13	0	0
16	BZ	303	Total 2228	C 1364	N 405	O 446	S 13	0	0

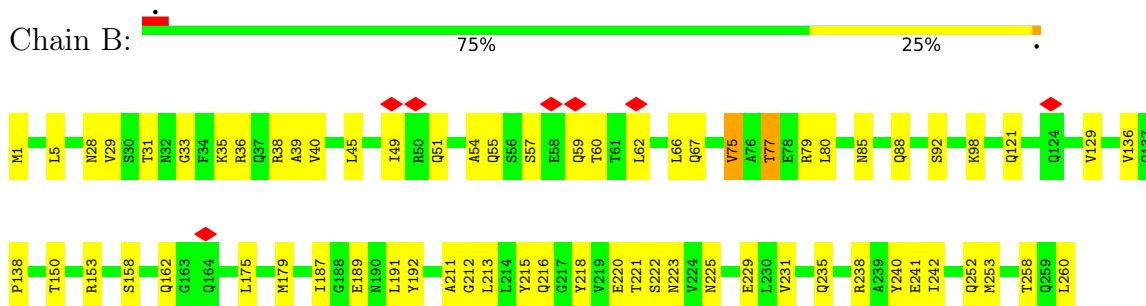
3 Residue-property plots [i](#)

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

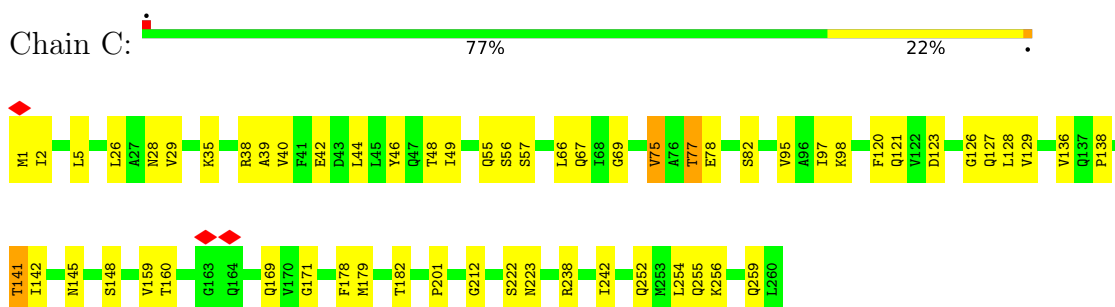
- Molecule 1: Flagellar basal-body rod protein FlgG



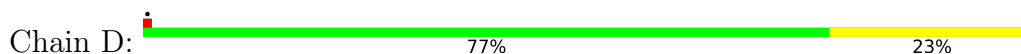
- Molecule 1: Flagellar basal-body rod protein FlgG

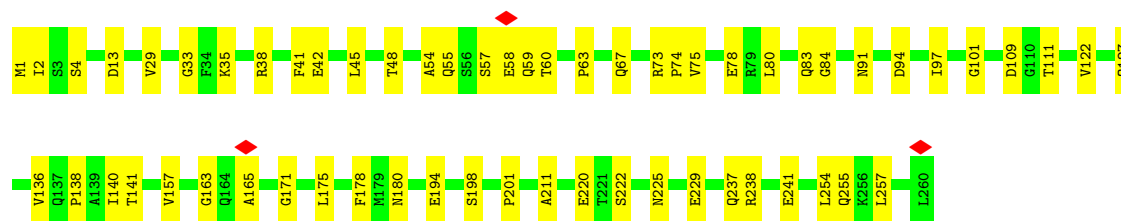


- Molecule 1: Flagellar basal-body rod protein FlgG



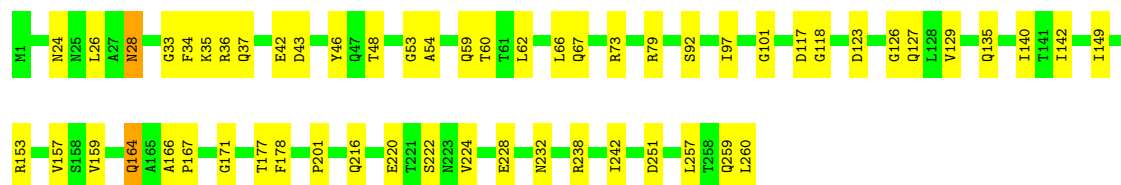
- Molecule 1: Flagellar basal-body rod protein FlgG





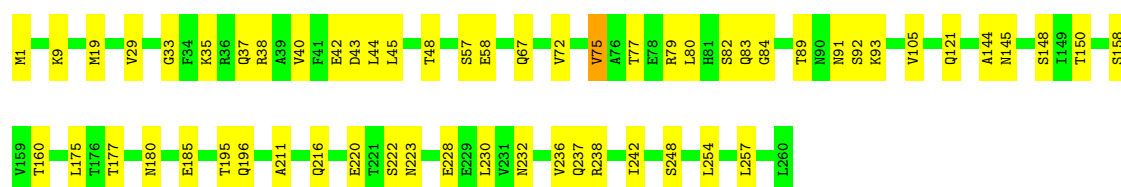
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain E: 78% 21% .



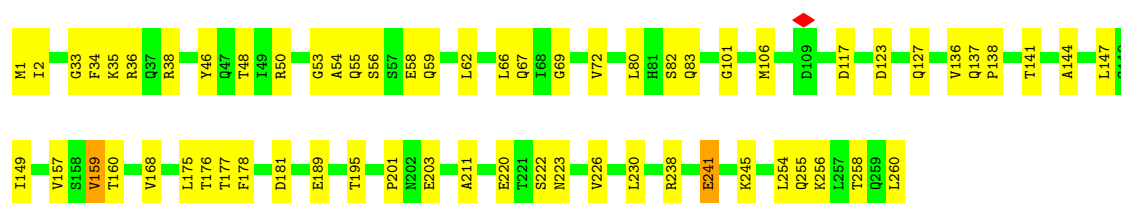
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain F: 78% 22% .



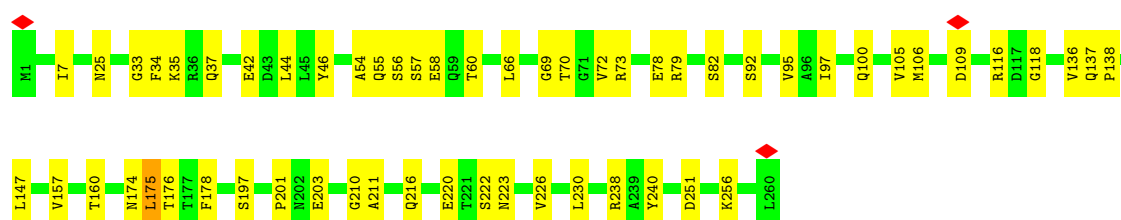
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain G: 76% 23% .



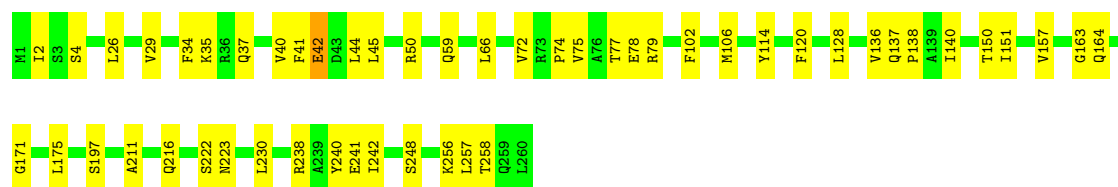
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain H: 78% 22% .



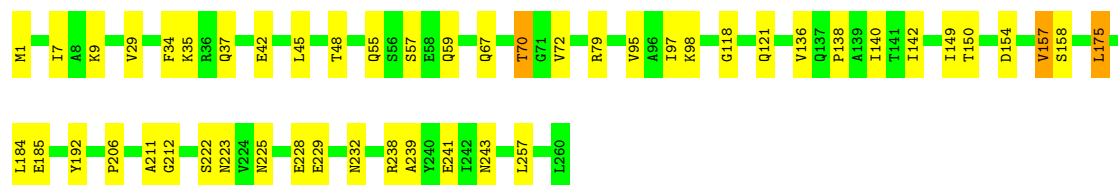
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain I:  80% 19%



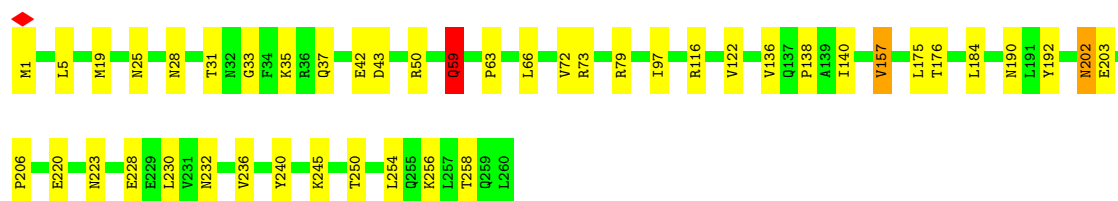
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain J:  81% 18%



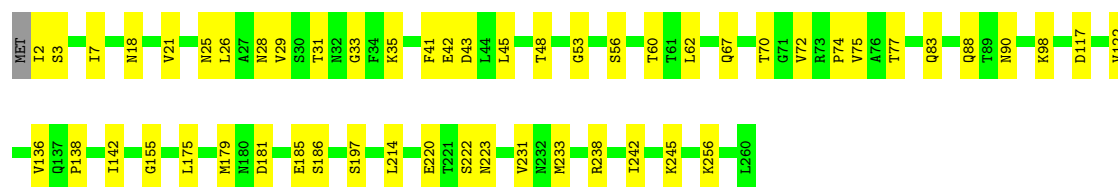
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain K:  83% 16%



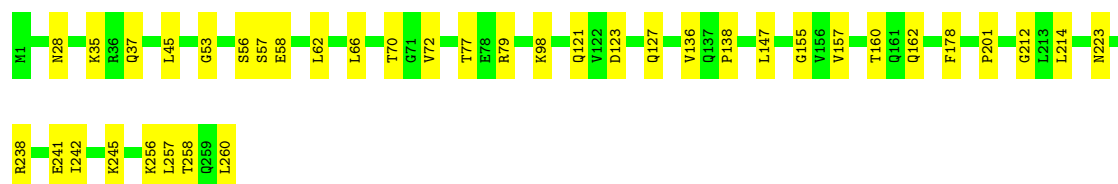
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain L:  79% 20%



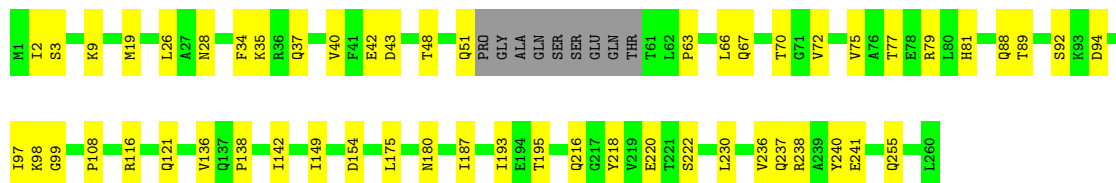
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain M:  85% 15%



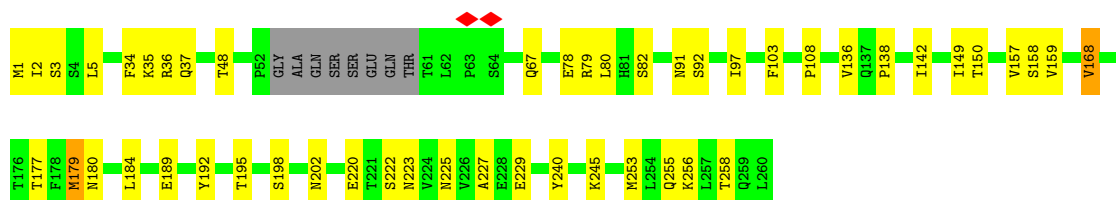
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain N:  76% 21%



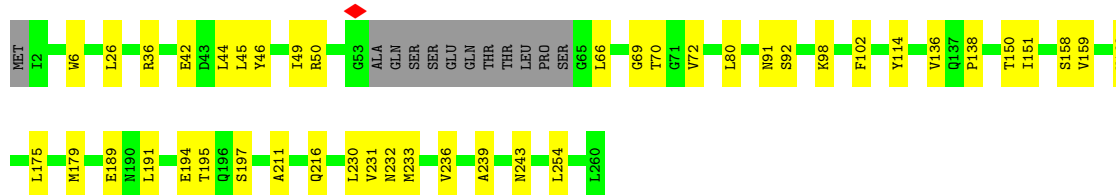
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain O:  78% 18%



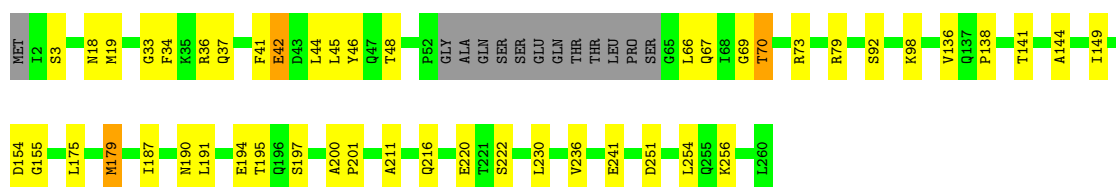
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain P:  79% 17% 5%



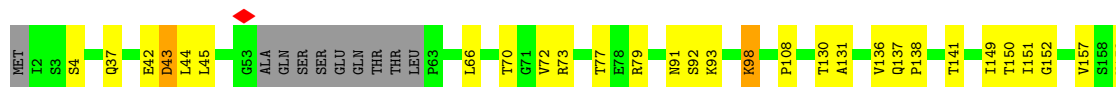
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain Q:  77% 17% 5%



- Molecule 1: Flagellar basal-body rod protein FlgG

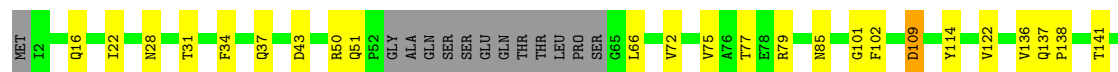
Chain R:  77% 18%





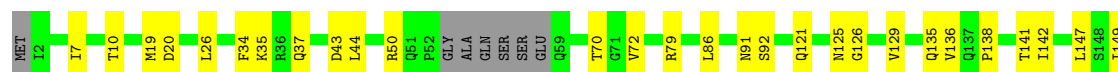
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain S: 77% 17% 5%



- Molecule 1: Flagellar basal-body rod protein FlgG

Chain T: 78% 20% .



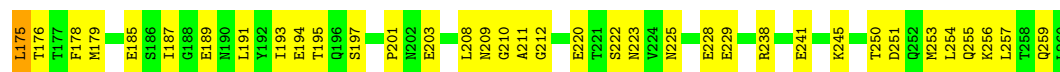
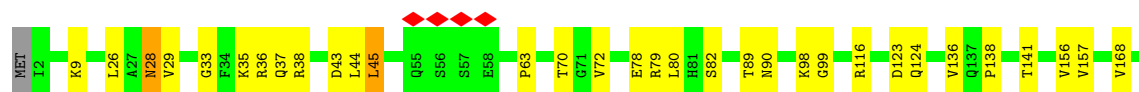
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain U: 78% 22%



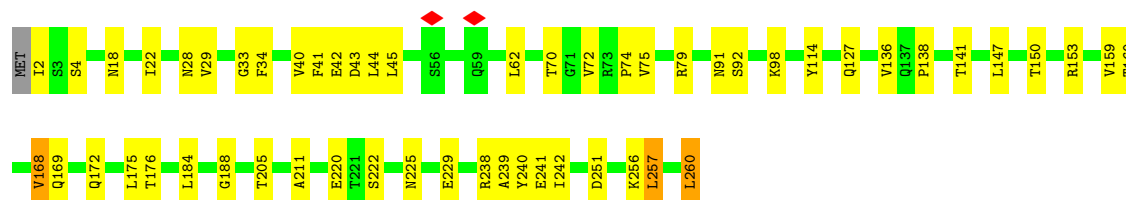
- Molecule 1: Flagellar basal-body rod protein FlgG

Chain V: 73% 25% .

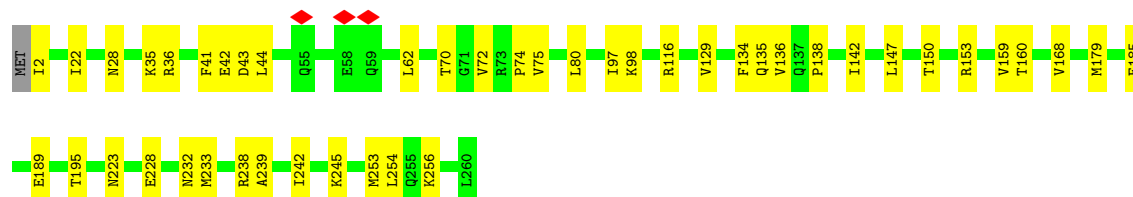
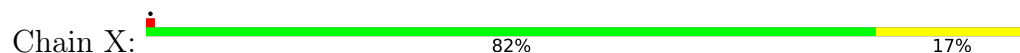


- Molecule 1: Flagellar basal-body rod protein FlgG

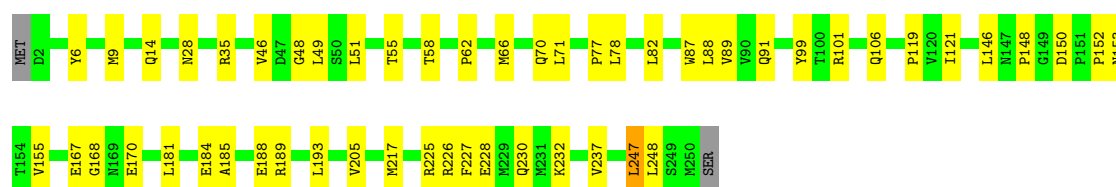
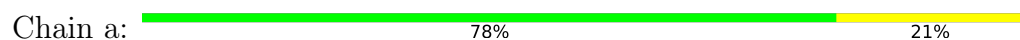
Chain W: 78% 20% .



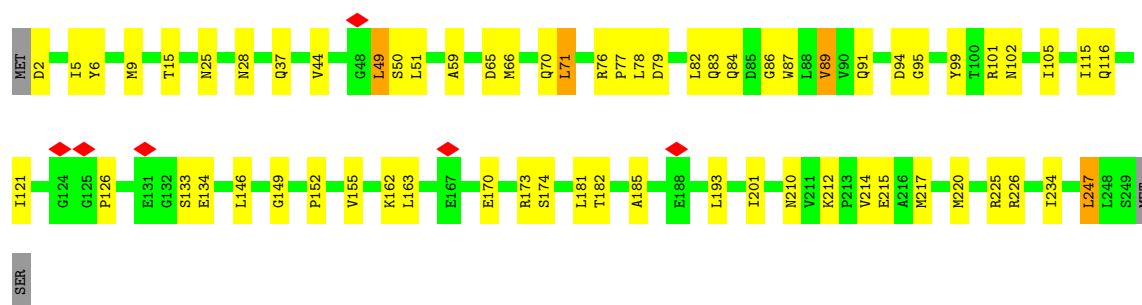
- Molecule 1: Flagellar basal-body rod protein FlgG



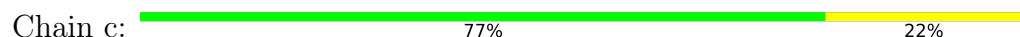
- Molecule 2: Flagellar basal-body rod protein FlgF



- Molecule 2: Flagellar basal-body rod protein FlgF



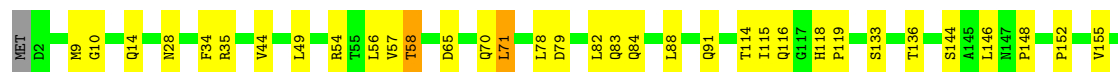
- Molecule 2: Flagellar basal-body rod protein FlgF





- Molecule 2: Flagellar basal-body rod protein FlgF

Chain d: 79% 20% ..



- Molecule 2: Flagellar basal-body rod protein FlgF

Chain e: 81% 18% .



- Molecule 3: Flagellar MS ring L2

Chain 0: 100%

There are no outlier residues recorded for this chain.

- Molecule 3: Flagellar MS ring L2

Chain 1: 93% 7%



- Molecule 3: Flagellar MS ring L2

Chain 2: 93% 7%



- Molecule 3: Flagellar MS ring L2

Chain 3: 100%

There are no outlier residues recorded for this chain.

- Molecule 3: Flagellar MS ring L2

Chain 4:  87% 13%

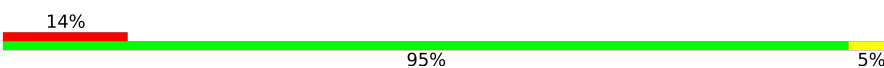


- Molecule 4: Flagellar MS ring L1

Chain 5:  90% 10%



- Molecule 4: Flagellar MS ring L1

Chain 6:  14% 95% 5%



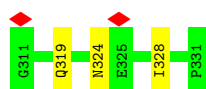
- Molecule 4: Flagellar MS ring L1

Chain 7:  86% 14%



- Molecule 4: Flagellar MS ring L1

Chain 9:  10% 86% 14%



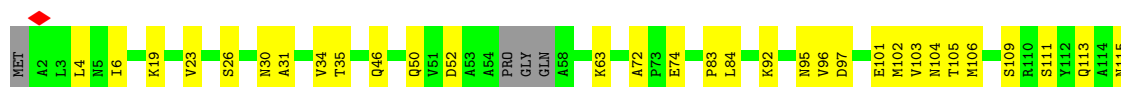
- Molecule 4: Flagellar MS ring L1

Chain 8:  86% 14%



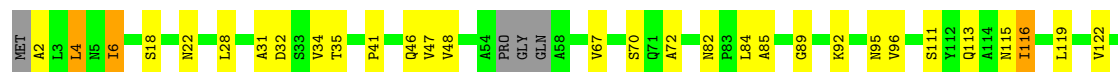
- Molecule 5: Flagellar basal-body rod protein FlgC

Chain f:  69% 27% .





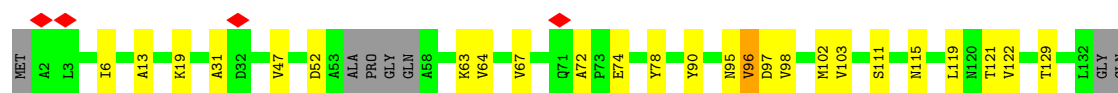
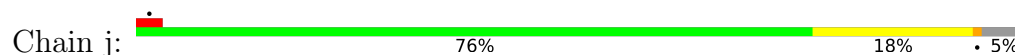
- Molecule 5: Flagellar basal-body rod protein FlgC



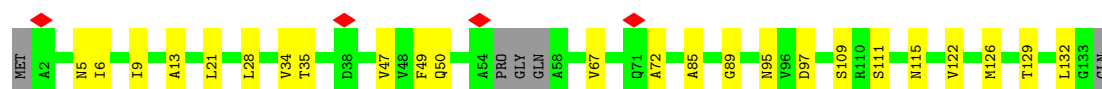
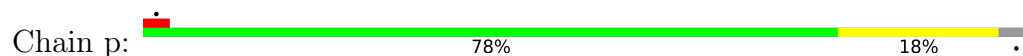
- Molecule 5: Flagellar basal-body rod protein FlgC



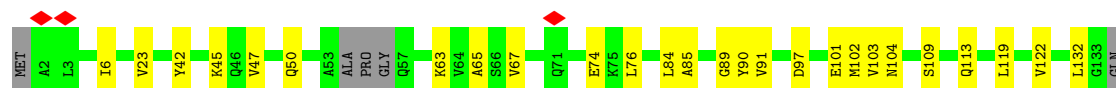
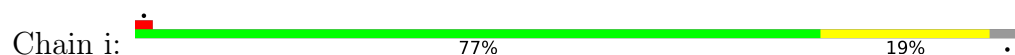
- Molecule 5: Flagellar basal-body rod protein FlgC



- Molecule 5: Flagellar basal-body rod protein FlgC

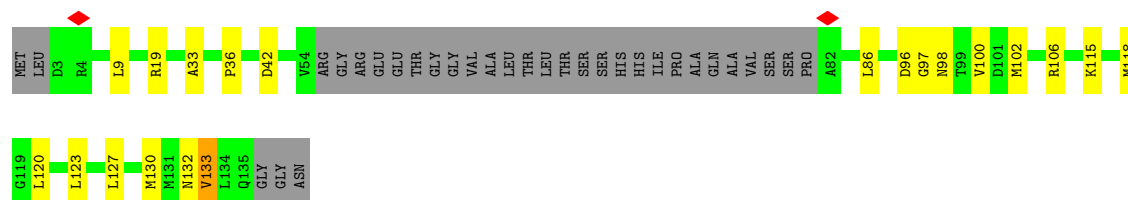


- Molecule 5: Flagellar basal-body rod protein FlgC

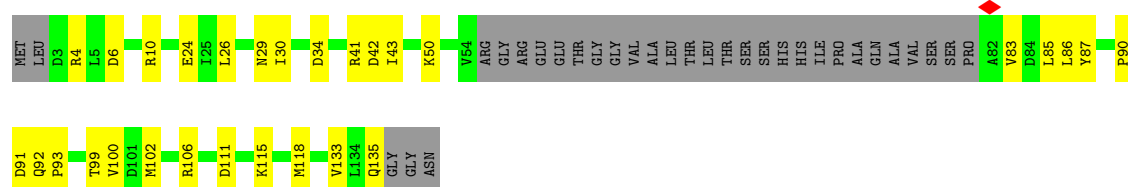


- Molecule 6: Flagellar basal body rod protein FlgB

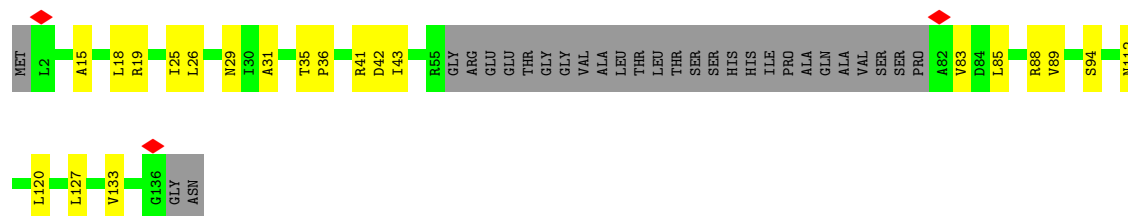




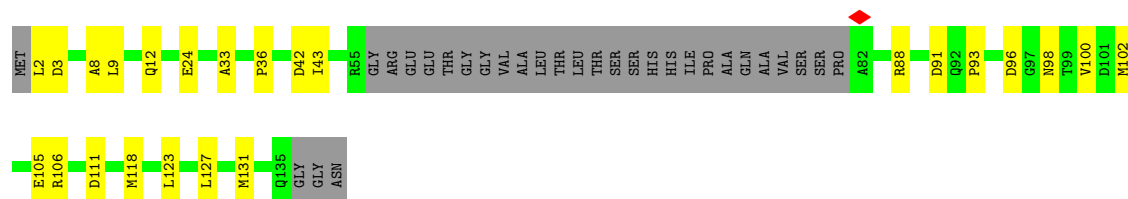
• Molecule 6: Flagellar basal body rod protein FlgB



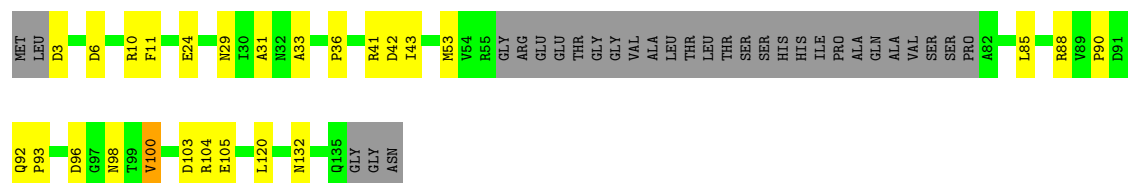
• Molecule 6: Flagellar basal body rod protein FlgB



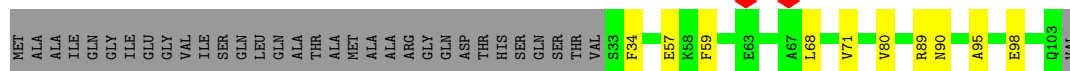
• Molecule 6: Flagellar basal body rod protein FlgB



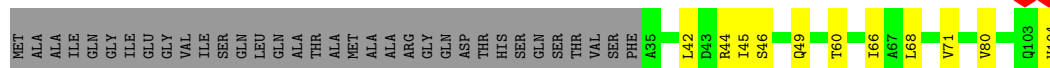
• Molecule 6: Flagellar basal body rod protein FlgB



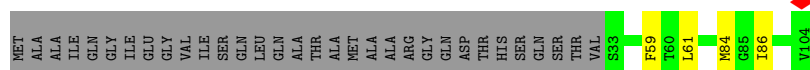
• Molecule 7: Flagellar hook-basal body complex protein FlhE



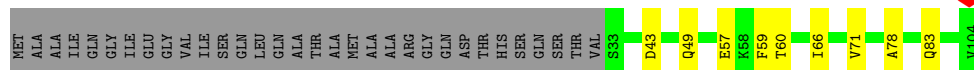
- Molecule 7: Flagellar hook-basal body complex protein FliE



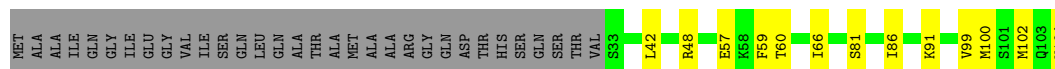
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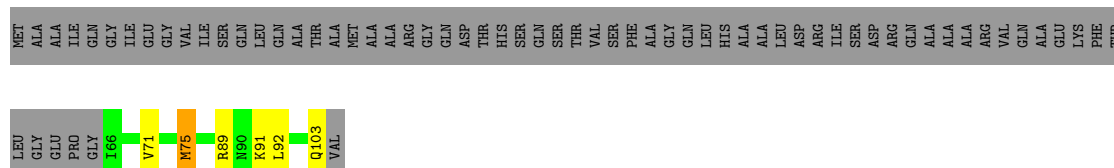
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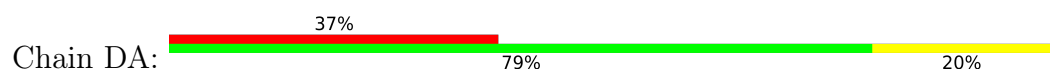
- Molecule 7: Flagellar hook-basal body complex protein FliE

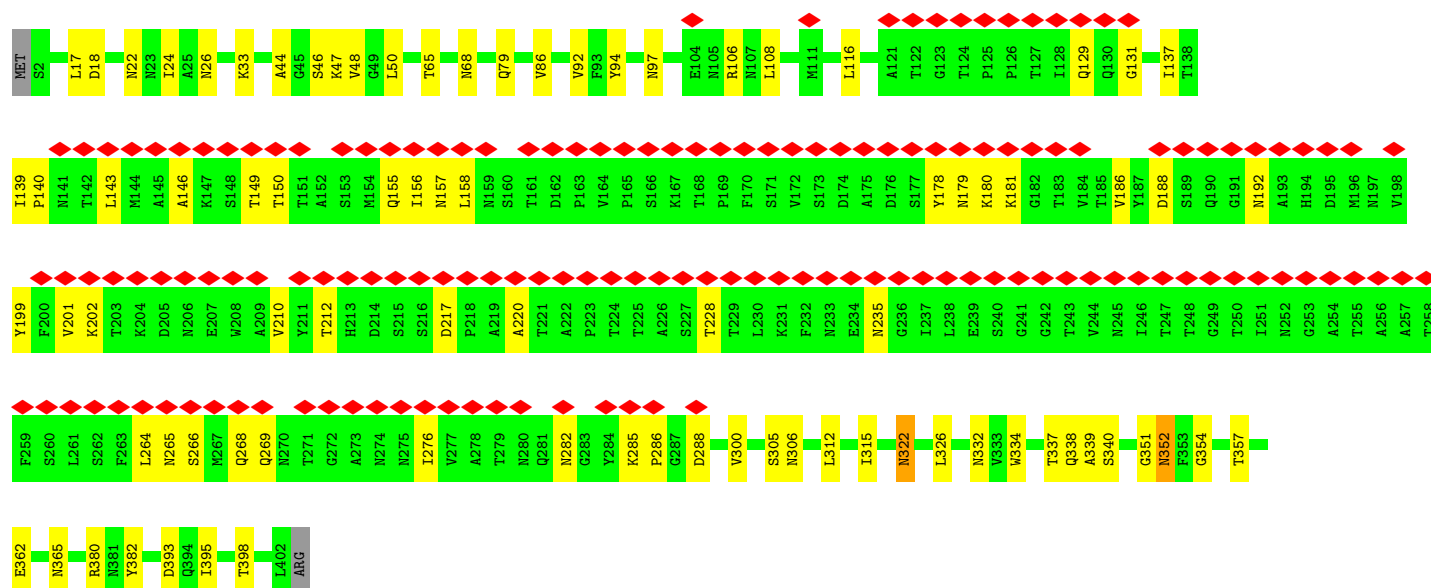


- Molecule 7: Flagellar hook-basal body complex protein FliE

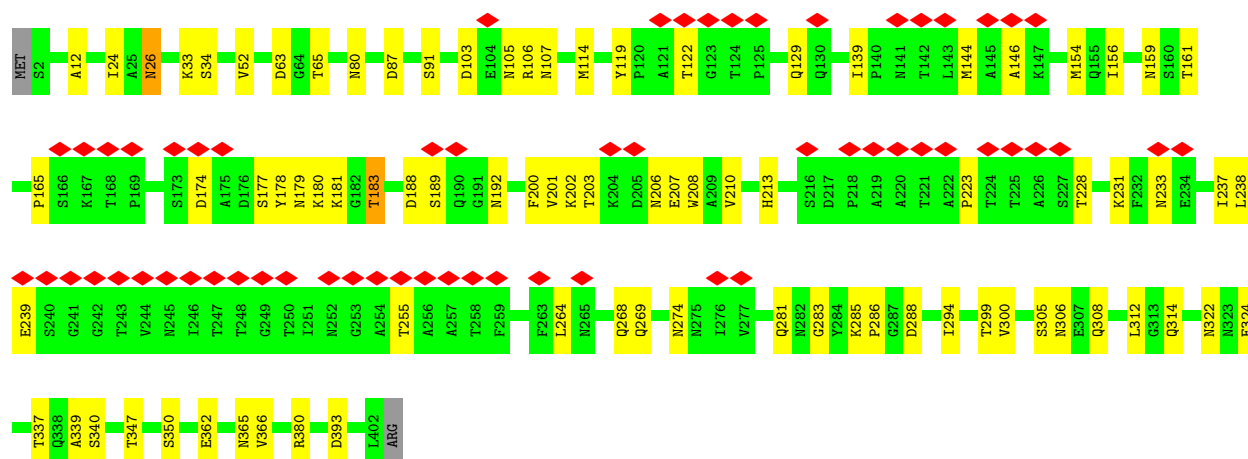
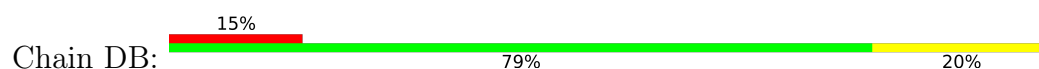


- Molecule 8: Flagellar hook protein FlgE

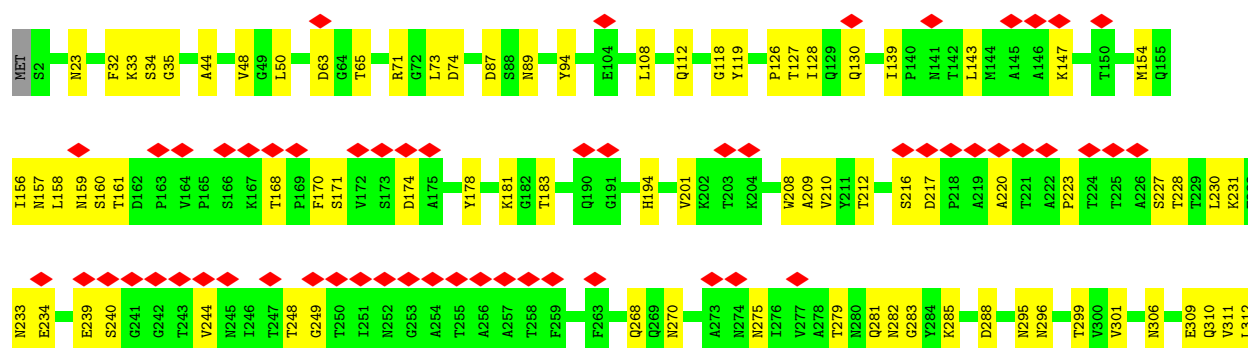
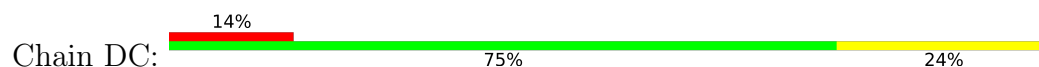


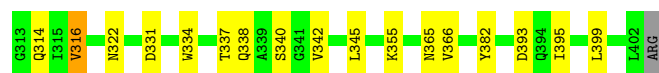


• Molecule 8: Flagellar hook protein FlgE

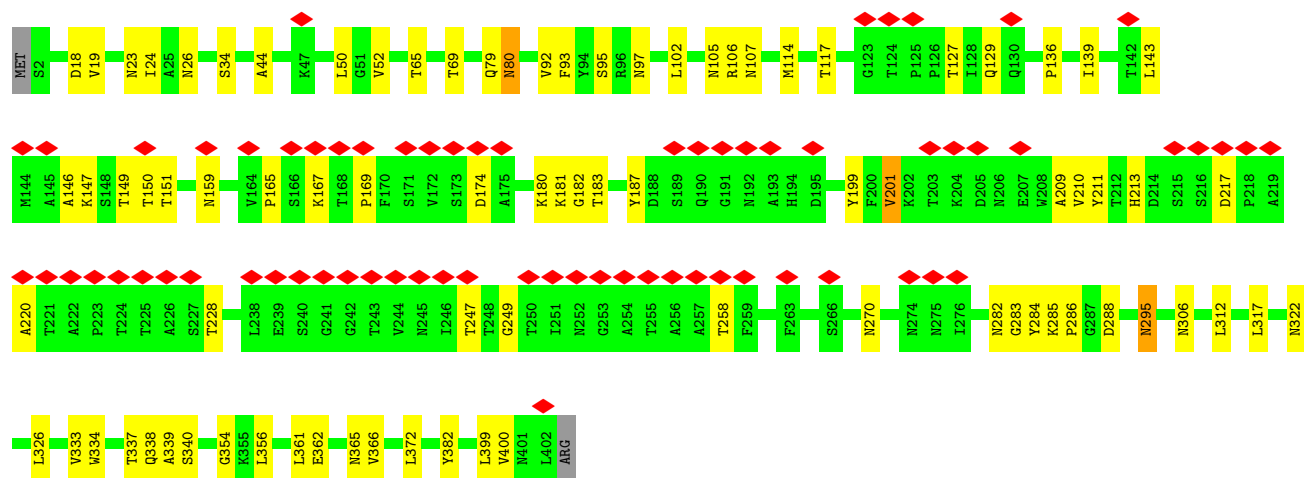
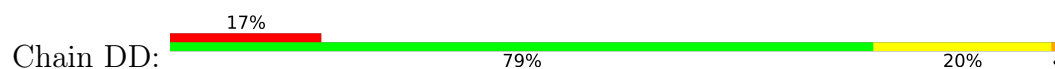


• Molecule 8: Flagellar hook protein FlgE

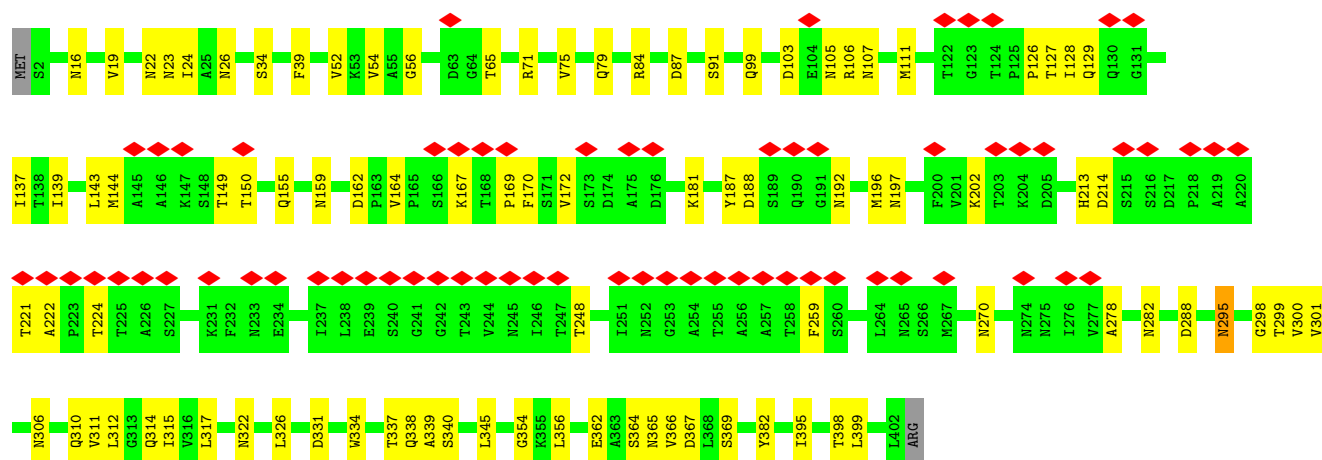
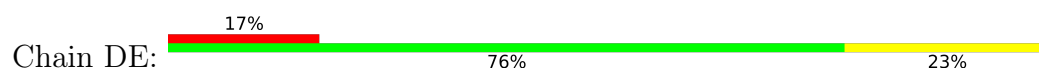




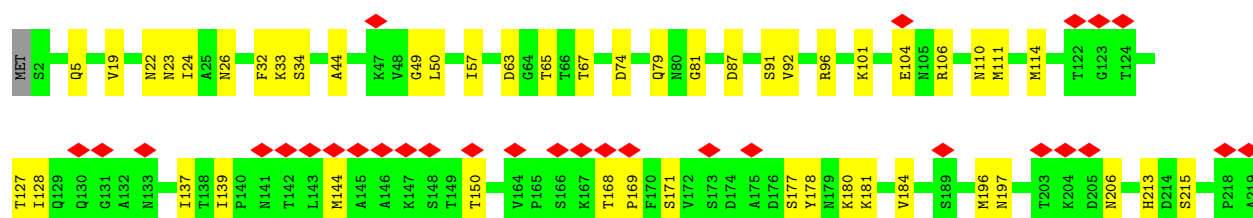
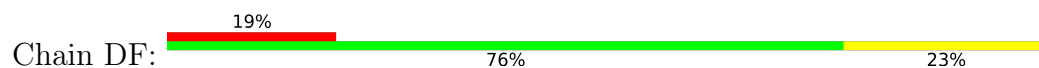
• Molecule 8: Flagellar hook protein FlgE

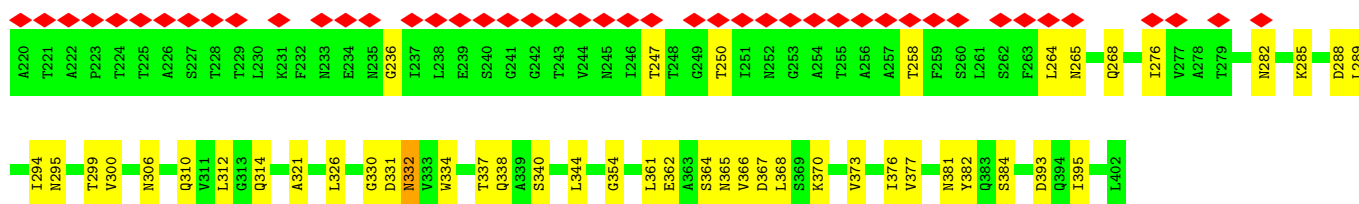


• Molecule 8: Flagellar hook protein FlgE



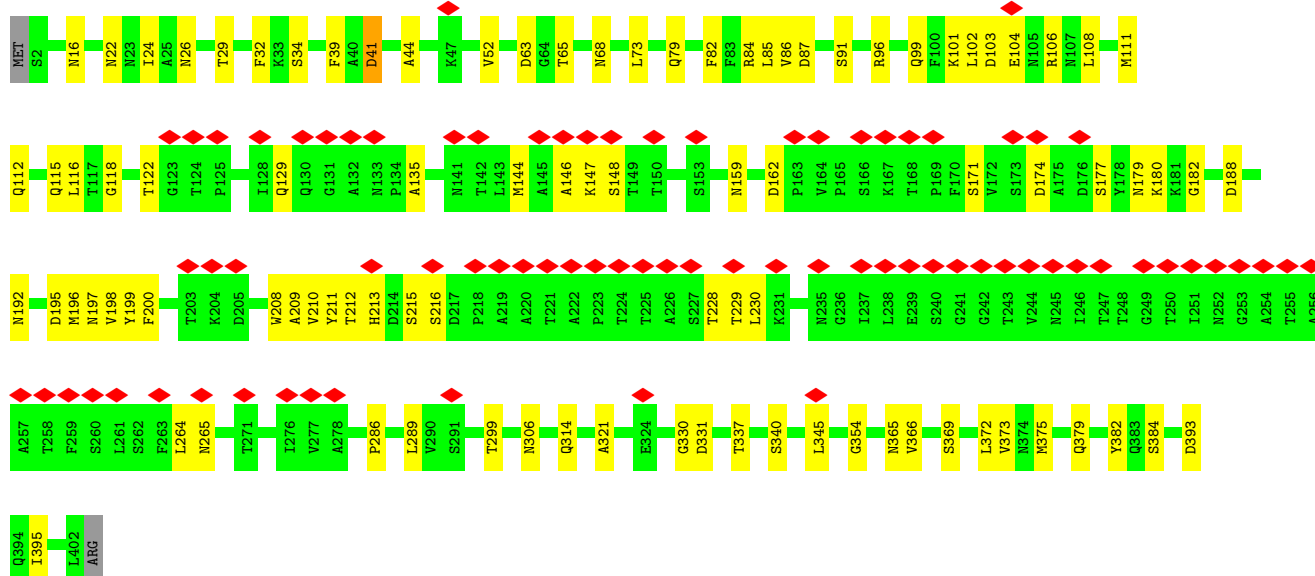
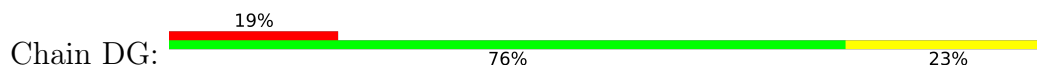
• Molecule 8: Flagellar hook protein FlgE



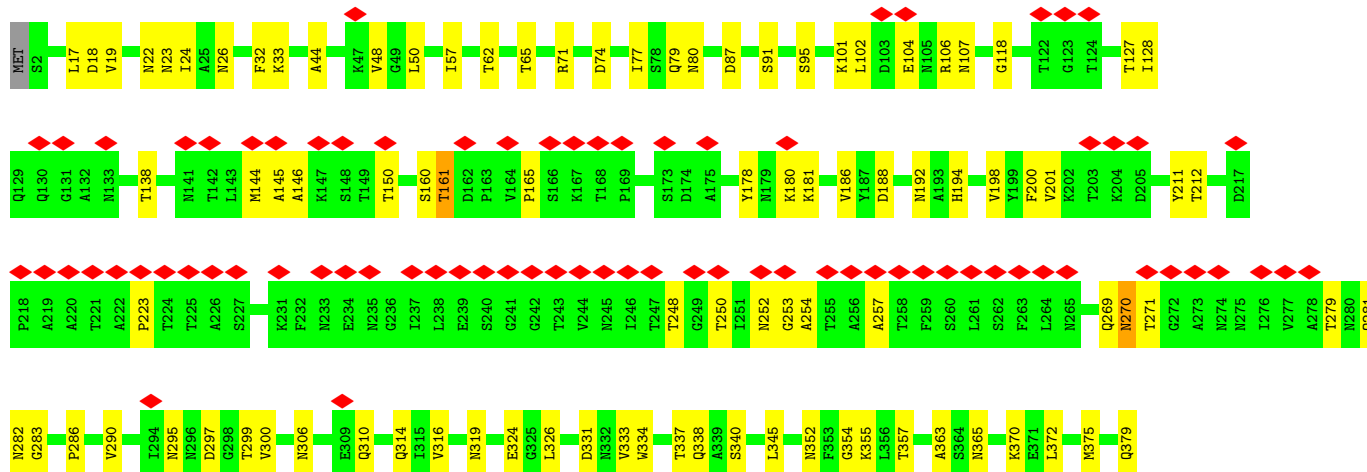
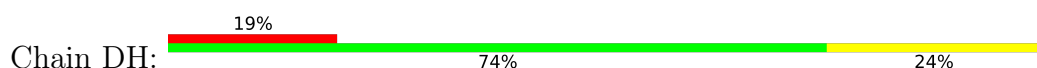


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- Molecule 8: Flagellar hook protein FlgE

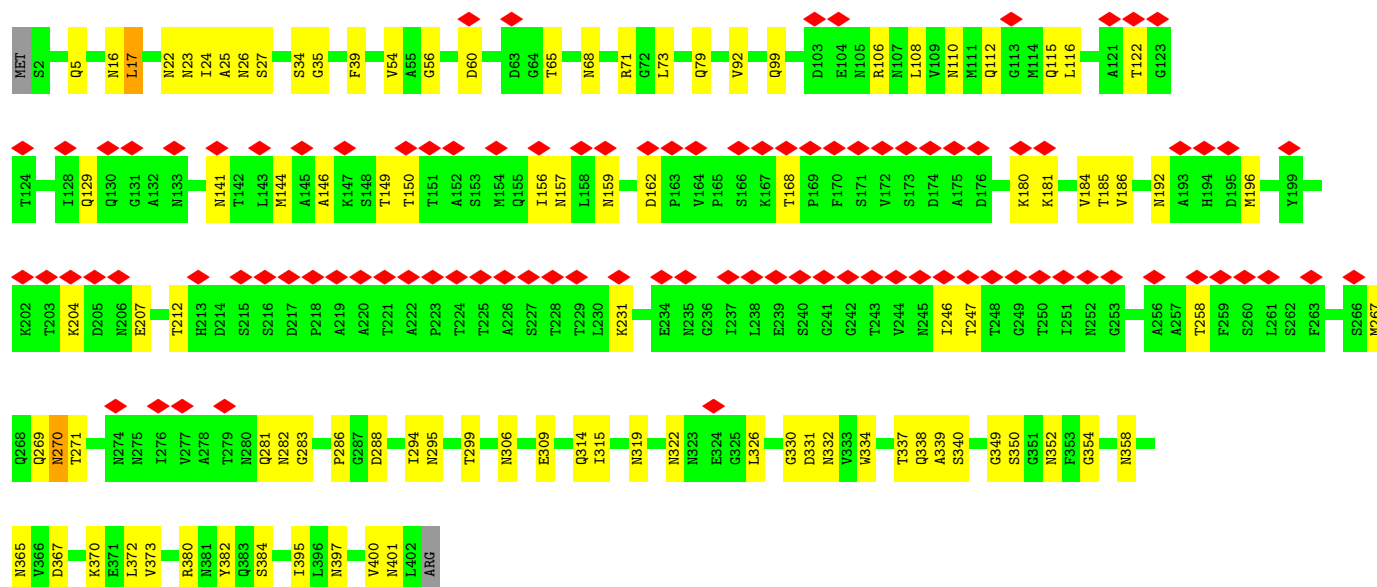
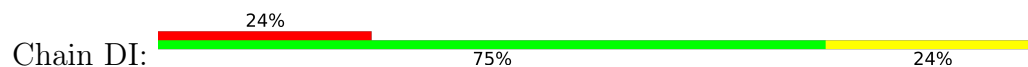


- Molecule 8: Flagellar hook protein FlgE

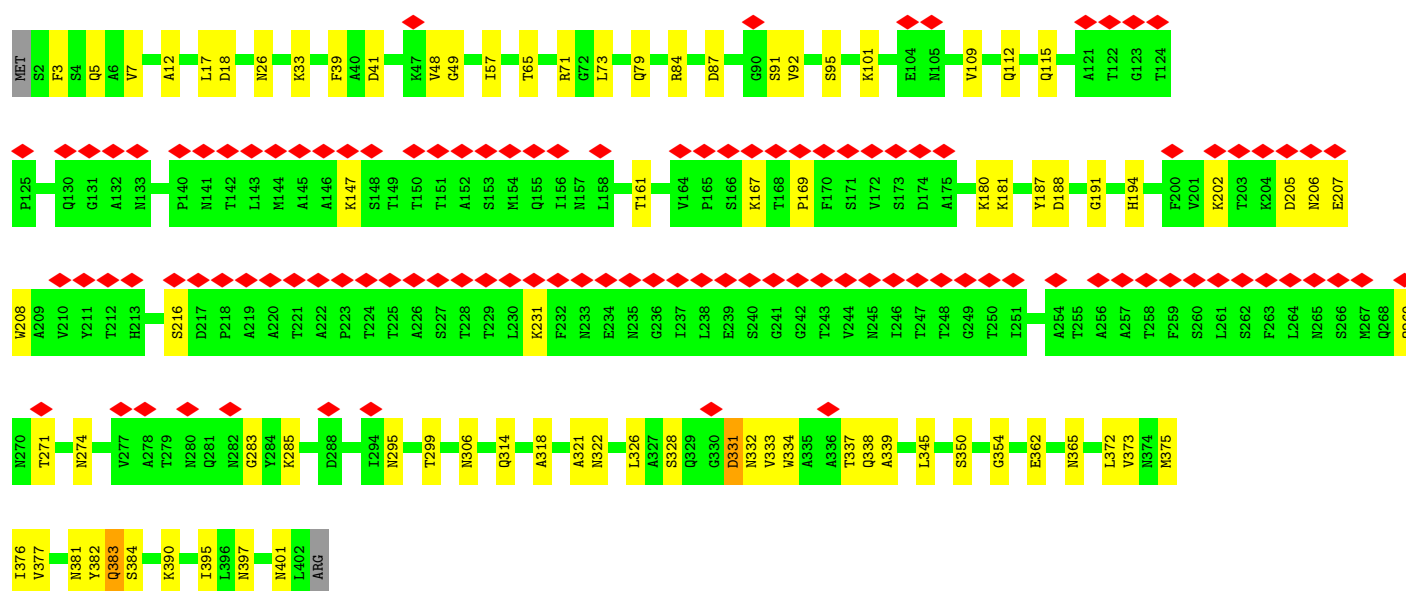
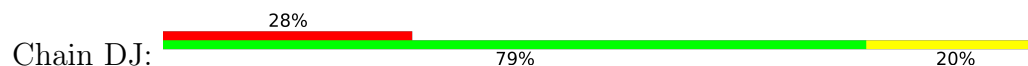




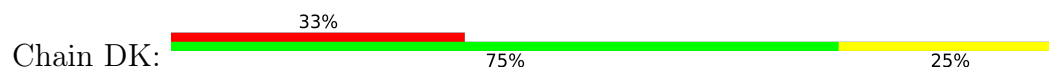
• Molecule 8: Flagellar hook protein FlgE

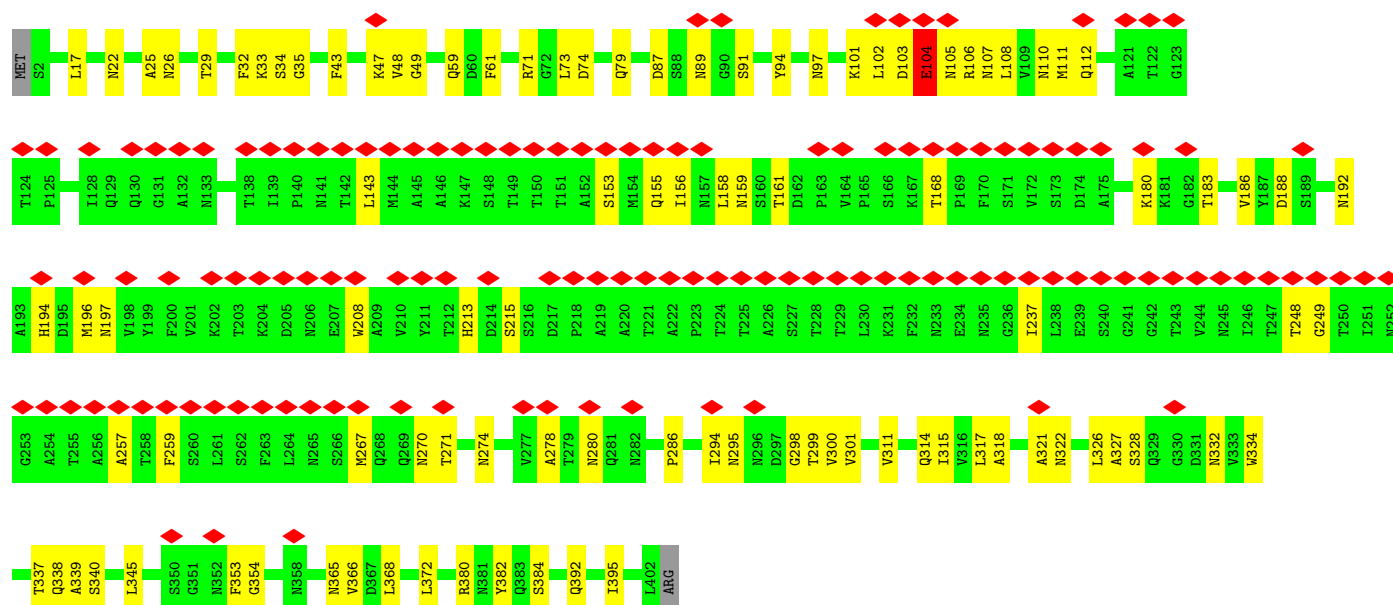


• Molecule 8: Flagellar hook protein FlgE

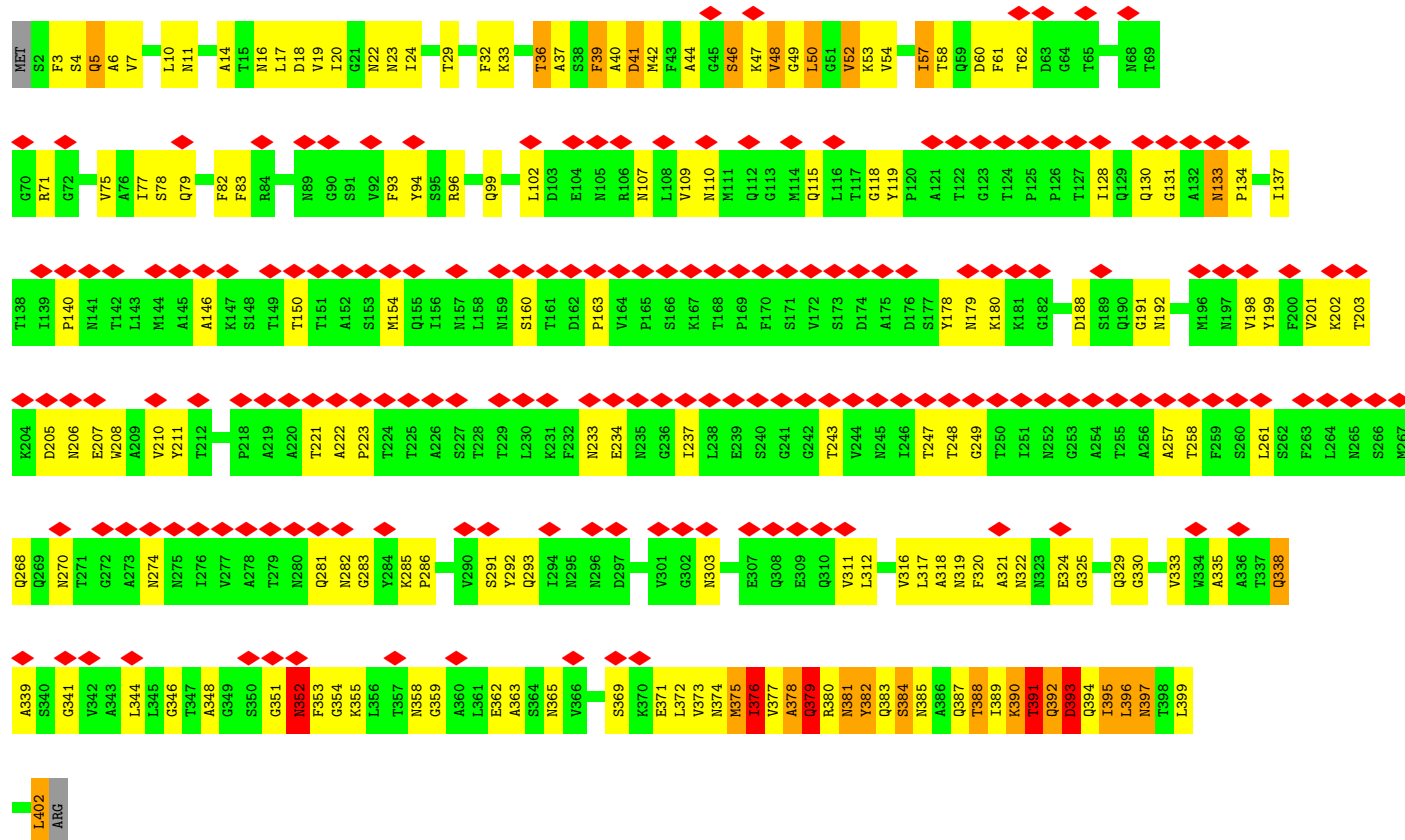


• Molecule 8: Flagellar hook protein FlgE

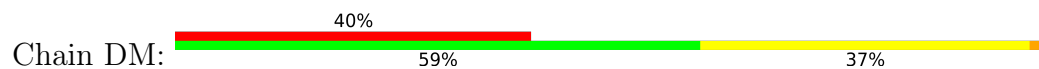


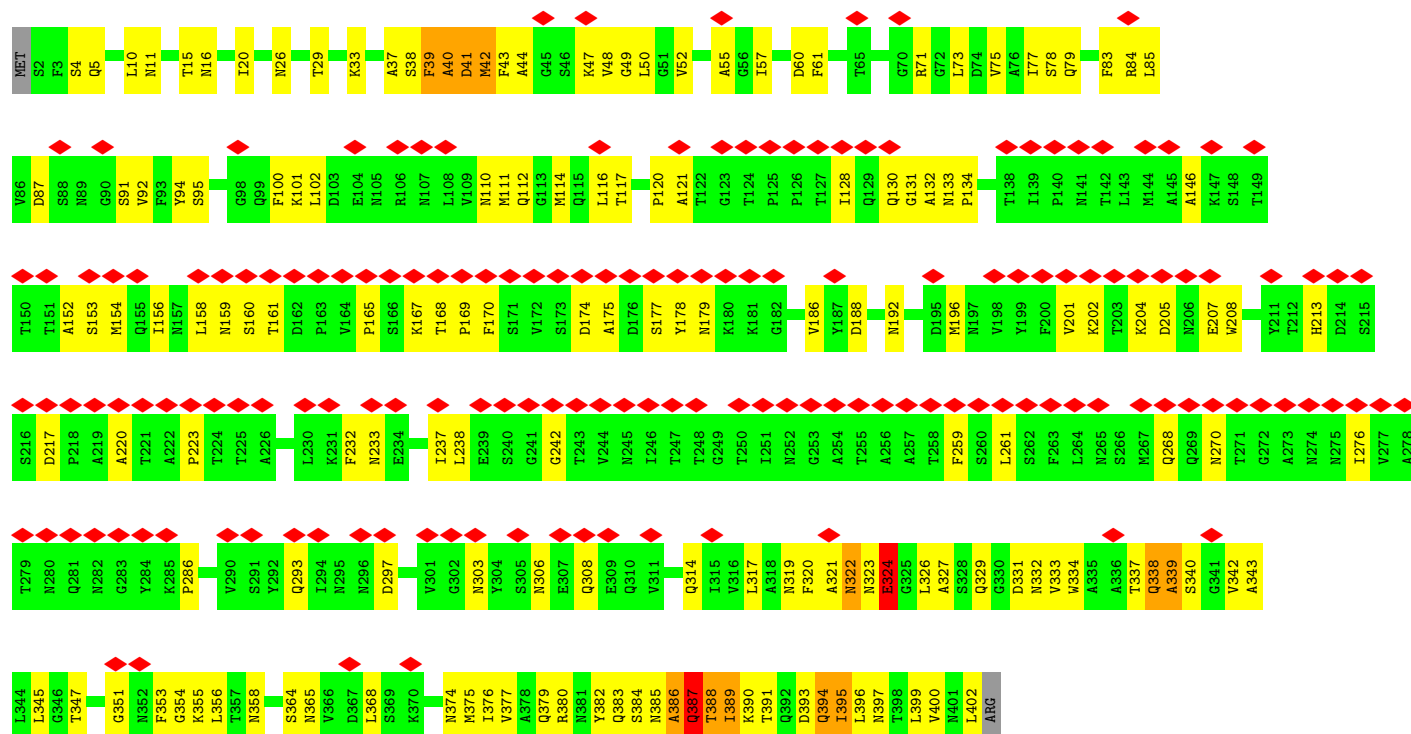


• Molecule 8: Flagellar hook protein FlgE

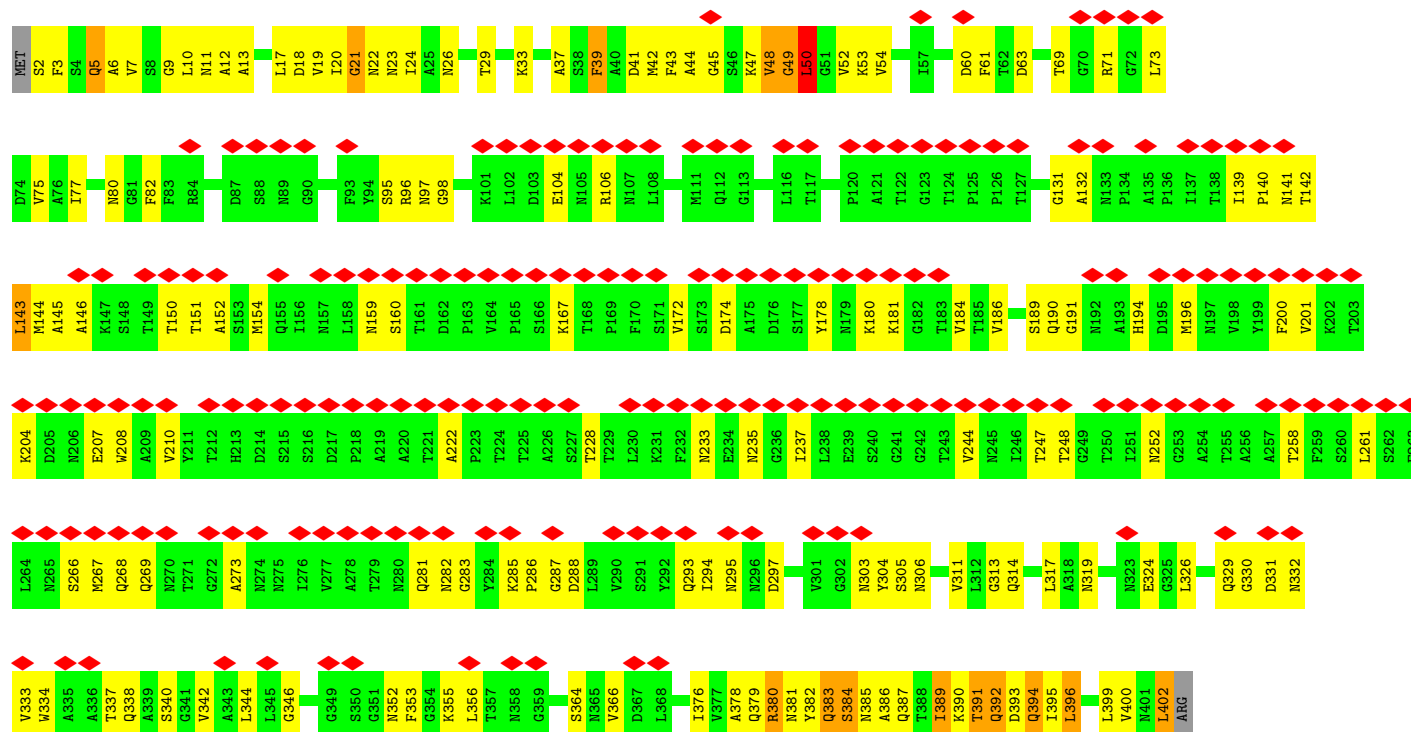


• Molecule 8: Flagellar hook protein FlgE

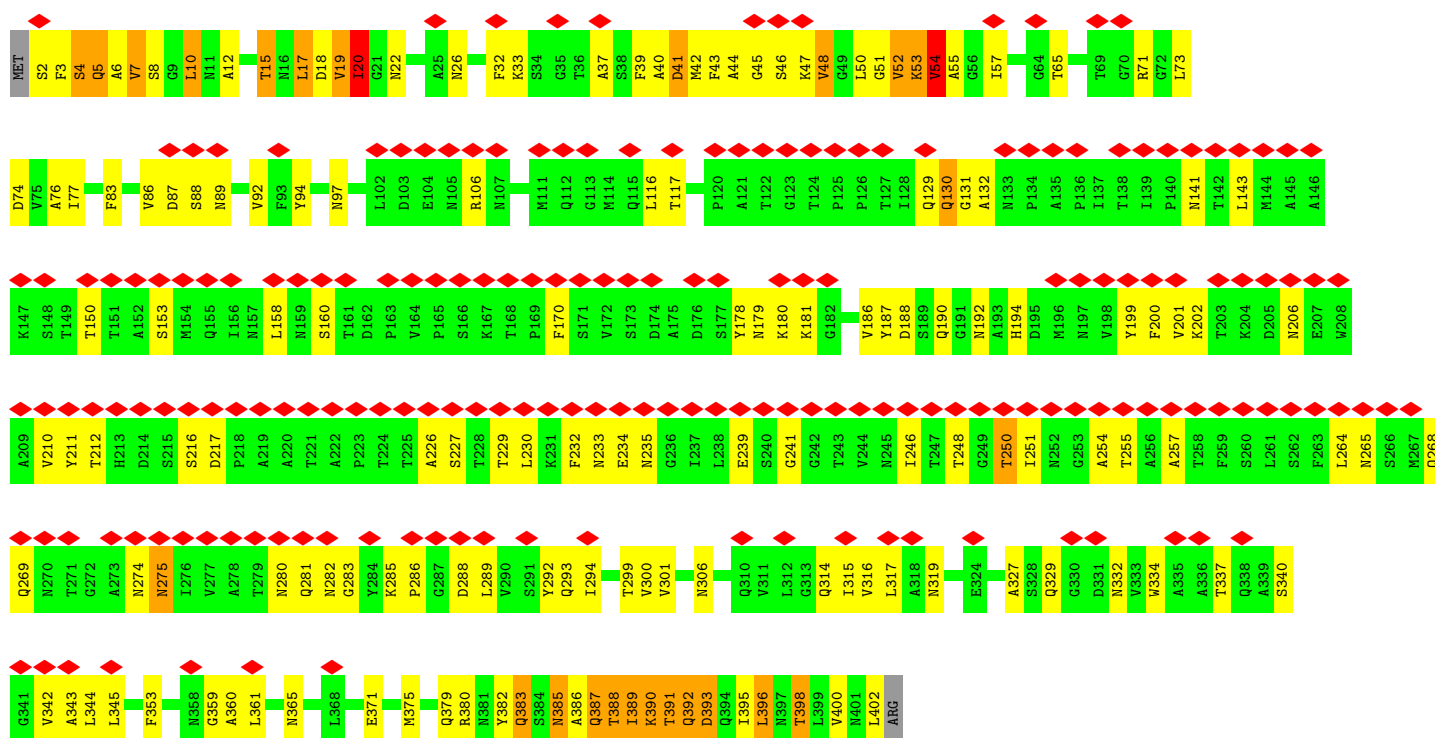




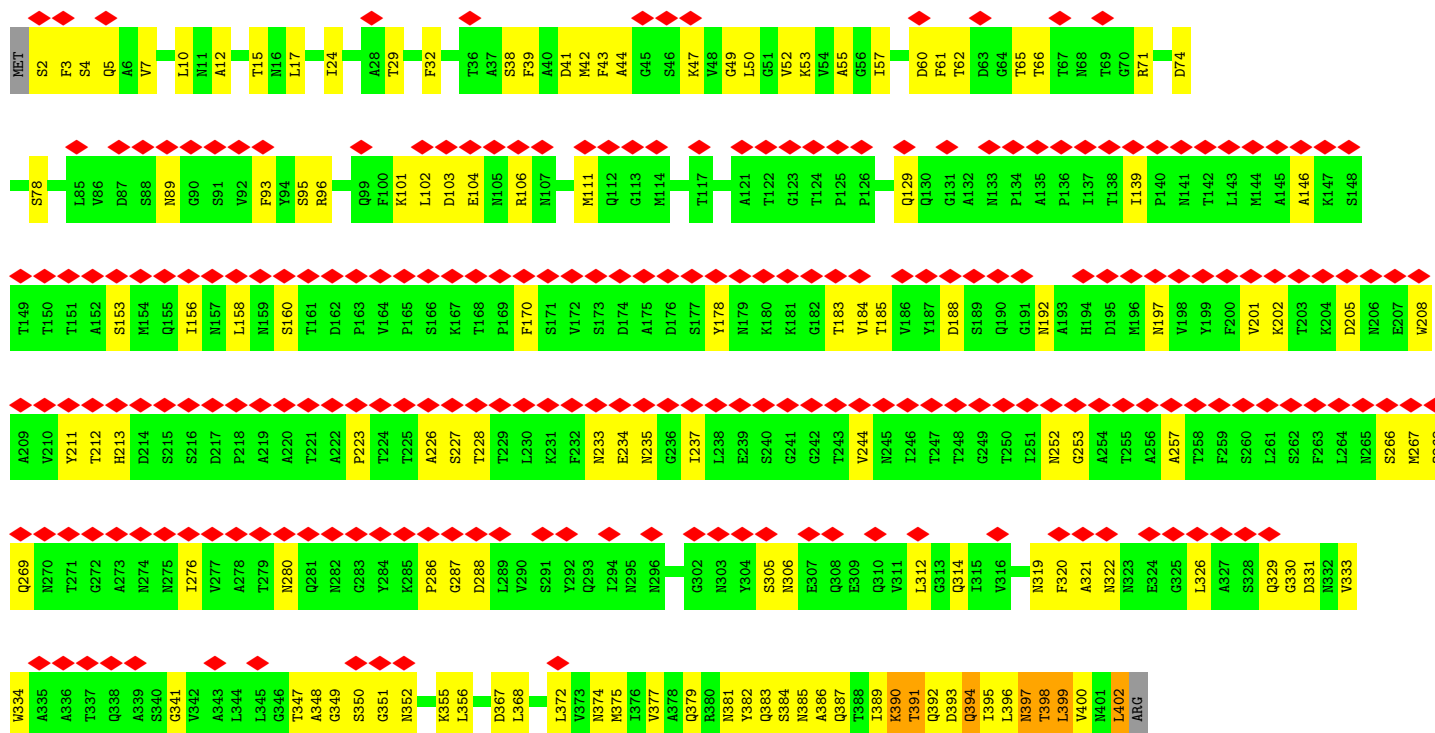
• Molecule 8: Flagellar hook protein FlgE



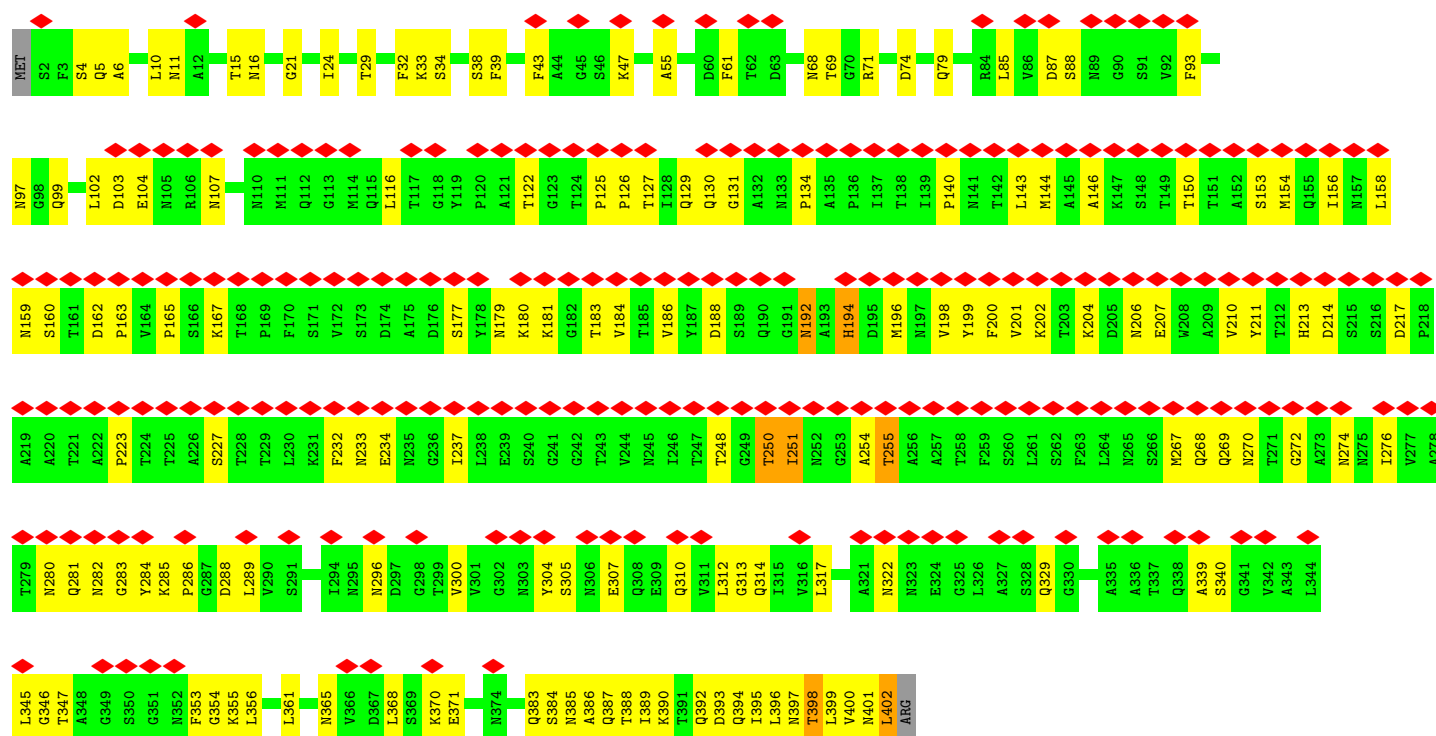
• Molecule 8: Flagellar hook protein FlgE



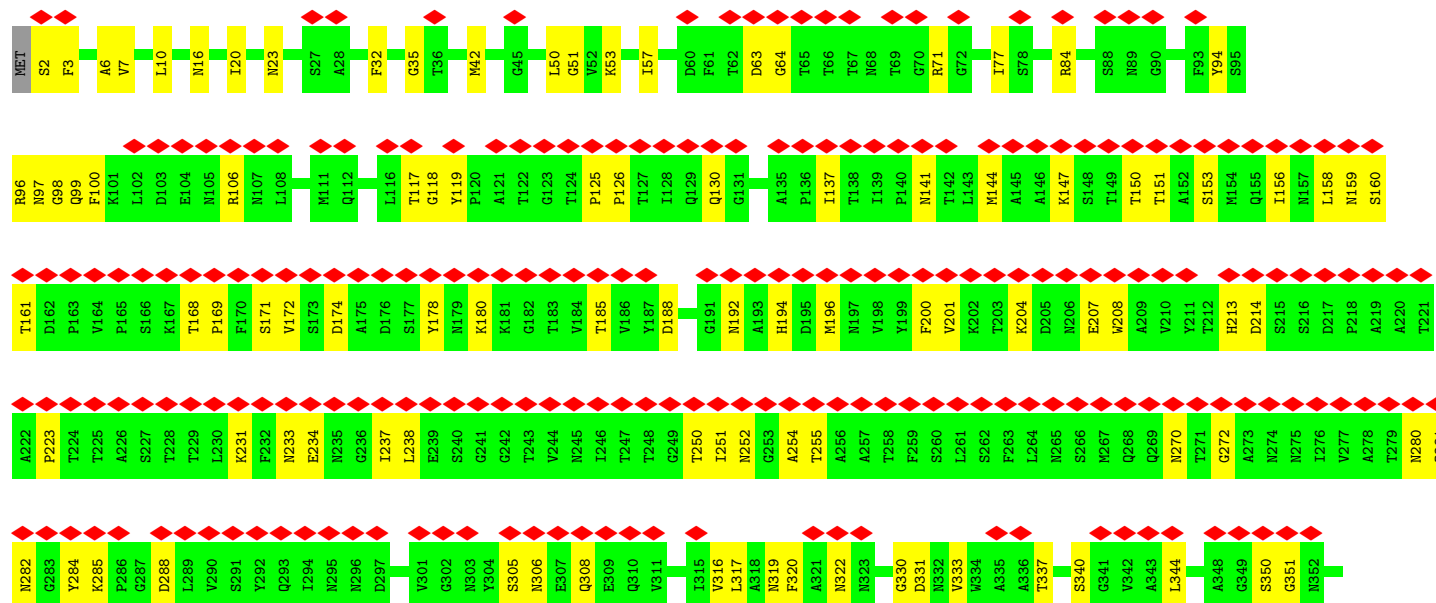
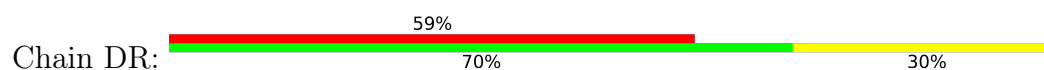
• Molecule 8: Flagellar hook protein FlgE



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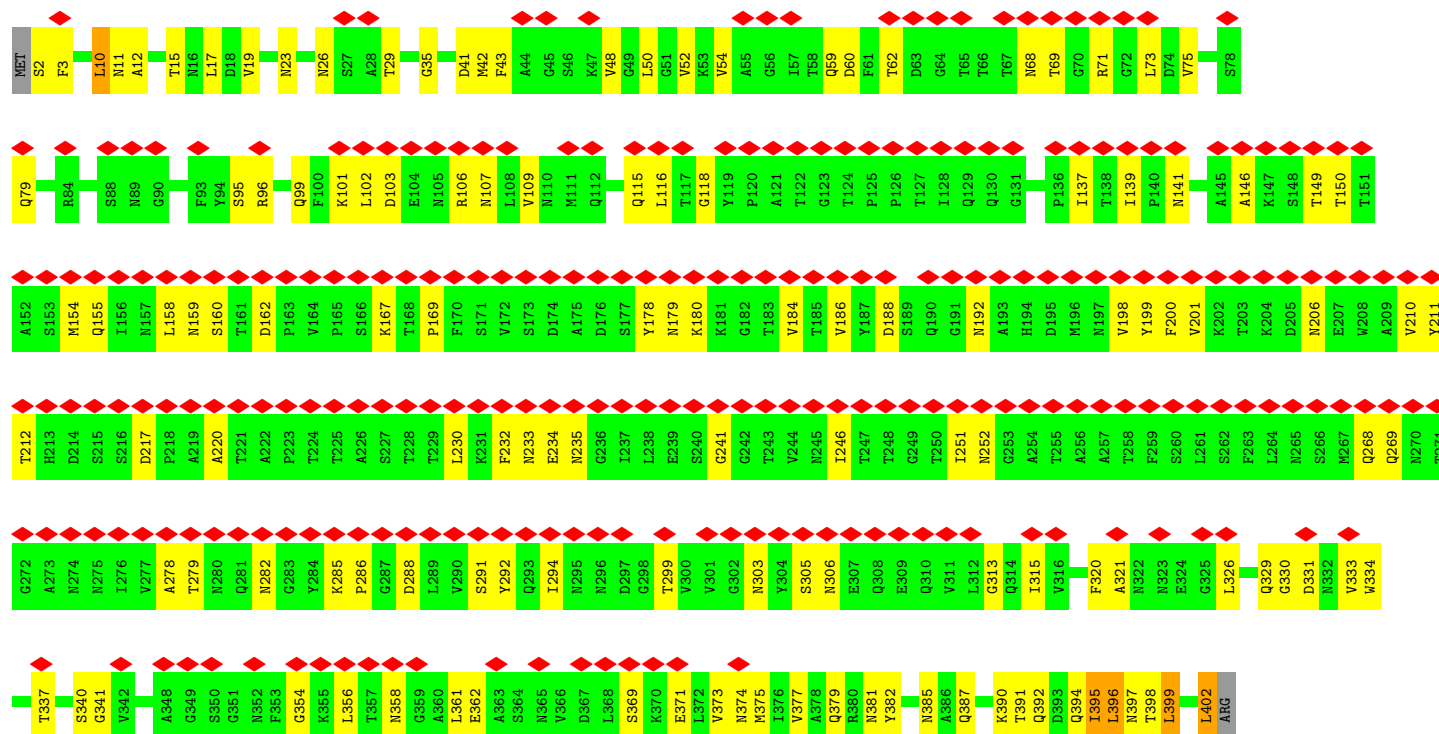


• Molecule 8: Flagellar hook protein FlgE

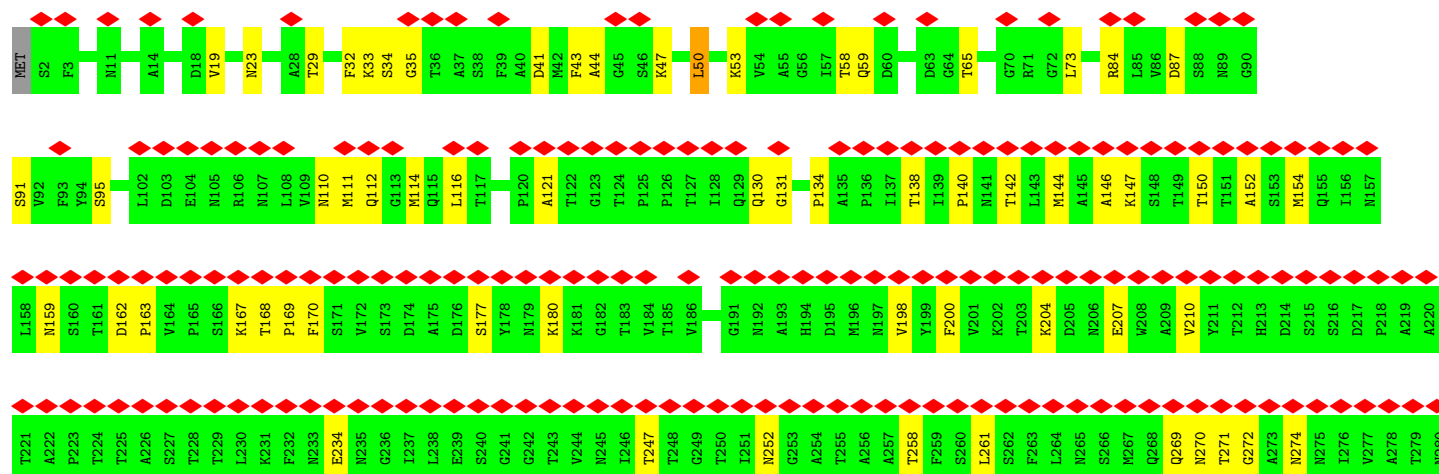
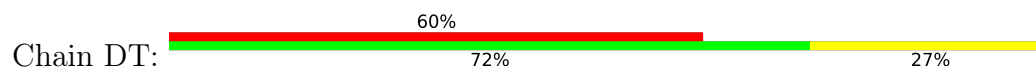


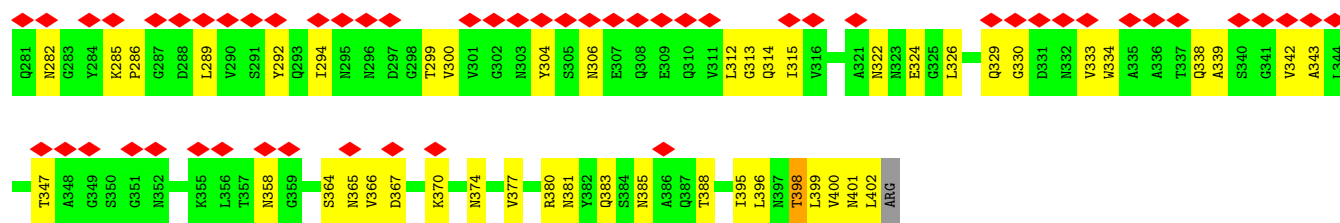


• Molecule 8: Flagellar hook protein FlgE

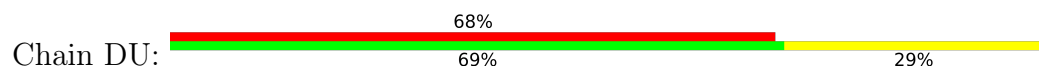


• Molecule 8: Flagellar hook protein FlgE



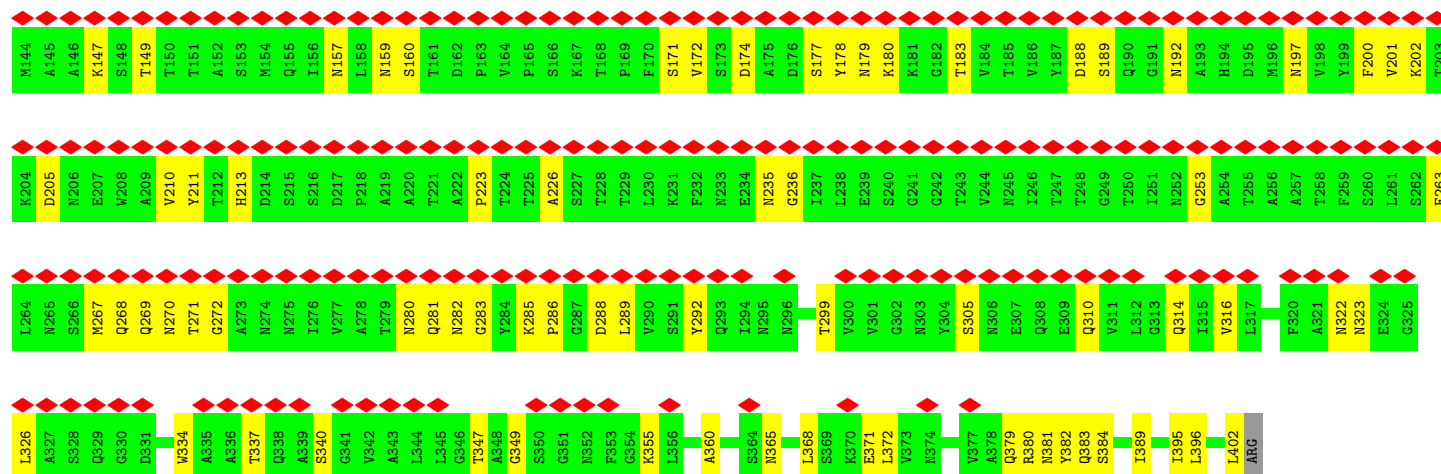


• Molecule 8: Flagellar hook protein FlgE

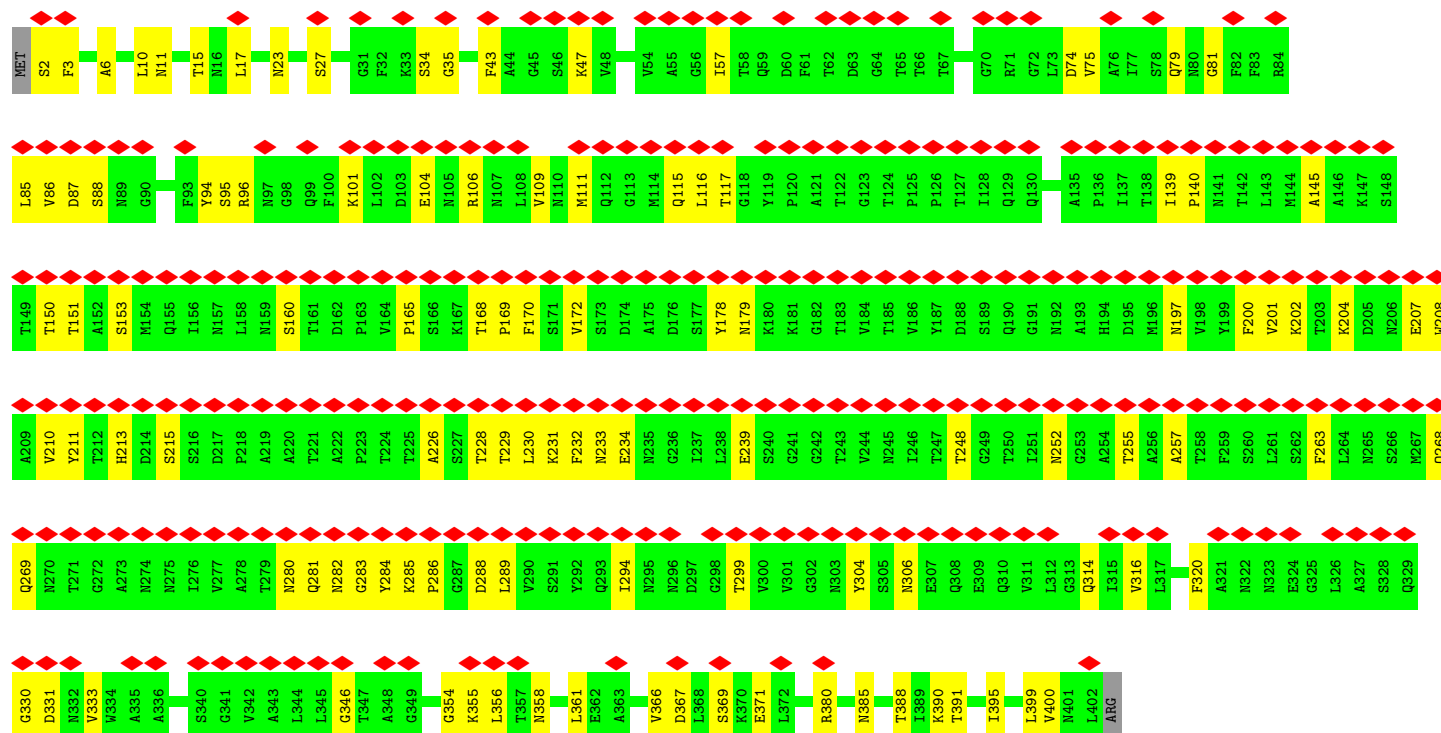
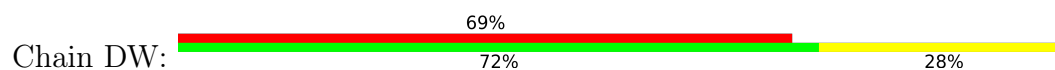


• Molecule 8: Flagellar hook protein FlgE

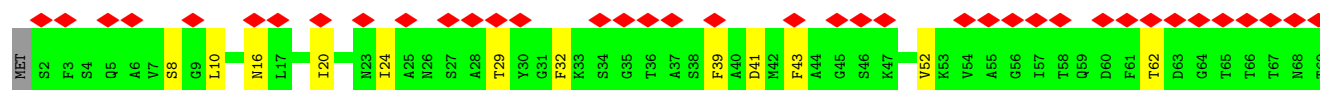
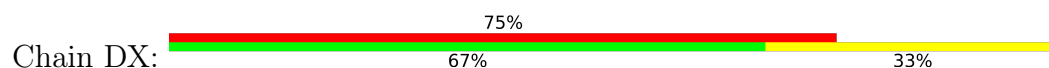




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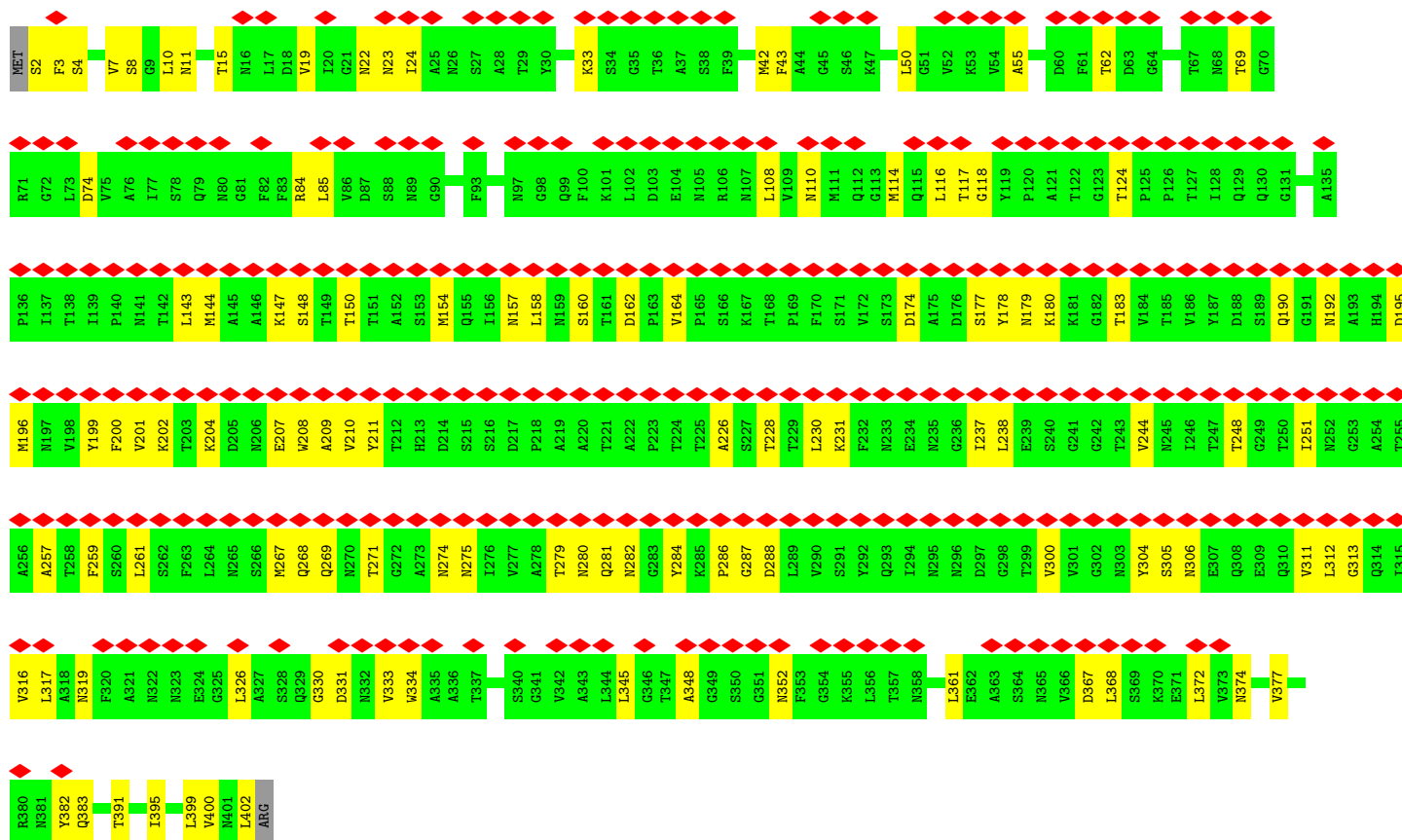
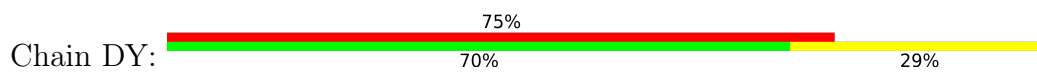


• Molecule 8: Flagellar hook protein FlgE



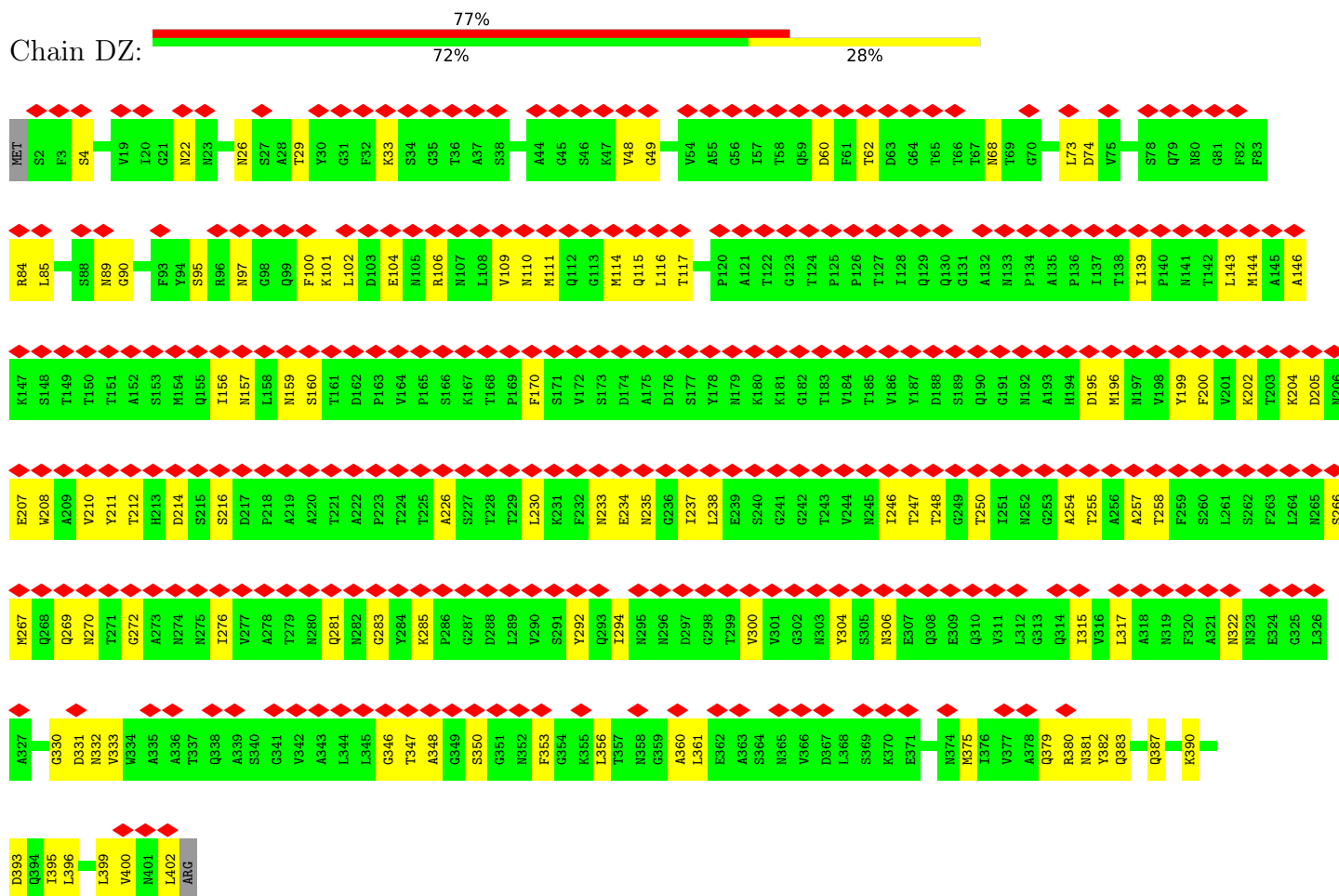


• Molecule 8: Flagellar hook protein FlgE



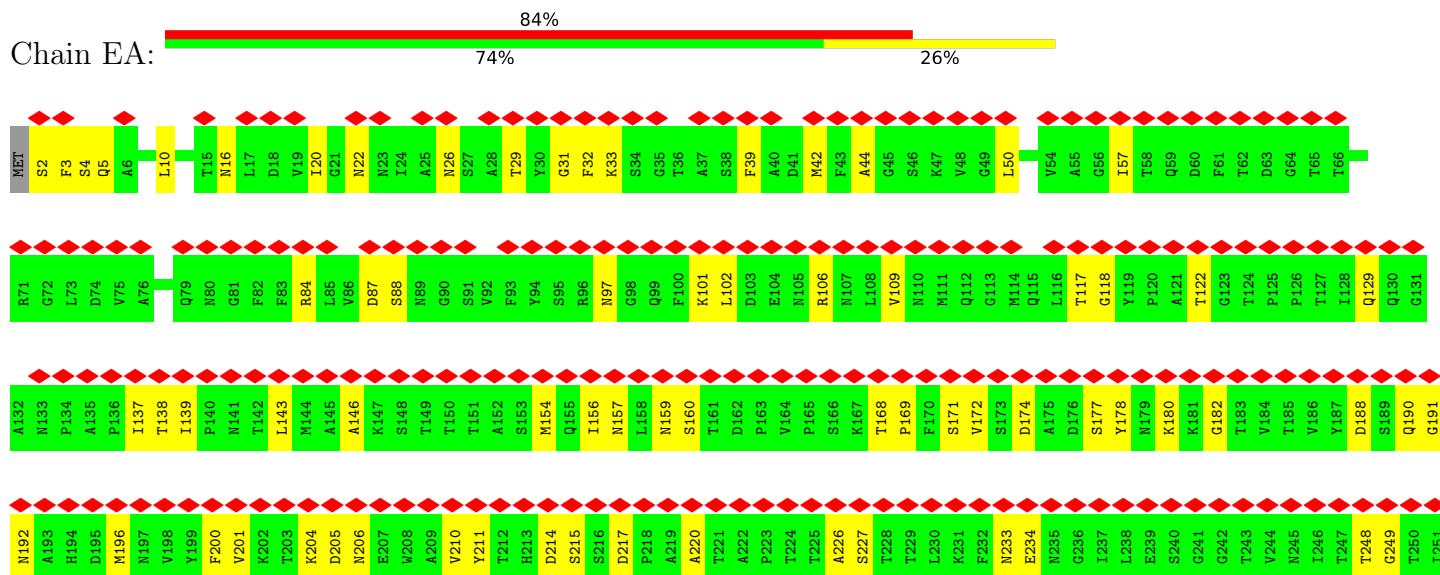
• Molecule 8: Flagellar hook protein FlgE

Chain DZ:



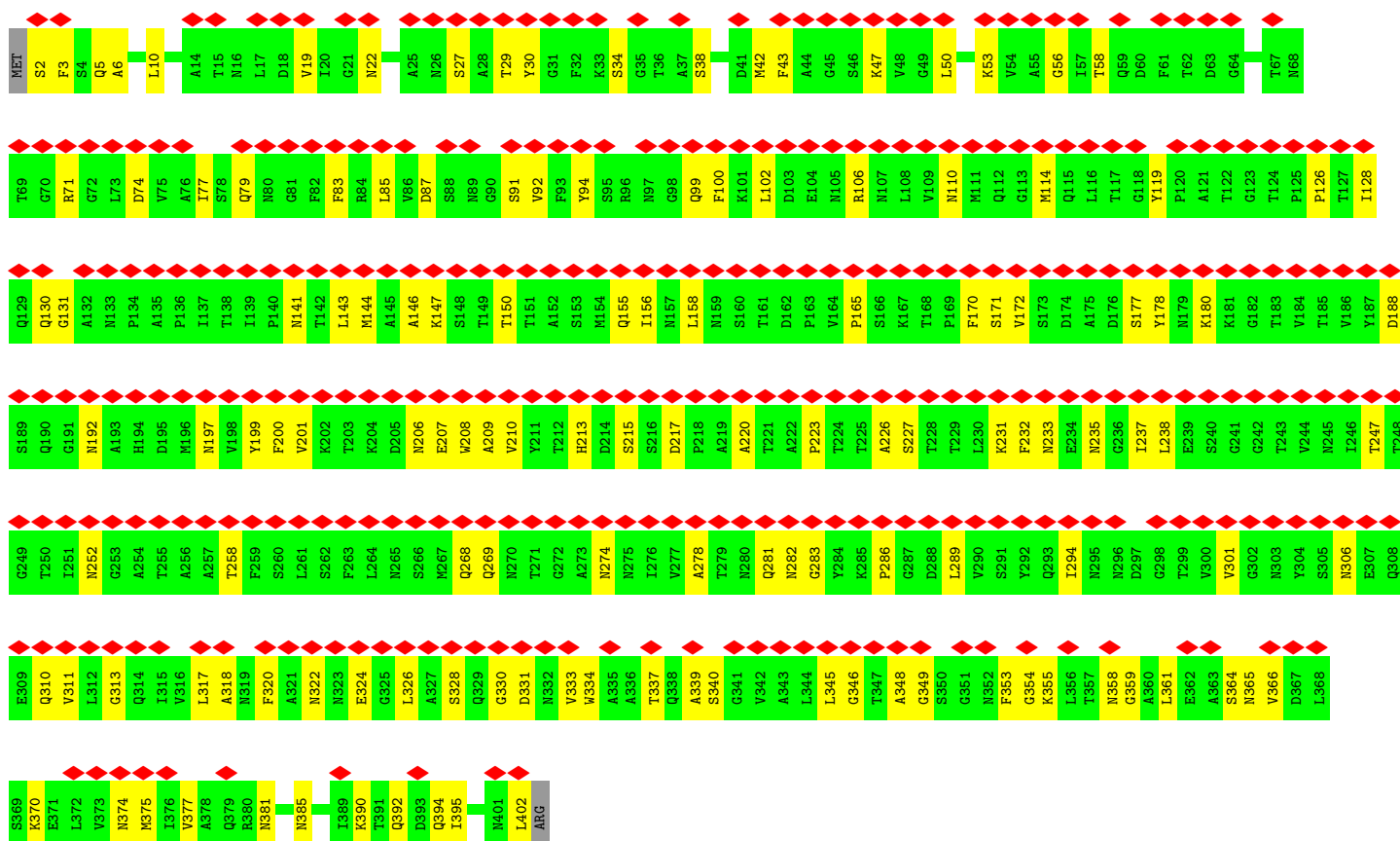
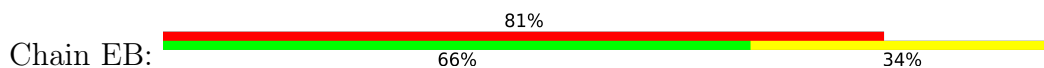
• Molecule 8: Flagellar hook protein FlgE

Chain EA:

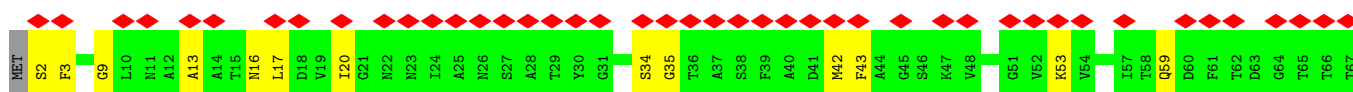
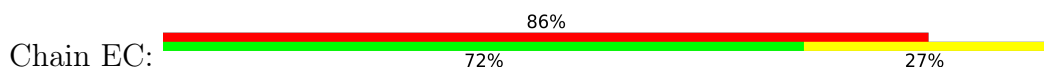


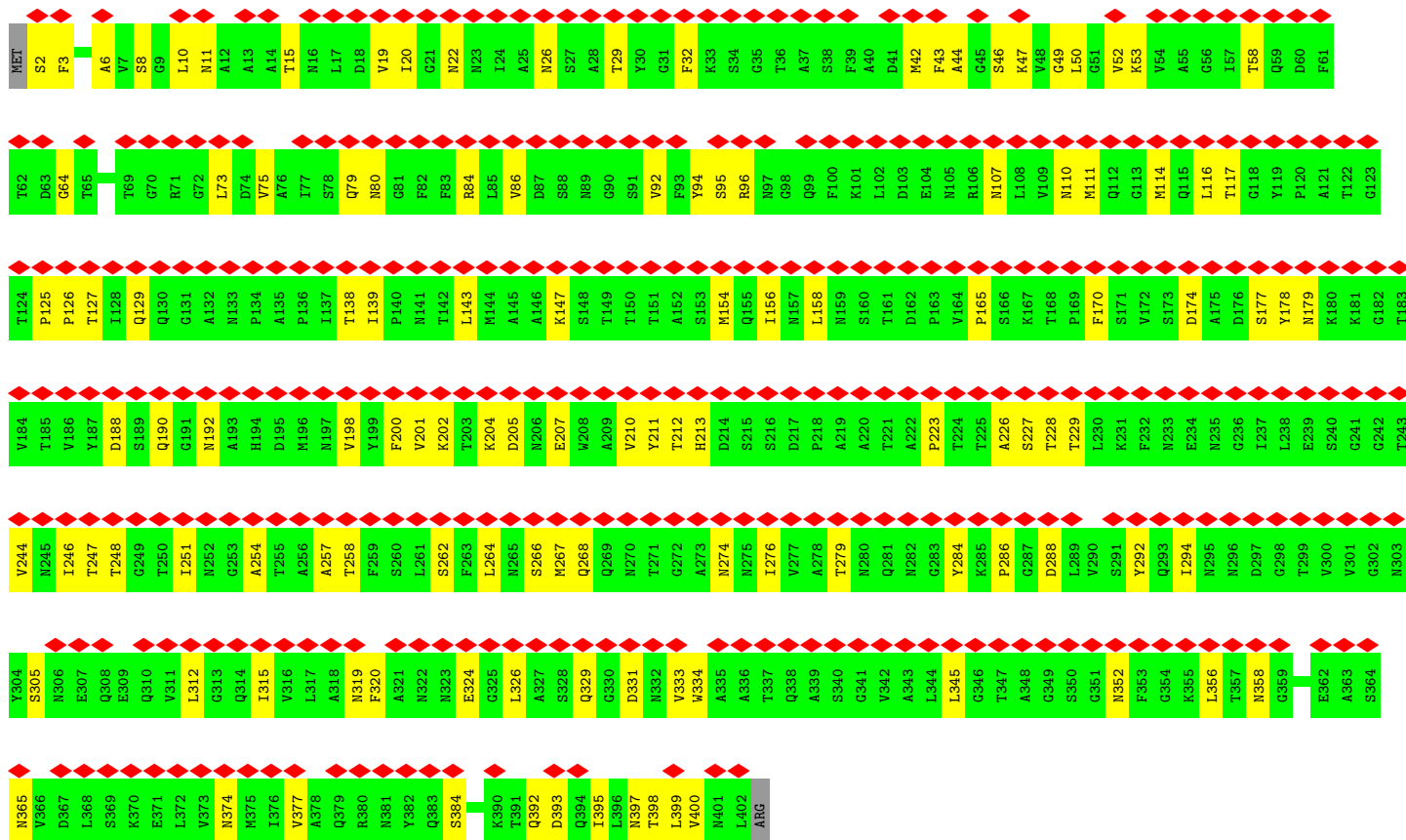
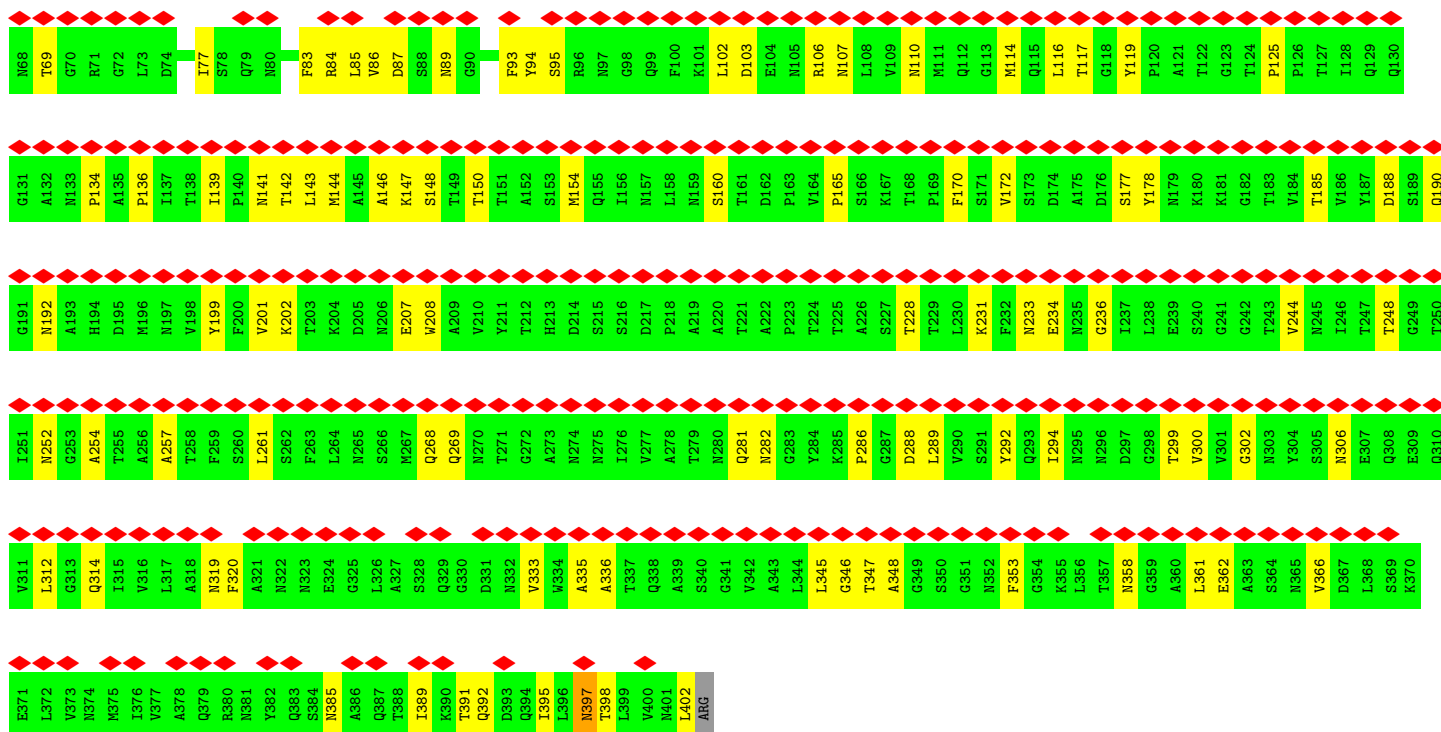


• Molecule 8: Flagellar hook protein FlgE

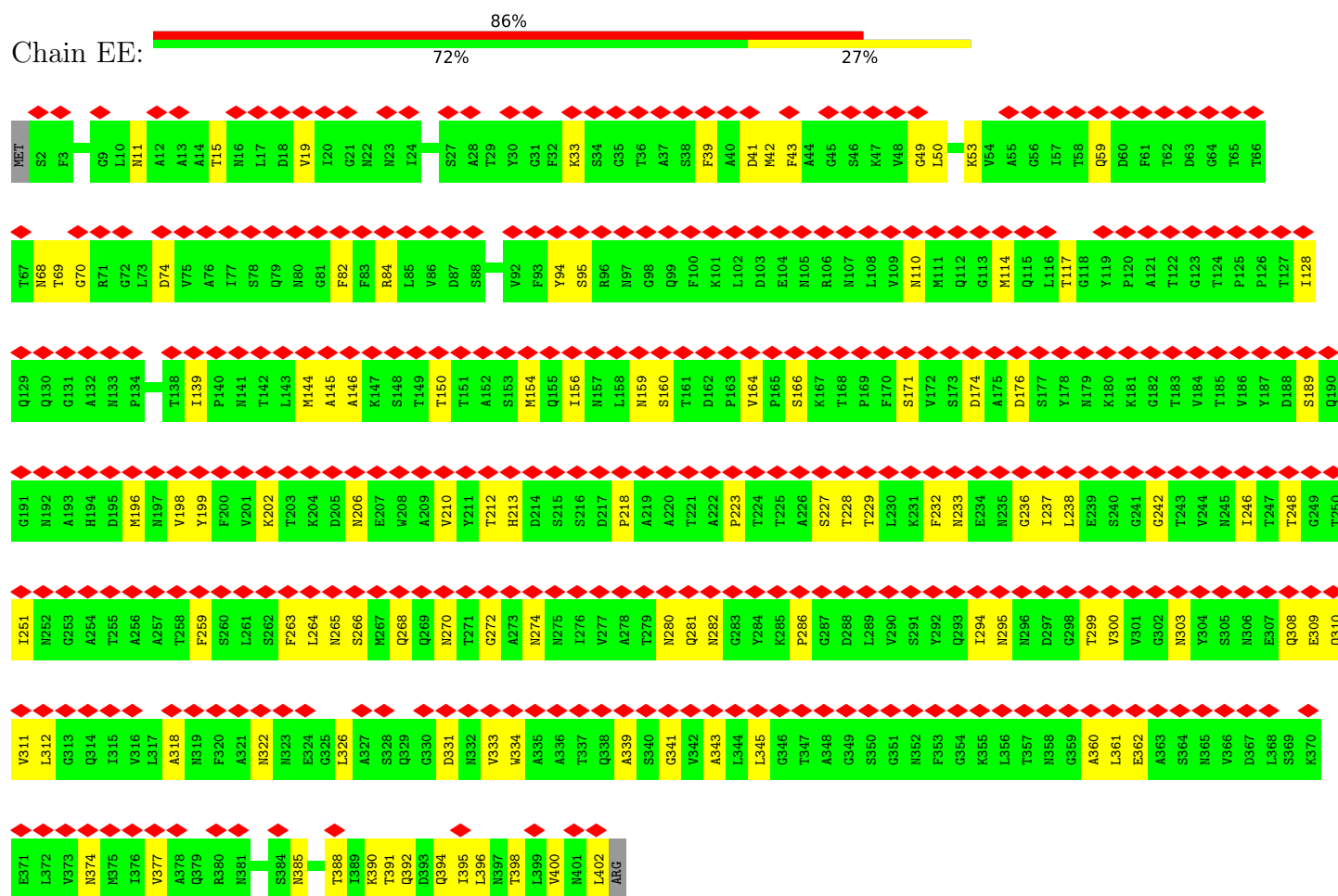


• Molecule 8: Flagellar hook protein FlgE

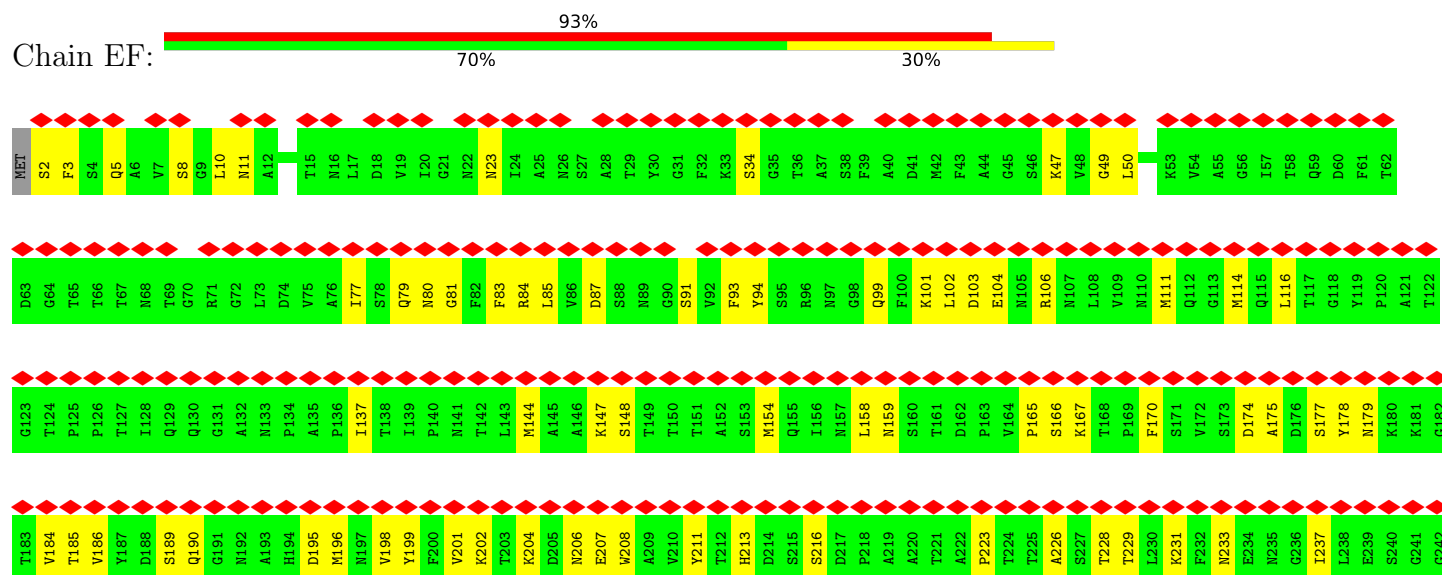


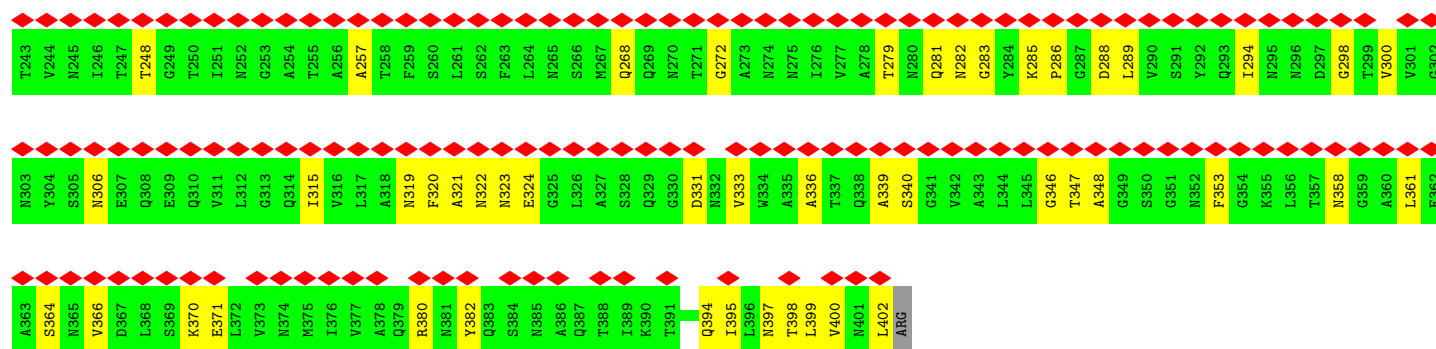


• Molecule 8: Flagellar hook protein FlgE

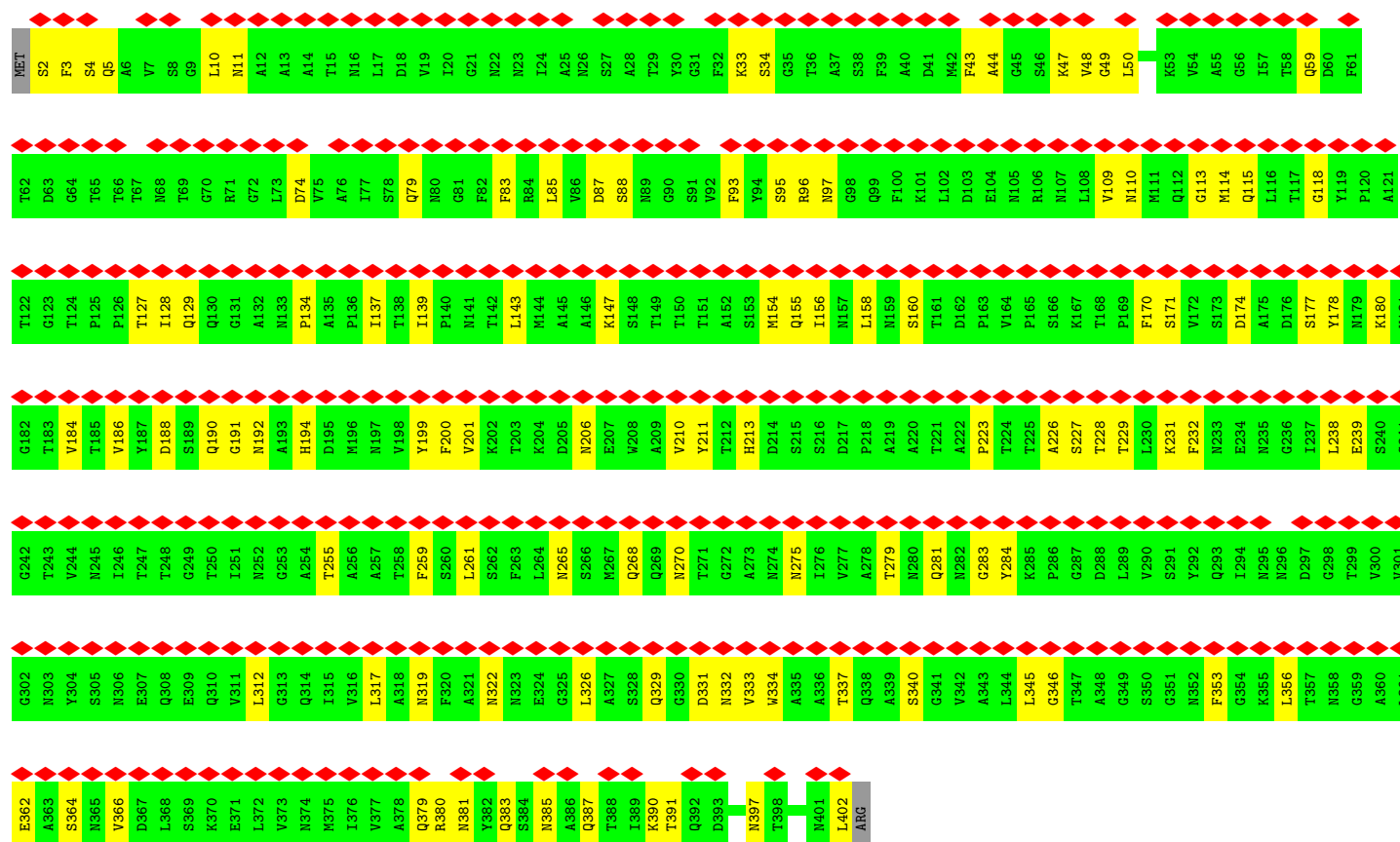


• Molecule 8: Flagellar hook protein FlgE

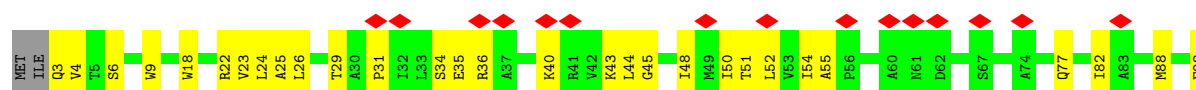


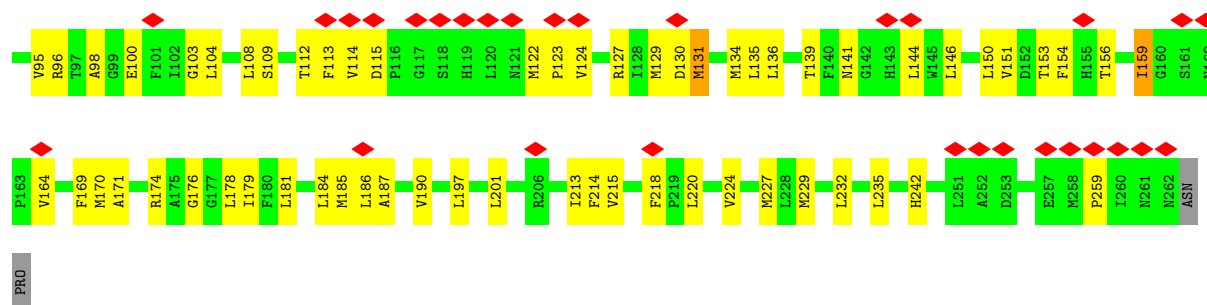


• Molecule 8: Flagellar hook protein FlgE

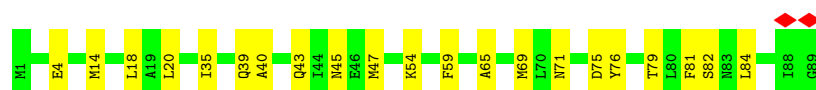
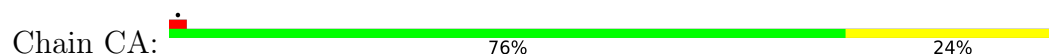


