Full wwPDB EM Validation Report

Jun 23, 2022 – 10:27 pm BST

PDB ID	:	7R5K
EMDB ID	:	EMD-14322
Title	:	Human nuclear pore complex (constricted)
Authors	:	Mosalaganti, S.; Obarska-Kosinska, A.; Siggel, M.; Taniguchi, R.; Turonova, B.; Zimmerli, C.E.; Buczak, K.; Schmidt, F.H.; Margiotta, E.; Mackmull, M.T.; Hagen, W.J.H.; Hummer, G.; Kosinski, J.; Beck, M.
Deposited on	:	2022-02-10
Resolution	:	12.00 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*
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:

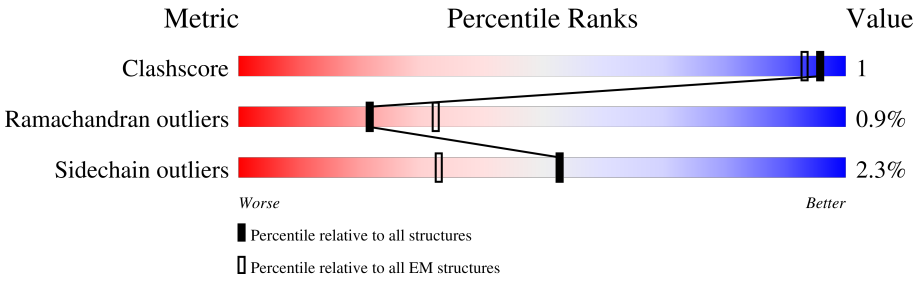
EMDB validation analysis	:	0.0.1.dev8
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.29

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 12.00 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)
Clashscore	158937	4297
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	00	3224	5% 21% · 77%
1	01	3224	· 22% · 77%
1	02	3224	6% 22% · 77%
1	03	3224	· 22% · 77%
1	04	3224	5% 22% · 77%
2	10	1887	96% 92% 5% ·
2	11	1887	96% 91% 5% ·
2	12	1887	96% 91% 6% ·

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Mol	Chain	Length	Quality of chain
2	13	1887	96% 92% 5%
2	14	1887	97% 92% 5%
2	15	1887	97% 92% 5%
2	16	1887	96% 92% 5%
2	17	1887	96% 92% 5%
3	40	546	25% 65% 5% 30%
3	41	546	17% 65% 5% 30%
4	A0	819	31% 89% 9%
4	A1	819	27% 90% 9%
4	A2	819	31% 90% 9%
4	A3	819	54% 91% 8%
4	A4	819	44% 80% 8% 11%
4	A5	819	24% 81% 7% 11%
4	A6	819	36% 81% 7% 11%
5	B0	1749	26% 94% 6%
5	B1	1749	44% 94% 6%
6	C0	2012	33% 93% 7%
6	C1	2012	35% 93% 7%
6	C2	2012	20% 93% 6%
6	C3	2012	19% 91% 8%
6	C4	2012	39% 93% 6%
7	D0	1391	36% 87% 7% 6%
7	D1	1391	65% 85% 8% 6%
7	D2	1391	38% 87% 7% 6%
7	D3	1391	64% 86% 7% 6%

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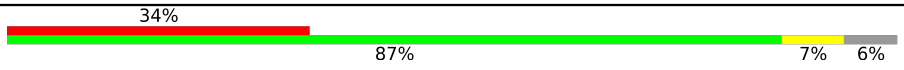
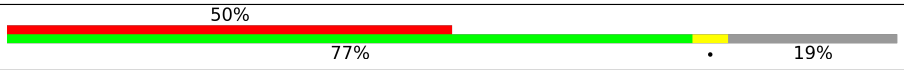
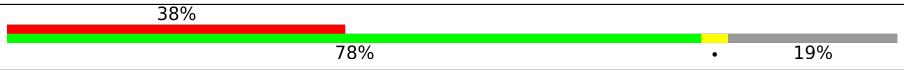
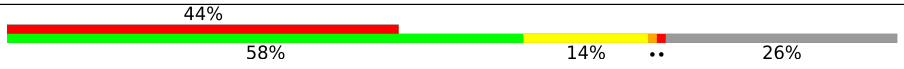
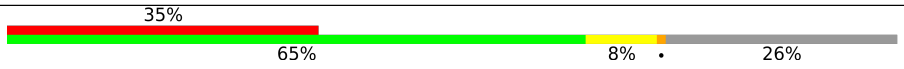
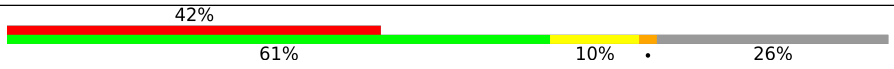
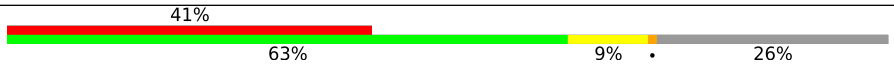
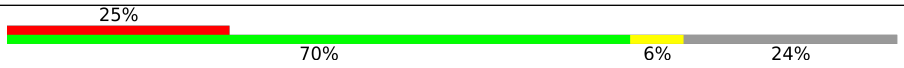
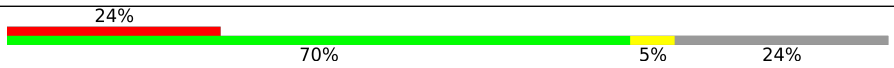
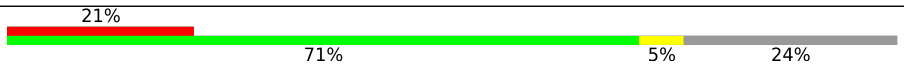
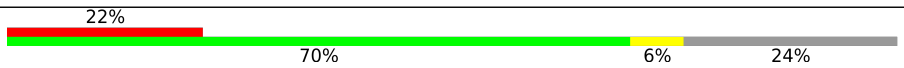
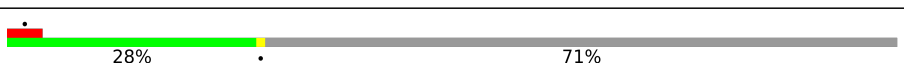
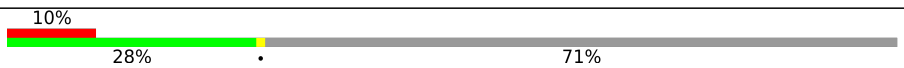
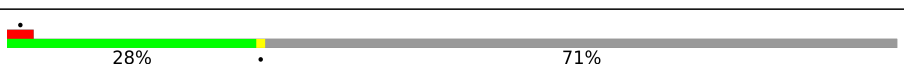
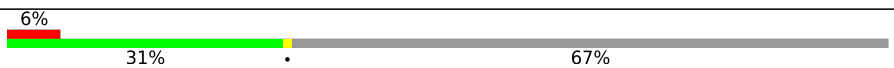
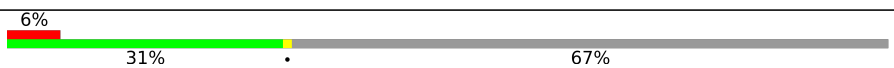
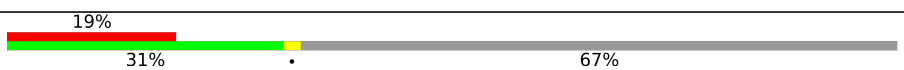
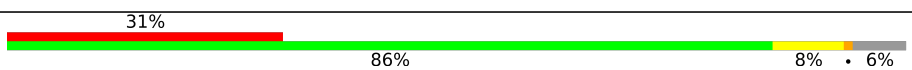
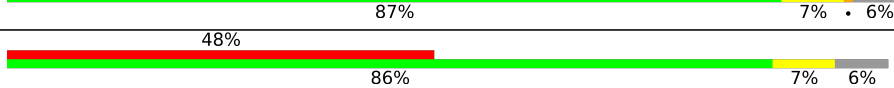
Mol	Chain	Length	Quality of chain
7	D4	1391	
7	D5	1391	
8	E0	674	
8	E1	674	
9	F0	326	
9	F1	326	
9	F2	326	
9	F3	326	
10	H0	507	
10	H1	507	
10	H2	507	
10	H3	507	
11	I0	599	
11	I1	599	
11	I2	599	
11	I3	599	
12	J0	522	
12	J1	522	
12	J2	522	
12	J3	522	
12	J4	522	
13	K0	1156	
13	K1	1156	
13	K2	1156	
13	K3	1156	

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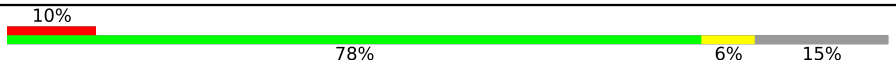
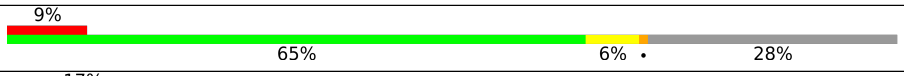
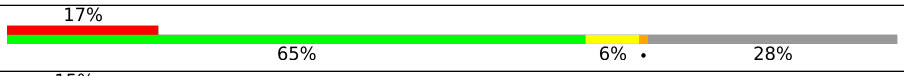
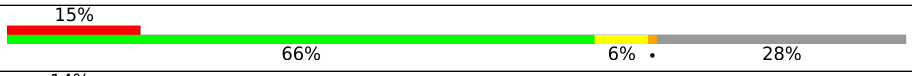
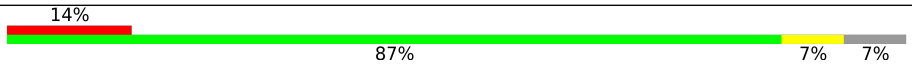
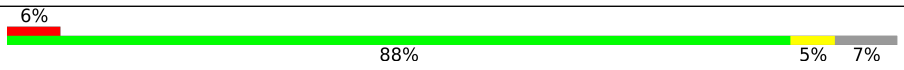
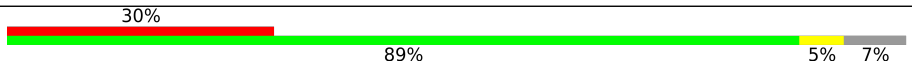
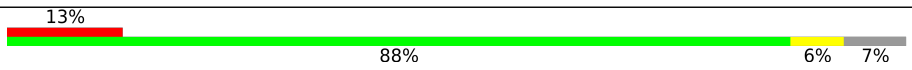
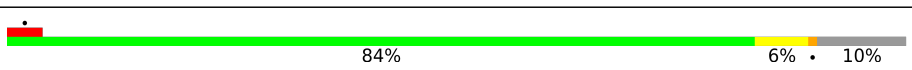
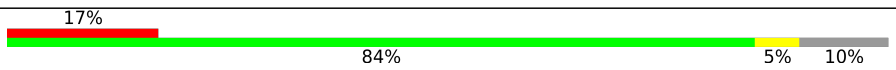
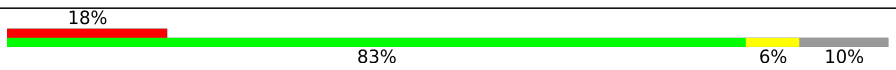
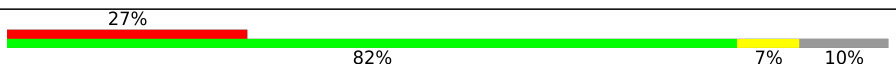
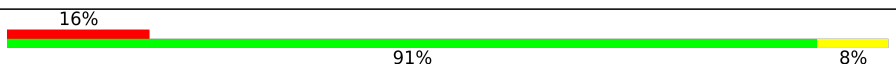
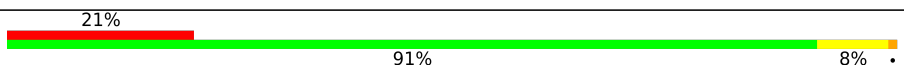
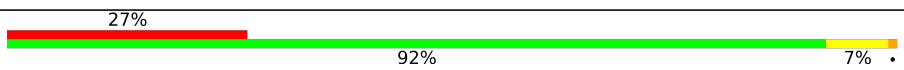
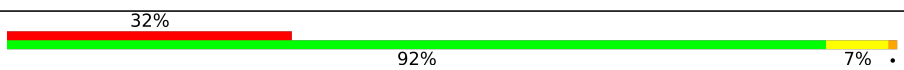
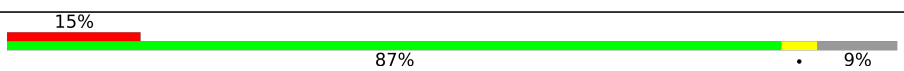
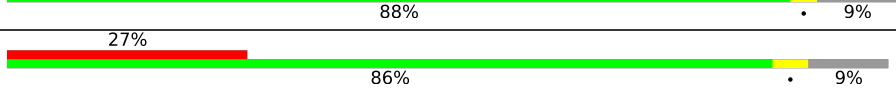
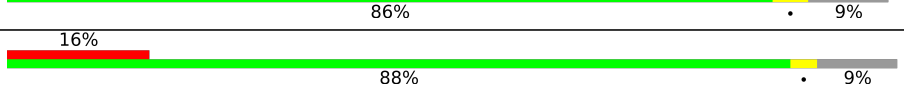
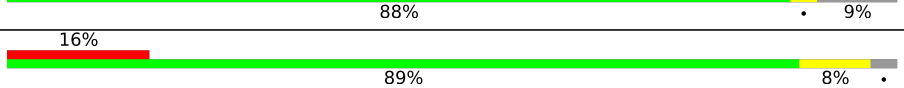
Mol	Chain	Length	Quality of chain
14	L0	925	
14	L1	925	
14	L2	925	
14	L3	925	
15	M0	937	
15	M1	937	
15	M2	937	
15	M3	937	
16	N0	322	
16	N1	322	
16	N2	322	
16	N3	322	
17	O0	360	
17	O1	360	
17	O2	360	
17	O3	360	
18	P0	656	
18	P1	656	
18	P2	656	
18	P3	656	
19	Q0	380	
19	Q1	380	
19	Q2	380	
19	Q3	380	
20	R0	1436	

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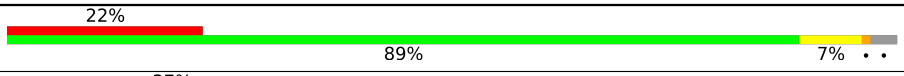
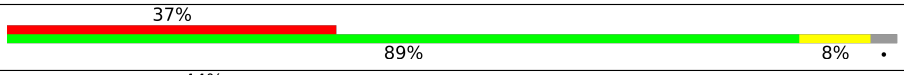
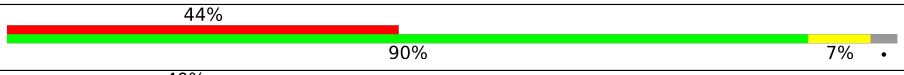
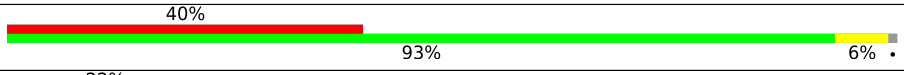
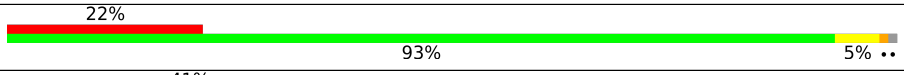
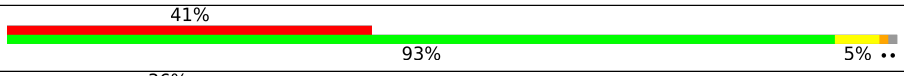
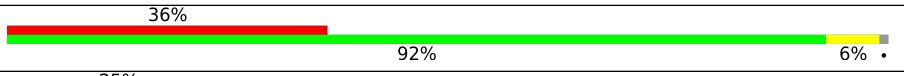
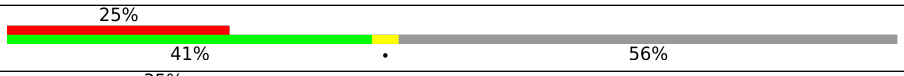
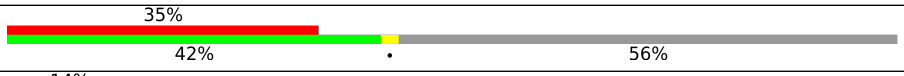
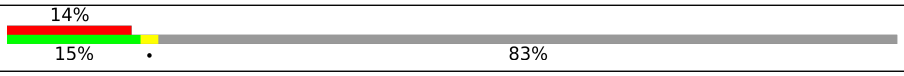
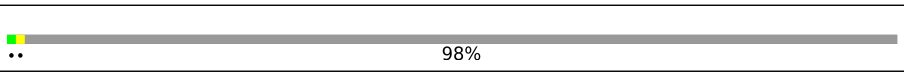
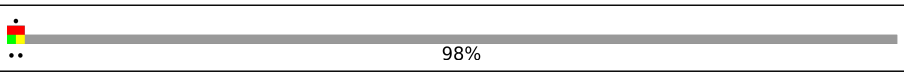
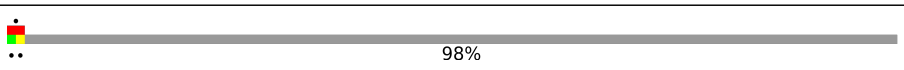
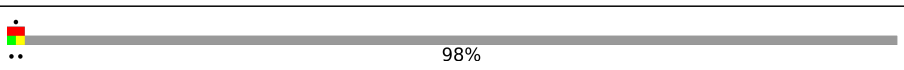
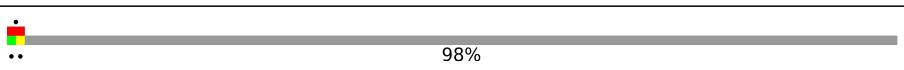
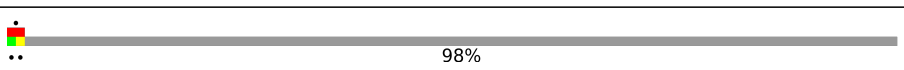
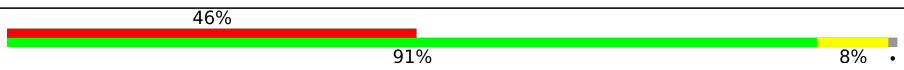
Mol	Chain	Length	Quality of chain
20	R1	1436	
20	R2	1436	
20	R3	1436	
21	S0	326	
21	S1	326	
21	S2	326	
21	S3	326	
22	T0	2266	
22	T1	2266	
23	U0	880	
23	U1	880	
23	U2	880	
23	U3	880	
23	U4	880	
23	U5	880	
23	U6	880	
24	V0	2090	
25	W0	741	

2 Entry composition (i)

There are 25 unique types of molecules in this entry. The entry contains 617133 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 E3 SUMO-protein ligase RanBP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	00	756	Total	C	N	O	S	0	0
			6085	3866	1045	1147	27		
1	01	756	Total	C	N	O	S	0	0
			6085	3866	1045	1147	27		
1	02	756	Total	C	N	O	S	0	0
			6085	3866	1045	1147	27		
1	03	756	Total	C	N	O	S	0	0
			6085	3866	1045	1147	27		
1	04	756	Total	C	N	O	S	0	0
			6085	3866	1045	1147	27		

- Molecule 2 is a protein called Nuclear pore membrane glycoprotein 210.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	10	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	11	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	12	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	13	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	14	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	15	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	16	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		
2	17	1831	Total	C	N	O	S	0	0
			14046	8947	2406	2644	49		

- Molecule 3 is a protein called Aladin.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	40	383	Total	C	N	O	S	0	0
			2922	1864	509	533	16		
3	41	383	Total	C	N	O	S	0	0
			2922	1864	509	533	16		

- Molecule 4 is a protein called Nuclear pore complex protein Nup93.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	A0	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A1	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A2	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A3	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A4	726	Total	C	N	O	S	0	0
			5860	3705	1018	1109	28		
4	A5	726	Total	C	N	O	S	0	0
			5860	3705	1018	1109	28		
4	A6	726	Total	C	N	O	S	0	0
			5860	3705	1018	1109	28		

- Molecule 5 is a protein called Nucleoporin NUP188 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	B0	1748	Total	C	N	O	S	0	0
			13746	8743	2353	2559	91		
5	B1	1748	Total	C	N	O	S	0	0
			13746	8743	2353	2559	91		

- Molecule 6 is a protein called Nuclear pore complex protein Nup205.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	C0	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		
6	C1	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		
6	C2	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		
6	C3	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		

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Mol	Chain	Residues	Atoms					AltConf	Trace
6	C4	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		

- Molecule 7 is a protein called Nuclear pore complex protein Nup155.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D0	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D1	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D2	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D3	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D4	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D5	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		

- Molecule 8 is a protein called Nucleoporin NDC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E0	548	Total	C	N	O	S	0	0
			4432	2923	729	758	22		
8	E1	548	Total	C	N	O	S	0	0
			4432	2923	729	758	22		

- Molecule 9 is a protein called Nucleoporin NUP35.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F0	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F1	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F2	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F3	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		

- Molecule 10 is a protein called Nucleoporin p54.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	H0	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H1	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H2	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H3	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		

- Molecule 11 is a protein called Nucleoporin p58/p45.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	I0	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I1	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I2	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I3	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		

- Molecule 12 is a protein called Nuclear pore glycoprotein p62.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	J0	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J1	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J2	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J3	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J4	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		

- Molecule 13 is a protein called Nuclear pore complex protein Nup133.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	K0	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		
13	K1	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		

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Mol	Chain	Residues	Atoms					AltConf	Trace
13	K2	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		
13	K3	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		

- Molecule 14 is a protein called Nuclear pore complex protein Nup107.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	L0	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L1	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L2	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L3	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		

- Molecule 15 is a protein called Nuclear pore complex protein Nup96.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	M0	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M1	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M2	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M3	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		

- Molecule 16 is a protein called Protein SEC13 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	N0	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N1	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N2	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N3	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		

- Molecule 17 is a protein called Nucleoporin SEH1.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	O0	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O1	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O2	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O3	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		

- Molecule 18 is a protein called Nuclear pore complex protein Nup85.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	P0	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P1	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P2	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P3	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		

- Molecule 19 is a protein called Nucleoporin Nup43.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Q0	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q1	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q2	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q3	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		

- Molecule 20 is a protein called Nuclear pore complex protein Nup160.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	R0	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		
20	R1	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		
20	R2	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		

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Mol	Chain	Residues	Atoms					AltConf	Trace
20	R3	1399	Total 11132	C 7093	N 1878	O 2088	S 73	0	0

- Molecule 21 is a protein called Nucleoporin Nup37.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	S0	322	Total 2552	C 1626	N 436	O 475	S 15	0	0
21	S1	322	Total 2552	C 1626	N 436	O 475	S 15	0	0
21	S2	322	Total 2552	C 1626	N 436	O 475	S 15	0	0
21	S3	322	Total 2552	C 1626	N 436	O 475	S 15	0	0

- Molecule 22 is a protein called Protein ELYS.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	T0	1004	Total 7960	C 5069	N 1359	O 1490	S 42	0	0
22	T1	1004	Total 7960	C 5069	N 1359	O 1490	S 42	0	0

- Molecule 23 is a protein called Nuclear pore complex protein Nup98.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	U0	150	Total 1193	C 756	N 205	O 229	S 3	0	0
23	U1	19	Total 151	C 98	N 27	O 26		0	0
23	U2	19	Total 151	C 98	N 27	O 26		0	0
23	U3	19	Total 151	C 98	N 27	O 26		0	0
23	U4	19	Total 151	C 98	N 27	O 26		0	0
23	U5	19	Total 151	C 98	N 27	O 26		0	0
23	U6	19	Total 151	C 98	N 27	O 26		0	0

- Molecule 24 is a protein called Nuclear pore complex protein Nup214.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	V0	273	Total	C	N	O	S	0	0
			2203	1376	398	423	6		

- Molecule 25 is a protein called Nuclear pore complex protein Nup88.

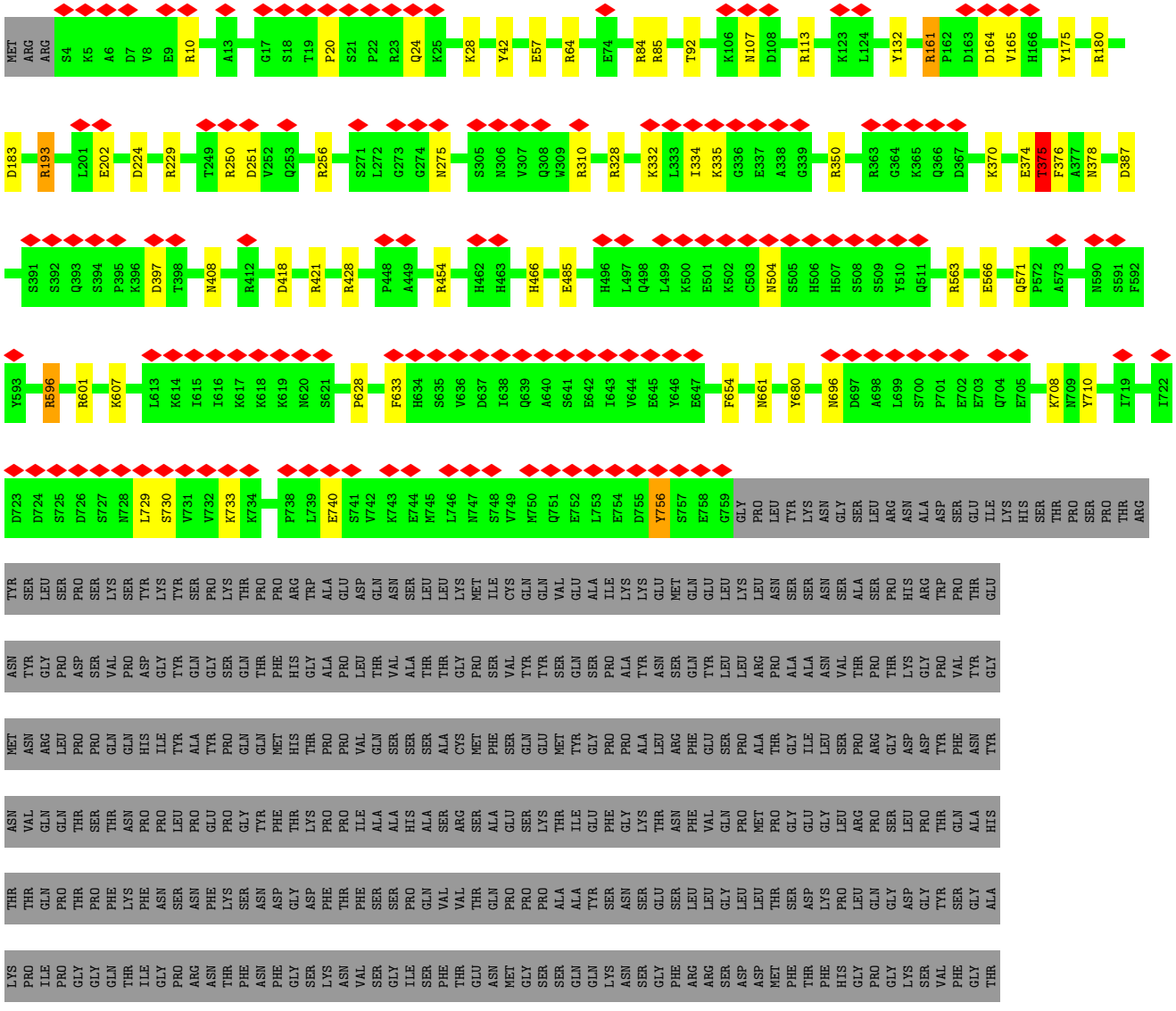
Mol	Chain	Residues	Atoms					AltConf	Trace
25	W0	735	Total	C	N	O	S	0	0
			5836	3714	988	1103	31		

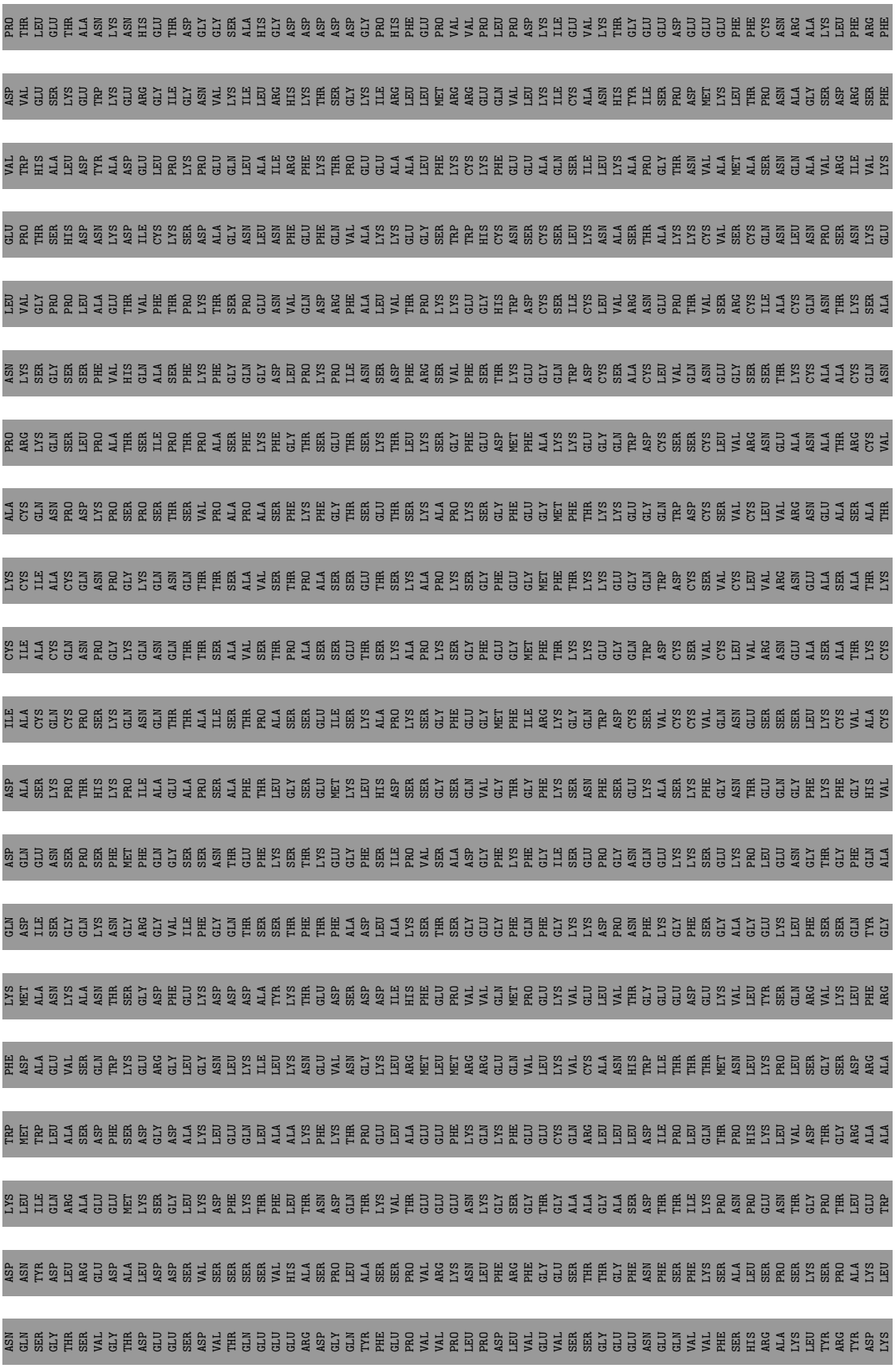
3 Residue-property plots (i)

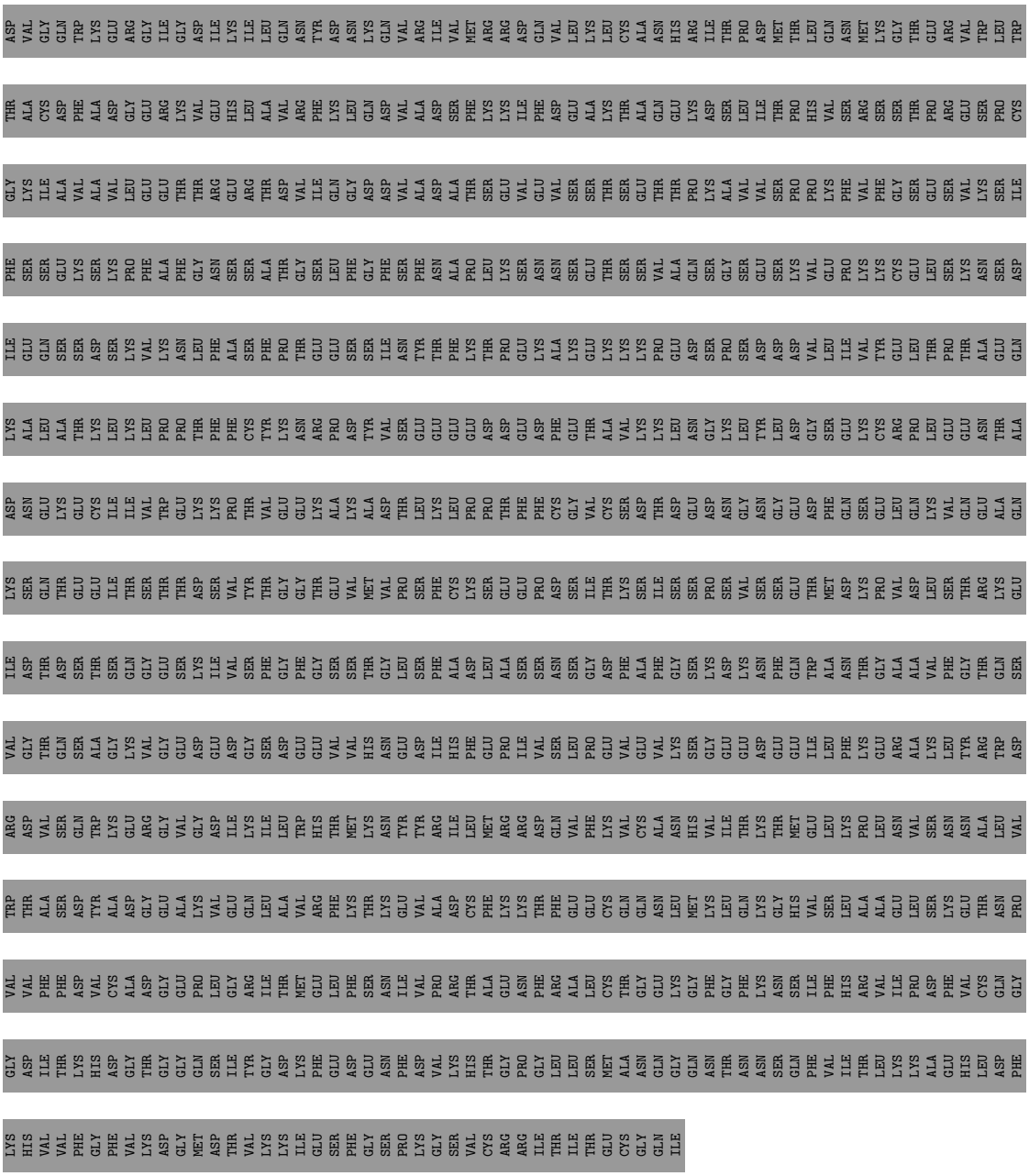
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: E3 SUMO-protein ligase RanBP2

Chain 00:




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



• Molecule 1: E3 SUMO-protein ligase RanBP2

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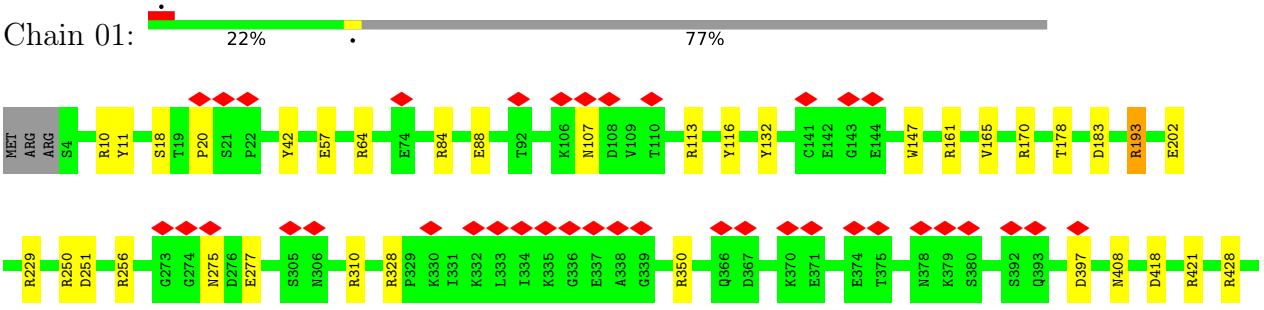

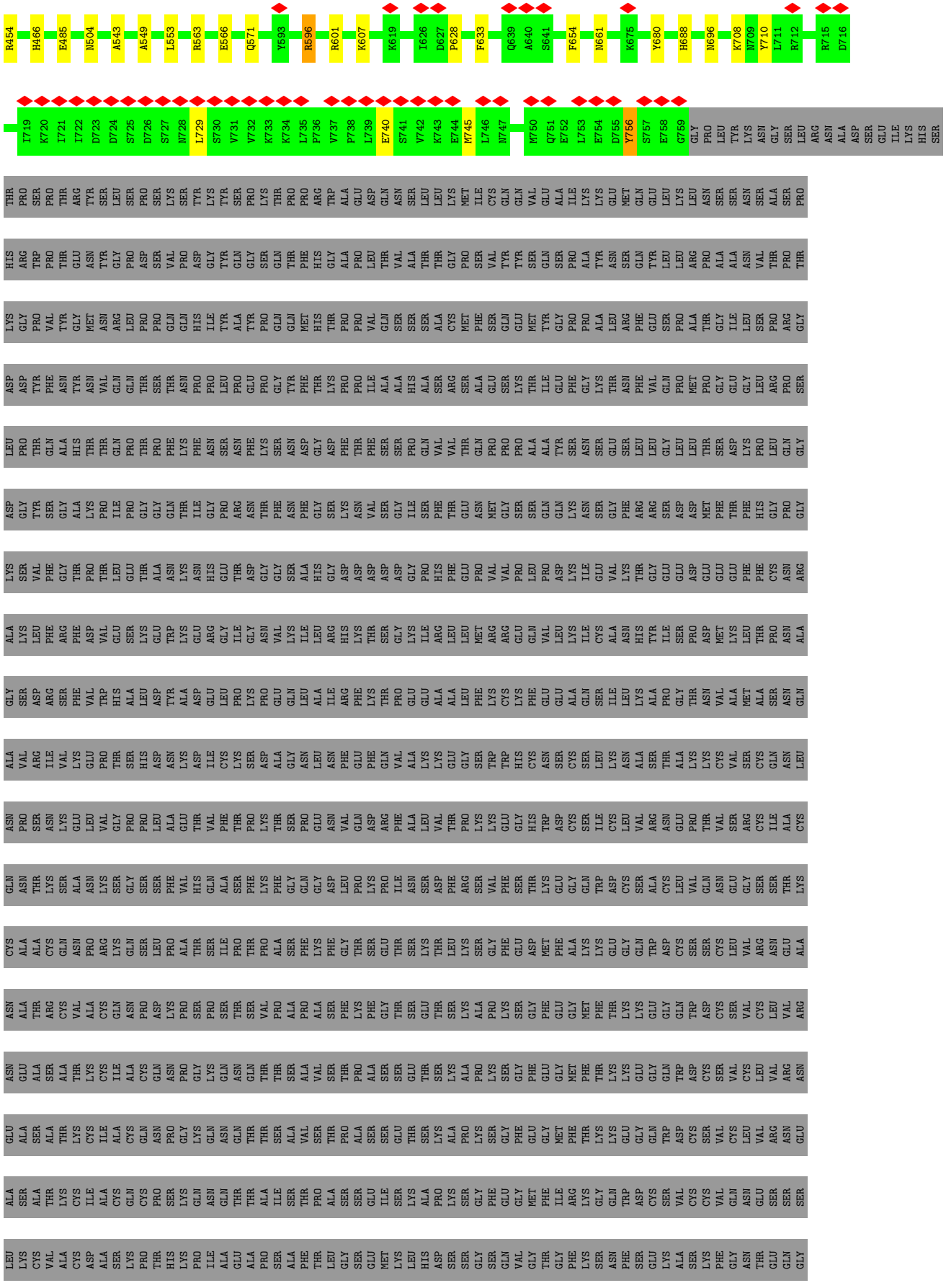
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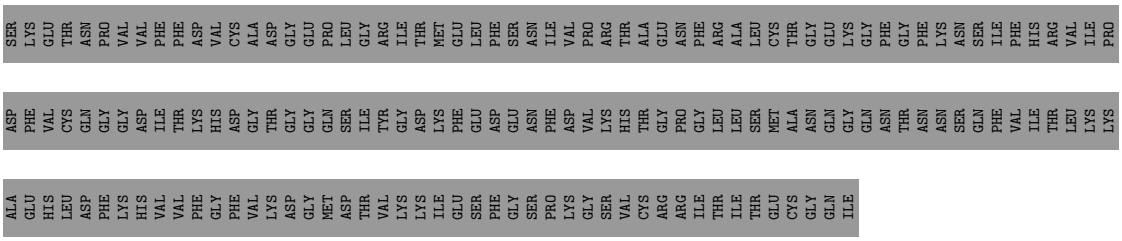
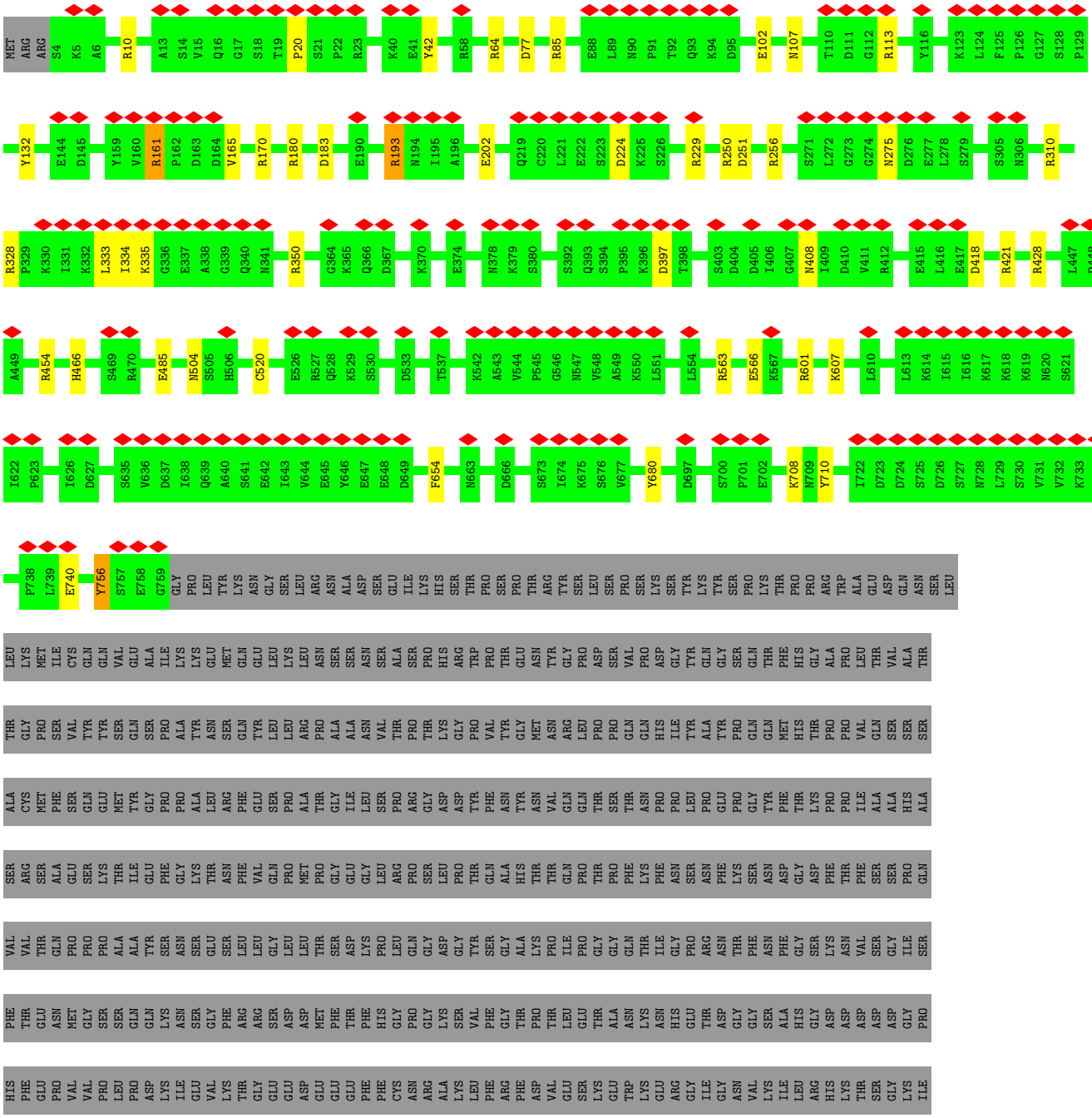
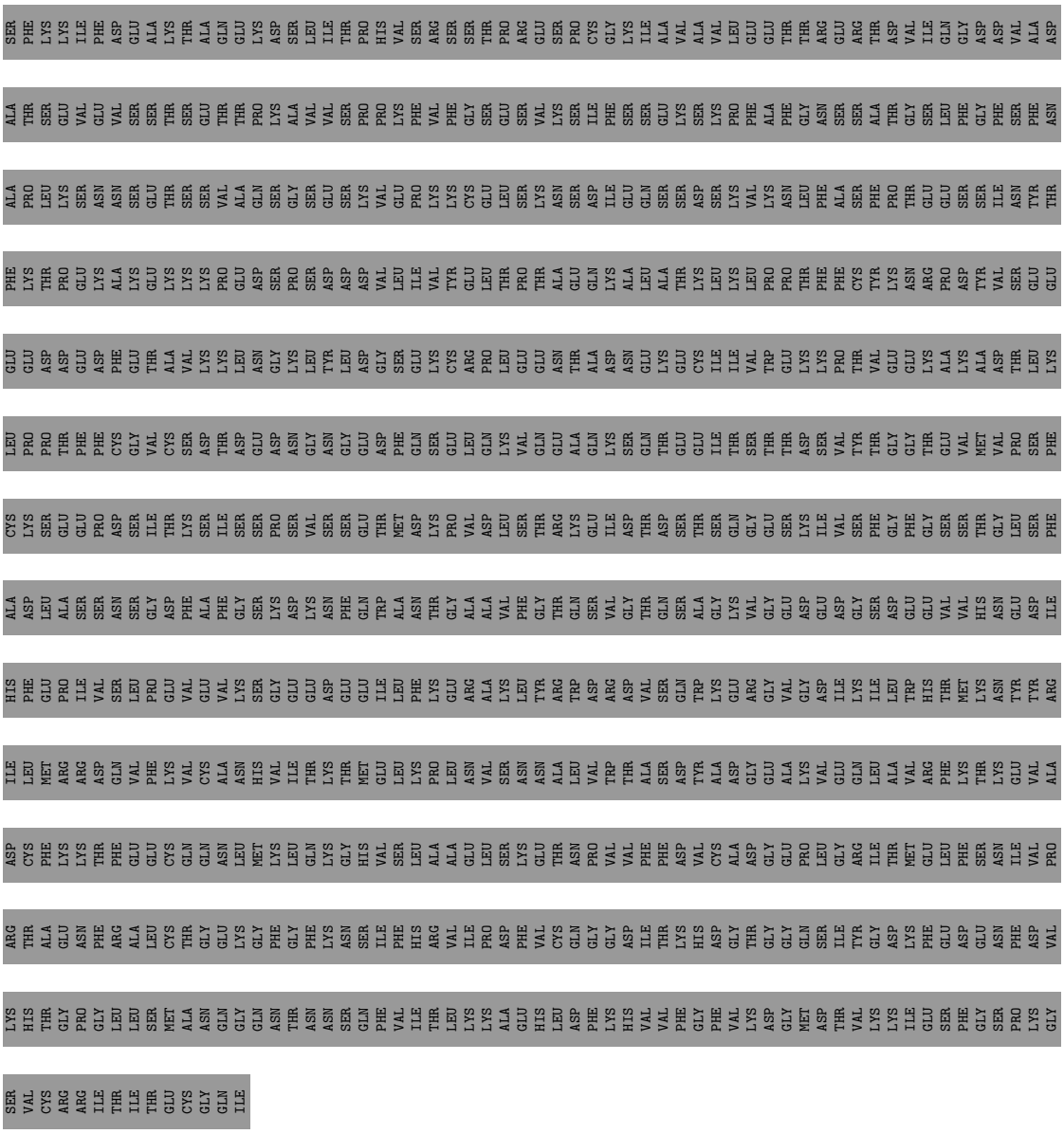
T719 K720 I721 I722 D723 D724 S725 D726 S727 N728 L729 S730 V731 V732 K733 K734 L735 P736 V737 F738 L739 E740 S741 V742 K743 E744 M745 L746 N747 M750 Q751 E752 L753 E754 D755 Y756 S757 E758 G759 GLY PRO LEU TYR LYS ASN GLY SER LEU ARG ASN ALA ASP SER GLU ILE LYS HIS SER



• Molecule 1: E3 SUMO-protein ligase RanBP2

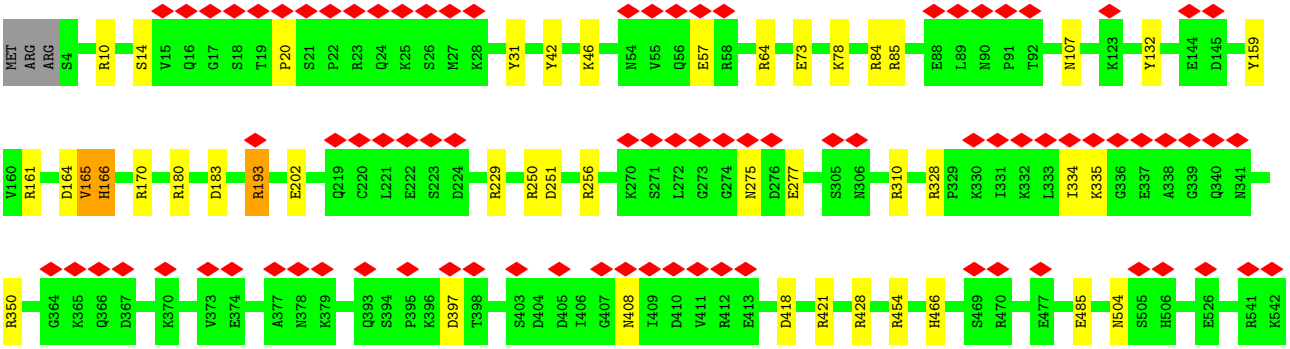
Chain 02:

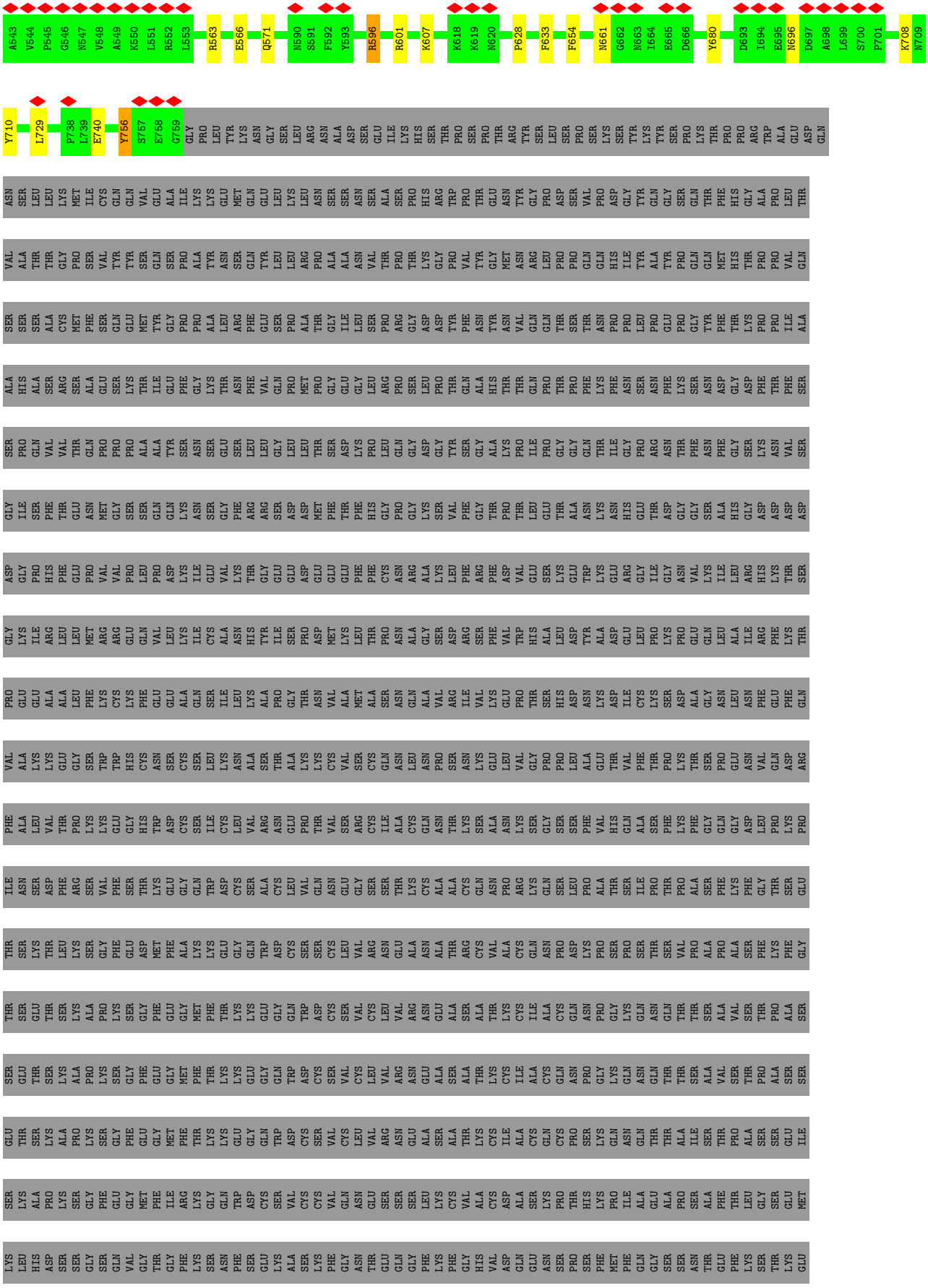




• Molecule 1: E3 SUMO-protein ligase RanBP2

Chain 03:

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Y710 L729 P738 L739 E740 Y756 S757 E758 G759
GLY PRO LEU TYR LYS ASN GLY GLU SER LEU ARG ASN ALA ASP SER GLU ILE LYS HIS SER THR PRO SER PRO THR ARG TYR SER LEU SER PRO ASP SER VAL PRO SER LYS SER TYR LYS TYR GLN GLY SER PRO LYS THR PRO PRO ARG TRP PRO ASP GLU ALA GLU ASP GLN
ASN SER LEU LEU LYS MET ILE CYS GLN VAL GLU ALA ILE LYS LYS GLU MET GLN GLU LEU LYS LEU ASN SER SER ASN SER ALA SER PRO HIS ARG TRP PRO THR GLU ASN TYR GLY PRO ASP SER VAL PRO ASP GLY TYR GLN GLY SER GLN THR PHE HIS GLY ALA PRO LEU THR
VAL ALA THR THR GLY PRO SER VAL TYR TYR SER GLN SER PRO ALA TYR ASN SER GLN TYR LEU LEU ARG PRO ALA ALA ASN VAL THR PRO THR LYS GLY PRO VAL TYR GLY MET ASN ARG LEU PRO PRO GLN GLN GLN HIS ILE TYR ALA TYR PRO GLN GLN MET HIS THR PRO PRO VAL THR
SER SER SER ALA CYS MET PHE SER GLN GLU MET TYR GLY PRO PRO ALA LEU ALA ARG PHE GLU SER PRO ALA ALA THR GLY ILE LEU SER PRO ARG GLY ASP ASP TYR PHE ASN TYR ASN VAL GLN GLN THR SER THR ASN PRO PRO LEU PRO GLU PRO GLY TYR PHE THR LYS PRO PRO ILE ALA
ALA HIS ALA SER ARG SER ALA GLU SER LYS THR THR ASN PHE VAL GLN PRO MET PRO GLY GLU GLY LEU ARG PRO SER LEU PRO THR GLN ALA HIS THR THR GLN PRO PRO THR PHE LYS PHE ASN SER ASN SER PHE LYS SER SER ASN ASP GLY ASP PHE THR PHE SER
SER PRO GLN VAL VAL THR GLN PRO PRO PRO ALA ALA TYR SER ASN SER GLU GLU SER LEU LEU GLY LEU LEU THR SER ASP LYS PRO LEU GLN GLY ASP GLY TYR SER GLY GLN GLY GLY GLN THR ILE GLY PRO ARG ASN THR PHE ASN PHE GLY SER LYS SER ASN VAL SER
GLY ILE SER PHE THR GLU ASN MET GLY SER SER GLN GLN LYS ASN SER GLY PHE ARG ARG SER ASP ASP MET PHE THR PHE HIS GLY PRO GLY LYS SER VAL PHE GLY THR PRO THR LEU GLU GLU THR ALA ASN LYS ASN HIS GLU THR ASP GLY GLY SER ALA HIS GLY ASP ASP ASP
ASP GLY PRO HIS PHE GLU PRO VAL VAL PRO LEU PRO ASP LYS ILE GLU VAL LYS THR GLY GLU GLU ASP GLU GLU GLU PHE PHE CYS ASN ARG ALA LYS LEU PHE ARG PHE ASP VAL GLU SER LYS GLU TRP LYS GLU ARG GLY ILE GLY ASN VAL LYS ILE LEU ARG HIS LYS THR SER
GLY LYS ILE ARG LEU LEU MET ARG ARG GLU GLN VAL LEU LYS ILE CYS ALA ASN HIS TYR ILE SER PRO PRO ASP MET LYS LEU THR PRO ASN ALA GLY SER ASP ARG ILE VAL PHE ASP VAL TRP HIS ALA LEU ASP TYR ALA ASP GLU LEU PRO LYS SER PRO LEU GLN GLN LEU ALA ILE ARG PHE LYS THR
PRO GLU GLU ALA ALA LEU PHE LYS CYS LYS PHE GLU GLU ALA GLN SER ILE LEU LEU LYS ALA PRO GLY THR ASN VAL ALA MET ALA SER ASN GLN ALA VAL ASN ASN LYS ASP ILE CYS LYS SER ASP ALA GLY ASN LEU ASN GLU PHE PHE GLN
VAL ALA LYS LYS GLU GLY SER TRP TRP HIS CYS SER CYS SER LEU LYS ASN SER CYS SER ALA THR ALA LYS LYS CYS VAL SER CYS GLN ASN LEU ASN ASN PRO SER ASN LYS GLU LEU VAL GLY PRO PRO LEU ALA GLU THR VAL PHE THR PRO LYS THR SER PRO GLU GLY GLU ASP VAL PRO LYS
PHE ALA LEU VAL THR PRO LYS LYS GLU GLY HIS TRP ASP CYS SER ILE CYS LEU VAL ARG ASN GLU PRO THR VAL SER ARG CYS ILE ALA CYS GLN ASN THR LYS SER ALA ASN LYS SER GLY SER SER PHE VAL HIS GLN ALA SER PHE LYS PHE GLY GLN GLY ASP LEU ASP PRO LYS
ILE ASN SER ASP PHE ARG SER VAL PHE SER THR LYS GLU GLY GLN TRP CYS SER ALA CYS LEU VAL CYS GLN ASN GLU GLY SER SER THR LYS CYS ALA ALA CYS GLN ASN PRO ARG LYS GLN SER LEU PRO ALA THR SER ILE PRO THR PRO ALA SER PHE LYS PHE GLY THR SER GLU
THR SER LYS THR LEU LYS SER GLY PHE GLU ASP MET PHE ALA LYS LYS GLU GLY GLN TRP ASP CYS SER SER CYS LEU VAL ARG ASN GLU ALA ASN ALA THR ARG CYS VAL ALA CYS GLN ASN PRO ASP LYS PRO SER PRO SER THR SER VAL PRO ALA PRO ALA SER PHE LYS PHE GLY
THR SER GLU THR SER LYS ALA PRO LYS SER GLY PHE GLU GLY GLN TRP ASP CYS SER VAL CYS LEU GLU VAL ARG ASN GLU ALA ASN GLU ALA THR CYS GLN ASN PRO ASP LYS PRO SER PRO SER THR SER VAL PRO ALA PRO ALA SER PHE LYS PHE GLY GLY SER GLU
SER GLU THR SER LYS ALA PRO LYS SER GLY PHE GLU GLY GLN TRP ASP CYS SER VAL CYS LEU VAL ARG ASN GLU ALA ALA SER ALA THR LYS CYS ILE ALA CYS GLN ASN PRO GLY LYS GLN ASN GLN THR THR SER ALA ALA VAL SER THR PRO ALA ALA SER SER
GLU THR SER LYS ALA PRO LYS SER GLY PHE GLU GLY MET PHE THR LYS LYS GLU GLY GLN TRP ASP CYS SER VAL CYS LEU VAL ARG ASN GLU ALA SER ALA THR LYS CYS ILE ALA CYS GLN CYS PRO SER LYS GLN ASN GLN THR THR ALA ILE SER SER ALA PHE THR PRO ILE GLU
SER LYS ALA PRO LYS SER GLY PHE GLU GLY MET PHE THR LYS LYS GLU GLY GLN TRP ASP CYS SER VAL CYS LEU VAL ARG ASN GLU ALA SER ALA THR LYS CYS ILE ALA CYS GLN CYS PRO THR HIS LYS PRO ILE ALA GLU GLN LEU GLY SER GLU ILE
LYS LEU HIS ASP SER SER GLY GLN GLN GLY PHE LYS PHE GLY HIS VAL ASP GLN GLU ASN SER PRO SER PHE MET PHE GLN GLY SER SER ASN THR GLU THR GLU PHE LYS SER THR LYS GLU

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

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

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

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

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

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

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

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

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

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

VAL ALA ASP ALA THR SER GLU VAL GLU VAL SER SER THR SER GLU THR THR PRO LYS ALA VAL VAL SER PRO PRO LYS PHE VAL PHE GLY SER GLU SER VAL LYS SER ILE PHE SER SER GLU LYS SER LYS PRO PHE ALA PHE GLY ASN SER SER ALA THR GLY SER LEU PHE GLY PHE

SER PHE ASN ALA PRO LEU LYS SER ASN ASN SER GLU THR SER SER VAL ALA GLN SER GLY SER GLU SER LYS VAL GLU PRO LYS LYS CYS GLU LEU SER LYS ASN SER ASP ILE GLU GLN SER SER ASP SER LYS VAL LYS ASN LEU PHE ALA SER PHE PRO THR GLU GLU SER SER ILE

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

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

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

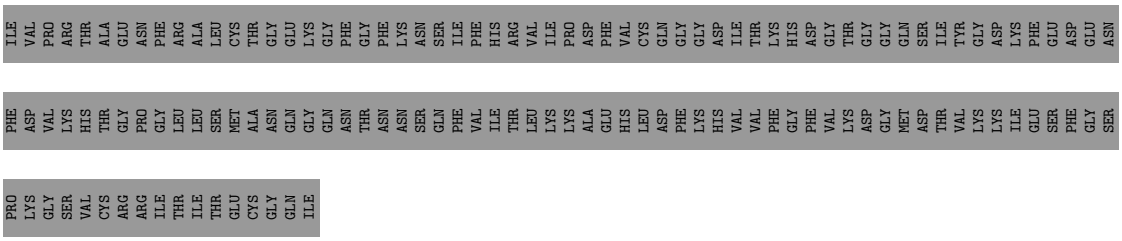
PRO SER PHE CYS LYS SER GLU GLU PRO ASP SER ILE THR LYS SER ILE SER SER PRO SER VAL SER SER GLU THR MET ASP LYS PRO VAL ASP LEU SER THR ARG LYS GLU ILE ASP THR ASP SER THR SER GLN GLY GLU SER LYS ILE VAL SER PHE GLY PHE GLY SER SER THR GLY

LEU SER PHE ALA ASP LEU ALA SER SER ASN SER GLY ASP PHE ALA PHE GLY SER LYS ASP LYS ASN PHE GLN TRP ALA ASN THR GLY ALA ALA VAL PHE GLY THR GLN SER VAL GLY THR GLN SER ALA GLY LYS VAL GLY GLU ASP GLU ASP GLY SER ASP GLU GLU VAL VAL HIS ASN

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

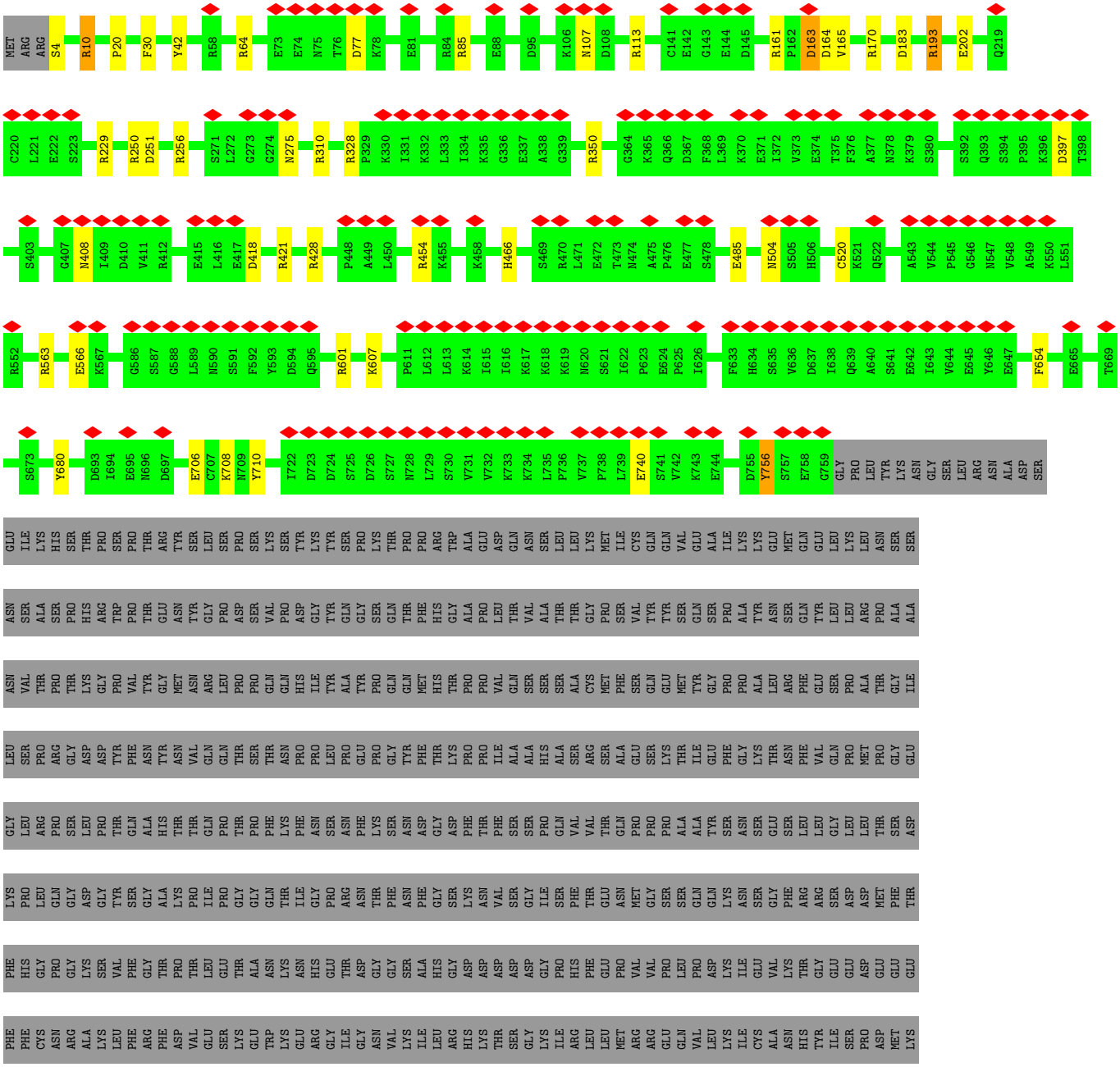
TYR TYR ARG ILE LEU MET ARG ARG ASP GLN VAL PHE LYS VAL CYS ALA ASN HIS VAL ILE THR LYS THR MET GLU LEU LYS PRO LEU ASN VAL SER ASN ASN ALA LEU VAL TRP THR ALA SER ASP TYR ALA ASP GLY GLU ALA LYS VAL GLU GLN LEU ALA VAL ARG PHE LYS THR LYS

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



• Molecule 1: E3 SUMO-protein ligase RanBP2

Chain 04:



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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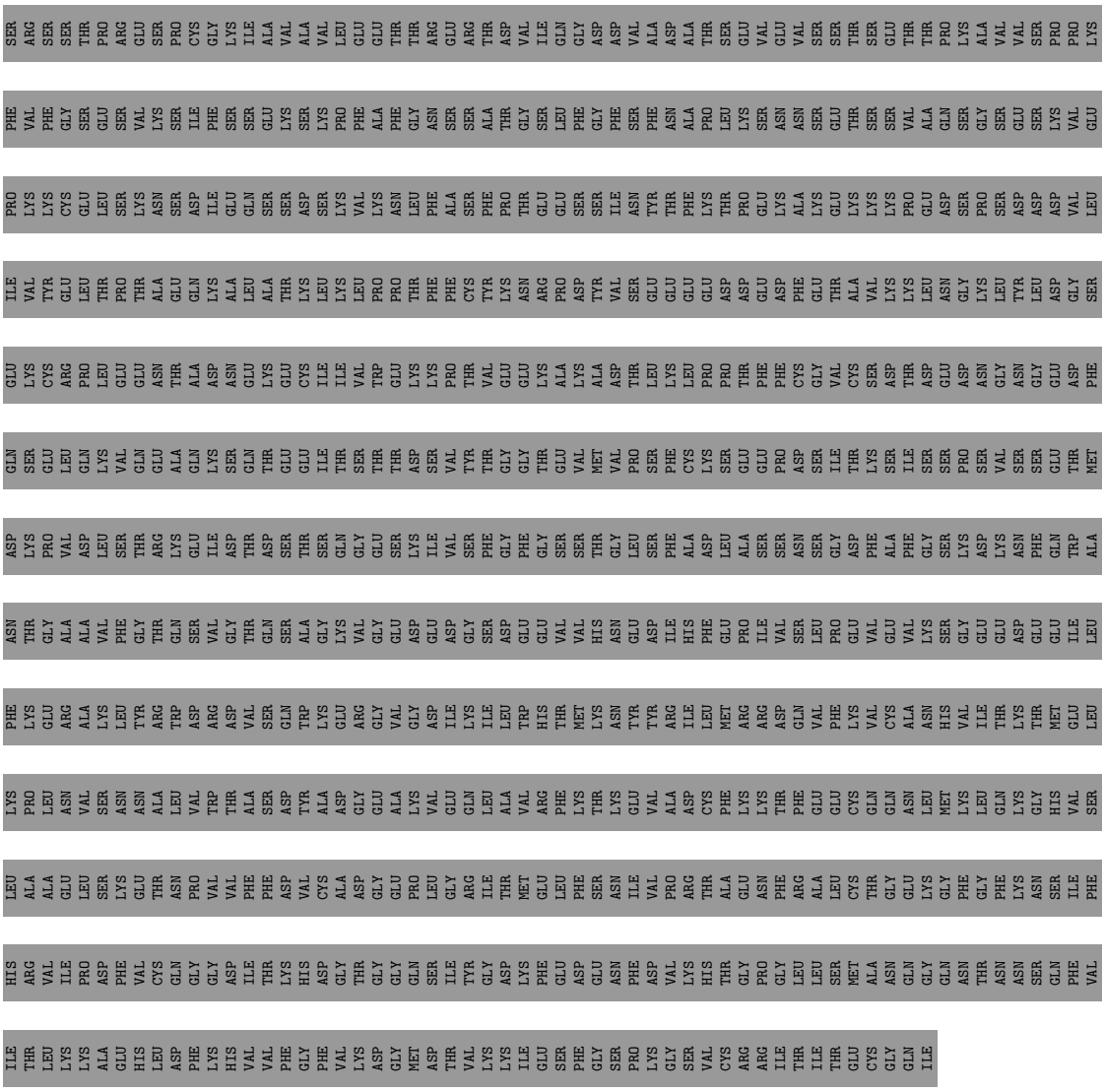

• Molecule 2: Nuclear pore membrane glycoprotein 210

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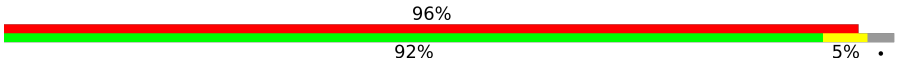

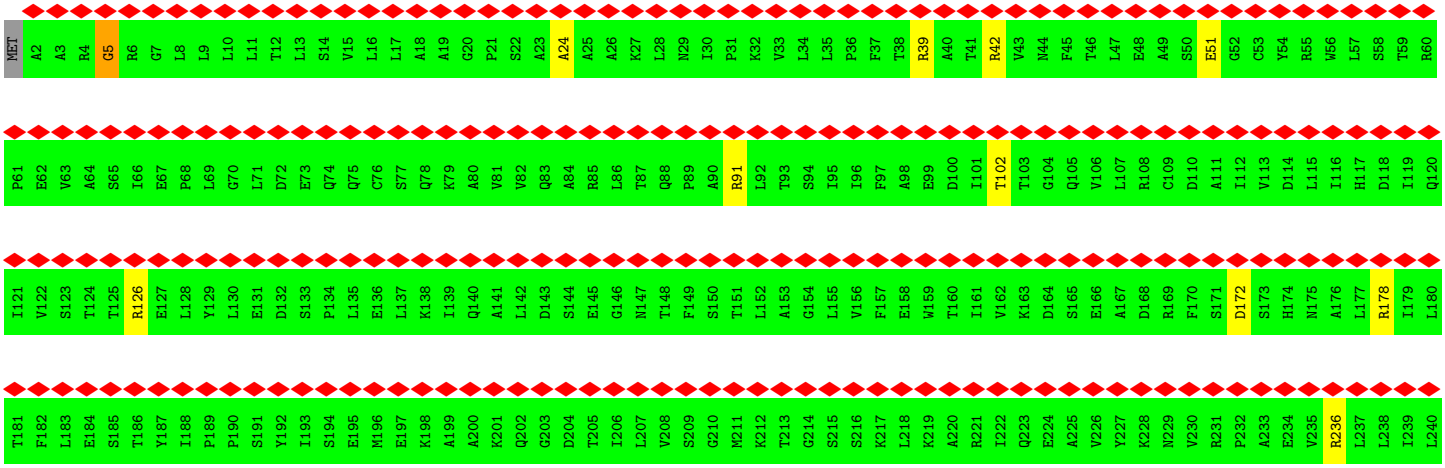

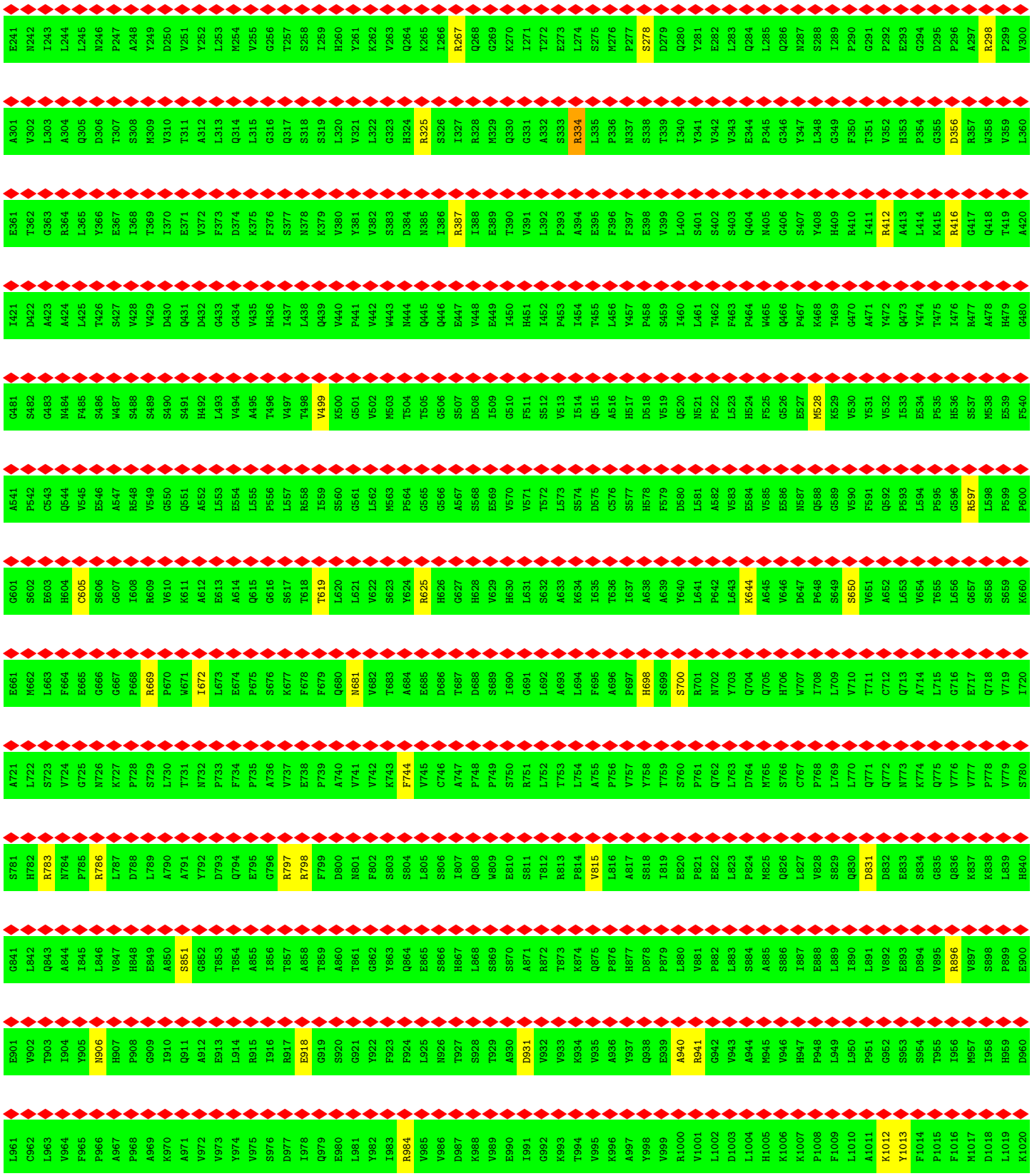
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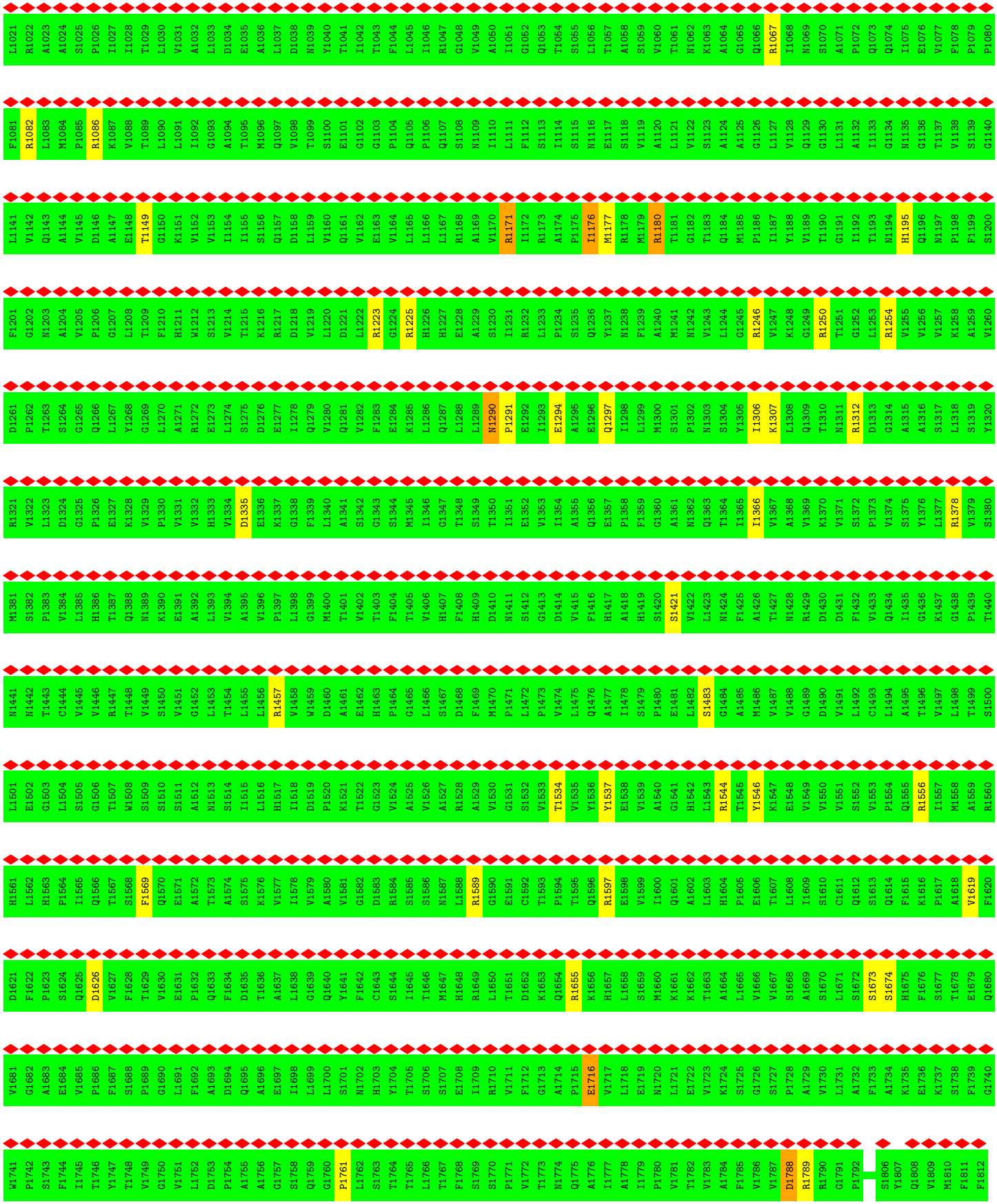
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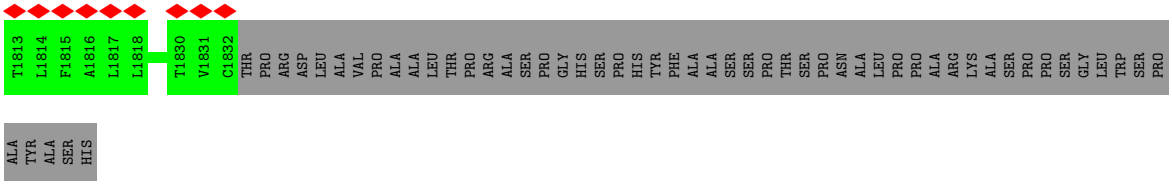

• Molecule 2: Nuclear pore membrane glycoprotein 210

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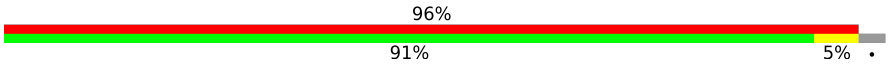

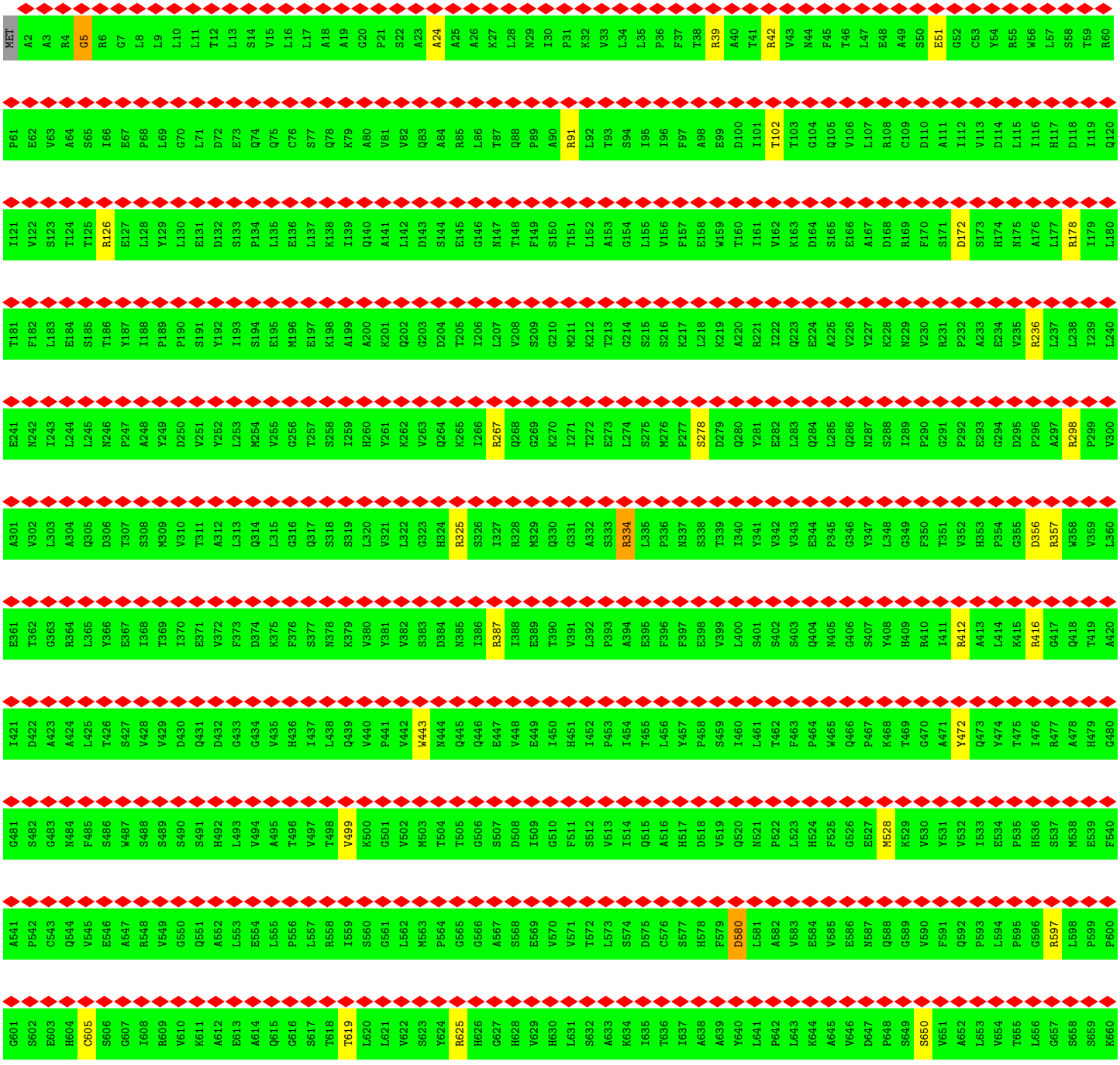

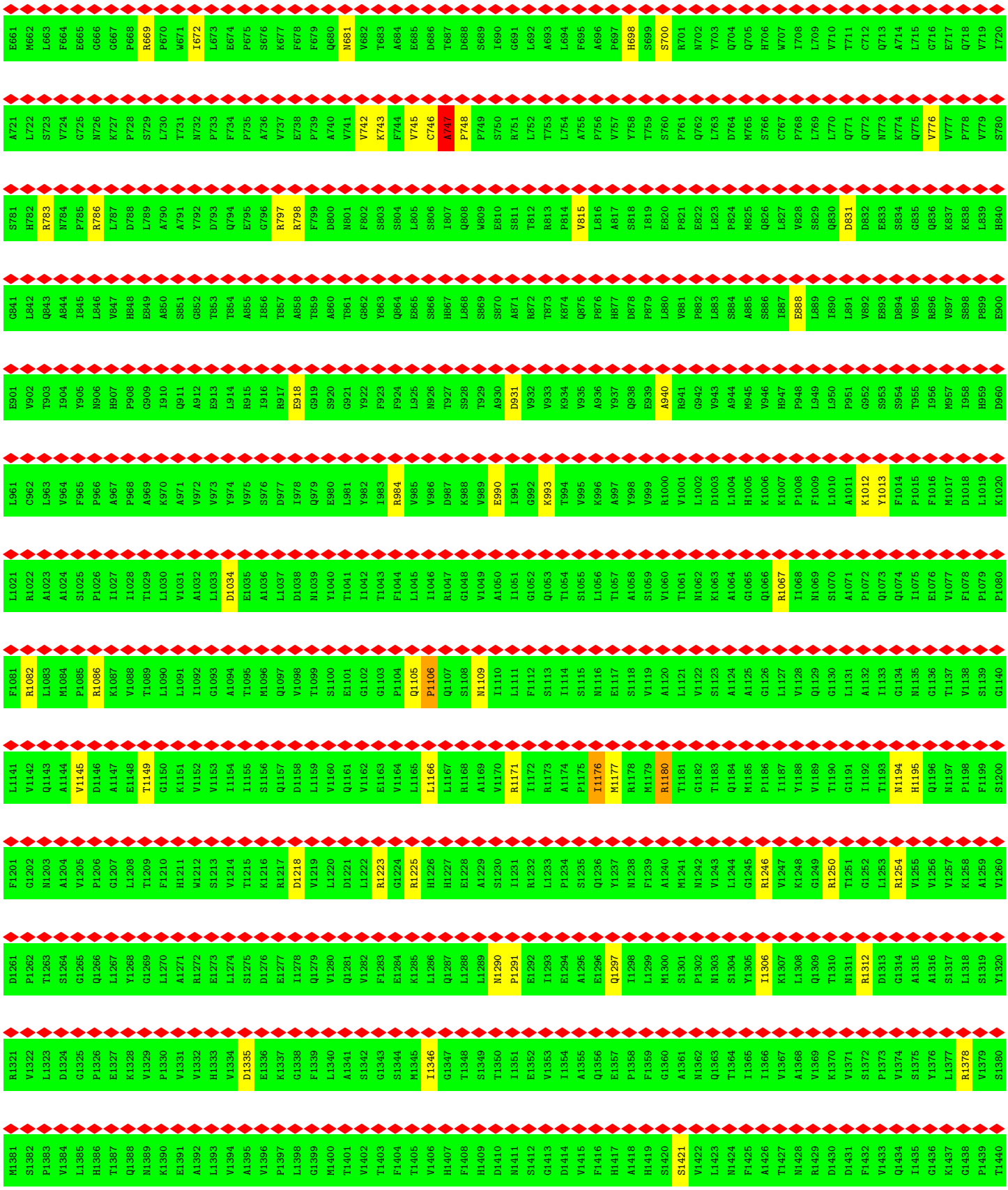
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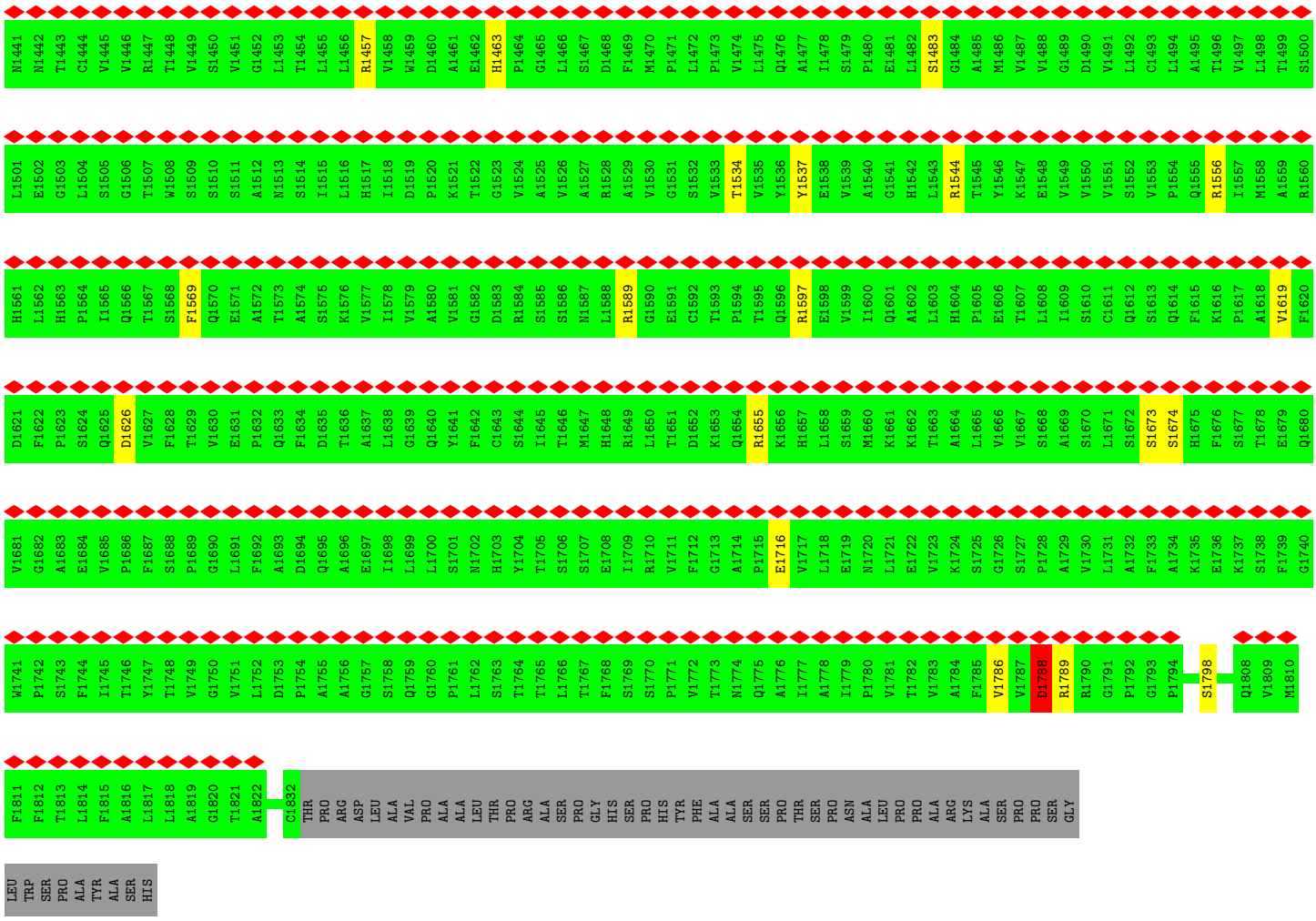

• Molecule 2: Nuclear pore membrane glycoprotein 210

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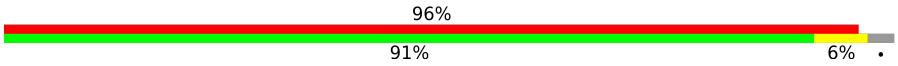

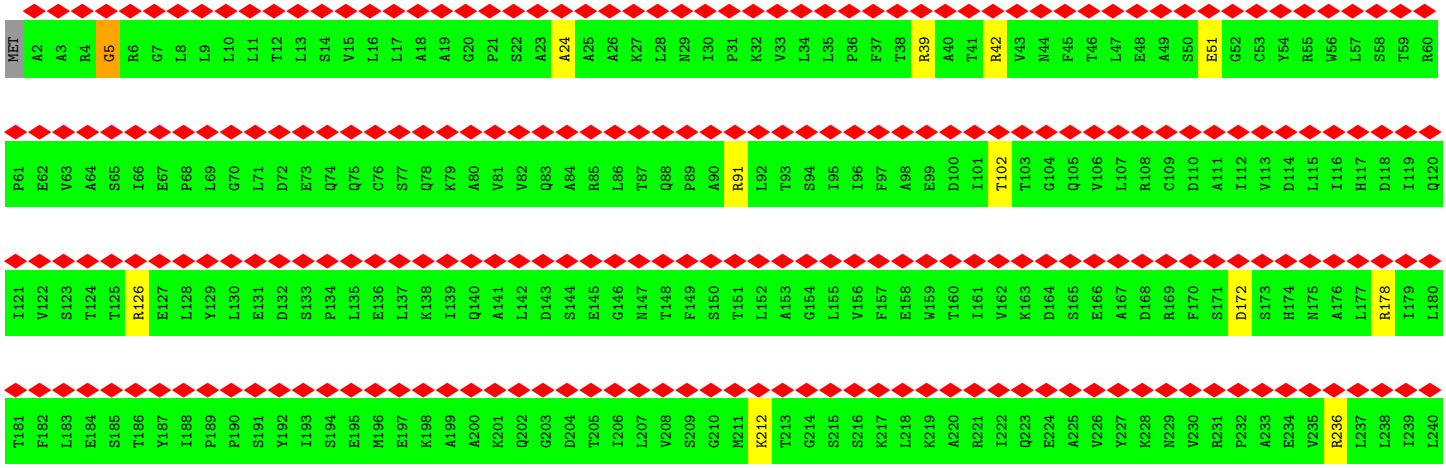

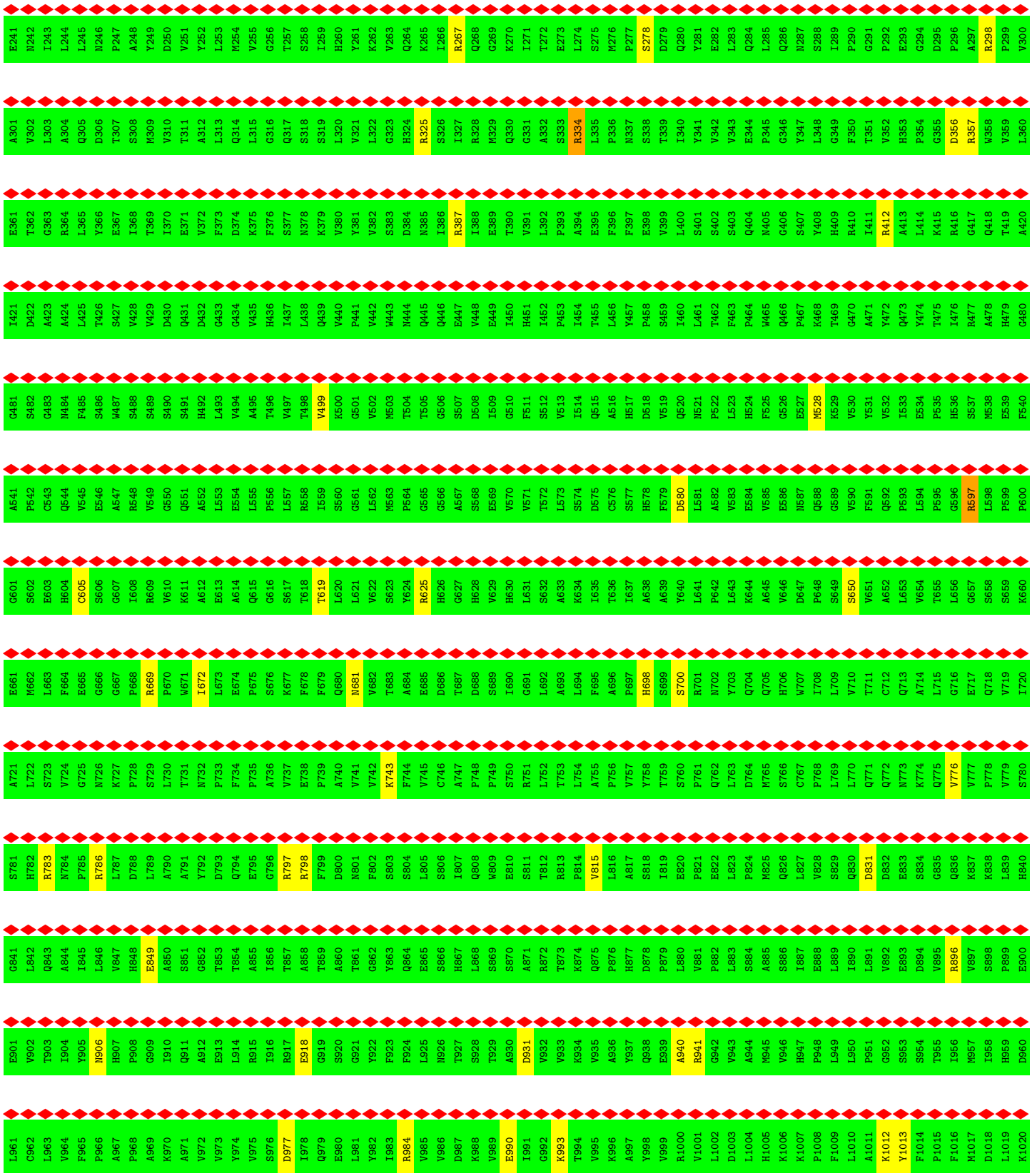
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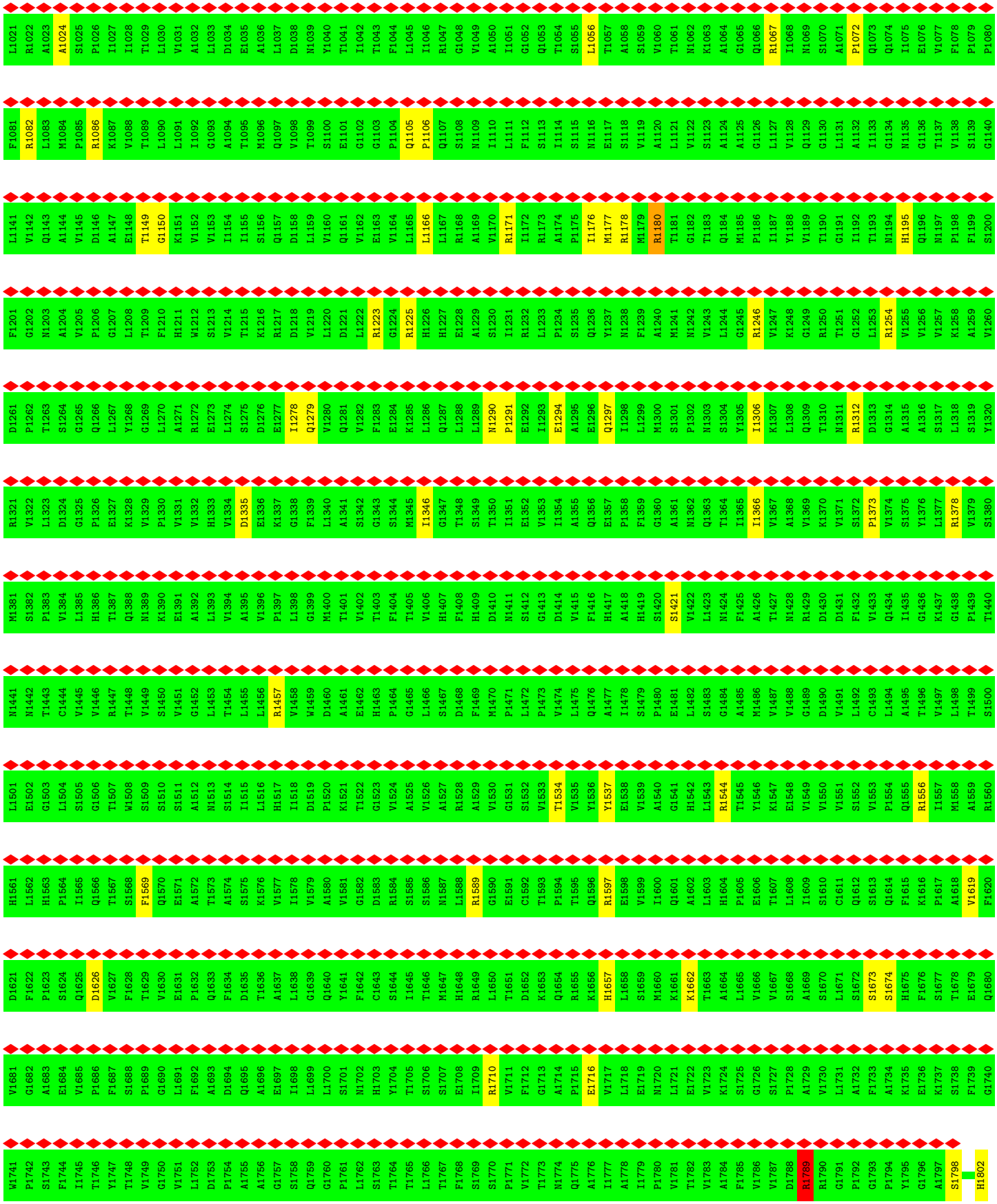
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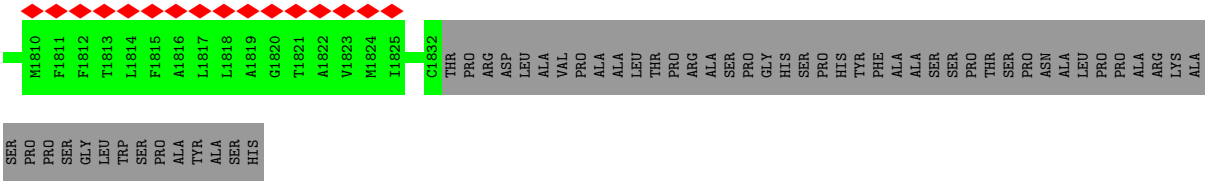
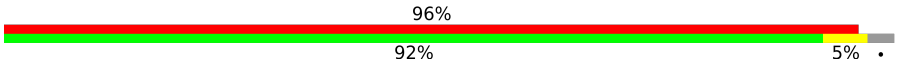
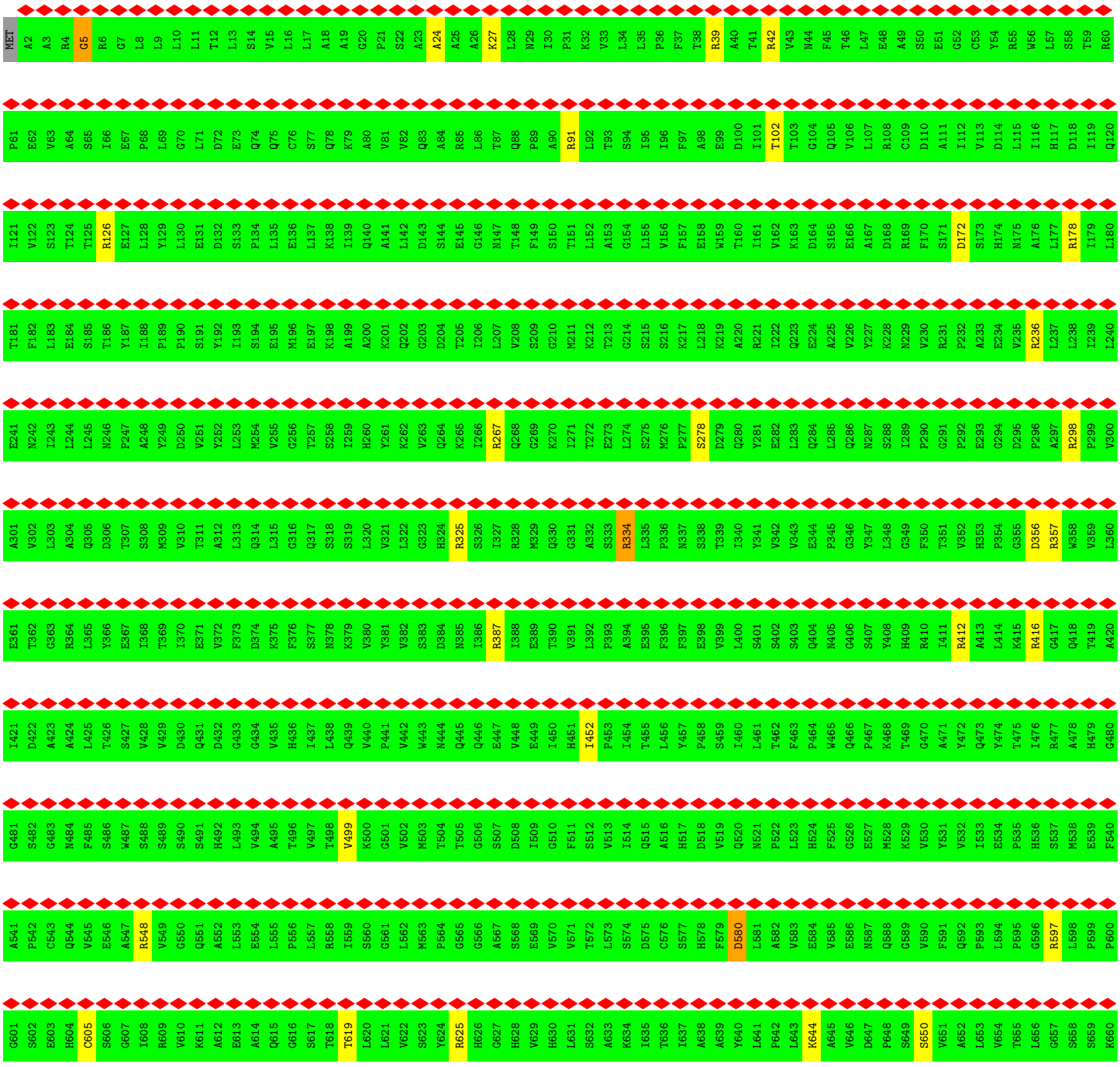
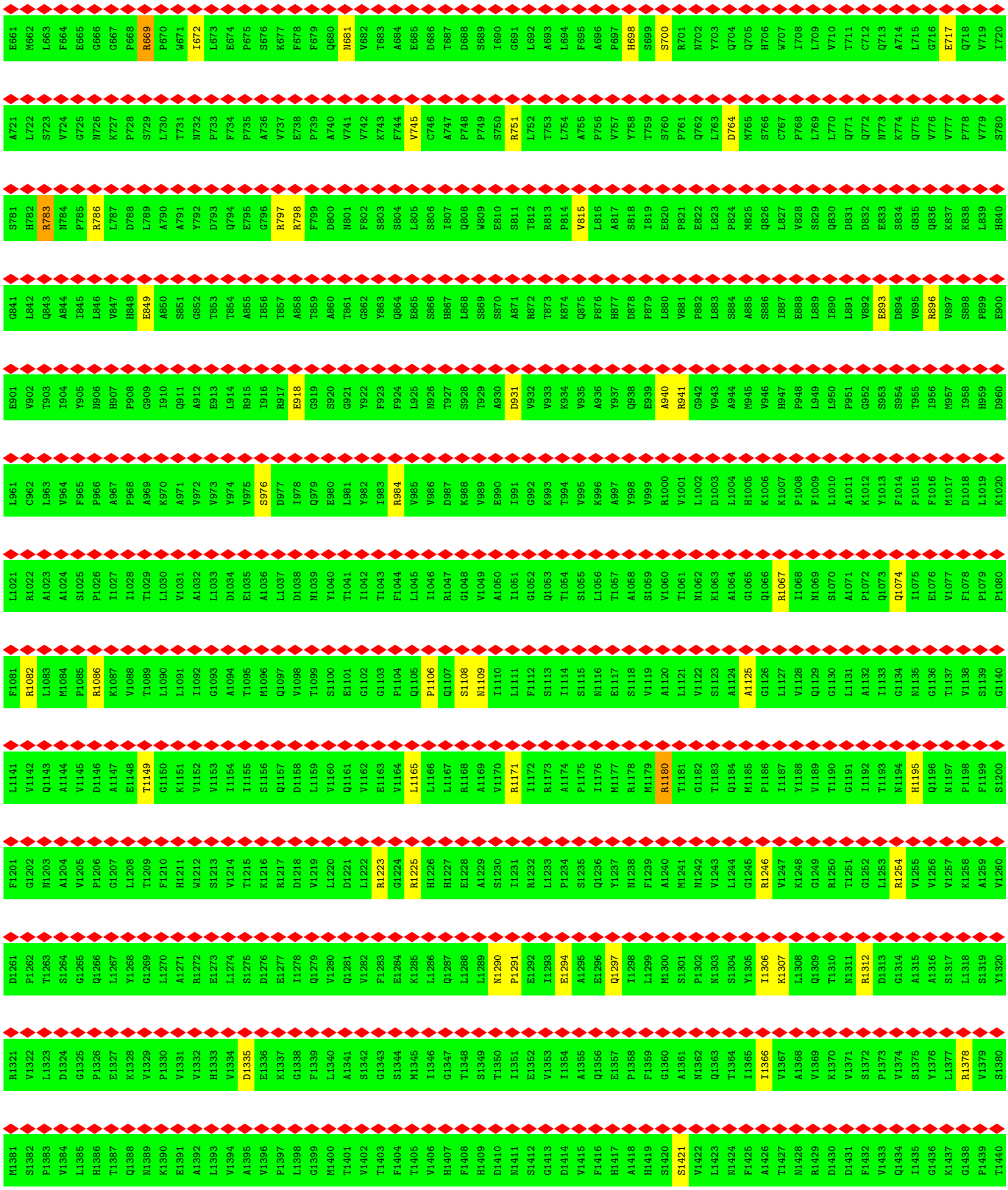


• Molecule 2: Nuclear pore membrane glycoprotein 210

Chain 13:



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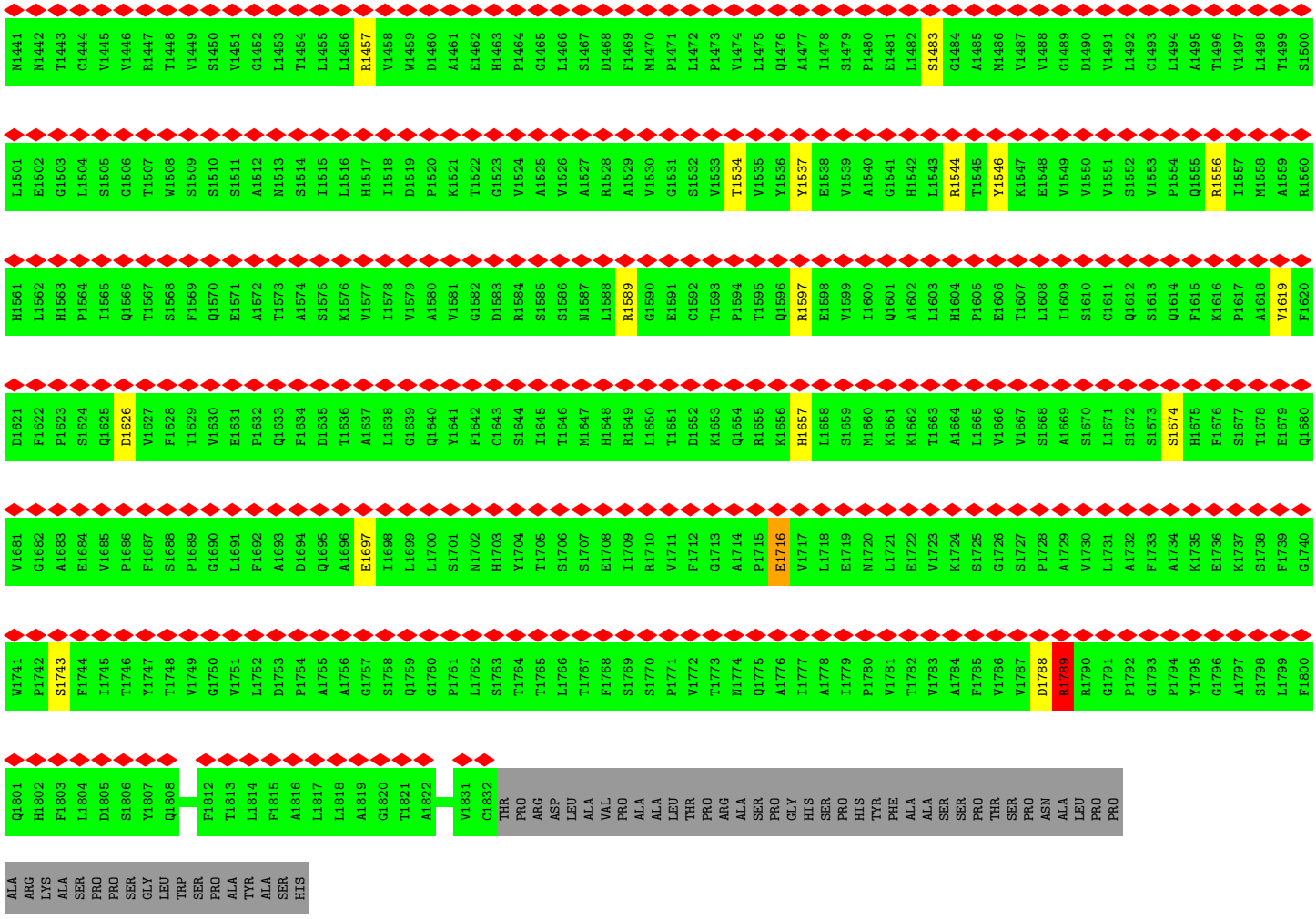
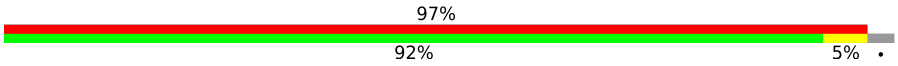
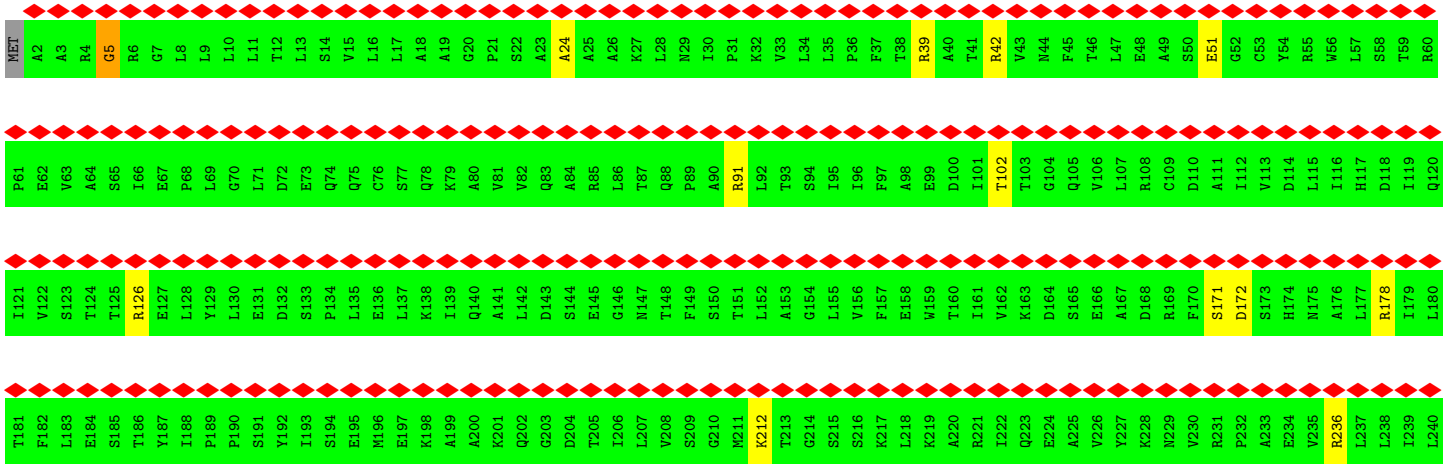
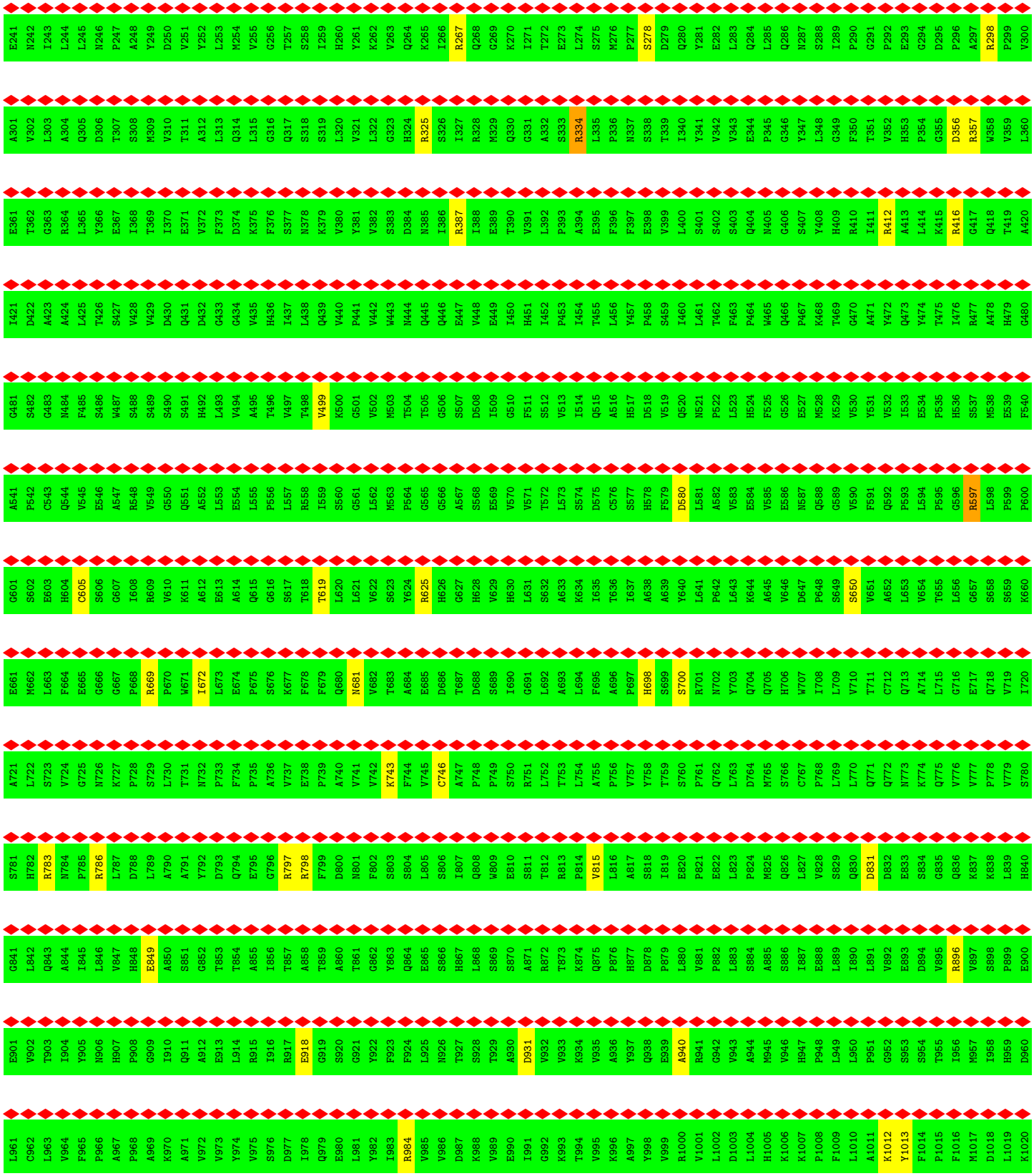


