



## Full wwPDB EM Validation Report ⓘ

May 19, 2024 – 11:17 PM JST

PDB ID : 6LK8  
EMDB ID : EMD-0909  
Title : Structure of *Xenopus laevis* Cytoplasmic Ring subunit.  
Authors : Shi, Y.; Huang, G.; Yan, C.; Zhang, Y.  
Deposited on : 2019-12-18  
Resolution : 5.50 Å (reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

---

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

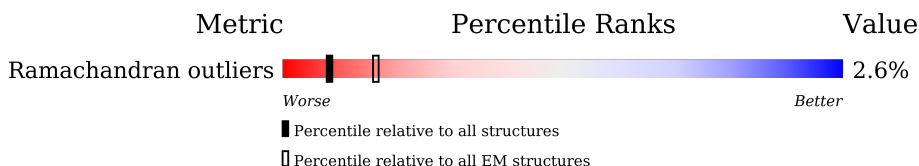
EMDB validation analysis : 0.0.1.dev92  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36.2

# 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 5.50 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

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	2011	
1	a	2011	
2	B	653	
2	b	653	
3	C	375	
3	c	375	
4	D	322	
4	d	322	
5	E	1435	
5	e	1435	
6	F	326	

*Continued on next page...*

Continued from previous page...

Mol	Chain	Length	Quality of chain
6	f	326	63% 87% 11%
7	G	923	23% 60% 7% 33%
7	g	923	26% 59% 7% 34%
8	H	320	15% 89% 9%
8	h	320	21% 88% 10%
9	I	916	66% 80% 19%
9	i	916	79% 79% 21%
10	J	1140	90% 88% 10%
10	j	1140	90% 89% 10%
11	S	2905	5% 6% 94%
11	T	2905	6% 6% 94%
11	U	2905	6% 6% 94%
11	V	2905	6% 6% 94%
12	K	69	100%
13	L	80	100%
14	M	73	100%
15	N	31	48% 100%
16	O	35	100%
17	P	26	96% 100%
18	Q	391	58% 99%
18	R	391	87% 90% 10%

## 2 Entry composition [i](#)

There are 18 unique types of molecules in this entry. The entry contains 72207 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 MGC83295 protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
1	A	1409	Total 6934	C 4116	N 1409	O 1409	0	0
1	a	1272	Total 6306	C 3762	N 1272	O 1272	0	0

- Molecule 2 is a protein called Nuclear pore complex protein Nup85.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	B	532	Total 2639	C 1575	N 532	O 532	0	0
2	b	519	Total 2574	C 1536	N 519	O 519	0	0

- Molecule 3 is a protein called MGC154553 protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
3	C	289	Total 1156	C 578	N 289	O 289	0	0
3	c	292	Total 1168	C 584	N 292	O 292	0	0

- Molecule 4 is a protein called Nucleoporin SEH1-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
4	D	307	Total 1519	C 905	N 307	O 307	0	0
4	d	293	Total 1450	C 864	N 293	O 293	0	0

- Molecule 5 is a protein called outer Nup160.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	E	1030	Total	C	N	O	0	0
			5107	3047	1030	1030		
5	e	1109	Total	C	N	O	0	0
			5497	3279	1109	1109		

- Molecule 6 is a protein called MGC83926 protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	F	289	Total	C	N	O	0	0
			1423	845	289	289		
6	f	291	Total	C	N	O	0	0
			1433	851	291	291		

- Molecule 7 is a protein called Nuclear pore complex protein Nup96.

Mol	Chain	Residues	Atoms				AltConf	Trace
7	G	618	Total	C	N	O	0	0
			3064	1828	618	618		
7	g	607	Total	C	N	O	0	0
			3010	1796	607	607		

- Molecule 8 is a protein called GATOR complex protein SEC13.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	H	291	Total	C	N	O	0	0
			1419	837	291	291		
8	h	287	Total	C	N	O	0	0
			1413	839	287	287		

- Molecule 9 is a protein called Nuclear pore complex protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	I	738	Total	C	N	O	0	0
			3668	2192	738	738		
9	i	727	Total	C	N	O	0	0
			3613	2159	727	727		

- Molecule 10 is a protein called outer Nup133.

Mol	Chain	Residues	Atoms				AltConf	Trace
10	J	1026	Total	C	N	O	0	0
			5085	3033	1026	1026		

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
10	j	1027	5090	3036	1027	1027	0	0

- Molecule 11 is a protein called Nup358 complex, clamps.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
11	S	169	840	502	169	169	0	0
11	T	169	840	502	169	169	0	0
11	U	173	859	513	173	173	0	0
11	V	169	840	502	169	169	0	0

- Molecule 12 is a protein called Nup214 complex Coiled-coil region 1, helix 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
12	K	69	345	207	69	69	0	0

- Molecule 13 is a protein called Nup214 complex coiled coil region 1, helix 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
13	L	80	400	240	80	80	0	0

- Molecule 14 is a protein called Nup214 complex coiled coil region 1, helix 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
14	M	73	365	219	73	73	0	0

- Molecule 15 is a protein called Nup214 complex Coiled coil region 2, helix 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
15	N	31	155	93	31	31	0	0

- Molecule 16 is a protein called Nup214 complex Coiled coil region 2, helix 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
16	O	35	175	105	35	35	0	0

- Molecule 17 is a protein called Nup214 complex Coiled coil region 2, helix 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
17	P	26	130	78	26	26	0	0

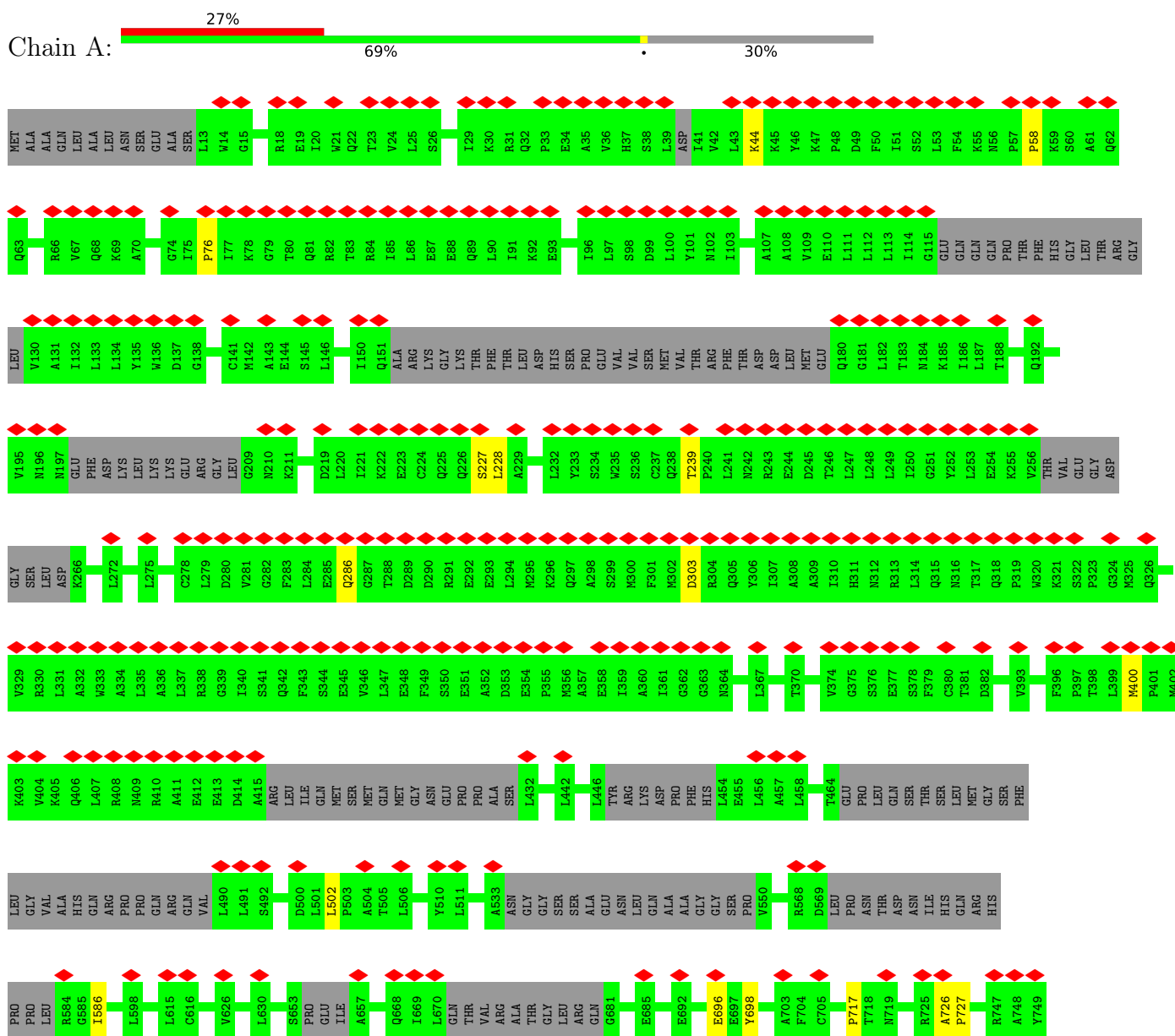
- Molecule 18 is a protein called bridge domain.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
18	Q	387	1935	1161	387	387	0	0
18	R	351	1755	1053	351	351	0	0

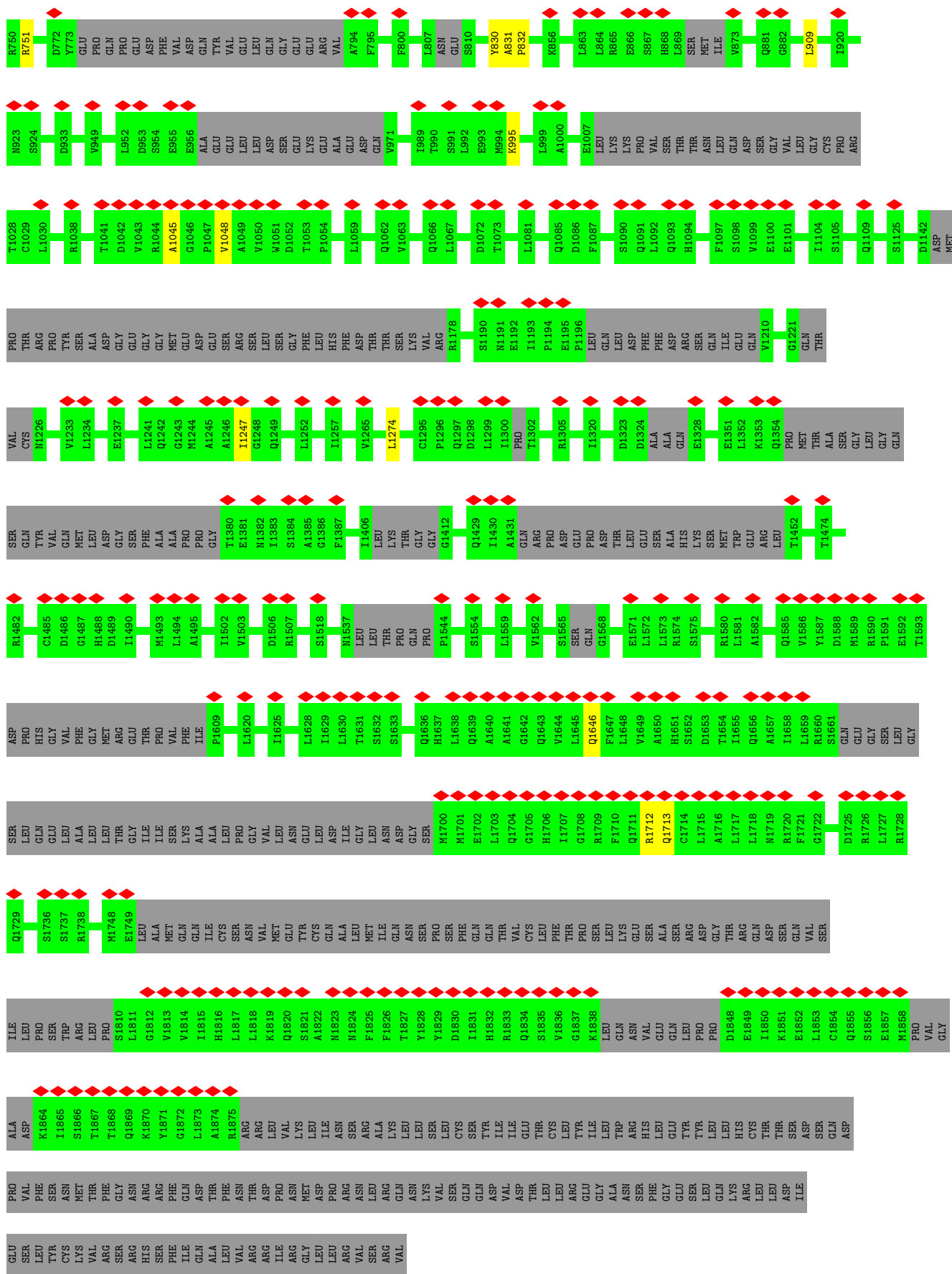
### 3 Residue-property plots

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.

