wwPDB EM Validation Summary Report (i)

Nov 19, 2022 – 11:43 pm GMT

PDB ID	:	5IV5
EMDB ID	:	EMD-3374
Title	:	Cryo-electron microscopy structure of the hexagonal pre-attachment T4 baseplate-tail tube complex
Authors	:	Taylor, N.M.I.; Guerrero-Ferreira, R.C.; Goldie, K.N.; Stahlberg, H.; Leiman, P.G.
Deposited on	:	2016-03-19
Resolution	:	4.11 Å(reported)
Based on initial models	:	1N7Z, 1K28, 1S2E, 4KU0, 1EL6, 2FKK, 3H2T, 1OCY, 4HRZ, 1H6W

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

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

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

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

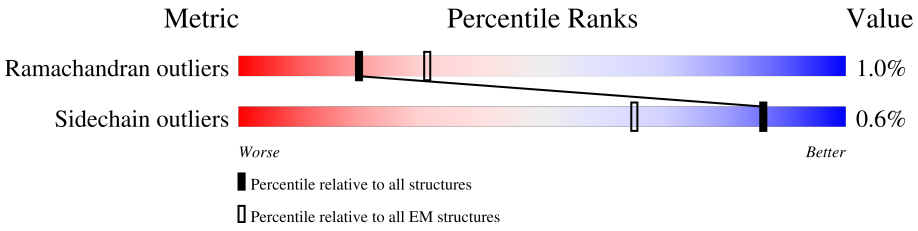
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.11 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)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	660	99%
1	B	660	5% 96%
1	BH	660	99%
1	BI	660	5% 96%
1	EA	660	99%
1	EB	660	5% 96%
1	GD	660	99%
1	GE	660	5% 96%
1	X	660	99%

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Mol	Chain	Length	Quality of chain
1	Y	660	5% 96%
1	u	660	99%
1	v	660	5% 96%
2	BJ	1032	5% 92% 5%
2	C	1032	6% 92% 5%
2	EC	1032	6% 92% 5%
2	GF	1032	5% 92% 5%
2	Z	1032	5% 92% 5%
2	w	1032	5% 92% 5%
3	CA	334	97%
3	CB	334	98%
3	D	334	97%
3	E	334	98%
3	ED	334	97%
3	EE	334	98%
3	GG	334	97%
3	GH	334	98%
3	a	334	97%
3	b	334	98%
3	x	334	97%
3	y	334	98%
4	AA	288	98% 99%
4	AB	288	99% 99%
4	CC	288	99% 99%
4	CD	288	99% 99%

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Mol	Chain	Length	Quality of chain
4	CE	288	99% 99%
4	EF	288	99% 99%
4	EG	288	99% 99%
4	EH	288	99% 99%
4	F	288	99% 99%
4	G	288	99% 99%
4	GI	288	99% 99%
4	GJ	288	98% 99%
4	H	288	99% 99%
4	HA	288	99% 99%
4	c	288	99% 99%
4	d	288	99% 99%
4	e	288	99% 99%
4	z	288	99% 99%
5	AC	602	18% 96%
5	AD	602	15% 95% 5%
5	AE	602	17% 95% 5%
5	CF	602	17% 96%
5	CG	602	16% 95% 5%
5	CH	602	17% 95% 5%
5	EI	602	17% 96%
5	EJ	602	16% 95% 5%
5	FA	602	17% 95% 5%
5	HB	602	17% 96%
5	HC	602	16% 95% 5%

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Mol	Chain	Length	Quality of chain
5	HD	602	17% 95% 5%
5	I	602	17% 96%
5	J	602	17% 95% 5%
5	K	602	18% 95% 5%
5	f	602	18% 96%
5	g	602	17% 95% 5%
5	h	602	18% 95% 5%
6	AF	219	52% 98%
6	AG	219	59% 98%
6	AH	219	55% 98%
6	CI	219	53% 98%
6	CJ	219	59% 98%
6	DA	219	55% 98%
6	FB	219	53% 98%
6	FC	219	59% 98%
6	FD	219	52% 98%
6	HE	219	52% 98%
6	HF	219	61% 98%
6	HG	219	55% 98%
6	L	219	54% 98%
6	M	219	61% 98%
6	N	219	54% 98%
6	i	219	52% 98%
6	j	219	60% 98%
6	k	219	53% 98%

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Mol	Chain	Length	Quality of chain
7	AI	527	32% 98%
7	AJ	527	38% 98%
7	BA	527	34% 98%
7	DB	527	32% 98%
7	DC	527	38% 98%
7	DD	527	33% 98%
7	FE	527	31% 98%
7	FF	527	37% 98%
7	FG	527	32% 98%
7	HH	527	31% 98%
7	HI	527	38% 98%
7	HJ	527	34% 98%
7	O	527	32% 98%
7	P	527	37% 98%
7	Q	527	33% 98%
7	l	527	31% 98%
7	m	527	36% 98%
7	n	527	34% 98%
8	BB	163	55% 99%
8	BC	163	90% 99%
8	DE	163	53% 99%
8	DF	163	91% 99%
8	FH	163	55% 99%
8	FI	163	91% 99%
8	IA	163	55% 99%

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Mol	Chain	Length	Quality of chain
8	IB	163	91% 99%
8	R	163	53% 99%
8	S	163	93% 99%
8	o	163	56% 99%
8	p	163	92% 99%
9	BD	132	6% 95% 5%
9	DG	132	6% 95% 5%
9	FJ	132	8% 95% 5%
9	IC	132	7% 95% 5%
9	T	132	6% 95% 5%
9	q	132	6% 95% 5%
10	BE	364	44% 55%
10	DH	364	44% 55%
10	GA	364	44% 55%
10	ID	364	44% 55%
10	U	364	44% 55%
10	r	364	44% 55%
11	BF	196	96%
11	DI	196	96%
11	GB	196	96%
11	IE	196	96%
11	V	196	96%
11	s	196	96%
12	BG	320	11% 58% 40%
12	DJ	320	11% 58% 40%

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Mol	Chain	Length	Quality of chain
12	GC	320	11% 58% 40%
12	IF	320	11% 58% 40%
12	W	320	10% 58% 40%
12	t	320	10% 58% 40%
13	YA	575	34% 88% 8%
13	YB	575	33% 88% 8%
13	YC	575	33% 88% 8%
14	YD	391	15% 83% 10% 7%
14	YE	391	15% 83% 10% 7%
14	YF	391	15% 83% 10% 7%
15	ZA	97	33% 96%

2 Entry composition (i)

There are 17 unique types of molecules in this entry. The entry contains 549576 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 Baseplate wedge protein gp6.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	658	Total	C	N	O	S	0	0
			5235	3308	867	1050	10		
1	B	648	Total	C	N	O	S	0	0
			5157	3259	854	1034	10		
1	X	658	Total	C	N	O	S	0	0
			5235	3308	867	1050	10		
1	Y	648	Total	C	N	O	S	0	0
			5157	3259	854	1034	10		
1	u	658	Total	C	N	O	S	0	0
			5235	3308	867	1050	10		
1	v	648	Total	C	N	O	S	0	0
			5157	3259	854	1034	10		
1	BH	658	Total	C	N	O	S	0	0
			5235	3308	867	1050	10		
1	BI	648	Total	C	N	O	S	0	0
			5157	3259	854	1034	10		
1	EA	658	Total	C	N	O	S	0	0
			5235	3308	867	1050	10		
1	EB	648	Total	C	N	O	S	0	0
			5157	3259	854	1034	10		
1	GD	658	Total	C	N	O	S	0	0
			5235	3308	867	1050	10		
1	GE	648	Total	C	N	O	S	0	0
			5157	3259	854	1034	10		

- Molecule 2 is a protein called Baseplate wedge protein gp7.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	1004	Total	C	N	O	S	0	0
			8199	5247	1347	1578	27		
2	Z	1004	Total	C	N	O	S	0	0
			8199	5247	1347	1578	27		
2	w	1004	Total	C	N	O	S	0	0
			8199	5247	1347	1578	27		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	BJ	1004	Total	C	N	O	S	0	0
			8199	5247	1347	1578	27		
2	EC	1004	Total	C	N	O	S	0	0
			8199	5247	1347	1578	27		
2	GF	1004	Total	C	N	O	S	0	0
			8199	5247	1347	1578	27		

- Molecule 3 is a protein called Baseplate wedge protein gp8.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D	328	Total	C	N	O	S	0	0
			2631	1677	430	507	17		
3	E	332	Total	C	N	O	S	0	0
			2658	1692	434	515	17		
3	a	328	Total	C	N	O	S	0	0
			2631	1677	430	507	17		
3	b	332	Total	C	N	O	S	0	0
			2658	1692	434	515	17		
3	x	328	Total	C	N	O	S	0	0
			2631	1677	430	507	17		
3	y	332	Total	C	N	O	S	0	0
			2658	1692	434	515	17		
3	CA	328	Total	C	N	O	S	0	0
			2631	1677	430	507	17		
3	CB	332	Total	C	N	O	S	0	0
			2658	1692	434	515	17		
3	ED	328	Total	C	N	O	S	0	0
			2631	1677	430	507	17		
3	EE	332	Total	C	N	O	S	0	0
			2658	1692	434	515	17		
3	GG	328	Total	C	N	O	S	0	0
			2631	1677	430	507	17		
3	GH	332	Total	C	N	O	S	0	0
			2658	1692	434	515	17		

- Molecule 4 is a protein called Baseplate wedge protein gp9.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	F	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	G	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	H	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	c	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	d	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	e	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	z	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	AA	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	AB	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	CC	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	CD	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	CE	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	EF	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	EG	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	EH	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	GI	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	GJ	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		
4	HA	288	Total	C	N	O	S	0	0
			2175	1354	366	446	9		

- Molecule 5 is a protein called Baseplate wedge protein gp10.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	I	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	J	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	K	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		

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Mol	Chain	Residues	Atoms					AltConf	Trace
5	f	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	g	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	h	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	AC	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	AD	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	AE	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	CF	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	CG	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	CH	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	EI	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	EJ	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	FA	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	HB	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	HC	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		
5	HD	602	Total	C	N	O	S	0	0
			4675	2933	779	953	10		

- Molecule 6 is a protein called Baseplate wedge protein gp11.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	L	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	M	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	N	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	i	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		

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Mol	Chain	Residues	Atoms					AltConf	Trace
6	j	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	k	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	AF	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	AG	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	AH	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	CI	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	CJ	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	DA	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	FB	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	FC	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	FD	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	HE	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	HF	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		
6	HG	218	Total	C	N	O	S	0	0
			1665	1056	273	334	2		

- Molecule 7 is a protein called Short tail fiber protein gp12.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	O	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	P	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	Q	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	l	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	m	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		

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Mol	Chain	Residues	Atoms					AltConf	Trace
7	n	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	AI	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	AJ	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	BA	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	DB	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	DC	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	DD	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	FE	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	FF	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	FG	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	HH	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	HI	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		
7	HJ	526	Total	C	N	O	S	0	0
			3945	2429	702	803	11		

- Molecule 8 is a protein called Tail tube protein gp19.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	R	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	S	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	o	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	p	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	BB	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	BC	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	DE	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	DF	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	FH	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	FI	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	IA	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		
8	IB	162	Total	C	N	O	S	0	0
			1296	823	218	252	3		

- Molecule 9 is a protein called Baseplate wedge protein gp25.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	T	126	Total	C	N	O	S	0	0
			1011	636	169	202	4		
9	q	126	Total	C	N	O	S	0	0
			1011	636	169	202	4		
9	BD	126	Total	C	N	O	S	0	0
			1011	636	169	202	4		
9	DG	126	Total	C	N	O	S	0	0
			1011	636	169	202	4		
9	FJ	126	Total	C	N	O	S	0	0
			1011	636	169	202	4		
9	IC	126	Total	C	N	O	S	0	0
			1011	636	169	202	4		

- Molecule 10 is a protein called Baseplate tail-tube protein gp48.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	U	165	Total	C	N	O	S	0	0
			1317	846	219	247	5		
10	r	165	Total	C	N	O	S	0	0
			1317	846	219	247	5		
10	BE	165	Total	C	N	O	S	0	0
			1317	846	219	247	5		
10	DH	165	Total	C	N	O	S	0	0
			1317	846	219	247	5		
10	GA	165	Total	C	N	O	S	0	0
			1317	846	219	247	5		

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Mol	Chain	Residues	Atoms					AltConf	Trace
10	ID	165	Total	C	N	O	S	0	0
			1317	846	219	247	5		

- Molecule 11 is a protein called Baseplate wedge protein gp53.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	V	193	Total	C	N	O	S	0	0
			1599	1035	259	299	6		
11	s	193	Total	C	N	O	S	0	0
			1599	1035	259	299	6		
11	BF	193	Total	C	N	O	S	0	0
			1599	1035	259	299	6		
11	DI	193	Total	C	N	O	S	0	0
			1599	1035	259	299	6		
11	GB	193	Total	C	N	O	S	0	0
			1599	1035	259	299	6		
11	IE	193	Total	C	N	O	S	0	0
			1599	1035	259	299	6		

- Molecule 12 is a protein called Baseplate tail-tube protein gp54.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	W	192	Total	C	N	O	S	0	0
			1524	955	257	301	11		
12	t	192	Total	C	N	O	S	0	0
			1524	955	257	301	11		
12	BG	192	Total	C	N	O	S	0	0
			1524	955	257	301	11		
12	DJ	192	Total	C	N	O	S	0	0
			1524	955	257	301	11		
12	GC	192	Total	C	N	O	S	0	0
			1524	955	257	301	11		
12	IF	192	Total	C	N	O	S	0	0
			1524	955	257	301	11		

- Molecule 13 is a protein called Peptidoglycan hydrolase gp5.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	YA	554	Total	C	N	O	S	554	0
			25692	15942	4536	5088	126		
13	YB	554	Total	C	N	O	S	554	0
			25692	15942	4536	5088	126		

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Mol	Chain	Residues	Atoms					AltConf	Trace
13	YC	554	Total 25692	C 15942	N 4536	O 5088	S 126	554	0

- Molecule 14 is a protein called Baseplate hub protein gp27.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	YD	364	Total 17472	C 11148	N 2868	O 3354	S 102	364	0
14	YE	364	Total 17472	C 11148	N 2868	O 3354	S 102	364	0
14	YF	364	Total 17472	C 11148	N 2868	O 3354	S 102	364	0

- Molecule 15 is a protein called Uncharacterized 10.2 kDa protein in segC-Gp6 intergenic region.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	ZA	96	Total 4254	C 2682	N 720	O 834	S 18	96	0

- Molecule 16 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
16	O	1	Total 1	Zn 1	0
16	l	1	Total 1	Zn 1	0
16	AI	1	Total 1	Zn 1	0
16	DB	1	Total 1	Zn 1	0
16	FE	1	Total 1	Zn 1	0
16	HH	1	Total 1	Zn 1	0

- Molecule 17 is FE (III) ION (three-letter code: FE) (formula: Fe).

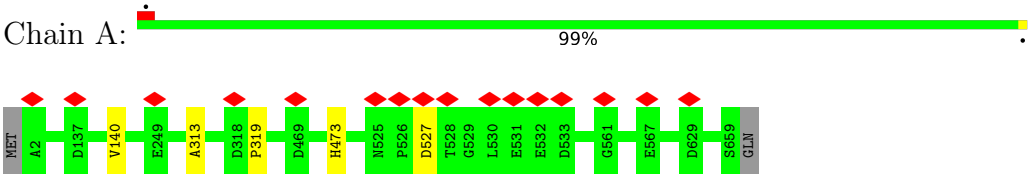
Mol	Chain	Residues	Atoms		AltConf
17	ZA	1	Total 6	Fe 6	1

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.

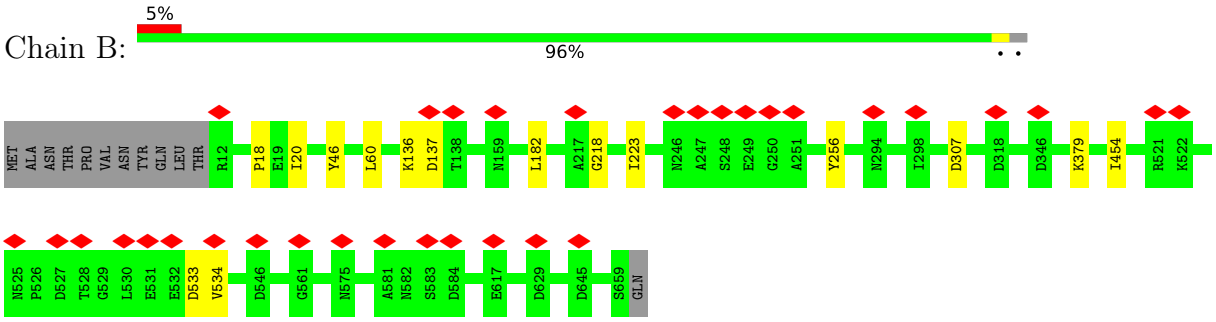
• Molecule 1: Baseplate wedge protein gp6

Chain A:



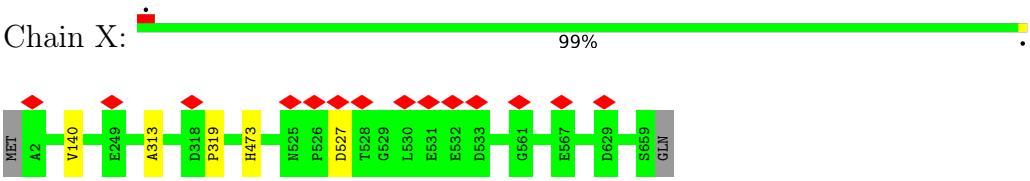
• Molecule 1: Baseplate wedge protein gp6

Chain B:



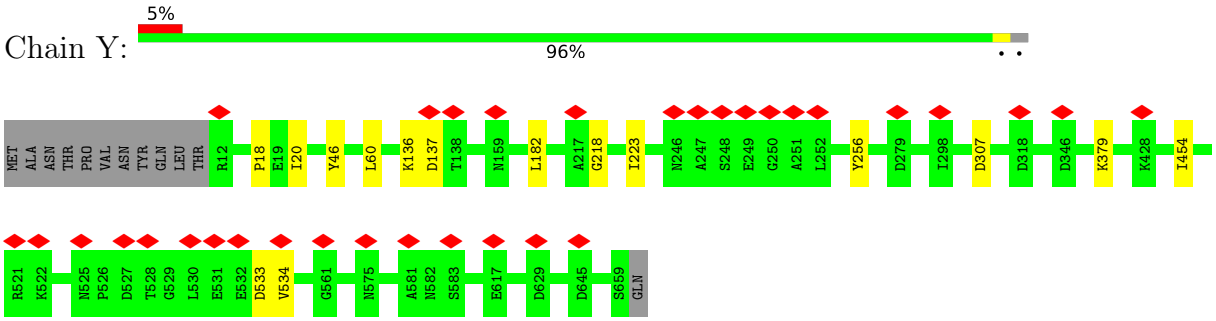
• Molecule 1: Baseplate wedge protein gp6

Chain X:



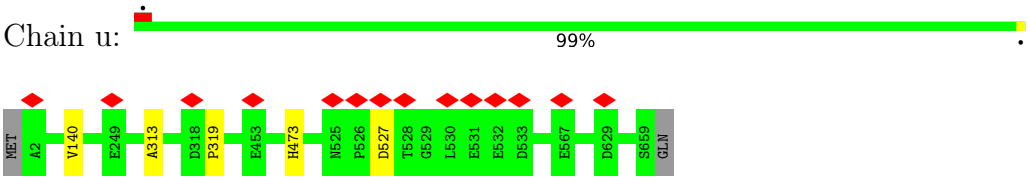
• Molecule 1: Baseplate wedge protein gp6

Chain Y:



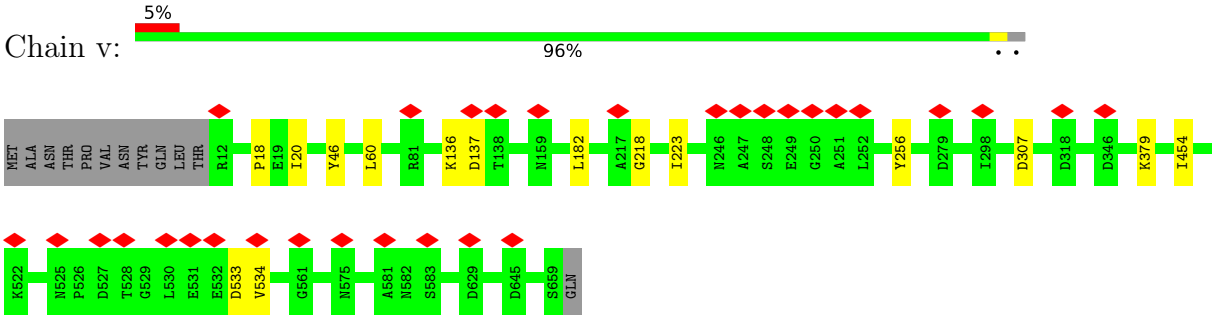
• Molecule 1: Baseplate wedge protein gp6

Chain u:



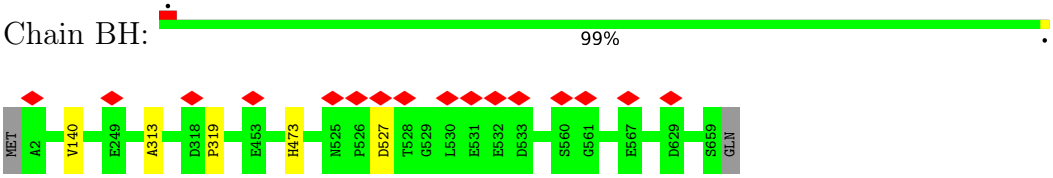
• Molecule 1: Baseplate wedge protein gp6

Chain v:



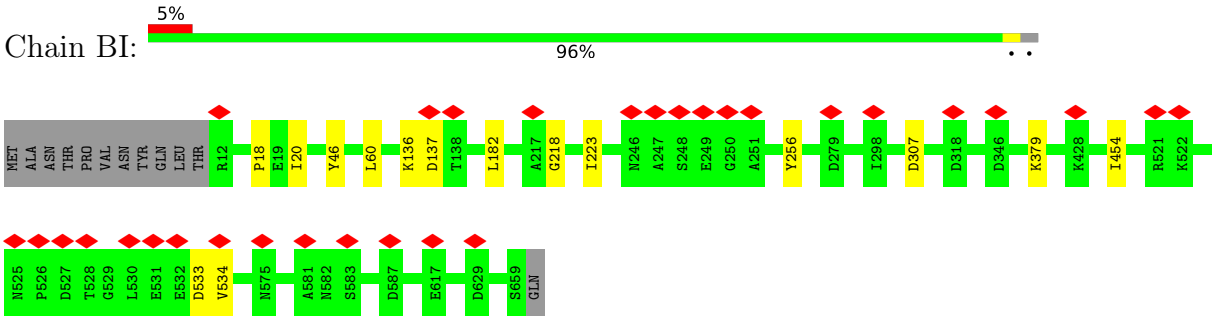
• Molecule 1: Baseplate wedge protein gp6

Chain BH:



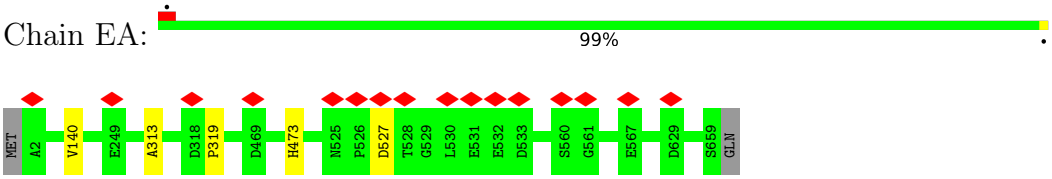
• Molecule 1: Baseplate wedge protein gp6

Chain BI:



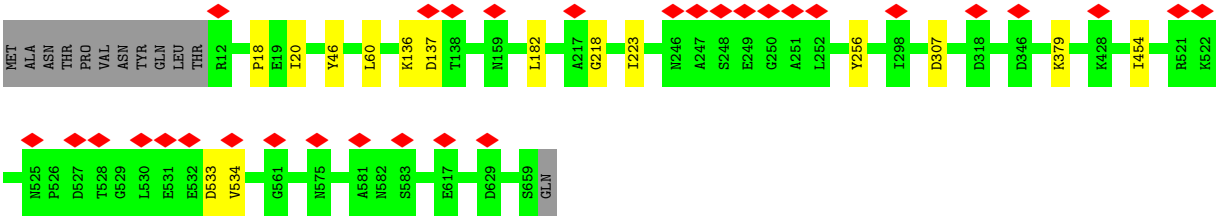
• Molecule 1: Baseplate wedge protein gp6

Chain EA:



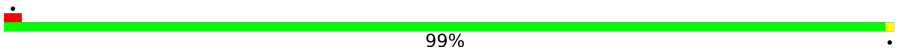
• Molecule 1: Baseplate wedge protein gp6

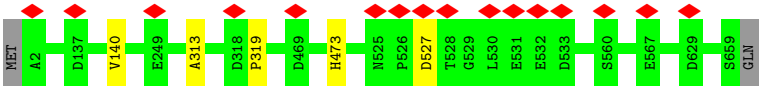
Chain EB:



• Molecule 1: Baseplate wedge protein gp6

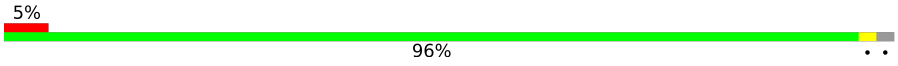
Chain GD:

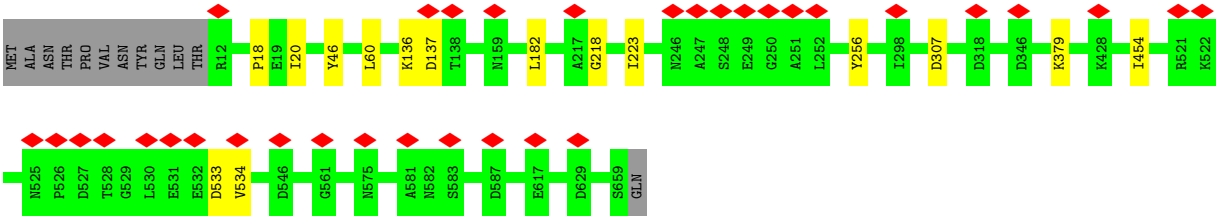




• Molecule 1: Baseplate wedge protein gp6

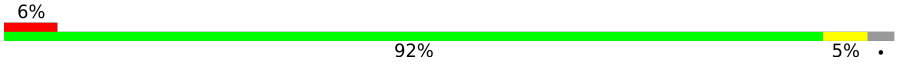
Chain GE:

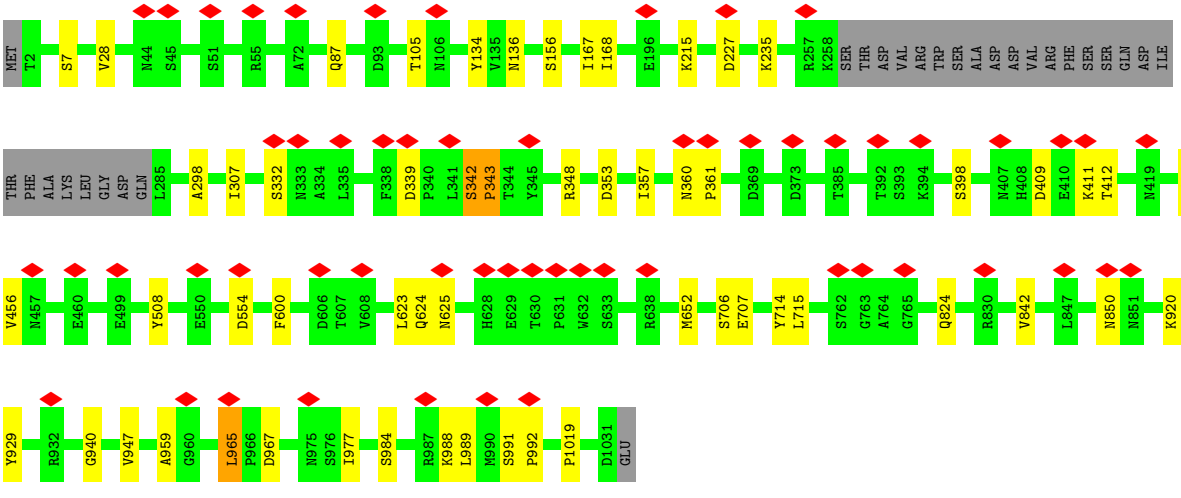




• Molecule 2: Baseplate wedge protein gp7

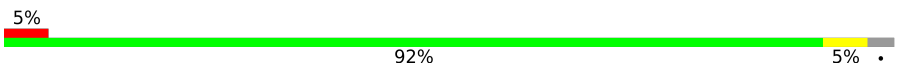
Chain C:

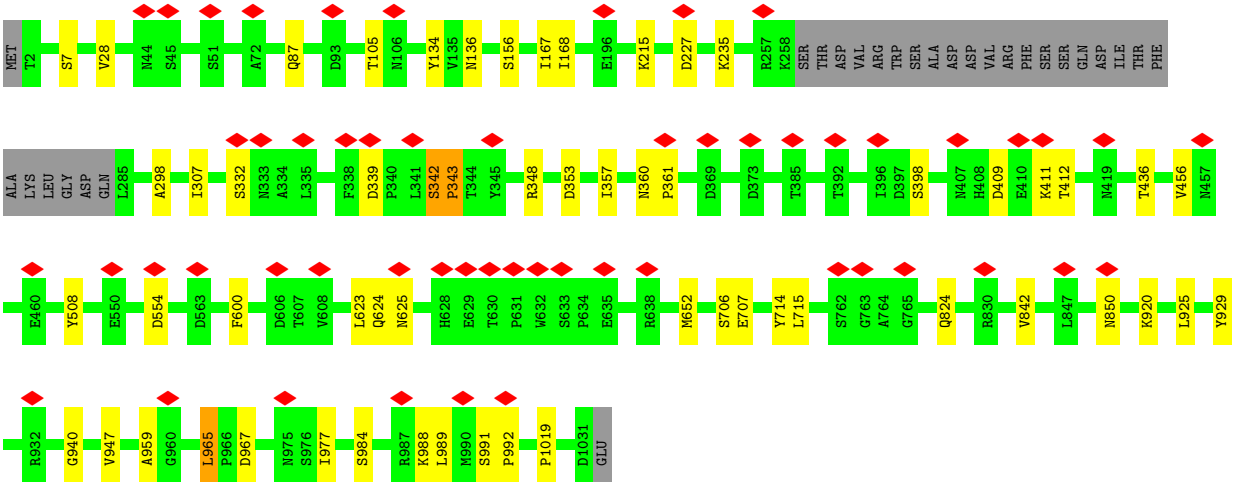




• Molecule 2: Baseplate wedge protein gp7

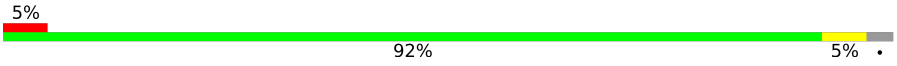
Chain Z:

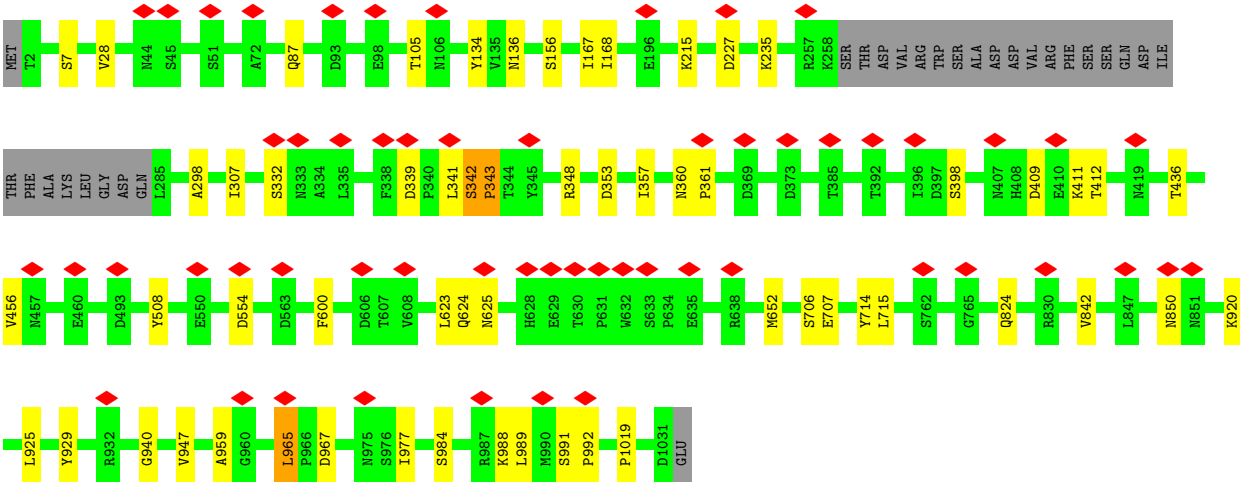




• Molecule 2: Baseplate wedge protein gp7

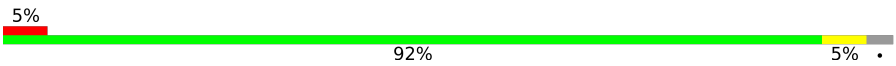
Chain w:

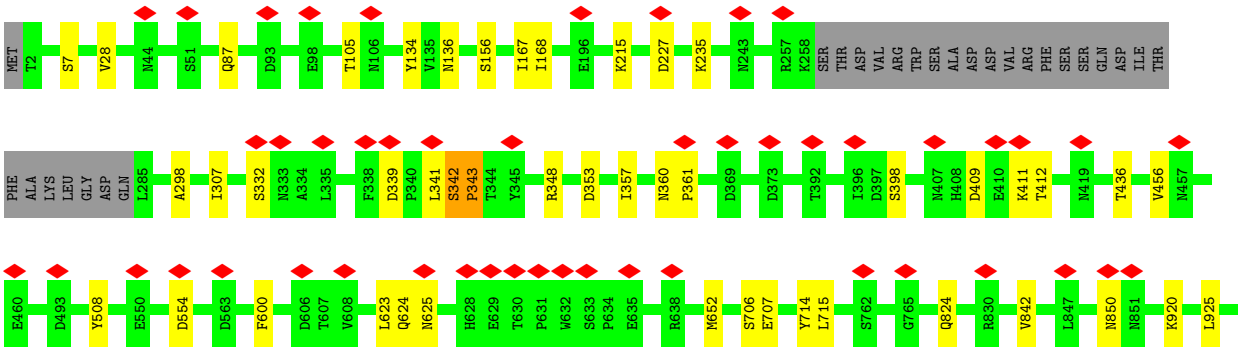


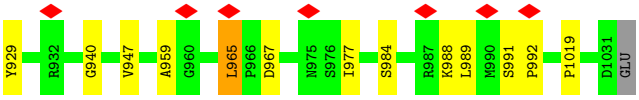


• Molecule 2: Baseplate wedge protein gp7

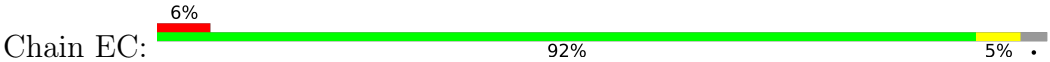
Chain BJ:

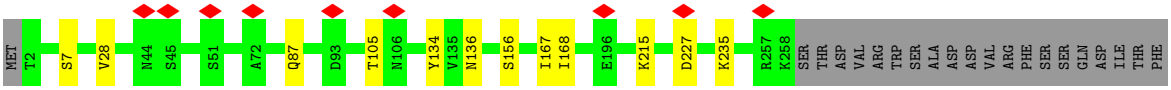


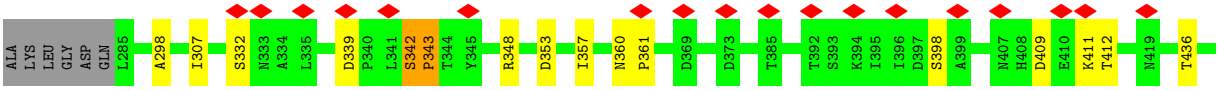


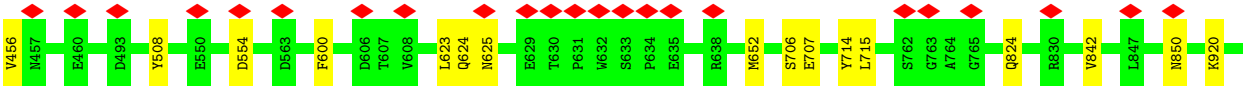


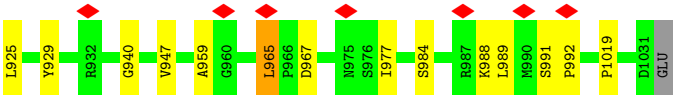
• Molecule 2: Baseplate wedge protein gp7



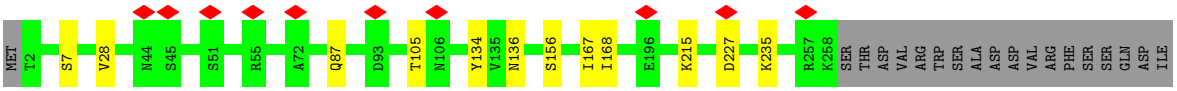


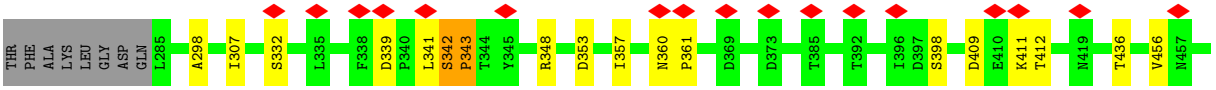


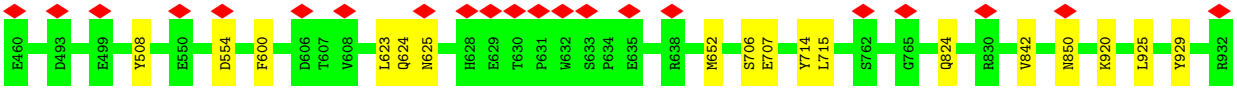


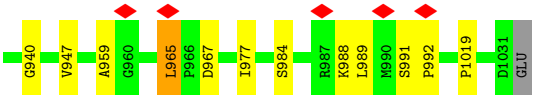


• Molecule 2: Baseplate wedge protein gp7

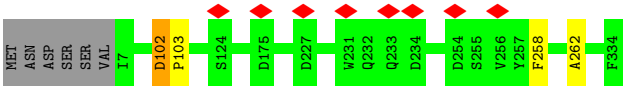






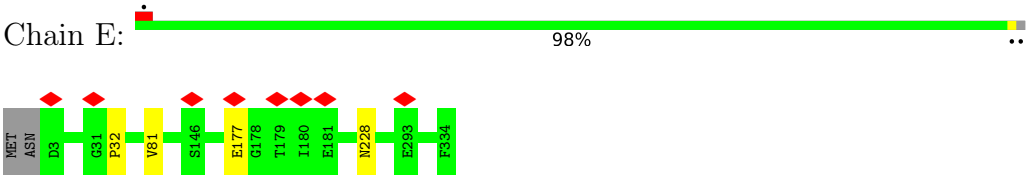


• Molecule 3: Baseplate wedge protein gp8



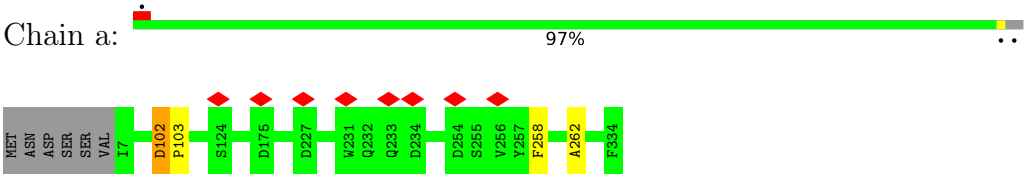
• Molecule 3: Baseplate wedge protein gp8

