



Full wwPDB EM Validation Report ⓘ

Jun 4, 2024 – 02:58 AM EDT

PDB ID : 7RL1
EMDB ID : EMD-24513
Title : AAVrh.10-7x capsid
Authors : Mietzsch, M.; McKenna, R.
Deposited on : 2021-07-23
Resolution : 2.71 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.dev92
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36.2

1 Overall quality at a glance i

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

The reported resolution of this entry is 2.71 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	1	519	100%
1	2	519	100%
1	3	519	100%
1	4	519	100%
1	5	519	100%
1	6	519	100%
1	7	519	100%
1	8	519	100%
1	A	519	100%

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Mol	Chain	Length	Quality of chain
1	B	519	100%
1	C	519	100%
1	D	519	100%
1	E	519	100%
1	F	519	100%
1	G	519	100%
1	H	519	100%
1	I	519	100%
1	J	519	100%
1	K	519	100%
1	L	519	100%
1	M	519	100%
1	N	519	100%
1	O	519	100%
1	P	519	100%
1	Q	519	100%
1	R	519	100%
1	S	519	100%
1	T	519	100%
1	U	519	100%
1	V	519	100%
1	W	519	100%
1	X	519	100%
1	Y	519	100%
1	Z	519	100%

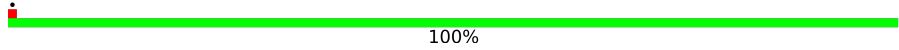
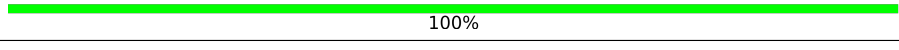
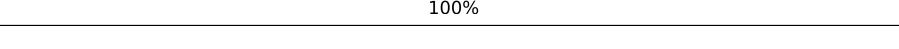
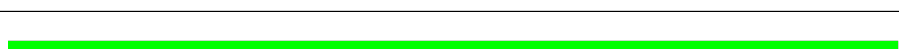

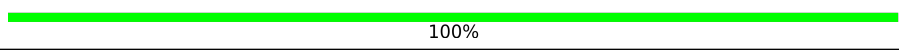
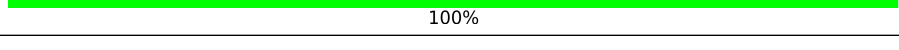
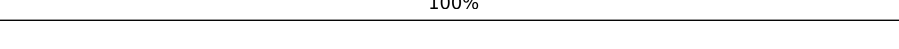


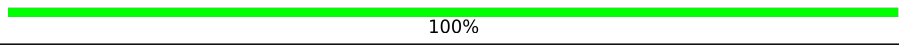
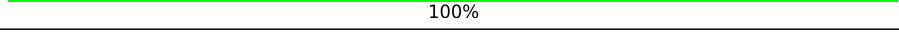
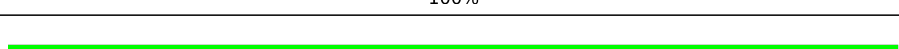
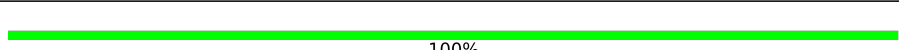
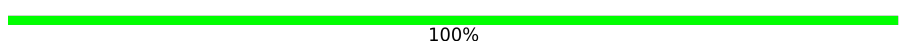
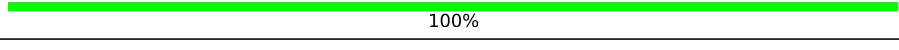
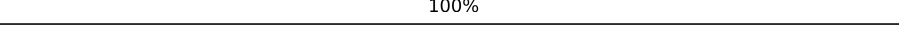

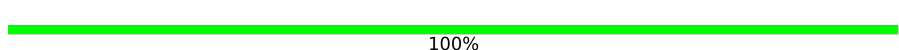
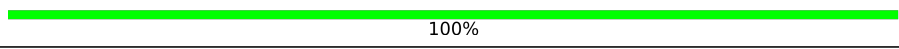
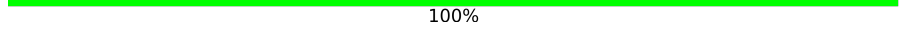



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Mol	Chain	Length	Quality of chain
1	a	519	100%
1	b	519	100%
1	c	519	100%
1	d	519	100%
1	e	519	100%
1	f	519	100%
1	g	519	100%
1	h	519	100%
1	i	519	100%
1	j	519	100%
1	k	519	100%
1	l	519	100%
1	m	519	100%
1	n	519	100%
1	o	519	100%
1	p	519	100%
1	q	519	100%
1	r	519	100%
1	s	519	100%
1	t	519	100%
1	u	519	100%
1	v	519	100%
1	w	519	100%
1	x	519	100%
1	y	519	100%


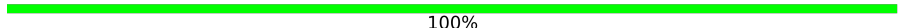
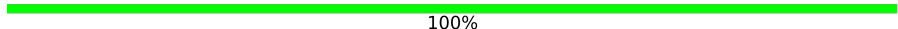
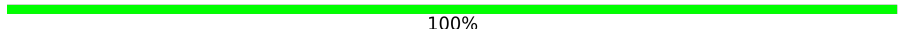
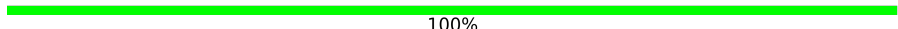

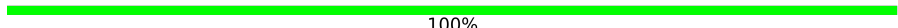


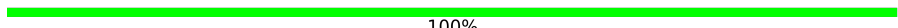
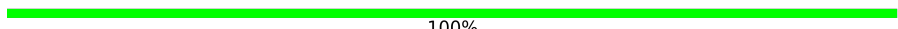
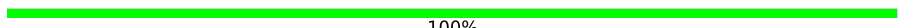
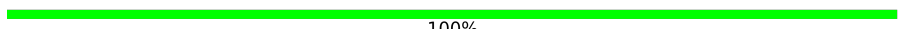
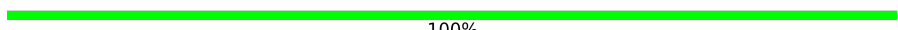
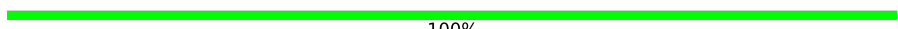
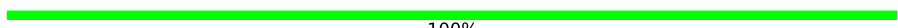
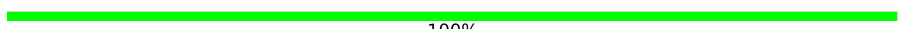
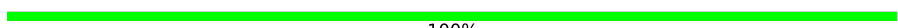
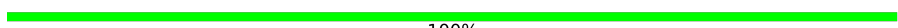
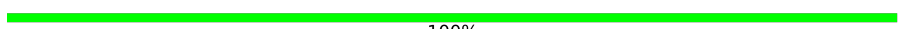
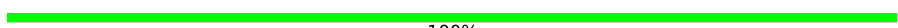

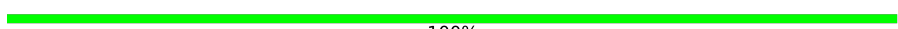


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Mol	Chain	Length	Quality of chain
1	z	519	 100%
2	0	2	 100%
2	0A	2	 100%
2	1A	2	 100%
2	2A	2	 100%
2	3A	2	 100%
2	4A	2	 100%
2	5A	2	 100%
2	9	2	 100%
2	AA	2	 100%
2	BA	2	 100%
2	CA	2	 100%
2	DA	2	 100%
2	EA	2	 100%
2	FA	2	 100%
2	GA	2	 100%
2	HA	2	 100%
2	IA	2	 100%
2	JA	2	 100%
2	KA	2	 100%
2	LA	2	 100%
2	MA	2	 100%
2	NA	2	 100%
2	OA	2	 100%
2	PA	2	100%

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Mol	Chain	Length	Quality of chain
2	QA	2	 100%
2	RA	2	 100%
2	SA	2	 100%
2	TA	2	 100%
2	UA	2	 100%
2	VA	2	 100%
2	WA	2	 100%
2	XA	2	 100%
2	YA	2	 100%
2	ZA	2	 100%
2	aA	2	 100%
2	bA	2	 100%
2	cA	2	 100%
2	dA	2	 100%
2	eA	2	 100%
2	fA	2	 100%
2	gA	2	 100%
2	hA	2	 100%
2	iA	2	 100%
2	jA	2	 100%
2	kA	2	 100%
2	lA	2	 100%
2	mA	2	 100%
2	nA	2	 100%
2	oA	2	 100%