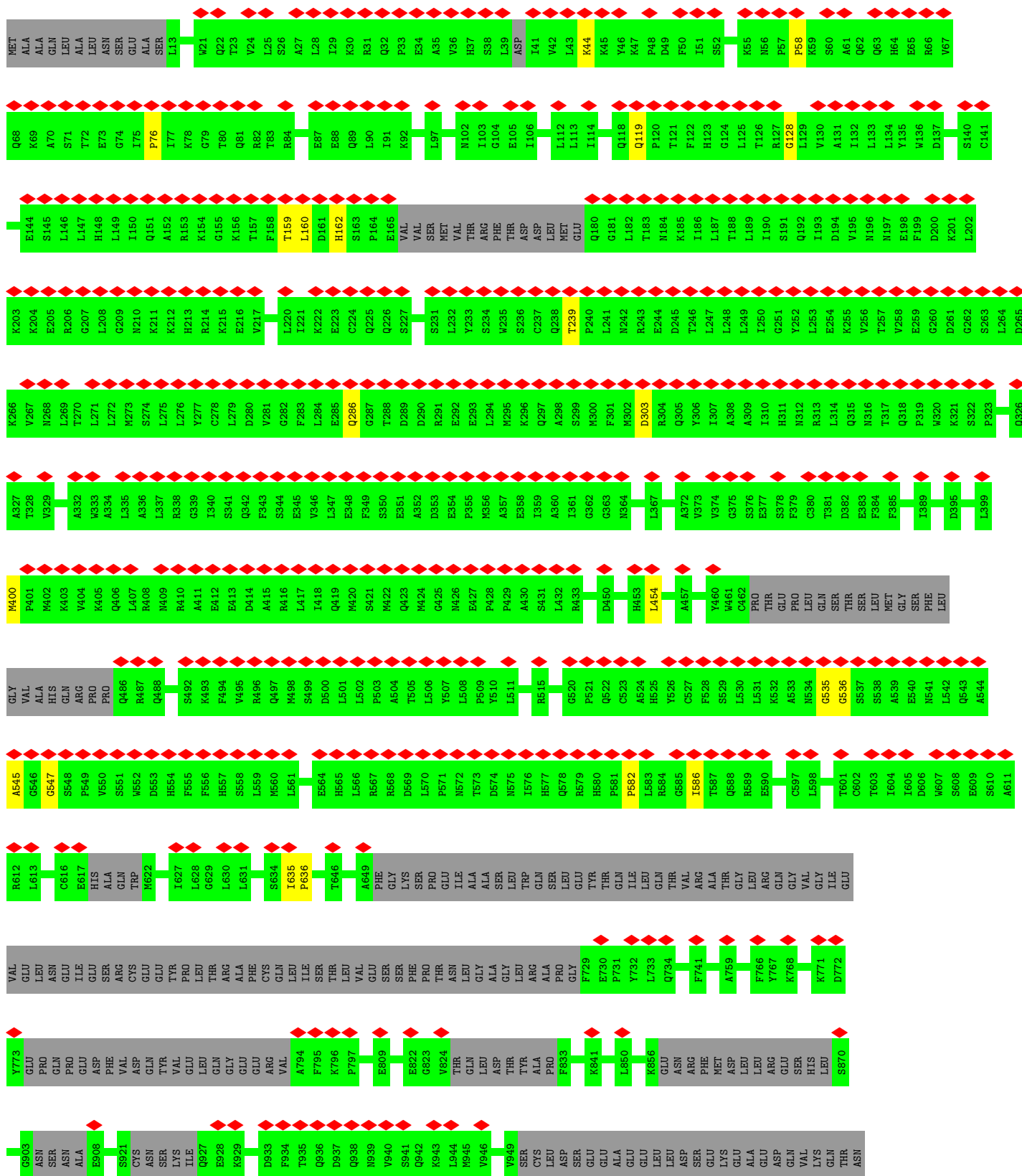
- Molecule 1: MGC83295 protein

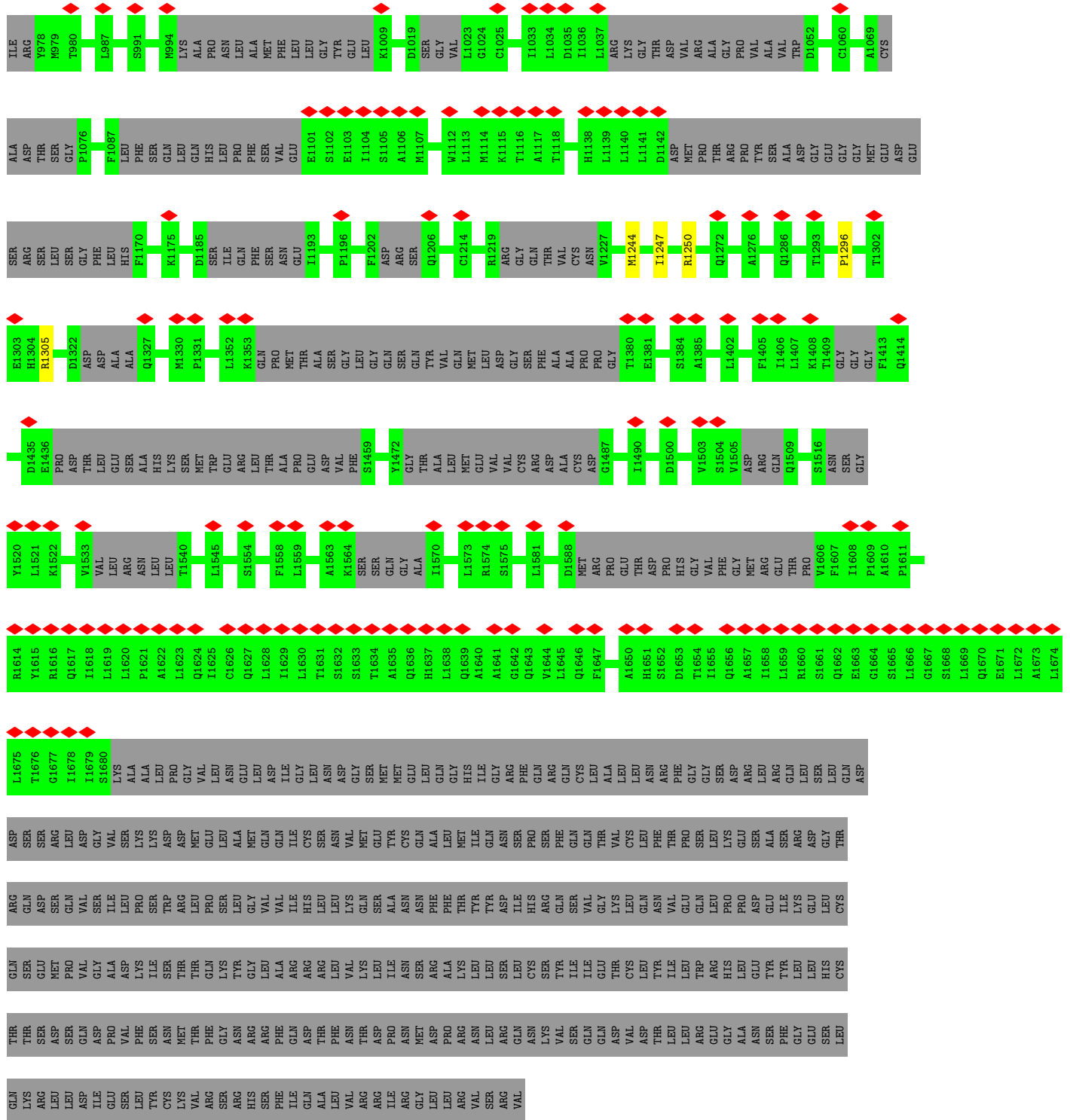




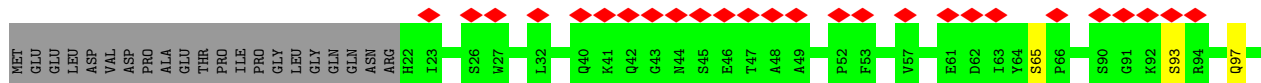
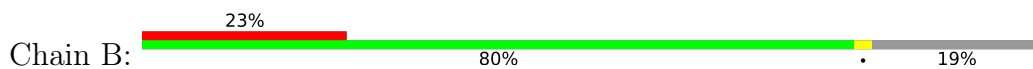


• Molecule 1: MGC83295 protein

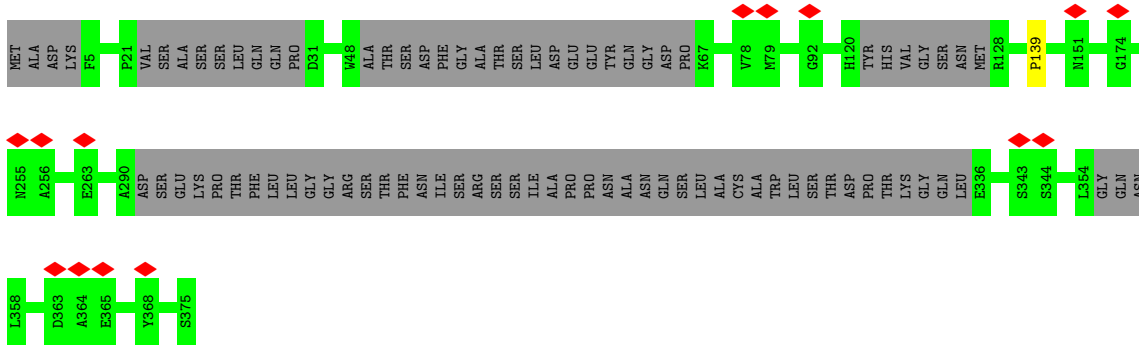




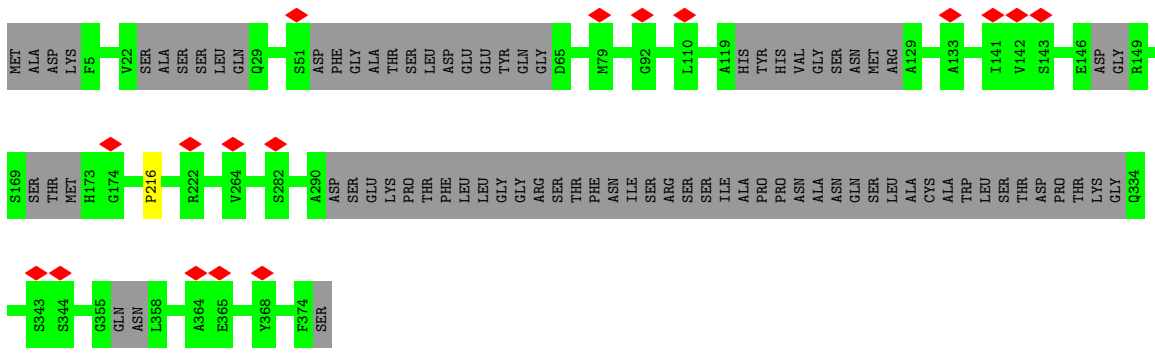
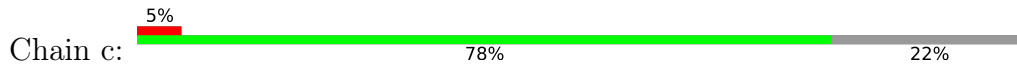
• Molecule 2: Nuclear pore complex protein Nup85



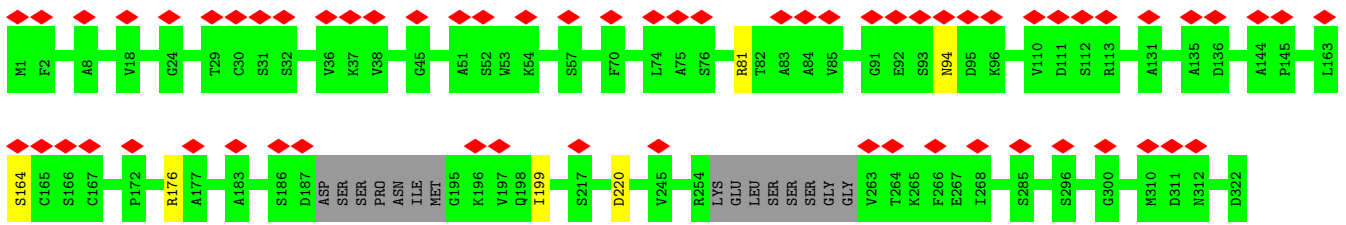
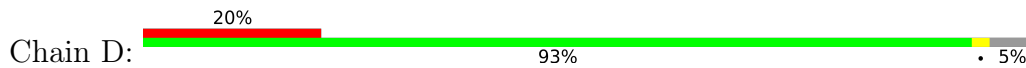




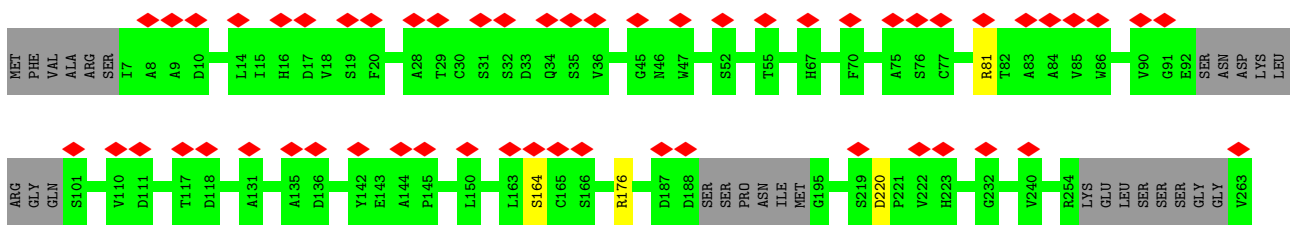
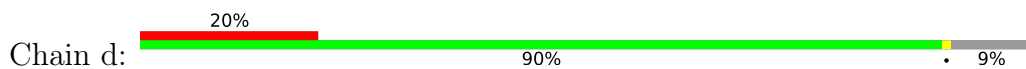
• Molecule 3: MGC154553 protein

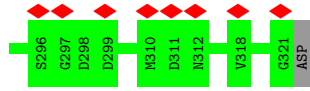


• Molecule 4: Nucleoporin SEH1-A



• Molecule 4: Nucleoporin SEH1-A





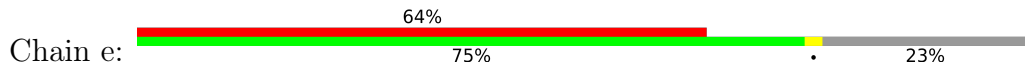
• Molecule 5: outer Nup160



MET	ALA	ALA	ALA	GLU	ARG	HIS	MET	PRO	PHE	GLN	ALA	ALA	ASP	ASP	L42	E43	R44	S45	Y46	M47	E48	L49	I50	G51	A52	E53	R54	E55	T56	S57	R58	R59	M60																																																																																																																																																																																																																				
F61	R62	D63	L64	S65	L66	R67	P68	D69	VAL	ASN	LEU	VAL	TRP	GLE	G75	G76	P77	K78	Y79	PRO	MET	VAL	D81	G82	A83	G84	G85	Y86	C87	Y88	S89	E90	S91	S92	S93	L94	L95	S96	A97	T98	R99	M100	R101	F102	L103	H104	M105	T106	S107	TYR	ALA	ASP	THR	LEU	V115	E116	I117	S118	L119	D120																																																																																																																																																																																									
I121	N122	L123	V124	N125	N126	A127	V128	R129	L130	R131	I132	L133	N134	C135	S136	I137	L138	P139	G140	G141	V142	A83	G84	G85	Y86	C87	Y88	S89	E90	S91	S92	S93	L94	L95	S96	A97	T98	R99	M100	Q159	T160	V161	H162	R163	L164	I165	L166	P167	H168	P169	S170	R171	M172	Y173	ARG	SER	GLU	ILE	ILE	SER	ASP																																																																																																																																																																																								
SER	HIS	ILE	GLN	SER	ILE	PHE	THR	ASP	GLY	LYS	THR	ASN	PHE	HIS	D197	P198	S199	M200	T201	Y202	V203	I204	P205	A206	L207	P208	G209	R210	A211	P212	M213	T214	T215	A216	S217	T218	A219	W220	L221	S222	S223	D224	G225	E226	A227	L228	F229	A230	L231	P232	S233	S235	G236	G237	I238	L239	V240																																																																																																																																																																																												
I241	K242	W243	P244	P245	H246	D247	W248	E249	W250	G251	L251	V252	T253	L254	A255	E256	L257	K258	Q259	S260	S261	V262	M263	Q264	L266	L267	T268	G269	W270	W271	P272	S273	S274	I275	R276	G277	D278	Q279	G280	P281	A282	H283	L284	P285	V286	S287	L288	A289	S349	S350	H291	T292	L293	D294	H295	D296	S297	Y298	L299	F300																																																																																																																																																																																									
A301	L302	C303	Q304	D305	H306	R307	L308	R309	M310	M311	S312	Y313	K314	D315	Q316	R317	C318	L319	M320	V321	A322	D323	M324	L325	E326	Y327	V328	P329	V330	S331	K332	D333	I334	R335	Q336	T337	A338	G339	T340	G341	H342	K343	L344	R345	L346	A347	F348	W410	A411	A412	W413	L414	D415	D416	D417	M418	Q419	G358	V359	Y360																																																																																																																																																																																									
L361	H362	T363	P364	K365	Q366	G367	Q368	F369	C370	V371	F372	Q373	L374	R375	C376	A377	E378	S379	M380	R381	Y382	S383	L384	D385	H386	I387	S388	S389	I390	F391	T392	K393	Q394	E395	T396	L397	I398	D399	F400	T401	F402	THR	LEU	THR	SER	MET	D408	L409	M410	W411	A411	A412	W413	L414	D415	D416	D417	M418	Q419	T420																																																																																																																																																																																									
V421	V422	K423	H424	I425	N426	F427	E428	GLU	ASN	Q431	A432	C433	Q434	W435	M436	P437	V438	F439	V440	M441	P442	L443	P444	E445	D446	D447	L448	A449	I450	S451	D452	E453	Q454	E455	P456	Q457	E458	A459	Y460	L461	E462	C463	L464	F465	A466	P467	G468	R469	F470	T471	L472	A473	A474	V475	Q476	K477	A478	L479	Q480																																																																																																																																																																																										
I481	L482	R483	K484	G485	S486	G487	R488	V489	L490	D491	L492	S493	W494	E495	E496	L497	R498	K499	D500	V501	T502	L503	T504	V505	E506	M507	E508	I509	Q510	ASN	ALA	VAL	ILE	ASP	TYR	ASP	VAL	SER	Q520	E521	E522	F523	R524	Q525	I526	N527	I528	E529	M530	W531	C532	K533	F534	V535	T536	C537	E538	L539	Q540	M541	L542	D543	D544	D545	Q546	D547	L548	L549	M550	M551	D552	L553	H554	P555	E556	T557	M558	M559	V560	C561	L562	L563	R564	K565	G566	F567	L568	S569	L570	L571	A572	P573	C574	H575	S576	L577	V578	E579	H579	L580	Y581	L582	V583	P584	A585	N527	I528	E529	M530	W531	C532	K533	F534	V535	T536	C537	E538	L539	Q540	M541	L542	D543	D544	D545	Q546	D547	L548	L549	M550	M551	D552	L553	H554	P555	E556	T557	M558	M559	V560	C561	L562	L563	R564	K565	G566	F567	L568	S569	L570	L571	A572	P573	C574	H575	S576	L577	V578	E579	H579	L580	Y581	L582	V583	P584	A585	N527	I528	E529	M530	W531	C532	K533	F534	V535	T536	C537	E538	L539	Q540	M541	L542	D543	D544	D545	Q546	D547	L548	L549	M550	M551	D552	L553	H554	P555	E556	T557	M558	M559	V560	C561	L562	L563	R564	K565	G566	F567	L568	S569	L570	L571	A572	P573	C563	Q694	P695	M696	T697	R698	L699	N700	L701	S702	THR	LEU	LEU	GLY	SER	ILE	T709	A710	L649	S711	S712	A651	V713	V714	C715	Q716	A717	I718	C719	K720	D598	D599	I600
D601	A602	A603	S604	D605	L606	V607	P608	L609	L610	Q611	C612	L613	R614	M615	G616	A617	D618	Y619	I620	S621	E622	D623	M624	A625	Y626	L627	M628	E629	S630	A631	C632	C633	H634	L635	G636	SER	PRO	E639	R640	V641	A642	E643	Q644	I645	L646	E647	D648	L649	I650	A651	M652	D653	I654	Q655	V656	I657	M658	E659	M660																																																																																																																																																																																										
I661	Q662	M663	K664	L665	Q666	D667	T668	R669	M670	P671	I672	A673	R674	M675	G676	F677	L678	L679	Q680	M681	M682	D683	Y684	E685	THR	ASN	ALA	ASP	M690	E691	P692	P693	Q694	P695	M696	T697	R698	L699	N700	L701	S702	THR	LEU	LEU	GLY	SER	ILE	T709	A710	L649	S711	S712	A651	V713	V714	C715	Q716	A717	I718	C719	K720	D598	D599	I600																																																																																																																																																																																					

