Full wwPDB EM Validation Report

Aug 27, 2026 – 12:00 PM EDT

PDB ID	:	10LL / pdb_000010ll
EMDB ID	:	EMD-75269
Title	:	Native flagellar filament from Leptospira interrogans flaB1- KO mutant strain
Authors	:	Brady, M.R.; San Martin, F.; Sindelar, C.V.; Buschiazzo, A.
Deposited on	:	2026-01-26
Resolution	:	4.30 Å(reported)
Based on initial model	:	.

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

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

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

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

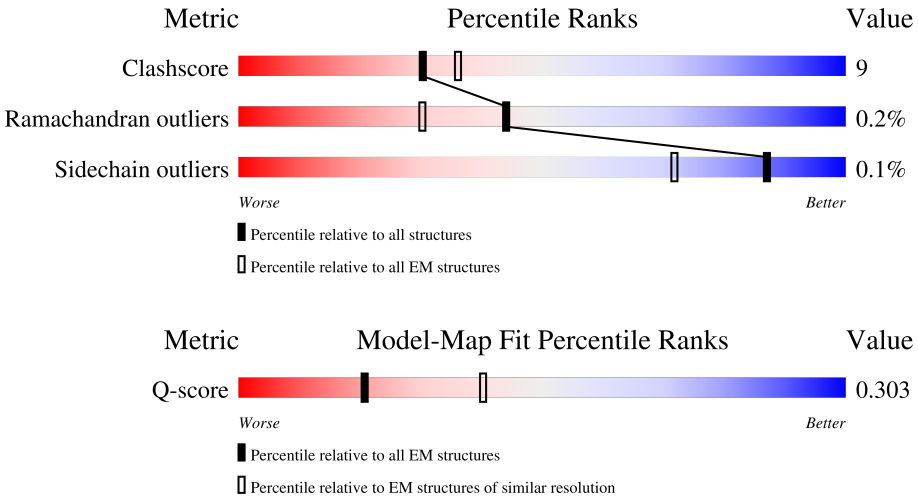
EMDB validation analysis	:	0.0.1.dev133
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

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 4.30 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	4585 (3.80 - 4.80)

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

Mol	Chain	Length	Quality of chain
1	A4	282	13% 48% 15% • 37%
1	A5	282	13% 70% 29% •
1	A6	282	11% 74% 26%
1	A7	282	11% 76% 24%

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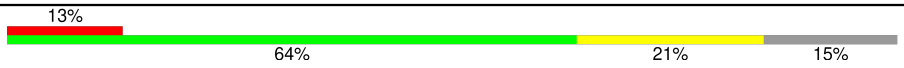
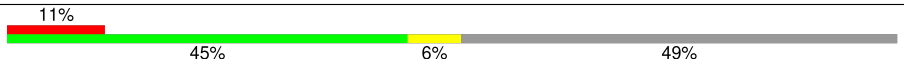
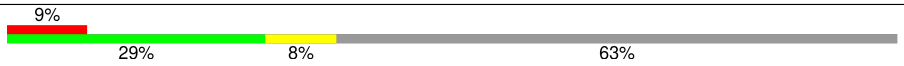
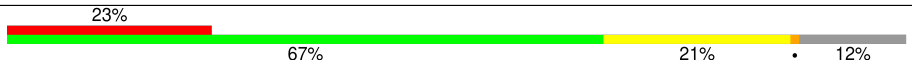
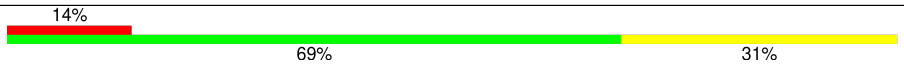
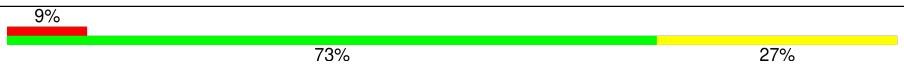
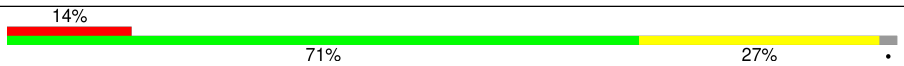
Mol	Chain	Length	Quality of chain
1	A8	282	
1	A9	282	
1	B3	282	
1	B4	282	
1	B5	282	
1	B6	282	
1	B7	282	
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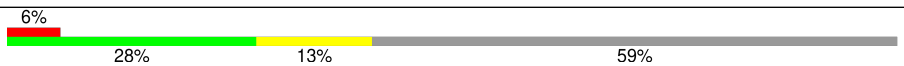
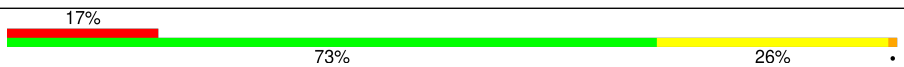
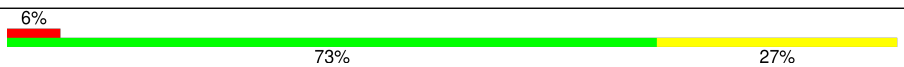
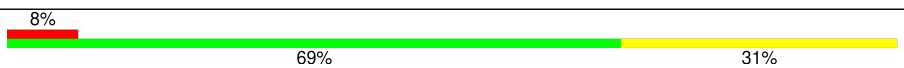
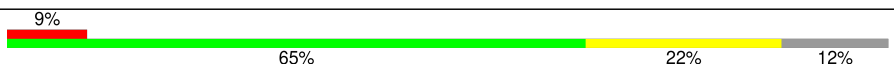
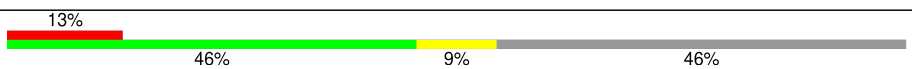
1	C3	282	
1	C4	282	
1	C5	282	
1	C6	282	
1	C7	282	
1	C8	282	
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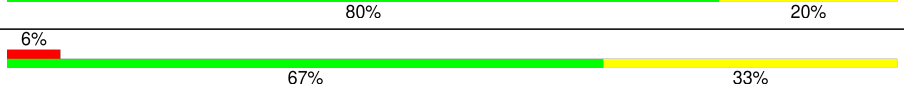
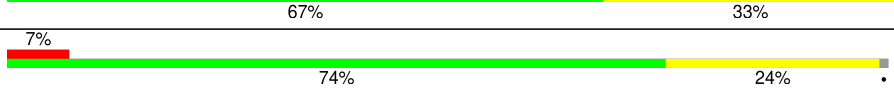
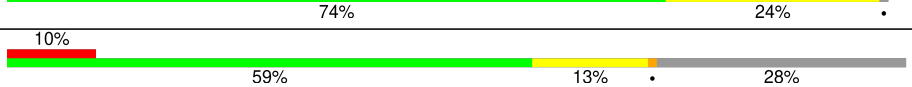
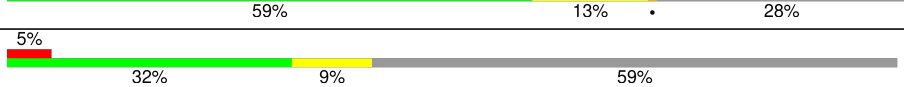
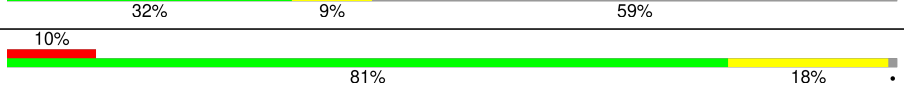
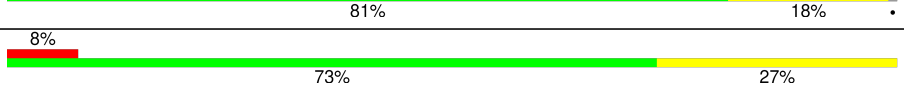
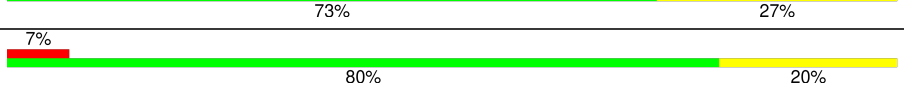
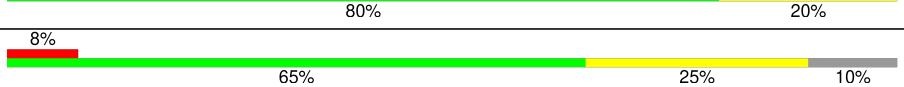
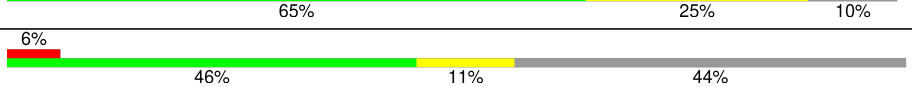
1	D5	282	
1	D6	282	
1	D7	282	
1	E2	282	
1	E3	282	
1	E4	282	
1	E5	282	
1	E6	282	
1	E7	282	

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Mol	Chain	Length	Quality of chain
1	F2	282	10% 56% 17% 27%
1	F3	282	10% 78% 22%
1	F4	282	5% 76% 23%
1	F5	282	7% 77% 23%
1	F6	282	7% 60% 15% 24%
1	G1	282	8% 69% 23% 9%
1	G2	282	7% 45% 13% 41%
1	G6	282	6% 37% 59%
1	G7	282	15% 71% 26%
1	G8	282	12% 74% 25%
1	G9	282	7% 74% 25%
1	H6	282	15% 51% 18% 30%
1	H7	282	9% 76% 24%
1	H8	282	9% 78% 21%
1	H9	282	12% 73% 27%
1	I5	282	10% 32% 9% 59%
1	I6	282	17% 74% 21% 5%
1	I7	282	10% 72% 27%
1	I8	282	10% 73% 27%
1	I9	282	12% 67% 27% 6%
1	J5	282	13% 50% 17% 33%
1	J6	282	11% 79% 21%
1	J7	282	11% 74% 26%
1	J8	282	12% 77% 22%
1	J9	282	13% 60% 22% 18%

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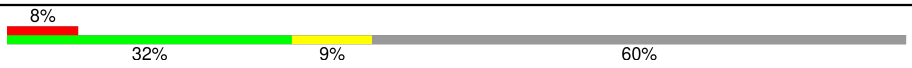
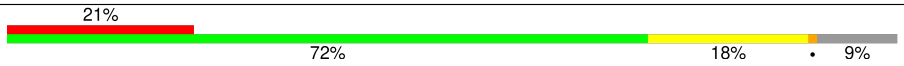
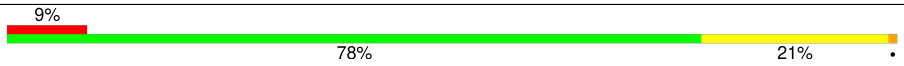
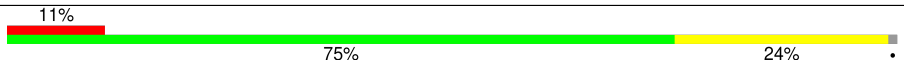
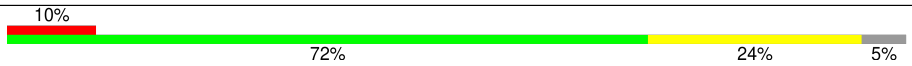
Mol	Chain	Length	Quality of chain
1	K4	282	
1	K5	282	
1	K6	282	
1	K7	282	
1	K8	282	
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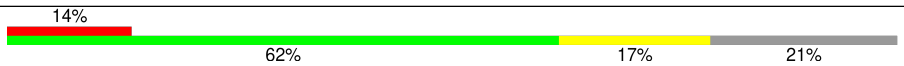
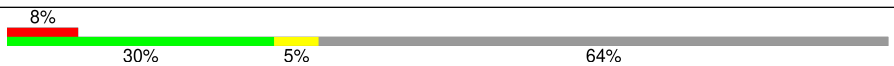
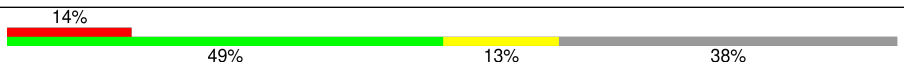
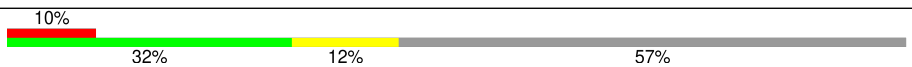
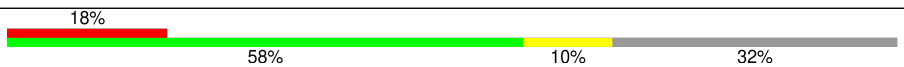
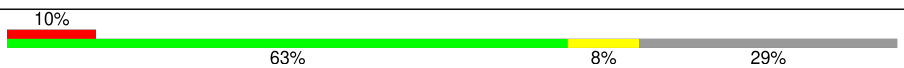
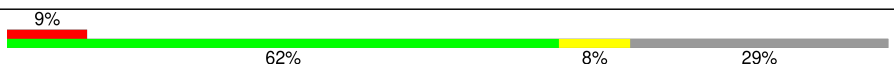
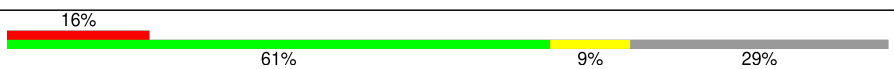
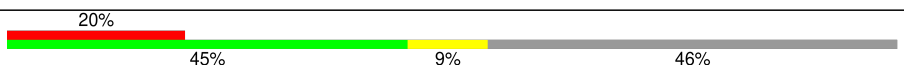
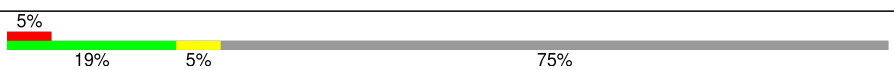
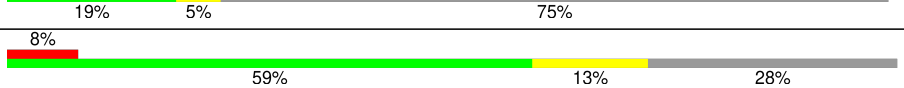
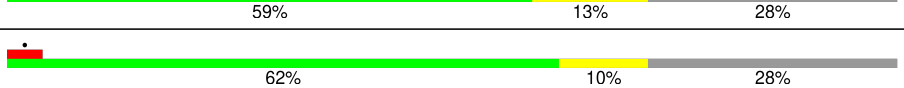
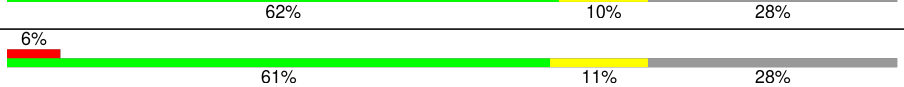
1	h0	282	
1	h1	282	
1	i0	282	
1	j0	282	
2	L2	306	
2	L3	306	
2	L4	306	
2	L5	306	
2	L6	306	
2	M1	306	
2	M2	306	
2	M3	306	
2	M4	306	
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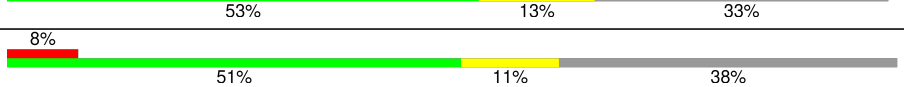
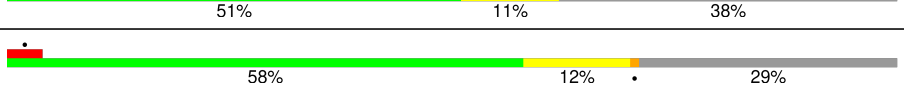
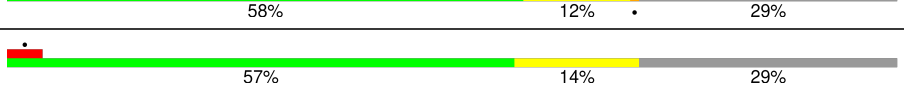
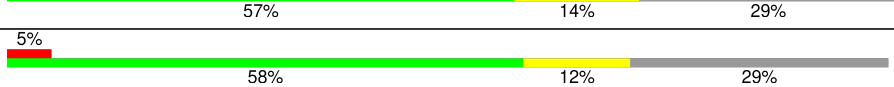
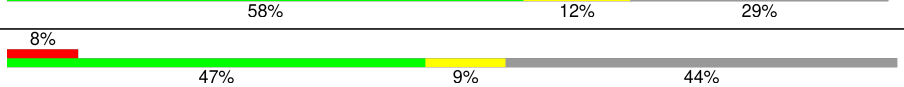
2	N2	306	
2	N3	306	
2	N4	306	
2	N5	306	
2	N6	306	

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Mol	Chain	Length	Quality of chain
2	O1	306	18% 79%
2	O2	306	5% 59% 11% 29%
2	O3	306	6% 58% 13% 29%
2	O4	306	59% 12% 29%
2	O5	306	12% 58% 12% 30%
2	P2	306	18% 47% 12% 40%
2	P3	306	12% 60% 10% 30%
2	P4	306	11% 56% 14% 30%
2	P5	306	15% 60% 10% 30%
2	P6	306	21% 47% 11% 42%
3	Q1	276	23% 44% 14% 42%
3	Q2	276	18% 43% 25% 32%
3	Q3	276	9% 55% 16% 29%
3	Q4	276	17% 51% 18% 30%
3	R2	276	12% 55% 11% 34%
3	R3	276	11% 54% 19% 27%
3	R4	276	10% 54% 14% 31%
3	R5	276	16% 53% 16% 31%
3	S2	276	30% 39% 13% 47%
3	S3	276	25% 49% 19% 32%
3	S4	276	23% 55% 14% 30%
3	S5	276	26% 51% 17% 31%
3	S6	276	41% 47% 19% 33%
4	T1	315	61% 70% 12% 19%
4	T2	315	52% 67% 19% 14%

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Mol	Chain	Length	Quality of chain
4	T3	315	46% 66% 19% 14%
4	T4	315	55% 63% 18% 19%
4	t1	315	60% 68% 17% 14%
4	t2	315	47% 68% 17% 14%
4	t3	315	46% 69% 17% 14%
4	t4	315	61% 72% 13% 15%
5	U3	331	59% 68% 10% 22%
5	U4	331	47% 65% 14% 21%
5	U5	331	44% 66% 13% 21%
5	U6	331	49% 64% 13% 21%
5	U7	331	64% 65% 13% 22%
6	V1	239	39% 58% 13% 28%
6	V2	239	34% 64% 19% 18%
6	V3	239	31% 67% 15% 18%
6	V4	239	36% 63% 19% 18%
6	V5	239	55% 64% 18% 18%
6	X1	239	36% 57% 18% 24%
6	X2	239	28% 66% 16% 18%
6	X3	239	21% 62% 19% 18%
6	X4	239	29% 61% 21% 18%
6	X5	239	52% 66% 15% 19%
7	Y1	282	21% 30% 6% 64%
7	Y2	282	41% 66% 13% 21%
7	Y3	282	34% 65% 15% 20%
7	Y4	282	38% 70% 10% 21%

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Mol	Chain	Length	Quality of chain
7	Y5	282	51% 65% 13% 21%
8	Z1	369	32% 59% 10% 31%
8	Z2	369	27% 55% 14% 31%
8	Z3	369	30% 51% 18% 31%
8	Z4	369	39% 55% 14% 31%
9	a2	237	57% 53% 19% 27%
9	a3	237	46% 59% 16% 25%
9	a4	237	51% 60% 15% 25%
9	a5	237	62% 56% 19% 25%
10	b2	278	74% 64% 22% 14%
10	b3	278	60% 68% 18% 14%
10	b4	278	59% 66% 20% 14%
10	b5	278	66% 69% 17% 14%
11	c1	146	43% 57% 12% 31%
11	c2	146	34% 54% 16% 29%
11	c3	146	42% 60% 10% 29%

2 Entry composition (i)

There are 13 unique types of molecules in this entry. The entry contains 253413 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Flagellin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A4	179	Total 1379	C 857	N 250	O 259	S 13	0	0
1	A5	281	Total 2193	C 1354	N 400	O 424	S 15	0	0
1	A6	281	Total 2193	C 1354	N 400	O 424	S 15	0	0
1	A7	281	Total 2193	C 1354	N 400	O 424	S 15	0	0
1	A8	240	Total 1872	C 1147	N 342	O 371	S 12	0	0
1	A9	145	Total 1130	C 704	N 201	O 221	S 4	0	0
1	B3	103	Total 798	C 488	N 147	O 155	S 8	0	0
1	B4	248	Total 1945	C 1204	N 357	O 369	S 15	0	0
1	B5	282	Total 2201	C 1360	N 401	O 425	S 15	0	0
1	B6	282	Total 2201	C 1360	N 401	O 425	S 15	0	0
1	B7	276	Total 2150	C 1326	N 393	O 417	S 14	0	0
1	B8	195	Total 1526	C 944	N 279	O 295	S 8	0	0
1	C3	116	Total 902	C 554	N 168	O 172	S 8	0	0
1	C4	282	Total 2201	C 1360	N 401	O 425	S 15	0	0
1	C5	282	Total 2201	C 1360	N 401	O 425	S 15	0	0
1	C6	282	Total 2201	C 1360	N 401	O 425	S 15	0	0
1	C7	247	Total 1930	C 1188	N 351	O 379	S 12	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	C8	153	Total	C	N	O	S	0	0
			1189	741	210	234	4		
1	D3	221	Total	C	N	O	S	0	0
			1733	1069	315	334	15		
1	D4	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	D5	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	D6	280	Total	C	N	O	S	0	0
			2183	1348	398	422	15		
1	D7	203	Total	C	N	O	S	0	0
			1585	978	290	308	9		
1	E2	116	Total	C	N	O	S	0	0
			903	554	168	173	8		
1	E3	280	Total	C	N	O	S	0	0
			2186	1350	399	422	15		
1	E4	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	E5	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	E6	253	Total	C	N	O	S	0	0
			1975	1214	362	387	12		
1	E7	159	Total	C	N	O	S	0	0
			1240	770	222	243	5		
1	F2	206	Total	C	N	O	S	0	0
			1621	1001	298	307	15		
1	F3	281	Total	C	N	O	S	0	0
			2193	1354	400	424	15		
1	F4	280	Total	C	N	O	S	0	0
			2182	1348	396	423	15		
1	F5	281	Total	C	N	O	S	0	0
			2190	1354	397	424	15		
1	F6	215	Total	C	N	O	S	0	0
			1670	1026	306	328	10		
1	G1	258	Total	C	N	O	S	0	0
			2012	1240	367	392	13		
1	G2	167	Total	C	N	O	S	0	0
			1313	814	240	253	6		
1	G6	116	Total	C	N	O	S	0	0
			902	554	168	172	8		
1	G7	273	Total	C	N	O	S	0	0
			2128	1315	391	407	15		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	G8	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	G9	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	H6	198	Total	C	N	O	S	0	0
			1557	963	284	295	15		
1	H7	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	H8	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	H9	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	I5	116	Total	C	N	O	S	0	0
			906	556	168	173	9		
1	I6	269	Total	C	N	O	S	0	0
			2104	1303	384	402	15		
1	I7	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	I8	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	I9	266	Total	C	N	O	S	0	0
			2069	1275	377	403	14		
1	J5	190	Total	C	N	O	S	0	0
			1490	922	271	283	14		
1	J6	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	J7	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	J8	282	Total	C	N	O	S	0	0
			2201	1360	401	425	15		
1	J9	232	Total	C	N	O	S	0	0
			1807	1108	332	355	12		
1	K4	113	Total	C	N	O	S	0	0
			882	541	164	169	8		
1	K5	257	Total	C	N	O	S	0	0
			2012	1246	366	385	15		
1	K6	281	Total	C	N	O	S	0	0
			2193	1354	400	424	15		
1	K7	280	Total	C	N	O	S	0	0
			2186	1350	399	422	15		
1	K8	269	Total	C	N	O	S	0	0
			2093	1290	382	407	14		

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Mol	Chain	Residues	Atoms	AltConf	Trace
1	K9	185	Total C N O S 1446 897 262 280 7	0	0
1	h0	224	Total C N O S 1737 1066 317 343 11	0	0
1	h1	102	Total C N O S 782 481 140 160 1	0	0
1	i0	176	Total C N O S 1379 854 251 267 7	0	0
1	j0	122	Total C N O S 931 576 166 188 1	0	0

- Molecule 2 is a protein called Flagellar Coiling Protein FcpA.

Mol	Chain	Residues	Atoms	AltConf	Trace
2	L2	208	Total C N O S 1682 1080 298 302 2	0	0
2	L3	217	Total C N O S 1772 1140 314 316 2	0	0
2	L4	217	Total C N O S 1772 1140 314 316 2	0	0
2	L5	217	Total C N O S 1772 1140 314 316 2	0	0
2	L6	166	Total C N O S 1363 878 244 239 2	0	0
2	M1	75	Total C N O 607 387 109 111	0	0
2	M2	221	Total C N O S 1803 1160 319 322 2	0	0
2	M3	221	Total C N O S 1803 1160 319 322 2	0	0
2	M4	221	Total C N O S 1803 1160 319 322 2	0	0
2	M5	204	Total C N O S 1678 1078 299 299 2	0	0
2	N2	190	Total C N O S 1549 998 272 277 2	0	0
2	N3	217	Total C N O S 1771 1141 314 314 2	0	0
2	N4	217	Total C N O S 1771 1141 314 314 2	0	0
2	N5	217	Total C N O S 1771 1141 314 314 2	0	0

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Mol	Chain	Residues	Atoms	AltConf	Trace
2	N6	170	Total C N O S 1394 897 250 245 2	0	0
2	O1	63	Total C N O 507 323 90 94	0	0
2	O2	216	Total C N O S 1759 1132 313 312 2	0	0
2	O3	217	Total C N O S 1771 1141 314 314 2	0	0
2	O4	217	Total C N O S 1771 1141 314 314 2	0	0
2	O5	213	Total C N O S 1741 1121 310 308 2	0	0
2	P2	183	Total C N O S 1480 957 258 263 2	0	0
2	P3	215	Total C N O S 1754 1130 312 310 2	0	0
2	P4	215	Total C N O S 1754 1130 312 310 2	0	0
2	P5	215	Total C N O S 1754 1130 312 310 2	0	0
2	P6	177	Total C N O S 1459 940 262 255 2	0	0

- Molecule 3 is a protein called Flagellar Coiling Protein FcpB.

Mol	Chain	Residues	Atoms	AltConf	Trace
3	Q1	159	Total C N O S 1322 845 233 238 6	0	0
3	Q2	188	Total C N O S 1567 997 274 289 7	0	0
3	Q3	196	Total C N O S 1633 1037 287 302 7	0	0
3	Q4	192	Total C N O S 1601 1018 280 296 7	0	0
3	R2	183	Total C N O S 1524 964 267 287 6	0	0
3	R3	202	Total C N O S 1677 1062 294 314 7	0	0
3	R4	190	Total C N O S 1588 1010 277 294 7	0	0
3	R5	190	Total C N O S 1585 1005 277 296 7	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	S2	146	Total	C	N	O	S	0	0
			1228	784	214	225	5		
3	S3	187	Total	C	N	O	S	0	0
			1556	990	273	286	7		
3	S4	192	Total	C	N	O	S	0	0
			1602	1021	281	293	7		
3	S5	190	Total	C	N	O	S	0	0
			1581	1005	277	292	7		
3	S6	185	Total	C	N	O	S	0	0
			1541	981	270	283	7		

- Molecule 4 is a protein called Flagellar filament sheath protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	T1	256	Total	C	N	O	S	0	0
			2033	1297	346	386	4		
4	T2	270	Total	C	N	O	S	0	0
			2141	1362	365	410	4		
4	T3	270	Total	C	N	O	S	0	0
			2141	1362	365	410	4		
4	T4	256	Total	C	N	O	S	0	0
			2035	1296	344	391	4		
4	t1	271	Total	C	N	O	S	0	0
			2150	1368	367	411	4		
4	t2	270	Total	C	N	O	S	0	0
			2141	1362	365	410	4		
4	t3	270	Total	C	N	O	S	0	0
			2141	1362	365	410	4		
4	t4	268	Total	C	N	O	S	0	0
			2125	1351	363	408	3		

- Molecule 5 is a protein called AraC family transcriptional regulator.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	U3	258	Total	C	N	O	S	0	0
			2084	1331	356	389	8		
5	U4	260	Total	C	N	O	S	0	0
			2099	1339	359	393	8		
5	U5	260	Total	C	N	O	S	0	0
			2099	1339	359	393	8		
5	U6	260	Total	C	N	O	S	0	0
			2099	1339	359	393	8		

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Mol	Chain	Residues	Atoms					AltConf	Trace
5	U7	259	Total	C	N	O	S	0	0
			2085	1332	354	391	8		

- Molecule 6 is a protein called Flagellar filament outer layer protein FlaA.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	V1	173	Total	C	N	O	S	0	0
			1422	913	255	253	1		
6	V2	197	Total	C	N	O	S	0	0
			1621	1040	287	293	1		
6	V3	196	Total	C	N	O	S	0	0
			1613	1036	286	290	1		
6	V4	196	Total	C	N	O	S	0	0
			1613	1036	286	290	1		
6	V5	196	Total	C	N	O	S	0	0
			1613	1036	286	290	1		
6	X1	181	Total	C	N	O	S	0	0
			1484	949	265	269	1		
6	X2	197	Total	C	N	O	S	0	0
			1621	1040	287	293	1		
6	X3	197	Total	C	N	O	S	0	0
			1621	1040	287	293	1		
6	X4	197	Total	C	N	O	S	0	0
			1621	1040	287	293	1		
6	X5	194	Total	C	N	O	S	0	0
			1604	1031	283	289	1		

- Molecule 7 is a protein called LIC_12075 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	Y1	101	Total	C	N	O	S	0	0
			834	541	135	154	4		
7	Y2	222	Total	C	N	O	S	0	0
			1844	1177	316	346	5		
7	Y3	225	Total	C	N	O	S	0	0
			1876	1197	322	352	5		
7	Y4	224	Total	C	N	O	S	0	0
			1872	1195	321	351	5		
7	Y5	222	Total	C	N	O	S	0	0
			1854	1184	318	347	5		

- Molecule 8 is a protein called FlaA2-associated protein FlaAP.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Z1	255	Total	C	N	O	S	0	0
			2173	1383	393	391	6		
8	Z2	255	Total	C	N	O	S	0	0
			2173	1383	393	391	6		
8	Z3	254	Total	C	N	O	S	0	0
			2162	1377	389	390	6		
8	Z4	255	Total	C	N	O	S	0	0
			2173	1383	393	391	6		

- Molecule 9 is a protein called DUF4468 domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	a2	172	Total	C	N	O	S	0	0
			1421	901	253	266	1		
9	a3	178	Total	C	N	O	S	0	0
			1460	924	260	275	1		
9	a4	178	Total	C	N	O	S	0	0
			1460	924	260	275	1		
9	a5	178	Total	C	N	O	S	0	0
			1460	924	260	275	1		

- Molecule 10 is a protein called LIC_13212 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	b2	240	Total	C	N	O	S	0	0
			1972	1261	336	369	6		
10	b3	240	Total	C	N	O	S	0	0
			1971	1261	336	368	6		
10	b4	240	Total	C	N	O	S	0	0
			1971	1261	336	368	6		
10	b5	240	Total	C	N	O	S	0	0
			1971	1261	336	368	6		

- Molecule 11 is a protein called Lipoprotein.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	c1	101	Total	C	N	O	S	0	0
			867	569	133	163	2		
11	c2	103	Total	C	N	O	S	0	0
			882	578	136	166	2		
11	c3	103	Total	C	N	O	S	0	0
			882	578	136	166	2		

- Molecule 12 is CALCIUM ION (CCD ID: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms	AltConf
12	T1	1	Total Ca 1 1	0
12	T2	1	Total Ca 1 1	0
12	T3	1	Total Ca 1 1	0
12	T4	1	Total Ca 1 1	0
12	V1	1	Total Ca 1 1	0
12	V2	1	Total Ca 1 1	0
12	V3	1	Total Ca 1 1	0
12	V4	1	Total Ca 1 1	0
12	V5	1	Total Ca 1 1	0
12	X1	1	Total Ca 1 1	0
12	X2	1	Total Ca 1 1	0
12	X3	1	Total Ca 1 1	0
12	X4	1	Total Ca 1 1	0
12	X5	1	Total Ca 1 1	0
12	t1	1	Total Ca 1 1	0
12	t2	1	Total Ca 1 1	0
12	t3	1	Total Ca 1 1	0
12	t4	1	Total Ca 1 1	0

- Molecule 13 is water.

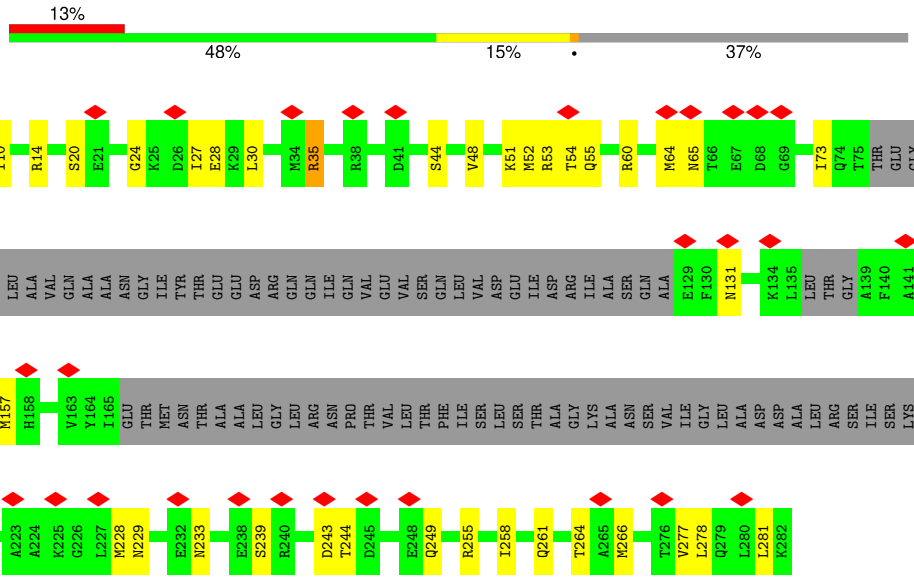
Mol	Chain	Residues	Atoms	AltConf
13	T1	2	Total O 2 2	0
13	T2	2	Total O 2 2	0
13	T3	2	Total O 2 2	0
13	T4	2	Total O 2 2	0
13	V1	2	Total O 2 2	0
13	V2	2	Total O 2 2	0
13	V3	2	Total O 2 2	0
13	V4	2	Total O 2 2	0
13	V5	2	Total O 2 2	0
13	X1	2	Total O 2 2	0
13	X2	2	Total O 2 2	0
13	X3	2	Total O 2 2	0
13	X4	2	Total O 2 2	0
13	X5	2	Total O 2 2	0
13	t1	2	Total O 2 2	0
13	t2	2	Total O 2 2	0
13	t3	2	Total O 2 2	0
13	t4	2	Total O 2 2	0

3 Residue-property plots (i)

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

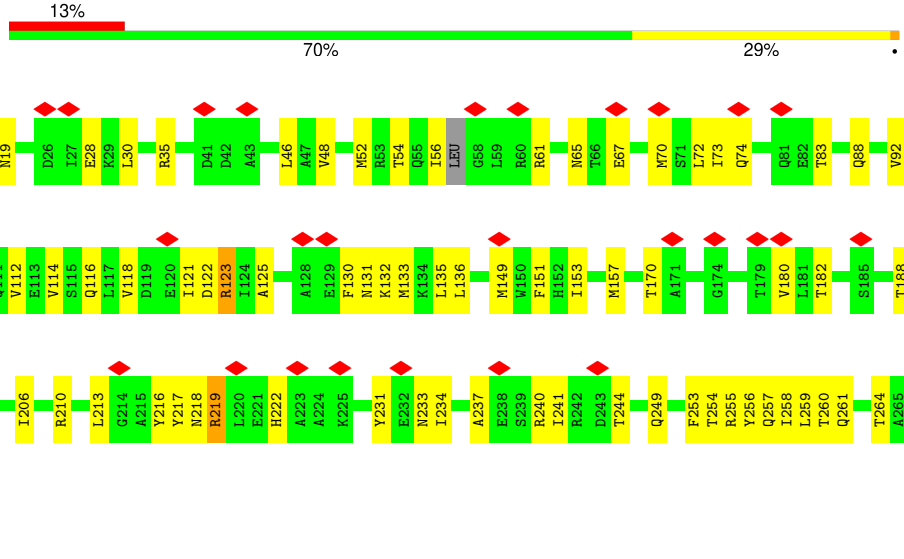
• Molecule 1: Flagellin

Chain A4:



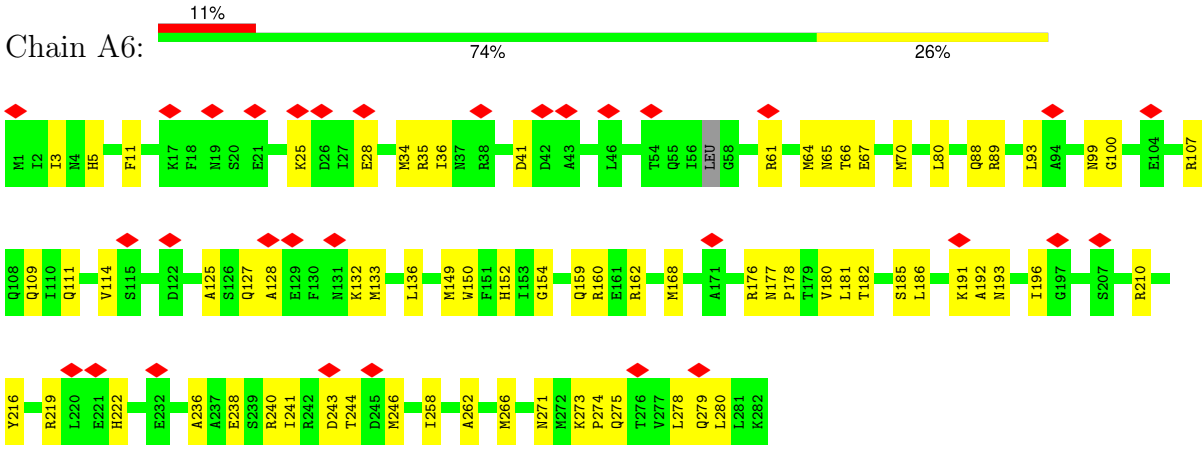
• Molecule 1: Flagellin

Chain A5:



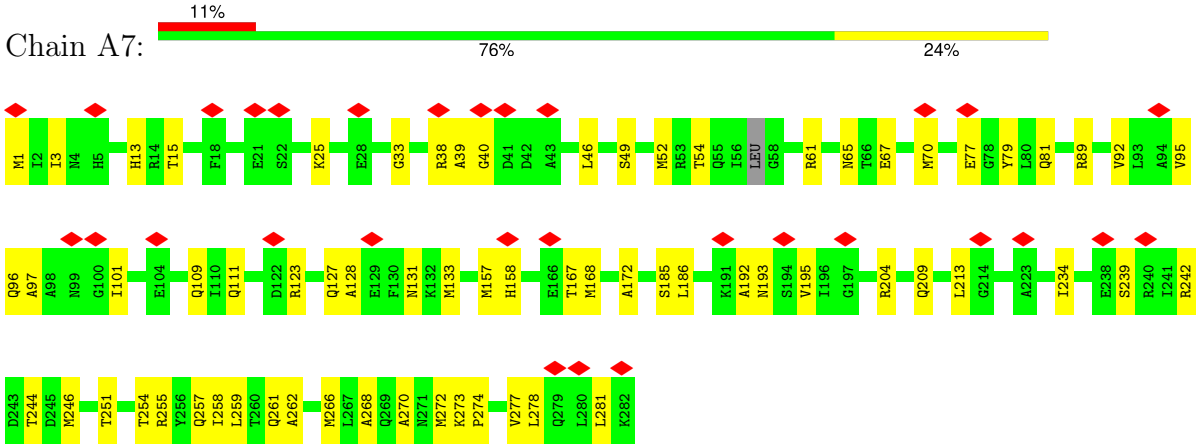
• Molecule 1: Flagellin

Chain A6:



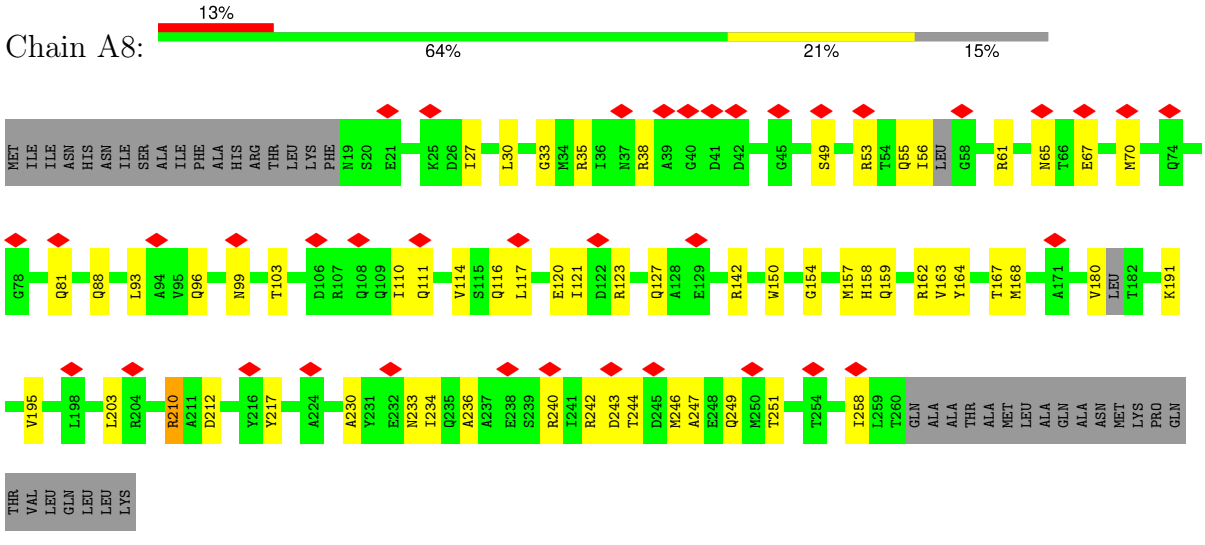
• Molecule 1: Flagellin

Chain A7:



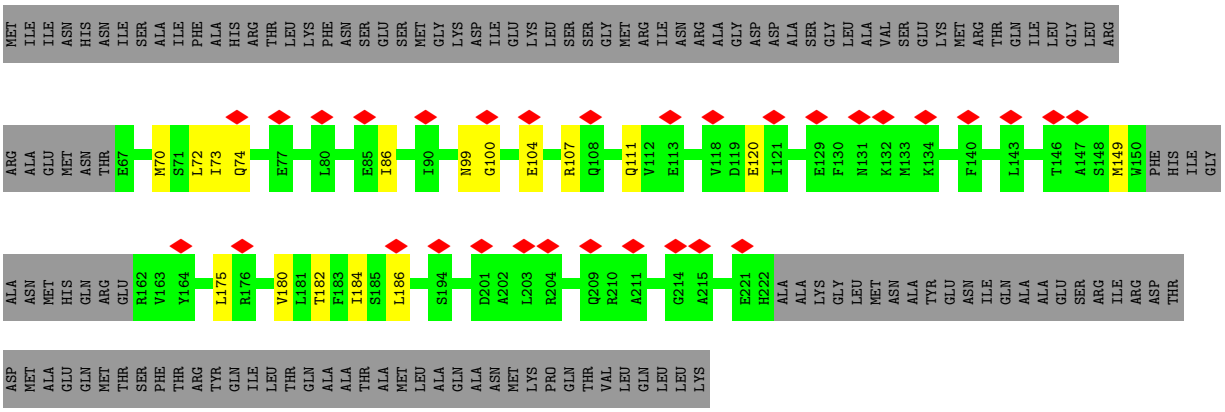
• Molecule 1: Flagellin

Chain A8:



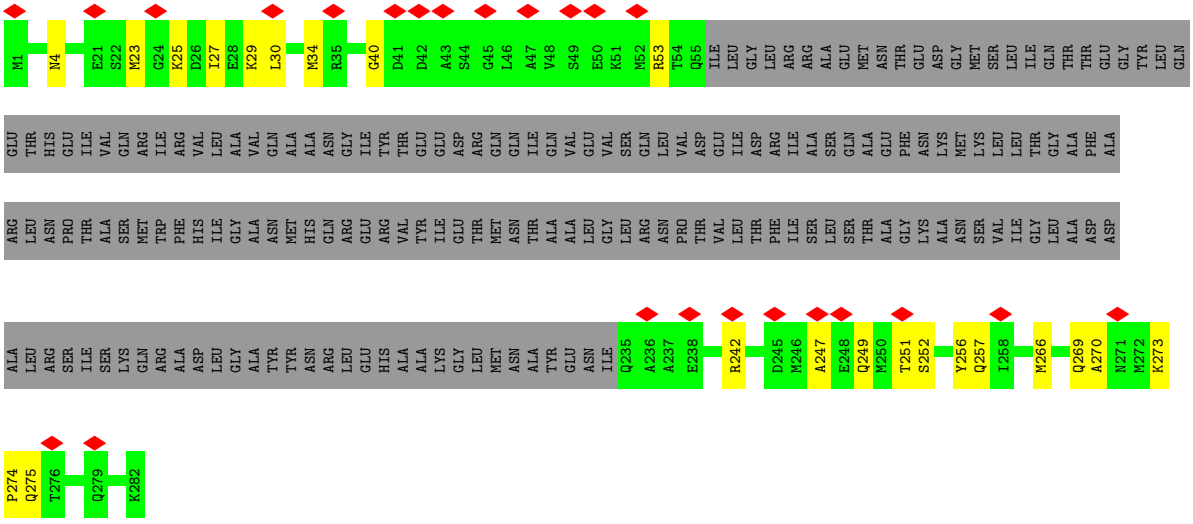
• Molecule 1: Flagellin

Chain A9:



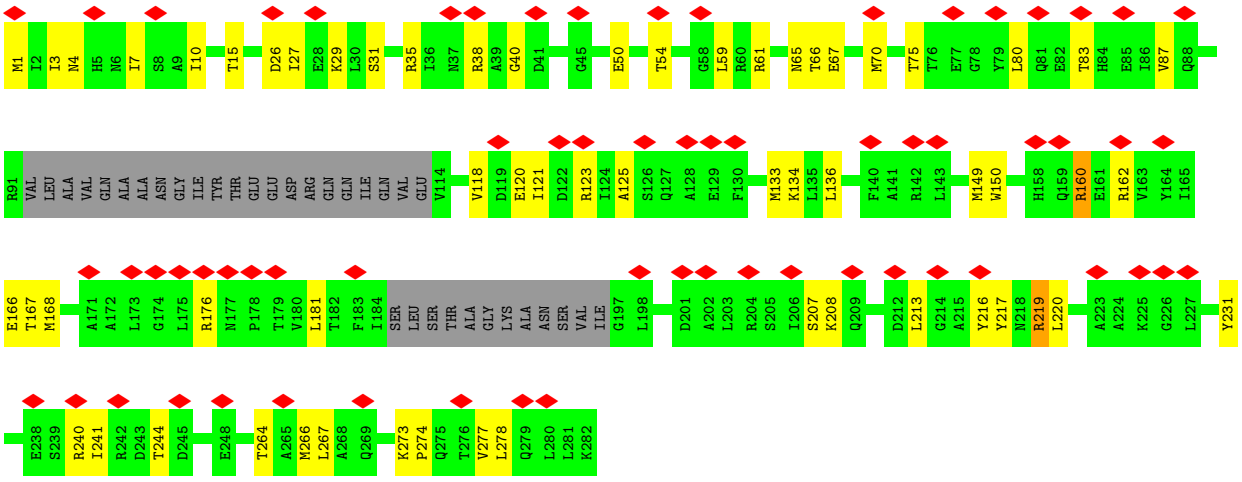
• Molecule 1: Flagellin

Chain B3:



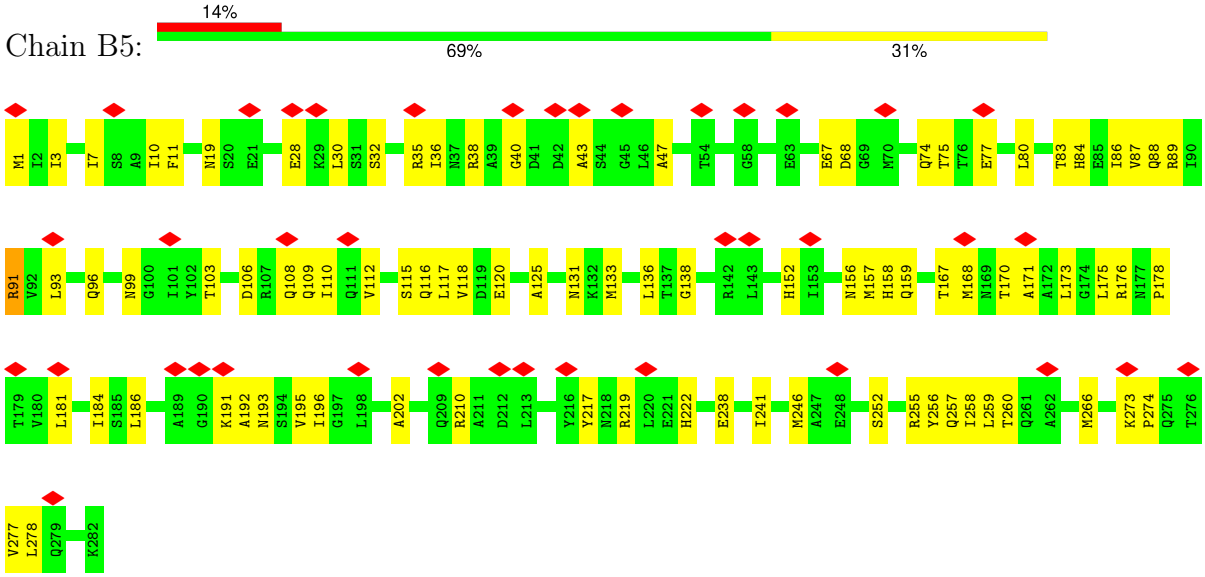
• Molecule 1: Flagellin

Chain B4:



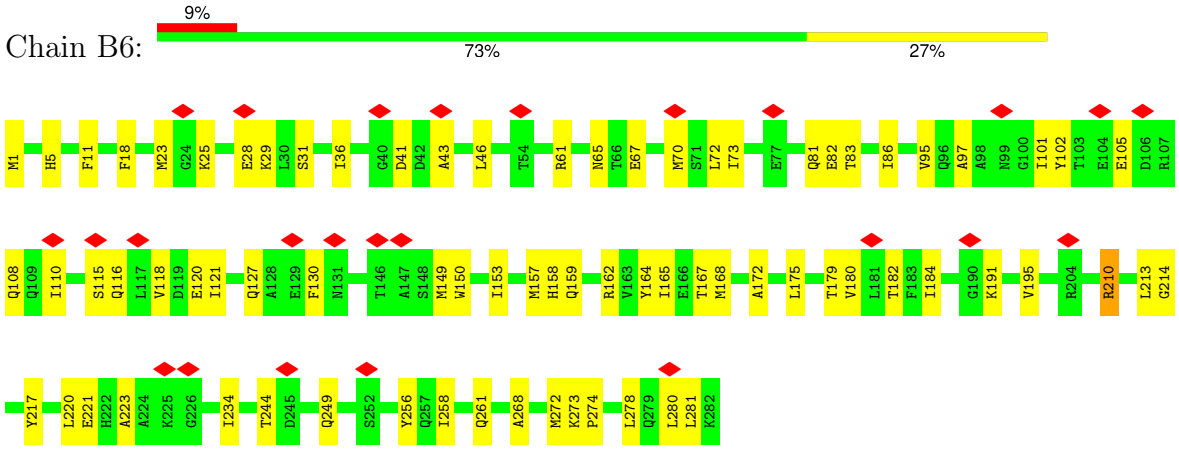
• Molecule 1: Flagellin

Chain B5:



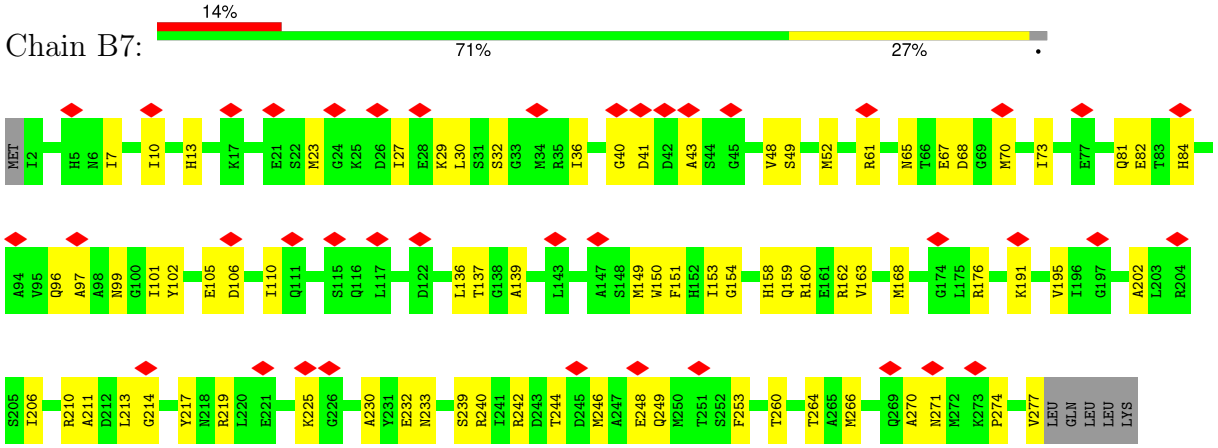
• Molecule 1: Flagellin

Chain B6:



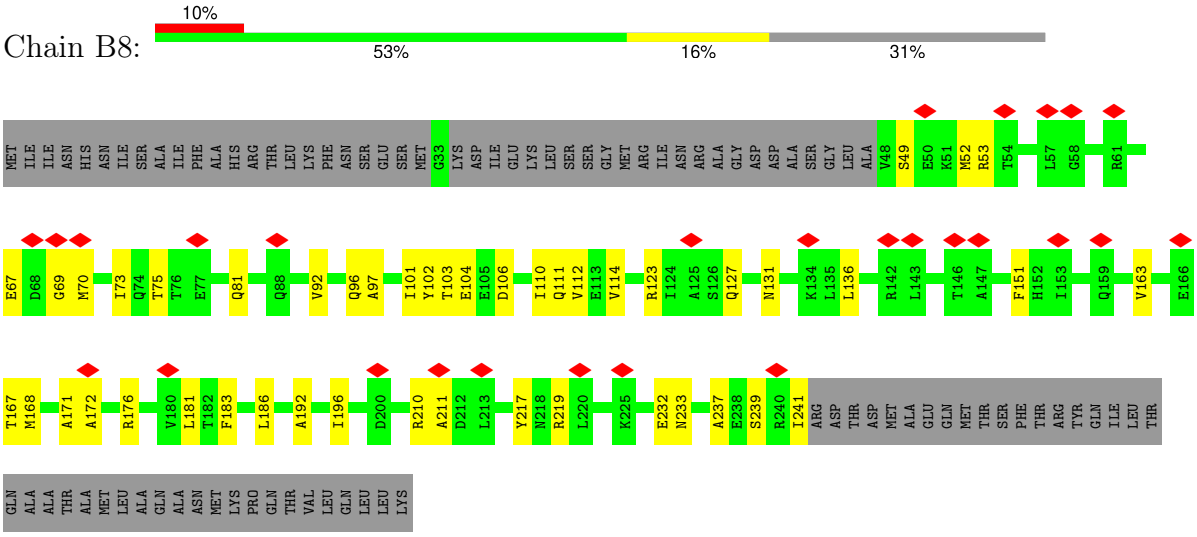
• Molecule 1: Flagellin

Chain B7:



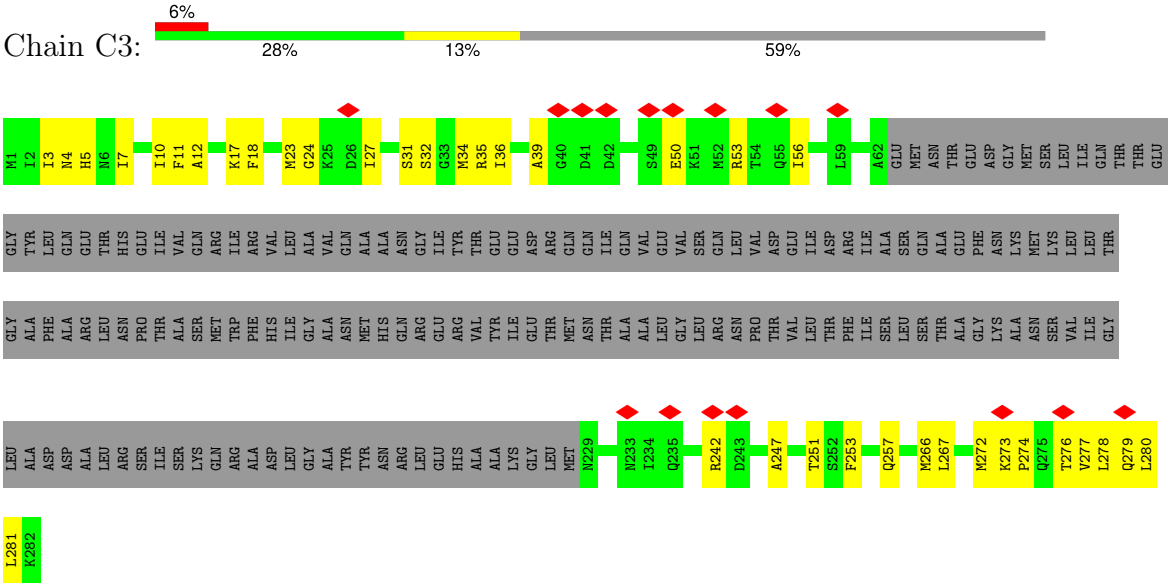
• Molecule 1: Flagellin

Chain B8:



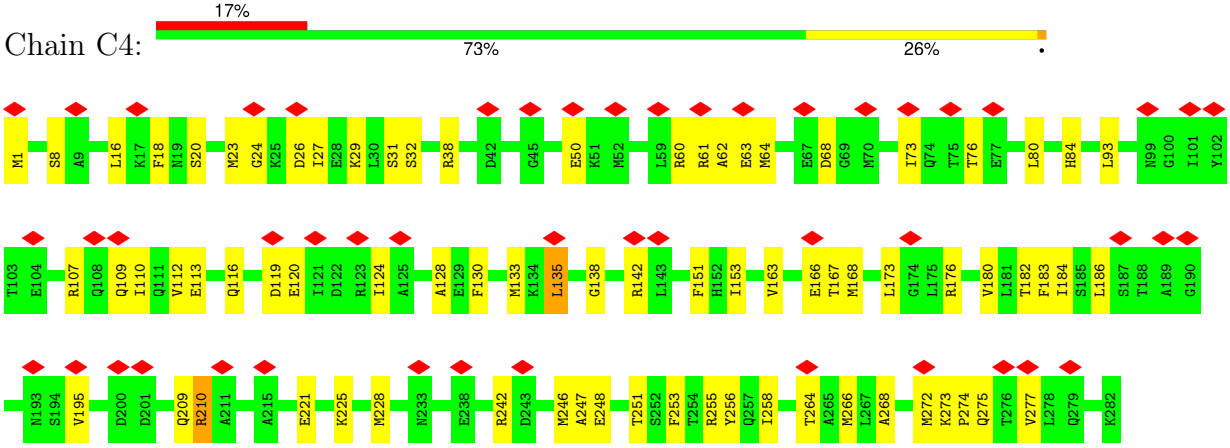
• Molecule 1: Flagellin

Chain C3:



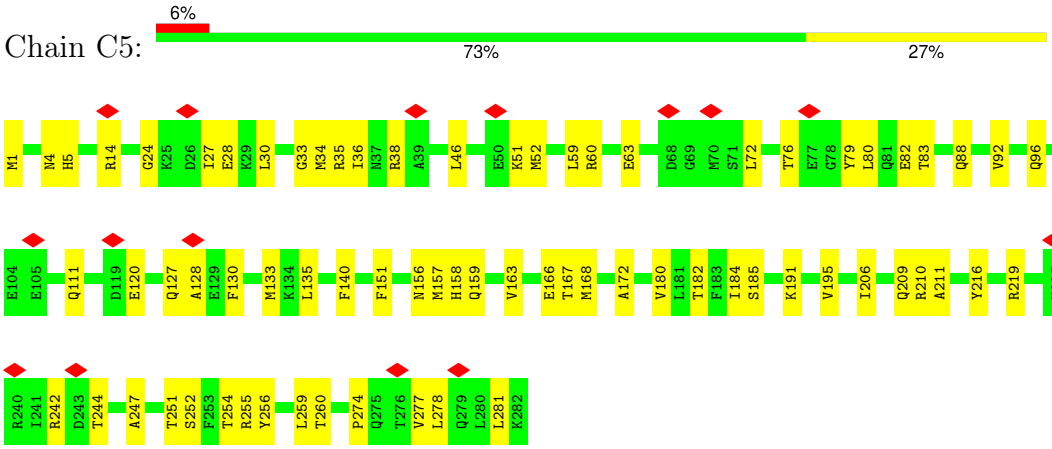
• Molecule 1: Flagellin

Chain C4:



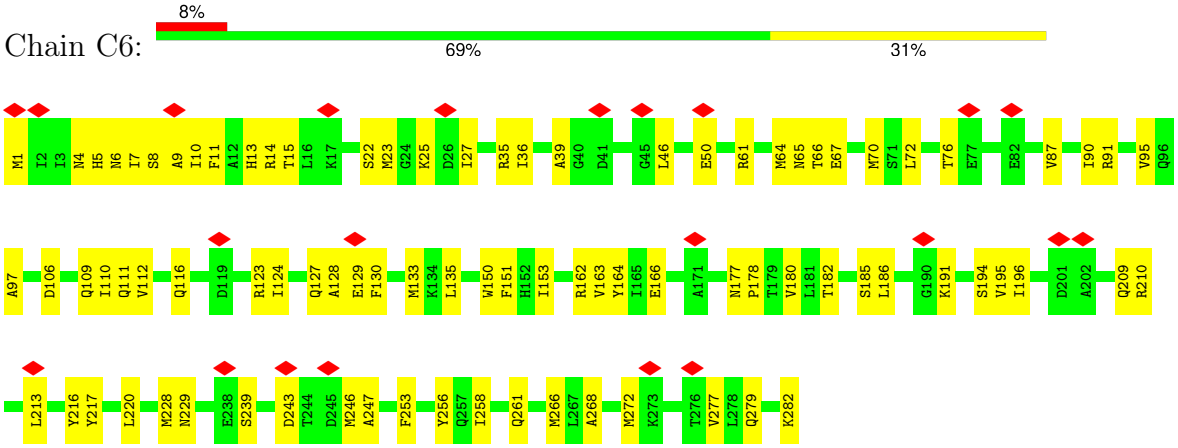
• Molecule 1: Flagellin

Chain C5:



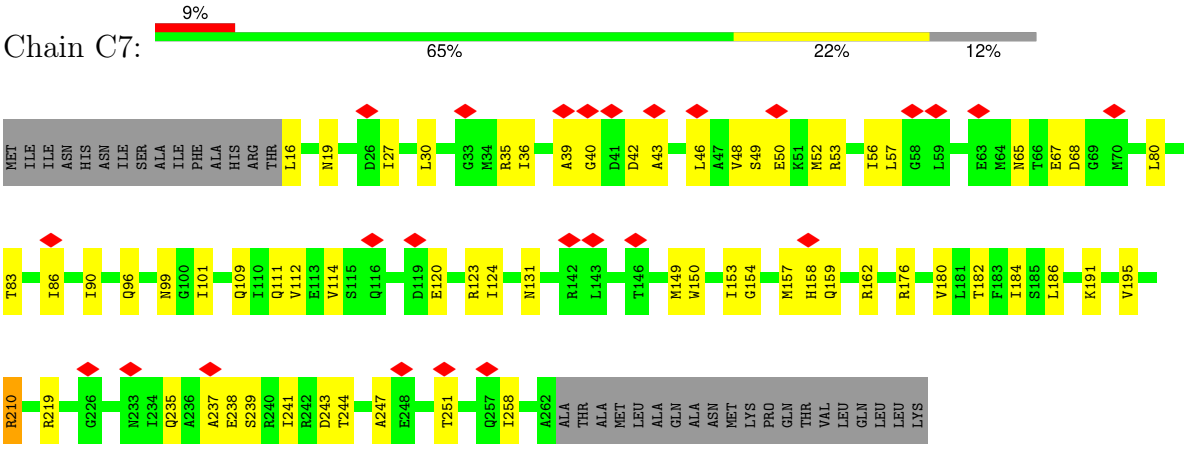
• Molecule 1: Flagellin

Chain C6:



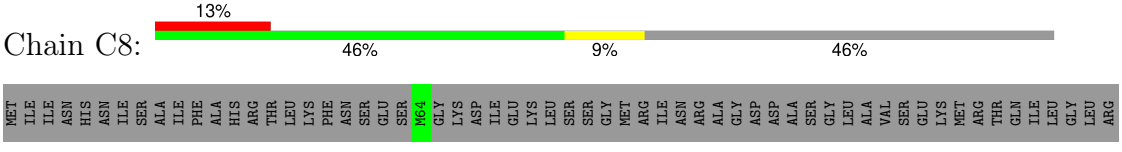
• Molecule 1: Flagellin

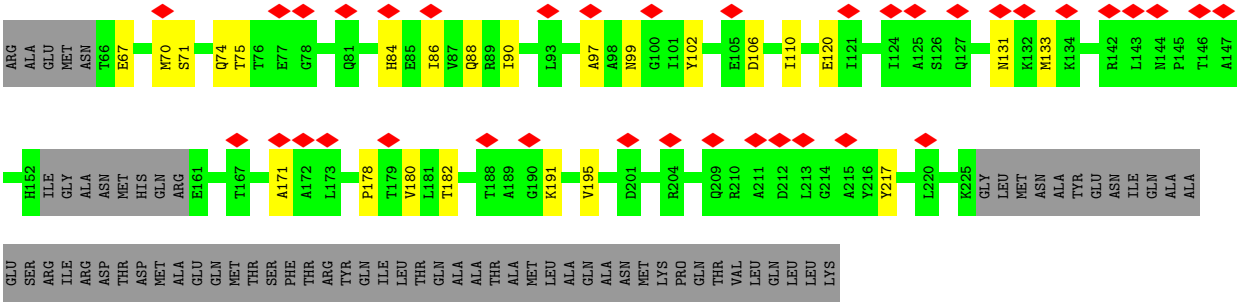
Chain C7:



• Molecule 1: Flagellin

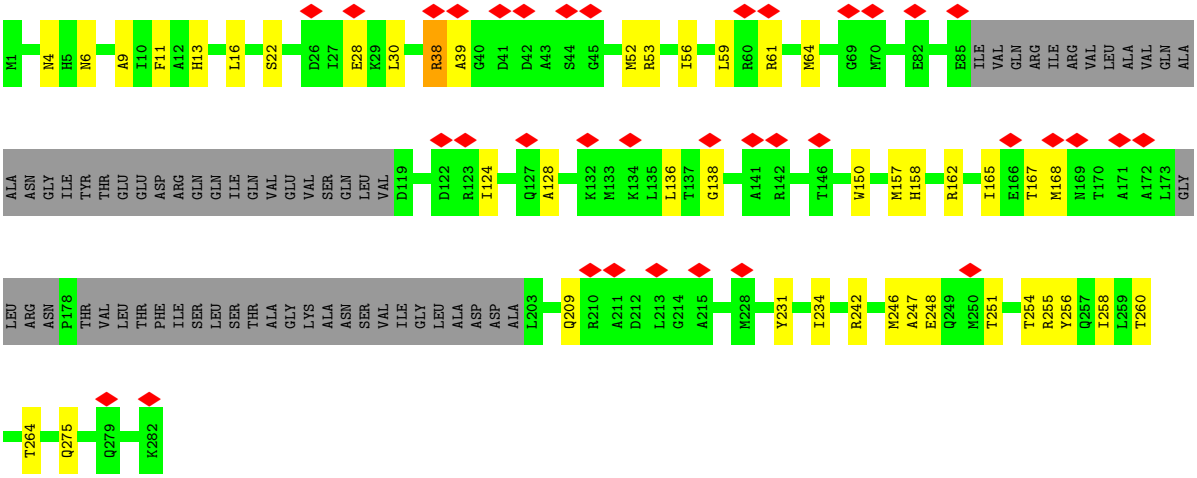
Chain C8:





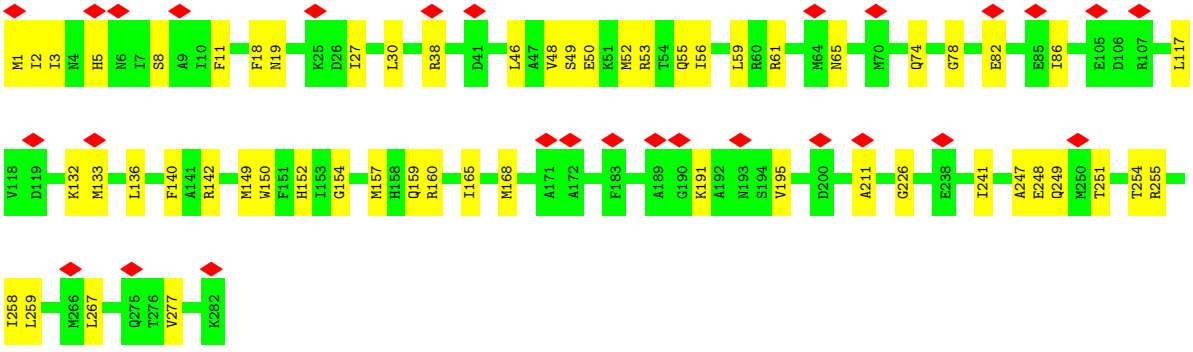
• Molecule 1: Flagellin

Chain D3:



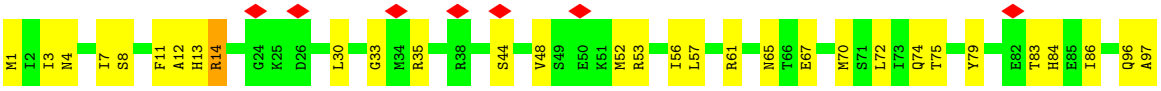
• Molecule 1: Flagellin

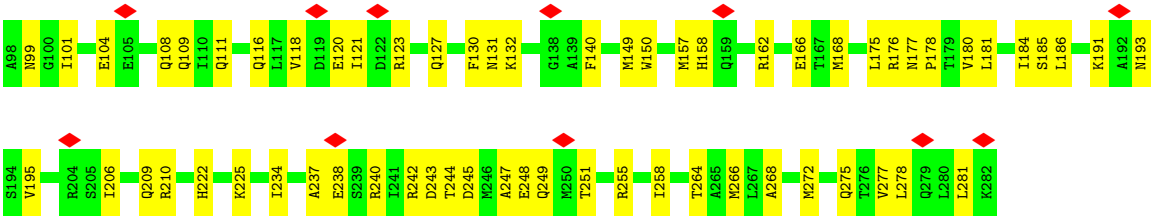
Chain D4:



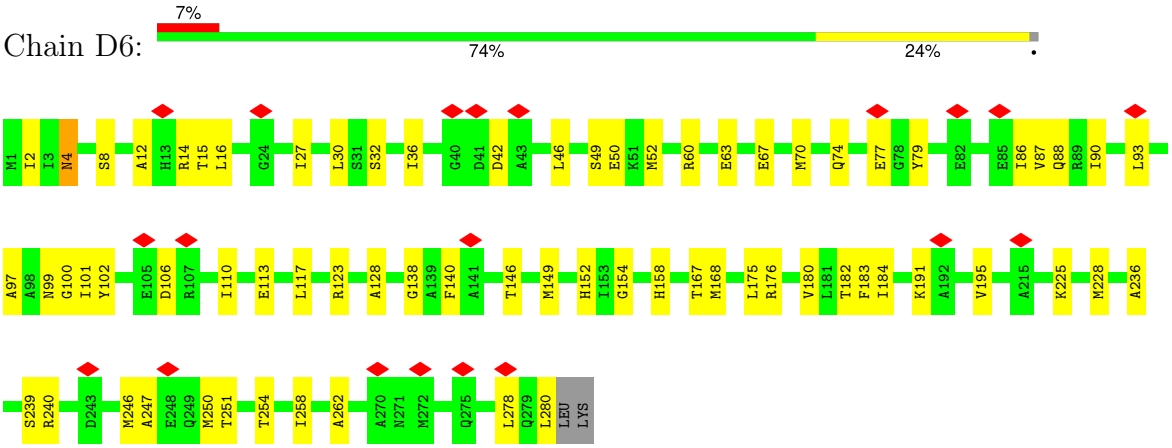
• Molecule 1: Flagellin

Chain D5:

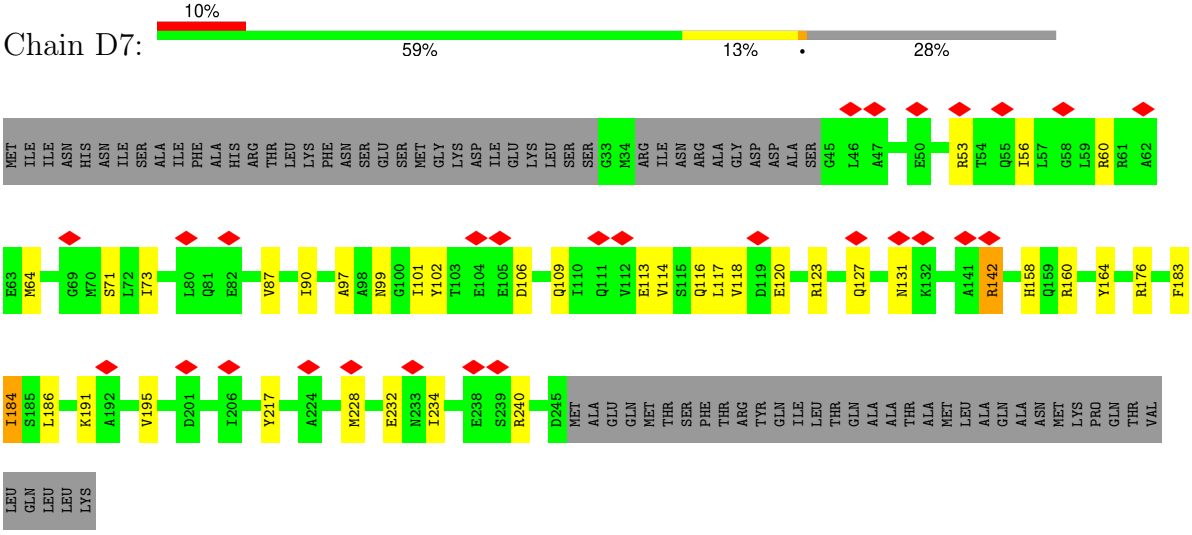




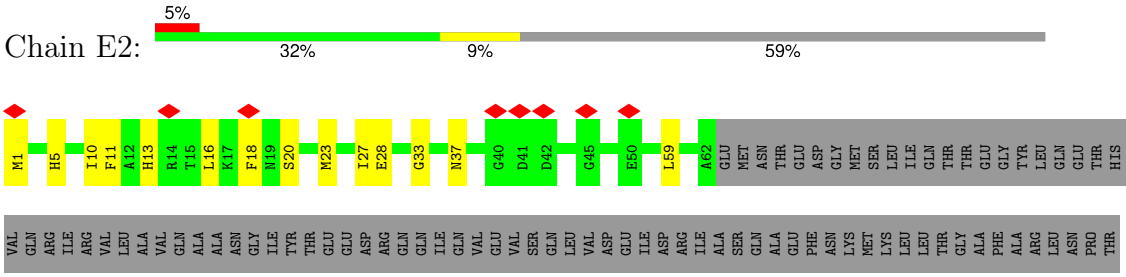
• Molecule 1: Flagellin

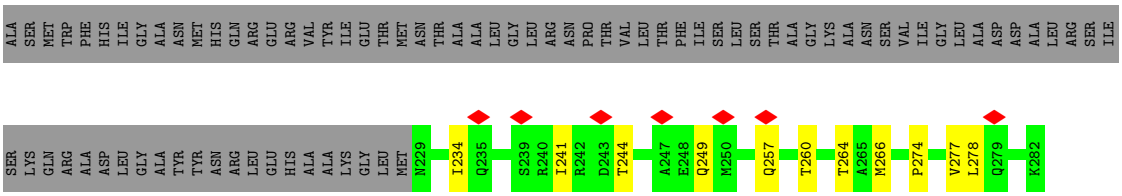


• Molecule 1: Flagellin



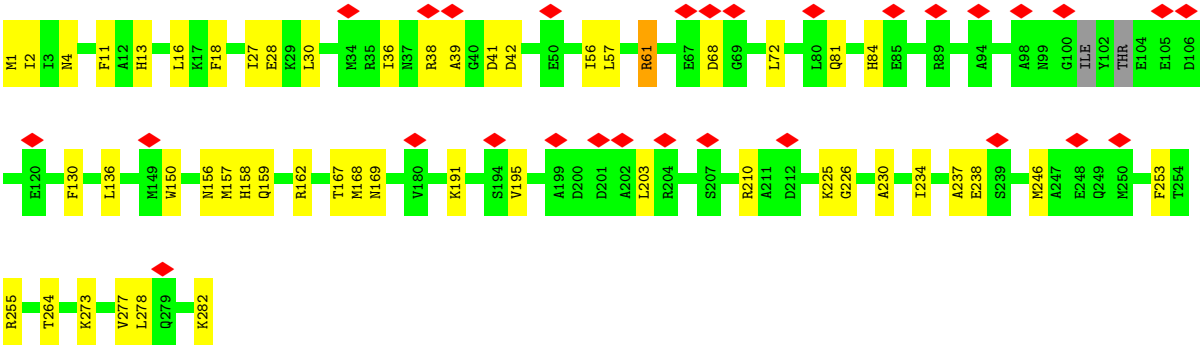
• Molecule 1: Flagellin





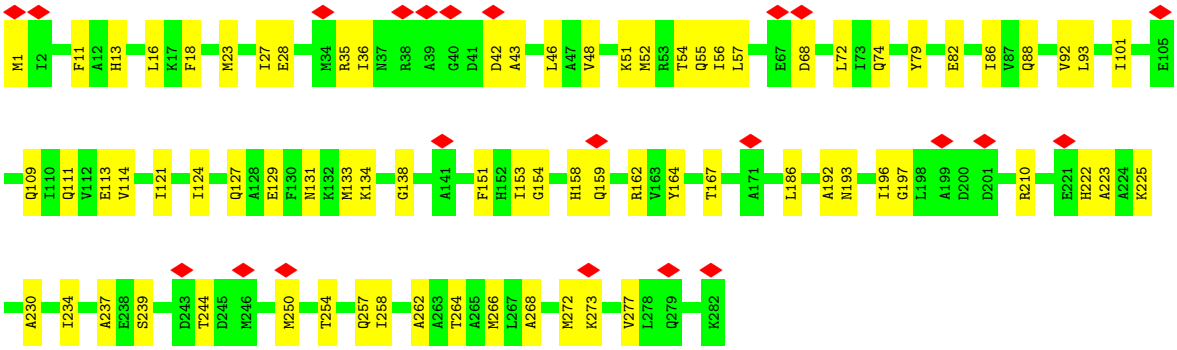
• Molecule 1: Flagellin

Chain E3:



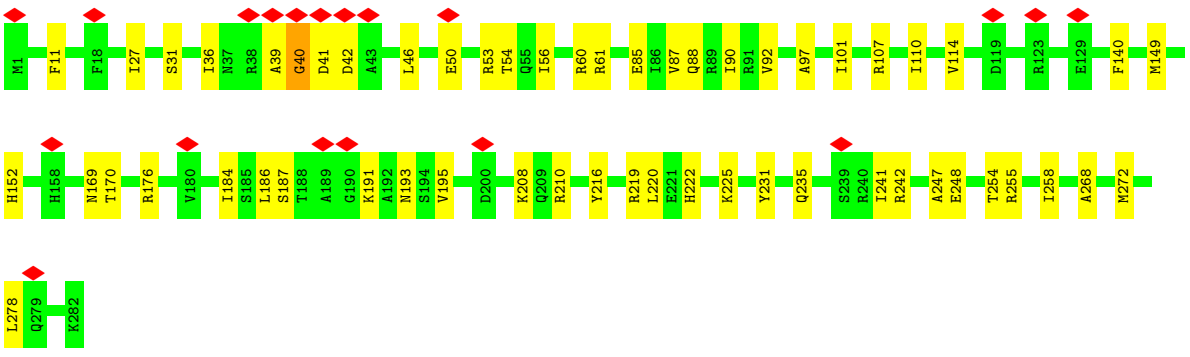
• Molecule 1: Flagellin

Chain E4:



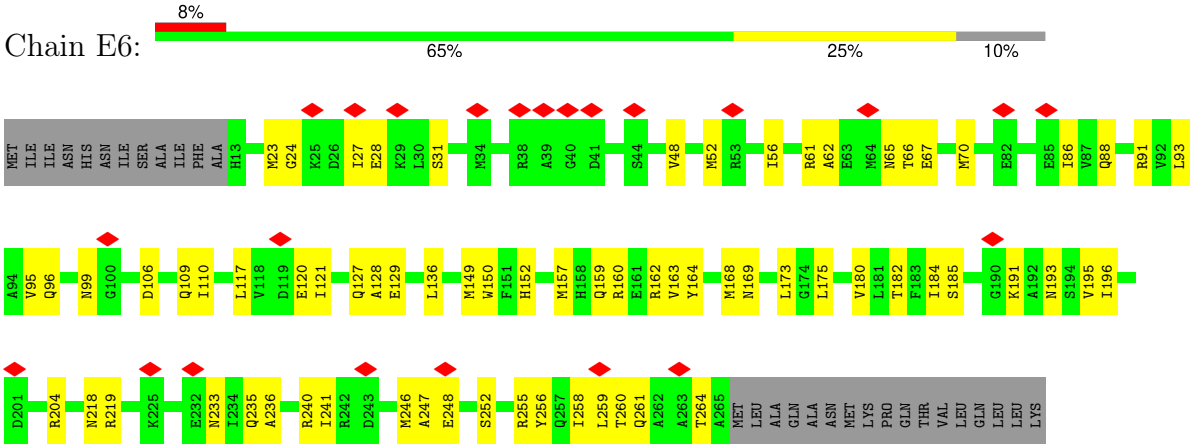
• Molecule 1: Flagellin

Chain E5:



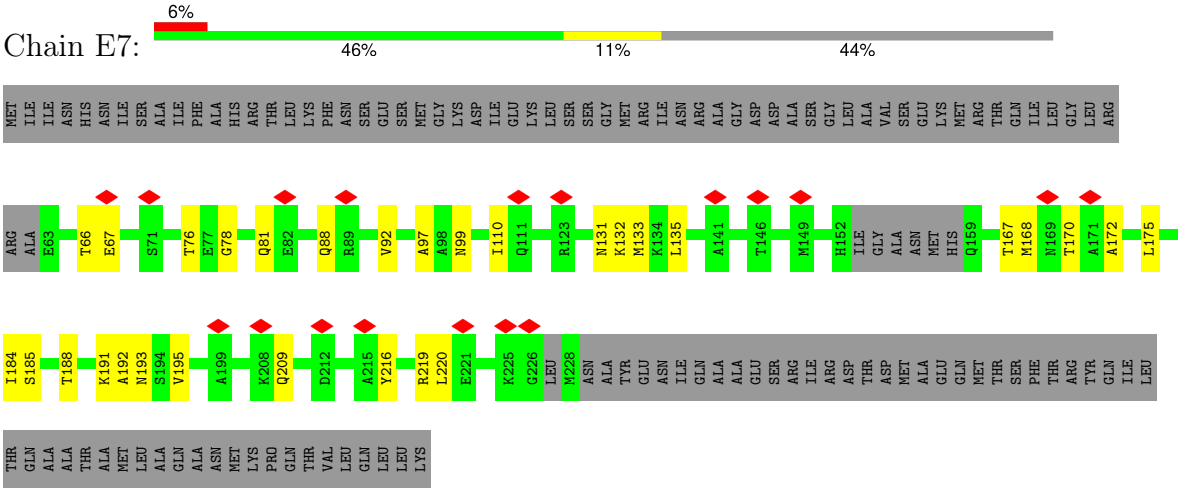
• Molecule 1: Flagellin

Chain E6:



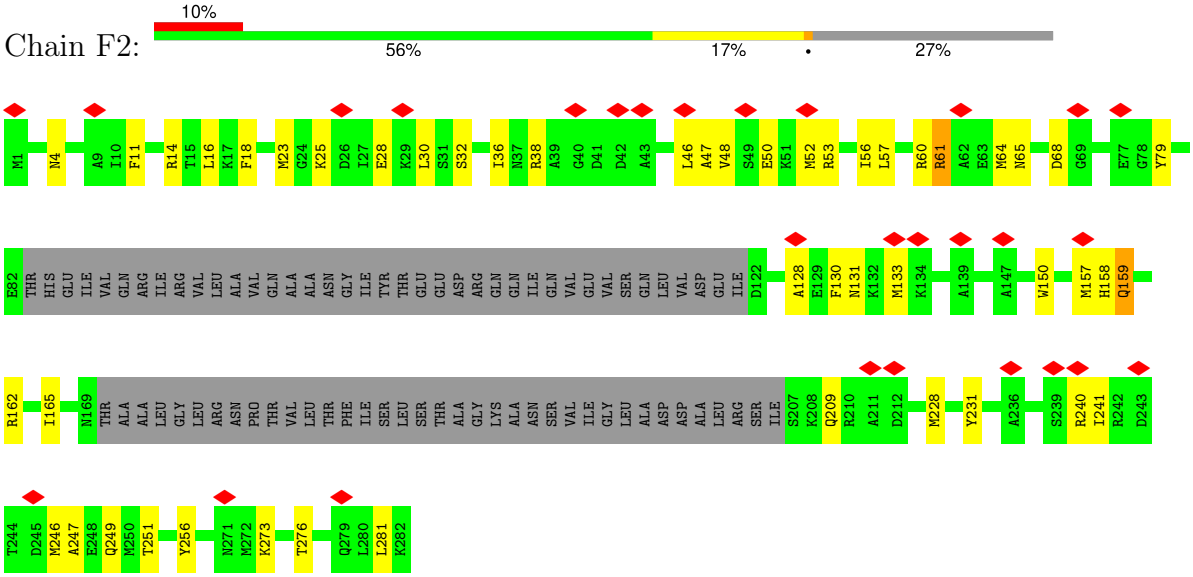
• Molecule 1: Flagellin

Chain E7:



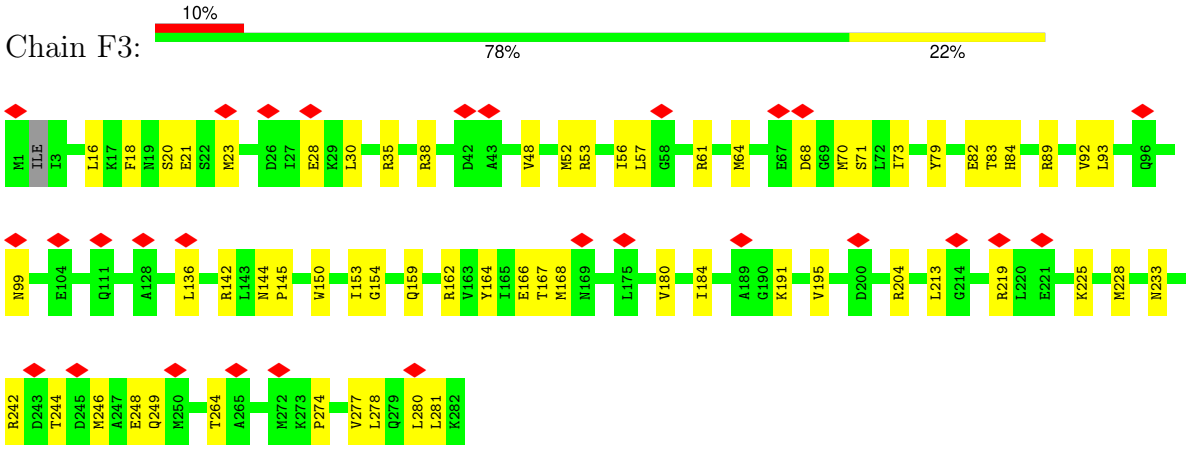
• Molecule 1: Flagellin

Chain F2:



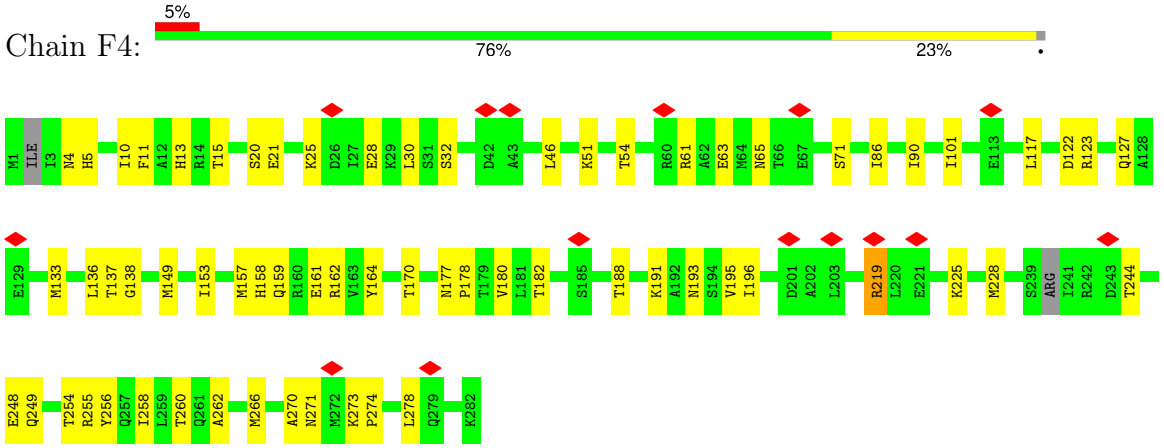
• Molecule 1: Flagellin

Chain F3:



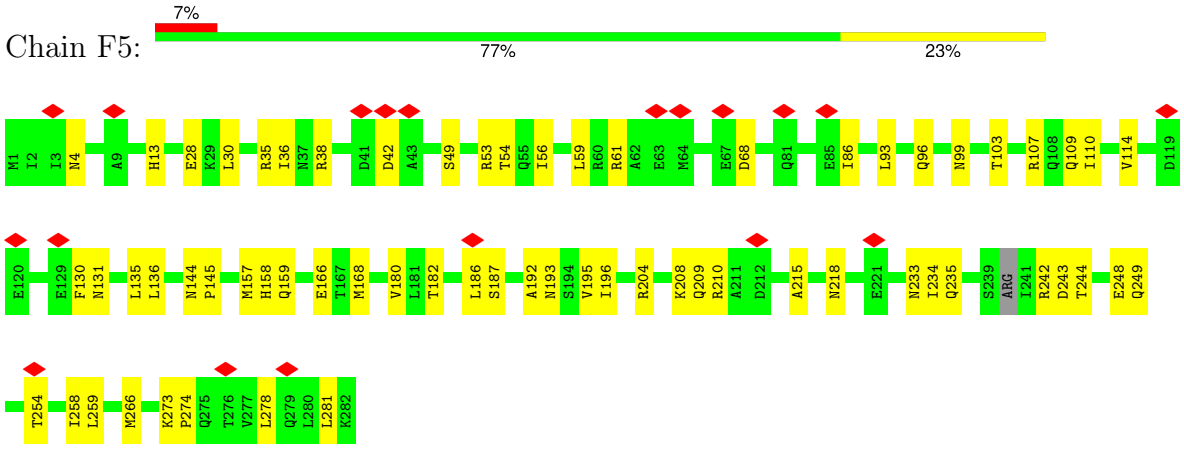
• Molecule 1: Flagellin

Chain F4:



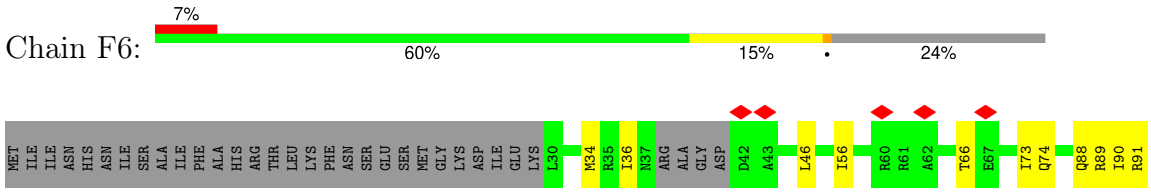
• Molecule 1: Flagellin

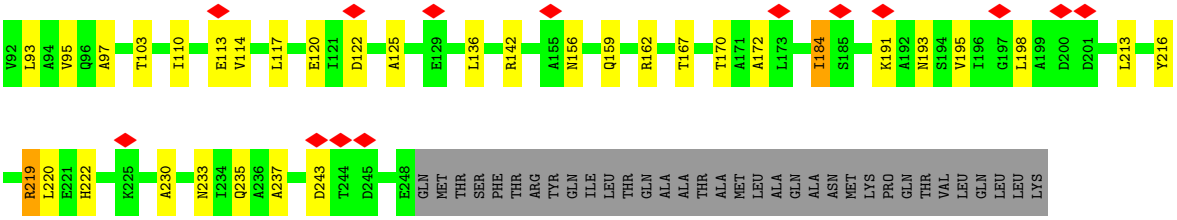
Chain F5:



• Molecule 1: Flagellin

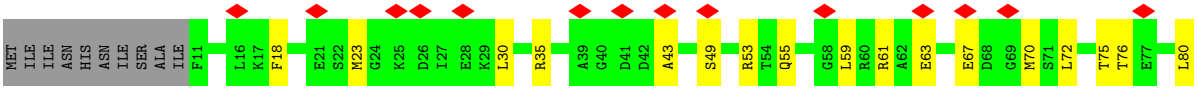
Chain F6:

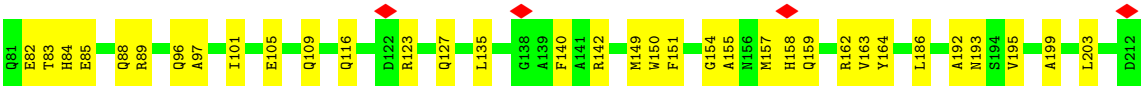


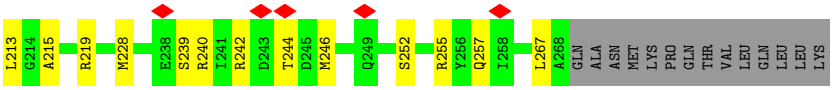


• Molecule 1: Flagellin

Chain G1:

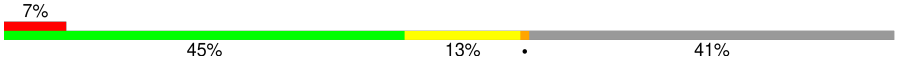


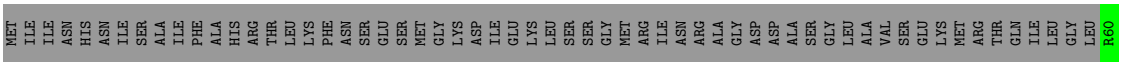


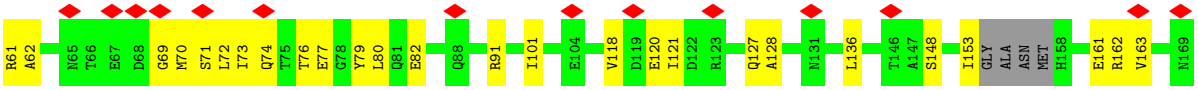


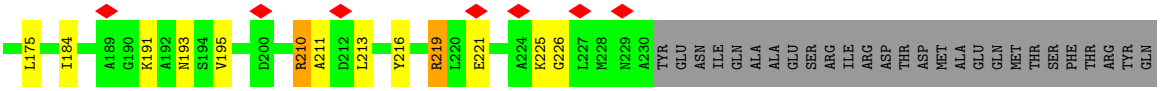
• Molecule 1: Flagellin

Chain G2:



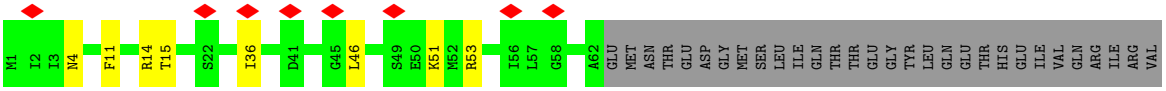


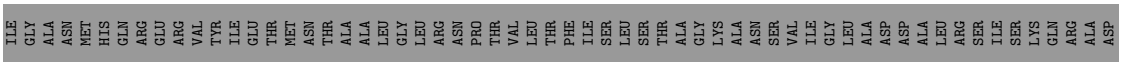


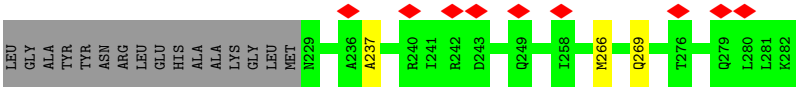


• Molecule 1: Flagellin

Chain G6:

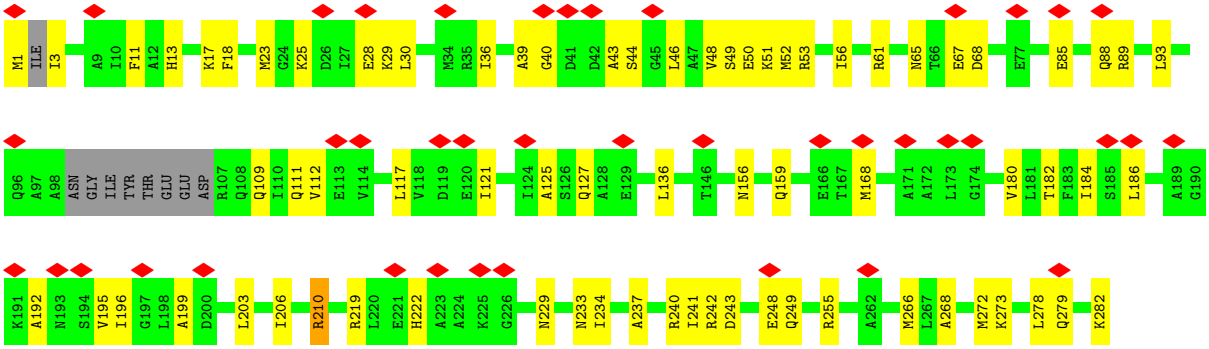






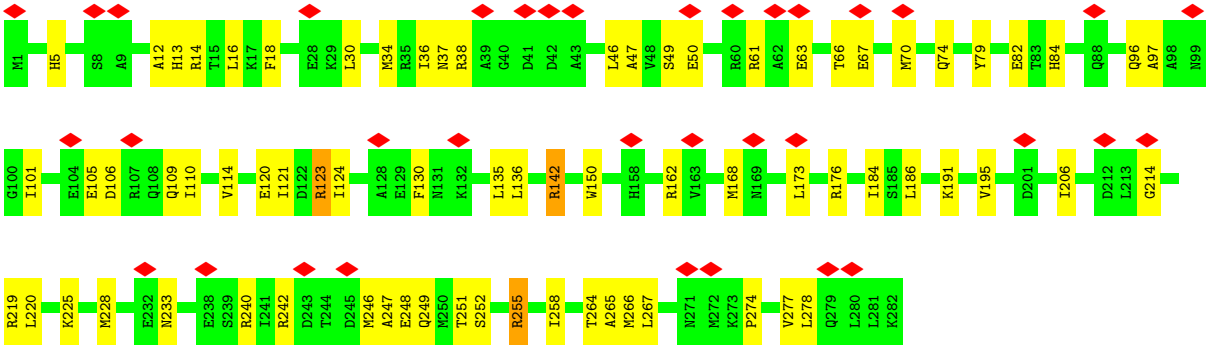
• Molecule 1: Flagellin

Chain G7:



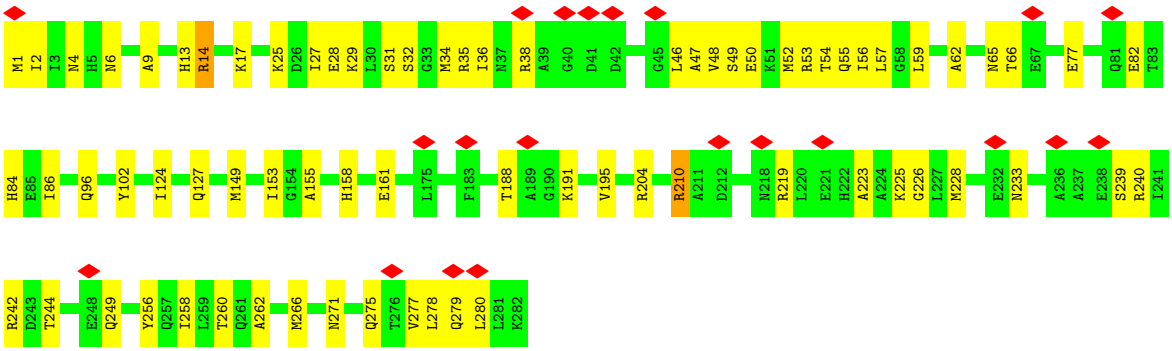
• Molecule 1: Flagellin

Chain G8:



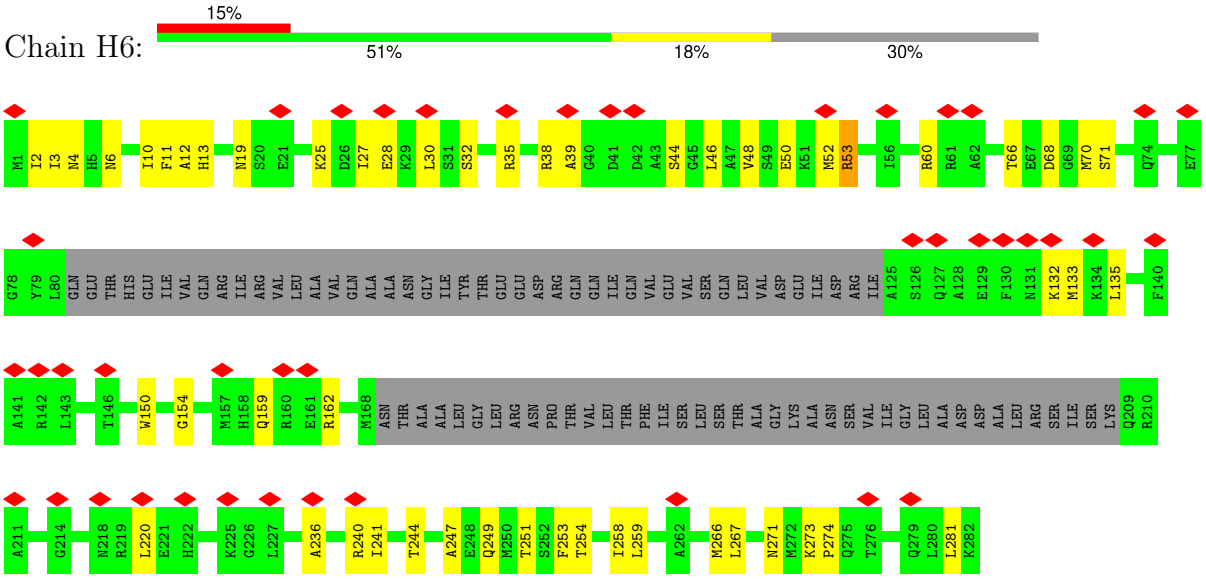
• Molecule 1: Flagellin

Chain G9:



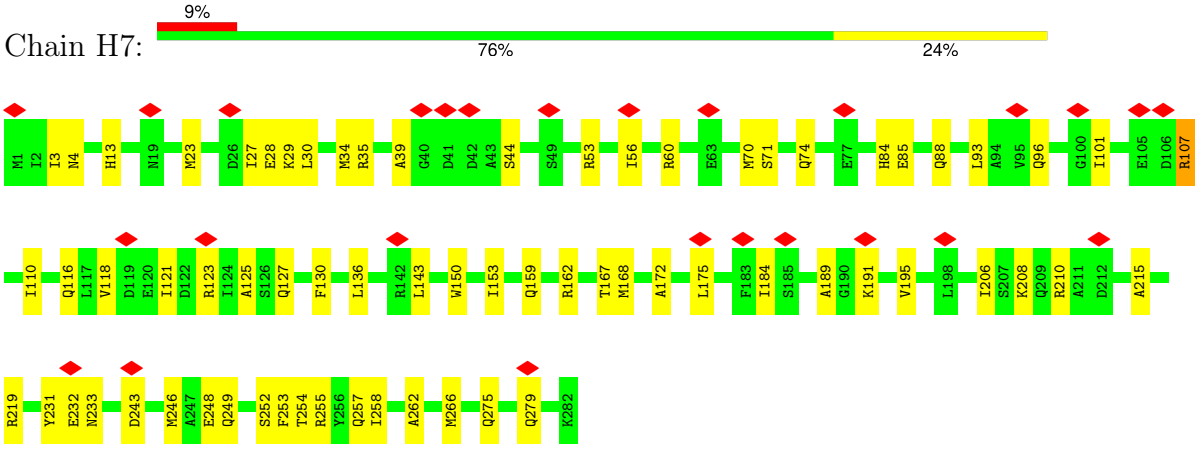
• Molecule 1: Flagellin

Chain H6:



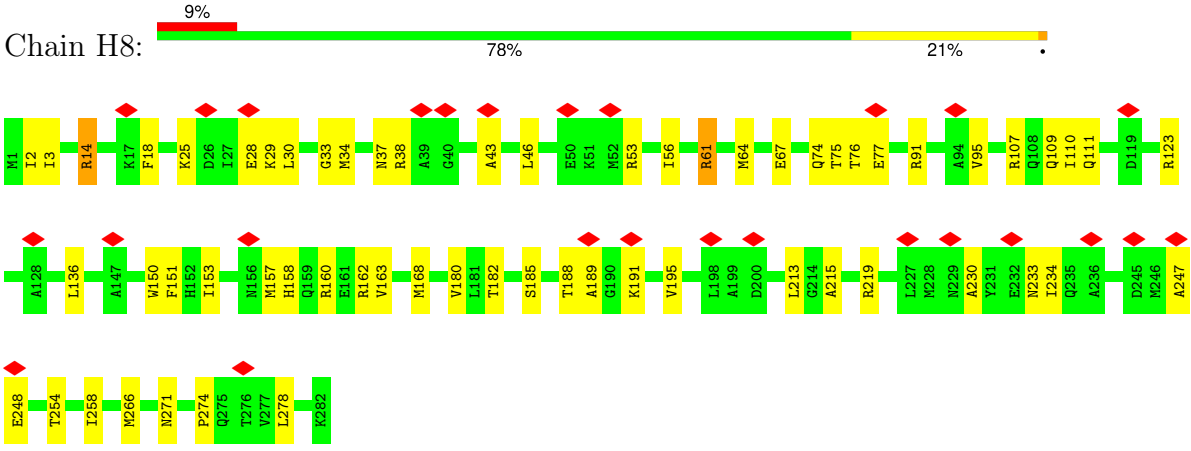
• Molecule 1: Flagellin

Chain H7:



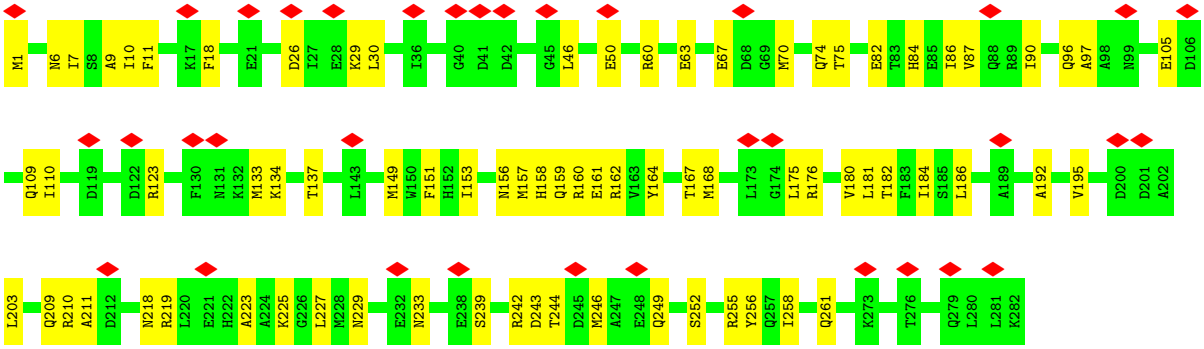
• Molecule 1: Flagellin

Chain H8:



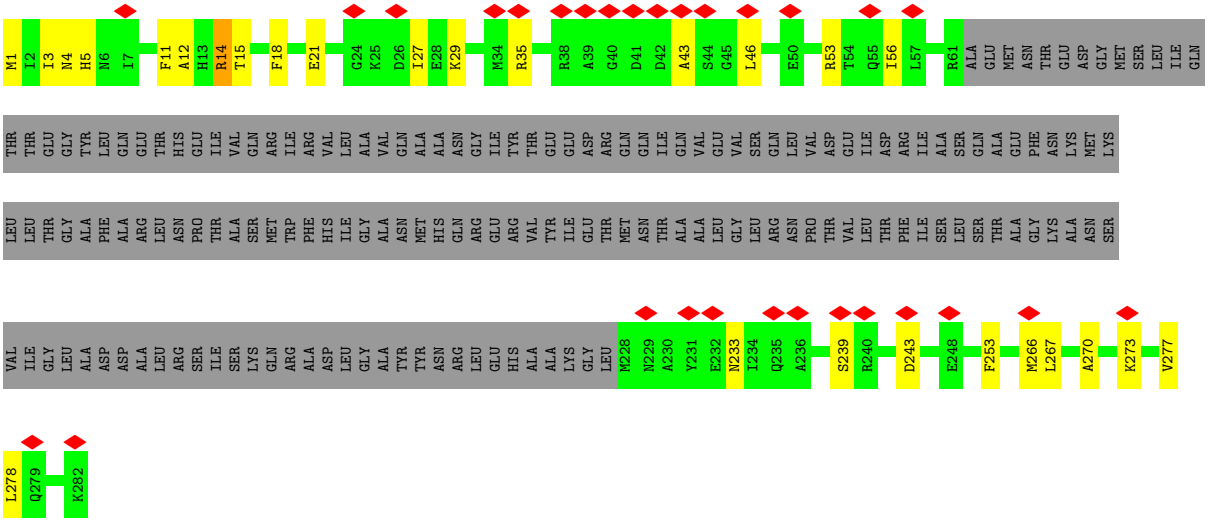
• Molecule 1: Flagellin

Chain H9:



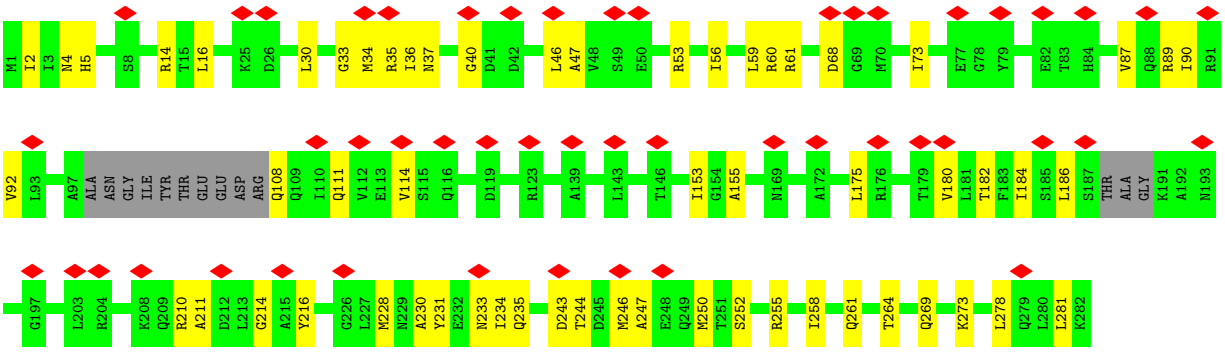
• Molecule 1: Flagellin

Chain I5:



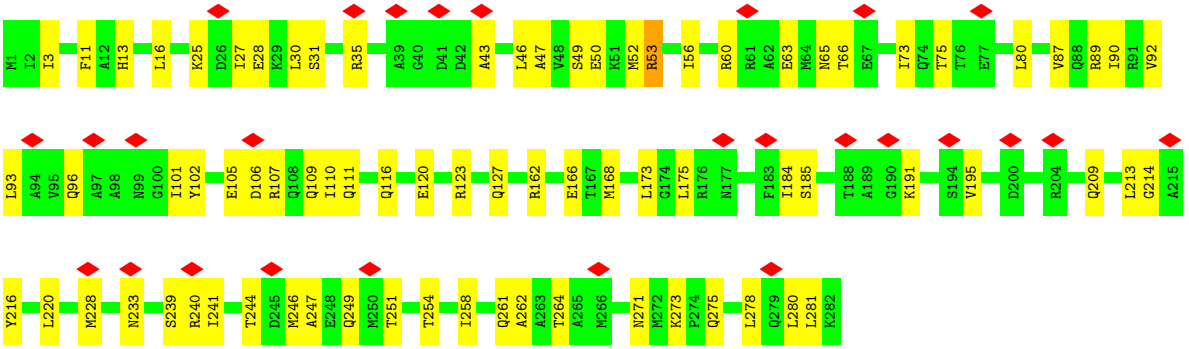
• Molecule 1: Flagellin

Chain I6:



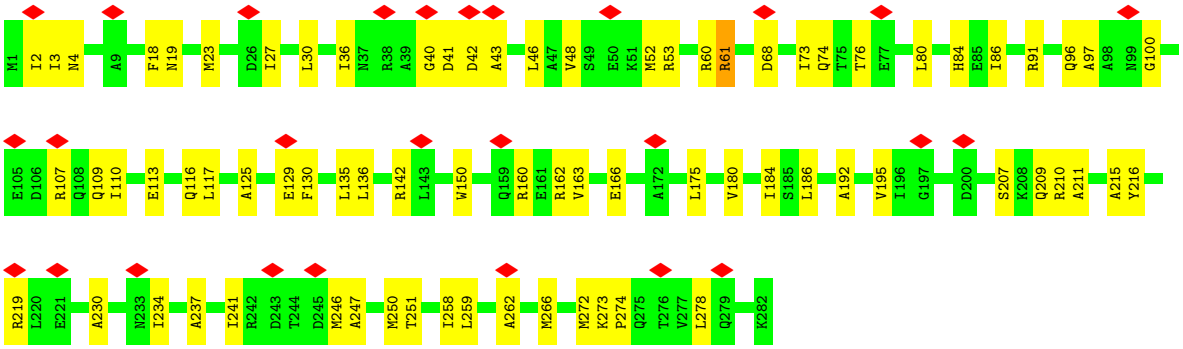
• Molecule 1: Flagellin

Chain I7:



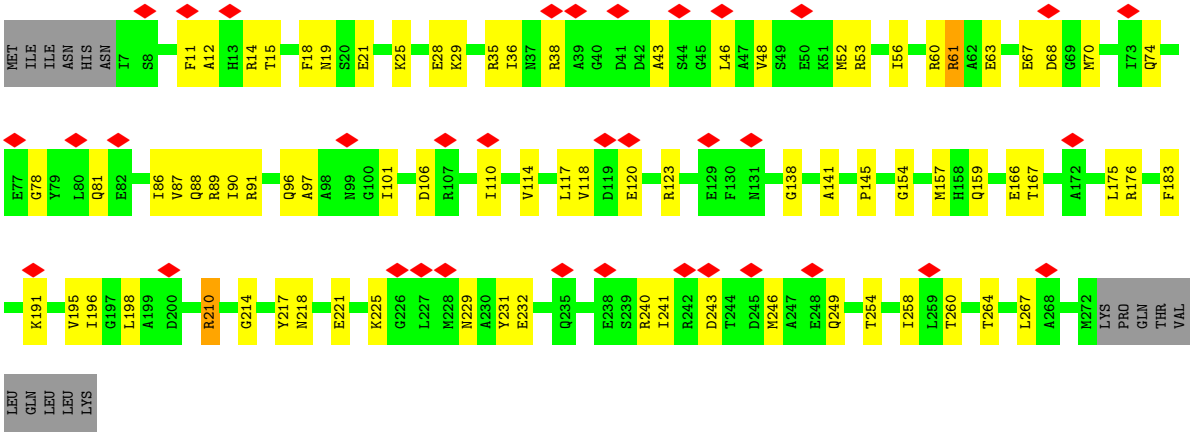
• Molecule 1: Flagellin

Chain I8:



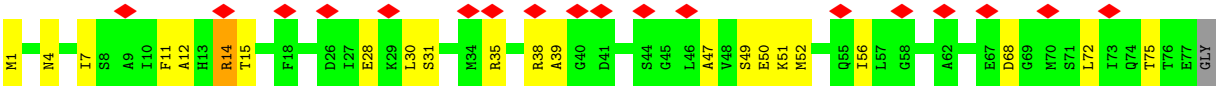
• Molecule 1: Flagellin

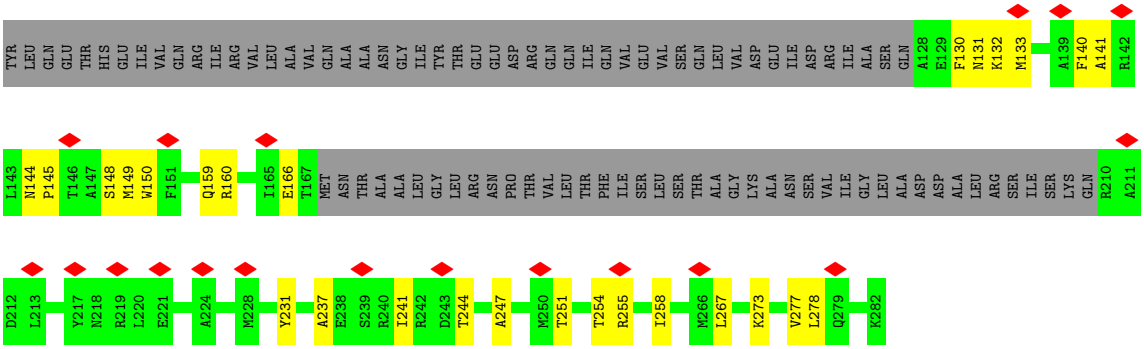
Chain I9:



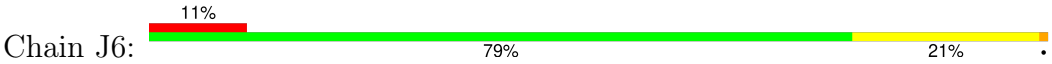
• Molecule 1: Flagellin

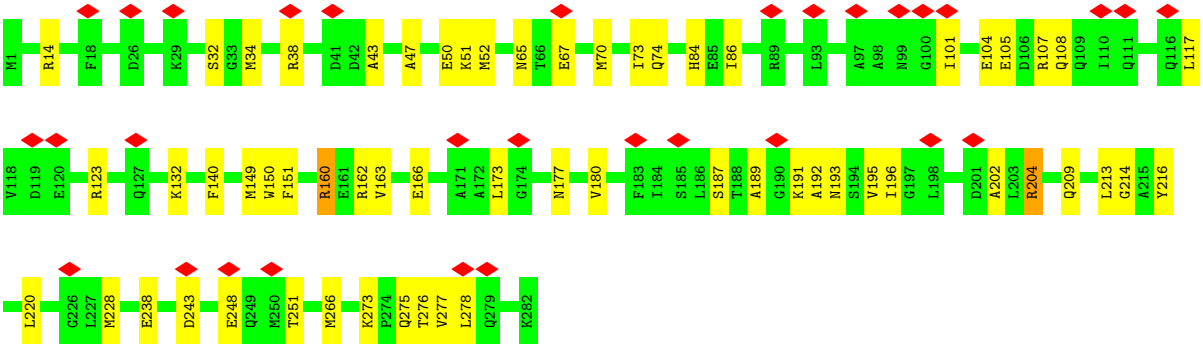
Chain J5:



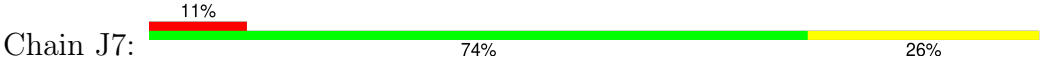


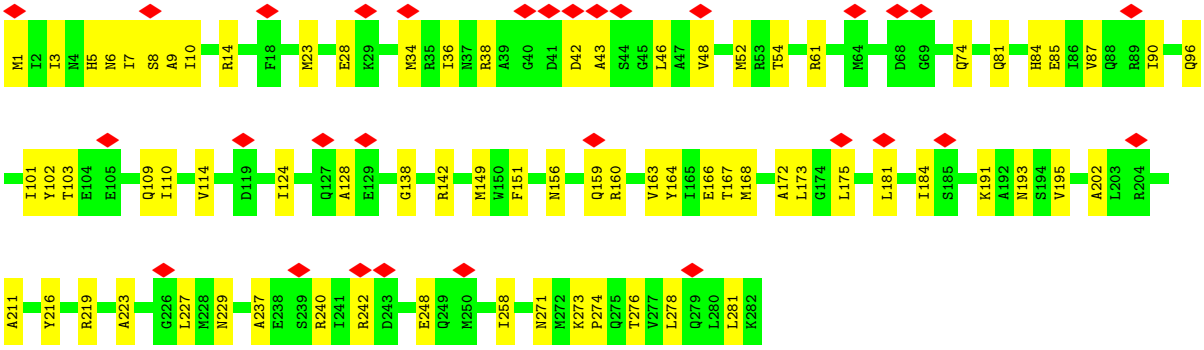
• Molecule 1: Flagellin



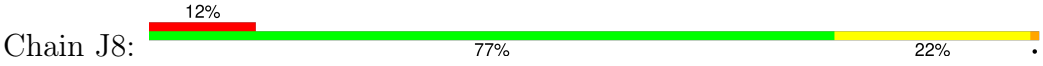


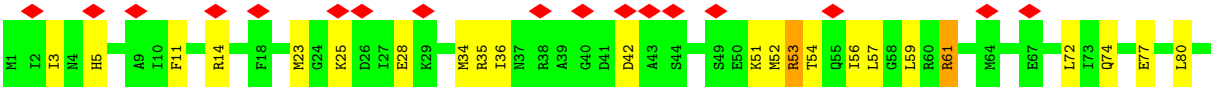
• Molecule 1: Flagellin

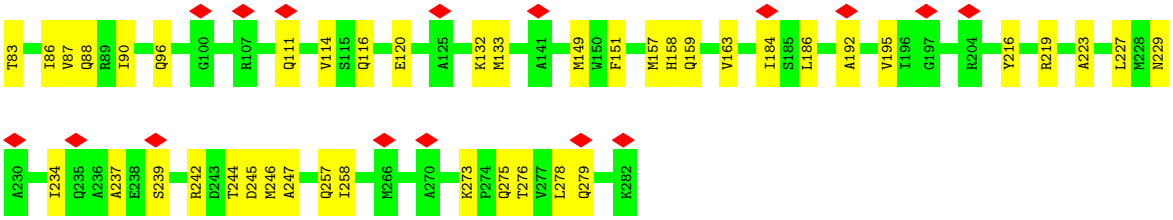




• Molecule 1: Flagellin

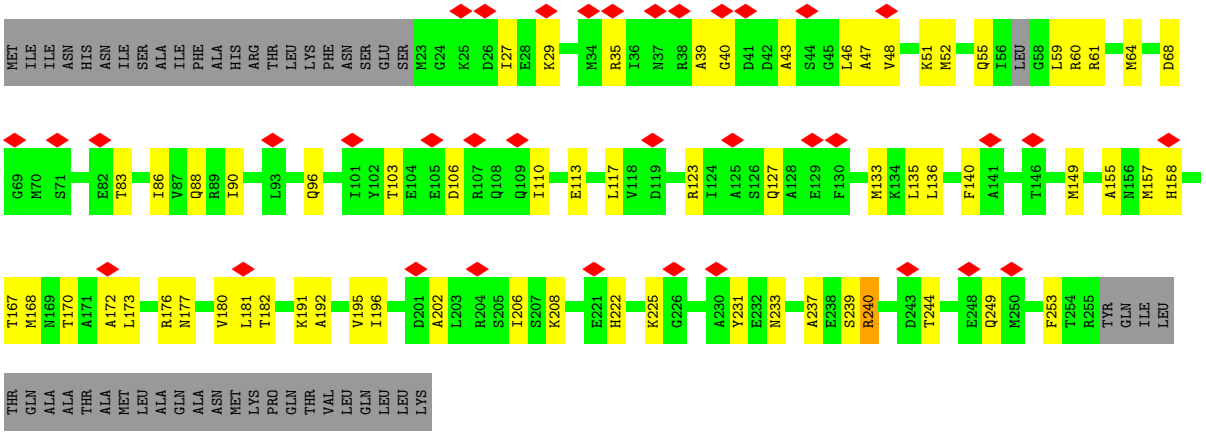






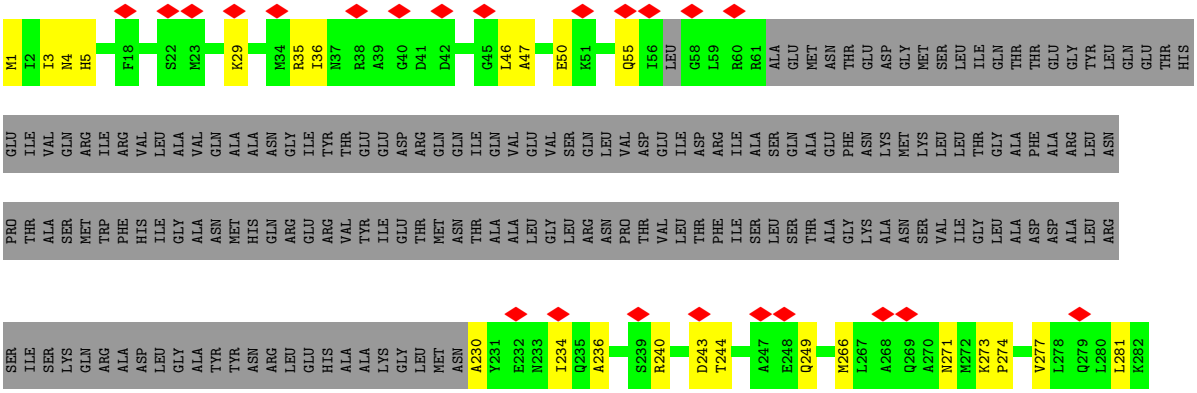
• Molecule 1: Flagellin

Chain J9:



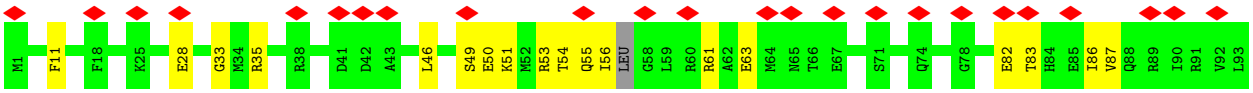
• Molecule 1: Flagellin

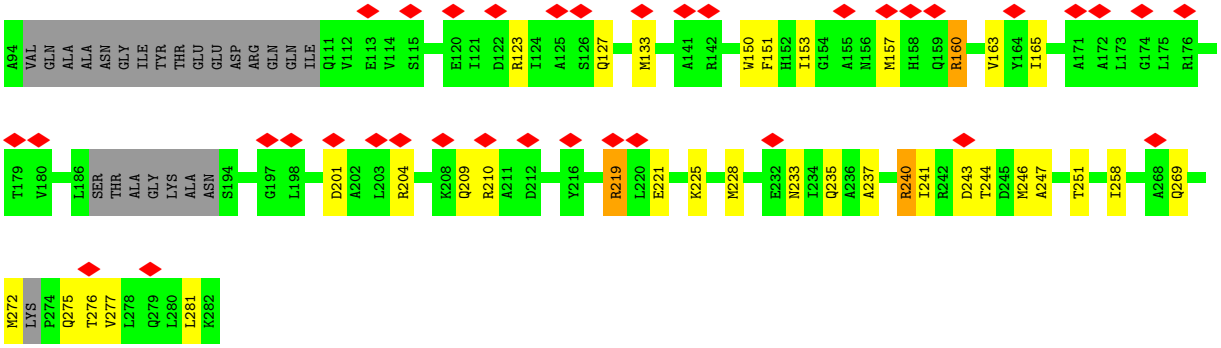
Chain K4:



• Molecule 1: Flagellin

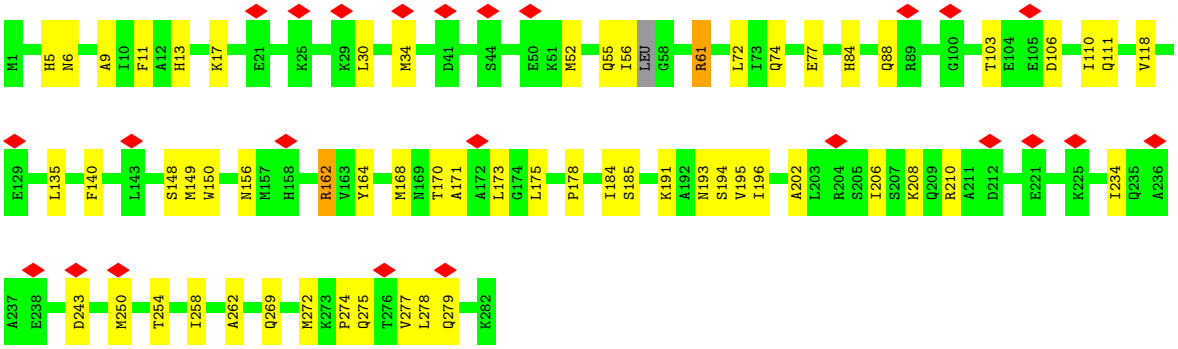
Chain K5:





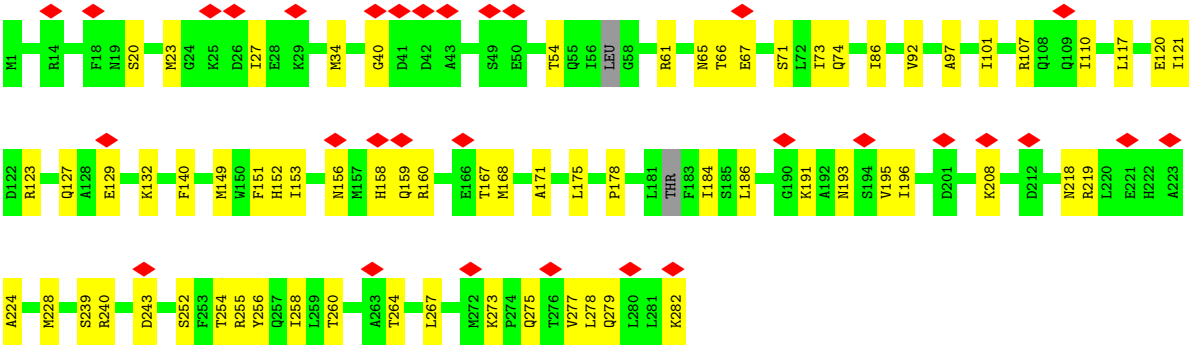
• Molecule 1: Flagellin

Chain K6:



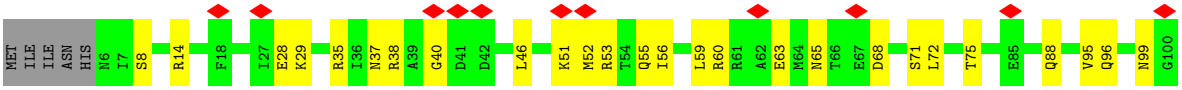
• Molecule 1: Flagellin

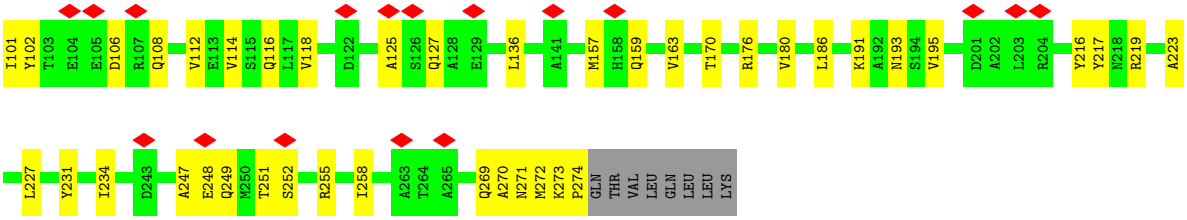
Chain K7:



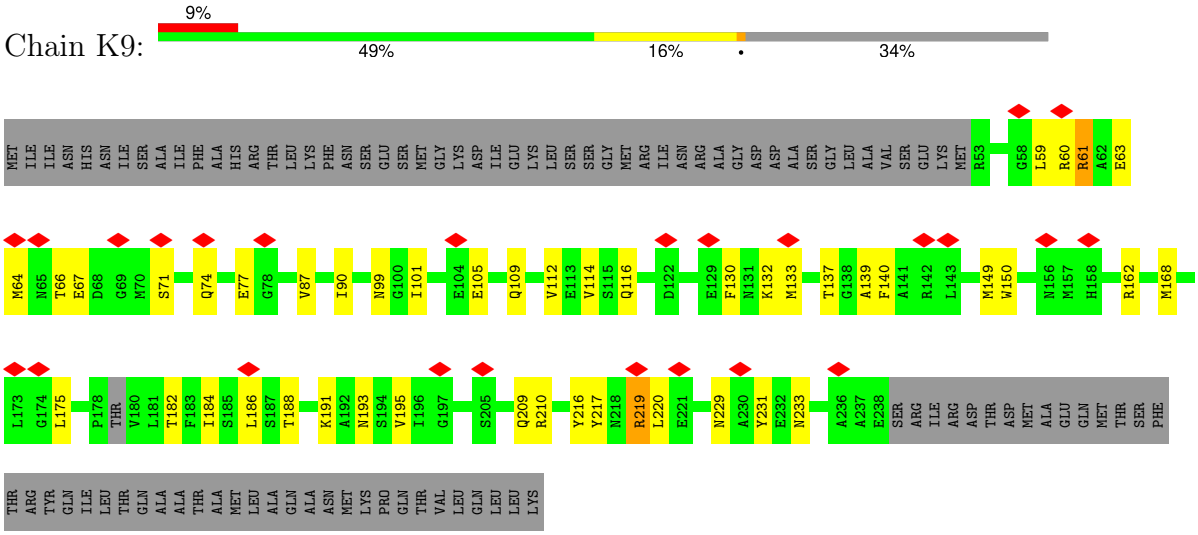
• Molecule 1: Flagellin

Chain K8:

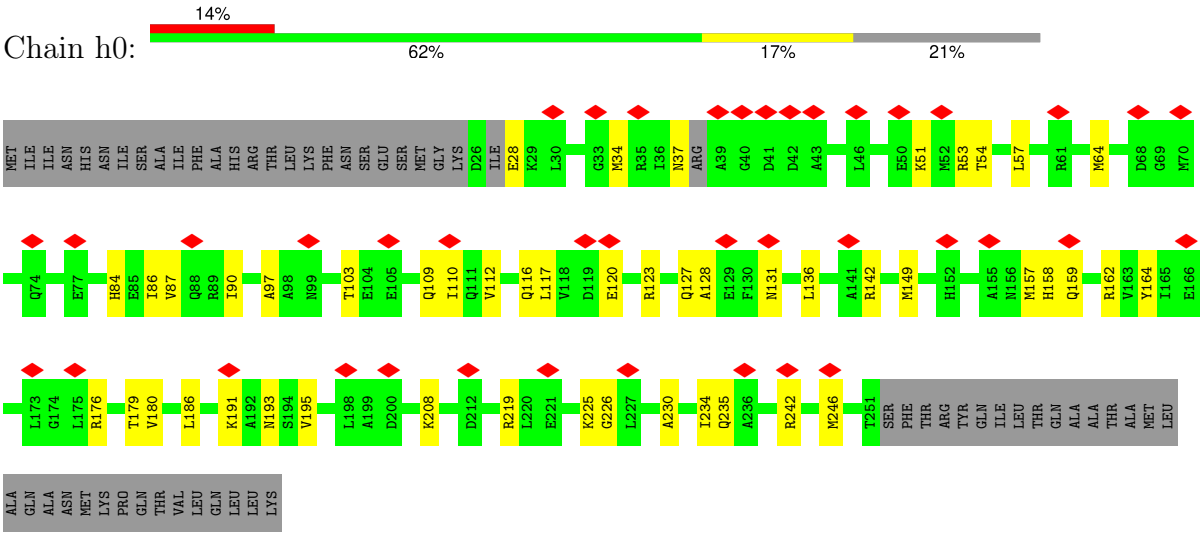




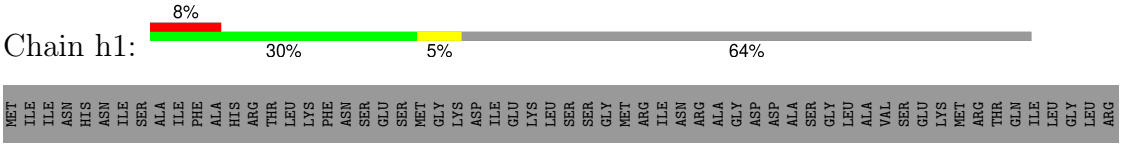
• Molecule 1: Flagellin

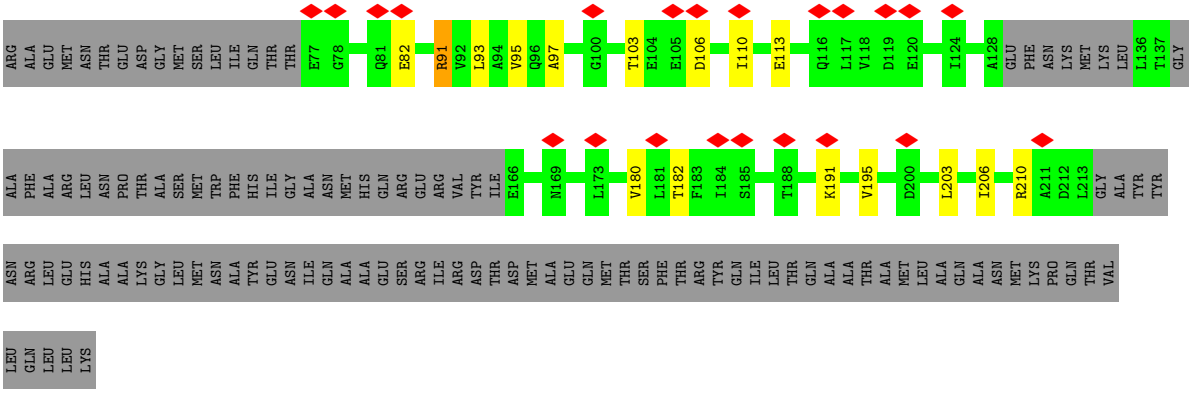


• Molecule 1: Flagellin



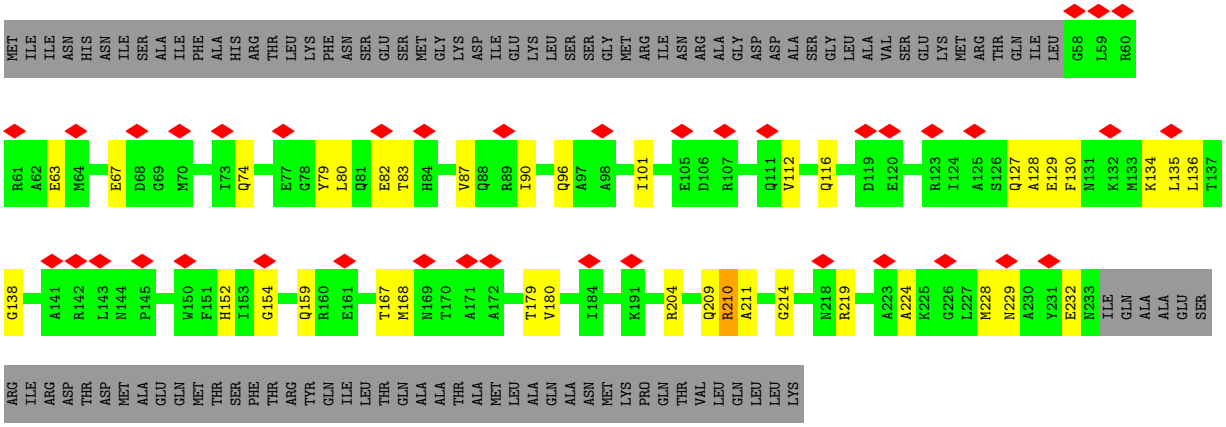
• Molecule 1: Flagellin





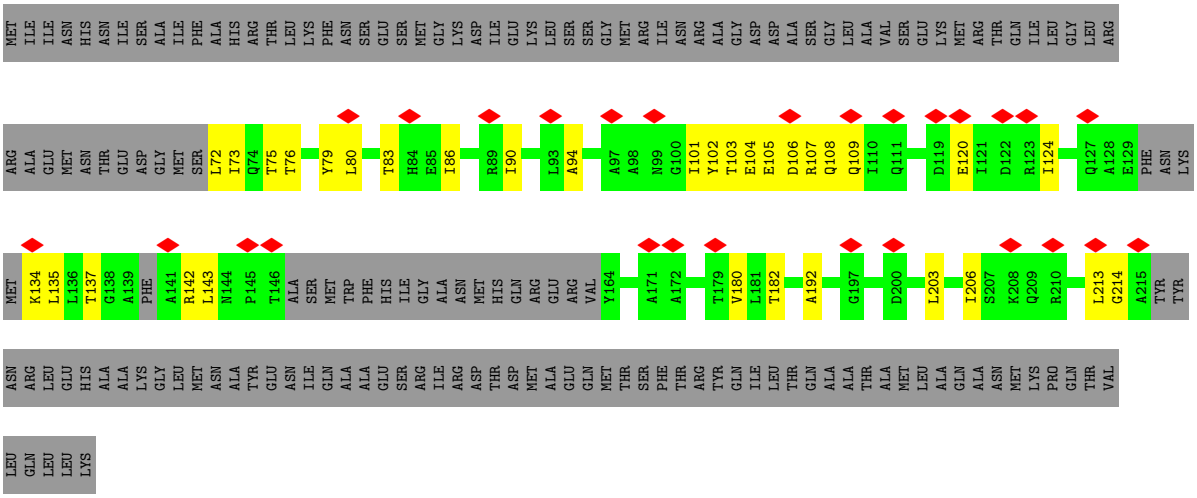
• Molecule 1: Flagellin

Chain i0:



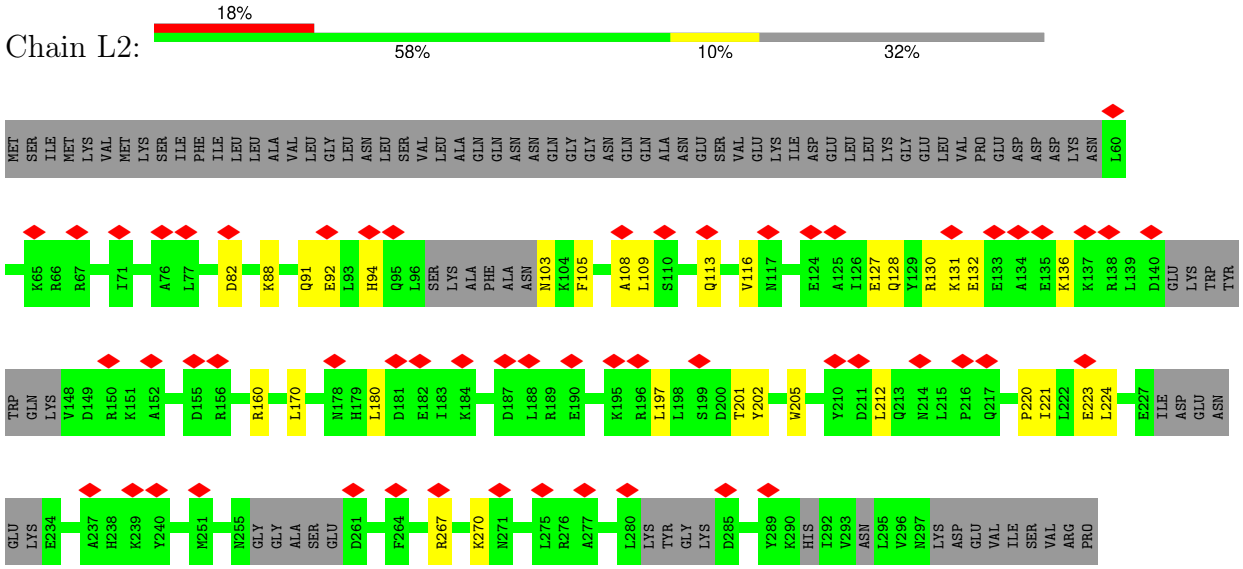
• Molecule 1: Flagellin

Chain j0:



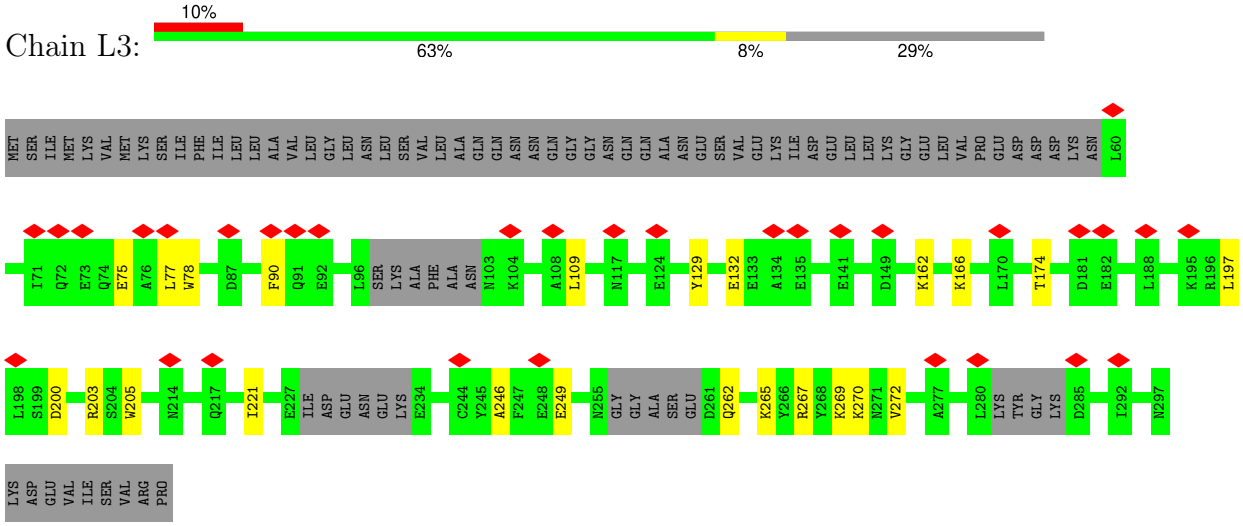
• Molecule 2: Flagellar Coiling Protein FcpA

Chain L2:



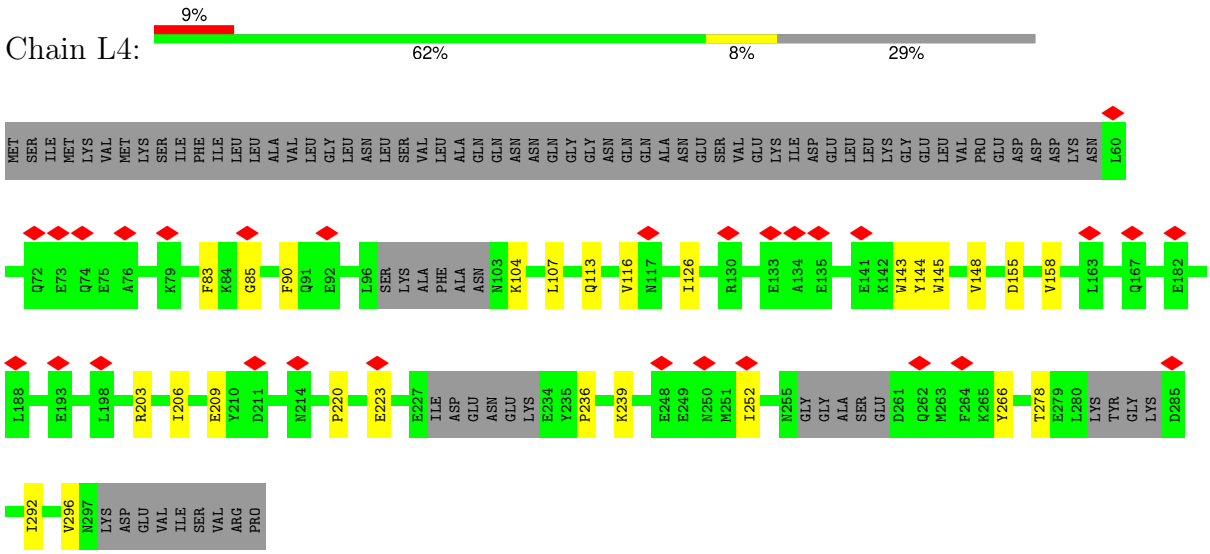
• Molecule 2: Flagellar Coiling Protein FcpA

Chain L3:



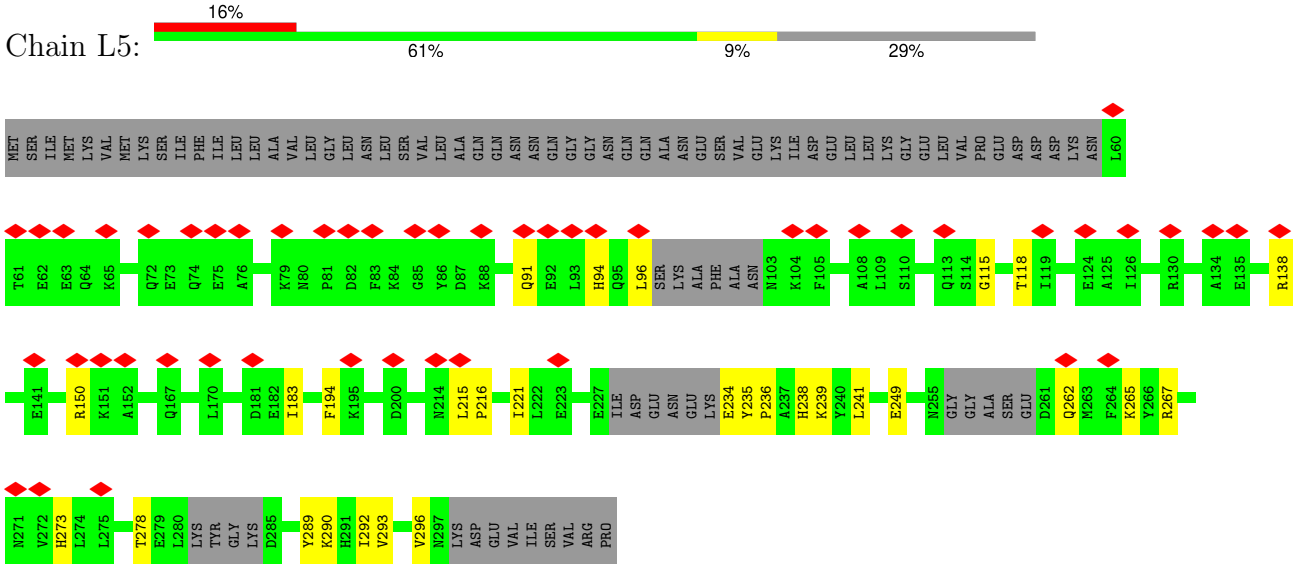
• Molecule 2: Flagellar Coiling Protein FcpA

Chain L4:



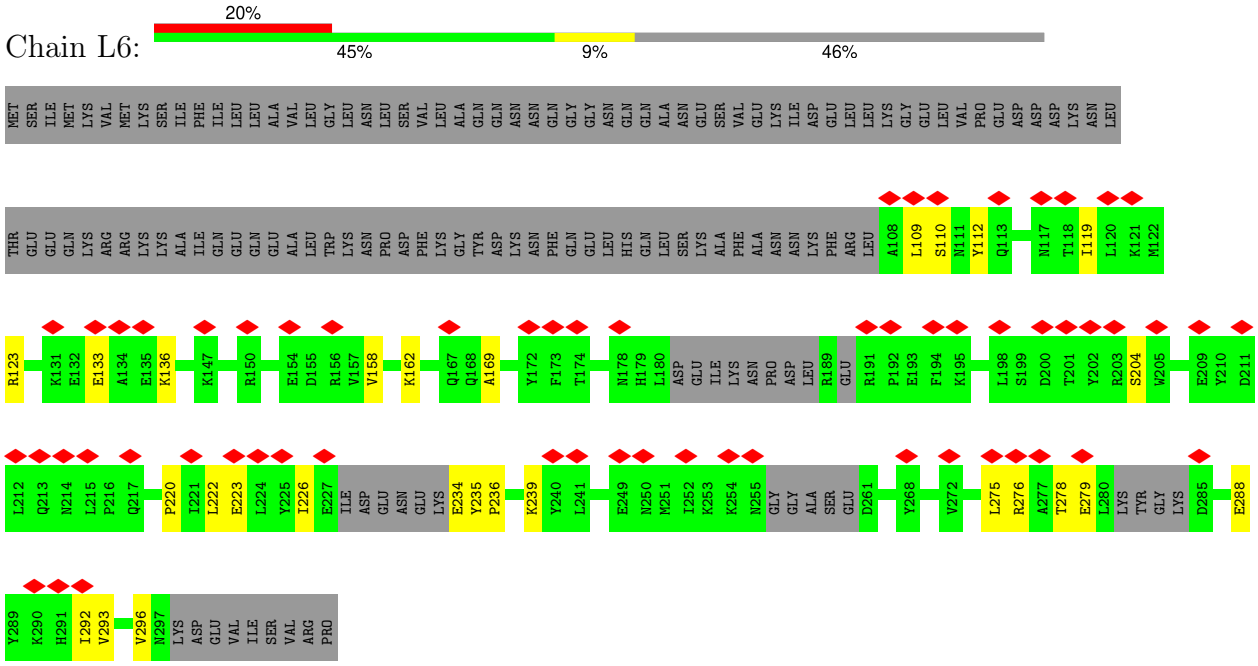
• Molecule 2: Flagellar Coiling Protein FcpA

Chain L5:



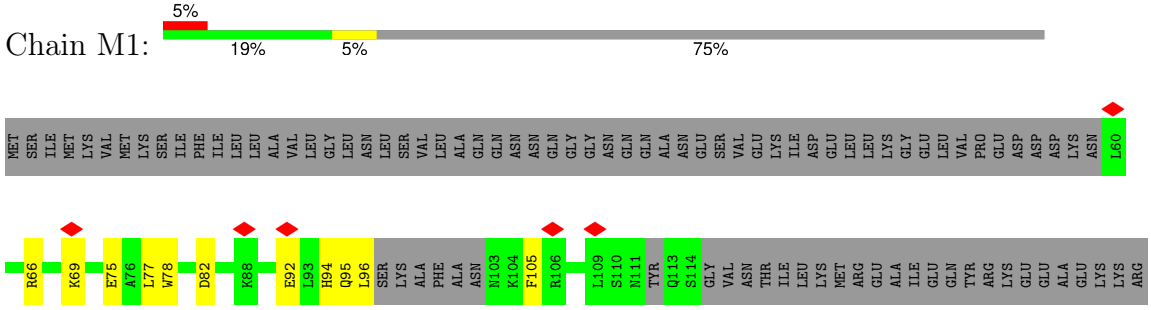
• Molecule 2: Flagellar Coiling Protein FcpA

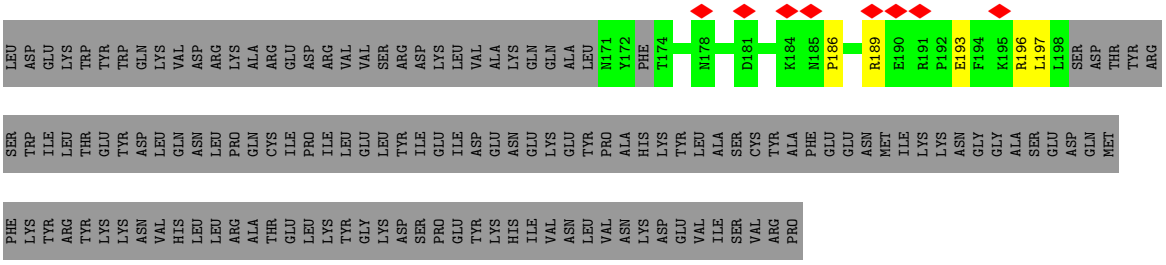
Chain L6:



• Molecule 2: Flagellar Coiling Protein FcpA

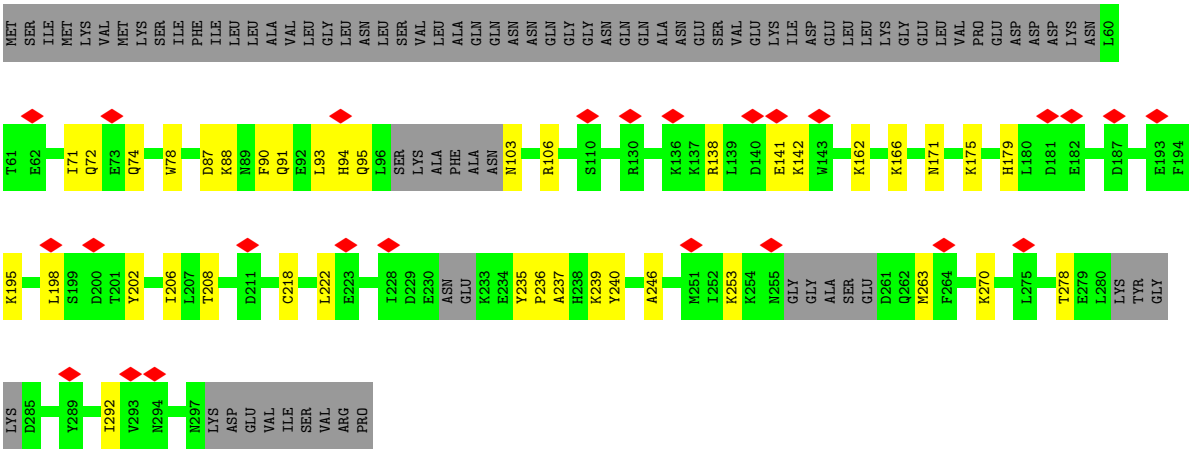
Chain M1:





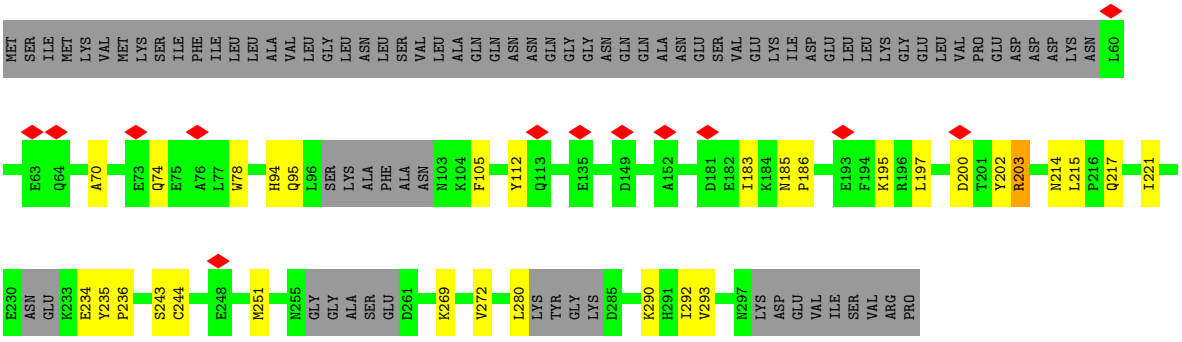
• Molecule 2: Flagellar Coiling Protein FcpA

Chain M2:



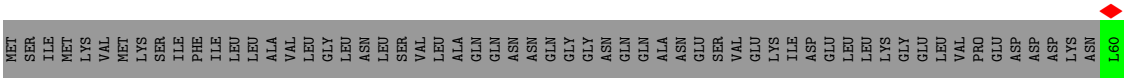
• Molecule 2: Flagellar Coiling Protein FcpA

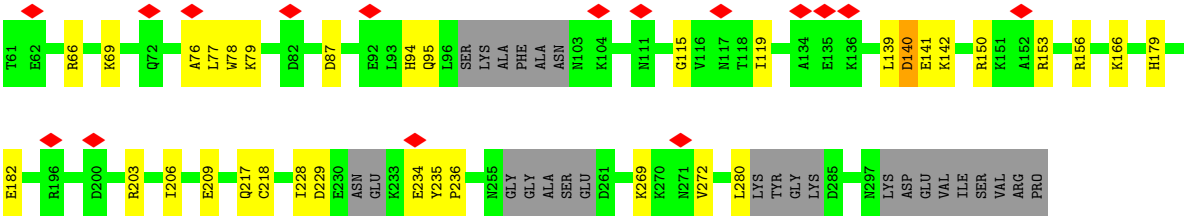
Chain M3:



• Molecule 2: Flagellar Coiling Protein FcpA

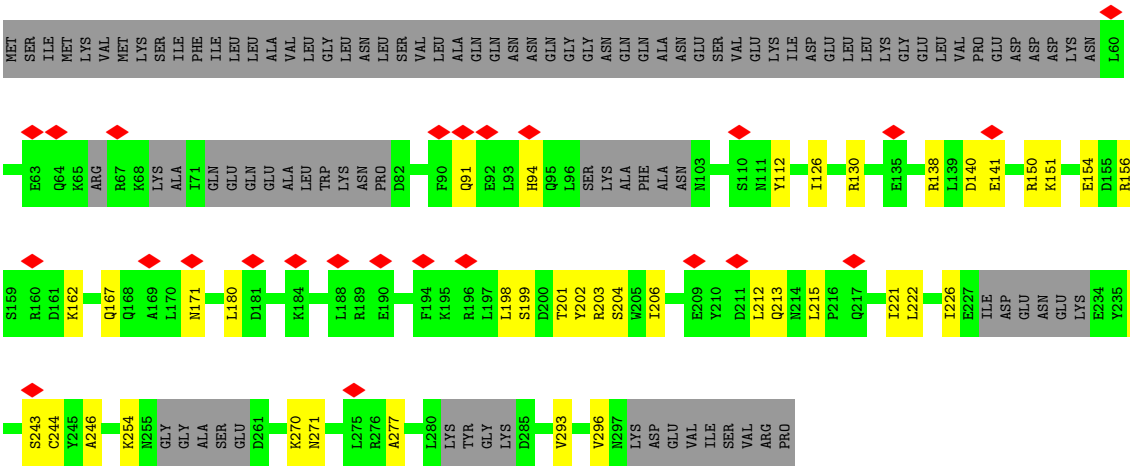
Chain M4:





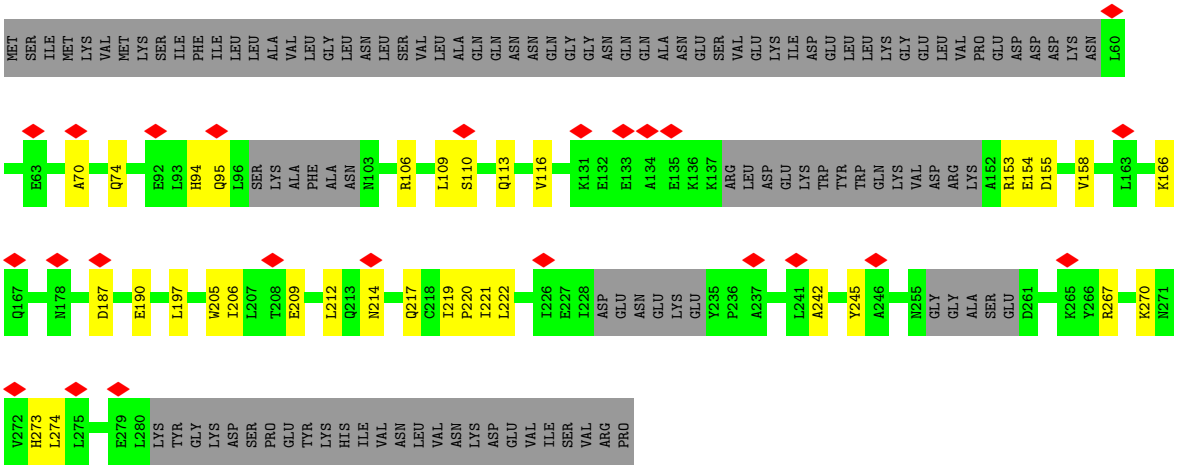
• Molecule 2: Flagellar Coiling Protein FcpA

Chain M5:



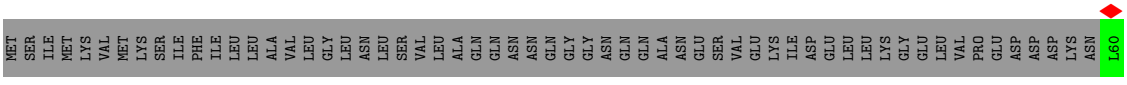
• Molecule 2: Flagellar Coiling Protein FcpA

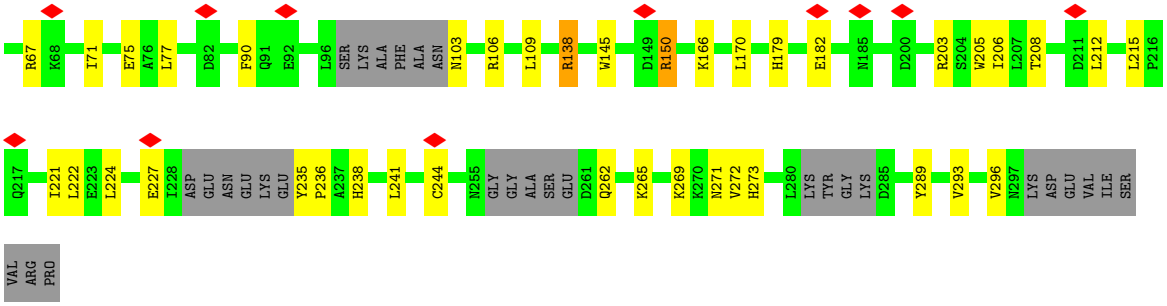
Chain N2:



• Molecule 2: Flagellar Coiling Protein FcpA

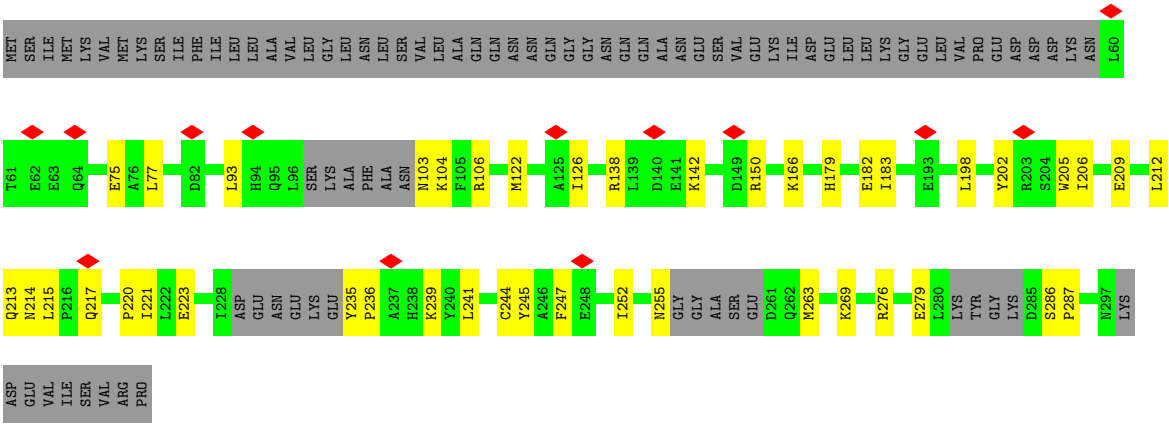
Chain N3:





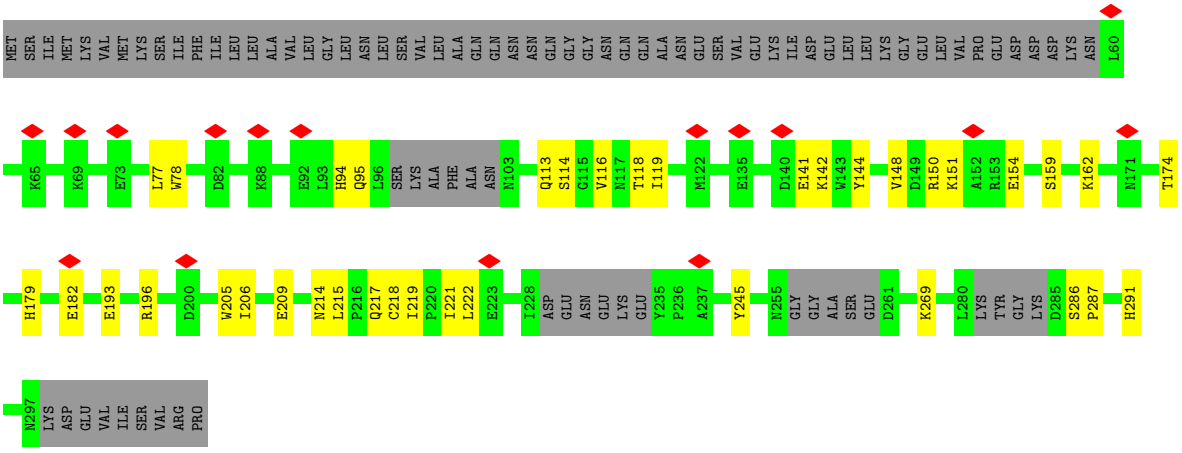
• Molecule 2: Flagellar Coiling Protein FcpA

Chain N4:



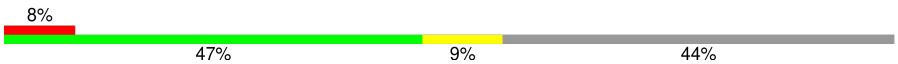
• Molecule 2: Flagellar Coiling Protein FcpA

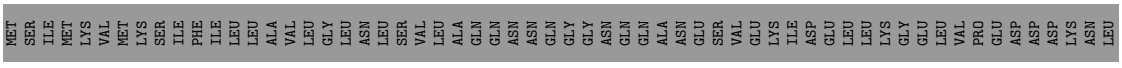
Chain N5:

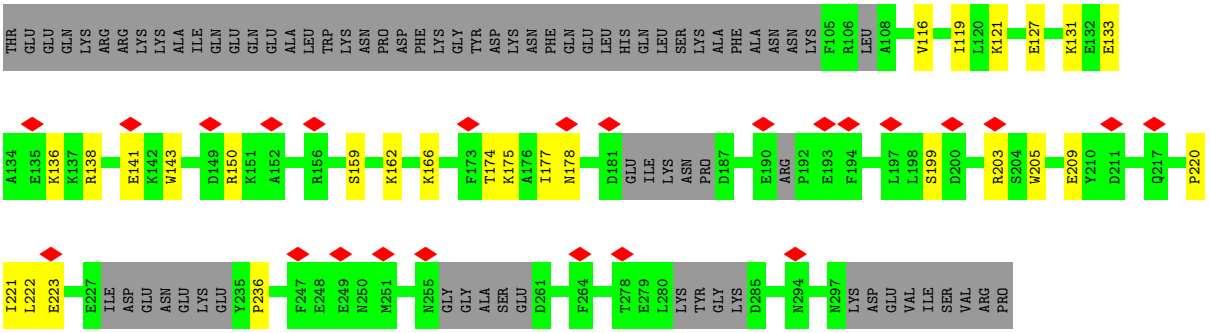


• Molecule 2: Flagellar Coiling Protein FcpA

Chain N6:

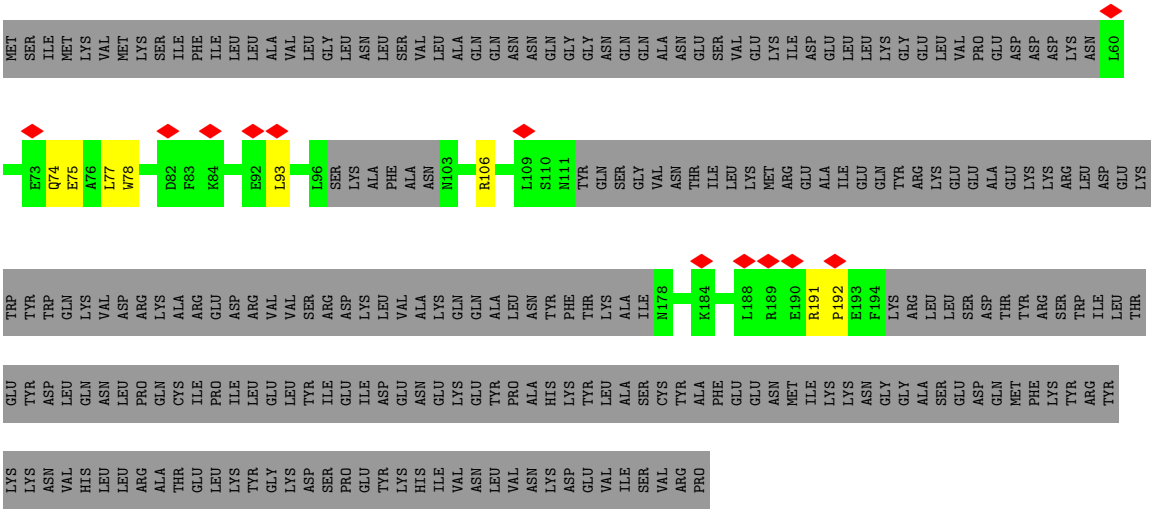






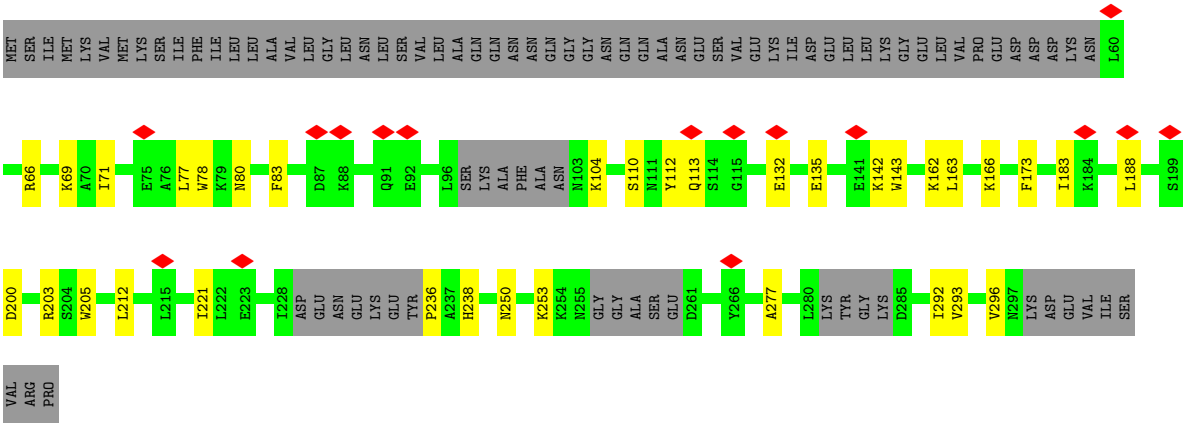
• Molecule 2: Flagellar Coiling Protein FcpA

Chain O1:



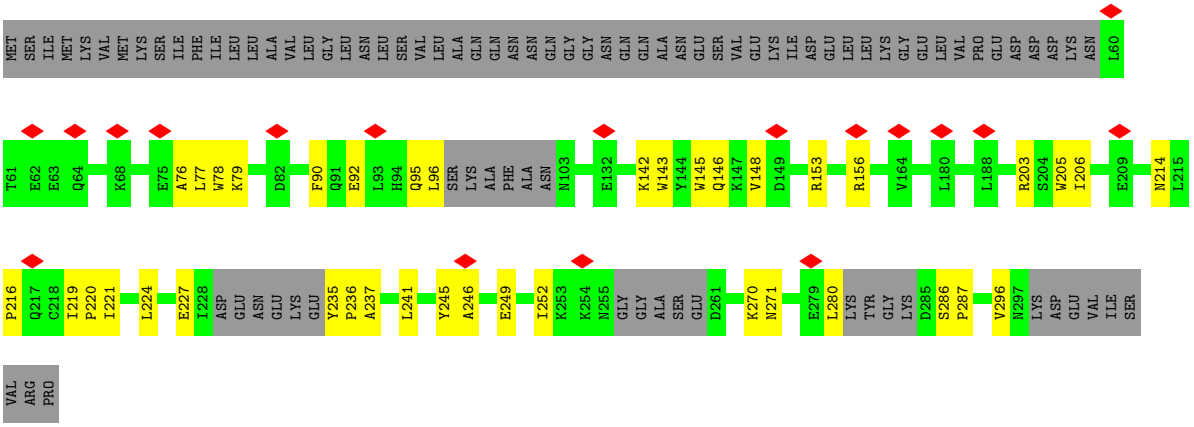
• Molecule 2: Flagellar Coiling Protein FcpA

Chain O2:



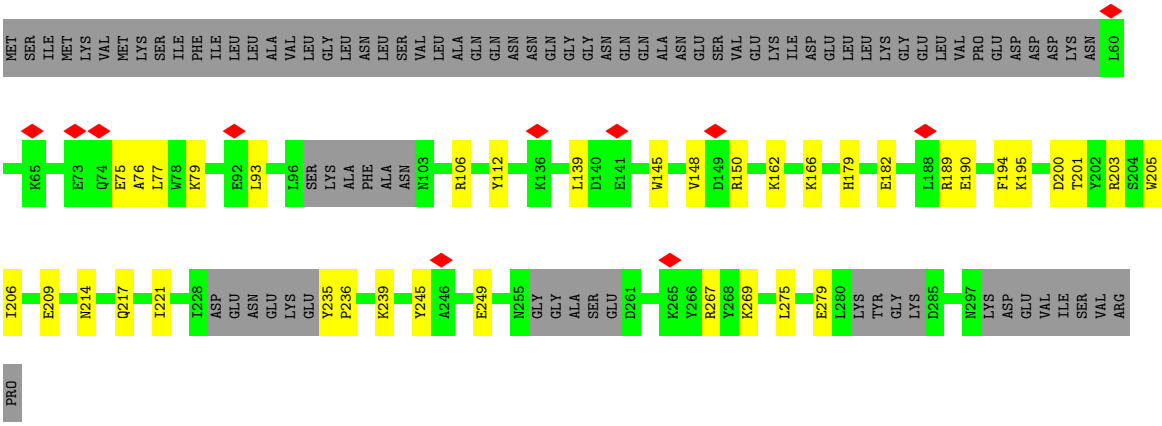
• Molecule 2: Flagellar Coiling Protein FcpA

Chain O3:



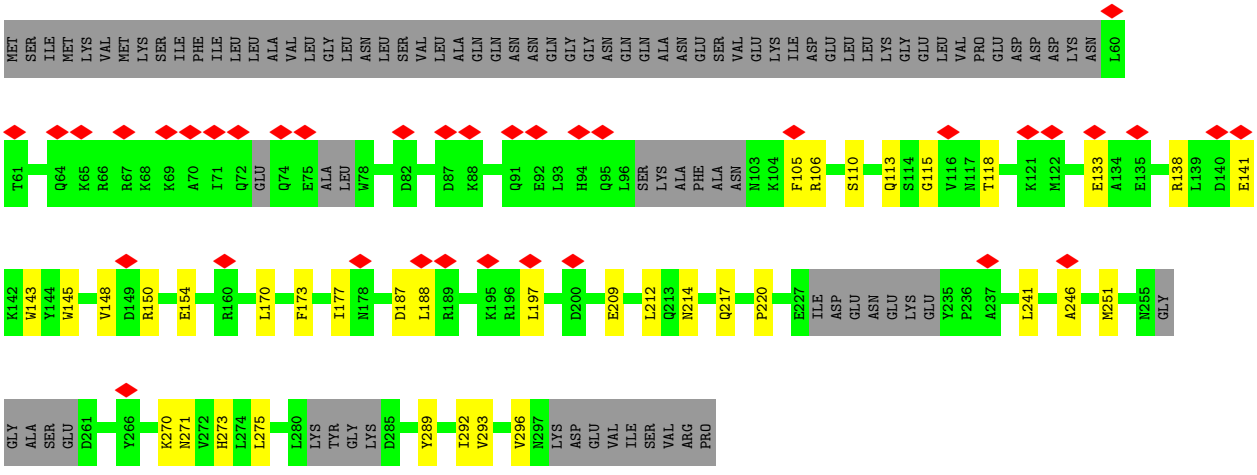
• Molecule 2: Flagellar Coiling Protein FcpA

Chain O4:



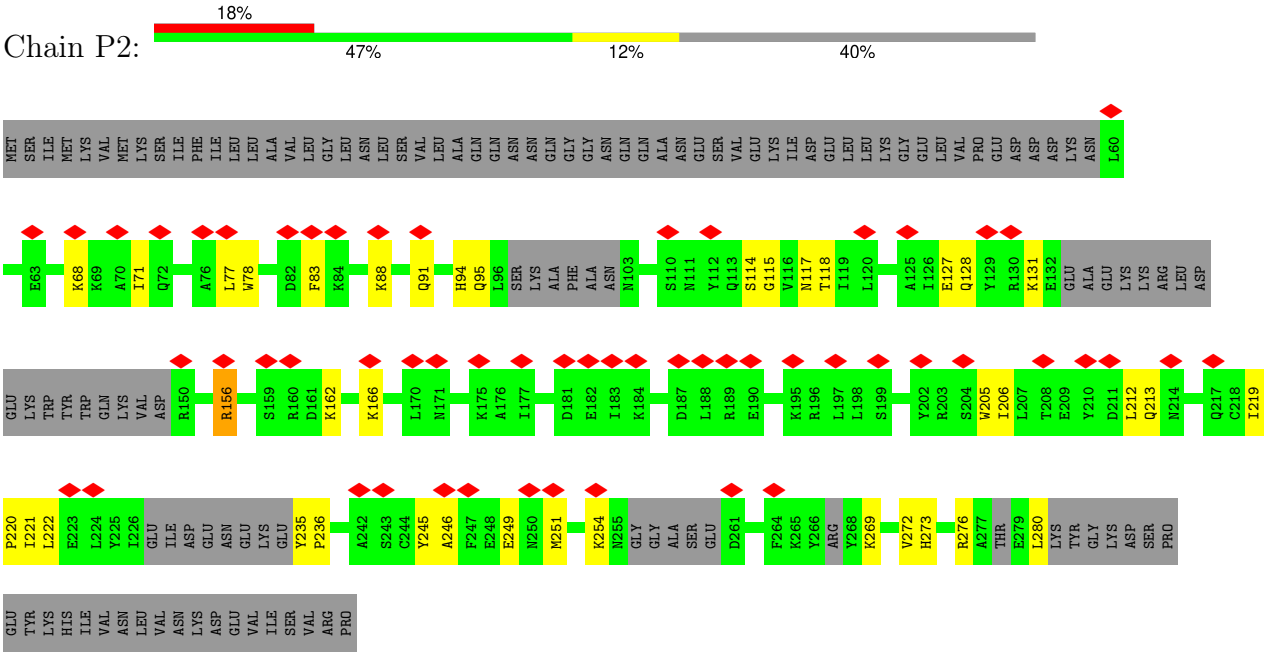
• Molecule 2: Flagellar Coiling Protein FcpA

Chain O5:



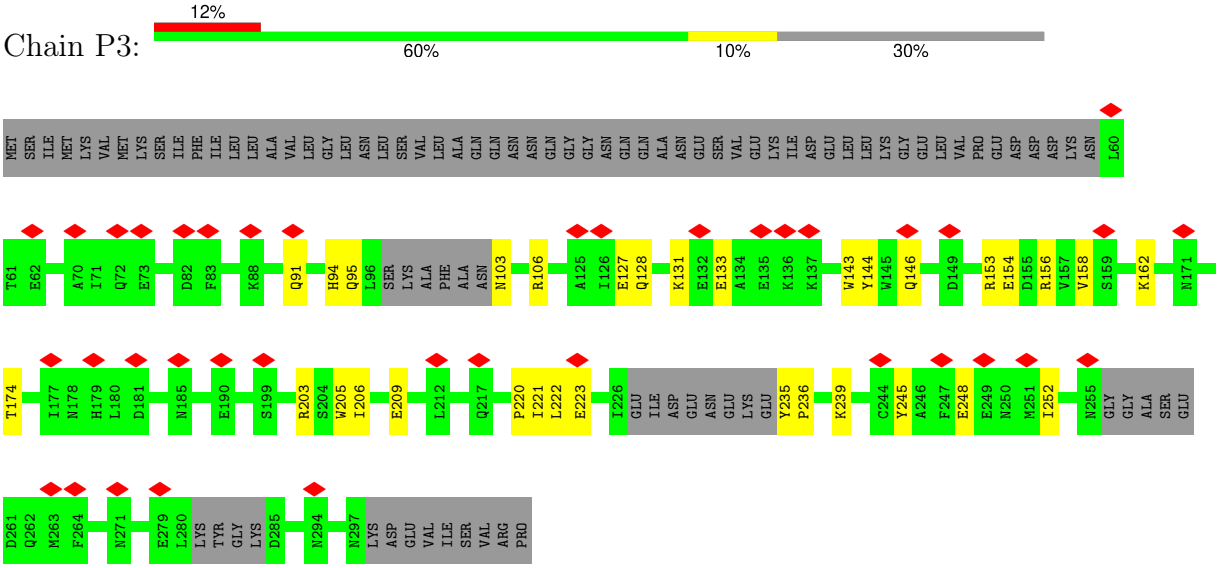
• Molecule 2: Flagellar Coiling Protein FcpA

Chain P2:



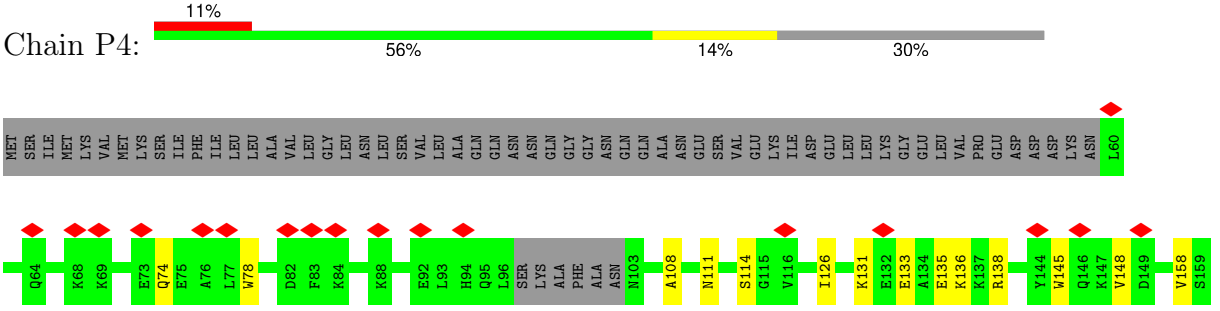
• Molecule 2: Flagellar Coiling Protein FcpA

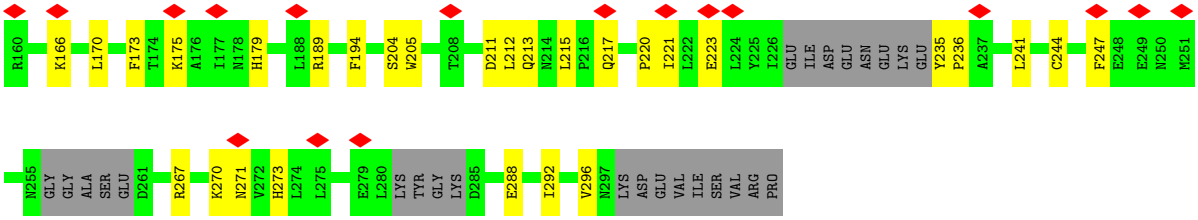
Chain P3:



• Molecule 2: Flagellar Coiling Protein FcpA

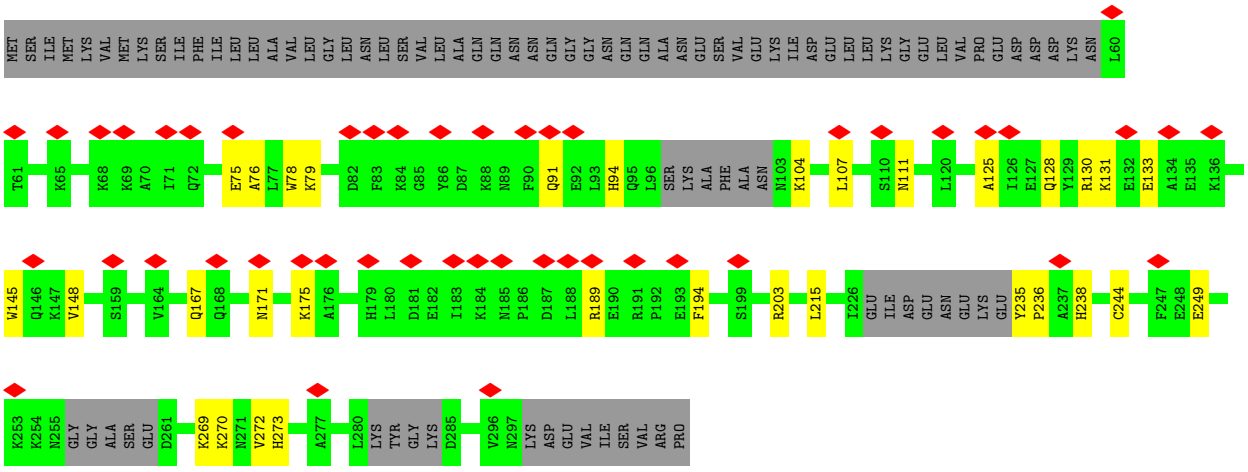
Chain P4:





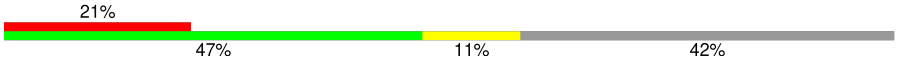
• Molecule 2: Flagellar Coiling Protein FcpA

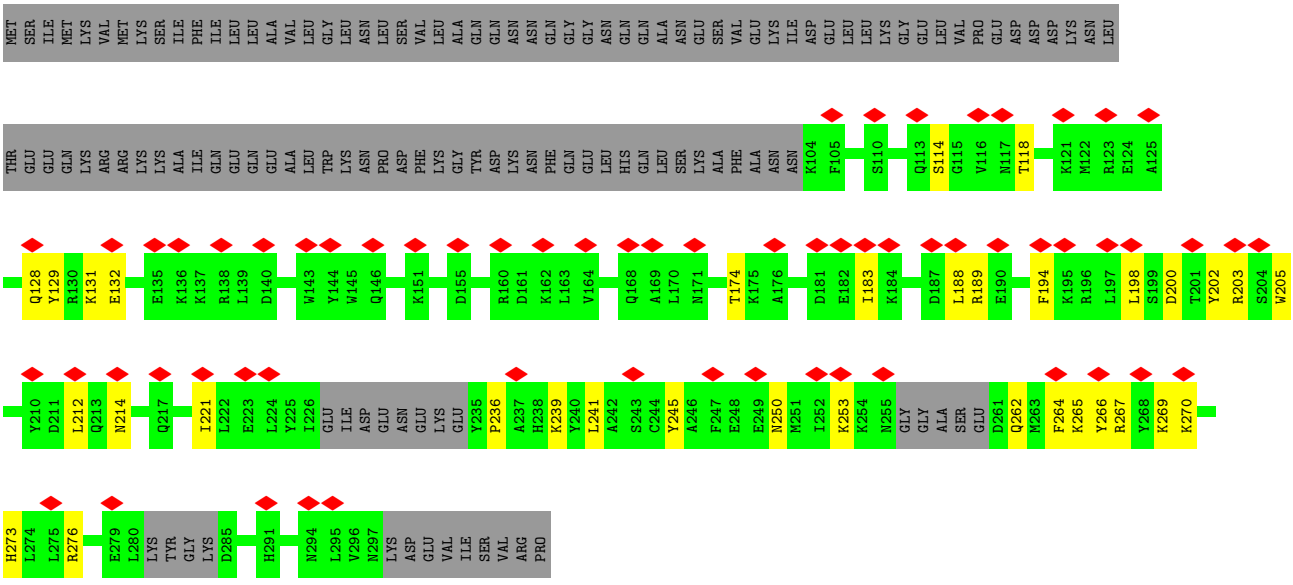
Chain P5:



• Molecule 2: Flagellar Coiling Protein FcpA

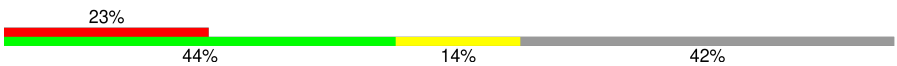
Chain P6:

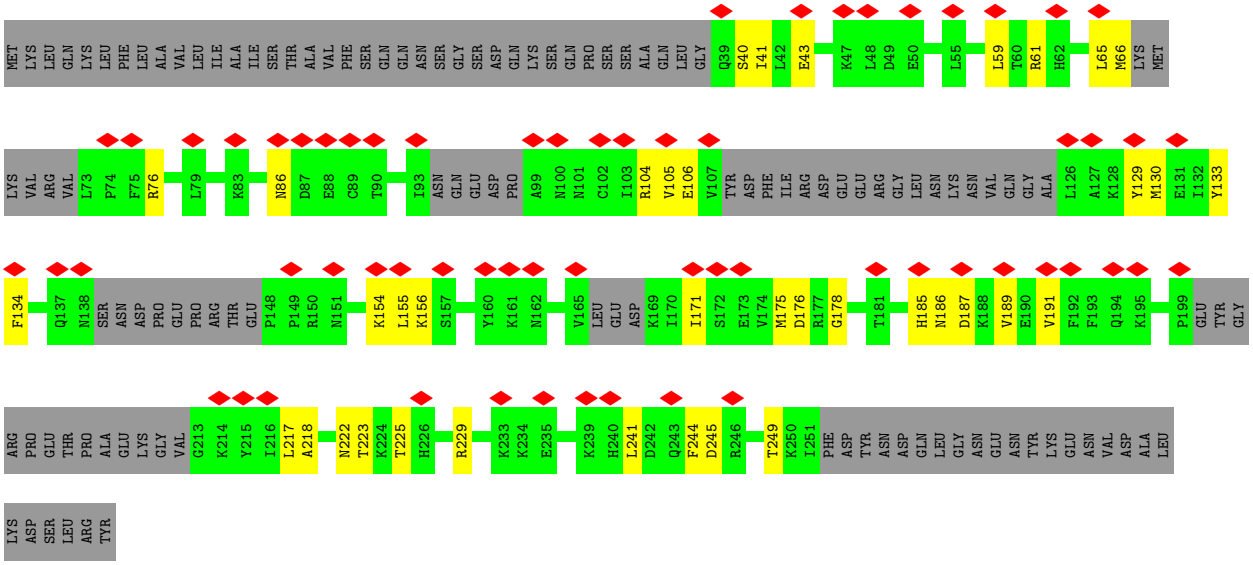




• Molecule 3: Flagellar Coiling Protein FcpB

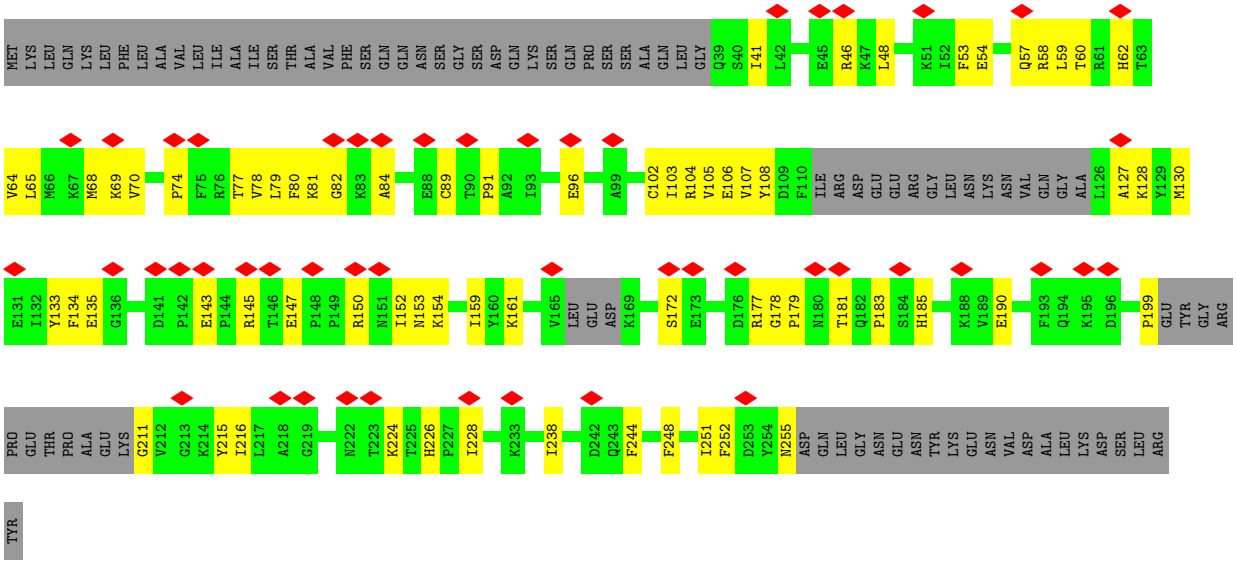
Chain Q1:





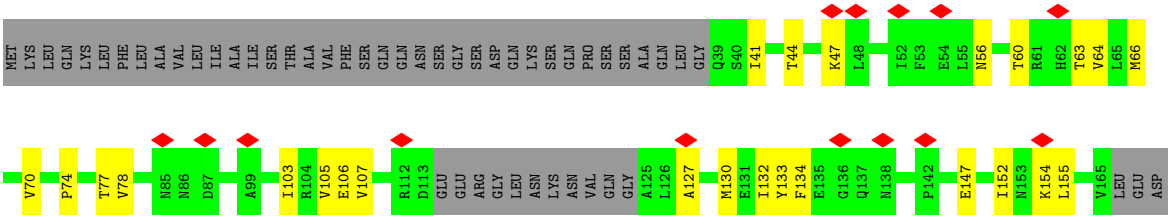
• Molecule 3: Flagellar Coiling Protein FcpB

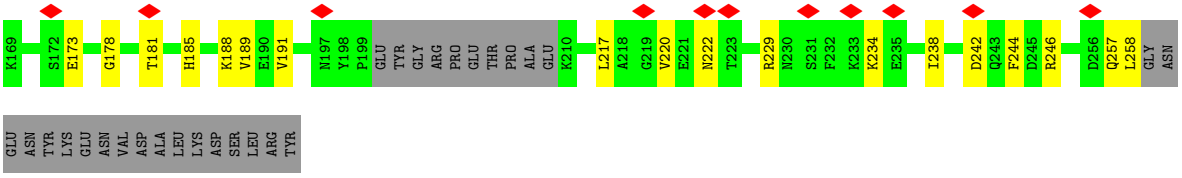
Chain Q2:



• Molecule 3: Flagellar Coiling Protein FcpB

Chain Q3:





• Molecule 3: Flagellar Coiling Protein FcpB

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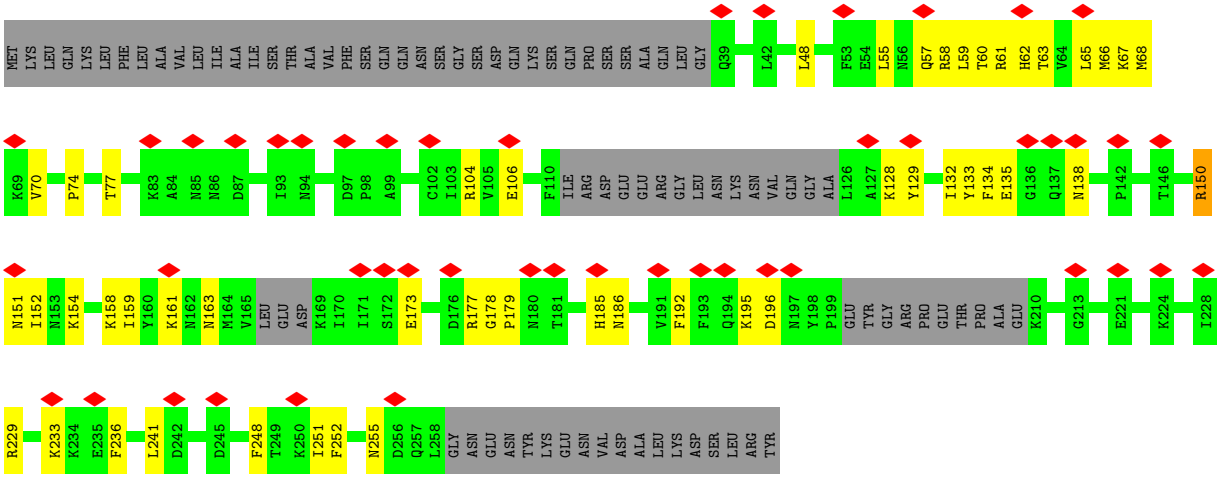
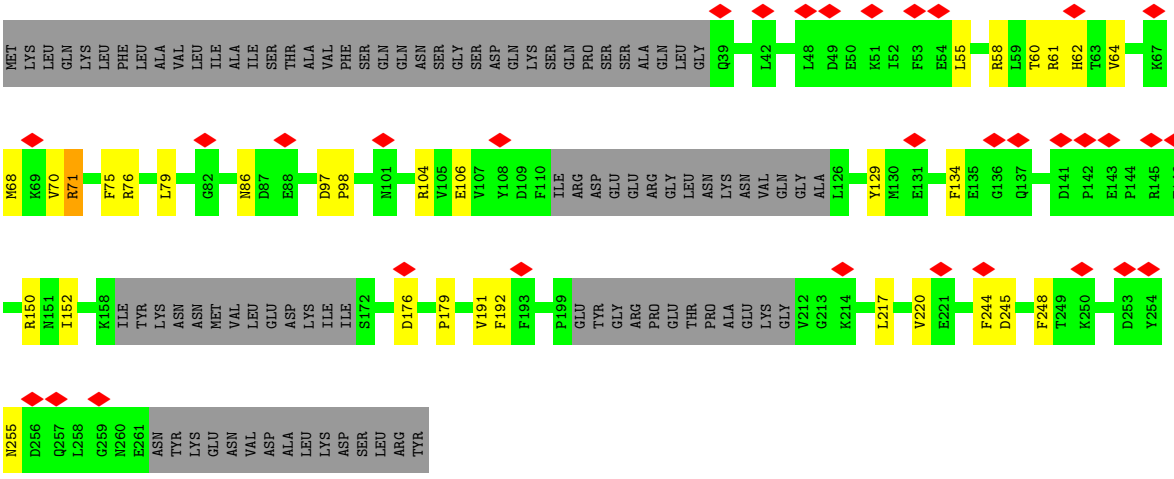


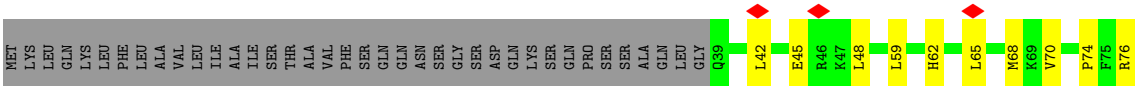
• Molecule 3: Flagellar Coiling Protein FcpB

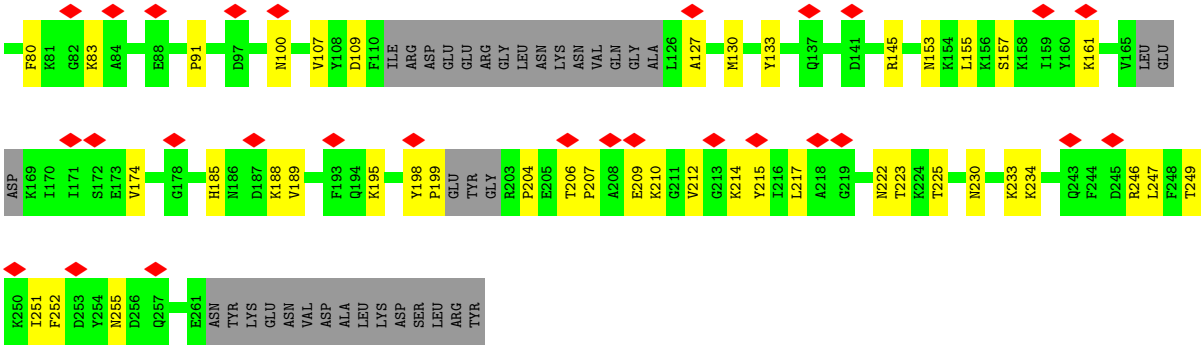
Chain R2:



• Molecule 3: Flagellar Coiling Protein FcpB

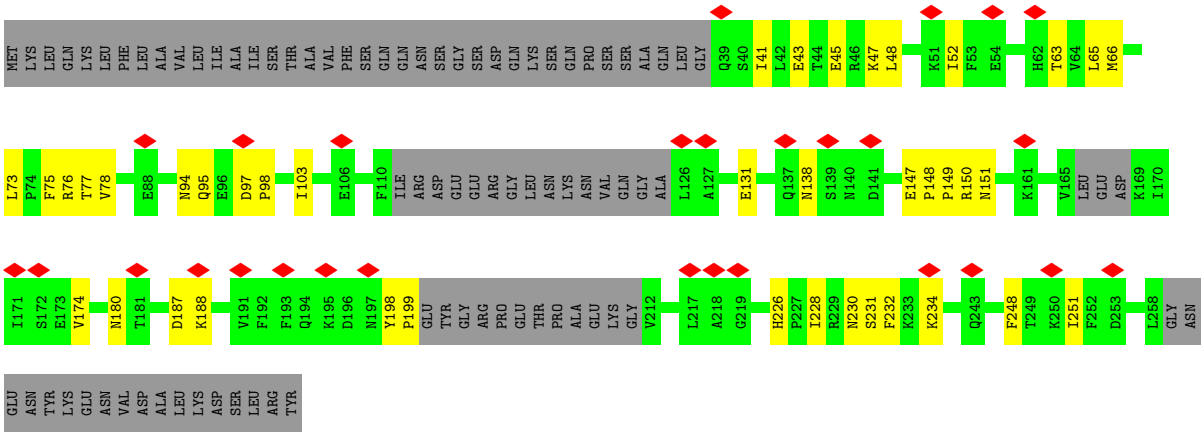
Chain R3:





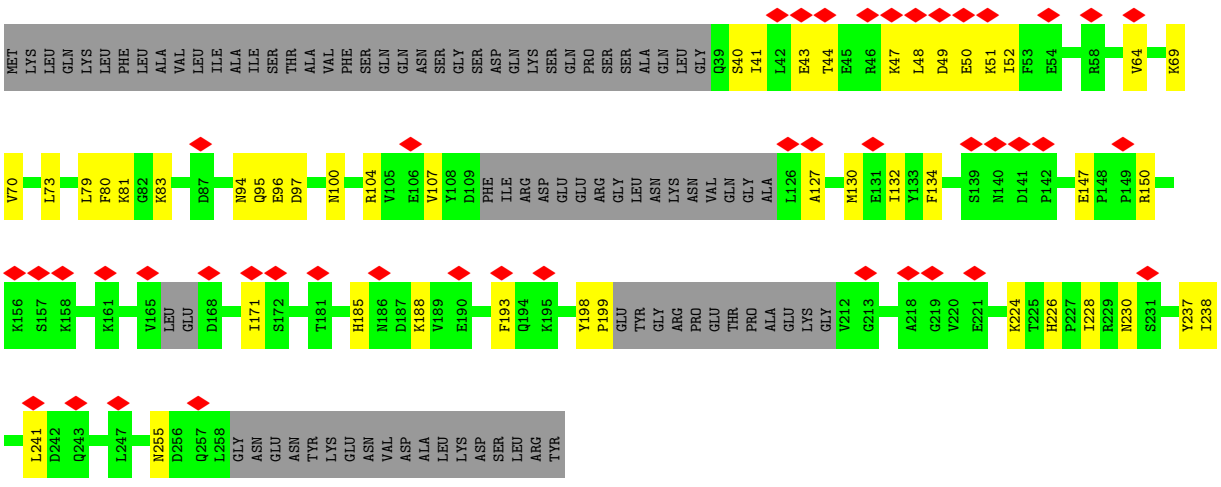
• Molecule 3: Flagellar Coiling Protein FcpB

Chain R4:



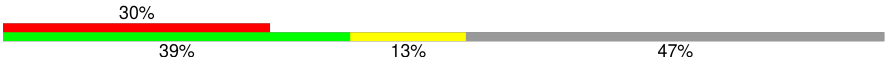
• Molecule 3: Flagellar Coiling Protein FcpB

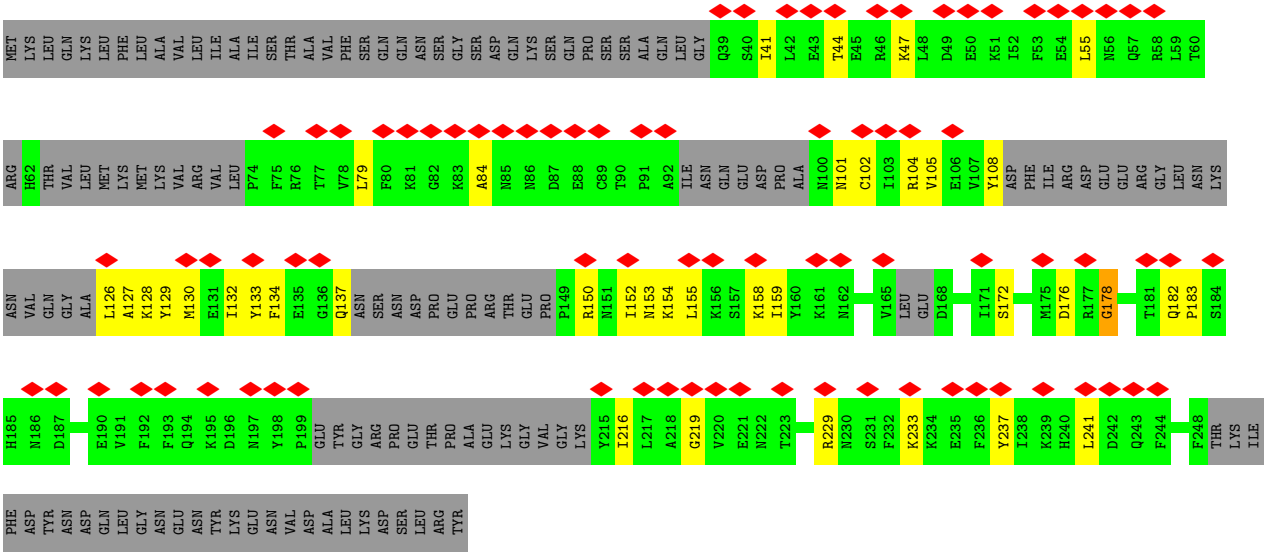
Chain R5:



• Molecule 3: Flagellar Coiling Protein FcpB

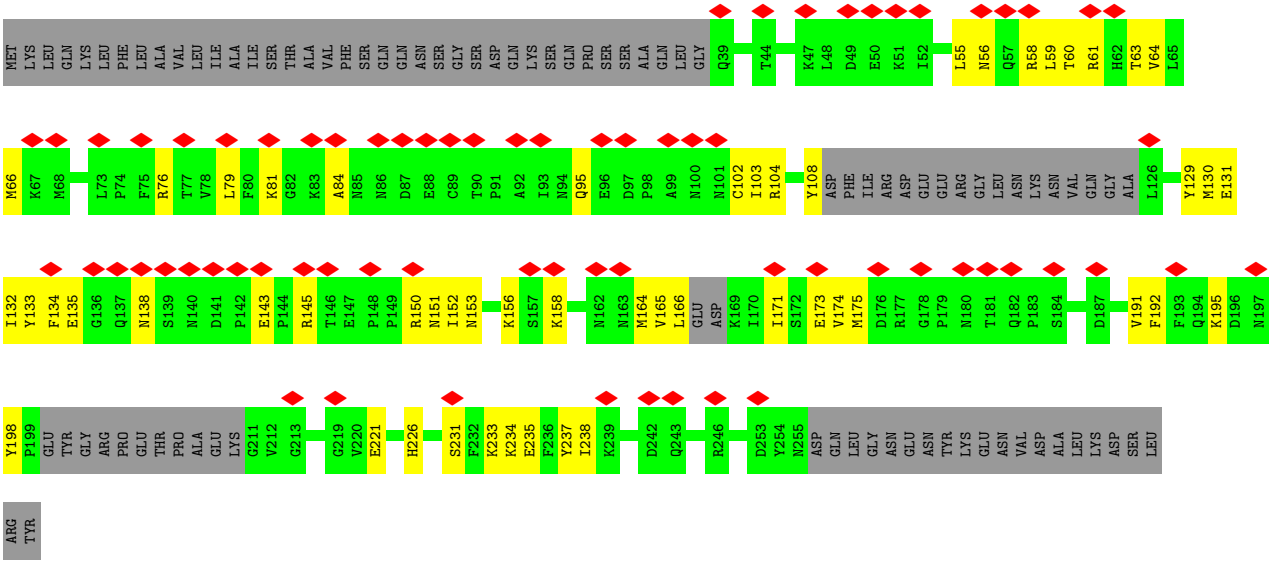
Chain S2:





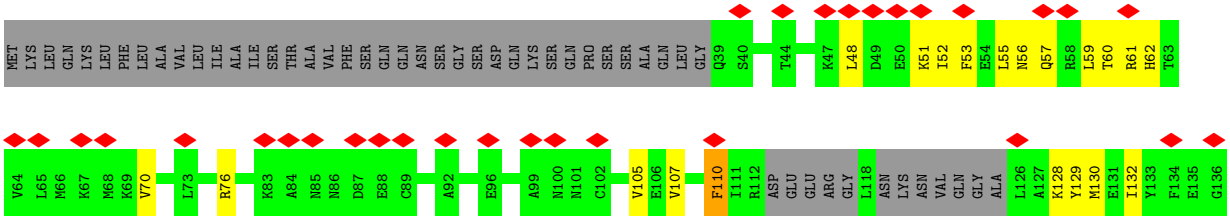
• Molecule 3: Flagellar Coiling Protein FcpB

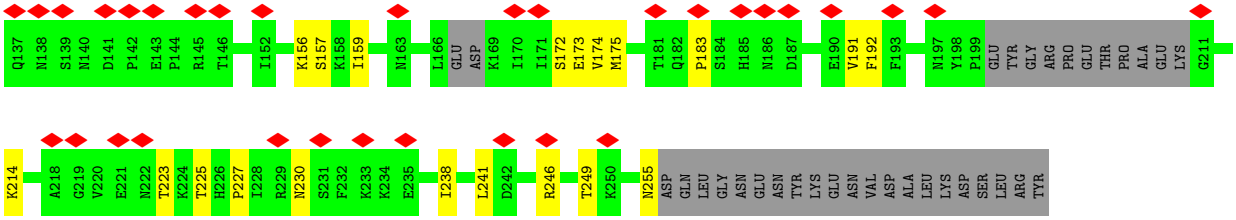
Chain S3:



• Molecule 3: Flagellar Coiling Protein FcpB

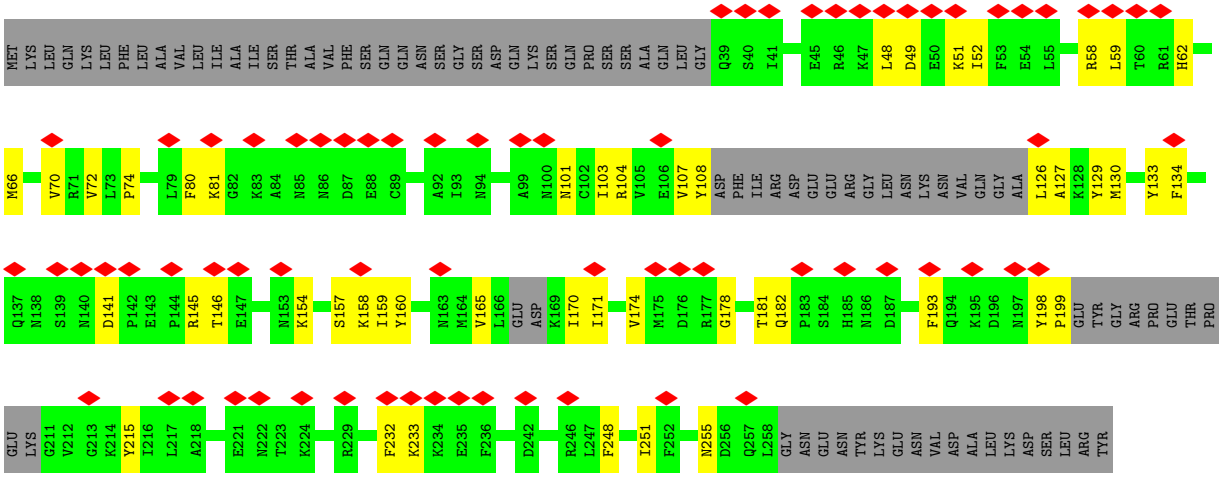
Chain S4:





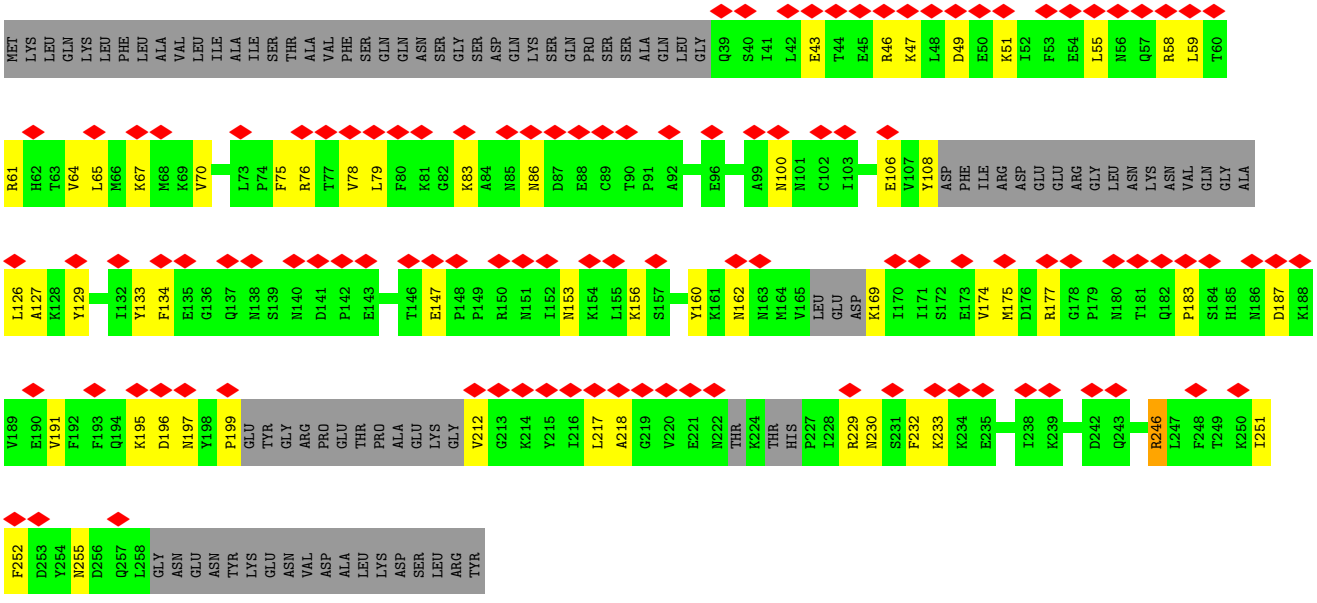
• Molecule 3: Flagellar Coiling Protein FcpB

Chain S5:



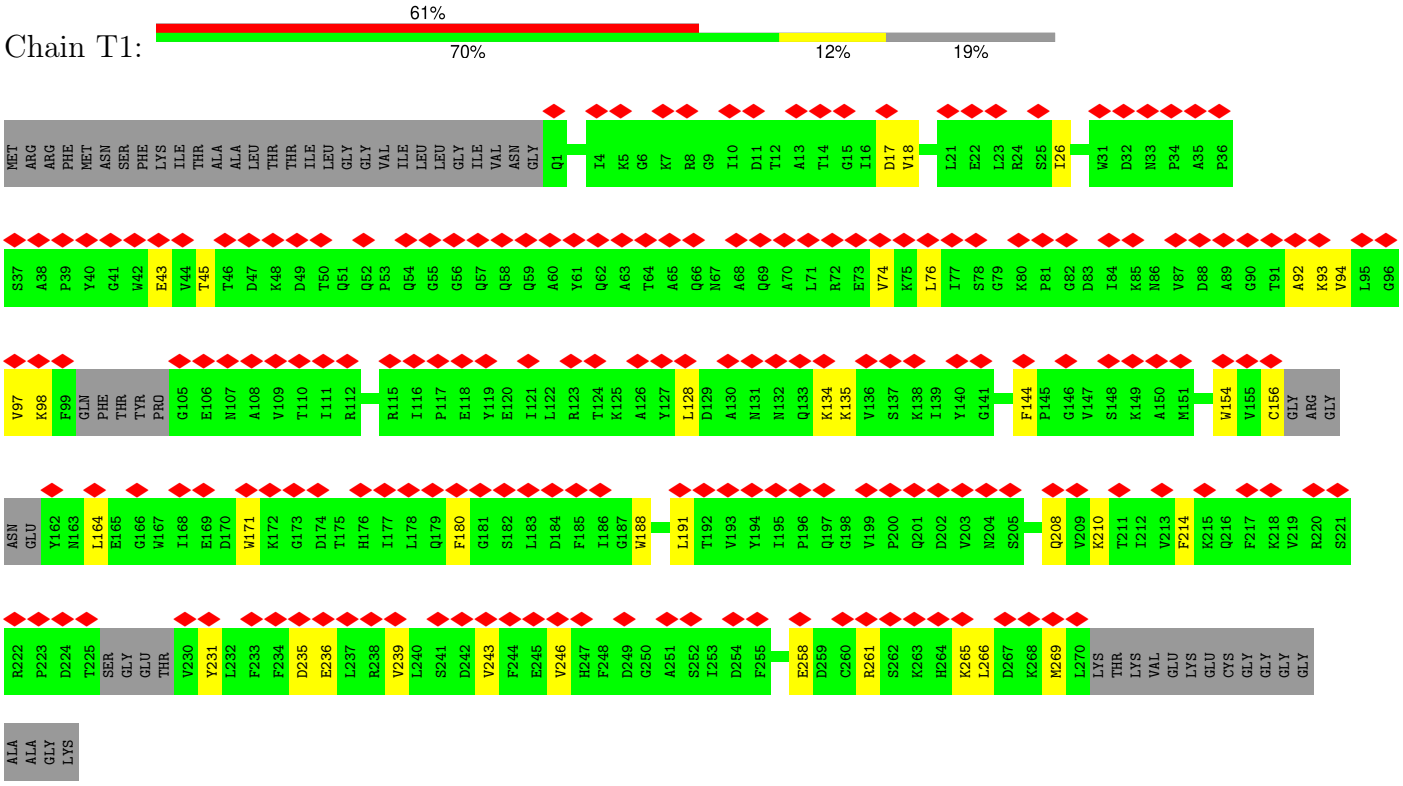
• Molecule 3: Flagellar Coiling Protein FcpB

Chain S6:



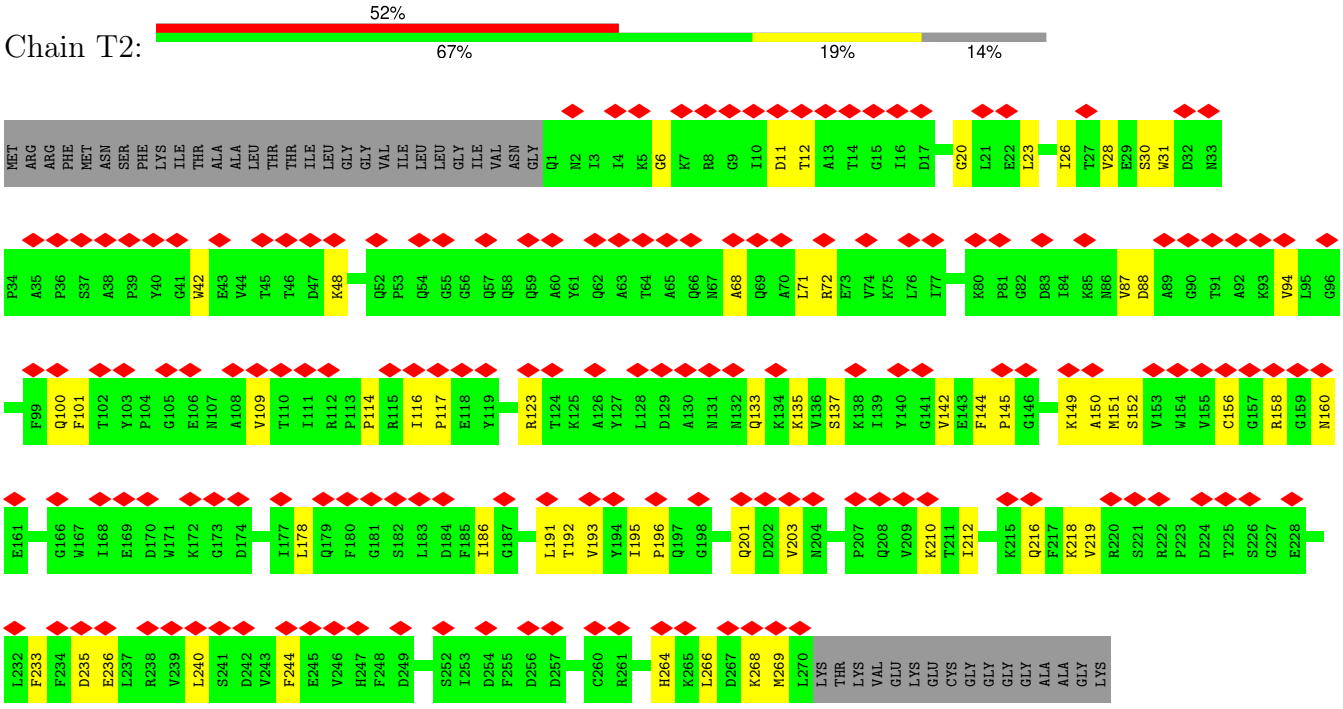
• Molecule 4: Flagellar filament sheath protein

Chain T1:



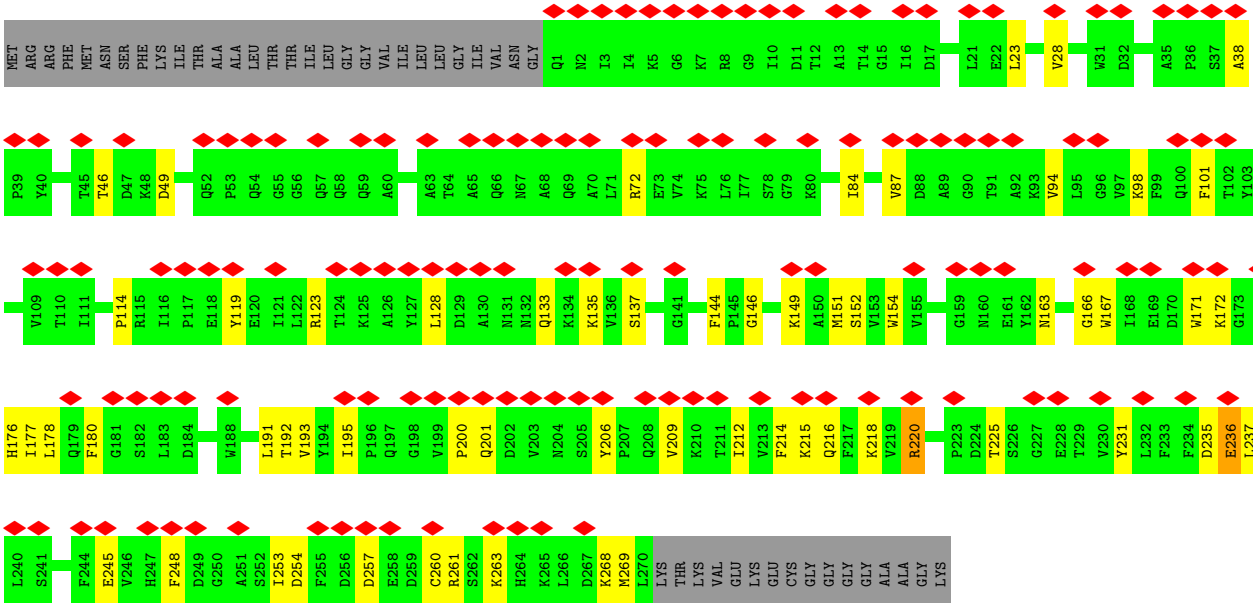
• Molecule 4: Flagellar filament sheath protein

Chain T2:



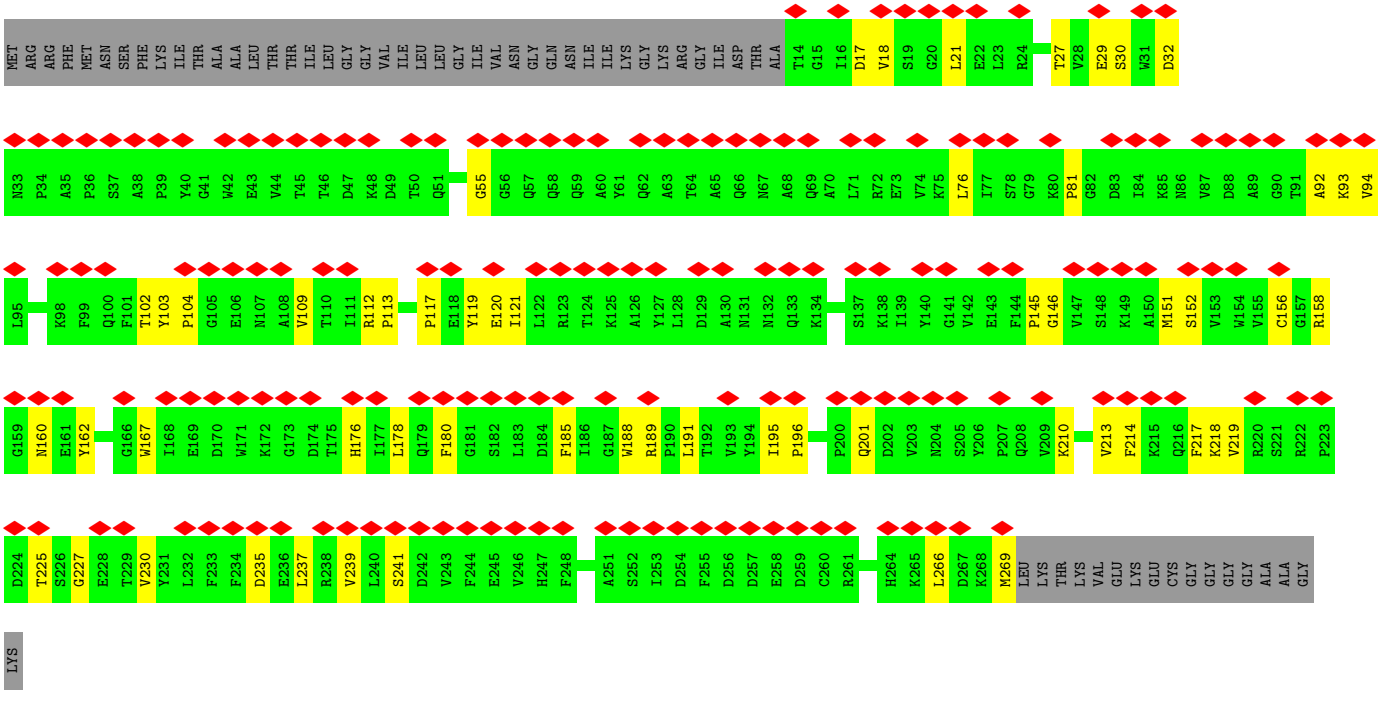
• Molecule 4: Flagellar filament sheath protein

Chain T3:



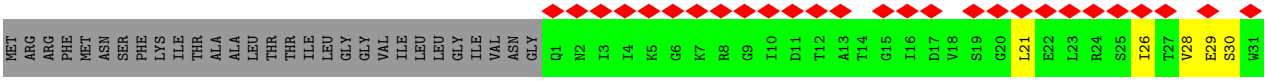
• Molecule 4: Flagellar filament sheath protein

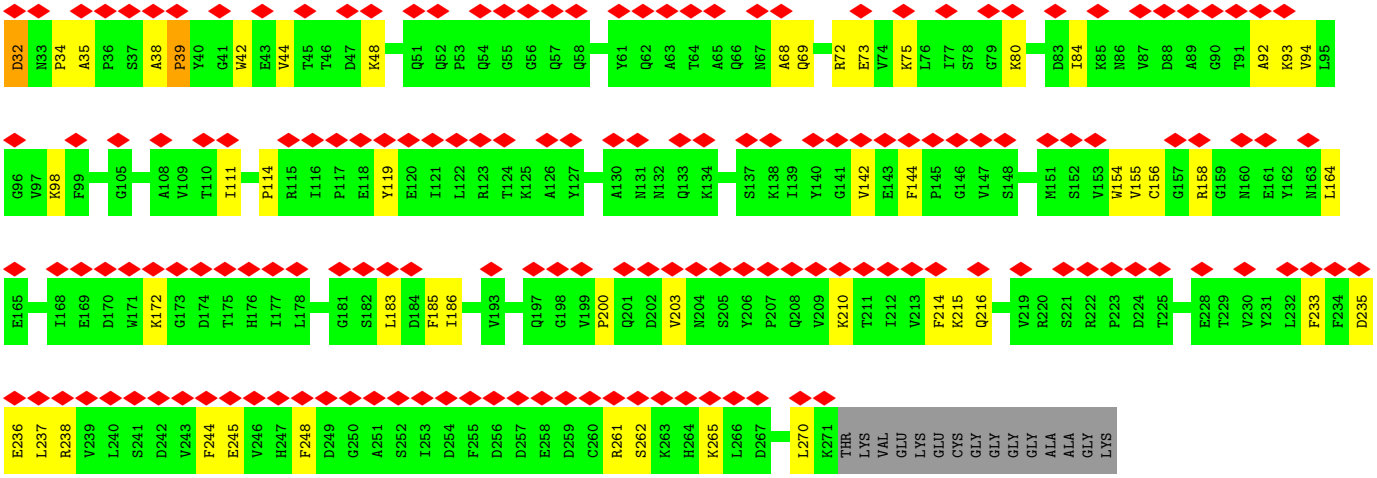
Chain T4:



• Molecule 4: Flagellar filament sheath protein

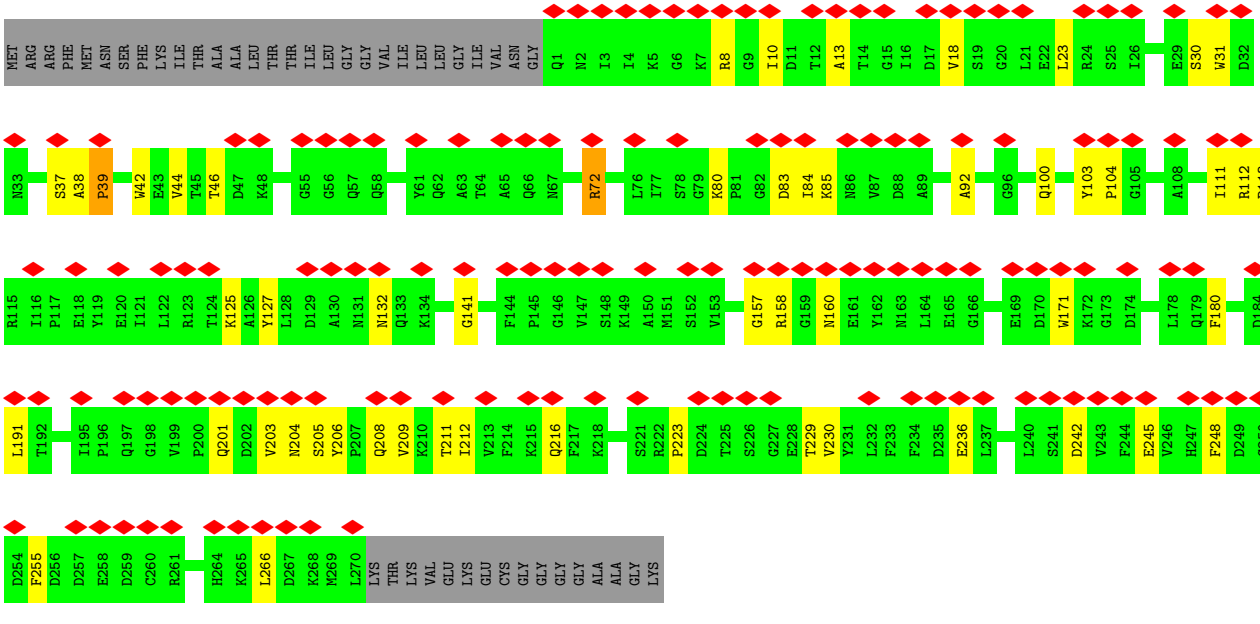
Chain t1:





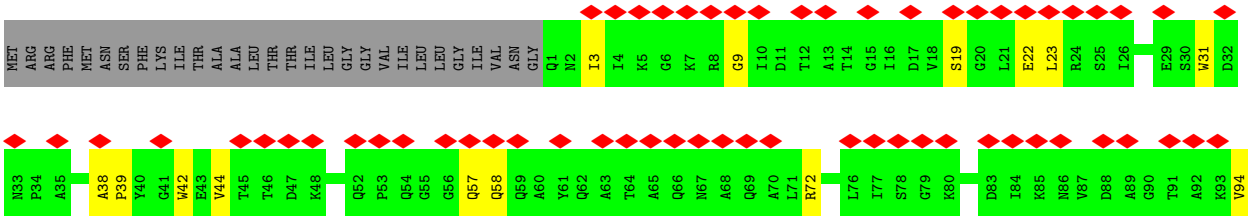
• Molecule 4: Flagellar filament sheath protein

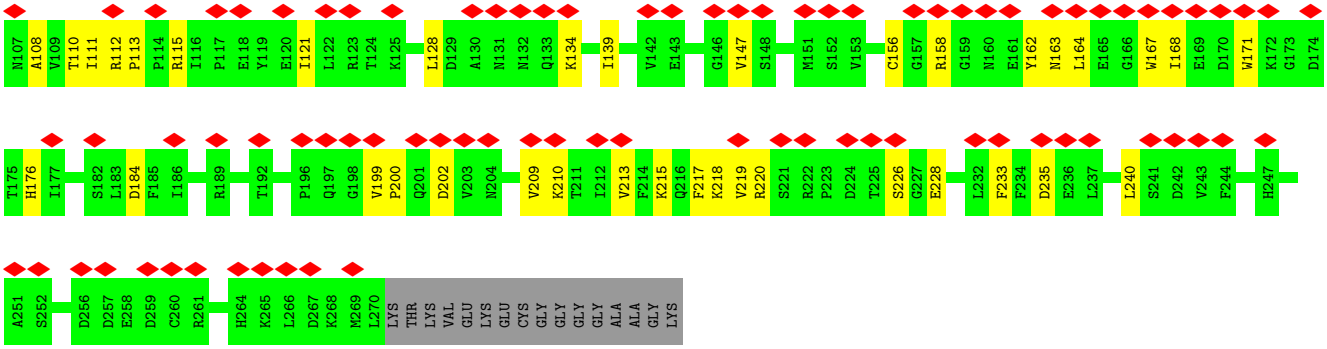
Chain t2:



• Molecule 4: Flagellar filament sheath protein

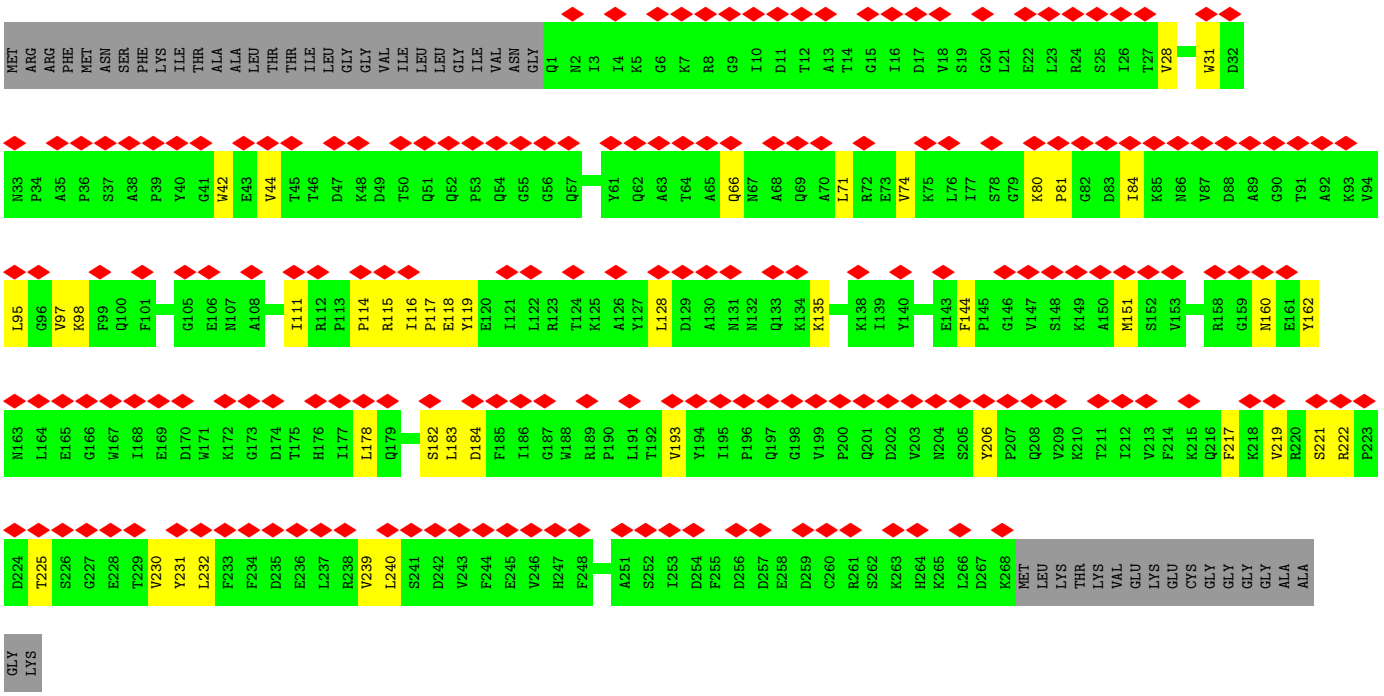
Chain t3:





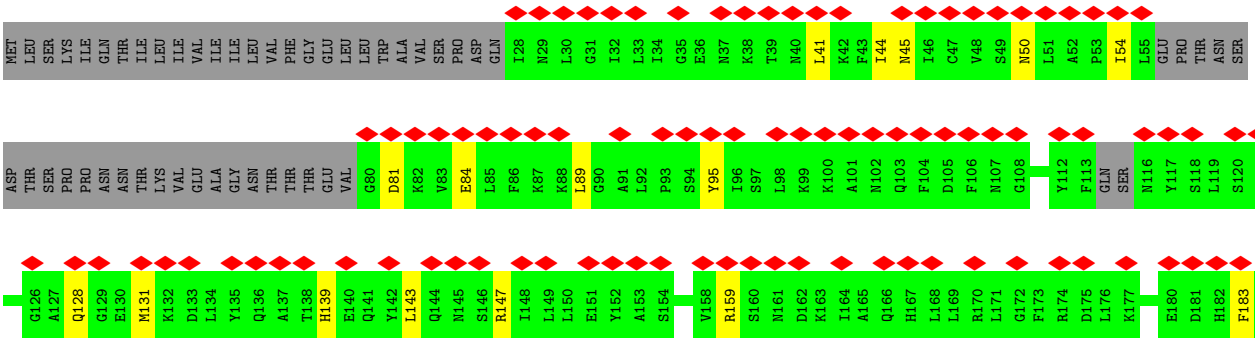
• Molecule 4: Flagellar filament sheath protein

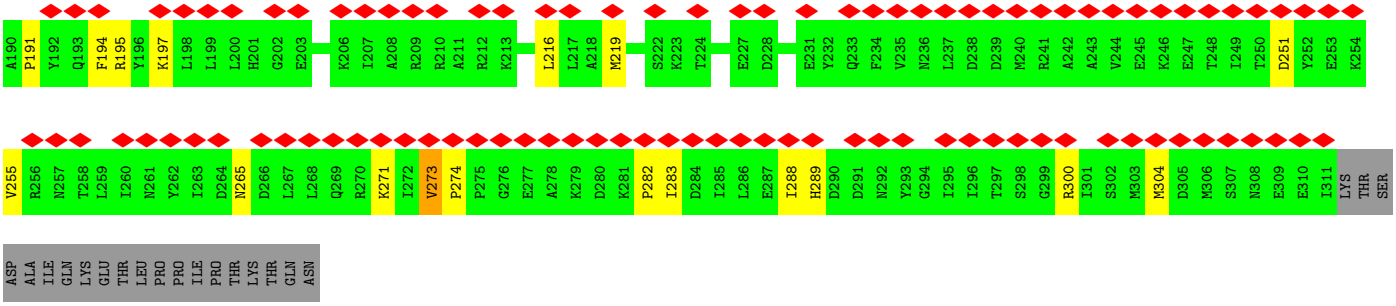
Chain t4:



• Molecule 5: AraC family transcriptional regulator

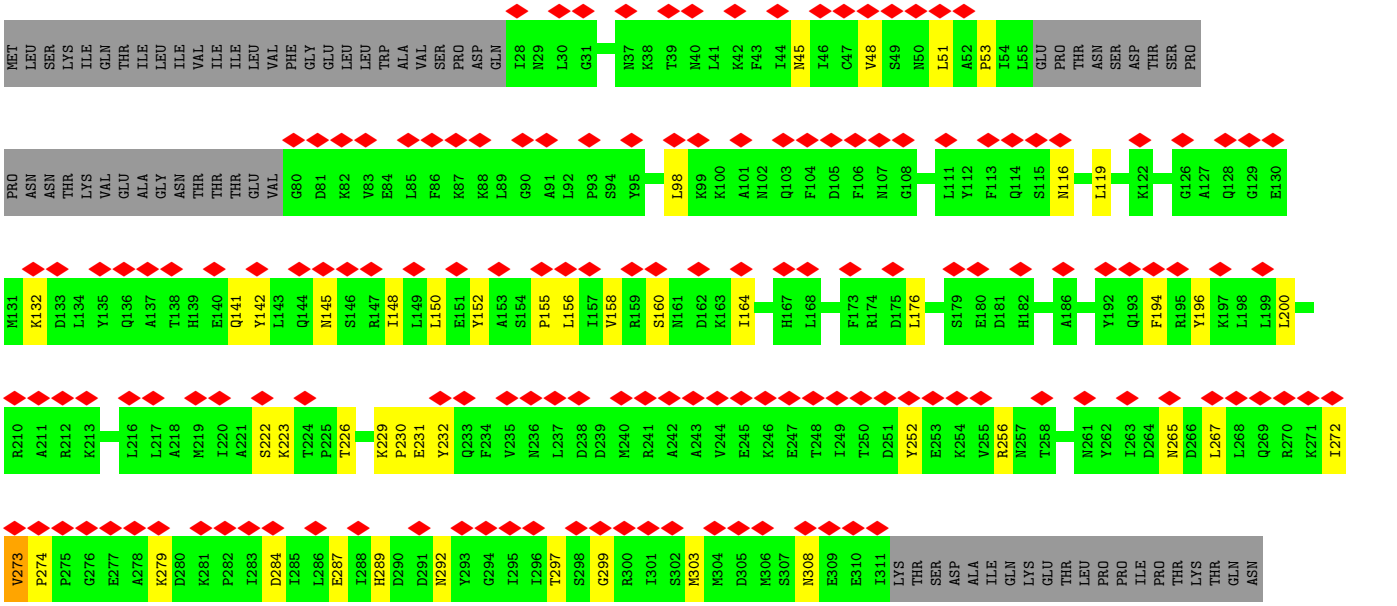
Chain U3:





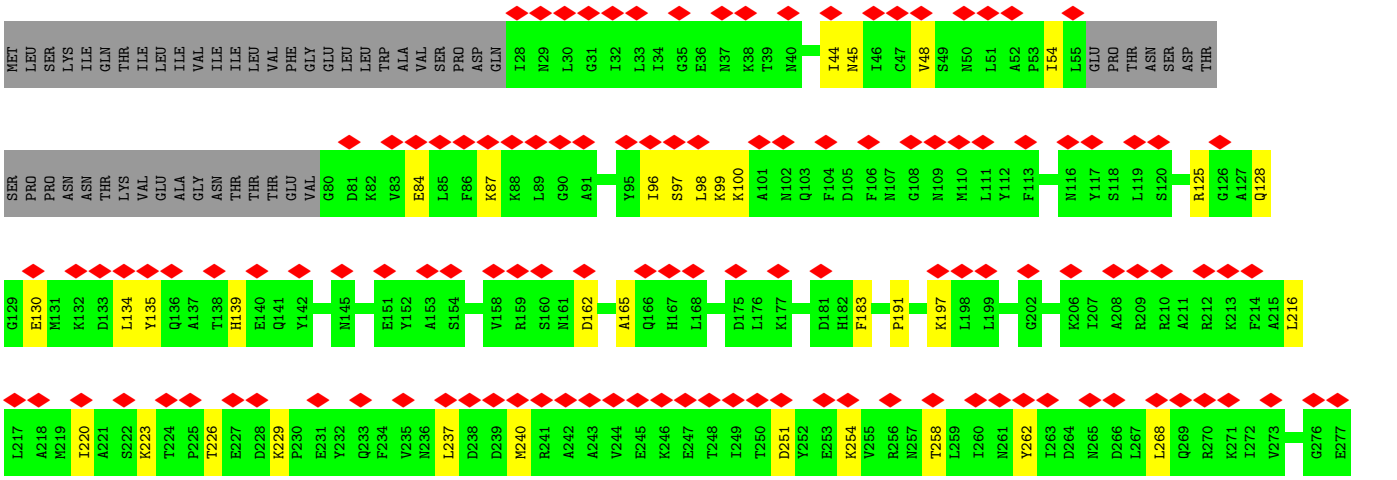
• Molecule 5: AraC family transcriptional regulator

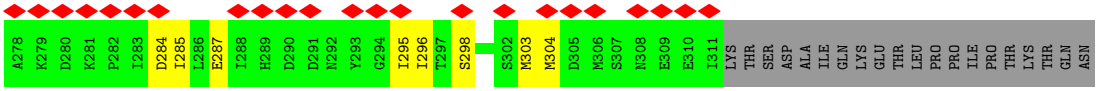
Chain U4:



• Molecule 5: AraC family transcriptional regulator

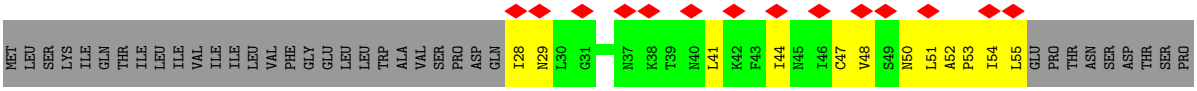
Chain U5:

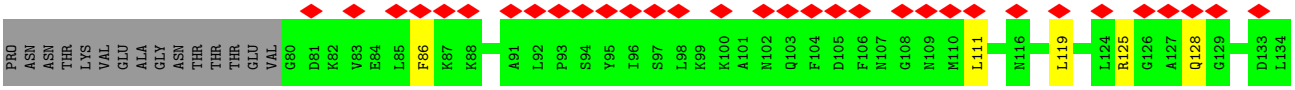


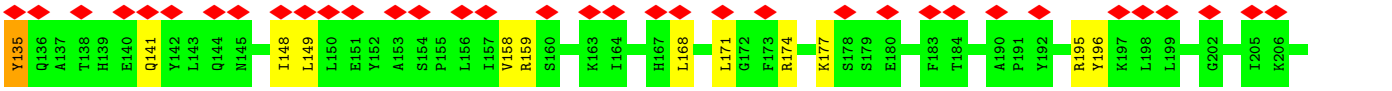


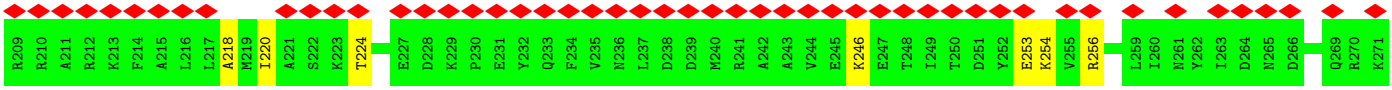
• Molecule 5: AraC family transcriptional regulator

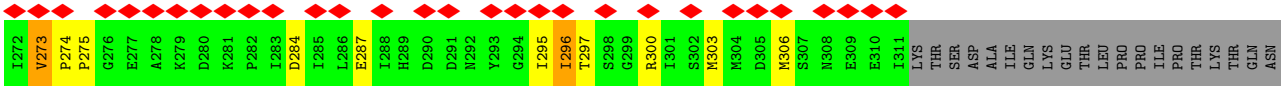
Chain U6:





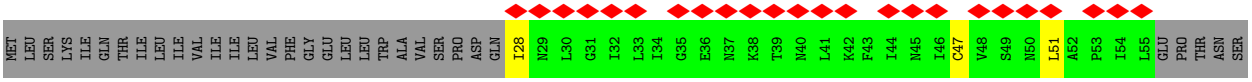


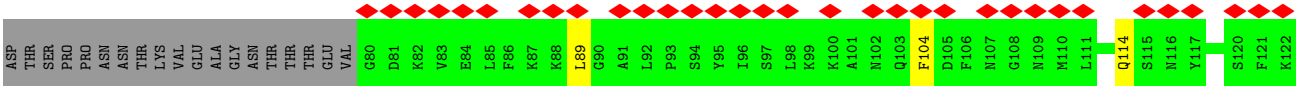


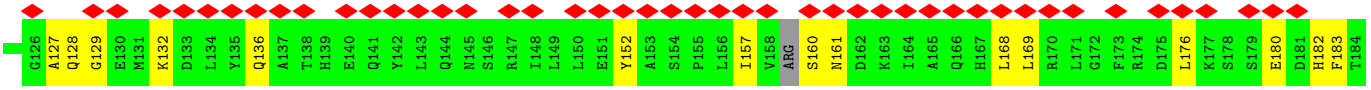


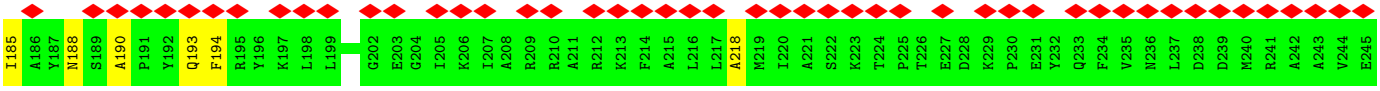
• Molecule 5: AraC family transcriptional regulator

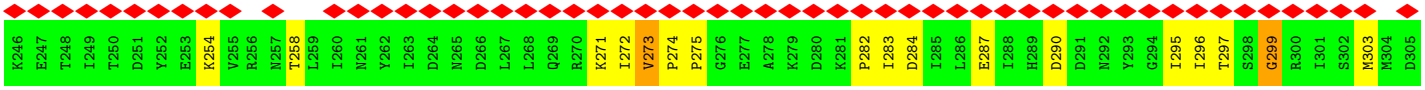
Chain U7:

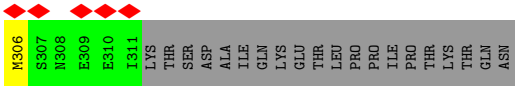






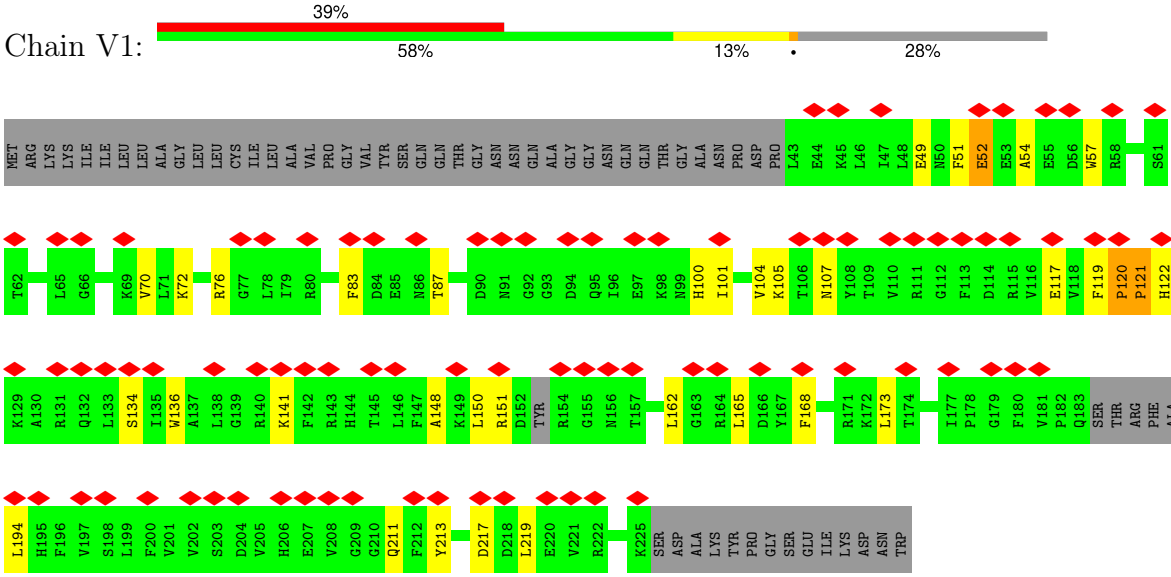






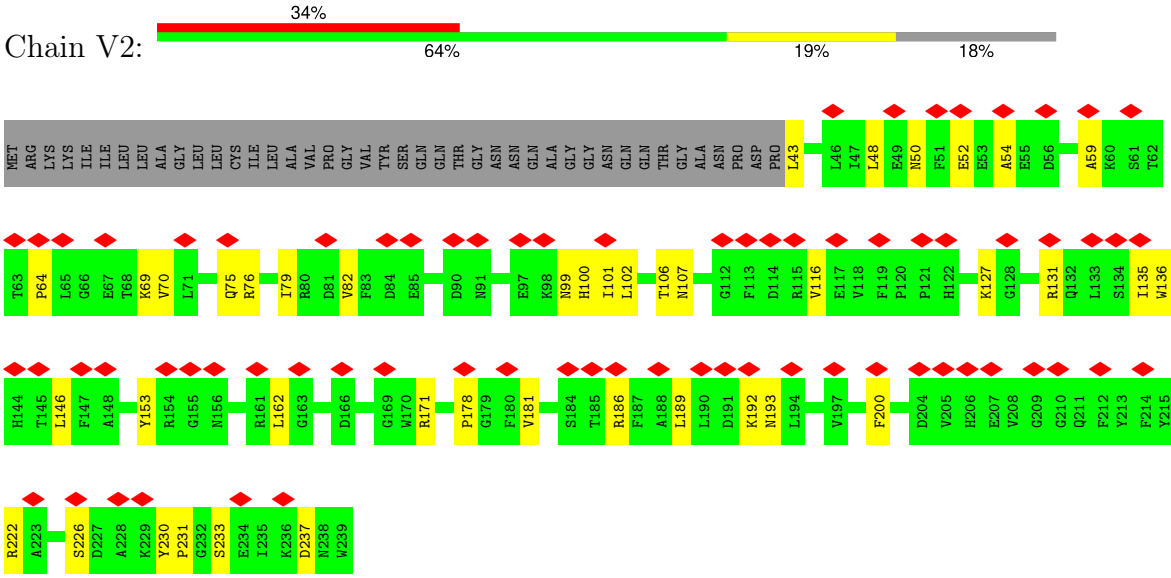
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain V1:



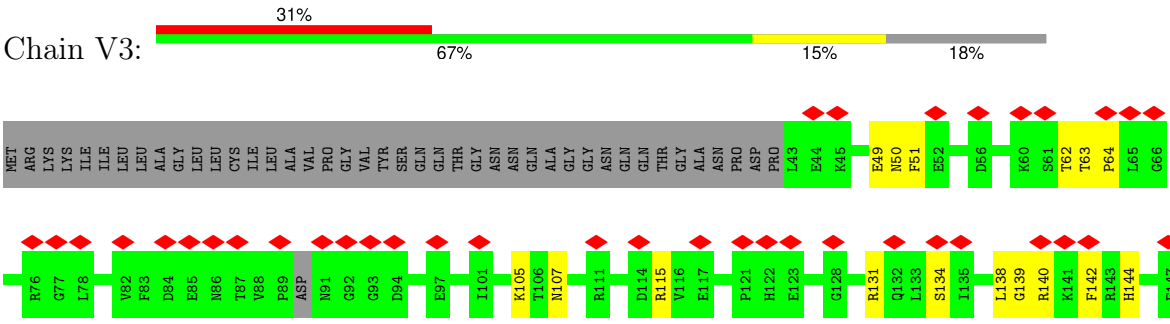
• Molecule 6: Flagellar filament outer layer protein FlaA

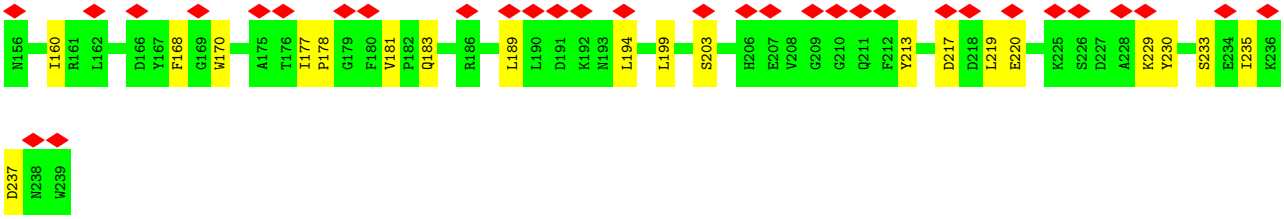
Chain V2:



• Molecule 6: Flagellar filament outer layer protein FlaA

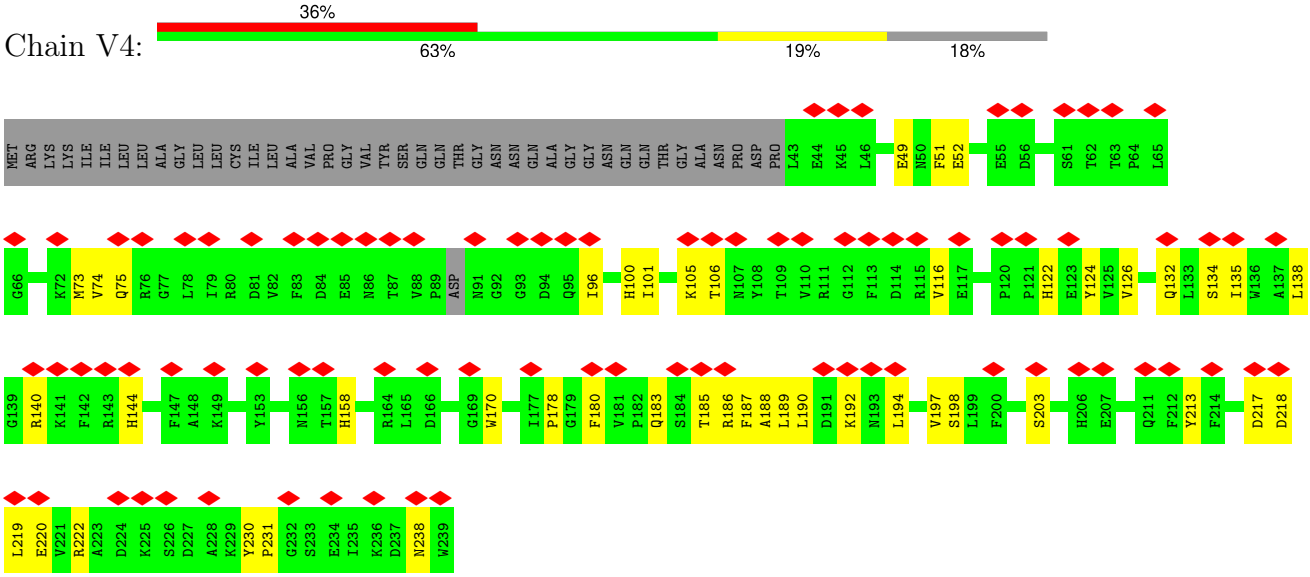
Chain V3:





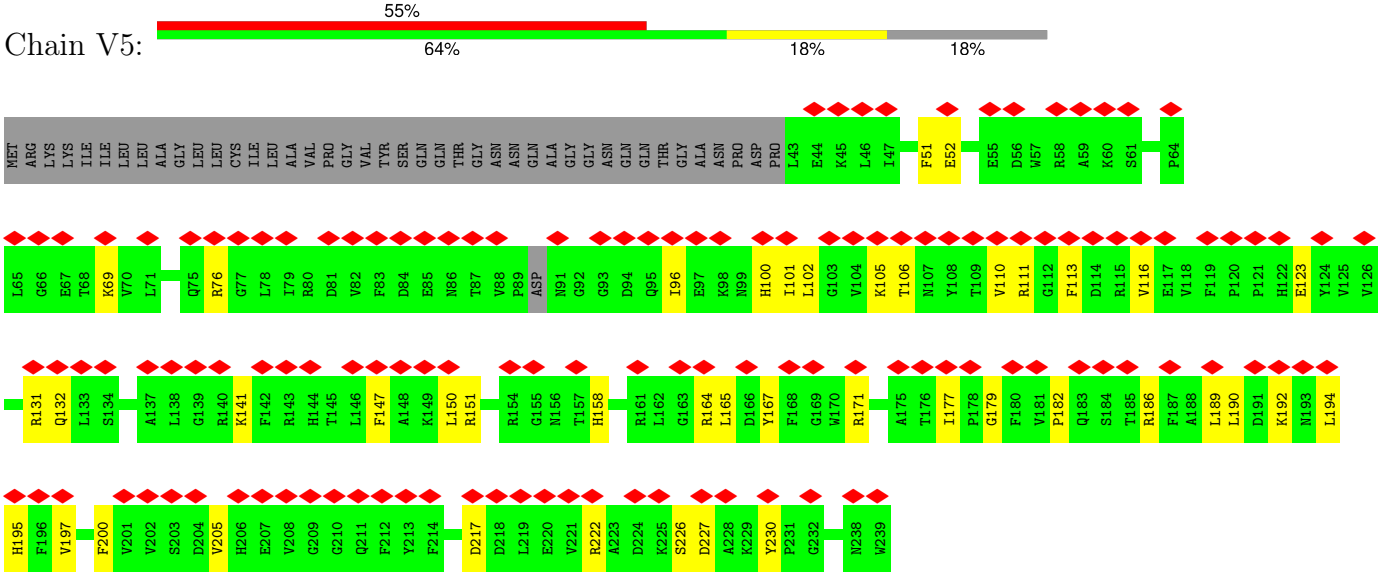
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain V4:



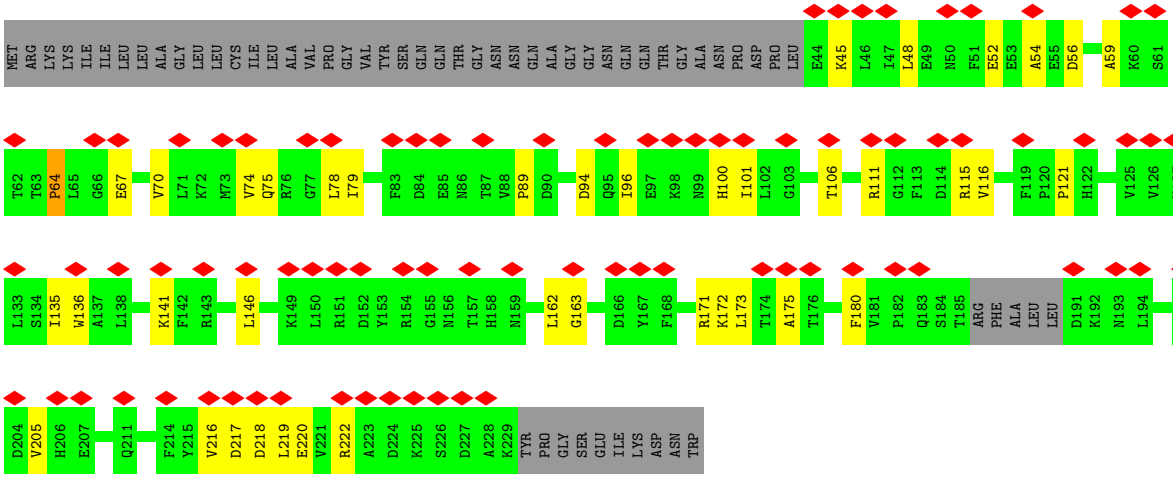
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain V5:



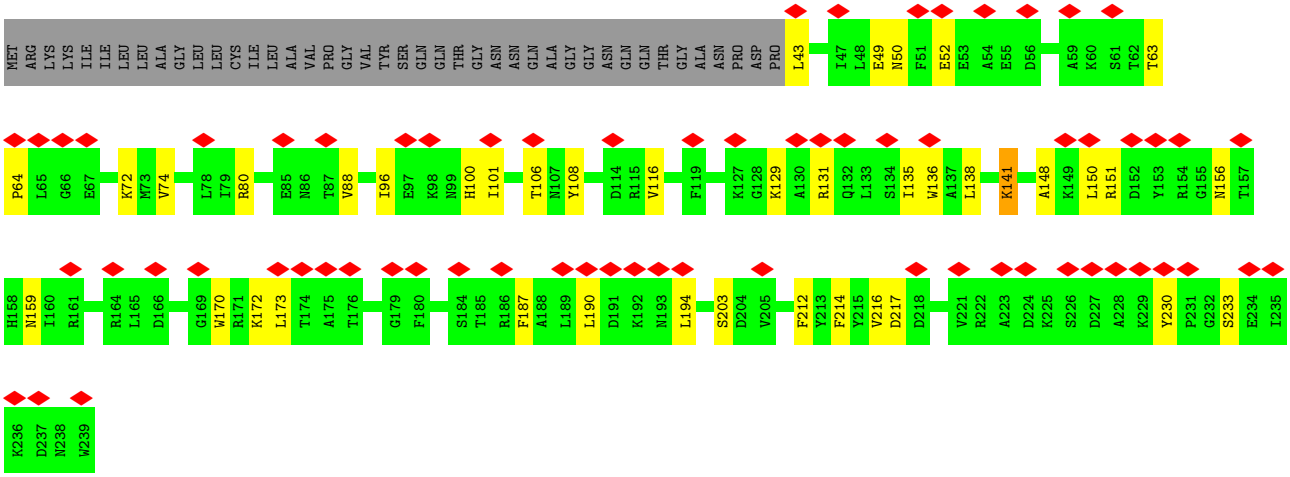
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain X1:



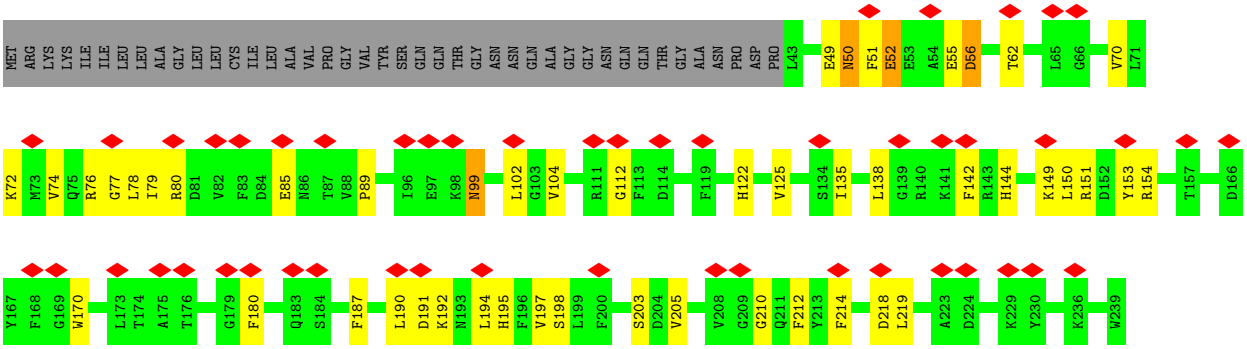
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain X2:



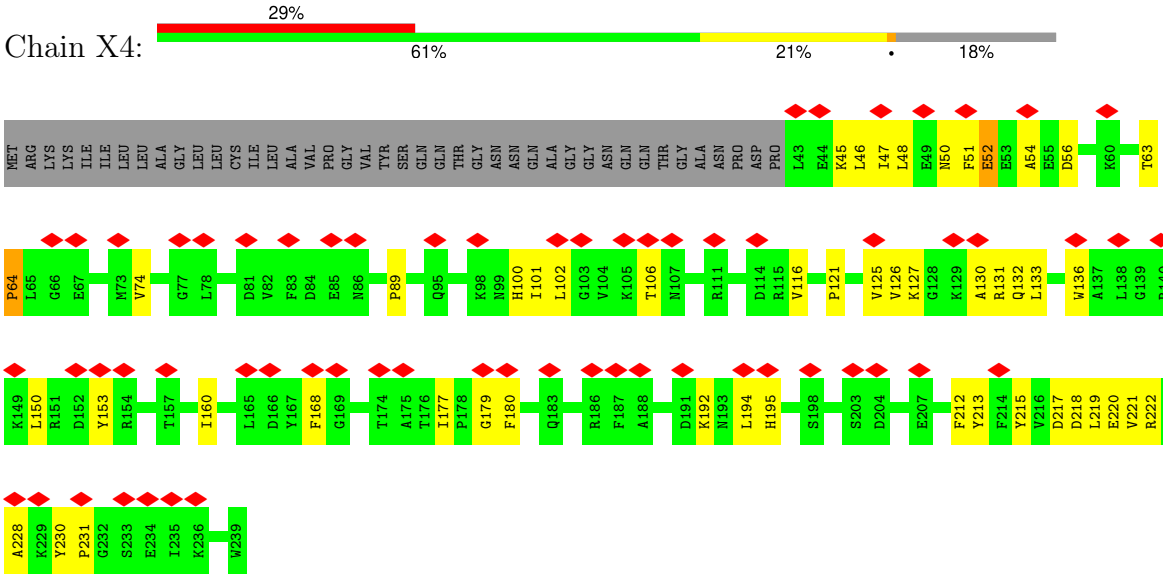
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain X3:



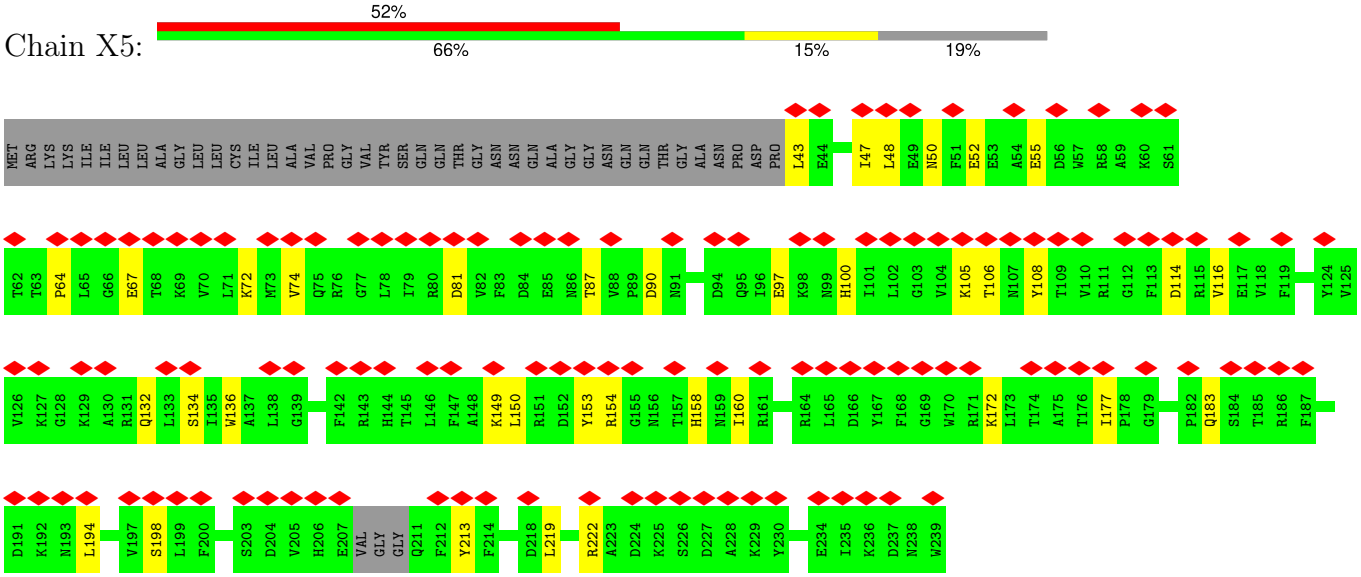
• Molecule 6: Flagellar filament outer layer protein FlaA

Chain X4:



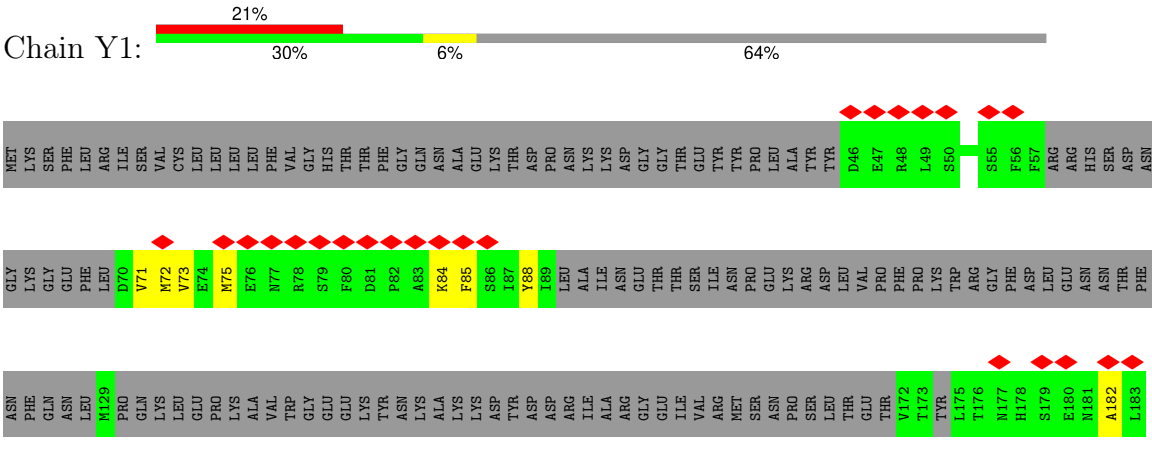
• Molecule 6: Flagellar filament outer layer protein FlaA

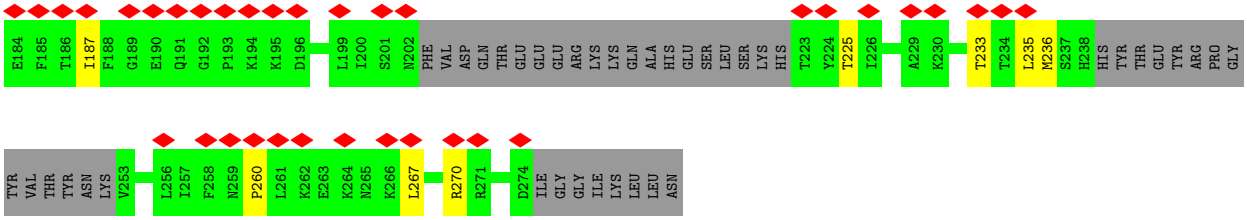
Chain X5:



• Molecule 7: LIC_12075 protein

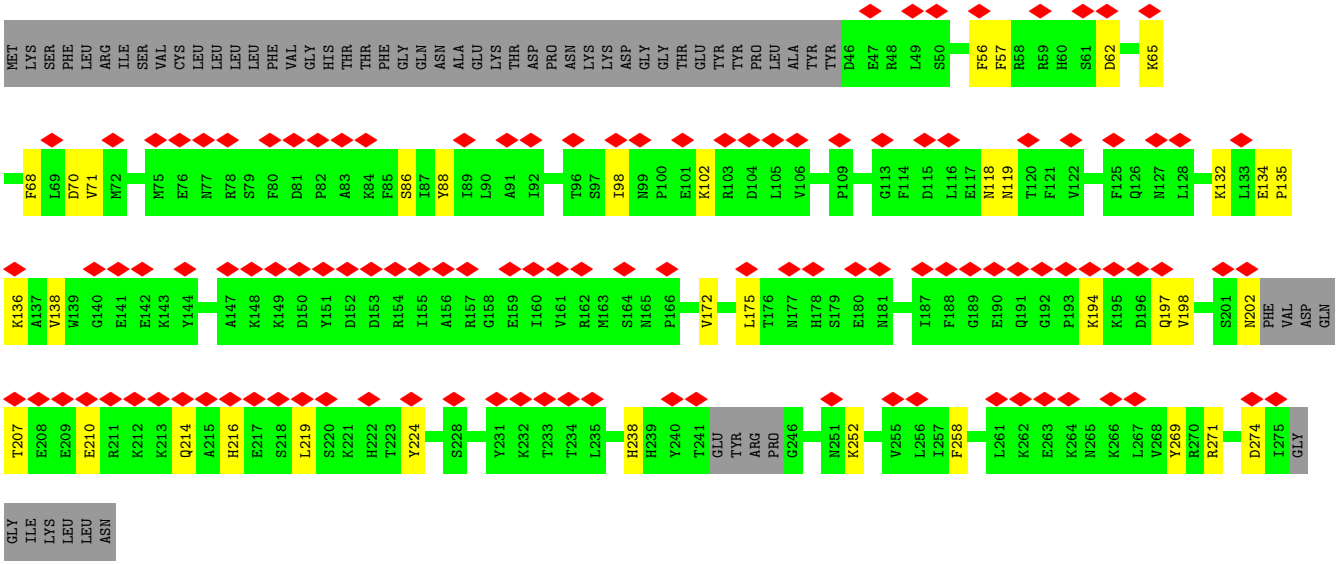
Chain Y1:





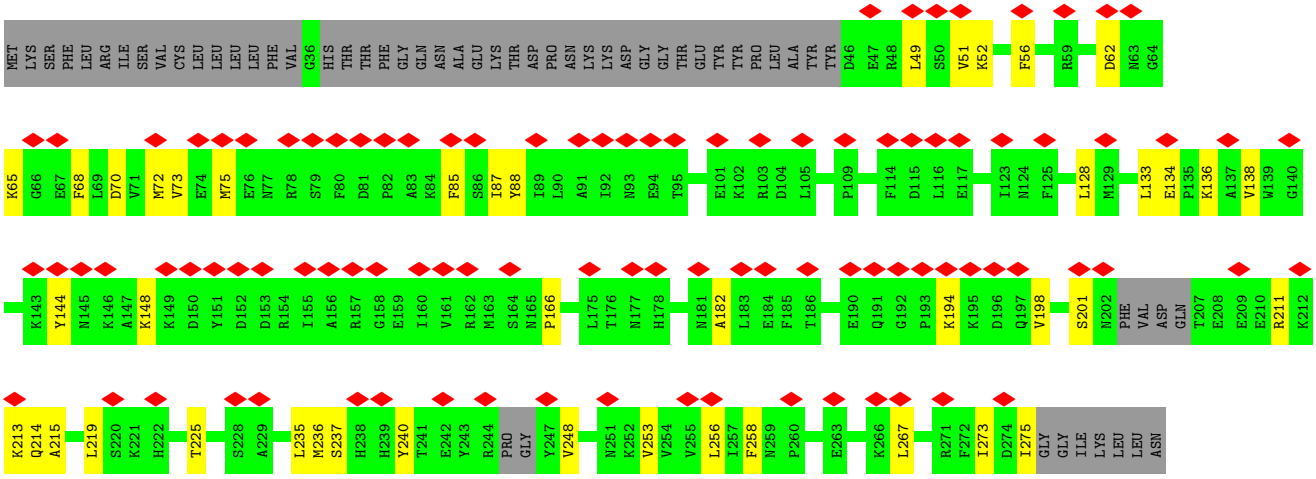
• Molecule 7: LIC_12075 protein

Chain Y2:



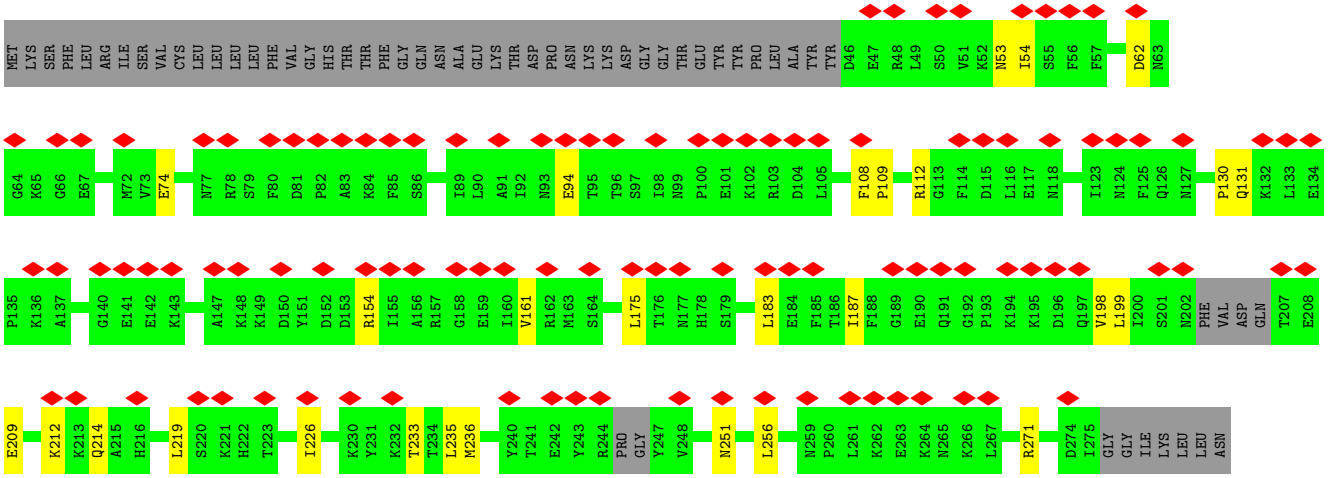
• Molecule 7: LIC_12075 protein

Chain Y3:



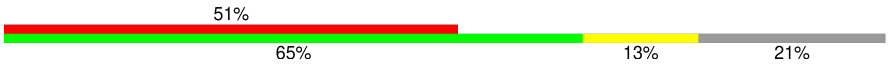
• Molecule 7: LIC_12075 protein

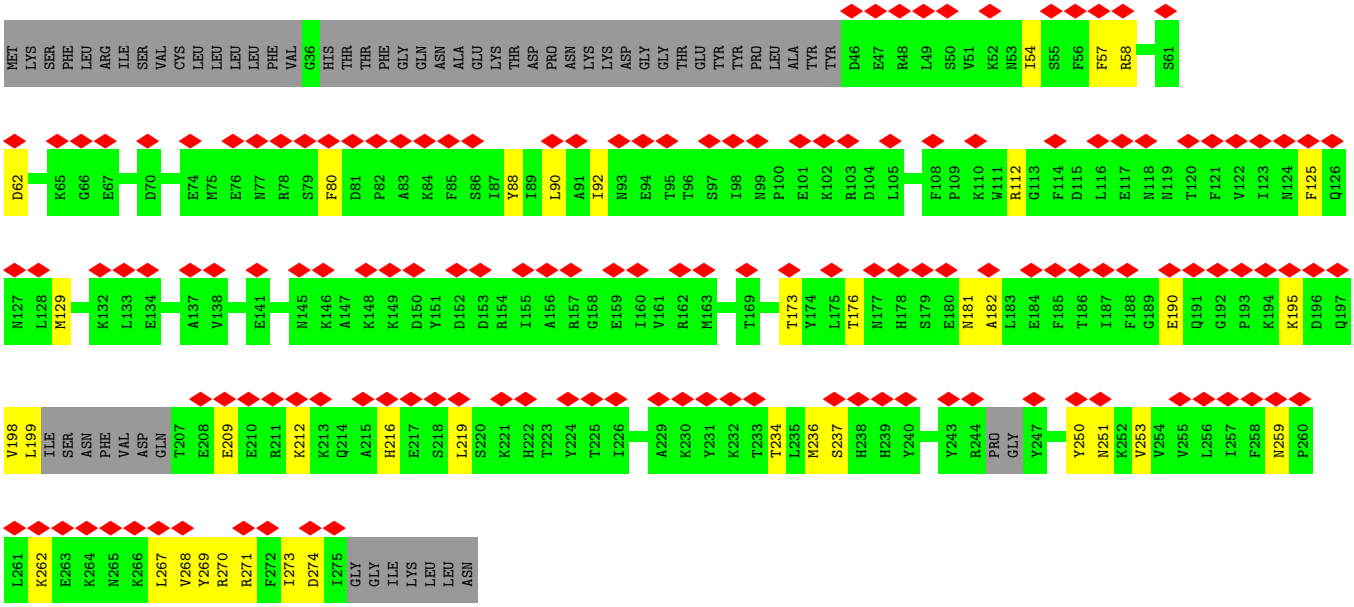
Chain Y4:



• Molecule 7: LIC_12075 protein

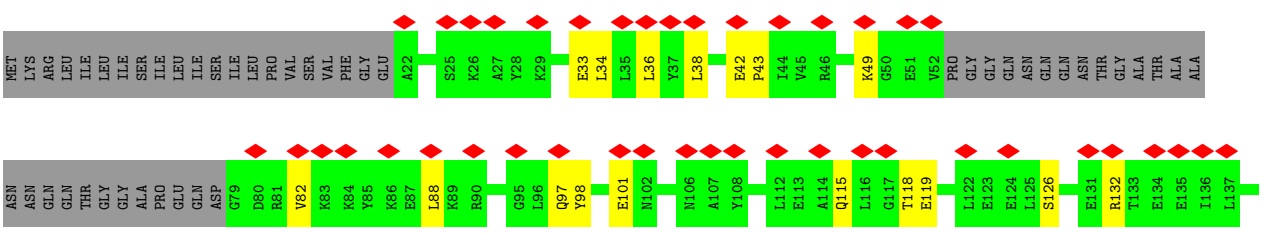
Chain Y5:

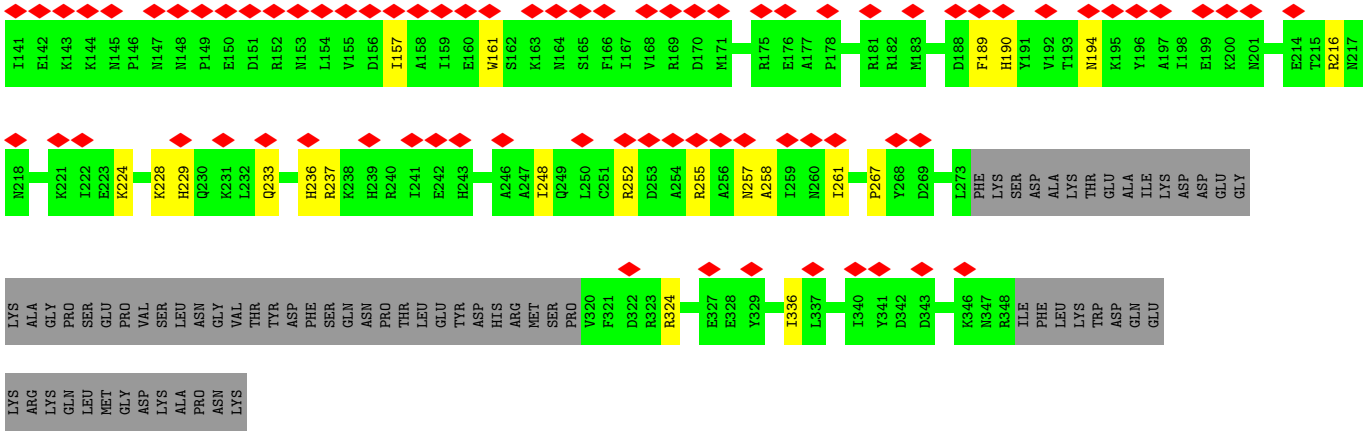




• Molecule 8: FlaA2-associated protein FlaAP

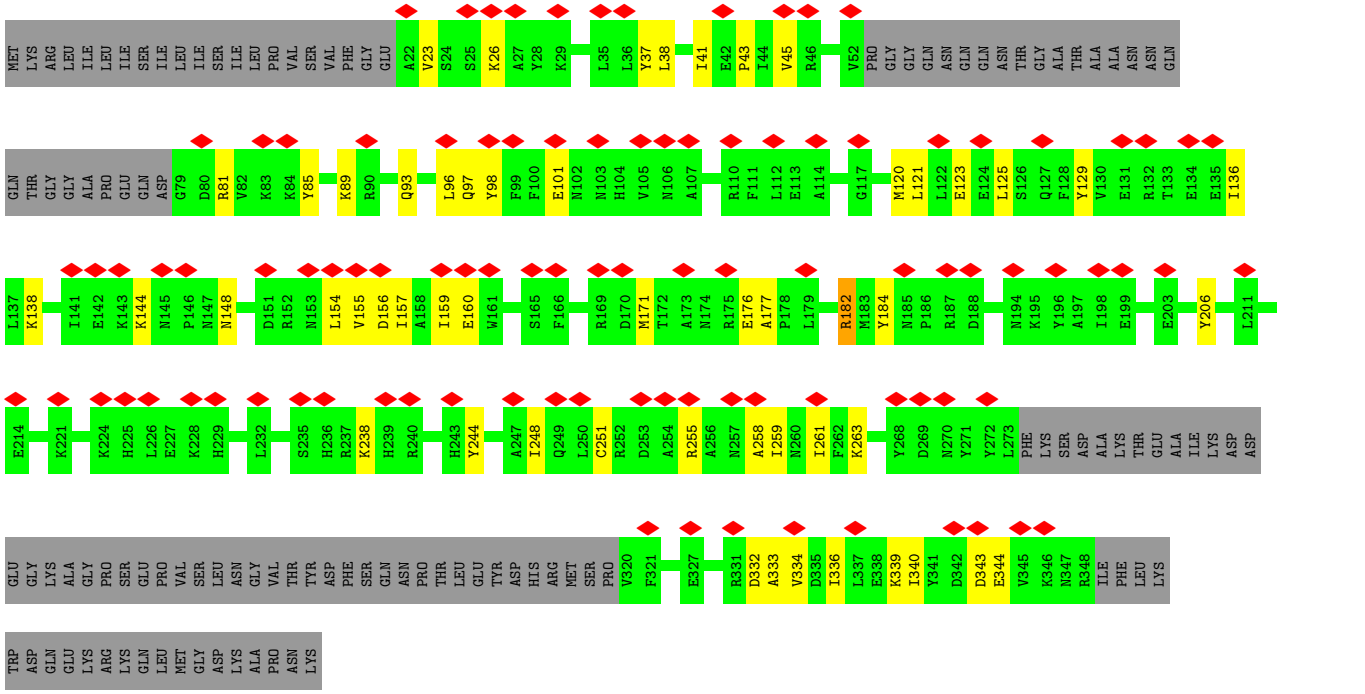
Chain Z1:





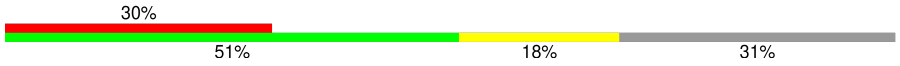
• Molecule 8: FlaA2-associated protein FlaAP

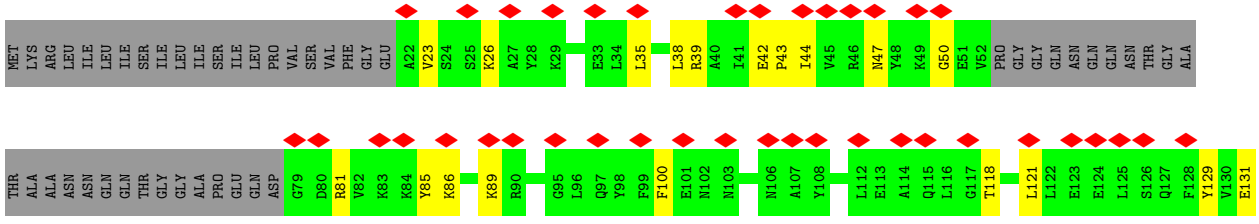
Chain Z2:

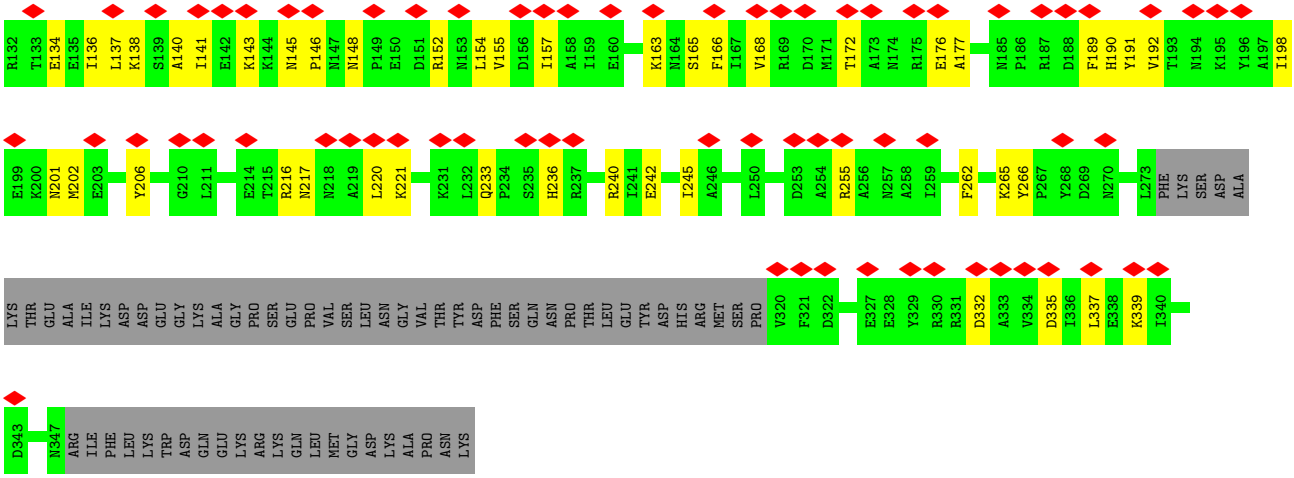


• Molecule 8: FlaA2-associated protein FlaAP

Chain Z3:

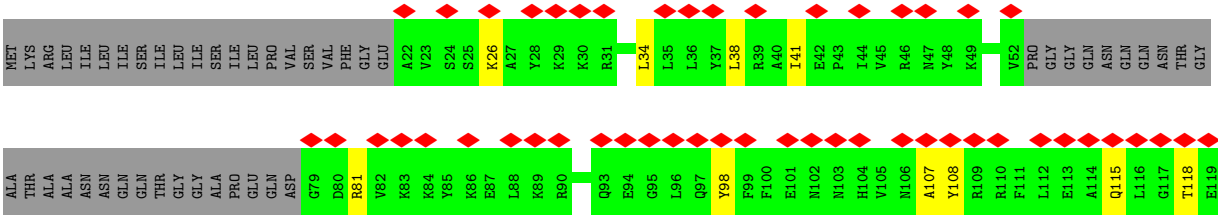






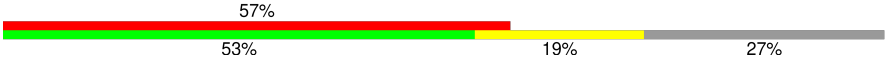
• Molecule 8: FlaA2-associated protein FlaAP

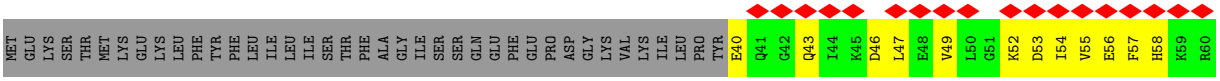
Chain Z4:

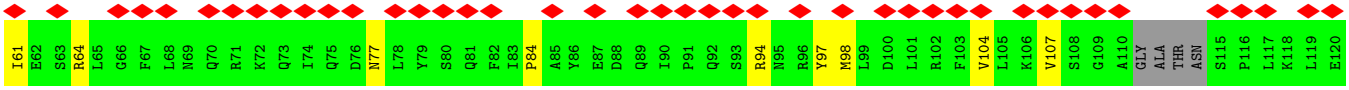


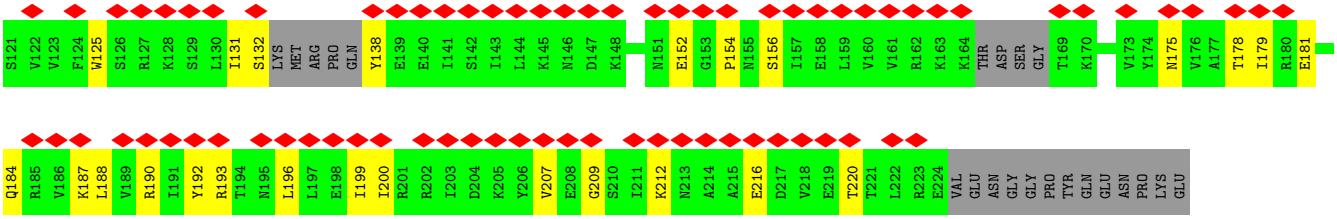
• Molecule 9: DUF4468 domain-containing protein

Chain a2:



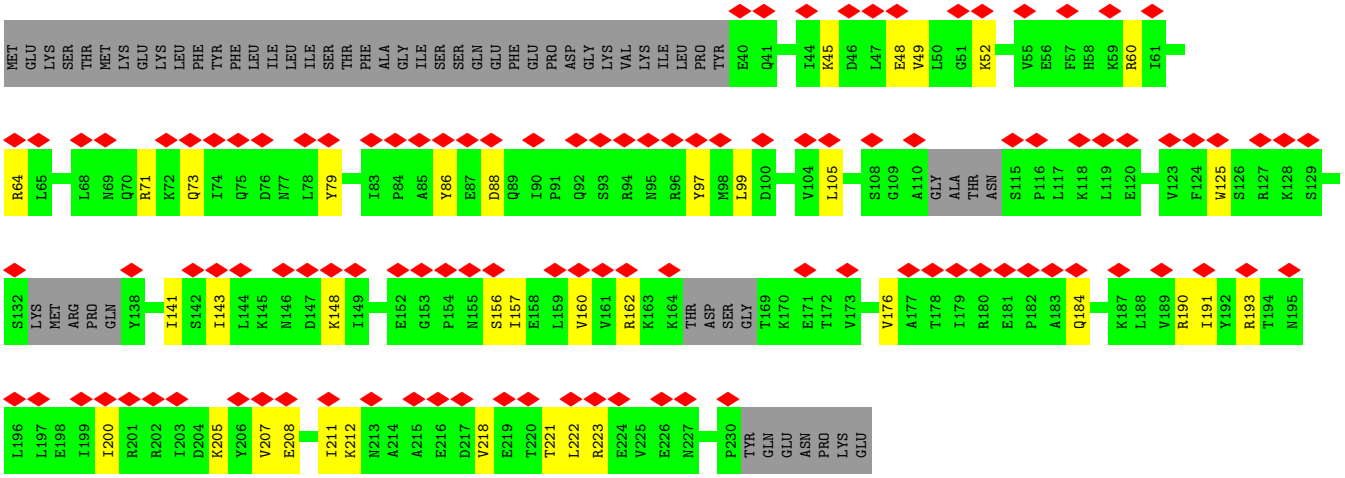






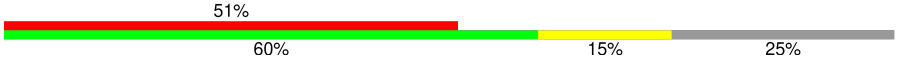
• Molecule 9: DUF4468 domain-containing protein

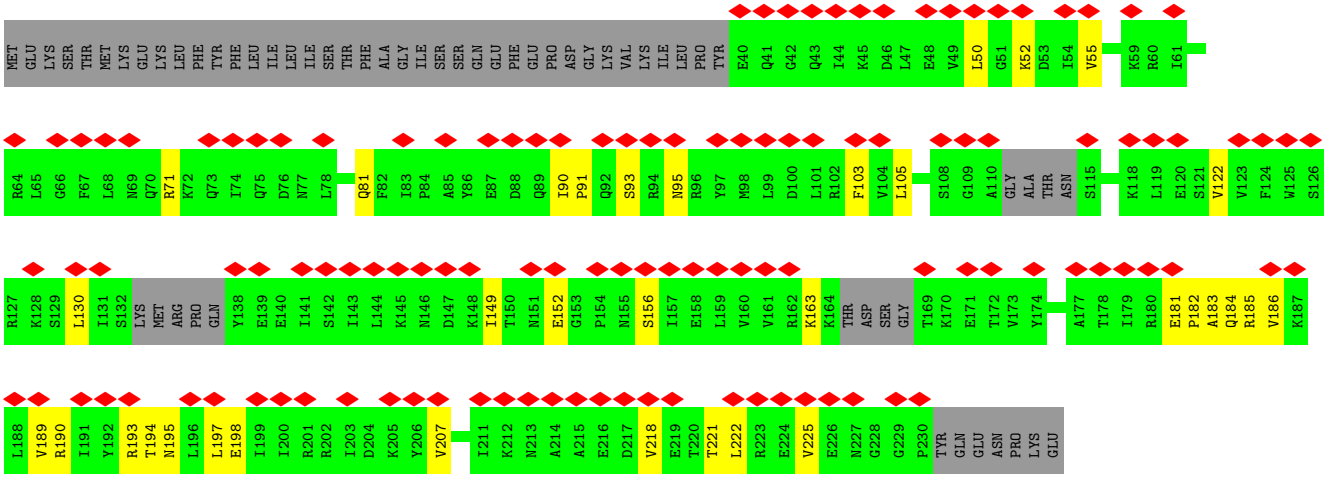
Chain a3:



• Molecule 9: DUF4468 domain-containing protein

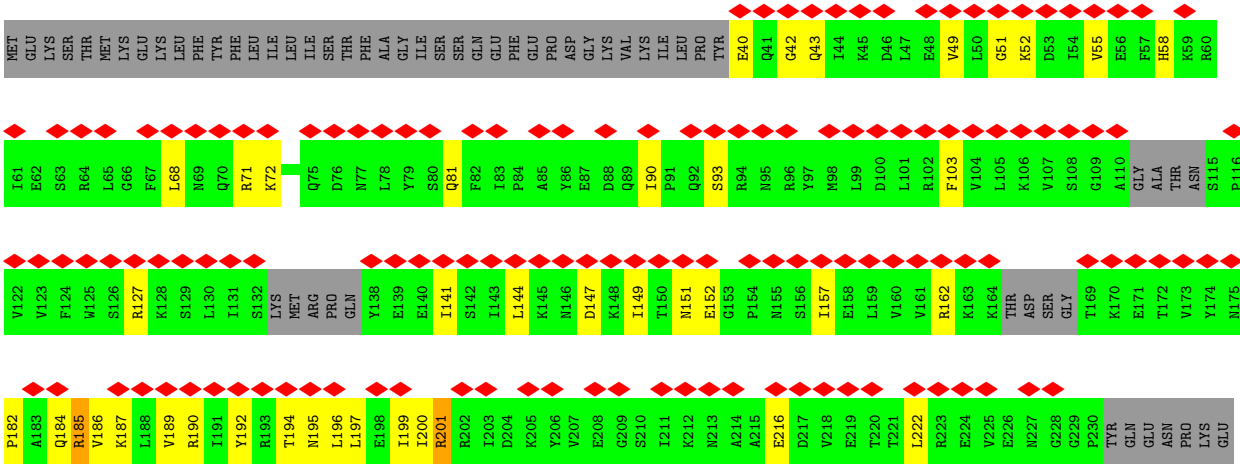
Chain a4:





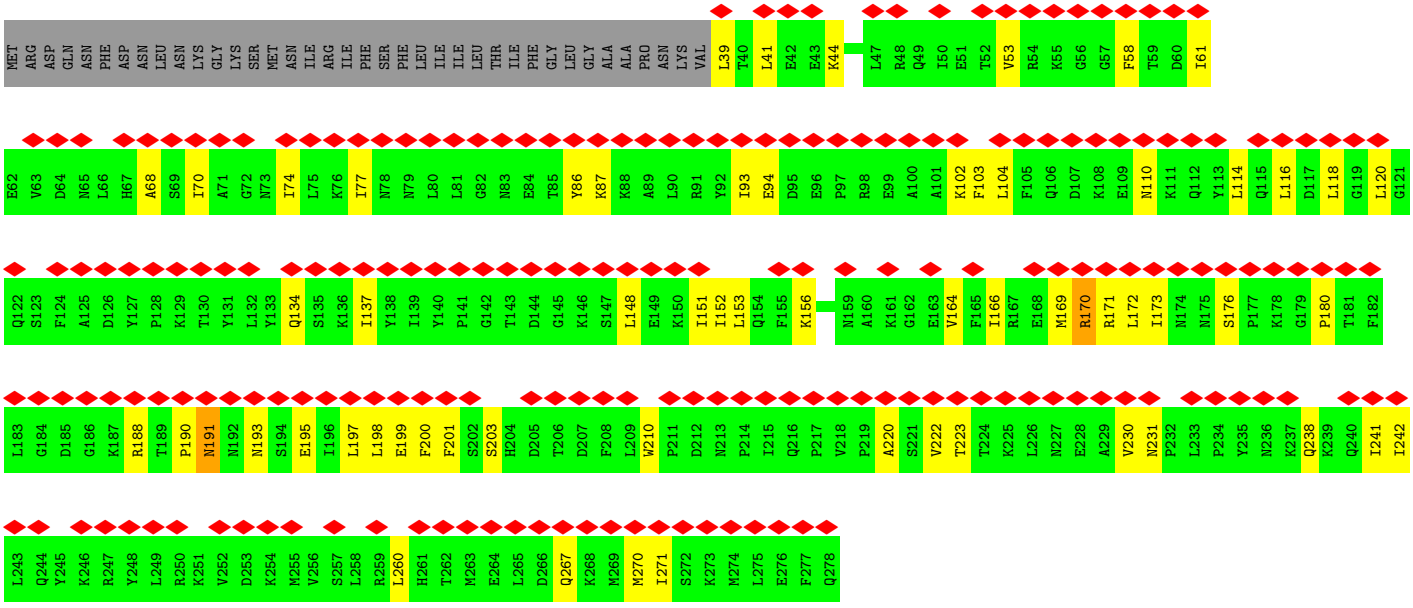
• Molecule 9: DUF4468 domain-containing protein

Chain a5:



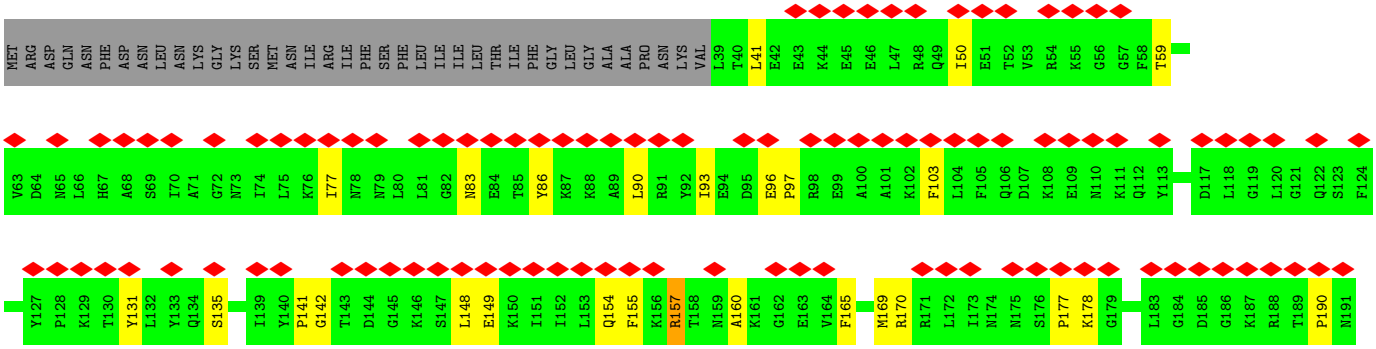
• Molecule 10: LIC_13212 protein

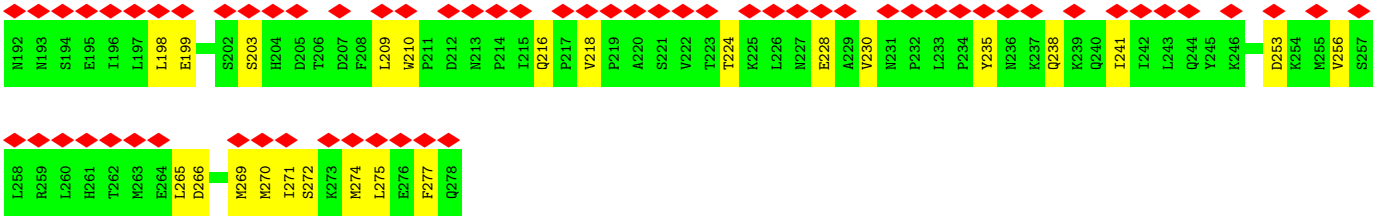
Chain b2:



• Molecule 10: LIC_13212 protein

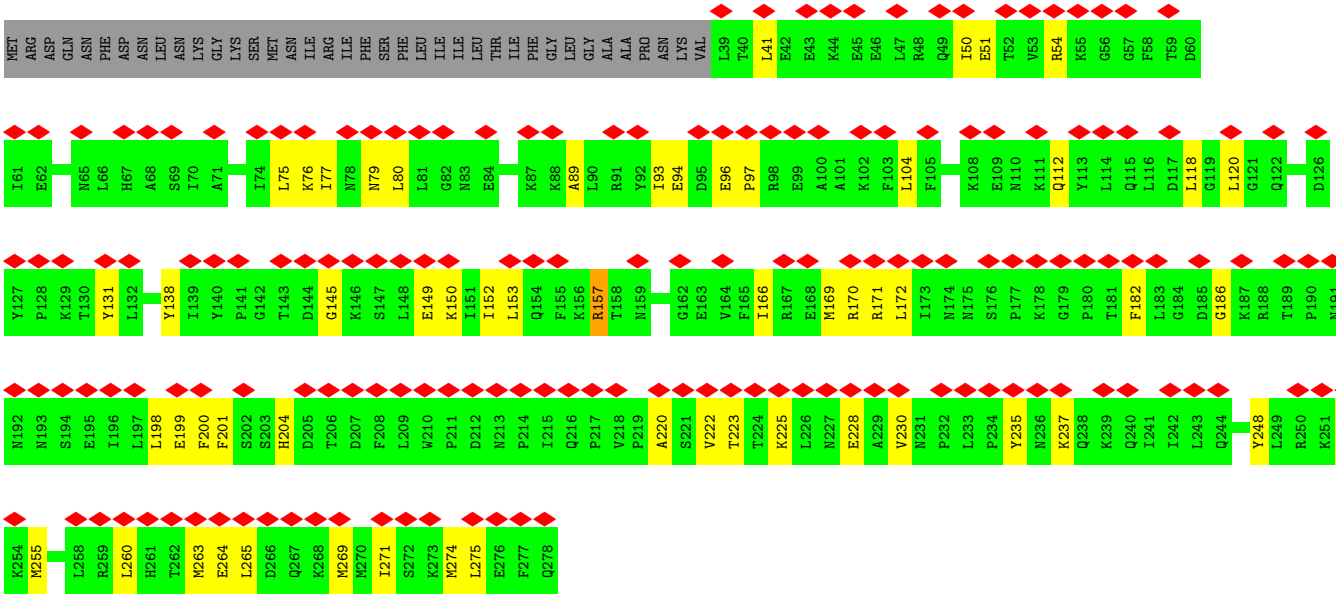
Chain b3:





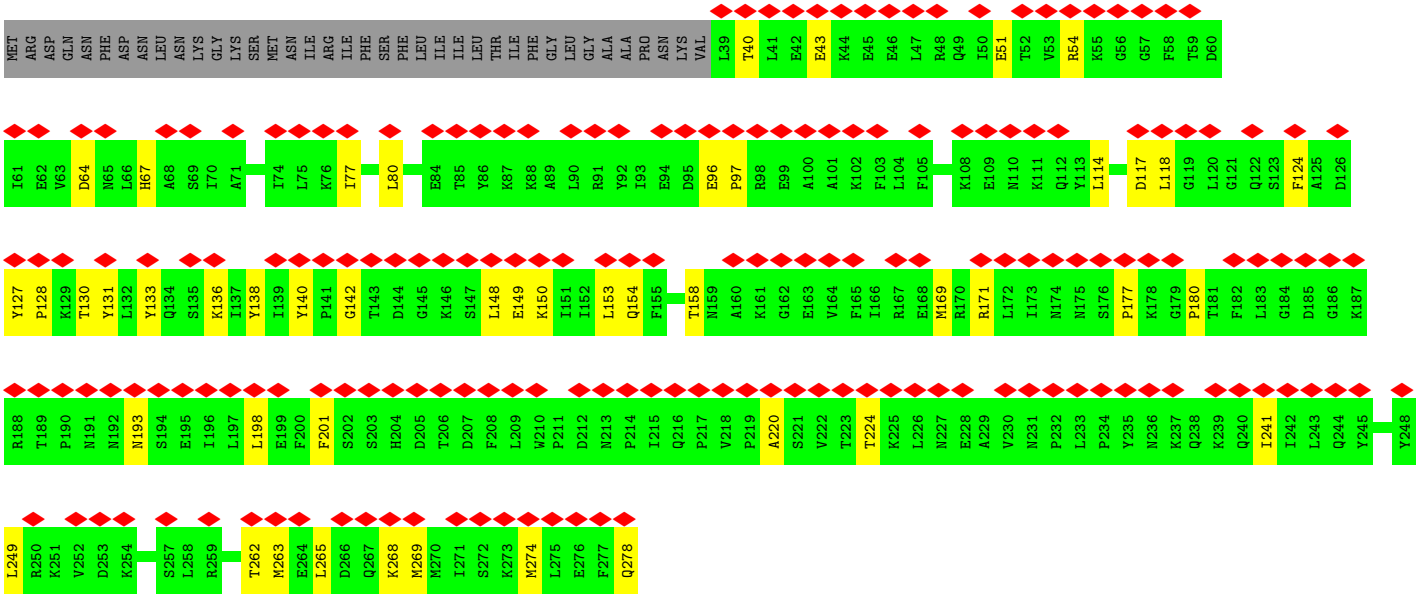
• Molecule 10: LIC_13212 protein

Chain b4:



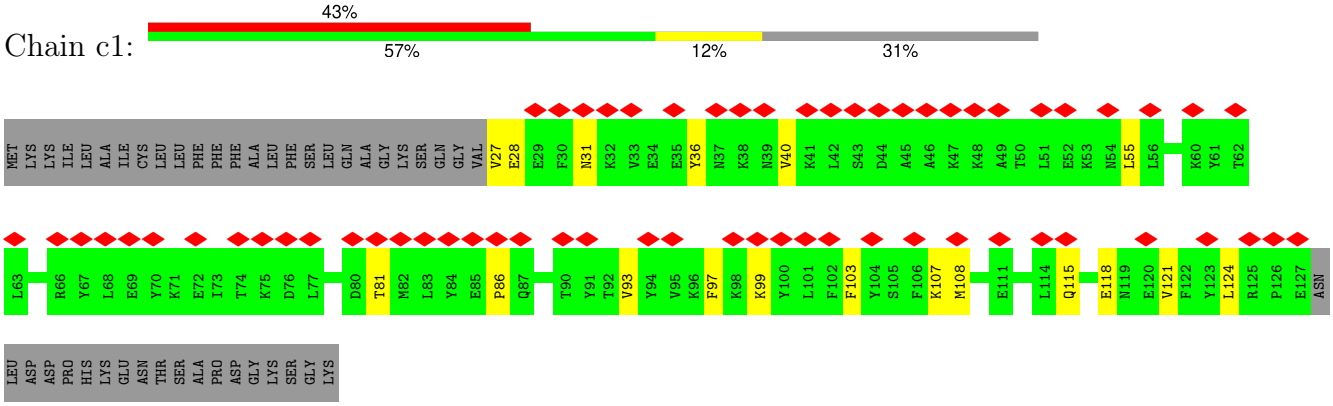
• Molecule 10: LIC_13212 protein

Chain b5:



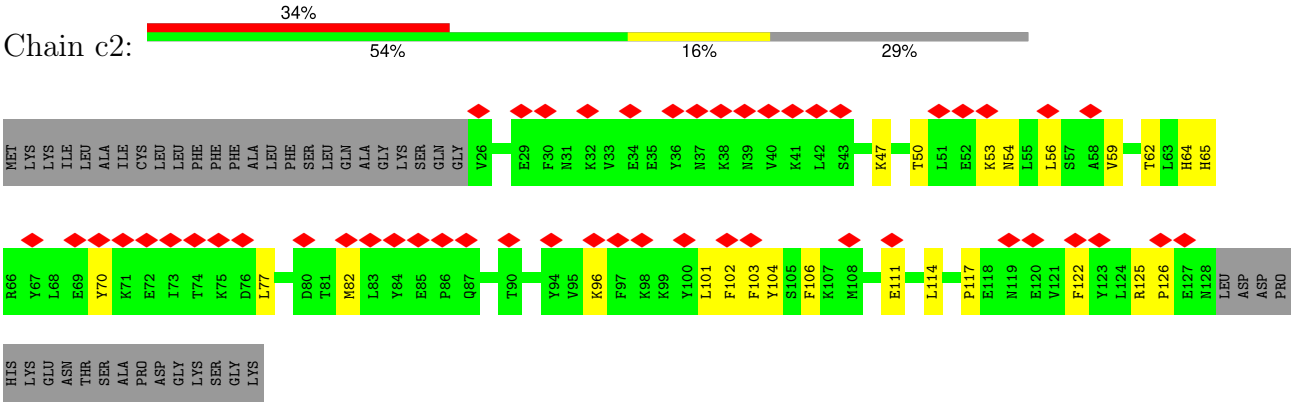
• Molecule 11: Lipoprotein

Chain c1:



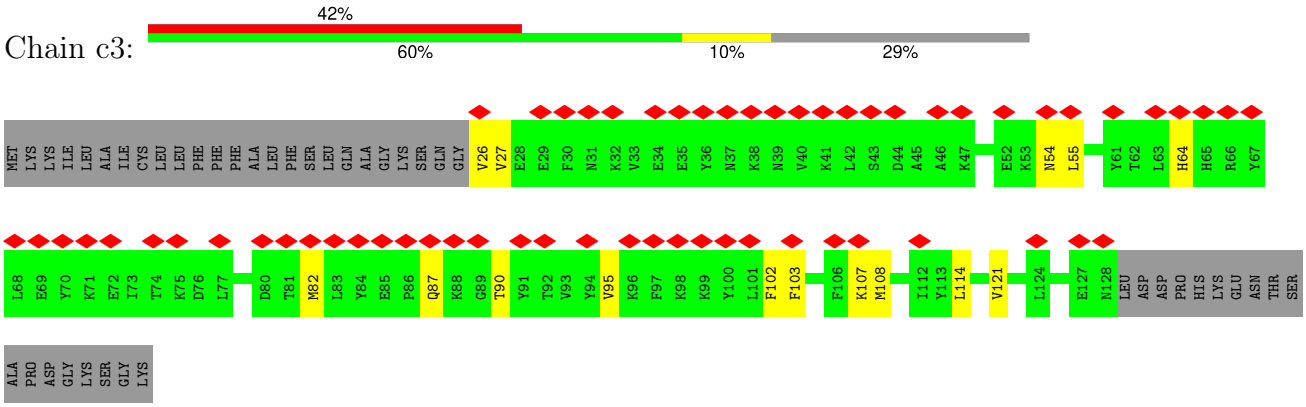
• Molecule 11: Lipoprotein

Chain c2:



• Molecule 11: Lipoprotein

Chain c3:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	53501	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	61.5	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2600	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.405	Depositor
Minimum map value	-0.227	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.037	Depositor
Recommended contour level	0.04	Depositor
Map size (Å)	273.408, 273.408, 273.408	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.068, 1.068, 1.068	Depositor

5 Model quality

5.1 Standard geometry

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

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	A4	0.19	0/1395	0.50	0/1870
1	A5	0.21	0/2216	0.57	1/2980 (0.0%)
1	A6	0.20	0/2216	0.51	0/2980
1	A7	0.21	0/2216	0.55	0/2980
1	A8	0.20	0/1889	0.49	0/2538
1	A9	0.16	0/1142	0.44	0/1544
1	B3	0.18	0/803	0.43	0/1071
1	B4	0.20	0/1966	0.53	0/2639
1	B5	0.20	0/2225	0.53	0/2994
1	B6	0.18	0/2225	0.53	0/2994
1	B7	0.21	0/2174	0.54	0/2928
1	B8	0.17	0/1542	0.46	0/2077
1	C3	0.21	0/908	0.52	0/1214
1	C4	0.20	0/2225	0.55	0/2994
1	C5	0.18	0/2225	0.50	0/2994
1	C6	0.20	0/2225	0.50	0/2994
1	C7	0.21	0/1950	0.58	1/2623 (0.0%)
1	C8	0.18	0/1201	0.47	0/1621
1	D3	0.19	0/1752	0.52	0/2345
1	D4	0.18	0/2225	0.49	0/2994
1	D5	0.21	0/2225	0.55	0/2994
1	D6	0.19	0/2207	0.52	0/2972
1	D7	0.19	0/1601	0.52	0/2156
1	E2	0.20	0/909	0.50	0/1214
1	E3	0.19	0/2208	0.51	0/2967
1	E4	0.21	0/2225	0.56	0/2994
1	E5	0.18	0/2225	0.48	0/2994
1	E6	0.20	0/1996	0.55	0/2686
1	E7	0.16	0/1253	0.45	0/1689
1	F2	0.19	0/1639	0.56	0/2193
1	F3	0.19	0/2216	0.53	0/2980
1	F4	0.20	0/2204	0.54	0/2963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	F5	0.19	0/2213	0.47	0/2977
1	F6	0.18	0/1686	0.48	0/2270
1	G1	0.19	0/2034	0.52	0/2737
1	G2	0.18	0/1328	0.50	0/1791
1	G6	0.18	0/908	0.50	0/1214
1	G7	0.20	0/2149	0.53	0/2887
1	G8	0.21	0/2225	0.53	0/2994
1	G9	0.20	0/2225	0.52	0/2994
1	H6	0.20	0/1575	0.55	0/2108
1	H7	0.19	0/2225	0.48	0/2994
1	H8	0.19	0/2225	0.51	0/2994
1	H9	0.20	0/2225	0.52	0/2994
1	I5	0.20	0/912	0.51	0/1217
1	I6	0.19	0/2125	0.53	0/2855
1	I7	0.19	0/2225	0.50	0/2994
1	I8	0.20	0/2225	0.55	1/2994 (0.0%)
1	I9	0.19	0/2091	0.51	0/2814
1	J5	0.19	0/1507	0.55	0/2018
1	J6	0.19	0/2225	0.52	0/2994
1	J7	0.20	0/2225	0.54	0/2994
1	J8	0.20	0/2225	0.56	0/2994
1	J9	0.18	0/1824	0.55	0/2451
1	K4	0.19	0/887	0.50	0/1182
1	K5	0.19	0/2031	0.52	0/2725
1	K6	0.18	0/2216	0.48	0/2980
1	K7	0.18	0/2208	0.48	0/2967
1	K8	0.19	0/2116	0.52	0/2848
1	K9	0.18	0/1462	0.54	1/1972 (0.1%)
1	h0	0.17	0/1752	0.47	0/2356
1	h1	0.15	0/784	0.42	0/1059
1	i0	0.18	0/1396	0.54	0/1884
1	j0	0.17	0/934	0.49	0/1262
2	L2	0.16	0/1709	0.44	0/2292
2	L3	0.17	0/1808	0.47	0/2433
2	L4	0.17	0/1808	0.50	0/2433
2	L5	0.16	0/1808	0.47	0/2433
2	L6	0.15	0/1388	0.47	0/1864
2	M1	0.16	0/615	0.55	0/821
2	M2	0.17	0/1839	0.54	0/2474
2	M3	0.18	0/1839	0.46	0/2474
2	M4	0.17	0/1839	0.51	0/2474
2	M5	0.18	0/1708	0.51	0/2291
2	N2	0.17	0/1577	0.49	0/2117

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	N3	0.18	0/1807	0.46	0/2432
2	N4	0.19	0/1807	0.51	0/2432
2	N5	0.18	0/1807	0.49	0/2432
2	N6	0.17	0/1420	0.46	0/1904
2	O1	0.13	0/516	0.46	0/692
2	O2	0.17	0/1794	0.47	0/2413
2	O3	0.17	0/1807	0.47	0/2432
2	O4	0.19	0/1807	0.50	0/2432
2	O5	0.17	0/1775	0.45	0/2385
2	P2	0.16	0/1506	0.46	0/2021
2	P3	0.18	0/1790	0.50	0/2409
2	P4	0.17	0/1790	0.48	0/2409
2	P5	0.16	0/1790	0.45	0/2409
2	P6	0.17	0/1489	0.45	0/2004
3	Q1	0.18	0/1343	0.52	0/1795
3	Q2	0.20	0/1598	0.58	0/2147
3	Q3	0.18	0/1664	0.58	0/2235
3	Q4	0.17	0/1632	0.59	0/2192
3	R2	0.16	0/1554	0.54	0/2089
3	R3	0.17	0/1710	0.57	0/2299
3	R4	0.17	0/1619	0.50	0/2176
3	R5	0.16	0/1615	0.54	0/2171
3	S2	0.16	0/1248	0.50	0/1665
3	S3	0.18	0/1586	0.54	0/2131
3	S4	0.16	0/1632	0.54	0/2191
3	S5	0.16	0/1611	0.51	0/2165
3	S6	0.17	0/1568	0.55	0/2102
4	T1	0.14	0/2078	0.48	0/2815
4	T2	0.15	0/2192	0.52	0/2974
4	T3	0.15	0/2192	0.60	1/2974 (0.0%)
4	T4	0.15	0/2086	0.53	0/2833
4	t1	0.18	0/2201	0.67	2/2985 (0.1%)
4	t2	0.16	0/2192	0.54	0/2974
4	t3	0.15	0/2192	0.55	1/2974 (0.0%)
4	t4	0.15	0/2176	0.52	0/2953
5	U3	0.16	0/2119	0.46	0/2851
5	U4	0.17	0/2135	0.49	1/2874 (0.0%)
5	U5	0.18	0/2135	0.47	0/2874
5	U6	0.17	0/2135	0.45	0/2874
5	U7	0.20	0/2120	0.56	7/2853 (0.2%)
6	V1	0.16	0/1454	0.57	1/1961 (0.1%)
6	V2	0.16	0/1661	0.60	0/2243
6	V3	0.16	0/1652	0.55	2/2229 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
6	V4	0.16	0/1652	0.56	0/2229
6	V5	0.16	0/1652	0.58	0/2229
6	X1	0.18	0/1518	0.65	0/2048
6	X2	0.17	0/1661	0.57	0/2243
6	X3	0.19	0/1661	0.68	6/2243 (0.3%)
6	X4	0.19	0/1661	0.60	1/2243 (0.0%)
6	X5	0.15	0/1643	0.54	0/2217
7	Y1	0.13	0/845	0.43	0/1129
7	Y2	0.14	0/1884	0.46	0/2537
7	Y3	0.14	0/1916	0.49	0/2578
7	Y4	0.14	0/1913	0.49	0/2576
7	Y5	0.14	0/1894	0.52	0/2548
8	Z1	0.17	0/2215	0.47	0/2972
8	Z2	0.17	0/2215	0.50	0/2972
8	Z3	0.17	0/2204	0.49	0/2958
8	Z4	0.17	0/2215	0.49	0/2972
9	a2	0.16	0/1437	0.49	0/1928
9	a3	0.18	0/1477	0.53	0/1983
9	a4	0.17	0/1477	0.48	0/1983
9	a5	0.18	0/1477	0.55	0/1983
10	b2	0.18	0/2010	0.52	0/2705
10	b3	0.16	0/2009	0.54	0/2705
10	b4	0.16	0/2009	0.52	0/2705
10	b5	0.16	0/2009	0.53	0/2705
11	c1	0.15	0/889	0.46	0/1199
11	c2	0.16	0/904	0.52	0/1220
11	c3	0.14	0/904	0.43	0/1220
All	All	0.18	0/257310	0.52	26/346231 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A4	0	2
1	A5	0	1
1	A7	0	1
1	A8	0	2
1	B3	0	1
1	B4	0	3
1	B5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	B6	0	1
1	B7	0	1
1	B8	0	1
1	C4	0	2
1	C6	0	1
1	C7	0	2
1	D3	0	3
1	D4	0	1
1	D5	0	2
1	D7	0	1
1	E3	0	1
1	E5	0	3
1	F2	0	2
1	F3	0	2
1	F4	0	2
1	F6	0	3
1	G1	0	4
1	G2	0	3
1	G6	0	1
1	G7	0	1
1	G8	0	5
1	G9	0	2
1	H6	0	2
1	H7	0	1
1	H8	0	3
1	I5	0	1
1	I6	0	1
1	I7	0	2
1	I8	0	1
1	I9	0	2
1	J5	0	1
1	J6	0	3
1	J8	0	2
1	J9	0	1
1	K5	0	4
1	K6	0	2
1	K7	0	1
1	K8	0	1
1	K9	0	1
1	h0	0	2
1	h1	0	1
1	i0	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	L2	0	1
2	M3	0	1
2	N2	0	1
2	N3	0	2
2	O4	0	1
2	O5	0	1
2	P2	0	1
2	P3	0	1
3	Q1	0	1
3	Q2	0	1
3	Q3	0	1
3	Q4	0	3
3	R2	0	1
3	S2	0	2
3	S5	0	1
3	S6	0	1
4	T3	0	2
4	t1	0	1
4	t2	0	1
7	Y4	0	1
7	Y5	0	1
8	Z1	0	2
8	Z2	0	1
8	Z3	0	2
8	Z4	0	3
9	a5	0	2
10	b2	0	1
10	b3	0	1
10	b4	0	1
All	All	0	127

There are no bond length outliers.

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	t1	32	ASP	CA-C-N	-8.32	113.35	122.59
4	t1	32	ASP	C-N-CA	-8.32	113.35	122.59
5	U7	160	SER	O-C-N	7.58	135.14	123.00
6	X3	52	GLU	CA-CB-CG	7.47	129.03	114.10
1	K9	219	ARG	CA-CB-CG	7.08	128.26	114.10
5	U7	160	SER	CA-C-N	-6.52	112.81	123.05
5	U7	160	SER	C-N-CA	-6.52	112.81	123.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C7	40	GLY	N-CA-C	6.39	128.33	113.18
5	U7	161	ASN	CA-C-N	6.28	132.75	122.07
5	U7	161	ASN	C-N-CA	6.28	132.75	122.07
1	A5	219	ARG	CA-CB-CG	6.19	126.47	114.10
6	X4	52	GLU	CA-CB-CG	-5.85	102.41	114.10
6	X3	52	GLU	CB-CG-CD	-5.83	102.69	112.60
5	U4	274	PRO	N-CA-C	5.57	117.50	110.70
5	U7	299	GLY	N-CA-C	5.57	126.38	113.18
1	I8	61	ARG	CB-CG-CD	5.57	124.10	111.30
4	t3	38	ALA	N-CA-C	5.53	122.04	109.81
6	V1	52	GLU	CA-CB-CG	5.53	125.15	114.10
6	V3	50	ASN	CA-C-N	5.39	131.84	121.54
6	V3	50	ASN	C-N-CA	5.39	131.84	121.54
4	T3	38	ALA	N-CA-C	5.19	121.28	109.81
6	X3	99	ASN	N-CA-C	5.15	121.77	110.80
6	X3	50	ASN	CA-C-N	5.14	131.35	121.54
6	X3	50	ASN	C-N-CA	5.14	131.35	121.54
6	X3	52	GLU	N-CA-CB	-5.08	102.71	110.07
5	U7	161	ASN	O-C-N	-5.06	112.83	122.09

There are no chirality outliers.

All (127) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A4	14	ARG	Sidechain
1	A4	35	ARG	Sidechain
1	A5	123	ARG	Sidechain
1	A7	123	ARG	Sidechain
1	A8	210	ARG	Sidechain
1	A8	61	ARG	Sidechain
1	B3	53	ARG	Sidechain
1	B4	160	ARG	Sidechain
1	B4	219	ARG	Sidechain
1	B4	38	ARG	Sidechain
1	B5	91	ARG	Sidechain
1	B6	210	ARG	Sidechain
1	B7	176	ARG	Sidechain
1	B8	53	ARG	Sidechain
1	C4	210	ARG	Sidechain
1	C4	38	ARG	Sidechain
1	C6	35	ARG	Sidechain
1	C7	176	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	C7	210	ARG	Sidechain
1	D3	242	ARG	Sidechain
1	D3	255	ARG	Sidechain
1	D3	38	ARG	Sidechain
1	D4	142	ARG	Sidechain
1	D5	14	ARG	Sidechain
1	D5	61	ARG	Sidechain
1	D7	142	ARG	Sidechain
1	E3	61	ARG	Sidechain
1	E5	176	ARG	Sidechain
1	E5	210	ARG	Sidechain
1	E5	219	ARG	Sidechain
1	F2	53	ARG	Sidechain
1	F2	61	ARG	Sidechain
1	F3	219	ARG	Sidechain
1	F3	38	ARG	Sidechain
1	F4	219	ARG	Sidechain
1	F4	255	ARG	Sidechain
1	F6	142	ARG	Sidechain
1	F6	162	ARG	Sidechain
1	F6	219	ARG	Sidechain
1	G1	142	ARG	Sidechain
1	G1	240	ARG	Sidechain
1	G1	53	ARG	Sidechain
1	G1	61	ARG	Sidechain
1	G2	210	ARG	Sidechain
1	G2	219	ARG	Sidechain
1	G2	61	ARG	Sidechain
1	G6	53	ARG	Sidechain
1	G7	210	ARG	Sidechain
1	G8	123	ARG	Sidechain
1	G8	142	ARG	Sidechain
1	G8	176	ARG	Sidechain
1	G8	255	ARG	Sidechain
1	G8	38	ARG	Sidechain
1	G9	14	ARG	Sidechain
1	G9	210	ARG	Sidechain
1	H6	53	ARG	Sidechain
1	H6	60	ARG	Sidechain
1	H7	107	ARG	Sidechain
1	H8	14	ARG	Sidechain
1	H8	38	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	H8	61	ARG	Sidechain
1	I5	14	ARG	Sidechain
1	I6	35	ARG	Sidechain
1	I7	162	ARG	Sidechain
1	I7	53	ARG	Sidechain
1	I8	91	ARG	Sidechain
1	I9	210	ARG	Sidechain
1	I9	61	ARG	Sidechain
1	J5	14	ARG	Sidechain
1	J6	107	ARG	Sidechain
1	J6	160	ARG	Sidechain
1	J6	204	ARG	Sidechain
1	J8	53	ARG	Sidechain
1	J8	61	ARG	Sidechain
1	J9	240	ARG	Sidechain
1	K5	160	ARG	Sidechain
1	K5	219	ARG	Sidechain
1	K5	240	ARG	Sidechain
1	K5	61	ARG	Sidechain
1	K6	162	ARG	Sidechain
1	K6	61	ARG	Sidechain
1	K7	219	ARG	Sidechain
1	K8	176	ARG	Sidechain
1	K9	61	ARG	Sidechain
2	L2	160	ARG	Sidechain
2	M3	203	ARG	Sidechain
2	N2	106	ARG	Sidechain
2	N3	138	ARG	Sidechain
2	N3	150	ARG	Sidechain
2	O4	150	ARG	Sidechain
2	O5	106	ARG	Sidechain
2	P2	156	ARG	Sidechain
2	P3	106	ARG	Sidechain
3	Q1	229	ARG	Sidechain
3	Q2	46	ARG	Sidechain
3	Q3	229	ARG	Sidechain
3	Q4	104	ARG	Sidechain
3	Q4	150	ARG	Sidechain
3	Q4	177	ARG	Sidechain
3	R2	71	ARG	Sidechain
3	S2	150	ARG	Sidechain
3	S2	229	ARG	Sidechain

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Mol	Chain	Res	Type	Group
3	S5	145	ARG	Sidechain
3	S6	246	ARG	Sidechain
4	T3	220	ARG	Sidechain
4	T3	72	ARG	Sidechain
7	Y4	271	ARG	Sidechain
7	Y5	112	ARG	Sidechain
8	Z1	132	ARG	Sidechain
8	Z1	324	ARG	Sidechain
8	Z2	182	ARG	Sidechain
8	Z3	216	ARG	Sidechain
8	Z3	240	ARG	Sidechain
8	Z4	216	ARG	Sidechain
8	Z4	255	ARG	Sidechain
8	Z4	81	ARG	Sidechain
9	a5	185	ARG	Sidechain
9	a5	201	ARG	Sidechain
10	b2	170	ARG	Sidechain
10	b3	157	ARG	Sidechain
10	b4	157	ARG	Sidechain
1	h0	123	ARG	Sidechain
1	h0	176	ARG	Sidechain
1	h1	91	ARG	Sidechain
1	i0	210	ARG	Sidechain
4	t1	261	ARG	Sidechain
4	t2	72	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A4	1379	0	1352	37	0
1	A5	2193	0	2209	86	0
1	A6	2193	0	2209	64	0
1	A7	2193	0	2209	59	0
1	A8	1872	0	1857	50	0
1	A9	1130	0	1131	15	0
1	B3	798	0	815	22	0
1	B4	1945	0	1961	60	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B5	2201	0	2221	74	0
1	B6	2201	0	2221	66	0
1	B7	2150	0	2155	70	0
1	B8	1526	0	1529	37	0
1	C3	902	0	925	34	0
1	C4	2201	0	2221	65	0
1	C5	2201	0	2221	71	0
1	C6	2201	0	2221	79	0
1	C7	1930	0	1927	63	0
1	C8	1189	0	1182	16	0
1	D3	1733	0	1724	34	0
1	D4	2201	0	2219	55	0
1	D5	2201	0	2219	82	0
1	D6	2183	0	2195	60	0
1	D7	1585	0	1583	29	0
1	E2	903	0	925	21	0
1	E3	2186	0	2201	47	0
1	E4	2201	0	2221	70	0
1	E5	2201	0	2219	43	0
1	E6	1975	0	1969	61	0
1	E7	1240	0	1228	20	0
1	F2	1621	0	1620	40	0
1	F3	2193	0	2209	58	0
1	F4	2182	0	2195	59	0
1	F5	2190	0	2207	65	0
1	F6	1670	0	1659	36	0
1	G1	2012	0	2008	57	0
1	G2	1313	0	1312	32	0
1	G6	902	0	925	10	0
1	G7	2128	0	2154	60	0
1	G8	2201	0	2220	62	0
1	G9	2201	0	2219	64	0
1	H6	1557	0	1559	45	0
1	H7	2201	0	2219	70	0
1	H8	2201	0	2219	57	0
1	H9	2201	0	2221	65	0
1	I5	906	0	929	30	0
1	I6	2104	0	2134	55	0
1	I7	2201	0	2221	70	0
1	I8	2201	0	2221	80	0
1	I9	2069	0	2070	76	0
1	J5	1490	0	1490	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	J6	2201	0	2221	54	0
1	J7	2201	0	2221	73	0
1	J8	2201	0	2221	62	0
1	J9	1807	0	1801	52	0
1	K4	882	0	900	21	0
1	K5	2012	0	2031	56	0
1	K6	2193	0	2207	49	0
1	K7	2186	0	2201	63	0
1	K8	2093	0	2096	58	0
1	K9	1446	0	1439	35	0
1	h0	1737	0	1725	39	0
1	h1	782	0	790	12	0
1	i0	1379	0	1371	43	0
1	j0	931	0	948	23	0
2	L2	1682	0	1608	21	0
2	L3	1772	0	1682	16	0
2	L4	1772	0	1682	19	0
2	L5	1772	0	1682	19	0
2	L6	1363	0	1314	18	0
2	M1	607	0	570	13	0
2	M2	1803	0	1714	32	0
2	M3	1803	0	1714	22	0
2	M4	1803	0	1714	24	0
2	M5	1678	0	1596	32	0
2	N2	1549	0	1494	23	0
2	N3	1771	0	1687	26	0
2	N4	1771	0	1687	33	0
2	N5	1771	0	1687	27	0
2	N6	1394	0	1332	23	0
2	O1	507	0	460	6	0
2	O2	1759	0	1679	28	0
2	O3	1771	0	1687	32	0
2	O4	1771	0	1687	28	0
2	O5	1741	0	1652	25	0
2	P2	1480	0	1414	30	0
2	P3	1754	0	1670	33	0
2	P4	1754	0	1670	30	0
2	P5	1754	0	1670	24	0
2	P6	1459	0	1412	24	0
3	Q1	1322	0	1339	21	0
3	Q2	1567	0	1561	46	0
3	Q3	1633	0	1630	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	Q4	1601	0	1597	32	0
3	R2	1524	0	1498	18	0
3	R3	1677	0	1663	30	0
3	R4	1588	0	1581	25	0
3	R5	1585	0	1576	26	0
3	S2	1228	0	1216	26	0
3	S3	1556	0	1559	27	0
3	S4	1602	0	1606	27	0
3	S5	1581	0	1582	34	0
3	S6	1541	0	1542	35	0
4	T1	2033	0	2006	25	0
4	T2	2141	0	2101	38	0
4	T3	2141	0	2101	40	0
4	T4	2035	0	1979	40	0
4	t1	2150	0	2114	46	0
4	t2	2141	0	2101	37	0
4	t3	2141	0	2101	37	0
4	t4	2125	0	2081	27	0
5	U3	2084	0	2112	21	0
5	U4	2099	0	2126	27	0
5	U5	2099	0	2126	25	0
5	U6	2099	0	2126	30	0
5	U7	2085	0	2107	27	0
6	V1	1422	0	1412	28	0
6	V2	1621	0	1602	30	0
6	V3	1613	0	1597	24	0
6	V4	1613	0	1597	33	0
6	V5	1613	0	1597	32	0
6	X1	1484	0	1467	34	0
6	X2	1621	0	1602	24	0
6	X3	1621	0	1602	28	0
6	X4	1621	0	1602	39	0
6	X5	1604	0	1584	24	0
7	Y1	834	0	837	12	0
7	Y2	1844	0	1826	26	0
7	Y3	1876	0	1853	23	0
7	Y4	1872	0	1851	16	0
7	Y5	1854	0	1831	26	0
8	Z1	2173	0	2184	23	0
8	Z2	2173	0	2184	42	0
8	Z3	2162	0	2171	48	0
8	Z4	2173	0	2184	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	a2	1421	0	1472	31	0
9	a3	1460	0	1506	24	0
9	a4	1460	0	1506	26	0
9	a5	1460	0	1506	27	0
10	b2	1972	0	2003	54	0
10	b3	1971	0	2001	44	0
10	b4	1971	0	2005	49	0
10	b5	1971	0	2003	36	0
11	c1	867	0	860	14	0
11	c2	882	0	875	15	0
11	c3	882	0	875	11	0
12	T1	1	0	0	0	0
12	T2	1	0	0	0	0
12	T3	1	0	0	0	0
12	T4	1	0	0	0	0
12	V1	1	0	0	0	0
12	V2	1	0	0	0	0
12	V3	1	0	0	0	0
12	V4	1	0	0	0	0
12	V5	1	0	0	0	0
12	X1	1	0	0	0	0
12	X2	1	0	0	0	0
12	X3	1	0	0	0	0
12	X4	1	0	0	0	0
12	X5	1	0	0	0	0
12	t1	1	0	0	0	0
12	t2	1	0	0	0	0
12	t3	1	0	0	0	0
12	t4	1	0	0	0	0
13	T1	2	0	0	1	0
13	T2	2	0	0	1	0
13	T3	2	0	0	0	0
13	T4	2	0	0	1	0
13	V1	2	0	0	0	0
13	V2	2	0	0	0	0
13	V3	2	0	0	0	0
13	V4	2	0	0	0	0
13	V5	2	0	0	0	0
13	X1	2	0	0	0	0
13	X2	2	0	0	1	0
13	X3	2	0	0	0	0
13	X4	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	X5	2	0	0	1	0
13	t1	2	0	0	1	0
13	t2	2	0	0	2	0
13	t3	2	0	0	0	0
13	t4	2	0	0	0	0
All	All	253413	0	251942	4533	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 9.