• Molecule 2: Nuclear pore membrane glycoprotein 210

Chain 14:



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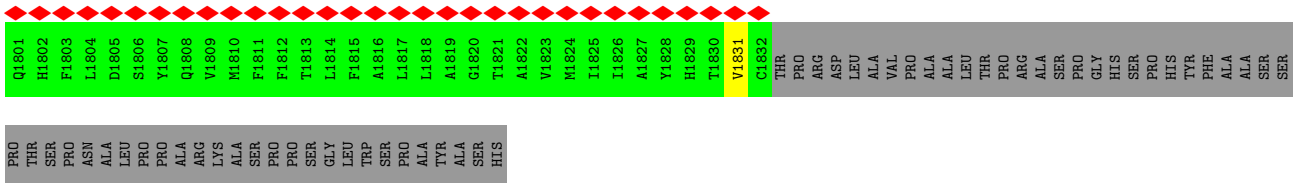
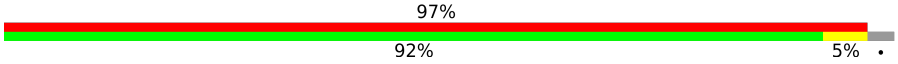
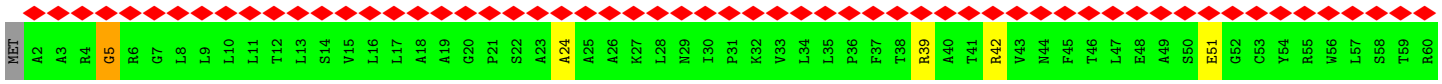
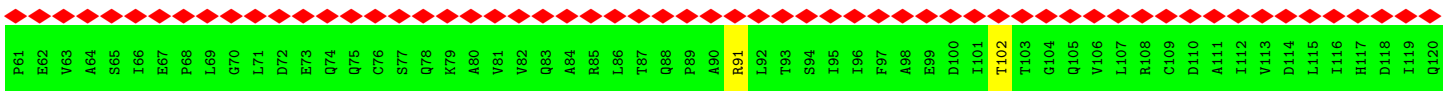


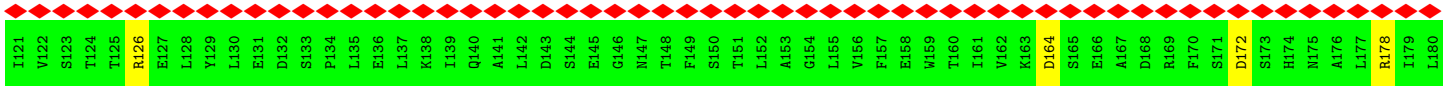
• Molecule 2: Nuclear pore membrane glycoprotein 210

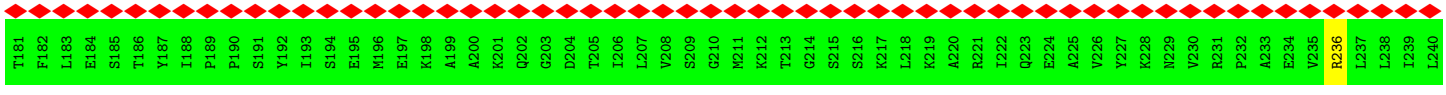
Chain 15:

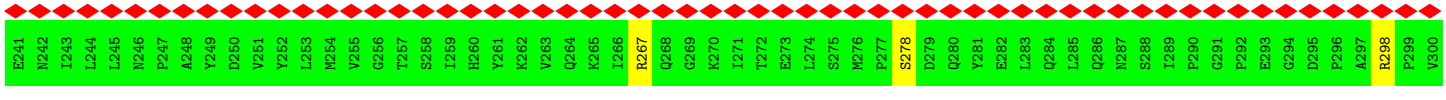


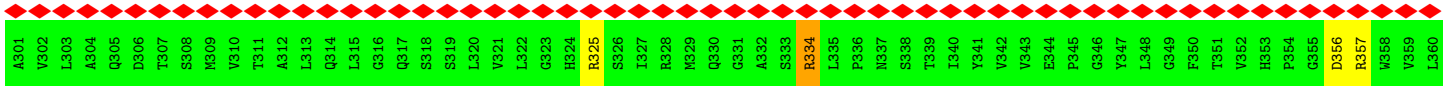


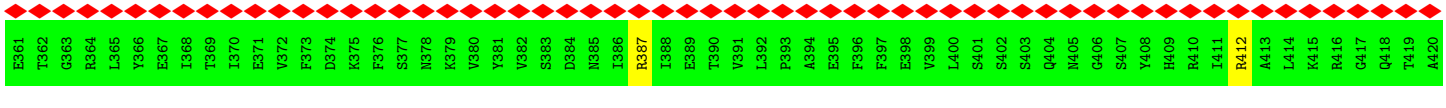


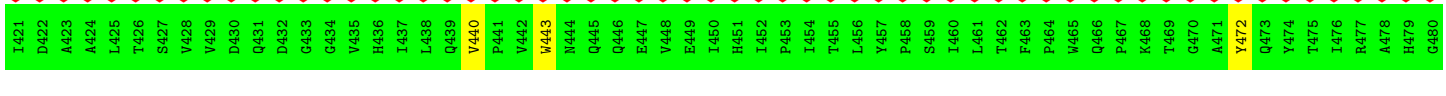


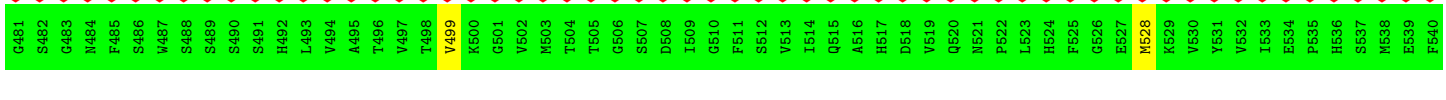


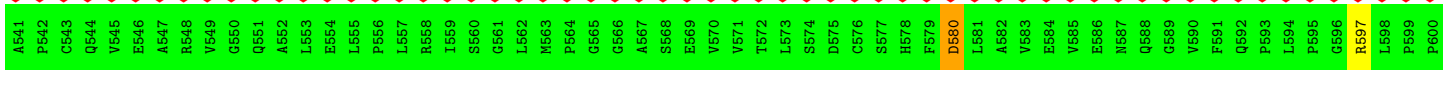


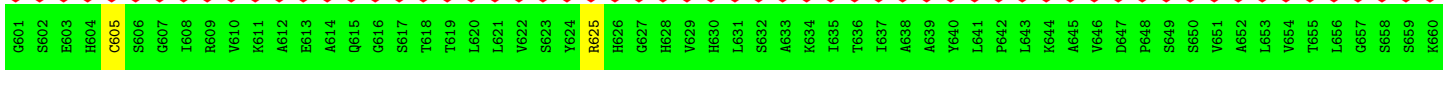


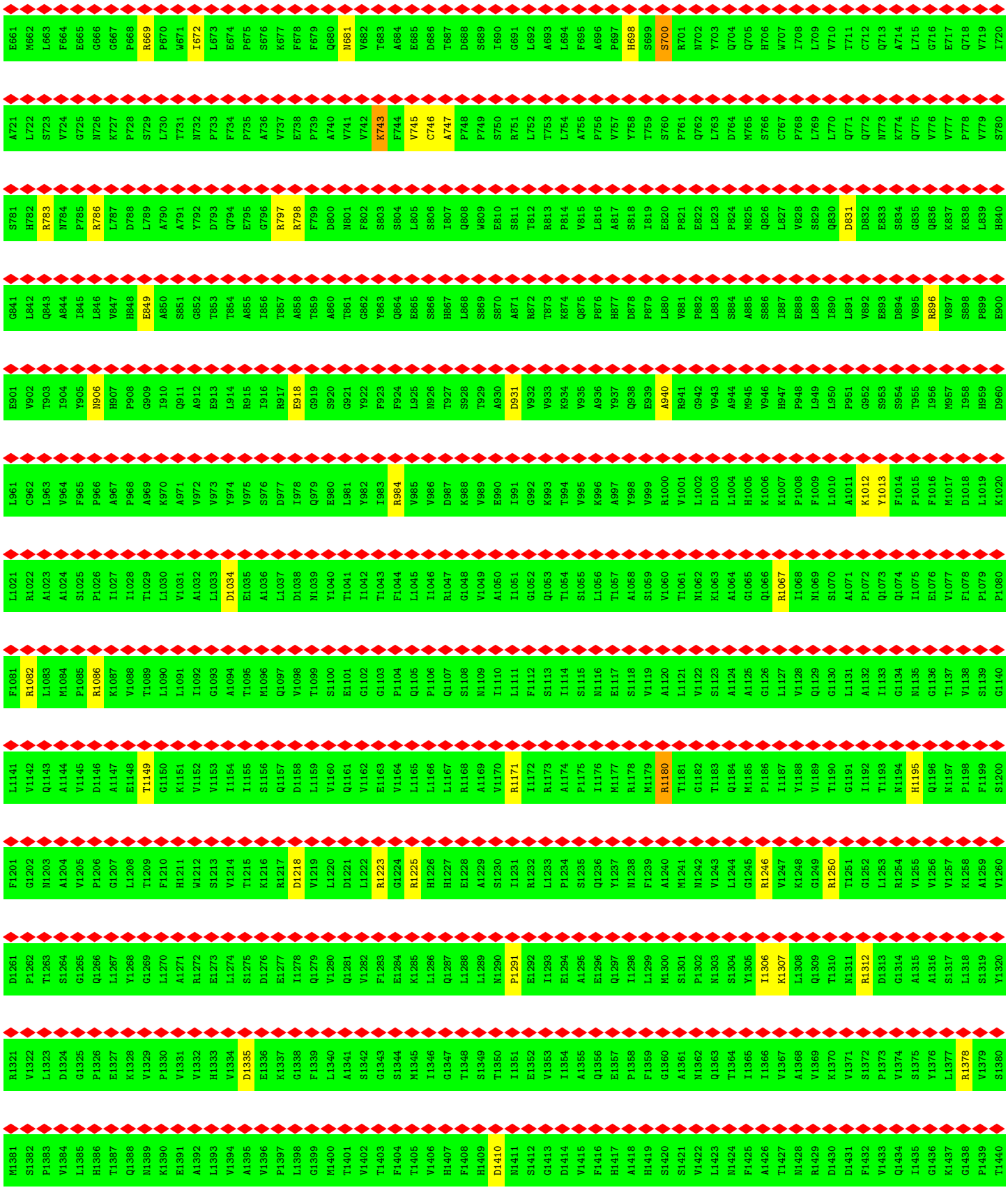








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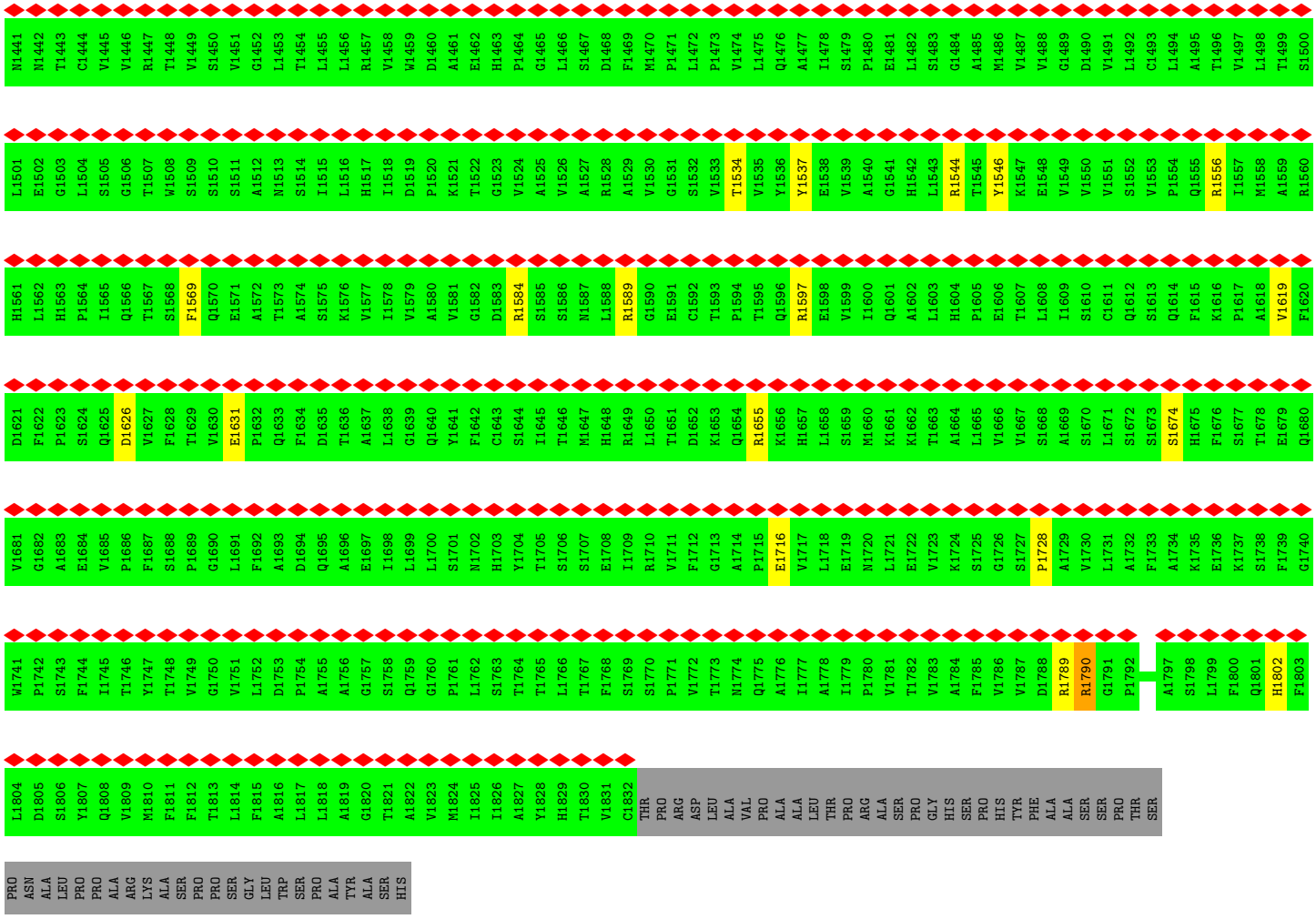

• Molecule 2: Nuclear pore membrane glycoprotein 210

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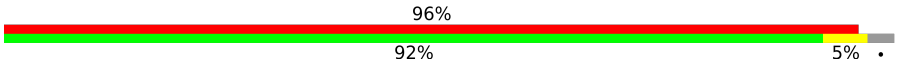

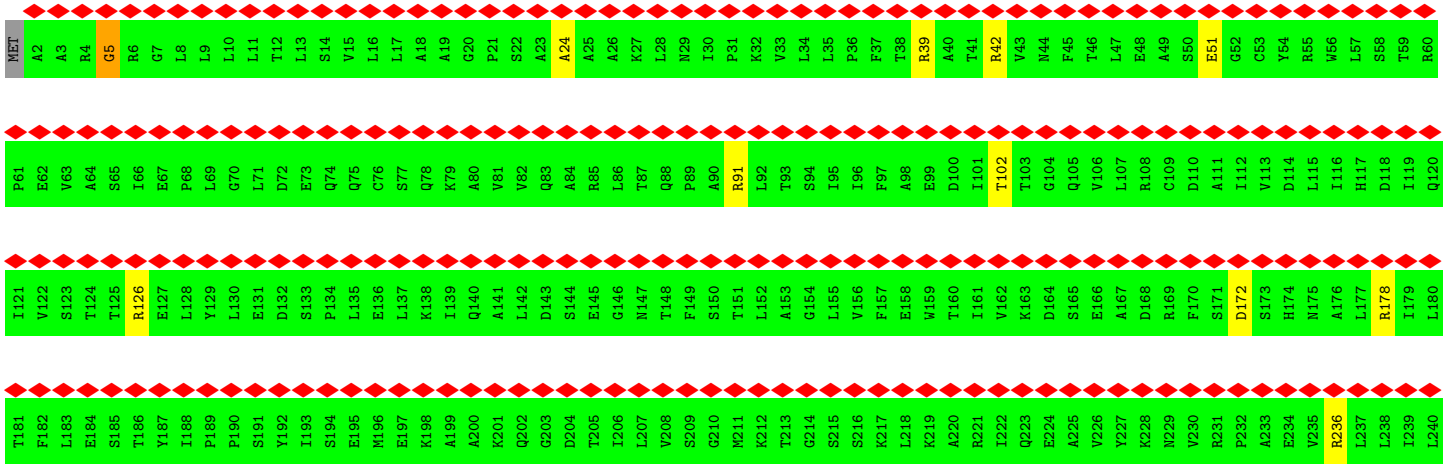

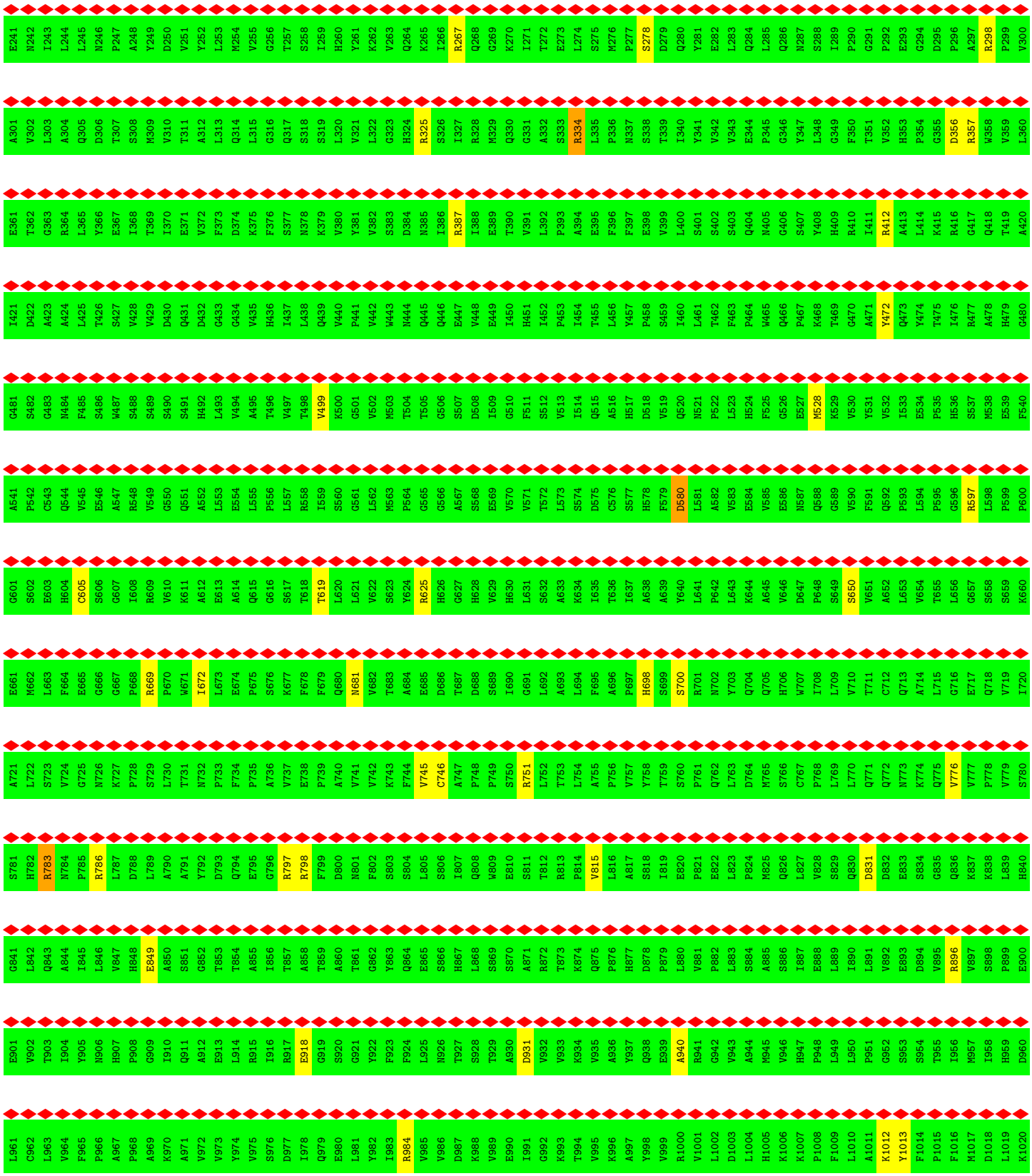
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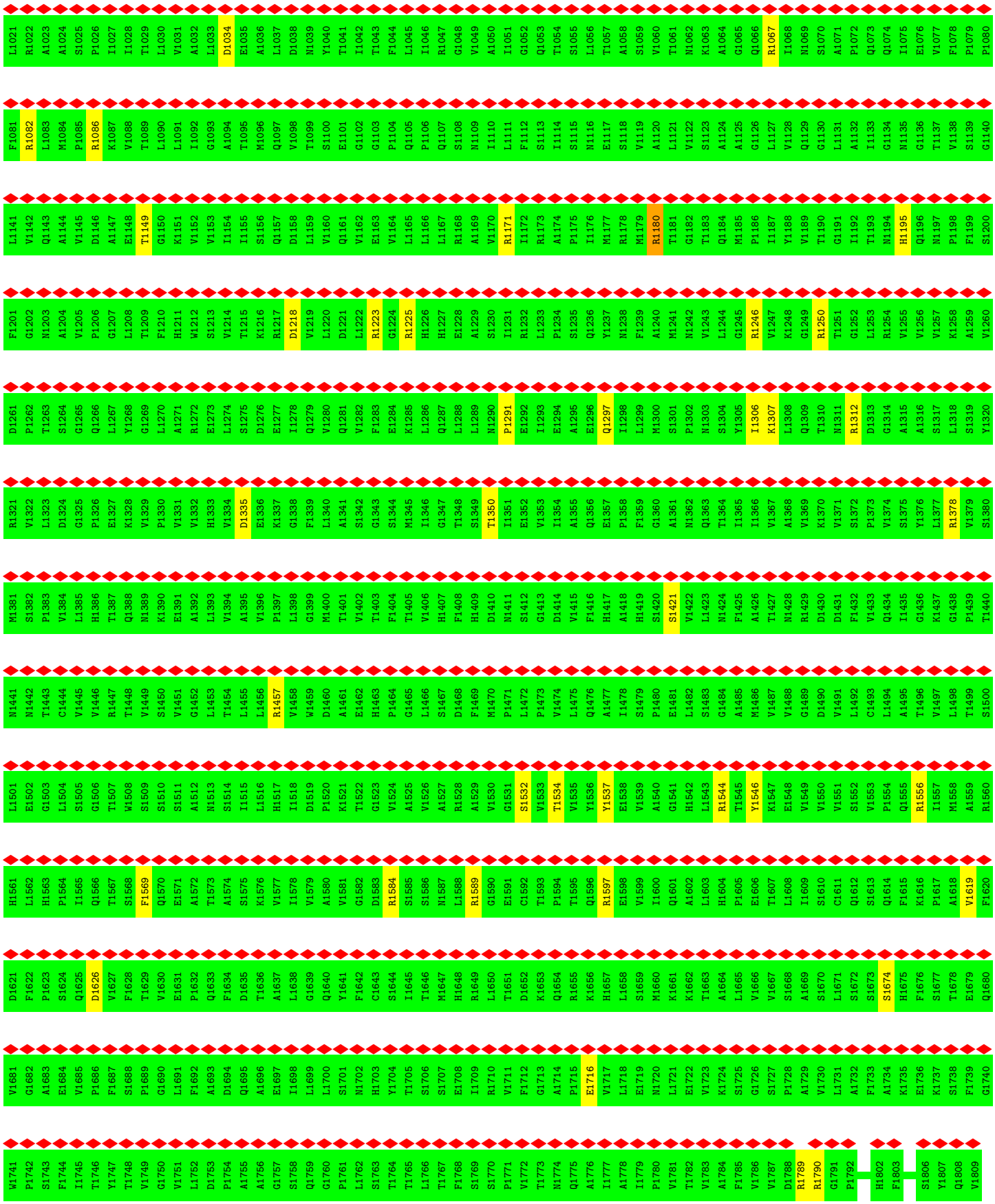
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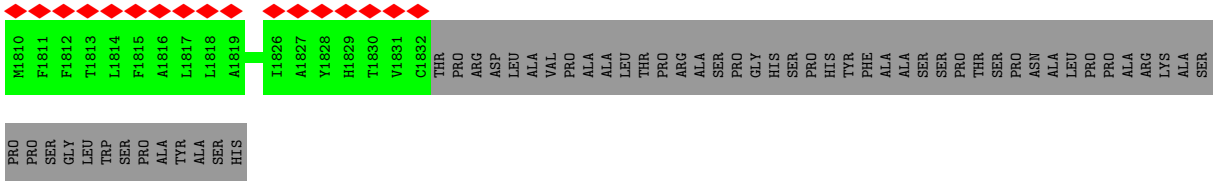
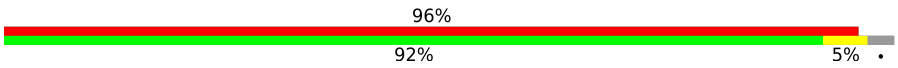
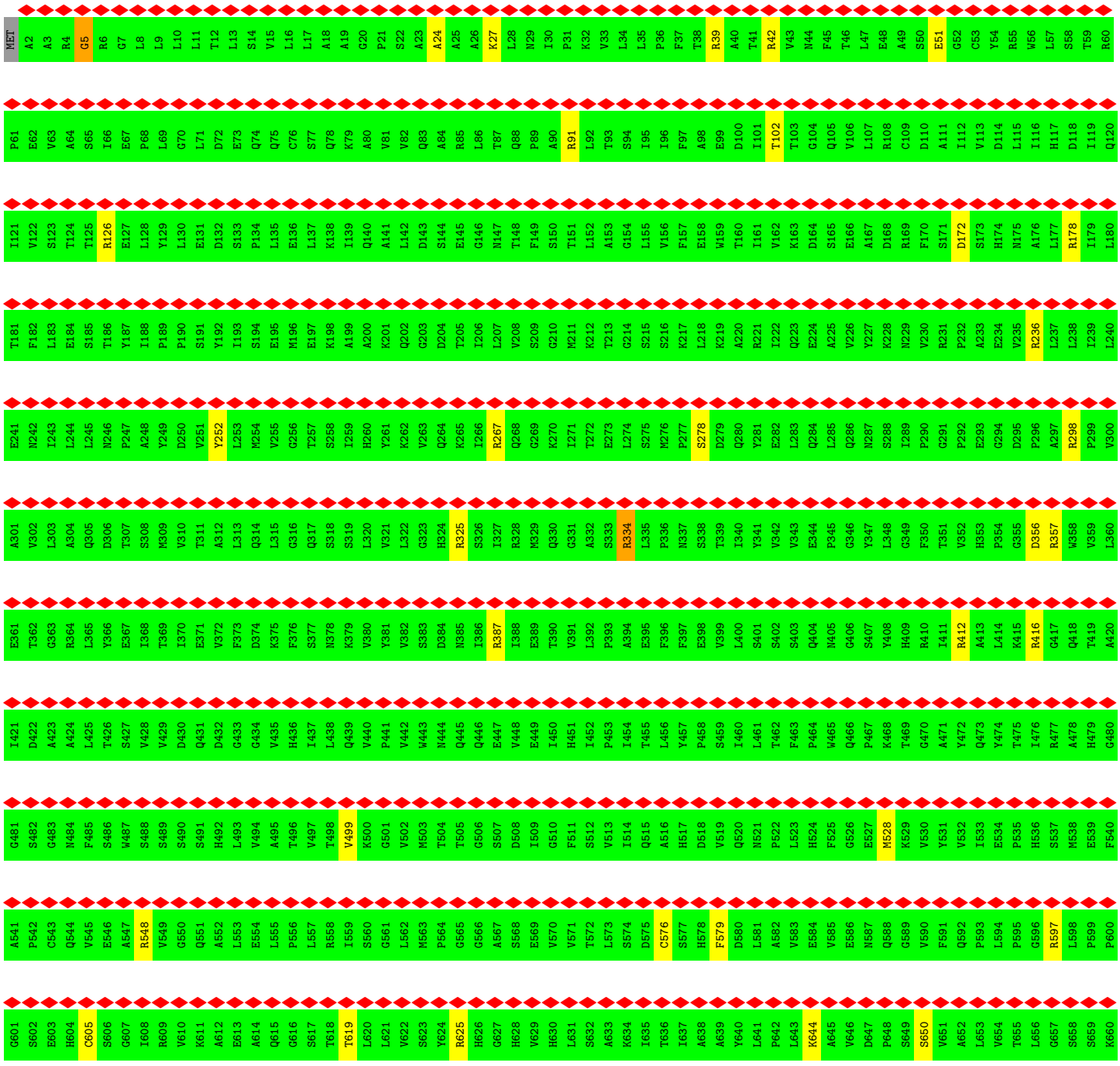
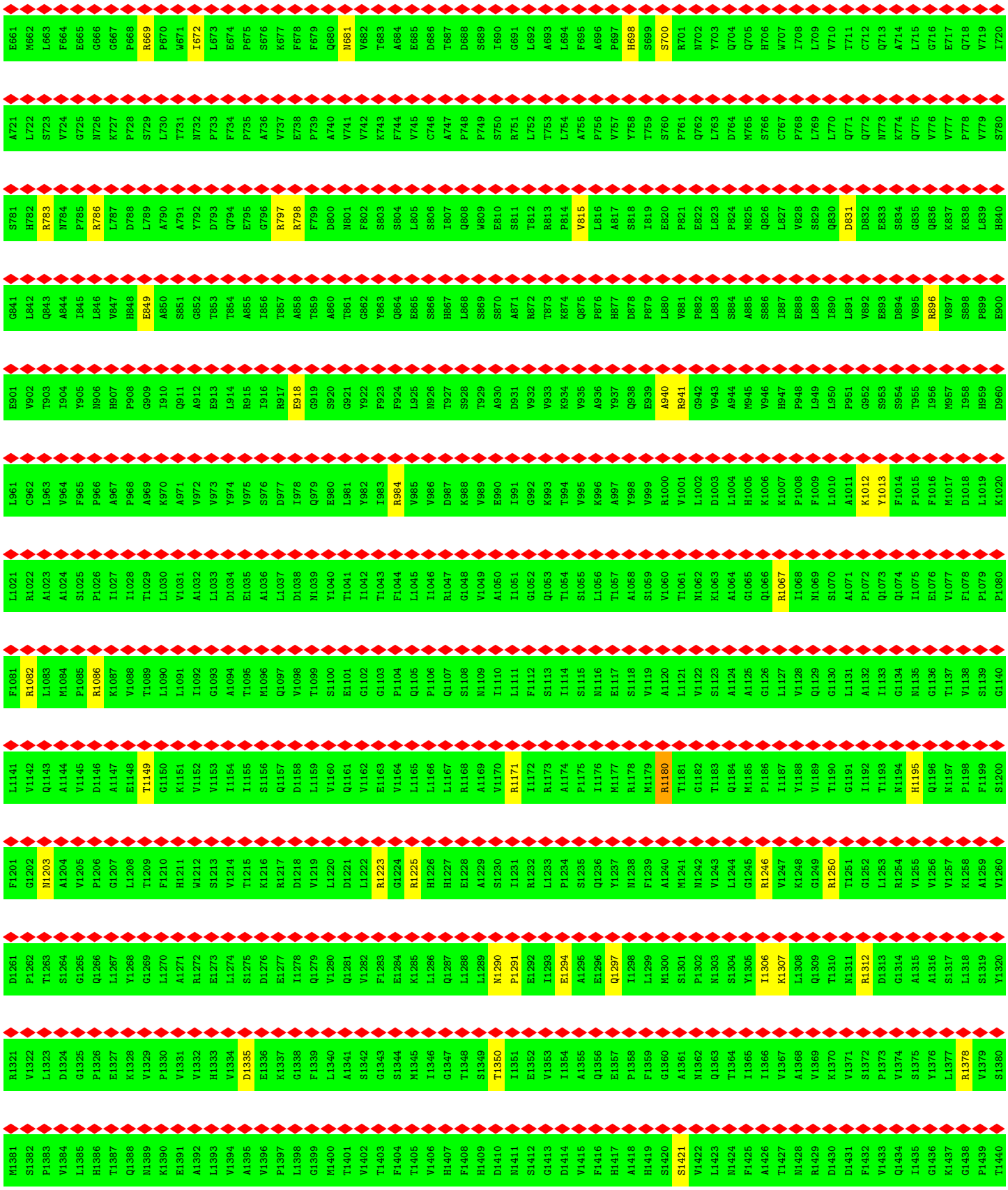


• Molecule 2: Nuclear pore membrane glycoprotein 210

Chain 17:



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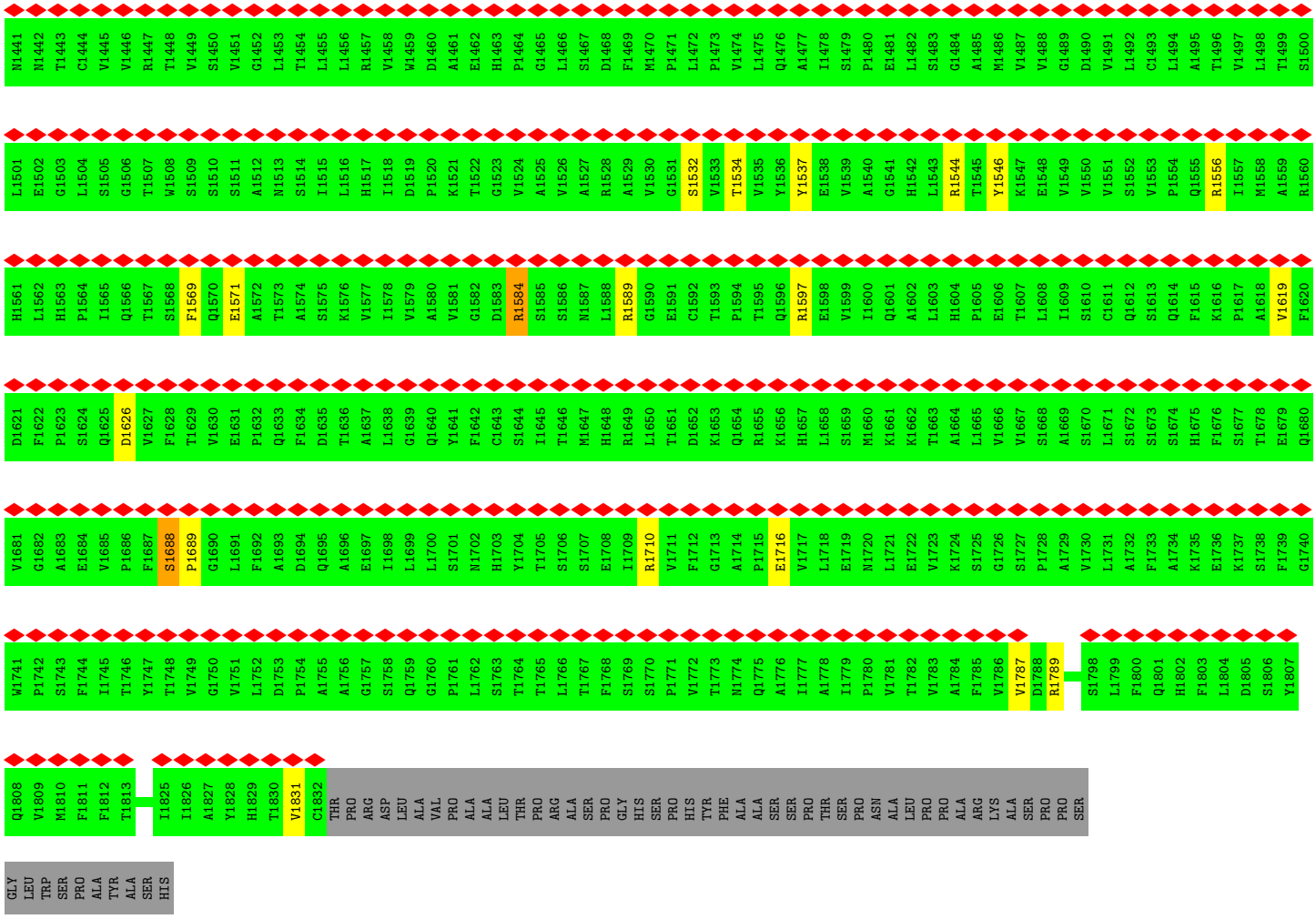

• Molecule 3: Aladin

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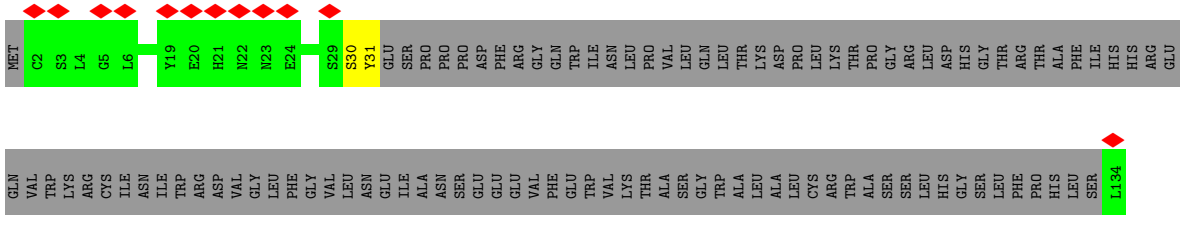

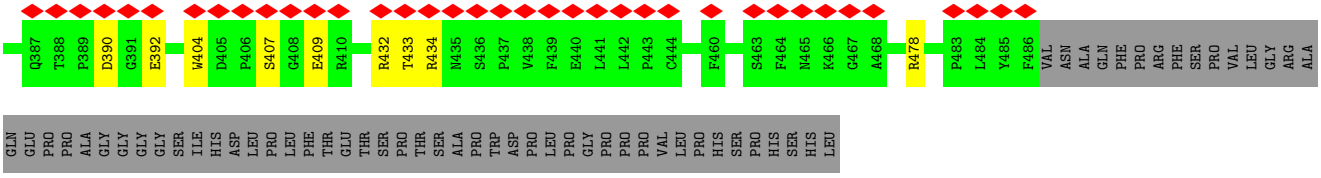

• Molecule 3: Aladin

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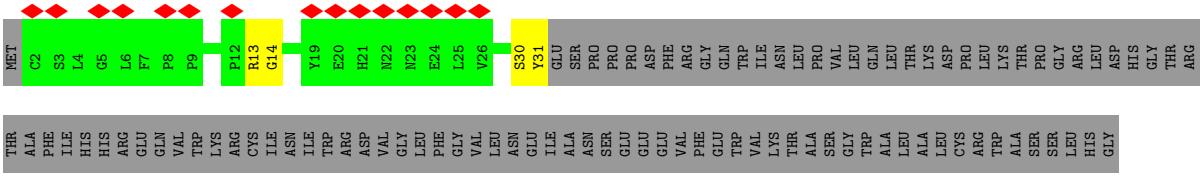

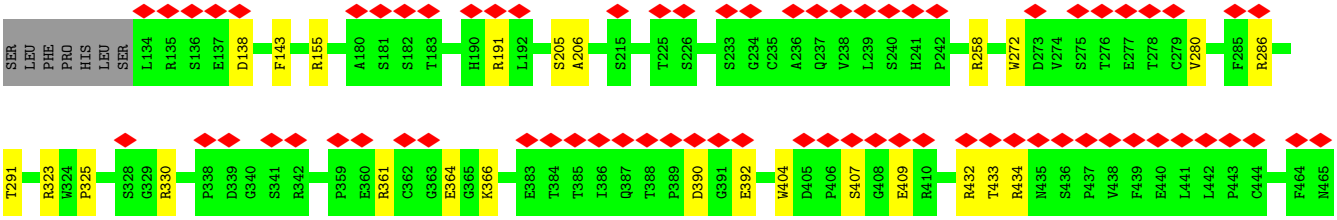

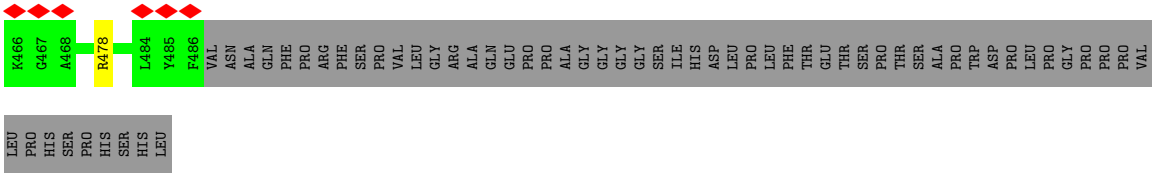

• Molecule 4: Nuclear pore complex protein Nup93

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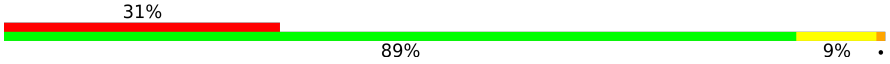
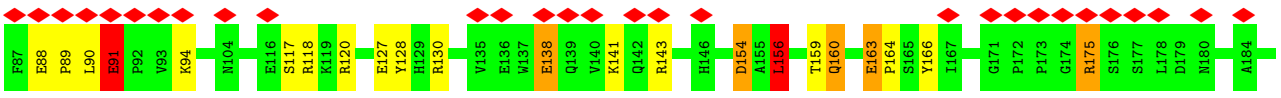
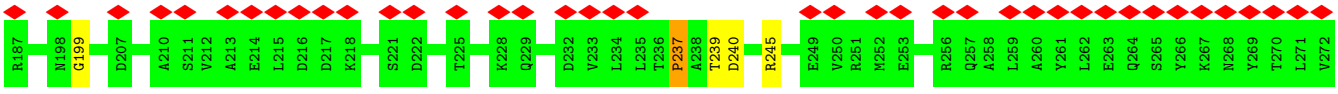
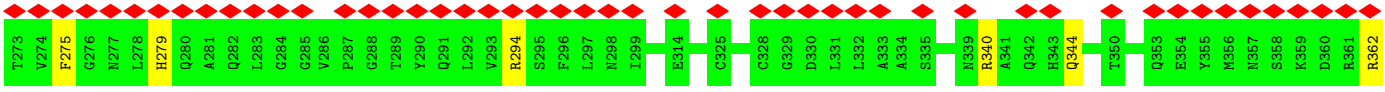
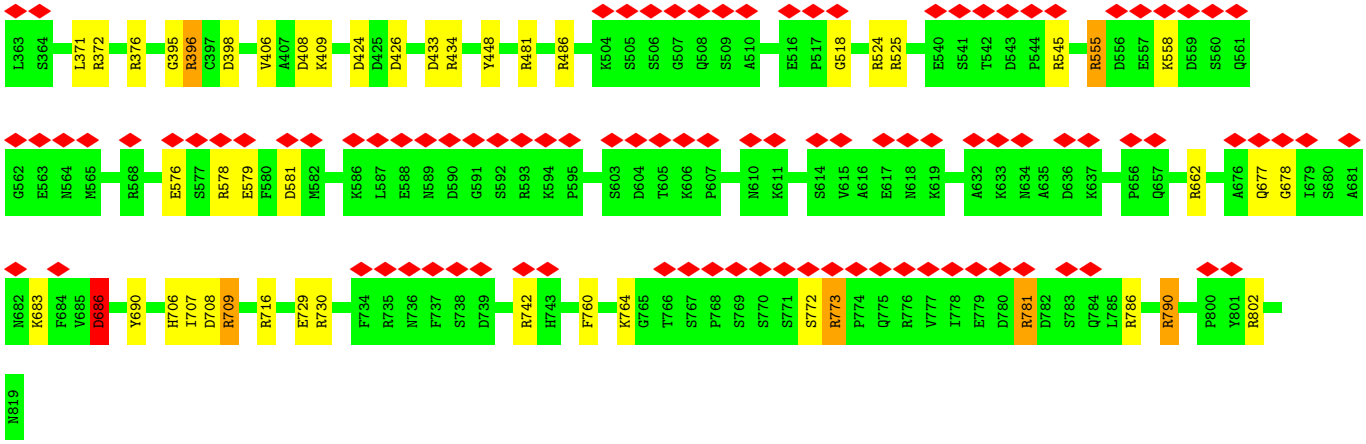




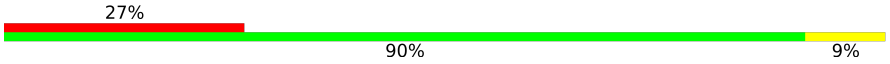


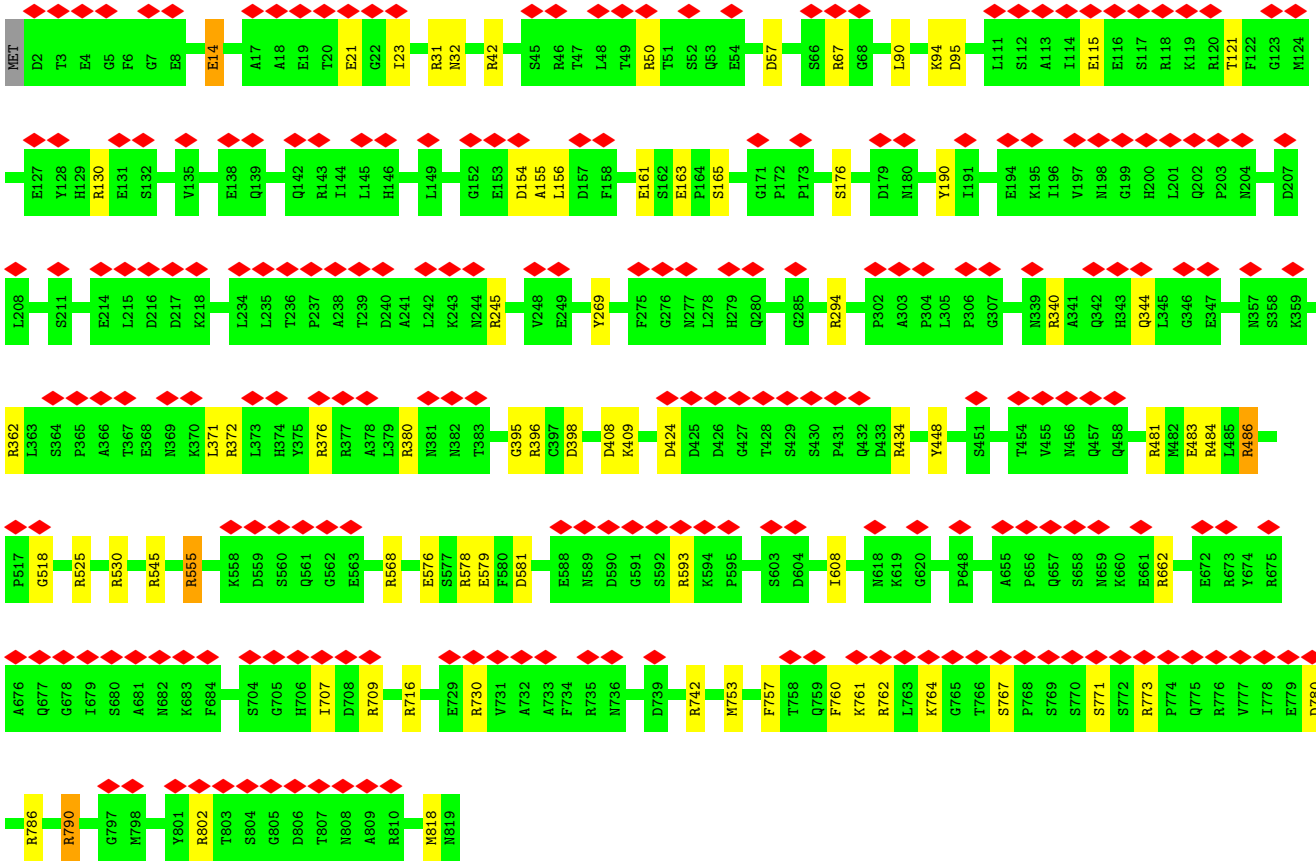




• Molecule 4: Nuclear pore complex protein Nup93

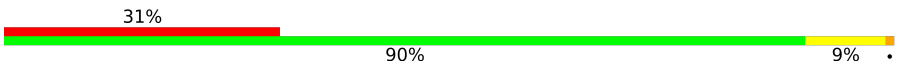
Chain A1:

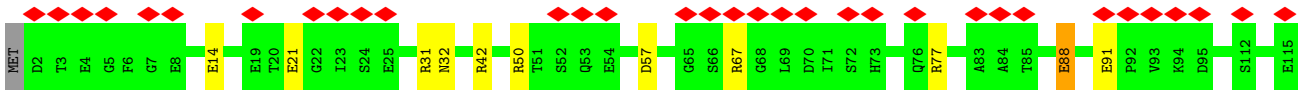


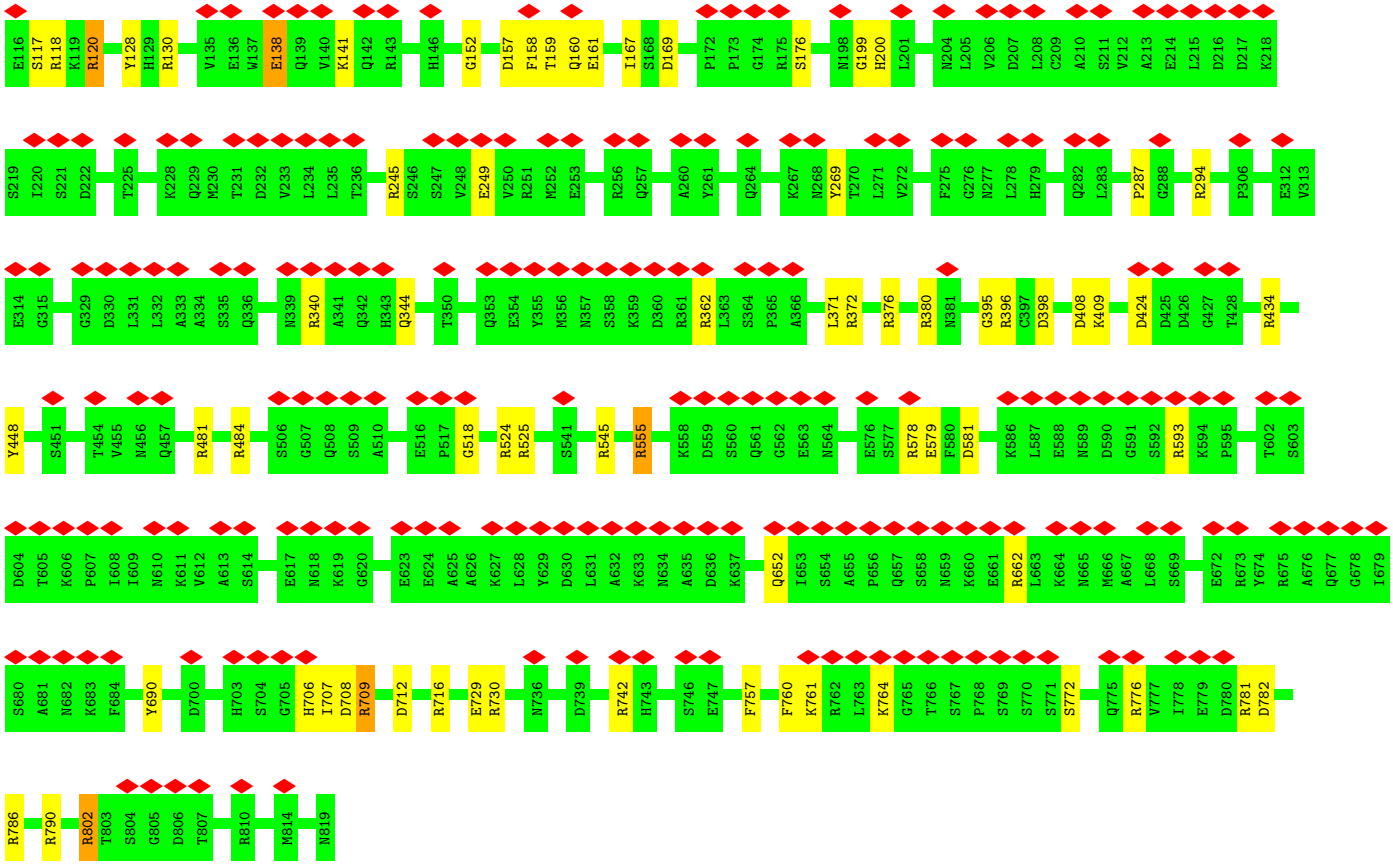


• Molecule 4: Nuclear pore complex protein Nup93

Chain A2:







• Molecule 4: Nuclear pore complex protein Nup93

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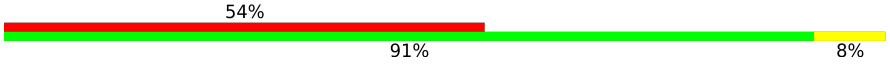
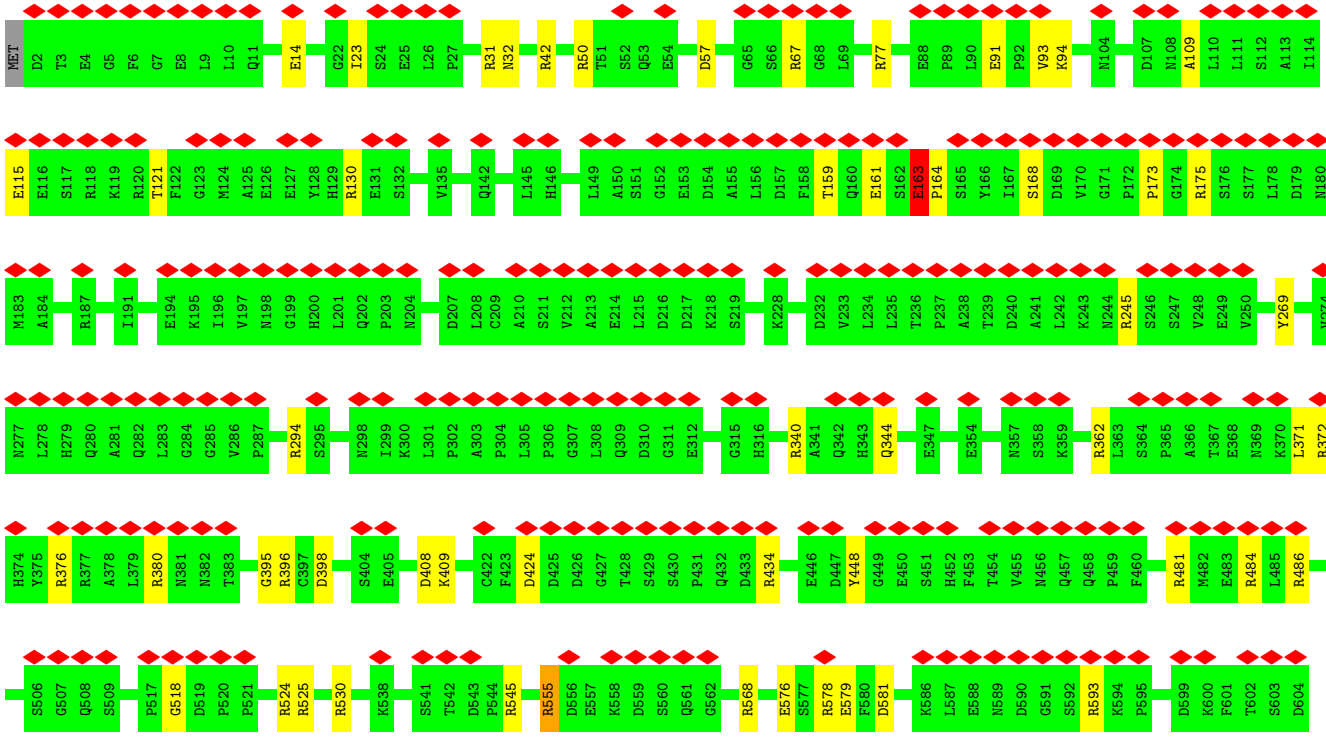
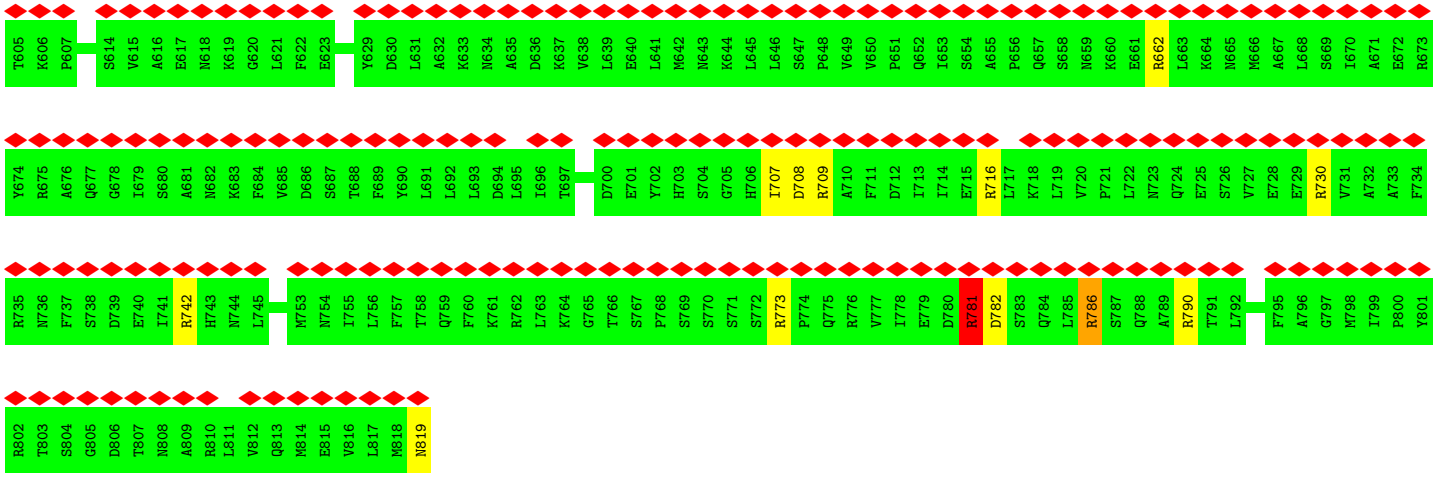
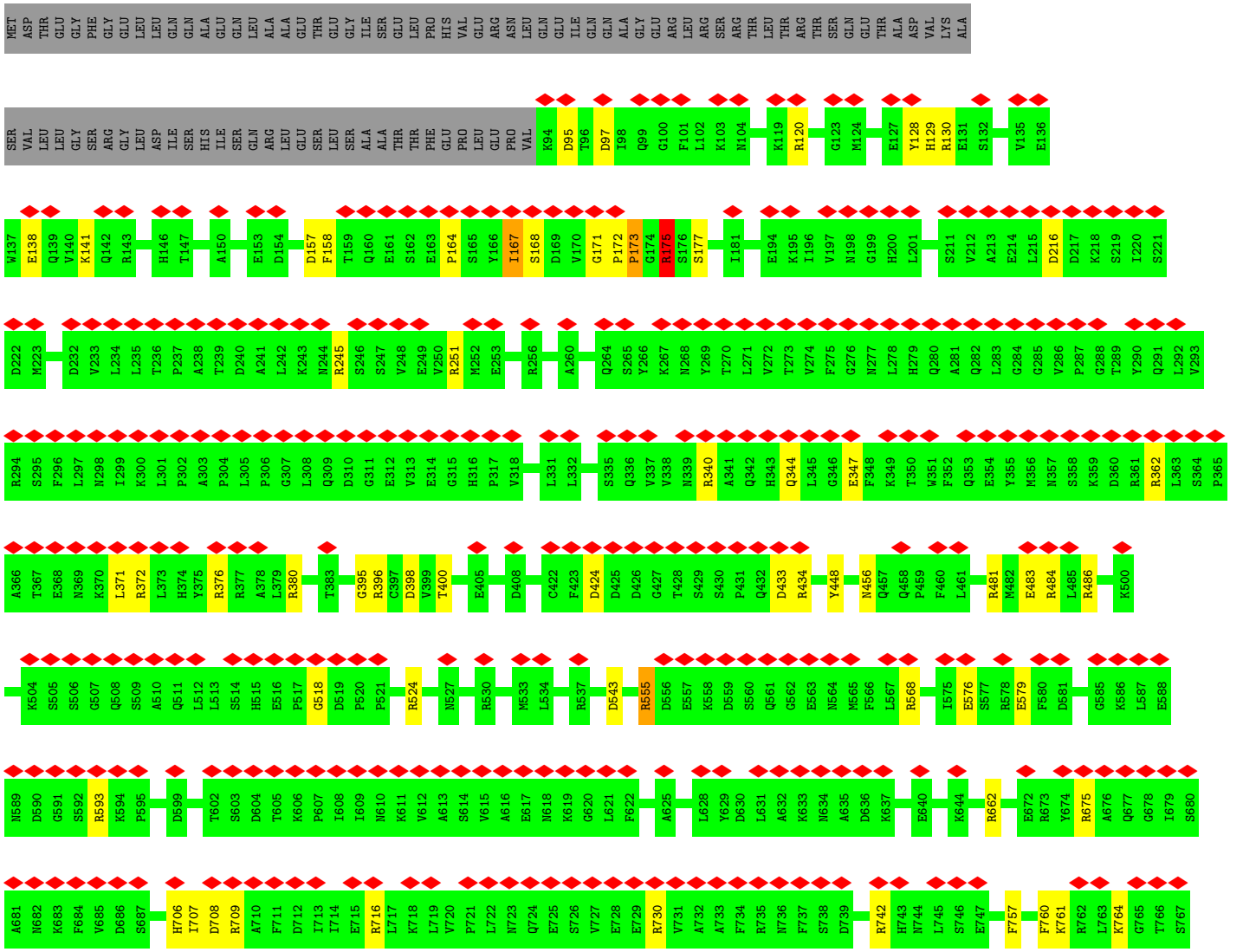


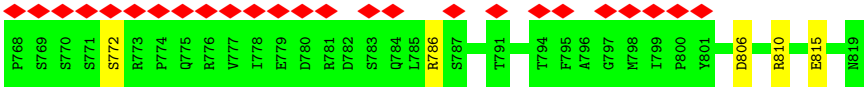




• Molecule 4: Nuclear pore complex protein Nup93

Chain A4:





• Molecule 4: Nuclear pore complex protein Nup93

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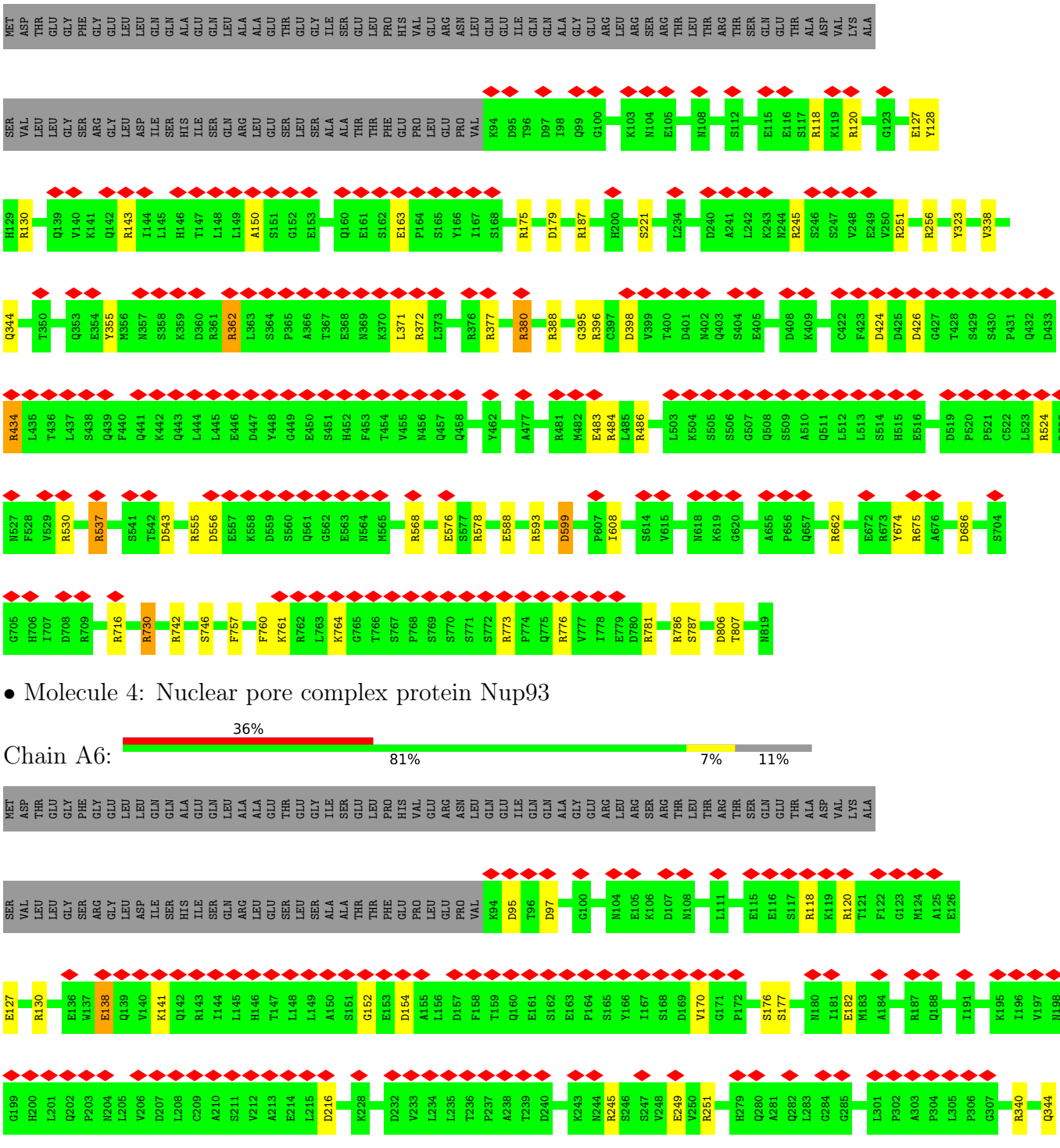
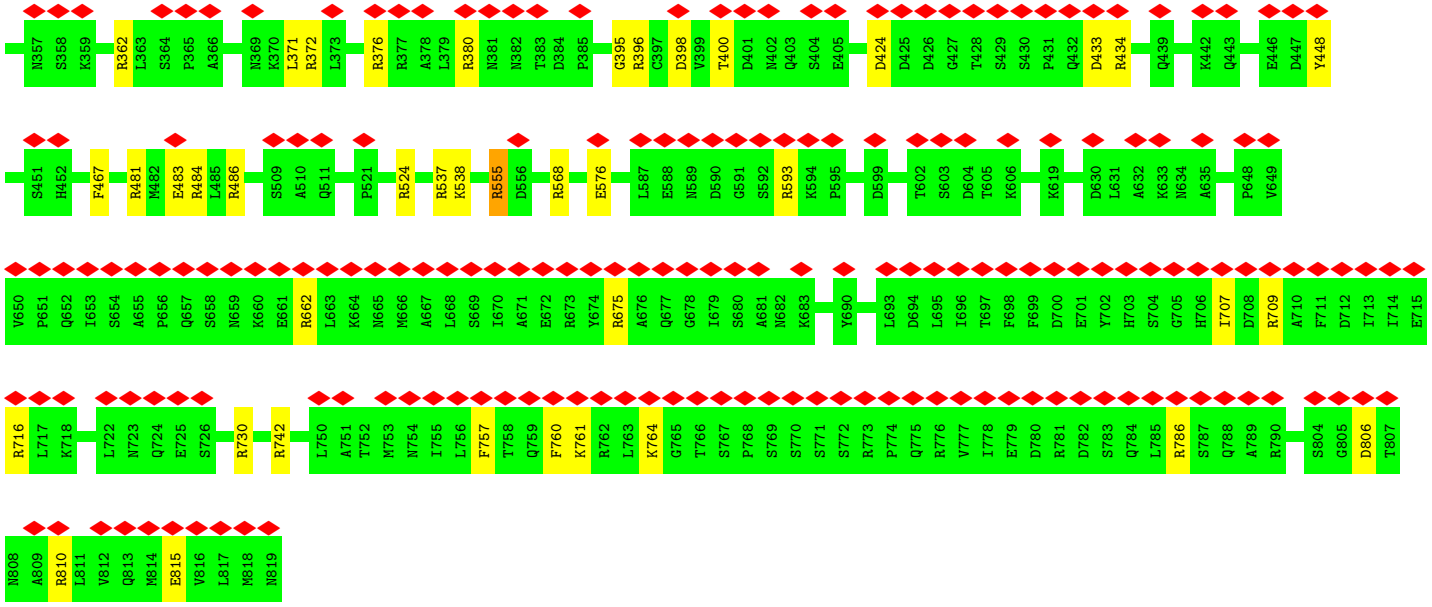


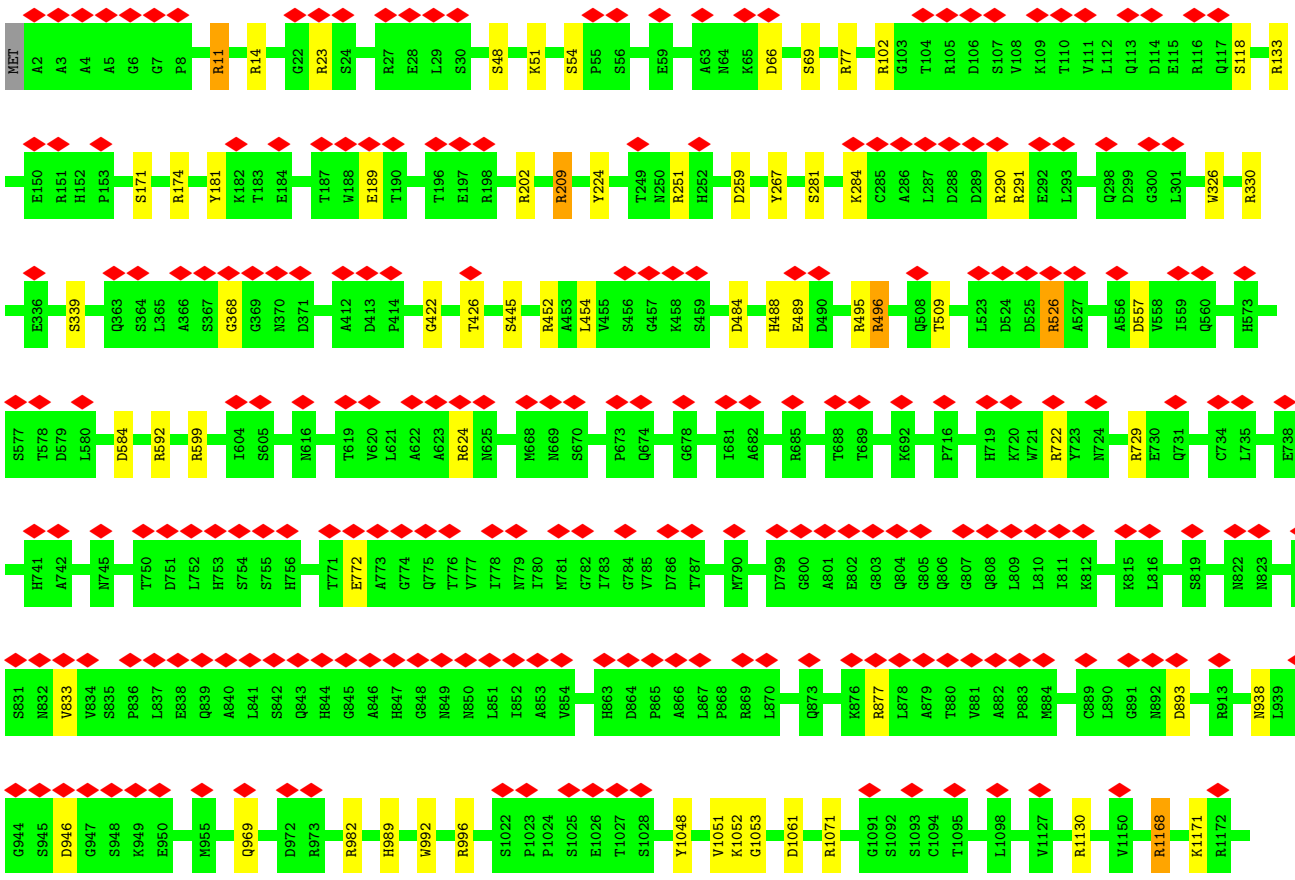
• Molecule 4: Nuclear pore complex protein Nup93

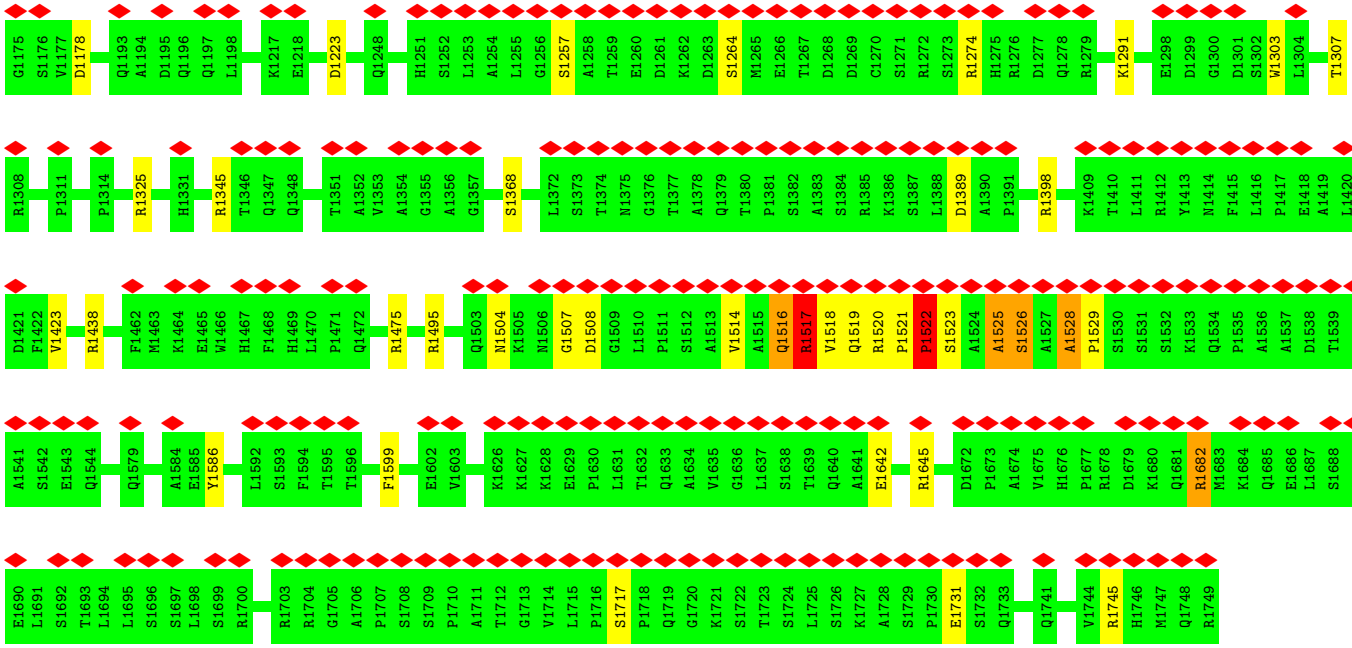
Chain A6:



• Molecule 5: Nucleoporin NUP188 homolog

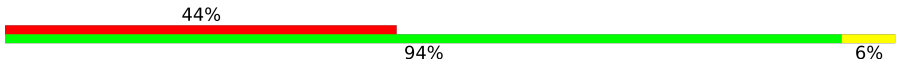
Chain B0:

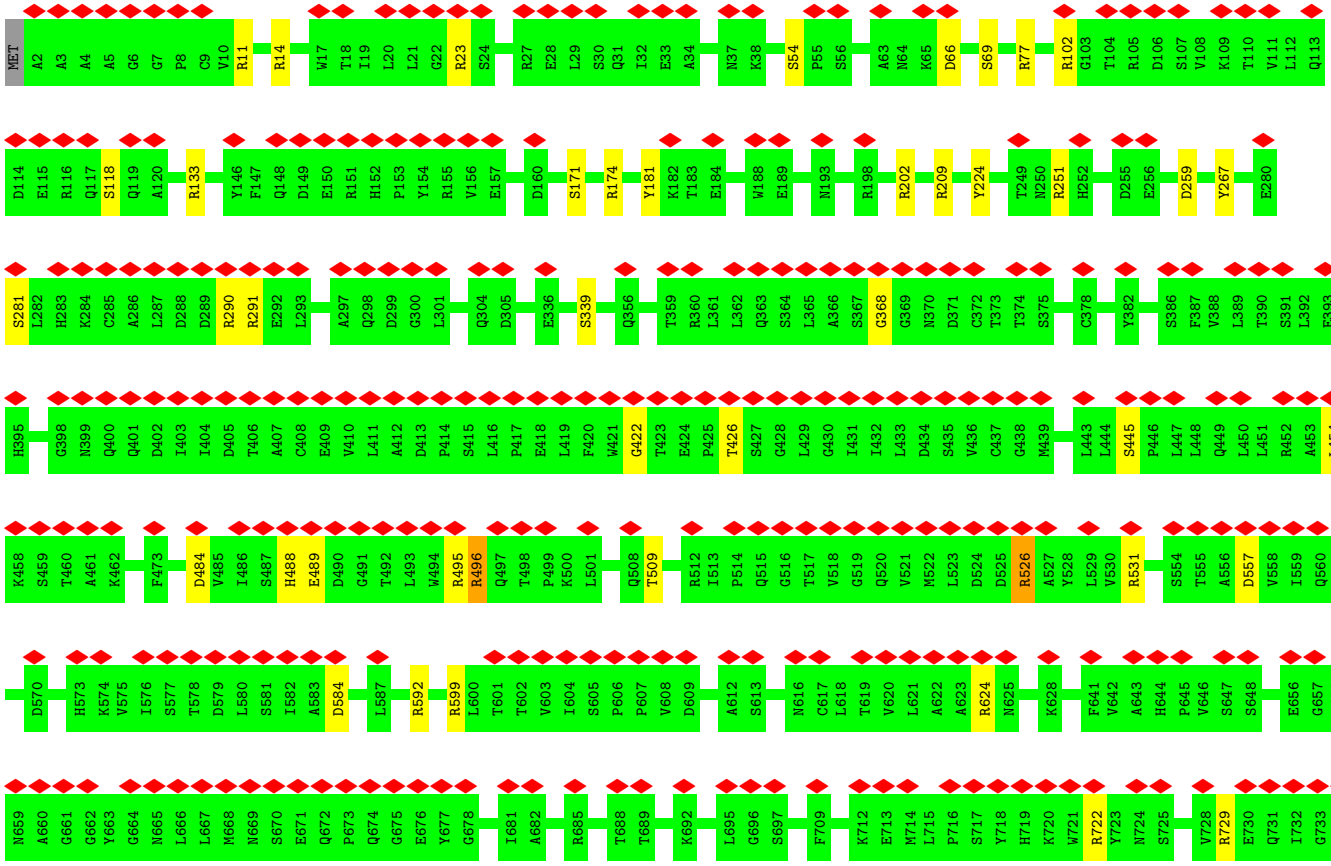


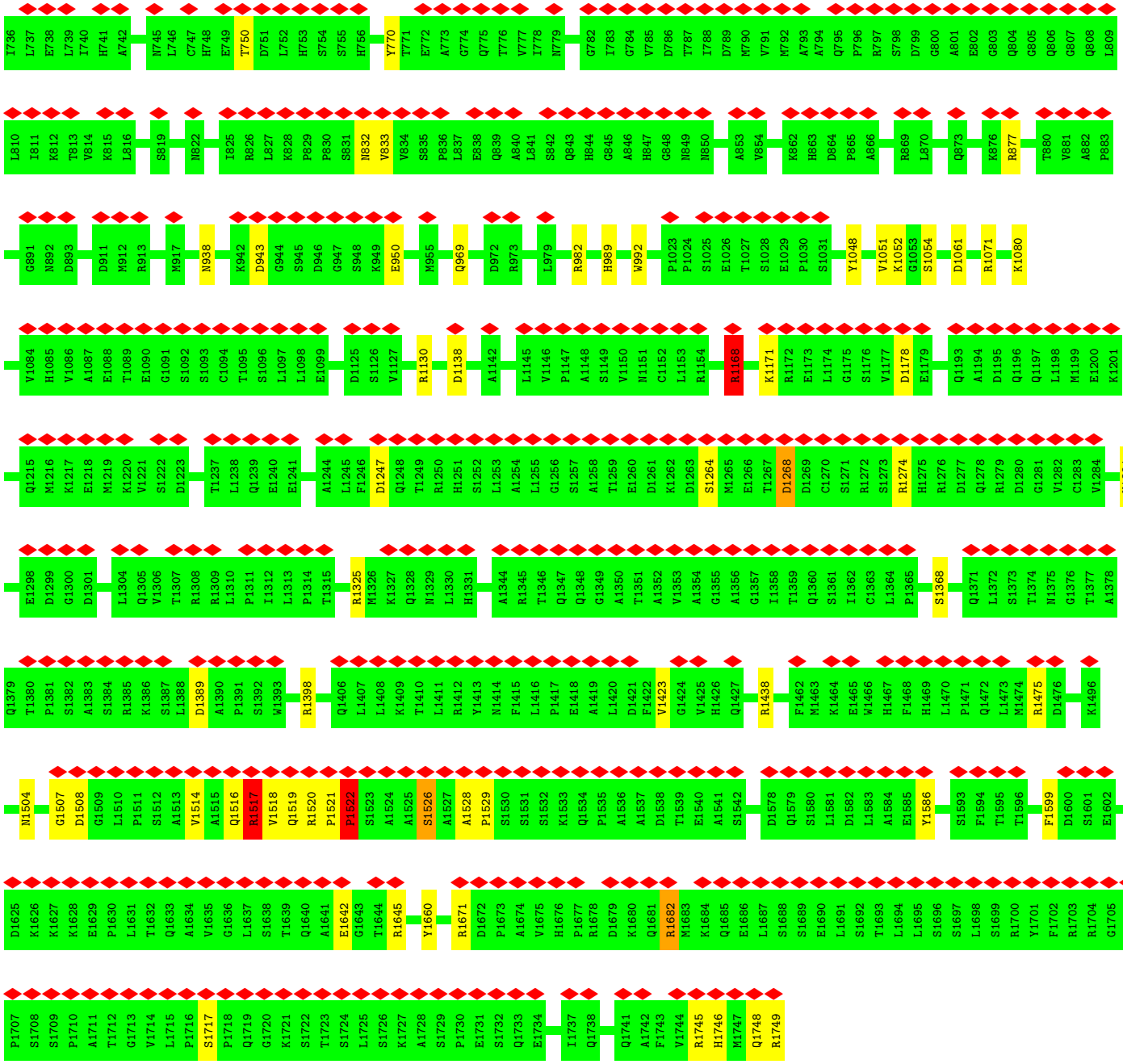


• Molecule 5: Nucleoporin NUP188 homolog

Chain B1:

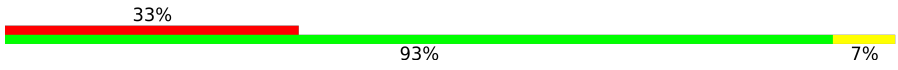


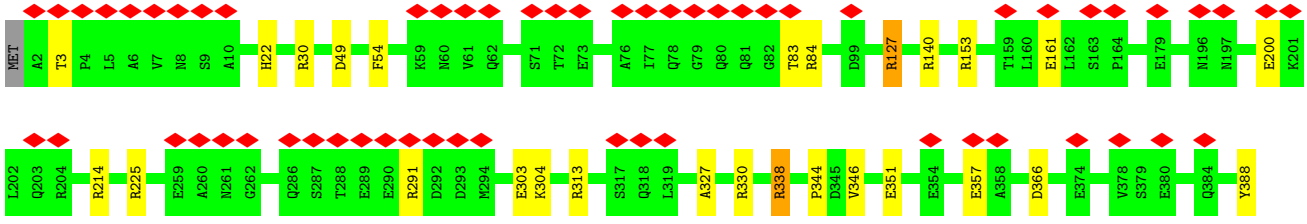


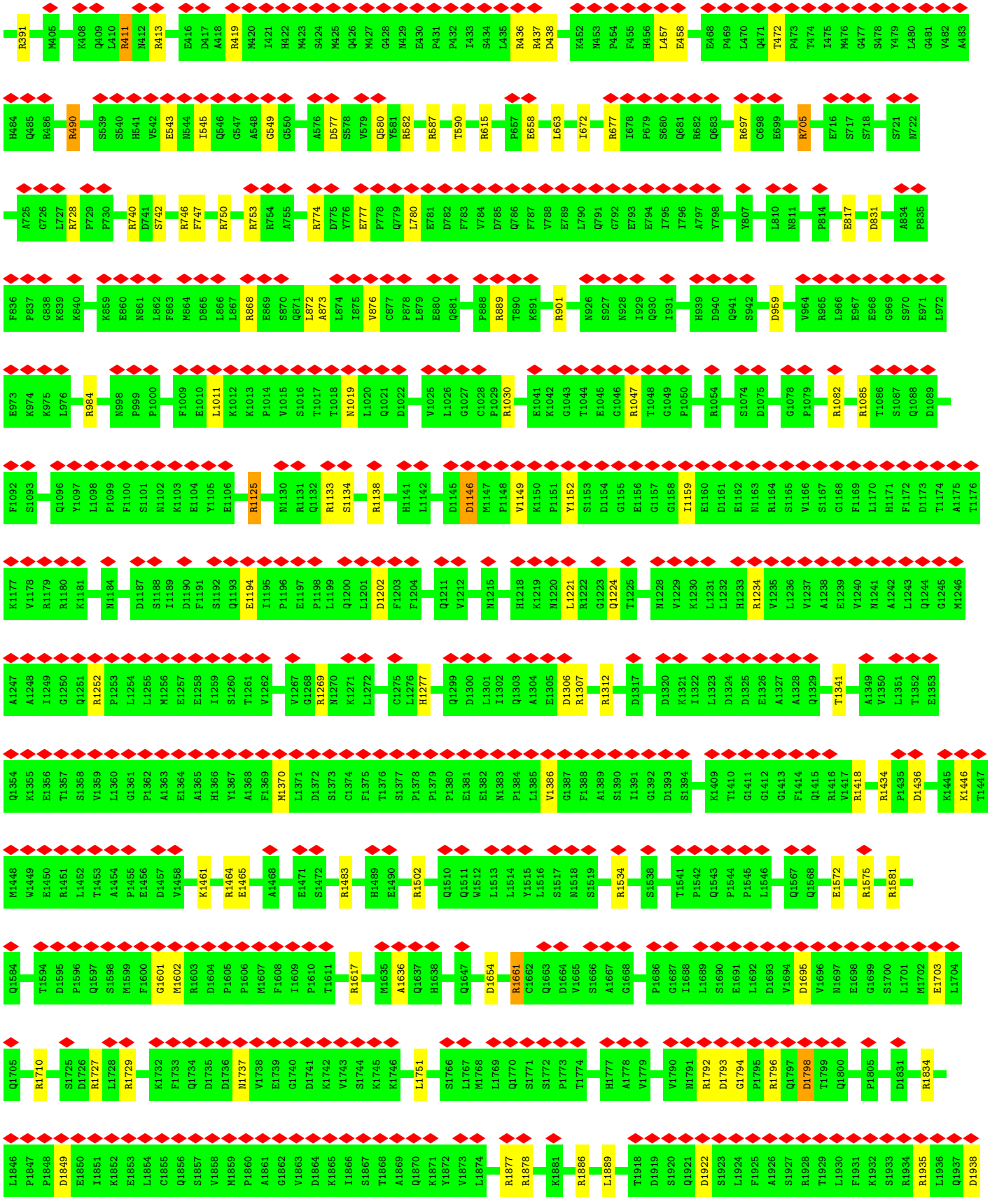


• Molecule 6: Nuclear pore complex protein Nup205

Chain C0:



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E973 K974 K975 L976 R984 N998 P999 P1000 F1009 E1010 L1011 K1012 K1013 P1014 V1015 S1016 T1017 T1018 N1019 L1020 Q1021 D1022 V1025 L1026 G1027 C1028 P1029 R1030 E1041 K1042 G1043 T1044 E1045 G1046 R1047 T1048 G1049 P1050 R1054 S1074 D1075 G1078 P1079 R1082 R1085 T1086 S1087 Q1088 D1089
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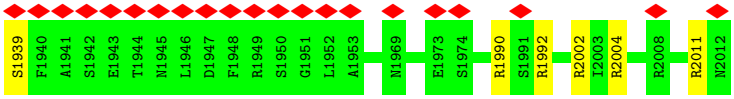
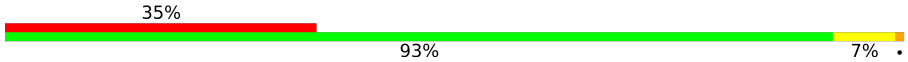
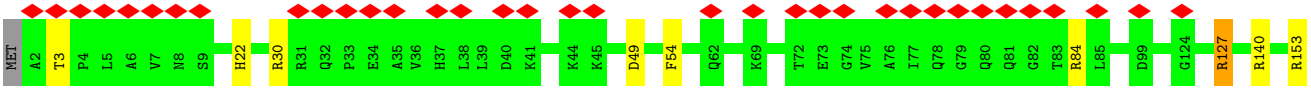
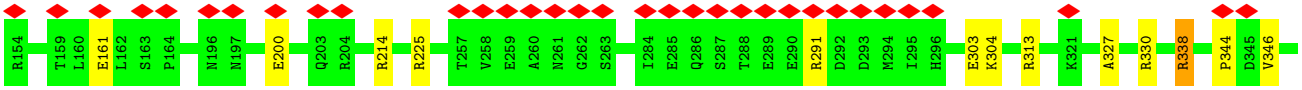


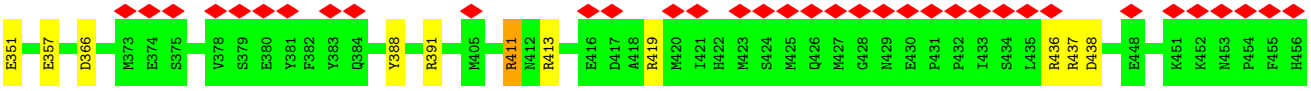
• Molecule 6: Nuclear pore complex protein Nup205

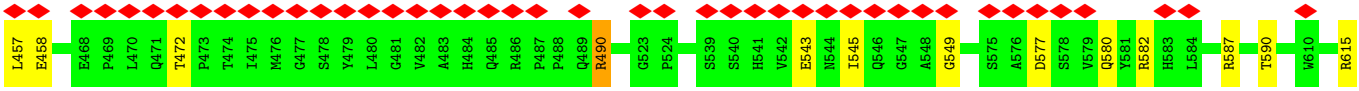
Chain C1:

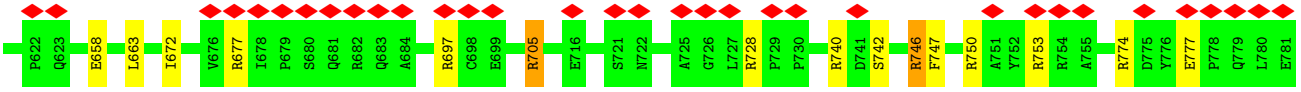


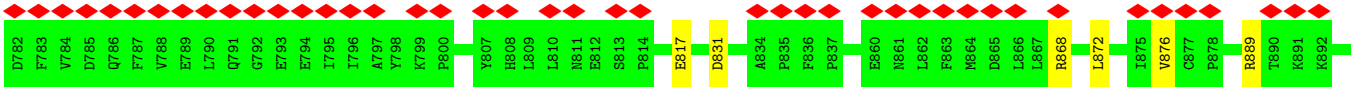


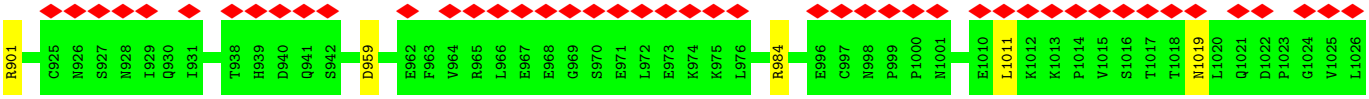


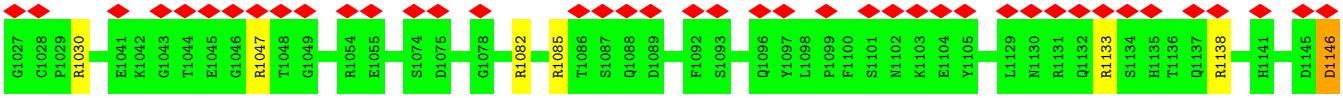


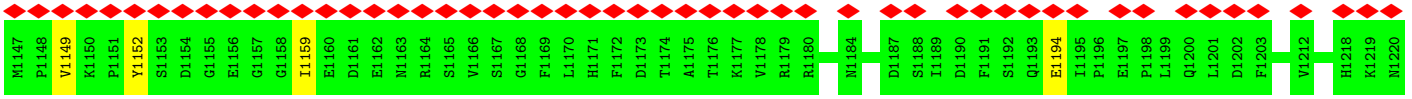


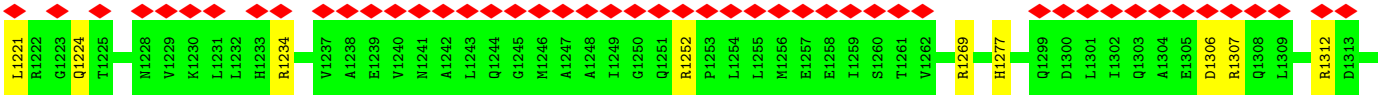


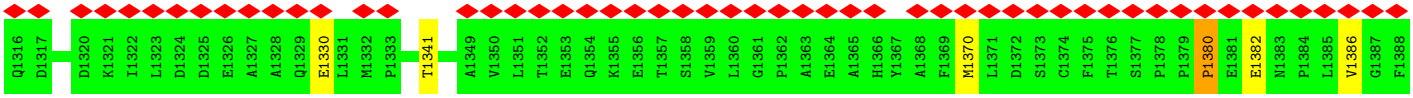


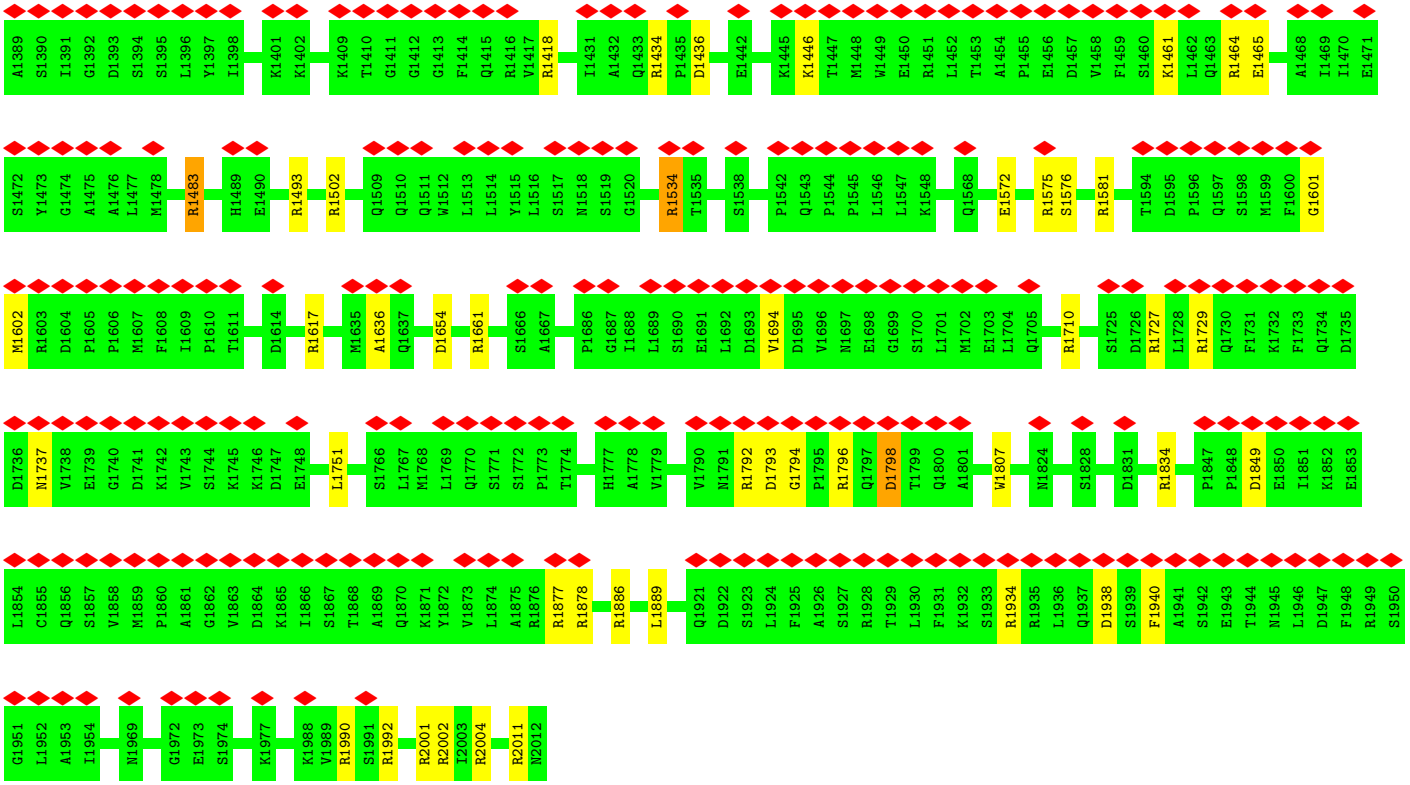






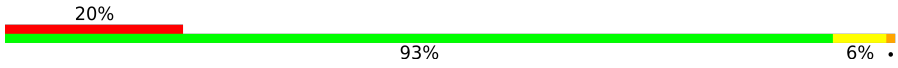


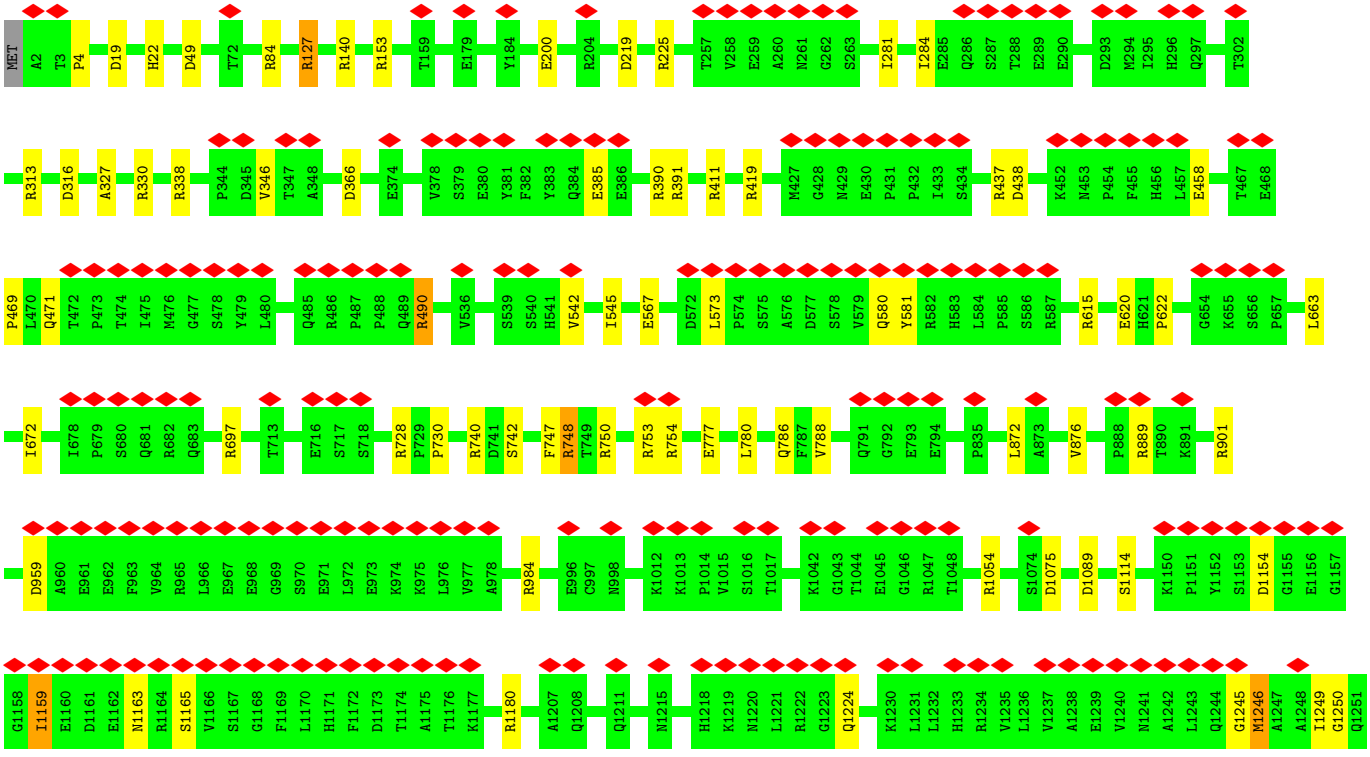


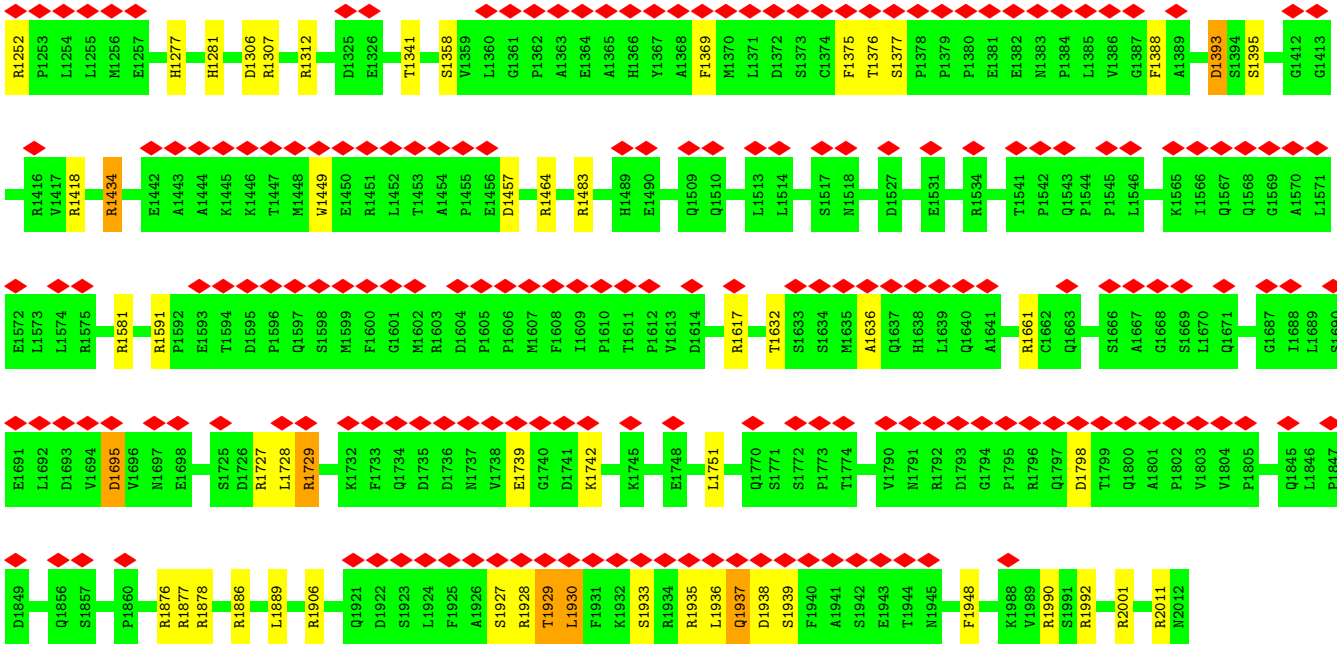


• Molecule 6: Nuclear pore complex protein Nup205

Chain C2:

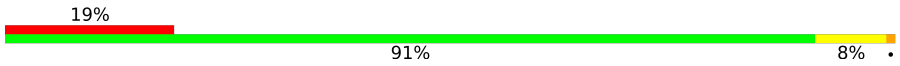


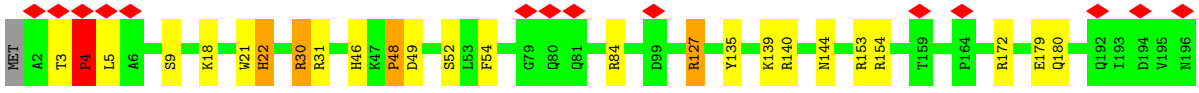


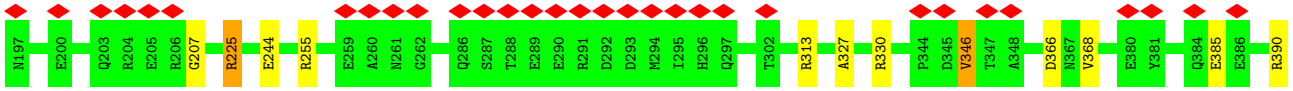


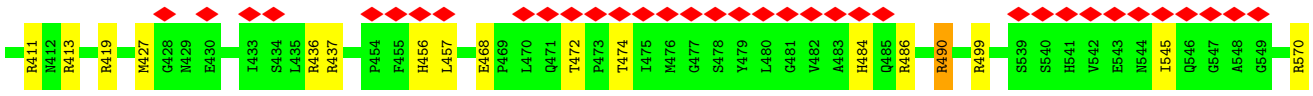
- Molecule 6: Nuclear pore complex protein Nup205

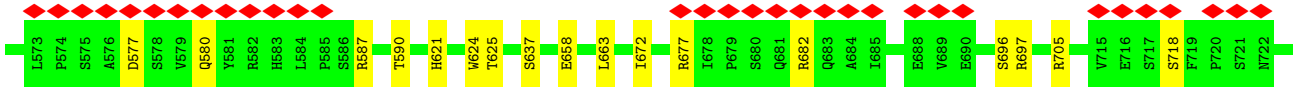
Chain C3:

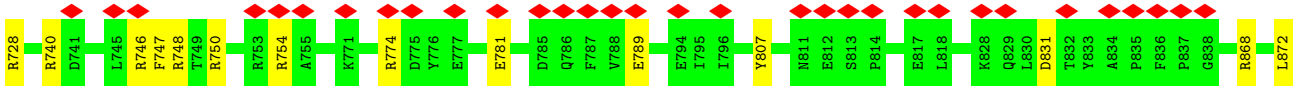


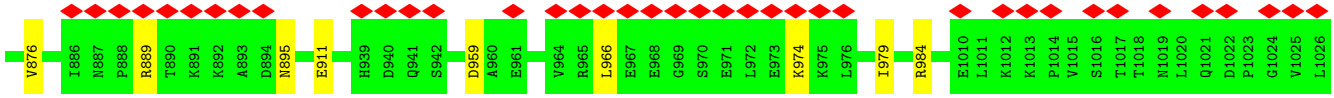


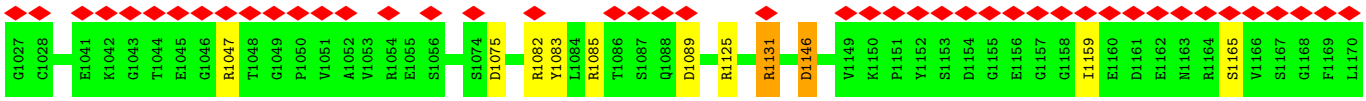


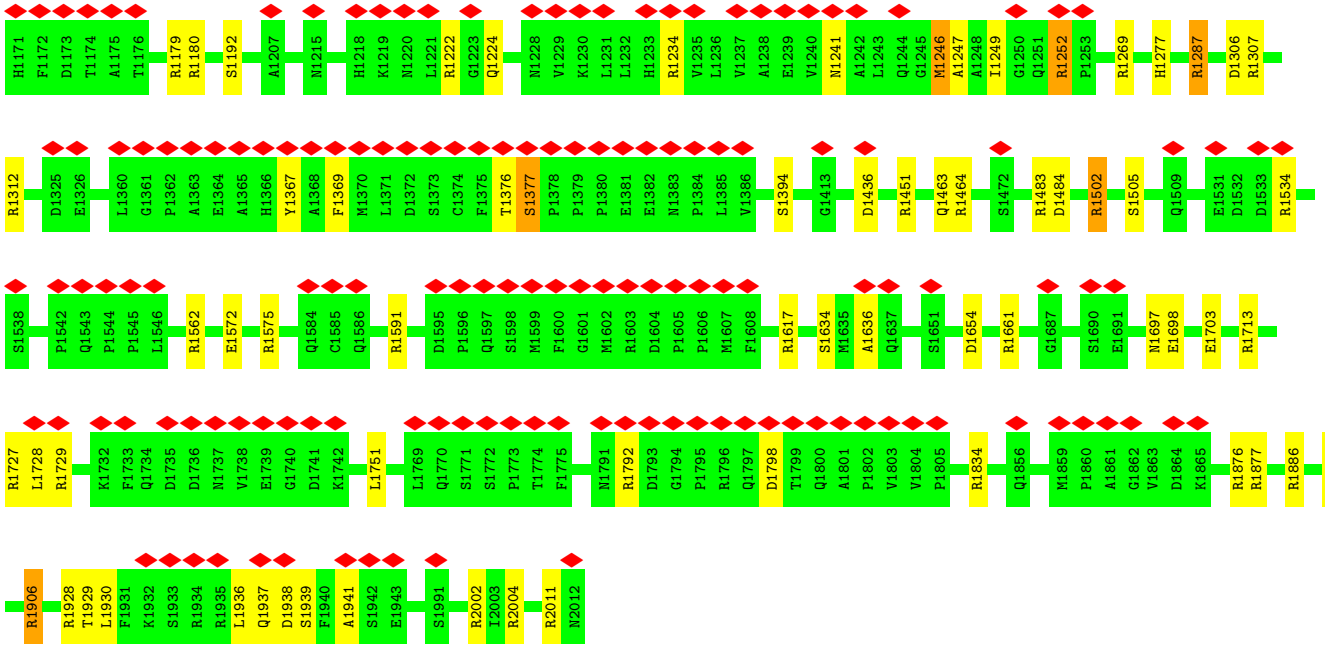












• Molecule 6: Nuclear pore complex protein Nup205

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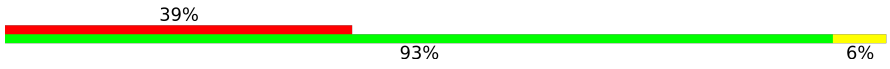