I721	S722	A723	T724	F725	L727	I728	C729	R730	D731	L732	L733	I734	L735	Q736	H737	L738	L739	L740	R741	L742	G743	D744	M745	A746	L747	I748	G749	A750	G751	L752	L753	L754	H755	S756	Q757	Q758	E759	L760	I761	P762	R763	A764	A765	Q766	L767	L768	L769	S770	Y771	Y772	M773	I774	R775	W776	S777	Q779	C780		
L781	A782	C783	A784	V785	P786	V787	D788	ILE	LEU	GLU	SER	ASN	LEU	GLN	HIS	LEU	SER	VAL	LEU	GLU	SER	ASP	SER	GLM	V807	E808	K809	R810	R811	Y812	T813	S814	G815	I816	Q817	T818	I819	V820	E821	L822	F823	F824	E825	D826	V827	A828	R829	K830	H831	F832	P833	H834	V835	F836	I837	Q838	S839	G840	
A841	S842	Q843	LEU	GLN	C905	GLU	P906	LEU	N849	W850	S851	D852	L853	I854	K855	R856	I857	T858	N859	Y860	L861	Q862	Q863	L864	L865	W866	P867	S868	N869	P870	R871	F872	Q873	F874	A875	E876	C877	L878	M879	R880	N881	C882	Q883	Y884	T885	Q886	L887	Q888	E889	Y890	V891	R892	L893	L894	P896	W897	C898	Q899	V900
N901	V902	G903	S904	H905	H906	F907	M908	L909	A910	Q911	C912	I913	L914	V915	A916	G917	N918	G919	H920	A921	Q922	L923	D924	C925	F926	S927	Q928	A929	A930	S931	E932	V933	E934	R935	E936	D937	F938	L939	E940	K941	H942	I943	I944	V945	U946	H947	S948	E949	S950	V951	S952	P953	R954	L955	Q956	Y957	Y958	N959	R960
V961	L962	R963	L964	L965	E966	D967	V968	G969	L970	P971	E972	L973	V974	I975	Q976	L977	A978	T979	I980	A981	G982	G983	E984	A985	S986	ASP	ASP	TRP	R990	S991	Q992	A993	A994	L995	R996	T997	R998	I999	F1000	K1001	H1002	H1003	L1004	D1005	M1006	GLY	HIS	ASN	ASN	GLN	A1012	Y1013	D1014	A1015	L1016	T1017	Q1018	I1019	P1020
D1021	P1022	S1023	R1024	Q1025	L1026	D1027	C1028	L1029	R1030	Q1031	L1032	V1033	V1034	V1035	L1036	C1037	E1038	R1039	SER	GLN	L1042	Q1043	D1044	L1045	V1046	E1047	F1048	P1049	Y1050	M1051	M1052	L1053	H1054	M1055	E1056	V1057	V1058	G1059	I1060	I1061	E1062	S1063	R1064	A1065	R1066	A1067	V1068	D1069	L1070	M1071	T1072	Y1075	M1088	G1104	R1108				
T1109	L1110	L1129	I1130	R1131	Y1134	V1138	Q1139	PRO	VAL	SER	GLY	ALA	VAL	TYR	GLU	ARG	PRO	GLY	ALA	SER	PRO	LYS	ARG	ASN	TYR	ASP	GLY	V1168	Q1169	I1170	E1171	I1172	L1173	D1177	K1180	V1183	L1184	T1187	R1188	L1191	A1192	K1193	H1194																
M1195	P1196	SER	THR	ALA	ILE	GLY	SER	ALA	ALA	GLU	GLU	NET	VAL	ALA	LEU	VAL	GLN	ALA	PHE	ASP	THR	ALA	ALA	TRP	ILE	LEU	LEU	CYS	GLN	THR	VAL	PHE	LEU	LEU	ALA	LEU	THR	LYS	CYS	ILE	ILE	ARG	LEU	GLN	GLY	GLY	GLY	GLU	ALA										
ALA	GLN	GLU	ALA	TRP	GLU	TRP	ALA	ALA	ASN	GLN	LEU	ALA	VAL	ILE	THR	THR	GLU	LYS	SER	ALA	THR	ASP	LEU	ALA	GLU	ALA	ALA	GLU	VAL	VAL	GLY	GLY	GLY	THR	HIS	CYS	LYS	ILE	ILE	ASN	LYS	LEU	LEU	LEU	SER	HIS	GLY	VAL											
PRO	LEU	PRO	ASN	TRP	ILE	ASN	TYR	LYS	ALA	MET	ASP	ALA	GLU	ARG	THR	ARG	TYR	LYS	VAL	THR	GLY	LEU	ALA	GLU	GLU	ALA	GLU	VAL	VAL	VAL	GLY	GLY	GLY	ALA	HIS	GLN	THR	PHE	GLY	ILE	ILE	ALA	PRO	LEU	LEU	SER	ALA	THR	VAL										
GLN	LEU	VAL	TRP	PHE	TYR	SER	ALA	ILE	HIS	GLN	ARG	GLN	LEU	GLY	GLU	ASN	SER	ASN	HIS	ASN	GLN	ARG	VAL	VAL	GLY	GLY	LEU	ARG	LYS	ARG	LYS	VAL	MET	GLU	ASP	GLU	TYR	ASP	TYR	GLY	LYS	ILE	LYS	LEU	LEU	LEU	ARG												
ALA																																																											

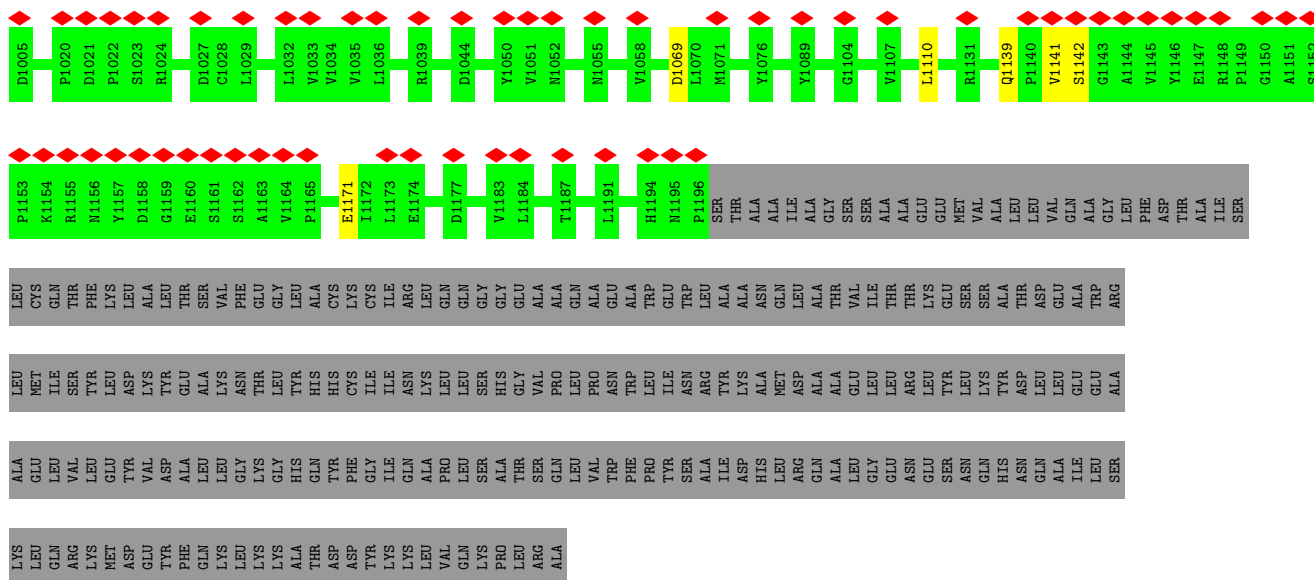
• Molecule 5: outer Nup160



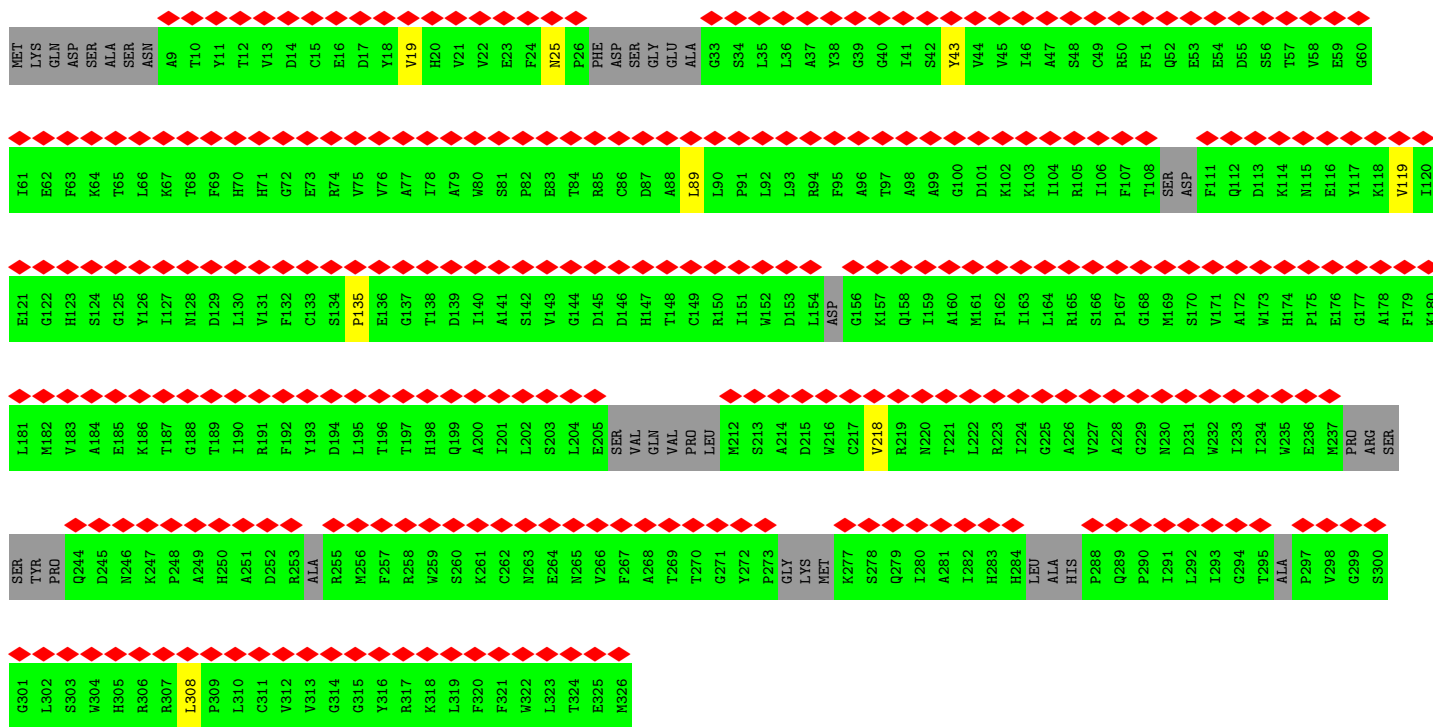
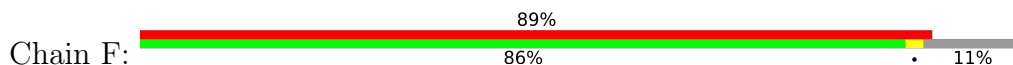
MET	ALA	ALA	ALA	GLU	ARG	HIS	MET	THR	PHE	ASP	GLN	ALA	ILE	ASP	TRP	ALA	ALA	GLY	SER	ILE	THR	LEU	PRO	MET	VAL	GLN	ARG	VAL	VAL	L42	E43	R44	S45	Y46	W47	E48	L49	F50	G51	A52	E53	R54	E55	T56	S57	R58	R59	H60											
F61	R62	D63	L64	S65	L66	R67	P68	D69	VAL	VAL	ASN	LEU	VAL	ILE	G75	G76	P77	K78	Y79	A80	D81	C82	A83	G84	O85	H86	C87	H88	S89	E90	S91	S92	S93	L94	L95	S96	A97	T98	R99	M100	R101	F102	L103	H104	M105	T106	S107	TYR	ALA	ASP	THR	LEU	LEU	V115	E116	I117	S118	L119	D120

I121	I122	L123	V124	N125	N126	A127	V128	R129	L130	R131	I132	L133	N134	C135	S136	L137	L138	P139	G140	G141	V142	H143	I144	C145	E146	T147	P148	N149	N150	I151	V152	V153	V154	I155	L156	T157	N158	Q159	T160	V161	H162	R163	L164	I165	L166	P167	H168	P169	S170	R171	M172	Y173	R174	S175	E176	I177	I178	S179	D180				
S181	H182	I183	Q184	S185	I186	F187	T188	D189	I190	G191	K192	T193	N194	F195	H196	D197	P198	S199	N200	N201	T202	V203	V204	P205	A206	T207	P208	G209	R210	A211	P212	N213	T214	T215	A216	S217	T218	T219	A219	W220	L221	S222	S223	D224	G225	E226	A227	L228	F229	V230	L231	P232	S233	I234	S235	G236	G237	I238	L239	V240			
I241	K242	M243	P244	P245	H246	K247	M248	E249	G250	L251	V252	T253	I254	A255	E256	K257	K258	Q259	S260	S261	V262	M263	Q264	R265	L266	L267	T268	G269	W270	M271	P272	S273	S274	I275	R276	G277	D278	Q279	G280	P281	A282	H283	L284	P285	E286	S287	L288	A289	V290	H291	T292	L293	D294	H295	D296	S297	I298	L299	F300				
A301	L302	C303	Q304	D305	H306	K307	L308	R309	M310	W311	S312	Y313	K314	D315	Q316	M317	C318	L319	M320	V321	A322	D323	M324	L325	E326	Y327	V328	P329	V330	S331	K332	D333	I334	R335	Q336	T337	A338	G339	T340	G341	P342	K343	L344	R345	L346	A347	F348	S349	A411	T351	L352	G353	I354	L355	Y356	L357	Q358	V359	Y360				
L361	H362	T363	P364	K365	Q366	G367	Q368	F369	C370	V371	F372	Q373	L374	M375	C376	E377	E378	S379	N380	R381	Y382	S383	L384	H385	R386	I387	S388	S389	I390	F391	T392	N393	Q394	E395	T396	L397	I398	D399	F400	T401	F402	THR	LEU	THR	MET	D406	I409	W410	S411	L412	W413	L414	D415	D416	D417	W418	Q419	T420					
V421	V422	K423	H424	I425	N426	F427	E428	GLU	ASN	Q431	A432	G433	Q434	W435	M436	P437	V438	F439	V440	M441	P442	L443	P444	E445	D446	D447	L448	A449	I450	S451	D452	E453	Q454	E455	P456	VAL	E458	A459	V460	L461	E462	C463	L464	F465	A466	P467	G468	R469	F470	T471	L472	A473	A474	V475	Q476	K477	A478	I479	Q480				
I481	L482	R483	K484	G485	S486	G487	R488	V489	L490	D491	L492	S493	Q494	E495	E496	L497	R498	K499	D500	V501	T502	L503	T504	V505	E506	E507	E508	I509	Q510	S451	ALA	VAL	I511	ASP	TYR	ASP	VAL	SER	Q520	E521	E522	F523	E524	Q525	I526	N527	E528	E529	N530	W531	C532	T471	K533	F534	Y535	T536	C537	C538	L539	Q540			
Y541	Q542	E543	T544	L545	S546	R547	P548	L549	A550	L551	L552	V553	H554	P555	D556	T557	N558	M559	V560	C561	L562	L563	R564	G565	Q566	F567	L568	S569	F570	L571	A572	P573	C574	S575	L576	V577	E578	H579	L580	E581	F582	V583	P584	A585	E586	H587	L588	L589	T590	V591	D592	E593	S594	V595	I596	S597	D599	I600					
D601	A602	A603	S604	D605	L606	V607	N608	L609	L610	Q611	C612	L613	R614	M615	L616	A617	D618	V619	L620	S621	E622	D623	M624	A625	G566	F567	L568	S569	F570	L571	A572	P573	C574	S575	L576	V577	E578	H579	L580	E581	F582	V583	P584	A585	E586	H587	L588	L589	T590	V591	D592	E593	S594	V595	I596	S597	D599	I600					
T661	Q662	R663	K664	L665	Q666	D667	T668	R669	N670	Q671	L672	R673	L733	L734	L735	Q736	H737	L738	L739	Q680	N681	M682	D683	V684	E685	THR	ASN	ALA	ASP	N690	E691	N692	P693	N694	P695	N696	T697	R698	L699	N700	L701	S702	A642	E643	Q644	L645	L646	E647	T709	A710	L769	S711	S712	V713	W714	C715	Q716	R775	W776	G777	S778	Q779	C780
L781	A782	C783	A784	V785	P786	V787	D788	I789	L790	S851	D852	L853	L854	K855	R856	L857	T858	S859	Y860	L861	L862	Q863	L864	L865	S866	P867	S868	N869	F870	N871	F872	Q873	F874	A875	E876	C877	L878	M879	R880	N881	C882	Q883	F884	T885	Q886	ASP	L887	Q888	E889	Y890	V891	R892	K893	L894	L895	P896	W897	C898	O899	V900			
N901	V902	Q911	L914	V915	E918	G919	H920	S931	R935	E936	D937	F938	L939	E940	K941	L942	V951	S952	P953	Y957	Y958	N959	E966	D967	V968	G969	L970	P971	V974	I975	A978	G983	E984	A985	SER	ASP	ASP	W989	A994	L995	R996	T997	F1000	K1001	L1004																		

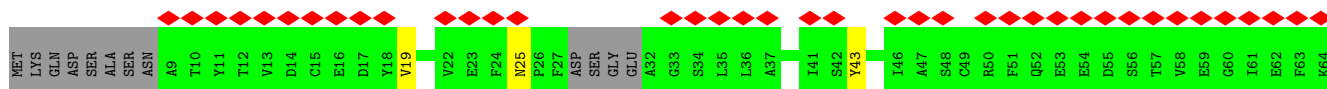
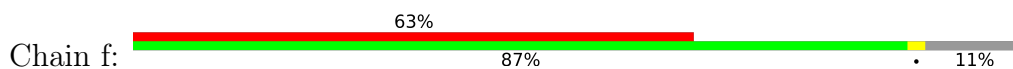


