



wwPDB EM Validation Summary Report ⓘ

Nov 28, 2022 – 11:15 AM EST

PDB ID : 7SPB
EMDB ID : EMD-24769
Title : Models for C13 reconstruction of Outer Membrane Core Complex (OMCC) of Type IV Secretion System (T4SS) encoded by F-plasmid (pED208).
Authors : Liu, X.; Khara, P.; Baker, M.L.; Christie, P.J.; Hu, B.
Deposited on : 2021-11-02
Resolution : 3.31 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ 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.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

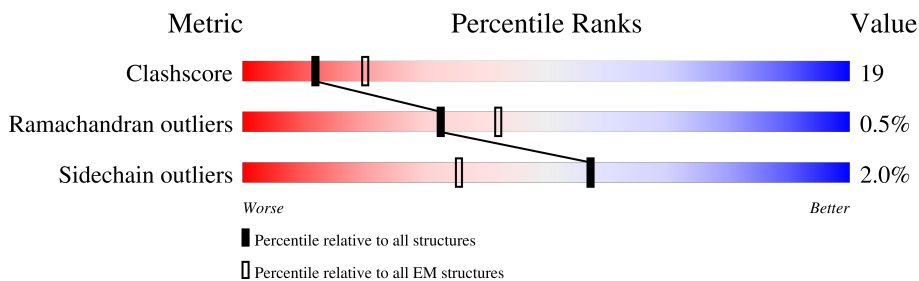
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.31 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.











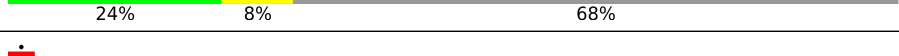
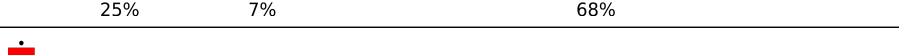
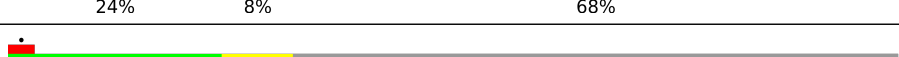
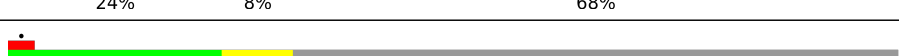

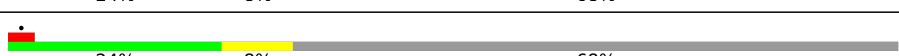


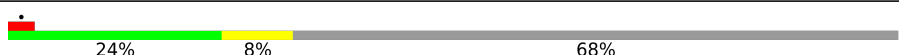




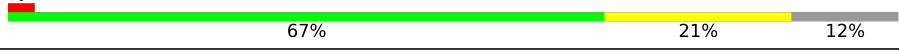

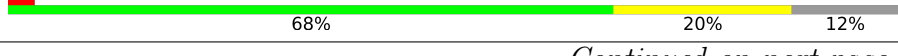

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A1	204	
1	A10	204	
1	A11	204	
1	A12	204	
1	A13	204	
1	A2	204	
1	A3	204	
1	A4	204	




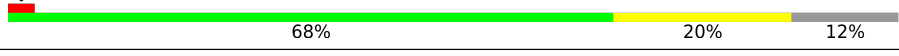
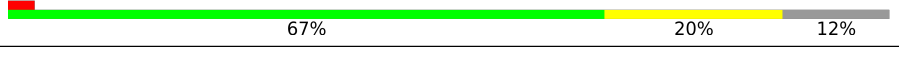



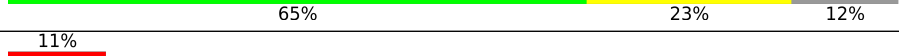
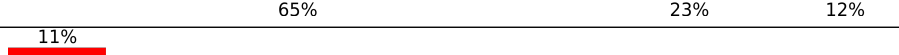
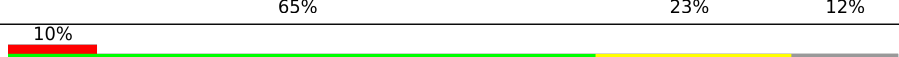
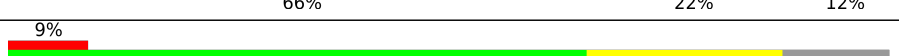

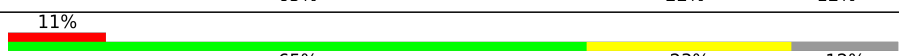
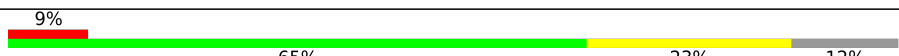
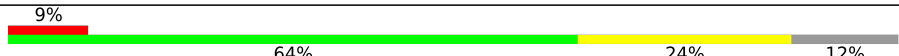


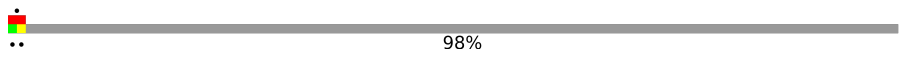
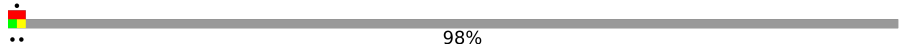
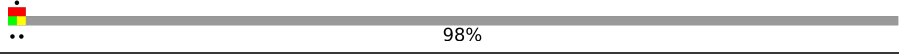
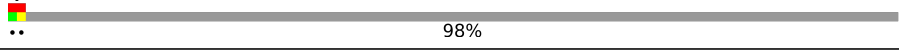
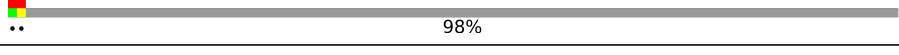
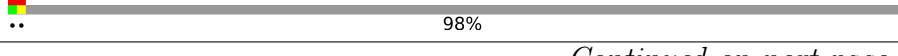

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Mol	Chain	Length	Quality of chain
1	A5	204	 19% 8% 73%
1	A6	204	 19% 8% 73%
1	A7	204	 19% 8% 73%
1	A8	204	 19% 8% 73%
1	A9	204	 18% 9% 73%
1	B1	204	 25% 7% 68%
1	B10	204	 24% 8% 68%
1	B11	204	 24% 8% 68%
1	B12	204	 24% 8% 68%
1	B13	204	 25% 7% 68%
1	B2	204	 24% 8% 68%
1	B3	204	 24% 8% 68%
1	B4	204	 24% 8% 68%
1	B5	204	 24% 8% 68%
1	B6	204	 24% 8% 68%
1	B7	204	 24% 8% 68%
1	B8	204	 25% 7% 68%
1	B9	204	 24% 8% 68%
2	C1	246	 68% 20% 12%
2	C10	246	 68% 20% 12%
2	C11	246	 68% 20% 12%
2	C12	246	 67% 20% 12%
2	C13	246	 67% 21% 12%
2	C2	246	 66% 22% 12%
2	C3	246	 68% 20% 12%

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Mol	Chain	Length	Quality of chain
2	C4	246	 68% 20% 12%
2	C5	246	 67% 21% 12%
2	C6	246	 68% 20% 12%
2	C7	246	 68% 20% 12%
2	C8	246	 67% 20% 12%
2	C9	246	 68% 20% 12%
2	D1	246	 10% 66% 22% 12%
2	D10	246	 10% 65% 23% 12%
2	D11	246	 10% 65% 23% 12%
2	D12	246	 11% 65% 23% 12%
2	D13	246	 11% 65% 23% 12%
2	D2	246	 10% 66% 22% 12%
2	D3	246	 9% 65% 22% 12%
2	D4	246	 9% 65% 22% 12%
2	D5	246	 11% 65% 23% 12%
2	D6	246	 9% 65% 23% 12%
2	D7	246	 9% 64% 24% 12%
2	D8	246	 10% 65% 23% 12%
2	D9	246	 10% 65% 23% 12%
3	E1	453	 98%
3	E10	453	 98%
3	E11	453	 98%
3	E12	453	 98%
3	E13	453	 98%
3	E2	453	 98%

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Mol	Chain	Length	Quality of chain
3	E3	453	98%
3	E4	453	98%
3	E5	453	98%
3	E6	453	98%
3	E7	453	98%
3	E8	453	98%
3	E9	453	98%
3	F1	453	98%
3	F10	453	98%
3	F11	453	98%
3	F12	453	98%
3	F13	453	98%
3	F2	453	98%
3	F3	453	98%
3	F4	453	98%
3	F5	453	98%
3	F6	453	98%
3	F7	453	98%
3	F8	453	98%
3	F9	453	98%

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 57408 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 TraV.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A1	55	436	275	83	77	1	0	0
1	A2	55	436	275	83	77	1	0	0
1	A3	55	436	275	83	77	1	0	0
1	A4	55	436	275	83	77	1	0	0
1	A5	55	436	275	83	77	1	0	0
1	A6	55	436	275	83	77	1	0	0
1	A7	55	436	275	83	77	1	0	0
1	A8	55	436	275	83	77	1	0	0
1	A9	55	436	275	83	77	1	0	0
1	A10	55	436	275	83	77	1	0	0
1	A11	55	436	275	83	77	1	0	0
1	A12	55	436	275	83	77	1	0	0
1	A13	55	436	275	83	77	1	0	0
1	B1	65	498	314	92	91	1	0	0
1	B2	65	498	314	92	91	1	0	0
1	B3	65	498	314	92	91	1	0	0
1	B4	65	498	314	92	91	1	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	B5	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B6	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B7	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B8	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B9	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B10	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B11	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B12	65	Total 498	C 314	N 92	O 91	S 1	0	0
1	B13	65	Total 498	C 314	N 92	O 91	S 1	0	0

- Molecule 2 is a protein called TraK.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C1	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C2	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C3	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C4	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C5	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C6	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C7	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C8	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C9	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C10	217	Total 1654	C 1041	N 299	O 308	S 6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	C11	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C12	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	C13	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D1	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D2	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D3	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D4	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D5	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D6	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D7	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D8	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D9	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D10	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D11	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D12	217	Total 1654	C 1041	N 299	O 308	S 6	0	0
2	D13	217	Total 1654	C 1041	N 299	O 308	S 6	0	0

- Molecule 3 is a protein called TraB.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	E1	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E2	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E3	11	Total 87	C 52	N 15	O 18	S 2	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	E4	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E5	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E6	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E7	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E8	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E9	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E10	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E11	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E12	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	E13	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F1	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F2	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F3	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F4	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F5	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F6	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F7	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F8	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F9	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F10	11	Total 87	C 52	N 15	O 18	S 2	0	0
3	F11	11	Total 87	C 52	N 15	O 18	S 2	0	0