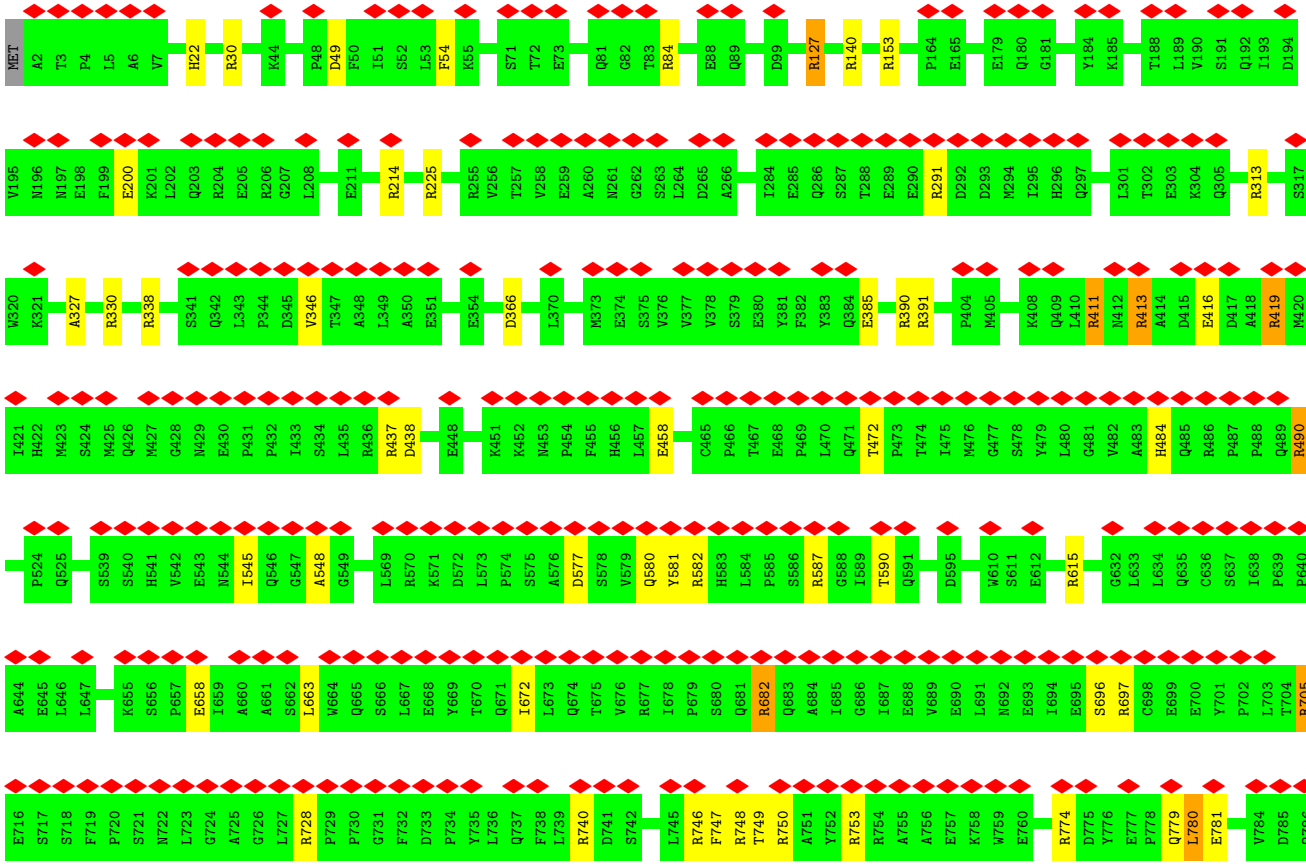

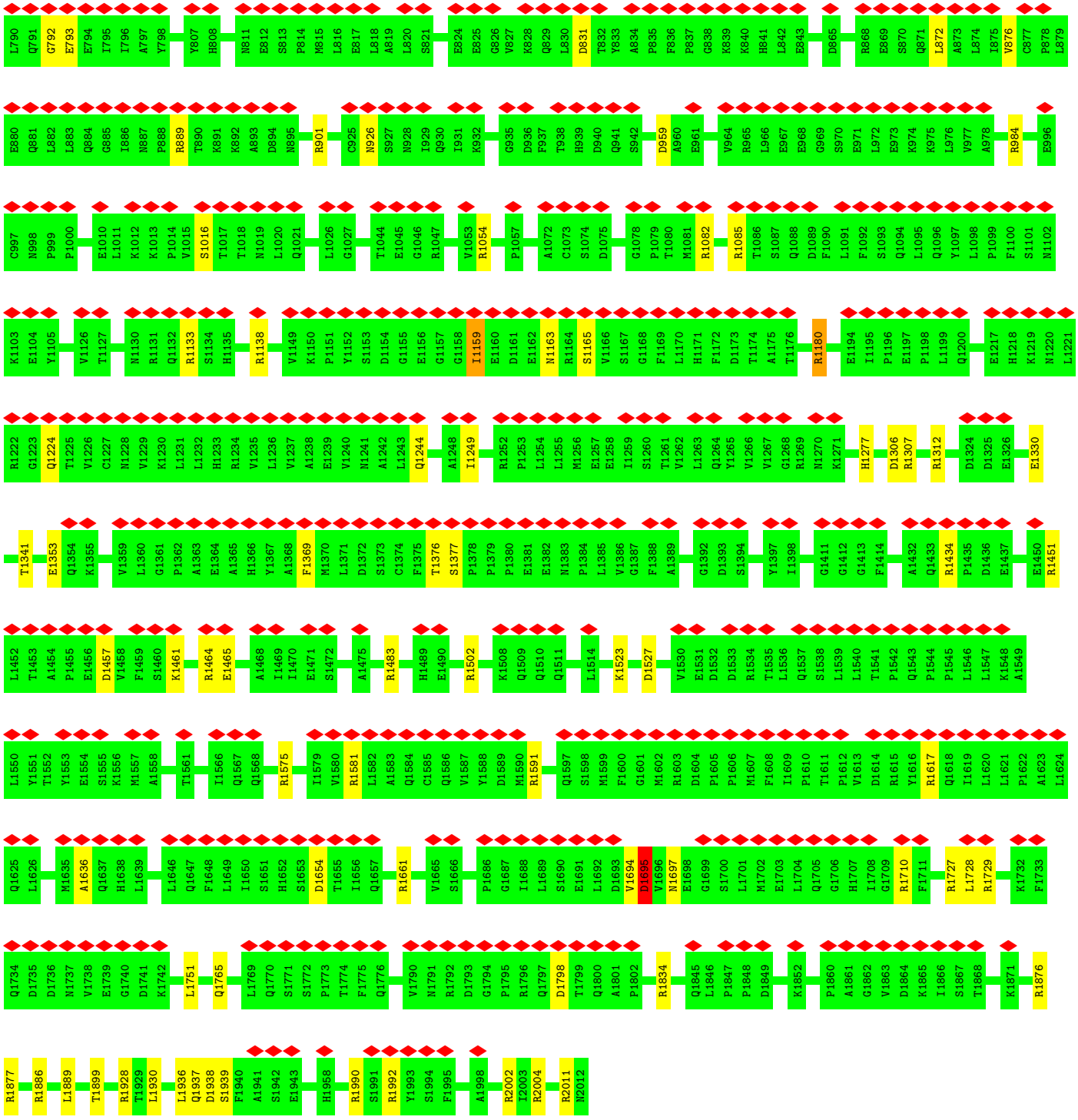

• Molecule 7: Nuclear pore complex protein Nup155

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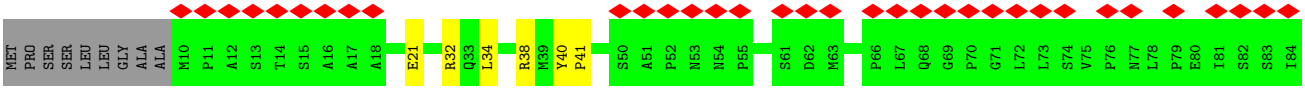

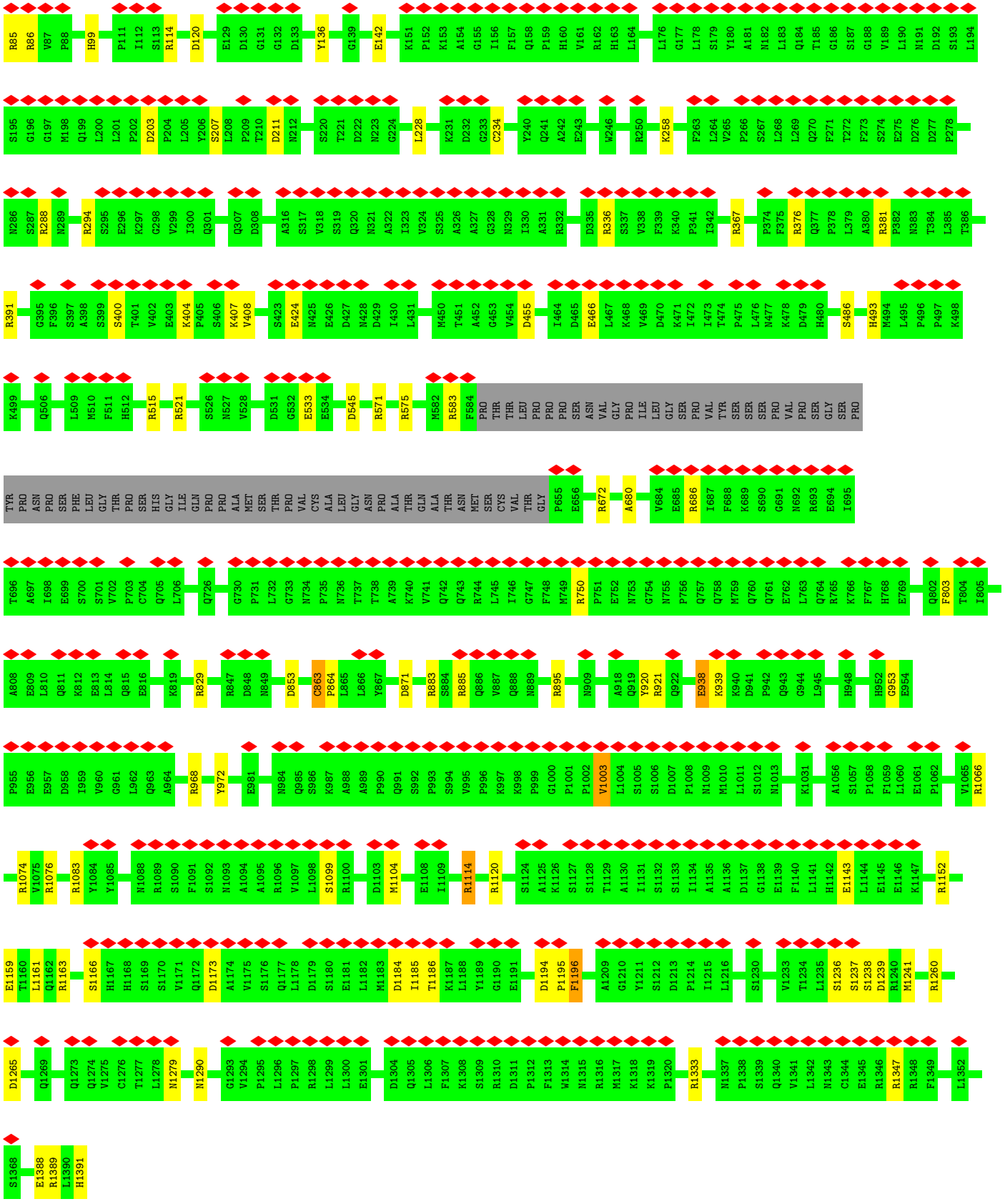

• Molecule 7: Nuclear pore complex protein Nup155

Chain D1:


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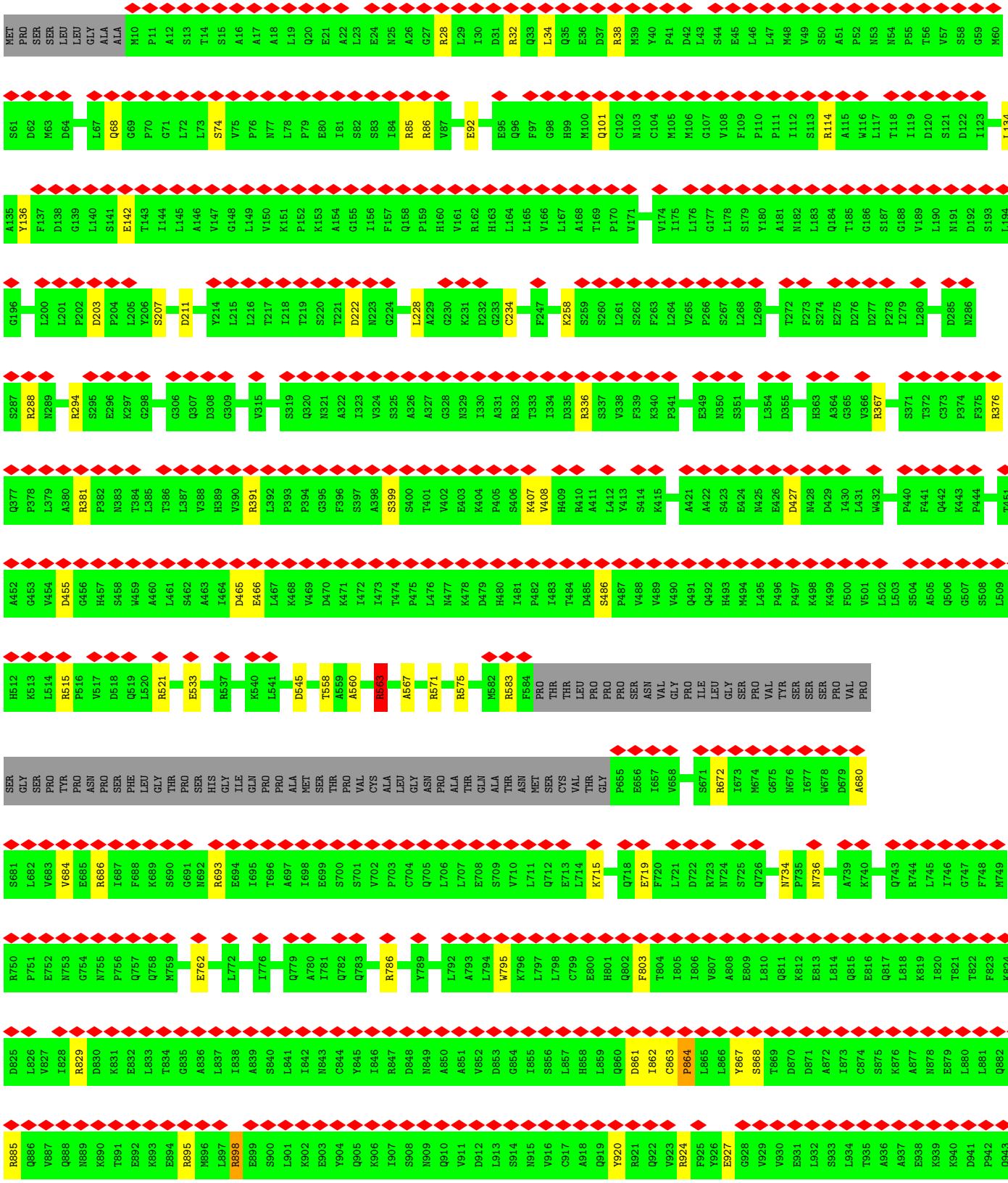
85%
8%
6%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H512 K513 L514 R515 P516 V517 D518 Q519 L520 R521 E533 R537 K540 L541 D545 T558 A559 A560 R563 A567 R571 R575 M582 R583 F584 PRO THR THR LEU PRO PRO PRO SER ASN VAL GLY PRO ILE LEU GLY SER PRO VAL TYR SER SER SER PRO VAL PRO
SER GLY SER PRO TYR PRO ASN PRO SER PHE LEU GLY THR PRO SER HIS GLY ILE GLN PRO PRO ALA MET SER THR PRO VAL CYS ALA LEU GLY ASN PRO ALA THR GLN ALA THR ASN MET SER CYS VAL THR GLY P655 E656 I657 V658 S671 R672 I673 M674 G675 N676 I677 W678 D679 A680
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D825 L826 V827 I828 R829 D830 K831 E832 L833 T834 G835 A836 L837 I838 A839 S840 L841 I842 N843 C844 Y845 I846 R847 D848 N849 A850 A851 V852 D853 G854 I855 S856 L857 H858 L859 Q860 D861 I862 C863 P864 L865 L866 Y867 S868 T869 D870 D871 A872 I873 C874 S875 K876 A877 N878 E879 L880 L881 Q882 R883 S884
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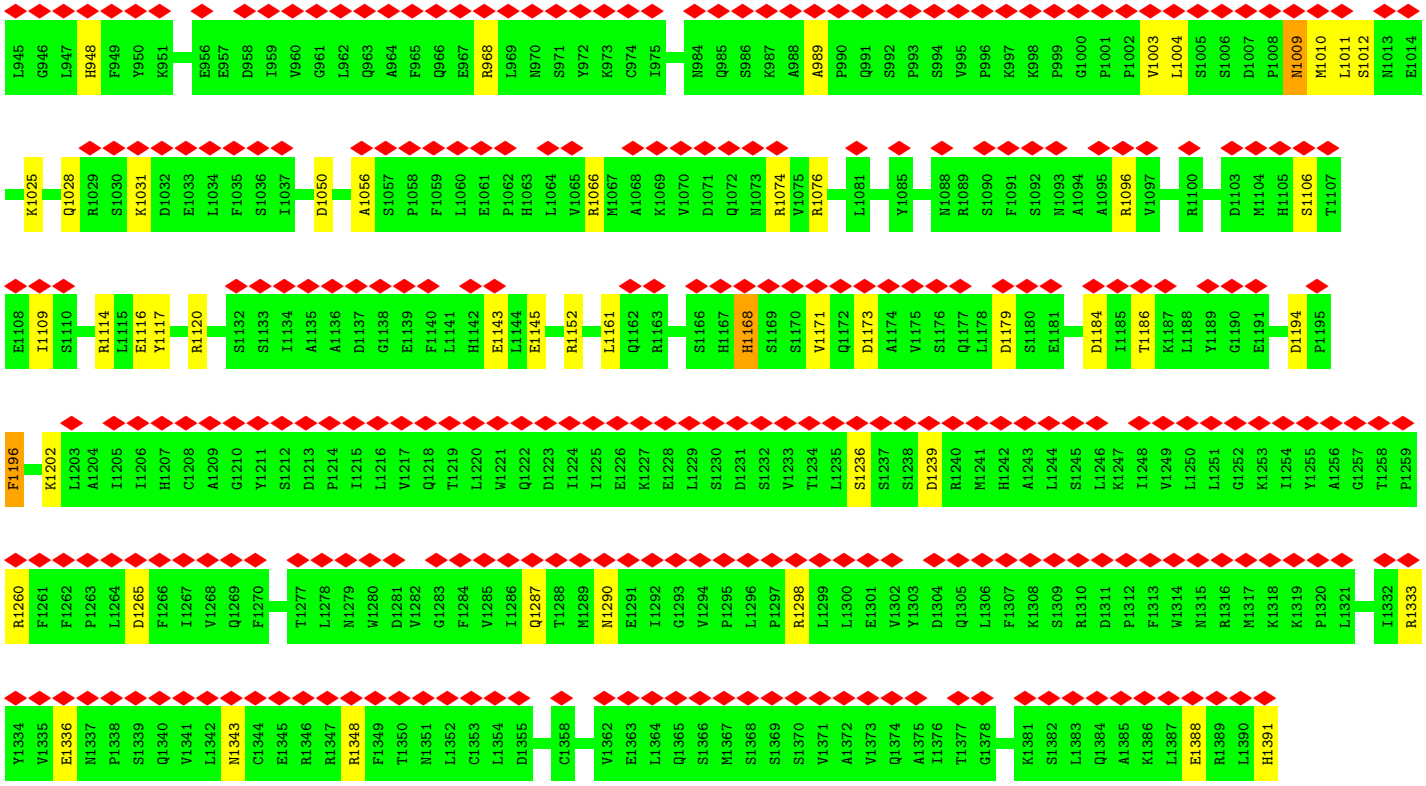
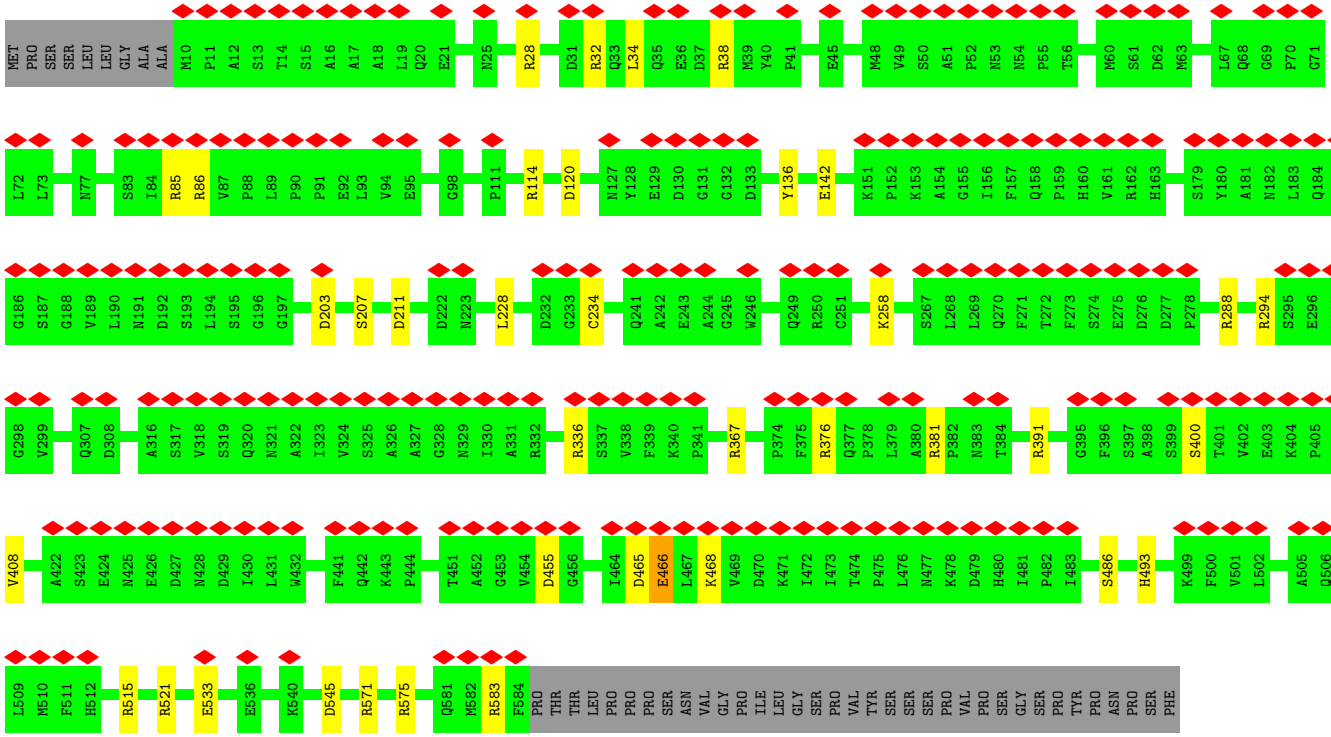
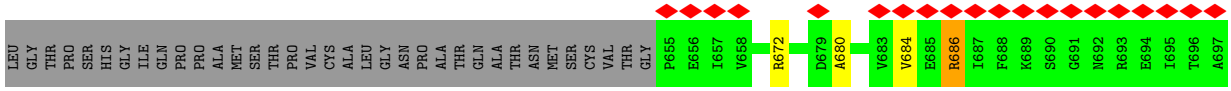
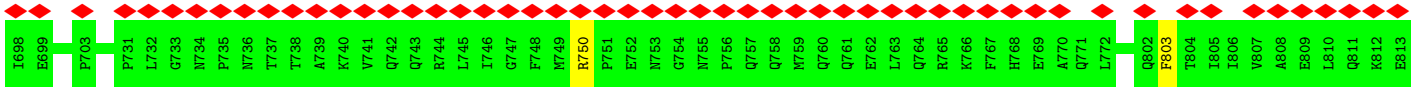


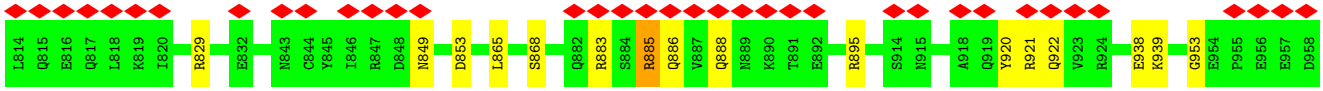
• Molecule 7: Nuclear pore complex protein Nup155

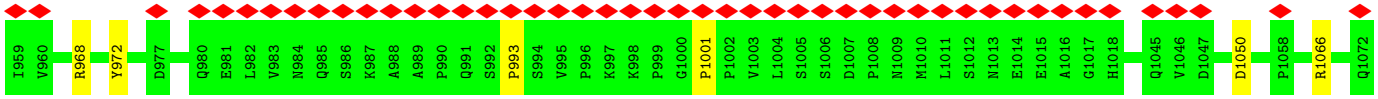
Chain D2:

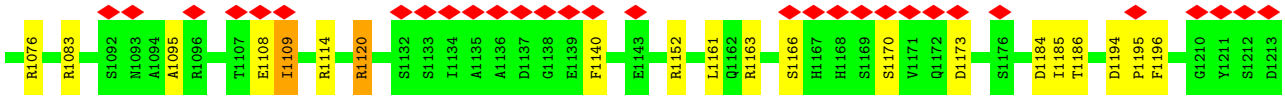


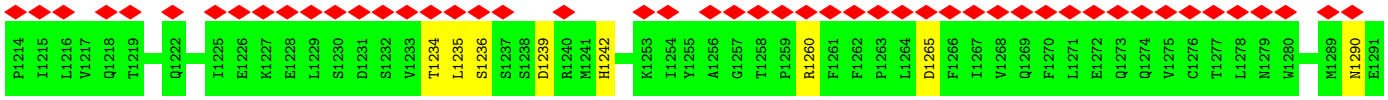


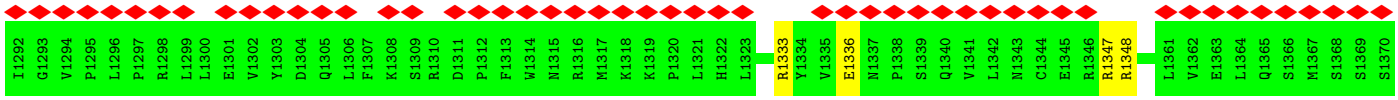


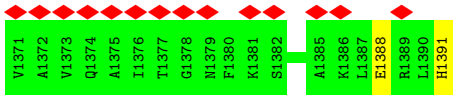






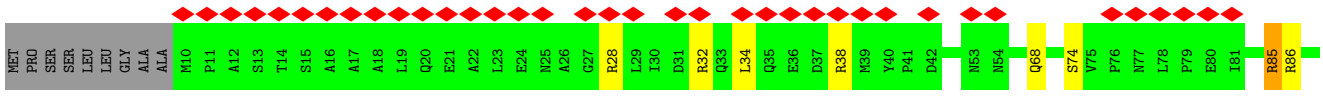


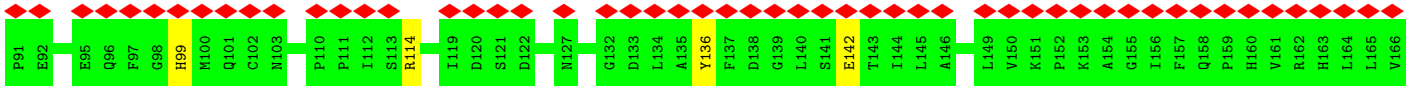


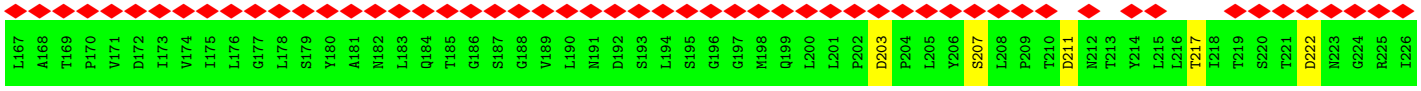


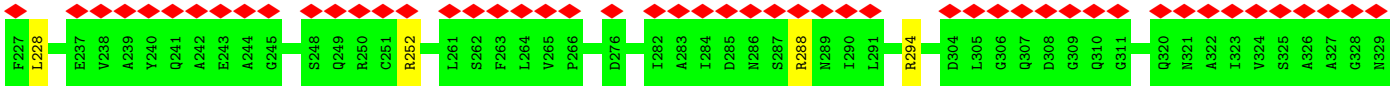
• Molecule 7: Nuclear pore complex protein Nup155

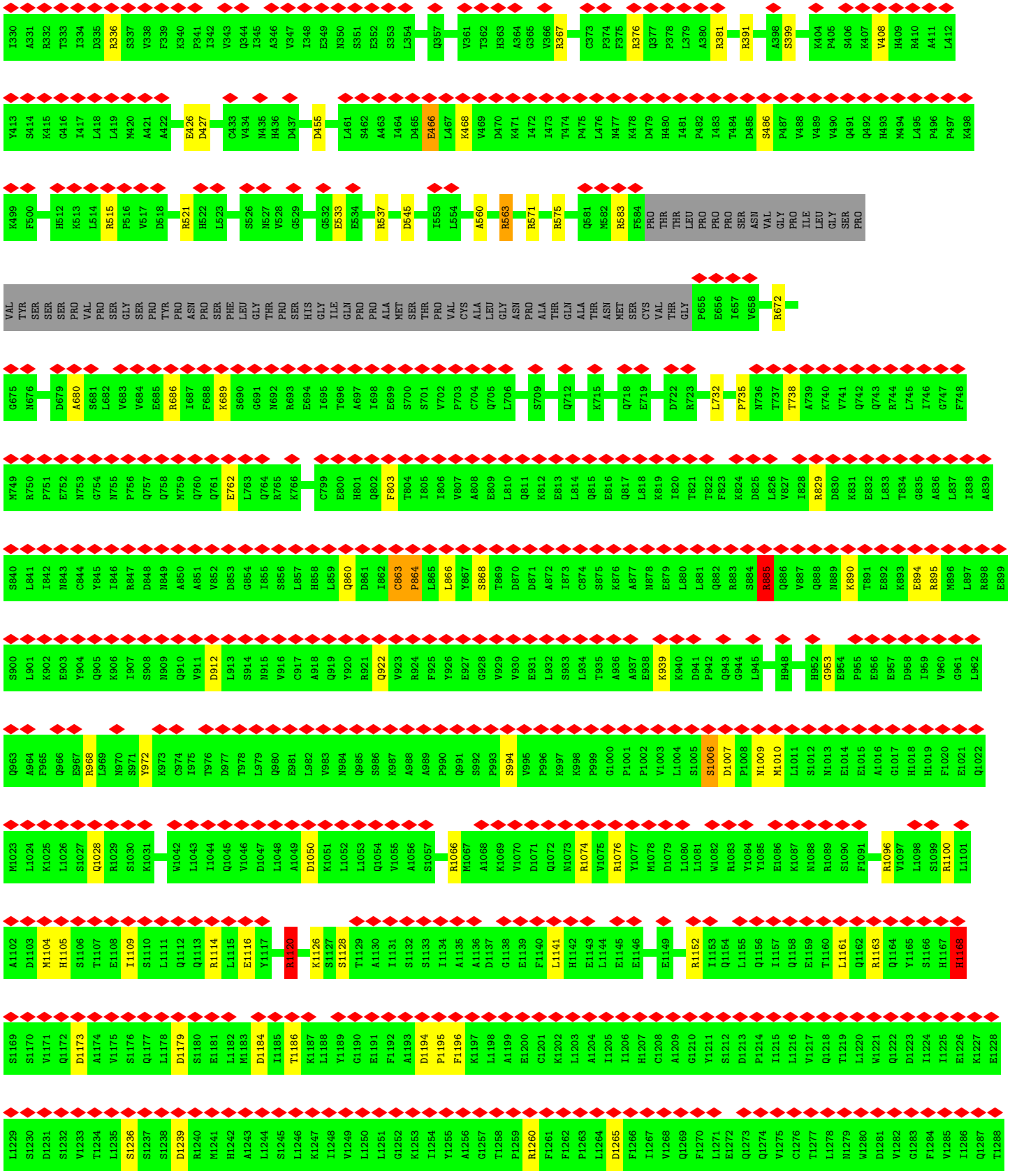
Chain D3:







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VAL TYR SER SER SER PRO VAL PRO PRO SER GLY SER SER PRO TYR PRO ASN PRO SER PHE LEU GLY THR PRO SER HIS GLY ILE GLN PRO PRO PRO ALA MET SER THR PRO VAL CYS ALA LEU GLY ASN PRO ALA THR GLN ALA THR ASN MET SER CYS VAL THR GLY P655 E656 I657 V658 R672
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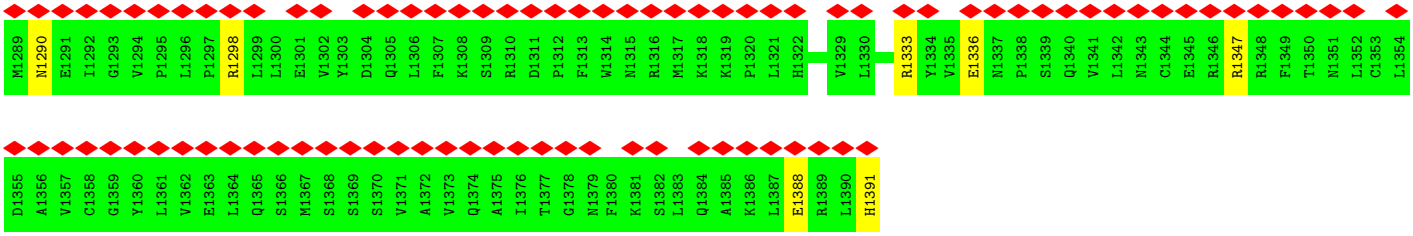
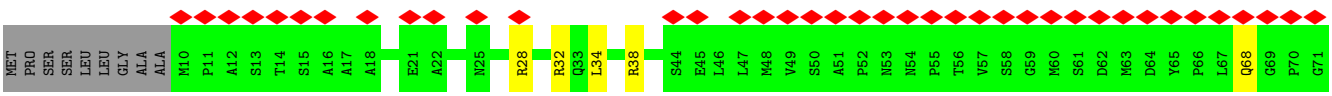
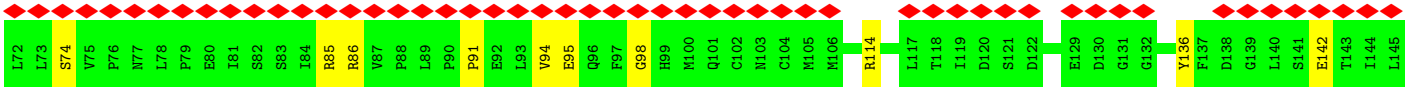
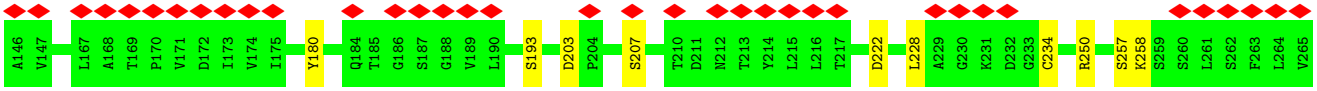


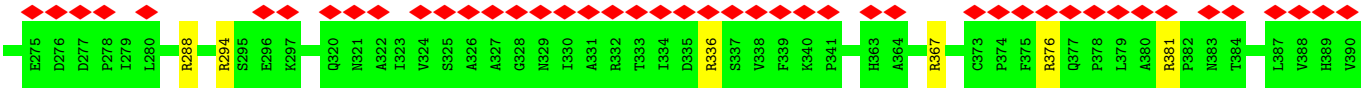
• Molecule 7: Nuclear pore complex protein Nup155

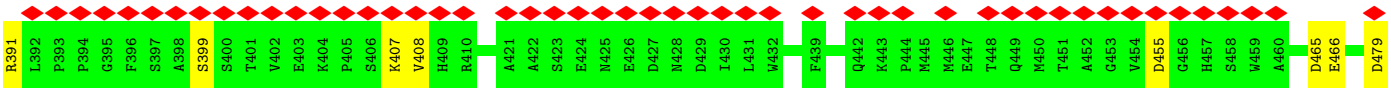
Chain D4:

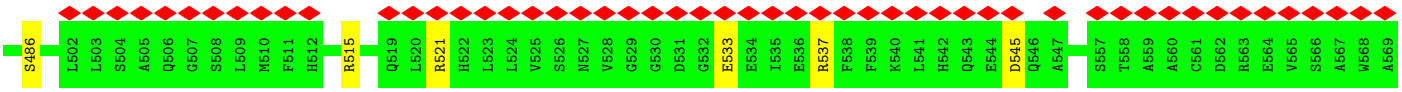


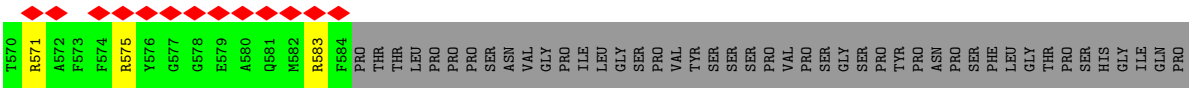


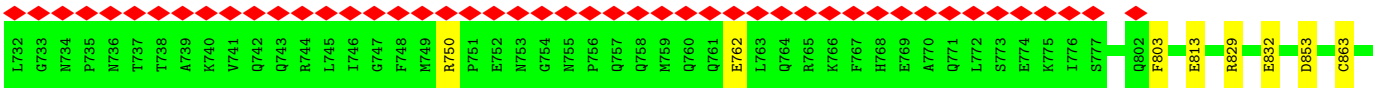


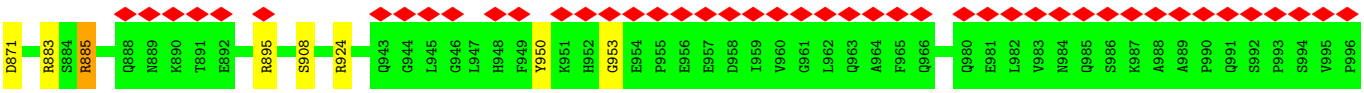


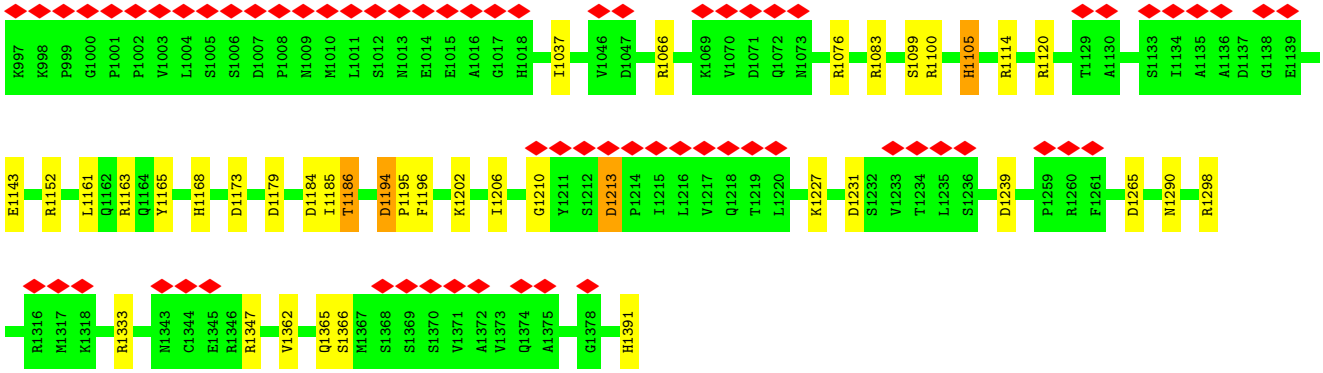






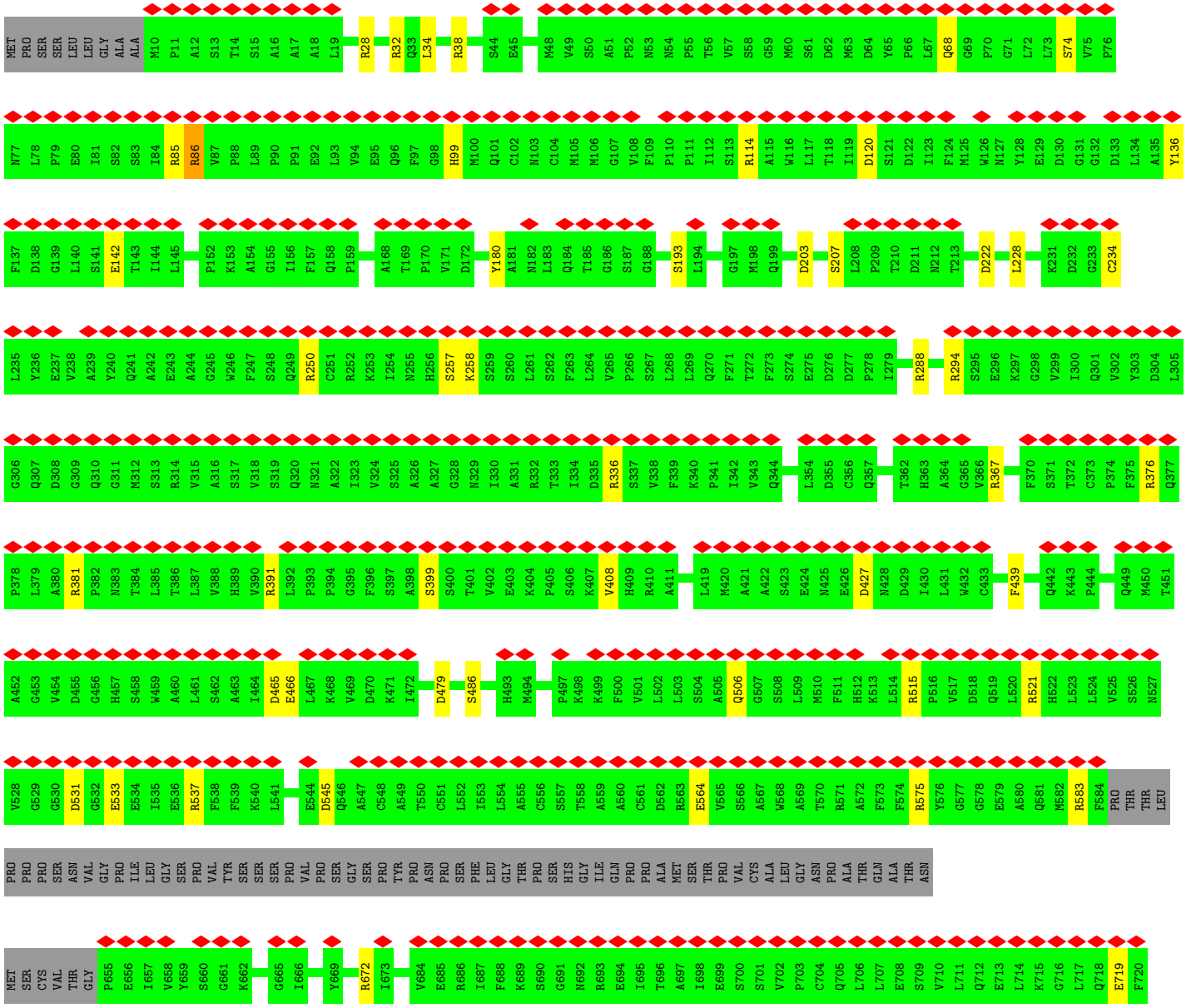


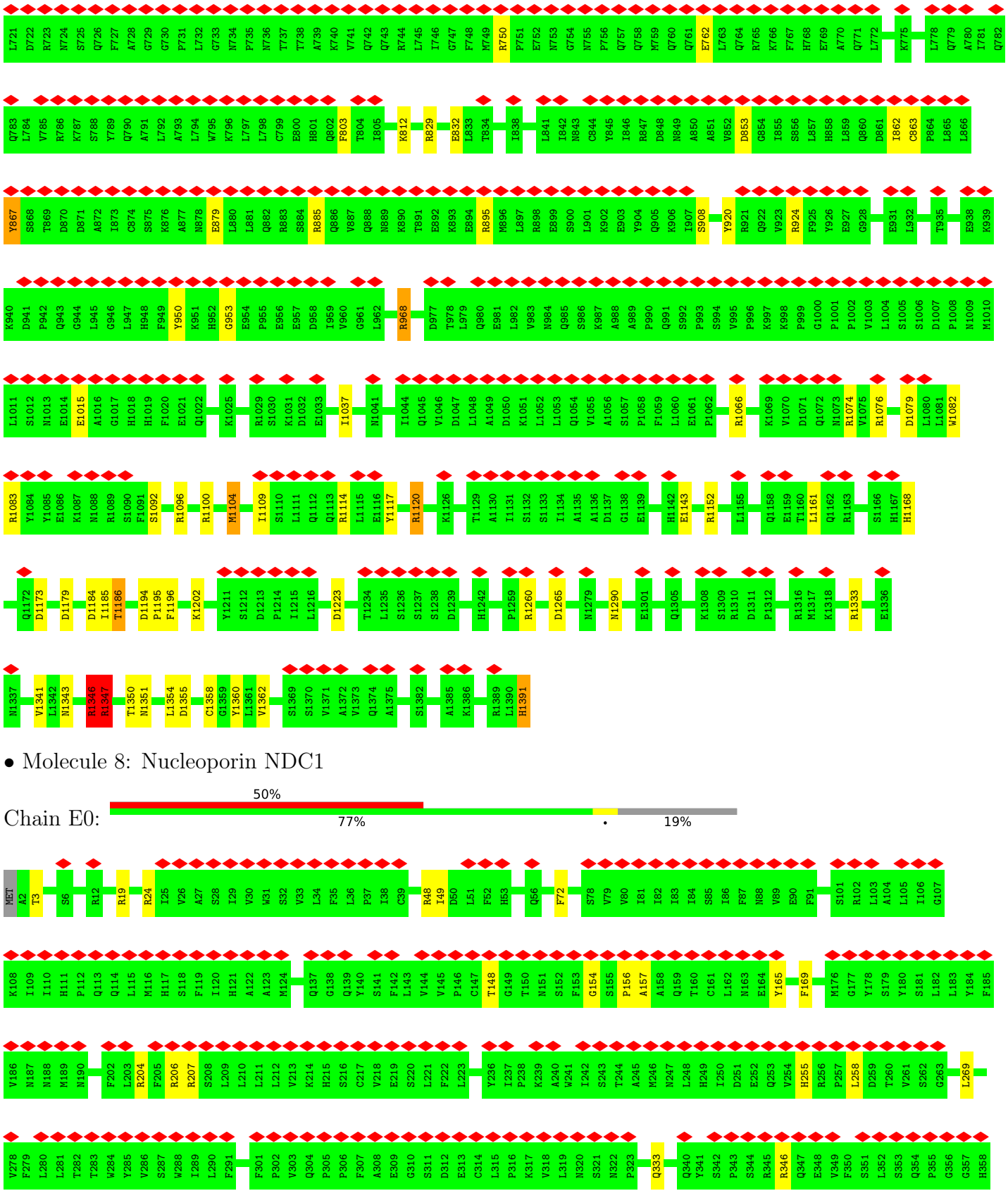




• Molecule 7: Nuclear pore complex protein Nup155

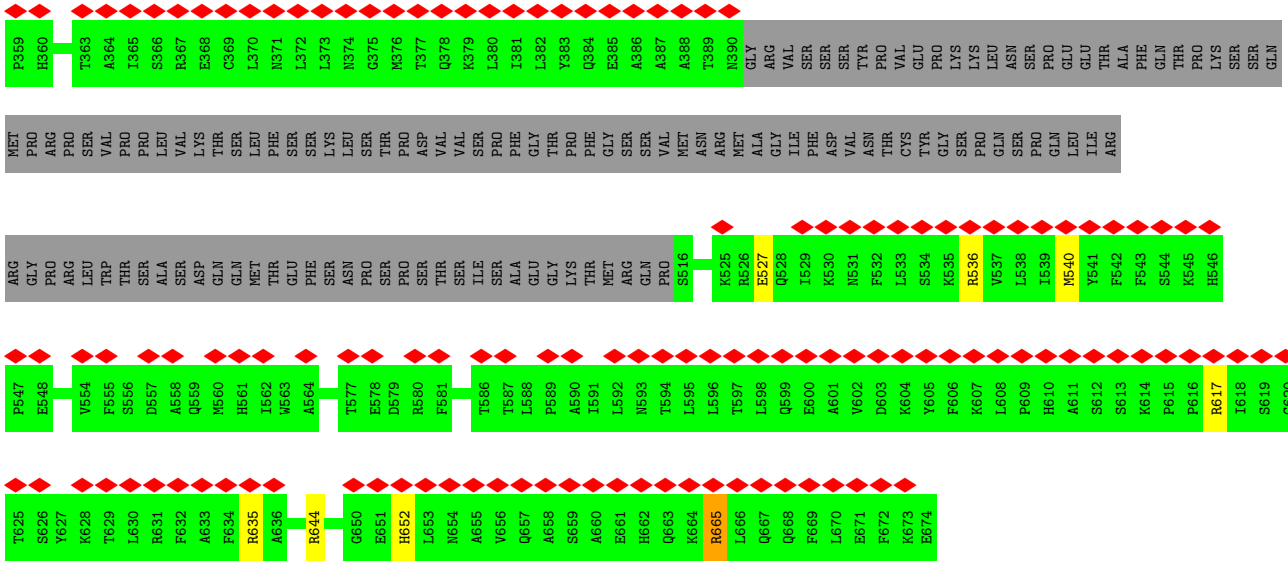
Chain D5:





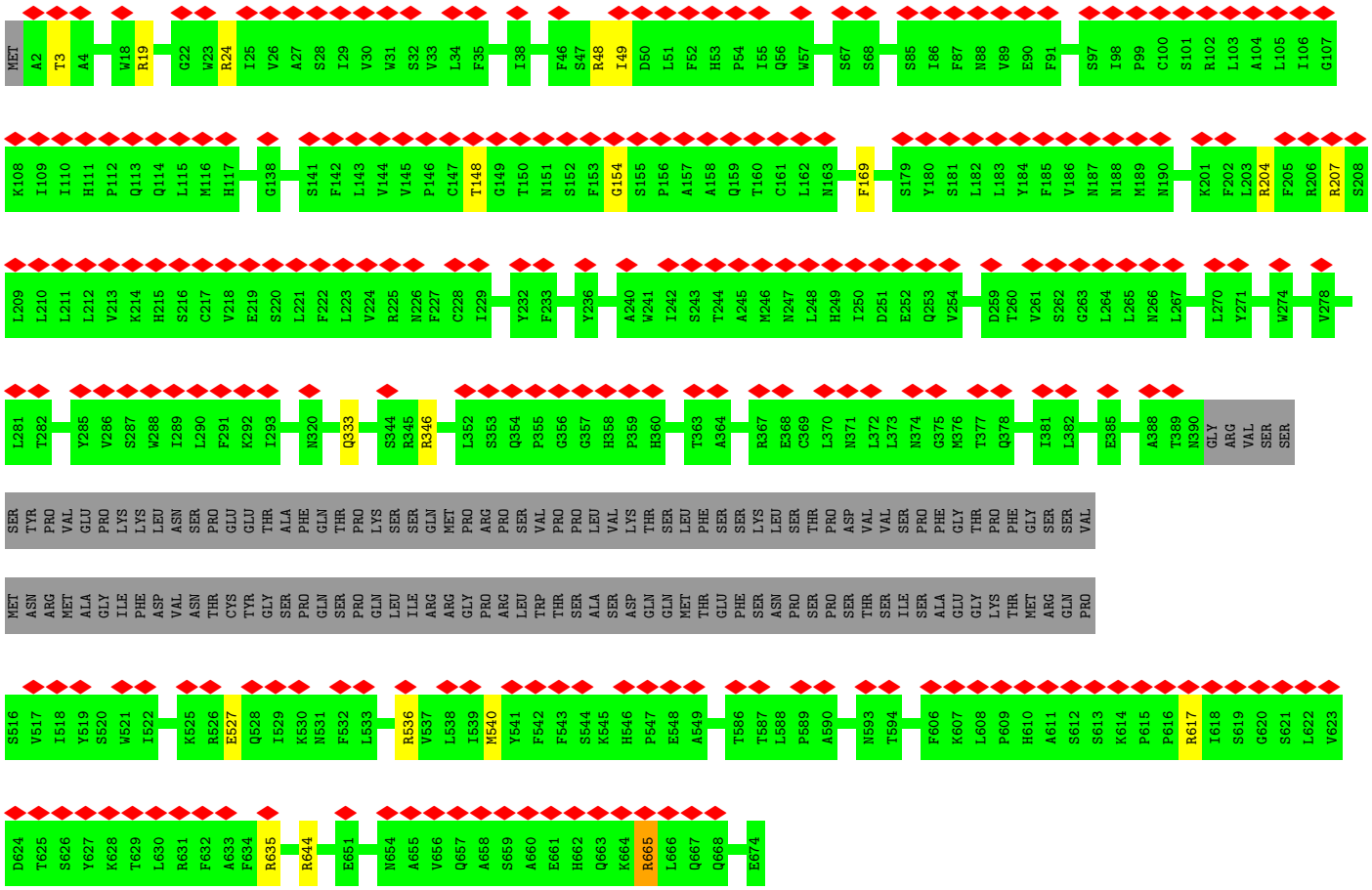
• Molecule 8: Nucleoporin NDC1

Chain E0:



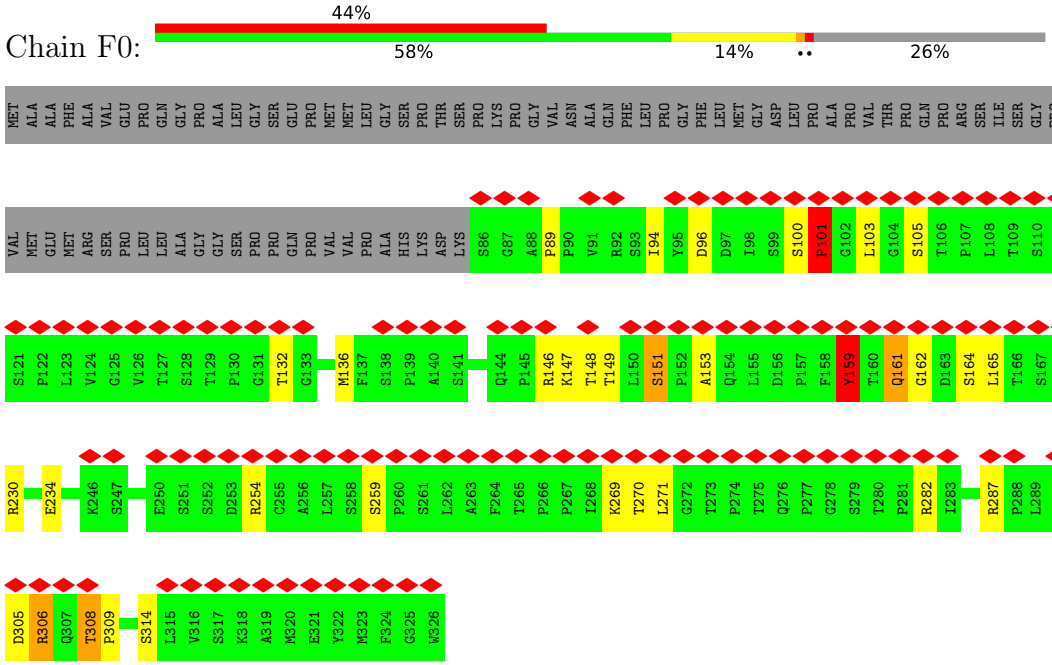
• Molecule 8: Nucleoporin NDC1

Chain E1:



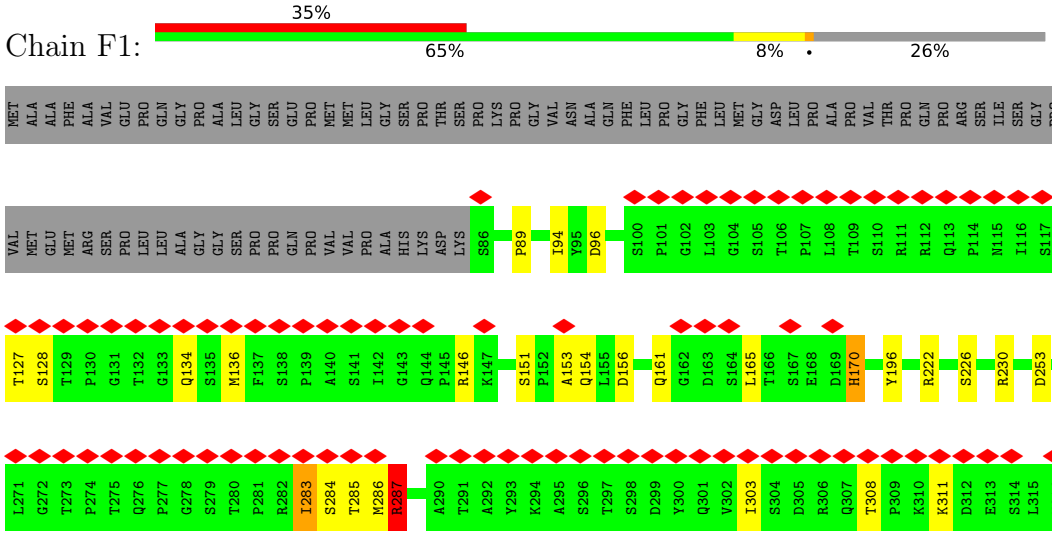
• Molecule 9: Nucleoporin NUP35

Chain F0:



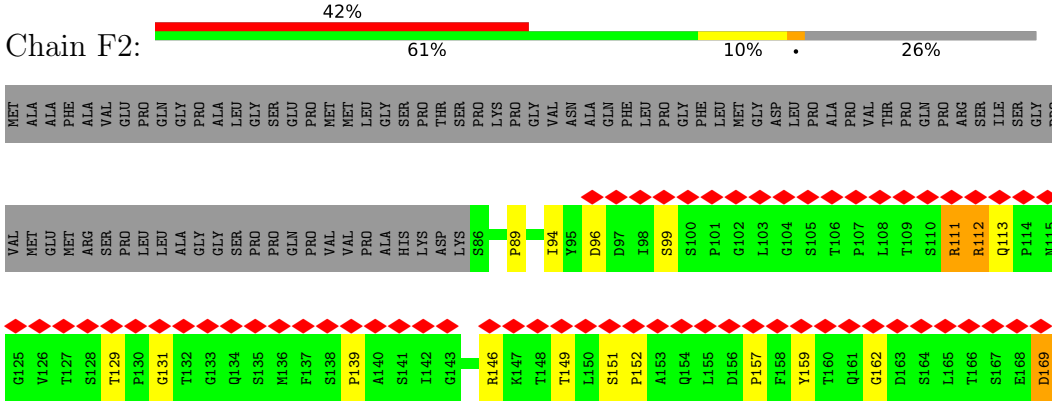
• Molecule 9: Nucleoporin NUP35

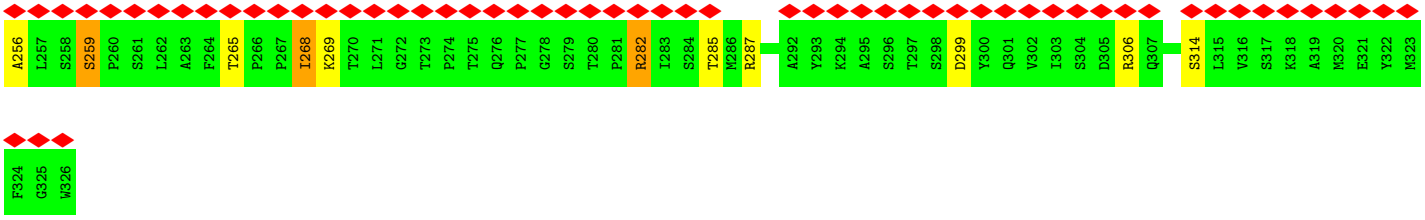
Chain F1:



• Molecule 9: Nucleoporin NUP35

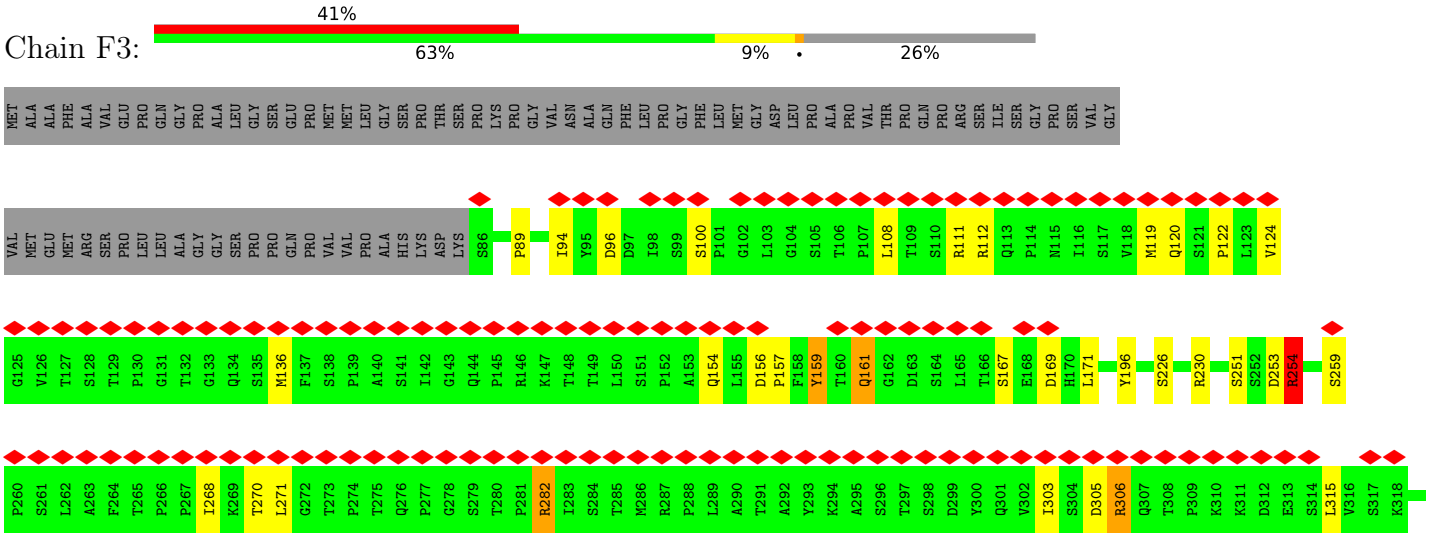
Chain F2:





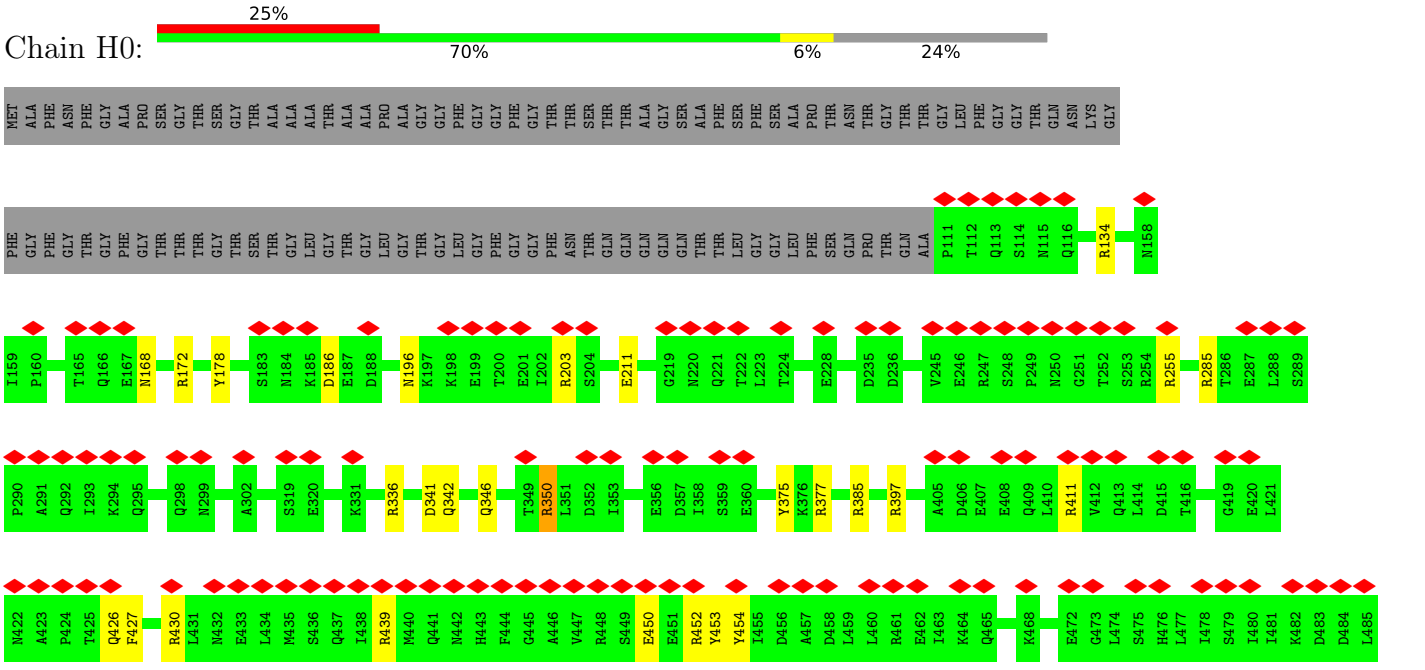
• Molecule 9: Nucleoporin NUP35

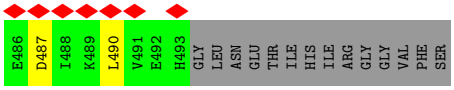
Chain F3:



• Molecule 10: Nucleoporin p54

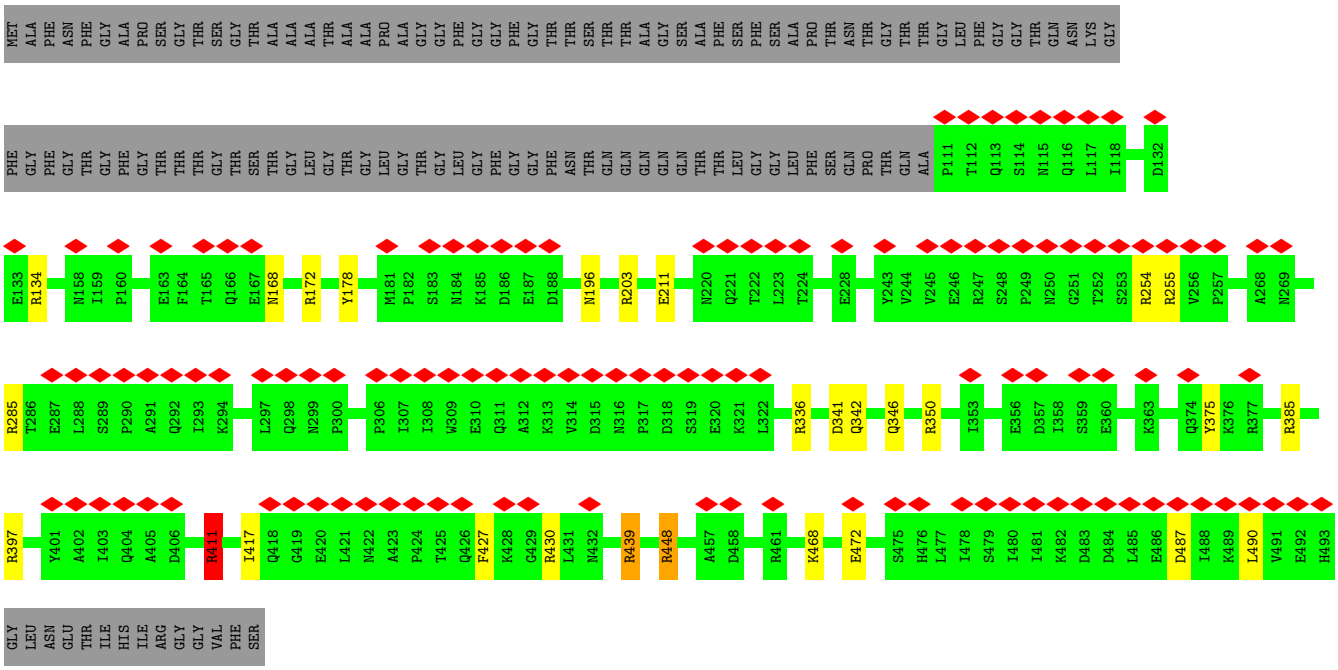
Chain H0:





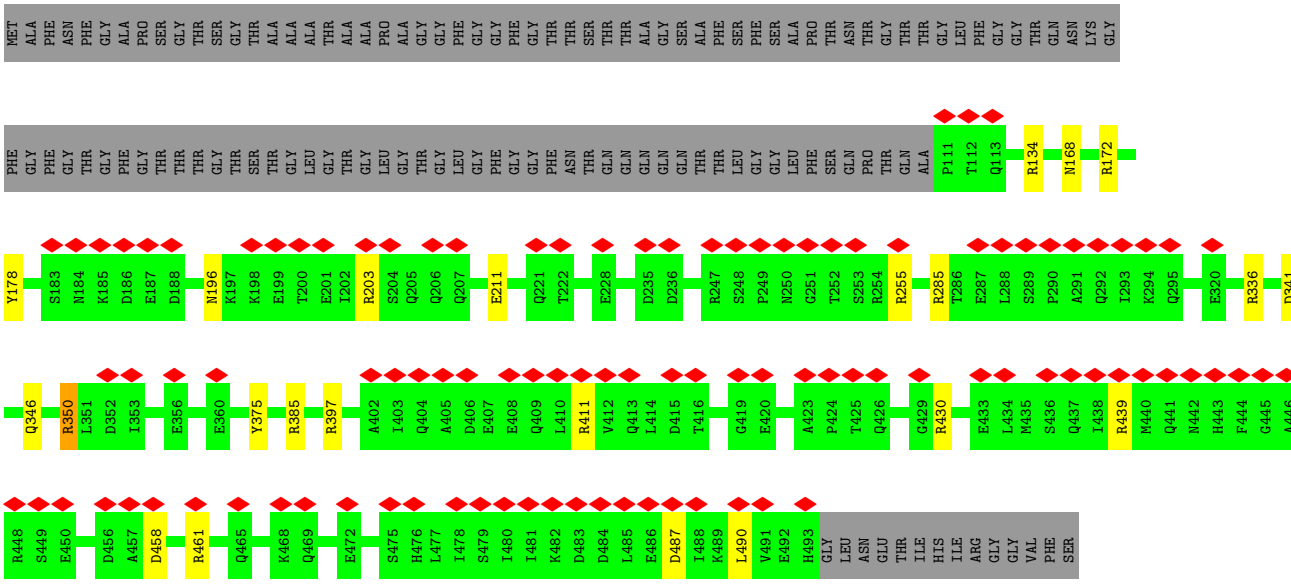
• Molecule 10: Nucleoporin p54

Chain H1:



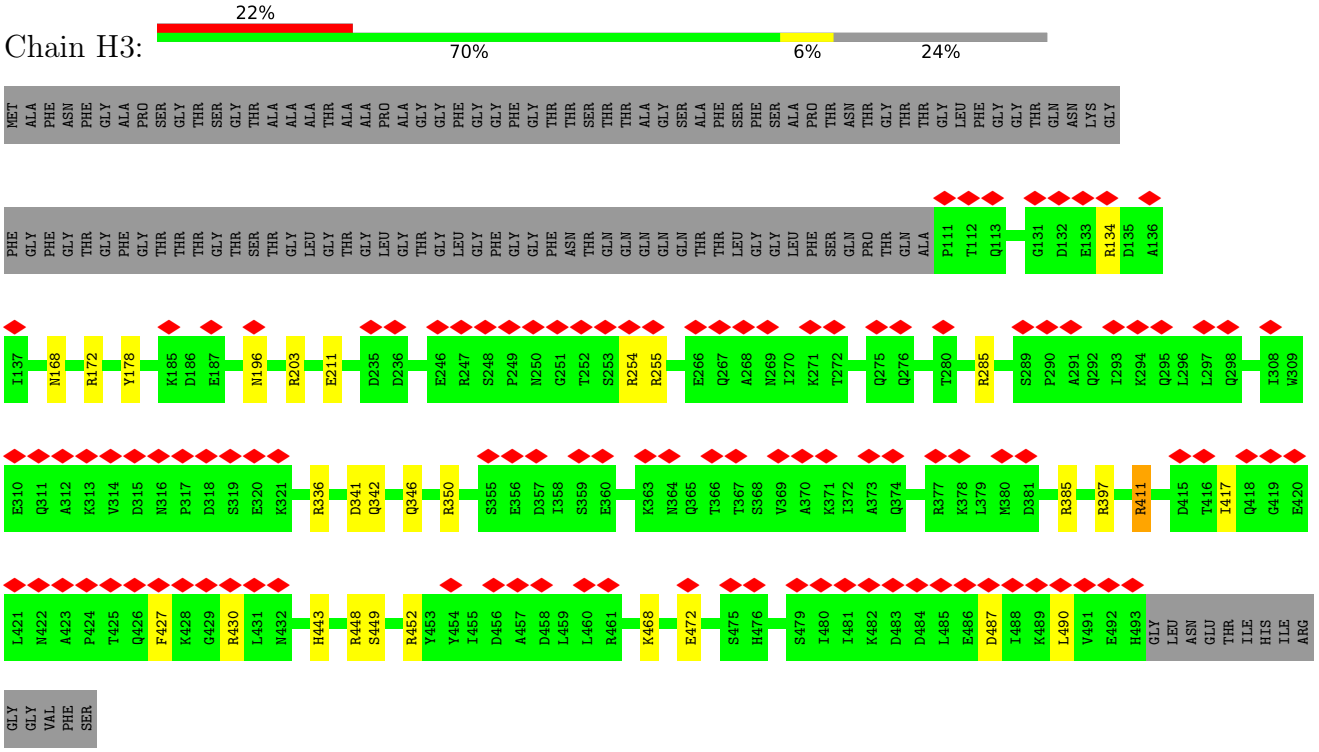
• Molecule 10: Nucleoporin p54

Chain H2:



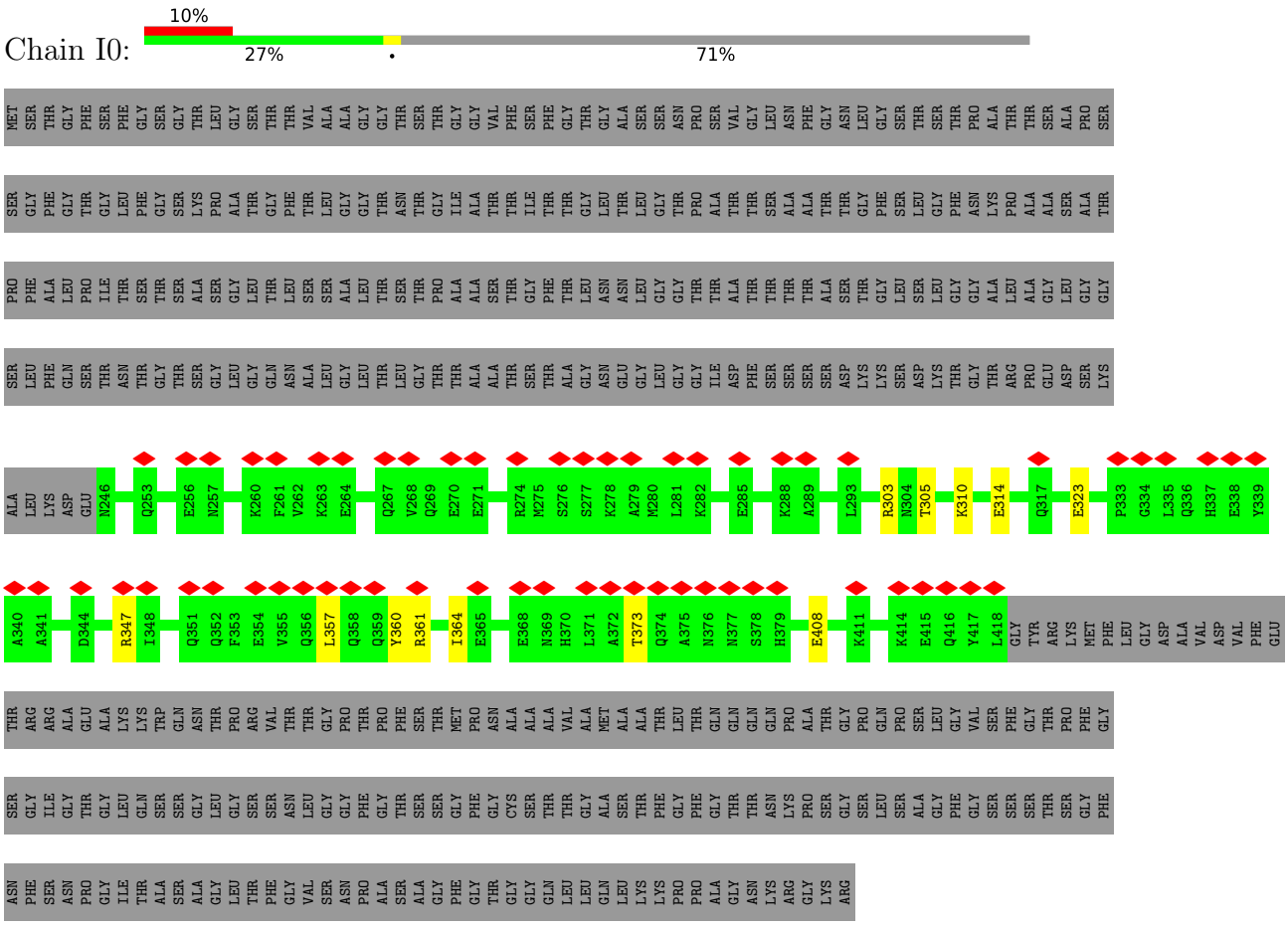
• Molecule 10: Nucleoporin p54

Chain H3:



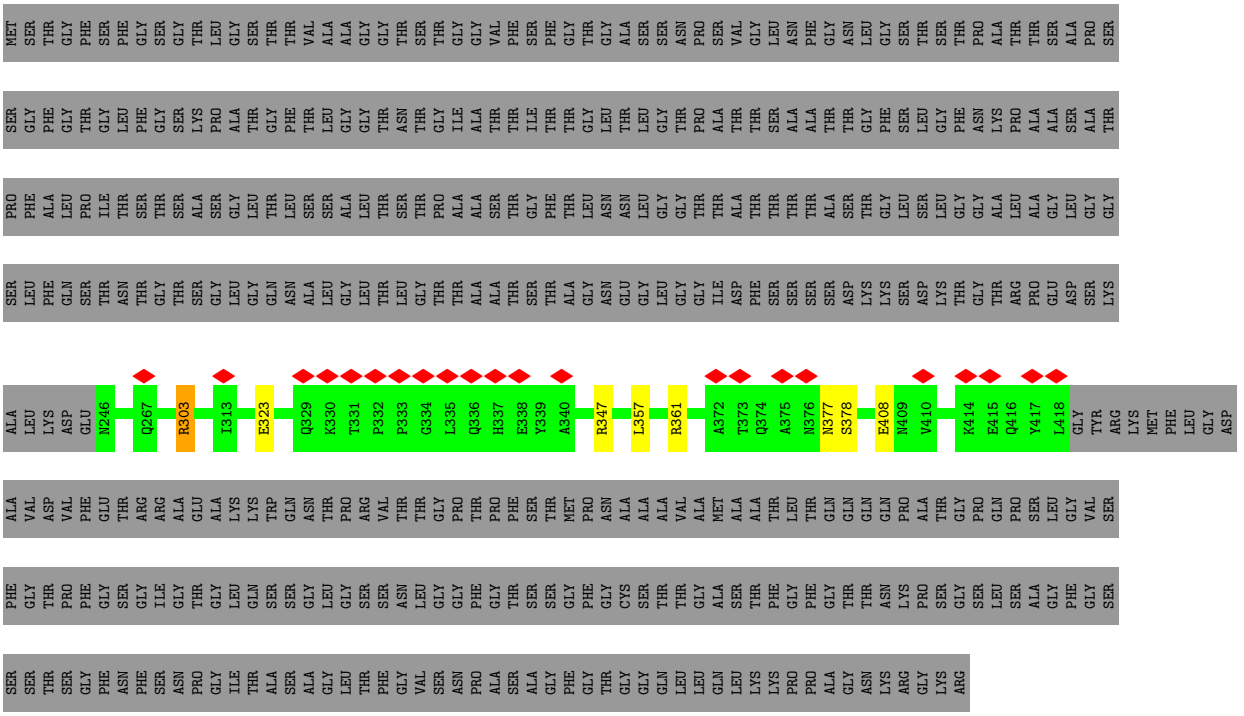
• Molecule 11: Nucleoporin p58/p45

Chain I0:



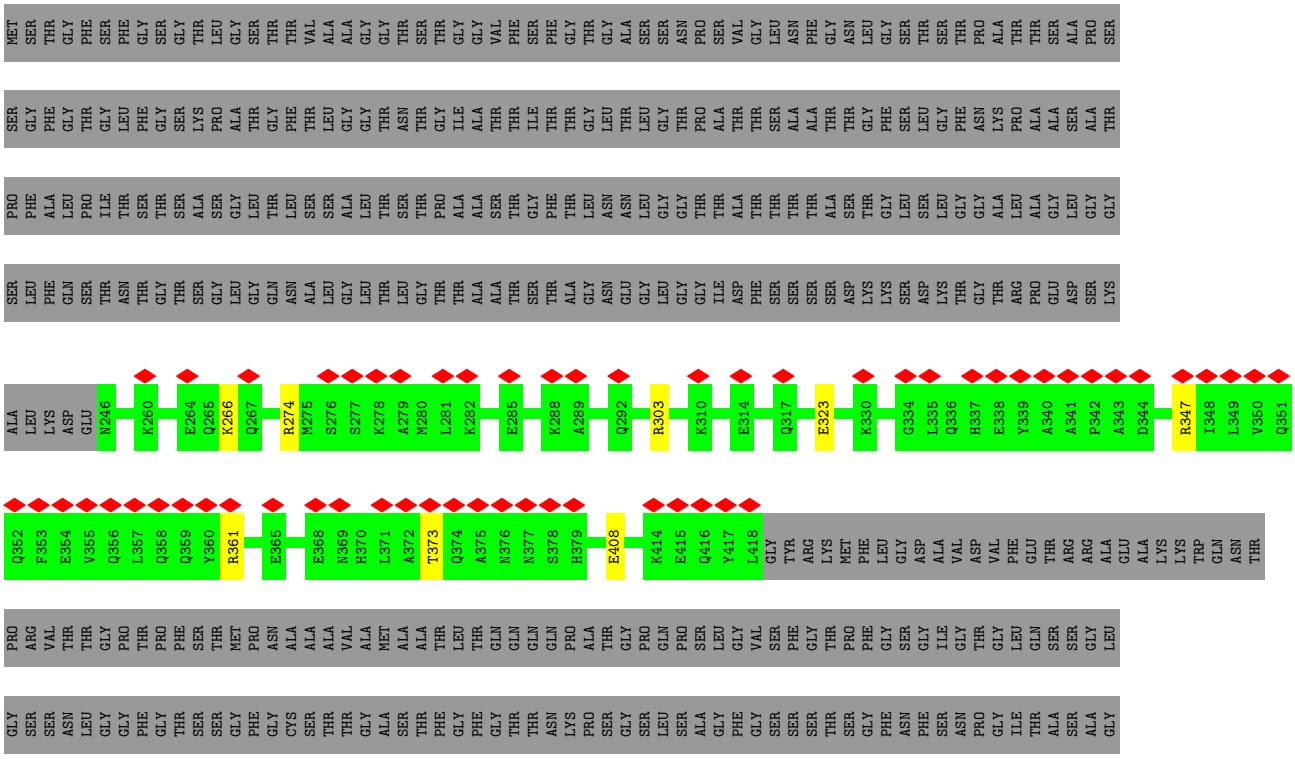
• Molecule 11: Nucleoporin p58/p45

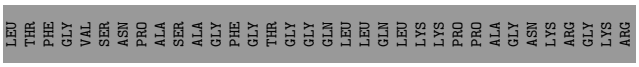
Chain I1:



• Molecule 11: Nucleoporin p58/p45

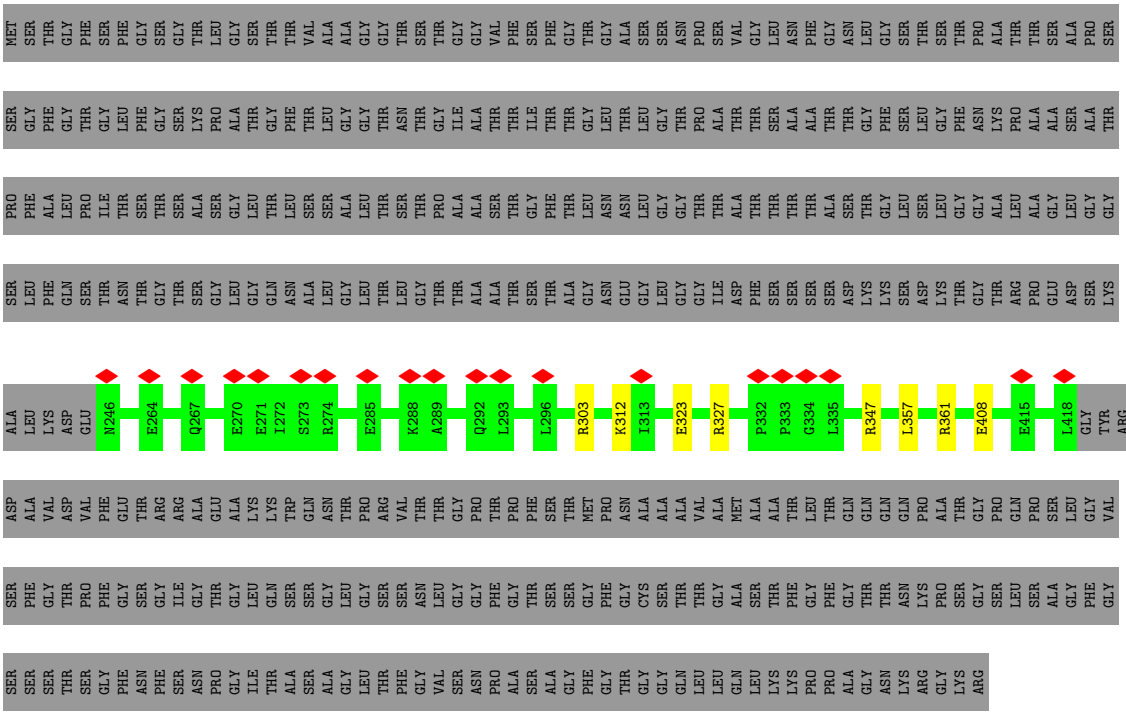
Chain I2:





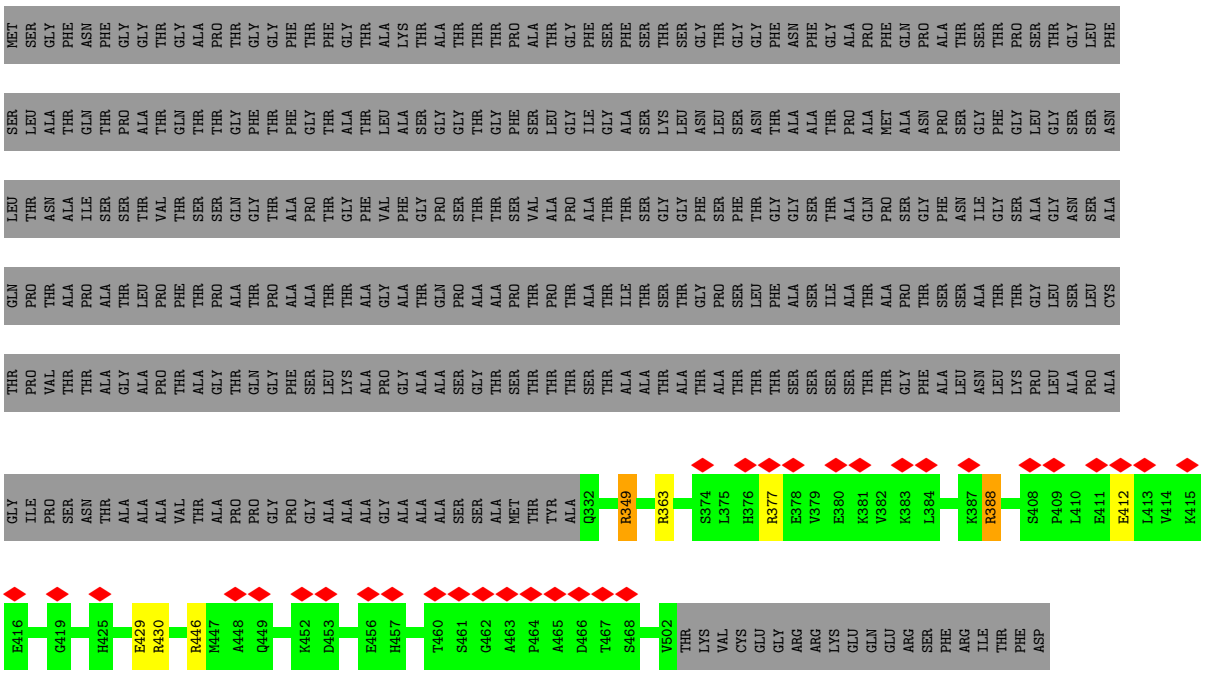
• Molecule 11: Nucleoporin p58/p45

Chain I3:



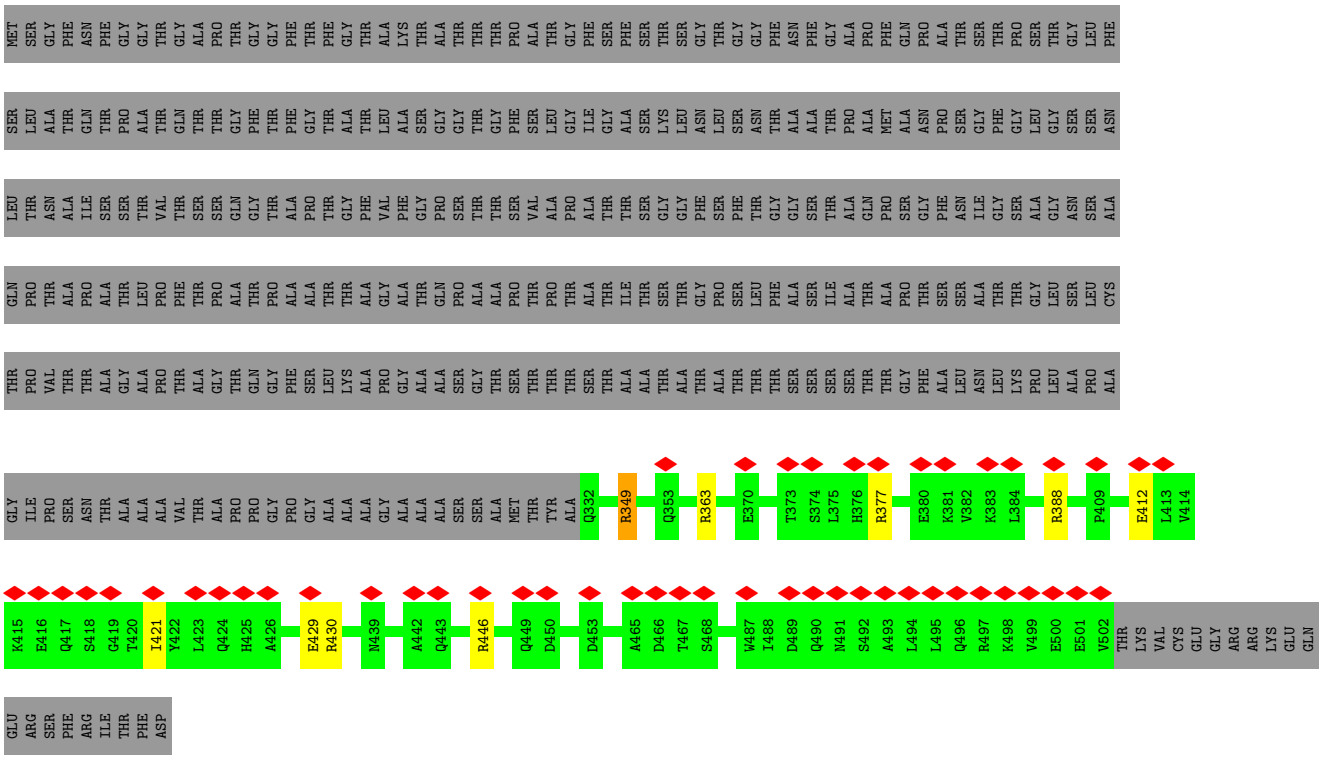
• Molecule 12: Nuclear pore glycoprotein p62

Chain J0:



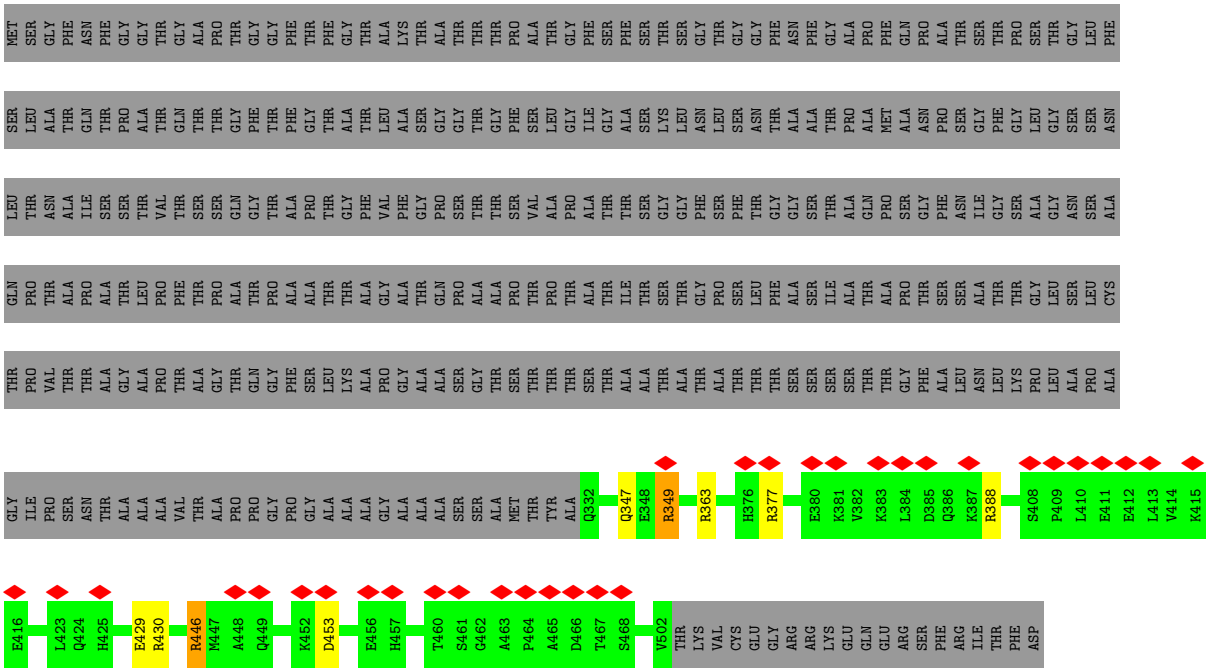
• Molecule 12: Nuclear pore glycoprotein p62

Chain J1:



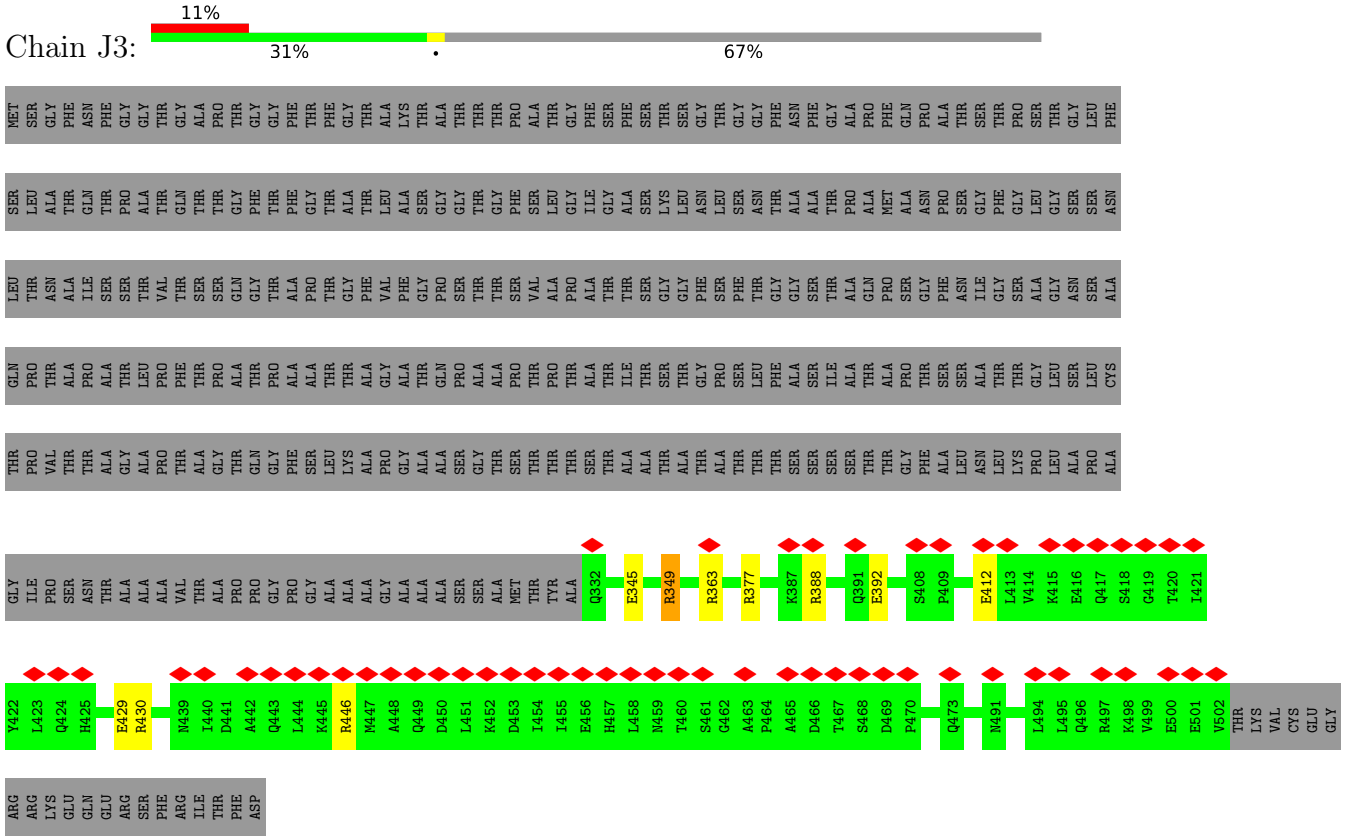
• Molecule 12: Nuclear pore glycoprotein p62

Chain J2:



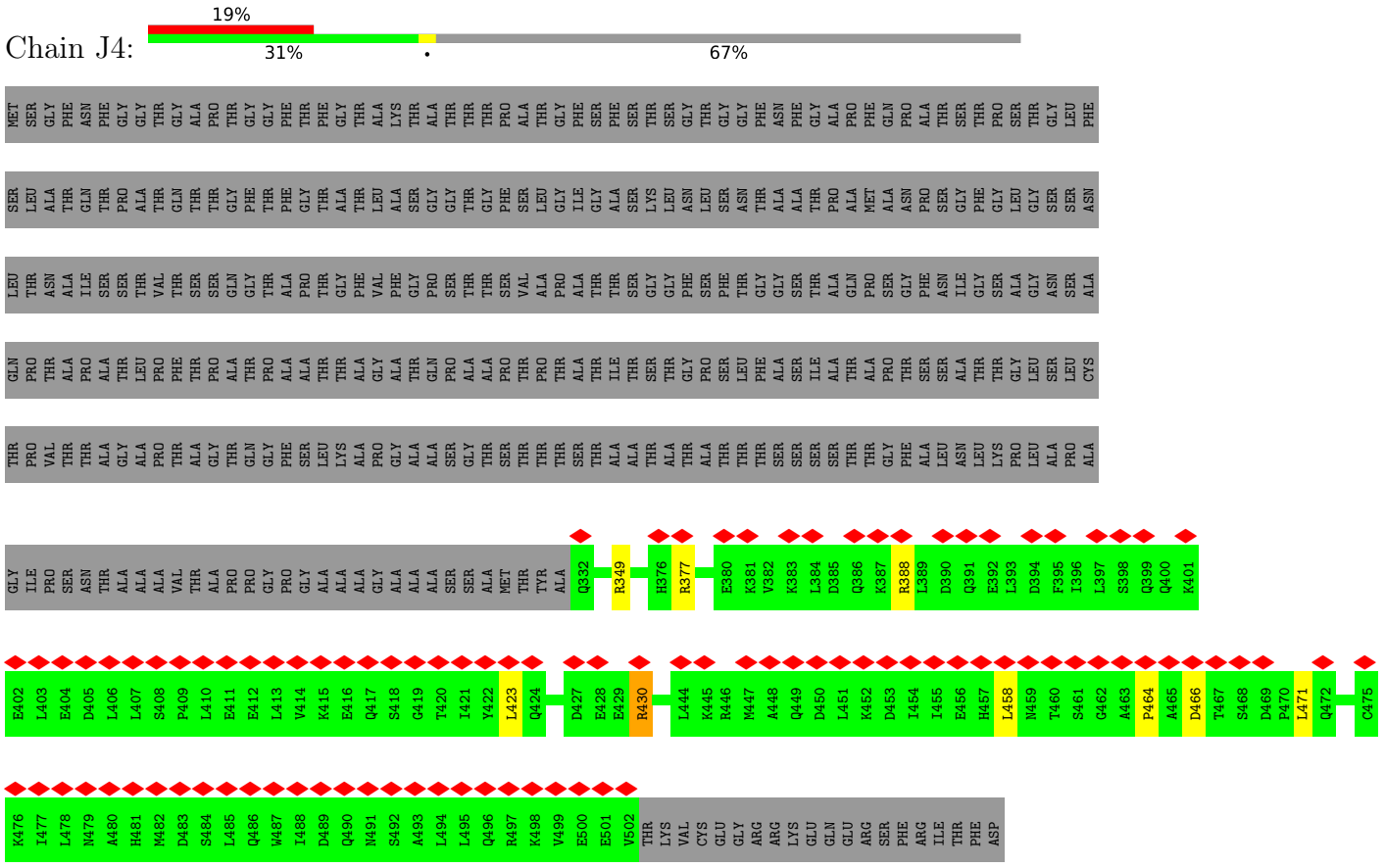
• Molecule 12: Nuclear pore glycoprotein p62

Chain J3:



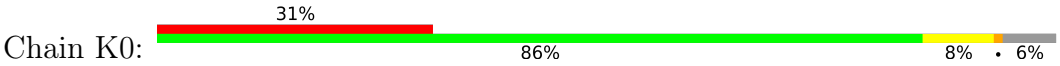
• Molecule 12: Nuclear pore glycoprotein p62

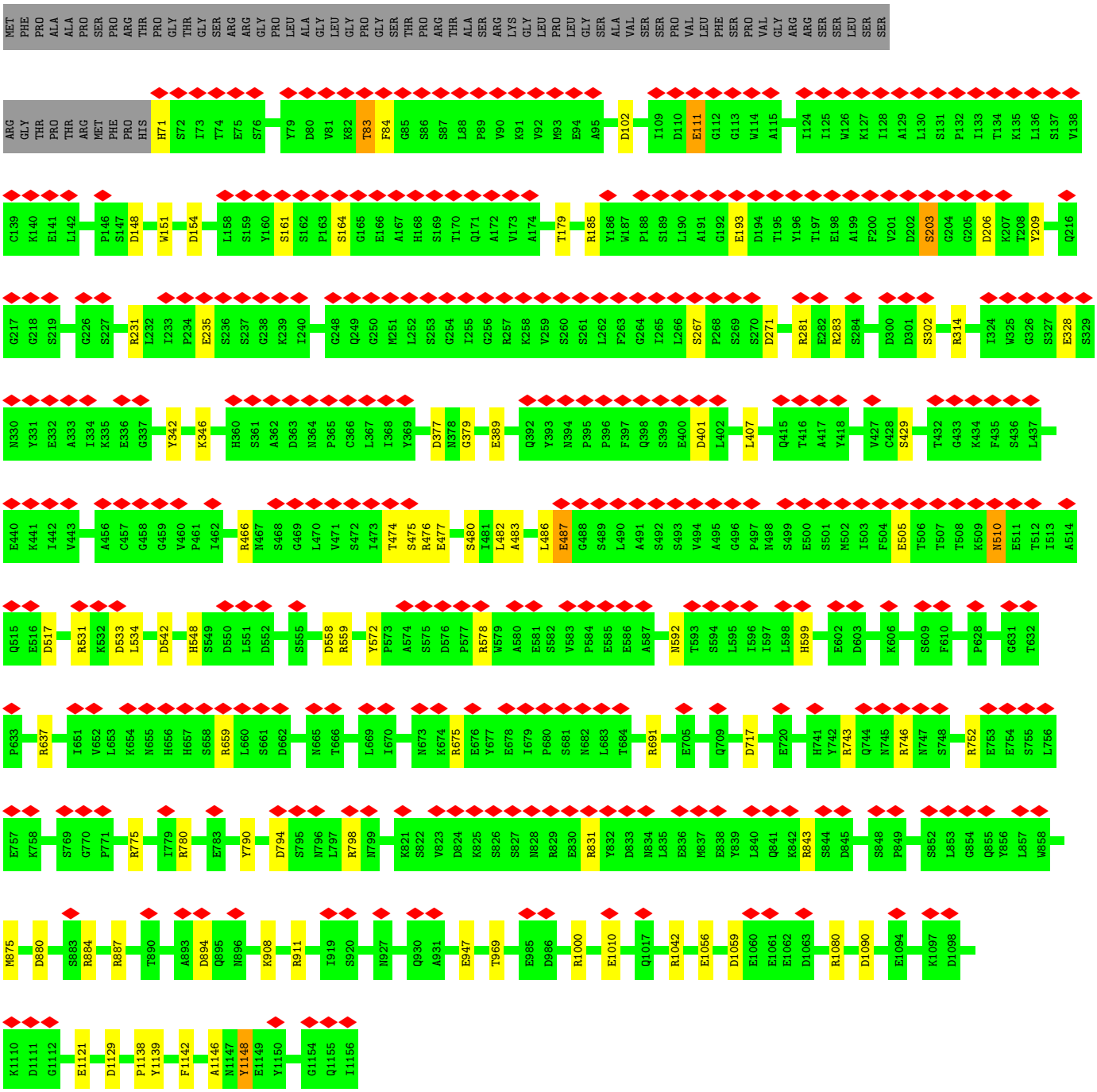
Chain J4:



• Molecule 13: Nuclear pore complex protein Nup133

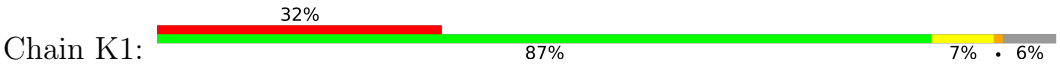
Chain K0:

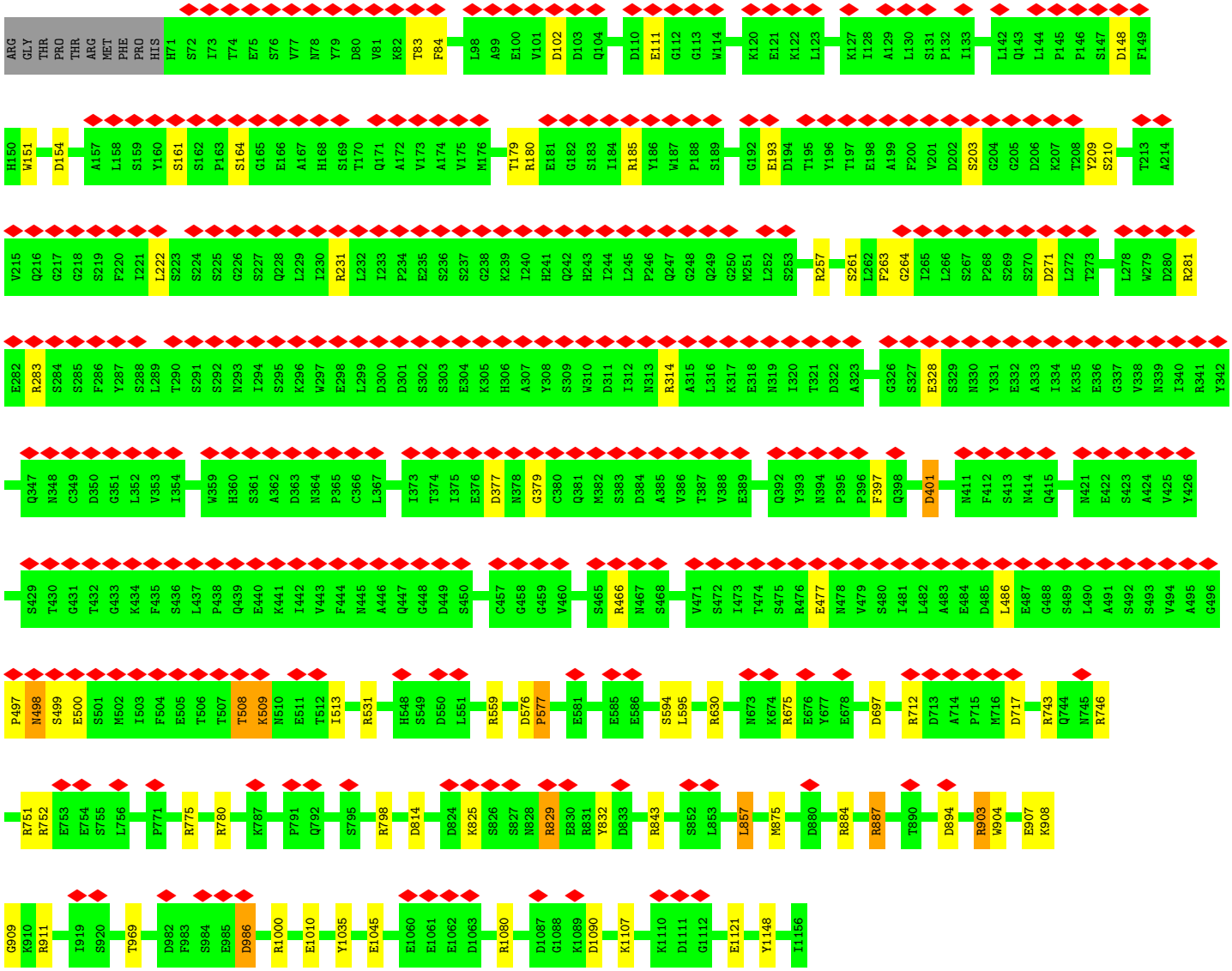




• Molecule 13: Nuclear pore complex protein Nup133

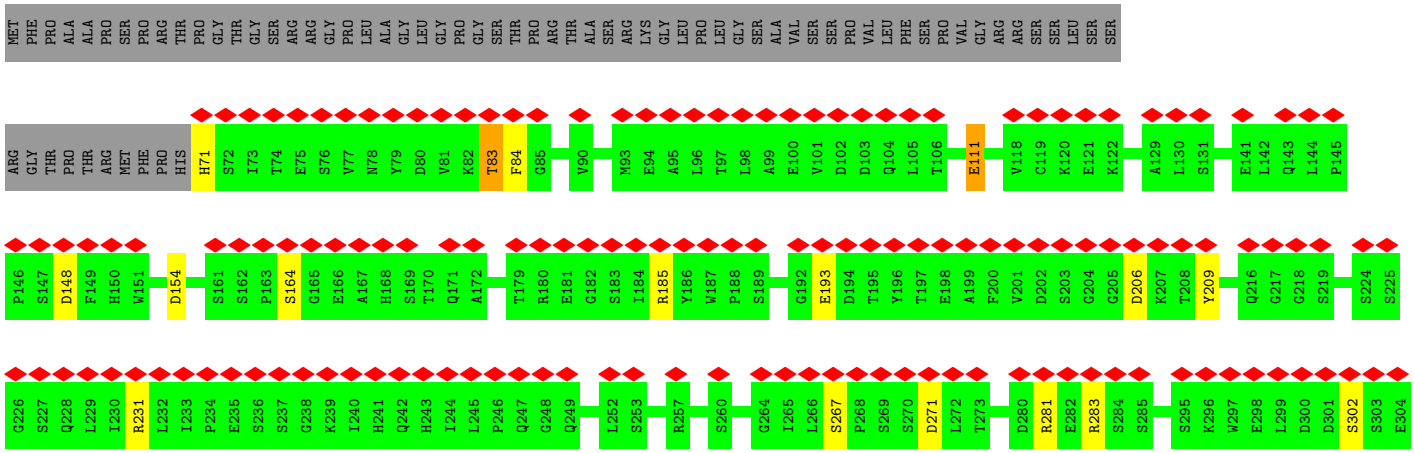
Chain K1:

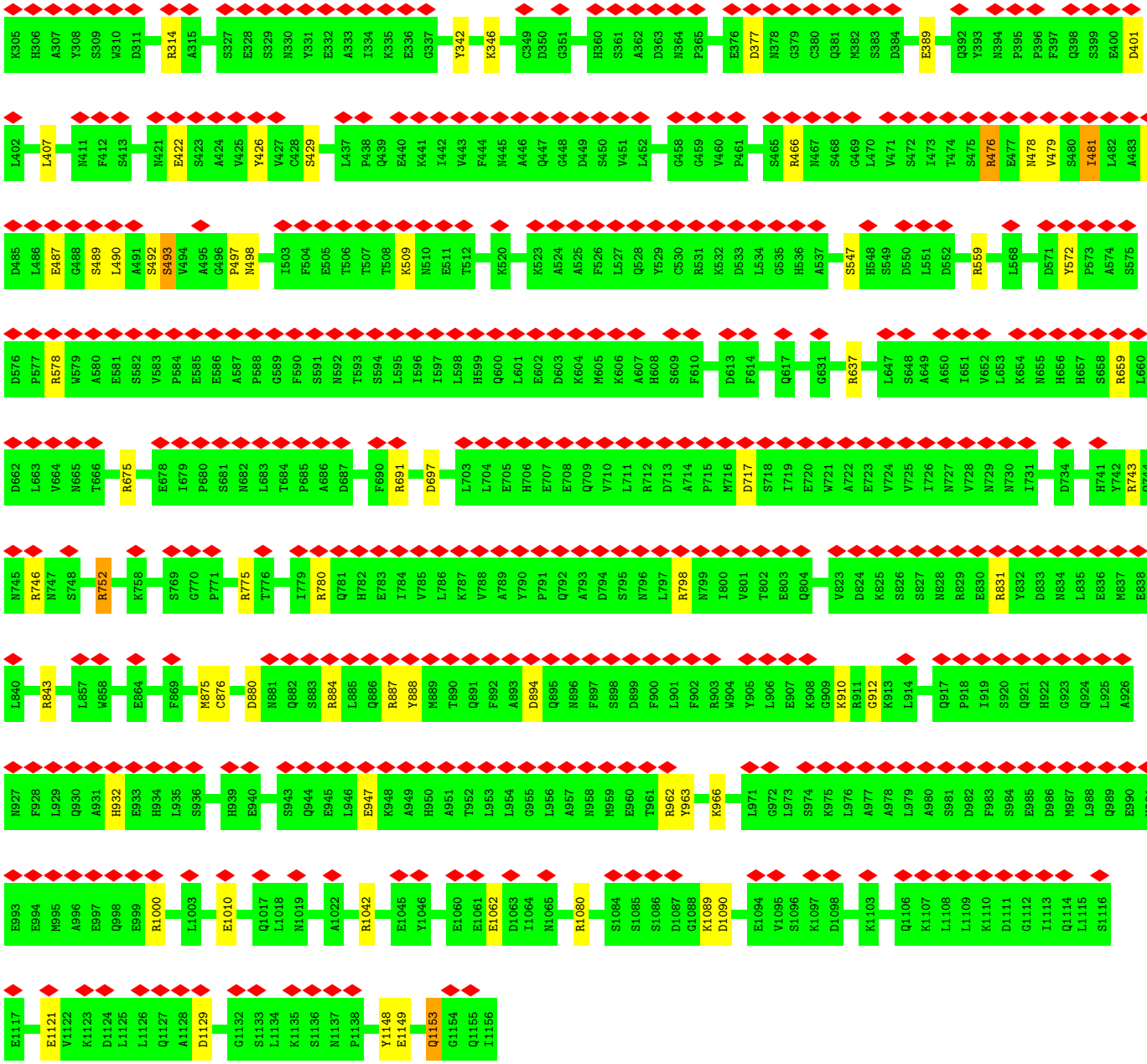




• Molecule 13: Nuclear pore complex protein Nup133

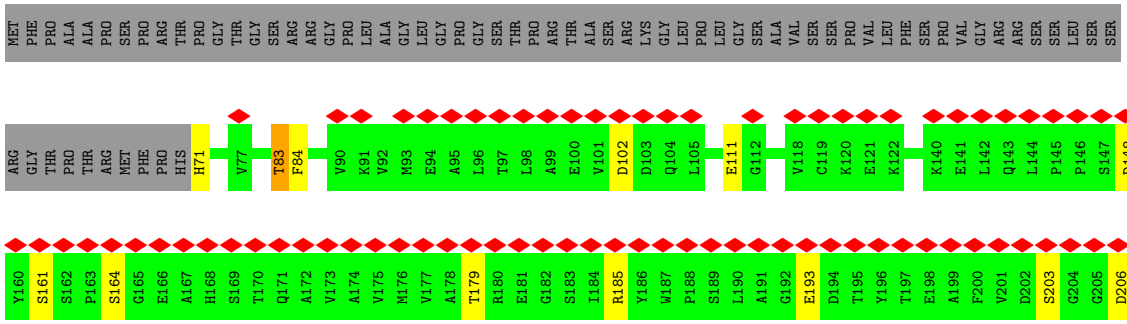
Chain K2:

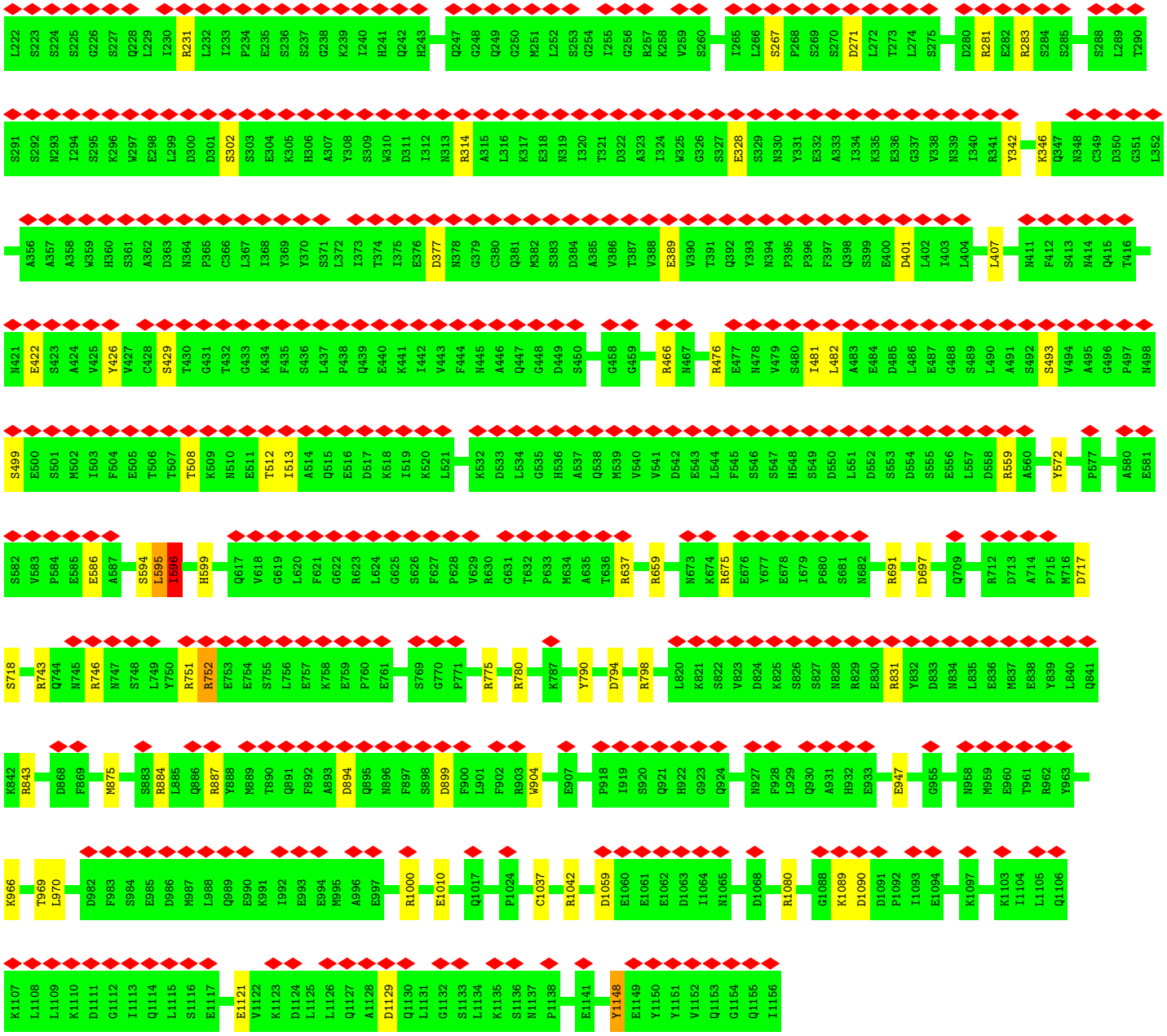




• Molecule 13: Nuclear pore complex protein Nup133

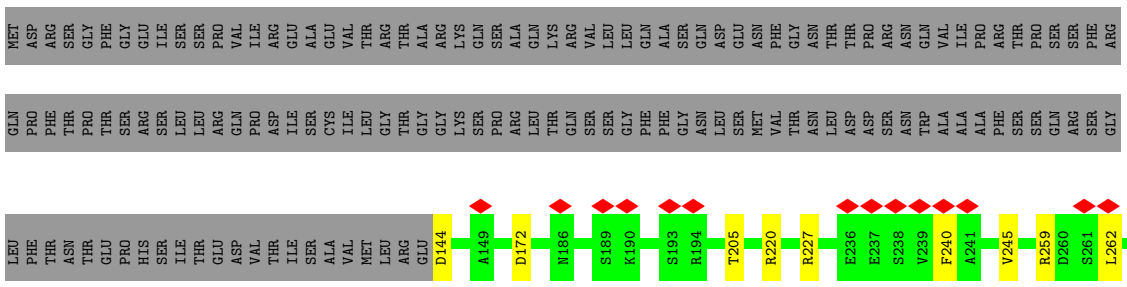
Chain K3:

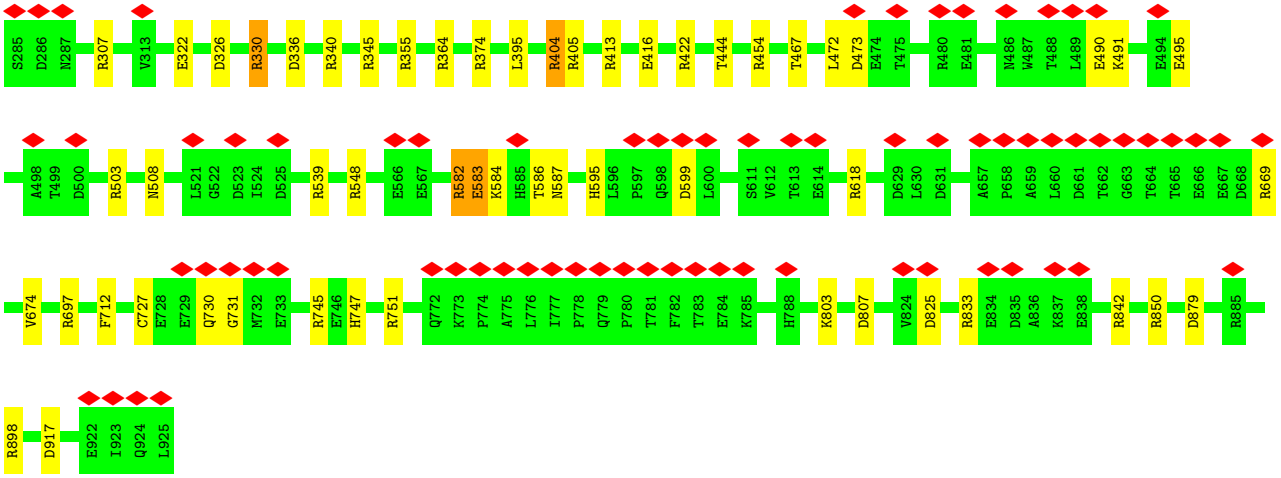




• Molecule 14: Nuclear pore complex protein Nup107

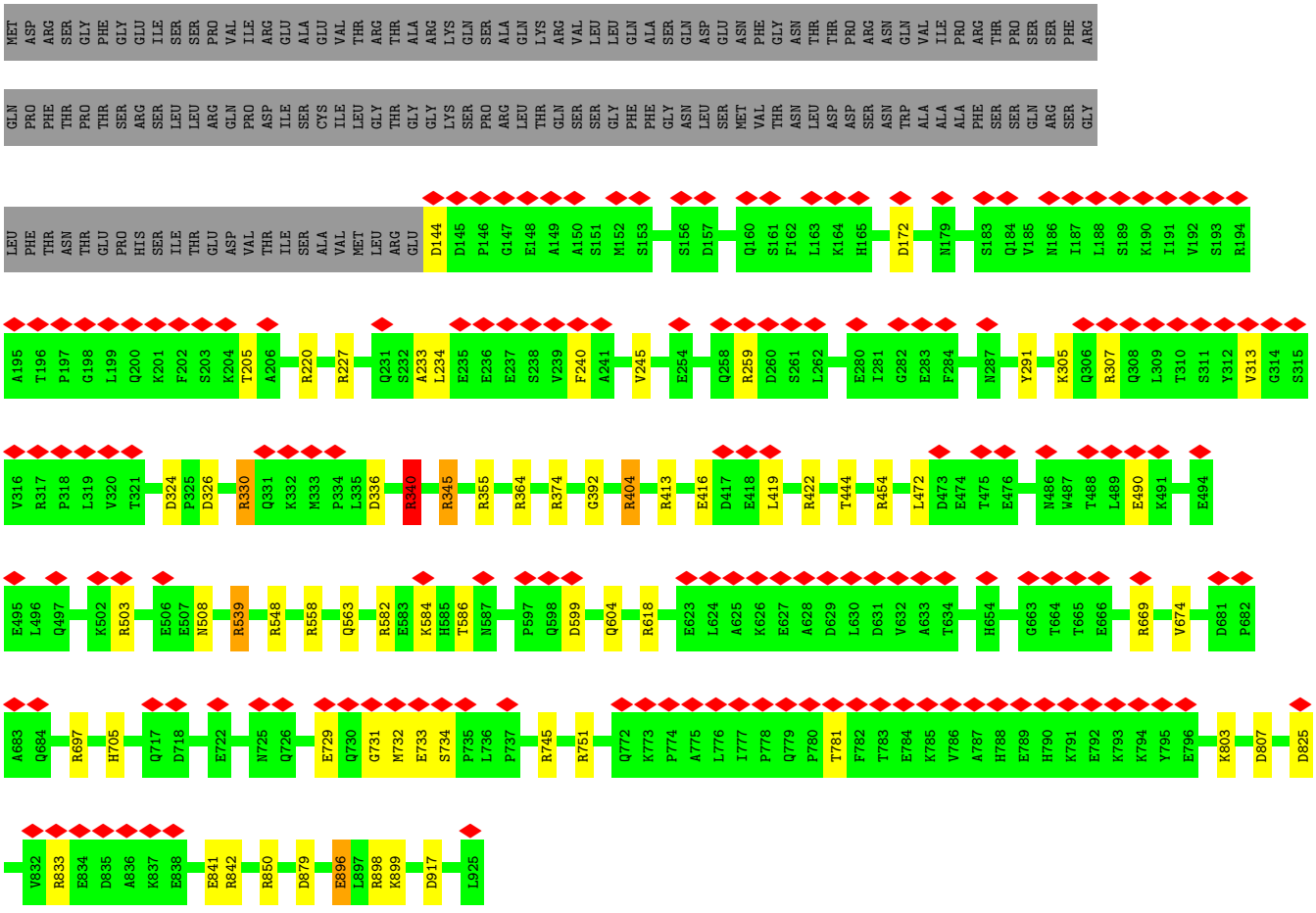
Chain L0:





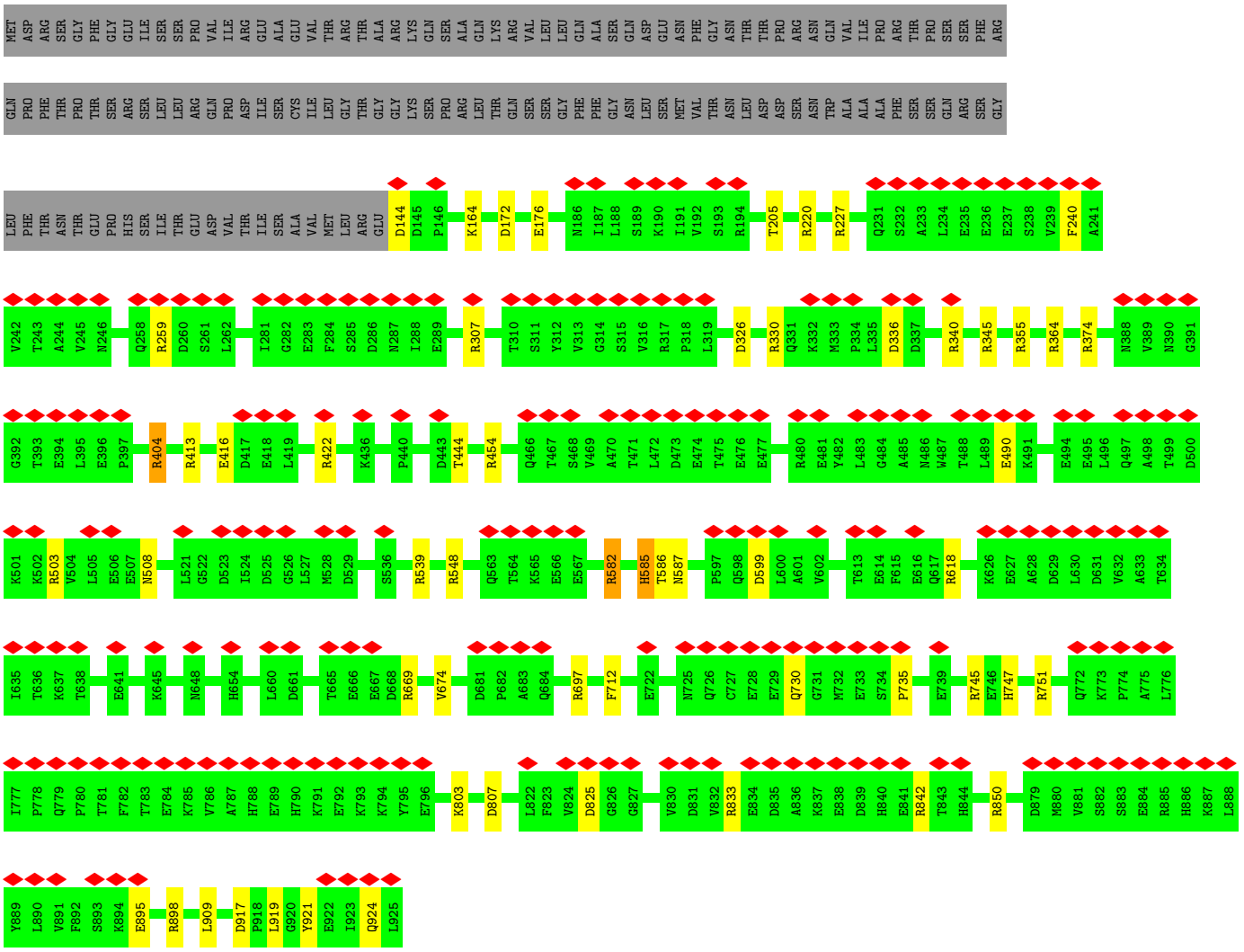
• Molecule 14: Nuclear pore complex protein Nup107

Chain L1:



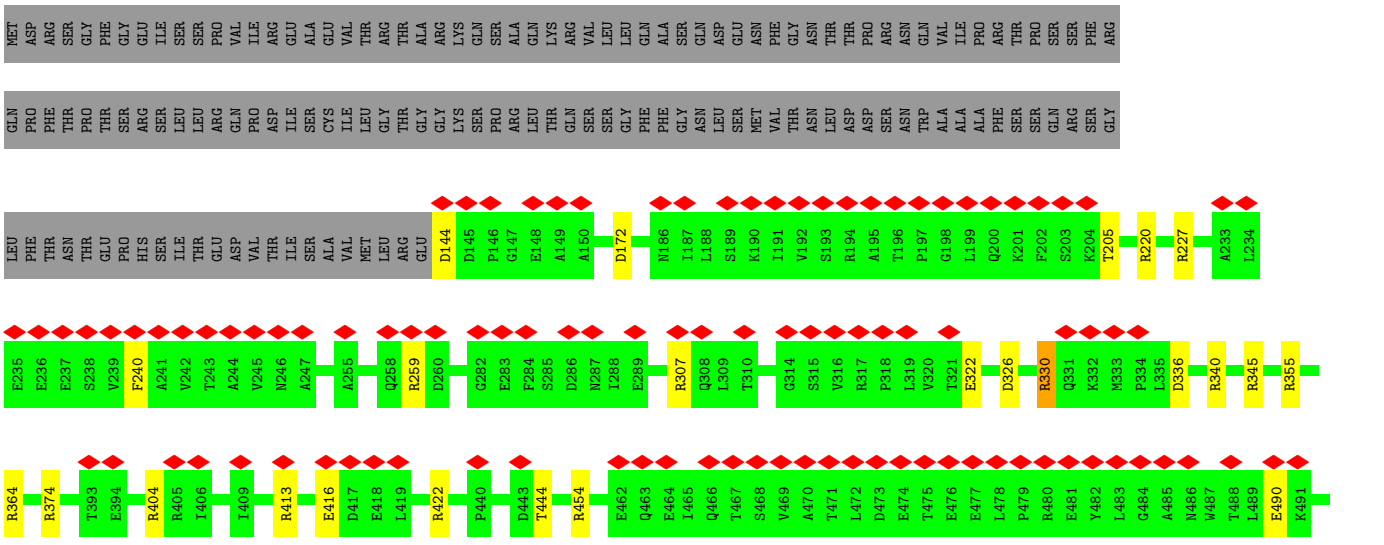
• Molecule 14: Nuclear pore complex protein Nup107

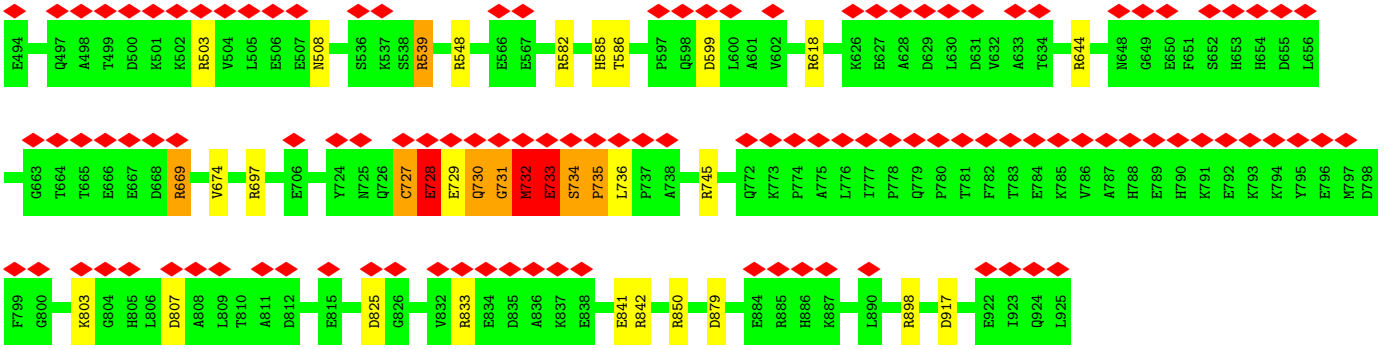
Chain L2:



• Molecule 14: Nuclear pore complex protein Nup107

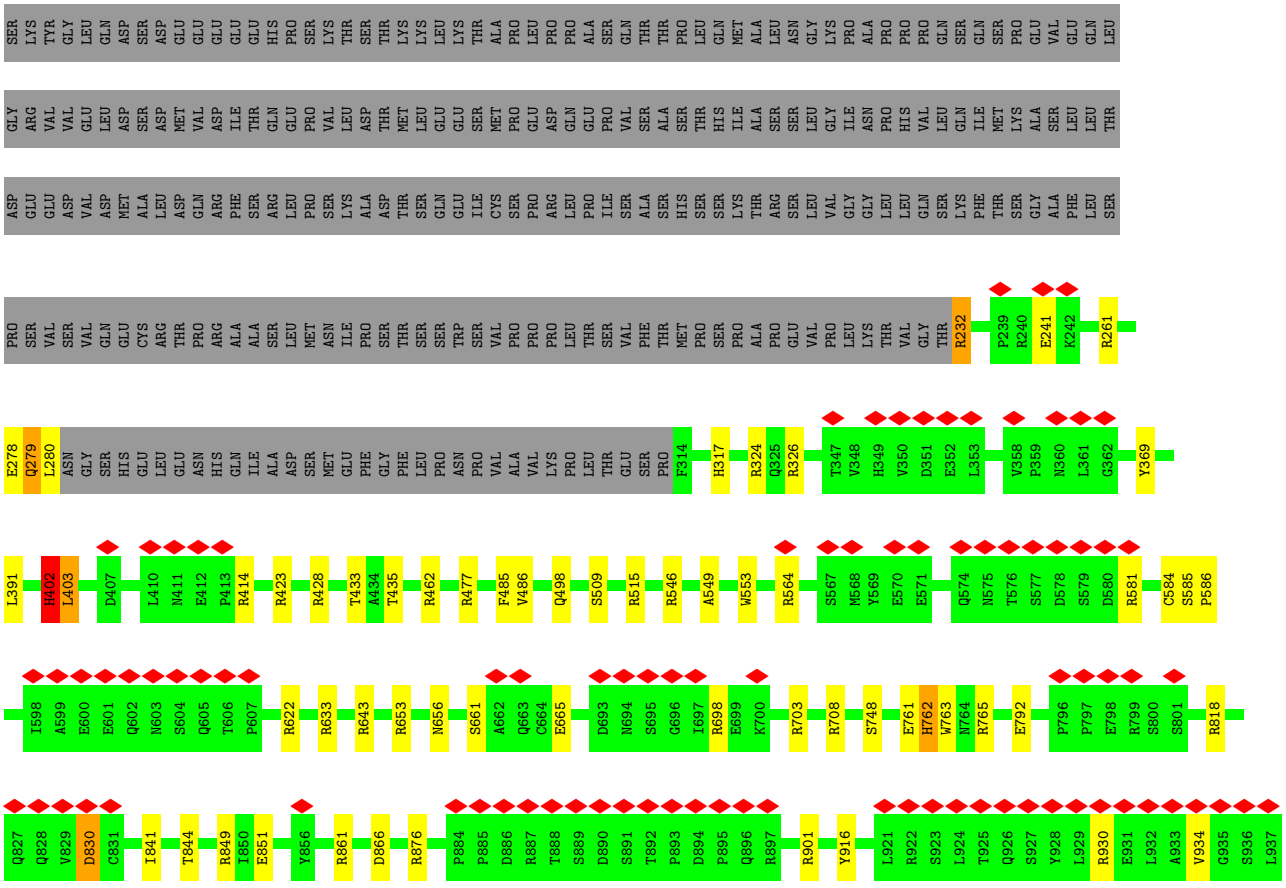
Chain L3:





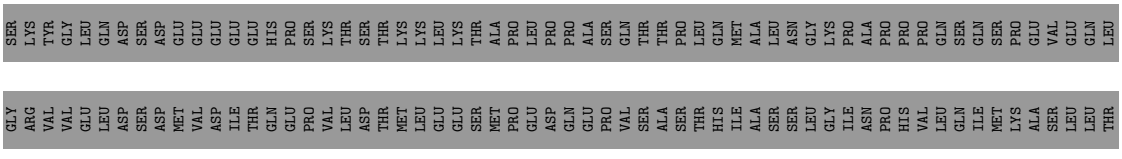
• Molecule 15: Nuclear pore complex protein Nup96

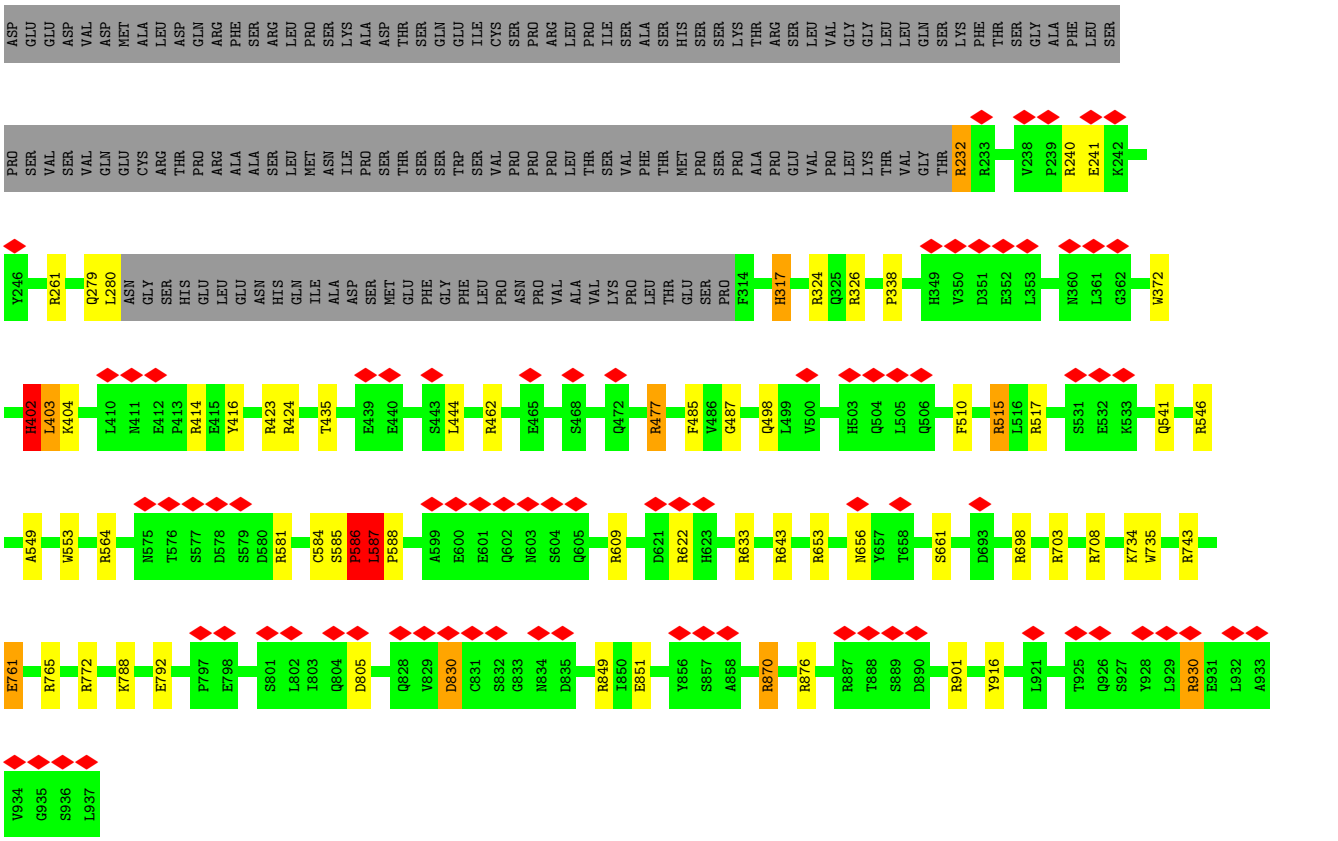
Chain M0:



• Molecule 15: Nuclear pore complex protein Nup96

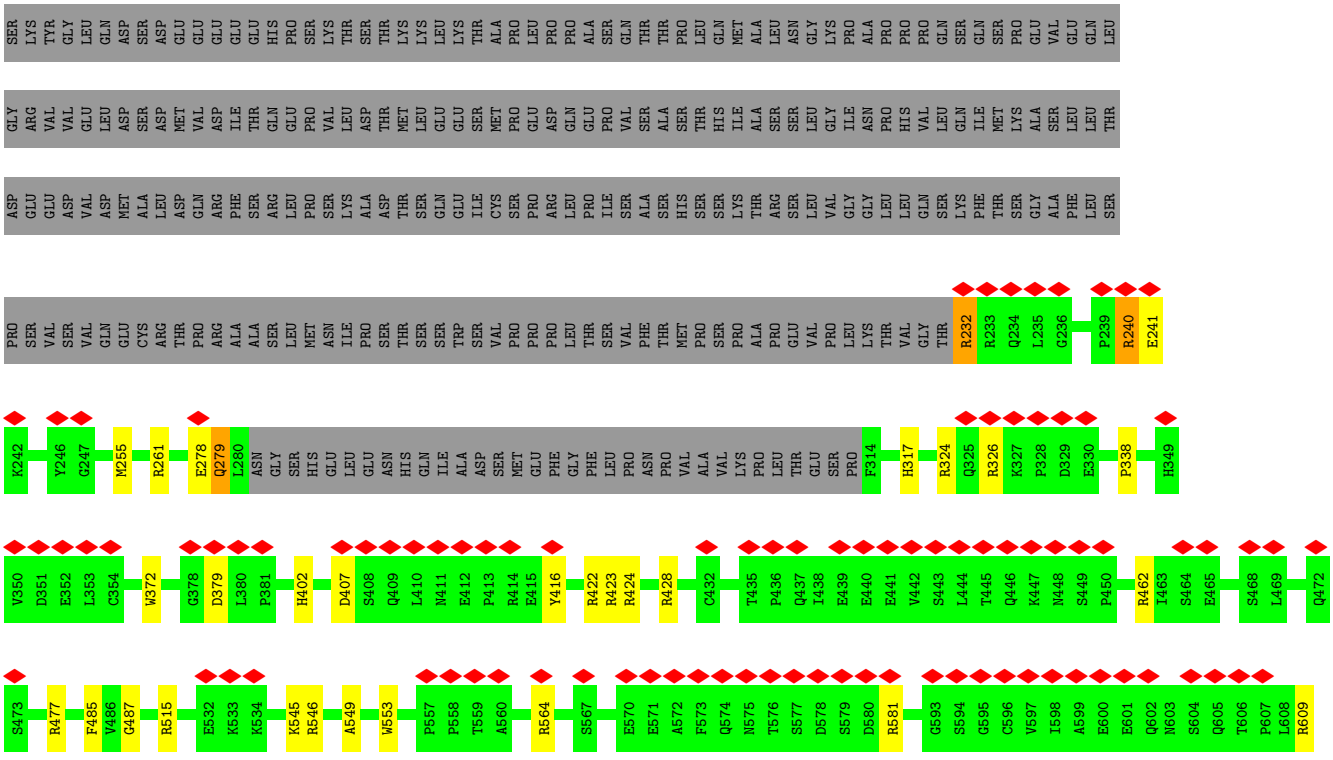
Chain M1:

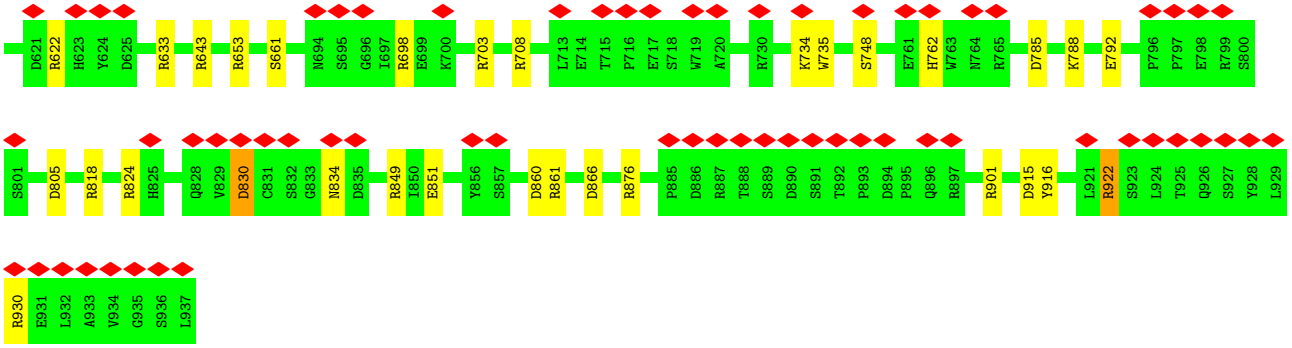




• Molecule 15: Nuclear pore complex protein Nup96

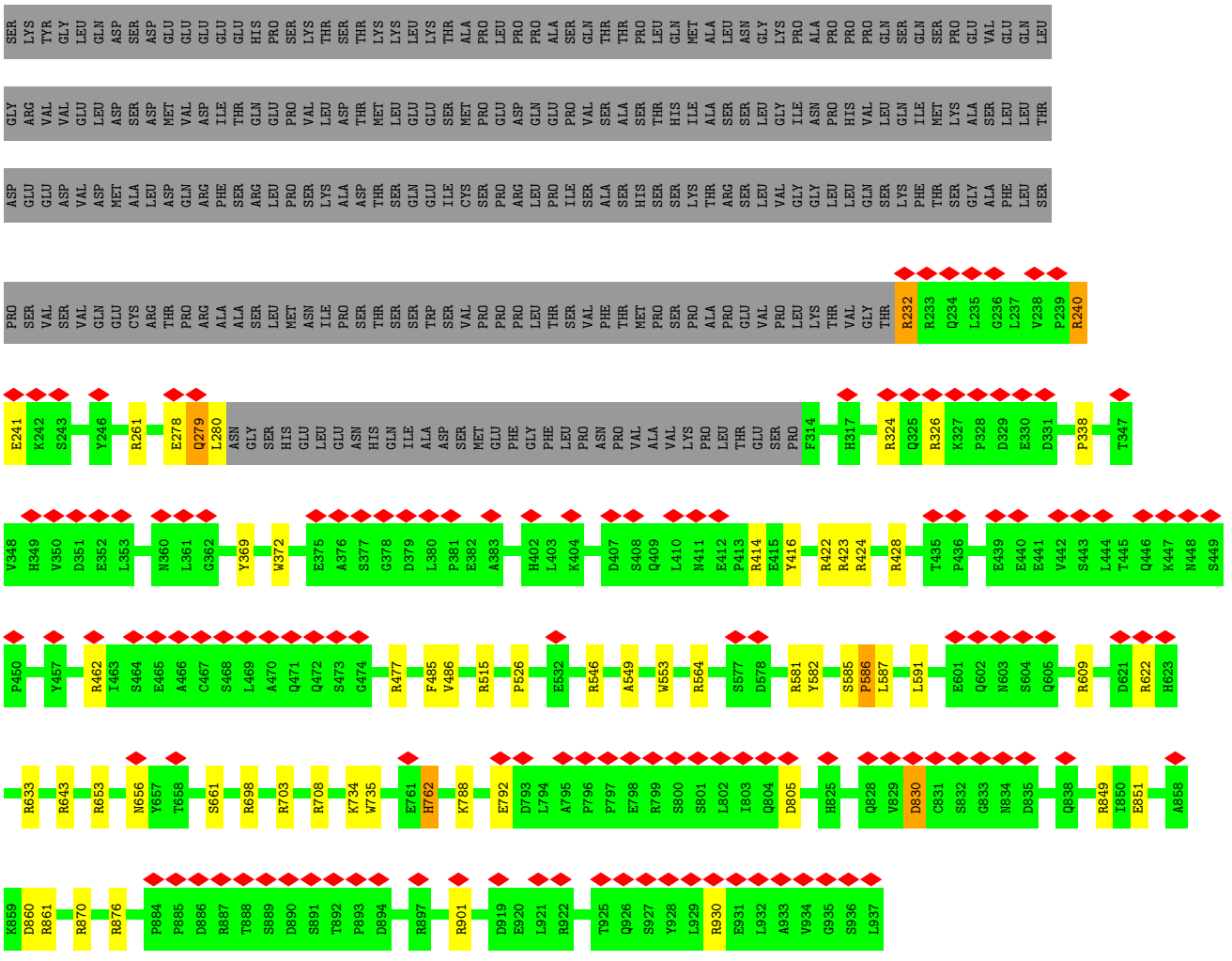
Chain M2:





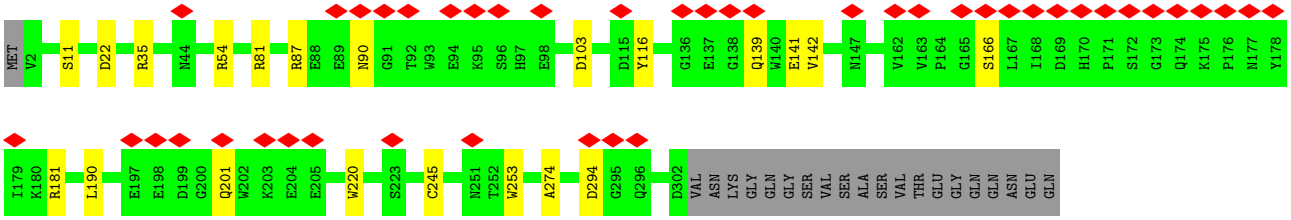
• Molecule 15: Nuclear pore complex protein Nup96

Chain M3:



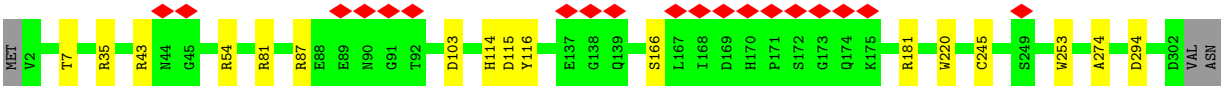
• Molecule 16: Protein SEC13 homolog

Chain N0:



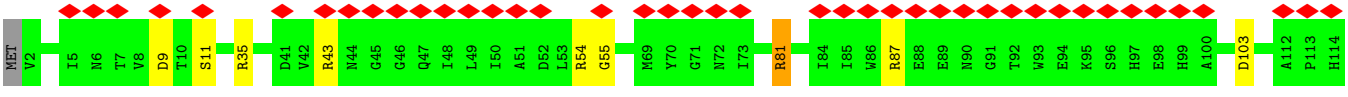
• Molecule 16: Protein SEC13 homolog

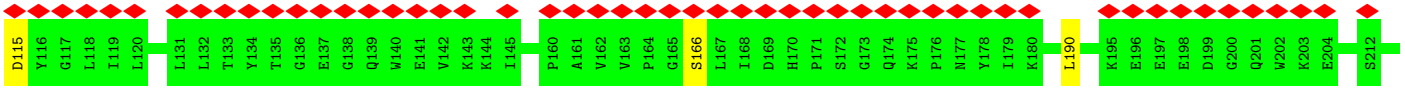
Chain N1:

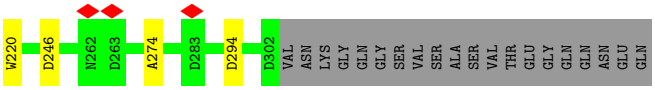


• Molecule 16: Protein SEC13 homolog

Chain N2:

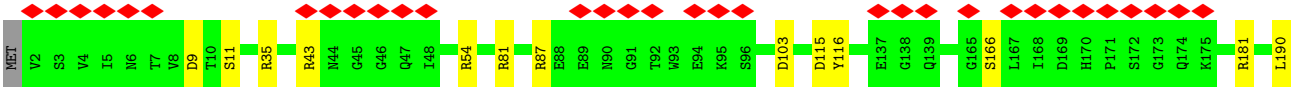


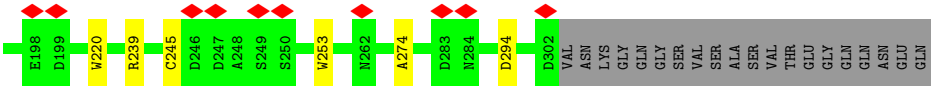




• Molecule 16: Protein SEC13 homolog

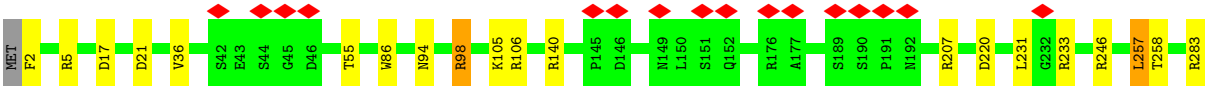
Chain N3:

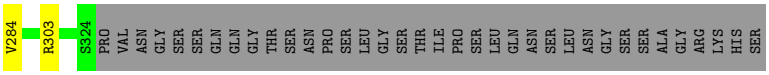




• Molecule 17: Nucleoporin SEH1

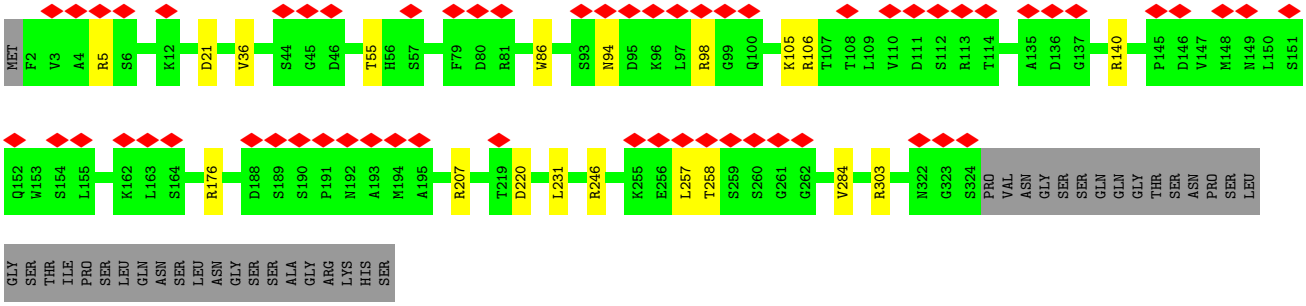
Chain O0:





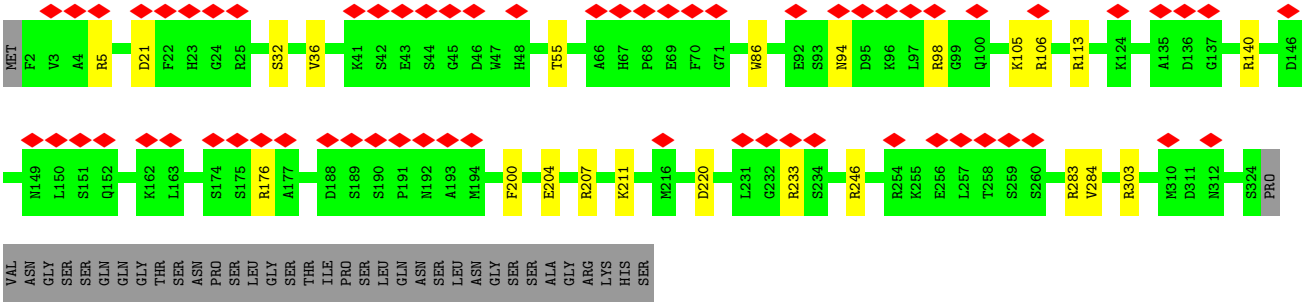
• Molecule 17: Nucleoporin SEH1

Chain O1:



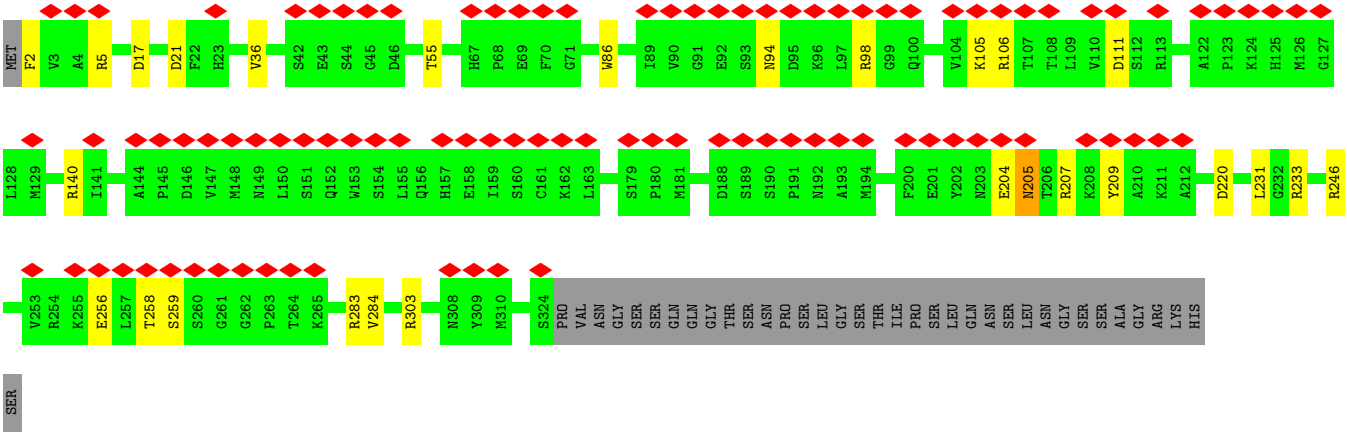
• Molecule 17: Nucleoporin SEH1

Chain O2:



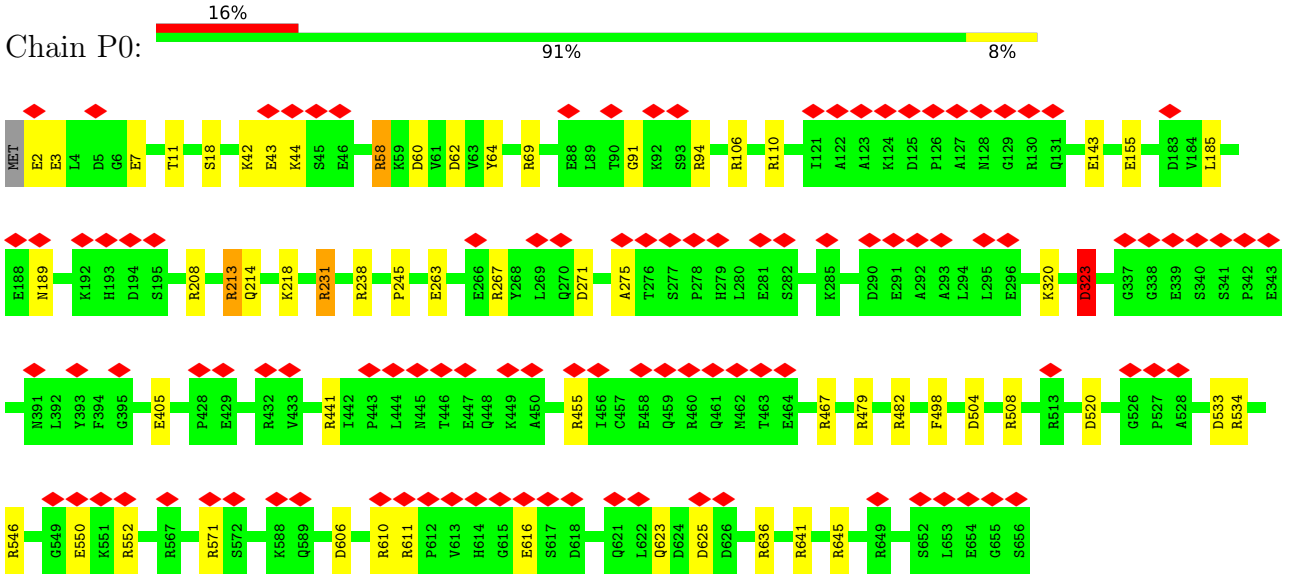
• Molecule 17: Nucleoporin SEH1

Chain O3:



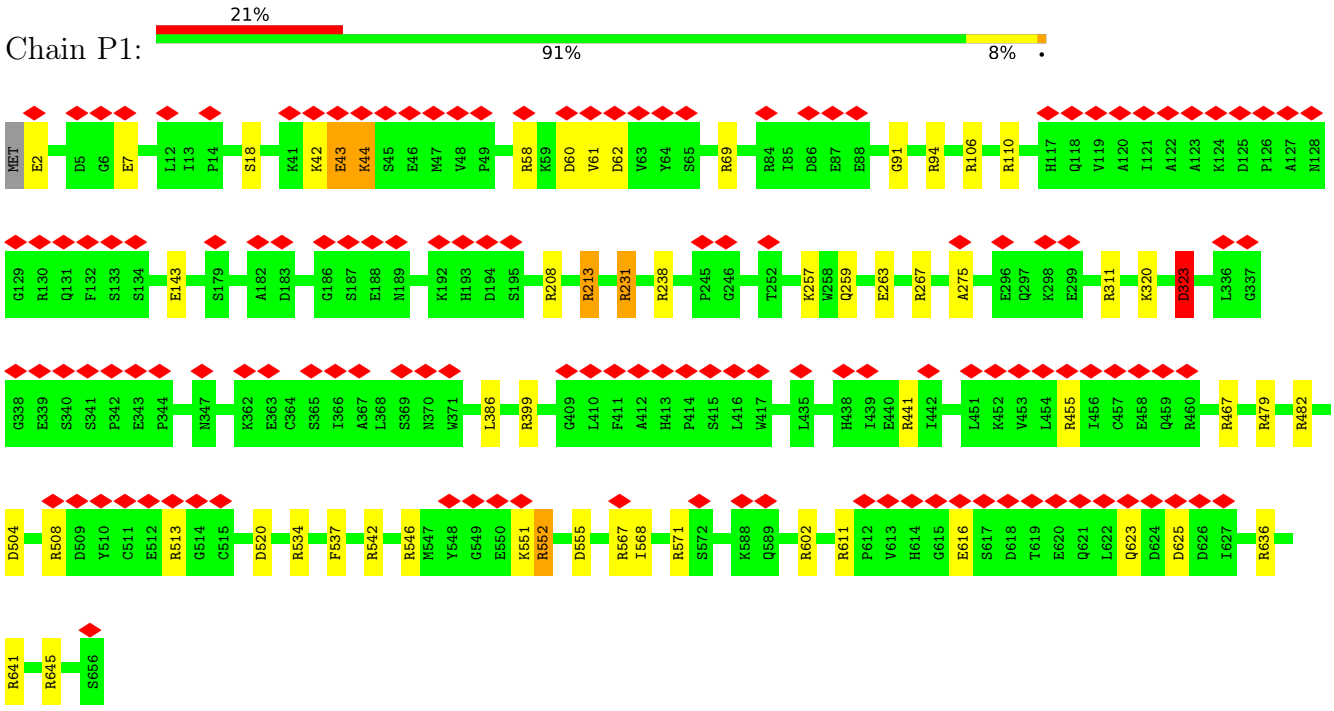
• Molecule 18: Nuclear pore complex protein Nup85

Chain P0:



• Molecule 18: Nuclear pore complex protein Nup85

Chain P1:



• Molecule 18: Nuclear pore complex protein Nup85

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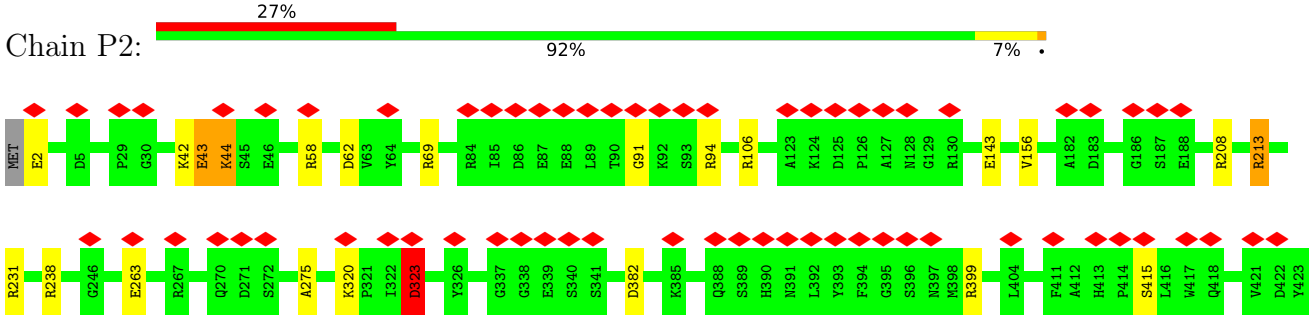
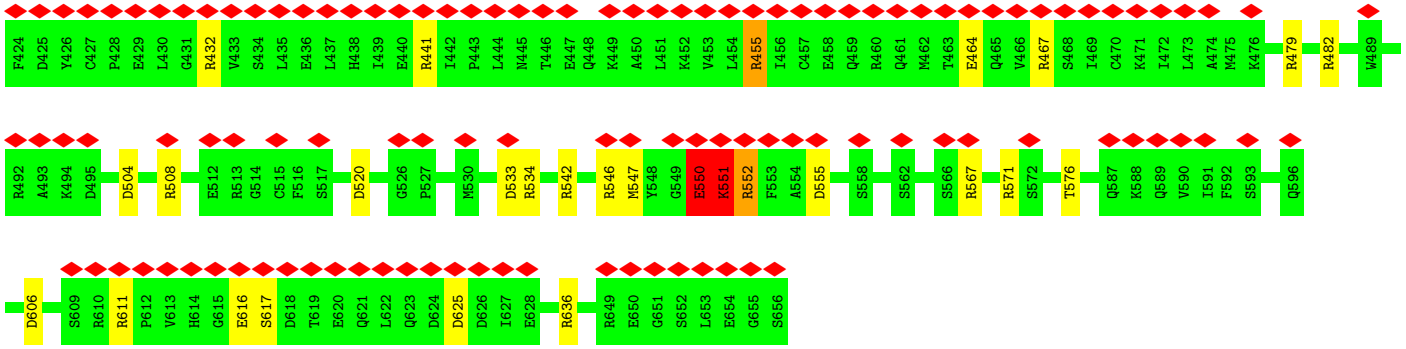
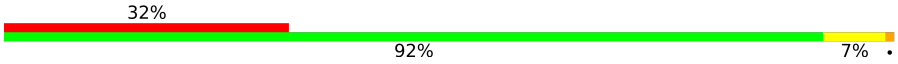
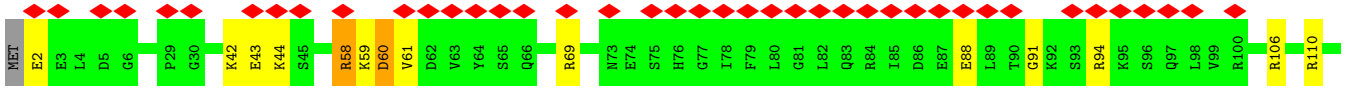


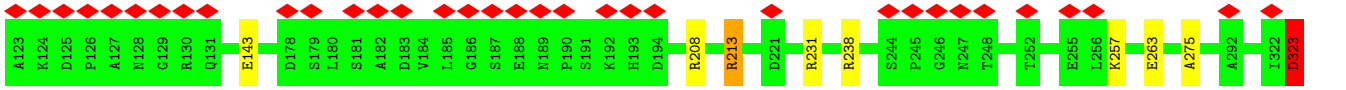


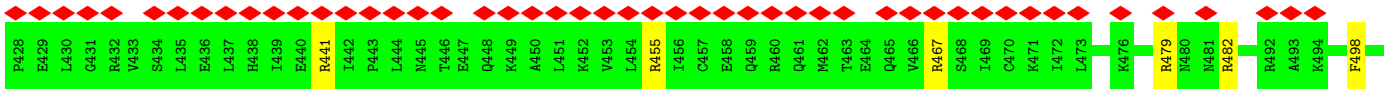
• Molecule 18: Nuclear pore complex protein Nup85

Chain P3:









• Molecule 19: Nucleoporin Nup43

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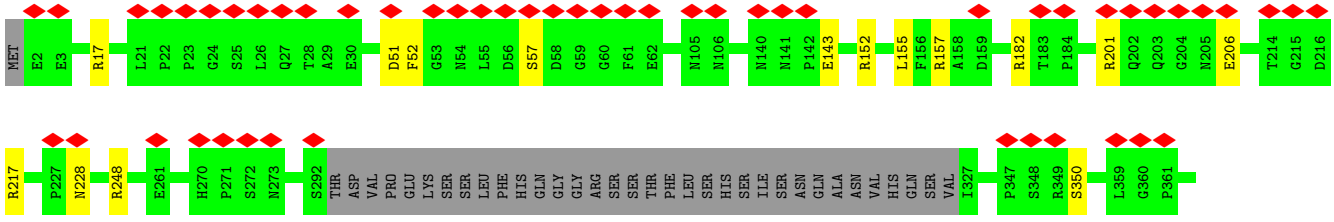
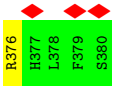
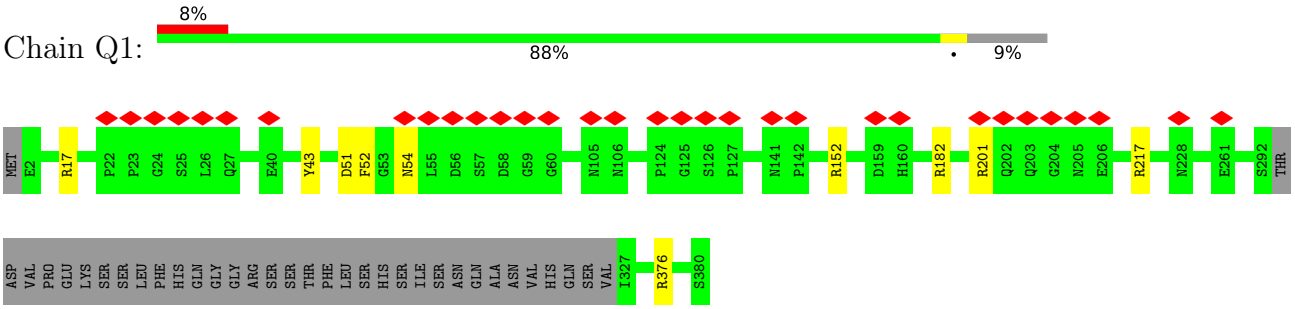




• Molecule 19: Nucleoporin Nup43

Chain Q1:



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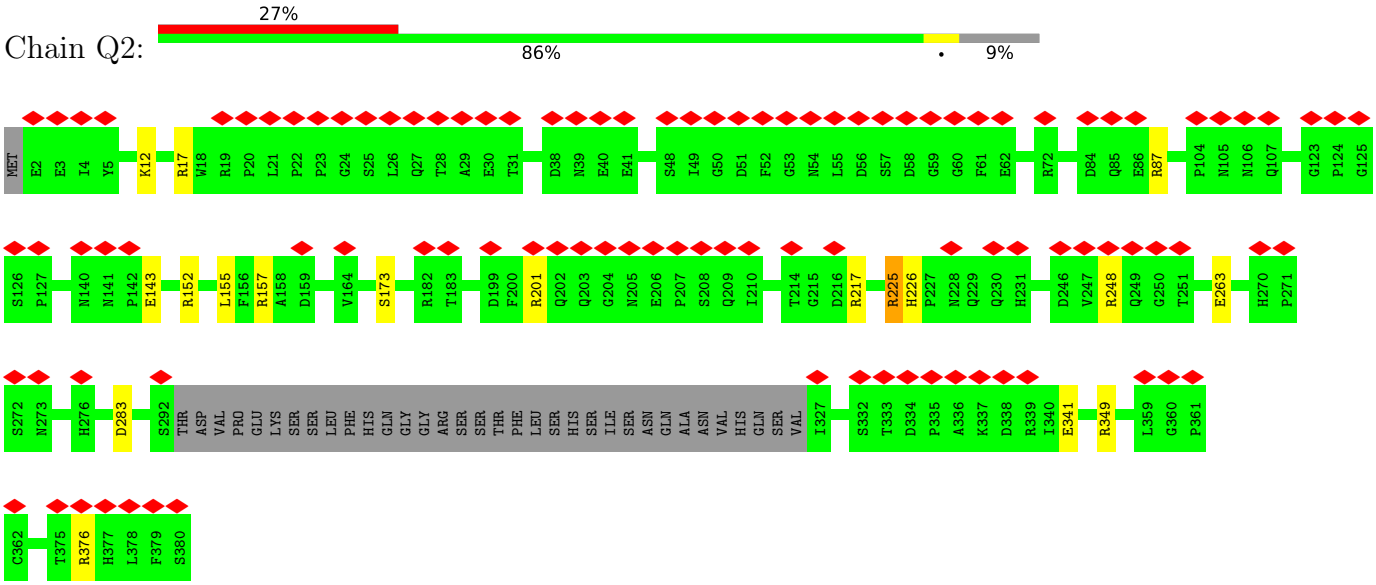
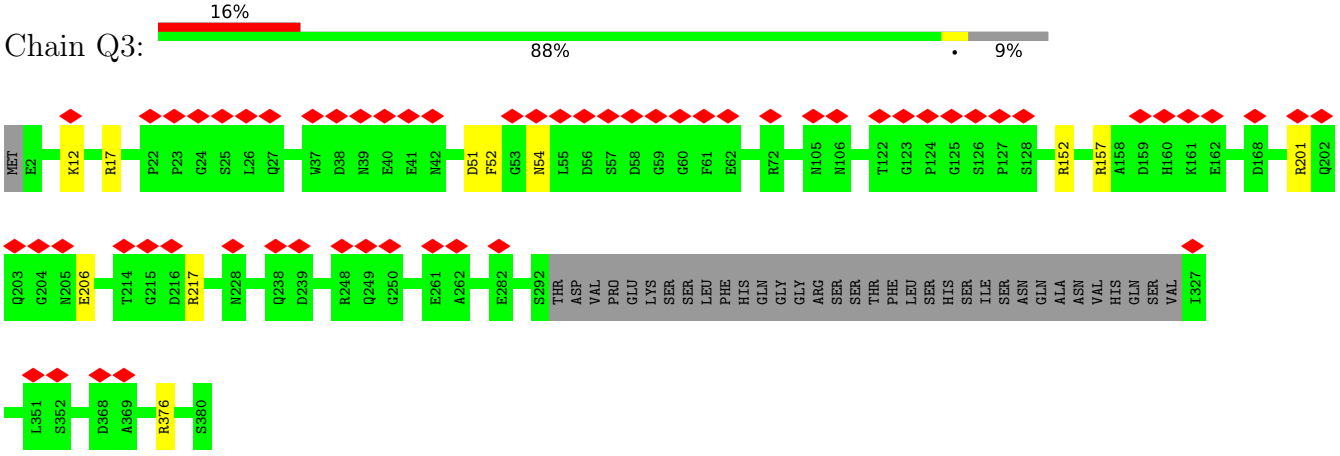


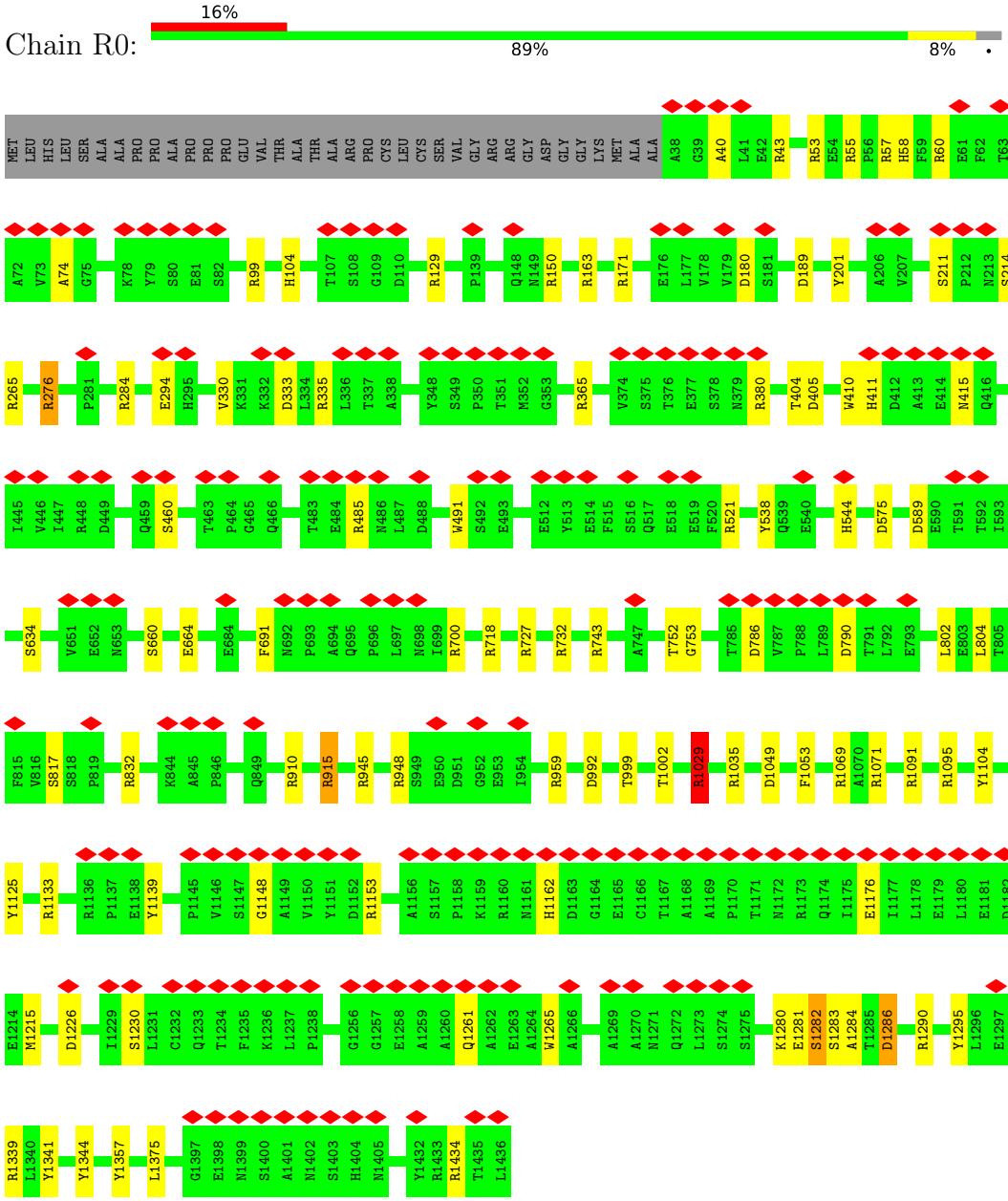
• Molecule 19: Nucleoporin Nup43

Chain Q3:



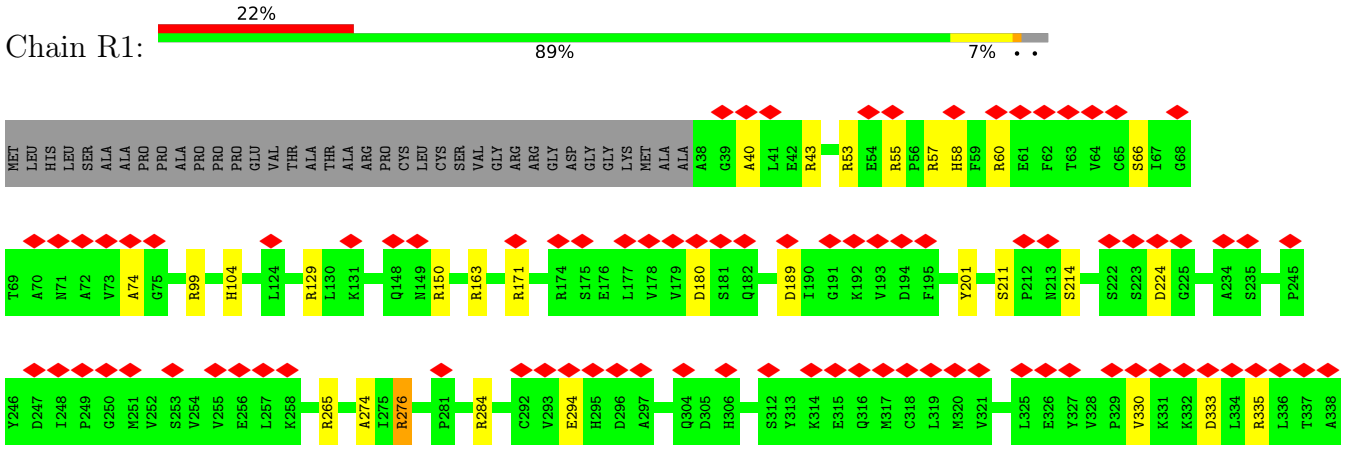
• Molecule 20: Nuclear pore complex protein Nup160

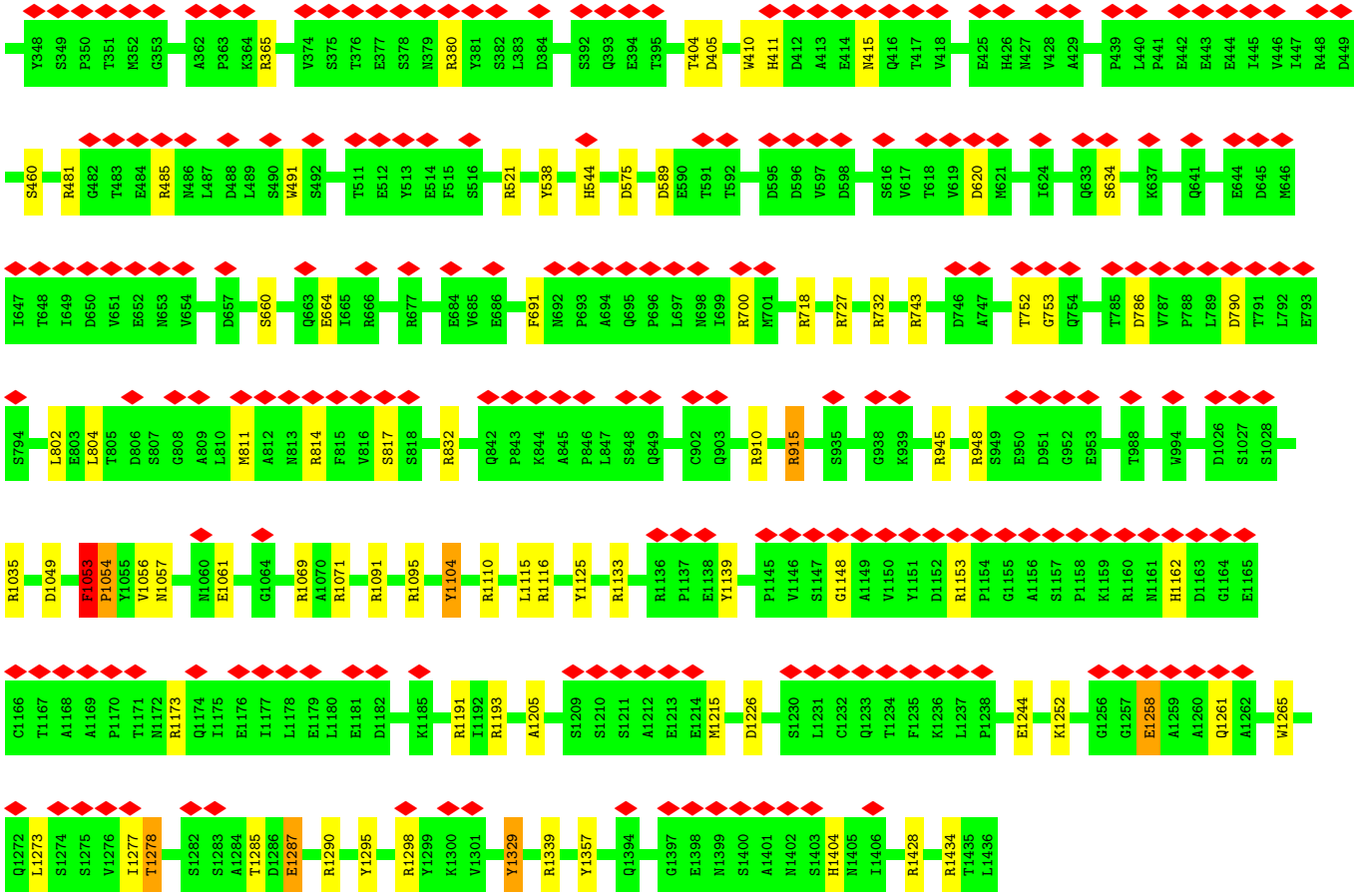
Chain R0:



• Molecule 20: Nuclear pore complex protein Nup160

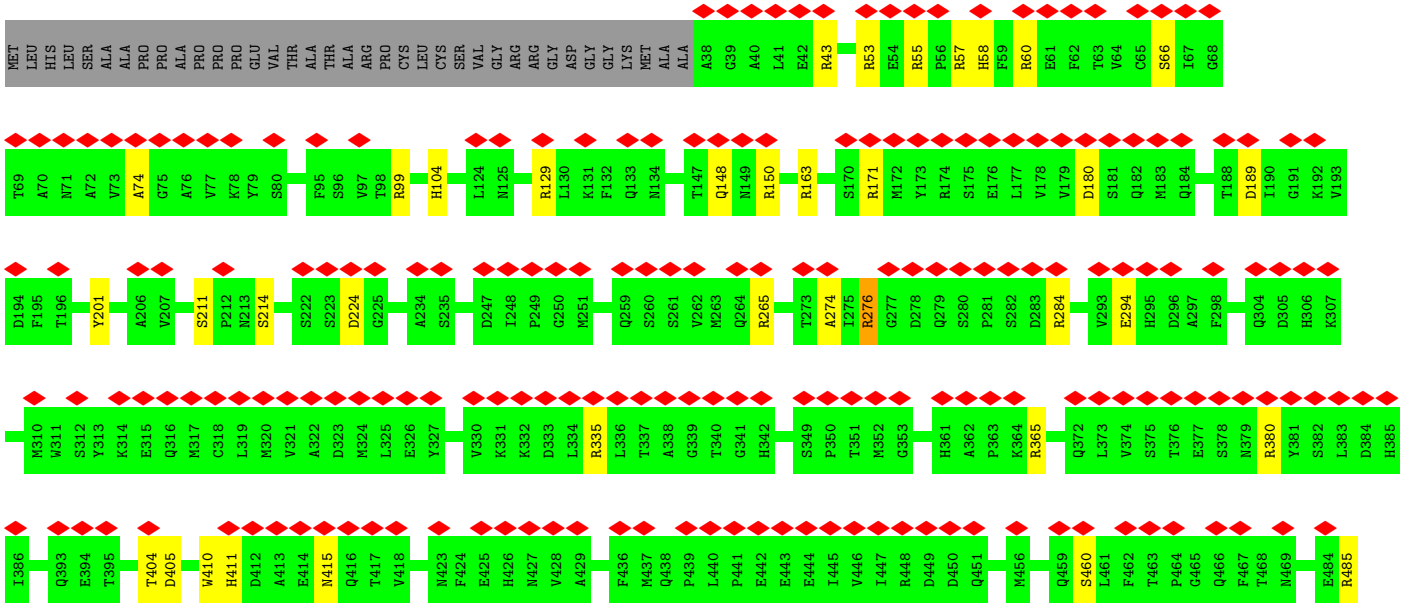
Chain R1:

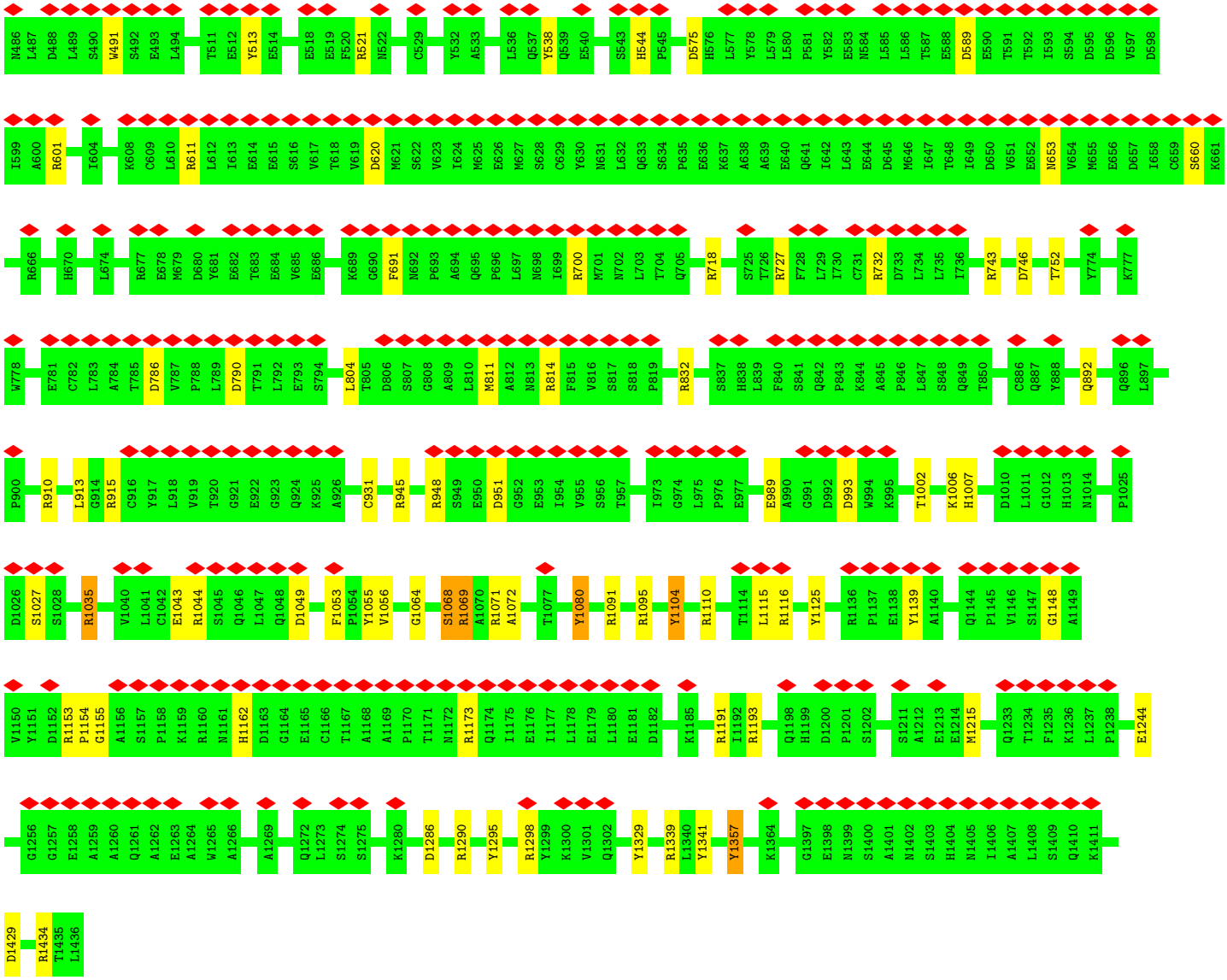




• Molecule 20: Nuclear pore complex protein Nup160

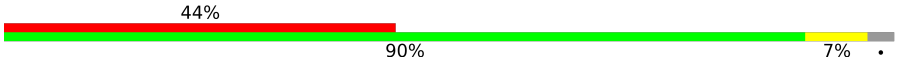
Chain R2:

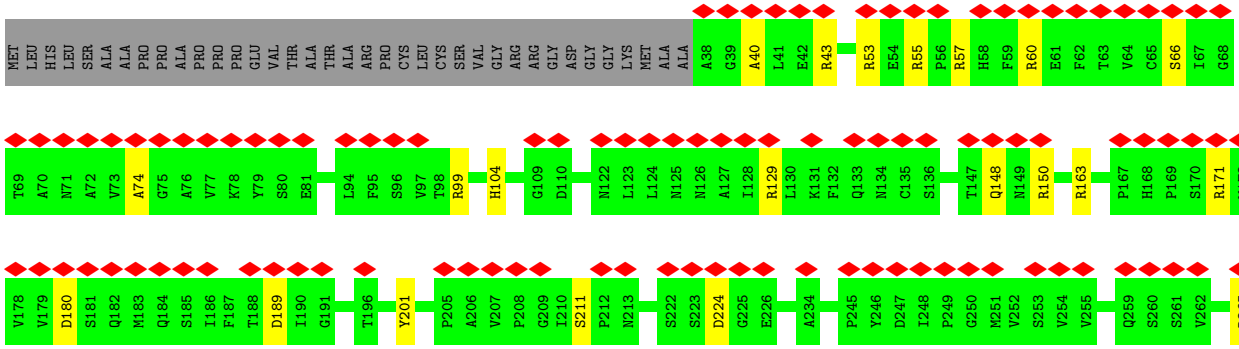


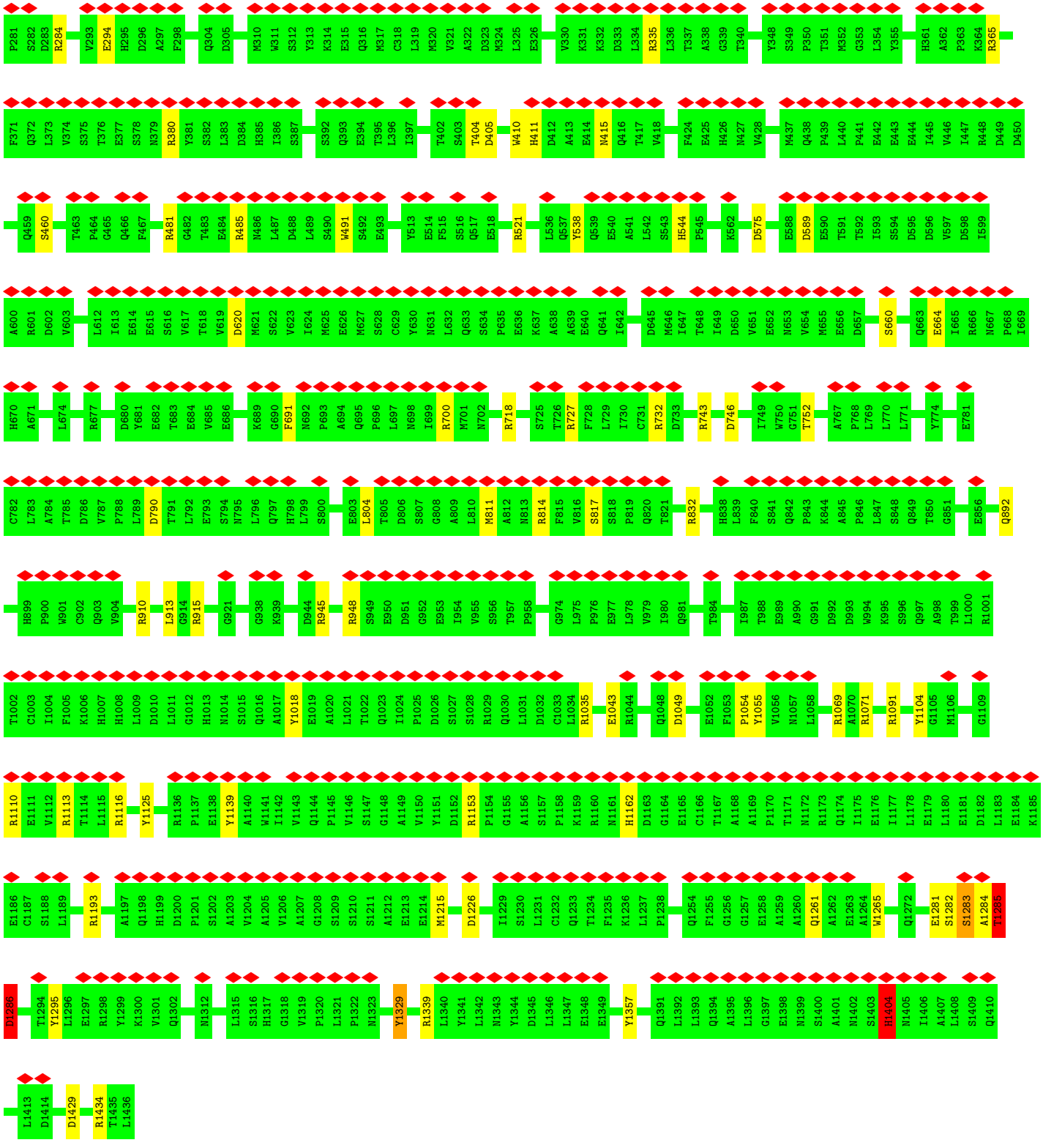


• Molecule 20: Nuclear pore complex protein Nup160

Chain R3:

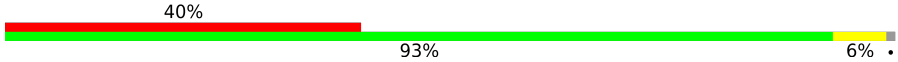


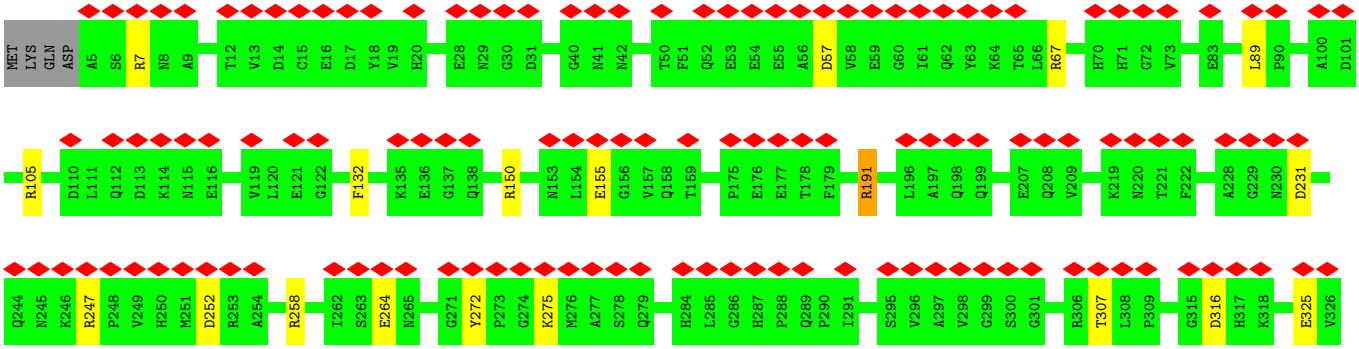




- Molecule 21: Nucleoporin Nup37

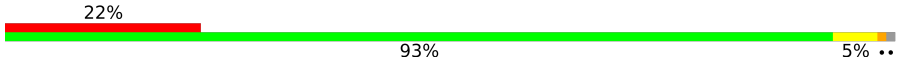
Chain S0:

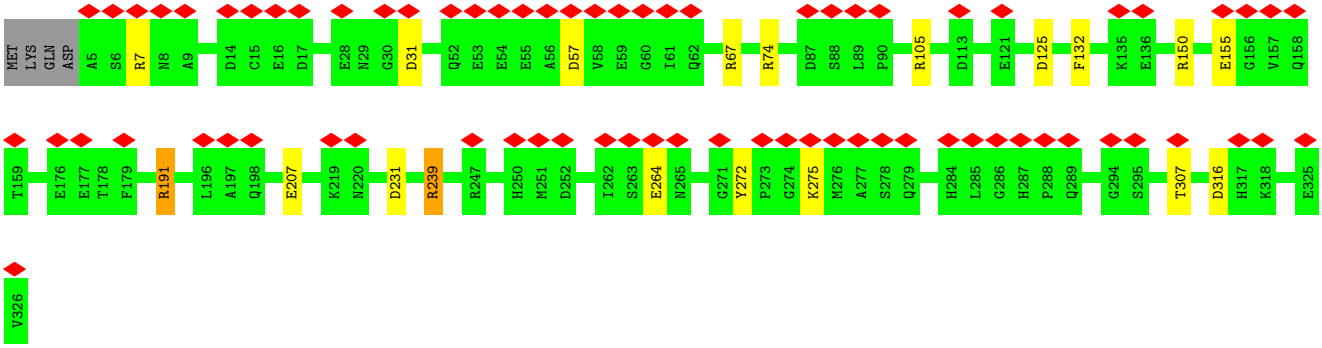




• Molecule 21: Nucleoporin Nup37

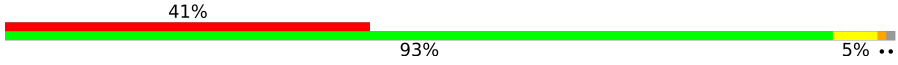
Chain S1:

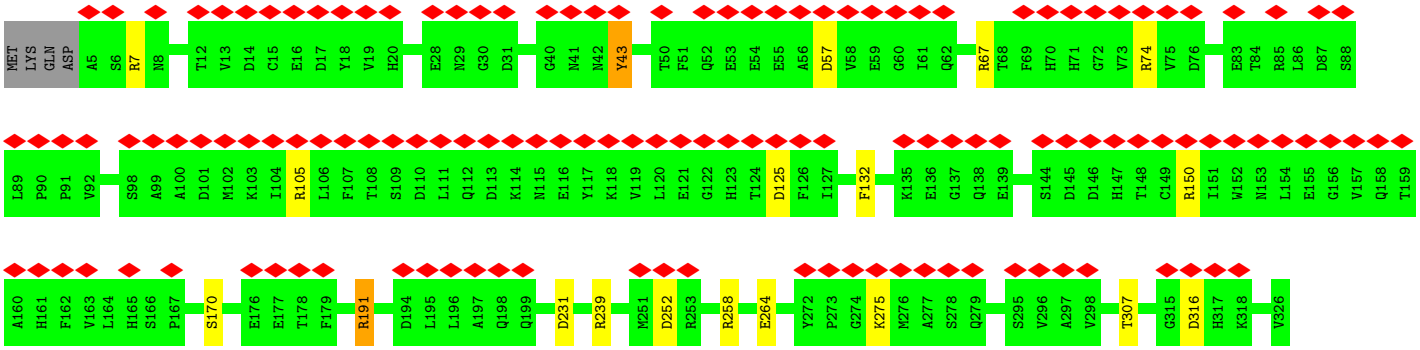




• Molecule 21: Nucleoporin Nup37

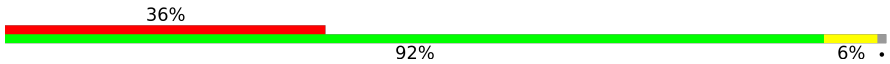
Chain S2:

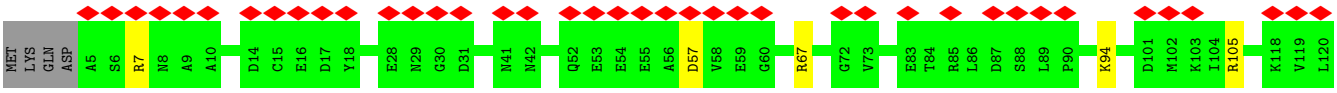


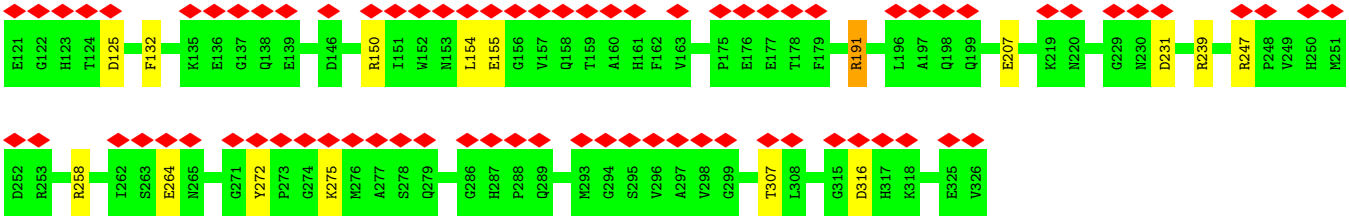


• Molecule 21: Nucleoporin Nup37

Chain S3:

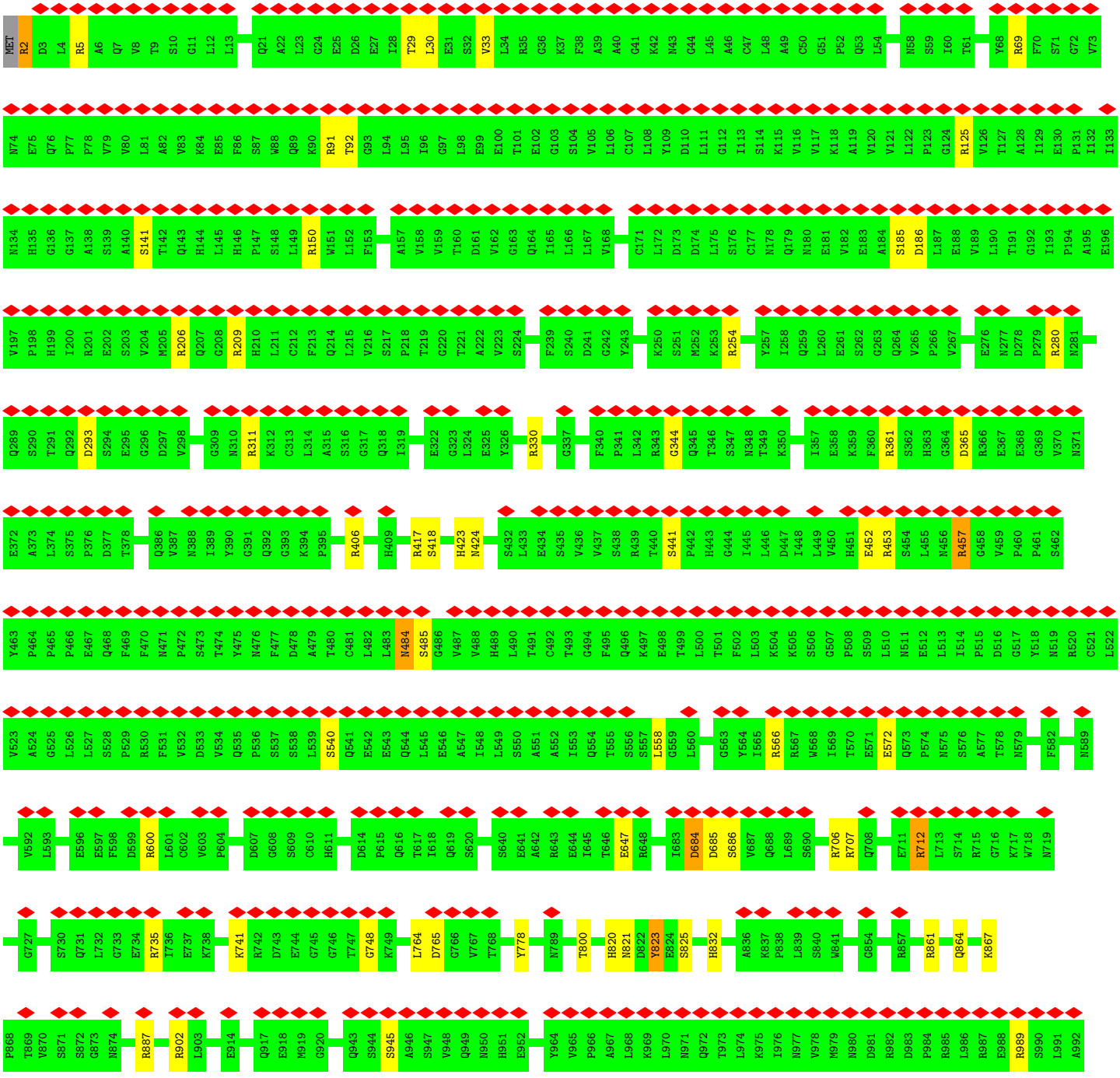






• Molecule 22: Protein ELYS

Chain T0:



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VAL PHE ILE ASN ASN VAL LEU SER LYS ILE GLY GLU VAL TRP ALA SER LYS GLU PRO ILE ASN SER THR THR PRO PHE ASN SER SER LYS ILE GLU GLU PRO SER PRO ILE VAL TYR SER LEU PRO ALA PRO GLU LEU PRO GLU ALA PHE PHE GLY THR PRO ILE SER LYS ALA SER GLN

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

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

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

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

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

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

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

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

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

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

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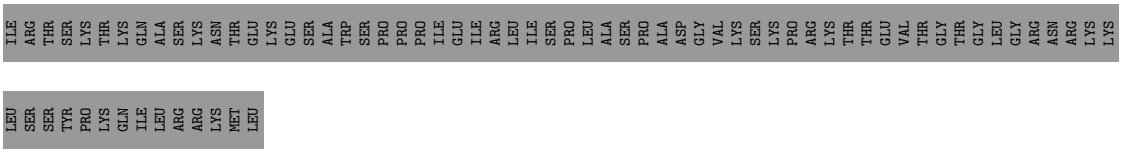
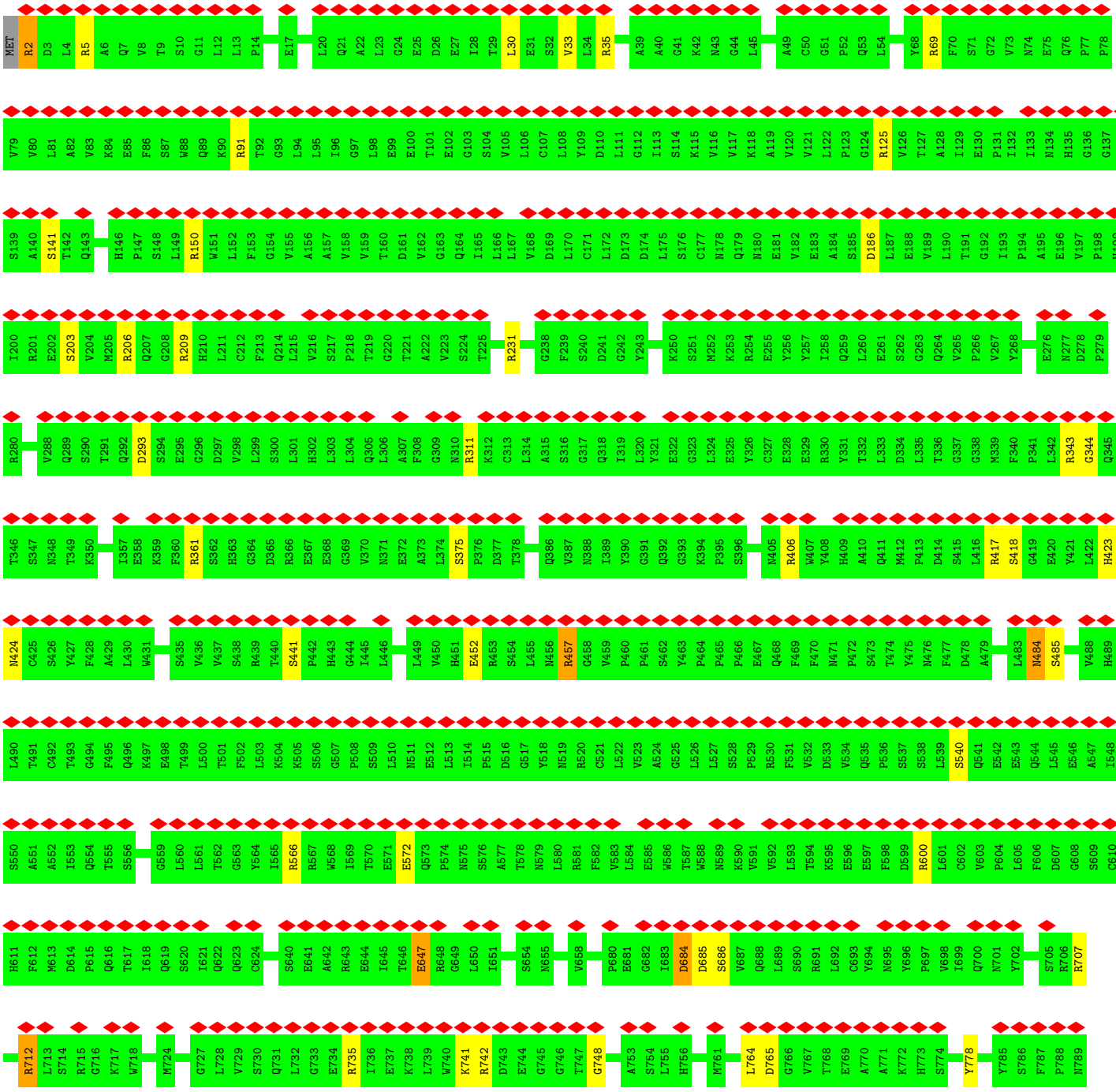
THR HIS LYS GLU THR ASN GLU GLN GLU GLU ARG LEU LEU ALA THR ALA SER PHE THR LYS SER SER ARG SER SER ARG THR ARG SER SER LYS ALA ILE LEU LEU PRO ASP LEU SER GLU PRO ASN ASN GLU PRO LEU PHE SER PRO ALA SER GLU VAL PRO ARG LYS ALA LYS ALA LYS

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



• Molecule 22: Protein ELYS

Chain T1:



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A859 L860 R861 Y862 I863 Q864 T865 M866 K867 P868 T869 V870 S871 S872 G873 N874 D875 V876 I877 L878 H879 L880 T881 V882 L883 L884 F885 N886 R887 C888 M889 V890 E891 A892 W893 N894 F895 L896 R897 Q898 H899 C900 N901 R902 L903 N904 I905 E906 E907 L908 L909 K910 H911 M912 Y913 E914 V915 C916 Q917 E918

M919 G920 L921 M922 E923 D924 L925 L926 K927 L928 P929 F930 T931 D932 T933 E934 Q935 E936 C937 L938 V939 K940 F941 L942 Q943 S944 S945 A946 S947 V948 Q949 N950 H951 E952 F953 L954 L955 V956 H957 H958 L959 Q960 R961 A962 N963 Y964 V965 P966 A967 L968 K969 L970 N971 Q972 T973 L974 K975 I976 N977 V978

M979 N980 D981 R982 D983 P984 R985 L986 R987 E988 R989 S990 L991 A992 R993 N994 S995 I996 L997 D998 Q999 Y1000 G1001 K1002 I1003 L1004 P1005 ARG VAL HIS ARG LYS LEU ALA ILE GLU ARG ALA LYS PRO TYR HIS LEU SER THR SER SER VAL PHE ARG LEU VAL SER ARG PRO LYS PRO LEU SER ALA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 23: Nuclear pore complex protein Nup98

Chain U0:

MET PHE ASN LYS SER PHE GLY THR PRO PHE GLY GLY GLY THR GLY GLY PHE GLY THR THR SER THR PHE GLY GLN ASN THR GLY PHE GLY THR THR SER GLY GLY ALA PHE GLY THR SER ALA PHE GLY SER SER ASN ASN THR GLY GLY LEU PHE GLY ASN GLN THR GLN

GLY LEU PHE GLY THR SER SER PHE SER GLN PRO ALA THR SER THR SER THR GLY PHE GLY THR SER THR GLY THR ALA ASN THR LEU PHE GLY THR ALA SER THR GLY THR SER LEU PHE SER SER GLN ASN ASN ALA PHE ALA GLN ASN LYS PRO THR GLY PHE GLY ASN PHE

GLY THR SER THR SER SER GLY GLY THR THR ASN THR THR SER GLY SER LEU PHE GLY PRO SER SER PHE THR ALA ALA PRO THR THR GLY THR THR ILE LYS PHE ASN PRO PRO THR GLY THR ASP THR MET VAL LYS ALA GLY VAL SER THR

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

PHE SER SER SER THR THR ASN SER GLY PHE ALA TYR GLY GLN ASN LYS THR ALA THR GLY PHE GLY THR ASN PRO GLY GLY LEU PHE GLY GLN GLN ASN GLN GLN THR THR SER LEU PHE SER LYS PRO PHE GLY GLN ALA THR THR THR GLN ASN GLY PHE

SER PHE GLY ASN THR SER THR ILE GLY GLN PRO SER THR ASN THR MET GLY LEU PHE GLY GLY THR ASN THR SER THR ALA PHE GLY THR ALA PHE GLY LEU PHE GLY GLN ALA THR ASN THR GLY PHE GLY

GLY SER THR LEU PHE GLY ASN ASN LYS LEU THR THR THR PHE GLY ALA PRO SER PHE GLY THR THR SER GLY GLY LEU PHE GLY ASN LYS PRO THR LEU THR LEU GLY THR ASN THR ASN PHE GLY PHE GLY GLY THR ASN THR SER GLY PHE

GLY SER LYS PRO ALA PRO GLY THR LEU GLY THR GLY LEU ALA GLY GLN ALA SER LEU PHE GLY ASN ASN GLN PRO LYS ILE GLY GLY PRO LEU GLY THR GLY ALA PHE GLY ALA PRO GLY PHE ASN THR THR THR THR ASP PRO

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

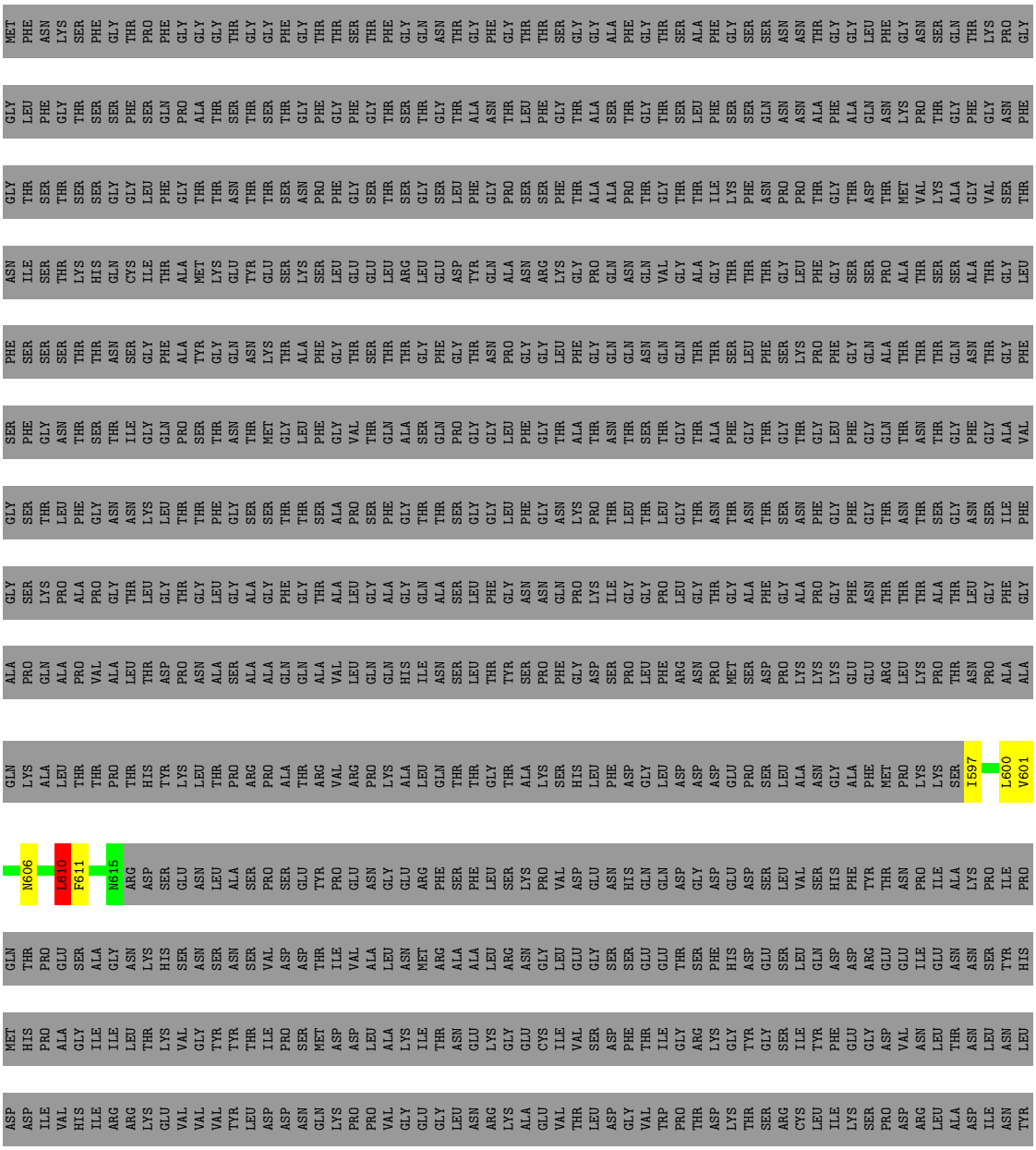
GLN LYS ALA LEU THR THR THR PRO THR HIS TYR LYS LEU THR PRO ARG PRO ALA THR ARG VAL ARG PRO LYS ALA LEU GLN GLN THR THR GLY THR ALA LYS SER HIS LEU PHE ASP GLY LEU ASP ASP GLU PRO GLY PHE MET PRO LYS LYS SER ILE LYS LYS LEU

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

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

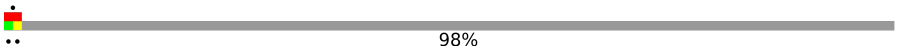
• Molecule 23: Nuclear pore complex protein Nup98

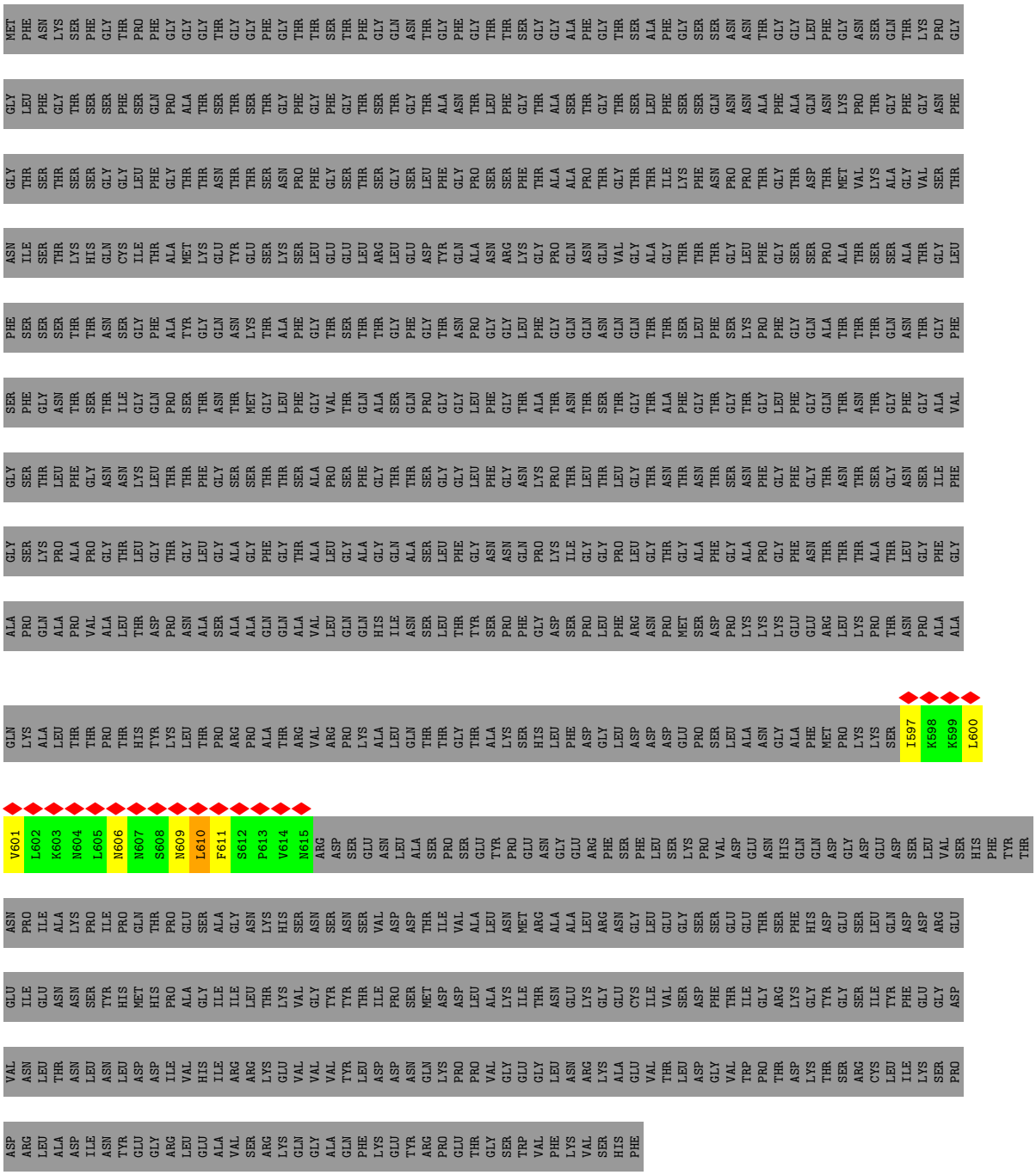
Chain U1: 98%



• Molecule 23: Nuclear pore complex protein Nup98

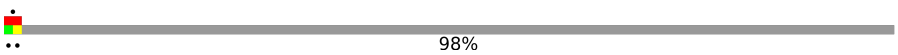
Chain U2:

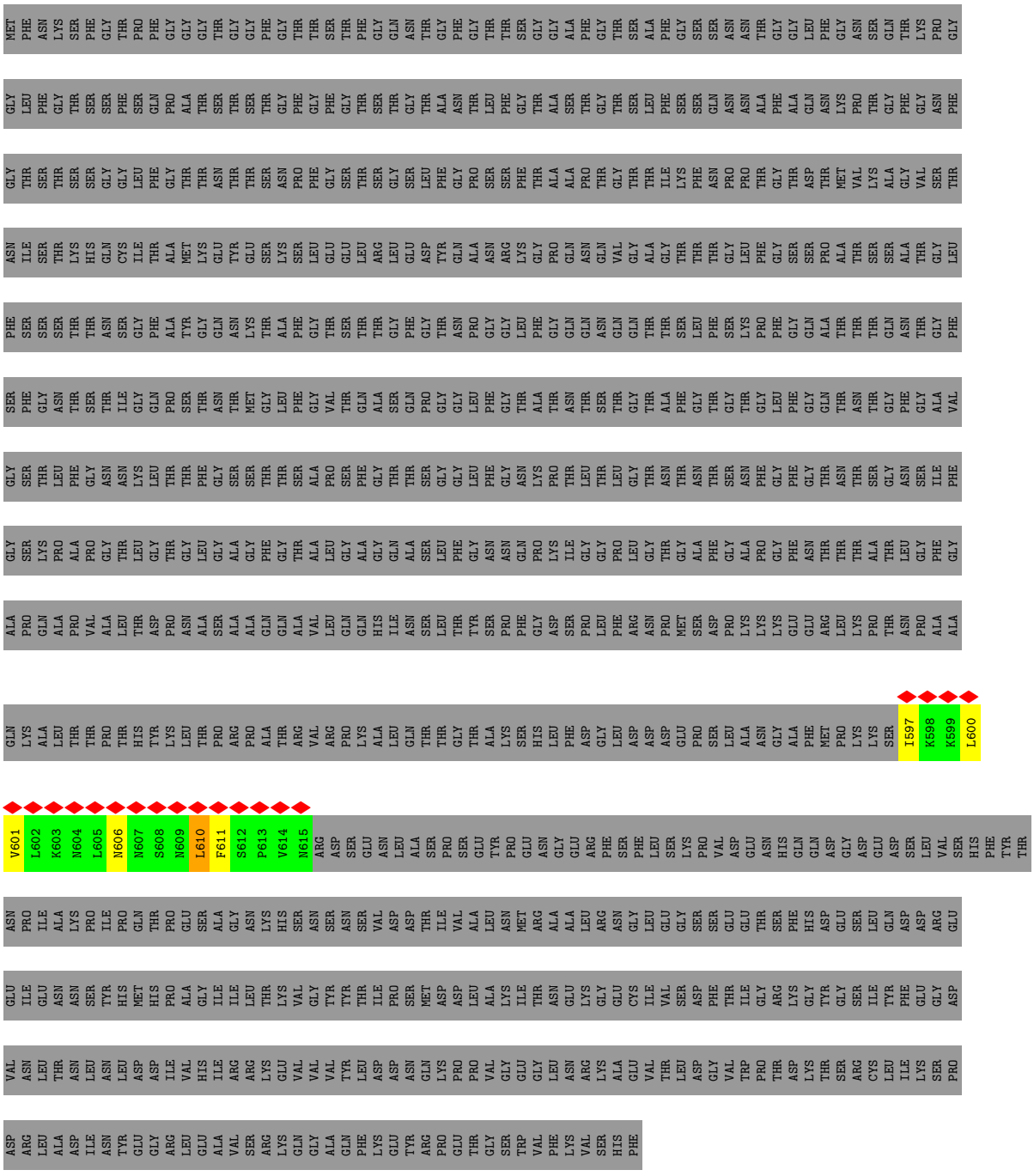




• Molecule 23: Nuclear pore complex protein Nup98

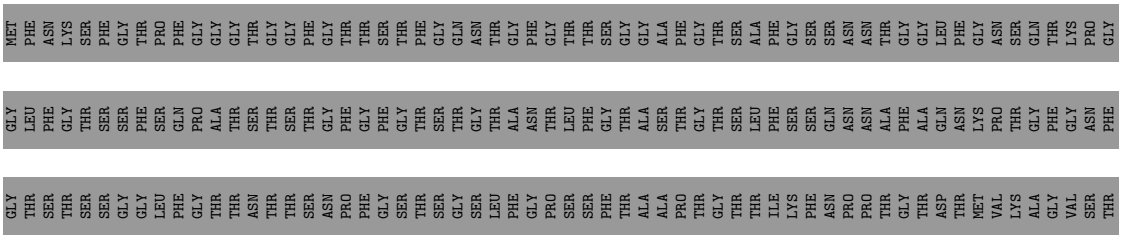
Chain U3:

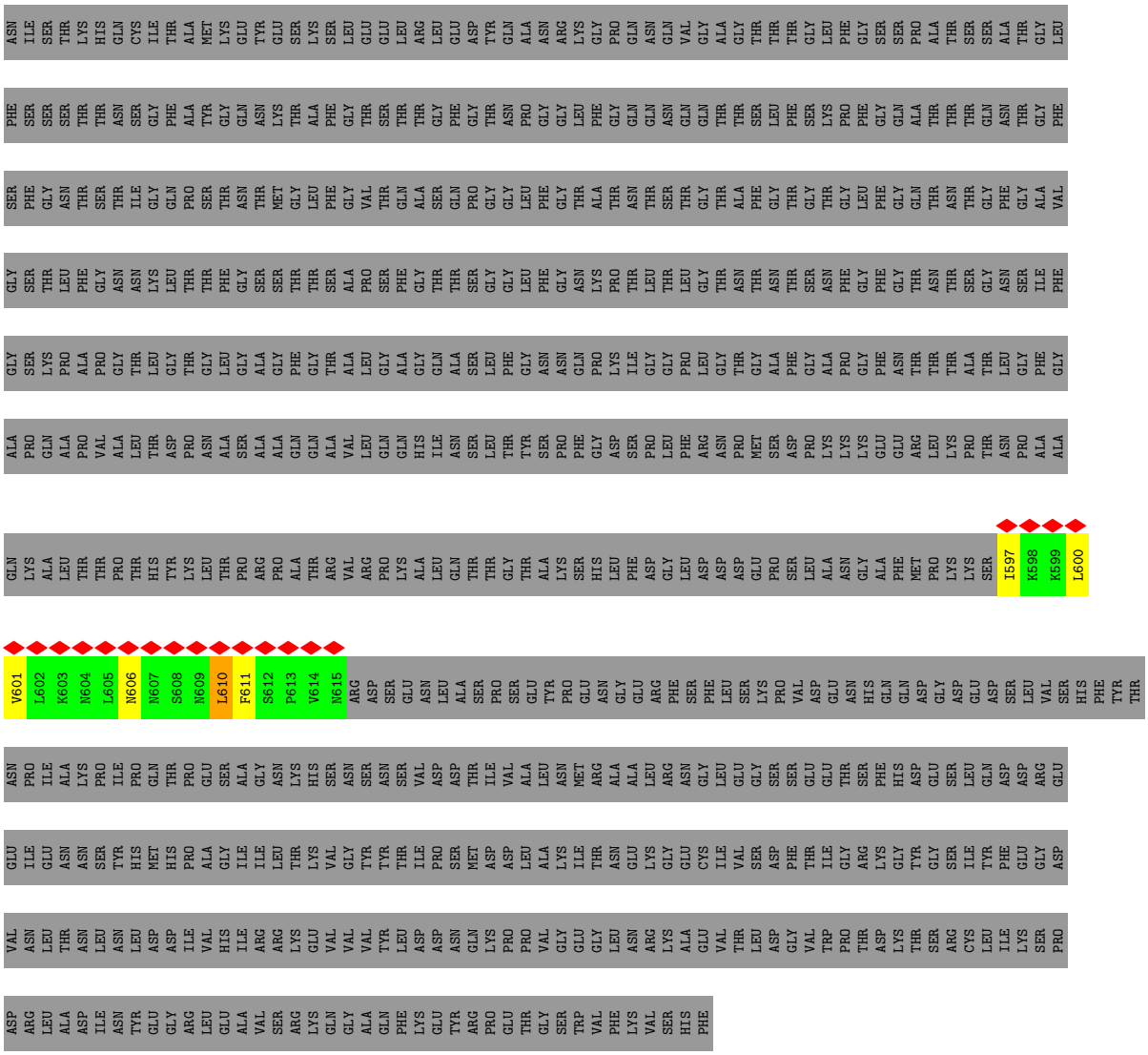




• Molecule 23: Nuclear pore complex protein Nup98

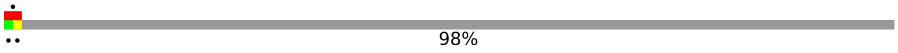
Chain U4:

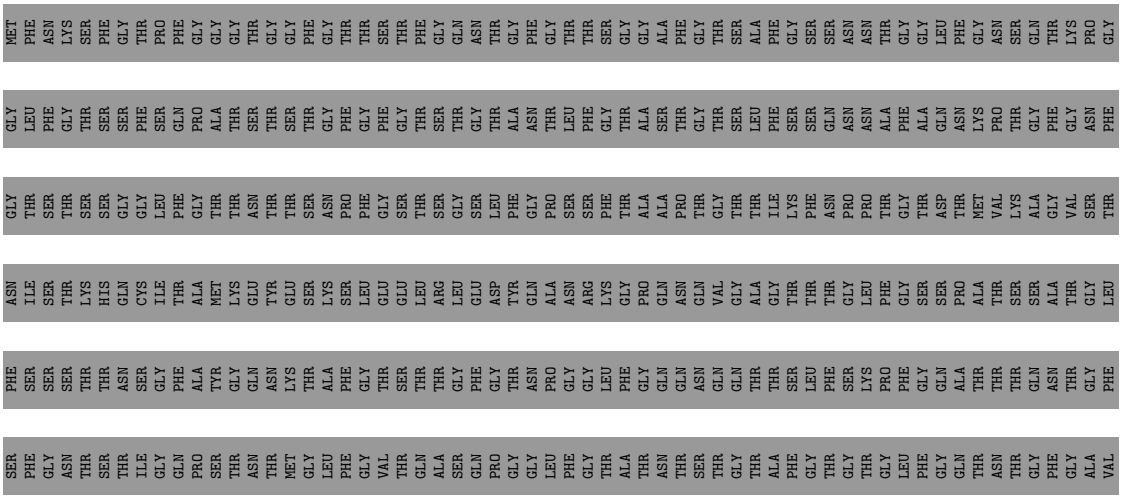


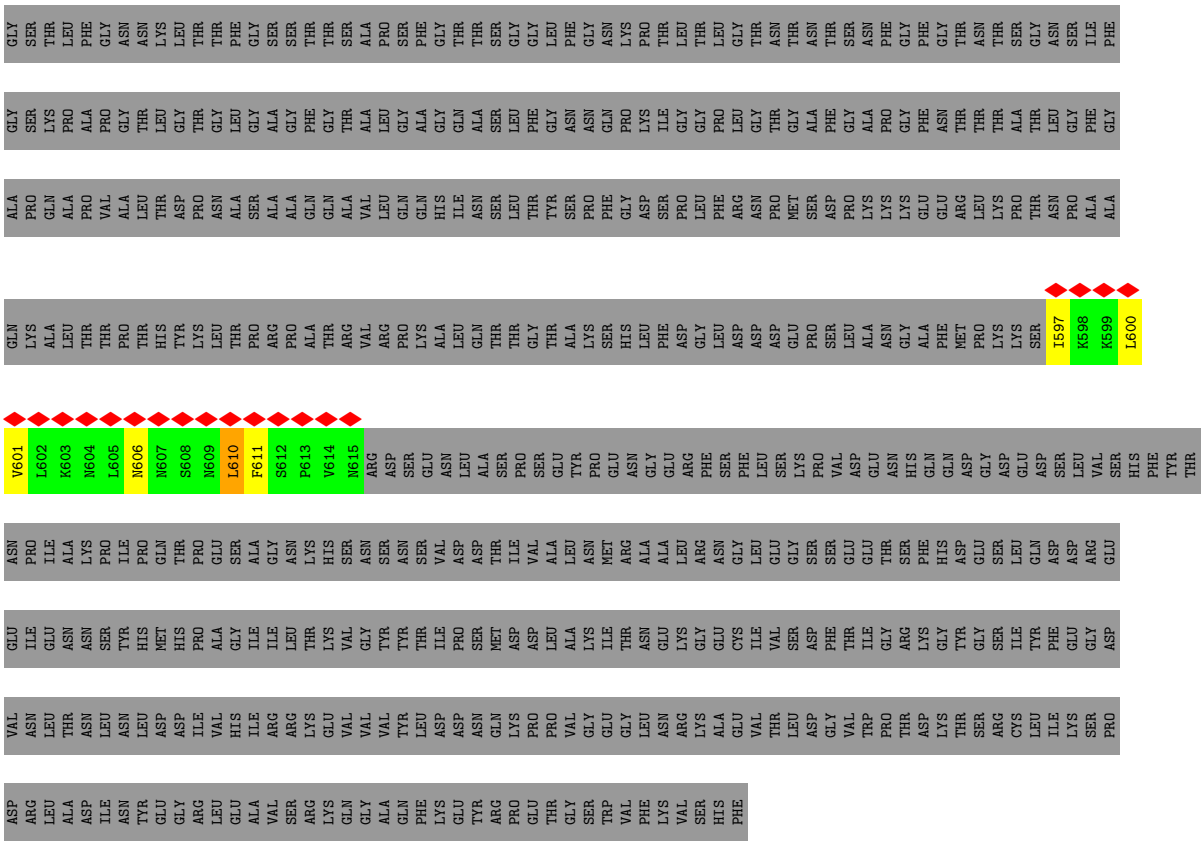


• Molecule 23: Nuclear pore complex protein Nup98

Chain U5:

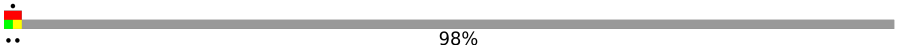


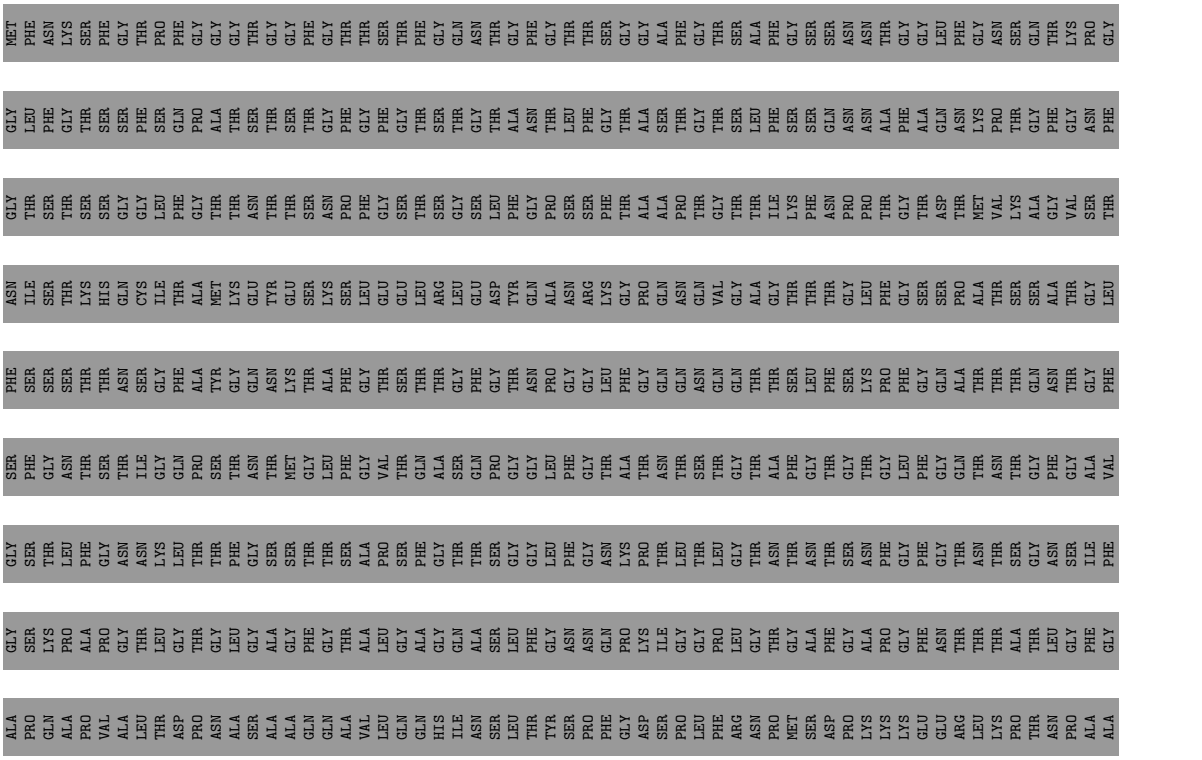


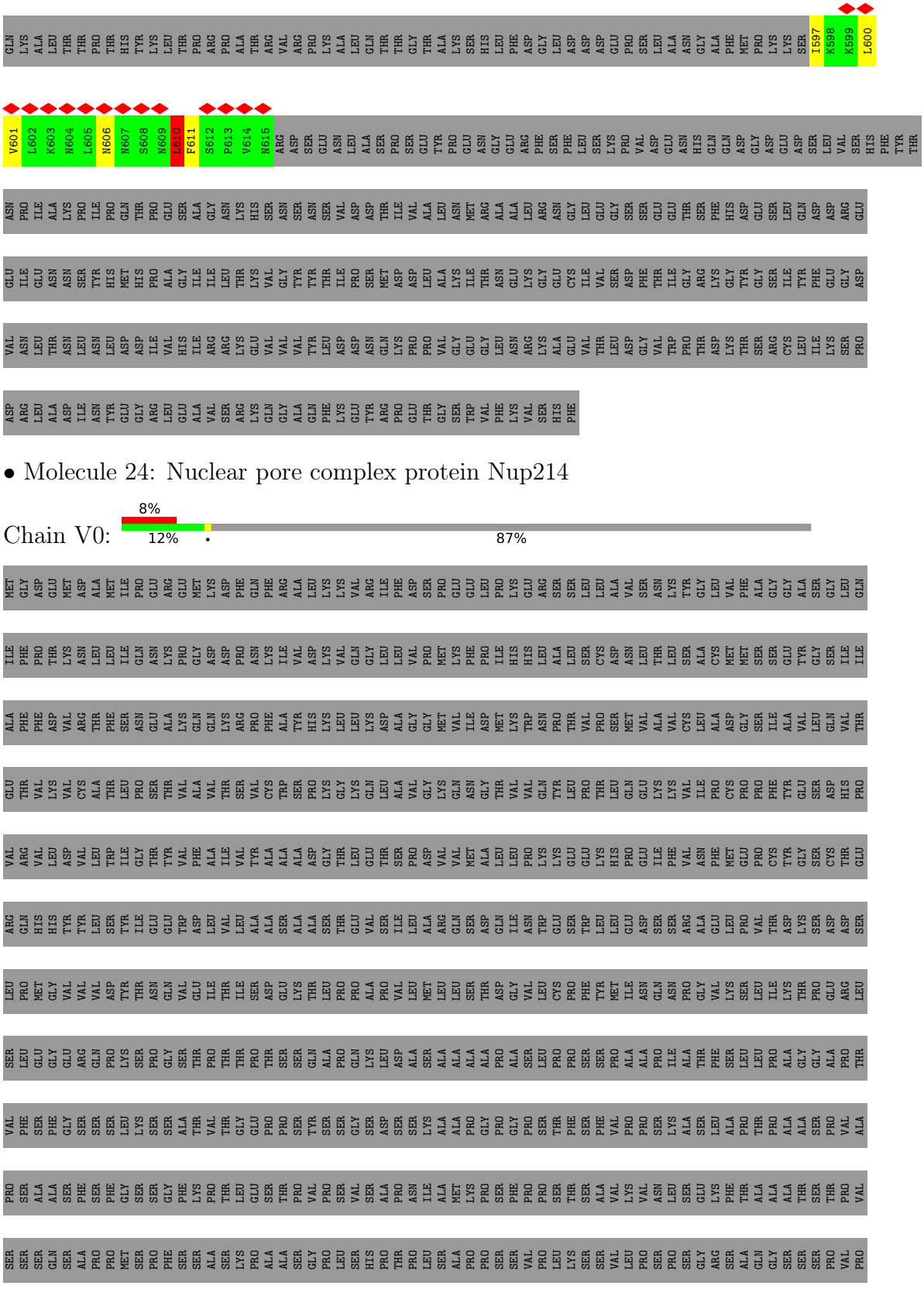


• Molecule 23: Nuclear pore complex protein Nup98

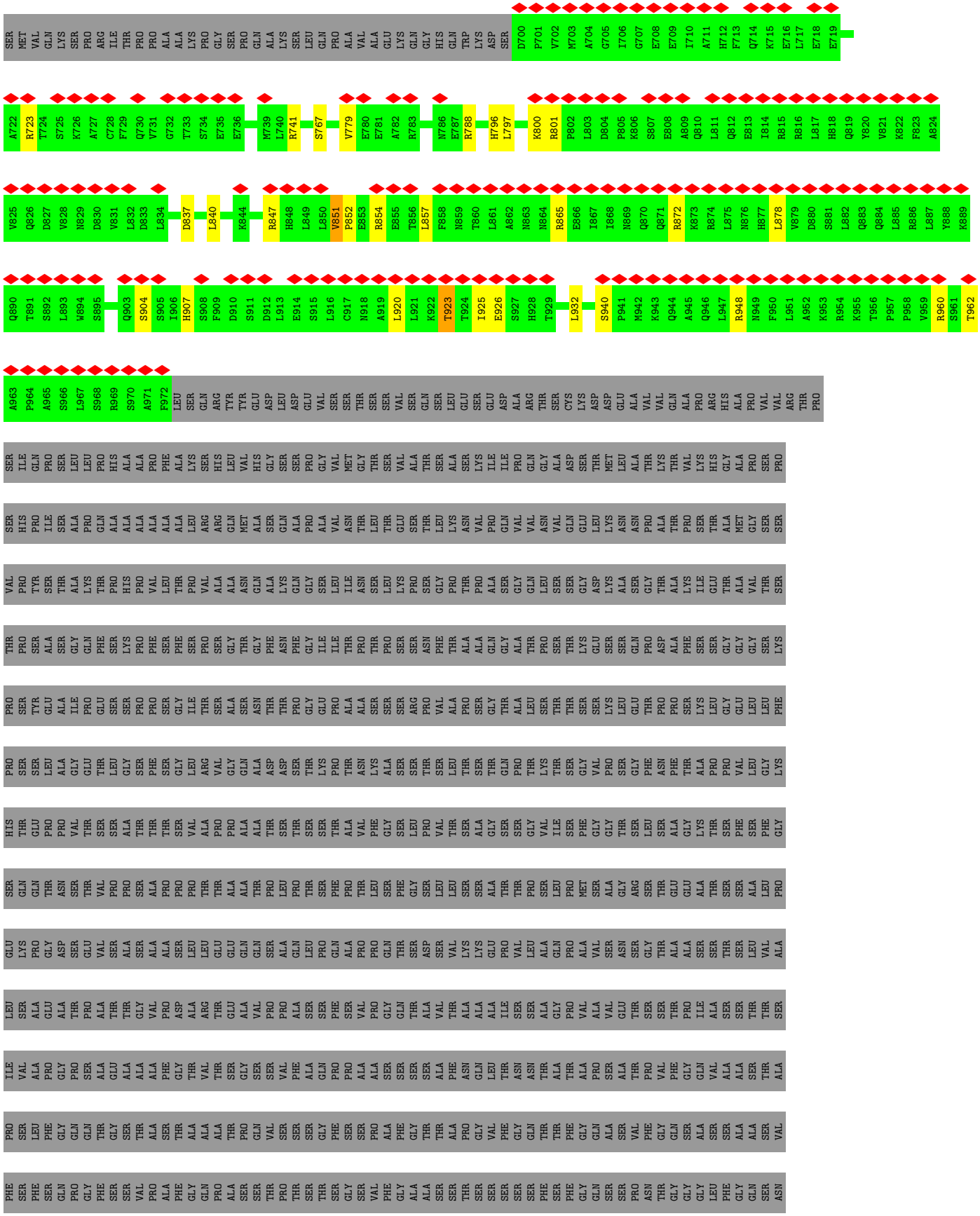
Chain U6:







• Molecule 24: Nuclear pore complex protein Nup214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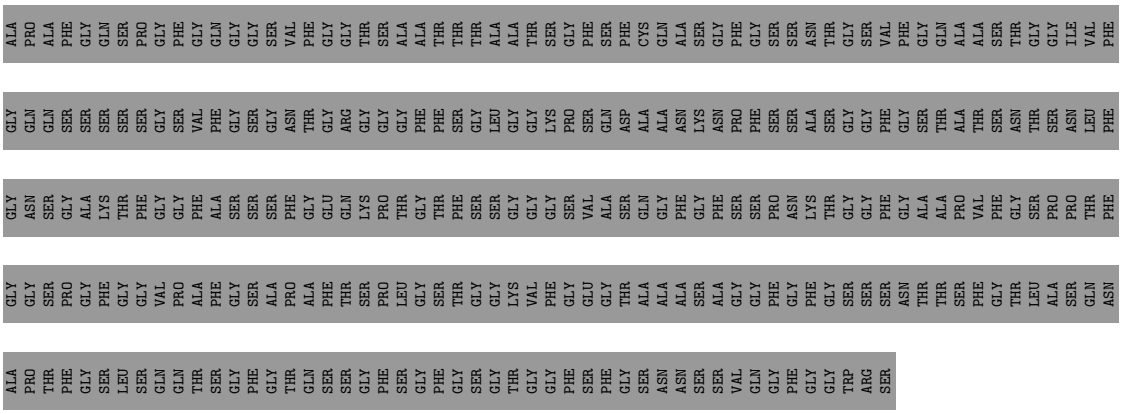
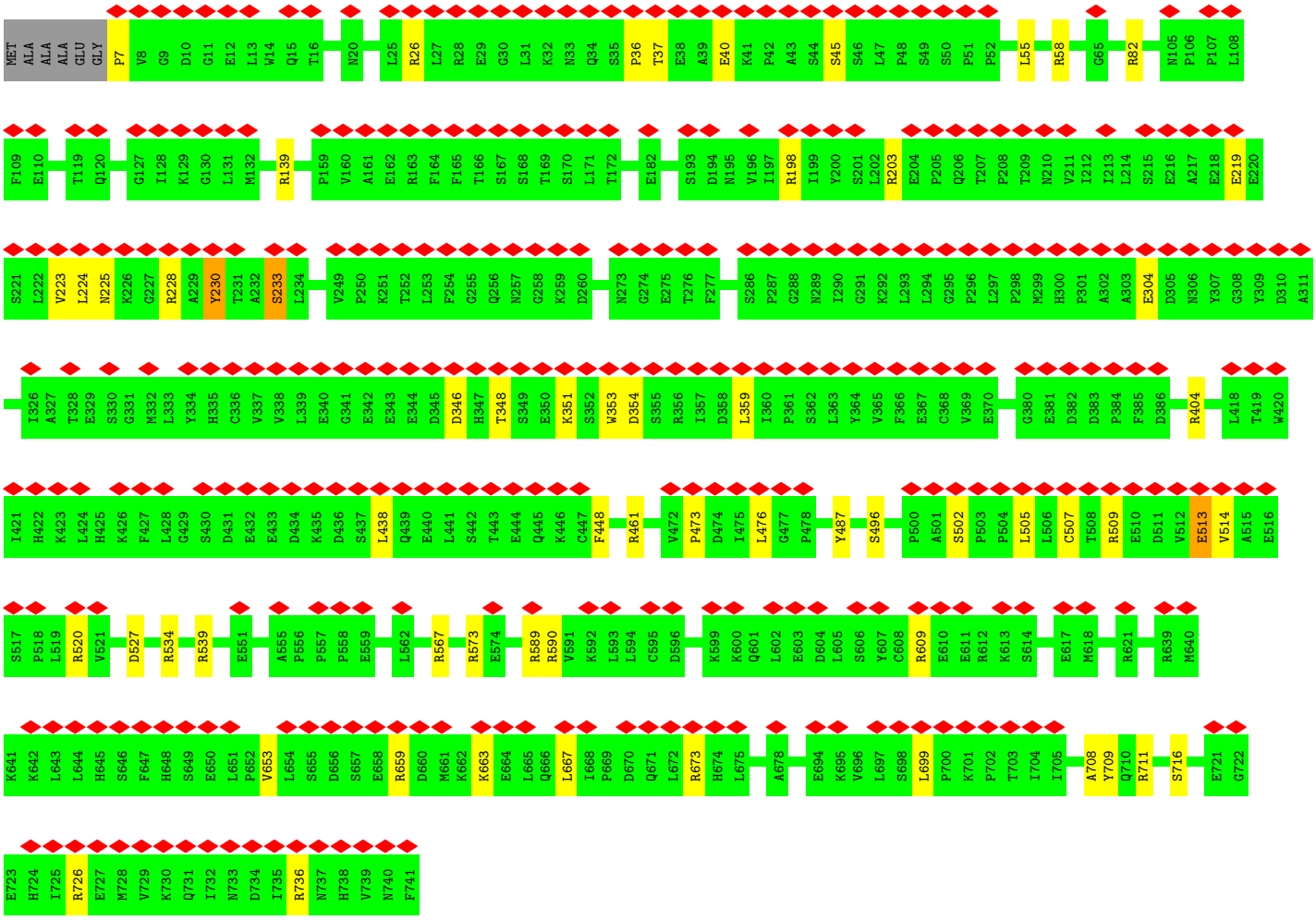
D700 P701 V702 M703 A704 G705 I706 G707 E708 E709 I710 A711 H712 F713 Q714 K715 E716 L717 E718 E719
A722 R723 T724 S725 K726 A727 C728 F729 Q730 V731 G732 T733 S734 E735 E736 M739 L740 R741 S767 V779 E780 E781 A782 R783 N786 E787 R788 H796 L797 K800 R801 P802 L803 D804 P805 K806 S807 E808 A809 Q810 L811 Q812 E813 I814 R815 R816 L817 H818 Q819 V820 V821 K822 F823 A824
V825 Q826 D827 V828 N829 D830 V831 L832 D833 L834 D837 L840 K844 R847 H848 L849 L850 V851 P852 E853 R854 E855 T856 L857 F858 N859 T860 L861 A862 N863 N864 R865 E866 I867 I868 N869 Q870 Q871 R872 K873 R874 L875 N876 H877 L878 V879 D880 S881 L882 Q883 Q884 L885 R886 L887 Y888 K889
Q890 T891 S892 L893 W894 S895 Q903 S904 S905 I906 H907 S908 F909 D910 S911 D912 L913 E914 S915 L916 C917 N918 A919 L920 L921 K922 T923 T924 I925 E926 S927 H928 T929 L932 S940 P941 M942 K943 Q944 A945 Q946 L947 R948 N949 F950 L951 A952 K953 R954 K955 T956 P957 P958 V959 R960 S961 T962
A963 P964 A965 S966 L967 S968 R969 S970 A971 F972 LEU SER GLN ARG TYR TYR GLU ASP LEU ASP GLU VAL SER SER THR SER SER VAL SER GLN SER LEU GLU SER GLU ASP ALA ARG THR SER CYS LYS ASP ASP GLU ALA VAL VAL GLN ALA PRO ARG HIS ALA PRO VAL VAL ARG THR PRO
SER ILE GLN PRO SER LEU LEU PRO HIS ALA ALA PRO PHE ALA LYS SER HIS LEU VAL HIS GLY SER SER PRO GLY VAL MET GLY THR SER VAL ALA THR SER ALA SER LYS ILE ILE PRO GLN GLY ALA ASP SER THR MET LEU ALA THR LYS THR VAL LYS HIS GLY ALA PRO SER PRO
SER HIS PRO ILE SER ALA PRO GLN ALA ALA ALA ALA ALA ALA LEU ARG ARG GLN MET ALA ALA SER GLN ALA PRO ALA VAL ASN THR LEU LEU THR GLU SER SER THR LEU LYS ASN VAL PRO GLN VAL VAL ASN VAL GLN GLU LEU LYS ASN ASN PRO ALA THR PRO GLN ALA ALA MET GLY SER SER
VAL PRO TYR SER THR ALA LYS THR PRO HIS PRO VAL LEU THR PRO VAL ALA ALA ASN GLN ALA LYS GLN GLY SER LEU ILE ASN SER LEU LYS PRO SER GLY PRO THR PRO ALA SER GLY GLN LEU SER SER GLY ASP LYS ALA SER GLY THR ALA LYS ILE GLU THR ALA VAL THR SER
THR PRO SER ALA SER GLY GLN PHE SER LYS PRO PHE SER PHE SER PRO SER GLY THR GLY PHE ASN PHE GLY ILE ILE THR PRO PRO THR SER SER ASN PHE THR ALA ALA GLN GLY ALA THR PRO SER THR LYS GLU SER SER GLN PRO ASP ALA PHE SER SER GLY GLY GLY SER LYS
PRO SER TYR GLU ALA ILE PRO GLU SER SER PRO PRO PRO SER GLY ILE THR SER ASN ALA PRO GLY GLU PRO ALA ALA ASP THR THR PRO GLY GLU PRO ALA ALA SER ARG PRO VAL ALA PRO SER GLY THR ALA LEU SER THR THR THR SER SER LYS LEU GLU THR PRO PRO SER LYS LEU GLY GLU LEU LEU PHE
PRO SER SER LEU ALA GLY GLU THR LEU GLY SER PHE SER GLY LEU ARG VAL GLY GLN ALA ASP ASP SER THR LYS PRO THR ASN LYS ALA SER SER SER THR LEU THR SER THR SER GLY VAL LYS THR SER GLY PHE ASN PHE THR ALA PRO PRO VAL LEU GLY LYS
HIS THR GLU PRO PRO VAL THR SER SER ALA THR THR THR SER THR SER SER THR ALA VAL PHE GLY SER LEU PRO VAL THR SER ALA GLY SER SER GLY VAL ILE SER PHE GLY GLY THR SER LEU SER ALA GLY GLY LYS THR SER PHE SER PHE GLY
SER GLN GLN THR ASN SER THR VAL PRO PRO SER ALA PRO PRO PRO THR LEU LEU SER PHE GLY SER LEU THR ALA ALA THR THR PRO SER LEU PRO MET SER ALA GLY ARG SER THR GLU GLU ALA THR SER SER ALA LEU PRO
GLU LYS PRO GLY ASP SER GLU VAL SER ALA ALA SER GLU LEU LEU GLU GLU GLN GLN SER ALA GLN LEU PRO GLN ALA PRO PRO GLN THR SER ASP SER VAL LYS LYS GLU PRO VAL LEU ALA GLN PRO ALA VAL SER ASN SER GLY THR ALA ALA GLY SER THR SER VAL
LEU SER ALA GLU ALA THR THR GLY VAL PRO ASP ALA ARG THR GLU ALA VAL PRO PRO ALA SER SER PHE SER PRO GLY GLN THR ALA ALA VAL THR ALA ALA PHE ASN GLN LEU THR ASN ASN THR ALA THR ALA PRO ALA ALA SER SER THR SER
ILE VAL ALA PRO GLY PRO SER ALA GLU ALA ALA ALA PHE GLY SER SER SER SER ALA PHE ASN GLN PRO PRO ALA ALA SER SER GLY PHE ALA GLN PRO PRO ALA ALA SER SER ALA PHE ASN GLN LEU THR ASN ASN THR ALA THR ALA PRO SER ALA THR PRO VAL PHE GLY GLN VAL ALA ALA SER THR SER
PRO SER LEU PHE GLY GLN GLN THR GLY SER ALA THR GLY PHE SER SER PRO ALA PHE GLY GLY THR THR ALA PRO GLY VAL PHE GLY GLN THR THR PHE SER PHE GLY GLN ALA SER VAL PRO SER ALA SER SER
PHE SER PHE SER GLN PRO GLY PHE SER SER THR SER THR SER GLY SER VAL PHE GLY ALA ALA SER SER THR SER GLY PHE SER PHE GLY GLN SER SER PRO ASN THR GLY GLY GLY LEU PHE GLY GLN SER ASN



• Molecule 25: Nuclear pore complex protein Nup88

Chain W0: 46% 91% 8%



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	7711	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	120	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	82.185	Depositor
Minimum map value	-69.686	Depositor
Average map value	0.077	Depositor
Map value standard deviation	0.791	Depositor
Recommended contour level	3.5	Depositor
Map size (Å)	1941.1199, 1941.1199, 1941.1199	wwPDB
Map dimensions	576, 576, 576	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	3.37, 3.37, 3.37	Depositor

5 Model quality

5.1 Standard geometry

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	00	0.69	0/6212	1.06	25/8405 (0.3%)
1	01	0.69	0/6212	1.05	23/8405 (0.3%)
1	02	0.69	0/6212	1.04	24/8405 (0.3%)
1	03	0.69	0/6212	1.05	23/8405 (0.3%)
1	04	0.69	0/6212	1.04	20/8405 (0.2%)
2	10	0.66	0/14350	1.04	51/19560 (0.3%)
2	11	0.66	0/14350	1.04	52/19560 (0.3%)
2	12	0.66	0/14350	1.04	49/19560 (0.3%)
2	13	0.66	0/14350	1.04	51/19560 (0.3%)
2	14	0.66	0/14350	1.03	51/19560 (0.3%)
2	15	0.66	0/14350	1.03	50/19560 (0.3%)
2	16	0.66	0/14350	1.03	50/19560 (0.3%)
2	17	0.66	0/14350	1.03	51/19560 (0.3%)
3	40	0.68	0/3007	1.07	8/4114 (0.2%)
3	41	0.68	0/3007	1.06	10/4114 (0.2%)
4	A0	0.72	0/6687	1.10	34/9036 (0.4%)
4	A1	0.71	0/6687	1.07	31/9036 (0.3%)
4	A2	0.72	0/6687	1.09	34/9036 (0.4%)
4	A3	0.71	0/6687	1.06	30/9036 (0.3%)
4	A4	0.71	0/5972	1.08	31/8068 (0.4%)
4	A5	0.71	0/5972	1.09	39/8068 (0.5%)
4	A6	0.71	0/5972	1.04	25/8068 (0.3%)
5	B0	0.68	0/14018	1.02	39/19022 (0.2%)
5	B1	0.68	0/14018	1.03	36/19022 (0.2%)
6	C0	0.69	0/16330	1.04	75/22131 (0.3%)
6	C1	0.69	0/16330	1.04	73/22131 (0.3%)
6	C2	0.68	0/16330	1.00	50/22131 (0.2%)
6	C3	0.68	1/16330 (0.0%)	1.06	80/22131 (0.4%)
6	C4	0.69	0/16330	1.02	63/22131 (0.3%)
7	D0	0.67	0/10568	1.02	40/14320 (0.3%)
7	D1	0.68	0/10568	1.02	39/14320 (0.3%)
7	D2	0.67	0/10568	1.02	39/14320 (0.3%)
7	D3	0.68	0/10568	1.03	41/14320 (0.3%)
7	D4	0.67	0/10568	1.01	38/14320 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
7	D5	0.68	0/10568	1.03	43/14320 (0.3%)
8	E0	0.73	0/4563	1.00	11/6214 (0.2%)
8	E1	0.73	0/4563	0.98	10/6214 (0.2%)
9	F0	0.72	0/1882	1.12	6/2556 (0.2%)
9	F1	0.70	0/1882	1.05	4/2556 (0.2%)
9	F2	0.72	0/1882	1.17	11/2556 (0.4%)
9	F3	0.70	0/1882	1.08	9/2556 (0.4%)
10	H0	0.65	0/3114	1.04	14/4211 (0.3%)
10	H1	0.65	0/3114	1.03	16/4211 (0.4%)
10	H2	0.64	0/3114	1.03	14/4211 (0.3%)
10	H3	0.64	0/3114	1.02	15/4211 (0.4%)
11	I0	0.65	0/1416	0.97	3/1911 (0.2%)
11	I1	0.65	0/1416	0.99	3/1911 (0.2%)
11	I2	0.65	0/1416	0.98	3/1911 (0.2%)
11	I3	0.65	0/1416	0.98	3/1911 (0.2%)
12	J0	0.62	0/1420	1.00	6/1915 (0.3%)
12	J1	0.62	0/1420	1.01	6/1915 (0.3%)
12	J2	0.62	0/1420	1.00	6/1915 (0.3%)
12	J3	0.62	0/1420	1.02	6/1915 (0.3%)
12	J4	0.63	0/1420	1.00	4/1915 (0.2%)
13	K0	0.69	0/8740	1.04	27/11848 (0.2%)
13	K1	0.69	1/8740 (0.0%)	1.22	37/11848 (0.3%)
13	K2	0.68	0/8740	1.02	28/11848 (0.2%)
13	K3	0.68	0/8740	1.02	27/11848 (0.2%)
14	L0	0.71	0/6518	1.07	35/8819 (0.4%)
14	L1	0.71	0/6518	1.07	32/8819 (0.4%)
14	L2	0.70	0/6518	1.06	29/8819 (0.3%)
14	L3	0.72	2/6518 (0.0%)	1.10	41/8819 (0.5%)
15	M0	0.70	0/5588	1.13	30/7581 (0.4%)
15	M1	0.70	0/5588	1.13	35/7581 (0.5%)
15	M2	0.70	0/5588	1.11	35/7581 (0.5%)
15	M3	0.69	0/5588	1.11	35/7581 (0.5%)
16	N0	0.67	0/2419	1.05	5/3301 (0.2%)
16	N1	0.67	0/2419	1.04	7/3301 (0.2%)
16	N2	0.67	0/2419	1.04	5/3301 (0.2%)
16	N3	0.67	0/2419	1.04	7/3301 (0.2%)
17	O0	0.67	0/2593	1.04	7/3520 (0.2%)
17	O1	0.66	0/2593	1.03	7/3520 (0.2%)
17	O2	0.67	0/2593	1.05	10/3520 (0.3%)
17	O3	0.66	0/2593	1.06	8/3520 (0.2%)
18	P0	0.70	0/5365	1.05	25/7257 (0.3%)
18	P1	0.70	0/5365	1.05	31/7257 (0.4%)
18	P2	0.70	0/5365	1.05	26/7257 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
18	P3	0.70	0/5365	1.04	23/7257 (0.3%)
19	Q0	0.67	0/2775	1.05	9/3786 (0.2%)
19	Q1	0.67	0/2775	1.02	7/3786 (0.2%)
19	Q2	0.67	0/2775	1.05	10/3786 (0.3%)
19	Q3	0.66	0/2775	1.04	7/3786 (0.2%)
20	R0	0.71	0/11371	1.05	48/15446 (0.3%)
20	R1	0.70	0/11371	1.06	55/15446 (0.4%)
20	R2	0.71	0/11371	1.06	57/15446 (0.4%)
20	R3	0.70	0/11371	1.05	49/15446 (0.3%)
21	S0	0.70	0/2623	1.03	8/3568 (0.2%)
21	S1	0.69	0/2623	1.02	7/3568 (0.2%)
21	S2	0.69	0/2623	1.04	6/3568 (0.2%)
21	S3	0.70	0/2623	1.03	7/3568 (0.2%)
22	T0	0.70	0/8141	1.03	27/11065 (0.2%)
22	T1	0.69	0/8141	1.02	22/11065 (0.2%)
23	U0	0.72	0/1217	1.04	4/1644 (0.2%)
23	U1	0.67	0/152	1.32	1/204 (0.5%)
23	U2	0.77	0/152	1.53	4/204 (2.0%)
23	U3	0.82	0/152	1.58	4/204 (2.0%)
23	U4	0.83	0/152	1.64	4/204 (2.0%)
23	U5	0.79	0/152	1.39	3/204 (1.5%)
23	U6	0.66	0/152	1.28	1/204 (0.5%)
24	V0	0.67	0/2240	1.07	11/3019 (0.4%)
25	W0	0.67	0/5972	1.04	26/8105 (0.3%)
All	All	0.68	4/630097 (0.0%)	1.05	2497/855041 (0.3%)

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	00	0	6
1	01	0	3
1	02	0	4
1	03	0	5
1	04	0	4
2	10	0	11
2	11	0	13
2	12	0	10
2	13	0	13
2	14	0	11

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	15	0	13
2	16	0	10
2	17	0	13
3	40	0	4
3	41	0	6
4	A0	1	23
4	A1	0	16
4	A2	0	17
4	A3	0	14
4	A4	0	9
4	A5	0	9
4	A6	0	6
5	B0	0	28
5	B1	0	26
6	C0	1	15
6	C1	1	16
6	C2	1	18
6	C3	1	23
6	C4	1	15
7	D0	0	7
7	D1	0	14
7	D2	0	12
7	D3	0	14
7	D4	0	7
7	D5	0	16
8	E0	0	2
8	E1	0	2
9	F0	0	6
9	F1	0	3
9	F2	0	3
9	F3	0	2
10	H0	0	6
10	H1	0	3
10	H2	0	3
10	H3	0	4
12	J0	0	2
12	J1	0	1
12	J2	0	2
12	J3	0	1
12	J4	0	1
13	K0	0	12
13	K1	0	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
13	K2	0	13
13	K3	0	10
14	L0	0	6
14	L1	0	6
14	L2	0	7
14	L3	0	5
15	M0	0	9
15	M1	0	9
15	M2	0	7
15	M3	0	6
16	N0	0	2
16	N1	0	2
16	N2	0	2
16	N3	0	2
17	O3	0	1
18	P0	0	7
18	P1	1	9
18	P2	0	8
18	P3	0	8
19	Q0	0	1
19	Q1	0	2
19	Q2	0	2
19	Q3	0	1
20	R0	0	14
20	R1	0	13
20	R2	0	17
20	R3	0	18
21	S0	0	4
21	S1	0	5
21	S2	0	6
21	S3	0	5
22	T0	2	11
22	T1	2	9
23	U0	0	1
24	V0	0	1
25	W0	0	10
All	All	11	728

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	L3	731	GLY	CA-C	6.62	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	L3	731	GLY	N-CA	6.34	1.55	1.46
6	C3	4	PRO	N-CD	-5.29	1.40	1.47
13	K1	577	PRO	N-CD	-5.17	1.40	1.47