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Mol	Chain	Length	Quality of chain
2	pA	2	 100%
2	qA	2	 100%
2	rA	2	 100%
2	sA	2	 100%
2	tA	2	 100%
2	uA	2	 100%
2	vA	2	 100%
2	wA	2	 100%
2	xA	2	 100%
2	yA	2	 100%
2	zA	2	 100%

2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 249480 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 Capsid protein VP1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	519	4121	2606	711	790	14	0	0
1	B	519	4121	2606	711	790	14	0	0
1	C	519	4121	2606	711	790	14	0	0
1	D	519	4121	2606	711	790	14	0	0
1	E	519	4121	2606	711	790	14	0	0
1	F	519	4121	2606	711	790	14	0	0
1	G	519	4121	2606	711	790	14	0	0
1	H	519	4121	2606	711	790	14	0	0
1	I	519	4121	2606	711	790	14	0	0
1	J	519	4121	2606	711	790	14	0	0
1	K	519	4121	2606	711	790	14	0	0
1	L	519	4121	2606	711	790	14	0	0
1	M	519	4121	2606	711	790	14	0	0
1	N	519	4121	2606	711	790	14	0	0
1	O	519	4121	2606	711	790	14	0	0
1	P	519	4121	2606	711	790	14	0	0
1	Q	519	4121	2606	711	790	14	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	S	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	T	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	U	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	V	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	W	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	X	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	Y	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	Z	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	a	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	b	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	c	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	d	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	e	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	f	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	g	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	h	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	i	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	j	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	k	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	l	519	Total 4121	C 2606	N 711	O 790	S 14	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	m	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	n	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	o	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	p	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	q	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	r	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	s	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	t	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	u	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	v	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	w	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	x	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	y	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	z	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	1	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	2	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	3	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	4	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	5	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	6	519	Total 4121	C 2606	N 711	O 790	S 14	0	0
1	7	519	Total 4121	C 2606	N 711	O 790	S 14	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	8	519	4121	2606	711	790	14	0	0