• Molecule 9: Flagellar biosynthetic protein FliR

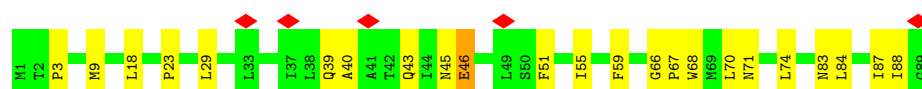
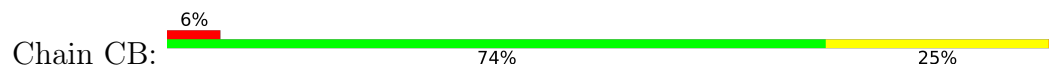




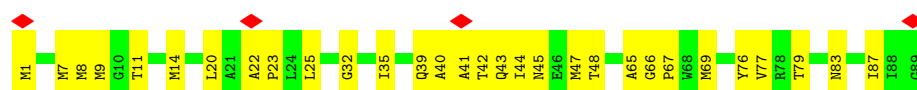
- Molecule 10: Flagellar biosynthetic protein FliQ



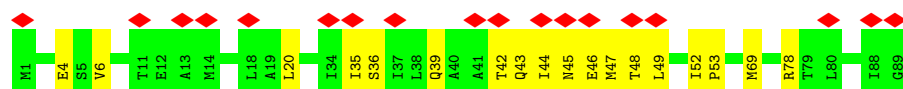
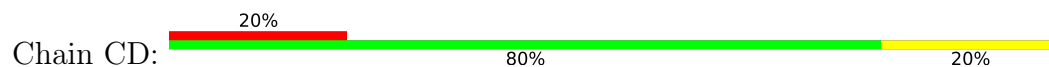
- Molecule 10: Flagellar biosynthetic protein FliQ



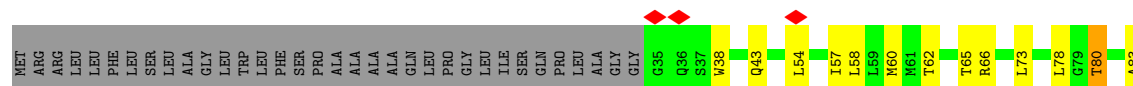
- Molecule 10: Flagellar biosynthetic protein FliQ

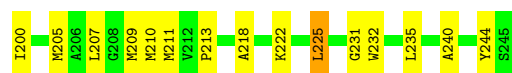


- Molecule 10: Flagellar biosynthetic protein FliQ

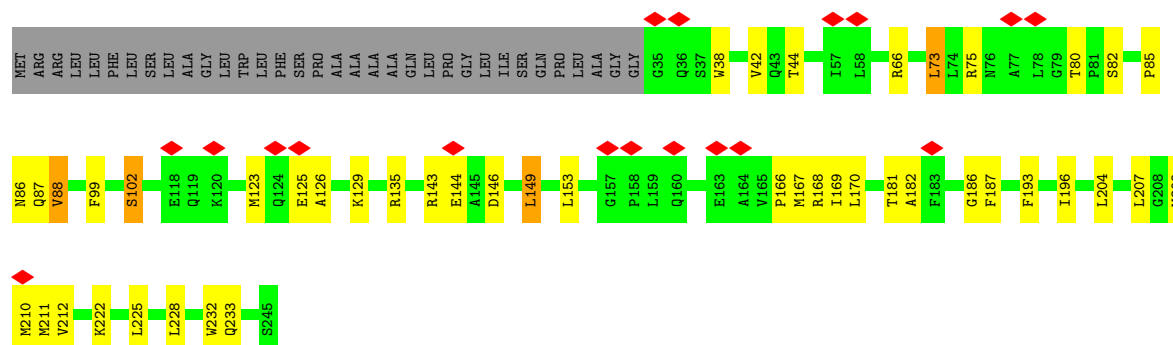


- Molecule 11: Flagellar biosynthetic protein FliP

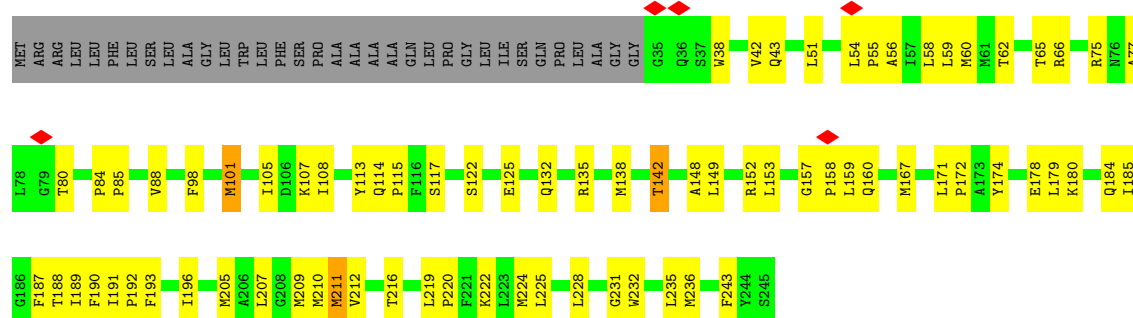




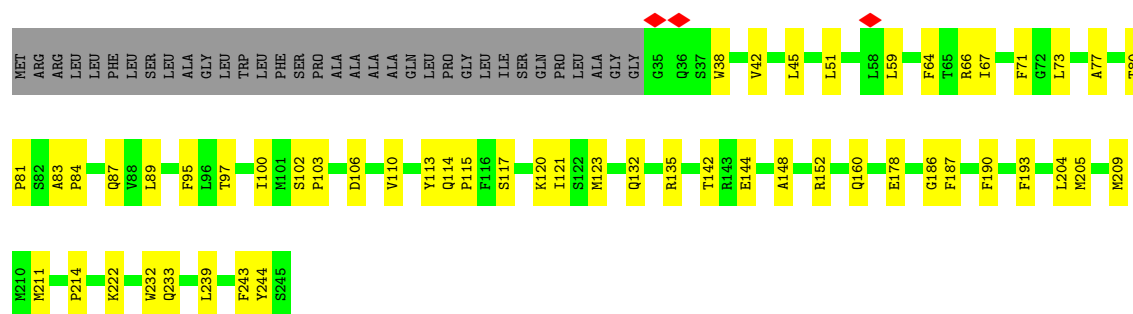
• Molecule 11: Flagellar biosynthetic protein FlhP



• Molecule 11: Flagellar biosynthetic protein FlhP



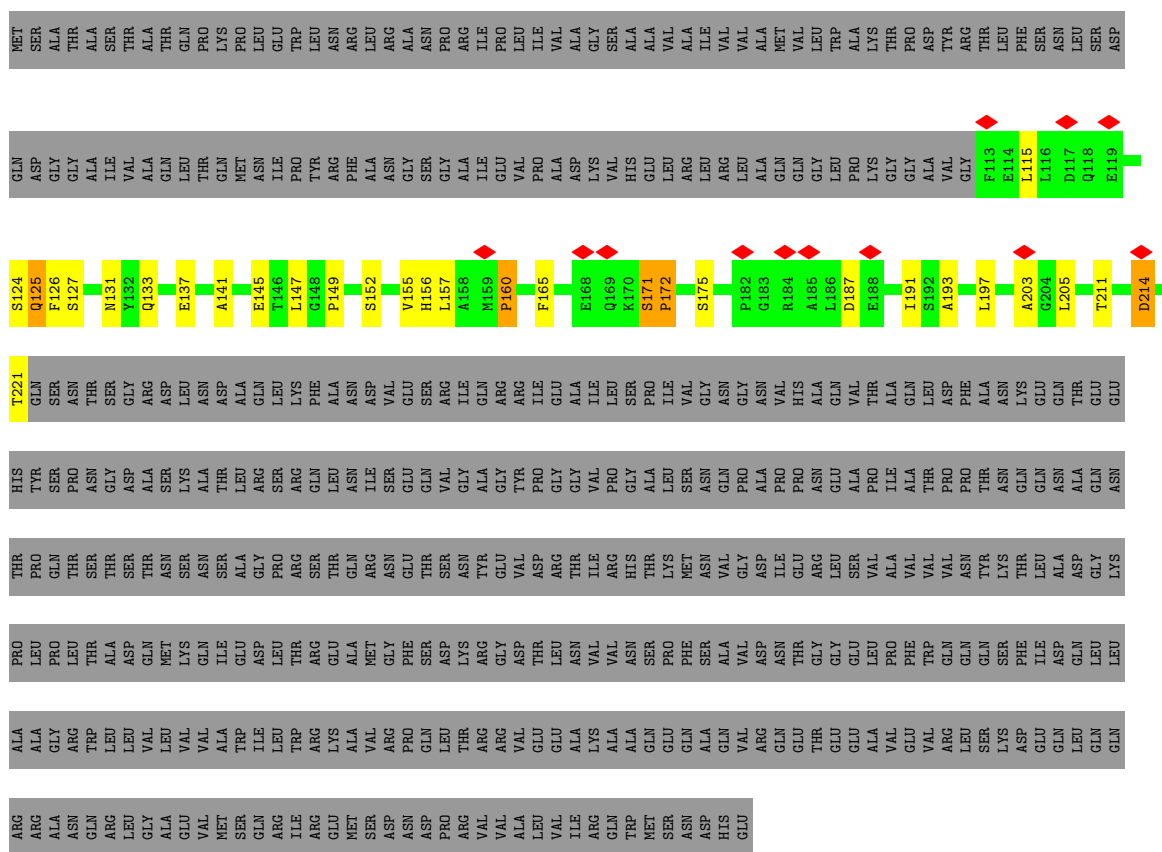
• Molecule 11: Flagellar biosynthetic protein FlhP



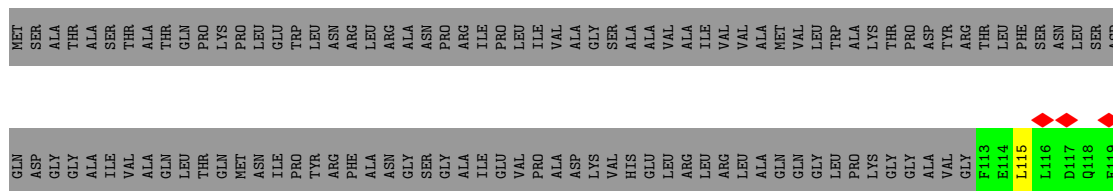
• Molecule 11: Flagellar biosynthetic protein FlhP



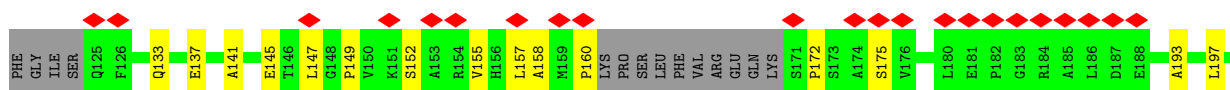
- Molecule 12: Flagellar M-ring protein

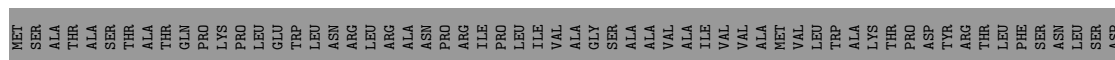


- Molecule 12: Flagellar M-ring protein









ASN	GLN
ASP	ALA
HIS	ARG
GLU	VAL

- Molecule 12: Flagellar M-ring protein

[illegible]

GLN ASP GLY GLY ALA ILE VAL ALA ALA GLN THR MET ASN ILE PRO TYR ARG PHE ALA ASN GLY SER GLY ALA ILE GLU VAL VAL GLU LEU ARG LEU LEU LEU LEU ALA GLN GLN GLY LEU LEU LEU LEU LYS GLY GLY VAL VAL GLY PHE GLU LEU LEU LEU ASP GLN GLU LYS

PHE	GLY	ILE	SER	Q125	F126	S127	E128	Q133	R134	E137	A141	R142	T143	I144	E145	T146	G146	F149	V150	K151	S152	V155	H156	L157	A158	M159	P160	LYS	PRO	PRO	SER	LEU	PHE	VAL	ARG	GLU	GLN	LYS	S171	P172	S173	A174	L180	E181	P182	G183	R184	A185	L186	D187	E188	I191	S192

A193
H196
L197
V198
S199
S200
A201
V202
A203
G204
L205
P206
P207
G208
N209
V210
T211

D214

L220
T221
GLN
SER
SER
ASN
THR
SER
SER
GLY
ARG
ASP
LEU
LEU
ASN
ASP
ALA
GLN
LEU
LEU
LYS
PHE
ALA
ASN
ASP
VAL
GLU
SER
SER
ARG
ILE
GLN
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ARG
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ALA
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LEU
SER
PRO
ILE
VAL

ASN	GLN	ASN	VAL	HIS	ALA	GLN	VAL	THR	ALA	ALA	GLN	ASP	PHE	ALA	ALA	ASN	LYS	GLU	GLN	THR	GLU	GLU	HIS	TYR	SER	PRO	ASN	GLY	ASP	ALA	SER	LYS	THR	ALA	LEU	SER	ARG	GLN	LEU	ASN	TLE	SER	GLU	GLN	VAL	GLY	ALA	GLY	TYR	PRO	GLY	ALA	LEU	SER	ASN

GLN	PRO	ALA	ALA	PRO	PRO	ASN	GLU	ALA	ALA	PRO	PRO	THR	THR	ASN	GLN	GLN	ASN	ALA	GLN	ASN	THR	PRO	GLN	THR	SER	SER	SER	THR	ASN	SER	ASN	SER	SER	ALA	GLY	PRO	ARG	SER	THR	THR	GLN	ARG	ASN	GLU	VAL	ASP	THR	THR	ILE	ARG	HIS	THR	LYS	MET	ASN

VAL	GLY	ASP	GLU	ARG	LEU	SER	VAL	ALA	VAL	VAL	VAL	ASN	TYR	LYS	THR	LEU	PRO	GLN	MET	LYS	GLN	THR	ARG	GLU	ASP	LEU	THR	ASP	THR	LEU	ASN	VAL	VAL	ASN	SER	PRO	PHE	FER

ALA VAL ASP ASN THR GLY GLU LEU PRO PHE THR GLN GLN GLN SER PER ILE ASP GLN LEU LEU ALA ALA GLY ARG TRP TRP LEU LEU VAL LEU VAL VAL VAL ALA ALA ILE LEU LEU TRP TRP TRP LYS VAL VAL ARG PRO PRO GLN LEU LEU THR ARG ARG VAL VAL GLU GLU GLY GLN LYS ALA ALA

GLN VAL ARG ARG GLN GLN THR GLU GLU VAL VAL GLU VAL ARG ARG LEU SER LYS ASP GLU GLN LEU GLN GLN ARG ARG ALA ASN GLN ARG ARG LEU GLY ALA GLU VAL VAL MET MET SER SER GLN ARG ARG ARG ARG GLU MET MET SER ASP ASN ASP ASP PRO ARG ARG VAL VAL ALA LEU VAL VAL LEU ARG TRP MET MET SER ASN ASP

HIS
GLU

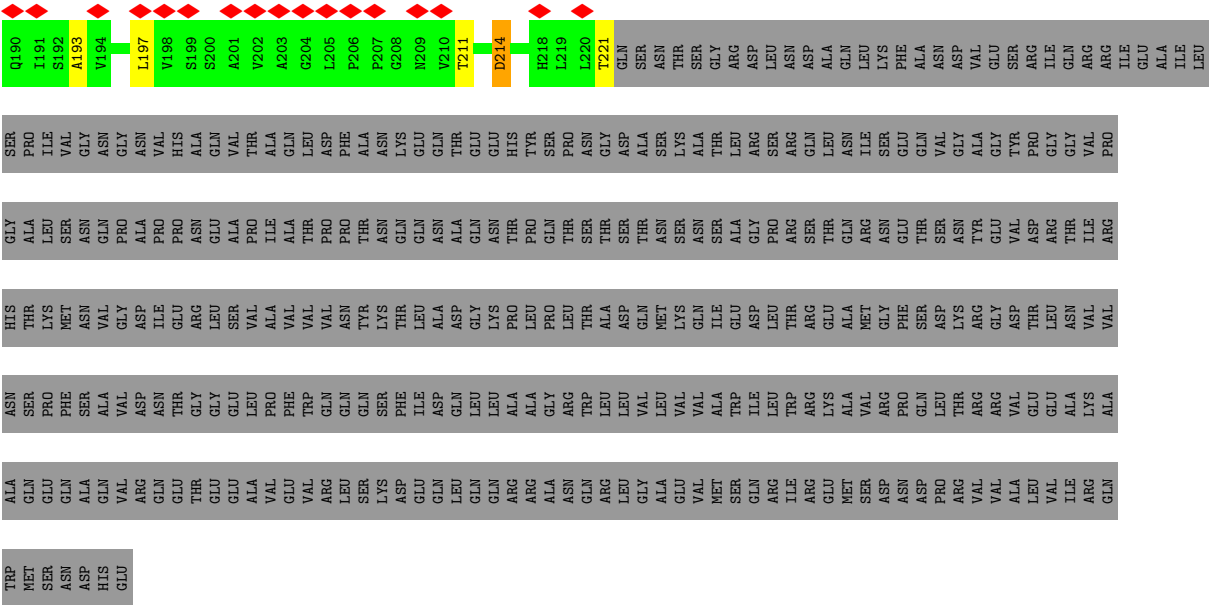
- Molecule 12: Flagellar M-ring protein



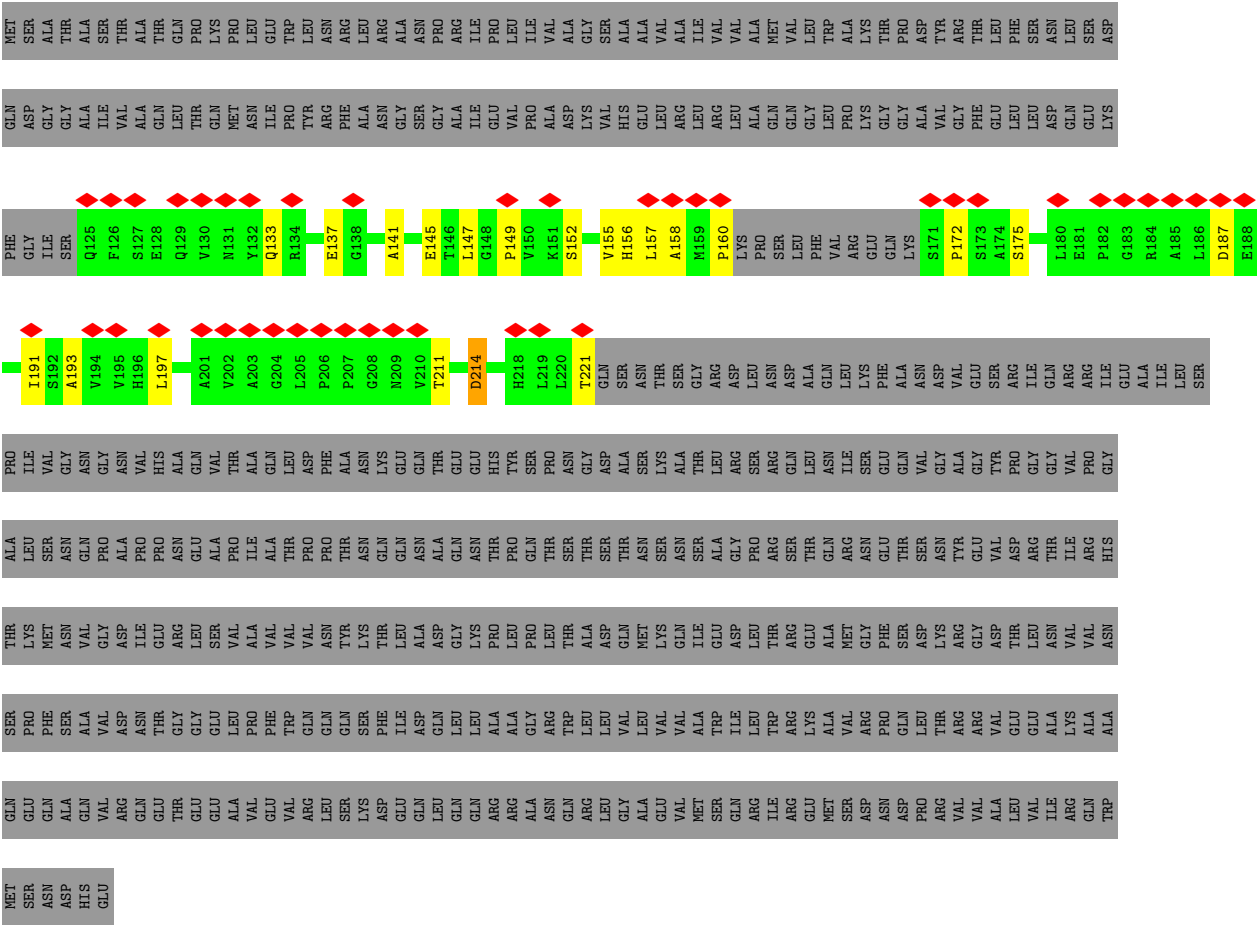
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GLN ASP GLY GLY ALA ALA VAL ILE VAL ALA ALA ALA ALA ALA ASP LYS ASP VAL VAL GLU GLU LEU LEU ARG ARG ARG ARG ALA ALA GLN GLN GLY GLY VAL VAL PHE PHE GLU LEU LEU LEU ASP ASP GLN GLN GLY GLY

PHE	GLY	ILE	SER	Q125	F126	S127	E128	Q129	V130	Q133	R134	A135	L136	E137	G138	A141	R142	E145	T146	L147	G148	P149	S152	V155	H156	L157	A158	M159	P160	LYS	PRO	SER	LEU	PHE	PHE	ARG	VAL	GLU	GLN	LYS	P171	P172	P173	T177	E181	P182	G183	R184	A185	L186	L187	E188	P189



• Molecule 12: Flagellar M-ring protein



• Molecule 12: Flagellar M-ring protein



GLU	VAL	ARG	LEU	SER	LYS	ASP	GLU	GLN	LEU	GLN	GLN	GLN	ARG	ARG	ALA	ASN	GLN	ARG	LEU	GLY	ALA	GLU	VAL	MET	SER	GLN	ARG	ARG	ILE	ILE	ARG	GLU	MET	SER	ASP	ASN	ASP	PRO	VAL	VAL	ARG	ARG	VAL	ALA	ALA	VAL	VAL	LEU	VAL	ILE	ILE	ARG	GLN	TRP	MET	SER	ASN	ASP	HIS	GLU

Chain Dp:

GLN	ASP	GLY	GLY	ALA	ILE	VAL	ALA	GLN	GLN	THR	GLN	MET	ASN	ILE	PRO	TYR	ARG	PHE	ALA	ALA	ASN	GLY	SER	GLY	ALA	ILE	GLU	VAL	PRO	PRO	ASP	ALA	LYS	HIS	GLU	LEU	ARG	LEU	ARG	LEU	LEU	ALA	GLN	GLN	GLY	LEU	PRO	PRO	LYS	GLY	GLY	ALA	VAL	VAL	F113	F114	L115	L116	D117	Q118	E119	F120	F121	F122	F123	F124	F125	F126	F127	F128	F129	F130	F131	F132	F133	F134	F135	F136	F137	F138	F139	F140	F141	F142	F143	F144	F145	F146	F147	F148	F149	F150	F151	F152	F153	F154	F155	F156	F157	F158	F159	F160	F161	F162	F163	F164	F165	F166	F167	F168	F169	F170	F171	F172	F173	F174	F175	F176	F177	F178	F179	F180	F181	F182	F183	F184	F185	F186	F187	F188	F189	F190	F191	F192	F193	F194	F195	F196	F197	F198	F199	F200	F201	F202	F203	F204	F205	F206	F207	F208	F209	F210	F211	F212	F213	F214	F215	F216	F217	F218	F219	F220	F221	F222	F223	F224	F225	F226	F227	F228	F229	F230	F231	F232	F233	F234	F235	F236	F237	F238	F239	F240	F241	F242	F243	F244	F245	F246	F247	F248	F249	F250	F251	F252	F253	F254	F255	F256	F257	F258	F259	F260	F261	F262	F263	F264	F265	F266	F267	F268	F269	F270	F271	F272	F273	F274	F275	F276	F277	F278	F279	F280	F281	F282	F283	F284	F285	F286	F287	F288	F289	F290	F291	F292	F293	F294	F295	F296	F297	F298	F299	F300	F301	F302	F303	F304	F305	F306	F307	F308	F309	F310	F311	F312	F313	F314	F315	F316	F317	F318	F319	F320	F321	F322	F323	F324	F325	F326	F327	F328	F329	F330	F331	F332	F333	F334	F335	F336	F337	F338	F339	F340	F341	F342	F343	F344	F345	F346	F347	F348	F349	F350	F351	F352	F353	F354	F355	F356	F357	F358	F359	F360	F361	F362	F363	F364	F365	F366	F367	F368	F369	F370	F371	F372	F373	F374	F375	F376	F377	F378	F379	F380	F381	F382	F383	F384	F385	F386	F387	F388	F389	F390	F391	F392	F393	F394	F395	F396	F397	F398	F399	F400	F401	F402	F403	F404	F405	F406	F407	F408	F409	F410	F411	F412	F413	F414	F415	F416	F417	F418	F419	F420	F421	F422	F423	F424	F425	F426	F427	F428	F429	F430	F431	F432	F433	F434	F435	F436	F437	F438	F439	F440	F441	F442	F443	F444	F445	F446	F447	F448	F449	F450	F451	F452	F453	F454	F455	F456	F457	F458	F459	F460	F461	F462	F463	F464	F465	F466	F467	F468	F469	F470	F471	F472	F473	F474	F475	F476	F477	F478	F479	F480	F481	F482	F483	F484	F485	F486	F487	F488	F489	F490	F491	F492	F493	F494	F495	F496	F497	F498	F499	F500	F501	F502	F503	F504	F505	F506	F507	F508	F509	F510	F511	F512	F513	F514	F515	F516	F517	F518	F519	F520	F521	F522	F523	F524	F525	F526	F527	F528	F529	F530	F531	F532	F533	F534	F535	F536	F537	F538	F539	F540	F541	F542	F543	F544	F545	F546	F547	F548	F549	F550	F551	F552	F553	F554	F555	F556	F557	F558	F559	F560	F561	F562	F563	F564	F565	F566	F567	F568	F569	F570	F571	F572	F573	F574	F575	F576	F577	F578	F579

F121	F122	F123	S124	F125	F126	S127	E128	F129	V130	Q133	E137	A141	R142	E145	T146	L147	G148	P149	S152	A153	R154	H155	H156	L157	A158	M159	P160	K161	P162	S163	Q169	K170	S171	P172	S175	V176	T179	L180	E181	P182	G183	R184	A185	L186	D187	E188	I191	S192	A193

L197 A201 V202 A203 G204 L206 P206 P207 G208 N209 V210 T211 D214 T221 GLN SER ASN THR SER GLY ARG ASP LEU LEU ASN ASP ALA GLN LEU LYS PHE ALA ASN ASP VAL VAL GLU SER SER ILE GLN ARG ARG ILE LEU PRO PRG ILE VAL GLY ASN GLY ASN VAL HIS

GLN	VAL	THR	THR	ALA	GLN	LEU	ASP	PHE	ALA	ASN	LYS	GLY	GLN	THR	THR	GLU	GLU	GLY	HIS	TYR	SER	PRO	ASN	GLY	ASP	ALA	SER	LYS	ALA	ALA	THR	LEU	ARG	SER	SER	ARG	GLN	GLN	GLU	VAL	VAL	GLY	GLY	VAL	PRO	PRO	GLN	ALA	ALA	LEU	SER	ASN	GLN	PRO	PRO	ALA	PRO	PRO	PRO	ASN

GLU	ALA	PRO	PRO	ILE	ALA	THR	PRO	THR	ASN	GLN	GLN	ASN	ASN	GLN	ALA	THR	THR	PRO	GLN	THR	SER	SER	SER	ASN	ASN	ASN	SER	ALA	GLY	PRO	ARG	SER	THR	THR	GLN	ARG	ASN	VAL	GLU	THR	SER	SER	ASP	THR	ILE	ARG	HIS	THR	LYS	MET	ASN	VAL	GLY	ASP	ILE	GLC	PIC

LEU	SER	VAL	ALA	VAL	VAL	VAL	ASN	TYR	LYS	THR	LEU	ALA	ASP	GLY	LYS	PRO	LEU	PRO	LEU	LEU	THR	ALA	ALA	ASP	GLN	MET	LYS	GLN	ILE	GLU	ASP	LEU	LEU	THR	THR	ARG	GLU	ALA	MET	MET	GLY	PHE	SER	SER	ASP	LYS	ARG	GLY	THR	THR	LEU	ASN	VAL	VAL	ASN	SER	SER	PHE	PRO	SER	ALA	VAL	VAL	ASP	ASN	THR	TYR

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GLU GLU GLU VAL VAL VAL VAL VAL LEU SER LYS ASP GLU GLN GLN GLN ARG ARG ALA ALA ASN GLN ARG LEU GLY ALA GLU VAL VAL MET MET SER GLN GLN ILE ARG ARG GLU MET MET SER ASP ASN ASP PRO ARG ARG VAL VAL VAL ALA LEU VAL ILE ARG GLN TRP MET SER ASN ASP HIS GLU

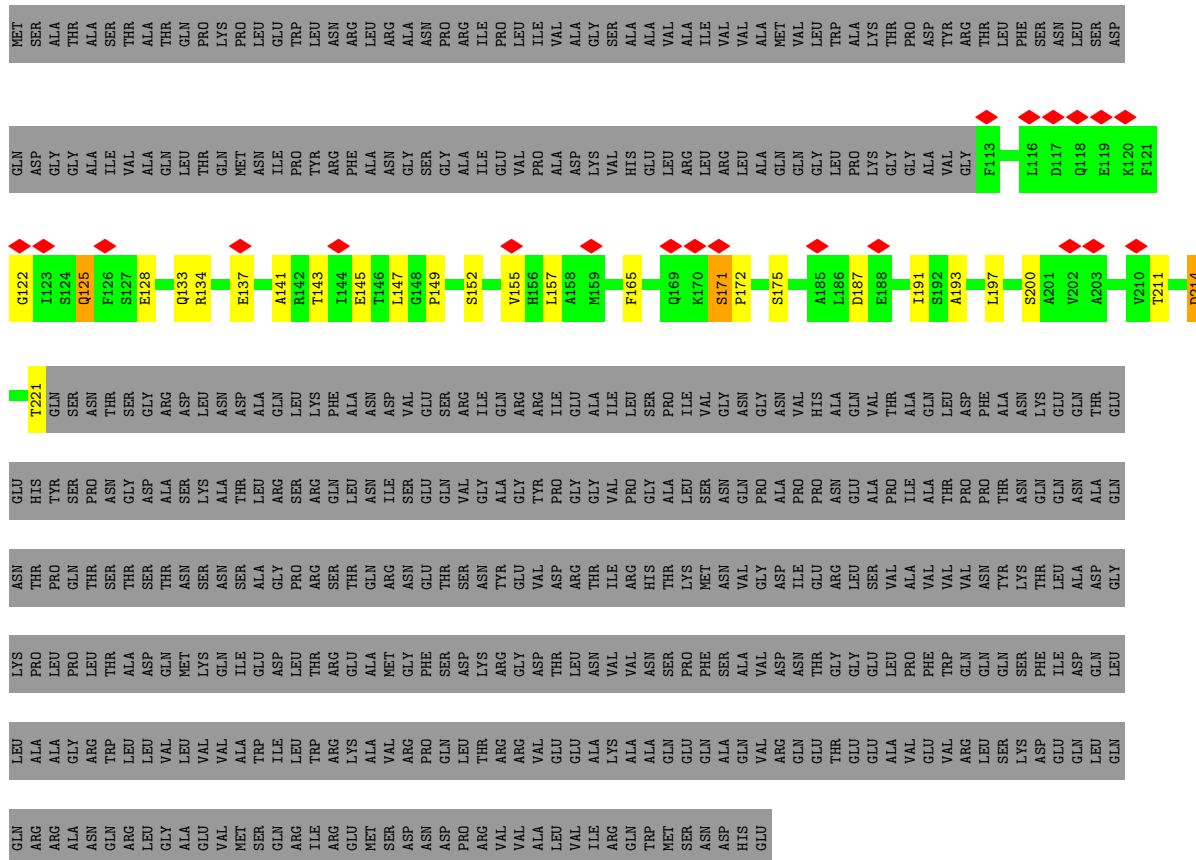
Chain Dq:

MET	SER	ALA	THR	ALA	SER	THR	ALA	THR	GLN	PRO	PRO	LYS	PRO	LEU	GLU	TRP	LEU	ASN	ARG	ARG	LEU	ALA	ARG	ALA	ASN	PRO	PRO	ARG	ILE	ILE	VAL	ALA	ALA	GLY	SER	ALA	ALA	VAL	VAL	VAL	VAL	VAL	MET	VAL	VAL	LEU	TRP	ALA	ALA	LYS	THR	PRO	ASP	TYR	ARG	THR	LEU	PHE	SER	ASN	LEU	SER	STR

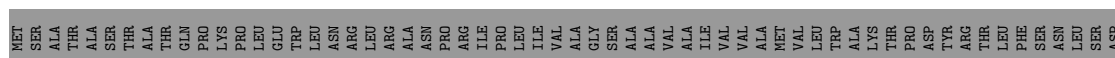
GLN	ASP	GLY	GLY	ALA	ILE	VAL	ALA	GLN	LEU	THR	GLN	MET	ASN	ILE	PRO	TYR	ARG	PHE	ALA	ASN	GLY	SER	GLY	ILE	ALA	GLU	VAL	PRO	ALA	ASP	LYS	VAL	HIS	GLU	LEU	ARG	LEU	ARG	LEU	ALA	GLN	GLY	GLY	LEU	PRO	LYS	GLY	GLY	ALA	VAL	GLY	P113	L114	L115	L116	D117	K120	L121

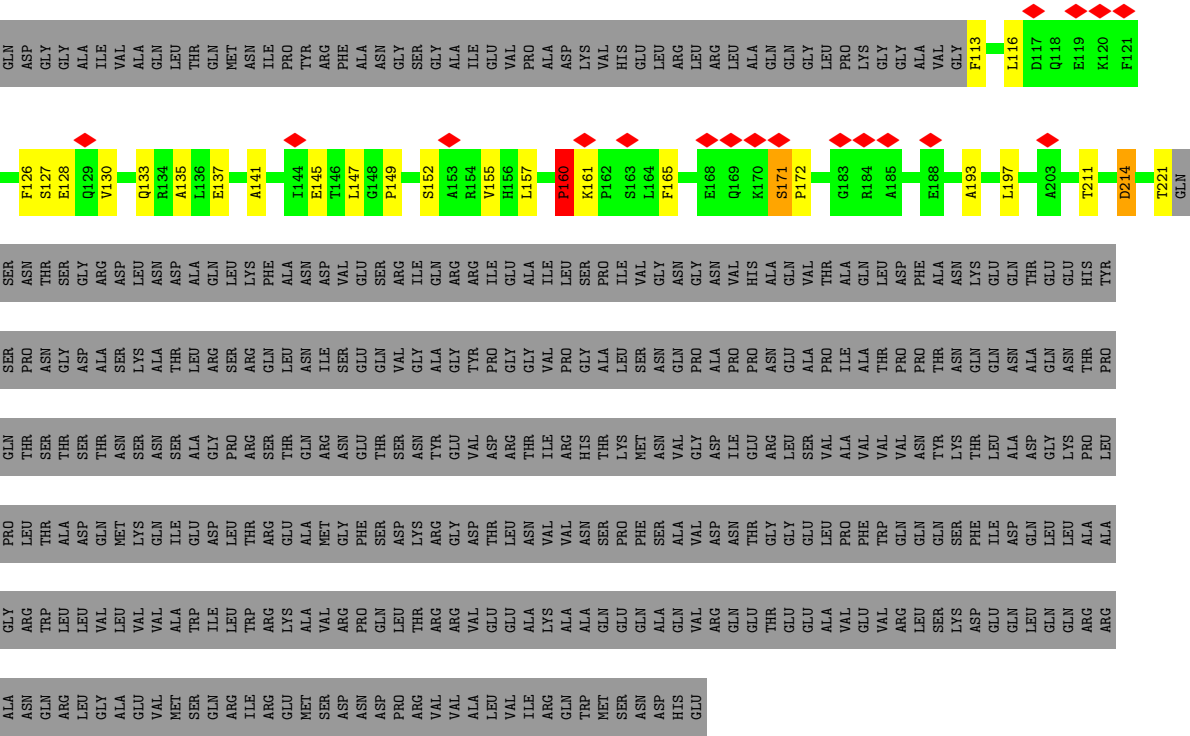
G122	I123	I124	Q125	F126	Q129	Q133	R134	A135	L136	E137	A141	E145	T146	L147	G148	P149	S152	V155	H156	L157	A158	M159	P160	K161	K170	S171	P172	V178	P182	G183	R184	A185	L186	D187	E188	I191	S192	A193	V194	L197	A201	V202	A203	G204	L205	V206

- Molecule 12: Flagellar M-ring protein

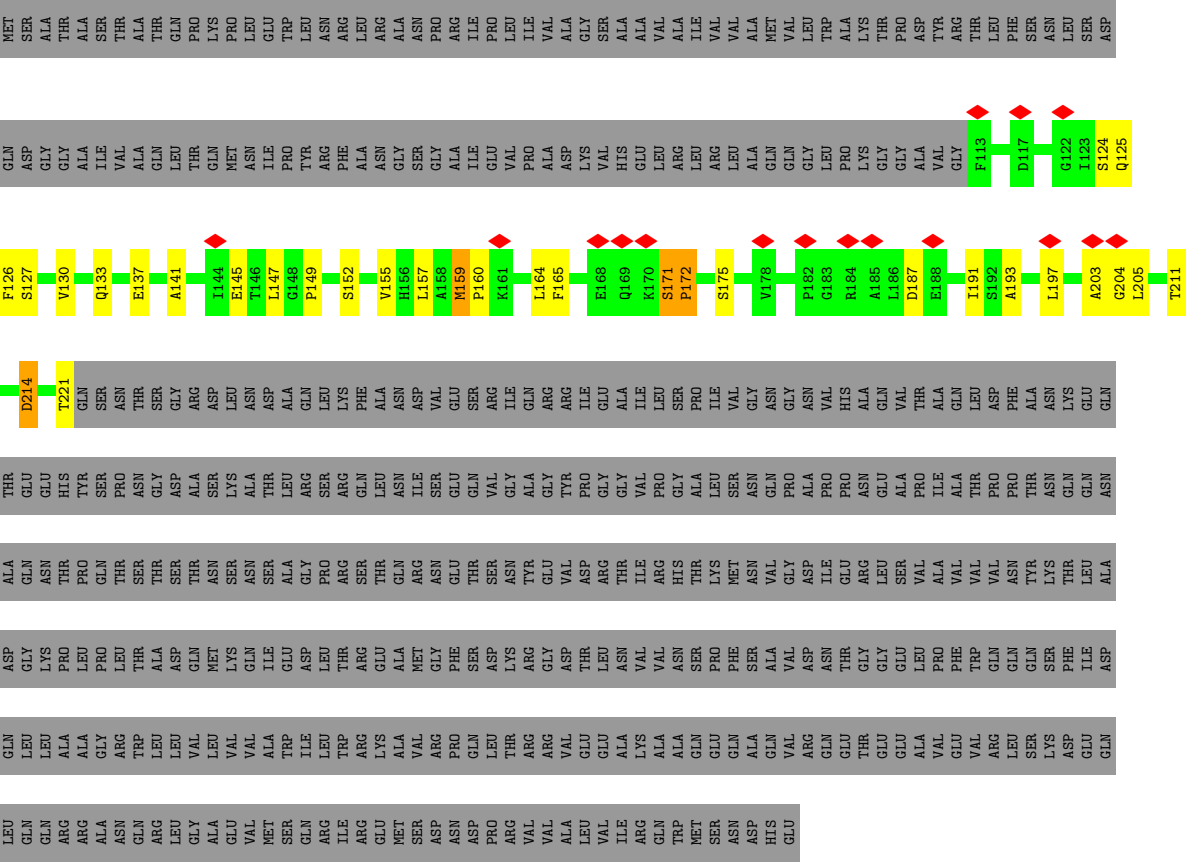


- Molecule 12: Flagellar M-ring protein





● Molecule 12: Flagellar M-ring protein



Chain Du: 14% 81%



[illegible]

- Molecule 12: Flagellar M-ring protein

[illegible]

GLN	ASP	GLY	GLY	GLY	ALA	VAL	ALA	GLN	LEU	THR	GLN	MET	ASN	ILE	PRO	TYR	ARG	PHE	ASN	ASN	GLY	GLY	ALA	ILE	GLU	VAL	PRO	ALA	ASP	LYS	VAL	HIS	GLU	LEU	ARG	LEU	LEU	ARG	LEU	ALA	GLN	GLN	GLY	PRO	LYS	GLY	ALA	VAL	GLY	F113	F114	L115	L116	D117	F120	F121	F122	F123	F124	F125	F126	F127	F128	F129	F130	F131	F132	F133	F134	F135	F136	F137	F138	F139	F140	F141	F142	F143	F144	F145	F146	F147	F148	F149	F150	F151	F152	F153	F154	F155	F156	F157	F158	F159	F160	F161	F162	F163	F164	F165	F166	F167	F168	F169	F170	F171	F172	F173	F174	F175	F176	F177	F178	F179	F180	F181	F182	F183	F184	F185	F186	F187	F188	F189	F190	F191	F192	F193	F194	F195	F196	F197	F198	F199	F200	F201	F202	F203	F204	F205	F206	F207	F208	F209	F210	F211	F212	F213	F214	F215	F216	F217	F218	F219	F220	F221	F222	F223	F224	F225	F226	F227	F228	F229	F230	F231	F232	F233	F234	F235	F236	F237	F238	F239	F240	F241	F242	F243	F244	F245	F246	F247	F248	F249	F250	F251	F252	F253	F254	F255	F256	F257	F258	F259	F260	F261	F262	F263	F264	F265	F266	F267	F268	F269	F270	F271	F272	F273	F274	F275	F276	F277	F278	F279	F280	F281	F282	F283	F284	F285	F286	F287	F288	F289	F290	F291	F292	F293	F294	F295	F296	F297	F298	F299	F300	F301	F302	F303	F304	F305	F306	F307	F308	F309	F310	F311	F312	F313	F314	F315	F316	F317	F318	F319	F320	F321	F322	F323	F324	F325	F326	F327	F328	F329	F330	F331	F332	F333	F334	F335	F336	F337	F338	F339	F340	F341	F342	F343	F344	F345	F346	F347	F348	F349	F350	F351	F352	F353	F354	F355	F356	F357	F358	F359	F360	F361	F362	F363	F364	F365	F366	F367	F368	F369	F370	F371	F372	F373	F374	F375	F376	F377	F378	F379	F380	F381	F382	F383	F384	F385	F386	F387	F388	F389	F390	F391	F392	F393	F394	F395	F396	F397	F398	F399	F400	F401	F402	F403	F404	F405	F406	F407	F408	F409	F410	F411	F412	F413	F414	F415	F416	F417	F418	F419	F420	F421	F422	F423	F424	F425	F426	F427	F428	F429	F430	F431	F432	F433	F434	F435	F436	F437	F438	F439	F440	F441	F442	F443	F444	F445	F446	F447	F448	F449	F450	F451	F452	F453	F454	F455	F456	F457	F458	F459	F460	F461	F462	F463	F464	F465	F466	F467	F468	F469	F470	F471	F472	F473	F474	F475	F476	F477	F478	F479	F480	F481	F482	F483	F484	F485	F486	F487	F488	F489	F490	F491	F492	F493	F494	F495	F496	F497	F498	F499	F500	F501	F502	F503	F504	F505	F506	F507	F508	F509	F510	F511	F512	F513	F514	F515	F516	F517	F518	F519	F520	F521	F522	F523	F524	F525	F526	F527	F528	F529	F530	F531	F532	F533	F534	F535	F536	F537	F538	F539	F540	F541	F542	F543	F544	F545	F546	F547	F548	F549	F550	F551	F552	F553	F554	F555	F556	F557	F558	F559	F560	F561	F562	F563	F564	F565	F566	F567	F568	F569	F570	F571	F572	F573	F574	F575	F576	F577	F578	F579	F580	F581	F582	F583	F584	F585	F586	F587	F588	F589	F590	F591	F592	F593	F594	F595	F596	F597	F598	F599	F600	F601	F602	F603	F604	F605	F606	F607	F608	F609	F610	F611	F612	F613	F614	F615	F616	F617	F618	F619	F620	F621	F622	F623	F624	F625	F626	F627	F628	F629	F630	F631	F632	F633	F634	F635	F636	F637	F638	F639	F640	F641	F642	F643	F644	F645	F646	F647	F648	F649	F650	F651	F652	F653	F654	F655	F656	F657	F658	F659	F660	F661	F662	F663	F664	F665	F666	F667	F668	F669	F670	F671	F672	F673	F674	F675	F676	F677	F678	F679	F680	F681	F682	F683	F684	F685	F686	F687	F688	F689	F690	F691	F692	F693	F694	F695	F696	F697	F698	F699	F700	F701	F702	F703	F704	F705	F706	F707	F708	F709	F710	F711	F712	F713	F714	F715	F716	F717	F718	F719	F720	F721	F722	F723	F724	F725	F726	F727	F728	F729	F730	F731	F732	F733	F734	F735	F736	F737	F738	F739	F740	F741	F742	F743	F744	F745	F746	F747	F748	F749	F750	F751	F752	F753	F754	F755	F756	F757	F758	F759	F760	F761	F762	F763	F764	F765	F766	F767	F768	F769	F770	F771	F772	F773	F774	F775	F776	F777	F778	F779	F780	F781	F782	F783	F784	F785	F786	F787	F788	F789	F790	F791	F792	F793	F794	F795	F796	F797	F798	F799	F800	F801	F802	F803	F804	F805	F806	F807	F808	F809	F810	F811	F812	F813	F814	F815	F816	F817	F818	F819	F820	F821	F822	F823	F824	F825	F826	F827	F828	F829	F830	F831	F832	F833	F834	F835	F836	F837	F838	F839	F840	F841	F842	F843	F844	F845	F846	F847	F848	F849	F850	F851	F852	F853	F854	F855	F856	F857	F858	F859	F860	F861	F862	F863	F864	F865	F866	F867	F868	F869	F870	F871	F872	F873	F874	F875	F876	F877	F878	F879	F880	F881	F882	F883	F884	F885	F886	F887	F888	F889	F890	F891	F892	F893	F894	F895	F896	F897	F898	F899	F900	F901	F902	F903	F904	F905	F906	F907	F908	F909	F910	F911	F912	F913	F914	F915	F916	F917	F918	F919	F920	F921	F922	F923	F924	F925	F926	F927	F928	F929	F930	F931	F932	F933	F934	F935	F936	F937	F938	F939	F940	F941	F942	F943	F944	F945	F946	F947	F948	F949	F950	F951	F952	F953	F954	F955	F956	F957	F958	F959	F960	F961	F962	F963	F964	F965	F966	F967	F968	F969	F970	F971	F972	F973	F974	F975	F976	F977	F978	F979	F980	F981	F982	F983	F984	F985	F986	F987	F988	F989	F990	F991	F992	F993	F994	F995	F996	F997	F998	F999	F1000

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GLN	THR	GLU	GLU	HIS	GLU	TYR	SER	PRO	PRO	GLY	ASP	ALA	SER	SER	LYS	THR	LEU	ARG	SER	ARG	GLN	GLN	GLU	VAL	GLY	GLY	ALA	ALA	GLY	TYR	PRO	PRO	GLY	GLY	GLY	VAL	PRO	PRO	GLY	ALA	ALA	ALA	ALA	ALA	ILE	LEU	PRO	PRO	THR	ASN	GLN	GLN

ASN	ALA	GLN	ASN	THR	PRO	GLN	THR	SER	THR	SER	THR	ASN	SER	ASN	ALA	GLY	PRO	ARG	SER	THR	GLN	ARG	ASN	GLU	THR	SER	ASN	TYR	GLU	VAL	ASP	THR	ILE	ARG	HIS	THR	LYS	MET	ASN	VAL	GLY	ASP	ILE	GLU	ARG	LEU	SER	VAL	ALA	VAL	VAL	VAL	ASN	TYR	LYS	THR	FEU

ALA	ASP	GLY	GLY	LYS	PRO	LEU	LEU	PRO	LEU	LEU	THR	ALA	ALA	ASP	GLN	MET	LYS	GLN	ILE	GLU	ASP	LEU	THR	ARG	GLU	GLU	ALA	MET	GLY	PHE	SER	ASP	LYS	ARG	GLY	ASP	THR	LEU	ASN	VAL	VAL	ASN	SER	PRO	PHE	SER	ALA	VAL	ASP	ASN	THR	THR	GLY	GLY	GLU	LEU	PRO	PHE	TRP	GLN	GLN	SER	PHE

ASP GLN LEU LEU LEU ALA ALA GLY ARG TRP LEU LEU VAL LEU VAL VAL VAL ALA ALA TRP THR ILE LEU TRP ARG LYS VAL VAL ARG PRO GLN LEU LEU THR ARG ARG VAL GLU GLU ALA LYS ALA ALA ALA GLN GLN GLN ALA GLN VAL VAL ARG GLN GLU THR GLU GLU LEU ARG SER LYS ASP

GLN	LEU	GLN	GLN	ARG	ARG	ALA	ASN	ARG	LEU	GLY	ALA	GLU	VAL	MET	SER	GLN	ARG	ILE	ARG	GLU	MET	SER	ASP	ASN	ASP	PRO	ARG	VAL	VAL	ALA	LEU	VAL	ILE	ARG	GLN	TRP	MET	SER	ASN	ASP	HIS	GLI

- Molecule 12: Flagellar M-ring protein



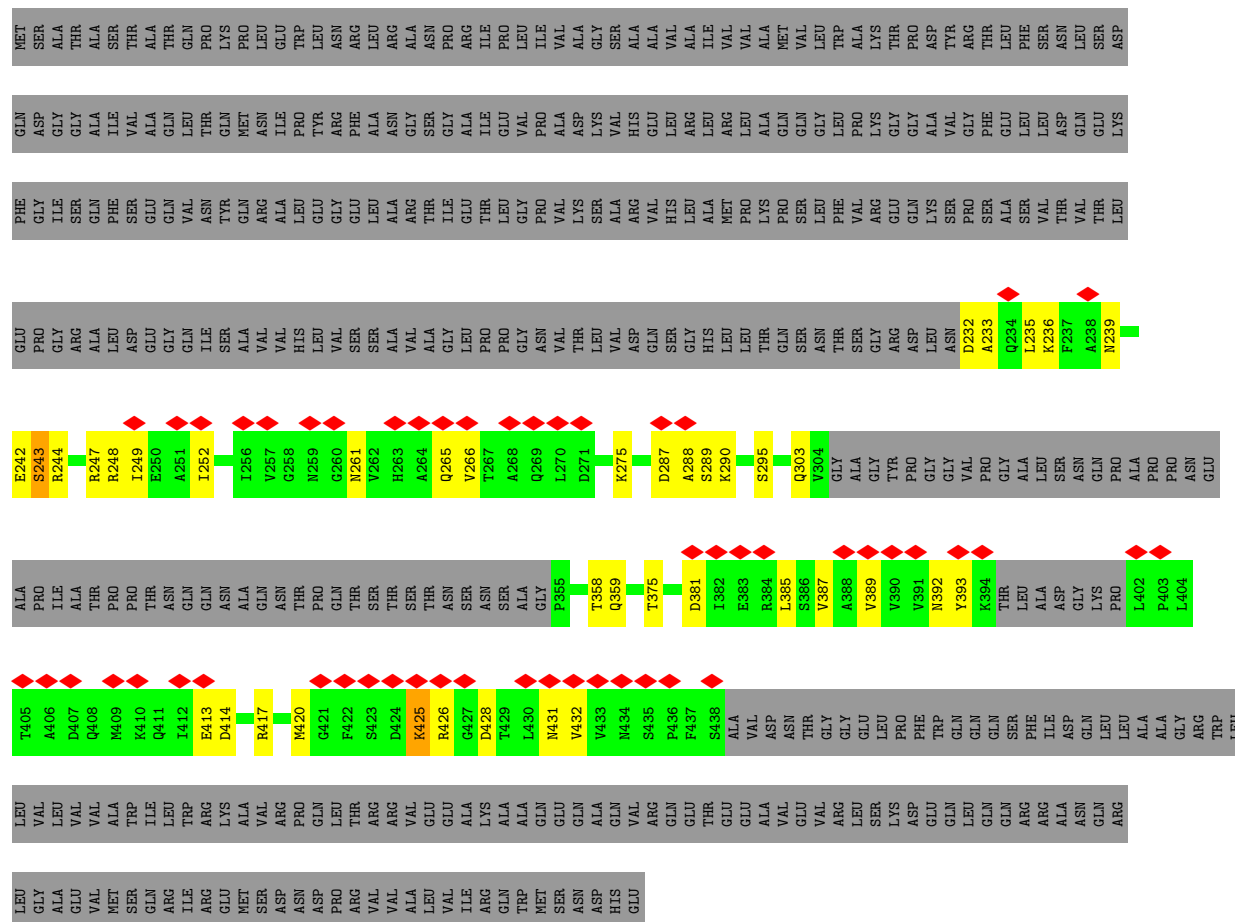
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[illegible]

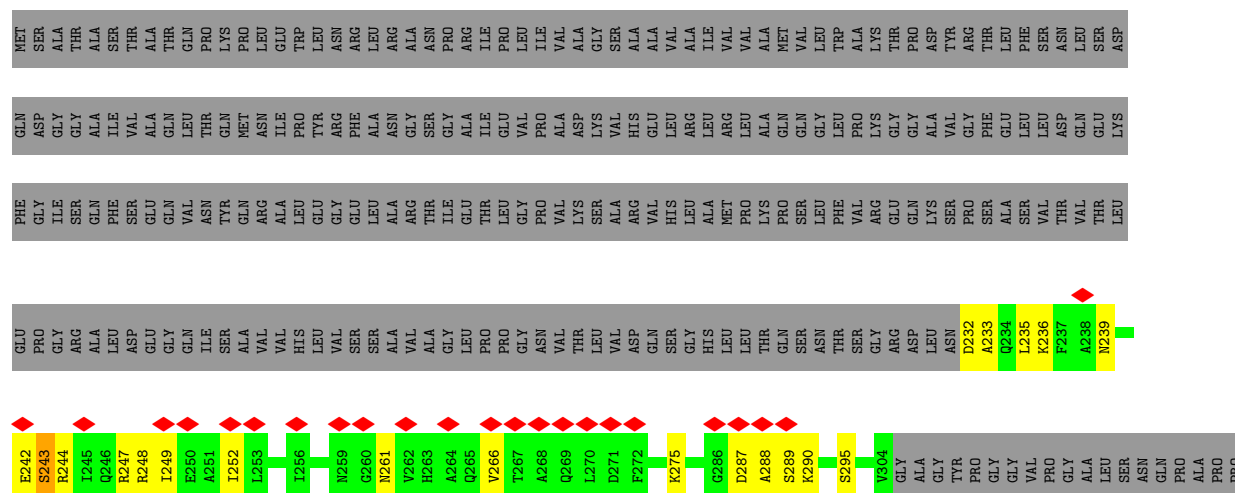
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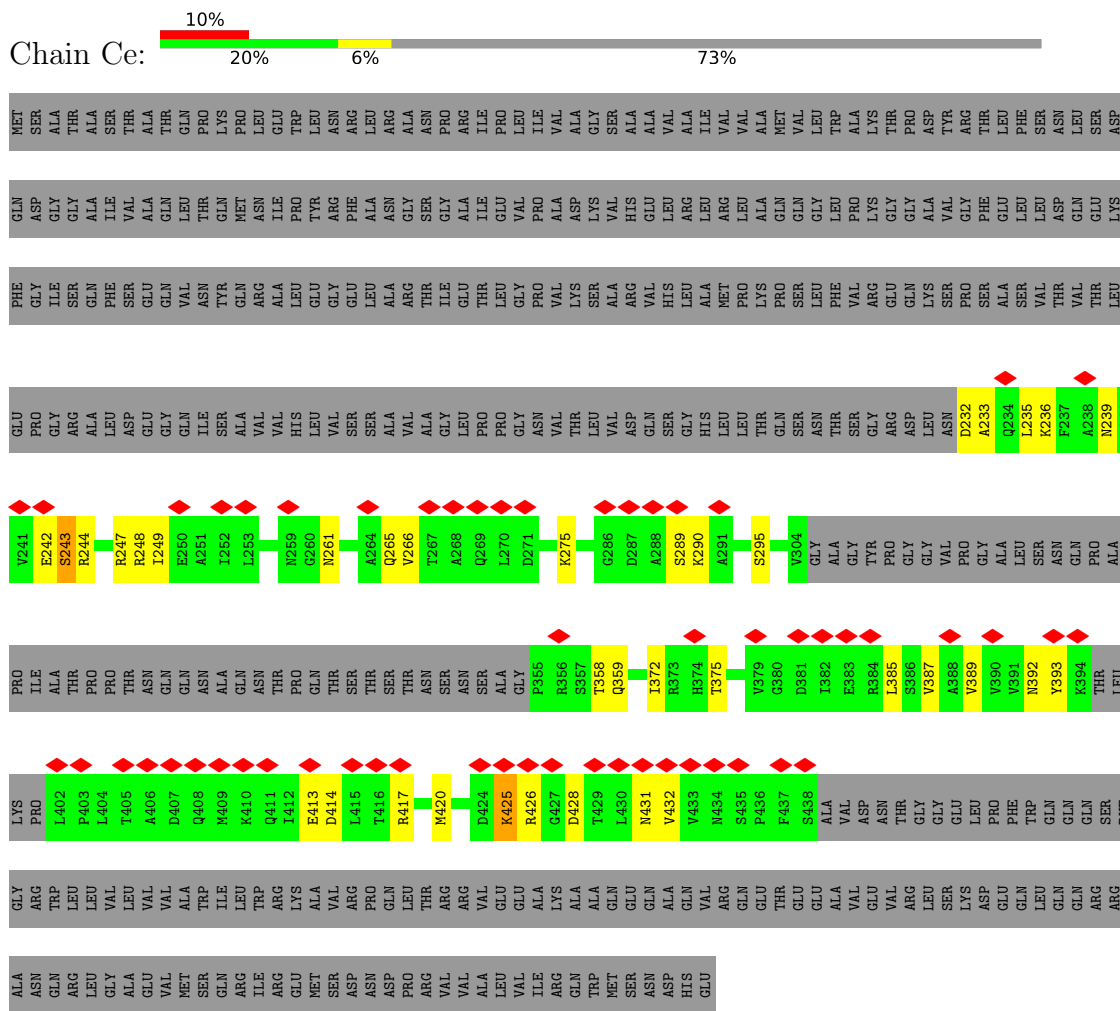
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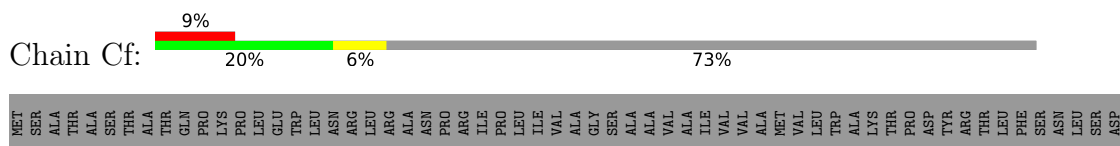
Chain Cd:



- Molecule 12: Flagellar M-ring protein



- Molecule 12: Flagellar M-ring protein



[illegible]

- Molecule 12: Flagellar M-ring protein

[illegible]

GLN ASP GLY GLY ALA ILE VAL ALA ALA GLN THR MET ASN ILE PRO TYR ARG PHE ALA ASN GLY SER GLY ALA ILE GLU VAL VAL PRO PRO ALA ASP LYS VAL VAL HIS GLU LEU LEU ARG ARG LEU LEU LEU ALA ALA GLN GLN GLY LEU LEU LEU LYS GLY GLY VAL VAL PHE GLU LEU LEU ASP GLN GLU LYS

PHE	GLY	ILE	GLN	PHE	SER	GLU	GLN	ASN	TYR	GLN	ARG	ALA	LEU	GLY	GLY	LEU	ALA	ARG	THR	ILE	GLY	THR	LEU	GLY	VAL	LYS	SER	ALA	ARG	VAL	HIS	LEU	ALA	MET	PRO	LYS	PRO	SER	PHE	VAL	ARG	GLY	GLN	LYS	SER	PRO	SER	ALA	VAL	THR	THR	LEU

GLU	PRO	GLY	ARG	ALA	LEU	ASP	GLU	GLY	GLN	ILE	SER	ALA	VAL	HIS	VAL	SER	SER	ALA	VAL	ALA	GLY	LEU	PRO	PRO	GLY	ASN	VAL	THR	LEU	THR	ASP	GLN	SER	GLY	HIS	LEU	LEU	THR	THR	GLN	SER	SER	ASN	THR	THR	SER	GLY	ARG	ASP	ASN	ASN	D232	D233	Q234	L235	K236	N239	F242

S243	R244	R245	Q246	R247	R248	I249	E250	A251	T252	N259	G260	N261	V262	H263	A264	Q265	V266	T267	A268	Q269	L270	D271	F272	A273	N274	K275	T278	G286	D287	A288	S289	K290	S295	V304	GLY	ALA	GLY	TYR	PRO	PRO	GLY	VAL	PRO	GLY	ALA	ALA	LEU	SER	ASN	GLN	PRO	PRO	ALA	ALA	PRO	ASN

[illegible]

LVS	PRO	L402	P403	L404	T405	A406	D407	Q408	M409	K410	Q411	I412	E413	D414	L415	T416	R417	E418	A419	M420	G421	D424	K425	R426	G427	D428	T429	L430	M431	V432	V433	N434	S435	S438	ALA	VAL	ASP	ASN	THR	GLY	GLY	GLU	LEU	PRO	PHE	TRP	GLN	GLN	GLN	SER	PHE	ILE	ASP	GLN	LEU	LEU	ALA

ALA GLY ARG TRP LEU VAL ALA TRP ILE LEU TRP ARG LYS ALA VAL ARG PRO GLN LEU THR ARG VAL GLU GLY ALA LYS ALA ALA ALA ALA GLN GLN GLN GLN GLU GLU THR GLU GLU VAL VAL ARG LEU SER LYS ASP GLN GLN GLN GLN

ARG	ALA	ASN	GLN	ARG	LEU	GLY	ALA	GLU	VAL	MET	SER	GLN	ARG	ILE	GLU	MET	SER	ASP	ASN	ASP	PRO	ARG	VAL	VAL	ALA	LEU	VAL	ILE	ARG	GLN	TRP	MET	SER	ASN	ASP	HIS	GLU

- Molecule 12: Flagellar M-ring protein

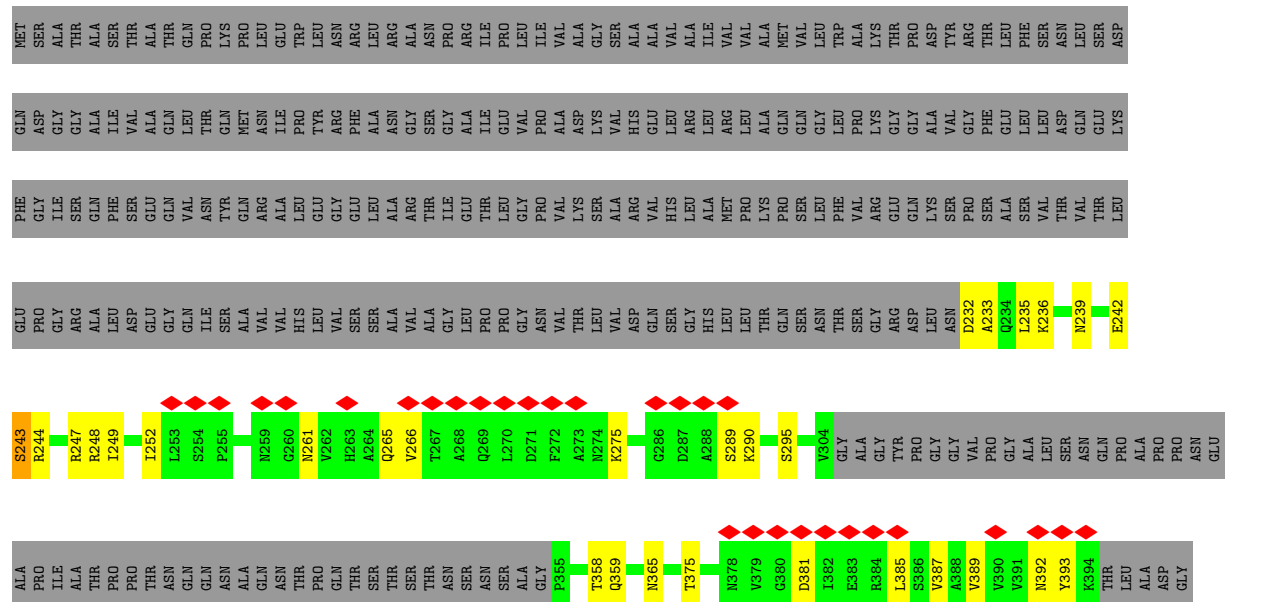


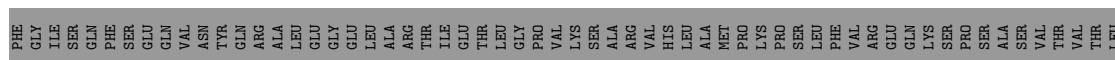
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GLN	ASP	GLY	GLY	ALA	ILE	VAL	ALA	ALA	LEU	THR	GLN	MET	ASN	ILE	PRO	TYR	ARG	ALA	ALA	ASN	GLY	GLY	GLY	ILE	GLU	VAL	VAL	PRO	ALA	ASP	LYS	VAL	HIS	GLY	GLU	LEU	ARG	LEU	ALA	GLN	GLN	GLY	LEU	LEU	PRO	GLY	LYS	GLY	GLY	VAL	VAL	PHE	GLY	GLU	LEU	LEU	ASP	GLN	GLY	LYS

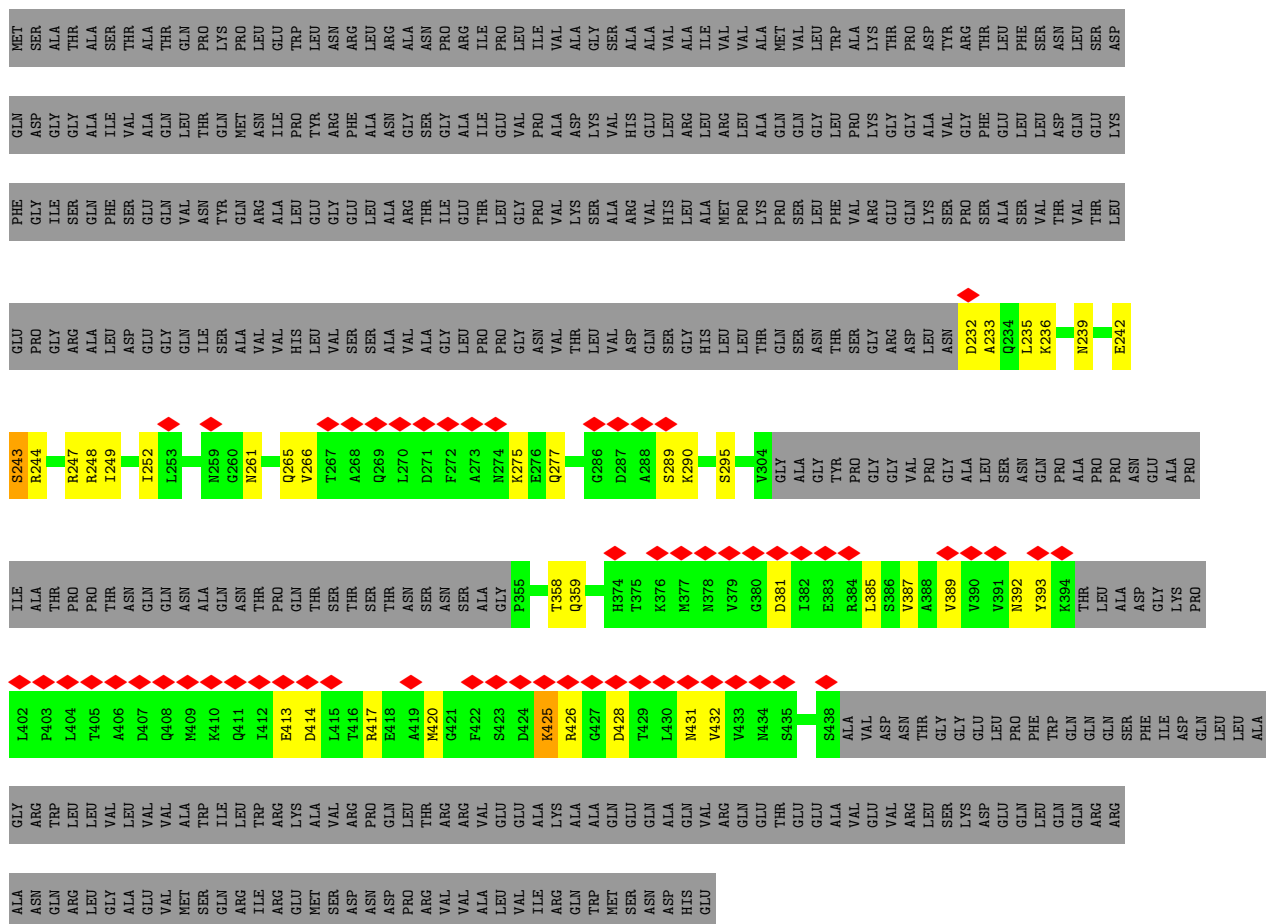
[illegible]

GLU	PRO	GLY	ARG	ALA	LEU	ASP	GLU	GLY	GLN	ILE	SER	ALA	VAL	VAL	LEU	VAL	SER	SER	ALA	VAL	VAL	GLY	GLN	GLY	LEU	GLN	GLY	GLY	ASP	ASP	LEU	ASN	D232	D233	D234	D235	D236	D237	D238	D239



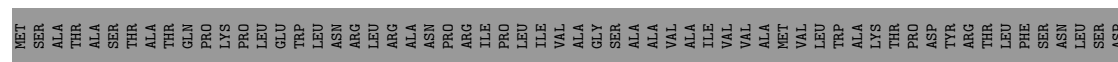


- Molecule 12: Flagellar M-ring protein



Chain Cp:





[illegible]

- Molecule 12: Flagellar M-ring protein

[illegible][illegible]

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GLU	PRO	GLY	ARG	ALA	LEU	ASP	GLU	GLY	GLN	ILE	SER	ALA	VAL	VAL	HS	LEU	VAL	SER	SER	ALA	VAL	GLY	GLN	ASN	VAL	THR	THR	LEU	VAL	ASP	GLN	SER	GLN	GLY	HS	LEU	THR	THR	GLY	ARG	ASP	LEU	ASN	D232	D233	D234	D235	D236	D239	F240

S243	R244	R247	R248	R249	T252	L253	N259	G260	N261	Q265	T266	A268	Q269	L270	D271	F272	K275	D287	A288	K289	K290	S295	V304	GLY	ALA	GLY	TYR	PRO	GLY	GLY	VAL	PRO	GLY	ALA	LEU	SER	SER	ASN	GLN	PRO	ALA	PRO	PRO	ASN	GLU	ALA	PRO	ILE	ALA	THR	PRO

PRO	THR	ASN	GLN	ASN	ALA	GLN	ASN	PRO	GLN	THR	THR	THR	THR	THR	ASN	ASN	GLN	ALA	P355	P356	T358	Q359	T372	T375	K376	M377	M378	V379	G380	D381	L382	E383	R384	L385	S386	V387	A388	V389	V390	V391	N392	Y393	THR	THR	LEU	ALA	ASP	GLY	LYS	PRO	L402	P403	L404

T405	A406	D407	Q408	M409	K410	Q411	I412	E413	D414			R417	E418	A419	M420	G421	F422	S423	D424	K425	R426	G427	D428	T429	L430	M431	V432	V433	M434	S435	S436	ALA	VAL	ASP	ASN	THR	GLY	GLY	GLU	LEU	PRO	PHE	TRP	THR	GLN	GLN	GLN	SER	PHE	ILE	ASP	GLN	LEU	LEU	ALA	ALA	GLY	ARG	TRP	LEU

[illegible]

LEU GLY ALA GLU VAL MET SER GLN ARG ILE ARG GLU MET SER ASP ASN ASP PRO ARG VAL VAL VAL ALA LEU VAL ILE ARG GLN TRP MET SER ASN ASP HIS GLU

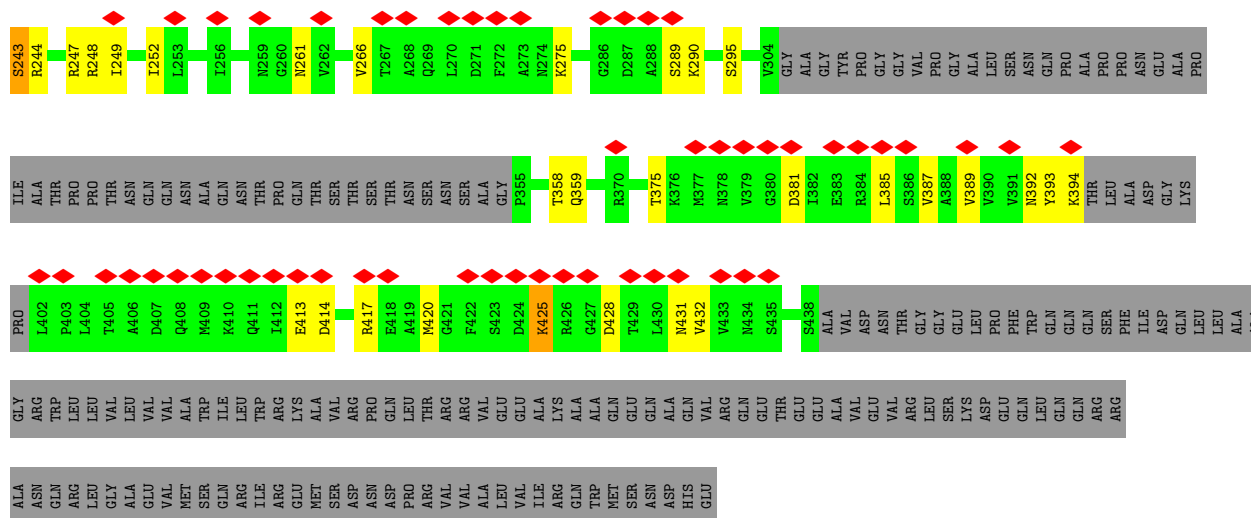
- Molecule 12: Flagellar M-ring protein

[illegible]

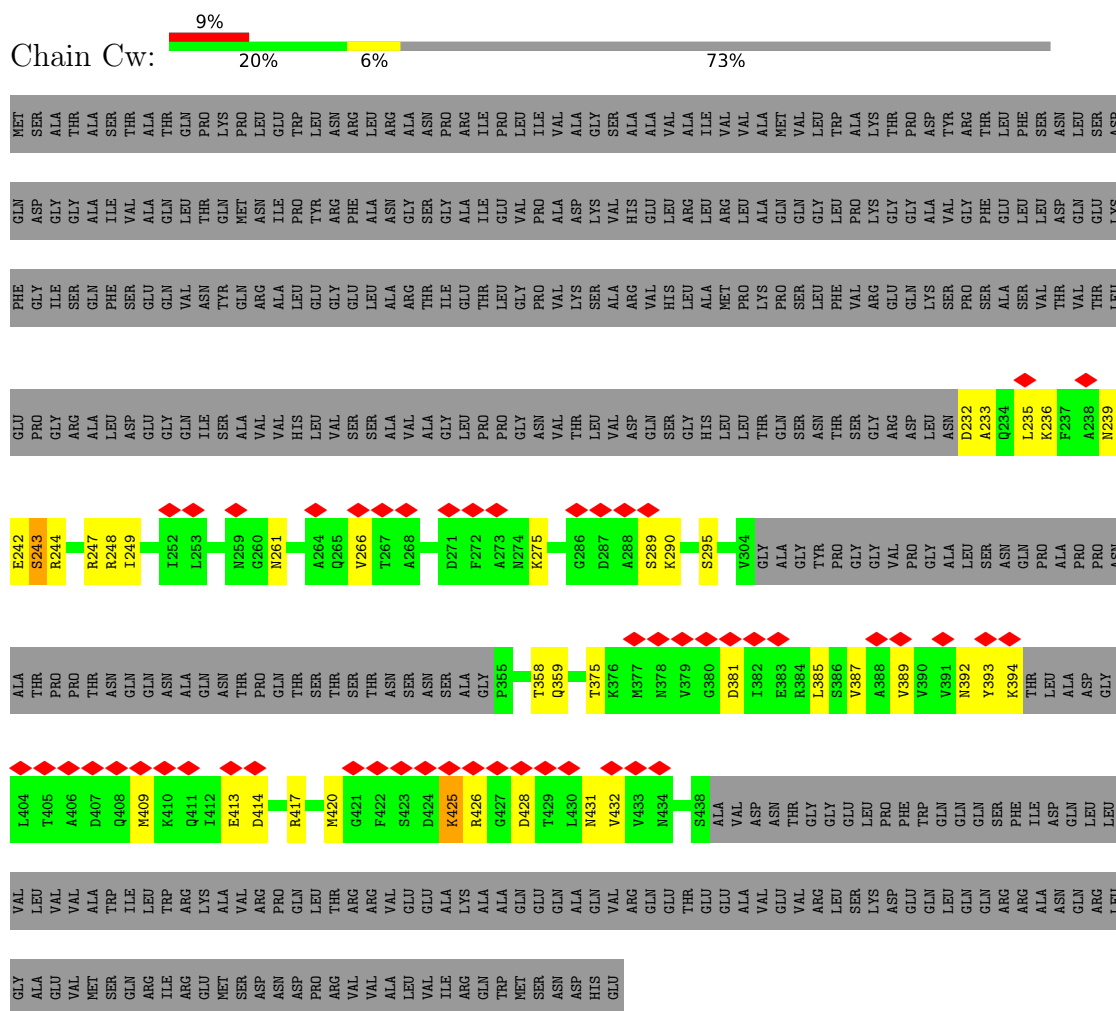
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GLU	PRO	GLY	ARG	ALA	LEU	ASP	GLU	GLN	GLY	ILE	SER	ALA	VAL	VAL	HIS	LEU	VAL	SER	SER	ALA	ALA	VAL	VAL	ALA	GLY	LEU	PRO	PRO	GLY	ASN	VAL	THR	LEU	VAL	ASP	GLN	SER	GLY	HIS	LEU	LEU	THR	GLN	SER	ASN	THR	SER	SER	GLY	ARG	ASP	LEU	ASN	D232	D233	K236	F237	A248	N239



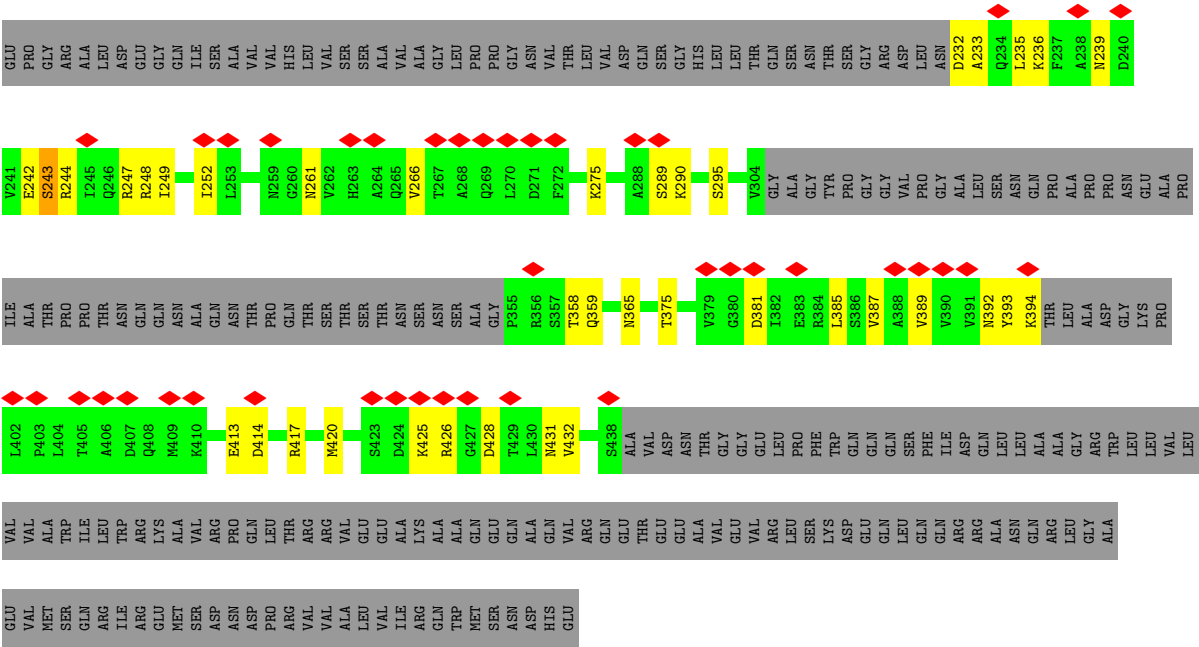
• Molecule 12: Flagellar M-ring protein



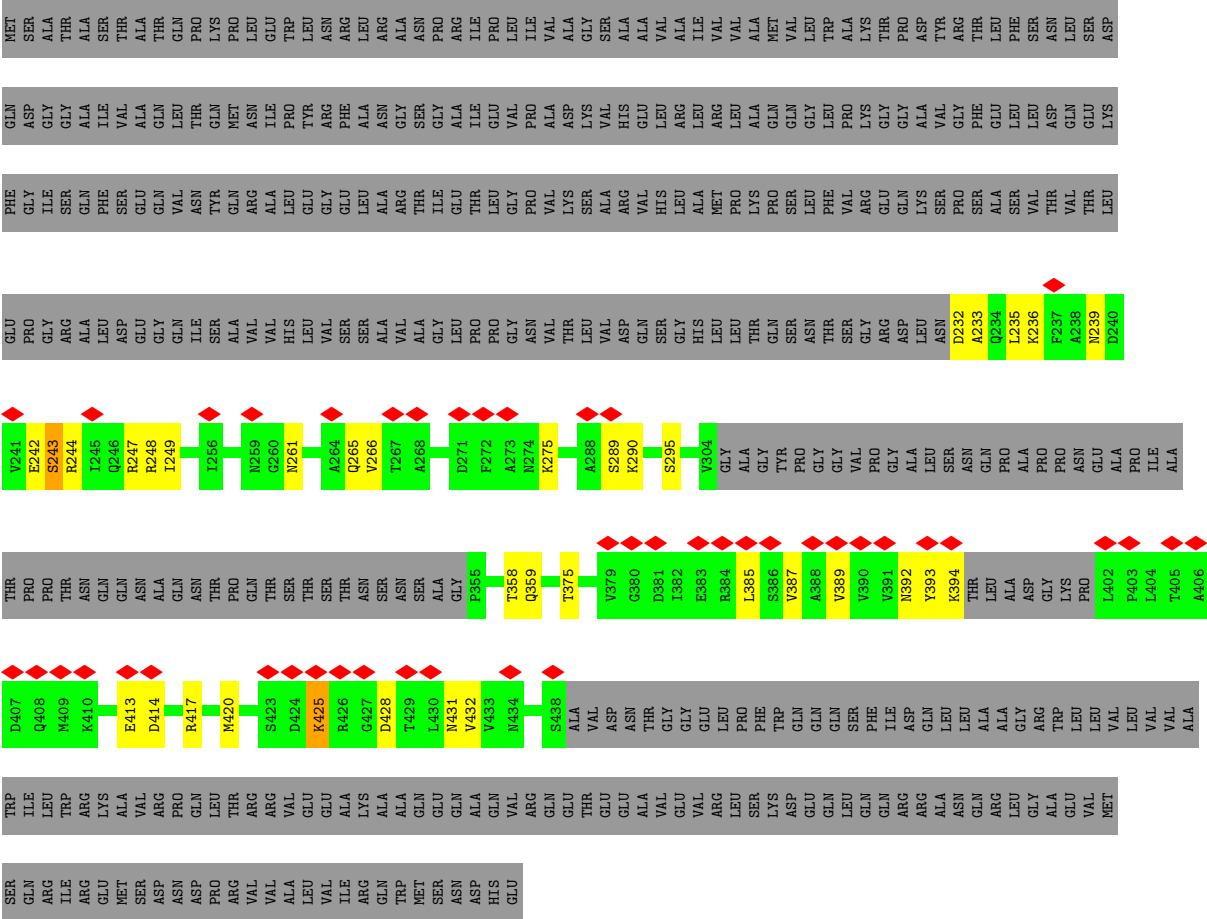
• Molecule 12: Flagellar M-ring protein



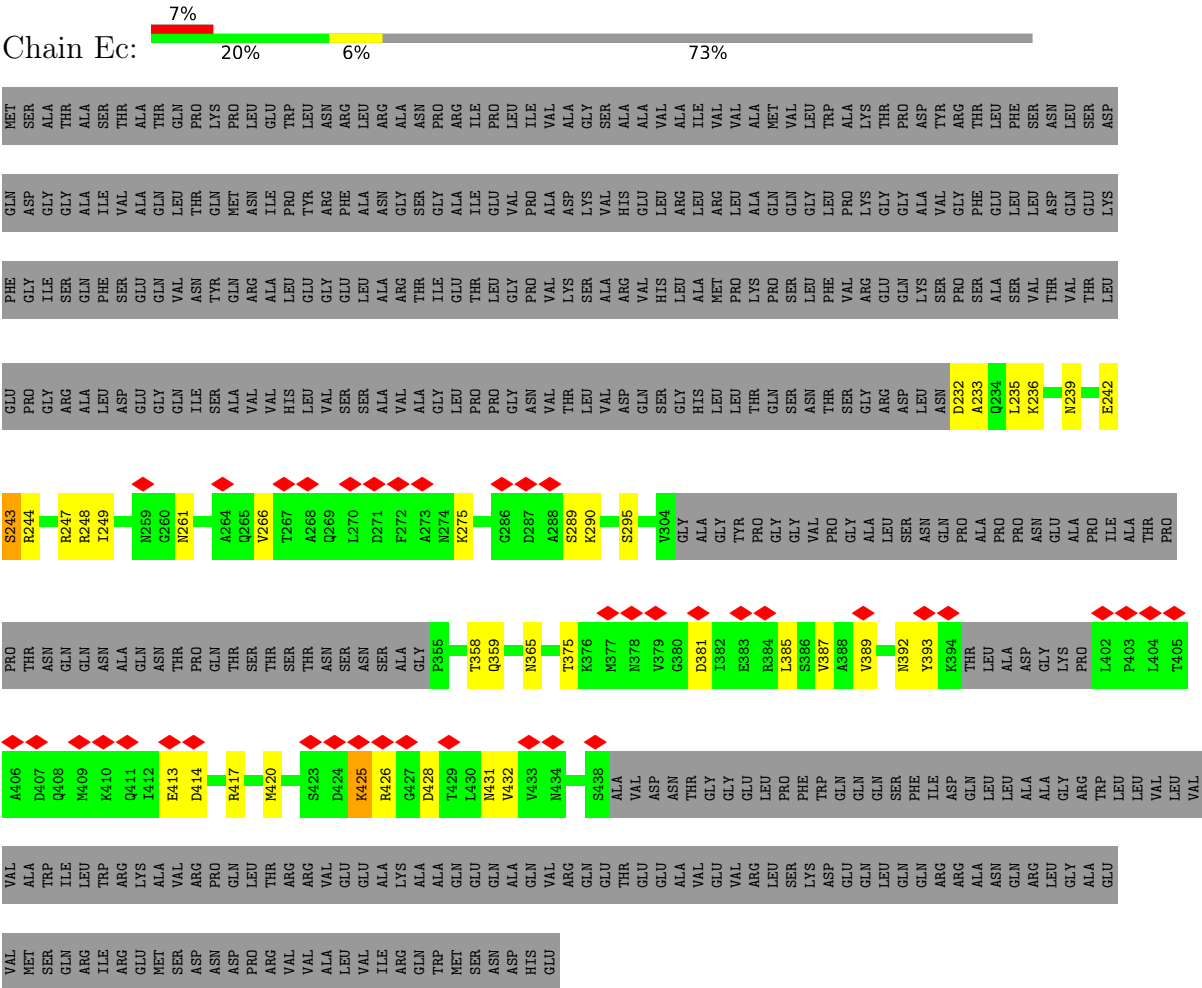




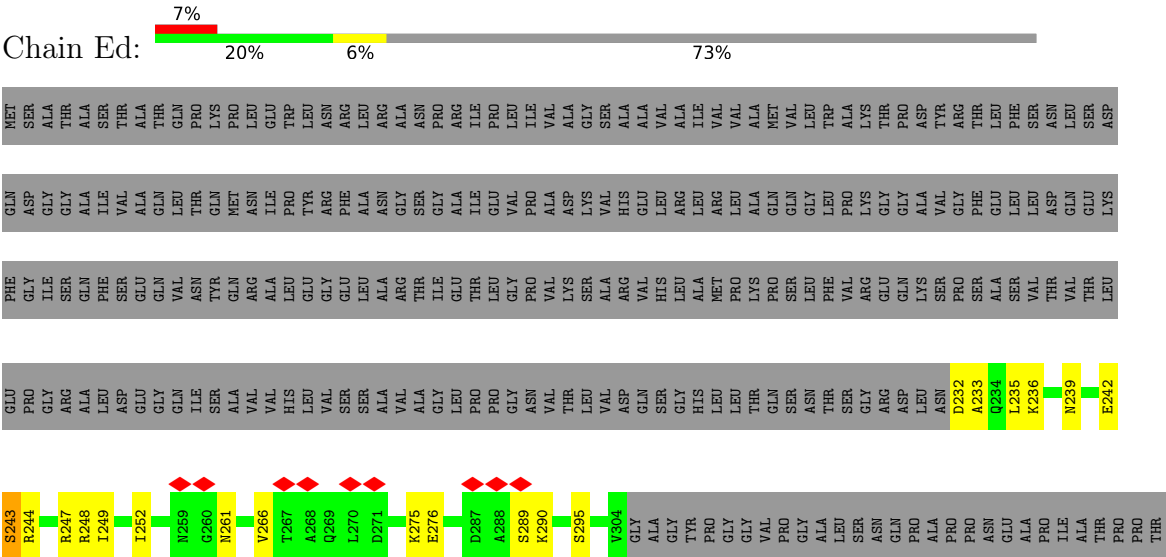
• Molecule 12: Flagellar M-ring protein

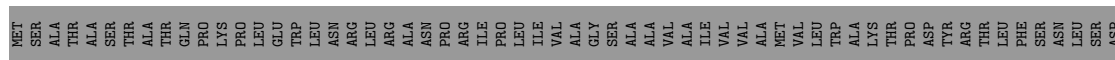


• Molecule 12: Flagellar M-ring protein



• Molecule 12: Flagellar M-ring protein





- Molecule 12: Flagellar M-ring protein



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GLU	PRO	GLY	ARG	ALA	LEU	ASP	GLU	GLY	GLN	ILE	SER	ALA	VAL	HIS	LEU	VAL	SER	SER	ALA	VAL	ALA	GLY	LEU	PRO	PRO	GLY	ASN	VAL	THR	LEU	VAL	ASP	GLN	SER	GLY	HIS	LEU	LEU	THR	GLN	SER	ASN	THR	SER	GLY	ARG	ASP	LEU	ASN	D232	D233	D234	L235	L236	N239

S243	R244	R247	R248	T249	A250	A251	T252	T256	N259	G260	M261	Q265	V266	T267	A268	Q269	L270	D287	A288	K289	S295	V304	GLY	ALA	GLY	TYR	PRO	GLY	VAL	PRO	GLY	ALA	LEU	SER	ASN	GLN	PRO	PRO	PRO	PRO	GLU	ALA	ALA	ILE	ALA	THR	PRO	THR

ASN	ASN	ASN	ASN	ALA	GLN	ASN	THR	THR	GLN	THR	THR	ASN	SER	ASN	SER	ALA	GLY	P355	P356	P357	T358	Q359	N365	T375	N378	V379	G380	D381	I382	E383	I384	L385	S386	V387	A388	V389	N391	Y393	K394	THR	LEU	ALA	ALA	ASP	GLY	LYS	P402	P403	L404	T405	L406

D407	Q408	M409	K410	Q411	I412	E413	D414	R417	M420	G421	D424	K425	R426	G427	D428	T429	L430	M431	V432	S435	P436	F437	S438	VAL	ASP	ASN	THR	GLY	GLY	GLY	GLU	LEU	PRO	PHE	TRP	GLN	GLN	GLN	SER	SER	PHE	ILE	ILE	ASP	GLN	LEU	LEU	ALA	ALA	ALA	GLY	ARG	TRP	LEU	LEU	VAL	LEU	VAL

VAL	ALA	TRP	ILE	LEU	TRP	ARG	LYS	ALA	VAL	ARG	PRO	GLN	LEU	THR	ARG	ARG	VAL	GLU	GLU	ALA	LYS	ALA	ALA	ALA	GLN	GLU	GLN	ALA	ALA	GLN	VAL	ARG	GLN	GLU	THR	GLU	GLU	GLU	ALA	VAL	VAL	GLN	GLN	GLU	ASP	LYS	SER	LEU	LEU	GLN	GLN	ARG	ALA	ASN	GLN	ARG	LEU	GLY	ALA	THR

VAL	MET	SER	GLN	ARG	ILE	ARG	GLU	MET	SER	ASP	ASN	ASP	PRO	ARG	VAL	VAL	ALA	LEU	VAL	ILE	ARG	GLN	TRP	MET	SER	ASN	ASP	HIS	GLU

- Molecule 13: FlgB-Dc loop

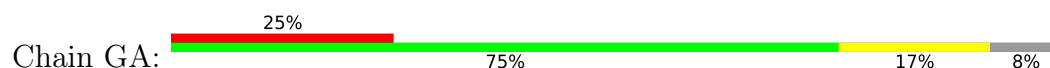
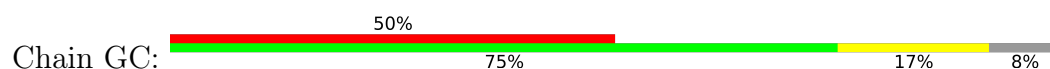


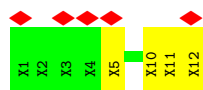
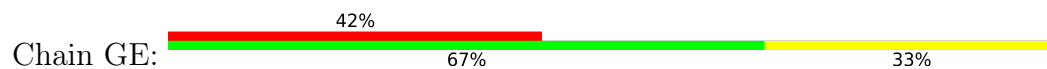
Diagram illustrating a 32-bit register structure with fields X1, X2, X3, X6, X11, and UNK. The first three fields (X1, X2, X3) are grouped by a red bracket and have three red diamonds above them, indicating they are the source of the error.

- Molecule 13: FlgB-Dc loop

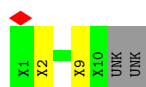


X1	X4	X5	X6	X7	X8	X9	X10	X11	UNK

• Molecule 13: FlgB-Dc loop



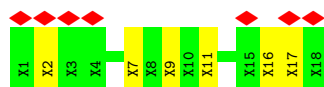
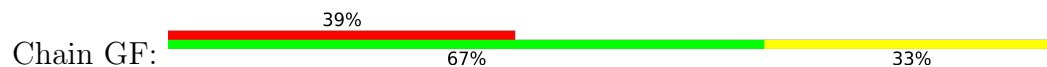
• Molecule 13: FlgB-Dc loop



• Molecule 13: FlgB-Dc loop



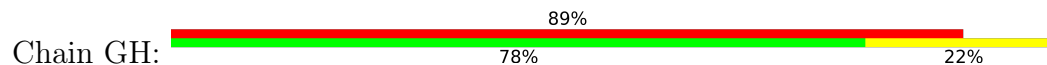
• Molecule 14: FliE helix 1



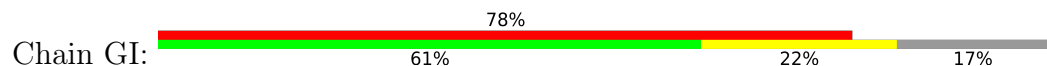
• Molecule 14: FliE helix 1



• Molecule 14: FliE helix 1

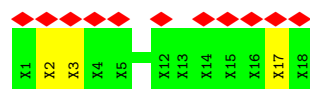
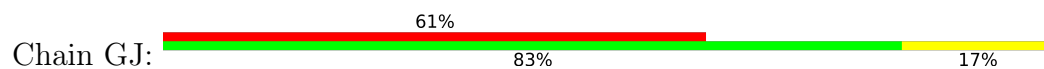


• Molecule 14: FliE helix 1

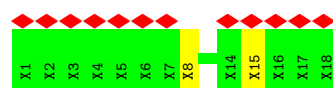




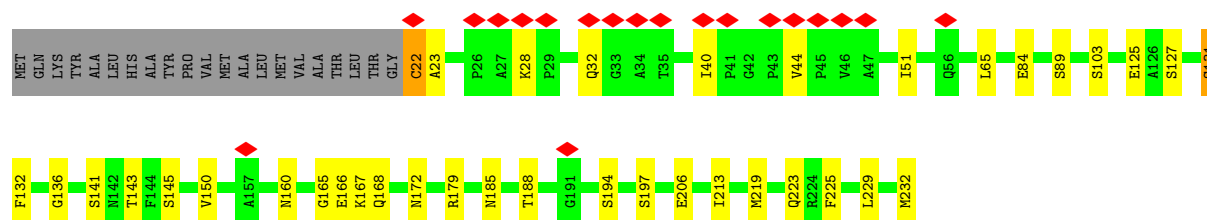
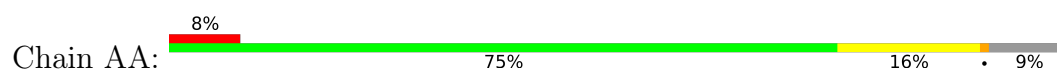
• Molecule 14: FliE helix 1



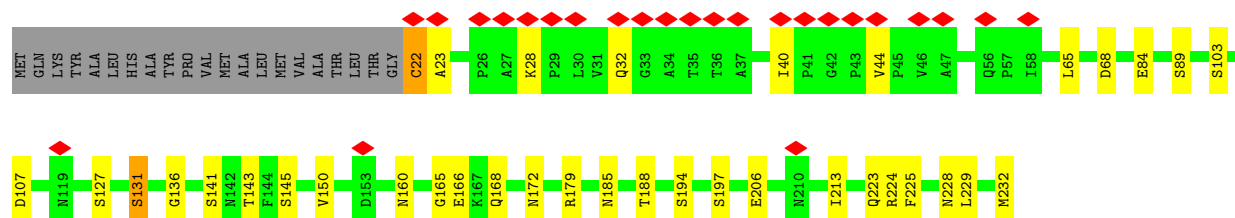
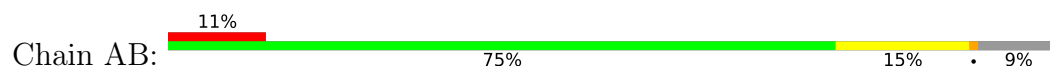
• Molecule 14: FliE helix 1



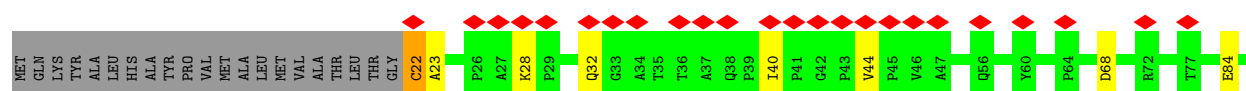
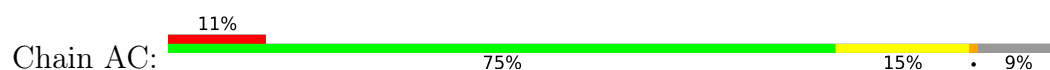
• Molecule 15: Flagellar L-ring protein

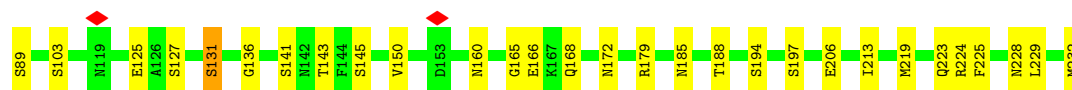


• Molecule 15: Flagellar L-ring protein

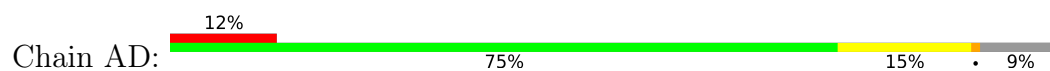


• Molecule 15: Flagellar L-ring protein

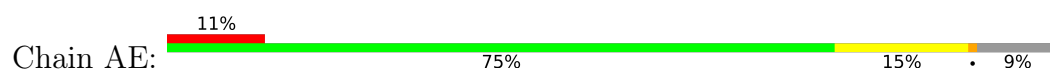




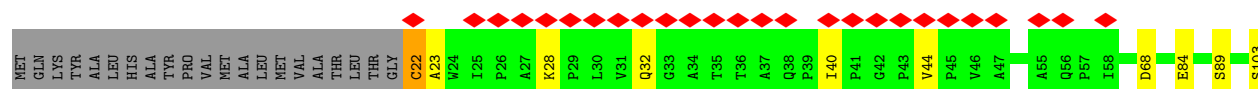
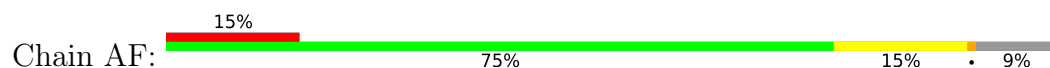
- Molecule 15: Flagellar L-ring protein



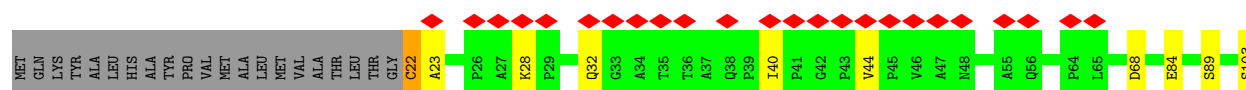
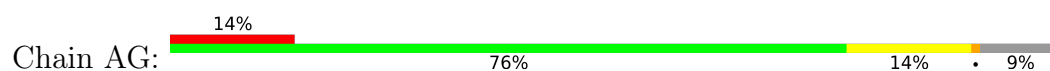
- Molecule 15: Flagellar L-ring protein



- Molecule 15: Flagellar L-ring protein

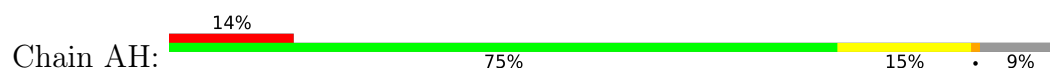


- Molecule 15: Flagellar L-ring protein

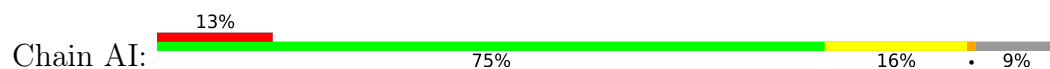




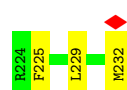
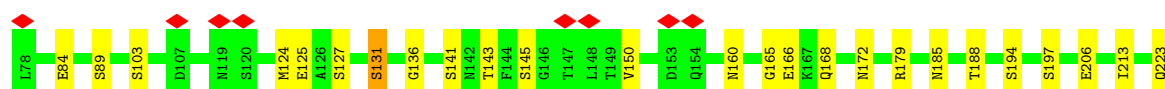
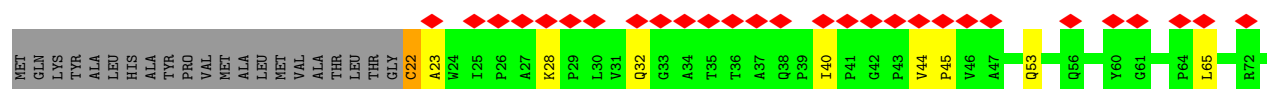
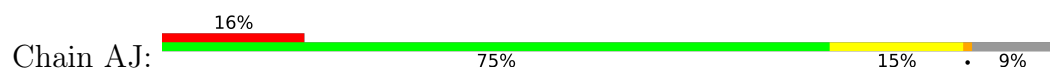
• Molecule 15: Flagellar L-ring protein



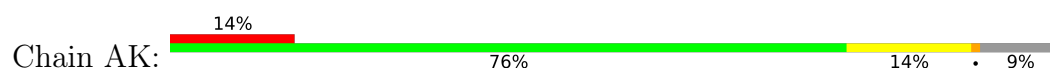
• Molecule 15: Flagellar L-ring protein

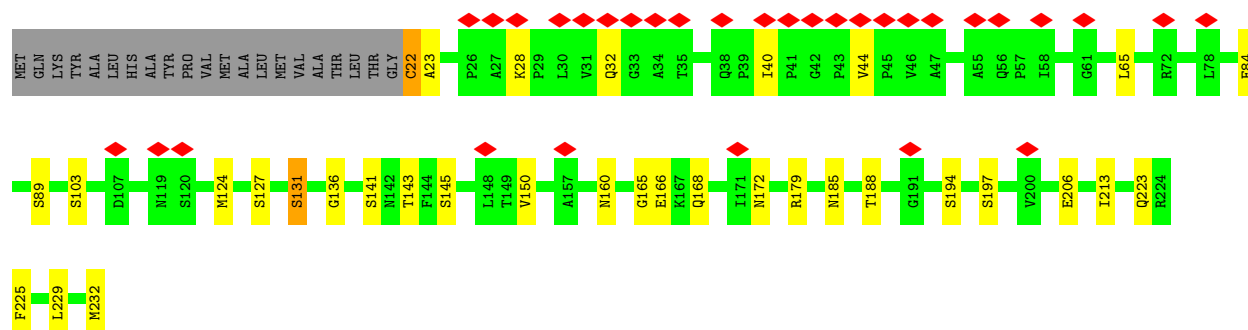


• Molecule 15: Flagellar L-ring protein

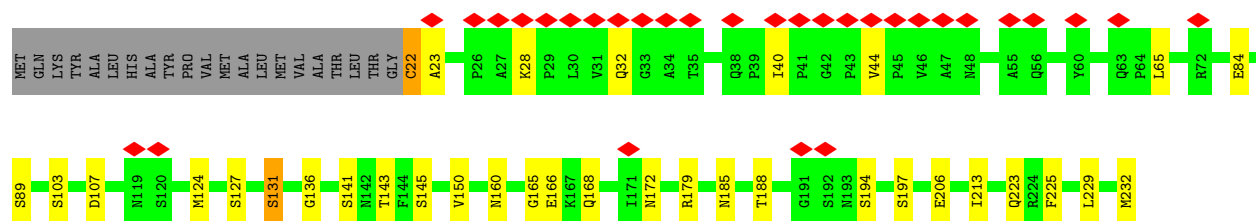
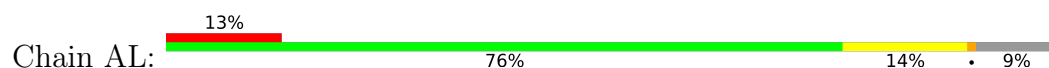


• Molecule 15: Flagellar L-ring protein

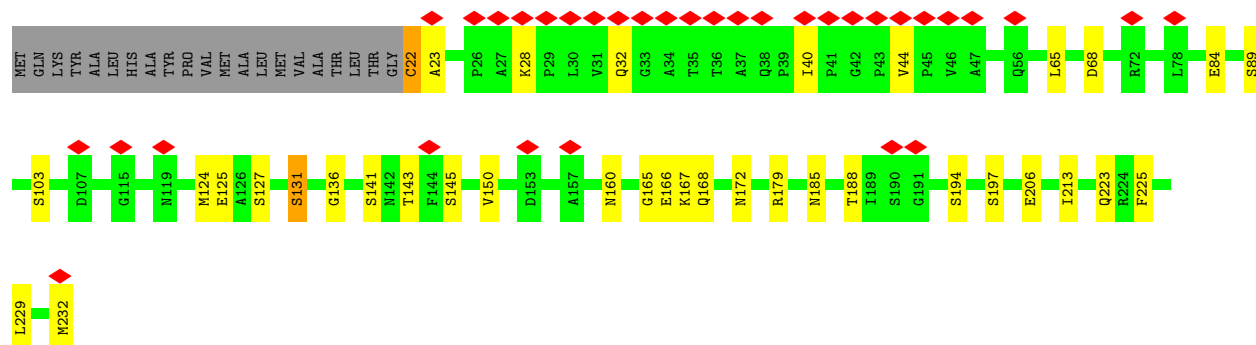




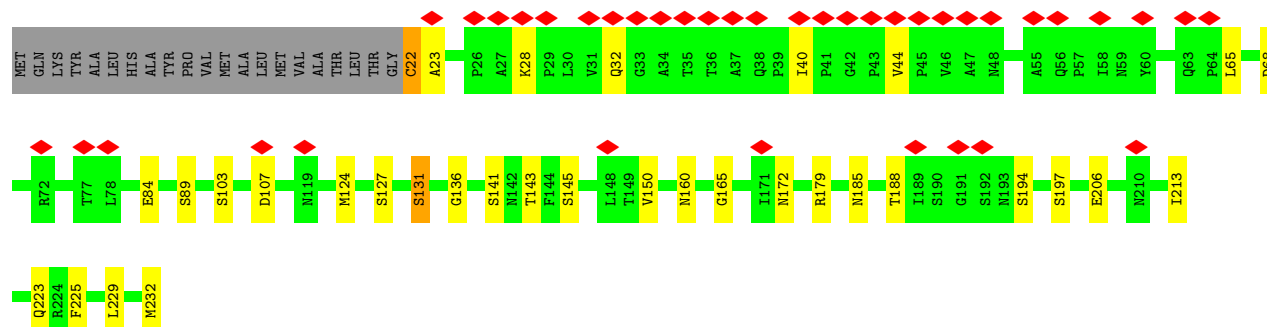
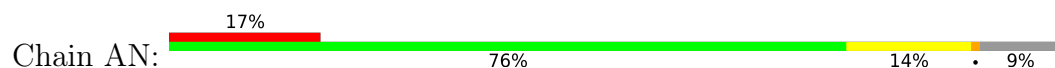
• Molecule 15: Flagellar L-ring protein



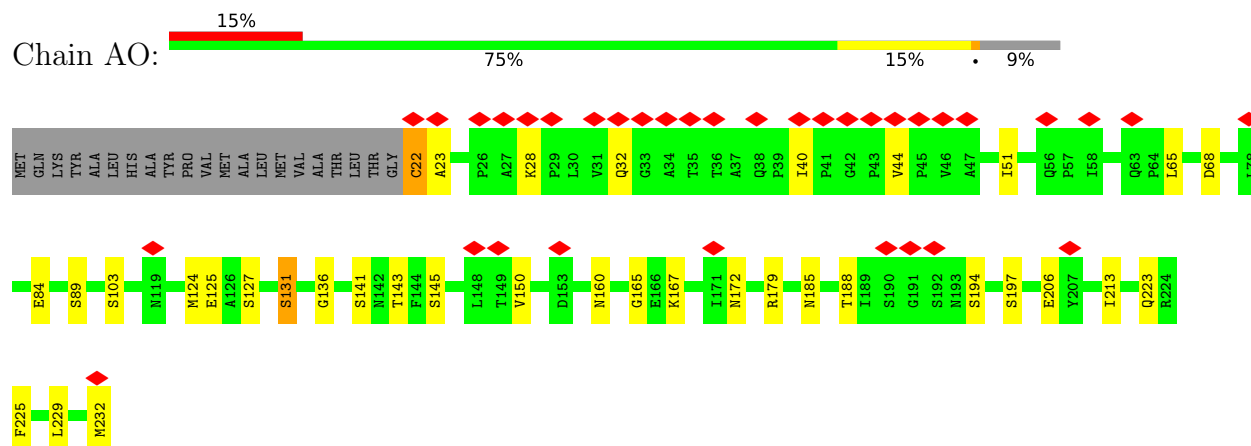
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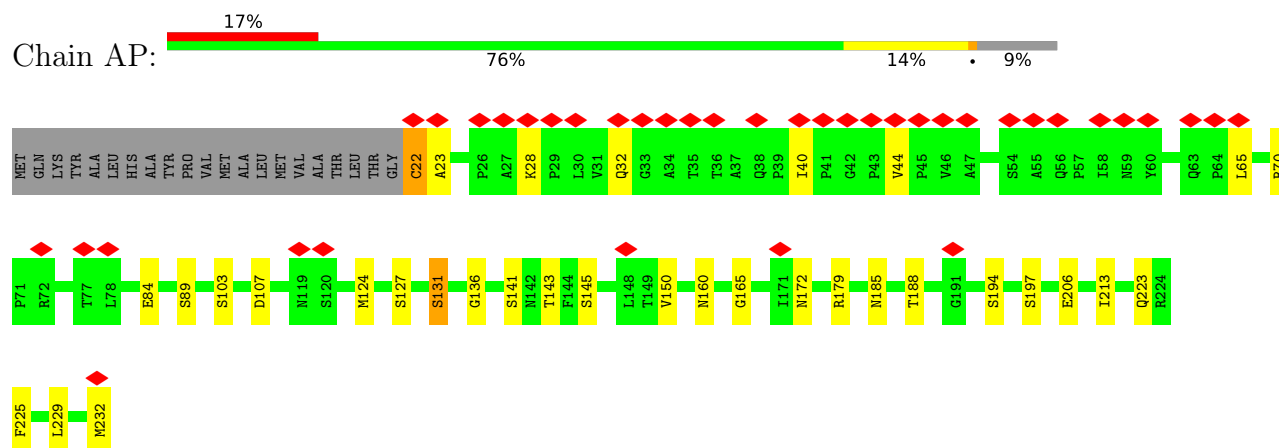
• Molecule 15: Flagellar L-ring protein



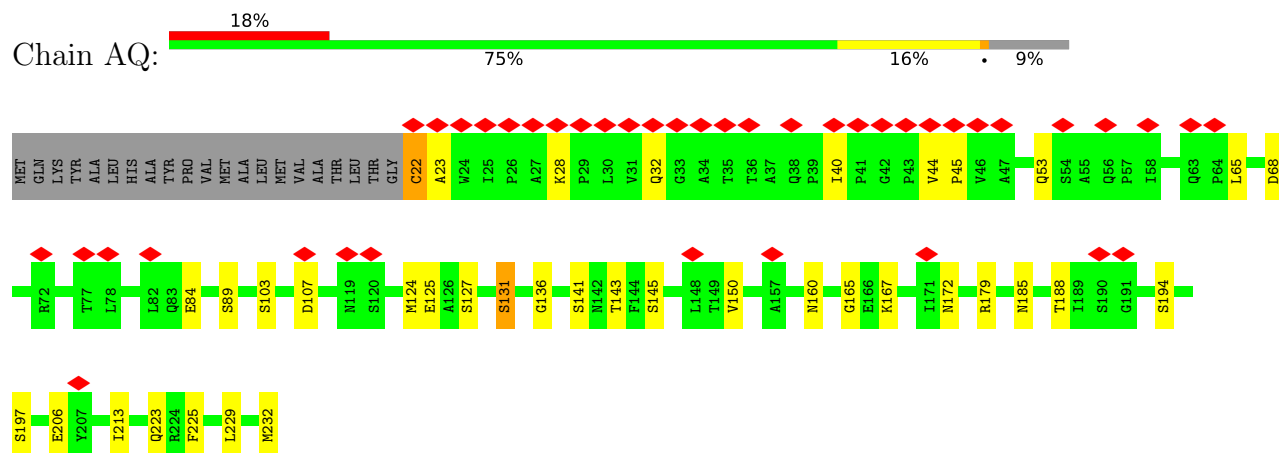
- Molecule 15: Flagellar L-ring protein



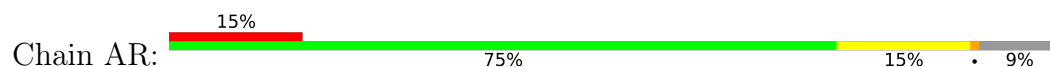
- Molecule 15: Flagellar L-ring protein

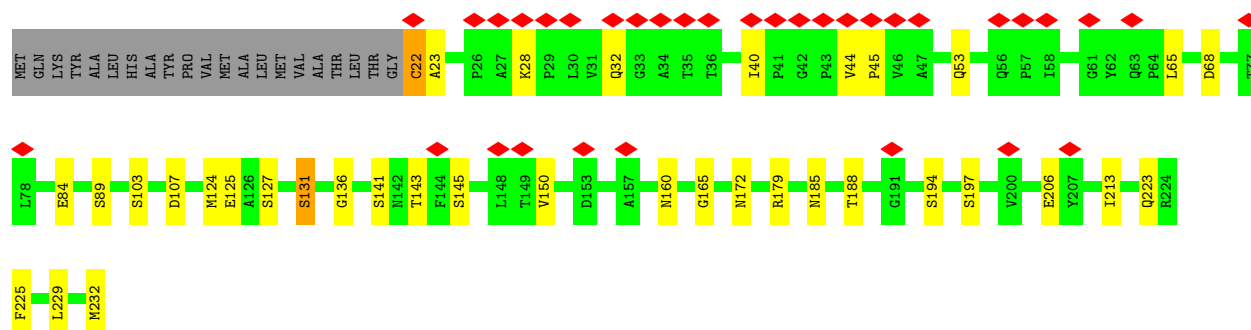


- Molecule 15: Flagellar L-ring protein

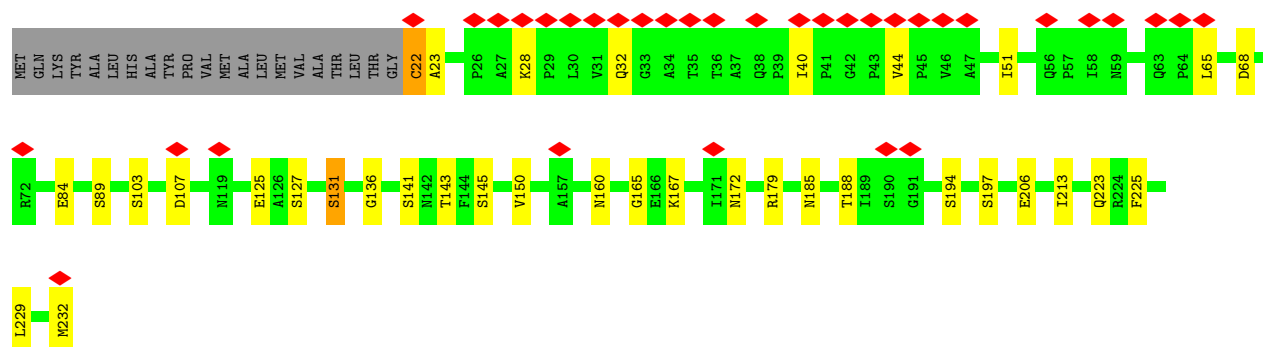
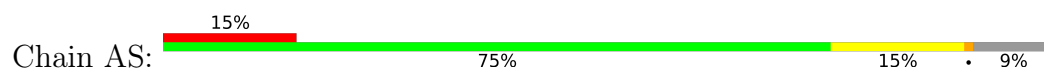


- Molecule 15: Flagellar L-ring protein

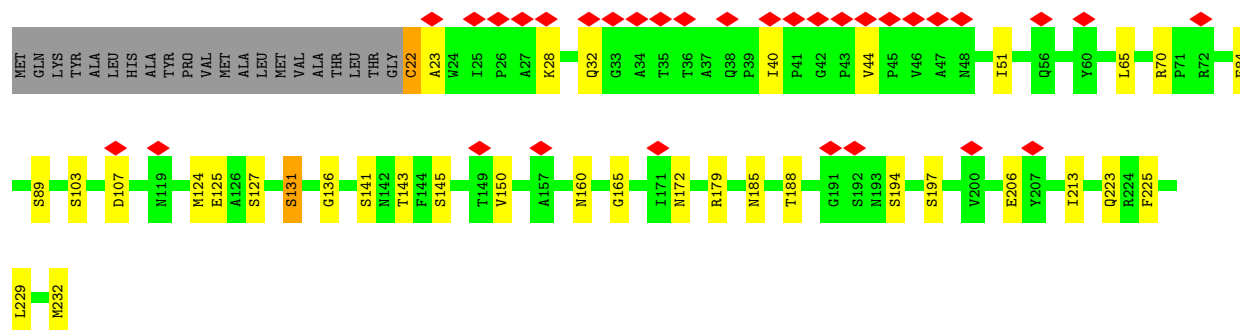
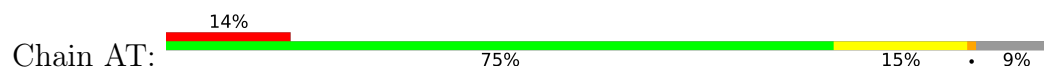




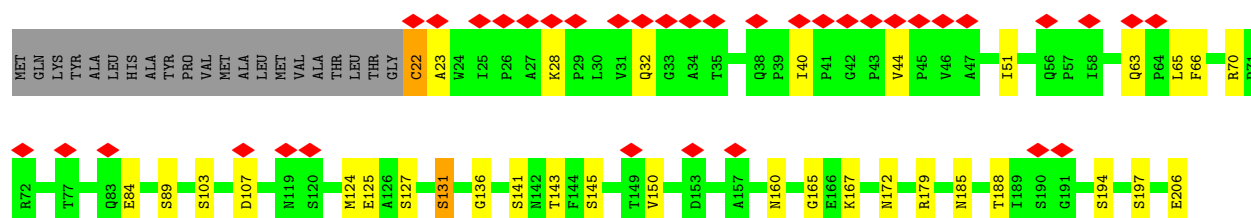
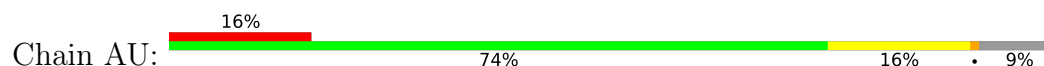
• Molecule 15: Flagellar L-ring protein



• Molecule 15: Flagellar L-ring protein

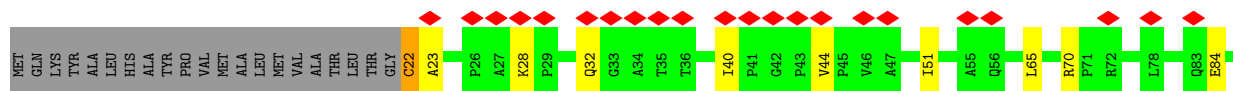
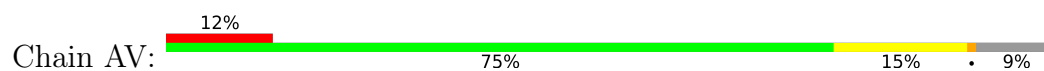


• Molecule 15: Flagellar L-ring protein

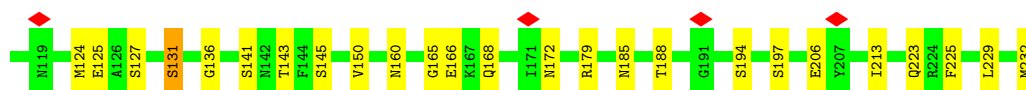
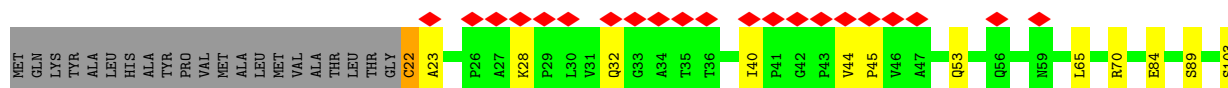
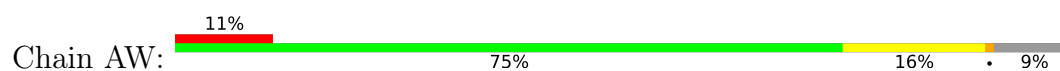




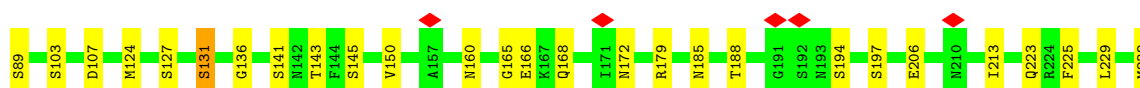
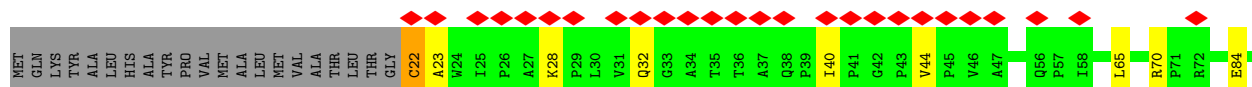
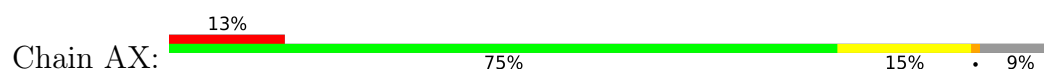
- Molecule 15: Flagellar L-ring protein



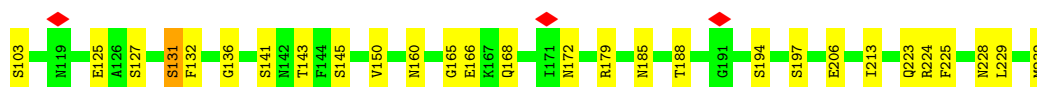
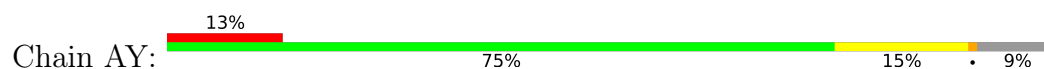
- Molecule 15: Flagellar L-ring protein



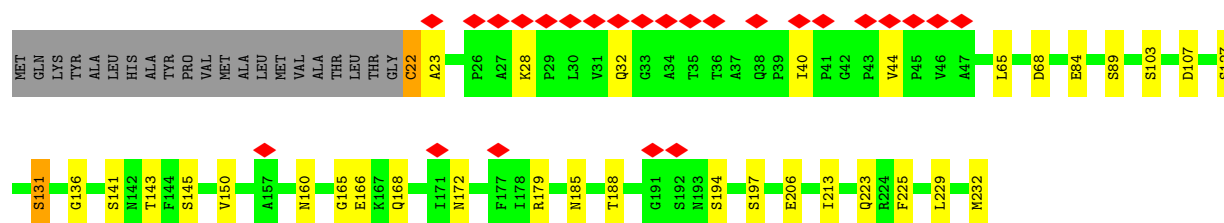
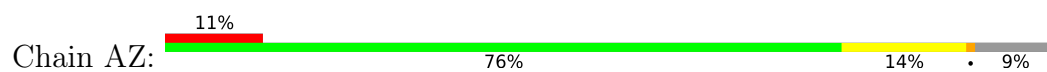
- Molecule 15: Flagellar L-ring protein



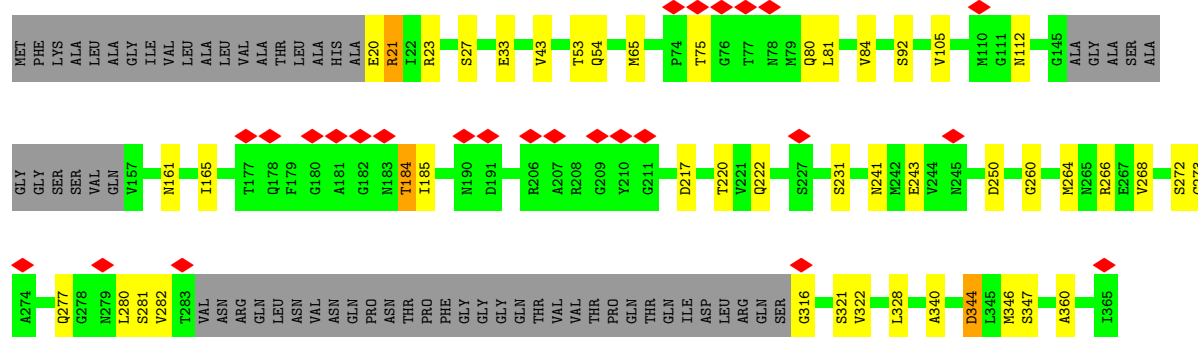
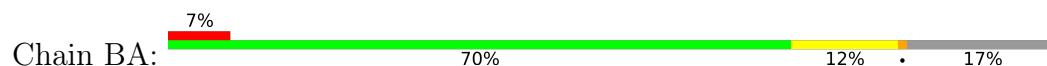
- Molecule 15: Flagellar L-ring protein



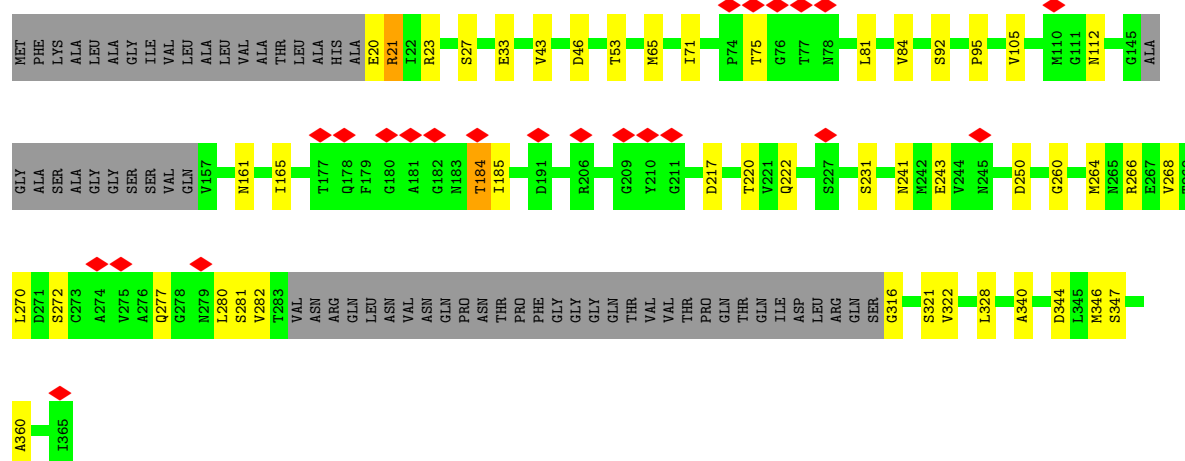
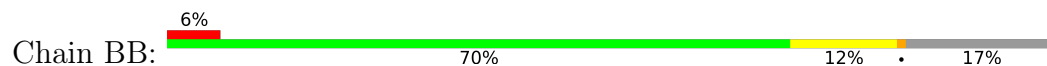
- Molecule 15: Flagellar L-ring protein