All (4533) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:X4:133:LEU:HD23	6:X4:177:ILE:HD11	1.44	0.99
4:T4:76:LEU:HD21	4:T4:93:LYS:HD3	1.49	0.94
1:K5:54:THR:HA	1:K6:88:GLN:HE22	1.33	0.92
3:S5:133:TYR:HD2	3:S5:154:LYS:HD3	1.37	0.90
4:T2:133:GLN:HE22	4:T2:135:LYS:HB2	1.35	0.90
4:T4:112:ARG:HE	4:T4:113:PRO:HD2	1.35	0.90
1:A4:131:ASN:HA	1:K4:55:GLN:HE22	1.38	0.89
1:D4:38:ARG:HD3	1:D5:74:GLN:HE22	1.37	0.89
1:G7:233:ASN:HD21	1:H7:74:GLN:HB3	1.37	0.88
1:C7:65:ASN:HD21	1:C8:99:ASN:HB2	1.38	0.88
2:L2:109:LEU:HD21	2:L2:197:LEU:HD11	1.53	0.88
10:b3:96:GLU:HG3	10:b3:97:PRO:HD2	1.57	0.86
1:I7:43:ALA:HB1	1:I8:211:ALA:HA	1.57	0.85
1:K4:3:ILE:HG21	1:K5:246:MET:HE2	1.59	0.84
6:X4:48:LEU:HD11	6:X4:219:LEU:HD23	1.59	0.84
3:R4:94:ASN:HD22	3:R4:97:ASP:HB3	1.42	0.84
1:E3:273:LYS:HE3	1:F3:23:MET:HE3	1.60	0.84
1:C4:133:MET:HE3	1:C5:103:THR:HG22	1.60	0.84
2:M5:271:ASN:HD22	2:M5:296:VAL:HG23	1.42	0.82
6:V2:226:SER:HB2	7:Y2:62:ASP:HB3	1.59	0.82
1:F5:54:THR:HA	1:F6:88:GLN:HE22	1.45	0.81
1:F5:159:GLN:HG2	1:G1:127:GLN:HE22	1.44	0.81
3:S4:70:VAL:HG23	3:S4:255:ASN:HD21	1.44	0.81
4:t3:44:VAL:HG12	4:t3:111:ILE:HG12	1.59	0.81
1:C7:52:MET:HE1	1:C7:241:ILE:HD12	1.61	0.81
1:E6:258:ILE:HG13	1:F5:278:LEU:HD22	1.60	0.80
10:b2:169:MET:HB2	10:b2:201:PHE:HB2	1.63	0.80
1:I6:61:ARG:HH22	1:I7:96:GLN:HA	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G9:258:ILE:HG23	1:H8:278:LEU:HD11	1.63	0.80
1:C5:211:ALA:HB1	1:D5:109:GLN:HE21	1.47	0.80
6:X4:52:GLU:HG2	6:X4:100:HIS:HB2	1.64	0.80
4:T4:180:PHE:HB3	4:T4:191:LEU:HD23	1.65	0.79
6:V4:52:GLU:HA	6:V4:100:HIS:HB2	1.64	0.79
1:J8:54:THR:HA	1:J9:88:GLN:HE22	1.46	0.79
1:E4:36:ILE:HD13	1:E4:42:ASP:HB3	1.65	0.79
2:O4:93:LEU:HB2	2:O5:292:ILE:HD11	1.64	0.79
7:Y3:72:MET:HE1	7:Y3:236:MET:HG3	1.64	0.78
4:t3:139:ILE:HD12	4:t3:215:LYS:HE3	1.65	0.78
1:J8:57:LEU:HD12	1:J9:88:GLN:HE21	1.46	0.78
1:A8:65:ASN:HD21	1:A9:99:ASN:HB2	1.49	0.78
6:X4:74:VAL:HG12	6:X4:100:HIS:HE1	1.48	0.78
8:Z4:161:TRP:HH2	8:Z4:188:ASP:HB3	1.49	0.77
6:V5:52:GLU:HA	6:V5:100:HIS:HB2	1.66	0.77
3:R5:41:ILE:HG23	3:R5:230:ASN:HD21	1.49	0.77
1:A5:54:THR:HA	1:A6:88:GLN:HE22	1.49	0.77
1:i0:152:HIS:CD2	1:i0:154:GLY:H	2.03	0.76
1:A6:67:GLU:HA	1:A6:70:MET:HE3	1.66	0.76
1:F5:258:ILE:HG23	1:G9:278:LEU:HD22	1.68	0.76
1:B5:38:ARG:HD2	1:B5:40:GLY:H	1.50	0.76
1:C5:72:LEU:HD21	1:C5:135:LEU:HD21	1.67	0.76
5:U4:156:LEU:HD21	5:U4:223:LYS:HB3	1.68	0.76
1:B4:1:MET:HE2	1:B4:277:VAL:HG21	1.68	0.76
1:D5:56:ILE:HG22	1:D5:234:ILE:HG23	1.66	0.76
1:I6:14:ARG:HG2	1:I7:228:MET:HG3	1.67	0.76
2:O4:209:GLU:HG3	2:O4:214:ASN:HB3	1.67	0.76
5:U5:97:SER:HB2	5:U5:134:LEU:HD12	1.66	0.76
6:X2:129:LYS:HE2	6:X2:131:ARG:HE	1.49	0.76
3:Q4:58:ARG:HA	3:Q4:61:ARG:HH21	1.49	0.76
1:K9:114:VAL:HG21	1:K9:186:LEU:HD23	1.68	0.76
6:V1:52:GLU:HA	6:V1:100:HIS:HB2	1.67	0.76
6:V4:106:THR:HG21	6:V4:116:VAL:HG11	1.68	0.75
1:j0:94:ALA:HB1	1:j0:192:ALA:HB1	1.68	0.75
8:Z2:138:LYS:HE3	11:c2:65:HIS:HA	1.68	0.75
11:c3:103:PHE:HB3	11:c3:121:VAL:HB	1.68	0.75
9:a4:71:ARG:HH22	9:a4:207:VAL:HG12	1.51	0.75
1:C7:48:VAL:HG13	1:D7:131:ASN:HD21	1.51	0.75
1:G9:1:MET:HE3	1:G9:277:VAL:HG21	1.67	0.75
1:K8:157:MET:HG3	1:K9:193:ASN:HD21	1.52	0.75
6:X2:52:GLU:HA	6:X2:100:HIS:HB3	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J8:184:ILE:HG23	1:J8:195:VAL:HG21	1.67	0.75
2:N4:104:LYS:HB3	2:N4:183:ILE:HD11	1.69	0.75
4:T4:151:MET:HE3	4:T4:195:ILE:HD11	1.69	0.75
2:P3:131:LYS:HA	10:b3:269:MET:HE3	1.69	0.75
6:X1:52:GLU:HA	6:X1:100:HIS:HB2	1.69	0.75
10:b3:90:LEU:HA	10:b3:270:MET:HE1	1.68	0.75
1:K5:150:TRP:HB3	1:K5:160:ARG:HD2	1.69	0.74
5:U6:273:VAL:H	5:U6:274:PRO:HD2	1.51	0.74
9:a3:125:TRP:HE1	9:a3:141:ILE:HD11	1.53	0.74
1:C4:8:SER:HB2	1:D4:27:ILE:HG21	1.69	0.74
1:K5:53:ARG:HH22	1:K6:88:GLN:HE21	1.33	0.74
1:C5:35:ARG:HG2	1:C5:244:THR:HB	1.68	0.74
2:O3:77:LEU:HD23	2:O3:78:TRP:CD1	2.22	0.74
7:Y1:72:MET:HE1	7:Y1:236:MET:HG3	1.70	0.74
1:h0:219:ARG:HD2	1:i0:116:GLN:HB3	1.70	0.74
1:J6:177:ASN:HB3	1:J6:180:VAL:HB	1.70	0.74
1:F3:154:GLY:HA3	1:F3:159:GLN:HG2	1.68	0.74
1:I8:166:GLU:H	1:I8:209:GLN:HE22	1.36	0.74
1:I9:12:ALA:HB1	1:I9:267:LEU:HD22	1.68	0.74
1:J5:1:MET:HE2	1:J5:277:VAL:HG21	1.70	0.74
2:M2:166:LYS:HE2	2:M2:208:THR:HA	1.69	0.74
1:D3:38:ARG:HH12	1:D4:74:GLN:HA	1.52	0.73
6:V5:150:LEU:HD13	6:V5:194:LEU:HD21	1.69	0.73
6:X1:115:ARG:HG2	6:X1:202:VAL:HG22	1.70	0.73
6:X4:132:GLN:HE21	6:X4:222:ARG:HB2	1.53	0.73
1:D5:278:LEU:HD11	1:D6:246:MET:HE3	1.71	0.73
2:P4:212:LEU:O	2:P4:213:GLN:HG3	1.89	0.73
1:D4:48:VAL:HG12	1:D4:52:MET:HE2	1.70	0.72
2:M1:193:GLU:HA	2:M1:196:ARG:HE	1.54	0.72
4:t1:156:CYS:HB3	4:t1:233:PHE:HB2	1.71	0.72
6:V3:148:ALA:HB3	6:V3:160:ILE:HB	1.72	0.72
1:A9:74:GLN:HB3	1:K9:233:ASN:HD21	1.54	0.72
1:E5:97:ALA:HB2	1:E5:110:ILE:HG21	1.71	0.72
7:Y2:194:LYS:H	7:Y2:197:GLN:HE21	1.37	0.72
1:A4:44:SER:HB3	1:B5:110:ILE:HD11	1.71	0.72
10:b5:169:MET:HG3	10:b5:201:PHE:HB2	1.70	0.72
1:C3:278:LEU:HA	1:C3:281:LEU:HG	1.71	0.72
3:S4:156:LYS:HD3	3:S4:175:MET:HG2	1.69	0.72
1:B4:133:MET:HE3	1:B5:103:THR:HG22	1.72	0.71
1:J7:54:THR:HA	1:J8:88:GLN:HE22	1.56	0.71
10:b2:68:ALA:HB2	10:b2:180:PRO:HG2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H9:186:LEU:HD21	1:H9:195:VAL:HG11	1.71	0.71
10:b2:58:PHE:HE2	10:b2:242:ILE:HG13	1.56	0.71
1:A8:81:GLN:HA	1:A8:210:ARG:HH21	1.56	0.71
1:E7:188:THR:HG22	1:E7:191:LYS:HG3	1.72	0.71
1:I9:43:ALA:HB1	1:i0:211:ALA:HA	1.71	0.71
8:Z4:168:VAL:HA	8:Z4:171:MET:HG3	1.72	0.71
1:E5:184:ILE:HD11	1:E5:195:VAL:HG22	1.71	0.71
2:M2:71:ILE:HA	2:M2:74:GLN:HE21	1.55	0.71
8:Z4:194:ASN:HB3	8:Z4:264:LEU:HD21	1.72	0.71
1:G8:219:ARG:HH22	1:H8:123:ARG:HD3	1.55	0.71
2:P2:276:ARG:HH12	2:P2:280:LEU:HD13	1.55	0.71
1:A4:48:VAL:HG12	1:A4:52:MET:HE2	1.72	0.71
1:B6:175:LEU:HD22	1:B6:184:ILE:HD11	1.73	0.71
1:I6:61:ARG:HH12	1:I7:96:GLN:N	1.89	0.71
1:B6:67:GLU:HA	1:B6:70:MET:HG2	1.73	0.70
1:C8:97:ALA:HB2	1:C8:110:ILE:HG21	1.73	0.70
1:D6:86:ILE:HG23	1:D6:117:LEU:HD12	1.73	0.70
2:O3:235:TYR:HB3	2:O3:236:PRO:HD3	1.73	0.70
6:X3:79:ILE:HD11	6:X3:89:PRO:HG3	1.73	0.70
1:J6:192:ALA:O	1:J6:196:ILE:HD12	1.92	0.70
2:M5:215:LEU:HD21	2:M5:244:CYS:HA	1.73	0.70
1:H9:1:MET:HE1	1:h0:246:MET:HG2	1.73	0.70
1:J8:159:GLN:HA	1:K8:127:GLN:NE2	2.06	0.70
3:R4:41:ILE:O	3:R4:45:GLU:HG3	1.90	0.70
6:X4:52:GLU:CG	6:X4:100:HIS:HB2	2.21	0.70
1:C4:23:MET:HB3	1:C4:256:TYR:HB3	1.72	0.70
1:B3:266:MET:HE3	1:C3:31:SER:HB2	1.72	0.70
1:H9:244:THR:HG21	1:H9:249:GLN:HG3	1.74	0.70
1:G9:6:ASN:OD1	1:G9:9:ALA:HB3	1.92	0.70
10:b4:265:LEU:HB3	10:b4:269:MET:HE2	1.71	0.70
4:t1:32:ASP:HB3	4:t1:93:LYS:H	1.56	0.70
5:U5:45:ASN:HD22	5:U5:304:MET:HG2	1.55	0.70
1:A4:53:ARG:HG3	1:A5:88:GLN:HE22	1.55	0.70
1:D4:255:ARG:HG3	1:E3:4:ASN:HA	1.74	0.70
1:F2:159:GLN:HG2	1:G7:127:GLN:CG	2.22	0.70
2:P3:131:LYS:HD2	10:b3:269:MET:SD	2.32	0.70
3:S6:65:LEU:HD12	3:S6:252:PHE:HB2	1.73	0.70
1:E4:138:GLY:HA3	1:E4:167:THR:HG22	1.73	0.69
1:H6:66:THR:HG22	1:H6:70:MET:HE2	1.74	0.69
6:V2:54:ALA:HB1	6:V2:102:LEU:HD12	1.73	0.69
8:Z4:161:TRP:CH2	8:Z4:188:ASP:HB3	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D4:255:ARG:HE	1:E3:4:ASN:HB2	1.57	0.69
4:T2:156:CYS:HB2	4:T2:233:PHE:HB2	1.74	0.69
1:D4:140:PHE:HB2	1:D4:165:ILE:HG22	1.73	0.69
10:b3:198:LEU:HD11	10:b4:275:LEU:HD21	1.75	0.69
1:J7:149:MET:HE1	1:J7:163:VAL:HB	1.74	0.69
3:R2:62:HIS:CE1	3:R2:245:ASP:HA	2.28	0.69
10:b4:225:LYS:HB3	10:b4:228:GLU:HB2	1.75	0.69
1:D4:159:GLN:HE21	1:E4:127:GLN:HE21	1.40	0.69
2:N6:199:SER:O	2:N6:203:ARG:HG2	1.92	0.69
7:Y3:128:LEU:HB2	7:Y3:133:LEU:HD23	1.73	0.69
9:a2:216:GLU:O	9:a2:220:THR:HG23	1.92	0.69
1:J8:87:VAL:O	1:J8:90:ILE:HG22	1.93	0.69
4:T1:171:TRP:HB2	4:T1:210:LYS:HE2	1.74	0.69
5:U3:50:ASN:HA	5:U3:300:ARG:HE	1.56	0.69
8:Z1:216:ARG:HH22	11:c1:115:GLN:HA	1.57	0.69
1:I5:3:ILE:HD13	1:I6:246:MET:HE2	1.75	0.69
2:P6:241:LEU:HB3	2:P6:273:HIS:HE1	1.58	0.69
1:F4:15:THR:HG21	1:G9:32:SER:HA	1.74	0.69
1:F5:159:GLN:HG2	1:G1:127:GLN:NE2	2.07	0.69
1:K7:184:ILE:HD11	1:K7:195:VAL:HA	1.75	0.69
8:Z4:38:LEU:HA	8:Z4:41:ILE:HG22	1.73	0.69
1:G6:51:LYS:HD3	1:H6:132:LYS:HE3	1.75	0.68
1:A7:111:GLN:HE22	1:A7:185:SER:HA	1.58	0.68
6:X4:74:VAL:HG12	6:X4:100:HIS:CE1	2.28	0.68
9:a4:181:GLU:HG3	9:a4:184:GLN:H	1.58	0.68
1:B6:159:GLN:HG2	1:C6:127:GLN:HB3	1.73	0.68
1:E3:56:ILE:HG12	1:E3:234:ILE:HG23	1.75	0.68
1:B7:136:LEU:HD13	1:B7:168:MET:HG2	1.75	0.68
1:J6:50:GLU:HG3	1:J7:84:HIS:CE1	2.28	0.68
5:U5:296:ILE:HD11	10:b3:41:LEU:HB3	1.76	0.68
1:K7:160:ARG:HE	1:K8:193:ASN:ND2	1.92	0.68
1:D5:266:MET:HE2	1:E5:31:SER:HB2	1.73	0.68
2:P2:212:LEU:O	2:P2:213:GLN:HG3	1.94	0.68
6:X2:43:LEU:HG	4:t1:69:GLN:HE22	1.59	0.68
1:F5:186:LEU:HD21	1:F5:195:VAL:HG11	1.75	0.68
2:M4:78:TRP:CE3	2:M5:236:PRO:HG2	2.29	0.68
5:U6:158:VAL:HG23	5:U6:159:ARG:HD2	1.76	0.68
1:D4:258:ILE:HG23	1:E3:278:LEU:HD22	1.76	0.68
1:E5:208:LYS:HA	1:F5:109:GLN:HE22	1.58	0.68
5:U7:104:PHE:HB2	5:U7:127:ALA:HB2	1.75	0.68
1:B4:66:THR:HG23	1:B4:220:LEU:HD22	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C5:111:GLN:HG3	1:C5:185:SER:HB2	1.76	0.67
1:E2:28:GLU:HG3	1:E2:37:ASN:HD22	1.58	0.67
1:F4:262:ALA:HB2	1:G8:278:LEU:HD11	1.77	0.67
2:O3:271:ASN:HD22	2:O3:296:VAL:HG22	1.57	0.67
1:E6:93:LEU:HD21	1:E6:110:ILE:HD12	1.75	0.67
1:J6:86:ILE:HG23	1:J6:117:LEU:HD12	1.76	0.67
8:Z4:220:LEU:HD11	8:Z4:224:LYS:HE3	1.76	0.67
9:a5:176:VAL:HG23	9:a5:185:ARG:HD3	1.75	0.67
4:t1:30:SER:HB2	13:t1:402:HOH:O	1.94	0.67
1:C6:258:ILE:HD11	1:D5:275:GLN:HG2	1.76	0.67
1:F5:166:GLU:HB2	1:F5:209:GLN:HE22	1.58	0.67
10:b4:265:LEU:O	10:b4:269:MET:HG2	1.95	0.67
1:F5:35:ARG:H	1:F5:243:ASP:HA	1.58	0.67
5:U6:125:ARG:HA	5:U6:128:GLN:HE21	1.60	0.67
8:Z2:340:ILE:HG23	8:Z2:343:ASP:HB2	1.77	0.67
1:E4:114:VAL:HG11	1:E4:186:LEU:HD13	1.76	0.67
1:H6:53:ARG:HG3	1:H7:88:GLN:HE22	1.59	0.67
1:A4:266:MET:HE1	1:B4:31:SER:HB2	1.76	0.67
1:A6:222:HIS:NE2	1:B6:82:GLU:HB2	2.10	0.67
1:B6:43:ALA:HB1	1:B7:211:ALA:HA	1.76	0.67
1:E4:36:ILE:HD11	1:E4:46:LEU:HD13	1.77	0.67
1:E5:248:GLU:HG3	1:F4:13:HIS:CD2	2.29	0.67
1:J9:60:ARG:HG2	1:J9:64:MET:HE1	1.75	0.67
4:T2:178:LEU:HB3	4:T2:193:VAL:HG21	1.77	0.67
8:Z4:157:ILE:HG12	8:Z4:161:TRP:HE1	1.59	0.67
9:a4:149:ILE:H	9:a4:149:ILE:HD12	1.60	0.67
10:b2:197:LEU:HD21	10:b2:223:THR:HG23	1.77	0.67
1:C7:36:ILE:HG23	1:C7:42:ASP:HB2	1.77	0.67
1:G7:17:LYS:HE2	1:G8:228:MET:HE3	1.76	0.67
1:J8:5:HIS:HB2	1:J9:239:SER:HB2	1.76	0.67
8:Z2:156:ASP:HA	8:Z2:159:ILE:HG12	1.77	0.67
1:h0:54:THR:HG23	1:h1:91:ARG:CZ	2.25	0.67
4:t3:23:LEU:HD12	4:t3:240:LEU:HD21	1.77	0.67
1:B4:50:GLU:HB3	1:B5:84:HIS:HE1	1.60	0.67
8:Z4:175:ARG:HD2	8:Z4:183:MET:HE2	1.77	0.67
3:Q1:130:MET:HE1	3:Q1:244:PHE:CD1	2.30	0.66
1:E4:153:ILE:HG23	1:F4:123:ARG:NH2	2.09	0.66
1:K8:68:ASP:HB3	1:K9:101:ILE:HD13	1.77	0.66
2:P2:78:TRP:CD1	2:P3:203:ARG:HH21	2.13	0.66
5:U7:168:LEU:HB2	5:U7:218:ALA:HB2	1.77	0.66
1:D4:38:ARG:HD3	1:D5:74:GLN:NE2	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a3:88:ASP:HB3	9:a3:97:TYR:HB2	1.76	0.66
1:C5:159:GLN:HB3	1:D5:127:GLN:HE22	1.59	0.66
6:X4:150:LEU:HD23	6:X4:160:ILE:HD13	1.77	0.66
3:S2:130:MET:HE1	3:S2:155:LEU:HB3	1.76	0.66
6:X1:74:VAL:HG11	6:X1:96:ILE:HG23	1.76	0.66
6:X3:80:ARG:HD2	6:X3:85:GLU:HG3	1.76	0.66
4:T4:146:GLY:HA2	4:T4:201:GLN:HE22	1.60	0.66
1:A8:154:GLY:HA3	1:A8:159:GLN:HG2	1.77	0.66
2:O5:115:GLY:HA3	2:O5:173:PHE:HE1	1.61	0.66
3:Q2:64:VAL:HG23	3:Q2:147:GLU:HB3	1.77	0.66
3:S5:157:SER:HB2	3:S5:174:VAL:HG22	1.78	0.66
4:T2:203:VAL:HG21	4:T2:210:LYS:HG2	1.78	0.66
2:M3:70:ALA:O	2:M3:74:GLN:HG2	1.95	0.66
8:Z3:221:LYS:HG2	11:c3:107:LYS:HE2	1.77	0.66
4:t4:151:MET:HG2	4:t4:239:VAL:HG22	1.77	0.66
1:J9:168:MET:HE3	1:J9:173:LEU:HD11	1.78	0.66
1:K7:117:LEU:O	1:K7:121:ILE:HD12	1.95	0.66
1:A5:216:TYR:O	1:A5:219:ARG:HB2	1.96	0.66
1:E4:55:GLN:HE22	1:E4:234:ILE:HD12	1.61	0.66
1:F5:273:LYS:HB3	1:F5:274:PRO:HD3	1.78	0.66
1:G8:274:PRO:HA	1:G8:277:VAL:HG12	1.76	0.66
1:J8:258:ILE:HG23	1:K7:278:LEU:HD22	1.78	0.66
3:R2:55:LEU:HD23	3:R2:58:ARG:HH22	1.60	0.66
4:t2:8:ARG:HH12	4:t2:208:GLN:HB2	1.60	0.66
1:C5:27:ILE:HD12	1:C5:30:LEU:HD12	1.77	0.65
3:S3:156:LYS:HG3	3:S3:175:MET:HE1	1.76	0.65
3:S5:165:VAL:HG11	3:S5:170:ILE:HA	1.77	0.65
4:T3:254:ASP:HB3	4:T3:263:LYS:HE2	1.78	0.65
10:b5:136:LYS:HB2	10:b5:154:GLN:HE21	1.61	0.65
1:A7:167:THR:HG23	1:A7:172:ALA:HB2	1.78	0.65
1:H9:176:ARG:HH22	1:H9:181:LEU:HG	1.61	0.65
1:I5:266:MET:HE2	1:J5:30:LEU:HD23	1.77	0.65
1:I9:97:ALA:HB2	1:I9:110:ILE:HG21	1.78	0.65
6:V1:117:GLU:HG2	6:V1:119:PHE:CD1	2.32	0.65
1:E2:5:HIS:NE2	1:E2:10:ILE:HD11	2.12	0.65
3:R3:222:ASN:HD21	3:R3:230:ASN:HD22	1.43	0.65
4:T3:260:CYS:HA	4:T3:263:LYS:HE3	1.79	0.65
6:X3:50:ASN:C	6:X3:52:GLU:H	2.01	0.65
1:F2:56:ILE:HG23	1:F2:231:TYR:HE1	1.60	0.65
1:K9:59:LEU:HD22	1:K9:231:TYR:HB2	1.76	0.65
2:M2:95:GLN:HE22	2:M2:103:ASN:HD21	1.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R5:134:PHE:HB3	3:R5:150:ARG:HH12	1.62	0.65
4:T3:253:ILE:HD13	4:T4:188:TRP:HE1	1.62	0.65
1:H6:19:ASN:ND2	1:H6:259:LEU:HD22	2.12	0.65
1:I9:48:VAL:HG12	1:I9:52:MET:HE2	1.79	0.65
1:J5:56:ILE:HG23	1:J5:231:TYR:HE1	1.61	0.65
1:K8:269:GLN:O	1:K8:272:MET:HG3	1.96	0.65
2:N3:166:LYS:HE2	2:N3:170:LEU:HB2	1.78	0.65
3:S3:104:ARG:HA	3:S3:131:GLU:HG3	1.79	0.65
1:A6:34:MET:HA	1:A6:243:ASP:HA	1.78	0.65
1:B5:68:ASP:HB3	1:B6:101:ILE:HD13	1.79	0.65
1:F4:63:GLU:HG3	1:F4:228:MET:HE1	1.78	0.65
1:F5:35:ARG:HD2	1:F5:36:ILE:HG13	1.78	0.65
1:K4:35:ARG:H	1:K4:243:ASP:HA	1.60	0.65
1:D5:35:ARG:HB3	1:D5:244:THR:HB	1.77	0.65
1:E5:241:ILE:HD11	1:F5:68:ASP:HB2	1.77	0.65
1:K6:34:MET:HA	1:K6:243:ASP:HA	1.78	0.65
1:F2:30:LEU:HD13	1:F2:249:GLN:HB2	1.79	0.65
1:F6:97:ALA:HB2	1:F6:110:ILE:HG21	1.79	0.65
1:E6:136:LEU:HD12	1:E6:168:MET:HG3	1.79	0.64
1:G8:5:HIS:HD2	1:G9:239:SER:HB2	1.62	0.64
3:R3:109:ASP:HB2	3:R3:161:LYS:HD3	1.77	0.64
8:Z2:23:VAL:HA	8:Z2:26:LYS:HE2	1.78	0.64
4:T3:201:GLN:HG3	4:T3:212:ILE:HG13	1.78	0.64
5:U5:125:ARG:HD2	5:U5:128:GLN:HE21	1.60	0.64
1:G8:84:HIS:HB2	1:G8:206:ILE:HG21	1.79	0.64
1:G9:36:ILE:HG21	1:G9:46:LEU:HD22	1.78	0.64
1:K6:148:SER:HB2	1:K6:150:TRP:CD1	2.32	0.64
2:M2:90:PHE:HA	2:M2:93:LEU:HD23	1.79	0.64
5:U3:271:LYS:HD3	5:U3:282:PRO:HG2	1.78	0.64
1:I5:1:MET:HE2	1:I5:1:MET:HA	1.80	0.64
1:F6:93:LEU:HD22	1:F6:113:GLU:HG2	1.80	0.64
2:O2:80:ASN:HB3	2:O2:83:PHE:CE2	2.33	0.64
3:R2:62:HIS:HE1	3:R2:245:ASP:HA	1.63	0.64
10:b2:222:VAL:HG11	10:b3:93:ILE:HD11	1.79	0.64
1:A5:52:MET:HE1	1:A5:241:ILE:HG21	1.78	0.64
1:F6:159:GLN:HG2	1:G2:127:GLN:HE22	1.63	0.64
1:K7:54:THR:HA	1:K8:88:GLN:HE22	1.63	0.64
8:Z4:157:ILE:HG23	8:Z4:161:TRP:CD1	2.32	0.64
1:D4:159:GLN:HE21	1:E4:127:GLN:NE2	1.96	0.64
1:J7:124:ILE:O	1:J7:128:ALA:HB3	1.97	0.64
3:R3:70:VAL:HG22	3:R3:255:ASN:HD21	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:c1:107:LYS:HE3	11:c1:118:GLU:HG3	1.78	0.64
1:C6:133:MET:HE3	1:C6:135:LEU:HD21	1.79	0.64
1:F2:25:LYS:O	1:F2:28:GLU:HG2	1.98	0.64
1:J9:240:ARG:HG2	1:J9:240:ARG:HH11	1.62	0.64
2:P3:174:THR:HG22	2:P3:205:TRP:HE1	1.62	0.64
1:B6:11:PHE:HB2	1:B7:232:GLU:HG3	1.80	0.64
1:D5:123:ARG:O	1:D5:127:GLN:HG2	1.97	0.64
1:H6:12:ALA:HB3	1:H6:267:LEU:HD13	1.80	0.64
1:I8:40:GLY:HA2	1:I9:214:GLY:HA2	1.80	0.64
11:c3:26:VAL:HG23	11:c3:27:VAL:H	1.62	0.64
1:B7:240:ARG:HH12	1:C7:68:ASP:HA	1.62	0.63
1:J5:51:LYS:HD2	1:J6:204:ARG:HH12	1.63	0.63
6:X1:45:LYS:HE3	6:X1:220:GLU:HG2	1.80	0.63
9:a2:47:LEU:HD22	9:a2:154:PRO:HB3	1.80	0.63
10:b4:89:ALA:O	10:b4:93:ILE:HG22	1.98	0.63
1:C7:258:ILE:HG23	1:D6:278:LEU:HD22	1.80	0.63
2:M4:235:TYR:HB3	2:M4:280:LEU:HD22	1.81	0.63
3:S3:61:ARG:O	3:S3:64:VAL:HG22	1.98	0.63
7:Y5:129:MET:HE1	7:Y5:237:SER:HB2	1.81	0.63
1:i0:87:VAL:HA	1:i0:90:ILE:HG22	1.80	0.63
1:A6:25:LYS:O	1:A6:28:GLU:HG2	1.98	0.63
1:B3:273:LYS:HZ1	1:C3:253:PHE:HE2	1.47	0.63
1:E4:133:MET:HE3	1:E4:134:LYS:H	1.64	0.63
1:G8:142:ARG:HG2	1:G8:142:ARG:HH11	1.63	0.63
1:j0:73:ILE:HA	1:j0:213:LEU:HD13	1.79	0.63
3:Q4:173:GLU:HB3	3:Q4:192:PHE:HB3	1.79	0.63
3:R5:83:LYS:HD3	3:R5:100:ASN:HA	1.81	0.63
3:S6:108:TYR:HE2	3:S6:126:LEU:HA	1.62	0.63
5:U7:129:GLY:O	5:U7:132:LYS:HG3	1.98	0.63
8:Z3:233:GLN:HB3	8:Z3:236:HIS:ND1	2.13	0.63
1:D5:175:LEU:HD22	1:D5:184:ILE:HD13	1.80	0.63
2:L6:133:GLU:HA	2:L6:136:LYS:HZ2	1.64	0.63
6:V1:49:GLU:HB3	6:V1:219:LEU:HD12	1.81	0.63
1:F4:273:LYS:HG3	1:F4:274:PRO:HD3	1.80	0.63
2:L5:241:LEU:HD13	2:L5:273:HIS:CE1	2.34	0.63
1:C3:278:LEU:HD21	1:C4:246:MET:HG2	1.80	0.63
1:H8:258:ILE:HD11	1:I7:275:GLN:HG2	1.80	0.63
3:S3:81:LYS:HB2	3:S3:95:GLN:HG2	1.80	0.63
9:a5:181:GLU:HB3	9:a5:184:GLN:HG2	1.81	0.63
10:b4:149:GLU:HG3	10:b4:150:LYS:HG3	1.81	0.63
1:A6:111:GLN:HA	1:A6:114:VAL:HG12	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B4:1:MET:HE1	1:B4:273:LYS:NZ	2.14	0.63
1:C6:266:MET:HE1	1:D6:27:ILE:HD13	1.81	0.63
1:D5:67:GLU:HA	1:D5:70:MET:HE2	1.81	0.63
1:H7:29:LYS:HD3	1:H7:35:ARG:HA	1.80	0.63
4:t3:31:TRP:HE1	4:t3:42:TRP:CD1	2.17	0.63
1:B7:97:ALA:HB2	1:B7:110:ILE:HG21	1.81	0.63
1:E3:226:GLY:HA2	1:F3:82:GLU:HG3	1.80	0.63
1:I8:53:ARG:HG2	1:I9:88:GLN:HE22	1.64	0.63
2:N5:77:LEU:HD23	2:N6:203:ARG:HH21	1.64	0.63
1:C7:219:ARG:HD2	1:D7:116:GLN:HE21	1.64	0.62
2:P4:114:SER:HA	10:b4:120:LEU:HD13	1.81	0.62
6:X1:146:LEU:HB2	6:X1:163:GLY:HA3	1.81	0.62
1:C4:68:ASP:OD2	1:C5:101:ILE:HD13	1.99	0.62
1:D3:247:ALA:HB3	1:E2:13:HIS:HD2	1.64	0.62
1:I7:65:ASN:HD21	1:I8:96:GLN:HA	1.64	0.62
1:K6:84:HIS:HB2	1:K6:206:ILE:HG21	1.81	0.62
1:D3:165:ILE:HA	1:D3:209:GLN:HE22	1.64	0.62
2:N5:142:LYS:HB2	2:O4:217:GLN:HE22	1.64	0.62
8:Z4:137:LEU:O	8:Z4:141:ILE:HG13	1.99	0.62
1:A5:256:TYR:O	1:A5:260:THR:HG23	1.98	0.62
1:A8:65:ASN:ND2	1:A9:99:ASN:HB2	2.15	0.62
2:L3:109:LEU:HD21	2:L3:197:LEU:HD22	1.81	0.62
2:N2:270:LYS:HA	2:N2:273:HIS:CE1	2.35	0.62
2:P3:206:ILE:HD12	2:P3:222:LEU:HD22	1.81	0.62
3:S3:173:GLU:HB3	3:S3:192:PHE:HB3	1.79	0.62
8:Z1:157:ILE:HA	8:Z1:161:TRP:HD1	1.63	0.62
1:A6:3:ILE:HG21	1:K7:258:ILE:HG21	1.80	0.62
1:D5:168:MET:HE1	1:D5:206:ILE:HG12	1.81	0.62
1:I7:281:LEU:HD22	1:I8:246:MET:HE1	1.81	0.62
10:b4:93:ILE:HG23	10:b4:94:GLU:OE1	1.99	0.62
1:B5:168:MET:HE1	1:B5:173:LEU:HD11	1.80	0.62
1:C3:35:ARG:HG3	1:C3:36:ILE:HD12	1.81	0.62
1:E5:114:VAL:HG21	1:E5:186:LEU:HD12	1.80	0.62
1:J7:156:ASN:HB2	1:J7:159:GLN:HE22	1.64	0.62
1:K7:34:MET:HA	1:K7:243:ASP:HA	1.80	0.62
1:K8:29:LYS:HD3	1:K8:249:GLN:HE21	1.63	0.62
2:O2:104:LYS:HB3	2:O2:183:ILE:HD11	1.82	0.62
2:P2:205:TRP:HE1	2:P2:221:ILE:HG13	1.64	0.62
4:T2:48:LYS:HB2	4:T2:101:PHE:HE2	1.64	0.62
1:A5:61:ARG:O	1:A5:65:ASN:HB2	2.00	0.62
1:A5:67:GLU:CD	1:K5:240:ARG:HH12	2.08	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F4:51:LYS:O	1:F4:54:THR:HG22	1.99	0.62
1:F6:36:ILE:HG21	1:F6:46:LEU:HB2	1.81	0.62
3:Q3:63:THR:HG22	3:Q3:66:MET:HE2	1.82	0.62
5:U7:136:GLN:HG2	5:U7:183:PHE:HZ	1.63	0.62
8:Z1:233:GLN:HB3	8:Z1:236:HIS:CD2	2.35	0.62
1:E2:266:MET:HE3	1:F2:30:LEU:HD23	1.81	0.62
1:F3:184:ILE:HD11	1:F3:195:VAL:HG22	1.82	0.62
1:I9:18:PHE:CE1	1:i0:228:MET:HE3	2.35	0.62
3:Q4:128:LYS:HB3	3:Q4:159:ILE:HD12	1.81	0.62
2:P4:135:GLU:HB2	10:b4:269:MET:SD	2.39	0.62
3:Q2:105:VAL:HG21	3:Q2:248:PHE:HE1	1.65	0.62
10:b2:156:LYS:HE2	10:b2:169:MET:HE1	1.81	0.62
1:h0:28:GLU:HG2	1:h0:37:ASN:HD22	1.63	0.62
1:A5:219:ARG:HE	1:B5:116:GLN:HG2	1.65	0.62
1:E5:87:VAL:HA	1:E5:90:ILE:HG22	1.81	0.62
1:G7:1:MET:HA	1:G8:240:ARG:HH22	1.64	0.62
3:S3:221:GLU:HG3	3:S3:226:HIS:HB2	1.81	0.62
1:E4:262:ALA:HB2	1:F3:278:LEU:HD11	1.82	0.61
1:K5:237:ALA:O	1:K5:241:ILE:HG12	2.00	0.61
2:L6:158:VAL:HG13	2:L6:162:LYS:HZ3	1.65	0.61
2:P4:78:TRP:HB3	2:P5:203:ARG:HH21	1.65	0.61
6:X5:52:GLU:HA	6:X5:100:HIS:HB2	1.80	0.61
7:Y2:57:PHE:HB2	7:Y2:70:ASP:HB2	1.82	0.61
9:a3:208:GLU:O	9:a3:212:LYS:HG2	2.00	0.61
1:G7:219:ARG:HG3	1:H7:116:GLN:HE21	1.65	0.61
1:I6:258:ILE:HG23	1:J5:278:LEU:HD22	1.81	0.61
1:J5:14:ARG:HG3	1:J6:228:MET:HE1	1.82	0.61
2:O3:246:ALA:HB2	2:O3:270:LYS:HE3	1.81	0.61
6:V2:75:GLN:HE21	6:V2:99:ASN:HD21	1.48	0.61
6:X2:74:VAL:HG11	6:X2:96:ILE:HG23	1.81	0.61
1:A6:180:VAL:HG12	1:A6:182:THR:HG23	1.81	0.61
9:a2:181:GLU:HB2	9:a2:184:GLN:NE2	2.15	0.61
1:C6:162:ARG:HE	1:C6:164:TYR:HE1	1.47	0.61
1:G8:247:ALA:O	1:G8:251:THR:HG23	2.00	0.61
1:K7:160:ARG:HE	1:K8:193:ASN:HD21	1.47	0.61
3:Q3:234:LYS:HA	3:Q3:238:ILE:HD12	1.83	0.61
5:U5:45:ASN:ND2	5:U5:304:MET:HG2	2.15	0.61
7:Y5:267:LEU:HD11	7:Y5:270:ARG:HG3	1.83	0.61
3:S3:174:VAL:HG12	3:S3:191:VAL:HG23	1.82	0.61
6:X3:135:ILE:HA	6:X3:218:ASP:HB3	1.82	0.61
1:h0:97:ALA:HB2	1:h0:110:ILE:HG21	1.80	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:t2:229:THR:HG22	4:t2:230:VAL:H	1.66	0.61
1:A5:48:VAL:HG12	1:A5:52:MET:HE2	1.83	0.61
1:C5:168:MET:HE1	1:C5:206:ILE:HG12	1.83	0.61
6:X3:122:HIS:CE1	8:Z3:172:THR:HA	2.35	0.61
1:B5:30:LEU:HD11	1:B5:246:MET:SD	2.40	0.61
2:N3:269:LYS:HA	2:N3:272:VAL:HG12	1.82	0.61
2:O3:77:LEU:HD23	2:O3:78:TRP:HD1	1.63	0.61
5:U6:111:LEU:HD13	5:U6:119:LEU:HG	1.82	0.61
7:Y4:183:LEU:HD21	7:Y4:226:ILE:HD11	1.83	0.61
1:A8:247:ALA:HB3	1:B7:13:HIS:HD2	1.65	0.61
1:J7:1:MET:HG2	1:K7:20:SER:OG	2.01	0.61
11:c2:77:LEU:HD11	11:c2:82:MET:HE2	1.83	0.61
1:A5:109:GLN:O	1:A5:112:VAL:HG12	2.01	0.61
1:G1:215:ALA:HB1	1:h0:116:GLN:HG3	1.82	0.61
1:B3:23:MET:HE1	1:B3:257:GLN:HA	1.82	0.60
1:D5:140:PHE:CE2	1:D5:149:MET:HB2	2.36	0.60
1:F3:89:ARG:HH12	1:F3:93:LEU:HD21	1.66	0.60
1:K5:269:GLN:HA	1:K5:272:MET:SD	2.40	0.60
6:X4:136:TRP:HB2	6:X4:217:ASP:H	1.66	0.60
6:X5:134:SER:HB3	6:X5:172:LYS:HE3	1.83	0.60
4:t4:80:LYS:HG3	4:t4:81:PRO:HD2	1.83	0.60
1:B6:43:ALA:HB2	1:B7:214:GLY:HA3	1.82	0.60
1:I6:47:ALA:HB3	1:J7:109:GLN:NE2	2.15	0.60
1:K8:60:ARG:O	1:K8:63:GLU:HG3	2.00	0.60
2:N6:162:LYS:O	2:N6:166:LYS:HG2	2.01	0.60
4:T3:46:THR:HG23	4:T3:49:ASP:HB3	1.83	0.60
6:V1:141:LYS:HG2	6:V1:168:PHE:HB2	1.81	0.60
1:A8:236:ALA:O	1:A8:240:ARG:HG2	2.01	0.60
1:G8:14:ARG:HG2	1:G9:228:MET:HG3	1.83	0.60
1:H7:233:ASN:ND2	1:I7:75:THR:HA	2.17	0.60
1:J7:166:GLU:HB2	1:J7:168:MET:HE2	1.83	0.60
1:K8:29:LYS:HD3	1:K8:249:GLN:NE2	2.16	0.60
3:R5:130:MET:HE2	3:R5:132:ILE:HD11	1.82	0.60
4:T1:128:LEU:HD22	4:T1:134:LYS:HA	1.81	0.60
6:V2:106:THR:HG21	6:V2:116:VAL:HG11	1.83	0.60
6:V4:138:LEU:HD12	6:V4:170:TRP:CD1	2.36	0.60
6:X3:142:PHE:HE2	6:X3:144:HIS:HD1	1.47	0.60
9:a3:60:ARG:HE	9:a3:200:ILE:HG21	1.66	0.60
1:E3:158:HIS:H	1:E4:193:ASN:HD21	1.47	0.60
1:G2:191:LYS:O	1:G2:195:VAL:HG23	2.01	0.60
1:I9:254:THR:O	1:I9:258:ILE:HG12	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J5:141:ALA:HA	1:J5:166:GLU:HA	1.84	0.60
1:J7:173:LEU:HD12	1:J7:202:ALA:HB1	1.82	0.60
2:L3:90:PHE:HB2	2:L4:239:LYS:HE3	1.83	0.60
8:Z3:23:VAL:HA	8:Z3:26:LYS:HE2	1.82	0.60
1:B5:7:ILE:HA	1:B5:10:ILE:HG22	1.83	0.60
1:H9:153:ILE:HD11	1:I9:123:ARG:HD2	1.83	0.60
1:J5:38:ARG:HG2	1:J6:74:GLN:HE22	1.67	0.60
1:K9:191:LYS:O	1:K9:195:VAL:HG23	2.02	0.60
2:P6:262:GLN:HA	2:P6:265:LYS:HE3	1.82	0.60
3:Q2:60:THR:HG22	3:Q2:152:ILE:HB	1.83	0.60
3:Q2:211:GLY:N	3:Q2:215:TYR:HH	1.99	0.60
3:Q4:106:GLU:HG2	3:Q4:129:TYR:HB3	1.84	0.60
6:X4:46:LEU:HG	8:Z4:179:LEU:HD21	1.84	0.60
1:A5:188:THR:HG23	1:A5:191:LYS:H	1.67	0.60
1:A5:253:PHE:HZ	1:K5:269:GLN:HG2	1.66	0.60
1:C5:252:SER:O	1:C5:255:ARG:HG2	2.02	0.60
1:D6:2:ILE:HG22	1:D6:4:ASN:H	1.65	0.60
1:G9:35:ARG:O	1:G9:36:ILE:HD13	2.02	0.60
1:H9:219:ARG:HD3	1:I9:120:GLU:HB2	1.83	0.60
1:I8:150:TRP:CZ3	1:I8:162:ARG:HB2	2.36	0.60
1:J6:150:TRP:CZ3	1:J6:162:ARG:HB2	2.37	0.60
1:i0:152:HIS:HD2	1:i0:154:GLY:H	1.47	0.60
1:A7:192:ALA:O	1:A7:195:VAL:HG12	2.01	0.60
1:H9:258:ILE:HG23	1:I8:278:LEU:HD22	1.84	0.60
1:J5:254:THR:O	1:J5:258:ILE:HG12	2.01	0.60
2:O2:78:TRP:CE3	2:O3:236:PRO:HB2	2.36	0.60
3:S6:108:TYR:CE2	3:S6:126:LEU:HA	2.36	0.60
7:Y2:135:PRO:HA	7:Y2:138:VAL:HG12	1.84	0.60
11:c1:55:LEU:HD11	11:c1:93:VAL:HG11	1.84	0.60
1:E4:230:ALA:O	1:E4:234:ILE:HG12	2.01	0.60
1:H9:97:ALA:HB2	1:H9:110:ILE:HG21	1.83	0.60
2:O5:293:VAL:O	2:O5:296:VAL:HG12	2.02	0.60
9:a2:97:TYR:HH	9:a2:138:TYR:N	1.99	0.60
1:i0:204:ARG:HH12	1:j0:105:GLU:HG3	1.67	0.60
1:G6:237:ALA:HB1	1:H6:71:SER:OG	2.01	0.60
3:S5:108:TYR:CD1	3:S5:126:LEU:HA	2.36	0.60
5:U4:155:PRO:O	5:U4:158:VAL:HG12	2.01	0.60
8:Z2:98:TYR:HA	8:Z2:101:GLU:HG2	1.83	0.60
1:h0:179:THR:HG23	1:h0:180:VAL:HG13	1.83	0.60
1:B7:40:GLY:HA3	1:B8:217:TYR:CD2	2.37	0.60
1:B8:151:PHE:CE2	1:B8:163:VAL:HG21	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H9:161:GLU:HG3	1:H9:219:ARG:HH22	1.65	0.60
2:L2:205:TRP:CD1	2:L2:221:ILE:HG21	2.37	0.60
2:L3:246:ALA:O	2:L3:249:GLU:HG3	2.01	0.60
2:P6:205:TRP:HD1	2:P6:221:ILE:HG21	1.66	0.60
5:U4:51:LEU:HD21	5:U4:141:GLN:HE22	1.66	0.60
6:V2:75:GLN:HE21	6:V2:99:ASN:ND2	1.99	0.60
10:b2:231:ASN:HD21	10:b3:83:ASN:ND2	1.99	0.60
1:i0:138:GLY:HA3	1:i0:167:THR:HG22	1.84	0.60
1:A4:5:HIS:HD2	1:A4:10:ILE:HD11	1.67	0.59
1:A5:65:ASN:ND2	1:A6:99:ASN:HD21	2.00	0.59
1:E6:117:LEU:O	1:E6:121:ILE:HD12	2.02	0.59
3:R2:217:LEU:O	3:R2:220:VAL:HG12	2.02	0.59
3:S3:166:LEU:HD13	3:S3:171:ILE:HD11	1.82	0.59
7:Y3:62:ASP:HB2	7:Y3:219:LEU:HD11	1.84	0.59
3:R3:133:TYR:HB2	3:R3:153:ASN:HB3	1.83	0.59
3:S5:133:TYR:CD2	3:S5:154:LYS:HD3	2.28	0.59
1:D3:38:ARG:HD2	1:D3:39:ALA:N	2.17	0.59
1:F5:233:ASN:ND2	1:G1:75:THR:HA	2.17	0.59
1:J8:35:ARG:HG2	1:J8:242:ARG:O	2.02	0.59
4:T2:152:SER:HA	4:T2:191:LEU:O	2.02	0.59
9:a2:181:GLU:HB2	9:a2:184:GLN:HE22	1.67	0.59
10:b2:170:ARG:HG3	10:b3:277:PHE:HB3	1.85	0.59
10:b3:96:GLU:CG	10:b3:97:PRO:HD2	2.31	0.59
4:t1:32:ASP:CB	4:t1:93:LYS:H	2.15	0.59
1:B8:81:GLN:NE2	1:B8:210:ARG:HH22	2.01	0.59
1:E5:191:LYS:O	1:E5:195:VAL:HG23	2.02	0.59
1:G6:14:ARG:HD2	1:G7:229:ASN:OD1	2.03	0.59
1:J7:38:ARG:CZ	1:J8:74:GLN:HG3	2.31	0.59
1:J7:159:GLN:HA	1:K7:127:GLN:NE2	2.17	0.59
3:Q1:156:LYS:HA	3:Q1:175:MET:HG2	1.85	0.59
3:R5:64:VAL:HG12	3:R5:147:GLU:HB3	1.83	0.59
5:U3:139:HIS:HE1	5:U3:183:PHE:HB2	1.67	0.59
1:A8:30:LEU:HD21	1:A8:249:GLN:HB2	1.83	0.59
1:B4:150:TRP:HZ2	1:B4:162:ARG:HH21	1.48	0.59
1:C3:3:ILE:HD11	1:C3:278:LEU:HD13	1.85	0.59
1:H6:154:GLY:HA3	1:H6:159:GLN:HG2	1.83	0.59
1:I8:41:ASP:HA	1:I9:218:ASN:HD21	1.66	0.59
8:Z4:129:TYR:O	8:Z4:133:THR:HG23	2.02	0.59
1:j0:80:LEU:HD22	1:j0:206:ILE:HG12	1.84	0.59
4:t1:42:TRP:CD1	4:t1:114:PRO:HD3	2.37	0.59
1:A6:61:ARG:HG3	1:A7:92:VAL:HG13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A8:240:ARG:HH11	1:B8:67:GLU:HG3	1.65	0.59
1:B6:244:THR:HG23	1:B6:249:GLN:HG3	1.85	0.59
1:J8:72:LEU:HD22	1:J8:149:MET:HE1	1.85	0.59
4:T3:151:MET:O	4:T3:192:THR:HA	2.02	0.59
6:X5:106:THR:HG21	6:X5:116:VAL:HG11	1.83	0.59
8:Z3:138:LYS:HD3	11:c3:64:HIS:CE1	2.37	0.59
1:C5:166:GLU:HB3	1:C5:209:GLN:HE22	1.68	0.59
1:D6:262:ALA:HB2	1:E5:278:LEU:HD11	1.84	0.59
1:D7:53:ARG:HA	1:D7:56:ILE:HG12	1.83	0.59
1:I5:5:HIS:CD2	1:I6:235:GLN:HE22	2.20	0.59
2:M5:91:GLN:HA	2:M5:94:HIS:ND1	2.16	0.59
2:P3:206:ILE:HD11	2:P3:221:ILE:HB	1.84	0.59
1:i0:79:TYR:CD2	1:i0:128:ALA:HB1	2.37	0.59
1:A5:123:ARG:HH12	1:K5:153:ILE:HG13	1.66	0.59
1:B4:65:ASN:HD21	1:B5:96:GLN:HA	1.68	0.59
1:B7:84:HIS:CD2	1:B7:210:ARG:HH11	2.21	0.59
1:B7:248:GLU:HB2	1:C6:13:HIS:CD2	2.38	0.59
1:C5:133:MET:HG3	1:C5:135:LEU:HD12	1.84	0.59
1:G7:52:MET:O	1:G7:56:ILE:HG12	2.03	0.59
2:P2:94:HIS:ND1	2:P2:95:GLN:HG3	2.18	0.59
1:B6:191:LYS:O	1:B6:195:VAL:HG23	2.03	0.59
1:F5:130:PHE:HB2	1:F5:135:LEU:HD11	1.85	0.59
1:G2:80:LEU:HB3	1:G2:210:ARG:HH21	1.68	0.59
1:H6:3:ILE:HD11	1:H7:246:MET:HB2	1.84	0.59
3:S6:58:ARG:HG3	3:S6:61:ARG:HH21	1.68	0.59
6:X5:132:GLN:HG3	6:X5:222:ARG:HB3	1.83	0.59
1:A7:127:GLN:NE2	1:K7:159:GLN:HA	2.17	0.59
1:B4:274:PRO:HA	1:B4:277:VAL:HG22	1.85	0.59
1:H8:25:LYS:O	1:H8:28:GLU:HG2	2.03	0.59
3:R3:222:ASN:ND2	3:R3:230:ASN:HD22	2.00	0.59
1:A6:275:GLN:HE21	1:A6:279:GLN:HE21	1.51	0.58
1:C7:56:ILE:HD13	1:C7:238:GLU:OE1	2.03	0.58
1:D4:52:MET:HE1	1:D4:241:ILE:HG21	1.84	0.58
1:H9:133:MET:HE3	1:h0:103:THR:HG22	1.85	0.58
1:K6:17:LYS:HD3	1:K7:228:MET:HE1	1.84	0.58
1:K7:86:ILE:HD11	1:K7:117:LEU:HD22	1.85	0.58
2:M5:202:TYR:O	2:M5:206:ILE:HG12	2.02	0.58
2:N3:289:TYR:O	2:N3:293:VAL:HG23	2.03	0.58
2:O3:78:TRP:CE3	2:O4:236:PRO:HB2	2.38	0.58
4:T4:109:VAL:HG22	4:T4:219:VAL:HB	1.84	0.58
6:V1:105:LYS:HG3	6:V1:213:TYR:CE1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a3:143:ILE:HB	9:a3:160:VAL:HB	1.83	0.58
10:b2:231:ASN:HD21	10:b3:83:ASN:HD22	1.49	0.58
1:i0:224:ALA:O	1:i0:228:MET:HG3	2.03	0.58
1:B6:97:ALA:HB2	1:B6:110:ILE:HG21	1.85	0.58
1:B7:230:ALA:HA	1:B7:233:ASN:HD22	1.68	0.58
1:F3:248:GLU:HB2	1:G7:13:HIS:CE1	2.38	0.58
3:S2:133:TYR:HB2	3:S2:154:LYS:HB3	1.85	0.58
4:T1:135:LYS:HE3	6:V1:76:ARG:HH12	1.68	0.58
4:t2:30:SER:HB2	13:t2:402:HOH:O	2.03	0.58
4:t4:222:ARG:HG2	4:t4:225:THR:OG1	2.04	0.58
1:E6:157:MET:HE1	1:E7:193:ASN:HB3	1.85	0.58
1:E6:160:ARG:HH22	2:M5:156:ARG:HH11	1.51	0.58
1:H7:150:TRP:CE2	1:H7:162:ARG:HB2	2.39	0.58
1:J7:43:ALA:HA	1:J7:46:LEU:HB3	1.83	0.58
3:Q1:155:LEU:HB3	3:Q1:176:ASP:HB3	1.85	0.58
4:t4:219:VAL:HG21	4:t4:232:LEU:HD11	1.85	0.58
4:t4:221:SER:HB2	4:t4:225:THR:HB	1.86	0.58
1:B7:23:MET:O	1:B7:27:ILE:HD12	2.03	0.58
1:H9:175:LEU:HD22	1:H9:184:ILE:HD12	1.84	0.58
1:I7:53:ARG:HA	1:I7:56:ILE:HD12	1.83	0.58
3:Q2:58:ARG:HG3	3:Q2:62:HIS:CE1	2.38	0.58
3:Q2:179:PRO:HA	3:Q2:185:HIS:HE1	1.67	0.58
3:Q4:59:LEU:HA	3:Q4:62:HIS:CD2	2.38	0.58
8:Z2:255:ARG:HE	8:Z2:332:ASP:HB3	1.67	0.58
9:a4:95:ASN:HD21	9:a4:130:LEU:HD21	1.68	0.58
1:C3:53:ARG:HA	1:C3:56:ILE:HG22	1.85	0.58
1:G8:49:SER:HB2	1:G8:242:ARG:HG2	1.85	0.58
4:T3:23:LEU:HB2	4:t3:23:LEU:HD21	1.86	0.58
1:G2:62:ALA:HB1	1:G2:153:ILE:HA	1.86	0.58
1:G8:233:ASN:HD21	1:H8:74:GLN:C	2.10	0.58
1:I8:175:LEU:HD22	1:I8:184:ILE:HD11	1.85	0.58
2:L3:75:GLU:C	2:L3:77:LEU:H	2.12	0.58
1:A6:65:ASN:HD21	1:A7:96:GLN:HA	1.67	0.58
1:A8:111:GLN:HA	1:A8:114:VAL:HG12	1.86	0.58
1:D5:65:ASN:ND2	1:D6:99:ASN:HD22	2.01	0.58
1:J9:168:MET:HE1	1:J9:206:ILE:HG13	1.84	0.58
1:K5:35:ARG:H	1:K5:243:ASP:HA	1.69	0.58
3:R3:206:THR:OG1	3:R3:207:PRO:HD2	2.04	0.58
3:R4:228:ILE:H	3:R4:228:ILE:HD12	1.68	0.58
1:D5:180:VAL:HG22	2:L3:174:THR:HG21	1.85	0.58
1:I7:49:SER:HA	1:I7:52:MET:HE2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J5:11:PHE:CZ	1:K5:28:GLU:HG3	2.38	0.58
2:N4:215:LEU:HD12	2:N4:244:CYS:HA	1.85	0.58
3:R3:70:VAL:HG22	3:R3:255:ASN:ND2	2.19	0.58
1:j0:72:LEU:N	1:j0:75:THR:HG1	2.02	0.58
4:t3:156:CYS:HB3	4:t3:233:PHE:HB2	1.85	0.58
1:F2:56:ILE:HG23	1:F2:231:TYR:CE1	2.39	0.58
3:Q4:135:GLU:HG2	3:Q4:151:ASN:HB2	1.86	0.58
7:Y5:80:PHE:HB3	7:Y5:190:GLU:HG3	1.85	0.58
1:C5:157:MET:HE3	1:C5:158:HIS:CE1	2.39	0.58
1:K6:52:MET:O	1:K6:56:ILE:HD12	2.03	0.58
2:P4:205:TRP:HE1	2:P4:221:ILE:HG13	1.68	0.58
2:P4:215:LEU:HD23	2:P4:244:CYS:HA	1.84	0.58
3:Q4:70:VAL:HG23	3:Q4:255:ASN:HD21	1.68	0.58
3:S2:128:LYS:HB3	3:S2:159:ILE:HD12	1.86	0.58
1:A8:117:LEU:O	1:A8:121:ILE:HD12	2.04	0.57
1:C7:35:ARG:HG2	1:C7:244:THR:HA	1.84	0.57
1:C7:186:LEU:HD11	1:C7:195:VAL:HG11	1.86	0.57
1:I5:43:ALA:HB1	1:I6:211:ALA:HA	1.85	0.57
2:M2:74:GLN:HB2	2:M3:234:GLU:OE2	2.04	0.57
6:X5:177:ILE:HD13	6:X5:183:GLN:NE2	2.19	0.57
7:Y3:51:VAL:HG22	7:Y3:75:MET:HG3	1.85	0.57
4:t1:32:ASP:HB3	4:t1:93:LYS:N	2.18	0.57
1:A7:67:GLU:HA	1:A7:70:MET:HG2	1.84	0.57
1:B8:136:LEU:HD22	1:B8:168:MET:HG3	1.86	0.57
1:J5:1:MET:HE1	1:J5:273:LYS:HE2	1.86	0.57
1:K6:191:LYS:O	1:K6:195:VAL:HG23	2.04	0.57
2:L4:292:ILE:O	2:L4:296:VAL:HG23	2.04	0.57
4:t2:180:PHE:HB3	4:t2:191:LEU:HD13	1.86	0.57
1:A8:167:THR:O	1:A8:168:MET:HE2	2.03	0.57
1:H9:233:ASN:HD21	1:I9:74:GLN:HG3	1.69	0.57
2:M2:142:LYS:HB2	2:N2:217:GLN:HE22	1.68	0.57
2:N4:245:TYR:CE2	2:N4:269:LYS:HE3	2.39	0.57
4:T3:133:GLN:HE22	4:T3:135:LYS:HA	1.69	0.57
6:V2:52:GLU:HA	6:V2:100:HIS:HB2	1.85	0.57
6:V3:199:LEU:HD11	6:V3:219:LEU:HD21	1.86	0.57
7:Y5:216:HIS:CD2	7:Y5:219:LEU:HD23	2.39	0.57
4:t1:94:VAL:HG22	4:t1:235:ASP:CG	2.30	0.57
1:B4:167:THR:O	1:B4:168:MET:HE2	2.04	0.57
1:C5:130:PHE:O	1:C5:133:MET:HB3	2.04	0.57
1:F6:34:MET:HA	1:F6:243:ASP:HA	1.86	0.57
1:G2:74:GLN:HA	1:G2:77:GLU:OE1	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H6:25:LYS:O	1:H6:28:GLU:HG2	2.03	0.57
1:I6:68:ASP:HB3	1:I7:101:ILE:HD13	1.85	0.57
2:L2:91:GLN:HA	2:L2:94:HIS:CE1	2.39	0.57
2:L6:158:VAL:O	2:L6:162:LYS:HD3	2.03	0.57
5:U6:297:THR:HA	10:b4:41:LEU:HB2	1.86	0.57
9:a4:184:GLN:NE2	9:a5:222:LEU:HD11	2.19	0.57
1:I7:87:VAL:HA	1:I7:90:ILE:HG22	1.85	0.57
3:Q2:70:VAL:HG13	3:Q2:255:ASN:HD21	1.70	0.57
3:R4:226:HIS:HD2	3:R4:228:ILE:HD11	1.68	0.57
3:S2:104:ARG:HA	3:S2:130:MET:O	2.05	0.57
6:X4:130:ALA:C	6:X4:131:ARG:HD3	2.29	0.57
8:Z3:165:SER:O	8:Z3:168:VAL:HG22	2.03	0.57
1:A9:111:GLN:HE22	1:A9:186:LEU:HD12	1.69	0.57
1:F2:30:LEU:HD11	1:F2:246:MET:SD	2.44	0.57
1:H7:258:ILE:HG13	1:I6:278:LEU:HD13	1.86	0.57
1:J6:14:ARG:HH22	1:J7:229:ASN:CG	2.12	0.57
10:b2:58:PHE:CE2	10:b2:242:ILE:HG13	2.38	0.57
10:b4:76:LYS:HA	10:b4:79:ASN:ND2	2.20	0.57
1:h0:34:MET:HE1	1:h0:242:ARG:HE	1.69	0.57
1:A7:52:MET:HE3	1:A7:234:ILE:HG23	1.87	0.57
1:B7:29:LYS:NZ	1:B7:249:GLN:HB3	2.20	0.57
1:C4:16:LEU:HD11	1:C4:264:THR:HG22	1.86	0.57
1:C7:36:ILE:HG21	1:C7:46:LEU:HB2	1.87	0.57
1:D7:73:ILE:HG21	1:D7:217:TYR:HB2	1.86	0.57
1:I9:258:ILE:HG23	1:J8:278:LEU:HD21	1.86	0.57
1:J9:222:HIS:HA	1:J9:225:LYS:HD2	1.87	0.57
2:L6:112:TYR:HE1	2:L6:204:SER:HB3	1.69	0.57
10:b4:237:LYS:NZ	10:b5:268:LYS:HB3	2.19	0.57
4:t2:209:VAL:HG21	4:t2:266:LEU:HD11	1.86	0.57
1:H9:192:ALA:O	1:H9:195:VAL:HG12	2.05	0.57
1:I6:180:VAL:HG12	1:I6:182:THR:HG23	1.85	0.57
1:K5:281:LEU:HB3	1:K6:250:MET:HE3	1.85	0.57
2:M5:212:LEU:O	2:M5:213:GLN:HG3	2.04	0.57
2:N4:179:HIS:O	2:N4:182:GLU:HG2	2.05	0.57
3:Q2:54:GLU:O	3:Q2:57:GLN:HG3	2.05	0.57
5:U7:89:LEU:HD12	5:U7:306:MET:HE1	1.85	0.57
6:X1:132:GLN:HB2	6:X1:222:ARG:HB2	1.86	0.57
1:A5:30:LEU:HD21	1:A5:249:GLN:HB3	1.86	0.57
1:A7:61:ARG:HD2	1:A8:96:GLN:OE1	2.05	0.57
1:C6:46:LEU:HD11	1:C7:210:ARG:HD3	1.86	0.57
1:J8:192:ALA:HA	1:J8:195:VAL:HG12	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P4:189:ARG:HA	2:P4:194:PHE:CD2	2.39	0.57
6:V4:75:GLN:NE2	6:V4:96:ILE:HA	2.19	0.57
9:a4:183:ALA:HA	9:a4:186:VAL:HG12	1.87	0.57
4:t2:37:SER:C	4:t2:39:PRO:HD2	2.30	0.57
1:B3:34:MET:SD	1:B3:242:ARG:HG2	2.45	0.57
1:J9:192:ALA:O	1:J9:196:ILE:HD12	2.04	0.57
2:O4:190:GLU:HA	2:O4:195:LYS:HZ1	1.70	0.57
3:R3:246:ARG:O	3:R3:249:THR:HG22	2.04	0.57
4:T1:98:LYS:HE3	4:T1:231:TYR:HB3	1.87	0.57
1:h0:128:ALA:HB1	1:h0:136:LEU:HD13	1.87	0.57
1:i0:80:LEU:HD11	1:i0:209:GLN:HG3	1.86	0.57
1:A4:244:THR:HG21	1:A4:249:GLN:HG3	1.87	0.56
1:A6:278:LEU:HD22	1:K7:258:ILE:HG23	1.85	0.56
1:J8:11:PHE:HA	1:J8:14:ARG:HG2	1.87	0.56
2:P6:241:LEU:HG	2:P6:245:TYR:CE2	2.40	0.56
6:X2:135:ILE:HG22	6:X2:173:LEU:HB2	1.86	0.56
1:E4:159:GLN:OE1	1:F4:127:GLN:HG3	2.05	0.56
1:H7:136:LEU:HB3	1:H7:168:MET:HB3	1.86	0.56
1:J7:159:GLN:HG3	1:K7:127:GLN:HG2	1.87	0.56
3:R2:106:GLU:HG2	3:R2:129:TYR:HB2	1.86	0.56
3:S6:70:VAL:HG11	3:S6:79:LEU:HD22	1.87	0.56
1:B5:1:MET:HE1	1:B5:277:VAL:HG21	1.87	0.56
1:C3:18:PHE:CZ	1:C4:225:LYS:HA	2.40	0.56
1:C6:1:MET:SD	1:C6:277:VAL:HG11	2.46	0.56
1:D6:36:ILE:HG12	1:D6:42:ASP:HB3	1.87	0.56
1:E3:157:MET:HE1	1:E4:197:GLY:HA2	1.87	0.56
1:E7:131:ASN:O	1:E7:132:LYS:HG3	2.06	0.56
1:G1:35:ARG:HE	1:G1:244:THR:HA	1.70	0.56
1:G1:219:ARG:HD2	1:h0:120:GLU:HG2	1.85	0.56
1:G6:266:MET:HE1	1:H6:30:LEU:HB3	1.87	0.56
1:G9:77:GLU:OE1	1:G9:210:ARG:HG2	2.05	0.56
1:H6:38:ARG:HH22	1:H7:74:GLN:HG2	1.69	0.56
1:H9:176:ARG:NH2	1:H9:181:LEU:HG	2.19	0.56
1:J6:266:MET:HG3	1:K6:30:LEU:HD22	1.87	0.56
1:J9:180:VAL:HG12	1:J9:182:THR:HG23	1.87	0.56
2:O3:145:TRP:HA	2:O3:148:VAL:HG12	1.87	0.56
2:P6:236:PRO:HA	2:P6:239:LYS:HE2	1.85	0.56
3:Q2:81:LYS:HA	3:Q2:102:CYS:O	2.05	0.56
3:Q2:179:PRO:HA	3:Q2:185:HIS:CE1	2.41	0.56
3:R2:70:VAL:O	3:R2:71:ARG:HD2	2.05	0.56
3:S3:164:MET:HG3	3:S3:165:VAL:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S5:66:MET:HE1	3:S5:81:LYS:HB2	1.86	0.56
4:T1:243:VAL:HG11	4:T1:266:LEU:HD11	1.86	0.56
4:T3:257:ASP:O	4:T3:261:ARG:HG3	2.05	0.56
5:U6:273:VAL:H	5:U6:274:PRO:CD	2.18	0.56
6:V5:164:ARG:HD3	6:V5:165:LEU:H	1.69	0.56
8:Z1:43:PRO:HG2	8:Z1:252:ARG:HH22	1.70	0.56
8:Z3:154:LEU:HA	8:Z3:157:ILE:HD12	1.85	0.56
10:b5:40:THR:HG23	10:b5:43:GLU:H	1.69	0.56
1:A8:120:GLU:OE1	1:K8:219:ARG:HG3	2.05	0.56
1:D6:191:LYS:O	1:D6:195:VAL:HG23	2.06	0.56
1:G2:161:GLU:HG2	1:G2:219:ARG:CZ	2.36	0.56
1:H9:18:PHE:HE2	1:h0:225:LYS:HA	1.70	0.56
10:b4:274:MET:SD	10:b4:275:LEU:HG	2.45	0.56
4:t4:42:TRP:CD1	4:t4:114:PRO:HD3	2.41	0.56
1:E4:57:LEU:HD23	1:E5:92:VAL:HG21	1.86	0.56
1:G7:3:ILE:HG21	1:G8:246:MET:HE3	1.88	0.56
1:G8:50:GLU:HG3	1:G9:84:HIS:NE2	2.21	0.56
1:I8:100:GLY:HA2	1:I8:107:ARG:HH22	1.70	0.56
1:J7:54:THR:HA	1:J8:88:GLN:NE2	2.20	0.56
1:K8:65:ASN:CG	1:K9:99:ASN:HD21	2.13	0.56
2:L6:119:ILE:HG22	2:L6:123:ARG:HH21	1.71	0.56
3:Q2:128:LYS:HD2	3:Q2:161:LYS:HB2	1.87	0.56
3:S3:79:LEU:HD11	3:S3:103:ILE:HD11	1.87	0.56
3:S5:74:PRO:HD3	3:S5:251:ILE:HD13	1.88	0.56
6:V2:50:ASN:CG	6:V2:52:GLU:HG2	2.29	0.56
6:X4:45:LYS:HA	6:X4:222:ARG:HG3	1.86	0.56
11:c3:95:VAL:HG22	11:c3:102:PHE:HB2	1.88	0.56
1:A7:38:ARG:HD3	1:A8:217:TYR:CZ	2.41	0.56
1:E6:260:THR:O	1:E6:264:THR:HG23	2.06	0.56
2:N2:205:TRP:CD1	2:N2:221:ILE:HG21	2.40	0.56
2:N3:215:LEU:HD12	2:N3:244:CYS:HA	1.87	0.56
2:N6:175:LYS:HA	2:N6:178:ASN:ND2	2.21	0.56
2:O2:183:ILE:HG21	2:O2:188:LEU:HD23	1.87	0.56
3:S2:155:LEU:HB2	3:S2:176:ASP:OD1	2.05	0.56
4:T2:123:ARG:HB3	4:T2:137:SER:HB3	1.88	0.56
5:U3:139:HIS:CE1	5:U3:183:PHE:HB2	2.40	0.56
6:X1:146:LEU:H	6:X1:163:GLY:HA3	1.70	0.56
8:Z4:157:ILE:HG23	8:Z4:161:TRP:HD1	1.70	0.56
1:F3:68:ASP:HB3	1:F4:101:ILE:HD13	1.88	0.56
1:F5:54:THR:HA	1:F6:88:GLN:NE2	2.17	0.56
1:I5:3:ILE:HG21	1:I6:246:MET:HE2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I9:11:PHE:HA	1:I9:14:ARG:HG2	1.88	0.56
1:I9:258:ILE:HG23	1:J8:278:LEU:HD11	1.87	0.56
1:K8:56:ILE:HG13	1:K8:234:ILE:HG22	1.88	0.56
3:R3:65:LEU:HA	3:R3:68:MET:SD	2.45	0.56
6:X1:135:ILE:HD13	6:X1:219:LEU:HD13	1.87	0.56
7:Y3:138:VAL:HG13	7:Y3:166:PRO:HG2	1.87	0.56
1:D4:8:SER:HB2	1:E4:27:ILE:HG21	1.86	0.56
1:G9:266:MET:SD	1:H9:30:LEU:HB3	2.46	0.56
1:H7:143:LEU:HD21	2:P3:144:TYR:HE1	1.71	0.56
1:J6:273:LYS:O	1:J6:276:THR:HG22	2.06	0.56
3:Q2:130:MET:HE1	3:Q2:244:PHE:CD2	2.41	0.56
3:S3:129:TYR:CE2	3:S3:158:LYS:HE2	2.41	0.56
4:T3:123:ARG:HB2	4:T3:137:SER:OG	2.05	0.56
1:i0:219:ARG:HG3	1:j0:120:GLU:CD	2.30	0.56
1:B5:84:HIS:O	1:B5:88:GLN:HG3	2.06	0.56
1:C4:151:PHE:CD2	1:C4:163:VAL:HG21	2.41	0.56
1:J6:140:PHE:CD1	1:J6:149:MET:HB2	2.41	0.56
2:L3:162:LYS:HB3	2:L3:166:LYS:NZ	2.21	0.56
3:R4:231:SER:HA	3:R4:234:LYS:HE3	1.88	0.56
4:T1:258:GLU:HG2	4:T1:261:ARG:HH21	1.71	0.56
8:Z3:47:ASN:ND2	8:Z3:335:ASP:HB2	2.21	0.56
9:a3:71:ARG:HE	9:a3:73:GLN:NE2	2.03	0.56
9:a3:141:ILE:HG22	9:a3:162:ARG:HB2	1.87	0.56
1:A4:266:MET:SD	1:B4:27:ILE:HG23	2.46	0.56
1:A5:130:PHE:HB2	1:A5:135:LEU:HD11	1.88	0.56
1:B4:7:ILE:HA	1:B4:10:ILE:HG22	1.88	0.56
1:G1:193:ASN:HD21	1:G9:158:HIS:H	1.54	0.56
1:H7:159:GLN:HE22	1:I7:127:GLN:HB3	1.71	0.56
1:I6:252:SER:HA	1:I6:255:ARG:HD3	1.88	0.56
1:K8:52:MET:CE	1:K8:234:ILE:HG23	2.35	0.56
2:L4:144:TYR:O	2:L4:148:VAL:HG13	2.05	0.56
2:M2:93:LEU:HD21	2:M3:292:ILE:HD11	1.88	0.56
6:X5:150:LEU:HB3	6:X5:194:LEU:HD11	1.88	0.56
4:t3:162:TYR:CD2	4:t3:219:VAL:HG22	2.40	0.56
1:C7:111:GLN:HA	1:C7:114:VAL:HG12	1.87	0.55
1:D5:186:LEU:HD11	1:D5:195:VAL:HG11	1.89	0.55
1:D6:79:TYR:CD2	1:D6:128:ALA:HB1	2.41	0.55
1:I7:102:TYR:HB3	1:I7:106:ASP:HB2	1.89	0.55
1:A6:192:ALA:O	1:A6:196:ILE:HD12	2.06	0.55
1:B7:48:VAL:HG12	1:B7:52:MET:HE1	1.88	0.55
1:E5:11:PHE:CZ	1:F5:28:GLU:HG3	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G9:275:GLN:HE21	1:G9:279:GLN:NE2	2.05	0.55
1:I7:258:ILE:HD13	1:J6:275:GLN:HA	1.88	0.55
1:K5:151:PHE:CE2	1:K5:163:VAL:HG21	2.41	0.55
1:K6:61:ARG:HG3	1:K7:92:VAL:HG13	1.87	0.55
2:O3:78:TRP:CZ3	2:O4:236:PRO:HB2	2.42	0.55
4:T4:117:PRO:HA	4:T4:120:GLU:HG2	1.88	0.55
6:V4:183:GLN:HG2	6:V4:194:LEU:HD21	1.87	0.55
1:A4:5:HIS:CD2	1:A4:10:ILE:HD11	2.41	0.55
1:C4:247:ALA:O	1:C4:251:THR:HG23	2.07	0.55
1:D4:61:ARG:HD2	1:D5:96:GLN:OE1	2.07	0.55
1:G7:192:ALA:O	1:G7:196:ILE:HD12	2.05	0.55
1:H7:30:LEU:HB2	1:H7:249:GLN:HG2	1.87	0.55
3:R5:73:LEU:HD13	3:R5:79:LEU:H	1.71	0.55
4:T1:74:VAL:HG22	4:T1:97:VAL:HG23	1.89	0.55
4:T2:133:GLN:NE2	4:T2:135:LYS:HB2	2.12	0.55
6:V5:131:ARG:HG3	6:V5:132:GLN:OE1	2.06	0.55
6:X4:153:TYR:HB2	6:X4:192:LYS:HD3	1.89	0.55
4:t2:201:GLN:HA	4:t2:212:ILE:HD12	1.87	0.55
1:A8:56:ILE:HD11	1:A8:234:ILE:HG22	1.87	0.55
1:B6:72:LEU:HD13	1:B7:101:ILE:HG22	1.88	0.55
1:B6:105:GLU:O	1:B6:108:GLN:HG2	2.07	0.55
1:E4:158:HIS:HA	1:E5:193:ASN:HD21	1.72	0.55
1:F5:218:ASN:ND2	1:G1:89:ARG:HH12	2.04	0.55
1:H8:43:ALA:HB1	1:H9:211:ALA:HA	1.89	0.55
1:I9:229:ASN:O	1:I9:232:GLU:HG3	2.07	0.55
1:J6:43:ALA:HB1	1:J7:211:ALA:HA	1.88	0.55
2:N5:219:ILE:HG12	2:N5:245:TYR:CE1	2.41	0.55
3:Q4:195:LYS:HD2	3:Q4:196:ASP:H	1.71	0.55
10:b5:114:LEU:O	10:b5:138:TYR:HA	2.07	0.55
1:A5:116:GLN:HE22	1:K5:219:ARG:NH1	2.03	0.55
1:B3:273:LYS:HZ3	1:C3:23:MET:HE3	1.70	0.55
1:B7:65:ASN:HD21	1:B8:96:GLN:HA	1.72	0.55
1:G9:262:ALA:O	1:G9:266:MET:HG3	2.07	0.55
1:H7:4:ASN:ND2	1:H8:34:MET:HE1	2.21	0.55
1:H8:61:ARG:HD2	1:H9:96:GLN:OE1	2.07	0.55
4:T4:160:ASN:ND2	4:T4:230:VAL:HG13	2.22	0.55
1:A5:219:ARG:HH21	1:B5:120:GLU:HG2	1.71	0.55
1:B5:125:ALA:HA	1:B5:136:LEU:HD23	1.88	0.55
1:C4:142:ARG:H	1:C4:166:GLU:HG2	1.72	0.55
1:D4:19:ASN:HD22	1:D4:259:LEU:HB3	1.72	0.55
1:E4:54:THR:HA	1:E5:88:GLN:HE21	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H6:38:ARG:NH2	1:H7:74:GLN:HG2	2.20	0.55
1:J9:86:ILE:O	1:J9:90:ILE:HD12	2.05	0.55
4:T3:171:TRP:HE1	4:T3:200:PRO:HB2	1.71	0.55
8:Z2:97:GLN:NE2	8:Z3:141:ILE:HD13	2.21	0.55
10:b4:171:ARG:HB2	10:b4:199:GLU:OE2	2.07	0.55
10:b5:149:GLU:HA	10:b5:177:PRO:HG2	1.89	0.55
1:C6:4:ASN:O	1:C6:5:HIS:CD2	2.60	0.55
1:D4:2:ILE:HD13	1:D5:243:ASP:HB3	1.89	0.55
1:D7:142:ARG:HG3	1:D7:164:TYR:CD2	2.42	0.55
1:E4:68:ASP:HB3	1:E5:101:ILE:HD13	1.88	0.55
2:L2:127:GLU:O	2:L2:130:ARG:HG3	2.07	0.55
2:N2:70:ALA:O	2:N2:74:GLN:HG2	2.07	0.55
6:X1:121:PRO:HB3	8:Z1:189:PHE:CZ	2.42	0.55
6:X1:136:TRP:NE1	6:X1:172:LYS:HD3	2.21	0.55
1:B5:138:GLY:HA3	1:B5:167:THR:HA	1.88	0.55
1:I8:46:LEU:HD11	1:I9:210:ARG:HH21	1.70	0.55
2:P2:78:TRP:NE1	2:P3:203:ARG:HH21	2.05	0.55
7:Y2:207:THR:HG23	7:Y2:210:GLU:H	1.72	0.55
8:Z4:321:PHE:HZ	8:Z4:348:ARG:HD2	1.70	0.55
1:A7:54:THR:HA	1:A8:88:GLN:HE22	1.72	0.55
1:E4:51:LYS:O	1:E4:54:THR:HG22	2.06	0.55
1:E4:127:GLN:O	1:E4:129:GLU:HG2	2.06	0.55
1:G1:159:GLN:NE2	1:h0:127:GLN:HG2	2.22	0.55
1:H6:70:MET:HE1	1:H6:220:LEU:C	2.32	0.55
1:I7:261:GLN:HG2	1:J6:278:LEU:HD22	1.89	0.55
2:M5:138:ARG:HB3	2:M5:150:ARG:HH21	1.72	0.55
2:N5:205:TRP:HE1	2:N5:221:ILE:HG13	1.71	0.55
2:O2:163:LEU:O	2:O2:166:LYS:HG2	2.07	0.55
5:U6:274:PRO:HG2	5:U6:275:PRO:HD3	1.89	0.55
1:B5:35:ARG:HG3	1:B5:36:ILE:HG23	1.89	0.55
1:B5:192:ALA:O	1:B5:196:ILE:HD12	2.07	0.55
1:C5:60:ARG:O	1:C5:63:GLU:HG3	2.07	0.55
1:C6:180:VAL:HG12	1:C6:182:THR:HG23	1.89	0.55
2:N6:143:TRP:HZ3	2:O5:251:MET:HG3	1.72	0.55
2:O2:142:LYS:HD3	2:O2:143:TRP:CD1	2.42	0.55
3:Q4:74:PRO:HG2	3:Q4:77:THR:HG21	1.88	0.55
4:T4:160:ASN:HB3	4:T4:162:TYR:CD1	2.41	0.55
6:X4:101:ILE:HG22	6:X4:217:ASP:HB2	1.89	0.55
11:c1:27:VAL:HG23	11:c1:28:GLU:H	1.71	0.55
4:t4:66:GLN:HB2	4:t4:71:LEU:HD13	1.88	0.55
1:A8:53:ARG:HD2	1:A8:242:ARG:CZ	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C5:5:HIS:ND1	1:C6:239:SER:HB2	2.22	0.54
1:C6:61:ARG:HD2	1:C7:96:GLN:HE21	1.72	0.54
1:F3:191:LYS:O	1:F3:195:VAL:HG23	2.07	0.54
1:G2:175:LEU:HA	1:G2:184:ILE:HD11	1.88	0.54
1:I8:3:ILE:HD13	1:I9:246:MET:SD	2.47	0.54
1:J5:159:GLN:HB3	1:K5:127:GLN:HE22	1.71	0.54
1:J8:59:LEU:HD13	1:J8:227:LEU:HD12	1.89	0.54
2:M4:228:ILE:HG13	2:M4:229:ASP:H	1.71	0.54
2:O2:163:LEU:HA	2:O2:166:LYS:CD	2.37	0.54
3:R2:134:PHE:HB3	3:R2:150:ARG:HH21	1.72	0.54
3:S4:48:LEU:O	3:S4:52:ILE:HG12	2.07	0.54
1:h0:142:ARG:HD2	1:h0:164:TYR:CD2	2.42	0.54
1:A4:35:ARG:HB2	1:A4:244:THR:HB	1.89	0.54
1:D4:2:ILE:HG22	1:D4:5:HIS:CE1	2.42	0.54
1:E5:248:GLU:HG3	1:F4:13:HIS:NE2	2.22	0.54
1:F2:130:PHE:O	1:F2:133:MET:HB3	2.07	0.54
1:F4:266:MET:SD	1:G9:27:ILE:HG23	2.46	0.54
1:I7:73:ILE:HD13	1:I7:216:TYR:HB3	1.88	0.54
1:J5:255:ARG:HD2	1:K4:4:ASN:O	2.07	0.54
2:P3:153:ARG:HH11	2:P3:156:ARG:HE	1.54	0.54
3:Q2:68:MET:HE1	3:Q2:255:ASN:HB3	1.88	0.54
10:b2:203:SER:HB3	10:b2:210:TRP:HE1	1.73	0.54
1:H9:7:ILE:HD13	1:H9:10:ILE:HD12	1.89	0.54
1:I7:66:THR:HG23	1:I7:220:LEU:HD12	1.88	0.54
2:L2:205:TRP:HD1	2:L2:221:ILE:HG21	1.71	0.54
4:t2:113:PRO:HG2	4:t2:141:GLY:HA2	1.88	0.54
1:B6:25:LYS:HE3	1:B6:29:LYS:HZ1	1.72	0.54
1:C6:36:ILE:HG21	1:C6:46:LEU:HB2	1.88	0.54
1:H8:25:LYS:O	1:H8:29:LYS:HG2	2.07	0.54
1:H9:255:ARG:HE	1:I8:4:ASN:HB2	1.71	0.54
1:J6:191:LYS:O	1:J6:195:VAL:HG23	2.08	0.54
2:M2:106:ARG:HD2	3:Q2:108:TYR:CZ	2.42	0.54
2:N5:219:ILE:HG12	2:N5:245:TYR:HE1	1.72	0.54
3:Q2:48:LEU:HB2	3:Q2:238:ILE:HD11	1.90	0.54
3:R5:70:VAL:HA	3:R5:255:ASN:ND2	2.21	0.54
7:Y1:73:VAL:HG12	7:Y1:235:LEU:HB3	1.89	0.54
4:t1:186:ILE:H	4:t2:10:ILE:HD13	1.72	0.54
1:A5:258:ILE:HA	1:A5:261:GLN:OE1	2.07	0.54
1:A6:36:ILE:HG23	1:A6:41:ASP:HB2	1.89	0.54
1:B5:77:GLU:OE1	1:B5:210:ARG:HG3	2.08	0.54
1:C5:191:LYS:O	1:C5:195:VAL:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C6:112:VAL:HG12	1:C6:116:GLN:HE22	1.72	0.54
1:D5:30:LEU:HD13	1:D5:249:GLN:HB2	1.88	0.54
1:I7:107:ARG:HA	1:I7:110:ILE:HD12	1.89	0.54
4:T1:180:PHE:HB3	4:T1:191:LEU:HD13	1.89	0.54
4:T4:151:MET:HE1	4:T4:239:VAL:HG23	1.90	0.54
7:Y3:52:LYS:O	7:Y3:52:LYS:HD2	2.07	0.54
1:B4:149:MET:C	1:B4:150:TRP:HD1	2.14	0.54
1:C5:80:LEU:HA	1:C5:83:THR:HG22	1.87	0.54
1:C7:52:MET:SD	1:C7:238:GLU:HA	2.48	0.54
1:D4:19:ASN:ND2	1:D4:259:LEU:HB3	2.23	0.54
1:F3:35:ARG:HG3	1:F3:242:ARG:O	2.07	0.54
1:G1:149:MET:HE3	1:G2:101:ILE:HA	1.90	0.54
1:H7:215:ALA:HB1	1:I7:116:GLN:HG3	1.89	0.54
1:I9:38:ARG:HD3	1:i0:74:GLN:NE2	2.23	0.54
2:N3:166:LYS:HZ3	2:N3:212:LEU:HD22	1.72	0.54
2:N5:206:ILE:HD11	2:N5:218:CYS:SG	2.47	0.54
3:Q2:133:TYR:HB2	3:Q2:153:ASN:HB3	1.89	0.54
3:S4:107:VAL:HG21	3:S4:128:LYS:HE3	1.90	0.54
6:V1:213:TYR:HD2	6:V2:237:ASP:HB3	1.71	0.54
6:V5:230:TYR:HD1	7:Y5:62:ASP:HA	1.72	0.54
8:Z1:88:LEU:HD21	8:Z1:118:THR:HA	1.90	0.54
10:b4:172:LEU:HG	10:b5:278:GLN:HG3	1.90	0.54
1:C4:184:ILE:HG23	1:C4:195:VAL:HG21	1.90	0.54
1:E4:273:LYS:O	1:E4:277:VAL:HG23	2.08	0.54
1:F5:244:THR:HG21	1:F5:249:GLN:HG3	1.90	0.54
1:G2:226:GLY:HA2	1:h1:82:GLU:HG3	1.89	0.54
2:N4:106:ARG:HG2	2:N4:106:ARG:HH11	1.73	0.54
2:N4:212:LEU:O	2:N4:213:GLN:HG2	2.06	0.54
2:O4:162:LYS:HG2	2:O4:166:LYS:CE	2.38	0.54
3:S4:227:PRO:HB2	3:S4:230:ASN:OD1	2.07	0.54
6:V4:144:HIS:CE1	6:V4:203:SER:HA	2.42	0.54
11:c1:99:LYS:HE3	11:c1:124:LEU:HD23	1.90	0.54
4:t1:183:LEU:HA	4:t1:185:PHE:CE2	2.41	0.54
4:t3:111:ILE:HB	4:t3:217:PHE:HB2	1.90	0.54
1:A5:116:GLN:HE21	1:K5:219:ARG:HD2	1.73	0.54
1:A5:132:LYS:HD3	1:K5:55:GLN:HE21	1.71	0.54
1:A7:61:ARG:HG3	1:A7:65:ASN:HD21	1.73	0.54
1:C6:111:GLN:HE22	1:C6:185:SER:HA	1.71	0.54
1:D5:166:GLU:N	1:D5:209:GLN:HE22	2.06	0.54
1:F4:244:THR:HG23	1:F4:249:GLN:HG3	1.88	0.54
1:F5:266:MET:SD	1:G1:30:LEU:HD22	2.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I8:150:TRP:CD2	1:I8:160:ARG:HD2	2.43	0.54
1:J8:159:GLN:HA	1:K8:127:GLN:HE22	1.71	0.54
2:L4:90:PHE:CD2	2:L5:239:LYS:HG3	2.43	0.54
3:S2:132:ILE:HG22	3:S2:152:ILE:HD11	1.90	0.54
5:U3:159:ARG:HD2	5:U4:308:ASN:HD22	1.71	0.54
6:V5:151:ARG:HD3	6:V5:197:VAL:HG21	1.90	0.54
9:a2:52:LYS:HA	9:a2:55:VAL:HG22	1.89	0.54
9:a5:197:LEU:O	9:a5:201:ARG:HG2	2.08	0.54
10:b3:198:LEU:HD13	10:b3:224:THR:HB	1.90	0.54
1:B7:202:ALA:O	1:B7:206:ILE:HG12	2.07	0.54
1:E3:56:ILE:HD13	1:E3:238:GLU:HG2	1.90	0.54
1:E3:167:THR:HG22	1:E3:169:ASN:H	1.73	0.54
1:G7:109:GLN:O	1:G7:112:VAL:HG12	2.08	0.54
1:G9:59:LEU:HD22	1:G9:155:ALA:HB2	1.89	0.54
1:I9:11:PHE:CD2	1:I9:14:ARG:HD3	2.43	0.54
1:J5:56:ILE:HG23	1:J5:231:TYR:CE1	2.41	0.54
6:V2:230:TYR:CZ	6:V2:233:SER:HB3	2.43	0.54
4:t1:26:ILE:HD11	4:t1:270:LEU:HD23	1.89	0.54
4:t2:46:THR:HG22	4:t2:72:ARG:HD3	1.90	0.54
1:A6:3:ILE:HD12	1:A7:246:MET:SD	2.46	0.54
1:A8:116:GLN:O	1:A8:120:GLU:HG2	2.08	0.54
1:B7:73:ILE:HG23	1:B7:213:LEU:HD12	1.90	0.54
1:D4:152:HIS:HD2	1:D4:154:GLY:H	1.56	0.54
1:F3:204:ARG:NH1	1:G8:105:GLU:HG3	2.23	0.54
1:F4:180:VAL:HG12	1:F4:182:THR:HG23	1.90	0.54
1:G9:53:ARG:HA	1:G9:56:ILE:HD12	1.90	0.54
1:H6:50:GLU:HB3	1:H7:84:HIS:NE2	2.23	0.54
1:J8:34:MET:HE1	1:J8:242:ARG:NE	2.23	0.54
2:O1:106:ARG:HG3	3:S2:126:LEU:HD11	1.88	0.54
2:O2:162:LYS:HE3	2:O2:166:LYS:HB3	1.90	0.54
2:P4:108:ALA:HB2	2:P4:179:HIS:HB2	1.89	0.54
3:S4:57:GLN:O	3:S4:60:THR:HG22	2.08	0.54
4:T2:20:GLY:HA2	4:T2:244:PHE:HB2	1.90	0.54
5:U4:226:THR:HG23	5:U4:232:TYR:CD2	2.42	0.54
5:U7:271:LYS:HD3	5:U7:282:PRO:HB2	1.90	0.54
6:V4:101:ILE:HG22	6:V4:217:ASP:CG	2.33	0.54
6:V4:188:ALA:HA	6:V4:192:LYS:HB2	1.90	0.54
6:V4:230:TYR:CG	6:V4:231:PRO:HD2	2.43	0.54
1:E3:16:LEU:HD11	1:E3:264:THR:HG22	1.90	0.53
1:F5:107:ARG:HB3	1:F5:187:SER:HA	1.91	0.53
1:G8:34:MET:SD	1:G8:37:ASN:HB2	2.48	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H6:281:LEU:HD23	1:H7:246:MET:HG2	1.90	0.53
1:H8:136:LEU:HD13	1:H8:168:MET:HG2	1.90	0.53
2:O5:246:ALA:HB2	2:O5:270:LYS:HE3	1.89	0.53
3:Q3:133:TYR:HD2	3:Q3:154:LYS:HG3	1.73	0.53
3:R5:49:ASP:HA	3:R5:52:ILE:HG12	1.90	0.53
3:R5:226:HIS:CE1	3:R5:228:ILE:HD11	2.43	0.53
3:S6:187:ASP:HA	3:S6:218:ALA:HB2	1.90	0.53
4:T1:43:GLU:OE1	4:T1:45:THR:HG23	2.08	0.53
4:T4:145:PRO:HG2	4:T4:241:SER:HB2	1.91	0.53
6:V4:230:TYR:CD1	6:V4:231:PRO:HD2	2.43	0.53
6:V5:131:ARG:HH22	7:Y5:236:MET:HG2	1.73	0.53
7:Y5:253:VAL:HG12	7:Y5:273:ILE:HB	1.90	0.53
1:G8:191:LYS:O	1:G8:195:VAL:HG23	2.09	0.53
1:I8:166:GLU:H	1:I8:209:GLN:NE2	2.03	0.53
1:K7:171:ALA:HB1	1:K7:178:PRO:HA	1.89	0.53
2:M2:235:TYR:CD1	2:M2:236:PRO:HD3	2.44	0.53
2:P2:205:TRP:NE1	2:P2:221:ILE:HG13	2.23	0.53
3:S2:41:ILE:HA	3:S2:44:THR:HG22	1.90	0.53
4:T3:172:LYS:HE3	4:T3:200:PRO:HG3	1.89	0.53
4:T4:225:THR:HG22	4:T4:227:GLY:H	1.74	0.53
6:X5:108:TYR:HD2	6:X5:114:ASP:HB3	1.74	0.53
1:A7:262:ALA:HB2	1:B6:278:LEU:HD21	1.91	0.53
1:C5:157:MET:HG3	1:C5:158:HIS:CD2	2.44	0.53
1:E4:159:GLN:HG3	1:F4:123:ARG:HH22	1.74	0.53
1:F4:149:MET:HE2	1:F4:149:MET:HA	1.89	0.53
1:G7:273:LYS:NZ	1:H7:257:GLN:HG2	2.22	0.53
1:H9:162:ARG:HD3	1:H9:164:TYR:CE1	2.43	0.53
1:K9:188:THR:OG1	1:K9:191:LYS:HD3	2.08	0.53
2:P3:205:TRP:CH2	2:P3:209:GLU:HG3	2.43	0.53
2:P5:130:ARG:O	2:P5:133:GLU:HG3	2.09	0.53
2:P6:212:LEU:HD23	2:P6:214:ASN:ND2	2.23	0.53
3:S5:58:ARG:HG3	3:S5:62:HIS:CE1	2.43	0.53
8:Z2:85:TYR:O	8:Z2:89:LYS:HG3	2.08	0.53
8:Z2:155:VAL:O	8:Z2:159:ILE:HG23	2.08	0.53
1:A7:13:HIS:CE1	1:K8:248:GLU:HB2	2.44	0.53
1:A9:72:LEU:HD22	1:A9:149:MET:HE3	1.90	0.53
1:E6:252:SER:HA	1:E6:255:ARG:HG2	1.91	0.53
1:I9:68:ASP:HB3	1:i0:101:ILE:HG21	1.91	0.53
1:I9:241:ILE:HD11	1:J9:68:ASP:OD1	2.08	0.53
1:K7:66:THR:HG22	1:K7:153:ILE:HG22	1.90	0.53
2:M5:158:VAL:HG13	2:M5:162:LYS:HZ3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T2:71:LEU:HD21	4:T2:100:GLN:HB3	1.91	0.53
5:U4:273:VAL:O	5:U4:279:LYS:HG2	2.08	0.53
8:Z1:97:GLN:HE21	8:Z2:206:TYR:HE2	1.56	0.53
10:b2:93:ILE:HG23	10:b2:94:GLU:OE1	2.08	0.53
11:c2:96:LYS:HA	11:c2:101:LEU:HD23	1.91	0.53
1:j0:76:THR:HG22	1:j0:135:LEU:HD21	1.91	0.53
4:t3:162:TYR:HD2	4:t3:219:VAL:HG22	1.72	0.53
1:A5:67:GLU:HA	1:A5:70:MET:HG2	1.89	0.53
1:C4:20:SER:HA	1:C4:23:MET:HG3	1.91	0.53
1:D7:114:VAL:O	1:D7:118:VAL:HG23	2.08	0.53
1:F3:142:ARG:HH12	2:N3:145:TRP:HE3	1.55	0.53
1:G9:25:LYS:HG3	1:G9:38:ARG:HH11	1.73	0.53
1:I6:59:LEU:HD12	1:I6:155:ALA:HB2	1.91	0.53
3:Q2:128:LYS:HG3	3:Q2:159:ILE:HD12	1.89	0.53
9:a3:157:ILE:HD12	9:a3:176:VAL:HG22	1.90	0.53
1:A4:278:LEU:HD22	1:K5:258:ILE:HG22	1.90	0.53
1:A6:80:LEU:HD11	1:A6:168:MET:HE1	1.90	0.53
1:A6:133:MET:SD	1:A6:149:MET:HE1	2.48	0.53
1:A7:77:GLU:O	1:A7:81:GLN:HG2	2.08	0.53
1:B6:72:LEU:HD12	1:B6:130:PHE:CD2	2.43	0.53
1:C5:14:ARG:HG3	1:C6:228:MET:HG2	1.91	0.53
1:C5:277:VAL:HG13	1:D5:264:THR:HG21	1.90	0.53
1:D6:67:GLU:O	1:D6:70:MET:HG2	2.09	0.53
1:F4:270:ALA:O	1:F4:273:LYS:HG3	2.09	0.53
1:F5:233:ASN:HD22	1:G1:75:THR:HA	1.74	0.53
1:G6:36:ILE:HG21	1:G6:46:LEU:HB2	1.91	0.53
1:H9:26:ASP:HA	1:H9:29:LYS:HE3	1.90	0.53
1:J6:160:ARG:HH21	1:J7:193:ASN:HD22	1.57	0.53
2:N2:166:LYS:HZ3	2:N2:212:LEU:N	2.06	0.53
3:Q1:191:VAL:HG21	3:Q1:217:LEU:HD12	1.91	0.53
5:U4:252:TYR:CZ	5:U4:256:ARG:HD2	2.44	0.53
7:Y2:134:GLU:HG3	7:Y2:136:LYS:H	1.74	0.53
9:a2:190:ARG:O	9:a2:193:ARG:HG3	2.08	0.53
10:b2:116:LEU:HB3	10:b2:137:ILE:HG22	1.91	0.53
1:C6:6:ASN:HD22	1:C6:9:ALA:HB2	1.74	0.53
1:D3:11:PHE:CZ	1:E3:28:GLU:HG3	2.44	0.53
1:G1:80:LEU:O	1:G1:83:THR:HG22	2.09	0.53
1:H8:191:LYS:O	1:H8:195:VAL:HG23	2.09	0.53
1:I8:36:ILE:HG23	1:I8:42:ASP:HB3	1.91	0.53
1:I8:258:ILE:HD13	1:J7:274:PRO:HB2	1.91	0.53
1:K6:118:VAL:HG13	1:K6:170:THR:HG21	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N5:114:SER:O	2:N5:118:THR:HG23	2.09	0.53
2:N6:133:GLU:HA	2:N6:136:LYS:HE3	1.91	0.53
2:P5:131:LYS:HZ1	10:b5:262:THR:HG23	1.74	0.53
6:V1:165:LEU:O	6:V1:165:LEU:HD12	2.09	0.53
1:i0:179:THR:HG23	1:i0:180:VAL:HG23	1.90	0.53
4:t1:154:TRP:HB2	4:t1:236:GLU:HB2	1.91	0.53
1:A5:15:THR:HG21	1:B5:32:SER:HA	1.91	0.53
1:A8:210:ARG:HH11	1:A8:210:ARG:HG3	1.74	0.53
1:B6:73:ILE:HG23	1:B6:213:LEU:HD12	1.90	0.53
1:D5:65:ASN:CG	1:D6:99:ASN:HD22	2.17	0.53
1:I8:192:ALA:O	1:I8:195:VAL:HG12	2.08	0.53
1:K6:72:LEU:HD21	1:K6:135:LEU:HD21	1.91	0.53
2:M1:92:GLU:O	2:M1:96:LEU:HD13	2.09	0.53
2:O3:95:GLN:O	2:O3:96:LEU:HD12	2.09	0.53
1:h0:157:MET:HE3	1:h0:158:HIS:CD2	2.43	0.53
4:t1:203:VAL:HG11	4:t1:210:LYS:HD3	1.90	0.53
4:t3:147:VAL:HA	4:t3:209:VAL:HG11	1.91	0.53
1:I5:1:MET:HE1	1:I5:273:LYS:HE2	1.90	0.53
1:J6:151:PHE:CE2	1:J6:163:VAL:HG21	2.44	0.53
1:K8:163:VAL:HG13	1:K8:216:TYR:CE2	2.44	0.53
2:O2:163:LEU:HA	2:O2:166:LYS:HD3	1.91	0.53
3:R3:48:LEU:HB3	3:R3:233:LYS:HE2	1.91	0.53
3:S4:173:GLU:HB3	3:S4:192:PHE:HB2	1.90	0.53
4:T3:151:MET:HE1	4:T3:166:GLY:HA3	1.90	0.53
8:Z1:257:ASN:O	8:Z1:261:ILE:HG13	2.08	0.53
1:A9:180:VAL:HG12	1:A9:182:THR:HG23	1.91	0.53
1:B7:49:SER:HA	1:B7:52:MET:HE2	1.91	0.53
1:C7:49:SER:HA	1:C7:52:MET:HG2	1.91	0.53
1:D3:16:LEU:HD11	1:D3:264:THR:HG22	1.91	0.53
1:D5:44:SER:OG	1:E6:110:ILE:HD11	2.09	0.53
1:E3:36:ILE:HG12	1:E3:42:ASP:HB3	1.91	0.53
1:E6:193:ASN:O	1:E6:196:ILE:HG22	2.08	0.53
1:F5:168:MET:SD	1:F5:209:GLN:HG3	2.49	0.53
1:G8:63:GLU:HG3	1:G8:228:MET:HG2	1.91	0.53
1:H8:76:THR:HG23	1:H8:213:LEU:HD13	1.91	0.53
1:I8:219:ARG:HG2	1:J8:120:GLU:HG3	1.90	0.53
1:J6:32:SER:HB2	1:J6:34:MET:HE2	1.89	0.53
1:K9:182:THR:HA	8:Z4:204:MET:HE1	1.91	0.53
2:O5:105:PHE:CE1	2:O5:197:LEU:HD21	2.43	0.53
3:R4:63:THR:HG21	3:R4:150:ARG:HD3	1.91	0.53
10:b3:50:ILE:HG12	10:b3:235:TYR:CD2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A4:65:ASN:HB3	1:A5:99:ASN:ND2	2.24	0.52
1:A7:1:MET:SD	1:A7:3:ILE:HG12	2.49	0.52
1:D4:50:GLU:HG2	1:D5:84:HIS:CE1	2.43	0.52
1:F6:90:ILE:HD11	1:F6:114:VAL:HG13	1.92	0.52
1:I7:247:ALA:O	1:I7:251:THR:HG23	2.09	0.52
1:K7:123:ARG:HG2	1:K7:127:GLN:OE1	2.09	0.52
1:K7:167:THR:O	1:K7:168:MET:HE2	2.09	0.52
1:K8:59:LEU:HD11	1:K8:234:ILE:HD12	1.90	0.52
2:M4:78:TRP:HE3	2:M5:236:PRO:HG2	1.74	0.52
2:N4:166:LYS:HZ1	2:N4:212:LEU:HA	1.74	0.52
3:S6:156:LYS:HD3	3:S6:175:MET:HB3	1.89	0.52
4:T2:264:HIS:O	4:T2:268:LYS:HG2	2.08	0.52
6:V4:126:VAL:HG12	6:V4:194:LEU:HB2	1.91	0.52
7:Y4:198:VAL:HG12	7:Y4:199:LEU:HD12	1.91	0.52
10:b5:80:LEU:HD13	10:b5:263:MET:HE1	1.91	0.52
1:A4:131:ASN:HA	1:K4:55:GLN:NE2	2.17	0.52
1:A7:38:ARG:HD2	1:A7:40:GLY:H	1.74	0.52
1:B7:274:PRO:O	1:B7:277:VAL:HG12	2.09	0.52
1:C3:35:ARG:HG2	1:C3:242:ARG:O	2.08	0.52
1:D5:245:ASP:O	1:D5:248:GLU:HG2	2.09	0.52
1:E3:39:ALA:HB2	1:E4:210:ARG:HG3	1.90	0.52
1:E6:233:ASN:OD1	1:F6:74:GLN:HG3	2.08	0.52
1:E7:175:LEU:HA	1:E7:184:ILE:HD11	1.90	0.52
1:F6:167:THR:HG23	1:F6:172:ALA:HB2	1.90	0.52
1:G2:76:THR:CG2	1:G2:213:LEU:HD11	2.39	0.52
1:G9:233:ASN:HD21	1:H9:74:GLN:C	2.18	0.52
1:H8:266:MET:HG3	1:I8:27:ILE:CD1	2.39	0.52
1:I8:61:ARG:CZ	1:I9:96:GLN:HG3	2.39	0.52
1:J5:51:LYS:HD2	1:J6:204:ARG:NH1	2.24	0.52
1:J9:177:ASN:ND2	1:J9:180:VAL:HB	2.25	0.52
3:S4:159:ILE:O	3:S4:172:SER:HB2	2.09	0.52
6:X4:51:PHE:O	6:X4:54:ALA:HB2	2.09	0.52
1:B7:266:MET:HG3	1:C7:30:LEU:HD22	1.90	0.52
1:D5:53:ARG:HA	1:D5:56:ILE:HG12	1.90	0.52
1:E5:254:THR:HG21	1:F4:271:ASN:HD21	1.73	0.52
1:G2:128:ALA:HB1	1:G2:136:LEU:HD23	1.92	0.52
1:I6:87:VAL:HA	1:I6:90:ILE:HG22	1.92	0.52
1:I7:50:GLU:HB3	1:I8:84:HIS:CE1	2.44	0.52
1:I7:233:ASN:OD1	1:J7:74:GLN:HB3	2.09	0.52
1:I8:215:ALA:O	1:I8:219:ARG:HG3	2.09	0.52
1:J7:7:ILE:O	1:J7:10:ILE:HG22	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J7:38:ARG:CZ	1:J7:38:ARG:HA	2.39	0.52
1:K5:163:VAL:HG12	1:K5:165:ILE:HG13	1.91	0.52
4:T2:23:LEU:HD13	4:T2:240:LEU:HD21	1.91	0.52
9:a2:104:VAL:HG13	9:a2:125:TRP:HE1	1.75	0.52
1:A5:48:VAL:HG11	1:B6:102:TYR:HE1	1.74	0.52
1:B4:35:ARG:HD3	1:B4:244:THR:HB	1.92	0.52
1:F3:61:ARG:O	1:F3:64:MET:HG3	2.09	0.52
1:G8:61:ARG:HE	1:G9:96:GLN:CD	2.16	0.52
1:H6:68:ASP:HB3	1:H7:101:ILE:HD13	1.91	0.52
1:I6:114:VAL:HG21	1:I6:186:LEU:HD13	1.92	0.52
2:M2:202:TYR:O	2:M2:206:ILE:HD12	2.09	0.52
2:N2:155:ASP:HA	2:N2:158:VAL:HG22	1.91	0.52
5:U6:47:CYS:O	5:U6:51:LEU:HD23	2.10	0.52
5:U7:89:LEU:HD13	5:U7:303:MET:HE3	1.91	0.52
6:V4:158:HIS:HB3	6:V4:180:PHE:HE1	1.74	0.52
6:X2:106:THR:HG21	6:X2:116:VAL:HG21	1.90	0.52
10:b3:77:ILE:HD13	10:b3:103:PHE:HE2	1.74	0.52
1:B5:19:ASN:HD22	1:B5:259:LEU:HD13	1.74	0.52
1:C5:46:LEU:HD21	1:C6:210:ARG:NH2	2.24	0.52
1:C7:39:ALA:O	1:C7:43:ALA:HB2	2.09	0.52
1:D4:2:ILE:HG12	1:D5:243:ASP:OD2	2.10	0.52
1:E6:23:MET:HB2	1:E6:256:TYR:HB3	1.92	0.52
1:E6:248:GLU:HB2	1:F5:13:HIS:NE2	2.24	0.52
1:F5:248:GLU:HB2	1:G9:13:HIS:CE1	2.45	0.52
1:G7:199:ALA:O	1:G7:203:LEU:HG	2.09	0.52
1:G8:18:PHE:CE2	1:G9:225:LYS:HA	2.44	0.52
1:K5:53:ARG:HA	1:K5:56:ILE:HD12	1.91	0.52
1:K8:52:MET:HE3	1:K8:234:ILE:HG23	1.89	0.52
2:P6:114:SER:O	2:P6:118:THR:HG23	2.10	0.52
3:R2:244:PHE:CZ	3:R2:248:PHE:HE2	2.28	0.52
5:U3:143:LEU:O	5:U3:147:ARG:HG2	2.10	0.52
5:U7:128:GLN:HE22	5:U7:194:PHE:HB2	1.74	0.52
6:X3:51:PHE:HB3	6:X3:102:LEU:HB2	1.92	0.52
6:X4:179:GLY:H	4:t3:104:PRO:HG2	1.74	0.52
1:A6:61:ARG:HA	1:A6:64:MET:HG3	1.91	0.52
1:C8:86:ILE:O	1:C8:90:ILE:HG12	2.10	0.52
1:E2:277:VAL:HG13	1:E2:278:LEU:HD22	1.92	0.52
1:F5:254:THR:HG21	1:G9:271:ASN:HD21	1.73	0.52
1:I6:60:ARG:HD3	1:I6:231:TYR:CZ	2.44	0.52
1:I8:219:ARG:HE	1:J8:120:GLU:CD	2.17	0.52
1:K6:5:HIS:HB2	1:K7:239:SER:OG	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K8:72:LEU:HD13	1:K9:101:ILE:HG22	1.91	0.52
2:L2:202:TYR:CE2	2:L2:224:LEU:HD11	2.45	0.52
2:N5:78:TRP:CE3	2:N6:236:PRO:HB2	2.45	0.52
2:N5:193:GLU:O	2:N5:196:ARG:HG2	2.09	0.52
3:Q1:106:GLU:HG2	3:Q1:129:TYR:CB	2.39	0.52
3:Q3:242:ASP:O	3:Q3:246:ARG:HD3	2.09	0.52
5:U3:273:VAL:H	5:U3:274:PRO:CD	2.23	0.52
5:U5:44:ILE:HD13	5:U5:135:TYR:CE2	2.45	0.52
8:Z4:150:GLU:HG3	8:Z4:187:ARG:HG2	1.91	0.52
1:A6:219:ARG:HG3	1:B6:120:GLU:OE2	2.10	0.52
1:B6:61:ARG:HD2	1:B7:96:GLN:OE1	2.09	0.52
1:B6:81:GLN:HA	1:B6:210:ARG:HH12	1.73	0.52
1:B6:153:ILE:HG21	1:B6:220:LEU:HD22	1.91	0.52
1:C7:36:ILE:HG12	1:C7:42:ASP:HB2	1.92	0.52
1:D5:33:GLY:O	1:D5:244:THR:HG22	2.10	0.52
1:E5:247:ALA:HB3	1:F4:13:HIS:CD2	2.45	0.52
1:F3:48:VAL:O	1:F3:52:MET:HG2	2.10	0.52
1:J9:47:ALA:O	1:J9:51:LYS:HG3	2.09	0.52
2:M1:66:ARG:HA	2:M1:69:LYS:HE2	1.92	0.52
2:P6:250:ASN:HA	2:P6:253:LYS:HE2	1.91	0.52
3:Q3:44:THR:HA	3:Q3:47:LYS:HE3	1.92	0.52
7:Y4:154:ARG:CZ	7:Y4:161:VAL:HG21	2.40	0.52
1:C4:130:PHE:HB3	1:C4:135:LEU:HD11	1.92	0.52
1:D3:150:TRP:CZ3	1:D3:162:ARG:HB2	2.44	0.52
1:D3:157:MET:HG2	1:D3:158:HIS:ND1	2.24	0.52
1:D4:1:MET:SD	1:D4:277:VAL:HG11	2.50	0.52
1:E3:2:ILE:HG12	1:E4:239:SER:OG	2.09	0.52
1:E3:30:LEU:HD11	1:E3:246:MET:SD	2.49	0.52
1:J6:67:GLU:HA	1:J6:70:MET:HE3	1.92	0.52
1:J8:80:LEU:HA	1:J8:83:THR:HG22	1.92	0.52
1:J9:140:PHE:CE2	1:J9:149:MET:HE3	2.45	0.52
2:L2:113:GLN:HA	2:L2:116:VAL:HG22	1.91	0.52
2:O4:205:TRP:CZ3	2:O4:221:ILE:HG21	2.45	0.52
2:P2:117:ASN:HD22	10:b2:120:LEU:HD21	1.75	0.52
6:V1:150:LEU:HB3	6:V1:194:LEU:HD11	1.92	0.52
6:V4:140:ARG:NH2	6:V5:189:LEU:HD22	2.24	0.52
7:Y2:56:PHE:CD1	7:Y2:71:VAL:HG22	2.45	0.52
8:Z4:161:TRP:CE3	8:Z4:192:VAL:HG22	2.45	0.52
1:A5:116:GLN:NE2	1:K5:219:ARG:HD2	2.25	0.52
1:C4:168:MET:HE3	1:C4:173:LEU:HD11	1.92	0.52
1:D6:154:GLY:HA3	1:E6:127:GLN:HE22	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G8:184:ILE:HD11	1:G8:195:VAL:HG22	1.91	0.52
1:H9:67:GLU:HA	1:H9:70:MET:HG2	1.92	0.52
1:I6:40:GLY:HA2	1:I7:214:GLY:HA2	1.91	0.52
1:I8:73:ILE:HD13	1:I8:216:TYR:HB3	1.92	0.52
1:I8:186:LEU:HD21	1:I8:195:VAL:HG11	1.92	0.52
1:J9:51:LYS:HD3	1:K9:132:LYS:NZ	2.25	0.52
1:K8:56:ILE:HG23	1:K8:231:TYR:HE1	1.75	0.52
3:R3:223:THR:HG23	3:R3:225:THR:H	1.74	0.52
5:U4:48:VAL:HG12	5:U4:303:MET:HE1	1.92	0.52
6:V1:83:PHE:HA	7:Y2:65:LYS:HE2	1.90	0.52
6:X3:55:GLU:HA	6:X3:72:LYS:HE2	1.92	0.52
7:Y3:258:PHE:HD1	7:Y3:267:LEU:HA	1.75	0.52
1:h0:87:VAL:O	1:h0:90:ILE:HG22	2.10	0.52
1:A5:83:THR:HG23	1:A5:121:ILE:HD11	1.92	0.52
1:A6:152:HIS:CD2	1:A7:95:VAL:HG13	2.44	0.52
1:A6:258:ILE:HG22	1:B5:3:ILE:HD11	1.92	0.52
1:B4:3:ILE:H	1:B4:3:ILE:HD12	1.74	0.52
1:H8:150:TRP:CD1	1:H8:160:ARG:HH21	2.28	0.52
1:I7:52:MET:HE1	1:I7:241:ILE:HG21	1.91	0.52
2:M3:185:ASN:OD1	2:M3:186:PRO:HD2	2.10	0.52
2:O4:249:GLU:OE1	2:O4:267:ARG:HG2	2.10	0.52
3:Q4:57:GLN:O	3:Q4:60:THR:HG22	2.10	0.52
4:T4:32:ASP:HA	4:T4:93:LYS:HG2	1.91	0.52
8:Z3:140:ALA:HB2	8:Z3:262:PHE:CE1	2.45	0.52
10:b4:96:GLU:HB3	10:b4:97:PRO:HD2	1.91	0.52
1:B6:179:THR:HG23	1:B6:180:VAL:HG23	1.91	0.51
1:C4:61:ARG:HG3	1:C5:92:VAL:HG13	1.92	0.51
1:C6:153:ILE:HD11	1:D6:123:ARG:HD2	1.93	0.51
1:C7:157:MET:SD	1:C7:158:HIS:CD2	3.02	0.51
1:E6:91:ARG:HH22	1:E6:95:VAL:HG21	1.73	0.51
1:G1:55:GLN:HE22	1:G1:59:LEU:HD11	1.74	0.51
1:G1:82:GLU:O	1:G1:85:GLU:HG3	2.10	0.51
1:H8:136:LEU:HB3	1:H8:168:MET:HB3	1.92	0.51
2:O5:105:PHE:CZ	2:O5:197:LEU:HD21	2.45	0.51
3:Q3:217:LEU:O	3:Q3:220:VAL:HG22	2.10	0.51
6:V2:153:TYR:HB2	6:V2:192:LYS:HB3	1.93	0.51
1:h0:191:LYS:O	1:h0:195:VAL:HG23	2.10	0.51
1:A5:199:ALA:O	1:A5:203:LEU:HG	2.10	0.51
1:E4:93:LEU:HD11	1:E4:113:GLU:HG2	1.91	0.51
1:F6:73:ILE:HG23	1:F6:213:LEU:HD12	1.92	0.51
1:H6:273:LYS:HG2	1:H6:274:PRO:HD3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I9:61:ARG:HE	1:i0:96:GLN:CG	2.22	0.51
1:J7:8:SER:HB3	1:K7:27:ILE:HD11	1.92	0.51
2:M4:77:LEU:HG	2:M4:78:TRP:CD1	2.45	0.51
2:M5:246:ALA:HB2	2:M5:270:LYS:HE3	1.91	0.51
5:U7:157:ILE:HD13	5:U7:169:LEU:HD22	1.92	0.51
1:A7:273:LYS:HG3	1:A7:274:PRO:HD3	1.90	0.51
1:C6:65:ASN:HD21	1:C7:99:ASN:CG	2.18	0.51
1:C6:87:VAL:HA	1:C6:90:ILE:HG22	1.92	0.51
1:C8:171:ALA:HB1	1:C8:178:PRO:HG3	1.92	0.51
1:H6:150:TRP:CZ3	1:H6:162:ARG:HB2	2.46	0.51
1:H8:157:MET:HG3	1:H8:158:HIS:CD2	2.45	0.51
1:K6:254:THR:O	1:K6:258:ILE:HG13	2.09	0.51
2:P2:77:LEU:HD23	2:P3:203:ARG:HH12	1.74	0.51
3:Q1:133:TYR:H	3:Q1:154:LYS:HB3	1.74	0.51
3:S6:47:LYS:O	3:S6:51:LYS:HG3	2.10	0.51
5:U6:44:ILE:HD13	5:U6:135:TYR:CD1	2.45	0.51
6:X1:101:ILE:HG13	6:X1:216:VAL:O	2.10	0.51
8:Z3:141:ILE:HD11	8:Z3:206:TYR:HE2	1.74	0.51
1:D3:56:ILE:HG22	1:D3:234:ILE:HG23	1.92	0.51
1:E4:266:MET:HE3	1:F4:30:LEU:HB3	1.92	0.51
1:E7:76:THR:OG1	1:E7:135:LEU:HD21	2.09	0.51
1:G8:252:SER:O	1:G8:255:ARG:HB3	2.11	0.51
2:M5:141:GLU:HG3	2:M5:150:ARG:HH22	1.75	0.51
3:S3:195:LYS:HB3	3:S3:198:TYR:HB2	1.92	0.51
8:Z4:255:ARG:HH22	8:Z4:335:ASP:HB3	1.73	0.51
9:a5:185:ARG:O	9:a5:189:VAL:HG23	2.10	0.51
10:b3:271:ILE:O	10:b3:275:LEU:HG	2.10	0.51
10:b5:142:GLY:H	10:b5:148:LEU:HD23	1.76	0.51
4:t1:32:ASP:HB3	4:t1:93:LYS:CA	2.40	0.51
4:t1:158:ARG:HB3	4:t2:206:TYR:HB3	1.91	0.51
1:A5:233:ASN:ND2	1:B5:75:THR:HA	2.26	0.51
1:A6:216:TYR:O	1:A6:219:ARG:HB3	2.10	0.51
1:B7:266:MET:SD	1:C7:27:ILE:HG23	2.50	0.51
1:D3:22:SER:HB2	1:D3:256:TYR:HE2	1.76	0.51
1:E4:154:GLY:C	1:E4:159:GLN:HG2	2.36	0.51
1:F4:256:TYR:O	1:F4:260:THR:HG23	2.11	0.51
1:I5:15:THR:HG21	1:J5:31:SER:O	2.11	0.51
2:N2:110:SER:O	2:N2:113:GLN:HG2	2.11	0.51
2:N3:262:GLN:HA	2:N3:265:LYS:HG2	1.91	0.51
2:O3:142:LYS:H	2:O3:146:GLN:NE2	2.08	0.51
2:P2:205:TRP:CD1	2:P2:221:ILE:HG21	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P5:238:HIS:HA	2:P5:273:HIS:CE1	2.45	0.51
3:S5:141:ASP:HB3	3:S5:146:THR:HG21	1.93	0.51
6:V3:229:LYS:HE3	7:Y3:211:ARG:HH12	1.75	0.51
1:A8:159:GLN:HE22	1:B8:127:GLN:HG2	1.75	0.51
1:C3:17:LYS:HD3	1:C4:228:MET:SD	2.50	0.51
1:C3:279:GLN:NE2	1:C3:280:LEU:HD12	2.25	0.51
1:D4:247:ALA:O	1:D4:251:THR:HG23	2.11	0.51
1:D5:57:LEU:HD22	1:D6:88:GLN:HE21	1.76	0.51
1:D6:168:MET:HG2	1:D6:168:MET:O	2.11	0.51
1:E4:159:GLN:HE22	1:F4:127:GLN:CD	2.18	0.51
1:G9:161:GLU:HG2	1:G9:219:ARG:HH12	1.76	0.51
1:J5:140:PHE:CD1	1:J5:149:MET:HB2	2.46	0.51
1:K6:275:GLN:O	1:K6:279:GLN:HG2	2.10	0.51
2:N3:224:LEU:O	2:N3:227:GLU:HG2	2.10	0.51
2:N5:206:ILE:HG12	2:N5:222:LEU:HD21	1.93	0.51
2:O5:143:TRP:HE3	2:O5:145:TRP:HE1	1.59	0.51
2:P6:128:GLN:HA	2:P6:131:LYS:HG2	1.93	0.51
3:R2:60:THR:HA	3:R2:152:ILE:HD11	1.92	0.51
3:S3:133:TYR:C	3:S3:153:ASN:HB3	2.36	0.51
4:T4:178:LEU:HD11	4:T4:196:PRO:HD3	1.92	0.51
8:Z3:337:LEU:HB3	8:Z3:339:LYS:HG3	1.91	0.51
1:A5:131:ASN:OD1	1:K5:51:LYS:HE2	2.11	0.51
1:A5:278:LEU:HD23	1:K6:258:ILE:HG22	1.91	0.51
1:A8:93:LEU:HD12	1:A8:110:ILE:HG23	1.93	0.51
1:B4:213:LEU:HA	1:B4:216:TYR:CD2	2.45	0.51
1:B6:1:MET:HE1	1:B7:246:MET:HB3	1.92	0.51
1:C6:266:MET:HE2	1:D6:30:LEU:HB3	1.93	0.51
1:E5:41:ASP:HB3	1:F6:89:ARG:NH2	2.25	0.51
1:H8:28:GLU:HG3	1:H8:37:ASN:HD22	1.75	0.51
1:H8:215:ALA:HB1	1:I8:116:GLN:CD	2.36	0.51
1:H8:233:ASN:HD21	1:I8:74:GLN:HG3	1.76	0.51
1:I8:250:MET:HE1	1:J7:271:ASN:ND2	2.26	0.51
1:I8:258:ILE:HG23	1:J7:278:LEU:HD22	1.92	0.51
2:O5:173:PHE:O	2:O5:177:ILE:HG23	2.11	0.51
3:R3:130:MET:HE1	3:R3:155:LEU:HD23	1.93	0.51
3:R5:40:SER:HA	3:R5:43:GLU:HG2	1.92	0.51
3:S5:130:MET:HG2	3:S5:157:SER:OG	2.11	0.51
4:T3:167:TRP:CD1	4:T3:177:ILE:HD12	2.45	0.51
6:X4:89:PRO:HB3	6:X4:136:TRP:HZ2	1.76	0.51
10:b3:86:TYR:CE2	10:b3:90:LEU:HD21	2.46	0.51
1:B7:219:ARG:HD2	1:C7:120:GLU:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E4:88:GLN:O	1:E4:92:VAL:HG23	2.11	0.51
1:E4:237:ALA:HB2	1:F4:71:SER:HB3	1.93	0.51
1:F5:166:GLU:HB2	1:F5:209:GLN:NE2	2.25	0.51
1:H7:252:SER:O	1:H7:255:ARG:HB3	2.11	0.51
1:H9:246:MET:HE2	1:H9:246:MET:HA	1.93	0.51
1:I9:14:ARG:NE	1:i0:228:MET:HE1	2.25	0.51
1:K4:230:ALA:O	1:K4:234:ILE:HG13	2.10	0.51
3:S6:65:LEU:HD11	3:S6:251:ILE:HG13	1.92	0.51
7:Y4:109:PRO:HG2	7:Y4:112:ARG:HB2	1.93	0.51
9:a2:46:ASP:HA	9:a2:49:VAL:HG12	1.93	0.51
10:b2:200:PHE:HB3	10:b2:222:VAL:CG1	2.41	0.51
1:A4:65:ASN:HB3	1:A5:99:ASN:HD21	1.75	0.51
1:A8:127:GLN:HA	1:K8:159:GLN:NE2	2.26	0.51
1:C6:23:MET:HB2	1:C6:256:TYR:HB3	1.93	0.51
1:C7:180:VAL:HA	6:V4:180:PHE:HB2	1.91	0.51
1:D3:30:LEU:HD11	1:D3:246:MET:SD	2.51	0.51
1:I6:16:LEU:HD11	1:I6:264:THR:HG22	1.92	0.51
1:I6:73:ILE:HD13	1:I6:216:TYR:HB3	1.93	0.51
1:J7:81:GLN:HE21	1:J7:85:GLU:HG2	1.76	0.51
1:J8:52:MET:HE1	1:J8:237:ALA:HB3	1.93	0.51
1:K6:74:GLN:O	1:K6:77:GLU:HG3	2.11	0.51
2:P6:205:TRP:CD1	2:P6:221:ILE:HG21	2.46	0.51
6:V5:167:TYR:CZ	6:V5:171:ARG:HD2	2.46	0.51
1:i0:136:LEU:HD22	1:i0:168:MET:HG3	1.91	0.51
1:A6:35:ARG:HB2	1:A6:244:THR:HA	1.92	0.51
1:B3:273:LYS:HD3	1:C3:23:MET:HE3	1.93	0.51
1:C3:7:ILE:HA	1:C3:10:ILE:HD12	1.93	0.51
1:F4:266:MET:CE	1:G9:31:SER:HB2	2.41	0.51
1:G7:68:ASP:OD2	1:G8:101:ILE:HD13	2.11	0.51
1:G8:120:GLU:O	1:G8:124:ILE:HD12	2.11	0.51
2:N3:166:LYS:HZ2	2:N3:212:LEU:HB2	1.76	0.51
2:N6:141:GLU:H	2:O5:217:GLN:HG2	1.75	0.51
5:U5:139:HIS:CE1	5:U5:183:PHE:HB2	2.46	0.51
10:b4:170:ARG:HB3	10:b5:278:GLN:OE1	2.11	0.51
1:A8:212:ASP:OD1	1:B8:112:VAL:HG21	2.11	0.50
1:C6:8:SER:HB3	1:D6:27:ILE:HG21	1.92	0.50
1:C6:124:ILE:O	1:C6:128:ALA:HB3	2.11	0.50
1:G1:155:ALA:HB1	1:G2:91:ARG:HH12	1.75	0.50
1:J8:35:ARG:HB3	1:J8:244:THR:HB	1.93	0.50
1:K7:275:GLN:O	1:K7:279:GLN:HG3	2.11	0.50
3:R3:145:ARG:HH12	3:R3:252:PHE:HE1	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Z3:152:ARG:HB2	8:Z3:157:ILE:HG13	1.93	0.50
1:h1:191:LYS:O	1:h1:195:VAL:HG23	2.11	0.50
1:A4:60:ARG:HG2	1:A4:64:MET:HE2	1.93	0.50
1:A6:109:GLN:HE22	1:K6:208:LYS:HB2	1.76	0.50
1:B7:61:ARG:HG3	1:B8:92:VAL:HG13	1.93	0.50
1:C5:133:MET:HE1	1:C5:140:PHE:CZ	2.46	0.50
1:C7:50:GLU:HB3	1:C8:84:HIS:HE2	1.76	0.50
1:F4:21:GLU:HG2	1:F4:25:LYS:HE3	1.93	0.50
1:H9:6:ASN:ND2	1:H9:9:ALA:H	2.09	0.50
1:H9:149:MET:HE3	1:H9:151:PHE:CE1	2.46	0.50
1:J5:35:ARG:HB2	1:J5:244:THR:HA	1.93	0.50
1:J7:248:GLU:HB2	1:K6:13:HIS:CE1	2.46	0.50
1:J9:170:THR:HG21	1:J9:176:ARG:HH11	1.77	0.50
2:M2:171:ASN:O	2:M2:175:LYS:HG2	2.10	0.50
2:P2:127:GLU:O	2:P2:131:LYS:HG2	2.11	0.50
4:T2:28:VAL:HB	4:T2:142:VAL:HG11	1.93	0.50
4:T4:81:PRO:HB3	4:T4:188:TRP:CG	2.46	0.50
6:V1:57:TRP:HA	6:V1:120:PRO:HD2	1.94	0.50
1:F5:53:ARG:HA	1:F5:56:ILE:HD12	1.94	0.50
1:G1:154:GLY:HA3	1:h0:127:GLN:HE22	1.76	0.50
1:G7:50:GLU:HG3	1:G8:84:HIS:CE1	2.46	0.50
1:G7:248:GLU:HG3	1:H6:13:HIS:CE1	2.47	0.50
1:I7:258:ILE:HD11	1:J6:278:LEU:HB3	1.92	0.50
1:I9:157:MET:HB2	5:U7:28:ILE:HG22	1.92	0.50
1:J5:12:ALA:HB1	1:J5:267:LEU:HB2	1.94	0.50
2:L3:205:TRP:CD1	2:L3:221:ILE:HG21	2.46	0.50
2:M2:218:CYS:HB3	2:M2:222:LEU:HD23	1.92	0.50
2:N5:94:HIS:CE1	2:N5:95:GLN:HE21	2.29	0.50
2:O2:80:ASN:HB3	2:O2:83:PHE:HE2	1.74	0.50
2:P4:220:PRO:HA	2:P4:223:GLU:HG2	1.92	0.50
3:R4:174:VAL:HG11	3:R4:232:PHE:HZ	1.75	0.50
4:T3:128:LEU:HD22	4:T3:135:LYS:H	1.76	0.50
6:V2:127:LYS:HA	6:V2:193:ASN:ND2	2.26	0.50
7:Y4:175:LEU:HD11	7:Y4:256:LEU:HD22	1.93	0.50
9:a2:97:TYR:O	9:a2:98:MET:HE2	2.11	0.50
4:t1:245:GLU:HA	4:t1:248:PHE:CE1	2.46	0.50
1:A4:6:ASN:O	1:A4:10:ILE:HG13	2.11	0.50
1:B4:54:THR:HG22	1:B5:88:GLN:HE21	1.75	0.50
1:C5:180:VAL:HG12	1:C5:182:THR:HG23	1.93	0.50
1:F3:30:LEU:HD12	1:F3:246:MET:HE1	1.92	0.50
1:G8:70:MET:HE2	1:G8:220:LEU:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G8:130:PHE:HB2	1:G8:135:LEU:HD11	1.94	0.50
1:H7:123:ARG:HH12	1:H7:127:GLN:HE22	1.59	0.50
1:J7:167:THR:HG22	1:J7:172:ALA:HB2	1.94	0.50
7:Y3:201:SER:OG	7:Y3:225:THR:HG22	2.11	0.50
7:Y5:125:PHE:CZ	7:Y5:250:TYR:HE1	2.29	0.50
8:Z2:81:ARG:HD3	8:Z2:125:LEU:HD11	1.92	0.50
4:t1:29:GLU:O	4:t1:237:LEU:HB2	2.12	0.50
1:A5:73:ILE:HD11	1:A5:213:LEU:O	2.12	0.50
1:A5:278:LEU:HD21	1:K6:262:ALA:HB2	1.92	0.50
1:B6:83:THR:HG21	1:B6:168:MET:HE1	1.93	0.50
1:C5:281:LEU:HD23	1:C5:281:LEU:O	2.12	0.50
1:C6:133:MET:HE1	1:C7:101:ILE:HA	1.93	0.50
1:D5:72:LEU:HD13	1:D6:101:ILE:HG22	1.91	0.50
1:G2:163:VAL:HA	1:G2:216:TYR:CE2	2.46	0.50
1:I7:281:LEU:HD23	1:I7:281:LEU:O	2.11	0.50
2:M3:215:LEU:HD12	2:M3:244:CYS:HA	1.93	0.50
2:M4:141:GLU:OE2	2:M4:150:ARG:HD3	2.12	0.50
2:P2:83:PHE:CE2	2:P3:239:LYS:HE3	2.47	0.50
3:Q1:187:ASP:HA	3:Q1:218:ALA:HB2	1.92	0.50
4:T3:149:LYS:HG3	4:T3:195:ILE:O	2.11	0.50
6:V2:76:ARG:HG3	6:V3:235:ILE:HG22	1.94	0.50
6:V2:178:PRO:O	6:V2:181:VAL:HG22	2.10	0.50
6:X3:77:GLY:O	6:X3:78:LEU:HD23	2.12	0.50
7:Y2:56:PHE:HD1	7:Y2:71:VAL:HG22	1.77	0.50
10:b4:138:TYR:HB2	10:b4:152:ILE:HB	1.94	0.50
1:A4:65:ASN:HD21	1:A5:96:GLN:HA	1.75	0.50
1:A4:233:ASN:HD22	1:B4:75:THR:HA	1.77	0.50
1:C4:210:ARG:HG2	1:C4:210:ARG:HH11	1.77	0.50
1:C7:99:ASN:ND2	1:C7:101:ILE:HG12	2.26	0.50
1:D6:87:VAL:HA	1:D6:90:ILE:HG22	1.93	0.50
1:E2:241:ILE:HG12	1:F2:68:ASP:OD1	2.10	0.50
1:H8:233:ASN:ND2	1:I8:74:GLN:HG3	2.26	0.50
1:I6:2:ILE:HD11	1:I7:240:ARG:HA	1.93	0.50
1:I6:108:GLN:O	1:I6:111:GLN:HG3	2.12	0.50
1:I9:15:THR:HG22	1:I9:19:ASN:ND2	2.27	0.50
1:J5:160:ARG:HH21	1:J6:189:ALA:HB1	1.76	0.50
1:K4:277:VAL:O	1:K4:281:LEU:HD23	2.11	0.50
2:O3:92:GLU:O	2:O3:96:LEU:HD13	2.11	0.50
2:P4:241:LEU:HD23	2:P4:273:HIS:CE1	2.46	0.50
2:P5:76:ALA:H	2:P5:79:LYS:HG2	1.75	0.50
3:S5:80:PHE:CZ	3:S5:104:ARG:HD3	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S6:75:PHE:CD2	3:S6:76:ARG:HG2	2.46	0.50
5:U6:171:LEU:HD13	5:U6:174:ARG:HD3	1.94	0.50
6:V4:105:LYS:HE2	6:V4:213:TYR:HB3	1.92	0.50
8:Z2:45:VAL:HG11	8:Z2:121:LEU:HD21	1.92	0.50
8:Z4:158:ALA:HA	8:Z4:195:LYS:HE2	1.93	0.50
9:a2:152:GLU:HB2	9:a2:156:SER:HB3	1.94	0.50
11:c1:36:TYR:O	11:c1:40:VAL:HG22	2.11	0.50
1:A7:209:GLN:HE21	1:A7:213:LEU:CD2	2.25	0.50
1:B3:269:GLN:O	1:B3:273:LYS:HG3	2.12	0.50
1:B5:93:LEU:HD13	1:B5:96:GLN:NE2	2.26	0.50
1:B5:173:LEU:HD13	1:B5:202:ALA:HB1	1.94	0.50