All (2497) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	K1	986	ASP	CB-CG-OD1	50.04	163.34	118.30
13	K1	986	ASP	CB-CG-OD2	-37.67	84.40	118.30
2	15	5	GLY	O-C-N	-27.80	78.22	122.70
2	10	5	GLY	O-C-N	-27.48	78.72	122.70
2	13	5	GLY	O-C-N	-27.47	78.75	122.70
2	14	5	GLY	O-C-N	-27.42	78.83	122.70
2	17	5	GLY	O-C-N	-27.41	78.84	122.70
2	12	5	GLY	O-C-N	-27.39	78.88	122.70
2	11	5	GLY	O-C-N	-27.36	78.92	122.70
2	16	5	GLY	O-C-N	-27.34	78.96	122.70
13	K1	986	ASP	OD1-CG-OD2	-23.34	78.94	123.30
2	11	5	GLY	CA-C-N	21.00	163.40	117.20
2	16	5	GLY	CA-C-N	20.98	163.35	117.20
2	17	5	GLY	CA-C-N	20.98	163.34	117.20
2	12	5	GLY	CA-C-N	20.95	163.29	117.20
2	14	5	GLY	CA-C-N	20.93	163.24	117.20
2	10	5	GLY	CA-C-N	20.90	163.18	117.20
2	13	5	GLY	CA-C-N	20.90	163.17	117.20
2	15	5	GLY	CA-C-N	20.54	162.39	117.20
2	15	5	GLY	CA-C-O	-20.22	84.21	120.60
2	16	5	GLY	CA-C-O	-20.12	84.39	120.60
2	12	5	GLY	CA-C-O	-20.11	84.41	120.60
2	14	5	GLY	CA-C-O	-20.10	84.41	120.60
2	13	5	GLY	CA-C-O	-20.10	84.42	120.60
2	10	5	GLY	CA-C-O	-20.08	84.45	120.60
2	11	5	GLY	CA-C-O	-20.07	84.48	120.60
2	17	5	GLY	CA-C-O	-20.05	84.50	120.60
2	13	783	ARG	NE-CZ-NH1	15.01	127.81	120.30
2	15	783	ARG	NE-CZ-NH1	14.25	127.43	120.30
7	D5	1347	ARG	NE-CZ-NH2	-13.76	113.42	120.30
4	A4	175	ARG	NE-CZ-NH1	13.36	126.98	120.30
2	10	783	ARG	NE-CZ-NH1	12.89	126.75	120.30
13	K3	596	ILE	CA-CB-CG1	12.82	135.37	111.00
4	A0	786	ARG	NE-CZ-NH1	11.94	126.27	120.30
23	U1	610	LEU	CB-CA-C	11.84	132.69	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	U6	610	LEU	CB-CA-C	11.71	132.45	110.20
4	A0	481	ARG	NE-CZ-NH1	11.66	126.13	120.30
15	M2	922	ARG	NE-CZ-NH1	11.36	125.98	120.30
2	16	783	ARG	NE-CZ-NH1	11.29	125.94	120.30
23	U2	610	LEU	CD1-CG-CD2	11.09	143.77	110.50
14	L3	422	ARG	NE-CZ-NH1	11.07	125.84	120.30
2	11	783	ARG	NE-CZ-NH1	11.02	125.81	120.30
6	C0	1729	ARG	NE-CZ-NH1	10.99	125.80	120.30
9	F3	254	ARG	NE-CZ-NH1	10.95	125.77	120.30
14	L1	422	ARG	NE-CZ-NH1	10.94	125.77	120.30
14	L2	422	ARG	NE-CZ-NH1	10.92	125.76	120.30
14	L0	422	ARG	NE-CZ-NH1	10.91	125.76	120.30
6	C1	1729	ARG	NE-CZ-NH1	10.90	125.75	120.30
18	P2	482	ARG	NE-CZ-NH1	10.88	125.74	120.30
13	K3	1000	ARG	NE-CZ-NH1	10.70	125.65	120.30
20	R2	53	ARG	NE-CZ-NH1	10.64	125.62	120.30
12	J4	430	ARG	NE-CZ-NH1	10.61	125.61	120.30
4	A2	662	ARG	NE-CZ-NH1	10.52	125.56	120.30
25	W0	539	ARG	NE-CZ-NH1	10.44	125.52	120.30
11	I1	361	ARG	NE-CZ-NH1	10.42	125.51	120.30
2	17	798	ARG	NE-CZ-NH1	10.38	125.49	120.30
11	I3	361	ARG	NE-CZ-NH1	10.35	125.47	120.30
1	04	310	ARG	NE-CZ-NH1	10.23	125.41	120.30
14	L0	227	ARG	NE-CZ-NH1	10.21	125.41	120.30
14	L3	227	ARG	NE-CZ-NH1	10.21	125.40	120.30
13	K2	1000	ARG	NE-CZ-NH1	10.21	125.40	120.30
14	L2	227	ARG	NE-CZ-NH1	10.18	125.39	120.30
14	L1	227	ARG	NE-CZ-NH1	10.16	125.38	120.30
15	M0	581	ARG	NE-CZ-NH1	10.15	125.38	120.30
1	02	310	ARG	NE-CZ-NH1	10.15	125.37	120.30
14	L2	413	ARG	NE-CZ-NH1	10.13	125.37	120.30
6	C2	1464	ARG	NE-CZ-NH1	10.12	125.36	120.30
2	13	798	ARG	NE-CZ-NH1	10.07	125.33	120.30
4	A3	372	ARG	NE-CZ-NH1	10.03	125.32	120.30
23	U3	610	LEU	CD1-CG-CD2	10.03	140.59	110.50
4	A2	372	ARG	NE-CZ-NH1	10.01	125.30	120.30
2	11	1225	ARG	NE-CZ-NH1	10.00	125.30	120.30
6	C3	84	ARG	NE-CZ-NH1	9.96	125.28	120.30
7	D5	1076	ARG	NE-CZ-NH1	9.96	125.28	120.30
18	P0	482	ARG	NE-CZ-NH1	9.95	125.28	120.30
4	A4	372	ARG	NE-CZ-NH1	9.92	125.26	120.30
7	D4	1076	ARG	NE-CZ-NH1	9.92	125.26	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A4	167	ILE	CB-CA-C	9.92	131.43	111.60
4	A1	372	ARG	NE-CZ-NH1	9.90	125.25	120.30
18	P3	482	ARG	NE-CZ-NH1	9.89	125.24	120.30
4	A1	555	ARG	NE-CZ-NH1	9.86	125.23	120.30
4	A0	372	ARG	NE-CZ-NH1	9.84	125.22	120.30
2	10	1225	ARG	NE-CZ-NH1	9.83	125.22	120.30
2	12	1225	ARG	NE-CZ-NH1	9.77	125.19	120.30
23	U4	610	LEU	CD1-CG-CD2	9.70	139.61	110.50
4	A6	372	ARG	NE-CZ-NH1	9.70	125.15	120.30
1	03	310	ARG	NE-CZ-NH1	9.69	125.14	120.30
20	R1	910	ARG	NE-CZ-NH1	9.67	125.14	120.30
6	C2	313	ARG	NE-CZ-NH1	9.66	125.13	120.30
17	O0	5	ARG	NE-CZ-NH1	9.63	125.11	120.30
4	A3	555	ARG	NE-CZ-NH1	9.62	125.11	120.30
2	14	798	ARG	NE-CZ-NH1	9.62	125.11	120.30
5	B0	102	ARG	NE-CZ-NH1	9.59	125.09	120.30
2	13	1225	ARG	NE-CZ-NH1	9.59	125.09	120.30
4	A0	709	ARG	NE-CZ-NH1	9.56	125.08	120.30
6	C0	984	ARG	NE-CZ-NH1	9.56	125.08	120.30
8	E0	19	ARG	NE-CZ-NH1	9.56	125.08	120.30
6	C4	1877	ARG	NE-CZ-NH1	9.55	125.07	120.30
18	P1	482	ARG	NE-CZ-NH1	9.55	125.07	120.30
3	40	330	ARG	NE-CZ-NH1	9.54	125.07	120.30
6	C4	411	ARG	NE-CZ-NH1	9.52	125.06	120.30
15	M0	930	ARG	NE-CZ-NH1	9.51	125.06	120.30
5	B1	202	ARG	NE-CZ-NH1	9.51	125.05	120.30
2	15	798	ARG	NE-CZ-NH1	9.50	125.05	120.30
2	12	798	ARG	NE-CZ-NH1	9.49	125.05	120.30
17	O3	5	ARG	NE-CZ-NH1	9.49	125.05	120.30
6	C1	984	ARG	NE-CZ-NH1	9.48	125.04	120.30
20	R0	910	ARG	NE-CZ-NH1	9.47	125.04	120.30
14	L3	413	ARG	NE-CZ-NH1	9.46	125.03	120.30
1	03	601	ARG	NE-CZ-NH1	9.46	125.03	120.30
7	D2	750	ARG	NE-CZ-NH1	9.46	125.03	120.30
1	00	601	ARG	NE-CZ-NH1	9.45	125.03	120.30
1	02	601	ARG	NE-CZ-NH1	9.45	125.03	120.30
18	P0	238	ARG	NE-CZ-NH1	9.44	125.02	120.30
13	K1	1000	ARG	NE-CZ-NH1	9.44	125.02	120.30
11	I2	303	ARG	NE-CZ-NH1	9.42	125.01	120.30
4	A5	484	ARG	NE-CZ-NH1	9.41	125.01	120.30
2	10	798	ARG	NE-CZ-NH1	9.40	125.00	120.30
2	11	798	ARG	NE-CZ-NH1	9.40	125.00	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	04	601	ARG	NE-CZ-NH1	9.39	125.00	120.30
1	01	601	ARG	NE-CZ-NH1	9.37	124.98	120.30
2	16	798	ARG	NE-CZ-NH1	9.36	124.98	120.30
6	C1	411	ARG	NE-CZ-NH1	9.36	124.98	120.30
4	A4	175	ARG	CD-NE-CZ	9.36	136.70	123.60
23	U4	610	LEU	CB-CG-CD1	-9.36	95.09	111.00
18	P1	238	ARG	NE-CZ-NH1	9.35	124.98	120.30
17	O1	5	ARG	NE-CZ-NH1	9.35	124.97	120.30
5	B0	202	ARG	NE-CZ-NH1	9.34	124.97	120.30
1	00	310	ARG	NE-CZ-NH1	9.32	124.96	120.30
20	R3	365	ARG	NE-CZ-NH1	9.32	124.96	120.30
2	14	625	ARG	NE-CZ-NH1	9.30	124.95	120.30
9	F2	287	ARG	NE-CZ-NH1	9.29	124.95	120.30
6	C0	411	ARG	NE-CZ-NH1	9.29	124.94	120.30
5	B1	102	ARG	NE-CZ-NH1	9.28	124.94	120.30
1	01	310	ARG	NE-CZ-NH1	9.28	124.94	120.30
7	D5	1347	ARG	CB-CA-C	9.26	128.92	110.40
9	F2	146	ARG	NE-CZ-NH1	9.26	124.93	120.30
12	J3	349	ARG	NE-CZ-NH1	9.25	124.92	120.30
1	03	161	ARG	NE-CZ-NH1	9.22	124.91	120.30
20	R1	1153	ARG	NE-CZ-NH1	9.21	124.91	120.30
2	13	896	ARG	NE-CZ-NH1	9.20	124.90	120.30
17	O1	140	ARG	NE-CZ-NH1	9.20	124.90	120.30
3	41	361	ARG	NE-CZ-NH1	9.20	124.90	120.30
18	P2	238	ARG	NE-CZ-NH1	9.19	124.90	120.30
14	L0	413	ARG	NE-CZ-NH1	9.19	124.89	120.30
18	P3	238	ARG	NE-CZ-NH1	9.19	124.89	120.30
6	C4	313	ARG	NE-CZ-NH1	9.19	124.89	120.30
6	C4	2011	ARG	NE-CZ-NH1	9.18	124.89	120.30
10	H0	430	ARG	NE-CZ-NH1	9.18	124.89	120.30
6	C1	313	ARG	NE-CZ-NH1	9.17	124.89	120.30
6	C1	1617	ARG	NE-CZ-NH1	9.16	124.88	120.30
6	C0	1617	ARG	NE-CZ-NH1	9.15	124.88	120.30
11	I2	361	ARG	NE-CZ-NH1	9.15	124.87	120.30
6	C0	1877	ARG	NE-CZ-NH1	9.13	124.86	120.30
20	R0	1153	ARG	NE-CZ-NH1	9.12	124.86	120.30
6	C0	313	ARG	NE-CZ-NH1	9.10	124.85	120.30
4	A2	709	ARG	NE-CZ-NH1	9.09	124.85	120.30
6	C1	1877	ARG	NE-CZ-NH1	9.09	124.84	120.30
15	M1	876	ARG	NE-CZ-NH1	9.07	124.83	120.30
4	A0	555	ARG	NE-CZ-NH1	9.06	124.83	120.30
6	C0	1661	ARG	NE-CZ-NH1	9.05	124.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	R1	1069	ARG	NE-CZ-NH1	9.05	124.82	120.30
6	C1	2011	ARG	NE-CZ-NH1	9.04	124.82	120.30
7	D1	563	ARG	NE-CZ-NH2	9.04	124.82	120.30
2	11	178	ARG	NE-CZ-NH1	9.03	124.81	120.30
6	C1	1661	ARG	NE-CZ-NH1	9.03	124.81	120.30
14	L1	259	ARG	NE-CZ-NH1	9.00	124.80	120.30
6	C2	1617	ARG	NE-CZ-NH2	-8.98	115.81	120.30
11	I0	303	ARG	NE-CZ-NH1	8.97	124.79	120.30
4	A2	555	ARG	NE-CZ-NH1	8.96	124.78	120.30
17	O3	207	ARG	NE-CZ-NH1	8.96	124.78	120.30
1	00	563	ARG	NE-CZ-NH1	8.95	124.78	120.30
2	12	178	ARG	NE-CZ-NH1	8.95	124.77	120.30
9	F0	287	ARG	NE-CZ-NH1	8.94	124.77	120.30
2	16	178	ARG	NE-CZ-NH1	8.93	124.76	120.30
4	A2	802	ARG	NE-CZ-NH1	8.92	124.76	120.30
6	C2	330	ARG	NE-CZ-NH1	8.89	124.75	120.30
20	R2	1091	ARG	NE-CZ-NH1	8.89	124.75	120.30
11	I1	303	ARG	NE-CZ-NH1	8.89	124.75	120.30
20	R3	1069	ARG	NE-CZ-NH1	8.89	124.75	120.30
6	C3	1502	ARG	NE-CZ-NH1	8.87	124.73	120.30
1	02	563	ARG	NE-CZ-NH1	8.87	124.73	120.30
4	A5	675	ARG	NE-CZ-NH1	8.87	124.73	120.30
20	R2	1069	ARG	NE-CZ-NH1	8.86	124.73	120.30
10	H2	439	ARG	NE-CZ-NH2	8.85	124.72	120.30
6	C3	705	ARG	NE-CZ-NH1	8.85	124.72	120.30
2	14	178	ARG	NE-CZ-NH1	8.83	124.72	120.30
14	L0	259	ARG	NE-CZ-NH1	8.82	124.71	120.30
6	C0	2011	ARG	NE-CZ-NH1	8.80	124.70	120.30
1	01	563	ARG	NE-CZ-NH1	8.80	124.70	120.30
6	C3	330	ARG	NE-CZ-NH1	8.79	124.69	120.30
2	10	178	ARG	NE-CZ-NH1	8.79	124.69	120.30
1	03	563	ARG	NE-CZ-NH1	8.76	124.68	120.30
4	A0	662	ARG	NE-CZ-NH1	8.76	124.68	120.30
20	R3	53	ARG	NE-CZ-NH1	8.76	124.68	120.30
6	C1	1380	PRO	CA-N-CD	-8.76	99.23	111.50
14	L3	220	ARG	NE-CZ-NH1	8.76	124.68	120.30
15	M3	708	ARG	NE-CZ-NH1	8.76	124.68	120.30
4	A3	484	ARG	NE-CZ-NH1	8.76	124.68	120.30
11	I3	303	ARG	NE-CZ-NH1	8.74	124.67	120.30
6	C4	1729	ARG	NE-CZ-NH1	8.73	124.67	120.30
19	Q3	217	ARG	NE-CZ-NH1	8.73	124.66	120.30
22	T0	989	ARG	NE-CZ-NH1	8.72	124.66	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	R0	53	ARG	NE-CZ-NH1	8.72	124.66	120.30
14	L2	259	ARG	NE-CZ-NH1	8.71	124.66	120.30
3	40	361	ARG	NE-CZ-NH1	8.71	124.65	120.30
1	04	563	ARG	NE-CZ-NH1	8.70	124.65	120.30
9	F3	112	ARG	NE-CZ-NH1	8.70	124.65	120.30
4	A5	742	ARG	NE-CZ-NH1	8.68	124.64	120.30
8	E0	665	ARG	NE-CZ-NH1	8.67	124.64	120.30
14	L1	220	ARG	NE-CZ-NH1	8.67	124.64	120.30
6	C2	490	ARG	NE-CZ-NH1	8.66	124.63	120.30
23	U3	610	LEU	CA-CB-CG	-8.65	95.40	115.30
4	A5	372	ARG	NE-CZ-NH1	8.63	124.62	120.30
5	B0	14	ARG	NE-CZ-NH1	8.63	124.61	120.30
19	Q1	201	ARG	NE-CZ-NH1	8.63	124.61	120.30
2	11	625	ARG	NE-CZ-NH1	8.62	124.61	120.30
13	K0	1000	ARG	NE-CZ-NH1	8.61	124.61	120.30
17	O3	140	ARG	NE-CZ-NH1	8.61	124.61	120.30
17	O2	5	ARG	NE-CZ-NH1	8.60	124.60	120.30
2	17	783	ARG	NE-CZ-NH1	8.59	124.60	120.30
4	A1	484	ARG	NE-CZ-NH1	8.59	124.59	120.30
15	M0	708	ARG	NE-CZ-NH1	8.58	124.59	120.30
15	M0	876	ARG	NE-CZ-NH1	8.58	124.59	120.30
2	15	797	ARG	NE-CZ-NH1	8.58	124.59	120.30
6	C3	728	ARG	NE-CZ-NH1	8.58	124.59	120.30
19	Q0	217	ARG	NE-CZ-NH1	8.57	124.59	120.30
14	L2	220	ARG	NE-CZ-NH1	8.57	124.58	120.30
6	C4	330	ARG	NE-CZ-NH1	8.56	124.58	120.30
13	K0	476	ARG	NE-CZ-NH1	8.56	124.58	120.30
6	C3	1834	ARG	NE-CZ-NH1	8.55	124.58	120.30
15	M1	708	ARG	NE-CZ-NH1	8.55	124.58	120.30
14	L3	259	ARG	NE-CZ-NH1	8.54	124.57	120.30
17	O0	140	ARG	NE-CZ-NH1	8.55	124.57	120.30
5	B1	14	ARG	NE-CZ-NH1	8.52	124.56	120.30
4	A2	484	ARG	NE-CZ-NH1	8.51	124.56	120.30
6	C0	330	ARG	NE-CZ-NH1	8.50	124.55	120.30
5	B0	251	ARG	NE-CZ-NH1	8.50	124.55	120.30
20	R2	1153	ARG	NE-CZ-NH1	8.49	124.55	120.30
10	H2	255	ARG	NE-CZ-NH1	8.49	124.55	120.30
2	14	797	ARG	NE-CZ-NH1	8.49	124.54	120.30
14	L0	220	ARG	NE-CZ-NH1	8.49	124.54	120.30
4	A0	42	ARG	NE-CZ-NH1	8.48	124.54	120.30
6	C0	2002	ARG	NE-CZ-NH1	8.48	124.54	120.30
2	13	797	ARG	NE-CZ-NH1	8.48	124.54	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	C4	984	ARG	NE-CZ-NH1	8.46	124.53	120.30
21	S2	7	ARG	NE-CZ-NH1	8.46	124.53	120.30
2	17	178	ARG	NE-CZ-NH1	8.46	124.53	120.30
6	C1	330	ARG	NE-CZ-NH1	8.46	124.53	120.30
20	R3	743	ARG	NE-CZ-NH1	8.46	124.53	120.30
20	R1	53	ARG	NE-CZ-NH1	8.45	124.53	120.30
2	12	625	ARG	NE-CZ-NH1	8.45	124.53	120.30
7	D3	1120	ARG	NE-CZ-NH1	8.44	124.52	120.30
15	M2	861	ARG	NE-CZ-NH1	8.42	124.51	120.30
6	C3	774	ARG	NE-CZ-NH1	8.41	124.50	120.30
4	A1	530	ARG	NE-CZ-NH1	8.40	124.50	120.30
23	U4	610	LEU	CA-CB-CG	-8.37	96.04	115.30
2	10	625	ARG	NE-CZ-NH1	8.36	124.48	120.30
6	C2	697	ARG	NE-CZ-NH1	8.36	124.48	120.30
6	C3	1617	ARG	NE-CZ-NH1	8.35	124.47	120.30
7	D2	1120	ARG	NE-CZ-NH1	8.35	124.47	120.30
8	E1	665	ARG	NE-CZ-NH1	8.35	124.47	120.30
4	A2	42	ARG	NE-CZ-NH1	8.34	124.47	120.30
13	K0	887	ARG	NE-CZ-NH1	8.34	124.47	120.30
18	P1	69	ARG	NE-CZ-NH1	8.34	124.47	120.30
4	A0	578	ARG	NE-CZ-NH1	8.33	124.47	120.30
25	W0	673	ARG	NE-CZ-NH1	8.33	124.46	120.30
4	A5	555	ARG	NE-CZ-NH1	8.32	124.46	120.30
19	Q1	217	ARG	NE-CZ-NH1	8.32	124.46	120.30
7	D3	829	ARG	NE-CZ-NH1	8.31	124.46	120.30
2	17	797	ARG	NE-CZ-NH1	8.29	124.44	120.30
13	K3	752	ARG	NE-CZ-NH1	8.28	124.44	120.30
20	R2	365	ARG	NE-CZ-NH1	8.27	124.44	120.30
4	A1	486	ARG	NE-CZ-NH1	8.27	124.44	120.30
7	D5	1333	ARG	NE-CZ-NH1	8.27	124.43	120.30
20	R0	1091	ARG	NE-CZ-NH1	8.26	124.43	120.30
13	K1	466	ARG	NE-CZ-NH1	8.25	124.42	120.30
7	D5	1083	ARG	NE-CZ-NH1	8.23	124.41	120.30
6	C1	1534	ARG	NE-CZ-NH1	8.21	124.40	120.30
4	A6	484	ARG	NE-CZ-NH1	8.20	124.40	120.30
7	D0	1163	ARG	NE-CZ-NH1	8.20	124.40	120.30
15	M0	622	ARG	NE-CZ-NH1	8.20	124.40	120.30
7	D4	1333	ARG	NE-CZ-NH1	8.18	124.39	120.30
6	C1	1617	ARG	NE-CZ-NH2	-8.17	116.22	120.30
8	E1	19	ARG	NE-CZ-NH1	8.17	124.38	120.30
6	C4	84	ARG	NE-CZ-NH1	8.15	124.38	120.30
2	13	178	ARG	NE-CZ-NH1	8.15	124.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	U5	610	LEU	CB-CG-CD1	-8.15	97.15	111.00
4	A0	481	ARG	NE-CZ-NH2	-8.14	116.23	120.30
20	R3	55	ARG	NE-CZ-NH1	8.13	124.37	120.30
22	T1	361	ARG	NE-CZ-NH1	8.12	124.36	120.30
1	00	428	ARG	NE-CZ-NH1	8.11	124.35	120.30
7	D1	1114	ARG	NE-CZ-NH1	8.10	124.35	120.30
6	C1	437	ARG	NE-CZ-NH1	8.08	124.34	120.30
15	M1	772	ARG	NE-CZ-NH1	8.08	124.34	120.30
2	15	178	ARG	NE-CZ-NH1	8.07	124.34	120.30
20	R1	743	ARG	NE-CZ-NH1	8.07	124.34	120.30
4	A5	434	ARG	NE-CZ-NH1	8.07	124.33	120.30
6	C4	889	ARG	NE-CZ-NH1	8.06	124.33	120.30
6	C0	1617	ARG	NE-CZ-NH2	-8.06	116.27	120.30
20	R0	743	ARG	NE-CZ-NH1	8.06	124.33	120.30
10	H1	255	ARG	NE-CZ-NH1	8.05	124.33	120.30
18	P1	106	ARG	NE-CZ-NH1	8.05	124.33	120.30
25	W0	461	ARG	NE-CZ-NH1	8.04	124.32	120.30
4	A3	481	ARG	NE-CZ-NH1	8.04	124.32	120.30
7	D4	829	ARG	NE-CZ-NH1	8.04	124.32	120.30
13	K1	185	ARG	NE-CZ-NH1	8.04	124.32	120.30
6	C1	330	ARG	NE-CZ-NH2	-8.04	116.28	120.30
6	C3	984	ARG	NE-CZ-NH1	8.03	124.32	120.30
7	D2	521	ARG	NE-CZ-NH1	8.03	124.32	120.30
10	H1	172	ARG	NE-CZ-NH1	8.03	124.32	120.30
6	C0	330	ARG	NE-CZ-NH2	-8.03	116.28	120.30
6	C1	889	ARG	NE-CZ-NH1	8.02	124.31	120.30
7	D4	883	ARG	NE-CZ-NH1	8.02	124.31	120.30
4	A0	143	ARG	NE-CZ-NH1	8.02	124.31	120.30
10	H0	439	ARG	NE-CZ-NH1	8.02	124.31	120.30
1	01	428	ARG	NE-CZ-NH1	8.01	124.31	120.30
2	15	1225	ARG	NE-CZ-NH1	8.01	124.30	120.30
4	A4	484	ARG	NE-CZ-NH1	8.00	124.30	120.30
23	U5	610	LEU	CD1-CG-CD2	8.00	134.51	110.50
6	C1	740	ARG	NE-CZ-NH1	8.00	124.30	120.30
4	A5	396	ARG	NE-CZ-NH1	8.00	124.30	120.30
7	D1	829	ARG	NE-CZ-NH1	8.00	124.30	120.30
15	M1	581	ARG	NE-CZ-NH1	8.00	124.30	120.30
7	D0	750	ARG	NE-CZ-NH1	7.99	124.29	120.30
25	W0	589	ARG	NE-CZ-NH1	7.99	124.29	120.30
6	C0	437	ARG	NE-CZ-NH1	7.98	124.29	120.30
7	D5	750	ARG	NE-CZ-NH1	7.98	124.29	120.30
6	C0	889	ARG	NE-CZ-NH1	7.97	124.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	H0	255	ARG	NE-CZ-NH1	7.97	124.29	120.30
7	D1	1152	ARG	NE-CZ-NH1	7.97	124.28	120.30
1	03	84	ARG	NE-CZ-NH2	7.96	124.28	120.30
20	R2	601	ARG	NE-CZ-NH1	7.96	124.28	120.30
2	12	797	ARG	NE-CZ-NH1	7.95	124.28	120.30
15	M3	462	ARG	NE-CZ-NH1	7.95	124.28	120.30
6	C3	1617	ARG	NE-CZ-NH2	-7.93	116.34	120.30
22	T1	993	ARG	NE-CZ-NH1	7.92	124.26	120.30
21	S0	191	ARG	NE-CZ-NH1	7.92	124.26	120.30
2	12	783	ARG	NE-CZ-NH1	7.92	124.26	120.30
2	15	267	ARG	NE-CZ-NH1	7.91	124.26	120.30
25	W0	82	ARG	NE-CZ-NH1	7.91	124.26	120.30
25	W0	139	ARG	NE-CZ-NH1	7.91	124.25	120.30
2	16	267	ARG	NE-CZ-NH1	7.90	124.25	120.30
6	C4	330	ARG	NE-CZ-NH2	-7.89	116.35	120.30
5	B0	1168	ARG	NE-CZ-NH1	7.89	124.25	120.30
15	M2	876	ARG	NE-CZ-NH1	7.89	124.25	120.30
23	U4	610	LEU	CB-CG-CD2	-7.89	97.59	111.00
18	P3	106	ARG	NE-CZ-NH1	7.89	124.25	120.30
23	U3	610	LEU	CB-CG-CD1	-7.89	97.59	111.00
23	U2	610	LEU	CA-CB-CG	-7.88	97.19	115.30
2	17	1589	ARG	NE-CZ-NH1	7.87	124.24	120.30
22	T0	993	ARG	NE-CZ-NH1	7.87	124.24	120.30
1	00	375	THR	C-N-CA	7.87	141.36	121.70
1	02	64	ARG	NE-CZ-NH1	7.87	124.23	120.30
6	C4	437	ARG	NE-CZ-NH1	7.86	124.23	120.30
15	M2	708	ARG	NE-CZ-NH1	7.86	124.23	120.30
16	N1	81	ARG	NE-CZ-NH1	7.86	124.23	120.30
18	P0	106	ARG	NE-CZ-NH1	7.86	124.23	120.30
11	I0	347	ARG	NE-CZ-NH1	7.86	124.23	120.30
13	K3	887	ARG	NE-CZ-NH1	7.86	124.23	120.30
6	C3	1661	ARG	NE-CZ-NH1	7.86	124.23	120.30
20	R0	1193	ARG	NE-CZ-NH1	7.85	124.23	120.30
2	16	797	ARG	NE-CZ-NH1	7.84	124.22	120.30
2	16	1589	ARG	NE-CZ-NH1	7.84	124.22	120.30
11	I2	347	ARG	NE-CZ-NH1	7.83	124.22	120.30
2	17	267	ARG	NE-CZ-NH1	7.83	124.22	120.30
15	M0	633	ARG	NE-CZ-NH1	7.83	124.22	120.30
13	K2	1080	ARG	NE-CZ-NH1	7.82	124.21	120.30
7	D0	1260	ARG	NE-CZ-NH1	7.82	124.21	120.30
2	11	267	ARG	NE-CZ-NH1	7.82	124.21	120.30
20	R2	743	ARG	NE-CZ-NH1	7.81	124.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	41	478	ARG	NE-CZ-NH1	7.80	124.20	120.30
10	H2	172	ARG	NE-CZ-NH1	7.80	124.20	120.30
6	C3	1287	ARG	NE-CZ-NH1	7.79	124.20	120.30
7	D5	829	ARG	NE-CZ-NH1	7.79	124.19	120.30
1	03	64	ARG	NE-CZ-NH1	7.79	124.19	120.30
1	03	428	ARG	NE-CZ-NH1	7.79	124.19	120.30
6	C4	1617	ARG	NE-CZ-NH2	-7.79	116.41	120.30
1	00	64	ARG	NE-CZ-NH1	7.78	124.19	120.30
15	M2	462	ARG	NE-CZ-NH1	7.78	124.19	120.30
1	04	64	ARG	NE-CZ-NH1	7.78	124.19	120.30
19	Q2	217	ARG	NE-CZ-NH1	7.78	124.19	120.30
6	C0	740	ARG	NE-CZ-NH1	7.77	124.19	120.30
2	17	625	ARG	NE-CZ-NH1	7.77	124.18	120.30
7	D0	367	ARG	NE-CZ-NH1	7.77	124.18	120.30
10	H0	172	ARG	NE-CZ-NH1	7.77	124.18	120.30
1	01	64	ARG	NE-CZ-NH1	7.76	124.18	120.30
8	E0	644	ARG	NE-CZ-NH1	7.76	124.18	120.30
19	Q3	201	ARG	NE-CZ-NH1	7.76	124.18	120.30
20	R1	1193	ARG	NE-CZ-NH1	7.76	124.18	120.30
2	14	267	ARG	NE-CZ-NH1	7.75	124.18	120.30
6	C1	1934	ARG	NE-CZ-NH1	7.75	124.18	120.30
18	P0	208	ARG	NE-CZ-NH1	7.75	124.18	120.30
1	02	10	ARG	NE-CZ-NH1	7.75	124.17	120.30
13	K0	1080	ARG	NE-CZ-NH1	7.75	124.17	120.30
6	C0	1534	ARG	NE-CZ-NH1	7.74	124.17	120.30
10	H3	255	ARG	NE-CZ-NH1	7.74	124.17	120.30
15	M1	633	ARG	NE-CZ-NH1	7.73	124.17	120.30
2	12	267	ARG	NE-CZ-NH1	7.73	124.17	120.30
4	A5	130	ARG	NE-CZ-NH1	7.73	124.17	120.30
5	B1	209	ARG	NE-CZ-NH1	7.72	124.16	120.30
1	01	84	ARG	NE-CZ-NH2	7.72	124.16	120.30
6	C2	2011	ARG	NE-CZ-NH1	7.72	124.16	120.30
6	C3	868	ARG	NE-CZ-NH1	7.72	124.16	120.30
6	C2	1483	ARG	NE-CZ-NH1	7.71	124.16	120.30
1	01	10	ARG	NE-CZ-NH1	7.70	124.15	120.30
1	03	170	ARG	NE-CZ-NH1	7.70	124.15	120.30
4	A5	380	ARG	NE-CZ-NH2	-7.70	116.45	120.30
6	C2	1617	ARG	NE-CZ-NH1	7.70	124.15	120.30
21	S3	191	ARG	NE-CZ-NH1	7.70	124.15	120.30
2	10	267	ARG	NE-CZ-NH1	7.69	124.15	120.30
7	D0	521	ARG	NE-CZ-NH1	7.69	124.14	120.30
2	16	1225	ARG	NE-CZ-NH1	7.68	124.14	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	T0	280	ARG	NE-CZ-NH1	7.68	124.14	120.30
6	C3	1464	ARG	NE-CZ-NH1	7.68	124.14	120.30
20	R3	1153	ARG	NE-CZ-NH1	7.67	124.14	120.30
2	14	1589	ARG	NE-CZ-NH1	7.67	124.14	120.30
3	40	478	ARG	NE-CZ-NH1	7.67	124.14	120.30
13	K0	752	ARG	NE-CZ-NH1	7.67	124.13	120.30
16	N3	81	ARG	NE-CZ-NH1	7.66	124.13	120.30
11	I1	347	ARG	NE-CZ-NH1	7.65	124.13	120.30
2	16	126	ARG	NE-CZ-NH1	7.65	124.13	120.30
4	A4	130	ARG	NE-CZ-NH1	7.65	124.13	120.30
2	11	1106	PRO	C-N-CA	-7.65	102.58	121.70
6	C3	411	ARG	NE-CZ-NH1	7.65	124.12	120.30
18	P2	106	ARG	NE-CZ-NH1	7.64	124.12	120.30
6	C4	1464	ARG	NE-CZ-NH1	7.63	124.11	120.30
20	R1	284	ARG	NE-CZ-NH1	7.63	124.11	120.30
5	B0	23	ARG	NE-CZ-NH1	7.63	124.11	120.30
4	A4	786	ARG	NE-CZ-NH1	7.62	124.11	120.30
4	A5	593	ARG	NE-CZ-NH1	7.62	124.11	120.30
5	B1	23	ARG	NE-CZ-NH1	7.62	124.11	120.30
11	I3	347	ARG	NE-CZ-NH1	7.62	124.11	120.30
2	14	783	ARG	NE-CZ-NH1	7.62	124.11	120.30
6	C4	1502	ARG	NE-CZ-NH1	7.62	124.11	120.30
20	R1	55	ARG	NE-CZ-NH1	7.62	124.11	120.30
2	16	625	ARG	NE-CZ-NH1	7.61	124.10	120.30
14	L3	730	GLN	CB-CA-C	7.61	125.61	110.40
1	03	250	ARG	NE-CZ-NH1	7.60	124.10	120.30
2	17	126	ARG	NE-CZ-NH1	7.60	124.10	120.30
20	R2	55	ARG	NE-CZ-NH1	7.60	124.10	120.30
4	A1	742	ARG	NE-CZ-NH1	7.60	124.10	120.30
20	R0	55	ARG	NE-CZ-NH1	7.59	124.10	120.30
1	00	10	ARG	NE-CZ-NH1	7.59	124.10	120.30
12	J0	363	ARG	NE-CZ-NH1	7.59	124.09	120.30
18	P2	208	ARG	NE-CZ-NH2	-7.59	116.50	120.30
21	S0	7	ARG	NE-CZ-NH1	7.59	124.09	120.30
2	13	267	ARG	NE-CZ-NH1	7.58	124.09	120.30
20	R3	99	ARG	NE-CZ-NH1	7.58	124.09	120.30
6	C1	728	ARG	NE-CZ-NH1	7.58	124.09	120.30
20	R2	99	ARG	NE-CZ-NH1	7.57	124.09	120.30
6	C0	1502	ARG	NE-CZ-NH1	7.57	124.08	120.30
3	41	330	ARG	NE-CZ-NH1	7.56	124.08	120.30
6	C0	1082	ARG	NE-CZ-NH1	7.56	124.08	120.30
4	A5	568	ARG	NE-CZ-NH2	-7.55	116.52	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	04	10	ARG	NE-CZ-NH1	7.55	124.08	120.30
13	K3	1080	ARG	NE-CZ-NH1	7.55	124.08	120.30
10	H0	350	ARG	NE-CZ-NH1	7.55	124.08	120.30
20	R0	1069	ARG	NE-CZ-NH1	7.55	124.07	120.30
2	12	126	ARG	NE-CZ-NH1	7.54	124.07	120.30
9	F2	112	ARG	NE-CZ-NH1	7.54	124.07	120.30
4	A4	396	ARG	NE-CZ-NH1	7.54	124.07	120.30
15	M2	849	ARG	NE-CZ-NH1	7.54	124.07	120.30
6	C0	728	ARG	NE-CZ-NH1	7.54	124.07	120.30
2	13	126	ARG	NE-CZ-NH1	7.54	124.07	120.30
13	K1	283	ARG	NE-CZ-NH1	7.54	124.07	120.30
20	R0	284	ARG	NE-CZ-NH1	7.54	124.07	120.30
13	K1	712	ARG	NE-CZ-NH1	7.53	124.07	120.30
7	D2	1333	ARG	NE-CZ-NH1	7.53	124.07	120.30
1	01	161	ARG	NE-CZ-NH1	7.53	124.06	120.30
20	R3	1110	ARG	NE-CZ-NH1	7.52	124.06	120.30
22	T0	600	ARG	NE-CZ-NH1	7.51	124.06	120.30
6	C3	313	ARG	NE-CZ-NH1	7.51	124.06	120.30
19	Q0	201	ARG	NE-CZ-NH1	7.51	124.06	120.30
2	14	126	ARG	NE-CZ-NH1	7.51	124.05	120.30
13	K1	531	ARG	NE-CZ-NH1	7.50	124.05	120.30
6	C1	1502	ARG	NE-CZ-NH1	7.50	124.05	120.30
10	H2	350	ARG	NE-CZ-NH1	7.50	124.05	120.30
2	10	126	ARG	NE-CZ-NH1	7.49	124.05	120.30
22	T0	361	ARG	NE-CZ-NH1	7.49	124.05	120.30
4	A3	742	ARG	NE-CZ-NH1	7.49	124.04	120.30
4	A6	396	ARG	NE-CZ-NH1	7.48	124.04	120.30
21	S2	191	ARG	NE-CZ-NH1	7.47	124.04	120.30
18	P1	208	ARG	NE-CZ-NH2	-7.47	116.56	120.30
13	K1	257	ARG	NE-CZ-NH1	7.47	124.04	120.30
2	14	896	ARG	NE-CZ-NH1	7.47	124.03	120.30
14	L0	697	ARG	NE-CZ-NH1	7.47	124.03	120.30
6	C4	140	ARG	NE-CZ-NH1	7.47	124.03	120.30
7	D1	1333	ARG	NE-CZ-NH1	7.47	124.03	120.30
22	T1	600	ARG	NE-CZ-NH1	7.47	124.03	120.30
3	40	155	ARG	NE-CZ-NH1	7.46	124.03	120.30
2	13	984	ARG	CD-NE-CZ	7.46	134.04	123.60
4	A0	790	ARG	NE-CZ-NH1	7.46	124.03	120.30
12	J1	349	ARG	NE-CZ-NH1	7.46	124.03	120.30
6	C4	1483	ARG	NE-CZ-NH1	7.46	124.03	120.30
7	D3	1333	ARG	NE-CZ-NH1	7.46	124.03	120.30
22	T1	989	ARG	NE-CZ-NH1	7.46	124.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	10	984	ARG	CD-NE-CZ	7.46	134.04	123.60
24	V0	741	ARG	NE-CZ-NH1	7.46	124.03	120.30
2	11	1556	ARG	NE-CZ-NH2	-7.45	116.58	120.30
2	12	984	ARG	NE-CZ-NH2	-7.45	116.58	120.30
15	M0	462	ARG	NE-CZ-NH1	7.44	124.02	120.30
20	R2	1125	TYR	CB-CG-CD2	-7.44	116.53	121.00
2	17	896	ARG	NE-CZ-NH1	7.44	124.02	120.30
2	17	984	ARG	CD-NE-CZ	7.43	134.01	123.60
2	14	1225	ARG	NE-CZ-NH1	7.43	124.01	120.30
18	P2	208	ARG	NE-CZ-NH1	7.43	124.01	120.30
2	15	896	ARG	NE-CZ-NH1	7.43	124.01	120.30
13	K2	887	ARG	NE-CZ-NH1	7.43	124.01	120.30
19	Q3	217	ARG	NE-CZ-NH2	-7.42	116.59	120.30
1	01	250	ARG	NE-CZ-NH1	7.42	124.01	120.30
10	H3	172	ARG	NE-CZ-NH1	7.42	124.01	120.30
2	11	126	ARG	NE-CZ-NH1	7.42	124.01	120.30
6	C2	225	ARG	NE-CZ-NH1	7.41	124.01	120.30
6	C4	740	ARG	NE-CZ-NH1	7.41	124.01	120.30
4	A5	776	ARG	NE-CZ-NH1	7.41	124.00	120.30
15	M3	849	ARG	NE-CZ-NH1	7.41	124.01	120.30
20	R3	1091	ARG	NE-CZ-NH1	7.41	124.00	120.30
20	R2	1193	ARG	NE-CZ-NH1	7.41	124.00	120.30
6	C4	728	ARG	NE-CZ-NH1	7.40	124.00	120.30
6	C2	330	ARG	NE-CZ-NH2	-7.40	116.60	120.30
14	L1	548	ARG	NE-CZ-NH1	7.40	124.00	120.30
15	M0	849	ARG	NE-CZ-NH1	7.39	124.00	120.30
2	12	896	ARG	NE-CZ-NH1	7.38	123.99	120.30
4	A3	786	ARG	NE-CZ-NH1	7.38	123.99	120.30
6	C4	2004	ARG	NE-CZ-NH1	7.38	123.99	120.30
4	A6	120	ARG	NE-CZ-NH1	7.37	123.98	120.30
2	15	126	ARG	NE-CZ-NH1	7.37	123.98	120.30
6	C2	437	ARG	NE-CZ-NH1	7.36	123.98	120.30
25	W0	573	ARG	NE-CZ-NH1	7.36	123.98	120.30
13	K1	1080	ARG	NE-CZ-NH1	7.35	123.98	120.30
2	14	984	ARG	NE-CZ-NH2	-7.35	116.62	120.30
2	13	1254	ARG	NE-CZ-NH1	7.35	123.97	120.30
7	D0	1120	ARG	NE-CZ-NH1	7.35	123.97	120.30
6	C2	140	ARG	NE-CZ-NH1	7.34	123.97	120.30
19	Q0	217	ARG	NE-CZ-NH2	-7.34	116.63	120.30
23	U0	867	ARG	NE-CZ-NH1	7.34	123.97	120.30
2	17	984	ARG	NE-CZ-NH2	-7.34	116.63	120.30
12	J3	363	ARG	NE-CZ-NH1	7.34	123.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	C3	1125	ARG	NE-CZ-NH1	7.33	123.97	120.30
6	C1	1581	ARG	NE-CZ-NH1	7.33	123.97	120.30
1	04	250	ARG	NE-CZ-NH1	7.33	123.96	120.30
2	17	1225	ARG	NE-CZ-NH1	7.33	123.96	120.30
6	C1	1990	ARG	NE-CZ-NH1	7.33	123.96	120.30
15	M1	515	ARG	NE-CZ-NH1	7.33	123.96	120.30
15	M3	633	ARG	NE-CZ-NH1	7.33	123.96	120.30
7	D1	1096	ARG	NE-CZ-NH1	7.32	123.96	120.30
4	A5	530	ARG	NE-CZ-NH1	7.32	123.96	120.30
6	C0	1464	ARG	NE-CZ-NH1	7.32	123.96	120.30
15	M3	643	ARG	NE-CZ-NH1	7.32	123.96	120.30
2	11	984	ARG	CD-NE-CZ	7.32	133.85	123.60
25	W0	534	ARG	NE-CZ-NH1	7.32	123.96	120.30
7	D0	1333	ARG	NE-CZ-NH1	7.32	123.96	120.30
14	L0	548	ARG	NE-CZ-NH1	7.32	123.96	120.30
15	M2	643	ARG	NE-CZ-NH1	7.32	123.96	120.30
14	L3	730	GLN	CA-C-N	7.31	130.83	116.20
4	A1	130	ARG	NE-CZ-NH1	7.31	123.95	120.30
2	16	896	ARG	NE-CZ-NH1	7.30	123.95	120.30
2	12	984	ARG	CD-NE-CZ	7.30	133.82	123.60
2	14	984	ARG	CD-NE-CZ	7.30	133.82	123.60
6	C3	889	ARG	NE-CZ-NH1	7.30	123.95	120.30
18	P1	208	ARG	NE-CZ-NH1	7.30	123.95	120.30
2	16	1223	ARG	NE-CZ-NH2	-7.30	116.65	120.30
6	C1	490	ARG	NE-CZ-NH1	7.30	123.95	120.30
14	L1	345	ARG	NE-CZ-NH1	7.29	123.95	120.30
2	16	984	ARG	NE-CZ-NH2	-7.29	116.66	120.30
14	L1	413	ARG	NE-CZ-NH1	7.29	123.94	120.30
2	16	984	ARG	CD-NE-CZ	7.29	133.80	123.60
6	C1	1082	ARG	NE-CZ-NH1	7.29	123.94	120.30
7	D5	895	ARG	NE-CZ-NH1	7.29	123.94	120.30
6	C4	1661	ARG	NE-CZ-NH1	7.28	123.94	120.30
14	L0	345	ARG	NE-CZ-NH1	7.28	123.94	120.30
2	13	984	ARG	NE-CZ-NH2	-7.28	116.66	120.30
18	P1	645	ARG	NE-CZ-NH1	7.27	123.94	120.30
22	T0	406	ARG	NE-CZ-NH1	7.27	123.94	120.30
1	00	250	ARG	NE-CZ-NH1	7.27	123.94	120.30
4	A6	555	ARG	NE-CZ-NH1	7.27	123.94	120.30
6	C2	728	ARG	NE-CZ-NH1	7.27	123.94	120.30
6	C1	1464	ARG	NE-CZ-NH1	7.27	123.94	120.30
3	41	155	ARG	NE-CZ-NH1	7.27	123.93	120.30
15	M2	422	ARG	NE-CZ-NH1	7.26	123.93	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	R2	1339	ARG	NE-CZ-NH1	7.26	123.93	120.30
18	P2	552	ARG	NE-CZ-NH1	7.26	123.93	120.30
4	A5	245	ARG	NE-CZ-NH1	7.26	123.93	120.30
15	M1	653	ARG	NE-CZ-NH1	7.26	123.93	120.30
4	A1	786	ARG	NE-CZ-NH1	7.26	123.93	120.30
15	M3	653	ARG	NE-CZ-NH1	7.26	123.93	120.30
15	M2	424	ARG	NE-CZ-NH1	7.25	123.93	120.30
6	C1	84	ARG	NE-CZ-NH1	7.25	123.93	120.30
6	C3	390	ARG	NE-CZ-NH1	7.25	123.93	120.30
5	B0	209	ARG	NE-CZ-NH1	7.25	123.92	120.30
8	E1	204	ARG	NE-CZ-NH1	7.24	123.92	120.30
15	M0	643	ARG	NE-CZ-NH1	7.23	123.92	120.30
20	R1	1095	ARG	NE-CZ-NH1	7.23	123.92	120.30
20	R2	910	ARG	NE-CZ-NH1	7.23	123.92	120.30
18	P2	58	ARG	NE-CZ-NH1	7.23	123.91	120.30
20	R3	1339	ARG	NE-CZ-NH1	7.23	123.91	120.30
20	R3	284	ARG	NE-CZ-NH1	7.22	123.91	120.30
6	C2	889	ARG	NE-CZ-NH1	7.22	123.91	120.30
1	02	428	ARG	NE-CZ-NH1	7.22	123.91	120.30
2	10	984	ARG	NE-CZ-NH2	-7.22	116.69	120.30
20	R0	1290	ARG	NE-CZ-NH2	7.21	123.91	120.30
2	11	91	ARG	NE-CZ-NH1	7.21	123.91	120.30
20	R3	1193	ARG	NE-CZ-NH1	7.21	123.91	120.30
4	A3	50	ARG	NE-CZ-NH1	7.21	123.91	120.30
15	M1	643	ARG	NE-CZ-NH1	7.21	123.91	120.30
2	12	91	ARG	NE-CZ-NH1	7.21	123.90	120.30
2	17	91	ARG	NE-CZ-NH1	7.20	123.90	120.30
7	D0	1114	ARG	NE-CZ-NH1	7.20	123.90	120.30
14	L3	330	ARG	NE-CZ-NH1	7.20	123.90	120.30
20	R1	99	ARG	NE-CZ-NH1	7.19	123.90	120.30
14	L3	548	ARG	NE-CZ-NH1	7.19	123.89	120.30
15	M1	849	ARG	NE-CZ-NH1	7.19	123.90	120.30
4	A3	662	ARG	NE-CZ-NH1	7.19	123.89	120.30
15	M1	930	ARG	NE-CZ-NH1	7.19	123.89	120.30
17	O2	140	ARG	NE-CZ-NH1	7.18	123.89	120.30
2	14	1655	ARG	NE-CZ-NH2	-7.18	116.71	120.30
2	15	91	ARG	NE-CZ-NH1	7.18	123.89	120.30
7	D1	521	ARG	NE-CZ-NH1	7.18	123.89	120.30
2	11	1556	ARG	NE-CZ-NH1	7.18	123.89	120.30
7	D2	1114	ARG	NE-CZ-NH1	7.18	123.89	120.30
2	12	1589	ARG	NE-CZ-NH1	7.17	123.89	120.30
5	B1	251	ARG	NE-CZ-NH1	7.17	123.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A5	786	ARG	NE-CZ-NH1	7.17	123.89	120.30
6	C0	84	ARG	NE-CZ-NH1	7.17	123.88	120.30
24	V0	847	ARG	NE-CZ-NH1	7.17	123.89	120.30
2	13	625	ARG	NE-CZ-NH1	7.17	123.88	120.30
20	R2	335	ARG	NE-CZ-NH1	7.17	123.88	120.30
2	11	984	ARG	NE-CZ-NH2	-7.16	116.72	120.30
7	D5	367	ARG	NE-CZ-NH1	7.16	123.88	120.30
22	T1	406	ARG	NE-CZ-NH1	7.16	123.88	120.30
7	D3	367	ARG	NE-CZ-NH1	7.16	123.88	120.30
2	16	1171	ARG	NE-CZ-NH1	7.16	123.88	120.30
14	L3	345	ARG	NE-CZ-NH1	7.16	123.88	120.30
6	C2	1877	ARG	NE-CZ-NH1	7.15	123.88	120.30
2	13	783	ARG	NE-CZ-NH2	-7.15	116.72	120.30
15	M1	622	ARG	NE-CZ-NH1	7.15	123.88	120.30
20	R2	284	ARG	NE-CZ-NH1	7.15	123.88	120.30
2	12	1254	ARG	NE-CZ-NH1	7.14	123.87	120.30
24	V0	801	ARG	NE-CZ-NH1	7.14	123.87	120.30
2	14	91	ARG	NE-CZ-NH1	7.14	123.87	120.30
15	M3	546	ARG	NE-CZ-NH1	7.14	123.87	120.30
2	15	984	ARG	NE-CZ-NH2	-7.14	116.73	120.30
6	C0	490	ARG	NE-CZ-NH1	7.14	123.87	120.30
22	T1	712	ARG	NE-CZ-NH1	7.14	123.87	120.30
2	15	984	ARG	CD-NE-CZ	7.13	133.59	123.60
2	14	1223	ARG	NE-CZ-NH2	-7.13	116.74	120.30
4	A2	786	ARG	NE-CZ-NH1	7.13	123.86	120.30
2	16	91	ARG	NE-CZ-NH1	7.12	123.86	120.30
15	M1	462	ARG	NE-CZ-NH1	7.11	123.86	120.30
1	02	250	ARG	NE-CZ-NH1	7.10	123.85	120.30
3	40	432	ARG	NE-CZ-NH1	7.10	123.85	120.30
6	C3	750	ARG	NE-CZ-NH1	7.10	123.85	120.30
13	K0	831	ARG	NE-CZ-NH1	7.10	123.85	120.30
20	R1	1110	ARG	NE-CZ-NH1	7.10	123.85	120.30
20	R0	1125	TYR	CB-CG-CD2	-7.10	116.74	121.00
14	L3	833	ARG	NE-CZ-NH1	7.10	123.85	120.30
2	10	1254	ARG	NE-CZ-NH1	7.09	123.85	120.30
4	A1	50	ARG	NE-CZ-NH1	7.09	123.85	120.30
6	C3	437	ARG	NE-CZ-NH1	7.09	123.85	120.30
20	R3	910	ARG	NE-CZ-NH1	7.09	123.85	120.30
6	C0	753	ARG	NE-CZ-NH1	7.09	123.84	120.30
6	C1	2004	ARG	NE-CZ-NH1	7.09	123.84	120.30
7	D2	367	ARG	NE-CZ-NH1	7.09	123.84	120.30
2	13	91	ARG	NE-CZ-NH1	7.09	123.84	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	M1	423	ARG	NE-CZ-NH2	7.09	123.84	120.30
20	R0	99	ARG	NE-CZ-NH1	7.08	123.84	120.30
2	10	91	ARG	NE-CZ-NH1	7.08	123.84	120.30
6	C0	1990	ARG	NE-CZ-NH1	7.08	123.84	120.30
2	17	1223	ARG	NE-CZ-NH1	7.08	123.84	120.30
10	H0	336	ARG	NE-CZ-NH1	7.08	123.84	120.30
21	S1	191	ARG	NE-CZ-NH1	7.08	123.84	120.30
22	T0	311	ARG	NE-CZ-NH1	7.08	123.84	120.30
15	M3	622	ARG	NE-CZ-NH1	7.08	123.84	120.30
4	A3	130	ARG	NE-CZ-NH1	7.07	123.83	120.30
14	L0	330	ARG	NE-CZ-NH1	7.07	123.83	120.30
2	10	1171	ARG	NE-CZ-NH1	7.07	123.83	120.30
7	D2	829	ARG	NE-CZ-NH1	7.07	123.83	120.30
7	D4	895	ARG	NE-CZ-NH1	7.07	123.83	120.30
22	T1	91	ARG	NE-CZ-NH1	7.07	123.83	120.30
15	M3	633	ARG	NE-CZ-NH2	-7.06	116.77	120.30
2	10	1556	ARG	NE-CZ-NH2	-7.06	116.77	120.30
15	M3	609	ARG	NE-CZ-NH2	7.06	123.83	120.30
19	Q1	217	ARG	NE-CZ-NH2	-7.06	116.77	120.30
13	K0	780	ARG	NE-CZ-NH1	7.06	123.83	120.30
23	U2	610	LEU	CB-CG-CD1	-7.06	99.00	111.00
7	D4	367	ARG	NE-CZ-NH1	7.05	123.83	120.30
7	D1	376	ARG	NE-CZ-NH1	7.04	123.82	120.30
15	M2	633	ARG	NE-CZ-NH1	7.04	123.82	120.30
2	13	1180	ARG	NE-CZ-NH1	7.04	123.82	120.30
2	15	1171	ARG	NE-CZ-NH1	7.04	123.82	120.30
4	A0	396	ARG	NE-CZ-NH1	7.04	123.82	120.30
4	A3	42	ARG	NE-CZ-NH1	7.04	123.82	120.30
3	41	432	ARG	NE-CZ-NH1	7.04	123.82	120.30
6	C1	753	ARG	NE-CZ-NH1	7.04	123.82	120.30
13	K2	775	ARG	NE-CZ-NH1	7.03	123.82	120.30
1	04	428	ARG	NE-CZ-NH1	7.02	123.81	120.30
4	A5	568	ARG	NE-CZ-NH1	7.02	123.81	120.30
18	P0	645	ARG	NE-CZ-NH1	7.02	123.81	120.30
2	16	1223	ARG	NE-CZ-NH1	7.02	123.81	120.30
6	C3	740	ARG	NE-CZ-NH1	7.02	123.81	120.30
18	P3	208	ARG	NE-CZ-NH1	7.02	123.81	120.30
7	D0	1066	ARG	NE-CZ-NH1	7.02	123.81	120.30
20	R2	1110	ARG	NE-CZ-NH1	7.02	123.81	120.30
2	12	1171	ARG	NE-CZ-NH1	7.01	123.81	120.30
12	J2	446	ARG	NE-CZ-NH1	7.01	123.81	120.30
14	L2	345	ARG	NE-CZ-NH1	7.01	123.80	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	R3	335	ARG	NE-CZ-NH1	7.00	123.80	120.30
14	L2	697	ARG	NE-CZ-NH1	7.00	123.80	120.30
23	U2	610	LEU	CB-CG-CD2	-7.00	99.09	111.00
6	C3	2002	ARG	NE-CZ-NH1	7.00	123.80	120.30
15	M2	653	ARG	NE-CZ-NH1	7.00	123.80	120.30
15	M3	423	ARG	NE-CZ-NH2	7.00	123.80	120.30
20	R0	1035	ARG	NE-CZ-NH1	7.00	123.80	120.30
15	M3	581	ARG	NE-CZ-NH1	7.00	123.80	120.30
2	15	625	ARG	NE-CZ-NH1	6.99	123.80	120.30
13	K1	780	ARG	NE-CZ-NH1	6.99	123.80	120.30
22	T0	209	ARG	NE-CZ-NH1	6.99	123.80	120.30
2	15	298	ARG	NE-CZ-NH2	-6.99	116.81	120.30
4	A6	786	ARG	NE-CZ-NH1	6.99	123.79	120.30
12	J1	430	ARG	NE-CZ-NH1	6.99	123.79	120.30
6	C3	677	ARG	NE-CZ-NH1	6.98	123.79	120.30
6	C1	291	ARG	NE-CZ-NH1	6.98	123.79	120.30
14	L0	467	THR	CA-CB-CG2	6.98	122.18	112.40
8	E0	204	ARG	NE-CZ-NH1	6.98	123.79	120.30
2	13	1171	ARG	NE-CZ-NH1	6.97	123.79	120.30
16	N0	81	ARG	NE-CZ-NH1	6.97	123.79	120.30
19	Q2	201	ARG	NE-CZ-NH1	6.97	123.78	120.30
4	A1	662	ARG	NE-CZ-NH1	6.97	123.78	120.30
14	L3	898	ARG	NE-CZ-NH1	6.96	123.78	120.30
12	J2	363	ARG	NE-CZ-NH1	6.96	123.78	120.30
14	L0	833	ARG	NE-CZ-NH1	6.95	123.78	120.30
15	M1	609	ARG	NE-CZ-NH2	6.95	123.78	120.30
17	O2	176	ARG	NE-CZ-NH1	6.95	123.78	120.30
25	W0	567	ARG	NE-CZ-NH1	6.95	123.78	120.30
13	K1	798	ARG	NE-CZ-NH1	6.95	123.78	120.30
14	L0	898	ARG	NE-CZ-NH1	6.95	123.77	120.30
2	11	1254	ARG	NE-CZ-NH1	6.94	123.77	120.30
15	M2	546	ARG	NE-CZ-NH1	6.94	123.77	120.30
4	A3	396	ARG	NE-CZ-NH1	6.93	123.77	120.30
13	K3	775	ARG	NE-CZ-NH1	6.93	123.77	120.30
5	B1	1745	ARG	NE-CZ-NH1	6.93	123.77	120.30
6	C0	774	ARG	NE-CZ-NH1	6.93	123.77	120.30
15	M3	428	ARG	NE-CZ-NH1	6.93	123.77	120.30
2	11	1171	ARG	NE-CZ-NH1	6.93	123.76	120.30
12	J2	430	ARG	NE-CZ-NH1	6.93	123.76	120.30
2	11	1176	ILE	O-C-N	-6.92	111.62	122.70
6	C1	2001	ARG	NE-CZ-NH1	6.92	123.76	120.30
5	B1	1645	ARG	NE-CZ-NH1	6.92	123.76	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	14	1223	ARG	NE-CZ-NH1	6.92	123.76	120.30
6	C0	291	ARG	NE-CZ-NH1	6.92	123.76	120.30
7	D2	376	ARG	NE-CZ-NH1	6.92	123.76	120.30
14	L3	745	ARG	NE-CZ-NH1	6.92	123.76	120.30
16	N1	54	ARG	NE-CZ-NH1	6.92	123.76	120.30
4	A4	120	ARG	NE-CZ-NH1	6.91	123.76	120.30
20	R0	1339	ARG	NE-CZ-NH1	6.91	123.75	120.30
2	17	1171	ARG	NE-CZ-NH1	6.90	123.75	120.30
4	A0	742	ARG	NE-CZ-NH1	6.90	123.75	120.30
18	P0	546	ARG	NE-CZ-NH1	6.90	123.75	120.30
14	L3	728	GLU	CA-CB-CG	6.89	128.56	113.40
2	17	597	ARG	NE-CZ-NH1	6.89	123.75	120.30
6	C0	2004	ARG	NE-CZ-NH1	6.89	123.75	120.30
2	14	1171	ARG	NE-CZ-NH1	6.89	123.74	120.30
4	A0	376	ARG	NE-CZ-NH1	6.88	123.74	120.30
2	13	1556	ARG	NE-CZ-NH1	6.88	123.74	120.30
6	C4	1617	ARG	NE-CZ-NH1	6.88	123.74	120.30
6	C2	1661	ARG	NE-CZ-NH1	6.88	123.74	120.30
23	U3	610	LEU	CB-CG-CD2	-6.88	99.31	111.00
14	L3	454	ARG	NE-CZ-NH1	6.88	123.74	120.30
18	P3	208	ARG	NE-CZ-NH2	-6.88	116.86	120.30
15	M1	546	ARG	NE-CZ-NH1	6.88	123.74	120.30
6	C1	413	ARG	NE-CZ-NH1	6.87	123.74	120.30
16	N1	54	ARG	NE-CZ-NH2	-6.87	116.86	120.30
13	K0	775	ARG	NE-CZ-NH1	6.87	123.74	120.30
14	L2	548	ARG	NE-CZ-NH1	6.87	123.74	120.30
24	V0	865	ARG	NE-CZ-NH1	6.87	123.74	120.30
13	K0	746	ARG	NE-CZ-NH1	6.87	123.73	120.30
2	12	1556	ARG	NE-CZ-NH1	6.87	123.73	120.30
14	L2	539	ARG	NE-CZ-NH1	6.87	123.73	120.30
6	C1	140	ARG	NE-CZ-NH1	6.87	123.73	120.30
14	L2	454	ARG	NE-CZ-NH1	6.86	123.73	120.30
6	C1	774	ARG	NE-CZ-NH1	6.86	123.73	120.30
14	L1	454	ARG	NE-CZ-NH1	6.85	123.73	120.30
18	P1	94	ARG	NE-CZ-NH1	6.85	123.73	120.30
25	W0	509	ARG	NE-CZ-NH1	6.85	123.73	120.30
18	P3	94	ARG	NE-CZ-NH1	6.85	123.72	120.30
6	C0	413	ARG	NE-CZ-NH1	6.84	123.72	120.30
6	C1	697	ARG	NE-CZ-NH1	6.84	123.72	120.30
2	17	1180	ARG	NE-CZ-NH1	6.84	123.72	120.30
6	C4	774	ARG	NE-CZ-NH1	6.83	123.72	120.30
2	17	1223	ARG	NE-CZ-NH2	-6.83	116.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A2	396	ARG	NE-CZ-NH1	6.83	123.71	120.30
6	C3	1047	ARG	NE-CZ-NH1	6.83	123.71	120.30
20	R2	948	ARG	NE-CZ-NH1	6.82	123.71	120.30
14	L3	731	GLY	N-CA-C	6.82	130.16	113.10
20	R1	1125	TYR	CB-CG-CD2	-6.82	116.91	121.00
6	C1	411	ARG	NE-CZ-NH2	-6.82	116.89	120.30
6	C3	1727	ARG	NE-CZ-NH1	6.82	123.71	120.30
2	11	298	ARG	NE-CZ-NH2	-6.81	116.89	120.30
13	K1	281	ARG	NE-CZ-NH1	6.81	123.71	120.30
13	K1	559	ARG	NE-CZ-NH2	-6.81	116.89	120.30
10	H1	336	ARG	NE-CZ-NH1	6.81	123.70	120.30
14	L1	898	ARG	NE-CZ-NH1	6.81	123.70	120.30
20	R3	1125	TYR	CB-CG-CD2	-6.81	116.92	121.00
6	C3	140	ARG	NE-CZ-NH1	6.81	123.70	120.30
22	T0	91	ARG	NE-CZ-NH1	6.81	123.70	120.30
7	D5	1346	ARG	CD-NE-CZ	6.80	133.12	123.60
4	A2	742	ARG	NE-CZ-NH1	6.80	123.70	120.30
2	14	597	ARG	NE-CZ-NH1	6.80	123.70	120.30
5	B1	1168	ARG	NE-CZ-NH1	6.80	123.70	120.30
6	C3	127	ARG	NE-CZ-NH1	6.80	123.70	120.30
18	P2	94	ARG	NE-CZ-NH1	6.80	123.70	120.30
4	A1	14	GLU	CA-CB-CG	6.79	128.34	113.40
6	C3	754	ARG	NE-CZ-NH1	6.79	123.70	120.30
20	R3	948	ARG	NE-CZ-NH1	6.79	123.70	120.30
12	J1	363	ARG	NE-CZ-NH1	6.79	123.69	120.30
2	11	1589	ARG	NE-CZ-NH1	6.79	123.69	120.30
6	C3	2011	ARG	NE-CZ-NH1	6.79	123.69	120.30
4	A2	14	GLU	CA-CB-CG	6.78	128.32	113.40
2	13	669	ARG	NE-CZ-NH1	6.78	123.69	120.30
14	L2	833	ARG	NE-CZ-NH1	6.78	123.69	120.30
15	M2	423	ARG	NE-CZ-NH2	6.78	123.69	120.30
7	D5	583	ARG	NE-CZ-NH1	6.77	123.69	120.30
17	O2	233	ARG	NE-CZ-NH1	6.77	123.68	120.30
7	D0	114	ARG	NE-CZ-NH1	6.76	123.68	120.30
9	F2	306	ARG	NE-CZ-NH1	6.76	123.68	120.30
2	10	1556	ARG	NE-CZ-NH1	6.76	123.68	120.30
19	Q0	157	ARG	NE-CZ-NH1	6.76	123.68	120.30
7	D0	376	ARG	NE-CZ-NH1	6.76	123.68	120.30
7	D3	521	ARG	NE-CZ-NH1	6.76	123.68	120.30
2	12	1556	ARG	NE-CZ-NH2	-6.75	116.92	120.30
4	A0	14	GLU	CA-CB-CG	6.75	128.25	113.40
6	C3	225	ARG	NE-CZ-NH1	6.75	123.67	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	L1	330	ARG	NE-CZ-NH1	6.74	123.67	120.30
4	A4	434	ARG	NE-CZ-NH1	6.74	123.67	120.30
7	D5	85	ARG	NE-CZ-NH1	6.74	123.67	120.30
13	K2	746	ARG	NE-CZ-NH1	6.74	123.67	120.30
15	M3	876	ARG	NE-CZ-NH1	6.74	123.67	120.30
20	R1	1091	ARG	NE-CZ-NH1	6.74	123.67	120.30
6	C4	419	ARG	NE-CZ-NH1	6.74	123.67	120.30
4	A0	245	ARG	NE-CZ-NH1	6.74	123.67	120.30
4	A5	781	ARG	NE-CZ-NH1	6.73	123.67	120.30
4	A3	31	ARG	NE-CZ-NH1	6.73	123.67	120.30
9	F2	214	ARG	NE-CZ-NH1	6.73	123.66	120.30
6	C0	697	ARG	NE-CZ-NH1	6.72	123.66	120.30
8	E0	48	ARG	NE-CZ-NH1	6.72	123.66	120.30
6	C1	1483	ARG	NE-CZ-NH1	6.71	123.66	120.30
21	S1	105	ARG	NE-CZ-NH1	6.71	123.66	120.30
7	D4	85	ARG	NE-CZ-NH1	6.71	123.66	120.30
10	H3	336	ARG	NE-CZ-NH1	6.71	123.65	120.30
13	K3	780	ARG	NE-CZ-NH1	6.71	123.65	120.30
15	M2	261	ARG	NE-CZ-NH1	6.71	123.65	120.30
1	00	350	ARG	NE-CZ-NH1	6.71	123.65	120.30
2	14	298	ARG	NE-CZ-NH2	-6.71	116.95	120.30
7	D1	367	ARG	NE-CZ-NH1	6.71	123.65	120.30
20	R2	945	ARG	NE-CZ-NH1	6.71	123.65	120.30
6	C0	411	ARG	NE-CZ-NH2	-6.70	116.95	120.30
7	D5	1120	ARG	NE-CZ-NH1	6.70	123.65	120.30
7	D5	1152	ARG	NE-CZ-NH1	6.70	123.65	120.30
15	M0	653	ARG	NE-CZ-NH1	6.70	123.65	120.30
22	T1	707	ARG	NE-CZ-NH1	6.69	123.64	120.30
12	J4	377	ARG	NE-CZ-NH1	6.68	123.64	120.30
6	C3	419	ARG	NE-CZ-NH1	6.68	123.64	120.30
2	17	39	ARG	NE-CZ-NH1	6.68	123.64	120.30
24	V0	948	ARG	NE-CZ-NH1	6.68	123.64	120.30
7	D1	583	ARG	NE-CZ-NH1	6.67	123.64	120.30
14	L0	454	ARG	NE-CZ-NH1	6.67	123.64	120.30
20	R2	1290	ARG	NE-CZ-NH1	6.67	123.64	120.30
7	D5	885	ARG	NE-CZ-NH1	6.67	123.64	120.30
9	F2	111	ARG	NE-CZ-NH1	6.67	123.64	120.30
4	A5	380	ARG	NE-CZ-NH1	6.67	123.63	120.30
6	C4	127	ARG	NE-CZ-NH1	6.67	123.63	120.30
6	C0	140	ARG	NE-CZ-NH1	6.67	123.63	120.30
15	M0	765	ARG	NE-CZ-NH1	6.67	123.63	120.30
20	R0	1133	ARG	NE-CZ-NH2	6.66	123.63	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	R2	163	ARG	NE-CZ-NH1	6.66	123.63	120.30
1	03	350	ARG	NE-CZ-NH1	6.66	123.63	120.30
4	A1	42	ARG	NE-CZ-NH1	6.65	123.63	120.30
7	D0	829	ARG	NE-CZ-NH1	6.65	123.63	120.30
6	C3	587	ARG	NE-CZ-NH1	6.65	123.62	120.30
14	L1	558	ARG	NE-CZ-NH1	6.64	123.62	120.30
7	D3	1152	ARG	NE-CZ-NH1	6.64	123.62	120.30
15	M3	564	ARG	NE-CZ-NH1	6.64	123.62	120.30
15	M0	546	ARG	NE-CZ-NH1	6.64	123.62	120.30
20	R0	1110	ARG	NE-CZ-NH1	6.64	123.62	120.30
2	15	783	ARG	NE-CZ-NH2	-6.63	116.98	120.30
2	16	298	ARG	NE-CZ-NH2	-6.63	116.98	120.30
6	C3	1307	ARG	NE-CZ-NH1	6.63	123.61	120.30
6	C3	2004	ARG	NE-CZ-NH1	6.63	123.61	120.30
22	T0	707	ARG	NE-CZ-NH1	6.63	123.61	120.30
7	D0	686	ARG	NE-CZ-NH1	6.62	123.61	120.30
7	D2	1066	ARG	NE-CZ-NH1	6.62	123.61	120.30
9	F0	112	ARG	NE-CZ-NH1	6.62	123.61	120.30
13	K1	746	ARG	NE-CZ-NH1	6.62	123.61	120.30
22	T0	712	ARG	NE-CZ-NH1	6.62	123.61	120.30
4	A2	130	ARG	NE-CZ-NH1	6.61	123.61	120.30
4	A3	14	GLU	CA-CB-CG	6.61	127.95	113.40
4	A5	578	ARG	NE-CZ-NH1	6.61	123.61	120.30
2	17	548	ARG	NE-CZ-NH1	6.61	123.60	120.30
7	D3	376	ARG	NE-CZ-NH1	6.61	123.60	120.30
7	D3	583	ARG	NE-CZ-NH1	6.61	123.60	120.30
14	L2	898	ARG	NE-CZ-NH1	6.61	123.60	120.30
25	W0	659	ARG	NE-CZ-NH1	6.61	123.60	120.30
4	A6	434	ARG	NE-CZ-NH1	6.60	123.60	120.30
6	C1	1796	ARG	NE-CZ-NH1	6.60	123.60	120.30
2	13	783	ARG	CD-NE-CZ	6.60	132.84	123.60
13	K3	746	ARG	NE-CZ-NH1	6.60	123.60	120.30
23	U5	610	LEU	CA-CB-CG	-6.60	100.13	115.30
4	A0	130	ARG	NE-CZ-NH1	6.59	123.60	120.30
6	C0	225	ARG	NE-CZ-NH1	6.59	123.60	120.30
15	M1	564	ARG	NE-CZ-NH1	6.59	123.60	120.30
6	C3	1729	ARG	NE-CZ-NH1	6.59	123.59	120.30
20	R0	171	ARG	NE-CZ-NH1	6.59	123.59	120.30
20	R1	1035	ARG	NE-CZ-NH1	6.59	123.59	120.30
2	15	1223	ARG	NE-CZ-NH2	-6.59	117.01	120.30
4	A3	709	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C0	1796	ARG	NE-CZ-NH1	6.58	123.59	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	K2	1153	GLN	CA-CB-CG	-6.58	98.92	113.40
15	M1	232	ARG	NE-CZ-NH1	6.58	123.59	120.30
2	10	39	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C1	1792	ARG	NE-CZ-NH1	6.58	123.59	120.30
5	B0	11	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C3	1451	ARG	NE-CZ-NH1	6.58	123.59	120.30
21	S3	105	ARG	NE-CZ-NH1	6.58	123.59	120.30
20	R1	521	ARG	NE-CZ-NH1	6.58	123.59	120.30
6	C4	291	ARG	NE-CZ-NH1	6.57	123.59	120.30
5	B1	11	ARG	NE-CZ-NH1	6.57	123.58	120.30
20	R1	163	ARG	NE-CZ-NH1	6.57	123.58	120.30
7	D3	114	ARG	NE-CZ-NH1	6.56	123.58	120.30
10	H2	336	ARG	NE-CZ-NH1	6.55	123.58	120.30
12	J0	430	ARG	NE-CZ-NH1	6.55	123.58	120.30
1	01	229	ARG	NE-CZ-NH2	-6.55	117.02	120.30
20	R2	43	ARG	NE-CZ-NH1	6.55	123.58	120.30
9	F1	287	ARG	NE-CZ-NH1	6.55	123.57	120.30
20	R0	945	ARG	NE-CZ-NH1	6.55	123.58	120.30
1	04	350	ARG	NE-CZ-NH1	6.55	123.57	120.30
14	L0	374	ARG	NE-CZ-NH1	6.55	123.57	120.30
20	R2	521	ARG	NE-CZ-NH1	6.55	123.57	120.30
9	F0	230	ARG	NE-CZ-NH1	6.54	123.57	120.30
22	T1	311	ARG	NE-CZ-NH1	6.54	123.57	120.30
2	12	298	ARG	NE-CZ-NH2	-6.54	117.03	120.30
13	K0	743	ARG	NE-CZ-NH1	6.54	123.57	120.30
16	N2	81	ARG	NE-CZ-NH1	6.54	123.57	120.30
7	D1	114	ARG	NE-CZ-NH1	6.54	123.57	120.30
14	L2	745	ARG	NE-CZ-NH1	6.54	123.57	120.30
25	W0	609	ARG	NE-CZ-NH1	6.54	123.57	120.30
15	M0	428	ARG	NE-CZ-NH1	6.54	123.57	120.30
6	C3	499	ARG	NE-CZ-NH1	6.54	123.57	120.30
2	14	39	ARG	NE-CZ-NH1	6.53	123.57	120.30
1	02	350	ARG	NE-CZ-NH1	6.53	123.57	120.30
13	K1	559	ARG	NE-CZ-NH1	6.53	123.56	120.30
16	N3	43	ARG	NE-CZ-NH1	6.53	123.56	120.30
2	13	39	ARG	NE-CZ-NH1	6.53	123.56	120.30
20	R3	1035	ARG	NE-CZ-NH1	6.52	123.56	120.30
2	10	298	ARG	NE-CZ-NH2	-6.52	117.04	120.30
4	A4	555	ARG	NE-CZ-NH1	6.52	123.56	120.30
16	N2	87	ARG	NE-CZ-NH1	6.52	123.56	120.30
7	D4	885	ARG	NE-CZ-NH1	6.52	123.56	120.30
14	L1	745	ARG	NE-CZ-NH1	6.52	123.56	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	00	229	ARG	NE-CZ-NH2	-6.52	117.04	120.30
15	M3	232	ARG	NE-CZ-NH1	6.52	123.56	120.30
1	03	229	ARG	NE-CZ-NH2	-6.51	117.04	120.30
4	A1	709	ARG	NE-CZ-NH1	6.51	123.56	120.30
8	E1	48	ARG	NE-CZ-NH1	6.51	123.56	120.30
6	C3	1483	ARG	NE-CZ-NH1	6.51	123.56	120.30
20	R1	1339	ARG	NE-CZ-NH1	6.51	123.56	120.30
7	D3	32	ARG	CD-NE-CZ	6.51	132.71	123.60
7	D4	376	ARG	NE-CZ-NH1	6.51	123.55	120.30
2	15	412	ARG	NE-CZ-NH1	6.51	123.55	120.30
1	04	229	ARG	NE-CZ-NH2	-6.50	117.05	120.30
12	J3	430	ARG	NE-CZ-NH1	6.50	123.55	120.30
15	M2	428	ARG	NE-CZ-NH1	6.50	123.55	120.30
20	R0	521	ARG	NE-CZ-NH1	6.50	123.55	120.30
4	A5	362	ARG	NE-CZ-NH1	6.50	123.55	120.30
4	A1	396	ARG	NE-CZ-NH1	6.50	123.55	120.30
2	16	412	ARG	NE-CZ-NH1	6.50	123.55	120.30
14	L2	330	ARG	NE-CZ-NH1	6.50	123.55	120.30
1	00	332	LYS	N-CA-CB	-6.49	98.91	110.60
6	C3	1886	ARG	NE-CZ-NH1	6.49	123.55	120.30
5	B0	1682	ARG	NE-CZ-NH2	-6.49	117.05	120.30
14	L0	307	ARG	NE-CZ-NH1	6.49	123.55	120.30
6	C3	1222	ARG	NE-CZ-NH2	6.49	123.54	120.30
1	02	229	ARG	NE-CZ-NH2	-6.49	117.06	120.30
15	M2	564	ARG	NE-CZ-NH1	6.49	123.54	120.30
4	A2	50	ARG	NE-CZ-NH1	6.48	123.54	120.30
7	D4	1083	ARG	NE-CZ-NH1	6.48	123.54	120.30
20	R3	163	ARG	NE-CZ-NH1	6.48	123.54	120.30
5	B1	1682	ARG	NE-CZ-NH2	-6.47	117.06	120.30
6	C1	225	ARG	NE-CZ-NH1	6.47	123.54	120.30
6	C4	225	ARG	NE-CZ-NH1	6.47	123.53	120.30
20	R0	163	ARG	NE-CZ-NH1	6.47	123.53	120.30
1	01	350	ARG	NE-CZ-NH1	6.46	123.53	120.30
6	C1	1307	ARG	NE-CZ-NH1	6.46	123.53	120.30
2	13	1589	ARG	NE-CZ-NH1	6.46	123.53	120.30
7	D3	672	ARG	NE-CZ-NH1	6.46	123.53	120.30
6	C0	127	ARG	NE-CZ-NH1	6.46	123.53	120.30
14	L1	404	ARG	NE-CZ-NH1	6.46	123.53	120.30
15	M1	633	ARG	NE-CZ-NH2	-6.46	117.07	120.30
6	C1	705	ARG	NE-CZ-NH1	6.45	123.53	120.30
14	L3	404	ARG	NE-CZ-NH1	6.45	123.53	120.30
15	M0	633	ARG	NE-CZ-NH2	-6.45	117.08	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	R1	945	ARG	NE-CZ-NH1	6.45	123.53	120.30
7	D5	521	ARG	NE-CZ-NH1	6.45	123.52	120.30
14	L3	374	ARG	NE-CZ-NH1	6.45	123.52	120.30
15	M0	564	ARG	NE-CZ-NH1	6.45	123.52	120.30
19	Q3	157	ARG	NE-CZ-NH1	6.44	123.52	120.30
18	P2	106	ARG	NE-CZ-NH2	-6.44	117.08	120.30
2	13	298	ARG	NE-CZ-NH2	-6.44	117.08	120.30
6	C0	705	ARG	NE-CZ-NH1	6.44	123.52	120.30
15	M0	423	ARG	NE-CZ-NH2	6.44	123.52	120.30
7	D4	521	ARG	NE-CZ-NH1	6.43	123.52	120.30
1	04	421	ARG	NE-CZ-NH1	6.43	123.52	120.30
2	17	298	ARG	NE-CZ-NH2	-6.43	117.08	120.30
2	12	39	ARG	NE-CZ-NH1	6.43	123.51	120.30
4	A5	143	ARG	NE-CZ-NH2	6.42	123.51	120.30
6	C0	153	ARG	NE-CZ-NH1	6.42	123.51	120.30
2	10	1589	ARG	NE-CZ-NH1	6.42	123.51	120.30
20	R3	521	ARG	NE-CZ-NH1	6.42	123.51	120.30
6	C4	1727	ARG	NE-CZ-NH1	6.42	123.51	120.30
6	C4	153	ARG	NE-CZ-NH1	6.42	123.51	120.30
1	02	421	ARG	NE-CZ-NH1	6.41	123.51	120.30
18	P0	479	ARG	NE-CZ-NH1	6.41	123.50	120.30
6	C0	1792	ARG	NE-CZ-NH1	6.41	123.50	120.30
2	11	412	ARG	NE-CZ-NH1	6.40	123.50	120.30
6	C1	1047	ARG	NE-CZ-NH1	6.39	123.50	120.30
20	R0	335	ARG	NE-CZ-NH1	6.39	123.50	120.30
6	C4	587	ARG	NE-CZ-NH1	6.39	123.49	120.30
7	D1	32	ARG	CD-NE-CZ	6.39	132.54	123.60
6	C3	1312	ARG	NE-CZ-NH1	6.39	123.49	120.30
2	11	39	ARG	NE-CZ-NH1	6.38	123.49	120.30
4	A4	742	ARG	NE-CZ-NH1	6.38	123.49	120.30
7	D3	895	ARG	NE-CZ-NH1	6.38	123.49	120.30
7	D5	250	ARG	NE-CZ-NH1	6.38	123.49	120.30
18	P0	571	ARG	NE-CZ-NH1	6.38	123.49	120.30
18	P2	479	ARG	NE-CZ-NH1	6.38	123.49	120.30
6	C0	1047	ARG	NE-CZ-NH1	6.38	123.49	120.30
7	D5	376	ARG	NE-CZ-NH1	6.38	123.49	120.30
1	00	328	ARG	NE-CZ-NH1	6.38	123.49	120.30
2	13	412	ARG	NE-CZ-NH1	6.38	123.49	120.30
6	C4	753	ARG	NE-CZ-NH1	6.38	123.49	120.30
5	B0	722	ARG	NE-CZ-NH1	6.38	123.49	120.30
20	R3	365	ARG	CD-NE-CZ	6.37	132.52	123.60
13	K2	780	ARG	NE-CZ-NH1	6.37	123.48	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	L3	539	ARG	NE-CZ-NH1	6.37	123.48	120.30
20	R3	945	ARG	NE-CZ-NH1	6.37	123.48	120.30
7	D4	1152	ARG	NE-CZ-NH1	6.37	123.48	120.30
2	10	412	ARG	NE-CZ-NH1	6.36	123.48	120.30
7	D2	85	ARG	NE-CZ-NH1	6.36	123.48	120.30
20	R3	43	ARG	NE-CZ-NH1	6.36	123.48	120.30
20	R1	1071	ARG	NE-CZ-NH1	6.36	123.48	120.30
13	K0	1042	ARG	NE-CZ-NH1	6.35	123.48	120.30
13	K2	281	ARG	NE-CZ-NH1	6.35	123.47	120.30
20	R3	1434	ARG	NE-CZ-NH1	6.35	123.47	120.30
1	01	170	ARG	NE-CZ-NH1	6.35	123.47	120.30
4	A0	120	ARG	NE-CZ-NH1	6.35	123.47	120.30
7	D0	85	ARG	NE-CZ-NH1	6.34	123.47	120.30
7	D1	898	ARG	NE-CZ-NH2	6.34	123.47	120.30
20	R3	1071	ARG	NE-CZ-NH1	6.34	123.47	120.30
4	A1	31	ARG	NE-CZ-NH1	6.34	123.47	120.30
4	A3	376	ARG	NE-CZ-NH1	6.34	123.47	120.30
5	B0	592	ARG	NE-CZ-NH1	6.34	123.47	120.30
6	C1	127	ARG	NE-CZ-NH1	6.34	123.47	120.30
6	C1	153	ARG	NE-CZ-NH1	6.34	123.47	120.30
6	C1	214	ARG	NE-CZ-NH1	6.34	123.47	120.30
15	M3	261	ARG	NE-CZ-NH1	6.34	123.47	120.30
25	W0	736	ARG	NE-CZ-NH1	6.34	123.47	120.30
24	V0	723	ARG	NE-CZ-NH1	6.33	123.47	120.30
18	P0	94	ARG	NE-CZ-NH1	6.33	123.47	120.30
1	01	328	ARG	NE-CZ-NH1	6.33	123.47	120.30
5	B1	592	ARG	NE-CZ-NH1	6.33	123.47	120.30
2	12	412	ARG	NE-CZ-NH1	6.33	123.46	120.30
20	R0	1071	ARG	NE-CZ-NH1	6.33	123.46	120.30
25	W0	711	ARG	NE-CZ-NH1	6.33	123.46	120.30
2	16	39	ARG	NE-CZ-NH1	6.33	123.46	120.30
18	P1	479	ARG	NE-CZ-NH1	6.32	123.46	120.30
20	R0	1329	TYR	CB-CG-CD2	-6.32	117.21	121.00
12	J0	349	ARG	NE-CZ-NH1	6.32	123.46	120.30
6	C0	868	ARG	NE-CZ-NH1	6.32	123.46	120.30
2	12	597	ARG	NE-CZ-NH1	6.32	123.46	120.30
6	C0	1125	ARG	NE-CZ-NH1	6.32	123.46	120.30
7	D1	968	ARG	NE-CZ-NH1	6.32	123.46	120.30
6	C2	419	ARG	NE-CZ-NH1	6.31	123.46	120.30
15	M2	232	ARG	NE-CZ-NH1	6.31	123.46	120.30
18	P3	69	ARG	NE-CZ-NH1	6.31	123.46	120.30
10	H1	448	ARG	NE-CZ-NH1	6.31	123.46	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	M3	930	ARG	NE-CZ-NH1	6.31	123.45	120.30
4	A2	67	ARG	NE-CZ-NH1	6.31	123.45	120.30
18	P3	479	ARG	NE-CZ-NH1	6.31	123.45	120.30
13	K1	843	ARG	NE-CZ-NH1	6.31	123.45	120.30
20	R1	1434	ARG	NE-CZ-NH1	6.31	123.45	120.30
4	A1	245	ARG	NE-CZ-NH1	6.30	123.45	120.30
5	B1	133	ARG	NE-CZ-NH1	6.30	123.45	120.30
20	R0	43	ARG	NE-CZ-NH1	6.30	123.45	120.30
6	C0	1307	ARG	NE-CZ-NH1	6.30	123.45	120.30
4	A1	790	ARG	NE-CZ-NH1	6.30	123.45	120.30
7	D4	583	ARG	NE-CZ-NH1	6.30	123.45	120.30
4	A6	742	ARG	NE-CZ-NH1	6.30	123.45	120.30
14	L3	307	ARG	NE-CZ-NH1	6.30	123.45	120.30
6	C0	1483	ARG	NE-CZ-NH1	6.29	123.45	120.30
4	A5	175	ARG	NE-CZ-NH1	6.29	123.45	120.30
7	D5	672	ARG	NE-CZ-NH1	6.29	123.45	120.30
7	D4	672	ARG	NE-CZ-NH1	6.29	123.44	120.30
1	03	328	ARG	NE-CZ-NH1	6.29	123.44	120.30
2	17	412	ARG	NE-CZ-NH1	6.29	123.44	120.30
20	R1	948	ARG	NE-CZ-NH1	6.29	123.44	120.30
20	R3	1104	TYR	CB-CG-CD2	-6.29	117.23	121.00
13	K0	281	ARG	NE-CZ-NH1	6.28	123.44	120.30
20	R1	43	ARG	NE-CZ-NH1	6.28	123.44	120.30
4	A2	662	ARG	NE-CZ-NH2	-6.28	117.16	120.30
6	C3	1591	ARG	NE-CZ-NH1	6.28	123.44	120.30
2	16	1789	ARG	NE-CZ-NH1	6.28	123.44	120.30
18	P1	611	ARG	NE-CZ-NH1	6.28	123.44	120.30
20	R1	335	ARG	NE-CZ-NH1	6.28	123.44	120.30
4	A2	245	ARG	NE-CZ-NH1	6.28	123.44	120.30
4	A1	376	ARG	NE-CZ-NH1	6.27	123.44	120.30
2	14	412	ARG	NE-CZ-NH1	6.27	123.44	120.30
6	C2	127	ARG	NE-CZ-NH1	6.27	123.44	120.30
4	A4	245	ARG	NE-CZ-NH1	6.27	123.43	120.30
24	V0	788	ARG	NE-CZ-NH1	6.26	123.43	120.30
4	A6	810	ARG	NE-CZ-NH1	6.26	123.43	120.30
6	C0	214	ARG	NE-CZ-NH1	6.26	123.43	120.30
6	C1	582	ARG	NE-CZ-NH1	6.26	123.43	120.30
6	C2	1886	ARG	NE-CZ-NH1	6.26	123.43	120.30
7	D5	114	ARG	NE-CZ-NH1	6.26	123.43	120.30
4	A3	245	ARG	NE-CZ-NH1	6.26	123.43	120.30
4	A6	130	ARG	NE-CZ-NH1	6.26	123.43	120.30
18	P2	69	ARG	NE-CZ-NH1	6.26	123.43	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	B0	1517	ARG	NE-CZ-NH1	6.25	123.43	120.30
19	Q2	217	ARG	NE-CZ-NH2	-6.25	117.17	120.30
6	C3	1575	ARG	NE-CZ-NH1	6.25	123.43	120.30
6	C0	587	ARG	NE-CZ-NH1	6.25	123.43	120.30
13	K2	659	ARG	NE-CZ-NH1	6.25	123.42	120.30
18	P3	58	ARG	NE-CZ-NH1	6.25	123.42	120.30
7	D2	114	ARG	NE-CZ-NH1	6.25	123.42	120.30
14	L0	539	ARG	NE-CZ-NH1	6.25	123.42	120.30
4	A0	50	ARG	NE-CZ-NH1	6.25	123.42	120.30
7	D5	32	ARG	CD-NE-CZ	6.25	132.34	123.60
1	01	553	LEU	CB-CA-C	6.24	122.06	110.20
16	N1	43	ARG	NE-CZ-NH1	6.24	123.42	120.30
10	H3	350	ARG	NE-CZ-NH1	6.24	123.42	120.30
2	13	387	ARG	NE-CZ-NH1	6.24	123.42	120.30
6	C0	1939	SER	O-C-N	-6.24	112.72	122.70
6	C2	153	ARG	NE-CZ-NH1	6.24	123.42	120.30
4	A5	251	ARG	NE-CZ-NH1	6.24	123.42	120.30
4	A4	568	ARG	NE-CZ-NH2	-6.24	117.18	120.30
4	A6	376	ARG	NE-CZ-NH1	6.24	123.42	120.30
2	15	39	ARG	NE-CZ-NH1	6.23	123.42	120.30
13	K1	903	ARG	NE-CZ-NH1	6.23	123.42	120.30
7	D0	583	ARG	NE-CZ-NH1	6.23	123.42	120.30
17	O2	283	ARG	NE-CZ-NH1	6.23	123.42	120.30
2	11	1180	ARG	NE-CZ-NH1	6.23	123.42	120.30
9	F3	254	ARG	CD-NE-CZ	6.23	132.32	123.60
2	12	1180	ARG	NE-CZ-NH1	6.23	123.41	120.30
5	B0	133	ARG	NE-CZ-NH1	6.23	123.41	120.30
6	C4	411	ARG	NE-CZ-NH2	-6.22	117.19	120.30
15	M0	261	ARG	NE-CZ-NH1	6.22	123.41	120.30
5	B1	722	ARG	NE-CZ-NH1	6.22	123.41	120.30
5	B1	1517	ARG	NE-CZ-NH1	6.22	123.41	120.30
7	D1	1066	ARG	NE-CZ-NH1	6.21	123.41	120.30
20	R0	365	ARG	CD-NE-CZ	6.21	132.30	123.60
7	D1	85	ARG	NE-CZ-NH1	6.21	123.41	120.30
6	C0	582	ARG	NE-CZ-NH1	6.21	123.41	120.30
7	D1	1076	ARG	NE-CZ-NH1	6.21	123.40	120.30
13	K2	843	ARG	NE-CZ-NH1	6.21	123.40	120.30
14	L0	745	ARG	NE-CZ-NH1	6.21	123.40	120.30
14	L2	404	ARG	NE-CZ-NH1	6.21	123.40	120.30
7	D3	1066	ARG	NE-CZ-NH1	6.20	123.40	120.30
4	A6	524	ARG	NE-CZ-NH1	6.20	123.40	120.30
5	B1	1130	ARG	NE-CZ-NH1	6.20	123.40	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	C2	1727	ARG	NE-CZ-NH1	6.20	123.40	120.30
6	C3	570	ARG	NE-CZ-NH1	6.20	123.40	120.30
21	S0	105	ARG	NE-CZ-NH1	6.20	123.40	120.30
15	M1	261	ARG	NE-CZ-NH1	6.20	123.40	120.30
1	02	161	ARG	NE-CZ-NH1	6.20	123.40	120.30
15	M0	232	ARG	NE-CZ-NH1	6.19	123.40	120.30
4	A4	716	ARG	NE-CZ-NH1	6.19	123.40	120.30
6	C1	587	ARG	NE-CZ-NH1	6.19	123.40	120.30
2	13	1556	ARG	NE-CZ-NH2	-6.19	117.20	120.30
7	D2	583	ARG	NE-CZ-NH1	6.19	123.39	120.30
9	F2	282	ARG	NE-CZ-NH1	6.19	123.39	120.30
14	L0	404	ARG	NE-CZ-NH1	6.19	123.39	120.30
20	R0	814	ARG	NE-CZ-NH1	6.19	123.39	120.30
5	B1	1749	ARG	NE-CZ-NH1	6.19	123.39	120.30
2	13	1086	ARG	NE-CZ-NH1	6.18	123.39	120.30
18	P2	571	ARG	NE-CZ-NH1	6.18	123.39	120.30
20	R2	1095	ARG	NE-CZ-NH1	6.18	123.39	120.30
2	13	357	ARG	NE-CZ-NH1	6.18	123.39	120.30
2	13	548	ARG	NE-CZ-NH1	6.18	123.39	120.30
4	A6	568	ARG	NE-CZ-NH2	-6.18	117.21	120.30
4	A2	376	ARG	NE-CZ-NH1	6.18	123.39	120.30
5	B0	1325	ARG	NE-CZ-NH1	6.17	123.39	120.30
5	B1	1325	ARG	NE-CZ-NH1	6.17	123.39	120.30
6	C3	31	ARG	NE-CZ-NH1	6.17	123.39	120.30
7	D4	32	ARG	CD-NE-CZ	6.17	132.25	123.60
13	K1	630	ARG	NE-CZ-NH1	6.17	123.39	120.30
20	R1	276	ARG	NE-CZ-NH1	6.17	123.39	120.30
2	10	1180	ARG	NE-CZ-NH1	6.17	123.38	120.30
5	B1	1671	ARG	NE-CZ-NH1	6.17	123.38	120.30
13	K3	281	ARG	NE-CZ-NH1	6.17	123.38	120.30
7	D2	32	ARG	CD-NE-CZ	6.17	132.23	123.60
18	P1	542	ARG	NE-CZ-NH1	6.17	123.38	120.30
22	T1	735	ARG	NE-CZ-NH1	6.17	123.38	120.30
18	P0	106	ARG	NE-CZ-NH2	-6.16	117.22	120.30
9	F1	146	ARG	NE-CZ-NH1	6.16	123.38	120.30
4	A5	120	ARG	NE-CZ-NH1	6.16	123.38	120.30
7	D0	32	ARG	CD-NE-CZ	6.16	132.22	123.60
14	L1	833	ARG	NE-CZ-NH1	6.16	123.38	120.30
19	Q2	225	ARG	NE-CZ-NH1	6.16	123.38	120.30
15	M3	477	ARG	NE-CZ-NH1	6.15	123.38	120.30
7	D1	672	ARG	NE-CZ-NH1	6.15	123.37	120.30
15	M1	581	ARG	NE-CZ-NH2	-6.15	117.22	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	15	783	ARG	CD-NE-CZ	6.15	132.21	123.60
18	P1	106	ARG	NE-CZ-NH2	-6.14	117.23	120.30
6	C3	1246	MET	CB-CA-C	-6.14	98.12	110.40
14	L3	730	GLN	CA-C-O	-6.14	107.20	120.10
2	17	1789	ARG	NE-CZ-NH1	6.14	123.37	120.30
13	K2	743	ARG	NE-CZ-NH1	6.14	123.37	120.30
4	A2	31	ARG	NE-CZ-NH1	6.14	123.37	120.30
1	03	180	ARG	NE-CZ-NH1	6.13	123.37	120.30
13	K1	180	ARG	NE-CZ-NH1	6.13	123.37	120.30
20	R2	1434	ARG	NE-CZ-NH1	6.13	123.37	120.30
13	K1	829	ARG	NE-CZ-NH1	6.13	123.36	120.30
20	R1	1173	ARG	NE-CZ-NH1	6.13	123.36	120.30
14	L2	374	ARG	NE-CZ-NH1	6.13	123.36	120.30
21	S2	105	ARG	NE-CZ-NH1	6.12	123.36	120.30
4	A6	245	ARG	NE-CZ-NH1	6.12	123.36	120.30
21	S3	7	ARG	NE-CZ-NH1	6.12	123.36	120.30
13	K3	659	ARG	NE-CZ-NH1	6.11	123.36	120.30
15	M2	901	ARG	CD-NE-CZ	6.11	132.15	123.60
20	R1	171	ARG	NE-CZ-NH1	6.11	123.36	120.30
5	B0	1645	ARG	NE-CZ-NH1	6.11	123.35	120.30
20	R1	814	ARG	NE-CZ-NH1	6.11	123.35	120.30
4	A0	729	GLU	OE1-CD-OE2	-6.10	115.97	123.30
14	L0	730	GLN	CB-CA-C	6.10	122.61	110.40
14	L1	374	ARG	NE-CZ-NH1	6.10	123.35	120.30
20	R2	265	ARG	NE-CZ-NH1	6.10	123.35	120.30
2	14	1180	ARG	NE-CZ-NH1	6.10	123.35	120.30
18	P3	399	ARG	NE-CZ-NH1	6.10	123.35	120.30
2	15	1223	ARG	NE-CZ-NH1	6.10	123.35	120.30
15	M1	240	ARG	NE-CZ-NH1	6.10	123.35	120.30
21	S1	239	ARG	NE-CZ-NH2	-6.10	117.25	120.30
7	D2	968	ARG	NE-CZ-NH1	6.09	123.35	120.30
6	C1	868	ARG	NE-CZ-NH1	6.09	123.34	120.30
15	M1	414	ARG	NE-CZ-NH1	6.09	123.34	120.30
7	D3	1298	ARG	NE-CZ-NH1	6.09	123.34	120.30
2	12	1086	ARG	NE-CZ-NH1	6.08	123.34	120.30
13	K0	659	ARG	NE-CZ-NH1	6.08	123.34	120.30
14	L3	850	ARG	NE-CZ-NH1	6.08	123.34	120.30
6	C2	740	ARG	NE-CZ-NH1	6.08	123.34	120.30
3	41	323	ARG	NE-CZ-NH1	6.08	123.34	120.30
5	B0	1130	ARG	NE-CZ-NH1	6.08	123.34	120.30
7	D0	294	ARG	NE-CZ-NH1	6.07	123.34	120.30
18	P3	602	ARG	NE-CZ-NH1	6.07	123.33	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	10	597	ARG	NE-CZ-NH1	6.07	123.33	120.30
14	L1	539	ARG	NE-CZ-NH1	6.06	123.33	120.30
4	A0	434	ARG	NE-CZ-NH2	6.06	123.33	120.30
6	C3	490	ARG	NE-CZ-NH1	6.06	123.33	120.30
9	F0	214	ARG	NE-CZ-NH1	6.06	123.33	120.30
2	13	325	ARG	NE-CZ-NH1	6.06	123.33	120.30
2	16	1180	ARG	NE-CZ-NH1	6.05	123.33	120.30
7	D2	381	ARG	NE-CZ-NH1	6.05	123.33	120.30
1	02	256	ARG	NE-CZ-NH1	6.05	123.33	120.30
20	R2	129	ARG	NE-CZ-NH1	6.05	123.33	120.30
22	T1	209	ARG	NE-CZ-NH1	6.05	123.33	120.30
14	L0	364	ARG	NE-CZ-NH1	6.04	123.32	120.30
7	D2	1152	ARG	NE-CZ-NH1	6.04	123.32	120.30
7	D3	1076	ARG	NE-CZ-NH1	6.04	123.32	120.30
13	K3	637	ARG	NE-CZ-NH1	6.04	123.32	120.30
20	R1	1104	TYR	CB-CG-CD2	-6.04	117.38	121.00
6	C4	1434	ARG	NE-CZ-NH1	6.04	123.32	120.30
20	R0	1434	ARG	NE-CZ-NH1	6.04	123.32	120.30
4	A5	537	ARG	NE-CZ-NH1	6.03	123.32	120.30
7	D2	294	ARG	NE-CZ-NH1	6.03	123.32	120.30
15	M0	703	ARG	NE-CZ-NH1	6.03	123.31	120.30
18	P1	602	ARG	NE-CZ-NH1	6.03	123.31	120.30
5	B1	290	ARG	NE-CZ-NH1	6.03	123.31	120.30
1	02	161	ARG	NE-CZ-NH2	-6.02	117.29	120.30
7	D5	1083	ARG	CD-NE-CZ	6.02	132.03	123.60
20	R0	1104	TYR	CB-CG-CD2	-6.02	117.39	121.00
1	04	256	ARG	NE-CZ-NH1	6.02	123.31	120.30
6	C3	1484	ASP	CB-CG-OD1	6.02	123.72	118.30
20	R3	1329	TYR	CB-CG-CD2	-6.02	117.39	121.00
5	B0	1525	ALA	C-N-CA	6.02	136.74	121.70
18	P3	106	ARG	NE-CZ-NH2	-6.02	117.29	120.30
19	Q0	376	ARG	NE-CZ-NH2	6.02	123.31	120.30
2	14	387	ARG	NE-CZ-NH1	6.01	123.31	120.30
5	B1	291	ARG	NE-CZ-NH1	6.01	123.31	120.30
6	C1	1312	ARG	NE-CZ-NH1	6.01	123.31	120.30
6	C2	1876	ARG	NE-CZ-NH1	6.01	123.30	120.30
20	R2	276	ARG	NE-CZ-NH1	6.01	123.31	120.30
6	C0	1483	ARG	NE-CZ-NH2	-6.01	117.30	120.30
7	D0	921	ARG	NE-CZ-NH1	6.00	123.30	120.30
10	H0	134	ARG	NE-CZ-NH1	6.00	123.30	120.30
14	L1	364	ARG	NE-CZ-NH1	6.00	123.30	120.30
18	P0	110	ARG	NE-CZ-NH1	6.00	123.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	P0	610	ARG	NE-CZ-NH1	6.00	123.30	120.30
2	14	1086	ARG	NE-CZ-NH1	6.00	123.30	120.30
10	H2	461	ARG	NE-CZ-NH1	6.00	123.30	120.30
2	15	1789	ARG	NE-CZ-NH1	6.00	123.30	120.30
7	D0	381	ARG	NE-CZ-NH1	6.00	123.30	120.30
14	L3	364	ARG	NE-CZ-NH1	6.00	123.30	120.30
6	C1	1418	ARG	NE-CZ-NH1	6.00	123.30	120.30
12	J3	446	ARG	NE-CZ-NH1	6.00	123.30	120.30
13	K1	775	ARG	NE-CZ-NH1	5.99	123.30	120.30
7	D4	250	ARG	NE-CZ-NH1	5.99	123.30	120.30
19	Q0	182	ARG	NE-CZ-NH1	5.99	123.30	120.30
4	A0	773	ARG	NE-CZ-NH1	5.99	123.29	120.30
7	D5	1260	ARG	NE-CZ-NH1	5.99	123.29	120.30
13	K3	831	ARG	NE-CZ-NH1	5.99	123.30	120.30
18	P0	636	ARG	NE-CZ-NH1	5.99	123.29	120.30
18	P2	399	ARG	NE-CZ-NH1	5.99	123.30	120.30
2	11	357	ARG	NE-CZ-NH1	5.99	123.29	120.30
2	14	357	ARG	NE-CZ-NH1	5.99	123.29	120.30
7	D5	28	ARG	NE-CZ-NH1	5.99	123.29	120.30
2	15	334	ARG	NE-CZ-NH2	-5.98	117.31	120.30
1	02	170	ARG	NE-CZ-NH1	5.98	123.29	120.30
6	C0	1581	ARG	NE-CZ-NH1	5.98	123.29	120.30
14	L3	730	GLN	C-N-CA	5.98	134.86	122.30
20	R1	365	ARG	CD-NE-CZ	5.98	131.97	123.60
2	16	1556	ARG	NE-CZ-NH1	5.97	123.28	120.30
2	11	747	ALA	CB-CA-C	5.97	119.05	110.10
6	C4	1990	ARG	NE-CZ-NH1	5.97	123.28	120.30
7	D5	294	ARG	NE-CZ-NH1	5.97	123.28	120.30
8	E1	644	ARG	NE-CZ-NH1	5.96	123.28	120.30
20	R3	276	ARG	NE-CZ-NH1	5.96	123.28	120.30
14	L1	850	ARG	NE-CZ-NH1	5.96	123.28	120.30
7	D2	1260	ARG	NE-CZ-NH1	5.96	123.28	120.30
16	N3	54	ARG	NE-CZ-NH1	5.95	123.28	120.30
7	D3	885	ARG	NE-CZ-NH1	5.95	123.28	120.30
18	P1	58	ARG	NE-CZ-NH1	5.95	123.27	120.30
2	12	325	ARG	NE-CZ-NH1	5.94	123.27	120.30
7	D4	28	ARG	NE-CZ-NH1	5.94	123.27	120.30
2	11	1086	ARG	NE-CZ-NH1	5.94	123.27	120.30
13	K3	843	ARG	NE-CZ-NH1	5.94	123.27	120.30
21	S0	67	ARG	NE-CZ-NH1	5.93	123.27	120.30
2	15	298	ARG	CD-NE-CZ	5.93	131.91	123.60
6	C3	705	ARG	NE-CZ-NH2	-5.93	117.34	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	17	1086	ARG	NE-CZ-NH1	5.92	123.26	120.30
6	C2	2001	ARG	NE-CZ-NH1	5.92	123.26	120.30
7	D3	28	ARG	NE-CZ-NH1	5.92	123.26	120.30
14	L2	307	ARG	NE-CZ-NH1	5.92	123.26	120.30
15	M1	870	ARG	NE-CZ-NH1	5.92	123.26	120.30
20	R1	265	ARG	NE-CZ-NH1	5.92	123.26	120.30
2	10	783	ARG	NE-CZ-NH2	-5.92	117.34	120.30
2	14	1655	ARG	NE-CZ-NH1	5.92	123.26	120.30
7	D0	972	TYR	CB-CG-CD2	-5.92	117.45	121.00
15	M0	698	ARG	NE-CZ-NH1	5.92	123.26	120.30
20	R2	1035	ARG	NE-CZ-NH1	5.91	123.26	120.30
25	W0	726	ARG	NE-CZ-NH1	5.91	123.26	120.30
17	O2	246	ARG	NE-CZ-NH2	-5.91	117.34	120.30
2	16	298	ARG	CD-NE-CZ	5.91	131.87	123.60
14	L2	364	ARG	NE-CZ-NH1	5.91	123.25	120.30
2	16	387	ARG	NE-CZ-NH1	5.91	123.25	120.30
7	D1	1196	PHE	CB-CG-CD1	-5.91	116.67	120.80
20	R0	948	ARG	NE-CZ-NH1	5.90	123.25	120.30
20	R0	1029	ARG	NE-CZ-NH2	-5.90	117.35	120.30
14	L0	259	ARG	CD-NE-CZ	5.89	131.85	123.60
15	M3	703	ARG	NE-CZ-NH1	5.89	123.25	120.30
20	R2	814	ARG	NE-CZ-NH1	5.89	123.25	120.30
2	17	387	ARG	NE-CZ-NH1	5.89	123.25	120.30
20	R2	1104	TYR	CB-CG-CD2	-5.89	117.47	121.00
2	11	298	ARG	CD-NE-CZ	5.89	131.84	123.60
3	40	191	ARG	NE-CZ-NH1	5.89	123.25	120.30
4	A5	662	ARG	NE-CZ-NH1	5.89	123.24	120.30
6	C2	84	ARG	NE-CZ-NH1	5.89	123.24	120.30
2	15	786	ARG	NE-CZ-NH1	5.89	123.24	120.30
2	12	357	ARG	NE-CZ-NH1	5.89	123.24	120.30
18	P1	110	ARG	NE-CZ-NH1	5.89	123.24	120.30
2	15	1378	ARG	NE-CZ-NH2	5.88	123.24	120.30
4	A4	709	ARG	NE-CZ-NH1	5.88	123.24	120.30
15	M2	622	ARG	NE-CZ-NH1	5.88	123.24	120.30
20	R0	265	ARG	NE-CZ-NH1	5.88	123.24	120.30
4	A4	448	TYR	CB-CG-CD2	-5.88	117.47	121.00
7	D2	672	ARG	NE-CZ-NH1	5.88	123.24	120.30
20	R3	380	ARG	NE-CZ-NH1	5.88	123.24	120.30
15	M1	698	ARG	NE-CZ-NH1	5.88	123.24	120.30
4	A4	376	ARG	NE-CZ-NH1	5.88	123.24	120.30
6	C0	1312	ARG	NE-CZ-NH1	5.88	123.24	120.30
6	C0	1710	ARG	NE-CZ-NH1	5.88	123.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	Q2	17	ARG	NE-CZ-NH1	5.88	123.24	120.30
4	A5	716	ARG	NE-CZ-NH1	5.87	123.24	120.30
6	C2	753	ARG	NE-CZ-NH1	5.87	123.24	120.30
6	C4	490	ARG	NE-CZ-NH1	5.87	123.24	120.30
2	17	325	ARG	NE-CZ-NH1	5.87	123.23	120.30
4	A1	67	ARG	NE-CZ-NH1	5.86	123.23	120.30
13	K2	831	ARG	NE-CZ-NH1	5.86	123.23	120.30
19	Q2	376	ARG	NE-CZ-NH2	5.86	123.23	120.30
18	P1	636	ARG	NE-CZ-NH1	5.86	123.23	120.30
1	00	421	ARG	NE-CZ-NH1	5.86	123.23	120.30
20	R2	380	ARG	NE-CZ-NH1	5.86	123.23	120.30
5	B0	1495	ARG	NE-CZ-NH1	5.86	123.23	120.30
6	C3	436	ARG	NE-CZ-NH1	5.86	123.23	120.30
7	D3	294	ARG	NE-CZ-NH1	5.86	123.23	120.30
14	L3	727	CYS	N-CA-CB	-5.85	100.07	110.60
15	M2	703	ARG	NE-CZ-NH1	5.85	123.22	120.30
20	R0	276	ARG	NE-CZ-NH1	5.85	123.22	120.30
25	W0	58	ARG	NE-CZ-NH1	5.85	123.22	120.30
2	10	325	ARG	NE-CZ-NH1	5.85	123.22	120.30
18	P0	267	ARG	NE-CZ-NH1	5.85	123.22	120.30
7	D4	1100	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C1	1727	ARG	NE-CZ-NH1	5.84	123.22	120.30
16	N2	43	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C2	1591	ARG	NE-CZ-NH1	5.84	123.22	120.30
15	M2	698	ARG	NE-CZ-NH1	5.84	123.22	120.30
5	B1	77	ARG	NE-CZ-NH1	5.84	123.22	120.30
6	C0	1727	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	14	325	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	16	325	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	17	597	ARG	NE-CZ-NH2	-5.84	117.38	120.30
6	C1	419	ARG	NE-CZ-NH1	5.84	123.22	120.30
7	D1	895	ARG	NE-CZ-NH1	5.84	123.22	120.30
12	J3	388	ARG	NE-CZ-NH1	5.84	123.22	120.30
2	13	1312	ARG	NE-CZ-NH1	5.83	123.22	120.30
12	J4	349	ARG	NE-CZ-NH1	5.83	123.22	120.30
2	10	1312	ARG	NE-CZ-NH1	5.83	123.22	120.30
5	B0	291	ARG	NE-CZ-NH1	5.83	123.22	120.30
13	K0	185	ARG	NE-CZ-NH1	5.83	123.22	120.30
18	P0	208	ARG	NE-CZ-NH2	-5.83	117.38	120.30
1	00	42	TYR	CB-CG-CD2	-5.83	117.50	121.00
6	C0	391	ARG	NE-CZ-NH1	5.83	123.21	120.30
7	D0	672	ARG	NE-CZ-NH1	5.83	123.21	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	D4	1114	ARG	NE-CZ-NH1	5.83	123.21	120.30
18	P2	213	ARG	NE-CZ-NH1	5.82	123.21	120.30
20	R2	1068	SER	N-CA-CB	-5.82	101.77	110.50
20	R3	1113	ARG	NE-CZ-NH1	5.82	123.21	120.30
2	10	1086	ARG	NE-CZ-NH1	5.82	123.21	120.30
4	A6	593	ARG	NE-CZ-NH1	5.82	123.21	120.30
6	C3	1252	ARG	NE-CZ-NH2	5.82	123.21	120.30
6	C4	1886	ARG	NE-CZ-NH1	5.82	123.21	120.30
13	K0	466	ARG	CD-NE-CZ	5.82	131.75	123.60
4	A4	524	ARG	NE-CZ-NH1	5.82	123.21	120.30
7	D4	114	ARG	NE-CZ-NH1	5.82	123.21	120.30
17	O0	283	ARG	NE-CZ-NH1	5.82	123.21	120.30
20	R3	265	ARG	NE-CZ-NH1	5.82	123.21	120.30
10	H1	411	ARG	NE-CZ-NH1	5.81	123.21	120.30
20	R1	1329	TYR	CB-CG-CD2	-5.81	117.51	121.00
21	S1	7	ARG	NE-CZ-NH1	5.81	123.21	120.30
1	01	113	ARG	NE-CZ-NH1	5.81	123.20	120.30
15	M1	901	ARG	CD-NE-CZ	5.81	131.74	123.60
20	R1	915	ARG	NE-CZ-NH1	5.81	123.20	120.30
7	D3	1096	ARG	NE-CZ-NH1	5.81	123.20	120.30
4	A4	810	ARG	NE-CZ-NH1	5.80	123.20	120.30
7	D3	1260	ARG	NE-CZ-NH1	5.80	123.20	120.30
16	N0	54	ARG	NE-CZ-NH1	5.80	123.20	120.30
20	R1	380	ARG	NE-CZ-NH1	5.80	123.20	120.30
2	17	669	ARG	NE-CZ-NH1	5.80	123.20	120.30
4	A3	67	ARG	NE-CZ-NH1	5.80	123.20	120.30
6	C0	1939	SER	C-N-CA	5.80	136.20	121.70
18	P3	552	ARG	NE-CZ-NH1	5.80	123.20	120.30
2	15	387	ARG	NE-CZ-NH1	5.80	123.20	120.30
17	O0	303	ARG	NE-CZ-NH1	5.80	123.20	120.30
2	16	1790	ARG	NE-CZ-NH1	5.79	123.19	120.30
4	A6	662	ARG	NE-CZ-NH1	5.79	123.20	120.30
13	K2	691	ARG	NE-CZ-NH1	5.79	123.20	120.30
2	10	797	ARG	NE-CZ-NH1	5.79	123.19	120.30
15	M3	698	ARG	NE-CZ-NH1	5.79	123.19	120.30
17	O2	106	ARG	NE-CZ-NH1	5.79	123.19	120.30
13	K0	843	ARG	NE-CZ-NH1	5.79	123.19	120.30
15	M2	609	ARG	NE-CZ-NH2	5.79	123.19	120.30
2	14	1312	ARG	NE-CZ-NH1	5.78	123.19	120.30
20	R0	380	ARG	NE-CZ-NH1	5.78	123.19	120.30
20	R0	915	ARG	NE-CZ-NH1	5.78	123.19	120.30
21	S3	67	ARG	NE-CZ-NH1	5.78	123.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	T0	150	ARG	NE-CZ-NH1	5.78	123.19	120.30
20	R2	171	ARG	NE-CZ-NH1	5.78	123.19	120.30
1	00	180	ARG	NE-CZ-NH1	5.78	123.19	120.30
20	R2	60	ARG	NE-CZ-NH1	5.78	123.19	120.30
20	R3	129	ARG	NE-CZ-NH1	5.78	123.19	120.30
9	F1	222	ARG	NE-CZ-NH1	5.77	123.19	120.30
2	15	1589	ARG	NE-CZ-NH1	5.77	123.19	120.30
6	C0	419	ARG	NE-CZ-NH1	5.77	123.19	120.30
22	T0	206	ARG	NE-CZ-NH1	5.77	123.19	120.30
14	L1	259	ARG	CD-NE-CZ	5.77	131.68	123.60
14	L2	618	ARG	NE-CZ-NH1	5.77	123.18	120.30
20	R3	814	ARG	NE-CZ-NH1	5.77	123.19	120.30
6	C2	390	ARG	NE-CZ-NH1	5.77	123.18	120.30
4	A3	77	ARG	NE-CZ-NH1	5.76	123.18	120.30
6	C0	750	ARG	NE-CZ-NH1	5.76	123.18	120.30
1	01	42	TYR	CB-CG-CD2	-5.76	117.54	121.00
1	01	421	ARG	NE-CZ-NH1	5.76	123.18	120.30
7	D1	1260	ARG	NE-CZ-NH1	5.76	123.18	120.30
15	M2	930	ARG	NE-CZ-NH1	5.76	123.18	120.30
4	A3	294	ARG	NE-CZ-NH1	5.76	123.18	120.30
13	K0	798	ARG	NE-CZ-NH1	5.76	123.18	120.30
4	A1	481	ARG	NE-CZ-NH1	5.76	123.18	120.30
17	O2	303	ARG	NE-CZ-NH1	5.76	123.18	120.30
6	C1	2002	ARG	NE-CZ-NH1	5.75	123.18	120.30
7	D1	1168	HIS	CB-CA-C	5.75	121.91	110.40
13	K2	476	ARG	NE-CZ-NH1	5.75	123.18	120.30
13	K3	596	ILE	CB-CG1-CD1	5.75	130.01	113.90
6	C4	1591	ARG	NE-CZ-NH1	5.75	123.17	120.30
9	F3	111	ARG	NE-CZ-NH1	5.75	123.17	120.30
13	K0	231	ARG	NE-CZ-NH2	5.75	123.17	120.30
2	11	325	ARG	NE-CZ-NH1	5.74	123.17	120.30
4	A6	709	ARG	NE-CZ-NH1	5.74	123.17	120.30
20	R3	150	ARG	NE-CZ-NH1	5.74	123.17	120.30
5	B0	1522	PRO	CA-N-CD	-5.74	103.47	111.50
7	D3	381	ARG	NE-CZ-NH1	5.74	123.17	120.30
13	K0	559	ARG	NE-CZ-NH1	5.74	123.17	120.30
2	15	669	ARG	NE-CZ-NH1	5.74	123.17	120.30
7	D1	336	ARG	NE-CZ-NH1	5.74	123.17	120.30
10	H1	430	ARG	NE-CZ-NH1	5.74	123.17	120.30
20	R1	1290	ARG	NE-CZ-NH1	5.74	123.17	120.30
1	02	328	ARG	NE-CZ-NH1	5.74	123.17	120.30
1	03	42	TYR	CB-CG-CD2	-5.74	117.56	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	03	421	ARG	NE-CZ-NH1	5.74	123.17	120.30
13	K2	887	ARG	NE-CZ-NH2	-5.74	117.43	120.30
13	K1	911	ARG	NE-CZ-NH1	5.73	123.17	120.30
4	A2	120	ARG	NE-CZ-NH1	5.73	123.17	120.30
2	13	1223	ARG	NE-CZ-NH2	-5.73	117.44	120.30
1	00	680	TYR	CB-CG-CD2	-5.73	117.56	121.00
2	11	334	ARG	NE-CZ-NH2	-5.73	117.44	120.30
4	A1	380	ARG	NE-CZ-NH1	5.73	123.16	120.30
4	A3	380	ARG	NE-CZ-NH1	5.73	123.16	120.30
7	D2	1347	ARG	CD-NE-CZ	5.73	131.62	123.60
2	17	1225	ARG	NE-CZ-NH2	-5.72	117.44	120.30
6	C2	1159	ILE	C-N-CA	5.72	136.01	121.70
6	C4	1159	ILE	C-N-CA	5.72	136.01	121.70
7	D2	686	ARG	NE-CZ-NH1	5.72	123.16	120.30
7	D5	381	ARG	NE-CZ-NH1	5.72	123.16	120.30
24	V0	960	ARG	NE-CZ-NH1	5.72	123.16	120.30
2	11	1246	ARG	NE-CZ-NH1	5.72	123.16	120.30
2	12	387	ARG	NE-CZ-NH1	5.72	123.16	120.30
6	C2	1393	ASP	CB-CG-OD2	-5.72	113.16	118.30
22	T1	417	ARG	NE-CZ-NH1	5.72	123.16	120.30
2	17	1312	ARG	NE-CZ-NH1	5.71	123.16	120.30
7	D1	515	ARG	NE-CZ-NH1	5.71	123.16	120.30
8	E0	635	ARG	CD-NE-CZ	5.71	131.60	123.60
2	16	786	ARG	NE-CZ-NH1	5.71	123.16	120.30
7	D1	1298	ARG	NE-CZ-NH1	5.71	123.16	120.30
13	K3	691	ARG	NE-CZ-NH1	5.71	123.16	120.30
2	11	387	ARG	NE-CZ-NH1	5.71	123.16	120.30
18	P1	399	ARG	NE-CZ-NH1	5.71	123.15	120.30
4	A2	380	ARG	NE-CZ-NH1	5.71	123.15	120.30
6	C2	542	VAL	C-N-CA	5.71	135.97	121.70
4	A4	662	ARG	NE-CZ-NH1	5.70	123.15	120.30
17	O3	283	ARG	NE-CZ-NH1	5.70	123.15	120.30
19	Q1	152	ARG	NE-CZ-NH1	5.70	123.15	120.30
4	A0	294	ARG	NE-CZ-NH1	5.70	123.15	120.30
14	L1	355	ARG	NE-CZ-NH1	5.70	123.15	120.30
12	J0	388	ARG	NE-CZ-NH1	5.70	123.15	120.30
24	V0	872	ARG	NE-CZ-NH1	5.70	123.15	120.30
7	D5	1100	ARG	NE-CZ-NH1	5.70	123.15	120.30
4	A3	781	ARG	NE-CZ-NH1	5.70	123.15	120.30
15	M3	901	ARG	CD-NE-CZ	5.70	131.57	123.60
20	R1	1277	ILE	C-N-CA	5.70	135.94	121.70
1	04	170	ARG	NE-CZ-NH1	5.69	123.15	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	M1	703	ARG	NE-CZ-NH1	5.69	123.15	120.30
2	12	298	ARG	CD-NE-CZ	5.69	131.57	123.60
3	40	434	ARG	NE-CZ-NH1	5.69	123.15	120.30
7	D0	571	ARG	NE-CZ-NH1	5.69	123.15	120.30
7	D1	381	ARG	NE-CZ-NH1	5.69	123.15	120.30
13	K2	283	ARG	NE-CZ-NH1	5.69	123.15	120.30
15	M2	861	ARG	NE-CZ-NH2	-5.69	117.45	120.30
15	M3	240	ARG	NE-CZ-NH1	5.69	123.15	120.30
18	P0	534	ARG	NE-CZ-NH1	5.69	123.15	120.30
22	T1	150	ARG	NE-CZ-NH1	5.69	123.15	120.30
6	C4	338	ARG	NE-CZ-NH1	5.69	123.14	120.30
18	P1	546	ARG	NE-CZ-NH1	5.69	123.14	120.30
1	00	85	ARG	NE-CZ-NH1	5.69	123.14	120.30
1	02	180	ARG	NE-CZ-NH1	5.69	123.14	120.30
2	12	1312	ARG	NE-CZ-NH1	5.69	123.14	120.30
6	C1	391	ARG	NE-CZ-NH1	5.69	123.14	120.30
10	H2	430	ARG	NE-CZ-NH1	5.69	123.14	120.30
1	01	680	TYR	CB-CG-CD2	-5.69	117.59	121.00
14	L0	850	ARG	NE-CZ-NH1	5.69	123.14	120.30
16	N0	87	ARG	NE-CZ-NH1	5.69	123.14	120.30
2	11	669	ARG	NE-CZ-NH1	5.68	123.14	120.30
6	C3	154	ARG	NE-CZ-NH1	5.68	123.14	120.30
6	C3	1876	ARG	NE-CZ-NH1	5.68	123.14	120.30
18	P1	567	ARG	NE-CZ-NH1	5.68	123.14	120.30
20	R1	634	SER	N-CA-CB	-5.68	101.97	110.50
4	A0	31	ARG	NE-CZ-NH1	5.68	123.14	120.30
6	C3	1082	ARG	NE-CZ-NH2	-5.68	117.46	120.30
13	K3	185	ARG	NE-CZ-NH1	5.68	123.14	120.30
20	R1	1357	TYR	CB-CG-CD2	-5.68	117.59	121.00
17	O3	303	ARG	NE-CZ-NH1	5.68	123.14	120.30
5	B1	1438	ARG	NE-CZ-NH1	5.68	123.14	120.30
6	C1	338	ARG	NE-CZ-NH1	5.68	123.14	120.30
2	14	298	ARG	CD-NE-CZ	5.67	131.54	123.60
20	R2	832	ARG	NE-CZ-NH1	5.67	123.14	120.30
20	R1	129	ARG	NE-CZ-NH1	5.67	123.14	120.30
4	A2	802	ARG	NE-CZ-NH2	-5.67	117.46	120.30
5	B0	77	ARG	NE-CZ-NH1	5.67	123.14	120.30
7	D0	1152	ARG	NE-CZ-NH1	5.67	123.14	120.30
10	H3	134	ARG	NE-CZ-NH1	5.67	123.14	120.30
2	15	334	ARG	NE-CZ-NH1	5.67	123.14	120.30
13	K3	798	ARG	NE-CZ-NH1	5.67	123.13	120.30
14	L3	355	ARG	NE-CZ-NH1	5.67	123.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	T0	566	ARG	NE-CZ-NH1	5.67	123.13	120.30
7	D4	381	ARG	NE-CZ-NH1	5.67	123.13	120.30
18	P3	611	ARG	NE-CZ-NH1	5.67	123.13	120.30
2	17	357	ARG	NE-CZ-NH1	5.67	123.13	120.30
14	L1	307	ARG	NE-CZ-NH1	5.67	123.13	120.30
14	L2	355	ARG	NE-CZ-NH1	5.66	123.13	120.30
7	D0	86	ARG	NE-CZ-NH1	5.66	123.13	120.30
14	L2	259	ARG	CD-NE-CZ	5.66	131.53	123.60
1	04	328	ARG	NE-CZ-NH1	5.66	123.13	120.30
2	10	387	ARG	NE-CZ-NH1	5.66	123.13	120.30
6	C3	1713	ARG	NE-CZ-NH1	5.66	123.13	120.30
14	L3	259	ARG	CD-NE-CZ	5.66	131.52	123.60
18	P2	464	GLU	OE1-CD-OE2	-5.66	116.51	123.30
22	T0	5	ARG	NE-CZ-NH1	5.66	123.13	120.30
7	D4	1083	ARG	CD-NE-CZ	5.65	131.52	123.60
14	L0	355	ARG	NE-CZ-NH1	5.65	123.13	120.30
18	P0	611	ARG	NE-CZ-NH1	5.65	123.13	120.30
19	Q3	17	ARG	NE-CZ-NH1	5.65	123.13	120.30
2	14	669	ARG	NE-CZ-NH1	5.65	123.13	120.30
4	A2	294	ARG	NE-CZ-NH1	5.65	123.13	120.30
6	C1	1710	ARG	NE-CZ-NH1	5.65	123.13	120.30
4	A6	716	ARG	NE-CZ-NH1	5.65	123.13	120.30
7	D0	895	ARG	NE-CZ-NH1	5.65	123.12	120.30
7	D4	294	ARG	NE-CZ-NH1	5.65	123.12	120.30
15	M0	901	ARG	CD-NE-CZ	5.65	131.51	123.60
3	40	323	ARG	NE-CZ-NH1	5.65	123.12	120.30
20	R0	60	ARG	NE-CZ-NH1	5.65	123.12	120.30
2	16	1086	ARG	NE-CZ-NH1	5.65	123.12	120.30
4	A5	187	ARG	NE-CZ-NH1	5.65	123.12	120.30
6	C3	831	ASP	CB-CG-OD1	5.65	123.38	118.30
7	D3	1074	ARG	NE-CZ-NH1	5.65	123.12	120.30
18	P3	552	ARG	NE-CZ-NH2	-5.64	117.48	120.30
4	A4	593	ARG	NE-CZ-NH1	5.64	123.12	120.30
6	C2	748	ARG	NE-CZ-NH1	5.64	123.12	120.30
7	D5	288	ARG	NE-CZ-NH1	5.64	123.12	120.30
13	K0	691	ARG	NE-CZ-NH1	5.64	123.12	120.30
25	W0	228	ARG	NE-CZ-NH1	5.64	123.12	120.30
8	E1	635	ARG	CD-NE-CZ	5.64	131.50	123.60
14	L3	729	GLU	C-N-CA	5.64	135.80	121.70
2	12	669	ARG	NE-CZ-NH1	5.64	123.12	120.30
6	C0	1886	ARG	NE-CZ-NH1	5.63	123.12	120.30
6	C2	1312	ARG	NE-CZ-NH1	5.63	123.12	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	10	298	ARG	CD-NE-CZ	5.63	131.48	123.60
14	L1	618	ARG	NE-CZ-NH1	5.63	123.11	120.30
1	04	85	ARG	NE-CZ-NH1	5.63	123.11	120.30
6	C4	901	ARG	NE-CZ-NH1	5.63	123.11	120.30
1	01	256	ARG	NE-CZ-NH1	5.62	123.11	120.30
1	03	680	TYR	CB-CG-CD2	-5.62	117.63	121.00
7	D3	336	ARG	NE-CZ-NH1	5.62	123.11	120.30
20	R3	171	ARG	NE-CZ-NH1	5.62	123.11	120.30
9	F0	159	TYR	CB-CG-CD2	-5.62	117.63	121.00
12	J1	446	ARG	NE-CZ-NH1	5.62	123.11	120.30
13	K0	531	ARG	NE-CZ-NH1	5.62	123.11	120.30
10	H3	254	ARG	NE-CZ-NH1	5.62	123.11	120.30
4	A0	662	ARG	NE-CZ-NH2	-5.62	117.49	120.30
13	K1	884	ARG	NE-CZ-NH1	5.62	123.11	120.30
22	T1	206	ARG	NE-CZ-NH1	5.62	123.11	120.30
7	D3	1168	HIS	CB-CA-C	5.61	121.63	110.40
22	T1	5	ARG	NE-CZ-NH1	5.61	123.11	120.30
7	D5	1114	ARG	NE-CZ-NH1	5.61	123.11	120.30
10	H3	411	ARG	NE-CZ-NH1	5.61	123.11	120.30
16	N3	87	ARG	NE-CZ-NH1	5.61	123.11	120.30
7	D1	294	ARG	NE-CZ-NH1	5.61	123.10	120.30
4	A4	675	ARG	NE-CZ-NH1	5.61	123.10	120.30
7	D5	537	ARG	NE-CZ-NH1	5.61	123.10	120.30
14	L2	850	ARG	NE-CZ-NH1	5.61	123.10	120.30
20	R1	832	ARG	NE-CZ-NH1	5.61	123.10	120.30
25	W0	7	PRO	CA-N-CD	-5.61	103.65	111.50
2	10	1223	ARG	NE-CZ-NH2	-5.60	117.50	120.30
18	P0	231	ARG	NE-CZ-NH1	5.60	123.10	120.30
18	P3	213	ARG	NE-CZ-NH1	5.60	123.10	120.30
2	16	1312	ARG	NE-CZ-NH1	5.60	123.10	120.30
18	P1	441	ARG	NE-CZ-NH1	5.60	123.10	120.30
1	03	85	ARG	NE-CZ-NH1	5.60	123.10	120.30
6	C0	1575	ARG	NE-CZ-NH1	5.60	123.10	120.30
2	11	1312	ARG	NE-CZ-NH1	5.60	123.10	120.30
1	03	256	ARG	NE-CZ-NH1	5.60	123.10	120.30
2	16	1378	ARG	NE-CZ-NH2	5.60	123.10	120.30
6	C0	1234	ARG	NE-CZ-NH1	5.60	123.10	120.30
18	P2	611	ARG	NE-CZ-NH1	5.60	123.10	120.30
2	11	1223	ARG	NE-CZ-NH2	-5.60	117.50	120.30
2	16	597	ARG	NE-CZ-NH1	5.60	123.10	120.30
15	M2	240	ARG	NE-CZ-NH1	5.59	123.10	120.30
5	B0	1438	ARG	NE-CZ-NH1	5.59	123.10	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	J2	388	ARG	NE-CZ-NH1	5.59	123.09	120.30
13	K2	637	ARG	NE-CZ-NH1	5.59	123.10	120.30
15	M3	424	ARG	NE-CZ-NH1	5.59	123.10	120.30
23	U0	851	ARG	NE-CZ-NH2	5.59	123.09	120.30
6	C3	486	ARG	NE-CZ-NH1	5.59	123.09	120.30
9	F2	259	SER	CB-CA-C	5.59	120.71	110.10
10	H2	134	ARG	NE-CZ-NH1	5.59	123.09	120.30
2	12	1246	ARG	NE-CZ-NH1	5.58	123.09	120.30
19	Q0	17	ARG	NE-CZ-NH1	5.58	123.09	120.30
2	14	597	ARG	NE-CZ-NH2	-5.58	117.51	120.30
2	14	1378	ARG	NE-CZ-NH2	5.58	123.09	120.30
10	H0	377	ARG	NE-CZ-NH1	5.58	123.09	120.30
2	13	1246	ARG	NE-CZ-NH1	5.58	123.09	120.30
2	16	334	ARG	NE-CZ-NH2	-5.58	117.51	120.30
5	B0	290	ARG	NE-CZ-NH1	5.58	123.09	120.30
14	L3	618	ARG	NE-CZ-NH1	5.58	123.09	120.30
18	P1	571	ARG	NE-CZ-NH1	5.58	123.09	120.30
20	R3	915	ARG	NE-CZ-NH1	5.58	123.09	120.30
6	C1	750	ARG	NE-CZ-NH1	5.58	123.09	120.30
7	D2	1163	ARG	NE-CZ-NH1	5.58	123.09	120.30
10	H1	134	ARG	NE-CZ-NH1	5.57	123.09	120.30
20	R3	60	ARG	NE-CZ-NH1	5.57	123.09	120.30
2	11	786	ARG	NE-CZ-NH1	5.57	123.09	120.30
6	C2	219	ASP	CB-CG-OD1	5.57	123.31	118.30
20	R1	60	ARG	NE-CZ-NH1	5.57	123.08	120.30
20	R3	832	ARG	NE-CZ-NH1	5.57	123.08	120.30
6	C4	1581	ARG	NE-CZ-NH1	5.57	123.08	120.30
18	P2	546	ARG	NE-CZ-NH1	5.57	123.08	120.30
2	10	669	ARG	NE-CZ-NH1	5.57	123.08	120.30
14	L3	503	ARG	CD-NE-CZ	5.57	131.39	123.60
17	O2	106	ARG	CD-NE-CZ	5.57	131.39	123.60
2	13	597	ARG	NE-CZ-NH1	5.56	123.08	120.30
2	11	334	ARG	NE-CZ-NH1	5.56	123.08	120.30
2	15	357	ARG	NE-CZ-NH1	5.56	123.08	120.30
4	A5	568	ARG	CD-NE-CZ	5.56	131.39	123.60
5	B1	1682	ARG	NE-CZ-NH1	5.56	123.08	120.30
6	C3	346	VAL	CG1-CB-CG2	-5.56	102.00	110.90
20	R2	1116	ARG	NE-CZ-NH1	5.56	123.08	120.30
2	11	298	ARG	NE-CZ-NH1	5.56	123.08	120.30
20	R2	1071	ARG	NE-CZ-NH1	5.56	123.08	120.30
1	00	229	ARG	NE-CZ-NH1	5.56	123.08	120.30
4	A0	686	ASP	CA-CB-CG	5.56	125.62	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	L3	732	MET	N-CA-C	5.56	126.00	111.00
2	16	334	ARG	NE-CZ-NH1	5.56	123.08	120.30
4	A5	256	ARG	NE-CZ-NH1	5.56	123.08	120.30
2	14	334	ARG	NE-CZ-NH1	5.55	123.08	120.30
7	D2	885	ARG	NE-CZ-NH1	5.55	123.08	120.30
13	K2	231	ARG	NE-CZ-NH2	5.55	123.08	120.30
6	C1	1886	ARG	NE-CZ-NH1	5.55	123.08	120.30
10	H3	385	ARG	NE-CZ-NH1	5.55	123.08	120.30
14	L3	842	ARG	NE-CZ-NH1	5.55	123.07	120.30
2	15	325	ARG	NE-CZ-NH1	5.55	123.07	120.30
22	T0	330	ARG	NE-CZ-NH1	5.55	123.07	120.30
2	13	298	ARG	NE-CZ-NH1	5.54	123.07	120.30
2	17	334	ARG	NE-CZ-NH1	5.54	123.07	120.30
2	12	984	ARG	NE-CZ-NH1	5.54	123.07	120.30
18	P2	636	ARG	NE-CZ-NH1	5.54	123.07	120.30
7	D1	1074	ARG	NE-CZ-NH1	5.54	123.07	120.30
15	M3	422	ARG	NE-CZ-NH1	5.54	123.07	120.30
2	14	1225	ARG	NE-CZ-NH2	-5.54	117.53	120.30
2	15	1597	ARG	NE-CZ-NH1	5.54	123.07	120.30
4	A0	524	ARG	NE-CZ-NH1	5.54	123.07	120.30
7	D0	336	ARG	NE-CZ-NH1	5.53	123.07	120.30
7	D2	895	ARG	NE-CZ-NH1	5.53	123.07	120.30
18	P3	546	ARG	NE-CZ-NH1	5.53	123.07	120.30
19	Q3	152	ARG	NE-CZ-NH1	5.53	123.07	120.30
7	D2	28	ARG	NE-CZ-NH1	5.53	123.07	120.30
4	A1	294	ARG	NE-CZ-NH1	5.53	123.07	120.30
6	C4	1312	ARG	NE-CZ-NH1	5.53	123.06	120.30
14	L2	503	ARG	CD-NE-CZ	5.53	131.34	123.60
16	N0	116	TYR	CB-CG-CD2	-5.53	117.68	121.00
20	R2	365	ARG	CD-NE-CZ	5.53	131.34	123.60
6	C2	1307	ARG	NE-CZ-NH1	5.53	123.06	120.30
6	C4	1876	ARG	NE-CZ-NH1	5.53	123.06	120.30
20	R2	1044	ARG	NE-CZ-NH1	5.53	123.06	120.30
25	W0	198	ARG	NE-CZ-NH1	5.53	123.06	120.30
4	A1	568	ARG	NE-CZ-NH1	5.52	123.06	120.30
7	D0	968	ARG	NE-CZ-NH1	5.52	123.06	120.30
2	11	597	ARG	NE-CZ-NH1	5.52	123.06	120.30
6	C0	1418	ARG	NE-CZ-NH1	5.52	123.06	120.30
10	H3	203	ARG	NE-CZ-NH1	5.52	123.06	120.30
17	O1	246	ARG	NE-CZ-NH2	-5.52	117.54	120.30
13	K2	752	ARG	NE-CZ-NH1	5.52	123.06	120.30
13	K0	283	ARG	NE-CZ-NH1	5.52	123.06	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	D3	972	TYR	CB-CG-CD2	-5.52	117.69	121.00
13	K1	751	ARG	NE-CZ-NH1	5.52	123.06	120.30
22	T0	600	ARG	CD-NE-CZ	5.52	131.32	123.60
1	02	310	ARG	CD-NE-CZ	5.51	131.32	123.60
14	L0	618	ARG	NE-CZ-NH1	5.51	123.06	120.30
4	A1	578	ARG	CD-NE-CZ	5.51	131.32	123.60
13	K0	637	ARG	NE-CZ-NH1	5.51	123.06	120.30
18	P3	110	ARG	NE-CZ-NH1	5.51	123.06	120.30
20	R3	1357	TYR	CB-CG-CD2	-5.51	117.69	121.00
2	12	1223	ARG	NE-CZ-NH2	-5.51	117.54	120.30
2	16	669	ARG	NE-CZ-NH1	5.51	123.06	120.30
4	A5	388	ARG	NE-CZ-NH1	5.51	123.06	120.30
15	M0	708	ARG	NE-CZ-NH2	-5.51	117.55	120.30
6	C4	391	ARG	NE-CZ-NH1	5.51	123.05	120.30
7	D0	885	ARG	NE-CZ-NH1	5.51	123.05	120.30
2	12	786	ARG	NE-CZ-NH1	5.51	123.05	120.30
2	14	786	ARG	NE-CZ-NH1	5.51	123.05	120.30
8	E1	617	ARG	NE-CZ-NH2	5.51	123.05	120.30
13	K1	857	LEU	CB-CG-CD2	5.51	120.36	111.00
19	Q0	182	ARG	NE-CZ-NH2	-5.51	117.55	120.30
13	K1	466	ARG	CD-NE-CZ	5.50	131.31	123.60
18	P2	534	ARG	NE-CZ-NH1	5.50	123.05	120.30
20	R1	1287	GLU	CB-CA-C	5.50	121.41	110.40
20	R2	485	ARG	NE-CZ-NH1	5.50	123.05	120.30
2	15	1086	ARG	NE-CZ-NH1	5.50	123.05	120.30
4	A5	730	ARG	NE-CZ-NH2	5.50	123.05	120.30
7	D3	537	ARG	NE-CZ-NH1	5.50	123.05	120.30
20	R0	1357	TYR	CB-CG-CD2	-5.50	117.70	121.00
2	10	1246	ARG	NE-CZ-NH1	5.50	123.05	120.30
9	F1	230	ARG	NE-CZ-NH1	5.50	123.05	120.30
2	13	334	ARG	NE-CZ-NH1	5.50	123.05	120.30
4	A4	555	ARG	NE-CZ-NH2	-5.50	117.55	120.30
7	D5	1117	TYR	CB-CG-CD2	-5.50	117.70	121.00
13	K1	576	ASP	O-C-N	-5.50	110.66	121.10
18	P0	552	ARG	NE-CZ-NH1	5.50	123.05	120.30
23	U0	769	ARG	NE-CZ-NH1	5.49	123.05	120.30
1	02	85	ARG	NE-CZ-NH1	5.49	123.05	120.30
2	12	298	ARG	NE-CZ-NH1	5.49	123.05	120.30
12	J0	388	ARG	NE-CZ-NH2	-5.49	117.55	120.30
13	K3	466	ARG	NE-CZ-NH1	5.49	123.05	120.30
21	S2	67	ARG	NE-CZ-NH1	5.49	123.05	120.30
1	04	310	ARG	CD-NE-CZ	5.49	131.29	123.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	B0	996	ARG	NE-CZ-NH1	5.49	123.05	120.30
4	A0	686	ASP	CB-CG-OD2	-5.49	113.36	118.30
13	K1	743	ARG	NE-CZ-NH1	5.49	123.05	120.30
1	01	229	ARG	NE-CZ-NH1	5.49	123.04	120.30
14	L1	330	ARG	NH1-CZ-NH2	-5.49	113.36	119.40
14	L1	751	ARG	NE-CZ-NH2	-5.49	117.56	120.30
15	M0	477	ARG	NE-CZ-NH1	5.49	123.04	120.30
17	O1	106	ARG	CD-NE-CZ	5.48	131.28	123.60
2	15	1180	ARG	NE-CZ-NH1	5.48	123.04	120.30
7	D0	391	ARG	CD-NE-CZ	5.48	131.28	123.60
22	T0	735	ARG	NE-CZ-NH1	5.48	123.04	120.30
7	D1	571	ARG	NE-CZ-NH1	5.48	123.04	120.30
14	L1	503	ARG	CD-NE-CZ	5.48	131.27	123.60
7	D1	1348	ARG	NE-CZ-NH1	5.48	123.04	120.30
9	F3	282	ARG	NE-CZ-NH1	5.48	123.04	120.30
13	K2	185	ARG	NE-CZ-NH1	5.48	123.04	120.30
7	D1	898	ARG	CG-CD-NE	5.48	123.30	111.80
6	C4	1575	ARG	NE-CZ-NH1	5.47	123.04	120.30
2	17	298	ARG	NE-CZ-NH1	5.47	123.04	120.30
18	P2	542	ARG	NE-CZ-NH1	5.47	123.04	120.30
7	D2	515	ARG	NE-CZ-NH1	5.47	123.03	120.30
19	Q0	152	ARG	NE-CZ-NH1	5.47	123.03	120.30
20	R3	1295	TYR	CB-CG-CD2	-5.47	117.72	121.00
2	11	1597	ARG	NE-CZ-NH1	5.47	123.03	120.30
8	E0	617	ARG	NE-CZ-NH2	5.47	123.03	120.30
2	15	298	ARG	NE-CZ-NH1	5.47	123.03	120.30
2	11	797	ARG	NE-CZ-NH1	5.46	123.03	120.30
2	16	1597	ARG	NE-CZ-NH1	5.46	123.03	120.30
7	D2	336	ARG	NE-CZ-NH1	5.46	123.03	120.30
10	H3	452	ARG	NE-CZ-NH1	5.46	123.03	120.30
5	B0	729	ARG	NE-CZ-NH1	5.46	123.03	120.30
17	O0	106	ARG	CD-NE-CZ	5.46	131.25	123.60
2	14	298	ARG	NE-CZ-NH1	5.46	123.03	120.30
20	R3	1404	HIS	CB-CA-C	5.46	121.31	110.40
6	C1	1030	ARG	NE-CZ-NH1	5.46	123.03	120.30
2	17	1584	ARG	NE-CZ-NH1	5.45	123.03	120.30
10	H1	350	ARG	NE-CZ-NH1	5.45	123.03	120.30
2	14	1597	ARG	NE-CZ-NH1	5.45	123.03	120.30
4	A2	524	ARG	NE-CZ-NH1	5.45	123.03	120.30
7	D4	515	ARG	NE-CZ-NH1	5.45	123.03	120.30
20	R3	1116	ARG	NE-CZ-NH1	5.45	123.03	120.30
14	L0	751	ARG	NE-CZ-NH1	5.45	123.02	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	P0	58	ARG	NE-CZ-NH1	5.45	123.02	120.30
4	A3	773	ARG	NE-CZ-NH1	5.45	123.02	120.30
5	B1	495	ARG	CD-NE-CZ	5.45	131.22	123.60
7	D2	1076	ARG	NE-CZ-NH1	5.45	123.02	120.30
7	D4	924	ARG	NE-CZ-NH1	5.45	123.02	120.30
19	Q1	17	ARG	NE-CZ-NH1	5.45	123.02	120.30
7	D2	391	ARG	CD-NE-CZ	5.44	131.22	123.60
6	C2	750	ARG	NE-CZ-NH1	5.44	123.02	120.30
15	M2	477	ARG	NE-CZ-NH1	5.44	123.02	120.30
7	D0	1083	ARG	CD-NE-CZ	5.44	131.22	123.60
9	F3	306	ARG	NE-CZ-NH1	5.44	123.02	120.30
10	H2	203	ARG	NE-CZ-NH1	5.44	123.02	120.30
15	M2	901	ARG	NE-CZ-NH1	5.44	123.02	120.30
21	S1	67	ARG	NE-CZ-NH1	5.44	123.02	120.30
13	K1	887	ARG	NE-CZ-NH1	5.44	123.02	120.30
25	W0	26	ARG	NE-CZ-NH1	5.44	123.02	120.30
2	16	298	ARG	NE-CZ-NH1	5.44	123.02	120.30
6	C0	1252	ARG	NE-CZ-NH1	5.44	123.02	120.30
6	C2	984	ARG	NE-CZ-NH1	5.44	123.02	120.30
6	C4	390	ARG	NE-CZ-NH1	5.44	123.02	120.30
7	D3	515	ARG	NE-CZ-NH1	5.44	123.02	120.30
20	R2	732	ARG	CD-NE-CZ	5.44	131.21	123.60
6	C0	901	ARG	NE-CZ-NH1	5.44	123.02	120.30
2	13	786	ARG	NE-CZ-NH1	5.43	123.02	120.30
6	C4	1710	ARG	NE-CZ-NH1	5.43	123.02	120.30
15	M3	546	ARG	NE-CZ-NH2	-5.43	117.58	120.30
2	17	786	ARG	NE-CZ-NH1	5.43	123.02	120.30
10	H2	397	ARG	NE-CZ-NH1	5.43	123.02	120.30
15	M3	861	ARG	NE-CZ-NH1	5.43	123.02	120.30
7	D4	86	ARG	NE-CZ-NH1	5.43	123.01	120.30
2	14	1067	ARG	NE-CZ-NH1	5.43	123.01	120.30
7	D3	1163	ARG	NE-CZ-NH1	5.43	123.01	120.30
18	P0	441	ARG	NE-CZ-NH1	5.43	123.01	120.30
7	D1	86	ARG	NE-CZ-NH1	5.42	123.01	120.30
9	F3	230	ARG	NE-CZ-NH1	5.42	123.01	120.30
14	L0	503	ARG	CD-NE-CZ	5.42	131.19	123.60
14	L0	582	ARG	NE-CZ-NH1	5.42	123.01	120.30
15	M2	423	ARG	NH1-CZ-NH2	-5.42	113.43	119.40
16	N1	116	TYR	CB-CG-CD2	-5.42	117.75	121.00
18	P2	441	ARG	NE-CZ-NH1	5.42	123.01	120.30
18	P3	231	ARG	NE-CZ-NH1	5.42	123.01	120.30
20	R2	915	ARG	NE-CZ-NH1	5.42	123.01	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	B1	1274	ARG	NE-CZ-NH1	5.42	123.01	120.30
6	C0	338	ARG	NE-CZ-NH1	5.42	123.01	120.30
6	C4	750	ARG	NE-CZ-NH1	5.42	123.01	120.30
2	10	786	ARG	NE-CZ-NH1	5.42	123.01	120.30
8	E1	24	ARG	NE-CZ-NH1	5.42	123.01	120.30
10	H1	254	ARG	NE-CZ-NH1	5.42	123.01	120.30
20	R2	1357	TYR	CB-CG-CD2	-5.42	117.75	121.00
1	04	42	TYR	CB-CG-CD2	-5.42	117.75	121.00
2	12	334	ARG	NE-CZ-NH1	5.42	123.01	120.30
13	K3	466	ARG	CD-NE-CZ	5.42	131.18	123.60
17	O1	303	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	03	229	ARG	NE-CZ-NH1	5.42	123.01	120.30
2	10	298	ARG	NE-CZ-NH1	5.42	123.01	120.30
7	D3	686	ARG	NE-CZ-NH1	5.42	123.01	120.30
20	R3	1429	ASP	CB-CG-OD1	5.42	123.17	118.30
1	00	256	ARG	NE-CZ-NH1	5.41	123.01	120.30
6	C1	1234	ARG	NE-CZ-NH1	5.41	123.01	120.30
6	C1	1575	ARG	NE-CZ-NH1	5.41	123.01	120.30
6	C2	901	ARG	NE-CZ-NH1	5.41	123.01	120.30
7	D4	336	ARG	NE-CZ-NH1	5.41	123.01	120.30
17	O0	233	ARG	NE-CZ-NH1	5.41	123.01	120.30
7	D2	571	ARG	NE-CZ-NH1	5.41	123.01	120.30
14	L2	355	ARG	NE-CZ-NH2	-5.41	117.59	120.30
20	R0	1295	TYR	CB-CG-CD2	-5.41	117.75	121.00
6	C0	1834	ARG	NE-CZ-NH1	5.41	123.00	120.30
6	C2	338	ARG	NE-CZ-NH1	5.41	123.00	120.30
12	J2	349	ARG	NE-CZ-NH1	5.41	123.00	120.30
17	O3	106	ARG	CD-NE-CZ	5.41	131.17	123.60
14	L0	355	ARG	NE-CZ-NH2	-5.40	117.60	120.30
6	C1	54	PHE	CB-CG-CD2	-5.40	117.02	120.80
6	C4	1834	ARG	NE-CZ-NH1	5.40	123.00	120.30
7	D1	28	ARG	NE-CZ-NH1	5.40	123.00	120.30
12	J4	388	ARG	NE-CZ-NH2	-5.40	117.60	120.30
21	S2	258	ARG	NE-CZ-NH1	5.40	123.00	120.30
6	C0	54	PHE	CB-CG-CD2	-5.40	117.02	120.80
7	D4	288	ARG	NE-CZ-NH1	5.40	123.00	120.30
1	01	596	ARG	NE-CZ-NH1	5.39	123.00	120.30
2	10	334	ARG	NE-CZ-NH1	5.39	123.00	120.30
1	02	161	ARG	CD-NE-CZ	5.39	131.15	123.60
2	15	1790	ARG	NE-CZ-NH1	5.39	123.00	120.30
18	P3	441	ARG	NE-CZ-NH1	5.39	123.00	120.30
20	R3	485	ARG	NE-CZ-NH1	5.39	123.00	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A1	434	ARG	NE-CZ-NH1	5.39	123.00	120.30
16	N2	35	ARG	NE-CZ-NH1	5.39	123.00	120.30
6	C1	1834	ARG	NE-CZ-NH1	5.39	123.00	120.30
13	K3	283	ARG	NE-CZ-NH1	5.39	123.00	120.30
20	R2	1068	SER	CB-CA-C	5.39	120.34	110.10
2	10	896	ARG	NE-CZ-NH1	5.39	122.99	120.30
2	13	298	ARG	CD-NE-CZ	5.39	131.14	123.60
6	C0	1878	ARG	NE-CZ-NH1	5.39	122.99	120.30
6	C4	2002	ARG	NE-CZ-NH1	5.39	122.99	120.30
7	D0	515	ARG	NE-CZ-NH1	5.39	122.99	120.30
10	H0	203	ARG	NE-CZ-NH1	5.39	122.99	120.30
20	R1	1295	TYR	CB-CG-CD2	-5.39	117.77	121.00
20	R3	1286	ASP	CB-CG-OD1	-5.39	113.45	118.30
6	C4	705	ARG	NE-CZ-NH1	5.38	122.99	120.30
15	M2	633	ARG	NE-CZ-NH2	-5.38	117.61	120.30
15	M3	515	ARG	NE-CZ-NH1	5.38	122.99	120.30
15	M3	633	ARG	CD-NE-CZ	5.38	131.14	123.60
25	W0	404	ARG	NE-CZ-NH1	5.38	122.99	120.30
2	13	416	ARG	NE-CZ-NH1	5.38	122.99	120.30
20	R2	601	ARG	NE-CZ-NH2	-5.38	117.61	120.30
2	13	1067	ARG	NE-CZ-NH1	5.38	122.99	120.30
4	A2	790	ARG	NE-CZ-NH2	-5.38	117.61	120.30
1	02	42	TYR	CB-CG-CD2	-5.38	117.77	121.00
2	13	984	ARG	NE-CZ-NH1	5.38	122.99	120.30
4	A3	524	ARG	NE-CZ-NH1	5.38	122.99	120.30
2	17	1246	ARG	NE-CZ-NH1	5.37	122.99	120.30
6	C3	330	ARG	NE-CZ-NH2	-5.37	117.61	120.30
10	H0	350	ARG	NH1-CZ-NH2	-5.37	113.49	119.40
14	L2	842	ARG	NE-CZ-NH1	5.37	122.99	120.30
20	R0	150	ARG	NE-CZ-NH1	5.37	122.98	120.30
20	R2	1298	ARG	NE-CZ-NH2	5.37	122.98	120.30
4	A3	434	ARG	NE-CZ-NH1	5.37	122.98	120.30
12	J0	377	ARG	NE-CZ-NH1	5.37	122.98	120.30
20	R1	150	ARG	NE-CZ-NH1	5.37	122.98	120.30
22	T1	742	ARG	NE-CZ-NH2	5.37	122.98	120.30
13	K0	887	ARG	NE-CZ-NH2	-5.37	117.62	120.30
17	O0	246	ARG	NE-CZ-NH2	-5.37	117.62	120.30
1	03	596	ARG	NE-CZ-NH1	5.36	122.98	120.30
4	A2	434	ARG	NE-CZ-NH1	5.36	122.98	120.30
8	E0	24	ARG	NE-CZ-NH1	5.36	122.98	120.30
22	T1	600	ARG	CD-NE-CZ	5.36	131.11	123.60
10	H0	385	ARG	NE-CZ-NH1	5.36	122.98	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	00	193	ARG	NE-CZ-NH1	5.36	122.98	120.30
2	17	984	ARG	NE-CZ-NH1	5.36	122.98	120.30
6	C0	1030	ARG	NE-CZ-NH1	5.36	122.98	120.30
2	12	1067	ARG	NE-CZ-NH1	5.36	122.98	120.30
4	A0	175	ARG	NE-CZ-NH1	5.36	122.98	120.30
7	D5	86	ARG	CD-NE-CZ	5.36	131.10	123.60
15	M1	402	HIS	CB-CA-C	5.36	121.11	110.40
22	T0	417	ARG	NE-CZ-NH1	5.36	122.98	120.30
2	14	1710	ARG	NE-CZ-NH2	-5.35	117.62	120.30
7	D4	1347	ARG	CD-NE-CZ	5.35	131.10	123.60
7	D3	391	ARG	CD-NE-CZ	5.35	131.09	123.60
20	R1	700	ARG	NE-CZ-NH1	5.35	122.97	120.30
6	C2	754	ARG	NE-CZ-NH1	5.35	122.97	120.30
7	D5	515	ARG	NE-CZ-NH1	5.35	122.97	120.30
5	B0	526	ARG	CD-NE-CZ	5.35	131.09	123.60
5	B0	1274	ARG	NE-CZ-NH1	5.35	122.97	120.30
6	C1	901	ARG	NE-CZ-NH1	5.35	122.97	120.30
2	12	1457	ARG	NE-CZ-NH1	5.34	122.97	120.30
4	A2	776	ARG	NE-CZ-NH1	5.34	122.97	120.30
6	C3	1179	ARG	NE-CZ-NH1	5.34	122.97	120.30
2	11	1067	ARG	NE-CZ-NH1	5.34	122.97	120.30
17	O3	246	ARG	NE-CZ-NH2	-5.34	117.63	120.30
25	W0	590	ARG	NE-CZ-NH1	5.34	122.97	120.30
4	A5	674	TYR	CB-CG-CD2	-5.34	117.80	121.00
13	K2	675	ARG	NE-CZ-NH1	5.34	122.97	120.30
22	T1	35	ARG	NE-CZ-NH1	5.34	122.97	120.30
2	14	1544	ARG	NE-CZ-NH1	5.33	122.97	120.30
8	E0	346	ARG	NE-CZ-NH1	5.33	122.97	120.30
2	15	1067	ARG	NE-CZ-NH1	5.33	122.97	120.30
7	D5	86	ARG	NE-CZ-NH1	5.33	122.97	120.30
2	17	416	ARG	NE-CZ-NH1	5.33	122.97	120.30
2	17	1710	ARG	NE-CZ-NH1	5.33	122.97	120.30
20	R2	1069	ARG	CD-NE-CZ	5.33	131.06	123.60
2	10	416	ARG	NE-CZ-NH1	5.33	122.97	120.30
4	A6	481	ARG	NE-CZ-NH1	5.33	122.97	120.30
2	10	1544	ARG	NE-CZ-NH1	5.33	122.96	120.30
6	C4	54	PHE	CB-CG-CD2	-5.33	117.07	120.80
7	D5	1355	ASP	CA-CB-CG	5.33	125.11	113.40
14	L1	355	ARG	NE-CZ-NH2	-5.33	117.64	120.30
15	M0	818	ARG	NE-CZ-NH1	5.33	122.96	120.30
14	L1	842	ARG	NE-CZ-NH1	5.32	122.96	120.30
15	M2	633	ARG	CD-NE-CZ	5.32	131.05	123.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	Q2	87	ARG	NE-CZ-NH2	-5.32	117.64	120.30
20	R0	57	ARG	NE-CZ-NH2	5.32	122.96	120.30
2	15	597	ARG	NE-CZ-NH1	5.32	122.96	120.30
20	R0	485	ARG	NE-CZ-NH1	5.32	122.96	120.30
15	M1	517	ARG	NE-CZ-NH1	5.32	122.96	120.30
16	N2	54	ARG	NE-CZ-NH1	5.32	122.96	120.30
13	K2	884	ARG	NE-CZ-NH1	5.32	122.96	120.30
14	L3	355	ARG	NE-CZ-NH2	-5.32	117.64	120.30
20	R3	57	ARG	NE-CZ-NH2	5.32	122.96	120.30
3	41	434	ARG	NE-CZ-NH1	5.32	122.96	120.30
5	B1	599	ARG	NE-CZ-NH2	5.32	122.96	120.30
7	D1	391	ARG	CD-NE-CZ	5.32	131.04	123.60
6	C4	1082	ARG	NE-CZ-NH1	5.31	122.96	120.30
15	M0	515	ARG	NE-CZ-NH1	5.31	122.96	120.30
18	P1	231	ARG	NE-CZ-NH1	5.31	122.96	120.30
20	R1	1298	ARG	NE-CZ-NH1	5.31	122.96	120.30
20	R2	150	ARG	NE-CZ-NH1	5.31	122.96	120.30
13	K1	887	ARG	NE-CZ-NH2	-5.31	117.64	120.30
20	R0	365	ARG	NE-CZ-NH1	5.31	122.95	120.30
20	R2	1329	TYR	CB-CG-CD2	-5.31	117.81	121.00
5	B0	174	ARG	NE-CZ-NH1	5.31	122.95	120.30
2	15	164	ASP	CB-CG-OD1	5.31	123.08	118.30
4	A5	599	ASP	CB-CG-OD1	5.31	123.08	118.30
13	K3	231	ARG	NE-CZ-NH2	5.30	122.95	120.30
22	T1	566	ARG	NE-CZ-NH1	5.30	122.95	120.30
1	00	84	ARG	NE-CZ-NH2	5.30	122.95	120.30
2	12	1710	ARG	NE-CZ-NH2	-5.30	117.65	120.30
4	A1	773	ARG	NE-CZ-NH1	5.30	122.95	120.30
4	A2	802	ARG	CD-NE-CZ	5.30	131.02	123.60
4	A4	251	ARG	NE-CZ-NH1	5.30	122.95	120.30
16	N3	116	TYR	CB-CG-CD2	-5.30	117.82	121.00
4	A0	802	ARG	NE-CZ-NH1	5.30	122.95	120.30
20	R1	485	ARG	NE-CZ-NH1	5.30	122.95	120.30
15	M1	743	ARG	NE-CZ-NH1	5.30	122.95	120.30
18	P2	432	ARG	NE-CZ-NH1	5.30	122.95	120.30
4	A0	237	PRO	CB-CA-C	5.29	125.23	112.00
6	C3	255	ARG	NE-CZ-NH1	5.29	122.95	120.30
7	D4	537	ARG	NE-CZ-NH1	5.29	122.95	120.30
15	M1	633	ARG	CD-NE-CZ	5.29	131.01	123.60
1	04	229	ARG	NE-CZ-NH1	5.29	122.95	120.30
2	10	797	ARG	CD-NE-CZ	5.29	131.01	123.60
2	17	1067	ARG	NE-CZ-NH1	5.29	122.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	K3	596	ILE	CA-CB-CG2	-5.29	100.32	110.90
20	R0	832	ARG	NE-CZ-NH1	5.29	122.94	120.30
2	16	1225	ARG	NE-CZ-NH2	-5.29	117.66	120.30
10	H3	172	ARG	NH1-CZ-NH2	-5.29	113.58	119.40
2	16	783	ARG	NE-CZ-NH2	-5.29	117.66	120.30
13	K2	559	ARG	NE-CZ-NH1	5.29	122.94	120.30
20	R3	1286	ASP	N-CA-CB	-5.29	101.08	110.60
1	02	229	ARG	NE-CZ-NH1	5.29	122.94	120.30
2	14	797	ARG	CD-NE-CZ	5.29	131.00	123.60
2	17	1597	ARG	NE-CZ-NH1	5.29	122.94	120.30
9	F2	254	ARG	NE-CZ-NH1	5.29	122.94	120.30
2	13	1597	ARG	NE-CZ-NH1	5.28	122.94	120.30
2	16	1246	ARG	NE-CZ-NH1	5.28	122.94	120.30
5	B1	1071	ARG	NE-CZ-NH1	5.28	122.94	120.30
9	F2	169	ASP	CB-CG-OD1	5.28	123.06	118.30
20	R2	1191	ARG	NE-CZ-NH1	5.28	122.94	120.30
21	S2	74	ARG	NE-CZ-NH1	5.28	122.94	120.30
2	17	298	ARG	CD-NE-CZ	5.28	130.99	123.60
10	H1	203	ARG	NE-CZ-NH1	5.28	122.94	120.30
2	16	1067	ARG	NE-CZ-NH1	5.28	122.94	120.30
7	D5	924	ARG	NE-CZ-NH1	5.28	122.94	120.30
14	L0	340	ARG	NE-CZ-NH1	5.28	122.94	120.30
4	A5	773	ARG	NE-CZ-NH1	5.28	122.94	120.30
6	C1	1434	ARG	NE-CZ-NH1	5.28	122.94	120.30
6	C2	1418	ARG	NE-CZ-NH1	5.28	122.94	120.30
20	R1	1116	ARG	NE-CZ-NH1	5.28	122.94	120.30
21	S0	258	ARG	NE-CZ-NH1	5.28	122.94	120.30
6	C3	1085	ARG	NE-CZ-NH2	-5.27	117.66	120.30
14	L1	330	ARG	NE-CZ-NH2	5.27	122.94	120.30
13	K2	466	ARG	NE-CZ-NH1	5.27	122.94	120.30
22	T0	823	TYR	CB-CG-CD2	-5.27	117.84	121.00
5	B0	1745	ARG	NE-CZ-NH1	5.27	122.94	120.30
6	C0	388	TYR	CB-CG-CD2	-5.27	117.84	121.00
14	L3	728	GLU	N-CA-CB	5.27	120.09	110.60
20	R3	732	ARG	CD-NE-CZ	5.27	130.98	123.60
1	00	596	ARG	NE-CZ-NH1	5.27	122.93	120.30
2	12	1597	ARG	NE-CZ-NH1	5.27	122.93	120.30
4	A4	173	PRO	N-CA-CB	5.27	109.62	103.30
4	A6	251	ARG	NE-CZ-NH1	5.27	122.93	120.30
4	A6	675	ARG	NE-CZ-NH1	5.27	122.93	120.30
6	C0	1138	ARG	NE-CZ-NH1	5.27	122.93	120.30
6	C4	1138	ARG	NE-CZ-NH1	5.27	122.93	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	D3	252	ARG	NE-CZ-NH1	5.27	122.93	120.30
6	C1	1878	ARG	NE-CZ-NH1	5.27	122.93	120.30
18	P3	455	ARG	NE-CZ-NH1	5.27	122.93	120.30
7	D3	85	ARG	NE-CZ-NH1	5.26	122.93	120.30
10	H1	385	ARG	NE-CZ-NH1	5.26	122.93	120.30
21	S0	272	TYR	CB-CG-CD1	-5.26	117.84	121.00
2	16	984	ARG	NE-CZ-NH1	5.26	122.93	120.30
8	E1	346	ARG	NE-CZ-NH1	5.26	122.93	120.30
4	A6	97	ASP	CB-CG-OD2	-5.26	113.57	118.30
5	B0	495	ARG	CD-NE-CZ	5.26	130.96	123.60
14	L3	727	CYS	O-C-N	-5.26	114.29	122.70
18	P2	231	ARG	NE-CZ-NH1	5.26	122.93	120.30
2	17	1544	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	02	680	TYR	CB-CG-CD2	-5.26	117.85	121.00
14	L1	751	ARG	NE-CZ-NH1	5.25	122.93	120.30
14	L3	422	ARG	NH1-CZ-NH2	-5.25	113.62	119.40
2	10	1597	ARG	NE-CZ-NH1	5.25	122.93	120.30
4	A2	481	ARG	NE-CZ-NH1	5.25	122.93	120.30
6	C1	388	TYR	CB-CG-CD2	-5.25	117.85	121.00
6	C2	1990	ARG	NE-CZ-NH1	5.25	122.93	120.30
6	C3	4	PRO	C-N-CA	5.25	134.83	121.70
14	L1	697	ARG	NE-CZ-NH1	5.25	122.93	120.30
5	B1	729	ARG	NE-CZ-NH1	5.25	122.92	120.30
10	H0	397	ARG	NE-CZ-NH1	5.25	122.93	120.30
2	10	1067	ARG	NE-CZ-NH1	5.25	122.92	120.30
2	14	984	ARG	NE-CZ-NH1	5.25	122.92	120.30
14	L3	644	ARG	NE-CZ-NH1	5.25	122.92	120.30
16	N1	87	ARG	NE-CZ-NH1	5.25	122.92	120.30
21	S1	272	TYR	CB-CG-CD1	-5.25	117.85	121.00
2	14	1246	ARG	NE-CZ-NH1	5.25	122.92	120.30
17	O2	113	ARG	NE-CZ-NH1	5.25	122.92	120.30
2	10	1457	ARG	NE-CZ-NH1	5.24	122.92	120.30
2	14	416	ARG	NE-CZ-NH1	5.24	122.92	120.30
4	A4	172	PRO	O-C-N	-5.24	111.14	121.10
19	Q2	349	ARG	NE-CZ-NH1	5.24	122.92	120.30
2	15	1246	ARG	NE-CZ-NH1	5.24	122.92	120.30
7	D2	921	ARG	NE-CZ-NH1	5.24	122.92	120.30
7	D4	750	ARG	NE-CZ-NH1	5.24	122.92	120.30
19	Q2	157	ARG	NE-CZ-NH1	5.24	122.92	120.30
2	16	1544	ARG	NE-CZ-NH1	5.24	122.92	120.30
5	B1	1522	PRO	CA-N-CD	-5.24	104.16	111.50
15	M1	546	ARG	NE-CZ-NH2	-5.24	117.68	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	M2	818	ARG	NE-CZ-NH1	5.24	122.92	120.30
20	R0	700	ARG	NE-CZ-NH1	5.24	122.92	120.30
20	R1	57	ARG	NE-CZ-NH2	5.24	122.92	120.30
20	R2	700	ARG	NE-CZ-NH1	5.24	122.92	120.30
1	03	310	ARG	CD-NE-CZ	5.24	130.93	123.60
5	B1	174	ARG	NE-CZ-NH1	5.24	122.92	120.30
19	Q3	376	ARG	NE-CZ-NH2	5.24	122.92	120.30
25	W0	520	ARG	NE-CZ-NH1	5.24	122.92	120.30
2	10	984	ARG	NE-CZ-NH1	5.24	122.92	120.30
5	B0	1682	ARG	NE-CZ-NH1	5.24	122.92	120.30
6	C4	1054	ARG	NE-CZ-NH1	5.24	122.92	120.30
7	D3	1347	ARG	CD-NE-CZ	5.24	130.93	123.60
10	H2	439	ARG	NH1-CZ-NH2	-5.24	113.64	119.40
13	K3	743	ARG	NE-CZ-NH1	5.24	122.92	120.30
15	M3	423	ARG	NH1-CZ-NH2	-5.23	113.64	119.40
3	41	191	ARG	NE-CZ-NH1	5.23	122.92	120.30
6	C4	582	ARG	NE-CZ-NH1	5.23	122.92	120.30
7	D0	1076	ARG	NE-CZ-NH1	5.23	122.92	120.30
7	D5	1096	ARG	NE-CZ-NH1	5.23	122.92	120.30
13	K1	314	ARG	NE-CZ-NH1	5.23	122.92	120.30
14	L2	422	ARG	NH1-CZ-NH2	-5.23	113.64	119.40
20	R2	1173	ARG	NE-CZ-NH1	5.23	122.92	120.30
4	A3	593	ARG	NE-CZ-NH1	5.23	122.91	120.30
13	K1	675	ARG	NE-CZ-NH1	5.23	122.92	120.30
18	P1	213	ARG	NE-CZ-NH1	5.23	122.91	120.30
2	15	1312	ARG	NE-CZ-NH1	5.23	122.91	120.30
2	16	751	ARG	NE-CZ-NH1	5.23	122.91	120.30
4	A1	484	ARG	NH1-CZ-NH2	-5.23	113.65	119.40
7	D2	1083	ARG	CD-NE-CZ	5.23	130.92	123.60
10	H3	285	ARG	NE-CZ-NH1	5.23	122.91	120.30
13	K3	884	ARG	NE-CZ-NH1	5.23	122.91	120.30
7	D4	1163	ARG	NE-CZ-NH1	5.23	122.91	120.30
11	I0	360	TYR	CB-CG-CD2	-5.23	117.86	121.00
14	L1	896	GLU	OE1-CD-OE2	5.23	129.57	123.30
20	R0	732	ARG	CD-NE-CZ	5.23	130.92	123.60
7	D2	86	ARG	NE-CZ-NH1	5.22	122.91	120.30
14	L2	340	ARG	NE-CZ-NH1	5.22	122.91	120.30
17	O1	207	ARG	CD-NE-CZ	5.22	130.91	123.60
4	A4	175	ARG	NH1-CZ-NH2	-5.22	113.66	119.40
6	C0	1935	ARG	NE-CZ-NH1	5.22	122.91	120.30
7	D4	1066	ARG	NE-CZ-NH1	5.22	122.91	120.30
10	H1	285	ARG	NE-CZ-NH1	5.22	122.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	T0	706	ARG	NE-CZ-NH1	5.22	122.91	120.30
15	M1	916	TYR	CB-CG-CD2	-5.22	117.87	121.00
18	P1	641	ARG	NE-CZ-NH1	5.22	122.91	120.30
2	12	334	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	03	193	ARG	NE-CZ-NH1	5.22	122.91	120.30
4	A1	762	ARG	NE-CZ-NH2	5.22	122.91	120.30
5	B0	259	ASP	CB-CG-OD1	5.22	123.00	118.30
5	B1	531	ARG	NE-CZ-NH1	5.22	122.91	120.30
14	L1	422	ARG	NH1-CZ-NH2	-5.22	113.66	119.40
18	P0	455	ARG	NE-CZ-NH1	5.22	122.91	120.30
6	C3	1534	ARG	NE-CZ-NH1	5.21	122.91	120.30
13	K0	578	ARG	NE-CZ-NH1	5.21	122.91	120.30
13	K2	798	ARG	NE-CZ-NH1	5.21	122.91	120.30
19	Q2	152	ARG	NE-CZ-NH1	5.21	122.91	120.30
18	P2	323	ASP	CB-CG-OD1	5.21	122.99	118.30
1	04	193	ARG	NE-CZ-NH1	5.21	122.91	120.30
2	17	334	ARG	NE-CZ-NH2	-5.21	117.70	120.30
7	D5	336	ARG	NE-CZ-NH1	5.21	122.91	120.30
20	R1	481	ARG	NE-CZ-NH1	5.21	122.90	120.30
4	A5	781	ARG	NE-CZ-NH2	-5.21	117.70	120.30
7	D3	1100	ARG	NE-CZ-NH1	5.21	122.90	120.30
7	D5	1074	ARG	NE-CZ-NH1	5.21	122.90	120.30
12	J2	377	ARG	NE-CZ-NH1	5.21	122.90	120.30
24	V0	923	THR	CA-CB-CG2	5.21	119.69	112.40
16	N0	35	ARG	NE-CZ-NH1	5.21	122.90	120.30
6	C3	1082	ARG	NE-CZ-NH1	5.20	122.90	120.30
12	J3	377	ARG	NE-CZ-NH1	5.20	122.90	120.30
18	P3	323	ASP	CB-CG-OD1	5.20	122.98	118.30
2	16	357	ARG	NE-CZ-NH1	5.20	122.90	120.30
5	B1	291	ARG	NE-CZ-NH2	-5.20	117.70	120.30
4	A4	481	ARG	NE-CZ-NH1	5.20	122.90	120.30
7	D0	1163	ARG	NH1-CZ-NH2	-5.20	113.68	119.40
13	K2	1042	ARG	NE-CZ-NH1	5.20	122.90	120.30
21	S3	272	TYR	CB-CG-CD1	-5.20	117.88	121.00
4	A1	130	ARG	NH1-CZ-NH2	-5.20	113.68	119.40
15	M3	870	ARG	NE-CZ-NH1	5.20	122.90	120.30
4	A3	790	ARG	NE-CZ-NH2	-5.20	117.70	120.30
14	L2	751	ARG	NE-CZ-NH1	5.20	122.90	120.30
2	11	1223	ARG	NE-CZ-NH1	5.20	122.90	120.30
5	B0	1071	ARG	NE-CZ-NH1	5.20	122.90	120.30
6	C3	1131	ARG	NE-CZ-NH1	5.20	122.90	120.30
7	D1	288	ARG	NE-CZ-NH1	5.20	122.90	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	C0	677	ARG	NE-CZ-NH1	5.19	122.90	120.30
1	01	310	ARG	CD-NE-CZ	5.19	130.87	123.60
2	17	1378	ARG	NE-CZ-NH2	5.19	122.89	120.30
6	C1	1138	ARG	NE-CZ-NH1	5.19	122.90	120.30
7	D0	86	ARG	CD-NE-CZ	5.19	130.87	123.60
1	00	113	ARG	NE-CZ-NH1	5.19	122.89	120.30
2	11	1544	ARG	NE-CZ-NH1	5.19	122.89	120.30
2	15	984	ARG	NE-CZ-NH1	5.19	122.89	120.30
2	16	1250	ARG	NE-CZ-NH1	5.19	122.89	120.30
21	S0	7	ARG	NH1-CZ-NH2	-5.19	113.70	119.40
2	12	1082	ARG	NE-CZ-NH1	5.18	122.89	120.30
6	C0	1434	ARG	NE-CZ-NH1	5.18	122.89	120.30
7	D1	898	ARG	NH1-CZ-NH2	-5.18	113.70	119.40
7	D3	288	ARG	NE-CZ-NH1	5.18	122.89	120.30
16	N3	239	ARG	NE-CZ-NH1	5.18	122.89	120.30
20	R1	732	ARG	CD-NE-CZ	5.18	130.86	123.60
4	A4	167	ILE	CG1-CB-CG2	5.18	122.80	111.40
4	A5	338	VAL	CA-CB-CG1	5.18	118.67	110.90
10	H3	397	ARG	NE-CZ-NH1	5.18	122.89	120.30
20	R2	1295	TYR	CB-CG-CD2	-5.18	117.89	121.00
2	12	1710	ARG	NE-CZ-NH1	5.18	122.89	120.30
4	A0	786	ARG	NE-CZ-NH2	-5.18	117.71	120.30
7	D1	1117	TYR	CB-CG-CD2	-5.18	117.89	121.00
7	D3	1347	ARG	NE-CZ-NH1	5.18	122.89	120.30
1	01	193	ARG	NE-CZ-NH1	5.18	122.89	120.30
2	14	334	ARG	NE-CZ-NH2	-5.18	117.71	120.30
12	J1	377	ARG	NE-CZ-NH1	5.18	122.89	120.30
4	A2	578	ARG	CD-NE-CZ	5.18	130.85	123.60
9	F3	112	ARG	NE-CZ-NH2	-5.18	117.71	120.30
14	L0	842	ARG	NE-CZ-NH1	5.18	122.89	120.30
15	M3	762	HIS	CA-CB-CG	5.18	122.40	113.60
20	R3	1286	ASP	N-CA-C	5.18	124.98	111.00
2	12	1544	ARG	NE-CZ-NH1	5.17	122.89	120.30
6	C1	1133	ARG	NE-CZ-NH1	5.17	122.89	120.30
6	C3	54	PHE	CB-CG-CD2	-5.17	117.18	120.80
6	C4	1133	ARG	NE-CZ-NH2	5.17	122.89	120.30
2	15	1544	ARG	NE-CZ-NH1	5.17	122.89	120.30
4	A5	524	ARG	NE-CZ-NH1	5.17	122.89	120.30
6	C2	1906	ARG	NE-CZ-NH1	5.17	122.89	120.30
6	C3	411	ARG	CD-NE-CZ	5.17	130.84	123.60
6	C4	889	ARG	NH1-CZ-NH2	-5.17	113.71	119.40
22	T1	231	ARG	NE-CZ-NH1	5.17	122.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	10	1082	ARG	NE-CZ-NH1	5.17	122.89	120.30
2	17	1250	ARG	NE-CZ-NH1	5.17	122.89	120.30
6	C4	746	ARG	NE-CZ-NH1	5.17	122.89	120.30
7	D4	391	ARG	CD-NE-CZ	5.17	130.83	123.60
10	H3	430	ARG	NE-CZ-NH1	5.17	122.88	120.30
22	T0	861	ARG	NE-CZ-NH2	5.17	122.88	120.30
6	C0	1939	SER	CA-C-N	5.17	128.56	117.20
6	C3	748	ARG	NE-CZ-NH1	5.16	122.88	120.30
18	P2	455	ARG	NE-CZ-NH1	5.16	122.88	120.30
6	C0	411	ARG	CD-NE-CZ	5.16	130.82	123.60
13	K3	675	ARG	NE-CZ-NH1	5.16	122.88	120.30
15	M1	765	ARG	NE-CZ-NH1	5.16	122.88	120.30
18	P0	323	ASP	CB-CG-OD1	5.16	122.94	118.30
22	T0	993	ARG	NE-CZ-NH2	-5.16	117.72	120.30
7	D3	1120	ARG	NH1-CZ-NH2	-5.16	113.73	119.40
15	M2	423	ARG	NE-CZ-NH1	5.16	122.88	120.30
16	N3	35	ARG	NE-CZ-NH1	5.16	122.88	120.30
2	11	1457	ARG	NE-CZ-NH1	5.16	122.88	120.30
4	A6	340	ARG	NE-CZ-NH1	5.16	122.88	120.30
10	H2	385	ARG	NE-CZ-NH1	5.16	122.88	120.30
2	13	1082	ARG	NE-CZ-NH1	5.16	122.88	120.30
6	C4	1307	ARG	NE-CZ-NH1	5.16	122.88	120.30
10	H1	172	ARG	NH1-CZ-NH2	-5.15	113.73	119.40
10	H1	375	TYR	CB-CG-CD2	-5.15	117.91	121.00
14	L0	422	ARG	NH1-CZ-NH2	-5.15	113.73	119.40
7	D3	32	ARG	NE-CZ-NH1	5.15	122.88	120.30
10	H1	397	ARG	NE-CZ-NH1	5.15	122.88	120.30
4	A2	662	ARG	CD-NE-CZ	5.15	130.81	123.60
6	C2	1252	ARG	NE-CZ-NH1	5.15	122.88	120.30
1	04	680	TYR	CB-CG-CD2	-5.15	117.91	121.00
2	14	1250	ARG	NE-CZ-NH1	5.15	122.87	120.30
4	A2	593	ARG	NE-CZ-NH1	5.15	122.87	120.30
6	C0	1938	ASP	CB-CA-C	5.15	120.70	110.40
7	D3	968	ARG	NE-CZ-NH1	5.15	122.87	120.30
7	D4	1120	ARG	NE-CZ-NH1	5.15	122.87	120.30
20	R0	1290	ARG	NH1-CZ-NH2	-5.15	113.74	119.40
4	A2	88	GLU	CB-CA-C	5.15	120.69	110.40
20	R1	1133	ARG	NE-CZ-NH1	5.15	122.87	120.30
7	D4	1298	ARG	NE-CZ-NH1	5.14	122.87	120.30
13	K1	401	ASP	CB-CG-OD1	5.14	122.93	118.30
20	R3	700	ARG	NE-CZ-NH1	5.14	122.87	120.30
4	A0	67	ARG	NE-CZ-NH1	5.14	122.87	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A2	729	GLU	OE1-CD-OE2	-5.14	117.13	123.30
18	P0	641	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	13	941	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	15	1250	ARG	NE-CZ-NH1	5.14	122.87	120.30
6	C1	1252	ARG	NE-CZ-NH1	5.14	122.87	120.30
7	D5	1066	ARG	NE-CZ-NH1	5.14	122.87	120.30
15	M1	708	ARG	NE-CZ-NH2	-5.14	117.73	120.30
17	O3	233	ARG	NE-CZ-NH1	5.14	122.87	120.30
2	13	751	ARG	NE-CZ-NH1	5.14	122.87	120.30
6	C3	4	PRO	N-CD-CG	-5.14	95.49	103.20
4	A4	97	ASP	CB-CG-OD2	-5.13	113.68	118.30
6	C1	677	ARG	NE-CZ-NH1	5.13	122.87	120.30
14	L0	697	ARG	NE-CZ-NH2	-5.13	117.73	120.30
20	R1	365	ARG	NE-CZ-NH1	5.13	122.87	120.30
22	T0	457	ARG	NE-CZ-NH1	5.13	122.87	120.30
4	A3	578	ARG	CD-NE-CZ	5.13	130.79	123.60
2	11	1378	ARG	NE-CZ-NH2	5.13	122.87	120.30
2	15	1225	ARG	NE-CZ-NH2	-5.13	117.73	120.30
7	D0	883	ARG	NE-CZ-NH1	5.13	122.87	120.30
25	W0	228	ARG	NE-CZ-NH2	-5.13	117.73	120.30
2	14	1710	ARG	NE-CZ-NH1	5.13	122.86	120.30
2	16	1457	ARG	NE-CZ-NH1	5.13	122.86	120.30
7	D0	920	TYR	CB-CG-CD2	-5.13	117.92	121.00
7	D5	391	ARG	CD-NE-CZ	5.13	130.78	123.60
3	41	258	ARG	NE-CZ-NH1	5.12	122.86	120.30
6	C1	411	ARG	CD-NE-CZ	5.12	130.77	123.60
13	K0	884	ARG	NE-CZ-NH1	5.12	122.86	120.30
15	M0	633	ARG	CD-NE-CZ	5.12	130.77	123.60
2	10	1223	ARG	NE-CZ-NH1	5.12	122.86	120.30
15	M2	824	ARG	NE-CZ-NH2	5.12	122.86	120.30
18	P1	323	ASP	CB-CG-OD1	5.12	122.91	118.30
2	17	1082	ARG	NE-CZ-NH1	5.12	122.86	120.30
9	F3	254	ARG	NE-CZ-NH2	-5.12	117.74	120.30
16	N1	35	ARG	NE-CZ-NH1	5.12	122.86	120.30
2	11	984	ARG	NE-CZ-NH1	5.12	122.86	120.30
2	12	1378	ARG	NE-CZ-NH2	5.12	122.86	120.30
5	B0	599	ARG	NE-CZ-NH2	5.12	122.86	120.30
7	D0	1074	ARG	NE-CZ-NH1	5.12	122.86	120.30
2	17	941	ARG	NE-CZ-NH1	5.12	122.86	120.30
15	M0	414	ARG	NE-CZ-NH1	5.12	122.86	120.30
4	A3	568	ARG	NE-CZ-NH1	5.11	122.86	120.30
6	C4	1451	ARG	NE-CZ-NH1	5.11	122.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	13	1223	ARG	NE-CZ-NH1	5.11	122.86	120.30
7	D4	86	ARG	CD-NE-CZ	5.11	130.76	123.60
22	T0	887	ARG	NE-CZ-NH1	5.11	122.86	120.30
18	P3	571	ARG	NE-CZ-NH1	5.11	122.86	120.30
15	M1	424	ARG	NE-CZ-NH1	5.11	122.86	120.30
20	R1	732	ARG	NE-CZ-NH1	5.11	122.86	120.30
1	00	161	ARG	NE-CZ-NH1	5.11	122.85	120.30
2	14	1082	ARG	NE-CZ-NH1	5.11	122.85	120.30
7	D2	920	TYR	CB-CG-CD2	-5.11	117.94	121.00
25	W0	539	ARG	NH1-CZ-NH2	-5.11	113.78	119.40
10	H1	439	ARG	NE-CZ-NH1	5.11	122.85	120.30
14	L2	413	ARG	NE-CZ-NH2	-5.11	117.75	120.30
15	M2	546	ARG	NE-CZ-NH2	-5.10	117.75	120.30
2	10	1250	ARG	NE-CZ-NH1	5.10	122.85	120.30
14	L3	340	ARG	NE-CZ-NH1	5.10	122.85	120.30
15	M0	901	ARG	NE-CZ-NH1	5.10	122.85	120.30
18	P1	61	VAL	CG1-CB-CG2	-5.10	102.75	110.90
4	A6	448	TYR	CB-CG-CD2	-5.09	117.94	121.00
6	C3	84	ARG	NH1-CZ-NH2	-5.09	113.80	119.40
6	C4	413	ARG	NE-CZ-NH1	5.09	122.85	120.30
14	L0	405	ARG	NE-CZ-NH1	5.09	122.85	120.30
2	10	1655	ARG	NE-CZ-NH1	5.09	122.85	120.30
6	C0	1133	ARG	NE-CZ-NH1	5.09	122.84	120.30
5	B1	526	ARG	CD-NE-CZ	5.09	130.73	123.60
6	C2	1581	ARG	NE-CZ-NH1	5.09	122.84	120.30
7	D5	920	TYR	CB-CG-CD2	-5.09	117.95	121.00
5	B0	729	ARG	NE-CZ-NH2	-5.09	117.76	120.30
6	C3	1483	ARG	NE-CZ-NH2	-5.09	117.76	120.30
6	C4	1133	ARG	NE-CZ-NH1	5.09	122.84	120.30
7	D3	86	ARG	NE-CZ-NH1	5.09	122.84	120.30
7	D3	571	ARG	NE-CZ-NH1	5.09	122.84	120.30
19	Q1	182	ARG	NE-CZ-NH1	5.09	122.84	120.30
1	00	310	ARG	CD-NE-CZ	5.08	130.72	123.60
6	C1	1493	ARG	NE-CZ-NH1	5.08	122.84	120.30
13	K0	675	ARG	NE-CZ-NH1	5.08	122.84	120.30
2	13	1544	ARG	NE-CZ-NH1	5.08	122.84	120.30
2	16	1082	ARG	NE-CZ-NH1	5.08	122.84	120.30
14	L0	374	ARG	NH1-CZ-NH2	-5.08	113.81	119.40
14	L3	669	ARG	NE-CZ-NH1	5.08	122.84	120.30
18	P1	534	ARG	NE-CZ-NH1	5.08	122.84	120.30
6	C3	30	ARG	NE-CZ-NH1	5.08	122.84	120.30
2	15	1082	ARG	NE-CZ-NH1	5.08	122.84	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	P1	267	ARG	NE-CZ-NH1	5.08	122.84	120.30
18	P2	567	ARG	NE-CZ-NH1	5.08	122.84	120.30
2	10	941	ARG	NE-CZ-NH1	5.08	122.84	120.30
7	D0	288	ARG	NE-CZ-NH1	5.08	122.84	120.30
2	11	1788	ASP	CB-CA-C	5.08	120.55	110.40
6	C3	1906	ARG	NE-CZ-NH1	5.08	122.84	120.30
7	D5	968	ARG	NE-CZ-NH1	5.08	122.84	120.30
15	M3	901	ARG	NE-CZ-NH1	5.08	122.84	120.30
10	H2	375	TYR	CB-CG-CD2	-5.07	117.96	121.00
5	B1	729	ARG	NE-CZ-NH2	-5.07	117.76	120.30
19	Q1	376	ARG	NE-CZ-NH1	5.07	122.84	120.30
20	R0	1298	ARG	NE-CZ-NH1	5.07	122.84	120.30
1	02	113	ARG	NE-CZ-NH1	5.07	122.83	120.30
2	11	1250	ARG	NE-CZ-NH1	5.07	122.84	120.30
4	A1	593	ARG	NE-CZ-NH1	5.07	122.83	120.30
5	B0	1475	ARG	NE-CZ-NH1	5.07	122.83	120.30
2	10	1378	ARG	NE-CZ-NH2	5.07	122.83	120.30
6	C3	153	ARG	NE-CZ-NH2	5.07	122.83	120.30
6	C3	1234	ARG	NE-CZ-NH1	5.07	122.83	120.30
13	K3	1042	ARG	NE-CZ-NH1	5.07	122.83	120.30
14	L3	374	ARG	NH1-CZ-NH2	-5.07	113.83	119.40
17	O1	5	ARG	NH1-CZ-NH2	-5.07	113.83	119.40
20	R2	1298	ARG	NE-CZ-NH1	5.07	122.83	120.30
20	R0	129	ARG	NE-CZ-NH1	5.06	122.83	120.30
7	D1	920	TYR	CB-CG-CD2	-5.06	117.96	121.00
8	E0	536	ARG	NE-CZ-NH1	5.06	122.83	120.30
2	11	1655	ARG	NE-CZ-NH1	5.06	122.83	120.30
20	R0	959	ARG	NE-CZ-NH1	5.06	122.83	120.30
22	T0	29	THR	C-N-CA	5.06	134.35	121.70
6	C2	1434	ARG	NE-CZ-NH1	5.06	122.83	120.30
15	M3	369	TYR	CB-CG-CD2	-5.06	117.96	121.00
21	S0	247	ARG	NE-CZ-NH1	5.06	122.83	120.30
22	T1	457	ARG	NE-CZ-NH1	5.06	122.83	120.30
2	12	597	ARG	NE-CZ-NH2	-5.06	117.77	120.30
5	B0	291	ARG	NE-CZ-NH2	-5.06	117.77	120.30
7	D2	521	ARG	CD-NE-CZ	5.06	130.68	123.60
9	F2	111	ARG	NH1-CZ-NH2	-5.06	113.84	119.40
10	H2	285	ARG	NE-CZ-NH1	5.06	122.83	120.30
18	P0	213	ARG	NE-CZ-NH1	5.06	122.83	120.30
20	R2	611	ARG	NE-CZ-NH1	5.06	122.83	120.30
6	C2	1729	ARG	NE-CZ-NH1	5.06	122.83	120.30
6	C1	746	ARG	NE-CZ-NH1	5.05	122.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	H0	285	ARG	NE-CZ-NH1	5.05	122.83	120.30
20	R1	1428	ARG	NE-CZ-NH1	5.05	122.83	120.30
3	41	13	ARG	NE-CZ-NH1	5.05	122.83	120.30
5	B1	1475	ARG	NE-CZ-NH1	5.05	122.83	120.30
14	L3	697	ARG	NE-CZ-NH1	5.05	122.83	120.30
15	M3	414	ARG	NE-CZ-NH1	5.05	122.83	120.30
4	A3	130	ARG	NH1-CZ-NH2	-5.05	113.84	119.40
4	A6	555	ARG	CD-NE-CZ	5.05	130.67	123.60
8	E1	536	ARG	NE-CZ-NH1	5.05	122.83	120.30
2	10	334	ARG	NE-CZ-NH2	-5.05	117.78	120.30
2	11	1082	ARG	NE-CZ-NH1	5.05	122.82	120.30
7	D2	1348	ARG	NE-CZ-NH1	5.05	122.82	120.30
6	C3	1792	ARG	NE-CZ-NH1	5.04	122.82	120.30
7	D1	898	ARG	NE-CZ-NH1	5.04	122.82	120.30
25	W0	203	ARG	NE-CZ-NH1	5.04	122.82	120.30
2	13	1457	ARG	NE-CZ-NH1	5.04	122.82	120.30
7	D4	571	ARG	NE-CZ-NH1	5.04	122.82	120.30
13	K1	814	ASP	CB-CG-OD1	5.04	122.84	118.30
22	T0	453	ARG	NE-CZ-NH2	-5.04	117.78	120.30
2	11	416	ARG	NE-CZ-NH1	5.04	122.82	120.30
18	P1	311	ARG	NE-CZ-NH1	5.04	122.82	120.30
6	C2	1054	ARG	NE-CZ-NH1	5.04	122.82	120.30
6	C4	1180	ARG	NE-CZ-NH1	5.04	122.82	120.30
20	R2	1429	ASP	CB-CG-OD1	5.04	122.83	118.30
5	B0	1345	ARG	NE-CZ-NH2	5.03	122.82	120.30
12	J1	388	ARG	NE-CZ-NH1	5.03	122.82	120.30
20	R2	57	ARG	NE-CZ-NH2	5.03	122.82	120.30
18	P1	513	ARG	NE-CZ-NH1	5.03	122.82	120.30
4	A5	555	ARG	CD-NE-CZ	5.03	130.64	123.60
10	H3	254	ARG	NE-CZ-NH2	-5.03	117.78	120.30
4	A0	143	ARG	NH1-CZ-NH2	-5.03	113.87	119.40
8	E0	206	ARG	NE-CZ-NH1	5.03	122.81	120.30
15	M0	369	TYR	CB-CG-CD2	-5.03	117.98	121.00
2	15	1655	ARG	NE-CZ-NH2	-5.03	117.79	120.30
7	D0	863	CYS	CB-CA-C	5.03	120.45	110.40
6	C2	391	ARG	NE-CZ-NH1	5.02	122.81	120.30
10	H0	375	TYR	CB-CG-CD2	-5.02	117.98	121.00
18	P1	455	ARG	NE-CZ-NH1	5.02	122.81	120.30
21	S1	74	ARG	NE-CZ-NH1	5.02	122.81	120.30
5	B0	526	ARG	NE-CZ-NH1	5.02	122.81	120.30
7	D2	972	TYR	CB-CG-CD2	-5.02	117.99	121.00
15	M0	423	ARG	NH1-CZ-NH2	-5.02	113.87	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	02	193	ARG	NE-CZ-NH1	5.02	122.81	120.30
2	13	1378	ARG	NE-CZ-NH2	5.02	122.81	120.30
4	A1	786	ARG	NE-CZ-NH2	-5.02	117.79	120.30
20	R1	1191	ARG	NE-CZ-NH1	5.02	122.81	120.30
7	D0	1347	ARG	CD-NE-CZ	5.02	130.62	123.60
7	D2	288	ARG	NE-CZ-NH1	5.02	122.81	120.30
9	F0	254	ARG	NE-CZ-NH1	5.02	122.81	120.30
13	K1	231	ARG	NE-CZ-NH2	5.02	122.81	120.30
6	C3	774	ARG	CD-NE-CZ	5.02	130.62	123.60
15	M2	515	ARG	NE-CZ-NH1	5.02	122.81	120.30
1	03	180	ARG	NE-CZ-NH2	-5.01	117.79	120.30
22	T1	993	ARG	NE-CZ-NH2	-5.01	117.79	120.30
4	A3	530	ARG	CD-NE-CZ	5.01	130.62	123.60
6	C3	48	PRO	N-CA-CB	5.01	109.31	103.30
13	K2	888	TYR	CB-CG-CD2	-5.01	117.99	121.00
21	S3	258	ARG	NE-CZ-NH1	5.01	122.81	120.30
23	U0	857	ARG	NE-CZ-NH1	5.01	122.81	120.30
13	K3	559	ARG	NE-CZ-NH1	5.01	122.81	120.30
21	S3	247	ARG	NE-CZ-NH1	5.01	122.80	120.30
7	D2	32	ARG	NE-CZ-NH1	5.01	122.80	120.30
14	L0	697	ARG	CD-NE-CZ	5.01	130.61	123.60
4	A2	130	ARG	CD-NE-CZ	5.01	130.61	123.60
13	K2	578	ARG	NE-CZ-NH1	5.01	122.80	120.30
24	V0	854	ARG	NE-CZ-NH1	5.01	122.80	120.30
2	12	941	ARG	NE-CZ-NH1	5.00	122.80	120.30
1	04	113	ARG	NE-CZ-NH1	5.00	122.80	120.30

All (11) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	A0	156	LEU	CA
6	C0	174	THR	CB
6	C1	174	THR	CB
6	C2	174	THR	CB
6	C3	174	THR	CB
6	C4	174	THR	CB
18	P1	552	ARG	CA
22	T0	856	HIS	CA
22	T0	882	VAL	CA
22	T1	856	HIS	CA
22	T1	882	VAL	CA