• Molecule 16: Flagellar P-ring protein



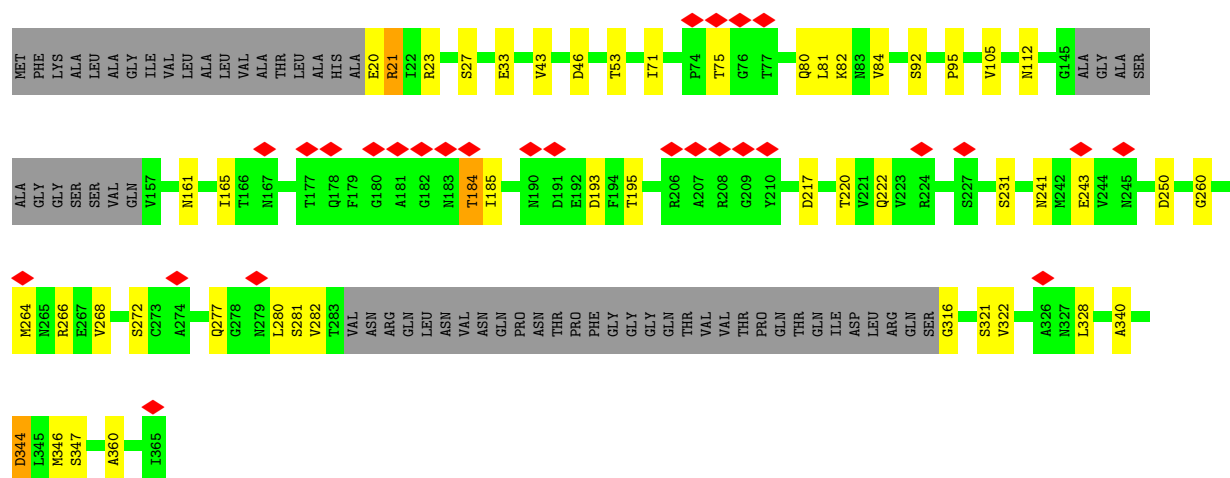
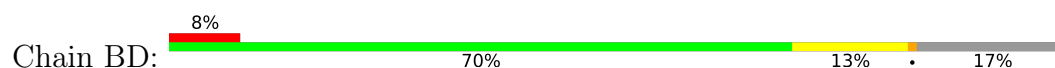
• Molecule 16: Flagellar P-ring protein



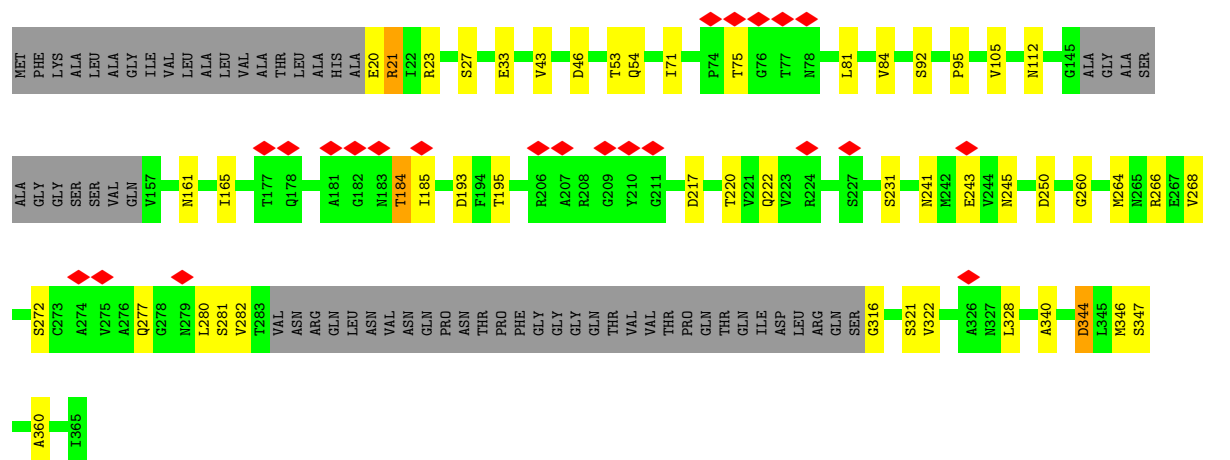
• Molecule 16: Flagellar P-ring protein



- Molecule 16: Flagellar P-ring protein

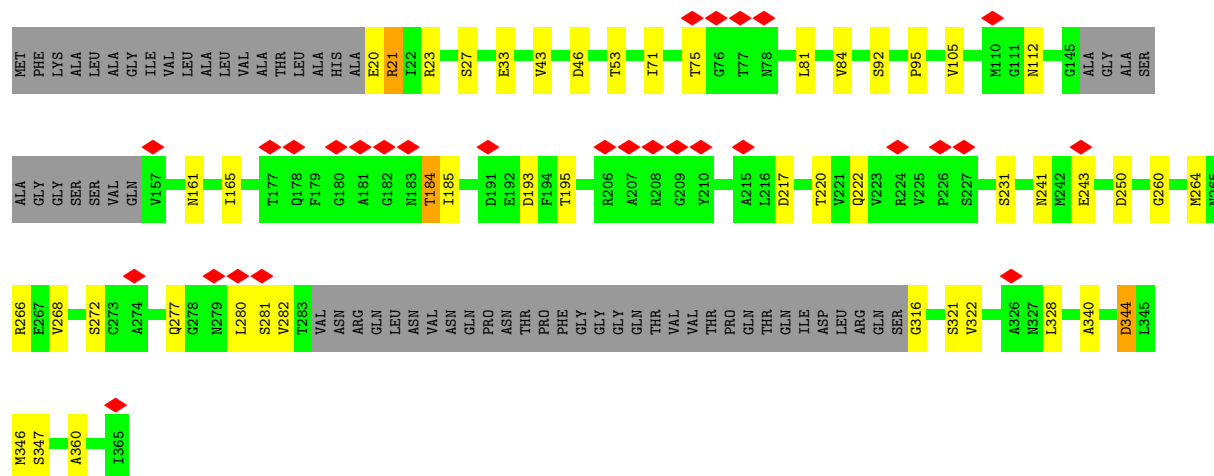


- Molecule 16: Flagellar P-ring protein

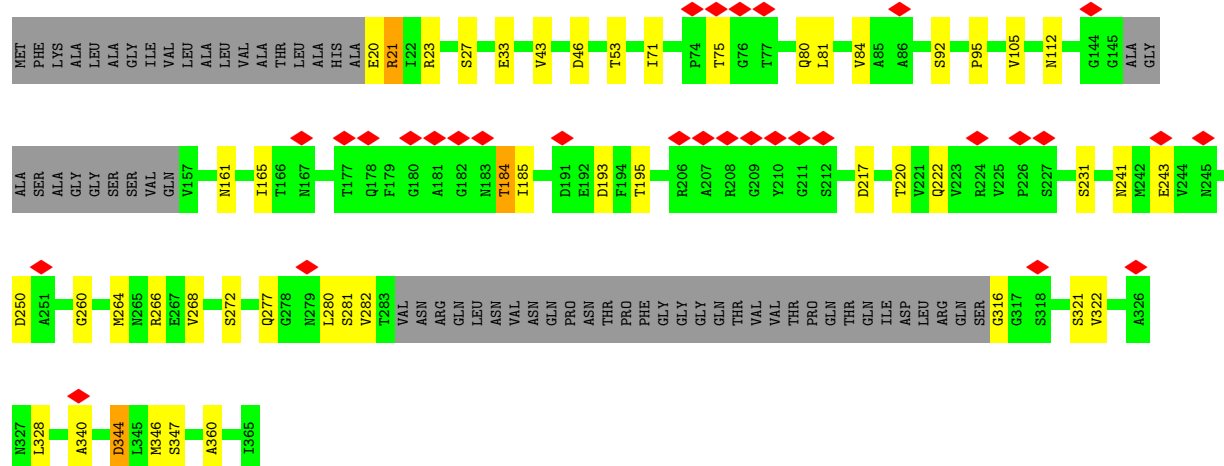
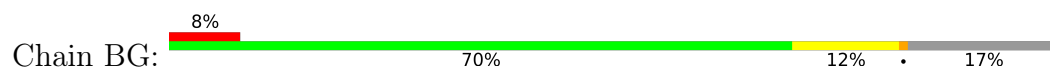


- Molecule 16: Flagellar P-ring protein

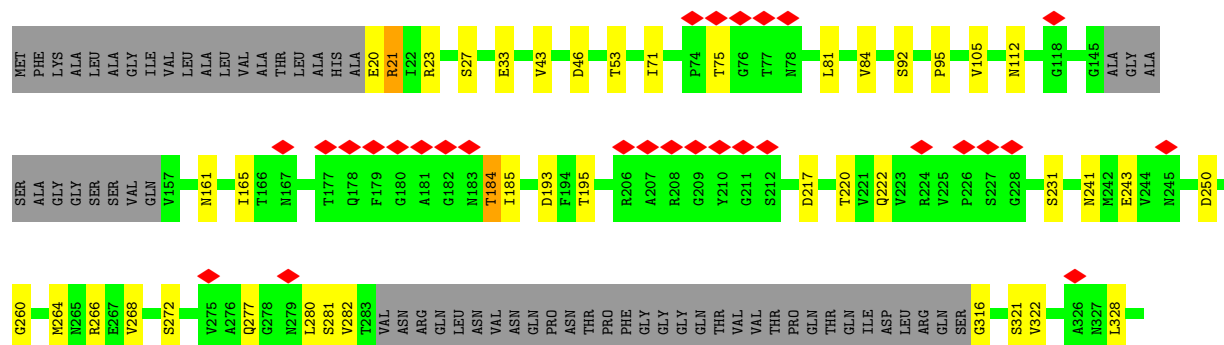
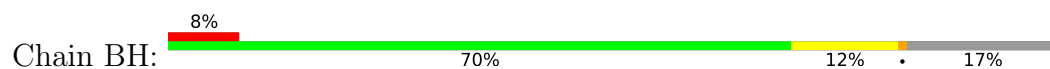


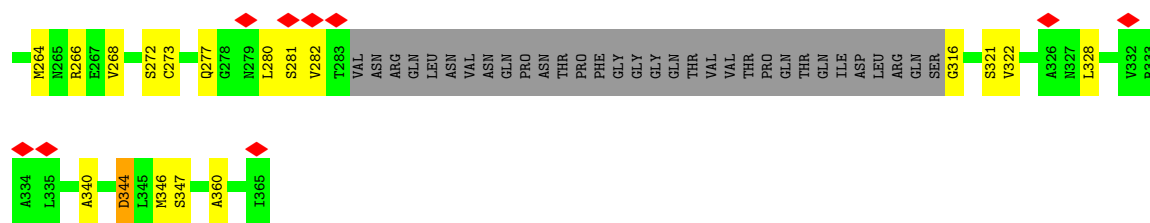


• Molecule 16: Flagellar P-ring protein

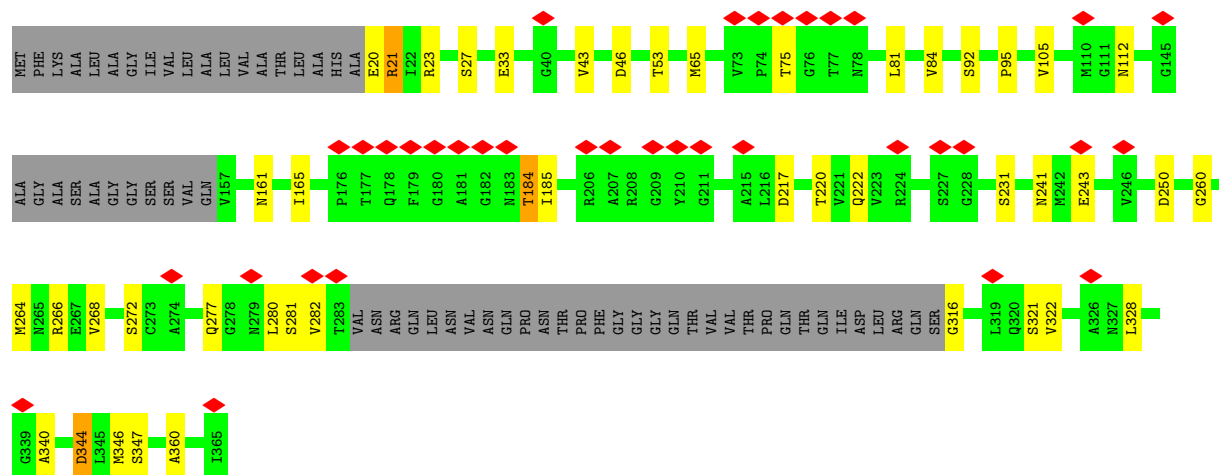
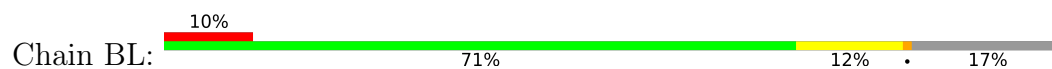


• Molecule 16: Flagellar P-ring protein

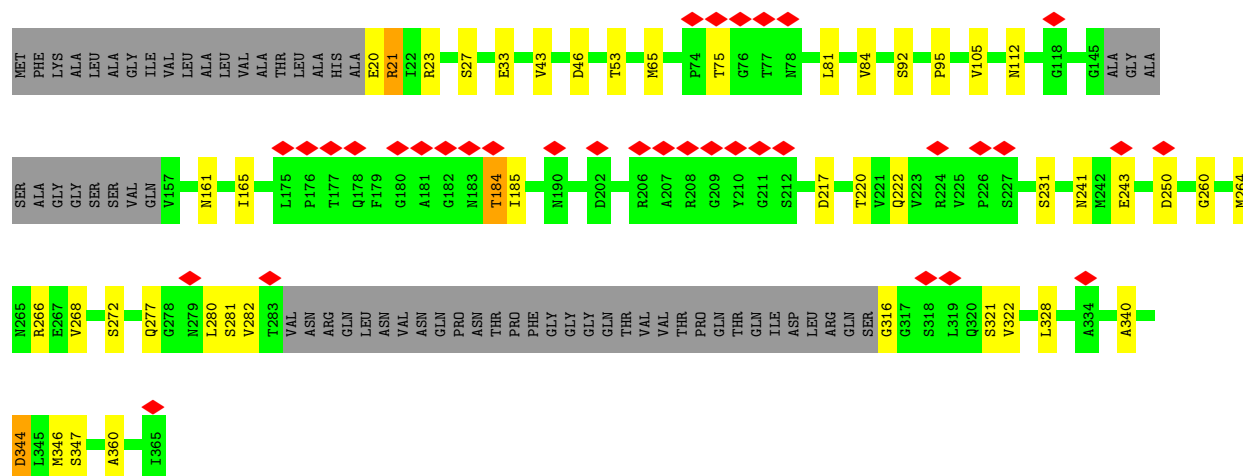
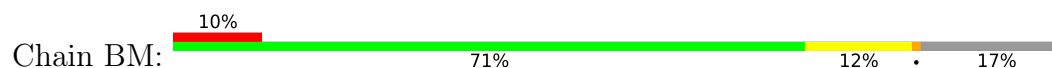




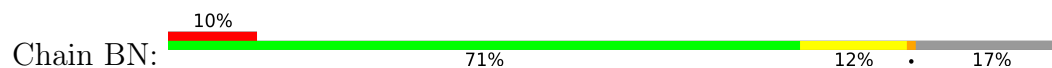
• Molecule 16: Flagellar P-ring protein



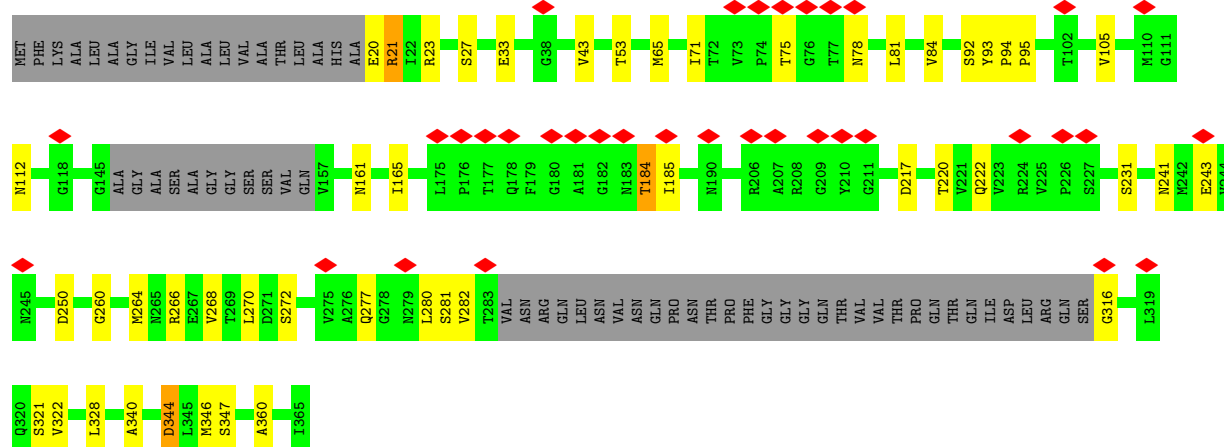
• Molecule 16: Flagellar P-ring protein



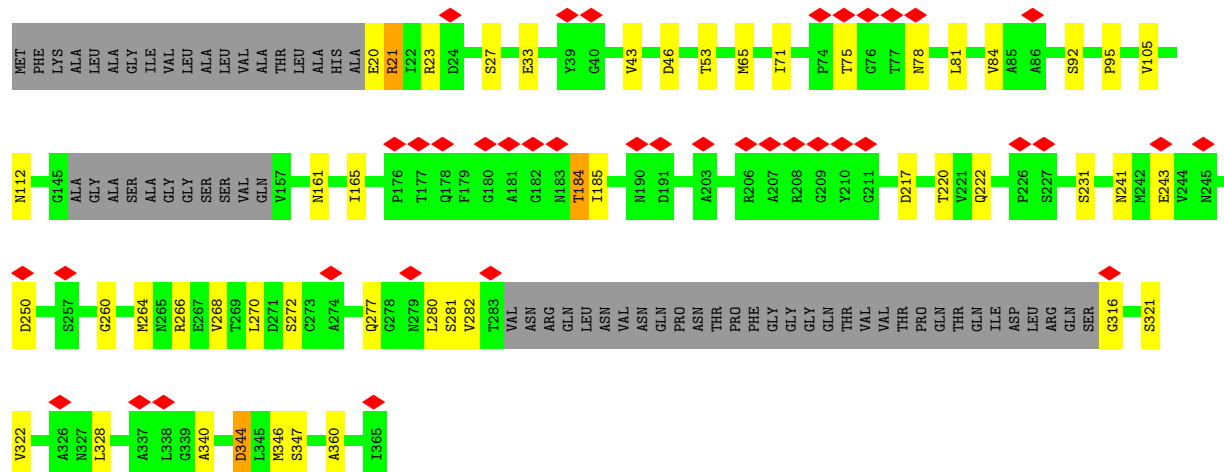
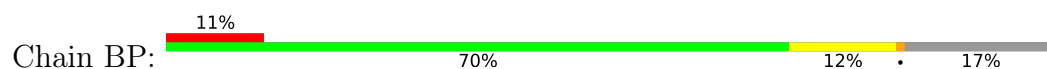
• Molecule 16: Flagellar P-ring protein



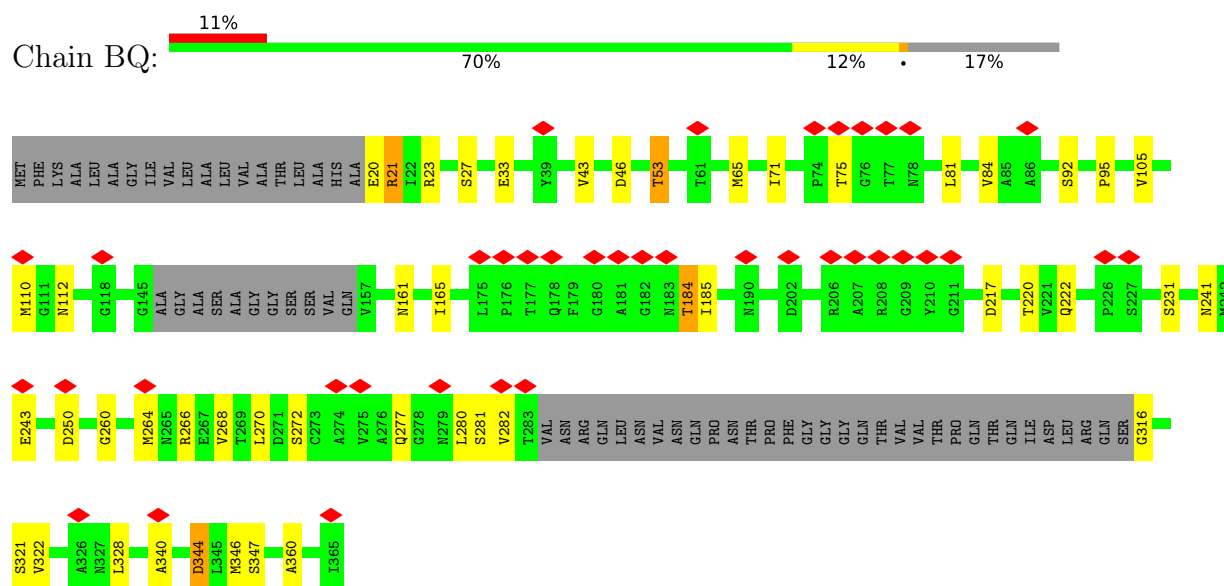
- Molecule 16: Flagellar P-ring protein



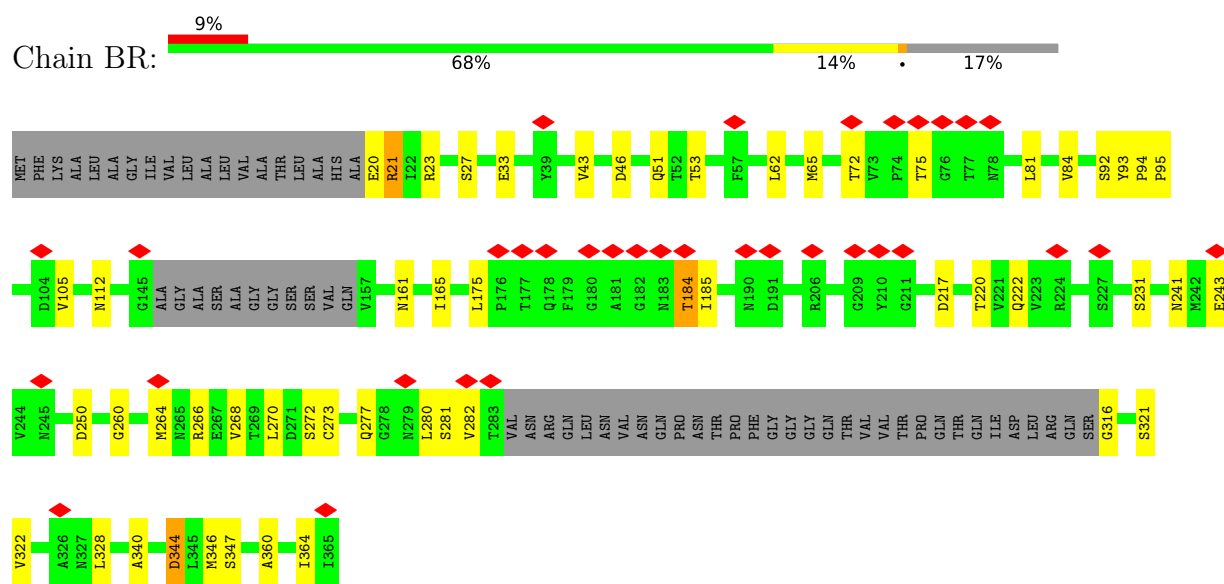
- Molecule 16: Flagellar P-ring protein



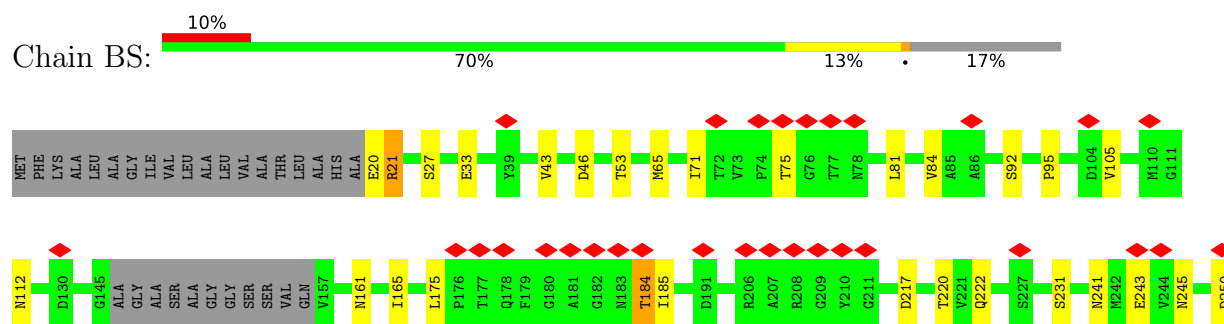
- Molecule 16: Flagellar P-ring protein

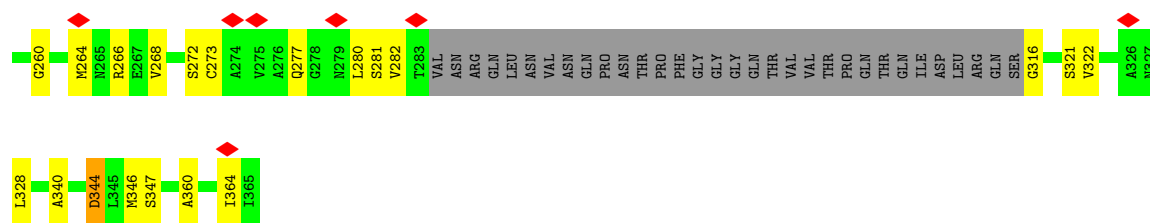


- Molecule 16: Flagellar P-ring protein

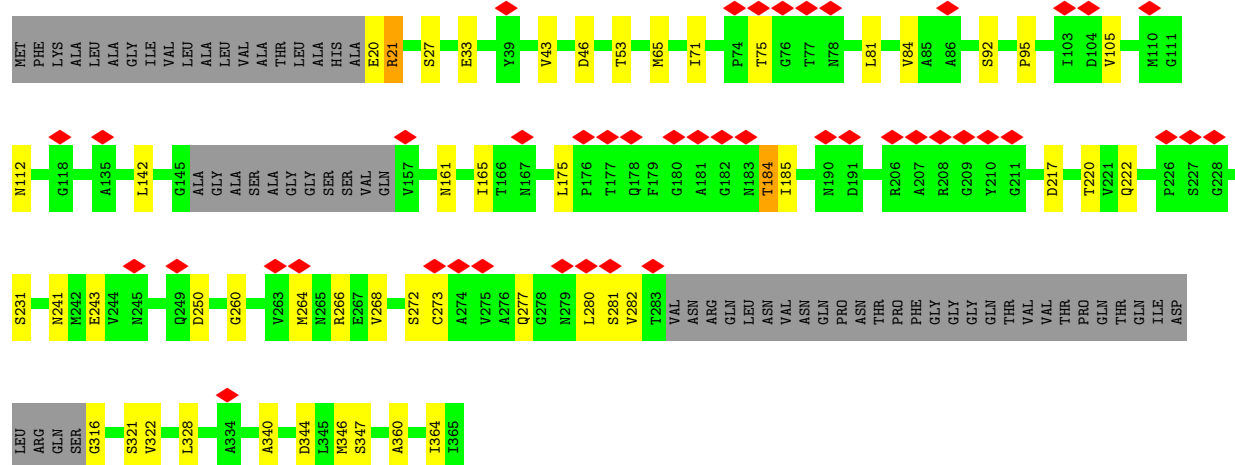
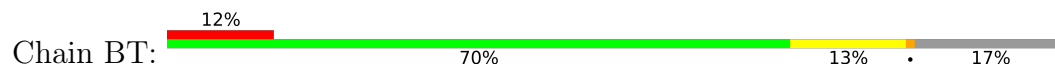


- Molecule 16: Flagellar P-ring protein

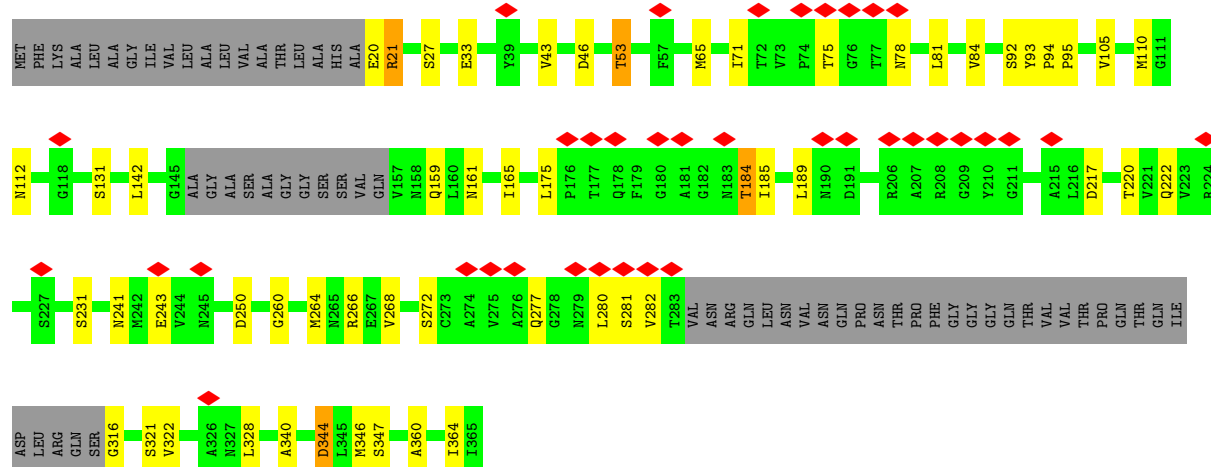




• Molecule 16: Flagellar P-ring protein



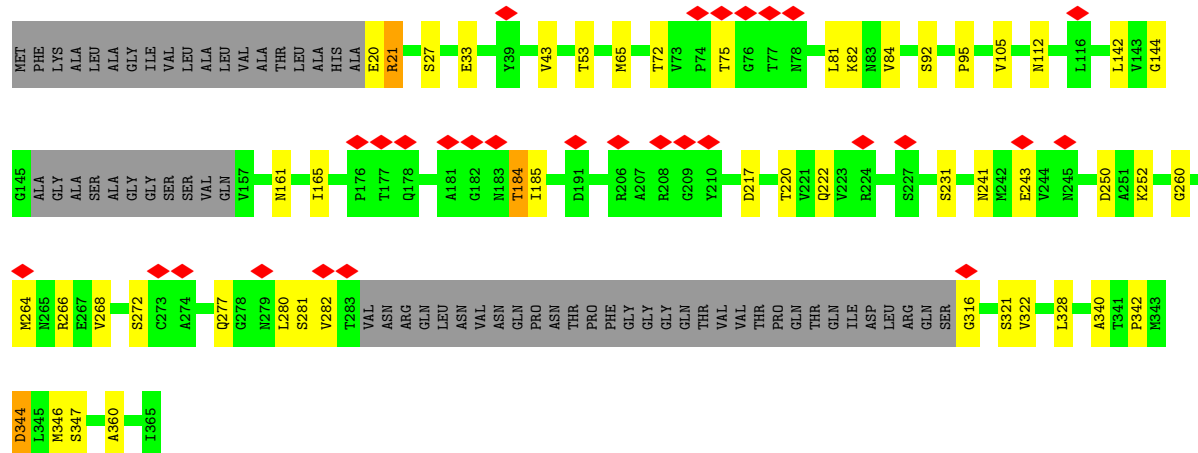
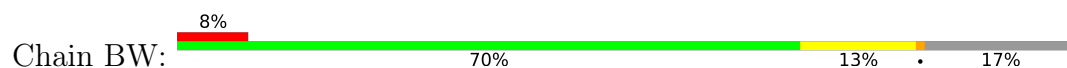
• Molecule 16: Flagellar P-ring protein



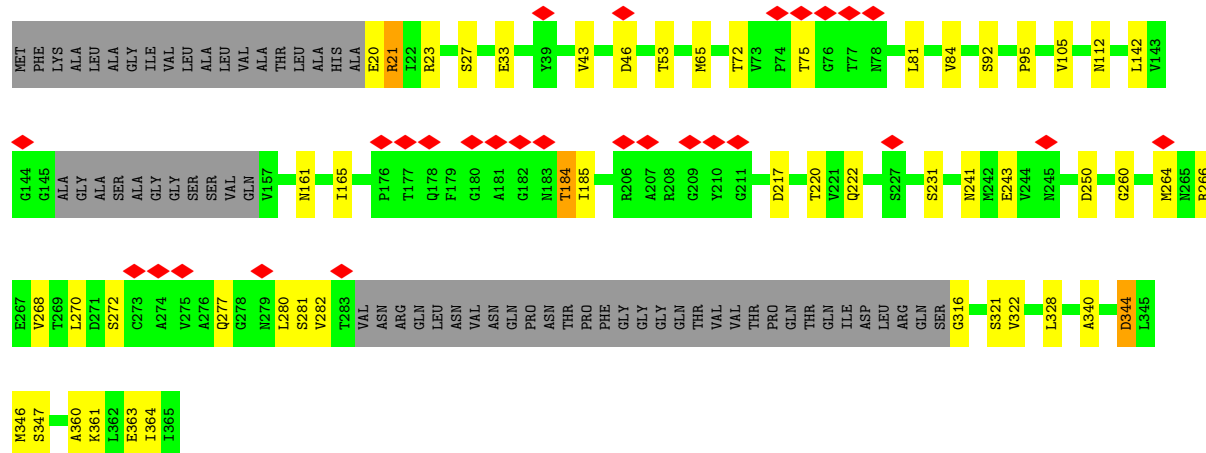
• Molecule 16: Flagellar P-ring protein



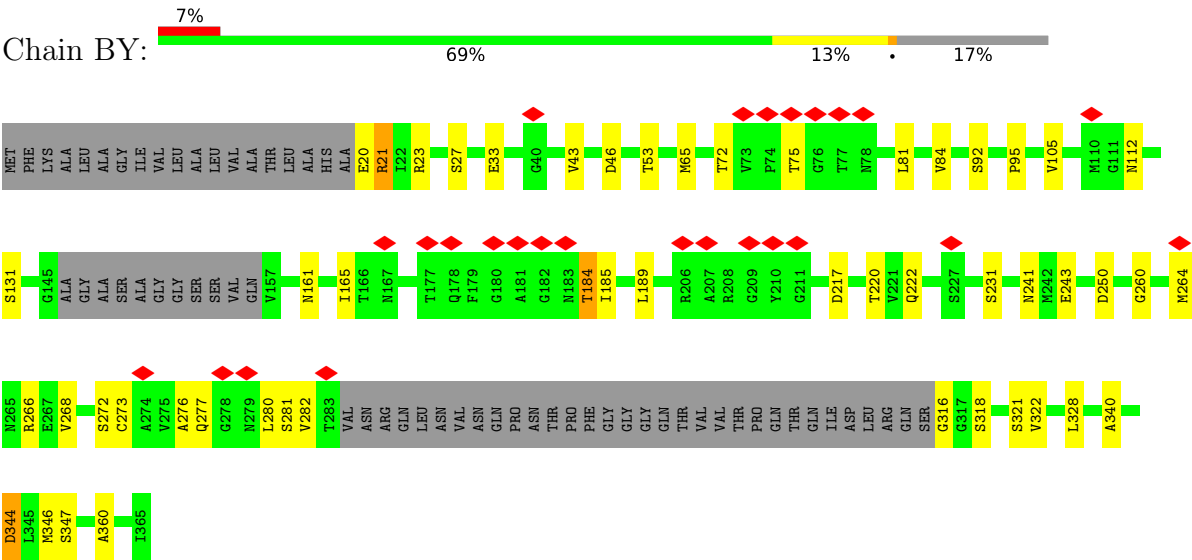
- Molecule 16: Flagellar P-ring protein



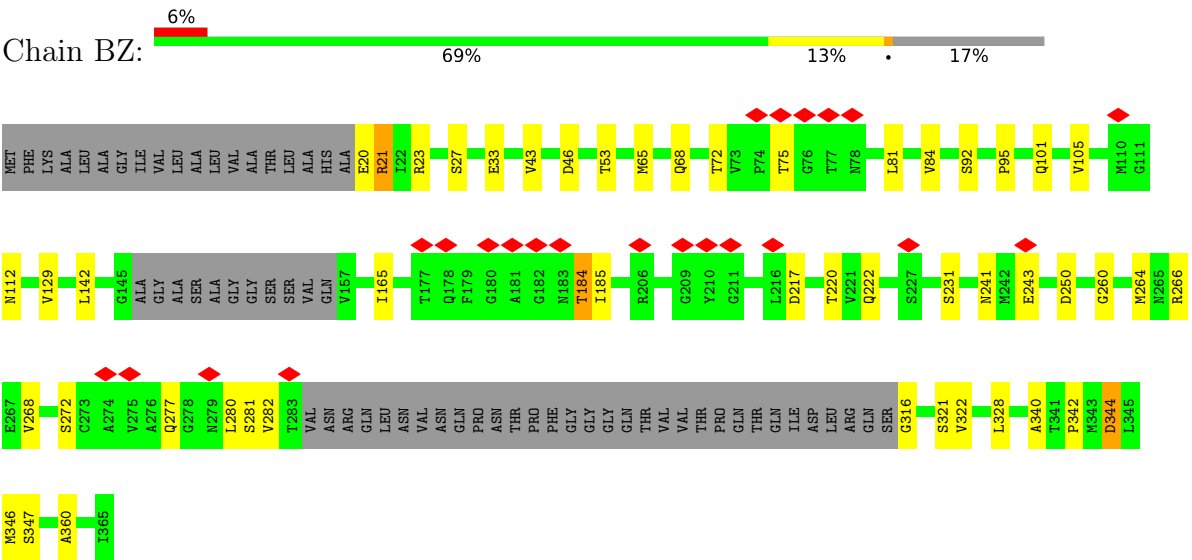
- Molecule 16: Flagellar P-ring protein



● Molecule 16: Flagellar P-ring protein



● Molecule 16: Flagellar P-ring protein



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	52714	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 ($e^-/\text{\AA}^2$)	47	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.383	Depositor
Minimum map value	-0.418	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.079	Depositor
Recommended contour level	0.38	Depositor
Map size ($\text{\AA}$)	669.184, 669.184, 669.184	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.307, 1.307, 1.307	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: P1L

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.15	0/1973	0.28	0/2682
1	B	0.14	0/1973	0.27	0/2682
1	C	0.15	0/1973	0.26	0/2682
1	D	0.15	0/1973	0.28	0/2682
1	E	0.15	0/1973	0.30	0/2682
1	F	0.16	0/1973	0.28	0/2682
1	G	0.17	0/1973	0.32	0/2682
1	H	0.15	0/1973	0.28	0/2682
1	I	0.16	0/1973	0.31	0/2682
1	J	0.17	0/1973	0.29	0/2682
1	K	0.17	0/1973	0.32	1/2682 (0.0%)
1	L	0.15	0/1965	0.25	0/2672
1	M	0.16	0/1973	0.27	0/2682
1	N	0.15	0/1909	0.26	0/2593
1	O	0.15	0/1917	0.26	0/2605
1	P	0.16	0/1884	0.29	0/2559
1	Q	0.17	0/1880	0.28	0/2554
1	R	0.15	0/1898	0.29	0/2578
1	S	0.21	0/1880	0.36	1/2554 (0.0%)
1	T	0.15	0/1925	0.25	0/2617
1	U	0.15	0/1965	0.27	0/2672
1	V	0.16	0/1965	0.29	0/2672
1	W	0.22	0/1965	0.35	0/2672
1	X	0.15	0/1965	0.32	0/2672
2	a	0.16	0/1836	0.29	0/2502
2	b	0.15	0/1828	0.28	0/2492
2	c	0.14	0/1836	0.25	0/2502
2	d	0.15	0/1836	0.29	0/2502
2	e	0.14	0/1836	0.33	0/2502
4	5	0.14	0/145	0.23	0/203
4	6	0.10	0/145	0.24	0/203
4	7	0.51	0/145	0.86	0/203

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
4	8	0.13	0/145	0.23	0/203
4	9	0.13	0/145	0.28	0/203
5	f	0.14	0/946	0.24	0/1285
5	g	0.15	0/959	0.29	0/1302
5	h	0.15	0/945	0.26	0/1283
5	i	0.16	0/954	0.28	0/1295
5	j	0.15	0/941	0.27	0/1278
5	p	0.13	0/950	0.25	0/1290
6	k	0.15	0/859	0.28	0/1156
6	l	0.13	0/840	0.25	0/1131
6	m	0.15	0/840	0.26	0/1131
6	n	0.15	0/851	0.25	0/1145
6	o	0.13	0/863	0.28	0/1161
7	q	0.12	0/540	0.24	0/723
7	r	0.16	0/529	0.31	0/709
7	s	0.12	0/547	0.23	0/733
7	t	0.11	0/547	0.28	0/733
7	u	0.11	0/547	0.29	0/733
7	v	0.10	0/289	0.22	0/385
8	DA	0.14	0/2991	0.26	0/4076
8	DB	0.12	0/2991	0.25	0/4076
8	DC	0.12	0/2991	0.25	0/4076
8	DD	0.11	0/2991	0.25	0/4076
8	DE	0.11	0/2991	0.23	0/4076
8	DF	0.11	0/2991	0.23	0/4076
8	DG	0.11	0/2991	0.25	0/4076
8	DH	0.14	0/2991	0.27	0/4076
8	DI	0.15	0/2991	0.32	2/4076 (0.0%)
8	DJ	0.20	0/2991	0.37	2/4076 (0.0%)
8	DK	0.15	0/2991	0.28	1/4076 (0.0%)
8	DL	0.59	8/2991 (0.3%)	0.91	15/4076 (0.4%)
8	DM	0.38	0/2991	0.70	9/4076 (0.2%)
8	DN	0.50	1/2991 (0.0%)	0.80	8/4076 (0.2%)
8	DO	0.47	0/2991	0.87	9/4076 (0.2%)
8	DP	0.26	0/2991	0.56	6/4076 (0.1%)
8	DQ	0.36	1/2991 (0.0%)	0.60	5/4076 (0.1%)
8	DR	0.14	0/2991	0.39	0/4076
8	DS	0.21	0/2991	0.49	1/4076 (0.0%)
8	DT	0.16	0/2991	0.39	1/4076 (0.0%)
8	DU	0.21	0/2991	0.50	4/4076 (0.1%)
8	DV	0.14	0/2991	0.39	0/4076
8	DW	0.15	0/2991	0.43	2/4076 (0.0%)
8	DX	0.14	0/2991	0.35	0/4076

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
8	DY	0.15	0/2991	0.39	0/4076
8	DZ	0.15	0/2991	0.39	0/4076
8	EA	0.15	0/2991	0.37	0/4076
8	EB	0.14	0/2991	0.36	0/4076
8	EC	0.15	0/2991	0.37	2/4076 (0.0%)
8	ED	0.14	0/2991	0.35	0/4076
8	EE	0.13	0/2991	0.36	0/4076
8	EF	0.15	0/2991	0.37	0/4076
8	EG	0.14	0/2991	0.38	0/4076
9	CE	0.10	0/2052	0.28	0/2803
10	CA	0.10	0/681	0.34	0/930
10	CB	0.10	0/681	0.32	0/930
10	CC	0.10	0/681	0.34	0/930
10	CD	0.09	0/681	0.43	2/930 (0.2%)
11	CF	0.11	0/1675	0.30	0/2280
11	w	0.12	0/1675	0.30	0/2280
11	x	0.12	0/1675	0.30	0/2280
11	y	0.13	0/1675	0.36	0/2280
11	z	0.12	0/1675	0.30	0/2280
12	Ca	0.25	0/1197	0.41	0/1613
12	Cb	0.25	0/1197	0.41	0/1613
12	Cc	0.25	0/1197	0.41	0/1613
12	Cd	0.25	0/1197	0.41	0/1613
12	Ce	0.25	0/1197	0.41	0/1613
12	Cf	0.25	0/1197	0.41	0/1613
12	Cg	0.25	0/1197	0.41	0/1613
12	Ch	0.25	0/1197	0.41	0/1613
12	Ci	0.25	0/1197	0.41	0/1613
12	Cj	0.25	0/1197	0.41	0/1613
12	Ck	0.25	0/1197	0.41	0/1613
12	Cl	0.25	0/1197	0.41	0/1613
12	Cm	0.25	0/1197	0.41	0/1613
12	Cn	0.25	0/1197	0.41	0/1613
12	Co	0.25	0/1197	0.41	0/1613
12	Cp	0.25	0/1197	0.41	0/1613
12	Cq	0.25	0/1197	0.41	0/1613
12	Cr	0.25	0/1197	0.41	0/1613
12	Cs	0.25	0/1197	0.41	0/1613
12	Ct	0.25	0/1197	0.41	0/1613
12	Cu	0.25	0/1197	0.41	0/1613
12	Cv	0.25	0/1197	0.41	0/1613
12	Cw	0.25	0/1197	0.41	0/1613
12	Cx	0.25	0/1197	0.41	0/1613

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
12	Cy	0.25	0/1197	0.41	0/1613
12	Cz	0.25	0/1197	0.41	0/1613
12	Da	0.55	0/756	0.79	0/1036
12	Db	0.91	3/756 (0.4%)	1.26	5/1036 (0.5%)
12	Dc	0.59	0/756	0.76	0/1036
12	Dd	0.58	0/756	0.86	2/1036 (0.2%)
12	De	0.44	0/705	0.57	0/963
12	Df	0.90	3/697 (0.4%)	1.24	5/954 (0.5%)
12	Dg	0.37	0/646	0.50	0/881
12	Dh	0.37	0/646	0.50	0/881
12	Di	0.37	0/646	0.50	0/881
12	Dj	0.37	0/646	0.50	0/881
12	Dk	0.38	0/646	0.50	0/881
12	Dll	0.37	0/646	0.50	0/881
12	Dm	0.37	0/646	0.50	0/881
12	Dn	0.37	0/646	0.50	0/881
12	Do	0.44	0/697	0.59	1/954 (0.1%)
12	Dp	0.56	0/756	0.82	0/1036
12	Dq	0.62	0/756	0.99	4/1036 (0.4%)
12	Dr	0.76	1/756 (0.1%)	1.02	2/1036 (0.2%)
12	Ds	0.77	1/756 (0.1%)	1.15	4/1036 (0.4%)
12	Dt	0.56	0/756	0.80	0/1036
12	Du	0.60	0/756	0.94	5/1036 (0.5%)
12	Dv	0.59	0/756	0.80	0/1036
12	Dw	0.60	0/756	0.88	1/1036 (0.1%)
12	Ea	0.25	0/1197	0.41	0/1613
12	Eb	0.25	0/1197	0.41	0/1613
12	Ec	0.25	0/1197	0.41	0/1613
12	Ed	0.25	0/1197	0.41	0/1613
12	Ee	0.25	0/1197	0.41	0/1613
12	Ef	0.25	0/1197	0.41	0/1613
12	Eg	0.25	0/1197	0.41	0/1613
12	Eh	0.25	0/1197	0.41	0/1613
15	AA	0.28	0/1607	0.35	0/2186
15	AB	0.28	0/1607	0.35	0/2186
15	AC	0.28	0/1607	0.35	0/2186
15	AD	0.28	0/1607	0.35	0/2186
15	AE	0.28	0/1607	0.35	0/2186
15	AF	0.28	0/1607	0.35	0/2186
15	AG	0.28	0/1607	0.35	0/2186
15	AH	0.28	0/1607	0.35	0/2186
15	AI	0.28	0/1607	0.35	0/2186
15	AJ	0.28	0/1607	0.35	0/2186

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
15	AK	0.27	0/1607	0.35	0/2186
15	AL	0.28	0/1607	0.35	0/2186
15	AM	0.28	0/1607	0.35	0/2186
15	AN	0.28	0/1607	0.35	0/2186
15	AO	0.28	0/1607	0.35	0/2186
15	AP	0.28	0/1607	0.35	0/2186
15	AQ	0.28	0/1607	0.35	0/2186
15	AR	0.28	0/1607	0.35	0/2186
15	AS	0.28	0/1607	0.35	0/2186
15	AT	0.28	0/1607	0.35	0/2186
15	AU	0.28	0/1607	0.35	0/2186
15	AV	0.28	0/1607	0.35	0/2186
15	AW	0.28	0/1607	0.35	0/2186
15	AX	0.28	0/1607	0.35	0/2186
15	AY	0.28	0/1607	0.35	0/2186
15	AZ	0.28	0/1607	0.35	0/2186
16	BA	0.26	0/2243	0.33	0/3041
16	BB	0.26	0/2243	0.34	0/3041
16	BC	0.26	0/2243	0.33	0/3041
16	BD	0.26	0/2243	0.34	0/3041
16	BE	0.26	0/2243	0.33	0/3041
16	BF	0.27	0/2243	0.33	0/3041
16	BG	0.26	0/2243	0.33	0/3041
16	BH	0.26	0/2243	0.33	0/3041
16	BI	0.26	0/2243	0.33	0/3041
16	BJ	0.26	0/2243	0.33	0/3041
16	BK	0.26	0/2243	0.34	0/3041
16	BL	0.26	0/2243	0.33	0/3041
16	BM	0.27	0/2243	0.33	0/3041
16	BN	0.26	0/2243	0.33	0/3041
16	BO	0.26	0/2243	0.33	0/3041
16	BP	0.26	0/2243	0.33	0/3041
16	BQ	0.27	0/2243	0.33	0/3041
16	BR	0.26	0/2243	0.34	0/3041
16	BS	0.26	0/2243	0.33	0/3041
16	BT	0.26	0/2243	0.34	0/3041
16	BU	0.26	0/2243	0.33	0/3041
16	BV	0.26	0/2243	0.34	0/3041
16	BW	0.26	0/2243	0.33	0/3041
16	BX	0.26	0/2243	0.33	0/3041
16	BY	0.26	0/2243	0.33	0/3041
16	BZ	0.26	0/2243	0.33	0/3041
All	All	0.26	18/338629 (0.0%)	0.41	100/460118 (0.0%)

All (18) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	Db	160	PRO	N-CA	17.48	1.69	1.47
12	Df	160	PRO	N-CA	17.46	1.69	1.47
12	Dr	171	SER	C-N	13.99	1.50	1.33
8	DQ	285	LYS	C-N	13.61	1.50	1.33
12	Ds	171	SER	C-N	13.59	1.50	1.33
8	DL	133	ASN	C-N	12.86	1.50	1.33
12	Df	171	SER	C-N	7.39	1.51	1.33
12	Db	171	SER	C-N	7.01	1.50	1.33
8	DL	379	GLN	C-O	-6.55	1.16	1.24
8	DL	397	ASN	C-O	-6.18	1.16	1.24
8	DL	391	THR	C-O	-6.12	1.16	1.24
8	DL	387	GLN	C-O	-5.66	1.16	1.24
8	DL	383	GLN	C-O	-5.51	1.17	1.24
8	DN	384	SER	CA-CB	-5.29	1.44	1.53
8	DL	384	SER	C-O	-5.27	1.17	1.24
8	DL	393	ASP	C-O	-5.19	1.17	1.24
12	Db	159	MET	C-N	5.12	1.45	1.33
12	Df	159	MET	C-N	5.10	1.45	1.33

All (100) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	Ds	171	SER	CA-C-N	17.94	138.28	120.52
12	Ds	171	SER	C-N-CA	17.94	138.28	120.52
12	Db	159	MET	CA-C-N	17.44	141.63	119.84
12	Db	159	MET	C-N-CA	17.44	141.63	119.84
12	Df	159	MET	CA-C-N	17.10	141.21	119.84
12	Df	159	MET	C-N-CA	17.10	141.21	119.84
12	Dr	171	SER	CA-C-N	15.33	137.41	120.85
12	Dr	171	SER	C-N-CA	15.33	137.41	120.85
8	DQ	285	LYS	CA-C-N	14.40	134.59	119.90
8	DQ	285	LYS	C-N-CA	14.40	134.59	119.90
12	Db	171	SER	CA-C-N	14.40	137.84	119.84
12	Db	171	SER	C-N-CA	14.40	137.84	119.84
8	DL	133	ASN	CA-C-N	13.97	134.17	119.78
8	DL	133	ASN	C-N-CA	13.97	134.17	119.78
12	Df	171	SER	CA-C-N	13.21	136.35	119.84
12	Df	171	SER	C-N-CA	13.21	136.35	119.84
12	Dq	160	PRO	N-CA-CB	-11.98	90.67	103.25
12	Dd	160	PRO	N-CA-CB	-11.34	91.34	103.25
12	Df	160	PRO	CA-N-CD	-11.04	96.54	112.00
12	Db	160	PRO	CA-N-CD	-10.87	96.78	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	DN	49	GLY	CA-C-O	-10.73	114.83	122.23
8	DW	284	TYR	CA-C-N	9.59	139.17	120.94
8	DW	284	TYR	C-N-CA	9.59	139.17	120.94
12	Dw	160	PRO	N-CA-CB	-9.52	93.25	103.25
8	DP	390	LYS	N-CA-C	-8.92	100.52	111.40
12	Ds	160	PRO	N-CA-CB	-8.84	93.97	103.25
8	DM	323	ASN	CA-C-N	8.70	138.15	121.54
8	DM	323	ASN	C-N-CA	8.70	138.15	121.54
12	Dq	160	PRO	CB-CA-C	-8.44	97.64	111.56
8	DL	388	THR	CA-CB-OG1	-8.06	97.51	109.60
8	DL	376	ILE	N-CA-C	-7.85	102.62	110.62
8	DL	5	GLN	CA-C-N	-7.81	107.67	120.71
8	DL	5	GLN	C-N-CA	-7.81	107.67	120.71
8	DJ	383	GLN	CB-CA-C	-7.49	99.12	110.88
8	DU	401	ASN	CB-CA-C	7.41	124.06	110.36
8	DO	5	GLN	CB-CG-CD	-7.27	100.24	112.60
8	DN	45	GLY	N-CA-C	-7.26	106.68	114.67
8	DP	390	LYS	CB-CA-C	-7.22	98.66	110.79
8	DL	5	GLN	N-CA-C	-6.88	103.80	111.71
1	S	202	ASN	CA-CB-CG	-6.86	105.74	112.60
12	Du	124	SER	CA-C-N	6.74	129.20	120.44
12	Du	124	SER	C-N-CA	6.74	129.20	120.44
8	DN	391	THR	CA-CB-OG1	-6.63	99.66	109.60
8	DN	50	LEU	CA-C-O	-6.62	111.05	120.51
8	DM	40	ALA	CA-C-N	6.62	131.22	122.42
8	DM	40	ALA	C-N-CA	6.62	131.22	122.42
12	Du	125	GLN	CA-C-N	6.59	129.41	120.44
12	Du	125	GLN	C-N-CA	6.59	129.41	120.44
8	DO	398	THR	CB-CA-C	-6.52	100.64	110.88
10	CD	42	THR	CA-C-N	6.47	133.90	121.54
10	CD	42	THR	C-N-CA	6.47	133.90	121.54
8	DM	387	GLN	N-CA-C	-6.46	104.24	111.28
8	DI	270	ASN	CA-C-N	-6.41	110.41	122.27
8	DI	270	ASN	C-N-CA	-6.41	110.41	122.27
12	Dq	160	PRO	N-CA-C	6.38	125.62	112.47
12	Du	160	PRO	N-CA-CB	-6.22	96.72	103.25
1	K	59	GLN	N-CA-CB	-6.19	102.76	111.00
8	DP	390	LYS	CA-C-N	-6.15	112.04	120.28
8	DP	390	LYS	C-N-CA	-6.15	112.04	120.28
8	DL	397	ASN	CB-CA-C	-5.95	99.82	110.70
8	DM	394	GLN	CB-CA-C	-5.89	101.01	110.79
8	DO	383	GLN	CB-CA-C	-5.84	101.72	110.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	DL	390	LYS	CB-CA-C	-5.83	101.97	110.96
8	DJ	381	ASN	N-CA-C	-5.82	104.94	111.28
8	DO	20	ILE	CA-C-N	5.75	126.36	119.98
8	DO	20	ILE	C-N-CA	5.75	126.36	119.98
8	DM	386	ALA	O-C-N	5.71	128.17	122.12
8	DM	323	ASN	O-C-N	5.67	129.96	123.27
8	DO	4	SER	CA-C-O	-5.55	114.99	120.82
8	DT	50	LEU	N-CA-C	-5.54	108.31	114.62
8	DK	104	GLU	CB-CA-C	5.45	121.14	110.67
8	DN	21	GLY	CA-C-N	5.44	131.92	121.54
8	DN	21	GLY	C-N-CA	5.44	131.92	121.54
8	DN	394	GLN	CB-CA-C	-5.42	101.79	110.79
12	Ds	160	PRO	CA-N-CD	-5.42	104.41	112.00
8	DN	380	ARG	O-C-N	-5.40	116.51	122.07
8	DO	7	VAL	O-C-N	5.37	127.49	121.90
12	Dq	161	LYS	CA-C-O	-5.33	116.80	120.47
8	DO	388	THR	CA-CB-OG1	-5.30	101.65	109.60
8	DL	378	ALA	CA-C-N	5.27	127.34	120.28
8	DL	378	ALA	C-N-CA	5.27	127.34	120.28
8	DQ	192	ASN	CB-CA-C	5.27	119.24	109.54
8	DL	387	GLN	CB-CG-CD	-5.22	103.72	112.60
8	DU	397	ASN	N-CA-C	-5.18	105.63	111.28
8	DQ	255	THR	N-CA-C	-5.17	99.78	110.80
8	DL	375	MET	O-C-N	5.16	127.40	122.03
8	DQ	401	ASN	CB-CA-C	5.15	119.60	110.85
8	DL	382	TYR	CA-CB-CG	-5.12	104.69	113.90
8	DM	338	GLN	N-CA-C	-5.12	102.70	110.28
8	DU	391	THR	CA-C-N	5.12	127.09	120.44
8	DU	391	THR	C-N-CA	5.12	127.09	120.44
8	DP	394	GLN	O-C-N	5.09	127.31	122.07
8	EC	125	PRO	CA-N-CD	-5.09	104.38	111.50
8	EC	125	PRO	N-CD-CG	-5.08	97.70	103.80
12	Do	160	PRO	N-CA-CB	-5.07	97.93	103.25
8	DO	386	ALA	N-CA-C	-5.04	105.78	111.28
8	DL	392	GLN	N-CA-C	-5.04	107.31	113.50
8	DP	390	LYS	O-C-N	5.00	128.23	122.17
12	Dd	160	PRO	CA-N-CD	-5.00	105.00	112.00
8	DS	10	LEU	CA-CB-CG	5.00	133.81	116.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1949	0	1926	40	0
1	B	1949	0	1926	47	0
1	C	1949	0	1926	38	0
1	D	1949	0	1926	38	0
1	E	1949	0	1926	37	0
1	F	1949	0	1926	43	0
1	G	1949	0	1926	49	0
1	H	1949	0	1926	37	0
1	I	1949	0	1926	39	0
1	J	1949	0	1926	34	0
1	K	1949	0	1926	36	0
1	L	1941	0	1914	39	0
1	M	1949	0	1926	26	0
1	N	1887	0	1871	41	0
1	O	1894	0	1878	34	0
1	P	1862	0	1839	30	0
1	Q	1858	0	1836	40	0
1	R	1875	0	1852	34	0
1	S	1858	0	1836	33	0
1	T	1902	0	1881	42	0
1	U	1941	0	1914	50	0
1	V	1941	0	1914	58	0
1	W	1941	0	1914	49	0
1	X	1941	0	1914	35	0
2	a	1812	0	1800	42	0
2	b	1804	0	1791	48	0
2	c	1812	0	1800	41	0
2	d	1812	0	1800	46	0
2	e	1812	0	1800	35	0
3	0	75	0	18	0	0
3	1	75	0	17	1	0
3	2	75	0	17	1	0
3	3	75	0	18	0	0
3	4	75	0	19	2	0
4	5	140	0	136	7	0
4	6	140	0	136	1	0
4	7	140	0	136	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	8	140	0	136	7	0
4	9	140	0	136	3	0
5	f	936	0	951	24	0
5	g	949	0	962	20	0
5	h	935	0	949	27	0
5	i	944	0	957	18	0
5	j	931	0	946	19	0
5	p	940	0	954	17	0
6	k	852	0	855	20	0
6	l	833	0	831	15	0
6	m	833	0	831	21	0
6	n	844	0	844	18	0
6	o	856	0	858	17	0
7	q	536	0	541	8	0
7	r	526	0	536	9	0
7	s	543	0	550	4	0
7	t	543	0	550	5	0
7	u	543	0	550	9	0
7	v	289	0	299	6	0
8	DA	2947	0	2839	74	0
8	DB	2947	0	2839	66	0
8	DC	2947	0	2839	86	0
8	DD	2947	0	2839	65	0
8	DE	2947	0	2839	68	0
8	DF	2947	0	2839	77	0
8	DG	2947	0	2839	120	0
8	DH	2947	0	2839	136	0
8	DI	2947	0	2839	107	0
8	DJ	2947	0	2839	115	0
8	DK	2947	0	2839	137	0
8	DL	2947	0	2839	237	0
8	DM	2947	0	2839	229	0
8	DN	2947	0	2839	216	0
8	DO	2947	0	2839	191	0
8	DP	2947	0	2839	214	0
8	DQ	2947	0	2839	146	0
8	DR	2947	0	2839	89	0
8	DS	2947	0	2839	119	0
8	DT	2947	0	2839	104	0
8	DU	2947	0	2839	145	0
8	DV	2947	0	2839	97	0
8	DW	2947	0	2839	82	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	DX	2947	0	2839	98	0
8	DY	2947	0	2839	94	0
8	DZ	2947	0	2839	83	0
8	EA	2947	0	2839	82	0
8	EB	2947	0	2839	96	0
8	EC	2947	0	2839	77	0
8	ED	2947	0	2839	86	0
8	EE	2947	0	2839	73	0
8	EF	2947	0	2839	85	0
8	EG	2947	0	2839	82	0
9	CE	2002	0	2116	79	0
10	CA	670	0	739	18	0
10	CB	670	0	739	16	0
10	CC	670	0	739	21	0
10	CD	670	0	739	15	0
11	CF	1636	0	1726	48	0
11	w	1636	0	1726	40	0
11	x	1636	0	1726	36	0
11	y	1636	0	1726	71	0
11	z	1636	0	1726	50	0
12	Ca	1185	0	1167	28	0
12	Cb	1185	0	1167	30	0
12	Cc	1185	0	1167	34	0
12	Cd	1185	0	1167	30	0
12	Ce	1185	0	1167	31	0
12	Cf	1185	0	1167	34	0
12	Cg	1185	0	1167	28	0
12	Ch	1185	0	1167	28	0
12	Ci	1185	0	1167	27	0
12	Cj	1185	0	1167	25	0
12	Ck	1185	0	1167	28	0
12	Cl	1185	0	1167	31	0
12	Cm	1185	0	1167	35	0
12	Cn	1185	0	1167	35	0
12	Co	1185	0	1167	30	0
12	Cp	1185	0	1167	30	0
12	Cq	1185	0	1167	26	0
12	Cr	1185	0	1167	26	0
12	Cs	1185	0	1167	29	0
12	Ct	1185	0	1167	33	0
12	Cu	1185	0	1167	35	0
12	Cv	1185	0	1167	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
12	Cw	1185	0	1167	25	0
12	Cx	1185	0	1167	27	0
12	Cy	1185	0	1167	30	0
12	Cz	1185	0	1167	32	0
12	Da	746	0	689	27	0
12	Db	746	0	689	27	0
12	Dc	746	0	689	36	0
12	Dd	746	0	689	17	0
12	De	696	0	669	13	0
12	Df	687	0	664	30	0
12	Dg	637	0	644	11	0
12	Dh	637	0	644	11	0
12	Di	637	0	644	13	0
12	Dj	637	0	644	18	0
12	Dk	637	0	644	14	0
12	Dl	637	0	644	22	0
12	Dm	637	0	644	13	0
12	Dn	637	0	644	17	0
12	Do	687	0	664	16	0
12	Dp	746	0	689	18	0
12	Dq	746	0	689	29	0
12	Dr	746	0	689	17	0
12	Ds	746	0	689	19	0
12	Dt	746	0	689	55	0
12	Du	746	0	689	27	0
12	Dv	746	0	689	30	0
12	Dw	746	0	689	24	0
12	Ea	1185	0	1167	33	0
12	Eb	1185	0	1167	26	0
12	Ec	1185	0	1167	30	0
12	Ed	1185	0	1167	35	0
12	Ee	1185	0	1167	28	0
12	Ef	1185	0	1167	26	0
12	Eg	1185	0	1167	28	0
12	Eh	1185	0	1167	32	0
13	GA	55	0	14	4	0
13	GB	25	0	7	0	0
13	GC	55	0	14	2	0
13	GD	50	0	12	4	0
13	GE	60	0	15	4	0
14	GF	90	0	20	10	0
14	GG	90	0	20	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	GH	90	0	20	10	0
14	GI	75	0	17	7	0
14	GJ	90	0	20	4	0
14	GK	90	0	20	2	0
15	AA	1589	0	1547	23	0
15	AB	1589	0	1547	21	0
15	AC	1589	0	1547	20	0
15	AD	1589	0	1547	20	0
15	AE	1589	0	1547	20	0
15	AF	1589	0	1547	20	0
15	AG	1589	0	1547	19	0
15	AH	1589	0	1547	18	0
15	AI	1589	0	1547	22	0
15	AJ	1589	0	1547	21	0
15	AK	1589	0	1547	19	0
15	AL	1589	0	1547	21	0
15	AM	1589	0	1547	22	0
15	AN	1589	0	1547	21	0
15	AO	1589	0	1547	22	0
15	AP	1589	0	1547	21	0
15	AQ	1589	0	1547	23	0
15	AR	1589	0	1547	23	0
15	AS	1589	0	1547	22	0
15	AT	1589	0	1547	23	0
15	AU	1589	0	1547	26	0
15	AV	1589	0	1547	21	0
15	AW	1589	0	1547	21	0
15	AX	1589	0	1547	21	0
15	AY	1589	0	1547	21	0
15	AZ	1589	0	1547	20	0
16	BA	2228	0	2265	34	0
16	BB	2228	0	2265	27	0
16	BC	2228	0	2265	26	0
16	BD	2228	0	2265	33	0
16	BE	2228	0	2265	29	0
16	BF	2228	0	2265	25	0
16	BG	2228	0	2265	32	0
16	BH	2228	0	2265	25	0
16	BI	2228	0	2265	27	0
16	BJ	2228	0	2265	26	0
16	BK	2228	0	2265	26	0
16	BL	2228	0	2265	25	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	BM	2228	0	2265	24	0
16	BN	2228	0	2265	24	0
16	BO	2228	0	2265	28	0
16	BP	2228	0	2265	28	0
16	BQ	2228	0	2265	29	0
16	BR	2228	0	2265	36	0
16	BS	2228	0	2265	29	0
16	BT	2228	0	2265	29	0
16	BU	2228	0	2265	42	0
16	BV	2228	0	2265	38	0
16	BW	2228	0	2265	32	0
16	BX	2228	0	2265	29	0
16	BY	2228	0	2265	31	0
16	BZ	2228	0	2265	32	0
All	All	335722	0	330174	6782	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 10.