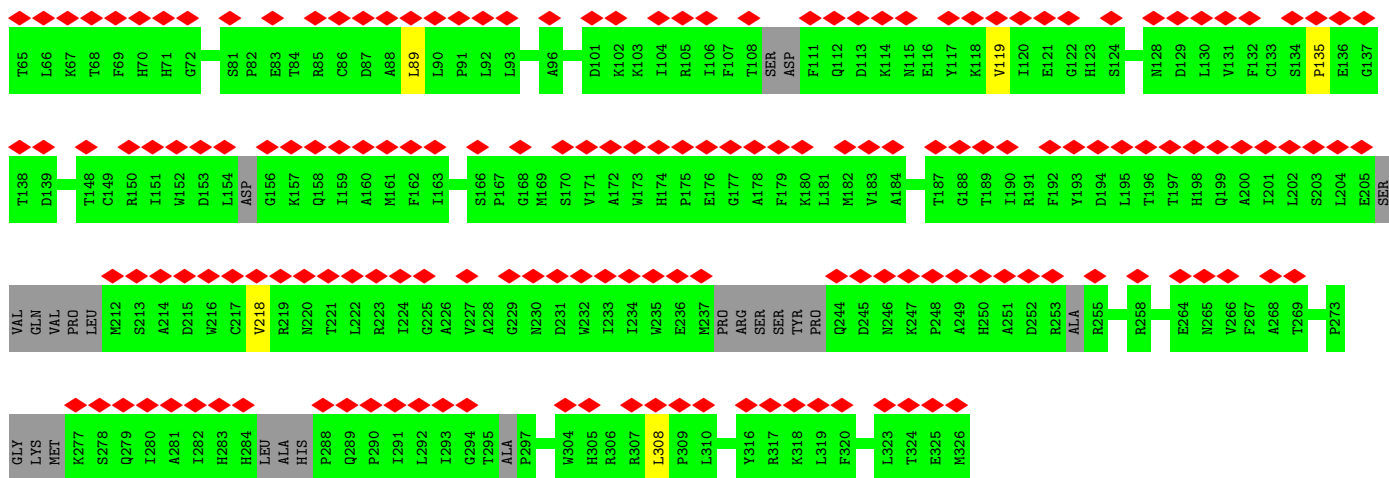


• Molecule 6: MGC83926 protein

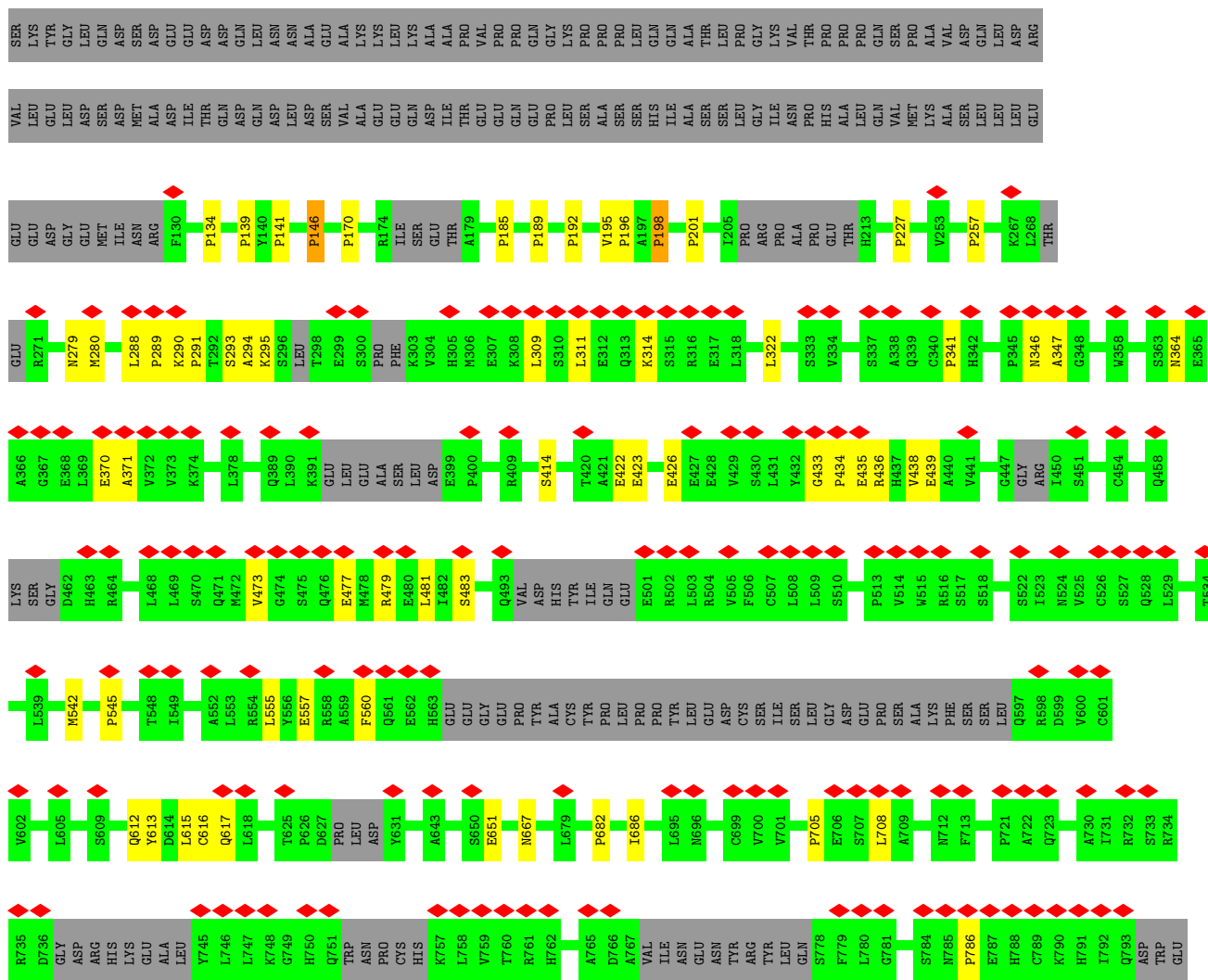


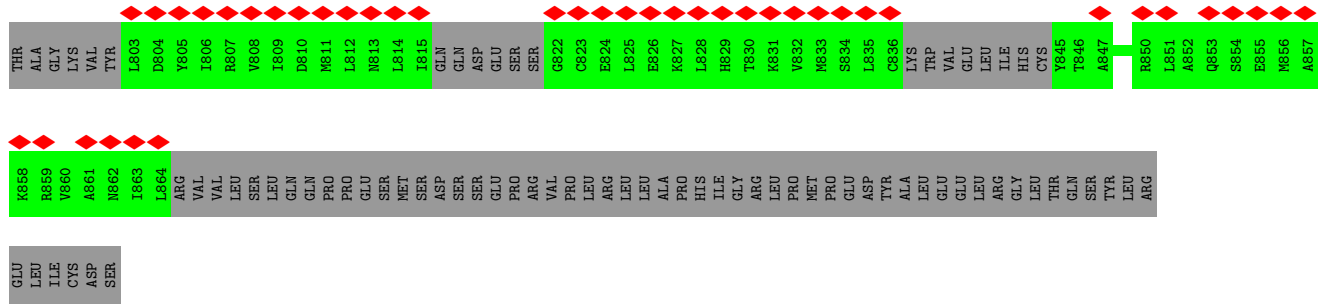
• Molecule 6: MGC83926 protein



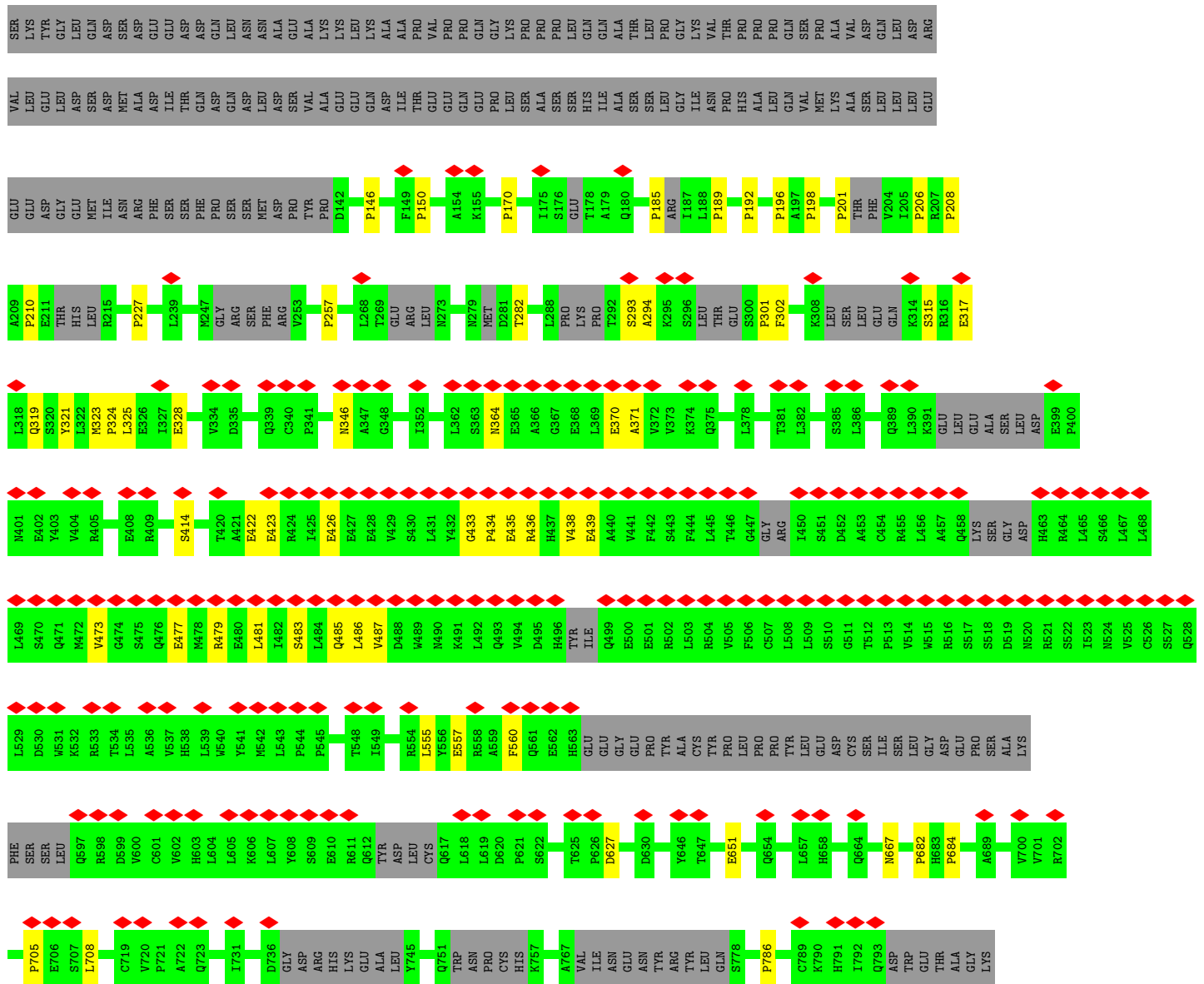


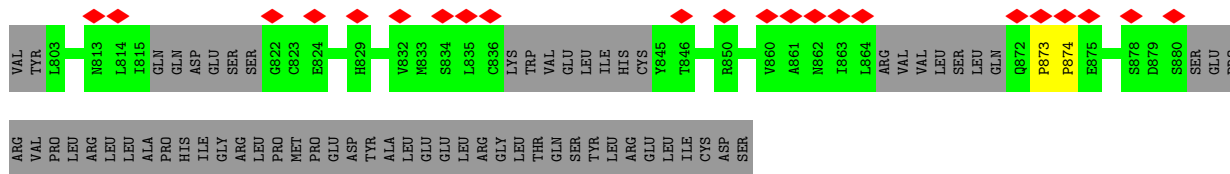
• Molecule 7: Nuclear pore complex protein Nup96



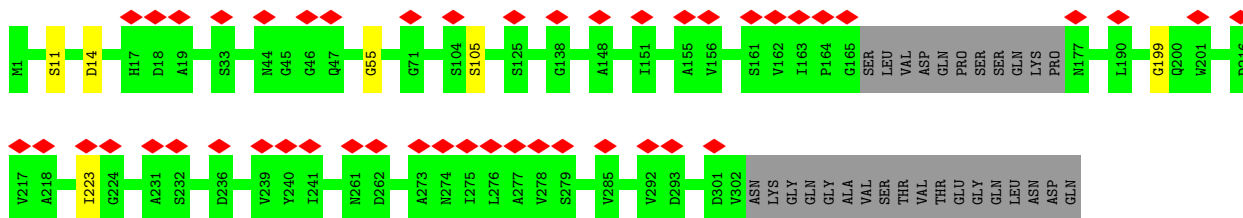
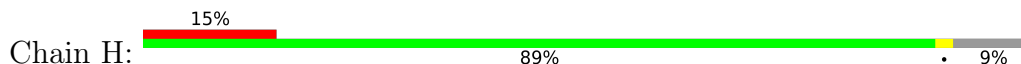


• Molecule 7: Nuclear pore complex protein Nup96

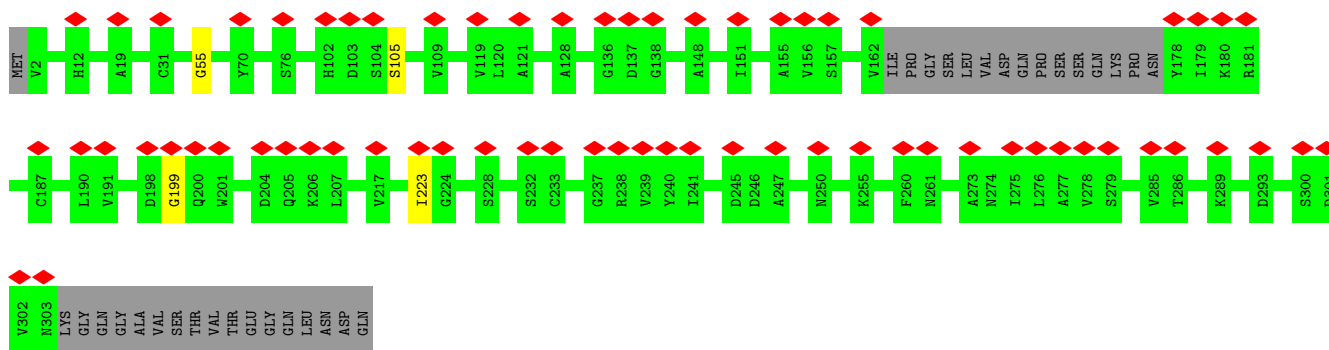
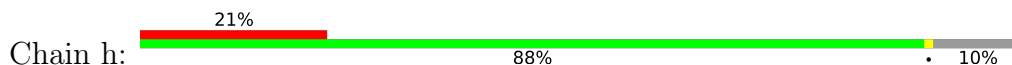




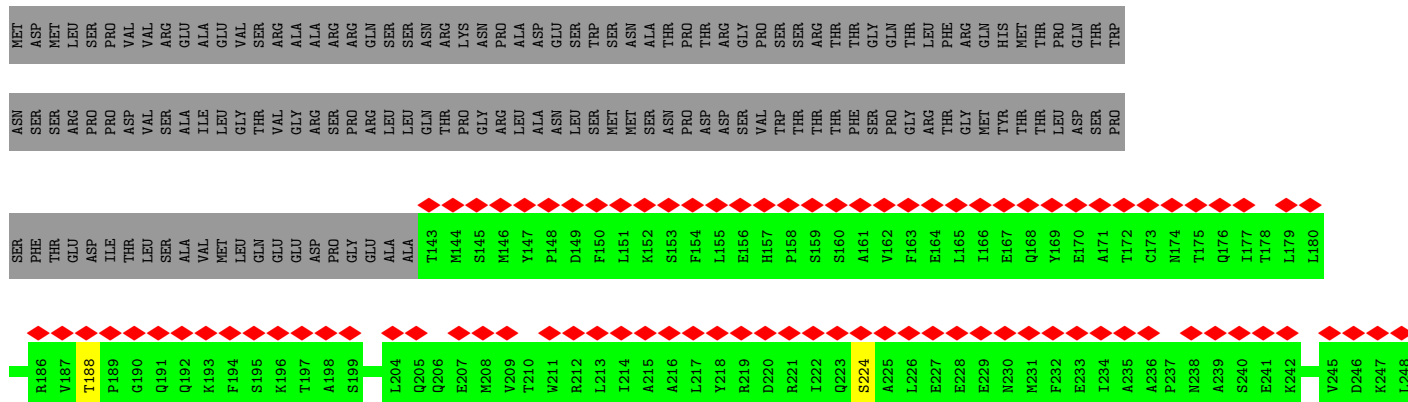
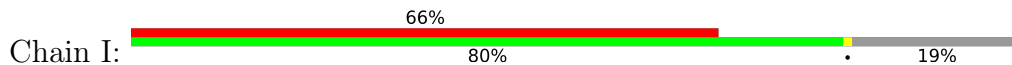
• Molecule 8: GATOR complex protein SEC13