All (728) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	00	132	TYR	Sidechain
1	00	175	TYR	Sidechain
1	00	193	ARG	Sidechain
1	00	375	THR	Peptide,Mainchain
1	00	710	TYR	Sidechain
1	01	132	TYR	Sidechain
1	01	193	ARG	Sidechain
1	01	710	TYR	Sidechain
1	02	132	TYR	Sidechain
1	02	161	ARG	Peptide
1	02	193	ARG	Sidechain
1	02	710	TYR	Sidechain
1	03	10	ARG	Sidechain
1	03	132	TYR	Sidechain
1	03	166	HIS	Sidechain
1	03	193	ARG	Sidechain
1	03	710	TYR	Sidechain
1	04	161	ARG	Peptide
1	04	165	VAL	Peptide
1	04	193	ARG	Sidechain
1	04	710	TYR	Sidechain
2	10	1176	ILE	Mainchain
2	10	1180	ARG	Sidechain
2	10	1537	TYR	Sidechain
2	10	1788	ASP	Peptide
2	10	236	ARG	Sidechain
2	10	24	ALA	Peptide
2	10	334	ARG	Sidechain
2	10	42	ARG	Sidechain
2	10	5	GLY	Mainchain
2	10	644	LYS	Peptide
2	10	698	HIS	Peptide
2	11	1176	ILE	Mainchain
2	11	1180	ARG	Sidechain
2	11	1537	TYR	Sidechain
2	11	1786	VAL	Peptide
2	11	236	ARG	Sidechain
2	11	24	ALA	Peptide
2	11	334	ARG	Sidechain
2	11	42	ARG	Sidechain
2	11	472	TYR	Sidechain
2	11	5	GLY	Mainchain

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Mol	Chain	Res	Type	Group
2	11	698	HIS	Peptide
2	11	742	VAL	Peptide
2	11	743	LYS	Peptide
2	12	1178	ARG	Sidechain
2	12	1180	ARG	Sidechain
2	12	1537	TYR	Sidechain
2	12	1789	ARG	Sidechain
2	12	236	ARG	Sidechain
2	12	24	ALA	Peptide
2	12	334	ARG	Sidechain
2	12	42	ARG	Sidechain
2	12	5	GLY	Mainchain
2	12	698	HIS	Peptide
2	13	1165	LEU	Peptide
2	13	1180	ARG	Sidechain
2	13	1537	TYR	Sidechain
2	13	1788	ASP	Peptide
2	13	1789	ARG	Peptide
2	13	236	ARG	Sidechain
2	13	24	ALA	Peptide
2	13	334	ARG	Sidechain
2	13	42	ARG	Sidechain
2	13	5	GLY	Mainchain
2	13	644	LYS	Peptide
2	13	669	ARG	Sidechain
2	13	698	HIS	Peptide
2	14	1180	ARG	Sidechain
2	14	1537	TYR	Sidechain
2	14	1556	ARG	Sidechain
2	14	1584	ARG	Sidechain
2	14	236	ARG	Sidechain
2	14	24	ALA	Peptide
2	14	334	ARG	Sidechain
2	14	42	ARG	Sidechain
2	14	5	GLY	Mainchain
2	14	698	HIS	Peptide
2	14	746	CYS	Peptide
2	15	1180	ARG	Sidechain
2	15	1537	TYR	Sidechain
2	15	1556	ARG	Sidechain
2	15	1584	ARG	Sidechain
2	15	236	ARG	Sidechain

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Mol	Chain	Res	Type	Group
2	15	24	ALA	Peptide
2	15	334	ARG	Sidechain
2	15	42	ARG	Sidechain
2	15	472	TYR	Sidechain
2	15	5	GLY	Mainchain
2	15	698	HIS	Peptide
2	15	746	CYS	Peptide
2	15	747	ALA	Peptide
2	16	1180	ARG	Sidechain
2	16	1537	TYR	Sidechain
2	16	1584	ARG	Sidechain
2	16	236	ARG	Sidechain
2	16	24	ALA	Peptide
2	16	334	ARG	Sidechain
2	16	42	ARG	Sidechain
2	16	472	TYR	Sidechain
2	16	5	GLY	Mainchain
2	16	698	HIS	Peptide
2	17	1180	ARG	Sidechain
2	17	1537	TYR	Sidechain
2	17	1556	ARG	Sidechain
2	17	1584	ARG	Sidechain
2	17	1688	SER	Peptide
2	17	236	ARG	Sidechain
2	17	24	ALA	Peptide
2	17	252	TYR	Sidechain
2	17	334	ARG	Sidechain
2	17	42	ARG	Sidechain
2	17	5	GLY	Mainchain
2	17	644	LYS	Peptide
2	17	698	HIS	Peptide
3	40	206	ALA	Peptide
3	40	286	ARG	Peptide
3	40	30	SER	Peptide
3	40	392	GLU	Peptide
3	41	206	ALA	Peptide
3	41	272	TRP	Peptide
3	41	286	ARG	Sidechain,Peptide
3	41	30	SER	Peptide
3	41	392	GLU	Peptide
4	A0	118	ARG	Sidechain
4	A0	128	TYR	Sidechain

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Mol	Chain	Res	Type	Group
4	A0	154	ASP	Peptide
4	A0	156	LEU	Peptide
4	A0	166	TYR	Sidechain
4	A0	175	ARG	Peptide
4	A0	340	ARG	Sidechain
4	A0	362	ARG	Sidechain
4	A0	396	ARG	Sidechain
4	A0	486	ARG	Sidechain
4	A0	525	ARG	Sidechain
4	A0	545	ARG	Sidechain
4	A0	555	ARG	Sidechain
4	A0	706	HIS	Peptide
4	A0	709	ARG	Sidechain
4	A0	716	ARG	Sidechain
4	A0	730	ARG	Sidechain
4	A0	77	ARG	Sidechain
4	A0	773	ARG	Peptide
4	A0	781	ARG	Sidechain
4	A0	790	ARG	Sidechain
4	A0	88	GLU	Peptide
4	A0	91	GLU	Peptide
4	A1	155	ALA	Peptide
4	A1	165	SER	Peptide
4	A1	190	TYR	Sidechain
4	A1	269	TYR	Sidechain
4	A1	340	ARG	Sidechain
4	A1	362	ARG	Sidechain
4	A1	486	ARG	Sidechain
4	A1	525	ARG	Sidechain
4	A1	545	ARG	Sidechain
4	A1	555	ARG	Sidechain
4	A1	716	ARG	Sidechain
4	A1	730	ARG	Sidechain
4	A1	767	SER	Peptide
4	A1	781	ARG	Sidechain
4	A1	790	ARG	Sidechain
4	A1	802	ARG	Peptide
4	A2	118	ARG	Sidechain
4	A2	128	TYR	Sidechain
4	A2	157	ASP	Peptide
4	A2	158	PHE	Peptide
4	A2	269	TYR	Sidechain

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Mol	Chain	Res	Type	Group
4	A2	340	ARG	Sidechain
4	A2	362	ARG	Sidechain
4	A2	525	ARG	Sidechain
4	A2	545	ARG	Sidechain
4	A2	555	ARG	Sidechain
4	A2	706	HIS	Peptide
4	A2	709	ARG	Sidechain
4	A2	716	ARG	Sidechain
4	A2	730	ARG	Sidechain
4	A2	77	ARG	Sidechain
4	A2	781	ARG	Sidechain
4	A2	802	ARG	Peptide
4	A3	159	THR	Peptide
4	A3	175	ARG	Peptide
4	A3	269	TYR	Sidechain
4	A3	340	ARG	Sidechain
4	A3	362	ARG	Sidechain
4	A3	486	ARG	Sidechain
4	A3	525	ARG	Sidechain
4	A3	545	ARG	Sidechain
4	A3	555	ARG	Sidechain
4	A3	716	ARG	Sidechain
4	A3	730	ARG	Sidechain
4	A3	781	ARG	Sidechain
4	A3	786	ARG	Sidechain
4	A3	91	GLU	Peptide
4	A4	128	TYR	Sidechain
4	A4	175	ARG	Peptide
4	A4	340	ARG	Sidechain
4	A4	362	ARG	Sidechain
4	A4	380	ARG	Sidechain
4	A4	486	ARG	Sidechain
4	A4	555	ARG	Sidechain
4	A4	706	HIS	Peptide
4	A4	730	ARG	Sidechain
4	A5	118	ARG	Sidechain
4	A5	128	TYR	Sidechain
4	A5	323	TYR	Sidechain
4	A5	355	TYR	Sidechain
4	A5	362	ARG	Sidechain
4	A5	377	ARG	Sidechain
4	A5	380	ARG	Sidechain

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Mol	Chain	Res	Type	Group
4	A5	486	ARG	Sidechain
4	A5	730	ARG	Sidechain
4	A6	118	ARG	Sidechain
4	A6	362	ARG	Sidechain
4	A6	380	ARG	Sidechain
4	A6	486	ARG	Sidechain
4	A6	555	ARG	Sidechain
4	A6	730	ARG	Sidechain
5	B0	1048	TYR	Sidechain
5	B0	11	ARG	Sidechain
5	B0	1168	ARG	Sidechain
5	B0	1257	SER	Peptide
5	B0	1398	ARG	Sidechain
5	B0	1507	GLY	Peptide
5	B0	1508	ASP	Peptide
5	B0	1516	GLN	Peptide
5	B0	1517	ARG	Peptide,Mainchain
5	B0	1519	GLN	Peptide
5	B0	1522	PRO	Peptide
5	B0	1525	ALA	Peptide
5	B0	1528	ALA	Peptide
5	B0	1586	TYR	Sidechain
5	B0	1599	PHE	Peptide
5	B0	1682	ARG	Sidechain
5	B0	1731	GLU	Peptide
5	B0	209	ARG	Sidechain
5	B0	224	TYR	Sidechain
5	B0	267	TYR	Sidechain
5	B0	368	GLY	Peptide
5	B0	452	ARG	Sidechain
5	B0	496	ARG	Sidechain
5	B0	526	ARG	Sidechain
5	B0	624	ARG	Sidechain
5	B0	877	ARG	Sidechain
5	B0	989	HIS	Sidechain
5	B1	1048	TYR	Sidechain
5	B1	1168	ARG	Sidechain
5	B1	1398	ARG	Sidechain
5	B1	1507	GLY	Peptide
5	B1	1508	ASP	Peptide
5	B1	1516	GLN	Peptide
5	B1	1517	ARG	Peptide,Mainchain

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Mol	Chain	Res	Type	Group
5	B1	1519	GLN	Peptide,Mainchain
5	B1	1522	PRO	Peptide
5	B1	1526	SER	Peptide
5	B1	1586	TYR	Sidechain
5	B1	1599	PHE	Peptide
5	B1	1660	TYR	Sidechain
5	B1	1682	ARG	Sidechain
5	B1	1748	GLN	Peptide
5	B1	224	TYR	Sidechain
5	B1	267	TYR	Sidechain
5	B1	368	GLY	Peptide
5	B1	496	ARG	Sidechain
5	B1	526	ARG	Sidechain
5	B1	624	ARG	Sidechain
5	B1	750	THR	Peptide
5	B1	877	ARG	Sidechain
5	B1	989	HIS	Sidechain
6	C0	1085	ARG	Sidechain
6	C0	1125	ARG	Sidechain
6	C0	1146	ASP	Peptide
6	C0	1269	ARG	Sidechain
6	C0	127	ARG	Sidechain
6	C0	1601	GLY	Peptide
6	C0	30	ARG	Sidechain
6	C0	338	ARG	Sidechain
6	C0	411	ARG	Sidechain
6	C0	436	ARG	Sidechain
6	C0	490	ARG	Sidechain
6	C0	615	ARG	Sidechain
6	C0	672	ILE	Peptide
6	C0	705	ARG	Sidechain
6	C0	746	ARG	Sidechain
6	C1	1085	ARG	Sidechain
6	C1	1146	ASP	Peptide
6	C1	1269	ARG	Sidechain
6	C1	127	ARG	Sidechain
6	C1	1483	ARG	Sidechain
6	C1	1534	ARG	Sidechain
6	C1	1601	GLY	Peptide
6	C1	30	ARG	Sidechain
6	C1	338	ARG	Sidechain
6	C1	411	ARG	Sidechain

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Mol	Chain	Res	Type	Group
6	C1	436	ARG	Sidechain
6	C1	490	ARG	Sidechain
6	C1	615	ARG	Sidechain
6	C1	672	ILE	Peptide
6	C1	705	ARG	Sidechain
6	C1	746	ARG	Sidechain
6	C2	1089	ASP	Peptide
6	C2	1180	ARG	Sidechain
6	C2	1245	GLY	Peptide
6	C2	127	ARG	Sidechain
6	C2	1375	PHE	Peptide
6	C2	1434	ARG	Sidechain
6	C2	1729	ARG	Sidechain
6	C2	1798	ASP	Peptide
6	C2	1878	ARG	Sidechain
6	C2	1927	SER	Peptide
6	C2	1929	THR	Peptide
6	C2	1935	ARG	Peptide
6	C2	1939	SER	Peptide
6	C2	411	ARG	Sidechain
6	C2	490	ARG	Sidechain
6	C2	615	ARG	Sidechain
6	C2	672	ILE	Peptide
6	C2	748	ARG	Sidechain
6	C3	1083	TYR	Sidechain
6	C3	1089	ASP	Peptide
6	C3	1131	ARG	Sidechain
6	C3	1180	ARG	Sidechain
6	C3	1269	ARG	Sidechain
6	C3	127	ARG	Sidechain
6	C3	1287	ARG	Sidechain
6	C3	1367	TYR	Sidechain
6	C3	172	ARG	Sidechain
6	C3	1798	ASP	Peptide
6	C3	1877	ARG	Sidechain
6	C3	1906	ARG	Sidechain
6	C3	1939	SER	Peptide
6	C3	1941	ALA	Peptide
6	C3	225	ARG	Sidechain
6	C3	30	ARG	Sidechain
6	C3	4	PRO	Mainchain
6	C3	413	ARG	Sidechain

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Mol	Chain	Res	Type	Group
6	C3	490	ARG	Sidechain
6	C3	625	THR	Peptide
6	C3	672	ILE	Peptide
6	C3	682	ARG	Sidechain
6	C3	807	TYR	Sidechain
6	C4	1085	ARG	Sidechain
6	C4	1180	ARG	Sidechain
6	C4	127	ARG	Sidechain
6	C4	1798	ASP	Peptide
6	C4	1939	SER	Peptide
6	C4	214	ARG	Sidechain
6	C4	30	ARG	Sidechain
6	C4	411	ARG	Sidechain
6	C4	413	ARG	Sidechain
6	C4	490	ARG	Sidechain
6	C4	615	ARG	Sidechain
6	C4	672	ILE	Peptide
6	C4	682	ARG	Sidechain
6	C4	705	ARG	Sidechain
6	C4	748	ARG	Sidechain
7	D0	1114	ARG	Sidechain
7	D0	1196	PHE	Sidechain
7	D0	136	TYR	Sidechain
7	D0	38	ARG	Sidechain
7	D0	466	GLU	Peptide
7	D0	575	ARG	Sidechain
7	D0	680	ALA	Peptide
7	D1	1168	HIS	Sidechain
7	D1	1336	GLU	Peptide
7	D1	136	TYR	Sidechain
7	D1	38	ARG	Sidechain
7	D1	466	GLU	Peptide
7	D1	575	ARG	Sidechain
7	D1	680	ALA	Peptide
7	D1	74	SER	Peptide
7	D1	786	ARG	Sidechain
7	D1	861	ASP	Peptide
7	D1	863	CYS	Peptide
7	D1	868	SER	Peptide
7	D1	885	ARG	Sidechain
7	D1	924	ARG	Sidechain
7	D2	1120	ARG	Sidechain

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Mol	Chain	Res	Type	Group
7	D2	1234	THR	Mainchain
7	D2	1336	GLU	Peptide
7	D2	136	TYR	Sidechain
7	D2	38	ARG	Sidechain
7	D2	466	GLU	Peptide
7	D2	575	ARG	Sidechain
7	D2	680	ALA	Peptide
7	D2	849	ASN	Peptide
7	D2	865	LEU	Peptide
7	D2	883	ARG	Sidechain
7	D2	885	ARG	Sidechain
7	D3	1006	SER	Peptide
7	D3	1114	ARG	Sidechain
7	D3	1168	HIS	Sidechain
7	D3	1336	GLU	Peptide
7	D3	136	TYR	Sidechain
7	D3	38	ARG	Sidechain
7	D3	466	GLU	Peptide
7	D3	563	ARG	Sidechain
7	D3	575	ARG	Sidechain
7	D3	680	ALA	Peptide
7	D3	74	SER	Peptide
7	D3	860	GLN	Peptide
7	D3	863	CYS	Peptide
7	D3	885	ARG	Sidechain
7	D4	136	TYR	Sidechain
7	D4	180	TYR	Sidechain
7	D4	38	ARG	Sidechain
7	D4	466	GLU	Peptide
7	D4	575	ARG	Sidechain
7	D4	74	SER	Peptide
7	D4	885	ARG	Sidechain
7	D5	1104	MET	Peptide
7	D5	1346	ARG	Sidechain
7	D5	1347	ARG	Peptide,Sidechain,Mainchain
7	D5	136	TYR	Sidechain
7	D5	1360	TYR	Sidechain
7	D5	180	TYR	Sidechain
7	D5	38	ARG	Sidechain
7	D5	439	PHE	Peptide
7	D5	466	GLU	Peptide
7	D5	531	ASP	Peptide

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Mol	Chain	Res	Type	Group
7	D5	575	ARG	Sidechain
7	D5	74	SER	Peptide
7	D5	867	TYR	Peptide
7	D5	968	ARG	Sidechain
8	E0	49	ILE	Peptide
8	E0	665	ARG	Sidechain
8	E1	49	ILE	Peptide
8	E1	665	ARG	Sidechain
9	F0	132	THR	Peptide
9	F0	151	SER	Peptide
9	F0	159	TYR	Peptide
9	F0	161	GLN	Peptide
9	F0	301	GLN	Peptide
9	F0	306	ARG	Sidechain
9	F1	165	LEU	Peptide
9	F1	170	HIS	Sidechain
9	F1	196	TYR	Sidechain
9	F2	159	TYR	Sidechain
9	F2	252	SER	Peptide
9	F2	282	ARG	Peptide
9	F3	161	GLN	Peptide
9	F3	196	TYR	Sidechain
10	H0	178	TYR	Sidechain
10	H0	350	ARG	Sidechain
10	H0	411	ARG	Sidechain
10	H0	426	GLN	Peptide
10	H0	450	GLU	Peptide
10	H0	452	ARG	Sidechain
10	H1	178	TYR	Sidechain
10	H1	411	ARG	Sidechain
10	H1	439	ARG	Sidechain
10	H2	178	TYR	Sidechain
10	H2	350	ARG	Sidechain
10	H2	411	ARG	Sidechain
10	H3	178	TYR	Sidechain
10	H3	411	ARG	Sidechain
10	H3	443	HIS	Sidechain
10	H3	448	ARG	Peptide
12	J0	349	ARG	Sidechain
12	J0	446	ARG	Sidechain
12	J1	349	ARG	Sidechain
12	J2	349	ARG	Sidechain

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Mol	Chain	Res	Type	Group
12	J2	446	ARG	Sidechain
12	J3	349	ARG	Sidechain
12	J4	430	ARG	Sidechain
13	K0	1148	TYR	Sidechain
13	K0	209	TYR	Sidechain
13	K0	267	SER	Peptide
13	K0	314	ARG	Sidechain
13	K0	342	TYR	Sidechain
13	K0	480	SER	Peptide
13	K0	482	LEU	Peptide
13	K0	487	GLU	Peptide
13	K0	533	ASP	Peptide
13	K0	548	HIS	Sidechain
13	K0	572	TYR	Sidechain
13	K0	599	HIS	Sidechain
13	K1	1035	TYR	Sidechain
13	K1	477	GLU	Peptide
13	K1	497	PRO	Peptide
13	K1	829	ARG	Sidechain
13	K1	903	ARG	Sidechain
13	K2	1089	LYS	Peptide
13	K2	1148	TYR	Sidechain
13	K2	209	TYR	Sidechain
13	K2	267	SER	Peptide
13	K2	314	ARG	Sidechain
13	K2	342	TYR	Sidechain
13	K2	426	TYR	Sidechain
13	K2	476	ARG	Sidechain
13	K2	487	GLU	Peptide
13	K2	490	LEU	Peptide
13	K2	493	SER	Peptide
13	K2	497	PRO	Peptide
13	K2	572	TYR	Sidechain
13	K3	1089	LYS	Peptide
13	K3	1148	TYR	Sidechain
13	K3	209	TYR	Sidechain
13	K3	267	SER	Peptide
13	K3	314	ARG	Sidechain
13	K3	342	TYR	Sidechain
13	K3	426	TYR	Sidechain
13	K3	476	ARG	Sidechain
13	K3	572	TYR	Sidechain

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Mol	Chain	Res	Type	Group
13	K3	595	LEU	Mainchain
14	L0	144	ASP	Peptide
14	L0	404	ARG	Sidechain
14	L0	582	ARG	Sidechain
14	L0	583	GLU	Peptide
14	L0	586	THR	Peptide
14	L0	669	ARG	Sidechain
14	L1	144	ASP	Peptide
14	L1	330	ARG	Sidechain
14	L1	340	ARG	Sidechain
14	L1	404	ARG	Sidechain
14	L1	586	THR	Peptide
14	L1	669	ARG	Sidechain
14	L2	144	ASP	Peptide
14	L2	404	ARG	Sidechain
14	L2	582	ARG	Peptide
14	L2	585	HIS	Peptide
14	L2	586	THR	Peptide
14	L2	669	ARG	Sidechain
14	L2	735	PRO	Peptide
14	L3	144	ASP	Peptide
14	L3	586	THR	Peptide
14	L3	669	ARG	Sidechain
14	L3	733	GLU	Peptide
14	L3	735	PRO	Peptide
15	M0	232	ARG	Peptide
15	M0	278	GLU	Peptide
15	M0	279	GLN	Peptide
15	M0	317	HIS	Peptide
15	M0	402	HIS	Peptide
15	M0	586	PRO	Peptide
15	M0	762	HIS	Peptide
15	M0	861	ARG	Sidechain
15	M0	916	TYR	Sidechain
15	M1	232	ARG	Peptide
15	M1	279	GLN	Peptide
15	M1	416	TYR	Sidechain
15	M1	477	ARG	Sidechain
15	M1	515	ARG	Sidechain
15	M1	584	CYS	Peptide
15	M1	586	PRO	Peptide
15	M1	761	GLU	Peptide

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Mol	Chain	Res	Type	Group
15	M1	930	ARG	Sidechain
15	M2	232	ARG	Peptide
15	M2	278	GLU	Peptide
15	M2	279	GLN	Peptide
15	M2	317	HIS	Peptide
15	M2	581	ARG	Sidechain
15	M2	916	TYR	Sidechain
15	M2	922	ARG	Sidechain
15	M3	232	ARG	Peptide
15	M3	278	GLU	Peptide
15	M3	279	GLN	Peptide
15	M3	416	TYR	Sidechain
15	M3	586	PRO	Peptide
15	M3	762	HIS	Sidechain
16	N0	181	ARG	Sidechain
16	N0	190	LEU	Peptide
16	N1	114	HIS	Sidechain
16	N1	181	ARG	Sidechain
16	N2	190	LEU	Peptide
16	N2	55	GLY	Peptide
16	N3	181	ARG	Sidechain
16	N3	190	LEU	Peptide
17	O3	209	TYR	Sidechain
18	P0	213	ARG	Sidechain
18	P0	323	ASP	Peptide
18	P0	467	ARG	Sidechain
18	P0	504	ASP	Peptide
18	P0	508	ARG	Sidechain
18	P0	616	GLU	Peptide
18	P0	69	ARG	Sidechain
18	P1	213	ARG	Sidechain
18	P1	323	ASP	Peptide
18	P1	386	LEU	Peptide
18	P1	467	ARG	Sidechain
18	P1	504	ASP	Peptide
18	P1	508	ARG	Sidechain
18	P1	552	ARG	Sidechain
18	P1	60	ASP	Peptide
18	P1	616	GLU	Peptide
18	P2	213	ARG	Sidechain
18	P2	323	ASP	Peptide
18	P2	455	ARG	Sidechain

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Mol	Chain	Res	Type	Group
18	P2	467	ARG	Sidechain
18	P2	504	ASP	Peptide
18	P2	508	ARG	Sidechain
18	P2	550	GLU	Peptide
18	P2	616	GLU	Peptide
18	P3	213	ARG	Sidechain
18	P3	323	ASP	Peptide
18	P3	386	LEU	Peptide
18	P3	467	ARG	Sidechain
18	P3	504	ASP	Peptide
18	P3	508	ARG	Sidechain
18	P3	59	LYS	Peptide
18	P3	616	GLU	Peptide
19	Q0	350	SER	Peptide
19	Q1	43	TYR	Sidechain
19	Q1	54	ASN	Peptide
19	Q2	225	ARG	Sidechain
19	Q2	341	GLU	Peptide
19	Q3	54	ASN	Peptide
20	R0	1029	ARG	Sidechain
20	R0	1095	ARG	Sidechain
20	R0	1139	TYR	Sidechain
20	R0	1162	HIS	Sidechain
20	R0	1280	LYS	Peptide
20	R0	1329	TYR	Sidechain
20	R0	1341	TYR	Sidechain
20	R0	40	ALA	Peptide
20	R0	410	TRP	Peptide
20	R0	538	TYR	Sidechain
20	R0	544	HIS	Sidechain
20	R0	718	ARG	Sidechain
20	R0	727	ARG	Sidechain
20	R0	804	LEU	Peptide
20	R1	1053	PHE	Peptide
20	R1	1104	TYR	Sidechain
20	R1	1139	TYR	Sidechain
20	R1	1162	HIS	Sidechain
20	R1	1285	THR	Peptide
20	R1	1329	TYR	Sidechain
20	R1	40	ALA	Peptide
20	R1	410	TRP	Peptide
20	R1	538	TYR	Sidechain

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Mol	Chain	Res	Type	Group
20	R1	544	HIS	Sidechain
20	R1	718	ARG	Sidechain
20	R1	727	ARG	Sidechain
20	R1	804	LEU	Peptide
20	R2	1007	HIS	Sidechain
20	R2	1043	GLU	Peptide
20	R2	1053	PHE	Peptide
20	R2	1055	TYR	Sidechain,Peptide
20	R2	1080	TYR	Sidechain
20	R2	1104	TYR	Sidechain
20	R2	1139	TYR	Sidechain
20	R2	1162	HIS	Sidechain
20	R2	1341	TYR	Sidechain
20	R2	410	TRP	Peptide
20	R2	538	TYR	Sidechain
20	R2	544	HIS	Sidechain
20	R2	718	ARG	Sidechain
20	R2	727	ARG	Sidechain
20	R2	804	LEU	Peptide
20	R2	993	ASP	Peptide
20	R3	1018	TYR	Sidechain
20	R3	1054	PRO	Peptide
20	R3	1055	TYR	Sidechain,Peptide
20	R3	1139	TYR	Sidechain
20	R3	1162	HIS	Sidechain
20	R3	1285	THR	Peptide,Mainchain
20	R3	1286	ASP	Peptide
20	R3	1329	TYR	Sidechain
20	R3	40	ALA	Peptide
20	R3	410	TRP	Peptide
20	R3	481	ARG	Peptide
20	R3	538	TYR	Sidechain
20	R3	544	HIS	Sidechain
20	R3	718	ARG	Sidechain
20	R3	727	ARG	Sidechain
20	R3	804	LEU	Peptide
21	S0	132	PHE	Peptide
21	S0	150	ARG	Sidechain
21	S0	191	ARG	Sidechain
21	S0	231	ASP	Peptide
21	S1	132	PHE	Peptide
21	S1	150	ARG	Sidechain

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Mol	Chain	Res	Type	Group
21	S1	191	ARG	Sidechain
21	S1	231	ASP	Peptide
21	S1	239	ARG	Sidechain
21	S2	132	PHE	Peptide
21	S2	150	ARG	Sidechain
21	S2	191	ARG	Sidechain
21	S2	231	ASP	Peptide
21	S2	239	ARG	Sidechain
21	S2	43	TYR	Sidechain
21	S3	132	PHE	Peptide
21	S3	150	ARG	Sidechain
21	S3	191	ARG	Sidechain
21	S3	231	ASP	Peptide
21	S3	239	ARG	Sidechain
22	T0	125	ARG	Sidechain
22	T0	2	ARG	Peptide
22	T0	254	ARG	Sidechain
22	T0	441	SER	Peptide
22	T0	457	ARG	Peptide
22	T0	685	ASP	Peptide
22	T0	69	ARG	Sidechain
22	T0	712	ARG	Sidechain
22	T0	764	LEU	Peptide
22	T0	823	TYR	Sidechain
22	T0	832	HIS	Peptide
22	T1	125	ARG	Sidechain
22	T1	2	ARG	Peptide
22	T1	441	SER	Peptide
22	T1	457	ARG	Peptide
22	T1	685	ASP	Peptide
22	T1	69	ARG	Sidechain
22	T1	712	ARG	Sidechain
22	T1	764	LEU	Peptide
22	T1	887	ARG	Sidechain
23	U0	772	TYR	Sidechain
24	V0	851	VAL	Peptide
25	W0	219	GLU	Peptide
25	W0	224	LEU	Peptide
25	W0	225	ASN	Peptide
25	W0	230	TYR	Sidechain
25	W0	353	TRP	Peptide
25	W0	40	GLU	Peptide

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Mol	Chain	Res	Type	Group
25	W0	476	LEU	Peptide
25	W0	487	TYR	Sidechain
25	W0	513	GLU	Peptide
25	W0	709	TYR	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	00	6085	0	6080	38	0
1	01	6085	0	6080	27	0
1	02	6085	0	6080	8	0
1	03	6085	0	6080	37	0
1	04	6085	0	6080	12	0
2	10	14046	0	14194	20	0
2	11	14046	0	14194	26	0
2	12	14046	0	14194	33	0
2	13	14046	0	14194	22	0
2	14	14046	0	14194	25	0
2	15	14046	0	14194	14	0
2	16	14046	0	14194	10	0
2	17	14046	0	14194	10	0
3	40	2922	0	2899	4	0
3	41	2922	0	2899	2	0
4	A0	6568	0	6527	68	0
4	A1	6568	0	6527	8	0
4	A2	6568	0	6527	22	0
4	A3	6568	0	6527	7	0
4	A4	5860	0	5828	22	0
4	A5	5860	0	5828	4	0
4	A6	5860	0	5828	7	0
5	B0	13746	0	13949	4	0
5	B1	13746	0	13949	7	0
6	C0	16013	0	16224	13	0
6	C1	16013	0	16224	14	0
6	C2	16013	0	16224	86	0
6	C3	16013	0	16224	69	0
6	C4	16013	0	16224	58	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	D0	10363	0	10400	47	0
7	D1	10363	0	10400	115	0
7	D2	10363	0	10400	55	0
7	D3	10363	0	10400	65	0
7	D4	10363	0	10400	56	0
7	D5	10363	0	10400	57	0
8	E0	4432	0	4472	13	0
8	E1	4432	0	4472	1	0
9	F0	1837	0	1825	13	0
9	F1	1837	0	1825	4	0
9	F2	1837	0	1825	3	0
9	F3	1837	0	1825	10	0
10	H0	3066	0	3103	26	0
10	H1	3066	0	3103	5	0
10	H2	3066	0	3103	1	0
10	H3	3066	0	3103	3	0
11	I0	1398	0	1431	26	0
11	I1	1398	0	1431	3	0
11	I2	1398	0	1431	3	0
11	I3	1398	0	1431	4	0
12	J0	1403	0	1391	2	0
12	J1	1403	0	1391	2	0
12	J2	1403	0	1391	1	0
12	J3	1403	0	1391	1	0
12	J4	1403	0	1391	0	0
13	K0	8574	0	8438	14	0
13	K1	8574	0	8438	17	0
13	K2	8574	0	8438	21	0
13	K3	8574	0	8438	21	0
14	L0	6383	0	6313	24	0
14	L1	6383	0	6313	34	0
14	L2	6383	0	6313	13	0
14	L3	6383	0	6313	12	0
15	M0	5461	0	5443	9	0
15	M1	5461	0	5443	11	0
15	M2	5461	0	5443	4	0
15	M3	5461	0	5443	6	0
16	N0	2352	0	2220	17	0
16	N1	2352	0	2220	2	0
16	N2	2352	0	2220	0	0
16	N3	2352	0	2220	1	0
17	O0	2528	0	2444	44	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	O1	2528	0	2444	6	0
17	O2	2528	0	2444	6	0
17	O3	2528	0	2444	19	0
18	P0	5257	0	5249	10	0
18	P1	5257	0	5249	8	0
18	P2	5257	0	5249	3	0
18	P3	5257	0	5249	11	0
19	Q0	2703	0	2555	16	0
19	Q1	2703	0	2555	0	0
19	Q2	2703	0	2555	5	0
19	Q3	2703	0	2555	1	0
20	R0	11132	0	11066	72	0
20	R1	11132	0	11066	19	0
20	R2	11132	0	11066	23	0
20	R3	11132	0	11066	25	0
21	S0	2552	0	2452	4	0
21	S1	2552	0	2452	0	0
21	S2	2552	0	2452	0	0
21	S3	2552	0	2452	1	0
22	T0	7960	0	7896	3	0
22	T1	7960	0	7896	3	0
23	U0	1193	0	1188	7	0
23	U1	151	0	167	25	0
23	U2	151	0	167	25	0
23	U3	151	0	167	20	0
23	U4	151	0	167	25	0
23	U5	151	0	167	24	0
23	U6	151	0	167	25	0
24	V0	2203	0	2226	19	0
25	W0	5836	0	5850	14	0
All	All	617133	0	616873	1129	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

All (1129) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C2:1249:ILE:HG21	20:R0:1284:ALA:CB	1.29	1.54
6:C2:622:PRO:HB3	20:R0:1316:SER:CB	1.44	1.47
6:C2:788:VAL:CG2	17:O0:258:THR:HG21	1.53	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C2:1249:ILE:CG2	20:R0:1284:ALA:HB2	1.58	1.33
6:C2:622:PRO:CB	20:R0:1316:SER:HB3	1.56	1.33
2:12:776:VAL:HG21	2:13:700:SER:OG	1.31	1.26
1:03:78:LYS:CE	17:O0:98:ARG:HH11	1.50	1.24
10:H0:427:PHE:CZ	11:I0:361:ARG:HB2	1.72	1.24
10:H0:427:PHE:CE1	11:I0:361:ARG:NH2	2.06	1.22
10:H0:427:PHE:CE2	11:I0:361:ARG:HB2	1.78	1.18
6:C2:1249:ILE:HG22	20:R0:1265:TRP:NE1	1.57	1.18
14:L1:419:LEU:HD23	16:N0:139:GLN:NE2	1.58	1.18
1:00:28:LYS:HE2	14:L0:472:LEU:CD1	1.71	1.18
7:D4:1184:ASP:CB	23:U1:597:ILE:CG2	2.21	1.18
10:H0:427:PHE:CZ	11:I0:361:ARG:NE	2.12	1.18
1:00:28:LYS:HE2	14:L0:472:LEU:HD11	1.18	1.18
4:A0:558:LYS:HE3	7:D1:1031:LYS:CD	1.74	1.17
6:C3:468:GLU:CD	20:R1:1205:ALA:HB1	1.66	1.16
7:D4:1184:ASP:HB2	23:U1:597:ILE:CG2	1.73	1.15
1:03:78:LYS:HE2	17:O0:98:ARG:HH11	1.01	1.15
7:D4:1184:ASP:HB3	23:U1:597:ILE:HG22	1.25	1.14
18:P0:185:LEU:HD12	25:W0:708:ALA:HB1	1.30	1.13
7:D4:1184:ASP:CB	23:U1:597:ILE:HG22	1.77	1.13
7:D2:1184:ASP:HB2	23:U4:597:ILE:HG23	1.31	1.12
7:D5:1358:CYS:SG	20:R2:1035:ARG:HB3	1.89	1.12
4:A0:279:HIS:NE2	7:D2:886:GLN:HB3	1.64	1.12
7:D0:1184:ASP:HB2	23:U2:597:ILE:HG23	1.19	1.12
7:D5:1184:ASP:CB	23:U6:597:ILE:CG2	2.28	1.12
10:H0:427:PHE:HD2	11:I0:364:ILE:HD12	1.08	1.11
7:D2:1184:ASP:HB3	23:U4:597:ILE:HG22	1.30	1.11
7:D0:1184:ASP:HB3	23:U2:597:ILE:HG22	1.21	1.11
7:D1:1184:ASP:HB3	23:U3:597:ILE:HG22	1.31	1.11
2:12:1177:MET:HG3	2:13:1108:SER:HA	1.30	1.10
6:C2:1249:ILE:CB	20:R0:1265:TRP:HE1	1.62	1.10
7:D5:1184:ASP:HB2	23:U6:597:ILE:HG23	1.22	1.10
4:A0:558:LYS:HE3	7:D1:1031:LYS:HD3	1.17	1.10
4:A0:239:THR:CG2	7:D1:1028:GLN:HB3	1.82	1.09
6:C2:788:VAL:HG21	17:O0:258:THR:CG2	1.81	1.09
7:D0:1184:ASP:CB	23:U2:597:ILE:CG2	2.31	1.08
7:D3:1184:ASP:HB3	23:U5:597:ILE:HG22	1.36	1.08
7:D1:1184:ASP:HB2	23:U3:597:ILE:HG23	1.35	1.08
7:D3:1184:ASP:HB2	23:U5:597:ILE:HG23	1.35	1.07
1:00:92:THR:CG2	14:L0:262:LEU:HD23	1.84	1.06
7:D5:1184:ASP:HB2	23:U6:597:ILE:CG2	1.83	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D4:1184:ASP:HB2	23:U1:597:ILE:HG23	1.11	1.06
6:C2:1249:ILE:CG2	20:R0:1265:TRP:HE1	1.69	1.06
7:D5:1184:ASP:CB	23:U6:597:ILE:HG22	1.84	1.06
10:H0:427:PHE:CE2	11:I0:361:ARG:CB	2.38	1.06
10:H0:427:PHE:CD2	11:I0:364:ILE:HD12	1.90	1.06
1:00:92:THR:HG22	14:L0:262:LEU:HD23	1.28	1.06
7:D4:1366:SER:HB2	20:R0:999:THR:CG2	1.86	1.06
6:C2:788:VAL:CG2	17:O0:258:THR:CG2	2.33	1.05
6:C2:622:PRO:CB	20:R0:1316:SER:CB	2.21	1.05
7:D5:1184:ASP:HB3	23:U6:597:ILE:HG22	1.35	1.05
1:03:78:LYS:CD	17:O0:98:ARG:HH11	1.70	1.04
9:F0:162:GLY:HA3	9:F0:165:LEU:HD12	1.36	1.04
10:H0:427:PHE:HD2	11:I0:364:ILE:CD1	1.71	1.03
4:A0:683:LYS:NZ	7:D1:567:ALA:HB2	1.73	1.03
7:D0:1184:ASP:CB	23:U2:597:ILE:HG23	1.87	1.03
2:14:1831:VAL:CG1	7:D3:689:LYS:NZ	2.22	1.02
6:C2:622:PRO:HB3	20:R0:1316:SER:HB3	1.03	1.02
6:C2:1249:ILE:HG22	20:R0:1265:TRP:CD1	1.96	1.01
7:D0:1184:ASP:HB3	23:U2:597:ILE:CG2	1.87	1.01
1:03:78:LYS:HE2	17:O0:98:ARG:NH1	1.75	1.00
2:10:1761:PRO:O	8:E0:157:ALA:HB1	1.61	1.00
4:A0:558:LYS:CE	7:D1:1031:LYS:HD3	1.91	1.00
6:C2:1249:ILE:CG2	20:R0:1284:ALA:CB	2.25	1.00
7:D1:1196:PHE:CE2	23:U3:610:LEU:HD11	1.96	1.00
6:C4:1249:ILE:HD11	20:R3:1284:ALA:CA	1.91	0.99
7:D2:1184:ASP:CB	23:U4:597:ILE:CG2	2.40	0.99
4:A0:683:LYS:HZ2	7:D1:567:ALA:HB2	1.23	0.99
1:00:92:THR:HG22	14:L0:262:LEU:CD2	1.92	0.99
2:12:1346:ILE:HD11	2:13:1074:GLN:OE1	1.62	0.98
7:D4:1184:ASP:CB	23:U1:597:ILE:HG23	1.89	0.98
6:C2:788:VAL:HG22	17:O0:258:THR:OG1	1.64	0.98
6:C3:658:GLU:CB	20:R1:1252:LYS:HE2	1.93	0.98
1:03:78:LYS:NZ	17:O0:98:ARG:HD3	1.78	0.98
2:15:700:SER:OG	2:16:776:VAL:HG21	1.63	0.97
6:C4:1695:ASP:HB2	18:P3:257:LYS:HG2	1.42	0.97
6:C3:658:GLU:HB3	20:R1:1252:LYS:HE2	1.00	0.97
18:P0:185:LEU:CD1	25:W0:708:ALA:HB1	1.95	0.97
4:A0:239:THR:HG21	7:D1:1028:GLN:HB3	1.45	0.97
6:C2:1249:ILE:CG2	20:R0:1265:TRP:NE1	2.25	0.97
6:C4:1249:ILE:HD11	20:R3:1284:ALA:HA	1.44	0.96
6:C3:1703:GLU:OE2	24:V0:800:LYS:HD2	1.65	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H0:427:PHE:HE2	11:I0:361:ARG:CB	1.75	0.96
7:D1:1184:ASP:CB	23:U3:597:ILE:HG22	1.95	0.96
7:D1:1184:ASP:CB	23:U3:597:ILE:CG2	2.42	0.96
10:H0:427:PHE:HE1	11:I0:361:ARG:NH2	1.62	0.95
6:C2:1249:ILE:HD13	20:R0:1284:ALA:HB3	1.48	0.95
6:C2:471:GLN:NE2	20:R0:1205:ALA:CB	2.29	0.95
6:C3:658:GLU:HB3	20:R1:1252:LYS:CE	1.94	0.95
6:C2:471:GLN:HE21	20:R0:1205:ALA:HB1	1.29	0.95
6:C4:1244:GLN:HE22	17:O3:205:ASN:HD21	0.96	0.95
7:D3:1184:ASP:CB	23:U5:597:ILE:CG2	2.45	0.94
6:C2:471:GLN:HE21	20:R0:1205:ALA:CB	1.80	0.94
6:C2:1250:GLY:HA2	20:R0:1265:TRP:CD1	2.02	0.94
1:03:78:LYS:CD	17:O0:98:ARG:NH1	2.30	0.94
1:00:334:ILE:HG12	14:L0:731:GLY:HA2	1.49	0.94
6:C2:788:VAL:HG21	17:O0:258:THR:HG21	0.96	0.93
7:D0:1241:MET:SD	7:D1:734:ASN:ND2	2.42	0.93
1:03:78:LYS:CE	17:O0:98:ARG:HD3	1.98	0.93
7:D5:1184:ASP:CB	23:U6:597:ILE:HG23	1.94	0.93
10:H0:427:PHE:CE1	11:I0:361:ARG:CZ	2.52	0.92
7:D2:1196:PHE:CE2	23:U4:610:LEU:HD11	2.04	0.92
4:A2:712:ASP:OD1	7:D3:85:ARG:HD2	1.70	0.92
19:Q0:57:SER:OG	24:V0:851:VAL:HG21	1.68	0.92
2:12:1279:GLN:HE22	2:13:1125:ALA:HB2	1.35	0.91
7:D3:1184:ASP:CB	23:U5:597:ILE:HG22	2.00	0.91
1:03:78:LYS:HZ3	17:O0:98:ARG:CD	1.83	0.91
6:C2:1249:ILE:HD12	20:R0:1284:ALA:H	1.35	0.91
6:C3:746:ARG:HG2	19:Q0:228:ASN:OD1	1.71	0.91
6:C2:1249:ILE:C	20:R0:1265:TRP:CD1	2.45	0.90
14:L1:419:LEU:CD2	16:N0:139:GLN:NE2	2.33	0.90
4:A0:239:THR:HG22	7:D1:1028:GLN:HB3	1.53	0.90
7:D0:1184:ASP:CB	23:U2:597:ILE:HG22	1.98	0.90
4:A0:558:LYS:HG3	7:D1:1031:LYS:HZ3	1.35	0.90
7:D1:1184:ASP:HB2	23:U3:597:ILE:CG2	2.00	0.90
7:D0:1184:ASP:HB2	23:U2:597:ILE:CG2	1.97	0.90
7:D2:1184:ASP:CB	23:U4:597:ILE:HG22	1.98	0.89
19:Q0:57:SER:HB3	24:V0:851:VAL:HG11	1.54	0.89
6:C4:1244:GLN:NE2	17:O3:205:ASN:HD21	1.70	0.89
7:D1:1196:PHE:CE1	23:U3:610:LEU:HD21	2.07	0.89
7:D3:1184:ASP:HB2	23:U5:597:ILE:CG2	2.02	0.89
1:00:28:LYS:CE	14:L0:472:LEU:CD1	2.51	0.89
6:C0:83:THR:O	12:J1:421:ILE:HD12	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D2:1184:ASP:HB2	23:U4:597:ILE:CG2	2.01	0.88
2:14:1831:VAL:HG12	7:D3:689:LYS:HZ1	1.37	0.88
2:15:700:SER:OG	2:16:776:VAL:CG2	2.21	0.88
7:D4:1366:SER:CB	20:R0:999:THR:CG2	2.51	0.88
6:C3:781:GLU:OE2	17:O1:258:THR:HG22	1.74	0.88
7:D2:1184:ASP:CB	23:U4:597:ILE:HG23	2.02	0.88
2:12:776:VAL:CG2	2:13:700:SER:OG	2.22	0.87
2:12:776:VAL:HG21	2:13:700:SER:HG	1.38	0.87
13:K2:1153:GLN:CD	13:K3:596:ILE:HG23	1.94	0.87
4:A0:239:THR:CG2	7:D1:1028:GLN:CB	2.53	0.86
2:14:1831:VAL:CG1	7:D3:689:LYS:HZ1	1.85	0.86
6:C3:468:GLU:CG	20:R1:1205:ALA:HB1	2.06	0.86
7:D2:1242:HIS:CE1	7:D3:732:LEU:CD2	2.59	0.86
6:C2:1250:GLY:HA2	20:R0:1265:TRP:CG	2.09	0.86
6:C3:468:GLU:CD	20:R1:1205:ALA:CB	2.43	0.86
2:14:1831:VAL:CG1	7:D3:689:LYS:HZ3	1.86	0.85
7:D0:1186:THR:HG23	23:U2:601:VAL:O	1.76	0.85
6:C2:1249:ILE:HB	20:R0:1265:TRP:HE1	1.42	0.85
4:A0:239:THR:HG21	7:D1:1028:GLN:CB	2.05	0.85
14:L1:345:ARG:NH2	16:N0:201:GLN:CG	2.38	0.85
14:L1:419:LEU:HD23	16:N0:139:GLN:HE21	1.38	0.85
14:L1:419:LEU:HD23	16:N0:139:GLN:HE22	1.39	0.84
6:C4:1695:ASP:HB2	18:P3:257:LYS:CG	2.06	0.84
7:D1:693:ARG:NH2	9:F3:315:LEU:HG	1.92	0.84
6:C3:427:MET:HE3	21:S0:89:LEU:CD1	2.07	0.84
6:C2:622:PRO:HB3	20:R0:1316:SER:OG	1.78	0.84
7:D2:1184:ASP:HB3	23:U4:597:ILE:CG2	2.02	0.83
1:00:733:LYS:NZ	14:L1:781:THR:HG22	1.93	0.83
19:Q0:57:SER:CB	24:V0:851:VAL:HG21	2.06	0.83
6:C2:1249:ILE:HG21	20:R0:1284:ALA:HB1	1.58	0.83
4:A4:483:GLU:HG2	6:C3:180:GLN:HA	1.60	0.83
6:C2:1249:ILE:CD1	20:R0:1284:ALA:H	1.91	0.83
6:C3:781:GLU:OE2	17:O1:258:THR:CG2	2.26	0.83
7:D2:1242:HIS:CE1	7:D3:732:LEU:HD22	2.13	0.83
6:C3:746:ARG:CG	19:Q0:228:ASN:OD1	2.26	0.83
6:C2:1250:GLY:N	20:R0:1265:TRP:CD1	2.46	0.83
6:C2:1249:ILE:HG21	20:R0:1284:ALA:HB2	0.83	0.82
8:E0:165:TYR:CE2	8:E0:258:LEU:HD11	2.14	0.82
1:03:78:LYS:HG2	17:O0:98:ARG:NH1	1.94	0.82
6:C2:1250:GLY:CA	20:R0:1265:TRP:CD1	2.62	0.82
6:C4:1244:GLN:HB2	17:O3:204:GLU:OE2	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D0:1196:PHE:CZ	23:U2:610:LEU:HD11	2.15	0.81
6:C2:1249:ILE:HD13	20:R0:1284:ALA:CB	2.10	0.81
7:D2:1196:PHE:CD1	23:U4:610:LEU:HD21	2.13	0.81
7:D3:1196:PHE:CD2	23:U5:610:LEU:HD11	2.14	0.81
4:A0:239:THR:HG21	7:D1:1028:GLN:CG	2.10	0.81
10:H0:427:PHE:HE2	11:I0:361:ARG:CA	1.93	0.81
2:12:776:VAL:HG21	2:13:700:SER:CB	2.11	0.81
6:C2:1249:ILE:HG21	20:R0:1284:ALA:HB3	1.57	0.80
6:C4:1249:ILE:CD1	20:R3:1285:THR:H	1.95	0.80
7:D1:1184:ASP:HB3	23:U3:597:ILE:CG2	2.07	0.80
6:C4:1244:GLN:HG2	20:R3:1283:SER:OG	1.80	0.80
10:H0:427:PHE:HZ	11:I0:361:ARG:HB2	1.35	0.80
6:C2:469:PRO:HB3	20:R0:1113:ARG:NH1	1.96	0.80
10:H0:427:PHE:CZ	11:I0:361:ARG:CZ	2.65	0.80
6:C2:1249:ILE:C	20:R0:1265:TRP:NE1	2.36	0.79
7:D3:1184:ASP:HB3	23:U5:597:ILE:CG2	2.10	0.79
4:A0:558:LYS:CG	7:D1:1031:LYS:HZ3	1.96	0.79
6:C3:746:ARG:HG2	19:Q0:228:ASN:CG	2.04	0.78
6:C3:1703:GLU:OE2	24:V0:800:LYS:CD	2.31	0.78
1:00:28:LYS:HE2	14:L0:472:LEU:HD13	1.63	0.78
1:03:78:LYS:NZ	17:O0:98:ARG:CD	2.46	0.78
6:C2:622:PRO:HA	20:R0:1316:SER:HB2	1.64	0.78
6:C2:1250:GLY:N	20:R0:1265:TRP:NE1	2.31	0.78
8:E0:165:TYR:CZ	8:E0:258:LEU:HD11	2.19	0.78
7:D2:1196:PHE:CZ	23:U4:610:LEU:HD11	2.19	0.77
1:01:549:ALA:HB1	14:L1:233:ALA:CB	2.13	0.77
6:C2:788:VAL:HG22	17:O0:258:THR:CG2	2.14	0.77
6:C4:1695:ASP:HB2	18:P3:257:LYS:CD	2.14	0.77
7:D5:1358:CYS:HG	20:R2:1035:ARG:HB3	1.47	0.77
13:K2:1153:GLN:OE1	13:K3:596:ILE:HG23	1.85	0.77
1:00:28:LYS:CG	14:L0:472:LEU:HD21	2.15	0.77
13:K3:969:THR:HA	14:L3:879:ASP:OD2	1.84	0.77
7:D1:693:ARG:HH21	9:F3:315:LEU:HG	1.48	0.77
1:00:28:LYS:CE	14:L0:472:LEU:HD13	2.14	0.77
6:C2:730:PRO:HG3	17:O0:258:THR:HG22	1.67	0.76
10:H0:427:PHE:CE2	11:I0:361:ARG:CG	2.69	0.76
1:00:733:LYS:HZ3	14:L1:781:THR:HG22	1.51	0.76
6:C2:622:PRO:CA	20:R0:1316:SER:HB2	2.16	0.76
10:H0:427:PHE:CZ	11:I0:361:ARG:CB	2.61	0.75
10:H0:427:PHE:CE1	11:I0:361:ARG:NE	2.53	0.75
4:A4:141:LYS:HE3	6:C2:1992:ARG:HH11	1.51	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D4:1362:VAL:HG11	20:R0:1002:THR:HG21	1.68	0.75
7:D5:1391:HIS:O	20:R2:1154:PRO:HB3	1.86	0.75
6:C2:622:PRO:HB2	20:R0:1316:SER:HB3	1.66	0.75
6:C4:1695:ASP:CB	18:P3:257:LYS:HG2	2.16	0.75
7:D2:1195:PRO:O	23:U4:611:PHE:CE2	2.39	0.75
14:L3:728:GLU:H	14:L3:731:GLY:CA	2.00	0.75
2:17:1831:VAL:HG22	7:D2:1001:PRO:HG3	1.69	0.74
7:D4:1196:PHE:CG	23:U1:610:LEU:HD21	2.22	0.74
4:A4:167:ILE:HG23	6:C3:4:PRO:HD2	1.69	0.74
13:K3:596:ILE:HG21	13:K3:599:HIS:ND1	2.00	0.74
14:L3:728:GLU:H	14:L3:731:GLY:HA3	1.52	0.74
2:11:1177:MET:H	2:12:1106:PRO:HB3	1.51	0.74
1:03:78:LYS:CG	17:O0:98:ARG:NH1	2.50	0.74
6:C4:1244:GLN:HE22	17:O3:205:ASN:ND2	1.80	0.74
2:10:1761:PRO:O	8:E0:157:ALA:CB	2.36	0.74
7:D4:1365:GLN:C	20:R0:1029:ARG:HH22	1.91	0.73
19:Q0:57:SER:HB3	24:V0:851:VAL:HG21	1.70	0.73
7:D0:1195:PRO:O	23:U2:611:PHE:CE2	2.40	0.73
1:03:78:LYS:CE	17:O0:98:ARG:NH1	2.36	0.73
6:C3:1703:GLU:OE2	24:V0:800:LYS:CG	2.36	0.73
7:D2:1196:PHE:CE1	23:U4:610:LEU:HD21	2.22	0.73
1:03:78:LYS:HD3	17:O0:98:ARG:NH1	2.03	0.73
7:D1:1196:PHE:CD1	23:U3:610:LEU:HD21	2.24	0.73
1:03:78:LYS:HE2	17:O0:98:ARG:HD3	1.70	0.72
7:D4:1366:SER:HB2	20:R0:999:THR:HG23	1.72	0.72
19:Q0:57:SER:CB	24:V0:851:VAL:HG11	2.19	0.72
2:12:1279:GLN:NE2	2:13:1125:ALA:HB2	2.03	0.72
4:A0:558:LYS:HG3	7:D1:1031:LYS:NZ	2.05	0.72
7:D5:1196:PHE:CD2	23:U6:610:LEU:HD11	2.24	0.72
1:01:116:TYR:HE2	15:M0:841:ILE:HD13	1.54	0.72
6:C4:781:GLU:HB2	17:O3:258:THR:OG1	1.88	0.72
1:01:543:ALA:O	14:L1:563:GLN:NE2	2.23	0.72
7:D2:1186:THR:HG23	23:U4:601:VAL:O	1.88	0.72
7:D3:885:ARG:HD3	7:D5:506:GLN:HE21	1.55	0.72
7:D2:1196:PHE:CD1	23:U4:610:LEU:CD2	2.72	0.72
9:F0:164:SER:O	9:F0:165:LEU:HG	1.90	0.71
4:A0:199:GLY:HA3	7:D1:898:ARG:CD	2.19	0.71
6:C3:746:ARG:CD	19:Q0:228:ASN:OD1	2.38	0.71
3:40:165:LYS:HG2	3:40:179:ASN:HB2	1.72	0.71
7:D4:1206:ILE:HG22	23:U1:600:LEU:CD2	2.21	0.71
7:D0:1186:THR:HG21	23:U2:601:VAL:HB	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C2:622:PRO:CA	20:R0:1316:SER:CB	2.68	0.71
14:L1:345:ARG:NH2	16:N0:201:GLN:HG2	2.04	0.71
7:D3:1196:PHE:CG	23:U5:610:LEU:HD11	2.26	0.71
15:M0:391:LEU:HD22	15:M0:433:THR:HG22	1.73	0.71
6:C4:1249:ILE:HD11	20:R3:1285:THR:H	1.56	0.70
6:C4:1249:ILE:HD11	20:R3:1284:ALA:CB	2.20	0.70
2:14:1831:VAL:HG13	7:D3:689:LYS:NZ	2.05	0.70
2:14:1831:VAL:HG13	7:D3:689:LYS:HZ3	1.56	0.70
4:A0:239:THR:CG2	7:D1:1028:GLN:CD	2.59	0.70
7:D4:1366:SER:CB	20:R0:999:THR:HG22	2.21	0.70
6:C3:468:GLU:HG2	20:R1:1205:ALA:HB1	1.73	0.70
4:A4:483:GLU:CD	6:C3:179:GLU:O	2.30	0.70
1:03:14:SER:HB2	15:M1:444:LEU:HD22	1.75	0.69
6:C2:788:VAL:HG22	17:O0:258:THR:CB	2.22	0.69
7:D3:1196:PHE:CE2	23:U5:610:LEU:HD11	2.27	0.69
4:A0:239:THR:HG23	7:D1:1028:GLN:CD	2.13	0.69
6:C3:468:GLU:CG	20:R1:1205:ALA:CB	2.70	0.69
6:C3:468:GLU:HG2	20:R1:1205:ALA:CB	2.22	0.69
7:D1:989:ALA:HB1	7:D4:91:PRO:HG3	1.74	0.69
1:03:78:LYS:CE	17:O0:98:ARG:CD	2.69	0.69
2:12:1346:ILE:CD1	2:13:1074:GLN:OE1	2.39	0.69
6:C4:1249:ILE:HG23	20:R3:1261:GLN:HB3	1.75	0.69
4:A0:199:GLY:HA3	7:D1:898:ARG:HD3	1.75	0.69
6:C2:1249:ILE:CB	20:R0:1265:TRP:NE1	2.47	0.69
14:L1:345:ARG:HH21	16:N0:201:GLN:CG	2.06	0.69
6:C3:427:MET:HE3	21:S0:89:LEU:HD11	1.73	0.68
13:K2:1153:GLN:HG2	13:K3:596:ILE:HD12	1.74	0.68
7:D0:1196:PHE:CD1	23:U2:610:LEU:HD22	2.29	0.68
7:D1:1011:LEU:HD13	7:D4:95:GLU:HG2	1.75	0.68
6:C2:788:VAL:CG2	17:O0:258:THR:CB	2.71	0.68
7:D1:1161:LEU:HD21	7:D1:1196:PHE:CD2	2.29	0.68
7:D2:1161:LEU:HD21	7:D2:1196:PHE:CD2	2.29	0.68
7:D5:1196:PHE:CG	23:U6:610:LEU:HD21	2.29	0.68
13:K0:1139:TYR:HA	13:K1:595:LEU:HD13	1.75	0.68
6:C2:1249:ILE:CB	20:R0:1284:ALA:HB2	2.24	0.67
6:C3:427:MET:HE3	21:S0:89:LEU:HD13	1.77	0.67
7:D4:1186:THR:HG23	23:U1:601:VAL:HB	1.75	0.67
6:C2:1249:ILE:O	20:R0:1265:TRP:CD1	2.48	0.67
6:C4:779:GLN:OE1	17:O3:258:THR:HG23	1.95	0.67
7:D0:1196:PHE:CD1	23:U2:610:LEU:CD2	2.77	0.67
4:A0:279:HIS:NE2	7:D2:886:GLN:CB	2.51	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C3:1703:GLU:OE2	24:V0:800:LYS:CB	2.42	0.67
1:03:78:LYS:HZ3	17:O0:98:ARG:HD2	1.60	0.67
14:L1:419:LEU:CD2	16:N0:139:GLN:HE21	2.00	0.67
7:D4:1196:PHE:CD2	23:U1:610:LEU:HD11	2.30	0.67
6:C0:83:THR:O	12:J1:421:ILE:CD1	2.42	0.67
6:C0:1134:SER:OG	10:H1:411:ARG:NH2	2.27	0.67
6:C3:427:MET:CE	21:S0:89:LEU:HD13	2.25	0.67
7:D4:1366:SER:HB2	20:R0:999:THR:HG21	1.72	0.67
4:A0:199:GLY:CA	7:D1:898:ARG:HD3	2.26	0.66
10:H0:427:PHE:CE1	11:I0:357:LEU:HD22	2.29	0.66
7:D4:1186:THR:CG2	23:U1:601:VAL:HB	2.25	0.66
4:A0:683:LYS:HA	7:D1:563:ARG:HH12	1.60	0.66
7:D0:1161:LEU:HD22	7:D0:1196:PHE:CE1	2.30	0.66
6:C4:1249:ILE:HG22	20:R3:1265:TRP:HE1	1.61	0.66
7:D4:1206:ILE:HG22	23:U1:600:LEU:HD22	1.78	0.65
7:D2:1196:PHE:CD2	23:U4:610:LEU:HD11	2.31	0.65
1:01:745:MET:CE	1:04:10:ARG:NH2	2.58	0.65
7:D2:1095:ALA:HB1	7:D2:1140:PHE:CE2	2.30	0.65
4:A0:199:GLY:CA	7:D1:898:ARG:CD	2.74	0.65
7:D2:1186:THR:HG21	23:U4:601:VAL:HB	1.78	0.65
7:D4:1196:PHE:CE2	23:U1:610:LEU:HG	2.31	0.65
1:00:28:LYS:HG2	14:L0:472:LEU:HD21	1.79	0.65
7:D2:888:GLN:NE2	9:F3:124:VAL:O	2.23	0.65
2:12:1279:GLN:HE22	2:13:1125:ALA:CB	2.09	0.65
7:D0:1196:PHE:CZ	23:U2:610:LEU:CD1	2.80	0.65
2:12:1278:ILE:HG22	2:13:1109:ASN:HD21	1.62	0.64
7:D5:1196:PHE:CE2	23:U6:610:LEU:HG	2.31	0.64
4:A0:558:LYS:HE3	7:D1:1031:LYS:HD2	1.76	0.64
7:D1:1196:PHE:CZ	23:U3:610:LEU:HD11	2.32	0.64
1:00:28:LYS:HE3	14:L0:472:LEU:HD22	1.79	0.64
14:L1:345:ARG:HH21	16:N0:201:GLN:HG2	1.60	0.64
6:C3:1703:GLU:OE2	24:V0:800:LYS:HB3	1.98	0.64
7:D3:1184:ASP:CB	23:U5:597:ILE:HG23	2.10	0.64
7:D1:693:ARG:HH21	9:F3:315:LEU:CG	2.11	0.63
2:12:1373:PRO:HB3	2:13:1074:GLN:OE1	1.98	0.63
6:C2:471:GLN:NE2	20:R0:1205:ALA:HB3	2.12	0.63
4:A4:456:ASN:CG	6:C3:244:GLU:OE1	2.36	0.63
4:A0:279:HIS:CE1	7:D2:886:GLN:HB3	2.32	0.63
7:D5:1186:THR:CG2	23:U6:601:VAL:HB	2.28	0.63
2:12:1177:MET:CG	2:13:1108:SER:HA	2.17	0.63
4:A0:558:LYS:CD	7:D1:1031:LYS:HD3	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D0:1186:THR:HA	23:U2:600:LEU:HD12	1.80	0.63
2:10:1177:MET:HG3	2:11:1106:PRO:CA	2.28	0.63
7:D2:1161:LEU:HD21	7:D2:1196:PHE:CG	2.34	0.62
7:D3:1196:PHE:CD1	23:U5:610:LEU:HD21	2.34	0.62
7:D5:1347:ARG:HH22	20:R2:1068:SER:HA	1.63	0.62
17:O2:86:TRP:CZ2	17:O2:105:LYS:HE2	2.34	0.62
6:C4:1249:ILE:HD11	20:R3:1285:THR:N	2.14	0.62
7:D0:1196:PHE:CE1	23:U2:610:LEU:CD2	2.83	0.62
4:A0:239:THR:HG23	7:D1:1028:GLN:OE1	2.00	0.62
7:D5:1354:LEU:HB3	20:R2:1035:ARG:HD3	1.81	0.62
7:D3:1161:LEU:HD21	7:D3:1196:PHE:CG	2.33	0.62
10:H0:427:PHE:CD2	11:I0:364:ILE:CD1	2.64	0.62
4:A0:690:TYR:CG	7:D1:560:ALA:CB	2.83	0.62
7:D2:1242:HIS:CE1	7:D3:732:LEU:HD23	2.35	0.62
4:A2:690:TYR:HB2	7:D3:560:ALA:CB	2.30	0.61
7:D4:1362:VAL:O	20:R0:1029:ARG:NH1	2.33	0.61
17:O3:86:TRP:CZ2	17:O3:105:LYS:HE2	2.35	0.61
7:D4:1165:TYR:CE1	23:U1:611:PHE:HE1	2.19	0.61
8:E0:165:TYR:CD2	8:E0:269:LEU:HD22	2.36	0.61
7:D4:1195:PRO:HB2	23:U1:610:LEU:HD22	1.80	0.61
7:D5:1347:ARG:NE	20:R2:1072:ALA:HB2	2.15	0.61
8:E0:165:TYR:HE1	8:E0:255:HIS:HD2	1.49	0.61
6:C2:622:PRO:CB	20:R0:1316:SER:HB2	2.26	0.61
6:C2:1249:ILE:CG2	20:R0:1261:GLN:O	2.48	0.61
7:D0:1196:PHE:CE1	23:U2:610:LEU:HD21	2.36	0.61
7:D2:1186:THR:HA	23:U4:600:LEU:HD12	1.82	0.61
18:P1:259:GLN:OE1	25:W0:653:VAL:HG13	2.01	0.61
6:C3:1698:GLU:CB	24:V0:796:HIS:NE2	2.64	0.61
2:14:171:SER:HB3	2:15:440:VAL:HG11	1.81	0.61
10:H0:427:PHE:CE2	11:I0:361:ARG:HG3	2.34	0.61
4:A0:279:HIS:CD2	7:D2:886:GLN:HB3	2.34	0.61
11:I0:305:THR:HG23	12:J0:388:ARG:HH22	1.64	0.61
7:D5:1362:VAL:HG13	20:R2:1002:THR:HG22	1.83	0.60
17:O0:86:TRP:CZ2	17:O0:105:LYS:HE2	2.35	0.60
1:03:78:LYS:HG2	17:O0:98:ARG:HH12	1.64	0.60
6:C3:1698:GLU:HB3	24:V0:796:HIS:NE2	2.15	0.60
6:C4:1695:ASP:HB2	18:P3:257:LYS:HD3	1.83	0.60
7:D4:1196:PHE:CD2	23:U1:610:LEU:HD21	2.36	0.60
4:A1:409:LYS:HD3	9:F2:94:ILE:HG22	1.83	0.60
13:K2:912:GLY:HA2	14:L2:909:LEU:HD22	1.83	0.60
1:01:88:GLU:OE1	15:M0:844:THR:HG22	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C4:1249:ILE:HD11	20:R3:1284:ALA:HB1	1.84	0.60
2:10:1291:PRO:HD3	2:14:1306:ILE:HD13	1.83	0.60
2:12:1176:ILE:HG22	2:13:1106:PRO:HG3	1.84	0.60
6:C4:1244:GLN:OE1	17:O3:204:GLU:HB2	2.02	0.60
7:D5:1347:ARG:HH22	20:R2:1068:SER:CA	2.15	0.60
6:C2:1249:ILE:O	20:R0:1265:TRP:HD1	1.84	0.60
2:10:1306:ILE:HD13	2:14:1291:PRO:HD3	1.83	0.59
7:D5:1186:THR:HG23	23:U6:601:VAL:HB	1.84	0.59
4:A0:690:TYR:CG	7:D1:560:ALA:HB2	2.37	0.59
7:D2:1161:LEU:HD22	7:D2:1196:PHE:CE1	2.37	0.59
7:D1:1010:MET:O	7:D4:98:GLY:HA3	2.03	0.59
7:D1:1011:LEU:HD11	7:D4:95:GLU:OE2	2.02	0.59
4:A0:239:THR:CG2	7:D1:1028:GLN:CG	2.79	0.59
2:10:1177:MET:HG3	2:11:1106:PRO:HA	1.83	0.58
4:A0:686:ASP:HB3	7:D1:563:ARG:NH1	2.18	0.58
6:C4:1249:ILE:CG1	20:R3:1284:ALA:HB1	2.32	0.58
7:D0:1161:LEU:HD21	7:D0:1196:PHE:CD2	2.38	0.58
13:K0:1138:PRO:CB	13:K1:577:PRO:CD	2.81	0.58
4:A0:199:GLY:HA3	7:D1:898:ARG:HD2	1.84	0.58
6:C3:1241:ASN:HA	6:C3:1252:ARG:HH21	1.69	0.58
2:14:212:LYS:NZ	2:15:443:TRP:CH2	2.68	0.58
8:E0:165:TYR:CD2	8:E0:258:LEU:HD21	2.39	0.58
13:K2:962:ARG:NH2	14:L2:924:GLN:NE2	2.51	0.58
7:D0:1161:LEU:HD21	7:D0:1196:PHE:CG	2.39	0.58
7:D0:1186:THR:CG2	23:U2:601:VAL:HB	2.33	0.58
7:D3:1196:PHE:CE1	23:U5:610:LEU:HD11	2.39	0.58
7:D5:1347:ARG:HH21	20:R2:1154:PRO:HG2	1.67	0.58
7:D3:1161:LEU:HD21	7:D3:1196:PHE:CD2	2.38	0.58
1:00:28:LYS:HG3	14:L0:472:LEU:HD21	1.84	0.58
4:A0:279:HIS:CD2	7:D2:886:GLN:CB	2.87	0.58
6:C3:1249:ILE:HG22	20:R1:1265:TRP:CD1	2.39	0.58
7:D1:1003:VAL:C	7:D4:95:GLU:OE2	2.42	0.58
1:00:454:ARG:HE	1:00:466:HIS:CE1	2.22	0.58
1:01:116:TYR:CE2	15:M0:841:ILE:HD13	2.38	0.58
1:01:454:ARG:HE	1:01:466:HIS:CE1	2.22	0.58
4:A4:483:GLU:HG3	6:C3:180:GLN:OE1	2.04	0.58
6:C4:1249:ILE:HG12	20:R3:1284:ALA:HB1	1.85	0.58
7:D1:1196:PHE:CD1	23:U3:610:LEU:CD2	2.87	0.57
1:00:733:LYS:HZ2	14:L1:781:THR:HG22	1.69	0.57
4:A0:558:LYS:CE	7:D1:1031:LYS:HZ2	2.17	0.57
6:C4:696:SER:O	19:Q2:248:ARG:NH1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:L3:727:CYS:H	14:L3:731:GLY:C	2.08	0.57
7:D3:1196:PHE:CZ	23:U5:610:LEU:HD11	2.38	0.57
1:03:454:ARG:HE	1:03:466:HIS:CE1	2.22	0.57
1:04:454:ARG:HE	1:04:466:HIS:CE1	2.23	0.57
4:A2:690:TYR:CB	7:D3:560:ALA:CB	2.82	0.57
6:C4:1244:GLN:CG	20:R3:1283:SER:OG	2.53	0.57
13:K2:966:LYS:HG3	14:L2:919:LEU:HD12	1.86	0.57
1:01:745:MET:HE3	1:04:10:ARG:NH2	2.18	0.57
10:H0:427:PHE:HE2	11:I0:361:ARG:HA	1.67	0.57
4:A2:141:LYS:HE3	6:C1:1992:ARG:HH11	1.70	0.57
7:D1:1003:VAL:HG13	7:D4:95:GLU:CD	2.26	0.57
4:A4:167:ILE:HG23	6:C3:4:PRO:CD	2.34	0.57
4:A0:558:LYS:CG	7:D1:1031:LYS:NZ	2.65	0.56
4:A6:141:LYS:HE3	6:C4:1992:ARG:HH11	1.69	0.56
6:C4:1244:GLN:HB3	20:R3:1283:SER:HA	1.87	0.56
7:D1:1196:PHE:CD2	23:U3:610:LEU:HD11	2.40	0.56
13:K3:71:HIS:N	13:K3:83:THR:HG1	2.03	0.56
6:C3:696:SER:O	19:Q0:248:ARG:NH1	2.39	0.56
6:C4:781:GLU:OE1	17:O3:259:SER:HB3	2.04	0.56
14:L1:345:ARG:NH2	16:N0:201:GLN:CD	2.59	0.56
6:C2:730:PRO:HG3	17:O0:258:THR:CG2	2.34	0.56
6:C2:1250:GLY:CA	20:R0:1265:TRP:CG	2.85	0.56
7:D0:1196:PHE:CE2	23:U2:610:LEU:HD13	2.41	0.56
13:K2:912:GLY:CA	14:L2:909:LEU:HD22	2.36	0.56
14:L1:345:ARG:HH22	16:N0:201:GLN:CD	2.09	0.56
6:C0:1661:ARG:NH2	6:C1:1807:TRP:HE1	2.03	0.56
7:D0:1161:LEU:HD22	7:D0:1196:PHE:CZ	2.39	0.56
7:D2:1161:LEU:CD2	7:D2:1196:PHE:CD1	2.89	0.56
2:10:1290:ASN:ND2	2:14:1307:LYS:O	2.37	0.56
3:40:165:LYS:HG2	3:40:179:ASN:CB	2.35	0.56
9:F0:164:SER:C	9:F0:165:LEU:HG	2.26	0.56
17:O1:86:TRP:CZ2	17:O1:105:LYS:HE2	2.41	0.56
2:11:747:ALA:HB1	2:11:748:PRO:HD2	1.88	0.56
4:A2:409:LYS:HD3	9:F1:94:ILE:HG22	1.88	0.55
7:D4:1195:PRO:O	23:U1:611:PHE:CE2	2.59	0.55
2:11:990:GLU:CD	2:11:993:LYS:HE3	2.26	0.55
7:D5:1161:LEU:HD22	7:D5:1196:PHE:CD2	2.41	0.55
1:02:454:ARG:HE	1:02:466:HIS:CE1	2.24	0.55
4:A3:409:LYS:HD3	9:F0:94:ILE:HG22	1.89	0.55
7:D1:1196:PHE:CE2	23:U3:610:LEU:CD1	2.83	0.55
1:01:11:TYR:CE1	14:L1:245:VAL:CG1	2.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D0:1237:SER:OG	7:D1:736:ASN:CB	2.54	0.55
6:C2:1249:ILE:CA	20:R0:1265:TRP:HE1	2.18	0.55
2:11:745:VAL:HG12	2:11:746:CYS:H	1.72	0.55
1:01:11:TYR:CE1	14:L1:245:VAL:HG11	2.42	0.55
4:A3:163:GLU:H	4:A3:164:PRO:HD2	1.71	0.55
13:K1:969:THR:HA	14:L1:879:ASP:OD2	2.06	0.55
6:C2:786:GLN:HE22	17:O0:257:LEU:HD13	1.72	0.55
6:C2:786:GLN:NE2	17:O0:257:LEU:CD1	2.70	0.55
6:C4:1249:ILE:CD1	20:R3:1284:ALA:HA	2.29	0.55
9:F0:164:SER:O	9:F0:165:LEU:CG	2.55	0.55
1:00:28:LYS:HE3	14:L0:472:LEU:CD2	2.37	0.55
2:14:1831:VAL:HG11	7:D3:689:LYS:HZ3	1.69	0.55
6:C4:1249:ILE:CD1	20:R3:1284:ALA:HB1	2.37	0.55
7:D1:1186:THR:CG2	23:U3:601:VAL:HB	2.37	0.54
7:D2:1196:PHE:CD2	23:U4:610:LEU:CD1	2.90	0.54
7:D3:1196:PHE:CD1	23:U5:610:LEU:HD11	2.42	0.54
7:D0:1161:LEU:CD2	7:D0:1196:PHE:CD1	2.91	0.54
7:D5:1195:PRO:HB2	23:U6:610:LEU:HD22	1.89	0.54
1:01:549:ALA:HB1	14:L1:233:ALA:HB1	1.89	0.54
4:A2:199:GLY:C	7:D3:939:LYS:HE2	2.27	0.54
7:D4:1161:LEU:CD2	7:D4:1196:PHE:CD2	2.91	0.54
7:D1:1161:LEU:HD21	7:D1:1196:PHE:CG	2.42	0.54
7:D1:1161:LEU:HD22	7:D1:1196:PHE:CZ	2.42	0.54
7:D5:1184:ASP:HB3	23:U6:597:ILE:CG2	2.12	0.54
7:D5:1362:VAL:HG11	20:R2:1006:LYS:HB2	1.89	0.54
6:C2:788:VAL:CG2	17:O0:258:THR:OG1	2.48	0.54
6:C2:1249:ILE:HB	20:R0:1265:TRP:NE1	2.15	0.54
7:D0:1238:SER:HB2	7:D1:734:ASN:HB2	1.90	0.54
7:D1:1196:PHE:CD2	23:U3:610:LEU:CD1	2.90	0.54
7:D5:1161:LEU:CD2	7:D5:1196:PHE:CD2	2.90	0.54
4:A4:168:SER:O	6:C3:4:PRO:HG3	2.08	0.54
1:03:78:LYS:HD3	17:O0:98:ARG:CD	2.38	0.54
6:C3:1246:MET:CG	20:R1:1287:GLU:HG3	2.38	0.54
6:C4:780:LEU:HB3	17:O3:256:GLU:CD	2.28	0.53
13:K2:71:HIS:N	13:K2:83:THR:HG1	2.06	0.53
2:13:1290:ASN:ND2	2:17:1307:LYS:O	2.40	0.53
18:P0:245:PRO:O	24:V0:923:THR:HG22	2.09	0.53
23:U0:823:LEU:HD12	25:W0:230:TYR:CE1	2.43	0.53
4:A0:690:TYR:CB	7:D1:560:ALA:HB1	2.38	0.53
6:C2:788:VAL:HG22	17:O0:258:THR:HG1	1.73	0.53
7:D4:1195:PRO:CB	23:U1:610:LEU:HD22	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:01:688:HIS:CE1	1:04:4:SER:CB	2.92	0.53
7:D5:1184:ASP:HB3	23:U6:597:ILE:N	2.24	0.53
1:00:375:THR:HB	1:00:376:PHE:CD2	2.44	0.53
2:11:443:TRP:HZ2	2:12:212:LYS:HZ1	1.56	0.53
7:D2:1235:LEU:CD1	7:D3:735:PRO:CB	2.87	0.53
2:10:1177:MET:CB	2:11:1106:PRO:HA	2.38	0.53
7:D0:1196:PHE:CE2	23:U2:610:LEU:CD1	2.91	0.53
7:D1:1161:LEU:HD22	7:D1:1196:PHE:CE1	2.44	0.53
2:10:1176:ILE:C	2:10:1177:MET:HG2	2.28	0.53
6:C3:1698:GLU:HB2	24:V0:796:HIS:CE1	2.44	0.53
13:K2:1149:GLU:HG3	13:K2:1153:GLN:CD	2.29	0.53
2:14:1716:GLU:H	2:14:1716:GLU:CD	2.13	0.53
2:16:1716:GLU:CD	2:16:1716:GLU:H	2.12	0.53
4:A2:448:TYR:CZ	9:F1:89:PRO:HD3	2.44	0.53
7:D2:993:PRO:HG3	7:D3:426:GLU:OE2	2.09	0.53
7:D2:1161:LEU:HD22	7:D2:1196:PHE:CD1	2.44	0.53
7:D4:1161:LEU:HD22	7:D4:1196:PHE:CD2	2.44	0.53
11:I2:266:LYS:HZ3	11:I3:327:ARG:NH2	2.07	0.53
4:A0:141:LYS:HE3	6:C0:1992:ARG:HH11	1.74	0.53
4:A0:239:THR:HG22	7:D1:1028:GLN:CB	2.27	0.53
4:A1:448:TYR:CZ	9:F2:89:PRO:HD3	2.44	0.53
6:C4:792:GLY:HA3	20:R3:1404:HIS:CD2	2.44	0.53
18:P0:185:LEU:HD13	25:W0:708:ALA:O	2.08	0.53
2:13:1307:LYS:O	2:17:1290:ASN:ND2	2.42	0.52
6:C3:781:GLU:OE2	17:O1:258:THR:HG23	2.07	0.52
7:D2:1186:THR:CG2	23:U4:601:VAL:HB	2.39	0.52
15:M1:317:HIS:CE1	16:N1:7:THR:HG23	2.44	0.52
7:D5:1184:ASP:CB	23:U6:597:ILE:N	2.72	0.52
20:R1:1053:PHE:H	20:R1:1054:PRO:HD2	1.73	0.52
20:R2:1064:GLY:O	20:R2:1068:SER:HB2	2.09	0.52
2:13:1306:ILE:HD13	2:17:1291:PRO:HD3	1.90	0.52
6:C2:730:PRO:CG	17:O0:258:THR:HG22	2.38	0.52
6:C2:1249:ILE:CD1	20:R0:1284:ALA:CB	2.86	0.52
14:L1:419:LEU:CD2	16:N0:139:GLN:HE22	2.09	0.52
2:14:1831:VAL:HG11	7:D3:689:LYS:NZ	2.18	0.52
2:15:1716:GLU:CD	2:15:1716:GLU:H	2.13	0.52
7:D0:1279:ASN:O	7:D1:736:ASN:ND2	2.40	0.52
7:D3:1186:THR:CG2	23:U5:601:VAL:HB	2.39	0.52
13:K2:1153:GLN:HG2	13:K3:596:ILE:CD1	2.40	0.52
6:C4:1695:ASP:O	18:P3:257:LYS:HG2	2.10	0.52
1:03:31:TYR:OH	15:M1:541:GLN:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:11:1346:ILE:HD12	2:12:1024:ALA:HB1	1.92	0.52
4:A0:371:LEU:HD22	4:A0:395:GLY:HA3	1.92	0.52
7:D0:1389:ARG:NH1	7:D1:948:HIS:CE1	2.77	0.52
15:M1:549:ALA:HB1	15:M1:553:TRP:CZ3	2.44	0.52
4:A4:371:LEU:HD22	4:A4:395:GLY:HA3	1.92	0.52
7:D0:1185:ILE:CG2	23:U2:600:LEU:HB2	2.40	0.52
7:D5:1347:ARG:HA	7:D5:1350:THR:H	1.74	0.52
18:P1:259:GLN:OE1	25:W0:653:VAL:CG1	2.58	0.52
6:C2:620:GLU:HA	20:R0:1317:HIS:CE1	2.44	0.51
19:Q0:57:SER:OG	24:V0:851:VAL:CG2	2.50	0.51
4:A4:167:ILE:CG2	6:C3:4:PRO:HD2	2.38	0.51
7:D0:1389:ARG:HD3	7:D1:948:HIS:NE2	2.25	0.51
10:H0:427:PHE:CE2	11:I0:361:ARG:NE	2.72	0.51
2:13:1291:PRO:HD3	2:17:1306:ILE:HD13	1.93	0.51
13:K0:1138:PRO:CB	13:K1:577:PRO:HD3	2.40	0.51
2:14:171:SER:HB3	2:15:440:VAL:CG1	2.41	0.51
2:14:171:SER:CB	2:15:440:VAL:HG11	2.40	0.51
1:03:78:LYS:HD3	17:O0:98:ARG:CZ	2.39	0.51
4:A4:456:ASN:CB	6:C3:244:GLU:OE1	2.59	0.51
6:C3:18:LYS:HE3	6:C3:22:HIS:CE1	2.45	0.51
7:D2:1161:LEU:CD2	7:D2:1196:PHE:CG	2.94	0.51
13:K0:71:HIS:N	13:K0:83:THR:HG1	2.07	0.51
1:00:24:GLN:NE2	14:L0:473:ASP:OD1	2.43	0.51
1:02:454:ARG:HH21	1:02:466:HIS:CG	2.28	0.51
2:12:1373:PRO:HB3	2:13:1074:GLN:CD	2.31	0.51
15:M0:584:CYS:HB2	15:M0:585:SER:HA	1.92	0.51
17:O0:2:PHE:N	18:P0:11:THR:HG1	2.08	0.51
7:D0:1238:SER:HB2	7:D1:734:ASN:CB	2.41	0.51
2:10:1716:GLU:CD	2:10:1716:GLU:H	2.14	0.51
2:17:1716:GLU:H	2:17:1716:GLU:CD	2.14	0.51
4:A0:690:TYR:CG	7:D1:560:ALA:HB1	2.45	0.51
4:A4:175:ARG:HG3	4:A4:175:ARG:HH11	1.75	0.51
1:04:454:ARG:HH21	1:04:466:HIS:CG	2.28	0.51
14:L1:305:LYS:HE2	15:M1:510:PHE:CZ	2.46	0.51
4:A0:275:PHE:CE1	9:F3:122:PRO:HA	2.46	0.50
6:C4:780:LEU:HB3	17:O3:256:GLU:OE1	2.11	0.50
7:D0:1237:SER:HB2	7:D1:736:ASN:HB2	1.92	0.50
13:K2:966:LYS:CG	14:L2:919:LEU:HD12	2.42	0.50
2:11:1177:MET:N	2:12:1106:PRO:HB3	2.23	0.50
6:C2:1249:ILE:HG23	20:R0:1261:GLN:O	2.10	0.50
6:C4:781:GLU:CB	17:O3:258:THR:OG1	2.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E0:165:TYR:HD2	8:E0:269:LEU:HD22	1.76	0.50
13:K0:1142:PHE:CZ	13:K0:1146:ALA:HB2	2.47	0.50
7:D1:1011:LEU:CD1	7:D4:95:GLU:OE2	2.59	0.50
23:U0:842:ARG:O	23:U0:846:ILE:HG23	2.12	0.50
2:13:1716:GLU:H	2:13:1716:GLU:CD	2.15	0.50
4:A0:683:LYS:HZ3	7:D1:567:ALA:HB2	1.71	0.50
25:W0:513:GLU:O	25:W0:514:VAL:HG23	2.12	0.50
4:A3:819:ASN:HA	7:D3:1120:ARG:HH21	1.77	0.50
4:A6:371:LEU:HD22	4:A6:395:GLY:HA3	1.92	0.50
6:C3:468:GLU:OE2	20:R1:1205:ALA:CB	2.60	0.50
7:D3:1161:LEU:CD2	7:D3:1196:PHE:CD1	2.95	0.50
7:D5:1184:ASP:CG	23:U6:597:ILE:CG2	2.79	0.50
19:Q0:57:SER:HB3	24:V0:851:VAL:CG1	2.33	0.50
6:C4:780:LEU:HB3	17:O3:256:GLU:OE2	2.12	0.50
4:A0:239:THR:HG21	7:D1:1028:GLN:CD	2.31	0.49
7:D0:1237:SER:CB	7:D1:736:ASN:HB2	2.42	0.49
2:17:1012:LYS:HE3	2:17:1013:TYR:CE1	2.47	0.49
6:C0:1370:MET:SD	6:C0:1446:LYS:HE3	2.52	0.49
17:O1:86:TRP:CH2	17:O1:105:LYS:HE2	2.47	0.49
1:03:334:ILE:HG22	1:03:335:LYS:H	1.77	0.49
6:C4:327:ALA:HB2	6:C4:366:ASP:HB2	1.94	0.49
13:K2:1153:GLN:CD	13:K3:596:ILE:CG2	2.74	0.49
7:D3:1196:PHE:CG	23:U5:610:LEU:CD1	2.94	0.49
7:D5:1346:ARG:HD2	20:R2:1155:GLY:HA3	1.95	0.49
7:D5:1346:ARG:HD2	20:R2:1155:GLY:CA	2.42	0.49
15:M1:587:LEU:HB3	15:M1:588:PRO:HD2	1.94	0.49
6:C3:1463:GLN:NE2	6:C3:1502:ARG:HH22	2.10	0.49
7:D0:1389:ARG:HH11	7:D1:948:HIS:CE1	2.30	0.49
20:R3:1282:SER:H	20:R3:1286:ASP:CG	2.15	0.49
2:12:1306:ILE:HD13	2:16:1291:PRO:HD3	1.94	0.49
6:C3:1698:GLU:HB2	24:V0:796:HIS:NE2	2.27	0.49
7:D2:1196:PHE:CE1	23:U4:610:LEU:CD2	2.94	0.49
4:A0:558:LYS:HG3	7:D1:1031:LYS:CE	2.43	0.49
4:A4:129:HIS:HA	6:C2:1632:THR:HG21	1.95	0.49
17:O2:200:PHE:CZ	17:O2:211:LYS:HE2	2.48	0.49
1:00:334:ILE:HG22	1:00:335:LYS:H	1.77	0.49
4:A2:690:TYR:CD2	7:D3:560:ALA:HB2	2.47	0.49
6:C2:622:PRO:HB2	20:R0:1344:TYR:OH	2.12	0.49
6:C4:1244:GLN:NE2	17:O3:205:ASN:ND2	2.49	0.49
7:D5:1343:ASN:HA	7:D5:1346:ARG:HH12	1.77	0.49
15:M1:788:LYS:HE3	15:M1:792:GLU:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C1:1224:GLN:HE21	6:C1:1277:HIS:CG	2.30	0.49
7:D1:1003:VAL:CG1	7:D4:95:GLU:OE2	2.61	0.49
4:A3:448:TYR:CZ	9:F0:89:PRO:HD3	2.47	0.49
6:C1:1370:MET:SD	6:C1:1446:LYS:HE3	2.52	0.49
13:K0:1138:PRO:HB3	13:K1:577:PRO:HD3	1.95	0.49
14:L1:291:TYR:CE1	16:N0:201:GLN:OE1	2.66	0.49
2:12:1716:GLU:CD	2:12:1716:GLU:H	2.17	0.48
6:C0:1751:LEU:HA	6:C0:1889:LEU:HD21	1.95	0.48
4:A2:760:PHE:CE1	4:A2:764:LYS:HE3	2.48	0.48
1:02:708:LYS:HE2	1:02:756:TYR:CG	2.48	0.48
4:A2:371:LEU:HD22	4:A2:395:GLY:HA3	1.94	0.48
6:C2:622:PRO:HA	20:R0:1316:SER:CB	2.32	0.48
14:L3:734:SER:HB3	14:L3:735:PRO:HD3	1.94	0.48
2:12:1291:PRO:HD3	2:16:1306:ILE:HD13	1.95	0.48
7:D2:922:GLN:HG2	9:F3:268:ILE:HD12	1.95	0.48
7:D3:1161:LEU:CD2	7:D3:1196:PHE:CG	2.96	0.48
7:D4:1366:SER:HB3	20:R0:999:THR:HG22	1.94	0.48
7:D5:1347:ARG:HE	20:R2:1154:PRO:HB2	1.78	0.48
13:K0:947:GLU:H	13:K0:947:GLU:CD	2.17	0.48
15:M3:788:LYS:HE3	15:M3:792:GLU:HG3	1.95	0.48
1:00:375:THR:O	1:00:378:ASN:ND2	2.46	0.48
1:02:202:GLU:CD	1:02:202:GLU:H	2.17	0.48
2:10:1012:LYS:HE3	2:10:1013:TYR:CE1	2.48	0.48
2:11:1105:GLN:HA	2:11:1106:PRO:C	2.34	0.48
6:C2:327:ALA:HB2	6:C2:366:ASP:HB2	1.96	0.48
6:C4:1751:LEU:HA	6:C4:1889:LEU:HD21	1.96	0.48
7:D5:1195:PRO:CB	23:U6:610:LEU:HD22	2.43	0.48
13:K2:966:LYS:HG3	14:L2:919:LEU:CD1	2.43	0.48
4:A2:690:TYR:CB	7:D3:560:ALA:HB2	2.44	0.48
6:C2:1114:SER:HB3	6:C2:1281:HIS:CD2	2.49	0.48
7:D1:563:ARG:HH11	7:D1:563:ARG:CG	2.27	0.48
7:D1:715:LYS:HE3	7:D1:864:PRO:HG3	1.96	0.48
1:04:708:LYS:HE2	1:04:756:TYR:CG	2.48	0.48
4:A1:371:LEU:HD22	4:A1:395:GLY:HA3	1.95	0.48
5:B1:833:VAL:HG21	6:C1:1380:PRO:HD2	1.96	0.48
7:D1:1171:VAL:HG22	7:D1:1196:PHE:CE1	2.48	0.48
22:T0:741:LYS:HE3	22:T0:748:GLY:HA3	1.96	0.48
4:A0:558:LYS:HE2	7:D1:1031:LYS:HZ2	1.77	0.48
6:C2:786:GLN:NE2	17:O0:257:LEU:HD12	2.29	0.48
7:D1:134:LEU:HD21	9:F1:287:ARG:HH12	1.78	0.48
4:A4:175:ARG:HD2	6:C3:48:PRO:HD3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C4:781:GLU:HG3	17:O3:256:GLU:HB2	1.96	0.48
23:U4:610:LEU:HD23	23:U4:611:PHE:CD1	2.49	0.48
1:03:454:ARG:HH21	1:03:466:HIS:CG	2.32	0.48
2:10:1307:LYS:O	2:14:1290:ASN:ND2	2.44	0.48
4:A3:371:LEU:HD22	4:A3:395:GLY:HA3	1.95	0.48
6:C0:1224:GLN:HE21	6:C0:1277:HIS:CG	2.31	0.48
2:11:1290:ASN:ND2	2:15:1307:LYS:O	2.44	0.47
1:03:78:LYS:CD	17:O0:98:ARG:CD	2.92	0.47
2:11:1716:GLU:CD	2:11:1716:GLU:H	2.17	0.47
6:C4:749:THR:HB	19:Q2:226:HIS:CE1	2.48	0.47
4:A2:287:PRO:HG2	8:E0:652:HIS:CD2	2.49	0.47
4:A2:690:TYR:CG	7:D3:560:ALA:HB2	2.50	0.47
6:C2:471:GLN:NE2	20:R0:1205:ALA:HB1	2.03	0.47
15:M0:549:ALA:HB1	15:M0:553:TRP:CZ3	2.49	0.47
18:P1:320:LYS:HE2	25:W0:663:LYS:HG2	1.97	0.47
1:03:78:LYS:HD3	17:O0:98:ARG:HD2	1.95	0.47
2:17:576:CYS:HB2	2:17:579:PHE:CE1	2.49	0.47
6:C1:1751:LEU:HA	6:C1:1889:LEU:HD21	1.96	0.47
7:D1:1186:THR:HA	23:U3:600:LEU:HD12	1.96	0.47
14:L1:340:ARG:NH2	16:N0:142:VAL:H	2.12	0.47
1:01:454:ARG:HH21	1:01:466:HIS:CG	2.33	0.47
1:01:607:LYS:HE3	1:01:654:PHE:CE1	2.50	0.47
2:10:672:ILE:H	2:10:672:ILE:HD12	1.79	0.47
2:11:1291:PRO:HD3	2:15:1306:ILE:HD13	1.96	0.47
4:A4:168:SER:O	6:C3:4:PRO:CG	2.62	0.47
17:O2:204:GLU:CD	17:O2:204:GLU:H	2.17	0.47
20:R2:1064:GLY:O	20:R2:1068:SER:CB	2.62	0.47
1:04:607:LYS:HE3	1:04:654:PHE:CE1	2.50	0.47
2:11:1306:ILE:HD13	2:15:1291:PRO:HD3	1.97	0.47
4:A0:448:TYR:CZ	9:F3:89:PRO:HD3	2.50	0.47
15:M3:549:ALA:HB1	15:M3:553:TRP:CZ3	2.49	0.47
22:T1:741:LYS:HE3	22:T1:748:GLY:HA3	1.96	0.47
1:01:18:SER:O	14:L1:472:LEU:HD21	2.14	0.47
1:01:745:MET:HE2	1:04:10:ARG:NH2	2.30	0.47
4:A0:558:LYS:HD2	7:D1:1031:LYS:HD3	1.95	0.47
4:A2:690:TYR:HB2	7:D3:560:ALA:HB1	1.96	0.47
4:A4:760:PHE:CE1	4:A4:764:LYS:HE3	2.50	0.47
6:C3:1751:LEU:HA	6:C3:1889:LEU:HD21	1.96	0.47
7:D3:890:LYS:HE2	7:D3:894:GLU:OE2	2.14	0.47
7:D3:1195:PRO:O	23:U5:610:LEU:HB2	2.15	0.47
8:E0:165:TYR:HE1	8:E0:255:HIS:CD2	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:K1:825:LYS:HE2	13:K1:832:TYR:CE1	2.50	0.47
13:K3:596:ILE:HG22	13:K3:599:HIS:H	1.80	0.47
1:00:607:LYS:HE3	1:00:654:PHE:CE1	2.50	0.47
3:40:143:PHE:CE1	3:40:291:THR:HG21	2.50	0.47
1:01:688:HIS:CE1	1:04:4:SER:OG	2.68	0.47
4:A0:199:GLY:CA	7:D1:898:ARG:HD2	2.43	0.47
4:A0:409:LYS:HD3	9:F3:94:ILE:HG22	1.96	0.47
7:D0:1196:PHE:CD2	23:U2:610:LEU:HD13	2.50	0.47
7:D3:922:GLN:HG2	7:D5:86:ARG:NE	2.30	0.47
13:K2:947:GLU:CD	13:K2:947:GLU:H	2.17	0.47
2:17:672:ILE:HD12	2:17:672:ILE:H	1.80	0.47
4:A5:757:PHE:CE1	4:A5:761:LYS:HE3	2.50	0.47
6:C2:1224:GLN:HE21	6:C2:1277:HIS:CD2	2.33	0.47
7:D1:898:ARG:NE	7:D1:927:GLU:OE1	2.48	0.47
7:D1:1161:LEU:CD2	7:D1:1196:PHE:CD1	2.98	0.47
9:F0:308:THR:HB	9:F0:309:PRO:CD	2.45	0.47
15:M1:402:HIS:CB	15:M1:403:LEU:HA	2.46	0.47
1:00:454:ARG:HH21	1:00:466:HIS:CG	2.33	0.46
1:02:334:ILE:HG22	1:02:335:LYS:H	1.79	0.46
4:A2:199:GLY:O	7:D3:939:LYS:HE2	2.15	0.46
4:A2:757:PHE:CE1	4:A2:761:LYS:HE3	2.49	0.46
5:B1:833:VAL:HG21	6:C1:1380:PRO:CD	2.45	0.46
6:C4:1224:GLN:HE21	6:C4:1277:HIS:CG	2.33	0.46
7:D4:1185:ILE:HG23	23:U1:600:LEU:HD13	1.96	0.46
13:K0:1142:PHE:CE2	13:K1:594:SER:HA	2.51	0.46
17:O3:2:PHE:HA	18:P3:58:ARG:O	2.15	0.46
23:U0:827:TRP:CZ3	23:U0:838:LYS:HE2	2.49	0.46
1:00:28:LYS:CE	14:L0:472:LEU:CD2	2.93	0.46
1:03:607:LYS:HE3	1:03:654:PHE:CE1	2.50	0.46
4:A0:199:GLY:HA2	7:D1:898:ARG:HD3	1.96	0.46
7:D1:1186:THR:HG21	23:U3:601:VAL:HB	1.96	0.46
7:D5:1351:ASN:HD21	20:R2:1069:ARG:HD2	1.80	0.46
13:K0:1138:PRO:HB3	13:K1:577:PRO:CD	2.45	0.46
20:R3:1281:GLU:H	20:R3:1281:GLU:CD	2.19	0.46
1:00:607:LYS:HE3	1:00:654:PHE:CD1	2.51	0.46
2:11:672:ILE:HD12	2:11:672:ILE:H	1.80	0.46
6:C2:1249:ILE:C	20:R0:1265:TRP:HE1	2.06	0.46
1:02:607:LYS:HE3	1:02:654:PHE:CE1	2.49	0.46
4:A0:279:HIS:CD2	7:D2:886:GLN:HB2	2.50	0.46
6:C0:327:ALA:HB2	6:C0:366:ASP:HB2	1.96	0.46
7:D2:1170:SER:OG	23:U4:610:LEU:O	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:K0:346:LYS:HE2	13:K0:407:LEU:O	2.16	0.46
19:Q2:143:GLU:CG	19:Q2:155:LEU:HD11	2.46	0.46
2:12:672:ILE:HD12	2:12:672:ILE:H	1.80	0.46
4:A4:141:LYS:CE	6:C2:1992:ARG:HH11	2.25	0.46
9:F0:196:TYR:CE1	9:F0:227:LYS:HE2	2.50	0.46
22:T0:2:ARG:HA	22:T0:423:HIS:O	2.16	0.46
1:01:607:LYS:HE3	1:01:654:PHE:CD1	2.51	0.46
1:01:708:LYS:HE2	1:01:756:TYR:CG	2.51	0.46
1:03:607:LYS:HE3	1:03:654:PHE:CD1	2.51	0.46
6:C3:1697:ASN:HD21	18:P1:257:LYS:HG3	1.80	0.46
9:F0:164:SER:O	9:F0:165:LEU:CD2	2.63	0.46
23:U1:610:LEU:C	23:U1:610:LEU:HD23	2.36	0.46
6:C4:793:GLU:HG3	20:R3:1404:HIS:HB2	1.97	0.46
6:C4:1249:ILE:HG22	20:R3:1265:TRP:NE1	2.27	0.46
13:K0:1142:PHE:HB3	13:K1:595:LEU:HD11	1.96	0.46
13:K2:346:LYS:HE2	13:K2:407:LEU:O	2.16	0.46
13:K2:912:GLY:HA2	14:L2:909:LEU:CD2	2.46	0.46
13:K2:963:TYR:CE2	14:L2:921:TYR:HB3	2.51	0.46
13:K2:1149:GLU:HG3	13:K2:1153:GLN:NE2	2.30	0.46
1:00:708:LYS:HE2	1:00:756:TYR:CG	2.51	0.46
1:03:708:LYS:HE2	1:03:756:TYR:CG	2.51	0.46
2:11:776:VAL:HG22	2:11:888:GLU:HB2	1.98	0.46
2:14:171:SER:CB	2:15:440:VAL:CG1	2.94	0.46
6:C3:327:ALA:HB2	6:C3:366:ASP:HB2	1.98	0.46
6:C3:1252:ARG:HH11	20:R1:1261:GLN:HB2	1.80	0.46
7:D4:1184:ASP:CG	23:U1:597:ILE:CG2	2.84	0.46
9:F3:254:ARG:HH11	9:F3:254:ARG:HG3	1.81	0.46
17:O0:207:ARG:HE	20:R0:1286:ASP:CG	2.19	0.46
6:C1:327:ALA:HB2	6:C1:366:ASP:HB2	1.96	0.46
7:D4:1161:LEU:HD21	7:D4:1196:PHE:CD2	2.51	0.46
7:D5:1341:VAL:CG1	7:D5:1346:ARG:HA	2.46	0.46
13:K0:1139:TYR:HA	13:K1:595:LEU:CD1	2.43	0.46
13:K3:969:THR:CA	14:L3:879:ASP:OD2	2.61	0.46
14:L3:322:GLU:CD	14:L3:330:ARG:HH21	2.19	0.46
2:10:1291:PRO:HD3	2:14:1306:ILE:CD1	2.45	0.46
2:10:1306:ILE:CD1	2:14:1291:PRO:HD3	2.45	0.46
2:11:747:ALA:HB1	2:11:748:PRO:CD	2.46	0.46
6:C1:658:GLU:H	6:C1:658:GLU:CD	2.19	0.46
7:D2:1185:ILE:CG2	23:U4:600:LEU:HB2	2.46	0.46
2:14:672:ILE:H	2:14:672:ILE:HD12	1.81	0.45
4:A0:240:ASP:HB2	7:D1:1056:ALA:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D5:1343:ASN:HA	7:D5:1346:ARG:NH1	2.31	0.45
15:M0:402:HIS:CG	15:M0:403:LEU:HA	2.50	0.45
4:A4:175:ARG:CZ	4:A4:177:SER:HA	2.47	0.45
6:C4:697:ARG:HA	19:Q2:248:ARG:HD2	1.99	0.45
7:D0:1185:ILE:HG23	23:U2:600:LEU:HD13	1.98	0.45
7:D4:1366:SER:CB	20:R0:999:THR:HG21	2.36	0.45
19:Q0:143:GLU:CG	19:Q0:155:LEU:HD11	2.46	0.45
23:U0:855:VAL:HG11	25:W0:233:SER:HA	1.96	0.45
1:00:202:GLU:CD	1:00:202:GLU:H	2.19	0.45
1:02:708:LYS:HE2	1:02:756:TYR:CD1	2.52	0.45
1:04:708:LYS:HE2	1:04:756:TYR:CD1	2.51	0.45
6:C2:1249:ILE:HG23	20:R0:1261:GLN:C	2.37	0.45
6:C4:1765:GLN:HE21	6:C4:1899:THR:HG23	1.81	0.45
7:D1:1196:PHE:CE1	23:U3:610:LEU:CD2	2.92	0.45
13:K3:346:LYS:HE2	13:K3:407:LEU:O	2.17	0.45
4:A5:760:PHE:CZ	4:A5:764:LYS:HE3	2.52	0.45
6:C3:1463:GLN:HE21	6:C3:1502:ARG:HH22	1.63	0.45
7:D4:1165:TYR:CE1	23:U1:611:PHE:CE1	3.04	0.45
13:K3:595:LEU:HB2	13:K3:596:ILE:HD13	1.97	0.45
17:O1:36:VAL:HG23	17:O1:55:THR:HG21	1.99	0.45
2:15:672:ILE:HD12	2:15:672:ILE:H	1.82	0.45
1:01:57:GLU:H	1:01:57:GLU:CD	2.20	0.45
2:16:672:ILE:HD12	2:16:672:ILE:H	1.81	0.45
4:A6:760:PHE:CE1	4:A6:764:LYS:HE3	2.51	0.45
7:D0:1389:ARG:HD3	7:D1:948:HIS:CE1	2.51	0.45
7:D2:993:PRO:CB	7:D3:426:GLU:OE2	2.65	0.45
7:D5:1196:PHE:CD2	23:U6:610:LEU:HD21	2.50	0.45
10:H1:468:LYS:HE3	10:H1:472:GLU:CD	2.37	0.45
7:D5:1185:ILE:CG2	23:U6:600:LEU:HB2	2.46	0.45
15:M2:734:LYS:HE3	15:M2:735:TRP:CE2	2.52	0.45
17:O2:36:VAL:HG23	17:O2:55:THR:HG21	1.99	0.45
1:00:57:GLU:H	1:00:57:GLU:CD	2.20	0.45
1:04:202:GLU:CD	1:04:202:GLU:H	2.19	0.45
3:41:143:PHE:CE1	3:41:291:THR:HG21	2.52	0.45
7:D2:1161:LEU:HD22	7:D2:1196:PHE:CZ	2.51	0.45
7:D3:1161:LEU:HD22	7:D3:1196:PHE:CE1	2.52	0.45
7:D5:1354:LEU:HB3	20:R2:1035:ARG:CD	2.45	0.45
4:A1:760:PHE:CE1	4:A1:764:LYS:HE3	2.51	0.45
4:A4:757:PHE:CE1	4:A4:761:LYS:HE3	2.52	0.45
7:D1:715:LYS:HE3	7:D1:719:GLU:OE2	2.17	0.45
22:T1:864:GLN:O	22:T1:867:LYS:HE3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C0:658:GLU:CD	6:C0:658:GLU:H	2.20	0.45
6:C2:620:GLU:HA	20:R0:1317:HIS:NE2	2.32	0.45
7:D0:1196:PHE:CE1	23:U2:610:LEU:CG	3.00	0.45
7:D5:1195:PRO:O	23:U6:611:PHE:CE2	2.69	0.45
1:01:202:GLU:CD	1:01:202:GLU:H	2.20	0.44
1:03:57:GLU:CD	1:03:57:GLU:H	2.20	0.44
7:D4:1365:GLN:O	20:R0:1029:ARG:NH2	2.50	0.44
1:01:571:GLN:NE2	1:01:633:PHE:H	2.16	0.44
5:B0:488:HIS:CD2	5:B0:489:GLU:H	2.35	0.44
6:C3:1697:ASN:OD1	18:P1:257:LYS:HA	2.18	0.44
7:D3:922:GLN:HG2	7:D5:86:ARG:HE	1.83	0.44
17:O0:2:PHE:HA	18:P0:60:ASP:OD2	2.17	0.44
18:P1:320:LYS:CE	25:W0:663:LYS:HE2	2.47	0.44
1:03:202:GLU:H	1:03:202:GLU:CD	2.21	0.44
2:10:1176:ILE:C	2:10:1177:MET:CG	2.86	0.44
4:A5:371:LEU:HD22	4:A5:395:GLY:HA3	1.99	0.44
5:B1:488:HIS:CD2	5:B1:489:GLU:H	2.36	0.44
13:K2:1153:GLN:NE2	13:K3:596:ILE:HA	2.33	0.44
13:K3:947:GLU:CD	13:K3:947:GLU:H	2.21	0.44
22:T1:2:ARG:HA	22:T1:423:HIS:O	2.17	0.44
7:D0:1161:LEU:HD22	7:D0:1196:PHE:CD1	2.51	0.44
7:D2:684:VAL:HG23	7:D2:686:ARG:HE	1.83	0.44
14:L0:491:LYS:HE2	14:L0:495:GLU:OE2	2.18	0.44
17:O3:36:VAL:HG23	17:O3:55:THR:HG21	2.00	0.44
1:00:92:THR:HG22	14:L0:262:LEU:HD22	1.93	0.44
2:10:1177:MET:CG	2:11:1106:PRO:HA	2.47	0.44
7:D5:1347:ARG:HH22	20:R2:1068:SER:CB	2.30	0.44
10:H2:342:GLN:HE21	10:H2:346:GLN:NE2	2.15	0.44
14:L0:490:GLU:CD	14:L0:490:GLU:H	2.21	0.44
1:00:571:GLN:NE2	1:00:633:PHE:H	2.16	0.44
2:13:672:ILE:HD12	2:13:672:ILE:H	1.81	0.44
4:A0:558:LYS:CE	7:D1:1031:LYS:NZ	2.80	0.44
6:C3:746:ARG:NE	19:Q0:228:ASN:OD1	2.51	0.44
6:C3:966:LEU:O	6:C3:974:LYS:HE2	2.18	0.44
6:C3:1224:GLN:HE21	6:C3:1277:HIS:CD2	2.36	0.44
7:D1:1161:LEU:CD2	7:D1:1196:PHE:CG	3.01	0.44
7:D4:1161:LEU:HD22	7:D4:1196:PHE:CE2	2.52	0.44
18:P0:155:GLU:OE2	24:V0:920:LEU:HD13	2.18	0.44
6:C2:469:PRO:HB3	20:R0:1113:ARG:HH11	1.78	0.44
7:D0:1237:SER:OG	7:D1:736:ASN:HB2	2.17	0.44
7:D3:1186:THR:HA	23:U5:600:LEU:HD12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H1:342:GLN:HE21	10:H1:346:GLN:NE2	2.16	0.44
13:K3:595:LEU:CA	13:K3:596:ILE:HD13	2.48	0.44
13:K3:595:LEU:C	13:K3:596:ILE:HD13	2.38	0.44
17:O2:200:PHE:CE1	17:O2:211:LYS:HE2	2.53	0.44
2:12:990:GLU:CD	2:12:993:LYS:HE3	2.38	0.44
4:A0:138:GLU:HA	6:C0:1992:ARG:NH1	2.32	0.44
4:A6:249:GLU:H	4:A6:249:GLU:CD	2.22	0.44
7:D2:1235:LEU:HD13	7:D3:735:PRO:HA	1.99	0.44
7:D4:1194:ASP:HA	7:D4:1202:LYS:HE2	1.98	0.44
7:D5:1194:ASP:HA	7:D5:1202:LYS:HE2	1.99	0.44
9:F0:100:SER:HA	9:F0:101:PRO:C	2.39	0.44
14:L1:490:GLU:CD	14:L1:490:GLU:H	2.21	0.44
14:L3:728:GLU:N	14:L3:730:GLN:O	2.51	0.44
18:P0:214:GLN:OE1	25:W0:716:SER:HB2	2.18	0.44
1:01:596:ARG:CZ	1:01:661:ASN:HA	2.48	0.43
6:C3:135:TYR:CZ	6:C3:139:LYS:HE3	2.52	0.43
7:D3:1186:THR:HG21	23:U5:601:VAL:HB	1.99	0.43
10:H3:342:GLN:HE21	10:H3:346:GLN:NE2	2.15	0.43
1:01:88:GLU:CD	15:M0:844:THR:HG22	2.38	0.43
2:11:1346:ILE:CD1	2:12:1024:ALA:HB1	2.48	0.43
4:A0:683:LYS:HA	7:D1:563:ARG:NH1	2.29	0.43
7:D0:938:GLU:OE1	7:D0:939:LYS:HE3	2.18	0.43
1:03:571:GLN:NE2	1:03:633:PHE:H	2.16	0.43
2:11:1012:LYS:HE3	2:11:1013:TYR:CE1	2.52	0.43
4:A1:757:PHE:CE1	4:A1:761:LYS:HE3	2.53	0.43
10:H0:342:GLN:HE21	10:H0:346:GLN:NE2	2.16	0.43
15:M3:526:PRO:HB2	15:M3:582:TYR:CE1	2.53	0.43
17:O0:36:VAL:HG23	17:O0:55:THR:HG21	2.00	0.43
18:P2:415:SER:HB2	19:Q2:12:LYS:HE3	2.00	0.43
1:00:708:LYS:HE2	1:00:756:TYR:CD1	2.54	0.43
7:D2:1195:PRO:HB2	23:U4:610:LEU:HD13	1.99	0.43
7:D2:1242:HIS:ND1	7:D3:732:LEU:HD23	2.32	0.43
7:D5:1362:VAL:HG11	20:R2:1006:LYS:CB	2.48	0.43
8:E0:165:TYR:CE2	8:E0:269:LEU:HD22	2.53	0.43
10:H3:468:LYS:HE3	10:H3:472:GLU:CD	2.38	0.43
20:R2:1069:ARG:HD3	20:R2:1080:TYR:CE1	2.53	0.43
23:U0:873:TRP:CE3	25:W0:230:TYR:CZ	3.07	0.43
6:C3:1247:ALA:HB2	20:R1:1278:THR:HG21	2.01	0.43
7:D5:1161:LEU:HD22	7:D5:1196:PHE:CE2	2.54	0.43
13:K1:151:TRP:CH2	13:K1:179:THR:HB	2.53	0.43
1:00:596:ARG:CZ	1:00:661:ASN:HA	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:01:708:LYS:HE2	1:01:756:TYR:CD1	2.53	0.43
1:03:596:ARG:CZ	1:03:661:ASN:HA	2.49	0.43
2:13:1366:ILE:HG21	2:17:1350:THR:CG2	2.48	0.43
3:40:280:VAL:HG13	8:E0:207:ARG:HH12	1.83	0.43
7:D0:1237:SER:HB2	7:D1:734:ASN:OD1	2.18	0.43
7:D1:1186:THR:HG23	23:U3:601:VAL:HB	2.00	0.43
7:D2:993:PRO:CG	7:D3:426:GLU:OE2	2.66	0.43
7:D4:1366:SER:N	20:R0:1029:ARG:HH22	2.16	0.43
7:D5:1186:THR:HG21	23:U6:601:VAL:HB	2.01	0.43
13:K1:209:TYR:CE1	13:K1:222:LEU:HB3	2.54	0.43
14:L1:340:ARG:CZ	14:L1:340:ARG:HB3	2.48	0.43
14:L3:490:GLU:H	14:L3:490:GLU:CD	2.22	0.43
18:P1:537:PHE:HB2	18:P1:568:ILE:HG22	2.01	0.43
2:11:1788:ASP:CG	2:11:1789:ARG:H	2.21	0.43
4:A0:91:GLU:CD	10:H0:453:TYR:H	2.21	0.43
6:C3:621:HIS:CD2	6:C3:624:TRP:CE3	3.07	0.43
6:C4:1694:VAL:HG12	18:P3:257:LYS:HE2	2.01	0.43
7:D1:234:CYS:SG	7:D1:258:LYS:HE3	2.59	0.43
7:D1:1194:ASP:HA	7:D1:1202:LYS:HE2	2.00	0.43
7:D2:1196:PHE:CE1	23:U4:610:LEU:CG	3.01	0.43
14:L3:728:GLU:N	14:L3:732:MET:H	2.16	0.43
6:C4:1249:ILE:HD11	20:R3:1284:ALA:C	2.36	0.43
7:D1:1003:VAL:HG12	7:D4:95:GLU:OE2	2.19	0.43
7:D5:1161:LEU:HD21	7:D5:1196:PHE:CD2	2.54	0.43
14:L0:712:PHE:CE2	14:L0:747:HIS:CE1	3.07	0.43
2:11:443:TRP:HZ2	2:12:212:LYS:NZ	2.15	0.43
2:12:1012:LYS:HE3	2:12:1013:TYR:CE1	2.54	0.43
2:16:745:VAL:HG22	2:16:746:CYS:H	1.83	0.43
4:A0:686:ASP:CB	7:D1:563:ARG:NH1	2.82	0.43
4:A2:138:GLU:HA	6:C1:1992:ARG:NH1	2.32	0.43
4:A2:448:TYR:CE2	9:F1:89:PRO:HD3	2.54	0.43
14:L2:490:GLU:H	14:L2:490:GLU:CD	2.22	0.43
15:M3:734:LYS:HE3	15:M3:735:TRP:CE2	2.53	0.43
2:10:1177:MET:HB2	2:11:1106:PRO:HA	2.01	0.42
4:A0:159:THR:HG23	4:A0:160:GLN:H	1.84	0.42
6:C1:1461:LYS:HE2	6:C1:1465:GLU:OE1	2.19	0.42
6:C3:1505:SER:HB3	6:C3:1562:ARG:CZ	2.49	0.42
14:L1:340:ARG:HH12	16:N0:141:GLU:HG3	1.84	0.42
14:L3:727:CYS:HB3	14:L3:733:GLU:N	2.33	0.42
15:M1:402:HIS:CG	15:M1:403:LEU:HA	2.54	0.42
1:03:708:LYS:HE2	1:03:756:TYR:CD1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A1:448:TYR:CE2	9:F2:89:PRO:HD3	2.53	0.42
6:C4:1694:VAL:CG1	18:P3:257:LYS:NZ	2.83	0.42
7:D4:1185:ILE:CG2	23:U1:600:LEU:HD13	2.48	0.42
2:10:1366:ILE:HG21	2:14:1350:THR:CG2	2.50	0.42
6:C2:281:ILE:HG23	6:C2:284:ILE:HD12	2.01	0.42
6:C4:1461:LYS:HE2	6:C4:1465:GLU:OE2	2.19	0.42
7:D1:1186:THR:HG23	23:U3:601:VAL:O	2.19	0.42
7:D3:1195:PRO:HB2	23:U5:610:LEU:HD13	2.02	0.42
7:D4:234:CYS:SG	7:D4:258:LYS:HE3	2.59	0.42
4:A0:91:GLU:H	10:H0:454:TYR:H	1.68	0.42
7:D0:234:CYS:SG	7:D0:258:LYS:HE3	2.60	0.42
7:D2:234:CYS:SG	7:D2:258:LYS:HE3	2.59	0.42
10:H3:417:ILE:HG23	11:I3:357:LEU:HD11	2.02	0.42
19:Q0:57:SER:HB3	24:V0:851:VAL:CG2	2.44	0.42
2:16:1012:LYS:HE3	2:16:1013:TYR:CE1	2.55	0.42
4:A1:760:PHE:CZ	4:A1:818:MET:HA	2.53	0.42
6:C3:46:HIS:C	6:C3:48:PRO:HD2	2.40	0.42
7:D3:1186:THR:HG23	23:U5:601:VAL:HB	2.01	0.42
7:D5:1347:ARG:NH1	20:R2:1068:SER:C	2.72	0.42
11:I3:312:LYS:HZ2	12:J3:392:GLU:CD	2.22	0.42
4:A0:237:PRO:HB2	7:D1:1025:LYS:HD3	2.01	0.42
4:A3:448:TYR:CE2	9:F0:89:PRO:HD3	2.55	0.42
6:C3:1246:MET:HG3	20:R1:1287:GLU:HG3	2.01	0.42
1:03:46:LYS:HZ1	1:03:73:GLU:CD	2.23	0.42
6:C3:1247:ALA:H	20:R1:1278:THR:HB	1.84	0.42
6:C4:658:GLU:CD	6:C4:658:GLU:H	2.23	0.42
7:D0:1003:VAL:HG13	7:D1:101:GLN:HB3	2.01	0.42
7:D5:234:CYS:SG	7:D5:258:LYS:HE3	2.59	0.42
13:K1:508:THR:O	13:K1:509:LYS:HE2	2.20	0.42
17:O2:207:ARG:NH1	20:R2:1286:ASP:HA	2.35	0.42
18:P0:185:LEU:CD1	25:W0:708:ALA:O	2.68	0.42
1:00:92:THR:HG21	14:L0:262:LEU:HD23	1.89	0.42
1:00:387:ASP:HB3	13:K1:887:ARG:HD2	2.02	0.42
2:14:580:ASP:HA	2:14:597:ARG:HH21	1.84	0.42
4:A4:141:LYS:HE3	6:C2:1992:ARG:HD3	2.01	0.42
6:C0:1461:LYS:HE2	6:C0:1465:GLU:OE1	2.20	0.42
6:C1:304:LYS:HZ1	6:C1:351:GLU:CD	2.23	0.42
6:C2:1751:LEU:HA	6:C2:1889:LEU:HD21	2.02	0.42
6:C4:1249:ILE:HD13	20:R3:1285:THR:H	1.77	0.42
15:M3:338:PRO:HG3	15:M3:372:TRP:CH2	2.55	0.42
1:03:78:LYS:CD	17:O0:98:ARG:HD2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:14:1789:ARG:NH2	2:15:1728:PRO:HG3	2.34	0.42
6:C2:1739:GLU:HA	6:C2:1742:LYS:HE3	2.02	0.42
7:D4:950:TYR:CE2	7:D4:1037:ILE:HD13	2.54	0.42
7:D5:1168:HIS:NE2	23:U6:611:PHE:HA	2.34	0.42
10:H1:448:ARG:HH12	11:I1:378:SER:CB	2.33	0.42
11:I0:305:THR:CG2	12:J0:388:ARG:HH22	2.32	0.42
13:K2:1153:GLN:HG2	13:K3:596:ILE:CG1	2.50	0.42
13:K3:594:SER:HB3	13:K3:596:ILE:HB	2.01	0.42
15:M2:788:LYS:HE3	15:M2:792:GLU:HG3	2.01	0.42
18:P2:550:GLU:HG2	18:P2:551:LYS:H	1.85	0.42
23:U6:610:LEU:HD23	23:U6:610:LEU:C	2.40	0.42
7:D1:1161:LEU:CD2	7:D1:1196:PHE:CE2	3.03	0.42
7:D5:1186:THR:HG23	23:U6:601:VAL:H	1.84	0.42
7:D5:1196:PHE:HD2	23:U6:610:LEU:HD11	1.80	0.42
11:I2:266:LYS:NZ	11:I3:327:ARG:NH2	2.68	0.42
18:P0:58:ARG:HD3	18:P0:64:TYR:CE2	2.55	0.42
23:U2:609:ASN:O	23:U2:610:LEU:C	2.56	0.42
7:D5:1079:ASP:HA	7:D5:1082:TRP:CD1	2.55	0.41
10:H1:417:ILE:HG23	11:I1:357:LEU:HD11	2.02	0.41
14:L1:345:ARG:NH2	16:N0:201:GLN:HG3	2.27	0.41
1:01:147:TRP:CZ2	1:01:178:THR:HG21	2.55	0.41
2:14:1012:LYS:HE3	2:14:1013:TYR:CE1	2.55	0.41
6:C2:788:VAL:HG21	17:O0:258:THR:CB	2.40	0.41
6:C4:1249:ILE:CD1	20:R3:1284:ALA:CB	2.95	0.41
7:D4:813:GLU:H	7:D4:813:GLU:CD	2.24	0.41
1:00:370:LYS:HE3	1:00:374:GLU:OE1	2.19	0.41
2:12:1290:ASN:ND2	2:16:1307:LYS:O	2.47	0.41
5:B1:832:ASN:C	5:B1:833:VAL:HG23	2.40	0.41
6:C3:911:GLU:HG2	6:C3:979:ILE:HD13	2.02	0.41
7:D4:1186:THR:HG21	23:U1:601:VAL:HB	2.01	0.41
15:M1:338:PRO:HG3	15:M1:372:TRP:CH2	2.56	0.41
15:M2:549:ALA:HB1	15:M2:553:TRP:CZ3	2.55	0.41
20:R0:802:LEU:HD11	20:R0:915:ARG:HH21	1.83	0.41
1:02:607:LYS:HE3	1:02:654:PHE:CD1	2.55	0.41
2:10:1171:ARG:HG3	2:11:1145:VAL:HG21	2.02	0.41
4:A2:199:GLY:O	7:D3:939:LYS:CE	2.68	0.41
4:A6:182:GLU:CD	4:A6:538:LYS:HZ3	2.23	0.41
6:C0:304:LYS:HZ1	6:C0:351:GLU:CD	2.24	0.41
7:D1:563:ARG:NH1	7:D1:563:ARG:HG3	2.35	0.41
13:K1:261:SER:C	13:K1:263:PHE:HA	2.40	0.41
13:K3:966:LYS:HZ3	13:K3:970:LEU:HD11	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U0:803:LEU:HD12	23:U0:803:LEU:N	2.35	0.41
2:12:1056:LEU:O	2:12:1072:PRO:HA	2.20	0.41
4:A0:678:GLY:HA2	7:D1:558:THR:HG21	2.02	0.41
7:D3:1126:LYS:HE3	7:D3:1141:LEU:HD21	2.01	0.41
14:L0:322:GLU:CD	14:L0:330:ARG:HH21	2.23	0.41
14:L0:803:LYS:HE3	14:L0:807:ASP:OD1	2.21	0.41
16:N3:245:CYS:HB2	16:N3:253:TRP:CD2	2.55	0.41
2:12:1366:ILE:HG21	2:16:1350:THR:CG2	2.51	0.41
4:A2:287:PRO:HG2	8:E0:652:HIS:NE2	2.35	0.41
4:A6:138:GLU:HA	6:C4:1992:ARG:NH1	2.36	0.41
5:B0:1303:TRP:CZ2	5:B0:1307:THR:HG21	2.56	0.41
10:H0:427:PHE:CE2	11:I0:361:ARG:CA	2.84	0.41
18:P3:627:ILE:HG22	18:P3:631:LYS:HE3	2.03	0.41
2:11:1194:ASN:OD1	2:12:1150:GLY:CA	2.68	0.41
4:A0:760:PHE:CE1	4:A0:764:LYS:HE3	2.54	0.41
4:A2:652:GLN:HE22	6:C1:1694:VAL:HG13	1.86	0.41
4:A6:757:PHE:CE1	4:A6:761:LYS:HE3	2.56	0.41
7:D1:684:VAL:HG23	7:D1:686:ARG:HE	1.86	0.41
7:D1:1161:LEU:HD22	7:D1:1196:PHE:CE2	2.55	0.41
7:D5:950:TYR:CE2	7:D5:1037:ILE:HD13	2.55	0.41
9:F0:112:ARG:HH22	9:F0:119:MET:HA	1.86	0.41
13:K3:751:ARG:HG2	13:K3:752:ARG:N	2.35	0.41
15:M3:587:LEU:HD13	15:M3:591:LEU:CB	2.51	0.41
18:P3:415:SER:HB2	19:Q3:12:LYS:HE3	2.03	0.41
1:01:549:ALA:HB1	14:L1:233:ALA:HB2	1.96	0.41
2:12:1105:GLN:HA	2:12:1106:PRO:HA	1.92	0.41
5:B1:770:TYR:CD1	6:C1:1382:GLU:HG2	2.55	0.41
5:B1:1080:LYS:HE3	5:B1:1138:ASP:HB2	2.02	0.41
6:C2:1393:ASP:HB3	6:C2:1395:SER:H	1.86	0.41
7:D2:1235:LEU:HD13	7:D3:735:PRO:CA	2.51	0.41
14:L1:803:LYS:HE3	14:L1:807:ASP:OD1	2.21	0.41
14:L2:803:LYS:HE2	14:L2:807:ASP:OD2	2.21	0.41
14:L2:803:LYS:HE3	14:L2:807:ASP:OD1	2.20	0.41
15:M2:338:PRO:HG3	15:M2:372:TRP:CH2	2.55	0.41
1:03:454:ARG:HH21	1:03:466:HIS:CD2	2.38	0.41
2:12:580:ASP:HA	2:12:597:ARG:HH21	1.85	0.41
4:A0:239:THR:HG21	7:D1:1028:GLN:HG2	2.00	0.41
4:A0:448:TYR:CE2	9:F3:89:PRO:HD3	2.55	0.41
4:A4:171:GLY:O	4:A4:173:PRO:HD3	2.21	0.41
5:B0:48:SER:O	5:B0:51:LYS:HE3	2.20	0.41
6:C4:416:GLU:HG2	6:C4:419:ARG:CZ	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D3:1196:PHE:CD2	23:U5:610:LEU:CD1	2.95	0.41
7:D3:1196:PHE:CD1	23:U5:610:LEU:CD2	3.04	0.41
11:I0:310:LYS:HE2	11:I0:314:GLU:OE1	2.21	0.41
13:K0:151:TRP:CH2	13:K0:179:THR:HB	2.56	0.41
13:K3:151:TRP:CH2	13:K3:179:THR:HB	2.56	0.41
15:M0:391:LEU:CD2	15:M0:433:THR:HG22	2.48	0.41
15:M1:734:LYS:HE3	15:M1:735:TRP:CE2	2.56	0.41
20:R1:802:LEU:HD11	20:R1:915:ARG:HH21	1.85	0.41
20:R2:892:GLN:HE21	20:R2:913:LEU:CD1	2.34	0.41
23:U0:846:ILE:HG22	25:W0:304:GLU:O	2.21	0.41
4:A0:371:LEU:C	4:A0:371:LEU:HD23	2.42	0.41
5:B0:326:TRP:CZ2	5:B0:330:ARG:HD3	2.56	0.41
6:C4:1523:LYS:HE2	6:C4:1527:ASP:OD2	2.21	0.41
13:K2:1149:GLU:HG3	13:K2:1153:GLN:OE1	2.21	0.41
14:L2:712:PHE:CE2	14:L2:747:HIS:CE1	3.09	0.41
14:L3:803:LYS:HE2	14:L3:807:ASP:OD2	2.21	0.41
18:P2:43:GLU:CD	18:P2:44:LYS:HZ2	2.24	0.41
1:00:730:SER:CB	14:L1:781:THR:HG21	2.51	0.40
1:04:607:LYS:HE3	1:04:654:PHE:CD1	2.56	0.40
2:15:1012:LYS:HE3	2:15:1013:TYR:CE1	2.57	0.40
3:41:280:VAL:HG13	8:E1:207:ARG:HH12	1.86	0.40
6:C3:697:ARG:HA	19:Q0:248:ARG:HH11	1.86	0.40
7:D2:466:GLU:OE1	7:D2:468:LYS:HE2	2.22	0.40
7:D4:1168:HIS:CE1	23:U1:611:PHE:HA	2.56	0.40
7:D4:1227:LYS:HE2	7:D4:1231:ASP:OD2	2.21	0.40
13:K0:969:THR:HA	14:L0:879:ASP:OD2	2.21	0.40
13:K1:1045:GLU:CG	13:K1:1107:LYS:HE3	2.51	0.40
22:T0:864:GLN:O	22:T0:867:LYS:HE3	2.21	0.40
4:A5:746:SER:HB2	4:A5:807:THR:HG21	2.03	0.40
6:C2:1937:GLN:HA	6:C2:1938:ASP:HA	2.01	0.40
6:C3:327:ALA:HB1	6:C3:368:VAL:HB	2.03	0.40
7:D3:466:GLU:OE1	7:D3:468:LYS:HE2	2.21	0.40
14:L2:164:LYS:HZ2	14:L2:176:GLU:CD	2.25	0.40
4:A3:109:ALA:HA	5:B1:1168:ARG:HD2	2.02	0.40
6:C2:1249:ILE:HD13	20:R0:1284:ALA:H	1.80	0.40
6:C3:21:TRP:CH2	6:C3:144:ASN:HB3	2.56	0.40
7:D1:1012:SER:OG	7:D4:94:VAL:HG12	2.21	0.40
7:D3:1126:LYS:HE3	7:D3:1141:LEU:HD11	2.04	0.40
14:L1:803:LYS:HE2	14:L1:807:ASP:OD2	2.21	0.40
16:N0:245:CYS:HB2	16:N0:253:TRP:CD2	2.56	0.40
4:A4:167:ILE:HG12	6:C3:4:PRO:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C4:781:GLU:HB2	17:O3:258:THR:HG1	1.83	0.40
7:D0:40:TYR:HA	7:D0:41:PRO:HD3	1.95	0.40
7:D2:938:GLU:OE1	7:D2:939:LYS:HE3	2.21	0.40
11:I2:266:LYS:HE2	12:J2:347:GLN:NE2	2.36	0.40
14:L1:896:GLU:HA	14:L1:899:LYS:HB3	2.04	0.40
1:00:376:PHE:HA	13:K1:857:LEU:CD1	2.52	0.40
4:A0:677:GLN:O	7:D1:715:LYS:HD3	2.22	0.40
4:A0:690:TYR:CD2	7:D1:560:ALA:CB	3.05	0.40
4:A1:14:GLU:HB3	11:I1:303:ARG:HH22	1.86	0.40
4:A2:249:GLU:H	4:A2:249:GLU:CD	2.25	0.40
6:C3:1252:ARG:CZ	20:R1:1258:GLU:HA	2.52	0.40
7:D3:1195:PRO:O	23:U5:610:LEU:CB	2.70	0.40
7:D4:1366:SER:HB3	20:R0:1029:ARG:NH1	2.35	0.40
9:F0:148:THR:HB	9:F0:153:ALA:HB3	2.03	0.40
16:N1:245:CYS:HB2	16:N1:253:TRP:CD2	2.57	0.40
17:O3:86:TRP:CH2	17:O3:105:LYS:HE2	2.57	0.40
18:P1:43:GLU:CD	18:P1:44:LYS:HZ2	2.24	0.40
20:R3:892:GLN:HE21	20:R3:913:LEU:CD1	2.35	0.40
21:S3:94:LYS:HZ1	21:S3:154:LEU:CD1	2.33	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	00	754/3224 (23%)	703 (93%)	43 (6%)	8 (1%)	14	52
1	01	754/3224 (23%)	706 (94%)	42 (6%)	6 (1%)	19	60
1	02	754/3224 (23%)	707 (94%)	44 (6%)	3 (0%)	34	72
1	03	754/3224 (23%)	700 (93%)	45 (6%)	9 (1%)	13	50
1	04	754/3224 (23%)	702 (93%)	49 (6%)	3 (0%)	34	72