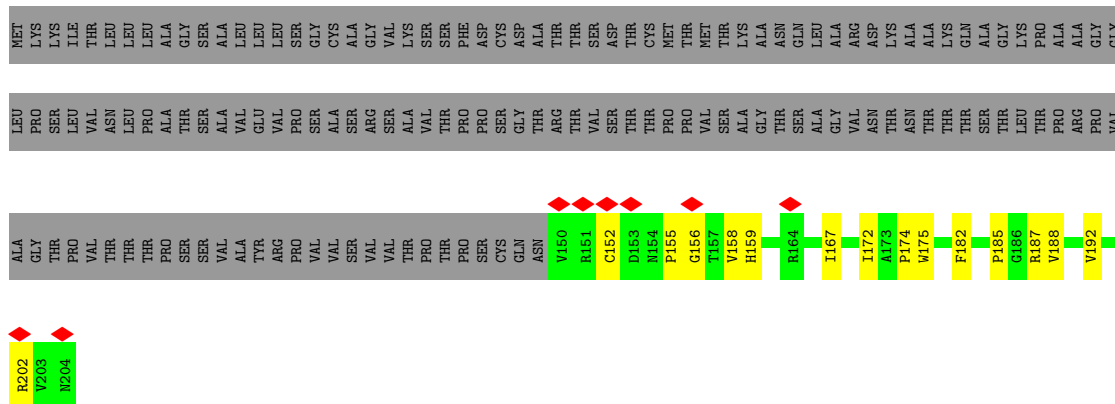
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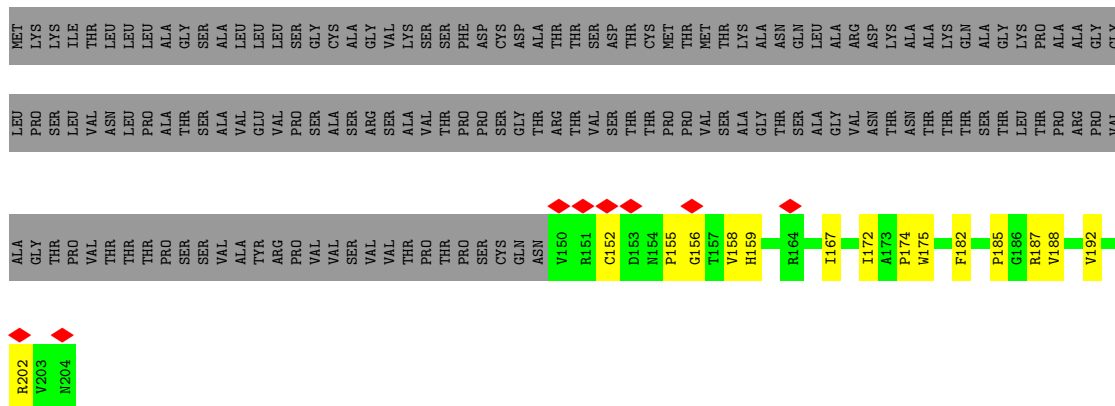
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	F12	11	Total 87	52	15	18	2	0	0
3	F13	11	Total 87	52	15	18	2	0	0



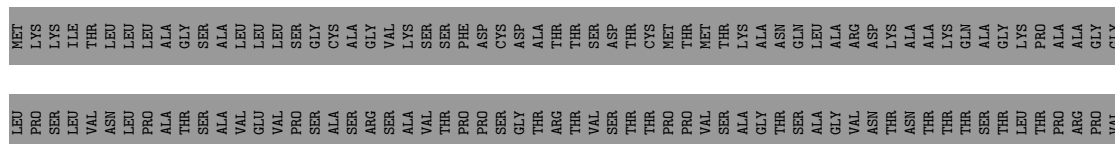
• Molecule 1: TraV

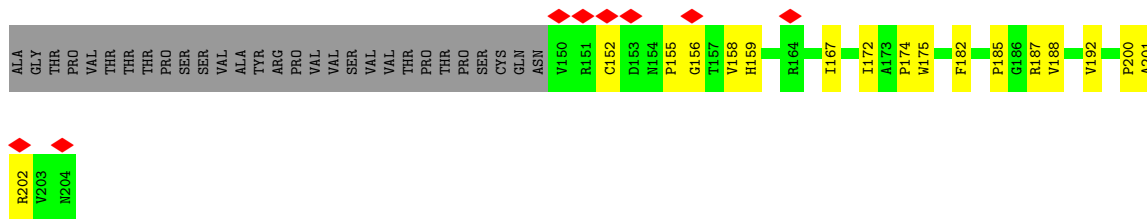


• Molecule 1: TraV

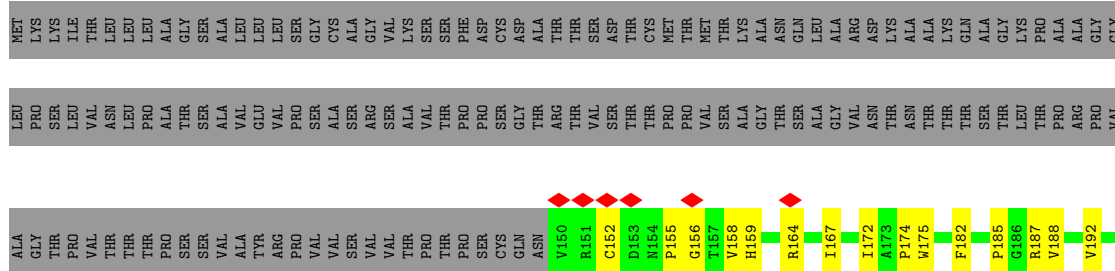


• Molecule 1: TraV

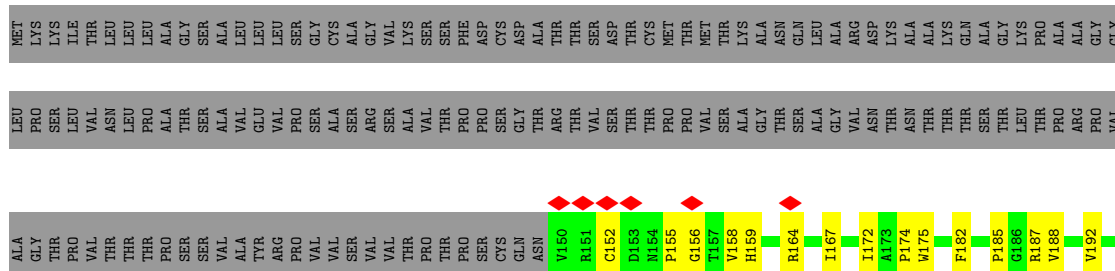




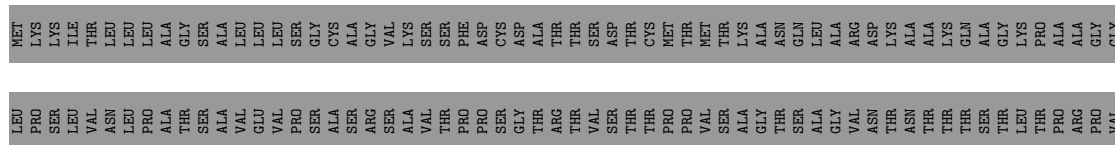
• Molecule 1: TraV

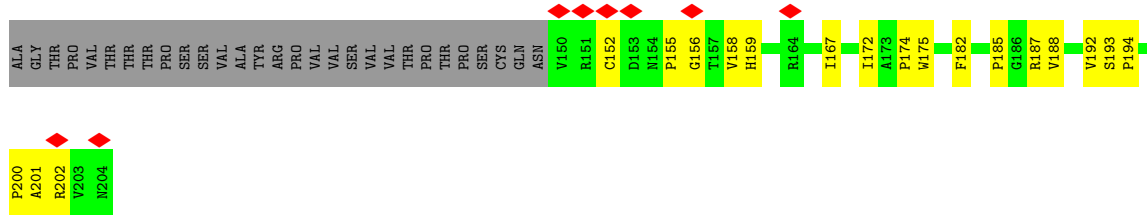


• Molecule 1: TraV

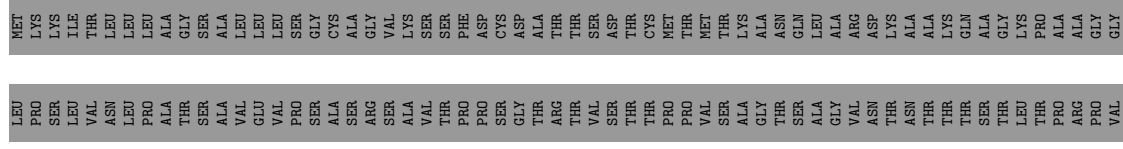


• Molecule 1: TraV

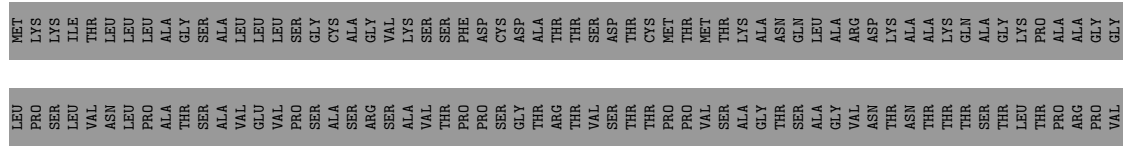




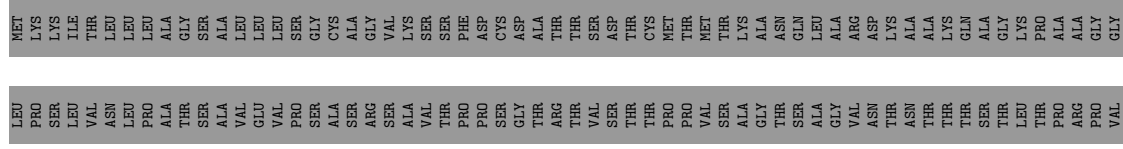
• Molecule 1: TraV

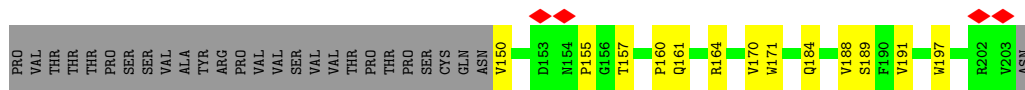


• Molecule 1: TraV

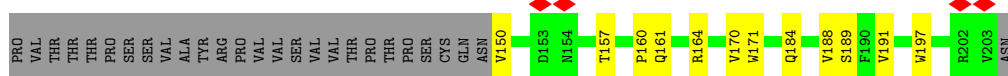
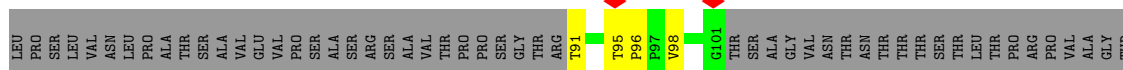
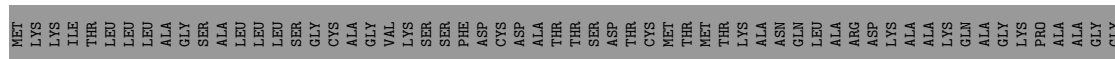


• Molecule 1: TraV

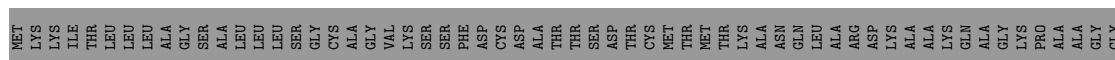




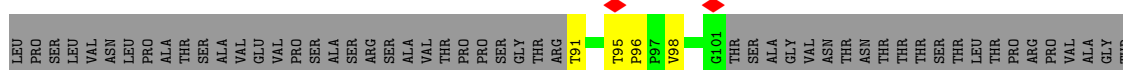
• Molecule 1: TraV



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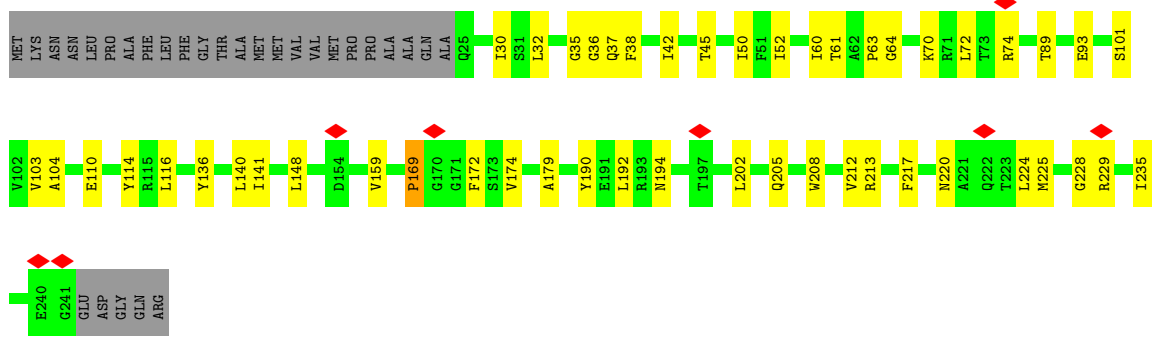