• Molecule 8: GATOR complex protein SEC13



• Molecule 9: Nuclear pore complex protein



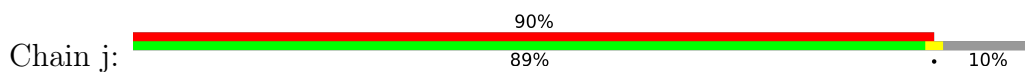






L781	A841	Q901	A961	C1021	K1081
R782	V842	P902	A962	E1022	D1082
T783	A843	A903	L963	E1023	S1083
I784	S844	S904	A964	M1024	I1084
L785	N845	H905	S965	K1025	F1085
I786	L846	H906	D966	R1026	V1086
E787	A847	G907	F967	A1027	K1087
Q788	E848	Q908	Q968	M1028	V1088
L789	K849	L909	E969	E1029	G1089
A790	Y850	A910	D970	M1030	Q1090
A791	C851	A911	V971	D1031	M1091
L792	D852	F912	L972	F1032	L1092
L793	F853	L913	Q973	M1033	P1093
N794	D854	Q914	E974	K1034	P1094
Y795	I855	A915	K975	A1035	K1095
L796	L856	HIS	V976	L1036	G1096
L797	V857	ASP	E977	D1037	L1097
D798	Q858	HIS	E978	L1038	E1098
D799	I859	L919	F979	L1039	G1099
Y800	C860	S920	A980	E1040	L1099
V801	E861	W921	E981	I1041	K1100
T802	S862	L922	E982	I1042	E1101
Q803	T863	H923	E983	G1043	Y1102
L804	D864	E924	H984	D1044	L1103
K805	N865	L925	F985	D1045	P1104
S806	Q866	N926	L986	S1046	K1105
I807	S867	Q927	L987	E1047	A1106
D808	R868	Q928	H988	V1048	E1107
K809	L869	E929	Q989	D1049	T1108
L810	Q870	F930	L989	S1050	L1109
A811	R871	E931	E990	E1051	L1110
N812	Y872	K932	T991	L1052	Q1111
E813	T873	A933	P993	L1053	S1112
L814	K874	H934	K994	K1054	E1113
R815	L875	R935	K995	L1055	I1114
Y816	F876	T936	L996	E1056	L1115
M817	A877	L937	L997	I1057	M1116
L818	E878	Q938	E998	I1058	L1117
L819	Q879	T939	E999	C1059	L1118
E820	N880	L940	K1000	A1060	K1119
M821	F881	A941	Q1001	G1061	T1120
E822	S882	N942	L1002	I1062	M1121
Y823	D883	M943	D1003	K1063	S1122
A824	F884	E944	L1004	R1064	Y1123
Q825	L885	T945	M1005	D1065	F1124
R826	F886	R946	A1006	E1066	E1125
R827	R887	Y947	M1007	W1067	F1126
S828	V888	F948	P1008	S1068	S1127
E829	Y889	C949	V1009	A1069	L1128
L830	L890	K950	L1010	T1070	K1129
L831	E891	K951	A1011	D1071	M1131
S832	K892	K952	P1012	G1072	E1132
P833	G893	L953	F1013	K1073	E1133
L834	K894	L954	Q1014	D1074	C1134
L835	R895	L955	L1015	D1075	Y1135
I836	G896	L957	I1016	P1076	M1136
L837	K897	S958	Q1017	I1077	K1137
G838	L898	K959	L1018	E1078	M1138
Q839	L899	L960	Y1019	A1079	GLN
Y840	S900		V1020	I1080	SER

• Molecule 10: outer Nup133



MET	VAL	K121	M181	G241	D301	T361
PHE	TYR	I122	I182	M242	M302	L362
PRO	LEU	S123	L183	L243	S303	V363
SER	HIS	H124	H184	S244	R304	T364
ARG	ALA	S125	E185	G245	V305	V365
ALA	ALA	S126	G186	I246	L306	K366
GLN	SER	S127	T187	G247	R307	D367
GLY	THR	A128	Y188	R248	E308	E368
MET	W70	K129	W71	R249	G309	G369
GLY	V71	L130	N72	E190	I310	V370
SER	W72	M131	Y73	S191	S311	M371
ALA	N73	V132	W74	Y192	D312	I372
ARG	N74	C133	V75	L253	A313	S373
PRO	V75	K134	Q76	F254	L314	D374
PHE	Q76	E135	L77	G255	W315	E375
ASN	L77	L136	F78	I256	G316	I376
SER	ARG	P137	G79	L257	S317	T377
ARG	LEU	L138	S80	S258	E318	V378
THR	THR	P139	S81	F259	S319	E379
GLY	GLY	L140	L82	A260	D320	V380
GLY	ARG	S141	P83	V261	Y321	T381
ARG	LYS	D142	H84	E262	Q322	Q382
LYS	ALA	S143	K85	S263	D323	F383
ALA	LEU	E144	V86	T264	I324	N384
PRO	PRO	M145	M87	L265	K325	P385
PRO	VAL	W146	E88	C266	A326	V386
VAL	THR	S147	E89	S267	G327	F387
THR	ALA	D148	L90	V268	I328	Q388
ALA	ALA	L149	S91	L269	N329	A389
SER	SER	V150	N92	W270	I330	R390
SER	PRO	D151	N93	D271	N331	G391
PRO	SER	I152	A94	L272	L332	M392
PRO	LEU	C153	A95	D274	L333	Q393
TYR	TYR	A154	D96	C275	S334	L394
SER	SER	Q155	E97	F276	L335	C395
PRO	PRO	T156	P98	Y277	N336	Q396
VAL	VAL	G157	M99	T278	Q337	L397
GLY	ARG	D158	A100	L279	N338	V398
ARG	ARG	P159	A101	T280	C339	V399
ARG	VAL	A160	C102	D281	D340	P400
VAL	SER	A161	I103	S282	G341	M401
SER	ALA	A162	H104	L283	F402	F402
ALA	ALA	Q163	E105	T284	S403	S403
ARG	ARG	S164	G106	N285	S404	S404
THR	THR	V165	G107	K286	Q405	Q405
PRO	PRO	A166	M108	W287	S346	A406
SER	SER	L167	A109	D288	A347	C407
ARG	ARG	M168	M110	L289	A408	C407
ARG	ARG	A169	L111	G229	A348	A408
ARG	ARG	A170	A112	D290	W349	L409
ARG	ARG	T171	C113	D291	Y410	Y410
ARG	ARG	P172	M114	M231	F351	F411
ARG	ARG	E173	D115	M232	G352	Q412
ARG	ARG	G174	L116	R234	D353	E413
ARG	ARG	S175	L117	V235	E294	M414
ARG	ARG	S176	I118	G236	S295	I415
ARG	ARG	R177	I119	P237	Q296	F416
ARG	ARG	Y178	I120	Q238	V297	A417
ARG	ARG	W179	P180	G239	L298	C418
ARG	ARG				N299	S419
ARG	ARG				H300	T420



G421	G422	G423	R424	S425	T426	L427	P428	Q429	E430	K431	I432	P433	F434	E435	A436	Q437	G438	D439	N440	I441	G442	G443	A444	G445	A446	C447	E448	G449	W450	P451	V452	F453	F454	I455	R456	K457	S458	G459	M460	L461	T462	V463	V464	A465	R466	E467	THR	ALA	SER	VAL	LEU	PRO	GLU	HIS	MET	GLU	GLU	SER	SER	LEU
D541	E542	L543	D544	L545	A546	V547	N548	Q549	I550	S551	V552	D553	L554	I555	D556	Y557	Y558	P559	A560	S561	D562	P563	R564	W565	A566	E567	S568	V569	P570	E571	E572	A573	S574	G575	F576	S577	N578	T579	L580	L581	I582	L583	L584	H585	Q586	L587	E588	D589	K590	M591	K592	A593	H594	S595	F596	F597	F598	D599	F600	
L601	H602	Q603	V604	G605	L606	F607	S608	R609	SER	T612	C613	Q614	T615	K616	G617	M618	L619	V620	A621	T622	R623	L624	L625	L626	S627	E628	H629	A630	E631	K632	L633	S634	A635	A636	I637	V638	L639	K640	N641	H642	H643	A644	K645	L646	P647	V648	L649	V650	N651	A652	A653	I654	Q655	L656	A657	L658	D659	K660		
R661	M662	C663	T664	V665	P666	Q667	N668	L669	T670	A671	A672	D673	V674	Y675	F676	R677	E678	V679	S680	Q681	M682	E683	I684	I685	F686	E687	C688	L689	V690	D691	K692	E693	E694	A695	D696	L697	E698	S699	T700	S701	I702	D703	S704	V705	E706	W707	A708	N709	I710	V711	V712	N713	I654	Q655	T716	I717	L718	K719	D720	
M721	L722	H723	V724	A725	C726	Q727	Y728	R729	Q730	S731	K732	M733	S734	L735	Y736	K737	N738	E739	S740	G741	I742	Q743	E744	F745	E746	H747	V748	P749	M750	T751	A752	S753	S754	G755	T756	A757	G758	I759	R760	S761	V762	V763	T764	R765	Q766	H767	G768	I769	I770	L771	K772	V773	V774	F775	Q776	A777	D778	S779	G780	
L781	R782	I783	L784	L785	L786	E787	Q788	L789	A790	A791	L792	L793	N794	Y795	L796	L797	D798	D799	Y800	V801	T802	Q803	L804	K805	S806	I807	D808	K809	L810	A811	N812	E813	E814	R815	Y816	M817	L818	L819	E820	M821	E822	Y823	A824	Q825	K826	R827	S828	E829	L830	L831	S832	P833	L834	L835	G836	L837	G838	Q839	E840	
A841	W842	A843	S844	N845	L846	A847	E848	K849	Y850	C851	D852	F853	D854	L855	L856	Q858	C860	E861	M862	T863	D864	M865	Q866	S867	R868	L869	F870	L871	Y872	M873	T874	L875	F876	A877	E878	Q879	N880	F881	S882	D883	F884	L885	F886	R887	W888	Y889	K890	K891	K892	G893	L894	L895	G896	K897	L898	L899	S900			
Q901	P902	ALA	SER	GLN	H906	G907	Q908	L909	A910	A911	F912	L913	Q914	A915	H916	D917	H918	L919	S920	N921	L922	H923	E924	L925	N926	S927	Q928	E929	F930	K931	K932	A933	H934	R935	T936	L937	Q938	T939	L940	A941	N942	A943	E944	T945	R946	Y947	F948	C949	K950	L951	K952	T953	L954	L955	G956	L957	S958	K959	L960	
A961	A962	L963	A964	S965	D966	F967	Q968	E969	A970	A971	L972	Q973	E974	K975	V976	E977	E978	I979	A980	E981	Q982	E983	H984	F985	A986	L987	H988	Q989	E990	T991	L992	P993	K994	K995	L996	L997	E998	E999	K1000	Q1001	L1002	D1003	L1004	M1005	A1006	M1007	P1008	V1009	L1010	A1011	P1012	F1013	Q1014	L1015	I1016	Q1017	L1018	Y1019	V1020	
C1021	E1022	E1023	M1024	K1025	R1026	A1027	M1028	E1029	M1030	D1031	F1032	M1033	K1034	A1035	L1036	D1037	L1038	L1039	E1040	Y1041	I1042	G1043	D1044	D1045	S1046	E1047	V1048	L1049	V1050	E1051	E1052	L1053	K1054	L1055	E1056	I1057	L1058	C1059	K1060	Q1061	I1062	K1063	R1064	M1065	D1066	W1067	S1068	A1069	T1070	D1071	G1072	K1073	D1074	D1075	P1076	I1077	E1078	A1079	T1080	
K1081	D1082	S1083	I1084	F1085	V1086	K1087	V1088	Q1089	L1090	N1091	L1092	M1093	N1094	K1095	G1096	I1097	E1098	L1099	K1100	G1101	Y1102	L1103	P1104	K1105	A1106	E1107	T1108	L1109	L1110	Q1111	S1112	E1113	I1114	L1115	N1116	S1117	L1118	K1119	T1120	N1121	S1122	Y1123	F1124	E1125	F1126	S1127	L1128	K1129	A1130	N1131	Y1132	E1133	C1134	Y1135	M1136	K1137	M1138	Q1139	SER	

● Molecule 11: Nup358 complex, clamps



















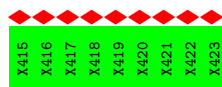
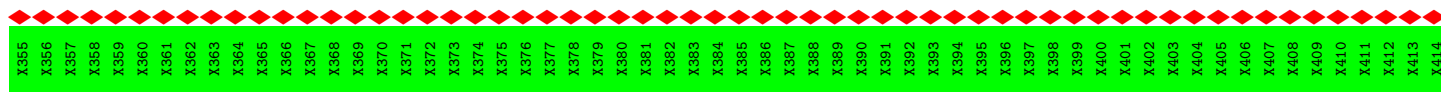




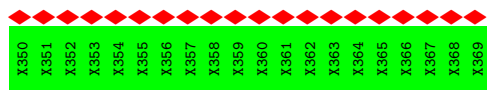
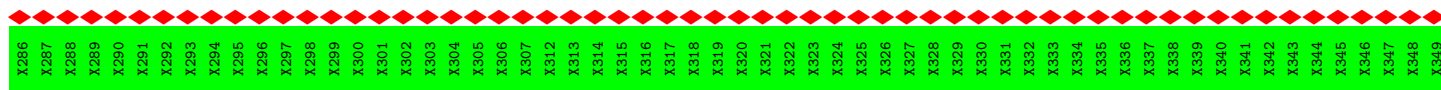


ILE	THR	GLY	ASP	TYR	GLU
VAL	SER	GLU	ASP	TYR	LEU
TRP	SER	VAL	HIS	ARG	THR
GLU	PRO	SER	HIS	VAL	THR
LYS	GLU	VAL	PHE	LEU	VAL
LYS	ALA	GLY	GLU	MET	SER
PRO	ALA	VAL	PRO	ARG	PHE
THR	ILE	PHE	ILE	ARG	GLN
PRO	VAL	ALA	VAL	ASP	ASN
GLU	SER	ASP	SER	GLN	PHE
LEU	ALA	LEU	LEU	VAL	GLU
LYS	GLU	ALA	PRO	LEU	GLY
LYS	THR	THR	VAL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

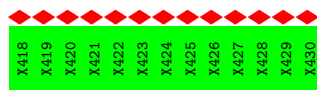
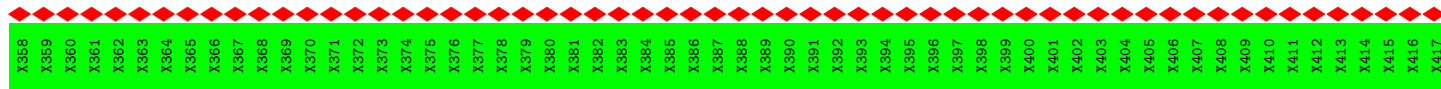
• Molecule 12: Nup214 complex Coiled-coil region 1, helix 1



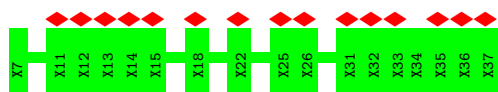
• Molecule 13: Nup214 complex coiled coil region 1, helix 2



• Molecule 14: Nup214 complex coiled coil region 1, helix 3



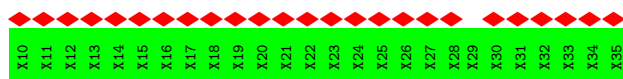
• Molecule 15: Nup214 complex Coiled coil region 2, helix 1



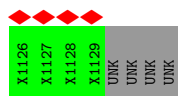
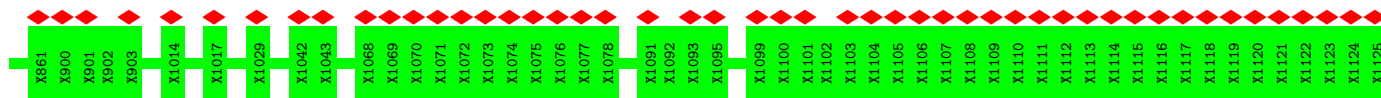
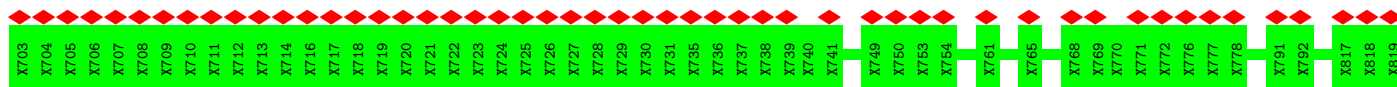
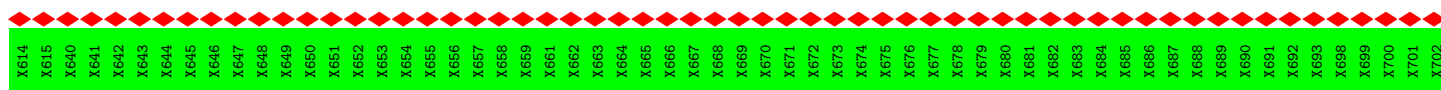
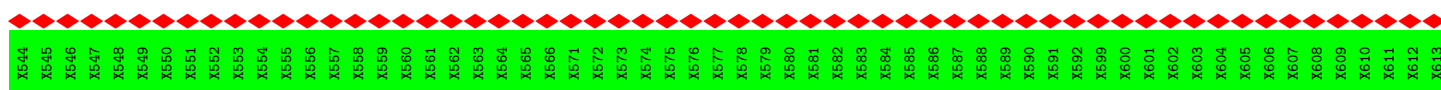
- Molecule 16: Nup214 complex Coiled coil region 2, helix 2



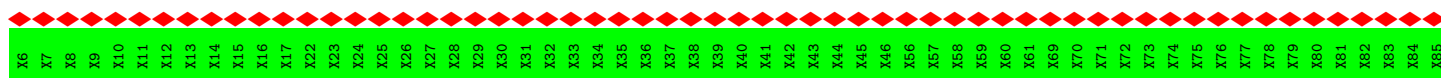
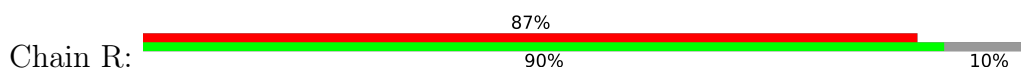
- Molecule 17: Nup214 complex Coiled coil region 2, helix 3