Chain E:



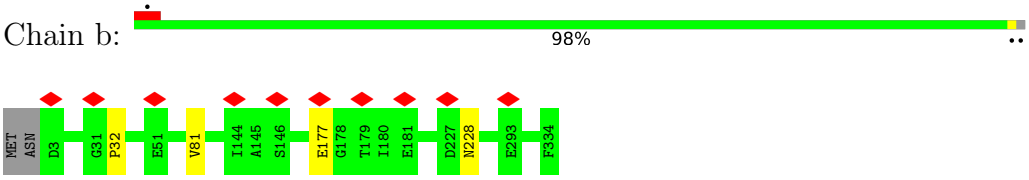
• Molecule 3: Baseplate wedge protein gp8

Chain a:



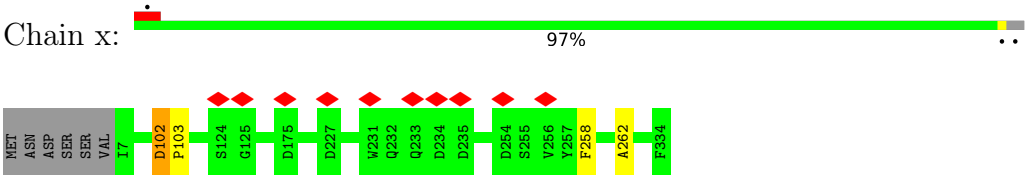
• Molecule 3: Baseplate wedge protein gp8

Chain b:



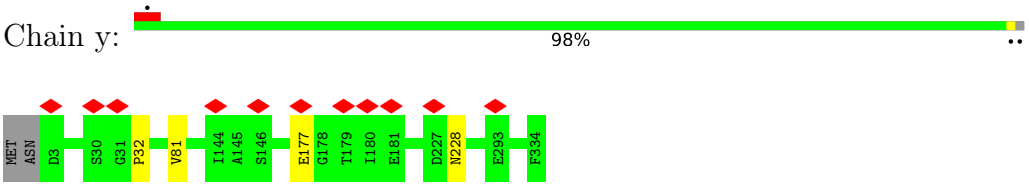
• Molecule 3: Baseplate wedge protein gp8

Chain x:



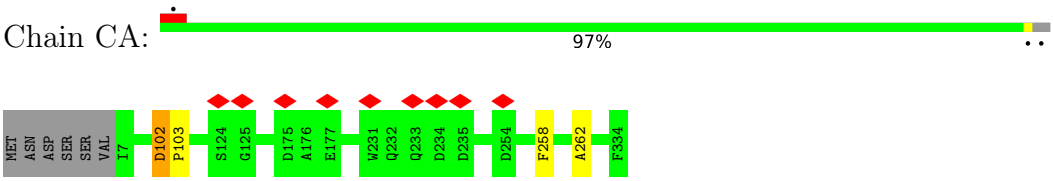
• Molecule 3: Baseplate wedge protein gp8

Chain y:



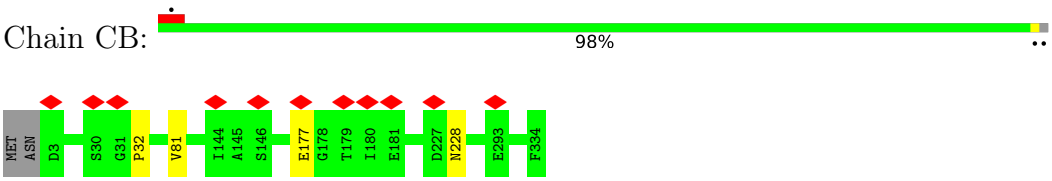
• Molecule 3: Baseplate wedge protein gp8

Chain CA:



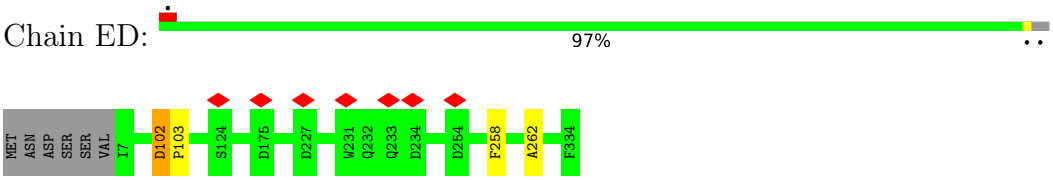
• Molecule 3: Baseplate wedge protein gp8

Chain CB:



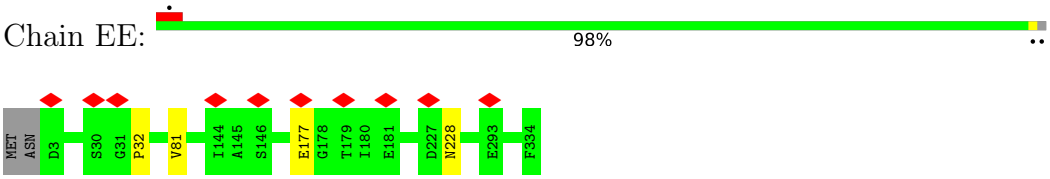
• Molecule 3: Baseplate wedge protein gp8

Chain ED:



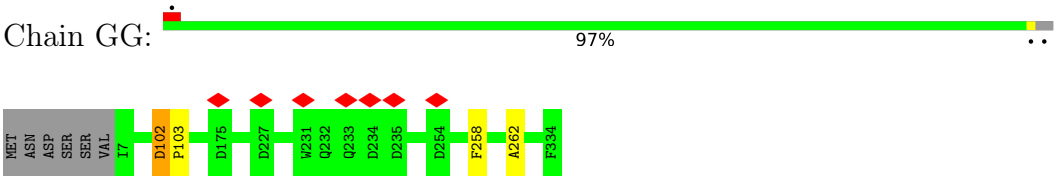
• Molecule 3: Baseplate wedge protein gp8

Chain EE:



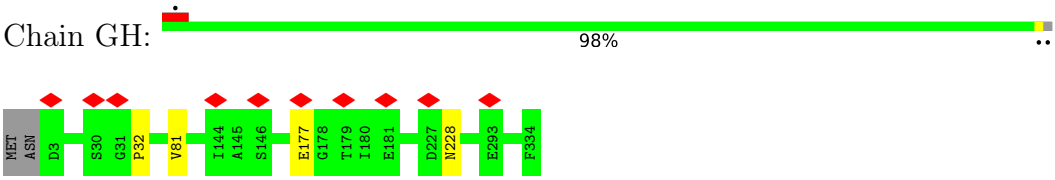
• Molecule 3: Baseplate wedge protein gp8

Chain GG:



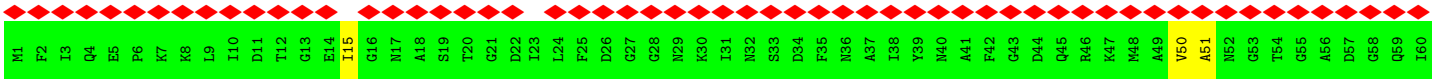
• Molecule 3: Baseplate wedge protein gp8

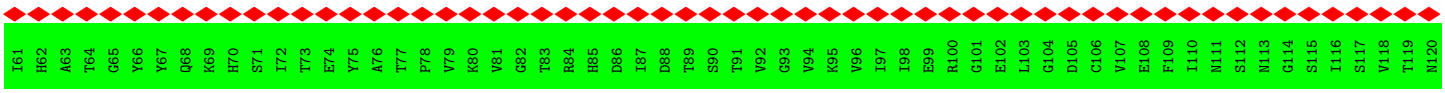
Chain GH:

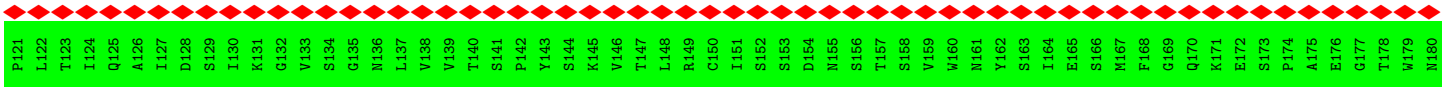


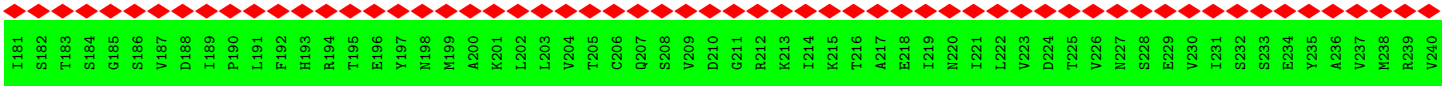
• Molecule 4: Baseplate wedge protein gp9

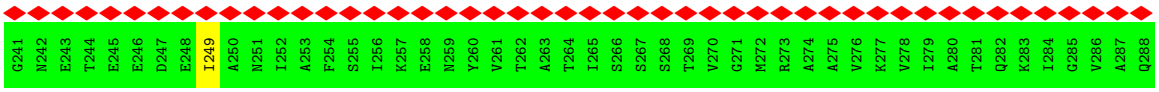
Chain F:





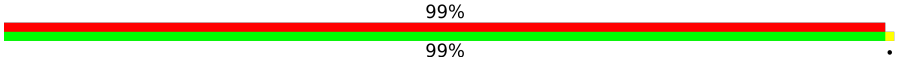


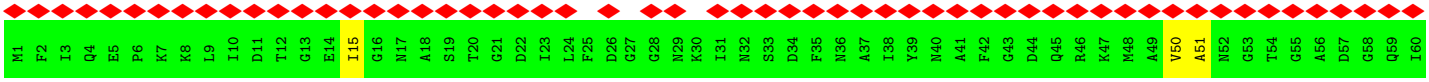


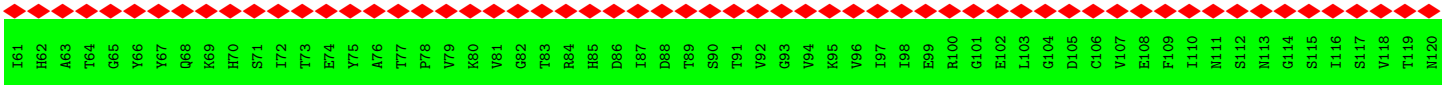


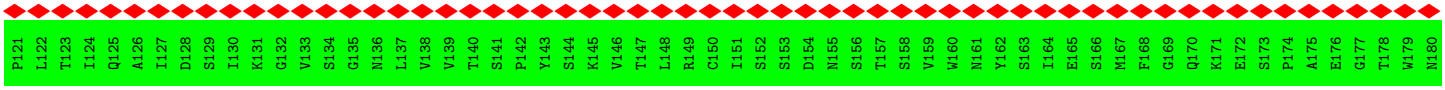
• Molecule 4: Baseplate wedge protein gp9

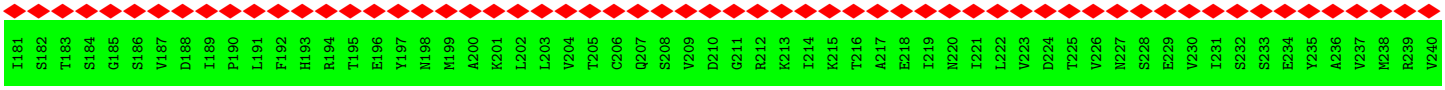
Chain G:

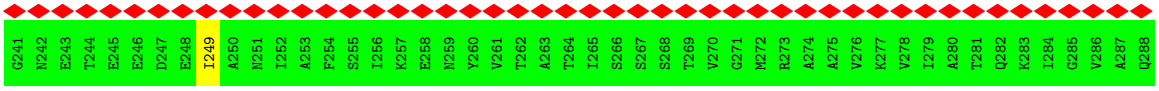






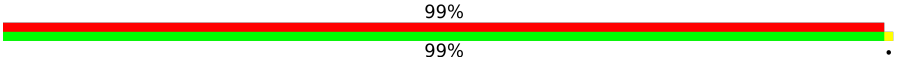


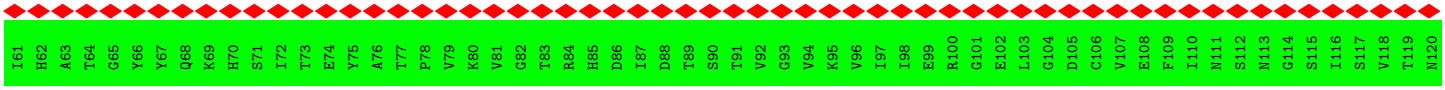


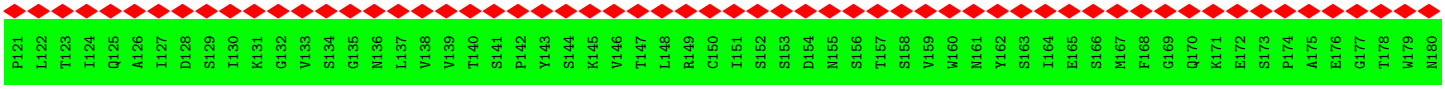


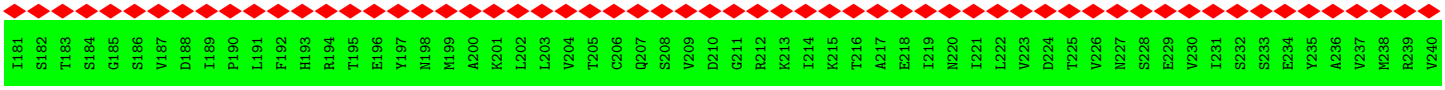
• Molecule 4: Baseplate wedge protein gp9

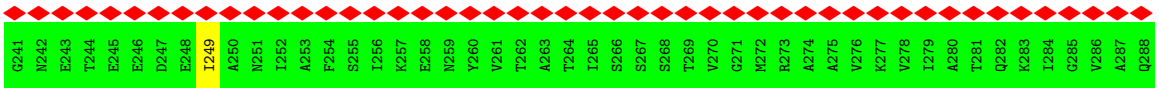
Chain H:











• Molecule 4: Baseplate wedge protein gp9

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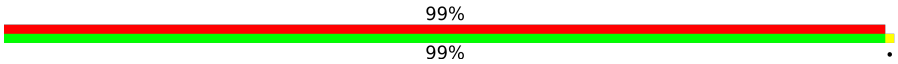

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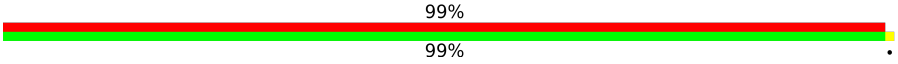
G241 N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

• Molecule 4: Baseplate wedge protein gp9

Chain d:



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G241 N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

• Molecule 4: Baseplate wedge protein gp9

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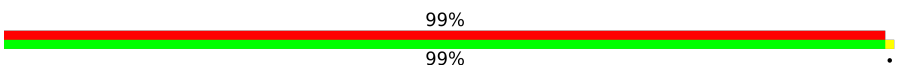

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G241 N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

• Molecule 4: Baseplate wedge protein gp9

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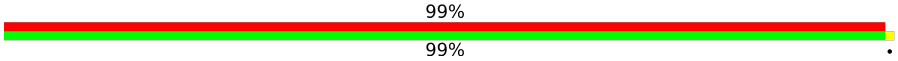

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• Molecule 4: Baseplate wedge protein gp9

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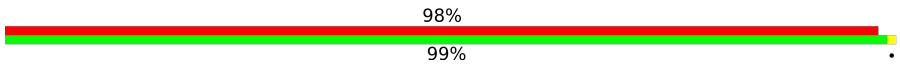

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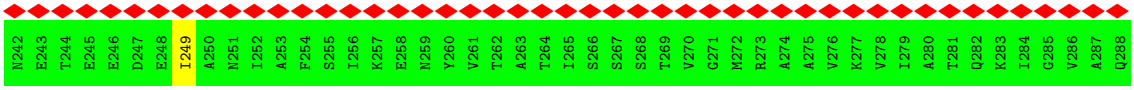
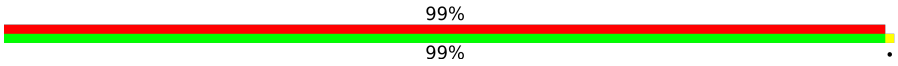
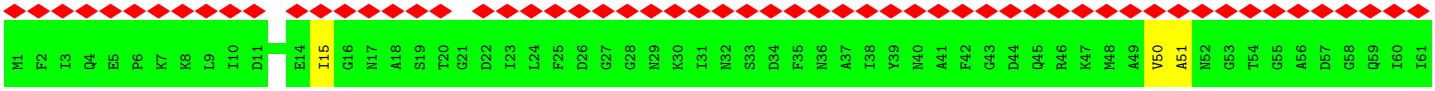
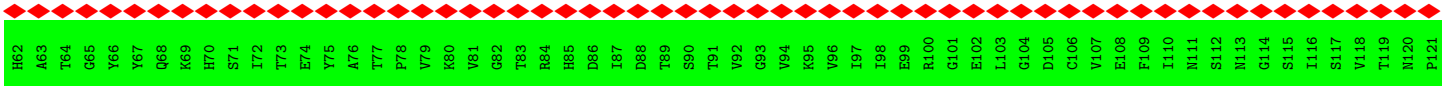


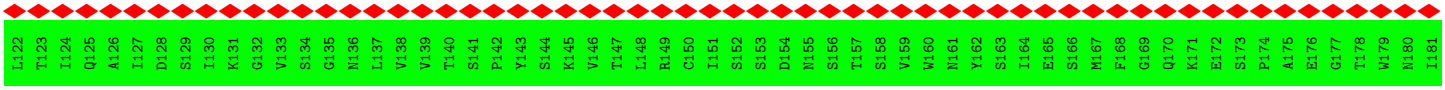
• Molecule 4: Baseplate wedge protein gp9

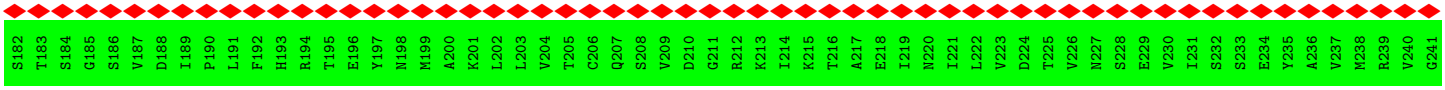
Chain AB:

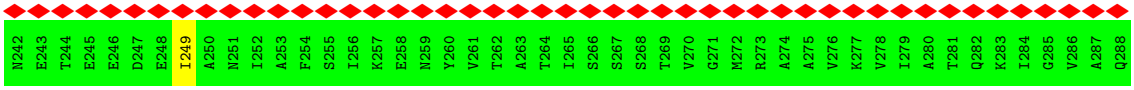












• Molecule 4: Baseplate wedge protein gp9

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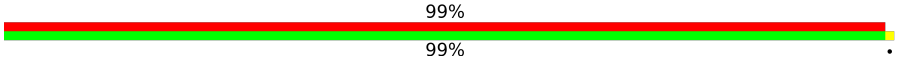

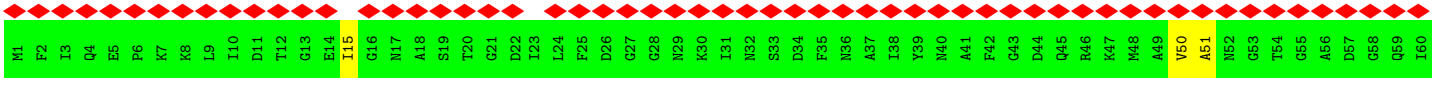

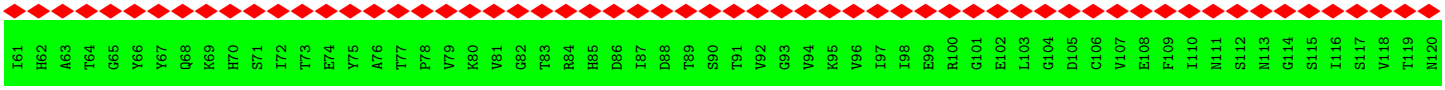

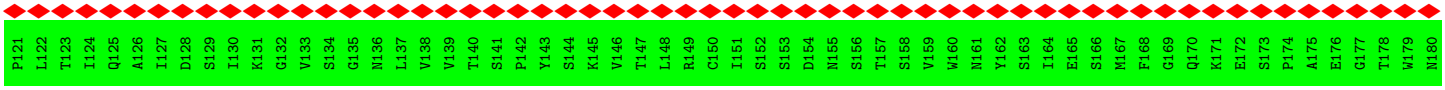

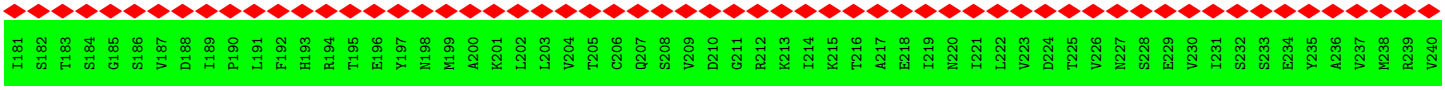

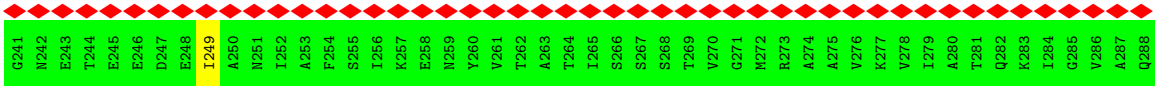

• Molecule 4: Baseplate wedge protein gp9

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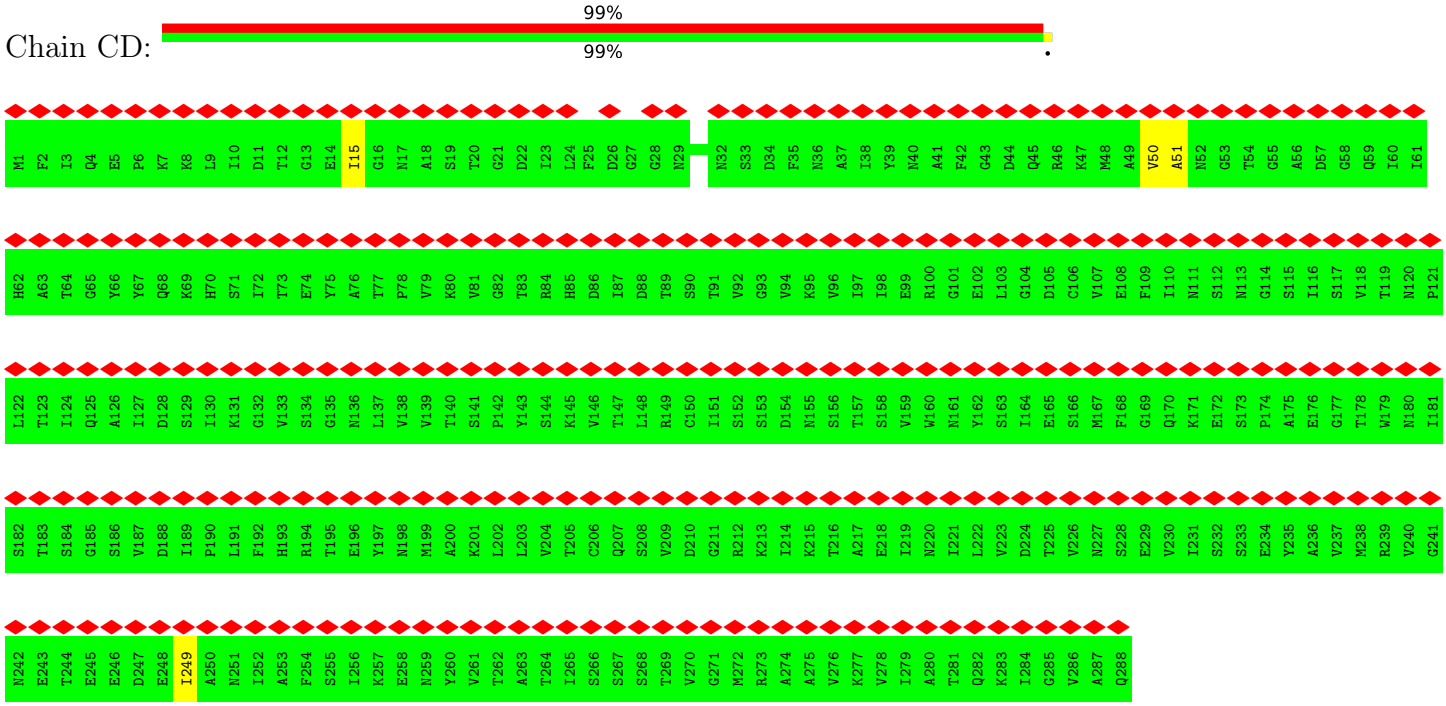
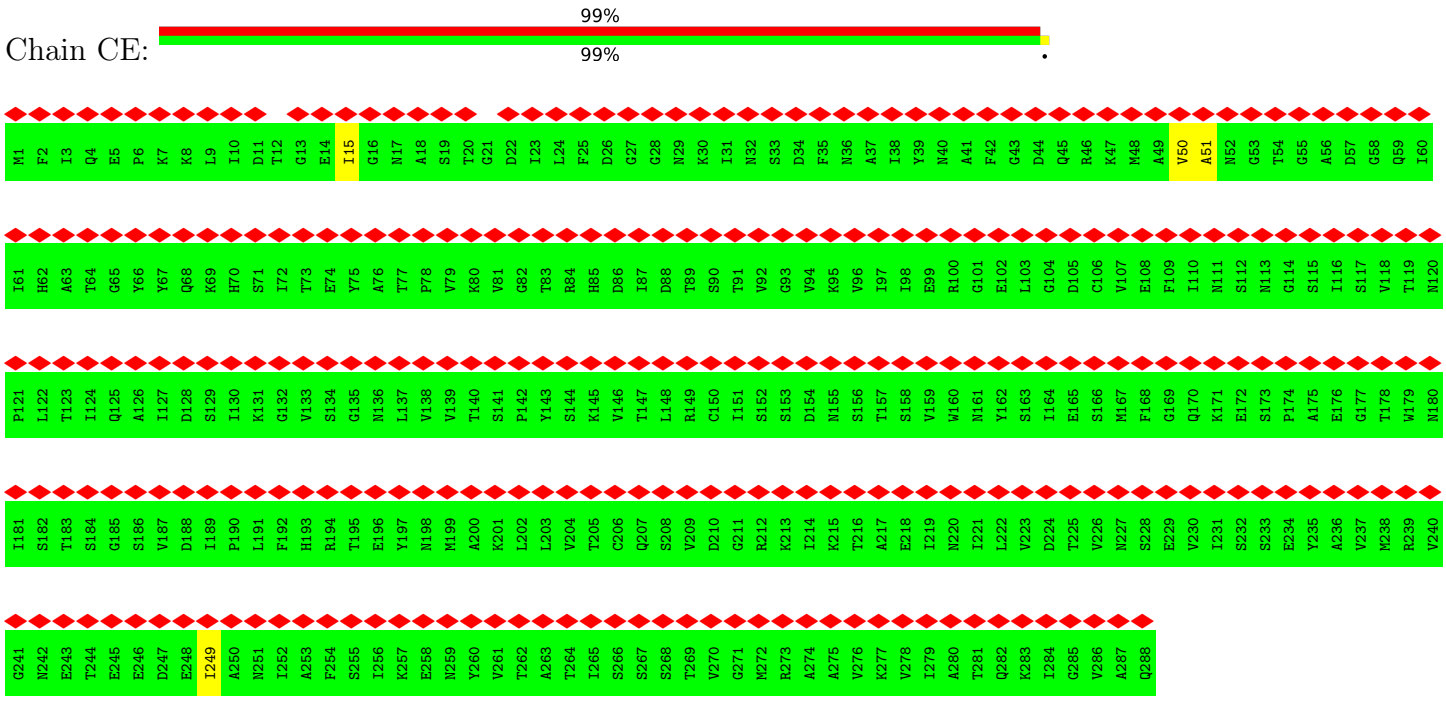


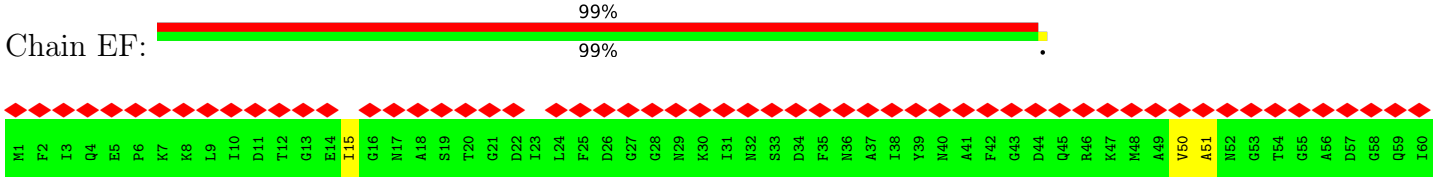
• Molecule 4: Baseplate wedge protein gp9

Chain CE:



• Molecule 4: Baseplate wedge protein gp9

Chain EF:



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• Molecule 4: Baseplate wedge protein gp9

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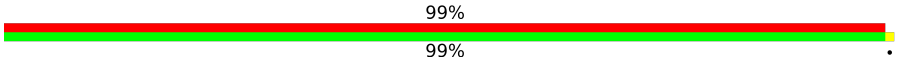

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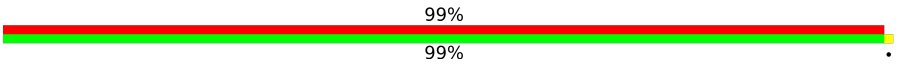
I181 S182 T183 S184 G185 S186 V187 D188 I189 P190 L191 F192 H193 R194 T195 E196 Y197 N198 M199 A200 K201 L202 L203 V204 T205 C206 Q207 S208 V209 D210 G211 R212 K213 I214 K215 T216 A217 E218 I219 N220 I221 L222 V223 D224 T225 V226 N227 S228 E229 V230 I231 S232 S233 E234 Y235 A236 V237 M238 R239 V240

G241 N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

• Molecule 4: Baseplate wedge protein gp9

Chain EH:



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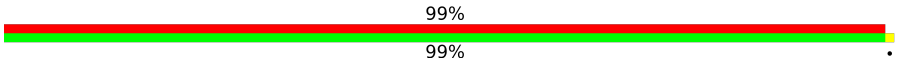
G241 N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

- Molecule 4: Baseplate wedge protein gp9

Chain GI:



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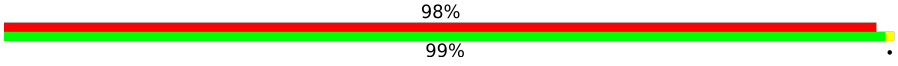
I181 S182 T183 S184 G185 S186 V187 D188 I189 P190 L191 F192 H193 R194 T195 E196 Y197 N198 M199 A200 K201 L202 L203 V204 T205 C206 Q207 S208 V209 D210 G211 R212 K213 I214 K215 T216 A217 E218 I219 N220 I221 L222 V223 D224 T225 V226 N227 S228 E229 V230 I231 S232 S233 E234 Y235 A236 V237 M238 R239 V240

G241 N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

- Molecule 4: Baseplate wedge protein gp9

Chain GJ:



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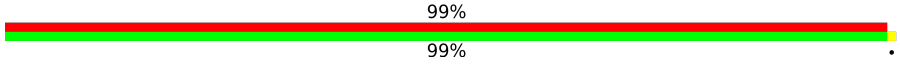
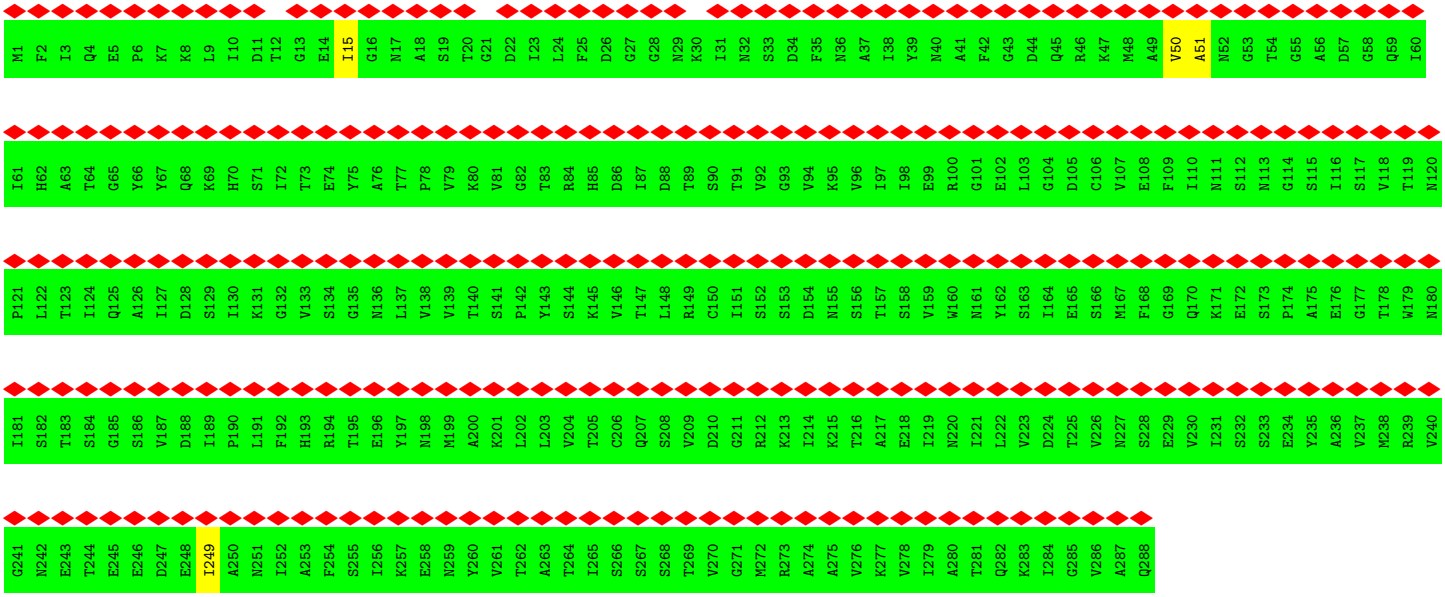
S182 T183 S184 G185 S186 V187 D188 I189 P190 L191 F192 H193 R194 T195 E196 Y197 N198 M199 A200 K201 L202 L203 V204 T205 C206 Q207 S208 V209 D210 G211 R212 K213 I214 K215 T216 A217 E218 I219 N220 I221 L222 V223 D224 T225 V226 N227 S228 E229 V230 I231 S232 S233 E234 Y235 A236 V237 M238 R239 V240 G241

N242 E243 T244 E245 E246 D247 E248 I249 A250 N251 I252 A253 F254 S255 I256 K257 E258 N259 Y260 V261 T262 A263 T264 I265 S266 S267 S268 T269 V270 G271 M272 R273 A274 A275 V276 K277 V278 I279 A280 T281 Q282 K283 I284 G285 V286 A287 Q288

• Molecule 4: Baseplate wedge protein gp9

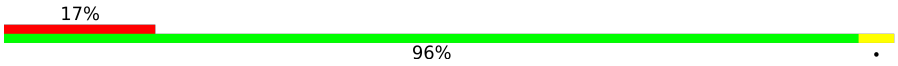
Chain HA:

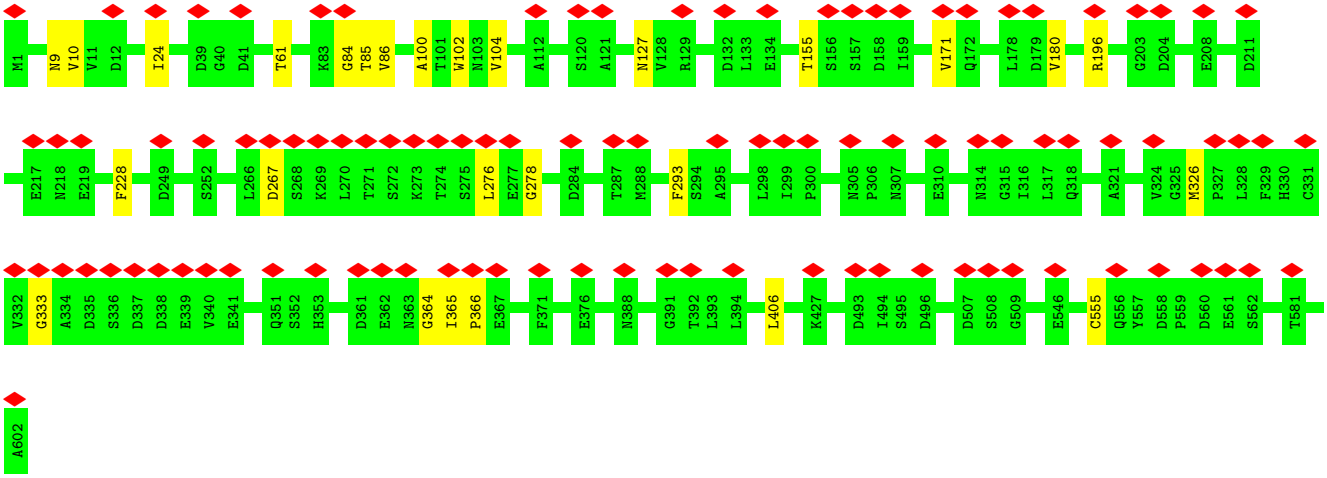




• Molecule 5: Baseplate wedge protein gp10

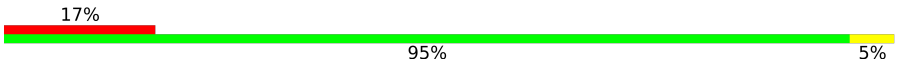
Chain I:

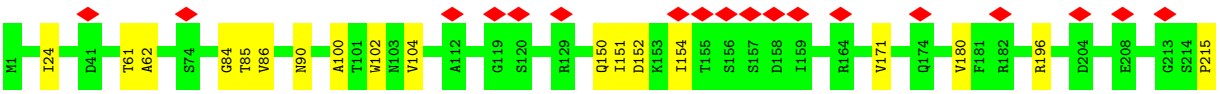


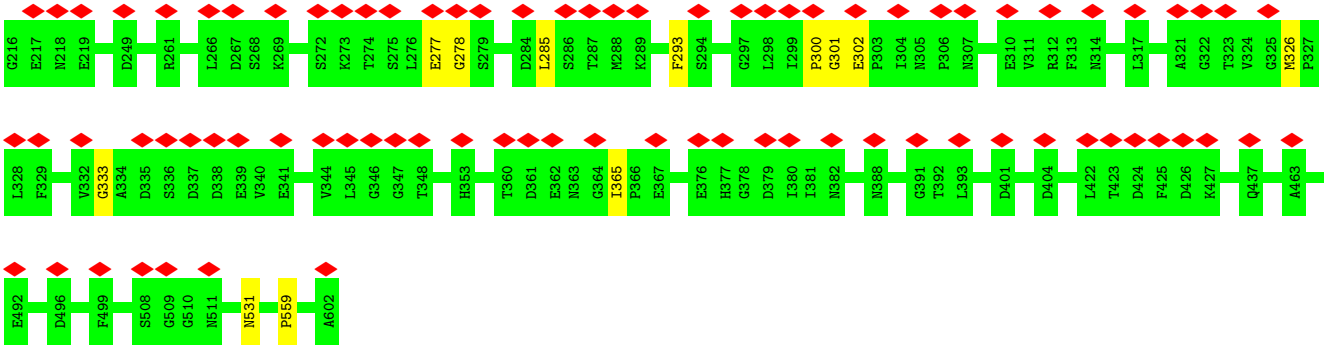


• Molecule 5: Baseplate wedge protein gp10

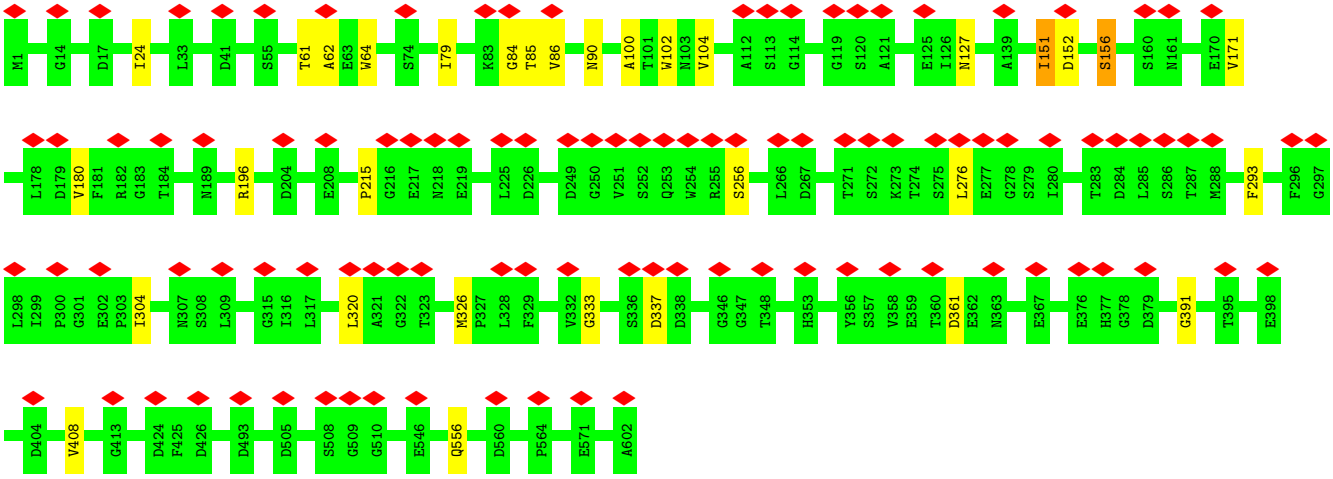
Chain J:



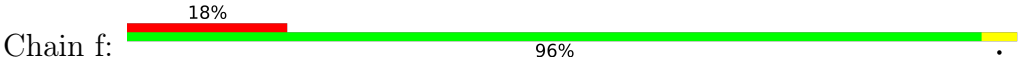


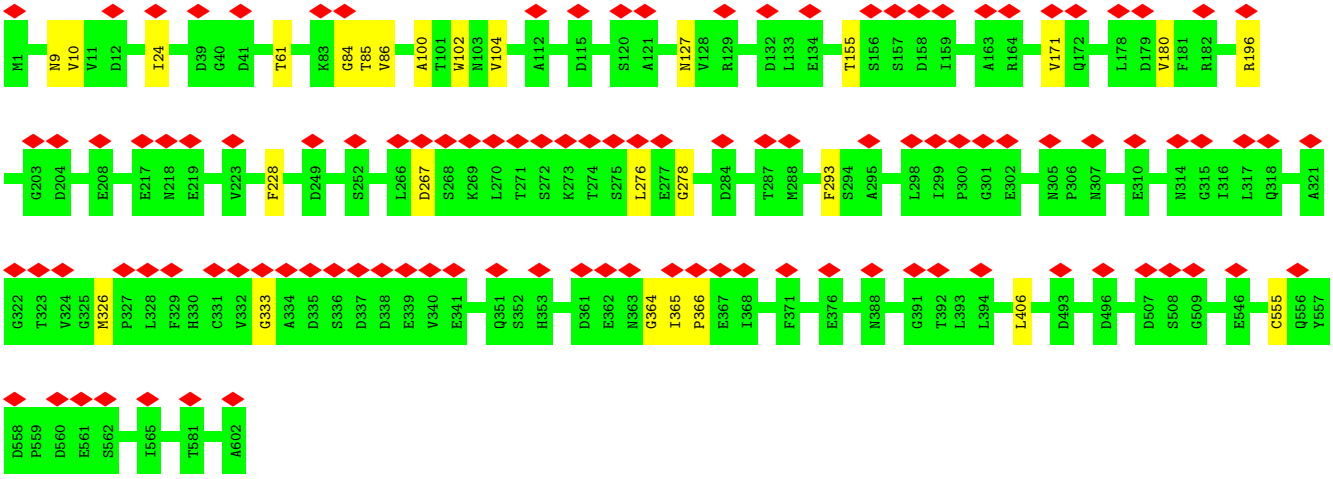


• Molecule 5: Baseplate wedge protein gp10



• Molecule 5: Baseplate wedge protein gp10





• Molecule 5: Baseplate wedge protein gp10

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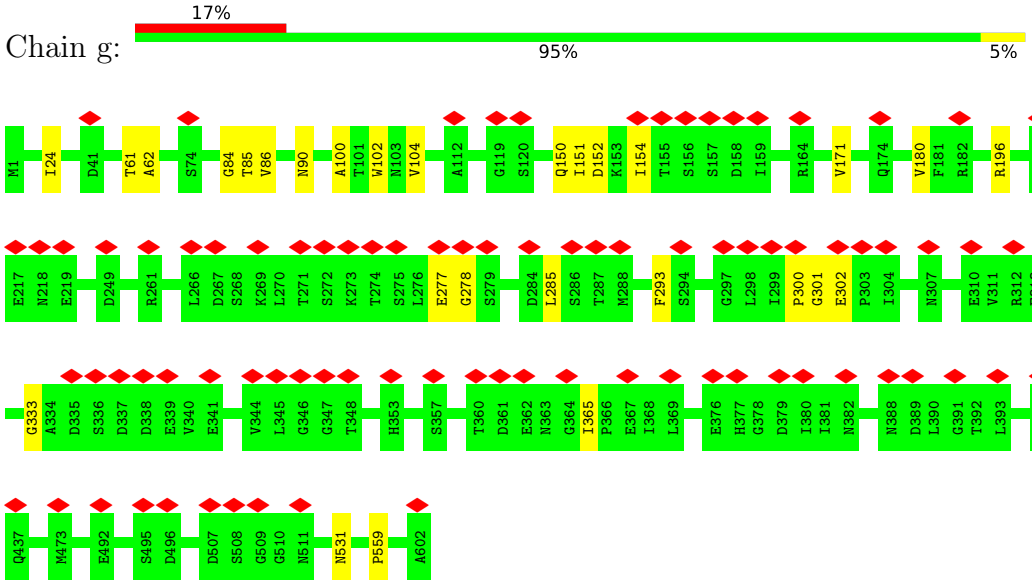
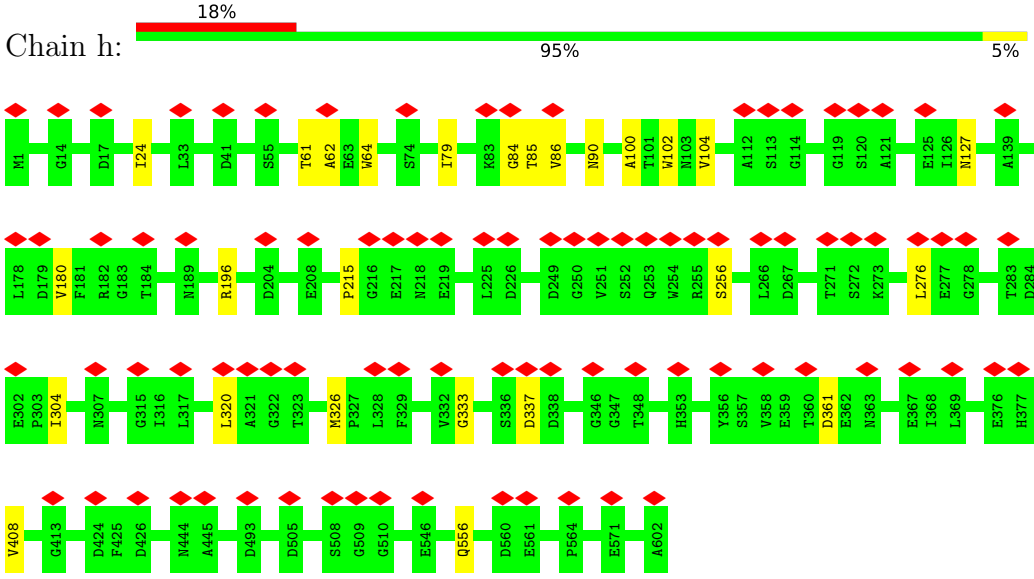


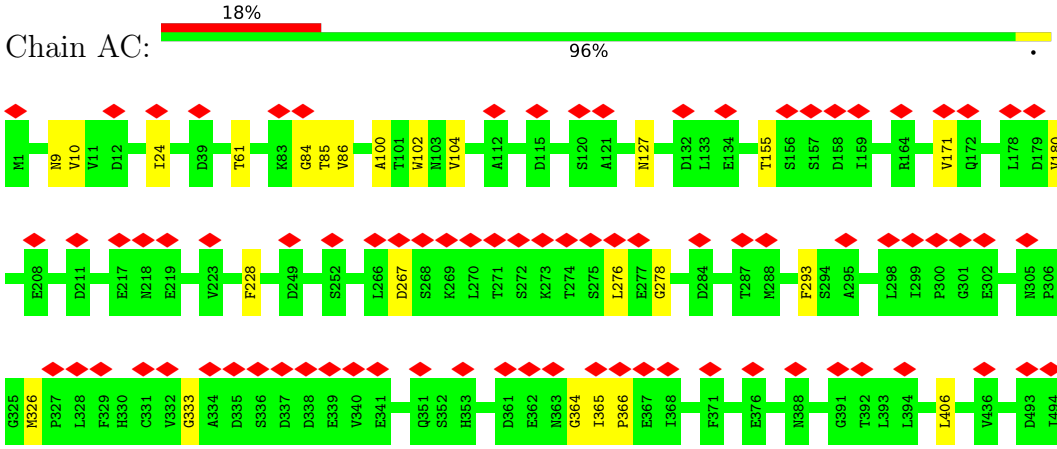
• Molecule 5: Baseplate wedge protein gp10

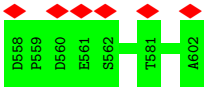
Chain h:



• Molecule 5: Baseplate wedge protein gp10

Chain AC:





• Molecule 5: Baseplate wedge protein gp10

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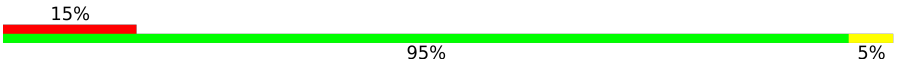

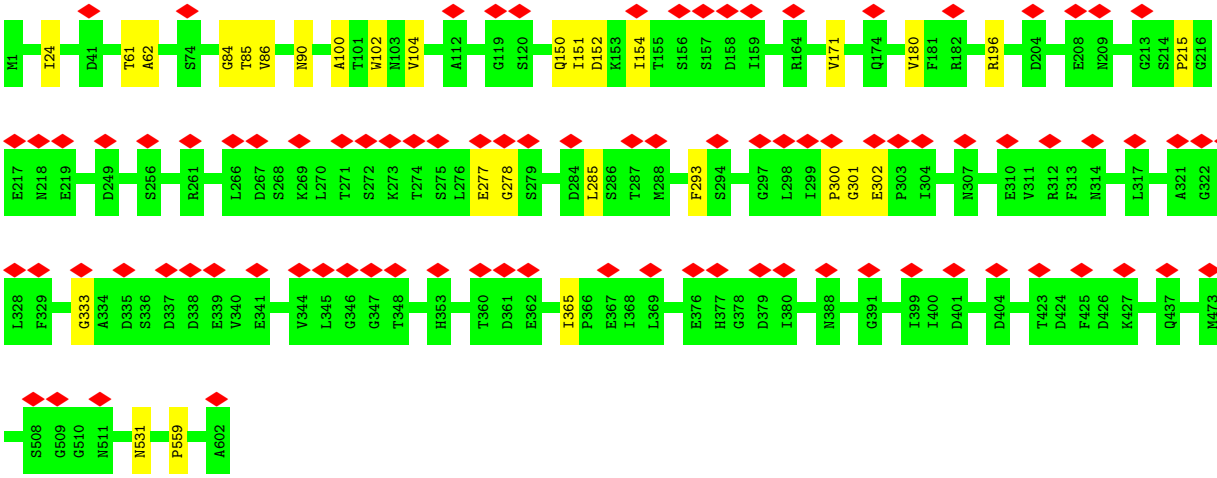

• Molecule 5: Baseplate wedge protein gp10

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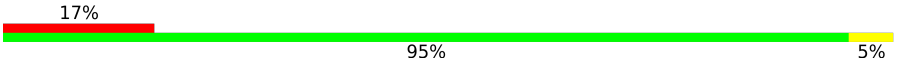
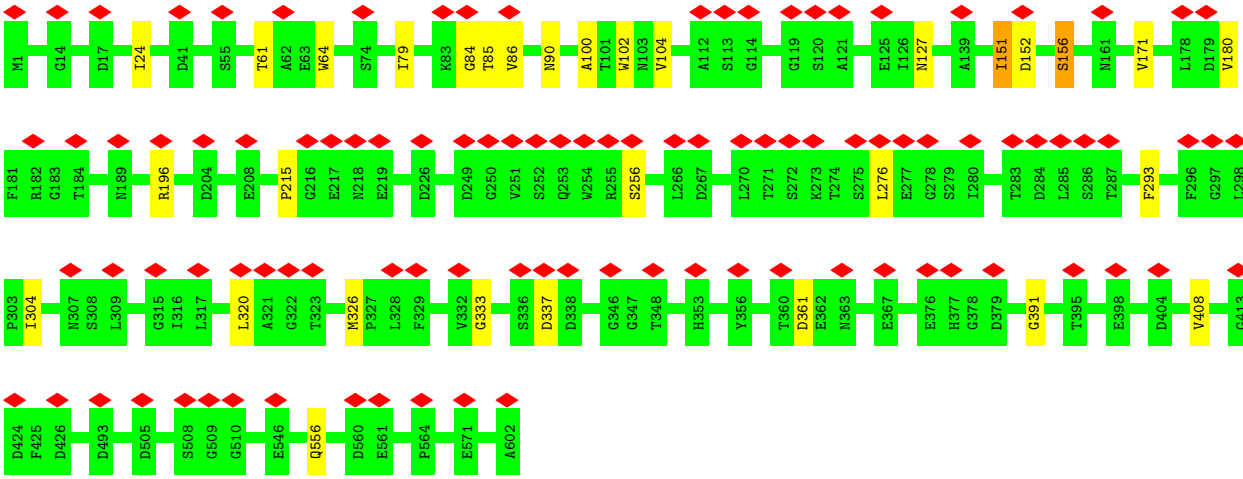
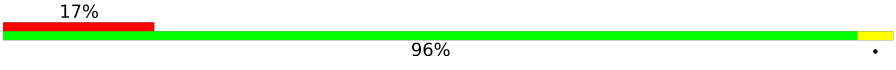
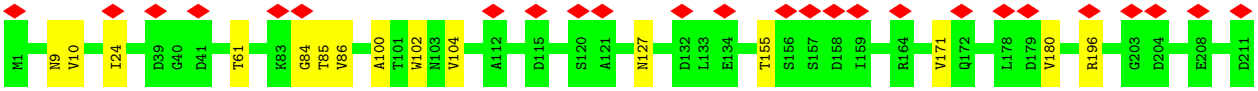


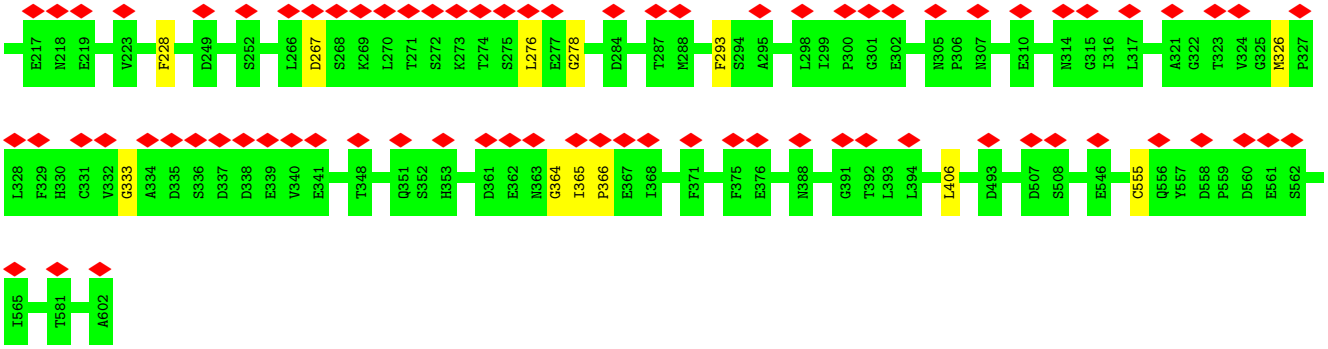


• Molecule 5: Baseplate wedge protein gp10

Chain CF:

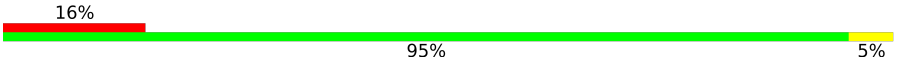


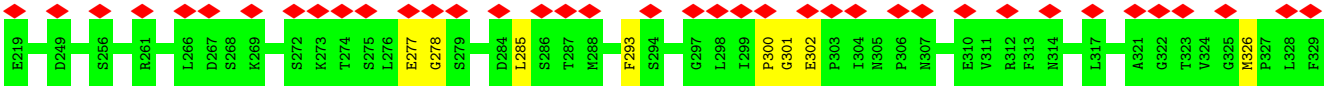


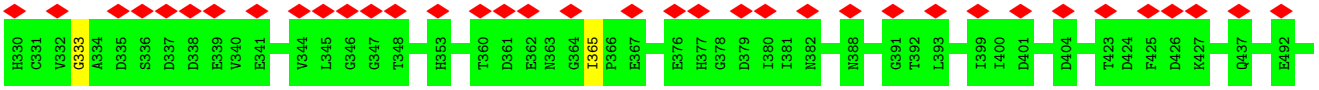


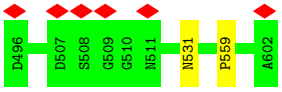
• Molecule 5: Baseplate wedge protein gp10

Chain CG:



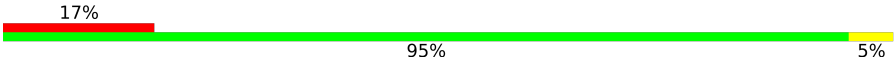


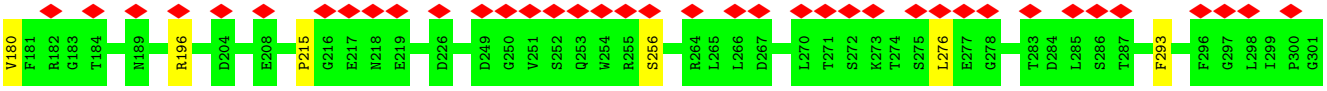


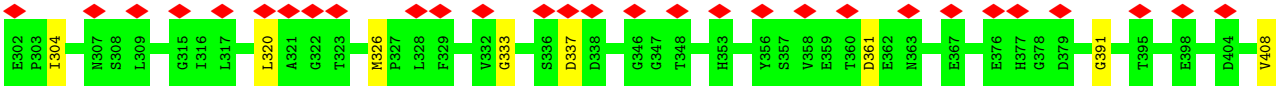


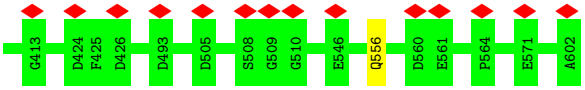
• Molecule 5: Baseplate wedge protein gp10

Chain CH:









• Molecule 5: Baseplate wedge protein gp10

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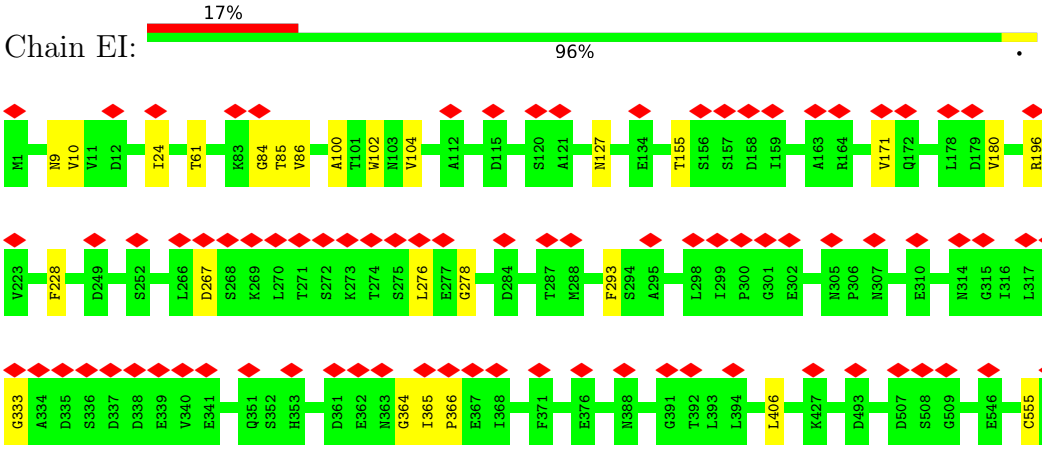
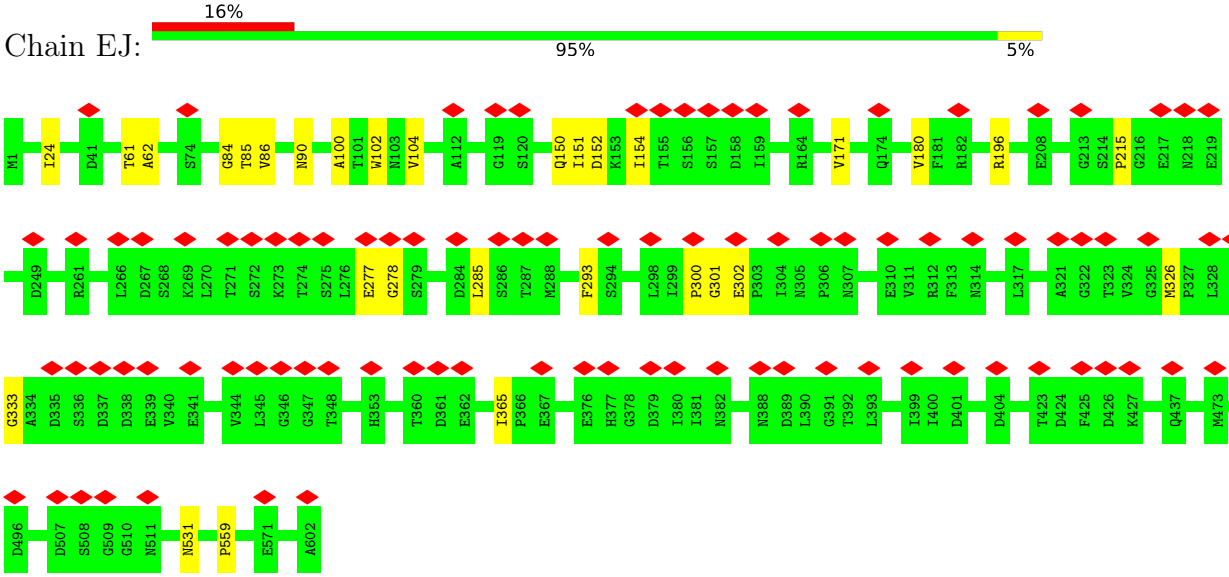


• Molecule 5: Baseplate wedge protein gp10

Chain EJ:



• Molecule 5: Baseplate wedge protein gp10

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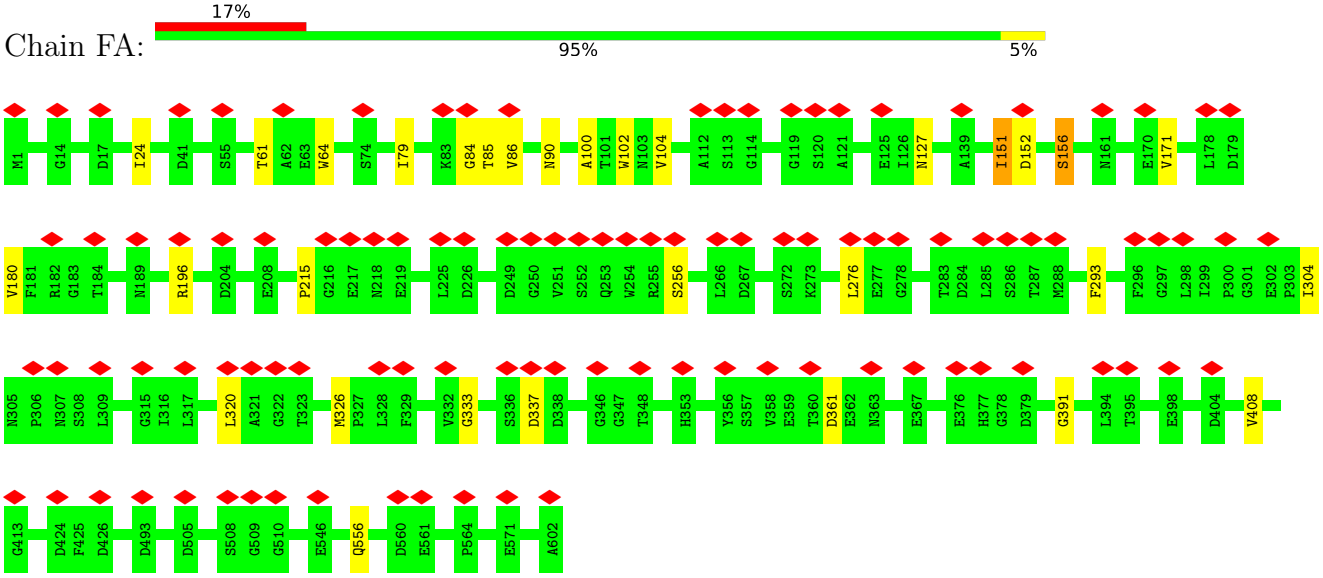

• Molecule 5: Baseplate wedge protein gp10

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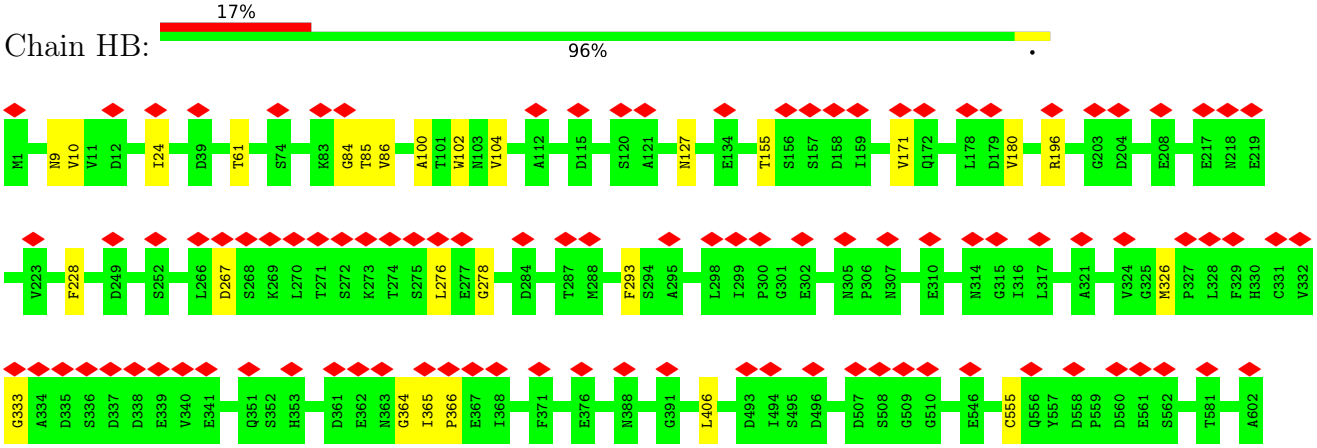

• Molecule 5: Baseplate wedge protein gp10

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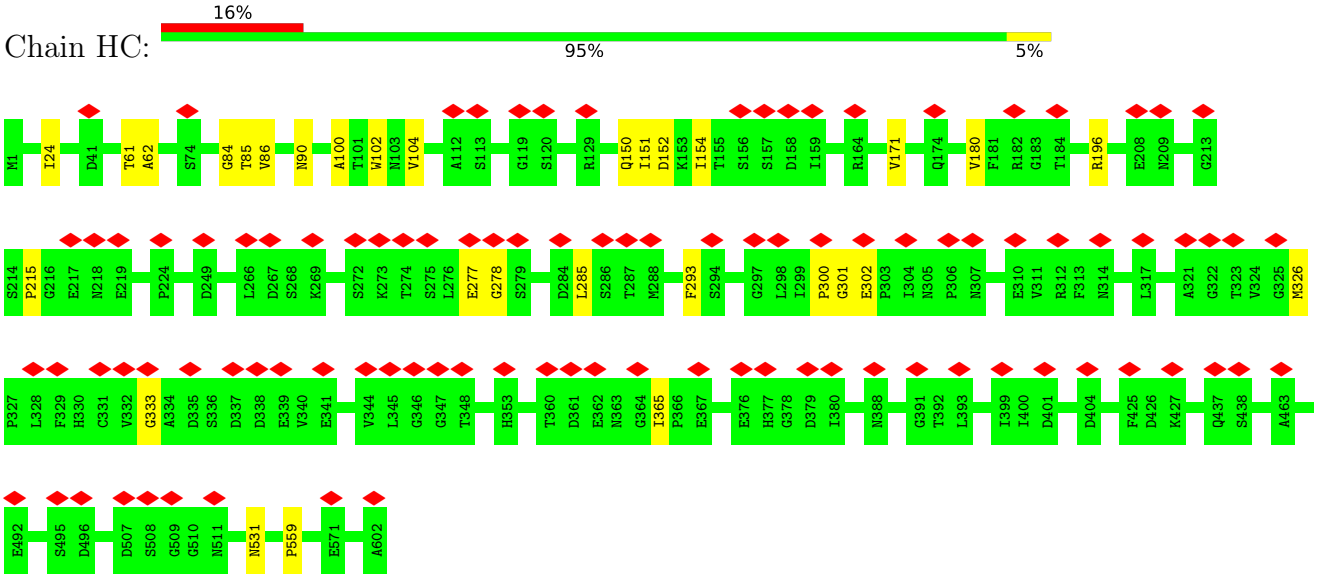
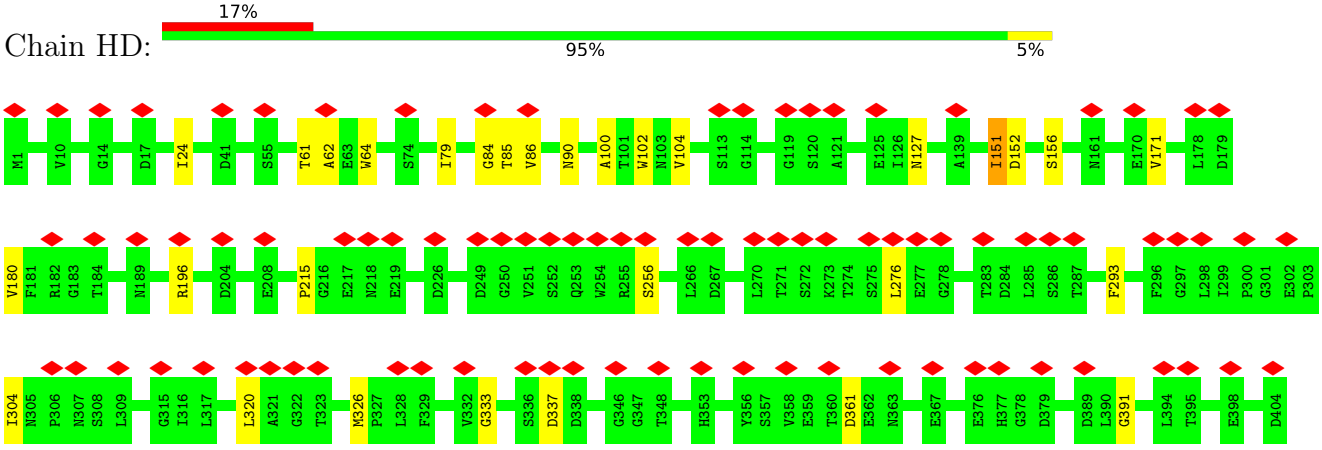
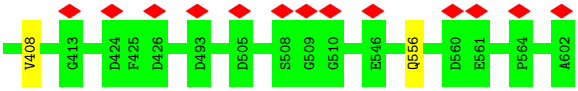


• Molecule 5: Baseplate wedge protein gp10

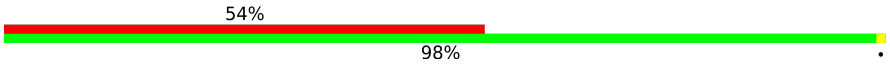
Chain HD:

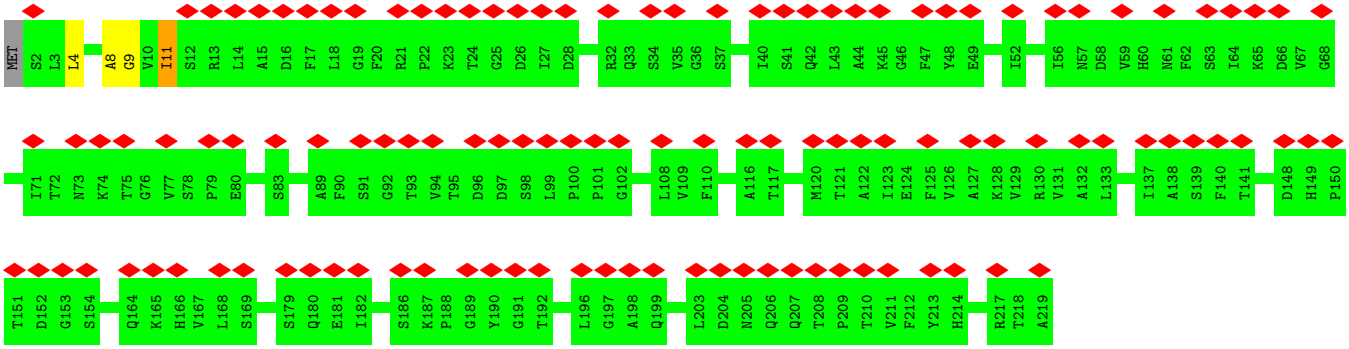




• Molecule 6: Baseplate wedge protein gp11

Chain L:





• Molecule 6: Baseplate wedge protein gp11

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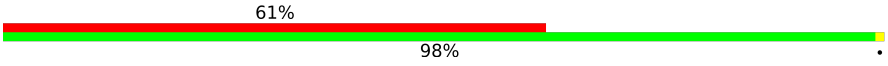

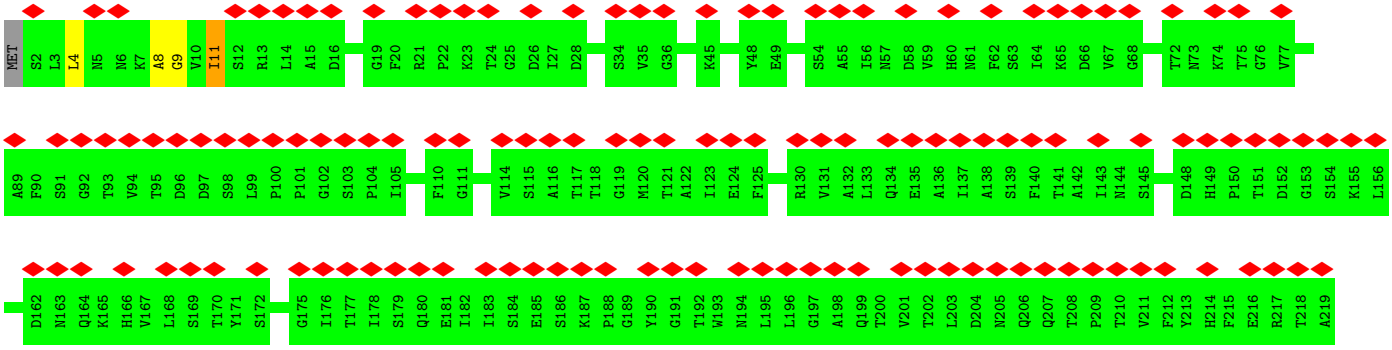

• Molecule 6: Baseplate wedge protein gp11

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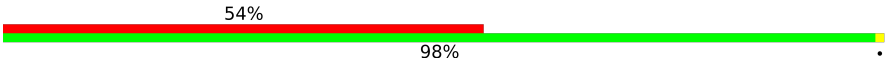
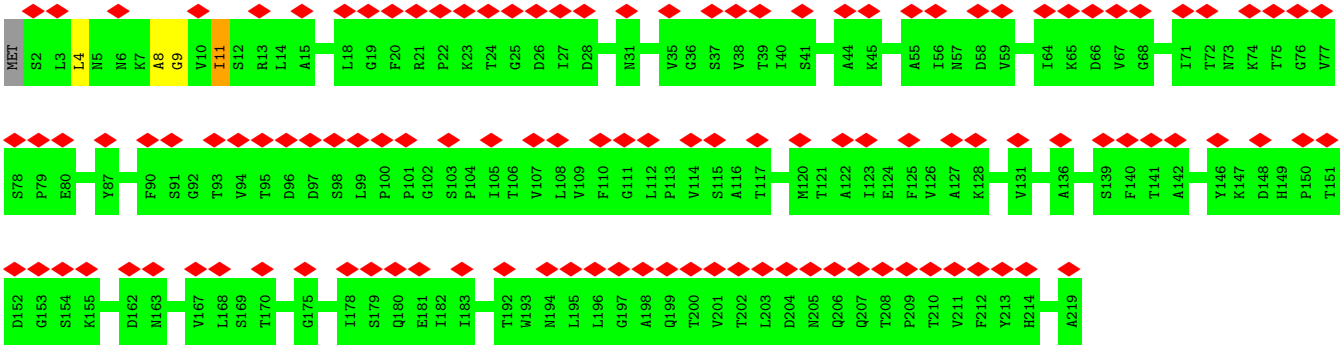
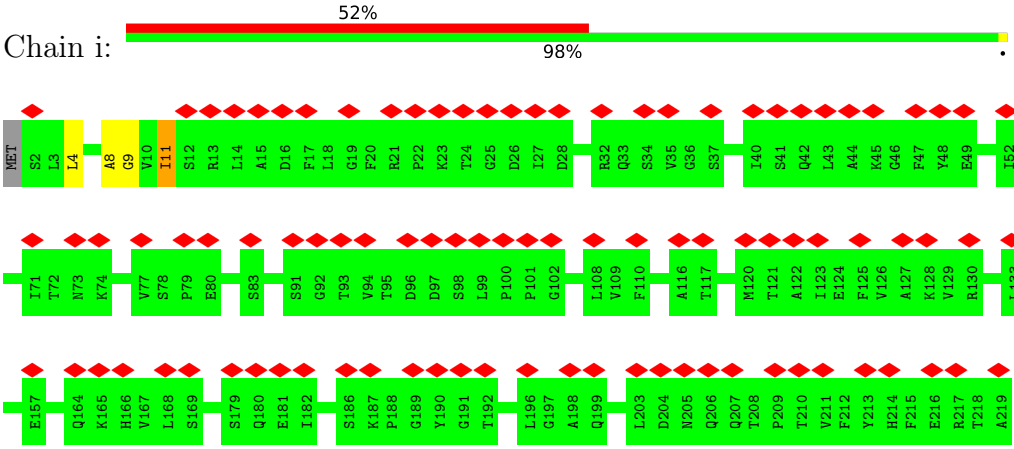