1:C5:36:ILE:HD12	1:C5:46:LEU:HA	1.94	0.50
1:D7:106:ASP:O	1:D7:109:GLN:HG3	2.12	0.50
1:E4:250:MET:O	1:E4:254:THR:HG23	2.12	0.50
1:F3:16:LEU:HD11	1:F3:264:THR:HG22	1.92	0.50
1:F6:66:THR:HG23	1:F6:220:LEU:HD12	1.92	0.50
1:G7:53:ARG:HH12	1:G7:242:ARG:NH1	2.09	0.50
1:H6:44:SER:HA	1:I7:109:GLN:NE2	2.26	0.50
1:I5:270:ALA:O	1:I5:273:LYS:HG2	2.12	0.50
1:I8:36:ILE:HG21	1:I8:46:LEU:HB2	1.93	0.50
1:K5:133:MET:HE1	1:K6:103:THR:HG23	1.94	0.50
1:K6:202:ALA:O	1:K6:206:ILE:HD12	2.12	0.50
2:N2:154:GLU:H	2:N2:154:GLU:CD	2.20	0.50
3:Q4:133:TYR:HB2	3:Q4:154:LYS:HB3	1.93	0.50
10:b2:200:PHE:HB3	10:b2:222:VAL:HG12	1.94	0.50
1:A6:66:THR:HG22	1:A6:70:MET:HE2	1.92	0.50
1:D6:247:ALA:O	1:D6:251:THR:HG23	2.11	0.50
1:E4:154:GLY:CA	1:E4:159:GLN:HG2	2.42	0.50
3:S4:76:ARG:HD3	3:S4:110:PHE:CE1	2.46	0.50
3:S5:127:ALA:O	3:S5:159:ILE:HG13	2.12	0.50
4:T2:216:GLN:HE21	4:T2:218:LYS:HZ1	1.60	0.50
5:U4:226:THR:HG23	5:U4:232:TYR:HD2	1.77	0.50
5:U4:229:LYS:HD3	5:U4:230:PRO:HD2	1.94	0.50
5:U6:86:PHE:CZ	5:U6:306:MET:HE2	2.46	0.50
6:X4:56:ASP:HB3	6:X4:121:PRO:HG2	1.93	0.50
10:b4:131:TYR:CG	10:b4:157:ARG:HD2	2.47	0.50
1:A9:100:GLY:HA2	1:A9:107:ARG:HH22	1.77	0.50
1:B4:67:GLU:HA	1:B4:70:MET:HE2	1.92	0.50
1:B7:23:MET:SD	1:B7:27:ILE:HD11	2.52	0.50
1:E5:258:ILE:HG23	1:F4:278:LEU:HD22	1.94	0.50
1:E6:24:GLY:O	1:E6:28:GLU:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E6:261:GLN:HB3	1:F5:278:LEU:HD21	1.94	0.50
1:G1:88:GLN:HG3	1:G9:54:THR:HG23	1.94	0.50
1:H6:10:ILE:HG22	1:H7:232:GLU:HG2	1.94	0.50
1:I5:11:PHE:CE2	1:J5:28:GLU:HG3	2.47	0.50
1:J6:73:ILE:HG23	1:J6:213:LEU:HD12	1.94	0.50
1:J9:55:GLN:NE2	1:J9:155:ALA:HB3	2.26	0.50
1:J9:90:ILE:HD11	1:J9:117:LEU:HB3	1.93	0.50
2:M2:91:GLN:HG2	2:M2:94:HIS:CE1	2.47	0.50
2:P6:174:THR:HG21	1:h1:180:VAL:HG13	1.94	0.50
5:U5:226:THR:HA	5:U5:229:LYS:HE3	1.93	0.50
5:U5:254:LYS:O	5:U5:258:THR:HG23	2.12	0.50
7:Y3:88:TYR:CZ	7:Y3:182:ALA:HB2	2.47	0.50
8:Z3:189:PHE:O	8:Z3:192:VAL:HG12	2.12	0.50
10:b2:153:LEU:HD23	10:b2:172:LEU:HD21	1.92	0.50
4:t2:158:ARG:HA	4:t2:186:ILE:HG12	1.92	0.50
4:t2:229:THR:HG22	4:t2:230:VAL:N	2.27	0.50
1:A4:24:GLY:O	1:A4:28:GLU:HG3	2.12	0.49
1:B4:219:ARG:HH21	1:C4:120:GLU:HA	1.76	0.49
1:B7:43:ALA:HB1	1:B8:211:ALA:HA	1.94	0.49
1:C4:24:GLY:HA2	1:C4:27:ILE:HG22	1.93	0.49
1:C4:64:MET:HE1	1:C5:96:GLN:OE1	2.12	0.49
1:D4:65:ASN:HD21	1:D5:99:ASN:HB2	1.74	0.49
1:D4:191:LYS:O	1:D4:195:VAL:HG23	2.12	0.49
1:D5:1:MET:HE2	1:D5:277:VAL:HG21	1.94	0.49
1:E3:237:ALA:HB1	1:F3:71:SER:HB3	1.94	0.49
1:F2:48:VAL:HG22	1:F2:52:MET:HE3	1.93	0.49
1:G8:136:LEU:HB3	1:G8:168:MET:HB3	1.94	0.49
1:H8:18:PHE:CZ	1:H9:225:LYS:HG3	2.46	0.49
1:K6:106:ASP:O	1:K6:110:ILE:HG12	2.12	0.49
6:V4:73:MET:HE1	6:V4:75:GLN:HA	1.94	0.49
6:X2:148:ALA:O	6:X2:159:ASN:HA	2.12	0.49
8:Z2:333:ALA:HA	8:Z2:336:ILE:HG12	1.93	0.49
8:Z3:138:LYS:HA	8:Z3:141:ILE:HD12	1.94	0.49
9:a2:196:LEU:O	9:a2:199:ILE:HG22	2.12	0.49
9:a5:127:ARG:HB2	9:a5:141:ILE:HG22	1.94	0.49
4:t1:32:ASP:HB3	4:t1:93:LYS:HB2	1.93	0.49
1:A5:67:GLU:HG2	1:K5:240:ARG:HH22	1.77	0.49
1:A5:240:ARG:NH2	1:B5:67:GLU:HB3	2.27	0.49
1:A7:109:GLN:HE22	1:K7:208:LYS:HA	1.77	0.49
1:B8:233:ASN:CG	1:C8:75:THR:HA	2.37	0.49
1:C6:11:PHE:O	1:C6:14:ARG:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D3:258:ILE:HD11	1:E2:278:LEU:HB2	1.94	0.49
1:D4:86:ILE:HG23	1:D4:117:LEU:HD12	1.94	0.49
1:D4:136:LEU:HD12	1:D4:168:MET:HG2	1.94	0.49
1:E3:57:LEU:HD22	1:E4:92:VAL:HG22	1.93	0.49
1:I6:252:SER:O	1:I6:255:ARG:HG2	2.12	0.49
1:J9:27:ILE:HD11	1:J9:253:PHE:CE1	2.48	0.49
1:K7:224:ALA:O	1:K7:228:MET:HG3	2.12	0.49
2:M2:138:ARG:HB2	2:M2:141:GLU:OE2	2.12	0.49
2:N3:138:ARG:HH11	2:N3:150:ARG:NH1	2.10	0.49
2:P4:136:LYS:HG3	2:P4:138:ARG:HG2	1.93	0.49
3:Q3:152:ILE:H	3:Q3:152:ILE:HD12	1.77	0.49
3:S5:49:ASP:O	3:S5:52:ILE:HG22	2.12	0.49
4:T3:101:PHE:CZ	4:T3:225:THR:HG21	2.47	0.49
5:U4:297:THR:HG23	10:b2:39:LEU:O	2.12	0.49
9:a4:90:ILE:HG13	9:a4:91:PRO:HD2	1.94	0.49
10:b5:153:LEU:O	10:b5:171:ARG:HA	2.13	0.49
1:C6:46:LEU:HD21	1:C7:210:ARG:HG2	1.93	0.49
1:D6:180:VAL:HG12	1:D6:182:THR:HG23	1.94	0.49
1:F3:159:GLN:HG3	1:F3:159:GLN:O	2.12	0.49
1:G7:273:LYS:HZ3	1:H7:257:GLN:HG2	1.77	0.49
1:G8:274:PRO:HA	1:G8:277:VAL:CG1	2.43	0.49
1:K4:35:ARG:HB2	1:K4:244:THR:N	2.26	0.49
2:L6:222:LEU:O	2:L6:226:ILE:HG12	2.13	0.49
2:N5:214:ASN:O	2:N5:217:GLN:HG2	2.11	0.49
6:X5:136:TRP:HE1	6:X5:172:LYS:HD3	1.77	0.49
8:Z2:176:GLU:HG3	8:Z2:177:ALA:H	1.76	0.49
8:Z3:141:ILE:HG12	8:Z3:202:MET:HE3	1.94	0.49
4:t1:80:LYS:HG2	4:t1:92:ALA:HB1	1.94	0.49
1:B6:158:HIS:HE1	6:V3:62:THR:HG22	1.77	0.49
1:E3:191:LYS:O	1:E3:195:VAL:HG23	2.12	0.49
1:I5:18:PHE:O	1:I5:21:GLU:HG2	2.11	0.49
1:K8:102:TYR:HB3	1:K8:106:ASP:HB2	1.93	0.49
1:K8:114:VAL:HG21	1:K8:186:LEU:HD11	1.95	0.49
2:L2:108:ALA:HB1	2:L2:180:LEU:HD22	1.94	0.49
2:L2:170:LEU:HD22	2:L2:212:LEU:HD23	1.94	0.49
3:Q4:195:LYS:HD2	3:Q4:196:ASP:N	2.26	0.49
3:R4:63:THR:O	3:R4:66:MET:HB3	2.12	0.49
3:S4:157:SER:OG	3:S4:174:VAL:HB	2.12	0.49
3:S5:178:GLY:O	3:S5:181:THR:HG22	2.13	0.49
4:T2:72:ARG:HG2	4:T2:72:ARG:HH11	1.77	0.49
6:V1:141:LYS:HE2	6:V1:168:PHE:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a4:152:GLU:HB2	9:a4:156:SER:HB3	1.94	0.49
10:b3:203:SER:HB3	10:b3:210:TRP:CH2	2.47	0.49
1:A5:28:GLU:HG3	1:K5:11:PHE:CZ	2.47	0.49
1:B6:25:LYS:HE2	1:B6:41:ASP:OD1	2.12	0.49
1:B6:70:MET:HB2	1:B6:217:TYR:CD2	2.48	0.49
1:E3:81:GLN:HA	1:E3:210:ARG:NH2	2.28	0.49
1:E5:54:THR:HA	1:E6:88:GLN:HE22	1.77	0.49
1:E7:216:TYR:O	1:E7:219:ARG:HG2	2.12	0.49
1:G1:49:SER:HB2	1:G1:242:ARG:HD3	1.93	0.49
1:G7:156:ASN:O	1:G7:159:GLN:HG3	2.12	0.49
1:G9:226:GLY:HA2	1:H9:82:GLU:HG3	1.95	0.49
1:H9:168:MET:HE3	1:H9:209:GLN:HE21	1.77	0.49
1:I6:230:ALA:O	1:I6:234:ILE:HG12	2.12	0.49
1:I7:191:LYS:O	1:I7:195:VAL:HG23	2.12	0.49
1:J7:34:MET:HE3	1:J7:36:ILE:H	1.77	0.49
1:J8:157:MET:HE1	1:J8:158:HIS:CD2	2.47	0.49
1:K7:252:SER:O	1:K7:255:ARG:HB3	2.12	0.49
2:M2:235:TYR:CG	2:M2:236:PRO:HD3	2.47	0.49
2:M4:153:ARG:HH11	2:M4:156:ARG:NH1	2.10	0.49
2:N2:267:ARG:HG3	2:N2:270:LYS:HZ3	1.77	0.49
3:S4:57:GLN:O	3:S4:61:ARG:HG2	2.12	0.49
4:T2:149:LYS:HA	4:T2:195:ILE:HD12	1.94	0.49
6:X5:149:LYS:HE2	6:X5:198:SER:OG	2.13	0.49
1:A6:11:PHE:CE2	1:B6:28:GLU:HG3	2.48	0.49
1:A6:240:ARG:HH22	1:B6:67:GLU:HB3	1.78	0.49
1:A7:266:MET:HE2	1:B7:27:ILE:HG13	1.94	0.49
1:B6:67:GLU:HG3	1:B6:70:MET:SD	2.53	0.49
1:C7:180:VAL:HG12	1:C7:182:THR:HG23	1.95	0.49
1:H9:18:PHE:CE2	1:h0:225:LYS:HA	2.48	0.49
2:O1:191:ARG:HG3	2:O1:192:PRO:HD2	1.95	0.49
4:T1:144:PHE:HZ	4:T1:214:PHE:HB2	1.77	0.49
5:U7:157:ILE:HG21	5:U7:169:LEU:HD22	1.93	0.49
6:V3:230:TYR:HB3	6:V3:233:SER:HB2	1.93	0.49
6:V5:131:ARG:HH12	7:Y5:236:MET:HE3	1.76	0.49
6:V5:226:SER:HB3	6:V5:230:TYR:CE1	2.48	0.49
7:Y3:70:ASP:HA	7:Y3:237:SER:O	2.12	0.49
7:Y4:108:PHE:CD1	7:Y4:109:PRO:HD2	2.48	0.49
7:Y4:235:LEU:C	7:Y4:236:MET:HE2	2.37	0.49
4:t1:44:VAL:HG23	4:t1:72:ARG:HD2	1.95	0.49
1:A7:204:ARG:HD3	1:B7:105:GLU:HG2	1.94	0.49
1:B7:10:ILE:HG22	1:B8:232:GLU:OE2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B8:81:GLN:HE21	1:B8:210:ARG:HH22	1.59	0.49
1:C5:34:MET:HE2	1:C5:34:MET:N	2.28	0.49
1:C7:109:GLN:O	1:C7:112:VAL:HG12	2.12	0.49
1:D3:6:ASN:ND2	1:D3:9:ALA:HB2	2.28	0.49
1:D5:248:GLU:HB3	1:E4:13:HIS:NE2	2.28	0.49
1:F5:38:ARG:NH1	1:F6:74:GLN:HE22	2.10	0.49
1:G1:252:SER:HA	1:G1:255:ARG:HG2	1.93	0.49
1:G9:258:ILE:HG21	1:H8:3:ILE:HD11	1.95	0.49
1:H7:96:GLN:HE22	1:H7:110:ILE:HD13	1.77	0.49
1:I8:97:ALA:HB2	1:I8:110:ILE:HG21	1.95	0.49
1:I9:14:ARG:HH11	1:i0:232:GLU:HG2	1.77	0.49
1:J9:123:ARG:HG2	1:J9:127:GLN:HG3	1.93	0.49
1:K5:281:LEU:HD12	1:K6:250:MET:HG2	1.93	0.49
2:L5:183:ILE:HD11	2:L5:194:PHE:CE1	2.48	0.49
2:M4:235:TYR:CD2	2:M4:236:PRO:HD3	2.46	0.49
2:O4:189:ARG:HD3	2:O4:194:PHE:CE1	2.48	0.49
2:P5:131:LYS:NZ	10:b5:262:THR:HG23	2.27	0.49
2:P5:145:TRP:HA	2:P5:148:VAL:HG22	1.95	0.49
3:R2:176:ASP:OD2	3:R2:179:PRO:HG3	2.13	0.49
6:X1:136:TRP:CD1	6:X1:218:ASP:HB3	2.47	0.49
8:Z2:258:ALA:HA	8:Z2:261:ILE:HD12	1.94	0.49
9:a3:218:VAL:HA	9:a3:221:THR:HG22	1.95	0.49
10:b2:53:VAL:HG13	10:b2:58:PHE:HA	1.95	0.49
1:A5:1:MET:SD	1:A6:246:MET:HE3	2.53	0.49
1:A5:72:LEU:HD22	1:A5:151:PHE:HZ	1.77	0.49
1:A5:257:GLN:HE21	1:K5:269:GLN:HE21	1.60	0.49
1:A6:159:GLN:HA	1:B6:127:GLN:NE2	2.27	0.49
1:B4:240:ARG:HH11	1:B4:240:ARG:HG3	1.77	0.49
1:C5:46:LEU:HD21	1:C6:210:ARG:HH21	1.76	0.49
1:D3:52:MET:O	1:D3:56:ILE:HG23	2.12	0.49
1:D5:3:ILE:HD13	1:D5:278:LEU:HD21	1.95	0.49
1:D5:14:ARG:HH21	1:D6:225:LYS:NZ	2.11	0.49
1:E5:268:ALA:O	1:E5:272:MET:HG2	2.13	0.49
1:F2:159:GLN:HG2	1:G7:127:GLN:HG2	1.91	0.49
1:G2:163:VAL:HA	1:G2:216:TYR:HE2	1.77	0.49
1:I6:175:LEU:HA	1:I6:184:ILE:HD11	1.95	0.49
1:J6:52:MET:HE1	1:J6:238:GLU:HA	1.94	0.49
1:J9:40:GLY:HA3	1:j0:214:GLY:HA3	1.94	0.49
2:N5:174:THR:HG1	2:N5:205:TRP:HZ3	1.59	0.49
2:O4:245:TYR:CZ	2:O4:269:LYS:HE3	2.47	0.49
2:P2:246:ALA:O	2:P2:249:GLU:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T1:265:LYS:O	4:T1:269:MET:HG2	2.12	0.49
7:Y2:216:HIS:ND1	7:Y2:219:LEU:HB2	2.28	0.49
8:Z2:339:LYS:HG2	8:Z2:344:GLU:OE2	2.12	0.49
4:t2:80:LYS:HE3	4:t2:84:ILE:HD12	1.95	0.49
1:A4:153:ILE:HG12	1:B4:123:ARG:NH1	2.27	0.49
1:A9:70:MET:O	1:A9:74:GLN:HG3	2.13	0.49
1:C4:50:GLU:CD	1:C4:242:ARG:HH12	2.20	0.49
1:F3:30:LEU:HD21	1:F3:249:GLN:HB3	1.95	0.49
1:G8:61:ARG:HH21	1:G9:96:GLN:NE2	2.11	0.49
1:J5:49:SER:HA	1:J5:52:MET:HG2	1.93	0.49
1:J7:87:VAL:HA	1:J7:90:ILE:HG22	1.94	0.49
1:J8:61:ARG:NH2	1:J9:96:GLN:HG3	2.27	0.49
1:K7:184:ILE:HG12	1:K7:195:VAL:HG22	1.95	0.49
2:M4:209:GLU:OE2	2:M4:217:GLN:HB2	2.13	0.49
3:R4:138:ASN:HB3	3:R4:150:ARG:HH12	1.78	0.49
3:R4:230:ASN:O	3:R4:234:LYS:HG2	2.13	0.49
3:S2:79:LEU:HD12	3:S2:105:VAL:HG12	1.93	0.49
6:V1:134:SER:HA	6:V1:173:LEU:O	2.13	0.49
6:V4:185:THR:HG22	6:V4:186:ARG:N	2.28	0.49
7:Y1:75:MET:HE3	7:Y1:85:PHE:HE2	1.77	0.49
8:Z2:136:ILE:HD13	8:Z2:255:ARG:HD2	1.94	0.49
8:Z4:168:VAL:HA	8:Z4:171:MET:CG	2.42	0.49
9:a5:186:VAL:HG22	9:a5:190:ARG:HH21	1.78	0.49
10:b2:104:LEU:HD22	10:b2:114:LEU:HD22	1.95	0.49
4:t3:42:TRP:CZ2	4:t3:113:PRO:HG3	2.47	0.49
1:A5:88:GLN:O	1:A5:92:VAL:HG23	2.13	0.49
1:A8:191:LYS:O	1:A8:195:VAL:HG23	2.13	0.49
1:C5:216:TYR:HE1	1:D5:116:GLN:HG3	1.77	0.49
1:D5:83:THR:HA	1:D5:121:ILE:HD11	1.95	0.49
1:E5:50:GLU:CD	1:E5:242:ARG:HH12	2.21	0.49
1:F2:23:MET:HB2	1:F2:256:TYR:HB3	1.95	0.49
1:G1:192:ALA:HA	1:G1:195:VAL:HG12	1.95	0.49
1:H6:258:ILE:HG23	1:I5:278:LEU:HD22	1.94	0.49
1:I8:40:GLY:HA2	1:I9:214:GLY:CA	2.42	0.49
1:I9:191:LYS:O	1:I9:195:VAL:HG23	2.12	0.49
1:I9:258:ILE:HG21	1:J8:3:ILE:HG12	1.94	0.49
2:L2:105:PHE:O	2:L2:109:LEU:HD23	2.12	0.49
2:P4:205:TRP:NE1	2:P4:221:ILE:HG13	2.27	0.49
3:S2:182:GLN:CD	3:S2:183:PRO:HD2	2.38	0.49
4:T2:42:TRP:CD1	4:T2:114:PRO:HD3	2.48	0.49
5:U6:28:ILE:HG13	5:U6:29:ASN:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V4:122:HIS:CE1	6:V4:124:TYR:HE1	2.31	0.49
1:A5:28:GLU:HG3	1:K5:11:PHE:CE2	2.48	0.48
1:A5:237:ALA:O	1:A5:240:ARG:HG2	2.13	0.48
1:A9:175:LEU:O	1:A9:184:ILE:HG23	2.13	0.48
1:C3:39:ALA:HB2	1:C4:210:ARG:HD2	1.94	0.48
1:C5:157:MET:HE1	1:C6:194:SER:HA	1.94	0.48
1:F4:90:ILE:HD11	1:F4:117:LEU:HB2	1.95	0.48
1:J7:38:ARG:HH22	1:J8:77:GLU:HG2	1.78	0.48
2:L5:215:LEU:HD23	2:L5:216:PRO:HD3	1.94	0.48
2:O3:78:TRP:CD1	2:O4:203:ARG:HD2	2.48	0.48
2:P5:249:GLU:OE2	2:P5:270:LYS:HE2	2.12	0.48
3:S3:76:ARG:HD3	3:S3:108:TYR:HB3	1.95	0.48
4:T4:214:PHE:HE2	4:T4:217:PHE:CE1	2.31	0.48
6:V4:197:VAL:HG12	6:V4:198:SER:H	1.78	0.48
6:X4:54:ALA:HB1	6:X4:102:LEU:HD13	1.94	0.48
6:X4:132:GLN:NE2	6:X4:222:ARG:HB2	2.26	0.48
7:Y4:209:GLU:O	7:Y4:212:LYS:HG3	2.12	0.48
8:Z1:38:LEU:O	8:Z1:42:GLU:HG2	2.12	0.48
8:Z1:258:ALA:HA	8:Z1:261:ILE:HD12	1.94	0.48
9:a4:190:ARG:HA	9:a4:193:ARG:HG2	1.94	0.48
4:t1:35:ALA:O	4:t1:39:PRO:HD3	2.13	0.48
1:B4:65:ASN:ND2	1:B5:99:ASN:HB2	2.28	0.48
1:C4:273:LYS:HB3	1:C4:274:PRO:HD3	1.94	0.48
1:C5:51:LYS:HD3	1:D5:132:LYS:HG3	1.95	0.48
1:E5:36:ILE:HG21	1:E5:46:LEU:HB2	1.95	0.48
1:E6:160:ARG:NH2	2:M5:156:ARG:HH11	2.11	0.48
1:G1:43:ALA:HB1	1:G2:211:ALA:HA	1.95	0.48
1:I8:36:ILE:HG21	1:I8:46:LEU:HD13	1.95	0.48
1:J7:48:VAL:HG12	1:J7:52:MET:SD	2.53	0.48
1:K7:117:LEU:O	1:K7:120:GLU:HB3	2.12	0.48
1:K9:216:TYR:HA	1:K9:219:ARG:HB2	1.94	0.48
2:L2:197:LEU:O	2:L2:201:THR:HG23	2.13	0.48
2:M1:78:TRP:CH2	2:M2:237:ALA:HB2	2.47	0.48
2:O2:66:ARG:HA	2:O2:69:LYS:HE3	1.95	0.48
2:P4:133:GLU:HA	2:P4:136:LYS:NZ	2.28	0.48
3:Q1:41:ILE:HD12	3:Q1:222:ASN:ND2	2.29	0.48
3:Q1:105:VAL:HG12	3:Q1:130:MET:HG2	1.95	0.48
4:T2:26:ILE:HD11	4:T2:269:MET:HG3	1.95	0.48
4:T4:94:VAL:HG12	4:T4:235:ASP:OD2	2.13	0.48
6:X4:125:VAL:HG12	6:X4:195:HIS:CD2	2.49	0.48
6:X4:141:LYS:HD2	6:X4:168:PHE:CZ	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a3:191:ILE:HD13	9:a4:225:VAL:HG23	1.95	0.48
9:a4:193:ARG:HG3	9:a4:194:THR:N	2.28	0.48
11:c2:102:PHE:CE1	11:c2:122:PHE:HD1	2.31	0.48
4:t3:42:TRP:HE3	4:t3:111:ILE:HG22	1.78	0.48
1:A4:7:ILE:HA	1:A4:10:ILE:HD12	1.95	0.48
1:A8:154:GLY:CA	1:A8:159:GLN:HG2	2.43	0.48
1:B6:70:MET:HE1	1:B6:221:GLU:HA	1.95	0.48
1:E6:86:ILE:HD13	1:E6:120:GLU:HG3	1.95	0.48
1:H9:156:ASN:HB2	1:H9:159:GLN:NE2	2.28	0.48
1:J5:149:MET:HE1	1:J6:101:ILE:HG22	1.94	0.48
1:K8:14:ARG:HH12	1:K9:229:ASN:ND2	2.11	0.48
2:L2:103:ASN:N	9:a2:132:SER:HG	2.09	0.48
2:M2:72:GLN:CG	3:Q2:199:PRO:HB2	2.43	0.48
3:Q2:143:GLU:OE2	3:Q2:145:ARG:HD3	2.13	0.48
3:S3:55:LEU:O	3:S3:58:ARG:HG2	2.14	0.48
3:S5:101:ASN:HA	3:S5:134:PHE:CZ	2.47	0.48
3:S6:230:ASN:HA	3:S6:233:LYS:HG2	1.95	0.48
6:X1:106:THR:HG21	6:X1:116:VAL:HG11	1.94	0.48
8:Z2:259:ILE:HG22	8:Z2:263:LYS:NZ	2.29	0.48
8:Z3:255:ARG:HD3	8:Z3:332:ASP:CG	2.38	0.48
10:b4:118:LEU:HD22	10:b4:255:MET:HE2	1.95	0.48
1:B5:80:LEU:HA	1:B5:83:THR:HG22	1.94	0.48
1:C5:34:MET:SD	1:C5:242:ARG:HG3	2.53	0.48
1:C6:72:LEU:HD13	1:C7:101:ILE:HG22	1.94	0.48
1:C7:48:VAL:HG13	1:D7:131:ASN:ND2	2.25	0.48
1:D6:138:GLY:HA3	1:D6:167:THR:HG22	1.95	0.48
1:E4:18:PHE:CZ	1:E5:225:LYS:HA	2.48	0.48
1:E4:153:ILE:HG23	1:F4:123:ARG:CZ	2.44	0.48
1:E6:150:TRP:CZ3	1:E6:162:ARG:HB2	2.48	0.48
1:F6:56:ILE:HD13	1:F6:235:GLN:OE1	2.13	0.48
1:G1:101:ILE:HA	1:G9:149:MET:HE1	1.95	0.48
1:H9:82:GLU:O	1:H9:86:ILE:HG12	2.12	0.48
1:I5:11:PHE:O	1:I5:14:ARG:HB3	2.13	0.48
1:I6:53:ARG:HA	1:I6:56:ILE:HG12	1.93	0.48
1:I7:111:GLN:OE1	1:I7:185:SER:HA	2.13	0.48
1:I8:163:VAL:HG13	1:I8:216:TYR:CE2	2.48	0.48
1:J7:46:LEU:HD12	1:J7:242:ARG:HH12	1.78	0.48
1:K8:252:SER:O	1:K8:255:ARG:HB3	2.14	0.48
2:M1:105:PHE:CD1	2:M1:197:LEU:HD22	2.47	0.48
2:N4:142:LYS:HD2	2:O3:214:ASN:HD22	1.79	0.48
2:N4:206:ILE:HD11	2:N4:221:ILE:HB	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N4:245:TYR:HE2	2:N4:269:LYS:HE3	1.75	0.48
2:O1:75:GLU:C	2:O1:77:LEU:H	2.20	0.48
3:Q2:79:LEU:HD11	3:Q2:103:ILE:HD11	1.95	0.48
4:T2:178:LEU:HD11	4:T2:196:PRO:HD3	1.94	0.48
4:T2:186:ILE:HG13	4:T2:186:ILE:O	2.13	0.48
5:U3:45:ASN:ND2	5:U3:304:MET:HE2	2.28	0.48
5:U6:51:LEU:HD11	5:U6:141:GLN:CD	2.39	0.48
6:V3:62:THR:HG23	6:V3:115:ARG:HG2	1.94	0.48
10:b4:77:ILE:HD11	10:b4:260:LEU:HB2	1.95	0.48
1:A9:120:GLU:HA	1:K9:219:ARG:HH12	1.78	0.48
1:B5:108:GLN:O	1:B5:112:VAL:HG23	2.13	0.48
1:C4:1:MET:HE3	1:C4:277:VAL:HG11	1.96	0.48
1:C4:27:ILE:HD12	1:C4:253:PHE:CE1	2.48	0.48
1:C4:266:MET:HE1	1:D4:27:ILE:HA	1.96	0.48
1:D6:106:ASP:O	1:D6:110:ILE:HG13	2.14	0.48
1:D7:101:ILE:HG13	1:D7:102:TYR:CD1	2.48	0.48
1:E4:48:VAL:O	1:E4:51:LYS:HG2	2.13	0.48
1:F2:273:LYS:O	1:F2:276:THR:HG22	2.14	0.48
1:F3:73:ILE:HD11	1:F3:213:LEU:O	2.13	0.48
1:F5:49:SER:HB2	1:F5:242:ARG:HB2	1.95	0.48
1:J8:36:ILE:HG13	1:J8:42:ASP:HB3	1.94	0.48
1:K4:35:ARG:HE	1:K4:36:ILE:HD11	1.77	0.48
1:K5:275:GLN:NE2	1:K5:276:THR:HG23	2.28	0.48
1:K7:65:ASN:CG	1:K8:99:ASN:HD21	2.22	0.48
1:K8:53:ARG:HA	1:K8:56:ILE:HD12	1.95	0.48
1:K8:108:GLN:O	1:K8:112:VAL:HG23	2.13	0.48
2:L4:145:TRP:O	2:L4:148:VAL:HG22	2.13	0.48
2:N5:78:TRP:HE1	2:N6:203:ARG:HB3	1.79	0.48
2:O2:293:VAL:HA	2:O2:296:VAL:HG12	1.94	0.48
2:P6:245:TYR:CD1	2:P6:269:LYS:HE3	2.48	0.48
3:R3:204:PRO:HA	3:R3:214:LYS:HG2	1.95	0.48
3:R5:107:VAL:O	3:R5:127:ALA:HB3	2.13	0.48
4:T3:245:GLU:HA	4:T3:248:PHE:CD2	2.49	0.48
4:T4:27:THR:HG21	4:T4:30:SER:HB2	1.96	0.48
5:U4:141:GLN:NE2	5:U4:142:TYR:HD1	2.12	0.48
6:V5:123:GLU:HG3	6:V5:195:HIS:HB3	1.95	0.48
9:a5:43:GLN:HG2	9:a5:182:PRO:HB3	1.94	0.48
4:t1:34:PRO:HB2	4:t1:38:ALA:HB3	1.95	0.48
4:t1:215:LYS:HG2	4:t1:216:GLN:H	1.78	0.48
4:t4:116:ILE:HG23	4:t4:118:GLU:HG2	1.94	0.48
4:t4:160:ASN:O	4:t4:184:ASP:HA	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B4:118:VAL:HA	1:B4:121:ILE:HG22	1.96	0.48
1:B4:207:SER:HB3	1:C4:109:GLN:HE22	1.79	0.48
1:B4:273:LYS:HB3	1:B4:274:PRO:HD3	1.96	0.48
1:C6:185:SER:C	1:C6:186:LEU:HD12	2.38	0.48
1:E4:52:MET:O	1:E4:56:ILE:HG12	2.13	0.48
1:G6:266:MET:HA	1:G6:269:GLN:HG3	1.95	0.48
1:H6:266:MET:SD	1:I6:30:LEU:HG	2.53	0.48
1:H7:29:LYS:HG2	1:H7:34:MET:O	2.12	0.48
1:I9:67:GLU:O	1:I9:70:MET:HG2	2.14	0.48
1:J8:111:GLN:HA	1:J8:114:VAL:HG12	1.94	0.48
1:K7:156:ASN:H	1:K7:159:GLN:HG3	1.79	0.48
2:M5:126:ILE:O	2:M5:130:ARG:HG2	2.13	0.48
2:N4:209:GLU:OE2	2:N4:214:ASN:HB3	2.13	0.48
2:N6:138:ARG:HH12	2:N6:150:ARG:NE	2.11	0.48
2:O3:143:TRP:O	2:O3:146:GLN:HG2	2.13	0.48
2:O4:76:ALA:HA	2:O4:79:LYS:HB2	1.93	0.48
3:S6:126:LEU:HD23	3:S6:160:TYR:HB2	1.95	0.48
5:U3:128:GLN:HA	5:U3:131:MET:HG2	1.96	0.48
5:U3:255:VAL:HG21	5:U3:289:HIS:CE1	2.49	0.48
6:V2:116:VAL:O	6:V2:200:PHE:HB2	2.13	0.48
7:Y1:267:LEU:HD21	7:Y1:270:ARG:HG3	1.94	0.48
8:Z3:176:GLU:HG2	8:Z3:177:ALA:H	1.79	0.48
4:t1:142:VAL:HB	4:t1:214:PHE:HB3	1.95	0.48
4:t3:94:VAL:HG22	4:t3:235:ASP:OD2	2.13	0.48
1:A7:65:ASN:HB3	1:A8:99:ASN:ND2	2.27	0.48
1:A7:67:GLU:HG2	1:K7:240:ARG:CZ	2.43	0.48
1:A7:127:GLN:HG3	1:K7:159:GLN:NE2	2.28	0.48
1:B7:270:ALA:O	1:B7:274:PRO:HD3	2.13	0.48
1:C5:278:LEU:HD11	1:C6:246:MET:SD	2.54	0.48
1:C7:53:ARG:HA	1:C7:56:ILE:HG12	1.95	0.48
1:D5:268:ALA:O	1:D5:272:MET:HG2	2.13	0.48
1:D7:87:VAL:HA	1:D7:90:ILE:HG22	1.95	0.48
1:D7:117:LEU:HA	1:D7:120:GLU:OE1	2.13	0.48
1:F3:20:SER:HA	1:F3:23:MET:HG3	1.95	0.48
1:H8:14:ARG:HH22	1:H9:229:ASN:ND2	2.12	0.48
1:H8:180:VAL:HG23	1:H8:182:THR:HG23	1.95	0.48
1:J7:6:ASN:HB3	1:J7:9:ALA:HB3	1.96	0.48
1:J9:136:LEU:HD12	1:J9:168:MET:HB2	1.96	0.48
1:J9:176:ARG:HD3	1:J9:181:LEU:HA	1.96	0.48
2:L3:129:TYR:O	2:L3:132:GLU:HG3	2.14	0.48
2:L3:200:ASP:O	2:L3:203:ARG:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L3:269:LYS:O	2:L3:272:VAL:HG12	2.14	0.48
4:T4:92:ALA:HB1	13:T4:402:HOH:O	2.12	0.48
6:V3:105:LYS:HG3	6:V3:213:TYR:CE2	2.48	0.48
6:X4:52:GLU:OE2	6:X4:100:HIS:N	2.47	0.48
10:b2:188:ARG:HG3	10:b2:190:PRO:HD3	1.95	0.48
1:h0:159:GLN:HG2	1:i0:127:GLN:HG3	1.94	0.48
4:t1:73:GLU:HB3	4:t1:98:LYS:HG2	1.95	0.48
4:t1:73:GLU:OE2	4:t1:75:LYS:HG3	2.13	0.48
1:A4:51:LYS:O	1:A4:55:GLN:HG3	2.14	0.48
1:A6:176:ARG:HH12	1:A6:181:LEU:HD22	1.78	0.48
1:A6:219:ARG:NH1	1:B6:116:GLN:HE22	2.12	0.48
1:A6:222:HIS:CE1	1:B6:86:ILE:HG13	2.49	0.48
1:A8:247:ALA:O	1:A8:251:THR:HG23	2.14	0.48
1:B4:1:MET:HE1	1:B4:273:LYS:HZ2	1.78	0.48
1:B4:70:MET:HB2	1:B4:217:TYR:CE1	2.49	0.48
1:F3:70:MET:HA	1:F3:73:ILE:HG22	1.94	0.48
1:H7:266:MET:HE2	1:I7:27:ILE:HG12	1.95	0.48
1:H8:163:VAL:O	1:H8:163:VAL:HG13	2.14	0.48
1:I8:129:GLU:HA	1:I8:135:LEU:HD23	1.96	0.48
1:J8:53:ARG:HA	1:J8:56:ILE:HD12	1.96	0.48
1:K7:175:LEU:HD12	1:K7:184:ILE:HG21	1.96	0.48
1:K9:63:GLU:O	1:K9:66:THR:HG22	2.14	0.48
2:M5:202:TYR:CD1	2:M5:221:ILE:HD11	2.48	0.48
2:P2:206:ILE:HG12	2:P2:222:LEU:HD21	1.94	0.48
2:P5:78:TRP:CD1	2:P6:236:PRO:HB2	2.49	0.48
2:P5:131:LYS:HA	10:b5:269:MET:HE2	1.96	0.48
3:Q2:59:LEU:HA	3:Q2:62:HIS:ND1	2.29	0.48
8:Z1:224:LYS:HD3	11:c1:108:MET:HE3	1.96	0.48
9:a5:196:LEU:O	9:a5:200:ILE:HD12	2.14	0.48
10:b2:164:VAL:O	10:b2:166:ILE:HD12	2.14	0.48
4:t3:171:TRP:CH2	4:t3:200:PRO:HB2	2.48	0.48
4:t4:42:TRP:HZ3	4:t4:217:PHE:HE1	1.62	0.48
1:A6:89:ARG:NH2	1:A6:93:LEU:HD21	2.29	0.48
1:A7:54:THR:HG21	1:A8:203:LEU:HD11	1.96	0.48
1:B8:167:THR:O	1:B8:168:MET:HE2	2.13	0.48
1:C4:93:LEU:HD21	1:C4:113:GLU:OE2	2.14	0.48
1:C5:247:ALA:HB1	1:D4:267:LEU:HD11	1.95	0.48
1:C7:184:ILE:HG22	1:C7:186:LEU:HD13	1.94	0.48
1:D6:101:ILE:HG13	1:D6:102:TYR:CD1	2.49	0.48
1:F4:11:PHE:CE2	1:G9:28:GLU:HG3	2.49	0.48
1:I6:53:ARG:O	1:I6:56:ILE:HG12	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I8:273:LYS:HB3	1:I8:274:PRO:HD3	1.95	0.48
1:J7:151:PHE:O	1:J7:160:ARG:HA	2.13	0.48
1:J9:110:ILE:O	1:J9:113:GLU:HG2	2.14	0.48
1:J9:170:THR:HG21	1:J9:176:ARG:NH1	2.29	0.48
1:J9:177:ASN:CG	1:J9:180:VAL:HB	2.39	0.48
2:L6:234:GLU:C	2:L6:236:PRO:HD2	2.39	0.48
2:O2:71:ILE:HD11	2:O3:280:LEU:HD23	1.96	0.48
4:T3:180:PHE:CD1	4:T3:191:LEU:HB3	2.49	0.48
5:U4:196:TYR:CE2	5:U4:200:LEU:HD11	2.49	0.48
6:V4:231:PRO:HD3	7:Y4:214:GLN:HB3	1.95	0.48
6:X1:52:GLU:C	6:X1:54:ALA:H	2.22	0.48
7:Y4:94:GLU:H	7:Y4:251:ASN:HB2	1.78	0.48
9:a2:53:ASP:O	9:a2:56:GLU:HG3	2.14	0.48
9:a2:64:ARG:HG2	9:a2:207:VAL:HG11	1.96	0.48
10:b2:152:ILE:HG12	10:b2:173:ILE:HD13	1.95	0.48
10:b5:198:LEU:HB2	10:b5:224:THR:OG1	2.14	0.48
1:A7:257:GLN:O	1:A7:261:GLN:HG2	2.14	0.48
1:B7:67:GLU:HA	1:B7:70:MET:CG	2.43	0.48
1:B8:171:ALA:HA	1:B8:176:ARG:O	2.14	0.48
1:C7:16:LEU:HA	1:C7:19:ASN:ND2	2.28	0.48
1:D4:55:GLN:O	1:D4:59:LEU:HG	2.13	0.48
1:G1:72:LEU:O	1:G1:75:THR:HG22	2.13	0.48
1:H9:157:MET:HG3	1:H9:158:HIS:CD2	2.49	0.48
1:K7:107:ARG:HA	1:K7:110:ILE:HG22	1.96	0.48
2:P6:129:TYR:O	2:P6:132:GLU:HG3	2.14	0.48
3:R5:69:LYS:HA	3:R5:96:GLU:HG2	1.95	0.48
3:S3:143:GLU:OE2	3:S3:145:ARG:HB2	2.13	0.48
4:T3:114:PRO:HD2	4:T3:119:TYR:CE2	2.49	0.48
6:V5:179:GLY:HA2	7:Y5:57:PHE:HE1	1.79	0.48
6:X2:101:ILE:HG22	6:X2:217:ASP:OD2	2.14	0.48
9:a2:209:GLY:HA2	9:a2:212:LYS:NZ	2.29	0.48
10:b2:176:SER:HB3	10:b2:195:GLU:HG3	1.96	0.48
10:b5:169:MET:SD	10:b5:171:ARG:HG3	2.54	0.48
1:h0:86:ILE:HG23	1:h0:117:LEU:HD12	1.95	0.48
1:B7:49:SER:HB2	1:B7:242:ARG:HG3	1.96	0.47
1:B8:111:GLN:HA	1:B8:114:VAL:HG22	1.96	0.47
1:E3:278:LEU:CD1	1:E3:282:LYS:HD3	2.43	0.47
1:F2:11:PHE:CZ	1:G7:28:GLU:HG3	2.49	0.47
1:F6:230:ALA:HB2	1:G2:79:TYR:HE1	1.79	0.47
1:G9:191:LYS:O	1:G9:195:VAL:HG23	2.14	0.47
1:I9:175:LEU:HA	1:I9:198:LEU:HD21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K7:71:SER:HA	1:K7:74:GLN:HG2	1.95	0.47
1:K8:270:ALA:O	1:K8:273:LYS:HG2	2.13	0.47
2:O2:238:HIS:HB2	2:O2:277:ALA:HB2	1.96	0.47
2:O5:209:GLU:OE2	2:O5:214:ASN:HB2	2.14	0.47
2:P6:189:ARG:HG2	2:P6:194:PHE:CE2	2.49	0.47
3:Q1:185:HIS:O	3:Q1:189:VAL:HG13	2.14	0.47
3:Q3:107:VAL:HG13	3:Q3:127:ALA:HB3	1.95	0.47
3:S5:127:ALA:O	3:S5:159:ILE:HA	2.14	0.47
5:U3:128:GLN:HG2	5:U3:194:PHE:HB3	1.96	0.47
1:A7:258:ILE:HG23	1:B6:278:LEU:HD23	1.96	0.47
1:B4:278:LEU:HD21	1:B5:246:MET:HE3	1.95	0.47
1:B6:150:TRP:CZ3	1:B6:162:ARG:HG2	2.49	0.47
1:B6:273:LYS:HB3	1:B6:274:PRO:HD3	1.95	0.47
1:C4:20:SER:O	1:C4:23:MET:HG3	2.13	0.47
1:D5:97:ALA:HB3	1:D5:186:LEU:HD23	1.95	0.47
1:E6:48:VAL:O	1:E6:52:MET:HG3	2.15	0.47
1:E7:185:SER:O	1:E7:191:LYS:HB3	2.13	0.47
1:F6:156:ASN:HD22	1:F6:159:GLN:HE22	1.62	0.47
1:G9:240:ARG:HB3	1:H9:67:GLU:OE2	2.14	0.47
1:H6:35:ARG:HB2	1:H6:244:THR:HA	1.95	0.47
1:I5:29:LYS:HD2	1:I5:35:ARG:O	2.14	0.47
1:I6:153:ILE:HD11	1:J6:123:ARG:HD2	1.95	0.47
1:I6:261:GLN:HB3	1:J5:278:LEU:HD21	1.96	0.47
1:I8:53:ARG:HG2	1:I9:88:GLN:NE2	2.29	0.47
1:I9:86:ILE:HG23	1:I9:117:LEU:HD12	1.96	0.47
1:J7:34:MET:HE1	1:J7:242:ARG:CD	2.44	0.47
1:J7:101:ILE:HG13	1:J7:102:TYR:CD1	2.48	0.47
1:J7:191:LYS:O	1:J7:195:VAL:HG23	2.14	0.47
1:K4:5:HIS:CG	1:K5:235:GLN:NE2	2.82	0.47
2:N3:75:GLU:C	2:N3:77:LEU:H	2.22	0.47
2:N6:174:THR:HA	2:N6:177:ILE:HG12	1.95	0.47
2:P2:162:LYS:O	2:P2:166:LYS:HG2	2.14	0.47
2:P6:276:ARG:HH11	3:S6:246:ARG:HH22	1.61	0.47
3:S2:134:PHE:HB3	3:S2:152:ILE:HD12	1.96	0.47
4:T2:151:MET:O	4:T2:192:THR:HA	2.14	0.47
4:T4:167:TRP:CZ2	4:T4:218:LYS:HG3	2.48	0.47
6:V3:140:ARG:HG2	6:V3:142:PHE:CZ	2.49	0.47
6:X1:45:LYS:HB2	6:X1:222:ARG:HH11	1.78	0.47
6:X2:108:TYR:CE2	6:X2:203:SER:HB3	2.49	0.47
6:X3:142:PHE:HE2	6:X3:144:HIS:ND1	2.12	0.47
8:Z3:339:LYS:HG2	8:Z4:166:PHE:CD1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:c1:28:GLU:HA	11:c1:31:ASN:ND2	2.29	0.47
1:B4:219:ARG:NH2	1:C4:120:GLU:HA	2.28	0.47
1:B6:36:ILE:HG21	1:B6:46:LEU:HB2	1.95	0.47
1:C6:129:GLU:HB2	1:C6:133:MET:O	2.14	0.47
1:D6:14:ARG:HH11	1:D7:232:GLU:HG2	1.79	0.47
1:D7:240:ARG:HD3	1:E7:67:GLU:OE1	2.13	0.47
1:F5:93:LEU:HD12	1:F5:110:ILE:HG23	1.95	0.47
1:F6:122:ASP:OD1	1:F6:170:THR:HG23	2.14	0.47
1:G7:180:VAL:HG23	1:G7:182:THR:HG23	1.96	0.47
1:J7:5:HIS:HB2	1:J8:239:SER:OG	2.14	0.47
1:K8:99:ASN:HB3	1:K8:101:ILE:CD1	2.44	0.47
2:L3:262:GLN:HA	2:L3:265:LYS:HG2	1.96	0.47
2:M3:74:GLN:NE2	2:M4:234:GLU:HG2	2.30	0.47
2:N3:109:LEU:HD22	3:R3:76:ARG:HH12	1.79	0.47
2:N4:103:ASN:CG	2:N4:104:LYS:H	2.23	0.47
2:O5:138:ARG:HG3	2:O5:141:GLU:OE1	2.14	0.47
3:Q3:103:ILE:HG22	3:Q3:132:ILE:HB	1.95	0.47
4:T3:98:LYS:HD2	4:T3:231:TYR:CE2	2.48	0.47
5:U7:254:LYS:O	5:U7:258:THR:HG23	2.14	0.47
6:V1:141:LYS:HB3	6:V2:186:ARG:CZ	2.43	0.47
6:X3:138:LEU:HD12	6:X3:170:TRP:CZ2	2.49	0.47
8:Z4:26:LYS:HE3	8:Z4:108:TYR:CZ	2.50	0.47
1:A8:33:GLY:HA2	1:A8:246:MET:HE2	1.95	0.47
1:A8:49:SER:HB2	1:A8:242:ARG:HD3	1.96	0.47
1:A8:230:ALA:HA	1:A8:233:ASN:OD1	2.14	0.47
1:B4:40:GLY:HA3	1:B5:217:TYR:CD2	2.49	0.47
1:E3:27:ILE:HD11	1:E3:253:PHE:CE1	2.50	0.47
1:E5:53:ARG:HH21	1:E5:242:ARG:NH1	2.12	0.47
1:E5:107:ARG:HD2	1:E5:187:SER:C	2.39	0.47
1:F4:133:MET:HE2	1:F5:103:THR:HG22	1.95	0.47
1:G7:85:GLU:O	1:G7:88:GLN:HG2	2.15	0.47
1:G9:49:SER:HB2	1:G9:242:ARG:HB2	1.97	0.47
1:H6:53:ARG:HG3	1:H7:88:GLN:NE2	2.28	0.47
1:I5:46:LEU:HD21	1:I6:210:ARG:HH21	1.80	0.47
1:I6:246:MET:O	1:I6:250:MET:HB2	2.14	0.47
1:I9:29:LYS:HZ2	1:I9:249:GLN:HG3	1.78	0.47
2:O1:74:GLN:HG3	2:O2:236:PRO:HD2	1.96	0.47
3:Q2:65:LEU:HD12	3:Q2:252:PHE:HB2	1.97	0.47
3:R5:171:ILE:HA	3:R5:193:PHE:CE1	2.49	0.47
6:V1:121:PRO:HG2	6:V1:122:HIS:H	1.79	0.47
6:X2:150:LEU:HD21	6:X2:194:LEU:HD21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:X3:74:VAL:HG23	6:X3:76:ARG:HG3	1.97	0.47
7:Y5:268:VAL:O	7:Y5:269:TYR:HD1	1.97	0.47
9:a3:205:LYS:O	9:a3:208:GLU:HG3	2.14	0.47
1:A6:177:ASN:OD1	1:A6:178:PRO:HD2	2.15	0.47
1:B5:84:HIS:HB2	1:B5:210:ARG:NH2	2.30	0.47
1:D5:8:SER:HB3	1:E5:27:ILE:HG21	1.95	0.47
1:E3:68:ASP:HB3	1:E4:101:ILE:HD13	1.97	0.47
1:E3:278:LEU:HD12	1:E3:282:LYS:HD3	1.97	0.47
1:F3:154:GLY:CA	1:F3:159:GLN:HG2	2.43	0.47
1:F4:191:LYS:O	1:F4:195:VAL:HG23	2.14	0.47
1:G2:70:MET:HE2	1:G2:221:GLU:HA	1.96	0.47
1:G2:118:VAL:O	1:G2:121:ILE:HG22	2.14	0.47
1:K9:87:VAL:HA	1:K9:90:ILE:HG22	1.96	0.47
3:Q1:104:ARG:HD3	3:Q1:130:MET:O	2.15	0.47
4:T1:235:ASP:O	4:T1:236:GLU:HG2	2.14	0.47
6:X1:136:TRP:HA	6:X1:171:ARG:O	2.14	0.47
8:Z3:38:LEU:HD22	8:Z3:85:TYR:HE1	1.80	0.47
1:A5:191:LYS:O	1:A5:195:VAL:HG23	2.14	0.47
1:B5:43:ALA:HB2	1:B6:214:GLY:HA3	1.96	0.47
1:B5:222:HIS:HB3	1:C5:82:GLU:OE1	2.14	0.47
1:B6:18:PHE:CE1	1:B7:225:LYS:HE2	2.50	0.47
1:E2:11:PHE:CZ	1:F2:32:SER:HB3	2.49	0.47
1:E6:218:ASN:HD21	1:F6:117:LEU:HD21	1.79	0.47
1:F6:156:ASN:HD22	1:F6:159:GLN:NE2	2.11	0.47
1:G1:162:ARG:HD3	1:G1:164:TYR:OH	2.14	0.47
1:G7:48:VAL:O	1:G7:51:LYS:HG2	2.15	0.47
1:G7:279:GLN:HA	1:G7:282:LYS:NZ	2.30	0.47
1:G9:204:ARG:HE	1:H9:105:GLU:CD	2.22	0.47
1:K4:47:ALA:HA	1:K4:50:GLU:OE1	2.13	0.47
2:M2:246:ALA:HB2	2:M2:270:LYS:HE3	1.95	0.47
3:S4:246:ARG:HA	3:S4:249:THR:HG22	1.96	0.47
4:T3:151:MET:HE3	4:T3:214:PHE:CZ	2.50	0.47
6:X1:101:ILE:HD12	6:X1:217:ASP:HB2	1.96	0.47
6:X3:125:VAL:HG12	6:X3:195:HIS:CD2	2.50	0.47
10:b2:70:ILE:O	10:b2:74:ILE:HG12	2.15	0.47
1:A5:19:ASN:ND2	1:A5:259:LEU:HB3	2.30	0.47
1:A5:233:ASN:HD21	1:B5:74:GLN:C	2.21	0.47
1:A7:97:ALA:HB3	1:A7:186:LEU:HD23	1.95	0.47
1:A8:157:MET:HG2	1:A8:158:HIS:ND1	2.29	0.47
1:B5:89:ARG:HH12	1:B5:93:LEU:CD2	2.27	0.47
1:B6:23:MET:HB2	1:B6:256:TYR:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B7:150:TRP:CE2	1:B7:162:ARG:HB3	2.50	0.47
1:B8:192:ALA:O	1:B8:196:ILE:HG12	2.15	0.47
1:C4:176:ARG:HD2	1:C4:183:PHE:CE1	2.50	0.47
1:D7:158:HIS:HA	1:D7:160:ARG:NH1	2.30	0.47
1:D7:184:ILE:HD13	1:D7:195:VAL:HG13	1.97	0.47
1:E3:72:LEU:HD13	1:E3:130:PHE:CD2	2.49	0.47
1:E6:65:ASN:HB3	1:E7:99:ASN:ND2	2.29	0.47
1:F4:162:ARG:HG2	1:F4:162:ARG:HH11	1.79	0.47
1:G2:73:ILE:HA	1:G2:76:THR:HG22	1.96	0.47
1:H8:64:MET:O	1:H8:67:GLU:HG3	2.14	0.47
1:I5:14:ARG:HD3	1:I6:228:MET:SD	2.55	0.47
1:I6:61:ARG:HH12	1:I7:96:GLN:CA	2.27	0.47
1:I6:269:GLN:O	1:I6:273:LYS:HG3	2.15	0.47
1:I9:14:ARG:HB2	1:i0:228:MET:CE	2.45	0.47
1:J8:53:ARG:CZ	1:J8:242:ARG:HH12	2.28	0.47
1:J8:54:THR:HA	1:J9:88:GLN:NE2	2.21	0.47
1:K6:52:MET:HE2	1:K6:55:GLN:HE22	1.80	0.47
2:L2:128:GLN:O	2:L2:132:GLU:HG3	2.15	0.47
2:M1:105:PHE:HD1	2:M1:197:LEU:HD22	1.80	0.47
2:M1:186:PRO:HA	2:M1:189:ARG:HG3	1.96	0.47
2:M5:222:LEU:O	2:M5:226:ILE:HG12	2.14	0.47
2:O3:142:LYS:HE2	2:O3:143:TRP:CH2	2.50	0.47
3:R2:134:PHE:HB3	3:R2:150:ARG:NH2	2.30	0.47
3:S6:106:GLU:HG2	3:S6:129:TYR:CB	2.45	0.47
5:U3:81:ASP:HA	5:U3:84:GLU:OE2	2.13	0.47
6:V2:48:LEU:HD21	6:V2:219:LEU:HG	1.96	0.47
6:V2:135:ILE:HD11	6:V2:216:VAL:HB	1.96	0.47
6:X1:56:ASP:O	6:X1:121:PRO:HD3	2.15	0.47
6:X2:151:ARG:HA	6:X2:156:ASN:O	2.15	0.47
7:Y5:259:ASN:HB3	7:Y5:262:LYS:HE3	1.96	0.47
8:Z1:126:SER:HA	8:Z1:248:ILE:HD11	1.96	0.47
8:Z2:43:PRO:HB3	8:Z3:166:PHE:CE1	2.50	0.47
9:a3:208:GLU:HA	9:a3:211:ILE:HG12	1.95	0.47
9:a5:51:GLY:O	9:a5:55:VAL:HG23	2.15	0.47
10:b2:152:ILE:HG12	10:b2:173:ILE:CD1	2.45	0.47
10:b2:230:VAL:HG12	10:b3:83:ASN:HD21	1.79	0.47
11:c3:54:ASN:ND2	11:c3:114:LEU:HD23	2.29	0.47
1:C5:219:ARG:HG2	1:D5:120:GLU:HG3	1.96	0.47
1:D4:149:MET:HE3	1:D5:101:ILE:HG22	1.96	0.47
1:D5:11:PHE:HA	1:D5:14:ARG:HG2	1.97	0.47
1:D5:56:ILE:HG13	1:D5:57:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D5:150:TRP:CH2	1:D5:162:ARG:HD2	2.50	0.47
1:D7:176:ARG:HD3	1:D7:183:PHE:CD1	2.50	0.47
1:E6:185:SER:HB3	1:E6:191:LYS:HE2	1.97	0.47
1:F4:61:ARG:HH22	1:F5:96:GLN:NE2	2.11	0.47
1:F6:125:ALA:HA	1:F6:136:LEU:HD12	1.97	0.47
1:F6:219:ARG:HG3	1:G2:120:GLU:HB2	1.95	0.47
1:G1:67:GLU:HA	1:G1:70:MET:HG3	1.97	0.47
1:I7:60:ARG:O	1:I7:63:GLU:HG2	2.15	0.47
1:J7:14:ARG:HH12	1:J8:229:ASN:HA	1.80	0.47
1:J7:36:ILE:HG23	1:J7:42:ASP:HB2	1.96	0.47
1:J7:138:GLY:HA3	1:J7:167:THR:HA	1.97	0.47
1:J9:133:MET:HE3	1:j0:102:TYR:C	2.40	0.47
2:M2:95:GLN:NE2	2:M2:103:ASN:HD21	2.09	0.47
2:P5:189:ARG:HA	2:P5:194:PHE:CD2	2.50	0.47
5:U6:220:ILE:O	5:U6:224:THR:HG23	2.14	0.47
6:V2:75:GLN:HE22	6:V2:79:ILE:HD11	1.79	0.47
6:X3:151:ARG:HD3	6:X3:197:VAL:HG11	1.97	0.47
9:a3:64:ARG:HA	9:a3:64:ARG:NE	2.29	0.47
4:t2:44:VAL:HG12	4:t2:111:ILE:HG23	1.96	0.47
4:t4:74:VAL:HG12	4:t4:97:VAL:HG22	1.97	0.47
1:A6:271:ASN:HD21	1:K7:254:THR:HG21	1.79	0.47
1:C7:120:GLU:O	1:C7:124:ILE:HD12	2.15	0.47
1:D3:136:LEU:HD12	1:D3:168:MET:HG2	1.96	0.47
1:D4:1:MET:HE2	1:D4:277:VAL:HG21	1.97	0.47
1:D5:83:THR:HG23	1:D5:121:ILE:HD11	1.97	0.47
1:E3:18:PHE:CZ	1:E4:225:LYS:HA	2.50	0.47
1:E6:169:ASN:O	1:E6:173:LEU:HD12	2.15	0.47
1:F2:18:PHE:CZ	1:F3:225:LYS:HA	2.50	0.47
1:G8:248:GLU:HG2	1:H7:13:HIS:CD2	2.49	0.47
1:I7:93:LEU:O	1:I7:96:GLN:HB2	2.15	0.47
2:O4:112:TYR:CZ	2:O4:200:ASP:HB3	2.50	0.47
3:Q2:154:LYS:HD2	3:Q2:177:ARG:HG3	1.96	0.47
4:T3:180:PHE:CE1	4:T3:193:VAL:HG23	2.50	0.47
5:U5:96:ILE:O	5:U5:99:LYS:HG2	2.14	0.47
6:V2:64:PRO:HD3	6:V2:107:ASN:HB2	1.97	0.47
6:V3:51:PHE:CD2	6:V3:217:ASP:HA	2.50	0.47
6:V5:186:ARG:HG2	7:Y5:58:ARG:HB2	1.96	0.47
9:a3:79:TYR:HD2	9:a3:105:LEU:HB2	1.80	0.47
10:b3:93:ILE:HB	10:b3:270:MET:HE2	1.97	0.47
10:b5:140:TYR:H	10:b5:150:LYS:HB3	1.79	0.47
4:t3:171:TRP:CE3	4:t3:210:LYS:HB2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A5:268:ALA:O	1:A5:272:MET:HG2	2.15	0.47
1:B4:208:LYS:HE3	1:C4:112:VAL:HG21	1.97	0.47
1:E6:259:LEU:HD21	1:F5:4:ASN:ND2	2.30	0.47
1:F5:259:LEU:HD21	1:G9:4:ASN:HB3	1.97	0.47
1:H9:233:ASN:ND2	1:I9:74:GLN:HG3	2.30	0.47
1:J6:166:GLU:HG2	1:J6:209:GLN:HE21	1.81	0.47
1:J9:167:THR:HG23	1:J9:172:ALA:HB2	1.97	0.47
1:K5:150:TRP:CB	1:K5:160:ARG:HD2	2.43	0.47
1:K7:73:ILE:HD11	1:K7:151:PHE:HZ	1.79	0.47
2:L4:252:ILE:HG13	2:L4:266:TYR:HE2	1.80	0.47
2:M4:94:HIS:O	2:M4:95:GLN:HG3	2.15	0.47
2:P2:235:TYR:CG	2:P2:236:PRO:HD3	2.50	0.47
3:S2:108:TYR:HA	3:S2:127:ALA:HB3	1.97	0.47
3:S2:130:MET:HE3	3:S2:132:ILE:HG13	1.96	0.47
4:T1:92:ALA:HB1	13:T1:401:HOH:O	2.14	0.47
4:T3:167:TRP:HB2	4:T3:215:LYS:HB3	1.96	0.47
5:U3:191:PRO:HA	5:U3:197:LYS:HE3	1.96	0.47
6:V5:131:ARG:HA	6:V5:177:ILE:HG22	1.97	0.47
7:Y4:53:ASN:HD22	7:Y4:74:GLU:HG3	1.80	0.47
9:a2:179:ILE:HG21	9:a2:184:GLN:HE21	1.80	0.47
10:b2:170:ARG:HG3	10:b3:277:PHE:CB	2.43	0.47
10:b2:171:ARG:HB3	10:b2:199:GLU:CG	2.44	0.47
4:t4:31:TRP:CH2	4:t4:95:LEU:HD22	2.49	0.47
1:B7:260:THR:O	1:B7:264:THR:HG22	2.15	0.46
1:C4:116:GLN:O	1:C4:119:ASP:HB3	2.15	0.46
1:C6:6:ASN:ND2	1:C6:9:ALA:HB2	2.28	0.46
1:C6:163:VAL:HG13	1:C6:216:TYR:CE2	2.51	0.46
1:E3:36:ILE:HG23	1:E3:41:ASP:HB2	1.97	0.46
1:E3:136:LEU:HD23	1:E3:168:MET:HB2	1.95	0.46
1:E4:111:GLN:HA	1:E4:114:VAL:HG12	1.96	0.46
1:G7:268:ALA:O	1:G7:272:MET:HG2	2.14	0.46
1:G8:266:MET:HE3	1:H8:30:LEU:HB3	1.97	0.46
1:H7:262:ALA:HB2	1:I6:278:LEU:HD11	1.96	0.46
1:K5:46:LEU:O	1:K5:50:GLU:HB2	2.15	0.46
2:P5:128:GLN:HA	2:P5:131:LYS:HE2	1.96	0.46
3:Q4:138:ASN:HA	3:Q4:150:ARG:NH1	2.30	0.46
4:T1:164:LEU:HD22	4:T1:180:PHE:CD2	2.50	0.46
4:T3:167:TRP:CZ2	4:T3:218:LYS:HE2	2.50	0.46
4:T3:178:LEU:HB3	4:T3:193:VAL:HG11	1.96	0.46
4:T4:266:LEU:HA	4:T4:269:MET:HE3	1.97	0.46
5:U5:296:ILE:C	5:U5:298:SER:H	2.21	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:X2:80:ARG:HA	6:X2:88:VAL:HG12	1.97	0.46
6:X2:136:TRP:CE2	6:X2:172:LYS:HD3	2.50	0.46
6:X3:112:GLY:HA3	6:X3:205:VAL:HG22	1.97	0.46
6:X4:136:TRP:CZ3	6:X4:218:ASP:HB2	2.50	0.46
7:Y5:90:LEU:HD21	7:Y5:92:ILE:HD11	1.96	0.46
10:b4:96:GLU:HB3	10:b4:97:PRO:CD	2.45	0.46
1:h0:219:ARG:CD	1:i0:116:GLN:HB3	2.42	0.46
1:j0:180:VAL:HG12	1:j0:182:THR:HG23	1.97	0.46
4:t1:245:GLU:HA	4:t1:248:PHE:HE1	1.79	0.46
1:A6:107:ARG:HD3	1:A6:186:LEU:O	2.16	0.46
1:A8:240:ARG:NH1	1:B8:67:GLU:HG3	2.30	0.46
1:B4:216:TYR:O	1:B4:219:ARG:HB2	2.16	0.46
1:C4:268:ALA:O	1:C4:272:MET:HG2	2.15	0.46
1:C6:106:ASP:O	1:C6:110:ILE:HD12	2.16	0.46
1:D6:93:LEU:HD13	1:D6:113:GLU:HG2	1.98	0.46
1:E5:255:ARG:HH22	1:F4:5:HIS:CD2	2.32	0.46
1:F3:162:ARG:HD3	1:F3:164:TYR:OH	2.15	0.46
1:I6:233:ASN:OD1	1:J6:74:GLN:HG3	2.15	0.46
1:I8:36:ILE:HG23	1:I8:42:ASP:CB	2.46	0.46
1:K8:99:ASN:HB3	1:K8:101:ILE:HD12	1.96	0.46
2:N5:144:TYR:O	2:N5:148:VAL:HG23	2.16	0.46
2:P6:183:ILE:HG21	2:P6:188:LEU:HD11	1.98	0.46
3:Q2:190:GLU:HG2	3:Q2:216:ILE:HD13	1.96	0.46
5:U7:47:CYS:O	5:U7:51:LEU:HD23	2.15	0.46
7:Y4:130:PRO:HG2	7:Y4:131:GLN:OE1	2.16	0.46
4:t1:262:SER:O	4:t1:265:LYS:HG2	2.16	0.46
4:t2:31:TRP:HE1	4:t2:42:TRP:CD1	2.33	0.46
1:A7:133:MET:HG2	1:A8:103:THR:HG22	1.97	0.46
1:C5:167:THR:HG23	1:C5:172:ALA:HB2	1.97	0.46
1:D7:113:GLU:O	1:D7:117:LEU:HD23	2.15	0.46
1:F4:136:LEU:C	1:F4:138:GLY:H	2.22	0.46
1:F4:254:THR:O	1:F4:258:ILE:HG12	2.15	0.46
1:G1:88:GLN:HE21	1:G9:57:LEU:HD12	1.80	0.46
1:G8:67:GLU:O	1:G8:70:MET:HG2	2.15	0.46
1:H7:39:ALA:HB2	1:H8:77:GLU:CD	2.40	0.46
1:H8:254:THR:HG21	1:I7:271:ASN:ND2	2.29	0.46
1:J5:72:LEU:HD12	1:J5:130:PHE:HD2	1.79	0.46
1:J6:273:LYS:O	1:J6:277:VAL:HG23	2.14	0.46
1:J9:157:MET:SD	1:J9:158:HIS:CD2	3.09	0.46
1:K9:130:PHE:O	1:K9:133:MET:HG2	2.16	0.46
2:L4:278:THR:HG21	2:L4:292:ILE:HG21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N4:205:TRP:CD1	2:N4:221:ILE:HG13	2.51	0.46
2:N4:252:ILE:HD11	2:N4:263:MET:HA	1.98	0.46
2:O5:115:GLY:HA3	2:O5:173:PHE:CE1	2.46	0.46
3:R3:189:VAL:HB	3:R3:217:LEU:HD12	1.97	0.46
3:S3:138:ASN:HA	3:S3:150:ARG:NH2	2.30	0.46
5:U3:265:ASN:HA	10:b2:61:ILE:HD12	1.97	0.46
6:X1:52:GLU:CB	6:X1:100:HIS:HB2	2.46	0.46
6:X5:183:GLN:HE21	6:X5:194:LEU:HD22	1.80	0.46
10:b2:74:ILE:CD1	10:b2:148:LEU:HD21	2.46	0.46
10:b4:201:PHE:CZ	10:b4:220:ALA:HA	2.50	0.46
10:b4:237:LYS:HZ1	10:b5:268:LYS:HB3	1.79	0.46
11:c3:55:LEU:HB3	11:c3:82:MET:HE1	1.98	0.46
1:i0:129:GLU:OE2	1:i0:134:LYS:HD3	2.15	0.46
4:t3:164:LEU:HA	4:t3:218:LYS:O	2.16	0.46
4:t4:128:LEU:HA	4:t4:135:LYS:HG3	1.98	0.46
1:A5:253:PHE:CZ	1:K5:269:GLN:HG2	2.47	0.46
1:A5:264:THR:HG21	1:K5:277:VAL:HG22	1.97	0.46
1:A6:125:ALA:HA	1:A6:136:LEU:HD12	1.98	0.46
1:B5:171:ALA:HB1	1:B5:178:PRO:HA	1.96	0.46
1:D4:18:PHE:CZ	1:D5:225:LYS:HA	2.51	0.46
1:D4:226:GLY:HA3	1:E4:82:GLU:OE1	2.15	0.46
1:G8:233:ASN:ND2	1:H8:75:THR:HA	2.30	0.46
1:H7:266:MET:SD	1:I7:30:LEU:HD23	2.55	0.46
1:H9:184:ILE:HD11	1:H9:195:VAL:HG23	1.97	0.46
1:I8:46:LEU:HD21	1:I9:210:ARG:NE	2.31	0.46
1:J9:43:ALA:HA	1:J9:46:LEU:HB3	1.96	0.46
1:K5:157:MET:HE3	1:K6:194:SER:HA	1.96	0.46
1:K6:175:LEU:HA	1:K6:184:ILE:HD11	1.97	0.46
1:K9:137:THR:HG23	1:K9:139:ALA:H	1.80	0.46
2:N6:138:ARG:HH22	2:N6:150:ARG:NH1	2.13	0.46
2:O2:112:TYR:CZ	2:O2:200:ASP:HB3	2.51	0.46
3:Q1:245:ASP:O	3:Q1:249:THR:HG23	2.14	0.46
5:U5:237:LEU:O	5:U5:240:MET:HG3	2.14	0.46
6:V5:132:GLN:NE2	6:V5:222:ARG:HD3	2.31	0.46
7:Y2:252:LYS:HG2	7:Y2:274:ASP:HA	1.98	0.46
7:Y3:213:LYS:C	7:Y3:215:ALA:H	2.24	0.46
8:Z4:154:LEU:HD22	8:Z4:198:ILE:HG21	1.97	0.46
10:b3:149:GLU:HB3	10:b3:178:LYS:HA	1.97	0.46
10:b4:80:LEU:HD12	10:b4:264:GLU:HG2	1.98	0.46
1:A5:266:MET:HE1	1:B5:30:LEU:HD23	1.97	0.46
1:B5:219:ARG:HG3	1:C5:120:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C8:191:LYS:O	1:C8:195:VAL:HG23	2.16	0.46
1:E4:192:ALA:O	1:E4:196:ILE:HG13	2.15	0.46
1:E5:140:PHE:CE1	1:E5:149:MET:HB2	2.51	0.46
1:F2:61:ARG:CZ	1:F2:64:MET:HE3	2.46	0.46
1:F5:159:GLN:HE21	1:G1:127:GLN:NE2	2.13	0.46
1:G1:76:THR:HG22	1:G1:213:LEU:HD11	1.96	0.46
1:G7:278:LEU:O	1:G7:282:LYS:HG3	2.16	0.46
1:G9:280:LEU:HD11	1:H9:261:GLN:NE2	2.30	0.46
1:H6:19:ASN:HD22	1:H6:259:LEU:HD22	1.81	0.46
1:I9:87:VAL:HA	1:I9:90:ILE:HG22	1.97	0.46
1:J8:237:ALA:HB2	1:K8:71:SER:HB2	1.98	0.46
2:N3:222:LEU:HB3	2:N3:241:LEU:HD12	1.98	0.46
2:N5:245:TYR:CE2	2:N5:269:LYS:HG3	2.50	0.46
2:P3:205:TRP:CZ3	2:P3:221:ILE:HG13	2.50	0.46
3:Q2:135:GLU:OE2	3:Q2:150:ARG:HD3	2.16	0.46
3:Q4:138:ASN:HA	3:Q4:150:ARG:HH12	1.81	0.46
3:S6:61:ARG:O	3:S6:64:VAL:HG22	2.15	0.46
4:T1:94:VAL:HG12	4:T1:235:ASP:CG	2.41	0.46
4:T3:101:PHE:HE2	4:T3:104:PRO:HA	1.80	0.46
6:X4:133:LEU:HD22	6:X4:221:VAL:HG22	1.97	0.46
8:Z1:119:GLU:OE1	8:Z1:237:ARG:HD3	2.15	0.46
9:a5:81:GLN:HB2	9:a5:103:PHE:CE2	2.51	0.46
10:b2:134:GLN:HB3	10:b2:156:LYS:HB2	1.98	0.46
1:h1:180:VAL:HG23	1:h1:182:THR:H	1.81	0.46
1:h1:206:ILE:O	1:h1:210:ARG:HG2	2.15	0.46
4:t4:44:VAL:HG12	4:t4:111:ILE:HG12	1.97	0.46
1:A6:28:GLU:HB2	1:K6:11:PHE:CE2	2.50	0.46
1:B3:273:LYS:HB2	1:B3:274:PRO:HD3	1.98	0.46
1:C4:124:ILE:O	1:C4:128:ALA:HB3	2.16	0.46
1:C6:191:LYS:O	1:C6:195:VAL:HG23	2.16	0.46
1:E6:247:ALA:HB3	1:F5:13:HIS:CD2	2.50	0.46
1:F3:136:LEU:HB3	1:F3:168:MET:HB3	1.98	0.46
1:G9:47:ALA:HB2	1:h0:109:GLN:HE22	1.81	0.46
1:H7:84:HIS:HB2	1:H7:206:ILE:HG21	1.97	0.46
1:I7:244:THR:OG1	1:I7:249:GLN:HG3	2.16	0.46
1:I7:262:ALA:HB2	1:J6:278:LEU:HD11	1.97	0.46
1:I8:230:ALA:O	1:I8:234:ILE:HG12	2.15	0.46
1:I9:14:ARG:HH12	1:i0:229:ASN:HA	1.81	0.46
2:L2:128:GLN:O	2:L2:131:LYS:HG2	2.15	0.46
2:N3:138:ARG:HD2	2:N3:150:ARG:NH1	2.31	0.46
5:U7:287:GLU:HB3	5:U7:297:THR:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V1:87:THR:HG22	6:V1:136:TRP:CH2	2.50	0.46
6:V5:51:PHE:HD1	6:V5:102:LEU:HD13	1.81	0.46
8:Z4:235:SER:HA	8:Z4:238:LYS:HD2	1.98	0.46
10:b4:104:LEU:HD22	10:b4:112:GLN:HE21	1.79	0.46
10:b4:169:MET:SD	10:b4:201:PHE:HB2	2.56	0.46
1:A8:38:ARG:HE	1:A9:74:GLN:CD	2.24	0.46
1:B4:1:MET:HE1	1:B4:273:LYS:HZ3	1.80	0.46
1:B5:191:LYS:O	1:B5:195:VAL:HG23	2.16	0.46
1:C6:4:ASN:HB3	1:C7:243:ASP:CG	2.41	0.46
1:D4:46:LEU:HD21	1:D5:210:ARG:HE	1.80	0.46
1:D5:65:ASN:HD21	1:D6:99:ASN:HD22	1.62	0.46
1:F5:218:ASN:HD21	1:G1:89:ARG:HH12	1.64	0.46
1:H6:6:ASN:ND2	1:H6:271:ASN:HA	2.31	0.46
1:I5:53:ARG:HA	1:I5:56:ILE:HD12	1.96	0.46
1:I8:163:VAL:HG13	1:I8:216:TYR:CD2	2.50	0.46
1:J7:81:GLN:NE2	1:J7:85:GLU:HG2	2.31	0.46
3:S2:105:VAL:O	3:S2:129:TYR:HA	2.15	0.46
3:S5:126:LEU:O	3:S5:160:TYR:HB3	2.16	0.46
3:S6:70:VAL:HG23	3:S6:255:ASN:ND2	2.31	0.46
5:U5:44:ILE:O	5:U5:48:VAL:HG23	2.16	0.46
6:V2:231:PRO:HG3	7:Y2:214:GLN:O	2.16	0.46
8:Z2:176:GLU:HG3	8:Z2:177:ALA:N	2.30	0.46
10:b3:238:GLN:HA	10:b3:241:ILE:HD12	1.98	0.46
10:b4:51:GLU:HA	10:b4:54:ARG:HG2	1.97	0.46
10:b4:200:PHE:HB3	10:b4:222:VAL:HB	1.98	0.46
1:h0:157:MET:HE3	1:h0:158:HIS:HD2	1.81	0.46
4:t1:44:VAL:HG12	4:t1:111:ILE:HG22	1.98	0.46
4:t4:98:LYS:HE2	4:t4:231:TYR:HE2	1.81	0.46
4:t4:116:ILE:HG13	4:t4:117:PRO:HD2	1.97	0.46
1:A5:219:ARG:NH2	1:B5:120:GLU:HG2	2.30	0.46
1:B4:26:ASP:HA	1:B4:29:LYS:HG2	1.97	0.46
1:B4:80:LEU:HD12	1:B4:213:LEU:HD22	1.98	0.46
1:B5:106:ASP:HA	1:B5:109:GLN:NE2	2.31	0.46
1:B7:137:THR:HG23	1:B7:139:ALA:H	1.80	0.46
1:B8:69:GLY:O	1:B8:73:ILE:HG12	2.16	0.46
1:C6:66:THR:HG23	1:C6:220:LEU:HD22	1.98	0.46
1:D4:53:ARG:HA	1:D4:56:ILE:HD12	1.96	0.46
1:D6:176:ARG:HH21	1:D6:183:PHE:HE1	1.63	0.46
1:E7:78:GLY:O	1:E7:81:GLN:HG3	2.16	0.46
1:H7:258:ILE:HD11	1:I6:278:LEU:HD22	1.98	0.46
1:H8:153:ILE:CD1	1:H8:219:ARG:HH22	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H8:266:MET:HG2	1:I8:30:LEU:HD22	1.97	0.46
1:I9:29:LYS:HE2	1:I9:35:ARG:O	2.16	0.46
1:J7:159:GLN:HA	1:K7:127:GLN:HE21	1.80	0.46
1:J8:114:VAL:HG11	1:J8:186:LEU:HD23	1.98	0.46
1:K4:273:LYS:HB3	1:K4:274:PRO:HD3	1.98	0.46
2:L4:155:ASP:HA	2:L4:158:VAL:HG12	1.98	0.46
2:O4:245:TYR:CE1	2:O4:269:LYS:HE3	2.51	0.46
2:P4:173:PHE:CE2	2:P4:204:SER:HB2	2.51	0.46
2:P5:131:LYS:HE3	10:b5:265:LEU:HD21	1.97	0.46
3:Q3:130:MET:HB2	3:Q3:244:PHE:HE2	1.81	0.46
6:V1:101:ILE:HG22	6:V1:217:ASP:HB2	1.98	0.46
7:Y2:88:TYR:HD2	7:Y2:175:LEU:HD13	1.80	0.46
7:Y5:234:THR:HG22	7:Y5:236:MET:SD	2.56	0.46
8:Z3:44:ILE:HG23	8:Z3:129:TYR:HE2	1.80	0.46
9:a4:218:VAL:O	9:a4:221:THR:HG22	2.15	0.46
10:b2:170:ARG:HG3	10:b3:277:PHE:CG	2.51	0.46
11:c2:56:LEU:HA	11:c2:59:VAL:HG22	1.98	0.46
1:j0:83:THR:HA	1:j0:86:ILE:HG22	1.97	0.46
1:A6:177:ASN:HB3	1:A6:180:VAL:HB	1.97	0.46
1:B6:5:HIS:HB2	1:B7:239:SER:OG	2.16	0.46
1:C5:256:TYR:O	1:C5:260:THR:HG23	2.16	0.46
1:F2:30:LEU:HD12	1:F2:30:LEU:HA	1.62	0.46
1:F3:150:TRP:CZ3	1:F3:162:ARG:HB3	2.51	0.46
1:F4:46:LEU:HD21	1:F5:210:ARG:CZ	2.44	0.46
1:G7:61:ARG:HH21	1:G8:96:GLN:NE2	2.13	0.46
1:I6:281:LEU:HD23	1:I7:246:MET:HG2	1.98	0.46
1:I7:273:LYS:HG3	1:J7:23:MET:HE1	1.98	0.46
1:I8:52:MET:HE1	1:I8:241:ILE:HG21	1.96	0.46
1:I9:91:ARG:CZ	1:I9:196:ILE:HD11	2.46	0.46
1:J7:14:ARG:NH1	1:J8:229:ASN:HA	2.31	0.46
1:J7:34:MET:HE1	1:J7:242:ARG:NE	2.31	0.46
1:J9:61:ARG:HA	1:J9:64:MET:HE2	1.98	0.46
2:N2:205:TRP:NE1	2:N2:221:ILE:HG21	2.31	0.46
2:N6:116:VAL:HA	2:N6:119:ILE:HG22	1.97	0.46
2:O3:245:TYR:HB3	2:O3:270:LYS:HB2	1.97	0.46
3:Q2:105:VAL:HG21	3:Q2:248:PHE:CE1	2.48	0.46
3:S5:129:TYR:CE2	3:S5:158:LYS:HB3	2.51	0.46
6:X2:141:LYS:HB2	6:X3:187:PHE:CE2	2.51	0.46
7:Y1:73:VAL:CG1	7:Y1:235:LEU:HB3	2.44	0.46
9:a2:184:GLN:HA	9:a2:187:LYS:HG2	1.97	0.46
9:a2:193:ARG:HA	9:a2:196:LEU:HD12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:a5:194:THR:O	9:a5:197:LEU:HG	2.15	0.46
10:b2:173:ILE:CG2	10:b2:197:LEU:HB3	2.46	0.46
10:b2:201:PHE:CE2	10:b2:220:ALA:HA	2.51	0.46
10:b4:169:MET:HE1	10:b4:171:ARG:NH1	2.31	0.46
1:j0:120:GLU:O	1:j0:124:ILE:HG12	2.16	0.46
1:C6:97:ALA:HB3	1:C6:186:LEU:HD23	1.98	0.46
1:C7:153:ILE:HD11	1:D7:123:ARG:HD2	1.97	0.46
1:E6:219:ARG:HD2	1:F6:120:GLU:HG2	1.97	0.46
1:F2:150:TRP:CZ3	1:F2:162:ARG:HB2	2.51	0.46
1:F3:89:ARG:HH11	1:F3:89:ARG:HG3	1.81	0.46
1:G9:48:VAL:O	1:G9:52:MET:HG2	2.16	0.46
1:I5:12:ALA:HB3	1:I5:267:LEU:HD13	1.98	0.46
1:I7:52:MET:O	1:I7:56:ILE:HG13	2.15	0.46
1:J8:11:PHE:CE1	1:K8:28:GLU:HG3	2.51	0.46
2:L6:293:VAL:O	2:L6:296:VAL:HG12	2.15	0.46
2:N6:220:PRO:O	2:N6:223:GLU:HG2	2.16	0.46
2:O5:275:LEU:HD11	2:O5:289:TYR:CE2	2.51	0.46
3:R5:47:LYS:O	3:R5:50:GLU:HG3	2.16	0.46
3:S6:134:PHE:HA	3:S6:153:ASN:OD1	2.16	0.46
4:T2:216:GLN:HG3	4:T2:218:LYS:HZ2	1.81	0.46
5:U3:41:LEU:HA	5:U3:44:ILE:HG22	1.96	0.46
5:U3:216:LEU:O	5:U3:219:MET:HG2	2.15	0.46
5:U6:50:ASN:HA	5:U6:300:ARG:HE	1.81	0.46
6:V1:72:LYS:HD3	6:V1:100:HIS:HB3	1.97	0.46
6:X3:190:LEU:HG	6:X3:191:ASP:H	1.81	0.46
7:Y3:253:VAL:HG12	7:Y3:275:ILE:HD11	1.98	0.46
1:i0:154:GLY:HA3	1:i0:159:GLN:HB2	1.98	0.46
1:j0:105:GLU:O	1:j0:108:GLN:HG3	2.16	0.46
1:A4:239:SER:O	1:A4:243:ASP:HB2	2.15	0.45
1:A5:255:ARG:HD2	1:B4:4:ASN:HA	1.98	0.45
1:A7:39:ALA:HA	1:A7:46:LEU:HD13	1.98	0.45
1:A7:209:GLN:HE21	1:A7:213:LEU:HD21	1.81	0.45
1:A9:120:GLU:HB2	1:K9:219:ARG:NH1	2.31	0.45
1:B5:84:HIS:HA	1:B5:87:VAL:HG12	1.98	0.45
1:C3:35:ARG:HG3	1:C3:36:ILE:CD1	2.45	0.45
1:C5:52:MET:HE1	1:D5:131:ASN:H	1.81	0.45
1:C5:88:GLN:O	1:C5:92:VAL:HG23	2.16	0.45
1:D5:157:MET:HG3	1:D5:158:HIS:CG	2.51	0.45
1:D5:255:ARG:O	1:D5:258:ILE:HG22	2.17	0.45
1:D6:175:LEU:HD23	1:D6:184:ILE:HD12	1.98	0.45
1:D6:280:LEU:HD11	1:E6:264:THR:HB	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F4:162:ARG:HD3	1:F4:164:TYR:CZ	2.51	0.45
1:F5:56:ILE:HD13	1:F5:235:GLN:OE1	2.16	0.45
1:G8:266:MET:CE	1:H8:30:LEU:HB3	2.45	0.45
1:H7:153:ILE:HD11	1:I7:123:ARG:HD2	1.98	0.45
1:H7:266:MET:HG2	1:I7:31:SER:HB2	1.98	0.45
1:H8:254:THR:HG21	1:I7:271:ASN:HD21	1.81	0.45
1:J7:3:ILE:HD12	1:J8:246:MET:HE2	1.98	0.45
1:J7:90:ILE:HG13	1:J7:114:VAL:HG13	1.98	0.45
1:J8:219:ARG:HH11	1:K8:116:GLN:NE2	2.13	0.45
2:L4:104:LYS:O	2:L4:107:LEU:HG	2.15	0.45
2:N2:206:ILE:HG21	2:N2:222:LEU:HD21	1.98	0.45
3:Q4:132:ILE:HD12	3:Q4:154:LYS:O	2.15	0.45
3:R4:198:TYR:CD2	3:R4:199:PRO:HD2	2.51	0.45
4:T2:12:THR:HG23	4:T2:244:PHE:HE2	1.80	0.45
5:U4:45:ASN:CG	5:U4:98:LEU:HD21	2.41	0.45
6:V2:131:ARG:HE	7:Y2:57:PHE:HE2	1.65	0.45
6:X2:214:PHE:HE1	6:X2:216:VAL:HB	1.80	0.45
6:X5:43:LEU:HD12	6:X5:222:ARG:HG2	1.97	0.45
7:Y2:98:ILE:HG23	7:Y2:118:ASN:O	2.16	0.45
9:a2:188:LEU:HD12	9:a3:222:LEU:HD11	1.98	0.45
10:b5:201:PHE:CE1	10:b5:220:ALA:HA	2.50	0.45
1:A4:73:ILE:HD12	1:A4:220:LEU:HD12	1.98	0.45
1:C7:131:ASN:HD22	1:C8:102:TYR:HA	1.80	0.45
1:D4:157:MET:HG3	1:D5:193:ASN:OD1	2.17	0.45
1:E3:156:ASN:HB2	1:E3:159:GLN:HG3	1.97	0.45
1:E4:43:ALA:HA	1:E4:46:LEU:HB3	1.97	0.45
1:G9:233:ASN:ND2	1:H9:75:THR:HA	2.31	0.45
1:H8:157:MET:HG3	1:H8:158:HIS:CG	2.50	0.45
1:J8:273:LYS:O	1:J8:276:THR:HG22	2.15	0.45
1:K5:82:GLU:O	1:K5:86:ILE:HD12	2.16	0.45
1:K6:269:GLN:O	1:K6:272:MET:HG2	2.17	0.45
1:K6:272:MET:O	1:K6:275:GLN:HG3	2.16	0.45
2:L3:78:TRP:CE2	2:L4:236:PRO:HB2	2.50	0.45
2:O3:235:TYR:CE1	2:O3:280:LEU:HB2	2.51	0.45
2:O4:112:TYR:HB2	2:O4:201:THR:HG22	1.98	0.45
2:P4:288:GLU:O	2:P4:292:ILE:HG12	2.17	0.45
3:Q4:186:ASN:ND2	3:Q4:229:ARG:HH21	2.14	0.45
3:R2:191:VAL:C	3:R2:192:PHE:HD1	2.25	0.45
3:S4:107:VAL:CG2	3:S4:128:LYS:HE3	2.46	0.45
5:U4:164:ILE:HD12	5:U4:231:GLU:HG2	1.98	0.45
5:U5:97:SER:HA	5:U5:130:GLU:OE2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:V5:76:ARG:HH11	6:V5:96:ILE:HD11	1.82	0.45
6:X1:146:LEU:HD13	6:X1:201:VAL:HG22	1.97	0.45
6:X5:105:LYS:HB2	6:X5:213:TYR:CD1	2.50	0.45
8:Z1:34:LEU:HD21	8:Z1:115:GLN:HG2	1.97	0.45
8:Z2:93:GLN:O	8:Z2:97:GLN:HG2	2.16	0.45
8:Z2:259:ILE:O	8:Z2:263:LYS:HG3	2.16	0.45
8:Z3:44:ILE:HG23	8:Z3:129:TYR:CE2	2.51	0.45
8:Z4:219:ALA:HB2	8:Z4:240:ARG:HD2	1.96	0.45
9:a4:90:ILE:CG1	9:a4:91:PRO:HD2	2.46	0.45
10:b2:77:ILE:HG13	10:b2:260:LEU:HD12	1.98	0.45
11:c3:54:ASN:HD21	11:c3:114:LEU:HD23	1.82	0.45
11:c3:95:VAL:CG2	11:c3:102:PHE:HB2	2.46	0.45
4:t1:28:VAL:HG11	4:t1:144:PHE:HE1	1.82	0.45
4:t3:139:ILE:HG23	4:t3:215:LYS:HD3	1.97	0.45
1:A5:54:THR:HA	1:A6:88:GLN:NE2	2.26	0.45
1:D6:99:ASN:OD1	1:D6:100:GLY:N	2.49	0.45
1:D6:236:ALA:O	1:D6:240:ARG:HG2	2.16	0.45
1:F5:180:VAL:HG12	1:F5:182:THR:HG23	1.98	0.45
1:G7:111:GLN:HE22	1:G7:186:LEU:HB2	1.81	0.45
1:H8:53:ARG:HA	1:H8:56:ILE:HD12	1.98	0.45
1:H9:218:ASN:ND2	1:I9:89:ARG:HH22	2.14	0.45
1:I8:18:PHE:CD1	1:I9:225:LYS:HE3	2.51	0.45
1:J9:35:ARG:HA	1:J9:244:THR:HB	1.98	0.45
2:O2:77:LEU:HG	2:O3:203:ARG:NH2	2.31	0.45
2:P3:143:TRP:HB2	2:P3:146:GLN:OE1	2.16	0.45
3:Q2:53:PHE:HZ	3:Q2:183:PRO:HA	1.81	0.45
3:Q2:159:ILE:O	3:Q2:172:SER:HB2	2.17	0.45
3:R3:74:PRO:HD3	3:R3:251:ILE:HD11	1.99	0.45
3:S4:130:MET:SD	3:S4:132:ILE:HG12	2.56	0.45
5:U4:156:LEU:HD21	5:U4:223:LYS:HE2	1.99	0.45
5:U5:84:GLU:O	5:U5:87:LYS:HG3	2.16	0.45
5:U5:191:PRO:HA	5:U5:197:LYS:HE3	1.98	0.45
5:U6:28:ILE:HG13	5:U6:29:ASN:H	1.80	0.45
5:U7:273:VAL:N	5:U7:274:PRO:CD	2.80	0.45
6:V3:178:PRO:O	6:V3:181:VAL:HG22	2.17	0.45
6:X5:160:ILE:HD12	6:X5:177:ILE:HG13	1.98	0.45
7:Y5:88:TYR:CE2	7:Y5:182:ALA:HB2	2.50	0.45
8:Z2:120:MET:O	8:Z2:123:GLU:HG3	2.16	0.45
9:a4:105:LEU:HD22	9:a4:122:VAL:HG22	1.99	0.45
10:b3:149:GLU:C	10:b3:177:PRO:HD2	2.42	0.45
10:b4:170:ARG:HG2	10:b4:200:PHE:HD1	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:c2:54:ASN:OD1	11:c2:114:LEU:HA	2.16	0.45
4:t3:163:ASN:OD1	4:t3:220:ARG:HB2	2.17	0.45
1:B5:257:GLN:O	1:B5:260:THR:HG22	2.17	0.45
1:C5:1:MET:SD	1:C5:277:VAL:HG11	2.57	0.45
1:E4:52:MET:O	1:E4:55:GLN:HG3	2.17	0.45
1:F3:18:PHE:CZ	1:F4:225:LYS:HA	2.51	0.45
1:F4:137:THR:HG22	1:F4:137:THR:O	2.16	0.45
1:F6:222:HIS:HB3	1:G2:82:GLU:OE2	2.16	0.45
1:G7:117:LEU:O	1:G7:121:ILE:HG13	2.17	0.45
1:H7:60:ARG:HB2	1:H7:231:TYR:CE1	2.51	0.45
1:H9:60:ARG:O	1:H9:63:GLU:HG3	2.17	0.45
1:J5:50:GLU:HB2	1:J6:84:HIS:CE1	2.51	0.45
1:J6:104:GLU:CD	5:U3:195:ARG:HH22	2.24	0.45
1:J8:83:THR:HA	1:J8:86:ILE:HG22	1.99	0.45
1:K6:168:MET:HG3	1:K6:173:LEU:HD21	1.98	0.45
2:M3:235:TYR:HB3	2:M3:280:LEU:HD12	1.97	0.45
2:O5:145:TRP:HA	2:O5:148:VAL:HG12	1.99	0.45
2:P2:219:ILE:HB	2:P2:220:PRO:HD3	1.99	0.45
3:Q1:40:SER:HA	3:Q1:43:GLU:HG2	1.99	0.45
3:Q3:181:THR:HG21	3:Q3:188:LYS:NZ	2.32	0.45
3:Q4:179:PRO:HB3	3:Q4:185:HIS:CE1	2.51	0.45
3:R5:198:TYR:CD2	3:R5:199:PRO:HD2	2.51	0.45
3:S6:199:PRO:HD2	3:S6:212:VAL:HG21	1.99	0.45
4:T3:152:SER:O	4:T3:237:LEU:HD12	2.16	0.45
6:X4:50:ASN:C	6:X4:52:GLU:H	2.23	0.45
6:X4:225:LYS:HB3	6:X4:228:ALA:HB3	1.97	0.45
7:Y3:49:LEU:HD11	7:Y3:75:MET:HB3	1.97	0.45
7:Y5:88:TYR:OH	7:Y5:181:ASN:HB2	2.17	0.45
8:Z1:255:ARG:HB3	8:Z1:336:ILE:HD11	1.98	0.45
9:a2:196:LEU:O	9:a2:200:ILE:HG12	2.17	0.45
10:b2:238:GLN:HA	10:b2:241:ILE:HD12	1.98	0.45
1:i0:79:TYR:HA	1:i0:82:GLU:HG2	1.98	0.45
1:i0:229:ASN:O	1:i0:232:GLU:HG3	2.16	0.45
4:t2:23:LEU:HD13	4:t2:242:ASP:OD1	2.15	0.45
1:A4:27:ILE:HG23	1:K4:266:MET:HG3	1.97	0.45
1:A5:125:ALA:O	1:A5:136:LEU:HB2	2.17	0.45
1:A5:157:MET:HA	1:A6:193:ASN:OD1	2.16	0.45
1:B5:152:HIS:HD2	1:B6:95:VAL:HG13	1.82	0.45
1:B6:268:ALA:O	1:B6:272:MET:HG2	2.17	0.45
1:C4:24:GLY:O	1:C4:27:ILE:HG22	2.16	0.45
1:C4:180:VAL:HG12	1:C4:182:THR:HG23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F5:208:LYS:HA	1:G1:109:GLN:HE21	1.81	0.45
1:G1:23:MET:HE1	1:G1:257:GLN:HA	1.98	0.45
1:I8:68:ASP:HB3	1:I9:101:ILE:HG21	1.99	0.45
1:J5:160:ARG:HD3	1:J6:193:ASN:HD21	1.81	0.45
1:J8:219:ARG:HH11	1:K8:116:GLN:HE22	1.63	0.45
1:J9:83:THR:HG21	1:J9:168:MET:HE2	1.98	0.45
1:K4:46:LEU:HD21	1:K5:210:ARG:HH21	1.82	0.45
1:K5:133:MET:SD	1:K6:103:THR:HG23	2.57	0.45
2:O4:162:LYS:O	2:O4:166:LYS:HE2	2.16	0.45
3:Q2:84:ALA:HA	3:Q2:89:CYS:HB3	1.98	0.45
4:T1:154:TRP:HB2	4:T1:236:GLU:CG	2.47	0.45
5:U7:283:ILE:HG23	5:U7:287:GLU:CD	2.42	0.45
6:V4:134:SER:OG	6:V4:220:GLU:HB2	2.16	0.45
6:V5:106:THR:HG21	6:V5:116:VAL:HG21	1.99	0.45
7:Y4:187:ILE:HD12	7:Y4:233:THR:OG1	2.16	0.45
8:Z3:100:PHE:CE1	8:Z4:203:GLU:HG2	2.51	0.45
9:a2:57:PHE:O	9:a2:61:ILE:HG12	2.17	0.45
9:a5:49:VAL:O	9:a5:52:LYS:HG3	2.17	0.45
10:b2:267:GLN:HA	10:b2:270:MET:HG2	1.98	0.45
10:b4:50:ILE:HG12	10:b4:235:TYR:CD2	2.50	0.45
4:t4:162:TYR:CD2	4:t4:230:VAL:HG13	2.52	0.45
1:A5:46:LEU:HD21	1:A6:210:ARG:HH21	1.82	0.45
1:A7:251:THR:O	1:A7:254:THR:HG22	2.16	0.45
1:B3:270:ALA:HA	1:B3:273:LYS:HD2	1.98	0.45
1:B7:48:VAL:HG22	1:C8:106:ASP:HB3	1.97	0.45
1:B7:84:HIS:CD2	1:B7:206:ILE:HD12	2.51	0.45
1:C3:272:MET:O	1:C3:276:THR:HG23	2.17	0.45
1:C7:80:LEU:HA	1:C7:83:THR:HG22	1.98	0.45
1:E2:16:LEU:HD11	1:E2:264:THR:HG22	1.98	0.45
1:E4:72:LEU:HD23	1:E4:151:PHE:HZ	1.80	0.45
1:E6:61:ARG:HA	1:E6:61:ARG:HD2	1.80	0.45
1:E6:175:LEU:O	1:E6:184:ILE:HG13	2.16	0.45
1:F3:53:ARG:HA	1:F3:56:ILE:HG22	1.99	0.45
1:H7:125:ALA:HA	1:H7:136:LEU:HD12	1.99	0.45
1:H9:134:LYS:HD2	1:H9:137:THR:HG21	1.99	0.45
2:L4:220:PRO:HA	2:L4:223:GLU:HG2	1.98	0.45
2:M1:78:TRP:HH2	2:M2:237:ALA:HB2	1.82	0.45
2:M4:66:ARG:HA	2:M4:69:LYS:NZ	2.32	0.45
2:N4:198:LEU:HD11	2:N4:202:TYR:CZ	2.52	0.45
2:O2:173:PHE:HB3	2:O2:205:TRP:HB2	1.98	0.45
2:P4:292:ILE:O	2:P4:296:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q2:128:LYS:NZ	3:Q2:244:PHE:HZ	2.14	0.45
3:R3:74:PRO:HG3	3:R3:247:LEU:HD11	1.99	0.45
3:R4:94:ASN:ND2	3:R4:97:ASP:HB3	2.22	0.45
3:S3:60:THR:HG22	3:S3:152:ILE:HD11	1.99	0.45
4:T1:17:ASP:CG	4:T1:18:VAL:H	2.25	0.45
4:T1:258:GLU:HA	4:T1:261:ARG:HE	1.81	0.45
7:Y5:251:ASN:O	7:Y5:274:ASP:HA	2.17	0.45
10:b4:228:GLU:HG2	10:b4:230:VAL:HG22	1.98	0.45
1:h0:208:LYS:NZ	1:i0:112:VAL:HG21	2.32	0.45
1:A6:275:GLN:NE2	1:A6:279:GLN:HE21	2.14	0.45
1:A7:33:GLY:O	1:A7:244:THR:HG22	2.17	0.45
1:B4:3:ILE:HD12	1:B4:3:ILE:N	2.31	0.45
1:B5:266:MET:HE2	1:C5:27:ILE:HG13	1.99	0.45
1:B8:102:TYR:HB3	1:B8:106:ASP:HB2	1.99	0.45
1:B8:163:VAL:HG23	1:B8:163:VAL:O	2.16	0.45
1:D5:44:SER:O	1:D5:48:VAL:HG12	2.17	0.45
1:F3:18:PHE:O	1:F3:21:GLU:HG3	2.15	0.45
1:F3:280:LEU:HD23	1:G8:264:THR:OG1	2.17	0.45
1:H6:13:HIS:CD2	1:H6:13:HIS:C	2.95	0.45
1:H9:11:PHE:CG	1:I9:28:GLU:HG3	2.52	0.45
1:J8:245:ASP:OD2	1:J8:247:ALA:HB3	2.15	0.45
2:L5:238:HIS:HB3	2:L5:273:HIS:CD2	2.51	0.45
2:O5:275:LEU:HD11	2:O5:289:TYR:CZ	2.51	0.45
3:S2:216:ILE:HG23	3:S2:219:GLY:N	2.31	0.45
4:T1:18:VAL:HG11	4:t1:238:ARG:HB2	1.98	0.45
5:U3:89:LEU:HB3	5:U3:95:TYR:CG	2.52	0.45
5:U6:52:ALA:HB2	5:U6:303:MET:HE3	1.98	0.45
5:U7:182:HIS:O	5:U7:185:ILE:HG22	2.17	0.45
5:U7:290:ASP:HB3	5:U7:295:ILE:HB	1.99	0.45
10:b2:151:ILE:O	10:b2:173:ILE:HD12	2.17	0.45
10:b2:170:ARG:HH21	10:b3:274:MET:HA	1.82	0.45
10:b3:160:ALA:HA	10:b3:165:PHE:CE2	2.52	0.45
10:b4:271:ILE:HA	10:b4:274:MET:HG3	1.99	0.45
4:t2:112:ARG:HB3	4:t2:216:GLN:HB3	1.98	0.45
1:B6:81:GLN:HB2	1:B6:210:ARG:HH22	1.81	0.45
1:B7:67:GLU:HA	1:B7:70:MET:HG2	1.99	0.45
1:C4:221:GLU:HG2	1:C4:225:LYS:HE3	1.99	0.45
1:C4:255:ARG:HD2	1:D3:4:ASN:O	2.17	0.45
1:C6:22:SER:HA	1:C6:25:LYS:HG2	1.98	0.45
1:C6:268:ALA:O	1:C6:272:MET:HG2	2.17	0.45
1:E3:11:PHE:CZ	1:F3:28:GLU:HG3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E4:79:TYR:HD1	1:E4:124:ILE:HD11	1.82	0.45
1:F2:165:ILE:HD12	1:F2:209:GLN:HE21	1.82	0.45
1:G1:67:GLU:O	1:G1:70:MET:HG3	2.17	0.45
1:G1:123:ARG:CD	1:G1:127:GLN:HG3	2.47	0.45
1:G1:193:ASN:ND2	1:G9:158:HIS:H	2.13	0.45
1:G8:16:LEU:HD11	1:G8:264:THR:HG22	1.98	0.45
1:G8:97:ALA:HB2	1:G8:110:ILE:HG21	1.99	0.45
1:I6:36:ILE:HG21	1:I6:46:LEU:HB2	1.99	0.45
1:I9:114:VAL:O	1:I9:118:VAL:HG23	2.17	0.45
1:J7:156:ASN:HB2	1:J7:159:GLN:NE2	2.30	0.45
1:K5:221:GLU:O	1:K5:225:LYS:HG2	2.17	0.45
1:K7:40:GLY:HA3	1:K8:217:TYR:CD1	2.50	0.45
1:K8:271:ASN:O	1:K8:274:PRO:HD2	2.17	0.45
1:K9:105:GLU:O	1:K9:109:GLN:HG2	2.17	0.45
2:L5:235:TYR:N	2:L5:236:PRO:HD2	2.32	0.45
2:M2:91:GLN:HG2	2:M2:94:HIS:NE2	2.32	0.45
3:Q4:63:THR:HG22	3:Q4:134:PHE:CD1	2.52	0.45
3:S4:53:PHE:CZ	3:S4:183:PRO:HB3	2.51	0.45
3:S6:83:LYS:HG2	3:S6:100:ASN:HA	1.99	0.45
4:T4:102:THR:HG23	4:T4:103:TYR:N	2.32	0.45
6:X5:183:GLN:NE2	6:X5:194:LEU:HD22	2.32	0.45
8:Z2:97:GLN:HE22	8:Z3:141:ILE:HD13	1.81	0.45
8:Z2:154:LEU:HA	8:Z2:157:ILE:HG22	1.98	0.45
8:Z3:86:LYS:HA	8:Z3:89:LYS:HD2	1.98	0.45
9:a3:184:GLN:HB2	9:a4:222:LEU:HD11	1.98	0.45
9:a5:103:PHE:CZ	9:a5:199:ILE:HG12	2.52	0.45
10:b5:40:THR:HG22	10:b5:43:GLU:OE1	2.16	0.45
10:b5:117:ASP:C	10:b5:118:LEU:HD12	2.41	0.45
1:A5:67:GLU:O	1:A5:70:MET:HB2	2.17	0.45
1:A6:258:ILE:HG23	1:B5:278:LEU:HD22	1.98	0.45
1:A6:278:LEU:HD13	1:A7:246:MET:HE1	1.99	0.45
1:B4:216:TYR:HE1	1:C4:116:GLN:HE22	1.62	0.45
1:B7:244:THR:OG1	1:B7:249:GLN:HG3	2.16	0.45
1:D3:53:ARG:HA	1:D3:56:ILE:HG12	1.98	0.45
1:D5:247:ALA:O	1:D5:251:THR:HG23	2.17	0.45
1:E2:20:SER:HA	1:E2:23:MET:HG2	1.98	0.45
1:G8:66:THR:HG23	1:G8:220:LEU:HD22	1.98	0.45
1:I8:2:ILE:HD11	1:I9:240:ARG:HA	1.99	0.45
1:I8:273:LYS:HG3	1:J8:23:MET:HE1	1.98	0.45
1:I9:60:ARG:HB2	1:I9:231:TYR:CE1	2.52	0.45
2:L6:288:GLU:O	2:L6:292:ILE:HG12	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M2:87:ASP:HB2	2:M3:243:SER:HA	1.98	0.45
2:M2:206:ILE:HG12	2:M2:222:LEU:HD21	1.99	0.45
2:N3:293:VAL:O	2:N3:296:VAL:HG12	2.17	0.45
2:N5:141:GLU:OE2	2:N5:150:ARG:HD3	2.17	0.45
2:N6:127:GLU:O	2:N6:131:LYS:HG2	2.16	0.45
3:Q2:154:LYS:CB	3:Q2:177:ARG:HA	2.47	0.45
5:U4:284:ASP:HB3	5:U4:287:GLU:OE1	2.17	0.45
5:U4:289:HIS:HA	5:U4:292:ASN:ND2	2.32	0.45
6:X4:230:TYR:CD1	6:X4:231:PRO:HD2	2.51	0.45
6:X5:149:LYS:HA	6:X5:158:HIS:O	2.17	0.45
7:Y5:195:LYS:HA	7:Y5:198:VAL:HG23	1.99	0.45
8:Z2:334:VAL:HG12	8:Z2:339:LYS:O	2.17	0.45
1:h1:93:LEU:HD13	1:h1:113:GLU:HG2	1.99	0.45
1:A4:261:GLN:O	1:A4:264:THR:HG22	2.16	0.45
1:D3:138:GLY:HA2	1:D3:167:THR:HG22	1.98	0.45
1:D4:78:GLY:O	1:D4:82:GLU:HG2	2.16	0.45
1:D5:7:ILE:HD11	1:D6:239:SER:HB3	1.98	0.45
1:D6:97:ALA:HB2	1:D6:110:ILE:HG21	1.99	0.45
1:E6:56:ILE:HD12	1:E6:235:GLN:HE21	1.81	0.45
1:E6:180:VAL:HG12	1:E6:182:THR:HG23	1.98	0.45
1:G7:36:ILE:HG21	1:G7:46:LEU:HD13	1.98	0.45
1:G9:188:THR:HG23	1:G9:191:LYS:H	1.82	0.45
1:I9:106:ASP:O	1:I9:110:ILE:HG13	2.17	0.45
1:K6:278:LEU:C	1:K6:278:LEU:HD23	2.42	0.45
2:L3:78:TRP:CD2	2:L4:236:PRO:HB2	2.52	0.45
2:M4:269:LYS:HA	2:M4:272:VAL:HG12	1.99	0.45
2:M5:158:VAL:O	2:M5:162:LYS:HD3	2.17	0.45
2:N4:75:GLU:C	2:N4:77:LEU:H	2.25	0.45
2:N6:138:ARG:HH12	2:N6:150:ARG:CD	2.30	0.45
3:S3:234:LYS:HG3	3:S3:238:ILE:HD12	1.99	0.45
6:V3:131:ARG:HA	6:V3:177:ILE:HB	1.99	0.45
6:V5:158:HIS:CD2	6:V5:182:PRO:HD2	2.51	0.45
6:X3:212:PHE:CZ	6:X3:214:PHE:HB3	2.52	0.45
7:Y3:56:PHE:CE2	7:Y3:273:ILE:HG21	2.52	0.45
8:Z4:188:ASP:O	8:Z4:192:VAL:HG23	2.17	0.45
4:t2:171:TRP:CD1	4:t2:171:TRP:H	2.34	0.45
1:A4:151:PHE:HA	1:A5:99:ASN:OD1	2.17	0.44
1:A6:176:ARG:NH1	1:A6:181:LEU:HD22	2.31	0.44
1:A6:236:ALA:O	1:A6:240:ARG:HG3	2.17	0.44
1:A6:275:GLN:O	1:A6:279:GLN:HG2	2.17	0.44
1:B6:234:ILE:HD12	1:C6:130:PHE:CE1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B7:136:LEU:HB3	1:B7:168:MET:HB3	1.99	0.44
1:B8:167:THR:HG23	1:B8:172:ALA:HB1	1.98	0.44
1:C5:76:THR:O	1:C5:80:LEU:HD23	2.17	0.44
1:C6:151:PHE:CE2	1:C6:163:VAL:HG21	2.52	0.44
1:D6:140:PHE:CD1	1:D6:149:MET:HB2	2.52	0.44
1:E3:38:ARG:CZ	1:E4:74:GLN:HE22	2.30	0.44
1:G8:114:VAL:HG21	1:G8:186:LEU:CD1	2.47	0.44
1:J9:237:ALA:HB2	1:K9:71:SER:HB2	2.00	0.44
2:M3:269:LYS:HA	2:M3:272:VAL:HG12	1.99	0.44
2:M3:290:LYS:HA	2:M3:293:VAL:HG12	1.99	0.44
2:N3:90:PHE:CE2	2:N4:239:LYS:HD2	2.53	0.44
2:N4:138:ARG:HG3	2:N4:150:ARG:HH11	1.81	0.44
2:N4:142:LYS:O	2:O3:216:PRO:HG2	2.17	0.44
2:N5:159:SER:HA	2:N5:162:LYS:HG2	1.99	0.44
2:P6:198:LEU:HD11	2:P6:202:TYR:CZ	2.52	0.44
3:Q3:185:HIS:O	3:Q3:189:VAL:HG13	2.17	0.44
4:T2:30:SER:HB2	13:T2:402:HOH:O	2.16	0.44
4:T2:216:GLN:HE21	4:T2:218:LYS:NZ	2.15	0.44
4:T3:206:TYR:CE1	4:T4:158:ARG:HA	2.52	0.44
5:U6:171:LEU:O	5:U6:174:ARG:HG2	2.17	0.44
5:U6:177:LYS:HE3	5:U7:114:GLN:O	2.17	0.44
5:U7:274:PRO:HG2	5:U7:275:PRO:HD3	2.00	0.44
6:X4:212:PHE:C	6:X4:213:TYR:HD1	2.26	0.44
9:a5:187:LYS:O	9:a5:190:ARG:HG2	2.17	0.44
1:A5:19:ASN:HD22	1:A5:259:LEU:HB3	1.82	0.44
1:A8:150:TRP:CZ3	1:A8:162:ARG:HB2	2.52	0.44
1:B4:50:GLU:O	1:B4:54:THR:HG23	2.17	0.44
1:B7:70:MET:HB2	1:B7:217:TYR:CE2	2.53	0.44
1:B8:123:ARG:O	1:B8:127:GLN:HB3	2.18	0.44
1:B8:237:ALA:O	1:B8:241:ILE:HD12	2.17	0.44
1:C4:133:MET:HE2	1:C4:133:MET:HA	1.99	0.44
1:C5:259:LEU:HA	1:D4:3:ILE:HD11	1.99	0.44
1:C6:7:ILE:HD11	1:C7:239:SER:OG	2.17	0.44
1:C6:46:LEU:HD21	1:C7:210:ARG:HD3	1.99	0.44
1:C6:166:GLU:HB2	1:C6:209:GLN:NE2	2.32	0.44
1:D5:166:GLU:H	1:D5:209:GLN:HE22	1.65	0.44
1:E5:255:ARG:HH21	1:F4:4:ASN:ND2	2.15	0.44
1:F6:237:ALA:HB2	1:G2:71:SER:HB3	1.98	0.44
1:G6:4:ASN:HB2	1:G7:243:ASP:CG	2.42	0.44
1:G7:89:ARG:HG2	1:G7:93:LEU:HD23	1.99	0.44
1:H8:188:THR:HG23	1:H8:191:LYS:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J5:14:ARG:CG	1:J6:228:MET:HE1	2.47	0.44
1:J6:47:ALA:O	1:J6:51:LYS:HG3	2.18	0.44
1:J6:65:ASN:HD21	1:J7:96:GLN:HA	1.82	0.44
1:J8:52:MET:HE2	1:J8:234:ILE:O	2.18	0.44
2:L2:220:PRO:HA	2:L2:223:GLU:HG2	1.98	0.44
2:N3:235:TYR:CG	2:N3:236:PRO:HD3	2.52	0.44
2:N4:93:LEU:HD11	2:N5:291:HIS:HB3	1.99	0.44
2:O2:132:GLU:O	2:O2:135:GLU:HG2	2.17	0.44
2:O2:205:TRP:CH2	2:O2:221:ILE:HG13	2.52	0.44
2:O4:145:TRP:HA	2:O4:148:VAL:HG12	1.98	0.44
2:O5:110:SER:O	2:O5:113:GLN:HG2	2.16	0.44
3:Q4:48:LEU:HD13	3:Q4:233:LYS:HD3	1.99	0.44
3:S3:231:SER:O	3:S3:235:GLU:HG2	2.17	0.44
5:U5:284:ASP:HB2	5:U5:287:GLU:HG3	1.99	0.44
5:U6:284:ASP:HB3	5:U6:287:GLU:HG3	1.98	0.44
6:V2:69:LYS:HG2	6:V2:70:VAL:N	2.31	0.44
6:X1:48:LEU:HD11	6:X1:219:LEU:HG	1.99	0.44
6:X1:75:GLN:NE2	6:X1:79:ILE:HG12	2.31	0.44
6:X2:63:THR:HG22	6:X2:64:PRO:HA	1.99	0.44
6:X2:212:PHE:CE2	6:X2:214:PHE:HB2	2.53	0.44
8:Z3:217:ASN:O	8:Z3:221:LYS:HG3	2.18	0.44
10:b3:198:LEU:HD11	10:b4:275:LEU:HD11	1.98	0.44
1:h0:230:ALA:HB2	1:i0:79:TYR:HE1	1.82	0.44
4:t1:155:VAL:HG21	4:t1:164:LEU:HD11	1.99	0.44
1:A6:280:LEU:HD11	1:B6:261:GLN:NE2	2.33	0.44
1:B4:83:THR:O	1:B4:87:VAL:HG23	2.18	0.44
1:B5:47:ALA:HB1	1:C6:109:GLN:OE1	2.17	0.44
1:C3:247:ALA:O	1:C3:251:THR:HG23	2.18	0.44
1:C5:83:THR:HG21	1:C5:168:MET:HE2	1.99	0.44
1:C6:27:ILE:HD13	1:C6:253:PHE:CD1	2.53	0.44
1:C6:177:ASN:OD1	1:C6:178:PRO:HD2	2.18	0.44
1:D5:281:LEU:HB3	1:D6:250:MET:HE3	1.99	0.44
1:F2:36:ILE:HG21	1:F2:46:LEU:HB2	2.00	0.44
1:F3:277:VAL:O	1:F3:281:LEU:HG	2.17	0.44
1:G1:97:ALA:HB3	1:G1:186:LEU:HD23	1.98	0.44
1:G8:30:LEU:HD12	1:G8:249:GLN:HG3	1.99	0.44
1:H7:107:ARG:HH12	1:H7:189:ALA:HB2	1.81	0.44
1:H7:248:GLU:CD	1:I7:60:ARG:HH22	2.26	0.44
1:I7:30:LEU:HD11	1:I7:246:MET:HE3	1.99	0.44
1:I8:46:LEU:HD21	1:I9:210:ARG:HE	1.82	0.44
1:I9:21:GLU:HG3	1:I9:25:LYS:HE3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K5:240:ARG:HD2	1:K5:240:ARG:C	2.42	0.44
1:K6:56:ILE:HD11	1:K6:234:ILE:HG22	1.99	0.44
1:K8:125:ALA:O	1:K8:136:LEU:HB2	2.18	0.44
2:L2:82:ASP:HB2	9:a2:94:ARG:NH1	2.33	0.44
2:L5:293:VAL:O	2:L5:296:VAL:HG12	2.18	0.44
2:N5:116:VAL:HA	2:N5:119:ILE:HG22	1.98	0.44
2:O3:206:ILE:HD11	2:O3:221:ILE:HB	1.99	0.44
2:P3:158:VAL:HG22	2:P3:162:LYS:HZ2	1.81	0.44
3:S2:129:TYR:CZ	3:S2:158:LYS:HG3	2.51	0.44
6:V2:101:ILE:HD12	6:V2:217:ASP:HB2	1.99	0.44
6:V2:189:LEU:HD22	6:V2:237:ASP:H	1.82	0.44
6:V5:131:ARG:NH2	7:Y5:236:MET:HG2	2.32	0.44
6:X4:106:THR:HG21	6:X4:116:VAL:HG21	1.98	0.44
7:Y2:68:PHE:CD2	7:Y2:238:HIS:HB3	2.53	0.44
7:Y2:194:LYS:O	7:Y2:198:VAL:HG23	2.16	0.44
8:Z2:244:TYR:O	8:Z2:248:ILE:HG12	2.16	0.44
8:Z3:220:LEU:HG	11:c3:108:MET:HE1	1.99	0.44
9:a4:182:PRO:HA	9:a4:185:ARG:HG2	1.98	0.44
10:b3:228:GLU:HG2	10:b3:230:VAL:H	1.82	0.44
10:b4:131:TYR:CD1	10:b4:157:ARG:HD2	2.53	0.44
10:b5:198:LEU:HD11	10:b5:241:ILE:HG21	1.99	0.44
11:c2:62:THR:HG21	11:c2:104:TYR:HE1	1.81	0.44
1:h1:106:ASP:O	1:h1:110:ILE:HG13	2.17	0.44
1:A8:123:ARG:HD3	1:K8:219:ARG:HH21	1.82	0.44
1:A9:70:MET:O	1:A9:73:ILE:HG22	2.17	0.44
1:B3:247:ALA:O	1:B3:251:THR:HG23	2.18	0.44
1:B5:170:THR:HB	1:B5:175:LEU:HB2	1.98	0.44
1:B7:36:ILE:HG23	1:B7:36:ILE:O	2.18	0.44
1:B7:240:ARG:HH22	1:C7:68:ASP:N	2.15	0.44
1:C5:79:TYR:CD2	1:C5:128:ALA:HB1	2.52	0.44
1:D5:12:ALA:CB	1:D5:266:MET:HE1	2.47	0.44
1:D5:222:HIS:HE1	1:E5:85:GLU:HG2	1.81	0.44
1:E4:11:PHE:CZ	1:F4:32:SER:HB3	2.52	0.44
1:F4:271:ASN:O	1:F4:274:PRO:HD2	2.17	0.44
1:F5:61:ARG:HD2	1:F5:61:ARG:HA	1.65	0.44
1:F6:233:ASN:OD1	1:G2:74:GLN:HB3	2.17	0.44
1:G7:255:ARG:HD2	1:H6:4:ASN:O	2.17	0.44
1:I5:233:ASN:ND2	1:J5:75:THR:HA	2.32	0.44
1:J9:51:LYS:HE2	1:j0:203:LEU:HD11	2.00	0.44
1:J9:208:LYS:HA	1:K9:109:GLN:HE22	1.83	0.44
1:K7:158:HIS:NE2	6:X3:62:THR:HB	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L6:220:PRO:HA	2:L6:223:GLU:HG2	2.00	0.44
2:L6:275:LEU:HA	2:L6:278:THR:HG22	1.99	0.44
2:L6:278:THR:HG21	2:L6:292:ILE:HG21	1.99	0.44
2:M1:186:PRO:O	2:M1:189:ARG:HG3	2.18	0.44
2:M4:87:ASP:HB2	2:M5:243:SER:HA	2.00	0.44
2:M5:271:ASN:HD22	2:M5:296:VAL:CG2	2.22	0.44
2:N4:166:LYS:NZ	2:N4:212:LEU:HA	2.32	0.44
2:P4:145:TRP:HA	2:P4:148:VAL:HG22	2.00	0.44
3:S4:51:LYS:O	3:S4:55:LEU:HG	2.16	0.44
3:S4:192:PHE:CE2	3:S4:214:LYS:HG2	2.53	0.44
5:U3:139:HIS:O	5:U3:143:LEU:HD23	2.17	0.44
5:U5:96:ILE:HG22	5:U5:100:LYS:HE2	1.99	0.44
6:X3:180:PHE:HA	4:t2:223:PRO:HB3	1.98	0.44
10:b2:41:LEU:HA	10:b2:44:LYS:HG2	1.99	0.44
10:b3:216:GLN:HG3	10:b3:218:VAL:H	1.83	0.44
10:b4:153:LEU:O	10:b4:171:ARG:HA	2.18	0.44
10:b5:51:GLU:O	10:b5:54:ARG:HG2	2.16	0.44
1:h0:53:ARG:HG3	1:h0:57:LEU:HD23	1.99	0.44
4:t1:84:ILE:HG21	4:t1:236:GLU:OE2	2.17	0.44
4:t2:245:GLU:O	4:t2:248:PHE:CD2	2.70	0.44
1:C6:61:ARG:HD2	1:C7:96:GLN:HG2	1.99	0.44
1:D5:118:VAL:O	1:D5:121:ILE:HG22	2.17	0.44
1:F3:70:MET:O	1:F3:73:ILE:HG22	2.18	0.44
1:F5:218:ASN:ND2	1:G1:89:ARG:HH22	2.16	0.44
1:G9:14:ARG:O	1:G9:17:LYS:HG2	2.17	0.44
1:H8:150:TRP:NE1	1:H8:160:ARG:HH21	2.16	0.44
1:H9:11:PHE:CD1	1:I9:28:GLU:HG3	2.52	0.44
1:H9:180:VAL:HG12	1:H9:182:THR:HG23	2.00	0.44
1:I7:35:ARG:HB2	1:I7:244:THR:HA	1.99	0.44
1:I8:216:TYR:HE1	1:J8:116:GLN:CD	2.25	0.44
2:M3:112:TYR:CZ	2:M3:200:ASP:HB3	2.52	0.44
3:Q2:41:ILE:HD11	3:Q2:224:LYS:H	1.83	0.44
3:R5:81:LYS:H	3:R5:95:GLN:NE2	2.16	0.44
4:T4:27:THR:HG23	4:T4:237:LEU:O	2.17	0.44
6:V4:144:HIS:ND1	6:V4:203:SER:HA	2.32	0.44
6:X4:101:ILE:HD12	6:X4:215:TYR:HB3	2.00	0.44
8:Z2:93:GLN:HG3	8:Z3:155:VAL:HG11	1.98	0.44
10:b3:135:SER:HB2	10:b3:155:PHE:CE1	2.52	0.44
1:i0:63:GLU:O	1:i0:67:GLU:HG2	2.17	0.44
1:A4:258:ILE:CD1	1:B3:275:GLN:HA	2.48	0.44
1:A5:35:ARG:HB2	1:A5:244:THR:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A7:270:ALA:O	1:A7:273:LYS:HG3	2.17	0.44
1:B3:30:LEU:HD21	1:B3:249:GLN:HB2	1.98	0.44
1:B6:153:ILE:HD11	1:C6:123:ARG:NE	2.33	0.44
1:C3:266:MET:SD	1:D3:30:LEU:HD23	2.57	0.44
1:D6:15:THR:HG21	1:E6:31:SER:O	2.17	0.44
1:F2:157:MET:HG3	1:F2:158:HIS:CD2	2.53	0.44
1:F2:273:LYS:HE3	1:G7:23:MET:SD	2.58	0.44
1:F5:136:LEU:HD12	1:F5:168:MET:HB2	1.98	0.44
1:G7:125:ALA:HA	1:G7:136:LEU:HD12	2.00	0.44
1:G9:29:LYS:HD3	1:G9:249:GLN:OE1	2.17	0.44
1:H6:247:ALA:HB1	1:I5:267:LEU:CD2	2.48	0.44
1:H9:6:ASN:HD22	1:H9:9:ALA:H	1.64	0.44
1:I6:61:ARG:NH2	1:I7:96:GLN:HA	2.25	0.44
1:I7:73:ILE:HG23	1:I7:213:LEU:HD22	1.98	0.44
1:I8:41:ASP:HA	1:I9:218:ASN:ND2	2.31	0.44
1:J6:105:GLU:HA	1:J6:108:GLN:HG2	1.97	0.44
1:K5:53:ARG:HH12	1:K6:88:GLN:NE2	2.16	0.44
1:K7:167:THR:C	1:K7:168:MET:HE2	2.43	0.44
2:M2:239:LYS:HE2	2:M2:240:TYR:HE1	1.82	0.44
2:P2:78:TRP:CG	2:P3:236:PRO:HG2	2.53	0.44
2:P6:276:ARG:HH11	3:S6:246:ARG:NH2	2.16	0.44
3:Q4:74:PRO:HG2	3:Q4:77:THR:CG2	2.48	0.44
3:R5:237:TYR:CE2	3:R5:241:LEU:HD11	2.53	0.44
3:S2:101:ASN:OD1	3:S2:137:GLN:HB2	2.17	0.44
3:S5:181:THR:HG23	3:S5:182:GLN:N	2.33	0.44
4:T4:81:PRO:HB3	4:T4:188:TRP:CD1	2.52	0.44
4:T4:103:TYR:CD1	4:T4:104:PRO:HD2	2.53	0.44
6:V1:70:VAL:HG22	6:V1:104:VAL:HG23	1.99	0.44
6:X5:136:TRP:HE1	6:X5:172:LYS:CD	2.31	0.44
7:Y2:102:LYS:O	7:Y2:102:LYS:HD3	2.18	0.44
10:b4:75:LEU:HB2	10:b4:145:GLY:HA3	2.00	0.44
10:b4:182:PHE:HB2	10:b4:186:GLY:HA2	1.99	0.44
1:A5:266:MET:SD	1:B5:30:LEU:HD23	2.58	0.44
1:A6:238:GLU:HA	1:A6:241:ILE:HG22	2.00	0.44
1:B3:273:LYS:HE2	1:C3:257:GLN:CD	2.42	0.44
1:C8:180:VAL:HG13	1:C8:182:THR:H	1.81	0.44
1:D3:124:ILE:O	1:D3:128:ALA:HB3	2.18	0.44
1:D6:60:ARG:HH22	1:D6:228:MET:HE1	1.83	0.44
1:G8:258:ILE:HG21	1:H7:3:ILE:HD11	2.00	0.44
1:H7:30:LEU:HD22	1:H7:249:GLN:HG3	2.00	0.44
1:J5:148:SER:HB2	1:J5:150:TRP:HE1	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J6:14:ARG:HH22	1:J7:229:ASN:ND2	2.16	0.44
1:K4:236:ALA:O	1:K4:240:ARG:HG3	2.17	0.44
1:K5:46:LEU:HG	1:K6:210:ARG:NH2	2.32	0.44
1:K7:279:GLN:HA	1:K7:282:LYS:HE3	1.99	0.44
2:N3:166:LYS:HE3	2:N3:208:THR:CB	2.47	0.44
2:N3:205:TRP:CD1	2:N3:205:TRP:C	2.96	0.44
2:N4:138:ARG:HG3	2:N4:150:ARG:NH1	2.32	0.44
2:O3:224:LEU:O	2:O3:227:GLU:HG3	2.18	0.44
2:O4:205:TRP:HZ3	2:O4:221:ILE:HG21	1.81	0.44
2:O5:187:ASP:OD1	2:O5:188:LEU:N	2.50	0.44
2:O5:271:ASN:HB2	2:O5:296:VAL:HG23	2.00	0.44
3:Q3:78:VAL:HG12	3:Q3:106:GLU:HB2	1.99	0.44
3:Q4:65:LEU:HD21	3:Q4:252:PHE:HA	2.00	0.44
3:R3:80:PHE:CE1	3:R3:91:PRO:HG3	2.53	0.44
3:S2:233:LYS:HB2	3:S2:237:TYR:CE2	2.52	0.44
4:T1:76:LEU:HB3	4:T1:93:LYS:HE2	1.98	0.44
4:T3:176:HIS:CD2	4:T3:177:ILE:H	2.36	0.44
5:U5:98:LEU:HD23	5:U5:303:MET:HG3	2.00	0.44
5:U7:190:ALA:HB3	5:U7:193:GLN:HG3	2.00	0.44
6:V4:140:ARG:HG3	6:V5:189:LEU:HD13	2.00	0.44
6:V5:111:ARG:HB3	6:V5:205:VAL:HA	2.00	0.44
6:X2:187:PHE:CG	6:X2:190:LEU:HD12	2.52	0.44
6:X5:81:ASP:H	6:X5:87:THR:HG21	1.82	0.44
8:Z3:35:LEU:HG	8:Z3:39:ARG:NH1	2.33	0.44
10:b2:86:TYR:CG	10:b2:87:LYS:N	2.86	0.44
10:b2:267:GLN:O	10:b2:271:ILE:HD12	2.16	0.44
1:h0:87:VAL:HA	1:h0:90:ILE:HG22	1.99	0.44
1:A4:281:LEU:HD21	1:B4:267:LEU:HB3	2.00	0.44
1:B7:248:GLU:HB2	1:C6:13:HIS:CG	2.52	0.44
1:C7:56:ILE:HG13	1:C7:57:LEU:N	2.32	0.44
1:C7:219:ARG:HH11	1:C7:219:ARG:HG3	1.83	0.44
1:D5:35:ARG:HB3	1:D5:244:THR:CB	2.45	0.44
1:E2:257:GLN:HA	1:E2:260:THR:HG22	2.00	0.44
1:E3:226:GLY:CA	1:F3:82:GLU:HG3	2.45	0.44
1:F2:228:MET:HE2	1:F2:228:MET:HB2	1.91	0.44
1:F4:193:ASN:HA	1:F4:196:ILE:HD12	1.99	0.44
1:G8:49:SER:CB	1:G8:242:ARG:HG2	2.48	0.44
1:G9:55:GLN:O	1:G9:59:LEU:HD23	2.18	0.44
1:J6:132:LYS:HB2	1:J7:103:THR:HG21	1.99	0.44
1:K9:150:TRP:CZ2	1:K9:162:ARG:HD3	2.52	0.44
2:L2:113:GLN:NE2	9:a2:84:PRO:HA	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N6:159:SER:O	2:N6:162:LYS:HG2	2.18	0.44
2:P2:245:TYR:CZ	2:P2:269:LYS:HE3	2.52	0.44
2:P2:251:MET:HA	2:P2:254:LYS:HE2	1.99	0.44
3:S4:130:MET:HG2	3:S4:156:LYS:O	2.17	0.44
3:S6:169:LYS:HB2	3:S6:232:PHE:HZ	1.83	0.44
4:T2:109:VAL:HB	4:T2:219:VAL:CG1	2.48	0.44
5:U6:168:LEU:HB2	5:U6:218:ALA:HB2	2.00	0.44
6:X4:54:ALA:HB1	6:X4:102:LEU:HB2	1.99	0.44
8:Z1:49:LYS:HG2	8:Z1:82:VAL:HG21	1.99	0.44
8:Z4:98:TYR:HB2	8:Z4:107:ALA:HB2	1.99	0.44
9:a5:119:LEU:HD23	9:a5:120:GLU:N	2.33	0.44
9:a5:141:ILE:HD11	9:a5:162:ARG:HD2	1.99	0.44
1:j0:86:ILE:O	1:j0:90:ILE:HD12	2.18	0.44
4:t3:108:ALA:HB2	4:t3:220:ARG:HD2	1.99	0.44
1:A5:260:THR:O	1:A5:264:THR:HG22	2.17	0.44
1:A7:255:ARG:O	1:A7:259:LEU:HD23	2.18	0.44
1:B8:106:ASP:O	1:B8:110:ILE:HG13	2.18	0.44
1:C3:4:ASN:C	1:C3:5:HIS:HD2	2.26	0.44
1:D7:97:ALA:HB3	1:D7:186:LEU:HD23	2.00	0.44
1:E2:1:MET:HE3	1:F2:16:LEU:HG	1.99	0.44
1:E3:57:LEU:CD2	1:E4:92:VAL:HG22	2.48	0.44
1:E7:170:THR:HB	1:E7:175:LEU:HB2	2.00	0.44
1:F4:248:GLU:HG3	1:G8:13:HIS:CE1	2.53	0.44
1:G7:222:HIS:HE1	1:H7:85:GLU:OE2	2.01	0.44
1:H8:150:TRP:CZ3	1:H8:162:ARG:HB2	2.53	0.44
1:I7:166:GLU:H	1:I7:209:GLN:NE2	2.15	0.44
1:J9:191:LYS:O	1:J9:195:VAL:HG23	2.18	0.44
1:K5:165:ILE:HA	1:K5:209:GLN:HE22	1.83	0.44
2:O4:179:HIS:O	2:O4:182:GLU:HG2	2.18	0.44
2:P2:77:LEU:HB3	2:P3:203:ARG:NH2	2.33	0.44
2:P2:269:LYS:O	2:P2:272:VAL:HG12	2.18	0.44
2:P3:127:GLU:O	2:P3:131:LYS:HG2	2.18	0.44
2:P3:245:TYR:HA	2:P3:248:GLU:HG2	1.99	0.44
2:P4:126:ILE:HD12	2:P4:158:VAL:HG13	1.99	0.44
2:P6:241:LEU:HB3	2:P6:273:HIS:CE1	2.47	0.44
3:R3:107:VAL:O	3:R3:127:ALA:HB3	2.18	0.44
3:R5:73:LEU:CD1	3:R5:79:LEU:H	2.31	0.44
3:R5:94:ASN:HB2	3:R5:97:ASP:HB2	2.00	0.44
3:S4:55:LEU:HD13	3:S4:241:LEU:HD22	1.99	0.44
6:X5:50:ASN:ND2	13:X5:401:HOH:O	2.50	0.44
8:Z3:118:THR:HA	8:Z3:121:LEU:HG	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:i0:167:THR:O	1:i0:168:MET:HE2	2.17	0.44
4:t1:94:VAL:HG22	4:t1:235:ASP:CB	2.48	0.44
4:t1:172:LYS:HB2	4:t1:200:PRO:HG3	1.99	0.44
4:t1:233:PHE:HZ	4:t2:255:PHE:HB2	1.83	0.44
4:t2:103:TYR:HA	4:t2:104:PRO:HD3	1.89	0.44
4:t2:158:ARG:NH1	4:t2:160:ASN:HA	2.32	0.44
1:B7:7:ILE:HD11	1:B8:239:SER:HB2	2.00	0.43
1:C4:138:GLY:HA3	1:C4:167:THR:HB	2.00	0.43
1:C5:35:ARG:CG	1:C5:244:THR:HB	2.43	0.43
1:E3:150:TRP:CE2	1:E3:162:ARG:HD3	2.52	0.43
1:F2:14:ARG:HD3	1:F3:228:MET:HB3	1.99	0.43
1:F4:30:LEU:HD22	1:F4:249:GLN:HB3	2.00	0.43
1:G7:11:PHE:CE2	1:H7:28:GLU:HG3	2.53	0.43
1:H6:244:THR:OG1	1:H6:249:GLN:HG3	2.18	0.43
1:H7:208:LYS:HE3	1:I7:105:GLU:OE2	2.17	0.43
1:J6:173:LEU:HD13	1:J6:202:ALA:HB1	1.99	0.43
1:K7:260:THR:O	1:K7:264:THR:HG23	2.18	0.43
1:K8:51:LYS:O	1:K8:55:GLN:HG2	2.17	0.43
2:M3:195:LYS:HE2	2:M3:195:LYS:HB2	1.85	0.43