• Molecule 1: TraV

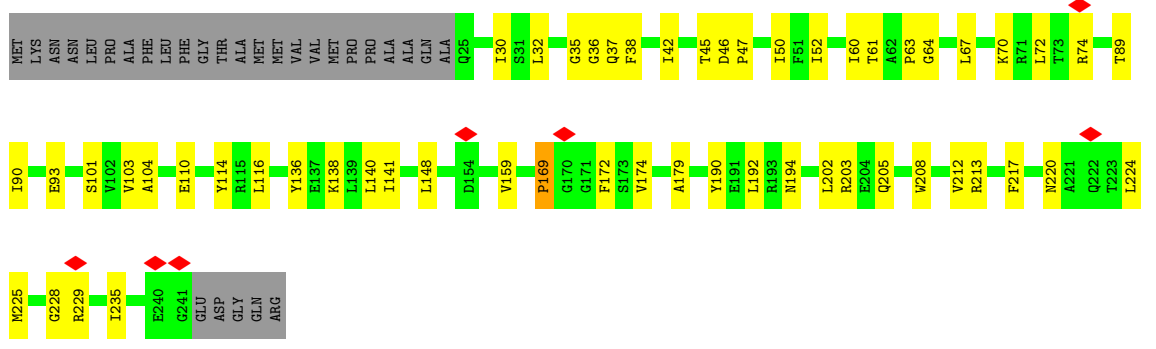


• Molecule 1: TraV

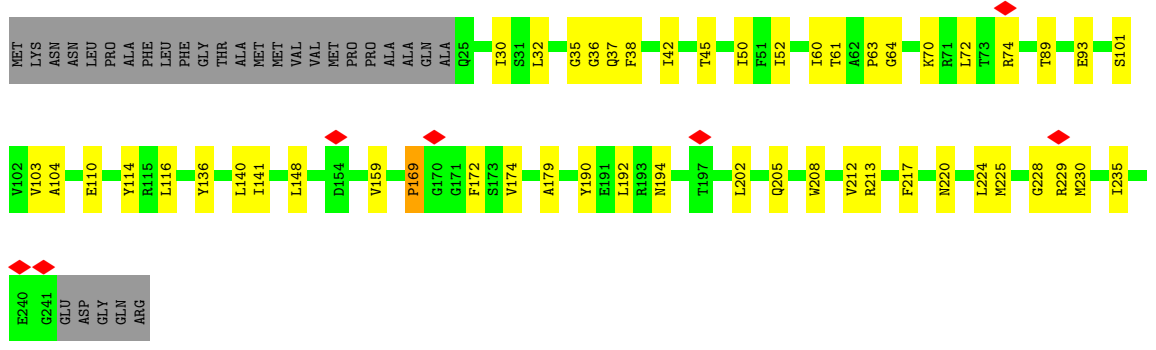




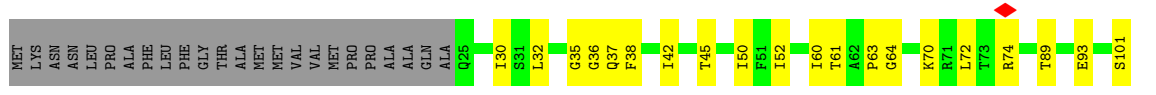
• Molecule 2: TraK



• Molecule 2: TraK

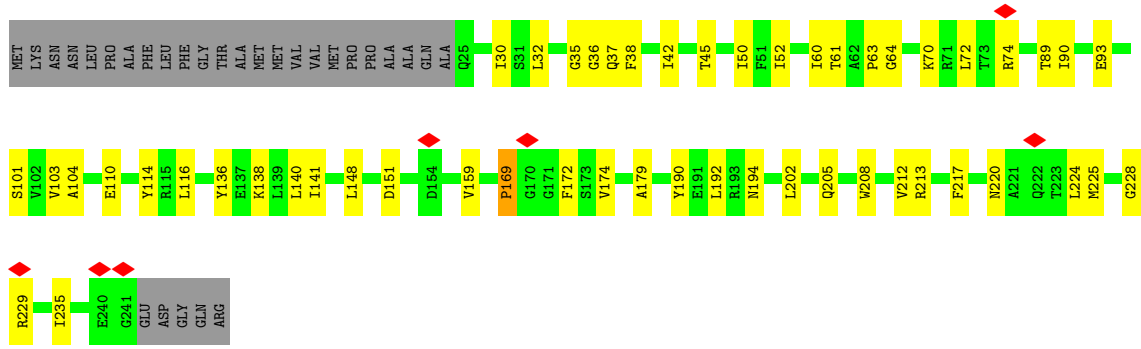


• Molecule 2: TraK

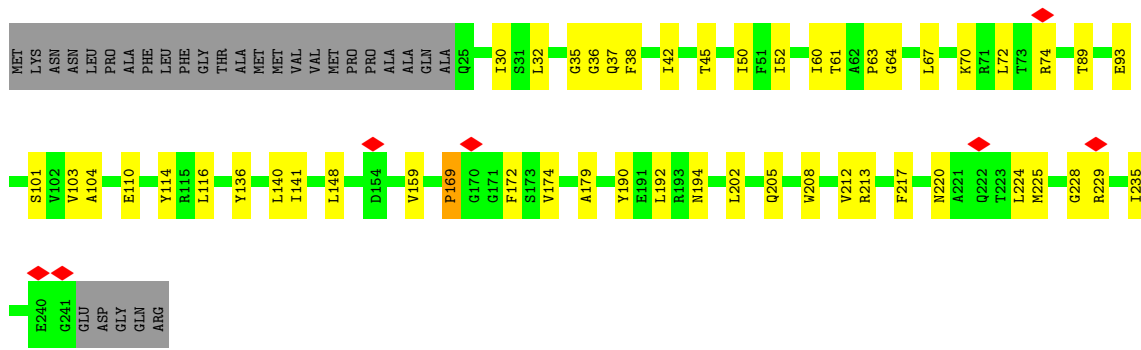




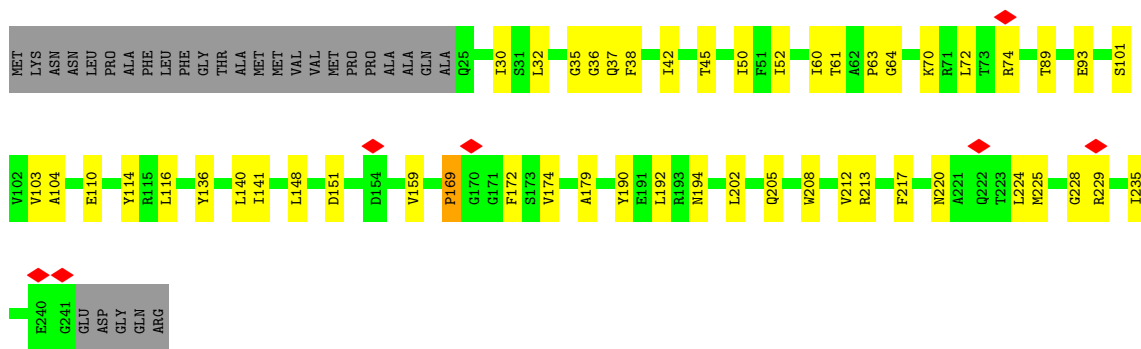
• Molecule 2: TraK



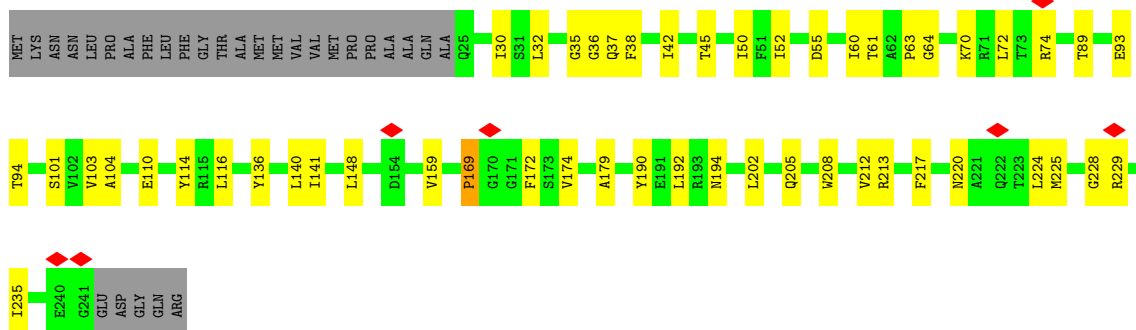
• Molecule 2: TraK



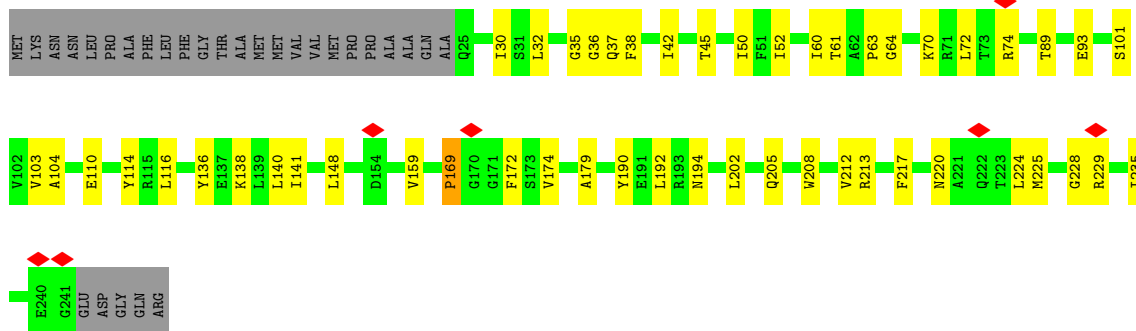
• Molecule 2: TraK



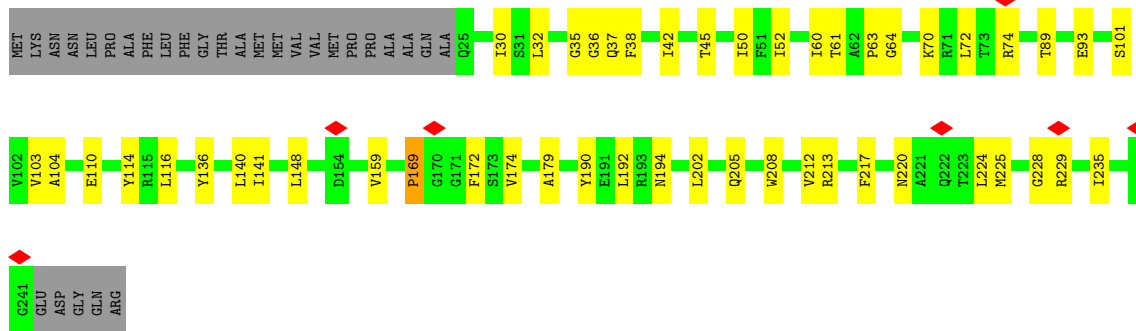
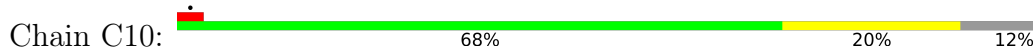
• Molecule 2: TraK