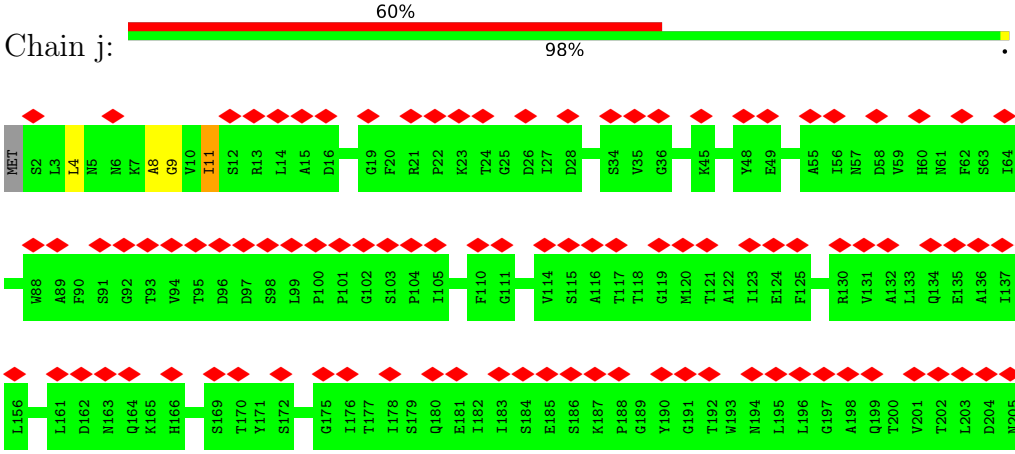
• Molecule 6: Baseplate wedge protein gp11

Chain i:



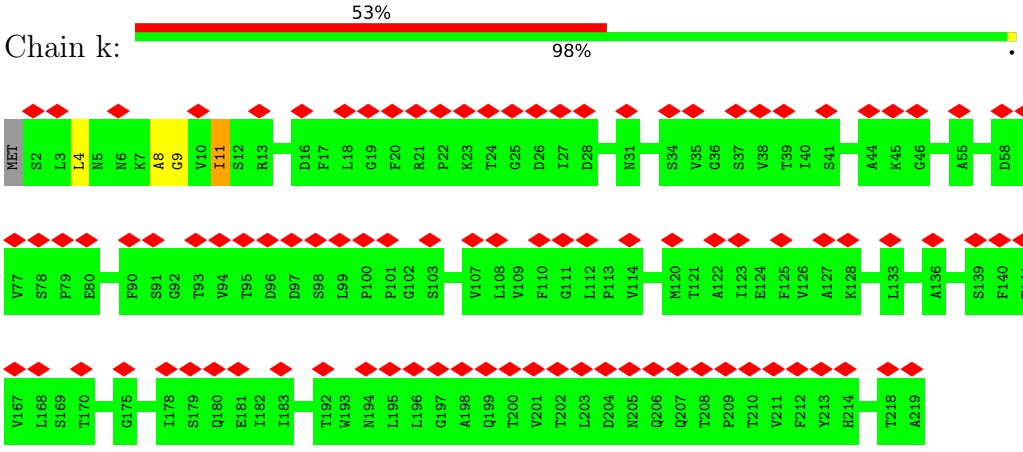
• Molecule 6: Baseplate wedge protein gp11

Chain j:



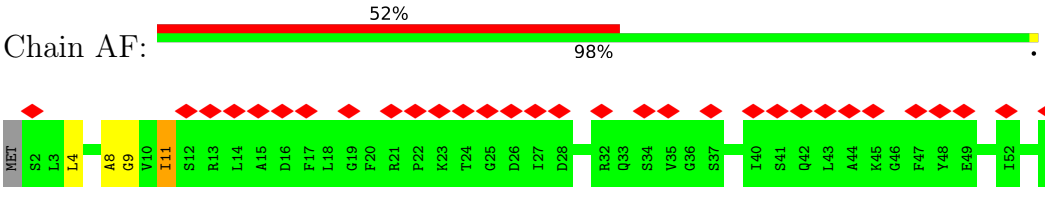
• Molecule 6: Baseplate wedge protein gp11

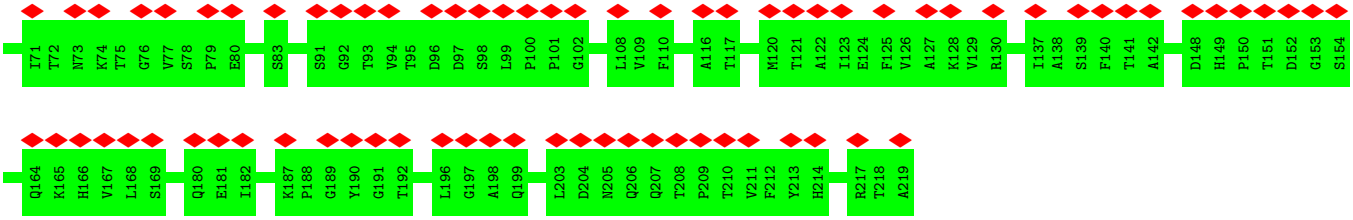
Chain k:



• Molecule 6: Baseplate wedge protein gp11

Chain AF:





• Molecule 6: Baseplate wedge protein gp11

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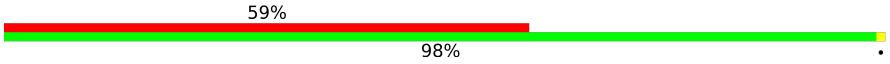
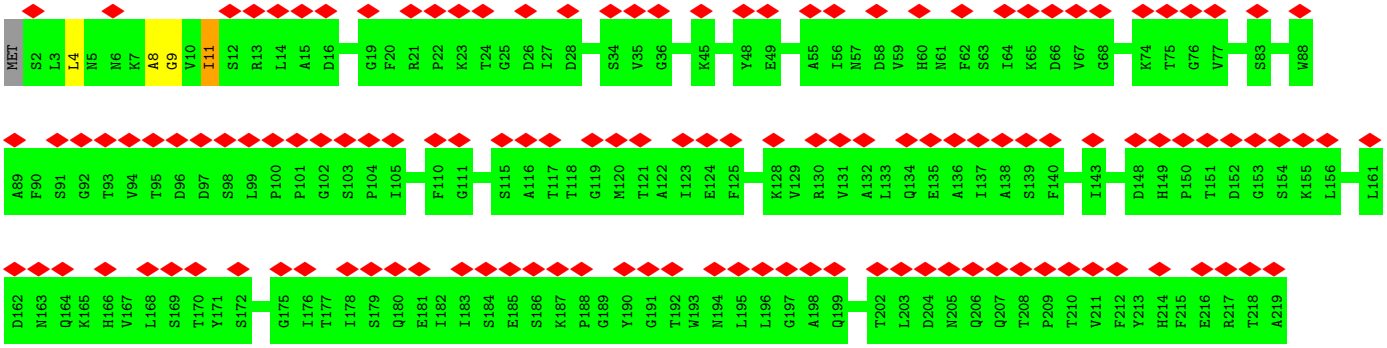
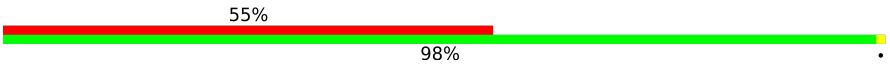
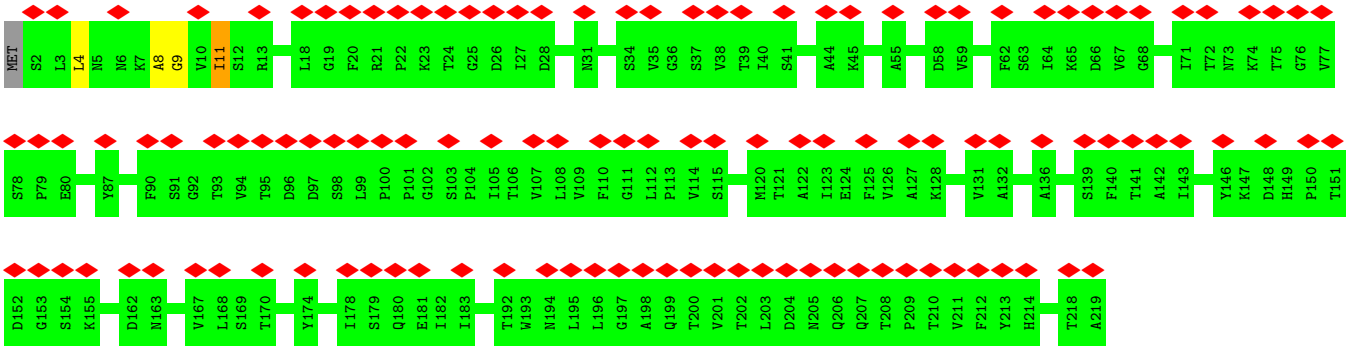




• Molecule 6: Baseplate wedge protein gp11

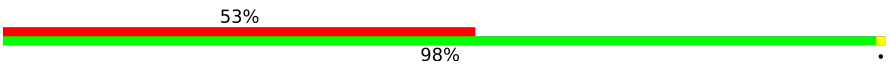
Chain AH:

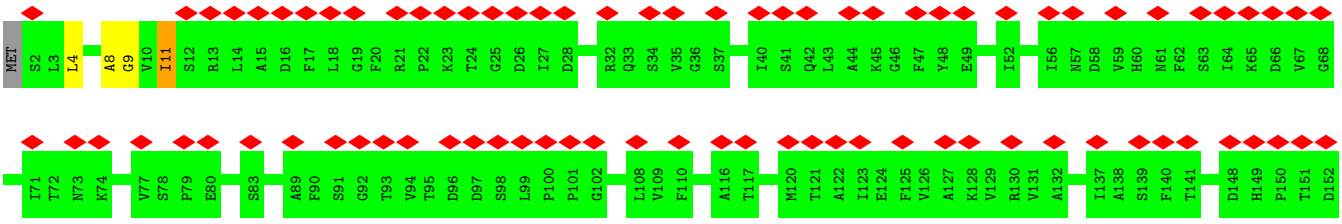


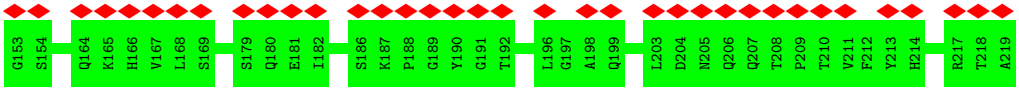


• Molecule 6: Baseplate wedge protein gp11

Chain CI:

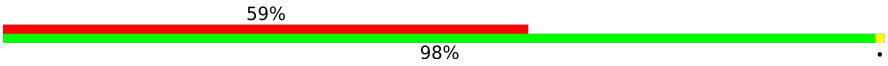


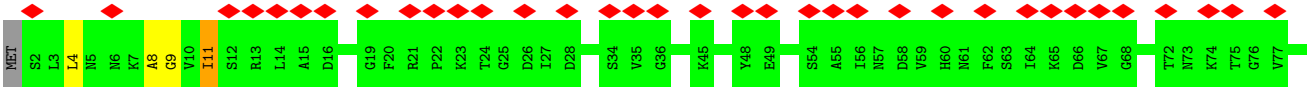


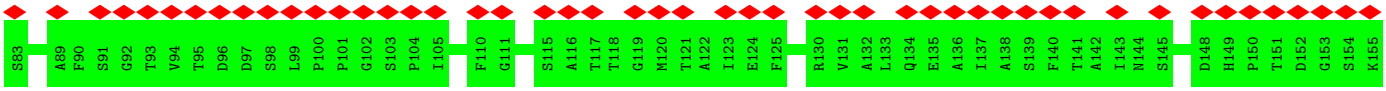


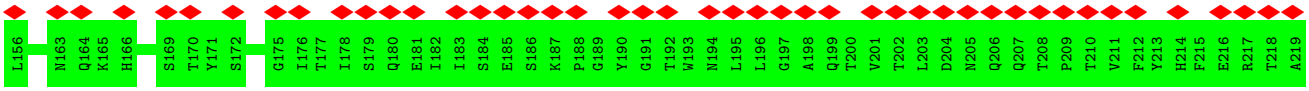
• Molecule 6: Baseplate wedge protein gp11

Chain CJ:









• Molecule 6: Baseplate wedge protein gp11

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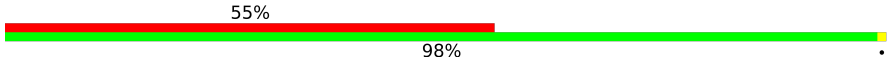
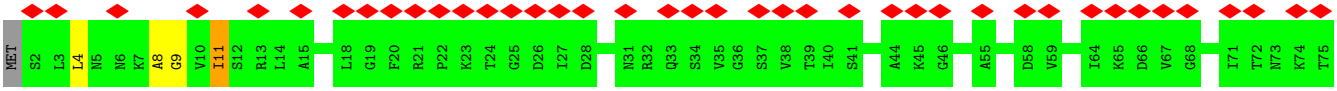
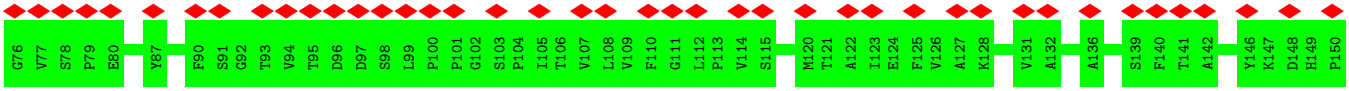
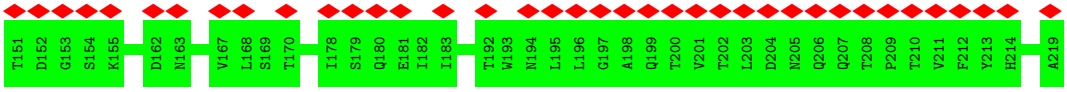


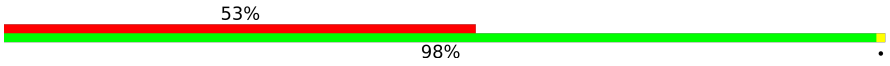


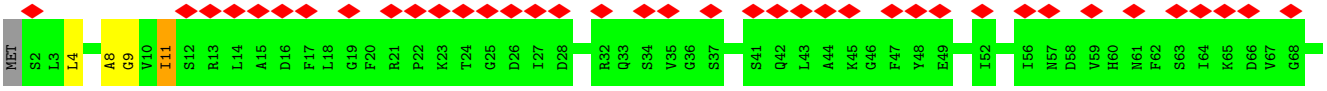


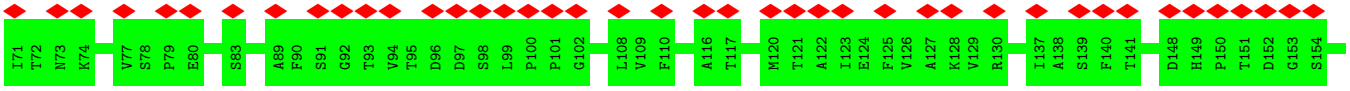


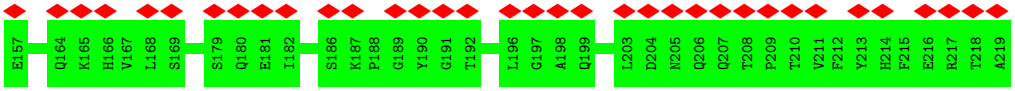
• Molecule 6: Baseplate wedge protein gp11

Chain FB:









• Molecule 6: Baseplate wedge protein gp11

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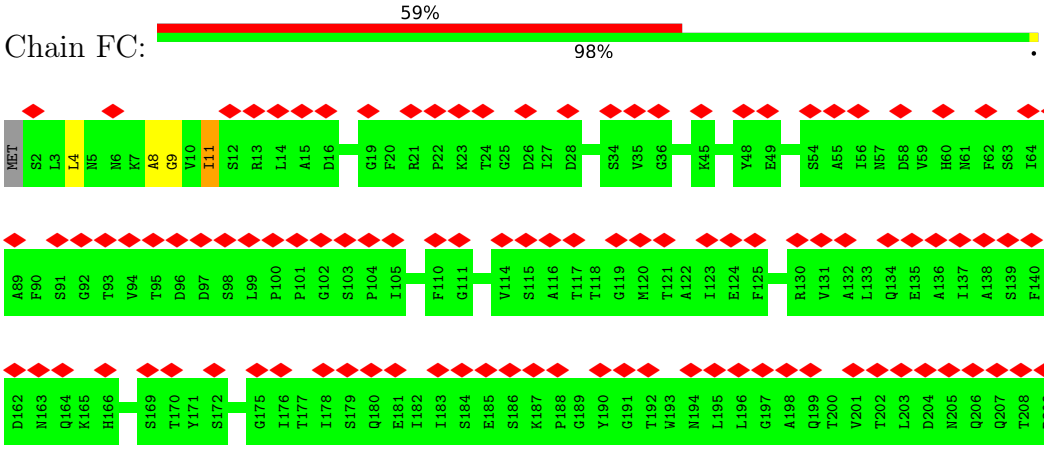

• Molecule 6: Baseplate wedge protein gp11

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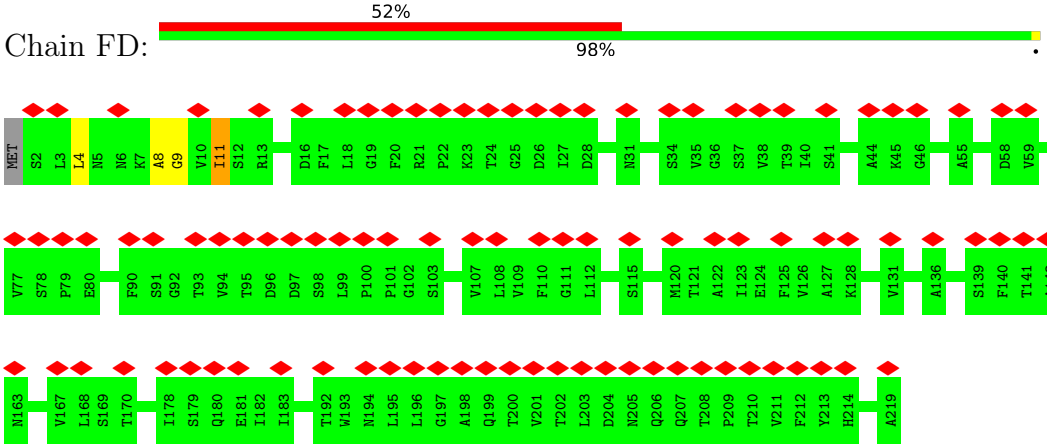

• Molecule 6: Baseplate wedge protein gp11

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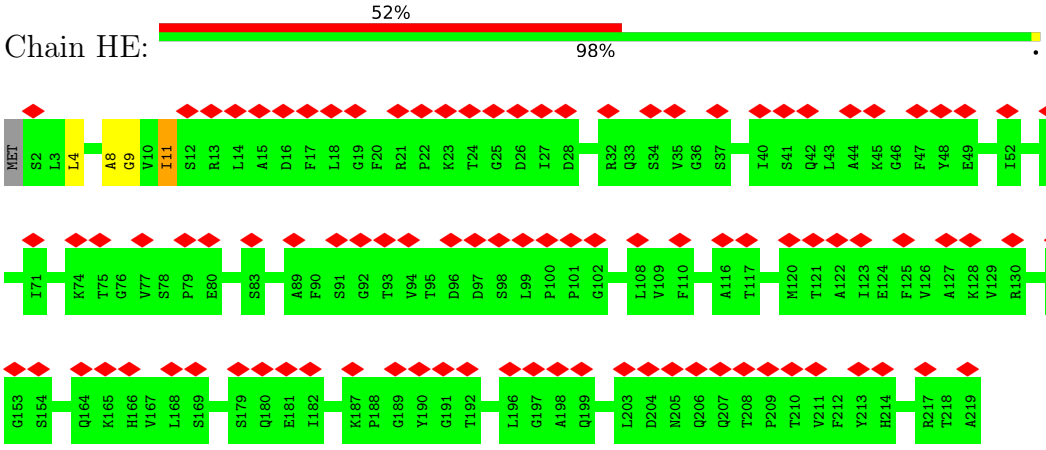

• Molecule 6: Baseplate wedge protein gp11

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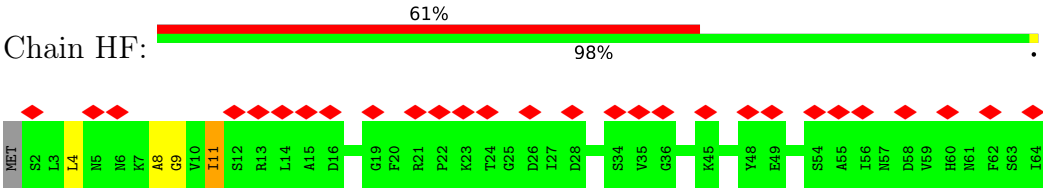

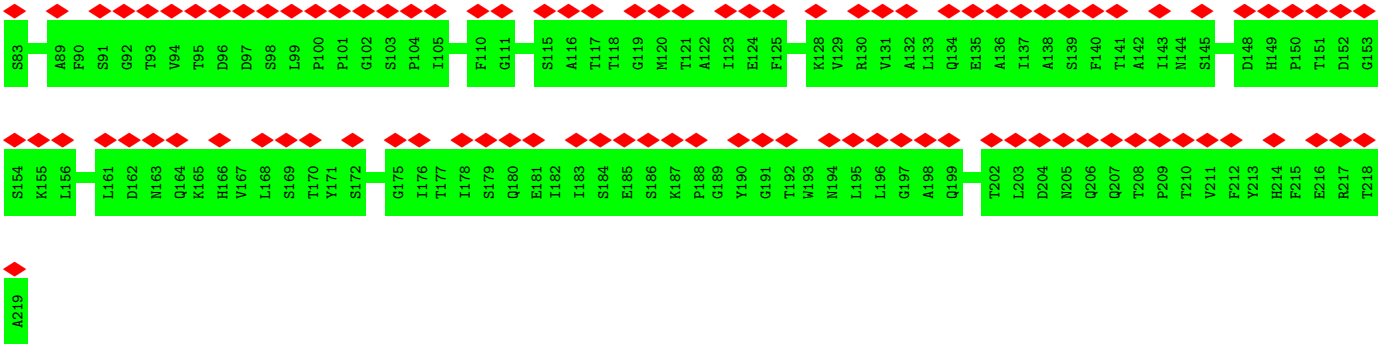

• Molecule 6: Baseplate wedge protein gp11

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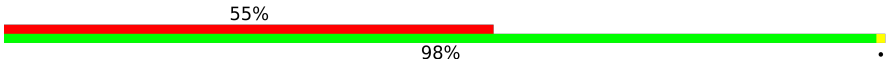
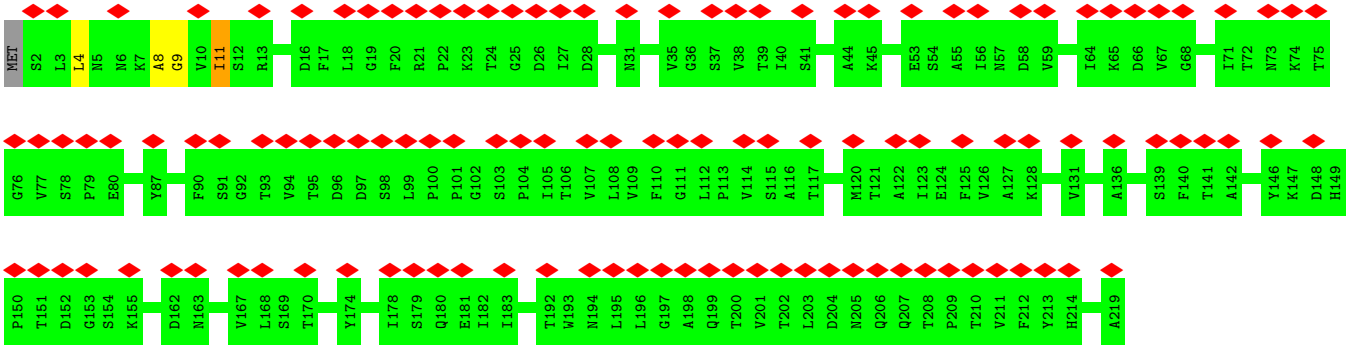
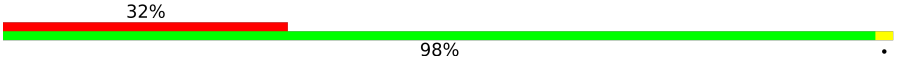
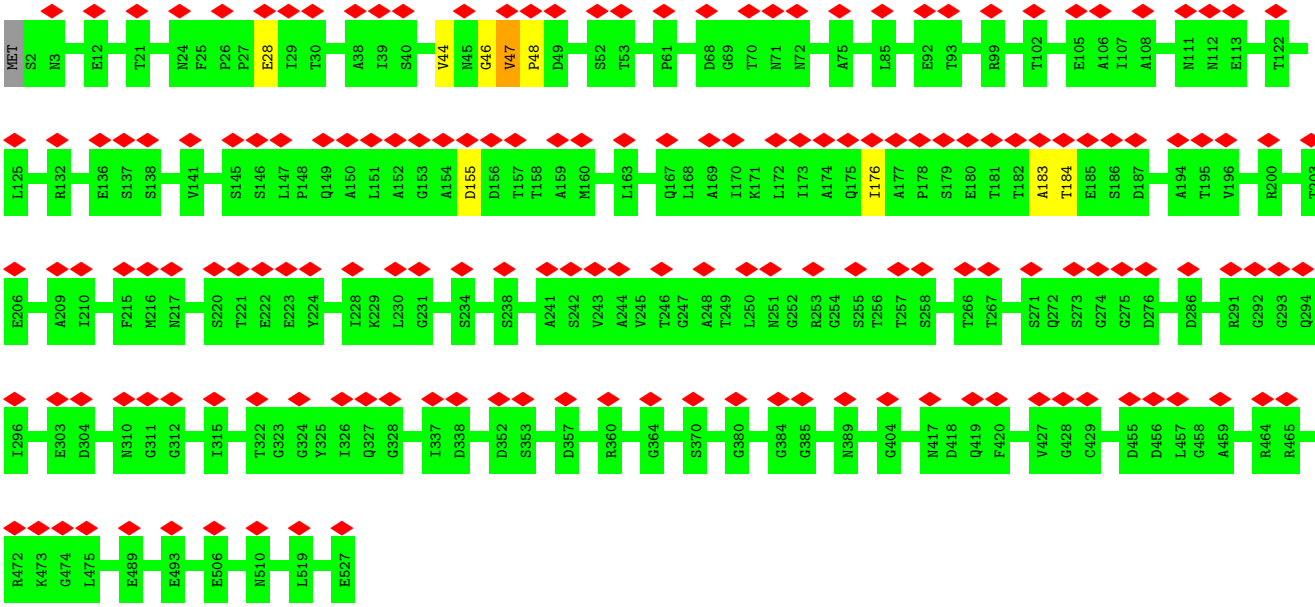




• Molecule 7: Short tail fiber protein gp12

Chain O:





• Molecule 7: Short tail fiber protein gp12

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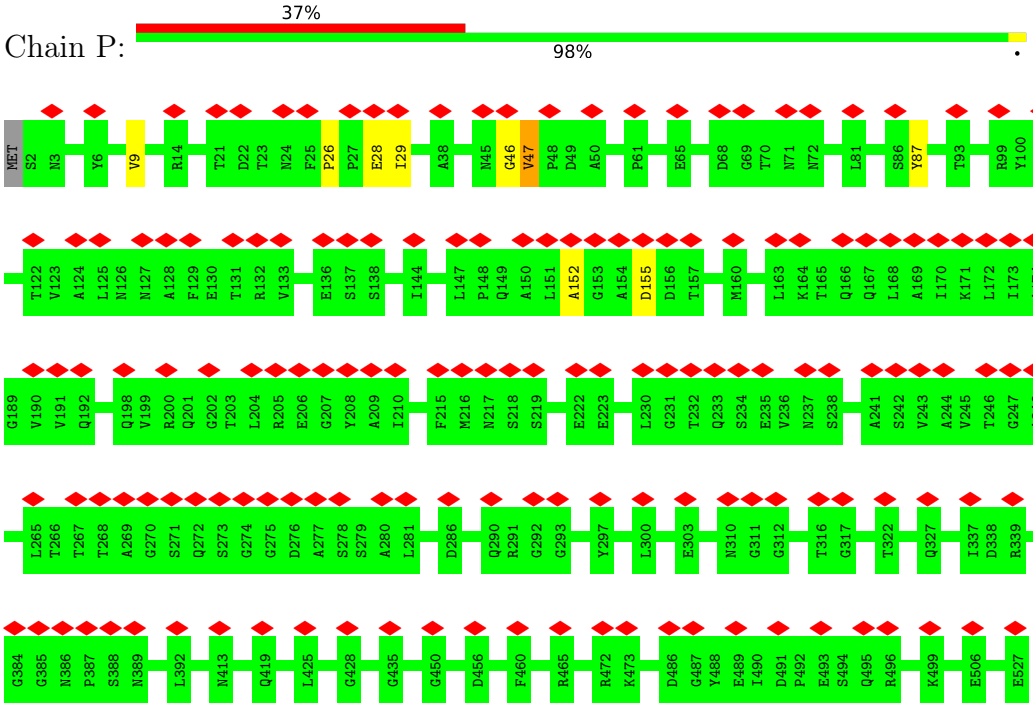

• Molecule 7: Short tail fiber protein gp12

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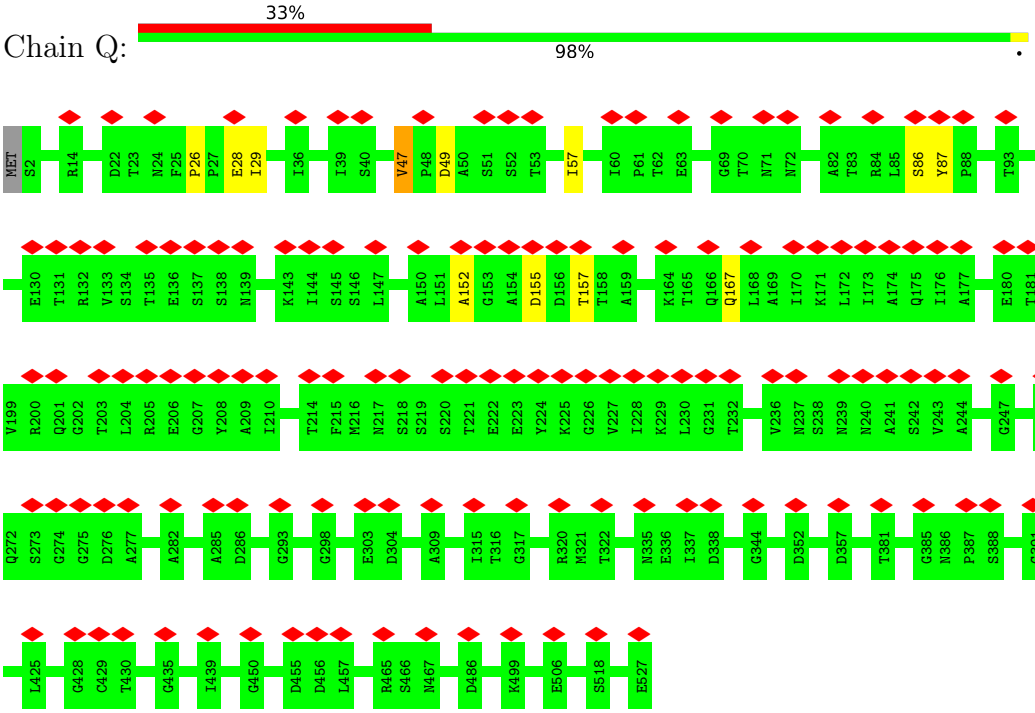
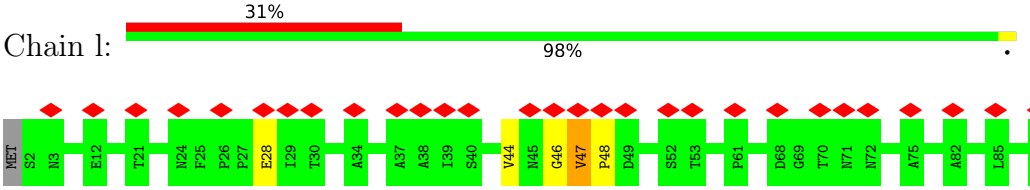
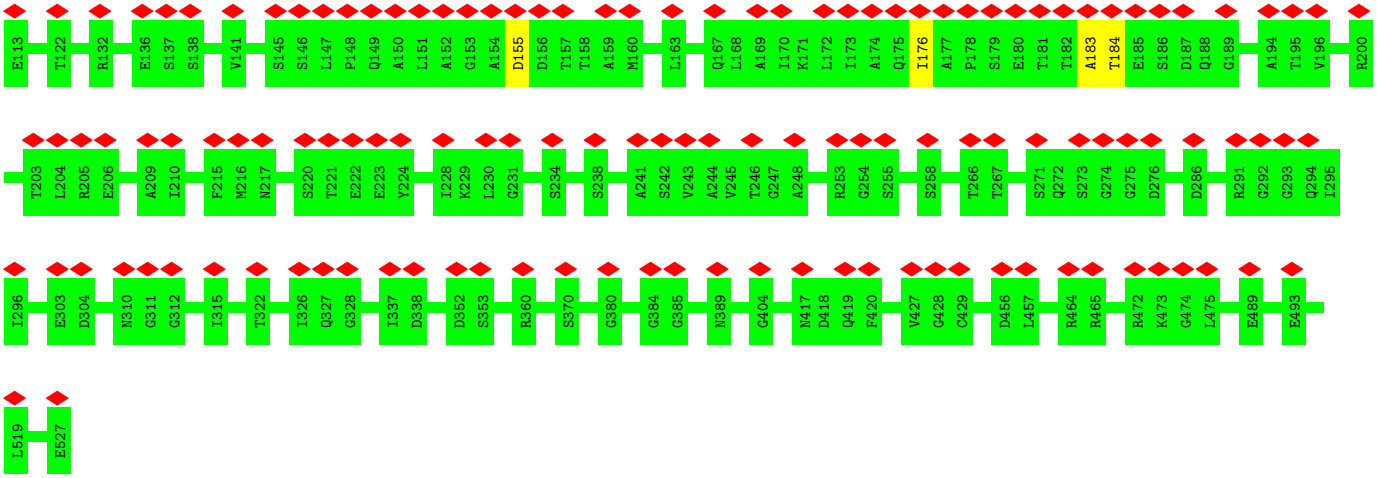


• Molecule 7: Short tail fiber protein gp12

Chain l:





• Molecule 7: Short tail fiber protein gp12

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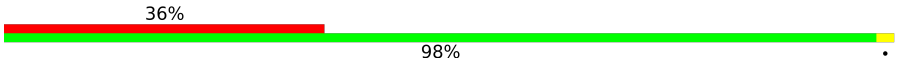

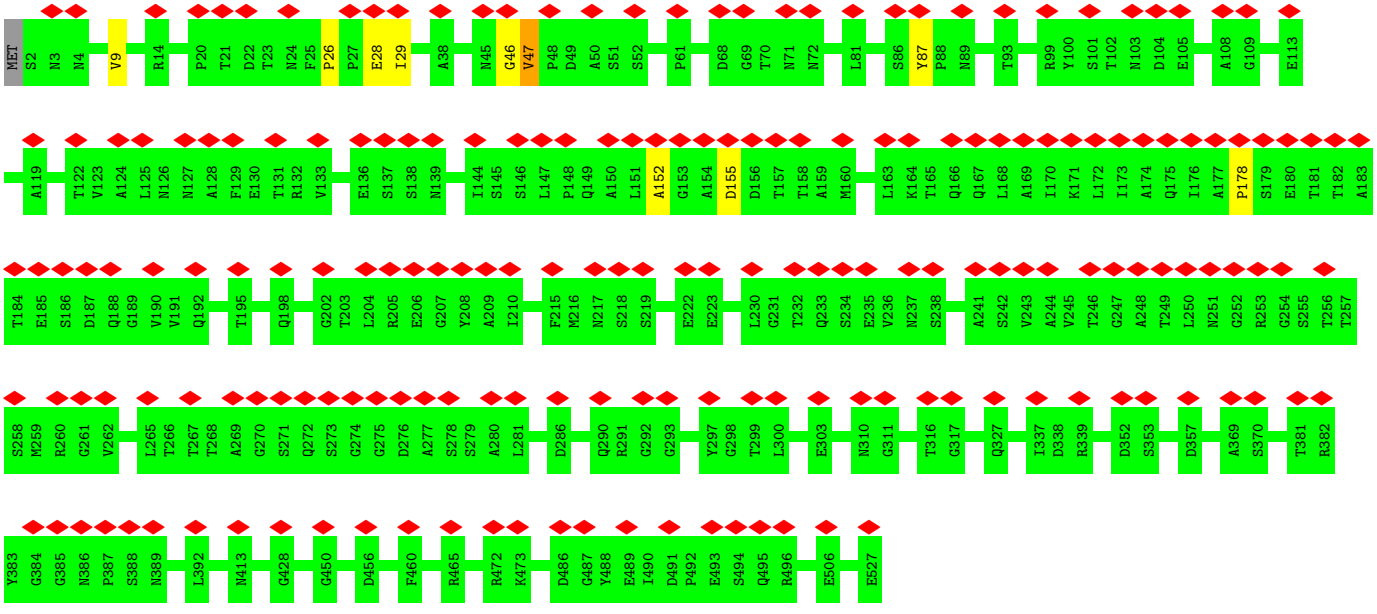

• Molecule 7: Short tail fiber protein gp12

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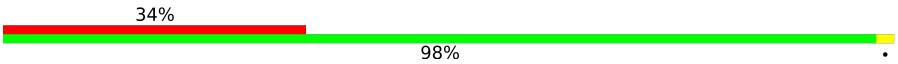
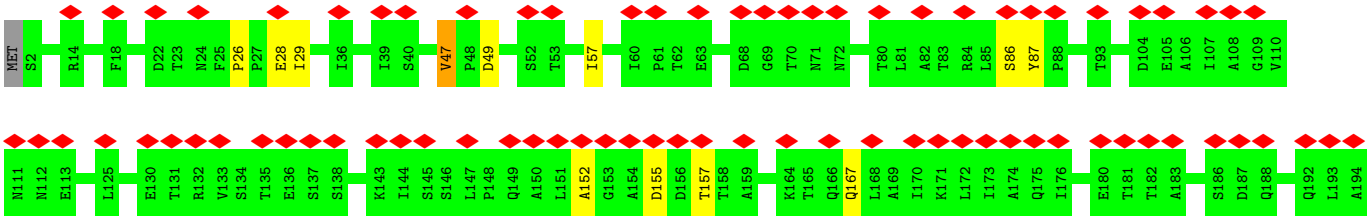
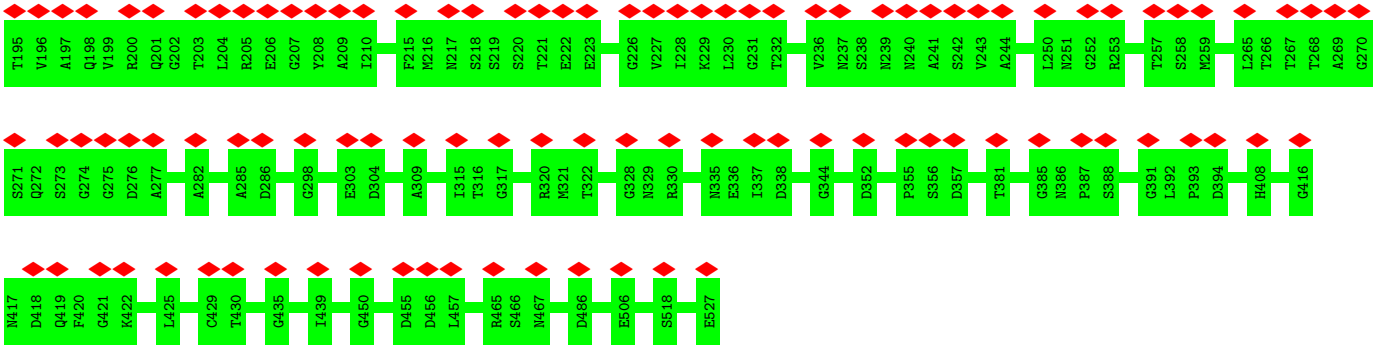
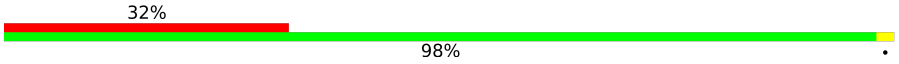