- Molecule 18: bridge domain



- Molecule 18: bridge domain



UNK	X86
UNK	X87
UNK	X88
UNK	X89
UNK	X90
UNK	X91
UNK	X92
UNK	X93
UNK	X94
UNK	X95
UNK	X96
UNK	X97
UNK	X98
UNK	X99
UNK	X100
UNK	X101
UNK	X102
UNK	X103
UNK	X104
UNK	X105
UNK	X106
UNK	X107
UNK	X108
UNK	X109
UNK	X110
UNK	X111
UNK	X112
UNK	X113
UNK	X114
UNK	X115
UNK	X116
UNK	X117
UNK	X118
UNK	X119
UNK	X120
UNK	X121
UNK	X122
UNK	X123
UNK	X124
UNK	X125
UNK	X126
UNK	X127
UNK	X128
UNK	X129
UNK	X130
UNK	X131
UNK	X132
UNK	X133
UNK	X134
UNK	X135
UNK	X136
UNK	X137
UNK	X138
UNK	X139
UNK	X140
UNK	X141
UNK	X142
UNK	X143
UNK	X144
UNK	X145
UNK	X152
UNK	X153
UNK	X154
UNK	X155
UNK	X156
UNK	X157
UNK	X158
UNK	X159
UNK	X160
UNK	X161
UNK	X162
UNK	X163
UNK	X164
UNK	X165
UNK	X166
UNK	X167
UNK	X168
UNK	X169
UNK	X170
UNK	X171
UNK	X172
UNK	X173
UNK	X174
UNK	X175
UNK	X176
UNK	X177
UNK	X178
UNK	X183
UNK	X184
UNK	X185
UNK	X186
UNK	X187
UNK	X188
UNK	X189
UNK	X190
UNK	X191
UNK	X192
UNK	X193
UNK	X194
UNK	X195
UNK	X196
UNK	X197
UNK	X198
UNK	X199
UNK	X200
UNK	X201
UNK	X211
UNK	X212
UNK	X213
UNK	X214
UNK	X215
UNK	X216
UNK	X217
UNK	X219
UNK	X220
UNK	X221
UNK	X222
UNK	X223
UNK	X224
UNK	X225
UNK	X226
UNK	X227
UNK	X228
UNK	X229
UNK	X230
UNK	X231
UNK	X232
UNK	X233
UNK	X234
UNK	X235
UNK	X245
UNK	X246
UNK	X247
UNK	X248
UNK	X249
UNK	X250
UNK	X251
UNK	X252
UNK	X253
UNK	X254
UNK	X255
UNK	X256
UNK	X257
UNK	X258
UNK	X259
UNK	X260
UNK	X261
UNK	X262
UNK	X263
UNK	X264
UNK	X265
UNK	X266
UNK	X267
UNK	X268
UNK	X269
UNK	X270
UNK	X271
UNK	X272
UNK	X273
UNK	X274
UNK	X275
UNK	X276
UNK	X277
UNK	X278
UNK	X279
UNK	X280
UNK	X281
UNK	X282
UNK	X284
UNK	X285
UNK	X286
UNK	X287
UNK	X288
UNK	X289
UNK	X290
UNK	X299
UNK	X300
UNK	X301
UNK	X302
UNK	X303
UNK	X304
UNK	X305
UNK	X306
UNK	X307
UNK	X308
UNK	X309
UNK	X310
UNK	X311
UNK	X312
UNK	X313
UNK	X314
UNK	X315
UNK	X316
UNK	X317
UNK	X319
UNK	X320
UNK	X321
UNK	X322
UNK	X323
UNK	X324
UNK	X325
UNK	X326
UNK	X327
UNK	X328
UNK	X329
UNK	X330
UNK	X331
UNK	X332
UNK	X333
UNK	X334
UNK	X335
UNK	X336
UNK	X337
UNK	X338
UNK	X339
UNK	X340
UNK	X341
UNK	X342
UNK	X343
UNK	X345
UNK	X346
UNK	X347
UNK	X348
UNK	X349
UNK	X350
UNK	X351
UNK	X352
UNK	X353
UNK	X354
UNK	X355
UNK	X356
UNK	X357
UNK	X358
UNK	X359
UNK	X360
UNK	X361
UNK	X362
UNK	X363
UNK	X364
UNK	X365
UNK	X366
UNK	X367
UNK	X369
UNK	X373
UNK	X374
UNK	X375
UNK	X376
UNK	X377
UNK	X378
UNK	X379
UNK	X380
UNK	X385
UNK	X386
UNK	X387
UNK	X416
UNK	X417
UNK	X418
UNK	X419
UNK	X420
UNK	X421
UNK	X422
UNK	X423
UNK	X424
UNK	X425
UNK	X426
UNK	X427
UNK	X428
UNK	X430
UNK	X431
UNK	X432
UNK	X433
UNK	X434
UNK	X435
UNK	X436
UNK	X437
UNK	X438
UNK	X439
UNK	X440
UNK	X441
UNK	X442
UNK	X443
UNK	X444
UNK	X445
UNK	X446
UNK	X447
UNK	X448
UNK	X449
UNK	X451
UNK	X452
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK
UNK	UNK

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	616547	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	75	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.151	Depositor
Minimum map value	-0.091	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.03	Depositor
Map size (Å)	568.832, 568.832, 568.832	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.222, 2.222, 2.222	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.46	0/6901	0.77	0/9542
1	a	0.51	0/6275	0.94	0/8703
2	B	0.33	0/2623	0.56	0/3634
2	b	0.31	0/2555	0.55	0/3534
3	C	0.47	0/1150	0.72	0/1427
3	c	0.45	0/1160	0.70	0/1436
4	D	0.69	0/1516	1.11	0/2108
4	d	0.70	0/1446	1.13	0/2009
5	E	0.57	0/5091	1.06	0/7076
5	e	0.57	0/5486	1.07	0/7634
6	F	0.64	0/1413	1.09	0/1949
6	f	0.64	0/1423	1.10	0/1963
7	G	0.42	0/3046	0.73	14/4220 (0.3%)
7	g	0.42	0/2986	0.72	17/4127 (0.4%)
8	H	0.67	0/1417	1.05	0/1959
8	h	0.67	0/1411	1.06	0/1959
9	I	0.53	0/3662	0.96	0/5104
9	i	0.53	0/3607	0.97	0/5027
10	J	0.61	0/5079	1.09	0/7074
10	j	0.61	0/5084	1.08	0/7081
11	S	0.38	0/832	0.90	0/1149
11	T	0.38	0/832	0.90	0/1149
11	U	0.38	0/853	0.90	0/1181
11	V	0.38	0/832	0.90	0/1149
All	All	0.53	0/66680	0.94	31/92194 (0.0%)

There are no bond length outliers.

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	G	198	PRO	N-CA-CB	6.55	111.16	103.30
7	G	146	PRO	N-CA-CB	6.06	110.58	103.30
7	G	134	PRO	N-CA-CB	6.02	110.52	103.30

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	g	146	PRO	N-CA-CB	6.01	110.52	103.30
7	G	189	PRO	N-CA-CB	6.01	110.51	103.30
7	G	227	PRO	N-CA-CB	6.01	110.51	103.30
7	g	189	PRO	N-CA-CB	6.00	110.50	103.30
7	G	170	PRO	N-CA-CB	6.00	110.50	103.30
7	G	201	PRO	N-CA-CB	5.99	110.49	103.30
7	g	874	PRO	N-CA-CB	5.99	110.49	103.30
7	g	206	PRO	N-CA-CB	5.99	110.49	103.30
7	g	227	PRO	N-CA-CB	5.98	110.48	103.30
7	g	192	PRO	N-CA-CB	5.97	110.46	103.30
7	G	185	PRO	N-CA-CB	5.96	110.45	103.30
7	g	208	PRO	N-CA-CB	5.96	110.45	103.30
7	g	198	PRO	N-CA-CB	5.96	110.45	103.30
7	g	786	PRO	N-CA-CB	5.94	110.43	103.30
7	g	210	PRO	N-CA-CB	5.94	110.42	103.30
7	g	873	PRO	N-CA-CB	5.94	110.42	103.30
7	g	196	PRO	N-CA-CB	5.93	110.42	103.30
7	g	185	PRO	N-CA-CB	5.92	110.41	103.30
7	G	139	PRO	N-CA-CB	5.92	110.40	103.30
7	G	192	PRO	N-CA-CB	5.91	110.39	103.30
7	g	170	PRO	N-CA-CB	5.91	110.39	103.30
7	g	257	PRO	N-CA-CB	5.90	110.38	103.30
7	g	201	PRO	N-CA-CB	5.90	110.38	103.30
7	G	786	PRO	N-CA-CB	5.89	110.37	103.30
7	G	257	PRO	N-CA-CB	5.86	110.33	103.30
7	G	196	PRO	N-CA-CB	5.84	110.31	103.30
7	G	141	PRO	N-CA-CB	5.81	110.27	103.30
7	g	150	PRO	N-CA-CB	5.79	110.25	103.30

There are no chirality outliers.

There are no planarity outliers.

## 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

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1343/2011 (67%)	1264 (94%)	50 (4%)	29 (2%)	6	35
1	a	1210/2011 (60%)	1131 (94%)	53 (4%)	26 (2%)	7	36
2	B	500/653 (77%)	471 (94%)	18 (4%)	11 (2%)	6	35
2	b	481/653 (74%)	454 (94%)	15 (3%)	12 (2%)	5	32
3	C	277/375 (74%)	211 (76%)	65 (24%)	1 (0%)	34	72
3	c	276/375 (74%)	212 (77%)	63 (23%)	1 (0%)	34	72
4	D	301/322 (94%)	275 (91%)	20 (7%)	6 (2%)	7	37
4	d	285/322 (88%)	261 (92%)	20 (7%)	4 (1%)	11	45
5	E	998/1435 (70%)	900 (90%)	71 (7%)	27 (3%)	5	31
5	e	1087/1435 (76%)	967 (89%)	87 (8%)	33 (3%)	4	28
6	F	269/326 (82%)	244 (91%)	17 (6%)	8 (3%)	4	28
6	f	271/326 (83%)	245 (90%)	18 (7%)	8 (3%)	4	28
7	G	582/923 (63%)	473 (81%)	56 (10%)	53 (9%)	1	11
7	g	559/923 (61%)	475 (85%)	39 (7%)	45 (8%)	1	12
8	H	287/320 (90%)	257 (90%)	24 (8%)	6 (2%)	7	36
8	h	283/320 (88%)	255 (90%)	24 (8%)	4 (1%)	11	45
9	I	726/916 (79%)	692 (95%)	28 (4%)	6 (1%)	19	59
9	i	715/916 (78%)	681 (95%)	27 (4%)	7 (1%)	15	53
10	J	1014/1140 (89%)	925 (91%)	69 (7%)	20 (2%)	7	37
10	j	1015/1140 (89%)	930 (92%)	67 (7%)	18 (2%)	8	40
11	S	153/2905 (5%)	146 (95%)	2 (1%)	5 (3%)	4	26
11	T	153/2905 (5%)	146 (95%)	2 (1%)	5 (3%)	4	26
11	U	161/2905 (6%)	148 (92%)	9 (6%)	4 (2%)	5	32
11	V	153/2905 (5%)	146 (95%)	2 (1%)	5 (3%)	4	26
All	All	13099/28462 (46%)	11909 (91%)	846 (6%)	344 (3%)	8	31

All (344) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	227	SER
1	A	228	LEU
1	A	239	THR
1	A	586	ILE
1	A	696	GLU
1	A	698	TYR
1	A	726	ALA
1	A	727	PRO
1	A	831	ALA
1	A	832	PRO
1	A	909	LEU
1	A	1048	VAL
1	A	1247	ILE
1	A	1646	GLN
1	A	1713	GLN
2	B	383	GLN
2	B	569	CYS
2	B	589	ILE
3	C	139	PRO
4	D	94	ASN
4	D	164	SER
5	E	451	SER
5	E	896	PRO
5	E	953	PRO
6	F	43	TYR
6	F	119	VAL
6	F	308	LEU
7	G	198	PRO
7	G	288	LEU
7	G	293	SER
7	G	294	ALA
7	G	295	LYS
7	G	309	LEU
7	G	322	LEU
7	G	347	ALA
7	G	422	GLU
7	G	423	GLU
7	G	426	GLU
7	G	438	VAL
7	G	473	VAL
7	G	616	CYS
7	G	667	ASN

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	G	682	PRO
7	G	686	ILE
7	G	708	LEU
8	H	14	ASP
9	I	188	THR
9	I	224	SER
9	I	323	LYS
10	J	252	THR
10	J	538	GLU
10	J	561	SER
10	J	567	GLU
10	J	574	ALA
10	J	609	ARG
10	J	666	PRO
10	J	851	CYS
10	J	1066	GLU
11	S	59	ASP
11	S	90	ASN
11	S	92	THR
11	S	179	GLN
11	T	59	ASP
11	T	90	ASN
11	T	92	THR
11	T	179	GLN
11	U	23	ARG
11	U	92	THR
11	V	59	ASP
11	V	90	ASN
11	V	92	THR
11	V	179	GLN
1	a	239	THR
1	a	454	LEU
1	a	582	PRO
1	a	586	ILE
1	a	636	PRO
1	a	1244	MET
1	a	1247	ILE
1	a	1250	ARG
1	a	1296	PRO
1	a	1305	ARG
2	b	52	PRO
2	b	383	GLN

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	b	569	CYS
2	b	589	ILE
4	d	164	SER
5	e	451	SER
5	e	896	PRO
5	e	953	PRO
5	e	1141	VAL
6	f	43	TYR
6	f	119	VAL
6	f	308	LEU
7	g	282	THR
7	g	294	ALA
7	g	302	PHE
7	g	315	SER
7	g	321	TYR
7	g	323	MET
7	g	422	GLU
7	g	423	GLU
7	g	426	GLU
7	g	438	VAL
7	g	473	VAL
7	g	486	LEU
7	g	487	VAL
7	g	627	ASP
7	g	667	ASN
7	g	682	PRO
7	g	684	PRO
7	g	708	LEU
9	i	188	THR
9	i	224	SER
9	i	323	LYS
10	j	252	THR
10	j	538	GLU
10	j	561	SER
10	j	567	GLU
10	j	574	ALA
10	j	609	ARG
10	j	666	PRO
10	j	1066	GLU
1	A	1274	LEU
2	B	93	SER
2	B	319	PRO

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	D	176	ARG
5	E	83	ALA
5	E	266	LEU
5	E	331	SER
6	F	19	VAL
6	F	89	LEU
6	F	218	VAL
7	G	433	GLY
7	G	434	PRO
7	G	439	GLU
7	G	479	ARG
7	G	481	LEU
7	G	483	SER
7	G	560	PHE
7	G	615	LEU
8	H	11	SER
8	H	105	SER
8	H	223	ILE
10	J	575	GLY
1	a	159	THR
1	a	535	GLY
1	a	635	ILE
2	b	93	SER
2	b	319	PRO
4	d	176	ARG
4	d	220	ASP
5	e	83	ALA
5	e	186	ILE
5	e	266	LEU
5	e	331	SER
5	e	1142	SER
6	f	19	VAL
6	f	89	LEU
6	f	218	VAL
7	g	328	GLU
7	g	371	ALA
7	g	433	GLY
7	g	434	PRO
7	g	439	GLU
7	g	479	ARG
7	g	481	LEU
7	g	483	SER

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	g	560	PHE
8	h	105	SER
8	h	223	ILE
10	j	575	GLY
1	A	58	PRO
1	A	303	ASP
1	A	751	ARG
1	A	995	LYS
1	A	1712	ARG
2	B	97	GLN
5	E	122	ASN
5	E	232	PRO
5	E	329	PRO
5	E	442	PRO
5	E	483	ARG
5	E	486	SER
5	E	566	GLY
5	E	1171	GLU
7	G	289	PRO
7	G	291	PRO
7	G	311	LEU
7	G	346	ASN
7	G	364	ASN
7	G	371	ALA
7	G	435	GLU
7	G	436	ARG
7	G	542	MET
7	G	651	GLU
8	H	199	GLY
9	I	460	ILE
10	J	560	ALA
10	J	571	GLU
10	J	742	ILE
10	J	751	THR
10	J	852	ASP
11	U	91	PRO
1	a	58	PRO
1	a	162	HIS
1	a	303	ASP
1	a	545	ALA
2	b	97	GLN
2	b	126	THR

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	e	122	ASN
5	e	232	PRO
5	e	329	PRO
5	e	442	PRO
5	e	483	ARG
5	e	486	SER
5	e	566	GLY
5	e	1069	ASP
5	e	1171	GLU
7	g	317	GLU
7	g	319	GLN
7	g	364	ASN
7	g	435	GLU
7	g	436	ARG
7	g	651	GLU
8	h	199	GLY
9	i	460	ILE
10	j	560	ALA
10	j	571	GLU
10	j	742	ILE
10	j	751	THR
1	A	44	LYS
1	A	286	GLN
1	A	717	PRO
1	A	830	TYR
1	A	1045	ALA
2	B	130	TYR
2	B	353	PHE
2	B	430	ARG
4	D	220	ASP
5	E	159	GLN
5	E	244	PRO
5	E	444	PRO
5	E	484	LYS
5	E	565	LYS
5	E	598	ASP
5	E	1069	ASP
5	E	1110	LEU
6	F	135	PRO
7	G	146	PRO
7	G	290	LYS
7	G	314	LYS

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	G	370	GLU
7	G	477	GLU
7	G	555	LEU
7	G	705	PRO
8	H	55	GLY
9	I	513	ALA
1	a	44	LYS
1	a	160	LEU
1	a	286	GLN
2	b	125	GLU
2	b	353	PHE
5	e	159	GLN
5	e	244	PRO
5	e	444	PRO
5	e	484	LYS
5	e	565	LYS
5	e	598	ASP
5	e	1110	LEU
5	e	1139	GLN
6	f	135	PRO
7	g	293	SER
7	g	301	PRO
7	g	346	ASN
7	g	370	GLU
7	g	477	GLU
7	g	485	GLN
7	g	555	LEU
7	g	705	PRO
8	h	55	GLY
9	i	513	ALA
1	A	76	PRO
1	A	502	LEU
2	B	65	SER
2	B	127	ALA
4	D	199	ILE
5	E	124	VAL
5	E	272	PRO
5	E	784	ALA
5	E	865	LEU
7	G	341	PRO
7	G	612	GLN
7	G	613	TYR

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	G	617	GLN
10	J	570	PRO
1	a	76	PRO
1	a	547	GLY
2	b	65	SER
5	e	124	VAL
5	e	272	PRO
5	e	784	ALA
5	e	866	TRP
7	g	324	PRO
7	g	325	LEU
7	g	414	SER
10	j	301	ASP
10	j	570	PRO
4	D	81	ARG
6	F	25	ASN
7	G	279	ASN
7	G	280	MET
7	G	414	SER
7	G	557	GLU
10	J	301	ASP
10	J	536	ASP
10	J	1103	LEU
4	d	81	ARG
5	e	197	ASP
6	f	25	ASN
7	g	557	GLU
10	j	536	ASP
10	j	1103	LEU
5	E	275	ILE
10	J	605	GLY
1	a	119	GLN
1	a	128	GLY
1	a	536	GLY
5	e	177	ILE
5	e	275	ILE
9	i	183	ILE
10	j	605	GLY
1	A	400	MET
1	a	400	MET
7	G	195	VAL
7	G	545	PRO

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
11	S	129	PRO
11	T	129	PRO
11	U	129	PRO
11	V	129	PRO
2	b	482	GLY
3	c	216	PRO
9	I	274	GLY
9	i	274	GLY

### 5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

### 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](#)

There are no ligands in this entry.