There are 600 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	365	LEU	PRO	conflict	UNP Q6JC62
A	387	ALA	SER	conflict	UNP Q6JC62
A	406	LEU	ARG	conflict	UNP Q6JC62
A	?	-	SER	deletion	UNP Q6JC62
A	558	ALA	SER	conflict	UNP Q6JC62
A	588	ASN	GLN	conflict	UNP Q6JC62
A	589	SER	ASN	conflict	UNP Q6JC62
A	591	GLN	ALA	conflict	UNP Q6JC62
A	718	VAL	THR	conflict	UNP Q6JC62
A	719	ASP	GLU	conflict	UNP Q6JC62
B	365	LEU	PRO	conflict	UNP Q6JC62
B	387	ALA	SER	conflict	UNP Q6JC62
B	406	LEU	ARG	conflict	UNP Q6JC62
B	?	-	SER	deletion	UNP Q6JC62
B	558	ALA	SER	conflict	UNP Q6JC62
B	588	ASN	GLN	conflict	UNP Q6JC62
B	589	SER	ASN	conflict	UNP Q6JC62
B	591	GLN	ALA	conflict	UNP Q6JC62
B	718	VAL	THR	conflict	UNP Q6JC62
B	719	ASP	GLU	conflict	UNP Q6JC62
C	365	LEU	PRO	conflict	UNP Q6JC62
C	387	ALA	SER	conflict	UNP Q6JC62
C	406	LEU	ARG	conflict	UNP Q6JC62
C	?	-	SER	deletion	UNP Q6JC62
C	558	ALA	SER	conflict	UNP Q6JC62
C	588	ASN	GLN	conflict	UNP Q6JC62
C	589	SER	ASN	conflict	UNP Q6JC62
C	591	GLN	ALA	conflict	UNP Q6JC62
C	718	VAL	THR	conflict	UNP Q6JC62
C	719	ASP	GLU	conflict	UNP Q6JC62
D	365	LEU	PRO	conflict	UNP Q6JC62
D	387	ALA	SER	conflict	UNP Q6JC62
D	406	LEU	ARG	conflict	UNP Q6JC62
D	?	-	SER	deletion	UNP Q6JC62
D	558	ALA	SER	conflict	UNP Q6JC62
D	588	ASN	GLN	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
D	589	SER	ASN	conflict	UNP Q6JC62
D	591	GLN	ALA	conflict	UNP Q6JC62
D	718	VAL	THR	conflict	UNP Q6JC62
D	719	ASP	GLU	conflict	UNP Q6JC62
E	365	LEU	PRO	conflict	UNP Q6JC62
E	387	ALA	SER	conflict	UNP Q6JC62
E	406	LEU	ARG	conflict	UNP Q6JC62
E	?	-	SER	deletion	UNP Q6JC62
E	558	ALA	SER	conflict	UNP Q6JC62
E	588	ASN	GLN	conflict	UNP Q6JC62
E	589	SER	ASN	conflict	UNP Q6JC62
E	591	GLN	ALA	conflict	UNP Q6JC62
E	718	VAL	THR	conflict	UNP Q6JC62
E	719	ASP	GLU	conflict	UNP Q6JC62
F	365	LEU	PRO	conflict	UNP Q6JC62
F	387	ALA	SER	conflict	UNP Q6JC62
F	406	LEU	ARG	conflict	UNP Q6JC62
F	?	-	SER	deletion	UNP Q6JC62
F	558	ALA	SER	conflict	UNP Q6JC62
F	588	ASN	GLN	conflict	UNP Q6JC62
F	589	SER	ASN	conflict	UNP Q6JC62
F	591	GLN	ALA	conflict	UNP Q6JC62
F	718	VAL	THR	conflict	UNP Q6JC62
F	719	ASP	GLU	conflict	UNP Q6JC62
G	365	LEU	PRO	conflict	UNP Q6JC62
G	387	ALA	SER	conflict	UNP Q6JC62
G	406	LEU	ARG	conflict	UNP Q6JC62
G	?	-	SER	deletion	UNP Q6JC62
G	558	ALA	SER	conflict	UNP Q6JC62
G	588	ASN	GLN	conflict	UNP Q6JC62
G	589	SER	ASN	conflict	UNP Q6JC62
G	591	GLN	ALA	conflict	UNP Q6JC62
G	718	VAL	THR	conflict	UNP Q6JC62
G	719	ASP	GLU	conflict	UNP Q6JC62
H	365	LEU	PRO	conflict	UNP Q6JC62
H	387	ALA	SER	conflict	UNP Q6JC62
H	406	LEU	ARG	conflict	UNP Q6JC62
H	?	-	SER	deletion	UNP Q6JC62
H	558	ALA	SER	conflict	UNP Q6JC62
H	588	ASN	GLN	conflict	UNP Q6JC62
H	589	SER	ASN	conflict	UNP Q6JC62
H	591	GLN	ALA	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
H	718	VAL	THR	conflict	UNP Q6JC62
H	719	ASP	GLU	conflict	UNP Q6JC62
I	365	LEU	PRO	conflict	UNP Q6JC62
I	387	ALA	SER	conflict	UNP Q6JC62
I	406	LEU	ARG	conflict	UNP Q6JC62
I	?	-	SER	deletion	UNP Q6JC62
I	558	ALA	SER	conflict	UNP Q6JC62
I	588	ASN	GLN	conflict	UNP Q6JC62
I	589	SER	ASN	conflict	UNP Q6JC62
I	591	GLN	ALA	conflict	UNP Q6JC62
I	718	VAL	THR	conflict	UNP Q6JC62
I	719	ASP	GLU	conflict	UNP Q6JC62
J	365	LEU	PRO	conflict	UNP Q6JC62
J	387	ALA	SER	conflict	UNP Q6JC62
J	406	LEU	ARG	conflict	UNP Q6JC62
J	?	-	SER	deletion	UNP Q6JC62
J	558	ALA	SER	conflict	UNP Q6JC62
J	588	ASN	GLN	conflict	UNP Q6JC62
J	589	SER	ASN	conflict	UNP Q6JC62
J	591	GLN	ALA	conflict	UNP Q6JC62
J	718	VAL	THR	conflict	UNP Q6JC62
J	719	ASP	GLU	conflict	UNP Q6JC62
K	365	LEU	PRO	conflict	UNP Q6JC62
K	387	ALA	SER	conflict	UNP Q6JC62
K	406	LEU	ARG	conflict	UNP Q6JC62
K	?	-	SER	deletion	UNP Q6JC62
K	558	ALA	SER	conflict	UNP Q6JC62
K	588	ASN	GLN	conflict	UNP Q6JC62
K	589	SER	ASN	conflict	UNP Q6JC62
K	591	GLN	ALA	conflict	UNP Q6JC62
K	718	VAL	THR	conflict	UNP Q6JC62
K	719	ASP	GLU	conflict	UNP Q6JC62
L	365	LEU	PRO	conflict	UNP Q6JC62
L	387	ALA	SER	conflict	UNP Q6JC62
L	406	LEU	ARG	conflict	UNP Q6JC62
L	?	-	SER	deletion	UNP Q6JC62
L	558	ALA	SER	conflict	UNP Q6JC62
L	588	ASN	GLN	conflict	UNP Q6JC62
L	589	SER	ASN	conflict	UNP Q6JC62
L	591	GLN	ALA	conflict	UNP Q6JC62
L	718	VAL	THR	conflict	UNP Q6JC62
L	719	ASP	GLU	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
M	365	LEU	PRO	conflict	UNP Q6JC62
M	387	ALA	SER	conflict	UNP Q6JC62
M	406	LEU	ARG	conflict	UNP Q6JC62
M	?	-	SER	deletion	UNP Q6JC62
M	558	ALA	SER	conflict	UNP Q6JC62
M	588	ASN	GLN	conflict	UNP Q6JC62
M	589	SER	ASN	conflict	UNP Q6JC62
M	591	GLN	ALA	conflict	UNP Q6JC62
M	718	VAL	THR	conflict	UNP Q6JC62
M	719	ASP	GLU	conflict	UNP Q6JC62
N	365	LEU	PRO	conflict	UNP Q6JC62
N	387	ALA	SER	conflict	UNP Q6JC62
N	406	LEU	ARG	conflict	UNP Q6JC62
N	?	-	SER	deletion	UNP Q6JC62
N	558	ALA	SER	conflict	UNP Q6JC62
N	588	ASN	GLN	conflict	UNP Q6JC62
N	589	SER	ASN	conflict	UNP Q6JC62
N	591	GLN	ALA	conflict	UNP Q6JC62
N	718	VAL	THR	conflict	UNP Q6JC62
N	719	ASP	GLU	conflict	UNP Q6JC62
O	365	LEU	PRO	conflict	UNP Q6JC62
O	387	ALA	SER	conflict	UNP Q6JC62
O	406	LEU	ARG	conflict	UNP Q6JC62
O	?	-	SER	deletion	UNP Q6JC62
O	558	ALA	SER	conflict	UNP Q6JC62
O	588	ASN	GLN	conflict	UNP Q6JC62
O	589	SER	ASN	conflict	UNP Q6JC62
O	591	GLN	ALA	conflict	UNP Q6JC62
O	718	VAL	THR	conflict	UNP Q6JC62
O	719	ASP	GLU	conflict	UNP Q6JC62
P	365	LEU	PRO	conflict	UNP Q6JC62
P	387	ALA	SER	conflict	UNP Q6JC62
P	406	LEU	ARG	conflict	UNP Q6JC62
P	?	-	SER	deletion	UNP Q6JC62
P	558	ALA	SER	conflict	UNP Q6JC62
P	588	ASN	GLN	conflict	UNP Q6JC62
P	589	SER	ASN	conflict	UNP Q6JC62
P	591	GLN	ALA	conflict	UNP Q6JC62
P	718	VAL	THR	conflict	UNP Q6JC62
P	719	ASP	GLU	conflict	UNP Q6JC62
Q	365	LEU	PRO	conflict	UNP Q6JC62
Q	387	ALA	SER	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
Q	406	LEU	ARG	conflict	UNP Q6JC62
Q	?	-	SER	deletion	UNP Q6JC62
Q	558	ALA	SER	conflict	UNP Q6JC62
Q	588	ASN	GLN	conflict	UNP Q6JC62
Q	589	SER	ASN	conflict	UNP Q6JC62
Q	591	GLN	ALA	conflict	UNP Q6JC62
Q	718	VAL	THR	conflict	UNP Q6JC62
Q	719	ASP	GLU	conflict	UNP Q6JC62
R	365	LEU	PRO	conflict	UNP Q6JC62
R	387	ALA	SER	conflict	UNP Q6JC62
R	406	LEU	ARG	conflict	UNP Q6JC62
R	?	-	SER	deletion	UNP Q6JC62
R	558	ALA	SER	conflict	UNP Q6JC62
R	588	ASN	GLN	conflict	UNP Q6JC62
R	589	SER	ASN	conflict	UNP Q6JC62
R	591	GLN	ALA	conflict	UNP Q6JC62
R	718	VAL	THR	conflict	UNP Q6JC62
R	719	ASP	GLU	conflict	UNP Q6JC62
S	365	LEU	PRO	conflict	UNP Q6JC62
S	387	ALA	SER	conflict	UNP Q6JC62
S	406	LEU	ARG	conflict	UNP Q6JC62
S	?	-	SER	deletion	UNP Q6JC62
S	558	ALA	SER	conflict	UNP Q6JC62
S	588	ASN	GLN	conflict	UNP Q6JC62
S	589	SER	ASN	conflict	UNP Q6JC62
S	591	GLN	ALA	conflict	UNP Q6JC62
S	718	VAL	THR	conflict	UNP Q6JC62
S	719	ASP	GLU	conflict	UNP Q6JC62
T	365	LEU	PRO	conflict	UNP Q6JC62
T	387	ALA	SER	conflict	UNP Q6JC62
T	406	LEU	ARG	conflict	UNP Q6JC62
T	?	-	SER	deletion	UNP Q6JC62
T	558	ALA	SER	conflict	UNP Q6JC62
T	588	ASN	GLN	conflict	UNP Q6JC62
T	589	SER	ASN	conflict	UNP Q6JC62
T	591	GLN	ALA	conflict	UNP Q6JC62
T	718	VAL	THR	conflict	UNP Q6JC62
T	719	ASP	GLU	conflict	UNP Q6JC62
U	365	LEU	PRO	conflict	UNP Q6JC62
U	387	ALA	SER	conflict	UNP Q6JC62
U	406	LEU	ARG	conflict	UNP Q6JC62
U	?	-	SER	deletion	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
U	558	ALA	SER	conflict	UNP Q6JC62
U	588	ASN	GLN	conflict	UNP Q6JC62
U	589	SER	ASN	conflict	UNP Q6JC62
U	591	GLN	ALA	conflict	UNP Q6JC62
U	718	VAL	THR	conflict	UNP Q6JC62
U	719	ASP	GLU	conflict	UNP Q6JC62
V	365	LEU	PRO	conflict	UNP Q6JC62
V	387	ALA	SER	conflict	UNP Q6JC62
V	406	LEU	ARG	conflict	UNP Q6JC62
V	?	-	SER	deletion	UNP Q6JC62
V	558	ALA	SER	conflict	UNP Q6JC62
V	588	ASN	GLN	conflict	UNP Q6JC62
V	589	SER	ASN	conflict	UNP Q6JC62
V	591	GLN	ALA	conflict	UNP Q6JC62
V	718	VAL	THR	conflict	UNP Q6JC62
V	719	ASP	GLU	conflict	UNP Q6JC62
W	365	LEU	PRO	conflict	UNP Q6JC62
W	387	ALA	SER	conflict	UNP Q6JC62
W	406	LEU	ARG	conflict	UNP Q6JC62
W	?	-	SER	deletion	UNP Q6JC62
W	558	ALA	SER	conflict	UNP Q6JC62
W	588	ASN	GLN	conflict	UNP Q6JC62
W	589	SER	ASN	conflict	UNP Q6JC62
W	591	GLN	ALA	conflict	UNP Q6JC62
W	718	VAL	THR	conflict	UNP Q6JC62
W	719	ASP	GLU	conflict	UNP Q6JC62
X	365	LEU	PRO	conflict	UNP Q6JC62
X	387	ALA	SER	conflict	UNP Q6JC62
X	406	LEU	ARG	conflict	UNP Q6JC62
X	?	-	SER	deletion	UNP Q6JC62
X	558	ALA	SER	conflict	UNP Q6JC62
X	588	ASN	GLN	conflict	UNP Q6JC62
X	589	SER	ASN	conflict	UNP Q6JC62
X	591	GLN	ALA	conflict	UNP Q6JC62
X	718	VAL	THR	conflict	UNP Q6JC62
X	719	ASP	GLU	conflict	UNP Q6JC62
Y	365	LEU	PRO	conflict	UNP Q6JC62
Y	387	ALA	SER	conflict	UNP Q6JC62
Y	406	LEU	ARG	conflict	UNP Q6JC62
Y	?	-	SER	deletion	UNP Q6JC62
Y	558	ALA	SER	conflict	UNP Q6JC62
Y	588	ASN	GLN	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
Y	589	SER	ASN	conflict	UNP Q6JC62
Y	591	GLN	ALA	conflict	UNP Q6JC62
Y	718	VAL	THR	conflict	UNP Q6JC62
Y	719	ASP	GLU	conflict	UNP Q6JC62
Z	365	LEU	PRO	conflict	UNP Q6JC62
Z	387	ALA	SER	conflict	UNP Q6JC62
Z	406	LEU	ARG	conflict	UNP Q6JC62
Z	?	-	SER	deletion	UNP Q6JC62
Z	558	ALA	SER	conflict	UNP Q6JC62
Z	588	ASN	GLN	conflict	UNP Q6JC62
Z	589	SER	ASN	conflict	UNP Q6JC62
Z	591	GLN	ALA	conflict	UNP Q6JC62
Z	718	VAL	THR	conflict	UNP Q6JC62
Z	719	ASP	GLU	conflict	UNP Q6JC62
a	365	LEU	PRO	conflict	UNP Q6JC62
a	387	ALA	SER	conflict	UNP Q6JC62
a	406	LEU	ARG	conflict	UNP Q6JC62
a	?	-	SER	deletion	UNP Q6JC62
a	558	ALA	SER	conflict	UNP Q6JC62
a	588	ASN	GLN	conflict	UNP Q6JC62
a	589	SER	ASN	conflict	UNP Q6JC62
a	591	GLN	ALA	conflict	UNP Q6JC62
a	718	VAL	THR	conflict	UNP Q6JC62
a	719	ASP	GLU	conflict	UNP Q6JC62
b	365	LEU	PRO	conflict	UNP Q6JC62
b	387	ALA	SER	conflict	UNP Q6JC62
b	406	LEU	ARG	conflict	UNP Q6JC62
b	?	-	SER	deletion	UNP Q6JC62
b	558	ALA	SER	conflict	UNP Q6JC62
b	588	ASN	GLN	conflict	UNP Q6JC62
b	589	SER	ASN	conflict	UNP Q6JC62
b	591	GLN	ALA	conflict	UNP Q6JC62
b	718	VAL	THR	conflict	UNP Q6JC62
b	719	ASP	GLU	conflict	UNP Q6JC62
c	365	LEU	PRO	conflict	UNP Q6JC62
c	387	ALA	SER	conflict	UNP Q6JC62
c	406	LEU	ARG	conflict	UNP Q6JC62
c	?	-	SER	deletion	UNP Q6JC62
c	558	ALA	SER	conflict	UNP Q6JC62
c	588	ASN	GLN	conflict	UNP Q6JC62
c	589	SER	ASN	conflict	UNP Q6JC62
c	591	GLN	ALA	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
c	718	VAL	THR	conflict	UNP Q6JC62
c	719	ASP	GLU	conflict	UNP Q6JC62