All (6782) 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)
8:DG:382:TYR:CE2	8:DL:395:ILE:HG23	1.39	1.54
8:DC:181:LYS:CD	8:DN:131:GLY:HA3	1.36	1.50
8:DJ:377:VAL:HG22	8:DP:3:PHE:CD2	1.44	1.49
11:y:152:ARG:NH1	12:Dt:164:LEU:HA	1.17	1.45
8:DK:382:TYR:CE2	8:DP:395:ILE:HG23	1.50	1.45
8:DC:181:LYS:CG	8:DN:131:GLY:HA3	1.46	1.44
9:CE:242:HIS:CE1	12:Dl:125:GLN:HB3	1.54	1.41
12:Db:160:PRO:N	12:Db:160:PRO:CA	1.69	1.41
9:CE:242:HIS:CE1	12:Dl:125:GLN:CB	2.05	1.39
4:5:319:GLN:NE2	12:Ed:357:SER:HB2	1.38	1.38
11:y:159:LEU:HD11	12:Du:165:PHE:CB	1.51	1.38
8:DI:22:ASN:ND2	8:DN:49:GLY:HA3	1.31	1.37
8:DJ:382:TYR:CD2	8:DO:395:ILE:HG23	1.62	1.35
8:DJ:382:TYR:CE2	8:DO:395:ILE:CG2	2.12	1.33
8:DK:26:ASN:ND2	8:DP:41:ASP:HB3	1.44	1.31
12:Df:160:PRO:N	12:Df:160:PRO:CA	1.69	1.31
8:DN:146:ALA:HB3	8:DN:189:SER:O	1.21	1.30
9:CE:242:HIS:NE2	12:Dl:125:GLN:HB2	1.44	1.30
8:DM:385:ASN:HA	8:DM:388:THR:CG2	1.60	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DH:382:TYR:CE2	8:DM:395:ILE:HG23	1.67	1.29
8:DB:183:THR:HG22	8:DM:131:GLY:O	1.30	1.28
8:DH:24:ILE:HD11	8:DM:384:SER:CB	1.62	1.27
8:DK:26:ASN:OD1	8:DP:52:VAL:HB	1.28	1.26
8:DA:180:LYS:NZ	8:DL:130:GLN:HB2	1.50	1.26
8:DH:101:LYS:HE3	8:DM:324:GLU:OE2	1.14	1.24
8:DB:181:LYS:O	8:DM:131:GLY:HA3	1.34	1.23
8:DC:181:LYS:CD	8:DN:131:GLY:CA	2.15	1.23
8:DG:373:VAL:HG11	8:DM:10:LEU:CD2	1.66	1.23
8:DA:65:THR:CG2	8:DL:50:LEU:HD11	1.69	1.23
8:DK:161:THR:CG2	8:DQ:192:ASN:ND2	2.02	1.22
11:CF:148:ALA:CB	12:Df:164:LEU:CB	2.17	1.22
8:DH:102:LEU:O	8:DM:322:ASN:HB3	1.36	1.22
8:DG:22:ASN:ND2	8:DL:49:GLY:HA3	1.50	1.21
8:DC:181:LYS:HD3	8:DN:131:GLY:CA	1.70	1.21
8:DL:372:LEU:O	8:DL:376:ILE:HG12	1.36	1.21
8:DG:373:VAL:CG1	8:DM:10:LEU:HD21	1.72	1.19
8:DJ:382:TYR:CE2	8:DO:395:ILE:HG23	1.70	1.18
11:y:152:ARG:NH1	12:Dt:164:LEU:CA	2.07	1.18
8:DK:161:THR:CG2	8:DQ:192:ASN:CG	2.17	1.17
8:DF:276:ILE:HG13	8:DQ:131:GLY:HA2	1.26	1.17
8:DB:180:LYS:HZ3	8:DM:130:GLN:HB2	1.05	1.15
8:DH:271:THR:HB	8:DN:143:LEU:HD12	1.26	1.15
8:DM:385:ASN:O	8:DM:388:THR:HG23	1.45	1.15
8:DG:382:TYR:CE2	8:DL:395:ILE:CG2	2.28	1.14
8:DJ:377:VAL:CG2	8:DP:3:PHE:HD2	1.60	1.14
8:DD:183:THR:HG21	8:DO:132:ALA:HA	1.28	1.14
8:DG:24:ILE:HD11	8:DL:384:SER:OG	1.45	1.14
8:DG:103:ASP:C	8:DL:322:ASN:HB2	1.73	1.13
11:z:144:GLU:HB2	12:Dc:165:PHE:HA	1.28	1.13
8:DG:106:ARG:HG3	8:DL:321:ALA:HB1	1.20	1.13
8:DC:181:LYS:HG2	8:DN:131:GLY:HA3	1.24	1.12
8:DH:106:ARG:HH11	8:DM:321:ALA:CA	1.62	1.12
8:DH:101:LYS:CE	8:DM:324:GLU:HG3	1.78	1.12
8:DI:22:ASN:ND2	8:DN:49:GLY:CA	2.12	1.11
8:DJ:382:TYR:CD2	8:DO:395:ILE:CG2	2.29	1.11
8:DU:396:LEU:O	8:DU:400:VAL:HG13	1.50	1.11
8:DL:46:SER:OG	8:DL:48:VAL:HG23	1.47	1.11
9:CE:242:HIS:NE2	12:Dl:125:GLN:CB	2.08	1.11
8:DH:331:ASP:HB2	8:DM:40:ALA:CB	1.80	1.10
8:DI:157:ASN:OD1	8:DO:143:LEU:HD11	1.47	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CF:148:ALA:HB2	12:Df:164:LEU:CB	1.78	1.10
8:DE:181:LYS:NZ	8:DP:129:GLN:HE22	1.48	1.10
8:DK:25:ALA:O	8:DP:52:VAL:HG11	1.50	1.10
8:DK:104:GLU:HB2	8:DP:341:GLY:HA2	1.34	1.10
8:DU:395:ILE:CD1	8:DU:399:LEU:HD23	1.81	1.10
8:DB:180:LYS:HZ1	8:DM:130:GLN:C	1.58	1.10
8:DJ:205:ASP:OD2	8:DP:252:ASN:HA	1.51	1.10
8:DG:32:PHE:CD1	8:DL:41:ASP:OD2	2.06	1.09
8:DH:101:LYS:HE2	8:DM:324:GLU:HG3	1.16	1.09
8:DH:101:LYS:HE3	8:DM:324:GLU:CD	1.78	1.09
11:CF:160:GLN:HG2	12:Df:167:ARG:HA	1.29	1.08
8:DH:106:ARG:NH1	8:DM:321:ALA:HA	1.66	1.08
8:DT:44:ALA:H	8:DT:50:LEU:HD11	1.07	1.08
8:DF:276:ILE:CG1	8:DQ:131:GLY:HA2	1.84	1.08
8:DN:2:SER:HA	8:DN:392:GLN:OE1	1.52	1.08
8:DH:24:ILE:HD11	8:DM:384:SER:HB2	1.24	1.07
8:DH:331:ASP:HB2	8:DM:40:ALA:HB1	1.23	1.07
8:DJ:57:ILE:HD13	8:DO:47:LYS:HB3	1.32	1.07
8:DN:146:ALA:CB	8:DN:189:SER:O	2.04	1.06
8:DT:44:ALA:N	8:DT:50:LEU:HD11	1.71	1.06
8:DK:26:ASN:ND2	8:DP:41:ASP:CB	2.18	1.06
1:T:208:LEU:HD23	16:BU:78:ASN:HD22	1.10	1.06
8:DK:382:TYR:CE2	8:DP:395:ILE:CG2	2.39	1.06
14:GH:8:UNK:CB	12:Ct:372:ILE:HG21	1.86	1.06
8:DN:39:PHE:HB3	8:DN:54:VAL:HG13	1.38	1.06
8:DC:181:LYS:CG	8:DN:131:GLY:CA	2.33	1.05
14:GH:15:UNK:CB	12:Cs:372:ILE:HG21	1.85	1.05
8:DC:181:LYS:HD3	8:DN:131:GLY:N	1.68	1.05
8:DA:180:LYS:HZ1	8:DL:130:GLN:HB2	0.98	1.05
8:DH:106:ARG:HH11	8:DM:321:ALA:HA	0.90	1.04
8:DI:68:ASN:ND2	8:DT:53:LYS:HG3	1.71	1.04
8:DH:24:ILE:HD11	8:DM:384:SER:OG	1.54	1.04
4:5:319:GLN:NE2	12:Ed:357:SER:CB	2.21	1.03
8:DH:106:ARG:CD	8:DM:321:ALA:HB1	1.88	1.03
8:DH:331:ASP:CB	8:DM:40:ALA:HB1	1.88	1.03
8:DB:180:LYS:NZ	8:DM:130:GLN:HB2	1.74	1.02
8:DI:22:ASN:HD22	8:DN:49:GLY:HA3	1.21	1.02
8:DB:180:LYS:HZ3	8:DM:130:GLN:CB	1.70	1.02
8:DC:181:LYS:HE2	8:DN:131:GLY:C	1.85	1.02
8:DI:65:THR:HG23	8:DT:50:LEU:HD22	1.41	1.02
8:DJ:377:VAL:HG22	8:DP:3:PHE:CE2	1.95	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DK:161:THR:HG23	8:DQ:192:ASN:CG	1.82	1.02
8:DJ:377:VAL:CG2	8:DP:3:PHE:CD2	2.38	1.01
8:DC:181:LYS:HG2	8:DN:131:GLY:CA	1.90	1.01
8:DH:106:ARG:HD2	8:DM:321:ALA:HB1	1.43	1.01
8:DA:180:LYS:HZ1	8:DL:130:GLN:CB	1.72	1.01
8:DB:180:LYS:NZ	8:DM:130:GLN:C	2.19	1.01
8:DI:24:ILE:HD11	8:DN:384:SER:HB3	1.41	1.01
8:DC:183:THR:CG2	8:DN:131:GLY:O	2.09	1.01
12:Db:124:SER:CB	12:Db:127:SER:HB3	1.90	1.01
12:Di:156:HIS:CE1	12:Dj:143:THR:HG21	1.96	1.01
8:DN:10:LEU:HD23	8:DN:385:ASN:HB2	1.43	1.01
8:DU:395:ILE:HD11	8:DU:399:LEU:HD23	1.40	1.00
8:DH:101:LYS:CE	8:DM:324:GLU:OE2	2.09	1.00
8:DM:16:ASN:ND2	8:DM:39:PHE:HZ	1.59	1.00
8:DK:26:ASN:HD21	8:DP:41:ASP:CB	1.75	1.00
8:DG:106:ARG:HG3	8:DL:321:ALA:CB	1.92	0.99
8:DK:102:LEU:O	8:DP:322:ASN:CB	2.11	0.99
8:DM:133:ASN:OD1	8:DM:134:PRO:HD2	1.60	0.99
12:Dv:133:GLN:HG3	12:Dv:159:MET:HE2	1.46	0.98
8:DP:387:GLN:O	8:DP:391:THR:HG23	1.64	0.98
8:DH:22:ASN:ND2	8:DM:49:GLY:HA3	1.78	0.98
8:DM:385:ASN:CA	8:DM:388:THR:CG2	2.40	0.98
8:DK:161:THR:HG22	8:DQ:192:ASN:ND2	1.74	0.98
8:DF:276:ILE:HG13	8:DQ:131:GLY:CA	1.94	0.98
8:DM:16:ASN:ND2	8:DM:39:PHE:CZ	2.31	0.98
8:DG:106:ARG:CG	8:DL:321:ALA:HB1	1.93	0.97
9:CE:242:HIS:HE1	12:Di:125:GLN:HB3	1.28	0.97
8:DO:3:PHE:CD1	8:DO:389:ILE:HD11	1.99	0.97
8:DO:188:ASP:OD2	8:DO:254:ALA:HB1	1.65	0.97
8:DG:382:TYR:HE2	8:DL:395:ILE:CG2	1.71	0.96
12:Dj:156:HIS:CE1	12:Dk:143:THR:HG21	2.00	0.96
8:DN:39:PHE:CB	8:DN:54:VAL:HA	1.95	0.96
8:DK:102:LEU:O	8:DP:322:ASN:HA	1.65	0.96
14:GI:7:UNK:CB	12:Cn:372:ILE:HG21	1.95	0.96
8:DG:373:VAL:HG11	8:DM:10:LEU:HD21	0.96	0.96
8:DK:161:THR:HG23	8:DQ:192:ASN:ND2	1.77	0.96
11:y:152:ARG:HH12	12:Dt:164:LEU:CA	1.69	0.96
8:DG:106:ARG:HE	8:DL:321:ALA:HA	1.32	0.94
8:DN:44:ALA:HB2	8:DN:50:LEU:HD23	1.46	0.94
8:DO:3:PHE:HD1	8:DO:389:ILE:HD11	1.32	0.94
8:DD:181:LYS:HG2	8:DO:129:GLN:HG3	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DB:180:LYS:NZ	8:DM:130:GLN:CB	2.31	0.94
8:DC:181:LYS:CE	8:DN:131:GLY:HA3	1.97	0.94
8:DM:385:ASN:HA	8:DM:388:THR:HG22	1.48	0.93
1:X:168:VAL:HB	16:BN:54:GLN:OE1	1.69	0.93
8:DK:104:GLU:CB	8:DP:341:GLY:HA2	1.99	0.93
8:DM:380:ARG:HB3	8:DS:396:LEU:CD1	1.98	0.93
8:DH:102:LEU:O	8:DM:322:ASN:CB	2.16	0.93
8:DA:68:ASN:OD1	8:DL:53:LYS:HE3	1.68	0.93
12:Dt:171:SER:HB3	12:Dt:172:PRO:CD	1.98	0.93
8:DK:183:THR:HB	8:DV:131:GLY:CA	1.98	0.93
1:T:208:LEU:CD2	16:BU:78:ASN:HD22	1.81	0.92
12:Dt:159:MET:SD	12:Dt:159:MET:N	2.41	0.92
1:V:209:ASN:HD21	16:BD:82:LYS:NZ	1.68	0.92
1:T:208:LEU:HD23	16:BU:78:ASN:ND2	1.83	0.92
8:DH:372:LEU:HD13	8:DS:399:LEU:HD12	1.52	0.92
8:DG:330:GLY:O	8:DL:42:MET:HA	1.69	0.92
8:DJ:350:SER:HB2	8:DP:89:ASN:CB	2.00	0.92
11:y:159:LEU:CD1	12:Du:165:PHE:CB	2.46	0.92
8:DJ:382:TYR:CE2	8:DO:395:ILE:HG22	2.04	0.92
12:Ca:414:ASP:OD2	12:Eh:431:ASN:ND2	2.03	0.92
8:DD:183:THR:HG22	8:DO:131:GLY:C	1.93	0.92
8:DH:382:TYR:CE2	8:DM:395:ILE:CG2	2.52	0.92
12:Df:172:PRO:HG3	12:Df:204:GLY:O	1.70	0.92
8:DJ:271:THR:OG1	8:DP:286:PRO:HB2	1.69	0.91
8:DJ:373:VAL:HG11	8:DP:10:LEU:HD23	1.51	0.91
8:DN:10:LEU:CD2	8:DN:385:ASN:HB2	1.99	0.91
8:DM:385:ASN:HA	8:DM:388:THR:HG21	1.52	0.91
8:DN:383:GLN:HG2	8:DT:400:VAL:HG11	1.51	0.91
12:Di:156:HIS:NE2	12:Dj:143:THR:HG21	1.85	0.91
8:DK:382:TYR:HE2	8:DP:395:ILE:HG23	1.33	0.91
1:T:208:LEU:CD2	16:BU:78:ASN:ND2	2.33	0.91
8:DA:65:THR:HG21	8:DL:50:LEU:HD11	1.50	0.91
8:DN:5:GLN:H	8:DN:5:GLN:HE21	1.18	0.90
8:DK:26:ASN:HD22	8:DP:41:ASP:HB3	1.12	0.90
8:DN:146:ALA:HB3	8:DN:189:SER:C	1.96	0.90
12:Cn:431:ASN:ND2	12:Co:414:ASP:OD2	2.05	0.90
11:z:160:GLN:HB3	12:Db:167:ARG:CB	2.02	0.90
8:DA:65:THR:HG22	8:DL:50:LEU:HD11	1.53	0.90
8:DH:101:LYS:CE	8:DM:324:GLU:CG	2.49	0.90
8:DB:183:THR:HG21	8:DM:133:ASN:N	1.87	0.90
12:Eg:431:ASN:ND2	12:Eh:414:ASP:OD2	2.04	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DG:22:ASN:CG	8:DL:49:GLY:HA3	1.97	0.89
8:DK:102:LEU:O	8:DP:322:ASN:CA	2.20	0.89
8:DM:16:ASN:HD21	8:DM:39:PHE:HZ	0.89	0.89
8:DC:181:LYS:HD3	8:DN:131:GLY:H	1.33	0.89
8:DD:183:THR:HG21	8:DO:132:ALA:CA	2.01	0.89
8:DK:22:ASN:ND2	8:DP:49:GLY:HA3	1.87	0.89
8:DN:19:VAL:HG21	8:DN:37:ALA:HB2	1.54	0.89
8:DD:183:THR:CG2	8:DO:132:ALA:HA	2.02	0.89
8:DK:183:THR:HB	8:DV:131:GLY:HA3	1.55	0.89
9:CE:242:HIS:CE1	12:DI:125:GLN:CG	2.55	0.89
8:DM:322:ASN:OD1	8:DM:340:SER:HA	1.71	0.89
4:5:319:GLN:HE21	12:Ed:357:SER:HB2	1.08	0.88
4:5:319:GLN:HE22	12:Ed:357:SER:HB2	1.37	0.88
8:DI:25:ALA:O	8:DN:52:VAL:CG2	2.19	0.88
8:DI:65:THR:HG23	8:DT:50:LEU:CD2	2.02	0.88
8:DJ:271:THR:OG1	8:DP:286:PRO:CB	2.21	0.88
14:GH:15:UNK:CB	12:Cs:372:ILE:HD13	2.03	0.88
8:DJ:390:LYS:HB2	8:DO:402:LEU:CD1	2.03	0.88
12:Eb:431:ASN:ND2	12:Ed:414:ASP:OD2	2.06	0.88
8:DN:10:LEU:HD22	8:DN:382:TYR:CE1	2.09	0.88
8:DO:392:GLN:NE2	8:DO:392:GLN:O	2.06	0.88
11:z:144:GLU:HB2	12:Dc:165:PHE:CA	2.02	0.88
8:DJ:350:SER:HB3	8:DP:89:ASN:HA	1.53	0.88
8:DM:380:ARG:HB3	8:DS:396:LEU:HD12	1.55	0.88
12:Da:171:SER:HB2	12:Da:172:PRO:HD3	1.53	0.88
8:DK:183:THR:HB	8:DV:131:GLY:C	1.98	0.87
1:K:59:GLN:O	1:K:59:GLN:NE2	2.07	0.87
1:U:141:THR:HB	16:BA:80:GLN:OE1	1.74	0.87
8:DH:270:ASN:HB3	8:DN:190:GLN:O	1.74	0.87
8:DS:379:GLN:HE22	8:DX:391:THR:HB	1.39	0.87
8:DG:101:LYS:HZ1	8:DL:325:GLY:CA	1.88	0.87
12:Cq:431:ASN:ND2	12:Cr:414:ASP:OD2	2.06	0.87
8:DT:167:LYS:HG2	8:DT:169:PRO:HD2	1.57	0.87
12:Ef:431:ASN:ND2	12:Eg:414:ASP:OD2	2.08	0.86
8:DI:270:ASN:N	8:DO:286:PRO:HG3	1.90	0.86
8:DO:380:ARG:HB3	8:DU:396:LEU:HD23	1.56	0.86
8:DI:330:GLY:O	8:DN:43:PHE:HB2	1.74	0.86
12:Cs:431:ASN:ND2	12:Ct:414:ASP:OD2	2.07	0.86
8:DB:181:LYS:O	8:DM:131:GLY:CA	2.23	0.86
8:DL:372:LEU:O	8:DL:376:ILE:CG1	2.22	0.86
12:Da:115:LEU:CB	12:Da:131:ASN:O	2.23	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cc:431:ASN:ND2	12:Cd:414:ASP:OD2	2.08	0.86
8:DI:26:ASN:HA	8:DN:52:VAL:HG22	1.58	0.85
8:DH:24:ILE:CD1	8:DM:384:SER:HB2	2.05	0.85
8:DL:5:GLN:OE1	8:DL:5:GLN:N	2.08	0.85
8:DJ:271:THR:OG1	8:DP:286:PRO:CG	2.24	0.85
1:V:141:THR:HG21	16:BE:54:GLN:CD	2.01	0.85
8:DI:157:ASN:OD1	8:DO:143:LEU:CD1	2.23	0.85
8:DK:161:THR:HG21	8:DQ:192:ASN:CG	2.00	0.85
8:DI:25:ALA:O	8:DN:52:VAL:HG21	1.74	0.85
8:DU:395:ILE:HD13	8:DU:399:LEU:HD23	1.56	0.85
8:DM:385:ASN:C	8:DM:388:THR:HG23	2.01	0.85
14:GF:16:UNK:CB	12:Ee:372:ILE:HG21	2.05	0.85
8:DM:384:SER:O	8:DM:388:THR:HG22	1.77	0.85
1:C:256:LYS:HD3	1:G:241:GLU:HG2	1.59	0.84
1:Q:200:ALA:HB1	16:BG:80:GLN:OE1	1.75	0.84
8:DB:183:THR:CG2	8:DM:131:GLY:O	2.21	0.84
8:DO:387:GLN:N	8:DO:387:GLN:HE21	1.75	0.84
8:DK:380:ARG:NH2	8:DQ:393:ASP:OD1	2.11	0.84
12:Cf:431:ASN:ND2	12:Cg:414:ASP:OD2	2.09	0.84
12:Dt:159:MET:HE2	12:Dt:159:MET:O	1.77	0.84
8:DG:101:LYS:HZ1	8:DL:325:GLY:HA3	1.41	0.84
8:EG:380:ARG:HE	8:EG:383:GLN:HE22	1.23	0.84
8:DI:269:GLN:HB3	8:DO:286:PRO:HB3	1.57	0.84
8:DK:327:ALA:CB	8:DP:47:LYS:HZ1	1.90	0.84
8:DN:5:GLN:HE21	8:DN:5:GLN:N	1.74	0.83
8:DN:42:MET:SD	8:DN:53:LYS:NZ	2.50	0.83
8:DU:395:ILE:HD11	8:DU:399:LEU:CD2	2.08	0.83
1:U:141:THR:CB	16:BA:80:GLN:OE1	2.26	0.83
8:DH:106:ARG:HD3	8:DM:321:ALA:CB	2.08	0.83
12:Df:172:PRO:HG2	12:Df:205:LEU:HA	1.60	0.83
12:Cz:431:ASN:ND2	12:Ea:414:ASP:OD2	2.11	0.83
8:DZ:248:THR:HG22	8:DZ:257:ALA:H	1.44	0.83
14:GF:17:UNK:O	12:Ed:374:HIS:CE1	2.31	0.83
8:DL:46:SER:OG	8:DL:48:VAL:CG2	2.25	0.83
8:DL:146:ALA:HB2	8:DL:286:PRO:HD3	1.61	0.83
8:DN:402:LEU:HD12	8:DN:402:LEU:O	1.77	0.83
8:DT:43:PHE:HA	8:DT:50:LEU:HD12	1.57	0.83
8:DO:20:ILE:HG23	8:DO:371:GLU:CD	2.03	0.82
12:Cm:431:ASN:ND2	12:Cn:414:ASP:OD2	2.12	0.82
8:DG:199:TYR:HB2	8:DG:211:TYR:HB2	1.61	0.82
12:Ck:431:ASN:ND2	12:Cl:414:ASP:OD2	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:8:319:GLN:HB3	12:Cc:303:GLN:OE1	1.78	0.82
8:DG:103:ASP:O	8:DL:322:ASN:HB2	1.80	0.82
11:CF:148:ALA:HB1	12:Df:164:LEU:CB	2.08	0.82
8:DN:13:ALA:O	8:DN:17:LEU:HG	1.79	0.82
8:DM:160:SER:HA	8:DM:268:GLN:HE21	1.44	0.82
8:DC:181:LYS:CE	8:DN:131:GLY:C	2.52	0.82
8:DI:270:ASN:H	8:DO:286:PRO:HG3	1.44	0.82
12:Da:171:SER:HB2	12:Da:172:PRO:CD	2.09	0.82
14:GI:14:UNK:CB	12:Cm:372:ILE:HG21	2.09	0.82
12:Cw:431:ASN:ND2	12:Cx:414:ASP:OD2	2.12	0.82
8:DW:106:ARG:NH1	8:DW:139:ILE:O	2.12	0.82
8:DJ:65:THR:HB	8:DU:50:LEU:HD13	1.60	0.82
12:Cu:431:ASN:ND2	12:Cv:414:ASP:OD2	2.12	0.82
8:DL:380:ARG:HH12	8:DR:397:ASN:HB2	1.44	0.82
8:DO:6:ALA:HB1	8:DO:388:THR:HG23	1.62	0.82
8:DA:65:THR:CG2	8:DL:50:LEU:CD1	2.57	0.82
12:Dj:156:HIS:NE2	12:Dk:143:THR:HG21	1.93	0.82
8:DK:382:TYR:CD2	8:DP:395:ILE:HG23	2.15	0.81
8:DO:7:VAL:O	8:DO:10:LEU:HB2	1.80	0.81
1:B:98:LYS:O	1:B:212:GLY:HA3	1.80	0.81
8:DG:102:LEU:HB3	8:DL:321:ALA:O	1.79	0.81
12:Cl:431:ASN:ND2	12:Cm:414:ASP:OD2	2.13	0.81
1:V:136:VAL:HG12	1:V:138:PRO:HD2	1.62	0.81
14:GF:17:UNK:CB	12:Ed:276:GLU:OE1	2.28	0.81
8:DO:180:LYS:HB2	8:DO:274:ASN:HD22	1.44	0.81
8:DG:373:VAL:HG21	8:DM:10:LEU:CD2	2.10	0.81
8:DP:386:ALA:HA	8:DP:389:ILE:HG22	1.63	0.81
1:K:136:VAL:HG12	1:K:138:PRO:HD2	1.63	0.81
1:P:136:VAL:HG12	1:P:138:PRO:HD2	1.63	0.81
8:DJ:205:ASP:CG	8:DP:252:ASN:HA	2.04	0.81
8:DW:285:LYS:O	8:DW:306:ASN:ND2	2.13	0.81
1:S:136:VAL:HG12	1:S:138:PRO:HD2	1.63	0.81
12:Ch:431:ASN:ND2	12:Ci:414:ASP:OD2	2.14	0.81
12:Cj:431:ASN:ND2	12:Ck:414:ASP:OD2	2.14	0.81
1:A:98:LYS:O	1:A:212:GLY:HA3	1.80	0.81
1:M:45:LEU:HB3	1:X:98:LYS:HE3	1.63	0.80
8:DH:26:ASN:OD1	8:DM:52:VAL:HB	1.81	0.80
8:DJ:350:SER:CB	8:DP:89:ASN:CB	2.59	0.80
8:DM:61:PHE:CE2	8:DM:324:GLU:HA	2.16	0.80
8:DI:181:LYS:O	8:DT:131:GLY:HA3	1.80	0.80
12:Ce:431:ASN:ND2	12:Cf:414:ASP:OD2	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cx:431:ASN:ND2	12:Cy:414:ASP:OD2	2.14	0.80
8:DL:41:ASP:OD1	8:DL:41:ASP:N	2.14	0.80
8:DM:270:ASN:ND2	8:DS:192:ASN:OD1	2.13	0.80
8:DA:357:THR:HG21	8:DL:53:LYS:NZ	1.97	0.80
12:Ci:431:ASN:ND2	12:Cj:414:ASP:OD2	2.15	0.80
12:Ed:431:ASN:ND2	12:Ee:414:ASP:OD2	2.15	0.80
8:DL:380:ARG:NH1	8:DR:397:ASN:HB2	1.97	0.80
12:Dr:134:ARG:NH1	12:Ds:116:LEU:CB	2.44	0.80
8:DJ:18:ASP:OD1	8:DO:2:SER:N	2.15	0.80
12:Ea:431:ASN:ND2	12:Ec:414:ASP:OD2	2.15	0.80
12:Eb:414:ASP:OD2	12:Ec:431:ASN:ND2	2.15	0.80
8:DJ:57:ILE:HD13	8:DO:47:LYS:CB	2.10	0.80
8:DI:65:THR:HA	8:DT:50:LEU:HD22	1.64	0.79
8:DF:180:LYS:NZ	8:DQ:131:GLY:H	1.80	0.79
12:Dd:125:GLN:O	12:Dd:125:GLN:NE2	2.15	0.79
8:DP:382:TYR:OH	8:DU:399:LEU:HD21	1.82	0.79
8:DH:104:GLU:HB3	8:DM:339:ALA:HA	1.63	0.79
8:DL:46:SER:HG	8:DL:48:VAL:HG23	1.47	0.79
8:DN:17:LEU:HD23	8:DN:378:ALA:HB1	1.63	0.79
14:GJ:2:UNK:CB	12:Ce:372:ILE:HD12	2.13	0.79
8:DY:10:LEU:HD12	8:DY:382:TYR:HE1	1.48	0.79
8:DF:373:VAL:HG11	8:DL:10:LEU:HD13	1.65	0.79
8:DI:65:THR:CG2	8:DT:50:LEU:HD22	2.13	0.79
8:DN:39:PHE:HB3	8:DN:54:VAL:CG1	2.12	0.79
8:DF:33:LYS:HA	8:DF:365:ASN:HD21	1.48	0.79
8:DC:183:THR:HG21	8:DN:131:GLY:O	1.83	0.79
8:DH:101:LYS:CE	8:DM:324:GLU:CD	2.55	0.79
1:I:59:GLN:HE22	16:BR:51:GLN:HG2	1.48	0.78
1:V:185:GLU:HG3	1:V:193:ILE:HG13	1.66	0.78
8:DE:181:LYS:HZ3	8:DP:129:GLN:HE22	1.28	0.78
11:w:142:THR:O	12:Dr:165:PHE:CB	2.31	0.78
12:Cb:431:ASN:ND2	12:Cc:414:ASP:OD2	2.15	0.78
8:DG:101:LYS:NZ	8:DL:324:GLU:O	2.15	0.78
8:DI:269:GLN:CB	8:DO:286:PRO:HB3	2.14	0.78
8:DU:392:GLN:O	8:DU:395:ILE:HG23	1.84	0.78
8:DH:370:LYS:HZ1	8:DN:11:ASN:HD21	1.31	0.78
8:DH:382:TYR:HE2	8:DM:395:ILE:HG23	1.46	0.78
11:y:152:ARG:CZ	12:Dt:165:PHE:H	1.96	0.78
8:DN:43:PHE:HE1	8:DN:47:LYS:HA	1.48	0.78
8:DG:22:ASN:ND2	8:DL:49:GLY:CA	2.42	0.78
8:DH:106:ARG:CD	8:DM:321:ALA:CB	2.62	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CF:148:ALA:CA	12:Df:164:LEU:CB	2.61	0.78
8:DH:382:TYR:CD2	8:DM:395:ILE:HG23	2.18	0.78
12:Cv:431:ASN:ND2	12:Cw:414:ASP:OD2	2.16	0.78
8:EG:281:GLN:HG2	8:EG:283:GLY:H	1.47	0.78
15:AT:70:ARG:NH2	16:BV:72:THR:OG1	2.16	0.78
8:DH:106:ARG:HD3	8:DM:321:ALA:HB1	1.66	0.78
8:DJ:350:SER:HB2	8:DP:89:ASN:HB2	1.65	0.78
8:DT:44:ALA:N	8:DT:50:LEU:CD1	2.46	0.78
8:DI:269:GLN:HB3	8:DO:286:PRO:CB	2.14	0.78
12:Dq:158:ALA:HB2	12:Dr:200:SER:O	1.84	0.78
8:DQ:250:THR:HA	8:DQ:254:ALA:HB3	1.63	0.77
8:EC:248:THR:HG22	8:EC:257:ALA:H	1.49	0.77
12:Cd:431:ASN:ND2	12:Ce:414:ASP:OD2	2.17	0.77
8:DL:374:ASN:O	8:DL:378:ALA:N	2.17	0.77
8:DO:288:ASP:OD1	8:DO:289:LEU:N	2.17	0.77
8:DS:106:ARG:HE	8:DS:141:ASN:HB2	1.48	0.77
8:DH:24:ILE:CD1	8:DM:384:SER:OG	2.32	0.77
11:z:144:GLU:CB	12:Dc:165:PHE:HA	2.12	0.77
12:Cs:389:VAL:HB	12:Cs:432:VAL:HG12	1.67	0.77
12:Cv:389:VAL:HB	12:Cv:432:VAL:HG12	1.67	0.77
8:DK:380:ARG:NE	8:DQ:393:ASP:OD1	2.18	0.77
11:y:152:ARG:NH1	12:Dt:165:PHE:H	1.83	0.77
12:Ea:389:VAL:HB	12:Ea:432:VAL:HG12	1.67	0.77
12:Cx:389:VAL:HB	12:Cx:432:VAL:HG12	1.67	0.77
8:DQ:102:LEU:O	8:DV:322:ASN:ND2	2.16	0.77
8:DT:43:PHE:CA	8:DT:50:LEU:HD12	2.14	0.77
8:DF:180:LYS:HZ2	8:DQ:131:GLY:H	1.30	0.77
8:DH:22:ASN:HD21	8:DM:49:GLY:HA3	1.49	0.77
8:DK:17:LEU:CD2	8:DP:395:ILE:CD1	2.63	0.77
8:DK:106:ARG:CD	8:DP:321:ALA:HB1	2.14	0.77
12:Cp:389:VAL:HB	12:Cp:432:VAL:HG12	1.67	0.77
8:DL:374:ASN:HA	8:DL:377:VAL:HB	1.64	0.77
1:M:136:VAL:HG12	1:M:138:PRO:HD2	1.67	0.77
12:Cn:389:VAL:HB	12:Cn:432:VAL:HG12	1.67	0.77
12:Cq:389:VAL:HB	12:Cq:432:VAL:HG12	1.67	0.77
12:Ed:389:VAL:HB	12:Ed:432:VAL:HG12	1.67	0.77
8:DQ:394:GLN:O	8:DQ:398:THR:HG23	1.85	0.77
12:Cy:389:VAL:HB	12:Cy:432:VAL:HG12	1.67	0.76
8:DL:402:LEU:C	8:DL:402:LEU:HD12	2.10	0.76
8:DM:338:GLN:OE1	8:DM:338:GLN:N	2.18	0.76
8:DP:386:ALA:HA	8:DP:389:ILE:CG2	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DY:10:LEU:HD12	8:DY:382:TYR:CE1	2.19	0.76
1:I:59:GLN:NE2	16:BR:51:GLN:HG2	2.00	0.76
13:GE:10:UNK:CB	12:Eh:365:ASN:CG	2.58	0.76
8:DA:65:THR:HG22	8:DL:50:LEU:CD1	2.13	0.76
8:DA:68:ASN:HD21	8:DL:53:LYS:HG3	1.49	0.76
8:DD:183:THR:HG22	8:DO:132:ALA:N	2.00	0.76
12:Cr:431:ASN:ND2	12:Cs:414:ASP:OD2	2.18	0.76
1:O:1:MET:SD	2:c:70:GLN:NE2	2.58	0.76
12:Ck:389:VAL:HB	12:Ck:432:VAL:HG12	1.67	0.76
12:Eg:389:VAL:HB	12:Eg:432:VAL:HG12	1.67	0.76
12:Eb:389:VAL:HB	12:Eb:432:VAL:HG12	1.67	0.76
1:N:136:VAL:HG12	1:N:138:PRO:HD2	1.66	0.76
8:DA:276:ILE:HD12	8:DL:131:GLY:O	1.86	0.76
8:DJ:181:LYS:NZ	8:DU:129:GLN:HA	2.00	0.76
12:Df:171:SER:HB2	12:Df:172:PRO:HD2	1.68	0.76
12:Ch:389:VAL:HB	12:Ch:432:VAL:HG12	1.67	0.76
12:Ct:389:VAL:HB	12:Ct:432:VAL:HG12	1.67	0.76
12:Ct:431:ASN:ND2	12:Cu:414:ASP:OD2	2.18	0.76
12:Cu:389:VAL:HB	12:Cu:432:VAL:HG12	1.67	0.76
8:DJ:377:VAL:HA	8:DP:3:PHE:HE2	1.51	0.76
12:Cm:389:VAL:HB	12:Cm:432:VAL:HG12	1.67	0.76
12:Ee:431:ASN:ND2	12:Ef:414:ASP:OD2	2.19	0.76
12:Ef:389:VAL:HB	12:Ef:432:VAL:HG12	1.67	0.76
8:DN:39:PHE:HB3	8:DN:54:VAL:HA	1.66	0.76
1:T:136:VAL:HG12	1:T:138:PRO:HD2	1.67	0.76
12:Cb:389:VAL:HB	12:Cb:432:VAL:HG12	1.67	0.76
12:Ec:389:VAL:HB	12:Ec:432:VAL:HG12	1.67	0.76
12:Ce:389:VAL:HB	12:Ce:432:VAL:HG12	1.67	0.76
16:BA:23:ARG:NH1	16:BZ:250:ASP:OD1	2.18	0.76
8:DJ:350:SER:CB	8:DP:89:ASN:HB3	2.15	0.76
12:Co:431:ASN:ND2	12:Cp:414:ASP:OD2	2.19	0.76
12:Cj:389:VAL:HB	12:Cj:432:VAL:HG12	1.67	0.75
12:Cz:389:VAL:HB	12:Cz:432:VAL:HG12	1.67	0.75
14:GI:7:UNK:CB	12:Cn:372:ILE:CG2	2.64	0.75
12:Cy:431:ASN:ND2	12:Cz:414:ASP:OD2	2.18	0.75
12:Cr:389:VAL:HB	12:Cr:432:VAL:HG12	1.67	0.75
8:DQ:402:LEU:C	8:DQ:402:LEU:HD12	2.11	0.75
8:DS:10:LEU:HD12	8:DS:382:TYR:CE1	2.22	0.75
8:DG:101:LYS:HZ2	8:DL:324:GLU:C	1.93	0.75
12:Dd:124:SER:C	12:Dd:126:PHE:H	1.94	0.75
12:Ca:389:VAL:HB	12:Ca:432:VAL:HG12	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DM:385:ASN:CA	8:DM:388:THR:HG22	2.12	0.75
8:DJ:95:SER:HB3	8:DJ:333:VAL:HG23	1.69	0.75
8:DJ:350:SER:CB	8:DP:89:ASN:HA	2.16	0.75
12:Cd:389:VAL:HB	12:Cd:432:VAL:HG12	1.67	0.75
12:Cg:389:VAL:HB	12:Cg:432:VAL:HG12	1.67	0.75
8:DL:37:ALA:HB1	8:DL:54:VAL:CG2	2.16	0.75
5:g:34:VAL:HG13	5:g:35:THR:HG22	1.69	0.75
8:DK:106:ARG:HD3	8:DP:321:ALA:CB	2.16	0.75
12:Da:171:SER:CB	12:Da:172:PRO:CD	2.63	0.75
12:Cg:431:ASN:ND2	12:Ch:414:ASP:OD2	2.20	0.75
8:EB:172:VAL:HG22	8:EB:223:PRO:HD2	1.69	0.75
8:ED:319:ASN:ND2	8:ED:352:ASN:O	2.19	0.75
1:U:125:ASN:HD22	16:BA:54:GLN:NE2	1.83	0.75
1:W:169:GLN:O	16:BJ:80:GLN:OE1	2.04	0.75
8:DH:101:LYS:HE3	8:DM:324:GLU:CG	2.15	0.75
12:Dw:172:PRO:HG2	12:Dw:205:LEU:HA	1.69	0.75
8:DA:106:ARG:HD3	8:DF:321:ALA:HB1	1.66	0.75
8:DG:104:GLU:HA	8:DL:341:GLY:HA2	1.69	0.75
9:CE:29:THR:HG21	9:CE:82:ILE:HA	1.66	0.75
12:Cw:389:VAL:HB	12:Cw:432:VAL:HG12	1.67	0.75
8:DQ:267:MET:HE3	8:DQ:269:GLN:HB2	1.69	0.75
8:EF:322:ASN:ND2	8:EF:339:ALA:O	2.20	0.75
1:J:136:VAL:HG12	1:J:138:PRO:HD2	1.69	0.75
13:GD:9:UNK:HA	12:Cf:363:THR:HG21	1.68	0.75
12:Co:389:VAL:HB	12:Co:432:VAL:HG12	1.67	0.75
12:Ee:389:VAL:HB	12:Ee:432:VAL:HG12	1.67	0.75
8:DL:71:ARG:HH22	8:DL:99:GLN:HE21	1.34	0.75
8:DI:65:THR:HG23	8:DT:50:LEU:HB3	1.68	0.74
8:DK:26:ASN:HD21	8:DP:41:ASP:CA	1.99	0.74
13:GE:11:UNK:O	13:GE:12:UNK:C	2.35	0.74
12:Cl:389:VAL:HB	12:Cl:432:VAL:HG12	1.67	0.74
1:M:98:LYS:O	1:M:212:GLY:HA3	1.87	0.74
8:DI:68:ASN:ND2	8:DT:53:LYS:CG	2.49	0.74
8:DK:327:ALA:CB	8:DP:47:LYS:NZ	2.50	0.74
8:DQ:160:SER:HA	8:DQ:268:GLN:HE21	1.51	0.74
1:H:136:VAL:HG12	1:H:138:PRO:HD2	1.70	0.74
8:DC:181:LYS:CE	8:DN:131:GLY:CA	2.60	0.74
8:DK:102:LEU:O	8:DP:322:ASN:HB2	1.86	0.74
8:DV:285:LYS:HD2	8:DV:286:PRO:HD2	1.67	0.74
8:EG:380:ARG:NE	8:EG:383:GLN:HE22	1.85	0.74
12:Ci:389:VAL:HB	12:Ci:432:VAL:HG12	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DN:178:TYR:HA	8:DN:201:VAL:HG12	1.69	0.74
8:DT:294:ILE:HG12	8:DT:300:VAL:HG12	1.69	0.74
8:DH:101:LYS:NZ	8:DM:322:ASN:HB2	2.02	0.74
8:EF:322:ASN:HD22	8:EF:340:SER:HA	1.52	0.74
1:R:136:VAL:HG12	1:R:138:PRO:HD2	1.69	0.74
12:Eh:389:VAL:HB	12:Eh:432:VAL:HG12	1.67	0.74
8:DW:178:TYR:HA	8:DW:201:VAL:HG22	1.69	0.74
8:DH:104:GLU:HA	8:DM:322:ASN:ND2	2.01	0.74
10:CA:40:ALA:HA	10:CA:43:GLN:HG3	1.67	0.74
12:Cf:389:VAL:HB	12:Cf:432:VAL:HG12	1.67	0.74
8:DN:44:ALA:HB2	8:DN:50:LEU:CD2	2.16	0.74
8:DO:194:HIS:HE1	8:DO:251:ILE:HG12	1.51	0.74
1:C:136:VAL:HG12	1:C:138:PRO:HD2	1.68	0.74
11:y:152:ARG:HD3	12:Dt:165:PHE:CA	2.18	0.74
1:A:136:VAL:HG12	1:A:138:PRO:HD2	1.68	0.74
5:h:6:ILE:HG21	5:h:122:VAL:HG21	1.69	0.74
5:p:6:ILE:HG21	5:p:122:VAL:HG21	1.70	0.74
8:DA:65:THR:HG22	8:DL:50:LEU:CG	2.17	0.74
8:DH:270:ASN:HD22	8:DN:191:GLY:HA3	1.49	0.74
8:DI:350:SER:OG	8:DO:89:ASN:ND2	2.21	0.74
12:Dq:160:PRO:HD3	12:Dq:172:PRO:HB3	1.70	0.74
12:Ds:126:PHE:CE2	12:Ds:130:VAL:HG21	2.23	0.74
12:Cc:389:VAL:HB	12:Cc:432:VAL:HG12	1.67	0.74
8:DP:402:LEU:HD23	8:DP:402:LEU:C	2.13	0.74
12:Cp:431:ASN:ND2	12:Cq:414:ASP:OD2	2.20	0.74
8:DM:10:LEU:HD12	8:DM:382:TYR:HE1	1.53	0.74
8:DO:10:LEU:CD1	8:DO:385:ASN:HB3	2.17	0.74
8:DY:7:VAL:HG23	8:DY:10:LEU:HD23	1.70	0.74
1:V:98:LYS:O	1:V:212:GLY:HA3	1.88	0.73
8:DI:26:ASN:HA	8:DN:52:VAL:CG2	2.17	0.73
13:GE:5:UNK:O	12:Eh:295:SER:OG	2.05	0.73
8:DM:380:ARG:CB	8:DS:396:LEU:HD12	2.18	0.73
8:DV:65:THR:HG22	8:EG:50:LEU:HD12	1.70	0.73
8:DL:16:ASN:ND2	8:DL:39:PHE:CE2	2.56	0.73
8:DM:38:SER:O	8:DM:55:ALA:HB3	1.88	0.73
8:DO:33:LYS:HA	8:DO:365:ASN:HD21	1.53	0.73
8:DX:296:ASN:HB3	8:DX:355:LYS:HE2	1.70	0.73
1:U:98:LYS:O	1:U:212:GLY:HA3	1.88	0.73
8:DG:373:VAL:HG21	8:DM:10:LEU:HD23	1.69	0.73
8:DJ:65:THR:CA	8:DU:50:LEU:HD13	2.19	0.73
8:DK:106:ARG:HD3	8:DP:321:ALA:HB1	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DE:181:LYS:HZ1	8:DP:129:GLN:HE22	1.34	0.73
12:Dt:171:SER:HB3	12:Dt:172:PRO:HD3	1.69	0.73
8:DY:192:ASN:HD21	8:DY:251:ILE:HD12	1.53	0.73
1:U:141:THR:CG2	16:BA:80:GLN:OE1	2.37	0.73
1:G:258:THR:O	1:M:245:LYS:NZ	2.22	0.73
8:DI:22:ASN:HD21	8:DN:49:GLY:CA	2.01	0.73
8:DU:3:PHE:CE2	8:DU:396:LEU:HD22	2.24	0.73
8:DU:395:ILE:HD13	8:DU:395:ILE:C	2.14	0.73
8:ED:154:MET:HG3	8:ED:279:THR:HA	1.70	0.73
8:DA:146:ALA:HB2	8:DA:286:PRO:HD3	1.70	0.73
16:BT:364:ILE:HD13	16:BV:142:LEU:HB2	1.70	0.73
8:DO:6:ALA:CB	8:DO:388:THR:HG23	2.18	0.73
13:GA:6:UNK:CB	12:Ea:365:ASN:ND2	2.52	0.73
1:W:136:VAL:HG12	1:W:138:PRO:HD2	1.70	0.73
8:DH:146:ALA:HB2	8:DH:286:PRO:HD3	1.71	0.73
8:DN:17:LEU:CD2	8:DN:378:ALA:HB1	2.18	0.73
16:BQ:161:ASN:HD22	16:BR:46:ASP:HA	1.54	0.72
8:DB:180:LYS:NZ	8:DM:131:GLY:N	2.37	0.72
8:DK:380:ARG:CZ	8:DQ:393:ASP:OD1	2.37	0.72
12:Dv:160:PRO:HD3	12:Dv:172:PRO:HB3	1.70	0.72
14:GK:15:UNK:CB	12:Ch:278:THR:HG21	2.19	0.72
8:DB:65:THR:HG21	8:DM:4:SER:OG	1.89	0.72
8:DF:144:MET:SD	8:DF:310:GLN:NE2	2.62	0.72
8:DM:385:ASN:O	8:DM:388:THR:CG2	2.32	0.72
8:DX:157:ASN:HB3	8:DX:271:THR:HG21	1.69	0.72
1:H:37:GLN:HG2	1:H:79:ARG:HG2	1.70	0.72
6:l:36:PRO:HB3	6:l:96:ASP:HB2	1.71	0.72
11:CF:148:ALA:HA	12:Df:164:LEU:CB	2.18	0.72
1:B:45:LEU:HB3	1:L:98:LYS:HD2	1.71	0.72
8:DU:106:ARG:HH12	8:DU:141:ASN:HB3	1.55	0.72
5:p:34:VAL:HG23	5:p:35:THR:HG22	1.71	0.72
8:DH:104:GLU:HA	8:DM:322:ASN:HD21	1.55	0.72
11:y:152:ARG:HD3	12:Dt:165:PHE:N	2.04	0.72
8:DS:379:GLN:NE2	8:DX:391:THR:HB	2.05	0.72
8:DU:395:ILE:CD1	8:DU:399:LEU:CD2	2.62	0.72
8:EG:83:PHE:HB2	8:EG:95:SER:O	1.89	0.72
8:DN:106:ARG:HH12	8:DS:321:ALA:HB1	1.53	0.72
8:DK:327:ALA:HB1	8:DP:47:LYS:NZ	2.05	0.72
1:I:37:GLN:HG2	1:I:79:ARG:HG2	1.72	0.72
1:V:209:ASN:HD21	16:BD:82:LYS:HZ3	1.35	0.72
8:DO:44:ALA:CB	8:DO:50:LEU:HD12	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DO:387:GLN:HE21	8:DO:387:GLN:CA	2.01	0.72
8:EB:247:THR:HG22	8:EB:258:THR:HG22	1.70	0.72
1:O:136:VAL:HG12	1:O:138:PRO:HD2	1.72	0.71
8:DD:147:LYS:HB3	8:DD:283:GLY:HA2	1.71	0.71
12:Du:158:ALA:HB2	12:Dv:200:SER:O	1.90	0.71
8:DL:178:TYR:HA	8:DL:201:VAL:HG12	1.72	0.71
8:DY:326:LEU:HB3	8:DY:334:TRP:HB3	1.72	0.71
8:DU:392:GLN:O	8:DU:395:ILE:CG2	2.37	0.71
8:DY:269:GLN:NE2	8:EE:189:SER:O	2.22	0.71
1:Q:37:GLN:HG2	1:Q:79:ARG:HG2	1.73	0.71
12:Dc:124:SER:C	12:Dc:126:PHE:H	1.96	0.71
16:BU:364:ILE:HD13	16:BW:142:LEU:HB2	1.71	0.71
8:DI:382:TYR:CD1	8:DN:395:ILE:HG23	2.26	0.71
1:H:97:ILE:HD11	1:H:116:ARG:HG3	1.72	0.71
8:DS:206:ASN:HB3	8:DS:232:PHE:HB2	1.73	0.71
8:DW:385:ASN:O	8:DW:388:THR:OG1	2.06	0.71
8:DZ:281:GLN:HG2	8:DZ:283:GLY:H	1.54	0.71
1:I:42:GLU:HG2	1:I:75:VAL:HB	1.71	0.71
1:Q:136:VAL:HG12	1:Q:138:PRO:HD2	1.72	0.71
5:h:44:ALA:HB2	5:h:96:VAL:HG22	1.72	0.71
8:EG:34:SER:HB3	8:EG:366:VAL:HG22	1.71	0.71
8:DN:402:LEU:HD12	8:DN:402:LEU:C	2.16	0.71
8:DQ:390:LYS:HG3	8:DV:402:LEU:HD22	1.73	0.71
8:EA:87:ASP:OD1	8:EA:88:SER:N	2.24	0.71
8:ED:326:LEU:HB3	8:ED:334:TRP:HB3	1.72	0.71
11:y:148:ALA:HB1	12:Dt:165:PHE:CB	2.20	0.71
8:EE:294:ILE:HG22	8:EE:300:VAL:HG12	1.71	0.71
1:L:136:VAL:HG12	1:L:138:PRO:HD2	1.73	0.71
6:n:36:PRO:HB3	6:n:96:ASP:HB2	1.72	0.71
8:DA:180:LYS:NZ	8:DL:130:GLN:CB	2.40	0.71
8:DA:357:THR:HG21	8:DL:53:LYS:HZ3	1.56	0.71
8:DO:387:GLN:O	8:DO:391:THR:HG22	1.91	0.71
8:DC:181:LYS:HE2	8:DN:131:GLY:CA	2.21	0.70
14:GJ:3:UNK:CB	12:Cd:374:HIS:CE1	2.74	0.70
8:DM:385:ASN:C	8:DM:388:THR:CG2	2.63	0.70
8:DY:42:MET:HG3	8:DY:50:LEU:HB2	1.73	0.70
11:CF:75:ARG:HD3	11:CF:82:SER:H	1.55	0.70
8:DN:180:LYS:HB3	8:DN:200:PHE:HB2	1.73	0.70
1:D:122:VAL:O	8:DC:322:ASN:ND2	2.25	0.70
9:CE:156:THR:HB	9:CE:259:PRO:HG3	1.73	0.70
8:DN:18:ASP:OD2	8:DS:48:VAL:HG21	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DR:71:ARG:NH2	8:DR:99:GLN:OE1	2.25	0.70
8:DD:217:ASP:HB2	8:DD:220:ALA:HB2	1.73	0.70
8:DI:184:VAL:HB	8:DI:196:MET:HB3	1.71	0.70
8:DU:97:ASN:HD22	8:DU:332:ASN:HD21	1.39	0.70
8:EB:110:ASN:HD21	8:EB:114:MET:HE2	1.56	0.70
8:EE:150:THR:HB	8:EE:282:ASN:HD21	1.56	0.70
1:T:203:GLU:OE2	16:BU:53:THR:CG2	2.39	0.70
1:U:125:ASN:HD22	16:BA:54:GLN:CD	2.00	0.70
8:DQ:104:GLU:OE1	8:DQ:104:GLU:N	2.18	0.70
11:CF:65:THR:HG23	11:CF:178:GLU:HG2	1.73	0.70
8:DN:392:GLN:CA	8:DN:392:GLN:HE21	2.03	0.70
8:DF:370:LYS:HE3	8:DL:11:ASN:OD1	1.91	0.70
8:DG:106:ARG:CG	8:DL:321:ALA:CB	2.61	0.70
8:DJ:372:LEU:CD1	8:DU:399:LEU:HB3	2.22	0.70
10:CA:71:ASN:HD21	12:Dq:123:ILE:CB	2.03	0.70
8:DL:118:GLY:HA2	8:DL:316:VAL:HG13	1.74	0.70
8:DP:237:ILE:HD13	8:DP:267:MET:HE1	1.74	0.70
1:Q:73:ARG:HD3	2:d:202:MET:HE2	1.74	0.70
8:DD:181:LYS:HE3	8:DO:129:GLN:HG2	1.73	0.70
8:DD:183:THR:CG2	8:DO:132:ALA:CA	2.66	0.70
8:DK:25:ALA:HB1	8:DP:52:VAL:HG12	1.74	0.70
8:DQ:103:ASP:OD2	8:DQ:107:ASN:ND2	2.25	0.70
1:B:162:GLN:OE1	8:DK:89:ASN:ND2	2.25	0.70
1:T:37:GLN:HG2	1:T:79:ARG:HG2	1.74	0.70
8:DG:330:GLY:C	8:DL:42:MET:HG2	2.16	0.70
8:DH:331:ASP:CB	8:DM:40:ALA:CB	2.56	0.70
2:a:146:LEU:HB2	2:a:155:VAL:HG12	1.74	0.70
8:DG:32:PHE:HD1	8:DL:41:ASP:OD2	1.69	0.70
8:DJ:65:THR:CB	8:DU:50:LEU:HD13	2.22	0.70
11:z:148:ALA:HB1	12:Da:165:PHE:CB	2.22	0.70
8:DM:161:THR:HG23	8:DM:270:ASN:HD21	1.55	0.70
8:DO:44:ALA:CB	8:DO:50:LEU:CD1	2.70	0.70
8:DX:62:THR:O	8:DX:365:ASN:ND2	2.24	0.70
5:j:6:ILE:HG21	5:j:122:VAL:HG21	1.74	0.69
8:DA:65:THR:CB	8:DL:50:LEU:HD11	2.22	0.69
14:GF:17:UNK:O	12:Ed:374:HIS:HE1	1.74	0.69
8:DL:77:ILE:HD11	8:DL:317:LEU:HD22	1.73	0.69
8:EC:117:THR:HA	8:EC:136:PRO:HA	1.75	0.69
2:a:188:GLU:HG3	2:a:189:ARG:HG3	1.72	0.69
9:CE:178:LEU:HA	9:CE:181:LEU:HB2	1.73	0.69
15:AA:223:GLN:NE2	15:AY:131:SER:O	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DT:294:ILE:O	8:DT:358:ASN:ND2	2.25	0.69
8:DO:20:ILE:HG23	8:DO:371:GLU:OE2	1.92	0.69
8:DW:234:GLU:HB2	8:EC:254:ALA:HA	1.73	0.69
8:DL:397:ASN:O	8:DL:397:ASN:ND2	2.25	0.69
2:a:170:GLU:HB2	2:a:185:ALA:HB2	1.74	0.69
1:V:141:THR:HG21	16:BE:54:GLN:OE1	1.92	0.69
8:DM:170:PHE:HA	8:DM:177:SER:HB2	1.75	0.69
8:DI:319:ASN:ND2	8:DI:352:ASN:O	2.26	0.69
8:DJ:181:LYS:HZ1	8:DU:129:GLN:HA	1.55	0.69
12:Dq:133:GLN:HB2	12:Dq:159:MET:CE	2.23	0.69
8:DP:17:LEU:HD21	8:DU:392:GLN:OE1	1.92	0.69
1:G:176:THR:HB	1:G:203:GLU:HG3	1.72	0.69
1:J:98:LYS:O	1:J:212:GLY:HA3	1.92	0.69
1:U:136:VAL:HG12	1:U:138:PRO:HD2	1.73	0.69
8:DA:351:GLY:O	8:DA:352:ASN:ND2	2.24	0.69
11:y:152:ARG:NH1	12:Dt:165:PHE:N	2.40	0.69
11:y:152:ARG:HD3	12:Dt:165:PHE:HA	1.75	0.69
14:GH:15:UNK:CB	12:Cs:372:ILE:CD1	2.71	0.69
8:DX:389:ILE:HG21	8:EC:402:LEU:HD21	1.74	0.69
8:DG:24:ILE:HD11	8:DL:384:SER:CB	2.23	0.69
8:DH:22:ASN:ND2	8:DM:49:GLY:CA	2.54	0.69
8:DI:25:ALA:O	8:DN:52:VAL:HG23	1.93	0.69
11:y:138:MET:O	11:y:142:THR:OG1	2.11	0.69
12:Dt:126:PHE:CE2	12:Dt:130:VAL:HG21	2.27	0.69
8:DM:385:ASN:O	8:DM:389:ILE:HG13	1.93	0.69
8:DQ:79:GLN:HB2	8:DQ:354:GLY:HA3	1.75	0.69
8:DQ:397:ASN:HA	8:DQ:400:VAL:HG22	1.74	0.69
8:DS:402:LEU:C	8:DS:402:LEU:HD12	2.17	0.69
8:DV:160:SER:HA	8:DV:268:GLN:NE2	2.08	0.69
8:DX:397:ASN:O	8:DX:401:ASN:ND2	2.25	0.69
8:EC:294:ILE:O	8:EC:358:ASN:ND2	2.26	0.69
8:DH:161:THR:CG2	8:DN:252:ASN:HD22	2.06	0.69
8:DL:376:ILE:HD13	8:DL:376:ILE:N	2.06	0.69
8:DO:188:ASP:OD2	8:DO:254:ALA:CB	2.40	0.69
8:DO:192:ASN:HB3	8:DO:251:ILE:HD11	1.75	0.69
8:DS:50:LEU:HD23	8:DS:50:LEU:O	1.93	0.69
8:DT:383:GLN:HB3	8:DZ:400:VAL:HG21	1.73	0.69
8:EB:146:ALA:HB2	8:EB:286:PRO:HD3	1.75	0.69
1:X:136:VAL:HG12	1:X:138:PRO:HD2	1.74	0.69
8:DA:24:ILE:HD11	8:DF:384:SER:HB3	1.75	0.69
8:DH:106:ARG:NH1	8:DM:321:ALA:O	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DT:159:ASN:ND2	8:DT:272:GLY:O	2.26	0.69
11:CF:211:MET:HB3	11:CF:212:VAL:HA	1.76	0.68
16:BP:250:ASP:OD1	16:BQ:23:ARG:NH1	2.26	0.68
8:DZ:285:LYS:O	8:DZ:306:ASN:ND2	2.26	0.68
7:u:100:MET:SD	11:z:87:GLN:NE2	2.66	0.68
15:AA:131:SER:O	15:AC:223:GLN:NE2	2.26	0.68
16:BF:250:ASP:OD1	16:BG:23:ARG:NH1	2.26	0.68
8:DW:269:GLN:HB3	8:EC:286:PRO:HG3	1.75	0.68
1:E:164:GLN:NE2	1:E:166:ALA:O	2.27	0.68
8:DG:65:THR:HG23	8:DR:50:LEU:HD13	1.75	0.68
9:CE:242:HIS:CD2	12:Dl:125:GLN:HB2	2.26	0.68
11:z:144:GLU:N	12:Dc:165:PHE:CB	2.56	0.68
8:DL:37:ALA:HB1	8:DL:54:VAL:HG21	1.74	0.68
8:DN:160:SER:O	8:DT:252:ASN:ND2	2.25	0.68
8:DO:130:GLN:OE1	8:DO:130:GLN:N	2.26	0.68
8:DO:160:SER:O	8:DO:202:LYS:NZ	2.26	0.68
8:DS:167:LYS:NZ	8:DS:169:PRO:O	2.26	0.68
8:EB:102:LEU:O	8:EG:322:ASN:ND2	2.26	0.68
8:DC:217:ASP:HB2	8:DC:220:ALA:HB2	1.74	0.68
8:DS:106:ARG:HH22	8:DX:321:ALA:HA	1.57	0.68
1:G:260:LEU:O	1:M:245:LYS:NZ	2.25	0.68
1:S:251:ASP:OD1	2:b:225:ARG:NH1	2.25	0.68
2:d:228:GLU:HG2	1:W:256:LYS:HZ3	1.57	0.68
8:DG:101:LYS:NZ	8:DL:325:GLY:CA	2.56	0.68
10:CD:39:GLN:NE2	10:CD:45:ASN:OD1	2.26	0.68
16:BE:250:ASP:OD1	16:BF:23:ARG:NH1	2.26	0.68
8:DU:392:GLN:HA	8:DU:395:ILE:CG2	2.24	0.68
8:ED:147:LYS:H	8:ED:284:TYR:HB2	1.59	0.68
1:U:256:LYS:HG2	2:c:228:GLU:HG2	1.74	0.68
8:DP:394:GLN:HA	8:DP:394:GLN:HE21	1.58	0.68
8:EB:322:ASN:ND2	8:EB:339:ALA:O	2.25	0.68
8:EB:328:SER:H	8:EG:47:LYS:HZ1	1.40	0.68
12:Dt:171:SER:HB3	12:Dt:172:PRO:HD2	1.74	0.68
8:DN:382:TYR:HE2	8:DS:395:ILE:HG23	1.59	0.68
2:a:232:LYS:HG2	5:h:102:MET:HE1	1.75	0.68
11:z:144:GLU:HB2	12:Dc:165:PHE:CB	2.23	0.68
11:z:152:ARG:HD3	12:Da:165:PHE:HA	1.76	0.68
16:BI:250:ASP:OD1	16:BJ:23:ARG:NH1	2.26	0.68
16:BJ:250:ASP:OD1	16:BK:23:ARG:NH1	2.27	0.68
8:DN:386:ALA:HA	8:DN:389:ILE:HD11	1.74	0.68
8:EA:317:LEU:HD11	8:EA:356:LEU:HD21	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BG:250:ASP:OD1	16:BH:23:ARG:NH1	2.27	0.68
8:DN:69:THR:HG23	8:DN:71:ARG:H	1.59	0.68
8:DS:381:ASN:O	8:DS:385:ASN:ND2	2.27	0.68
1:U:141:THR:HG21	16:BA:80:GLN:OE1	1.91	0.67
16:BD:250:ASP:OD1	16:BE:23:ARG:NH1	2.26	0.67
16:BO:250:ASP:OD1	16:BP:23:ARG:NH1	2.26	0.67
8:DN:39:PHE:HB2	8:DN:54:VAL:HA	1.75	0.67
8:EF:144:MET:HE2	8:EF:306:ASN:HD21	1.58	0.67
8:DH:380:ARG:NH2	8:DN:393:ASP:OD1	2.27	0.67
8:DK:328:SER:HB2	8:DP:43:PHE:CE2	2.30	0.67
8:DP:42:MET:HB2	8:DP:50:LEU:HB2	1.76	0.67
8:EE:198:VAL:HG12	8:EE:212:THR:HG22	1.76	0.67
12:Dv:133:GLN:HB2	12:Dv:159:MET:HE1	1.77	0.67
15:AV:131:SER:O	15:AX:223:GLN:NE2	2.28	0.67
8:DJ:26:ASN:OD1	8:DO:51:GLY:O	2.12	0.67
8:DK:328:SER:HB2	8:DP:43:PHE:CD2	2.28	0.67
10:CB:39:GLN:NE2	10:CB:45:ASN:OD1	2.27	0.67
8:DS:26:ASN:HD21	8:DX:41:ASP:HB3	1.58	0.67
8:DS:50:LEU:HD23	8:DS:50:LEU:C	2.18	0.67
1:I:136:VAL:HG12	1:I:138:PRO:HD2	1.76	0.67
8:DH:18:ASP:OD2	8:DM:48:VAL:HB	1.95	0.67
12:Ca:431:ASN:ND2	12:Cb:414:ASP:OD2	2.27	0.67
8:DM:50:LEU:N	8:DM:50:LEU:HD12	2.09	0.67
8:DQ:322:ASN:ND2	8:DQ:339:ALA:O	2.28	0.67
1:N:19:MET:HB2	1:N:236:VAL:HG11	1.77	0.67
1:U:176:THR:HG22	1:U:203:GLU:HG3	1.75	0.67
8:DH:107:ASN:HB3	8:DH:138:THR:HG22	1.75	0.67
8:DJ:350:SER:HB3	8:DP:89:ASN:CA	2.24	0.67
12:Dg:160:PRO:HG3	12:Dh:203:ALA:HB1	1.75	0.67
8:DM:85:LEU:HB3	8:DM:114:MET:HE2	1.77	0.67
8:DR:84:ARG:HH11	8:DR:117:THR:HG21	1.57	0.67
8:DT:44:ALA:H	8:DT:50:LEU:CD1	1.94	0.67
1:Q:3:SER:HA	2:d:70:GLN:HG3	1.75	0.67
1:V:209:ASN:HD21	16:BD:82:LYS:HZ1	1.39	0.67
8:DI:269:GLN:CB	8:DO:286:PRO:CB	2.70	0.67
8:DI:322:ASN:ND2	8:DI:339:ALA:O	2.27	0.67
8:DK:161:THR:HG23	8:DQ:192:ASN:OD1	1.95	0.67
15:AM:131:SER:O	15:AO:223:GLN:NE2	2.27	0.67
8:DY:201:VAL:O	8:DY:209:ALA:N	2.26	0.67
8:DJ:390:LYS:HB2	8:DO:402:LEU:HD11	1.75	0.67
8:DK:102:LEU:O	8:DP:322:ASN:CG	2.37	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DK:327:ALA:HA	8:DP:47:LYS:NZ	2.10	0.67
8:DO:3:PHE:CD1	8:DO:389:ILE:CD1	2.77	0.67
8:DX:155:GLN:NE2	8:DX:264:LEU:O	2.27	0.67
8:DF:180:LYS:NZ	8:DQ:131:GLY:N	2.43	0.67
16:BH:250:ASP:OD1	16:BI:23:ARG:NH1	2.27	0.67
8:DN:146:ALA:HB2	8:DN:286:PRO:HD3	1.77	0.67
1:A:258:THR:O	1:K:245:LYS:NZ	2.28	0.67
8:DG:373:VAL:CB	8:DM:10:LEU:HD21	2.25	0.66
8:DI:309:GLU:OE2	8:DT:338:GLN:HG2	1.95	0.66
10:CB:3:PRO:HB3	11:x:228:LEU:HD21	1.76	0.66
12:Dp:159:MET:HA	12:Dp:172:PRO:HB3	1.76	0.66
8:DO:251:ILE:O	8:DO:251:ILE:HG13	1.93	0.66
8:DP:375:MET:HG2	8:DU:391:THR:HG21	1.77	0.66
8:DY:383:GLN:HE21	8:ED:398:THR:HG21	1.59	0.66
1:R:160:THR:HG22	1:R:167:PRO:HB3	1.78	0.66
8:DE:181:LYS:NZ	8:DP:129:GLN:NE2	2.32	0.66
9:CE:242:HIS:CG	12:DI:125:GLN:HG3	2.29	0.66
8:EB:301:VAL:HG12	8:EB:311:VAL:HG12	1.76	0.66
1:T:208:LEU:HD22	16:BU:78:ASN:ND2	2.11	0.66
4:5:319:GLN:HG2	12:Ee:303:GLN:OE1	1.95	0.66
8:DF:295:ASN:ND2	8:DF:299:THR:OG1	2.29	0.66
8:DH:290:VAL:HG13	8:DM:351:GLY:O	1.96	0.66
8:DH:295:ASN:ND2	8:DH:297:ASP:OD1	2.28	0.66
8:DQ:206:ASN:ND2	8:DW:252:ASN:O	2.29	0.66
8:EG:206:ASN:OD1	8:EG:268:GLN:NE2	2.29	0.66
8:DF:276:ILE:CG1	8:DQ:131:GLY:CA	2.62	0.66
8:DJ:382:TYR:HD2	8:DO:395:ILE:HG23	1.51	0.66
11:CF:143:ARG:NH2	11:CF:184:GLN:OE1	2.28	0.66
12:Dw:126:PHE:O	12:Dw:128:GLU:N	2.28	0.66
8:DT:395:ILE:O	8:DT:398:THR:HG23	1.95	0.66
8:EE:322:ASN:ND2	8:EE:339:ALA:O	2.28	0.66
8:DB:180:LYS:HZ2	8:DM:131:GLY:N	1.93	0.66
8:DE:137:ILE:HD11	8:DE:300:VAL:HG11	1.78	0.66
8:DH:370:LYS:NZ	8:DN:11:ASN:HD21	1.93	0.66
8:DK:26:ASN:HD21	8:DP:41:ASP:HA	1.61	0.66
15:AL:131:SER:O	15:AN:223:GLN:NE2	2.28	0.66
8:DL:382:TYR:HD1	8:DL:382:TYR:O	1.78	0.66
8:DO:57:ILE:HG22	8:DT:47:LYS:HE3	1.77	0.66
8:DW:81:GLY:O	8:DW:96:ARG:NH1	2.28	0.66
8:EA:188:ASP:OD1	8:EA:192:ASN:N	2.28	0.66
8:DL:57:ILE:O	8:DQ:47:LYS:HE2	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DM:71:ARG:HH21	8:DM:73:LEU:HB2	1.60	0.66
8:DS:387:GLN:NE2	8:DY:400:VAL:O	2.27	0.66
8:EA:210:VAL:O	8:EA:227:SER:N	2.29	0.66
8:DG:373:VAL:HG21	8:DM:10:LEU:HD21	1.78	0.66
8:DH:380:ARG:CZ	8:DN:393:ASP:OD1	2.44	0.66
11:w:244:TYR:HD2	12:Ds:165:PHE:HA	1.61	0.66
8:DC:143:LEU:HD22	8:DC:288:ASP:HA	1.77	0.66
11:z:160:GLN:CB	12:Db:167:ARG:CB	2.72	0.66
8:DL:351:GLY:C	8:DL:353:PHE:H	2.04	0.66
8:DO:106:ARG:HH12	8:DO:141:ASN:HB2	1.61	0.66
8:DV:188:ASP:OD1	8:DV:192:ASN:N	2.25	0.66
8:DX:153:SER:OG	8:DX:280:ASN:OD1	2.13	0.66
8:ED:198:VAL:HG12	8:ED:212:THR:HG22	1.78	0.66
8:EF:165:PRO:HG2	8:EF:201:VAL:HG13	1.77	0.66
5:j:129:THR:HA	6:n:120:LEU:HD11	1.77	0.66
8:DH:144:MET:SD	8:DH:310:GLN:NE2	2.68	0.66
15:AF:131:SER:O	15:AH:223:GLN:NE2	2.29	0.66
15:AG:131:SER:O	15:AI:223:GLN:NE2	2.28	0.66
8:DM:146:ALA:HB2	8:DM:286:PRO:HD3	1.78	0.66
8:DQ:10:LEU:HD22	8:DQ:385:ASN:HB3	1.78	0.66
8:DV:42:MET:SD	8:DV:53:LYS:HG3	2.36	0.66
8:DY:237:ILE:HA	8:DY:267:MET:HE1	1.77	0.66
5:j:47:VAL:HG12	5:j:67:VAL:HG22	1.78	0.66
1:V:176:THR:HG22	1:V:203:GLU:HG2	1.78	0.66
8:DH:380:ARG:NE	8:DN:393:ASP:OD1	2.30	0.66
15:AR:131:SER:O	15:AT:223:GLN:NE2	2.29	0.66
8:DF:294:ILE:HG12	8:DF:300:VAL:HG12	1.77	0.65
15:AB:223:GLN:NE2	15:AZ:131:SER:O	2.29	0.65
15:AC:131:SER:O	15:AE:223:GLN:NE2	2.29	0.65
15:AO:131:SER:O	15:AQ:223:GLN:NE2	2.29	0.65
8:DL:16:ASN:ND2	8:DL:39:PHE:HE2	1.94	0.65
8:DT:138:THR:HG23	8:DT:140:PRO:HD3	1.78	0.65
1:R:37:GLN:HG2	1:R:79:ARG:HG2	1.76	0.65
8:DH:161:THR:HG22	8:DN:252:ASN:HD22	1.62	0.65
12:Di:156:HIS:CE1	12:Dj:143:THR:CG2	2.78	0.65
12:Co:242:GLU:OE1	12:Cp:248:ARG:NH2	2.29	0.65
15:AB:131:SER:O	15:AD:223:GLN:NE2	2.29	0.65
16:BU:161:ASN:HD22	16:BV:46:ASP:HA	1.60	0.65
8:EA:106:ARG:HD3	8:EF:321:ALA:HB1	1.78	0.65
8:EC:178:TYR:HA	8:EC:201:VAL:HG22	1.77	0.65
8:DK:103:ASP:HA	8:DP:322:ASN:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DL:18:ASP:OD1	8:DQ:5:GLN:NE2	2.28	0.65
8:EF:170:PHE:HA	8:EF:177:SER:HB2	1.77	0.65
8:EG:5:GLN:HE22	8:EG:50:LEU:HA	1.61	0.65
1:O:3:SER:HA	2:c:70:GLN:HE21	1.60	0.65
2:b:9:MET:HB3	5:f:103:VAL:HG11	1.79	0.65
8:DD:322:ASN:ND2	8:DD:339:ALA:O	2.30	0.65
8:DF:57:ILE:HG12	8:DK:47:LYS:HB3	1.79	0.65
1:U:239:ALA:O	1:U:243:ASN:ND2	2.30	0.65
8:DI:382:TYR:CE1	8:DN:395:ILE:CG2	2.79	0.65
12:Dt:171:SER:CB	12:Dt:172:PRO:CD	2.73	0.65
15:AE:131:SER:O	15:AG:223:GLN:NE2	2.28	0.65
15:AQ:131:SER:O	15:AS:223:GLN:NE2	2.30	0.65
8:DO:178:TYR:HA	8:DO:201:VAL:HG12	1.79	0.65
8:ED:19:VAL:HG23	8:ED:20:ILE:HD12	1.78	0.65
5:i:47:VAL:HG12	5:i:67:VAL:HG22	1.78	0.65
8:DK:153:SER:HB3	8:DK:280:ASN:HB2	1.78	0.65
11:CF:138:MET:O	11:CF:142:THR:OG1	2.14	0.65
15:AW:131:SER:O	15:AY:223:GLN:NE2	2.30	0.65
15:AX:131:SER:O	15:AZ:223:GLN:NE2	2.30	0.65
8:DM:383:GLN:HE22	8:DR:394:GLN:HE22	1.45	0.65
8:DZ:109:VAL:HG22	8:DZ:115:GLN:HA	1.78	0.65
1:D:54:ALA:HB1	1:S:150:THR:HG21	1.79	0.65
5:p:85:ALA:HB1	5:p:89:GLY:HA2	1.78	0.65
8:DH:372:LEU:CD1	8:DS:399:LEU:HD12	2.25	0.65
15:AL:22:P1L:SG	15:AL:23:ALA:N	2.70	0.65
8:DP:394:GLN:HA	8:DP:394:GLN:NE2	2.12	0.65
8:DR:147:LYS:NZ	8:DR:282:ASN:O	2.29	0.65
8:DU:2:SER:OG	8:DU:3:PHE:N	2.25	0.65
8:EA:146:ALA:HB2	8:EA:286:PRO:HD3	1.78	0.65
8:ED:22:ASN:OD1	8:ED:26:ASN:ND2	2.29	0.65
8:EG:188:ASP:OD1	8:EG:192:ASN:N	2.27	0.65
8:DJ:382:TYR:CD2	8:DO:395:ILE:HG21	2.26	0.65
15:AP:22:P1L:SG	15:AP:23:ALA:N	2.70	0.65
8:DL:188:ASP:OD1	8:DL:192:ASN:N	2.30	0.65
8:DM:379:GLN:HG3	8:DM:380:ARG:HH21	1.61	0.65
8:DU:22:ASN:OD1	8:DU:26:ASN:ND2	2.29	0.65
8:ED:116:LEU:HD11	8:ED:315:ILE:HG23	1.79	0.65
1:J:37:GLN:HG2	1:J:79:ARG:HG2	1.79	0.65
8:DI:17:LEU:HD11	8:DN:395:ILE:HD11	1.77	0.65
8:DM:380:ARG:CG	8:DS:396:LEU:HD12	2.27	0.65
8:DO:73:LEU:HD21	8:DO:292:TYR:HE2	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DP:65:THR:HG22	8:EA:50:LEU:HB3	1.79	0.65
1:U:251:ASP:OD1	2:a:225:ARG:NH1	2.30	0.65
8:DH:270:ASN:O	8:DN:286:PRO:HB2	1.97	0.65
15:AI:22:P1L:SG	15:AI:23:ALA:N	2.70	0.65
15:AM:22:P1L:SG	15:AM:23:ALA:N	2.70	0.65
15:AN:131:SER:O	15:AP:223:GLN:NE2	2.29	0.65
6:k:42:ASP:OD2	6:k:88:ARG:NH2	2.30	0.64
8:DB:281:GLN:OE1	8:DB:283:GLY:N	2.28	0.64
11:y:75:ARG:NH2	11:y:84:PRO:O	2.30	0.64
13:GE:10:UNK:CB	12:Eh:365:ASN:OD1	2.45	0.64
15:AH:131:SER:O	15:AJ:223:GLN:NE2	2.29	0.64
16:BB:250:ASP:OD1	16:BC:23:ARG:NH1	2.30	0.64
8:DL:373:VAL:O	8:DL:377:VAL:HG23	1.98	0.64
8:DN:6:ALA:HB1	8:DN:389:ILE:HG23	1.79	0.64
8:DA:322:ASN:ND2	8:DA:339:ALA:O	2.30	0.64
8:DE:170:PHE:HB3	8:DE:224:THR:HG23	1.79	0.64
8:DG:106:ARG:NE	8:DL:321:ALA:HA	2.09	0.64
15:AU:65:LEU:HG	16:BV:65:MET:HG3	1.80	0.64
8:DO:387:GLN:O	8:DO:391:THR:CG2	2.45	0.64
8:DQ:144:MET:SD	8:DQ:310:GLN:NE2	2.70	0.64
8:EG:170:PHE:HE1	8:EG:178:TYR:HB3	1.60	0.64
2:a:28:ASN:HD22	1:V:43:ASP:HB3	1.61	0.64
8:DE:79:GLN:HB2	8:DE:354:GLY:HA3	1.78	0.64
8:DG:101:LYS:NZ	8:DL:324:GLU:C	2.54	0.64
15:AQ:22:P1L:SG	15:AQ:23:ALA:N	2.70	0.64
15:AZ:22:P1L:SG	15:AZ:23:ALA:N	2.70	0.64
8:DQ:103:ASP:OD1	8:DQ:107:ASN:N	2.30	0.64
8:DQ:159:ASN:ND2	8:DQ:272:GLY:O	2.30	0.64
8:DU:382:TYR:HD2	8:DZ:395:ILE:HD11	1.63	0.64
8:DY:69:THR:HG21	8:DY:361:LEU:HD23	1.79	0.64
1:A:98:LYS:O	1:A:212:GLY:CA	2.45	0.64
1:K:116:ARG:NH1	1:K:220:GLU:OE1	2.31	0.64
5:i:6:ILE:HG21	5:i:122:VAL:HG21	1.78	0.64
10:CA:65:ALA:HB1	10:CA:69:MET:HG3	1.79	0.64
15:AA:22:P1L:SG	15:AA:23:ALA:N	2.70	0.64
15:AD:131:SER:O	15:AF:223:GLN:NE2	2.29	0.64
15:AU:131:SER:O	15:AW:223:GLN:NE2	2.31	0.64
8:DO:3:PHE:CE1	8:DO:389:ILE:CD1	2.80	0.64
8:DQ:314:GLN:NE2	8:DQ:347:THR:OG1	2.30	0.64
8:DW:160:SER:O	8:EC:252:ASN:ND2	2.31	0.64
8:DX:228:THR:HG22	8:DX:229:THR:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DZ:159:ASN:ND2	8:DZ:272:GLY:O	2.30	0.64
8:DB:322:ASN:ND2	8:DB:339:ALA:O	2.29	0.64
8:DG:22:ASN:HD21	8:DL:49:GLY:HA3	1.59	0.64
15:AR:22:P1L:SG	15:AR:23:ALA:N	2.70	0.64
8:DS:217:ASP:HA	8:DS:251:ILE:HD11	1.78	0.64
8:EA:379:GLN:NE2	8:EF:394:GLN:OE1	2.30	0.64
1:B:242:ILE:HD12	1:F:230:LEU:HD21	1.79	0.64
5:i:6:ILE:HD11	6:k:24:GLU:HA	1.78	0.64
8:DB:146:ALA:HB2	8:DB:286:PRO:HD3	1.80	0.64
8:DB:269:GLN:HE22	8:DH:145:ALA:HB1	1.62	0.64
8:DH:106:ARG:HH11	8:DM:321:ALA:C	2.06	0.64
12:Dw:126:PHE:C	12:Dw:128:GLU:H	2.04	0.64
15:AY:22:P1L:SG	15:AY:23:ALA:N	2.70	0.64
16:BV:364:ILE:HD13	16:BX:142:LEU:HB2	1.80	0.64
8:DN:10:LEU:HD22	8:DN:382:TYR:CD1	2.33	0.64
8:DP:390:LYS:CA	8:DU:402:LEU:HD21	2.28	0.64
8:DR:270:ASN:ND2	8:DX:192:ASN:OD1	2.31	0.64
8:DY:319:ASN:ND2	8:DY:352:ASN:OD1	2.31	0.64
1:A:238:ARG:NH1	8:DB:393:ASP:OD1	2.30	0.64
1:U:98:LYS:O	1:U:212:GLY:CA	2.45	0.64
8:DA:285:LYS:O	8:DA:306:ASN:ND2	2.31	0.64
8:DG:289:LEU:O	8:DL:352:ASN:CB	2.46	0.64
15:AJ:22:P1L:SG	15:AJ:23:ALA:N	2.70	0.64
15:AN:22:P1L:SG	15:AN:23:ALA:N	2.70	0.64
15:AS:22:P1L:SG	15:AS:23:ALA:N	2.70	0.64
15:AT:22:P1L:SG	15:AT:23:ALA:N	2.70	0.64
8:DS:233:ASN:ND2	8:DS:234:GLU:OE1	2.30	0.64
8:DY:204:LYS:HG2	8:DY:207:GLU:HB2	1.80	0.64
8:DF:22:ASN:OD1	8:DF:26:ASN:ND2	2.31	0.64
8:DH:271:THR:HB	8:DN:143:LEU:CD1	2.17	0.64
8:DJ:207:GLU:OE2	8:DJ:231:LYS:NZ	2.30	0.64
15:AB:22:P1L:SG	15:AB:23:ALA:N	2.70	0.64
8:DN:10:LEU:CD2	8:DN:385:ASN:CB	2.76	0.64
2:b:226:ARG:NH1	5:g:32:ASP:OD2	2.30	0.64
8:DH:269:GLN:OE1	8:DN:145:ALA:HB2	1.98	0.64
8:DK:326:LEU:HB3	8:DK:334:TRP:HB3	1.78	0.64
10:CB:66:GLY:HA2	10:CC:7:MET:HE2	1.78	0.64
15:AE:22:P1L:SG	15:AE:23:ALA:N	2.70	0.64
15:AF:22:P1L:SG	15:AF:23:ALA:N	2.70	0.64
8:DO:20:ILE:HD13	8:DO:20:ILE:N	2.12	0.64
8:DQ:233:ASN:N	8:DQ:237:ILE:O	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DU:211:TYR:HD1	8:DU:226:ALA:HA	1.63	0.64
8:EB:178:TYR:HA	8:EB:201:VAL:HG22	1.78	0.64
8:ED:29:THR:HB	8:ED:32:PHE:HB2	1.80	0.64
8:EG:160:SER:H	8:EG:270:ASN:H	1.46	0.64
4:8:319:GLN:HB3	12:Cc:303:GLN:CD	2.23	0.64
8:DA:210:VAL:HB	8:DA:228:THR:HB	1.78	0.64
11:w:213:PRO:HA	11:x:211:MET:HE1	1.80	0.64
15:AJ:131:SER:O	15:AL:223:GLN:NE2	2.30	0.64
15:AK:131:SER:O	15:AM:223:GLN:NE2	2.30	0.64
15:AU:22:P1L:SG	15:AU:23:ALA:N	2.70	0.64
15:AV:22:P1L:SG	15:AV:23:ALA:N	2.70	0.64
8:DP:387:GLN:O	8:DP:391:THR:CG2	2.44	0.64
8:EA:178:TYR:HA	8:EA:201:VAL:HG12	1.80	0.64
8:EG:79:GLN:O	8:EG:96:ARG:NH2	2.31	0.64
1:D:57:SER:HB3	1:D:60:THR:HG22	1.79	0.63
1:D:136:VAL:HG12	1:D:138:PRO:HD2	1.80	0.63
14:GH:1:UNK:CB	12:Cu:372:ILE:HG21	2.28	0.63
4:7:320:PRO:HD3	6:m:87:TYR:CE2	2.33	0.63
15:AW:22:P1L:SG	15:AW:23:ALA:N	2.70	0.63
16:BS:364:ILE:HD13	16:BU:142:LEU:HB2	1.79	0.63
8:DM:39:PHE:HA	8:DM:55:ALA:H	1.63	0.63
8:DR:285:LYS:O	8:DR:306:ASN:ND2	2.25	0.63
8:DW:179:ASN:N	8:DW:200:PHE:O	2.31	0.63
8:DX:375:MET:HE2	8:EC:391:THR:HG21	1.79	0.63
8:DY:2:SER:OG	8:DY:3:PHE:N	2.31	0.63
8:DD:285:LYS:O	8:DD:306:ASN:ND2	2.32	0.63
8:DH:271:THR:HG22	8:DN:143:LEU:HB2	1.80	0.63
15:AC:22:P1L:SG	15:AC:23:ALA:N	2.70	0.63
15:AS:131:SER:O	15:AU:223:GLN:NE2	2.30	0.63
8:DY:147:LYS:NZ	8:DY:148:SER:O	2.31	0.63
8:DY:154:MET:HG2	8:DY:279:THR:HG23	1.80	0.63
1:U:125:ASN:ND2	16:BA:54:GLN:NE2	2.46	0.63
2:d:227:PHE:HE2	1:W:257:LEU:HB2	1.63	0.63
8:DE:181:LYS:CE	8:DP:129:GLN:HE22	2.11	0.63
8:DK:17:LEU:HD21	8:DP:395:ILE:CD1	2.29	0.63
15:AX:22:P1L:SG	15:AX:23:ALA:N	2.70	0.63
8:DN:382:TYR:CE2	8:DS:395:ILE:HG23	2.34	0.63
8:DW:150:THR:OG1	8:DW:282:ASN:ND2	2.31	0.63
8:DH:150:THR:OG1	8:DH:282:ASN:ND2	2.31	0.63
8:DK:294:ILE:HG12	8:DK:300:VAL:HG12	1.81	0.63
15:AI:131:SER:O	15:AK:223:GLN:NE2	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DM:43:PHE:HA	8:DM:50:LEU:HD13	1.79	0.63
2:c:55:THR:OG1	5:f:26:SER:OG	2.16	0.63
2:e:31:THR:HG22	1:X:41:PHE:HB2	1.81	0.63
6:m:102:MET:HB3	6:m:106:ARG:HH21	1.64	0.63
8:DE:150:THR:OG1	8:DE:282:ASN:ND2	2.28	0.63
8:DG:373:VAL:CG2	8:DM:10:LEU:HD21	2.28	0.63
8:DH:65:THR:H	8:DH:363:ALA:H	1.45	0.63
8:DK:17:LEU:CD2	8:DP:395:ILE:HD11	2.27	0.63
10:CB:40:ALA:HA	10:CB:43:GLN:HG3	1.80	0.63
11:CF:135:ARG:NH2	11:CF:165:VAL:O	2.31	0.63
15:AD:22:PIL:SG	15:AD:23:ALA:N	2.70	0.63
16:BC:250:ASP:OD1	16:BD:23:ARG:NH1	2.32	0.63
8:DM:385:ASN:CA	8:DM:388:THR:HG23	2.22	0.63
8:DU:380:ARG:HH12	8:EA:397:ASN:HD22	1.45	0.63
8:EB:79:GLN:HB2	8:EB:354:GLY:HA3	1.81	0.63
8:DK:35:GLY:HA2	8:DK:59:GLN:HA	1.80	0.63
12:Eg:242:GLU:OE1	12:Eh:248:ARG:NH2	2.31	0.63
8:DP:178:TYR:HA	8:DP:201:VAL:HG12	1.81	0.63
8:DQ:104:GLU:H	8:DQ:104:GLU:CD	2.06	0.63
8:DR:185:THR:O	8:DR:281:GLN:NE2	2.32	0.63
8:DV:101:LYS:NZ	8:EA:323:ASN:O	2.32	0.63
8:DX:380:ARG:NH2	8:ED:393:ASP:OD1	2.30	0.63
1:O:180:ASN:HB3	1:O:198:SER:HA	1.80	0.63
1:R:42:GLU:OE2	1:R:73:ARG:NH1	2.32	0.63
8:DB:156:ILE:HG21	8:DB:200:PHE:HE2	1.64	0.63
8:DH:165:PRO:HG2	8:DH:201:VAL:HG23	1.81	0.63
11:y:152:ARG:HD3	12:Dt:165:PHE:H	1.64	0.63
11:z:73:LEU:HD23	11:z:186:GLY:HA3	1.81	0.63
11:z:144:GLU:H	12:Dc:165:PHE:CB	2.11	0.63
12:Dc:124:SER:O	12:Dc:126:PHE:N	2.31	0.63
12:Dk:211:THR:HA	12:Dk:221:THR:HG21	1.81	0.63
15:AP:131:SER:O	15:AR:223:GLN:NE2	2.32	0.63
16:BR:364:ILE:HD13	16:BT:142:LEU:HB2	1.81	0.63
8:DQ:127:THR:O	8:DQ:129:GLN:NE2	2.32	0.63
8:DR:2:SER:OG	8:DR:3:PHE:N	2.26	0.63
8:ED:251:ILE:H	8:ED:254:ALA:HB3	1.64	0.63
8:EG:109:VAL:HG12	8:EG:115:GLN:HA	1.80	0.63
1:D:48:THR:HG22	1:D:67:GLN:HG2	1.79	0.63
7:q:89:ARG:NH2	7:q:90:ASN:OD1	2.30	0.63
8:DI:22:ASN:OD1	8:DI:26:ASN:ND2	2.32	0.63
8:DJ:205:ASP:OD2	8:DP:252:ASN:CA	2.39	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CD:4:GLU:HB2	12:Dc:125:GLN:HB2	1.81	0.63
11:CF:141:GLN:NE2	11:CF:243:PHE:O	2.23	0.63
12:Dj:156:HIS:HE2	12:Dk:143:THR:HG21	1.61	0.63
12:Co:275:LYS:HG2	12:Cp:375:THR:HG23	1.80	0.63
15:AG:22:P1L:SG	15:AG:23:ALA:N	2.70	0.63
1:A:38:ARG:NH1	1:A:78:GLU:OE2	2.32	0.62
1:C:169:GLN:NE2	1:C:171:GLY:O	2.32	0.62
1:C:242:ILE:HD12	1:G:230:LEU:HD21	1.80	0.62
1:U:125:ASN:ND2	16:BA:54:GLN:HE22	1.97	0.62
8:DI:269:GLN:HB3	8:DO:286:PRO:HG3	1.80	0.62
12:Df:211:THR:HA	12:Df:221:THR:HG21	1.81	0.62
12:Dh:211:THR:HA	12:Dh:221:THR:HG21	1.81	0.62
8:DO:293:GLN:HE21	8:DO:301:VAL:HB	1.62	0.62
8:DU:203:THR:OG1	8:DU:207:GLU:OE1	2.13	0.62
8:DX:8:SER:OG	8:DX:52:VAL:O	2.17	0.62
8:DX:228:THR:HG21	8:DX:244:VAL:HG11	1.81	0.62
8:DZ:204:LYS:NZ	8:DZ:205:ASP:O	2.32	0.62
8:DB:174:ASP:HB3	8:DB:177:SER:HB2	1.81	0.62
14:GH:8:UNK:CB	12:Ct:372:ILE:HD13	2.29	0.62
15:AF:84:GLU:OE2	15:AF:197:SER:OG	2.17	0.62
15:AK:22:P1L:SG	15:AK:23:ALA:N	2.70	0.62
8:DL:17:LEU:CD1	8:DL:382:TYR:HD2	2.12	0.62
8:DL:206:ASN:OD1	8:DL:268:GLN:NE2	2.26	0.62
3:2:9:UNK:O	5:i:104:ASN:ND2	2.32	0.62
8:DB:122:THR:OG1	8:DB:129:GLN:NE2	2.32	0.62
12:Du:211:THR:HA	12:Du:221:THR:HG21	1.81	0.62
15:AO:22:P1L:SG	15:AO:23:ALA:N	2.70	0.62
15:AT:131:SER:O	15:AV:223:GLN:NE2	2.32	0.62
1:D:127:GLN:HA	1:D:141:THR:HA	1.80	0.62
1:N:99:GLY:O	1:N:116:ARG:NH2	2.32	0.62
1:T:251:ASP:OD1	2:c:225:ARG:NH1	2.32	0.62
5:g:31:ALA:HA	5:g:96:VAL:HG21	1.79	0.62
8:DA:180:LYS:HZ3	8:DL:130:GLN:HB2	1.62	0.62
8:DF:285:LYS:O	8:DF:306:ASN:ND2	2.32	0.62
8:DI:65:THR:CA	8:DT:50:LEU:HD22	2.30	0.62
8:DI:269:GLN:HB3	8:DO:286:PRO:CG	2.30	0.62
12:Db:211:THR:HA	12:Db:221:THR:HG21	1.81	0.62
12:Dj:211:THR:HA	12:Dj:221:THR:HG21	1.81	0.62
15:AB:232:MET:HG2	15:AC:223:GLN:HB2	1.82	0.62
15:AG:84:GLU:OE2	15:AG:197:SER:OG	2.17	0.62
8:DL:373:VAL:O	8:DL:377:VAL:N	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:ED:294:ILE:O	8:ED:358:ASN:ND2	2.33	0.62
1:A:78:GLU:OE1	1:J:121:GLN:NE2	2.32	0.62
8:DE:159:ASN:ND2	8:DE:270:ASN:OD1	2.32	0.62
8:DK:33:LYS:HG2	8:DK:59:GLN:HB3	1.80	0.62
12:Dd:124:SER:C	12:Dd:126:PHE:N	2.55	0.62
15:AH:22:P1L:SG	15:AH:23:ALA:N	2.70	0.62
8:DU:3:PHE:CZ	8:DU:396:LEU:HD22	2.34	0.62
8:EB:119:TYR:HB2	8:EB:128:ILE:HD11	1.80	0.62
1:D:180:ASN:HB3	1:D:198:SER:HA	1.81	0.62
2:b:146:LEU:HB2	2:b:155:VAL:HG12	1.80	0.62
3:4:14:UNK:O	5:p:50:GLN:NE2	2.31	0.62
7:u:48:ARG:NH2	7:u:81:SER:OG	2.32	0.62
8:DE:34:SER:HB3	8:DE:366:VAL:HG22	1.79	0.62
8:DJ:375:MET:SD	8:DO:391:THR:HG21	2.39	0.62
12:Di:211:THR:HA	12:Di:221:THR:HG21	1.81	0.62
16:BA:250:ASP:OD1	16:BB:23:ARG:NH1	2.33	0.62
8:DW:231:LYS:HB2	8:DW:239:GLU:HB2	1.82	0.62
8:EG:158:LEU:HB2	8:EG:268:GLN:HB3	1.81	0.62
1:Q:19:MET:HB2	1:Q:236:VAL:HG11	1.81	0.62
2:c:25:ASN:HD21	2:c:37:GLN:H	1.45	0.62
8:DH:379:GLN:HG3	8:DM:395:ILE:HD11	1.80	0.62
8:DI:380:ARG:NE	8:DO:393:ASP:OD1	2.33	0.62
12:De:211:THR:HA	12:De:221:THR:HG21	1.81	0.62
12:Dg:211:THR:HA	12:Dg:221:THR:HG21	1.81	0.62
16:BV:272:SER:HA	16:BV:322:VAL:O	2.00	0.62
8:DO:275:ASN:O	8:DO:275:ASN:ND2	2.30	0.62
8:DU:42:MET:HG3	8:DU:50:LEU:HB2	1.81	0.62
8:EB:349:GLY:O	8:EB:355:LYS:NZ	2.25	0.62
8:EC:170:PHE:HA	8:EC:177:SER:HB2	1.82	0.62
1:N:9:LYS:NZ	1:T:228:GLU:OE2	2.33	0.62
8:DD:183:THR:CG2	8:DO:131:GLY:C	2.69	0.62
12:Dl:211:THR:HA	12:Dl:221:THR:HG21	1.81	0.62
12:Dm:211:THR:HA	12:Dm:221:THR:HG21	1.81	0.62
12:Dq:211:THR:HA	12:Dq:221:THR:HG21	1.81	0.62
12:Dw:211:THR:HA	12:Dw:221:THR:HG21	1.81	0.62
15:AH:84:GLU:OE2	15:AH:197:SER:OG	2.17	0.62
16:BW:272:SER:HA	16:BW:322:VAL:O	2.00	0.62
16:BY:272:SER:HA	16:BY:322:VAL:O	2.00	0.62
8:DX:79:GLN:HB2	8:DX:354:GLY:HA3	1.82	0.62
8:EB:337:THR:O	8:EB:340:SER:OG	2.12	0.62
1:D:42:GLU:OE2	1:D:73:ARG:NH2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:78:GLU:OE1	2:c:106:GLN:NE2	2.31	0.62
4:5:319:GLN:HE21	12:Ed:357:SER:CB	1.94	0.62
8:DE:19:VAL:O	8:DE:23:ASN:ND2	2.33	0.62
11:w:54:LEU:HA	11:w:58:LEU:HD23	1.82	0.62
11:w:200:ILE:HG21	11:w:218:ALA:HB2	1.82	0.62
12:Dj:145:GLU:HG2	12:Dj:152:SER:HA	1.82	0.62
8:DO:3:PHE:CE1	8:DO:389:ILE:HD11	2.35	0.62
8:DS:178:TYR:HA	8:DS:201:VAL:HG12	1.81	0.62
8:DY:178:TYR:HA	8:DY:201:VAL:HG22	1.81	0.62
1:B:260:LEU:HD22	1:F:248:SER:HB3	1.82	0.62
1:U:142:ILE:HD13	1:U:149:ILE:HG12	1.82	0.62
8:DB:165:PRO:HG2	8:DB:201:VAL:HG23	1.82	0.62
8:DD:95:SER:HB2	8:DD:333:VAL:HG12	1.81	0.62
8:DK:101:LYS:NZ	8:DK:110:ASN:O	2.33	0.62
12:Dk:145:GLU:HG2	12:Dk:152:SER:HA	1.82	0.62
12:Dm:145:GLU:HG2	12:Dm:152:SER:HA	1.82	0.62
15:AA:213:ILE:HG23	15:AY:136:GLY:HA3	1.80	0.62
15:AL:232:MET:HG2	15:AM:223:GLN:HB2	1.82	0.62
16:BE:272:SER:HA	16:BE:322:VAL:O	2.00	0.62
16:BF:272:SER:HA	16:BF:322:VAL:O	2.00	0.62
16:BU:272:SER:HA	16:BU:322:VAL:O	2.00	0.62
16:BX:272:SER:HA	16:BX:322:VAL:O	2.00	0.62
8:DM:33:LYS:HA	8:DM:365:ASN:HD21	1.63	0.62
8:DN:146:ALA:CA	8:DN:189:SER:O	2.46	0.62
8:DO:264:LEU:HD23	8:DO:265:ASN:HB2	1.82	0.62
8:DS:159:ASN:HB3	8:DS:162:ASP:HB2	1.82	0.62
8:DS:399:LEU:O	8:DS:399:LEU:HD13	2.00	0.62
8:EB:197:ASN:OD1	8:EB:215:SER:OG	2.18	0.62
1:V:36:ARG:NH2	1:V:228:GLU:OE2	2.33	0.61
8:DJ:205:ASP:CG	8:DP:252:ASN:CA	2.73	0.61
12:Dh:145:GLU:HG2	12:Dh:152:SER:HA	1.82	0.61
12:Dn:211:THR:HA	12:Dn:221:THR:HG21	1.81	0.61
16:BG:272:SER:HA	16:BG:322:VAL:O	2.00	0.61
8:DL:247:THR:HG22	8:DL:258:THR:HG22	1.82	0.61
8:DQ:233:ASN:HB3	8:DQ:237:ILE:H	1.65	0.61
1:R:98:LYS:HD3	1:R:215:TYR:HE2	1.64	0.61
2:b:82:LEU:HD11	2:b:163:LEU:HD22	1.82	0.61
5:g:85:ALA:HB1	5:g:89:GLY:HA2	1.82	0.61
8:DI:295:ASN:ND2	8:DI:299:THR:OG1	2.34	0.61
12:Dc:211:THR:HA	12:Dc:221:THR:HG21	1.81	0.61
12:Di:145:GLU:HG2	12:Di:152:SER:HA	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dp:211:THR:HA	12:Dp:221:THR:HG21	1.81	0.61
12:Dv:211:THR:HA	12:Dv:221:THR:HG21	1.81	0.61
16:BD:272:SER:HA	16:BD:322:VAL:O	2.00	0.61
16:BH:272:SER:HA	16:BH:322:VAL:O	2.00	0.61
8:DT:300:VAL:HG23	8:DT:312:LEU:HB2	1.82	0.61
8:EB:58:THR:OG1	8:EB:324:GLU:OE1	2.18	0.61
1:A:177:THR:OG1	1:A:202:ASN:OD1	2.17	0.61
8:DD:18:ASP:OD1	8:DI:5:GLN:NE2	2.23	0.61
8:DK:103:ASP:CA	8:DP:322:ASN:HB2	2.30	0.61
12:Da:211:THR:HA	12:Da:221:THR:HG21	1.81	0.61
15:AI:84:GLU:OE2	15:AI:197:SER:OG	2.18	0.61
16:BS:272:SER:HA	16:BS:322:VAL:O	2.00	0.61
16:BT:272:SER:HA	16:BT:322:VAL:O	2.00	0.61
8:DT:395:ILE:O	8:DT:398:THR:CG2	2.48	0.61
8:EC:9:GLY:HA3	8:EC:385:ASN:HD21	1.64	0.61
2:a:167:GLU:N	2:a:170:GLU:OE2	2.33	0.61
12:DI:145:GLU:HG2	12:DI:152:SER:HA	1.82	0.61
14:GI:14:UNK:CB	12:Cm:372:ILE:CG2	2.78	0.61
15:AP:179:ARG:NH1	15:AP:206:GLU:OE1	2.34	0.61
16:BC:272:SER:HA	16:BC:322:VAL:O	2.00	0.61
16:BI:272:SER:HA	16:BI:322:VAL:O	2.00	0.61
8:DX:399:LEU:O	8:DX:402:LEU:HG	2.01	0.61
8:DZ:233:ASN:OD1	8:DZ:234:GLU:N	2.32	0.61
8:EA:44:ALA:HB2	8:EA:50:LEU:HD11	1.81	0.61
2:d:28:ASN:HB3	1:W:72:VAL:HB	1.82	0.61
8:DK:102:LEU:O	8:DP:322:ASN:OD1	2.19	0.61
11:y:152:ARG:HH11	12:Dt:164:LEU:HA	1.51	0.61
12:Df:172:PRO:CG	12:Df:205:LEU:HA	2.29	0.61
12:Ds:211:THR:HA	12:Ds:221:THR:HG21	1.81	0.61
15:AA:223:GLN:HB2	15:AZ:232:MET:HG2	1.81	0.61
15:AP:84:GLU:OE2	15:AP:197:SER:OG	2.18	0.61
16:BM:250:ASP:OD1	16:BN:23:ARG:NH1	2.32	0.61
16:BQ:272:SER:HA	16:BQ:322:VAL:O	2.00	0.61
16:BR:272:SER:HA	16:BR:322:VAL:O	2.00	0.61
16:BZ:272:SER:HA	16:BZ:322:VAL:O	2.00	0.61
8:DN:44:ALA:CB	8:DN:50:LEU:HD23	2.25	0.61
8:DN:396:LEU:O	8:DN:396:LEU:HD12	2.01	0.61
8:DS:387:GLN:OE1	8:DS:390:LYS:HD2	2.01	0.61
1:K:59:GLN:HA	1:K:59:GLN:HE21	1.64	0.61
1:O:195:THR:HG22	2:c:152:PRO:HB2	1.83	0.61
5:j:6:ILE:HD11	6:n:24:GLU:HA	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DB:180:LYS:NZ	8:DM:130:GLN:CA	2.63	0.61
12:Dg:145:GLU:HG2	12:Dg:152:SER:HA	1.82	0.61
12:Do:211:THR:HA	12:Do:221:THR:HG21	1.81	0.61
15:Aj:84:GLU:OE2	15:Aj:197:SER:OG	2.18	0.61
15:AO:84:GLU:OE2	15:AO:197:SER:OG	2.17	0.61
8:DM:165:PRO:HG2	8:DM:201:VAL:HG13	1.82	0.61
8:DQ:153:SER:OG	8:DQ:280:ASN:OD1	2.19	0.61
8:DR:178:TYR:HA	8:DR:201:VAL:HG12	1.82	0.61
8:DY:269:GLN:HB2	8:EE:286:PRO:HG2	1.80	0.61
2:b:76:ARG:NH1	2:b:79:ASP:OD1	2.32	0.61
2:e:28:ASN:HB3	1:X:72:VAL:HB	1.82	0.61
8:DA:68:ASN:ND2	8:DL:53:LYS:HG3	2.15	0.61
8:DA:337:THR:O	8:DA:340:SER:OG	2.17	0.61
8:DG:196:MET:SD	8:DG:212:THR:OG1	2.58	0.61
12:Dq:133:GLN:HB2	12:Dq:159:MET:HE1	1.82	0.61
12:Dr:211:THR:HA	12:Dr:221:THR:HG21	1.81	0.61
15:AL:179:ARG:NH1	15:AL:206:GLU:OE1	2.34	0.61
15:AM:179:ARG:NH1	15:AM:206:GLU:OE1	2.34	0.61
15:AQ:84:GLU:OE2	15:AQ:197:SER:OG	2.17	0.61
15:AS:179:ARG:NH1	15:AS:206:GLU:OE1	2.34	0.61
15:AT:179:ARG:NH1	15:AT:206:GLU:OE1	2.34	0.61
16:BP:272:SER:HA	16:BP:322:VAL:O	2.00	0.61
8:DL:338:GLN:O	8:DL:338:GLN:HG3	1.99	0.61
8:DP:60:ASP:OD1	8:DP:61:PHE:N	2.33	0.61
8:DU:317:LEU:HD11	8:DU:356:LEU:HD11	1.82	0.61
8:DZ:106:ARG:NH1	8:DZ:139:ILE:O	2.34	0.61
8:ED:86:VAL:HG22	8:ED:92:VAL:HG22	1.83	0.61
8:ED:165:PRO:HG2	8:ED:201:VAL:HG13	1.81	0.61
1:H:100:GLN:NE2	1:H:210:GLY:O	2.34	0.61
8:DI:337:THR:O	8:DI:340:SER:OG	2.17	0.61
12:Dd:211:THR:HA	12:Dd:221:THR:HG21	1.81	0.61
12:Dn:145:GLU:HG2	12:Dn:152:SER:HA	1.82	0.61
12:Dt:211:THR:HA	12:Dt:221:THR:HG21	1.81	0.61
14:GH:16:UNK:CB	12:Cr:276:GLU:OE1	2.48	0.61
15:AD:232:MET:HG2	15:AE:223:GLN:HB2	1.81	0.61
16:BA:272:SER:HA	16:BA:322:VAL:O	2.00	0.61
16:BJ:272:SER:HA	16:BJ:322:VAL:O	2.00	0.61
8:DL:395:ILE:HD13	8:DL:395:ILE:N	2.15	0.61
8:DP:146:ALA:HB2	8:DP:286:PRO:HD3	1.83	0.61
8:DS:390:LYS:O	8:DS:394:GLN:HG2	2.00	0.61
8:DU:391:THR:O	8:DU:395:ILE:HG22	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:EE:199:TYR:O	8:EE:210:VAL:HA	2.01	0.61
1:M:98:LYS:O	1:M:212:GLY:CA	2.49	0.61
1:Q:48:THR:HG22	1:Q:67:GLN:HG2	1.83	0.61
1:R:256:LYS:HG2	1:W:241:GLU:HG2	1.81	0.61
5:h:12:SER:OG	5:h:62:VAL:O	2.17	0.61
8:DB:203:THR:OG1	8:DB:207:GLU:OE2	2.18	0.61
8:DF:206:ASN:ND2	8:DF:268:GLN:OE1	2.30	0.61
8:DK:26:ASN:OD1	8:DP:52:VAL:CB	2.25	0.61
12:Dr:145:GLU:HG2	12:Dr:152:SER:HA	1.82	0.61
15:AQ:179:ARG:NH1	15:AQ:206:GLU:OE1	2.34	0.61
15:AV:65:LEU:HG	16:BW:65:MET:HG3	1.81	0.61
16:BB:272:SER:HA	16:BB:322:VAL:O	2.00	0.61
8:DM:159:ASN:ND2	8:DM:270:ASN:OD1	2.34	0.61
8:DQ:269:GLN:HB3	8:DW:286:PRO:HG2	1.83	0.61
8:DR:144:MET:HE1	8:DR:308:GLN:HB2	1.82	0.61
8:EC:94:TYR:HE2	8:EC:336:ALA:HB2	1.66	0.61
8:ED:179:ASN:OD1	8:ED:202:LYS:N	2.33	0.61
1:B:136:VAL:HG12	1:B:138:PRO:HD2	1.81	0.61
1:G:67:GLN:NE2	1:L:185:GLU:OE1	2.29	0.61
1:O:36:ARG:HD3	1:O:80:LEU:HD12	1.82	0.61
1:V:209:ASN:ND2	16:BD:82:LYS:NZ	2.45	0.61
10:CA:71:ASN:ND2	12:Dq:123:ILE:CB	2.64	0.61
11:y:160:GLN:O	12:Du:167:ARG:N	2.33	0.61
11:z:100:ILE:HD11	11:z:244:TYR:HB2	1.83	0.61
12:Da:145:GLU:HG2	12:Da:152:SER:HA	1.82	0.61
12:Do:145:GLU:HG2	12:Do:152:SER:HA	1.82	0.61
12:Dq:172:PRO:O	12:Dq:205:LEU:HD13	2.01	0.61
15:AK:84:GLU:OE2	15:AK:197:SER:OG	2.17	0.61
15:AO:179:ARG:NH1	15:AO:206:GLU:OE1	2.34	0.61
15:AV:232:MET:HG2	15:AW:223:GLN:HB2	1.83	0.61
8:DU:390:LYS:HZ1	8:DZ:402:LEU:HB3	1.66	0.61
8:DX:247:THR:HG22	8:DX:258:THR:HG22	1.83	0.61
8:DX:248:THR:OG1	8:DX:257:ALA:N	2.30	0.61
1:I:78:GLU:OE1	1:N:121:GLN:NE2	2.34	0.60
1:L:256:LYS:HG2	1:Q:241:GLU:HG2	1.84	0.60
5:g:125:MET:HE1	5:p:21:LEU:HD22	1.83	0.60
8:DD:146:ALA:HB2	8:DD:286:PRO:HD3	1.83	0.60
8:DJ:33:LYS:NZ	8:DJ:362:GLU:OE2	2.34	0.60
12:Di:214:ASP:OD1	12:Di:214:ASP:N	2.34	0.60
8:DM:42:MET:HA	8:DM:42:MET:CE	2.30	0.60
8:EF:206:ASN:OD1	8:EF:268:GLN:NE2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:92:SER:O	1:B:216:GLN:NE2	2.33	0.60
1:U:44:LEU:HB2	1:U:70:THR:HB	1.82	0.60
8:DK:102:LEU:HD23	8:DK:106:ARG:HE	1.66	0.60
12:Dp:145:GLU:HG2	12:Dp:152:SER:HA	1.82	0.60
16:BO:272:SER:HA	16:BO:322:VAL:O	2.00	0.60
8:DO:7:VAL:HA	8:DO:10:LEU:HD22	1.82	0.60
8:DY:286:PRO:O	8:DY:306:ASN:ND2	2.33	0.60
2:b:44:VAL:HG11	4:6:328:ILE:HD13	1.84	0.60
9:CE:144:LEU:HB3	11:x:149:LEU:HD13	1.82	0.60
12:Dc:145:GLU:HG2	12:Dc:152:SER:HA	1.82	0.60
12:Dt:145:GLU:HG2	12:Dt:152:SER:HA	1.82	0.60
12:Dv:145:GLU:HG2	12:Dv:152:SER:HA	1.82	0.60
12:Co:233:ALA:HA	12:Co:236:LYS:HD3	1.83	0.60
15:AI:179:ARG:NH1	15:AI:206:GLU:OE1	2.34	0.60
8:DX:306:ASN:O	8:DX:308:GLN:NE2	2.30	0.60
8:DZ:390:LYS:HZ3	8:EE:402:LEU:HA	1.65	0.60
1:A:1:MET:HG3	1:A:2:ILE:HG12	1.83	0.60
1:F:1:MET:SD	1:F:1:MET:N	2.74	0.60
2:e:225:ARG:NH1	1:W:251:ASP:OD1	2.34	0.60
6:o:120:LEU:HD11	5:p:129:THR:HA	1.83	0.60
7:r:46:SER:O	7:r:49:GLN:NE2	2.33	0.60
8:DJ:376:ILE:HG21	8:DP:393:ASP:OD2	2.01	0.60
12:Dd:145:GLU:HG2	12:Dd:152:SER:HA	1.82	0.60
12:De:145:GLU:HG2	12:De:152:SER:HA	1.82	0.60
12:DI:214:ASP:N	12:DI:214:ASP:OD1	2.35	0.60
15:AL:84:GLU:OE2	15:AL:197:SER:OG	2.17	0.60
15:AR:84:GLU:OE2	15:AR:197:SER:OG	2.17	0.60
15:AS:232:MET:HG2	15:AT:223:GLN:HB2	1.82	0.60
15:AU:232:MET:HG2	15:AV:223:GLN:HB2	1.83	0.60
15:AW:179:ARG:NH1	15:AW:206:GLU:OE1	2.34	0.60
16:BK:272:SER:HA	16:BK:322:VAL:O	2.00	0.60
16:BT:161:ASN:HD22	16:BU:46:ASP:HA	1.65	0.60
8:DP:314:GLN:NE2	8:DP:347:THR:OG1	2.33	0.60
8:DQ:33:LYS:HA	8:DQ:365:ASN:HD21	1.65	0.60
8:DV:188:ASP:OD2	8:DV:192:ASN:ND2	2.30	0.60
8:DX:210:VAL:O	8:DX:227:SER:N	2.35	0.60
8:EA:399:LEU:HA	8:EA:402:LEU:HD23	1.82	0.60
8:DB:105:ASN:OD1	8:DB:107:ASN:ND2	2.34	0.60
8:DB:183:THR:HG21	8:DM:133:ASN:H	1.67	0.60
8:DJ:17:LEU:HD11	8:DO:395:ILE:CD1	2.31	0.60
8:DJ:372:LEU:HD12	8:DU:399:LEU:HB3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CE:48:ILE:O	9:CE:51:THR:OG1	2.18	0.60
9:CE:213:ILE:HD13	11:CF:213:PRO:HG3	1.83	0.60
12:Df:214:ASP:OD1	12:Df:214:ASP:N	2.35	0.60
12:Du:145:GLU:HG2	12:Du:152:SER:HA	1.82	0.60
12:Ca:275:LYS:HG2	12:Cb:375:THR:HG23	1.83	0.60
12:Cq:233:ALA:HA	12:Cq:236:LYS:HD3	1.83	0.60
15:AU:84:GLU:OE2	15:AU:197:SER:OG	2.17	0.60
15:AV:84:GLU:OE2	15:AV:197:SER:OG	2.17	0.60
8:DS:235:ASN:O	8:DS:269:GLN:NE2	2.34	0.60
8:EC:160:SER:O	8:EC:202:LYS:NZ	2.34	0.60
1:G:38:ARG:HH12	1:G:80:LEU:HD21	1.66	0.60
1:H:174:ASN:ND2	1:H:203:GLU:OE2	2.34	0.60
2:d:44:VAL:HG11	4:8:328:ILE:HD13	1.82	0.60
1:V:98:LYS:O	1:V:212:GLY:CA	2.48	0.60
12:Cm:233:ALA:HA	12:Cm:236:LYS:HD3	1.83	0.60
12:Cs:233:ALA:HA	12:Cs:236:LYS:HD3	1.83	0.60
12:Ct:233:ALA:HA	12:Ct:236:LYS:HD3	1.83	0.60
15:AJ:179:ARG:NH1	15:AJ:206:GLU:OE1	2.34	0.60
15:AN:179:ARG:NH1	15:AN:206:GLU:OE1	2.34	0.60
15:AR:179:ARG:NH1	15:AR:206:GLU:OE1	2.34	0.60
15:AV:179:ARG:NH1	15:AV:206:GLU:OE1	2.34	0.60
15:AW:84:GLU:OE2	15:AW:197:SER:OG	2.17	0.60
15:AX:70:ARG:NH2	16:BZ:72:THR:OG1	2.33	0.60
16:BN:272:SER:HA	16:BN:322:VAL:O	2.00	0.60
8:DM:112:GLN:NE2	8:DM:331:ASP:OD2	2.34	0.60
8:DM:331:ASP:OD1	8:DM:332:ASN:N	2.32	0.60
8:DO:53:LYS:HD3	8:DO:54:VAL:H	1.67	0.60
8:DR:337:THR:O	8:DR:340:SER:OG	2.20	0.60
8:DW:75:VAL:HG11	8:DW:356:LEU:HD13	1.84	0.60
8:DY:180:LYS:HB2	8:DY:200:PHE:HB2	1.84	0.60
1:H:78:GLU:OE1	1:M:121:GLN:NE2	2.34	0.60
1:N:72:VAL:HB	1:S:28:ASN:HB3	1.84	0.60
1:O:3:SER:OG	1:T:20:ASP:OD2	2.19	0.60
2:b:170:GLU:HB2	2:b:185:ALA:HB2	1.83	0.60
5:g:72:ALA:HB3	5:g:95:ASN:HD22	1.67	0.60
8:DE:16:ASN:HB2	8:DE:39:PHE:HZ	1.66	0.60
8:DF:184:VAL:HB	8:DF:196:MET:HB2	1.83	0.60
8:DI:79:GLN:HB2	8:DI:354:GLY:HA3	1.83	0.60
12:Dq:145:GLU:HG2	12:Dq:152:SER:HA	1.82	0.60
12:Dv:133:GLN:HB2	12:Dv:159:MET:CE	2.30	0.60
12:Ci:261:ASN:HB3	12:Ci:392:ASN:HB3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cm:232:ASP:N	12:Cm:232:ASP:OD1	2.34	0.60
12:Cn:232:ASP:OD1	12:Cn:232:ASP:N	2.34	0.60
12:Co:232:ASP:N	12:Co:232:ASP:OD1	2.34	0.60
12:Cp:233:ALA:HA	12:Cp:236:LYS:HD3	1.83	0.60
12:Cr:233:ALA:HA	12:Cr:236:LYS:HD3	1.83	0.60
15:AK:179:ARG:NH1	15:AK:206:GLU:OE1	2.34	0.60
15:AM:84:GLU:OE2	15:AM:197:SER:OG	2.17	0.60
15:AQ:232:MET:HG2	15:AR:223:GLN:HB2	1.82	0.60
15:AT:84:GLU:OE2	15:AT:197:SER:OG	2.17	0.60
15:AX:84:GLU:OE2	15:AX:197:SER:OG	2.17	0.60
8:DO:170:PHE:HZ	8:DO:199:TYR:HD2	1.49	0.60
8:DP:350:SER:OG	8:DP:351:GLY:N	2.32	0.60
8:DS:160:SER:HA	8:DS:268:GLN:HE21	1.66	0.60
8:DY:211:TYR:CE1	8:DY:226:ALA:HA	2.37	0.60
8:EC:87:ASP:OD2	8:EC:89:ASN:ND2	2.34	0.60
8:DI:326:LEU:HB3	8:DI:334:TRP:HB3	1.83	0.60
9:CE:26:LEU:HD13	9:CE:150:LEU:HD21	1.84	0.60
12:Df:145:GLU:HG2	12:Df:152:SER:HA	1.82	0.60
12:Dg:214:ASP:N	12:Dg:214:ASP:OD1	2.35	0.60
12:Ds:145:GLU:HG2	12:Ds:152:SER:HA	1.82	0.60
12:Cf:261:ASN:HB3	12:Cf:392:ASN:HB3	1.84	0.60
12:Cj:232:ASP:N	12:Cj:232:ASP:OD1	2.34	0.60
12:Ck:232:ASP:OD1	12:Ck:232:ASP:N	2.34	0.60
12:Cl:232:ASP:N	12:Cl:232:ASP:OD1	2.34	0.60
12:Cl:233:ALA:HA	12:Cl:236:LYS:HD3	1.83	0.60
12:Cl:261:ASN:HB3	12:Cl:392:ASN:HB3	1.84	0.60
12:Co:261:ASN:HB3	12:Co:392:ASN:HB3	1.84	0.60
15:AH:179:ARG:NH1	15:AH:206:GLU:OE1	2.34	0.60
15:AN:84:GLU:OE2	15:AN:197:SER:OG	2.17	0.60
16:BL:272:SER:HA	16:BL:322:VAL:O	2.00	0.60
16:BM:272:SER:HA	16:BM:322:VAL:O	2.00	0.60
8:DL:82:PHE:HD1	8:DL:96:ARG:HD3	1.67	0.60
8:DP:390:LYS:HA	8:DU:402:LEU:HD21	1.84	0.60
8:DR:233:ASN:OD1	8:DR:234:GLU:N	2.34	0.60
8:DW:106:ARG:HH22	8:DW:140:PRO:HA	1.66	0.60
8:EB:158:LEU:HB2	8:EB:268:GLN:HB3	1.83	0.60
1:A:123:ASP:OD1	1:A:127:GLN:N	2.35	0.60
1:B:153:ARG:HD2	1:B:213:LEU:HD13	1.84	0.60
1:L:21:VAL:O	1:L:25:ASN:ND2	2.35	0.60
1:R:251:ASP:OD1	1:X:238:ARG:NH2	2.34	0.60
12:Db:145:GLU:HG2	12:Db:152:SER:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dh:214:ASP:OD1	12:Dh:214:ASP:N	2.34	0.60
12:Dm:214:ASP:N	12:Dm:214:ASP:OD1	2.35	0.60
12:Dw:145:GLU:HG2	12:Dw:152:SER:HA	1.83	0.60
12:Cj:233:ALA:HA	12:Cj:236:LYS:HD3	1.83	0.60
12:Ck:233:ALA:HA	12:Ck:236:LYS:HD3	1.84	0.60
12:Cn:233:ALA:HA	12:Cn:236:LYS:HD3	1.83	0.60
12:Cp:232:ASP:N	12:Cp:232:ASP:OD1	2.34	0.60
12:Cr:261:ASN:HB3	12:Cr:392:ASN:HB3	1.84	0.60
12:Cv:233:ALA:HA	12:Cv:236:LYS:HD3	1.83	0.60
15:AU:179:ARG:NH1	15:AU:206:GLU:OE1	2.34	0.60
8:DO:233:ASN:OD1	8:DO:234:GLU:N	2.35	0.60
8:DQ:270:ASN:O	8:DW:285:LYS:NZ	2.22	0.60
8:DT:398:THR:O	8:DT:401:ASN:OD1	2.20	0.60
8:DU:103:ASP:OD1	8:DU:107:ASN:N	2.30	0.60
8:DV:101:LYS:HB3	8:DV:109:VAL:HG23	1.82	0.60
8:DW:232:PHE:CD1	8:DW:268:GLN:HG2	2.36	0.60
8:EF:114:MET:HE1	8:EF:333:VAL:HG21	1.84	0.60
8:EG:178:TYR:HA	8:EG:201:VAL:HG22	1.83	0.60
1:K:35:LYS:NZ	1:K:220:GLU:OE2	2.34	0.60
5:p:72:ALA:O	5:p:95:ASN:ND2	2.35	0.60
8:DF:276:ILE:HG12	8:DQ:131:GLY:HA2	1.82	0.60
15:AS:84:GLU:OE2	15:AS:197:SER:OG	2.18	0.60
15:AX:179:ARG:NH1	15:AX:206:GLU:OE1	2.34	0.60
8:DP:57:ILE:H	8:DU:47:LYS:HE2	1.66	0.60
8:EG:231:LYS:NZ	8:EG:232:PHE:O	2.31	0.60
1:C:1:MET:N	1:C:1:MET:SD	2.75	0.59
1:E:228:GLU:OE1	1:E:232:ASN:ND2	2.35	0.59
1:G:72:VAL:HB	1:L:28:ASN:HB3	1.84	0.59
1:H:147:LEU:HB2	1:H:160:THR:HG23	1.84	0.59
1:S:50:ARG:HE	1:S:51:GLN:H	1.50	0.59
8:DD:317:LEU:HD11	8:DD:356:LEU:HD21	1.83	0.59
8:DF:19:VAL:O	8:DF:23:ASN:ND2	2.33	0.59
12:Cc:261:ASN:HB3	12:Cc:392:ASN:HB3	1.84	0.59
12:Ch:232:ASP:OD1	12:Ch:232:ASP:N	2.34	0.59
12:Ci:232:ASP:OD1	12:Ci:232:ASP:N	2.34	0.59
12:Cq:232:ASP:OD1	12:Cq:232:ASP:N	2.34	0.59
12:Cr:232:ASP:N	12:Cr:232:ASP:OD1	2.34	0.59
12:Cu:233:ALA:HA	12:Cu:236:LYS:HD3	1.83	0.59
15:AY:84:GLU:OE2	15:AY:197:SER:OG	2.17	0.59
8:DQ:188:ASP:HB3	8:DQ:194:HIS:NE2	2.16	0.59
8:DT:33:LYS:HA	8:DT:365:ASN:HD21	1.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:EB:34:SER:HB2	8:EB:366:VAL:HG22	1.83	0.59
1:B:28:ASN:HB3	8:DE:52:VAL:HB	1.84	0.59
10:CA:43:GLN:O	10:CA:45:ASN:ND2	2.35	0.59
12:Dc:172:PRO:HG2	12:Dc:205:LEU:HA	1.84	0.59
12:Cg:232:ASP:N	12:Cg:232:ASP:OD1	2.34	0.59
15:AJ:232:MET:HG2	15:AK:223:GLN:HB2	1.83	0.59
8:DL:133:ASN:ND2	8:DL:134:PRO:HD2	2.17	0.59
8:DY:367:ASP:OD1	8:DY:368:LEU:N	2.34	0.59
8:EA:206:ASN:ND2	8:EA:233:ASN:O	2.36	0.59
8:EG:95:SER:HB2	8:EG:333:VAL:HG12	1.84	0.59
1:F:48:THR:HG22	1:F:67:GLN:HG2	1.84	0.59
1:U:35:LYS:NZ	1:U:220:GLU:OE2	2.36	0.59
8:DK:143:LEU:HD12	8:DK:286:PRO:HB2	1.83	0.59
12:Ca:242:GLU:OE1	12:Cb:248:ARG:NH2	2.35	0.59
12:Ch:233:ALA:HA	12:Ch:236:LYS:HD3	1.84	0.59
12:Ci:233:ALA:HA	12:Ci:236:LYS:HD3	1.84	0.59
12:Cs:232:ASP:OD1	12:Cs:232:ASP:N	2.34	0.59
12:Cx:233:ALA:HA	12:Cx:236:LYS:HD3	1.83	0.59
15:AA:179:ARG:NH1	15:AA:206:GLU:OE1	2.34	0.59
8:ED:329:GLN:HB2	8:ED:333:VAL:HG23	1.83	0.59
1:I:72:VAL:HB	1:N:28:ASN:HB3	1.83	0.59
1:P:50:ARG:HH22	5:h:81:GLY:HA2	1.67	0.59
8:DC:285:LYS:O	8:DC:306:ASN:ND2	2.34	0.59
12:Dv:133:GLN:CG	12:Dv:159:MET:HE2	2.26	0.59
12:Cf:232:ASP:OD1	12:Cf:232:ASP:N	2.34	0.59
12:Cg:261:ASN:HB3	12:Cg:392:ASN:HB3	1.84	0.59
12:Cm:261:ASN:HB3	12:Cm:392:ASN:HB3	1.84	0.59
12:Cu:261:ASN:HB3	12:Cu:392:ASN:HB3	1.84	0.59
8:DM:322:ASN:OD1	8:DM:340:SER:CA	2.47	0.59
8:DN:48:VAL:HG23	8:DN:48:VAL:O	2.03	0.59
8:DY:179:ASN:N	8:DY:200:PHE:O	2.32	0.59
8:DZ:68:ASN:HA	8:DZ:360:ALA:HA	1.83	0.59
1:J:45:LEU:HD13	1:U:98:LYS:HG2	1.83	0.59
1:U:106:MET:SD	1:U:137:GLN:NE2	2.76	0.59
8:DE:150:THR:HG1	8:DE:282:ASN:HD21	1.47	0.59
8:DE:367:ASP:OD2	8:DE:369:SER:OG	2.17	0.59
12:Dc:214:ASP:OD1	12:Dc:214:ASP:N	2.35	0.59
12:Dq:214:ASP:OD1	12:Dq:214:ASP:N	2.35	0.59
12:Ca:233:ALA:HA	12:Ca:236:LYS:HD3	1.84	0.59
12:Cf:233:ALA:HA	12:Cf:236:LYS:HD3	1.83	0.59
12:Ch:261:ASN:HB3	12:Ch:392:ASN:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cj:261:ASN:HB3	12:Cj:392:ASN:HB3	1.84	0.59
12:Cn:261:ASN:HB3	12:Cn:392:ASN:HB3	1.84	0.59
12:Cp:358:THR:HG22	12:Cp:359:GLN:H	1.68	0.59
12:Cw:233:ALA:HA	12:Cw:236:LYS:HD3	1.84	0.59
12:Cx:358:THR:HG22	12:Cx:359:GLN:H	1.68	0.59
12:Ef:233:ALA:HA	12:Ef:236:LYS:HD3	1.83	0.59
15:AE:179:ARG:NH1	15:AE:206:GLU:OE1	2.34	0.59
15:AG:232:MET:HG2	15:AH:223:GLN:HB2	1.85	0.59
15:AN:232:MET:HG2	15:AO:223:GLN:HB2	1.84	0.59
15:AZ:179:ARG:NH1	15:AZ:206:GLU:OE1	2.34	0.59
8:DT:34:SER:HB2	8:DT:366:VAL:HG22	1.84	0.59
1:G:59:GLN:HG2	16:BI:78:ASN:ND2	2.17	0.59
6:o:120:LEU:HG	5:p:132:LEU:HD12	1.85	0.59
8:DE:143:LEU:HD22	8:DE:288:ASP:HA	1.83	0.59
12:Cd:261:ASN:HB3	12:Cd:392:ASN:HB3	1.84	0.59
12:Ck:261:ASN:HB3	12:Ck:392:ASN:HB3	1.84	0.59
12:Ck:358:THR:HG22	12:Ck:359:GLN:H	1.68	0.59
12:Cm:358:THR:HG22	12:Cm:359:GLN:H	1.68	0.59
12:Cp:261:ASN:HB3	12:Cp:392:ASN:HB3	1.84	0.59
12:Cq:261:ASN:HB3	12:Cq:392:ASN:HB3	1.84	0.59
12:Ct:232:ASP:OD1	12:Ct:232:ASP:N	2.34	0.59
12:Cw:358:THR:HG22	12:Cw:359:GLN:H	1.68	0.59
12:Cz:233:ALA:HA	12:Cz:236:LYS:HD3	1.83	0.59
12:Eb:233:ALA:HA	12:Eb:236:LYS:HD3	1.83	0.59
12:Eb:358:THR:HG22	12:Eb:359:GLN:H	1.68	0.59
15:AF:179:ARG:NH1	15:AF:206:GLU:OE1	2.34	0.59
15:AF:232:MET:HG2	15:AG:223:GLN:HB2	1.85	0.59
15:AZ:84:GLU:OE2	15:AZ:197:SER:OG	2.17	0.59
16:BA:266:ARG:HA	16:BA:328:LEU:HD22	1.85	0.59
16:BR:266:ARG:HA	16:BR:328:LEU:HD22	1.85	0.59
16:BU:131:SER:OG	16:BV:68:GLN:NE2	2.35	0.59
16:BV:266:ARG:HA	16:BV:328:LEU:HD22	1.85	0.59
8:DL:62:THR:O	8:DL:365:ASN:ND2	2.35	0.59
8:DO:235:ASN:O	8:DO:269:GLN:NE2	2.36	0.59
1:B:175:LEU:HD11	1:B:211:ALA:HB1	1.84	0.59
8:DA:149:THR:HB	8:DA:186:VAL:HG13	1.83	0.59
8:DK:327:ALA:CA	8:DP:47:LYS:HZ1	2.15	0.59
12:Dn:214:ASP:OD1	12:Dn:214:ASP:N	2.35	0.59
12:Ce:232:ASP:OD1	12:Ce:232:ASP:N	2.34	0.59
12:Cg:233:ALA:HA	12:Cg:236:LYS:HD3	1.83	0.59
12:Cl:358:THR:HG22	12:Cl:359:GLN:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Ct:358:THR:HG22	12:Ct:359:GLN:H	1.68	0.59
15:AA:232:MET:HG2	15:AB:223:GLN:HB2	1.85	0.59
16:BT:266:ARG:HA	16:BT:328:LEU:HD22	1.85	0.59
8:DM:101:LYS:NZ	8:DM:110:ASN:O	2.35	0.59
8:DM:179:ASN:OD1	8:DM:202:LYS:N	2.30	0.59
8:EC:85:LEU:HG	8:EC:116:LEU:HA	1.85	0.59
8:EF:248:THR:HG22	8:EF:257:ALA:H	1.67	0.59
2:d:240:ASN:HD21	5:i:109:SER:HA	1.66	0.59
6:o:41:ARG:HB3	6:o:85:LEU:HD12	1.83	0.59
8:DI:184:VAL:N	8:DI:196:MET:O	2.35	0.59
9:CE:144:LEU:HD21	11:x:146:ASP:HA	1.84	0.59
11:z:59:LEU:HB3	11:z:64:PHE:HE1	1.67	0.59
12:Db:214:ASP:N	12:Db:214:ASP:OD1	2.35	0.59
12:Dp:124:SER:CB	12:Dp:127:SER:HB3	2.33	0.59
12:Dr:214:ASP:N	12:Dr:214:ASP:OD1	2.34	0.59
12:Du:214:ASP:N	12:Du:214:ASP:OD1	2.35	0.59
12:Cq:358:THR:HG22	12:Cq:359:GLN:H	1.68	0.59
12:Cr:358:THR:HG22	12:Cr:359:GLN:H	1.68	0.59
12:Ct:261:ASN:HB3	12:Ct:392:ASN:HB3	1.84	0.59
12:Cu:232:ASP:N	12:Cu:232:ASP:OD1	2.34	0.59
12:Eh:261:ASN:HB3	12:Eh:392:ASN:HB3	1.84	0.59
15:AE:232:MET:HG2	15:AF:223:GLN:HB2	1.84	0.59
16:BB:266:ARG:HA	16:BB:328:LEU:HD22	1.85	0.59
16:BS:266:ARG:HA	16:BS:328:LEU:HD22	1.85	0.59
16:BU:266:ARG:HA	16:BU:328:LEU:HD22	1.85	0.59
8:DN:140:PRO:HB2	8:DN:142:THR:HG23	1.85	0.59
8:DZ:204:LYS:HG3	8:DZ:207:GLU:HB2	1.85	0.59
1:U:41:PHE:HB2	2:c:31:THR:HG22	1.85	0.59
8:DG:106:ARG:HG2	8:DL:321:ALA:CA	2.33	0.59
12:Do:214:ASP:N	12:Do:214:ASP:OD1	2.34	0.59
13:GD:9:UNK:CA	12:Cf:363:THR:HG21	2.33	0.59
12:Ca:261:ASN:HB3	12:Ca:392:ASN:HB3	1.84	0.59
12:Cd:232:ASP:N	12:Cd:232:ASP:OD1	2.34	0.59
12:Ce:261:ASN:HB3	12:Ce:392:ASN:HB3	1.84	0.59
12:Cf:358:THR:HG22	12:Cf:359:GLN:H	1.68	0.59
12:Cs:358:THR:HG22	12:Cs:359:GLN:H	1.68	0.59
12:Cx:261:ASN:HB3	12:Cx:392:ASN:HB3	1.84	0.59
12:Cy:233:ALA:HA	12:Cy:236:LYS:HD3	1.83	0.59
12:Ec:358:THR:HG22	12:Ec:359:GLN:H	1.68	0.59
12:Ef:261:ASN:HB3	12:Ef:392:ASN:HB3	1.84	0.59
15:AD:179:ARG:NH1	15:AD:206:GLU:OE1	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BC:266:ARG:HA	16:BC:328:LEU:HD22	1.85	0.59
16:BP:266:ARG:HA	16:BP:328:LEU:HD22	1.85	0.59
16:BW:266:ARG:HA	16:BW:328:LEU:HD22	1.85	0.59
16:BZ:266:ARG:HA	16:BZ:328:LEU:HD22	1.85	0.59
8:DO:19:VAL:HG23	8:DO:20:ILE:HD13	1.85	0.59
8:DS:95:SER:HB2	8:DS:333:VAL:HG12	1.85	0.59
8:DV:87:ASP:HB3	8:DV:114:MET:SD	2.42	0.59
8:DW:2:SER:OG	8:DW:3:PHE:N	2.28	0.59
8:EC:2:SER:OG	8:EC:3:PHE:N	2.31	0.59
2:a:55:THR:OG1	5:h:30:ASN:ND2	2.36	0.59
8:DD:105:ASN:OD1	8:DD:107:ASN:ND2	2.36	0.59
8:DG:102:LEU:CB	8:DL:321:ALA:O	2.51	0.59
8:DG:199:TYR:HE2	8:DG:213:HIS:HB3	1.68	0.59
8:DG:373:VAL:CG1	8:DM:10:LEU:CD2	2.51	0.59
8:DJ:373:VAL:CG1	8:DP:10:LEU:HD23	2.29	0.59
12:Dd:214:ASP:N	12:Dd:214:ASP:OD1	2.35	0.59
12:Dp:171:SER:HB2	12:Dp:172:PRO:HD2	1.85	0.59
12:Dv:158:ALA:HB2	12:Dw:200:SER:O	2.02	0.59
12:Dw:214:ASP:N	12:Dw:214:ASP:OD1	2.35	0.59
12:Cd:233:ALA:HA	12:Cd:236:LYS:HD3	1.84	0.59
12:Ce:358:THR:HG22	12:Ce:359:GLN:H	1.68	0.59
12:Ci:358:THR:HG22	12:Ci:359:GLN:H	1.68	0.59
12:Cv:232:ASP:OD1	12:Cv:232:ASP:N	2.34	0.59
12:Cw:261:ASN:HB3	12:Cw:392:ASN:HB3	1.84	0.59
15:AB:179:ARG:NH1	15:AB:206:GLU:OE1	2.34	0.59
16:BQ:266:ARG:HA	16:BQ:328:LEU:HD22	1.85	0.59
8:DM:293:GLN:OE1	8:DM:303:ASN:ND2	2.36	0.59
8:DN:39:PHE:HD2	8:DN:52:VAL:HG12	1.67	0.59
8:DU:157:ASN:HB3	8:DU:271:THR:HG21	1.84	0.59
1:K:25:ASN:HD21	1:K:37:GLN:H	1.51	0.58
8:DF:326:LEU:HB3	8:DF:334:TRP:HB3	1.84	0.58
8:DI:269:GLN:O	8:DI:271:THR:N	2.36	0.58
8:DJ:377:VAL:HA	8:DP:3:PHE:CE2	2.36	0.58
8:DK:327:ALA:HA	8:DP:47:LYS:HZ1	1.66	0.58
10:CD:47:MET:HG2	10:CD:48:THR:HG23	1.85	0.58
12:Cs:261:ASN:HB3	12:Cs:392:ASN:HB3	1.84	0.58
12:Cv:358:THR:HG22	12:Cv:359:GLN:H	1.68	0.58
12:Cz:358:THR:HG22	12:Cz:359:GLN:H	1.68	0.58
12:Eb:261:ASN:HB3	12:Eb:392:ASN:HB3	1.84	0.58
15:AA:84:GLU:OE2	15:AA:197:SER:OG	2.17	0.58
15:AG:179:ARG:NH1	15:AG:206:GLU:OE1	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:232:MET:HG2	15:AP:223:GLN:HB2	1.84	0.58
16:BD:266:ARG:HA	16:BD:328:LEU:HD22	1.85	0.58
16:BY:266:ARG:HA	16:BY:328:LEU:HD22	1.85	0.58
8:DL:402:LEU:HD12	8:DL:402:LEU:O	2.03	0.58
8:DM:297:ASP:OD1	8:DM:355:LYS:NZ	2.35	0.58
8:DN:10:LEU:HD23	8:DN:385:ASN:CB	2.27	0.58
8:DZ:294:ILE:HG12	8:DZ:300:VAL:HG22	1.85	0.58
1:D:38:ARG:NH2	1:D:78:GLU:OE2	2.32	0.58
1:G:55:GLN:HG2	1:W:169:GLN:HE22	1.68	0.58
8:DD:19:VAL:O	8:DD:23:ASN:ND2	2.36	0.58
8:DG:73:LEU:HD11	8:DG:108:LEU:HD11	1.84	0.58
8:DH:331:ASP:HB2	8:DM:40:ALA:HB2	1.78	0.58
8:DI:27:SER:HB3	8:DN:381:ASN:HD21	1.68	0.58
8:DI:65:THR:CB	8:DT:50:LEU:HD22	2.33	0.58
12:Db:171:SER:HB3	12:Db:172:PRO:HD2	1.84	0.58
12:De:214:ASP:OD1	12:De:214:ASP:N	2.34	0.58
14:GF:9:UNK:CB	12:Ef:372:ILE:HG21	2.33	0.58
12:Cc:232:ASP:OD1	12:Cc:232:ASP:N	2.34	0.58
12:Ce:233:ALA:HA	12:Ce:236:LYS:HD3	1.83	0.58
12:Cz:261:ASN:HB3	12:Cz:392:ASN:HB3	1.84	0.58
12:Ea:233:ALA:HA	12:Ea:236:LYS:HD3	1.83	0.58
12:Ea:358:THR:HG22	12:Ea:359:GLN:H	1.68	0.58
12:Ec:233:ALA:HA	12:Ec:236:LYS:HD3	1.83	0.58
12:Ed:358:THR:HG22	12:Ed:359:GLN:H	1.68	0.58
12:Eh:358:THR:HG22	12:Eh:359:GLN:H	1.68	0.58
15:AI:232:MET:HG2	15:AJ:223:GLN:HB2	1.85	0.58
16:BE:266:ARG:HA	16:BE:328:LEU:HD22	1.85	0.58
16:BR:277:GLN:HE22	16:BR:347:SER:HB2	1.68	0.58
16:BZ:277:GLN:HE22	16:BZ:347:SER:HB2	1.68	0.58
8:DT:116:LEU:HD21	8:DT:315:ILE:HG23	1.85	0.58
8:DU:160:SER:H	8:DU:270:ASN:HA	1.67	0.58
8:ED:210:VAL:O	8:ED:227:SER:N	2.35	0.58
8:EE:303:ASN:HA	8:EE:309:GLU:HG3	1.85	0.58
1:O:82:SER:OG	1:O:223:ASN:ND2	2.37	0.58
1:T:43:ASP:OD1	2:b:28:ASN:ND2	2.34	0.58
8:DB:337:THR:O	8:DB:340:SER:OG	2.20	0.58
8:DF:104:GLU:HB3	8:DK:339:ALA:HA	1.84	0.58
8:DI:23:ASN:ND2	8:DI:35:GLY:O	2.34	0.58
8:DJ:350:SER:CB	8:DP:89:ASN:CA	2.81	0.58
12:Dd:124:SER:O	12:Dd:126:PHE:N	2.36	0.58
12:Cg:358:THR:HG22	12:Cg:359:GLN:H	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cj:358:THR:HG22	12:Cj:359:GLN:H	1.68	0.58
12:Cw:232:ASP:N	12:Cw:232:ASP:OD1	2.34	0.58
12:Ed:233:ALA:HA	12:Ed:236:LYS:HD3	1.83	0.58
12:Eg:233:ALA:HA	12:Eg:236:LYS:HD3	1.83	0.58
12:Eh:233:ALA:HA	12:Eh:236:LYS:HD3	1.83	0.58
15:AX:232:MET:HG2	15:AY:223:GLN:HB2	1.84	0.58
15:AY:179:ARG:NH1	15:AY:206:GLU:OE1	2.34	0.58
15:AY:232:MET:HG2	15:AZ:223:GLN:HB2	1.84	0.58
16:BI:277:GLN:HE22	16:BI:347:SER:HB2	1.68	0.58
16:BJ:277:GLN:HE22	16:BJ:347:SER:HB2	1.69	0.58
16:BX:266:ARG:HA	16:BX:328:LEU:HD22	1.85	0.58
8:DQ:251:ILE:C	8:DQ:251:ILE:HD12	2.28	0.58
8:DR:23:ASN:HD21	8:DR:35:GLY:H	1.51	0.58
8:DU:392:GLN:CA	8:DU:395:ILE:HG22	2.32	0.58
8:DX:383:GLN:HG2	8:EC:398:THR:HG21	1.84	0.58
8:ED:86:VAL:HG23	8:ED:117:THR:HG21	1.84	0.58
8:ED:262:SER:HB2	8:ED:264:LEU:HD23	1.84	0.58
1:B:35:LYS:NZ	1:B:220:GLU:OE2	2.36	0.58
1:G:66:LEU:HA	1:L:77:THR:HG22	1.85	0.58
8:DA:288:ASP:OD1	8:DA:305:SER:OG	2.21	0.58
8:DE:362:GLU:N	8:DE:362:GLU:OE1	2.35	0.58
9:CE:169:PHE:HB2	11:CF:99:PHE:HB2	1.84	0.58
11:z:193:PHE:HD2	11:z:222:LYS:HD2	1.69	0.58
12:Cb:232:ASP:N	12:Cb:232:ASP:OD1	2.34	0.58
12:Cb:233:ALA:HA	12:Cb:236:LYS:HD3	1.83	0.58
12:Co:358:THR:HG22	12:Co:359:GLN:H	1.68	0.58
12:Cs:242:GLU:OE1	12:Ct:248:ARG:NH2	2.37	0.58
12:Cy:358:THR:HG22	12:Cy:359:GLN:H	1.68	0.58
15:AT:65:LEU:HG	16:BU:65:MET:HG3	1.84	0.58
15:AT:232:MET:HG2	15:AU:223:GLN:HB2	1.85	0.58
16:BE:277:GLN:HE22	16:BE:347:SER:HB2	1.68	0.58
16:BN:266:ARG:HA	16:BN:328:LEU:HD22	1.85	0.58
16:BQ:277:GLN:HE22	16:BQ:347:SER:HB2	1.69	0.58
8:DO:44:ALA:HB2	8:DO:50:LEU:HD12	1.84	0.58
8:EE:154:MET:HE3	8:EE:263:PHE:HE2	1.67	0.58
1:C:98:LYS:O	1:C:212:GLY:HA3	2.04	0.58
1:Q:92:SER:O	1:Q:216:GLN:NE2	2.36	0.58
1:S:237:GLN:O	1:S:241:GLU:HG2	2.04	0.58
8:DC:159:ASN:ND2	8:DC:270:ASN:OD1	2.36	0.58
8:DI:17:LEU:CD1	8:DN:395:ILE:HD11	2.33	0.58
8:DJ:17:LEU:CD1	8:DO:395:ILE:CD1	2.81	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DJ:390:LYS:HB2	8:DO:402:LEU:HD13	1.85	0.58
12:Dt:214:ASP:OD1	12:Dt:214:ASP:N	2.35	0.58
12:Dv:214:ASP:OD1	12:Dv:214:ASP:N	2.35	0.58
13:GC:4:UNK:O	12:Cl:365:ASN:OD1	2.20	0.58
12:Ca:232:ASP:N	12:Ca:232:ASP:OD1	2.34	0.58
12:Ca:358:THR:HG22	12:Ca:359:GLN:H	1.68	0.58
12:Ee:233:ALA:HA	12:Ee:236:LYS:HD3	1.83	0.58
12:Ee:261:ASN:HB3	12:Ee:392:ASN:HB3	1.84	0.58
15:AH:232:MET:HG2	15:AI:223:GLN:HB2	1.86	0.58
16:BA:277:GLN:HE22	16:BA:347:SER:HB2	1.69	0.58
16:BK:277:GLN:HE22	16:BK:347:SER:HB2	1.69	0.58
16:BO:266:ARG:HA	16:BO:328:LEU:HD22	1.85	0.58
8:DO:380:ARG:HB3	8:DU:396:LEU:CD2	2.28	0.58
8:DZ:160:SER:O	8:DZ:202:LYS:NZ	2.37	0.58
1:C:148:SER:OG	1:C:160:THR:OG1	2.20	0.58
1:D:83:GLN:NE2	1:D:84:GLY:O	2.36	0.58
1:Q:42:GLU:HG3	1:V:189:GLU:HA	1.85	0.58
2:a:91:GLN:HB3	2:a:119:PRO:HG2	1.85	0.58
4:8:319:GLN:HB3	12:Cc:303:GLN:NE2	2.18	0.58
1:V:38:ARG:NH2	1:V:78:GLU:OE2	2.37	0.58
8:DK:25:ALA:C	8:DP:52:VAL:HG11	2.27	0.58
12:Dp:214:ASP:N	12:Dp:214:ASP:OD1	2.34	0.58
14:GK:8:UNK:CB	12:Ci:278:THR:HG21	2.33	0.58
12:Cb:261:ASN:HB3	12:Cb:392:ASN:HB3	1.84	0.58
12:Cc:233:ALA:HA	12:Cc:236:LYS:HD3	1.83	0.58
12:Cx:232:ASP:N	12:Cx:232:ASP:OD1	2.34	0.58
12:Eg:358:THR:HG22	12:Eg:359:GLN:H	1.68	0.58
16:BD:277:GLN:HE22	16:BD:347:SER:HB2	1.68	0.58
16:BF:266:ARG:HA	16:BF:328:LEU:HD22	1.85	0.58
16:BP:277:GLN:HE22	16:BP:347:SER:HB2	1.68	0.58
16:BS:277:GLN:HE22	16:BS:347:SER:HB2	1.69	0.58
8:DM:160:SER:O	8:DM:202:LYS:NZ	2.36	0.58
8:DS:103:ASP:OD1	8:DS:107:ASN:N	2.30	0.58
8:DV:101:LYS:NZ	8:EA:324:GLU:HG2	2.19	0.58
8:EC:35:GLY:HA2	8:EC:59:GLN:HA	1.85	0.58
8:EF:85:LEU:HD13	8:EF:116:LEU:HA	1.85	0.58
1:F:144:ALA:O	1:F:145:ASN:ND2	2.36	0.58
8:DF:81:GLY:O	8:DF:96:ARG:NH1	2.37	0.58
12:Cy:232:ASP:OD1	12:Cy:232:ASP:N	2.34	0.58
16:BY:277:GLN:HE22	16:BY:347:SER:HB2	1.68	0.58
8:DL:373:VAL:HG11	8:DR:7:VAL:HG22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DN:33:LYS:HA	8:DN:33:LYS:HE3	1.86	0.58
8:DT:95:SER:HB2	8:DT:333:VAL:HG12	1.85	0.58
8:DU:87:ASP:OD1	8:DU:88:SER:N	2.34	0.58
8:EB:147:LYS:NZ	8:EB:282:ASN:O	2.37	0.58
8:EG:326:LEU:HB3	8:EG:334:TRP:HB3	1.84	0.58
1:X:44:LEU:HB2	1:X:70:THR:HB	1.84	0.58
8:DF:79:GLN:HB2	8:DF:354:GLY:HA3	1.85	0.58
8:DF:101:LYS:NZ	8:DF:110:ASN:O	2.37	0.58
12:Da:214:ASP:N	12:Da:214:ASP:OD1	2.34	0.58
12:Cc:358:THR:HG22	12:Cc:359:GLN:H	1.68	0.58
12:Ea:261:ASN:HB3	12:Ea:392:ASN:HB3	1.84	0.58
15:AQ:65:LEU:HG	16:BR:65:MET:HG3	1.85	0.58
16:BV:277:GLN:HE22	16:BV:347:SER:HB2	1.69	0.58
8:DN:186:VAL:HG21	8:DN:248:THR:HG21	1.85	0.58
8:DO:210:VAL:O	8:DO:227:SER:OG	2.18	0.58
8:DO:299:THR:HG22	8:DO:314:GLN:HB3	1.86	0.58
8:DR:57:ILE:HG12	8:DW:47:LYS:NZ	2.19	0.58
8:DV:213:HIS:HB2	8:DV:223:PRO:HG3	1.86	0.58
8:DW:228:THR:HG22	8:DW:229:THR:H	1.69	0.58
1:H:82:SER:OG	1:H:223:ASN:ND2	2.32	0.58
8:DF:180:LYS:HZ1	8:DQ:131:GLY:N	2.01	0.58
11:z:233:GLN:HG3	11:CF:149:LEU:HD22	1.84	0.58
12:Dn:156:HIS:NE2	12:Do:143:THR:HG21	2.19	0.58
12:Cb:358:THR:HG22	12:Cb:359:GLN:H	1.68	0.58
12:Cd:358:THR:HG22	12:Cd:359:GLN:H	1.68	0.58
12:Cn:358:THR:HG22	12:Cn:359:GLN:H	1.68	0.58
12:Cu:358:THR:HG22	12:Cu:359:GLN:H	1.68	0.58
12:Cz:232:ASP:N	12:Cz:232:ASP:OD1	2.34	0.58
12:Eh:232:ASP:N	12:Eh:232:ASP:OD1	2.34	0.58
16:BG:266:ARG:HA	16:BG:328:LEU:HD22	1.85	0.58
16:BH:266:ARG:HA	16:BH:328:LEU:HD22	1.85	0.58
16:BM:266:ARG:HA	16:BM:328:LEU:HD22	1.85	0.58
8:DL:57:ILE:HG23	8:DQ:47:LYS:HD3	1.84	0.58
8:DN:144:MET:SD	8:DN:306:ASN:ND2	2.77	0.58
8:DO:86:VAL:HG12	8:DO:92:VAL:HG22	1.85	0.58
8:ED:179:ASN:N	8:ED:200:PHE:O	2.35	0.58
8:EF:285:LYS:HG3	8:EF:306:ASN:HB2	1.86	0.58
1:G:36:ARG:HD2	1:G:80:LEU:HD12	1.85	0.58
1:L:88:GLN:NE2	1:L:90:ASN:OD1	2.34	0.58
6:n:88:ARG:NH1	6:n:105:GLU:OE2	2.37	0.58
12:Cv:261:ASN:HB3	12:Cv:392:ASN:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:84:GLU:OE2	15:AB:197:SER:OG	2.17	0.58
15:AW:232:MET:HG2	15:AX:223:GLN:HB2	1.86	0.58
16:BJ:266:ARG:HA	16:BJ:328:LEU:HD22	1.85	0.58
16:BK:266:ARG:HA	16:BK:328:LEU:HD22	1.85	0.58
16:BL:266:ARG:HA	16:BL:328:LEU:HD22	1.85	0.58
16:BL:277:GLN:HE22	16:BL:347:SER:HB2	1.69	0.58
8:DS:2:SER:OG	8:DS:3:PHE:N	2.33	0.58
8:DV:379:GLN:HG3	8:EA:395:ILE:HD13	1.85	0.58
8:EB:210:VAL:O	8:EB:227:SER:N	2.37	0.58
8:ED:110:ASN:HD21	8:ED:114:MET:HE2	1.67	0.58
1:E:153:ARG:NH2	8:DC:112:GLN:O	2.37	0.57
2:e:115:ILE:HG22	2:e:116:GLN:HG3	1.86	0.57
8:DE:181:LYS:HE2	8:DP:129:GLN:NE2	2.19	0.57
8:DG:32:PHE:CE1	8:DL:41:ASP:OD2	2.56	0.57
8:DG:373:VAL:CG2	8:DM:10:LEU:CD2	2.82	0.57
8:DJ:181:LYS:HZ1	8:DU:129:GLN:CA	2.17	0.57
12:Df:171:SER:HB2	12:Df:172:PRO:CD	2.34	0.57
12:Df:172:PRO:CG	12:Df:204:GLY:O	2.50	0.57
12:Ea:232:ASP:OD1	12:Ea:232:ASP:N	2.34	0.57
12:Ec:261:ASN:HB3	12:Ec:392:ASN:HB3	1.84	0.57
12:Ef:232:ASP:OD1	12:Ef:232:ASP:N	2.34	0.57
12:Eg:232:ASP:N	12:Eg:232:ASP:OD1	2.34	0.57
16:BF:277:GLN:HE22	16:BF:347:SER:HB2	1.68	0.57
16:BH:277:GLN:HE22	16:BH:347:SER:HB2	1.68	0.57
16:BU:277:GLN:HE22	16:BU:347:SER:HB2	1.68	0.57
16:BW:277:GLN:HE22	16:BW:347:SER:HB2	1.69	0.57
8:DL:16:ASN:HB2	8:DL:39:PHE:CZ	2.39	0.57
8:DL:388:THR:HG23	8:DL:388:THR:O	2.04	0.57
8:DS:399:LEU:HD13	8:DS:399:LEU:C	2.28	0.57
8:DW:281:GLN:OE1	8:DW:283:GLY:N	2.37	0.57
8:ED:392:GLN:HA	8:ED:395:ILE:HG22	1.85	0.57
1:I:59:GLN:HE22	16:BR:51:GLN:CG	2.15	0.57
1:K:19:MET:HB2	1:K:236:VAL:HG11	1.86	0.57
1:V:175:LEU:HD11	1:V:211:ALA:HB1	1.86	0.57
8:DH:375:MET:HE1	8:DM:387:GLN:HB3	1.86	0.57
11:y:167:MET:N	11:y:167:MET:SD	2.75	0.57
12:Ch:358:THR:HG22	12:Ch:359:GLN:H	1.68	0.57
15:AC:179:ARG:NH1	15:AC:206:GLU:OE1	2.34	0.57
15:AP:232:MET:HG2	15:AQ:223:GLN:HB2	1.85	0.57
8:DL:19:VAL:HG21	8:DL:57:ILE:HD13	1.86	0.57
8:DQ:281:GLN:OE1	8:DQ:283:GLY:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DQ:296:ASN:HB3	8:DQ:355:LYS:NZ	2.20	0.57
8:DY:374:ASN:HA	8:DY:377:VAL:HG12	1.86	0.57
8:EB:2:SER:OG	8:EB:3:PHE:N	2.34	0.57
8:EB:328:SER:HA	8:EB:334:TRP:HD1	1.70	0.57
8:EE:33:LYS:NZ	8:EE:362:GLU:OE2	2.30	0.57
1:A:140:ILE:HD12	1:A:171:GLY:HA3	1.86	0.57
1:Q:44:LEU:HD11	2:d:205:VAL:HG11	1.86	0.57
1:T:203:GLU:OE2	16:BU:53:THR:HG23	2.05	0.57
6:m:133:VAL:HA	7:s:86:ILE:HD12	1.86	0.57
12:Dn:141:ALA:HB2	12:Dn:155:VAL:HG12	1.87	0.57
12:Ec:232:ASP:OD1	12:Ec:232:ASP:N	2.34	0.57
12:Ed:232:ASP:OD1	12:Ed:232:ASP:N	2.34	0.57
12:Ed:261:ASN:HB3	12:Ed:392:ASN:HB3	1.84	0.57
12:Ee:232:ASP:N	12:Ee:232:ASP:OD1	2.34	0.57
12:Ee:358:THR:HG22	12:Ee:359:GLN:H	1.68	0.57
15:AE:84:GLU:OE2	15:AE:197:SER:OG	2.17	0.57
16:BI:266:ARG:HA	16:BI:328:LEU:HD22	1.85	0.57
8:DM:78:SER:OG	8:DM:79:GLN:NE2	2.37	0.57
8:DO:380:ARG:CB	8:DU:396:LEU:HD23	2.32	0.57
8:DQ:234:GLU:OE2	8:DW:255:THR:N	2.37	0.57
8:DX:235:ASN:O	8:DX:269:GLN:NE2	2.37	0.57
8:EC:150:THR:OG1	8:EC:282:ASN:ND2	2.37	0.57
1:F:228:GLU:OE1	1:F:232:ASN:ND2	2.37	0.57
1:S:37:GLN:HG2	1:S:79:ARG:HG2	1.85	0.57
2:d:83:GLN:HG3	2:d:84:GLN:H	1.69	0.57
2:d:114:THR:OG1	2:d:115:ILE:O	2.19	0.57
2:d:136:THR:OG1	2:d:144:SER:OG	2.21	0.57
5:h:20:ARG:NH1	6:m:34:ASP:OD2	2.33	0.57
8:DD:149:THR:HA	8:DD:283:GLY:HA3	1.85	0.57
8:DI:144:MET:SD	8:DI:306:ASN:ND2	2.65	0.57
11:y:152:ARG:CD	12:Dt:165:PHE:H	2.18	0.57
12:Dp:141:ALA:HB2	12:Dp:155:VAL:HG12	1.87	0.57
12:Ds:214:ASP:OD1	12:Ds:214:ASP:N	2.34	0.57
12:Eb:232:ASP:N	12:Eb:232:ASP:OD1	2.34	0.57
16:BO:277:GLN:HE22	16:BO:347:SER:HB2	1.69	0.57
16:BT:277:GLN:HE22	16:BT:347:SER:HB2	1.69	0.57
8:DL:163:PRO:O	8:DL:179:ASN:ND2	2.35	0.57
8:DN:247:THR:HG23	8:DN:258:THR:HG22	1.86	0.57
8:DO:44:ALA:HB3	8:DO:50:LEU:CD1	2.33	0.57
8:DO:54:VAL:O	8:DO:54:VAL:HG12	2.04	0.57
8:DU:34:SER:HB3	8:DU:366:VAL:HG22	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DU:388:THR:O	8:DU:392:GLN:HG2	2.03	0.57
8:EA:234:GLU:OE2	8:EG:255:THR:N	2.36	0.57
8:EB:128:ILE:HD13	8:EB:313:GLY:HA2	1.87	0.57
8:EB:156:ILE:HD11	8:EB:274:ASN:HD21	1.69	0.57
8:EF:288:ASP:OD1	8:EF:289:LEU:N	2.31	0.57
1:S:43:ASP:N	1:S:43:ASP:OD1	2.36	0.57
8:DG:99:GLN:HG3	8:DG:111:MET:HE3	1.85	0.57
16:BB:277:GLN:HE22	16:BB:347:SER:HB2	1.69	0.57
16:BC:277:GLN:HE22	16:BC:347:SER:HB2	1.68	0.57
16:BN:250:ASP:OD1	16:BO:23:ARG:NH1	2.38	0.57
8:DO:17:LEU:HD22	8:DO:17:LEU:O	2.03	0.57
8:DO:337:THR:O	8:DO:340:SER:OG	2.22	0.57
8:DQ:158:LEU:HD12	8:DQ:232:PHE:HE2	1.69	0.57
8:DQ:165:PRO:HG2	8:DQ:201:VAL:HG23	1.85	0.57
8:DV:183:THR:HG22	8:DV:197:ASN:ND2	2.20	0.57
8:DZ:233:ASN:O	8:EF:190:GLN:NE2	2.37	0.57
8:EB:19:VAL:HG12	8:EG:48:VAL:HG23	1.85	0.57
1:T:203:GLU:OE2	16:BU:53:THR:HG21	2.03	0.57
6:m:42:ASP:OD1	6:m:43:ILE:N	2.37	0.57
8:DE:87:ASP:OD1	8:DE:91:SER:N	2.37	0.57
8:DG:299:THR:HG22	8:DG:314:GLN:HB3	1.85	0.57
12:Da:141:ALA:HB2	12:Da:155:VAL:HG12	1.87	0.57
12:Dd:141:ALA:HB2	12:Dd:155:VAL:HG12	1.87	0.57
12:Du:156:HIS:NE2	12:Dv:143:THR:HG21	2.20	0.57
12:Dv:125:GLN:O	12:Dv:128:GLU:CB	2.53	0.57
12:Cy:261:ASN:HB3	12:Cy:392:ASN:HB3	1.84	0.57
16:BX:277:GLN:HE22	16:BX:347:SER:HB2	1.68	0.57
8:DL:36:THR:O	8:DL:58:THR:HG22	2.04	0.57
8:DL:109:VAL:HG22	8:DL:115:GLN:HA	1.85	0.57
8:DM:41:ASP:OD1	8:DM:41:ASP:N	2.37	0.57
8:DO:87:ASP:OD1	8:DO:88:SER:N	2.34	0.57
8:DS:373:VAL:HG11	8:DY:10:LEU:HD21	1.86	0.57
8:EB:71:ARG:NH1	8:EB:99:GLN:OE1	2.37	0.57
1:K:176:THR:HG22	1:K:203:GLU:HG2	1.85	0.57
1:U:125:ASN:ND2	16:BA:54:GLN:OE1	2.37	0.57
8:DD:183:THR:CG2	8:DO:132:ALA:N	2.67	0.57
9:CE:103:GLY:HA3	9:CE:108:LEU:HD22	1.87	0.57
12:Dj:214:ASP:N	12:Dj:214:ASP:OD1	2.34	0.57
12:Dv:141:ALA:HB2	12:Dv:155:VAL:HG12	1.87	0.57
12:Eg:261:ASN:HB3	12:Eg:392:ASN:HB3	1.84	0.57
15:AC:84:GLU:OE2	15:AC:197:SER:OG	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:232:MET:HG2	15:AS:223:GLN:HB2	1.84	0.57
8:DL:248:THR:HG22	8:DL:257:ALA:H	1.70	0.57
8:DN:39:PHE:CD1	8:DN:39:PHE:N	2.73	0.57
8:DO:57:ILE:HG23	8:DO:57:ILE:O	2.04	0.57
8:DP:213:HIS:HB2	8:DP:223:PRO:HG3	1.86	0.57
8:DS:230:LEU:HD22	8:DS:241:GLY:HA3	1.87	0.57
8:DT:342:VAL:HG22	8:DT:343:ALA:H	1.70	0.57
8:DW:294:ILE:O	8:DW:358:ASN:ND2	2.38	0.57
8:DX:93:PHE:HE1	8:DX:329:GLN:HG3	1.69	0.57
1:A:151:ILE:HG12	1:A:157:VAL:HG12	1.86	0.57
1:B:54:ALA:HB3	1:B:62:LEU:HD12	1.87	0.57
1:N:116:ARG:NH1	1:N:220:GLU:OE1	2.37	0.57
1:N:237:GLN:O	1:N:241:GLU:HG2	2.05	0.57
2:a:148:PRO:HB2	1:V:210:GLY:HA3	1.85	0.57
5:h:85:ALA:HB1	5:h:89:GLY:HA2	1.85	0.57
5:i:84:LEU:HD11	1:W:62:LEU:HD22	1.86	0.57
8:DC:23:ASN:ND2	8:DC:35:GLY:O	2.36	0.57
8:DH:101:LYS:HZ3	8:DM:322:ASN:HB2	1.70	0.57
12:De:141:ALA:HB2	12:De:155:VAL:HG12	1.87	0.57
12:Dr:141:ALA:HB2	12:Dr:155:VAL:HG12	1.87	0.57
12:Dt:141:ALA:HB2	12:Dt:155:VAL:HG12	1.87	0.57
8:DM:152:ALA:HB3	8:DM:261:LEU:HD23	1.87	0.57
8:DO:74:ASP:O	8:DO:359:GLY:N	2.35	0.57
8:DP:183:THR:OG1	8:DP:197:ASN:ND2	2.38	0.57
8:DV:180:LYS:HB3	8:DV:200:PHE:HD2	1.69	0.57
8:EE:385:ASN:O	8:EE:388:THR:OG1	2.21	0.57
8:EF:233:ASN:HB3	8:EF:237:ILE:H	1.69	0.57
8:EF:294:ILE:O	8:EF:358:ASN:ND2	2.38	0.57
1:B:231:VAL:O	1:B:235:GLN:HG2	2.05	0.57
1:E:54:ALA:HB3	1:E:62:LEU:HD13	1.87	0.57
1:G:1:MET:N	1:G:1:MET:SD	2.78	0.57
2:e:90:VAL:HG12	2:e:120:VAL:HA	1.87	0.57
5:j:52:ASP:HB3	5:j:63:LYS:HD3	1.87	0.57
8:DI:207:GLU:HG3	8:DI:231:LYS:HG2	1.87	0.57
16:BM:277:GLN:HE22	16:BM:347:SER:HB2	1.69	0.57
8:DL:57:ILE:C	8:DL:57:ILE:HD12	2.30	0.57
8:DP:319:ASN:ND2	8:DP:352:ASN:O	2.37	0.57
8:DR:6:ALA:O	8:DR:10:LEU:HG	2.04	0.57
8:ED:178:TYR:HA	8:ED:201:VAL:HG22	1.85	0.57
8:DD:210:VAL:HB	8:DD:228:THR:HB	1.87	0.57
8:DH:161:THR:HG22	8:DN:252:ASN:ND2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CE:215:VAL:HG13	10:CA:54:LYS:HD2	1.86	0.57
12:Dc:141:ALA:HB2	12:Dc:155:VAL:HG12	1.87	0.57
12:Df:141:ALA:HB2	12:Df:155:VAL:HG12	1.87	0.57
12:Ef:358:THR:HG22	12:Ef:359:GLN:H	1.68	0.57
16:BB:217:ASP:N	16:BB:217:ASP:OD1	2.38	0.57
16:BC:217:ASP:N	16:BC:217:ASP:OD1	2.38	0.57
16:BI:217:ASP:OD1	16:BI:217:ASP:N	2.38	0.57
16:BN:217:ASP:N	16:BN:217:ASP:OD1	2.38	0.57
8:DR:250:THR:OG1	8:DR:254:ALA:O	2.20	0.57
8:EB:170:PHE:HE1	8:EB:178:TYR:HB3	1.68	0.57
1:C:48:THR:HG22	1:C:67:GLN:HG2	1.86	0.56
1:K:228:GLU:OE1	1:K:232:ASN:ND2	2.38	0.56
2:c:130:PRO:HD3	2:c:158:VAL:HG21	1.87	0.56
8:DA:18:ASP:OD1	8:DF:5:GLN:NE2	2.36	0.56
8:DB:380:ARG:NE	8:DH:393:ASP:OD1	2.37	0.56
12:Df:172:PRO:HG3	12:Df:204:GLY:C	2.29	0.56
12:Dh:158:ALA:O	12:Dh:160:PRO:HD3	2.05	0.56
8:DS:150:THR:OG1	8:DS:282:ASN:ND2	2.38	0.56
8:DX:87:ASP:OD2	8:DX:91:SER:OG	2.23	0.56
8:EA:370:LYS:NZ	8:EG:11:ASN:OD1	2.38	0.56
8:EC:160:SER:HA	8:EC:268:GLN:HE21	1.70	0.56
1:G:82:SER:HB3	1:G:223:ASN:HD22	1.70	0.56
8:DJ:331:ASP:O	8:DJ:333:VAL:N	2.39	0.56
8:DK:161:THR:HG21	8:DQ:192:ASN:CB	2.35	0.56
9:CE:184:LEU:HD21	11:CF:223:LEU:HD23	1.85	0.56
12:Di:158:ALA:O	12:Di:160:PRO:HD3	2.05	0.56
14:GI:4:UNK:CB	12:Cn:374:HIS:CE1	2.88	0.56
15:AU:70:ARG:NH2	16:BW:72:THR:OG1	2.36	0.56
8:DO:86:VAL:HG13	8:DO:117:THR:HG21	1.85	0.56
8:DP:320:PHE:HD2	8:DP:326:LEU:HD11	1.71	0.56
8:DV:210:VAL:HG11	8:DV:263:PHE:HE2	1.69	0.56
8:EA:157:ASN:HD21	8:EG:143:LEU:HD11	1.70	0.56
1:Q:200:ALA:CB	16:BG:80:GLN:OE1	2.50	0.56
2:d:82:LEU:HD21	2:d:88:LEU:HG	1.87	0.56
2:d:223:ASN:OD1	2:d:226:ARG:NH2	2.38	0.56
6:m:135:GLN:OE1	7:t:83:GLN:NE2	2.38	0.56
6:k:42:ASP:OD1	6:k:43:ILE:N	2.35	0.56
1:V:28:ASN:O	1:V:28:ASN:ND2	2.34	0.56
1:V:123:ASP:OD1	1:V:124:GLN:N	2.35	0.56
8:DG:146:ALA:HB2	8:DG:286:PRO:HD3	1.86	0.56
8:DH:33:LYS:HA	8:DH:365:ASN:HD21	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DH:106:ARG:NH1	8:DM:321:ALA:CA	2.46	0.56
8:DI:299:THR:HG22	8:DI:314:GLN:HB3	1.87	0.56
8:DJ:372:LEU:HD13	8:DU:399:LEU:HB3	1.86	0.56
8:DK:317:LEU:HD12	8:DK:353:PHE:HB3	1.86	0.56
9:CE:23:VAL:HG11	9:CE:50:ILE:HG21	1.86	0.56
9:CE:95:VAL:HG13	9:CE:129:MET:HE2	1.86	0.56
9:CE:242:HIS:ND1	12:DI:125:GLN:HG3	2.21	0.56
11:CF:150:PHE:HB2	11:CF:169:ILE:HG23	1.86	0.56
12:Dc:208:GLY:C	12:Dc:209:ASN:HD22	2.13	0.56
12:DI:158:ALA:O	12:DI:160:PRO:HD3	2.05	0.56
12:Dm:158:ALA:O	12:Dm:160:PRO:HD3	2.05	0.56
12:Ds:126:PHE:C	12:Ds:128:GLU:H	2.13	0.56
12:Cq:242:GLU:OE1	12:Cr:248:ARG:NH2	2.39	0.56
16:BD:217:ASP:OD1	16:BD:217:ASP:N	2.38	0.56
16:BG:277:GLN:HE22	16:BG:347:SER:HB2	1.68	0.56
8:DL:60:ASP:OD1	8:DL:61:PHE:N	2.36	0.56
8:DL:233:ASN:N	8:DL:237:ILE:O	2.32	0.56
8:DT:329:GLN:HB2	8:DT:333:VAL:HG23	1.87	0.56
8:DU:19:VAL:HG12	8:DZ:48:VAL:HG23	1.87	0.56
8:EF:94:TYR:HE2	8:EF:336:ALA:HB2	1.70	0.56
8:EF:185:THR:O	8:EF:281:GLN:NE2	2.39	0.56
8:EF:233:ASN:N	8:EF:237:ILE:O	2.31	0.56
1:G:50:ARG:NH1	1:L:75:VAL:O	2.38	0.56
1:J:238:ARG:NH1	1:J:241:GLU:OE1	2.35	0.56
8:DA:178:TYR:HA	8:DA:201:VAL:HG22	1.87	0.56
8:DD:102:LEU:HD23	8:DD:106:ARG:HD2	1.87	0.56
8:DI:270:ASN:N	8:DO:286:PRO:CG	2.64	0.56
11:w:113:TYR:O	11:w:117:SER:N	2.27	0.56
12:Dg:158:ALA:O	12:Dg:160:PRO:HD3	2.05	0.56
12:Dm:141:ALA:HB2	12:Dm:155:VAL:HG12	1.87	0.56
12:Ds:126:PHE:O	12:Ds:128:GLU:N	2.38	0.56
12:Dw:126:PHE:C	12:Dw:128:GLU:N	2.61	0.56
12:Dw:141:ALA:HB2	12:Dw:155:VAL:HG12	1.87	0.56
16:BJ:217:ASP:OD1	16:BJ:217:ASP:N	2.38	0.56
16:BM:161:ASN:HD22	16:BN:46:ASP:HA	1.69	0.56
8:DM:37:ALA:HA	8:DM:57:ILE:HA	1.87	0.56
8:ED:207:GLU:OE2	8:ED:229:THR:OG1	2.23	0.56
1:J:48:THR:HG22	1:J:67:GLN:HG2	1.87	0.56
2:a:106:GLN:NE2	1:V:78:GLU:OE1	2.36	0.56
8:DC:87:ASP:OD2	8:DC:89:ASN:ND2	2.35	0.56
8:DH:188:ASP:OD1	8:DH:192:ASN:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:y:132:GLN:HG2	11:y:135:ARG:HH21	1.69	0.56
11:y:152:ARG:NH1	12:Dt:164:LEU:C	2.62	0.56
12:Db:141:ALA:HB2	12:Db:155:VAL:HG12	1.87	0.56
12:Dn:158:ALA:O	12:Dn:160:PRO:HD3	2.05	0.56
12:Du:171:SER:HB3	12:Du:172:PRO:HD2	1.87	0.56
15:AD:84:GLU:OE2	15:AD:197:SER:OG	2.17	0.56
15:AM:232:MET:HG2	15:AN:223:GLN:HB2	1.87	0.56
16:BN:277:GLN:HE22	16:BN:347:SER:HB2	1.69	0.56
16:BQ:250:ASP:OD1	16:BR:23:ARG:NH1	2.38	0.56
8:DM:42:MET:HA	8:DM:42:MET:HE2	1.88	0.56
8:DM:121:ALA:HB2	8:DM:128:ILE:HD13	1.88	0.56
8:DP:95:SER:OG	8:DP:96:ARG:N	2.38	0.56
8:DU:79:GLN:HB2	8:DU:354:GLY:HA3	1.88	0.56
8:EC:34:SER:HB3	8:EC:366:VAL:HG22	1.87	0.56
8:EC:154:MET:HG3	8:EC:261:LEU:HD11	1.87	0.56
8:EE:159:ASN:ND2	8:EE:272:GLY:O	2.39	0.56
8:EF:34:SER:HB3	8:EF:366:VAL:HG22	1.87	0.56
1:B:55:GLN:NE2	1:B:57:SER:O	2.38	0.56
1:D:29:VAL:O	1:D:222:SER:OG	2.20	0.56
1:O:35:LYS:NZ	1:O:220:GLU:OE2	2.39	0.56
1:R:92:SER:O	1:R:216:GLN:NE2	2.39	0.56
8:DF:370:LYS:NZ	8:DL:14:ALA:CB	2.69	0.56
11:x:196:ILE:HD11	11:x:225:LEU:HD13	1.87	0.56
12:Dj:158:ALA:O	12:Dj:160:PRO:HD3	2.05	0.56
12:Dk:214:ASP:OD1	12:Dk:214:ASP:N	2.35	0.56
12:Do:141:ALA:HB2	12:Do:155:VAL:HG12	1.87	0.56
16:BO:217:ASP:OD1	16:BO:217:ASP:N	2.38	0.56
8:DN:326:LEU:HD23	8:DN:340:SER:HB2	1.87	0.56
8:DO:106:ARG:NH1	8:DO:141:ASN:HB2	2.20	0.56
8:DO:190:GLN:OE1	8:DO:254:ALA:HB2	2.06	0.56
8:DO:375:MET:HE1	8:DT:388:THR:HA	1.87	0.56
8:DQ:183:THR:OG1	8:EB:131:GLY:O	2.18	0.56
1:O:37:GLN:HG2	1:O:79:ARG:HG2	1.88	0.56
8:DB:285:LYS:O	8:DB:306:ASN:ND2	2.39	0.56
8:DE:65:THR:HG21	8:DP:4:SER:HB2	1.86	0.56
8:DE:181:LYS:CE	8:DP:129:GLN:NE2	2.69	0.56
8:DK:328:SER:CB	8:DP:43:PHE:CE2	2.88	0.56
12:Di:141:ALA:HB2	12:Di:155:VAL:HG12	1.87	0.56
12:Dk:158:ALA:O	12:Dk:160:PRO:HD3	2.05	0.56
12:DI:141:ALA:HB2	12:DI:155:VAL:HG12	1.87	0.56
12:Dp:126:PHE:CE2	12:Dp:130:VAL:HG21	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AK:232:MET:HG2	15:AL:223:GLN:HB2	1.87	0.56
16:BR:217:ASP:OD1	16:BR:217:ASP:N	2.38	0.56
16:BV:276:ALA:HB1	16:BW:342:PRO:HB3	1.86	0.56
8:DN:43:PHE:CE1	8:DN:47:LYS:HA	2.37	0.56
8:DN:71:ARG:NH1	8:DN:73:LEU:O	2.38	0.56
8:DN:106:ARG:HB3	8:DN:139:ILE:H	1.70	0.56
8:DO:15:THR:HG21	8:DO:54:VAL:CG2	2.36	0.56
8:DO:217:ASP:CG	8:DO:251:ILE:HG22	2.31	0.56
8:EB:27:SER:OG	8:EG:381:ASN:OD1	2.20	0.56
2:a:227:PHE:HE1	1:V:257:LEU:HB2	1.70	0.56
4:8:319:GLN:HB3	12:Cc:303:GLN:HE22	1.71	0.56
8:DG:382:TYR:HE2	8:DL:395:ILE:HG23	0.78	0.56
8:DJ:397:ASN:OD1	8:DJ:401:ASN:ND2	2.39	0.56
9:CE:51:THR:HA	9:CE:54:ILE:HG12	1.87	0.56
9:CE:114:VAL:HG11	11:y:216:THR:HG21	1.86	0.56
12:Dq:171:SER:HB2	12:Dq:172:PRO:HD2	1.88	0.56
12:Cy:413:GLU:OE2	12:Cy:417:ARG:NH2	2.39	0.56
12:Cz:413:GLU:OE2	12:Cz:417:ARG:NH2	2.39	0.56
8:DN:152:ALA:O	8:DN:261:LEU:HA	2.05	0.56
8:DV:382:TYR:HD2	8:EA:395:ILE:HD11	1.70	0.56
8:EB:206:ASN:OD1	8:EB:268:GLN:NE2	2.38	0.56
2:d:146:LEU:HB2	2:d:155:VAL:HG12	1.86	0.56
7:q:89:ARG:HD3	11:z:45:LEU:HD11	1.86	0.56
8:DG:382:TYR:CD2	8:DL:395:ILE:HG23	2.26	0.56
8:DI:149:THR:HG21	8:DI:186:VAL:HG12	1.87	0.56
8:DJ:326:LEU:HB3	8:DJ:334:TRP:HB3	1.87	0.56
11:y:152:ARG:HH12	12:Dt:164:LEU:HA	0.73	0.56
11:y:196:ILE:HD11	11:y:225:LEU:HD13	1.88	0.56
11:y:210:MET:HB3	11:y:211:MET:HE2	1.87	0.56
12:Dc:124:SER:C	12:Dc:126:PHE:N	2.58	0.56
12:Dq:141:ALA:HB2	12:Dq:155:VAL:HG12	1.87	0.56
13:GD:9:UNK:CB	12:Cf:363:THR:HG21	2.36	0.56
12:Cx:413:GLU:OE2	12:Cx:417:ARG:NH2	2.39	0.56
12:Ea:413:GLU:OE2	12:Ea:417:ARG:NH2	2.39	0.56
16:BE:217:ASP:N	16:BE:217:ASP:OD1	2.38	0.56
16:BK:250:ASP:OD1	16:BL:23:ARG:NH1	2.38	0.56
16:BW:217:ASP:OD1	16:BW:217:ASP:N	2.38	0.56
8:DT:395:ILE:HA	8:DT:398:THR:HG22	1.88	0.56
8:EF:285:LYS:O	8:EF:306:ASN:ND2	2.36	0.56
1:D:175:LEU:HD11	1:D:211:ALA:HB1	1.86	0.56
1:Q:254:LEU:HD23	1:W:238:ARG:HG3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:79:ARG:NH2	1:W:184:LEU:O	2.39	0.56
8:DD:80:ASN:OD1	8:DD:80:ASN:N	2.34	0.56
8:DH:57:ILE:HG12	8:DM:47:LYS:HB3	1.88	0.56
12:Eb:413:GLU:OE2	12:Eb:417:ARG:NH2	2.39	0.56
12:Ec:413:GLU:OE2	12:Ec:417:ARG:NH2	2.39	0.56
12:Ed:413:GLU:OE2	12:Ed:417:ARG:NH2	2.39	0.56
12:Ee:413:GLU:OE2	12:Ee:417:ARG:NH2	2.39	0.56
12:Ef:413:GLU:OE2	12:Ef:417:ARG:NH2	2.39	0.56
16:BK:217:ASP:N	16:BK:217:ASP:OD1	2.38	0.56
16:BL:250:ASP:OD1	16:BM:23:ARG:NH1	2.39	0.56
16:BS:217:ASP:N	16:BS:217:ASP:OD1	2.38	0.56
16:BX:217:ASP:OD1	16:BX:217:ASP:N	2.38	0.56
8:DM:116:LEU:HD12	8:DM:117:THR:H	1.71	0.56
8:DW:153:SER:OG	8:DW:280:ASN:OD1	2.22	0.56
8:DW:288:ASP:OD1	8:DW:289:LEU:N	2.38	0.56
8:DZ:29:THR:HG22	8:EE:39:PHE:HB2	1.88	0.56
8:EF:170:PHE:HE2	8:EF:223:PRO:HG2	1.70	0.56
5:j:19:LYS:HD2	5:j:64:VAL:HG21	1.88	0.55
8:DK:327:ALA:CA	8:DP:47:LYS:NZ	2.68	0.55
9:CE:242:HIS:ND1	12:Dl:125:GLN:CG	2.69	0.55
12:De:158:ALA:O	12:De:160:PRO:HD3	2.05	0.55
12:Dg:141:ALA:HB2	12:Dg:155:VAL:HG12	1.87	0.55
12:Ds:141:ALA:HB2	12:Ds:155:VAL:HG12	1.87	0.55
12:Du:141:ALA:HB2	12:Du:155:VAL:HG12	1.87	0.55
12:Du:172:PRO:HG2	12:Du:205:LEU:HA	1.87	0.55
12:Dv:125:GLN:O	12:Dv:128:GLU:HB3	2.06	0.55
12:Ca:413:GLU:OE2	12:Ca:417:ARG:NH2	2.39	0.55
12:Cb:413:GLU:OE2	12:Cb:417:ARG:NH2	2.39	0.55
12:Eg:413:GLU:OE2	12:Eg:417:ARG:NH2	2.39	0.55
8:DL:77:ILE:HB	8:DL:96:ARG:NH1	2.20	0.55
8:DL:140:PRO:HD2	8:DL:312:LEU:HD13	1.87	0.55
8:DL:211:TYR:HD2	8:DL:223:PRO:HB2	1.71	0.55
8:DL:362:GLU:HG2	8:DL:363:ALA:H	1.70	0.55
8:DN:39:PHE:HB3	8:DN:54:VAL:CB	2.36	0.55
8:DQ:281:GLN:NE2	8:DQ:283:GLY:O	2.34	0.55
8:DS:69:THR:HG23	8:DS:71:ARG:H	1.70	0.55
8:DU:68:ASN:HA	8:DU:360:ALA:HA	1.88	0.55
8:DX:387:GLN:NE2	8:ED:400:VAL:O	2.39	0.55
8:DZ:375:MET:HE3	8:EE:391:THR:HG21	1.87	0.55
8:ED:170:PHE:HE2	8:ED:223:PRO:HG2	1.72	0.55
1:E:54:ALA:HB1	1:T:150:THR:HG21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:34:PHE:HB3	1:N:222:SER:HB3	1.88	0.55
5:i:76:LEU:HD12	5:i:90:TYR:HB3	1.87	0.55
10:CD:35:ILE:HG22	10:CD:39:GLN:HG2	1.88	0.55
12:Dt:172:PRO:HD3	12:Dt:204:GLY:O	2.06	0.55
12:Cc:242:GLU:OE1	12:Cd:248:ARG:NH2	2.40	0.55
12:Cc:413:GLU:OE2	12:Cc:417:ARG:NH2	2.39	0.55
12:Cw:413:GLU:OE2	12:Cw:417:ARG:NH2	2.39	0.55
12:Eh:413:GLU:OE2	12:Eh:417:ARG:NH2	2.39	0.55
15:AC:232:MET:HG2	15:AD:223:GLN:HB2	1.88	0.55
8:DM:87:ASP:OD1	8:DM:91:SER:N	2.39	0.55
8:DU:214:ASP:OD1	8:DU:217:ASP:N	2.36	0.55
8:DV:281:GLN:NE2	8:DV:283:GLY:O	2.24	0.55
8:DZ:85:LEU:HD23	8:DZ:114:MET:HB2	1.87	0.55
8:DZ:235:ASN:OD1	8:EF:189:SER:OG	2.14	0.55
8:DZ:330:GLY:HA2	8:EE:43:PHE:H	1.71	0.55
8:ED:266:SER:C	8:ED:267:MET:HE2	2.31	0.55
1:B:49:ILE:HB	1:B:66:LEU:HD23	1.88	0.55
1:E:28:ASN:HB3	8:DB:52:VAL:HG12	1.88	0.55
1:R:194:GLU:OE1	1:R:194:GLU:N	2.39	0.55
5:f:6:ILE:HG21	5:f:122:VAL:HG21	1.87	0.55
8:DL:23:ASN:HA	8:DL:32:PHE:HE2	1.72	0.55
8:DW:390:LYS:HG2	8:EB:402:LEU:HB2	1.87	0.55
8:DY:300:VAL:HG13	8:DY:312:LEU:HB2	1.88	0.55
8:DZ:212:THR:HG21	8:DZ:246:ILE:HD12	1.87	0.55
8:EB:328:SER:N	8:EG:47:LYS:HZ1	2.03	0.55
1:E:42:GLU:OE2	1:E:73:ARG:NE	2.39	0.55
1:I:140:ILE:HD12	1:I:171:GLY:HA3	1.89	0.55
1:N:3:SER:HA	2:b:70:GLN:HG3	1.88	0.55
2:c:48:GLY:HA3	6:m:93:PRO:HB3	1.86	0.55
2:d:49:LEU:HD22	4:8:322:PRO:HD2	1.88	0.55
8:DA:150:THR:OG1	8:DA:282:ASN:ND2	2.30	0.55
8:DE:172:VAL:HG11	8:DE:222:ALA:HB1	1.87	0.55
8:DH:370:LYS:NZ	8:DN:11:ASN:ND2	2.54	0.55
8:DI:22:ASN:CG	8:DN:49:GLY:HA3	2.23	0.55
10:CD:52:ILE:HD11	11:CF:206:ALA:HB2	1.87	0.55
11:w:193:PHE:HB3	11:w:222:LYS:HE3	1.88	0.55
12:Cd:413:GLU:OE2	12:Cd:417:ARG:NH2	2.39	0.55
12:Cu:413:GLU:OE2	12:Cu:417:ARG:NH2	2.39	0.55
12:Cv:413:GLU:OE2	12:Cv:417:ARG:NH2	2.39	0.55
12:Eb:242:GLU:OE1	12:Ed:248:ARG:NH2	2.39	0.55
16:BV:217:ASP:N	16:BV:217:ASP:OD1	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BY:217:ASP:N	16:BY:217:ASP:OD1	2.38	0.55
8:DN:3:PHE:O	8:DN:7:VAL:HG22	2.06	0.55
8:DN:97:ASN:OD1	8:DN:98:GLY:N	2.39	0.55
2:a:248:LEU:HD22	6:k:106:ARG:HG2	1.89	0.55
12:Dj:141:ALA:HB2	12:Dj:155:VAL:HG12	1.87	0.55
12:Dv:156:HIS:CE1	12:Dw:143:THR:HG21	2.41	0.55
12:Cf:242:GLU:OE1	12:Cg:248:ARG:NH2	2.39	0.55
12:Eg:275:LYS:HG2	12:Eh:375:THR:HG23	1.87	0.55
16:BK:161:ASN:HD22	16:BL:46:ASP:HA	1.71	0.55
8:DL:37:ALA:HA	8:DL:57:ILE:HA	1.87	0.55
8:DP:399:LEU:HD12	8:DP:399:LEU:O	2.07	0.55
8:DU:392:GLN:HA	8:DU:395:ILE:HG22	1.88	0.55
8:DU:402:LEU:C	8:DU:402:LEU:HD13	2.31	0.55
8:DV:80:ASN:HD22	8:DV:80:ASN:C	2.13	0.55
8:DV:101:LYS:N	8:DV:109:VAL:O	2.39	0.55
8:DZ:399:LEU:HD13	8:DZ:402:LEU:HD11	1.89	0.55
8:EC:185:THR:O	8:EC:281:GLN:NE2	2.40	0.55
1:N:37:GLN:HB3	1:N:79:ARG:HG2	1.89	0.55
2:b:25:ASN:ND2	2:b:37:GLN:O	2.37	0.55
8:DA:65:THR:HG22	8:DL:50:LEU:HD21	1.88	0.55
9:CE:136:LEU:O	9:CE:139:THR:OG1	2.18	0.55
12:Ct:413:GLU:OE2	12:Ct:417:ARG:NH2	2.39	0.55
16:BL:217:ASP:OD1	16:BL:217:ASP:N	2.38	0.55
16:BP:217:ASP:N	16:BP:217:ASP:OD1	2.38	0.55
16:BT:217:ASP:N	16:BT:217:ASP:OD1	2.38	0.55
8:DM:84:ARG:HD3	8:DM:345:LEU:HD21	1.88	0.55
8:DM:188:ASP:OD1	8:DM:192:ASN:N	2.39	0.55
8:DN:285:LYS:O	8:DN:306:ASN:ND2	2.40	0.55
8:DP:390:LYS:HB2	8:DU:402:LEU:HD21	1.89	0.55
8:DW:151:THR:HG22	8:DW:282:ASN:ND2	2.21	0.55
8:ED:158:LEU:HG	8:ED:274:ASN:HD21	1.71	0.55
8:EG:44:ALA:H	8:EG:50:LEU:HD23	1.70	0.55
1:H:54:ALA:HB1	1:X:150:THR:HG21	1.89	0.55
2:c:162:LYS:HG3	2:c:195:ALA:HB2	1.88	0.55
8:DC:157:ASN:HB2	8:DC:275:ASN:HB3	1.87	0.55
8:DJ:65:THR:HB	8:DU:50:LEU:HB3	1.87	0.55
8:DJ:373:VAL:HG11	8:DP:10:LEU:CD2	2.30	0.55
12:Dh:141:ALA:HB2	12:Dh:155:VAL:HG12	1.87	0.55
12:Dq:160:PRO:HG3	12:Dq:172:PRO:HA	1.89	0.55
12:Cs:413:GLU:OE2	12:Cs:417:ARG:NH2	2.39	0.55
8:DL:382:TYR:HD1	8:DL:382:TYR:C	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DP:394:GLN:O	8:DP:398:THR:HG23	2.07	0.55
8:DT:326:LEU:HB3	8:DT:334:TRP:HB3	1.89	0.55
8:DU:3:PHE:CE2	8:DU:396:LEU:CD2	2.89	0.55
8:DU:159:ASN:ND2	8:DU:272:GLY:O	2.39	0.55
1:A:35:LYS:O	1:A:79:ARG:NH1	2.40	0.55
1:I:175:LEU:HD11	1:I:211:ALA:HB1	1.89	0.55
1:U:154:ASP:OD1	1:U:155:GLY:N	2.34	0.55
2:b:86:GLY:O	2:b:101:ARG:NH1	2.40	0.55
8:DB:188:ASP:OD1	8:DB:192:ASN:N	2.40	0.55
8:DF:24:ILE:HD11	8:DK:384:SER:HB3	1.89	0.55
8:DH:390:LYS:HB2	8:DM:402:LEU:CD2	2.37	0.55
14:GF:16:UNK:CB	12:Ee:372:ILE:HD13	2.37	0.55
12:Cd:289:SER:OG	12:Cd:290:LYS:NZ	2.40	0.55
12:Ce:413:GLU:OE2	12:Ce:417:ARG:NH2	2.39	0.55
16:BH:217:ASP:N	16:BH:217:ASP:OD1	2.38	0.55
8:DN:392:GLN:HE21	8:DN:392:GLN:HA	1.69	0.55
8:DO:327:ALA:O	8:DO:329:GLN:NE2	2.39	0.55
8:DP:397:ASN:C	8:DP:397:ASN:HD22	2.14	0.55
8:DS:288:ASP:O	8:DS:305:SER:N	2.35	0.55
8:DU:203:THR:OG1	8:DU:204:LYS:NZ	2.40	0.55
8:DW:87:ASP:OD1	8:DW:88:SER:N	2.39	0.55
8:DZ:116:LEU:HD11	8:DZ:315:ILE:HD11	1.88	0.55
8:EA:204:LYS:HG3	8:EA:205:ASP:H	1.71	0.55
8:EB:150:THR:OG1	8:EB:282:ASN:ND2	2.34	0.55
8:ED:212:THR:HG21	8:ED:246:ILE:HG13	1.87	0.55
8:EF:179:ASN:OD1	8:EF:202:LYS:N	2.33	0.55
1:H:66:LEU:HA	1:M:77:THR:HG22	1.88	0.55
8:DC:73:LEU:HD11	8:DC:108:LEU:HD11	1.89	0.55
8:DK:26:ASN:ND2	8:DP:41:ASP:CA	2.64	0.55
12:Cr:413:GLU:OE2	12:Cr:417:ARG:NH2	2.39	0.55
12:Cv:242:GLU:OE1	12:Cv:248:ARG:NH2	2.39	0.55
12:Ed:289:SER:OG	12:Ed:290:LYS:NZ	2.40	0.55
12:Eg:289:SER:OG	12:Eg:290:LYS:NZ	2.40	0.55
8:DW:104:GLU:OE2	8:EB:339:ALA:N	2.40	0.55
8:DZ:200:PHE:HD1	8:DZ:210:VAL:HG22	1.72	0.55
8:EC:288:ASP:OD1	8:EC:289:LEU:N	2.39	0.55
1:A:257:LEU:HG	1:P:230:LEU:HD12	1.87	0.55
1:B:258:THR:O	1:G:245:LYS:NZ	2.40	0.55
1:D:59:GLN:N	1:D:59:GLN:OE1	2.40	0.55
1:R:44:LEU:HB2	1:R:70:THR:HG23	1.89	0.55
2:c:77:PRO:HG2	2:c:78:LEU:HD23	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DD:127:THR:O	8:DD:129:GLN:NE2	2.40	0.55
8:DD:150:THR:HG22	8:DD:151:THR:HG23	1.89	0.55
8:DH:33:LYS:NZ	8:DH:62:THR:O	2.36	0.55
8:DI:71:ARG:NH1	8:DI:99:GLN:OE1	2.40	0.55
12:Dj:133:GLN:NE2	12:Dj:137:GLU:OE2	2.40	0.55
12:Dk:141:ALA:HB2	12:Dk:155:VAL:HG12	1.87	0.55
12:Ca:289:SER:OG	12:Ca:290:LYS:NZ	2.40	0.55
12:Cb:289:SER:OG	12:Cb:290:LYS:NZ	2.40	0.55
12:Cf:413:GLU:OE2	12:Cf:417:ARG:NH2	2.39	0.55
12:Cg:289:SER:OG	12:Cg:290:LYS:NZ	2.40	0.55
12:Co:413:GLU:OE2	12:Co:417:ARG:NH2	2.39	0.55
8:DN:10:LEU:HD21	8:DN:385:ASN:HB2	1.87	0.55
8:DP:326:LEU:HB3	8:DP:334:TRP:HB3	1.89	0.55
8:DS:329:GLN:HB2	8:DS:333:VAL:HG23	1.88	0.55
8:DZ:390:LYS:NZ	8:EE:402:LEU:HA	2.21	0.55
2:e:114:THR:OG1	2:e:115:ILE:O	2.24	0.54
8:DG:29:THR:HG21	8:DL:41:ASP:OD1	2.06	0.54
12:Da:156:HIS:NE2	12:Db:143:THR:HG21	2.21	0.54
12:Dk:133:GLN:NE2	12:Dk:137:GLU:OE2	2.41	0.54
12:Cm:413:GLU:OE2	12:Cm:417:ARG:NH2	2.39	0.54
12:Cq:413:GLU:OE2	12:Cq:417:ARG:NH2	2.39	0.54
8:DL:188:ASP:OD2	8:DL:192:ASN:ND2	2.40	0.54
8:DN:39:PHE:HB3	8:DN:54:VAL:CA	2.36	0.54
8:DP:188:ASP:OD1	8:DP:192:ASN:N	2.41	0.54
1:E:59:GLN:OE1	1:E:59:GLN:N	2.41	0.54
1:S:175:LEU:HD11	1:S:211:ALA:HB1	1.87	0.54
5:f:35:THR:HB	5:f:84:LEU:HD21	1.90	0.54
5:f:129:THR:HA	6:l:120:LEU:HD11	1.89	0.54
8:DG:101:LYS:HE3	8:DL:324:GLU:HB2	1.90	0.54
8:DK:17:LEU:HD21	8:DP:395:ILE:HD11	1.89	0.54
12:Dg:133:GLN:NE2	12:Dg:137:GLU:OE2	2.40	0.54
12:Dl:133:GLN:NE2	12:Dl:137:GLU:OE2	2.41	0.54
12:Ds:160:PRO:HB3	12:Dt:203:ALA:HB1	1.89	0.54
12:Dw:172:PRO:CG	12:Dw:205:LEU:HA	2.35	0.54
12:Cg:413:GLU:OE2	12:Cg:417:ARG:NH2	2.39	0.54
12:Ch:413:GLU:OE2	12:Ch:417:ARG:NH2	2.39	0.54
12:Cl:413:GLU:OE2	12:Cl:417:ARG:NH2	2.39	0.54
12:Cn:413:GLU:OE2	12:Cn:417:ARG:NH2	2.39	0.54
12:Cp:413:GLU:OE2	12:Cp:417:ARG:NH2	2.39	0.54
8:DM:102:LEU:O	8:DR:322:ASN:ND2	2.41	0.54
8:DO:194:HIS:CE1	8:DO:251:ILE:HG12	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DA:156:ILE:O	8:DA:266:SER:OG	2.15	0.54
8:DC:299:THR:HG22	8:DC:314:GLN:HB3	1.90	0.54
8:DK:380:ARG:HH21	8:DQ:393:ASP:CG	2.15	0.54
11:CF:232:TRP:HB3	11:CF:236:MET:HE1	1.88	0.54
12:Df:133:GLN:NE2	12:Df:137:GLU:OE2	2.40	0.54
14:GJ:3:UNK:CB	12:Cd:374:HIS:HE1	2.20	0.54
12:Ci:413:GLU:OE2	12:Ci:417:ARG:NH2	2.39	0.54
12:Cj:413:GLU:OE2	12:Cj:417:ARG:NH2	2.39	0.54
12:Ck:413:GLU:OE2	12:Ck:417:ARG:NH2	2.39	0.54
12:Cp:289:SER:OG	12:Cp:290:LYS:NZ	2.40	0.54
12:Cr:289:SER:OG	12:Cr:290:LYS:NZ	2.40	0.54
12:Ec:266:VAL:HG12	12:Ec:387:VAL:HG22	1.89	0.54
8:DL:233:ASN:HB3	8:DL:237:ILE:H	1.71	0.54
8:DO:190:GLN:HB2	8:DO:254:ALA:HA	1.88	0.54
8:DQ:317:LEU:HD11	8:DQ:356:LEU:HD11	1.89	0.54
8:DX:99:GLN:HE22	8:DX:111:MET:HG2	1.71	0.54