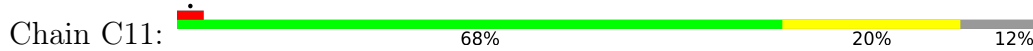
• Molecule 2: TraK

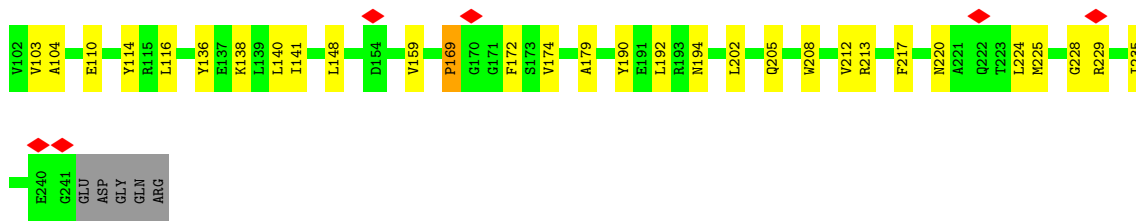


• Molecule 2: TraK

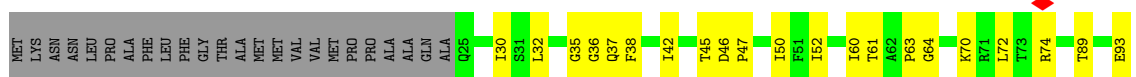


• Molecule 2: TraK

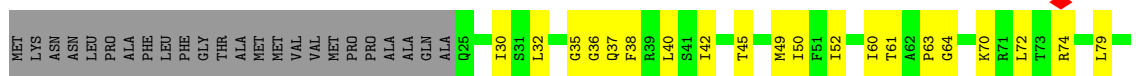




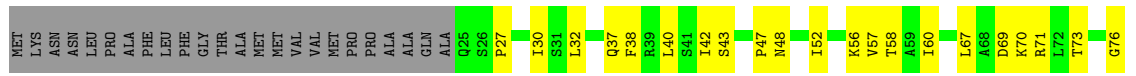
• Molecule 2: TraK



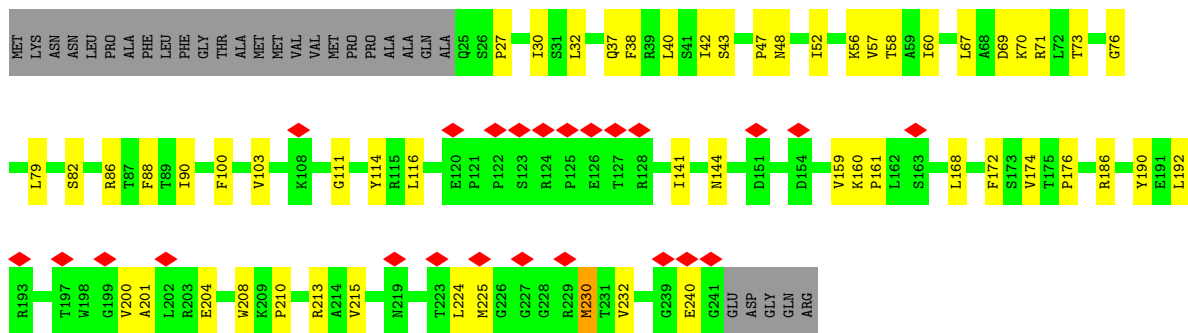
• Molecule 2: TraK



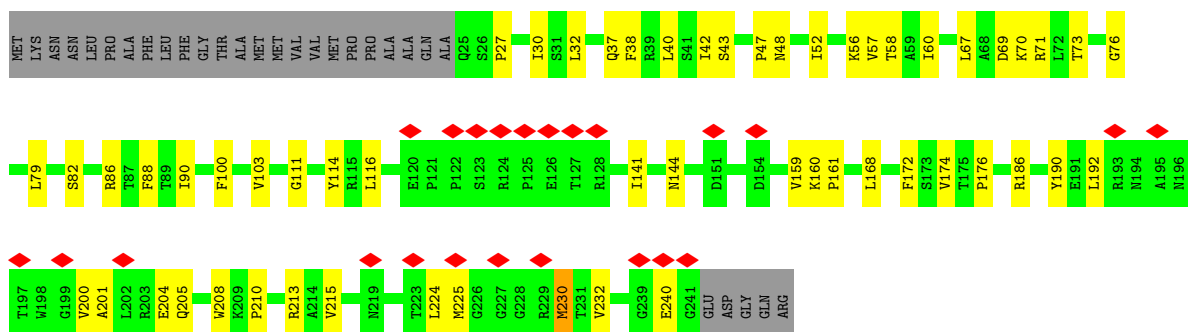
• Molecule 2: TraK



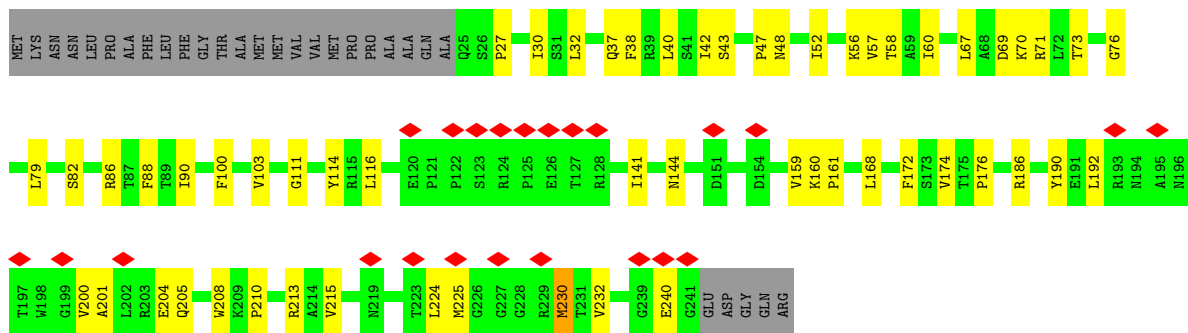
• Molecule 2: TraK



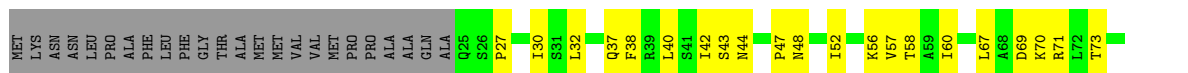
• Molecule 2: TraK

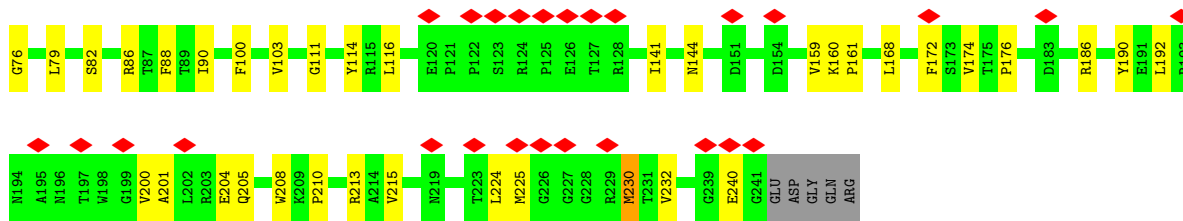


• Molecule 2: TraK

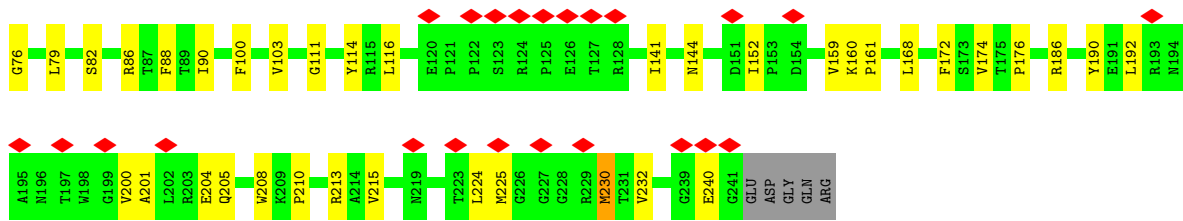


• Molecule 2: TraK

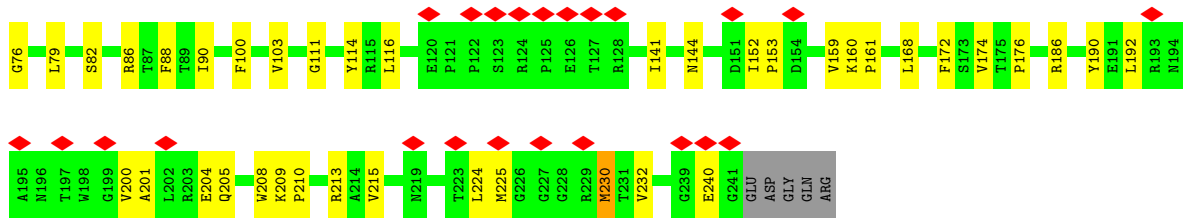




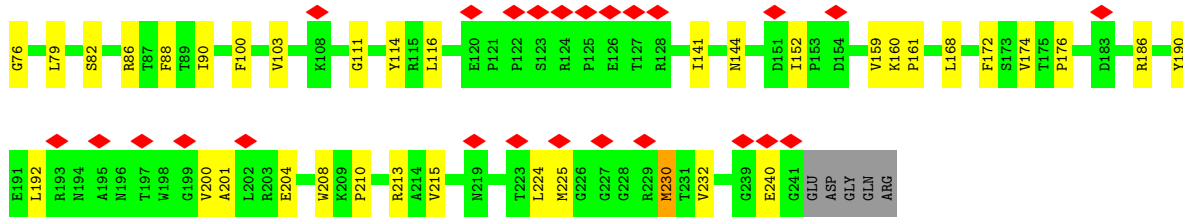
• Molecule 2: TraK



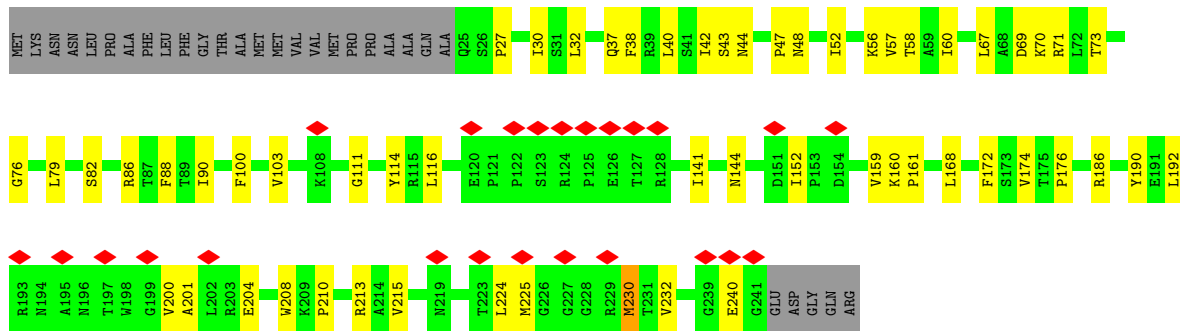
• Molecule 2: TraK



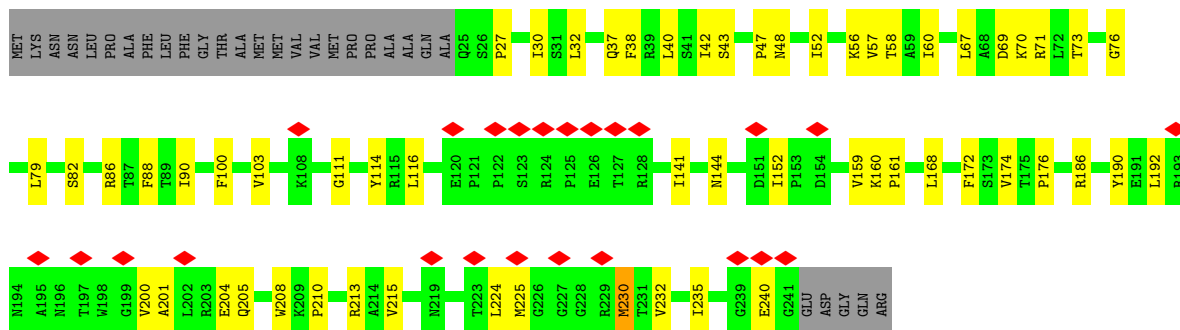
• Molecule 2: TraK



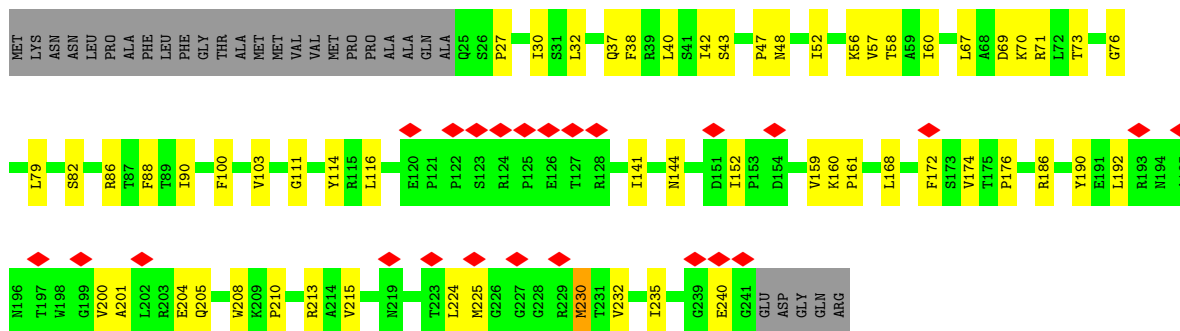
• Molecule 2: TraK



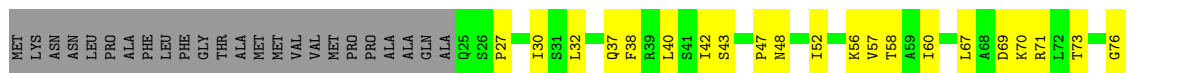
• Molecule 2: TraK



• Molecule 2: TraK



• Molecule 2: TraK



Chain F3:  98%

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

• Molecule 3: TraB

Chain F4:  98%

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

• Molecule 3: TraB

Chain F5:  98%

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C13	Depositor
Number of particles used	70700	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	2.074	Depositor
Minimum map value	-1.310	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.072	Depositor
Recommended contour level	0.35	Depositor
Map size (Å)	426.08, 426.08, 426.08	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0652, 1.0652, 1.0652	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A1	0.40	0/451	0.64	0/622
1	A10	0.40	0/451	0.64	0/622
1	A11	0.40	0/451	0.64	0/622
1	A12	0.40	0/451	0.64	0/622
1	A13	0.40	0/451	0.64	0/622
1	A2	0.40	0/451	0.64	0/622
1	A3	0.40	0/451	0.63	0/622
1	A4	0.40	0/451	0.64	0/622
1	A5	0.40	0/451	0.64	0/622
1	A6	0.40	0/451	0.63	0/622
1	A7	0.40	0/451	0.64	0/622
1	A8	0.40	0/451	0.64	0/622
1	A9	0.40	0/451	0.64	0/622
1	B1	0.38	0/514	0.67	0/710
1	B10	0.38	0/514	0.68	0/710
1	B11	0.38	0/514	0.67	0/710
1	B12	0.38	0/514	0.67	0/710
1	B13	0.38	0/514	0.67	0/710
1	B2	0.38	0/514	0.67	0/710
1	B3	0.38	0/514	0.67	0/710
1	B4	0.38	0/514	0.68	0/710
1	B5	0.38	0/514	0.68	0/710
1	B6	0.38	0/514	0.67	0/710
1	B7	0.38	0/514	0.68	0/710
1	B8	0.38	0/514	0.68	0/710
1	B9	0.38	0/514	0.67	0/710
2	C1	0.49	0/1688	0.68	0/2290
2	C10	0.49	0/1688	0.68	0/2290
2	C11	0.49	0/1688	0.68	0/2290
2	C12	0.49	0/1688	0.68	0/2290
2	C13	0.49	0/1688	0.68	0/2290
2	C2	0.49	0/1688	0.68	0/2290
2	C3	0.49	0/1688	0.68	0/2290
2	C4	0.49	0/1688	0.68	0/2290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
2	C5	0.49	0/1688	0.68	0/2290
2	C6	0.49	0/1688	0.68	0/2290
2	C7	0.49	0/1688	0.68	0/2290
2	C8	0.49	0/1688	0.68	0/2290
2	C9	0.49	0/1688	0.68	0/2290
2	D1	0.47	0/1688	0.66	0/2290