d	365	LEU	PRO	conflict	UNP Q6JC62
d	387	ALA	SER	conflict	UNP Q6JC62
d	406	LEU	ARG	conflict	UNP Q6JC62
d	?	-	SER	deletion	UNP Q6JC62
d	558	ALA	SER	conflict	UNP Q6JC62
d	588	ASN	GLN	conflict	UNP Q6JC62
d	589	SER	ASN	conflict	UNP Q6JC62
d	591	GLN	ALA	conflict	UNP Q6JC62
d	718	VAL	THR	conflict	UNP Q6JC62
d	719	ASP	GLU	conflict	UNP Q6JC62
e	365	LEU	PRO	conflict	UNP Q6JC62
e	387	ALA	SER	conflict	UNP Q6JC62
e	406	LEU	ARG	conflict	UNP Q6JC62
e	?	-	SER	deletion	UNP Q6JC62
e	558	ALA	SER	conflict	UNP Q6JC62
e	588	ASN	GLN	conflict	UNP Q6JC62
e	589	SER	ASN	conflict	UNP Q6JC62
e	591	GLN	ALA	conflict	UNP Q6JC62
e	718	VAL	THR	conflict	UNP Q6JC62
e	719	ASP	GLU	conflict	UNP Q6JC62
f	365	LEU	PRO	conflict	UNP Q6JC62
f	387	ALA	SER	conflict	UNP Q6JC62
f	406	LEU	ARG	conflict	UNP Q6JC62
f	?	-	SER	deletion	UNP Q6JC62
f	558	ALA	SER	conflict	UNP Q6JC62
f	588	ASN	GLN	conflict	UNP Q6JC62
f	589	SER	ASN	conflict	UNP Q6JC62
f	591	GLN	ALA	conflict	UNP Q6JC62
f	718	VAL	THR	conflict	UNP Q6JC62
f	719	ASP	GLU	conflict	UNP Q6JC62
g	365	LEU	PRO	conflict	UNP Q6JC62
g	387	ALA	SER	conflict	UNP Q6JC62
g	406	LEU	ARG	conflict	UNP Q6JC62
g	?	-	SER	deletion	UNP Q6JC62
g	558	ALA	SER	conflict	UNP Q6JC62
g	588	ASN	GLN	conflict	UNP Q6JC62
g	589	SER	ASN	conflict	UNP Q6JC62
g	591	GLN	ALA	conflict	UNP Q6JC62
g	718	VAL	THR	conflict	UNP Q6JC62
g	719	ASP	GLU	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
h	365	LEU	PRO	conflict	UNP Q6JC62
h	387	ALA	SER	conflict	UNP Q6JC62
h	406	LEU	ARG	conflict	UNP Q6JC62
h	?	-	SER	deletion	UNP Q6JC62
h	558	ALA	SER	conflict	UNP Q6JC62
h	588	ASN	GLN	conflict	UNP Q6JC62
h	589	SER	ASN	conflict	UNP Q6JC62
h	591	GLN	ALA	conflict	UNP Q6JC62
h	718	VAL	THR	conflict	UNP Q6JC62
h	719	ASP	GLU	conflict	UNP Q6JC62
i	365	LEU	PRO	conflict	UNP Q6JC62
i	387	ALA	SER	conflict	UNP Q6JC62
i	406	LEU	ARG	conflict	UNP Q6JC62
i	?	-	SER	deletion	UNP Q6JC62
i	558	ALA	SER	conflict	UNP Q6JC62
i	588	ASN	GLN	conflict	UNP Q6JC62
i	589	SER	ASN	conflict	UNP Q6JC62
i	591	GLN	ALA	conflict	UNP Q6JC62
i	718	VAL	THR	conflict	UNP Q6JC62
i	719	ASP	GLU	conflict	UNP Q6JC62
j	365	LEU	PRO	conflict	UNP Q6JC62
j	387	ALA	SER	conflict	UNP Q6JC62
j	406	LEU	ARG	conflict	UNP Q6JC62
j	?	-	SER	deletion	UNP Q6JC62
j	558	ALA	SER	conflict	UNP Q6JC62
j	588	ASN	GLN	conflict	UNP Q6JC62
j	589	SER	ASN	conflict	UNP Q6JC62
j	591	GLN	ALA	conflict	UNP Q6JC62
j	718	VAL	THR	conflict	UNP Q6JC62
j	719	ASP	GLU	conflict	UNP Q6JC62
k	365	LEU	PRO	conflict	UNP Q6JC62
k	387	ALA	SER	conflict	UNP Q6JC62
k	406	LEU	ARG	conflict	UNP Q6JC62
k	?	-	SER	deletion	UNP Q6JC62
k	558	ALA	SER	conflict	UNP Q6JC62
k	588	ASN	GLN	conflict	UNP Q6JC62
k	589	SER	ASN	conflict	UNP Q6JC62
k	591	GLN	ALA	conflict	UNP Q6JC62
k	718	VAL	THR	conflict	UNP Q6JC62
k	719	ASP	GLU	conflict	UNP Q6JC62
l	365	LEU	PRO	conflict	UNP Q6JC62
l	387	ALA	SER	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
l	406	LEU	ARG	conflict	UNP Q6JC62
l	?	-	SER	deletion	UNP Q6JC62
l	558	ALA	SER	conflict	UNP Q6JC62
l	588	ASN	GLN	conflict	UNP Q6JC62
l	589	SER	ASN	conflict	UNP Q6JC62
l	591	GLN	ALA	conflict	UNP Q6JC62
l	718	VAL	THR	conflict	UNP Q6JC62
l	719	ASP	GLU	conflict	UNP Q6JC62
m	365	LEU	PRO	conflict	UNP Q6JC62
m	387	ALA	SER	conflict	UNP Q6JC62
m	406	LEU	ARG	conflict	UNP Q6JC62
m	?	-	SER	deletion	UNP Q6JC62
m	558	ALA	SER	conflict	UNP Q6JC62
m	588	ASN	GLN	conflict	UNP Q6JC62
m	589	SER	ASN	conflict	UNP Q6JC62
m	591	GLN	ALA	conflict	UNP Q6JC62
m	718	VAL	THR	conflict	UNP Q6JC62
m	719	ASP	GLU	conflict	UNP Q6JC62
n	365	LEU	PRO	conflict	UNP Q6JC62
n	387	ALA	SER	conflict	UNP Q6JC62
n	406	LEU	ARG	conflict	UNP Q6JC62
n	?	-	SER	deletion	UNP Q6JC62
n	558	ALA	SER	conflict	UNP Q6JC62
n	588	ASN	GLN	conflict	UNP Q6JC62
n	589	SER	ASN	conflict	UNP Q6JC62
n	591	GLN	ALA	conflict	UNP Q6JC62
n	718	VAL	THR	conflict	UNP Q6JC62
n	719	ASP	GLU	conflict	UNP Q6JC62
o	365	LEU	PRO	conflict	UNP Q6JC62
o	387	ALA	SER	conflict	UNP Q6JC62
o	406	LEU	ARG	conflict	UNP Q6JC62
o	?	-	SER	deletion	UNP Q6JC62
o	558	ALA	SER	conflict	UNP Q6JC62
o	588	ASN	GLN	conflict	UNP Q6JC62
o	589	SER	ASN	conflict	UNP Q6JC62
o	591	GLN	ALA	conflict	UNP Q6JC62
o	718	VAL	THR	conflict	UNP Q6JC62
o	719	ASP	GLU	conflict	UNP Q6JC62
p	365	LEU	PRO	conflict	UNP Q6JC62
p	387	ALA	SER	conflict	UNP Q6JC62
p	406	LEU	ARG	conflict	UNP Q6JC62
p	?	-	SER	deletion	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
p	558	ALA	SER	conflict	UNP Q6JC62
p	588	ASN	GLN	conflict	UNP Q6JC62
p	589	SER	ASN	conflict	UNP Q6JC62
p	591	GLN	ALA	conflict	UNP Q6JC62
p	718	VAL	THR	conflict	UNP Q6JC62
p	719	ASP	GLU	conflict	UNP Q6JC62
q	365	LEU	PRO	conflict	UNP Q6JC62
q	387	ALA	SER	conflict	UNP Q6JC62
q	406	LEU	ARG	conflict	UNP Q6JC62
q	?	-	SER	deletion	UNP Q6JC62
q	558	ALA	SER	conflict	UNP Q6JC62
q	588	ASN	GLN	conflict	UNP Q6JC62
q	589	SER	ASN	conflict	UNP Q6JC62
q	591	GLN	ALA	conflict	UNP Q6JC62
q	718	VAL	THR	conflict	UNP Q6JC62
q	719	ASP	GLU	conflict	UNP Q6JC62
r	365	LEU	PRO	conflict	UNP Q6JC62
r	387	ALA	SER	conflict	UNP Q6JC62
r	406	LEU	ARG	conflict	UNP Q6JC62
r	?	-	SER	deletion	UNP Q6JC62
r	558	ALA	SER	conflict	UNP Q6JC62
r	588	ASN	GLN	conflict	UNP Q6JC62
r	589	SER	ASN	conflict	UNP Q6JC62
r	591	GLN	ALA	conflict	UNP Q6JC62
r	718	VAL	THR	conflict	UNP Q6JC62
r	719	ASP	GLU	conflict	UNP Q6JC62
s	365	LEU	PRO	conflict	UNP Q6JC62
s	387	ALA	SER	conflict	UNP Q6JC62
s	406	LEU	ARG	conflict	UNP Q6JC62
s	?	-	SER	deletion	UNP Q6JC62
s	558	ALA	SER	conflict	UNP Q6JC62
s	588	ASN	GLN	conflict	UNP Q6JC62
s	589	SER	ASN	conflict	UNP Q6JC62
s	591	GLN	ALA	conflict	UNP Q6JC62
s	718	VAL	THR	conflict	UNP Q6JC62
s	719	ASP	GLU	conflict	UNP Q6JC62
t	365	LEU	PRO	conflict	UNP Q6JC62
t	387	ALA	SER	conflict	UNP Q6JC62
t	406	LEU	ARG	conflict	UNP Q6JC62
t	?	-	SER	deletion	UNP Q6JC62
t	558	ALA	SER	conflict	UNP Q6JC62
t	588	ASN	GLN	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
t	589	SER	ASN	conflict	UNP Q6JC62
t	591	GLN	ALA	conflict	UNP Q6JC62
t	718	VAL	THR	conflict	UNP Q6JC62
t	719	ASP	GLU	conflict	UNP Q6JC62
u	365	LEU	PRO	conflict	UNP Q6JC62
u	387	ALA	SER	conflict	UNP Q6JC62
u	406	LEU	ARG	conflict	UNP Q6JC62
u	?	-	SER	deletion	UNP Q6JC62
u	558	ALA	SER	conflict	UNP Q6JC62
u	588	ASN	GLN	conflict	UNP Q6JC62
u	589	SER	ASN	conflict	UNP Q6JC62
u	591	GLN	ALA	conflict	UNP Q6JC62
u	718	VAL	THR	conflict	UNP Q6JC62
u	719	ASP	GLU	conflict	UNP Q6JC62
v	365	LEU	PRO	conflict	UNP Q6JC62
v	387	ALA	SER	conflict	UNP Q6JC62
v	406	LEU	ARG	conflict	UNP Q6JC62
v	?	-	SER	deletion	UNP Q6JC62
v	558	ALA	SER	conflict	UNP Q6JC62
v	588	ASN	GLN	conflict	UNP Q6JC62
v	589	SER	ASN	conflict	UNP Q6JC62
v	591	GLN	ALA	conflict	UNP Q6JC62
v	718	VAL	THR	conflict	UNP Q6JC62
v	719	ASP	GLU	conflict	UNP Q6JC62
w	365	LEU	PRO	conflict	UNP Q6JC62
w	387	ALA	SER	conflict	UNP Q6JC62
w	406	LEU	ARG	conflict	UNP Q6JC62
w	?	-	SER	deletion	UNP Q6JC62
w	558	ALA	SER	conflict	UNP Q6JC62
w	588	ASN	GLN	conflict	UNP Q6JC62
w	589	SER	ASN	conflict	UNP Q6JC62
w	591	GLN	ALA	conflict	UNP Q6JC62
w	718	VAL	THR	conflict	UNP Q6JC62
w	719	ASP	GLU	conflict	UNP Q6JC62
x	365	LEU	PRO	conflict	UNP Q6JC62
x	387	ALA	SER	conflict	UNP Q6JC62
x	406	LEU	ARG	conflict	UNP Q6JC62
x	?	-	SER	deletion	UNP Q6JC62
x	558	ALA	SER	conflict	UNP Q6JC62
x	588	ASN	GLN	conflict	UNP Q6JC62
x	589	SER	ASN	conflict	UNP Q6JC62
x	591	GLN	ALA	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
x	718	VAL	THR	conflict	UNP Q6JC62
x	719	ASP	GLU	conflict	UNP Q6JC62
y	365	LEU	PRO	conflict	UNP Q6JC62
y	387	ALA	SER	conflict	UNP Q6JC62
y	406	LEU	ARG	conflict	UNP Q6JC62
y	?	-	SER	deletion	UNP Q6JC62
y	558	ALA	SER	conflict	UNP Q6JC62
y	588	ASN	GLN	conflict	UNP Q6JC62
y	589	SER	ASN	conflict	UNP Q6JC62
y	591	GLN	ALA	conflict	UNP Q6JC62
y	718	VAL	THR	conflict	UNP Q6JC62
y	719	ASP	GLU	conflict	UNP Q6JC62
z	365	LEU	PRO	conflict	UNP Q6JC62
z	387	ALA	SER	conflict	UNP Q6JC62
z	406	LEU	ARG	conflict	UNP Q6JC62
z	?	-	SER	deletion	UNP Q6JC62
z	558	ALA	SER	conflict	UNP Q6JC62
z	588	ASN	GLN	conflict	UNP Q6JC62
z	589	SER	ASN	conflict	UNP Q6JC62
z	591	GLN	ALA	conflict	UNP Q6JC62
z	718	VAL	THR	conflict	UNP Q6JC62
z	719	ASP	GLU	conflict	UNP Q6JC62
1	365	LEU	PRO	conflict	UNP Q6JC62
1	387	ALA	SER	conflict	UNP Q6JC62
1	406	LEU	ARG	conflict	UNP Q6JC62
1	?	-	SER	deletion	UNP Q6JC62
1	558	ALA	SER	conflict	UNP Q6JC62
1	588	ASN	GLN	conflict	UNP Q6JC62
1	589	SER	ASN	conflict	UNP Q6JC62
1	591	GLN	ALA	conflict	UNP Q6JC62
1	718	VAL	THR	conflict	UNP Q6JC62
1	719	ASP	GLU	conflict	UNP Q6JC62
2	365	LEU	PRO	conflict	UNP Q6JC62
2	387	ALA	SER	conflict	UNP Q6JC62
2	406	LEU	ARG	conflict	UNP Q6JC62
2	?	-	SER	deletion	UNP Q6JC62
2	558	ALA	SER	conflict	UNP Q6JC62
2	588	ASN	GLN	conflict	UNP Q6JC62
2	589	SER	ASN	conflict	UNP Q6JC62
2	591	GLN	ALA	conflict	UNP Q6JC62
2	718	VAL	THR	conflict	UNP Q6JC62
2	719	ASP	GLU	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
3	365	LEU	PRO	conflict	UNP Q6JC62
3	387	ALA	SER	conflict	UNP Q6JC62
3	406	LEU	ARG	conflict	UNP Q6JC62
3	?	-	SER	deletion	UNP Q6JC62
3	558	ALA	SER	conflict	UNP Q6JC62
3	588	ASN	GLN	conflict	UNP Q6JC62
3	589	SER	ASN	conflict	UNP Q6JC62
3	591	GLN	ALA	conflict	UNP Q6JC62
3	718	VAL	THR	conflict	UNP Q6JC62
3	719	ASP	GLU	conflict	UNP Q6JC62
4	365	LEU	PRO	conflict	UNP Q6JC62
4	387	ALA	SER	conflict	UNP Q6JC62
4	406	LEU	ARG	conflict	UNP Q6JC62
4	?	-	SER	deletion	UNP Q6JC62
4	558	ALA	SER	conflict	UNP Q6JC62
4	588	ASN	GLN	conflict	UNP Q6JC62
4	589	SER	ASN	conflict	UNP Q6JC62
4	591	GLN	ALA	conflict	UNP Q6JC62
4	718	VAL	THR	conflict	UNP Q6JC62
4	719	ASP	GLU	conflict	UNP Q6JC62
5	365	LEU	PRO	conflict	UNP Q6JC62
5	387	ALA	SER	conflict	UNP Q6JC62
5	406	LEU	ARG	conflict	UNP Q6JC62
5	?	-	SER	deletion	UNP Q6JC62
5	558	ALA	SER	conflict	UNP Q6JC62
5	588	ASN	GLN	conflict	UNP Q6JC62
5	589	SER	ASN	conflict	UNP Q6JC62
5	591	GLN	ALA	conflict	UNP Q6JC62
5	718	VAL	THR	conflict	UNP Q6JC62
5	719	ASP	GLU	conflict	UNP Q6JC62
6	365	LEU	PRO	conflict	UNP Q6JC62
6	387	ALA	SER	conflict	UNP Q6JC62
6	406	LEU	ARG	conflict	UNP Q6JC62
6	?	-	SER	deletion	UNP Q6JC62
6	558	ALA	SER	conflict	UNP Q6JC62
6	588	ASN	GLN	conflict	UNP Q6JC62
6	589	SER	ASN	conflict	UNP Q6JC62
6	591	GLN	ALA	conflict	UNP Q6JC62
6	718	VAL	THR	conflict	UNP Q6JC62
6	719	ASP	GLU	conflict	UNP Q6JC62
7	365	LEU	PRO	conflict	UNP Q6JC62
7	387	ALA	SER	conflict	UNP Q6JC62