8:DX:103:ASP:HB3	8:DX:109:VAL:HG21	1.88	0.54
8:DZ:101:LYS:NZ	8:DZ:111:MET:SD	2.79	0.54
8:EE:156:ILE:HD11	8:EE:274:ASN:HB3	1.88	0.54
1:B:240:TYR:CG	8:DE:395:ILE:HD11	2.43	0.54
1:G:56:SER:O	1:W:153:ARG:N	2.40	0.54
2:c:82:LEU:HD21	2:c:88:LEU:HG	1.88	0.54
2:c:133:SER:HA	2:c:148:PRO:HD3	1.90	0.54
1:V:82:SER:OG	1:V:223:ASN:ND2	2.40	0.54
1:V:208:LEU:CD1	16:BD:80:GLN:HE22	2.20	0.54
7:r:104:VAL:HG23	7:v:89:ARG:HH22	1.71	0.54
8:DA:357:THR:CG2	8:DL:53:LYS:NZ	2.69	0.54
8:DC:154:MET:HE1	8:DC:156:ILE:HB	1.90	0.54
8:DE:22:ASN:OD1	8:DE:26:ASN:ND2	2.41	0.54
8:DK:97:ASN:OD1	8:DK:332:ASN:ND2	2.40	0.54
11:x:204:LEU:HD21	11:x:212:VAL:HB	1.89	0.54
12:Db:133:GLN:NE2	12:Db:137:GLU:OE2	2.40	0.54
12:Di:133:GLN:NE2	12:Di:137:GLU:OE2	2.41	0.54
12:Cf:289:SER:OG	12:Cf:290:LYS:NZ	2.40	0.54
12:Ci:289:SER:OG	12:Ci:290:LYS:NZ	2.40	0.54
12:Cj:289:SER:OG	12:Cj:290:LYS:NZ	2.40	0.54
12:Ck:266:VAL:HG12	12:Ck:387:VAL:HG22	1.89	0.54
12:Cn:289:SER:OG	12:Cn:290:LYS:NZ	2.40	0.54
12:Ct:289:SER:OG	12:Ct:290:LYS:NZ	2.40	0.54
12:Cz:242:GLU:OE1	12:Ea:248:ARG:NH2	2.40	0.54
16:BF:217:ASP:N	16:BF:217:ASP:OD1	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BX:250:ASP:OD1	16:BY:23:ARG:NH1	2.41	0.54
16:BZ:217:ASP:OD1	16:BZ:217:ASP:N	2.38	0.54
8:DN:39:PHE:N	8:DN:39:PHE:HD1	2.05	0.54
8:DS:326:LEU:HB3	8:DS:334:TRP:HB3	1.88	0.54
8:DW:165:PRO:HG2	8:DW:201:VAL:HG13	1.88	0.54
1:D:194:GLU:OE1	1:D:194:GLU:N	2.31	0.54
1:F:82:SER:OG	1:F:223:ASN:ND2	2.39	0.54
1:S:147:LEU:HB2	1:S:160:THR:HG23	1.89	0.54
1:U:203:GLU:OE1	1:U:203:GLU:N	2.40	0.54
2:a:9:MET:HB3	5:i:103:VAL:HG21	1.90	0.54
5:j:97:ASP:OD1	5:j:98:VAL:N	2.40	0.54
8:DD:167:LYS:HG3	8:DD:169:PRO:HD2	1.89	0.54
8:DE:106:ARG:HD3	8:DJ:321:ALA:HB1	1.89	0.54
8:DK:159:ASN:ND2	8:DK:270:ASN:OD1	2.40	0.54
12:Cs:289:SER:OG	12:Cs:290:LYS:NZ	2.40	0.54
12:Cu:289:SER:OG	12:Cu:290:LYS:NZ	2.40	0.54
12:Cv:289:SER:OG	12:Cv:290:LYS:NZ	2.40	0.54
12:Cw:266:VAL:HG12	12:Cw:387:VAL:HG22	1.89	0.54
12:Ea:289:SER:OG	12:Ea:290:LYS:NZ	2.40	0.54
12:Ec:289:SER:OG	12:Ec:290:LYS:NZ	2.40	0.54
12:Ee:289:SER:OG	12:Ee:290:LYS:NZ	2.40	0.54
16:BU:110:MET:HE2	16:BV:62:LEU:HD11	1.89	0.54
8:DV:80:ASN:O	8:DV:80:ASN:ND2	2.37	0.54
8:DZ:156:ILE:HG22	8:DZ:276:ILE:HG12	1.89	0.54
8:EF:5:GLN:NE2	8:EF:49:GLY:O	2.39	0.54
1:A:98:LYS:HE3	8:DG:44:ALA:HA	1.89	0.54
1:O:179:MET:HE1	1:T:126:GLY:HA2	1.90	0.54
3:l:9:UNK:O	5:f:104:ASN:ND2	2.34	0.54
5:j:111:SER:O	5:j:115:ASN:ND2	2.39	0.54
1:V:208:LEU:HD11	16:BD:80:GLN:HE22	1.72	0.54
1:V:209:ASN:ND2	16:BD:82:LYS:HZ3	2.05	0.54
1:X:43:ASP:N	1:X:43:ASP:OD1	2.41	0.54
8:DA:65:THR:CG2	8:DL:50:LEU:HD21	2.37	0.54
8:DB:238:LEU:HD23	8:DB:264:LEU:HA	1.90	0.54
8:DC:126:PRO:HG2	8:DC:310:GLN:HE22	1.73	0.54
8:DF:330:GLY:HA2	8:DK:43:PHE:H	1.72	0.54
8:DI:22:ASN:HD21	8:DN:49:GLY:HA2	1.71	0.54
8:DJ:271:THR:HA	8:DP:286:PRO:HG2	1.88	0.54
11:w:73:LEU:HD23	11:w:186:GLY:HA3	1.90	0.54
12:Dm:133:GLN:NE2	12:Dm:137:GLU:OE2	2.40	0.54
12:Ca:249:ILE:HD11	12:Ca:420:MET:HG3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cd:249:ILE:HD11	12:Cd:420:MET:HG3	1.90	0.54
12:Ce:289:SER:OG	12:Ce:290:LYS:NZ	2.40	0.54
12:Cl:289:SER:OG	12:Cl:290:LYS:NZ	2.40	0.54
12:Cn:266:VAL:HG12	12:Cn:387:VAL:HG22	1.89	0.54
12:Cq:289:SER:OG	12:Cq:290:LYS:NZ	2.40	0.54
12:Cs:249:ILE:HD11	12:Cs:420:MET:HG3	1.90	0.54
12:Cv:249:ILE:HD11	12:Cv:420:MET:HG3	1.90	0.54
12:Cw:289:SER:OG	12:Cw:290:LYS:NZ	2.40	0.54
12:Cy:249:ILE:HD11	12:Cy:420:MET:HG3	1.90	0.54
12:Ea:249:ILE:HD11	12:Ea:420:MET:HG3	1.90	0.54
12:Ea:266:VAL:HG12	12:Ea:387:VAL:HG22	1.89	0.54
12:Ef:289:SER:OG	12:Ef:290:LYS:NZ	2.40	0.54
12:Eg:266:VAL:HG12	12:Eg:387:VAL:HG22	1.89	0.54
16:BL:260:GLY:HA2	16:BL:346:MET:HE1	1.90	0.54
8:DN:288:ASP:OD1	8:DN:305:SER:OG	2.23	0.54
8:DU:3:PHE:HE2	8:DU:396:LEU:CD2	2.20	0.54
8:DV:109:VAL:HG12	8:DV:115:GLN:HA	1.88	0.54
8:EA:380:ARG:NH2	8:EG:397:ASN:HB2	2.22	0.54
8:EC:103:ASP:O	8:EC:106:ARG:NH2	2.41	0.54
1:K:258:THR:HG21	1:Q:241:GLU:HB3	1.89	0.54
2:c:55:THR:O	5:f:30:ASN:ND2	2.39	0.54
5:g:6:ILE:HG12	5:g:122:VAL:HG21	1.88	0.54
5:j:78:TYR:HB2	5:j:90:TYR:HE1	1.73	0.54
8:DD:34:SER:HB3	8:DD:366:VAL:HG22	1.90	0.54
8:DD:117:THR:HA	8:DD:136:PRO:HA	1.90	0.54
8:DF:171:SER:N	8:DF:177:SER:OG	2.39	0.54
8:DH:19:VAL:O	8:DH:23:ASN:ND2	2.29	0.54
9:CE:201:LEU:HD11	9:CE:220:LEU:HD22	1.89	0.54
10:CA:81:PHE:HA	10:CA:84:LEU:HG	1.89	0.54
11:y:160:GLN:O	12:Du:167:ARG:CA	2.56	0.54
12:Dt:172:PRO:HG2	12:Dt:205:LEU:HB2	1.90	0.54
12:Cg:249:ILE:HD11	12:Cg:420:MET:HG3	1.90	0.54
12:Ch:266:VAL:HG12	12:Ch:387:VAL:HG22	1.89	0.54
12:Cx:289:SER:OG	12:Cx:290:LYS:NZ	2.40	0.54
12:Cy:289:SER:OG	12:Cy:290:LYS:NZ	2.40	0.54
12:Eb:266:VAL:HG12	12:Eb:387:VAL:HG22	1.89	0.54
12:Ed:249:ILE:HD11	12:Ed:420:MET:HG3	1.90	0.54
16:BG:260:GLY:HA2	16:BG:346:MET:HE1	1.90	0.54
16:BK:260:GLY:HA2	16:BK:346:MET:HE1	1.90	0.54
16:BU:217:ASP:OD1	16:BU:217:ASP:N	2.38	0.54
16:BX:260:GLY:HA2	16:BX:346:MET:HE1	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DN:80:ASN:ND2	8:DN:319:ASN:OD1	2.41	0.54
8:DO:116:LEU:HD21	8:DO:315:ILE:HG23	1.88	0.54
8:DQ:296:ASN:HB3	8:DQ:355:LYS:HZ3	1.73	0.54
8:DS:330:GLY:HA2	8:DX:43:PHE:H	1.73	0.54
1:N:66:LEU:HA	1:S:77:THR:HG22	1.90	0.54
1:Q:200:ALA:HB1	16:BG:80:GLN:CD	2.33	0.54
1:T:142:ILE:HD13	1:T:149:ILE:HD13	1.90	0.54
8:DE:301:VAL:HG22	8:DE:311:VAL:HG22	1.89	0.54
8:DG:337:THR:O	8:DG:340:SER:OG	2.23	0.54
11:w:57:ILE:HG23	11:w:58:LEU:HD22	1.89	0.54
13:GA:6:UNK:CB	12:Ea:365:ASN:HD21	2.20	0.54
12:Co:289:SER:OG	12:Co:290:LYS:NZ	2.40	0.54
12:Cp:249:ILE:HD11	12:Cp:420:MET:HG3	1.90	0.54
12:Ef:249:ILE:HD11	12:Ef:420:MET:HG3	1.90	0.54
16:BH:260:GLY:HA2	16:BH:346:MET:HE1	1.90	0.54
16:BJ:260:GLY:HA2	16:BJ:346:MET:HE1	1.90	0.54
16:BP:260:GLY:HA2	16:BP:346:MET:HE1	1.90	0.54
16:BY:260:GLY:HA2	16:BY:346:MET:HE1	1.90	0.54
8:DL:16:ASN:HB2	8:DL:39:PHE:HZ	1.71	0.54
8:DM:327:ALA:O	8:DM:329:GLN:NE2	2.38	0.54
8:DR:118:GLY:HA2	8:DR:316:VAL:HG13	1.89	0.54
8:DS:10:LEU:HD12	8:DS:382:TYR:HE1	1.68	0.54
8:EG:188:ASP:OD2	8:EG:192:ASN:ND2	2.41	0.54
2:d:225:ARG:HG3	1:V:254:LEU:HD23	1.89	0.54
5:f:111:SER:O	5:f:115:ASN:ND2	2.41	0.54
5:g:41:PRO:HG2	5:g:92:LYS:HD3	1.89	0.54
8:DF:150:THR:OG1	8:DF:282:ASN:ND2	2.36	0.54
8:DK:337:THR:O	8:DK:340:SER:OG	2.23	0.54
11:CF:59:LEU:HB3	11:CF:64:PHE:HE1	1.71	0.54
12:Ce:242:GLU:OE1	12:Cf:248:ARG:NH2	2.41	0.54
12:Cg:266:VAL:HG12	12:Cg:387:VAL:HG22	1.89	0.54
12:Cj:249:ILE:HD11	12:Cj:420:MET:HG3	1.90	0.54
12:Cm:249:ILE:HD11	12:Cm:420:MET:HG3	1.90	0.54
12:Cm:289:SER:OG	12:Cm:290:LYS:NZ	2.40	0.54
12:Co:266:VAL:HG12	12:Co:387:VAL:HG22	1.89	0.54
12:Cq:266:VAL:HG12	12:Cq:387:VAL:HG22	1.89	0.54
12:Cx:249:ILE:HD11	12:Cx:420:MET:HG3	1.90	0.54
12:Cz:289:SER:OG	12:Cz:290:LYS:NZ	2.40	0.54
12:Ee:232:ASP:O	12:Ee:236:LYS:NZ	2.38	0.54
12:Ef:266:VAL:HG12	12:Ef:387:VAL:HG22	1.89	0.54
12:Eg:249:ILE:HD11	12:Eg:420:MET:HG3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Eh:266:VAL:HG12	12:Eh:387:VAL:HG22	1.89	0.54
12:Eh:289:SER:OG	12:Eh:290:LYS:NZ	2.40	0.54
16:BM:260:GLY:HA2	16:BM:346:MET:HE1	1.90	0.54
16:BN:260:GLY:HA2	16:BN:346:MET:HE1	1.90	0.54
16:BQ:217:ASP:N	16:BQ:217:ASP:OD1	2.38	0.54
8:DL:16:ASN:ND2	8:DL:39:PHE:CZ	2.75	0.54
8:DQ:150:THR:OG1	8:DQ:282:ASN:ND2	2.41	0.54
8:DQ:385:ASN:O	8:DQ:388:THR:OG1	2.20	0.54
8:EC:165:PRO:HG2	8:EC:201:VAL:HG13	1.89	0.54
1:B:67:GLN:HE22	1:F:185:GLU:HG3	1.73	0.54
1:P:175:LEU:HD11	1:P:211:ALA:HB1	1.90	0.54
1:V:37:GLN:OE1	1:V:79:ARG:NH2	2.39	0.54
7:r:104:VAL:HG12	9:CE:44:LEU:HD23	1.90	0.54
8:DD:362:GLU:OE1	8:DD:362:GLU:N	2.40	0.54
8:DJ:377:VAL:HG22	8:DP:3:PHE:HD2	0.82	0.54
12:Dc:209:ASN:HD22	12:Dc:209:ASN:N	2.05	0.54
12:Df:172:PRO:O	12:Df:205:LEU:CD1	2.56	0.54
12:Cc:289:SER:OG	12:Cc:290:LYS:NZ	2.40	0.54
12:Ce:266:VAL:HG12	12:Ce:387:VAL:HG22	1.89	0.54
12:Cj:266:VAL:HG12	12:Cj:387:VAL:HG22	1.89	0.54
12:Cl:266:VAL:HG12	12:Cl:387:VAL:HG22	1.89	0.54
12:Cm:266:VAL:HG12	12:Cm:387:VAL:HG22	1.89	0.54
12:Cv:266:VAL:HG12	12:Cv:387:VAL:HG22	1.89	0.54
12:Cx:266:VAL:HG12	12:Cx:387:VAL:HG22	1.89	0.54
16:BA:217:ASP:OD1	16:BA:217:ASP:N	2.38	0.54
16:BD:260:GLY:HA2	16:BD:346:MET:HE1	1.90	0.54
16:BO:260:GLY:HA2	16:BO:346:MET:HE1	1.90	0.54
16:BT:260:GLY:HA2	16:BT:346:MET:HE1	1.90	0.54
16:BU:260:GLY:HA2	16:BU:346:MET:HE1	1.90	0.54
16:BW:260:GLY:HA2	16:BW:346:MET:HE1	1.90	0.54
16:BY:189:LEU:O	16:BZ:101:GLN:NE2	2.41	0.54
8:DL:54:VAL:O	8:DL:54:VAL:HG13	2.08	0.54
8:DS:75:VAL:HB	8:DS:356:LEU:HD11	1.90	0.54
8:DT:289:LEU:HD13	8:DT:304:TYR:HE1	1.73	0.54
8:DV:13:ALA:HB1	8:DV:382:TYR:HB2	1.89	0.54
8:EF:2:SER:OG	8:EF:3:PHE:N	2.29	0.54
8:EF:195:ASP:H	8:EF:216:SER:HB3	1.72	0.54
8:EF:211:TYR:CD1	8:EF:226:ALA:HA	2.42	0.54
8:EG:97:ASN:HD22	8:EG:332:ASN:HD21	1.55	0.54
8:EG:154:MET:HE1	8:EG:156:ILE:HG22	1.90	0.54
1:I:258:THR:O	1:O:245:LYS:NZ	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DF:5:GLN:NE2	8:DF:49:GLY:O	2.41	0.53
11:x:135:ARG:HD2	11:x:170:LEU:HD23	1.88	0.53
12:Dh:133:GLN:NE2	12:Dh:137:GLU:OE2	2.41	0.53
12:Dt:172:PRO:HG2	12:Dt:205:LEU:HA	1.91	0.53
12:Cf:249:ILE:HD11	12:Cf:420:MET:HG3	1.90	0.53
12:Ee:275:LYS:HG2	12:Ef:375:THR:HG23	1.90	0.53
16:BB:260:GLY:HA2	16:BB:346:MET:HE1	1.90	0.53
16:BL:21:ARG:HB2	16:BL:243:GLU:HA	1.90	0.53
16:BM:21:ARG:HB2	16:BM:243:GLU:HA	1.90	0.53
16:BS:161:ASN:HD22	16:BT:46:ASP:HA	1.73	0.53
16:BS:260:GLY:HA2	16:BS:346:MET:HE1	1.90	0.53
8:DM:26:ASN:ND2	8:DR:51:GLY:O	2.36	0.53
8:DM:217:ASP:HB3	8:DM:220:ALA:HB2	1.90	0.53
8:DM:375:MET:HE1	8:DR:388:THR:HA	1.90	0.53
8:DT:140:PRO:HB2	8:DT:142:THR:HG23	1.90	0.53
8:DT:170:PHE:HA	8:DT:177:SER:HB2	1.90	0.53
8:DW:111:MET:HA	8:DW:111:MET:HE3	1.90	0.53
8:EB:74:ASP:O	8:EB:359:GLY:N	2.42	0.53
1:E:35:LYS:NZ	1:E:220:GLU:OE2	2.41	0.53
1:K:140:ILE:HD13	1:K:157:VAL:HG11	1.89	0.53
2:a:228:GLU:HG2	1:V:256:LYS:HG2	1.89	0.53
4:8:319:GLN:CB	12:Cc:303:GLN:OE1	2.54	0.53
8:DB:189:SER:HG	8:DB:255:THR:HG1	1.56	0.53
8:DK:74:ASP:N	8:DK:74:ASP:OD1	2.41	0.53
12:Dn:133:GLN:NE2	12:Dn:137:GLU:OE2	2.41	0.53
12:Du:133:GLN:NE2	12:Du:137:GLU:OE2	2.41	0.53
12:Dw:172:PRO:HG2	12:Dw:205:LEU:CA	2.37	0.53
12:Cc:249:ILE:HD11	12:Cc:420:MET:HG3	1.90	0.53
12:Ci:249:ILE:HD11	12:Ci:420:MET:HG3	1.90	0.53
12:Ck:289:SER:OG	12:Ck:290:LYS:NZ	2.40	0.53
12:Cu:249:ILE:HD11	12:Cu:420:MET:HG3	1.90	0.53
12:Ec:249:ILE:HD11	12:Ec:420:MET:HG3	1.90	0.53
16:BC:260:GLY:HA2	16:BC:346:MET:HE1	1.90	0.53
16:BF:260:GLY:HA2	16:BF:346:MET:HE1	1.90	0.53
16:BI:260:GLY:HA2	16:BI:346:MET:HE1	1.90	0.53
16:BK:21:ARG:HB2	16:BK:243:GLU:HA	1.90	0.53
16:BQ:260:GLY:HA2	16:BQ:346:MET:HE1	1.90	0.53
16:BR:260:GLY:HA2	16:BR:346:MET:HE1	1.90	0.53
16:BV:260:GLY:HA2	16:BV:346:MET:HE1	1.90	0.53
16:BZ:260:GLY:HA2	16:BZ:346:MET:HE1	1.90	0.53
8:DL:382:TYR:C	8:DL:382:TYR:CD1	2.86	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DM:39:PHE:N	8:DM:39:PHE:CD1	2.76	0.53
8:DM:120:PRO:HG2	8:DM:132:ALA:HB1	1.90	0.53
8:DM:153:SER:O	8:DM:154:MET:HE2	2.08	0.53
8:DT:374:ASN:HA	8:DT:377:VAL:HG22	1.90	0.53
8:DX:397:ASN:HA	8:DX:400:VAL:HG12	1.90	0.53
1:J:1:MET:N	1:J:1:MET:SD	2.81	0.53
1:K:175:LEU:HD13	1:K:206:PRO:HG3	1.89	0.53
1:M:147:LEU:HB2	1:M:160:THR:HG23	1.90	0.53
8:DB:178:TYR:HA	8:DB:201:VAL:HB	1.89	0.53
8:DJ:181:LYS:HZ1	8:DU:129:GLN:C	2.17	0.53
9:CE:34:SER:HB2	9:CE:43:LYS:HE2	1.90	0.53
9:CE:170:MET:SD	9:CE:171:ALA:N	2.81	0.53
10:CC:40:ALA:HA	10:CC:43:GLN:HB3	1.89	0.53
12:Dv:160:PRO:HD3	12:Dv:172:PRO:CB	2.39	0.53
12:Dv:160:PRO:CD	12:Dv:172:PRO:HB3	2.38	0.53
12:Cb:249:ILE:HD11	12:Cb:420:MET:HG3	1.90	0.53
12:Cr:249:ILE:HD11	12:Cr:420:MET:HG3	1.90	0.53
16:BI:21:ARG:HB2	16:BI:243:GLU:HA	1.90	0.53
16:BJ:21:ARG:HB2	16:BJ:243:GLU:HA	1.90	0.53
8:DO:94:TYR:O	8:DO:334:TRP:N	2.38	0.53
8:DQ:144:MET:HE2	8:DQ:284:TYR:CE1	2.43	0.53
8:DX:84:ARG:HD2	8:DX:345:LEU:HD11	1.89	0.53
2:d:207:GLU:OE1	2:d:207:GLU:N	2.34	0.53
8:DI:247:THR:HG22	8:DI:258:THR:HA	1.89	0.53
12:Db:158:ALA:HB2	12:Dc:200:SER:O	2.08	0.53
12:Dc:133:GLN:NE2	12:Dc:137:GLU:OE2	2.41	0.53
12:Dq:133:GLN:HB2	12:Dq:159:MET:HE2	1.88	0.53
12:Ch:289:SER:OG	12:Ch:290:LYS:NZ	2.40	0.53
12:Ci:266:VAL:HG12	12:Ci:387:VAL:HG22	1.89	0.53
12:Eb:249:ILE:HD11	12:Eb:420:MET:HG3	1.90	0.53
12:Eb:289:SER:OG	12:Eb:290:LYS:NZ	2.40	0.53
15:AY:65:LEU:HG	16:BZ:65:MET:HG3	1.90	0.53
16:BA:260:GLY:HA2	16:BA:346:MET:HE1	1.90	0.53
8:DN:233:ASN:N	8:DN:237:ILE:O	2.31	0.53
8:DR:171:SER:OG	8:DR:172:VAL:N	2.42	0.53
8:DX:213:HIS:HB2	8:DX:223:PRO:HG3	1.88	0.53
8:DZ:196:MET:SD	8:DZ:248:THR:OG1	2.61	0.53
8:EB:10:LEU:HD12	8:EB:385:ASN:HB3	1.89	0.53
8:EF:102:LEU:HG	8:EF:106:ARG:HA	1.90	0.53
1:A:94:ASP:N	1:A:94:ASP:OD1	2.40	0.53
1:B:29:VAL:O	1:B:222:SER:OG	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:48:THR:HG22	1:E:67:GLN:HG2	1.89	0.53
1:F:92:SER:HA	1:F:216:GLN:HE21	1.72	0.53
6:l:42:ASP:OD1	6:l:42:ASP:N	2.41	0.53
8:DA:357:THR:CG2	8:DL:53:LYS:HZ3	2.21	0.53
12:Cl:249:ILE:HD11	12:Cl:420:MET:HG3	1.90	0.53
12:Cm:242:GLU:OE1	12:Cn:248:ARG:NH2	2.42	0.53
12:Cr:266:VAL:HG12	12:Cr:387:VAL:HG22	1.89	0.53
16:BV:21:ARG:HB2	16:BV:243:GLU:HA	1.90	0.53
16:BW:21:ARG:HB2	16:BW:243:GLU:HA	1.90	0.53
8:DN:63:ASP:OD1	8:DN:96:ARG:NH1	2.41	0.53
8:DO:57:ILE:CG2	8:DT:47:LYS:HE3	2.39	0.53
8:DP:111:MET:HA	8:DP:111:MET:HE3	1.90	0.53
1:I:238:ARG:NH1	1:I:241:GLU:OE1	2.41	0.53
8:DG:122:THR:OG1	8:DG:129:GLN:NE2	2.42	0.53
10:CC:1:MET:SD	11:y:184:GLN:NE2	2.82	0.53
12:Ds:133:GLN:NE2	12:Ds:137:GLU:OE2	2.40	0.53
12:Cb:242:GLU:OE1	12:Cc:248:ARG:NH2	2.42	0.53
12:Cd:266:VAL:HG12	12:Cd:387:VAL:HG22	1.89	0.53
12:Co:249:ILE:HD11	12:Co:420:MET:HG3	1.90	0.53
12:Cp:266:VAL:HG12	12:Cp:387:VAL:HG22	1.89	0.53
12:Ct:249:ILE:HD11	12:Ct:420:MET:HG3	1.90	0.53
12:Ct:266:VAL:HG12	12:Ct:387:VAL:HG22	1.89	0.53
16:BE:260:GLY:HA2	16:BE:346:MET:HE1	1.90	0.53
16:BG:217:ASP:OD1	16:BG:217:ASP:N	2.38	0.53
16:BH:21:ARG:HB2	16:BH:243:GLU:HA	1.90	0.53
16:BM:217:ASP:N	16:BM:217:ASP:OD1	2.38	0.53
8:DL:39:PHE:HA	8:DL:54:VAL:HA	1.90	0.53
8:DO:20:ILE:HA	8:DO:371:GLU:OE2	2.08	0.53
8:DP:394:GLN:HE21	8:DP:394:GLN:CA	2.18	0.53
8:EC:84:ARG:NH2	8:EC:134:PRO:HB2	2.23	0.53
8:EG:139:ILE:HA	8:EG:312:LEU:HD13	1.90	0.53
1:K:1:MET:N	1:K:1:MET:SD	2.81	0.53
2:a:247:LEU:HB2	5:h:116:ILE:HG23	1.91	0.53
2:e:224:ALA:HA	1:X:253:MET:SD	2.49	0.53
8:DD:295:ASN:OD1	8:DD:295:ASN:N	2.41	0.53
8:DI:65:THR:CG2	8:DT:50:LEU:CD2	2.81	0.53
12:Dt:133:GLN:NE2	12:Dt:137:GLU:OE2	2.40	0.53
12:Cb:266:VAL:HG12	12:Cb:387:VAL:HG22	1.89	0.53
12:Ce:249:ILE:HD11	12:Ce:420:MET:HG3	1.90	0.53
12:Cf:266:VAL:HG12	12:Cf:387:VAL:HG22	1.89	0.53
12:Ed:266:VAL:HG12	12:Ed:387:VAL:HG22	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BN:21:ARG:HB2	16:BN:243:GLU:HA	1.90	0.53
16:BU:21:ARG:HB2	16:BU:243:GLU:HA	1.90	0.53
8:DL:203:THR:OG1	8:DL:207:GLU:HG2	2.09	0.53
8:DL:317:LEU:HD12	8:DL:353:PHE:HB3	1.89	0.53
8:DM:77:ILE:HD11	8:DM:83:PHE:CZ	2.43	0.53
8:DM:368:LEU:H	8:DM:368:LEU:HD12	1.74	0.53
8:DS:217:ASP:HB3	8:DS:220:ALA:HB2	1.91	0.53
8:DU:22:ASN:ND2	8:DZ:49:GLY:HA3	2.24	0.53
8:DU:337:THR:O	8:DU:340:SER:OG	2.22	0.53
8:DV:101:LYS:HZ2	8:EA:324:GLU:HG2	1.72	0.53
8:EB:71:ARG:NH2	8:EB:100:PHE:O	2.42	0.53
8:EB:144:MET:HE3	8:EB:306:ASN:HD21	1.74	0.53
1:A:77:THR:HB	8:DA:47:LYS:HG2	1.91	0.53
1:F:43:ASP:HA	1:F:72:VAL:HA	1.90	0.53
1:N:63:PRO:O	1:S:197:SER:OG	2.23	0.53
4:5:319:GLN:HE22	12:Ed:357:SER:CB	2.04	0.53
1:V:195:THR:HG23	1:V:197:SER:H	1.73	0.53
8:DC:160:SER:HB2	8:DI:192:ASN:HD21	1.74	0.53
8:DG:29:THR:HG23	8:DL:39:PHE:O	2.09	0.53
9:CE:109:SER:O	9:CE:112:THR:OG1	2.25	0.53
12:Cq:249:ILE:HD11	12:Cq:420:MET:HG3	1.90	0.53
12:Cw:249:ILE:HD11	12:Cw:420:MET:HG3	1.90	0.53
12:Eh:249:ILE:HD11	12:Eh:420:MET:HG3	1.90	0.53
16:BT:21:ARG:HB2	16:BT:243:GLU:HA	1.90	0.53
16:BX:21:ARG:HB2	16:BX:243:GLU:HA	1.90	0.53
16:BY:21:ARG:HB2	16:BY:243:GLU:HA	1.90	0.53
8:DP:42:MET:HE2	8:DP:53:LYS:HB3	1.90	0.53
8:DP:386:ALA:CA	8:DP:389:ILE:HG22	2.35	0.53
8:DR:84:ARG:HG3	8:DR:94:TYR:HE1	1.73	0.53
8:DT:330:GLY:HA2	8:DY:43:PHE:H	1.74	0.53
8:DU:46:SER:OG	8:DU:47:LYS:N	2.42	0.53
8:DV:29:THR:OG1	8:DV:32:PHE:HB2	2.08	0.53
8:DV:280:ASN:OD1	8:DV:281:GLN:N	2.41	0.53
8:DX:160:SER:O	8:DX:202:LYS:NZ	2.33	0.53
8:DY:84:ARG:HH11	8:DY:117:THR:HG21	1.74	0.53
8:DY:259:PHE:HE2	8:DY:261:LEU:HB2	1.74	0.53
8:ED:374:ASN:HA	8:ED:377:VAL:HG12	1.90	0.53
8:EF:186:VAL:HA	8:EF:281:GLN:HE22	1.74	0.53
1:I:2:ILE:HG22	1:I:4:SER:H	1.74	0.53
1:I:257:LEU:HB2	1:N:240:TYR:HE1	1.74	0.53
1:J:239:ALA:O	1:J:243:ASN:ND2	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:45:LEU:O	1:Q:70:THR:OG1	2.25	0.53
2:d:228:GLU:HG2	1:W:256:LYS:NZ	2.24	0.53
5:g:125:MET:HE2	5:p:109:SER:HA	1.90	0.53
1:X:228:GLU:O	1:X:232:ASN:ND2	2.31	0.53
8:DE:331:ASP:OD1	8:DE:331:ASP:N	2.40	0.53
8:DG:171:SER:N	8:DG:177:SER:OG	2.40	0.53
8:DH:355:LYS:NZ	8:DH:357:THR:OG1	2.34	0.53
8:DH:370:LYS:HZ1	8:DN:11:ASN:ND2	2.03	0.53
8:DJ:101:LYS:N	8:DJ:109:VAL:O	2.41	0.53
8:DK:143:LEU:HD23	8:DK:143:LEU:H	1.74	0.53
11:y:188:THR:HA	11:y:191:ILE:HD12	1.90	0.53
11:z:211:MET:HG3	11:CF:212:VAL:H	1.74	0.53
12:Ch:249:ILE:HD11	12:Ch:420:MET:HG3	1.90	0.53
12:Cs:266:VAL:HG12	12:Cs:387:VAL:HG22	1.89	0.53
12:Cy:266:VAL:HG12	12:Cy:387:VAL:HG22	1.89	0.53
12:Cz:266:VAL:HG12	12:Cz:387:VAL:HG22	1.89	0.53
16:BS:21:ARG:HB2	16:BS:243:GLU:HA	1.90	0.53
16:BW:250:ASP:OD1	16:BX:23:ARG:NH1	2.42	0.53
8:DM:205:ASP:OD2	8:DS:252:ASN:ND2	2.34	0.53
8:DN:342:VAL:HG23	8:DN:344:LEU:HG	1.90	0.53
8:DP:347:THR:HG23	8:DP:349:GLY:H	1.73	0.53
8:DQ:69:THR:HG21	8:DQ:361:LEU:HD13	1.91	0.53
8:DQ:179:ASN:OD1	8:DQ:202:LYS:N	2.36	0.53
8:DR:97:ASN:OD1	8:DR:98:GLY:N	2.42	0.53
8:DU:65:THR:HG22	8:EF:50:LEU:HD23	1.91	0.53
8:DX:285:LYS:O	8:DX:306:ASN:ND2	2.42	0.53
8:EA:16:ASN:HB2	8:EA:39:PHE:HZ	1.73	0.53
8:EA:270:ASN:ND2	8:EG:191:GLY:O	2.41	0.53
8:EB:165:PRO:HG2	8:EB:201:VAL:HG13	1.91	0.53
8:EG:93:PHE:HB2	8:EG:114:MET:HE2	1.90	0.53
1:R:45:LEU:HD23	1:W:188:GLY:HA3	1.91	0.53
1:R:177:THR:OG1	1:R:202:ASN:OD1	2.25	0.53
12:Dd:133:GLN:NE2	12:Dd:137:GLU:OE2	2.40	0.53
12:De:133:GLN:NE2	12:De:137:GLU:OE2	2.41	0.53
14:GI:4:UNK:CB	12:Cn:374:HIS:ND1	2.72	0.53
12:Ck:249:ILE:HD11	12:Ck:420:MET:HG3	1.90	0.53
12:Cn:249:ILE:HD11	12:Cn:420:MET:HG3	1.90	0.53
12:Ee:249:ILE:HD11	12:Ee:420:MET:HG3	1.90	0.53
12:Ee:266:VAL:HG12	12:Ee:387:VAL:HG22	1.89	0.53
12:Ef:242:GLU:OE1	12:Eg:248:ARG:NH2	2.41	0.53
16:BO:21:ARG:HB2	16:BO:243:GLU:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DL:293:GLN:OE1	8:DL:303:ASN:ND2	2.42	0.53
8:DQ:16:ASN:HB2	8:DQ:39:PHE:HZ	1.73	0.53
8:DR:194:HIS:CE1	8:DR:251:ILE:HD12	2.44	0.53
8:DY:157:ASN:HB2	8:DY:271:THR:HG21	1.90	0.53
8:DZ:250:THR:OG1	8:DZ:254:ALA:O	2.18	0.53
8:ED:73:LEU:HD21	8:ED:292:TYR:HE2	1.73	0.53
1:I:50:ARG:HH12	1:N:75:VAL:HG23	1.74	0.52
1:K:59:GLN:NE2	1:K:59:GLN:CA	2.72	0.52
1:S:154:ASP:O	1:S:172:GLN:NE2	2.41	0.52
1:T:154:ASP:OD1	1:T:155:GLY:N	2.34	0.52
8:DD:159:ASN:ND2	8:DD:270:ASN:OD1	2.42	0.52
8:DI:73:LEU:HD11	8:DI:108:LEU:HD11	1.90	0.52
12:Do:133:GLN:NE2	12:Do:137:GLU:OE2	2.41	0.52
12:Dq:172:PRO:O	12:Dq:205:LEU:CD1	2.57	0.52
12:Dv:133:GLN:NE2	12:Dv:137:GLU:OE2	2.41	0.52
15:AA:65:LEU:HG	16:BB:65:MET:HG3	1.90	0.52
16:BG:21:ARG:HB2	16:BG:243:GLU:HA	1.90	0.52
16:BZ:21:ARG:HB2	16:BZ:243:GLU:HA	1.90	0.52
8:DM:16:ASN:ND2	8:DM:39:PHE:CE2	2.67	0.52
8:DP:392:GLN:OE1	8:DP:392:GLN:HA	2.09	0.52
8:DS:79:GLN:HB2	8:DS:354:GLY:HA3	1.91	0.52
8:DT:150:THR:OG1	8:DT:282:ASN:ND2	2.43	0.52
8:DT:322:ASN:ND2	8:DT:339:ALA:O	2.42	0.52
8:DT:381:ASN:O	8:DT:385:ASN:ND2	2.31	0.52
8:DU:235:ASN:O	8:DU:269:GLN:NE2	2.42	0.52
8:EB:317:LEU:HD13	8:EB:348:ALA:HB2	1.91	0.52
1:G:36:ARG:HH11	1:G:80:LEU:HD12	1.74	0.52
1:H:57:SER:OG	1:H:60:THR:OG1	2.25	0.52
1:O:91:ASN:OD1	1:O:92:SER:N	2.39	0.52
1:U:125:ASN:ND2	16:BA:54:GLN:CD	2.67	0.52
2:a:35:ARG:HH11	2:a:101:ARG:HD3	1.73	0.52
2:e:247:LEU:HD11	5:j:119:LEU:HD13	1.92	0.52
10:CC:32:GLY:HA2	10:CC:35:ILE:HD12	1.90	0.52
12:Ca:266:VAL:HG12	12:Ca:387:VAL:HG22	1.89	0.52
12:Cc:266:VAL:HG12	12:Cc:387:VAL:HG22	1.89	0.52
12:Cz:249:ILE:HD11	12:Cz:420:MET:HG3	1.90	0.52
16:BR:21:ARG:HB2	16:BR:243:GLU:HA	1.90	0.52
8:DL:154:MET:HB2	8:DL:261:LEU:HD11	1.90	0.52
8:DX:234:GLU:O	8:ED:190:GLN:NE2	2.42	0.52
8:DZ:208:TRP:HB2	8:DZ:230:LEU:HB2	1.91	0.52
1:B:85:ASN:OD1	1:B:221:THR:OG1	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:151:ILE:HG12	1:I:157:VAL:HG22	1.91	0.52
1:U:102:PHE:HB3	1:U:114:TYR:HB3	1.91	0.52
5:f:109:SER:O	5:f:113:GLN:HG2	2.10	0.52
8:DC:159:ASN:HA	8:DC:270:ASN:HA	1.91	0.52
8:DG:16:ASN:HB2	8:DG:39:PHE:HZ	1.75	0.52
12:Db:159:MET:SD	12:Db:202:VAL:HG13	2.50	0.52
12:Dp:133:GLN:NE2	12:Dp:137:GLU:OE2	2.41	0.52
12:Cl:242:GLU:OE1	12:Cm:248:ARG:NH2	2.42	0.52
16:BQ:21:ARG:HB2	16:BQ:243:GLU:HA	1.90	0.52
8:DS:19:VAL:O	8:DS:23:ASN:ND2	2.42	0.52
8:DU:390:LYS:NZ	8:DZ:402:LEU:HB3	2.23	0.52
8:DX:140:PRO:HD2	8:DX:312:LEU:HD13	1.92	0.52
8:DX:392:GLN:HA	8:DX:395:ILE:HG22	1.91	0.52
8:DY:391:THR:O	8:DY:395:ILE:HG12	2.09	0.52
8:ED:116:LEU:HD12	8:ED:117:THR:H	1.74	0.52
1:A:67:GLN:HE22	1:J:185:GLU:HG3	1.73	0.52
1:F:93:LYS:HD3	1:F:121:GLN:HA	1.92	0.52
1:J:29:VAL:O	1:J:222:SER:OG	2.27	0.52
1:K:73:ARG:NH2	1:P:189:GLU:OE1	2.42	0.52
1:P:72:VAL:HB	1:U:28:ASN:HB3	1.92	0.52
6:k:98:ASN:OD1	6:k:100:VAL:HG12	2.10	0.52
8:DG:162:ASP:OD2	8:DG:179:ASN:ND2	2.41	0.52
8:DJ:375:MET:HE1	8:DO:387:GLN:HB3	1.91	0.52
8:DJ:382:TYR:CE2	8:DO:395:ILE:HG21	2.33	0.52
9:CE:88:MET:HE3	9:CE:146:LEU:HD11	1.91	0.52
11:CF:109:TYR:HD1	11:CF:113:TYR:HD2	1.57	0.52
12:Dr:133:GLN:NE2	12:Dr:137:GLU:OE2	2.41	0.52
12:Cq:239:ASN:O	12:Cq:243:SER:OG	2.28	0.52
12:Cu:266:VAL:HG12	12:Cu:387:VAL:HG22	1.89	0.52
16:BK:280:LEU:HD21	16:BK:340:ALA:HB2	1.92	0.52
16:BP:21:ARG:HB2	16:BP:243:GLU:HA	1.90	0.52
16:BR:280:LEU:HD21	16:BR:340:ALA:HB2	1.92	0.52
8:DM:71:ARG:NH2	8:DM:100:PHE:O	2.42	0.52
8:DM:317:LEU:HD11	8:DM:356:LEU:HD11	1.91	0.52
8:DO:379:GLN:O	8:DO:383:GLN:HG3	2.09	0.52
8:DV:337:THR:O	8:DV:340:SER:OG	2.22	0.52
8:EB:318:ALA:HB2	8:EB:345:LEU:HD23	1.91	0.52
8:ED:79:GLN:CD	8:ED:80:ASN:H	2.17	0.52
8:DC:212:THR:HG22	8:DC:227:SER:HB3	1.91	0.52
8:DK:327:ALA:HB1	8:DP:47:LYS:HZ3	1.72	0.52
12:De:125:GLN:O	12:De:128:GLU:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dw:133:GLN:NE2	12:Dw:137:GLU:OE2	2.41	0.52
12:Cl:239:ASN:O	12:Cl:243:SER:OG	2.28	0.52
12:Cu:239:ASN:O	12:Cu:243:SER:OG	2.28	0.52
12:Cw:385:LEU:N	12:Cw:428:ASP:OD1	2.41	0.52
12:Cz:239:ASN:O	12:Cz:243:SER:OG	2.28	0.52
16:BF:21:ARG:HB2	16:BF:243:GLU:HA	1.90	0.52
16:BN:280:LEU:HD21	16:BN:340:ALA:HB2	1.92	0.52
16:BO:280:LEU:HD21	16:BO:340:ALA:HB2	1.92	0.52
16:BP:280:LEU:HD21	16:BP:340:ALA:HB2	1.92	0.52
16:BS:280:LEU:HD21	16:BS:340:ALA:HB2	1.92	0.52
16:BY:20:GLU:N	16:BY:241:ASN:HA	2.25	0.52
8:DM:238:LEU:HD21	8:DM:242:GLY:HA2	1.91	0.52
8:DO:48:VAL:HG22	8:DO:50:LEU:HD23	1.90	0.52
8:DP:102:LEU:O	8:DU:322:ASN:ND2	2.43	0.52
8:DP:379:GLN:O	8:DP:382:TYR:N	2.43	0.52
8:DQ:140:PRO:HD2	8:DQ:312:LEU:HD13	1.91	0.52
8:DR:233:ASN:HB3	8:DR:237:ILE:H	1.74	0.52
8:DU:266:SER:C	8:DU:267:MET:HE2	2.33	0.52
8:DV:178:TYR:HA	8:DV:201:VAL:HG12	1.90	0.52
8:EB:381:ASN:OD1	8:EB:385:ASN:ND2	2.43	0.52
8:EE:159:ASN:N	8:EE:274:ASN:OD1	2.37	0.52
1:F:33:GLY:N	1:F:220:GLU:O	2.43	0.52
1:F:242:ILE:HD12	1:K:230:LEU:HD11	1.90	0.52
2:c:248:LEU:HD13	6:m:106:ARG:HG2	1.90	0.52
1:V:29:VAL:O	1:V:222:SER:OG	2.21	0.52
8:DA:94:TYR:O	8:DA:334:TRP:N	2.37	0.52
8:DC:139:ILE:HA	8:DC:312:LEU:HD22	1.90	0.52
8:DD:199:TYR:HB2	8:DD:211:TYR:HB2	1.91	0.52
8:DI:159:ASN:HB3	8:DI:162:ASP:HB2	1.92	0.52
10:CD:20:LEU:HB3	10:CD:69:MET:HE1	1.92	0.52
14:GJ:17:UNK:CB	12:Cb:278:THR:OG1	2.58	0.52
16:BA:21:ARG:HB2	16:BA:243:GLU:HA	1.90	0.52
16:BI:20:GLU:N	16:BI:241:ASN:HA	2.25	0.52
16:BJ:280:LEU:HD21	16:BJ:340:ALA:HB2	1.92	0.52
16:BQ:280:LEU:HD21	16:BQ:340:ALA:HB2	1.92	0.52
8:DM:395:ILE:N	8:DM:395:ILE:CD1	2.72	0.52
8:DN:39:PHE:CD2	8:DN:52:VAL:CG1	2.93	0.52
8:DX:119:TYR:HD2	8:DX:314:GLN:HE21	1.56	0.52
8:DX:358:ASN:OD1	8:DX:359:GLY:N	2.42	0.52
8:DY:288:ASP:O	8:DY:305:SER:N	2.42	0.52
1:H:56:SER:O	1:X:153:ARG:N	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:233:MET:HA	1:P:236:VAL:HG22	1.91	0.52
6:n:85:LEU:HD23	6:n:85:LEU:H	1.74	0.52
8:DH:95:SER:HB2	8:DH:333:VAL:HG12	1.92	0.52
11:z:120:LYS:HG3	11:z:121:ILE:HG23	1.91	0.52
12:Da:133:GLN:NE2	12:Da:137:GLU:OE2	2.41	0.52
12:Cm:239:ASN:O	12:Cm:243:SER:OG	2.28	0.52
12:Cs:385:LEU:N	12:Cs:428:ASP:OD1	2.41	0.52
12:Cv:239:ASN:O	12:Cv:243:SER:OG	2.28	0.52
16:BG:20:GLU:N	16:BG:241:ASN:HA	2.25	0.52
16:BH:20:GLU:N	16:BH:241:ASN:HA	2.25	0.52
16:BR:20:GLU:N	16:BR:241:ASN:HA	2.25	0.52
16:BV:20:GLU:N	16:BV:241:ASN:HA	2.25	0.52
8:DL:233:ASN:OD1	8:DL:234:GLU:N	2.42	0.52
8:DP:269:GLN:HB3	8:DV:286:PRO:HG3	1.92	0.52
8:DQ:156:ILE:HD13	8:DQ:200:PHE:HE2	1.74	0.52
8:DQ:370:LYS:HD2	8:DQ:371:GLU:N	2.24	0.52
8:DR:180:LYS:HB3	8:DR:200:PHE:HB2	1.91	0.52
8:DX:147:LYS:NZ	8:DX:282:ASN:O	2.37	0.52
8:EC:42:MET:SD	8:EC:53:LYS:HB2	2.50	0.52
8:EG:2:SER:OG	8:EG:3:PHE:N	2.42	0.52
1:E:117:ASP:OD1	1:E:118:GLY:N	2.43	0.52
1:K:79:ARG:HH22	1:K:184:LEU:HB2	1.73	0.52
6:n:42:ASP:OD1	6:n:43:ILE:N	2.43	0.52
8:DC:301:VAL:HG22	8:DC:311:VAL:HG12	1.92	0.52
12:Co:265:GLN:HG3	12:Cp:252:ILE:HB	1.91	0.52
12:Ct:385:LEU:N	12:Ct:428:ASP:OD1	2.41	0.52
12:Ct:392:ASN:OD1	12:Ct:393:TYR:N	2.43	0.52
12:Cy:392:ASN:OD1	12:Cy:393:TYR:N	2.43	0.52
12:Cz:385:LEU:N	12:Cz:428:ASP:OD1	2.41	0.52
12:Ed:392:ASN:OD1	12:Ed:393:TYR:N	2.43	0.52
12:Eg:392:ASN:OD1	12:Eg:393:TYR:N	2.43	0.52
16:BB:20:GLU:N	16:BB:241:ASN:HA	2.25	0.52
16:BB:21:ARG:HB2	16:BB:243:GLU:HA	1.90	0.52
16:BF:20:GLU:N	16:BF:241:ASN:HA	2.25	0.52
16:BL:280:LEU:HD21	16:BL:340:ALA:HB2	1.92	0.52
16:BP:20:GLU:N	16:BP:241:ASN:HA	2.25	0.52
8:DU:233:ASN:HB3	8:DU:237:ILE:HB	1.90	0.52
8:EA:358:ASN:OD1	8:EA:359:GLY:N	2.43	0.52
8:EC:392:GLN:O	8:EC:395:ILE:HG22	2.08	0.52
1:B:98:LYS:O	1:B:212:GLY:CA	2.55	0.52
1:H:72:VAL:HB	1:M:28:ASN:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:d:247:LEU:HD11	5:i:119:LEU:HD13	1.92	0.52
6:n:33:ALA:HA	6:n:100:VAL:HG11	1.91	0.52
1:V:33:GLY:N	1:V:220:GLU:O	2.42	0.52
1:V:44:LEU:HB2	1:V:70:THR:HB	1.91	0.52
1:W:91:ASN:OD1	1:W:92:SER:N	2.43	0.52
8:DE:326:LEU:HB3	8:DE:334:TRP:HB3	1.92	0.52
8:DH:299:THR:HG22	8:DH:314:GLN:HB3	1.90	0.52
8:DI:397:ASN:OD1	8:DI:401:ASN:ND2	2.43	0.52
8:DK:104:GLU:HB3	8:DP:341:GLY:HA2	1.91	0.52
10:CD:4:GLU:CB	12:Dc:125:GLN:HB2	2.40	0.52
12:Cb:392:ASN:OD1	12:Cb:393:TYR:N	2.43	0.52
12:Cg:242:GLU:OE1	12:Ch:248:ARG:NH2	2.43	0.52
12:Ch:239:ASN:O	12:Ch:243:SER:OG	2.28	0.52
12:Ck:242:GLU:OE1	12:Cl:248:ARG:NH2	2.43	0.52
12:Ck:392:ASN:OD1	12:Ck:393:TYR:N	2.43	0.52
12:Cn:392:ASN:OD1	12:Cn:393:TYR:N	2.43	0.52
12:Cq:392:ASN:OD1	12:Cq:393:TYR:N	2.43	0.52
12:Cr:239:ASN:O	12:Cr:243:SER:OG	2.28	0.52
12:Cv:392:ASN:OD1	12:Cv:393:TYR:N	2.43	0.52
16:BE:20:GLU:N	16:BE:241:ASN:HA	2.25	0.52
16:BG:280:LEU:HD21	16:BG:340:ALA:HB2	1.92	0.52
16:BI:280:LEU:HD21	16:BI:340:ALA:HB2	1.92	0.52
16:BM:280:LEU:HD21	16:BM:340:ALA:HB2	1.92	0.52
16:BS:20:GLU:N	16:BS:241:ASN:HA	2.25	0.52
16:BT:280:LEU:HD21	16:BT:340:ALA:HB2	1.92	0.52
8:DM:50:LEU:N	8:DM:50:LEU:CD1	2.73	0.52
8:DO:230:LEU:HB3	8:DO:232:PHE:HE1	1.74	0.52
8:EA:337:THR:O	8:EA:340:SER:OG	2.21	0.52
8:EB:106:ARG:HH12	8:EB:141:ASN:HB3	1.75	0.52
8:EB:206:ASN:ND2	8:EB:233:ASN:O	2.37	0.52
8:EE:232:PHE:HA	8:EE:238:LEU:HA	1.90	0.52
1:E:66:LEU:HA	1:I:77:THR:HG22	1.90	0.52
2:c:54:ARG:NH2	6:m:92:GLN:OE1	2.42	0.52
8:DB:33:LYS:NZ	8:DB:362:GLU:OE2	2.43	0.52
8:DD:151:THR:OG1	8:DD:282:ASN:ND2	2.38	0.52
8:DD:181:LYS:CG	8:DO:129:GLN:HG3	2.33	0.52
8:DJ:65:THR:OG1	8:DU:42:MET:SD	2.68	0.52
8:DJ:112:GLN:NE2	8:DO:40:ALA:HB3	2.25	0.52
8:DK:103:ASP:HA	8:DP:322:ASN:CB	2.39	0.52
8:DK:161:THR:HG21	8:DQ:192:ASN:HB3	1.92	0.52
12:Dv:156:HIS:NE2	12:Dw:143:THR:HG21	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cg:239:ASN:O	12:Cg:243:SER:OG	2.28	0.52
12:Ch:392:ASN:OD1	12:Ch:393:TYR:N	2.43	0.52
12:Co:392:ASN:OD1	12:Co:393:TYR:N	2.43	0.52
12:Cp:235:LEU:HB3	12:Cq:244:ARG:HH22	1.75	0.52
12:Eb:248:ARG:NH2	12:Ec:242:GLU:OE1	2.42	0.52
12:Ec:392:ASN:OD1	12:Ec:393:TYR:N	2.43	0.52
15:AP:84:GLU:OE1	15:AQ:167:LYS:NZ	2.36	0.52
16:BC:21:ARG:HB2	16:BC:243:GLU:HA	1.90	0.52
16:BE:21:ARG:HB2	16:BE:243:GLU:HA	1.90	0.52
16:BH:280:LEU:HD21	16:BH:340:ALA:HB2	1.92	0.52
16:BJ:20:GLU:N	16:BJ:241:ASN:HA	2.25	0.52
16:BQ:20:GLU:N	16:BQ:241:ASN:HA	2.25	0.52
16:BT:20:GLU:N	16:BT:241:ASN:HA	2.25	0.52
8:DO:380:ARG:HG3	8:DU:3:PHE:HZ	1.74	0.52
8:DP:101:LYS:HD3	8:DU:322:ASN:HD21	1.75	0.52
8:DS:285:LYS:O	8:DS:306:ASN:ND2	2.24	0.52
8:DY:179:ASN:OD1	8:DY:202:LYS:N	2.43	0.52
8:DY:330:GLY:HA2	8:ED:43:PHE:H	1.75	0.52
8:EA:33:LYS:NZ	8:EA:362:GLU:OE2	2.35	0.52
8:EA:174:ASP:OD1	8:EA:174:ASP:N	2.43	0.52
8:EF:87:ASP:OD1	8:EF:91:SER:N	2.43	0.52
8:EF:174:ASP:OD1	8:EF:175:ALA:N	2.43	0.52
1:B:252:GLN:OE1	1:F:237:GLN:NE2	2.39	0.51
1:I:66:LEU:HD12	1:N:77:THR:HG23	1.92	0.51
1:T:72:VAL:HB	2:b:28:ASN:HB3	1.92	0.51
2:a:237:VAL:HG22	5:h:21:LEU:HD21	1.92	0.51
2:e:223:ASN:OD1	2:e:226:ARG:NH2	2.43	0.51
8:DC:181:LYS:HE2	8:DN:131:GLY:HA3	1.81	0.51
8:DF:337:THR:O	8:DF:340:SER:OG	2.24	0.51
8:DF:377:VAL:O	8:DF:381:ASN:ND2	2.41	0.51
8:DI:116:LEU:HD21	8:DI:315:ILE:HG12	1.91	0.51
8:DJ:322:ASN:ND2	8:DJ:339:ALA:O	2.44	0.51
12:Dq:133:GLN:NE2	12:Dq:137:GLU:OE2	2.41	0.51
12:Dt:159:MET:H	12:Dt:159:MET:CE	2.22	0.51
14:GF:2:UNK:CB	12:Eg:372:ILE:HG21	2.41	0.51
12:Ce:392:ASN:OD1	12:Ce:393:TYR:N	2.43	0.51
12:Cl:392:ASN:OD1	12:Cl:393:TYR:N	2.43	0.51
12:Cw:392:ASN:OD1	12:Cw:393:TYR:N	2.43	0.51
12:Ea:239:ASN:O	12:Ea:243:SER:OG	2.28	0.51
12:Ea:392:ASN:OD1	12:Ea:393:TYR:N	2.43	0.51
12:Ed:239:ASN:O	12:Ed:243:SER:OG	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Ee:239:ASN:O	12:Ee:243:SER:OG	2.28	0.51
15:AG:136:GLY:HA3	15:AI:213:ILE:HG23	1.92	0.51
16:BF:280:LEU:HD21	16:BF:340:ALA:HB2	1.92	0.51
16:BO:20:GLU:N	16:BO:241:ASN:HA	2.25	0.51
8:DL:402:LEU:C	8:DL:402:LEU:CD1	2.82	0.51
8:DP:235:ASN:OD1	8:DV:189:SER:OG	2.24	0.51
8:DX:367:ASP:OD1	8:DX:370:LYS:N	2.33	0.51
8:DZ:73:LEU:HD21	8:DZ:292:TYR:HE1	1.75	0.51
1:J:59:GLN:CD	16:BW:82:LYS:NZ	2.68	0.51
2:a:226:ARG:NH2	5:h:32:ASP:OD2	2.32	0.51
1:X:253:MET:HE2	1:X:253:MET:HA	1.91	0.51
8:DE:317:LEU:HD11	8:DE:356:LEU:HD21	1.92	0.51
8:DI:269:GLN:HB2	8:DO:286:PRO:CB	2.39	0.51
8:DK:368:LEU:CD2	8:DV:2:SER:HB2	2.40	0.51
11:z:83:ALA:HB3	11:z:84:PRO:HD3	1.92	0.51
12:CI:239:ASN:O	12:CI:243:SER:OG	2.28	0.51
12:CI:392:ASN:OD1	12:CI:393:TYR:N	2.43	0.51
12:Cp:385:LEU:N	12:Cp:428:ASP:OD1	2.41	0.51
12:Ee:392:ASN:OD1	12:Ee:393:TYR:N	2.43	0.51
16:BA:20:GLU:N	16:BA:241:ASN:HA	2.25	0.51
16:BD:21:ARG:HB2	16:BD:243:GLU:HA	1.90	0.51
16:BU:20:GLU:N	16:BU:241:ASN:HA	2.25	0.51
16:BU:280:LEU:HD21	16:BU:340:ALA:HB2	1.92	0.51
8:DO:76:ALA:HB2	8:DO:360:ALA:HB3	1.91	0.51
8:DR:196:MET:HE3	8:DR:196:MET:HA	1.92	0.51
8:DT:110:ASN:OD1	8:DT:114:MET:N	2.42	0.51
8:DT:168:THR:OG1	8:DT:169:PRO:HD3	2.10	0.51
8:DX:10:LEU:HD12	8:DX:382:TYR:CE1	2.46	0.51
8:DY:162:ASP:HB3	8:DY:208:TRP:HH2	1.75	0.51
8:DY:207:GLU:HA	8:DY:230:LEU:O	2.10	0.51
8:DZ:317:LEU:HD11	8:DZ:356:LEU:HD21	1.92	0.51
1:C:28:ASN:HB3	8:DD:52:VAL:HB	1.91	0.51
1:F:83:GLN:NE2	1:F:84:GLY:O	2.38	0.51
1:K:59:GLN:HE21	1:K:59:GLN:CA	2.23	0.51
1:N:187:ILE:HD13	1:N:193:ILE:HD11	1.93	0.51
2:d:215:GLU:OE1	1:V:9:LYS:NZ	2.41	0.51
8:DF:367:ASP:OD1	8:DF:367:ASP:N	2.40	0.51
12:Cn:239:ASN:O	12:Cn:243:SER:OG	2.28	0.51
12:Eh:392:ASN:OD1	12:Eh:393:TYR:N	2.43	0.51
15:AR:65:LEU:HG	16:BS:65:MET:HG3	1.91	0.51
16:BD:20:GLU:N	16:BD:241:ASN:HA	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BW:280:LEU:HD21	16:BW:340:ALA:HB2	1.92	0.51
8:DQ:162:ASP:OD1	8:DQ:179:ASN:ND2	2.44	0.51
8:DT:43:PHE:HA	8:DT:50:LEU:CD1	2.34	0.51
8:DX:188:ASP:OD1	8:DX:191:GLY:N	2.42	0.51
2:a:66:MET:HG3	2:a:168:GLY:HA3	1.90	0.51
5:f:34:VAL:HG13	5:f:35:THR:HG22	1.93	0.51
6:l:33:ALA:O	6:l:98:ASN:ND2	2.44	0.51
8:DE:197:ASN:HB2	8:DE:213:HIS:HB3	1.92	0.51
8:DF:299:THR:HA	8:DF:314:GLN:HA	1.92	0.51
8:DI:17:LEU:CD1	8:DN:395:ILE:CD1	2.89	0.51
8:DI:269:GLN:OE1	8:DI:269:GLN:N	2.43	0.51
9:CE:22:ARG:HE	9:CE:77:GLN:HG2	1.75	0.51
12:Cb:239:ASN:O	12:Cb:243:SER:OG	2.28	0.51
12:Cc:239:ASN:O	12:Cc:243:SER:OG	2.28	0.51
12:Cf:392:ASN:OD1	12:Cf:393:TYR:N	2.43	0.51
12:Cr:392:ASN:OD1	12:Cr:393:TYR:N	2.43	0.51
12:Cs:392:ASN:OD1	12:Cs:393:TYR:N	2.43	0.51
12:Cw:239:ASN:O	12:Cw:243:SER:OG	2.28	0.51
12:Eb:385:LEU:N	12:Eb:428:ASP:OD1	2.41	0.51
12:Ef:239:ASN:O	12:Ef:243:SER:OG	2.28	0.51
16:BN:20:GLU:N	16:BN:241:ASN:HA	2.25	0.51
8:DN:210:VAL:HB	8:DN:228:THR:OG1	2.10	0.51
8:DP:29:THR:OG1	8:DP:32:PHE:HB2	2.11	0.51
8:DQ:33:LYS:HD2	8:DQ:61:PHE:HA	1.91	0.51
8:DS:269:GLN:HE22	8:DY:190:GLN:HA	1.75	0.51
8:DU:122:THR:HG22	8:DU:129:GLN:HE22	1.74	0.51
8:DU:288:ASP:OD1	8:DU:289:LEU:N	2.34	0.51
8:DU:358:ASN:OD1	8:DU:359:GLY:N	2.44	0.51
8:DY:174:ASP:HB3	8:DY:177:SER:HB3	1.91	0.51
8:EA:118:GLY:HA3	8:EA:137:ILE:HD11	1.91	0.51
8:EA:156:ILE:HD11	8:EA:180:LYS:HG2	1.92	0.51
8:ED:156:ILE:HG13	8:ED:276:ILE:HG23	1.91	0.51
8:DE:24:ILE:HD11	8:DJ:384:SER:HB3	1.92	0.51
8:DE:337:THR:O	8:DE:340:SER:OG	2.26	0.51
11:x:143:ARG:HE	11:x:144:GLU:H	1.58	0.51
12:Du:147:LEU:O	12:Du:149:PRO:HD2	2.11	0.51
12:Cc:392:ASN:OD1	12:Cc:393:TYR:N	2.43	0.51
15:AA:167:LYS:NZ	15:AZ:84:GLU:OE1	2.25	0.51
16:BC:20:GLU:N	16:BC:241:ASN:HA	2.25	0.51
16:BK:20:GLU:N	16:BK:241:ASN:HA	2.25	0.51
16:BW:20:GLU:N	16:BW:241:ASN:HA	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DU:160:SER:OG	8:DU:270:ASN:N	2.43	0.51
8:DZ:97:ASN:HD22	8:DZ:332:ASN:HD21	1.59	0.51
8:DZ:144:MET:HE2	8:DZ:304:TYR:HD2	1.75	0.51
8:EF:158:LEU:HB2	8:EF:268:GLN:HB3	1.92	0.51
8:EF:178:TYR:HA	8:EF:201:VAL:HG22	1.93	0.51
1:J:175:LEU:HD11	1:J:211:ALA:HB1	1.92	0.51
1:K:33:GLY:N	1:K:220:GLU:O	2.40	0.51
1:T:245:LYS:HG2	2:b:217:MET:HE1	1.93	0.51
2:a:62:PRO:HA	1:V:63:PRO:HG2	1.93	0.51
6:k:33:ALA:O	6:k:98:ASN:ND2	2.44	0.51
8:DA:65:THR:HG22	8:DL:50:LEU:CD2	2.40	0.51
8:DA:180:LYS:HE3	8:DL:131:GLY:N	2.26	0.51
8:DI:382:TYR:CD1	8:DN:395:ILE:CG2	2.92	0.51
8:DJ:382:TYR:HE2	8:DO:395:ILE:CG2	2.11	0.51
9:CE:127:ARG:HA	9:CE:130:ASP:HB2	1.93	0.51
12:Db:147:LEU:O	12:Db:149:PRO:HD2	2.11	0.51
14:GI:11:UNK:CB	12:Cm:374:HIS:CE1	2.93	0.51
12:Cf:239:ASN:O	12:Cf:243:SER:OG	2.28	0.51
12:CI:242:GLU:OE1	12:Cj:248:ARG:NH2	2.44	0.51
12:Cq:385:LEU:N	12:Cq:428:ASP:OD1	2.41	0.51
12:Cx:385:LEU:N	12:Cx:428:ASP:OD1	2.41	0.51
12:Ea:385:LEU:N	12:Ea:428:ASP:OD1	2.41	0.51
12:Ec:232:ASP:O	12:Ec:236:LYS:NZ	2.38	0.51
15:AS:136:GLY:HA3	15:AU:213:ILE:HG23	1.92	0.51
16:BV:280:LEU:HD21	16:BV:340:ALA:HB2	1.92	0.51
16:BX:20:GLU:N	16:BX:241:ASN:HA	2.25	0.51
16:BZ:20:GLU:N	16:BZ:241:ASN:HA	2.25	0.51
8:DL:119:TYR:CE2	8:DL:316:VAL:HG12	2.46	0.51
8:DP:288:ASP:O	8:DP:305:SER:N	2.42	0.51
8:DS:337:THR:O	8:DS:340:SER:OG	2.19	0.51
8:DX:74:ASP:OD1	8:DX:74:ASP:N	2.43	0.51
8:DX:160:SER:HG	8:DX:270:ASN:HD22	1.55	0.51
8:DX:348:ALA:HB1	8:DX:356:LEU:HD13	1.92	0.51
8:EC:134:PRO:HG2	8:EC:345:LEU:HD21	1.93	0.51
8:ED:244:VAL:HG12	8:ED:246:ILE:HG12	1.91	0.51
8:EG:87:ASP:OD1	8:EG:88:SER:N	2.44	0.51
2:b:121:ILE:HA	2:b:126:PRO:HA	1.91	0.51
4:9:319:GLN:NE2	12:CI:357:SER:OG	2.44	0.51
5:i:132:LEU:HD21	6:k:123:LEU:HD22	1.92	0.51
11:x:193:PHE:O	11:x:222:LYS:NZ	2.43	0.51
11:CF:143:ARG:HG3	11:CF:180:LYS:HD3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Df:147:LEU:O	12:Df:149:PRO:HD2	2.11	0.51
12:Di:147:LEU:O	12:Di:149:PRO:HD2	2.11	0.51
12:Ca:244:ARG:HH22	12:Eh:235:LEU:HB3	1.75	0.51
12:Ch:275:LYS:HG2	12:Ci:375:THR:HG23	1.93	0.51
12:Cp:392:ASN:OD1	12:Cp:393:TYR:N	2.43	0.51
12:Cx:392:ASN:OD1	12:Cx:393:TYR:N	2.43	0.51
12:Ef:392:ASN:OD1	12:Ef:393:TYR:N	2.43	0.51
16:BE:280:LEU:HD21	16:BE:340:ALA:HB2	1.92	0.51
8:DQ:387:GLN:NE2	8:DW:400:VAL:O	2.39	0.51
8:DT:87:ASP:OD1	8:DT:91:SER:N	2.43	0.51
8:EG:213:HIS:HB2	8:EG:223:PRO:HB3	1.93	0.51
1:C:49:ILE:HB	1:C:66:LEU:HD22	1.93	0.51
1:F:38:ARG:HD3	1:F:80:LEU:HD11	1.92	0.51
8:DJ:350:SER:HB3	8:DP:89:ASN:CB	2.38	0.51
9:CE:151:VAL:HG21	11:x:153:LEU:HD22	1.93	0.51
12:De:147:LEU:O	12:De:149:PRO:HD2	2.11	0.51
12:Dt:172:PRO:HG2	12:Dt:205:LEU:CB	2.40	0.51
12:Cx:242:GLU:OE1	12:Cy:248:ARG:NH2	2.43	0.51
12:Cz:392:ASN:OD1	12:Cz:393:TYR:N	2.43	0.51
15:AF:136:GLY:HA3	15:AH:213:ILE:HG23	1.93	0.51
8:DN:337:THR:N	8:DN:340:SER:OG	2.43	0.51
8:DO:294:ILE:HD13	8:DO:300:VAL:HG23	1.92	0.51
8:DQ:68:ASN:OD1	8:DQ:69:THR:N	2.44	0.51
8:DT:58:THR:HA	8:DT:324:GLU:OE1	2.10	0.51
8:DV:267:MET:SD	8:DV:269:GLN:HB2	2.51	0.51
8:EB:233:ASN:HB3	8:EB:237:ILE:H	1.74	0.51
8:EE:42:MET:HE3	8:EE:53:LYS:HB2	1.93	0.51
8:EF:213:HIS:HB2	8:EF:223:PRO:HG3	1.93	0.51
1:H:35:LYS:NZ	1:H:220:GLU:OE2	2.43	0.51
1:L:48:THR:HG22	1:L:67:GLN:HG2	1.92	0.51
1:R:43:ASP:OD1	1:R:43:ASP:N	2.24	0.51
5:h:34:VAL:HG12	5:h:93:MET:HE1	1.92	0.51
6:m:6:ASP:O	6:m:10:ARG:HB2	2.11	0.51
8:DB:65:THR:HG21	8:DM:4:SER:CB	2.40	0.51
8:DG:373:VAL:CB	8:DM:10:LEU:CD2	2.85	0.51
8:DJ:383:GLN:OE1	8:DJ:383:GLN:HA	2.10	0.51
8:DK:79:GLN:HG2	8:DK:354:GLY:HA3	1.93	0.51
10:CA:4:GLU:HB3	12:Dn:125:GLN:HG3	1.91	0.51
10:CC:8:MET:O	10:CC:11:THR:OG1	2.28	0.51
11:x:75:ARG:NH1	11:x:86:ASN:OD1	2.36	0.51
12:Dq:147:LEU:O	12:Dq:149:PRO:HD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Ca:392:ASN:OD1	12:Ca:393:TYR:N	2.43	0.51
16:BC:280:LEU:HD21	16:BC:340:ALA:HB2	1.92	0.51
16:BV:273:CYS:HB2	16:BW:264:MET:O	2.11	0.51
16:BX:280:LEU:HD21	16:BX:340:ALA:HB2	1.92	0.51
16:BY:280:LEU:HD21	16:BY:340:ALA:HB2	1.92	0.51
8:DN:17:LEU:CD2	8:DN:378:ALA:CB	2.88	0.51
8:DN:21:GLY:O	8:DN:24:ILE:N	2.37	0.51
8:DQ:233:ASN:OD1	8:DQ:234:GLU:N	2.43	0.51
8:DW:57:ILE:H	8:EB:47:LYS:NZ	2.08	0.51
8:DY:164:VAL:HG22	8:DY:202:LYS:HB3	1.92	0.51
8:DZ:22:ASN:ND2	8:EE:49:GLY:HA3	2.26	0.51
8:EE:114:MET:HE1	8:EE:333:VAL:HG11	1.92	0.51
1:F:37:GLN:HG2	1:F:79:ARG:HG2	1.92	0.51
2:e:14:GLN:HG3	2:e:58:THR:HA	1.93	0.51
2:e:44:VAL:HG11	4:9:328:ILE:HD13	1.93	0.51
5:f:102:MET:O	5:f:106:MET:HG2	2.11	0.51
8:DA:33:LYS:NZ	8:DA:362:GLU:OE2	2.44	0.51
8:DB:24:ILE:HD11	8:DG:384:SER:HB2	1.93	0.51
8:DC:181:LYS:HG2	8:DN:131:GLY:HA2	1.86	0.51
8:DD:210:VAL:N	8:DD:228:THR:O	2.37	0.51
8:DF:376:ILE:HD11	8:DQ:402:LEU:HD11	1.93	0.51
9:CE:242:HIS:CE1	12:Dl:125:GLN:HG3	2.44	0.51
11:z:106:ASP:O	11:z:110:VAL:HG12	2.10	0.51
12:Dl:147:LEU:O	12:Dl:149:PRO:HD2	2.11	0.51
12:Dt:159:MET:N	12:Dt:159:MET:CE	2.73	0.51
12:Dv:147:LEU:O	12:Dv:149:PRO:HD2	2.11	0.51
12:Cd:239:ASN:O	12:Cd:243:SER:OG	2.28	0.51
12:Cs:239:ASN:O	12:Cs:243:SER:OG	2.28	0.51
12:Cu:392:ASN:OD1	12:Cu:393:TYR:N	2.43	0.51
12:Eb:392:ASN:OD1	12:Eb:393:TYR:N	2.43	0.51
12:Ec:239:ASN:O	12:Ec:243:SER:OG	2.28	0.51
12:Ec:385:LEU:N	12:Ec:428:ASP:OD1	2.41	0.51
16:BD:280:LEU:HD21	16:BD:340:ALA:HB2	1.92	0.51
8:DM:84:ARG:HG2	8:DM:84:ARG:HH11	1.75	0.51
8:DQ:156:ILE:HD13	8:DQ:200:PHE:CE2	2.46	0.51
8:DV:118:GLY:HA2	8:DV:316:VAL:HG23	1.93	0.51
8:DY:196:MET:SD	8:DY:248:THR:OG1	2.66	0.51
8:EA:248:THR:OG1	8:EA:249:GLY:N	2.44	0.51
8:EB:42:MET:HG3	8:EB:50:LEU:HB2	1.93	0.51
1:G:54:ALA:HB1	1:W:150:THR:HG21	1.93	0.50
1:P:151:ILE:N	1:P:216:GLN:OE1	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DA:365:ASN:ND2	8:DA:365:ASN:O	2.43	0.50
8:DE:295:ASN:OD1	8:DE:295:ASN:N	2.39	0.50
8:DG:103:ASP:O	8:DL:322:ASN:CB	2.55	0.50
8:DG:330:GLY:O	8:DL:41:ASP:O	2.29	0.50
8:DH:337:THR:OG1	8:DH:338:GLN:N	2.42	0.50
8:DI:212:THR:HG21	8:DI:246:ILE:HG13	1.92	0.50
8:DJ:206:ASN:HD21	8:DP:253:GLY:HA3	1.76	0.50
8:DK:365:ASN:O	8:DK:365:ASN:ND2	2.43	0.50
11:y:152:ARG:NE	12:Dt:165:PHE:H	2.07	0.50
11:CF:158:PRO:O	12:Df:165:PHE:HA	2.10	0.50
12:Dt:159:MET:N	12:Dt:159:MET:HE2	2.26	0.50
12:Dw:147:LEU:O	12:Dw:149:PRO:HD2	2.11	0.50
12:Cd:392:ASN:OD1	12:Cd:393:TYR:N	2.43	0.50
12:Ch:242:GLU:OE1	12:Ci:248:ARG:NH2	2.44	0.50
12:Cj:239:ASN:O	12:Cj:243:SER:OG	2.28	0.50
12:Cm:392:ASN:OD1	12:Cm:393:TYR:N	2.43	0.50
15:AH:136:GLY:HA3	15:AJ:213:ILE:HG23	1.93	0.50
16:BA:280:LEU:HD21	16:BA:340:ALA:HB2	1.92	0.50
16:BB:280:LEU:HD21	16:BB:340:ALA:HB2	1.92	0.50
16:BM:20:GLU:N	16:BM:241:ASN:HA	2.25	0.50
8:DL:22:ASN:N	8:DQ:5:GLN:OE1	2.44	0.50
8:DL:317:LEU:HD11	8:DL:348:ALA:HA	1.93	0.50
8:DM:202:LYS:HE3	8:DM:205:ASP:HA	1.93	0.50
8:DN:75:VAL:HG21	8:DN:294:ILE:HD13	1.93	0.50
8:DS:96:ARG:NH2	8:DS:362:GLU:OE2	2.34	0.50
8:EB:180:LYS:O	8:EB:199:TYR:HA	2.12	0.50
8:EE:171:SER:OG	8:EE:174:ASP:O	2.27	0.50
1:G:149:ILE:HG22	1:G:159:VAL:HB	1.92	0.50
1:J:98:LYS:O	1:J:212:GLY:CA	2.59	0.50
1:J:257:LEU:HB2	1:O:240:TYR:HE1	1.76	0.50
1:O:256:LYS:HG2	1:T:241:GLU:HG2	1.92	0.50
1:W:147:LEU:HB2	1:W:160:THR:HG23	1.93	0.50
8:DE:337:THR:OG1	8:DE:338:GLN:N	2.45	0.50
8:DI:106:ARG:HH12	8:DI:141:ASN:HB2	1.75	0.50
11:w:205:MET:SD	11:x:209:MET:HG3	2.51	0.50
11:x:135:ARG:HH12	11:x:167:MET:HA	1.76	0.50
11:CF:211:MET:N	11:CF:212:VAL:HB	2.27	0.50
12:Dc:147:LEU:O	12:Dc:149:PRO:HD2	2.11	0.50
12:Ds:147:LEU:O	12:Ds:149:PRO:HD2	2.11	0.50
12:Ca:244:ARG:HH12	12:Eh:235:LEU:HB3	1.76	0.50
12:Cj:392:ASN:OD1	12:Cj:393:TYR:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cu:385:LEU:N	12:Cu:428:ASP:OD1	2.41	0.50
12:Cw:242:GLU:OE1	12:Cx:248:ARG:NH2	2.43	0.50
16:BL:20:GLU:N	16:BL:241:ASN:HA	2.25	0.50
8:DM:395:ILE:N	8:DM:395:ILE:HD13	2.27	0.50
8:DN:329:GLN:HB2	8:DN:333:VAL:HG23	1.92	0.50
8:DP:60:ASP:OD1	8:DP:62:THR:HG23	2.12	0.50
8:DS:118:GLY:HA3	8:DS:137:ILE:HD11	1.92	0.50
8:DT:271:THR:HG21	8:DZ:143:LEU:HD21	1.92	0.50
8:DU:149:THR:HG21	8:DU:186:VAL:HG12	1.93	0.50
8:DY:158:LEU:HB2	8:DY:268:GLN:HB2	1.93	0.50
1:U:141:THR:HG23	1:U:141:THR:O	2.11	0.50
2:c:45:PRO:HB3	2:c:55:THR:HG22	1.93	0.50
6:l:130:MET:HE1	11:x:44:THR:HG21	1.93	0.50
6:o:35:THR:HG22	5:p:49:PHE:HB3	1.92	0.50
1:V:35:LYS:NZ	1:V:220:GLU:OE2	2.35	0.50
1:X:189:GLU:OE1	1:X:189:GLU:N	2.42	0.50
8:DB:34:SER:HB3	8:DB:366:VAL:HG22	1.93	0.50
8:DB:179:ASN:OD1	8:DB:202:LYS:N	2.44	0.50
8:DD:143:LEU:HD22	8:DD:288:ASP:HA	1.93	0.50
8:DI:65:THR:HA	8:DT:50:LEU:CD2	2.38	0.50
8:DI:382:TYR:CE1	8:DN:395:ILE:HG23	2.45	0.50
10:CC:77:VAL:HG12	11:y:192:PRO:HB3	1.93	0.50
11:x:210:MET:SD	11:x:210:MET:N	2.84	0.50
11:y:160:GLN:O	12:Du:167:ARG:CB	2.59	0.50
12:Da:147:LEU:O	12:Da:149:PRO:HD2	2.11	0.50
12:Dc:156:HIS:NE2	12:Dd:143:THR:HG21	2.27	0.50
12:Dg:147:LEU:O	12:Dg:149:PRO:HD2	2.11	0.50
12:Dn:147:LEU:O	12:Dn:149:PRO:HD2	2.11	0.50
12:Cg:392:ASN:OD1	12:Cg:393:TYR:N	2.43	0.50
12:Ch:244:ARG:O	12:Ch:247:ARG:HG3	2.12	0.50
12:Cm:385:LEU:N	12:Cm:428:ASP:OD1	2.41	0.50
12:Cu:244:ARG:O	12:Cu:247:ARG:HG3	2.12	0.50
12:Cv:275:LYS:HG2	12:Cw:375:THR:HG23	1.93	0.50
8:DQ:154:MET:HE1	8:DQ:184:VAL:HG21	1.93	0.50
8:DS:369:SER:HA	8:ED:399:LEU:HD21	1.93	0.50
8:DV:149:THR:OG1	8:DV:281:GLN:OE1	2.23	0.50
8:EB:322:ASN:HD22	8:EB:339:ALA:C	2.18	0.50
8:EG:156:ILE:HG13	8:EG:275:ASN:O	2.12	0.50
1:K:184:LEU:HB3	1:K:192:TYR:HB3	1.94	0.50
8:DB:206:ASN:ND2	8:DH:253:GLY:O	2.40	0.50
8:DC:208:TRP:HE1	8:DC:268:GLN:HE22	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DC:331:ASP:OD1	8:DC:331:ASP:N	2.44	0.50
8:DH:337:THR:O	8:DH:340:SER:OG	2.24	0.50
11:x:75:ARG:HD2	11:x:82:SER:HA	1.93	0.50
12:Dr:147:LEU:O	12:Dr:149:PRO:HD2	2.11	0.50
12:Dt:147:LEU:O	12:Dt:149:PRO:HD2	2.11	0.50
12:Ce:244:ARG:O	12:Ce:247:ARG:HG3	2.12	0.50
12:Cn:244:ARG:O	12:Cn:247:ARG:HG3	2.12	0.50
12:Co:385:LEU:N	12:Co:428:ASP:OD1	2.41	0.50
12:Cq:244:ARG:O	12:Cq:247:ARG:HG3	2.12	0.50
12:Cw:244:ARG:O	12:Cw:247:ARG:HG3	2.12	0.50
12:Ed:385:LEU:N	12:Ed:428:ASP:OD1	2.41	0.50
12:Eg:239:ASN:O	12:Eg:243:SER:OG	2.28	0.50
16:BV:318:SER:HB2	16:BW:342:PRO:HD3	1.93	0.50
16:BZ:280:LEU:HD21	16:BZ:340:ALA:HB2	1.92	0.50
8:DL:118:GLY:HA3	8:DL:137:ILE:HD11	1.93	0.50
8:DQ:383:GLN:HB3	8:DW:400:VAL:HG21	1.94	0.50
8:DT:130:GLN:OE1	8:DT:130:GLN:N	2.45	0.50
8:EA:31:GLY:HA3	8:EA:97:ASN:HB3	1.94	0.50
8:EB:233:ASN:N	8:EB:237:ILE:O	2.44	0.50
8:EF:281:GLN:HG3	8:EF:283:GLY:H	1.77	0.50
1:A:37:GLN:HG2	1:A:79:ARG:HD3	1.94	0.50
1:E:33:GLY:N	1:E:220:GLU:O	2.45	0.50
1:G:255:GLN:HE22	1:G:256:LYS:HE3	1.75	0.50
8:DF:44:ALA:H	8:DF:50:LEU:HD13	1.76	0.50
8:DI:150:THR:N	8:DI:282:ASN:OD1	2.30	0.50
8:DK:188:ASP:OD1	8:DK:192:ASN:N	2.39	0.50
10:CD:46:GLU:H	10:CD:49:LEU:HD13	1.77	0.50
12:Dj:147:LEU:O	12:Dj:149:PRO:HD2	2.11	0.50
12:Ds:126:PHE:C	12:Ds:128:GLU:N	2.67	0.50
13:GD:2:UNK:CB	12:Cf:365:ASN:CG	2.84	0.50
12:Cc:244:ARG:O	12:Cc:247:ARG:HG3	2.12	0.50
12:Cf:244:ARG:O	12:Cf:247:ARG:HG3	2.12	0.50
12:Ci:244:ARG:O	12:Ci:247:ARG:HG3	2.12	0.50
12:Ck:244:ARG:O	12:Ck:247:ARG:HG3	2.12	0.50
12:Cq:275:LYS:HG2	12:Cr:375:THR:HG23	1.92	0.50
12:Cr:244:ARG:O	12:Cr:247:ARG:HG3	2.12	0.50
12:Cz:244:ARG:O	12:Cz:247:ARG:HG3	2.12	0.50
12:Ef:385:LEU:N	12:Ef:428:ASP:OD1	2.41	0.50
8:DO:6:ALA:O	8:DO:385:ASN:OD1	2.29	0.50
8:DR:71:ARG:NH2	8:DR:100:PHE:O	2.38	0.50
8:EB:281:GLN:HG2	8:EB:283:GLY:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:ED:2:SER:OG	8:ED:3:PHE:N	2.42	0.50
8:EE:110:ASN:OD1	8:EE:114:MET:N	2.30	0.50
1:B:1:MET:HB2	1:B:5:LEU:HD23	1.94	0.50
1:B:187:ILE:HG13	1:B:191:LEU:HB2	1.94	0.50
1:H:46:TYR:CD1	1:H:69:GLY:HA2	2.47	0.50
1:X:62:LEU:HD23	1:X:62:LEU:H	1.75	0.50
8:DD:151:THR:HG1	8:DD:282:ASN:HD21	1.55	0.50
8:DG:68:ASN:OD1	8:DR:53:LYS:HE2	2.12	0.50
8:DG:379:GLN:HG3	8:DL:395:ILE:HD11	1.93	0.50
10:CB:59:PHE:CE1	10:CC:14:MET:HB3	2.46	0.50
11:y:62:THR:O	11:y:174:TYR:OH	2.26	0.50
11:y:105:ILE:HD13	11:y:108:ILE:HD11	1.93	0.50
12:Cn:242:GLU:OE1	12:Co:248:ARG:NH2	2.45	0.50
12:Co:244:ARG:O	12:Co:247:ARG:HG3	2.12	0.50
12:Ct:244:ARG:O	12:Ct:247:ARG:HG3	2.12	0.50
12:Cx:244:ARG:O	12:Cx:247:ARG:HG3	2.12	0.50
12:Eh:244:ARG:O	12:Eh:247:ARG:HG3	2.12	0.50
15:AM:65:LEU:HG	16:BN:65:MET:HG3	1.93	0.50
15:AV:136:GLY:HA3	15:AX:213:ILE:HG23	1.93	0.50
8:DM:44:ALA:CB	8:DM:50:LEU:HD21	2.41	0.50
8:DN:392:GLN:CA	8:DN:392:GLN:NE2	2.73	0.50
8:DV:147:LYS:NZ	8:DV:282:ASN:O	2.42	0.50
8:ED:247:THR:HG22	8:ED:258:THR:HG22	1.93	0.50
8:ED:288:ASP:O	8:ED:305:SER:N	2.42	0.50
2:e:143:ILE:HD11	2:e:161:LEU:HG	1.92	0.50
8:DA:86:VAL:HG12	8:DA:92:VAL:HG22	1.94	0.50
8:DC:32:PHE:O	8:DC:365:ASN:ND2	2.43	0.50
8:DK:103:ASP:HA	8:DP:322:ASN:CG	2.36	0.50
12:Ca:239:ASN:O	12:Ca:243:SER:OG	2.28	0.50
12:Cl:244:ARG:O	12:Cl:247:ARG:HG3	2.12	0.50
12:Co:239:ASN:O	12:Co:243:SER:OG	2.28	0.50
12:Eb:244:ARG:O	12:Eb:247:ARG:HG3	2.12	0.50
15:AE:136:GLY:HA3	15:AG:213:ILE:HG23	1.94	0.50
8:DP:102:LEU:HG	8:DP:103:ASP:H	1.76	0.50
8:DR:150:THR:OG1	8:DR:282:ASN:ND2	2.42	0.50
8:DU:163:PRO:O	8:DU:179:ASN:ND2	2.41	0.50
8:DY:180:LYS:HZ1	8:DY:275:ASN:N	2.10	0.50
8:EB:392:GLN:HA	8:EB:395:ILE:HG22	1.93	0.50
8:EF:346:GLY:HA3	8:EF:353:PHE:CZ	2.46	0.50
1:K:5:LEU:HG	1:K:250:THR:HG21	1.94	0.50
1:P:194:GLU:OE1	1:P:194:GLU:N	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:82:LEU:HD21	2:a:88:LEU:HG	1.94	0.50
5:g:111:SER:O	5:g:115:ASN:ND2	2.38	0.50
8:DB:294:ILE:HG12	8:DB:300:VAL:HG12	1.94	0.50
8:DD:93:PHE:HD2	8:DD:114:MET:HE1	1.76	0.50
8:DE:103:ASP:OD1	8:DE:107:ASN:N	2.39	0.50
8:DG:159:ASN:HB3	8:DG:162:ASP:HB2	1.94	0.50
11:x:207:LEU:HD12	11:x:209:MET:HE1	1.92	0.50
12:Do:147:LEU:O	12:Do:149:PRO:HD2	2.11	0.50
12:Dq:125:GLN:NE2	12:Dq:129:GLN:OE1	2.45	0.50
12:Ce:239:ASN:O	12:Ce:243:SER:OG	2.28	0.50
12:Cn:385:LEU:N	12:Cn:428:ASP:OD1	2.41	0.50
12:Eb:375:THR:HG23	12:Ec:275:LYS:HG2	1.93	0.50
15:AL:136:GLY:HA3	15:AN:213:ILE:HG23	1.93	0.50
8:DL:6:ALA:HB1	8:DL:389:ILE:CD1	2.42	0.50
8:DO:342:VAL:HG23	8:DO:344:LEU:HD12	1.94	0.50
8:DS:331:ASP:O	8:DS:333:VAL:N	2.45	0.50
8:DV:159:ASN:ND2	8:DV:272:GLY:O	2.45	0.50
8:ED:213:HIS:HB2	8:ED:223:PRO:HG3	1.94	0.50
1:E:34:PHE:HB3	1:E:222:SER:HB3	1.94	0.50
1:I:29:VAL:O	1:I:222:SER:OG	2.29	0.50
2:d:228:GLU:HA	1:W:256:LYS:HD2	1.93	0.50
5:f:23:VAL:HG11	5:f:46:GLN:HA	1.92	0.50
6:n:42:ASP:OD2	6:n:88:ARG:NH2	2.45	0.50
8:DF:362:GLU:OE1	8:DF:362:GLU:N	2.43	0.50
8:DG:79:GLN:HB2	8:DG:354:GLY:HA3	1.94	0.50
8:DK:188:ASP:HA	8:DK:257:ALA:HB2	1.92	0.50
12:Dk:147:LEU:O	12:Dk:149:PRO:HD2	2.11	0.50
12:Dp:147:LEU:O	12:Dp:149:PRO:HD2	2.11	0.50
12:Cb:244:ARG:O	12:Cb:247:ARG:HG3	2.12	0.50
12:Cx:239:ASN:O	12:Cx:243:SER:OG	2.28	0.50
12:Ee:244:ARG:O	12:Ee:247:ARG:HG3	2.12	0.50
15:AR:136:GLY:HA3	15:AT:213:ILE:HG23	1.93	0.50
15:AS:65:LEU:HG	16:BT:65:MET:HG3	1.93	0.50
8:DM:61:PHE:HE2	8:DM:324:GLU:HA	1.70	0.50
8:DO:19:VAL:HG11	8:DO:37:ALA:HB2	1.93	0.50
8:DP:78:SER:OG	8:DP:355:LYS:N	2.45	0.50
8:DP:390:LYS:HB2	8:DU:402:LEU:CD2	2.42	0.50
8:DS:41:ASP:OD1	8:DS:41:ASP:N	2.44	0.50
8:DT:380:ARG:HD2	8:DZ:396:LEU:HD22	1.94	0.50
8:DU:111:MET:HA	8:DU:111:MET:HE3	1.94	0.50
8:DU:392:GLN:C	8:DU:395:ILE:HG22	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DX:337:THR:O	8:DX:340:SER:OG	2.25	0.50
8:EB:77:ILE:HD11	8:EB:83:PHE:CE2	2.47	0.50
8:EC:142:THR:OG1	8:EC:143:LEU:N	2.43	0.50
8:EF:101:LYS:HG2	8:EF:111:MET:HE1	1.94	0.50
1:H:176:THR:HG22	1:H:203:GLU:HB2	1.94	0.49
1:R:225:ASN:O	1:R:229:GLU:HG2	2.12	0.49
6:o:15:ALA:O	6:o:19:ARG:HG2	2.12	0.49
1:W:43:ASP:OD1	1:W:43:ASP:N	2.44	0.49
1:X:2:ILE:HG13	1:X:254:LEU:HD21	1.94	0.49
8:DA:139:ILE:HA	8:DA:312:LEU:HD13	1.93	0.49
8:DD:165:PRO:HG2	8:DD:201:VAL:HG23	1.94	0.49
8:DG:103:ASP:C	8:DL:322:ASN:CB	2.65	0.49
8:DG:373:VAL:HG11	8:DM:10:LEU:HD22	1.79	0.49
8:DH:372:LEU:HB3	8:DS:399:LEU:HD11	1.93	0.49
8:DI:16:ASN:HB2	8:DI:39:PHE:HZ	1.77	0.49
8:DJ:181:LYS:NZ	8:DU:129:GLN:CA	2.74	0.49
10:CA:59:PHE:CZ	10:CB:18:LEU:HB2	2.46	0.49
12:Df:172:PRO:O	12:Df:205:LEU:HD13	2.11	0.49
12:Dr:134:ARG:HH12	12:Ds:116:LEU:CB	2.20	0.49
12:Ea:244:ARG:O	12:Ea:247:ARG:HG3	2.12	0.49
12:Ef:244:ARG:O	12:Ef:247:ARG:HG3	2.12	0.49
15:AB:136:GLY:HA3	15:AD:213:ILE:HG23	1.93	0.49
8:DN:60:ASP:OD1	8:DN:61:PHE:N	2.45	0.49
8:DU:89:ASN:OD1	8:DU:90:GLY:N	2.45	0.49
8:EC:94:TYR:CD2	8:EC:320:PHE:HZ	2.30	0.49
1:A:2:ILE:HG22	1:A:4:SER:H	1.77	0.49
1:H:92:SER:O	1:H:216:GLN:NE2	2.41	0.49
1:O:150:THR:OG1	1:O:158:SER:OG	2.30	0.49
2:a:181:LEU:HD11	2:a:193:LEU:HG	1.94	0.49
2:b:181:LEU:HD21	2:b:193:LEU:HD11	1.92	0.49
8:DC:208:TRP:HB2	8:DC:230:LEU:HB2	1.94	0.49
8:DD:139:ILE:HA	8:DD:312:LEU:HD22	1.94	0.49
8:DF:370:LYS:NZ	8:DL:14:ALA:HB3	2.27	0.49
8:DG:106:ARG:CG	8:DL:321:ALA:CA	2.89	0.49
8:DH:180:LYS:HB3	8:DH:200:PHE:HB2	1.93	0.49
8:DI:330:GLY:O	8:DN:43:PHE:CB	2.55	0.49
8:DJ:377:VAL:CG2	8:DP:3:PHE:CE2	2.81	0.49
10:CC:76:TYR:O	10:CC:79:THR:OG1	2.29	0.49
11:x:166:PRO:HG2	11:x:169:ILE:HD13	1.93	0.49
12:Dh:147:LEU:O	12:Dh:149:PRO:HD2	2.11	0.49
12:Dm:147:LEU:O	12:Dm:149:PRO:HD2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cj:385:LEU:N	12:Cj:428:ASP:OD1	2.41	0.49
12:Cl:385:LEU:N	12:Cl:428:ASP:OD1	2.41	0.49
12:Cy:242:GLU:OE1	12:Cz:248:ARG:NH2	2.44	0.49
12:Ee:385:LEU:N	12:Ee:428:ASP:OD1	2.41	0.49
8:DL:6:ALA:O	8:DL:10:LEU:HG	2.12	0.49
8:DL:330:GLY:HA2	8:DQ:43:PHE:H	1.76	0.49
8:DM:204:LYS:NZ	8:DM:207:GLU:OE2	2.35	0.49
8:DM:342:VAL:HG12	8:DM:343:ALA:H	1.78	0.49
8:DT:146:ALA:HB2	8:DT:286:PRO:HD3	1.94	0.49
8:DV:381:ASN:O	8:DV:384:SER:OG	2.24	0.49
8:EC:299:THR:HA	8:EC:314:GLN:HA	1.94	0.49
8:EE:264:LEU:HD23	8:EE:265:ASN:HB2	1.94	0.49
1:A:45:LEU:HD22	1:P:98:LYS:HG3	1.94	0.49
1:L:33:GLY:N	1:L:220:GLU:O	2.44	0.49
2:b:9:MET:HG2	5:f:103:VAL:HG21	1.92	0.49
2:d:225:ARG:NH1	1:V:251:ASP:OD1	2.45	0.49
8:DE:322:ASN:ND2	8:DE:339:ALA:O	2.40	0.49
8:DJ:299:THR:HG22	8:DJ:314:GLN:HB3	1.93	0.49
8:DK:183:THR:CB	8:DV:131:GLY:C	2.80	0.49
9:CE:40:LYS:O	9:CE:44:LEU:HG	2.12	0.49
10:CD:35:ILE:O	10:CD:39:GLN:N	2.41	0.49
11:z:97:THR:HA	11:z:100:ILE:HG22	1.94	0.49
11:CF:135:ARG:NH1	11:CF:163:GLU:OE2	2.45	0.49
12:Dd:147:LEU:O	12:Dd:149:PRO:HD2	2.11	0.49
12:Cr:385:LEU:N	12:Cr:428:ASP:OD1	2.41	0.49
15:AN:136:GLY:HA3	15:AP:213:ILE:HG23	1.93	0.49
8:DL:390:LYS:C	8:DL:392:GLN:N	2.69	0.49
8:DM:374:ASN:HA	8:DM:377:VAL:HG12	1.94	0.49
8:DN:9:GLY:O	8:DN:12:ALA:HB3	2.12	0.49
8:DO:158:LEU:HB2	8:DO:268:GLN:HB3	1.94	0.49
8:DQ:368:LEU:HA	8:DQ:371:GLU:OE2	2.12	0.49
8:DR:319:ASN:HB3	8:DR:344:LEU:HD23	1.94	0.49
8:DX:99:GLN:NE2	8:DX:111:MET:HG2	2.27	0.49
8:EA:2:SER:OG	8:EA:3:PHE:N	2.46	0.49
8:EE:68:ASN:OD1	8:EE:69:THR:N	2.45	0.49
1:A:241:GLU:HG2	8:DA:398:THR:HG21	1.93	0.49
1:B:51:GLN:NE2	1:F:185:GLU:OE1	2.45	0.49
1:C:127:GLN:HA	1:C:141:THR:HA	1.95	0.49
1:G:147:LEU:HB2	1:G:160:THR:HG23	1.93	0.49
1:N:2:ILE:HD12	1:S:16:GLN:HE22	1.76	0.49
2:d:9:MET:HB2	5:j:103:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:118:MET:HE1	7:r:60:THR:HG22	1.94	0.49
8:DI:331:ASP:OD1	8:DI:332:ASN:N	2.38	0.49
11:x:85:PRO:HG2	11:x:88:VAL:HB	1.93	0.49
12:Cd:242:GLU:OE1	12:Ce:248:ARG:NH2	2.45	0.49
15:AO:136:GLY:HA3	15:AQ:213:ILE:HG23	1.93	0.49
16:BN:344:ASP:OD1	16:BN:344:ASP:N	2.46	0.49
8:DN:281:GLN:OE1	8:DN:283:GLY:N	2.42	0.49
8:DP:386:ALA:O	8:DP:390:LYS:N	2.45	0.49
8:DS:399:LEU:C	8:DS:399:LEU:CD1	2.85	0.49
8:DY:4:SER:HA	8:DY:7:VAL:HG12	1.93	0.49
8:EB:217:ASP:HB3	8:EB:220:ALA:HB2	1.94	0.49
1:D:101:GLY:HA3	1:D:175:LEU:HD13	1.93	0.49
1:H:256:LYS:HG2	1:M:241:GLU:HG2	1.94	0.49
1:M:35:LYS:HA	1:M:223:ASN:OD1	2.12	0.49
2:a:184:GLU:OE1	2:a:184:GLU:N	2.45	0.49
2:b:77:PRO:HG2	2:b:78:LEU:HD23	1.94	0.49
5:g:18:SER:O	5:g:22:ASN:ND2	2.31	0.49
5:g:113:GLN:O	5:g:116:ILE:HG22	2.13	0.49
9:CE:51:THR:O	9:CE:55:ALA:N	2.33	0.49
12:Dw:172:PRO:O	12:Dw:205:LEU:CD1	2.60	0.49
12:Cb:275:LYS:HG2	12:Cc:375:THR:HG23	1.94	0.49
12:Cg:275:LYS:HG2	12:Ch:375:THR:HG23	1.94	0.49
12:Cj:244:ARG:O	12:Cj:247:ARG:HG3	2.12	0.49
12:Cm:244:ARG:O	12:Cm:247:ARG:HG3	2.12	0.49
12:Cp:235:LEU:HB3	12:Cq:244:ARG:NH2	2.26	0.49
12:Cv:242:GLU:OE1	12:Cw:248:ARG:NH2	2.45	0.49
12:Eb:239:ASN:O	12:Eb:243:SER:OG	2.28	0.49
12:Ec:244:ARG:O	12:Ec:247:ARG:HG3	2.12	0.49
12:Eg:385:LEU:N	12:Eg:428:ASP:OD1	2.41	0.49
15:AT:136:GLY:HA3	15:AV:213:ILE:HG23	1.93	0.49
16:BI:344:ASP:N	16:BI:344:ASP:OD1	2.46	0.49
16:BJ:344:ASP:N	16:BJ:344:ASP:OD1	2.46	0.49
8:DM:175:ALA:HA	8:DM:178:TYR:CZ	2.48	0.49
8:DM:213:HIS:HB2	8:DM:223:PRO:HD3	1.93	0.49
8:DM:386:ALA:HA	8:DM:389:ILE:HG13	1.94	0.49
8:DN:392:GLN:HA	8:DN:392:GLN:NE2	2.26	0.49
8:DO:186:VAL:C	8:DO:187:TYR:HD1	2.21	0.49
8:DO:299:THR:HA	8:DO:314:GLN:HA	1.95	0.49
8:DP:2:SER:O	8:DP:392:GLN:NE2	2.46	0.49
8:DQ:21:GLY:HA2	8:DQ:24:ILE:HG22	1.95	0.49
8:DQ:87:ASP:OD1	8:DQ:88:SER:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DT:43:PHE:CA	8:DT:50:LEU:CD1	2.88	0.49
8:DY:331:ASP:O	8:DY:333:VAL:N	2.44	0.49
8:EB:143:LEU:HD23	8:EB:143:LEU:H	1.78	0.49
8:EF:202:LYS:HD2	8:EF:208:TRP:CZ2	2.47	0.49
6:o:85:LEU:HD23	6:o:85:LEU:H	1.77	0.49
1:W:225:ASN:O	1:W:229:GLU:HG2	2.13	0.49
7:r:104:VAL:O	9:CE:40:LYS:NZ	2.45	0.49
8:DG:102:LEU:HD13	8:DL:321:ALA:O	2.12	0.49
8:DJ:318:ALA:HB2	8:DJ:345:LEU:HD13	1.94	0.49
12:Ce:385:LEU:N	12:Ce:428:ASP:OD1	2.41	0.49
12:Cg:244:ARG:O	12:Cg:247:ARG:HG3	2.12	0.49
12:Ci:235:LEU:HB3	12:Cj:244:ARG:HH22	1.77	0.49
12:Cs:275:LYS:HG2	12:Ct:375:THR:HG23	1.93	0.49
12:Cz:275:LYS:HG2	12:Ea:375:THR:HG23	1.93	0.49
12:Ea:242:GLU:OE1	12:Ec:248:ARG:NH2	2.45	0.49
12:Ee:242:GLU:OE1	12:Ef:248:ARG:NH2	2.45	0.49
15:AP:70:ARG:NH2	16:BR:72:THR:OG1	2.40	0.49
16:BQ:110:MET:HE2	16:BR:62:LEU:HD11	1.95	0.49
8:DL:346:GLY:HA3	8:DL:353:PHE:CE2	2.47	0.49
8:DM:202:LYS:HB2	8:DM:208:TRP:CD2	2.48	0.49
8:DM:326:LEU:HB3	8:DM:334:TRP:HB3	1.95	0.49
8:DP:211:TYR:CE1	8:DP:226:ALA:HA	2.48	0.49
8:DP:331:ASP:O	8:DP:333:VAL:N	2.42	0.49
8:DS:269:GLN:NE2	8:DY:190:GLN:HA	2.27	0.49
8:DX:228:THR:HG22	8:DX:229:THR:N	2.26	0.49
8:EB:213:HIS:HB2	8:EB:223:PRO:HG3	1.94	0.49
1:A:145:ASN:OD1	1:A:161:GLN:NE2	2.45	0.49
1:E:24:ASN:ND2	1:E:37:GLN:OE1	2.43	0.49
1:E:140:ILE:HD12	1:E:171:GLY:HA3	1.95	0.49
6:o:133:VAL:HA	7:u:86:ILE:HD12	1.94	0.49
8:DD:151:THR:HG1	8:DD:282:ASN:ND2	2.11	0.49
9:CE:123:PRO:HA	9:CE:127:ARG:HG2	1.93	0.49
12:Db:172:PRO:O	12:Db:205:LEU:HD13	2.12	0.49
12:Ca:244:ARG:O	12:Ca:247:ARG:HG3	2.12	0.49
12:Eh:239:ASN:O	12:Eh:243:SER:OG	2.28	0.49
16:BE:344:ASP:OD1	16:BE:344:ASP:N	2.46	0.49
8:DT:395:ILE:HA	8:DT:398:THR:CG2	2.43	0.49
8:DX:199:TYR:HE1	8:DX:213:HIS:HB3	1.78	0.49
8:EA:122:THR:OG1	8:EA:129:GLN:NE2	2.46	0.49
8:EB:374:ASN:HA	8:EB:377:VAL:HG12	1.95	0.49
1:F:180:ASN:ND2	1:K:122:VAL:O	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:92:SER:O	1:N:216:GLN:NE2	2.46	0.49
1:Q:200:ALA:CB	16:BG:80:GLN:NE2	2.76	0.49
1:R:181:ASP:OD1	1:R:181:ASP:N	2.37	0.49
8:DA:65:THR:HG22	8:DL:50:LEU:HG	1.95	0.49
8:DA:65:THR:HB	8:DL:50:LEU:HD11	1.91	0.49
8:DA:235:ASN:O	8:DA:269:GLN:NE2	2.45	0.49
8:DC:183:THR:HG22	8:DN:131:GLY:O	2.08	0.49
8:DF:65:THR:HG21	8:DQ:4:SER:HB3	1.95	0.49
8:DI:54:VAL:HG12	8:DI:56:GLY:H	1.78	0.49
12:Ck:239:ASN:O	12:Ck:243:SER:OG	2.28	0.49
12:Cp:244:ARG:O	12:Cp:247:ARG:HG3	2.12	0.49
12:Eg:244:ARG:O	12:Eg:247:ARG:HG3	2.12	0.49
12:Eg:265:GLN:HG3	12:Eh:252:ILE:HB	1.94	0.49
15:AD:136:GLY:HA3	15:AF:213:ILE:HG23	1.95	0.49
16:BK:344:ASP:OD1	16:BK:344:ASP:N	2.46	0.49
16:BO:344:ASP:N	16:BO:344:ASP:OD1	2.46	0.49
8:DP:153:SER:HG	8:DP:280:ASN:HD22	1.57	0.49
8:DQ:180:LYS:NZ	8:DQ:274:ASN:O	2.32	0.49
8:DR:77:ILE:HD11	8:DR:96:ARG:NE	2.27	0.49
8:DW:94:TYR:CD2	8:DW:320:PHE:HZ	2.30	0.49
8:EA:29:THR:HG23	8:EA:32:PHE:HB2	1.93	0.49
8:ED:8:SER:OG	8:ED:52:VAL:O	2.28	0.49
1:C:123:ASP:OD1	1:C:127:GLN:N	2.35	0.49
5:h:19:LYS:NZ	6:k:91:ASP:OD1	2.46	0.49
8:DG:365:ASN:O	8:DG:365:ASN:ND2	2.45	0.49
9:CE:176:GLY:HA2	9:CE:178:LEU:N	2.27	0.49
11:w:84:PRO:HG2	11:w:89:LEU:HD11	1.93	0.49
11:z:100:ILE:HG12	11:z:243:PHE:HD2	1.78	0.49
12:Ca:385:LEU:N	12:Ca:428:ASP:OD1	2.41	0.49
12:Cf:275:LYS:HG2	12:Cg:375:THR:HG23	1.93	0.49
12:Ck:385:LEU:N	12:Ck:428:ASP:OD1	2.41	0.49
12:Cr:242:GLU:OE1	12:Cs:248:ARG:NH2	2.46	0.49
12:Ct:239:ASN:O	12:Ct:243:SER:OG	2.28	0.49
12:Cy:244:ARG:O	12:Cy:247:ARG:HG3	2.12	0.49
12:Cy:385:LEU:N	12:Cy:428:ASP:OD1	2.41	0.49
12:Ed:244:ARG:O	12:Ed:247:ARG:HG3	2.12	0.49
15:AR:84:GLU:OE1	15:AS:167:LYS:NZ	2.36	0.49
16:BM:344:ASP:OD1	16:BM:344:ASP:N	2.46	0.49
8:DM:84:ARG:HH11	8:DM:92:VAL:HG23	1.78	0.49
8:DO:141:ASN:O	8:DO:141:ASN:ND2	2.44	0.49
8:DQ:390:LYS:HG2	8:DQ:394:GLN:HE22	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DR:20:ILE:HG23	8:DR:371:GLU:HG3	1.94	0.49
8:DU:395:ILE:O	8:DU:398:THR:HB	2.12	0.49
8:DY:108:LEU:HB3	8:DY:116:LEU:HD13	1.94	0.49
8:EA:392:GLN:HA	8:EA:395:ILE:HG22	1.95	0.49
1:G:33:GLY:N	1:G:220:GLU:O	2.42	0.49
1:G:181:ASP:OD1	1:G:181:ASP:N	2.44	0.49
1:Q:200:ALA:CB	16:BG:80:GLN:HE22	2.26	0.49
1:S:109:ASP:OD1	1:S:109:ASP:N	2.46	0.49
2:b:247:LEU:HD13	5:g:119:LEU:HD13	1.94	0.49
8:DC:44:ALA:HB2	8:DC:50:LEU:HD11	1.95	0.49
8:DJ:350:SER:HB3	8:DP:89:ASN:HB3	1.94	0.49
12:Cg:385:LEU:N	12:Cg:428:ASP:OD1	2.41	0.49
12:Ci:385:LEU:N	12:Ci:428:ASP:OD1	2.41	0.49
12:Cp:242:GLU:OE1	12:Cq:248:ARG:NH2	2.46	0.49
12:Cs:244:ARG:O	12:Cs:247:ARG:HG3	2.12	0.49
12:Cv:275:LYS:HG2	12:Cv:375:THR:HG23	1.94	0.49
12:Cv:244:ARG:O	12:Cv:247:ARG:HG3	2.12	0.49
15:AU:136:GLY:HA3	15:AW:213:ILE:HG23	1.94	0.49
16:BD:344:ASP:N	16:BD:344:ASP:OD1	2.46	0.49
16:BF:344:ASP:N	16:BF:344:ASP:OD1	2.46	0.49
16:BR:344:ASP:N	16:BR:344:ASP:OD1	2.46	0.49
16:BS:344:ASP:OD1	16:BS:344:ASP:N	2.46	0.49
8:DM:233:ASN:N	8:DM:237:ILE:O	2.43	0.49
8:DN:319:ASN:ND2	8:DN:352:ASN:O	2.46	0.49
8:DS:35:GLY:HA2	8:DS:59:GLN:HA	1.93	0.49
8:DW:172:VAL:HG11	8:DW:213:HIS:CG	2.48	0.49
8:DX:148:SER:OG	8:DX:189:SER:HA	2.12	0.49
8:EF:99:GLN:HB3	8:EF:361:LEU:HD11	1.95	0.49
8:EF:204:LYS:HE3	8:EF:207:GLU:HG3	1.94	0.49
1:D:33:GLY:N	1:D:220:GLU:O	2.45	0.48
1:W:33:GLY:N	1:W:220:GLU:O	2.43	0.48
8:DG:106:ARG:HG2	8:DL:321:ALA:HA	1.93	0.48
8:DH:22:ASN:HD22	8:DM:49:GLY:CA	2.23	0.48
10:CC:47:MET:HG2	10:CC:48:THR:H	1.77	0.48
11:z:67:ILE:HG12	11:z:239:LEU:HD21	1.94	0.48
12:Cd:385:LEU:N	12:Cd:428:ASP:OD1	2.41	0.48
12:Cj:242:GLU:OE1	12:Ck:248:ARG:NH2	2.45	0.48
12:Ed:275:LYS:HG2	12:Ee:375:THR:HG23	1.94	0.48
16:BQ:344:ASP:N	16:BQ:344:ASP:OD1	2.46	0.48
8:DM:314:GLN:OE1	8:DM:347:THR:OG1	2.31	0.48
8:DN:21:GLY:O	8:DN:23:ASN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DP:266:SER:O	8:DP:267:MET:HE2	2.13	0.48
8:DV:235:ASN:OD1	8:DV:236:GLY:N	2.46	0.48
8:DY:330:GLY:HA2	8:ED:43:PHE:N	2.28	0.48
1:B:253:MET:HE1	1:F:19:MET:HG2	1.94	0.48
1:E:123:ASP:OD1	1:E:127:GLN:N	2.34	0.48
1:P:102:PHE:HB3	1:P:114:TYR:HB3	1.94	0.48
1:T:35:LYS:NZ	1:T:220:GLU:OE2	2.37	0.48
2:d:91:GLN:HB3	2:d:119:PRO:HG2	1.94	0.48
5:j:78:TYR:HB2	5:j:90:TYR:CE1	2.49	0.48
8:DA:382:TYR:CD2	8:DF:395:ILE:HD11	2.47	0.48
8:DD:174:ASP:N	8:DD:174:ASP:OD1	2.45	0.48
8:DH:107:ASN:HA	8:DH:138:THR:HA	1.94	0.48
8:DK:183:THR:HG21	8:DV:132:ALA:CA	2.44	0.48
12:Cc:275:LYS:HG2	12:Cd:375:THR:HG23	1.95	0.48
12:Cd:244:ARG:O	12:Cd:247:ARG:HG3	2.12	0.48
12:Ci:275:LYS:HG2	12:Cj:375:THR:HG23	1.95	0.48
12:Ct:242:GLU:OE1	12:Cu:248:ARG:NH2	2.46	0.48
12:Eh:385:LEU:N	12:Eh:428:ASP:OD1	2.41	0.48
15:AI:136:GLY:HA3	15:AK:213:ILE:HG23	1.95	0.48
16:BH:344:ASP:OD1	16:BH:344:ASP:N	2.46	0.48
8:DL:6:ALA:HB1	8:DL:389:ILE:HD13	1.95	0.48
8:DL:37:ALA:HB3	8:DL:39:PHE:CZ	2.48	0.48
8:DL:389:ILE:O	8:DL:389:ILE:HG22	2.12	0.48
8:DO:19:VAL:HG21	8:DO:37:ALA:N	2.28	0.48
8:DO:200:PHE:CD1	8:DO:210:VAL:HG22	2.48	0.48
8:DR:57:ILE:HG12	8:DW:47:LYS:HZ2	1.78	0.48
8:DX:159:ASN:O	8:DX:268:GLN:NE2	2.46	0.48
8:DZ:102:LEU:HD11	8:DZ:106:ARG:HA	1.94	0.48
8:ED:156:ILE:O	8:ED:266:SER:OG	2.30	0.48
8:EE:210:VAL:O	8:EE:227:SER:OG	2.21	0.48
8:EG:59:GLN:OE1	8:EG:59:GLN:N	2.47	0.48
1:C:29:VAL:O	1:C:222:SER:OG	2.29	0.48
1:D:238:ARG:NH1	1:D:241:GLU:OE1	2.46	0.48
1:D:257:LEU:HB2	1:H:240:TYR:HE2	1.78	0.48
1:E:260:LEU:HD22	1:I:248:SER:HB2	1.96	0.48
1:F:257:LEU:HB2	1:K:240:TYR:HE1	1.78	0.48
2:a:227:PHE:CE1	1:V:257:LEU:HB2	2.48	0.48
8:DC:118:GLY:HA2	8:DC:316:VAL:HG12	1.95	0.48
8:DF:295:ASN:ND2	8:DF:299:THR:HG1	2.10	0.48
8:DF:376:ILE:CD1	8:DQ:402:LEU:HD11	2.43	0.48
8:DH:160:SER:OG	8:DN:190:GLN:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DJ:84:ARG:HD2	8:DJ:345:LEU:HD11	1.94	0.48
12:Cb:385:LEU:N	12:Cb:428:ASP:OD1	2.41	0.48
12:Ce:275:LYS:HG2	12:Cf:375:THR:HG23	1.94	0.48
16:BP:344:ASP:OD1	16:BP:344:ASP:N	2.46	0.48
16:BT:344:ASP:N	16:BT:344:ASP:OD1	2.46	0.48
8:DM:20:ILE:HG21	8:DM:375:MET:HB2	1.93	0.48
8:DN:29:THR:O	8:DN:364:SER:HB2	2.13	0.48
8:DS:50:LEU:C	8:DS:50:LEU:CD2	2.85	0.48
8:DU:77:ILE:HD11	8:DU:83:PHE:CE1	2.48	0.48
8:DV:172:VAL:HG11	8:DV:223:PRO:HD2	1.94	0.48
8:DW:390:LYS:HE2	8:EB:402:LEU:HB3	1.94	0.48
1:C:126:GLY:O	1:C:142:ILE:N	2.43	0.48
1:G:48:THR:HG22	1:G:67:GLN:HG2	1.95	0.48
1:J:228:GLU:HG2	1:J:232:ASN:ND2	2.29	0.48
2:a:181:LEU:HD21	2:a:193:LEU:HD11	1.95	0.48
2:e:150:ASP:OD1	2:e:154:THR:OG1	2.28	0.48
8:DA:79:GLN:HB2	8:DA:354:GLY:HA2	1.95	0.48
8:DC:183:THR:HG23	8:DN:131:GLY:O	2.06	0.48
8:DF:382:TYR:CG	8:DK:395:ILE:HD11	2.49	0.48
8:DG:209:ALA:HA	8:DG:229:THR:HA	1.96	0.48
8:DG:299:THR:HA	8:DG:314:GLN:HA	1.95	0.48
8:DH:382:TYR:CD2	8:DM:395:ILE:HG13	2.48	0.48
11:y:38:TRP:HB3	11:y:42:VAL:HG13	1.95	0.48
12:Ch:385:LEU:N	12:Ch:428:ASP:OD1	2.41	0.48
15:AB:213:ILE:HG23	15:AZ:136:GLY:HA3	1.94	0.48
15:AC:136:GLY:HA3	15:AE:213:ILE:HG23	1.95	0.48
16:BY:273:CYS:HB2	16:BZ:264:MET:O	2.14	0.48
8:DM:75:VAL:HG12	8:DM:358:ASN:HA	1.95	0.48
8:DM:324:GLU:C	8:DM:326:LEU:N	2.71	0.48
8:DN:33:LYS:HG2	8:DN:334:TRP:CZ2	2.48	0.48
8:DT:396:LEU:O	8:DT:400:VAL:HG23	2.13	0.48
8:DV:288:ASP:OD1	8:DV:289:LEU:N	2.46	0.48
8:DY:19:VAL:O	8:DY:23:ASN:ND2	2.46	0.48
8:ED:127:THR:O	8:ED:129:GLN:NE2	2.46	0.48
1:B:238:ARG:NE	8:DF:393:ASP:OD1	2.46	0.48
1:D:57:SER:OG	1:D:58:GLU:N	2.47	0.48
5:p:111:SER:O	5:p:115:ASN:ND2	2.42	0.48
8:DH:24:ILE:CD1	8:DM:384:SER:CB	2.58	0.48
8:DI:295:ASN:OD1	8:DI:299:THR:N	2.46	0.48
9:CE:52:LEU:HG	11:x:168:ARG:HG2	1.96	0.48
12:Cd:425:LYS:HE3	12:Cd:425:LYS:HB3	1.71	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Ef:232:ASP:O	12:Ef:236:LYS:NZ	2.38	0.48
15:AM:136:GLY:HA3	15:AO:213:ILE:HG23	1.94	0.48
8:DN:159:ASN:HB2	8:DN:273:ALA:HA	1.94	0.48
8:DO:15:THR:HG21	8:DO:54:VAL:HG22	1.95	0.48
8:DO:116:LEU:HD22	8:DO:315:ILE:HD12	1.95	0.48
8:DP:382:TYR:HH	8:DU:399:LEU:HD21	1.75	0.48
8:DQ:270:ASN:ND2	8:DW:285:LYS:HE2	2.29	0.48
8:DU:102:LEU:O	8:DZ:322:ASN:ND2	2.47	0.48
8:DV:33:LYS:HD3	8:DV:365:ASN:HD21	1.78	0.48
8:DZ:395:ILE:O	8:DZ:399:LEU:HD23	2.13	0.48
8:EA:204:LYS:NZ	8:EA:205:ASP:OD2	2.45	0.48
8:EE:11:ASN:O	8:EE:15:THR:HG23	2.13	0.48
8:EF:154:MET:HE1	8:EF:198:VAL:HG21	1.96	0.48
1:F:40:VAL:HG23	1:F:75:VAL:HG13	1.95	0.48
1:J:79:ARG:NH2	1:J:184:LEU:O	2.47	0.48
5:f:31:ALA:HA	5:f:96:VAL:HG21	1.95	0.48
6:o:42:ASP:OD2	6:o:88:ARG:NH2	2.46	0.48
1:X:97:ILE:HG23	1:X:116:ARG:HE	1.79	0.48
8:DD:24:ILE:HD11	8:DI:384:SER:HB2	1.94	0.48
8:DH:271:THR:CB	8:DN:143:LEU:HD12	2.18	0.48
10:CA:35:ILE:O	10:CA:39:GLN:N	2.45	0.48
11:w:106:ASP:O	11:w:110:VAL:HG12	2.13	0.48
11:z:66:ARG:NH2	11:z:178:GLU:OE2	2.45	0.48
12:Dt:159:MET:HE2	12:Dt:159:MET:CA	2.43	0.48
12:Ce:425:LYS:HE3	12:Ce:425:LYS:HB3	1.71	0.48
12:Cp:239:ASN:O	12:Cp:243:SER:OG	2.28	0.48
12:Cw:425:LYS:HE3	12:Cw:425:LYS:HB3	1.71	0.48
12:Cx:275:LYS:HG2	12:Cy:375:THR:HG23	1.95	0.48
12:Ed:242:GLU:OE1	12:Ee:248:ARG:NH2	2.46	0.48
16:BC:344:ASP:N	16:BC:344:ASP:OD1	2.46	0.48
8:DM:167:LYS:NZ	8:DM:174:ASP:OD2	2.34	0.48
8:DM:386:ALA:HA	8:DM:389:ILE:CD1	2.43	0.48
8:DN:151:THR:N	8:DN:282:ASN:OD1	2.38	0.48
8:DW:331:ASP:N	8:DW:331:ASP:OD1	2.45	0.48
8:EC:95:SER:HB2	8:EC:333:VAL:HG22	1.94	0.48
8:EF:323:ASN:O	8:EF:324:GLU:HG2	2.14	0.48
1:L:155:GLY:HA2	1:L:214:LEU:HD12	1.96	0.48
1:N:154:ASP:OD1	1:N:154:ASP:N	2.45	0.48
1:P:36:ARG:HH21	1:P:80:LEU:HD22	1.78	0.48
2:c:35:ARG:HH12	2:c:68:PRO:HA	1.79	0.48
1:W:127:GLN:HG2	1:W:141:THR:HG22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DC:65:THR:HG23	8:DN:50:LEU:HG	1.94	0.48
8:DE:19:VAL:HG12	8:DE:23:ASN:HD21	1.79	0.48
8:DK:103:ASP:C	8:DP:322:ASN:HB2	2.38	0.48
8:DK:301:VAL:HG22	8:DK:311:VAL:HG12	1.95	0.48
9:CE:174:ARG:HA	11:CF:236:MET:HE3	1.94	0.48
12:Db:159:MET:HG2	12:Db:172:PRO:HB3	1.94	0.48
12:Dt:172:PRO:CG	12:Dt:205:LEU:HA	2.44	0.48
12:Cv:385:LEU:N	12:Cv:428:ASP:OD1	2.41	0.48
12:Cy:275:LYS:HG2	12:Cz:375:THR:HG23	1.95	0.48
12:Ea:275:LYS:HG2	12:Ec:375:THR:HG23	1.95	0.48
15:AX:136:GLY:HA3	15:AZ:213:ILE:HG23	1.94	0.48
16:BA:161:ASN:HD22	16:BB:46:ASP:HA	1.78	0.48
16:BG:344:ASP:N	16:BG:344:ASP:OD1	2.46	0.48
8:DL:37:ALA:HB1	8:DL:54:VAL:HG23	1.95	0.48
8:DN:95:SER:OG	8:DN:332:ASN:O	2.24	0.48
8:DN:178:TYR:CE1	8:DN:181:LYS:HB2	2.48	0.48
8:DN:235:ASN:O	8:DN:269:GLN:NE2	2.43	0.48
8:DP:3:PHE:O	8:DP:7:VAL:HG12	2.14	0.48
8:DQ:396:LEU:O	8:DQ:400:VAL:HG13	2.13	0.48
8:DV:160:SER:H	8:DV:270:ASN:HA	1.78	0.48
8:DW:391:THR:O	8:DW:395:ILE:HG23	2.13	0.48
8:DZ:269:GLN:O	8:EF:286:PRO:HG3	2.13	0.48
8:EA:84:ARG:O	8:EA:117:THR:OG1	2.32	0.48
8:EF:8:SER:HA	8:EF:11:ASN:ND2	2.28	0.48
1:E:242:ILE:HD12	1:I:230:LEU:HD21	1.95	0.48
1:O:2:ILE:HG23	1:O:5:LEU:HB2	1.96	0.48
1:O:177:THR:OG1	1:O:202:ASN:OD1	2.27	0.48
5:g:47:VAL:HG12	5:g:67:VAL:HG12	1.95	0.48
1:V:179:MET:N	1:V:179:MET:SD	2.87	0.48
8:DB:12:ALA:HB2	8:DB:52:VAL:HG21	1.95	0.48
8:DC:231:LYS:HB3	8:DC:240:SER:HB3	1.96	0.48
8:DC:296:ASN:HB3	8:DC:355:LYS:HE3	1.94	0.48
8:DG:188:ASP:OD1	8:DG:192:ASN:N	2.46	0.48
8:DH:178:TYR:CE1	8:DH:181:LYS:HB2	2.49	0.48
8:DI:146:ALA:HB2	8:DI:286:PRO:HD3	1.96	0.48
8:DK:328:SER:CB	8:DP:43:PHE:CD2	2.95	0.48
10:CC:65:ALA:HB1	10:CC:69:MET:HB2	1.95	0.48
12:Db:115:LEU:CB	12:Db:135:ALA:HB2	2.43	0.48
12:Do:171:SER:OG	12:Do:209:ASN:ND2	2.47	0.48
12:Cc:385:LEU:N	12:Cc:428:ASP:OD1	2.41	0.48
12:Cc:425:LYS:HE3	12:Cc:425:LYS:HB3	1.71	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cf:385:LEU:N	12:Cf:428:ASP:OD1	2.41	0.48
12:Cy:239:ASN:O	12:Cy:243:SER:OG	2.28	0.48
16:BA:344:ASP:N	16:BA:344:ASP:OD1	2.46	0.48
8:DU:392:GLN:CA	8:DU:395:ILE:CG2	2.91	0.48
8:DV:88:SER:OG	8:DV:89:ASN:N	2.44	0.48
8:DY:207:GLU:HG2	8:DY:231:LYS:HA	1.95	0.48
8:EB:87:ASP:OD1	8:EB:91:SER:N	2.47	0.48
1:E:37:GLN:HB3	1:E:79:ARG:HD3	1.96	0.48
1:H:34:PHE:HB3	1:H:222:SER:HB3	1.96	0.48
2:a:55:THR:OG1	5:h:26:SER:OG	2.31	0.48
2:a:77:PRO:HG2	2:a:78:LEU:HD23	1.95	0.48
5:f:52:ASP:HB2	5:f:63:LYS:HB2	1.95	0.48
6:m:26:LEU:HA	6:m:29:ASN:HD21	1.78	0.48
1:V:38:ARG:HH12	1:V:80:LEU:HD11	1.79	0.48
8:DG:174:ASP:HB3	8:DG:177:SER:HB2	1.96	0.48
8:DI:367:ASP:HB3	8:DI:370:LYS:HB2	1.95	0.48
12:Du:156:HIS:CE1	12:Dv:143:THR:HG21	2.48	0.48
15:AM:22:P1L:HB3	15:AM:22:P1L:H8C1	1.62	0.48
15:AV:166:GLU:OE1	15:AV:168:GLN:NE2	2.32	0.48
16:BX:344:ASP:N	16:BX:344:ASP:OD1	2.46	0.48
16:BZ:344:ASP:N	16:BZ:344:ASP:OD1	2.46	0.48
8:DP:390:LYS:CB	8:DU:402:LEU:HD21	2.44	0.48
8:DT:200:PHE:HD1	8:DT:210:VAL:HG22	1.78	0.48
8:DW:6:ALA:O	8:DW:10:LEU:HG	2.14	0.48
8:DZ:233:ASN:HB3	8:DZ:237:ILE:H	1.78	0.48
8:EB:207:GLU:OE1	8:EB:231:LYS:HG2	2.13	0.48
8:EF:399:LEU:HA	8:EF:402:LEU:HD22	1.94	0.48
8:EG:171:SER:OG	8:EG:174:ASP:OD1	2.30	0.48
1:D:2:ILE:HG22	1:D:4:SER:H	1.79	0.48
1:G:230:LEU:HD12	8:DE:399:LEU:HG	1.96	0.48
1:K:35:LYS:HA	1:K:223:ASN:OD1	2.14	0.48
5:j:72:ALA:O	5:j:95:ASN:ND2	2.46	0.48
5:p:126:MET:HE3	7:r:80:VAL:HG21	1.96	0.48
1:V:209:ASN:ND2	16:BD:82:LYS:HZ1	2.10	0.48
7:t:43:ASP:OD1	11:y:38:TRP:NE1	2.35	0.48
8:DB:119:TYR:HD2	8:DB:314:GLN:HE21	1.62	0.48
8:DF:247:THR:HG22	8:DF:258:THR:HG22	1.96	0.48
8:DI:110:ASN:ND2	8:DI:112:GLN:OE1	2.47	0.48
12:Db:124:SER:O	12:Db:128:GLU:N	2.46	0.48
12:Df:171:SER:CB	12:Df:172:PRO:HD2	2.42	0.48
12:Dt:172:PRO:HG2	12:Dt:205:LEU:HD13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AP:136:GLY:HA3	15:AR:213:ILE:HG23	1.95	0.48
16:BU:344:ASP:N	16:BU:344:ASP:OD1	2.46	0.48
16:BY:344:ASP:OD1	16:BY:344:ASP:N	2.46	0.48
8:DL:160:SER:H	8:DL:270:ASN:HA	1.78	0.48
8:DM:306:ASN:O	8:DM:308:GLN:NE2	2.36	0.48
8:DM:399:LEU:HD23	8:DM:399:LEU:HA	1.72	0.48
8:DN:143:LEU:HD22	8:DN:288:ASP:HA	1.95	0.48
8:DO:181:LYS:HG3	8:DO:199:TYR:CE1	2.49	0.48
8:DS:11:ASN:O	8:DS:15:THR:HG23	2.14	0.48
8:DT:364:SER:O	8:DT:365:ASN:ND2	2.46	0.48
8:DV:5:GLN:HE21	8:DV:50:LEU:HA	1.79	0.48
8:DV:211:TYR:CD1	8:DV:226:ALA:HA	2.48	0.48
8:DW:285:LYS:HD2	8:DW:286:PRO:HD2	1.96	0.48
8:DY:144:MET:HB2	8:DY:304:TYR:CE2	2.49	0.48
8:DY:180:LYS:HE3	8:DY:274:ASN:HB2	1.96	0.48
8:EA:154:MET:HE1	8:EA:200:PHE:CZ	2.49	0.48
8:EG:331:ASP:OD1	8:EG:332:ASN:N	2.40	0.48
1:C:46:TYR:CD1	1:C:69:GLY:HA2	2.49	0.47
1:J:150:THR:OG1	1:J:158:SER:OG	2.32	0.47
1:K:50:ARG:HB2	1:K:66:LEU:H	1.79	0.47
1:Q:18:ASN:HB2	1:Q:41:PHE:HZ	1.79	0.47
1:R:44:LEU:HD21	1:R:73:ARG:HB3	1.94	0.47
5:h:111:SER:O	5:h:115:ASN:ND2	2.45	0.47
6:k:33:ALA:HB1	6:k:102:MET:HE1	1.95	0.47
6:n:11:PHE:HB2	6:n:53:MET:HE1	1.96	0.47
1:X:129:VAL:HG12	1:X:135:GLN:HB3	1.96	0.47
10:CB:67:PRO:O	10:CB:71:ASN:N	2.39	0.47
11:z:142:THR:O	12:Dc:165:PHE:CB	2.62	0.47
12:Db:172:PRO:O	12:Db:205:LEU:CD1	2.62	0.47
12:Ct:235:LEU:HB3	12:Cu:244:ARG:HH22	1.79	0.47
12:Cw:275:LYS:HG2	12:Cx:375:THR:HG23	1.95	0.47
15:AV:51:ILE:HG13	16:BU:175:LEU:HD11	1.95	0.47
16:BL:344:ASP:N	16:BL:344:ASP:OD1	2.46	0.47
16:BW:344:ASP:N	16:BW:344:ASP:OD1	2.46	0.47
8:DM:116:LEU:HD12	8:DM:117:THR:N	2.29	0.47
8:DM:158:LEU:HB2	8:DM:268:GLN:HB2	1.96	0.47
8:DM:160:SER:HB2	8:DM:270:ASN:ND2	2.29	0.47
8:DN:194:HIS:HB3	8:DN:196:MET:HE3	1.95	0.47
8:DQ:269:GLN:HE22	8:DW:145:ALA:HA	1.79	0.47
8:DR:16:ASN:O	8:DR:20:ILE:HG13	2.13	0.47
8:DS:154:MET:HG3	8:DS:279:THR:HG22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DT:180:LYS:HB2	8:DT:274:ASN:HD22	1.79	0.47
8:DU:210:VAL:O	8:DU:227:SER:N	2.47	0.47
8:DW:85:LEU:HD13	8:DW:116:LEU:HA	1.96	0.47
8:DZ:200:PHE:CD1	8:DZ:210:VAL:HG22	2.49	0.47
8:EA:159:ASN:OD1	8:EA:160:SER:N	2.46	0.47
8:EA:382:TYR:CD1	8:EF:395:ILE:HD11	2.48	0.47
8:EE:139:ILE:HG13	8:EE:312:LEU:HD13	1.96	0.47
1:A:49:ILE:HB	1:A:66:LEU:HD23	1.96	0.47
1:B:241:GLU:HG3	8:DE:398:THR:HG21	1.96	0.47
1:F:175:LEU:HD11	1:F:211:ALA:HB1	1.95	0.47
1:L:41:PHE:HA	1:L:74:PRO:HA	1.96	0.47
1:Q:36:ARG:NH2	1:V:89:THR:O	2.47	0.47
1:R:257:LEU:HB2	1:W:240:TYR:HE1	1.79	0.47
2:d:14:GLN:HG3	2:d:58:THR:HA	1.96	0.47
5:i:85:ALA:HB1	5:i:89:GLY:HA2	1.96	0.47
8:DF:139:ILE:HD13	8:DF:312:LEU:HD22	1.96	0.47
8:DF:331:ASP:OD1	8:DF:331:ASP:N	2.46	0.47
8:DH:18:ASP:OD1	8:DM:5:GLN:NE2	2.46	0.47
11:w:210:MET:HG3	11:y:210:MET:HE2	1.95	0.47
12:Df:175:SER:O	12:Df:175:SER:OG	2.32	0.47
12:Dp:160:PRO:HD2	12:Dp:172:PRO:HD3	1.95	0.47
12:Cf:425:LYS:HE3	12:Cf:425:LYS:HB3	1.72	0.47
15:AU:51:ILE:HG13	16:BT:175:LEU:HD11	1.96	0.47
16:BR:161:ASN:HD22	16:BS:46:ASP:HA	1.79	0.47
16:BY:318:SER:HB2	16:BZ:342:PRO:HD3	1.96	0.47
8:DQ:160:SER:O	8:DW:252:ASN:ND2	2.47	0.47
8:DS:375:MET:HE1	8:DX:388:THR:HA	1.96	0.47
8:DT:314:GLN:NE2	8:DT:347:THR:OG1	2.47	0.47
8:DW:248:THR:HG22	8:DW:257:ALA:H	1.79	0.47
8:DY:118:GLY:HA2	8:DY:316:VAL:HG13	1.96	0.47
8:EA:322:ASN:ND2	8:EA:339:ALA:O	2.47	0.47
8:ED:139:ILE:HG23	8:ED:312:LEU:HD13	1.96	0.47
1:D:225:ASN:O	1:D:229:GLU:HG2	2.15	0.47
1:G:82:SER:OG	1:G:83:GLN:N	2.47	0.47
1:H:175:LEU:HD11	1:H:211:ALA:HB1	1.96	0.47
1:I:137:GLN:HB3	1:I:138:PRO:HD3	1.96	0.47
1:M:37:GLN:HB3	1:M:79:ARG:HG2	1.96	0.47
2:b:89:VAL:HG11	2:b:162:LYS:HD3	1.96	0.47
2:e:217:MET:HE1	1:X:245:LYS:HD3	1.96	0.47
5:g:46:GLN:HE22	5:g:70:SER:HB2	1.79	0.47
1:W:29:VAL:O	1:W:222:SER:OG	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DG:41:ASP:OD1	8:DG:41:ASP:N	2.33	0.47
8:DH:74:ASP:N	8:DH:74:ASP:OD1	2.46	0.47
11:y:113:TYR:O	11:y:117:SER:N	2.37	0.47
12:Da:124:SER:C	12:Da:126:PHE:H	2.22	0.47
12:Dq:125:GLN:NE2	12:Dq:129:GLN:HE22	2.13	0.47
12:Ci:235:LEU:HB3	12:Cj:244:ARG:NH2	2.28	0.47
8:DN:77:ILE:HD11	8:DN:96:ARG:CZ	2.45	0.47
8:DN:204:LYS:HG3	8:DN:207:GLU:OE1	2.15	0.47
8:DO:395:ILE:O	8:DO:398:THR:HB	2.13	0.47
8:DS:394:GLN:OE1	8:DS:394:GLN:HA	2.14	0.47
8:DT:381:ASN:OD1	8:DT:385:ASN:ND2	2.47	0.47
8:DW:230:LEU:HD11	8:DW:263:PHE:HD2	1.80	0.47
8:ED:211:TYR:CD1	8:ED:226:ALA:HA	2.49	0.47
8:EE:374:ASN:HA	8:EE:377:VAL:HG22	1.95	0.47
8:EF:331:ASP:O	8:EF:333:VAL:N	2.47	0.47
1:B:33:GLY:N	1:B:220:GLU:O	2.47	0.47
1:J:42:GLU:HB3	1:O:189:GLU:HA	1.95	0.47
1:T:147:LEU:HB2	1:T:160:THR:HG23	1.96	0.47
1:U:43:ASP:OD1	1:U:43:ASP:N	2.47	0.47
1:U:82:SER:HB3	1:U:223:ASN:HD22	1.79	0.47
6:o:25:ILE:O	6:o:29:ASN:ND2	2.47	0.47
1:X:42:GLU:HG3	1:X:75:VAL:HG11	1.95	0.47
8:DC:181:LYS:NZ	8:DN:132:ALA:N	2.61	0.47
8:DG:144:MET:SD	8:DG:306:ASN:ND2	2.79	0.47
8:DG:208:TRP:HB3	8:DG:230:LEU:HB2	1.96	0.47
8:DJ:205:ASP:CG	8:DP:252:ASN:C	2.83	0.47
9:CE:227:MET:HA	10:CA:18:LEU:HD11	1.96	0.47
11:w:54:LEU:O	11:w:58:LEU:HB2	2.14	0.47
12:Dw:172:PRO:O	12:Dw:205:LEU:HD13	2.14	0.47
12:Ca:244:ARG:NH2	12:Eh:235:LEU:HB3	2.30	0.47
12:Cz:425:LYS:HE3	12:Cz:425:LYS:HB3	1.71	0.47
15:AM:166:GLU:OE1	15:AM:168:GLN:NE2	2.32	0.47
15:AT:51:ILE:HG13	16:BS:175:LEU:HD11	1.97	0.47
8:DM:324:GLU:C	8:DM:326:LEU:H	2.22	0.47
8:DO:48:VAL:O	8:DO:50:LEU:CD2	2.63	0.47
8:DQ:269:GLN:NE2	8:DW:145:ALA:HA	2.29	0.47
8:DR:317:LEU:HD11	8:DR:356:LEU:HD21	1.97	0.47
8:DS:371:GLU:OE1	8:DS:371:GLU:N	2.47	0.47
8:DT:154:MET:HE1	8:DT:198:VAL:HG21	1.96	0.47
8:DW:86:VAL:HG23	8:DW:117:THR:HG21	1.96	0.47
8:DX:20:ILE:O	8:DX:24:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:EA:57:ILE:HD12	8:EF:47:LYS:HE2	1.97	0.47
8:EC:299:THR:HG22	8:EC:314:GLN:HB2	1.95	0.47
8:EG:210:VAL:O	8:EG:227:SER:OG	2.28	0.47
1:B:40:VAL:HG23	1:B:75:VAL:HG13	1.97	0.47
1:F:72:VAL:HB	1:K:28:ASN:HB3	1.96	0.47
1:T:210:GLY:HA2	2:b:149:GLY:HA3	1.96	0.47
2:c:113:LEU:HD12	2:c:127:ILE:HG13	1.96	0.47
2:e:212:LYS:HB2	2:e:215:GLU:HB3	1.95	0.47
8:DA:180:LYS:HZ1	8:DL:130:GLN:CA	2.27	0.47
8:DD:326:LEU:HB3	8:DD:334:TRP:HB3	1.97	0.47
8:DI:365:ASN:ND2	8:DI:365:ASN:O	2.47	0.47
11:w:66:ARG:HB3	11:w:178:GLU:HG3	1.95	0.47
12:Dq:133:GLN:HG3	12:Dq:159:MET:HE2	1.95	0.47
12:Du:158:ALA:CB	12:Dv:200:SER:O	2.61	0.47
16:BB:344:ASP:OD1	16:BB:344:ASP:N	2.46	0.47
8:DP:160:SER:O	8:DP:202:LYS:NZ	2.47	0.47
8:DQ:180:LYS:HG3	8:DQ:181:LYS:N	2.29	0.47
8:DR:160:SER:OG	8:DX:190:GLN:OE1	2.21	0.47
8:DT:147:LYS:NZ	8:DT:282:ASN:O	2.41	0.47
8:DT:150:THR:N	8:DT:282:ASN:OD1	2.46	0.47
8:DX:16:ASN:O	8:DX:20:ILE:HG12	2.14	0.47
8:DX:71:ARG:NH2	8:DX:73:LEU:O	2.47	0.47
8:EC:397:ASN:HD22	8:EC:397:ASN:C	2.22	0.47
8:EF:84:ARG:HG3	8:EF:94:TYR:HE1	1.79	0.47
1:E:251:ASP:OD1	1:J:238:ARG:NE	2.42	0.47
1:P:239:ALA:O	1:P:243:ASN:ND2	2.38	0.47
2:b:83:GLN:HG2	2:b:84:GLN:H	1.80	0.47
6:k:131:MET:HE2	7:q:80:VAL:HG12	1.95	0.47
1:V:99:GLY:O	1:V:116:ARG:NH2	2.34	0.47
8:DA:129:GLN:HG3	8:DA:131:GLY:H	1.79	0.47
8:DC:156:ILE:HD11	8:DC:158:LEU:HD21	1.97	0.47
8:DJ:112:GLN:NE2	8:DO:40:ALA:CB	2.78	0.47
11:y:193:PHE:HD1	11:y:222:LYS:HD2	1.80	0.47
11:z:71:PHE:HB3	11:z:89:LEU:HD21	1.96	0.47
12:Cb:425:LYS:HE3	12:Cb:425:LYS:HB3	1.71	0.47
15:AJ:166:GLU:OE1	15:AJ:168:GLN:NE2	2.32	0.47
15:AQ:136:GLY:HA3	15:AS:213:ILE:HG23	1.95	0.47
8:DL:57:ILE:O	8:DL:57:ILE:HG13	2.14	0.47
8:DL:374:ASN:CA	8:DL:377:VAL:HB	2.41	0.47
8:DO:383:GLN:C	8:DO:385:ASN:H	2.23	0.47
8:DP:12:ALA:O	8:DP:15:THR:OG1	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DP:139:ILE:HA	8:DP:312:LEU:HD13	1.96	0.47
8:DQ:288:ASP:O	8:DQ:305:SER:N	2.48	0.47
8:DT:110:ASN:HD21	8:DT:112:GLN:HB2	1.80	0.47
8:DU:380:ARG:NH1	8:EA:397:ASN:HD22	2.10	0.47
8:DV:160:SER:O	8:EB:252:ASN:ND2	2.48	0.47
8:DY:150:THR:HB	8:DY:282:ASN:HD21	1.80	0.47
8:DZ:214:ASP:OD2	8:DZ:248:THR:OG1	2.32	0.47
1:B:150:THR:OG1	1:B:158:SER:OG	2.18	0.47
1:C:178:PHE:CE1	1:C:201:PRO:HB3	2.49	0.47
1:D:237:GLN:HA	8:DC:395:ILE:HD11	1.96	0.47
1:F:42:GLU:OE1	1:K:190:ASN:ND2	2.48	0.47
1:G:2:ILE:HD11	1:G:254:LEU:HD13	1.96	0.47
1:I:102:PHE:HB3	1:I:114:TYR:HB3	1.96	0.47
1:P:50:ARG:H	1:P:50:ARG:HD3	1.79	0.47
1:U:257:LEU:HA	2:c:231:MET:HE3	1.96	0.47
2:e:170:GLU:OE1	2:e:170:GLU:N	2.47	0.47
5:h:86:ASP:OD1	5:h:90:TYR:N	2.47	0.47
5:j:74:GLU:HA	5:j:95:ASN:HB3	1.96	0.47
6:l:96:ASP:OD1	6:l:97:GLY:N	2.47	0.47
8:DB:365:ASN:O	8:DB:365:ASN:ND2	2.48	0.47
8:DC:239:GLU:OE1	8:DC:239:GLU:N	2.47	0.47
8:DC:337:THR:O	8:DC:340:SER:OG	2.28	0.47
9:CE:176:GLY:HA3	9:CE:179:ILE:HG12	1.96	0.47
11:x:66:ARG:HD3	11:x:181:THR:HG23	1.97	0.47
11:z:160:GLN:CG	12:Db:167:ARG:CB	2.92	0.47
11:CF:122:SER:HB3	11:CF:125:GLU:HB2	1.96	0.47
12:Dc:175:SER:O	12:Dc:175:SER:OG	2.32	0.47
14:GH:1:UNK:N	12:Cu:372:ILE:HD12	2.30	0.47
12:Cg:425:LYS:HE3	12:Cg:425:LYS:HB3	1.71	0.47
12:Cj:275:LYS:HG2	12:Ck:375:THR:HG23	1.96	0.47
12:Ck:235:LEU:HB3	12:Cl:244:ARG:HH22	1.80	0.47
12:Cl:275:LYS:HG2	12:Cm:375:THR:HG23	1.95	0.47
12:Cn:235:LEU:HB3	12:Co:244:ARG:HH22	1.78	0.47
12:Co:235:LEU:HB3	12:Cp:244:ARG:NH1	2.29	0.47
12:Ed:425:LYS:HE3	12:Ed:425:LYS:HB3	1.71	0.47
15:AB:65:LEU:HG	16:BC:65:MET:HG3	1.95	0.47
15:AW:166:GLU:OE1	15:AW:168:GLN:NE2	2.32	0.47
15:AW:185:ASN:O	15:AW:188:THR:OG1	2.33	0.47
16:BB:161:ASN:HD22	16:BC:46:ASP:HA	1.80	0.47
16:BV:344:ASP:OD1	16:BV:344:ASP:N	2.46	0.47
8:DL:83:PHE:O	8:DL:94:TYR:HA	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DL:369:SER:HA	8:DW:399:LEU:HD21	1.95	0.47
8:DO:233:ASN:HB2	8:DO:239:GLU:OE2	2.15	0.47
8:DP:397:ASN:C	8:DP:397:ASN:ND2	2.73	0.47
8:DR:288:ASP:O	8:DR:305:SER:N	2.48	0.47
8:DS:17:LEU:HD11	8:DS:379:GLN:HG2	1.96	0.47
8:DT:247:THR:HG22	8:DT:258:THR:HG22	1.97	0.47
8:DV:29:THR:HG22	8:EA:39:PHE:HB2	1.97	0.47
8:DV:171:SER:OG	8:DV:174:ASP:HB2	2.14	0.47
8:DV:299:THR:HA	8:DV:314:GLN:HA	1.97	0.47
8:DW:34:SER:HB2	8:DW:366:VAL:HG12	1.96	0.47
8:DY:288:ASP:N	8:DY:305:SER:OG	2.44	0.47
8:EB:390:LYS:HD3	8:EG:402:LEU:HB2	1.97	0.47
8:EC:9:GLY:HA3	8:EC:385:ASN:ND2	2.29	0.47
8:EC:300:VAL:HG13	8:EC:312:LEU:HB2	1.96	0.47
8:ED:116:LEU:HD12	8:ED:117:THR:N	2.29	0.47
8:ED:170:PHE:CE2	8:ED:223:PRO:HG2	2.48	0.47
8:EE:213:HIS:CE1	8:EE:223:PRO:HD3	2.50	0.47
8:EF:199:TYR:HB2	8:EF:211:TYR:HB2	1.96	0.47
1:A:256:LYS:HD3	1:J:241:GLU:HG3	1.97	0.47
1:P:45:LEU:O	1:P:70:THR:OG1	2.24	0.47
4:7:318:ASN:O	12:Cy:303:GLN:OE1	2.33	0.47
5:f:74:GLU:OE2	5:f:92:LYS:NZ	2.40	0.47
8:DC:181:LYS:HE2	8:DN:131:GLY:O	2.09	0.47
8:DF:382:TYR:CD2	8:DK:395:ILE:HD11	2.50	0.47
8:DG:112:GLN:OE1	8:DG:112:GLN:N	2.47	0.47
8:DG:208:TRP:N	8:DG:230:LEU:O	2.42	0.47
8:DG:210:VAL:N	8:DG:228:THR:O	2.41	0.47
8:DI:156:ILE:HD11	8:DI:180:LYS:HG2	1.97	0.47
9:CE:25:ALA:O	9:CE:29:THR:OG1	2.26	0.47
15:AS:185:ASN:O	15:AS:188:THR:OG1	2.33	0.47
8:DL:77:ILE:HB	8:DL:96:ARG:HH12	1.79	0.47
8:DO:206:ASN:ND2	8:DU:253:GLY:O	2.34	0.47
8:DQ:255:THR:O	8:DQ:255:THR:OG1	2.25	0.47
8:DS:199:TYR:HB2	8:DS:211:TYR:HB2	1.96	0.47
8:DY:200:PHE:CD1	8:DY:210:VAL:HG22	2.50	0.47
8:EB:38:SER:OG	8:EB:56:GLY:O	2.29	0.47
8:EB:85:LEU:O	8:EB:92:VAL:HA	2.14	0.47
8:EC:139:ILE:HG23	8:EC:312:LEU:HD13	1.97	0.47
8:EF:147:LYS:NZ	8:EF:282:ASN:O	2.44	0.47
1:C:55:GLN:NE2	1:C:57:SER:O	2.47	0.47
1:C:82:SER:HB3	1:C:223:ASN:HD22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:53:GLY:HA2	1:R:197:SER:HB2	1.96	0.47
1:P:6:TRP:CE3	2:a:70:GLN:HG2	2.49	0.47
1:R:151:ILE:HG12	1:R:157:VAL:HG22	1.97	0.47
2:a:6:TYR:HA	2:a:9:MET:HG3	1.96	0.47
2:a:14:GLN:HG3	2:a:58:THR:HA	1.96	0.47
8:DF:63:ASP:N	8:DF:63:ASP:OD1	2.44	0.47
8:DF:332:ASN:N	8:DF:332:ASN:OD1	2.47	0.47
8:DJ:188:ASP:OD1	8:DJ:191:GLY:N	2.48	0.47
12:Cu:425:LYS:HE3	12:Cu:425:LYS:HB3	1.71	0.47
12:Cv:425:LYS:HB3	12:Cv:425:LYS:HE3	1.71	0.47
15:AB:185:ASN:O	15:AB:188:THR:OG1	2.33	0.47
8:DO:3:PHE:HE1	8:DO:389:ILE:CD1	2.26	0.47
8:DP:5:GLN:NE2	8:DP:49:GLY:O	2.44	0.47
8:DW:211:TYR:CD1	8:DW:226:ALA:HA	2.50	0.47
8:DW:269:GLN:CD	8:EC:146:ALA:H	2.22	0.47
8:DX:304:TYR:HE1	8:DX:310:GLN:HB2	1.80	0.47
8:DX:316:VAL:HG22	8:DX:345:LEU:HD12	1.95	0.47
8:DY:160:SER:HA	8:DY:268:GLN:HE21	1.80	0.47
8:DZ:360:ALA:C	8:DZ:361:LEU:HD12	2.40	0.47
8:EC:110:ASN:OD1	8:EC:114:MET:HB2	2.15	0.47
8:ED:64:GLY:HA2	8:ED:365:ASN:HB3	1.97	0.47
8:EF:93:PHE:HB3	8:EF:333:VAL:HG13	1.96	0.47
1:G:54:ALA:HB3	1:G:62:LEU:HD12	1.96	0.47
1:L:35:LYS:NZ	1:L:220:GLU:OE2	2.45	0.47
1:W:175:LEU:HD11	1:W:211:ALA:HB1	1.96	0.47
7:u:91:LYS:HG2	11:z:51:LEU:HB2	1.97	0.47
8:DB:213:HIS:HB2	8:DB:223:PRO:HG3	1.97	0.47
8:DC:157:ASN:O	8:DC:275:ASN:N	2.44	0.47
8:DE:84:ARG:HD2	8:DE:345:LEU:HD11	1.97	0.47
8:DI:17:LEU:HD13	8:DN:395:ILE:CD1	2.45	0.47
12:Dm:156:HIS:CE1	12:Dn:143:THR:HG21	2.50	0.47
15:AA:225:PHE:CE1	15:AA:229:LEU:HD12	2.50	0.47
15:AK:136:GLY:HA3	15:AM:213:ILE:HG23	1.97	0.47
15:AY:225:PHE:CE1	15:AY:229:LEU:HD12	2.50	0.47
16:BT:268:VAL:HG13	16:BT:360:ALA:HB2	1.97	0.47
8:DM:33:LYS:HB3	8:DM:60:ASP:O	2.15	0.47
8:DQ:346:GLY:HA3	8:DQ:353:PHE:CE2	2.50	0.47
8:DS:146:ALA:HB2	8:DS:286:PRO:HG3	1.96	0.47
8:DU:270:ASN:O	8:DU:270:ASN:ND2	2.48	0.47
8:DV:16:ASN:HD22	8:DV:39:PHE:HZ	1.63	0.47
8:DV:326:LEU:HB3	8:DV:334:TRP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DZ:195:ASP:H	8:DZ:216:SER:HB3	1.80	0.47
8:EB:158:LEU:HD13	8:EB:208:TRP:CD2	2.50	0.47
8:EB:235:ASN:O	8:EB:269:GLN:HG2	2.15	0.47
8:EB:392:GLN:O	8:EB:395:ILE:HG22	2.15	0.47
8:ED:288:ASP:H	8:ED:305:SER:HB3	1.80	0.47
1:A:237:GLN:HG3	8:DA:395:ILE:HG22	1.97	0.46
1:B:225:ASN:O	1:B:229:GLU:HG2	2.16	0.46
1:G:175:LEU:HD11	1:G:211:ALA:HB1	1.97	0.46
1:J:140:ILE:HD13	1:J:157:VAL:HG11	1.96	0.46
1:J:228:GLU:HG2	1:J:232:ASN:HD21	1.80	0.46
1:O:79:ARG:NH2	1:O:184:LEU:O	2.48	0.46
6:l:102:MET:HE2	6:l:102:MET:HA	1.97	0.46
6:o:43:ILE:HG22	6:o:85:LEU:HA	1.96	0.46
8:DJ:71:ARG:HH11	8:DJ:73:LEU:HB3	1.79	0.46
9:CE:113:PHE:HD2	11:w:211:MET:HE2	1.80	0.46
11:y:85:PRO:HG2	11:y:88:VAL:HB	1.97	0.46
11:z:115:PRO:HB2	11:z:121:ILE:HG12	1.98	0.46
12:Da:124:SER:C	12:Da:126:PHE:N	2.71	0.46
12:Dd:125:GLN:NE2	12:Dd:125:GLN:C	2.73	0.46
14:GH:8:UNK:CB	12:Ct:372:ILE:CD1	2.93	0.46
12:Ca:425:LYS:HE3	12:Ca:425:LYS:HB3	1.71	0.46
15:AJ:136:GLY:HA3	15:AL:213:ILE:HG23	1.97	0.46
15:AK:185:ASN:O	15:AK:188:THR:OG1	2.33	0.46
15:AM:225:PHE:CE1	15:AM:229:LEU:HD12	2.50	0.46
15:AQ:225:PHE:CE1	15:AQ:229:LEU:HD12	2.50	0.46
15:AZ:225:PHE:CE1	15:AZ:229:LEU:HD12	2.51	0.46
8:DP:71:ARG:NH1	8:DP:74:ASP:OD1	2.48	0.46
8:DR:213:HIS:HB2	8:DR:223:PRO:HD3	1.96	0.46
8:DS:68:ASN:OD1	8:DS:69:THR:N	2.48	0.46
8:DU:16:ASN:O	8:DU:19:VAL:HG22	2.15	0.46
8:DW:79:GLN:HB2	8:DW:354:GLY:HA3	1.96	0.46
8:DY:192:ASN:ND2	8:DY:251:ILE:HD12	2.26	0.46
8:DZ:74:ASP:OD1	8:DZ:74:ASP:N	2.48	0.46
8:EB:209:ALA:HB1	8:EB:226:ALA:HB2	1.96	0.46
8:EC:147:LYS:HZ2	8:EC:282:ASN:C	2.23	0.46
8:ED:188:ASP:OD1	8:ED:188:ASP:N	2.48	0.46
8:EF:159:ASN:ND2	8:EF:272:GLY:O	2.48	0.46
1:R:66:LEU:HD11	1:W:74:PRO:HB2	1.97	0.46
6:l:19:ARG:NH1	6:l:115:LYS:HB3	2.29	0.46
5:i:23:VAL:HG21	5:i:47:VAL:HG13	1.96	0.46
8:DE:164:VAL:HG12	8:DE:202:LYS:HD3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DH:79:GLN:HG3	8:DH:80:ASN:H	1.80	0.46
8:DH:250:THR:OG1	8:DH:254:ALA:O	2.29	0.46
8:DH:270:ASN:CB	8:DN:190:GLN:O	2.54	0.46
8:DK:112:GLN:N	8:DK:112:GLN:OE1	2.48	0.46
12:Da:124:SER:CB	12:Da:127:SER:HB3	2.45	0.46
12:Ca:235:LEU:HB3	12:Cb:244:ARG:NH1	2.31	0.46
12:Ct:425:LYS:HE3	12:Ct:425:LYS:HB3	1.71	0.46
15:AB:225:PHE:CE1	15:AB:229:LEU:HD12	2.51	0.46
15:AO:225:PHE:CE1	15:AO:229:LEU:HD12	2.51	0.46
15:AU:22:P1L:HB3	15:AU:22:P1L:H8C1	1.62	0.46
15:AW:136:GLY:HA3	15:AY:213:ILE:HG23	1.96	0.46
15:AX:225:PHE:CE1	15:AX:229:LEU:HD12	2.51	0.46
16:BC:33:GLU:OE1	16:BC:92:SER:OG	2.30	0.46
16:BR:268:VAL:HG13	16:BR:360:ALA:HB2	1.97	0.46
8:DQ:97:ASN:HD21	8:DQ:99:GLN:HE21	1.62	0.46
8:DQ:146:ALA:HB2	8:DQ:286:PRO:HD3	1.97	0.46
8:DR:188:ASP:OD1	8:DR:192:ASN:N	2.47	0.46
8:DV:200:PHE:HD1	8:DV:210:VAL:HG22	1.81	0.46
8:DZ:84:ARG:HH11	8:DZ:117:THR:HG21	1.80	0.46
1:H:33:GLY:N	1:H:220:GLU:O	2.43	0.46
1:J:154:ASP:HA	1:J:206:PRO:HB2	1.96	0.46
1:P:91:ASN:OD1	1:P:92:SER:N	2.48	0.46
1:T:7:ILE:O	1:T:10:THR:OG1	2.31	0.46
6:o:26:LEU:HA	6:o:29:ASN:HD21	1.80	0.46
8:DB:63:ASP:N	8:DB:63:ASP:OD1	2.48	0.46
8:DI:269:GLN:N	8:DI:269:GLN:CD	2.74	0.46
8:DK:155:GLN:HB3	8:DK:278:ALA:HB3	1.96	0.46
8:DK:183:THR:HG21	8:DV:132:ALA:HA	1.97	0.46
8:DK:299:THR:HA	8:DK:314:GLN:HA	1.97	0.46
11:CF:75:ARG:NH2	11:CF:86:ASN:OD1	2.43	0.46
12:Dv:113:PHE:N	12:Dv:135:ALA:HB1	2.30	0.46
15:AS:225:PHE:CE1	15:AS:229:LEU:HD12	2.50	0.46
15:AV:225:PHE:CE1	15:AV:229:LEU:HD12	2.51	0.46
15:AW:225:PHE:CE1	15:AW:229:LEU:HD12	2.51	0.46
8:DN:396:LEU:HD12	8:DN:396:LEU:C	2.40	0.46
8:DO:343:ALA:HB3	8:DO:345:LEU:HD12	1.96	0.46
8:DS:26:ASN:ND2	8:DX:41:ASP:HB3	2.28	0.46
8:EF:184:VAL:HG22	8:EF:196:MET:HB2	1.96	0.46
8:EG:147:LYS:HB3	8:EG:284:TYR:CE1	2.50	0.46
1:F:238:ARG:NE	8:DA:393:ASP:OD1	2.43	0.46
1:Q:46:TYR:CD1	1:Q:69:GLY:HA2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:91:ASN:OD1	1:T:92:SER:N	2.45	0.46
8:DC:119:TYR:HD2	8:DC:314:GLN:HE21	1.63	0.46
8:DF:67:THR:N	8:DF:361:LEU:O	2.44	0.46
8:DH:281:GLN:HG2	8:DH:283:GLY:H	1.80	0.46
8:DJ:269:GLN:O	8:DP:286:PRO:HG3	2.15	0.46
8:DK:156:ILE:HD11	8:DK:180:LYS:HG2	1.97	0.46
11:y:114:GLN:HB2	11:y:115:PRO:HD3	1.98	0.46
12:Dr:171:SER:HA	12:Dr:172:PRO:HD3	1.73	0.46
15:AB:22:P1L:HB3	15:AB:22:P1L:H8C1	1.63	0.46
15:AT:225:PHE:CE1	15:AT:229:LEU:HD12	2.51	0.46
16:BH:161:ASN:HD22	16:BI:46:ASP:HA	1.80	0.46
16:BO:268:VAL:HG13	16:BO:360:ALA:HB2	1.97	0.46
16:BP:268:VAL:HG13	16:BP:360:ALA:HB2	1.97	0.46
16:BV:268:VAL:HG13	16:BV:360:ALA:HB2	1.97	0.46
8:DN:20:ILE:O	8:DN:20:ILE:HG13	2.15	0.46
8:DP:93:PHE:CE1	8:DP:329:GLN:HG3	2.50	0.46
8:DR:161:THR:HG23	8:DR:270:ASN:OD1	2.16	0.46
8:DS:29:THR:HG22	8:DX:39:PHE:HB2	1.98	0.46
8:DY:33:LYS:NZ	8:DY:62:THR:O	2.44	0.46
8:DY:85:LEU:HD12	8:DY:114:MET:HB3	1.97	0.46
8:EA:139:ILE:HA	8:EA:312:LEU:HD13	1.97	0.46
8:EF:8:SER:HA	8:EF:11:ASN:HD22	1.80	0.46
8:EG:319:ASN:HB2	8:EG:353:PHE:CE1	2.50	0.46
1:A:82:SER:HB2	1:A:223:ASN:HD22	1.81	0.46
1:A:185:GLU:OE1	8:DA:46:SER:HB2	2.16	0.46
1:E:53:GLY:HA2	1:I:197:SER:HB3	1.97	0.46
1:E:238:ARG:NE	8:DC:393:ASP:OD1	2.48	0.46
1:O:78:GLU:OE1	1:T:121:GLN:NE2	2.49	0.46
1:P:195:THR:HG22	2:a:152:PRO:HB2	1.96	0.46
1:R:175:LEU:HD11	1:R:211:ALA:HB1	1.97	0.46
2:e:115:ILE:HG22	2:e:116:GLN:H	1.81	0.46
7:q:95:ALA:HB1	11:y:55:PRO:HB2	1.97	0.46
8:DA:382:TYR:CG	8:DF:395:ILE:HD11	2.51	0.46
9:CE:232:LEU:HG	9:CE:235:LEU:HD12	1.98	0.46
10:CC:83:ASN:O	10:CC:87:ILE:HG13	2.16	0.46
11:z:77:ALA:HB2	11:z:190:PHE:CE1	2.51	0.46
15:AK:65:LEU:HG	16:BL:65:MET:HG3	1.97	0.46
15:AK:225:PHE:CE1	15:AK:229:LEU:HD12	2.51	0.46
15:AL:166:GLU:OE1	15:AL:168:GLN:NE2	2.32	0.46
15:AL:225:PHE:CE1	15:AL:229:LEU:HD12	2.51	0.46
16:BW:268:VAL:HG13	16:BW:360:ALA:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BY:268:VAL:HG13	16:BY:360:ALA:HB2	1.97	0.46
8:DP:381:ASN:O	8:DP:384:SER:OG	2.28	0.46
8:DS:149:THR:HB	8:DS:186:VAL:HG23	1.97	0.46
8:DS:180:LYS:HB3	8:DS:200:PHE:HB2	1.98	0.46
8:DV:174:ASP:OD2	8:DV:177:SER:N	2.47	0.46
8:DW:197:ASN:OD1	8:DW:215:SER:HB3	2.16	0.46
8:DY:317:LEU:HD12	8:DY:348:ALA:HA	1.98	0.46
8:DZ:379:GLN:O	8:DZ:383:GLN:HG3	2.16	0.46
8:EB:180:LYS:HB3	8:EB:200:PHE:HB2	1.97	0.46
8:EC:207:GLU:OE1	8:EC:231:LYS:HG2	2.15	0.46
8:EE:144:MET:HE1	8:EE:308:GLN:HB2	1.98	0.46
8:EE:164:VAL:HG12	8:EE:202:LYS:HB3	1.97	0.46
1:A:92:SER:HA	1:A:216:GLN:HE21	1.80	0.46
1:E:257:LEU:HD21	1:O:227:ALA:HA	1.97	0.46
1:L:29:VAL:O	1:L:222:SER:OG	2.33	0.46
1:L:45:LEU:HB2	1:W:98:LYS:HE2	1.97	0.46
1:P:46:TYR:CD1	1:P:69:GLY:HA2	2.49	0.46
1:T:44:LEU:HB2	1:T:70:THR:HB	1.97	0.46
1:T:50:ARG:NH2	2:b:59:ALA:O	2.49	0.46
5:h:75:LYS:HE2	5:h:95:ASN:HA	1.97	0.46
6:n:33:ALA:O	6:n:98:ASN:ND2	2.48	0.46
1:V:35:LYS:HA	1:V:223:ASN:OD1	2.16	0.46
8:DE:159:ASN:OD1	8:DE:162:ASP:N	2.49	0.46
8:DG:289:LEU:O	8:DL:352:ASN:HB3	2.14	0.46
8:DH:127:THR:OG1	8:DH:128:ILE:N	2.47	0.46
12:Do:175:SER:O	12:Do:175:SER:OG	2.32	0.46
12:Cp:275:LYS:HG2	12:Cq:375:THR:HG23	1.97	0.46
12:Cr:275:LYS:HG2	12:Cs:375:THR:HG23	1.97	0.46
15:AA:136:GLY:HA3	15:AC:213:ILE:HG23	1.96	0.46
15:AA:185:ASN:O	15:AA:188:THR:OG1	2.33	0.46
15:AC:225:PHE:CE1	15:AC:229:LEU:HD12	2.51	0.46
15:AE:225:PHE:CE1	15:AE:229:LEU:HD12	2.50	0.46
15:AG:185:ASN:O	15:AG:188:THR:OG1	2.33	0.46
15:AI:166:GLU:OE1	15:AI:168:GLN:NE2	2.32	0.46
15:AR:185:ASN:O	15:AR:188:THR:OG1	2.33	0.46
15:AV:185:ASN:O	15:AV:188:THR:OG1	2.33	0.46
16:BF:161:ASN:HD22	16:BG:46:ASP:HA	1.80	0.46
16:BG:161:ASN:HD22	16:BH:46:ASP:HA	1.81	0.46
16:BI:161:ASN:HD22	16:BJ:46:ASP:HA	1.80	0.46
8:DV:79:GLN:O	8:DV:96:ARG:NH2	2.49	0.46
8:DX:75:VAL:O	8:DX:98:GLY:HA3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DX:110:ASN:HD21	8:DX:112:GLN:HB2	1.80	0.46
8:DX:187:TYR:HA	8:DX:192:ASN:O	2.16	0.46
8:DX:394:GLN:O	8:DX:398:THR:HG23	2.16	0.46
8:DY:368:LEU:O	8:DY:372:LEU:HD23	2.15	0.46
8:DZ:170:PHE:HZ	8:DZ:199:TYR:HB3	1.80	0.46
8:ED:46:SER:OG	8:ED:47:LYS:N	2.48	0.46
1:E:126:GLY:O	1:E:142:ILE:N	2.37	0.46
1:E:129:VAL:HG12	1:E:135:GLN:HB3	1.97	0.46
1:G:123:ASP:OD1	1:G:127:GLN:N	2.49	0.46
1:K:202:ASN:OD1	1:K:202:ASN:N	2.49	0.46
1:P:232:ASN:O	1:P:236:VAL:HG13	2.16	0.46
2:a:247:LEU:HD11	5:h:119:LEU:HD13	1.97	0.46
2:b:173:ARG:HG2	2:b:174:SER:H	1.81	0.46
6:k:2:LEU:HB3	6:k:3:ASP:H	1.59	0.46
9:CE:135:LEU:HD11	11:x:187:PHE:CD1	2.51	0.46
10:CD:6:VAL:HG21	11:y:228:LEU:HD22	1.97	0.46
11:y:54:LEU:HA	11:y:58:LEU:HD12	1.98	0.46
11:y:232:TRP:O	11:y:236:MET:HG2	2.16	0.46
12:Cd:235:LEU:HB3	12:Ce:244:ARG:HH22	1.80	0.46
12:Cr:235:LEU:HB3	12:Cs:244:ARG:HH22	1.81	0.46
15:AD:225:PHE:CE1	15:AD:229:LEU:HD12	2.51	0.46
15:AI:225:PHE:CE1	15:AI:229:LEU:HD12	2.50	0.46
15:AN:225:PHE:CE1	15:AN:229:LEU:HD12	2.51	0.46
15:AR:225:PHE:CE1	15:AR:229:LEU:HD12	2.51	0.46
15:AW:65:LEU:HG	16:BX:65:MET:HG3	1.97	0.46
15:AX:166:GLU:OE1	15:AX:168:GLN:NE2	2.32	0.46
16:BQ:268:VAL:HG13	16:BQ:360:ALA:HB2	1.97	0.46
8:DL:29:THR:HB	8:DL:32:PHE:HB2	1.98	0.46
8:DN:61:PHE:HE2	8:DN:82:PHE:HZ	1.64	0.46
8:DP:390:LYS:O	8:DP:394:GLN:HG2	2.16	0.46
8:DZ:381:ASN:OD1	8:DZ:382:TYR:N	2.49	0.46
8:EA:5:GLN:CD	8:EA:5:GLN:H	2.23	0.46
8:EE:128:ILE:HD11	8:EE:311:VAL:HG21	1.97	0.46
1:C:38:ARG:NH1	1:C:78:GLU:OE2	2.49	0.46
1:E:167:PRO:HG3	8:DH:338:GLN:HB2	1.98	0.46
1:L:18:ASN:HB2	1:L:41:PHE:HZ	1.81	0.46
1:Q:34:PHE:HB3	1:Q:222:SER:HB3	1.98	0.46
1:S:22:ILE:HG23	1:S:229:GLU:HG3	1.98	0.46
1:U:177:THR:OG1	1:U:202:ASN:OD1	2.29	0.46
1:U:225:ASN:O	1:U:229:GLU:HG2	2.16	0.46
2:d:250:MET:HE3	5:j:121:THR:HG23	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:m:41:ARG:HB3	6:m:85:LEU:HD12	1.97	0.46
8:DB:299:THR:HG22	8:DB:314:GLN:HB3	1.98	0.46
8:DD:69:THR:HG21	8:DD:361:LEU:HD12	1.96	0.46
8:DE:99:GLN:HG3	8:DE:111:MET:HE3	1.98	0.46
8:DH:65:THR:HG23	8:DS:50:LEU:HG	1.98	0.46
8:DK:392:GLN:HA	8:DK:395:ILE:HG22	1.98	0.46
11:w:163:GLU:H	11:w:163:GLU:CD	2.24	0.46
11:y:187:PHE:O	11:y:191:ILE:HG13	2.16	0.46
11:y:207:LEU:HB2	11:y:209:MET:HE1	1.97	0.46
11:z:204:LEU:HD21	11:z:214:PRO:HB3	1.98	0.46
15:AJ:225:PHE:CE1	15:AJ:229:LEU:HD12	2.51	0.46
16:BJ:161:ASN:HD22	16:BK:46:ASP:HA	1.80	0.46
16:BM:268:VAL:HG13	16:BM:360:ALA:HB2	1.98	0.46
16:BU:268:VAL:HG13	16:BU:360:ALA:HB2	1.97	0.46
16:BX:364:ILE:HD13	16:BZ:142:LEU:HB2	1.97	0.46
8:DL:199:TYR:O	8:DL:210:VAL:HA	2.16	0.46
8:DL:381:ASN:O	8:DL:385:ASN:ND2	2.49	0.46
8:DT:385:ASN:O	8:DT:388:THR:OG1	2.30	0.46
8:DX:147:LYS:H	8:DX:284:TYR:HB2	1.81	0.46
8:EG:317:LEU:HD11	8:EG:356:LEU:HD11	1.97	0.46
1:D:13:ASP:OD2	1:N:88:GLN:NE2	2.49	0.46
1:S:101:GLY:HA3	1:S:175:LEU:HD13	1.98	0.46
2:b:15:THR:OG1	2:b:226:ARG:NE	2.38	0.46
2:b:181:LEU:HD11	2:b:193:LEU:HG	1.98	0.46
2:c:25:ASN:HD21	2:c:37:GLN:N	2.13	0.46
2:d:115:ILE:HG22	2:d:116:GLN:H	1.81	0.46
8:DJ:112:GLN:HE22	8:DO:40:ALA:CB	2.28	0.46
8:DK:33:LYS:HD3	8:DK:61:PHE:HA	1.98	0.46
12:Cd:275:LYS:HG2	12:Ce:375:THR:HG23	1.97	0.46
12:Ch:425:LYS:HE3	12:Ch:425:LYS:HB3	1.71	0.46
12:Cs:425:LYS:HE3	12:Cs:425:LYS:HB3	1.71	0.46
12:Eb:275:LYS:HG2	12:Ed:375:THR:HG23	1.97	0.46
15:AL:65:LEU:HG	16:BM:65:MET:HG3	1.97	0.46
15:AP:225:PHE:CE1	15:AP:229:LEU:HD12	2.51	0.46
15:AU:225:PHE:CE1	15:AU:229:LEU:HD12	2.51	0.46
16:BD:33:GLU:OE1	16:BD:92:SER:OG	2.31	0.46
16:BO:161:ASN:HD22	16:BP:46:ASP:HA	1.80	0.46
8:DP:379:GLN:O	8:DP:383:GLN:OE1	2.34	0.46
8:DQ:99:GLN:HB3	8:DQ:361:LEU:HD21	1.96	0.46
8:DQ:200:PHE:CD1	8:DQ:210:VAL:HG12	2.51	0.46
8:DU:390:LYS:O	8:DU:391:THR:C	2.59	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DV:18:ASP:OD1	8:EA:5:GLN:NE2	2.49	0.46
8:DV:73:LEU:HD21	8:DV:292:TYR:HE2	1.79	0.46
8:DY:144:MET:HE2	8:DY:284:TYR:CZ	2.51	0.46
1:D:55:GLN:NE2	1:D:57:SER:O	2.47	0.46
1:F:57:SER:OG	1:F:58:GLU:N	2.48	0.46
1:M:66:LEU:HA	1:R:77:THR:HG22	1.98	0.46
2:e:228:GLU:HG3	1:X:253:MET:HE1	1.96	0.46
6:k:12:GLN:HB3	6:k:123:LEU:HD12	1.98	0.46
8:DC:33:LYS:HA	8:DC:365:ASN:HD21	1.81	0.46
8:DE:71:ARG:NH1	8:DE:99:GLN:OE1	2.49	0.46
14:GG:5:UNK:CB	12:Cz:278:THR:HG21	2.46	0.46
12:Ca:244:ARG:NH1	12:Eh:235:LEU:HB3	2.31	0.46
12:Cs:265:GLN:HG3	12:Ct:252:ILE:HB	1.98	0.46
15:AH:225:PHE:CE1	15:AH:229:LEU:HD12	2.51	0.46
16:BE:161:ASN:HD22	16:BF:46:ASP:HA	1.81	0.46
8:DM:79:GLN:HE21	8:DM:354:GLY:HA3	1.81	0.46
8:DN:106:ARG:HH21	8:DN:141:ASN:ND2	2.14	0.46
8:DO:248:THR:OG1	8:DO:257:ALA:HB3	2.16	0.46
8:DZ:157:ASN:HA	8:DZ:267:MET:HB2	1.97	0.46
8:EA:390:LYS:NZ	8:EF:402:LEU:HB2	2.31	0.46
8:EB:29:THR:O	8:EB:364:SER:HB2	2.16	0.46
1:L:56:SER:HB2	1:L:62:LEU:HD12	1.97	0.45
1:U:62:LEU:HD23	5:f:83:PRO:HG2	1.98	0.45
6:o:31:ALA:HB1	5:p:13:ALA:HB2	1.97	0.45
6:n:41:ARG:HB3	6:n:85:LEU:HD12	1.97	0.45
8:DF:87:ASP:HB2	8:DF:114:MET:HE1	1.98	0.45
8:DG:195:ASP:HB2	8:DG:216:SER:H	1.80	0.45
9:CE:197:LEU:HD11	9:CE:224:VAL:HG11	1.99	0.45
11:y:185:ILE:O	11:y:189:ILE:HG12	2.16	0.45
11:CF:122:SER:OG	11:CF:124:GLN:OE1	2.34	0.45
12:Db:159:MET:HA	12:Db:160:PRO:HD3	1.72	0.45
15:AF:225:PHE:CE1	15:AF:229:LEU:HD12	2.51	0.45
15:AG:22:P1L:HB3	15:AG:22:P1L:H8C1	1.63	0.45
16:BA:268:VAL:HG13	16:BA:360:ALA:HB2	1.98	0.45
16:BJ:105:VAL:HG22	16:BJ:165:ILE:HB	1.99	0.45
16:BK:105:VAL:HG22	16:BK:165:ILE:HB	1.99	0.45
16:BP:161:ASN:HD22	16:BQ:46:ASP:HA	1.81	0.45
16:BT:43:VAL:HG12	16:BT:84:VAL:HG22	1.99	0.45
16:BX:161:ASN:HD22	16:BY:46:ASP:HA	1.81	0.45
8:DN:19:VAL:HG11	8:DN:37:ALA:N	2.32	0.45
8:DQ:186:VAL:HG23	8:DQ:194:HIS:HD2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DR:119:TYR:CE2	8:DR:316:VAL:HG12	2.51	0.45
8:DR:159:ASN:ND2	8:DR:272:GLY:O	2.49	0.45
8:DR:373:VAL:O	8:DR:377:VAL:HG23	2.16	0.45
8:DT:34:SER:OG	8:DT:35:GLY:N	2.50	0.45
8:DT:367:ASP:H	8:DT:370:LYS:NZ	2.13	0.45
8:DU:392:GLN:O	8:DU:395:ILE:HG22	2.13	0.45
8:DV:371:GLU:OE1	8:DV:371:GLU:N	2.49	0.45
8:DY:110:ASN:HD21	8:DY:114:MET:HE2	1.81	0.45
8:EA:196:MET:HE2	8:EA:196:MET:HA	1.98	0.45
8:EA:394:GLN:O	8:EA:398:THR:HG23	2.15	0.45
8:EF:8:SER:O	8:EF:11:ASN:HB2	2.16	0.45
8:EF:80:ASN:OD1	8:EF:81:GLY:N	2.49	0.45
1:D:41:PHE:HA	1:D:75:VAL:H	1.80	0.45
1:L:35:LYS:HA	1:L:223:ASN:OD1	2.17	0.45
1:N:42:GLU:HG2	1:N:75:VAL:HB	1.98	0.45
1:N:88:GLN:HB3	1:N:218:TYR:CE2	2.51	0.45
1:Q:33:GLY:N	1:Q:220:GLU:O	2.42	0.45
1:Q:194:GLU:HG3	1:Q:201:PRO:HD3	1.97	0.45
1:Q:195:THR:HG22	2:d:152:PRO:HB2	1.98	0.45
2:c:170:GLU:OE1	2:c:170:GLU:N	2.49	0.45
2:e:146:LEU:HB2	2:e:155:VAL:HG12	1.98	0.45
7:u:59:PHE:HB2	7:u:66:ILE:HG21	1.98	0.45
8:DA:108:LEU:HB2	8:DA:137:ILE:HG23	1.98	0.45
8:DE:196:MET:HG3	8:DE:259:PHE:HZ	1.81	0.45
8:DF:236:GLY:HA2	8:DF:268:GLN:HE21	1.81	0.45
8:DI:68:ASN:HD22	8:DT:53:LYS:HG3	1.72	0.45
8:DK:327:ALA:HB2	8:DP:47:LYS:HZ1	1.76	0.45
9:CE:229:MET:HB2	10:CA:14:MET:HG2	1.97	0.45
15:AG:225:PHE:CE1	15:AG:229:LEU:HD12	2.50	0.45
15:AN:185:ASN:O	15:AN:188:THR:OG1	2.33	0.45
16:BB:105:VAL:HG22	16:BB:165:ILE:HB	1.99	0.45
16:BC:105:VAL:HG22	16:BC:165:ILE:HB	1.99	0.45
16:BD:105:VAL:HG22	16:BD:165:ILE:HB	1.99	0.45
16:BE:43:VAL:HG12	16:BE:84:VAL:HG22	1.99	0.45
16:BF:43:VAL:HG12	16:BF:84:VAL:HG22	1.99	0.45
16:BG:268:VAL:HG13	16:BG:360:ALA:HB2	1.97	0.45
16:BK:268:VAL:HG13	16:BK:360:ALA:HB2	1.97	0.45
16:BR:43:VAL:HG12	16:BR:84:VAL:HG22	1.99	0.45
16:BS:268:VAL:HG13	16:BS:360:ALA:HB2	1.97	0.45
8:DL:371:GLU:OE1	8:DL:371:GLU:N	2.46	0.45
8:DM:178:TYR:HA	8:DM:201:VAL:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DN:2:SER:CA	8:DN:392:GLN:OE1	2.44	0.45
8:DN:266:SER:O	8:DN:267:MET:HE2	2.17	0.45
8:DQ:267:MET:HG2	8:DQ:269:GLN:HG3	1.98	0.45
8:DR:358:ASN:OD1	8:DR:359:GLY:N	2.49	0.45
8:DT:19:VAL:O	8:DT:23:ASN:ND2	2.50	0.45
8:DV:179:ASN:OD1	8:DV:202:LYS:N	2.49	0.45
8:DX:97:ASN:OD1	8:DX:99:GLN:HG3	2.17	0.45
8:DY:183:THR:HG23	8:DY:195:ASP:OD1	2.16	0.45
8:EC:144:MET:HE3	8:EC:306:ASN:HD21	1.80	0.45
1:G:35:LYS:HA	1:G:223:ASN:OD1	2.16	0.45
1:G:55:GLN:HG2	1:W:169:GLN:NE2	2.31	0.45
1:J:35:LYS:HA	1:J:223:ASN:OD1	2.16	0.45
1:M:242:ILE:HD12	1:R:230:LEU:HD21	1.96	0.45
1:N:70:THR:HG21	2:b:71:LEU:HG	1.98	0.45
2:b:210:ASN:OD1	2:b:210:ASN:N	2.50	0.45
2:c:25:ASN:ND2	2:c:37:GLN:H	2.10	0.45
8:DC:171:SER:HB3	8:DC:174:ASP:HB3	1.98	0.45
8:DH:271:THR:CG2	8:DN:143:LEU:HB2	2.45	0.45
11:w:150:PHE:HB3	11:w:169:ILE:HD11	1.98	0.45
12:Dr:125:GLN:O	12:Dr:128:GLU:HB3	2.16	0.45
12:Du:172:PRO:O	12:Du:205:LEU:CD1	2.64	0.45
14:GF:16:UNK:CB	12:Ee:372:ILE:CD1	2.94	0.45
16:BD:161:ASN:HD22	16:BE:46:ASP:HA	1.80	0.45
16:BE:33:GLU:OE1	16:BE:92:SER:OG	2.30	0.45
16:BH:43:VAL:HG12	16:BH:84:VAL:HG22	1.99	0.45
16:BL:105:VAL:HG22	16:BL:165:ILE:HB	1.99	0.45
16:BL:161:ASN:HD22	16:BM:46:ASP:HA	1.80	0.45
16:BS:43:VAL:HG12	16:BS:84:VAL:HG22	1.99	0.45
8:DL:380:ARG:HB3	8:DR:396:LEU:HD22	1.98	0.45
8:DN:39:PHE:CD2	8:DN:52:VAL:HG12	2.51	0.45
8:DO:32:PHE:O	8:DO:365:ASN:ND2	2.49	0.45
8:DO:179:ASN:OD1	8:DO:202:LYS:N	2.47	0.45
8:DP:212:THR:N	8:DP:227:SER:OG	2.46	0.45
8:DQ:71:ARG:HB3	8:DQ:74:ASP:OD2	2.17	0.45
8:DS:60:ASP:OD1	8:DS:62:THR:HG22	2.15	0.45
8:DT:167:LYS:HE2	8:DT:177:SER:HB3	1.97	0.45
8:DU:375:MET:HE1	8:DZ:387:GLN:HG3	1.98	0.45
8:DX:346:GLY:HA3	8:DX:353:PHE:CZ	2.52	0.45
8:EC:147:LYS:NZ	8:EC:148:SER:O	2.47	0.45
8:EG:199:TYR:HE1	8:EG:213:HIS:HB3	1.82	0.45
1:J:225:ASN:O	1:J:229:GLU:HG2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:253:MET:HE1	1:T:19:MET:HG2	1.99	0.45
1:Q:251:ASP:OD1	1:W:238:ARG:NH2	2.34	0.45
1:R:228:GLU:O	1:R:232:ASN:ND2	2.31	0.45
6:m:50:LYS:HE3	7:s:61:LEU:HD13	1.99	0.45
1:W:44:LEU:HB2	1:W:70:THR:HB	1.98	0.45
8:DH:57:ILE:CD1	8:DM:47:LYS:O	2.65	0.45
11:w:58:LEU:O	11:w:62:THR:HB	2.17	0.45
11:w:114:GLN:HB2	11:w:115:PRO:HD3	1.99	0.45
14:GF:7:UNK:O	14:GF:11:UNK:N	2.49	0.45
12:Ck:235:LEU:HB3	12:Cl:244:ARG:NH2	2.31	0.45
12:Cy:425:LYS:HE3	12:Cy:425:LYS:HB3	1.71	0.45
15:AJ:185:ASN:O	15:AJ:188:THR:OG1	2.33	0.45
16:BD:43:VAL:HG12	16:BD:84:VAL:HG22	1.99	0.45
16:BG:43:VAL:HG12	16:BG:84:VAL:HG22	1.99	0.45
16:BI:43:VAL:HG12	16:BI:84:VAL:HG22	1.99	0.45
16:BU:43:VAL:HG12	16:BU:84:VAL:HG22	1.99	0.45
16:BU:159:GLN:CD	16:BV:46:ASP:OD2	2.60	0.45
16:BX:268:VAL:HG13	16:BX:360:ALA:HB2	1.97	0.45
8:DL:329:GLN:HB2	8:DL:333:VAL:HG23	1.99	0.45
8:DN:39:PHE:CA	8:DN:54:VAL:HA	2.44	0.45
8:DN:293:GLN:NE2	8:DN:295:ASN:OD1	2.47	0.45
8:DQ:194:HIS:HB2	8:DQ:196:MET:CE	2.46	0.45
8:DS:374:ASN:HA	8:DS:377:VAL:HG12	1.99	0.45
8:DT:152:ALA:O	8:DT:261:LEU:HA	2.17	0.45
8:DX:233:ASN:N	8:DX:237:ILE:O	2.48	0.45
8:ED:111:MET:HA	8:ED:111:MET:HE3	1.98	0.45
1:G:136:VAL:HG12	1:G:138:PRO:HD2	1.98	0.45
2:b:134:GLU:OE1	2:b:134:GLU:N	2.49	0.45
5:f:72:ALA:O	5:f:95:ASN:ND2	2.49	0.45
1:W:114:TYR:HE1	1:W:176:THR:HG21	1.82	0.45
1:W:238:ARG:HA	1:W:238:ARG:HD3	1.77	0.45
10:CA:76:TYR:O	10:CA:79:THR:OG1	2.30	0.45
11:w:38:TRP:O	11:w:43:GLN:NE2	2.49	0.45
11:w:99:PHE:HB3	11:y:153:LEU:HD22	1.98	0.45
11:y:205:MET:HE2	11:y:205:MET:HB2	1.88	0.45
11:z:113:TYR:O	11:z:117:SER:N	2.48	0.45
12:Dc:113:PHE:N	12:Dc:135:ALA:HB1	2.32	0.45
12:Dc:158:ALA:HB2	12:Dd:200:SER:O	2.17	0.45
12:Dq:113:PHE:N	12:Dq:135:ALA:HB1	2.31	0.45
12:Ca:248:ARG:NH2	12:Eh:242:GLU:OE1	2.49	0.45
12:Ck:275:LYS:HG2	12:Cl:375:THR:HG23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cm:235:LEU:HB3	12:Cn:244:ARG:HH22	1.81	0.45
12:Cn:235:LEU:HB3	12:Co:244:ARG:NH2	2.31	0.45
15:AH:166:GLU:OE1	15:AH:168:GLN:NE2	2.32	0.45
16:BN:268:VAL:HG13	16:BN:360:ALA:HB2	1.97	0.45
16:BV:43:VAL:HG12	16:BV:84:VAL:HG22	1.98	0.45
8:DM:156:ILE:HD12	8:DM:276:ILE:HD13	1.98	0.45
8:DM:375:MET:HE2	8:DR:391:THR:HG21	1.98	0.45
8:DO:44:ALA:C	8:DO:46:SER:H	2.24	0.45
8:DQ:217:ASP:N	8:DQ:217:ASP:OD1	2.49	0.45
8:DR:174:ASP:N	8:DR:174:ASP:OD1	2.49	0.45
8:DU:60:ASP:OD2	8:DU:62:THR:OG1	2.24	0.45
8:DU:71:ARG:HB2	8:DU:74:ASP:OD2	2.16	0.45
8:DU:285:LYS:O	8:DU:306:ASN:ND2	2.35	0.45
8:DV:38:SER:O	8:DV:55:ALA:N	2.49	0.45
8:DW:170:PHE:HE1	8:DW:178:TYR:HB3	1.81	0.45
8:DW:299:THR:HG22	8:DW:314:GLN:HB2	1.98	0.45
8:DZ:89:ASN:OD1	8:DZ:90:GLY:N	2.50	0.45
8:EA:154:MET:HE1	8:EA:200:PHE:HZ	1.80	0.45
8:EB:375:MET:HE2	8:EG:391:THR:HG21	1.98	0.45
8:EC:69:THR:HG21	8:EC:361:LEU:HD23	1.98	0.45
8:EC:347:THR:HG22	8:EC:348:ALA:N	2.32	0.45
8:EE:396:LEU:O	8:EE:400:VAL:HG13	2.16	0.45
8:EG:329:GLN:HG2	8:EG:329:GLN:O	2.16	0.45
1:B:57:SER:HA	1:Q:154:ASP:CG	2.41	0.45
1:D:45:LEU:HD22	1:N:98:LYS:HG3	1.99	0.45
1:F:195:THR:OG1	1:F:196:GLN:N	2.48	0.45
2:d:34:PHE:O	2:d:35:ARG:NE	2.48	0.45
2:d:44:VAL:HG23	2:d:56:LEU:HB2	1.99	0.45
2:e:135:ILE:HG23	2:e:143:ILE:HG23	1.99	0.45
8:DA:188:ASP:OD1	8:DA:192:ASN:N	2.49	0.45
8:DB:288:ASP:N	8:DB:288:ASP:OD1	2.49	0.45
8:DC:345:LEU:H	8:DC:345:LEU:HD12	1.81	0.45
8:DJ:194:HIS:ND1	8:DJ:216:SER:OG	2.44	0.45
10:CB:51:PHE:CE2	10:CB:55:ILE:HD11	2.51	0.45
11:y:66:ARG:HD3	11:y:178:GLU:HG3	1.98	0.45
11:y:231:GLY:O	11:y:235:LEU:HB2	2.16	0.45
12:Da:125:GLN:C	12:Da:125:GLN:NE2	2.75	0.45
12:Dc:172:PRO:O	12:Dc:205:LEU:CD1	2.65	0.45
12:Dd:175:SER:O	12:Dd:175:SER:OG	2.32	0.45
12:Df:171:SER:CB	12:Df:172:PRO:CD	2.95	0.45
12:Dj:156:HIS:CE1	12:Dk:143:THR:CG2	2.86	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dq:133:GLN:CG	12:Dq:159:MET:HE2	2.47	0.45
12:Dr:175:SER:O	12:Dr:175:SER:OG	2.32	0.45
12:Cf:265:GLN:HG3	12:Cg:252:ILE:HB	1.98	0.45
12:Cr:425:LYS:HE3	12:Cr:425:LYS:HB3	1.71	0.45
15:AA:150:VAL:HG12	15:AA:165:GLY:HA3	1.99	0.45
15:AB:150:VAL:HG12	15:AB:165:GLY:HA3	1.99	0.45
15:AH:185:ASN:O	15:AH:188:THR:OG1	2.33	0.45
15:AW:150:VAL:HG12	15:AW:165:GLY:HA3	1.99	0.45
16:BE:105:VAL:HG22	16:BE:165:ILE:HB	1.99	0.45
16:BF:33:GLU:OE1	16:BF:92:SER:OG	2.31	0.45
16:BI:105:VAL:HG22	16:BI:165:ILE:HB	1.99	0.45
16:BJ:43:VAL:HG12	16:BJ:84:VAL:HG22	1.99	0.45
8:DL:128:ILE:HD11	8:DL:311:VAL:HG21	1.98	0.45
8:DL:221:THR:OG1	8:DL:222:ALA:N	2.49	0.45
8:DL:390:LYS:C	8:DL:392:GLN:H	2.24	0.45
8:DO:211:TYR:CE1	8:DO:226:ALA:HA	2.52	0.45
8:DP:103:ASP:OD1	8:DP:104:GLU:N	2.49	0.45
8:DU:162:ASP:OD1	8:DU:179:ASN:ND2	2.49	0.45
8:EC:188:ASP:OD1	8:EC:192:ASN:N	2.50	0.45
8:EF:148:SER:HB3	8:EF:189:SER:HA	1.97	0.45
8:EG:170:PHE:HA	8:EG:177:SER:HB2	1.97	0.45
1:A:29:VAL:O	1:A:222:SER:OG	2.31	0.45
1:J:55:GLN:HG3	1:J:57:SER:O	2.16	0.45
1:O:142:ILE:HD13	1:O:149:ILE:HG12	1.98	0.45
2:b:66:MET:HE2	2:b:87:TRP:HZ2	1.80	0.45
2:b:102:ASN:ND2	2:b:116:GLN:OE1	2.44	0.45
2:d:54:ARG:NH1	6:n:93:PRO:O	2.43	0.45
2:e:35:ARG:HH11	2:e:101:ARG:HD3	1.82	0.45
2:e:228:GLU:HG2	1:X:256:LYS:HG2	1.99	0.45
5:j:74:GLU:OE1	5:j:74:GLU:N	2.50	0.45
1:V:250:THR:HA	1:V:253:MET:HG2	1.99	0.45
8:DB:207:GLU:HB3	8:DB:231:LYS:HG2	1.98	0.45
8:DC:178:TYR:HA	8:DC:201:VAL:HG12	1.99	0.45
8:DC:288:ASP:OD1	8:DC:288:ASP:N	2.49	0.45
8:DD:65:THR:HG21	8:DO:4:SER:HB2	1.99	0.45
8:DF:34:SER:HB2	8:DF:366:VAL:HG22	1.98	0.45
8:DG:87:ASP:OD1	8:DG:91:SER:N	2.49	0.45
8:DG:106:ARG:CG	8:DL:321:ALA:HA	2.47	0.45
8:DH:57:ILE:HD11	8:DM:47:LYS:O	2.17	0.45
8:DJ:271:THR:CA	8:DP:286:PRO:HG2	2.47	0.45
8:DJ:285:LYS:O	8:DJ:306:ASN:ND2	2.33	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CE:108:LEU:HD21	9:CE:124:VAL:HB	1.97	0.45
12:Dm:156:HIS:NE2	12:Dn:143:THR:HG21	2.32	0.45
12:Cd:235:LEU:HB3	12:Ce:244:ARG:NH2	2.32	0.45
12:Cp:235:LEU:HB3	12:Cq:244:ARG:NH1	2.32	0.45
15:AQ:185:ASN:O	15:AQ:188:THR:OG1	2.33	0.45
15:AY:166:GLU:OE1	15:AY:168:GLN:NE2	2.32	0.45
15:AZ:185:ASN:O	15:AZ:188:THR:OG1	2.33	0.45
16:BA:105:VAL:HG22	16:BA:165:ILE:HB	1.99	0.45
16:BC:268:VAL:HG13	16:BC:360:ALA:HB2	1.98	0.45
16:BH:268:VAL:HG13	16:BH:360:ALA:HB2	1.97	0.45
16:BK:33:GLU:OE1	16:BK:92:SER:OG	2.30	0.45
16:BQ:43:VAL:HG12	16:BQ:84:VAL:HG22	1.99	0.45
16:BZ:268:VAL:HG13	16:BZ:360:ALA:HB2	1.97	0.45
8:DM:331:ASP:O	8:DM:333:VAL:N	2.47	0.45
8:DR:319:ASN:OD1	8:DR:320:PHE:N	2.45	0.45
8:DZ:331:ASP:O	8:DZ:333:VAL:N	2.48	0.45
8:EE:238:LEU:HD23	8:EE:266:SER:HB2	1.98	0.45
8:EF:207:GLU:HG2	8:EF:231:LYS:HE2	1.99	0.45
8:EF:298:GLY:O	8:EF:315:ILE:N	2.48	0.45
1:B:79:ARG:NH2	1:B:192:TYR:OH	2.49	0.45
1:K:59:GLN:NE2	1:K:59:GLN:C	2.71	0.45
1:U:35:LYS:HA	1:U:223:ASN:OD1	2.17	0.45
2:d:79:ASP:O	2:d:204:GLY:N	2.36	0.45
2:d:133:SER:HA	2:d:148:PRO:HD3	1.99	0.45
5:h:50:GLN:OE1	5:h:63:LYS:NZ	2.50	0.45
5:i:90:TYR:CE2	1:V:45:LEU:HD22	2.52	0.45
8:DC:170:PHE:CE2	8:DC:223:PRO:HG2	2.52	0.45
11:w:93:ALA:O	11:w:97:THR:OG1	2.30	0.45
11:w:140:ARG:O	11:w:140:ARG:NH1	2.47	0.45
12:Dc:172:PRO:HG2	12:Dc:205:LEU:CA	2.46	0.45
12:Dn:158:ALA:HB2	12:Do:200:SER:O	2.17	0.45
12:Ci:425:LYS:HE3	12:Ci:425:LYS:HB3	1.71	0.45
12:Cn:235:LEU:HB3	12:Co:244:ARG:HH12	1.81	0.45
12:Ct:235:LEU:HB3	12:Cu:244:ARG:NH2	2.31	0.45
15:AC:150:VAL:HG12	15:AC:165:GLY:HA3	1.99	0.45
15:AD:150:VAL:HG12	15:AD:165:GLY:HA3	1.99	0.45
15:AM:185:ASN:O	15:AM:188:THR:OG1	2.33	0.45
15:AU:150:VAL:HG12	15:AU:165:GLY:HA3	1.99	0.45
15:AV:150:VAL:HG12	15:AV:165:GLY:HA3	1.99	0.45
15:AY:150:VAL:HG12	15:AY:165:GLY:HA3	1.99	0.45
15:AZ:150:VAL:HG12	15:AZ:165:GLY:HA3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BC:43:VAL:HG12	16:BC:84:VAL:HG22	1.99	0.45
16:BD:268:VAL:HG13	16:BD:360:ALA:HB2	1.97	0.45
16:BG:33:GLU:OE1	16:BG:92:SER:OG	2.30	0.45
16:BH:105:VAL:HG22	16:BH:165:ILE:HB	1.98	0.45
16:BI:268:VAL:HG13	16:BI:360:ALA:HB2	1.97	0.45
16:BK:273:CYS:HB2	16:BL:264:MET:O	2.17	0.45
16:BP:105:VAL:HG22	16:BP:165:ILE:HB	1.99	0.45
8:DL:396:LEU:HD23	8:DL:396:LEU:HA	1.65	0.45
8:DM:382:TYR:HE2	8:DR:395:ILE:HB	1.81	0.45
8:DP:402:LEU:C	8:DP:402:LEU:CD2	2.85	0.45
8:DS:162:ASP:OD2	8:DS:179:ASN:ND2	2.49	0.45
8:DS:379:GLN:HB3	8:DX:395:ILE:HD13	1.99	0.45
8:DV:380:ARG:HD3	8:DV:380:ARG:HA	1.70	0.45
8:DY:108:LEU:HD23	8:DY:108:LEU:HA	1.83	0.45
8:EB:22:ASN:ND2	8:EG:49:GLY:HA3	2.32	0.45
8:ED:42:MET:SD	8:ED:53:LYS:HB2	2.57	0.45
8:EE:196:MET:SD	8:EE:248:THR:HG22	2.56	0.45
8:EF:394:GLN:O	8:EF:398:THR:HG23	2.17	0.45
1:B:45:LEU:HD11	1:L:83:GLN:HG2	1.99	0.45
1:H:251:ASP:OD1	1:N:238:ARG:NH2	2.48	0.45
1:S:66:LEU:HD11	1:X:74:PRO:HB2	1.99	0.45
1:S:137:GLN:NE2	16:BQ:53:THR:HG21	2.32	0.45
4:9:324:ASN:ND2	6:o:94:SER:O	2.34	0.45
8:DB:208:TRP:HE1	8:DB:268:GLN:HG3	1.82	0.45
8:DC:154:MET:HB3	8:DC:279:THR:HG23	1.97	0.45