2	D10	0.47	0/1688	0.66	0/2290
2	D11	0.47	0/1688	0.66	0/2290
2	D12	0.47	0/1688	0.66	0/2290
2	D13	0.47	0/1688	0.66	0/2290
2	D2	0.47	0/1688	0.66	0/2290
2	D3	0.47	0/1688	0.66	0/2290
2	D4	0.47	0/1688	0.66	0/2290
2	D5	0.47	0/1688	0.66	0/2290
2	D6	0.47	0/1688	0.66	0/2290
2	D7	0.47	0/1688	0.66	0/2290
2	D8	0.47	0/1688	0.66	0/2290
2	D9	0.47	0/1688	0.66	0/2290
3	E1	0.30	0/88	0.52	0/115
3	E10	0.30	0/88	0.52	0/115
3	E11	0.30	0/88	0.52	0/115
3	E12	0.30	0/88	0.52	0/115
3	E13	0.30	0/88	0.52	0/115
3	E2	0.30	0/88	0.52	0/115
3	E3	0.30	0/88	0.52	0/115
3	E4	0.30	0/88	0.52	0/115
3	E5	0.30	0/88	0.52	0/115
3	E6	0.30	0/88	0.52	0/115
3	E7	0.30	0/88	0.52	0/115
3	E8	0.30	0/88	0.52	0/115
3	E9	0.30	0/88	0.52	0/115
3	F1	0.36	0/88	0.62	0/115
3	F10	0.36	0/88	0.62	0/115
3	F11	0.37	0/88	0.62	0/115
3	F12	0.36	0/88	0.62	0/115
3	F13	0.37	0/88	0.62	0/115
3	F2	0.37	0/88	0.62	0/115
3	F3	0.37	0/88	0.62	0/115
3	F4	0.36	0/88	0.62	0/115
3	F5	0.36	0/88	0.62	0/115
3	F6	0.37	0/88	0.62	0/115
3	F7	0.37	0/88	0.62	0/115
3	F8	0.36	0/88	0.62	0/115

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	F9	0.36	0/88	0.62	0/115
All	All	0.46	0/58721	0.66	0/79846

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	A1	436	0	414	50	0
1	A10	436	0	414	48	0
1	A11	436	0	414	52	0
1	A12	436	0	414	49	0
1	A13	436	0	414	49	0
1	A2	436	0	414	48	0
1	A3	436	0	414	49	0
1	A4	436	0	414	48	0
1	A5	436	0	414	48	0
1	A6	436	0	414	50	0
1	A7	436	0	414	48	0
1	A8	436	0	414	49	0
1	A9	436	0	414	51	0
1	B1	498	0	478	54	0
1	B10	498	0	478	56	0
1	B11	498	0	478	55	0
1	B12	498	0	478	54	0
1	B13	498	0	478	54	0
1	B2	498	0	478	54	0
1	B3	498	0	478	54	0
1	B4	498	0	478	54	0
1	B5	498	0	478	56	0
1	B6	498	0	478	56	0
1	B7	498	0	478	55	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B8	498	0	478	54	0
1	B9	498	0	478	53	0
2	C1	1654	0	1664	65	0
2	C10	1654	0	1664	64	0
2	C11	1654	0	1664	69	0
2	C12	1654	0	1664	65	0
2	C13	1654	0	1664	68	0
2	C2	1654	0	1664	71	0
2	C3	1654	0	1664	68	0
2	C4	1654	0	1664	64	0
2	C5	1654	0	1664	67	0
2	C6	1654	0	1664	66	0
2	C7	1654	0	1664	67	0
2	C8	1654	0	1664	66	0
2	C9	1654	0	1664	68	0
2	D1	1654	0	1664	86	0
2	D10	1654	0	1664	86	0
2	D11	1654	0	1664	87	0
2	D12	1654	0	1664	86	0
2	D13	1654	0	1664	87	0
2	D2	1654	0	1664	82	0
2	D3	1654	0	1664	83	0
2	D4	1654	0	1664	83	0
2	D5	1654	0	1664	87	0
2	D6	1654	0	1664	85	0
2	D7	1654	0	1664	89	0
2	D8	1654	0	1664	85	0
2	D9	1654	0	1664	84	0
3	E1	87	0	77	8	0
3	E10	87	0	77	7	0
3	E11	87	0	77	9	0
3	E12	87	0	77	8	0
3	E13	87	0	77	9	0
3	E2	87	0	77	7	0
3	E3	87	0	77	9	0
3	E4	87	0	77	9	0
3	E5	87	0	77	8	0
3	E6	87	0	77	9	0
3	E7	87	0	77	8	0
3	E8	87	0	77	8	0
3	E9	87	0	77	8	0
3	F1	87	0	77	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	F10	87	0	77	3	0
3	F11	87	0	77	3	0
3	F12	87	0	77	3	0
3	F13	87	0	77	3	0
3	F2	87	0	77	3	0
3	F3	87	0	77	3	0
3	F4	87	0	77	3	0
3	F5	87	0	77	3	0
3	F6	87	0	77	3	0
3	F7	87	0	77	3	0
3	F8	87	0	77	3	0
3	F9	87	0	77	3	0
All	All	57408	0	56862	2216	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 19.