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Chain	Residue	Modelled	Actual	Comment	Reference
7	406	LEU	ARG	conflict	UNP Q6JC62
7	?	-	SER	deletion	UNP Q6JC62
7	558	ALA	SER	conflict	UNP Q6JC62
7	588	ASN	GLN	conflict	UNP Q6JC62
7	589	SER	ASN	conflict	UNP Q6JC62
7	591	GLN	ALA	conflict	UNP Q6JC62
7	718	VAL	THR	conflict	UNP Q6JC62
7	719	ASP	GLU	conflict	UNP Q6JC62
8	365	LEU	PRO	conflict	UNP Q6JC62
8	387	ALA	SER	conflict	UNP Q6JC62
8	406	LEU	ARG	conflict	UNP Q6JC62
8	?	-	SER	deletion	UNP Q6JC62
8	558	ALA	SER	conflict	UNP Q6JC62
8	588	ASN	GLN	conflict	UNP Q6JC62
8	589	SER	ASN	conflict	UNP Q6JC62
8	591	GLN	ALA	conflict	UNP Q6JC62
8	718	VAL	THR	conflict	UNP Q6JC62
8	719	ASP	GLU	conflict	UNP Q6JC62

- Molecule 2 is a DNA chain called DNA (5'-D(*CP*A)-3').