8:DC:159:ASN:HD21	8:DC:161:THR:HG22	1.81	0.45
8:DH:87:ASP:OD1	8:DH:91:SER:N	2.50	0.45
8:DJ:180:LYS:HD3	8:DJ:274:ASN:HB3	1.99	0.45
8:DJ:187:TYR:HB3	8:DJ:191:GLY:HA2	1.99	0.45
8:DK:17:LEU:CD2	8:DP:395:ILE:HD13	2.45	0.45
9:CE:122:MET:HB3	9:CE:123:PRO:HD3	1.98	0.45
10:CB:9:MET:HE1	11:w:188:THR:HG22	1.98	0.45
10:CD:43:GLN:H	10:CD:43:GLN:CD	2.23	0.45
11:y:152:ARG:HH11	12:Dt:165:PHE:N	2.14	0.45
12:Dg:175:SER:O	12:Dg:175:SER:OG	2.32	0.45
12:Ct:275:LYS:HG2	12:Cu:375:THR:HG23	1.98	0.45
15:AF:185:ASN:O	15:AF:188:THR:OG1	2.33	0.45
15:AI:185:ASN:O	15:AI:188:THR:OG1	2.33	0.45
15:AK:166:GLU:OE1	15:AK:168:GLN:NE2	2.32	0.45
16:BB:268:VAL:HG13	16:BB:360:ALA:HB2	1.97	0.45
16:BE:268:VAL:HG13	16:BE:360:ALA:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BW:43:VAL:HG12	16:BW:84:VAL:HG22	1.99	0.45
8:DL:202:LYS:HB2	8:DL:208:TRP:CZ3	2.52	0.45
8:DM:382:TYR:OH	8:DR:399:LEU:HD11	2.17	0.45
8:DQ:307:GLU:HG3	8:DQ:307:GLU:O	2.17	0.45
8:DS:155:GLN:HB2	8:DS:278:ALA:HB3	1.98	0.45
8:DU:44:ALA:HB2	8:DU:50:LEU:HD11	1.97	0.45
8:DU:179:ASN:OD1	8:DU:202:LYS:N	2.42	0.45
8:DU:317:LEU:HB2	8:DU:353:PHE:CD2	2.51	0.45
8:DU:395:ILE:CD1	8:DU:395:ILE:C	2.85	0.45
8:ED:58:THR:OG1	8:ED:324:GLU:OE1	2.35	0.45
1:D:1:MET:N	1:D:1:MET:SD	2.90	0.45
1:L:238:ARG:HD3	1:L:238:ARG:HA	1.75	0.45
1:T:178:PHE:CE2	1:T:201:PRO:HB3	2.51	0.45
2:c:35:ARG:O	2:c:173:ARG:NH2	2.43	0.45
6:o:19:ARG:HH21	6:o:112:ASN:HA	1.82	0.45
8:DG:104:GLU:HA	8:DL:341:GLY:CA	2.42	0.45
11:w:80:THR:OG1	11:w:83:ALA:HB2	2.17	0.45
11:CF:107:LYS:HE3	11:CF:107:LYS:HB3	1.76	0.45
12:Dt:159:MET:HE2	12:Dt:159:MET:C	2.40	0.45
12:Du:160:PRO:HB3	12:Dv:203:ALA:HB1	1.99	0.45
12:Cy:235:LEU:HB3	12:Cz:244:ARG:NH2	2.32	0.45
15:AS:150:VAL:HG12	15:AS:165:GLY:HA3	1.99	0.45
16:BF:268:VAL:HG13	16:BF:360:ALA:HB2	1.97	0.45
16:BJ:33:GLU:OE1	16:BJ:92:SER:OG	2.30	0.45
16:BM:33:GLU:OE1	16:BM:92:SER:OG	2.30	0.45
16:BM:105:VAL:HG22	16:BM:165:ILE:HB	1.99	0.45
16:BP:43:VAL:HG12	16:BP:84:VAL:HG22	1.99	0.45
16:BQ:105:VAL:HG22	16:BQ:165:ILE:HB	1.99	0.45
16:BW:105:VAL:HG22	16:BW:165:ILE:HB	1.99	0.45
8:DR:367:ASP:HB3	8:DR:370:LYS:HB3	1.99	0.45
8:DU:106:ARG:NH1	8:DU:141:ASN:HB3	2.29	0.45
8:DW:74:ASP:HB2	8:DW:361:LEU:HD11	1.98	0.45
8:DW:367:ASP:OD2	8:DW:369:SER:OG	2.27	0.45
8:DX:208:TRP:NE1	8:DX:268:GLN:OE1	2.49	0.45
8:DY:124:THR:O	8:DY:124:THR:OG1	2.34	0.45
8:EA:16:ASN:O	8:EA:20:ILE:HG13	2.16	0.45
8:EB:5:GLN:HE21	8:EB:50:LEU:HA	1.81	0.45
8:EB:370:LYS:C	8:EB:370:LYS:HD3	2.42	0.45
8:EC:202:LYS:HD2	8:EC:208:TRP:CH2	2.52	0.45
8:EC:233:ASN:OD1	8:EC:234:GLU:N	2.51	0.45
8:ED:94:TYR:CG	8:ED:320:PHE:HZ	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:EG:188:ASP:HB3	8:EG:194:HIS:NE2	2.32	0.45
1:V:43:ASP:N	1:V:43:ASP:OD1	2.41	0.44
8:DC:127:THR:OG1	8:DC:128:ILE:N	2.51	0.44
8:DH:22:ASN:ND2	8:DM:49:GLY:C	2.76	0.44
8:DJ:383:GLN:HB3	8:DP:400:VAL:HG21	1.98	0.44
9:CE:214:PHE:HA	9:CE:218:PHE:HE2	1.82	0.44
11:y:157:GLY:N	11:y:158:PRO:HD3	2.32	0.44
11:z:123:MET:HE2	11:z:123:MET:HB2	1.93	0.44
11:z:144:GLU:OE1	12:Dc:165:PHE:HA	2.17	0.44
12:Cu:265:GLN:HG3	12:Cv:252:ILE:HB	1.99	0.44
12:Eb:265:GLN:HG3	12:Ed:252:ILE:HB	1.98	0.44
16:BB:43:VAL:HG12	16:BB:84:VAL:HG22	1.99	0.44
16:BG:250:ASP:OD1	16:BG:250:ASP:N	2.51	0.44
16:BH:33:GLU:OE1	16:BH:92:SER:OG	2.31	0.44
16:BI:33:GLU:OE1	16:BI:92:SER:OG	2.31	0.44
16:BJ:268:VAL:HG13	16:BJ:360:ALA:HB2	1.97	0.44
16:BK:43:VAL:HG12	16:BK:84:VAL:HG22	1.99	0.44
16:BL:33:GLU:OE1	16:BL:92:SER:OG	2.31	0.44
16:BO:33:GLU:OE1	16:BO:92:SER:OG	2.31	0.44
16:BR:105:VAL:HG22	16:BR:165:ILE:HB	1.99	0.44
16:BV:105:VAL:HG22	16:BV:165:ILE:HB	1.99	0.44
8:DN:317:LEU:N	8:DN:346:GLY:O	2.50	0.44
8:DO:65:THR:HG21	8:DZ:4:SER:HB2	1.99	0.44
8:DO:77:ILE:HD11	8:DO:83:PHE:CE2	2.52	0.44
8:DS:291:SER:O	8:DS:303:ASN:N	2.45	0.44
8:DW:330:GLY:H	8:EB:43:PHE:HB2	1.82	0.44
8:EC:347:THR:HG22	8:EC:348:ALA:H	1.81	0.44
8:EG:180:LYS:HB2	8:EG:200:PHE:HB2	1.97	0.44
1:A:60:THR:HG21	1:O:108:PRO:HG3	1.98	0.44
1:B:45:LEU:HD13	1:L:98:LYS:HG3	1.99	0.44
1:Q:179:MET:HE2	1:Q:179:MET:HB3	1.83	0.44
2:b:212:LYS:HB2	2:b:215:GLU:HB2	2.00	0.44
3:4:13:UNK:H	6:o:36:PRO:HG2	1.82	0.44
8:DC:201:VAL:HG22	8:DC:209:ALA:HB3	1.98	0.44
8:DC:295:ASN:ND2	8:DC:299:THR:OG1	2.40	0.44
8:DG:180:LYS:HB3	8:DG:200:PHE:HB2	1.99	0.44
8:DH:270:ASN:ND2	8:DN:191:GLY:HA3	2.23	0.44
8:DI:34:SER:H	8:DI:365:ASN:HD21	1.65	0.44
8:DK:322:ASN:ND2	8:DK:339:ALA:O	2.49	0.44
8:DK:337:THR:OG1	8:DK:338:GLN:N	2.49	0.44
9:CE:115:ASP:OD2	11:z:81:PRO:HD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CC:35:ILE:O	10:CC:39:GLN:HG2	2.17	0.44
11:w:153:LEU:HD22	11:x:99:PHE:HB3	1.99	0.44
11:x:233:GLN:H	11:x:233:GLN:CD	2.20	0.44
12:Dq:171:SER:OG	12:Dq:209:ASN:ND2	2.50	0.44
12:Ca:265:GLN:HG3	12:Cb:252:ILE:HB	1.99	0.44
12:Cp:235:LEU:HB3	12:Cq:244:ARG:HH12	1.82	0.44
12:Ef:275:LYS:HG2	12:Eg:375:THR:HG23	1.98	0.44
15:AE:150:VAL:HG12	15:AE:165:GLY:HA3	1.99	0.44
15:AL:22:P1L:HB3	15:AL:22:P1L:H8C1	1.62	0.44
15:AP:124:MET:HE3	15:AP:124:MET:HB3	1.85	0.44
15:AU:185:ASN:O	15:AU:188:THR:OG1	2.33	0.44
15:AX:28:LYS:HE2	15:AX:32:GLN:HE22	1.83	0.44
15:AX:150:VAL:HG12	15:AX:165:GLY:HA3	1.99	0.44
16:BK:250:ASP:OD1	16:BK:250:ASP:N	2.51	0.44
16:BL:268:VAL:HG13	16:BL:360:ALA:HB2	1.97	0.44
16:BX:43:VAL:HG12	16:BX:84:VAL:HG22	1.99	0.44
16:BX:105:VAL:HG22	16:BX:165:ILE:HB	1.99	0.44
8:DN:140:PRO:HB2	8:DN:142:THR:CG2	2.46	0.44
8:DP:391:THR:O	8:DP:395:ILE:HG13	2.17	0.44
8:DU:170:PHE:CE1	8:DU:178:TYR:HB3	2.52	0.44
8:DU:234:GLU:OE2	8:EA:255:THR:HG23	2.18	0.44
8:DV:395:ILE:HG23	8:DV:396:LEU:HD22	1.99	0.44
8:DW:11:ASN:O	8:DW:15:THR:HG23	2.18	0.44
8:DY:157:ASN:HA	8:DY:267:MET:O	2.16	0.44
8:EE:395:ILE:HA	8:EE:398:THR:HG22	2.00	0.44
8:EG:337:THR:O	8:EG:340:SER:OG	2.19	0.44
1:E:164:GLN:HE21	1:E:164:GLN:HB3	1.61	0.44
1:J:9:LYS:HG2	1:P:231:VAL:HG21	1.99	0.44
1:O:34:PHE:HB3	1:O:222:SER:HB3	1.99	0.44
2:b:87:TRP:HB3	2:b:99:TYR:HB3	1.99	0.44
2:c:83:GLN:HG2	2:c:84:GLN:H	1.82	0.44
2:d:235:THR:HG23	1:W:260:LEU:HD12	1.99	0.44
7:u:57:GLU:O	7:u:60:THR:HG22	2.16	0.44
8:DD:247:THR:HG22	8:DD:258:THR:HB	1.98	0.44
8:DF:178:TYR:CE1	8:DF:181:LYS:HB2	2.52	0.44
8:DH:144:MET:HE3	8:DH:306:ASN:HD21	1.82	0.44
8:DH:295:ASN:OD1	8:DH:299:THR:OG1	2.31	0.44
8:DK:382:TYR:CZ	8:DP:395:ILE:CG2	2.96	0.44
10:CB:84:LEU:HD11	11:w:189:ILE:HD11	1.99	0.44
12:Ck:425:LYS:HE3	12:Ck:425:LYS:HB3	1.71	0.44
12:Cy:235:LEU:HB3	12:Cz:244:ARG:HH22	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AA:219:MET:HG2	15:AY:132:PHE:CD1	2.52	0.44
15:AH:28:LYS:HE2	15:AH:32:GLN:HE22	1.83	0.44
15:AS:28:LYS:HE2	15:AS:32:GLN:HE22	1.83	0.44
15:AT:22:P1L:HB3	15:AT:22:P1L:H8C1	1.63	0.44
16:BA:250:ASP:OD1	16:BA:250:ASP:N	2.50	0.44
16:BF:105:VAL:HG22	16:BF:165:ILE:HB	1.99	0.44
16:BL:43:VAL:HG12	16:BL:84:VAL:HG22	1.99	0.44
16:BN:33:GLU:OE1	16:BN:92:SER:OG	2.31	0.44
16:BP:33:GLU:OE1	16:BP:92:SER:OG	2.30	0.44
16:BT:250:ASP:N	16:BT:250:ASP:OD1	2.50	0.44
8:DL:322:ASN:ND2	8:DL:339:ALA:O	2.48	0.44
8:DL:375:MET:O	8:DL:379:GLN:N	2.43	0.44
8:DN:311:VAL:HG22	8:DN:313:GLY:H	1.82	0.44
8:DO:390:LYS:HB3	8:DT:402:LEU:HD11	1.99	0.44
8:DP:205:ASP:OD2	8:DV:253:GLY:HA3	2.18	0.44
8:DT:73:LEU:HD21	8:DT:292:TYR:CE2	2.53	0.44
8:DX:196:MET:HE1	8:DX:214:ASP:HB2	2.00	0.44
8:DY:11:ASN:O	8:DY:15:THR:HG23	2.17	0.44
8:EE:146:ALA:HB2	8:EE:286:PRO:HD3	1.99	0.44
8:EG:85:LEU:HB3	8:EG:114:MET:HG3	2.00	0.44
8:EG:228:THR:HG22	8:EG:229:THR:N	2.33	0.44
1:D:255:GLN:HB2	1:I:238:ARG:NH2	2.32	0.44
1:H:95:VAL:O	1:H:118:GLY:HA3	2.17	0.44
1:M:245:LYS:HE3	1:M:245:LYS:HB2	1.84	0.44
1:P:150:THR:HG23	1:P:158:SER:HB2	1.99	0.44
1:P:189:GLU:O	1:P:191:LEU:HG	2.17	0.44
2:c:212:LYS:HB2	2:c:215:GLU:HB2	1.99	0.44
2:d:28:ASN:HD22	1:W:43:ASP:HB3	1.82	0.44
6:n:103:ASP:OD1	6:n:104:ARG:N	2.49	0.44
8:DG:197:ASN:N	8:DG:213:HIS:O	2.42	0.44
8:DG:375:MET:HE3	8:DL:391:THR:HG21	1.99	0.44
8:DJ:65:THR:HA	8:DU:50:LEU:HD13	1.95	0.44
8:DK:22:ASN:CG	8:DP:49:GLY:HA3	2.41	0.44
8:DK:71:ARG:HH21	8:DK:73:LEU:HB2	1.82	0.44
11:w:60:MET:HG2	11:x:87:GLN:HB3	1.99	0.44
12:Da:160:PRO:HG3	12:Da:171:SER:O	2.18	0.44
12:Di:175:SER:O	12:Di:175:SER:OG	2.32	0.44
12:Dp:125:GLN:O	12:Dp:128:GLU:HB3	2.17	0.44
12:Dt:172:PRO:HG2	12:Dt:205:LEU:CA	2.47	0.44
12:Cj:425:LYS:HE3	12:Cj:425:LYS:HB3	1.71	0.44
12:Cl:425:LYS:HE3	12:Cl:425:LYS:HB3	1.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Cm:275:LYS:HG2	12:Cn:375:THR:HG23	1.98	0.44
12:Eb:425:LYS:HE3	12:Eb:425:LYS:HB3	1.72	0.44
12:Eh:425:LYS:HE3	12:Eh:425:LYS:HB3	1.71	0.44
15:AC:28:LYS:HE2	15:AC:32:GLN:HE22	1.83	0.44
15:AG:166:GLU:OE1	15:AG:168:GLN:NE2	2.32	0.44
15:AL:28:LYS:HE2	15:AL:32:GLN:HE22	1.83	0.44
15:AO:68:ASP:OD2	16:BQ:71:ILE:HA	2.17	0.44
15:AT:150:VAL:HG12	15:AT:165:GLY:HA3	1.99	0.44
15:AW:28:LYS:HE2	15:AW:32:GLN:HE22	1.83	0.44
15:AW:172:ASN:ND2	15:AW:172:ASN:O	2.51	0.44
15:AZ:166:GLU:OE1	15:AZ:168:GLN:NE2	2.32	0.44
16:BH:250:ASP:OD1	16:BH:250:ASP:N	2.50	0.44
16:BO:105:VAL:HG22	16:BO:165:ILE:HB	1.99	0.44
16:BR:273:CYS:HB2	16:BS:264:MET:O	2.18	0.44
8:DN:17:LEU:HD23	8:DN:378:ALA:CB	2.40	0.44
8:DO:39:PHE:O	8:DO:39:PHE:CD1	2.70	0.44
8:DQ:122:THR:H	8:DQ:129:GLN:HE22	1.63	0.44
8:DQ:210:VAL:O	8:DQ:227:SER:N	2.50	0.44
8:DR:158:LEU:HD13	8:DR:208:TRP:CE2	2.53	0.44
8:DU:211:TYR:CD1	8:DU:226:ALA:HA	2.49	0.44
8:EE:145:ALA:HA	8:EE:286:PRO:HB3	2.00	0.44
1:L:56:SER:HB3	1:L:60:THR:HG23	2.00	0.44
8:DB:87:ASP:OD1	8:DB:91:SER:N	2.50	0.44
8:DC:130:GLN:OE1	8:DC:130:GLN:N	2.50	0.44
8:DE:144:MET:SD	8:DE:306:ASN:ND2	2.70	0.44
8:DF:106:ARG:HE	8:DK:321:ALA:HB1	1.83	0.44
8:DG:63:ASP:OD1	8:DG:63:ASP:N	2.48	0.44
9:CE:92:PHE:O	9:CE:96:ARG:HG3	2.18	0.44
12:Ds:171:SER:HA	12:Ds:172:PRO:HD3	1.69	0.44
13:GA:6:UNK:CB	12:Ea:365:ASN:CG	2.90	0.44
12:Cq:265:GLN:HG3	12:Cr:252:ILE:HB	1.99	0.44
12:Cq:425:LYS:HE3	12:Cq:425:LYS:HB3	1.71	0.44
15:AF:150:VAL:HG12	15:AF:165:GLY:HA3	1.99	0.44
15:AG:28:LYS:HE2	15:AG:32:GLN:HE22	1.83	0.44
15:AL:185:ASN:O	15:AL:188:THR:OG1	2.33	0.44
15:AR:172:ASN:O	15:AR:172:ASN:ND2	2.51	0.44
15:AT:172:ASN:ND2	15:AT:172:ASN:O	2.51	0.44
16:BC:250:ASP:OD1	16:BC:250:ASP:N	2.51	0.44
16:BD:250:ASP:OD1	16:BD:250:ASP:N	2.51	0.44
16:BN:250:ASP:OD1	16:BN:250:ASP:N	2.50	0.44
16:BO:43:VAL:HG12	16:BO:84:VAL:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BQ:33:GLU:OE1	16:BQ:92:SER:OG	2.30	0.44
16:BY:161:ASN:HD22	16:BZ:46:ASP:HA	1.82	0.44
16:BZ:105:VAL:HG22	16:BZ:165:ILE:HB	1.99	0.44
16:BZ:250:ASP:OD1	16:BZ:250:ASP:N	2.51	0.44
8:DN:389:ILE:H	8:DN:389:ILE:HG13	1.40	0.44
8:DO:383:GLN:C	8:DO:385:ASN:N	2.72	0.44
8:DQ:204:LYS:HG3	8:DQ:207:GLU:OE1	2.18	0.44
8:DQ:392:GLN:HA	8:DQ:395:ILE:HG22	1.99	0.44
8:DR:350:SER:OG	8:DR:351:GLY:N	2.50	0.44
8:DS:99:GLN:HB3	8:DS:361:LEU:HD21	2.00	0.44
8:DS:382:TYR:HD2	8:DX:395:ILE:HD11	1.83	0.44
8:DT:269:GLN:OE1	8:DZ:146:ALA:N	2.34	0.44
8:DU:306:ASN:O	8:DU:308:GLN:NE2	2.45	0.44
8:DV:63:ASP:OD1	8:DV:63:ASP:N	2.50	0.44
8:EA:101:LYS:HG2	8:EA:102:LEU:H	1.83	0.44
8:EA:188:ASP:CG	8:EA:190:GLN:H	2.26	0.44
8:EB:6:ALA:O	8:EB:10:LEU:HD13	2.18	0.44
8:EB:232:PHE:CE2	8:EB:238:LEU:HB2	2.52	0.44
8:EF:184:VAL:HG12	8:EF:279:THR:HG21	2.00	0.44
8:EG:184:VAL:HG12	8:EG:279:THR:HG23	1.99	0.44
8:EG:188:ASP:CG	8:EG:190:GLN:H	2.25	0.44
1:F:238:ARG:HD3	1:F:238:ARG:HA	1.68	0.44
5:h:27:ASN:OD1	5:h:42:TYR:OH	2.29	0.44
6:k:33:ALA:HA	6:k:100:VAL:HG11	1.99	0.44
8:DA:44:ALA:HB2	8:DA:50:LEU:HD11	2.00	0.44
8:DC:210:VAL:O	8:DC:227:SER:OG	2.32	0.44
8:DD:180:LYS:HZ3	8:DD:182:GLY:HA3	1.81	0.44
8:DE:127:THR:OG1	8:DE:128:ILE:N	2.48	0.44
8:DE:365:ASN:O	8:DE:365:ASN:ND2	2.50	0.44
8:DF:197:ASN:HB2	8:DF:213:HIS:HB3	2.00	0.44
8:DH:106:ARG:NH1	8:DM:321:ALA:C	2.69	0.44
8:DJ:337:THR:OG1	8:DJ:338:GLN:N	2.50	0.44
8:DK:29:THR:HB	8:DK:32:PHE:HB2	1.99	0.44
8:DK:194:HIS:HB3	8:DK:196:MET:HE3	1.99	0.44
10:CB:23:PRO:HG2	10:CB:68:TRP:HZ2	1.83	0.44
12:Dc:156:HIS:CE1	12:Dd:143:THR:HG21	2.53	0.44
12:Dd:125:GLN:C	12:Dd:125:GLN:CD	2.86	0.44
15:AB:28:LYS:HE2	15:AB:32:GLN:HE22	1.83	0.44
15:AE:185:ASN:O	15:AE:188:THR:OG1	2.33	0.44
15:AX:65:LEU:HG	16:BY:65:MET:HG3	1.99	0.44
15:AY:172:ASN:O	15:AY:172:ASN:ND2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BB:250:ASP:OD1	16:BB:250:ASP:N	2.51	0.44
16:BY:43:VAL:HG12	16:BY:84:VAL:HG22	1.99	0.44
8:DL:39:PHE:HB3	8:DL:52:VAL:CG2	2.48	0.44
8:DL:382:TYR:CD2	8:DQ:395:ILE:HG12	2.53	0.44
8:DM:85:LEU:HD23	8:DM:95:SER:HB3	1.98	0.44
8:DN:184:VAL:HG23	8:DN:196:MET:HB2	1.99	0.44
8:DR:395:ILE:HG13	8:DR:396:LEU:N	2.33	0.44
8:DU:388:THR:HG22	8:DU:392:GLN:HG2	2.00	0.44
8:DV:66:THR:HG22	8:DV:360:ALA:HB1	2.00	0.44
8:DY:311:VAL:HG22	8:DY:313:GLY:H	1.82	0.44
8:DY:382:TYR:HD2	8:ED:395:ILE:HD11	1.81	0.44
8:DZ:347:THR:OG1	8:DZ:350:SER:OG	2.19	0.44
8:EA:171:SER:N	8:EA:177:SER:OG	2.36	0.44
8:EB:188:ASP:OD1	8:EB:192:ASN:N	2.50	0.44
1:G:34:PHE:HB3	1:G:222:SER:HB3	1.99	0.44
1:I:45:LEU:HD23	1:I:45:LEU:H	1.83	0.44
1:O:184:LEU:HB3	1:O:192:TYR:HB3	2.00	0.44
1:Q:200:ALA:CB	16:BG:80:GLN:CD	2.90	0.44
1:R:108:PRO:HG2	1:X:153:ARG:NH2	2.33	0.44
1:R:195:THR:HG22	2:e:152:PRO:HB2	2.00	0.44
2:c:226:ARG:O	2:c:230:GLN:HG2	2.18	0.44
5:f:97:ASP:O	5:f:101:GLU:HG2	2.17	0.44
5:j:13:ALA:HB2	6:n:31:ALA:HB1	1.98	0.44
5:j:31:ALA:HA	5:j:96:VAL:HG11	1.99	0.44
6:n:6:ASP:O	6:n:10:ARG:HB2	2.18	0.44
1:V:225:ASN:O	1:V:229:GLU:HG2	2.18	0.44
8:DA:217:ASP:HB2	8:DA:220:ALA:HB2	1.98	0.44
8:DI:267:MET:HB3	8:DI:269:GLN:OE1	2.18	0.44
8:DJ:365:ASN:O	8:DJ:365:ASN:ND2	2.50	0.44
8:DK:237:ILE:HD13	8:DK:267:MET:HE1	1.99	0.44
11:z:115:PRO:HA	11:z:120:LYS:HZ3	1.83	0.44
12:Do:172:PRO:HD2	12:Do:204:GLY:O	2.17	0.44
12:Ca:252:ILE:HB	12:Eh:265:GLN:HG3	1.98	0.44
12:Cm:425:LYS:HE3	12:Cm:425:LYS:HB3	1.72	0.44
12:Cn:425:LYS:HE3	12:Cn:425:LYS:HB3	1.71	0.44
15:AD:28:LYS:HE2	15:AD:32:GLN:HE22	1.83	0.44
15:AJ:150:VAL:HG12	15:AJ:165:GLY:HA3	1.99	0.44
15:AO:28:LYS:HE2	15:AO:32:GLN:HE22	1.83	0.44
15:AP:172:ASN:O	15:AP:172:ASN:ND2	2.51	0.44
15:AQ:172:ASN:ND2	15:AQ:172:ASN:O	2.51	0.44
15:AV:70:ARG:NH2	16:BX:72:THR:OG1	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BA:43:VAL:HG12	16:BA:84:VAL:HG22	1.99	0.44
16:BG:105:VAL:HG22	16:BG:165:ILE:HB	1.99	0.44
16:BM:43:VAL:HG12	16:BM:84:VAL:HG22	1.99	0.44
8:DL:71:ARG:HH22	8:DL:99:GLN:HG2	1.82	0.44
8:DM:110:ASN:ND2	8:DM:112:GLN:OE1	2.50	0.44
8:DN:19:VAL:HG11	8:DN:37:ALA:H	1.82	0.44
8:DO:150:THR:HG1	8:DO:282:ASN:HD21	1.62	0.44
8:DO:396:LEU:O	8:DO:396:LEU:HD23	2.17	0.44
8:DO:402:LEU:O	8:DO:402:LEU:HG	2.17	0.44
8:DQ:167:LYS:HB3	8:DQ:177:SER:HB2	2.00	0.44
8:DT:204:LYS:HG3	8:DT:207:GLU:HB3	2.00	0.44
8:DW:95:SER:HB2	8:DW:333:VAL:HG23	1.99	0.44
8:DW:179:ASN:OD1	8:DW:202:LYS:N	2.36	0.44
8:DZ:211:TYR:CE1	8:DZ:226:ALA:HA	2.53	0.44
1:D:35:LYS:HB3	1:D:80:LEU:O	2.17	0.44
1:I:106:MET:HE2	1:I:137:GLN:HA	2.00	0.44
1:K:63:PRO:O	1:P:197:SER:OG	2.31	0.44
2:e:65:ASP:O	2:e:210:ASN:ND2	2.51	0.44
6:l:33:ALA:HA	6:l:100:VAL:HG11	1.99	0.44
8:DA:179:ASN:OD1	8:DA:202:LYS:N	2.43	0.44
8:DD:187:TYR:CD2	8:DD:285:LYS:HB3	2.53	0.44
8:DG:24:ILE:CD1	8:DL:384:SER:OG	2.39	0.44
8:DH:44:ALA:H	8:DH:50:LEU:HD23	1.83	0.44
8:DH:186:VAL:HG13	8:DH:194:HIS:HB2	1.98	0.44
8:DJ:65:THR:N	8:DU:50:LEU:HD13	2.33	0.44
10:CC:22:ALA:HA	10:CC:25:LEU:HG	2.00	0.44
12:Dc:172:PRO:O	12:Dc:205:LEU:HD13	2.18	0.44
12:Dt:125:GLN:CD	12:Dt:125:GLN:C	2.85	0.44
12:Du:125:GLN:C	12:Du:125:GLN:CD	2.86	0.44
15:AA:172:ASN:O	15:AA:172:ASN:ND2	2.51	0.44
15:AD:68:ASP:OD2	16:BF:71:ILE:HA	2.18	0.44
15:AK:28:LYS:HE2	15:AK:32:GLN:HE22	1.83	0.44
15:AP:28:LYS:HE2	15:AP:32:GLN:HE22	1.83	0.44
15:AQ:150:VAL:HG12	15:AQ:165:GLY:HA3	1.99	0.44
15:AR:150:VAL:HG12	15:AR:165:GLY:HA3	1.99	0.44
15:AT:28:LYS:HE2	15:AT:32:GLN:HE22	1.83	0.44
15:AX:172:ASN:O	15:AX:172:ASN:ND2	2.51	0.44
15:AY:28:LYS:HE2	15:AY:32:GLN:HE22	1.83	0.44
15:AZ:172:ASN:O	15:AZ:172:ASN:ND2	2.51	0.44
16:BS:105:VAL:HG22	16:BS:165:ILE:HB	1.99	0.44
16:BY:105:VAL:HG22	16:BY:165:ILE:HB	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BY:250:ASP:N	16:BY:250:ASP:OD1	2.50	0.44
8:DL:281:GLN:OE1	8:DL:283:GLY:N	2.51	0.44
8:DO:319:ASN:H	8:DO:353:PHE:HE1	1.65	0.44
8:DP:374:ASN:HA	8:DP:377:VAL:HG12	1.99	0.44
8:DP:387:GLN:O	8:DP:390:LYS:HB3	2.18	0.44
8:DQ:39:PHE:HA	8:DQ:55:ALA:H	1.82	0.44
8:DV:52:VAL:HG22	8:DV:53:LYS:O	2.18	0.44
8:DX:189:SER:HB3	8:DX:255:THR:HB	1.99	0.44
8:DX:326:LEU:HB3	8:DX:334:TRP:CD1	2.53	0.44
8:DY:248:THR:HG22	8:DY:257:ALA:H	1.81	0.44
8:EG:74:ASP:N	8:EG:74:ASP:OD1	2.49	0.44
1:B:121:GLN:N	1:B:129:VAL:O	2.45	0.44
1:D:238:ARG:HD3	1:D:238:ARG:HA	1.68	0.44
1:I:35:LYS:HA	1:I:223:ASN:OD1	2.18	0.44
1:Q:154:ASP:OD1	1:Q:155:GLY:N	2.51	0.44
7:u:42:LEU:HD12	11:CF:42:VAL:HG23	1.99	0.44
8:DE:105:ASN:OD1	8:DE:107:ASN:ND2	2.51	0.44
8:DE:181:LYS:HZ1	8:DP:129:GLN:NE2	2.08	0.44
8:DG:101:LYS:HB2	8:DL:324:GLU:HB2	2.00	0.44
8:DJ:373:VAL:CG1	8:DP:10:LEU:CD2	2.94	0.44
12:Dw:172:PRO:HG3	12:Dw:204:GLY:C	2.43	0.44
15:AB:68:ASP:OD2	16:BD:71:ILE:HA	2.18	0.44
15:AC:160:ASN:HD22	15:AC:185:ASN:HA	1.83	0.44
15:AG:150:VAL:HG12	15:AG:165:GLY:HA3	1.99	0.44
15:AI:28:LYS:HE2	15:AI:32:GLN:HE22	1.83	0.44
15:AK:150:VAL:HG12	15:AK:165:GLY:HA3	1.99	0.44
15:AM:172:ASN:O	15:AM:172:ASN:ND2	2.51	0.44
15:AN:172:ASN:ND2	15:AN:172:ASN:O	2.51	0.44
15:AV:172:ASN:O	15:AV:172:ASN:ND2	2.51	0.44
15:AZ:65:LEU:HG	16:BA:65:MET:HG3	1.99	0.44
16:BL:250:ASP:OD1	16:BL:250:ASP:N	2.51	0.44
16:BM:250:ASP:OD1	16:BM:250:ASP:N	2.51	0.44
16:BN:43:VAL:HG12	16:BN:84:VAL:HG22	1.99	0.44
16:BN:105:VAL:HG22	16:BN:165:ILE:HB	1.99	0.44
8:DU:94:TYR:O	8:DU:334:TRP:N	2.51	0.44
8:DV:383:GLN:HE21	8:EA:398:THR:HG21	1.83	0.44
8:DW:23:ASN:ND2	8:DW:35:GLY:O	2.42	0.44
8:ED:190:GLN:HB3	8:ED:192:ASN:ND2	2.33	0.44
8:EE:15:THR:O	8:EE:19:VAL:HG23	2.18	0.44
8:EE:295:ASN:HB2	8:EE:299:THR:HG22	1.98	0.44
8:EF:83:PHE:O	8:EF:94:TYR:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:EF:103:ASP:OD1	8:EF:104:GLU:N	2.46	0.44
1:E:92:SER:O	1:E:216:GLN:NE2	2.44	0.43
1:I:151:ILE:N	1:I:216:GLN:OE1	2.42	0.43
1:U:147:LEU:HB2	1:U:160:THR:HG23	2.00	0.43
2:e:76:ARG:HG3	2:e:77:PRO:HD2	1.99	0.43
6:o:42:ASP:OD1	6:o:43:ILE:N	2.48	0.43
1:W:239:ALA:O	1:W:242:ILE:HG22	2.17	0.43
8:DA:326:LEU:HB3	8:DA:334:TRP:HB3	2.00	0.43
8:DC:63:ASP:N	8:DC:63:ASP:OD1	2.48	0.43
8:DC:310:GLN:NE2	8:DC:311:VAL:O	2.51	0.43
8:DJ:328:SER:HG	8:DJ:334:TRP:CD1	2.36	0.43
11:w:207:LEU:HB2	11:w:209:MET:HE1	1.99	0.43
12:Du:172:PRO:O	12:Du:205:LEU:HD13	2.18	0.43
12:Cm:235:LEU:HB3	12:Cn:244:ARG:NH2	2.32	0.43
12:Cr:235:LEU:HB3	12:Cs:244:ARG:NH2	2.32	0.43
15:AB:160:ASN:HD22	15:AB:185:ASN:HA	1.83	0.43
15:AH:150:VAL:HG12	15:AH:165:GLY:HA3	1.99	0.43
15:AS:172:ASN:O	15:AS:172:ASN:ND2	2.51	0.43
16:BU:105:VAL:HG22	16:BU:165:ILE:HB	1.99	0.43
8:DM:168:THR:OG1	8:DM:169:PRO:HD3	2.18	0.43
8:DN:150:THR:N	8:DN:282:ASN:OD1	2.51	0.43
8:DN:379:GLN:O	8:DN:382:TYR:HB3	2.18	0.43
8:DP:65:THR:HG21	8:EA:4:SER:HB2	1.99	0.43
8:DP:399:LEU:HD12	8:DP:399:LEU:C	2.43	0.43
8:DS:42:MET:HB2	8:DS:50:LEU:HD22	1.99	0.43
8:DT:111:MET:HE1	8:DY:55:ALA:HB3	1.99	0.43
8:DV:10:LEU:HD11	8:DV:389:ILE:HG13	2.00	0.43
8:DW:202:LYS:HB2	8:DW:208:TRP:CZ3	2.53	0.43
8:DX:75:VAL:HG11	8:DX:356:LEU:HD23	2.00	0.43
8:DX:230:LEU:HD12	8:DX:238:LEU:HD11	2.00	0.43
8:DY:399:LEU:O	8:DY:402:LEU:HD22	2.18	0.43
8:DZ:247:THR:HG23	8:DZ:258:THR:HG22	2.00	0.43
8:DZ:380:ARG:NH2	8:EF:397:ASN:HB2	2.33	0.43
8:EA:154:MET:HG2	8:EA:279:THR:HG22	2.00	0.43
8:EC:13:ALA:O	8:EC:17:LEU:HD23	2.18	0.43
8:EC:77:ILE:HD11	8:EC:83:PHE:CE2	2.53	0.43
8:EC:319:ASN:OD1	8:EC:320:PHE:N	2.47	0.43
8:ED:84:ARG:HD2	8:ED:345:LEU:HD21	2.01	0.43
1:B:36:ARG:NH1	1:B:223:ASN:O	2.49	0.43
1:C:40:VAL:HG23	1:C:75:VAL:HG13	1.99	0.43
1:D:140:ILE:HD12	1:D:171:GLY:HA3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:178:PHE:CE2	1:G:201:PRO:HB3	2.53	0.43
1:P:6:TRP:HE3	2:a:70:GLN:HG2	1.83	0.43
1:U:43:ASP:HB3	2:c:28:ASN:HD22	1.82	0.43
8:DD:306:ASN:OD1	8:DD:306:ASN:N	2.51	0.43
8:DD:382:TYR:CD2	8:DI:395:ILE:HD11	2.53	0.43
8:DJ:147:LYS:HB2	8:DJ:283:GLY:HA2	2.00	0.43
8:DK:295:ASN:ND2	8:DK:299:THR:OG1	2.39	0.43
9:CE:141:ASN:HB3	9:CE:144:LEU:HB2	2.00	0.43
11:z:115:PRO:O	11:z:120:LYS:HG2	2.18	0.43
12:Dm:175:SER:O	12:Dm:175:SER:OG	2.32	0.43
12:Cx:426:ARG:NH2	12:Cx:428:ASP:OD2	2.47	0.43
15:AA:160:ASN:HD22	15:AA:185:ASN:HA	1.83	0.43
15:AA:166:GLU:OE1	15:AA:168:GLN:NE2	2.32	0.43
15:AD:160:ASN:HD22	15:AD:185:ASN:HA	1.83	0.43
15:AF:166:GLU:OE1	15:AF:168:GLN:NE2	2.32	0.43
15:AJ:160:ASN:HD22	15:AJ:185:ASN:HA	1.83	0.43
15:AK:160:ASN:HD22	15:AK:185:ASN:HA	1.83	0.43
15:AM:28:LYS:HE2	15:AM:32:GLN:HE22	1.83	0.43
15:AP:150:VAL:HG12	15:AP:165:GLY:HA3	1.99	0.43
15:AR:28:LYS:HE2	15:AR:32:GLN:HE22	1.83	0.43
15:AU:172:ASN:O	15:AU:172:ASN:ND2	2.51	0.43
16:BH:21:ARG:HG3	16:BH:243:GLU:CD	2.43	0.43
16:BI:21:ARG:HG3	16:BI:243:GLU:CD	2.43	0.43
8:DL:316:VAL:C	8:DL:317:LEU:HD23	2.43	0.43
8:DQ:97:ASN:OD1	8:DQ:99:GLN:HG2	2.19	0.43
8:DR:2:SER:HG	8:DR:3:PHE:H	1.63	0.43
8:DR:331:ASP:O	8:DR:333:VAL:N	2.50	0.43
8:DT:29:THR:HB	8:DT:32:PHE:HB2	2.00	0.43
8:DY:162:ASP:OD2	8:DY:179:ASN:ND2	2.51	0.43
8:DY:382:TYR:HB3	8:ED:395:ILE:HD11	2.00	0.43
8:ED:73:LEU:HD21	8:ED:292:TYR:CE2	2.52	0.43
8:EF:228:THR:OG1	8:EF:229:THR:N	2.51	0.43
1:C:179:MET:HE1	1:G:144:ALA:HA	2.00	0.43
1:E:101:GLY:HA2	1:E:177:THR:HG22	2.00	0.43
1:F:238:ARG:O	1:F:242:ILE:HG12	2.18	0.43
1:G:176:THR:HA	1:G:203:GLU:HA	2.00	0.43
1:T:225:ASN:O	1:T:229:GLU:HG2	2.17	0.43
1:V:194:GLU:H	1:V:194:GLU:CD	2.27	0.43
7:v:71:VAL:HG23	9:CE:6:SER:HB2	2.01	0.43
7:v:103:GLN:NE2	11:CF:86:ASN:OD1	2.41	0.43
8:DC:281:GLN:HG2	8:DC:283:GLY:H	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DE:167:LYS:HE2	8:DE:169:PRO:HG2	1.99	0.43
8:DF:24:ILE:HG13	8:DF:368:LEU:HD22	2.00	0.43
8:DH:345:LEU:H	8:DH:345:LEU:HD12	1.84	0.43
10:CC:41:ALA:O	10:CC:42:THR:OG1	2.26	0.43
11:z:152:ARG:HD3	12:Da:165:PHE:CA	2.46	0.43
11:CF:135:ARG:HH22	11:CF:165:VAL:H	1.65	0.43
12:Ea:235:LEU:HB3	12:Ec:244:ARG:NH2	2.33	0.43
12:Ea:235:LEU:HB3	12:Ec:244:ARG:HH22	1.82	0.43
15:AI:160:ASN:HD22	15:AI:185:ASN:HA	1.83	0.43
15:AM:124:MET:HE3	15:AM:124:MET:HB3	1.84	0.43
15:AO:172:ASN:O	15:AO:172:ASN:ND2	2.51	0.43
15:AV:107:ASP:HB3	15:AW:125:GLU:HG2	2.00	0.43
16:BD:193:ASP:OD2	16:BD:195:THR:OG1	2.35	0.43
16:BG:21:ARG:HG3	16:BG:243:GLU:CD	2.44	0.43
16:BR:250:ASP:OD1	16:BR:250:ASP:N	2.51	0.43
16:BS:250:ASP:N	16:BS:250:ASP:OD1	2.51	0.43
16:BX:361:LYS:HZ1	16:BX:363:GLU:HG2	1.82	0.43
8:DL:180:LYS:HD3	8:DL:274:ASN:HB2	2.00	0.43
8:DL:191:GLY:HA3	8:DL:285:LYS:HA	2.00	0.43
8:DR:63:ASP:OD1	8:DR:64:GLY:N	2.51	0.43
8:DV:288:ASP:O	8:DV:305:SER:N	2.50	0.43
8:DY:24:ILE:HD11	8:ED:384:SER:HB2	2.00	0.43
8:DY:382:TYR:HD2	8:ED:395:ILE:CG1	2.31	0.43
8:DZ:104:GLU:HG2	8:EE:341:GLY:HA3	2.00	0.43
8:DZ:346:GLY:HA3	8:DZ:353:PHE:CE2	2.53	0.43
8:EA:168:THR:N	8:EA:169:PRO:HD2	2.33	0.43
1:M:57:SER:OG	1:M:58:GLU:N	2.52	0.43
1:S:31:THR:HG23	1:S:34:PHE:HB2	2.00	0.43
1:S:102:PHE:HB3	1:S:114:TYR:HB3	2.00	0.43
2:e:34:PHE:HB3	2:e:209:SER:HB2	2.00	0.43
5:f:50:GLN:N	5:f:63:LYS:O	2.52	0.43
6:m:111:ASP:OD1	6:m:115:LYS:NZ	2.51	0.43
5:i:42:TYR:OH	5:i:45:LYS:NZ	2.50	0.43
5:i:74:GLU:H	5:i:74:GLU:CD	2.26	0.43
1:V:255:GLN:O	1:V:259:GLN:HG2	2.18	0.43
8:DA:181:LYS:HG3	8:DA:199:TYR:HE1	1.83	0.43
8:DF:264:LEU:HD23	8:DF:265:ASN:HB2	2.00	0.43
8:DK:34:SER:HB3	8:DK:366:VAL:HG12	2.00	0.43
9:CE:184:LEU:HA	9:CE:187:ALA:HB3	1.99	0.43
10:CC:44:ILE:HB	10:CD:36:SER:HB2	1.99	0.43
12:Cl:235:LEU:HB3	12:Cm:244:ARG:HH22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AD:172:ASN:O	15:AD:172:ASN:ND2	2.51	0.43
15:AE:160:ASN:HD22	15:AE:185:ASN:HA	1.84	0.43
15:AI:150:VAL:HG12	15:AI:165:GLY:HA3	1.99	0.43
15:AL:150:VAL:HG12	15:AL:165:GLY:HA3	1.99	0.43
15:AL:160:ASN:HD22	15:AL:185:ASN:HA	1.83	0.43
15:AM:150:VAL:HG12	15:AM:165:GLY:HA3	1.99	0.43
15:AP:185:ASN:O	15:AP:188:THR:OG1	2.33	0.43
15:AQ:68:ASP:OD2	16:BS:71:ILE:HA	2.18	0.43
15:AY:185:ASN:O	15:AY:188:THR:OG1	2.33	0.43
15:AZ:160:ASN:HD22	15:AZ:185:ASN:HA	1.84	0.43
16:BE:193:ASP:OD2	16:BE:195:THR:OG1	2.35	0.43
16:BE:245:ASN:OD1	16:BE:245:ASN:N	2.51	0.43
16:BH:193:ASP:OD2	16:BH:195:THR:OG1	2.35	0.43
16:BI:193:ASP:OD2	16:BI:195:THR:OG1	2.35	0.43
16:BX:250:ASP:OD1	16:BX:250:ASP:N	2.51	0.43
16:BZ:43:VAL:HG12	16:BZ:84:VAL:HG22	1.99	0.43
8:DL:243:THR:HA	8:DL:261:LEU:O	2.18	0.43
8:DL:248:THR:OG1	8:DL:249:GLY:N	2.52	0.43
8:DL:372:LEU:O	8:DL:376:ILE:CD1	2.65	0.43
8:DO:129:GLN:N	8:DO:129:GLN:OE1	2.52	0.43
8:DQ:93:PHE:HE1	8:DQ:329:GLN:HG3	1.84	0.43
8:DT:144:MET:HB2	8:DT:304:TYR:CE2	2.53	0.43
8:DU:13:ALA:HB3	8:DU:382:TYR:HD1	1.83	0.43
8:DU:157:ASN:ND2	8:DU:277:VAL:HG21	2.33	0.43
8:DU:225:THR:OG1	8:DU:226:ALA:N	2.51	0.43
8:DV:101:LYS:HD2	8:DV:102:LEU:H	1.82	0.43
8:DY:84:ARG:HD2	8:DY:345:LEU:HD11	2.01	0.43
8:DY:202:LYS:HA	8:DY:208:TRP:HA	1.99	0.43
8:EA:106:ARG:O	8:EA:138:THR:OG1	2.32	0.43
8:EE:166:SER:OG	8:EE:176:ASP:OD2	2.37	0.43
8:EG:188:ASP:OD1	8:EG:191:GLY:N	2.51	0.43
1:C:56:SER:O	1:R:152:GLY:HA3	2.19	0.43
1:H:238:ARG:HD3	1:H:238:ARG:HA	1.89	0.43
1:I:34:PHE:HB3	1:I:222:SER:HB3	1.99	0.43
1:J:142:ILE:HD13	1:J:149:ILE:HD13	1.99	0.43
1:M:238:ARG:HA	1:M:238:ARG:HD3	1.79	0.43
1:N:142:ILE:HD13	1:N:149:ILE:HG12	2.00	0.43
1:S:176:THR:HG22	1:S:203:GLU:HG2	2.01	0.43
1:U:7:ILE:O	1:U:10:THR:OG1	2.33	0.43
2:a:89:VAL:HG12	2:a:121:ILE:HD11	2.00	0.43
2:d:212:LYS:HB2	2:d:215:GLU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:36:ARG:HE	1:X:80:LEU:HD12	1.84	0.43
7:u:104:VAL:HG21	11:z:89:LEU:HD23	2.00	0.43
8:DB:288:ASP:OD1	8:DB:305:SER:OG	2.34	0.43
8:DC:337:THR:OG1	8:DC:338:GLN:N	2.50	0.43
8:DE:214:ASP:OD2	8:DE:248:THR:OG1	2.36	0.43
8:DH:192:ASN:OD1	8:DH:252:ASN:ND2	2.42	0.43
8:DK:87:ASP:OD1	8:DK:91:SER:N	2.52	0.43
9:CE:131:MET:O	9:CE:134:MET:HG2	2.18	0.43
10:CA:59:PHE:CE2	10:CB:18:LEU:HB2	2.53	0.43
10:CB:46:GLU:H	10:CB:46:GLU:HG3	1.68	0.43
11:w:232:TRP:HB2	11:y:180:LYS:HE2	2.00	0.43
11:y:77:ALA:HB2	11:y:190:PHE:CD1	2.53	0.43
12:Da:175:SER:O	12:Da:175:SER:OG	2.32	0.43
12:Dt:172:PRO:CD	12:Dt:204:GLY:O	2.65	0.43
12:Dt:172:PRO:O	12:Dt:205:LEU:CD1	2.66	0.43
12:Dw:125:GLN:CD	12:Dw:125:GLN:C	2.85	0.43
12:Cn:235:LEU:HB3	12:Co:244:ARG:NH1	2.33	0.43
12:Co:426:ARG:NH2	12:Co:428:ASP:OD2	2.47	0.43
12:Cz:235:LEU:HB3	12:Ea:244:ARG:HH22	1.84	0.43
15:AB:107:ASP:HB3	15:AC:125:GLU:HG2	2.00	0.43
15:AF:160:ASN:HD22	15:AF:185:ASN:HA	1.84	0.43
15:AR:160:ASN:HD22	15:AR:185:ASN:HA	1.83	0.43
15:AS:160:ASN:HD22	15:AS:185:ASN:HA	1.83	0.43
15:AT:107:ASP:HB3	15:AU:125:GLU:HG2	2.00	0.43
15:AV:28:LYS:HE2	15:AV:32:GLN:HE22	1.83	0.43
15:AW:70:ARG:NH2	16:BY:72:THR:OG1	2.49	0.43
15:AX:22:P1L:H8C1	15:AX:22:P1L:HB3	1.63	0.43
16:BE:250:ASP:OD1	16:BE:250:ASP:N	2.51	0.43
16:BF:21:ARG:HG3	16:BF:243:GLU:CD	2.44	0.43
16:BF:193:ASP:OD2	16:BF:195:THR:OG1	2.35	0.43
16:BJ:21:ARG:HG3	16:BJ:243:GLU:CD	2.44	0.43
16:BN:21:ARG:HG3	16:BN:243:GLU:CD	2.44	0.43
16:BO:21:ARG:HG3	16:BO:243:GLU:CD	2.44	0.43
16:BO:250:ASP:OD1	16:BO:250:ASP:N	2.51	0.43
8:DL:388:THR:O	8:DL:388:THR:OG1	2.28	0.43
8:DV:33:LYS:HB3	8:DV:60:ASP:O	2.19	0.43
8:DZ:100:PHE:CE1	8:DZ:116:LEU:HD22	2.54	0.43
8:EA:22:ASN:O	8:EA:26:ASN:ND2	2.52	0.43
1:F:9:LYS:HG2	1:L:231:VAL:HG21	2.01	0.43
1:F:150:THR:OG1	1:F:158:SER:OG	2.36	0.43
1:K:25:ASN:ND2	1:K:37:GLN:H	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:66:LEU:HD23	1:Q:66:LEU:H	1.82	0.43
1:R:72:VAL:HB	1:W:28:ASN:HB3	2.00	0.43
1:S:209:ASN:OD1	16:BP:78:ASN:ND2	2.52	0.43
1:U:59:GLN:HB3	1:U:61:THR:HG23	2.00	0.43
2:c:250:MET:HE3	2:c:250:MET:HB3	1.96	0.43
1:X:35:LYS:HA	1:X:223:ASN:OD1	2.19	0.43
8:DA:97:ASN:HD21	8:DA:332:ASN:HD21	1.66	0.43
8:DB:103:ASP:OD1	8:DB:107:ASN:N	2.48	0.43
8:DD:211:TYR:HB3	8:DD:213:HIS:HE1	1.84	0.43
8:DK:101:LYS:HB3	8:DK:111:MET:HE1	2.00	0.43
8:DK:295:ASN:HD21	8:DK:299:THR:HG1	1.61	0.43
11:x:123:MET:HA	11:x:126:ALA:HB3	2.00	0.43
11:x:204:LEU:HD12	11:x:209:MET:HE2	2.00	0.43
11:z:95:PHE:CZ	11:CF:171:LEU:HD23	2.53	0.43
12:Da:156:HIS:CE1	12:Db:143:THR:HG21	2.54	0.43
15:AA:28:LYS:HE2	15:AA:32:GLN:HE22	1.83	0.43
15:AB:172:ASN:O	15:AB:172:ASN:ND2	2.51	0.43
15:AC:68:ASP:OD2	16:BE:71:ILE:HA	2.19	0.43
15:AC:172:ASN:ND2	15:AC:172:ASN:O	2.51	0.43
15:AD:22:P1L:HB3	15:AD:22:P1L:H8C1	1.63	0.43
15:AI:172:ASN:ND2	15:AI:172:ASN:O	2.51	0.43
15:AO:124:MET:HE3	15:AO:124:MET:HB3	1.84	0.43
15:AO:150:VAL:HG12	15:AO:165:GLY:HA3	1.99	0.43
15:AY:160:ASN:HD22	15:AY:185:ASN:HA	1.84	0.43
16:BC:282:VAL:HB	16:BC:316:GLY:HA3	2.01	0.43
16:BD:282:VAL:HB	16:BD:316:GLY:HA3	2.01	0.43
16:BE:21:ARG:HG3	16:BE:243:GLU:CD	2.44	0.43
16:BG:193:ASP:OD2	16:BG:195:THR:OG1	2.35	0.43
16:BI:250:ASP:OD1	16:BI:250:ASP:N	2.50	0.43
16:BQ:250:ASP:OD1	16:BQ:250:ASP:N	2.51	0.43
16:BZ:282:VAL:HB	16:BZ:316:GLY:HA3	2.01	0.43
8:DM:101:LYS:HD3	8:DM:111:MET:SD	2.59	0.43
8:DP:66:THR:H	8:EA:42:MET:HE1	1.83	0.43
8:DP:368:LEU:H	8:DP:368:LEU:HD12	1.84	0.43
8:DP:379:GLN:HE21	8:DP:383:GLN:HE22	1.65	0.43
8:DS:54:VAL:HG13	8:DS:54:VAL:O	2.18	0.43
8:DV:80:ASN:C	8:DV:80:ASN:ND2	2.76	0.43
8:DX:178:TYR:HA	8:DX:201:VAL:HG22	1.99	0.43
1:C:35:LYS:HA	1:C:223:ASN:OD1	2.19	0.43
1:C:121:GLN:N	1:C:129:VAL:O	2.50	0.43
1:F:254:LEU:HD23	1:L:238:ARG:HG3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:43:ASP:HA	1:K:72:VAL:HA	2.01	0.43
1:K:256:LYS:HA	1:K:256:LYS:HD2	1.77	0.43
1:P:49:ILE:HB	1:P:66:LEU:HD22	1.99	0.43
1:Q:200:ALA:HB2	16:BG:80:GLN:HE22	1.83	0.43
1:R:91:ASN:OD1	1:R:93:LYS:N	2.44	0.43
1:U:107:LEU:HD23	1:U:107:LEU:HA	1.86	0.43
5:g:82:ASN:ND2	5:g:84:LEU:HB2	2.34	0.43
8:DB:26:ASN:HA	8:DG:52:VAL:HG11	2.01	0.43
8:DD:365:ASN:O	8:DD:365:ASN:ND2	2.52	0.43
8:DE:129:GLN:OE1	8:DE:129:GLN:N	2.52	0.43
8:DG:86:VAL:HG23	8:DG:115:GLN:HB2	2.01	0.43
8:DH:161:THR:CG2	8:DN:252:ASN:ND2	2.76	0.43
8:DJ:202:LYS:HB2	8:DJ:208:TRP:CZ3	2.53	0.43
10:CA:79:THR:O	10:CA:82:SER:OG	2.34	0.43
11:y:224:MET:HB2	11:z:187:PHE:CD1	2.53	0.43
12:Dc:172:PRO:CG	12:Dc:205:LEU:HA	2.49	0.43
12:Dn:156:HIS:CE1	12:Do:143:THR:HG21	2.54	0.43
12:Dw:171:SER:OG	12:Dw:209:ASN:ND2	2.52	0.43
12:Cc:235:LEU:HB3	12:Cd:244:ARG:NH2	2.34	0.43
12:Ce:265:GLN:HG3	12:Cf:252:ILE:HB	2.01	0.43
12:Co:235:LEU:HB3	12:Cp:244:ARG:HH12	1.83	0.43
12:Co:425:LYS:HE3	12:Co:425:LYS:HB3	1.71	0.43
12:Cp:425:LYS:HE3	12:Cp:425:LYS:HB3	1.71	0.43
12:Ed:235:LEU:HB3	12:Ee:244:ARG:HH22	1.83	0.43
15:AA:22:P1L:HB3	15:AA:22:P1L:H8C1	1.62	0.43
15:AB:166:GLU:OE1	15:AB:168:GLN:NE2	2.32	0.43
15:AF:172:ASN:ND2	15:AF:172:ASN:O	2.51	0.43
15:AJ:172:ASN:O	15:AJ:172:ASN:ND2	2.51	0.43
15:AK:172:ASN:O	15:AK:172:ASN:ND2	2.51	0.43
15:AT:160:ASN:HD22	15:AT:185:ASN:HA	1.83	0.43
15:AU:28:LYS:HE2	15:AU:32:GLN:HE22	1.83	0.43
15:AX:160:ASN:HD22	15:AX:185:ASN:HA	1.84	0.43
16:BA:282:VAL:HB	16:BA:316:GLY:HA3	2.01	0.43
16:BB:282:VAL:HB	16:BB:316:GLY:HA3	2.01	0.43
16:BG:282:VAL:HB	16:BG:316:GLY:HA3	2.01	0.43
16:BP:21:ARG:HG3	16:BP:243:GLU:CD	2.44	0.43
16:BW:161:ASN:HD22	16:BX:46:ASP:HA	1.84	0.43
16:BW:250:ASP:OD1	16:BW:250:ASP:N	2.50	0.43
8:DN:330:GLY:HA2	8:DS:43:PHE:H	1.84	0.43
8:DQ:198:VAL:HA	8:DQ:211:TYR:O	2.19	0.43
8:DQ:392:GLN:O	8:DQ:395:ILE:HG22	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DS:19:VAL:HG12	8:DS:23:ASN:HD21	1.84	0.43
8:DW:355:LYS:HB2	8:DW:355:LYS:HE3	1.91	0.43
8:DY:154:MET:HG3	8:DY:261:LEU:HD11	2.00	0.43
8:DZ:95:SER:HB2	8:DZ:333:VAL:HG12	2.00	0.43
8:EC:93:PHE:CD1	8:EC:335:ALA:HB2	2.54	0.43
8:ED:147:LYS:HB3	8:ED:284:TYR:CD1	2.52	0.43
8:EE:218:PRO:HD2	8:EE:251:ILE:HD13	2.00	0.43
8:EE:326:LEU:HB3	8:EE:334:TRP:HB3	2.00	0.43
1:A:158:SER:OG	1:A:167:PRO:HB2	2.19	0.43
1:B:39:ALA:HA	1:B:77:THR:HA	2.01	0.43
1:C:78:GLU:HB2	1:C:182:THR:HG23	2.01	0.43
1:E:60:THR:HG21	1:N:108:PRO:HG3	2.01	0.43
1:I:242:ILE:HD12	1:N:230:LEU:HD11	2.00	0.43
1:L:2:ILE:HD12	1:L:2:ILE:HA	1.88	0.43
1:N:35:LYS:HG3	1:N:81:HIS:CE1	2.54	0.43
1:O:48:THR:HG22	1:O:67:GLN:HG2	1.99	0.43
1:T:125:ASN:OD1	1:T:126:GLY:N	2.51	0.43
2:b:49:LEU:HD23	2:b:50:SER:N	2.34	0.43
6:k:8:ALA:HB3	6:k:9:LEU:HD12	2.00	0.43
1:V:225:ASN:O	1:V:228:GLU:HG3	2.18	0.43
8:DA:140:PRO:HD2	8:DA:312:LEU:HD13	2.01	0.43
8:DB:159:ASN:N	8:DB:274:ASN:OD1	2.52	0.43
8:DC:94:TYR:O	8:DC:334:TRP:N	2.45	0.43
8:DE:382:TYR:CG	8:DJ:395:ILE:HD11	2.54	0.43
8:DG:289:LEU:O	8:DL:352:ASN:HB2	2.19	0.43
10:CB:83:ASN:O	10:CB:87:ILE:HG13	2.18	0.43
11:w:132:GLN:OE1	11:w:135:ARG:NH2	2.46	0.43
11:x:38:TRP:HB2	11:x:42:VAL:HG11	2.01	0.43
11:CF:116:PHE:HE1	11:CF:123:MET:HA	1.83	0.43
12:Da:203:ALA:HB1	12:Dw:160:PRO:HB3	1.99	0.43
12:Db:175:SER:O	12:Db:175:SER:OG	2.32	0.43
12:De:175:SER:O	12:De:175:SER:OG	2.32	0.43
12:Dp:175:SER:O	12:Dp:175:SER:OG	2.32	0.43
12:Cc:265:GLN:HG3	12:Cd:252:ILE:HB	2.00	0.43
12:Eg:235:LEU:HB3	12:Eh:244:ARG:NH2	2.34	0.43
15:AA:132:PHE:CD1	15:AC:219:MET:HG2	2.53	0.43
15:AE:28:LYS:HE2	15:AE:32:GLN:HE22	1.83	0.43
15:AE:166:GLU:OE1	15:AE:168:GLN:NE2	2.32	0.43
15:AG:160:ASN:HD22	15:AG:185:ASN:HA	1.84	0.43
15:AH:224:ARG:O	15:AH:228:ASN:ND2	2.50	0.43
15:AQ:28:LYS:HE2	15:AQ:32:GLN:HE22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AR:124:MET:HE3	15:AR:124:MET:HB3	1.85	0.43
15:AW:160:ASN:HD22	15:AW:185:ASN:HA	1.83	0.43
16:BT:105:VAL:HG22	16:BT:165:ILE:HB	1.99	0.43
16:BX:282:VAL:HB	16:BX:316:GLY:HA3	2.01	0.43
8:DL:78:SER:OG	8:DL:355:LYS:O	2.36	0.43
8:DN:331:ASP:O	8:DN:333:VAL:N	2.49	0.43
8:DN:355:LYS:HD3	8:DN:356:LEU:H	1.84	0.43
8:DP:44:ALA:HB2	8:DP:50:LEU:HD11	2.01	0.43
8:DP:102:LEU:HD23	8:DU:321:ALA:O	2.18	0.43
8:DP:287:GLY:HA3	8:DP:306:ASN:HD22	1.83	0.43
8:EA:234:GLU:O	8:EG:190:GLN:NE2	2.52	0.43
8:EC:146:ALA:HB2	8:EC:286:PRO:HD3	2.01	0.43
8:EC:228:THR:HB	8:EC:244:VAL:HG11	2.00	0.43
1:C:145:ASN:O	1:C:145:ASN:ND2	2.52	0.43
1:F:89:THR:OG1	1:F:91:ASN:OD1	2.26	0.43
1:H:58:GLU:OE1	1:H:58:GLU:N	2.45	0.43
1:Q:256:LYS:HE2	1:V:241:GLU:HG3	2.00	0.43
2:e:167:GLU:H	2:e:167:GLU:CD	2.27	0.43
6:m:118:MET:HE2	7:s:59:PHE:HE2	1.84	0.43
8:DA:300:VAL:HG23	8:DA:312:LEU:HB2	2.00	0.43
8:DG:34:SER:HB3	8:DG:366:VAL:HG12	2.01	0.43
8:DG:103:ASP:O	8:DL:322:ASN:CA	2.67	0.43
8:DH:77:ILE:HG22	8:DH:79:GLN:H	1.84	0.43
8:DH:248:THR:OG1	8:DH:257:ALA:N	2.52	0.43
8:DK:298:GLY:O	8:DK:315:ILE:HG12	2.18	0.43
9:CE:22:ARG:HD2	9:CE:154:PHE:HE1	1.84	0.43
10:CD:78:ARG:NH1	10:CD:78:ARG:O	2.51	0.43
11:w:100:ILE:HD11	11:w:240:ALA:HA	1.99	0.43
11:x:99:PHE:O	11:x:102:SER:OG	2.33	0.43
11:CF:60:MET:O	11:CF:65:THR:HB	2.19	0.43
12:Dt:157:LEU:HB2	12:Dt:159:MET:SD	2.58	0.43
12:Cw:394:LYS:HE2	12:Cw:394:LYS:HB3	1.84	0.43
15:AF:28:LYS:HE2	15:AF:32:GLN:HE22	1.83	0.43
15:AG:172:ASN:O	15:AG:172:ASN:ND2	2.51	0.43
15:AH:160:ASN:HD22	15:AH:185:ASN:HA	1.84	0.43
15:AQ:160:ASN:HD22	15:AQ:185:ASN:HA	1.84	0.43
15:AV:160:ASN:HD22	15:AV:185:ASN:HA	1.84	0.43
16:BI:282:VAL:HB	16:BI:316:GLY:HA3	2.01	0.43
16:BK:21:ARG:HG3	16:BK:243:GLU:CD	2.44	0.43
16:BR:33:GLU:OE1	16:BR:92:SER:OG	2.30	0.43
16:BT:21:ARG:HG3	16:BT:243:GLU:CD	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BU:21:ARG:HG3	16:BU:243:GLU:CD	2.44	0.43
16:BV:21:ARG:HG3	16:BV:243:GLU:CD	2.44	0.43
16:BV:282:VAL:HB	16:BV:316:GLY:HA3	2.01	0.43
16:BY:282:VAL:HB	16:BY:316:GLY:HA3	2.01	0.43
8:DL:33:LYS:HD2	8:DL:365:ASN:HD22	1.84	0.43
8:DN:17:LEU:HA	8:DN:20:ILE:HG22	2.01	0.43
8:DN:387:GLN:OE1	8:DN:387:GLN:CA	2.66	0.43
8:DP:24:ILE:HG22	8:DU:385:ASN:OD1	2.19	0.43
8:DQ:199:TYR:O	8:DQ:210:VAL:HA	2.18	0.43
8:DS:154:MET:HE1	8:DS:184:VAL:HB	1.99	0.43
8:DS:330:GLY:HA2	8:DX:43:PHE:N	2.34	0.43
8:DU:41:ASP:OD1	8:DU:41:ASP:N	2.50	0.43
8:DU:137:ILE:HG21	8:DU:300:VAL:HG11	1.99	0.43
8:DU:399:LEU:HD13	8:DU:399:LEU:HA	1.79	0.43
8:DV:368:LEU:O	8:DV:372:LEU:HG	2.18	0.43
8:EA:217:ASP:HB2	8:EA:220:ALA:HB2	2.01	0.43
8:EC:93:PHE:CE1	8:EC:335:ALA:HB2	2.54	0.43
8:EE:318:ALA:HB1	8:EE:343:ALA:HB1	2.00	0.43
1:A:45:LEU:HG	1:A:70:THR:HG21	2.00	0.43
1:B:38:ARG:HD3	1:B:80:LEU:HD21	2.00	0.43
1:C:77:THR:O	1:C:77:THR:OG1	2.37	0.43
1:C:252:GLN:O	1:C:256:LYS:HG2	2.19	0.43
1:E:26:LEU:HD23	1:E:26:LEU:HA	1.86	0.43
1:L:26:LEU:HD12	1:L:233:MET:HE3	2.01	0.43
1:N:51:GLN:NE2	1:S:75:VAL:O	2.46	0.43
1:R:4:SER:OG	1:R:250:THR:OG1	2.19	0.43
1:U:82:SER:OG	1:U:83:GLN:N	2.52	0.43
2:c:6:TYR:O	2:c:9:MET:HG3	2.18	0.43
6:k:102:MET:HG3	6:k:106:ARG:CZ	2.48	0.43
1:W:159:VAL:HG12	1:W:168:VAL:HG22	2.01	0.43
7:v:89:ARG:NH2	9:CE:24:LEU:HB3	2.34	0.43
8:DH:80:ASN:ND2	8:DH:319:ASN:OD1	2.52	0.43
12:Cs:235:LEU:HB3	12:Ct:244:ARG:NH2	2.33	0.43
12:Ec:426:ARG:NH2	12:Ec:428:ASP:OD2	2.47	0.43
15:AD:166:GLU:OE1	15:AD:168:GLN:NE2	2.32	0.43
15:AH:172:ASN:O	15:AH:172:ASN:ND2	2.51	0.43
15:AN:28:LYS:HE2	15:AN:32:GLN:HE22	1.83	0.43
15:AN:150:VAL:HG12	15:AN:165:GLY:HA3	1.99	0.43
16:BE:282:VAL:HB	16:BE:316:GLY:HA3	2.01	0.43
16:BF:282:VAL:HB	16:BF:316:GLY:HA3	2.01	0.43
16:BL:21:ARG:HG3	16:BL:243:GLU:CD	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BS:21:ARG:HG3	16:BS:243:GLU:CD	2.44	0.43
16:BU:250:ASP:OD1	16:BU:250:ASP:N	2.50	0.43
16:BV:273:CYS:HA	16:BW:328:LEU:HD21	2.00	0.43
16:BW:282:VAL:HB	16:BW:316:GLY:HA3	2.01	0.43
16:BZ:21:ARG:HG3	16:BZ:243:GLU:CD	2.43	0.43
8:DN:33:LYS:HB3	8:DN:60:ASP:O	2.18	0.43
8:DN:228:THR:HG22	8:DN:244:VAL:HG11	2.01	0.43
8:DO:26:ASN:OD1	8:DT:41:ASP:HB3	2.19	0.43
8:DO:33:LYS:HA	8:DO:33:LYS:HD3	1.74	0.43
8:DO:39:PHE:HA	8:DO:55:ALA:H	1.84	0.43
8:DO:390:LYS:HE2	8:DO:391:THR:HG22	2.00	0.43
8:DR:106:ARG:HH21	8:DR:141:ASN:H	1.66	0.43
8:DR:231:LYS:O	8:DR:238:LEU:HD12	2.19	0.43
8:DT:299:THR:HG22	8:DT:314:GLN:HB2	2.01	0.43
8:EA:182:GLY:HA3	8:EA:276:ILE:HD11	2.01	0.43
8:ED:6:ALA:O	8:ED:10:LEU:HD23	2.19	0.43
8:ED:204:LYS:HD2	8:ED:205:ASP:O	2.18	0.43
8:EE:95:SER:HB2	8:EE:333:VAL:HG12	2.00	0.43
8:EE:228:THR:HG22	8:EE:229:THR:N	2.33	0.43
8:EE:242:GLY:O	8:EE:263:PHE:N	2.52	0.43
1:F:35:LYS:HA	1:F:223:ASN:OD1	2.19	0.42
1:H:7:ILE:HG12	1:H:70:THR:O	2.19	0.42
1:L:181:ASP:OD1	1:L:181:ASP:N	2.49	0.42
1:N:43:ASP:N	1:N:43:ASP:OD1	2.49	0.42
1:O:5:LEU:HD23	1:O:5:LEU:HA	1.80	0.42
1:O:175:LEU:HD23	1:O:175:LEU:H	1.84	0.42
2:b:2:ASP:O	2:b:5:ILE:HG22	2.20	0.42
2:e:5:ILE:HG13	2:e:234:ILE:HD13	2.00	0.42
2:e:116:GLN:HG3	2:e:116:GLN:H	1.71	0.42
1:X:168:VAL:CG1	16:BO:78:ASN:HD21	2.32	0.42
8:DD:201:VAL:HG13	8:DD:209:ALA:HB3	2.00	0.42
8:DD:284:TYR:HB2	8:DD:306:ASN:HD22	1.83	0.42
8:DK:161:THR:HG23	8:DQ:192:ASN:HD21	1.72	0.42
8:DK:197:ASN:HB2	8:DK:213:HIS:HB3	2.01	0.42
11:y:54:LEU:O	11:y:58:LEU:HB2	2.19	0.42
11:y:152:ARG:HH11	12:Dt:164:LEU:CA	2.16	0.42
12:Du:137:GLU:HG2	12:Du:157:LEU:HG	2.01	0.42
13:GC:6:UNK:CB	12:Cm:294:ARG:HD2	2.49	0.42
12:Cx:425:LYS:HE3	12:Cx:425:LYS:HB3	1.71	0.42
15:AB:224:ARG:O	15:AB:228:ASN:ND2	2.50	0.42
15:AD:185:ASN:O	15:AD:188:THR:OG1	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AL:172:ASN:O	15:AL:172:ASN:ND2	2.51	0.42
15:AM:160:ASN:HD22	15:AM:185:ASN:HA	1.84	0.42
15:AN:65:LEU:HG	16:BO:65:MET:HG3	2.00	0.42
15:AP:160:ASN:HD22	15:AP:185:ASN:HA	1.84	0.42
15:AU:66:PHE:HE1	16:BV:41:LEU:HD12	1.84	0.42
16:BH:282:VAL:HB	16:BH:316:GLY:HA3	2.01	0.42
16:BJ:250:ASP:OD1	16:BJ:250:ASP:N	2.50	0.42
16:BM:21:ARG:HG3	16:BM:243:GLU:CD	2.44	0.42
16:BT:33:GLU:HG2	16:BT:95:PRO:HD3	2.02	0.42
16:BW:21:ARG:HG3	16:BW:243:GLU:CD	2.44	0.42
8:DM:232:PHE:CD2	8:DM:268:GLN:HB3	2.53	0.42
8:DO:39:PHE:HB3	8:DO:54:VAL:HA	2.00	0.42
8:DO:42:MET:HG3	8:DO:53:LYS:HG3	2.00	0.42
8:DP:10:LEU:HD13	8:DP:385:ASN:HB3	2.01	0.42
8:DP:95:SER:HA	8:DP:334:TRP:CE3	2.54	0.42
8:DW:204:LYS:NZ	8:DW:207:GLU:HG3	2.34	0.42
8:DX:299:THR:HG22	8:DX:314:GLN:HB3	2.00	0.42
8:EA:397:ASN:O	8:EA:400:VAL:HG12	2.19	0.42
8:EC:102:LEU:HA	8:EC:107:ASN:O	2.19	0.42
8:EC:292:TYR:HA	8:EC:302:GLY:HA2	2.01	0.42
8:EF:144:MET:HG3	8:EF:144:MET:O	2.19	0.42
8:EG:83:PHE:HD2	8:EG:96:ARG:HA	1.83	0.42
8:EG:211:TYR:CD1	8:EG:226:ALA:HA	2.53	0.42
8:EG:387:GLN:HE22	8:EG:390:LYS:NZ	2.18	0.42
1:E:36:ARG:HB3	1:E:224:VAL:HG22	2.01	0.42
1:E:43:ASP:OD2	1:E:46:TYR:OH	2.31	0.42
1:H:55:GLN:NE2	1:H:57:SER:O	2.52	0.42
2:a:170:GLU:OE1	2:a:170:GLU:N	2.52	0.42
2:b:6:TYR:HA	2:b:9:MET:HG3	2.01	0.42
2:d:54:ARG:NH2	6:n:92:GLN:OE1	2.52	0.42
2:e:115:ILE:HG13	2:e:120:VAL:HG22	2.01	0.42
5:g:82:ASN:HD21	5:g:84:LEU:HD13	1.84	0.42
5:h:130:LEU:HD11	6:k:118:MET:HA	2.01	0.42
7:t:49:GLN:HG2	7:t:78:ALA:HB1	2.02	0.42
7:u:99:VAL:HA	7:u:102:MET:HE3	2.02	0.42
8:DE:75:VAL:HG21	8:DE:356:LEU:HD13	2.01	0.42
8:DG:84:ARG:HD2	8:DG:345:LEU:HD11	2.00	0.42
8:DJ:79:GLN:HB3	8:DJ:354:GLY:HA3	2.01	0.42
8:DK:94:TYR:O	8:DK:334:TRP:N	2.38	0.42
8:DK:158:LEU:HD13	8:DK:208:TRP:CD2	2.54	0.42
9:CE:103:GLY:C	9:CE:108:LEU:HB2	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CD:52:ILE:HB	10:CD:53:PRO:HD3	2.01	0.42
12:Ca:235:LEU:HB3	12:Cb:244:ARG:HH12	1.83	0.42
12:Cb:235:LEU:HB3	12:Cc:244:ARG:HH22	1.84	0.42
12:Eg:235:LEU:HB3	12:Eh:244:ARG:NH1	2.34	0.42
15:AC:166:GLU:OE1	15:AC:168:GLN:NE2	2.32	0.42
15:AE:172:ASN:O	15:AE:172:ASN:ND2	2.51	0.42
15:AK:124:MET:HE3	15:AK:124:MET:HB3	1.84	0.42
15:AZ:28:LYS:HE2	15:AZ:32:GLN:HE22	1.83	0.42
16:BD:21:ARG:HG3	16:BD:243:GLU:CD	2.44	0.42
16:BJ:282:VAL:HB	16:BJ:316:GLY:HA3	2.01	0.42
16:BK:282:VAL:HB	16:BK:316:GLY:HA3	2.01	0.42
16:BR:273:CYS:HA	16:BS:328:LEU:HD21	1.99	0.42
16:BT:282:VAL:HB	16:BT:316:GLY:HA3	2.01	0.42
16:BU:282:VAL:HB	16:BU:316:GLY:HA3	2.01	0.42
16:BY:276:ALA:HB1	16:BZ:342:PRO:HB3	2.01	0.42
8:DN:297:ASP:O	8:DN:314:GLN:NE2	2.41	0.42
8:DN:380:ARG:HA	8:DN:380:ARG:HD3	1.75	0.42
8:DO:229:THR:O	8:DO:241:GLY:HA3	2.18	0.42
8:DO:250:THR:OG1	8:DO:250:THR:O	2.36	0.42
8:DQ:214:ASP:OD2	8:DQ:248:THR:OG1	2.37	0.42
8:DQ:289:LEU:HB2	8:DQ:304:TYR:CZ	2.54	0.42
8:DT:234:GLU:OE2	8:DZ:255:THR:N	2.52	0.42
8:DU:196:MET:HE1	8:DU:214:ASP:HB2	2.01	0.42
8:ED:125:PRO:HA	8:ED:126:PRO:HD3	1.92	0.42
8:ED:331:ASP:O	8:ED:333:VAL:N	2.49	0.42
8:EE:33:LYS:O	8:EE:59:GLN:NE2	2.46	0.42
8:EE:74:ASP:HB2	8:EE:361:LEU:HD21	2.02	0.42
8:EE:206:ASN:OD1	8:EE:232:PHE:HB2	2.18	0.42
8:EG:155:GLN:HG3	8:EG:265:ASN:OD1	2.20	0.42
1:B:66:LEU:HD12	1:F:77:THR:HG23	2.01	0.42
1:C:255:GLN:O	1:C:259:GLN:HG2	2.20	0.42
1:D:41:PHE:HA	1:D:74:PRO:HA	2.00	0.42
1:H:35:LYS:HA	1:H:223:ASN:OD1	2.18	0.42
1:H:230:LEU:HD12	8:DD:399:LEU:HG	2.00	0.42
1:L:7:ILE:HG12	1:L:70:THR:O	2.18	0.42
1:N:40:VAL:HG23	1:N:75:VAL:HG13	2.00	0.42
1:T:34:PHE:HB3	1:T:222:SER:HB3	2.01	0.42
2:a:28:ASN:HB3	1:V:72:VAL:HB	2.00	0.42
6:m:90:PRO:HB3	6:m:99:THR:OG1	2.19	0.42
8:DA:155:GLN:OE1	8:DA:265:ASN:ND2	2.52	0.42
8:DC:34:SER:HB3	8:DC:366:VAL:HG22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DC:248:THR:OG1	8:DC:249:GLY:N	2.51	0.42
8:DF:32:PHE:O	8:DF:365:ASN:ND2	2.53	0.42
8:DH:26:ASN:ND2	8:DM:41:ASP:HB3	2.35	0.42
8:DI:330:GLY:CA	8:DN:43:PHE:HB3	2.50	0.42
9:CE:100:GLU:O	9:CE:104:LEU:HG	2.19	0.42
11:x:73:LEU:HD13	11:x:73:LEU:HA	1.90	0.42
12:Db:137:GLU:HG2	12:Db:157:LEU:HG	2.02	0.42
12:Df:137:GLU:HG2	12:Df:157:LEU:HG	2.01	0.42
12:Ds:137:GLU:HG2	12:Ds:157:LEU:HG	2.02	0.42
12:Dt:172:PRO:HG2	12:Dt:205:LEU:CD1	2.50	0.42
12:Dw:172:PRO:HG3	12:Dw:204:GLY:O	2.18	0.42
12:Ce:235:LEU:HB3	12:Cf:244:ARG:NH1	2.34	0.42
12:Cu:235:LEU:HB3	12:Cv:244:ARG:NH1	2.34	0.42
12:Cx:235:LEU:HB3	12:Cy:244:ARG:HH22	1.85	0.42
15:AG:224:ARG:O	15:AG:228:ASN:ND2	2.50	0.42
15:AJ:28:LYS:HE2	15:AJ:32:GLN:HE22	1.83	0.42
15:AS:22:P1L:HB3	15:AS:22:P1L:H8C1	1.63	0.42
15:AT:185:ASN:O	15:AT:188:THR:OG1	2.33	0.42
15:AU:160:ASN:HD22	15:AU:185:ASN:HA	1.84	0.42
16:BA:21:ARG:HG3	16:BA:243:GLU:CD	2.44	0.42
16:BQ:21:ARG:HG3	16:BQ:243:GLU:CD	2.44	0.42
16:BR:21:ARG:HG3	16:BR:243:GLU:CD	2.44	0.42
16:BS:33:GLU:OE1	16:BS:92:SER:OG	2.30	0.42
16:BU:33:GLU:HG2	16:BU:95:PRO:HD3	2.02	0.42
8:DN:208:TRP:HE1	8:DN:268:GLN:NE2	2.17	0.42
8:DO:71:ARG:HB2	8:DO:74:ASP:OD2	2.19	0.42
8:DQ:34:SER:OG	8:DQ:365:ASN:OD1	2.29	0.42
8:DQ:300:VAL:HG12	8:DQ:313:GLY:O	2.19	0.42
8:DR:130:GLN:OE1	8:DR:130:GLN:N	2.52	0.42
8:DS:212:THR:HG21	8:DS:246:ILE:HG12	2.00	0.42
8:DS:395:ILE:HD12	8:DS:395:ILE:HA	1.78	0.42
8:DW:269:GLN:NE2	8:EC:146:ALA:H	2.17	0.42
8:DX:29:THR:OG1	8:DX:32:PHE:HB2	2.19	0.42
8:DY:143:LEU:HD22	8:DY:287:GLY:O	2.19	0.42
8:EB:155:GLN:HB3	8:EB:278:ALA:HB3	2.01	0.42
8:ED:228:THR:HB	8:ED:244:VAL:HG22	2.01	0.42
8:EE:68:ASN:OD1	8:EE:70:GLY:N	2.52	0.42
8:EE:236:GLY:HA3	8:EE:268:GLN:O	2.18	0.42
8:EG:331:ASP:O	8:EG:333:VAL:N	2.46	0.42
1:C:238:ARG:O	1:C:242:ILE:HG12	2.19	0.42
1:D:254:LEU:HD23	1:D:254:LEU:HA	1.94	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:257:LEU:HB2	1:I:240:TYR:HE1	1.84	0.42
1:I:45:LEU:HD21	1:T:86:LEU:HD13	2.00	0.42
1:J:238:ARG:HD3	1:J:238:ARG:HA	1.73	0.42
1:U:175:LEU:HD22	1:U:206:PRO:HG3	2.00	0.42
2:c:170:GLU:HB2	2:c:185:ALA:HB2	2.01	0.42
2:d:10:GLY:O	2:d:14:GLN:HG2	2.19	0.42
2:e:170:GLU:HB2	2:e:185:ALA:HB2	2.00	0.42
5:h:101:GLU:OE1	5:h:101:GLU:N	2.52	0.42
8:DD:44:ALA:HB2	8:DD:50:LEU:HD11	2.02	0.42
8:DK:213:HIS:CE1	8:DK:215:SER:HB3	2.55	0.42
9:CE:77:GLN:HE21	9:CE:159:ILE:HG23	1.84	0.42
9:CE:98:ALA:HB1	9:CE:186:LEU:HD22	2.02	0.42
11:y:55:PRO:O	11:y:59:LEU:HB3	2.19	0.42
11:z:38:TRP:HB3	11:z:42:VAL:HG23	2.01	0.42
12:Dc:137:GLU:HG2	12:Dc:157:LEU:HG	2.02	0.42
12:Dr:137:GLU:HG2	12:Dr:157:LEU:HG	2.02	0.42
12:Du:159:MET:HA	12:Du:160:PRO:HD3	1.91	0.42
12:Dv:137:GLU:HG2	12:Dv:157:LEU:HG	2.02	0.42
12:Cc:426:ARG:NH2	12:Cc:428:ASP:OD2	2.47	0.42
12:Ch:235:LEU:HB3	12:Ch:244:ARG:HH22	1.84	0.42
12:Cj:235:LEU:HB3	12:Ck:244:ARG:HH22	1.84	0.42
12:Ck:409:MET:HE3	12:Ck:409:MET:HB3	1.95	0.42
12:Cn:265:GLN:HG3	12:Co:252:ILE:HB	2.01	0.42
12:Co:277:GLN:HA	12:Cp:372:ILE:O	2.20	0.42
15:AO:65:LEU:HG	16:BP:65:MET:HG3	2.00	0.42
16:BD:264:MET:HB3	16:BD:268:VAL:HG21	2.01	0.42
16:BY:250:ASP:OD1	16:BZ:23:ARG:NH1	2.52	0.42
8:DL:93:PHE:CE2	8:DL:335:ALA:HB2	2.54	0.42
8:DN:39:PHE:CB	8:DN:54:VAL:CA	2.83	0.42
8:DN:396:LEU:C	8:DN:396:LEU:CD1	2.93	0.42
8:DS:158:LEU:HD12	8:DS:232:PHE:CE2	2.54	0.42
8:DT:73:LEU:HD21	8:DT:292:TYR:HE2	1.84	0.42
8:DT:330:GLY:HA2	8:DY:43:PHE:N	2.34	0.42
8:DV:65:THR:HG21	8:EG:4:SER:HB2	2.00	0.42
8:DV:349:GLY:O	8:DV:355:LYS:NZ	2.52	0.42
8:DX:321:ALA:HB3	8:DX:341:GLY:HA3	2.01	0.42
8:DX:382:TYR:CG	8:EC:395:ILE:HD11	2.55	0.42
8:DZ:160:SER:H	8:DZ:270:ASN:HA	1.83	0.42
8:ED:44:ALA:HB2	8:ED:50:LEU:HD11	2.02	0.42
8:EF:364:SER:O	8:EF:366:VAL:HG23	2.19	0.42
1:G:46:TYR:CD1	1:G:69:GLY:HA2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:257:LEU:O	1:M:260:LEU:HB3	2.19	0.42
1:O:225:ASN:O	1:O:229:GLU:HG2	2.19	0.42
1:P:179:MET:HE3	1:P:179:MET:HB3	1.82	0.42
1:T:248:SER:O	1:T:252:GLN:HG2	2.19	0.42
2:b:51:LEU:HD11	5:g:67:VAL:HG13	2.00	0.42
2:d:227:PHE:CE2	1:W:257:LEU:HB2	2.49	0.42
6:n:3:ASP:N	6:n:6:ASP:HB3	2.35	0.42
7:q:95:ALA:O	7:q:98:GLU:HG3	2.20	0.42
8:DC:71:ARG:NH2	8:DH:324:GLU:OE1	2.53	0.42
8:DD:337:THR:OG1	8:DD:338:GLN:N	2.53	0.42
8:DH:390:LYS:HB2	8:DM:402:LEU:HD22	2.00	0.42
10:CC:87:ILE:O	11:y:184:GLN:NE2	2.53	0.42
11:w:179:LEU:HD13	11:x:232:TRP:CE2	2.54	0.42
12:Do:137:GLU:HG2	12:Do:157:LEU:HG	2.02	0.42
12:Cu:235:LEU:HB3	12:Cv:244:ARG:NH2	2.34	0.42
12:Ee:277:GLN:HA	12:Ef:372:ILE:O	2.20	0.42
15:AK:22:P1L:HB3	15:AK:22:P1L:H8C1	1.63	0.42
15:AN:22:P1L:HB3	15:AN:22:P1L:H8C1	1.63	0.42
16:BF:33:GLU:HG2	16:BF:95:PRO:HD3	2.02	0.42
16:BH:33:GLU:HG2	16:BH:95:PRO:HD3	2.02	0.42
16:BR:282:VAL:HB	16:BR:316:GLY:HA3	2.01	0.42
16:BS:33:GLU:HG2	16:BS:95:PRO:HD3	2.02	0.42
16:BS:282:VAL:HB	16:BS:316:GLY:HA3	2.01	0.42
16:BX:21:ARG:HG3	16:BX:243:GLU:CD	2.44	0.42
8:DL:79:GLN:HB2	8:DL:354:GLY:HA3	2.02	0.42
8:DM:376:ILE:O	8:DM:380:ARG:HG2	2.19	0.42
8:DO:12:ALA:HB2	8:DO:52:VAL:HG11	2.01	0.42
8:DS:17:LEU:HD11	8:DS:379:GLN:HE21	1.83	0.42
8:DY:211:TYR:HE1	8:DY:226:ALA:HA	1.85	0.42
8:EC:86:VAL:HG11	8:EC:136:PRO:HG3	2.00	0.42
8:EF:184:VAL:CG2	8:EF:196:MET:HB2	2.49	0.42
1:B:31:THR:HG22	8:DE:39:PHE:HB2	2.02	0.42
1:F:44:LEU:HD23	1:F:44:LEU:HA	1.92	0.42
1:I:120:PHE:HB3	1:I:128:LEU:HD11	2.02	0.42
1:K:254:LEU:HA	1:K:254:LEU:HD23	1.84	0.42
6:l:130:MET:O	6:l:133:VAL:HG12	2.20	0.42
8:DE:54:VAL:HG12	8:DE:56:GLY:H	1.84	0.42
8:DH:22:ASN:HD22	8:DM:49:GLY:C	2.28	0.42
8:DK:180:LYS:HD3	8:DK:274:ASN:HB3	2.01	0.42
10:CA:20:LEU:HA	10:CA:69:MET:HE1	2.01	0.42
11:x:125:GLU:O	11:x:129:LYS:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Df:172:PRO:C	12:Df:205:LEU:HD13	2.44	0.42
12:Dn:137:GLU:HG2	12:Dn:157:LEU:HG	2.02	0.42
12:Dt:172:PRO:O	12:Dt:205:LEU:HD13	2.20	0.42
12:Cb:235:LEU:HB3	12:Cc:244:ARG:NH2	2.34	0.42
12:Ce:235:LEU:HB3	12:Cf:244:ARG:HH12	1.85	0.42
12:Cf:235:LEU:HB3	12:Cg:244:ARG:NH1	2.35	0.42
12:Cs:426:ARG:NH2	12:Cs:428:ASP:OD2	2.47	0.42
12:Cz:235:LEU:HB3	12:Ea:244:ARG:NH2	2.33	0.42
12:Eh:232:ASP:O	12:Eh:236:LYS:NZ	2.38	0.42
15:AN:68:ASP:OD2	16:BP:71:ILE:HA	2.19	0.42
15:AN:160:ASN:HD22	15:AN:185:ASN:HA	1.83	0.42
15:AO:160:ASN:HD22	15:AO:185:ASN:HA	1.83	0.42
15:AS:68:ASP:OD2	16:BU:71:ILE:HA	2.20	0.42
15:AU:124:MET:HE3	15:AU:124:MET:HB3	1.85	0.42
16:BL:264:MET:HB3	16:BL:268:VAL:HG21	2.01	0.42
16:BQ:282:VAL:HB	16:BQ:316:GLY:HA3	2.01	0.42
16:BR:33:GLU:HG2	16:BR:95:PRO:HD3	2.02	0.42
16:BT:264:MET:HB3	16:BT:268:VAL:HG21	2.01	0.42
16:BX:33:GLU:OE1	16:BX:92:SER:OG	2.31	0.42
8:DL:376:ILE:HG21	8:DR:393:ASP:OD2	2.18	0.42
8:DM:160:SER:HA	8:DM:268:GLN:NE2	2.23	0.42
8:DM:167:LYS:HB2	8:DM:177:SER:HA	2.01	0.42
8:DN:154:MET:HE3	8:DN:261:LEU:HD21	2.02	0.42
8:DO:232:PHE:CD2	8:DO:268:GLN:HG2	2.55	0.42
8:DO:361:LEU:HD23	8:DO:361:LEU:HA	1.93	0.42
8:DP:17:LEU:HD21	8:DU:392:GLN:CD	2.44	0.42
8:DQ:130:GLN:OE1	8:DQ:130:GLN:N	2.53	0.42
8:DS:11:ASN:OD1	8:DS:12:ALA:N	2.52	0.42
8:DT:162:ASP:HA	8:DT:163:PRO:HD3	1.89	0.42
8:EA:188:ASP:OD1	8:EA:191:GLY:N	2.53	0.42
8:EB:331:ASP:O	8:EB:333:VAL:N	2.50	0.42
8:EE:82:PHE:HB2	8:EE:318:ALA:O	2.19	0.42
8:EF:397:ASN:HA	8:EF:400:VAL:HG12	2.02	0.42
1:G:238:ARG:HA	1:G:238:ARG:HD3	1.77	0.42
1:L:28:ASN:HB2	1:L:31:THR:OG1	2.20	0.42
1:L:122:VAL:HG11	1:L:142:ILE:HD12	2.02	0.42
2:d:114:THR:OG1	2:d:118:HIS:O	2.38	0.42
8:DE:298:GLY:O	8:DE:315:ILE:HG22	2.20	0.42
8:DG:264:LEU:HD23	8:DG:265:ASN:HB2	2.02	0.42
8:DH:198:VAL:HA	8:DH:211:TYR:O	2.20	0.42
8:DJ:181:LYS:HZ3	8:DU:129:GLN:HA	1.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DJ:205:ASP:OD1	8:DP:252:ASN:HB3	2.19	0.42
8:DK:372:LEU:HD21	8:DP:384:SER:HB2	2.02	0.42
10:CC:66:GLY:HA3	10:CC:67:PRO:HD3	1.92	0.42
11:z:71:PHE:HB3	11:z:89:LEU:HD11	2.01	0.42
12:Dq:137:GLU:HG2	12:Dq:157:LEU:HG	2.02	0.42
12:Dw:137:GLU:HG2	12:Dw:157:LEU:HG	2.02	0.42
12:Ce:426:ARG:NH2	12:Ce:428:ASP:OD2	2.47	0.42
12:Cj:381:ASP:OD1	12:Cj:381:ASP:N	2.53	0.42
12:Cl:381:ASP:OD1	12:Cl:381:ASP:N	2.53	0.42
12:Cv:235:LEU:HB3	12:Cv:244:ARG:HH12	1.85	0.42
15:AF:224:ARG:O	15:AF:228:ASN:ND2	2.50	0.42
15:AL:124:MET:HE3	15:AL:124:MET:HB3	1.84	0.42
16:BC:21:ARG:HG3	16:BC:243:GLU:CD	2.44	0.42
16:BC:264:MET:HB3	16:BC:268:VAL:HG21	2.01	0.42
16:BE:264:MET:HB3	16:BE:268:VAL:HG21	2.01	0.42
16:BF:264:MET:HB3	16:BF:268:VAL:HG21	2.01	0.42
16:BG:33:GLU:HG2	16:BG:95:PRO:HD3	2.02	0.42
8:DL:391:THR:O	8:DL:391:THR:OG1	2.36	0.42
8:DM:11:ASN:O	8:DM:15:THR:HG23	2.20	0.42
8:DO:382:TYR:HE2	8:DT:399:LEU:HD11	1.85	0.42
8:DQ:38:SER:O	8:DQ:55:ALA:N	2.52	0.42
8:DQ:386:ALA:HA	8:DQ:389:ILE:HG22	2.01	0.42
8:DR:147:LYS:HB3	8:DR:284:TYR:HB2	2.01	0.42
8:DS:139:ILE:HG13	8:DS:139:ILE:O	2.20	0.42
8:DV:126:PRO:HG2	8:DV:310:GLN:HE21	1.85	0.42
8:DX:94:TYR:O	8:DX:334:TRP:N	2.52	0.42
8:EA:288:ASP:H	8:EA:305:SER:HG	1.62	0.42
8:ED:11:ASN:O	8:ED:15:THR:HG23	2.20	0.42
8:ED:174:ASP:OD1	8:ED:177:SER:OG	2.34	0.42
8:EF:137:ILE:HG21	8:EF:300:VAL:HG21	2.02	0.42
1:F:29:VAL:O	1:F:222:SER:OG	2.34	0.42
1:G:53:GLY:HA2	1:L:197:SER:HB2	2.01	0.42
2:a:87:TRP:HB3	2:a:99:TYR:HB3	2.01	0.42
2:e:62:PRO:HG3	1:X:62:LEU:HD12	2.02	0.42
5:p:5:ASN:O	5:p:9:ILE:HG12	2.20	0.42
1:W:45:LEU:O	1:W:70:THR:OG1	2.31	0.42
8:DA:22:ASN:OD1	8:DA:26:ASN:ND2	2.53	0.42
8:DA:158:LEU:HB2	8:DA:268:GLN:HA	2.01	0.42
8:DE:139:ILE:HD13	8:DE:312:LEU:HD22	2.01	0.42
8:DF:337:THR:OG1	8:DF:338:GLN:N	2.51	0.42
8:DG:197:ASN:OD1	8:DG:215:SER:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DI:115:GLN:CD	8:DI:115:GLN:H	2.28	0.42
8:DI:267:MET:HB3	8:DI:269:GLN:HE22	1.83	0.42
8:DI:373:VAL:HG11	8:DO:10:LEU:HD23	2.01	0.42
9:CE:45:GLY:HA2	9:CE:48:ILE:HG12	2.01	0.42
11:z:160:GLN:HG2	12:Db:167:ARG:CB	2.50	0.42
12:Df:159:MET:HA	12:Df:160:PRO:HD3	1.79	0.42
14:GF:17:UNK:O	12:Ed:374:HIS:ND1	2.53	0.42
12:Cc:235:LEU:HB3	12:Cd:244:ARG:HH22	1.84	0.42
12:Cn:426:ARG:NH2	12:Cn:428:ASP:OD2	2.47	0.42
12:Co:381:ASP:OD1	12:Co:381:ASP:N	2.53	0.42
12:Cs:235:LEU:HB3	12:Ct:244:ARG:HH22	1.84	0.42
15:AA:51:ILE:HG22	16:BZ:129:VAL:CG2	2.49	0.42
15:AC:224:ARG:O	15:AC:228:ASN:ND2	2.50	0.42
15:AO:22:P1L:HB3	15:AO:22:P1L:H8C1	1.63	0.42
15:AU:63:GLN:NE2	16:BV:68:GLN:HE22	2.17	0.42
16:BI:33:GLU:HG2	16:BI:95:PRO:HD3	2.02	0.42
16:BJ:33:GLU:HG2	16:BJ:95:PRO:HD3	2.02	0.42
16:BM:264:MET:HB3	16:BM:268:VAL:HG21	2.01	0.42
16:BO:282:VAL:HB	16:BO:316:GLY:HA3	2.01	0.42
16:BP:282:VAL:HB	16:BP:316:GLY:HA3	2.01	0.42
16:BS:264:MET:HB3	16:BS:268:VAL:HG21	2.01	0.42
8:DL:17:LEU:CD1	8:DL:382:TYR:CD2	3.00	0.42
8:DL:20:ILE:O	8:DL:24:ILE:HG12	2.19	0.42
8:DL:82:PHE:HB2	8:DL:318:ALA:HB3	2.01	0.42
8:DN:150:THR:H	8:DN:282:ASN:HD21	1.68	0.42
8:DP:44:ALA:HB2	8:DP:50:LEU:HD21	2.01	0.42
8:DP:208:TRP:HE1	8:DP:268:GLN:NE2	2.18	0.42
8:DQ:6:ALA:O	8:DQ:10:LEU:HD23	2.19	0.42
8:DR:372:LEU:O	8:DR:375:MET:HB3	2.20	0.42
8:DS:73:LEU:HD21	8:DS:292:TYR:CE2	2.55	0.42
8:DV:205:ASP:CG	8:EB:252:ASN:HA	2.45	0.42
8:DZ:33:LYS:HB3	8:DZ:60:ASP:O	2.19	0.42
8:DZ:84:ARG:O	8:DZ:117:THR:HG22	2.19	0.42
8:EC:389:ILE:H	8:EC:389:ILE:HD12	1.85	0.42
8:EG:134:PRO:HG3	8:EG:345:LEU:HD21	2.02	0.42
8:EG:259:PHE:CE2	8:EG:261:LEU:HB2	2.55	0.42
1:D:178:PHE:CZ	1:D:201:PRO:HB3	2.55	0.42
1:G:255:GLN:NE2	1:G:256:LYS:HE3	2.35	0.42
1:H:178:PHE:CE1	1:H:201:PRO:HB3	2.54	0.42
1:H:210:GLY:N	1:M:162:GLN:OE1	2.44	0.42
1:N:89:THR:OG1	1:N:94:ASP:OD2	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:180:ASN:ND2	1:S:122:VAL:O	2.52	0.42
2:a:226:ARG:O	2:a:230:GLN:HG2	2.20	0.42
6:l:118:MET:HE3	6:l:118:MET:HB3	1.97	0.42
5:p:97:ASP:OD1	5:p:97:ASP:N	2.46	0.42
1:V:178:PHE:CE1	1:V:201:PRO:HB3	2.55	0.42
1:X:22:ILE:HG21	1:X:233:MET:HG3	2.02	0.42
8:DC:309:GLU:OE2	8:DN:338:GLN:HG2	2.20	0.42
8:DC:382:TYR:CD2	8:DH:395:ILE:HD11	2.55	0.42
8:DD:79:GLN:HB2	8:DD:354:GLY:HA3	2.02	0.42
8:DD:95:SER:OG	8:DD:97:ASN:OD1	2.32	0.42
8:DE:155:GLN:HB3	8:DE:278:ALA:HB3	2.01	0.42
8:DH:212:THR:O	8:DH:223:PRO:HG2	2.19	0.42
8:DH:271:THR:HG22	8:DN:143:LEU:CB	2.47	0.42
8:DI:349:GLY:O	8:DO:89:ASN:ND2	2.49	0.42
12:Da:160:PRO:CG	12:Da:171:SER:O	2.68	0.42
12:Dd:137:GLU:HG2	12:Dd:157:LEU:HG	2.01	0.42
12:Dk:137:GLU:HG2	12:Dk:157:LEU:HG	2.02	0.42
12:Do:217:GLY:HA2	12:Dp:193:ALA:HB1	2.02	0.42
12:Cz:265:GLN:HG3	12:Ea:252:ILE:HB	2.00	0.42
12:Ed:381:ASP:OD1	12:Ed:381:ASP:N	2.53	0.42
12:Ee:381:ASP:OD1	12:Ee:381:ASP:N	2.53	0.42
12:Eg:425:LYS:HE3	12:Eg:425:LYS:HB3	1.71	0.42
15:AU:66:PHE:CE1	16:BV:41:LEU:HD12	2.55	0.42
16:BK:264:MET:HB3	16:BK:268:VAL:HG21	2.01	0.42
16:BL:282:VAL:HB	16:BL:316:GLY:HA3	2.01	0.42
16:BM:282:VAL:HB	16:BM:316:GLY:HA3	2.01	0.42
16:BN:264:MET:HB3	16:BN:268:VAL:HG21	2.01	0.42
16:BN:282:VAL:HB	16:BN:316:GLY:HA3	2.01	0.42
16:BQ:33:GLU:HG2	16:BQ:95:PRO:HD3	2.02	0.42
16:BQ:272:SER:O	16:BR:266:ARG:HB3	2.19	0.42
16:BV:264:MET:HB3	16:BV:268:VAL:HG21	2.01	0.42
16:BW:264:MET:HB3	16:BW:268:VAL:HG21	2.01	0.42
16:BY:33:GLU:OE1	16:BY:92:SER:OG	2.30	0.42
16:BZ:33:GLU:OE1	16:BZ:92:SER:OG	2.30	0.42
8:DL:234:GLU:OE2	8:DR:255:THR:N	2.53	0.42
8:DO:153:SER:HB2	8:DO:280:ASN:OD1	2.20	0.42
8:DP:158:LEU:HD13	8:DP:208:TRP:CE2	2.55	0.42
8:DP:228:THR:HG21	8:DP:244:VAL:HG11	2.01	0.42
8:DR:168:THR:OG1	8:DR:169:PRO:HD3	2.20	0.42
8:DS:294:ILE:O	8:DS:358:ASN:ND2	2.48	0.42
8:DV:65:THR:HG21	8:EG:4:SER:CB	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DX:330:GLY:HA2	8:EC:43:PHE:H	1.85	0.42
8:EC:141:ASN:OD1	8:EC:141:ASN:N	2.51	0.42
8:EE:68:ASN:HA	8:EE:360:ALA:HA	2.02	0.42
8:EE:94:TYR:O	8:EE:334:TRP:N	2.51	0.42
8:EE:196:MET:HG3	8:EE:259:PHE:HZ	1.85	0.42
8:EG:238:LEU:HD12	8:EG:239:GLU:H	1.84	0.42
1:B:98:LYS:NZ	1:B:215:TYR:OH	2.31	0.42
1:C:238:ARG:HA	1:C:238:ARG:HD3	1.75	0.42
1:F:45:LEU:HD22	1:Q:98:LYS:HG3	2.02	0.42
1:I:163:GLY:O	1:I:164:GLN:HG2	2.20	0.42
1:J:184:LEU:HB3	1:J:192:TYR:HB3	2.00	0.42
1:L:185:GLU:OE1	1:L:186:SER:N	2.52	0.42
1:N:97:ILE:HD12	1:N:175:LEU:HD22	2.02	0.42
1:S:85:ASN:O	1:S:221:THR:HG22	2.20	0.42
1:S:158:SER:OG	1:S:167:PRO:HB2	2.20	0.42
1:S:209:ASN:CG	16:BP:78:ASN:ND2	2.78	0.42
2:b:82:LEU:HD13	2:b:201:ILE:HG22	2.02	0.42
2:e:232:LYS:HD3	5:j:102:MET:HE1	2.01	0.42
1:V:187:ILE:HG13	1:V:191:LEU:HB2	2.01	0.42
7:q:34:PHE:CD2	11:y:98:PHE:HE1	2.38	0.42
7:r:44:ARG:NH1	9:CE:3:GLN:HB2	2.35	0.42
8:DC:228:THR:HG21	8:DC:244:VAL:HG21	2.01	0.42
8:DG:106:ARG:HG2	8:DL:321:ALA:O	2.20	0.42
8:DG:208:TRP:O	8:DG:230:LEU:N	2.31	0.42
9:CE:181:LEU:O	9:CE:185:MET:HG2	2.20	0.42
11:w:196:ILE:HD11	11:w:225:LEU:HD13	2.02	0.42
11:y:38:TRP:O	11:y:43:GLN:NE2	2.53	0.42
11:y:54:LEU:HB3	11:y:55:PRO:HD3	2.02	0.42
12:Dj:137:GLU:HG2	12:Dj:157:LEU:HG	2.02	0.42
12:Ce:235:LEU:HB3	12:Cf:244:ARG:NH2	2.35	0.42
12:Cl:235:LEU:HB3	12:Cm:244:ARG:NH2	2.34	0.42
12:Cm:265:GLN:HG3	12:Cn:252:ILE:HB	2.02	0.42
12:Cm:381:ASP:OD1	12:Cm:381:ASP:N	2.53	0.42
12:Ct:235:LEU:HB3	12:Cu:244:ARG:HH12	1.85	0.42
12:Cz:394:LYS:HB3	12:Cz:394:LYS:HE2	1.84	0.42
12:Ef:426:ARG:NH2	12:Ef:428:ASP:OD2	2.47	0.42
15:AF:68:ASP:OD2	16:BH:71:ILE:HA	2.20	0.42
15:AR:68:ASP:OD2	16:BT:71:ILE:HA	2.20	0.42
16:BA:33:GLU:OE1	16:BA:92:SER:OG	2.30	0.42
16:BB:21:ARG:HG3	16:BB:243:GLU:CD	2.44	0.42
16:BB:264:MET:HB3	16:BB:268:VAL:HG21	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BD:184:THR:HG23	16:BD:222:GLN:HG3	2.02	0.42
16:BE:33:GLU:HG2	16:BE:95:PRO:HD3	2.02	0.42
16:BO:93:TYR:HA	16:BO:94:PRO:HD3	1.93	0.42
16:BR:264:MET:HB3	16:BR:268:VAL:HG21	2.01	0.42
16:BS:273:CYS:HA	16:BT:328:LEU:HD21	2.02	0.42
16:BU:264:MET:HB3	16:BU:268:VAL:HG21	2.01	0.42
16:BV:33:GLU:HG2	16:BV:95:PRO:HD3	2.02	0.42
16:BV:250:ASP:N	16:BV:250:ASP:OD1	2.50	0.42
16:BW:33:GLU:HG2	16:BW:95:PRO:HD3	2.02	0.42
16:BY:21:ARG:HG3	16:BY:243:GLU:CD	2.44	0.42
8:DL:150:THR:OG1	8:DL:282:ASN:ND2	2.38	0.42
8:DQ:29:THR:HG22	8:DV:39:PHE:HB2	2.02	0.42
8:DS:106:ARG:NE	8:DS:141:ASN:HB2	2.25	0.42
8:DW:101:LYS:N	8:DW:109:VAL:O	2.44	0.42
8:DY:74:ASP:OD1	8:DY:74:ASP:N	2.53	0.42
8:EE:159:ASN:OD1	8:EE:160:SER:N	2.53	0.42
8:EF:10:LEU:HD22	8:EF:382:TYR:CE1	2.55	0.42
8:EF:23:ASN:HB2	8:EF:371:GLU:OE2	2.19	0.42
1:F:83:GLN:HG2	8:DF:44:ALA:HB1	2.02	0.41
1:G:58:GLU:OE1	16:BI:80:GLN:NE2	2.53	0.41
1:L:53:GLY:HA2	1:Q:197:SER:HB2	2.02	0.41
1:M:155:GLY:HA2	1:M:214:LEU:HD12	2.02	0.41
1:M:178:PHE:CZ	1:M:201:PRO:HB3	2.55	0.41
1:N:48:THR:HG22	1:N:67:GLN:HG2	2.01	0.41
2:c:134:GLU:OE1	2:c:134:GLU:N	2.48	0.41
8:DB:233:ASN:N	8:DB:237:ILE:O	2.27	0.41
8:DD:217:ASP:CG	8:DD:249:GLY:HA3	2.45	0.41
8:DF:22:ASN:ND2	8:DK:49:GLY:HA3	2.35	0.41
8:DG:26:ASN:ND2	8:DL:41:ASP:HB3	2.35	0.41
8:DI:281:GLN:HG2	8:DI:283:GLY:H	1.85	0.41
8:DJ:5:GLN:NE2	8:DJ:49:GLY:O	2.42	0.41
8:DJ:87:ASP:OD1	8:DJ:91:SER:N	2.53	0.41
8:DK:105:ASN:ND2	8:DK:107:ASN:HD21	2.18	0.41
12:Cr:381:ASP:OD1	12:Cr:381:ASP:N	2.53	0.41
12:Ct:409:MET:HE3	12:Ct:409:MET:HB3	1.96	0.41
12:Cv:394:LYS:HB3	12:Cv:394:LYS:HE2	1.84	0.41
12:Cw:409:MET:HE3	12:Cw:409:MET:HB3	1.95	0.41
12:Ea:381:ASP:OD1	12:Ea:381:ASP:N	2.53	0.41
12:Eb:244:ARG:HH22	12:Ec:235:LEU:HB3	1.85	0.41
12:Ec:381:ASP:OD1	12:Ec:381:ASP:N	2.53	0.41
12:Ec:425:LYS:HE3	12:Ec:425:LYS:HB3	1.71	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Eh:381:ASP:OD1	12:Eh:381:ASP:N	2.53	0.41
15:AN:84:GLU:OE1	15:AO:167:LYS:NZ	2.36	0.41
16:BA:264:MET:HB3	16:BA:268:VAL:HG21	2.01	0.41
16:BA:273:CYS:HB2	16:BB:264:MET:O	2.19	0.41
16:BC:65:MET:HE2	16:BC:65:MET:HB3	1.97	0.41
16:BE:184:THR:HG23	16:BE:222:GLN:HG3	2.02	0.41
16:BK:33:GLU:HG2	16:BK:95:PRO:HD3	2.02	0.41
8:DL:75:VAL:HG12	8:DL:358:ASN:HA	2.02	0.41
8:DL:330:GLY:H	8:DQ:43:PHE:HB2	1.85	0.41
8:DN:10:LEU:HD22	8:DN:382:TYR:HE1	1.74	0.41
8:DN:346:GLY:HA3	8:DN:353:PHE:CE2	2.55	0.41
8:DN:364:SER:O	8:DN:366:VAL:HG23	2.20	0.41
8:DN:376:ILE:HD11	8:DY:402:LEU:HD21	2.01	0.41
8:DO:7:VAL:O	8:DO:10:LEU:N	2.50	0.41
8:DP:368:LEU:O	8:DP:372:LEU:HD23	2.20	0.41
8:DQ:125:PRO:HA	8:DQ:126:PRO:HD3	1.97	0.41
8:DR:153:SER:HB3	8:DR:280:ASN:OD1	2.19	0.41
8:DR:156:ILE:HD13	8:DR:200:PHE:CE2	2.55	0.41
8:DR:204:LYS:HG2	8:DR:207:GLU:OE1	2.20	0.41
8:DU:157:ASN:ND2	8:EA:143:LEU:HD21	2.35	0.41
8:DW:380:ARG:HA	8:DW:380:ARG:HD3	1.82	0.41
8:DZ:238:LEU:HB2	8:DZ:266:SER:OG	2.20	0.41
8:EA:214:ASP:OD1	8:EA:215:SER:N	2.53	0.41
8:EB:364:SER:O	8:EB:366:VAL:HG23	2.20	0.41
8:EC:172:VAL:HG12	8:EC:199:TYR:CZ	2.55	0.41
8:ED:107:ASN:OD1	8:ED:138:THR:HG22	2.20	0.41
8:ED:248:THR:OG1	8:ED:257:ALA:N	2.44	0.41
8:ED:397:ASN:HA	8:ED:400:VAL:HG22	2.01	0.41
8:EG:97:ASN:ND2	8:EG:332:ASN:HD21	2.18	0.41
8:EG:127:THR:OG1	8:EG:128:ILE:N	2.53	0.41
1:G:177:THR:OG1	1:G:178:PHE:N	2.53	0.41
1:T:203:GLU:CD	16:BU:53:THR:HG21	2.45	0.41
2:b:5:ILE:HG13	2:b:234:ILE:HD13	2.02	0.41
2:c:44:VAL:HG23	2:c:56:LEU:HB2	2.02	0.41
4:7:316:LEU:HD23	6:m:86:LEU:HD12	2.01	0.41
1:W:42:GLU:HG2	1:W:75:VAL:HG11	2.02	0.41
7:r:66:ILE:HG22	7:r:68:LEU:H	1.85	0.41
7:t:59:PHE:HB2	7:t:66:ILE:HG21	2.02	0.41
8:DA:380:ARG:HD3	8:DA:380:ARG:HA	1.88	0.41
8:DB:139:ILE:HA	8:DB:312:LEU:HD13	2.02	0.41
8:DB:200:PHE:HE1	8:DB:210:VAL:HG13	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DG:102:LEU:CD1	8:DL:321:ALA:O	2.68	0.41
8:DJ:167:LYS:HE3	8:DJ:169:PRO:HG2	2.02	0.41
8:DJ:271:THR:OG1	8:DP:286:PRO:HG3	2.13	0.41
9:CE:40:LYS:HB3	9:CE:40:LYS:HE3	1.88	0.41
9:CE:150:LEU:O	9:CE:153:THR:OG1	2.34	0.41
11:y:122:SER:OG	11:y:125:GLU:OE2	2.37	0.41
11:CF:74:LEU:HD21	11:CF:189:ILE:HD12	2.02	0.41
12:Dc:209:ASN:N	12:Dc:209:ASN:ND2	2.67	0.41
12:Do:193:ALA:O	12:Do:197:LEU:HB2	2.21	0.41
12:Dt:137:GLU:HG2	12:Dt:157:LEU:HG	2.02	0.41
12:Cb:426:ARG:NH2	12:Cb:428:ASP:OD2	2.47	0.41
12:Cg:235:LEU:HB3	12:Ch:244:ARG:NH2	2.35	0.41
12:Cr:426:ARG:NH2	12:Cr:428:ASP:OD2	2.47	0.41
12:Ef:265:GLN:HG3	12:Eg:252:ILE:HB	2.02	0.41
15:AE:224:ARG:O	15:AE:228:ASN:ND2	2.50	0.41
15:AG:68:ASP:OD2	16:BI:71:ILE:HA	2.20	0.41
15:AO:185:ASN:O	15:AO:188:THR:OG1	2.33	0.41
15:AQ:124:MET:HE3	15:AQ:124:MET:HB3	1.85	0.41
16:BC:184:THR:HG23	16:BC:222:GLN:HG3	2.02	0.41
16:BD:33:GLU:HG2	16:BD:95:PRO:HD3	2.02	0.41
16:BG:264:MET:HB3	16:BG:268:VAL:HG21	2.01	0.41
16:BJ:264:MET:HB3	16:BJ:268:VAL:HG21	2.01	0.41
16:BP:33:GLU:HG2	16:BP:95:PRO:HD3	2.02	0.41
16:BQ:264:MET:HB3	16:BQ:268:VAL:HG21	2.01	0.41
16:BR:65:MET:HE2	16:BR:65:MET:HB3	1.97	0.41
16:BS:184:THR:HG23	16:BS:222:GLN:HG3	2.02	0.41
16:BX:264:MET:HB3	16:BX:268:VAL:HG21	2.01	0.41
8:DL:109:VAL:HG12	8:DL:110:ASN:O	2.20	0.41
8:DL:324:GLU:HA	8:DL:324:GLU:OE1	2.21	0.41
8:DL:380:ARG:NH1	8:DR:397:ASN:CB	2.75	0.41
8:DM:380:ARG:HB3	8:DS:396:LEU:HD13	1.96	0.41
8:DN:104:GLU:OE2	8:DS:341:GLY:N	2.53	0.41
8:DO:48:VAL:HG22	8:DO:50:LEU:CD2	2.50	0.41
8:DP:38:SER:O	8:DP:55:ALA:N	2.54	0.41
8:DP:367:ASP:OD1	8:DP:367:ASP:N	2.48	0.41
8:DR:125:PRO:HA	8:DR:126:PRO:HD3	1.91	0.41
8:DR:151:THR:HG22	8:DR:282:ASN:ND2	2.35	0.41
8:DS:198:VAL:HA	8:DS:211:TYR:O	2.20	0.41
8:DT:270:ASN:O	8:DT:270:ASN:ND2	2.53	0.41
8:DT:380:ARG:NH2	8:DZ:393:ASP:OD1	2.38	0.41
8:DU:217:ASP:HB2	8:DU:220:ALA:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DV:104:GLU:OE1	8:EA:339:ALA:HA	2.19	0.41
8:EB:171:SER:OG	8:EB:172:VAL:N	2.52	0.41
8:EB:330:GLY:HA2	8:EG:43:PHE:HB2	2.03	0.41
8:EE:144:MET:SD	8:EE:310:GLN:NE2	2.92	0.41
8:EE:233:ASN:N	8:EE:237:ILE:O	2.49	0.41
8:EG:364:SER:O	8:EG:366:VAL:HG23	2.20	0.41
1:O:255:GLN:HA	1:O:258:THR:HG22	2.00	0.41
1:P:44:LEU:HD11	2:a:205:VAL:HG11	2.02	0.41
2:b:133:SER:OG	2:b:146:LEU:N	2.53	0.41
2:c:176:ASP:OD1	2:c:176:ASP:N	2.53	0.41
1:V:26:LEU:HD23	1:V:26:LEU:HA	1.90	0.41
1:W:34:PHE:HB3	1:W:222:SER:HB3	2.01	0.41
1:W:41:PHE:HD1	1:W:74:PRO:HA	1.85	0.41
1:X:239:ALA:O	1:X:242:ILE:HG22	2.20	0.41
8:DE:126:PRO:HG2	8:DE:310:GLN:NE2	2.35	0.41
8:DE:299:THR:HG22	8:DE:314:GLN:HB3	2.02	0.41
8:DF:144:MET:HE3	8:DF:306:ASN:HD21	1.84	0.41
8:DH:326:LEU:HB3	8:DH:334:TRP:HB3	2.02	0.41
8:DI:122:THR:OG1	8:DI:129:GLN:NE2	2.53	0.41
9:CE:35:GLU:OE1	9:CE:36:ARG:N	2.54	0.41
11:w:231:GLY:O	11:w:235:LEU:CB	2.68	0.41
11:x:211:MET:HE2	11:x:211:MET:HB2	1.83	0.41
12:Ds:193:ALA:O	12:Ds:197:LEU:HB2	2.21	0.41
12:Dt:193:ALA:O	12:Dt:197:LEU:HB2	2.21	0.41
12:Du:160:PRO:O	12:Du:160:PRO:CD	2.68	0.41
12:Ca:277:GLN:HA	12:Cb:372:ILE:O	2.20	0.41
12:Ce:235:LEU:HB3	12:Cf:244:ARG:HH22	1.85	0.41
12:Ch:381:ASP:OD1	12:Ch:381:ASP:N	2.53	0.41
12:Ch:426:ARG:NH2	12:Ch:428:ASP:OD2	2.47	0.41
12:Cp:381:ASP:OD1	12:Cp:381:ASP:N	2.53	0.41
12:Cq:381:ASP:OD1	12:Cq:381:ASP:N	2.53	0.41
12:Cu:394:LYS:HE2	12:Cu:394:LYS:HB3	1.84	0.41
12:Cx:381:ASP:OD1	12:Cx:381:ASP:N	2.53	0.41
12:Cy:381:ASP:OD1	12:Cy:381:ASP:N	2.53	0.41
12:Cy:409:MET:HE3	12:Cy:409:MET:HB3	1.95	0.41
12:Eb:244:ARG:NH2	12:Ec:235:LEU:HB3	2.35	0.41
12:Ef:235:LEU:HB3	12:Eg:244:ARG:HH22	1.85	0.41
15:AJ:22:P1L:HB3	15:AJ:22:P1L:H8C1	1.63	0.41
15:AP:22:P1L:HB3	15:AP:22:P1L:H8C1	1.63	0.41
15:AQ:107:ASP:HB3	15:AR:125:GLU:HG2	2.01	0.41
15:AR:107:ASP:HB3	15:AS:125:GLU:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AT:84:GLU:OE1	15:AU:167:LYS:NZ	2.37	0.41
16:BC:33:GLU:HG2	16:BC:95:PRO:HD3	2.02	0.41
16:BF:184:THR:HG23	16:BF:222:GLN:HG3	2.02	0.41
16:BF:250:ASP:OD1	16:BF:250:ASP:N	2.51	0.41
16:BP:250:ASP:OD1	16:BP:250:ASP:N	2.51	0.41
16:BP:264:MET:HB3	16:BP:268:VAL:HG21	2.01	0.41
16:BT:33:GLU:OE1	16:BT:92:SER:OG	2.31	0.41
16:BW:33:GLU:OE1	16:BW:92:SER:OG	2.30	0.41
16:BY:264:MET:HB3	16:BY:268:VAL:HG21	2.01	0.41
8:DL:319:ASN:O	8:DL:344:LEU:HB2	2.20	0.41
8:DL:358:ASN:OD1	8:DL:359:GLY:N	2.53	0.41
8:DN:6:ALA:CB	8:DN:389:ILE:HG23	2.48	0.41
8:DN:143:LEU:HD22	8:DN:143:LEU:HA	1.90	0.41
8:DO:10:LEU:HD11	8:DO:385:ASN:HB3	2.00	0.41
8:DP:5:GLN:HE22	8:DP:49:GLY:C	2.28	0.41
8:DP:348:ALA:HB1	8:DP:356:LEU:HD23	2.02	0.41
8:DU:373:VAL:HG21	8:EA:10:LEU:HD13	2.01	0.41
8:DW:109:VAL:HG12	8:DW:115:GLN:HA	2.02	0.41
8:DX:269:GLN:O	8:ED:286:PRO:HG2	2.20	0.41
8:DX:320:PHE:CE2	8:DX:326:LEU:HD11	2.55	0.41
8:DX:322:ASN:ND2	8:DX:339:ALA:O	2.53	0.41
8:DY:199:TYR:O	8:DY:210:VAL:HA	2.20	0.41
8:DZ:233:ASN:N	8:DZ:237:ILE:O	2.53	0.41
8:DZ:380:ARG:HD3	8:DZ:380:ARG:HA	1.62	0.41
8:EB:170:PHE:HA	8:EB:177:SER:HB2	2.02	0.41
8:EC:16:ASN:O	8:EC:20:ILE:HG12	2.20	0.41
8:EC:84:ARG:HG3	8:EC:94:TYR:CE1	2.55	0.41
8:ED:95:SER:OG	8:ED:96:ARG:N	2.53	0.41
8:EF:111:MET:HE2	8:EF:111:MET:N	2.35	0.41
1:L:2:ILE:HG13	1:L:3:SER:H	1.85	0.41
1:L:43:ASP:HA	1:L:72:VAL:HA	2.03	0.41
1:T:246:ALA:HB2	2:b:220:MET:HE1	2.03	0.41
2:e:65:ASP:OD1	2:e:65:ASP:N	2.45	0.41
5:h:47:VAL:HG12	5:h:67:VAL:HG22	2.03	0.41
8:DE:197:ASN:O	8:DE:213:HIS:N	2.54	0.41
8:DF:197:ASN:OD1	8:DF:215:SER:HB2	2.21	0.41
8:DG:372:LEU:HD23	8:DG:372:LEU:HA	1.94	0.41
8:DH:118:GLY:HA2	8:DH:316:VAL:HG13	2.02	0.41
11:x:129:LYS:HA	11:x:129:LYS:HD3	1.93	0.41
11:y:159:LEU:HD21	12:Du:165:PHE:CB	2.50	0.41
12:De:137:GLU:HG2	12:De:157:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Di:193:ALA:O	12:Di:197:LEU:HB2	2.21	0.41
12:Dj:175:SER:O	12:Dj:175:SER:OG	2.32	0.41
12:Dm:193:ALA:O	12:Dm:197:LEU:HB2	2.21	0.41
12:Dp:193:ALA:O	12:Dp:197:LEU:HB2	2.21	0.41
12:Dq:193:ALA:O	12:Dq:197:LEU:HB2	2.21	0.41
12:Dr:193:ALA:O	12:Dr:197:LEU:HB2	2.21	0.41
12:Dv:193:ALA:O	12:Dv:197:LEU:HB2	2.21	0.41
12:Cd:235:LEU:HB3	12:Ce:244:ARG:HH12	1.86	0.41
12:Cv:381:ASP:OD1	12:Cv:381:ASP:N	2.53	0.41
15:AI:68:ASP:OD2	16:BK:71:ILE:HA	2.20	0.41
15:AN:124:MET:HE3	15:AN:124:MET:HB3	1.85	0.41
15:AW:124:MET:HB3	15:AW:124:MET:HE3	1.84	0.41
16:BA:184:THR:HG23	16:BA:222:GLN:HG3	2.02	0.41
16:BG:184:THR:HG23	16:BG:222:GLN:HG3	2.02	0.41
16:BI:264:MET:HB3	16:BI:268:VAL:HG21	2.01	0.41
16:BO:264:MET:HB3	16:BO:268:VAL:HG21	2.01	0.41
16:BQ:184:THR:HG23	16:BQ:222:GLN:HG3	2.02	0.41
16:BR:184:THR:HG23	16:BR:222:GLN:HG3	2.02	0.41
16:BT:273:CYS:HA	16:BU:328:LEU:HD21	2.03	0.41
16:BU:93:TYR:HA	16:BU:94:PRO:HD3	1.93	0.41
8:DM:319:ASN:HB2	8:DM:353:PHE:CE1	2.54	0.41
8:DM:338:GLN:O	8:DM:338:GLN:HG2	2.18	0.41
8:DN:39:PHE:HD1	8:DN:39:PHE:H	1.68	0.41
8:DN:172:VAL:HG21	8:DN:222:ALA:HB1	2.01	0.41
8:DN:303:ASN:C	8:DN:304:TYR:HD1	2.28	0.41
8:DP:211:TYR:CD1	8:DP:226:ALA:HA	2.56	0.41
8:DQ:156:ILE:HB	8:DQ:276:ILE:HD13	2.03	0.41
8:DQ:163:PRO:O	8:DQ:179:ASN:ND2	2.52	0.41
8:DQ:384:SER:O	8:DQ:388:THR:HG23	2.21	0.41
8:DR:213:HIS:CG	8:DR:214:ASP:N	2.88	0.41
8:DR:234:GLU:O	8:DX:190:GLN:HB2	2.20	0.41
8:DS:199:TYR:O	8:DS:210:VAL:HA	2.20	0.41
8:DT:285:LYS:O	8:DT:306:ASN:ND2	2.38	0.41
8:DW:27:SER:HA	8:DW:366:VAL:HG21	2.01	0.41
8:DW:367:ASP:O	8:DW:371:GLU:HG2	2.20	0.41
8:EA:171:SER:OG	8:EA:172:VAL:N	2.53	0.41
8:EC:397:ASN:C	8:EC:397:ASN:ND2	2.79	0.41
8:EF:211:TYR:HD1	8:EF:226:ALA:HA	1.83	0.41
8:EG:346:GLY:HA3	8:EG:353:PHE:CE2	2.55	0.41
1:A:111:THR:OG1	1:A:112:SER:N	2.54	0.41
1:C:44:LEU:HD23	1:C:44:LEU:HA	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:44:LEU:HD21	1:H:73:ARG:HD3	2.02	0.41
1:I:44:LEU:HD23	1:I:44:LEU:HA	1.85	0.41
1:R:137:GLN:HB3	1:R:138:PRO:HD3	2.02	0.41
1:S:72:VAL:CG1	1:X:28:ASN:HB3	2.51	0.41
1:S:72:VAL:HG11	1:X:28:ASN:HB3	2.03	0.41
1:S:148:SER:H	1:S:160:THR:HG22	1.84	0.41
1:U:194:GLU:H	1:U:194:GLU:CD	2.29	0.41
2:d:228:GLU:HG2	1:W:256:LYS:HD3	2.02	0.41
5:f:19:LYS:NZ	6:m:91:ASP:HB2	2.35	0.41
8:DK:368:LEU:HD11	8:DV:3:PHE:HE1	1.86	0.41
11:x:66:ARG:HG3	11:x:182:ALA:HB2	2.03	0.41
12:Da:137:GLU:HG2	12:Da:157:LEU:HG	2.01	0.41
12:Dj:193:ALA:O	12:Dj:197:LEU:HB2	2.21	0.41
12:Dn:193:ALA:O	12:Dn:197:LEU:HB2	2.21	0.41
12:Dv:175:SER:O	12:Dv:175:SER:OG	2.32	0.41
12:Cg:235:LEU:HB3	12:Ch:244:ARG:HH22	1.85	0.41
12:Cm:409:MET:HE3	12:Cm:409:MET:HB3	1.95	0.41
12:Ct:394:LYS:HB3	12:Ct:394:LYS:HE2	1.84	0.41
12:Cv:235:LEU:HB3	12:Cv:244:ARG:HH22	1.85	0.41
12:Cx:394:LYS:HB3	12:Cx:394:LYS:HE2	1.84	0.41
12:Eb:235:LEU:HB3	12:Ed:244:ARG:NH2	2.36	0.41
15:AF:22:P1L:HB3	15:AF:22:P1L:H8C1	1.63	0.41
15:AI:65:LEU:HG	16:BJ:65:MET:HG3	2.03	0.41
15:AI:107:ASP:HB3	15:AJ:125:GLU:HG2	2.02	0.41
15:AX:185:ASN:O	15:AX:188:THR:OG1	2.33	0.41
16:BH:184:THR:HG23	16:BH:222:GLN:HG3	2.02	0.41
16:BH:264:MET:HB3	16:BH:268:VAL:HG21	2.01	0.41
16:BO:33:GLU:HG2	16:BO:95:PRO:HD3	2.02	0.41
16:BO:270:LEU:HD23	16:BO:270:LEU:HA	1.93	0.41
16:BX:33:GLU:HG2	16:BX:95:PRO:HD3	2.02	0.41
16:BY:184:THR:HG23	16:BY:222:GLN:HG3	2.02	0.41
16:BZ:184:THR:HG23	16:BZ:222:GLN:HG3	2.02	0.41
8:DL:379:GLN:HE21	8:DL:380:ARG:HH21	1.68	0.41
8:DM:16:ASN:O	8:DM:20:ILE:HG12	2.20	0.41
8:DM:319:ASN:HB2	8:DM:353:PHE:HE1	1.85	0.41
8:DO:10:LEU:HA	8:DO:382:TYR:HE1	1.85	0.41
8:DO:316:VAL:O	8:DO:317:LEU:HD23	2.20	0.41
8:DP:17:LEU:CD2	8:DU:392:GLN:OE1	2.66	0.41
8:DP:208:TRP:HE1	8:DP:268:GLN:HE21	1.67	0.41
8:DQ:194:HIS:HB2	8:DQ:196:MET:HE1	2.02	0.41
8:DR:364:SER:O	8:DR:366:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DS:158:LEU:HD12	8:DS:232:PHE:HE2	1.85	0.41
8:DS:299:THR:HA	8:DS:313:GLY:O	2.20	0.41
8:DV:5:GLN:HG3	8:DV:50:LEU:C	2.46	0.41
8:DX:318:ALA:HB2	8:DX:345:LEU:HD13	2.01	0.41
8:DY:22:ASN:CG	8:ED:49:GLY:HA3	2.45	0.41
8:DY:280:ASN:OD1	8:DY:281:GLN:N	2.53	0.41
8:EC:294:ILE:HB	8:EC:358:ASN:HD21	1.85	0.41
8:ED:158:LEU:HB2	8:ED:268:GLN:NE2	2.35	0.41
8:EG:33:LYS:NZ	8:EG:362:GLU:OE2	2.54	0.41
1:B:189:GLU:HG2	1:B:191:LEU:HG	2.02	0.41
1:C:42:GLU:HB2	1:G:189:GLU:HA	2.02	0.41
1:F:93:LYS:HE2	1:F:93:LYS:HB3	1.90	0.41
1:G:101:GLY:HA3	1:G:175:LEU:HD13	2.03	0.41
1:G:106:MET:HE1	1:G:137:GLN:HA	2.03	0.41
1:J:34:PHE:HB3	1:J:222:SER:HB3	2.02	0.41
1:K:28:ASN:HB2	1:K:31:THR:OG1	2.20	0.41
1:M:123:ASP:OD1	1:M:127:GLN:N	2.53	0.41
1:Q:175:LEU:HD11	1:Q:211:ALA:HB1	2.02	0.41
5:g:28:LEU:HD23	5:g:28:LEU:HA	1.89	0.41
7:r:42:LEU:HA	7:r:45:ILE:HG12	2.01	0.41
7:v:75:MET:HE3	9:CE:9:TRP:CD1	2.55	0.41
8:DE:221:THR:OG1	8:DE:222:ALA:N	2.54	0.41
8:DF:127:THR:OG1	8:DF:128:ILE:N	2.54	0.41
8:DH:79:GLN:HB3	8:DH:354:GLY:HA3	2.02	0.41
8:DI:288:ASP:OD1	8:DI:288:ASP:N	2.51	0.41
8:DJ:271:THR:OG1	8:DP:286:PRO:HG2	2.18	0.41
8:DJ:376:ILE:HG21	8:DP:393:ASP:CG	2.45	0.41
9:CE:29:THR:C	9:CE:31:PRO:HD3	2.46	0.41
12:Dg:137:GLU:HG2	12:Dg:157:LEU:HG	2.02	0.41
12:Dh:137:GLU:HG2	12:Dh:157:LEU:HG	2.02	0.41
12:Dh:193:ALA:O	12:Dh:197:LEU:HB2	2.21	0.41
12:Di:137:GLU:HG2	12:Di:157:LEU:HG	2.02	0.41
12:Ds:160:PRO:O	12:Ds:160:PRO:HD2	2.20	0.41
12:Dw:193:ALA:O	12:Dw:197:LEU:HB2	2.21	0.41
12:Cj:409:MET:HE3	12:Cj:409:MET:HB3	1.95	0.41
12:Cw:235:LEU:HB3	12:Cx:244:ARG:HH22	1.85	0.41
12:Cw:426:ARG:NH2	12:Cw:428:ASP:OD2	2.47	0.41
12:Cx:409:MET:HE3	12:Cx:409:MET:HB3	1.95	0.41
15:AD:224:ARG:O	15:AD:228:ASN:ND2	2.50	0.41
16:BB:33:GLU:OE1	16:BB:92:SER:OG	2.31	0.41
16:BB:184:THR:HG23	16:BB:222:GLN:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BP:270:LEU:HD23	16:BP:270:LEU:HA	1.93	0.41
16:BT:184:THR:HG23	16:BT:222:GLN:HG3	2.02	0.41
16:BU:189:LEU:O	16:BV:101:GLN:NE2	2.53	0.41
16:BZ:264:MET:HB3	16:BZ:268:VAL:HG21	2.01	0.41
8:DL:19:VAL:HG21	8:DL:57:ILE:CD1	2.49	0.41
8:DL:77:ILE:HG22	8:DL:79:GLN:O	2.21	0.41
8:DL:351:GLY:C	8:DL:353:PHE:N	2.74	0.41
8:DL:376:ILE:HD13	8:DL:376:ILE:H	1.83	0.41
8:DS:109:VAL:HG12	8:DS:115:GLN:HA	2.03	0.41
8:DT:43:PHE:C	8:DT:50:LEU:CD1	2.93	0.41
8:DU:395:ILE:HD13	8:DU:399:LEU:CD2	2.40	0.41
8:DV:299:THR:HG22	8:DV:314:GLN:HB2	2.03	0.41
8:DW:168:THR:OG1	8:DW:169:PRO:HD3	2.20	0.41
8:DW:210:VAL:HG21	8:DW:263:PHE:CE2	2.56	0.41
8:DW:233:ASN:HB2	8:DW:239:GLU:OE1	2.20	0.41
8:DX:8:SER:OG	8:DX:52:VAL:N	2.36	0.41
8:EA:10:LEU:HD21	8:EA:382:TYR:OH	2.20	0.41
8:ED:143:LEU:H	8:ED:143:LEU:HD23	1.86	0.41
8:ED:210:VAL:HB	8:ED:228:THR:HG22	2.02	0.41
8:EE:160:SER:HB2	8:EE:270:ASN:HB2	2.02	0.41
8:EF:77:ILE:HG22	8:EF:79:GLN:H	1.86	0.41
8:EG:186:VAL:HG23	8:EG:194:HIS:HD2	1.86	0.41
1:C:254:LEU:HD12	1:C:254:LEU:HA	1.90	0.41
1:D:63:PRO:O	1:H:197:SER:OG	2.35	0.41
1:F:148:SER:OG	1:F:160:THR:OG1	2.32	0.41
1:H:25:ASN:HD21	1:H:37:GLN:H	1.68	0.41
1:N:195:THR:HG22	2:b:152:PRO:HB2	2.03	0.41
2:b:94:ASP:OD1	2:b:95:GLY:N	2.53	0.41
6:l:102:MET:O	6:l:106:ARG:HD3	2.21	0.41
1:W:257:LEU:O	1:W:260:LEU:HB3	2.21	0.41
8:DG:85:LEU:HD13	8:DG:116:LEU:HA	2.01	0.41
9:CE:242:HIS:CD2	12:Dl:125:GLN:HG3	2.56	0.41
10:CA:75:ASP:OD1	10:CA:76:TYR:N	2.54	0.41
11:w:123:MET:HE3	11:w:127:LEU:HD21	2.03	0.41
11:y:171:LEU:HB3	11:y:172:PRO:HD3	2.03	0.41
11:CF:37:SER:OG	11:CF:38:TRP:N	2.54	0.41
12:Da:193:ALA:O	12:Da:197:LEU:HB2	2.21	0.41
12:Dg:193:ALA:O	12:Dg:197:LEU:HB2	2.21	0.41
12:Dl:137:GLU:HG2	12:Dl:157:LEU:HG	2.02	0.41
12:Dl:193:ALA:O	12:Dl:197:LEU:HB2	2.21	0.41
12:Dm:137:GLU:HG2	12:Dm:157:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dp:125:GLN:O	12:Dp:128:GLU:CB	2.69	0.41
12:Dt:124:SER:CB	12:Dt:127:SER:HB3	2.51	0.41
12:Du:193:ALA:O	12:Du:197:LEU:HB2	2.21	0.41
14:GH:1:UNK:HA	12:Cu:372:ILE:HD12	2.03	0.41
12:Cc:381:ASP:OD1	12:Cc:381:ASP:N	2.53	0.41
12:Cf:235:LEU:HB3	12:Cg:244:ARG:NH2	2.35	0.41
12:Cy:394:LYS:HB3	12:Cy:394:LYS:HE2	1.84	0.41
15:AE:107:ASP:HB3	15:AF:125:GLU:HG2	2.01	0.41
15:AY:22:P1L:HB3	15:AY:22:P1L:H8C1	1.62	0.41
16:BA:65:MET:HE2	16:BA:65:MET:HB3	1.97	0.41
8:DM:44:ALA:HB2	8:DM:50:LEU:HD21	2.02	0.41
8:DM:94:TYR:CE2	8:DM:320:PHE:HZ	2.39	0.41
8:DM:342:VAL:HG12	8:DM:343:ALA:N	2.34	0.41
8:DO:194:HIS:HA	8:DO:216:SER:CB	2.50	0.41
8:DO:212:THR:HG21	8:DO:246:ILE:HD12	2.02	0.41
8:DO:380:ARG:CG	8:DU:396:LEU:HD23	2.50	0.41
8:DP:39:PHE:HA	8:DP:55:ALA:H	1.83	0.41
8:DR:23:ASN:HD22	8:DR:32:PHE:HE2	1.68	0.41
8:DS:101:LYS:HG2	8:DS:102:LEU:H	1.85	0.41
8:DS:106:ARG:HD2	8:DS:139:ILE:O	2.20	0.41
8:DT:380:ARG:HD3	8:DT:380:ARG:HA	1.82	0.41
8:DU:12:ALA:O	8:DU:15:THR:OG1	2.29	0.41
8:DV:61:PHE:CE2	8:DV:323:ASN:HB3	2.55	0.41
8:EB:29:THR:HG22	8:EB:30:TYR:N	2.36	0.41
8:EB:364:SER:O	8:EB:365:ASN:OD1	2.39	0.41
8:ED:211:TYR:HD1	8:ED:226:ALA:HA	1.84	0.41
8:EE:318:ALA:HA	8:EE:345:LEU:HA	2.03	0.41
8:EF:201:VAL:O	8:EF:208:TRP:HA	2.20	0.41
8:EF:282:ASN:OD1	8:EF:282:ASN:N	2.54	0.41
8:EG:118:GLY:HA3	8:EG:137:ILE:HD11	2.03	0.41
1:A:137:GLN:HB3	1:A:138:PRO:HD3	2.02	0.41
1:E:149:ILE:HG13	1:E:159:VAL:HG23	2.03	0.41
1:G:255:GLN:HA	1:G:258:THR:HG22	2.03	0.41
1:N:255:GLN:HB2	1:T:238:ARG:NH2	2.36	0.41
1:R:254:LEU:HD23	1:X:238:ARG:HG3	2.02	0.41
6:o:26:LEU:HA	6:o:29:ASN:ND2	2.36	0.41
1:W:172:GLN:HE21	1:W:205:THR:HG23	1.85	0.41
7:s:84:MET:HE3	7:s:84:MET:HB3	1.93	0.41
8:DB:87:ASP:HB3	8:DB:114:MET:HE3	2.01	0.41
8:DB:106:ARG:HD3	8:DG:321:ALA:HB1	2.02	0.41
8:DB:144:MET:HE1	8:DB:308:GLN:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DB:154:MET:HE1	8:DB:156:ILE:HB	2.03	0.41
8:DB:347:THR:HG23	8:DB:350:SER:H	1.86	0.41
8:DD:183:THR:CG2	8:DO:131:GLY:O	2.69	0.41
8:DE:188:ASP:OD2	8:DE:192:ASN:HB2	2.21	0.41
8:DG:331:ASP:HB2	8:DL:40:ALA:HB1	2.03	0.41
8:DI:294:ILE:HG23	8:DI:358:ASN:HD22	1.86	0.41
8:DJ:41:ASP:OD1	8:DJ:41:ASP:N	2.53	0.41
8:DK:186:VAL:HG21	8:DK:259:PHE:CZ	2.56	0.41
9:CE:214:PHE:HA	9:CE:218:PHE:CE2	2.55	0.41
10:CB:70:LEU:O	10:CB:74:LEU:HG	2.20	0.41
10:CC:9:MET:SD	11:y:191:ILE:HD13	2.61	0.41
10:CC:47:MET:HG2	10:CC:48:THR:N	2.36	0.41
11:w:191:ILE:HD13	11:w:191:ILE:HA	1.92	0.41
11:CF:66:ARG:HB2	11:CF:178:GLU:HG3	2.03	0.41
11:CF:135:ARG:NH2	11:CF:165:VAL:H	2.19	0.41
12:Cy:235:LEU:HB3	12:Cz:244:ARG:HH12	1.86	0.41
12:Cz:235:LEU:HB3	12:Ea:244:ARG:NH1	2.36	0.41
12:Cz:409:MET:HE3	12:Cz:409:MET:HB3	1.96	0.41
15:AC:185:ASN:O	15:AC:188:THR:OG1	2.33	0.41
15:AJ:65:LEU:HG	16:BK:65:MET:HG3	2.03	0.41
15:AJ:124:MET:HE3	15:AJ:124:MET:HB3	1.84	0.41
15:AL:84:GLU:OE1	15:AM:167:LYS:NZ	2.35	0.41
16:BB:33:GLU:HG2	16:BB:95:PRO:HD3	2.02	0.41
16:BC:93:TYR:HA	16:BC:94:PRO:HD3	1.93	0.41
16:BN:33:GLU:HG2	16:BN:95:PRO:HD3	2.02	0.41
16:BX:184:THR:HG23	16:BX:222:GLN:HG3	2.02	0.41
8:DL:373:VAL:O	8:DL:377:VAL:CG2	2.67	0.41
8:DM:383:GLN:HE22	8:DR:394:GLN:NE2	2.16	0.41
8:DP:106:ARG:NE	8:DP:139:ILE:O	2.47	0.41
8:DP:170:PHE:HE2	8:DP:223:PRO:HG2	1.84	0.41
8:DP:233:ASN:OD1	8:DP:234:GLU:HG3	2.21	0.41
8:DR:42:MET:SD	8:DR:53:LYS:HB3	2.61	0.41
8:DR:118:GLY:HA3	8:DR:137:ILE:HD11	2.03	0.41
8:DS:269:GLN:NE2	8:DY:190:GLN:OE1	2.53	0.41
8:DS:320:PHE:CZ	8:DS:326:LEU:HD21	2.56	0.41
8:DT:121:ALA:HB2	8:DT:313:GLY:N	2.36	0.41
8:DU:103:ASP:HB3	8:DU:109:VAL:HG11	2.03	0.41
8:DX:158:LEU:HD13	8:DX:208:TRP:CD2	2.56	0.41
8:DX:372:LEU:HD23	8:DX:372:LEU:HA	1.93	0.41
8:DZ:317:LEU:HD12	8:DZ:348:ALA:HA	2.03	0.41
8:EB:99:GLN:HG2	8:EB:361:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:48:THR:HG22	1:A:67:GLN:HG2	2.03	0.41
1:A:97:ILE:HG23	1:A:116:ARG:HE	1.85	0.41
1:C:39:ALA:HA	1:C:77:THR:HA	2.03	0.41
1:D:91:ASN:HB2	1:D:94:ASP:OD1	2.21	0.41
1:G:256:LYS:HA	1:G:256:LYS:HD3	1.84	0.41
1:I:230:LEU:HD12	8:DC:399:LEU:HG	2.03	0.41
1:L:242:ILE:HD12	1:Q:230:LEU:HD21	2.03	0.41
1:P:42:GLU:OE2	1:U:190:ASN:N	2.54	0.41
1:Q:187:ILE:HG13	1:Q:191:LEU:HB2	2.03	0.41
1:R:43:ASP:HB3	1:W:28:ASN:HD22	1.86	0.41
1:R:130:THR:OG1	1:R:131:ALA:N	2.54	0.41
1:U:72:VAL:HB	2:c:28:ASN:HB3	2.03	0.41
2:b:65:ASP:OD1	2:b:65:ASP:N	2.52	0.41
2:c:101:ARG:NH2	2:c:207:GLU:OE1	2.45	0.41
2:d:49:LEU:HD23	6:n:90:PRO:HD2	2.03	0.41
2:d:239:GLU:OE2	5:i:113:GLN:NE2	2.54	0.41
5:h:118:VAL:HG21	6:m:30:ILE:HG21	2.02	0.41
6:l:127:LEU:HD23	6:l:127:LEU:HA	1.93	0.41
5:i:50:GLN:N	5:i:63:LYS:O	2.54	0.41
8:DA:264:LEU:HD23	8:DA:265:ASN:HB2	2.03	0.41
8:DA:337:THR:OG1	8:DA:338:GLN:N	2.54	0.41
8:DB:239:GLU:OE1	8:DB:239:GLU:N	2.54	0.41
8:DC:181:LYS:HZ3	8:DN:132:ALA:N	2.18	0.41
8:DE:364:SER:O	8:DE:366:VAL:HG23	2.21	0.41
8:DF:364:SER:O	8:DF:365:ASN:ND2	2.54	0.41
8:DG:82:PHE:HE1	8:DG:96:ARG:HD2	1.86	0.41
8:DG:102:LEU:O	8:DL:322:ASN:OD1	2.39	0.41
8:DG:182:GLY:N	8:DG:198:VAL:O	2.44	0.41
8:DG:330:GLY:O	8:DL:42:MET:HG2	2.21	0.41
8:DJ:12:ALA:HB1	8:DJ:39:PHE:CE1	2.56	0.41
8:DJ:17:LEU:HD13	8:DO:395:ILE:HD12	2.02	0.41
8:DJ:109:VAL:HG22	8:DJ:115:GLN:HA	2.03	0.41
8:DK:108:LEU:HD13	8:DK:108:LEU:HA	1.94	0.41
8:DK:248:THR:OG1	8:DK:249:GLY:N	2.54	0.41
10:CB:43:GLN:CD	10:CB:43:GLN:H	2.29	0.41
10:CD:44:ILE:H	10:CD:44:ILE:HD12	1.85	0.41
11:w:175:VAL:O	11:w:179:LEU:HG	2.21	0.41
11:y:219:LEU:HB2	11:y:220:PRO:HD3	2.03	0.41
11:z:232:TRP:CE2	11:CF:179:LEU:HD13	2.56	0.41
11:CF:171:LEU:HB3	11:CF:172:PRO:HD3	2.01	0.41
12:Da:172:PRO:HG2	12:Da:205:LEU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Db:193:ALA:O	12:Db:197:LEU:HB2	2.21	0.41
12:Dk:193:ALA:O	12:Dk:197:LEU:HB2	2.21	0.41
13:GA:11:UNK:HA	12:Ec:365:ASN:HD21	1.86	0.41
12:Ch:235:LEU:HB3	12:Ci:244:ARG:NH2	2.35	0.41
12:Ch:409:MET:HE3	12:Ch:409:MET:HB3	1.96	0.41
12:Ck:235:LEU:HB3	12:Cl:244:ARG:HH12	1.86	0.41
12:Cl:235:LEU:HB3	12:Cm:244:ARG:HH12	1.86	0.41
12:Cn:381:ASP:OD1	12:Cn:381:ASP:N	2.53	0.41
12:Cp:409:MET:HE3	12:Cp:409:MET:HB3	1.96	0.41
12:Ct:235:LEU:HB3	12:Cu:244:ARG:NH1	2.35	0.41
12:Eg:426:ARG:NH2	12:Eg:428:ASP:OD2	2.47	0.41
15:AA:125:GLU:HG2	15:AZ:107:ASP:HB3	2.03	0.41
15:AE:68:ASP:OD2	16:BG:71:ILE:HA	2.20	0.41
15:AI:22:P1L:HB3	15:AI:22:P1L:H8C1	1.62	0.41
15:AL:107:ASP:HB3	15:AM:125:GLU:HG2	2.01	0.41
15:AO:51:ILE:HG13	16:BN:175:LEU:HD11	2.02	0.41
15:AS:107:ASP:HB3	15:AT:125:GLU:HG2	2.03	0.41
15:AT:124:MET:HE3	15:AT:124:MET:HB3	1.84	0.41
15:AZ:68:ASP:OD2	16:BB:71:ILE:HA	2.21	0.41
16:BJ:93:TYR:HA	16:BJ:94:PRO:HD3	1.93	0.41
16:BL:33:GLU:HG2	16:BL:95:PRO:HD3	2.02	0.41
16:BM:33:GLU:HG2	16:BM:95:PRO:HD3	2.02	0.41
16:BO:65:MET:HE2	16:BO:65:MET:HB3	1.97	0.41
16:BP:184:THR:HG23	16:BP:222:GLN:HG3	2.02	0.41
16:Bv:259:THR:HG22	16:BW:144:GLY:HA3	2.03	0.41
16:BX:270:LEU:HD23	16:BX:270:LEU:HA	1.93	0.41
8:DL:205:ASP:CG	8:DR:252:ASN:HD22	2.29	0.41
8:DL:319:ASN:OD1	8:DL:320:PHE:N	2.54	0.41
8:DL:380:ARG:HD3	8:DL:380:ARG:HA	1.79	0.41
8:DM:29:THR:O	8:DM:364:SER:OG	2.29	0.41
8:DM:41:ASP:HB2	8:DM:43:PHE:HE1	1.84	0.41
8:DM:133:ASN:OD1	8:DM:134:PRO:CD	2.49	0.41
8:DM:196:MET:HG3	8:DM:259:PHE:HZ	1.85	0.41
8:DM:319:ASN:OD1	8:DM:320:PHE:N	2.54	0.41
8:DN:26:ASN:HD22	8:DS:52:VAL:HB	1.84	0.41
8:DO:141:ASN:HD22	8:DO:141:ASN:C	2.29	0.41
8:DO:285:LYS:O	8:DO:306:ASN:ND2	2.48	0.41
8:DP:330:GLY:HA2	8:DU:43:PHE:N	2.36	0.41
8:DP:375:MET:CG	8:DU:391:THR:HG21	2.46	0.41
8:DQ:11:ASN:O	8:DQ:15:THR:HG23	2.21	0.41
8:DQ:134:PRO:HG2	8:DQ:345:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DR:330:GLY:H	8:DW:43:PHE:HB2	1.86	0.41
8:DR:385:ASN:O	8:DR:388:THR:HG22	2.20	0.41
8:DT:35:GLY:HA2	8:DT:59:GLN:HA	2.03	0.41
8:DU:396:LEU:HD12	8:DU:396:LEU:HA	1.84	0.41
8:DV:10:LEU:HD22	8:DV:382:TYR:CE1	2.56	0.41
8:DW:289:LEU:HA	8:DW:304:TYR:HA	2.03	0.41
8:EA:394:GLN:HA	8:EA:394:GLN:OE1	2.21	0.41
8:EB:42:MET:HE2	8:EB:53:LYS:HB2	2.01	0.41
8:EC:236:GLY:HA3	8:EC:269:GLN:HG3	2.03	0.41
8:EC:362:GLU:OE1	8:EC:362:GLU:N	2.54	0.41
8:EE:84:ARG:O	8:EE:117:THR:OG1	2.31	0.41
8:EF:166:SER:OG	8:EF:167:LYS:N	2.54	0.41
8:EF:319:ASN:OD1	8:EF:320:PHE:N	2.54	0.41
8:EG:10:LEU:HD22	8:EG:385:ASN:HB3	2.02	0.41
8:EG:379:GLN:O	8:EG:383:GLN:OE1	2.38	0.41
1:B:59:GLN:HG2	1:B:60:THR:HG23	2.03	0.41
1:C:2:ILE:HG23	1:C:5:LEU:H	1.85	0.41
1:H:106:MET:HB2	1:H:137:GLN:OE1	2.21	0.41
1:P:26:LEU:HD23	1:P:26:LEU:HA	1.87	0.41
1:U:246:ALA:HA	2:c:220:MET:HE3	2.02	0.41
2:b:91:GLN:HB2	2:b:121:ILE:HG13	2.02	0.41
2:c:107:VAL:HG22	2:c:113:LEU:HD23	2.02	0.41
5:g:2:ALA:C	5:g:4:LEU:H	2.29	0.41
5:h:6:ILE:HD11	6:m:24:GLU:HA	2.02	0.41
5:h:23:VAL:HG13	5:h:45:LYS:HG3	2.03	0.41
5:h:28:LEU:HD23	5:h:28:LEU:HA	1.80	0.41
5:p:47:VAL:HG12	5:p:67:VAL:HG12	2.03	0.41
6:k:127:LEU:HA	6:k:127:LEU:HD23	1.85	0.41
8:DC:147:LYS:NZ	8:DC:282:ASN:O	2.33	0.41
8:DC:233:ASN:OD1	8:DC:234:GLU:N	2.50	0.41
8:DI:246:ILE:HD13	8:DI:246:ILE:HA	1.93	0.41
10:CA:47:MET:HE2	10:CA:47:MET:HB2	1.92	0.41
12:De:125:GLN:O	12:De:128:GLU:CB	2.69	0.41
12:Df:193:ALA:O	12:Df:197:LEU:HB2	2.21	0.41
12:Dp:137:GLU:HG2	12:Dp:157:LEU:HG	2.02	0.41
12:Dt:187:ASP:O	12:Dt:191:ILE:HG12	2.21	0.41
12:Dv:125:GLN:O	12:Dv:128:GLU:N	2.43	0.41
12:Ck:426:ARG:NH2	12:Ck:428:ASP:OD2	2.47	0.41
12:Cq:381:ASP:OD1	12:Cq:381:ASP:N	2.53	0.41
12:Cy:235:LEU:HB3	12:Cz:244:ARG:NH1	2.36	0.41
12:Eb:232:ASP:O	12:Eb:236:LYS:NZ	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Ed:235:LEU:HB3	12:Ee:244:ARG:NH2	2.35	0.41
15:AP:65:LEU:HG	16:BQ:65:MET:HG3	2.02	0.41
16:BI:184:THR:HG23	16:BI:222:GLN:HG3	2.02	0.41
16:BQ:270:LEU:HD23	16:BQ:270:LEU:HA	1.93	0.41
16:BU:65:MET:HE2	16:BU:65:MET:HB3	1.97	0.41
16:BU:184:THR:HG23	16:BU:222:GLN:HG3	2.02	0.41
16:BY:33:GLU:HG2	16:BY:95:PRO:HD3	2.02	0.41
16:BY:65:MET:HE2	16:BY:65:MET:HB3	1.97	0.41
8:DL:291:SER:OG	8:DL:292:TYR:N	2.54	0.41
8:DM:186:VAL:HG21	8:DM:259:PHE:CE1	2.56	0.41
8:DO:97:ASN:HD22	8:DO:332:ASN:HD21	1.68	0.41
8:DO:387:GLN:CA	8:DO:387:GLN:NE2	2.72	0.41
8:DQ:85:LEU:HD13	8:DQ:116:LEU:HA	2.02	0.41
8:DS:188:ASP:OD2	8:DS:192:ASN:HB2	2.20	0.41
8:DS:392:GLN:OE1	8:DS:392:GLN:HA	2.17	0.41
8:DS:396:LEU:HD23	8:DS:396:LEU:HA	1.68	0.41
8:DU:99:GLN:HB2	8:DU:361:LEU:HD21	2.02	0.41
8:DU:234:GLU:HG2	8:EA:255:THR:HG23	2.03	0.41
8:DU:306:ASN:OD1	8:DU:308:GLN:HG2	2.19	0.41
8:DW:17:LEU:HD23	8:DW:17:LEU:HA	1.97	0.41
8:DX:196:MET:SD	8:DX:214:ASP:HA	2.61	0.41
8:DY:228:THR:HB	8:DY:244:VAL:HG11	2.03	0.41
8:EB:141:ASN:HA	8:EB:289:LEU:HD23	2.03	0.41
8:EF:347:THR:OG1	8:EF:348:ALA:N	2.51	0.41
1:C:26:LEU:HD23	1:C:26:LEU:HA	1.82	0.40
1:C:120:PHE:HB3	1:C:128:LEU:HD11	2.02	0.40
1:D:109:ASP:OD1	1:D:111:THR:HG22	2.21	0.40
1:E:178:PHE:CE2	1:E:201:PRO:HB3	2.57	0.40
1:T:26:LEU:HD23	1:T:26:LEU:HA	1.93	0.40
1:T:129:VAL:HG12	1:T:135:GLN:HA	2.03	0.40
1:U:46:TYR:OH	2:c:173:ARG:NH1	2.55	0.40
5:f:4:LEU:HD13	5:f:4:LEU:HA	1.89	0.40
5:p:28:LEU:HD23	5:p:28:LEU:HA	1.94	0.40
1:W:40:VAL:O	1:W:75:VAL:HG12	2.21	0.40
7:q:68:LEU:HA	7:q:71:VAL:HG12	2.03	0.40
7:t:57:GLU:HA	7:t:60:THR:HG22	2.04	0.40
8:DA:116:LEU:HD21	8:DA:315:ILE:HD12	2.03	0.40
8:DG:118:GLY:N	8:DG:135:ALA:O	2.53	0.40
8:DI:68:ASN:HD21	8:DT:53:LYS:HG3	1.70	0.40
8:DI:204:LYS:HE3	8:DI:204:LYS:HB2	1.94	0.40
8:DK:318:ALA:HB2	8:DK:345:LEU:HD13	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CC:20:LEU:O	10:CC:23:PRO:HD2	2.21	0.40
10:CC:39:GLN:OE1	10:CC:45:ASN:HB2	2.21	0.40
11:w:115:PRO:O	11:w:120:LYS:N	2.45	0.40
11:y:56:ALA:O	11:y:60:MET:HB2	2.21	0.40
11:z:132:GLN:OE1	11:z:135:ARG:NH2	2.39	0.40
12:Da:187:ASP:O	12:Da:191:ILE:HG12	2.21	0.40
12:Dh:187:ASP:O	12:Dh:191:ILE:HG12	2.21	0.40
12:Dq:187:ASP:O	12:Dq:191:ILE:HG12	2.21	0.40
12:Dt:175:SER:O	12:Dt:175:SER:OG	2.32	0.40
12:Dv:187:ASP:O	12:Dv:191:ILE:HG12	2.21	0.40
12:Cf:235:LEU:HB3	12:Cg:244:ARG:HH12	1.85	0.40
12:Ck:265:GLN:HG3	12:Cl:252:ILE:HB	2.03	0.40
12:Cl:265:GLN:HG3	12:Cm:252:ILE:HB	2.03	0.40
12:Cm:235:LEU:HB3	12:Cn:244:ARG:NH1	2.36	0.40
12:Ea:394:LYS:HB3	12:Ea:394:LYS:HE2	1.84	0.40
12:Ef:235:LEU:HB3	12:Eg:244:ARG:NH2	2.36	0.40
15:AD:107:ASP:HB3	15:AE:125:GLU:HG2	2.02	0.40
15:AI:124:MET:HE3	15:AI:124:MET:HB3	1.85	0.40
15:AQ:22:P1L:HB3	15:AQ:22:P1L:H8C1	1.63	0.40
15:AU:107:ASP:HB3	15:AV:125:GLU:HG2	2.03	0.40
15:AX:124:MET:HE3	15:AX:124:MET:HB3	1.85	0.40
16:BL:184:THR:HG23	16:BL:222:GLN:HG3	2.02	0.40
8:DL:71:ARG:NH2	8:DL:99:GLN:HE21	2.09	0.40
8:DL:102:LEU:HA	8:DL:107:ASN:O	2.21	0.40
8:DM:84:ARG:HG2	8:DM:84:ARG:NH1	2.37	0.40
8:DN:174:ASP:OD1	8:DN:174:ASP:N	2.53	0.40
8:DP:184:VAL:HG22	8:DP:185:THR:H	1.86	0.40
8:DQ:29:THR:OG1	8:DQ:32:PHE:HB2	2.21	0.40
8:DT:84:ARG:NH1	8:DT:134:PRO:HB2	2.36	0.40
8:DU:186:VAL:HG23	8:DU:194:HIS:HB2	2.02	0.40
8:DU:318:ALA:HB2	8:DU:345:LEU:HD23	2.04	0.40
8:DV:380:ARG:NH1	8:DV:383:GLN:OE1	2.54	0.40
8:DW:316:VAL:HG23	8:DW:346:GLY:O	2.21	0.40
8:DX:159:ASN:OD1	8:DX:161:THR:N	2.54	0.40
8:DX:330:GLY:H	8:EC:43:PHE:HB2	1.86	0.40
8:DY:267:MET:HE2	8:DY:267:MET:HA	2.01	0.40
8:EA:211:TYR:CD2	8:EA:226:ALA:HA	2.56	0.40
8:EB:29:THR:HG22	8:EB:30:TYR:H	1.85	0.40
8:EB:130:GLN:OE1	8:EB:130:GLN:HA	2.21	0.40
8:EB:320:PHE:CE2	8:EB:326:LEU:HD21	2.56	0.40
8:EF:370:LYS:HG2	8:EF:370:LYS:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:26:LEU:HD23	1:A:26:LEU:HA	1.87	0.40
1:L:42:GLU:CD	1:Q:190:ASN:HB2	2.46	0.40
1:O:97:ILE:HD11	1:O:103:PHE:CE2	2.57	0.40
1:O:159:VAL:HG13	1:O:168:VAL:HG13	2.03	0.40
1:T:205:THR:HG23	1:T:208:LEU:HD13	2.03	0.40
2:d:65:ASP:OD1	2:d:65:ASP:N	2.54	0.40
2:d:71:LEU:HA	2:d:207:GLU:HA	2.02	0.40
6:l:9:LEU:HD23	6:l:123:LEU:HD11	2.03	0.40
6:k:102:MET:O	6:k:105:GLU:HG3	2.22	0.40
1:X:147:LEU:HB2	1:X:160:THR:HG23	2.02	0.40
8:DD:337:THR:O	8:DD:340:SER:OG	2.32	0.40
8:DF:87:ASP:N	8:DF:91:SER:O	2.47	0.40
8:DF:288:ASP:OD1	8:DF:289:LEU:N	2.54	0.40
8:DI:337:THR:OG1	8:DI:338:GLN:N	2.53	0.40
8:DJ:5:GLN:OE1	8:DJ:5:GLN:N	2.51	0.40
8:DK:327:ALA:HA	8:DP:47:LYS:HZ2	1.83	0.40
9:CE:242:HIS:CE1	12:DI:125:GLN:CD	2.98	0.40
11:x:73:LEU:HG	11:x:186:GLY:HA3	2.02	0.40
11:z:110:VAL:HA	11:z:114:GLN:HG2	2.03	0.40
12:Dc:187:ASP:O	12:Dc:191:ILE:HG12	2.21	0.40
12:Dj:187:ASP:O	12:Dj:191:ILE:HG12	2.21	0.40
12:Du:187:ASP:O	12:Du:191:ILE:HG12	2.21	0.40
12:Cb:265:GLN:HG3	12:Cc:252:ILE:HB	2.03	0.40
12:Ci:409:MET:HE3	12:Ci:409:MET:HB3	1.95	0.40
12:Cm:235:LEU:HB3	12:Cn:244:ARG:HH12	1.86	0.40
12:Cu:426:ARG:NH2	12:Cu:428:ASP:OD2	2.47	0.40
12:Cx:235:LEU:HB3	12:Cy:244:ARG:NH2	2.35	0.40
12:Ea:235:LEU:HB3	12:Ec:244:ARG:HH12	1.86	0.40
15:AI:45:PRO:HB3	15:AI:53:GLN:HG3	2.04	0.40
15:AS:51:ILE:HG13	16:BR:175:LEU:HD11	2.04	0.40
15:AX:107:ASP:HB3	15:AY:125:GLU:HG2	2.03	0.40
15:AY:224:ARG:O	15:AY:228:ASN:ND2	2.50	0.40
16:BJ:184:THR:HG23	16:BJ:222:GLN:HG3	2.02	0.40
16:BM:184:THR:HG23	16:BM:222:GLN:HG3	2.02	0.40
16:BO:184:THR:HG23	16:BO:222:GLN:HG3	2.02	0.40
16:BR:93:TYR:HA	16:BR:94:PRO:HD3	1.93	0.40
16:BS:245:ASN:OD1	16:BS:245:ASN:N	2.52	0.40
16:BT:65:MET:HE2	16:BT:65:MET:HB3	1.97	0.40
16:BU:33:GLU:OE1	16:BU:92:SER:OG	2.30	0.40
16:BW:65:MET:HE2	16:BW:65:MET:HB3	1.97	0.40
16:BW:184:THR:HG23	16:BW:222:GLN:HG3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DM:84:ARG:NH1	8:DM:92:VAL:HG23	2.35	0.40
8:DO:281:GLN:HG2	8:DO:283:GLY:H	1.86	0.40
8:DP:156:ILE:HD12	8:DP:276:ILE:HG12	2.03	0.40
8:DP:379:GLN:HG2	8:DP:383:GLN:HE22	1.86	0.40
8:DQ:150:THR:H	8:DQ:282:ASN:HD21	1.68	0.40
8:DQ:213:HIS:HB2	8:DQ:223:PRO:HD3	2.03	0.40
8:DQ:250:THR:O	8:DQ:250:THR:CG2	2.69	0.40
8:DQ:402:LEU:C	8:DQ:402:LEU:CD1	2.84	0.40
8:DS:42:MET:HE2	8:DS:52:VAL:O	2.21	0.40
8:DS:116:LEU:HD21	8:DS:315:ILE:HD13	2.02	0.40
8:DV:101:LYS:HE3	8:EA:322:ASN:HD21	1.85	0.40
8:DV:180:LYS:HD2	8:DV:180:LYS:HA	1.86	0.40
8:DY:110:ASN:OD1	8:DY:114:MET:N	2.54	0.40
8:DZ:26:ASN:OD1	8:EE:41:ASP:HB3	2.21	0.40
8:DZ:60:ASP:OD1	8:DZ:62:THR:HG23	2.21	0.40
8:DZ:266:SER:O	8:DZ:267:MET:HE2	2.20	0.40
8:EB:294:ILE:O	8:EB:358:ASN:ND2	2.44	0.40
8:EE:280:ASN:OD1	8:EE:281:GLN:N	2.54	0.40
1:B:35:LYS:HB3	1:B:80:LEU:O	2.21	0.40
1:I:41:PHE:HA	1:I:74:PRO:HA	2.04	0.40
1:J:7:ILE:HG12	1:J:70:THR:O	2.22	0.40
1:L:179:MET:HE1	1:Q:144:ALA:HB2	2.03	0.40
2:a:48:GLY:HA3	6:k:93:PRO:HB3	2.03	0.40
2:b:99:TYR:HE2	2:b:181:LEU:HG	1.87	0.40
2:e:44:VAL:HG23	2:e:56:LEU:HB2	2.04	0.40
1:W:2:ILE:HG22	1:W:4:SER:H	1.87	0.40
1:W:18:ASN:O	1:W:22:ILE:HG12	2.21	0.40
8:DA:143:LEU:HD22	8:DA:288:ASP:HA	2.04	0.40
8:DB:80:ASN:OD1	8:DB:80:ASN:N	2.54	0.40
8:DF:74:ASP:OD1	8:DF:74:ASP:N	2.52	0.40
8:DI:372:LEU:HD23	8:DI:372:LEU:HA	1.96	0.40
8:DK:382:TYR:O	8:DK:382:TYR:CG	2.73	0.40
9:CE:82:ILE:HG22	11:CF:95:PHE:CZ	2.55	0.40
11:z:102:SER:OG	11:z:103:PRO:HD3	2.21	0.40
11:z:209:MET:HA	11:CF:205:MET:HE3	2.03	0.40
12:Db:187:ASP:O	12:Db:191:ILE:HG12	2.21	0.40
12:De:193:ALA:O	12:De:197:LEU:HB2	2.21	0.40
12:Dk:187:ASP:O	12:Dk:191:ILE:HG12	2.21	0.40
12:Dn:187:ASP:O	12:Dn:191:ILE:HG12	2.21	0.40
12:Do:160:PRO:O	12:Do:160:PRO:CD	2.70	0.40
12:Dq:123:ILE:O	12:Dq:125:GLN:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dq:171:SER:HB2	12:Dq:172:PRO:CD	2.51	0.40
12:Dv:172:PRO:HG2	12:Dv:205:LEU:HB2	2.04	0.40
12:Cf:235:LEU:HB3	12:Cg:244:ARG:HH22	1.86	0.40
12:Ck:235:LEU:HB3	12:Cl:244:ARG:NH1	2.35	0.40
12:Eb:394:LYS:HB3	12:Eb:394:LYS:HE2	1.84	0.40
15:AH:45:PRO:HB3	15:AH:53:GLN:HG3	2.04	0.40
15:AN:107:ASP:HB3	15:AO:125:GLU:HG2	2.01	0.40
15:AR:22:P1L:HB3	15:AR:22:P1L:H8C1	1.62	0.40
16:BK:184:THR:HG23	16:BK:222:GLN:HG3	2.02	0.40
16:BV:93:TYR:HA	16:BV:94:PRO:HD3	1.93	0.40
8:DO:41:ASP:HA	8:DO:52:VAL:HA	2.03	0.40
8:DO:74:ASP:HB2	8:DO:359:GLY:HA2	2.03	0.40
8:DQ:322:ASN:HB3	8:DQ:340:SER:HA	2.03	0.40
8:DR:57:ILE:H	8:DW:47:LYS:HZ3	1.69	0.40
8:DT:200:PHE:CD1	8:DT:210:VAL:HG22	2.57	0.40
8:DU:178:TYR:HA	8:DU:201:VAL:HG22	2.03	0.40
8:DV:157:ASN:HB3	8:DV:271:THR:HG21	2.03	0.40
8:DY:231:LYS:O	8:DY:238:LEU:HD12	2.22	0.40
8:EE:246:ILE:HD13	8:EE:246:ILE:HA	1.96	0.40
8:EE:331:ASP:OD1	8:EE:331:ASP:N	2.54	0.40
8:EE:392:GLN:O	8:EE:396:LEU:HD23	2.22	0.40
1:I:26:LEU:HD23	1:I:26:LEU:HA	1.88	0.40
1:M:178:PHE:CE2	1:M:201:PRO:HB3	2.57	0.40
1:S:254:LEU:HD23	2:b:225:ARG:HG3	2.03	0.40
1:U:55:GLN:N	1:U:55:GLN:OE1	2.55	0.40
2:a:217:MET:HE1	1:V:245:LYS:HE2	2.04	0.40
5:f:102:MET:O	5:f:105:THR:OG1	2.31	0.40
5:i:50:GLN:HG3	5:i:65:ALA:HB2	2.03	0.40
1:V:141:THR:CG2	16:BE:54:GLN:OE1	2.65	0.40
1:V:238:ARG:HD3	1:V:238:ARG:HA	1.81	0.40
8:DC:194:HIS:HA	8:DC:216:SER:OG	2.21	0.40
8:DG:147:LYS:HD2	8:DG:148:SER:O	2.21	0.40
8:DG:369:SER:HA	8:DR:399:LEU:CD2	2.52	0.40
8:DI:17:LEU:HD13	8:DN:395:ILE:HD13	2.02	0.40
8:DJ:3:PHE:O	8:DJ:7:VAL:HG12	2.21	0.40
8:DK:71:ARG:NH2	8:DK:73:LEU:HB2	2.37	0.40
11:y:101:MET:HE2	11:y:101:MET:HB2	1.97	0.40
12:De:187:ASP:O	12:De:191:ILE:HG12	2.21	0.40
12:Dm:187:ASP:O	12:Dm:191:ILE:HG12	2.21	0.40
12:Dn:175:SER:O	12:Dn:175:SER:OG	2.32	0.40
12:Dq:156:HIS:CE1	12:Dr:143:THR:HG21	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:Dr:187:ASP:O	12:Dr:191:ILE:HG12	2.21	0.40
12:Cb:287:ASP:OD1	12:Cb:288:ALA:N	2.55	0.40
12:Ct:381:ASP:OD1	12:Ct:381:ASP:N	2.53	0.40
12:Cz:381:ASP:OD1	12:Cz:381:ASP:N	2.53	0.40
12:Ea:235:LEU:HB3	12:Ec:244:ARG:NH1	2.37	0.40
15:AP:107:ASP:HB3	15:AQ:125:GLU:HG2	2.02	0.40
15:AQ:45:PRO:HB3	15:AQ:53:GLN:HG3	2.04	0.40
16:BB:270:LEU:HD23	16:BB:270:LEU:HA	1.94	0.40
16:BR:270:LEU:HD23	16:BR:270:LEU:HA	1.93	0.40
16:BV:184:THR:HG23	16:BV:222:GLN:HG3	2.02	0.40
16:BV:355:ALA:O	16:BW:252:LYS:HD2	2.22	0.40
16:BY:131:SER:OG	16:BZ:68:GLN:NE2	2.54	0.40
16:BZ:33:GLU:HG2	16:BZ:95:PRO:HD3	2.02	0.40
16:BZ:65:MET:HE2	16:BZ:65:MET:HB3	1.97	0.40
8:DL:3:PHE:O	8:DL:7:VAL:HG22	2.21	0.40
8:DM:383:GLN:NE2	8:DR:394:GLN:HE22	2.16	0.40
8:DM:402:LEU:HD23	8:DM:402:LEU:HA	1.87	0.40
8:DN:287:GLY:N	8:DN:306:ASN:HD21	2.20	0.40
8:DT:65:THR:HG22	8:EE:50:LEU:HD22	2.02	0.40
8:DZ:109:VAL:HG12	8:DZ:110:ASN:O	2.22	0.40
8:EA:101:LYS:N	8:EA:109:VAL:O	2.54	0.40
8:EB:126:PRO:HD2	8:EB:310:GLN:OE1	2.21	0.40
8:EB:346:GLY:HA3	8:EB:353:PHE:CE2	2.57	0.40
8:EC:119:TYR:CE1	8:EC:134:PRO:HG3	2.56	0.40
8:EC:190:GLN:OE1	8:EC:192:ASN:ND2	2.48	0.40
8:ED:75:VAL:HG12	8:ED:356:LEU:HD22	2.02	0.40
8:EE:390:LYS:O	8:EE:394:GLN:HG3	2.22	0.40
1:A:18:ASN:O	1:A:21:VAL:HG22	2.22	0.40
1:A:52:PRO:HB3	1:A:65:GLY:H	1.87	0.40
1:B:88:GLN:HG2	1:B:218:TYR:CZ	2.57	0.40
1:D:163:GLY:C	1:D:165:ALA:H	2.30	0.40
1:F:19:MET:HB2	1:F:236:VAL:HG11	2.04	0.40
1:H:109:ASP:OD2	1:S:162:GLN:NE2	2.54	0.40
1:J:95:VAL:O	1:J:118:GLY:HA3	2.21	0.40
1:M:56:SER:HB2	1:M:62:LEU:HG	2.04	0.40
1:N:26:LEU:HD23	1:N:26:LEU:HA	1.89	0.40
1:U:255:GLN:HA	1:U:258:THR:HG22	2.03	0.40
2:b:105:ILE:HG12	2:b:115:ILE:HD11	2.03	0.40
2:d:226:ARG:O	2:d:230:GLN:HG2	2.21	0.40
5:f:6:ILE:H	5:f:6:ILE:HG12	1.72	0.40
6:m:26:LEU:HA	6:m:29:ASN:ND2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:k:36:PRO:HB3	6:k:96:ASP:HB2	2.04	0.40
1:X:134:PHE:CE2	1:X:189:GLU:HG3	2.56	0.40
7:q:59:PHE:CZ	7:q:68:LEU:HD12	2.56	0.40
7:v:91:LYS:HB3	11:CF:51:LEU:HD22	2.03	0.40
8:DC:74:ASP:OD1	8:DC:74:ASP:N	2.54	0.40
8:DE:149:THR:HG1	8:DE:187:TYR:H	1.69	0.40
8:DF:168:THR:N	8:DF:169:PRO:HD2	2.37	0.40
8:DH:32:PHE:O	8:DH:365:ASN:ND2	2.54	0.40
8:DH:319:ASN:ND2	8:DH:352:ASN:O	2.54	0.40
8:DK:271:THR:CG2	8:DQ:143:LEU:HD21	2.52	0.40
11:y:107:LYS:HE2	11:y:107:LYS:HB3	1.94	0.40
11:CF:146:ASP:OD2	11:CF:177:SER:HB2	2.22	0.40
12:Dc:193:ALA:O	12:Dc:197:LEU:HB2	2.21	0.40
12:Dp:187:ASP:O	12:Dp:191:ILE:HG12	2.21	0.40
12:Ds:113:PHE:N	12:Ds:135:ALA:HB1	2.36	0.40
12:Cc:287:ASP:OD1	12:Cc:288:ALA:N	2.55	0.40
12:Cd:235:LEU:HB3	12:Ce:244:ARG:NH1	2.36	0.40
12:Cd:287:ASP:OD1	12:Cd:288:ALA:N	2.55	0.40
12:Cg:409:MET:HE3	12:Cg:409:MET:HB3	1.95	0.40
12:Cw:381:ASP:OD1	12:Cw:381:ASP:N	2.53	0.40
12:Ea:426:ARG:NH2	12:Ea:428:ASP:OD2	2.47	0.40
15:AJ:45:PRO:HB3	15:AJ:53:GLN:HG3	2.04	0.40
15:AM:68:ASP:OD2	16:BO:71:ILE:HA	2.21	0.40
15:AR:45:PRO:HB3	15:AR:53:GLN:HG3	2.04	0.40
15:AW:45:PRO:HB3	15:AW:53:GLN:HG3	2.04	0.40
16:BC:161:ASN:HD22	16:BD:46:ASP:HA	1.85	0.40
16:BV:33:GLU:OE1	16:BV:92:SER:OG	2.30	0.40
8:DL:198:VAL:HG13	8:DL:210:VAL:HG13	2.03	0.40
8:DL:393:ASP:OD1	8:DL:393:ASP:C	2.64	0.40
8:DN:61:PHE:CD1	8:DN:324:GLU:HG3	2.57	0.40
8:DN:167:LYS:HE3	8:DN:167:LYS:HB3	1.93	0.40
8:DP:188:ASP:HA	8:DP:257:ALA:HB2	2.03	0.40
8:DS:42:MET:SD	8:DS:50:LEU:HD22	2.61	0.40
8:DU:353:PHE:N	8:DU:353:PHE:CD1	2.90	0.40
8:DV:160:SER:HA	8:DV:268:GLN:HE21	1.85	0.40
8:DV:347:THR:HG23	8:DV:349:GLY:H	1.86	0.40
8:EB:83:PHE:O	8:EB:94:TYR:HA	2.22	0.40
8:EC:346:GLY:HA3	8:EC:353:PHE:CE2	2.56	0.40
8:EG:110:ASN:OD1	8:EG:113:GLY:N	2.53	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	258/260 (99%)	249 (96%)	9 (4%)	0	100	100
1	B	258/260 (99%)	247 (96%)	11 (4%)	0	100	100
1	C	258/260 (99%)	247 (96%)	11 (4%)	0	100	100
1	D	258/260 (99%)	248 (96%)	10 (4%)	0	100	100
1	E	258/260 (99%)	246 (95%)	12 (5%)	0	100	100
1	F	258/260 (99%)	248 (96%)	10 (4%)	0	100	100
1	G	258/260 (99%)	247 (96%)	11 (4%)	0	100	100
1	H	258/260 (99%)	245 (95%)	13 (5%)	0	100	100
1	I	258/260 (99%)	248 (96%)	10 (4%)	0	100	100
1	J	258/260 (99%)	251 (97%)	7 (3%)	0	100	100
1	K	258/260 (99%)	248 (96%)	10 (4%)	0	100	100
1	L	257/260 (99%)	250 (97%)	7 (3%)	0	100	100
1	M	258/260 (99%)	247 (96%)	11 (4%)	0	100	100
1	N	247/260 (95%)	240 (97%)	7 (3%)	0	100	100
1	O	248/260 (95%)	240 (97%)	8 (3%)	0	100	100
1	P	244/260 (94%)	236 (97%)	8 (3%)	0	100	100
1	Q	243/260 (94%)	237 (98%)	6 (2%)	0	100	100
1	R	246/260 (95%)	238 (97%)	8 (3%)	0	100	100
1	S	243/260 (94%)	235 (97%)	8 (3%)	0	100	100
1	T	249/260 (96%)	241 (97%)	8 (3%)	0	100	100
1	U	257/260 (99%)	243 (95%)	14 (5%)	0	100	100
1	V	257/260 (99%)	249 (97%)	8 (3%)	0	100	100
1	W	257/260 (99%)	242 (94%)	15 (6%)	0	100	100
1	X	257/260 (99%)	244 (95%)	13 (5%)	0	100	100
2	a	247/251 (98%)	235 (95%)	12 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	b	246/251 (98%)	236 (96%)	10 (4%)	0	100	100
2	c	247/251 (98%)	237 (96%)	10 (4%)	0	100	100
2	d	247/251 (98%)	232 (94%)	15 (6%)	0	100	100
2	e	247/251 (98%)	231 (94%)	16 (6%)	0	100	100
4	5	19/21 (90%)	19 (100%)	0	0	100	100
4	6	19/21 (90%)	19 (100%)	0	0	100	100
4	7	19/21 (90%)	19 (100%)	0	0	100	100
4	8	19/21 (90%)	18 (95%)	1 (5%)	0	100	100
4	9	19/21 (90%)	19 (100%)	0	0	100	100
5	f	124/134 (92%)	121 (98%)	3 (2%)	0	100	100
5	g	126/134 (94%)	121 (96%)	5 (4%)	0	100	100
5	h	124/134 (92%)	120 (97%)	4 (3%)	0	100	100
5	i	125/134 (93%)	121 (97%)	4 (3%)	0	100	100
5	j	123/134 (92%)	119 (97%)	4 (3%)	0	100	100
5	p	125/134 (93%)	120 (96%)	5 (4%)	0	100	100
6	k	104/138 (75%)	99 (95%)	5 (5%)	0	100	100
6	l	102/138 (74%)	101 (99%)	1 (1%)	0	100	100
6	m	102/138 (74%)	99 (97%)	3 (3%)	0	100	100
6	n	103/138 (75%)	99 (96%)	4 (4%)	0	100	100
6	o	105/138 (76%)	103 (98%)	2 (2%)	0	100	100
7	q	69/104 (66%)	68 (99%)	1 (1%)	0	100	100
7	r	68/104 (65%)	64 (94%)	4 (6%)	0	100	100
7	s	70/104 (67%)	70 (100%)	0	0	100	100
7	t	70/104 (67%)	69 (99%)	1 (1%)	0	100	100
7	u	70/104 (67%)	70 (100%)	0	0	100	100
7	v	36/104 (35%)	36 (100%)	0	0	100	100
8	DA	399/403 (99%)	377 (94%)	22 (6%)	0	100	100
8	DB	399/403 (99%)	377 (94%)	22 (6%)	0	100	100
8	DC	399/403 (99%)	375 (94%)	24 (6%)	0	100	100
8	DD	399/403 (99%)	378 (95%)	21 (5%)	0	100	100
8	DE	399/403 (99%)	380 (95%)	19 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	DF	399/403 (99%)	376 (94%)	23 (6%)	0	100	100
8	DG	399/403 (99%)	382 (96%)	17 (4%)	0	100	100
8	DH	399/403 (99%)	378 (95%)	19 (5%)	2 (0%)	24	59
8	DI	399/403 (99%)	381 (96%)	18 (4%)	0	100	100
8	DJ	399/403 (99%)	375 (94%)	23 (6%)	1 (0%)	36	69
8	DK	399/403 (99%)	386 (97%)	13 (3%)	0	100	100
8	DL	399/403 (99%)	369 (92%)	27 (7%)	3 (1%)	16	50
8	DM	399/403 (99%)	383 (96%)	14 (4%)	2 (0%)	24	59
8	DN	399/403 (99%)	366 (92%)	31 (8%)	2 (0%)	24	59
8	DO	399/403 (99%)	373 (94%)	23 (6%)	3 (1%)	16	50
8	DP	399/403 (99%)	375 (94%)	24 (6%)	0	100	100
8	DQ	399/403 (99%)	379 (95%)	20 (5%)	0	100	100
8	DR	399/403 (99%)	382 (96%)	17 (4%)	0	100	100
8	DS	399/403 (99%)	381 (96%)	18 (4%)	0	100	100
8	DT	399/403 (99%)	377 (94%)	22 (6%)	0	100	100
8	DU	399/403 (99%)	381 (96%)	18 (4%)	0	100	100
8	DV	399/403 (99%)	374 (94%)	23 (6%)	2 (0%)	24	59
8	DW	399/403 (99%)	381 (96%)	18 (4%)	0	100	100
8	DX	399/403 (99%)	380 (95%)	19 (5%)	0	100	100
8	DY	399/403 (99%)	378 (95%)	21 (5%)	0	100	100
8	DZ	399/403 (99%)	377 (94%)	22 (6%)	0	100	100
8	EA	399/403 (99%)	378 (95%)	21 (5%)	0	100	100
8	EB	399/403 (99%)	373 (94%)	26 (6%)	0	100	100
8	EC	399/403 (99%)	385 (96%)	14 (4%)	0	100	100
8	ED	399/403 (99%)	380 (95%)	19 (5%)	0	100	100
8	EE	399/403 (99%)	379 (95%)	20 (5%)	0	100	100
8	EF	399/403 (99%)	379 (95%)	20 (5%)	0	100	100
8	EG	399/403 (99%)	376 (94%)	23 (6%)	0	100	100
9	CE	258/264 (98%)	239 (93%)	18 (7%)	1 (0%)	30	64
10	CA	87/89 (98%)	77 (88%)	10 (12%)	0	100	100
10	CB	87/89 (98%)	78 (90%)	9 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	CC	87/89 (98%)	77 (88%)	10 (12%)	0	100	100
10	CD	87/89 (98%)	77 (88%)	10 (12%)	0	100	100
11	CF	209/245 (85%)	203 (97%)	6 (3%)	0	100	100
11	w	209/245 (85%)	203 (97%)	6 (3%)	0	100	100
11	x	209/245 (85%)	197 (94%)	12 (6%)	0	100	100
11	y	209/245 (85%)	201 (96%)	8 (4%)	0	100	100
11	z	209/245 (85%)	204 (98%)	5 (2%)	0	100	100
12	Ca	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cb	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cc	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cd	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ce	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cf	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cg	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ch	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ci	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cj	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ck	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cl	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cm	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cn	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Co	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cp	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cq	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cr	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cs	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ct	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cu	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cv	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cw	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cx	144/560 (26%)	136 (94%)	8 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	Cy	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Cz	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Da	107/560 (19%)	94 (88%)	10 (9%)	3 (3%)	4	27
12	Db	107/560 (19%)	95 (89%)	10 (9%)	2 (2%)	6	33
12	Dc	107/560 (19%)	93 (87%)	10 (9%)	4 (4%)	2	22
12	Dd	107/560 (19%)	93 (87%)	12 (11%)	2 (2%)	6	33
12	De	95/560 (17%)	86 (90%)	8 (8%)	1 (1%)	11	43
12	Df	95/560 (17%)	83 (87%)	12 (13%)	0	100	100
12	Dg	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Dh	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Di	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Dj	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Dk	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Di	83/560 (15%)	76 (92%)	6 (7%)	1 (1%)	10	41
12	Dm	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Dn	83/560 (15%)	75 (90%)	7 (8%)	1 (1%)	10	41
12	Do	95/560 (17%)	86 (90%)	7 (7%)	2 (2%)	5	31
12	Dp	107/560 (19%)	94 (88%)	12 (11%)	1 (1%)	14	47
12	Dq	107/560 (19%)	96 (90%)	8 (8%)	3 (3%)	4	27
12	Dr	107/560 (19%)	96 (90%)	10 (9%)	1 (1%)	14	47
12	Ds	107/560 (19%)	93 (87%)	11 (10%)	3 (3%)	4	27
12	Dt	107/560 (19%)	93 (87%)	11 (10%)	3 (3%)	4	27
12	Du	107/560 (19%)	94 (88%)	11 (10%)	2 (2%)	6	33
12	Dv	107/560 (19%)	96 (90%)	8 (8%)	3 (3%)	4	27
12	Dw	107/560 (19%)	90 (84%)	13 (12%)	4 (4%)	2	22
12	Ea	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Eb	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ec	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ed	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ee	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Ef	144/560 (26%)	136 (94%)	8 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	Eg	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
12	Eh	144/560 (26%)	136 (94%)	8 (6%)	0	100	100
15	AA	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AB	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AC	209/232 (90%)	198 (95%)	11 (5%)	0	100	100
15	AD	209/232 (90%)	198 (95%)	11 (5%)	0	100	100
15	AE	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AF	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AG	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AH	209/232 (90%)	198 (95%)	11 (5%)	0	100	100
15	AI	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AJ	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AK	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AL	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AM	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AN	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AO	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AP	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AQ	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AR	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AS	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AT	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AU	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AV	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AW	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AX	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
15	AY	209/232 (90%)	198 (95%)	11 (5%)	0	100	100
15	AZ	209/232 (90%)	199 (95%)	10 (5%)	0	100	100
16	BA	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BB	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BC	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	BD	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BE	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BF	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BG	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BH	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BI	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BJ	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BK	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BL	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BM	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BN	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BO	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BP	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BQ	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BR	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BS	297/365 (81%)	290 (98%)	6 (2%)	1 (0%)	36	69
16	BT	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BU	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BV	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BW	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BX	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BY	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
16	BZ	297/365 (81%)	291 (98%)	5 (2%)	1 (0%)	36	69
All	All	44179/72304 (61%)	42089 (95%)	2006 (4%)	84 (0%)	44	74