The worst 5 of 2216 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)
1:B6:98:VAL:HG22	2:D7:208:TRP:CD1	1.71	1.26
1:B10:98:VAL:HG22	2:D11:208:TRP:CD1	1.71	1.26
1:B11:98:VAL:HG22	2:D12:208:TRP:CD1	1.71	1.26
1:B7:98:VAL:HG22	2:D8:208:TRP:CD1	1.71	1.26
1:B2:98:VAL:HG22	2:D3:208:TRP:CD1	1.71	1.26

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	A1	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A10	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A11	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A12	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A13	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A2	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A3	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A4	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A5	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A6	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A7	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A8	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	A9	53/204 (26%)	47 (89%)	6 (11%)	0	100	100
1	B1	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B10	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B11	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B12	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B13	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B2	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B3	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B4	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B5	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B6	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B7	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B8	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
1	B9	61/204 (30%)	56 (92%)	4 (7%)	1 (2%)	9	37
2	C1	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C10	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C11	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C12	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C13	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C2	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	C3	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C4	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C5	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C6	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C7	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C8	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	C9	215/246 (87%)	208 (97%)	6 (3%)	1 (0%)	29	61
2	D1	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D10	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D11	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D12	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D13	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D2	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D3	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D4	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D5	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D6	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D7	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D8	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
2	D9	215/246 (87%)	205 (95%)	9 (4%)	1 (0%)	29	61
3	E1	9/453 (2%)	9 (100%)	0	0	100	100
3	E10	9/453 (2%)	9 (100%)	0	0	100	100
3	E11	9/453 (2%)	9 (100%)	0	0	100	100
3	E12	9/453 (2%)	9 (100%)	0	0	100	100
3	E13	9/453 (2%)	9 (100%)	0	0	100	100
3	E2	9/453 (2%)	9 (100%)	0	0	100	100
3	E3	9/453 (2%)	9 (100%)	0	0	100	100
3	E4	9/453 (2%)	9 (100%)	0	0	100	100
3	E5	9/453 (2%)	9 (100%)	0	0	100	100
3	E6	9/453 (2%)	9 (100%)	0	0	100	100
3	E7	9/453 (2%)	9 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	E8	9/453 (2%)	9 (100%)	0	0	100	100
3	E9	9/453 (2%)	9 (100%)	0	0	100	100
3	F1	9/453 (2%)	9 (100%)	0	0	100	100
3	F10	9/453 (2%)	9 (100%)	0	0	100	100
3	F11	9/453 (2%)	9 (100%)	0	0	100	100
3	F12	9/453 (2%)	9 (100%)	0	0	100	100
3	F13	9/453 (2%)	9 (100%)	0	0	100	100
3	F2	9/453 (2%)	9 (100%)	0	0	100	100
3	F3	9/453 (2%)	9 (100%)	0	0	100	100
3	F4	9/453 (2%)	9 (100%)	0	0	100	100
3	F5	9/453 (2%)	9 (100%)	0	0	100	100
3	F6	9/453 (2%)	9 (100%)	0	0	100	100
3	F7	9/453 (2%)	9 (100%)	0	0	100	100
3	F8	9/453 (2%)	9 (100%)	0	0	100	100
3	F9	9/453 (2%)	9 (100%)	0	0	100	100
All	All	7306/23478 (31%)	6942 (95%)	325 (4%)	39 (0%)	32	61

5 of 39 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C1	169	PRO
2	C2	169	PRO
2	C3	169	PRO
2	C4	169	PRO
2	C5	169	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	A1	48/168 (29%)	47 (98%)	1 (2%)	53	76

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A10	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A11	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A12	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A13	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A2	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A3	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A4	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A5	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A6	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A7	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A8	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	A9	48/168 (29%)	47 (98%)	1 (2%)	53	76
1	B1	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B10	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B11	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B12	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B13	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B2	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B3	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B4	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B5	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B6	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B7	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B8	56/168 (33%)	55 (98%)	1 (2%)	59	79
1	B9	56/168 (33%)	55 (98%)	1 (2%)	59	79
2	C1	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C10	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C11	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C12	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C13	173/195 (89%)	170 (98%)	3 (2%)	60	79
2	C2	173/195 (89%)	171 (99%)	2 (1%)	71	84

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	C3	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C4	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C5	173/195 (89%)	170 (98%)	3 (2%)	60	79
2	C6	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C7	173/195 (89%)	170 (98%)	3 (2%)	60	79
2	C8	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	C9	173/195 (89%)	171 (99%)	2 (1%)	71	84
2	D1	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D10	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D11	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D12	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D13	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D2	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D3	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D4	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D5	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D6	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D7	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D8	173/195 (89%)	168 (97%)	5 (3%)	42	70
2	D9	173/195 (89%)	168 (97%)	5 (3%)	42	70
3	E1	10/353 (3%)	10 (100%)	0	100	100
3	E10	10/353 (3%)	10 (100%)	0	100	100
3	E11	10/353 (3%)	10 (100%)	0	100	100
3	E12	10/353 (3%)	10 (100%)	0	100	100
3	E13	10/353 (3%)	10 (100%)	0	100	100
3	E2	10/353 (3%)	10 (100%)	0	100	100
3	E3	10/353 (3%)	10 (100%)	0	100	100
3	E4	10/353 (3%)	10 (100%)	0	100	100
3	E5	10/353 (3%)	10 (100%)	0	100	100
3	E6	10/353 (3%)	10 (100%)	0	100	100
3	E7	10/353 (3%)	10 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	E8	10/353 (3%)	10 (100%)	0	100	100
3	E9	10/353 (3%)	10 (100%)	0	100	100
3	F1	10/353 (3%)	10 (100%)	0	100	100
3	F10	10/353 (3%)	10 (100%)	0	100	100
3	F11	10/353 (3%)	10 (100%)	0	100	100
3	F12	10/353 (3%)	10 (100%)	0	100	100
3	F13	10/353 (3%)	10 (100%)	0	100	100
3	F2	10/353 (3%)	10 (100%)	0	100	100
3	F3	10/353 (3%)	10 (100%)	0	100	100
3	F4	10/353 (3%)	10 (100%)	0	100	100
3	F5	10/353 (3%)	10 (100%)	0	100	100
3	F6	10/353 (3%)	10 (100%)	0	100	100
3	F7	10/353 (3%)	10 (100%)	0	100	100
3	F8	10/353 (3%)	10 (100%)	0	100	100
3	F9	10/353 (3%)	10 (100%)	0	100	100
All	All	6110/18616 (33%)	5990 (98%)	120 (2%)	57	77

5 of 120 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	D1	225	MET
2	D12	73	THR
2	D4	186	ARG
2	D11	240	GLU
2	D13	230	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 65 such sidechains are listed below:

Mol	Chain	Res	Type
2	D7	98	GLN
2	D8	37	GLN
2	C4	37	GLN
2	C3	222	GLN
2	D8	98	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

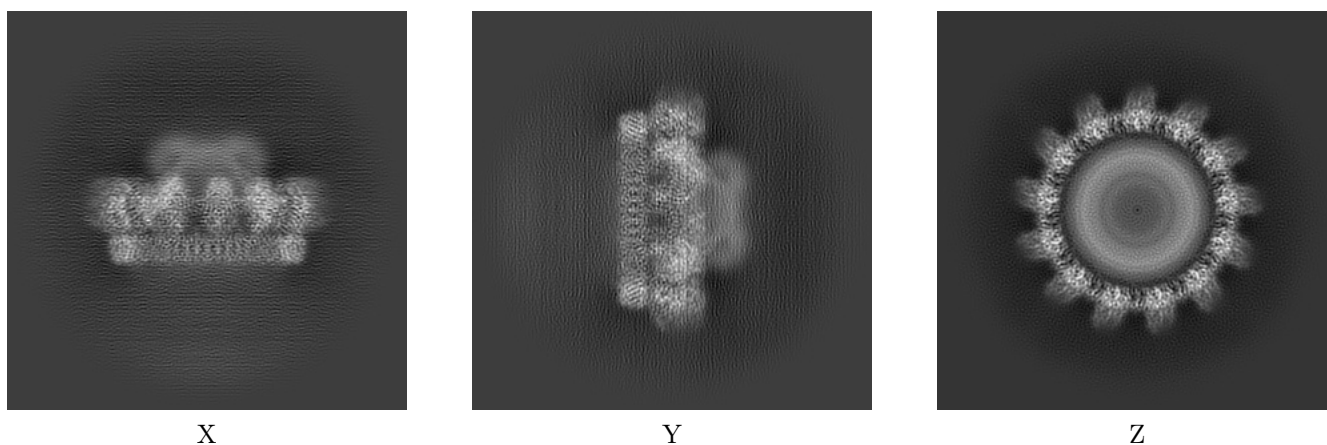
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-24769. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

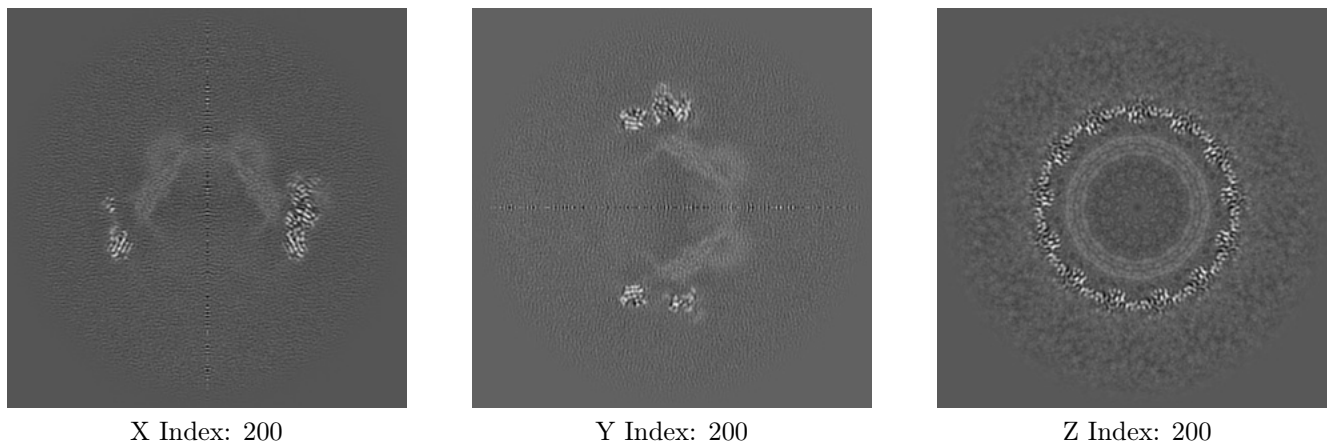
6.1.1 Primary map



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

6.2 Central slices [i](#)

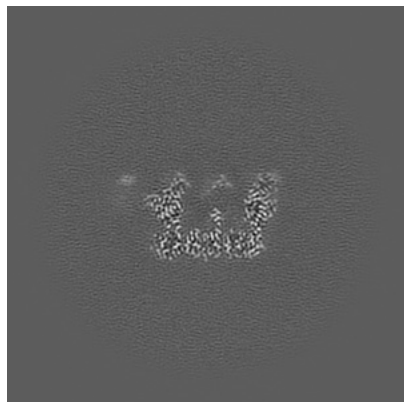
6.2.1 Primary map



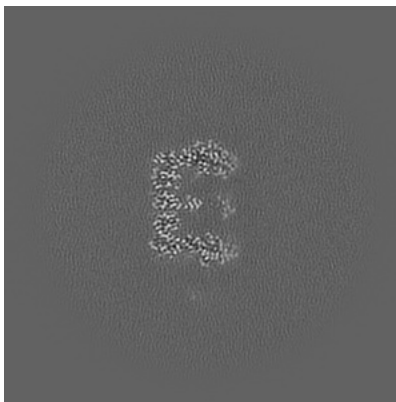
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