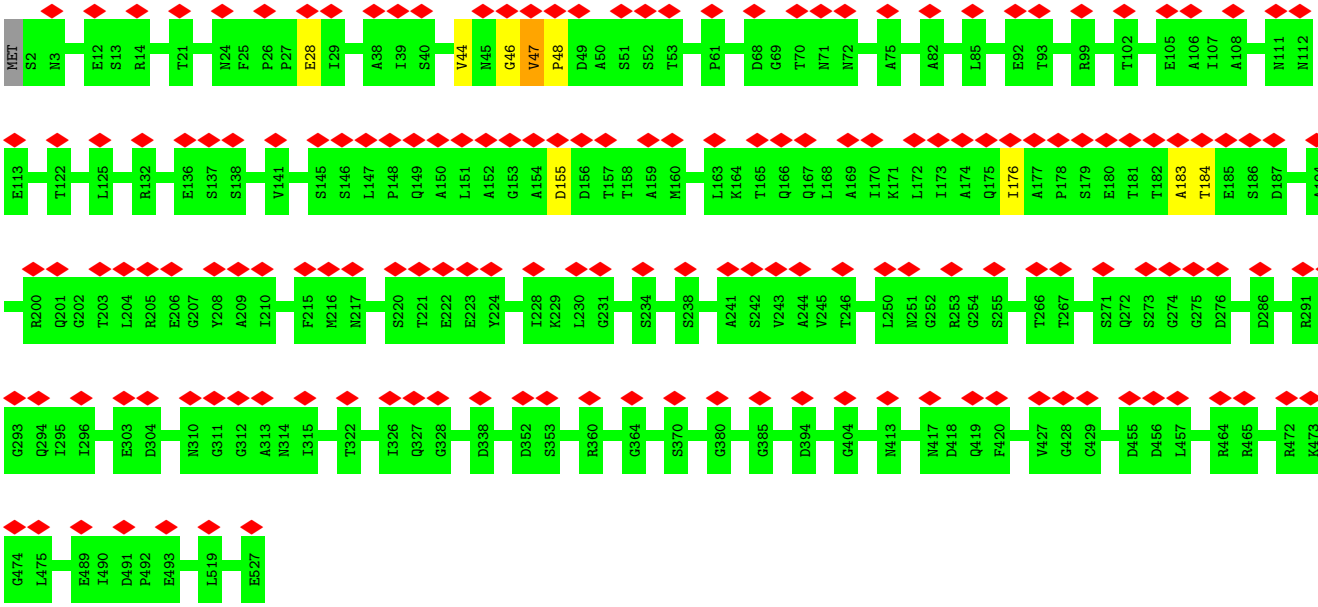




• Molecule 7: Short tail fiber protein gp12

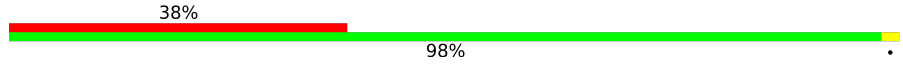
Chain AI:

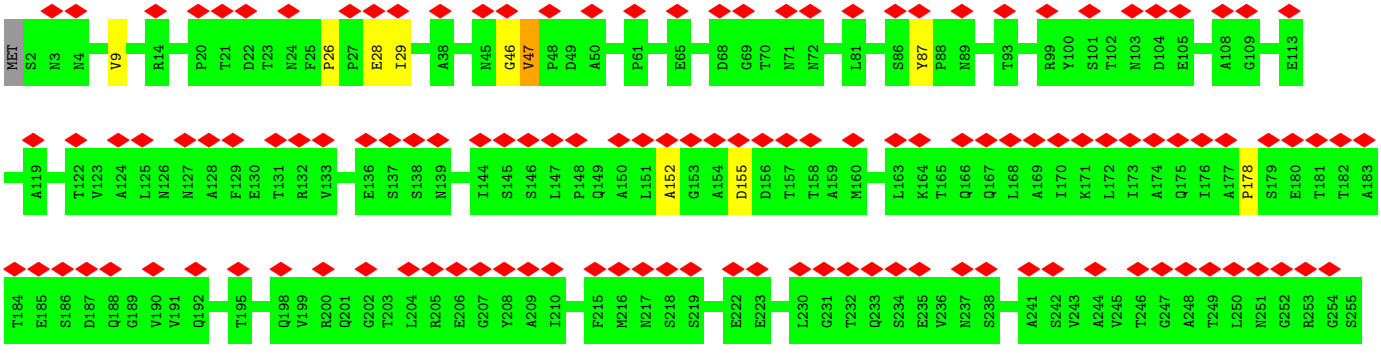


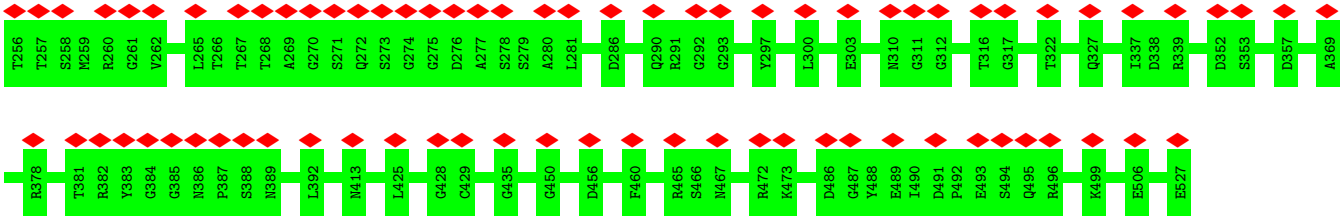


• Molecule 7: Short tail fiber protein gp12

Chain AJ:

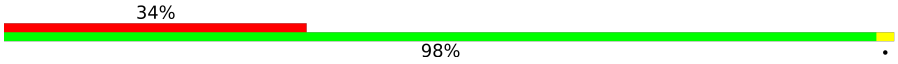


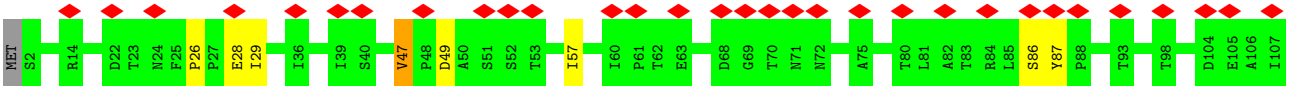




• Molecule 7: Short tail fiber protein gp12

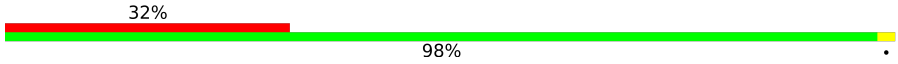
Chain BA:

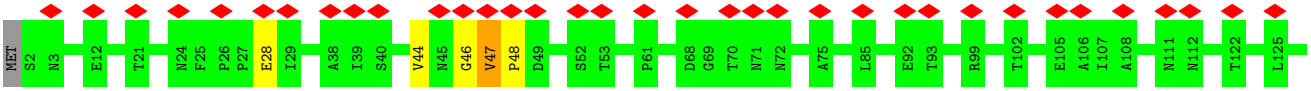


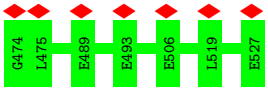


• Molecule 7: Short tail fiber protein gp12

Chain DB:

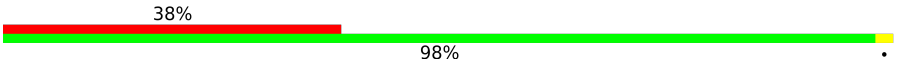


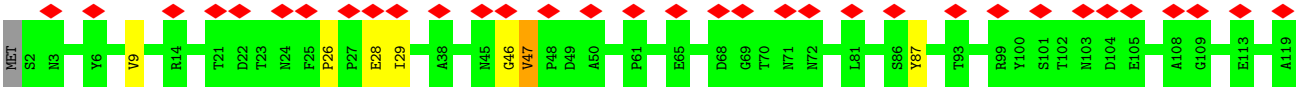


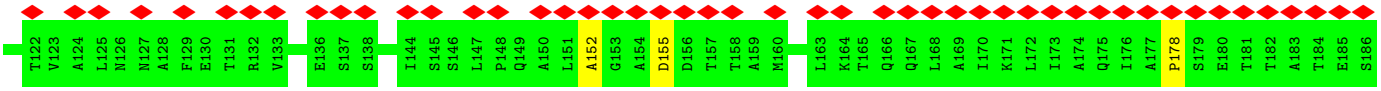


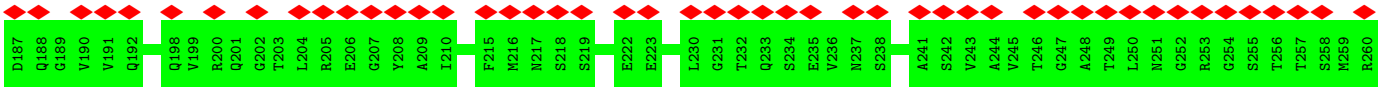
• Molecule 7: Short tail fiber protein gp12

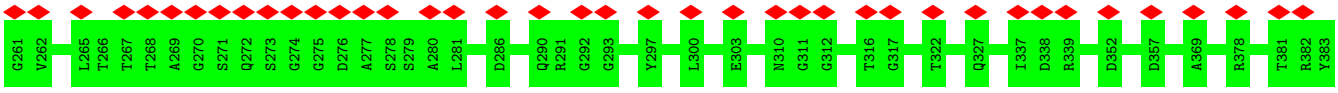
Chain DC:

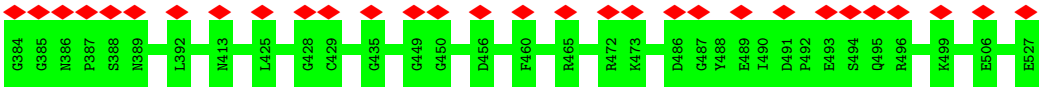












• Molecule 7: Short tail fiber protein gp12

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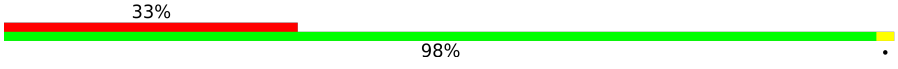
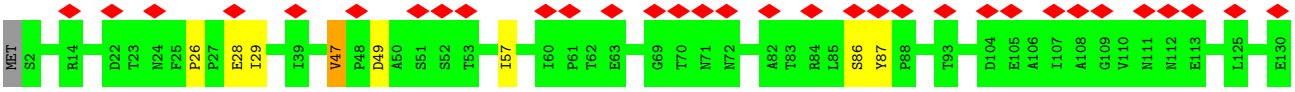
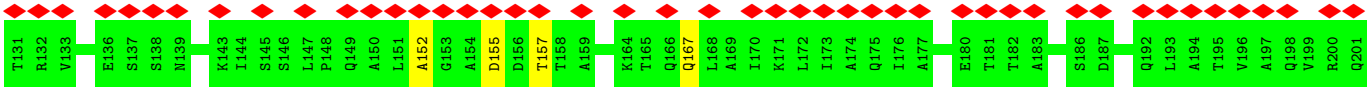
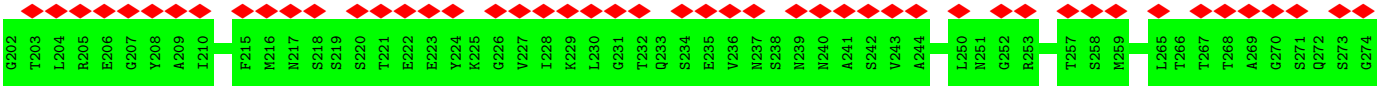
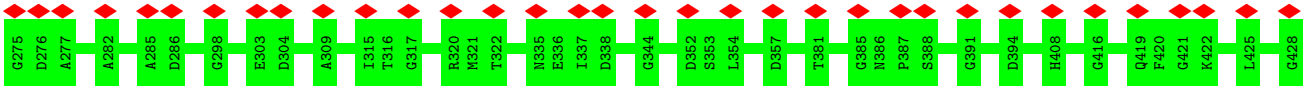
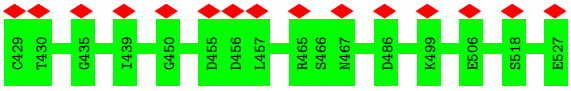






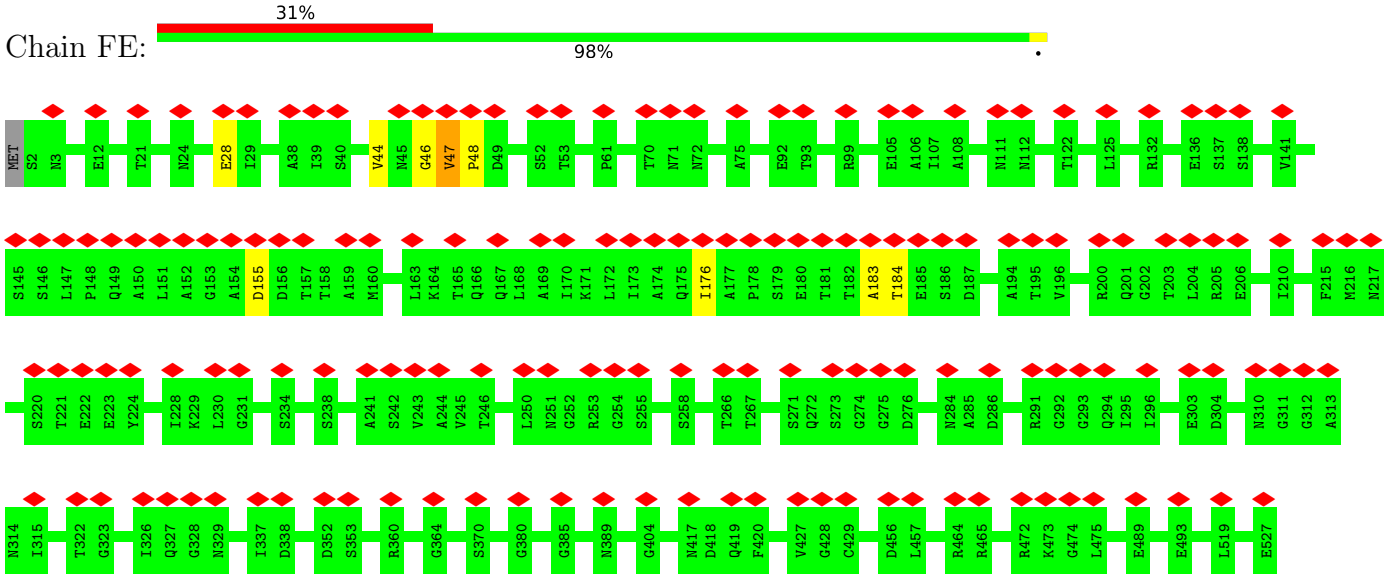






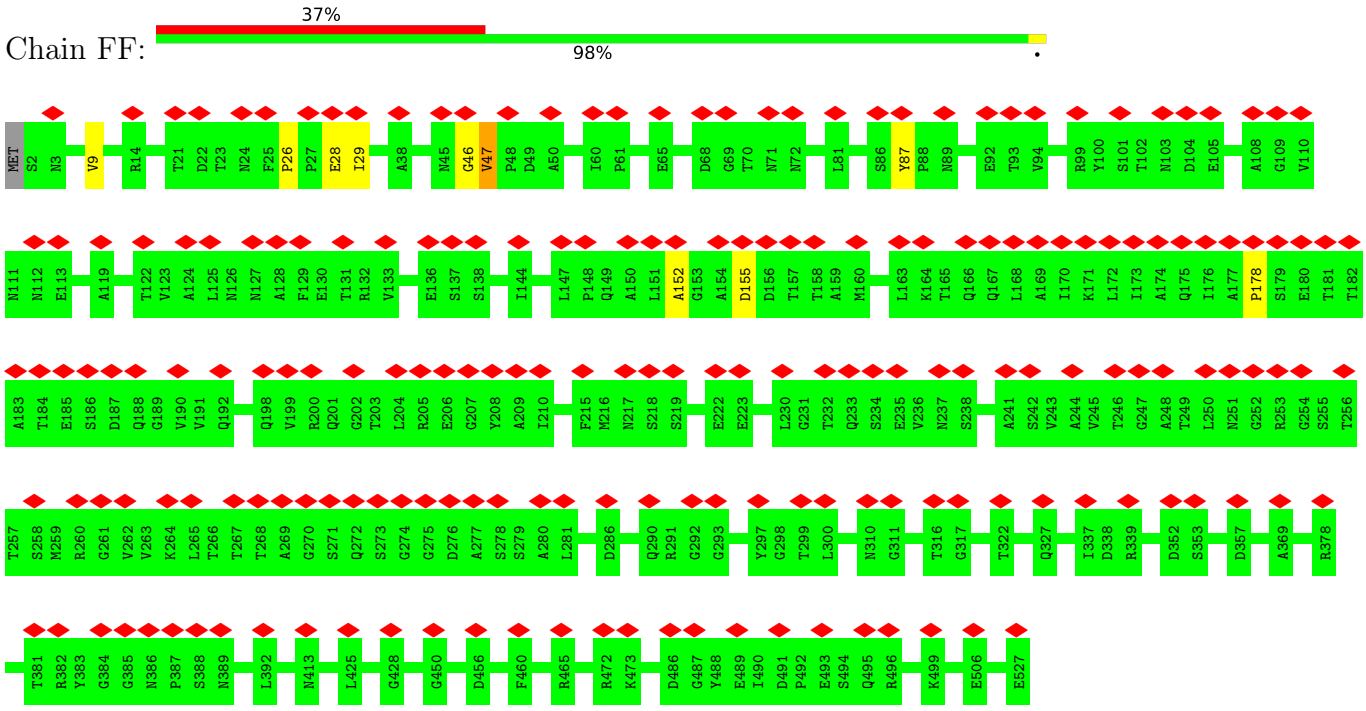
• Molecule 7: Short tail fiber protein gp12

Chain FE:



• Molecule 7: Short tail fiber protein gp12

Chain FF:



• Molecule 7: Short tail fiber protein gp12

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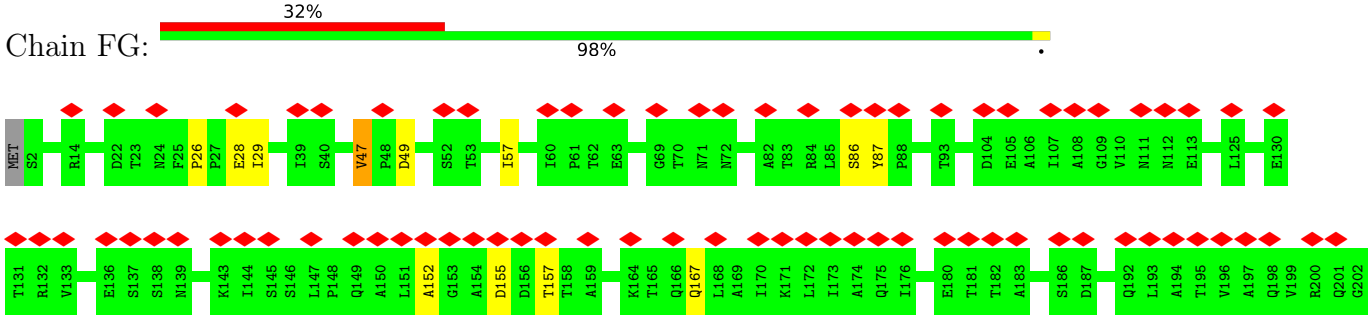
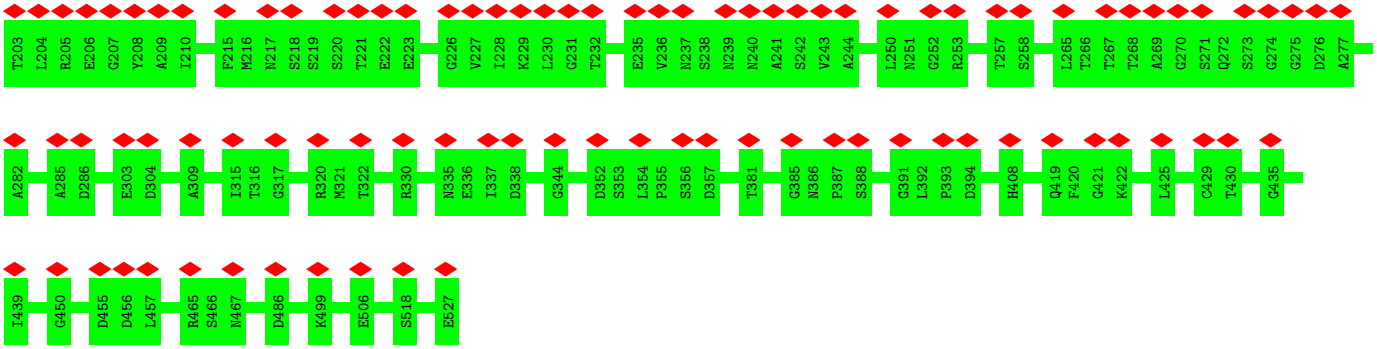
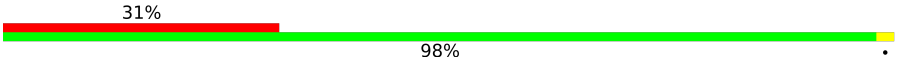
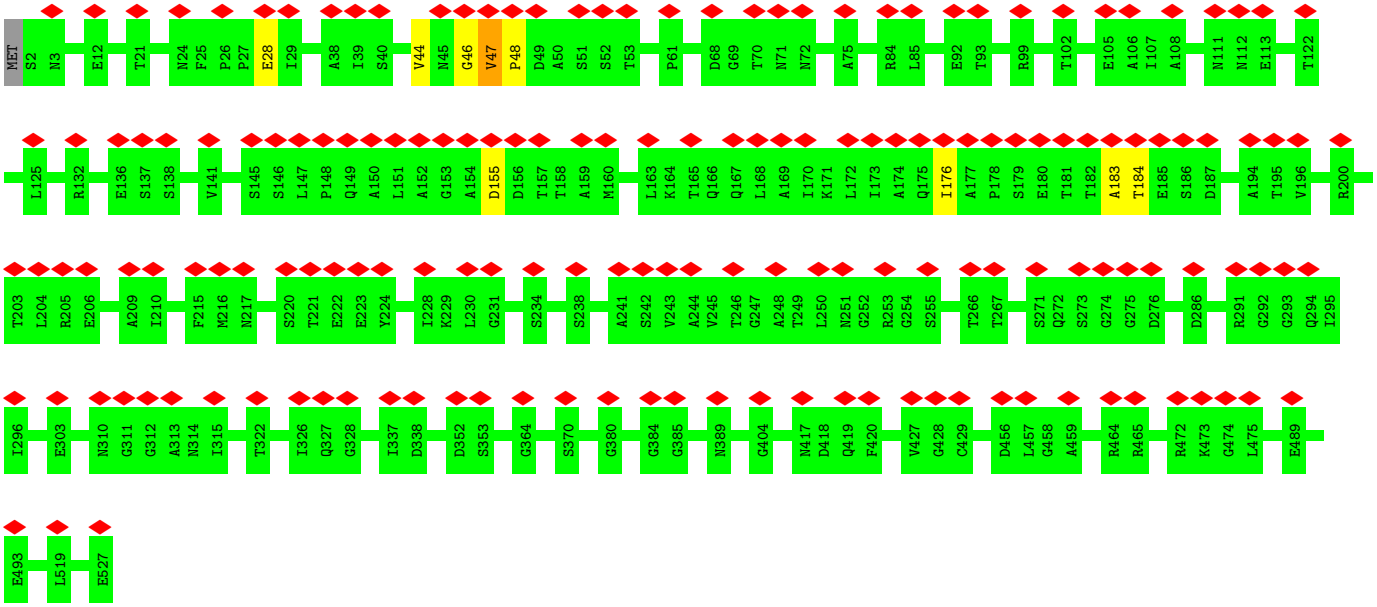




• Molecule 7: Short tail fiber protein gp12

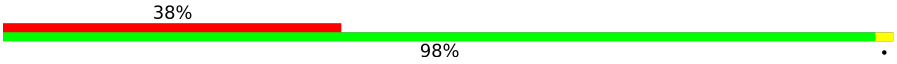
Chain HH:

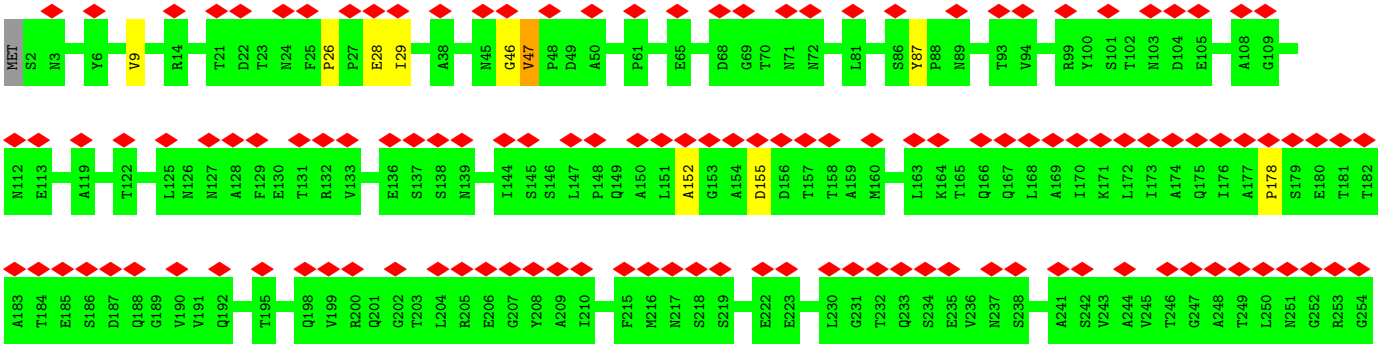


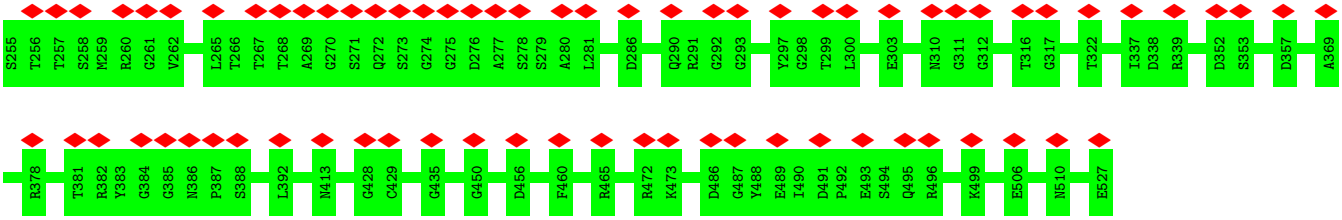


• Molecule 7: Short tail fiber protein gp12

Chain HI:

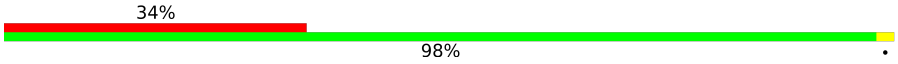


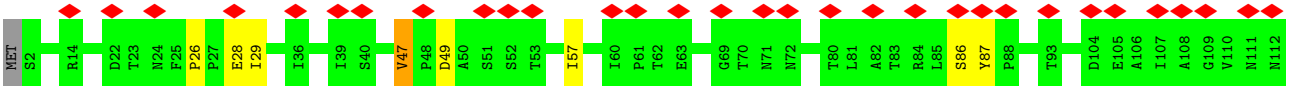


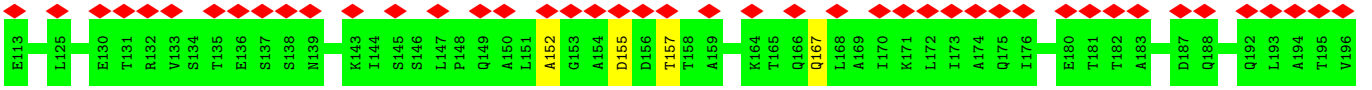


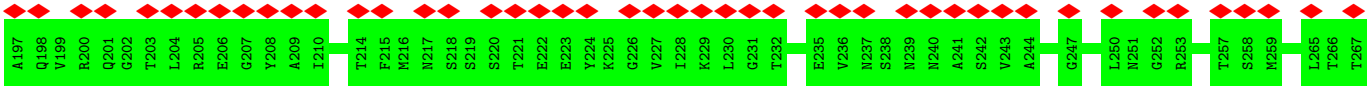
• Molecule 7: Short tail fiber protein gp12

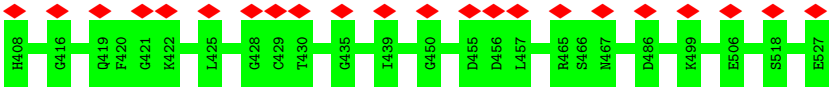
Chain HJ:





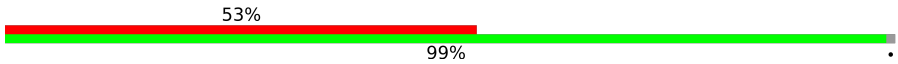


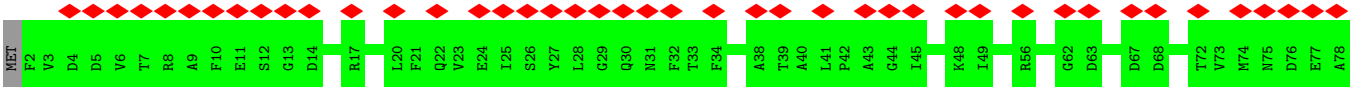


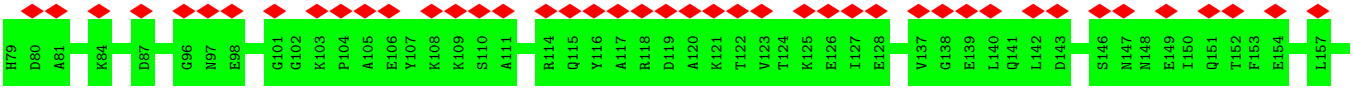


• Molecule 8: Tail tube protein gp19

Chain R:

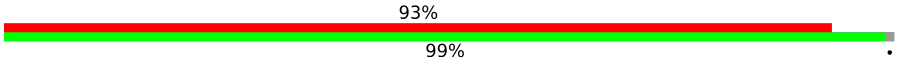


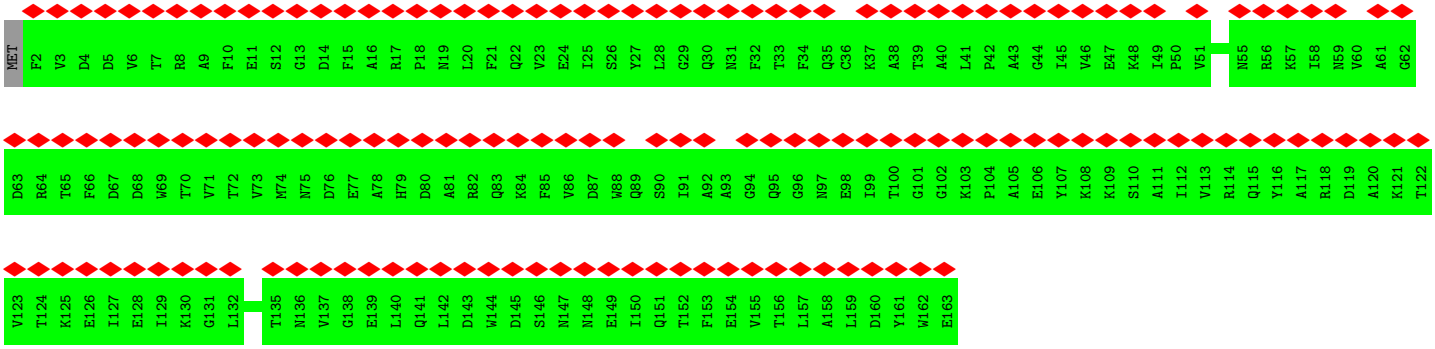




• Molecule 8: Tail tube protein gp19

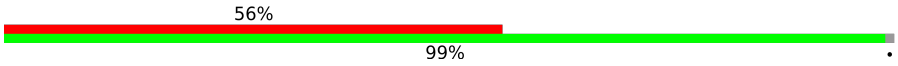
Chain S:

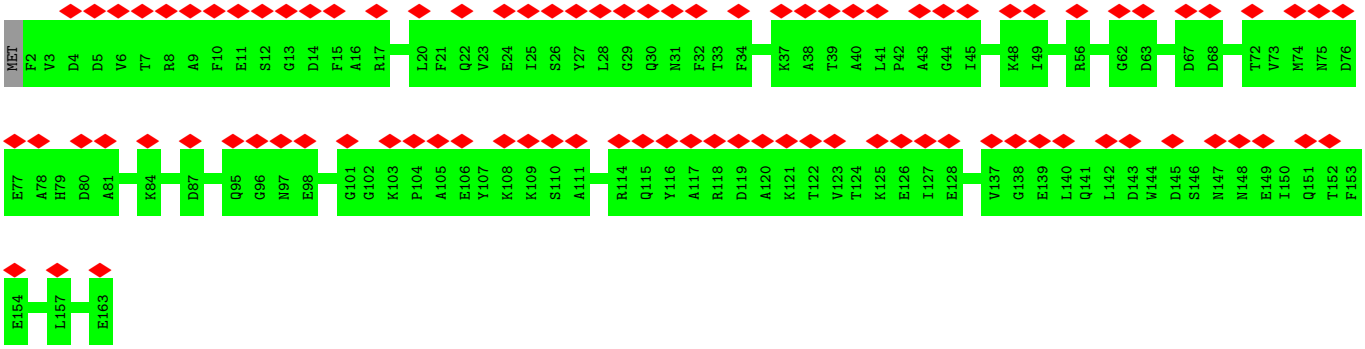




• Molecule 8: Tail tube protein gp19

Chain o:





• Molecule 8: Tail tube protein gp19

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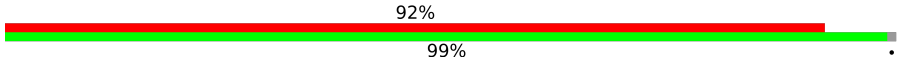
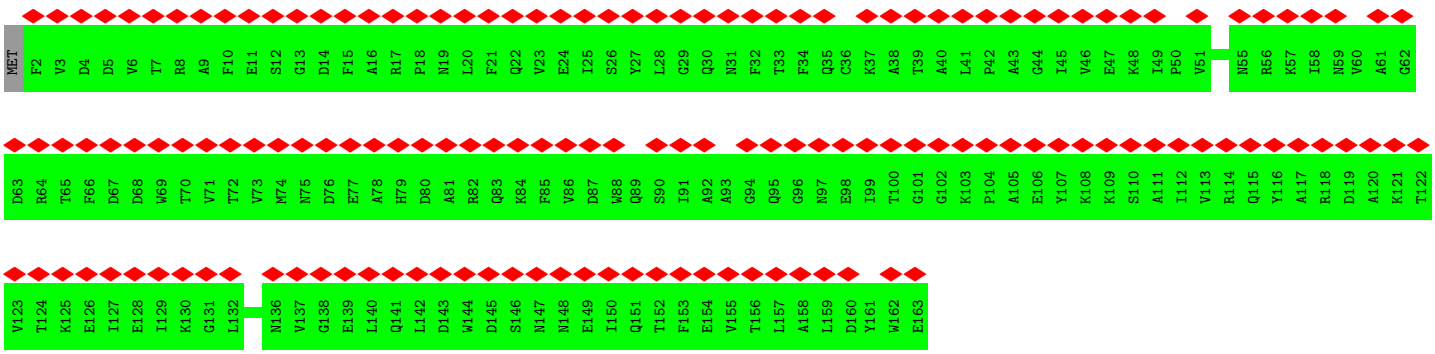
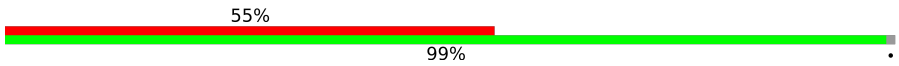
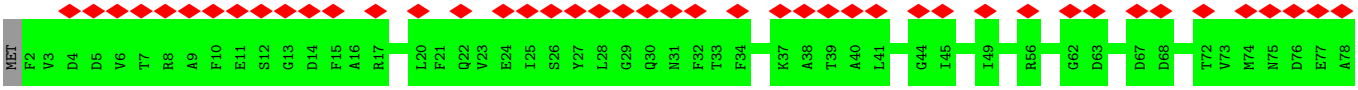


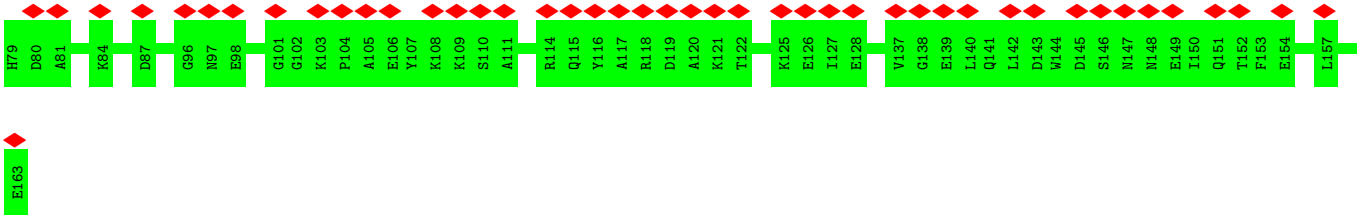


• Molecule 8: Tail tube protein gp19

Chain BB:

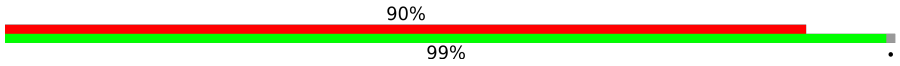


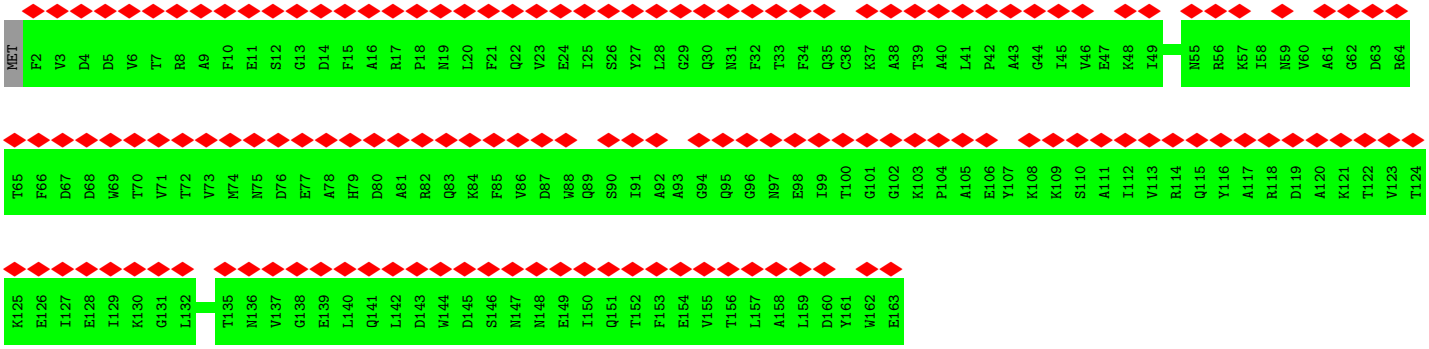




• Molecule 8: Tail tube protein gp19

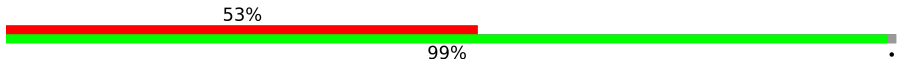
Chain BC:

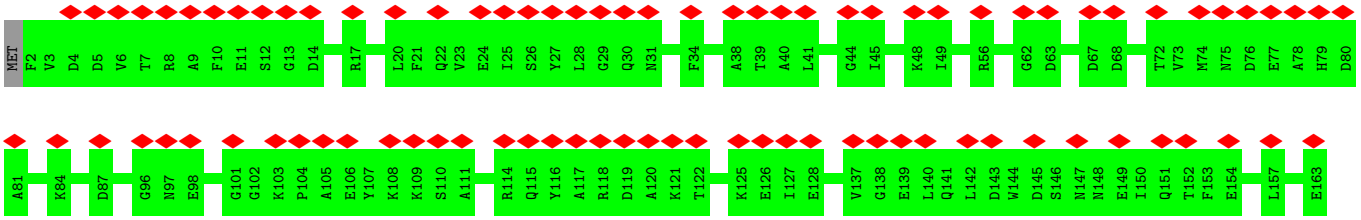




• Molecule 8: Tail tube protein gp19

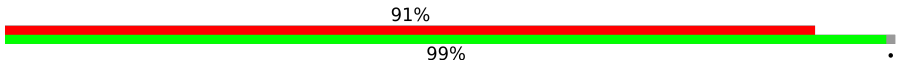
Chain DE:

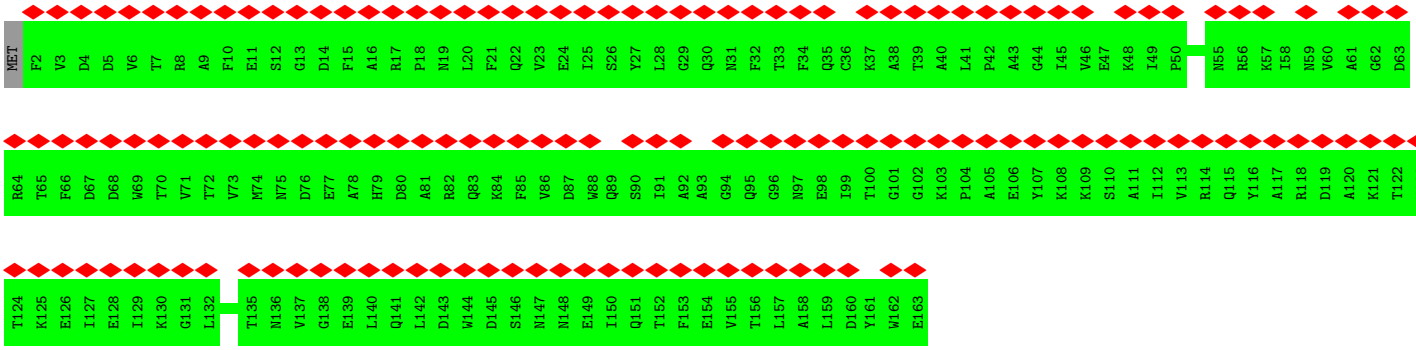




• Molecule 8: Tail tube protein gp19

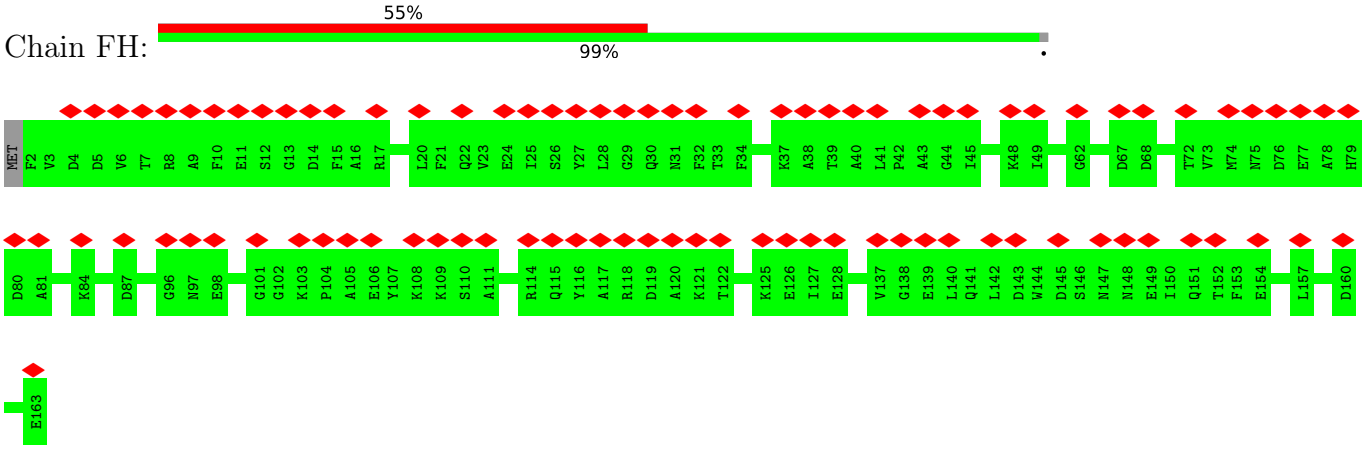
Chain DF:





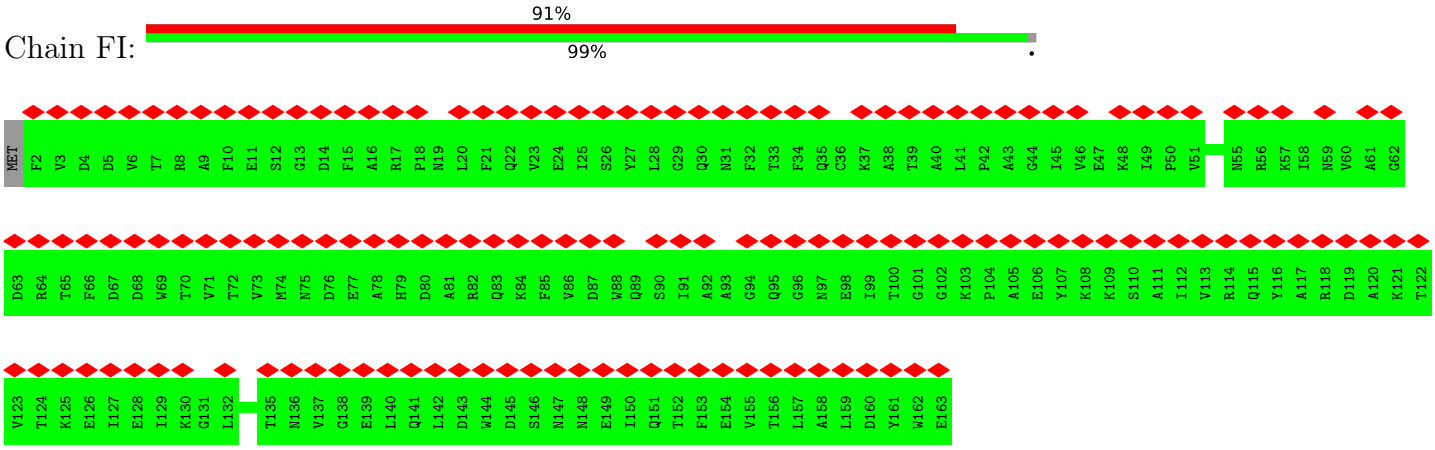
• Molecule 8: Tail tube protein gp19

Chain FH:



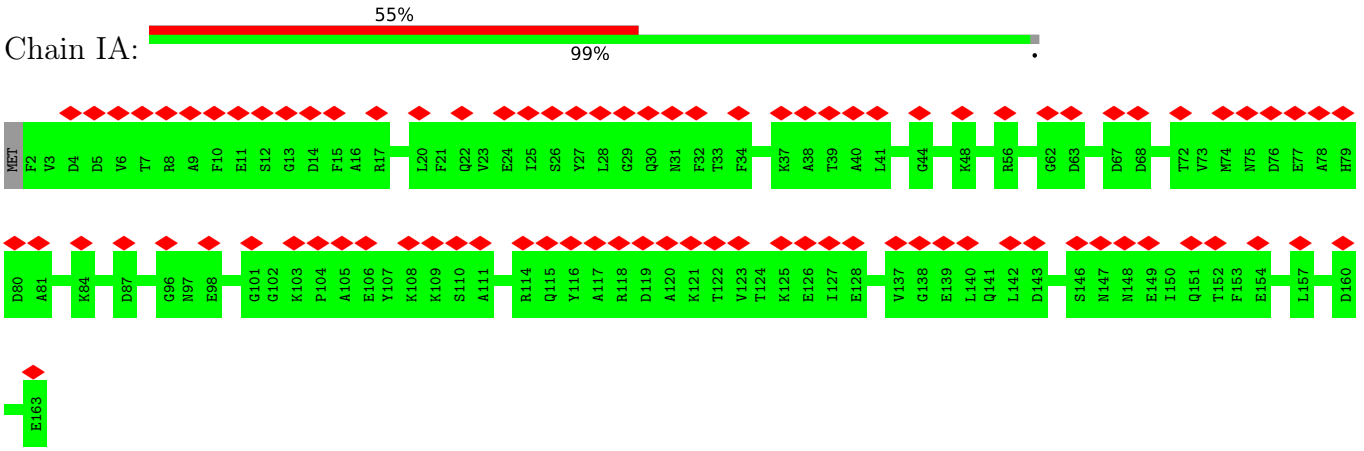
• Molecule 8: Tail tube protein gp19

Chain FI:



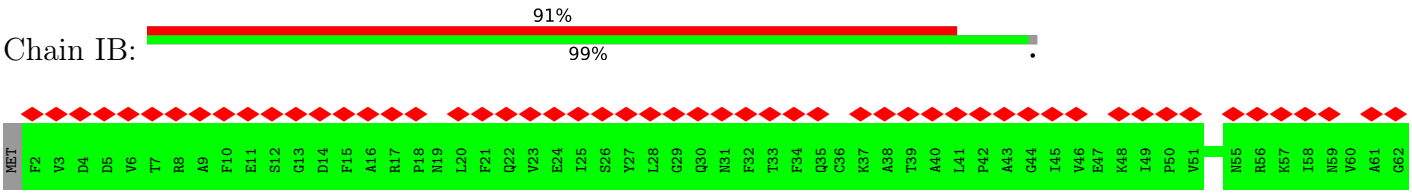
• Molecule 8: Tail tube protein gp19

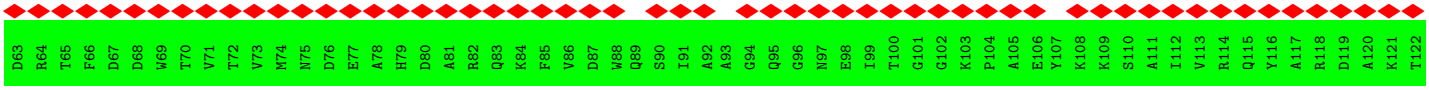
Chain IA:

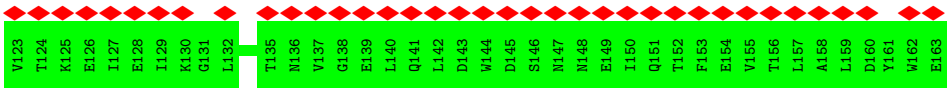


• Molecule 8: Tail tube protein gp19

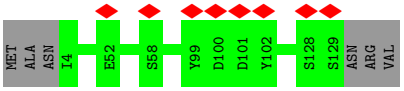
Chain IB:



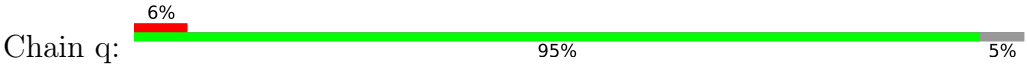


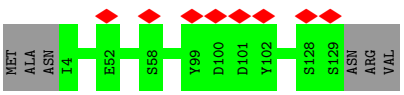


• Molecule 9: Baseplate wedge protein gp25

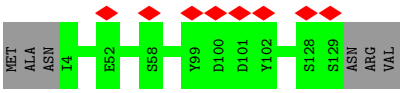


• Molecule 9: Baseplate wedge protein gp25

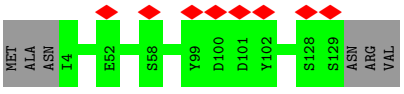




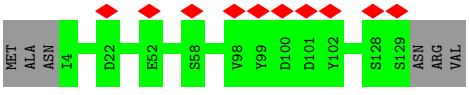
• Molecule 9: Baseplate wedge protein gp25



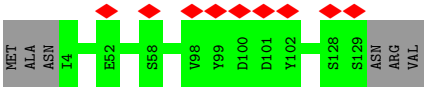
• Molecule 9: Baseplate wedge protein gp25



• Molecule 9: Baseplate wedge protein gp25

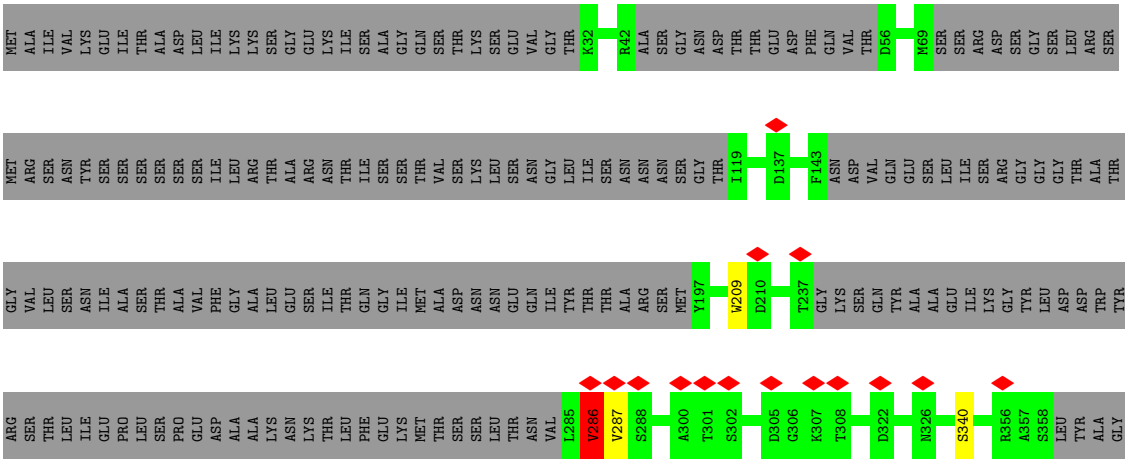


• Molecule 9: Baseplate wedge protein gp25



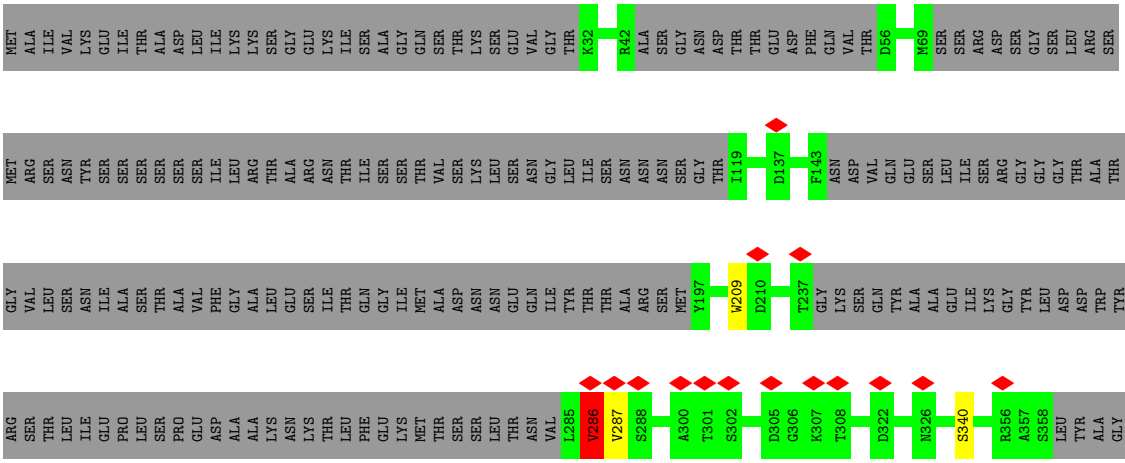
• Molecule 10: Baseplate tail-tube protein gp48

Chain U:



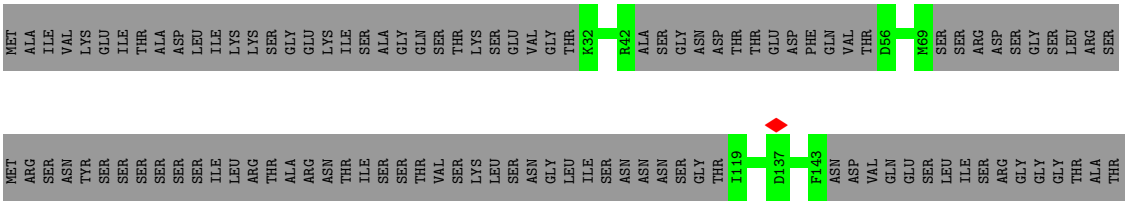
• Molecule 10: Baseplate tail-tube protein gp48

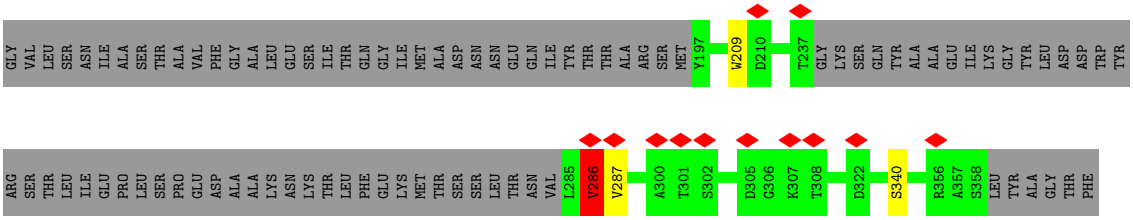
Chain r:



• Molecule 10: Baseplate tail-tube protein gp48

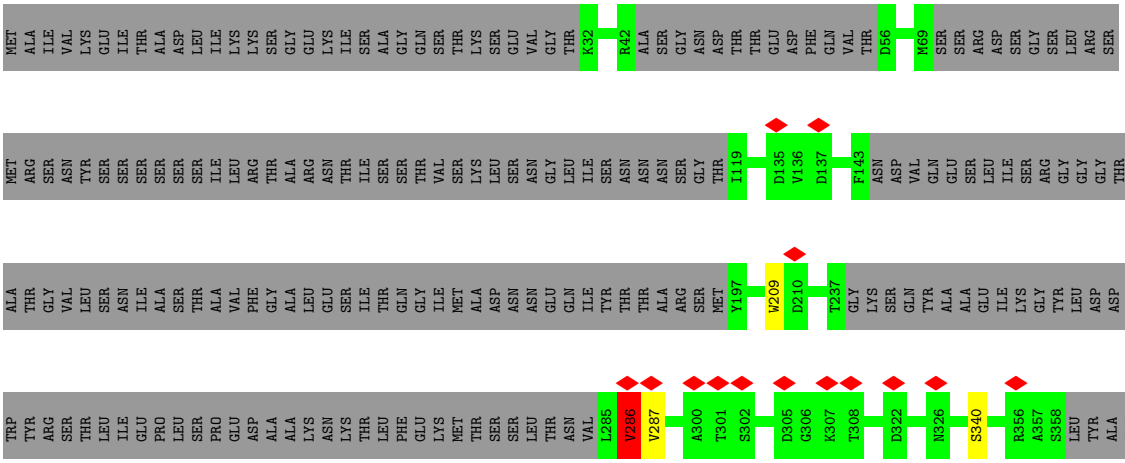
Chain BE:





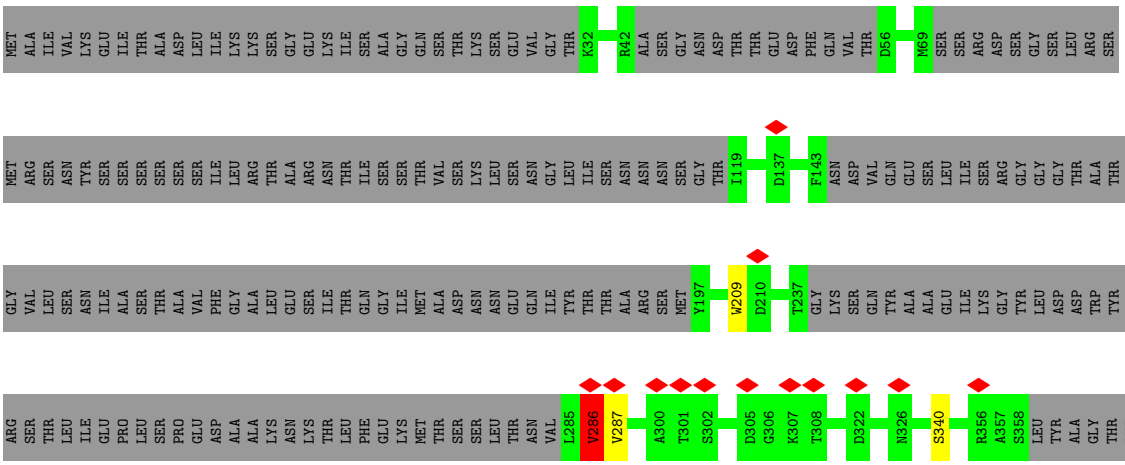
• Molecule 10: Baseplate tail-tube protein gp48

Chain DH:



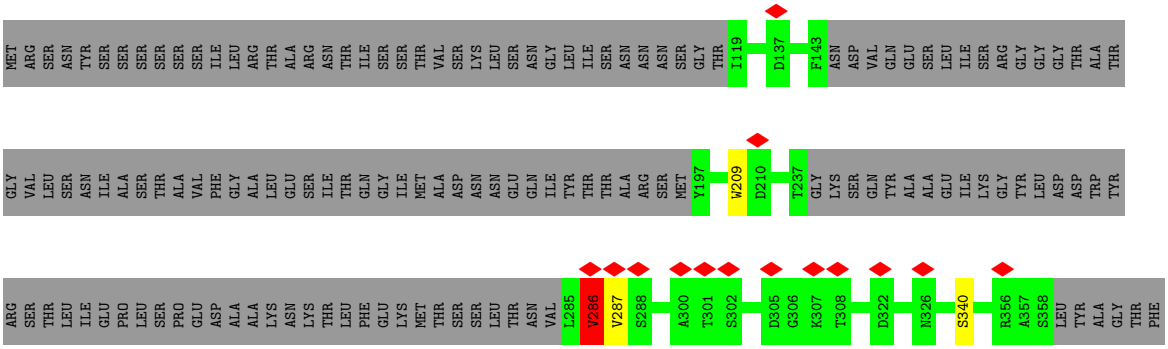
• Molecule 10: Baseplate tail-tube protein gp48

Chain GA:



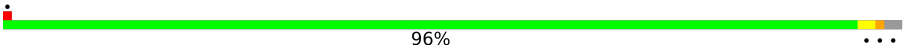
• Molecule 10: Baseplate tail-tube protein gp48

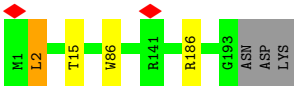
Chain ID:



• Molecule 11: Baseplate wedge protein gp53

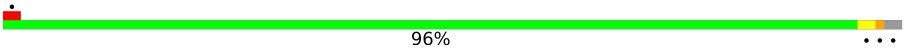
Chain V:

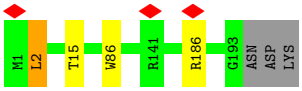




• Molecule 11: Baseplate wedge protein gp53

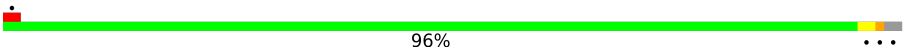
Chain s:

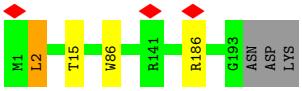




• Molecule 11: Baseplate wedge protein gp53

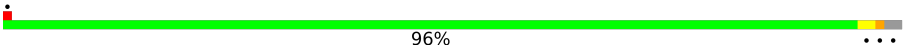
Chain BF:

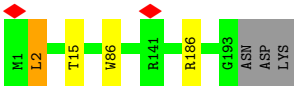




• Molecule 11: Baseplate wedge protein gp53

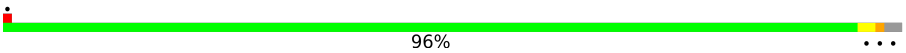
Chain DI:

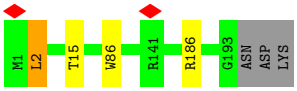




• Molecule 11: Baseplate wedge protein gp53

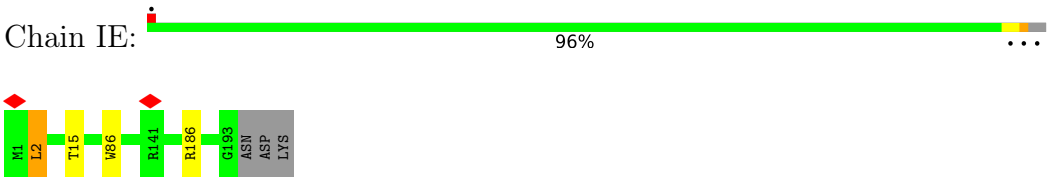
Chain GB:





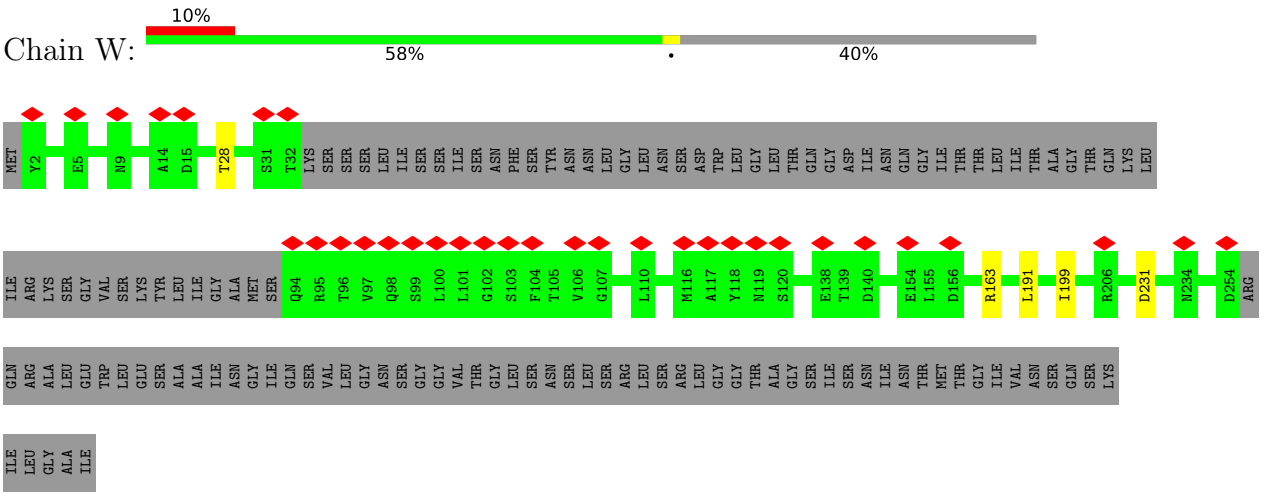
• Molecule 11: Baseplate wedge protein gp53

Chain IE:



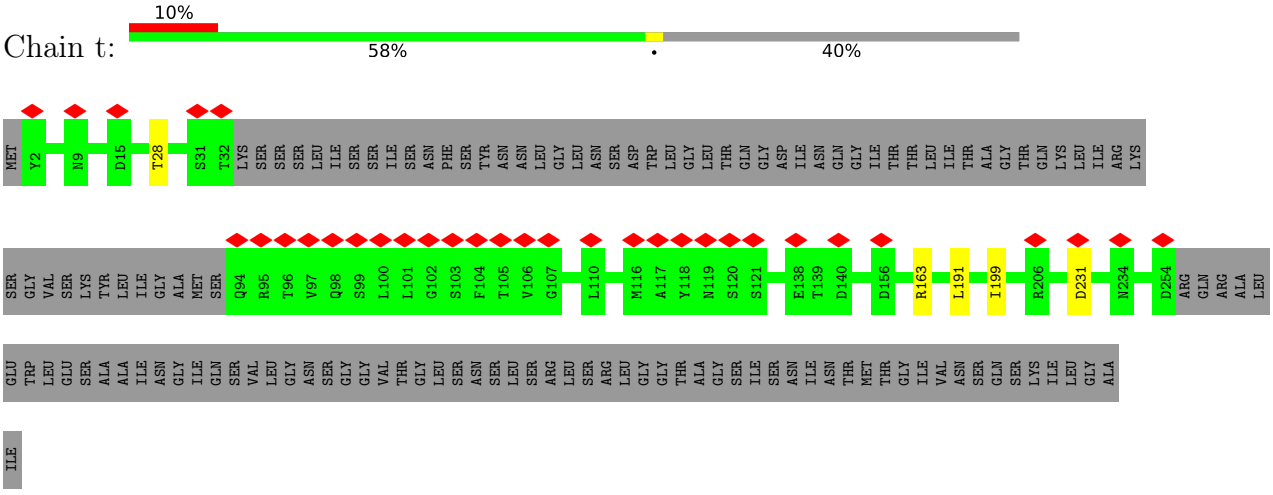
• Molecule 12: Baseplate tail-tube protein gp54

Chain W:



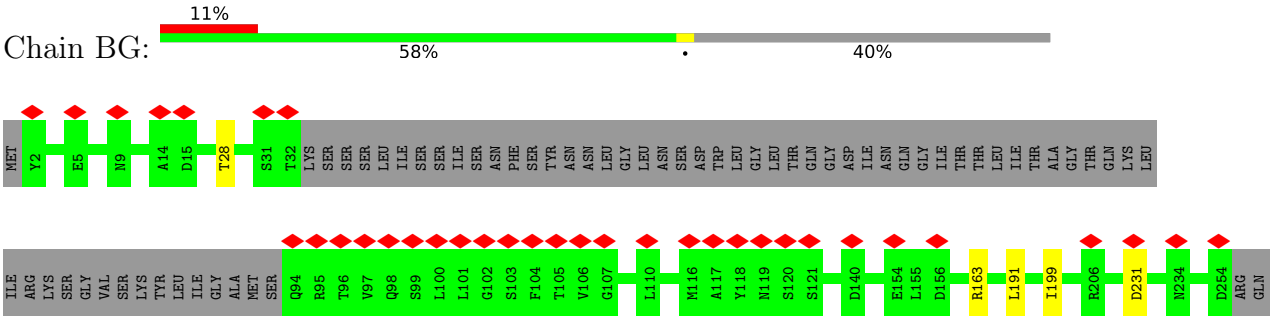
• Molecule 12: Baseplate tail-tube protein gp54

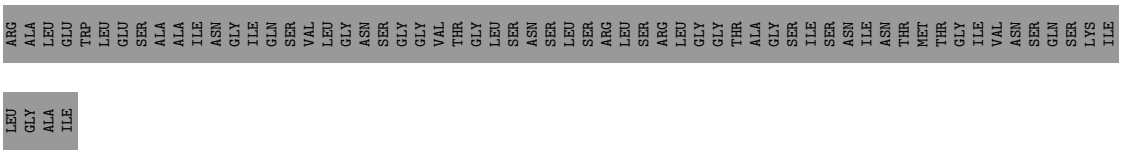
Chain t:



• Molecule 12: Baseplate tail-tube protein gp54

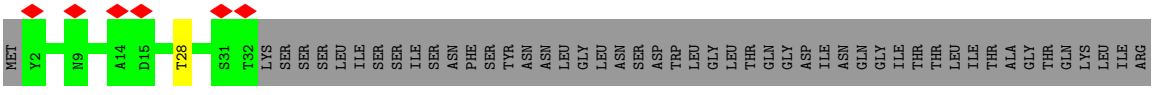
Chain BG:

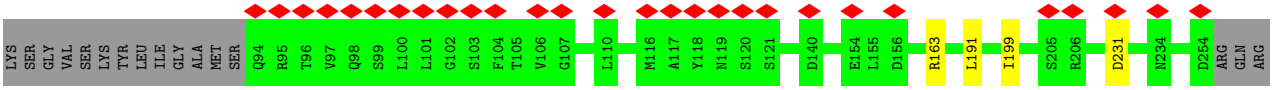




• Molecule 12: Baseplate tail-tube protein gp54

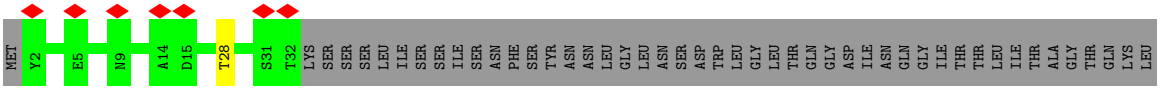
Chain DJ:

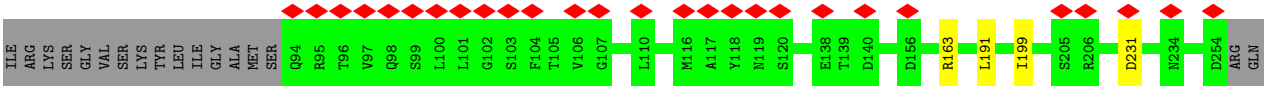




• Molecule 12: Baseplate tail-tube protein gp54

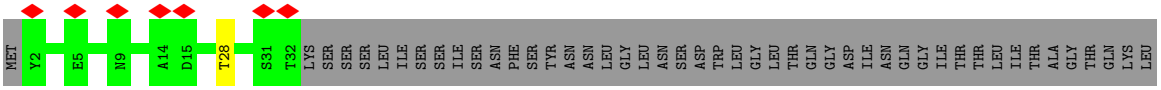
Chain GC:

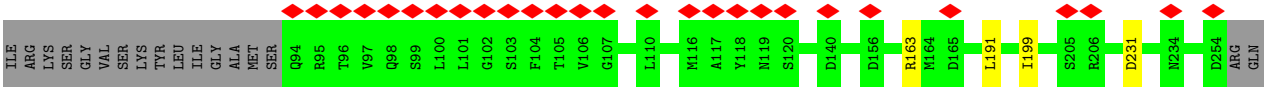




• Molecule 12: Baseplate tail-tube protein gp54

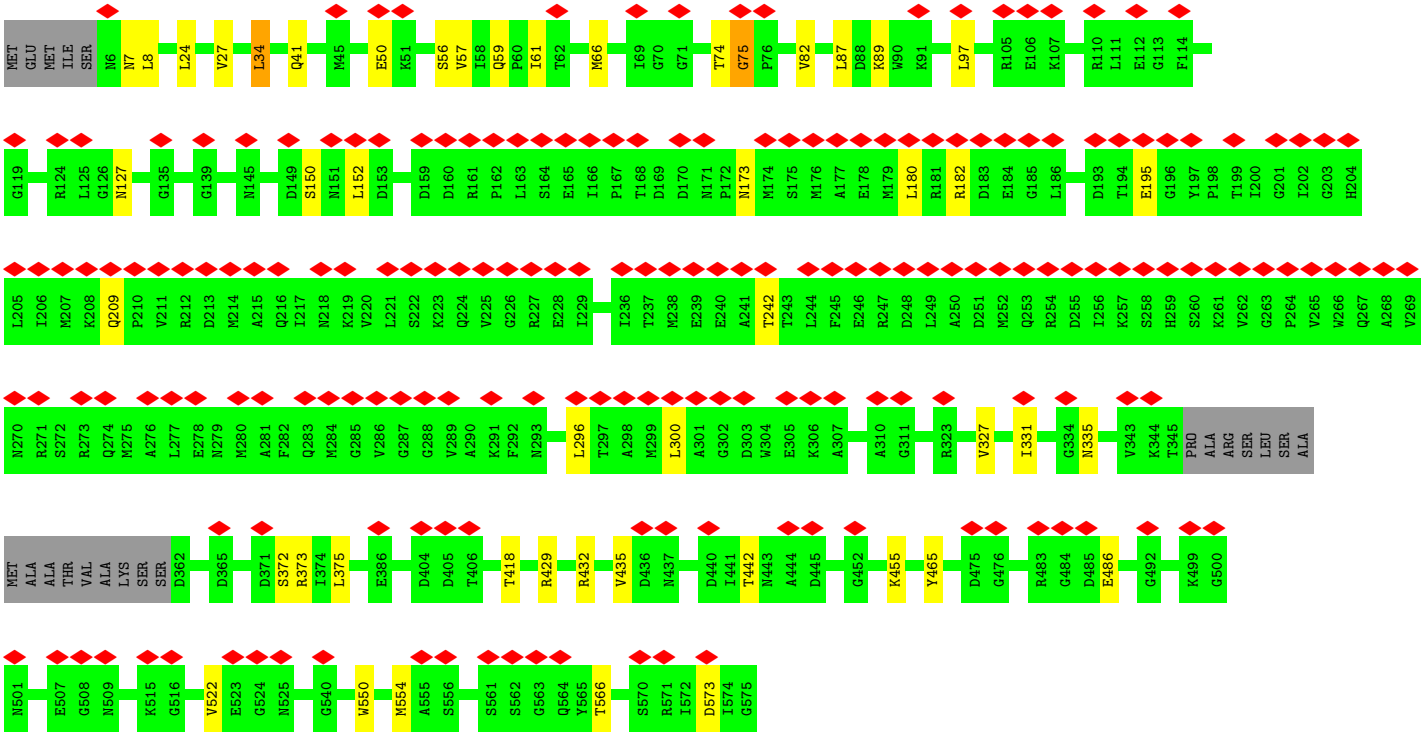
Chain IF:





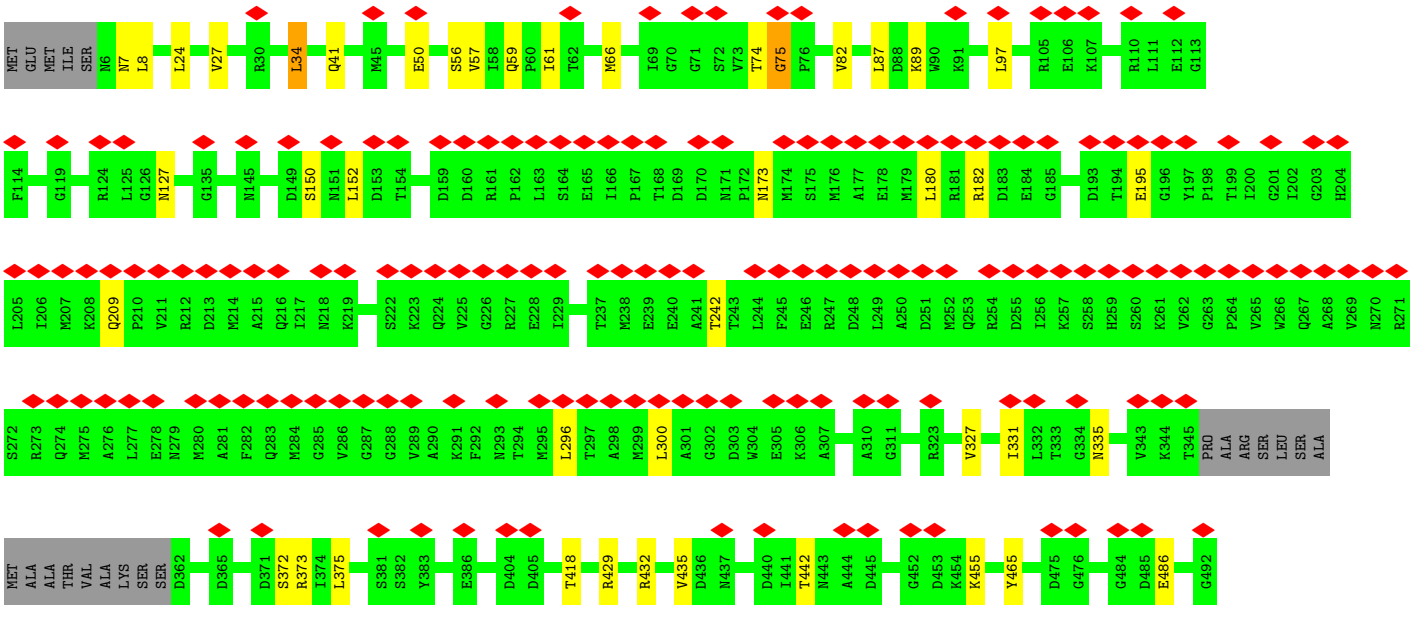
• Molecule 13: Peptidoglycan hydrolase gp5

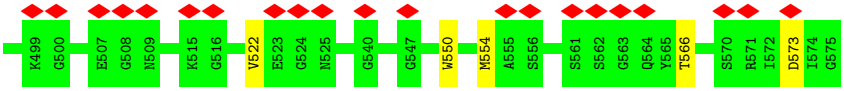
Chain YA:



• Molecule 13: Peptidoglycan hydrolase gp5

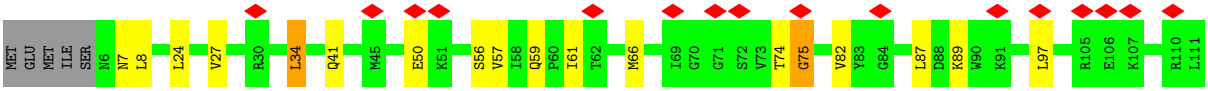
Chain YB:

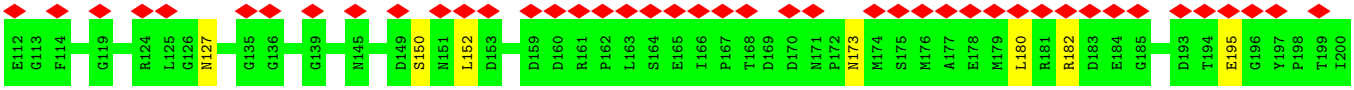


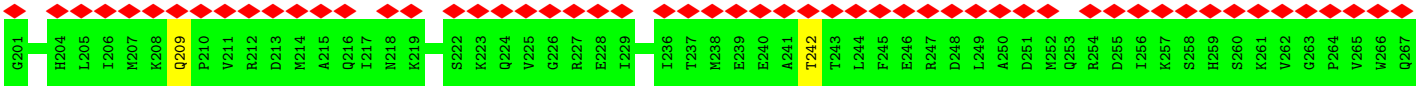


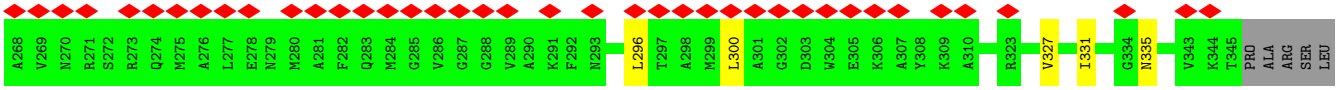
• Molecule 13: Peptidoglycan hydrolase gp5

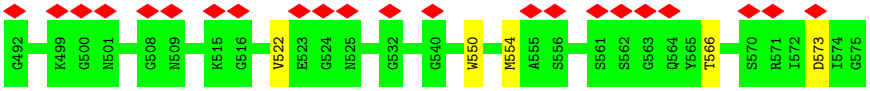
Chain YC:





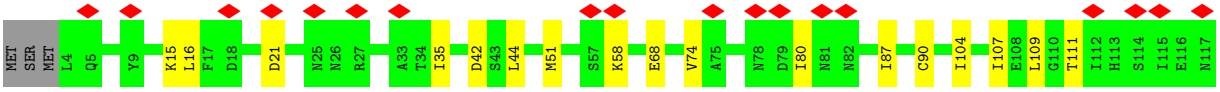


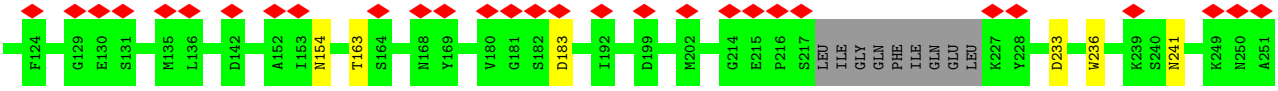


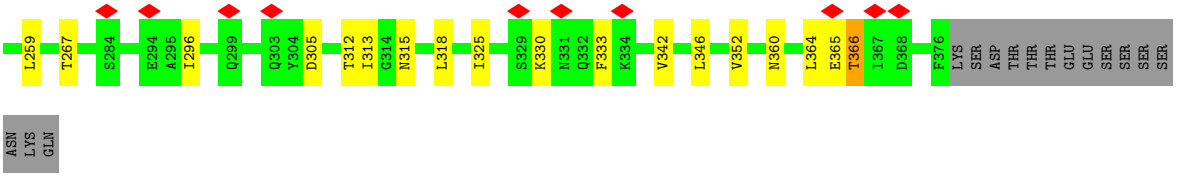


• Molecule 14: Baseplate hub protein gp27

Chain YD:

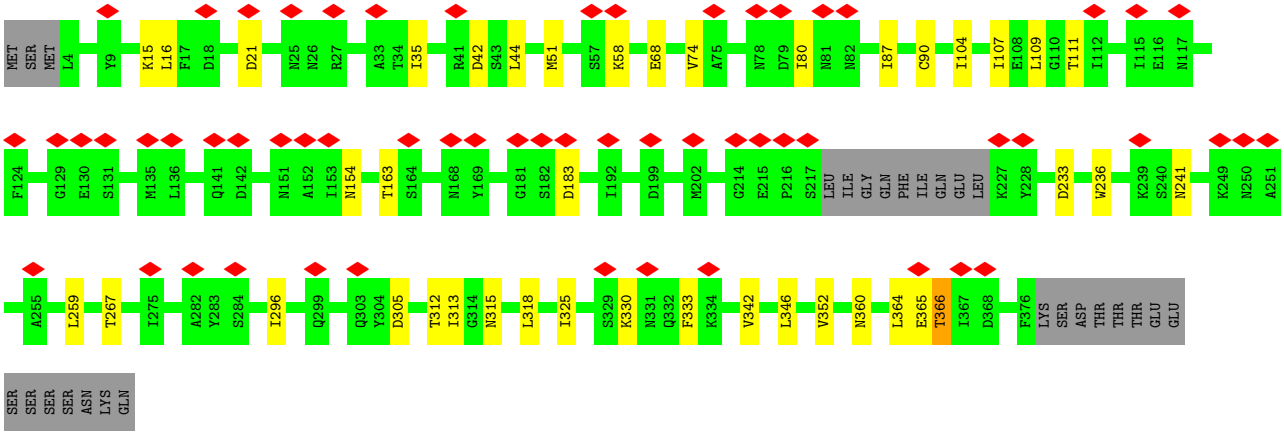






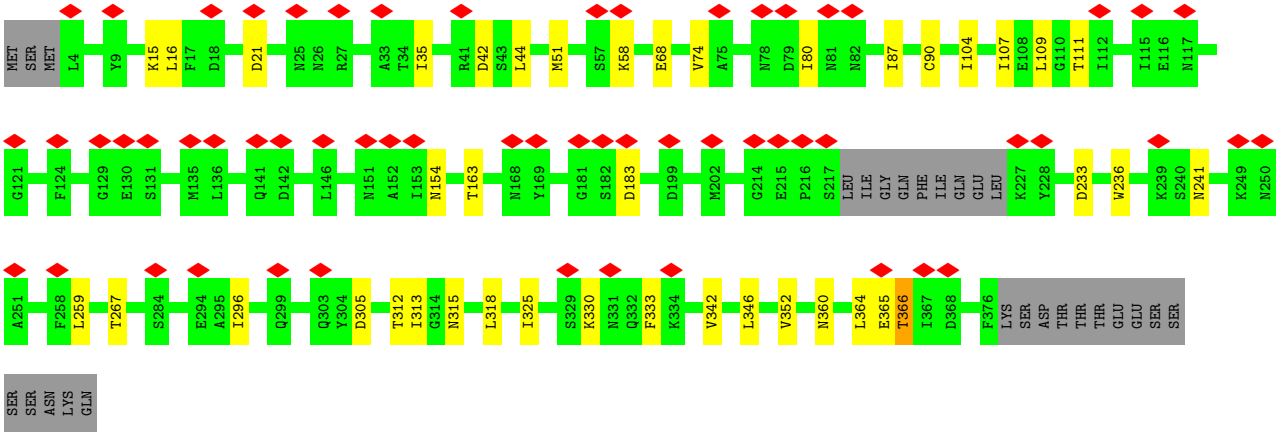
• Molecule 14: Baseplate hub protein gp27

Chain YE:



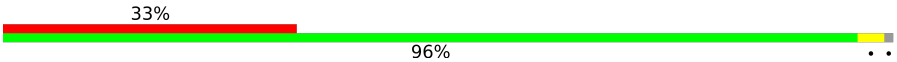
• Molecule 14: Baseplate hub protein gp27

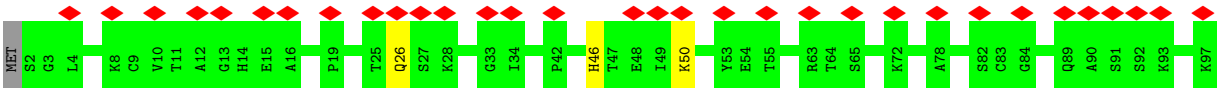
Chain YF:



• Molecule 15: Uncharacterized 10.2 kDa protein in segC-Gp6 intergenic region

Chain ZA:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C6	Depositor
Number of particles used	37913	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	60	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	37700	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.135	Depositor
Minimum map value	-0.082	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.0263	Depositor
Map size (Å)	636.48, 636.48, 636.48	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.326, 1.326, 1.326	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.75	0/5337	0.66	1/7256 (0.0%)
1	B	0.71	1/5257 (0.0%)	0.66	1/7144 (0.0%)
1	BH	0.75	0/5337	0.66	1/7256 (0.0%)
1	BI	0.71	1/5257 (0.0%)	0.65	1/7144 (0.0%)
1	EA	0.75	0/5337	0.66	1/7256 (0.0%)
1	EB	0.71	1/5257 (0.0%)	0.65	1/7144 (0.0%)
1	GD	0.75	0/5337	0.66	1/7256 (0.0%)
1	GE	0.71	1/5257 (0.0%)	0.65	1/7144 (0.0%)
1	X	0.75	0/5337	0.66	1/7256 (0.0%)
1	Y	0.71	1/5257 (0.0%)	0.66	1/7144 (0.0%)
1	u	0.75	0/5337	0.66	1/7256 (0.0%)
1	v	0.71	1/5257 (0.0%)	0.65	1/7144 (0.0%)
2	BJ	0.65	2/8405 (0.0%)	0.73	2/11412 (0.0%)
2	C	0.65	2/8405 (0.0%)	0.74	2/11412 (0.0%)
2	EC	0.65	2/8405 (0.0%)	0.74	2/11412 (0.0%)
2	GF	0.65	2/8405 (0.0%)	0.74	2/11412 (0.0%)
2	Z	0.65	2/8405 (0.0%)	0.74	2/11412 (0.0%)
2	w	0.65	2/8405 (0.0%)	0.74	2/11412 (0.0%)
3	CA	0.70	1/2709 (0.0%)	0.57	0/3694
3	CB	0.68	1/2736 (0.0%)	0.62	0/3731
3	D	0.70	1/2709 (0.0%)	0.57	0/3694
3	E	0.68	1/2736 (0.0%)	0.62	0/3731
3	ED	0.70	1/2709 (0.0%)	0.57	0/3694
3	EE	0.68	1/2736 (0.0%)	0.62	0/3731
3	GG	0.70	1/2709 (0.0%)	0.57	0/3694
3	GH	0.68	1/2736 (0.0%)	0.62	0/3731
3	a	0.70	1/2709 (0.0%)	0.57	0/3694
3	b	0.68	1/2736 (0.0%)	0.62	0/3731
3	x	0.70	1/2709 (0.0%)	0.57	0/3694
3	y	0.68	1/2736 (0.0%)	0.62	0/3731
4	AA	0.28	0/2205	0.48	0/2988
4	AB	0.28	0/2205	0.48	0/2988

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
4	CC	0.28	0/2205	0.48	0/2988
4	CD	0.28	0/2205	0.48	0/2988
4	CE	0.28	0/2205	0.48	0/2988
4	EF	0.28	0/2205	0.48	0/2988
4	EG	0.28	0/2205	0.48	0/2988
4	EH	0.28	0/2205	0.48	0/2988
4	F	0.28	0/2205	0.48	0/2988
4	G	0.28	0/2205	0.48	0/2988
4	GI	0.28	0/2205	0.48	0/2988
4	GJ	0.28	0/2205	0.48	0/2988
4	H	0.28	0/2205	0.48	0/2988
4	HA	0.28	0/2205	0.48	0/2988
4	c	0.28	0/2205	0.48	0/2988
4	d	0.28	0/2205	0.48	0/2988
4	e	0.28	0/2205	0.48	0/2988
4	z	0.28	0/2205	0.48	0/2988
5	AC	0.48	0/4778	0.68	2/6513 (0.0%)
5	AD	0.49	1/4778 (0.0%)	0.69	5/6513 (0.1%)
5	AE	0.50	0/4778	0.70	3/6513 (0.0%)
5	CF	0.48	0/4778	0.68	2/6513 (0.0%)
5	CG	0.49	1/4778 (0.0%)	0.69	5/6513 (0.1%)
5	CH	0.50	0/4778	0.70	3/6513 (0.0%)
5	EI	0.48	0/4778	0.68	2/6513 (0.0%)
5	EJ	0.49	1/4778 (0.0%)	0.69	5/6513 (0.1%)
5	FA	0.50	0/4778	0.70	3/6513 (0.0%)
5	HB	0.48	0/4778	0.68	2/6513 (0.0%)
5	HC	0.49	1/4778 (0.0%)	0.69	5/6513 (0.1%)
5	HD	0.50	0/4778	0.70	4/6513 (0.1%)
5	I	0.48	0/4778	0.68	2/6513 (0.0%)
5	J	0.49	1/4778 (0.0%)	0.69	5/6513 (0.1%)
5	K	0.50	0/4778	0.70	4/6513 (0.1%)
5	f	0.48	0/4778	0.68	2/6513 (0.0%)
5	g	0.49	1/4778 (0.0%)	0.69	5/6513 (0.1%)
5	h	0.50	0/4778	0.70	4/6513 (0.1%)
6	AF	0.34	0/1700	0.51	0/2318
6	AG	0.34	0/1700	0.51	0/2318
6	AH	0.34	0/1700	0.51	0/2318
6	CI	0.34	0/1700	0.51	0/2318
6	CJ	0.34	0/1700	0.51	0/2318
6	DA	0.34	0/1700	0.51	0/2318
6	FB	0.34	0/1700	0.51	0/2318
6	FC	0.34	0/1700	0.51	0/2318
6	FD	0.34	0/1700	0.51	0/2318

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
6	HE	0.34	0/1700	0.51	0/2318
6	HF	0.34	0/1700	0.51	0/2318
6	HG	0.34	0/1700	0.51	0/2318
6	L	0.34	0/1700	0.51	0/2318
6	M	0.34	0/1700	0.51	0/2318
6	N	0.34	0/1700	0.51	0/2318
6	i	0.34	0/1700	0.51	0/2318
6	j	0.34	0/1700	0.51	0/2318
6	k	0.34	0/1700	0.51	0/2318
7	AI	0.39	0/4016	0.61	0/5464
7	AJ	0.39	1/4016 (0.0%)	0.61	0/5464
7	BA	0.40	1/4016 (0.0%)	0.60	0/5464
7	DB	0.39	0/4016	0.61	0/5464
7	DC	0.39	1/4016 (0.0%)	0.60	0/5464
7	DD	0.40	1/4016 (0.0%)	0.60	0/5464
7	FE	0.39	0/4016	0.61	0/5464
7	FF	0.39	1/4016 (0.0%)	0.60	0/5464
7	FG	0.40	1/4016 (0.0%)	0.60	0/5464
7	HH	0.39	0/4016	0.61	0/5464
7	HI	0.39	1/4016 (0.0%)	0.60	0/5464
7	HJ	0.40	1/4016 (0.0%)	0.60	0/5464
7	O	0.39	0/4016	0.61	0/5464
7	P	0.39	1/4016 (0.0%)	0.60	0/5464
7	Q	0.40	1/4016 (0.0%)	0.60	0/5464
7	l	0.39	0/4016	0.61	0/5464
7	m	0.39	1/4016 (0.0%)	0.61	0/5464
7	n	0.40	1/4016 (0.0%)	0.60	0/5464
8	BB	0.45	0/1325	0.58	0/1797
8	BC	0.45	0/1325	0.58	0/1797
8	DE	0.44	0/1325	0.58	0/1797
8	DF	0.45	0/1325	0.58	0/1797
8	FH	0.44	0/1325	0.58	0/1797
8	FI	0.44	0/1325	0.58	0/1797
8	IA	0.44	0/1325	0.58	0/1797
8	IB	0.45	0/1325	0.58	0/1797
8	R	0.44	0/1325	0.58	0/1797
8	S	0.45	0/1325	0.58	0/1797
8	o	0.44	0/1325	0.58	0/1797
8	p	0.44	0/1325	0.58	0/1797
9	BD	0.55	0/1027	0.59	0/1392
9	DG	0.55	0/1027	0.59	0/1392
9	FJ	0.55	0/1027	0.59	0/1392
9	IC	0.55	0/1027	0.59	0/1392

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
9	T	0.55	0/1027	0.59	0/1392
9	q	0.55	0/1027	0.59	0/1392
10	BE	0.77	1/1346 (0.1%)	0.72	2/1821 (0.1%)
10	DH	0.77	1/1346 (0.1%)	0.72	2/1821 (0.1%)
10	GA	0.77	1/1346 (0.1%)	0.72	2/1821 (0.1%)
10	ID	0.77	1/1346 (0.1%)	0.72	2/1821 (0.1%)
10	U	0.77	1/1346 (0.1%)	0.72	2/1821 (0.1%)
10	r	0.77	1/1346 (0.1%)	0.72	2/1821 (0.1%)
11	BF	0.77	1/1643 (0.1%)	0.76	3/2228 (0.1%)
11	DI	0.77	1/1643 (0.1%)	0.76	3/2228 (0.1%)
11	GB	0.77	1/1643 (0.1%)	0.76	3/2228 (0.1%)
11	IE	0.77	1/1643 (0.1%)	0.76	3/2228 (0.1%)
11	V	0.77	1/1643 (0.1%)	0.76	3/2228 (0.1%)
11	s	0.77	1/1643 (0.1%)	0.76	3/2228 (0.1%)
12	BG	0.62	1/1557 (0.1%)	0.68	3/2118 (0.1%)
12	DJ	0.62	1/1557 (0.1%)	0.68	4/2118 (0.2%)
12	GC	0.62	1/1557 (0.1%)	0.68	3/2118 (0.1%)
12	IF	0.63	1/1557 (0.1%)	0.68	3/2118 (0.1%)
12	W	0.62	1/1557 (0.1%)	0.68	3/2118 (0.1%)
12	t	0.62	1/1557 (0.1%)	0.68	3/2118 (0.1%)
13	YA	0.49	0/26166	0.60	24/35454 (0.1%)
13	YB	0.49	0/26166	0.60	24/35454 (0.1%)
13	YC	0.49	0/26166	0.60	24/35454 (0.1%)
14	YD	0.61	0/17880	0.64	6/24252 (0.0%)
14	YE	0.61	0/17880	0.64	6/24252 (0.0%)
14	YF	0.61	0/17880	0.64	6/24252 (0.0%)
15	ZA	0.33	0/4344	0.54	0/5904
All	All	0.55	66/561066 (0.0%)	0.63	226/762456 (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	A	0	1
1	B	0	8
1	BH	0	1
1	BI	0	8
1	EA	0	1
1	EB	0	8
1	GD	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	GE	0	8
1	X	0	1
1	Y	0	8
1	u	0	1
1	v	0	8
2	BJ	0	38
2	C	0	38
2	EC	0	38
2	GF	0	38
2	Z	0	38
2	w	0	38
3	CA	0	2
3	CB	0	3
3	D	0	2
3	E	0	3
3	ED	0	2
3	EE	0	3
3	GG	0	2
3	GH	0	3
3	a	0	2
3	b	0	3
3	x	0	2
3	y	0	3
5	AC	0	17
5	AD	0	13
5	AE	0	16
5	CF	0	17
5	CG	0	13
5	CH	0	16
5	EI	0	17
5	EJ	0	13
5	FA	0	16
5	HB	0	17
5	HC	0	13
5	HD	0	16
5	I	0	17
5	J	0	13
5	K	0	16
5	f	0	17
5	g	0	13
5	h	0	16
6	AF	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
6	AG	0	3
6	AH	0	3
6	CI	0	3
6	CJ	0	3
6	DA	0	3
6	FB	0	3
6	FC	0	3
6	FD	0	3
6	HE	0	3
6	HF	0	3
6	HG	0	3
6	L	0	3
6	M	0	3
6	N	0	3
6	i	0	3
6	j	0	3
6	k	0	3
7	AI	0	4
7	AJ	0	6
7	BA	0	5
7	DB	0	4
7	DC	0	6
7	DD	0	5
7	FE	0	4
7	FF	0	6
7	FG	0	5
7	HH	0	4
7	HI	0	6
7	HJ	0	5
7	O	0	4
7	P	0	6
7	Q	0	5
7	l	0	4
7	m	0	6
7	n	0	5
10	BE	0	1
10	DH	0	1
10	GA	0	1
10	ID	0	1
10	U	0	1
10	r	0	1
11	BF	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
11	DI	0	1
11	GB	0	1
11	IE	0	1
11	V	0	1
11	s	0	1
13	YA	0	7
13	YB	0	7
13	YC	0	7
14	YD	0	6
14	YE	0	6
14	YF	0	6
All	All	0	783

The worst 5 of 66 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	CA	258	PHE	C-N	-20.87	0.94	1.34
3	ED	258	PHE	C-N	-20.85	0.94	1.34
3	GG	258	PHE	C-N	-20.84	0.94	1.34
3	x	258	PHE	C-N	-20.84	0.94	1.34
3	a	258	PHE	C-N	-20.82	0.94	1.34

The worst 5 of 226 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	BF	186	ARG	NE-CZ-NH1	-11.68	114.46	120.30
11	s	186	ARG	NE-CZ-NH1	-11.58	114.51	120.30
11	GB	186	ARG	NE-CZ-NH1	-11.56	114.52	120.30
11	V	186	ARG	NE-CZ-NH1	-11.54	114.53	120.30
11	DI	186	ARG	NE-CZ-NH1	-11.50	114.55	120.30

There are no chirality outliers.

5 of 783 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	313	ALA	Peptide
1	B	136	LYS	Peptide
1	B	137	ASP	Peptide
1	B	18	PRO	Peptide
1	B	20	ILE	Peptide

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	656/660 (99%)	616 (94%)	37 (6%)	3 (0%)	29	67
1	B	646/660 (98%)	602 (93%)	39 (6%)	5 (1%)	19	58
1	BH	656/660 (99%)	616 (94%)	37 (6%)	3 (0%)	29	67
1	BI	646/660 (98%)	602 (93%)	39 (6%)	5 (1%)	19	58
1	EA	656/660 (99%)	616 (94%)	37 (6%)	3 (0%)	29	67
1	EB	646/660 (98%)	602 (93%)	39 (6%)	5 (1%)	19	58
1	GD	656/660 (99%)	616 (94%)	37 (6%)	3 (0%)	29	67
1	GE	646/660 (98%)	602 (93%)	39 (6%)	5 (1%)	19	58
1	X	656/660 (99%)	616 (94%)	37 (6%)	3 (0%)	29	67
1	Y	646/660 (98%)	602 (93%)	39 (6%)	5 (1%)	19	58
1	u	656/660 (99%)	616 (94%)	37 (6%)	3 (0%)	29	67
1	v	646/660 (98%)	602 (93%)	39 (6%)	5 (1%)	19	58
2	BJ	1000/1032 (97%)	836 (84%)	144 (14%)	20 (2%)	7	39
2	C	1000/1032 (97%)	836 (84%)	145 (14%)	19 (2%)	8	40
2	EC	1000/1032 (97%)	836 (84%)	145 (14%)	19 (2%)	8	40
2	GF	1000/1032 (97%)	836 (84%)	144 (14%)	20 (2%)	7	39
2	Z	1000/1032 (97%)	837 (84%)	144 (14%)	19 (2%)	8	40
2	w	1000/1032 (97%)	837 (84%)	143 (14%)	20 (2%)	7	39
3	CA	326/334 (98%)	312 (96%)	12 (4%)	2 (1%)	25	64
3	CB	330/334 (99%)	310 (94%)	20 (6%)	0	100	100
3	D	326/334 (98%)	312 (96%)	12 (4%)	2 (1%)	25	64

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	E	330/334 (99%)	310 (94%)	20 (6%)	0	100	100
3	ED	326/334 (98%)	312 (96%)	12 (4%)	2 (1%)	25	64
3	EE	330/334 (99%)	310 (94%)	20 (6%)	0	100	100
3	GG	326/334 (98%)	312 (96%)	12 (4%)	2 (1%)	25	64
3	GH	330/334 (99%)	310 (94%)	20 (6%)	0	100	100
3	a	326/334 (98%)	312 (96%)	12 (4%)	2 (1%)	25	64
3	b	330/334 (99%)	310 (94%)	20 (6%)	0	100	100
3	x	326/334 (98%)	312 (96%)	12 (4%)	2 (1%)	25	64
3	y	330/334 (99%)	310 (94%)	20 (6%)	0	100	100
4	AA	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	AB	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	CC	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	CD	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	CE	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	EF	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	EG	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	EH	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	F	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	G	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	GI	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	GJ	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	H	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	HA	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	c	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	d	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	e	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
4	z	286/288 (99%)	271 (95%)	11 (4%)	4 (1%)	11	46
5	AC	600/602 (100%)	549 (92%)	43 (7%)	8 (1%)	12	47
5	AD	600/602 (100%)	538 (90%)	51 (8%)	11 (2%)	8	41
5	AE	600/602 (100%)	530 (88%)	57 (10%)	13 (2%)	6	37
5	CF	600/602 (100%)	549 (92%)	43 (7%)	8 (1%)	12	47

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
5	CG	600/602 (100%)	538 (90%)	51 (8%)	11 (2%)	8 41
5	CH	600/602 (100%)	530 (88%)	57 (10%)	13 (2%)	6 37
5	EI	600/602 (100%)	549 (92%)	43 (7%)	8 (1%)	12 47
5	EJ	600/602 (100%)	538 (90%)	51 (8%)	11 (2%)	8 41
5	FA	600/602 (100%)	530 (88%)	57 (10%)	13 (2%)	6 37
5	HB	600/602 (100%)	549 (92%)	43 (7%)	8 (1%)	12 47
5	HC	600/602 (100%)	538 (90%)	51 (8%)	11 (2%)	8 41
5	HD	600/602 (100%)	530 (88%)	58 (10%)	12 (2%)	7 39
5	I	600/602 (100%)	549 (92%)	43 (7%)	8 (1%)	12 47
5	J	600/602 (100%)	538 (90%)	51 (8%)	11 (2%)	8 41
5	K	600/602 (100%)	530 (88%)	57 (10%)	13 (2%)	6 37
5	f	600/602 (100%)	549 (92%)	43 (7%)	8 (1%)	12 47
5	g	600/602 (100%)	538 (90%)	51 (8%)	11 (2%)	8 41
5	h	600/602 (100%)	530 (88%)	57 (10%)	13 (2%)	6 37
6	AF	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	AG	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	AH	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	CI	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	CJ	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	DA	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	FB	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	FC	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	FD	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	HE	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	HF	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	HG	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	L	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	M	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	N	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	i	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55
6	j	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17 55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	k	216/219 (99%)	204 (94%)	10 (5%)	2 (1%)	17	55
7	AI	524/527 (99%)	495 (94%)	23 (4%)	6 (1%)	14	51
7	AJ	524/527 (99%)	493 (94%)	28 (5%)	3 (1%)	25	64
7	BA	524/527 (99%)	496 (95%)	21 (4%)	7 (1%)	12	47
7	DB	524/527 (99%)	495 (94%)	23 (4%)	6 (1%)	14	51
7	DC	524/527 (99%)	493 (94%)	28 (5%)	3 (1%)	25	64
7	DD	524/527 (99%)	496 (95%)	21 (4%)	7 (1%)	12	47
7	FE	524/527 (99%)	495 (94%)	23 (4%)	6 (1%)	14	51
7	FF	524/527 (99%)	493 (94%)	28 (5%)	3 (1%)	25	64
7	FG	524/527 (99%)	496 (95%)	21 (4%)	7 (1%)	12	47
7	HH	524/527 (99%)	495 (94%)	23 (4%)	6 (1%)	14	51
7	HI	524/527 (99%)	493 (94%)	28 (5%)	3 (1%)	25	64
7	HJ	524/527 (99%)	496 (95%)	21 (4%)	7 (1%)	12	47
7	O	524/527 (99%)	495 (94%)	23 (4%)	6 (1%)	14	51
7	P	524/527 (99%)	493 (94%)	28 (5%)	3 (1%)	25	64
7	Q	524/527 (99%)	496 (95%)	21 (4%)	7 (1%)	12	47
7	l	524/527 (99%)	495 (94%)	23 (4%)	6 (1%)	14	51
7	m	524/527 (99%)	493 (94%)	28 (5%)	3 (1%)	25	64
7	n	524/527 (99%)	496 (95%)	21 (4%)	7 (1%)	12	47
8	BB	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	BC	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	DE	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	DF	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	FH	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	FI	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	IA	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	IB	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	R	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	S	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	o	160/163 (98%)	147 (92%)	13 (8%)	0	100	100
8	p	160/163 (98%)	147 (92%)	13 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	BD	124/132 (94%)	116 (94%)	8 (6%)	0	100	100
9	DG	124/132 (94%)	116 (94%)	8 (6%)	0	100	100
9	FJ	124/132 (94%)	116 (94%)	8 (6%)	0	100	100
9	IC	124/132 (94%)	116 (94%)	8 (6%)	0	100	100
9	T	124/132 (94%)	116 (94%)	8 (6%)	0	100	100
9	q	124/132 (94%)	116 (94%)	8 (6%)	0	100	100
10	BE	155/364 (43%)	145 (94%)	9 (6%)	1 (1%)	25	64
10	DH	155/364 (43%)	145 (94%)	9 (6%)	1 (1%)	25	64
10	GA	155/364 (43%)	145 (94%)	9 (6%)	1 (1%)	25	64
10	ID	155/364 (43%)	145 (94%)	9 (6%)	1 (1%)	25	64
10	U	155/364 (43%)	145 (94%)	9 (6%)	1 (1%)	25	64
10	r	155/364 (43%)	145 (94%)	9 (6%)	1 (1%)	25	64
11	BF	191/196 (97%)	175 (92%)	16 (8%)	0	100	100
11	DI	191/196 (97%)	175 (92%)	16 (8%)	0	100	100
11	GB	191/196 (97%)	175 (92%)	16 (8%)	0	100	100
11	IE	191/196 (97%)	175 (92%)	16 (8%)	0	100	100
11	V	191/196 (97%)	175 (92%)	16 (8%)	0	100	100
11	s	191/196 (97%)	175 (92%)	16 (8%)	0	100	100
12	BG	188/320 (59%)	178 (95%)	10 (5%)	0	100	100
12	DJ	188/320 (59%)	178 (95%)	10 (5%)	0	100	100
12	GC	188/320 (59%)	178 (95%)	10 (5%)	0	100	100
12	IF	188/320 (59%)	178 (95%)	10 (5%)	0	100	100
12	W	188/320 (59%)	178 (95%)	10 (5%)	0	100	100
12	t	188/320 (59%)	178 (95%)	10 (5%)	0	100	100
13	YA	3276/575 (570%)	3186 (97%)	90 (3%)	0	100	100
13	YB	3276/575 (570%)	3186 (97%)	90 (3%)	0	100	100
13	YC	3276/575 (570%)	3186 (97%)	90 (3%)	0	100	100
14	YD	2160/391 (552%)	2070 (96%)	84 (4%)	6 (0%)	41	76
14	YE	2160/391 (552%)	2070 (96%)	84 (4%)	6 (0%)	41	76
14	YF	2160/391 (552%)	2070 (96%)	84 (4%)	6 (0%)	41	76
15	ZA	564/97 (581%)	540 (96%)	24 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	69756/58591 (119%)	64970 (93%)	4190 (6%)	596 (1%)	20 55

5 of 596 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C	343	PRO
4	F	249	ILE
4	G	249	ILE
4	H	249	ILE
5	I	10	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	576/578 (100%)	576 (100%)	0	100 100
1	B	567/578 (98%)	567 (100%)	0	100 100
1	BH	576/578 (100%)	576 (100%)	0	100 100
1	BI	567/578 (98%)	567 (100%)	0	100 100
1	EA	576/578 (100%)	576 (100%)	0	100 100
1	EB	567/578 (98%)	567 (100%)	0	100 100
1	GD	576/578 (100%)	576 (100%)	0	100 100
1	GE	567/578 (98%)	567 (100%)	0	100 100
1	X	576/578 (100%)	576 (100%)	0	100 100
1	Y	567/578 (98%)	567 (100%)	0	100 100
1	u	576/578 (100%)	576 (100%)	0	100 100
1	v	567/578 (98%)	567 (100%)	0	100 100
2	BJ	896/921 (97%)	896 (100%)	0	100 100
2	C	896/921 (97%)	896 (100%)	0	100 100
2	EC	896/921 (97%)	896 (100%)	0	100 100
2	GF	896/921 (97%)	896 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	Z	896/921 (97%)	896 (100%)	0	100	100
2	w	896/921 (97%)	896 (100%)	0	100	100
3	CA	289/295 (98%)	289 (100%)	0	100	100
3	CB	293/295 (99%)	293 (100%)	0	100	100
3	D	289/295 (98%)	289 (100%)	0	100	100
3	E	293/295 (99%)	293 (100%)	0	100	100
3	ED	289/295 (98%)	289 (100%)	0	100	100
3	EE	293/295 (99%)	293 (100%)	0	100	100
3	GG	289/295 (98%)	289 (100%)	0	100	100
3	GH	293/295 (99%)	293 (100%)	0	100	100
3	a	289/295 (98%)	289 (100%)	0	100	100
3	b	293/295 (99%)	293 (100%)	0	100	100
3	x	289/295 (98%)	289 (100%)	0	100	100
3	y	293/295 (99%)	293 (100%)	0	100	100
4	AA	244/244 (100%)	244 (100%)	0	100	100
4	AB	244/244 (100%)	244 (100%)	0	100	100
4	CC	244/244 (100%)	244 (100%)	0	100	100
4	CD	244/244 (100%)	244 (100%)	0	100	100
4	CE	244/244 (100%)	244 (100%)	0	100	100
4	EF	244/244 (100%)	244 (100%)	0	100	100
4	EG	244/244 (100%)	244 (100%)	0	100	100
4	EH	244/244 (100%)	244 (100%)	0	100	100
4	F	244/244 (100%)	244 (100%)	0	100	100
4	G	244/244 (100%)	244 (100%)	0	100	100
4	GI	244/244 (100%)	244 (100%)	0	100	100
4	GJ	244/244 (100%)	244 (100%)	0	100	100
4	H	244/244 (100%)	244 (100%)	0	100	100
4	HA	244/244 (100%)	244 (100%)	0	100	100
4	c	244/244 (100%)	244 (100%)	0	100	100
4	d	244/244 (100%)	244 (100%)	0	100	100
4	e	244/244 (100%)	244 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	z	244/244 (100%)	244 (100%)	0	100	100
5	AC	519/519 (100%)	519 (100%)	0	100	100
5	AD	519/519 (100%)	519 (100%)	0	100	100
5	AE	519/519 (100%)	518 (100%)	1 (0%)	93	96
5	CF	519/519 (100%)	519 (100%)	0	100	100
5	CG	519/519 (100%)	519 (100%)	0	100	100
5	CH	519/519 (100%)	518 (100%)	1 (0%)	93	96
5	EI	519/519 (100%)	519 (100%)	0	100	100
5	EJ	519/519 (100%)	519 (100%)	0	100	100
5	FA	519/519 (100%)	518 (100%)	1 (0%)	93	96
5	HB	519/519 (100%)	519 (100%)	0	100	100
5	HC	519/519 (100%)	519 (100%)	0	100	100
5	HD	519/519 (100%)	518 (100%)	1 (0%)	93	96
5	I	519/519 (100%)	519 (100%)	0	100	100
5	J	519/519 (100%)	519 (100%)	0	100	100
5	K	519/519 (100%)	518 (100%)	1 (0%)	93	96
5	f	519/519 (100%)	519 (100%)	0	100	100
5	g	519/519 (100%)	519 (100%)	0	100	100
5	h	519/519 (100%)	518 (100%)	1 (0%)	93	96
6	AF	187/188 (100%)	187 (100%)	0	100	100
6	AG	187/188 (100%)	187 (100%)	0	100	100
6	AH	187/188 (100%)	187 (100%)	0	100	100
6	CI	187/188 (100%)	187 (100%)	0	100	100
6	CJ	187/188 (100%)	187 (100%)	0	100	100
6	DA	187/188 (100%)	187 (100%)	0	100	100
6	FB	187/188 (100%)	187 (100%)	0	100	100
6	FC	187/188 (100%)	187 (100%)	0	100	100
6	FD	187/188 (100%)	187 (100%)	0	100	100
6	HE	187/188 (100%)	187 (100%)	0	100	100
6	HF	187/188 (100%)	187 (100%)	0	100	100
6	HG	187/188 (100%)	187 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	L	187/188 (100%)	187 (100%)	0	100	100
6	M	187/188 (100%)	187 (100%)	0	100	100
6	N	187/188 (100%)	187 (100%)	0	100	100
6	i	187/188 (100%)	187 (100%)	0	100	100
6	j	187/188 (100%)	187 (100%)	0	100	100
6	k	187/188 (100%)	187 (100%)	0	100	100
7	AI	426/427 (100%)	426 (100%)	0	100	100
7	AJ	426/427 (100%)	425 (100%)	1 (0%)	93	96
7	BA	426/427 (100%)	426 (100%)	0	100	100
7	DB	426/427 (100%)	426 (100%)	0	100	100
7	DC	426/427 (100%)	425 (100%)	1 (0%)	93	96
7	DD	426/427 (100%)	426 (100%)	0	100	100
7	FE	426/427 (100%)	426 (100%)	0	100	100
7	FF	426/427 (100%)	425 (100%)	1 (0%)	93	96
7	FG	426/427 (100%)	426 (100%)	0	100	100
7	HH	426/427 (100%)	426 (100%)	0	100	100
7	HI	426/427 (100%)	425 (100%)	1 (0%)	93	96
7	HJ	426/427 (100%)	426 (100%)	0	100	100
7	O	426/427 (100%)	426 (100%)	0	100	100
7	P	426/427 (100%)	425 (100%)	1 (0%)	93	96
7	Q	426/427 (100%)	426 (100%)	0	100	100
7	l	426/427 (100%)	426 (100%)	0	100	100
7	m	426/427 (100%)	425 (100%)	1 (0%)	93	96
7	n	426/427 (100%)	426 (100%)	0	100	100
8	BB	136/137 (99%)	136 (100%)	0	100	100
8	BC	136/137 (99%)	136 (100%)	0	100	100
8	DE	136/137 (99%)	136 (100%)	0	100	100
8	DF	136/137 (99%)	136 (100%)	0	100	100
8	FH	136/137 (99%)	136 (100%)	0	100	100
8	FI	136/137 (99%)	136 (100%)	0	100	100
8	IA	136/137 (99%)	136 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	IB	136/137 (99%)	136 (100%)	0	100	100
8	R	136/137 (99%)	136 (100%)	0	100	100
8	S	136/137 (99%)	136 (100%)	0	100	100
8	o	136/137 (99%)	136 (100%)	0	100	100
8	p	136/137 (99%)	136 (100%)	0	100	100
9	BD	118/123 (96%)	118 (100%)	0	100	100
9	DG	118/123 (96%)	118 (100%)	0	100	100
9	FJ	118/123 (96%)	118 (100%)	0	100	100
9	IC	118/123 (96%)	118 (100%)	0	100	100
9	T	118/123 (96%)	118 (100%)	0	100	100
9	q	118/123 (96%)	118 (100%)	0	100	100
10	BE	146/313 (47%)	145 (99%)	1 (1%)	84	90
10	DH	146/313 (47%)	145 (99%)	1 (1%)	84	90
10	GA	146/313 (47%)	145 (99%)	1 (1%)	84	90
10	ID	146/313 (47%)	145 (99%)	1 (1%)	84	90
10	U	146/313 (47%)	145 (99%)	1 (1%)	84	90
10	r	146/313 (47%)	145 (99%)	1 (1%)	84	90
11	BF	166/169 (98%)	165 (99%)	1 (1%)	86	92
11	DI	166/169 (98%)	165 (99%)	1 (1%)	86	92
11	GB	166/169 (98%)	165 (99%)	1 (1%)	86	92
11	IE	166/169 (98%)	165 (99%)	1 (1%)	86	92
11	V	166/169 (98%)	165 (99%)	1 (1%)	86	92
11	s	166/169 (98%)	165 (99%)	1 (1%)	86	92
12	BG	171/275 (62%)	170 (99%)	1 (1%)	86	92
12	DJ	171/275 (62%)	170 (99%)	1 (1%)	86	92
12	GC	171/275 (62%)	170 (99%)	1 (1%)	86	92
12	IF	171/275 (62%)	170 (99%)	1 (1%)	86	92
12	W	171/275 (62%)	170 (99%)	1 (1%)	86	92
12	t	171/275 (62%)	170 (99%)	1 (1%)	86	92
13	YA	2814/485 (580%)	2544 (90%)	270 (10%)	8	29
13	YB	2814/485 (580%)	2544 (90%)	270 (10%)	8	29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
13	YC	2814/485 (580%)	2544 (90%)	270 (10%)	8 29
14	YD	1944/350 (555%)	1710 (88%)	234 (12%)	5 23
14	YE	1944/350 (555%)	1710 (88%)	234 (12%)	5 23
14	YF	1944/350 (555%)	1710 (88%)	234 (12%)	5 23
15	ZA	468/79 (592%)	450 (96%)	18 (4%)	33 58
All	All	60474/50314 (120%)	58914 (97%)	1560 (3%)	86 66