2:N4:122:MET:O	2:N4:126:ILE:HG12	2.17	0.43
2:O5:150:ARG:HG3	2:O5:150:ARG:HH11	1.81	0.43
3:S6:175:MET:HE1	3:S6:177:ARG:HG2	2.00	0.43
4:T4:160:ASN:HB3	4:T4:162:TYR:HD1	1.82	0.43
6:X5:74:VAL:HG11	6:X5:97:GLU:HA	2.00	0.43
8:Z1:228:LYS:HE2	8:Z1:229:HIS:CE1	2.53	0.43
8:Z2:255:ARG:NE	8:Z2:332:ASP:HB3	2.32	0.43
9:a2:209:GLY:HA2	9:a2:212:LYS:HZ3	1.82	0.43
9:a5:151:ASN:OD1	9:a5:152:GLU:HG2	2.18	0.43
10:b3:198:LEU:HD21	10:b4:274:MET:HE1	1.99	0.43
10:b4:248:TYR:O	10:b4:252:VAL:HG23	2.17	0.43
11:c1:108:MET:HG2	11:c1:115:GLN:HE22	1.82	0.43
4:t2:125:LYS:HE2	4:t2:127:TYR:CD2	2.53	0.43
4:t4:178:LEU:HD13	4:t4:193:VAL:HG11	1.99	0.43
1:B8:49:SER:HA	1:B8:52:MET:HE2	2.00	0.43
1:C3:266:MET:HE1	1:D3:30:LEU:HB3	2.00	0.43
1:C4:50:GLU:HG3	1:C5:210:ARG:NH2	2.33	0.43
1:C4:80:LEU:HD22	1:C4:209:GLN:HE22	1.84	0.43
1:C4:248:GLU:HB2	1:D3:13:HIS:NE2	2.33	0.43
1:C5:163:VAL:HG13	1:C5:216:TYR:CE2	2.53	0.43
1:D3:165:ILE:HG23	1:D3:209:GLN:NE2	2.33	0.43
1:E4:11:PHE:CZ	1:F4:28:GLU:HG3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E6:93:LEU:O	1:E6:93:LEU:HD23	2.18	0.43
1:E6:219:ARG:CD	1:F6:120:GLU:HG2	2.49	0.43
1:E7:192:ALA:HA	1:E7:195:VAL:HG12	1.99	0.43
1:F5:36:ILE:HD11	1:F5:42:ASP:HB3	1.99	0.43
1:F5:59:LEU:HD11	1:F5:234:ILE:HD12	1.99	0.43
1:F5:131:ASN:ND2	1:F6:103:THR:HG23	2.33	0.43
1:H7:233:ASN:CG	1:I7:75:THR:HG22	2.44	0.43
1:H9:252:SER:O	1:H9:256:TYR:HD1	2.01	0.43
1:H9:255:ARG:HG3	1:I8:4:ASN:HA	2.00	0.43
1:J6:248:GLU:O	1:J6:251:THR:HG22	2.18	0.43
2:L5:138:ARG:HH21	2:L5:150:ARG:HB2	1.82	0.43
2:P2:68:LYS:O	2:P2:71:ILE:HG22	2.18	0.43
2:P3:95:GLN:HE22	2:P3:103:ASN:ND2	2.15	0.43
2:P3:220:PRO:HA	2:P3:223:GLU:HG2	1.99	0.43
2:P5:79:LYS:HA	2:P5:79:LYS:HD2	1.71	0.43
3:Q2:178:GLY:O	3:Q2:181:THR:HG22	2.18	0.43
3:R2:61:ARG:O	3:R2:61:ARG:HD3	2.17	0.43
6:V1:117:GLU:HG2	6:V1:119:PHE:HD1	1.81	0.43
6:V5:110:VAL:HG13	6:V5:113:PHE:HB3	2.00	0.43
6:X2:52:GLU:CA	6:X2:100:HIS:HB3	2.42	0.43
8:Z1:33:GLU:O	8:Z1:36:LEU:HG	2.17	0.43
8:Z4:261:ILE:O	8:Z4:265:LYS:HG2	2.18	0.43
9:a4:195:ASN:O	9:a4:198:GLU:HG3	2.18	0.43
11:c2:50:THR:HA	11:c2:53:LYS:HG2	2.00	0.43
1:j0:106:ASP:O	1:j0:109:GLN:HG2	2.17	0.43
1:A7:168:MET:HE3	1:A7:209:GLN:HG2	1.99	0.43
1:A7:266:MET:HE1	1:B7:253:PHE:CZ	2.53	0.43
1:B4:54:THR:HB	1:B5:91:ARG:NH2	2.34	0.43
1:B7:68:ASP:HB3	1:B8:101:ILE:HG13	1.99	0.43
1:C4:60:ARG:O	1:C4:63:GLU:HG3	2.19	0.43
1:C5:33:GLY:C	1:C5:34:MET:HE2	2.43	0.43
1:D5:104:GLU:O	1:D5:108:GLN:HG2	2.18	0.43
1:F3:153:ILE:HD11	1:G8:123:ARG:CZ	2.48	0.43
1:G2:73:ILE:O	1:G2:76:THR:HG22	2.19	0.43
1:G6:11:PHE:CE1	1:H6:28:GLU:HB2	2.53	0.43
1:H6:273:LYS:CG	1:H6:274:PRO:HD3	2.48	0.43
1:H7:53:ARG:HA	1:H7:56:ILE:HD12	2.00	0.43
1:H8:46:LEU:HD21	1:H9:210:ARG:CZ	2.48	0.43
1:I9:138:GLY:HA3	1:I9:167:THR:HG22	2.01	0.43
1:J5:247:ALA:O	1:J5:251:THR:HG23	2.18	0.43
1:J6:67:GLU:O	1:J6:70:MET:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J6:150:TRP:HB3	1:J6:160:ARG:HD3	2.00	0.43
1:J8:184:ILE:HD12	1:J8:195:VAL:CG2	2.49	0.43
1:J8:223:ALA:O	1:J8:227:LEU:HD23	2.18	0.43
2:M1:77:LEU:HD23	2:M1:77:LEU:O	2.18	0.43
3:Q2:134:PHE:CZ	3:Q2:150:ARG:HD2	2.54	0.43
3:S2:216:ILE:HG23	3:S2:219:GLY:H	1.84	0.43
4:T4:17:ASP:OD1	4:T4:18:VAL:N	2.51	0.43
4:T4:21:LEU:HD11	4:t4:240:LEU:HD22	2.00	0.43
6:V2:136:TRP:HA	6:V2:171:ARG:O	2.18	0.43
6:V4:132:GLN:HB3	6:V4:222:ARG:HB2	1.99	0.43
6:X1:78:LEU:HD12	6:X1:94:ASP:HB2	2.00	0.43
8:Z1:157:ILE:HA	8:Z1:161:TRP:CD1	2.48	0.43
9:a2:175:ASN:HB3	9:a2:178:THR:HG23	2.00	0.43
9:a5:40:GLU:HG3	9:a5:42:GLY:H	1.82	0.43
9:a5:144:LEU:HD11	9:a5:157:ILE:HG23	2.01	0.43
10:b2:166:ILE:HD12	10:b2:166:ILE:H	1.83	0.43
1:i0:127:GLN:O	1:i0:129:GLU:HG2	2.18	0.43
4:t2:10:ILE:HD11	4:t2:204:ASN:HD21	1.82	0.43
1:A5:56:ILE:HG23	1:A5:231:TYR:HE1	1.82	0.43
1:A5:110:ILE:O	1:A5:114:VAL:HG23	2.19	0.43
1:A6:150:TRP:CZ3	1:A6:162:ARG:HB2	2.53	0.43
1:B5:30:LEU:HA	1:B5:30:LEU:HD12	1.75	0.43
1:B8:219:ARG:HB3	1:B8:219:ARG:CZ	2.47	0.43
1:C4:266:MET:HE1	1:D4:27:ILE:O	2.19	0.43
1:C5:38:ARG:HD3	1:C6:217:TYR:HE2	1.83	0.43
1:C6:266:MET:CE	1:D6:27:ILE:HD13	2.48	0.43
1:D3:248:GLU:O	1:D3:251:THR:HG22	2.18	0.43
1:D4:30:LEU:HD13	1:D4:249:GLN:HB3	2.00	0.43
1:D5:111:GLN:OE1	1:D5:185:SER:HA	2.19	0.43
1:D7:191:LYS:O	1:D7:195:VAL:HG23	2.18	0.43
1:E6:106:ASP:O	1:E6:110:ILE:HG12	2.19	0.43
1:F4:63:GLU:HG3	1:F4:228:MET:CE	2.47	0.43
1:F5:215:ALA:HB1	1:G1:116:GLN:HG3	2.00	0.43
1:G2:69:GLY:O	1:G2:72:LEU:HG	2.18	0.43
1:G7:237:ALA:HB2	1:H7:71:SER:HB2	2.01	0.43
1:G8:12:ALA:HB3	1:G8:267:LEU:HD13	1.99	0.43
1:H8:33:GLY:C	1:H8:34:MET:HE2	2.43	0.43
1:I5:278:LEU:HD13	1:I6:246:MET:HE1	1.99	0.43
1:I7:47:ALA:HB1	1:I8:207:SER:HB2	1.99	0.43
1:J7:167:THR:C	1:J7:168:MET:HG2	2.43	0.43
2:M5:238:HIS:HB2	2:M5:277:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P4:133:GLU:HG3	2:P4:136:LYS:HZ2	1.84	0.43
3:Q1:66:MET:HE1	3:Q1:134:PHE:CZ	2.53	0.43
3:Q2:226:HIS:NE2	3:Q2:228:ILE:HD11	2.34	0.43
3:R4:48:LEU:O	3:R4:52:ILE:HG12	2.19	0.43
3:R4:66:MET:SD	3:R4:103:ILE:HD11	2.58	0.43
4:T2:145:PRO:HB3	4:T2:266:LEU:HD22	2.00	0.43
4:T3:268:LYS:HB3	4:T3:269:MET:HE2	2.00	0.43
5:U3:283:ILE:HG23	5:U3:288:ILE:HD11	2.00	0.43
5:U7:176:LEU:O	5:U7:180:GLU:HG2	2.18	0.43
6:V2:50:ASN:ND2	6:V2:52:GLU:HG2	2.33	0.43
6:X1:111:ARG:HB3	6:X1:205:VAL:HA	1.99	0.43
6:X3:144:HIS:CD2	6:X3:203:SER:HA	2.52	0.43
6:X4:63:THR:HA	6:X4:64:PRO:HA	1.75	0.43
9:a4:71:ARG:NH2	9:a4:207:VAL:HG12	2.26	0.43
10:b3:86:TYR:O	10:b3:90:LEU:HG	2.19	0.43
10:b5:201:PHE:HE1	10:b5:220:ALA:HA	1.84	0.43
11:c1:103:PHE:HB3	11:c1:121:VAL:CG1	2.49	0.43
1:B4:59:LEU:HB3	1:B4:231:TYR:HB2	2.00	0.43
1:B5:258:ILE:HD11	1:C4:275:GLN:HG2	2.01	0.43
1:B5:266:MET:CE	1:C5:27:ILE:HG13	2.48	0.43
1:B8:67:GLU:O	1:B8:70:MET:HG3	2.19	0.43
1:B8:103:THR:HG22	1:B8:104:GLU:N	2.33	0.43
1:C6:39:ALA:HA	1:C6:46:LEU:HD22	1.99	0.43
1:E6:162:ARG:HD2	1:E6:164:TYR:CE1	2.54	0.43
1:G7:30:LEU:HG	1:G7:249:GLN:HB3	2.01	0.43
1:G8:36:ILE:HG22	1:G8:46:LEU:HD13	2.00	0.43
1:G9:36:ILE:HG13	1:G9:46:LEU:HD13	1.99	0.43
1:H7:70:MET:O	1:H7:74:GLN:HG3	2.18	0.43
1:I5:27:ILE:HD13	1:I5:253:PHE:CE1	2.53	0.43
1:I8:272:MET:HE1	1:J8:257:GLN:NE2	2.32	0.43
1:J6:38:ARG:CZ	1:J7:74:GLN:HE22	2.32	0.43
1:J7:142:ARG:HA	1:J7:164:TYR:CD2	2.54	0.43
1:J7:175:LEU:O	1:J7:184:ILE:HG23	2.18	0.43
1:J7:219:ARG:HH12	1:K7:123:ARG:CB	2.31	0.43
1:J9:29:LYS:HD3	1:J9:249:GLN:HE22	1.83	0.43
1:K7:191:LYS:O	1:K7:195:VAL:HG23	2.17	0.43
2:O4:235:TYR:HB3	2:O4:236:PRO:HD3	2.01	0.43
2:P3:236:PRO:O	2:P3:239:LYS:HG2	2.18	0.43
2:P5:111:ASN:ND2	2:P5:175:LYS:HG3	2.33	0.43
2:P6:200:ASP:HA	2:P6:203:ARG:HG2	2.00	0.43
3:Q1:186:ASN:HB3	3:Q1:217:LEU:HD22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S2:47:LYS:HD2	3:S2:47:LYS:HA	1.76	0.43
3:S2:159:ILE:O	3:S2:172:SER:HB2	2.18	0.43
6:V4:185:THR:HG22	6:V4:186:ARG:H	1.81	0.43
6:V5:51:PHE:CD2	6:V5:217:ASP:HA	2.54	0.43
6:X3:149:LYS:HB3	6:X3:197:VAL:HG23	2.00	0.43
6:X4:47:ILE:HG22	6:X4:220:GLU:HG2	1.99	0.43
6:X5:47:ILE:HD11	6:X5:90:ASP:OD2	2.19	0.43
6:X5:48:LEU:HB2	6:X5:219:LEU:HD23	2.00	0.43
7:Y3:87:ILE:HD12	7:Y3:256:LEU:O	2.19	0.43
7:Y4:54:ILE:HG13	7:Y4:54:ILE:O	2.18	0.43
7:Y5:198:VAL:HG12	7:Y5:199:LEU:HD22	2.01	0.43
9:a2:192:TYR:O	9:a2:196:LEU:HG	2.19	0.43
9:a4:90:ILE:CG2	9:a4:93:SER:HB2	2.48	0.43
9:a5:58:HIS:CD2	9:a5:149:ILE:HG21	2.54	0.43
11:c2:125:ARG:HD2	11:c2:126:PRO:HD2	2.00	0.43
4:t3:176:HIS:ND1	4:t3:199:VAL:HG12	2.34	0.43
1:A5:56:ILE:HG23	1:A5:231:TYR:CE1	2.54	0.43
1:B4:160:ARG:NH2	1:B5:193:ASN:HD22	2.16	0.43
1:B7:271:ASN:O	1:B7:274:PRO:HD2	2.17	0.43
1:C4:26:ASP:HA	1:C4:29:LYS:HG2	1.99	0.43
1:D4:133:MET:HE2	1:D4:133:MET:HB3	1.93	0.43
1:D4:254:THR:O	1:D4:258:ILE:HG12	2.18	0.43
1:E7:66:THR:HG23	1:E7:220:LEU:HD12	2.01	0.43
1:F3:83:THR:HG21	1:F3:168:MET:HE1	1.99	0.43
1:F3:166:GLU:HG3	1:F3:167:THR:N	2.34	0.43
1:G1:30:LEU:HD21	1:G1:246:MET:HG3	2.00	0.43
1:G2:76:THR:HG23	1:G2:213:LEU:HD11	1.99	0.43
1:G8:47:ALA:CB	1:H9:109:GLN:HE22	2.32	0.43
1:H6:133:MET:HE1	1:H6:135:LEU:HD23	1.99	0.43
1:H8:91:ARG:O	1:H8:95:VAL:HG23	2.19	0.43
1:I7:3:ILE:CD1	1:I7:278:LEU:HD21	2.48	0.43
1:J7:110:ILE:O	1:J7:114:VAL:HG23	2.18	0.43
1:J8:149:MET:HE2	1:J8:151:PHE:CZ	2.54	0.43
1:J8:275:GLN:O	1:J8:279:GLN:HG3	2.19	0.43
1:J9:240:ARG:HH11	1:J9:240:ARG:CG	2.31	0.43
2:L5:115:GLY:O	2:L5:118:THR:HG22	2.18	0.43
2:L5:262:GLN:O	2:L5:265:LYS:HG2	2.19	0.43
2:P3:143:TRP:H	2:P3:146:GLN:CD	2.27	0.43
2:P4:131:LYS:HG3	10:b4:269:MET:SD	2.59	0.43
3:Q4:159:ILE:HD11	3:Q4:161:LYS:O	2.18	0.43
3:R4:73:LEU:HD13	3:R4:78:VAL:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R4:147:GLU:HG2	3:R4:148:PRO:HD2	2.00	0.43
3:R5:134:PHE:HB3	3:R5:150:ARG:NH1	2.32	0.43
3:S6:43:GLU:HG3	3:S6:47:LYS:NZ	2.34	0.43
3:S6:78:VAL:HG12	3:S6:106:GLU:HB2	2.01	0.43
4:T3:253:ILE:HD11	4:T4:156:CYS:SG	2.59	0.43
4:T4:152:SER:HA	4:T4:191:LEU:O	2.19	0.43
6:V3:138:LEU:HB2	6:V3:170:TRP:CE2	2.54	0.43
6:X5:64:PRO:HG2	6:X5:67:GLU:HG2	2.01	0.43
8:Z2:144:LYS:HB3	8:Z2:148:ASN:HD21	1.83	0.43
9:a4:185:ARG:O	9:a4:189:VAL:HG23	2.19	0.43
9:a5:149:ILE:H	9:a5:149:ILE:HD12	1.84	0.43
1:h0:131:ASN:ND2	1:h1:103:THR:HG23	2.32	0.43
4:t1:21:LEU:HD23	4:t1:21:LEU:H	1.83	0.43
4:t1:68:ALA:HB1	4:t2:132:ASN:HD21	1.84	0.43
4:t3:112:ARG:NH2	4:t3:115:ARG:HD3	2.34	0.43
1:A5:254:THR:O	1:A5:258:ILE:HG12	2.19	0.43
1:A6:5:HIS:HB2	1:A7:239:SER:CB	2.49	0.43
1:B8:97:ALA:HB3	1:B8:186:LEU:HD12	2.01	0.43
1:C4:266:MET:CE	1:D4:27:ILE:HA	2.48	0.43
1:D4:2:ILE:HD11	1:D5:244:THR:C	2.43	0.43
1:E3:56:ILE:CD1	1:E3:238:GLU:HG2	2.48	0.43
1:E7:88:GLN:O	1:E7:92:VAL:HG23	2.18	0.43
1:E7:97:ALA:HB2	1:E7:110:ILE:HD12	2.01	0.43
1:F3:73:ILE:HG13	1:F3:213:LEU:HD12	2.00	0.43
1:F3:204:ARG:CZ	1:G8:105:GLU:HG3	2.48	0.43
1:G1:193:ASN:HD21	1:G9:158:HIS:N	2.15	0.43
1:H7:233:ASN:HD21	1:I7:75:THR:HA	1.83	0.43
1:H7:275:GLN:HE22	1:H7:279:GLN:HE21	1.67	0.43
1:H8:111:GLN:HE22	1:H8:185:SER:HA	1.83	0.43
1:I5:46:LEU:HD21	1:I6:210:ARG:NH2	2.34	0.43
1:I6:87:VAL:O	1:I6:90:ILE:HG22	2.19	0.43
1:I9:221:GLU:O	1:I9:225:LYS:HG2	2.18	0.43
1:K6:140:PHE:CD1	1:K6:149:MET:HB2	2.53	0.43
1:K8:118:VAL:HG13	1:K8:170:THR:HG21	2.01	0.43
1:K9:60:ARG:HB2	1:K9:231:TYR:CE1	2.54	0.43
2:N2:219:ILE:HB	2:N2:220:PRO:HD3	2.00	0.43
2:P3:248:GLU:O	2:P3:252:ILE:HD12	2.18	0.43
3:Q2:248:PHE:O	3:Q2:251:ILE:HG22	2.18	0.43
4:T2:116:ILE:HG13	4:T2:117:PRO:HD2	2.01	0.43
4:T2:158:ARG:HD3	4:T2:186:ILE:HG22	1.99	0.43
5:U5:223:LYS:HG3	5:U5:268:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U6:246:LYS:HB3	5:U6:254:LYS:HE3	2.01	0.43
6:X1:52:GLU:CA	6:X1:100:HIS:HB2	2.43	0.43
6:X2:230:TYR:CD2	6:X2:233:SER:HB3	2.54	0.43
6:X3:150:LEU:HD12	6:X3:194:LEU:HD21	1.99	0.43
6:X5:55:GLU:HA	6:X5:72:LYS:NZ	2.33	0.43
6:X5:153:TYR:HE2	6:X5:154:ARG:HE	1.67	0.43
7:Y1:84:LYS:O	7:Y1:260:PRO:HD2	2.18	0.43
7:Y1:88:TYR:HE1	7:Y1:182:ALA:HB2	1.82	0.43
8:Z2:85:TYR:CZ	8:Z2:89:LYS:HE3	2.54	0.43
9:a4:194:THR:O	9:a4:197:LEU:HG	2.18	0.43
10:b3:142:GLY:H	10:b3:148:LEU:CD2	2.32	0.43
11:c1:81:THR:HB	11:c1:97:PHE:CE1	2.54	0.43
1:j0:104:GLU:HA	1:j0:107:ARG:HB2	2.01	0.43
4:t2:113:PRO:HA	4:t2:114:PRO:HD3	1.88	0.43
1:A4:30:LEU:HD13	1:K4:266:MET:HE3	2.00	0.43
1:A4:266:MET:SD	1:B4:27:ILE:HD12	2.58	0.43
1:A7:15:THR:HG21	1:B7:32:SER:HA	1.99	0.43
1:B4:266:MET:HE2	1:C4:31:SER:HB2	1.99	0.43
1:B5:11:PHE:CE1	1:C5:28:GLU:HG3	2.54	0.43
1:C4:246:MET:HE2	1:C4:246:MET:HB2	1.91	0.43
1:C6:279:GLN:HA	1:C6:282:LYS:HE2	2.01	0.43
1:D4:150:TRP:CD2	1:D4:160:ARG:HD3	2.54	0.43
1:D5:35:ARG:HG2	1:D5:242:ARG:O	2.19	0.43
1:D5:191:LYS:O	1:D5:195:VAL:HG23	2.18	0.43
1:D5:237:ALA:O	1:D5:240:ARG:HG2	2.19	0.43
1:E2:11:PHE:HZ	1:F2:32:SER:HB3	1.84	0.43
1:E2:18:PHE:CZ	1:E3:225:LYS:HA	2.54	0.43
1:E2:244:THR:OG1	1:E2:249:GLN:HG3	2.19	0.43
1:E5:222:HIS:HB3	1:F5:86:ILE:HD11	2.00	0.43
1:F3:280:LEU:HD21	1:G8:265:ALA:HB2	2.01	0.43
1:F4:159:GLN:NE2	1:G9:127:GLN:HB3	2.34	0.43
1:F5:204:ARG:HH21	1:G1:105:GLU:HB3	1.83	0.43
1:G1:96:GLN:HA	1:G9:65:ASN:HD21	1.83	0.43
1:G6:15:THR:HG21	1:H6:32:SER:HA	2.01	0.43
1:G7:49:SER:HB2	1:G7:241:ILE:CG2	2.49	0.43
1:G7:266:MET:HE3	1:H7:30:LEU:HG	2.01	0.43
1:G8:219:ARG:NH2	1:H8:123:ARG:HD3	2.29	0.43
1:H6:39:ALA:HB2	1:H7:210:ARG:HG2	2.01	0.43
1:H7:93:LEU:HA	1:H7:96:GLN:HG3	2.00	0.43
1:H8:2:ILE:HD12	1:H9:243:ASP:OD1	2.19	0.43
1:H9:157:MET:SD	1:h0:193:ASN:HB3	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H9:160:ARG:HD3	1:H9:160:ARG:H	1.82	0.43
1:I9:260:THR:O	1:I9:264:THR:HG23	2.19	0.43
1:K5:63:GLU:OE2	1:K5:228:MET:HE2	2.19	0.43
1:K6:193:ASN:HA	1:K6:196:ILE:HD12	2.00	0.43
1:K7:23:MET:HB2	1:K7:256:TYR:HB3	2.00	0.43
1:K8:37:ASN:O	1:K8:38:ARG:HD2	2.19	0.43
2:L3:267:ARG:HA	2:L3:270:LYS:HG2	2.00	0.43
2:L5:289:TYR:HA	2:L5:292:ILE:HG22	2.00	0.43
2:M5:180:LEU:HD12	2:M5:201:THR:HG21	2.00	0.43
2:N5:205:TRP:O	2:N5:209:GLU:HG3	2.19	0.43
2:O4:75:GLU:C	2:O4:77:LEU:H	2.27	0.43
3:Q4:163:ASN:HD22	3:Q4:236:PHE:HE2	1.66	0.43
3:R2:79:LEU:HA	3:R2:104:ARG:O	2.19	0.43
4:T1:144:PHE:CD1	4:T1:239:VAL:HG11	2.53	0.43
6:V1:49:GLU:CB	6:V1:219:LEU:HD12	2.49	0.43
6:V3:105:LYS:HG3	6:V3:213:TYR:CD2	2.54	0.43
6:X2:50:ASN:HB2	13:X2:402:HOH:O	2.19	0.43
7:Y1:71:VAL:O	7:Y1:72:MET:HE2	2.18	0.43
8:Z4:226:LEU:HD22	8:Z4:232:LEU:HD12	2.00	0.43
10:b5:77:ILE:HD13	10:b5:263:MET:HE2	2.01	0.43
1:A8:35:ARG:HB2	1:A8:244:THR:N	2.34	0.43
1:B5:252:SER:HA	1:B5:255:ARG:HD3	2.00	0.43
1:C7:53:ARG:NH1	1:C8:88:GLN:HE22	2.17	0.43
1:D5:75:THR:HG22	1:D5:79:TYR:CE2	2.54	0.43
1:D6:158:HIS:O	1:D6:158:HIS:CG	2.72	0.43
1:E6:106:ASP:O	1:E6:109:GLN:HG3	2.19	0.43
1:E6:157:MET:CE	1:E7:193:ASN:HB3	2.49	0.43
1:E7:131:ASN:C	1:E7:133:MET:H	2.27	0.43
1:G7:168:MET:HE2	1:G7:168:MET:HB3	1.90	0.43
1:G7:273:LYS:HE3	1:H7:23:MET:HE2	2.01	0.43
1:G9:34:MET:HB3	1:G9:242:ARG:NH1	2.34	0.43
1:H8:247:ALA:HB3	1:I7:13:HIS:HD2	1.84	0.43
1:H9:10:ILE:HD13	1:h0:235:GLN:HG2	2.01	0.43
1:I8:43:ALA:HA	1:I8:46:LEU:HB3	2.01	0.43
1:I8:237:ALA:O	1:I8:241:ILE:HG22	2.19	0.43
1:K5:35:ARG:HB2	1:K5:244:THR:N	2.34	0.43
1:K6:111:GLN:HE22	1:K6:185:SER:HA	1.84	0.43
2:M5:293:VAL:O	2:M5:296:VAL:HG12	2.19	0.43
2:P5:215:LEU:HD12	2:P5:244:CYS:HA	2.00	0.43
3:R4:103:ILE:O	3:R4:131:GLU:HA	2.19	0.43
3:S6:133:TYR:O	3:S6:153:ASN:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:X1:135:ILE:HD13	6:X1:219:LEU:CD1	2.48	0.43
7:Y1:75:MET:HE3	7:Y1:85:PHE:CE2	2.54	0.43
7:Y3:144:TYR:CE2	7:Y3:148:LYS:HE3	2.53	0.43
8:Z2:159:ILE:HG13	8:Z2:160:GLU:N	2.34	0.43
8:Z3:131:GLU:O	8:Z3:134:GLU:HG3	2.19	0.43
9:a2:40:GLU:HG3	9:a2:43:GLN:H	1.84	0.43
10:b5:140:TYR:CD1	10:b5:150:LYS:HG2	2.54	0.43
1:h0:109:GLN:O	1:h0:112:VAL:HG12	2.19	0.43
1:A5:56:ILE:HD11	1:A5:234:ILE:HG22	2.00	0.43
1:A6:3:ILE:HG12	1:A6:274:PRO:HB3	2.00	0.43
1:B6:167:THR:HG22	1:B6:172:ALA:HB2	2.01	0.43
1:C5:251:THR:HA	1:C5:254:THR:HG22	1.99	0.43
1:E6:128:ALA:CB	1:E6:136:LEU:HD23	2.49	0.43
1:E6:152:HIS:CE1	1:E6:159:GLN:HB2	2.54	0.43
1:G1:63:GLU:CD	1:G1:228:MET:HE2	2.44	0.43
1:G1:157:MET:HA	1:G2:193:ASN:HD21	1.84	0.43
1:H7:175:LEU:O	1:H7:184:ILE:HG13	2.19	0.43
1:I5:11:PHE:CD2	1:J5:28:GLU:HG3	2.54	0.43
1:I8:46:LEU:HD21	1:I9:210:ARG:CZ	2.49	0.43
1:I8:61:ARG:O	1:I8:61:ARG:HD3	2.19	0.43
1:J9:240:ARG:HG2	1:K9:67:GLU:HG2	2.01	0.43
2:N2:94:HIS:CD2	2:N2:95:GLN:OE1	2.72	0.43
2:N2:113:GLN:HE22	3:R2:76:ARG:HA	1.83	0.43
2:N3:179:HIS:O	2:N3:182:GLU:HG2	2.19	0.43
2:O4:206:ILE:HD11	2:O4:221:ILE:HG23	2.01	0.43
2:O4:275:LEU:O	2:O4:279:GLU:HG2	2.19	0.43
3:Q2:69:LYS:HE2	3:Q2:96:GLU:HB3	2.01	0.43
3:R3:210:LYS:HB3	3:R3:215:TYR:OH	2.19	0.43
3:S2:55:LEU:HD11	3:S2:241:LEU:HD13	2.00	0.43
3:S2:153:ASN:OD1	3:S2:178:GLY:HA2	2.18	0.43
4:T2:144:PHE:HB2	4:T2:212:ILE:HG23	2.01	0.43
5:U6:53:PRO:C	5:U6:55:LEU:H	2.27	0.43
9:a3:45:LYS:HA	9:a3:48:GLU:OE1	2.19	0.43
9:a4:81:GLN:HB3	9:a4:103:PHE:CZ	2.54	0.43
10:b2:172:LEU:HB3	10:b2:198:LEU:HD12	2.01	0.43
10:b4:80:LEU:HD23	10:b4:80:LEU:HA	1.87	0.43
1:h1:203:LEU:HA	1:h1:206:ILE:HG22	2.00	0.43
1:A5:219:ARG:NE	1:B5:116:GLN:HG2	2.33	0.42
1:B3:25:LYS:O	1:B3:29:LYS:HG3	2.19	0.42
1:B5:156:ASN:O	1:B5:159:GLN:HG3	2.19	0.42
1:B5:273:LYS:HB2	1:B5:274:PRO:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B8:176:ARG:HH12	1:B8:181:LEU:HD22	1.83	0.42
1:C8:71:SER:HA	1:C8:74:GLN:HG3	2.01	0.42
1:E3:57:LEU:C	1:E3:57:LEU:HD23	2.44	0.42
1:E4:55:GLN:NE2	1:E4:234:ILE:HD12	2.32	0.42
1:E4:159:GLN:CG	1:F4:123:ARG:HH22	2.31	0.42
1:E5:61:ARG:HE	1:E6:96:GLN:HB2	1.84	0.42
1:E7:167:THR:HG23	1:E7:172:ALA:HB2	2.01	0.42
1:F5:157:MET:HE2	1:F5:158:HIS:CE1	2.54	0.42
1:G1:158:HIS:H	1:G2:193:ASN:HD21	1.67	0.42
1:H8:248:GLU:CD	1:I8:60:ARG:HH21	2.26	0.42
1:I5:29:LYS:HB2	1:I5:29:LYS:HE2	1.82	0.42
1:I7:89:ARG:O	1:I7:92:VAL:HG12	2.19	0.42
1:I9:46:LEU:HD23	1:i0:210:ARG:HD3	2.01	0.42
1:J8:90:ILE:HD11	1:J8:184:ILE:HG21	2.01	0.42
2:L2:202:TYR:HE2	2:L2:224:LEU:HD11	1.83	0.42
2:L6:119:ILE:HD11	2:L6:169:ALA:HB2	2.01	0.42
2:N3:103:ASN:HA	2:N3:106:ARG:NH2	2.34	0.42
2:O2:132:GLU:HA	2:O2:135:GLU:HG2	2.00	0.42
2:O4:106:ARG:CD	3:S5:108:TYR:HD2	2.32	0.42
2:P4:170:LEU:HD22	2:P4:212:LEU:HD22	2.00	0.42
3:Q1:129:TYR:CE1	3:Q1:156:LYS:HE2	2.54	0.42
3:Q2:74:PRO:HG2	3:Q2:77:THR:HG21	2.00	0.42
3:Q3:63:THR:HG23	3:Q3:134:PHE:CE1	2.54	0.42
4:T2:152:SER:HB3	4:t2:18:VAL:HG13	2.01	0.42
5:U4:223:LYS:HD2	5:U4:267:LEU:O	2.18	0.42
6:X3:190:LEU:C	6:X3:192:LYS:H	2.26	0.42
7:Y1:225:THR:CG2	7:Y1:236:MET:HB3	2.49	0.42
8:Z2:38:LEU:HA	8:Z2:41:ILE:HD12	2.00	0.42
9:a3:64:ARG:HD3	9:a3:207:VAL:HG21	2.01	0.42
9:a5:90:ILE:HG23	9:a5:93:SER:HB2	2.01	0.42
10:b2:197:LEU:HD23	10:b2:198:LEU:N	2.34	0.42
10:b3:269:MET:HA	10:b3:272:SER:HB3	2.00	0.42
10:b4:166:ILE:HD12	10:b4:204:HIS:CE1	2.54	0.42
10:b5:67:HIS:NE2	10:b5:249:LEU:HD11	2.34	0.42
1:A6:273:LYS:HB3	1:A6:274:PRO:HD3	2.01	0.42
1:A8:233:ASN:HD21	1:B8:75:THR:HA	1.84	0.42
1:B5:115:SER:HA	1:B5:118:VAL:HG12	2.02	0.42
1:C3:12:ALA:HB3	1:C3:267:LEU:HD13	2.01	0.42
1:E6:191:LYS:O	1:E6:195:VAL:HG23	2.19	0.42
1:E6:236:ALA:O	1:E6:240:ARG:HG3	2.20	0.42
1:E7:168:MET:SD	1:E7:209:GLN:HG3	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F3:150:TRP:CE3	1:F3:162:ARG:HB3	2.54	0.42
1:G9:62:ALA:O	1:G9:66:THR:HG23	2.18	0.42
1:J7:219:ARG:NH1	1:K7:120:GLU:HA	2.34	0.42
1:J9:202:ALA:O	1:J9:206:ILE:HD12	2.19	0.42
1:K5:123:ARG:O	1:K5:127:GLN:HG2	2.19	0.42
2:M4:140:ASP:HA	2:N4:217:GLN:HE21	1.83	0.42
2:N2:245:TYR:HD2	2:N2:273:HIS:CE1	2.37	0.42
3:Q3:105:VAL:HG22	3:Q3:130:MET:HE3	2.01	0.42
3:R3:195:LYS:HB3	3:R3:198:TYR:HB2	2.02	0.42
3:S6:55:LEU:O	3:S6:59:LEU:HG	2.19	0.42
4:T4:176:HIS:CD2	4:T4:196:PRO:HG2	2.54	0.42
5:U7:152:TYR:CE2	5:U7:272:ILE:HD12	2.54	0.42
6:X3:70:VAL:HG12	6:X3:104:VAL:HG12	2.01	0.42
8:Z3:50:GLY:HA2	8:Z3:81:ARG:CZ	2.48	0.42
9:a5:192:TYR:HA	9:a5:195:ASN:ND2	2.34	0.42
4:t2:85:LYS:HD2	4:t2:85:LYS:H	1.84	0.42
1:A7:25:LYS:HE2	1:A7:38:ARG:NH2	2.35	0.42
1:A7:273:LYS:HD3	1:B7:23:MET:HE1	2.01	0.42
1:A8:163:VAL:HG13	1:A8:163:VAL:O	2.20	0.42
1:B5:176:ARG:NH1	1:B5:181:LEU:HD22	2.34	0.42
1:B6:86:ILE:HG21	1:B6:121:ILE:HG13	2.01	0.42
1:G2:128:ALA:CB	1:G2:136:LEU:HD23	2.49	0.42
1:I8:250:MET:HE1	1:J7:271:ASN:HD22	1.84	0.42
1:J5:132:LYS:HD2	1:J5:132:LYS:O	2.19	0.42
1:J8:133:MET:SD	1:J9:103:THR:HG22	2.59	0.42
1:J9:48:VAL:O	1:J9:52:MET:HG3	2.19	0.42
1:K9:140:PHE:CE1	1:K9:149:MET:HB2	2.54	0.42
2:M1:82:ASP:CG	2:M2:162:LYS:HE3	2.44	0.42
2:M3:78:TRP:CE2	2:M4:203:ARG:HG2	2.54	0.42
2:M4:76:ALA:HA	2:M4:79:LYS:HB2	2.00	0.42
2:N3:203:ARG:HG2	2:N3:203:ARG:HH11	1.84	0.42
2:O1:93:LEU:HB2	2:O2:292:ILE:HD11	2.01	0.42
2:O4:139:LEU:O	2:P4:217:GLN:HG2	2.19	0.42
3:Q2:82:GLY:HA2	3:Q2:91:PRO:HA	2.00	0.42
3:Q4:63:THR:HG22	3:Q4:134:PHE:CE1	2.54	0.42
6:V3:49:GLU:HG3	6:V3:51:PHE:CD1	2.54	0.42
6:V3:144:HIS:NE2	6:V3:203:SER:HA	2.34	0.42
9:a4:163:LYS:HA	9:a4:163:LYS:HE2	2.01	0.42
1:h0:51:LYS:O	1:h0:54:THR:HB	2.19	0.42
4:t1:186:ILE:HG23	4:t1:186:ILE:O	2.19	0.42
4:t3:168:ILE:HG13	4:t3:176:HIS:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A6:262:ALA:O	1:A6:266:MET:HG3	2.19	0.42
1:B4:166:GLU:HB3	1:B4:168:MET:HE3	2.01	0.42
1:B6:281:LEU:HD23	1:B6:281:LEU:O	2.19	0.42
1:B7:240:ARG:HH22	1:C7:68:ASP:CA	2.32	0.42
1:C6:266:MET:SD	1:D6:30:LEU:HD23	2.60	0.42
1:D6:49:SER:HA	1:D6:52:MET:HG2	2.01	0.42
1:E4:23:MET:HE2	1:E4:257:GLN:OE1	2.18	0.42
1:F5:204:ARG:HH21	1:G1:105:GLU:CB	2.33	0.42
1:H6:46:LEU:HD21	1:H7:210:ARG:HH11	1.84	0.42
1:H6:251:THR:HA	1:H6:254:THR:HG22	2.01	0.42
1:H9:87:VAL:HA	1:H9:90:ILE:HG22	2.00	0.42
1:J7:61:ARG:HH11	1:J8:96:GLN:HB2	1.84	0.42
1:J8:163:VAL:HG22	1:J8:216:TYR:CD1	2.54	0.42
1:K6:6:ASN:HD21	1:K6:9:ALA:HB2	1.84	0.42
1:K8:191:LYS:O	1:K8:195:VAL:HG23	2.18	0.42
2:M2:195:LYS:O	2:M2:198:LEU:HG	2.19	0.42
2:M4:94:HIS:HB3	2:M4:95:GLN:H	1.72	0.42
2:N6:205:TRP:CH2	2:N6:209:GLU:HG3	2.53	0.42
3:R2:68:MET:HE2	3:R2:255:ASN:HB3	2.01	0.42
3:R4:75:PHE:C	3:R4:77:THR:H	2.26	0.42
3:S3:66:MET:HE1	3:S3:103:ILE:HB	2.01	0.42
3:S6:195:LYS:HD2	3:S6:196:ASP:N	2.35	0.42
4:T3:163:ASN:OD1	4:T3:220:ARG:HB2	2.19	0.42
5:U4:265:ASN:C	5:U4:267:LEU:H	2.27	0.42
6:V4:144:HIS:HD1	6:V4:203:SER:HA	1.85	0.42
6:X2:52:GLU:CB	6:X2:100:HIS:HB3	2.49	0.42
6:X3:153:TYR:CZ	6:X3:154:ARG:HD3	2.54	0.42
8:Z3:39:ARG:HG3	8:Z3:39:ARG:HH11	1.84	0.42
8:Z4:115:GLN:HA	8:Z4:118:THR:HG22	2.01	0.42
1:i0:180:VAL:O	1:i0:180:VAL:HG12	2.20	0.42
4:t3:19:SER:O	4:t3:22:GLU:HG3	2.20	0.42
1:A5:118:VAL:HA	1:A5:121:ILE:HG22	2.01	0.42
1:A6:154:GLY:HA3	1:A6:159:GLN:CD	2.45	0.42
1:A8:35:ARG:HB2	1:A8:243:ASP:C	2.45	0.42
1:B7:29:LYS:HZ3	1:B7:249:GLN:HB3	1.85	0.42
1:C3:24:GLY:O	1:C3:27:ILE:HG22	2.19	0.42
1:C4:62:ALA:HB1	1:C4:153:ILE:O	2.19	0.42
1:C7:150:TRP:CZ3	1:C7:162:ARG:HB2	2.55	0.42
1:D4:211:ALA:HB2	1:E4:109:GLN:HE21	1.85	0.42
1:D5:177:ASN:OD1	1:D5:178:PRO:HD2	2.19	0.42
1:D5:185:SER:O	1:D5:191:LYS:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D6:254:THR:O	1:D6:258:ILE:HG12	2.19	0.42
1:E6:52:MET:HE1	1:E6:241:ILE:HD12	2.01	0.42
1:F3:136:LEU:HD22	1:F3:168:MET:HG2	2.02	0.42
1:G1:18:PHE:CE2	1:G2:225:LYS:HA	2.54	0.42
1:J8:132:LYS:HB3	1:J8:132:LYS:HE2	1.87	0.42
1:K6:171:ALA:HB1	1:K6:178:PRO:HA	2.01	0.42
1:K7:273:LYS:O	1:K7:277:VAL:HG23	2.19	0.42
1:K8:72:LEU:HA	1:K8:75:THR:HG22	2.02	0.42
1:K9:168:MET:HE3	1:K9:209:GLN:HG2	2.01	0.42
2:P3:91:GLN:HA	2:P3:94:HIS:CE1	2.55	0.42
2:P5:75:GLU:OE1	2:P5:79:LYS:HD3	2.20	0.42
3:Q2:226:HIS:CE1	3:Q2:228:ILE:HD11	2.54	0.42
3:R4:151:ASN:OD1	3:R4:180:ASN:HB3	2.18	0.42
3:S2:134:PHE:HB3	3:S2:152:ILE:CD1	2.48	0.42
3:S4:56:ASN:HA	3:S4:59:LEU:HD12	2.01	0.42
3:S6:67:LYS:HD2	3:S6:147:GLU:OE1	2.20	0.42
4:T2:48:LYS:HB2	4:T2:101:PHE:CE2	2.50	0.42
4:T3:154:TRP:HD1	4:T3:236:GLU:HB3	1.85	0.42
6:V1:49:GLU:HG3	6:V1:51:PHE:CD1	2.54	0.42
6:V1:107:ASN:ND2	6:V1:211:GLN:HE21	2.18	0.42
8:Z3:86:LYS:HD2	8:Z3:89:LYS:HD2	2.02	0.42
9:a5:121:SER:HB2	9:a5:147:ASP:OD1	2.19	0.42
10:b2:171:ARG:HB3	10:b2:199:GLU:HG2	2.01	0.42
10:b5:131:TYR:HB2	10:b5:133:TYR:CZ	2.54	0.42
1:h0:64:MET:HE3	1:h0:64:MET:HB3	1.90	0.42
1:A4:157:MET:HG3	1:A5:193:ASN:OD1	2.18	0.42
1:C4:266:MET:SD	1:D4:30:LEU:HB3	2.59	0.42
1:D5:150:TRP:CZ3	1:D5:162:ARG:HB2	2.54	0.42
1:D6:258:ILE:HG22	1:E5:278:LEU:HD13	2.01	0.42
1:E3:150:TRP:CZ3	1:E3:162:ARG:HB2	2.55	0.42
1:E5:216:TYR:O	1:E5:220:LEU:HD23	2.19	0.42
1:F3:48:VAL:HG21	1:G9:102:TYR:CE1	2.55	0.42
1:F3:180:VAL:O	1:F3:180:VAL:HG12	2.19	0.42
1:F3:233:ASN:HD21	1:G8:74:GLN:HB3	1.85	0.42
1:F3:244:THR:HB	1:F3:249:GLN:HG3	2.01	0.42
1:I5:4:ASN:HB3	1:I6:243:ASP:CG	2.44	0.42
1:I6:247:ALA:HB1	1:J5:267:LEU:HD21	2.02	0.42
1:I8:86:ILE:HG23	1:I8:117:LEU:HD22	2.01	0.42
1:I9:61:ARG:HA	1:I9:61:ARG:HD2	1.78	0.42
1:I9:141:ALA:HA	1:I9:166:GLU:HA	2.01	0.42
1:J5:12:ALA:HA	1:J5:15:THR:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J7:273:LYS:O	1:J7:276:THR:HG22	2.18	0.42
1:K5:133:MET:CE	1:K6:103:THR:HG23	2.50	0.42
1:K9:61:ARG:O	1:K9:64:MET:HG3	2.19	0.42
2:N4:235:TYR:CD2	2:N4:236:PRO:HD3	2.54	0.42
2:N5:286:SER:HB3	2:N5:287:PRO:HD2	2.02	0.42
2:O5:170:LEU:HD22	2:O5:212:LEU:HD22	2.02	0.42
2:P4:74:GLN:O	2:P4:78:TRP:HE3	2.03	0.42
3:Q2:80:PHE:CZ	3:Q2:104:ARG:HD3	2.54	0.42
3:R5:81:LYS:H	3:R5:95:GLN:HE21	1.67	0.42
3:S5:59:LEU:HA	3:S5:62:HIS:ND1	2.35	0.42
4:T4:121:ILE:HD11	4:T4:213:VAL:HG22	2.02	0.42
5:U5:251:ASP:O	5:U5:254:LYS:HG2	2.18	0.42
8:Z3:152:ARG:HB2	8:Z3:157:ILE:CG1	2.49	0.42
9:a2:54:ILE:HG13	9:a2:58:HIS:CE1	2.55	0.42
9:a2:77:ASN:HB3	9:a2:107:VAL:O	2.19	0.42
9:a5:68:LEU:HD23	9:a5:71:ARG:NH2	2.34	0.42
10:b2:102:LYS:HG3	10:b2:103:PHE:H	1.84	0.42
1:A5:130:PHE:O	1:A5:133:MET:HB3	2.20	0.42
1:B3:40:GLY:HA3	1:B4:217:TYR:CD2	2.55	0.42
1:B3:273:LYS:HD3	1:C3:23:MET:CE	2.49	0.42
1:C3:11:PHE:CZ	1:D3:28:GLU:HG3	2.54	0.42
1:C4:18:PHE:CZ	1:C5:228:MET:HG3	2.54	0.42
1:C4:68:ASP:OD2	1:C5:101:ILE:HG21	2.20	0.42
1:C6:67:GLU:HA	1:C6:70:MET:HG3	2.02	0.42
1:C7:90:ILE:HD12	1:C7:114:VAL:HG23	2.02	0.42
1:D4:132:LYS:O	1:D4:132:LYS:HG3	2.19	0.42
1:D6:79:TYR:CE2	1:D6:128:ALA:HB1	2.55	0.42
1:E4:86:ILE:HB	1:E4:121:ILE:HD11	2.01	0.42
1:F2:79:TYR:CZ	1:F2:128:ALA:HA	2.55	0.42
1:F4:157:MET:HG3	1:F4:158:HIS:CD2	2.54	0.42
1:F6:159:GLN:CG	1:G2:127:GLN:HE22	2.30	0.42
1:H8:215:ALA:HB2	1:I8:113:GLU:HG3	2.02	0.42
1:I7:251:THR:O	1:I7:254:THR:HG22	2.20	0.42
1:J5:4:ASN:HB3	1:J6:243:ASP:CG	2.44	0.42
1:J5:39:ALA:HB3	1:J6:214:GLY:HA3	2.01	0.42
1:J7:8:SER:CB	1:K7:27:ILE:HD11	2.50	0.42
2:L5:221:ILE:HD12	2:L5:221:ILE:H	1.85	0.42
2:M5:254:LYS:HA	2:M5:254:LYS:HD3	1.77	0.42
2:N2:206:ILE:HD13	2:N2:222:LEU:HD21	2.01	0.42
2:N4:252:ILE:HA	2:N4:255:ASN:CG	2.45	0.42
2:N5:179:HIS:O	2:N5:182:GLU:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N6:205:TRP:CZ3	2:N6:221:ILE:HG21	2.55	0.42
2:P4:166:LYS:HE3	2:P4:211:ASP:HB3	2.02	0.42
2:P6:266:TYR:HA	2:P6:269:LYS:HE2	2.01	0.42
3:S4:173:GLU:O	3:S4:191:VAL:HG23	2.20	0.42
3:S6:174:VAL:HA	3:S6:191:VAL:HG12	2.02	0.42
4:T1:26:ILE:HG21	4:T1:269:MET:HB3	2.02	0.42
6:V5:190:LEU:HD22	6:V5:192:LYS:HE2	2.00	0.42
7:Y4:62:ASP:OD2	7:Y4:219:LEU:HD21	2.20	0.42
9:a3:49:VAL:HG23	9:a3:52:LYS:HE2	2.00	0.42
1:i0:130:PHE:HB2	1:i0:135:LEU:HD11	2.01	0.42
1:j0:142:ARG:NH1	1:j0:143:LEU:HB2	2.35	0.42
4:t2:38:ALA:N	4:t2:39:PRO:HD2	2.34	0.42
4:t3:121:ILE:HD11	4:t3:213:VAL:HG22	2.01	0.42
4:t4:115:ARG:CZ	4:t4:115:ARG:HA	2.49	0.42
1:A6:185:SER:OG	1:A6:191:LYS:HD3	2.19	0.42
1:A8:67:GLU:O	1:A8:70:MET:HG3	2.19	0.42
1:A8:142:ARG:HG3	1:A8:164:TYR:CE2	2.54	0.42
1:B4:240:ARG:HG3	1:B4:241:ILE:N	2.35	0.42
1:B5:159:GLN:HB2	1:C5:127:GLN:CD	2.44	0.42
1:B5:184:ILE:HG21	1:B5:195:VAL:HG22	2.02	0.42
1:B6:273:LYS:HD3	1:C6:23:MET:HE3	2.02	0.42
1:B8:176:ARG:HD3	1:B8:183:PHE:CD2	2.55	0.42
1:C7:150:TRP:CZ2	1:C7:162:ARG:HD3	2.55	0.42
1:C7:191:LYS:O	1:C7:195:VAL:HG23	2.19	0.42
1:C7:247:ALA:O	1:C7:251:THR:HG23	2.20	0.42
1:D6:12:ALA:HA	1:E6:31:SER:OG	2.20	0.42
1:F2:241:ILE:HD11	1:G7:68:ASP:OD1	2.19	0.42
1:G9:35:ARG:C	1:G9:36:ILE:HD13	2.45	0.42
1:G9:153:ILE:HD11	1:G9:223:ALA:HB1	2.01	0.42
1:H8:2:ILE:HG21	1:H9:239:SER:OG	2.20	0.42
1:I5:43:ALA:HB2	1:I6:214:GLY:HA3	2.02	0.42
1:I7:280:LEU:HD12	1:I7:280:LEU:HA	1.91	0.42
1:I8:262:ALA:O	1:I8:266:MET:HG2	2.20	0.42
1:J7:223:ALA:O	1:J7:227:LEU:HD23	2.20	0.42
1:J8:25:LYS:O	1:J8:28:GLU:HB3	2.20	0.42
2:M1:94:HIS:CG	2:M1:95:GLN:N	2.88	0.42
2:M4:179:HIS:O	2:M4:182:GLU:HG2	2.19	0.42
2:M5:151:LYS:O	2:M5:154:GLU:HG2	2.20	0.42
2:N2:113:GLN:HA	2:N2:116:VAL:HG22	2.01	0.42
2:N5:215:LEU:O	2:N5:218:CYS:HB3	2.19	0.42
2:O2:166:LYS:CE	2:O2:212:LEU:HD12	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q4:129:TYR:OH	3:Q4:158:LYS:HD2	2.20	0.42
3:S2:128:LYS:HB3	3:S2:159:ILE:CD1	2.49	0.42
4:T4:145:PRO:HB3	4:T4:269:MET:SD	2.60	0.42
6:V3:64:PRO:HD2	6:V3:107:ASN:HD21	1.84	0.42
6:V3:189:LEU:HB3	6:V3:237:ASP:H	1.84	0.42
6:X4:54:ALA:CB	6:X4:102:LEU:HB2	2.50	0.42
6:X4:127:LYS:HE2	6:X4:127:LYS:HB3	1.82	0.42
8:Z2:37:TYR:O	8:Z2:41:ILE:HG13	2.20	0.42
8:Z3:242:GLU:HA	8:Z3:245:ILE:HG22	2.01	0.42
11:c2:64:HIS:HD2	11:c2:70:TYR:CZ	2.38	0.42
11:c2:102:PHE:HE1	11:c2:122:PHE:HD1	1.67	0.42
1:A7:131:ASN:O	1:A8:103:THR:HG21	2.20	0.42
1:C6:76:THR:HG22	1:C6:213:LEU:HD11	2.02	0.42
1:C6:196:ILE:H	1:C6:196:ILE:HD12	1.84	0.42
1:D5:53:ARG:O	1:D5:56:ILE:HG12	2.20	0.42
1:D6:154:GLY:CA	1:E6:127:GLN:HE22	2.33	0.42
1:G7:52:MET:HE1	1:H7:130:PHE:CZ	2.55	0.42
1:H7:123:ARG:HH12	1:H7:127:GLN:NE2	2.17	0.42
1:I5:239:SER:O	1:I5:243:ASP:HB2	2.19	0.42
1:J5:72:LEU:HD12	1:J5:130:PHE:CD2	2.54	0.42
2:L3:75:GLU:C	2:L3:77:LEU:N	2.76	0.42
2:L5:234:GLU:C	2:L5:236:PRO:HD2	2.45	0.42
2:L5:241:LEU:HD22	2:L5:273:HIS:CG	2.55	0.42
2:M5:141:GLU:HG3	2:M5:150:ARG:NH2	2.35	0.42
2:N4:286:SER:HB3	2:N4:287:PRO:HD2	2.02	0.42
2:P3:205:TRP:CZ2	2:P3:209:GLU:HG3	2.55	0.42
3:Q3:41:ILE:HD12	3:Q3:222:ASN:O	2.20	0.42
3:Q3:64:VAL:HG23	3:Q3:147:GLU:HB2	2.01	0.42
3:Q4:66:MET:HE1	3:Q4:67:LYS:HG3	2.01	0.42
3:R4:248:PHE:HA	3:R4:251:ILE:HG22	2.02	0.42
4:T2:158:ARG:H	4:T2:160:ASN:ND2	2.18	0.42
5:U4:132:LYS:HE2	5:U4:194:PHE:CE1	2.55	0.42
5:U7:284:ASP:OD1	5:U7:287:GLU:HG2	2.20	0.42
7:Y3:134:GLU:HG3	7:Y3:136:LYS:HG3	2.02	0.42
8:Z2:171:MET:HA	8:Z2:171:MET:HE3	2.02	0.42
10:b2:118:LEU:HD12	10:b2:118:LEU:HA	1.93	0.42
10:b3:253:ASP:HA	10:b3:256:VAL:HG12	2.01	0.42
1:A4:2:ILE:HD11	1:A5:240:ARG:HB3	2.01	0.42
1:A5:132:LYS:H	1:K5:55:GLN:NE2	2.18	0.42
1:A5:206:ILE:O	1:A5:210:ARG:HG2	2.20	0.42
1:A6:132:LYS:HD2	1:K6:156:ASN:HD21	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C5:14:ARG:CG	1:C6:228:MET:HG2	2.49	0.42
1:C5:14:ARG:NH2	1:C6:229:ASN:HD22	2.18	0.42
1:D6:63:GLU:HG3	1:D6:228:MET:HG2	2.02	0.42
1:E3:84:HIS:CE1	1:E3:203:LEU:HD22	2.55	0.42
1:F2:50:GLU:HB2	1:F3:84:HIS:HE2	1.84	0.42
1:G7:44:SER:HA	1:H8:109:GLN:OE1	2.20	0.42
1:G7:206:ILE:O	1:G7:210:ARG:HG3	2.20	0.42
1:H6:52:MET:HE1	1:H6:241:ILE:HD12	2.02	0.42
1:H9:84:HIS:HE2	1:H9:203:LEU:HD22	1.84	0.42
1:I7:46:LEU:HD21	1:I8:210:ARG:CZ	2.50	0.42
1:I8:125:ALA:HA	1:I8:136:LEU:HD12	2.01	0.42
1:J7:240:ARG:HD2	1:K7:67:GLU:HB3	2.02	0.42
1:J8:61:ARG:O	1:J8:61:ARG:HG3	2.20	0.42
1:K8:40:GLY:HA3	1:K9:217:TYR:CG	2.55	0.42
2:L2:132:GLU:O	2:L2:136:LYS:HG2	2.20	0.42
2:N2:209:GLU:OE1	2:N2:214:ASN:HB3	2.20	0.42
2:O2:78:TRP:HH2	2:O3:237:ALA:HB2	1.85	0.42
2:P2:245:TYR:CE2	2:P2:269:LYS:HE3	2.54	0.42
2:P3:235:TYR:CD2	2:P3:236:PRO:HD3	2.55	0.42
2:P4:235:TYR:CG	2:P4:236:PRO:HD3	2.55	0.42
2:P4:270:LYS:HG3	2:P4:271:ASN:N	2.35	0.42
3:Q1:223:THR:HG23	3:Q1:225:THR:HG22	2.01	0.42
3:Q3:74:PRO:O	3:Q3:77:THR:HG22	2.20	0.42
3:Q4:248:PHE:HA	3:Q4:251:ILE:HG22	2.02	0.42
3:R3:42:LEU:O	3:R3:45:GLU:HG2	2.20	0.42
3:R3:198:TYR:CG	3:R3:199:PRO:HD2	2.55	0.42
3:S3:233:LYS:O	3:S3:237:TYR:HB3	2.20	0.42
3:S5:198:TYR:CG	3:S5:199:PRO:HD2	2.55	0.42
4:T2:87:VAL:HG22	4:T2:88:ASP:OD1	2.20	0.42
4:T3:28:VAL:HG11	4:T3:144:PHE:CE1	2.54	0.42
4:T3:253:ILE:O	4:T3:253:ILE:HG13	2.20	0.42
6:V1:119:PHE:CG	6:V1:119:PHE:O	2.73	0.42
6:V2:146:LEU:HD23	6:V2:162:LEU:HB2	2.02	0.42
6:V3:134:SER:OG	6:V3:220:GLU:HB2	2.19	0.42
7:Y2:202:ASN:HB3	7:Y2:224:TYR:CE2	2.55	0.42
7:Y3:194:LYS:O	7:Y3:198:VAL:HG23	2.19	0.42
7:Y5:173:THR:O	7:Y5:176:THR:HG22	2.19	0.42
8:Z2:238:LYS:HD3	8:Z2:238:LYS:HA	1.89	0.42
8:Z3:136:ILE:HG13	8:Z3:137:LEU:N	2.35	0.42
9:a3:48:GLU:HG2	9:a3:49:VAL:N	2.35	0.42
9:a3:86:TYR:OH	9:a3:99:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:b2:191:ASN:C	10:b2:193:ASN:H	2.28	0.42
1:h0:230:ALA:O	1:h0:234:ILE:HG12	2.19	0.42
4:t3:147:VAL:HB	4:t3:209:VAL:HG21	2.01	0.42
1:A5:180:VAL:HA	6:X1:180:PHE:CZ	2.55	0.41
1:A8:233:ASN:ND2	1:B8:75:THR:HA	2.35	0.41
1:C5:4:ASN:HD22	1:C6:243:ASP:CG	2.28	0.41
1:D3:251:THR:O	1:D3:254:THR:HG22	2.20	0.41
1:D4:49:SER:HA	1:D4:52:MET:HE3	2.02	0.41
1:D6:152:HIS:HB3	1:D7:99:ASN:HD21	1.85	0.41
1:E3:61:ARG:HH11	1:E3:61:ARG:HG3	1.85	0.41
1:E6:255:ARG:HA	1:E6:258:ILE:HG22	2.01	0.41
1:E6:259:LEU:HD11	1:F5:4:ASN:HD22	1.85	0.41
1:F3:153:ILE:HD11	1:G8:123:ARG:NH1	2.35	0.41
1:F5:218:ASN:CG	1:G1:89:ARG:HH12	2.27	0.41
1:G7:40:GLY:HA2	1:G8:214:GLY:HA3	2.02	0.41
1:G7:184:ILE:HD11	1:G7:195:VAL:HG13	2.01	0.41
1:H7:27:ILE:HD11	1:H7:253:PHE:CD1	2.55	0.41
1:I6:33:GLY:O	1:I6:244:THR:HG22	2.20	0.41
1:I7:25:LYS:O	1:I7:28:GLU:HG2	2.18	0.41
1:I7:175:LEU:O	1:I7:184:ILE:HG13	2.20	0.41
1:I8:130:PHE:HB3	1:I8:135:LEU:HD21	2.00	0.41
1:I9:60:ARG:HA	1:I9:63:GLU:CD	2.45	0.41
1:I9:176:ARG:HH22	1:I9:183:PHE:HE1	1.67	0.41
1:J9:106:ASP:O	1:J9:110:ILE:HG13	2.20	0.41
1:K7:97:ALA:HB2	1:K7:110:ILE:HD13	2.02	0.41
2:M4:206:ILE:HD12	2:M4:218:CYS:SG	2.59	0.41
2:N4:276:ARG:HD2	2:N4:279:GLU:OE2	2.20	0.41
2:N6:121:LYS:HA	2:N6:121:LYS:HD2	1.86	0.41
2:O5:133:GLU:HG3	2:O5:154:GLU:OE2	2.20	0.41
3:Q3:130:MET:HE3	3:Q3:130:MET:HB3	1.81	0.41
3:R3:206:THR:HG23	3:R3:209:GLU:H	1.84	0.41
6:V2:82:VAL:HG22	7:Y3:65:LYS:HE2	2.02	0.41
6:V4:135:ILE:HD12	6:V4:219:LEU:HD13	2.01	0.41
6:X3:49:GLU:H	6:X3:219:LEU:HB3	1.85	0.41
7:Y2:86:SER:OG	7:Y2:258:PHE:HB2	2.19	0.41
10:b3:59:THR:HG21	10:b3:190:PRO:HG3	2.01	0.41
10:b4:80:LEU:CD1	10:b4:264:GLU:HG2	2.50	0.41
11:c3:87:GLN:HB2	11:c3:90:THR:OG1	2.20	0.41
4:t1:94:VAL:HG13	4:t1:235:ASP:HB2	2.01	0.41
4:t3:202:ASP:HB2	4:t3:209:VAL:HG22	2.01	0.41
4:t4:162:TYR:CE2	4:t4:230:VAL:HG13	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A5:149:MET:SD	1:A6:100:GLY:HA3	2.60	0.41
1:A7:127:GLN:HG3	1:K7:159:GLN:HE22	1.86	0.41
1:A7:266:MET:SD	1:B7:30:LEU:HD23	2.60	0.41
1:A7:274:PRO:O	1:A7:277:VAL:HG22	2.20	0.41
1:B4:15:THR:HG21	1:C4:32:SER:HA	2.02	0.41
1:B7:81:GLN:NE2	1:B7:82:GLU:HG2	2.35	0.41
1:C4:107:ARG:HD3	1:C4:186:LEU:O	2.20	0.41
1:C5:133:MET:HE1	1:C5:140:PHE:HZ	1.85	0.41
1:C6:91:ARG:O	1:C6:95:VAL:HG23	2.20	0.41
1:E3:230:ALA:HB2	1:F3:79:TYR:HE1	1.85	0.41
1:F2:131:ASN:C	1:F2:133:MET:H	2.28	0.41
1:F3:56:ILE:HG23	1:F3:57:LEU:HD12	2.01	0.41
1:F4:30:LEU:CD2	1:F4:249:GLN:HB3	2.50	0.41
1:G7:56:ILE:HD11	1:G7:234:ILE:HG22	2.02	0.41
1:G8:79:TYR:HA	1:G8:82:GLU:HG2	2.02	0.41
1:G8:106:ASP:HA	1:G8:109:GLN:HG3	2.01	0.41
1:G8:150:TRP:CZ3	1:G8:162:ARG:HB2	2.55	0.41
1:H8:230:ALA:O	1:H8:234:ILE:HG12	2.20	0.41
1:I8:23:MET:O	1:I8:27:ILE:HG22	2.19	0.41
1:I8:142:ARG:HD2	1:I8:142:ARG:HA	1.86	0.41
1:I9:176:ARG:NH2	1:I9:183:PHE:HE1	2.18	0.41
1:J5:47:ALA:O	1:J5:50:GLU:HG3	2.20	0.41
1:K5:201:ASP:O	1:K5:204:ARG:HG2	2.20	0.41
2:L4:113:GLN:HA	2:L4:116:VAL:HG22	2.01	0.41
2:L6:276:ARG:HA	2:L6:279:GLU:HG2	2.02	0.41
2:M1:75:GLU:C	2:M1:77:LEU:H	2.27	0.41
2:M2:175:LYS:O	2:M2:179:HIS:HD2	2.03	0.41
2:M3:105:PHE:CE1	2:M3:197:LEU:HD13	2.55	0.41
2:N2:242:ALA:HB1	2:N2:274:LEU:HG	2.01	0.41
2:O4:106:ARG:HD3	3:S5:108:TYR:HD2	1.85	0.41
2:O5:241:LEU:HD23	2:O5:273:HIS:CE1	2.55	0.41
2:P2:115:GLY:O	2:P2:118:THR:HG22	2.20	0.41
2:P6:264:PHE:N	2:P6:264:PHE:CD1	2.86	0.41
3:Q2:78:VAL:HB	3:Q2:106:GLU:HG2	2.02	0.41
3:Q2:130:MET:HE1	3:Q2:244:PHE:CE2	2.55	0.41
3:Q2:154:LYS:HB2	3:Q2:177:ARG:HA	2.01	0.41
3:R2:97:ASP:OD1	3:R2:98:PRO:HD2	2.20	0.41
3:S2:84:ALA:HB2	3:S2:102:CYS:SG	2.60	0.41
3:S4:55:LEU:HD11	3:S4:238:ILE:HD12	2.02	0.41
3:S6:127:ALA:HA	3:S6:162:ASN:HB2	2.02	0.41
4:T1:156:CYS:SG	4:T1:188:TRP:HD1	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T4:210:LYS:HD3	4:T4:210:LYS:HA	1.74	0.41
5:U4:150:LEU:HD22	5:U4:176:LEU:HD23	2.02	0.41
6:V3:138:LEU:HD13	6:V3:170:TRP:CD1	2.55	0.41
6:V4:187:PHE:HB2	6:V4:189:LEU:CD2	2.50	0.41
6:V5:131:ARG:HH22	7:Y5:236:MET:HE3	1.85	0.41
6:X1:52:GLU:HB3	6:X1:100:HIS:HB2	2.02	0.41
6:X1:59:ALA:H	6:X1:70:VAL:HG11	1.85	0.41
7:Y5:54:ILE:HD11	7:Y5:271:ARG:HH11	1.85	0.41
8:Z1:98:TYR:HA	8:Z1:101:GLU:HB3	2.02	0.41
8:Z4:219:ALA:CB	8:Z4:240:ARG:HD2	2.50	0.41
9:a3:190:ARG:O	9:a3:193:ARG:HG2	2.20	0.41
10:b4:198:LEU:O	10:b4:223:THR:HA	2.20	0.41
4:t3:3:ILE:H	4:t3:3:ILE:HD12	1.84	0.41
1:A4:277:VAL:HG22	1:B4:264:THR:HG21	2.02	0.41
1:A7:49:SER:HB2	1:A7:242:ARG:HB2	2.02	0.41
1:A8:55:GLN:HE22	1:B8:131:ASN:HA	1.84	0.41
1:A8:180:VAL:HG13	6:X4:180:PHE:HB2	2.02	0.41
1:B4:54:THR:HG22	1:B5:88:GLN:NE2	2.35	0.41
1:B4:125:ALA:HB1	1:B4:136:LEU:HD22	2.02	0.41
1:B5:238:GLU:HA	1:B5:241:ILE:HG22	2.02	0.41
1:C5:59:LEU:HD22	1:C5:227:LEU:HD22	2.01	0.41
1:D6:146:THR:O	1:D6:146:THR:HG22	2.20	0.41
1:E4:16:LEU:HD11	1:E4:264:THR:HG22	2.02	0.41
1:E4:258:ILE:HD13	1:F3:274:PRO:HB2	2.03	0.41
1:E5:61:ARG:HD2	1:E5:61:ARG:HA	1.82	0.41
1:E5:152:HIS:HB3	1:E6:99:ASN:ND2	2.35	0.41
1:F5:144:ASN:N	1:F5:145:PRO:HD3	2.36	0.41
1:G9:256:TYR:O	1:G9:260:THR:HG23	2.19	0.41
1:H9:46:LEU:CD1	1:H9:242:ARG:HH12	2.34	0.41
1:J7:281:LEU:HD21	1:K7:267:LEU:HD22	2.01	0.41
1:K5:33:GLY:O	1:K5:244:THR:HG22	2.20	0.41
1:K7:140:PHE:CE1	1:K7:149:MET:HB2	2.54	0.41
1:K8:157:MET:C	1:K8:159:GLN:H	2.28	0.41
1:K8:247:ALA:O	1:K8:251:THR:HG23	2.20	0.41
2:L4:239:LYS:HD2	2:L4:239:LYS:HA	1.91	0.41
2:M2:278:THR:HG21	2:M2:292:ILE:HG21	2.03	0.41
2:M3:202:TYR:CD1	2:M3:221:ILE:HG23	2.55	0.41
2:M4:78:TRP:CE2	2:M5:203:ARG:NE	2.89	0.41
2:N3:238:HIS:HA	2:N3:273:HIS:CE1	2.56	0.41
2:N6:221:ILE:HG23	2:N6:222:LEU:HD22	2.01	0.41
2:O1:78:TRP:CZ3	2:O2:203:ARG:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O2:205:TRP:CZ3	2:O2:221:ILE:HG21	2.55	0.41
2:P3:235:TYR:CG	2:P3:236:PRO:HD3	2.55	0.41
2:P4:215:LEU:HD22	2:P4:247:PHE:HB2	2.01	0.41
3:Q1:106:GLU:HG2	3:Q1:129:TYR:HB2	2.01	0.41
5:U4:152:TYR:CE1	5:U4:272:ILE:HG23	2.55	0.41
5:U6:44:ILE:O	5:U6:48:VAL:HG23	2.20	0.41
7:Y4:235:LEU:O	7:Y4:236:MET:HE2	2.20	0.41
8:Z3:42:GLU:HB3	8:Z3:43:PRO:HD3	2.01	0.41
8:Z4:327:GLU:HG2	8:Z4:328:GLU:N	2.35	0.41
10:b5:127:TYR:CG	10:b5:128:PRO:HA	2.55	0.41
1:j0:134:LYS:HB2	1:j0:137:THR:HG22	2.02	0.41
4:t1:32:ASP:CB	4:t1:93:LYS:HB2	2.50	0.41
4:t3:158:ARG:HB2	4:t4:206:TYR:CD2	2.56	0.41
1:B6:149:MET:O	1:B6:162:ARG:HD2	2.20	0.41
1:B6:258:ILE:HD13	1:C5:274:PRO:HB2	2.03	0.41
1:B7:149:MET:C	1:B7:150:TRP:HD1	2.28	0.41
1:C4:258:ILE:HD11	1:D3:275:GLN:NE2	2.35	0.41
1:C5:24:GLY:O	1:C5:27:ILE:HG22	2.20	0.41
1:D4:11:PHE:CZ	1:E4:28:GLU:HG3	2.55	0.41
1:D5:83:THR:HG21	1:D5:168:MET:SD	2.60	0.41
1:D7:56:ILE:HG22	1:D7:234:ILE:HG23	2.02	0.41
1:E2:27:ILE:HD13	1:E2:27:ILE:HA	1.93	0.41
1:E3:1:MET:HE2	1:E3:277:VAL:HG11	2.03	0.41
1:E4:35:ARG:HA	1:E4:244:THR:CG2	2.50	0.41
1:F2:60:ARG:HG2	1:F2:231:TYR:CE1	2.55	0.41
1:F4:188:THR:OG1	1:F4:191:LYS:HE3	2.19	0.41
1:F6:91:ARG:O	1:F6:95:VAL:HG23	2.19	0.41
1:G1:135:LEU:HA	1:G1:140:PHE:HE2	1.85	0.41
1:G7:18:PHE:CZ	1:G8:225:LYS:HA	2.55	0.41
1:G7:25:LYS:O	1:G7:28:GLU:HB3	2.20	0.41
1:H6:11:PHE:HE1	1:I6:37:ASN:ND2	2.18	0.41
1:H8:61:ARG:HA	1:H8:61:ARG:HD3	1.86	0.41
1:H9:46:LEU:HD12	1:H9:242:ARG:HH12	1.85	0.41
1:I6:89:ARG:HA	1:I6:92:VAL:HG12	2.02	0.41
1:I9:43:ALA:HB2	1:i0:214:GLY:HA3	2.03	0.41
1:J5:7:ILE:H	1:J5:7:ILE:HD12	1.85	0.41
1:J7:54:THR:CA	1:J8:88:GLN:HE22	2.31	0.41
1:K4:4:ASN:HB3	1:K5:243:ASP:OD2	2.20	0.41
1:K5:247:ALA:O	1:K5:251:THR:HG23	2.20	0.41
1:K8:180:VAL:HG22	8:Z3:201:ASN:HD21	1.85	0.41
2:L6:112:TYR:CE1	2:L6:204:SER:HB3	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M3:202:TYR:HD1	2:M3:221:ILE:HG23	1.85	0.41
2:N3:271:ASN:OD1	2:N3:272:VAL:N	2.53	0.41
2:O2:110:SER:O	2:O2:113:GLN:HG3	2.21	0.41
2:O3:205:TRP:CD1	2:O3:205:TRP:C	2.99	0.41
2:O3:286:SER:HB3	2:O3:287:PRO:HD2	2.01	0.41
3:Q3:107:VAL:O	3:Q3:127:ALA:HB3	2.20	0.41
3:Q4:134:PHE:HD1	3:Q4:152:ILE:HG22	1.86	0.41
3:S5:248:PHE:HA	3:S5:251:ILE:HG22	2.01	0.41
5:U6:41:LEU:HA	5:U6:44:ILE:HG22	2.03	0.41
6:V5:69:LYS:HG3	6:V5:105:LYS:HG2	2.01	0.41
6:X4:126:VAL:CG2	6:X4:194:LEU:HB2	2.51	0.41
8:Z3:145:ASN:HD21	8:Z3:148:ASN:H	1.66	0.41
10:b3:274:MET:HA	10:b3:277:PHE:CE2	2.55	0.41
10:b4:198:LEU:HD21	10:b5:274:MET:HG3	2.03	0.41
1:h0:149:MET:O	1:h0:162:ARG:HG3	2.20	0.41
4:t3:44:VAL:HG23	4:t3:72:ARG:HE	1.84	0.41
1:A4:20:SER:OG	1:K4:1:MET:HE3	2.20	0.41
1:D3:247:ALA:HB3	1:E2:13:HIS:CD2	2.52	0.41
1:D6:46:LEU:O	1:D6:50:GLU:HG2	2.21	0.41
1:D6:60:ARG:HH12	1:D6:228:MET:HE1	1.85	0.41
1:E3:255:ARG:HD2	1:F2:4:ASN:OD1	2.19	0.41
1:E4:79:TYR:CD1	1:E4:124:ILE:HD11	2.56	0.41
1:E5:39:ALA:O	1:E5:42:ASP:N	2.53	0.41
1:E5:60:ARG:HD3	1:E5:231:TYR:CZ	2.55	0.41
1:E5:169:ASN:OD1	1:E5:170:THR:N	2.53	0.41
1:E6:67:GLU:HA	1:E6:70:MET:HE3	2.01	0.41
1:E6:149:MET:HE2	1:E6:163:VAL:HB	2.03	0.41
1:E7:216:TYR:O	1:E7:220:LEU:HD23	2.20	0.41
1:F2:281:LEU:HD13	1:F3:246:MET:HB3	2.02	0.41
1:F3:144:ASN:N	1:F3:145:PRO:HD3	2.35	0.41
1:F4:177:ASN:OD1	1:F4:178:PRO:HD2	2.20	0.41
1:F5:193:ASN:HA	1:F5:196:ILE:HD12	2.02	0.41
1:F5:281:LEU:HD11	1:G1:267:LEU:HD23	2.02	0.41
1:G6:51:LYS:CD	1:H6:132:LYS:HE3	2.49	0.41
1:G7:44:SER:HB2	1:H8:110:ILE:HG12	2.03	0.41
1:H6:27:ILE:HD11	1:H6:253:PHE:CE1	2.55	0.41
1:H7:255:ARG:HH12	1:I6:4:ASN:HB3	1.85	0.41
1:I8:40:GLY:HA3	1:I9:217:TYR:CD1	2.56	0.41
1:I8:180:VAL:O	1:I8:180:VAL:HG12	2.21	0.41
1:I9:14:ARG:NH1	1:i0:229:ASN:HA	2.35	0.41
1:J9:135:LEU:HD23	1:J9:135:LEU:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K5:49:SER:HB3	1:K5:241:ILE:CG2	2.50	0.41
1:K7:186:LEU:HD23	1:K7:195:VAL:HG21	2.03	0.41
1:K9:175:LEU:HD22	1:K9:184:ILE:HG13	2.01	0.41
2:M2:253:LYS:HE3	2:M2:263:MET:CG	2.51	0.41
2:M5:167:GLN:HE21	2:M5:171:ASN:HD21	1.68	0.41
2:N2:153:ARG:H	2:N2:153:ARG:HD3	1.85	0.41
2:N5:113:GLN:HA	2:N5:116:VAL:HG22	2.02	0.41
2:P2:269:LYS:NZ	2:P2:273:HIS:CE1	2.89	0.41
2:P5:125:ALA:O	2:P5:128:GLN:HG3	2.21	0.41
3:Q3:133:TYR:CD2	3:Q3:154:LYS:HG3	2.52	0.41
3:R2:75:PHE:CZ	3:R2:76:ARG:HD3	2.56	0.41
3:R4:148:PRO:HA	3:R4:149:PRO:HD3	1.93	0.41
3:R4:187:ASP:OD1	3:R4:188:LYS:HD2	2.20	0.41
3:S3:130:MET:SD	3:S3:132:ILE:HG23	2.61	0.41
3:S4:105:VAL:O	3:S4:129:TYR:HB2	2.21	0.41
3:S6:43:GLU:HA	3:S6:46:ARG:HG2	2.01	0.41
4:T2:94:VAL:HG12	4:T2:235:ASP:OD2	2.20	0.41
5:U4:160:SER:HB3	5:U4:222:SER:HB2	2.02	0.41
6:V4:178:PRO:HG2	6:V4:180:PHE:CD2	2.55	0.41
6:X1:75:GLN:HE22	6:X1:79:ILE:HG12	1.84	0.41
6:X1:162:LEU:HD12	6:X1:175:ALA:HB3	2.02	0.41
8:Z1:190:HIS:NE2	8:Z1:267:PRO:HG3	2.36	0.41
8:Z2:129:TYR:HE2	8:Z2:251:CYS:HB2	1.85	0.41
8:Z2:182:ARG:HD3	8:Z2:184:TYR:CE2	2.55	0.41
9:a3:148:LYS:HE3	9:a3:156:SER:OG	2.20	0.41
9:a4:52:LYS:HA	9:a4:55:VAL:HG22	2.01	0.41
10:b5:124:PHE:CZ	10:b5:130:THR:HG23	2.56	0.41
1:h1:91:ARG:O	1:h1:95:VAL:HG23	2.21	0.41
1:i0:83:THR:O	1:i0:87:VAL:HG23	2.21	0.41
1:A5:218:ASN:OD1	1:A5:222:HIS:HD2	2.03	0.41
1:A7:13:HIS:CD2	1:K8:247:ALA:HB3	2.55	0.41
1:A9:104:GLU:HA	1:A9:107:ARG:HD2	2.01	0.41
1:B4:176:ARG:NH1	1:B4:181:LEU:HB3	2.36	0.41
1:B5:131:ASN:C	1:B5:133:MET:H	2.28	0.41
1:B7:102:TYR:HB3	1:B7:106:ASP:HB2	2.03	0.41
1:C3:35:ARG:CZ	1:C3:36:ILE:HD11	2.50	0.41
1:C3:277:VAL:HG23	1:D3:264:THR:CG2	2.51	0.41
1:C5:151:PHE:CE2	1:C5:163:VAL:HG21	2.56	0.41
1:C6:111:GLN:NE2	1:C6:185:SER:HA	2.34	0.41
1:C6:150:TRP:CZ3	1:C6:162:ARG:HB2	2.55	0.41
1:D6:8:SER:HB3	1:E6:27:ILE:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D7:176:ARG:HD3	1:D7:183:PHE:CE1	2.55	0.41
1:E6:204:ARG:HG2	1:E6:204:ARG:HH11	1.86	0.41
1:F2:47:ALA:O	1:F2:50:GLU:HG3	2.20	0.41
1:F4:10:ILE:CD1	1:F5:235:GLN:HG2	2.50	0.41
1:F4:122:ASP:OD1	1:F4:170:THR:HG23	2.19	0.41
1:F6:184:ILE:HD11	1:F6:198:LEU:HD23	2.03	0.41
1:G1:150:TRP:CZ3	1:G1:162:ARG:HB3	2.55	0.41
1:G8:79:TYR:O	1:G8:82:GLU:HG2	2.20	0.41
1:G8:121:ILE:HG21	1:G8:173:LEU:HD12	2.02	0.41
1:H6:48:VAL:HG12	1:H6:52:MET:HE2	2.03	0.41
1:H8:151:PHE:HE2	1:H8:163:VAL:HG11	1.85	0.41
1:I9:141:ALA:O	1:I9:145:PRO:HB3	2.20	0.41
1:J9:233:ASN:OD1	1:K9:74:GLN:HB3	2.21	0.41
1:K4:29:LYS:HB3	1:K4:249:GLN:HE22	1.84	0.41
1:K5:83:THR:O	1:K5:87:VAL:HG23	2.21	0.41
1:K6:72:LEU:HD13	1:K7:101:ILE:HG22	2.02	0.41
2:M2:88:LYS:HD2	2:M2:88:LYS:HA	1.82	0.41
2:N4:241:LEU:HD11	2:N4:245:TYR:HE1	1.84	0.41
2:N5:151:LYS:O	2:N5:154:GLU:HG3	2.21	0.41
2:O3:90:PHE:CE2	2:O4:239:LYS:HD2	2.55	0.41
2:P5:91:GLN:HA	2:P5:94:HIS:CE1	2.55	0.41
2:P5:238:HIS:HA	2:P5:273:HIS:HE1	1.85	0.41
3:Q3:60:THR:HA	3:Q3:152:ILE:HD11	2.01	0.41
3:Q4:55:LEU:HD21	3:Q4:241:LEU:HB3	2.02	0.41
3:R3:157:SER:HB2	3:R3:174:VAL:HG22	2.02	0.41
3:R4:65:LEU:HD11	3:R4:251:ILE:HG23	2.01	0.41
3:S4:59:LEU:HA	3:S4:62:HIS:ND1	2.36	0.41
3:S6:169:LYS:HB2	3:S6:232:PHE:CZ	2.55	0.41
4:T2:6:GLY:HA2	4:T2:11:ASP:OD1	2.20	0.41
4:T3:146:GLY:H	4:T3:209:VAL:HG22	1.86	0.41
5:U3:251:ASP:O	5:U3:255:VAL:HG22	2.21	0.41
5:U6:195:ARG:HG3	5:U6:196:TYR:N	2.36	0.41
6:V1:151:ARG:O	6:V1:194:LEU:HD12	2.21	0.41
6:V2:43:LEU:HD11	6:V2:222:ARG:HB3	2.02	0.41
7:Y2:88:TYR:CE2	7:Y2:175:LEU:HB2	2.56	0.41
8:Z4:34:LEU:HD21	8:Z4:115:GLN:NE2	2.36	0.41
10:b3:266:ASP:O	10:b3:270:MET:HG3	2.21	0.41
10:b5:80:LEU:CD1	10:b5:263:MET:HE1	2.51	0.41
4:t1:48:LYS:NZ	4:t1:69:GLN:HB3	2.35	0.41
4:t1:186:ILE:HG22	4:t2:10:ILE:HD13	2.02	0.41
4:t3:110:THR:HA	4:t3:217:PHE:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:t4:84:ILE:HD12	4:t4:84:ILE:HA	1.90	0.41
1:A5:11:PHE:CE1	1:B5:28:GLU:HG3	2.56	0.41
1:A7:266:MET:HE1	1:B7:253:PHE:CE1	2.55	0.41
1:A7:277:VAL:O	1:A7:281:LEU:HD23	2.21	0.41
1:B6:273:LYS:HD3	1:C6:23:MET:CE	2.50	0.41
1:C3:32:SER:C	1:C3:34:MET:H	2.28	0.41
1:C6:1:MET:SD	1:D6:16:LEU:HD21	2.60	0.41
1:D6:99:ASN:OD1	1:D6:101:ILE:HG23	2.20	0.41
1:D7:60:ARG:O	1:D7:64:MET:HG2	2.20	0.41
1:D7:142:ARG:HG3	1:D7:164:TYR:HD2	1.85	0.41
1:E6:62:ALA:O	1:E6:66:THR:HG23	2.21	0.41
1:G7:39:ALA:O	1:G7:43:ALA:N	2.54	0.41
1:H9:223:ALA:O	1:H9:227:LEU:HG	2.21	0.41
1:I7:216:TYR:O	1:I7:220:LEU:HD23	2.20	0.41
1:J5:68:ASP:OD2	1:J6:101:ILE:HD11	2.21	0.41
1:J6:52:MET:SD	1:J6:238:GLU:HB2	2.61	0.41
1:J6:273:LYS:HE2	1:J6:273:LYS:HB2	1.81	0.41
1:J7:258:ILE:HD13	1:K6:274:PRO:HB2	2.03	0.41
1:K7:278:LEU:O	1:K7:282:LYS:HG3	2.20	0.41
1:K8:46:LEU:HD21	1:K9:210:ARG:NE	2.36	0.41
1:K8:223:ALA:O	1:K8:227:LEU:HG	2.20	0.41
2:L5:91:GLN:HA	2:L5:94:HIS:CE1	2.56	0.41
2:M3:183:ILE:HD12	2:M3:183:ILE:H	1.86	0.41
2:M5:158:VAL:HG13	2:M5:162:LYS:NZ	2.34	0.41
2:P3:133:GLU:CD	2:P3:154:GLU:HG2	2.46	0.41
2:P5:167:GLN:HE21	2:P5:171:ASN:HD21	1.68	0.41
3:Q1:59:LEU:HD11	3:Q1:241:LEU:HD12	2.02	0.41
3:R5:80:PHE:CE2	3:R5:104:ARG:HB3	2.55	0.41
3:S3:63:THR:HG22	3:S3:134:PHE:CD1	2.55	0.41
3:S5:193:PHE:HE2	3:S5:215:TYR:HB2	1.86	0.41
6:V4:178:PRO:HG2	6:V4:180:PHE:CE2	2.56	0.41
6:V5:147:PHE:HB2	6:V5:200:PHE:CE1	2.55	0.41
7:Y2:132:LYS:HE3	7:Y2:132:LYS:HB3	1.88	0.41
8:Z3:143:LYS:HE2	8:Z3:146:PRO:HA	2.02	0.41
11:c2:47:LYS:HB3	11:c2:111:GLU:HG3	2.02	0.41
11:c2:106:PHE:CE1	11:c2:117:PRO:HG3	2.56	0.41
4:t2:83:ASP:HA	4:t2:85:LYS:NZ	2.36	0.41
4:t3:167:TRP:CE2	4:t3:218:LYS:HE3	2.55	0.41
4:t4:28:VAL:HG21	4:t4:144:PHE:CE1	2.56	0.41
1:A4:255:ARG:HD2	1:B3:4:ASN:C	2.46	0.41
1:A7:268:ALA:O	1:A7:272:MET:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A8:27:ILE:HD11	1:K8:8:SER:CB	2.51	0.41
1:A9:86:ILE:HD13	1:A9:120:GLU:HG2	2.01	0.41
1:B3:273:LYS:HE2	1:C3:257:GLN:NE2	2.36	0.41
1:B5:86:ILE:HG23	1:B5:117:LEU:HD22	2.02	0.41
1:B7:154:GLY:HA3	1:B7:159:GLN:CD	2.45	0.41
1:B7:158:HIS:C	1:B7:160:ARG:H	2.28	0.41
1:C3:278:LEU:HD12	1:C3:281:LEU:HD21	2.03	0.41
1:C4:27:ILE:HD13	1:C4:27:ILE:HG21	1.90	0.41
1:C5:184:ILE:HD12	1:C5:184:ILE:HA	1.87	0.41
1:C7:237:ALA:HB2	1:D7:71:SER:HB3	2.03	0.41
1:F2:57:LEU:HB3	1:F3:92:VAL:HG22	2.03	0.41
1:F2:247:ALA:O	1:F2:251:THR:HG23	2.21	0.41
1:F5:157:MET:HA	1:F6:193:ASN:OD1	2.21	0.41
1:F6:216:TYR:O	1:F6:220:LEU:HD23	2.20	0.41
1:G1:239:SER:OG	1:G9:2:ILE:HD13	2.21	0.41
1:H7:44:SER:HA	1:I8:109:GLN:NE2	2.36	0.41
1:H7:167:THR:HG23	1:H7:172:ALA:HB1	2.03	0.41
1:I6:5:HIS:HB2	1:I7:239:SER:CB	2.51	0.41
1:I8:19:ASN:HD21	1:I8:259:LEU:CB	2.33	0.41
1:I8:247:ALA:O	1:I8:251:THR:HG23	2.21	0.41
1:I9:154:GLY:HA3	1:I9:159:GLN:HG2	2.02	0.41
1:J5:12:ALA:HB3	1:J5:267:LEU:HD13	2.03	0.41
1:K6:162:ARG:NH1	1:K6:164:TYR:HE1	2.19	0.41
2:M2:78:TRP:NE1	2:M3:203:ARG:HD3	2.36	0.41
2:M4:166:LYS:HA	2:M4:166:LYS:HD3	1.91	0.41
2:M5:198:LEU:O	2:M5:201:THR:HG22	2.21	0.41
2:N4:235:TYR:CG	2:N4:236:PRO:HD3	2.56	0.41
2:O3:241:LEU:HD12	2:O3:241:LEU:HA	1.85	0.41
2:P3:128:GLN:OE1	10:b3:265:LEU:HD11	2.21	0.41
2:P3:174:THR:CG2	2:P3:205:TRP:HE1	2.30	0.41
2:P6:267:ARG:HA	2:P6:270:LYS:HG2	2.02	0.41
3:S3:56:ASN:O	3:S3:59:LEU:HB2	2.21	0.41
3:S5:108:TYR:HA	3:S5:127:ALA:CB	2.51	0.41
4:T1:208:GLN:HE22	4:T1:246:VAL:HG23	1.86	0.41
4:T3:84:ILE:HG22	4:T3:87:VAL:HG22	2.02	0.41
5:U6:50:ASN:OD1	5:U6:296:ILE:HA	2.21	0.41
5:U6:253:GLU:HA	5:U6:256:ARG:HG2	2.02	0.41
6:V1:148:ALA:HB2	6:V1:162:LEU:HD11	2.02	0.41
6:V3:183:GLN:O	6:V3:194:LEU:HB2	2.20	0.41
6:V5:179:GLY:HA2	7:Y5:57:PHE:CE1	2.54	0.41
6:X1:162:LEU:HD21	6:X1:173:LEU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Y2:88:TYR:CD2	7:Y2:175:LEU:HD13	2.56	0.41
8:Z3:265:LYS:HE3	8:Z3:266:TYR:CE2	2.56	0.41
8:Z4:143:LYS:HG3	8:Z4:153:ASN:HB3	2.02	0.41
1:A4:219:ARG:HG3	1:B4:120:GLU:HB2	2.02	0.41
1:A6:127:GLN:O	1:A6:128:ALA:C	2.63	0.41
1:B4:61:ARG:HD3	1:B4:61:ARG:HA	1.72	0.41
1:B4:219:ARG:HH21	1:C4:120:GLU:HG3	1.85	0.41
1:B5:80:LEU:O	1:B5:83:THR:HG22	2.19	0.41
1:B5:106:ASP:HA	1:B5:109:GLN:CD	2.46	0.41
1:B5:110:ILE:HG22	1:B5:186:LEU:HD21	2.02	0.41
1:B5:256:TYR:HA	1:B5:259:LEU:HG	2.03	0.41
1:B7:36:ILE:HD12	1:B7:41:ASP:HB2	2.02	0.41
1:B7:153:ILE:HD11	1:C7:123:ARG:CZ	2.51	0.41
1:C4:73:ILE:HA	1:C4:76:THR:HG22	2.03	0.41
1:C6:46:LEU:O	1:C6:50:GLU:HG2	2.21	0.41
1:D3:61:ARG:HA	1:D3:64:MET:HG3	2.03	0.41
1:D5:176:ARG:HH21	1:D5:181:LEU:HB3	1.86	0.41
1:E2:33:GLY:O	1:E2:244:THR:HG22	2.21	0.41
1:E3:18:PHE:CE2	1:E4:225:LYS:HA	2.55	0.41
1:E3:57:LEU:HD13	1:E4:88:GLN:HE21	1.86	0.41
1:E4:1:MET:HB3	1:F4:20:SER:OG	2.21	0.41
1:E4:162:ARG:HD3	1:E4:164:TYR:CZ	2.56	0.41
1:E4:222:HIS:HB3	1:F4:86:ILE:HD11	2.03	0.41
1:E6:259:LEU:HD21	1:F5:4:ASN:HD21	1.85	0.41
1:F2:65:ASN:HD22	1:F3:99:ASN:ND2	2.18	0.41
1:F2:240:ARG:NH2	1:G7:67:GLU:HB2	2.36	0.41
1:F6:191:LYS:O	1:F6:195:VAL:HG23	2.20	0.41
1:G1:159:GLN:HG3	1:G1:159:GLN:O	2.21	0.41
1:G7:25:LYS:O	1:G7:29:LYS:HG3	2.21	0.41
1:G7:61:ARG:NH1	1:G7:65:ASN:HB2	2.35	0.41
1:G9:86:ILE:HD12	1:G9:124:ILE:HD11	2.02	0.41
1:H9:50:GLU:HB3	1:h0:84:HIS:NE2	2.36	0.41
1:I5:5:HIS:HD2	1:I6:235:GLN:HE22	1.64	0.41
1:I8:76:THR:O	1:I8:80:LEU:HG	2.21	0.41
1:J6:14:ARG:HH12	1:J7:229:ASN:ND2	2.19	0.41
1:J6:173:LEU:HD22	1:J6:202:ALA:HA	2.02	0.41
1:J7:163:VAL:HG13	1:J7:216:TYR:CE2	2.56	0.41
1:J7:184:ILE:HD12	1:J7:195:VAL:HG13	2.03	0.41
1:J7:237:ALA:HB2	1:K7:71:SER:HB3	2.03	0.41
1:J9:39:ALA:O	1:J9:43:ALA:N	2.51	0.41
1:K4:271:ASN:O	1:K4:274:PRO:HD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K8:29:LYS:HE3	1:K8:35:ARG:HA	2.02	0.41
1:K9:77:GLU:OE1	1:K9:210:ARG:HG3	2.20	0.41
1:K9:112:VAL:O	1:K9:116:GLN:HG2	2.20	0.41
1:K9:216:TYR:O	1:K9:220:LEU:HD23	2.21	0.41
2:L5:94:HIS:C	2:L5:96:LEU:H	2.29	0.41
2:L6:109:LEU:HD12	2:L6:110:SER:N	2.36	0.41
2:L6:236:PRO:O	2:L6:239:LYS:HG2	2.21	0.41
2:M4:142:LYS:HD3	2:N4:214:ASN:OD1	2.21	0.41
2:N4:215:LEU:HG	2:N4:247:PHE:CG	2.55	0.41
2:N5:78:TRP:CZ3	2:N6:236:PRO:HB2	2.56	0.41
2:N6:138:ARG:HG2	2:N6:138:ARG:HH11	1.85	0.41
2:O5:115:GLY:O	2:O5:118:THR:HG22	2.21	0.41
2:P2:88:LYS:O	2:P2:91:GLN:HG3	2.20	0.41
2:P3:128:GLN:NE2	10:b3:265:LEU:HD21	2.36	0.41
2:P5:269:LYS:HA	2:P5:272:VAL:HG12	2.02	0.41
3:Q1:61:ARG:O	3:Q1:65:LEU:HG	2.20	0.41
3:Q3:173:GLU:O	3:Q3:191:VAL:HG13	2.20	0.41
3:R3:48:LEU:HD11	3:R3:234:LYS:HA	2.03	0.41
3:R4:226:HIS:CD2	3:R4:228:ILE:HD11	2.50	0.41
3:R5:41:ILE:HD11	3:R5:224:LYS:HG2	2.01	0.41
3:S5:66:MET:HG2	3:S5:134:PHE:CE1	2.55	0.41
3:S5:72:VAL:O	3:S5:251:ILE:HD11	2.21	0.41
3:S5:171:ILE:HD13	3:S5:232:PHE:HE2	1.86	0.41
3:S6:49:ASP:HB3	3:S6:183:PRO:HB3	2.03	0.41
3:S6:106:GLU:HG2	3:S6:129:TYR:HB3	2.03	0.41
3:S6:217:LEU:HD23	3:S6:229:ARG:HD2	2.03	0.41
4:T1:144:PHE:CE1	4:T1:239:VAL:HG11	2.56	0.41
4:T4:156:CYS:HB2	4:T4:188:TRP:CE2	2.56	0.41
5:U5:44:ILE:HD13	5:U5:135:TYR:CZ	2.56	0.41
5:U7:89:LEU:HB3	5:U7:303:MET:HE1	2.01	0.41
6:V3:51:PHE:HD2	6:V3:217:ASP:HA	1.85	0.41
6:V4:49:GLU:CD	6:V4:51:PHE:H	2.28	0.41
6:V4:190:LEU:HA	6:V4:238:ASN:ND2	2.36	0.41
6:V5:227:ASP:HA	6:V5:230:TYR:CE2	2.56	0.41
6:X1:64:PRO:HG2	6:X1:67:GLU:HG3	2.02	0.41
6:X2:138:LEU:HD12	6:X2:170:TRP:CZ3	2.56	0.41
6:X3:56:ASP:HB3	8:Z3:189:PHE:CD2	2.56	0.41
7:Y2:118:ASN:OD1	7:Y2:119:ASN:N	2.54	0.41
8:Z4:171:MET:HA	8:Z4:175:ARG:HH21	1.86	0.41
4:t1:235:ASP:O	4:t1:236:GLU:HG2	2.20	0.41
4:t2:92:ALA:HB1	13:t2:401:HOH:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:t4:135:LYS:HE2	4:t4:135:LYS:HA	2.02	0.41
1:A5:278:LEU:HD12	1:A5:278:LEU:HA	1.92	0.41
1:A8:27:ILE:HD11	1:K8:8:SER:HB2	2.03	0.41
1:B3:23:MET:HE1	1:B3:257:GLN:CA	2.51	0.41
1:B3:252:SER:O	1:B3:256:TYR:HD2	2.03	0.41
1:B6:164:TYR:O	1:B6:165:ILE:HD13	2.20	0.41
1:C4:110:ILE:O	1:C4:113:GLU:HG3	2.21	0.41
1:C7:150:TRP:CH2	1:C7:162:ARG:HB2	2.56	0.41
1:C8:120:GLU:HA	1:C8:120:GLU:OE1	2.21	0.41
1:D3:38:ARG:NH1	1:D4:74:GLN:HA	2.28	0.41
1:D3:59:LEU:HD22	1:D3:231:TYR:HB2	2.02	0.41
1:D6:74:GLN:O	1:D6:77:GLU:HG3	2.20	0.41
1:E3:61:ARG:HA	1:E3:61:ARG:HD2	1.85	0.41
1:G1:84:HIS:CE1	1:G9:50:GLU:HG3	2.56	0.41
1:H7:118:VAL:HA	1:H7:121:ILE:HG22	2.03	0.41
1:I5:1:MET:SD	1:I5:277:VAL:HG21	2.61	0.41
1:I6:228:MET:SD	1:I6:228:MET:C	3.04	0.41
1:I8:2:ILE:HG12	1:I9:243:ASP:HB2	2.03	0.41
1:I8:216:TYR:HA	1:I8:219:ARG:HD3	2.04	0.41
1:K6:274:PRO:HA	1:K6:277:VAL:HG22	2.03	0.41
2:L2:267:ARG:O	2:L2:270:LYS:HG3	2.21	0.41
2:L4:83:PHE:CZ	2:L4:85:GLY:HA2	2.56	0.41
2:L4:143:TRP:HD1	2:M3:251:MET:HE1	1.85	0.41
2:M5:199:SER:O	2:M5:203:ARG:HG3	2.20	0.41
2:N2:109:LEU:HD13	2:N2:197:LEU:HD13	2.03	0.41
2:O2:250:ASN:HA	2:O2:253:LYS:HG2	2.03	0.41
2:O3:249:GLU:HA	2:O3:252:ILE:HG22	2.03	0.41
2:O5:217:GLN:O	2:O5:220:PRO:HD2	2.20	0.41
2:P2:91:GLN:HA	2:P2:94:HIS:CD2	2.56	0.41
2:P4:215:LEU:HD22	2:P4:247:PHE:CB	2.51	0.41
2:P5:104:LYS:O	2:P5:107:LEU:HG	2.21	0.41
3:Q2:107:VAL:CG2	3:Q2:128:LYS:HD3	2.50	0.41
3:S5:70:VAL:HA	3:S5:255:ASN:OD1	2.20	0.41
4:T2:150:ALA:HB3	4:T2:240:LEU:HB3	2.02	0.41
4:T4:109:VAL:CG2	4:T4:219:VAL:HB	2.50	0.41
5:U4:145:ASN:O	5:U4:148:ILE:HG22	2.21	0.41
5:U7:188:ASN:HD22	1:j0:180:VAL:HA	1.86	0.41
6:V1:120:PRO:N	6:V1:121:PRO:CD	2.84	0.41
7:Y5:209:GLU:O	7:Y5:212:LYS:HG3	2.21	0.41
8:Z2:136:ILE:CD1	8:Z2:255:ARG:HD2	2.51	0.41
9:a5:192:TYR:CZ	9:a5:196:LEU:HD11	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:b4:80:LEU:HD12	10:b4:263:MET:HE1	2.02	0.41
10:b5:64:ASP:HB3	10:b5:180:PRO:HB3	2.03	0.41
1:h1:97:ALA:HB2	1:h1:110:ILE:HG21	2.03	0.41
4:t2:203:VAL:HG12	4:t2:205:SER:H	1.85	0.41
4:t3:128:LEU:HD22	4:t3:134:LYS:HA	2.03	0.41
4:t3:139:ILE:HD13	4:t3:139:ILE:HA	1.96	0.41
1:A5:70:MET:SD	1:A5:217:TYR:HE1	2.44	0.40
1:A7:79:TYR:CD2	1:A7:128:ALA:HB1	2.56	0.40
1:A7:89:ARG:HD2	1:K7:218:ASN:HD21	1.84	0.40
1:A7:278:LEU:HD13	1:K8:258:ILE:CG2	2.51	0.40
1:B6:18:PHE:HE1	1:B7:225:LYS:HE2	1.86	0.40
1:B7:151:PHE:CE2	1:B7:163:VAL:HG21	2.57	0.40
1:C3:50:GLU:HB3	1:C4:84:HIS:NE2	2.35	0.40
1:C3:273:LYS:HG3	1:C3:274:PRO:HD3	2.03	0.40
1:C5:156:ASN:HB2	1:C5:159:GLN:CD	2.46	0.40
1:C6:61:ARG:HA	1:C6:61:ARG:HD3	1.88	0.40
1:C7:39:ALA:HB3	1:C8:217:TYR:CD2	2.56	0.40
1:C7:186:LEU:HD12	1:C7:195:VAL:HG21	2.03	0.40
1:C8:67:GLU:O	1:C8:70:MET:HG2	2.21	0.40
1:D5:44:SER:HB2	1:E6:96:GLN:NE2	2.35	0.40
1:E4:268:ALA:O	1:E4:272:MET:HG2	2.20	0.40
1:E5:39:ALA:O	1:E5:40:GLY:C	2.64	0.40
1:E5:56:ILE:HD11	1:E5:235:GLN:HA	2.03	0.40
1:E6:246:MET:HB2	1:E6:246:MET:HE2	1.83	0.40
1:F4:161:GLU:HB3	1:F4:219:ARG:HH22	1.85	0.40
1:F5:192:ALA:HA	1:F5:195:VAL:HG12	2.02	0.40
1:G9:35:ARG:HG2	1:G9:244:THR:HA	2.03	0.40
1:H8:107:ARG:NH2	1:H8:189:ALA:HB2	2.37	0.40
1:I7:11:PHE:CG	1:J7:28:GLU:HG2	2.56	0.40
1:I7:168:MET:SD	1:I7:173:LEU:HD21	2.61	0.40
1:I9:36:ILE:HG21	1:I9:46:LEU:HB2	2.03	0.40
1:J5:144:ASN:N	1:J5:145:PRO:HD3	2.35	0.40
1:J6:104:GLU:OE2	1:J6:187:SER:HB3	2.21	0.40
1:K5:53:ARG:NH2	1:K6:88:GLN:HE21	2.10	0.40
2:L5:278:THR:HG21	2:L5:292:ILE:HG21	2.03	0.40
2:M5:202:TYR:CE1	2:M5:221:ILE:HD11	2.56	0.40
2:N3:206:ILE:HD11	2:N3:221:ILE:HB	2.02	0.40
2:N4:220:PRO:HA	2:N4:223:GLU:HG2	2.03	0.40
3:Q3:56:ASN:O	3:Q3:60:THR:HG23	2.21	0.40
3:Q4:60:THR:HG23	3:Q4:61:ARG:HD3	2.03	0.40
3:S3:84:ALA:HB2	3:S3:102:CYS:SG	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T4:185:PHE:CE2	4:T4:189:ARG:HD3	2.56	0.40
7:Y3:68:PHE:CE1	7:Y3:240:TYR:HA	2.56	0.40
7:Y3:73:VAL:CG2	7:Y3:235:LEU:HB2	2.51	0.40
8:Z1:42:GLU:OE1	8:Z2:159:ILE:HB	2.22	0.40
8:Z2:121:LEU:O	8:Z2:125:LEU:HD23	2.20	0.40
9:a4:90:ILE:HG22	9:a4:93:SER:HB2	2.02	0.40
10:b2:53:VAL:CG1	10:b2:58:PHE:HA	2.51	0.40
11:c1:86:PRO:HA	11:c1:93:VAL:HA	2.02	0.40
1:i0:79:TYR:CE2	1:i0:128:ALA:HB1	2.56	0.40
1:i0:79:TYR:O	1:i0:82:GLU:HG2	2.21	0.40
1:j0:75:THR:HG22	1:j0:79:TYR:HE1	1.85	0.40
1:A5:122:ASP:OD1	1:A5:170:THR:HG23	2.21	0.40
1:A7:157:MET:SD	1:A7:158:HIS:CD2	3.14	0.40
1:B5:157:MET:SD	1:B5:158:HIS:HB2	2.61	0.40
1:B6:157:MET:HE1	6:V3:63:THR:HB	2.03	0.40
1:B6:280:LEU:HD11	1:C6:261:GLN:NE2	2.36	0.40
1:C7:86:ILE:O	1:C7:90:ILE:HG12	2.20	0.40
1:C8:131:ASN:C	1:C8:133:MET:H	2.29	0.40
1:D3:258:ILE:HG12	1:E2:274:PRO:HB2	2.03	0.40
1:D4:248:GLU:HB2	1:E3:13:HIS:NE2	2.35	0.40
1:D5:86:ILE:HD13	1:D5:120:GLU:OE1	2.21	0.40
1:E4:153:ILE:HD11	1:E4:223:ALA:HB1	2.03	0.40
1:E6:219:ARG:HD2	1:F6:120:GLU:CG	2.51	0.40
1:G7:240:ARG:NH2	1:H7:71:SER:HB3	2.36	0.40
1:G9:244:THR:OG1	1:G9:249:GLN:HG3	2.22	0.40
1:H7:143:LEU:HD21	2:P3:144:TYR:CE1	2.54	0.40
1:H8:215:ALA:C	1:I8:116:GLN:HE22	2.28	0.40
1:I9:53:ARG:HA	1:I9:56:ILE:HD12	2.03	0.40
1:I9:78:GLY:O	1:I9:81:GLN:HB3	2.21	0.40
1:J5:255:ARG:HD2	1:K4:5:HIS:HA	2.03	0.40
1:J6:216:TYR:O	1:J6:220:LEU:HD23	2.21	0.40
1:K7:61:ARG:HH21	1:K8:96:GLN:NE2	2.19	0.40
1:K7:152:HIS:CD2	1:K8:95:VAL:HG13	2.56	0.40
2:M3:214:ASN:HD21	2:M3:217:GLN:NE2	2.19	0.40
2:M3:235:TYR:N	2:M3:236:PRO:HD2	2.36	0.40
2:M4:115:GLY:O	2:M4:119:ILE:HG12	2.21	0.40
2:N3:67:ARG:O	2:N3:71:ILE:HG12	2.20	0.40
2:O3:76:ALA:HA	2:O3:79:LYS:HB2	2.03	0.40
2:P4:267:ARG:HA	2:P4:270:LYS:HG2	2.03	0.40
3:Q1:171:ILE:HG21	3:Q1:191:VAL:CG1	2.52	0.40
3:R3:59:LEU:HD13	3:R3:62:HIS:ND1	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R5:51:LYS:HE3	3:R5:238:ILE:HD12	2.03	0.40
3:S4:156:LYS:HD2	3:S4:175:MET:HE2	2.02	0.40
3:S5:48:LEU:HA	3:S5:51:LYS:HG2	2.03	0.40
4:T3:171:TRP:NE1	4:T3:200:PRO:HB2	2.36	0.40
5:U5:216:LEU:HD11	5:U5:285:ILE:HD11	2.03	0.40
5:U7:182:HIS:HA	5:U7:185:ILE:HG22	2.03	0.40
7:Y1:187:ILE:HD13	7:Y1:233:THR:OG1	2.21	0.40
7:Y3:49:LEU:HB2	7:Y3:85:PHE:CZ	2.57	0.40
8:Z2:93:GLN:O	8:Z2:96:LEU:HG	2.21	0.40
8:Z3:190:HIS:CE1	8:Z3:191:TYR:CE1	3.10	0.40
10:b2:110:ASN:OD1	10:b2:110:ASN:C	2.64	0.40
10:b3:131:TYR:HB3	10:b3:157:ARG:HD2	2.03	0.40
10:b3:154:GLN:HG3	10:b3:169:MET:SD	2.61	0.40
10:b4:50:ILE:HG23	10:b4:235:TYR:CD1	2.56	0.40
10:b5:96:GLU:HB3	10:b5:97:PRO:HD2	2.02	0.40
11:c1:28:GLU:HG3	11:c2:103:PHE:HB2	2.03	0.40
4:t1:114:PRO:HD2	4:t1:119:TYR:CE2	2.56	0.40
4:t3:42:TRP:CE2	4:t3:113:PRO:HG3	2.56	0.40
1:A5:216:TYR:HA	1:A5:219:ARG:HG3	2.02	0.40
1:A5:244:THR:OG1	1:A5:249:GLN:HG3	2.22	0.40
1:A6:160:ARG:NH2	1:A7:193:ASN:HB3	2.36	0.40
1:B6:65:ASN:ND2	1:B7:99:ASN:HD21	2.20	0.40
1:B7:191:LYS:O	1:B7:195:VAL:HG23	2.22	0.40
1:C5:5:HIS:HB2	1:C6:239:SER:HB2	2.04	0.40
1:C6:10:ILE:HD13	1:C7:235:GLN:HG2	2.04	0.40
1:F5:30:LEU:HD22	1:F5:249:GLN:HB3	2.04	0.40
1:G2:148:SER:HA	1:G2:162:ARG:NH2	2.37	0.40
1:G9:82:GLU:OE1	1:G9:124:ILE:HG12	2.21	0.40
1:G9:153:ILE:HG21	1:H9:123:ARG:HD2	2.03	0.40
1:H7:254:THR:O	1:H7:258:ILE:HG22	2.21	0.40
1:H9:167:THR:O	1:H9:168:MET:HE2	2.21	0.40
1:I6:34:MET:C	1:I6:36:ILE:H	2.29	0.40
1:I7:80:LEU:HD23	1:I7:80:LEU:HA	1.89	0.40
1:I9:61:ARG:HE	1:i0:96:GLN:CD	2.30	0.40
1:J5:237:ALA:O	1:J5:241:ILE:HD12	2.21	0.40
1:J8:51:LYS:O	1:J8:54:THR:HB	2.22	0.40
1:J9:59:LEU:HD13	1:J9:231:TYR:HA	2.04	0.40
1:K7:129:GLU:CD	1:K7:132:LYS:HA	2.47	0.40
1:K7:193:ASN:HA	1:K7:196:ILE:HG22	2.03	0.40
2:L2:88:LYS:O	2:L2:92:GLU:HG2	2.21	0.40
2:L4:126:ILE:HD12	2:L4:158:VAL:HG23	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M3:94:HIS:O	2:M3:95:GLN:HG3	2.22	0.40
2:N2:94:HIS:HD2	2:N2:95:GLN:HE22	1.69	0.40
2:P2:128:GLN:HA	2:P2:131:LYS:HG2	2.03	0.40
3:Q4:68:MET:HE1	3:Q4:252:PHE:CE1	2.56	0.40
3:S5:107:VAL:O	3:S5:127:ALA:HB3	2.21	0.40
5:U5:220:ILE:HG23	5:U5:262:TYR:HE2	1.86	0.40
5:U6:295:ILE:HG23	5:U6:297:THR:OG1	2.22	0.40
6:V4:74:VAL:HG22	6:V4:100:HIS:NE2	2.36	0.40
6:V5:101:ILE:HG22	6:V5:217:ASP:CG	2.47	0.40
6:X1:89:PRO:HD3	6:X1:136:TRP:CH2	2.56	0.40
6:X4:56:ASP:HB3	6:X4:121:PRO:CG	2.51	0.40
8:Z3:154:LEU:HD21	8:Z3:198:ILE:HG23	2.03	0.40
9:a2:54:ILE:HG12	9:a2:196:LEU:HD13	2.03	0.40
9:a3:223:ARG:HA	9:a3:223:ARG:HD3	1.94	0.40
10:b3:170:ARG:HG3	10:b3:199:GLU:O	2.21	0.40
10:b5:131:TYR:HA	10:b5:158:THR:O	2.21	0.40
4:t4:182:SER:C	4:t4:183:LEU:HD22	2.47	0.40
1:A5:180:VAL:HG12	1:A5:182:THR:HG23	2.04	0.40
1:A6:240:ARG:NH2	1:B6:67:GLU:HB3	2.36	0.40
1:A8:258:ILE:CD1	1:B7:274:PRO:HB2	2.51	0.40
1:B3:266:MET:CE	1:C3:27:ILE:HG13	2.52	0.40
1:B4:134:LYS:HD2	1:B4:134:LYS:HA	1.69	0.40
1:B4:266:MET:SD	1:C4:27:ILE:HD11	2.62	0.40
1:B6:180:VAL:HG12	1:B6:182:THR:HG23	2.04	0.40
1:C6:15:THR:HG21	1:D6:32:SER:HA	2.03	0.40
1:C7:159:GLN:NE2	1:D7:127:GLN:HG2	2.37	0.40
1:D4:30:LEU:HD13	1:D4:249:GLN:CB	2.52	0.40
1:D4:48:VAL:HG13	1:E4:131:ASN:ND2	2.37	0.40
1:D5:52:MET:HG3	1:D5:238:GLU:HB2	2.04	0.40
1:D5:72:LEU:HD12	1:D5:130:PHE:CD2	2.57	0.40
1:E2:59:LEU:HD22	1:E2:234:ILE:HD12	2.02	0.40
1:E2:266:MET:CE	1:F2:30:LEU:HD23	2.50	0.40
1:F4:65:ASN:ND2	1:F5:99:ASN:OD1	2.53	0.40
1:F6:89:ARG:HH22	1:F6:113:GLU:CD	2.29	0.40
1:G1:199:ALA:O	1:G1:203:LEU:HD23	2.20	0.40
1:H6:236:ALA:O	1:H6:240:ARG:HG3	2.21	0.40
1:H7:219:ARG:HD2	1:I7:120:GLU:HB2	2.03	0.40
1:H8:271:ASN:O	1:H8:274:PRO:HD2	2.22	0.40
1:I7:16:LEU:HD11	1:I7:264:THR:HG22	2.03	0.40
1:I9:14:ARG:NH1	1:i0:232:GLU:HG2	2.37	0.40
2:L3:90:PHE:CG	2:L4:239:LYS:HE3	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M2:91:GLN:HA	2:M2:94:HIS:CE1	2.57	0.40
2:O3:219:ILE:HB	2:O3:220:PRO:HD3	2.02	0.40
2:P4:111:ASN:HD22	2:P4:175:LYS:HB2	1.86	0.40
2:P5:235:TYR:N	2:P5:236:PRO:CD	2.84	0.40
3:Q3:132:ILE:HD13	3:Q3:155:LEU:HB2	2.02	0.40
3:R3:188:LYS:HA	3:R3:188:LYS:HE3	2.03	0.40
3:R5:44:THR:HG22	3:R5:48:LEU:HD23	2.03	0.40
3:S3:135:GLU:HB2	3:S3:151:ASN:OD1	2.21	0.40
3:S4:76:ARG:HD3	3:S4:110:PHE:CZ	2.57	0.40
3:S4:223:THR:HG23	3:S4:225:THR:H	1.86	0.40
3:S5:66:MET:SD	3:S5:103:ILE:HG22	2.61	0.40
4:T3:94:VAL:HG12	4:T3:235:ASP:OD2	2.21	0.40
4:T4:29:GLU:HG2	4:T4:119:TYR:OH	2.22	0.40
5:U4:116:ASN:ND2	5:U4:119:LEU:HD12	2.35	0.40
5:U5:162:ASP:HB3	5:U5:165:ALA:HB3	2.03	0.40
5:U6:148:ILE:HG13	5:U6:149:LEU:N	2.36	0.40
6:V1:51:PHE:HA	6:V1:54:ALA:HB2	2.04	0.40
6:V2:59:ALA:HB2	6:V2:70:VAL:HG13	2.03	0.40
6:X2:72:LYS:HB2	6:X2:100:HIS:NE2	2.36	0.40
7:Y2:172:VAL:HA	7:Y2:175:LEU:HG	2.02	0.40
7:Y2:269:TYR:CE2	7:Y2:271:ARG:HB2	2.57	0.40
8:Z1:190:HIS:CE1	8:Z1:194:ASN:ND2	2.89	0.40
10:b2:74:ILE:HD11	10:b2:148:LEU:HD21	2.02	0.40
10:b3:141:PRO:HA	10:b3:148:LEU:HD22	2.04	0.40
11:c1:103:PHE:HB3	11:c1:121:VAL:HG12	2.03	0.40
1:h0:226:GLY:HA3	1:i0:82:GLU:OE1	2.22	0.40
1:j0:103:THR:HG23	1:j0:106:ASP:H	1.85	0.40
4:t1:244:PHE:O	4:t1:248:PHE:HD1	2.04	0.40
4:t2:100:GLN:HB2	4:t2:229:THR:HG23	2.02	0.40
4:t2:157:GLY:O	4:t2:186:ILE:HA	2.21	0.40
4:t3:226:SER:HB2	4:t3:228:GLU:OE1	2.22	0.40
1:A5:74:GLN:HB3	1:K5:233:ASN:HD21	1.87	0.40
1:A6:266:MET:HE1	1:B6:31:SER:OG	2.22	0.40
1:B3:23:MET:HG3	1:B3:27:ILE:HD13	2.03	0.40
1:B6:115:SER:HA	1:B6:118:VAL:HG12	2.04	0.40
1:B6:153:ILE:HD12	1:B6:223:ALA:CB	2.51	0.40
1:C6:64:MET:O	1:C6:67:GLU:HG3	2.22	0.40
1:C6:247:ALA:HB3	1:D5:13:HIS:CD2	2.56	0.40
1:C7:149:MET:O	1:C7:162:ARG:HG3	2.21	0.40
1:C7:154:GLY:HA3	1:D7:127:GLN:HE22	1.86	0.40
1:D3:260:THR:O	1:D3:264:THR:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D6:14:ARG:HG3	1:D7:228:MET:HG2	2.04	0.40
1:F5:114:VAL:HG21	1:F5:186:LEU:HD12	2.03	0.40
1:G1:151:PHE:HE2	1:G1:163:VAL:HG21	1.87	0.40
1:G1:252:SER:O	1:G1:255:ARG:HG2	2.21	0.40
1:G7:61:ARG:NH2	1:G8:96:GLN:HG3	2.36	0.40
1:H6:2:ILE:HG23	1:H7:243:ASP:CG	2.47	0.40
1:H7:191:LYS:O	1:H7:195:VAL:HG23	2.22	0.40
1:I8:48:VAL:HG22	1:J9:106:ASP:OD2	2.21	0.40
1:J5:131:ASN:C	1:J5:133:MET:H	2.29	0.40
2:L4:206:ILE:HA	2:L4:209:GLU:HG2	2.03	0.40
2:L5:249:GLU:CD	2:L5:267:ARG:HE	2.30	0.40
2:L5:290:LYS:HA	2:L5:293:VAL:HG12	2.04	0.40
2:L6:235:TYR:N	2:L6:236:PRO:HD2	2.36	0.40
2:M5:112:TYR:HE1	2:M5:204:SER:HB3	1.86	0.40
2:N2:187:ASP:O	2:N2:190:GLU:HG2	2.22	0.40
2:O3:153:ARG:HD3	2:O3:156:ARG:NH2	2.36	0.40
2:P2:114:SER:HA	10:b2:120:LEU:HD22	2.03	0.40
3:Q2:128:LYS:CD	3:Q2:161:LYS:HB2	2.51	0.40
3:Q3:257:GLN:O	3:Q3:258:LEU:C	2.65	0.40
3:Q4:178:GLY:HA2	3:Q4:179:PRO:HD2	1.97	0.40
3:R3:83:LYS:HG2	3:R3:100:ASN:HA	2.03	0.40
3:R4:43:GLU:O	3:R4:47:LYS:HG2	2.22	0.40
3:R5:185:HIS:O	3:R5:188:LYS:HG2	2.22	0.40
3:S5:48:LEU:HD23	3:S5:233:LYS:HG3	2.04	0.40
4:T2:31:TRP:HE1	4:T2:42:TRP:CG	2.38	0.40
5:U4:48:VAL:HA	5:U4:51:LEU:HD12	2.03	0.40
6:V3:139:GLY:O	6:V3:168:PHE:HA	2.22	0.40
7:Y1:88:TYR:CE1	7:Y1:182:ALA:HB2	2.57	0.40
8:Z3:141:ILE:HD11	8:Z3:206:TYR:CE2	2.55	0.40
8:Z3:265:LYS:HE3	8:Z3:266:TYR:CZ	2.57	0.40
9:a4:50:LEU:HD13	9:a4:189:VAL:HB	2.02	0.40
11:c2:54:ASN:ND2	11:c2:114:LEU:HD13	2.37	0.40
1:h0:97:ALA:HB3	1:h0:186:LEU:HD23	2.03	0.40
1:j0:101:ILE:HD11	1:j0:102:TYR:CZ	2.57	0.40
4:t3:57:GLN:NE2	4:t3:58:GLN:H	2.19	0.40
4:t4:116:ILE:HG22	4:t4:119:TYR:HD2	1.86	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A4	171/282 (61%)	164 (96%)	7 (4%)	0	100	100
1	A5	277/282 (98%)	265 (96%)	11 (4%)	1 (0%)	30	66
1	A6	277/282 (98%)	265 (96%)	12 (4%)	0	100	100
1	A7	277/282 (98%)	269 (97%)	7 (2%)	1 (0%)	30	66
1	A8	234/282 (83%)	226 (97%)	8 (3%)	0	100	100
1	A9	141/282 (50%)	135 (96%)	6 (4%)	0	100	100
1	B3	99/282 (35%)	98 (99%)	1 (1%)	0	100	100
1	B4	242/282 (86%)	235 (97%)	7 (3%)	0	100	100
1	B5	280/282 (99%)	269 (96%)	11 (4%)	0	100	100
1	B6	280/282 (99%)	274 (98%)	6 (2%)	0	100	100
1	B7	274/282 (97%)	266 (97%)	8 (3%)	0	100	100
1	B8	192/282 (68%)	187 (97%)	5 (3%)	0	100	100
1	C3	112/282 (40%)	109 (97%)	3 (3%)	0	100	100
1	C4	280/282 (99%)	272 (97%)	7 (2%)	1 (0%)	30	66
1	C5	280/282 (99%)	273 (98%)	7 (2%)	0	100	100
1	C6	280/282 (99%)	273 (98%)	7 (2%)	0	100	100
1	C7	245/282 (87%)	234 (96%)	11 (4%)	0	100	100
1	C8	148/282 (52%)	141 (95%)	7 (5%)	0	100	100
1	D3	214/282 (76%)	200 (94%)	14 (6%)	0	100	100
1	D4	280/282 (99%)	269 (96%)	11 (4%)	0	100	100
1	D5	280/282 (99%)	266 (95%)	13 (5%)	1 (0%)	30	66
1	D6	278/282 (99%)	264 (95%)	13 (5%)	1 (0%)	30	66
1	D7	199/282 (71%)	193 (97%)	6 (3%)	0	100	100
1	E2	112/282 (40%)	108 (96%)	4 (4%)	0	100	100
1	E3	275/282 (98%)	259 (94%)	16 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E4	280/282 (99%)	269 (96%)	11 (4%)	0	100	100
1	E5	280/282 (99%)	272 (97%)	7 (2%)	1 (0%)	30	66
1	E6	251/282 (89%)	240 (96%)	11 (4%)	0	100	100
1	E7	154/282 (55%)	151 (98%)	3 (2%)	0	100	100
1	F2	200/282 (71%)	189 (94%)	10 (5%)	1 (0%)	24	62
1	F3	278/282 (99%)	271 (98%)	7 (2%)	0	100	100
1	F4	275/282 (98%)	264 (96%)	10 (4%)	1 (0%)	30	66
1	F5	277/282 (98%)	267 (96%)	10 (4%)	0	100	100
1	F6	211/282 (75%)	207 (98%)	4 (2%)	0	100	100
1	G1	256/282 (91%)	248 (97%)	8 (3%)	0	100	100
1	G2	163/282 (58%)	157 (96%)	6 (4%)	0	100	100
1	G6	112/282 (40%)	109 (97%)	3 (3%)	0	100	100
1	G7	268/282 (95%)	259 (97%)	9 (3%)	0	100	100
1	G8	280/282 (99%)	273 (98%)	7 (2%)	0	100	100
1	G9	280/282 (99%)	273 (98%)	7 (2%)	0	100	100
1	H6	192/282 (68%)	186 (97%)	6 (3%)	0	100	100
1	H7	280/282 (99%)	271 (97%)	9 (3%)	0	100	100
1	H8	280/282 (99%)	272 (97%)	8 (3%)	0	100	100
1	H9	280/282 (99%)	267 (95%)	13 (5%)	0	100	100
1	I5	112/282 (40%)	111 (99%)	1 (1%)	0	100	100
1	I6	263/282 (93%)	253 (96%)	10 (4%)	0	100	100
1	I7	280/282 (99%)	272 (97%)	8 (3%)	0	100	100
1	I8	280/282 (99%)	272 (97%)	8 (3%)	0	100	100
1	I9	264/282 (94%)	256 (97%)	8 (3%)	0	100	100
1	J5	184/282 (65%)	175 (95%)	9 (5%)	0	100	100
1	J6	280/282 (99%)	269 (96%)	11 (4%)	0	100	100
1	J7	280/282 (99%)	269 (96%)	10 (4%)	1 (0%)	30	66
1	J8	280/282 (99%)	266 (95%)	14 (5%)	0	100	100
1	J9	228/282 (81%)	220 (96%)	8 (4%)	0	100	100
1	K4	107/282 (38%)	104 (97%)	3 (3%)	0	100	100
1	K5	247/282 (88%)	242 (98%)	5 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	K6	277/282 (98%)	270 (98%)	7 (2%)	0	100	100
1	K7	274/282 (97%)	266 (97%)	8 (3%)	0	100	100
1	K8	267/282 (95%)	259 (97%)	8 (3%)	0	100	100
1	K9	181/282 (64%)	176 (97%)	5 (3%)	0	100	100
1	h0	219/282 (78%)	209 (95%)	10 (5%)	0	100	100
1	h1	96/282 (34%)	94 (98%)	2 (2%)	0	100	100
1	i0	174/282 (62%)	169 (97%)	5 (3%)	0	100	100
1	j0	114/282 (40%)	111 (97%)	3 (3%)	0	100	100
2	L2	192/306 (63%)	182 (95%)	10 (5%)	0	100	100
2	L3	207/306 (68%)	199 (96%)	8 (4%)	0	100	100
2	L4	207/306 (68%)	197 (95%)	10 (5%)	0	100	100
2	L5	207/306 (68%)	200 (97%)	7 (3%)	0	100	100
2	L6	155/306 (51%)	153 (99%)	2 (1%)	0	100	100
2	M1	65/306 (21%)	59 (91%)	6 (9%)	0	100	100
2	M2	211/306 (69%)	204 (97%)	7 (3%)	0	100	100
2	M3	211/306 (69%)	202 (96%)	9 (4%)	0	100	100
2	M4	211/306 (69%)	201 (95%)	8 (4%)	2 (1%)	14	49
2	M5	189/306 (62%)	186 (98%)	2 (1%)	1 (0%)	24	62
2	N2	180/306 (59%)	178 (99%)	2 (1%)	0	100	100
2	N3	207/306 (68%)	199 (96%)	8 (4%)	0	100	100
2	N4	207/306 (68%)	199 (96%)	8 (4%)	0	100	100
2	N5	207/306 (68%)	198 (96%)	9 (4%)	0	100	100
2	N6	156/306 (51%)	154 (99%)	2 (1%)	0	100	100
2	O1	57/306 (19%)	53 (93%)	4 (7%)	0	100	100
2	O2	206/306 (67%)	198 (96%)	8 (4%)	0	100	100
2	O3	207/306 (68%)	204 (99%)	3 (1%)	0	100	100
2	O4	207/306 (68%)	198 (96%)	9 (4%)	0	100	100
2	O5	199/306 (65%)	194 (98%)	5 (2%)	0	100	100
2	P2	169/306 (55%)	163 (96%)	6 (4%)	0	100	100
2	P3	205/306 (67%)	197 (96%)	8 (4%)	0	100	100
2	P4	205/306 (67%)	196 (96%)	9 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	P5	205/306 (67%)	197 (96%)	8 (4%)	0	100	100
2	P6	169/306 (55%)	167 (99%)	2 (1%)	0	100	100
3	Q1	145/276 (52%)	134 (92%)	8 (6%)	3 (2%)	5	30
3	Q2	180/276 (65%)	166 (92%)	13 (7%)	1 (1%)	21	58
3	Q3	188/276 (68%)	171 (91%)	15 (8%)	2 (1%)	11	45
3	Q4	184/276 (67%)	169 (92%)	15 (8%)	0	100	100
3	R2	175/276 (63%)	155 (89%)	19 (11%)	1 (1%)	21	58
3	R3	194/276 (70%)	175 (90%)	17 (9%)	2 (1%)	12	47
3	R4	182/276 (66%)	167 (92%)	12 (7%)	3 (2%)	7	37
3	R5	182/276 (66%)	167 (92%)	15 (8%)	0	100	100
3	S2	131/276 (48%)	117 (89%)	13 (10%)	1 (1%)	16	52
3	S3	179/276 (65%)	165 (92%)	14 (8%)	0	100	100
3	S4	183/276 (66%)	164 (90%)	18 (10%)	1 (0%)	24	62
3	S5	182/276 (66%)	168 (92%)	14 (8%)	0	100	100
3	S6	174/276 (63%)	160 (92%)	12 (7%)	2 (1%)	11	45
4	T1	248/315 (79%)	222 (90%)	26 (10%)	0	100	100
4	T2	268/315 (85%)	245 (91%)	20 (8%)	3 (1%)	11	45
4	T3	268/315 (85%)	243 (91%)	23 (9%)	2 (1%)	18	55
4	T4	254/315 (81%)	237 (93%)	16 (6%)	1 (0%)	30	66
4	t1	269/315 (85%)	246 (91%)	22 (8%)	1 (0%)	30	66
4	t2	268/315 (85%)	244 (91%)	20 (8%)	4 (2%)	8	38
4	t3	268/315 (85%)	241 (90%)	24 (9%)	3 (1%)	11	45
4	t4	266/315 (84%)	250 (94%)	16 (6%)	0	100	100
5	U3	252/331 (76%)	243 (96%)	7 (3%)	2 (1%)	16	52
5	U4	256/331 (77%)	246 (96%)	7 (3%)	3 (1%)	10	42
5	U5	256/331 (77%)	246 (96%)	8 (3%)	2 (1%)	16	52
5	U6	256/331 (77%)	246 (96%)	7 (3%)	3 (1%)	10	42
5	U7	253/331 (76%)	244 (96%)	6 (2%)	3 (1%)	10	42
6	V1	167/239 (70%)	147 (88%)	18 (11%)	2 (1%)	10	42
6	V2	195/239 (82%)	170 (87%)	24 (12%)	1 (0%)	24	62
6	V3	192/239 (80%)	174 (91%)	18 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
6	V4	192/239 (80%)	168 (88%)	23 (12%)	1 (0%)	24 62
6	V5	192/239 (80%)	178 (93%)	13 (7%)	1 (0%)	24 62
6	X1	177/239 (74%)	155 (88%)	20 (11%)	2 (1%)	11 45
6	X2	195/239 (82%)	173 (89%)	20 (10%)	2 (1%)	12 47
6	X3	195/239 (82%)	164 (84%)	28 (14%)	3 (2%)	8 38
6	X4	195/239 (82%)	174 (89%)	20 (10%)	1 (0%)	24 62
6	X5	190/239 (80%)	163 (86%)	27 (14%)	0	100 100
7	Y1	88/282 (31%)	86 (98%)	2 (2%)	0	100 100
7	Y2	216/282 (77%)	202 (94%)	14 (6%)	0	100 100
7	Y3	218/282 (77%)	205 (94%)	11 (5%)	2 (1%)	14 49
7	Y4	218/282 (77%)	202 (93%)	16 (7%)	0	100 100
7	Y5	215/282 (76%)	202 (94%)	13 (6%)	0	100 100
8	Z1	249/369 (68%)	242 (97%)	7 (3%)	0	100 100
8	Z2	249/369 (68%)	240 (96%)	9 (4%)	0	100 100
8	Z3	248/369 (67%)	238 (96%)	9 (4%)	1 (0%)	30 66
8	Z4	249/369 (68%)	244 (98%)	5 (2%)	0	100 100
9	a2	164/237 (69%)	156 (95%)	7 (4%)	1 (1%)	21 58
9	a3	170/237 (72%)	159 (94%)	11 (6%)	0	100 100
9	a4	170/237 (72%)	164 (96%)	6 (4%)	0	100 100
9	a5	170/237 (72%)	159 (94%)	10 (6%)	1 (1%)	21 58
10	b2	238/278 (86%)	221 (93%)	16 (7%)	1 (0%)	30 66
10	b3	238/278 (86%)	220 (92%)	17 (7%)	1 (0%)	30 66
10	b4	238/278 (86%)	220 (92%)	18 (8%)	0	100 100
10	b5	238/278 (86%)	221 (93%)	16 (7%)	1 (0%)	30 66
11	c1	99/146 (68%)	95 (96%)	4 (4%)	0	100 100
11	c2	101/146 (69%)	94 (93%)	7 (7%)	0	100 100
11	c3	101/146 (69%)	95 (94%)	6 (6%)	0	100 100
All	All	30800/41235 (75%)	29262 (95%)	1462 (5%)	76 (0%)	44 77