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	10	1829/1887 (97%)	1726 (94%)	94 (5%)	9 (0%)	29	69
2	11	1829/1887 (97%)	1725 (94%)	93 (5%)	11 (1%)	25	66
2	12	1829/1887 (97%)	1724 (94%)	95 (5%)	10 (0%)	29	69
2	13	1829/1887 (97%)	1711 (94%)	107 (6%)	11 (1%)	25	66
2	14	1829/1887 (97%)	1731 (95%)	90 (5%)	8 (0%)	34	72
2	15	1829/1887 (97%)	1733 (95%)	87 (5%)	9 (0%)	29	69
2	16	1829/1887 (97%)	1734 (95%)	86 (5%)	9 (0%)	29	69
2	17	1829/1887 (97%)	1724 (94%)	95 (5%)	10 (0%)	29	69
3	40	379/546 (69%)	350 (92%)	28 (7%)	1 (0%)	41	77
3	41	379/546 (69%)	348 (92%)	29 (8%)	2 (0%)	29	69
4	A0	816/819 (100%)	741 (91%)	65 (8%)	10 (1%)	13	50
4	A1	816/819 (100%)	753 (92%)	54 (7%)	9 (1%)	14	52
4	A2	816/819 (100%)	756 (93%)	50 (6%)	10 (1%)	13	50
4	A3	816/819 (100%)	755 (92%)	55 (7%)	6 (1%)	22	63
4	A4	724/819 (88%)	680 (94%)	40 (6%)	4 (1%)	25	66
4	A5	724/819 (88%)	688 (95%)	31 (4%)	5 (1%)	22	63
4	A6	724/819 (88%)	674 (93%)	47 (6%)	3 (0%)	34	72
5	B0	1746/1749 (100%)	1634 (94%)	93 (5%)	19 (1%)	14	52
5	B1	1746/1749 (100%)	1626 (93%)	103 (6%)	17 (1%)	15	55
6	C0	2009/2012 (100%)	1878 (94%)	111 (6%)	20 (1%)	15	55
6	C1	2009/2012 (100%)	1879 (94%)	109 (5%)	21 (1%)	15	55
6	C2	2009/2012 (100%)	1886 (94%)	106 (5%)	17 (1%)	19	60
6	C3	2009/2012 (100%)	1876 (93%)	118 (6%)	15 (1%)	22	63
6	C4	2009/2012 (100%)	1873 (93%)	123 (6%)	13 (1%)	25	66
7	D0	1308/1391 (94%)	1207 (92%)	89 (7%)	12 (1%)	17	57
7	D1	1308/1391 (94%)	1209 (92%)	88 (7%)	11 (1%)	19	60
7	D2	1308/1391 (94%)	1218 (93%)	81 (6%)	9 (1%)	22	63
7	D3	1308/1391 (94%)	1210 (92%)	85 (6%)	13 (1%)	15	55
7	D4	1308/1391 (94%)	1221 (93%)	77 (6%)	10 (1%)	19	60
7	D5	1308/1391 (94%)	1233 (94%)	65 (5%)	10 (1%)	19	60
8	E0	544/674 (81%)	516 (95%)	26 (5%)	2 (0%)	34	72

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
8	E1	544/674 (81%)	514 (94%)	29 (5%)	1 (0%)	47 81
9	F0	239/326 (73%)	189 (79%)	33 (14%)	17 (7%)	1 14
9	F1	239/326 (73%)	192 (80%)	33 (14%)	14 (6%)	1 17
9	F2	239/326 (73%)	177 (74%)	45 (19%)	17 (7%)	1 14
9	F3	239/326 (73%)	188 (79%)	39 (16%)	12 (5%)	2 20
10	H0	381/507 (75%)	365 (96%)	16 (4%)	0	100 100
10	H1	381/507 (75%)	364 (96%)	16 (4%)	1 (0%)	41 77
10	H2	381/507 (75%)	366 (96%)	15 (4%)	0	100 100
10	H3	381/507 (75%)	363 (95%)	16 (4%)	2 (0%)	29 69
11	I0	171/599 (28%)	168 (98%)	3 (2%)	0	100 100
11	I1	171/599 (28%)	167 (98%)	3 (2%)	1 (1%)	25 66
11	I2	171/599 (28%)	167 (98%)	4 (2%)	0	100 100
11	I3	171/599 (28%)	167 (98%)	4 (2%)	0	100 100
12	J0	169/522 (32%)	166 (98%)	3 (2%)	0	100 100
12	J1	169/522 (32%)	168 (99%)	1 (1%)	0	100 100
12	J2	169/522 (32%)	167 (99%)	2 (1%)	0	100 100
12	J3	169/522 (32%)	166 (98%)	2 (1%)	1 (1%)	25 66
12	J4	169/522 (32%)	168 (99%)	1 (1%)	0	100 100
13	K0	1084/1156 (94%)	985 (91%)	85 (8%)	14 (1%)	12 48
13	K1	1084/1156 (94%)	990 (91%)	78 (7%)	16 (2%)	10 46
13	K2	1084/1156 (94%)	992 (92%)	82 (8%)	10 (1%)	17 57
13	K3	1084/1156 (94%)	1001 (92%)	70 (6%)	13 (1%)	13 50
14	L0	780/925 (84%)	734 (94%)	42 (5%)	4 (0%)	29 69
14	L1	780/925 (84%)	734 (94%)	38 (5%)	8 (1%)	15 55
14	L2	780/925 (84%)	732 (94%)	45 (6%)	3 (0%)	34 72
14	L3	780/925 (84%)	731 (94%)	43 (6%)	6 (1%)	19 60
15	M0	669/937 (71%)	609 (91%)	50 (8%)	10 (2%)	10 46
15	M1	669/937 (71%)	613 (92%)	48 (7%)	8 (1%)	13 50
15	M2	669/937 (71%)	618 (92%)	45 (7%)	6 (1%)	17 57
15	M3	669/937 (71%)	612 (92%)	50 (8%)	7 (1%)	15 55
16	N0	299/322 (93%)	277 (93%)	19 (6%)	3 (1%)	15 55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	N1	299/322 (93%)	277 (93%)	20 (7%)	2 (1%)	22	63
16	N2	299/322 (93%)	277 (93%)	19 (6%)	3 (1%)	15	55
16	N3	299/322 (93%)	278 (93%)	18 (6%)	3 (1%)	15	55
17	O0	321/360 (89%)	304 (95%)	14 (4%)	3 (1%)	17	57
17	O1	321/360 (89%)	302 (94%)	15 (5%)	4 (1%)	13	50
17	O2	321/360 (89%)	302 (94%)	18 (6%)	1 (0%)	41	77
17	O3	321/360 (89%)	299 (93%)	19 (6%)	3 (1%)	17	57
18	P0	653/656 (100%)	607 (93%)	40 (6%)	6 (1%)	17	57
18	P1	653/656 (100%)	612 (94%)	35 (5%)	6 (1%)	17	57
18	P2	653/656 (100%)	610 (93%)	36 (6%)	7 (1%)	14	52
18	P3	653/656 (100%)	611 (94%)	35 (5%)	7 (1%)	14	52
19	Q0	341/380 (90%)	320 (94%)	20 (6%)	1 (0%)	41	77
19	Q1	341/380 (90%)	322 (94%)	18 (5%)	1 (0%)	41	77
19	Q2	341/380 (90%)	320 (94%)	20 (6%)	1 (0%)	41	77
19	Q3	341/380 (90%)	323 (95%)	17 (5%)	1 (0%)	41	77
20	R0	1397/1436 (97%)	1288 (92%)	93 (7%)	16 (1%)	14	52
20	R1	1397/1436 (97%)	1285 (92%)	94 (7%)	18 (1%)	12	48
20	R2	1397/1436 (97%)	1298 (93%)	87 (6%)	12 (1%)	17	57
20	R3	1397/1436 (97%)	1294 (93%)	93 (7%)	10 (1%)	22	63
21	S0	320/326 (98%)	292 (91%)	26 (8%)	2 (1%)	25	66
21	S1	320/326 (98%)	293 (92%)	24 (8%)	3 (1%)	17	57
21	S2	320/326 (98%)	290 (91%)	28 (9%)	2 (1%)	25	66
21	S3	320/326 (98%)	292 (91%)	25 (8%)	3 (1%)	17	57
22	T0	1002/2266 (44%)	927 (92%)	62 (6%)	13 (1%)	12	48
22	T1	1002/2266 (44%)	931 (93%)	58 (6%)	13 (1%)	12	48
23	U0	148/880 (17%)	140 (95%)	8 (5%)	0	100	100
23	U1	17/880 (2%)	16 (94%)	1 (6%)	0	100	100
23	U2	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U3	17/880 (2%)	15 (88%)	1 (6%)	1 (6%)	1	17
23	U4	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U5	17/880 (2%)	14 (82%)	2 (12%)	1 (6%)	1	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	U6	17/880 (2%)	16 (94%)	1 (6%)	0	100	100
24	V0	271/2090 (13%)	255 (94%)	12 (4%)	4 (2%)	10	46
25	W0	733/741 (99%)	688 (94%)	40 (6%)	5 (1%)	22	63
All	All	77792/109146 (71%)	72515 (93%)	4606 (6%)	671 (1%)	21	57

All (671) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	02	165	VAL
4	A1	90	LEU
4	A1	95	ASP
4	A2	88	GLU
4	A2	167	ILE
4	A4	707	ILE
4	A6	707	ILE
5	B0	1522	PRO
5	B0	1529	PRO
5	B1	1051	VAL
5	B1	1522	PRO
6	C0	1146	ASP
6	C0	1149	VAL
6	C1	1146	ASP
6	C1	1149	VAL
6	C1	1636	ALA
6	C2	458	GLU
6	C2	581	TYR
6	C2	1246	MET
6	C2	1377	SER
6	C2	1933	SER
6	C2	1936	LEU
6	C3	5	LEU
6	C3	1636	ALA
6	C3	1928	ARG
6	C4	458	GLU
6	C4	1377	SER
6	C4	1636	ALA
6	C4	1928	ARG
7	D0	408	VAL
7	D0	803	PHE
7	D0	863	CYS
7	D1	408	VAL

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Mol	Chain	Res	Type
7	D1	803	PHE
7	D2	803	PHE
7	D3	408	VAL
7	D3	803	PHE
7	D3	863	CYS
7	D3	864	PRO
7	D4	408	VAL
7	D4	803	PHE
7	D4	1213	ASP
7	D5	408	VAL
7	D5	803	PHE
9	F0	101	PRO
9	F1	287	ARG
9	F2	259	SER
9	F3	169	ASP
9	F3	253	ASP
13	K0	111	GLU
13	K0	193	GLU
13	K0	477	GLU
13	K0	483	ALA
13	K0	510	ASN
13	K0	911	ARG
13	K1	397	PHE
13	K1	500	GLU
13	K2	193	GLU
13	K3	193	GLU
14	L0	825	ASP
14	L1	729	GLU
14	L1	825	ASP
14	L2	587	ASN
14	L2	825	ASP
14	L3	733	GLU
14	L3	734	SER
14	L3	825	ASP
15	M0	763	TRP
15	M1	586	PRO
15	M3	586	PRO
18	P0	42	LYS
20	R1	1056	VAL
20	R2	1056	VAL
20	R3	1285	THR
22	T0	30	LEU

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Mol	Chain	Res	Type
22	T0	418	SER
22	T1	30	LEU
24	V0	852	PRO
24	V0	907	HIS
25	W0	36	PRO
1	00	20	PRO
1	01	20	PRO
1	02	20	PRO
1	03	20	PRO
1	03	164	ASP
1	04	20	PRO
1	04	163	ASP
2	10	499	VAL
2	10	815	VAL
2	11	499	VAL
2	11	747	ALA
2	12	499	VAL
2	12	1789	ARG
2	13	499	VAL
2	13	815	VAL
2	14	499	VAL
2	15	499	VAL
2	15	906	ASN
2	16	499	VAL
2	17	499	VAL
2	17	815	VAL
4	A0	21	GLU
4	A0	89	PRO
4	A0	156	LEU
4	A0	164	PRO
4	A0	707	ILE
4	A1	23	ILE
4	A1	176	SER
4	A2	21	GLU
4	A3	23	ILE
4	A3	163	GLU
5	B0	1051	VAL
5	B0	1264	SER
5	B0	1514	VAL
5	B0	1518	VAL
5	B0	1717	SER
5	B1	1052	LYS

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Mol	Chain	Res	Type
5	B1	1268	ASP
5	B1	1518	VAL
5	B1	1526	SER
5	B1	1717	SER
6	C0	458	GLU
6	C0	1636	ALA
6	C1	458	GLU
6	C2	1159	ILE
6	C2	1165	SER
6	C2	1636	ALA
6	C2	1928	ARG
6	C3	457	LEU
6	C3	1159	ILE
6	C3	1165	SER
6	C3	1377	SER
6	C3	1936	LEU
6	C4	1159	ILE
6	C4	1695	ASP
7	D0	1166	SER
7	D1	862	ILE
7	D1	867	TYR
7	D1	1106	SER
7	D2	408	VAL
7	D2	1166	SER
7	D3	1105	HIS
7	D4	1105	HIS
7	D4	1210	GLY
7	D5	908	SER
7	D5	1109	ILE
9	F0	147	LYS
9	F0	151	SER
9	F0	234	GLU
9	F0	294	LYS
9	F0	308	THR
9	F1	128	SER
9	F1	134	GLN
9	F1	170	HIS
9	F1	284	SER
9	F1	303	ILE
9	F2	129	THR
10	H3	427	PHE
10	H3	449	SER

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Mol	Chain	Res	Type
13	K0	148	ASP
13	K0	302	SER
13	K1	111	GLU
13	K1	164	SER
13	K1	193	GLU
13	K1	203	SER
13	K1	513	ILE
13	K1	907	GLU
13	K1	909	GLY
13	K2	111	GLU
13	K2	148	ASP
13	K2	302	SER
13	K2	493	SER
13	K3	148	ASP
13	K3	302	SER
13	K3	481	ILE
13	K3	493	SER
15	M0	279	GLN
15	M0	326	ARG
15	M0	762	HIS
15	M1	326	ARG
15	M1	851	GLU
15	M2	326	ARG
15	M2	487	GLY
15	M2	851	GLU
15	M3	326	ARG
15	M3	851	GLU
17	O0	98	ARG
17	O1	231	LEU
17	O3	98	ARG
17	O3	205	ASN
18	P0	62	ASP
18	P1	42	LYS
18	P2	42	LYS
18	P2	551	LYS
18	P3	42	LYS
19	Q1	52	PHE
19	Q3	52	PHE
20	R0	294	GLU
20	R1	294	GLU
20	R1	1278	THR
20	R2	294	GLU

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Mol	Chain	Res	Type
20	R3	294	GLU
20	R3	1283	SER
22	T0	365	ASP
22	T0	558	LEU
22	T1	418	SER
24	V0	925	ILE
25	W0	351	LYS
25	W0	505	LEU
1	00	375	THR
1	03	159	TYR
2	10	940	ALA
2	11	940	ALA
2	11	1798	SER
2	12	906	ASN
2	12	940	ALA
2	13	849	GLU
2	13	940	ALA
2	13	1674	SER
2	14	940	ALA
2	14	1787	VAL
2	15	172	ASP
2	15	743	LYS
2	15	940	ALA
2	16	580	ASP
2	16	815	VAL
2	16	940	ALA
2	17	940	ALA
2	17	1688	SER
2	17	1689	PRO
4	A0	94	LYS
4	A0	772	SER
4	A1	518	GLY
4	A1	780	ASP
4	A2	169	ASP
4	A2	200	HIS
4	A2	707	ILE
4	A2	772	SER
4	A3	173	PRO
4	A3	707	ILE
4	A5	150	ALA
4	A5	588	GLU
5	B0	454	LEU

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Mol	Chain	Res	Type
5	B0	1052	LYS
5	B0	1053	GLY
5	B1	454	LEU
5	B1	1264	SER
5	B1	1514	VAL
6	C0	161	GLU
6	C0	545	ILE
6	C0	873	ALA
6	C0	1152	TYR
6	C0	1159	ILE
6	C0	1798	ASP
6	C1	161	GLU
6	C1	545	ILE
6	C1	1152	TYR
6	C1	1159	ILE
6	C2	1695	ASP
6	C4	581	TYR
6	C4	1165	SER
6	C4	1936	LEU
7	D1	1004	LEU
7	D3	868	SER
7	D3	912	ASP
7	D3	1010	MET
9	F0	105	SER
9	F0	115	ASN
9	F0	305	ASP
9	F1	283	ILE
9	F1	285	THR
9	F2	170	HIS
9	F3	108	LEU
9	F3	161	GLN
9	F3	167	SER
11	I1	377	ASN
12	J3	345	GLU
13	K1	161	SER
13	K1	498	ASN
13	K1	499	SER
13	K2	880	ASP
13	K3	111	GLU
13	K3	499	SER
14	L1	392	GLY
15	M0	830	ASP

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Mol	Chain	Res	Type
15	M1	404	LYS
15	M2	279	GLN
15	M3	830	ASP
16	N0	274	ALA
16	N1	274	ALA
16	N2	11	SER
16	N2	274	ALA
16	N3	11	SER
17	O1	98	ARG
17	O1	257	LEU
17	O2	98	ARG
18	P3	61	VAL
18	P3	552	ARG
19	Q0	52	PHE
20	R0	66	SER
20	R0	415	ASN
20	R0	691	PHE
20	R0	786	ASP
20	R0	992	ASP
20	R0	1281	GLU
20	R1	415	ASN
20	R1	691	PHE
20	R1	786	ASP
20	R1	1053	PHE
20	R1	1057	ASN
20	R1	1258	GLU
20	R2	66	SER
20	R2	691	PHE
20	R2	786	ASP
20	R2	951	ASP
20	R3	415	ASN
20	R3	691	PHE
21	S0	275	LYS
21	S1	275	LYS
21	S2	275	LYS
21	S3	275	LYS
22	T0	684	ASP
22	T0	686	SER
22	T0	902	ARG
22	T1	343	ARG
22	T1	684	ASP
22	T1	686	SER

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Mol	Chain	Res	Type
22	T1	902	ARG
24	V0	904	SER
25	W0	473	PRO
1	00	164	ASP
1	00	504	ASN
1	00	696	ASN
1	01	504	ASN
1	01	696	ASN
1	03	504	ASN
1	03	696	ASN
2	10	172	ASP
2	10	650	SER
2	10	1674	SER
2	11	172	ASP
2	11	580	ASP
2	11	1483	SER
2	11	1674	SER
2	12	172	ASP
2	12	650	SER
2	12	849	GLU
2	12	1674	SER
2	12	1798	SER
2	13	172	ASP
2	13	650	SER
2	13	1789	ARG
2	14	172	ASP
2	14	650	SER
2	14	849	GLU
2	15	580	ASP
2	15	849	GLU
2	16	172	ASP
2	16	849	GLU
2	17	849	GLU
4	A1	161	GLU
4	A2	152	GLY
4	A5	426	ASP
5	B0	509	THR
5	B0	1171	LYS
5	B0	1523	SER
5	B0	1526	SER
5	B1	509	THR
5	B1	1171	LYS

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Mol	Chain	Res	Type
5	B1	1520	ARG
6	C0	457	LEU
6	C0	1011	LEU
6	C0	1221	LEU
6	C0	1386	VAL
6	C1	457	LEU
6	C1	1011	LEU
6	C1	1386	VAL
6	C1	1798	ASP
6	C1	1938	ASP
6	C1	1940	PHE
6	C2	4	PRO
6	C3	346	VAL
6	C3	718	SER
6	C4	545	ILE
6	C4	548	ALA
6	C4	1937	GLN
7	D0	953	GLY
7	D0	1003	VAL
7	D0	1104	MET
7	D1	68	GLN
7	D1	407	LYS
7	D1	1388	GLU
7	D2	407	LYS
7	D3	68	GLN
7	D3	1028	GLN
7	D3	1388	GLU
7	D4	68	GLN
7	D4	407	LYS
7	D4	908	SER
7	D5	68	GLN
7	D5	867	TYR
7	D5	953	GLY
8	E1	154	GLY
9	F1	127	THR
9	F1	136	MET
9	F1	226	SER
9	F1	253	ASP
9	F1	311	LYS
9	F2	149	THR
9	F2	226	SER
9	F3	120	GLN

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Mol	Chain	Res	Type
9	F3	171	LEU
13	K0	164	SER
13	K0	203	SER
13	K1	508	THR
13	K3	161	SER
13	K3	164	SER
13	K3	203	SER
15	M0	851	GLU
15	M1	477	ARG
15	M1	587	LEU
15	M1	830	ASP
15	M2	748	SER
15	M2	830	ASP
16	N0	90	ASN
16	N1	166	SER
16	N3	166	SER
16	N3	274	ALA
17	O0	231	LEU
17	O1	176	ARG
17	O3	231	LEU
18	P1	275	ALA
18	P1	552	ARG
18	P2	44	LYS
18	P3	44	LYS
18	P3	60	ASP
20	R0	74	ALA
20	R0	752	THR
20	R0	1282	SER
20	R1	66	SER
20	R1	74	ALA
20	R1	752	THR
20	R1	753	GLY
20	R1	1054	PRO
20	R2	74	ALA
20	R2	274	ALA
20	R2	415	ASN
20	R2	752	THR
20	R3	66	SER
20	R3	274	ALA
20	R3	752	THR
21	S1	316	ASP
22	T0	485	SER

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Mol	Chain	Res	Type
22	T0	572	GLU
22	T1	344	GLY
22	T1	572	GLU
22	T1	647	GLU
1	00	729	LEU
1	01	165	VAL
1	01	729	LEU
1	02	504	ASN
1	03	729	LEU
1	04	504	ASN
2	10	700	SER
2	10	1483	SER
2	11	700	SER
2	11	815	VAL
2	12	815	VAL
2	13	580	ASP
2	13	1483	SER
2	14	815	VAL
2	15	700	SER
2	16	650	SER
2	16	700	SER
2	17	172	ASP
2	17	650	SER
2	17	700	SER
2	17	1787	VAL
3	40	325	PRO
4	A0	518	GLY
4	A1	21	GLU
4	A2	176	SER
4	A3	93	VAL
4	A3	518	GLY
4	A4	164	PRO
4	A4	772	SER
4	A5	163	GLU
4	A5	537	ARG
4	A6	170	VAL
5	B0	1516	GLN
5	B0	1517	ARG
5	B1	1517	ARG
6	C0	543	GLU
6	C0	549	GLY
6	C0	1737	ASN

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Mol	Chain	Res	Type
6	C1	543	GLU
6	C1	549	GLY
6	C1	1221	LEU
6	C1	1737	ASN
6	C2	346	VAL
6	C2	545	ILE
6	C2	1358	SER
6	C2	1930	LEU
6	C2	1937	GLN
6	C3	456	HIS
6	C3	1146	ASP
6	C3	1937	GLN
7	D0	120	ASP
7	D0	938	GLU
7	D1	864	PRO
7	D1	1009	ASN
7	D2	868	SER
7	D2	1109	ILE
7	D4	953	GLY
7	D5	863	CYS
8	E0	154	GLY
9	F0	112	ARG
9	F0	114	PRO
9	F0	146	ARG
9	F0	259	SER
9	F0	269	LYS
9	F0	271	LEU
9	F0	296	SER
9	F0	298	SER
9	F1	153	ALA
9	F2	99	SER
9	F2	152	PRO
9	F2	157	PRO
9	F2	268	ILE
9	F2	269	LYS
9	F3	159	TYR
9	F3	226	SER
9	F3	251	SER
10	H1	427	PHE
13	K0	161	SER
13	K0	487	GLU
13	K2	164	SER

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Mol	Chain	Res	Type
13	K2	479	VAL
13	K2	481	ILE
13	K2	489	SER
13	K3	512	THR
13	K3	513	ILE
13	K3	596	ILE
14	L0	508	ASN
14	L0	595	HIS
14	L1	508	ASN
14	L1	539	ARG
14	L2	508	ASN
15	M0	486	VAL
15	M0	748	SER
15	M1	487	GLY
15	M3	279	GLN
16	N0	166	SER
16	N2	166	SER
17	O0	257	LEU
18	P0	18	SER
18	P0	44	LYS
18	P0	91	GLY
18	P0	275	ALA
18	P1	18	SER
18	P1	44	LYS
18	P2	275	ALA
18	P2	547	MET
18	P3	275	ALA
19	Q2	263	GLU
20	R0	634	SER
20	R0	1053	PHE
20	R1	1148	GLY
20	R2	148	GLN
20	R3	74	ALA
20	R3	148	GLN
21	S0	316	ASP
21	S3	316	ASP
22	T0	141	SER
22	T0	484	ASN
22	T1	141	SER
22	T1	484	ASN
22	T1	485	SER
23	U3	611	PHE

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Mol	Chain	Res	Type
23	U5	611	PHE
25	W0	346	ASP
1	03	166	HIS
2	10	906	ASN
2	11	650	SER
2	13	764	ASP
2	14	700	SER
2	15	1674	SER
2	16	1674	SER
4	A0	163	GLU
4	A2	518	GLY
5	B1	1528	ALA
6	C3	545	ILE
6	C4	346	VAL
7	D0	407	LYS
7	D0	1388	GLU
7	D2	120	ASP
7	D2	953	GLY
7	D2	1388	GLU
7	D3	953	GLY
7	D3	1006	SER
7	D5	120	ASP
9	F2	113	GLN
9	F2	256	ALA
13	K0	880	ASP
13	K1	148	ASP
14	L0	587	ASN
14	L1	731	GLY
14	L1	734	SER
14	L3	508	ASN
14	L3	539	ARG
15	M0	509	SER
15	M3	585	SER
18	P1	91	GLY
18	P2	91	GLY
18	P3	91	GLY
20	R0	1375	LEU
20	R1	274	ALA
20	R1	1273	LEU
21	S1	207	GLU
21	S2	316	ASP
21	S3	207	GLU

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Mol	Chain	Res	Type
22	T0	33	VAL
22	T0	344	GLY
1	00	165	VAL
1	03	165	VAL
3	41	14	GLY
4	A4	518	GLY
5	B0	422	GLY
5	B0	1520	ARG
6	C0	346	VAL
6	C1	346	VAL
13	K1	379	GLY
14	L3	736	LEU
15	M0	934	VAL
20	R0	753	GLY
22	T1	33	VAL
3	41	325	PRO
4	A0	91	GLU
4	A6	152	GLY
6	C0	344	PRO
6	C1	344	PRO
6	C3	207	GLY
7	D0	864	PRO
7	D4	863	CYS
8	E0	156	PRO
9	F3	157	PRO
13	K1	264	GLY
15	M3	486	VAL
20	R2	1148	GLY
9	F2	162	GLY
9	F2	265	THR
14	L1	313	VAL
20	R0	330	VAL
20	R1	330	VAL
1	00	628	PRO
1	01	628	PRO
1	03	628	PRO
4	A1	707	ILE
5	B0	1528	ALA
5	B1	422	GLY
6	C0	1794	GLY
7	D5	862	ILE
9	F2	116	ILE

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Mol	Chain	Res	Type
9	F3	100	SER
13	K0	379	GLY
20	R0	1148	GLY
6	C1	1794	GLY
9	F2	131	GLY
9	F2	139	PRO
18	P2	156	VAL
5	B1	1529	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	00	675/2818 (24%)	662 (98%)	13 (2%)	57	75
1	01	675/2818 (24%)	663 (98%)	12 (2%)	59	77
1	02	675/2818 (24%)	659 (98%)	16 (2%)	49	69
1	03	675/2818 (24%)	662 (98%)	13 (2%)	57	75
1	04	675/2818 (24%)	658 (98%)	17 (2%)	47	68
2	10	1565/1608 (97%)	1536 (98%)	29 (2%)	57	75
2	11	1565/1608 (97%)	1537 (98%)	28 (2%)	59	77
2	12	1565/1608 (97%)	1535 (98%)	30 (2%)	57	75
2	13	1565/1608 (97%)	1534 (98%)	31 (2%)	55	74
2	14	1565/1608 (97%)	1538 (98%)	27 (2%)	60	78
2	15	1565/1608 (97%)	1538 (98%)	27 (2%)	60	78
2	16	1565/1608 (97%)	1539 (98%)	26 (2%)	60	78
2	17	1565/1608 (97%)	1540 (98%)	25 (2%)	62	79
3	40	323/463 (70%)	314 (97%)	9 (3%)	43	65
3	41	323/463 (70%)	313 (97%)	10 (3%)	40	62
4	A0	725/726 (100%)	702 (97%)	23 (3%)	39	61
4	A1	725/726 (100%)	705 (97%)	20 (3%)	43	65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	A2	725/726 (100%)	708 (98%)	17 (2%)	50	70
4	A3	725/726 (100%)	707 (98%)	18 (2%)	47	68
4	A4	647/726 (89%)	629 (97%)	18 (3%)	43	65
4	A5	647/726 (89%)	631 (98%)	16 (2%)	47	68
4	A6	647/726 (89%)	629 (97%)	18 (3%)	43	65
5	B0	1540/1541 (100%)	1504 (98%)	36 (2%)	50	70
5	B1	1540/1541 (100%)	1505 (98%)	35 (2%)	50	70
6	C0	1776/1777 (100%)	1740 (98%)	36 (2%)	55	74
6	C1	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C2	1776/1777 (100%)	1742 (98%)	34 (2%)	57	75
6	C3	1776/1777 (100%)	1740 (98%)	36 (2%)	55	74
6	C4	1776/1777 (100%)	1741 (98%)	35 (2%)	55	74
7	D0	1157/1222 (95%)	1129 (98%)	28 (2%)	49	69
7	D1	1157/1222 (95%)	1123 (97%)	34 (3%)	42	64
7	D2	1157/1222 (95%)	1133 (98%)	24 (2%)	53	72
7	D3	1157/1222 (95%)	1119 (97%)	38 (3%)	38	61
7	D4	1157/1222 (95%)	1126 (97%)	31 (3%)	44	65
7	D5	1157/1222 (95%)	1121 (97%)	36 (3%)	40	62
8	E0	489/604 (81%)	482 (99%)	7 (1%)	67	80
8	E1	489/604 (81%)	483 (99%)	6 (1%)	71	83
9	F0	210/277 (76%)	191 (91%)	19 (9%)	9	30
9	F1	210/277 (76%)	201 (96%)	9 (4%)	29	53
9	F2	210/277 (76%)	193 (92%)	17 (8%)	11	35
9	F3	210/277 (76%)	196 (93%)	14 (7%)	16	41
10	H0	345/425 (81%)	338 (98%)	7 (2%)	55	74
10	H1	345/425 (81%)	339 (98%)	6 (2%)	60	78
10	H2	345/425 (81%)	338 (98%)	7 (2%)	55	74
10	H3	345/425 (81%)	339 (98%)	6 (2%)	60	78
11	I0	155/459 (34%)	152 (98%)	3 (2%)	57	75
11	I1	155/459 (34%)	153 (99%)	2 (1%)	69	81
11	I2	155/459 (34%)	151 (97%)	4 (3%)	46	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	I3	155/459 (34%)	153 (99%)	2 (1%)	69	81
12	J0	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J1	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J2	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J3	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J4	158/401 (39%)	153 (97%)	5 (3%)	39	61
13	K0	958/1013 (95%)	921 (96%)	37 (4%)	32	56
13	K1	958/1013 (95%)	934 (98%)	24 (2%)	47	68
13	K2	958/1013 (95%)	927 (97%)	31 (3%)	39	61
13	K3	958/1013 (95%)	927 (97%)	31 (3%)	39	61
14	L0	701/827 (85%)	686 (98%)	15 (2%)	53	72
14	L1	701/827 (85%)	681 (97%)	20 (3%)	42	64
14	L2	701/827 (85%)	687 (98%)	14 (2%)	55	74
14	L3	701/827 (85%)	685 (98%)	16 (2%)	50	70
15	M0	602/840 (72%)	587 (98%)	15 (2%)	47	68
15	M1	602/840 (72%)	584 (97%)	18 (3%)	41	63
15	M2	602/840 (72%)	583 (97%)	19 (3%)	39	61
15	M3	602/840 (72%)	592 (98%)	10 (2%)	60	78
16	N0	255/272 (94%)	250 (98%)	5 (2%)	55	74
16	N1	255/272 (94%)	251 (98%)	4 (2%)	62	79
16	N2	255/272 (94%)	248 (97%)	7 (3%)	44	65
16	N3	255/272 (94%)	250 (98%)	5 (2%)	55	74
17	O0	279/310 (90%)	274 (98%)	5 (2%)	59	77
17	O1	279/310 (90%)	275 (99%)	4 (1%)	67	80
17	O2	279/310 (90%)	274 (98%)	5 (2%)	59	77
17	O3	279/310 (90%)	273 (98%)	6 (2%)	52	71
18	P0	584/585 (100%)	564 (97%)	20 (3%)	37	60
18	P1	584/585 (100%)	571 (98%)	13 (2%)	52	71
18	P2	584/585 (100%)	566 (97%)	18 (3%)	40	62
18	P3	584/585 (100%)	567 (97%)	17 (3%)	42	64
19	Q0	303/335 (90%)	301 (99%)	2 (1%)	84	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	Q1	303/335 (90%)	302 (100%)	1 (0%)	92 95
19	Q2	303/335 (90%)	301 (99%)	2 (1%)	84 90
19	Q3	303/335 (90%)	301 (99%)	2 (1%)	84 90
20	R0	1233/1259 (98%)	1202 (98%)	31 (2%)	47 68
20	R1	1233/1259 (98%)	1203 (98%)	30 (2%)	49 69
20	R2	1233/1259 (98%)	1202 (98%)	31 (2%)	47 68
20	R3	1233/1259 (98%)	1207 (98%)	26 (2%)	53 72
21	S0	278/282 (99%)	272 (98%)	6 (2%)	52 71
21	S1	278/282 (99%)	272 (98%)	6 (2%)	52 71
21	S2	278/282 (99%)	271 (98%)	7 (2%)	47 68
21	S3	278/282 (99%)	273 (98%)	5 (2%)	59 77
22	T0	891/2037 (44%)	874 (98%)	17 (2%)	57 75
22	T1	891/2037 (44%)	875 (98%)	16 (2%)	59 77
23	U0	131/703 (19%)	125 (95%)	6 (5%)	27 52
23	U1	19/703 (3%)	17 (90%)	2 (10%)	7 24
23	U2	19/703 (3%)	18 (95%)	1 (5%)	22 47
23	U3	19/703 (3%)	18 (95%)	1 (5%)	22 47
23	U4	19/703 (3%)	18 (95%)	1 (5%)	22 47
23	U5	19/703 (3%)	18 (95%)	1 (5%)	22 47
23	U6	19/703 (3%)	17 (90%)	2 (10%)	7 24
24	V0	249/1685 (15%)	238 (96%)	11 (4%)	28 53
25	W0	661/663 (100%)	645 (98%)	16 (2%)	49 69
All	All	68601/94353 (73%)	67018 (98%)	1583 (2%)	53 70

All (1583) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	00	107	ASN
1	00	161	ARG
1	00	183	ASP
1	00	224	ASP
1	00	251	ASP
1	00	275	ASN
1	00	397	ASP

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Mol	Chain	Res	Type
1	00	408	ASN
1	00	418	ASP
1	00	485	GLU
1	00	566	GLU
1	00	740	GLU
1	00	756	TYR
1	01	107	ASN
1	01	183	ASP
1	01	251	ASP
1	01	275	ASN
1	01	277	GLU
1	01	397	ASP
1	01	408	ASN
1	01	418	ASP
1	01	485	GLU
1	01	566	GLU
1	01	740	GLU
1	01	756	TYR
1	02	77	ASP
1	02	102	GLU
1	02	107	ASN
1	02	183	ASP
1	02	224	ASP
1	02	251	ASP
1	02	275	ASN
1	02	333	LEU
1	02	397	ASP
1	02	408	ASN
1	02	418	ASP
1	02	485	GLU
1	02	520	CYS
1	02	566	GLU
1	02	740	GLU
1	02	756	TYR
1	03	107	ASN
1	03	165	VAL
1	03	183	ASP
1	03	251	ASP
1	03	275	ASN
1	03	277	GLU
1	03	397	ASP
1	03	408	ASN

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Mol	Chain	Res	Type
1	03	418	ASP
1	03	485	GLU
1	03	566	GLU
1	03	740	GLU
1	03	756	TYR
1	04	30	PHE
1	04	77	ASP
1	04	107	ASN
1	04	163	ASP
1	04	164	ASP
1	04	183	ASP
1	04	251	ASP
1	04	275	ASN
1	04	397	ASP
1	04	408	ASN
1	04	418	ASP
1	04	485	GLU
1	04	520	CYS
1	04	566	GLU
1	04	706	GLU
1	04	740	GLU
1	04	756	TYR
2	10	51	GLU
2	10	102	THR
2	10	278	SER
2	10	356	ASP
2	10	528	MET
2	10	605	CYS
2	10	619	THR
2	10	681	ASN
2	10	744	PHE
2	10	831	ASP
2	10	851	SER
2	10	918	GLU
2	10	931	ASP
2	10	1149	THR
2	10	1195	HIS
2	10	1290	ASN
2	10	1294	GLU
2	10	1297	GLN
2	10	1335	ASP
2	10	1421	SER

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Mol	Chain	Res	Type
2	10	1534	THR
2	10	1546	TYR
2	10	1569	PHE
2	10	1619	VAL
2	10	1626	ASP
2	10	1673	SER
2	10	1716	GLU
2	10	1788	ASP
2	10	1789	ARG
2	11	51	GLU
2	11	102	THR
2	11	278	SER
2	11	356	ASP
2	11	528	MET
2	11	580	ASP
2	11	605	CYS
2	11	619	THR
2	11	681	ASN
2	11	831	ASP
2	11	918	GLU
2	11	931	ASP
2	11	1034	ASP
2	11	1109	ASN
2	11	1149	THR
2	11	1166	LEU
2	11	1195	HIS
2	11	1218	ASP
2	11	1297	GLN
2	11	1335	ASP
2	11	1421	SER
2	11	1463	HIS
2	11	1534	THR
2	11	1569	PHE
2	11	1619	VAL
2	11	1626	ASP
2	11	1673	SER
2	11	1788	ASP
2	12	51	GLU
2	12	102	THR
2	12	278	SER
2	12	356	ASP
2	12	528	MET

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Mol	Chain	Res	Type
2	12	605	CYS
2	12	619	THR
2	12	681	ASN
2	12	700	SER
2	12	743	LYS
2	12	831	ASP
2	12	918	GLU
2	12	931	ASP
2	12	977	ASP
2	12	1149	THR
2	12	1166	LEU
2	12	1195	HIS
2	12	1294	GLU
2	12	1297	GLN
2	12	1335	ASP
2	12	1421	SER
2	12	1534	THR
2	12	1569	PHE
2	12	1619	VAL
2	12	1626	ASP
2	12	1657	HIS
2	12	1662	LYS
2	12	1673	SER
2	12	1789	ARG
2	12	1802	HIS
2	13	27	LYS
2	13	102	THR
2	13	278	SER
2	13	356	ASP
2	13	452	ILE
2	13	580	ASP
2	13	605	CYS
2	13	619	THR
2	13	681	ASN
2	13	717	GLU
2	13	745	VAL
2	13	783	ARG
2	13	893	GLU
2	13	918	GLU
2	13	931	ASP
2	13	976	SER
2	13	1149	THR

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Mol	Chain	Res	Type
2	13	1195	HIS
2	13	1294	GLU
2	13	1297	GLN
2	13	1335	ASP
2	13	1421	SER
2	13	1534	THR
2	13	1546	TYR
2	13	1619	VAL
2	13	1626	ASP
2	13	1657	HIS
2	13	1697	GLU
2	13	1716	GLU
2	13	1743	SER
2	13	1789	ARG
2	14	51	GLU
2	14	102	THR
2	14	278	SER
2	14	356	ASP
2	14	605	CYS
2	14	619	THR
2	14	681	ASN
2	14	743	LYS
2	14	831	ASP
2	14	918	GLU
2	14	931	ASP
2	14	1034	ASP
2	14	1149	THR
2	14	1195	HIS
2	14	1290	ASN
2	14	1294	GLU
2	14	1297	GLN
2	14	1335	ASP
2	14	1421	SER
2	14	1532	SER
2	14	1534	THR
2	14	1546	TYR
2	14	1569	PHE
2	14	1619	VAL
2	14	1626	ASP
2	14	1657	HIS
2	14	1716	GLU
2	15	51	GLU

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Mol	Chain	Res	Type
2	15	102	THR
2	15	278	SER
2	15	356	ASP
2	15	528	MET
2	15	580	ASP
2	15	605	CYS
2	15	681	ASN
2	15	743	LYS
2	15	745	VAL
2	15	831	ASP
2	15	918	GLU
2	15	931	ASP
2	15	1034	ASP
2	15	1149	THR
2	15	1195	HIS
2	15	1218	ASP
2	15	1335	ASP
2	15	1410	ASP
2	15	1534	THR
2	15	1546	TYR
2	15	1569	PHE
2	15	1619	VAL
2	15	1626	ASP
2	15	1631	GLU
2	15	1790	ARG
2	15	1802	HIS
2	16	51	GLU
2	16	102	THR
2	16	278	SER
2	16	356	ASP
2	16	528	MET
2	16	580	ASP
2	16	605	CYS
2	16	619	THR
2	16	681	ASN
2	16	783	ARG
2	16	831	ASP
2	16	918	GLU
2	16	931	ASP
2	16	1034	ASP
2	16	1149	THR
2	16	1195	HIS

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Mol	Chain	Res	Type
2	16	1218	ASP
2	16	1297	GLN
2	16	1335	ASP
2	16	1421	SER
2	16	1532	SER
2	16	1534	THR
2	16	1546	TYR
2	16	1569	PHE
2	16	1619	VAL
2	16	1626	ASP
2	17	27	LYS
2	17	51	GLU
2	17	102	THR
2	17	278	SER
2	17	356	ASP
2	17	528	MET
2	17	605	CYS
2	17	619	THR
2	17	681	ASN
2	17	831	ASP
2	17	918	GLU
2	17	1149	THR
2	17	1195	HIS
2	17	1203	ASN
2	17	1294	GLU
2	17	1297	GLN
2	17	1335	ASP
2	17	1421	SER
2	17	1532	SER
2	17	1534	THR
2	17	1546	TYR
2	17	1569	PHE
2	17	1571	GLU
2	17	1619	VAL
2	17	1626	ASP
3	40	31	TYR
3	40	138	ASP
3	40	205	SER
3	40	364	GLU
3	40	390	ASP
3	40	404	TRP
3	40	407	SER

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Mol	Chain	Res	Type
3	40	409	GLU
3	40	433	THR
3	41	31	TYR
3	41	138	ASP
3	41	205	SER
3	41	364	GLU
3	41	366	LYS
3	41	390	ASP
3	41	404	TRP
3	41	407	SER
3	41	409	GLU
3	41	433	THR
4	A0	32	ASN
4	A0	57	ASP
4	A0	90	LEU
4	A0	117	SER
4	A0	127	GLU
4	A0	138	GLU
4	A0	154	ASP
4	A0	156	LEU
4	A0	160	GLN
4	A0	163	GLU
4	A0	344	GLN
4	A0	398	ASP
4	A0	406	VAL
4	A0	408	ASP
4	A0	424	ASP
4	A0	426	ASP
4	A0	433	ASP
4	A0	576	GLU
4	A0	579	GLU
4	A0	581	ASP
4	A0	686	ASP
4	A0	708	ASP
4	A0	781	ARG
4	A1	32	ASN
4	A1	57	ASP
4	A1	94	LYS
4	A1	115	GLU
4	A1	121	THR
4	A1	154	ASP
4	A1	156	LEU

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Mol	Chain	Res	Type
4	A1	163	GLU
4	A1	344	GLN
4	A1	398	ASP
4	A1	408	ASP
4	A1	424	ASP
4	A1	483	GLU
4	A1	576	GLU
4	A1	579	GLU
4	A1	581	ASP
4	A1	608	ILE
4	A1	753	MET
4	A1	771	SER
4	A1	782	ASP
4	A2	32	ASN
4	A2	57	ASP
4	A2	91	GLU
4	A2	117	SER
4	A2	120	ARG
4	A2	138	GLU
4	A2	159	THR
4	A2	160	GLN
4	A2	161	GLU
4	A2	344	GLN
4	A2	398	ASP
4	A2	408	ASP
4	A2	424	ASP
4	A2	579	GLU
4	A2	581	ASP
4	A2	708	ASP
4	A2	782	ASP
4	A3	32	ASN
4	A3	57	ASP
4	A3	94	LYS
4	A3	115	GLU
4	A3	121	THR
4	A3	161	GLU
4	A3	163	GLU
4	A3	168	SER
4	A3	344	GLN
4	A3	398	ASP
4	A3	408	ASP
4	A3	424	ASP

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Mol	Chain	Res	Type
4	A3	576	GLU
4	A3	579	GLU
4	A3	581	ASP
4	A3	708	ASP
4	A3	781	ARG
4	A3	782	ASP
4	A4	95	ASP
4	A4	138	GLU
4	A4	157	ASP
4	A4	158	PHE
4	A4	175	ARG
4	A4	216	ASP
4	A4	344	GLN
4	A4	347	GLU
4	A4	398	ASP
4	A4	400	THR
4	A4	424	ASP
4	A4	433	ASP
4	A4	543	ASP
4	A4	576	GLU
4	A4	579	GLU
4	A4	708	ASP
4	A4	806	ASP
4	A4	815	GLU
4	A5	127	GLU
4	A5	179	ASP
4	A5	221	SER
4	A5	344	GLN
4	A5	398	ASP
4	A5	424	ASP
4	A5	434	ARG
4	A5	483	GLU
4	A5	543	ASP
4	A5	556	ASP
4	A5	576	GLU
4	A5	599	ASP
4	A5	608	ILE
4	A5	686	ASP
4	A5	787	SER
4	A5	806	ASP
4	A6	95	ASP
4	A6	127	GLU

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Mol	Chain	Res	Type
4	A6	138	GLU
4	A6	154	ASP
4	A6	176	SER
4	A6	177	SER
4	A6	216	ASP
4	A6	344	GLN
4	A6	398	ASP
4	A6	400	THR
4	A6	424	ASP
4	A6	433	ASP
4	A6	467	PHE
4	A6	483	GLU
4	A6	537	ARG
4	A6	576	GLU
4	A6	806	ASP
4	A6	815	GLU
5	B0	54	SER
5	B0	66	ASP
5	B0	69	SER
5	B0	118	SER
5	B0	171	SER
5	B0	181	TYR
5	B0	189	GLU
5	B0	281	SER
5	B0	284	LYS
5	B0	339	SER
5	B0	426	THR
5	B0	445	SER
5	B0	484	ASP
5	B0	496	ARG
5	B0	557	ASP
5	B0	584	ASP
5	B0	772	GLU
5	B0	833	VAL
5	B0	893	ASP
5	B0	938	ASN
5	B0	946	ASP
5	B0	969	GLN
5	B0	982	ARG
5	B0	992	TRP
5	B0	1061	ASP
5	B0	1178	ASP

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Mol	Chain	Res	Type
5	B0	1223	ASP
5	B0	1291	LYS
5	B0	1368	SER
5	B0	1389	ASP
5	B0	1423	VAL
5	B0	1504	ASN
5	B0	1521	PRO
5	B0	1522	PRO
5	B0	1526	SER
5	B0	1642	GLU
5	B1	54	SER
5	B1	66	ASP
5	B1	69	SER
5	B1	118	SER
5	B1	171	SER
5	B1	181	TYR
5	B1	259	ASP
5	B1	281	SER
5	B1	339	SER
5	B1	426	THR
5	B1	445	SER
5	B1	484	ASP
5	B1	496	ARG
5	B1	557	ASP
5	B1	584	ASP
5	B1	938	ASN
5	B1	943	ASP
5	B1	950	GLU
5	B1	969	GLN
5	B1	982	ARG
5	B1	992	TRP
5	B1	1054	SER
5	B1	1061	ASP
5	B1	1178	ASP
5	B1	1247	ASP
5	B1	1268	ASP
5	B1	1291	LYS
5	B1	1368	SER
5	B1	1389	ASP
5	B1	1423	VAL
5	B1	1504	ASN
5	B1	1521	PRO

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Mol	Chain	Res	Type
5	B1	1522	PRO
5	B1	1642	GLU
5	B1	1746	HIS
6	C0	3	THR
6	C0	22	HIS
6	C0	49	ASP
6	C0	200	GLU
6	C0	303	GLU
6	C0	357	GLU
6	C0	438	ASP
6	C0	472	THR
6	C0	577	ASP
6	C0	580	GLN
6	C0	590	THR
6	C0	663	LEU
6	C0	742	SER
6	C0	747	PHE
6	C0	777	GLU
6	C0	780	LEU
6	C0	817	GLU
6	C0	831	ASP
6	C0	872	LEU
6	C0	876	VAL
6	C0	959	ASP
6	C0	1019	ASN
6	C0	1194	GLU
6	C0	1202	ASP
6	C0	1306	ASP
6	C0	1341	THR
6	C0	1436	ASP
6	C0	1572	GLU
6	C0	1602	MET
6	C0	1654	ASP
6	C0	1695	ASP
6	C0	1703	GLU
6	C0	1793	ASP
6	C0	1798	ASP
6	C0	1849	ASP
6	C0	1922	ASP
6	C1	3	THR
6	C1	22	HIS
6	C1	49	ASP

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Mol	Chain	Res	Type
6	C1	200	GLU
6	C1	303	GLU
6	C1	357	GLU
6	C1	438	ASP
6	C1	472	THR
6	C1	577	ASP
6	C1	580	GLN
6	C1	590	THR
6	C1	663	LEU
6	C1	742	SER
6	C1	747	PHE
6	C1	777	GLU
6	C1	817	GLU
6	C1	831	ASP
6	C1	872	LEU
6	C1	876	VAL
6	C1	959	ASP
6	C1	1019	ASN
6	C1	1194	GLU
6	C1	1306	ASP
6	C1	1330	GLU
6	C1	1341	THR
6	C1	1436	ASP
6	C1	1572	GLU
6	C1	1576	SER
6	C1	1602	MET
6	C1	1654	ASP
6	C1	1793	ASP
6	C1	1798	ASP
6	C1	1849	ASP
6	C2	19	ASP
6	C2	22	HIS
6	C2	49	ASP
6	C2	200	GLU
6	C2	316	ASP
6	C2	385	GLU
6	C2	438	ASP
6	C2	567	GLU
6	C2	573	LEU
6	C2	580	GLN
6	C2	663	LEU
6	C2	742	SER

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Mol	Chain	Res	Type
6	C2	747	PHE
6	C2	777	GLU
6	C2	780	LEU
6	C2	872	LEU
6	C2	876	VAL
6	C2	959	ASP
6	C2	1075	ASP
6	C2	1154	ASP
6	C2	1163	ASN
6	C2	1246	MET
6	C2	1306	ASP
6	C2	1341	THR
6	C2	1369	PHE
6	C2	1376	THR
6	C2	1388	PHE
6	C2	1449	TRP
6	C2	1457	ASP
6	C2	1695	ASP
6	C2	1728	LEU
6	C2	1929	THR
6	C2	1930	LEU
6	C2	1948	PHE
6	C3	3	THR
6	C3	9	SER
6	C3	22	HIS
6	C3	49	ASP
6	C3	52	SER
6	C3	385	GLU
6	C3	472	THR
6	C3	474	THR
6	C3	484	HIS
6	C3	577	ASP
6	C3	580	GLN
6	C3	590	THR
6	C3	637	SER
6	C3	663	LEU
6	C3	747	PHE
6	C3	789	GLU
6	C3	872	LEU
6	C3	876	VAL
6	C3	895	ASN
6	C3	959	ASP

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Mol	Chain	Res	Type
6	C3	1075	ASP
6	C3	1146	ASP
6	C3	1192	SER
6	C3	1306	ASP
6	C3	1369	PHE
6	C3	1376	THR
6	C3	1377	SER
6	C3	1394	SER
6	C3	1436	ASP
6	C3	1572	GLU
6	C3	1634	SER
6	C3	1654	ASP
6	C3	1728	LEU
6	C3	1929	THR
6	C3	1930	LEU
6	C3	1938	ASP
6	C4	22	HIS
6	C4	49	ASP
6	C4	200	GLU
6	C4	385	GLU
6	C4	438	ASP
6	C4	472	THR
6	C4	484	HIS
6	C4	577	ASP
6	C4	580	GLN
6	C4	590	THR
6	C4	663	LEU
6	C4	682	ARG
6	C4	747	PHE
6	C4	780	LEU
6	C4	789	GLU
6	C4	831	ASP
6	C4	872	LEU
6	C4	876	VAL
6	C4	926	ASN
6	C4	959	ASP
6	C4	1016	SER
6	C4	1163	ASN
6	C4	1306	ASP
6	C4	1330	GLU
6	C4	1341	THR
6	C4	1353	GLU

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Mol	Chain	Res	Type
6	C4	1369	PHE
6	C4	1376	THR
6	C4	1457	ASP
6	C4	1654	ASP
6	C4	1695	ASP
6	C4	1697	ASN
6	C4	1728	LEU
6	C4	1930	LEU
6	C4	1938	ASP
7	D0	21	GLU
7	D0	34	LEU
7	D0	99	HIS
7	D0	142	GLU
7	D0	203	ASP
7	D0	207	SER
7	D0	211	ASP
7	D0	228	LEU
7	D0	400	SER
7	D0	404	LYS
7	D0	424	GLU
7	D0	455	ASP
7	D0	486	SER
7	D0	493	HIS
7	D0	533	GLU
7	D0	545	ASP
7	D0	853	ASP
7	D0	871	ASP
7	D0	1099	SER
7	D0	1143	GLU
7	D0	1159	GLU
7	D0	1173	ASP
7	D0	1194	ASP
7	D0	1236	SER
7	D0	1239	ASP
7	D0	1265	ASP
7	D0	1290	ASN
7	D0	1391	HIS
7	D1	34	LEU
7	D1	92	GLU
7	D1	142	GLU
7	D1	203	ASP
7	D1	207	SER

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Mol	Chain	Res	Type
7	D1	211	ASP
7	D1	222	ASP
7	D1	228	LEU
7	D1	399	SER
7	D1	427	ASP
7	D1	455	ASP
7	D1	465	ASP
7	D1	486	SER
7	D1	533	GLU
7	D1	545	ASP
7	D1	563	ARG
7	D1	762	GLU
7	D1	795	TRP
7	D1	1009	ASN
7	D1	1050	ASP
7	D1	1109	ILE
7	D1	1116	GLU
7	D1	1120	ARG
7	D1	1143	GLU
7	D1	1145	GLU
7	D1	1173	ASP
7	D1	1179	ASP
7	D1	1236	SER
7	D1	1239	ASP
7	D1	1265	ASP
7	D1	1287	GLN
7	D1	1290	ASN
7	D1	1343	ASN
7	D1	1391	HIS
7	D2	34	LEU
7	D2	142	GLU
7	D2	203	ASP
7	D2	207	SER
7	D2	211	ASP
7	D2	228	LEU
7	D2	400	SER
7	D2	455	ASP
7	D2	465	ASP
7	D2	486	SER
7	D2	493	HIS
7	D2	533	GLU
7	D2	545	ASP

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Mol	Chain	Res	Type
7	D2	853	ASP
7	D2	1050	ASP
7	D2	1108	GLU
7	D2	1109	ILE
7	D2	1173	ASP
7	D2	1194	ASP
7	D2	1236	SER
7	D2	1239	ASP
7	D2	1265	ASP
7	D2	1290	ASN
7	D2	1391	HIS
7	D3	34	LEU
7	D3	99	HIS
7	D3	142	GLU
7	D3	203	ASP
7	D3	207	SER
7	D3	211	ASP
7	D3	217	THR
7	D3	222	ASP
7	D3	228	LEU
7	D3	399	SER
7	D3	427	ASP
7	D3	455	ASP
7	D3	486	SER
7	D3	533	GLU
7	D3	545	ASP
7	D3	563	ARG
7	D3	738	THR
7	D3	762	GLU
7	D3	864	PRO
7	D3	866	LEU
7	D3	994	SER
7	D3	1007	ASP
7	D3	1009	ASN
7	D3	1050	ASP
7	D3	1104	MET
7	D3	1109	ILE
7	D3	1116	GLU
7	D3	1120	ARG
7	D3	1128	SER
7	D3	1168	HIS
7	D3	1173	ASP

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Mol	Chain	Res	Type
7	D3	1179	ASP
7	D3	1194	ASP
7	D3	1236	SER
7	D3	1239	ASP
7	D3	1265	ASP
7	D3	1290	ASN
7	D3	1391	HIS
7	D4	34	LEU
7	D4	142	GLU
7	D4	193	SER
7	D4	203	ASP
7	D4	207	SER
7	D4	222	ASP
7	D4	228	LEU
7	D4	257	SER
7	D4	399	SER
7	D4	455	ASP
7	D4	465	ASP
7	D4	479	ASP
7	D4	486	SER
7	D4	533	GLU
7	D4	545	ASP
7	D4	762	GLU
7	D4	832	GLU
7	D4	853	ASP
7	D4	871	ASP
7	D4	1099	SER
7	D4	1105	HIS
7	D4	1143	GLU
7	D4	1173	ASP
7	D4	1179	ASP
7	D4	1186	THR
7	D4	1194	ASP
7	D4	1213	ASP
7	D4	1239	ASP
7	D4	1265	ASP
7	D4	1290	ASN
7	D4	1391	HIS
7	D5	34	LEU
7	D5	99	HIS
7	D5	142	GLU
7	D5	193	SER

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Mol	Chain	Res	Type
7	D5	203	ASP
7	D5	207	SER
7	D5	222	ASP
7	D5	228	LEU
7	D5	257	SER
7	D5	399	SER
7	D5	427	ASP
7	D5	465	ASP
7	D5	479	ASP
7	D5	486	SER
7	D5	533	GLU
7	D5	545	ASP
7	D5	564	GLU
7	D5	719	GLU
7	D5	762	GLU
7	D5	812	LYS
7	D5	832	GLU
7	D5	853	ASP
7	D5	879	GLU
7	D5	1015	GLU
7	D5	1092	SER
7	D5	1104	MET
7	D5	1120	ARG
7	D5	1143	GLU
7	D5	1173	ASP
7	D5	1179	ASP
7	D5	1186	THR
7	D5	1223	ASP
7	D5	1265	ASP
7	D5	1290	ASN
7	D5	1347	ARG
7	D5	1391	HIS
8	E0	3	THR
8	E0	72	PHE
8	E0	148	THR
8	E0	169	PHE
8	E0	333	GLN
8	E0	527	GLU
8	E0	540	MET
8	E1	3	THR
8	E1	148	THR
8	E1	169	PHE

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Mol	Chain	Res	Type
8	E1	333	GLN
8	E1	527	GLU
8	E1	540	MET
9	F0	96	ASP
9	F0	101	PRO
9	F0	103	LEU
9	F0	112	ARG
9	F0	113	GLN
9	F0	120	GLN
9	F0	136	MET
9	F0	149	THR
9	F0	159	TYR
9	F0	161	GLN
9	F0	170	HIS
9	F0	202	HIS
9	F0	206	ASN
9	F0	270	THR
9	F0	282	ARG
9	F0	293	TYR
9	F0	297	THR
9	F0	306	ARG
9	F0	314	SER
9	F1	96	ASP
9	F1	151	SER
9	F1	154	GLN
9	F1	156	ASP
9	F1	161	GLN
9	F1	283	ILE
9	F1	286	MET
9	F1	287	ARG
9	F1	308	THR
9	F2	96	ASP
9	F2	111	ARG
9	F2	112	ARG
9	F2	117	SER
9	F2	120	GLN
9	F2	123	LEU
9	F2	151	SER
9	F2	169	ASP
9	F2	206	ASN
9	F2	246	LYS
9	F2	252	SER

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Mol	Chain	Res	Type
9	F2	253	ASP
9	F2	254	ARG
9	F2	268	ILE
9	F2	285	THR
9	F2	299	ASP
9	F2	314	SER
9	F3	96	ASP
9	F3	119	MET
9	F3	136	MET
9	F3	154	GLN
9	F3	156	ASP
9	F3	159	TYR
9	F3	254	ARG
9	F3	259	SER
9	F3	270	THR
9	F3	271	LEU
9	F3	282	ARG
9	F3	303	ILE
9	F3	305	ASP
9	F3	306	ARG
10	H0	168	ASN
10	H0	186	ASP
10	H0	196	ASN
10	H0	211	GLU
10	H0	341	ASP
10	H0	487	ASP
10	H0	490	LEU
10	H1	168	ASN
10	H1	196	ASN
10	H1	211	GLU
10	H1	341	ASP
10	H1	487	ASP
10	H1	490	LEU
10	H2	168	ASN
10	H2	196	ASN
10	H2	211	GLU
10	H2	341	ASP
10	H2	458	ASP
10	H2	487	ASP
10	H2	490	LEU
10	H3	168	ASN
10	H3	196	ASN

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Mol	Chain	Res	Type
10	H3	211	GLU
10	H3	341	ASP
10	H3	487	ASP
10	H3	490	LEU
11	I0	323	GLU
11	I0	373	THR
11	I0	408	GLU
11	I1	323	GLU
11	I1	408	GLU
11	I2	274	ARG
11	I2	323	GLU
11	I2	373	THR
11	I2	408	GLU
11	I3	323	GLU
11	I3	408	GLU
12	J0	412	GLU
12	J0	429	GLU
12	J1	412	GLU
12	J1	429	GLU
12	J2	429	GLU
12	J2	453	ASP
12	J3	412	GLU
12	J3	429	GLU
12	J4	423	LEU
12	J4	458	LEU
12	J4	464	PRO
12	J4	466	ASP
12	J4	471	LEU
13	K0	83	THR
13	K0	84	PHE
13	K0	102	ASP
13	K0	111	GLU
13	K0	154	ASP
13	K0	203	SER
13	K0	206	ASP
13	K0	235	GLU
13	K0	271	ASP
13	K0	328	GLU
13	K0	377	ASP
13	K0	389	GLU
13	K0	401	ASP
13	K0	429	SER

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Mol	Chain	Res	Type
13	K0	474	THR
13	K0	475	SER
13	K0	486	LEU
13	K0	505	GLU
13	K0	510	ASN
13	K0	517	ASP
13	K0	534	LEU
13	K0	542	ASP
13	K0	558	ASP
13	K0	592	ASN
13	K0	717	ASP
13	K0	790	TYR
13	K0	794	ASP
13	K0	875	MET
13	K0	894	ASP
13	K0	908	LYS
13	K0	1010	GLU
13	K0	1056	GLU
13	K0	1059	ASP
13	K0	1090	ASP
13	K0	1121	GLU
13	K0	1129	ASP
13	K0	1148	TYR
13	K1	83	THR
13	K1	84	PHE
13	K1	102	ASP
13	K1	154	ASP
13	K1	210	SER
13	K1	271	ASP
13	K1	328	GLU
13	K1	377	ASP
13	K1	401	ASP
13	K1	486	LEU
13	K1	498	ASN
13	K1	509	LYS
13	K1	697	ASP
13	K1	717	ASP
13	K1	752	ARG
13	K1	875	MET
13	K1	894	ASP
13	K1	904	TRP
13	K1	908	LYS

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Mol	Chain	Res	Type
13	K1	986	ASP
13	K1	1010	GLU
13	K1	1090	ASP
13	K1	1121	GLU
13	K1	1148	TYR
13	K2	83	THR
13	K2	84	PHE
13	K2	111	GLU
13	K2	154	ASP
13	K2	206	ASP
13	K2	271	ASP
13	K2	377	ASP
13	K2	389	GLU
13	K2	401	ASP
13	K2	422	GLU
13	K2	429	SER
13	K2	478	ASN
13	K2	481	ILE
13	K2	484	GLU
13	K2	492	SER
13	K2	498	ASN
13	K2	509	LYS
13	K2	547	SER
13	K2	697	ASP
13	K2	717	ASP
13	K2	752	ARG
13	K2	875	MET
13	K2	876	CYS
13	K2	894	ASP
13	K2	910	LYS
13	K2	932	HIS
13	K2	1010	GLU
13	K2	1062	GLU
13	K2	1090	ASP
13	K2	1121	GLU
13	K2	1129	ASP
13	K3	83	THR
13	K3	84	PHE
13	K3	102	ASP
13	K3	154	ASP
13	K3	206	ASP
13	K3	271	ASP

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Mol	Chain	Res	Type
13	K3	328	GLU
13	K3	377	ASP
13	K3	389	GLU
13	K3	401	ASP
13	K3	422	GLU
13	K3	429	SER
13	K3	482	LEU
13	K3	508	THR
13	K3	586	GLU
13	K3	697	ASP
13	K3	717	ASP
13	K3	718	SER
13	K3	790	TYR
13	K3	794	ASP
13	K3	875	MET
13	K3	894	ASP
13	K3	899	ASP
13	K3	904	TRP
13	K3	1010	GLU
13	K3	1037	CYS
13	K3	1059	ASP
13	K3	1090	ASP
13	K3	1121	GLU
13	K3	1129	ASP
13	K3	1148	TYR
14	L0	172	ASP
14	L0	205	THR
14	L0	240	PHE
14	L0	245	VAL
14	L0	326	ASP
14	L0	336	ASP
14	L0	395	LEU
14	L0	416	GLU
14	L0	444	THR
14	L0	583	GLU
14	L0	584	LYS
14	L0	599	ASP
14	L0	674	VAL
14	L0	727	CYS
14	L0	917	ASP
14	L1	172	ASP
14	L1	205	THR

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Mol	Chain	Res	Type
14	L1	234	LEU
14	L1	240	PHE
14	L1	324	ASP
14	L1	326	ASP
14	L1	336	ASP
14	L1	340	ARG
14	L1	416	GLU
14	L1	444	THR
14	L1	582	ARG
14	L1	584	LYS
14	L1	599	ASP
14	L1	604	GLN
14	L1	674	VAL
14	L1	705	HIS
14	L1	732	MET
14	L1	733	GLU
14	L1	841	GLU
14	L1	917	ASP
14	L2	172	ASP
14	L2	205	THR
14	L2	240	PHE
14	L2	326	ASP
14	L2	336	ASP
14	L2	416	GLU
14	L2	444	THR
14	L2	582	ARG
14	L2	585	HIS
14	L2	599	ASP
14	L2	674	VAL
14	L2	730	GLN
14	L2	895	GLU
14	L2	917	ASP
14	L3	172	ASP
14	L3	205	THR
14	L3	240	PHE
14	L3	326	ASP
14	L3	336	ASP
14	L3	416	GLU
14	L3	444	THR
14	L3	582	ARG
14	L3	585	HIS
14	L3	599	ASP

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Mol	Chain	Res	Type
14	L3	674	VAL
14	L3	728	GLU
14	L3	732	MET
14	L3	733	GLU
14	L3	841	GLU
14	L3	917	ASP
15	M0	241	GLU
15	M0	280	LEU
15	M0	324	ARG
15	M0	402	HIS
15	M0	403	LEU
15	M0	435	THR
15	M0	485	PHE
15	M0	498	GLN
15	M0	656	ASN
15	M0	661	SER
15	M0	665	GLU
15	M0	761	GLU
15	M0	792	GLU
15	M0	830	ASP
15	M0	866	ASP
15	M1	241	GLU
15	M1	280	LEU
15	M1	317	HIS
15	M1	324	ARG
15	M1	402	HIS
15	M1	403	LEU
15	M1	435	THR
15	M1	485	PHE
15	M1	498	GLN
15	M1	585	SER
15	M1	586	PRO
15	M1	587	LEU
15	M1	656	ASN
15	M1	661	SER
15	M1	761	GLU
15	M1	805	ASP
15	M1	830	ASP
15	M1	870	ARG
15	M2	240	ARG
15	M2	241	GLU
15	M2	255	MET

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Mol	Chain	Res	Type
15	M2	324	ARG
15	M2	379	ASP
15	M2	402	HIS
15	M2	407	ASP
15	M2	416	TYR
15	M2	485	PHE
15	M2	545	LYS
15	M2	661	SER
15	M2	762	HIS
15	M2	785	ASP
15	M2	805	ASP
15	M2	830	ASP
15	M2	834	ASN
15	M2	860	ASP
15	M2	866	ASP
15	M2	915	ASP
15	M3	240	ARG
15	M3	241	GLU
15	M3	280	LEU
15	M3	324	ARG
15	M3	485	PHE
15	M3	656	ASN
15	M3	661	SER
15	M3	805	ASP
15	M3	830	ASP
15	M3	860	ASP
16	N0	11	SER
16	N0	22	ASP
16	N0	103	ASP
16	N0	220	TRP
16	N0	294	ASP
16	N1	103	ASP
16	N1	115	ASP
16	N1	220	TRP
16	N1	294	ASP
16	N2	9	ASP
16	N2	81	ARG
16	N2	103	ASP
16	N2	115	ASP
16	N2	220	TRP
16	N2	246	ASP
16	N2	294	ASP

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Mol	Chain	Res	Type
16	N3	9	ASP
16	N3	103	ASP
16	N3	115	ASP
16	N3	220	TRP
16	N3	294	ASP
17	O0	17	ASP
17	O0	21	ASP
17	O0	94	ASN
17	O0	220	ASP
17	O0	284	VAL
17	O1	21	ASP
17	O1	94	ASN
17	O1	220	ASP
17	O1	284	VAL
17	O2	21	ASP
17	O2	32	SER
17	O2	94	ASN
17	O2	220	ASP
17	O2	284	VAL
17	O3	17	ASP
17	O3	21	ASP
17	O3	94	ASN
17	O3	111	ASP
17	O3	220	ASP
17	O3	284	VAL
18	P0	2	GLU
18	P0	3	GLU
18	P0	7	GLU
18	P0	43	GLU
18	P0	143	GLU
18	P0	189	ASN
18	P0	218	LYS
18	P0	231	ARG
18	P0	263	GLU
18	P0	271	ASP
18	P0	320	LYS
18	P0	323	ASP
18	P0	405	GLU
18	P0	498	PHE
18	P0	520	ASP
18	P0	533	ASP
18	P0	550	GLU

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Mol	Chain	Res	Type
18	P0	606	ASP
18	P0	623	GLN
18	P0	625	ASP
18	P1	2	GLU
18	P1	7	GLU
18	P1	43	GLU
18	P1	62	ASP
18	P1	143	GLU
18	P1	231	ARG
18	P1	263	GLU
18	P1	323	ASP
18	P1	520	ASP
18	P1	551	LYS
18	P1	555	ASP
18	P1	623	GLN
18	P1	625	ASP
18	P2	2	GLU
18	P2	43	GLU
18	P2	62	ASP
18	P2	143	GLU
18	P2	263	GLU
18	P2	320	LYS
18	P2	323	ASP
18	P2	382	ASP
18	P2	520	ASP
18	P2	533	ASP
18	P2	550	GLU
18	P2	551	LYS
18	P2	552	ARG
18	P2	555	ASP
18	P2	576	THR
18	P2	606	ASP
18	P2	617	SER
18	P2	625	ASP
18	P3	2	GLU
18	P3	43	GLU
18	P3	60	ASP
18	P3	88	GLU
18	P3	143	GLU
18	P3	263	GLU
18	P3	323	ASP
18	P3	388	GLN

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Mol	Chain	Res	Type
18	P3	389	SER
18	P3	498	PHE
18	P3	520	ASP
18	P3	533	ASP
18	P3	550	GLU
18	P3	555	ASP
18	P3	576	THR
18	P3	617	SER
18	P3	625	ASP
19	Q0	51	ASP
19	Q0	206	GLU
19	Q1	51	ASP
19	Q2	173	SER
19	Q2	283	ASP
19	Q3	51	ASP
19	Q3	206	GLU
20	R0	58	HIS
20	R0	104	HIS
20	R0	180	ASP
20	R0	189	ASP
20	R0	201	TYR
20	R0	211	SER
20	R0	214	SER
20	R0	224	ASP
20	R0	276	ARG
20	R0	333	ASP
20	R0	404	THR
20	R0	405	ASP
20	R0	411	HIS
20	R0	460	SER
20	R0	491	TRP
20	R0	575	ASP
20	R0	589	ASP
20	R0	620	ASP
20	R0	660	SER
20	R0	664	GLU
20	R0	790	ASP
20	R0	811	MET
20	R0	817	SER
20	R0	1049	ASP
20	R0	1176	GLU
20	R0	1215	MET

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Mol	Chain	Res	Type
20	R0	1226	ASP
20	R0	1230	SER
20	R0	1282	SER
20	R0	1283	SER
20	R0	1286	ASP
20	R1	58	HIS
20	R1	104	HIS
20	R1	180	ASP
20	R1	189	ASP
20	R1	201	TYR
20	R1	211	SER
20	R1	214	SER
20	R1	224	ASP
20	R1	276	ARG
20	R1	333	ASP
20	R1	404	THR
20	R1	405	ASP
20	R1	411	HIS
20	R1	460	SER
20	R1	491	TRP
20	R1	575	ASP
20	R1	589	ASP
20	R1	620	ASP
20	R1	660	SER
20	R1	664	GLU
20	R1	790	ASP
20	R1	811	MET
20	R1	817	SER
20	R1	1049	ASP
20	R1	1061	GLU
20	R1	1115	LEU
20	R1	1215	MET
20	R1	1226	ASP
20	R1	1244	GLU
20	R1	1404	HIS
20	R2	58	HIS
20	R2	104	HIS
20	R2	180	ASP
20	R2	189	ASP
20	R2	201	TYR
20	R2	211	SER
20	R2	214	SER

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Mol	Chain	Res	Type
20	R2	224	ASP
20	R2	276	ARG
20	R2	404	THR
20	R2	405	ASP
20	R2	411	HIS
20	R2	460	SER
20	R2	491	TRP
20	R2	513	TYR
20	R2	575	ASP
20	R2	589	ASP
20	R2	620	ASP
20	R2	653	ASN
20	R2	660	SER
20	R2	746	ASP
20	R2	790	ASP
20	R2	811	MET
20	R2	931	CYS
20	R2	989	GLU
20	R2	1027	SER
20	R2	1049	ASP
20	R2	1115	LEU
20	R2	1215	MET
20	R2	1244	GLU
20	R2	1357	TYR
20	R3	104	HIS
20	R3	180	ASP
20	R3	189	ASP
20	R3	201	TYR
20	R3	211	SER
20	R3	224	ASP
20	R3	276	ARG
20	R3	404	THR
20	R3	405	ASP
20	R3	411	HIS
20	R3	460	SER
20	R3	491	TRP
20	R3	575	ASP
20	R3	589	ASP
20	R3	620	ASP
20	R3	660	SER
20	R3	664	GLU
20	R3	746	ASP

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Mol	Chain	Res	Type
20	R3	790	ASP
20	R3	811	MET
20	R3	817	SER
20	R3	1043	GLU
20	R3	1049	ASP
20	R3	1215	MET
20	R3	1226	ASP
20	R3	1404	HIS
21	S0	57	ASP
21	S0	155	GLU
21	S0	252	ASP
21	S0	264	GLU
21	S0	307	THR
21	S0	325	GLU
21	S1	31	ASP
21	S1	57	ASP
21	S1	125	ASP
21	S1	155	GLU
21	S1	264	GLU
21	S1	307	THR
21	S2	43	TYR
21	S2	57	ASP
21	S2	125	ASP
21	S2	170	SER
21	S2	252	ASP
21	S2	264	GLU
21	S2	307	THR
21	S3	57	ASP
21	S3	125	ASP
21	S3	155	GLU
21	S3	264	GLU
21	S3	307	THR
22	T0	92	THR
22	T0	185	SER
22	T0	186	ASP
22	T0	293	ASP
22	T0	424	ASN
22	T0	452	GLU
22	T0	484	ASN
22	T0	540	SER
22	T0	647	GLU
22	T0	684	ASP

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Mol	Chain	Res	Type
22	T0	765	ASP
22	T0	778	TYR
22	T0	800	THR
22	T0	820	HIS
22	T0	821	ASN
22	T0	825	SER
22	T0	945	SER
22	T1	186	ASP
22	T1	203	SER
22	T1	293	ASP
22	T1	375	SER
22	T1	424	ASN
22	T1	452	GLU
22	T1	484	ASN
22	T1	540	SER
22	T1	647	GLU
22	T1	684	ASP
22	T1	765	ASP
22	T1	778	TYR
22	T1	820	HIS
22	T1	821	ASN
22	T1	825	SER
22	T1	945	SER
23	U0	766	THR
23	U0	800	VAL
23	U0	805	ASP
23	U0	841	ASP
23	U0	842	ARG
23	U0	846	ILE
23	U1	606	ASN
23	U1	610	LEU
23	U2	606	ASN
23	U3	606	ASN
23	U4	606	ASN
23	U5	606	ASN
23	U6	606	ASN
23	U6	610	LEU
24	V0	767	SER
24	V0	779	VAL
24	V0	797	LEU
24	V0	837	ASP
24	V0	840	LEU

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Mol	Chain	Res	Type
24	V0	857	LEU
24	V0	878	LEU
24	V0	926	GLU
24	V0	932	LEU
24	V0	940	SER
24	V0	962	THR
25	W0	37	THR
25	W0	45	SER
25	W0	55	LEU
25	W0	223	VAL
25	W0	233	SER
25	W0	348	THR
25	W0	354	ASP
25	W0	359	LEU
25	W0	438	LEU
25	W0	448	PHE
25	W0	496	SER
25	W0	502	SER
25	W0	507	CYS
25	W0	527	ASP
25	W0	667	LEU
25	W0	699	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (137) such sidechains are listed below:

Mol	Chain	Res	Type
1	00	16	GLN
1	00	90	ASN
1	01	16	GLN
1	01	90	ASN
1	01	168	ASN
1	01	688	HIS
1	03	16	GLN
1	04	168	ASN
2	10	260	HIS
2	10	681	ASN
2	10	1517	HIS
2	11	260	HIS
2	11	681	ASN
2	12	260	HIS
2	12	681	ASN
2	12	1279	GLN

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Mol	Chain	Res	Type
2	12	1517	HIS
2	13	260	HIS
2	13	681	ASN
2	13	1109	ASN
2	13	1517	HIS
2	14	260	HIS
2	14	681	ASN
2	15	681	ASN
2	16	681	ASN
2	16	713	GLN
2	17	260	HIS
2	17	681	ASN
2	17	1517	HIS
4	A4	456	ASN
4	A6	515	HIS
5	B0	644	HIS
5	B0	989	HIS
5	B0	1169	GLN
5	B0	1504	ASN
5	B0	1685	GLN
5	B1	1169	GLN
5	B1	1504	ASN
5	B1	1685	GLN
6	C0	905	HIS
6	C0	1019	ASN
6	C0	1765	GLN
6	C1	905	HIS
6	C1	1218	HIS
6	C1	1765	GLN
6	C2	471	GLN
6	C2	484	HIS
6	C2	786	GLN
6	C2	854	ASN
6	C2	858	GLN
6	C2	1019	ASN
6	C2	1277	HIS
6	C2	1281	HIS
6	C3	453	ASN
6	C3	566	HIS
6	C3	568	HIS
6	C3	1277	HIS
6	C3	1463	GLN

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Mol	Chain	Res	Type
6	C3	1628	GLN
6	C3	1765	GLN
6	C4	22	HIS
6	C4	905	HIS
6	C4	1218	HIS
6	C4	1288	GLN
6	C4	1697	ASN
6	C4	1765	GLN
7	D0	849	ASN
7	D0	886	GLN
7	D0	889	ASN
7	D0	985	GLN
7	D1	428	ASN
7	D2	1242	HIS
7	D3	96	GLN
7	D3	428	ASN
7	D3	1168	HIS
7	D4	383	ASN
7	D4	428	ASN
9	F0	206	ASN
9	F1	192	GLN
9	F2	276	GLN
9	F3	192	GLN
10	H0	342	GLN
10	H0	493	HIS
10	H1	342	GLN
10	H1	418	GLN
10	H1	441	GLN
10	H1	443	HIS
10	H1	493	HIS
10	H2	342	GLN
10	H2	493	HIS
10	H3	342	GLN
10	H3	418	GLN
10	H3	493	HIS
12	J1	354	GLN
12	J3	354	GLN
13	K0	510	ASN
13	K0	895	GLN
13	K0	932	HIS
13	K1	143	GLN
13	K1	498	ASN

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Mol	Chain	Res	Type
13	K2	1153	GLN
14	L0	747	HIS
14	L1	486	ASN
14	L1	563	GLN
14	L1	747	HIS
14	L1	761	ASN
14	L2	747	HIS
14	L2	924	GLN
14	L3	761	ASN
15	M0	367	HIS
15	M0	402	HIS
15	M0	825	HIS
15	M1	825	HIS
16	N0	139	GLN
17	O0	125	HIS
17	O1	125	HIS
17	O1	312	ASN
17	O3	125	HIS
17	O3	205	ASN
18	P0	621	GLN
18	P1	621	GLN
18	P2	480	ASN
18	P2	621	GLN
18	P3	388	GLN
19	Q0	121	HIS
19	Q0	229	GLN
19	Q1	85	GLN
19	Q1	121	HIS
19	Q2	121	HIS
19	Q3	121	HIS
20	R1	759	GLN
20	R1	1317	HIS
20	R3	738	GLN
20	R3	1059	HIS
20	R3	1404	HIS
22	T1	820	HIS
25	W0	451	HIS

5.3.3 RNA

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)

There are no chain breaks in this entry.

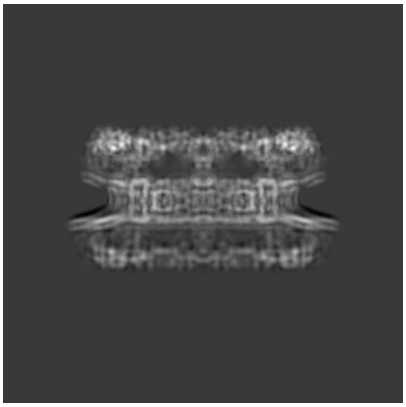
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-14322. These allow visual inspection of the internal detail of the map and identification of artifacts.

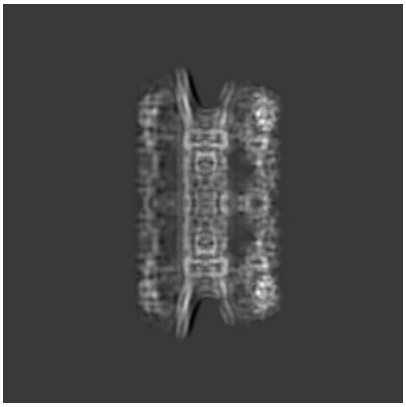
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

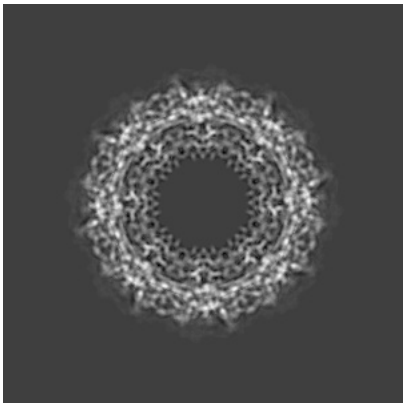
6.1.1 Primary map



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: 288

Y Index: 288

Z Index: 288

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: 404

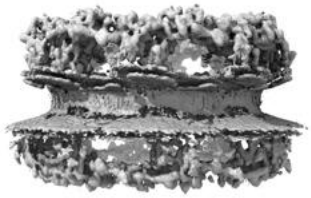
Y Index: 172

Z Index: 370

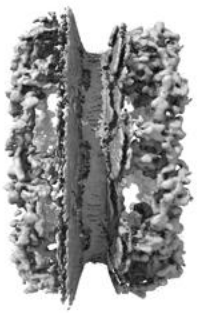
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

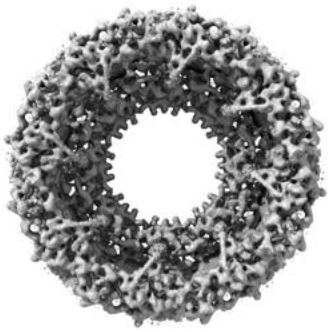
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 3.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

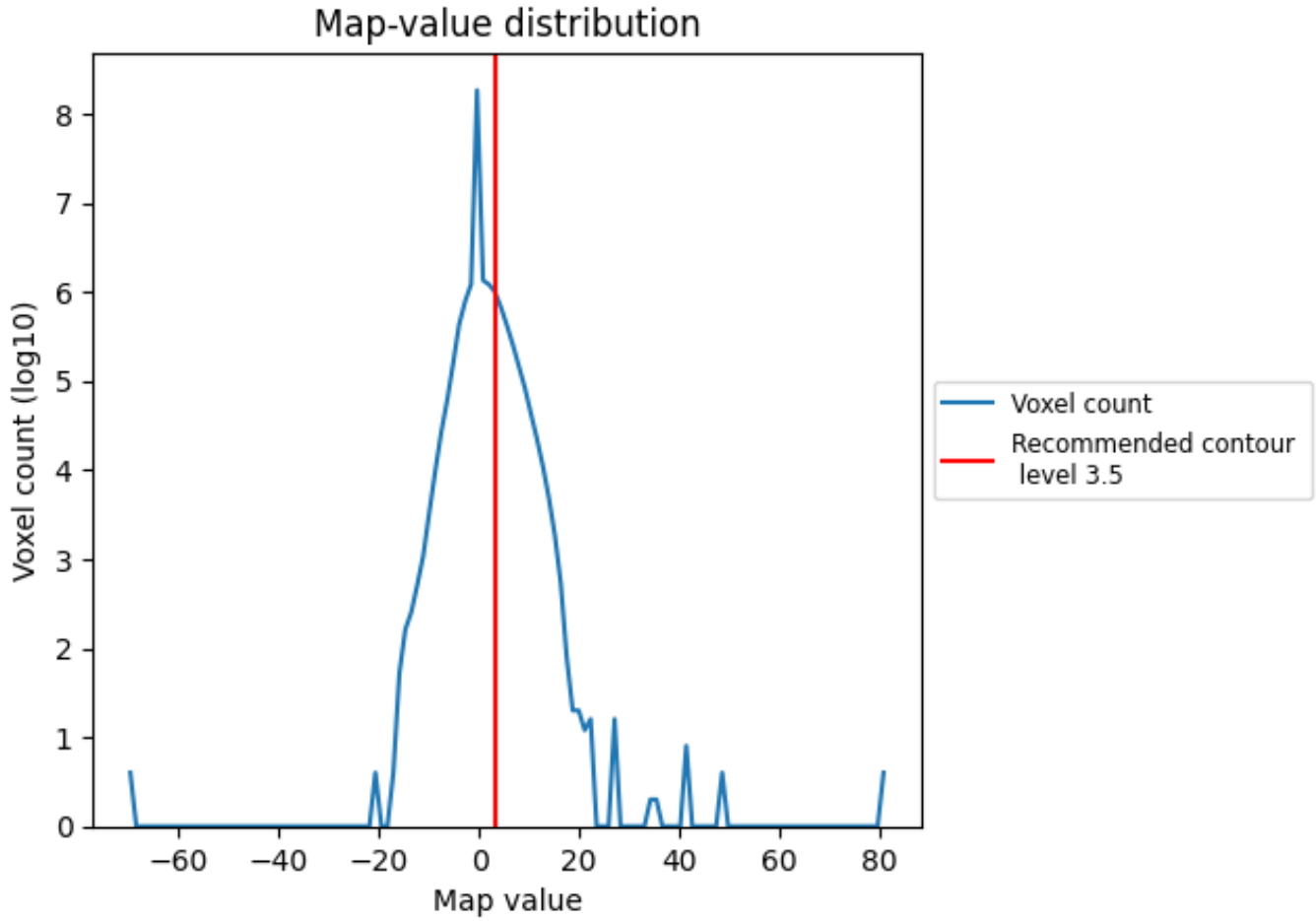
6.5 Mask visualisation (i)

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

7 Map analysis

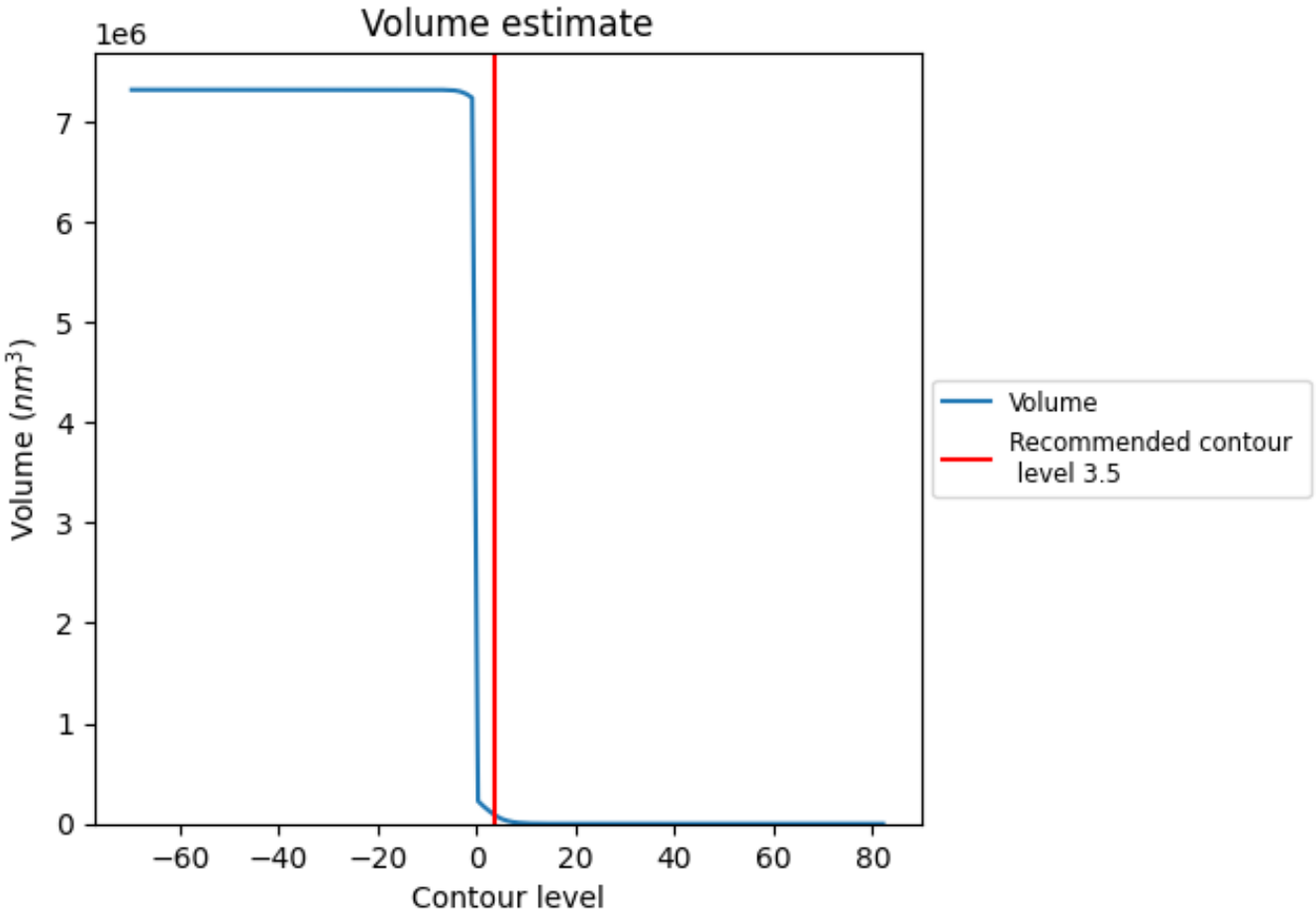
This section contains the results of statistical analysis of the map.

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.

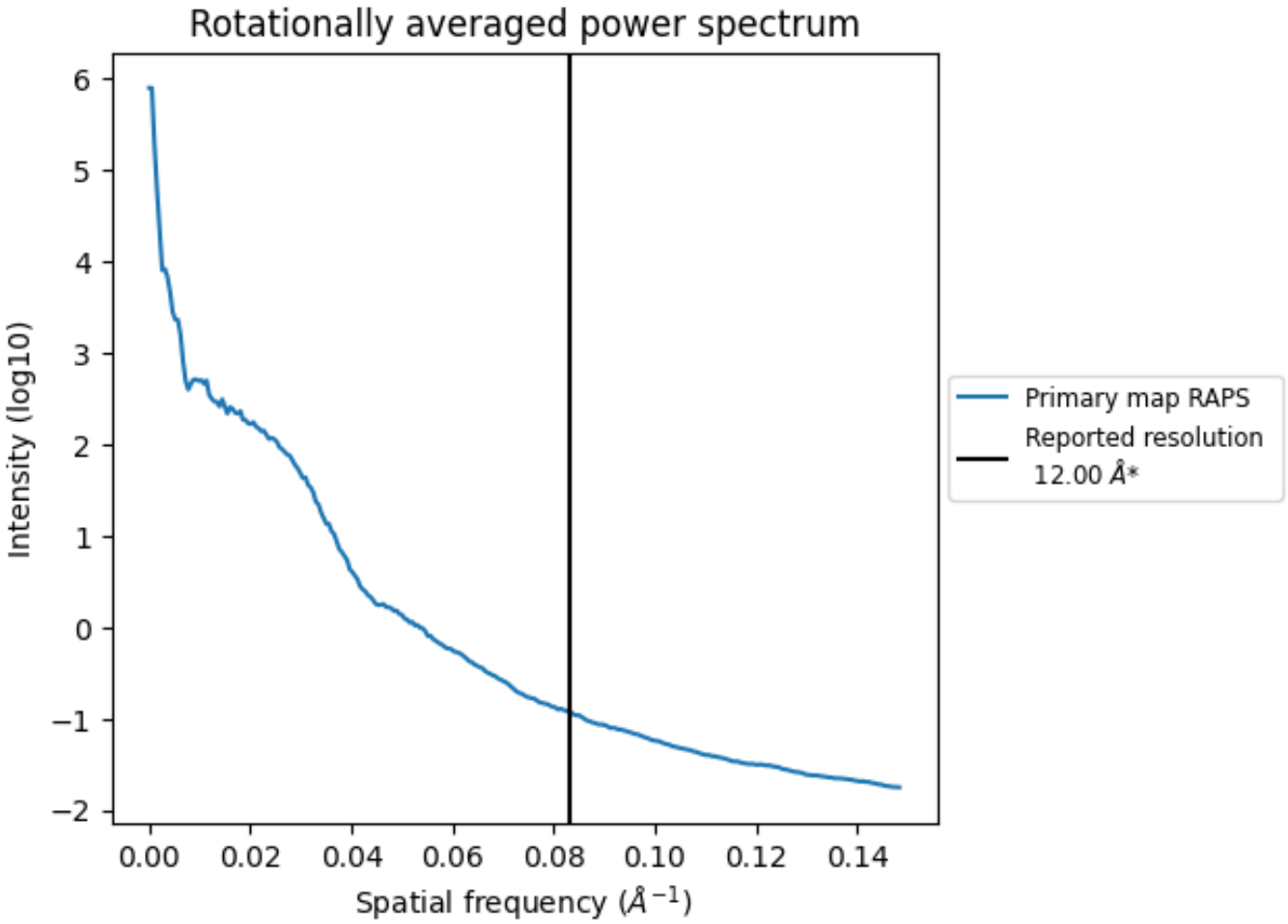
7.2 Volume estimate (i)



The volume at the recommended contour level is 93549 nm^3; this corresponds to an approximate mass of 84505 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 0.083 Å^{-1}

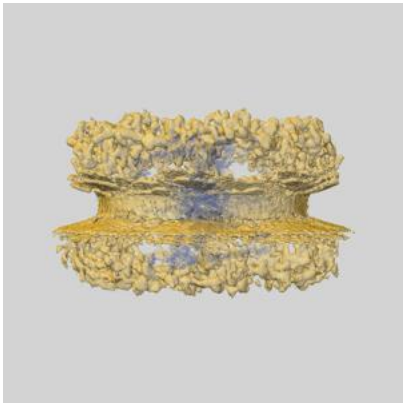
8 Fourier-Shell correlation

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

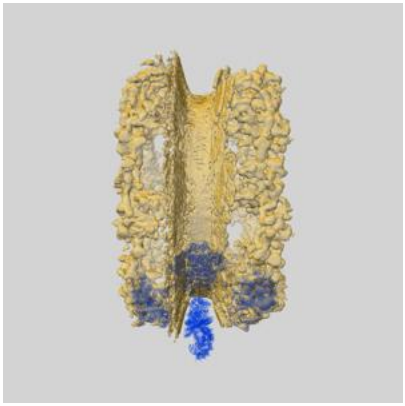
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-14322 and PDB model 7R5K. Per-residue inclusion information can be found in section 3 on page 15.

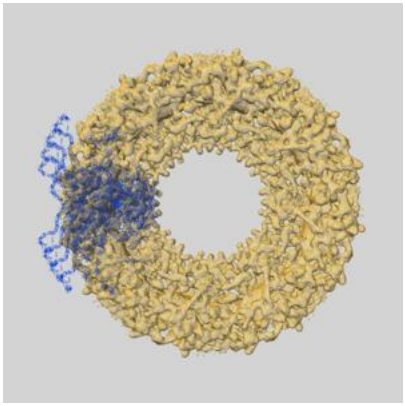
9.0.1 Map-model overlay



X

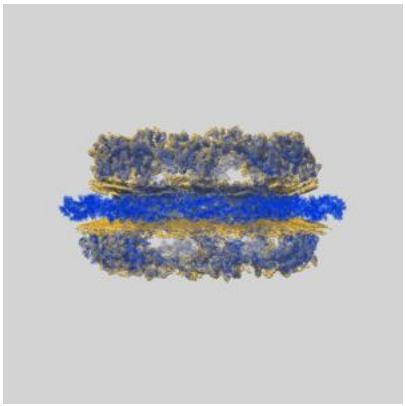


Y

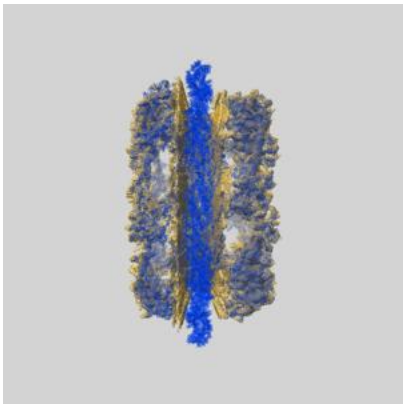


Z

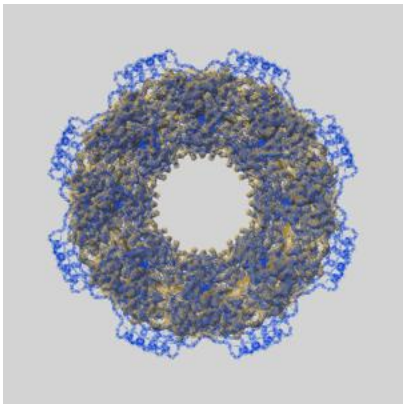
9.0.2 Map-model assembly overlay



X



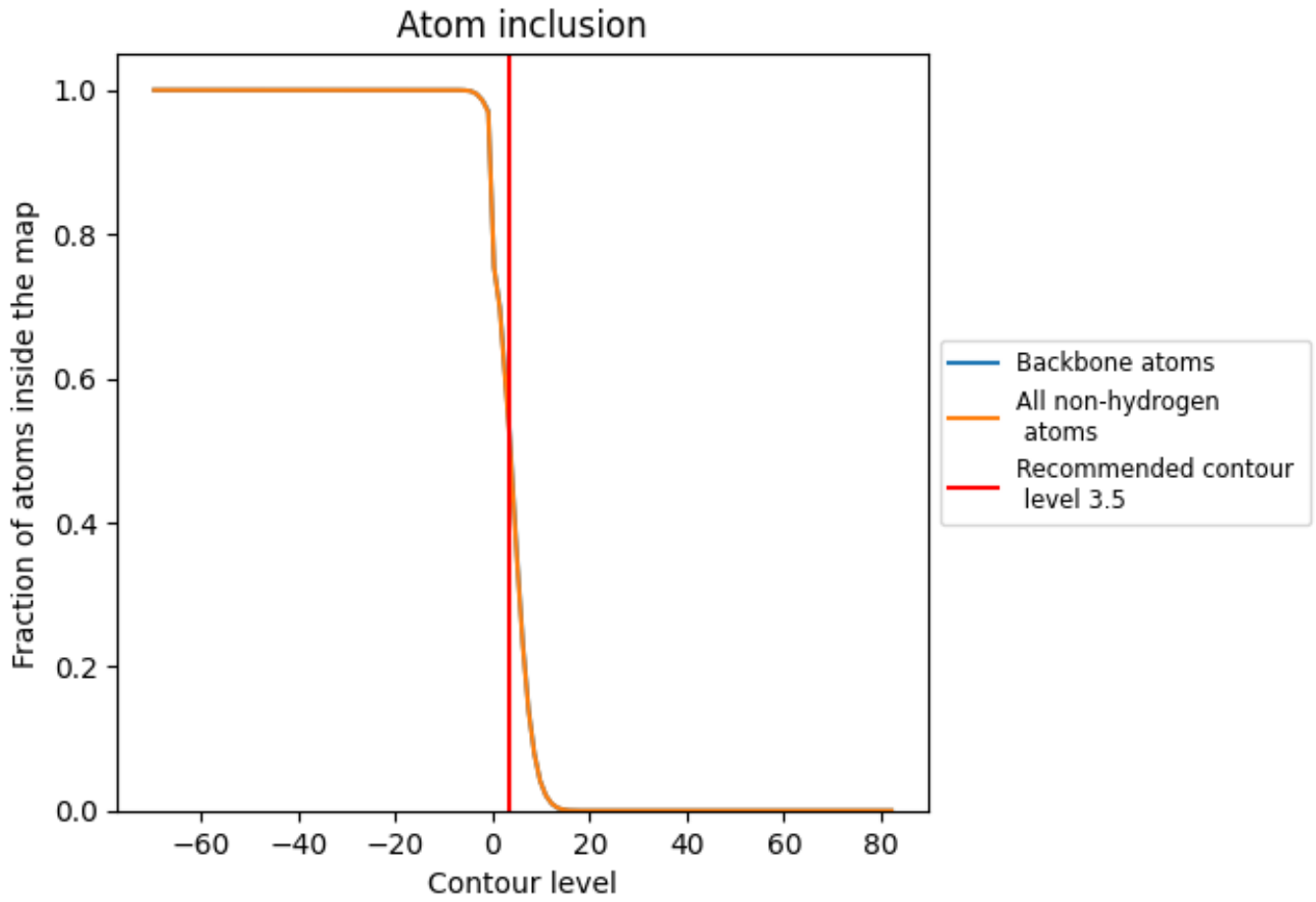
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 3.5 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.

9.1 Atom inclusion (i)



At the recommended contour level, 53% of all backbone atoms, 52% of all non-hydrogen atoms, are inside the map.