Mol	Chain	Residues	Atoms					AltConf	Trace
2	0	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	9	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	AA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	BA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	CA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	DA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	EA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	FA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	GA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	HA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	IA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	JA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	KA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	LA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	MA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	NA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	OA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	PA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	QA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	RA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	SA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	TA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	UA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	VA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	WA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	XA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	YA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	ZA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	aA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	bA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	cA	2	Total 37	C 19	N 8	O 9	P 1	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	dA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	eA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	fA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	gA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	hA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	iA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	jA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	kA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	lA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	mA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	nA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	oA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	pA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	qA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	rA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	sA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	tA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	uA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	vA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	wA	2	Total 37	C 19	N 8	O 9	P 1	0	0
2	xA	2	Total 37	C 19	N 8	O 9	P 1	0	0

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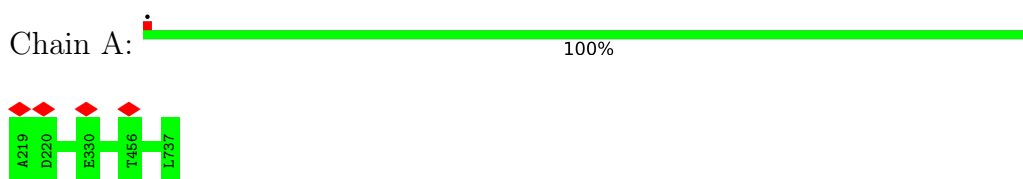
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Mol	Chain	Residues	Atoms					AltConf	Trace
2	yA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	zA	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	0A	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	1A	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	2A	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	3A	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	4A	2	Total	C	N	O	P	0	0
			37	19	8	9	1		
2	5A	2	Total	C	N	O	P	0	0
			37	19	8	9	1		

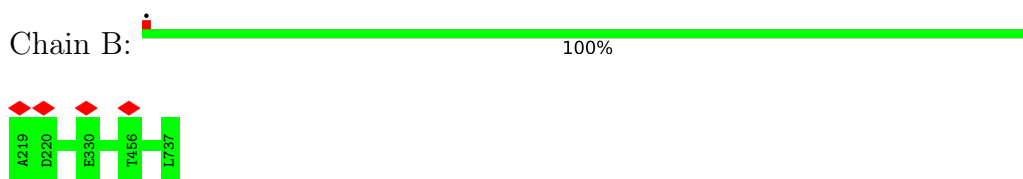
3 Residue-property plots [i](#)