All (84) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	DJ	332	ASN
12	Dc	124	SER
12	Dc	125	GLN
12	Dd	160	PRO
12	Dq	124	SER
12	Dq	160	PRO

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Mol	Chain	Res	Type
12	Ds	160	PRO
12	Du	160	PRO
12	Dw	127	SER
12	Dw	160	PRO
8	DN	22	ASN
12	Da	160	PRO
12	Da	171	SER
12	Db	165	PHE
12	Dd	125	GLN
12	Dr	122	GLY
12	Ds	127	SER
12	Dv	162	PRO
8	DM	324	GLU
8	DO	52	VAL
8	DH	270	ASN
12	Do	160	PRO
12	Dp	160	PRO
12	Dt	171	SER
12	Dv	163	SER
12	Da	172	PRO
12	Dc	170	LYS
12	Dw	126	PHE
16	BA	112	ASN
16	BB	112	ASN
16	BC	112	ASN
16	BD	112	ASN
16	BE	112	ASN
16	BF	112	ASN
16	BG	112	ASN
16	BH	112	ASN
16	BI	112	ASN
16	BJ	112	ASN
16	BK	112	ASN
16	BL	112	ASN
16	BM	112	ASN
16	BN	112	ASN
16	BO	112	ASN
16	BP	112	ASN
16	BQ	112	ASN
16	BR	112	ASN
16	BS	112	ASN
16	BT	112	ASN