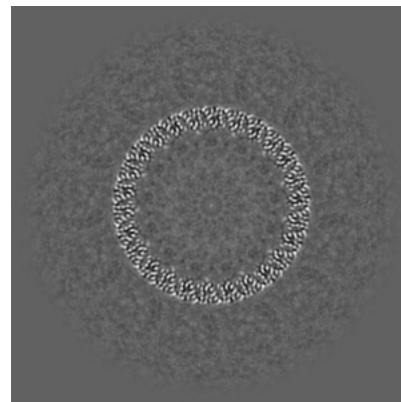
6.3.1 Primary map



X Index: 282



Y Index: 283

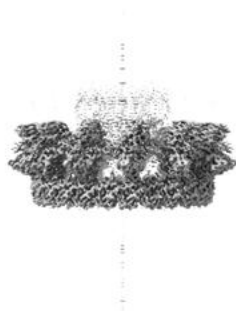


Z Index: 167

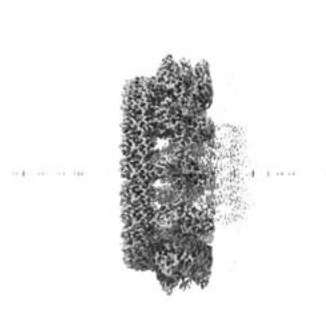
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

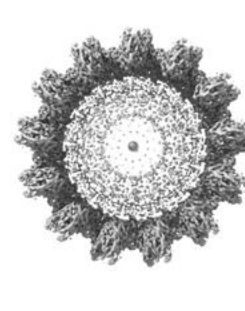
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.35. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

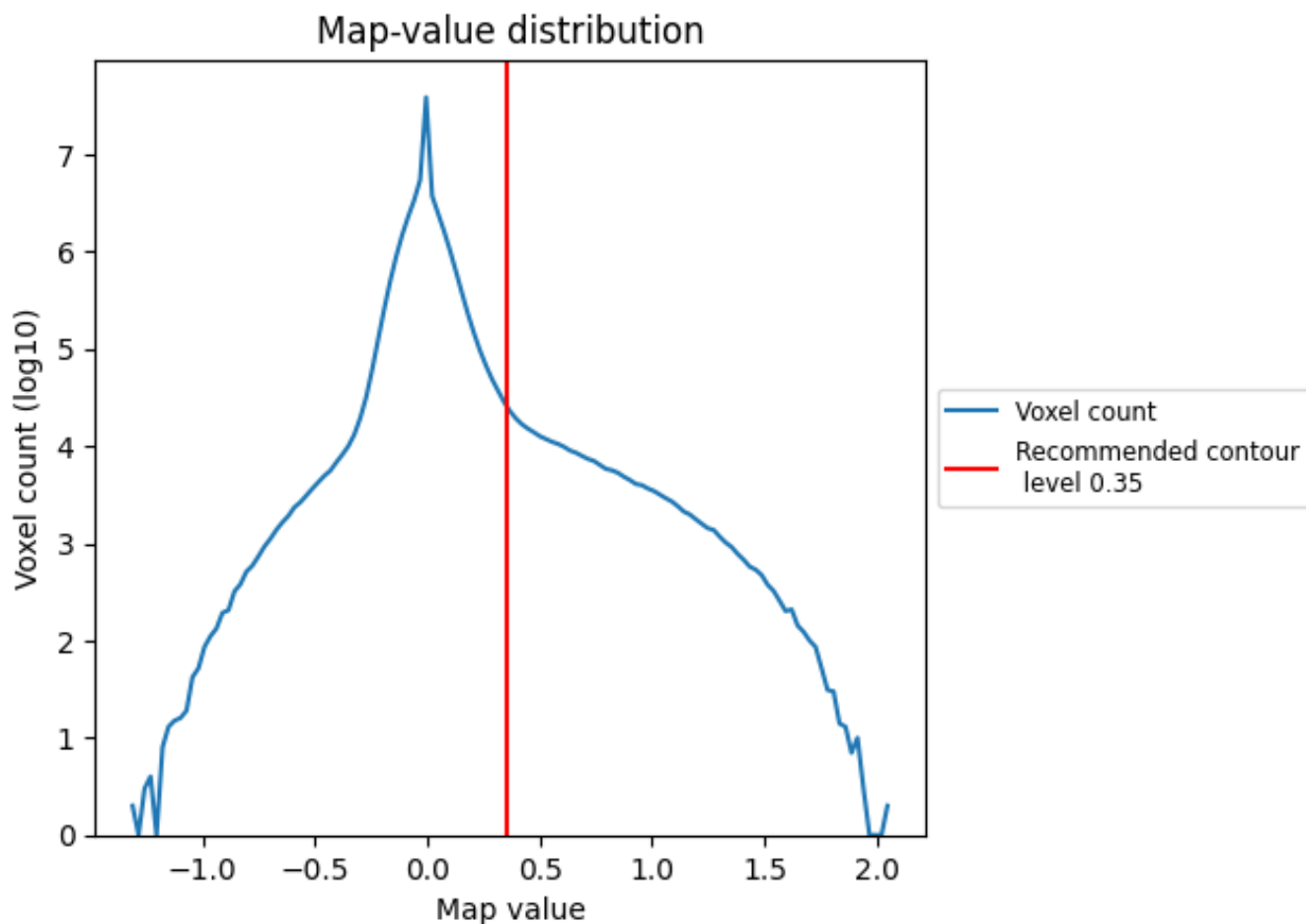
6.5 Mask visualisation

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

7 Map analysis [i](#)

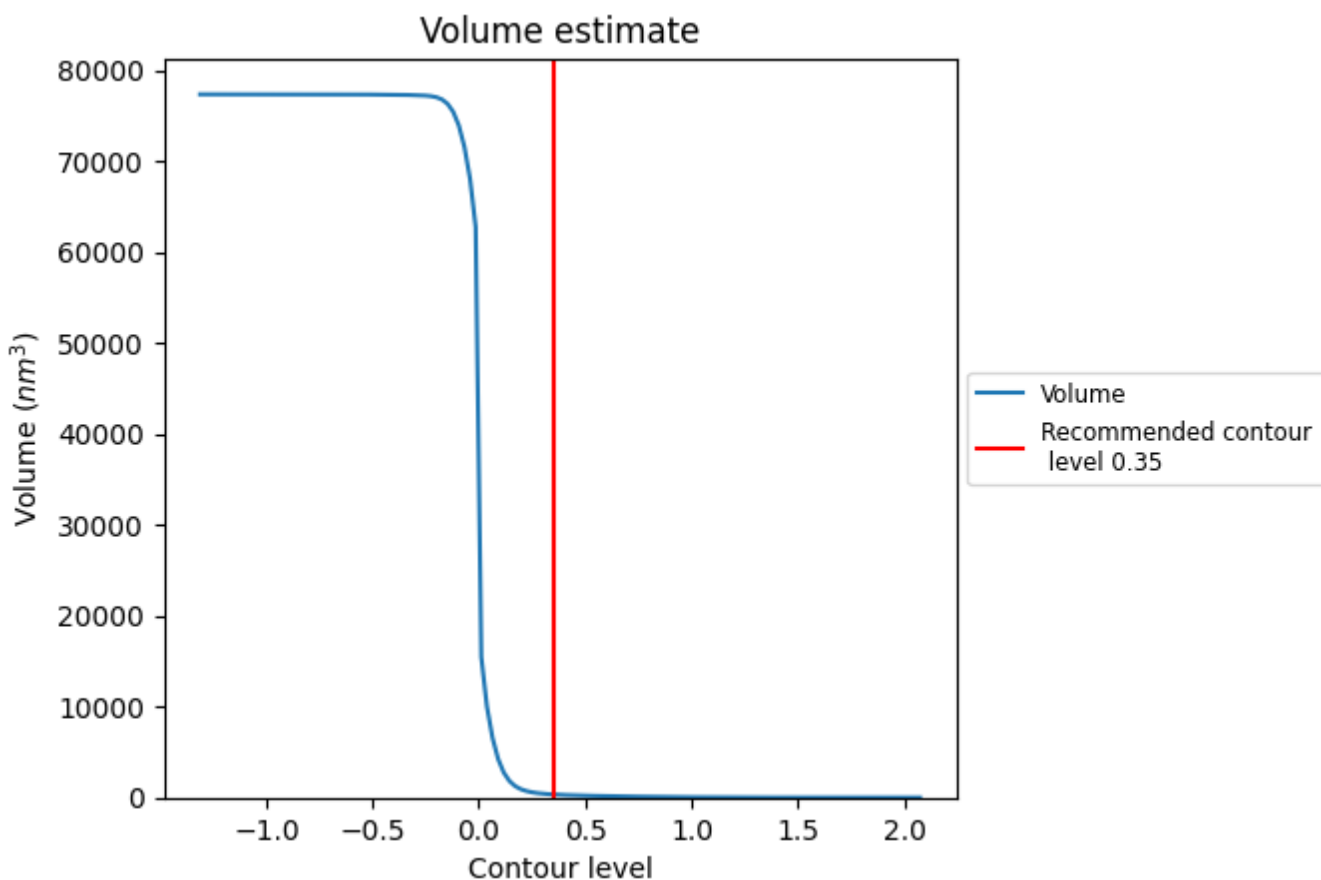
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

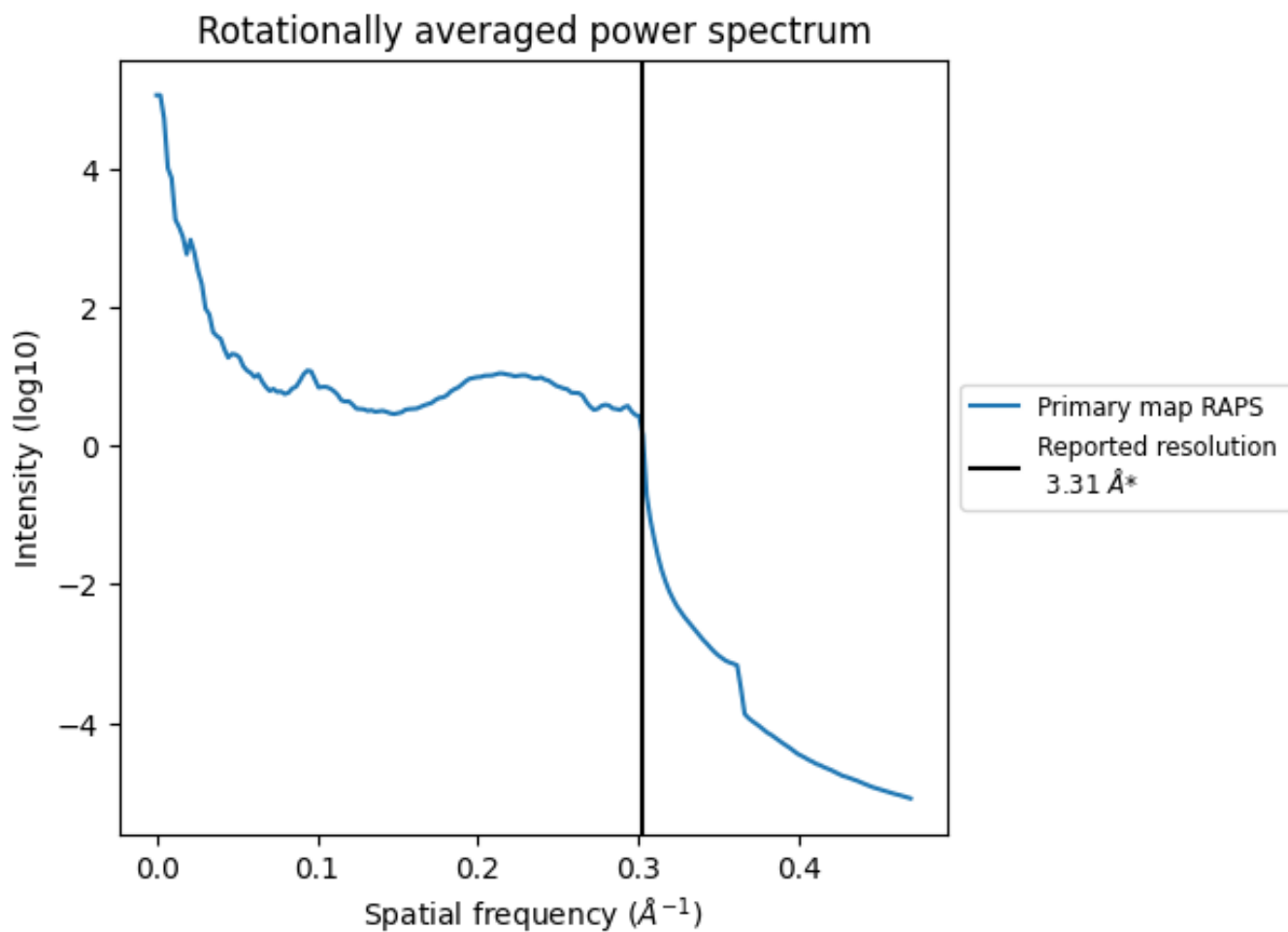
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 339 nm³; this corresponds to an approximate mass of 306 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 0.302\AA^{-1}