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

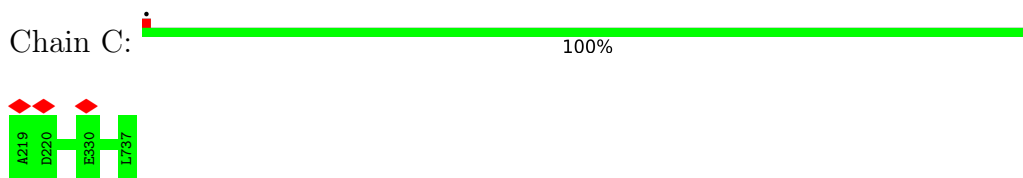
- Molecule 1: Capsid protein VP1



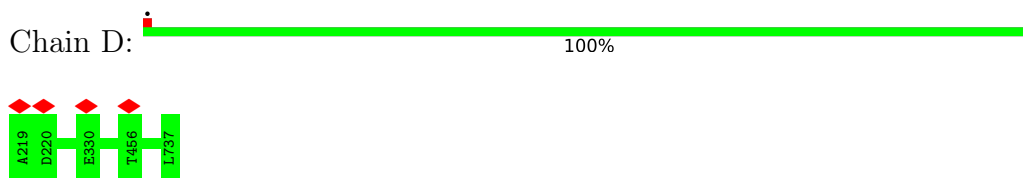
- Molecule 1: Capsid protein VP1



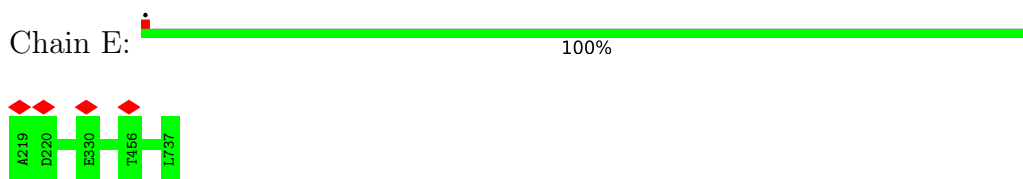
- Molecule 1: Capsid protein VP1



- Molecule 1: Capsid protein VP1

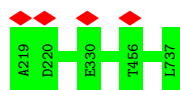


- Molecule 1: Capsid protein VP1



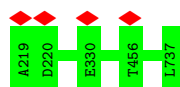
- Molecule 1: Capsid protein VP1

Chain F:  100%



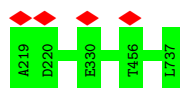
- Molecule 1: Capsid protein VP1

Chain G:  100%



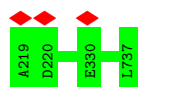
- Molecule 1: Capsid protein VP1

Chain H:  100%



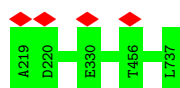
- Molecule 1: Capsid protein VP1

Chain I:  100%



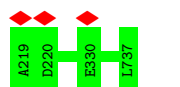
- Molecule 1: Capsid protein VP1

Chain J:  100%



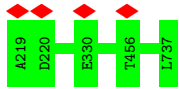
- Molecule 1: Capsid protein VP1

Chain K:  100%



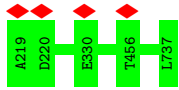
- Molecule 1: Capsid protein VP1

Chain L:  100%



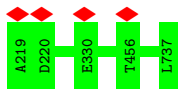
- Molecule 1: Capsid protein VP1

Chain M:  100%



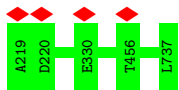
- Molecule 1: Capsid protein VP1

Chain N:  100%



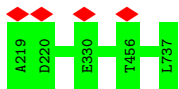
- Molecule 1: Capsid protein VP1

Chain O:  100%



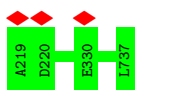
- Molecule 1: Capsid protein VP1

Chain P:  100%



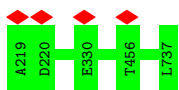
- Molecule 1: Capsid protein VP1

Chain Q:  100%



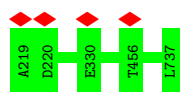
- Molecule 1: Capsid protein VP1

Chain R:  100%



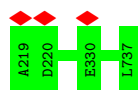
- Molecule 1: Capsid protein VP1

Chain S:  100%



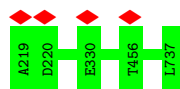
- Molecule 1: Capsid protein VP1

Chain T:  100%



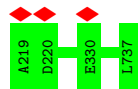
- Molecule 1: Capsid protein VP1

Chain U:  100%



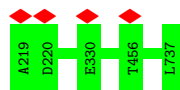
- Molecule 1: Capsid protein VP1

Chain V:  100%



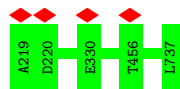
- Molecule 1: Capsid protein VP1

Chain W:  100%



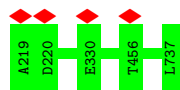
- Molecule 1: Capsid protein VP1

Chain X:  100%

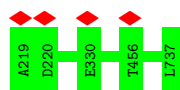


- Molecule 1: Capsid protein VP1

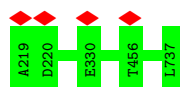
Chain Y:  100%



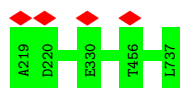
● Molecule 1: Capsid protein VP1

Chain Z:  100%

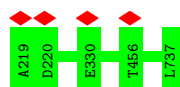
● Molecule 1: Capsid protein VP1

Chain a:  100%

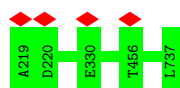
● Molecule 1: Capsid protein VP1

Chain b:  100%

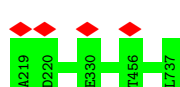
● Molecule 1: Capsid protein VP1

Chain c:  100%

● Molecule 1: Capsid protein VP1

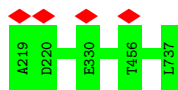
Chain d:  100%

● Molecule 1: Capsid protein VP1

Chain e:  100%

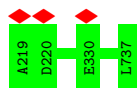
● Molecule 1: Capsid protein VP1

Chain f:  100%



- Molecule 1: Capsid protein VP1

Chain g:  100%



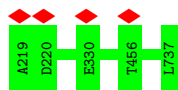
- Molecule 1: Capsid protein VP1

Chain h:  100%



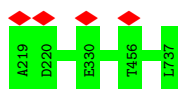
- Molecule 1: Capsid protein VP1

Chain i:  100%



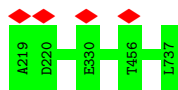
- Molecule 1: Capsid protein VP1

Chain j:  100%



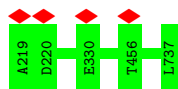
- Molecule 1: Capsid protein VP1

Chain k:  100%



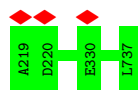
- Molecule 1: Capsid protein VP1

Chain l:  100%



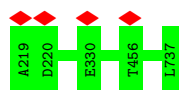
- Molecule 1: Capsid protein VP1

Chain m:  100%



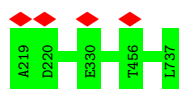
• Molecule 1: Capsid protein VP1

Chain n:  100%



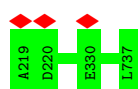
• Molecule 1: Capsid protein VP1

Chain o:  100%



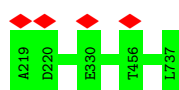
• Molecule 1: Capsid protein VP1

Chain p:  100%



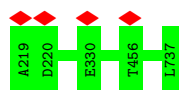
• Molecule 1: Capsid protein VP1

Chain q:  100%



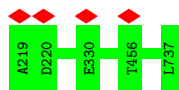
• Molecule 1: Capsid protein VP1

Chain r:  100%

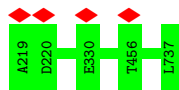


• Molecule 1: Capsid protein VP1

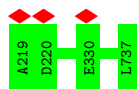
Chain s:  100%



• Molecule 1: Capsid protein VP1



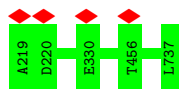
• Molecule 1: Capsid protein VP1



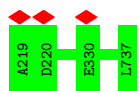
• Molecule 1: Capsid protein VP1



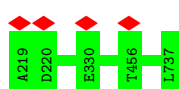
• Molecule 1: Capsid protein VP1



• Molecule 1: Capsid protein VP1

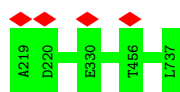


• Molecule 1: Capsid protein VP1



• Molecule 1: Capsid protein VP1

Chain z:  100%



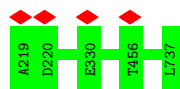
• Molecule 1: Capsid protein VP1

Chain 1:  100%



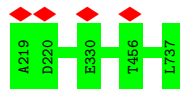
• Molecule 1: Capsid protein VP1

Chain 2:  100%



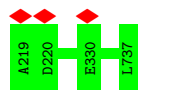
• Molecule 1: Capsid protein VP1

Chain 3:  100%



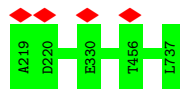
• Molecule 1: Capsid protein VP1

Chain 4:  100%



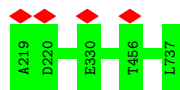
• Molecule 1: Capsid protein VP1

Chain 5:  100%



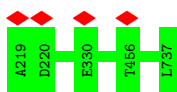
• Molecule 1: Capsid protein VP1

Chain 6:  100%



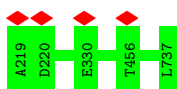
- Molecule 1: Capsid protein VP1

Chain 7:  100%



- Molecule 1: Capsid protein VP1

Chain 8:  100%



- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 0:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 9:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain AA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain BA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain CA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain DA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain EA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain FA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain GA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain HA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain IA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain JA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain KA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain LA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain MA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain NA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain OA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain PA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain QA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain RA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain SA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain TA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain UA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain VA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain WA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain XA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain YA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain ZA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain aA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain bA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain cA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain dA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain eA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain fA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain gA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain hA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain iA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain jA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain kA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain lA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain mA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain nA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain oA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain pA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain qA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain rA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain sA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain tA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain uA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain vA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain wA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain xA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain yA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain zA:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 0A:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 1A:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 2A:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 3A:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 4A:  100%

There are no outlier residues recorded for this chain.