5 of 1560 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
14	YD	107[C]	ILE
14	YE	90[A]	CYS
14	YD	163[F]	THR
14	YD	107[B]	ILE
14	YD	346[C]	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 602 such sidechains are listed below:

Mol	Chain	Res	Type
5	FA	421	ASN
6	HF	164	GLN
7	FE	233	GLN
5	FA	410	GLN
2	GF	528	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 12 ligands modelled in this entry, 12 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 (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	YA	17
13	YB	17
13	YC	17
15	ZA	5
14	YD	5
14	YE	5
14	YF	5
5	CG	1
5	EJ	1
5	J	1
7	Q	1
5	g	1
7	n	1
5	AD	1
7	BA	1
7	DD	1
7	FG	1
5	HC	1
7	HJ	1
1	B	1
2	C	1

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Mol	Chain	Number of breaks
1	Y	1
2	Z	1
1	v	1
2	w	1
1	BI	1
2	BJ	1
1	EB	1
2	EC	1
1	GE	1
2	GF	1
3	D	1
3	a	1
3	x	1
3	CA	1
3	ED	1
3	GG	1

The worst 5 of 101 chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	YA	76[E]:PRO	C	77[E]:VAL	N	10.44
1	YB	76[E]:PRO	C	77[E]:VAL	N	10.44
1	YC	76[E]:PRO	C	77[E]:VAL	N	10.44
1	YC	76[B]:PRO	C	77[B]:VAL	N	9.41
1	YA	76[B]:PRO	C	77[B]:VAL	N	9.40

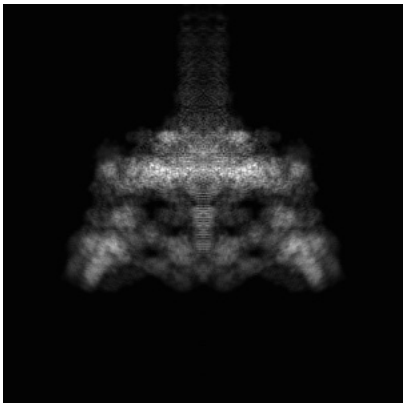
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-3374. These allow visual inspection of the internal detail of the map and identification of artifacts.

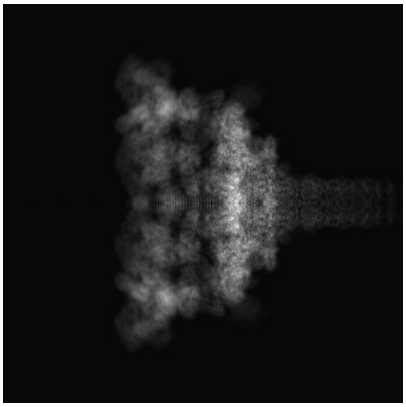
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

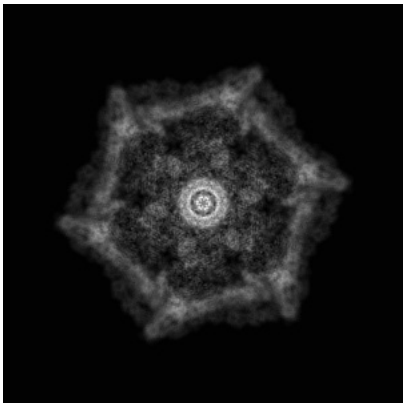
6.1.1 Primary map



X



Y

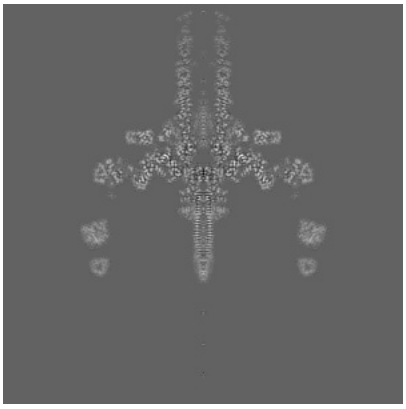


Z

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

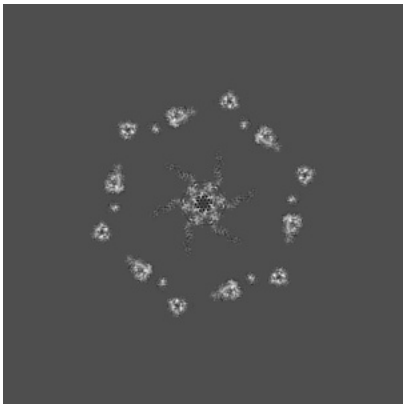
6.2 Central slices

6.2.1 Primary map



X Index: 240

Y Index: 240

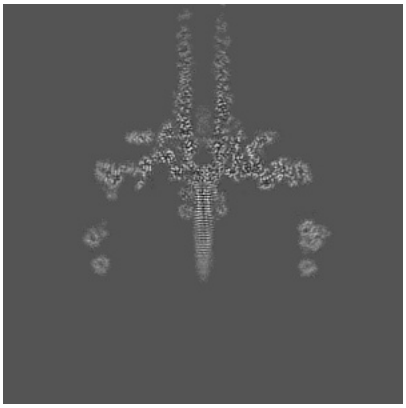


Z Index: 240

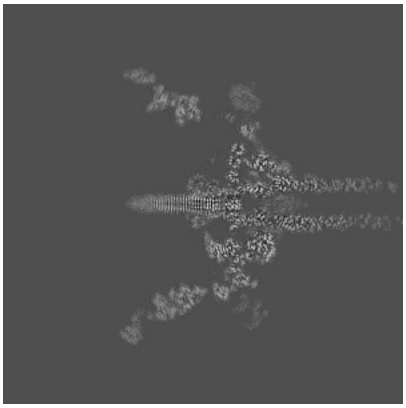
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

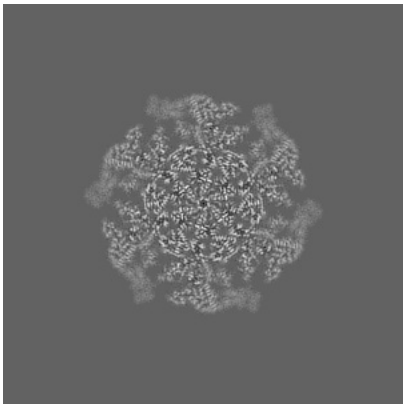
6.3.1 Primary map



X Index: 245



Y Index: 235

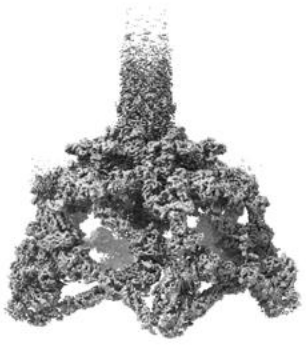


Z Index: 279

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map



X

Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.0263. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

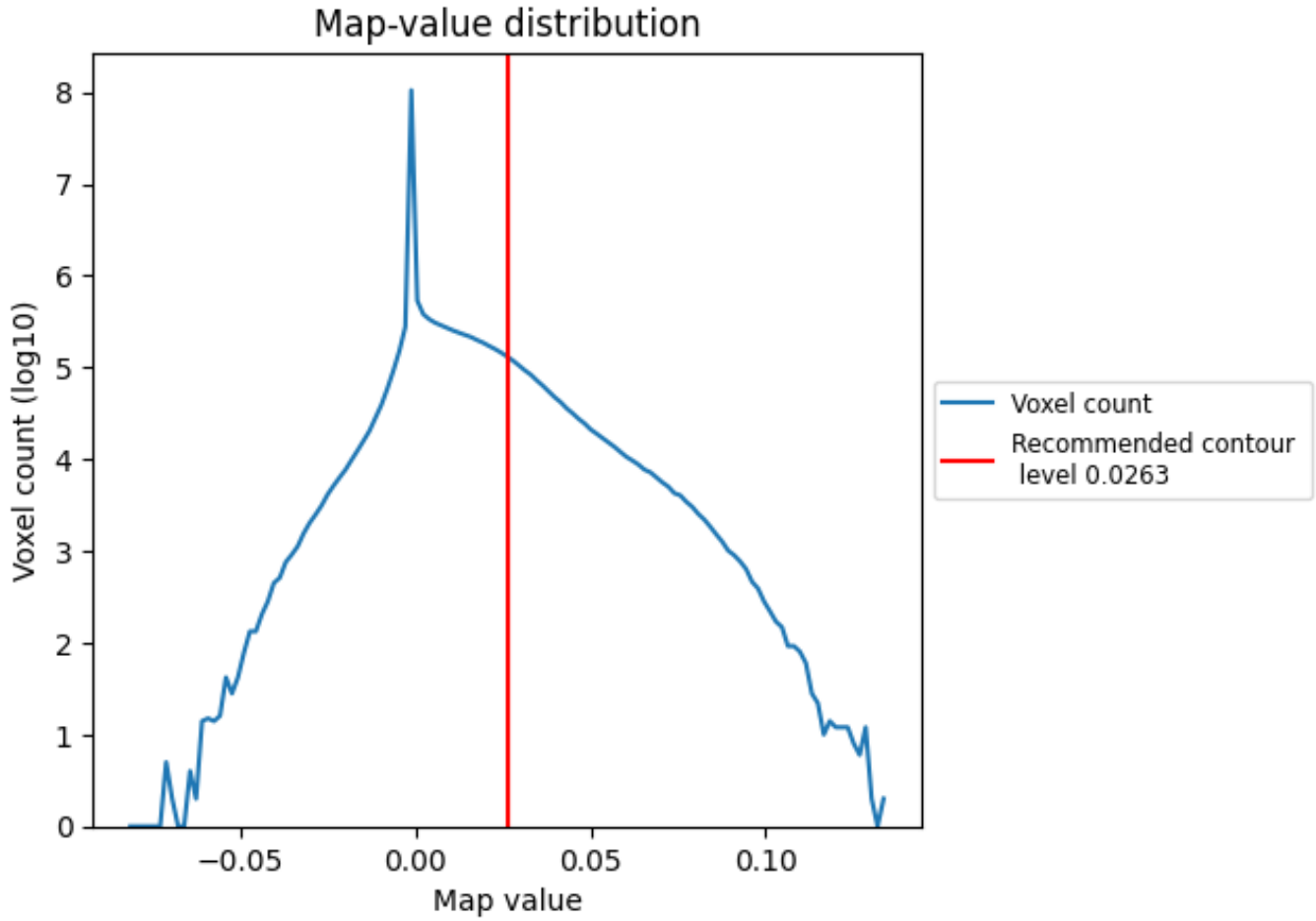
6.5 Mask visualisation (i)

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

7 Map analysis

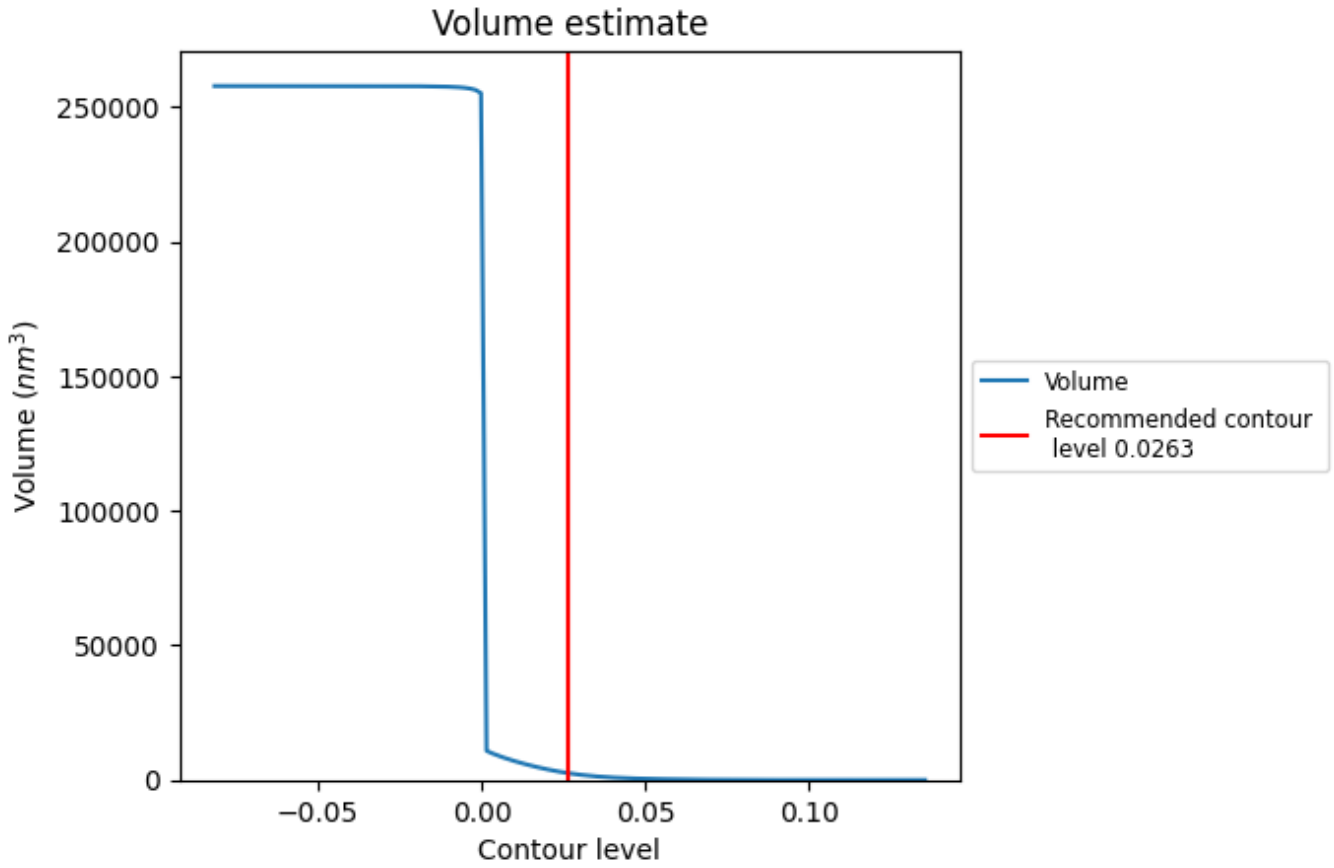
This section contains the results of statistical analysis of the map.

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.

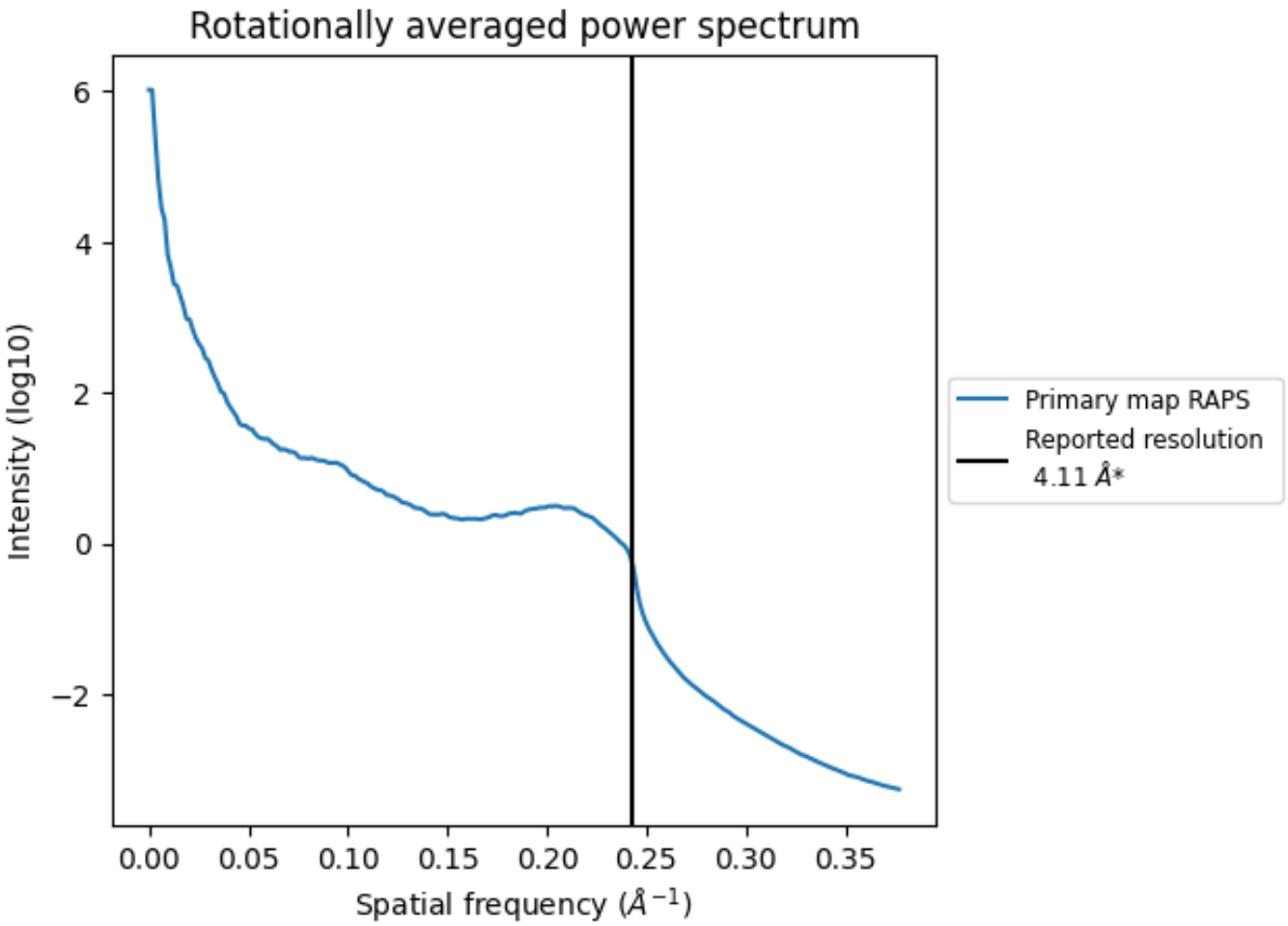
7.2 Volume estimate (i)



The volume at the recommended contour level is 2570 nm^3; this corresponds to an approximate mass of 2322 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)

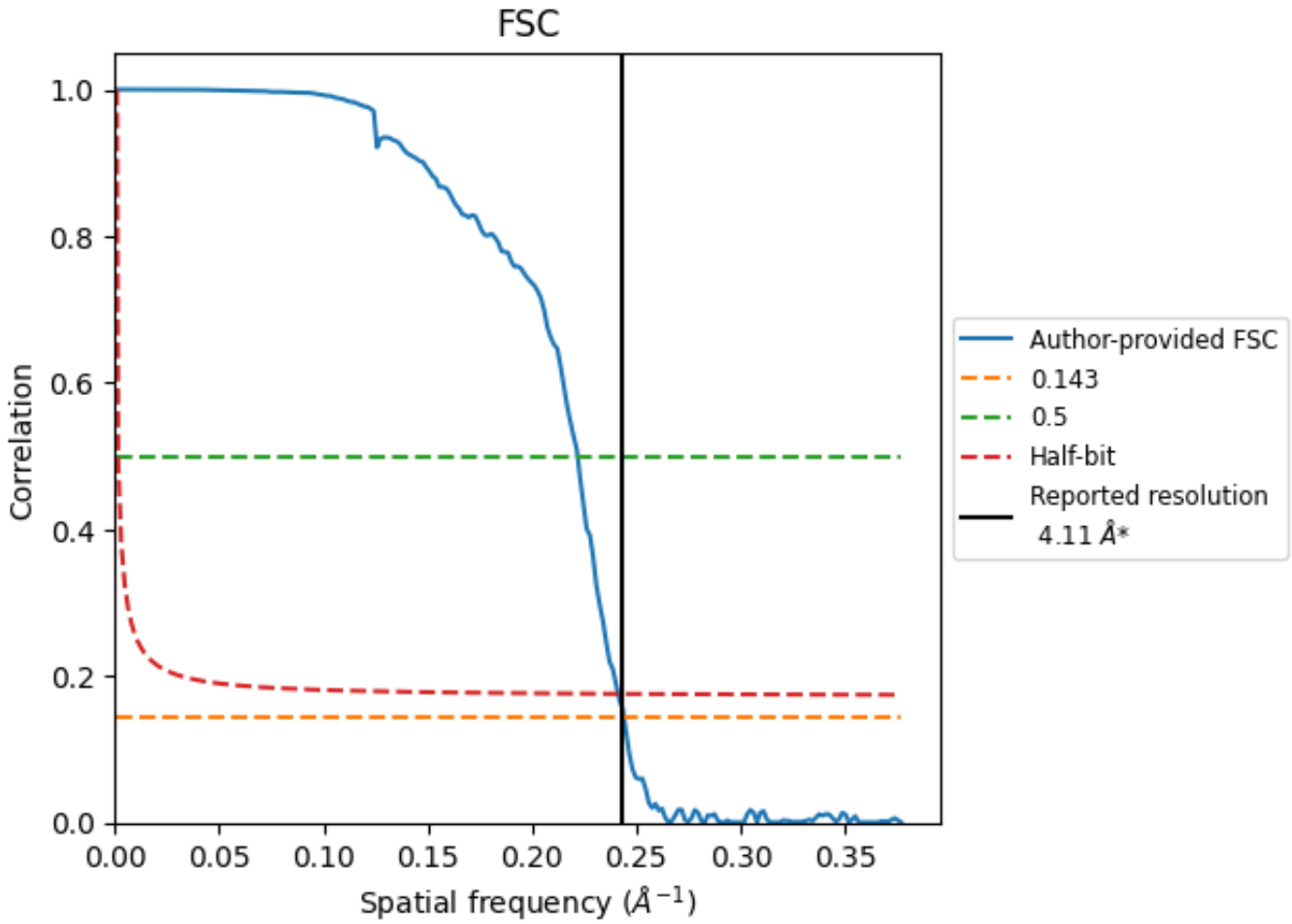


*Reported resolution corresponds to spatial frequency of 0.243 Å^{-1}

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 0.243 Å^{-1}

8.2 Resolution estimates (i)

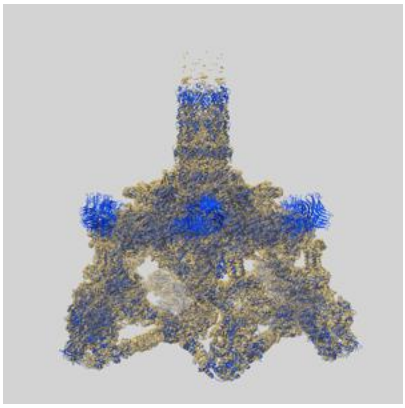
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.11	-	-
Author-provided FSC curve	4.10	4.51	4.14
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

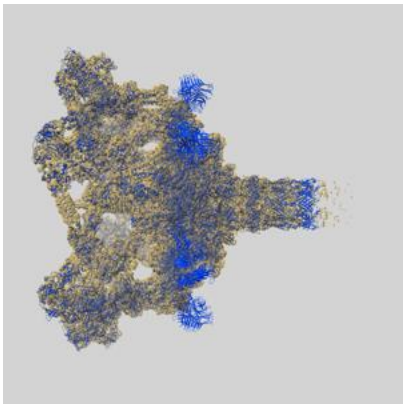
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-3374 and PDB model 5IV5. Per-residue inclusion information can be found in section 3 on page 18.

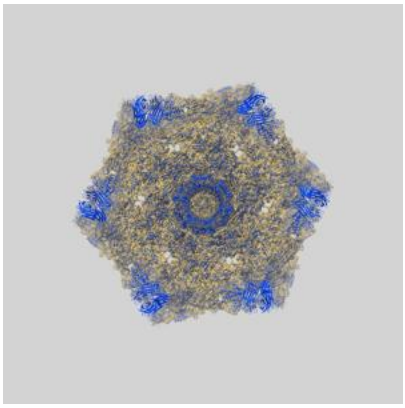
9.1 Map-model overlay



X



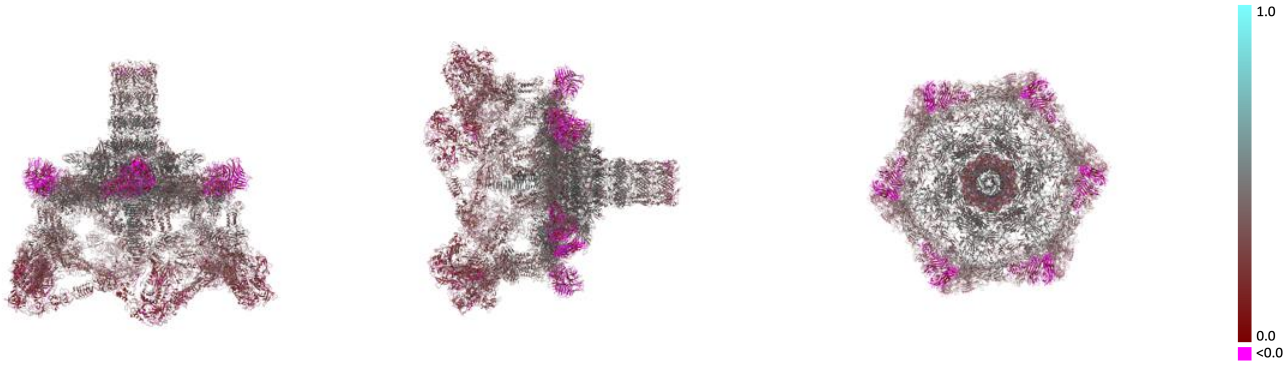
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0263 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

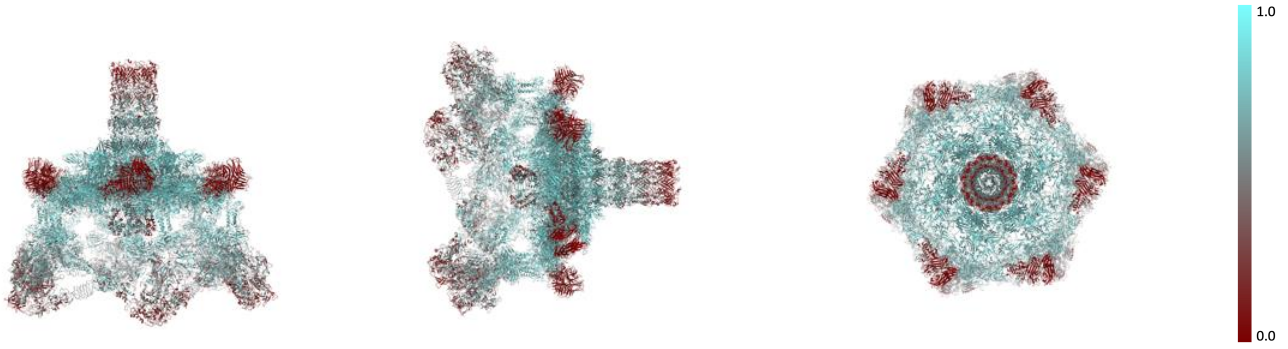
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

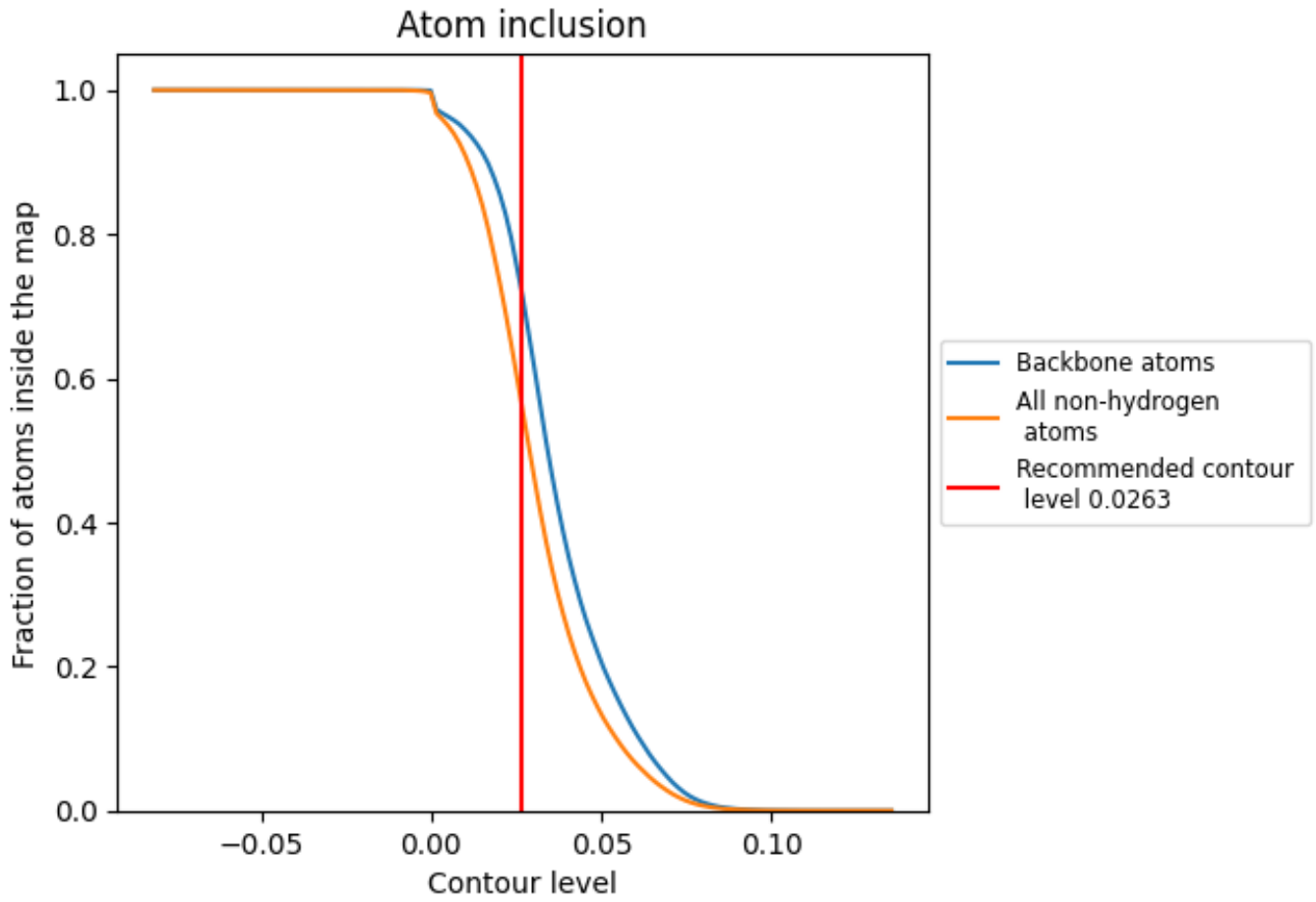
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0263).

9.4 Atom inclusion (i)



At the recommended contour level, 73% of all backbone atoms, 57% 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 (0.0263) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5713	0.3120
A	0.7790	0.4270
AA	0.0242	0.0250
AB	0.0177	0.0150
AC	0.6280	0.3190
AD	0.6350	0.3060
AE	0.6306	0.3080
AF	0.3745	0.2050
AG	0.3398	0.1850
AH	0.3629	0.1880
AI	0.5257	0.2540
AJ	0.4966	0.2420
B	0.7657	0.4140
BA	0.5248	0.2550
BB	0.4163	0.3710
BC	0.1406	0.2800
BD	0.7273	0.3890
BE	0.6925	0.4360
BF	0.8081	0.4290
BG	0.5847	0.4080
BH	0.7823	0.4290
BI	0.7687	0.4160
BJ	0.7378	0.3810
C	0.7366	0.3790
CA	0.7678	0.4040
CB	0.7921	0.4170
CC	0.0088	0.0120
CD	0.0261	0.0320
CE	0.0158	0.0180
CF	0.6300	0.3180
CG	0.6345	0.3070
CH	0.6317	0.3090
CI	0.3678	0.2050
CJ	0.3331	0.1840
D	0.7658	0.4030

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Chain	Atom inclusion	Q-score
DA	0.3587	0.1910
DB	0.5265	0.2530
DC	0.5018	0.2410
DD	0.5251	0.2550
DE	0.4124	0.3720
DF	0.1445	0.2820
DG	0.7242	0.3920
DH	0.6886	0.4380
DI	0.8049	0.4290
DJ	0.5861	0.4070
E	0.7933	0.4160
EA	0.7827	0.4290
EB	0.7683	0.4150
EC	0.7372	0.3800
ED	0.7666	0.4030
EE	0.7910	0.4170
EF	0.0079	0.0130
EG	0.0233	0.0240
EH	0.0149	0.0220
EI	0.6256	0.3180
EJ	0.6335	0.3060
F	0.0079	0.0120
FA	0.6280	0.3100
FB	0.3793	0.2070
FC	0.3350	0.1850
FD	0.3787	0.1910
FE	0.5335	0.2530
FF	0.5044	0.2420
FG	0.5290	0.2540
FH	0.4069	0.3730
FI	0.1453	0.2770
FJ	0.7202	0.3910
G	0.0237	0.0320
GA	0.7026	0.4390
GB	0.8055	0.4290
GC	0.5814	0.4080
GD	0.7802	0.4280
GE	0.7681	0.4150
GF	0.7408	0.3810
GG	0.7643	0.4030
GH	0.7906	0.4170
GI	0.0102	0.0150

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Chain	Atom inclusion	Q-score
GJ	0.0251	0.0240
H	0.0144	0.0180
HA	0.0168	0.0190
HB	0.6278	0.3180
HC	0.6335	0.3070
HD	0.6339	0.3100
HE	0.3793	0.2050
HF	0.3356	0.1830
HG	0.3647	0.1890
HH	0.5234	0.2550
HI	0.4948	0.2440
HJ	0.5194	0.2540
I	0.6298	0.3170
IA	0.4085	0.3720
IB	0.1445	0.2810
IC	0.7242	0.3890
ID	0.6995	0.4410
IE	0.8030	0.4270
IF	0.5908	0.4040
J	0.6341	0.3060
K	0.6298	0.3080
L	0.3690	0.2010
M	0.3295	0.1840
N	0.3581	0.1880
O	0.5213	0.2540
P	0.4990	0.2430
Q	0.5264	0.2550
R	0.4108	0.3750
S	0.1406	0.2830
T	0.7192	0.3900
U	0.6909	0.4360
V	0.8042	0.4290
W	0.5847	0.4060
X	0.7802	0.4260
Y	0.7671	0.4120
YA	0.5394	0.4140
YB	0.5365	0.4230
YC	0.5370	0.4180
YD	0.6343	0.4410
YE	0.6340	0.4410
YF	0.6340	0.4400
Z	0.7398	0.3810

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Chain	Atom inclusion	Q-score
ZA	0.5085	0.2440
a	0.7662	0.4030
b	0.7883	0.4160
c	0.0079	0.0150
d	0.0223	0.0260
e	0.0144	0.0220
f	0.6252	0.3180
g	0.6319	0.3050
h	0.6271	0.3070
i	0.3745	0.2040
j	0.3356	0.1840
k	0.3769	0.1900
l	0.5299	0.2530
m	0.5049	0.2430
n	0.5240	0.2540
o	0.4116	0.3730
p	0.1383	0.2780
q	0.7152	0.3900
r	0.6909	0.4370
s	0.7972	0.4270
t	0.5854	0.4090
u	0.7807	0.4270
v	0.7685	0.4140
w	0.7408	0.3820
x	0.7678	0.4040
y	0.7918	0.4170
z	0.0088	0.0170