### 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
18	Q	21
18	R	18
13	L	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	R	235:UNK	C	245:UNK	N	21.64
1	Q	861:UNK	C	900:UNK	N	21.11
1	R	387:UNK	C	416:UNK	N	18.78
1	Q	1112:UNK	C	1113:UNK	N	18.48
1	R	198:UNK	C	210:UNK	N	17.94
1	Q	1076:UNK	C	1077:UNK	N	17.45
1	Q	693:UNK	C	698:UNK	N	17.08
1	R	290:UNK	C	299:UNK	N	16.87
1	R	177:UNK	C	183:UNK	N	16.41
1	Q	1056:UNK	C	1057:UNK	N	15.19
1	Q	1016:UNK	C	1017:UNK	N	14.44
1	Q	731:UNK	C	735:UNK	N	13.78
1	Q	592:UNK	C	599:UNK	N	13.32
1	L	307:UNK	C	312:UNK	N	13.26
1	Q	1029:UNK	C	1030:UNK	N	12.80
1	Q	916:UNK	C	1011:UNK	N	12.52
1	Q	1040:UNK	C	1041:UNK	N	12.26
1	Q	1093:UNK	C	1095:UNK	N	12.08
1	R	17:UNK	C	22:UNK	N	11.85
1	Q	714:UNK	C	716:UNK	N	9.51
1	Q	750:UNK	C	753:UNK	N	9.51
1	Q	566:UNK	C	571:UNK	N	9.34
1	Q	819:UNK	C	828:UNK	N	8.54
1	Q	772:UNK	C	776:UNK	N	7.99
1	R	46:UNK	C	56:UNK	N	7.67
1	Q	837:UNK	C	846:UNK	N	7.48
1	Q	615:UNK	C	640:UNK	N	6.57
1	R	61:UNK	C	69:UNK	N	5.86
1	R	143:UNK	C	151:UNK	N	4.88
1	R	217:UNK	C	219:UNK	N	4.68
1	R	282:UNK	C	284:UNK	N	4.67
1	R	449:UNK	C	451:UNK	N	4.52
1	R	428:UNK	C	430:UNK	N	4.18
1	R	354:UNK	C	356:UNK	N	4.11
1	R	343:UNK	C	345:UNK	N	3.88
1	R	367:UNK	C	369:UNK	N	3.59
1	Q	794:UNK	C	797:UNK	N	3.52

*Continued on next page...*

*Continued from previous page...*

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Q	659:UNK	C	661:UNK	N	3.49
1	R	317:UNK	C	319:UNK	N	3.37
1	R	451:UNK	C	452:UNK	N	3.13

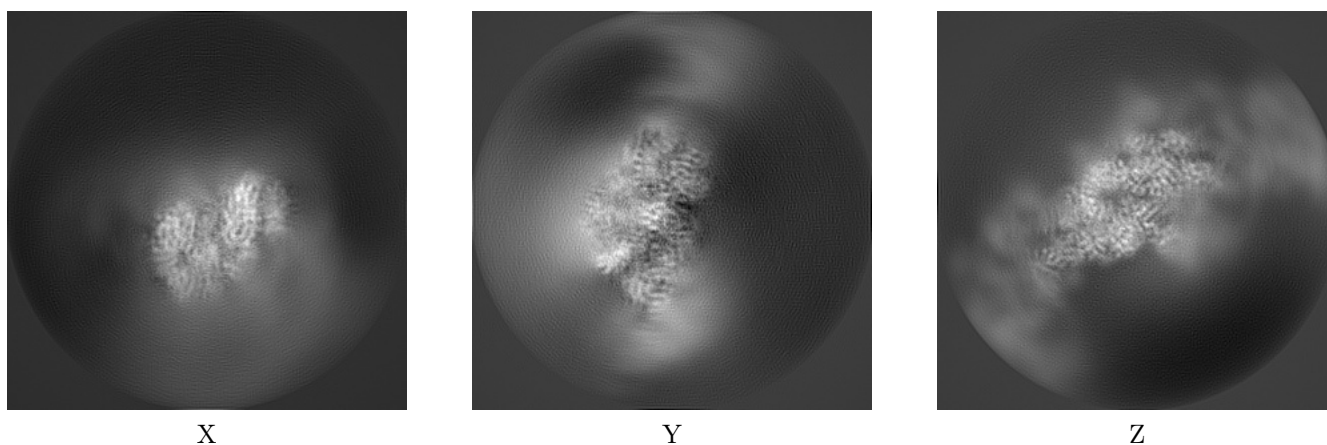
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-0909. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

### 6.1 Orthogonal projections [i](#)

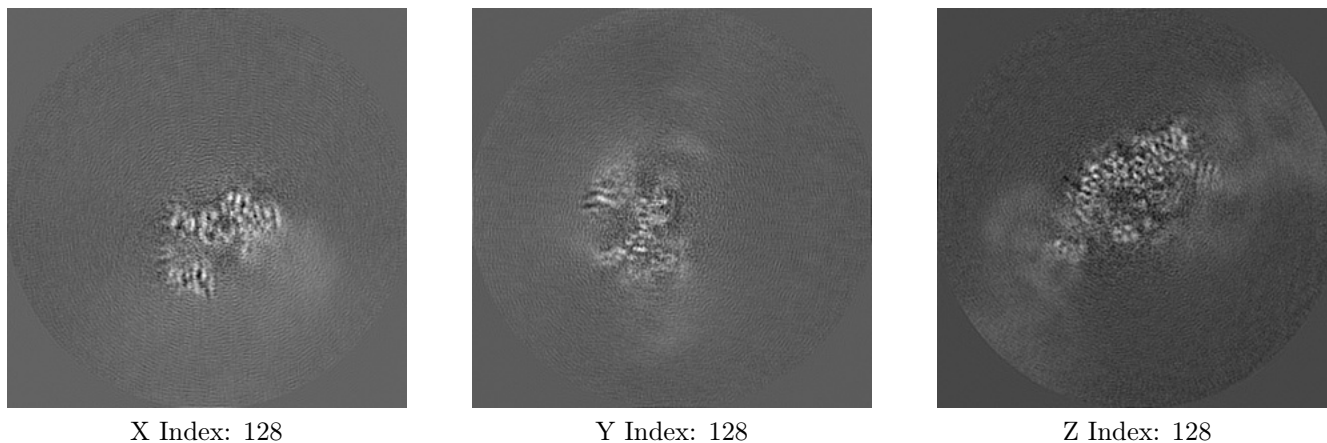
#### 6.1.1 Primary map



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

### 6.2 Central slices [i](#)

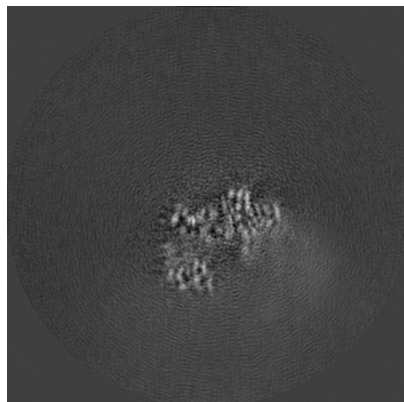
#### 6.2.1 Primary map



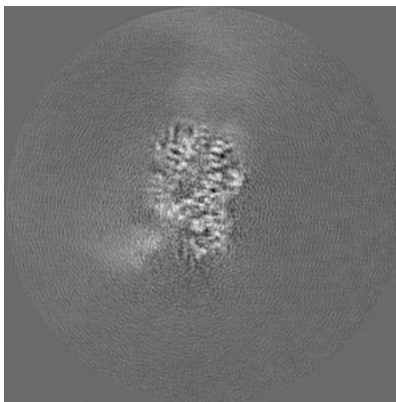
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

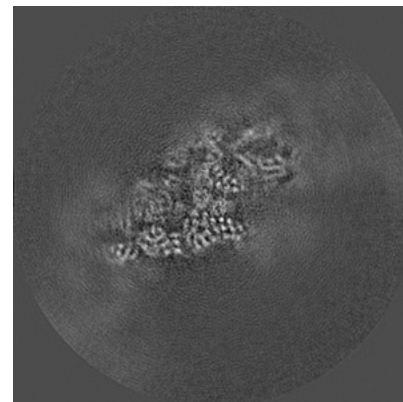
### 6.3.1 Primary map



X Index: 127



Y Index: 152

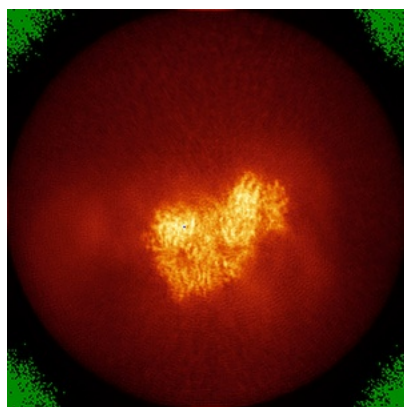


Z Index: 117

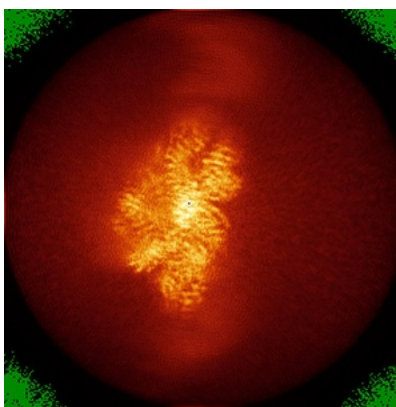
The images above show the largest variance slices of the map in three orthogonal directions.

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

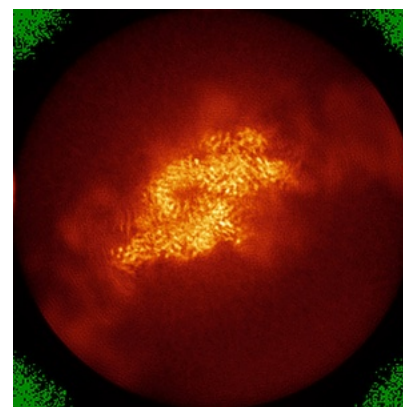
### 6.4.1 Primary map



X



Y

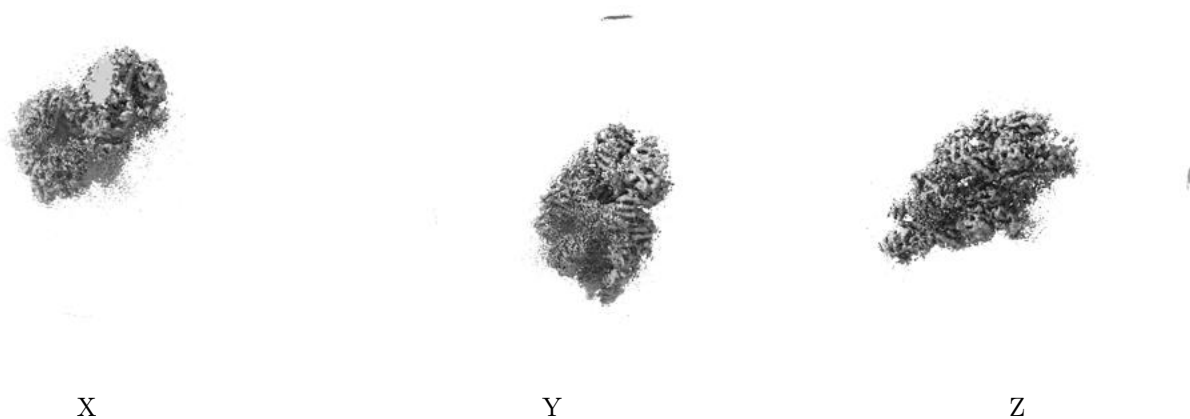


Z

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

## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.03. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

## 6.6 Mask visualisation [i](#)

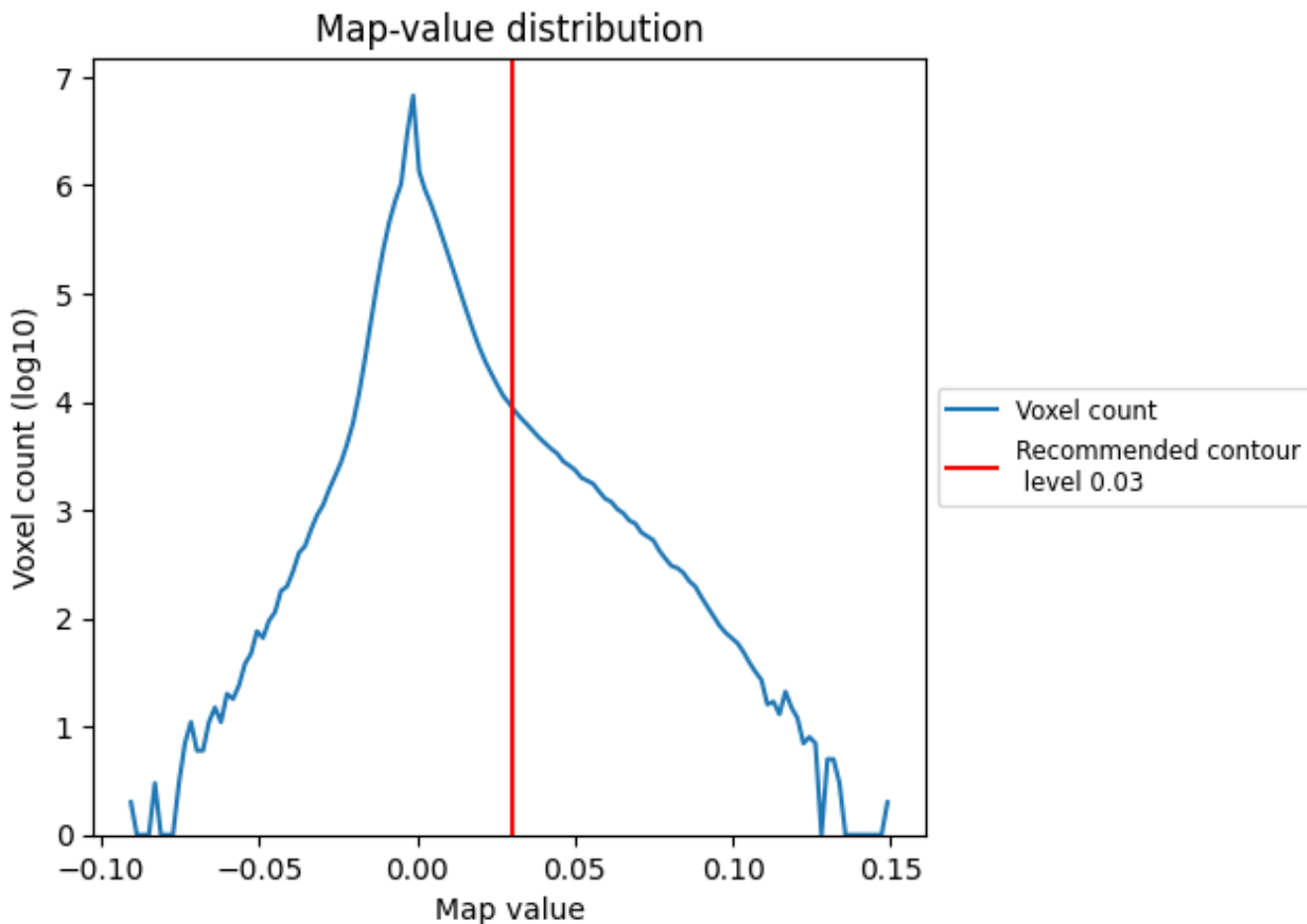
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