All (76) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	M4	140	ASP

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Mol	Chain	Res	Type
5	U6	273	VAL
5	U7	299	GLY
6	V1	120	PRO
6	V1	121	PRO
6	X3	99	ASN
6	X4	64	PRO
10	b2	191	ASN
4	t2	39	PRO
1	A7	101	ILE
1	C4	135	LEU
1	D6	4	ASN
1	E5	40	GLY
3	R3	212	VAL
4	T2	68	ALA
6	V5	141	LYS
6	X2	141	LYS
6	X3	198	SER
10	b3	209	LEU
3	R2	86	ASN
3	R4	95	GLN
3	S6	86	ASN
5	U6	54	ILE
6	V4	218	ASP
6	X2	49	GLU
10	b5	193	ASN
4	t2	211	THR
4	t2	236	GLU
1	F2	159	GLN
2	M4	139	LEU
3	Q1	86	ASN
4	T3	216	GLN
4	T3	236	GLU
5	U3	273	VAL
5	U7	273	VAL
6	V2	143	ARG
8	Z3	163	LYS
4	t1	39	PRO
4	t2	13	ALA
4	t3	184	ASP
1	D5	4	ASN
2	M5	140	ASP
3	Q1	76	ARG

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Mol	Chain	Res	Type
3	Q2	127	ALA
3	R3	185	HIS
3	S4	110	PHE
4	T2	201	GLN
4	T2	236	GLU
5	U7	296	ILE
7	Y3	214	GLN
9	a2	131	ILE
9	a5	72	LYS
4	t3	9	GLY
1	J7	181	LEU
3	R4	76	ARG
3	S6	197	ASN
5	U4	53	PRO
5	U4	273	VAL
5	U6	296	ILE
6	X1	141	LYS
7	Y3	248	VAL
4	t3	39	PRO
3	Q3	70	VAL
5	U3	54	ILE
4	T4	55	GLY
5	U5	295	ILE
3	S2	178	GLY
5	U4	299	GLY
5	U5	54	ILE
6	X3	210	GLY
1	F4	153	ILE
3	Q1	178	GLY
3	Q3	178	GLY
1	A5	153	ILE
3	R4	98	PRO
6	X1	64	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A4	139/233 (60%)	135 (97%)	4 (3%)	37 58
1	A5	232/233 (100%)	232 (100%)	0	100 100
1	A6	232/233 (100%)	232 (100%)	0	100 100
1	A7	232/233 (100%)	232 (100%)	0	100 100
1	A8	198/233 (85%)	198 (100%)	0	100 100
1	A9	120/233 (52%)	120 (100%)	0	100 100
1	B3	86/233 (37%)	86 (100%)	0	100 100
1	B4	205/233 (88%)	205 (100%)	0	100 100
1	B5	233/233 (100%)	233 (100%)	0	100 100
1	B6	233/233 (100%)	233 (100%)	0	100 100
1	B7	227/233 (97%)	227 (100%)	0	100 100
1	B8	160/233 (69%)	160 (100%)	0	100 100
1	C3	96/233 (41%)	96 (100%)	0	100 100
1	C4	233/233 (100%)	233 (100%)	0	100 100
1	C5	233/233 (100%)	233 (100%)	0	100 100
1	C6	233/233 (100%)	233 (100%)	0	100 100
1	C7	204/233 (88%)	203 (100%)	1 (0%)	81 81
1	C8	125/233 (54%)	125 (100%)	0	100 100
1	D3	181/233 (78%)	181 (100%)	0	100 100
1	D4	233/233 (100%)	233 (100%)	0	100 100
1	D5	233/233 (100%)	233 (100%)	0	100 100
1	D6	231/233 (99%)	231 (100%)	0	100 100
1	D7	166/233 (71%)	165 (99%)	1 (1%)	78 80
1	E2	96/233 (41%)	96 (100%)	0	100 100
1	E3	231/233 (99%)	231 (100%)	0	100 100
1	E4	233/233 (100%)	233 (100%)	0	100 100
1	E5	233/233 (100%)	233 (100%)	0	100 100
1	E6	208/233 (89%)	207 (100%)	1 (0%)	81 81
1	E7	130/233 (56%)	130 (100%)	0	100 100
1	F2	168/233 (72%)	167 (99%)	1 (1%)	78 80
1	F3	232/233 (100%)	232 (100%)	0	100 100
1	F4	231/233 (99%)	231 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	F5	232/233 (100%)	232 (100%)	0	100	100
1	F6	175/233 (75%)	174 (99%)	1 (1%)	78	80
1	G1	211/233 (91%)	211 (100%)	0	100	100
1	G2	138/233 (59%)	138 (100%)	0	100	100
1	G6	96/233 (41%)	96 (100%)	0	100	100
1	G7	225/233 (97%)	225 (100%)	0	100	100
1	G8	233/233 (100%)	233 (100%)	0	100	100
1	G9	233/233 (100%)	233 (100%)	0	100	100
1	H6	162/233 (70%)	162 (100%)	0	100	100
1	H7	233/233 (100%)	233 (100%)	0	100	100
1	H8	233/233 (100%)	233 (100%)	0	100	100
1	H9	233/233 (100%)	233 (100%)	0	100	100
1	I5	97/233 (42%)	97 (100%)	0	100	100
1	I6	224/233 (96%)	224 (100%)	0	100	100
1	I7	233/233 (100%)	233 (100%)	0	100	100
1	I8	233/233 (100%)	233 (100%)	0	100	100
1	I9	217/233 (93%)	217 (100%)	0	100	100
1	J5	155/233 (66%)	155 (100%)	0	100	100
1	J6	233/233 (100%)	233 (100%)	0	100	100
1	J7	233/233 (100%)	233 (100%)	0	100	100
1	J8	233/233 (100%)	233 (100%)	0	100	100
1	J9	190/233 (82%)	190 (100%)	0	100	100
1	K4	94/233 (40%)	94 (100%)	0	100	100
1	K5	214/233 (92%)	214 (100%)	0	100	100
1	K6	232/233 (100%)	232 (100%)	0	100	100
1	K7	231/233 (99%)	231 (100%)	0	100	100
1	K8	220/233 (94%)	220 (100%)	0	100	100
1	K9	150/233 (64%)	150 (100%)	0	100	100
1	h0	182/233 (78%)	182 (100%)	0	100	100
1	h1	85/233 (36%)	85 (100%)	0	100	100
1	i0	144/233 (62%)	144 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	j0	100/233 (43%)	100 (100%)	0	100	100
2	L2	161/278 (58%)	161 (100%)	0	100	100
2	L3	169/278 (61%)	169 (100%)	0	100	100
2	L4	169/278 (61%)	168 (99%)	1 (1%)	78	80
2	L5	169/278 (61%)	169 (100%)	0	100	100
2	L6	131/278 (47%)	131 (100%)	0	100	100
2	M1	59/278 (21%)	59 (100%)	0	100	100
2	M2	172/278 (62%)	172 (100%)	0	100	100
2	M3	172/278 (62%)	172 (100%)	0	100	100
2	M4	172/278 (62%)	172 (100%)	0	100	100
2	M5	162/278 (58%)	162 (100%)	0	100	100
2	N2	149/278 (54%)	149 (100%)	0	100	100
2	N3	169/278 (61%)	169 (100%)	0	100	100
2	N4	169/278 (61%)	169 (100%)	0	100	100
2	N5	169/278 (61%)	169 (100%)	0	100	100
2	N6	134/278 (48%)	134 (100%)	0	100	100
2	O1	48/278 (17%)	48 (100%)	0	100	100
2	O2	168/278 (60%)	168 (100%)	0	100	100
2	O3	169/278 (61%)	169 (100%)	0	100	100
2	O4	169/278 (61%)	169 (100%)	0	100	100
2	O5	166/278 (60%)	166 (100%)	0	100	100
2	P2	141/278 (51%)	140 (99%)	1 (1%)	76	79
2	P3	167/278 (60%)	167 (100%)	0	100	100
2	P4	167/278 (60%)	167 (100%)	0	100	100
2	P5	167/278 (60%)	167 (100%)	0	100	100
2	P6	142/278 (51%)	142 (100%)	0	100	100
3	Q1	149/252 (59%)	149 (100%)	0	100	100
3	Q2	177/252 (70%)	177 (100%)	0	100	100
3	Q3	184/252 (73%)	184 (100%)	0	100	100
3	Q4	181/252 (72%)	181 (100%)	0	100	100
3	R2	172/252 (68%)	171 (99%)	1 (1%)	78	80

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	R3	189/252 (75%)	189 (100%)	0	100	100
3	R4	180/252 (71%)	180 (100%)	0	100	100
3	R5	180/252 (71%)	180 (100%)	0	100	100
3	S2	138/252 (55%)	138 (100%)	0	100	100
3	S3	176/252 (70%)	176 (100%)	0	100	100
3	S4	181/252 (72%)	181 (100%)	0	100	100
3	S5	179/252 (71%)	179 (100%)	0	100	100
3	S6	174/252 (69%)	174 (100%)	0	100	100
4	T1	221/264 (84%)	221 (100%)	0	100	100
4	T2	232/264 (88%)	232 (100%)	0	100	100
4	T3	232/264 (88%)	232 (100%)	0	100	100
4	T4	221/264 (84%)	221 (100%)	0	100	100
4	t1	233/264 (88%)	233 (100%)	0	100	100
4	t2	232/264 (88%)	232 (100%)	0	100	100
4	t3	232/264 (88%)	232 (100%)	0	100	100
4	t4	230/264 (87%)	230 (100%)	0	100	100
5	U3	228/296 (77%)	228 (100%)	0	100	100
5	U4	230/296 (78%)	230 (100%)	0	100	100
5	U5	230/296 (78%)	230 (100%)	0	100	100
5	U6	230/296 (78%)	229 (100%)	1 (0%)	84	82
5	U7	228/296 (77%)	228 (100%)	0	100	100
6	V1	152/205 (74%)	152 (100%)	0	100	100
6	V2	173/205 (84%)	173 (100%)	0	100	100
6	V3	172/205 (84%)	172 (100%)	0	100	100
6	V4	172/205 (84%)	172 (100%)	0	100	100
6	V5	172/205 (84%)	172 (100%)	0	100	100
6	X1	159/205 (78%)	159 (100%)	0	100	100
6	X2	173/205 (84%)	173 (100%)	0	100	100
6	X3	173/205 (84%)	172 (99%)	1 (1%)	78	80
6	X4	173/205 (84%)	173 (100%)	0	100	100
6	X5	171/205 (83%)	171 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	Y1	96/258 (37%)	96 (100%)	0	100	100
7	Y2	206/258 (80%)	206 (100%)	0	100	100
7	Y3	209/258 (81%)	209 (100%)	0	100	100
7	Y4	209/258 (81%)	209 (100%)	0	100	100
7	Y5	206/258 (80%)	206 (100%)	0	100	100
8	Z1	231/327 (71%)	231 (100%)	0	100	100
8	Z2	231/327 (71%)	231 (100%)	0	100	100
8	Z3	230/327 (70%)	230 (100%)	0	100	100
8	Z4	231/327 (71%)	231 (100%)	0	100	100
9	a2	160/217 (74%)	160 (100%)	0	100	100
9	a3	164/217 (76%)	164 (100%)	0	100	100
9	a4	164/217 (76%)	164 (100%)	0	100	100
9	a5	164/217 (76%)	163 (99%)	1 (1%)	78	80
10	b2	219/252 (87%)	219 (100%)	0	100	100
10	b3	219/252 (87%)	219 (100%)	0	100	100
10	b4	219/252 (87%)	219 (100%)	0	100	100
10	b5	219/252 (87%)	219 (100%)	0	100	100
11	c1	96/133 (72%)	96 (100%)	0	100	100
11	c2	98/133 (74%)	98 (100%)	0	100	100
11	c3	98/133 (74%)	98 (100%)	0	100	100
All	All	26759/35653 (75%)	26744 (100%)	15 (0%)	87	88

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A4	54	THR
1	A4	153	ILE
1	A4	228	MET
1	A4	229	ASN
1	C7	67	GLU
1	D7	184	ILE
1	E6	129	GLU
1	F2	38	ARG
1	F6	184	ILE
2	L4	203	ARG

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Mol	Chain	Res	Type
2	P2	156	ARG
3	R2	64	VAL
5	U6	135	TYR
6	X3	56	ASP
9	a5	216	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (616) such sidechains are listed below:

Mol	Chain	Res	Type
1	A4	5	HIS
1	A4	65	ASN
1	A4	152	HIS
1	A4	158	HIS
1	A4	233	ASN
1	A4	235	GLN
1	A4	257	GLN
1	A4	279	GLN
1	A5	19	ASN
1	A5	88	GLN
1	A5	116	GLN
1	A5	158	HIS
1	A5	159	GLN
1	A5	222	HIS
1	A5	233	ASN
1	A5	269	GLN
1	A6	37	ASN
1	A6	65	ASN
1	A6	88	GLN
1	A6	152	HIS
1	A6	159	GLN
1	A6	218	ASN
1	A6	233	ASN
1	A6	275	GLN
1	A7	13	HIS
1	A7	65	ASN
1	A7	109	GLN
1	A7	111	GLN
1	A7	127	GLN
1	A7	152	HIS
1	A7	156	ASN
1	A7	229	ASN
1	A7	233	ASN

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Mol	Chain	Res	Type
1	A8	55	GLN
1	A8	88	GLN
1	A8	116	GLN
1	A9	131	ASN
1	A9	218	ASN
1	A9	222	HIS
1	B3	13	HIS
1	B3	235	GLN
1	B3	261	GLN
1	B3	275	GLN
1	B4	13	HIS
1	B4	37	ASN
1	B4	65	ASN
1	B4	84	HIS
1	B4	152	HIS
1	B4	156	ASN
1	B4	257	GLN
1	B5	19	ASN
1	B5	55	GLN
1	B5	65	ASN
1	B5	84	HIS
1	B5	88	GLN
1	B5	152	HIS
1	B5	156	ASN
1	B5	235	GLN
1	B5	261	GLN
1	B6	84	HIS
1	B6	156	ASN
1	B6	158	HIS
1	B6	249	GLN
1	B6	275	GLN
1	B7	4	ASN
1	B7	5	HIS
1	B7	65	ASN
1	B7	81	GLN
1	B7	84	HIS
1	B7	88	GLN
1	B7	99	ASN
1	B7	158	HIS
1	B7	177	ASN
1	B7	233	ASN
1	B7	257	GLN

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Mol	Chain	Res	Type
1	B8	81	GLN
1	B8	144	ASN
1	B8	152	HIS
1	B8	218	ASN
1	C3	5	HIS
1	C3	19	ASN
1	C3	275	GLN
1	C4	116	GLN
1	C4	222	HIS
1	C4	261	GLN
1	C5	4	ASN
1	C5	19	ASN
1	C5	109	GLN
1	C5	131	ASN
1	C5	156	ASN
1	C5	158	HIS
1	C5	209	GLN
1	C5	279	GLN
1	C6	4	ASN
1	C6	6	ASN
1	C6	65	ASN
1	C6	88	GLN
1	C6	111	GLN
1	C6	116	GLN
1	C6	158	HIS
1	C6	209	GLN
1	C7	19	ASN
1	C7	37	ASN
1	C7	74	GLN
1	C7	96	GLN
1	C7	177	ASN
1	C7	209	GLN
1	C7	235	GLN
1	C7	249	GLN
1	C7	257	GLN
1	C7	261	GLN
1	C8	109	GLN
1	D3	19	ASN
1	D3	37	ASN
1	D3	209	GLN
1	D4	5	HIS
1	D4	111	GLN

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Mol	Chain	Res	Type
1	D4	152	HIS
1	D4	159	GLN
1	D4	209	GLN
1	D4	249	GLN
1	D4	261	GLN
1	D5	5	HIS
1	D5	74	GLN
1	D5	109	GLN
1	D5	127	GLN
1	D5	209	GLN
1	D5	222	HIS
1	D5	257	GLN
1	D6	55	GLN
1	D6	65	ASN
1	D6	152	HIS
1	D6	209	GLN
1	D6	235	GLN
1	D7	99	ASN
1	D7	116	GLN
1	D7	127	GLN
1	D7	131	ASN
1	E2	37	ASN
1	E2	233	ASN
1	E3	65	ASN
1	E3	88	GLN
1	E3	222	HIS
1	E4	5	HIS
1	E4	109	GLN
1	E4	152	HIS
1	E4	158	HIS
1	E5	37	ASN
1	E5	55	GLN
1	E5	158	HIS
1	E5	222	HIS
1	E5	233	ASN
1	E5	235	GLN
1	E5	261	GLN
1	E5	279	GLN
1	E6	19	ASN
1	E6	99	ASN
1	E6	152	HIS
1	E6	235	GLN

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Mol	Chain	Res	Type
1	E6	257	GLN
1	E7	108	GLN
1	E7	222	HIS
1	F2	65	ASN
1	F2	158	HIS
1	F2	209	GLN
1	F2	218	ASN
1	F2	233	ASN
1	F3	37	ASN
1	F3	88	GLN
1	F3	152	HIS
1	F3	209	GLN
1	F3	233	ASN
1	F3	235	GLN
1	F4	156	ASN
1	F4	233	ASN
1	F4	235	GLN
1	F4	271	ASN
1	F4	275	GLN
1	F5	4	ASN
1	F5	5	HIS
1	F5	13	HIS
1	F5	19	ASN
1	F5	37	ASN
1	F5	96	GLN
1	F5	109	GLN
1	F5	152	HIS
1	F5	156	ASN
1	F5	193	ASN
1	F5	218	ASN
1	F6	81	GLN
1	F6	88	GLN
1	F6	156	ASN
1	F6	209	GLN
1	F6	222	HIS
1	F6	229	ASN
1	G1	37	ASN
1	G1	55	GLN
1	G1	84	HIS
1	G1	88	GLN
1	G1	109	GLN
1	G1	127	GLN

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Mol	Chain	Res	Type
1	G1	152	HIS
1	G1	209	GLN
1	G1	222	HIS
1	G1	233	ASN
1	G1	235	GLN
1	G2	74	GLN
1	G2	222	HIS
1	G6	4	ASN
1	G6	5	HIS
1	G6	13	HIS
1	G7	5	HIS
1	G7	13	HIS
1	G7	111	GLN
1	G7	131	ASN
1	G7	156	ASN
1	G7	159	GLN
1	G7	209	GLN
1	G7	222	HIS
1	G7	235	GLN
1	G7	279	GLN
1	G8	19	ASN
1	G8	96	GLN
1	G8	144	ASN
1	G8	152	HIS
1	G8	156	ASN
1	G8	233	ASN
1	G8	249	GLN
1	G8	257	GLN
1	G9	144	ASN
1	G9	233	ASN
1	G9	275	GLN
1	H6	13	HIS
1	H6	156	ASN
1	H7	5	HIS
1	H7	13	HIS
1	H7	81	GLN
1	H7	88	GLN
1	H7	96	GLN
1	H7	116	GLN
1	H7	127	GLN
1	H7	144	ASN
1	H7	159	GLN

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Mol	Chain	Res	Type
1	H7	271	ASN
1	H7	279	GLN
1	H8	5	HIS
1	H8	13	HIS
1	H8	55	GLN
1	H8	111	GLN
1	H8	156	ASN
1	H9	5	HIS
1	H9	6	ASN
1	H9	13	HIS
1	H9	74	GLN
1	H9	109	GLN
1	H9	152	HIS
1	H9	158	HIS
1	H9	222	HIS
1	H9	229	ASN
1	H9	233	ASN
1	H9	271	ASN
1	I5	5	HIS
1	I5	13	HIS
1	I5	19	ASN
1	I6	127	GLN
1	I6	144	ASN
1	I6	218	ASN
1	I7	5	HIS
1	I7	13	HIS
1	I7	127	GLN
1	I7	152	HIS
1	I7	209	GLN
1	I7	235	GLN
1	I8	13	HIS
1	I8	19	ASN
1	I8	74	GLN
1	I8	109	GLN
1	I8	116	GLN
1	I8	152	HIS
1	I8	158	HIS
1	I8	209	GLN
1	I8	249	GLN
1	I8	275	GLN
1	I9	37	ASN
1	I9	74	GLN

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Mol	Chain	Res	Type
1	I9	88	GLN
1	I9	109	GLN
1	I9	218	ASN
1	I9	233	ASN
1	I9	249	GLN
1	J5	156	ASN
1	J5	158	HIS
1	J5	233	ASN
1	J5	249	GLN
1	J5	257	GLN
1	J5	271	ASN
1	J6	4	ASN
1	J6	5	HIS
1	J6	74	GLN
1	J6	84	HIS
1	J6	193	ASN
1	J6	209	GLN
1	J7	5	HIS
1	J7	81	GLN
1	J7	84	HIS
1	J7	158	HIS
1	J7	177	ASN
1	J7	222	HIS
1	J7	271	ASN
1	J8	84	HIS
1	J8	108	GLN
1	J8	152	HIS
1	J8	158	HIS
1	J8	249	GLN
1	J8	257	GLN
1	J9	55	GLN
1	J9	88	GLN
1	J9	158	HIS
1	J9	235	GLN
1	K4	55	GLN
1	K4	249	GLN
1	K4	269	GLN
1	K5	55	GLN
1	K5	209	GLN
1	K5	229	ASN
1	K5	235	GLN
1	K5	257	GLN

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Mol	Chain	Res	Type
1	K5	261	GLN
1	K5	269	GLN
1	K5	271	ASN
1	K6	5	HIS
1	K6	13	HIS
1	K6	55	GLN
1	K6	88	GLN
1	K6	156	ASN
1	K6	222	HIS
1	K6	233	ASN
1	K7	4	ASN
1	K7	19	ASN
1	K7	37	ASN
1	K7	55	GLN
1	K7	88	GLN
1	K7	108	GLN
1	K7	152	HIS
1	K7	159	GLN
1	K7	249	GLN
1	K8	99	ASN
1	K8	116	GLN
1	K8	193	ASN
1	K8	233	ASN
1	K8	235	GLN
1	K9	84	HIS
1	K9	99	ASN
1	K9	229	ASN
1	K9	233	ASN
2	L2	113	GLN
2	L3	297	ASN
2	L5	95	GLN
2	L5	111	ASN
2	L5	146	GLN
2	L6	111	ASN
2	L6	117	ASN
2	L6	178	ASN
2	L6	250	ASN
2	L6	271	ASN
2	L6	291	HIS
2	M1	74	GLN
2	M2	74	GLN
2	M2	103	ASN

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Mol	Chain	Res	Type
2	M2	146	GLN
2	M2	179	HIS
2	M3	111	ASN
2	M3	167	GLN
2	M3	214	ASN
2	M4	297	ASN
2	M5	167	GLN
2	M5	271	ASN
2	N2	91	GLN
2	N2	94	HIS
2	N2	95	GLN
2	N2	113	GLN
2	N3	167	GLN
2	N3	273	HIS
2	N3	294	ASN
2	N4	103	ASN
2	N4	217	GLN
2	N5	95	GLN
2	N5	291	HIS
2	N6	179	HIS
2	O1	111	ASN
2	O2	74	GLN
2	O2	94	HIS
2	O2	171	ASN
2	O2	238	HIS
2	O2	273	HIS
2	O3	111	ASN
2	O3	113	GLN
2	O3	146	GLN
2	O3	171	ASN
2	O3	214	ASN
2	O3	271	ASN
2	O4	74	GLN
2	O4	117	ASN
2	O4	238	HIS
2	O4	271	ASN
2	O4	273	HIS
2	O5	111	ASN
2	O5	178	ASN
2	O5	273	HIS
2	P2	74	GLN
2	P2	80	ASN

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Mol	Chain	Res	Type
2	P2	117	ASN
2	P2	128	GLN
2	P2	273	HIS
2	P3	74	GLN
2	P3	94	HIS
2	P3	95	GLN
2	P3	103	ASN
2	P3	271	ASN
2	P4	111	ASN
2	P4	146	GLN
2	P4	271	ASN
2	P5	91	GLN
2	P5	167	GLN
2	P5	273	HIS
2	P6	111	ASN
2	P6	214	ASN
3	Q1	222	ASN
3	Q2	56	ASN
3	Q2	95	GLN
3	Q2	140	ASN
3	Q2	255	ASN
3	Q3	95	GLN
3	Q3	163	ASN
3	Q3	226	HIS
3	Q3	240	HIS
3	Q4	62	HIS
3	Q4	138	ASN
3	Q4	255	ASN
3	R2	56	ASN
3	R2	100	ASN
3	R2	180	ASN
3	R2	186	ASN
3	R3	222	ASN
3	R3	240	HIS
3	R3	257	GLN
3	R4	57	GLN
3	R4	186	ASN
3	R4	226	HIS
3	R5	95	GLN
3	R5	226	HIS
3	R5	255	ASN
3	S2	56	ASN

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Mol	Chain	Res	Type
3	S2	85	ASN
3	S2	151	ASN
3	S2	180	ASN
3	S3	240	HIS
3	S4	180	ASN
3	S4	255	ASN
3	S5	163	ASN
3	S6	57	GLN
3	S6	137	GLN
3	S6	153	ASN
3	S6	243	GLN
4	T1	33	ASN
4	T1	132	ASN
4	T1	247	HIS
4	T2	66	GLN
4	T2	132	ASN
4	T2	133	GLN
4	T2	216	GLN
4	T2	264	HIS
4	T3	133	GLN
4	T3	176	HIS
4	T4	132	ASN
4	T4	160	ASN
4	T4	201	GLN
4	T4	208	GLN
5	U3	45	ASN
5	U3	139	HIS
5	U3	201	HIS
5	U3	292	ASN
5	U4	40	ASN
5	U4	50	ASN
5	U4	141	GLN
5	U4	308	ASN
5	U5	40	ASN
5	U5	45	ASN
5	U5	114	GLN
5	U5	128	GLN
5	U5	289	HIS
5	U6	29	ASN
5	U6	40	ASN
5	U6	103	GLN
5	U6	107	ASN

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Mol	Chain	Res	Type
5	U6	128	GLN
5	U6	136	GLN
5	U6	193	GLN
5	U7	45	ASN
5	U7	109	ASN
6	V1	183	GLN
6	V1	193	ASN
6	V1	195	HIS
6	V1	211	GLN
6	V2	99	ASN
6	V2	100	HIS
6	V2	132	GLN
6	V3	156	ASN
6	V3	195	HIS
6	V4	86	ASN
6	V4	100	HIS
6	V4	122	HIS
6	V4	156	ASN
6	V4	195	HIS
6	V5	107	ASN
6	X1	75	GLN
6	X1	100	HIS
6	X1	158	HIS
6	X2	95	GLN
6	X2	158	HIS
6	X2	195	HIS
6	X3	122	HIS
6	X3	158	HIS
6	X3	183	GLN
6	X3	195	HIS
6	X4	91	ASN
6	X4	132	GLN
6	X4	193	ASN
6	X4	195	HIS
6	X5	122	HIS
6	X5	144	HIS
6	X5	158	HIS
6	X5	183	GLN
7	Y2	131	GLN
7	Y2	197	GLN
7	Y3	93	ASN
7	Y3	126	GLN

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Mol	Chain	Res	Type
7	Y3	127	ASN
7	Y3	222	HIS
7	Y4	127	ASN
7	Y4	145	ASN
7	Y4	178	HIS
7	Y4	222	HIS
7	Y4	239	HIS
7	Y5	60	HIS
7	Y5	178	HIS
8	Z1	104	HIS
8	Z1	106	ASN
8	Z1	190	HIS
8	Z1	217	ASN
8	Z1	236	HIS
8	Z1	243	HIS
8	Z2	147	ASN
8	Z2	229	HIS
8	Z2	236	HIS
8	Z2	257	ASN
8	Z3	145	ASN
8	Z3	190	HIS
8	Z3	201	ASN
8	Z3	217	ASN
8	Z3	270	ASN
8	Z4	104	HIS
8	Z4	174	ASN
8	Z4	194	ASN
8	Z4	217	ASN
8	Z4	225	HIS
8	Z4	236	HIS
9	a2	75	GLN
9	a3	58	HIS
9	a3	89	GLN
9	a4	58	HIS
9	a4	195	ASN
9	a5	75	GLN
9	a5	81	GLN
9	a5	146	ASN
9	a5	184	GLN
10	b2	65	ASN
10	b2	216	GLN
10	b2	231	ASN

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Mol	Chain	Res	Type
10	b3	83	ASN
10	b3	106	GLN
10	b3	240	GLN
10	b4	112	GLN
10	b4	192	ASN
10	b4	261	HIS
10	b5	154	GLN
11	c1	64	HIS
11	c1	115	GLN
11	c3	64	HIS
1	h0	37	ASN
1	h0	55	GLN
1	h0	109	GLN
1	h0	152	HIS
1	h0	156	ASN
1	h0	158	HIS
1	h0	193	ASN
1	h1	88	GLN
1	i0	74	GLN
1	i0	131	ASN
1	i0	152	HIS
1	i0	209	GLN
4	t1	62	GLN
4	t1	69	GLN
4	t1	163	ASN
4	t1	176	HIS
4	t2	132	ASN
4	t2	176	HIS
4	t2	179	GLN
4	t2	197	GLN
4	t2	204	ASN
4	t3	57	GLN
4	t3	62	GLN
4	t4	59	GLN
4	t4	132	ASN
4	t4	163	ASN
4	t4	176	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 18 ligands modelled in this entry, 18 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

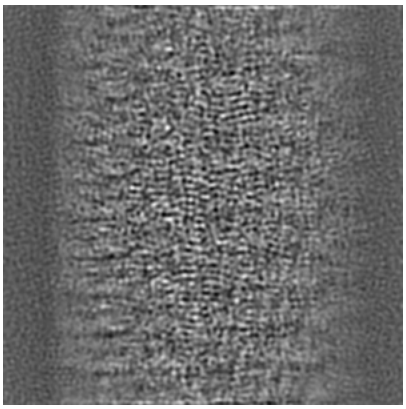
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-75269. These allow visual inspection of the internal detail of the map and identification of artifacts.

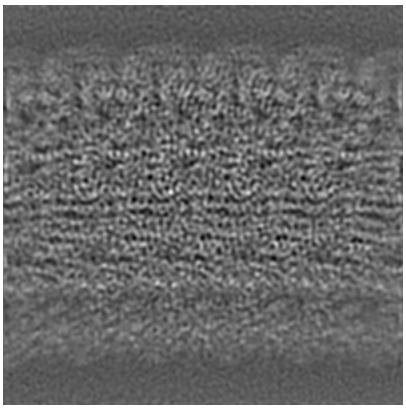
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

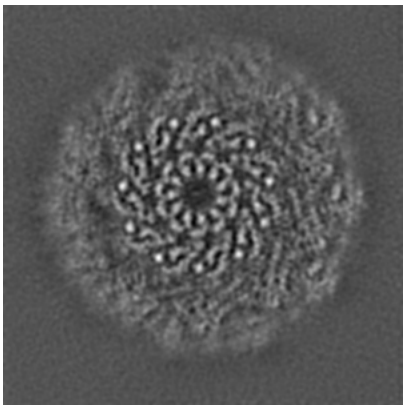
6.1.1 Primary map



X

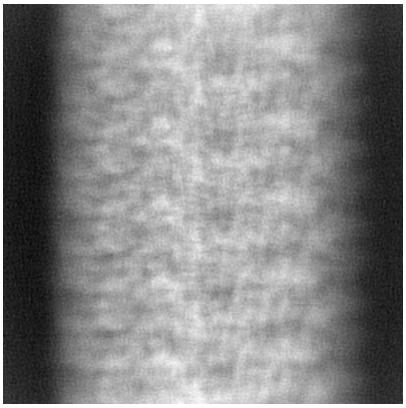


Y

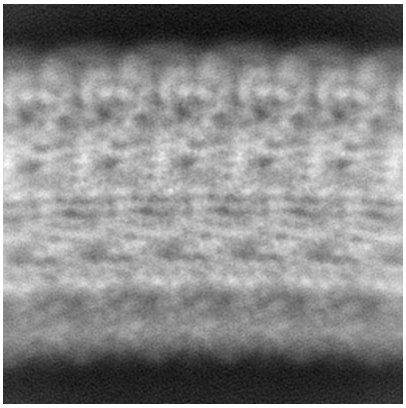


Z

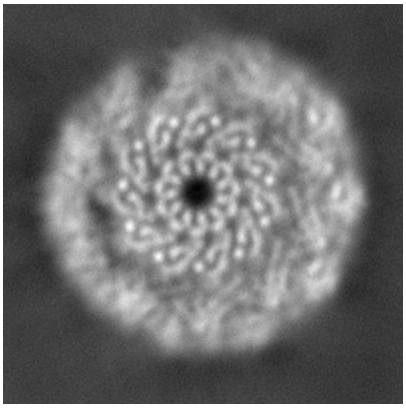
6.1.2 Raw map



X



Y

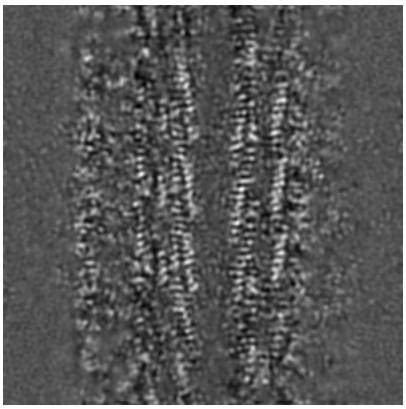


Z

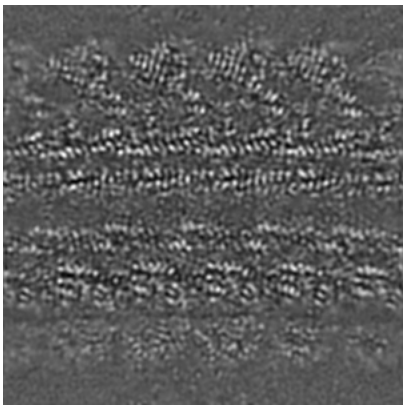
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

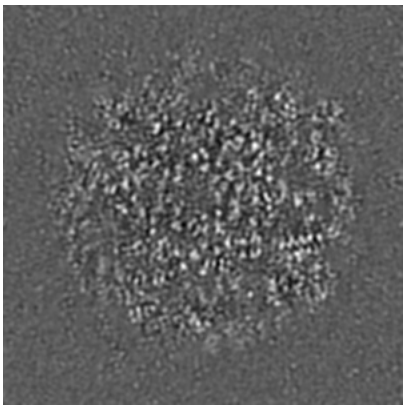
6.2.1 Primary map



X Index: 128

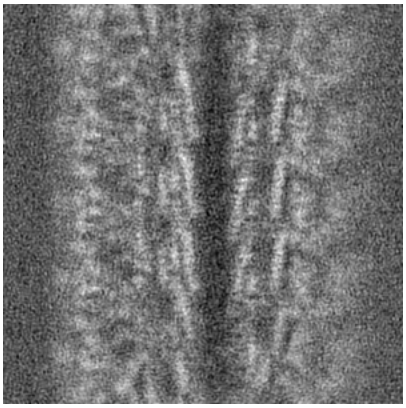


Y Index: 128

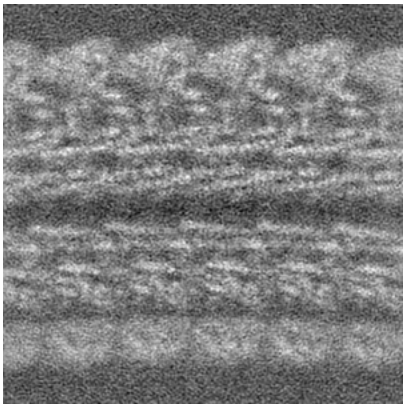


Z Index: 128

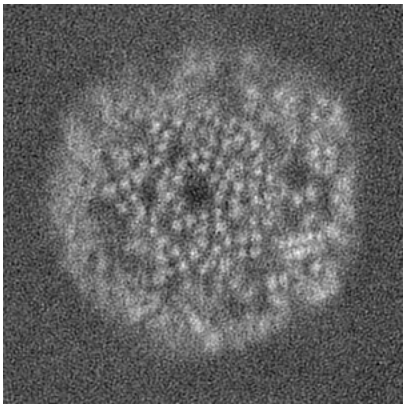
6.2.2 Raw map



X Index: 128



Y Index: 128

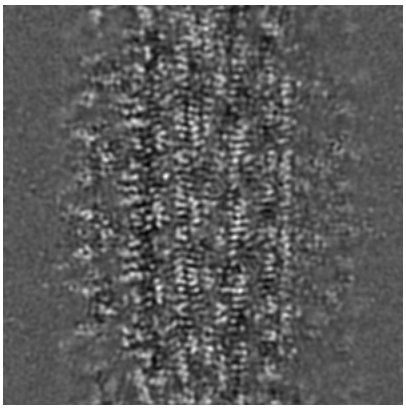


Z Index: 128

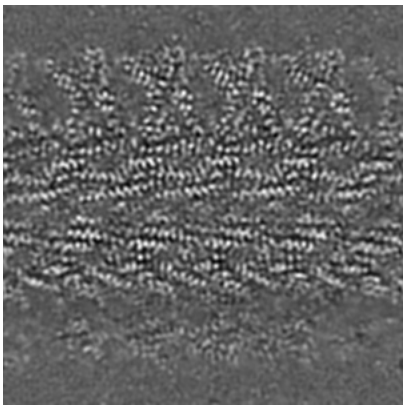
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

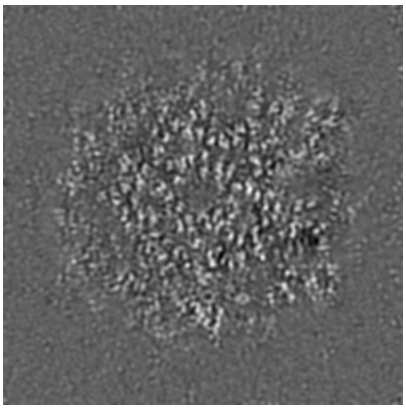
6.3.1 Primary map



X Index: 137

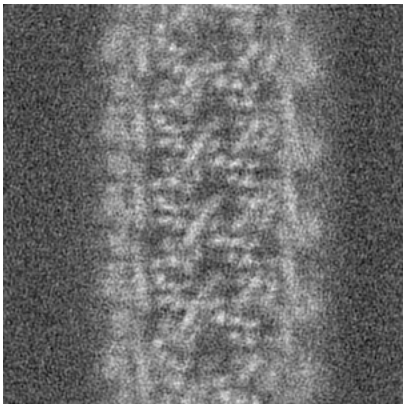


Y Index: 123

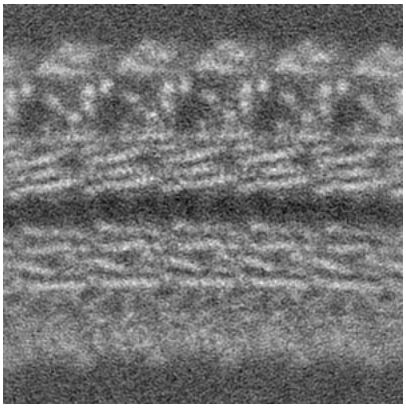


Z Index: 122

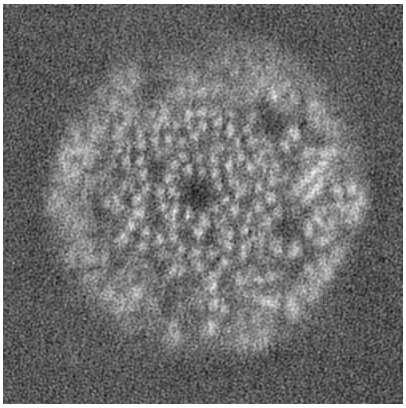
6.3.2 Raw map



X Index: 199



Y Index: 140

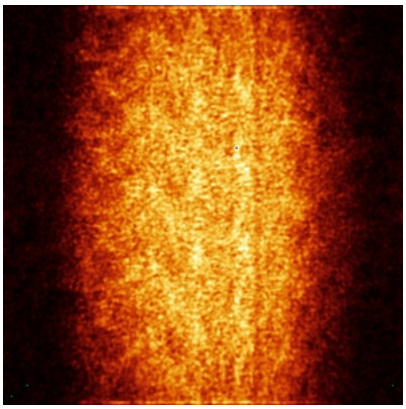


Z Index: 154

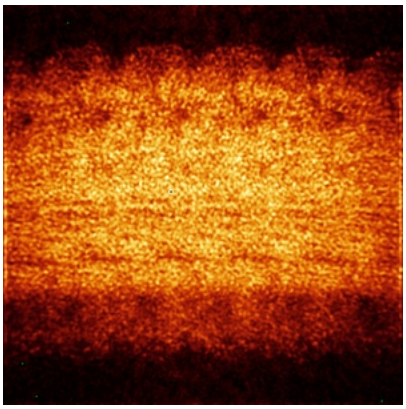
The images above show the largest variance slices of the map in three orthogonal directions.

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

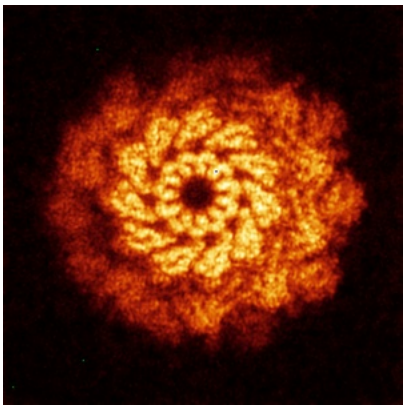
6.4.1 Primary map



X

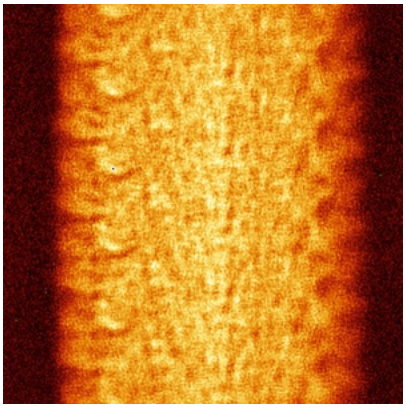


Y

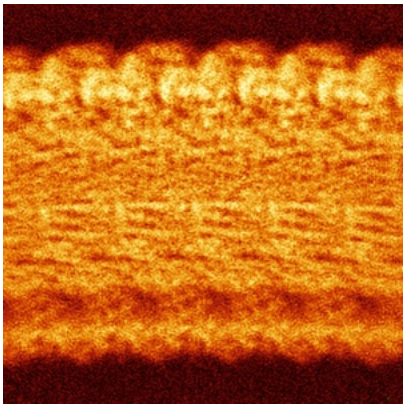


Z

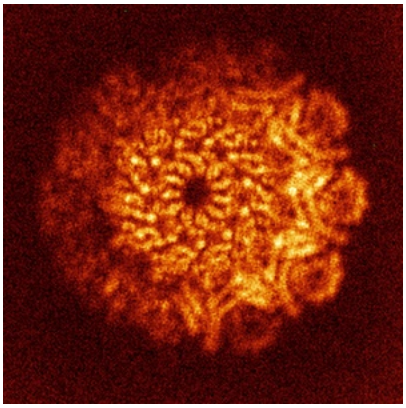
6.4.2 Raw map



X



Y

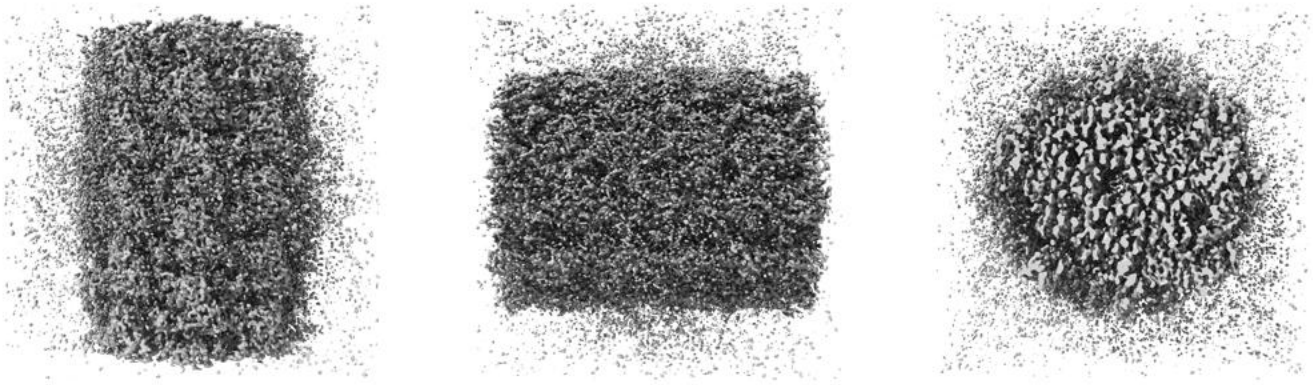


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

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

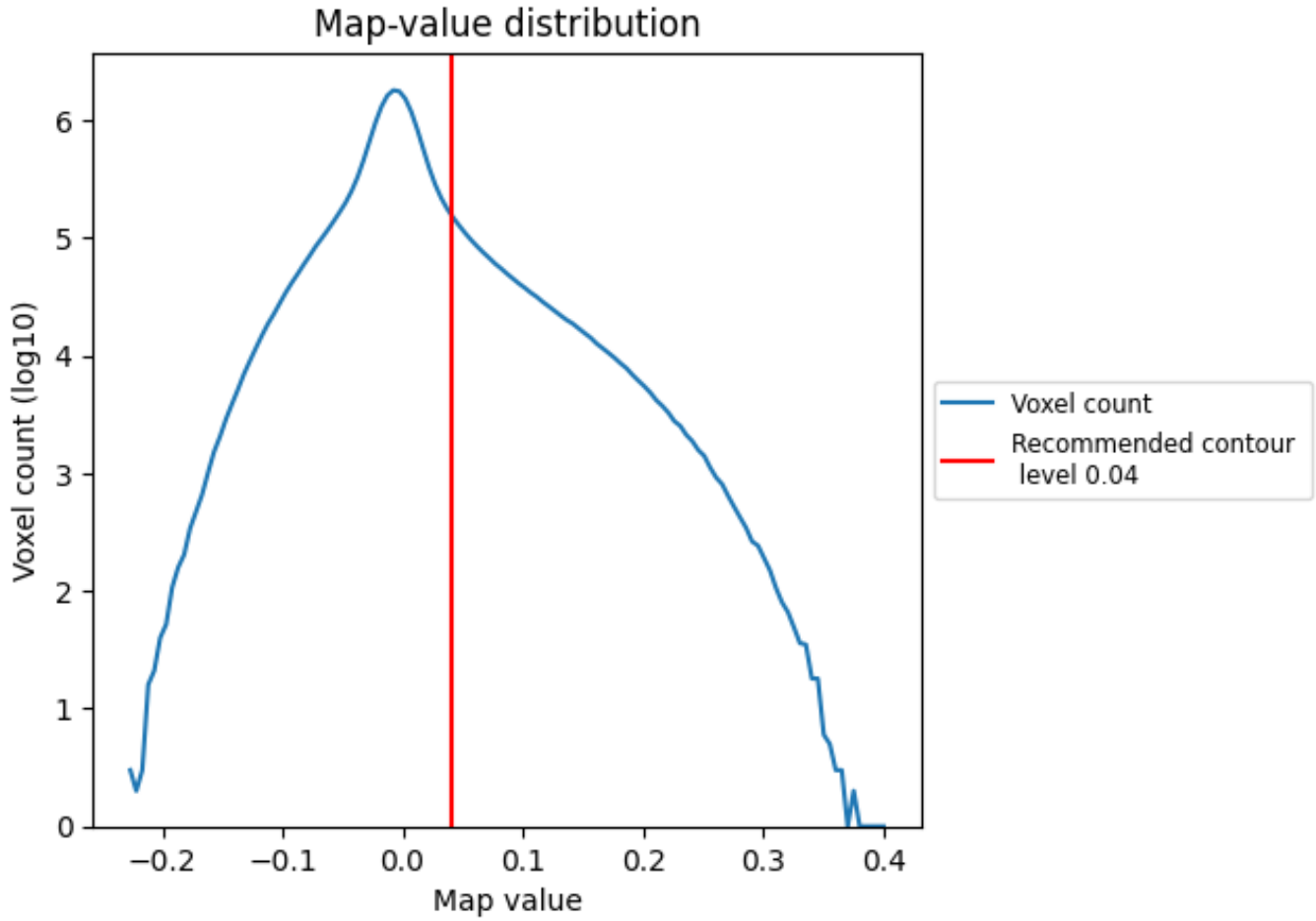
6.6 Mask visualisation (i)

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

7 Map analysis

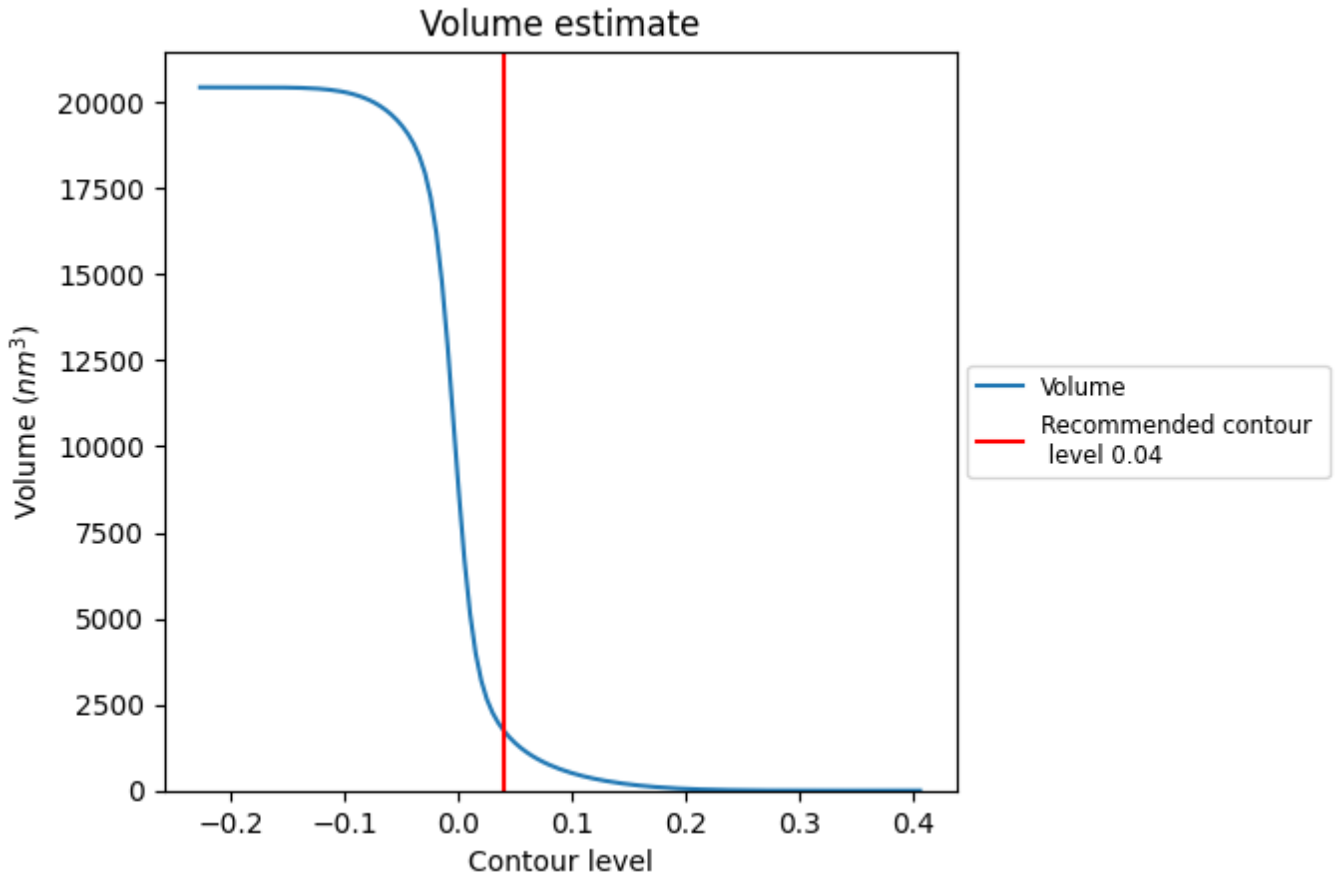
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

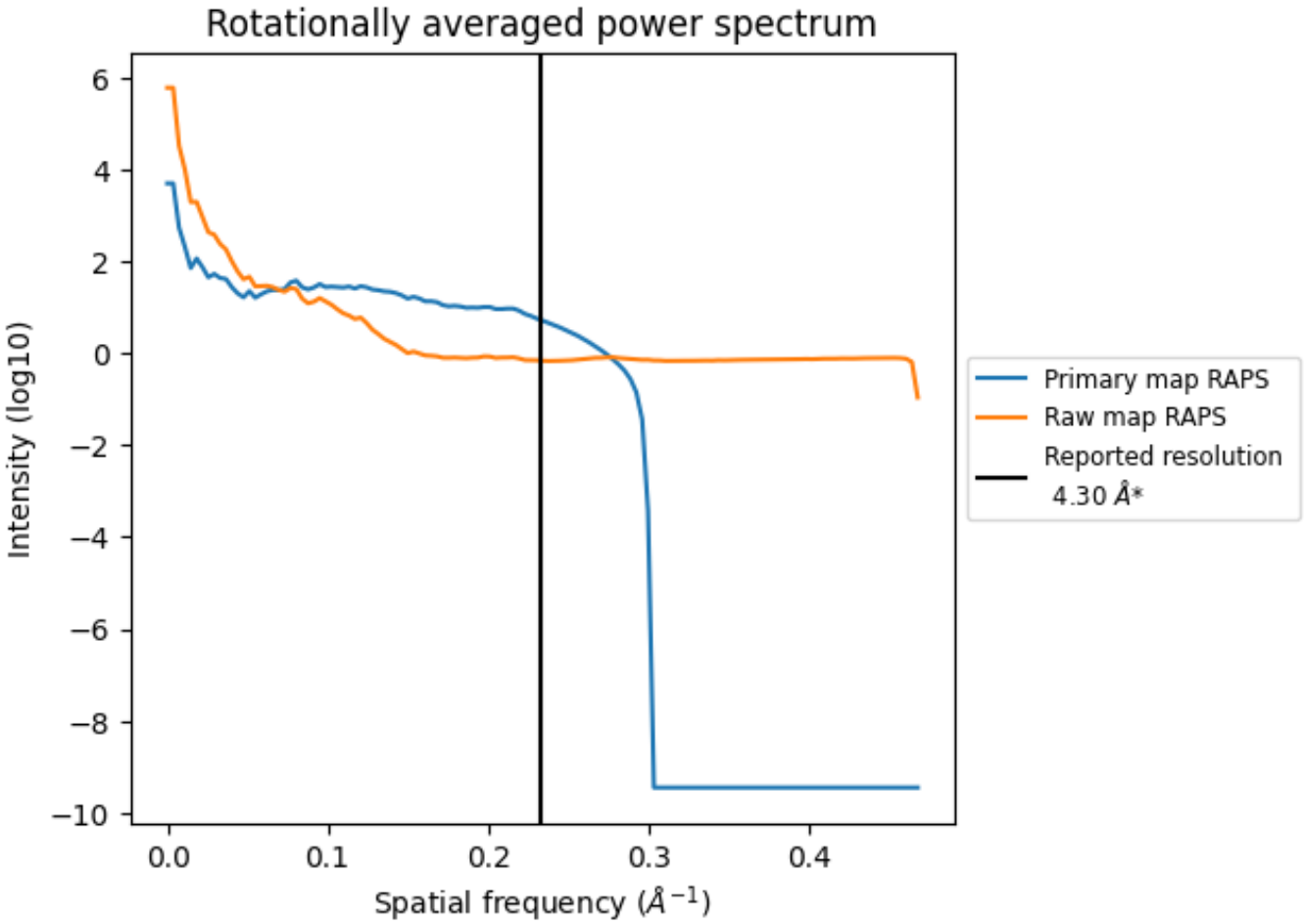
7.2 Volume estimate



The volume at the recommended contour level is 1743 nm^3; this corresponds to an approximate mass of 1574 kDa.

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

7.3 Rotationally averaged power spectrum (i)

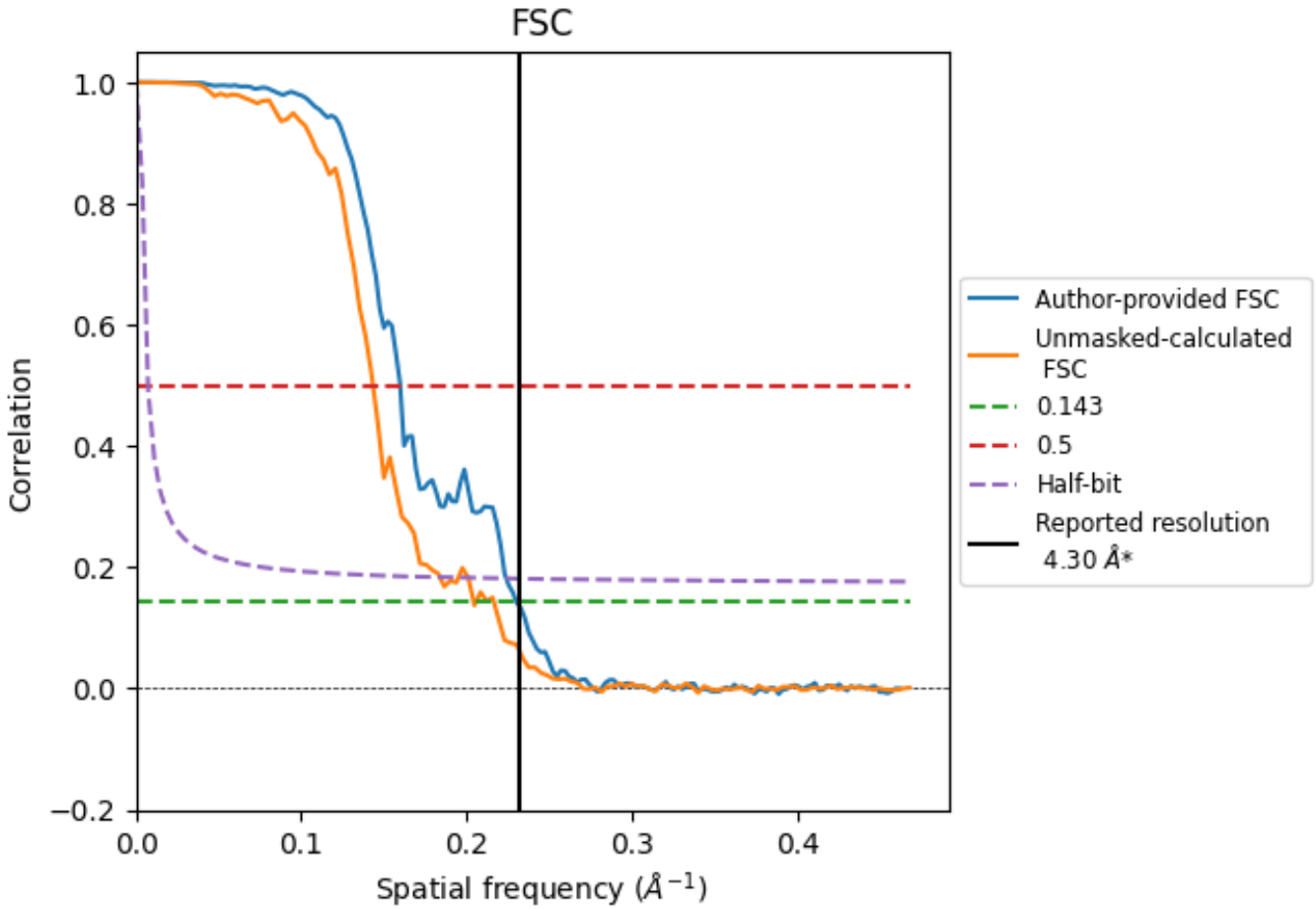


*Reported resolution corresponds to spatial frequency of 0.233 Å^{-1}

8 Fourier-Shell correlation

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

8.1 FSC



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

8.2 Resolution estimates (i)

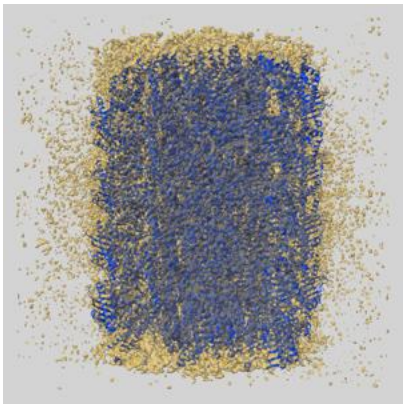
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.30	-	-
Author-provided FSC curve	4.34	6.26	4.45
Unmasked-calculated*	4.89	6.97	5.44

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.89 differs from the reported value 4.3 by more than 10 %

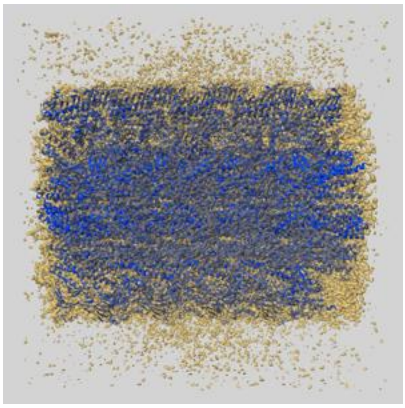
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-75269 and PDB model 10LL. Per-residue inclusion information can be found in section 3 on page 19.

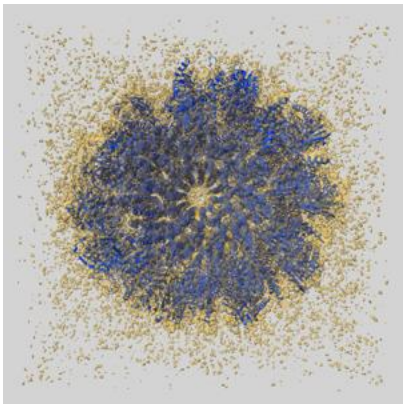
9.1 Map-model overlay



X



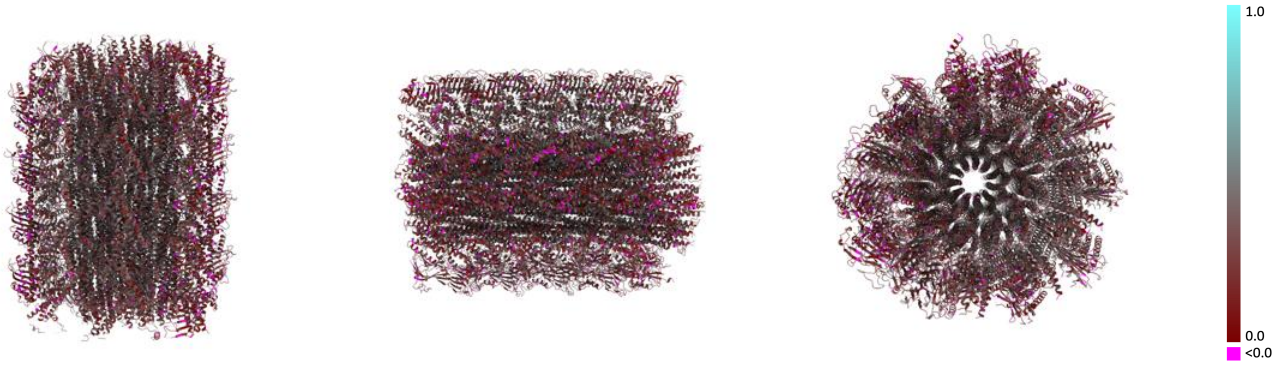
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.04 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.

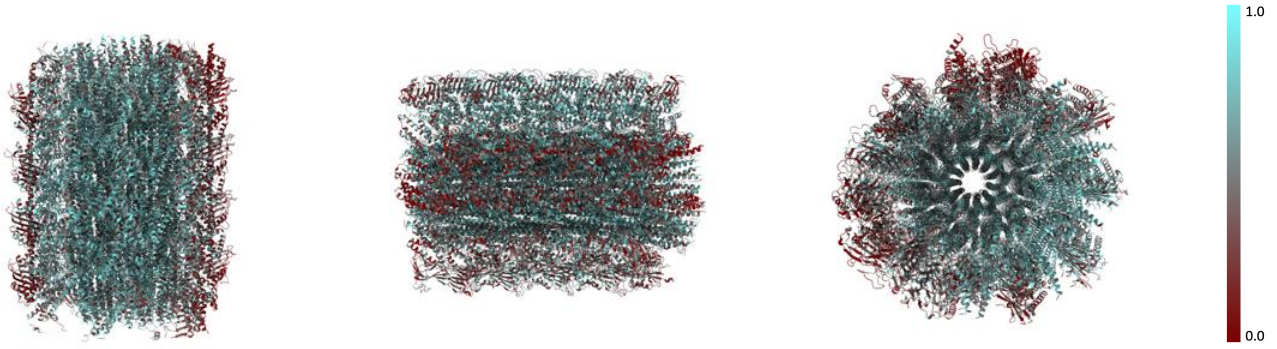
9.2 Q-score mapped to coordinate model



X Y Z

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

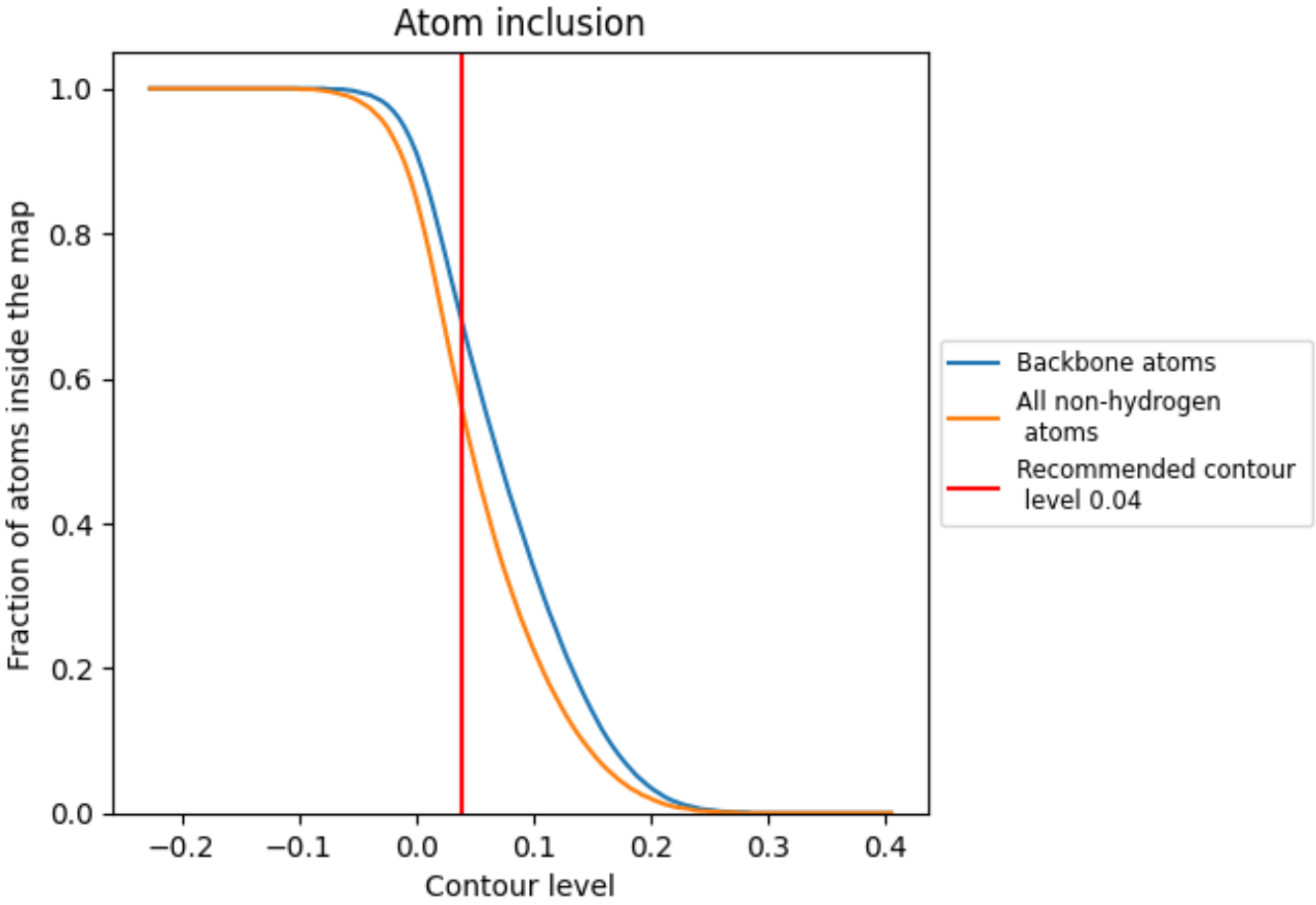
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.04).

9.4 Atom inclusion (i)



At the recommended contour level, 67% of all backbone atoms, 55% 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 (0.04) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5530	0.3030
A4	0.5980	0.2820
A5	0.6430	0.3350
A6	0.6610	0.3550
A7	0.6630	0.3560
A8	0.6420	0.3370
A9	0.5910	0.2920
B3	0.5880	0.2920
B4	0.5770	0.2870
B5	0.6340	0.3190
B6	0.6760	0.3390
B7	0.6560	0.3380
B8	0.6390	0.3200
C3	0.6280	0.3170
C4	0.6340	0.3230
C5	0.6870	0.3600
C6	0.6920	0.3740
C7	0.6630	0.3370
C8	0.5730	0.2890
D3	0.6400	0.3360
D4	0.6860	0.3580
D5	0.7050	0.3800
D6	0.6840	0.3730
D7	0.6760	0.3470
E2	0.6230	0.3330
E3	0.6690	0.3500
E4	0.6790	0.3750
E5	0.6830	0.3710
E6	0.6880	0.3610
E7	0.6500	0.3430
F2	0.6380	0.3280
F3	0.6750	0.3670
F4	0.7000	0.3730
F5	0.6880	0.3640
F6	0.6670	0.3550

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Chain	Atom inclusion	Q-score
G1	0.6950	0.3600
G2	0.6360	0.3350
G6	0.6470	0.3330
G7	0.6450	0.3410
G8	0.6700	0.3650
G9	0.6930	0.3740
H6	0.5990	0.3150
H7	0.6440	0.3380
H8	0.6850	0.3660
H9	0.6680	0.3630
I5	0.5870	0.3040
I6	0.6190	0.3100
I7	0.6720	0.3490
I8	0.6500	0.3420
I9	0.6300	0.3220
J5	0.6040	0.3230
J6	0.6740	0.3460
J7	0.6690	0.3420
J8	0.6570	0.3390
J9	0.6280	0.3010
K4	0.6200	0.3010
K5	0.5930	0.3010
K6	0.6530	0.3430
K7	0.6700	0.3540
K8	0.6560	0.3240
K9	0.6350	0.3130
L2	0.5750	0.2840
L3	0.6450	0.3150
L4	0.6660	0.3340
L5	0.5940	0.3030
L6	0.4810	0.2570
M1	0.6580	0.3150
M2	0.6720	0.3410
M3	0.7130	0.3710
M4	0.7110	0.3660
M5	0.6480	0.3390
N2	0.6400	0.3230
N3	0.7210	0.3670
N4	0.7150	0.3710
N5	0.7030	0.3440
N6	0.6330	0.3180
O1	0.6370	0.3420

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Chain	Atom inclusion	Q-score
O2	0.6810	0.3340
O3	0.7130	0.3600
O4	0.7140	0.3540
O5	0.6350	0.3120
P2	0.5200	0.2750
P3	0.6270	0.3270
P4	0.6420	0.3340
P5	0.6100	0.3080
P6	0.4990	0.2600
Q1	0.4860	0.2570
Q2	0.5580	0.2820
Q3	0.6540	0.3280
Q4	0.5870	0.3000
R2	0.5940	0.2970
R3	0.6350	0.3090
R4	0.6310	0.3090
R5	0.5720	0.2970
S2	0.3790	0.2220
S3	0.4930	0.2650
S4	0.5330	0.2840
S5	0.4830	0.2520
S6	0.3580	0.2200
T1	0.2380	0.2010
T2	0.3540	0.2270
T3	0.3650	0.2410
T4	0.2910	0.2400
U3	0.2600	0.1980
U4	0.3760	0.2350
U5	0.3700	0.2360
U6	0.3420	0.2230
U7	0.2060	0.1870
V1	0.3790	0.2500
V2	0.4840	0.2820
V3	0.5060	0.2950
V4	0.4430	0.2750
V5	0.2840	0.2270
X1	0.4510	0.2740
X2	0.5300	0.3050
X3	0.5510	0.3180
X4	0.4870	0.2720
X5	0.3240	0.2400
Y1	0.3630	0.2820

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Chain	Atom inclusion	Q-score
Y2	0.4010	0.2660
Y3	0.4740	0.2780
Y4	0.4380	0.2550
Y5	0.3240	0.2290
Z1	0.4480	0.2720
Z2	0.4820	0.2770
Z3	0.4840	0.2790
Z4	0.3820	0.2350
a2	0.2470	0.1840
a3	0.3270	0.2090
a4	0.3020	0.2030
a5	0.1910	0.1610
b2	0.1580	0.1890
b3	0.2890	0.2020
b4	0.3070	0.2180
b5	0.2190	0.1900
c1	0.3370	0.2350
c2	0.4160	0.2540
c3	0.3540	0.2230
h0	0.6410	0.3440
h1	0.5990	0.3030
i0	0.5830	0.2760
j0	0.6050	0.2780
t1	0.3090	0.2250
t2	0.3840	0.2480
t3	0.3900	0.2360
t4	0.2790	0.2090