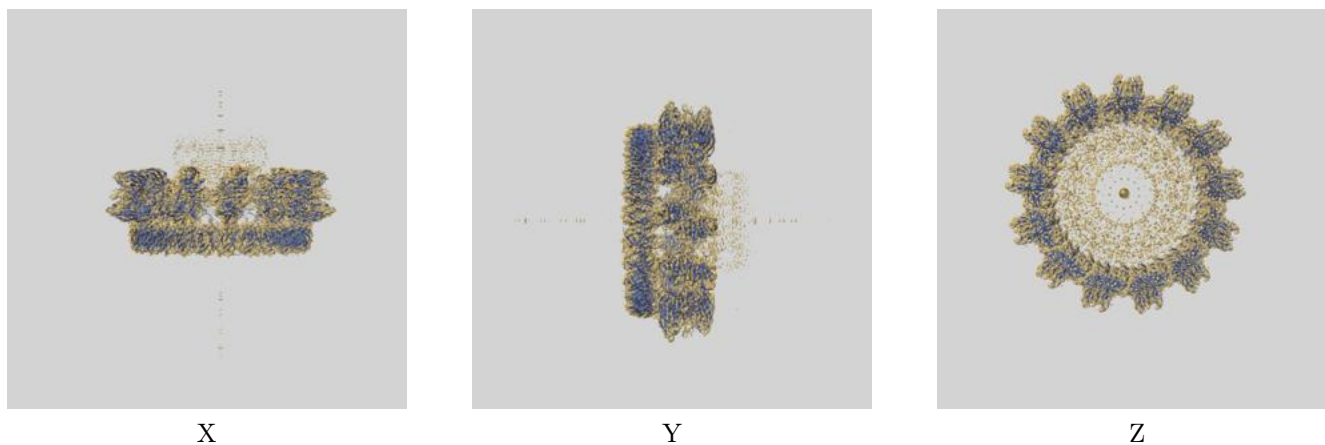
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-24769 and PDB model 7SPB. Per-residue inclusion information can be found in section 3 on page 11.

9.1 Map-model overlay [i](#)

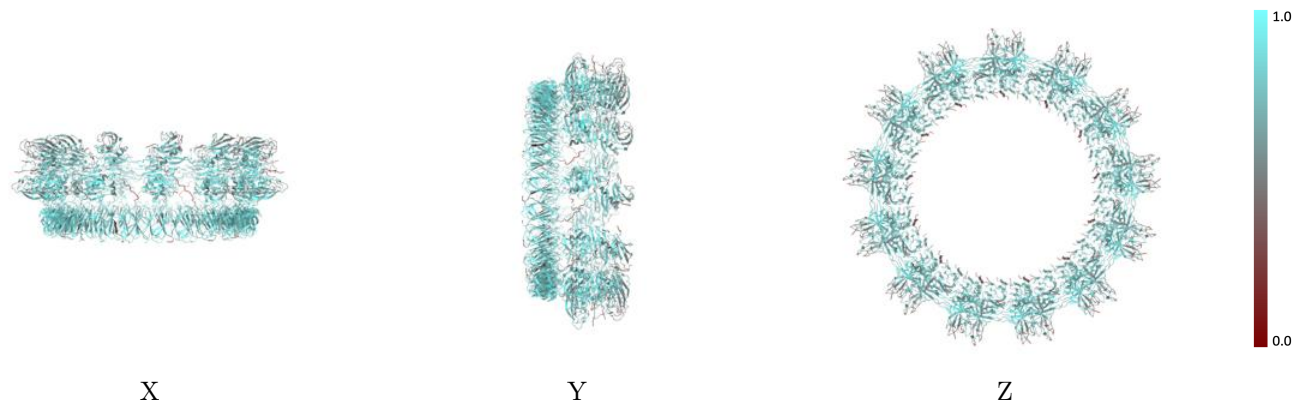


The images above show the 3D surface view of the map at the recommended contour level 0.35 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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

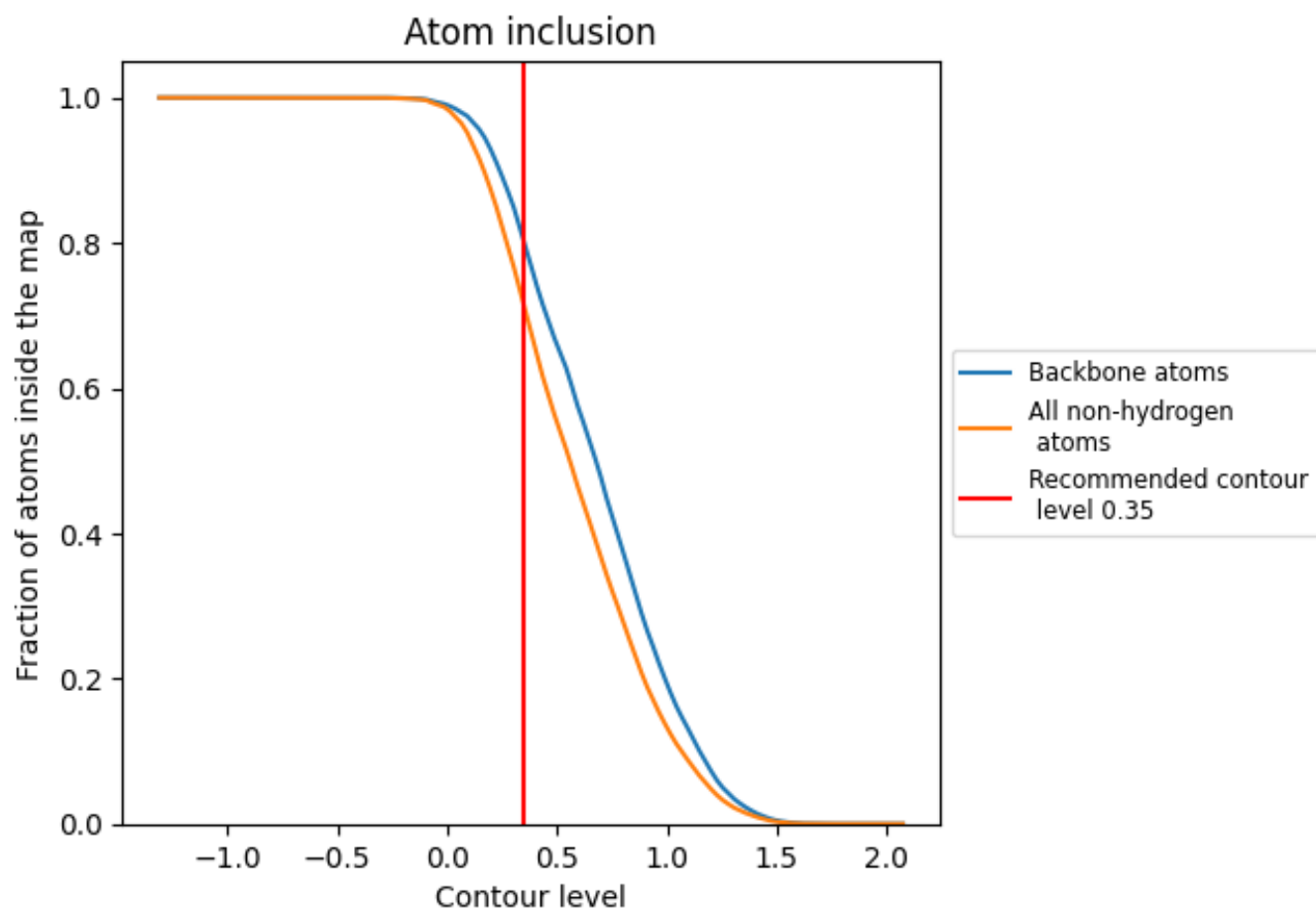
This section was not generated.

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.35).




































9.4 Atom inclusion [i](#)



At the recommended contour level, 80% of all backbone atoms, 71% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary











































The table lists the average atom inclusion at the recommended contour level (0.35) and Q-score for the entire model and for each chain.

Chain	Atom inclusion
All	 0.7126
A1	 0.7045
A10	 0.7021
A11	 0.7069
A12	 0.7116
A13	 0.7069
A2	 0.7069
A3	 0.7069
A4	 0.7069
A5	 0.7021
A6	 0.6998
A7	 0.7116
A8	 0.7092
A9	 0.7116
B1	 0.7010
B10	 0.7093
B11	 0.7134
B12	 0.7093
B13	 0.7155
B2	 0.7113
B3	 0.7093
B4	 0.7072
B5	 0.7052
B6	 0.7113
B7	 0.7113
B8	 0.7093
B9	 0.7031
C1	 0.7795
C10	 0.7807
C11	 0.7814
C12	 0.7801
C13	 0.7776
C2	 0.7795
C3	 0.7776
C4	 0.7795





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Chain	Atom inclusion
C5	 0.7826
C6	 0.7795
C7	 0.7789
C8	 0.7764
C9	 0.7783
D1	 0.6733
D10	 0.6752
D11	 0.6795
D12	 0.6702
D13	 0.6770
D2	 0.6814
D3	 0.6795
D4	 0.6770
D5	 0.6764
D6	 0.6832
D7	 0.6807
D8	 0.6776
D9	 0.6776
E1	 0.2235
E10	 0.2353
E11	 0.2118
E12	 0.2118
E13	 0.2471
E2	 0.2353
E3	 0.2235
E4	 0.2353
E5	 0.2235
E6	 0.2235
E7	 0.2353
E8	 0.2353
E9	 0.2235
F1	 0.6353
F10	 0.6471
F11	 0.6471
F12	 0.6353
F13	 0.6471
F2	 0.6471
F3	 0.6471
F4	 0.6471
F5	 0.6588
F6	 0.6471
F7	 0.6353

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Chain	Atom inclusion
F8	 0.6353
F9	 0.6471