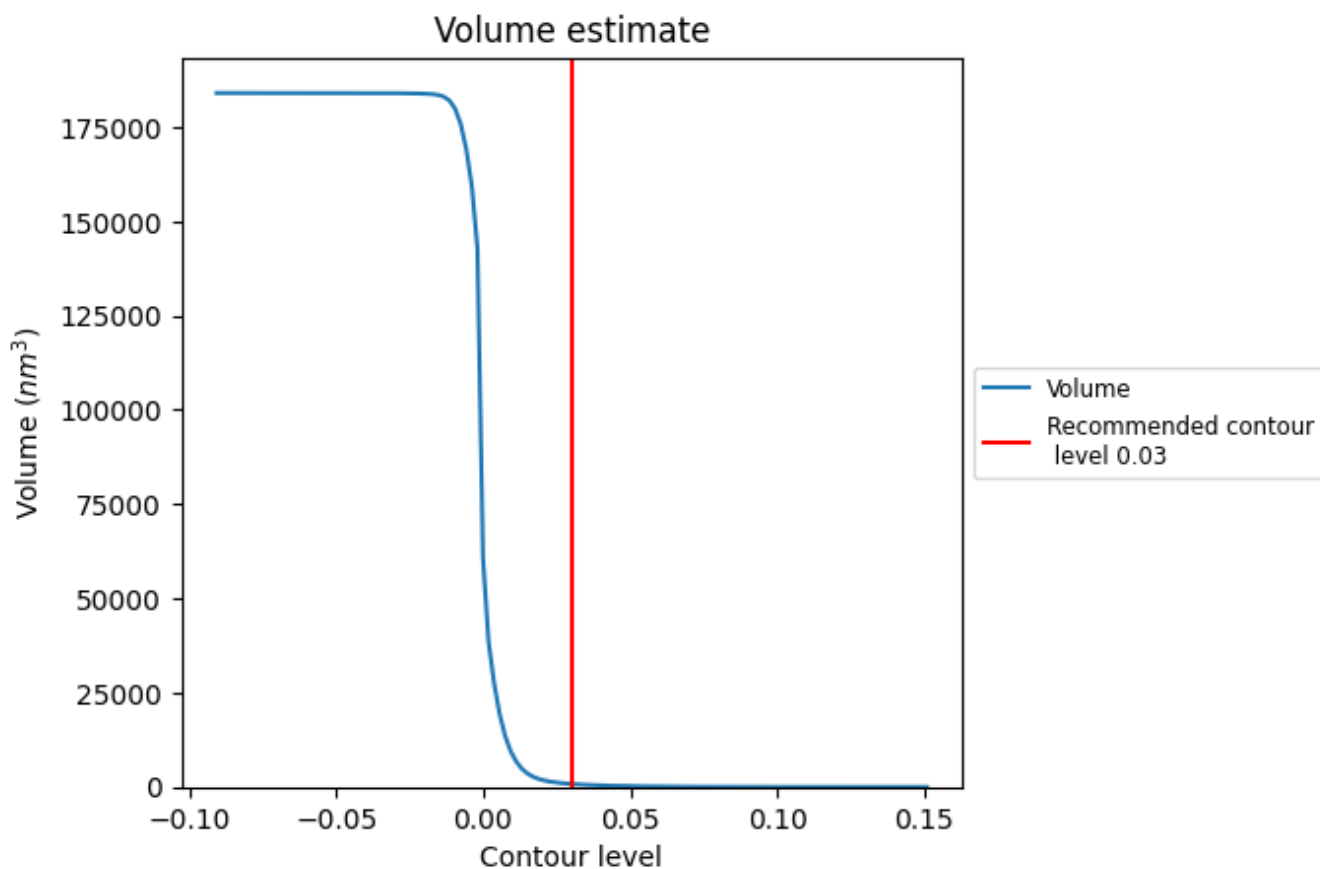
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

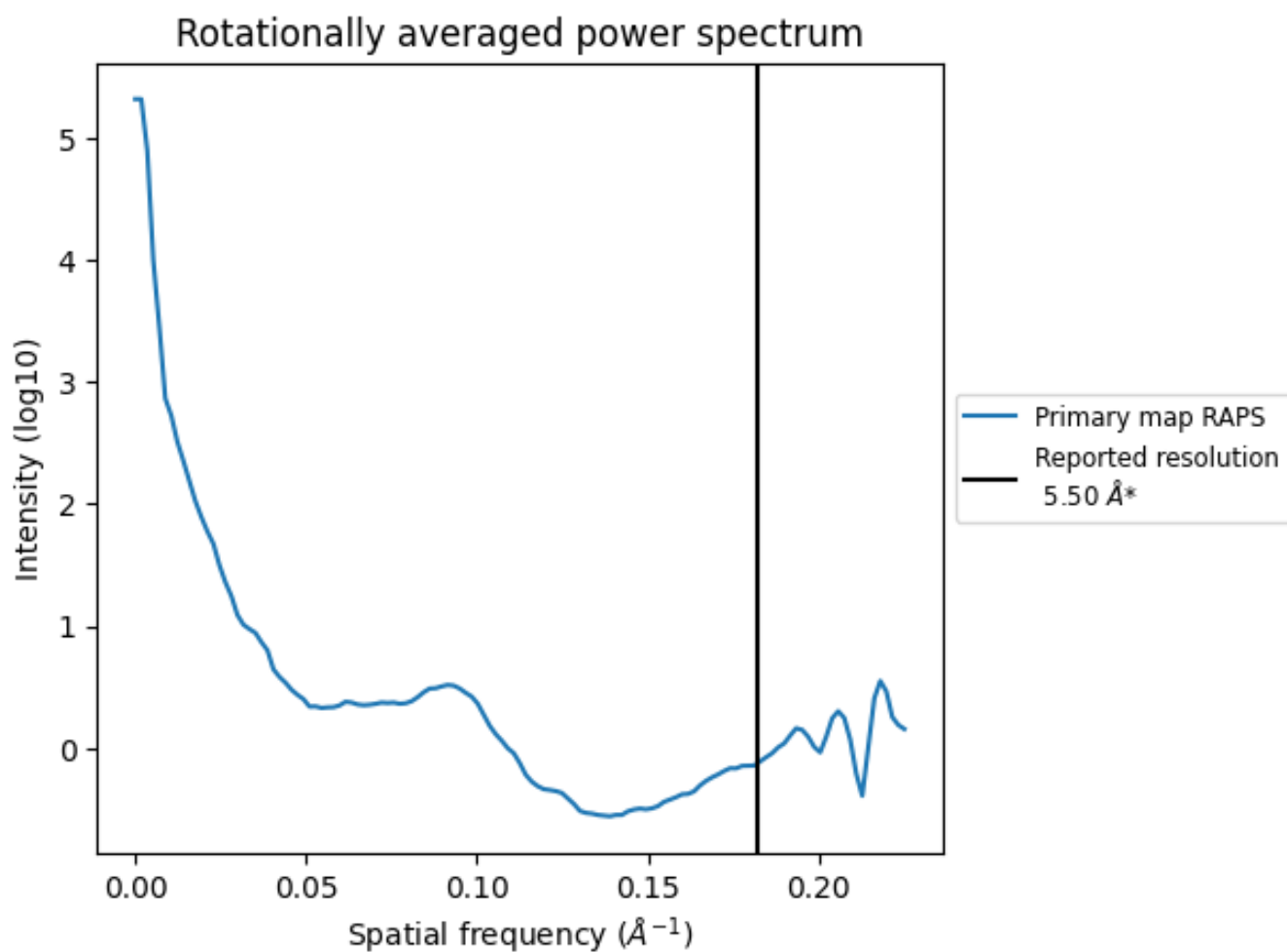
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is  $803 \text{ nm}^3$ ; this corresponds to an approximate mass of 725 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 0.182 Å<sup>-1</sup>

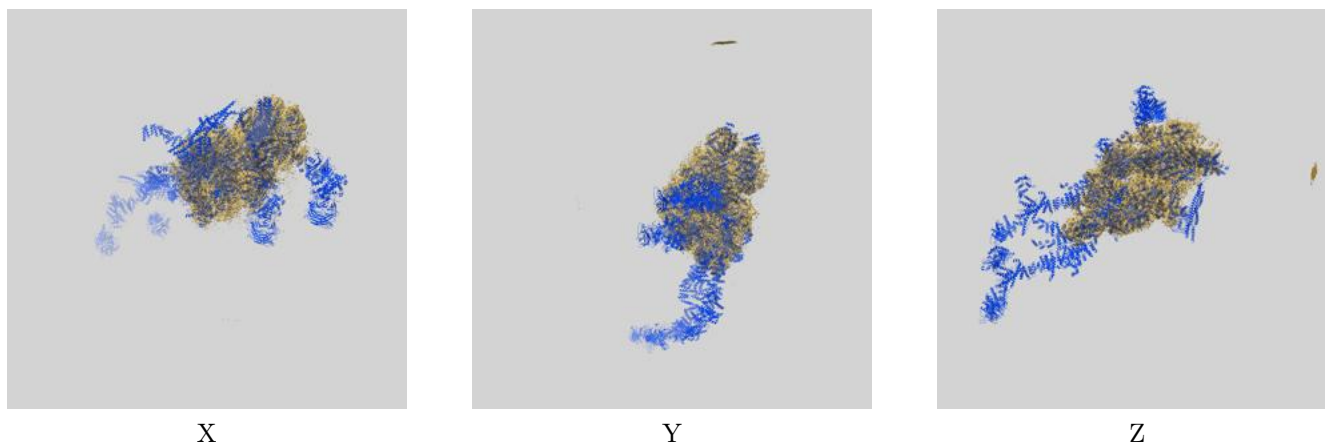
## 8 Fourier-Shell correlation

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

## 9 Map-model fit [i](#)

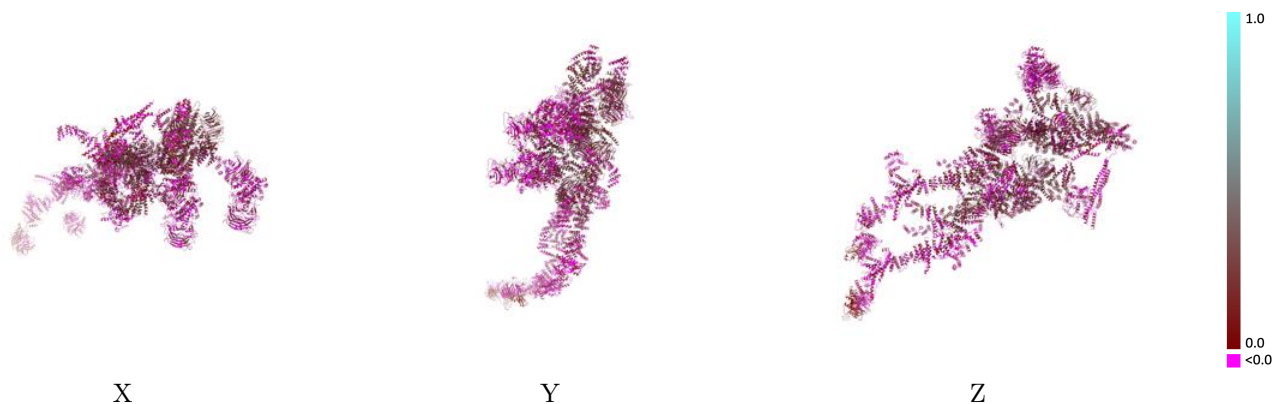
This section contains information regarding the fit between EMDB map EMD-0909 and PDB model 6LK8. Per-residue inclusion information can be found in section [3](#) on page [8](#).

### 9.1 Map-model overlay [i](#)



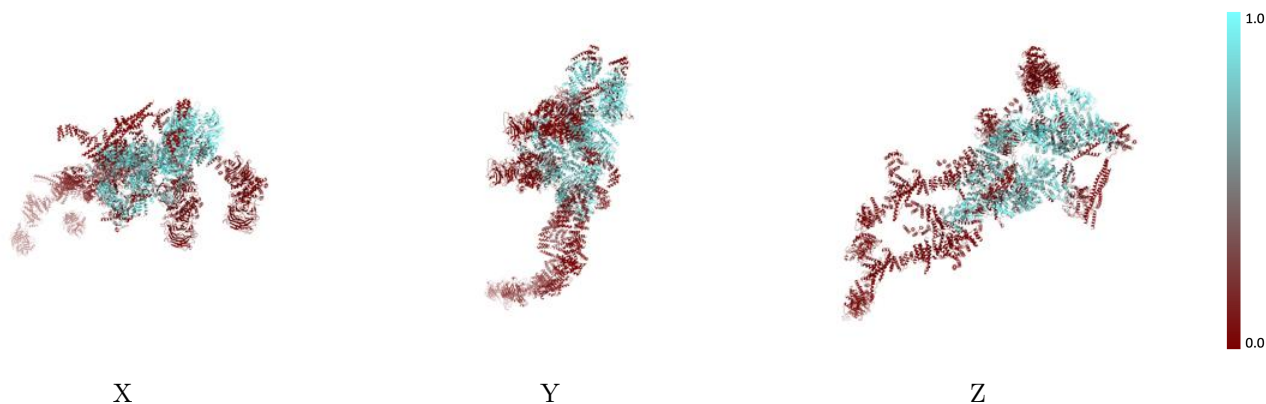
The images above show the 3D surface view of the map at the recommended contour level 0.03 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



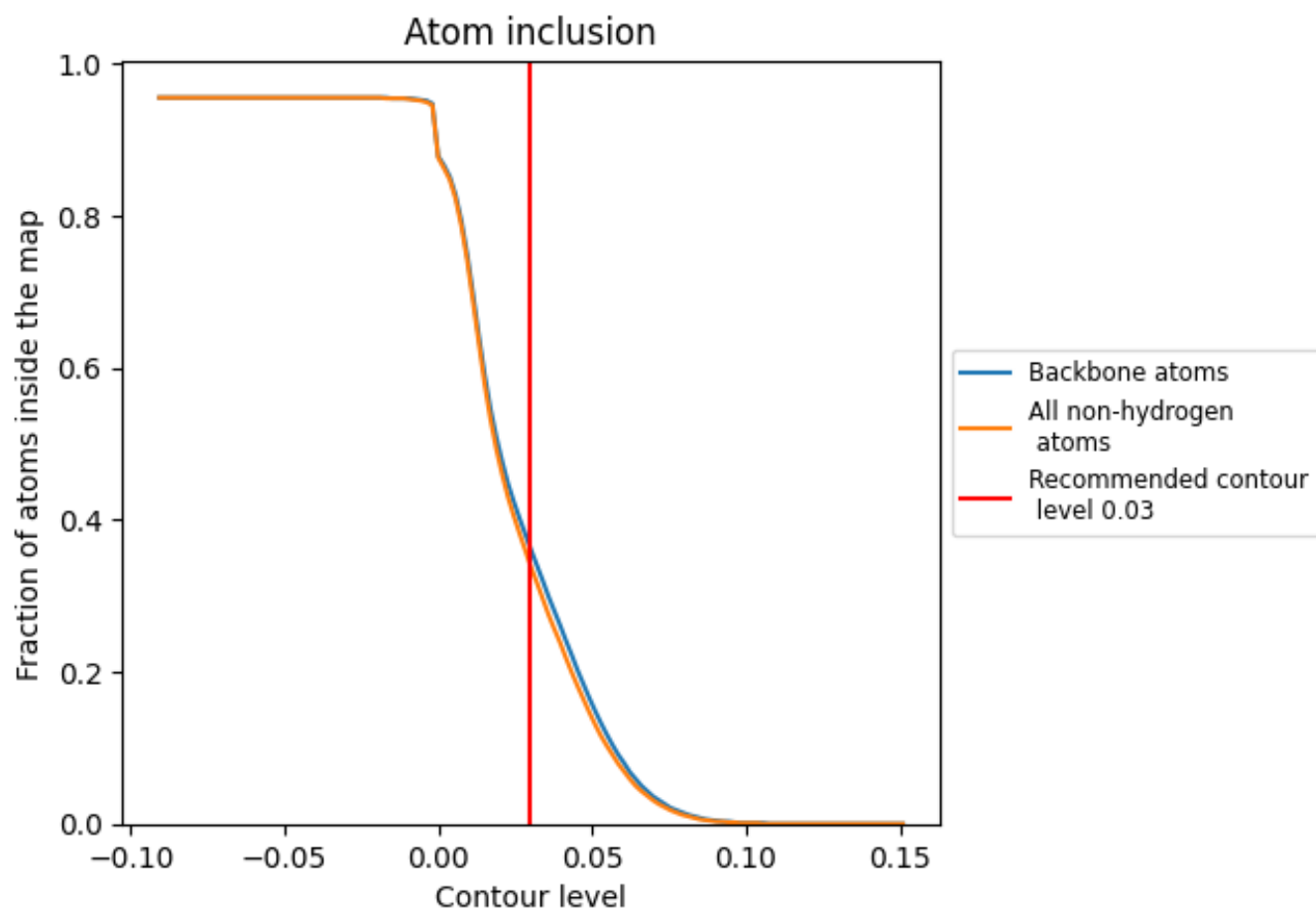
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.03).



































































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 36% of all backbone atoms, 34% 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 (0.03) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.3390	 0.0890
A	 0.6000	 0.1430
B	 0.6840	 0.1880
C	 0.8950	 0.2270
D	 0.7460	 0.1650
E	 0.0750	 0.0220
F	 0.0000	 0.0160
G	 0.6470	 0.1730
H	 0.7810	 0.1790
I	 0.1830	 0.0930
J	 0.0000	 0.0030
K	 0.0000	 0.0110
L	 0.0000	 0.0100
M	 0.0000	 0.0220
N	 0.4520	 0.1270
O	 0.0800	 0.0580
P	 0.0850	 0.0380
Q	 0.4120	 0.1510
R	 0.0550	 0.0080
S	 0.0670	 0.0560
T	 0.0500	 0.0150
U	 0.0000	 0.0300
V	 0.0000	 0.0190
a	 0.5030	 0.1030
b	 0.6740	 0.1800
c	 0.8780	 0.2470
d	 0.7290	 0.1740
e	 0.1730	 0.0260
f	 0.2990	 0.0300
g	 0.5760	 0.1550
h	 0.7090	 0.1850
i	 0.0000	 0.0190
j	 0.0000	 0.0120