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Mol	Chain	Res	Type
16	BU	112	ASN
16	BV	112	ASN
16	BW	112	ASN
16	BX	112	ASN
16	BY	112	ASN
16	BZ	112	ASN
8	DL	39	PHE
8	DL	352	ASN
8	DN	50	LEU
8	DO	45	GLY
8	DO	54	VAL
8	DV	88	SER
9	CE	159	ILE
12	Dt	160	PRO
12	Dt	172	PRO
12	Dv	161	LYS
8	DL	44	ALA
8	DM	339	ALA
8	DH	71	ARG
12	Dc	161	LYS
8	DV	91	SER
12	Do	161	LYS
12	Dw	162	PRO
12	De	172	PRO
12	Dg	172	PRO
12	Dh	172	PRO
12	Di	172	PRO
12	Dj	172	PRO
12	Dk	172	PRO
12	Dl	172	PRO
12	Dm	172	PRO
12	Dn	172	PRO
12	Du	161	LYS
12	Db	161	LYS
12	Ds	161	LYS
12	Dq	171	SER

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	215/215 (100%)	212 (99%)	3 (1%)	59	71
1	B	215/215 (100%)	212 (99%)	3 (1%)	59	71
1	C	215/215 (100%)	209 (97%)	6 (3%)	38	59
1	D	215/215 (100%)	213 (99%)	2 (1%)	70	75
1	E	215/215 (100%)	210 (98%)	5 (2%)	44	63
1	F	215/215 (100%)	212 (99%)	3 (1%)	59	71
1	G	215/215 (100%)	207 (96%)	8 (4%)	30	53
1	H	215/215 (100%)	210 (98%)	5 (2%)	44	63
1	I	215/215 (100%)	211 (98%)	4 (2%)	50	66
1	J	215/215 (100%)	210 (98%)	5 (2%)	44	63
1	K	215/215 (100%)	210 (98%)	5 (2%)	44	63
1	L	214/215 (100%)	211 (99%)	3 (1%)	59	71
1	M	215/215 (100%)	210 (98%)	5 (2%)	44	63
1	N	208/215 (97%)	208 (100%)	0	100	100
1	O	209/215 (97%)	206 (99%)	3 (1%)	59	71
1	P	204/215 (95%)	201 (98%)	3 (2%)	57	70
1	Q	204/215 (95%)	199 (98%)	5 (2%)	42	62
1	R	206/215 (96%)	199 (97%)	7 (3%)	32	55
1	S	204/215 (95%)	202 (99%)	2 (1%)	68	75
1	T	210/215 (98%)	208 (99%)	2 (1%)	68	75
1	U	214/215 (100%)	210 (98%)	4 (2%)	50	66
1	V	214/215 (100%)	207 (97%)	7 (3%)	33	56
1	W	214/215 (100%)	211 (99%)	3 (1%)	59	71
1	X	214/215 (100%)	209 (98%)	5 (2%)	44	63
2	a	191/193 (99%)	184 (96%)	7 (4%)	30	53
2	b	190/193 (98%)	184 (97%)	6 (3%)	34	56
2	c	191/193 (99%)	183 (96%)	8 (4%)	26	50
2	d	191/193 (99%)	187 (98%)	4 (2%)	47	65
2	e	191/193 (99%)	187 (98%)	4 (2%)	47	65
4	5	15/15 (100%)	14 (93%)	1 (7%)	15	41

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	6	15/15 (100%)	15 (100%)	0	100	100
4	7	15/15 (100%)	15 (100%)	0	100	100
4	8	15/15 (100%)	15 (100%)	0	100	100
4	9	15/15 (100%)	15 (100%)	0	100	100
5	f	101/105 (96%)	98 (97%)	3 (3%)	36	57
5	g	102/105 (97%)	98 (96%)	4 (4%)	28	52
5	h	101/105 (96%)	99 (98%)	2 (2%)	48	65
5	i	102/105 (97%)	98 (96%)	4 (4%)	28	52
5	j	101/105 (96%)	100 (99%)	1 (1%)	68	75
5	p	101/105 (96%)	101 (100%)	0	100	100
6	k	91/113 (80%)	90 (99%)	1 (1%)	65	74
6	l	89/113 (79%)	86 (97%)	3 (3%)	32	55
6	m	89/113 (79%)	86 (97%)	3 (3%)	32	55
6	n	90/113 (80%)	87 (97%)	3 (3%)	33	56
6	o	91/113 (80%)	87 (96%)	4 (4%)	25	49
7	q	55/79 (70%)	54 (98%)	1 (2%)	51	67
7	r	54/79 (68%)	53 (98%)	1 (2%)	50	66
7	s	56/79 (71%)	56 (100%)	0	100	100
7	t	56/79 (71%)	55 (98%)	1 (2%)	51	67
7	u	56/79 (71%)	56 (100%)	0	100	100
7	v	32/79 (40%)	30 (94%)	2 (6%)	16	42
8	DA	321/323 (99%)	315 (98%)	6 (2%)	50	66
8	DB	321/323 (99%)	316 (98%)	5 (2%)	55	69
8	DC	321/323 (99%)	317 (99%)	4 (1%)	63	72
8	DD	321/323 (99%)	314 (98%)	7 (2%)	45	64
8	DE	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	DF	321/323 (99%)	315 (98%)	6 (2%)	50	66
8	DG	321/323 (99%)	318 (99%)	3 (1%)	70	75
8	DH	321/323 (99%)	314 (98%)	7 (2%)	45	64
8	DI	321/323 (99%)	315 (98%)	6 (2%)	50	66
8	DJ	321/323 (99%)	316 (98%)	5 (2%)	55	69

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	DK	321/323 (99%)	318 (99%)	3 (1%)	70	75
8	DL	321/323 (99%)	300 (94%)	21 (6%)	15	42
8	DM	321/323 (99%)	304 (95%)	17 (5%)	20	46
8	DN	321/323 (99%)	305 (95%)	16 (5%)	22	47
8	DO	321/323 (99%)	294 (92%)	27 (8%)	10	33
8	DP	321/323 (99%)	315 (98%)	6 (2%)	50	66
8	DQ	321/323 (99%)	315 (98%)	6 (2%)	50	66
8	DR	321/323 (99%)	321 (100%)	0	100	100
8	DS	321/323 (99%)	314 (98%)	7 (2%)	45	64
8	DT	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	DU	321/323 (99%)	315 (98%)	6 (2%)	50	66
8	DV	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	DW	321/323 (99%)	321 (100%)	0	100	100
8	DX	321/323 (99%)	321 (100%)	0	100	100
8	DY	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	DZ	321/323 (99%)	321 (100%)	0	100	100
8	EA	321/323 (99%)	321 (100%)	0	100	100
8	EB	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	EC	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	ED	321/323 (99%)	321 (100%)	0	100	100
8	EE	321/323 (99%)	321 (100%)	0	100	100
8	EF	321/323 (99%)	320 (100%)	1 (0%)	86	85
8	EG	321/323 (99%)	320 (100%)	1 (0%)	86	85
9	CE	217/221 (98%)	212 (98%)	5 (2%)	44	63
10	CA	74/74 (100%)	74 (100%)	0	100	100
10	CB	74/74 (100%)	71 (96%)	3 (4%)	27	51
10	CC	74/74 (100%)	74 (100%)	0	100	100
10	CD	74/74 (100%)	74 (100%)	0	100	100
11	CF	180/204 (88%)	178 (99%)	2 (1%)	65	74
11	w	180/204 (88%)	176 (98%)	4 (2%)	45	64
11	x	180/204 (88%)	175 (97%)	5 (3%)	38	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	y	180/204 (88%)	170 (94%)	10 (6%)	19	45
11	z	180/204 (88%)	178 (99%)	2 (1%)	65	74
12	Ca	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cb	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cc	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cd	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ce	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cf	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cg	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ch	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ci	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cj	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ck	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cl	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cm	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cn	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Co	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cp	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cq	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cr	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cs	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ct	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cu	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cv	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cw	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cx	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cy	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Cz	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Da	71/467 (15%)	69 (97%)	2 (3%)	38	59
12	Db	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dc	71/467 (15%)	69 (97%)	2 (3%)	38	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	Dd	71/467 (15%)	68 (96%)	3 (4%)	26	50
12	De	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Df	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dg	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dh	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Di	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dj	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dk	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dl	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dm	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dn	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Do	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dp	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dq	71/467 (15%)	69 (97%)	2 (3%)	38	59
12	Dr	71/467 (15%)	69 (97%)	2 (3%)	38	59
12	Ds	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dt	71/467 (15%)	69 (97%)	2 (3%)	38	59
12	Du	71/467 (15%)	70 (99%)	1 (1%)	59	71
12	Dv	71/467 (15%)	68 (96%)	3 (4%)	26	50
12	Dw	71/467 (15%)	68 (96%)	3 (4%)	26	50
12	Ea	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Eb	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ec	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ed	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ee	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Ef	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Eg	133/467 (28%)	130 (98%)	3 (2%)	44	63
12	Eh	133/467 (28%)	130 (98%)	3 (2%)	44	63
15	AA	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AB	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AC	169/185 (91%)	159 (94%)	10 (6%)	18	44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	AD	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AE	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AF	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AG	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AH	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AI	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AJ	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AK	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AL	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AM	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AN	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AO	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AP	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AQ	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AR	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AS	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AT	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AU	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AV	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AW	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AX	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AY	169/185 (91%)	159 (94%)	10 (6%)	18	44
15	AZ	169/185 (91%)	159 (94%)	10 (6%)	18	44
16	BA	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BB	248/294 (84%)	237 (96%)	11 (4%)	25	49
16	BC	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BD	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BE	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BF	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BG	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BH	248/294 (84%)	236 (95%)	12 (5%)	23	48

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	BI	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BJ	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BK	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BL	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BM	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BN	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BO	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BP	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BQ	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BR	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BS	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BT	248/294 (84%)	237 (96%)	11 (4%)	25	49
16	BU	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BV	248/294 (84%)	237 (96%)	11 (4%)	25	49
16	BW	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BX	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BY	248/294 (84%)	236 (95%)	12 (5%)	23	48
16	BZ	248/294 (84%)	236 (95%)	12 (5%)	23	48
All	All	36494/59138 (62%)	35431 (97%)	1063 (3%)	38	58

All (1063) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	97	ILE
1	A	159	VAL
1	A	164	GLN
1	B	75	VAL
1	B	77	THR
1	B	179	MET
1	C	75	VAL
1	C	77	THR
1	C	95	VAL
1	C	97	ILE
1	C	141	THR
1	C	159	VAL
1	D	97	ILE

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Mol	Chain	Res	Type
1	D	157	VAL
1	E	28	ASN
1	E	97	ILE
1	E	157	VAL
1	E	164	GLN
1	E	259	GLN
1	F	75	VAL
1	F	105	VAL
1	F	177	THR
1	G	117	ASP
1	G	141	THR
1	G	157	VAL
1	G	159	VAL
1	G	168	VAL
1	G	195	THR
1	G	226	VAL
1	G	241	GLU
1	H	42	GLU
1	H	105	VAL
1	H	157	VAL
1	H	175	LEU
1	H	226	VAL
1	I	40	VAL
1	I	42	GLU
1	I	150	THR
1	I	256	LYS
1	J	70	THR
1	J	72	VAL
1	J	97	ILE
1	J	157	VAL
1	J	175	LEU
1	K	42	GLU
1	K	59	GLN
1	K	97	ILE
1	K	157	VAL
1	K	202	ASN
1	L	117	ASP
1	L	175	LEU
1	L	245	LYS
1	M	70	THR
1	M	72	VAL
1	M	157	VAL

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Mol	Chain	Res	Type
1	M	256	LYS
1	M	258	THR
1	O	157	VAL
1	O	168	VAL
1	O	179	MET
1	P	159	VAL
1	P	168	VAL
1	P	254	LEU
1	Q	42	GLU
1	Q	70	THR
1	Q	141	THR
1	Q	149	ILE
1	Q	179	MET
1	R	43	ASP
1	R	98	LYS
1	R	141	THR
1	R	149	ILE
1	R	150	THR
1	R	159	VAL
1	R	181	ASP
1	S	109	ASP
1	S	141	THR
1	T	141	THR
1	T	157	VAL
1	U	97	ILE
1	U	150	THR
1	U	159	VAL
1	U	257	LEU
2	a	46	VAL
2	a	49	LEU
2	a	51	LEU
2	a	71	LEU
2	a	150	ASP
2	a	153	ASN
2	a	247	LEU
2	b	49	LEU
2	b	71	LEU
2	b	89	VAL
2	b	182	THR
2	b	214	VAL
2	b	247	LEU
2	c	7	THR

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Mol	Chain	Res	Type
2	c	44	VAL
2	c	46	VAL
2	c	71	LEU
2	c	120	VAL
2	c	155	VAL
2	c	214	VAL
2	c	238	ASP
2	d	57	VAL
2	d	58	THR
2	d	71	LEU
2	d	78	LEU
2	e	49	LEU
2	e	78	LEU
2	e	107	VAL
2	e	114	THR
4	5	312	VAL
5	f	119	LEU
5	f	125	MET
5	f	132	LEU
5	g	4	LEU
5	g	6	ILE
5	g	48	VAL
5	g	116	ILE
5	h	91	VAL
5	h	119	LEU
5	j	96	VAL
6	l	86	LEU
6	l	132	ASN
6	l	133	VAL
6	m	4	ARG
6	m	83	VAL
6	m	100	VAL
6	o	18	LEU
6	o	83	VAL
6	o	89	VAL
6	o	127	LEU
5	i	91	VAL
5	i	97	ASP
5	i	101	GLU
5	i	102	MET
6	k	111	ASP
6	n	29	ASN

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Mol	Chain	Res	Type
6	n	100	VAL
6	n	132	ASN
1	V	28	ASN
1	V	45	LEU
1	V	90	ASN
1	V	156	VAL
1	V	157	VAL
1	V	168	VAL
1	V	175	LEU
1	W	168	VAL
1	W	257	LEU
1	W	260	LEU
1	X	142	ILE
1	X	159	VAL
1	X	179	MET
1	X	185	GLU
1	X	195	THR
7	q	57	GLU
7	r	71	VAL
7	t	71	VAL
7	v	75	MET
7	v	92	LEU
8	DA	17	LEU
8	DA	48	VAL
8	DA	157	ASN
8	DA	212	THR
8	DA	322	ASN
8	DA	352	ASN
8	DB	26	ASN
8	DB	161	THR
8	DB	183	THR
8	DB	228	THR
8	DB	324	GLU
8	DC	48	VAL
8	DC	168	THR
8	DC	316	VAL
8	DC	342	VAL
8	DD	26	ASN
8	DD	80	ASN
8	DD	92	VAL
8	DD	201	VAL
8	DD	295	ASN

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Mol	Chain	Res	Type
8	DD	372	LEU
8	DD	400	VAL
8	DE	295	ASN
8	DF	92	VAL
8	DF	111	MET
8	DF	137	ILE
8	DF	250	THR
8	DF	332	ASN
8	DF	344	LEU
8	DG	41	ASP
8	DG	393	ASP
8	DG	395	ILE
8	DH	17	LEU
8	DH	48	VAL
8	DH	161	THR
8	DH	279	THR
8	DH	300	VAL
8	DH	395	ILE
8	DH	400	VAL
8	DI	17	LEU
8	DI	60	ASP
8	DI	92	VAL
8	DI	168	THR
8	DI	185	THR
8	DI	400	VAL
8	DJ	48	VAL
8	DJ	92	VAL
8	DJ	161	THR
8	DJ	295	ASN
8	DJ	331	ASP
8	DK	48	VAL
8	DK	104	GLU
8	DK	168	THR
9	CE	4	VAL
9	CE	18	TRP
9	CE	131	MET
9	CE	164	VAL
9	CE	190	VAL
10	CB	29	LEU
10	CB	46	GLU
10	CB	88	ILE
11	w	65	THR

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Mol	Chain	Res	Type
11	w	78	LEU
11	w	80	THR
11	w	225	LEU
11	x	73	LEU
11	x	80	THR
11	x	88	VAL
11	x	102	SER
11	x	149	LEU
11	y	51	LEU
11	y	65	THR
11	y	80	THR
11	y	101	MET
11	y	142	THR
11	y	149	LEU
11	y	179	LEU
11	y	211	MET
11	y	212	VAL
11	y	243	PHE
11	z	80	THR
11	z	205	MET
11	CF	42	VAL
11	CF	65	THR
12	Da	125	GLN
12	Da	214	ASP
12	Db	214	ASP
12	Dc	171	SER
12	Dc	214	ASP
12	Dd	125	GLN
12	Dd	160	PRO
12	Dd	214	ASP
12	De	214	ASP
12	Df	214	ASP
12	Dg	214	ASP
12	Dh	214	ASP
12	Di	214	ASP
12	Dj	214	ASP
12	Dk	214	ASP
12	Dl	214	ASP
12	Dm	214	ASP
12	Dn	214	ASP
12	Do	214	ASP
12	Dp	214	ASP

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Mol	Chain	Res	Type
12	Dq	160	PRO
12	Dq	214	ASP
12	Dr	125	GLN
12	Dr	214	ASP
12	Ds	214	ASP
12	Dt	159	MET
12	Dt	214	ASP
12	Du	214	ASP
12	Dv	125	GLN
12	Dv	171	SER
12	Dv	214	ASP
12	Dw	160	PRO
12	Dw	171	SER
12	Dw	214	ASP
12	Ca	243	SER
12	Ca	295	SER
12	Ca	425	LYS
12	Cb	243	SER
12	Cb	295	SER
12	Cb	425	LYS
12	Cc	243	SER
12	Cc	295	SER
12	Cc	425	LYS
12	Cd	243	SER
12	Cd	295	SER
12	Cd	425	LYS
12	Ce	243	SER
12	Ce	295	SER
12	Ce	425	LYS
12	Cf	243	SER
12	Cf	295	SER
12	Cf	425	LYS
12	Cg	243	SER
12	Cg	295	SER
12	Cg	425	LYS
12	Ch	243	SER
12	Ch	295	SER
12	Ch	425	LYS
12	Ci	243	SER
12	Ci	295	SER
12	Ci	425	LYS
12	Cj	243	SER

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Mol	Chain	Res	Type
12	Cj	295	SER
12	Cj	425	LYS
12	Ck	243	SER
12	Ck	295	SER
12	Ck	425	LYS
12	Cl	243	SER
12	Cl	295	SER
12	Cl	425	LYS
12	Cm	243	SER
12	Cm	295	SER
12	Cm	425	LYS
12	Cn	243	SER
12	Cn	295	SER
12	Cn	425	LYS
12	Co	243	SER
12	Co	295	SER
12	Co	425	LYS
12	Cp	243	SER
12	Cp	295	SER
12	Cp	425	LYS
12	Cq	243	SER
12	Cq	295	SER
12	Cq	425	LYS
12	Cr	243	SER
12	Cr	295	SER
12	Cr	425	LYS
12	Cs	243	SER
12	Cs	295	SER
12	Cs	425	LYS
12	Ct	243	SER
12	Ct	295	SER
12	Ct	425	LYS
12	Cu	243	SER
12	Cu	295	SER
12	Cu	425	LYS
12	Cv	243	SER
12	Cv	295	SER
12	Cv	425	LYS
12	Cw	243	SER
12	Cw	295	SER
12	Cw	425	LYS
12	Cx	243	SER

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Mol	Chain	Res	Type
12	Cx	295	SER
12	Cx	425	LYS
12	Cy	243	SER
12	Cy	295	SER
12	Cy	425	LYS
12	Cz	243	SER
12	Cz	295	SER
12	Cz	425	LYS
12	Ea	243	SER
12	Ea	295	SER
12	Ea	425	LYS
12	Eb	243	SER
12	Eb	295	SER
12	Eb	425	LYS
12	Ec	243	SER
12	Ec	295	SER
12	Ec	425	LYS
12	Ed	243	SER
12	Ed	295	SER
12	Ed	425	LYS
12	Ee	243	SER
12	Ee	295	SER
12	Ee	425	LYS
12	Ef	243	SER
12	Ef	295	SER
12	Ef	425	LYS
12	Eg	243	SER
12	Eg	295	SER
12	Eg	425	LYS
12	Eh	243	SER
12	Eh	295	SER
12	Eh	425	LYS
15	AA	40	ILE
15	AA	44	VAL
15	AA	89	SER
15	AA	103	SER
15	AA	127	SER
15	AA	131	SER
15	AA	141	SER
15	AA	143	THR
15	AA	145	SER
15	AA	194	SER

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Mol	Chain	Res	Type
15	AB	40	ILE
15	AB	44	VAL
15	AB	89	SER
15	AB	103	SER
15	AB	127	SER
15	AB	131	SER
15	AB	141	SER
15	AB	143	THR
15	AB	145	SER
15	AB	194	SER
15	AC	40	ILE
15	AC	44	VAL
15	AC	89	SER
15	AC	103	SER
15	AC	127	SER
15	AC	131	SER
15	AC	141	SER
15	AC	143	THR
15	AC	145	SER
15	AC	194	SER
15	AD	40	ILE
15	AD	44	VAL
15	AD	89	SER
15	AD	103	SER
15	AD	127	SER
15	AD	131	SER
15	AD	141	SER
15	AD	143	THR
15	AD	145	SER
15	AD	194	SER
15	AE	40	ILE
15	AE	44	VAL
15	AE	89	SER
15	AE	103	SER
15	AE	127	SER
15	AE	131	SER
15	AE	141	SER
15	AE	143	THR
15	AE	145	SER
15	AE	194	SER
15	AF	40	ILE
15	AF	44	VAL

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Mol	Chain	Res	Type
15	AF	89	SER
15	AF	103	SER
15	AF	127	SER
15	AF	131	SER
15	AF	141	SER
15	AF	143	THR
15	AF	145	SER
15	AF	194	SER
15	AG	40	ILE
15	AG	44	VAL
15	AG	89	SER
15	AG	103	SER
15	AG	127	SER
15	AG	131	SER
15	AG	141	SER
15	AG	143	THR
15	AG	145	SER
15	AG	194	SER
15	AH	40	ILE
15	AH	44	VAL
15	AH	89	SER
15	AH	103	SER
15	AH	127	SER
15	AH	131	SER
15	AH	141	SER
15	AH	143	THR
15	AH	145	SER
15	AH	194	SER
15	AI	40	ILE
15	AI	44	VAL
15	AI	89	SER
15	AI	103	SER
15	AI	127	SER
15	AI	131	SER
15	AI	141	SER
15	AI	143	THR
15	AI	145	SER
15	AI	194	SER
15	AJ	40	ILE
15	AJ	44	VAL
15	AJ	89	SER
15	AJ	103	SER

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Mol	Chain	Res	Type
15	AJ	127	SER
15	AJ	131	SER
15	AJ	141	SER
15	AJ	143	THR
15	AJ	145	SER
15	AJ	194	SER
15	AK	40	ILE
15	AK	44	VAL
15	AK	89	SER
15	AK	103	SER
15	AK	127	SER
15	AK	131	SER
15	AK	141	SER
15	AK	143	THR
15	AK	145	SER
15	AK	194	SER
15	AL	40	ILE
15	AL	44	VAL
15	AL	89	SER
15	AL	103	SER
15	AL	127	SER
15	AL	131	SER
15	AL	141	SER
15	AL	143	THR
15	AL	145	SER
15	AL	194	SER
15	AM	40	ILE
15	AM	44	VAL
15	AM	89	SER
15	AM	103	SER
15	AM	127	SER
15	AM	131	SER
15	AM	141	SER
15	AM	143	THR
15	AM	145	SER
15	AM	194	SER
15	AN	40	ILE
15	AN	44	VAL
15	AN	89	SER
15	AN	103	SER
15	AN	127	SER
15	AN	131	SER

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Mol	Chain	Res	Type
15	AN	141	SER
15	AN	143	THR
15	AN	145	SER
15	AN	194	SER
15	AO	40	ILE
15	AO	44	VAL
15	AO	89	SER
15	AO	103	SER
15	AO	127	SER
15	AO	131	SER
15	AO	141	SER
15	AO	143	THR
15	AO	145	SER
15	AO	194	SER
15	AP	40	ILE
15	AP	44	VAL
15	AP	89	SER
15	AP	103	SER
15	AP	127	SER
15	AP	131	SER
15	AP	141	SER
15	AP	143	THR
15	AP	145	SER
15	AP	194	SER
15	AQ	40	ILE
15	AQ	44	VAL
15	AQ	89	SER
15	AQ	103	SER
15	AQ	127	SER
15	AQ	131	SER
15	AQ	141	SER
15	AQ	143	THR
15	AQ	145	SER
15	AQ	194	SER
15	AR	40	ILE
15	AR	44	VAL
15	AR	89	SER
15	AR	103	SER
15	AR	127	SER
15	AR	131	SER
15	AR	141	SER
15	AR	143	THR

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Mol	Chain	Res	Type
15	AR	145	SER
15	AR	194	SER
15	AS	40	ILE
15	AS	44	VAL
15	AS	89	SER
15	AS	103	SER
15	AS	127	SER
15	AS	131	SER
15	AS	141	SER
15	AS	143	THR
15	AS	145	SER
15	AS	194	SER
15	AT	40	ILE
15	AT	44	VAL
15	AT	89	SER
15	AT	103	SER
15	AT	127	SER
15	AT	131	SER
15	AT	141	SER
15	AT	143	THR
15	AT	145	SER
15	AT	194	SER
15	AU	40	ILE
15	AU	44	VAL
15	AU	89	SER
15	AU	103	SER
15	AU	127	SER
15	AU	131	SER
15	AU	141	SER
15	AU	143	THR
15	AU	145	SER
15	AU	194	SER
15	AV	40	ILE
15	AV	44	VAL
15	AV	89	SER
15	AV	103	SER
15	AV	127	SER
15	AV	131	SER
15	AV	141	SER
15	AV	143	THR
15	AV	145	SER
15	AV	194	SER

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Mol	Chain	Res	Type
15	AW	40	ILE
15	AW	44	VAL
15	AW	89	SER
15	AW	103	SER
15	AW	127	SER
15	AW	131	SER
15	AW	141	SER
15	AW	143	THR
15	AW	145	SER
15	AW	194	SER
15	AX	40	ILE
15	AX	44	VAL
15	AX	89	SER
15	AX	103	SER
15	AX	127	SER
15	AX	131	SER
15	AX	141	SER
15	AX	143	THR
15	AX	145	SER
15	AX	194	SER
15	AY	40	ILE
15	AY	44	VAL
15	AY	89	SER
15	AY	103	SER
15	AY	127	SER
15	AY	131	SER
15	AY	141	SER
15	AY	143	THR
15	AY	145	SER
15	AY	194	SER
15	AZ	40	ILE
15	AZ	44	VAL
15	AZ	89	SER
15	AZ	103	SER
15	AZ	127	SER
15	AZ	131	SER
15	AZ	141	SER
15	AZ	143	THR
15	AZ	145	SER
15	AZ	194	SER
16	BA	21	ARG
16	BA	27	SER

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Mol	Chain	Res	Type
16	BA	53	THR
16	BA	75	THR
16	BA	81	LEU
16	BA	184	THR
16	BA	185	ILE
16	BA	220	THR
16	BA	231	SER
16	BA	281	SER
16	BA	321	SER
16	BA	344	ASP
16	BB	21	ARG
16	BB	27	SER
16	BB	53	THR
16	BB	75	THR
16	BB	81	LEU
16	BB	184	THR
16	BB	185	ILE
16	BB	220	THR
16	BB	231	SER
16	BB	281	SER
16	BB	321	SER
16	BC	21	ARG
16	BC	27	SER
16	BC	53	THR
16	BC	75	THR
16	BC	81	LEU
16	BC	184	THR
16	BC	185	ILE
16	BC	220	THR
16	BC	231	SER
16	BC	281	SER
16	BC	321	SER
16	BC	344	ASP
16	BD	21	ARG
16	BD	27	SER
16	BD	53	THR
16	BD	75	THR
16	BD	81	LEU
16	BD	184	THR
16	BD	185	ILE
16	BD	220	THR
16	BD	231	SER

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Mol	Chain	Res	Type
16	BD	281	SER
16	BD	321	SER
16	BD	344	ASP
16	BE	21	ARG
16	BE	27	SER
16	BE	53	THR
16	BE	75	THR
16	BE	81	LEU
16	BE	184	THR
16	BE	185	ILE
16	BE	220	THR
16	BE	231	SER
16	BE	281	SER
16	BE	321	SER
16	BE	344	ASP
16	BF	21	ARG
16	BF	27	SER
16	BF	53	THR
16	BF	75	THR
16	BF	81	LEU
16	BF	184	THR
16	BF	185	ILE
16	BF	220	THR
16	BF	231	SER
16	BF	281	SER
16	BF	321	SER
16	BF	344	ASP
16	BG	21	ARG
16	BG	27	SER
16	BG	53	THR
16	BG	75	THR
16	BG	81	LEU
16	BG	184	THR
16	BG	185	ILE
16	BG	220	THR
16	BG	231	SER
16	BG	281	SER
16	BG	321	SER
16	BG	344	ASP
16	BH	21	ARG
16	BH	27	SER
16	BH	53	THR

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Mol	Chain	Res	Type
16	BH	75	THR
16	BH	81	LEU
16	BH	184	THR
16	BH	185	ILE
16	BH	220	THR
16	BH	231	SER
16	BH	281	SER
16	BH	321	SER
16	BH	344	ASP
16	BI	21	ARG
16	BI	27	SER
16	BI	53	THR
16	BI	75	THR
16	BI	81	LEU
16	BI	184	THR
16	BI	185	ILE
16	BI	220	THR
16	BI	231	SER
16	BI	281	SER
16	BI	321	SER
16	BI	344	ASP
16	BJ	21	ARG
16	BJ	27	SER
16	BJ	53	THR
16	BJ	75	THR
16	BJ	81	LEU
16	BJ	184	THR
16	BJ	185	ILE
16	BJ	220	THR
16	BJ	231	SER
16	BJ	281	SER
16	BJ	321	SER
16	BJ	344	ASP
16	BK	21	ARG
16	BK	27	SER
16	BK	53	THR
16	BK	75	THR
16	BK	81	LEU
16	BK	184	THR
16	BK	185	ILE
16	BK	220	THR
16	BK	231	SER

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Mol	Chain	Res	Type
16	BK	281	SER
16	BK	321	SER
16	BK	344	ASP
16	BL	21	ARG
16	BL	27	SER
16	BL	53	THR
16	BL	75	THR
16	BL	81	LEU
16	BL	184	THR
16	BL	185	ILE
16	BL	220	THR
16	BL	231	SER
16	BL	281	SER
16	BL	321	SER
16	BL	344	ASP
16	BM	21	ARG
16	BM	27	SER
16	BM	53	THR
16	BM	75	THR
16	BM	81	LEU
16	BM	184	THR
16	BM	185	ILE
16	BM	220	THR
16	BM	231	SER
16	BM	281	SER
16	BM	321	SER
16	BM	344	ASP
16	BN	21	ARG
16	BN	27	SER
16	BN	53	THR
16	BN	75	THR
16	BN	81	LEU
16	BN	184	THR
16	BN	185	ILE
16	BN	220	THR
16	BN	231	SER
16	BN	281	SER
16	BN	321	SER
16	BN	344	ASP
16	BO	21	ARG
16	BO	27	SER
16	BO	53	THR

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Mol	Chain	Res	Type
16	BO	75	THR
16	BO	81	LEU
16	BO	184	THR
16	BO	185	ILE
16	BO	220	THR
16	BO	231	SER
16	BO	281	SER
16	BO	321	SER
16	BO	344	ASP
16	BP	21	ARG
16	BP	27	SER
16	BP	53	THR
16	BP	75	THR
16	BP	81	LEU
16	BP	184	THR
16	BP	185	ILE
16	BP	220	THR
16	BP	231	SER
16	BP	281	SER
16	BP	321	SER
16	BP	344	ASP
16	BQ	21	ARG
16	BQ	27	SER
16	BQ	53	THR
16	BQ	75	THR
16	BQ	81	LEU
16	BQ	184	THR
16	BQ	185	ILE
16	BQ	220	THR
16	BQ	231	SER
16	BQ	281	SER
16	BQ	321	SER
16	BQ	344	ASP
16	BR	21	ARG
16	BR	27	SER
16	BR	53	THR
16	BR	75	THR
16	BR	81	LEU
16	BR	184	THR
16	BR	185	ILE
16	BR	220	THR
16	BR	231	SER

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Mol	Chain	Res	Type
16	BR	281	SER
16	BR	321	SER
16	BR	344	ASP
16	BS	21	ARG
16	BS	27	SER
16	BS	53	THR
16	BS	75	THR
16	BS	81	LEU
16	BS	184	THR
16	BS	185	ILE
16	BS	220	THR
16	BS	231	SER
16	BS	281	SER
16	BS	321	SER
16	BS	344	ASP
16	BT	21	ARG
16	BT	27	SER
16	BT	53	THR
16	BT	75	THR
16	BT	81	LEU
16	BT	184	THR
16	BT	185	ILE
16	BT	220	THR
16	BT	231	SER
16	BT	281	SER
16	BT	321	SER
16	BU	21	ARG
16	BU	27	SER
16	BU	53	THR
16	BU	75	THR
16	BU	81	LEU
16	BU	184	THR
16	BU	185	ILE
16	BU	220	THR
16	BU	231	SER
16	BU	281	SER
16	BU	321	SER
16	BU	344	ASP
16	BV	21	ARG
16	BV	27	SER
16	BV	53	THR
16	BV	75	THR

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Mol	Chain	Res	Type
16	BV	81	LEU
16	BV	184	THR
16	BV	185	ILE
16	BV	220	THR
16	BV	231	SER
16	BV	281	SER
16	BV	321	SER
16	BW	21	ARG
16	BW	27	SER
16	BW	53	THR
16	BW	75	THR
16	BW	81	LEU
16	BW	184	THR
16	BW	185	ILE
16	BW	220	THR
16	BW	231	SER
16	BW	281	SER
16	BW	321	SER
16	BW	344	ASP
16	BX	21	ARG
16	BX	27	SER
16	BX	53	THR
16	BX	75	THR
16	BX	81	LEU
16	BX	184	THR
16	BX	185	ILE
16	BX	220	THR
16	BX	231	SER
16	BX	281	SER
16	BX	321	SER
16	BX	344	ASP
16	BY	21	ARG
16	BY	27	SER
16	BY	53	THR
16	BY	75	THR
16	BY	81	LEU
16	BY	184	THR
16	BY	185	ILE
16	BY	220	THR
16	BY	231	SER
16	BY	281	SER
16	BY	321	SER

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Mol	Chain	Res	Type
16	BY	344	ASP
16	BZ	21	ARG
16	BZ	27	SER
16	BZ	53	THR
16	BZ	75	THR
16	BZ	81	LEU
16	BZ	184	THR
16	BZ	185	ILE
16	BZ	220	THR
16	BZ	231	SER
16	BZ	281	SER
16	BZ	321	SER
16	BZ	344	ASP
8	DL	4	SER
8	DL	36	THR
8	DL	41	ASP
8	DL	46	SER
8	DL	47	LYS
8	DL	48	VAL
8	DL	50	LEU
8	DL	52	VAL
8	DL	57	ILE
8	DL	338	GLN
8	DL	352	ASN
8	DL	376	ILE
8	DL	379	GLN
8	DL	381	ASN
8	DL	391	THR
8	DL	393	ASP
8	DL	394	GLN
8	DL	395	ILE
8	DL	396	LEU
8	DL	399	LEU
8	DL	402	LEU
8	DM	39	PHE
8	DM	41	ASP
8	DM	42	MET
8	DM	322	ASN
8	DM	324	GLU
8	DM	337	THR
8	DM	387	GLN
8	DM	388	THR

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Mol	Chain	Res	Type
8	DM	389	ILE
8	DM	390	LYS
8	DM	391	THR
8	DM	393	ASP
8	DM	394	GLN
8	DM	395	ILE
8	DM	396	LEU
8	DM	397	ASN
8	DM	400	VAL
8	DN	5	GLN
8	DN	39	PHE
8	DN	41	ASP
8	DN	48	VAL
8	DN	50	LEU
8	DN	143	LEU
8	DN	383	GLN
8	DN	389	ILE
8	DN	390	LYS
8	DN	391	THR
8	DN	392	GLN
8	DN	394	GLN
8	DN	396	LEU
8	DN	399	LEU
8	DN	400	VAL
8	DN	402	LEU
8	DO	5	GLN
8	DO	8	SER
8	DO	10	LEU
8	DO	15	THR
8	DO	17	LEU
8	DO	18	ASP
8	DO	19	VAL
8	DO	20	ILE
8	DO	22	ASN
8	DO	41	ASP
8	DO	43	PHE
8	DO	48	VAL
8	DO	53	LYS
8	DO	54	VAL
8	DO	130	GLN
8	DO	250	THR
8	DO	255	THR

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Mol	Chain	Res	Type
8	DO	275	ASN
8	DO	385	ASN
8	DO	387	GLN
8	DO	389	ILE
8	DO	390	LYS
8	DO	391	THR
8	DO	392	GLN
8	DO	393	ASP
8	DO	396	LEU
8	DO	400	VAL
8	DP	391	THR
8	DP	396	LEU
8	DP	397	ASN
8	DP	398	THR
8	DP	399	LEU
8	DP	402	LEU
8	DQ	194	HIS
8	DQ	250	THR
8	DQ	251	ILE
8	DQ	398	THR
8	DQ	399	LEU
8	DQ	402	LEU
8	DS	391	THR
8	DS	395	ILE
8	DS	396	LEU
8	DS	397	ASN
8	DS	398	THR
8	DS	399	LEU
8	DS	402	LEU
8	DT	398	THR
8	DU	392	GLN
8	DU	393	ASP
8	DU	394	GLN
8	DU	395	ILE
8	DU	399	LEU
8	DU	400	VAL
8	DV	80	ASN
8	DY	8	SER
8	EB	394	GLN
8	EC	397	ASN
8	EF	380	ARG
8	EG	129	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (859) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	83	GLN
1	A	209	ASN
1	B	37	GLN
1	B	88	GLN
1	B	196	GLN
1	C	37	GLN
1	C	172	GLN
1	C	174	ASN
1	D	90	ASN
1	D	180	ASN
1	D	209	ASN
1	E	162	GLN
1	E	209	ASN
1	F	16	GLN
1	F	85	ASN
1	F	145	ASN
1	F	161	GLN
1	F	259	GLN
1	G	190	ASN
1	G	209	ASN
1	G	255	GLN
1	G	259	GLN
1	H	25	ASN
1	H	88	GLN
1	H	190	ASN
1	I	24	ASN
1	I	59	GLN
1	I	174	ASN
1	I	190	ASN
1	I	237	GLN
1	J	255	GLN
1	J	259	GLN
1	K	25	ASN
1	K	59	GLN
1	K	145	ASN
1	K	161	GLN
1	L	28	ASN
1	L	47	GLN
1	L	67	GLN
1	L	202	ASN
1	M	32	ASN

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Mol	Chain	Res	Type
1	M	37	GLN
1	M	67	GLN
1	M	190	ASN
1	M	209	ASN
1	N	16	GLN
1	N	37	GLN
1	O	15	GLN
1	O	16	GLN
1	P	209	ASN
1	Q	174	ASN
1	R	24	ASN
1	R	32	ASN
1	S	15	GLN
1	S	32	ASN
1	S	81	HIS
1	S	127	GLN
1	S	174	ASN
1	S	190	ASN
1	T	24	ASN
1	T	135	GLN
1	T	180	ASN
1	U	15	GLN
1	U	24	ASN
1	U	47	GLN
1	U	125	ASN
1	U	237	GLN
2	a	3	HIS
2	a	14	GLN
2	a	28	ASN
2	a	102	ASN
2	a	116	GLN
2	a	153	ASN
2	b	19	GLN
2	c	14	GLN
2	c	19	GLN
2	c	28	ASN
2	c	70	GLN
2	d	70	GLN
2	d	83	GLN
2	d	106	GLN
2	d	147	ASN
2	d	230	GLN

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Mol	Chain	Res	Type
2	e	169	ASN
2	e	230	GLN
4	5	319	GLN
4	9	319	GLN
5	g	46	GLN
5	g	82	ASN
5	j	30	ASN
6	m	29	ASN
6	o	29	ASN
6	o	132	ASN
5	i	5	ASN
6	k	112	ASN
1	V	81	HIS
1	V	190	ASN
1	V	209	ASN
1	W	15	GLN
1	W	169	GLN
1	W	209	ASN
1	W	255	GLN
1	X	67	GLN
1	X	127	GLN
1	X	255	GLN
1	X	259	GLN
7	t	37	GLN
7	u	83	GLN
7	v	76	GLN
8	DA	97	ASN
8	DA	197	ASN
8	DA	265	ASN
8	DA	275	ASN
8	DB	22	ASN
8	DB	107	ASN
8	DB	115	GLN
8	DB	129	GLN
8	DC	107	ASN
8	DC	213	HIS
8	DC	235	ASN
8	DC	268	GLN
8	DC	296	ASN
8	DC	310	GLN
8	DC	314	GLN
8	DC	365	ASN

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Mol	Chain	Res	Type
8	DD	22	ASN
8	DD	26	ASN
8	DD	59	GLN
8	DD	107	ASN
8	DD	192	ASN
8	DD	358	ASN
8	DE	23	ASN
8	DE	107	ASN
8	DE	192	ASN
8	DE	245	ASN
8	DE	268	GLN
8	DF	22	ASN
8	DF	26	ASN
8	DF	107	ASN
8	DF	179	ASN
8	DF	213	HIS
8	DF	322	ASN
8	DF	358	ASN
8	DF	365	ASN
8	DF	379	GLN
8	DF	383	GLN
8	DF	392	GLN
8	DG	129	GLN
8	DG	133	ASN
8	DH	22	ASN
8	DH	133	ASN
8	DH	179	ASN
8	DH	197	ASN
8	DH	245	ASN
8	DH	293	GLN
8	DH	310	GLN
8	DH	365	ASN
8	DI	22	ASN
8	DI	26	ASN
8	DI	129	GLN
8	DI	133	ASN
8	DI	179	ASN
8	DI	245	ASN
8	DI	280	ASN
8	DI	323	ASN
8	DI	358	ASN
8	DI	401	ASN

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Mol	Chain	Res	Type
8	DJ	22	ASN
8	DJ	79	GLN
8	DJ	179	ASN
8	DJ	268	GLN
8	DJ	303	ASN
8	DJ	323	ASN
8	DJ	352	ASN
8	DJ	387	GLN
8	DK	26	ASN
8	DK	97	ASN
8	DK	107	ASN
8	DK	133	ASN
8	DK	303	ASN
8	DK	332	ASN
8	DK	383	GLN
10	CA	71	ASN
10	CB	39	GLN
10	CB	45	ASN
11	w	241	GLN
11	x	184	GLN
11	y	76	ASN
11	y	184	GLN
11	z	76	ASN
11	z	87	GLN
11	z	141	GLN
11	z	184	GLN
11	z	233	GLN
12	Da	125	GLN
12	Dc	209	ASN
12	Dd	125	GLN
12	Dq	125	GLN
12	Dw	209	ASN
12	Ca	281	HIS
12	Ca	361	ASN
12	Cb	281	HIS
12	Cc	281	HIS
12	Cc	374	HIS
12	Cd	281	HIS
12	Cd	361	ASN
12	Cd	374	HIS
12	Ce	281	HIS
12	Ce	361	ASN

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Mol	Chain	Res	Type
12	Cf	281	HIS
12	Cf	365	ASN
12	Cg	281	HIS
12	Ch	281	HIS
12	Ch	361	ASN
12	Ci	281	HIS
12	Ci	303	GLN
12	Ci	361	ASN
12	Cj	281	HIS
12	Cj	411	GLN
12	Ck	281	HIS
12	Cl	281	HIS
12	Cl	361	ASN
12	Cm	281	HIS
12	Cn	281	HIS
12	Cn	361	ASN
12	Co	281	HIS
12	Cp	281	HIS
12	Cp	361	ASN
12	Cp	411	GLN
12	Cq	281	HIS
12	Cr	281	HIS
12	Cr	361	ASN
12	Cs	281	HIS
12	Cs	411	GLN
12	Ct	281	HIS
12	Ct	361	ASN
12	Cu	281	HIS
12	Cu	365	ASN
12	Cu	411	GLN
12	Cv	281	HIS
12	Cv	361	ASN
12	Cv	365	ASN
12	Cw	281	HIS
12	Cx	281	HIS
12	Cy	281	HIS
12	Cy	303	GLN
12	Cy	361	ASN
12	Cz	281	HIS
12	Ea	281	HIS
12	Ea	361	ASN
12	Ea	365	ASN

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Mol	Chain	Res	Type
12	Ec	281	HIS
12	Ed	281	HIS
12	Ed	361	ASN
12	Ed	374	HIS
12	Ee	281	HIS
12	Ee	361	ASN
12	Ef	281	HIS
12	Eg	281	HIS
12	Eg	365	ASN
15	AA	32	GLN
15	AA	63	GLN
15	AA	83	GLN
15	AA	114	GLN
15	AA	119	ASN
15	AA	172	ASN
15	AA	217	GLN
15	AB	32	GLN
15	AB	63	GLN
15	AB	83	GLN
15	AB	114	GLN
15	AB	119	ASN
15	AB	133	ASN
15	AB	172	ASN
15	AB	217	GLN
15	AC	63	GLN
15	AC	83	GLN
15	AC	114	GLN
15	AC	119	ASN
15	AC	133	ASN
15	AC	172	ASN
15	AC	217	GLN
15	AD	32	GLN
15	AD	63	GLN
15	AD	83	GLN
15	AD	114	GLN
15	AD	119	ASN
15	AD	133	ASN
15	AD	172	ASN
15	AD	217	GLN
15	AE	32	GLN
15	AE	63	GLN
15	AE	83	GLN

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Mol	Chain	Res	Type
15	AE	114	GLN
15	AE	119	ASN
15	AE	133	ASN
15	AE	172	ASN
15	AE	217	GLN
15	AF	32	GLN
15	AF	63	GLN
15	AF	83	GLN
15	AF	114	GLN
15	AF	119	ASN
15	AF	133	ASN
15	AF	172	ASN
15	AF	217	GLN
15	AG	32	GLN
15	AG	38	GLN
15	AG	63	GLN
15	AG	83	GLN
15	AG	114	GLN
15	AG	119	ASN
15	AG	133	ASN
15	AG	172	ASN
15	AG	217	GLN
15	AH	32	GLN
15	AH	63	GLN
15	AH	83	GLN
15	AH	114	GLN
15	AH	119	ASN
15	AH	133	ASN
15	AH	172	ASN
15	AH	217	GLN
15	AI	32	GLN
15	AI	63	GLN
15	AI	83	GLN
15	AI	114	GLN
15	AI	119	ASN
15	AI	133	ASN
15	AI	172	ASN
15	AI	217	GLN
15	AJ	32	GLN
15	AJ	38	GLN
15	AJ	63	GLN
15	AJ	83	GLN

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Mol	Chain	Res	Type
15	AJ	114	GLN
15	AJ	119	ASN
15	AJ	133	ASN
15	AJ	172	ASN
15	AJ	217	GLN
15	AK	32	GLN
15	AK	38	GLN
15	AK	63	GLN
15	AK	83	GLN
15	AK	114	GLN
15	AK	119	ASN
15	AK	133	ASN
15	AK	172	ASN
15	AK	217	GLN
15	AL	63	GLN
15	AL	83	GLN
15	AL	114	GLN
15	AL	119	ASN
15	AL	133	ASN
15	AL	172	ASN
15	AL	217	GLN
15	AM	32	GLN
15	AM	38	GLN
15	AM	63	GLN
15	AM	83	GLN
15	AM	114	GLN
15	AM	119	ASN
15	AM	133	ASN
15	AM	172	ASN
15	AM	217	GLN
15	AN	32	GLN
15	AN	38	GLN
15	AN	63	GLN
15	AN	83	GLN
15	AN	114	GLN
15	AN	119	ASN
15	AN	133	ASN
15	AN	172	ASN
15	AN	217	GLN
15	AO	32	GLN
15	AO	63	GLN
15	AO	83	GLN

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Mol	Chain	Res	Type
15	AO	114	GLN
15	AO	119	ASN
15	AO	133	ASN
15	AO	172	ASN
15	AO	217	GLN
15	AP	32	GLN
15	AP	38	GLN
15	AP	63	GLN
15	AP	83	GLN
15	AP	114	GLN
15	AP	119	ASN
15	AP	133	ASN
15	AP	172	ASN
15	AP	217	GLN
15	AQ	38	GLN
15	AQ	83	GLN
15	AQ	114	GLN
15	AQ	119	ASN
15	AQ	133	ASN
15	AQ	172	ASN
15	AQ	217	GLN
15	AR	38	GLN
15	AR	63	GLN
15	AR	83	GLN
15	AR	114	GLN
15	AR	119	ASN
15	AR	133	ASN
15	AR	172	ASN
15	AR	217	GLN
15	AS	32	GLN
15	AS	38	GLN
15	AS	63	GLN
15	AS	83	GLN
15	AS	114	GLN
15	AS	119	ASN
15	AS	133	ASN
15	AS	172	ASN
15	AS	217	GLN
15	AT	32	GLN
15	AT	38	GLN
15	AT	63	GLN
15	AT	83	GLN

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Mol	Chain	Res	Type
15	AT	114	GLN
15	AT	119	ASN
15	AT	172	ASN
15	AT	217	GLN
15	AU	32	GLN
15	AU	38	GLN
15	AU	63	GLN
15	AU	83	GLN
15	AU	114	GLN
15	AU	119	ASN
15	AU	133	ASN
15	AU	172	ASN
15	AU	217	GLN
15	AV	32	GLN
15	AV	38	GLN
15	AV	83	GLN
15	AV	114	GLN
15	AV	119	ASN
15	AV	133	ASN
15	AV	139	ASN
15	AV	172	ASN
15	AV	217	GLN
15	AW	38	GLN
15	AW	63	GLN
15	AW	83	GLN
15	AW	114	GLN
15	AW	119	ASN
15	AW	133	ASN
15	AW	172	ASN
15	AW	217	GLN
15	AX	38	GLN
15	AX	63	GLN
15	AX	83	GLN
15	AX	114	GLN
15	AX	119	ASN
15	AX	133	ASN
15	AX	172	ASN
15	AX	217	GLN
15	AY	32	GLN
15	AY	63	GLN
15	AY	83	GLN
15	AY	114	GLN

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Mol	Chain	Res	Type
15	AY	119	ASN
15	AY	133	ASN
15	AY	139	ASN
15	AY	172	ASN
15	AY	217	GLN
15	AZ	63	GLN
15	AZ	83	GLN
15	AZ	114	GLN
15	AZ	119	ASN
15	AZ	133	ASN
15	AZ	172	ASN
15	AZ	217	GLN
16	BA	54	GLN
16	BA	159	GLN
16	BA	161	ASN
16	BA	188	GLN
16	BA	198	GLN
16	BA	199	GLN
16	BA	277	GLN
16	BB	54	GLN
16	BB	80	GLN
16	BB	159	GLN
16	BB	161	ASN
16	BB	188	GLN
16	BB	198	GLN
16	BB	277	GLN
16	BC	54	GLN
16	BC	80	GLN
16	BC	159	GLN
16	BC	161	ASN
16	BC	188	GLN
16	BC	198	GLN
16	BC	277	GLN
16	BC	350	GLN
16	BD	54	GLN
16	BD	80	GLN
16	BD	159	GLN
16	BD	161	ASN
16	BD	188	GLN
16	BD	198	GLN
16	BD	199	GLN
16	BD	277	GLN

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Mol	Chain	Res	Type
16	BE	80	GLN
16	BE	159	GLN
16	BE	161	ASN
16	BE	188	GLN
16	BE	198	GLN
16	BE	199	GLN
16	BE	277	GLN
16	BF	54	GLN
16	BF	80	GLN
16	BF	159	GLN
16	BF	161	ASN
16	BF	188	GLN
16	BF	198	GLN
16	BF	199	GLN
16	BF	277	GLN
16	BF	350	GLN
16	BG	54	GLN
16	BG	68	GLN
16	BG	159	GLN
16	BG	161	ASN
16	BG	188	GLN
16	BG	198	GLN
16	BG	199	GLN
16	BG	277	GLN
16	BG	350	GLN
16	BH	54	GLN
16	BH	68	GLN
16	BH	80	GLN
16	BH	159	GLN
16	BH	161	ASN
16	BH	188	GLN
16	BH	198	GLN
16	BH	277	GLN
16	BI	54	GLN
16	BI	159	GLN
16	BI	161	ASN
16	BI	188	GLN
16	BI	198	GLN
16	BI	199	GLN
16	BI	277	GLN
16	BI	350	GLN
16	BJ	54	GLN

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Mol	Chain	Res	Type
16	BJ	80	GLN
16	BJ	159	GLN
16	BJ	161	ASN
16	BJ	188	GLN
16	BJ	198	GLN
16	BJ	199	GLN
16	BJ	277	GLN
16	BK	54	GLN
16	BK	68	GLN
16	BK	80	GLN
16	BK	159	GLN
16	BK	161	ASN
16	BK	188	GLN
16	BK	198	GLN
16	BK	199	GLN
16	BK	277	GLN
16	BL	54	GLN
16	BL	80	GLN
16	BL	159	GLN
16	BL	161	ASN
16	BL	188	GLN
16	BL	198	GLN
16	BL	199	GLN
16	BL	229	ASN
16	BL	249	GLN
16	BL	277	GLN
16	BM	68	GLN
16	BM	80	GLN
16	BM	159	GLN
16	BM	161	ASN
16	BM	188	GLN
16	BM	198	GLN
16	BM	199	GLN
16	BM	277	GLN
16	BN	68	GLN
16	BN	80	GLN
16	BN	159	GLN
16	BN	188	GLN
16	BN	198	GLN
16	BN	199	GLN
16	BN	229	ASN
16	BN	249	GLN

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Mol	Chain	Res	Type
16	BN	277	GLN
16	BO	54	GLN
16	BO	68	GLN
16	BO	80	GLN
16	BO	159	GLN
16	BO	161	ASN
16	BO	188	GLN
16	BO	198	GLN
16	BO	277	GLN
16	BO	350	GLN
16	BP	78	ASN
16	BP	159	GLN
16	BP	161	ASN
16	BP	188	GLN
16	BP	198	GLN
16	BP	277	GLN
16	BP	350	GLN
16	BQ	54	GLN
16	BQ	80	GLN
16	BQ	159	GLN
16	BQ	161	ASN
16	BQ	188	GLN
16	BQ	198	GLN
16	BQ	277	GLN
16	BR	54	GLN
16	BR	68	GLN
16	BR	80	GLN
16	BR	159	GLN
16	BR	161	ASN
16	BR	188	GLN
16	BR	198	GLN
16	BR	229	ASN
16	BR	277	GLN
16	BS	54	GLN
16	BS	80	GLN
16	BS	159	GLN
16	BS	161	ASN
16	BS	188	GLN
16	BS	198	GLN
16	BS	229	ASN
16	BS	277	GLN
16	BT	54	GLN

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Mol	Chain	Res	Type
16	BT	68	GLN
16	BT	80	GLN
16	BT	159	GLN
16	BT	161	ASN
16	BT	188	GLN
16	BT	198	GLN
16	BT	229	ASN
16	BT	277	GLN
16	BU	54	GLN
16	BU	68	GLN
16	BU	78	ASN
16	BU	159	GLN
16	BU	161	ASN
16	BU	188	GLN
16	BU	198	GLN
16	BU	229	ASN
16	BU	277	GLN
16	BV	54	GLN
16	BV	68	GLN
16	BV	80	GLN
16	BV	159	GLN
16	BV	161	ASN
16	BV	188	GLN
16	BV	198	GLN
16	BV	229	ASN
16	BV	277	GLN
16	BW	54	GLN
16	BW	68	GLN
16	BW	80	GLN
16	BW	159	GLN
16	BW	161	ASN
16	BW	188	GLN
16	BW	198	GLN
16	BW	229	ASN
16	BW	277	GLN
16	BX	54	GLN
16	BX	68	GLN
16	BX	80	GLN
16	BX	159	GLN
16	BX	161	ASN
16	BX	188	GLN
16	BX	198	GLN

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Mol	Chain	Res	Type
16	BX	199	GLN
16	BX	277	GLN
16	BY	54	GLN
16	BY	68	GLN
16	BY	80	GLN
16	BY	159	GLN
16	BY	161	ASN
16	BY	188	GLN
16	BY	198	GLN
16	BY	199	GLN
16	BY	277	GLN
16	BZ	54	GLN
16	BZ	68	GLN
16	BZ	80	GLN
16	BZ	159	GLN
16	BZ	161	ASN
16	BZ	188	GLN
16	BZ	198	GLN
16	BZ	199	GLN
16	BZ	277	GLN
8	DL	68	ASN
8	DL	99	GLN
8	DL	129	GLN
8	DL	133	ASN
8	DL	213	HIS
8	DL	338	GLN
8	DL	352	ASN
8	DL	365	ASN
8	DL	385	ASN
8	DL	397	ASN
8	DM	11	ASN
8	DM	79	GLN
8	DM	115	GLN
8	DM	213	HIS
8	DM	296	ASN
8	DM	379	GLN
8	DM	383	GLN
8	DN	5	GLN
8	DN	11	ASN
8	DN	22	ASN
8	DN	80	ASN
8	DN	89	ASN

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Mol	Chain	Res	Type
8	DN	130	GLN
8	DN	133	ASN
8	DN	206	ASN
8	DN	252	ASN
8	DN	270	ASN
8	DN	306	ASN
8	DN	381	ASN
8	DN	392	GLN
8	DO	112	GLN
8	DO	274	ASN
8	DO	293	GLN
8	DO	332	ASN
8	DO	365	ASN
8	DO	374	ASN
8	DO	379	GLN
8	DO	387	GLN
8	DO	392	GLN
8	DP	11	ASN
8	DP	97	ASN
8	DP	112	GLN
8	DP	129	GLN
8	DP	130	GLN
8	DP	133	ASN
8	DP	190	GLN
8	DP	265	ASN
8	DP	303	ASN
8	DP	306	ASN
8	DP	379	GLN
8	DP	394	GLN
8	DQ	89	ASN
8	DQ	99	GLN
8	DQ	129	GLN
8	DQ	190	GLN
8	DQ	206	ASN
8	DQ	268	GLN
8	DQ	296	ASN
8	DQ	329	GLN
8	DQ	332	ASN
8	DR	23	ASN
8	DR	206	ASN
8	DR	252	ASN
8	DR	274	ASN

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Mol	Chain	Res	Type
8	DR	329	GLN
8	DS	5	GLN
8	DS	16	ASN
8	DS	26	ASN
8	DS	79	GLN
8	DS	233	ASN
8	DS	245	ASN
8	DS	268	GLN
8	DS	269	GLN
8	DS	303	ASN
8	DS	322	ASN
8	DS	379	GLN
8	DT	192	ASN
8	DT	314	GLN
8	DT	319	ASN
8	DT	329	GLN
8	DT	358	ASN
8	DT	365	ASN
8	DT	374	ASN
8	DT	379	GLN
8	DU	11	ASN
8	DU	26	ASN
8	DU	97	ASN
8	DU	129	GLN
8	DU	192	ASN
8	DU	270	ASN
8	DU	322	ASN
8	DU	379	GLN
8	DU	383	GLN
8	DV	16	ASN
8	DV	22	ASN
8	DV	129	GLN
8	DV	385	ASN
8	DW	80	ASN
8	DW	99	GLN
8	DW	190	GLN
8	DW	293	GLN
8	DW	322	ASN
8	DW	374	ASN
8	DX	112	GLN
8	DX	155	GLN
8	DX	269	GLN

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Mol	Chain	Res	Type
8	DX	322	ASN
8	DX	323	ASN
8	DX	387	GLN
8	DY	59	GLN
8	DY	269	GLN
8	DY	308	GLN
8	DZ	5	GLN
8	DZ	280	ASN
8	DZ	332	ASN
8	EA	112	GLN
8	EA	130	GLN
8	EA	157	ASN
8	EA	245	ASN
8	EA	329	GLN
8	EA	379	GLN
8	EA	387	GLN
8	EA	392	GLN
8	EA	397	ASN
8	EB	26	ASN
8	EB	155	GLN
8	EB	233	ASN
8	EB	235	ASN
8	EB	379	GLN
8	EB	383	GLN
8	EB	385	ASN
8	EC	11	ASN
8	EC	26	ASN
8	EC	79	GLN
8	EC	252	ASN
8	EC	268	GLN
8	EC	306	ASN
8	EC	358	ASN
8	EC	385	ASN
8	ED	105	ASN
8	ED	110	ASN
8	ED	157	ASN
8	ED	233	ASN
8	ED	245	ASN
8	ED	252	ASN
8	ED	268	GLN
8	ED	274	ASN
8	ED	319	ASN

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Mol	Chain	Res	Type
8	ED	329	GLN
8	ED	374	ASN
8	ED	385	ASN
8	EE	79	GLN
8	EE	80	ASN
8	EE	352	ASN
8	EF	11	ASN
8	EF	68	ASN
8	EF	129	GLN
8	EF	322	ASN
8	EG	5	GLN
8	EG	26	ASN
8	EG	97	ASN
8	EG	192	ASN
8	EG	194	HIS
8	EG	275	ASN
8	EG	322	ASN
8	EG	383	GLN
8	EG	385	ASN
8	EG	387	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

26 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
15	P1L	AR	22	15	13,14,23	0.89	0	11,15,25	1.85	3 (27%)
15	P1L	AB	22	15	13,14,23	0.89	0	11,15,25	1.89	3 (27%)
15	P1L	AM	22	15	13,14,23	0.88	0	11,15,25	1.87	3 (27%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
15	P1L	AF	22	15	13,14,23	0.90	0	11,15,25	1.86	3 (27%)
15	P1L	AJ	22	15	13,14,23	0.87	0	11,15,25	1.88	3 (27%)
15	P1L	AK	22	15	13,14,23	0.89	0	11,15,25	1.85	3 (27%)
15	P1L	AV	22	15	13,14,23	0.89	0	11,15,25	1.85	3 (27%)
15	P1L	AC	22	15	13,14,23	0.87	0	11,15,25	1.88	3 (27%)
15	P1L	AZ	22	15	13,14,23	0.89	0	11,15,25	1.86	3 (27%)
15	P1L	AS	22	15	13,14,23	0.89	0	11,15,25	1.88	3 (27%)
15	P1L	AW	22	15	13,14,23	0.90	0	11,15,25	1.88	3 (27%)
15	P1L	AY	22	15	13,14,23	0.88	0	11,15,25	1.87	3 (27%)
15	P1L	AE	22	15	13,14,23	0.89	0	11,15,25	1.86	3 (27%)
15	P1L	AH	22	15	13,14,23	0.89	0	11,15,25	1.88	3 (27%)
15	P1L	AP	22	15	13,14,23	0.89	0	11,15,25	1.87	3 (27%)
15	P1L	AO	22	15	13,14,23	0.90	0	11,15,25	1.83	3 (27%)
15	P1L	AI	22	15	13,14,23	0.91	0	11,15,25	1.86	3 (27%)
15	P1L	AT	22	15	13,14,23	0.88	0	11,15,25	1.86	3 (27%)
15	P1L	AX	22	15	13,14,23	0.87	0	11,15,25	1.90	3 (27%)
15	P1L	AQ	22	15	13,14,23	0.86	0	11,15,25	1.86	3 (27%)
15	P1L	AU	22	15	13,14,23	0.87	0	11,15,25	1.89	3 (27%)
15	P1L	AL	22	15	13,14,23	0.90	0	11,15,25	1.85	3 (27%)
15	P1L	AA	22	15	13,14,23	0.90	0	11,15,25	1.87	3 (27%)
15	P1L	AN	22	15	13,14,23	0.91	0	11,15,25	1.88	3 (27%)
15	P1L	AG	22	15	13,14,23	0.90	0	11,15,25	1.86	3 (27%)
15	P1L	AD	22	15	13,14,23	0.87	0	11,15,25	1.86	3 (27%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
15	P1L	AR	22	15	-	7/12/14/24	-
15	P1L	AB	22	15	-	7/12/14/24	-
15	P1L	AM	22	15	-	7/12/14/24	-
15	P1L	AF	22	15	-	7/12/14/24	-
15	P1L	AJ	22	15	-	7/12/14/24	-
15	P1L	AK	22	15	-	7/12/14/24	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
15	P1L	AV	22	15	-	7/12/14/24	-
15	P1L	AC	22	15	-	7/12/14/24	-
15	P1L	AZ	22	15	-	7/12/14/24	-
15	P1L	AS	22	15	-	7/12/14/24	-
15	P1L	AW	22	15	-	7/12/14/24	-
15	P1L	AY	22	15	-	7/12/14/24	-
15	P1L	AE	22	15	-	7/12/14/24	-
15	P1L	AH	22	15	-	7/12/14/24	-
15	P1L	AP	22	15	-	7/12/14/24	-
15	P1L	AO	22	15	-	7/12/14/24	-
15	P1L	AI	22	15	-	7/12/14/24	-
15	P1L	AT	22	15	-	7/12/14/24	-
15	P1L	AX	22	15	-	7/12/14/24	-
15	P1L	AQ	22	15	-	7/12/14/24	-
15	P1L	AU	22	15	-	7/12/14/24	-
15	P1L	AL	22	15	-	7/12/14/24	-
15	P1L	AA	22	15	-	7/12/14/24	-
15	P1L	AN	22	15	-	7/12/14/24	-
15	P1L	AG	22	15	-	7/12/14/24	-
15	P1L	AD	22	15	-	7/12/14/24	-

There are no bond length outliers.

All (78) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AU	22	P1L	C8-C7-SG	-4.14	108.46	113.40
15	AX	22	P1L	C8-C7-SG	-4.11	108.50	113.40
15	AJ	22	P1L	C8-C7-SG	-4.09	108.53	113.40
15	AC	22	P1L	C8-C7-SG	-4.08	108.54	113.40
15	AB	22	P1L	C8-C7-SG	-4.06	108.56	113.40
15	AM	22	P1L	C8-C7-SG	-4.06	108.56	113.40
15	AH	22	P1L	C8-C7-SG	-4.05	108.57	113.40
15	AS	22	P1L	C8-C7-SG	-4.05	108.58	113.40
15	AY	22	P1L	C8-C7-SG	-4.04	108.58	113.40
15	AN	22	P1L	C8-C7-SG	-4.03	108.60	113.40
15	AL	22	P1L	C8-C7-SG	-4.03	108.60	113.40
15	AZ	22	P1L	C8-C7-SG	-4.03	108.60	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AW	22	P1L	C8-C7-SG	-4.02	108.61	113.40
15	AP	22	P1L	C8-C7-SG	-4.02	108.61	113.40
15	AA	22	P1L	C8-C7-SG	-4.02	108.61	113.40
15	AR	22	P1L	C8-C7-SG	-4.01	108.62	113.40
15	AQ	22	P1L	C8-C7-SG	-4.01	108.62	113.40
15	AT	22	P1L	C8-C7-SG	-4.00	108.63	113.40
15	AE	22	P1L	C8-C7-SG	-4.00	108.64	113.40
15	AI	22	P1L	C8-C7-SG	-4.00	108.64	113.40
15	AK	22	P1L	C8-C7-SG	-3.99	108.64	113.40
15	AV	22	P1L	C8-C7-SG	-3.99	108.65	113.40
15	AD	22	P1L	C8-C7-SG	-3.99	108.65	113.40
15	AG	22	P1L	C8-C7-SG	-3.99	108.65	113.40
15	AF	22	P1L	C8-C7-SG	-3.98	108.66	113.40
15	AO	22	P1L	C8-C7-SG	-3.96	108.68	113.40
15	AB	22	P1L	CB-SG-C7	3.69	105.84	100.76
15	AH	22	P1L	CB-SG-C7	3.69	105.83	100.76
15	AN	22	P1L	CB-SG-C7	3.67	105.80	100.76
15	AE	22	P1L	CB-SG-C7	3.66	105.79	100.76
15	AA	22	P1L	CB-SG-C7	3.65	105.78	100.76
15	AX	22	P1L	CB-SG-C7	3.65	105.78	100.76
15	AS	22	P1L	CB-SG-C7	3.65	105.77	100.76
15	AZ	22	P1L	CB-SG-C7	3.64	105.76	100.76
15	AU	22	P1L	CB-SG-C7	3.64	105.76	100.76
15	AJ	22	P1L	CB-SG-C7	3.63	105.75	100.76
15	AM	22	P1L	CB-SG-C7	3.62	105.74	100.76
15	AY	22	P1L	CB-SG-C7	3.62	105.74	100.76
15	AF	22	P1L	CB-SG-C7	3.62	105.73	100.76
15	AG	22	P1L	CB-SG-C7	3.62	105.73	100.76
15	AT	22	P1L	CB-SG-C7	3.62	105.73	100.76
15	AC	22	P1L	CB-SG-C7	3.61	105.72	100.76
15	AW	22	P1L	CB-SG-C7	3.61	105.72	100.76
15	AI	22	P1L	CB-SG-C7	3.61	105.72	100.76
15	AK	22	P1L	CB-SG-C7	3.60	105.70	100.76
15	AD	22	P1L	CB-SG-C7	3.59	105.70	100.76
15	AL	22	P1L	CB-SG-C7	3.58	105.69	100.76
15	AQ	22	P1L	CB-SG-C7	3.58	105.69	100.76
15	AR	22	P1L	CB-SG-C7	3.58	105.68	100.76
15	AP	22	P1L	CB-SG-C7	3.57	105.67	100.76
15	AO	22	P1L	CB-SG-C7	3.57	105.67	100.76
15	AV	22	P1L	CB-SG-C7	3.56	105.65	100.76
15	AW	22	P1L	O7-C7-SG	2.71	126.13	122.68
15	AX	22	P1L	O7-C7-SG	2.67	126.09	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AS	22	P1L	O7-C7-SG	2.65	126.06	122.68
15	AP	22	P1L	O7-C7-SG	2.65	126.05	122.68
15	AD	22	P1L	O7-C7-SG	2.64	126.04	122.68
15	AB	22	P1L	O7-C7-SG	2.63	126.03	122.68
15	AA	22	P1L	O7-C7-SG	2.62	126.02	122.68
15	AV	22	P1L	O7-C7-SG	2.62	126.02	122.68
15	AC	22	P1L	O7-C7-SG	2.62	126.02	122.68
15	AQ	22	P1L	O7-C7-SG	2.62	126.01	122.68
15	AN	22	P1L	O7-C7-SG	2.61	126.01	122.68
15	AF	22	P1L	O7-C7-SG	2.61	126.00	122.68
15	AU	22	P1L	O7-C7-SG	2.61	126.00	122.68
15	AG	22	P1L	O7-C7-SG	2.60	126.00	122.68
15	AY	22	P1L	O7-C7-SG	2.60	125.99	122.68
15	AJ	22	P1L	O7-C7-SG	2.60	125.99	122.68
15	AI	22	P1L	O7-C7-SG	2.59	125.98	122.68
15	AM	22	P1L	O7-C7-SG	2.59	125.97	122.68
15	AE	22	P1L	O7-C7-SG	2.58	125.97	122.68
15	AT	22	P1L	O7-C7-SG	2.58	125.97	122.68
15	AL	22	P1L	O7-C7-SG	2.58	125.96	122.68
15	AR	22	P1L	O7-C7-SG	2.57	125.95	122.68
15	AZ	22	P1L	O7-C7-SG	2.57	125.95	122.68
15	AK	22	P1L	O7-C7-SG	2.55	125.93	122.68
15	AH	22	P1L	O7-C7-SG	2.53	125.90	122.68
15	AO	22	P1L	O7-C7-SG	2.50	125.86	122.68

There are no chirality outliers.

All (182) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
15	AA	22	P1L	O7-C7-SG-CB
15	AA	22	P1L	C8-C7-SG-CB
15	AB	22	P1L	O7-C7-SG-CB
15	AB	22	P1L	C8-C7-SG-CB
15	AC	22	P1L	O7-C7-SG-CB
15	AC	22	P1L	C8-C7-SG-CB
15	AD	22	P1L	O7-C7-SG-CB
15	AD	22	P1L	C8-C7-SG-CB
15	AE	22	P1L	O7-C7-SG-CB
15	AE	22	P1L	C8-C7-SG-CB
15	AF	22	P1L	O7-C7-SG-CB
15	AF	22	P1L	C8-C7-SG-CB
15	AG	22	P1L	O7-C7-SG-CB

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Mol	Chain	Res	Type	Atoms
15	AG	22	P1L	C8-C7-SG-CB
15	AH	22	P1L	O7-C7-SG-CB
15	AH	22	P1L	C8-C7-SG-CB
15	AI	22	P1L	O7-C7-SG-CB
15	AI	22	P1L	C8-C7-SG-CB
15	AJ	22	P1L	O7-C7-SG-CB
15	AJ	22	P1L	C8-C7-SG-CB
15	AK	22	P1L	O7-C7-SG-CB
15	AK	22	P1L	C8-C7-SG-CB
15	AL	22	P1L	O7-C7-SG-CB
15	AL	22	P1L	C8-C7-SG-CB
15	AM	22	P1L	O7-C7-SG-CB
15	AM	22	P1L	C8-C7-SG-CB
15	AN	22	P1L	O7-C7-SG-CB
15	AN	22	P1L	C8-C7-SG-CB
15	AO	22	P1L	O7-C7-SG-CB
15	AO	22	P1L	C8-C7-SG-CB
15	AP	22	P1L	O7-C7-SG-CB
15	AP	22	P1L	C8-C7-SG-CB
15	AQ	22	P1L	O7-C7-SG-CB
15	AQ	22	P1L	C8-C7-SG-CB
15	AR	22	P1L	O7-C7-SG-CB
15	AR	22	P1L	C8-C7-SG-CB
15	AS	22	P1L	O7-C7-SG-CB
15	AS	22	P1L	C8-C7-SG-CB
15	AT	22	P1L	O7-C7-SG-CB
15	AT	22	P1L	C8-C7-SG-CB
15	AU	22	P1L	O7-C7-SG-CB
15	AU	22	P1L	C8-C7-SG-CB
15	AV	22	P1L	O7-C7-SG-CB
15	AV	22	P1L	C8-C7-SG-CB
15	AW	22	P1L	O7-C7-SG-CB
15	AW	22	P1L	C8-C7-SG-CB
15	AX	22	P1L	O7-C7-SG-CB
15	AX	22	P1L	C8-C7-SG-CB
15	AY	22	P1L	O7-C7-SG-CB
15	AY	22	P1L	C8-C7-SG-CB
15	AZ	22	P1L	O7-C7-SG-CB
15	AZ	22	P1L	C8-C7-SG-CB
15	AE	22	P1L	C11-C10-C9-C8
15	AJ	22	P1L	C11-C10-C9-C8
15	AY	22	P1L	C11-C10-C9-C8

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Mol	Chain	Res	Type	Atoms
15	AZ	22	P1L	C11-C10-C9-C8
15	AA	22	P1L	C11-C10-C9-C8
15	AC	22	P1L	C11-C10-C9-C8
15	AD	22	P1L	C11-C10-C9-C8
15	AF	22	P1L	C11-C10-C9-C8
15	AG	22	P1L	C11-C10-C9-C8
15	AH	22	P1L	C11-C10-C9-C8
15	AI	22	P1L	C11-C10-C9-C8
15	AK	22	P1L	C11-C10-C9-C8
15	AL	22	P1L	C11-C10-C9-C8
15	AM	22	P1L	C11-C10-C9-C8
15	AN	22	P1L	C11-C10-C9-C8
15	AP	22	P1L	C11-C10-C9-C8
15	AQ	22	P1L	C11-C10-C9-C8
15	AR	22	P1L	C11-C10-C9-C8
15	AS	22	P1L	C11-C10-C9-C8
15	AT	22	P1L	C11-C10-C9-C8
15	AU	22	P1L	C11-C10-C9-C8
15	AB	22	P1L	C11-C10-C9-C8
15	AO	22	P1L	C11-C10-C9-C8
15	AW	22	P1L	C11-C10-C9-C8
15	AX	22	P1L	C11-C10-C9-C8
15	AV	22	P1L	C11-C10-C9-C8
15	AO	22	P1L	C10-C11-C12-C13
15	AB	22	P1L	C10-C11-C12-C13
15	AJ	22	P1L	C10-C11-C12-C13
15	AK	22	P1L	C10-C11-C12-C13
15	AD	22	P1L	C10-C11-C12-C13
15	AG	22	P1L	C10-C11-C12-C13
15	AL	22	P1L	C10-C11-C12-C13
15	AM	22	P1L	C10-C11-C12-C13
15	AU	22	P1L	C10-C11-C12-C13
15	AV	22	P1L	C10-C11-C12-C13
15	AW	22	P1L	C10-C11-C12-C13
15	AE	22	P1L	C10-C11-C12-C13
15	AI	22	P1L	C10-C11-C12-C13
15	AS	22	P1L	C10-C11-C12-C13
15	AZ	22	P1L	C10-C11-C12-C13
15	AA	22	P1L	C10-C11-C12-C13
15	AC	22	P1L	C10-C11-C12-C13
15	AP	22	P1L	C10-C11-C12-C13
15	AR	22	P1L	C10-C11-C12-C13

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Mol	Chain	Res	Type	Atoms
15	AX	22	P1L	C10-C11-C12-C13
15	AF	22	P1L	C10-C11-C12-C13
15	AH	22	P1L	C10-C11-C12-C13
15	AQ	22	P1L	C10-C11-C12-C13
15	AT	22	P1L	C10-C11-C12-C13
15	AY	22	P1L	C10-C11-C12-C13
15	AN	22	P1L	C10-C11-C12-C13
15	AA	22	P1L	C7-C8-C9-C10
15	AB	22	P1L	C7-C8-C9-C10
15	AC	22	P1L	C7-C8-C9-C10
15	AD	22	P1L	C7-C8-C9-C10
15	AE	22	P1L	C7-C8-C9-C10
15	AF	22	P1L	C7-C8-C9-C10
15	AG	22	P1L	C7-C8-C9-C10
15	AH	22	P1L	C7-C8-C9-C10
15	AI	22	P1L	C7-C8-C9-C10
15	AJ	22	P1L	C7-C8-C9-C10
15	AK	22	P1L	C7-C8-C9-C10
15	AL	22	P1L	C7-C8-C9-C10
15	AM	22	P1L	C7-C8-C9-C10
15	AN	22	P1L	C7-C8-C9-C10
15	AO	22	P1L	C7-C8-C9-C10
15	AP	22	P1L	C7-C8-C9-C10
15	AQ	22	P1L	C7-C8-C9-C10
15	AR	22	P1L	C7-C8-C9-C10
15	AS	22	P1L	C7-C8-C9-C10
15	AT	22	P1L	C7-C8-C9-C10
15	AU	22	P1L	C7-C8-C9-C10
15	AV	22	P1L	C7-C8-C9-C10
15	AW	22	P1L	C7-C8-C9-C10
15	AX	22	P1L	C7-C8-C9-C10
15	AY	22	P1L	C7-C8-C9-C10
15	AZ	22	P1L	C7-C8-C9-C10
15	AN	22	P1L	C9-C10-C11-C12
15	AE	22	P1L	C9-C10-C11-C12
15	AF	22	P1L	C9-C10-C11-C12
15	AP	22	P1L	C9-C10-C11-C12
15	AR	22	P1L	C9-C10-C11-C12
15	AV	22	P1L	C9-C10-C11-C12
15	AX	22	P1L	C9-C10-C11-C12
15	AZ	22	P1L	C9-C10-C11-C12
15	AA	22	P1L	C9-C10-C11-C12

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Mol	Chain	Res	Type	Atoms
15	AB	22	P1L	C9-C10-C11-C12
15	AD	22	P1L	C9-C10-C11-C12
15	AJ	22	P1L	C9-C10-C11-C12
15	AL	22	P1L	C9-C10-C11-C12
15	AM	22	P1L	C9-C10-C11-C12
15	AO	22	P1L	C9-C10-C11-C12
15	AQ	22	P1L	C9-C10-C11-C12
15	AS	22	P1L	C9-C10-C11-C12
15	AT	22	P1L	C9-C10-C11-C12
15	AU	22	P1L	C9-C10-C11-C12
15	AY	22	P1L	C9-C10-C11-C12
15	AC	22	P1L	C9-C10-C11-C12
15	AG	22	P1L	C9-C10-C11-C12
15	AH	22	P1L	C9-C10-C11-C12
15	AI	22	P1L	C9-C10-C11-C12
15	AW	22	P1L	C9-C10-C11-C12
15	AK	22	P1L	C9-C10-C11-C12
15	AA	22	P1L	CA-CB-SG-C7
15	AB	22	P1L	CA-CB-SG-C7
15	AC	22	P1L	CA-CB-SG-C7
15	AD	22	P1L	CA-CB-SG-C7
15	AE	22	P1L	CA-CB-SG-C7
15	AF	22	P1L	CA-CB-SG-C7
15	AG	22	P1L	CA-CB-SG-C7
15	AH	22	P1L	CA-CB-SG-C7
15	AI	22	P1L	CA-CB-SG-C7
15	AJ	22	P1L	CA-CB-SG-C7
15	AK	22	P1L	CA-CB-SG-C7
15	AL	22	P1L	CA-CB-SG-C7
15	AM	22	P1L	CA-CB-SG-C7
15	AN	22	P1L	CA-CB-SG-C7
15	AO	22	P1L	CA-CB-SG-C7
15	AP	22	P1L	CA-CB-SG-C7
15	AQ	22	P1L	CA-CB-SG-C7
15	AR	22	P1L	CA-CB-SG-C7
15	AS	22	P1L	CA-CB-SG-C7
15	AT	22	P1L	CA-CB-SG-C7
15	AU	22	P1L	CA-CB-SG-C7
15	AV	22	P1L	CA-CB-SG-C7
15	AW	22	P1L	CA-CB-SG-C7
15	AX	22	P1L	CA-CB-SG-C7
15	AY	22	P1L	CA-CB-SG-C7

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Mol	Chain	Res	Type	Atoms
15	AZ	22	P1L	CA-CB-SG-C7

There are no ring outliers.

26 monomers are involved in 46 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
15	AR	22	P1L	2	0
15	AB	22	P1L	2	0
15	AM	22	P1L	2	0
15	AF	22	P1L	2	0
15	AJ	22	P1L	2	0
15	AK	22	P1L	2	0
15	AV	22	P1L	1	0
15	AC	22	P1L	1	0
15	AZ	22	P1L	1	0
15	AS	22	P1L	2	0
15	AW	22	P1L	1	0
15	AY	22	P1L	2	0
15	AE	22	P1L	1	0
15	AH	22	P1L	1	0
15	AP	22	P1L	2	0
15	AO	22	P1L	2	0
15	AI	22	P1L	2	0
15	AT	22	P1L	2	0
15	AX	22	P1L	2	0
15	AQ	22	P1L	2	0
15	AU	22	P1L	2	0
15	AL	22	P1L	2	0
15	AA	22	P1L	2	0
15	AN	22	P1L	2	0
15	AG	22	P1L	2	0
15	AD	22	P1L	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

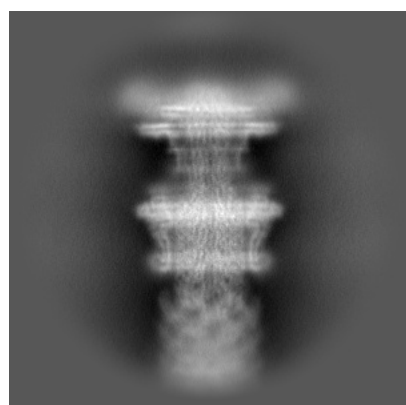
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-30359. These allow visual inspection of the internal detail of the map and identification of artifacts.

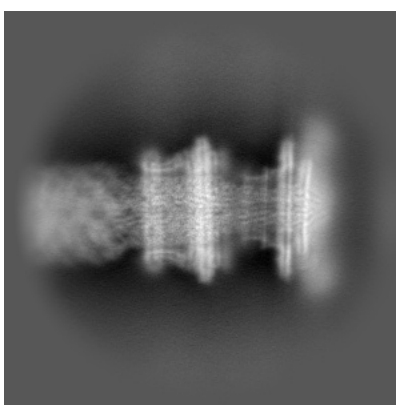
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

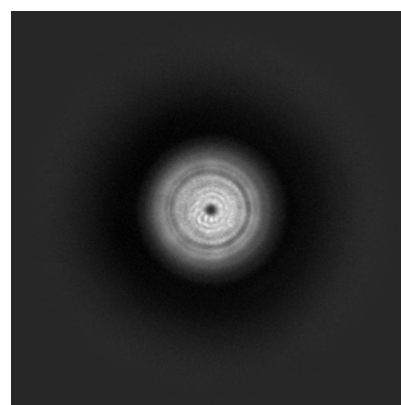
6.1.1 Primary map



X



Y

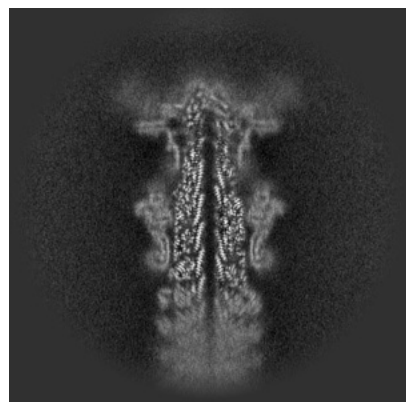


Z

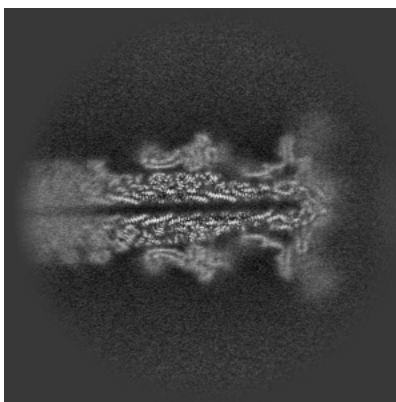
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

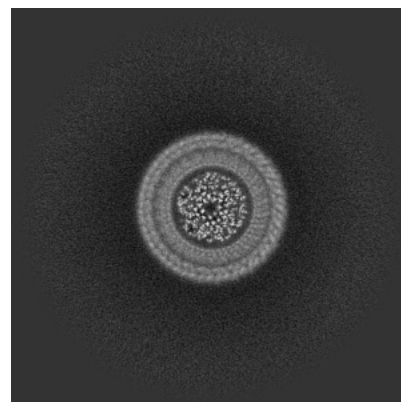
6.2.1 Primary map



X Index: 256



Y Index: 256

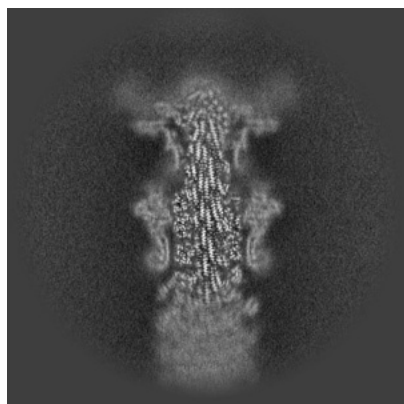


Z Index: 256

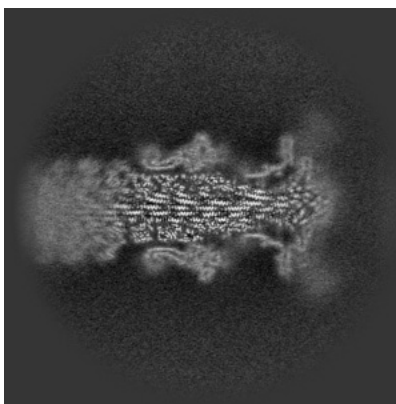
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

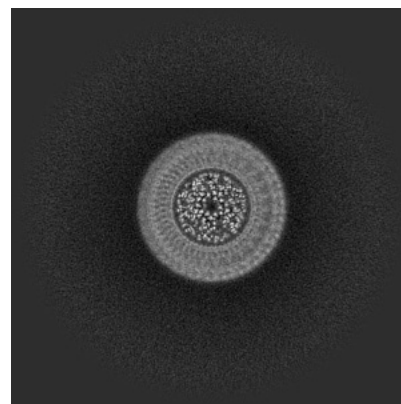
6.3.1 Primary map



X Index: 269



Y Index: 244

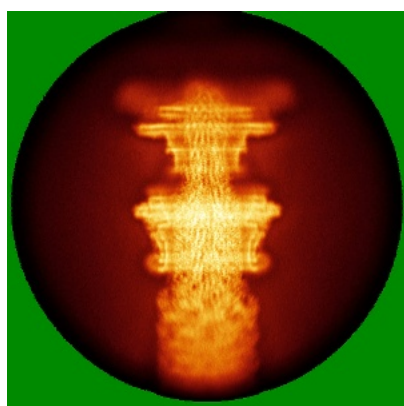


Z Index: 251

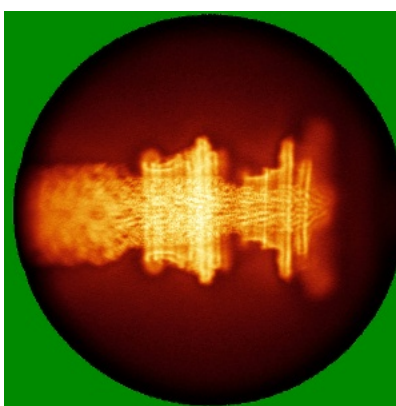
The images above show the largest variance slices of the map in three orthogonal directions.

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

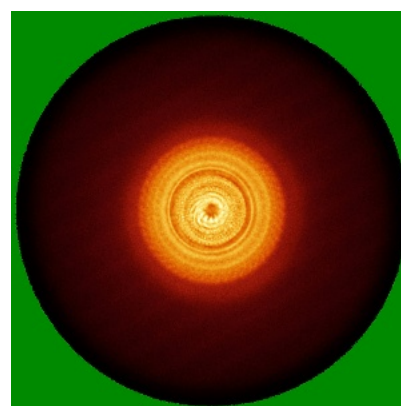
6.4.1 Primary map



X



Y

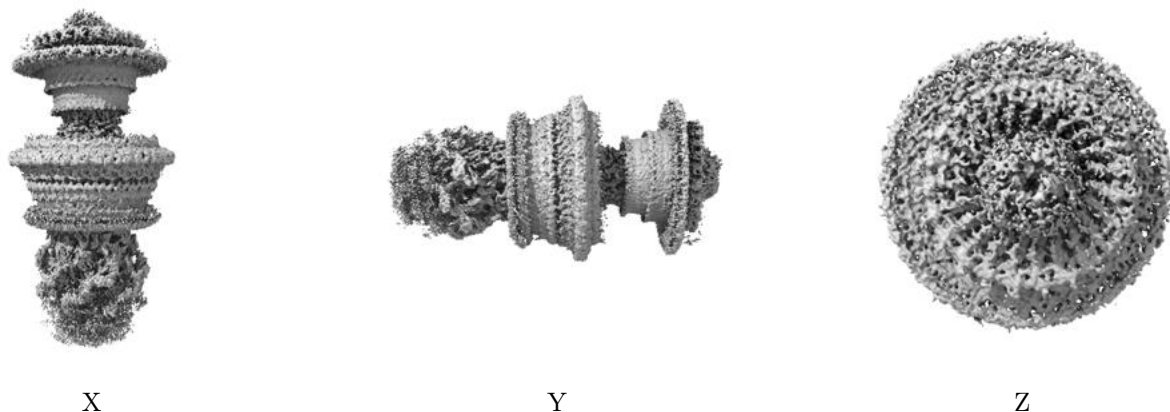


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.38. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

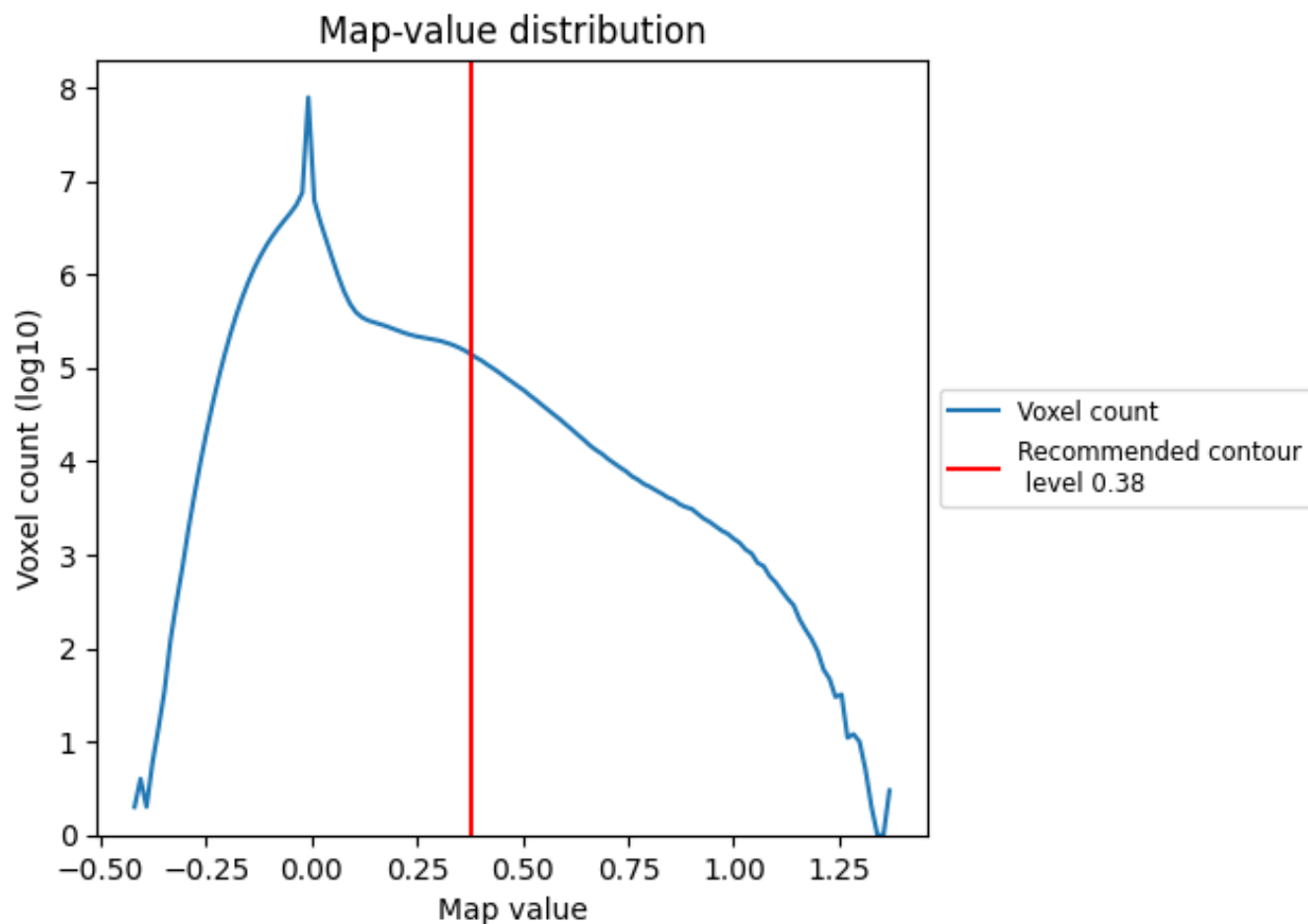
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

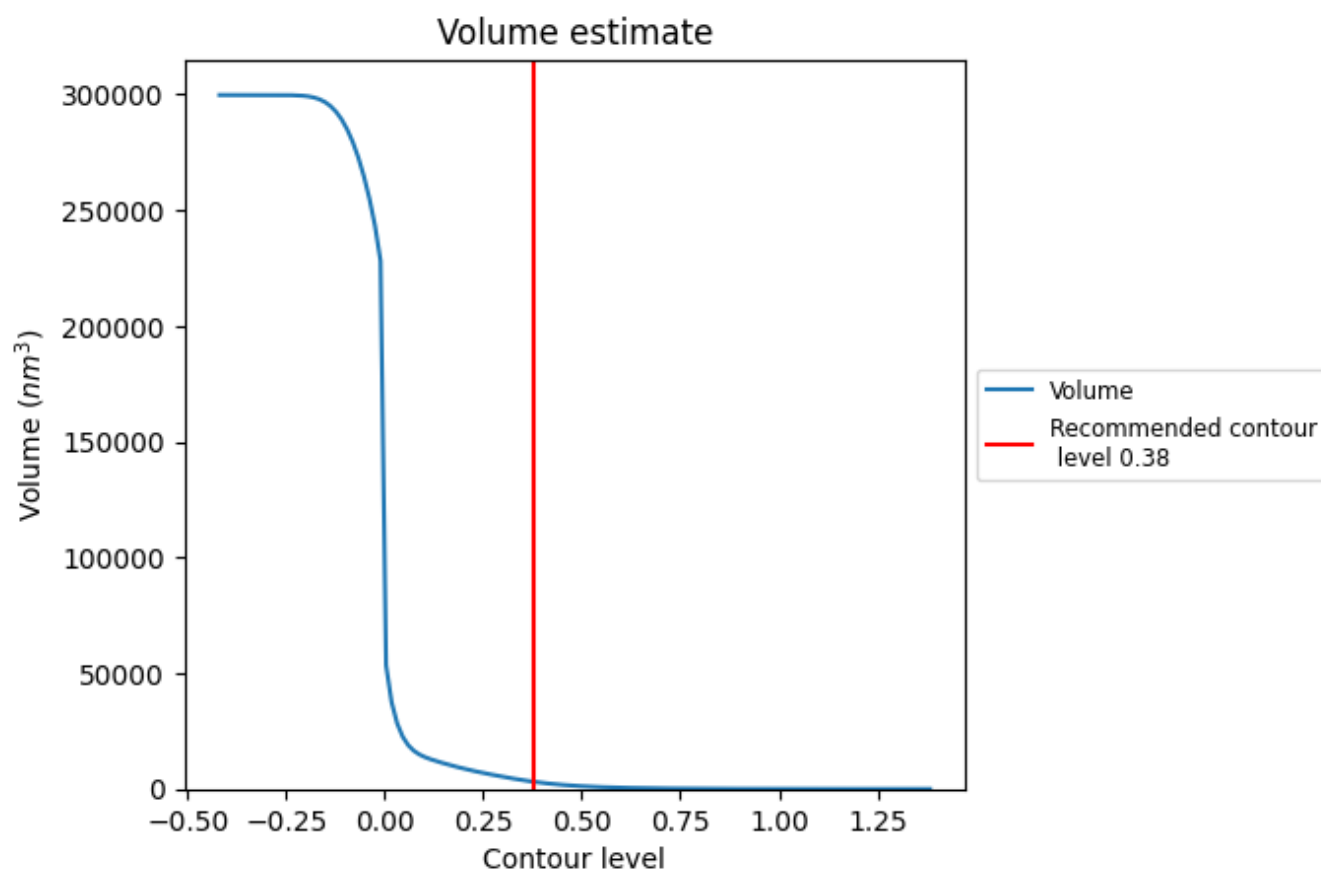
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

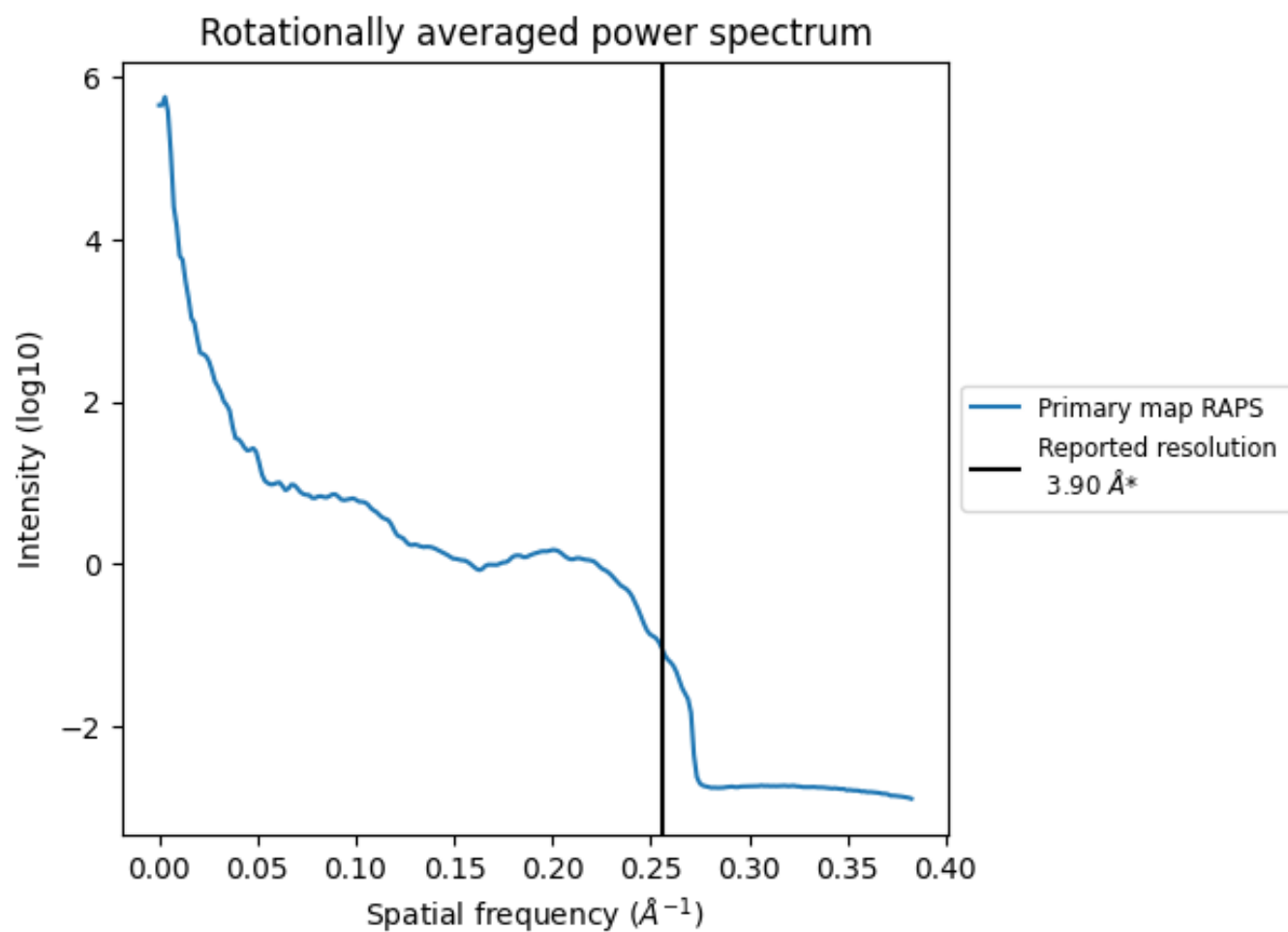
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 3068 nm³; this corresponds to an approximate mass of 2771 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.256 Å⁻¹

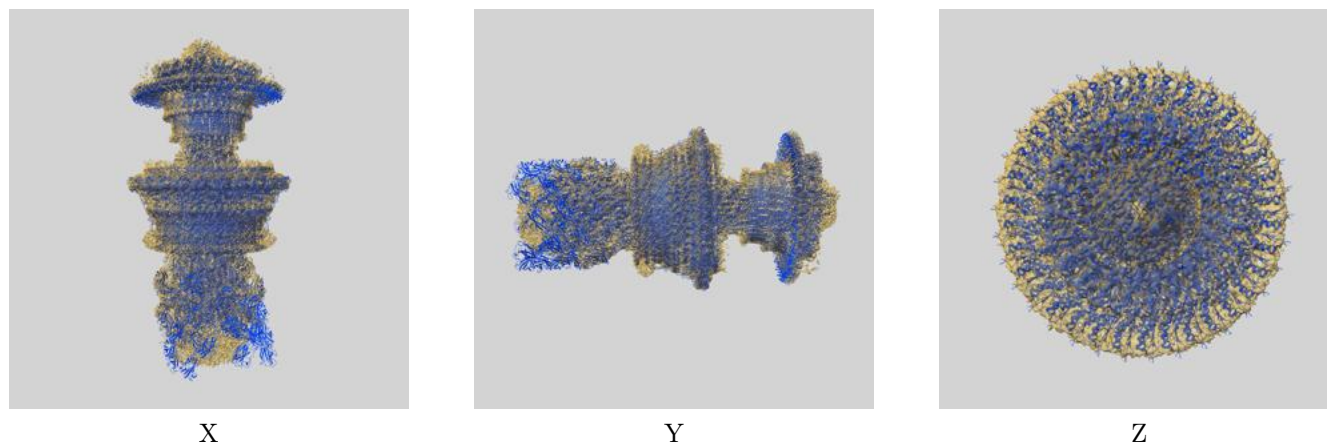
8 Fourier-Shell correlation ⓘ

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

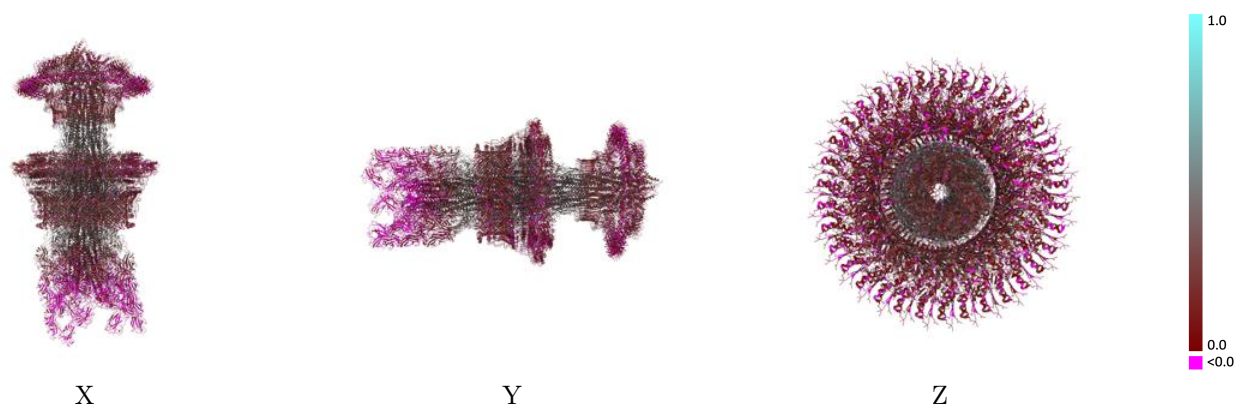
This section contains information regarding the fit between EMDB map EMD-30359 and PDB model 7CGO. Per-residue inclusion information can be found in section [3](#) on page [24](#).

9.1 Map-model overlay [i](#)



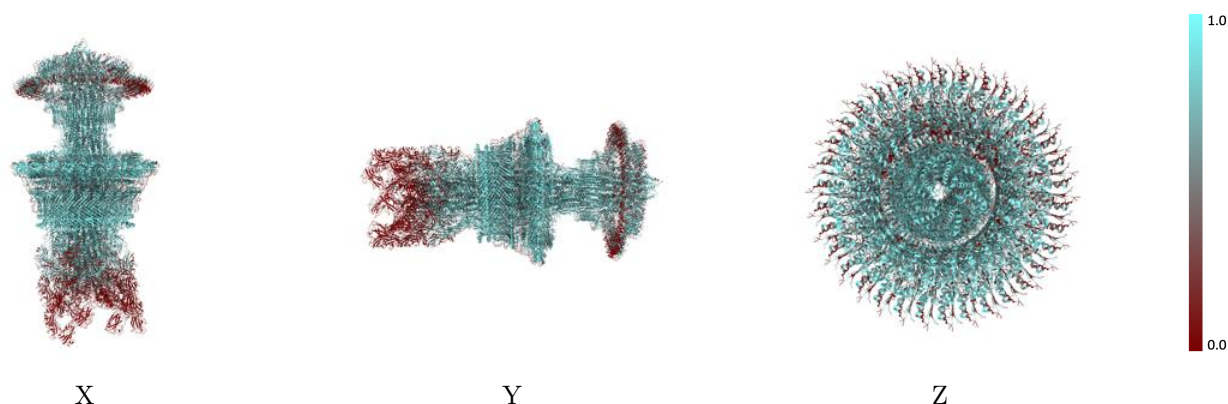
The images above show the 3D surface view of the map at the recommended contour level 0.38 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



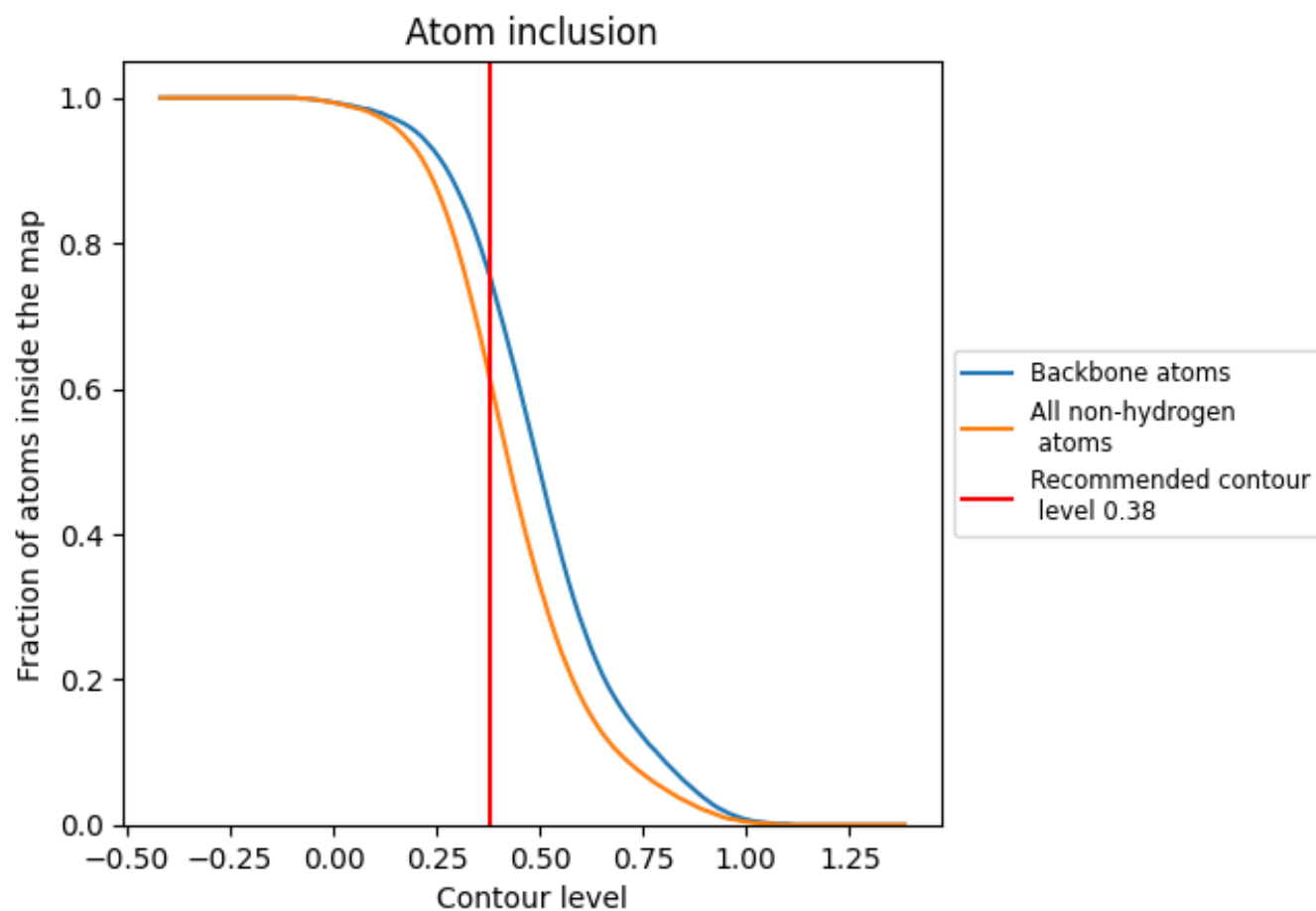
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.38).

9.4 Atom inclusion [i](#)



At the recommended contour level, 75% of all backbone atoms, 61% 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 (0.38) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6110	 0.2210
0	 0.8930	 0.4500
1	 0.9070	 0.4270
2	 0.9470	 0.4930
3	 0.8800	 0.4400
4	 0.9070	 0.4600
5	 0.8500	 0.4640
6	 0.6710	 0.4240
7	 0.8430	 0.4520
8	 0.8360	 0.4430
9	 0.7790	 0.4420
A	 0.8060	 0.4250
AA	 0.7250	 0.2400
AB	 0.7370	 0.2460
AC	 0.7250	 0.2380
AD	 0.7050	 0.2210
AE	 0.7160	 0.2310
AF	 0.7060	 0.2190
AG	 0.6930	 0.2240
AH	 0.6950	 0.2120
AI	 0.6800	 0.1990
AJ	 0.6700	 0.1870
AK	 0.6920	 0.1890
AL	 0.6770	 0.1720
AM	 0.6600	 0.1770
AN	 0.6500	 0.1490
AO	 0.6650	 0.1540
AP	 0.6580	 0.1350
AQ	 0.6620	 0.1360
AR	 0.6750	 0.1550
AS	 0.6750	 0.1610
AT	 0.6690	 0.1560
AU	 0.6770	 0.1750
AV	 0.7060	 0.2050
AW	 0.7130	 0.2040



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Chain	Atom inclusion	Q-score
AX	 0.7150	 0.2290
AY	 0.7160	 0.2250
AZ	 0.7220	 0.2230
B	 0.7740	 0.4090
BA	 0.7860	 0.2310
BB	 0.7710	 0.2260
BC	 0.7680	 0.2300
BD	 0.7700	 0.2210
BE	 0.7750	 0.2290
BF	 0.7640	 0.2150
BG	 0.7690	 0.2040
BH	 0.7640	 0.1980
BI	 0.7720	 0.1930
BJ	 0.7580	 0.1830
BK	 0.7580	 0.1780
BL	 0.7350	 0.1660
BM	 0.7320	 0.1510
BN	 0.7410	 0.1320
BO	 0.7290	 0.1340
BP	 0.7180	 0.1220
BQ	 0.7080	 0.1270
BR	 0.7270	 0.1310
BS	 0.7380	 0.1460
BT	 0.7320	 0.1390
BU	 0.7440	 0.1520
BV	 0.7600	 0.1690
BW	 0.7740	 0.1900
BX	 0.7690	 0.2040
BY	 0.7830	 0.2250
BZ	 0.7850	 0.2240
C	 0.8110	 0.4230
CA	 0.7230	 0.2260
CB	 0.7290	 0.2420
CC	 0.6840	 0.2410
CD	 0.6140	 0.2210
CE	 0.6420	 0.2360
CF	 0.7260	 0.2860
Ca	 0.5340	 0.1090
Cb	 0.5340	 0.1260
Cc	 0.5090	 0.1180
Cd	 0.4790	 0.1030
Ce	 0.5060	 0.1160

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Chain	Atom inclusion	Q-score
Cf	0.5020	0.1070
Cg	0.4830	0.0970
Ch	0.4930	0.1200
Ci	0.4830	0.1190
Cj	0.4800	0.1320
Ck	0.4660	0.1320
Cl	0.4920	0.1390
Cm	0.4740	0.1490
Cn	0.4560	0.1390
Co	0.4720	0.1570
Cp	0.4670	0.1430
Cq	0.4660	0.1300
Cr	0.4710	0.1280
Cs	0.5010	0.1350
Ct	0.5300	0.1630
Cu	0.5200	0.1290
Cv	0.5220	0.1370
Cw	0.5250	0.1430
Cx	0.5220	0.1370
Cy	0.5470	0.1620
Cz	0.5420	0.1400
D	0.8060	0.4220
DA	0.5190	0.3360
DB	0.6960	0.3470
DC	0.6990	0.3310
DD	0.6760	0.3100
DE	0.6800	0.3230
DF	0.6560	0.3150
DG	0.6630	0.3140
DH	0.6610	0.3080
DI	0.6180	0.2800
DJ	0.5790	0.2670
DK	0.5320	0.2560
DL	0.4750	0.1410
DM	0.4900	0.1570
DN	0.4540	0.1470
DO	0.4430	0.1660
DP	0.3490	0.0950
DQ	0.3590	0.1350
DR	0.3420	0.0940
DS	0.3010	0.0620
DT	0.3400	0.1240

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Chain	Atom inclusion	Q-score
DU	 0.2570	 0.0660
DV	 0.2390	 0.0520
DW	 0.2520	 0.0960
DX	 0.2110	 0.0180
DY	 0.2050	 0.0410
DZ	 0.1940	 0.0600
Da	 0.7030	 0.2190
Db	 0.6490	 0.1990
Dc	 0.6540	 0.1900
Dd	 0.6380	 0.1770
De	 0.6100	 0.1800
Df	 0.6060	 0.1740
Dg	 0.5560	 0.1100
Dh	 0.5060	 0.1350
Di	 0.4540	 0.1110
Dj	 0.4310	 0.1280
Dk	 0.4510	 0.1440
Di	 0.4140	 0.1010
Dm	 0.4240	 0.1170
Dn	 0.4590	 0.1250
Do	 0.5000	 0.1580
Dp	 0.5780	 0.1810
Dq	 0.6360	 0.1880
Dr	 0.6280	 0.1980
Ds	 0.6320	 0.2160
Dt	 0.6590	 0.2010
Du	 0.7020	 0.2200
Dv	 0.6770	 0.2320
Dw	 0.6570	 0.2050
E	 0.8200	 0.4270
EA	 0.1370	 0.0090
EB	 0.1620	 0.0480
EC	 0.1270	 0.0050
ED	 0.1040	 -0.0140
EE	 0.1200	 0.0400
EF	 0.0810	 0.0100
EG	 0.0760	 0.0240
Ea	 0.5680	 0.1500
Eb	 0.5590	 0.1460
Ec	 0.5710	 0.1320
Ed	 0.5820	 0.1580
Ee	 0.5950	 0.1340

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Chain	Atom inclusion	Q-score
Ef	 0.5800	 0.1450
Eg	 0.5330	 0.1300
Eh	 0.5560	 0.1230
F	 0.8110	 0.4240
G	 0.8110	 0.4290
GA	 0.6360	 0.2900
GB	 0.6400	 0.2500
GC	 0.4730	 0.2790
GD	 0.7200	 0.3160
GE	 0.6670	 0.2860
GF	 0.5330	 0.2750
GG	 0.4330	 0.3040
GH	 0.2220	 0.2370
GI	 0.1330	 0.1770
GJ	 0.4000	 0.2520
GK	 0.3330	 0.2420
H	 0.8130	 0.4320
I	 0.8190	 0.4330
J	 0.8120	 0.4360
K	 0.8040	 0.4360
L	 0.8070	 0.4340
M	 0.8140	 0.4340
N	 0.7950	 0.4370
O	 0.8110	 0.4320
P	 0.8100	 0.4310
Q	 0.8120	 0.4300
R	 0.8060	 0.4290
S	 0.8120	 0.4270
T	 0.8140	 0.4330
U	 0.8240	 0.4380
V	 0.8180	 0.4300
W	 0.8200	 0.4360
X	 0.8070	 0.4230
a	 0.8490	 0.4350
b	 0.8160	 0.4130
c	 0.8470	 0.4370
d	 0.8320	 0.4260
e	 0.8100	 0.4220
f	 0.8210	 0.4150
g	 0.8060	 0.3760
h	 0.8240	 0.4170
i	 0.8280	 0.4180

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Chain	Atom inclusion	Q-score
j	 0.8070	 0.4120
k	 0.8160	 0.3950
l	 0.7790	 0.3840
m	 0.8260	 0.4000
n	 0.8150	 0.3870
o	 0.7960	 0.3830
p	 0.8000	 0.3950
q	 0.7720	 0.3570
r	 0.7580	 0.3120
s	 0.7530	 0.3550
t	 0.7810	 0.3660
u	 0.7550	 0.3500
v	 0.6850	 0.3130
w	 0.7330	 0.3110
x	 0.6670	 0.2840
y	 0.7330	 0.3080
z	 0.7340	 0.3040