- Molecule 2: DNA (5'-D(*CP*A)-3')

Chain 5A:  100%

There are no outlier residues recorded for this chain.

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	17861	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	75	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	14.012	Depositor
Minimum map value	-7.303	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	1.000	Depositor
Recommended contour level	2.0	Depositor
Map size (Å)	419.6, 419.6, 419.6	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.049, 1.049, 1.049	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	1	0.46	0/4244	0.54	0/5788
1	2	0.46	0/4244	0.54	0/5788
1	3	0.46	0/4244	0.54	0/5788
1	4	0.46	0/4244	0.54	0/5788
1	5	0.46	0/4244	0.54	0/5788
1	6	0.46	0/4244	0.54	0/5788
1	7	0.46	0/4244	0.54	0/5788
1	8	0.46	0/4244	0.54	0/5788
1	A	0.46	0/4244	0.54	0/5788
1	B	0.46	0/4244	0.54	0/5788
1	C	0.46	0/4244	0.54	0/5788
1	D	0.46	0/4244	0.54	0/5788
1	E	0.46	0/4244	0.54	0/5788
1	F	0.46	0/4244	0.54	0/5788
1	G	0.46	0/4244	0.54	0/5788
1	H	0.46	0/4244	0.54	0/5788
1	I	0.46	0/4244	0.54	0/5788
1	J	0.46	0/4244	0.54	0/5788
1	K	0.46	0/4244	0.54	0/5788
1	L	0.46	0/4244	0.54	0/5788
1	M	0.46	0/4244	0.54	0/5788
1	N	0.46	0/4244	0.54	0/5788
1	O	0.46	0/4244	0.54	0/5788
1	P	0.46	0/4244	0.54	0/5788
1	Q	0.46	0/4244	0.54	0/5788
1	R	0.46	0/4244	0.54	0/5788
1	S	0.46	0/4244	0.54	0/5788
1	T	0.46	0/4244	0.54	0/5788
1	U	0.46	0/4244	0.54	0/5788
1	V	0.46	0/4244	0.54	0/5788
1	W	0.46	0/4244	0.54	0/5788
1	X	0.46	0/4244	0.54	0/5788
1	Y	0.46	0/4244	0.54	0/5788
1	Z	0.46	0/4244	0.54	0/5788

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	a	0.46	0/4244	0.54	0/5788
1	b	0.46	0/4244	0.54	0/5788
1	c	0.46	0/4244	0.54	0/5788
1	d	0.46	0/4244	0.54	0/5788
1	e	0.46	0/4244	0.54	0/5788
1	f	0.46	0/4244	0.54	0/5788
1	g	0.46	0/4244	0.54	0/5788
1	h	0.46	0/4244	0.54	0/5788
1	i	0.46	0/4244	0.54	0/5788
1	j	0.46	0/4244	0.54	0/5788
1	k	0.46	0/4244	0.54	0/5788
1	l	0.46	0/4244	0.54	0/5788
1	m	0.46	0/4244	0.54	0/5788
1	n	0.46	0/4244	0.54	0/5788
1	o	0.46	0/4244	0.54	0/5788
1	p	0.46	0/4244	0.54	0/5788
1	q	0.46	0/4244	0.54	0/5788
1	r	0.46	0/4244	0.54	0/5788
1	s	0.46	0/4244	0.54	0/5788
1	t	0.46	0/4244	0.54	0/5788
1	u	0.46	0/4244	0.54	0/5788
1	v	0.46	0/4244	0.54	0/5788
1	w	0.46	0/4244	0.54	0/5788
1	x	0.46	0/4244	0.54	0/5788
1	y	0.46	0/4244	0.54	0/5788
1	z	0.46	0/4244	0.54	0/5788
2	0	0.64	0/41	0.57	0/61
2	0A	0.66	0/41	0.57	0/61
2	1A	0.65	0/41	0.56	0/61
2	2A	0.65	0/41	0.56	0/61
2	3A	0.64	0/41	0.56	0/61
2	4A	0.65	0/41	0.57	0/61
2	5A	0.65	0/41	0.57	0/61
2	9	0.66	0/41	0.56	0/61
2	AA	0.64	0/41	0.56	0/61
2	BA	0.65	0/41	0.56	0/61
2	CA	0.64	0/41	0.57	0/61
2	DA	0.64	0/41	0.58	0/61
2	EA	0.64	0/41	0.58	0/61
2	FA	0.66	0/41	0.57	0/61
2	GA	0.65	0/41	0.56	0/61
2	HA	0.65	0/41	0.57	0/61
2	IA	0.64	0/41	0.57	0/61

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
2	JA	0.65	0/41	0.56	0/61
2	KA	0.66	0/41	0.57	0/61
2	LA	0.65	0/41	0.57	0/61
2	MA	0.63	0/41	0.58	0/61
2	NA	0.63	0/41	0.57	0/61
2	OA	0.64	0/41	0.58	0/61
2	PA	0.66	0/41	0.56	0/61
2	QA	0.65	0/41	0.57	0/61
2	RA	0.65	0/41	0.56	0/61
2	SA	0.65	0/41	0.56	0/61
2	TA	0.64	0/41	0.58	0/61
2	UA	0.65	0/41	0.57	0/61
2	VA	0.64	0/41	0.56	0/61
2	WA	0.65	0/41	0.57	0/61
2	XA	0.65	0/41	0.57	0/61
2	YA	0.66	0/41	0.57	0/61
2	ZA	0.65	0/41	0.57	0/61
2	aA	0.65	0/41	0.57	0/61
2	bA	0.66	0/41	0.57	0/61
2	cA	0.65	0/41	0.56	0/61
2	dA	0.65	0/41	0.57	0/61
2	eA	0.64	0/41	0.58	0/61
2	fA	0.64	0/41	0.56	0/61
2	gA	0.65	0/41	0.57	0/61
2	hA	0.66	0/41	0.57	0/61
2	iA	0.65	0/41	0.57	0/61
2	jA	0.65	0/41	0.57	0/61
2	kA	0.65	0/41	0.56	0/61
2	lA	0.65	0/41	0.58	0/61
2	mA	0.64	0/41	0.56	0/61
2	nA	0.64	0/41	0.58	0/61
2	oA	0.66	0/41	0.56	0/61
2	pA	0.65	0/41	0.57	0/61
2	qA	0.65	0/41	0.56	0/61
2	rA	0.64	0/41	0.58	0/61
2	sA	0.65	0/41	0.56	0/61
2	tA	0.64	0/41	0.58	0/61
2	uA	0.64	0/41	0.58	0/61
2	vA	0.65	0/41	0.56	0/61
2	wA	0.64	0/41	0.57	0/61
2	xA	0.66	0/41	0.56	0/61
2	yA	0.66	0/41	0.56	0/61
2	zA	0.65	0/41	0.57	0/61

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
All	All	0.47	0/257100	0.54	0/350940

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](#)

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

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	1	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	2	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	3	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	4	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	5	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	6	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	7	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	8	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	A	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	B	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	C	517/519 (100%)	509 (98%)	8 (2%)	0	100	100
1	D	517/519 (100%)	510 (99%)	7 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	F	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	G	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	H	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	I	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	J	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	K	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	L	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	M	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	N	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	O	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	P	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	Q	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	R	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	S	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	T	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	U	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	V	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	W	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	X	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	Y	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	Z	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	a	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	b	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	c	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	d	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	e	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	f	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	g	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	h	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	i	517/519 (100%)	510 (99%)	7 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	j	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	k	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	l	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	m	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	n	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	o	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	p	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	q	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	r	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	s	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	t	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	u	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	v	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	w	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	x	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	y	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
1	z	517/519 (100%)	510 (99%)	7 (1%)	0	100	100
All	All	31020/31140 (100%)	30599 (99%)	421 (1%)	0	100	100

There are no Ramachandran outliers to report.

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	1	450/450 (100%)	450 (100%)	0	100	100
1	2	450/450 (100%)	450 (100%)	0	100	100
1	3	450/450 (100%)	450 (100%)	0	100	100
1	4	450/450 (100%)	450 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	5	450/450 (100%)	450 (100%)	0	100	100
1	6	450/450 (100%)	450 (100%)	0	100	100
1	7	450/450 (100%)	450 (100%)	0	100	100
1	8	450/450 (100%)	450 (100%)	0	100	100
1	A	450/450 (100%)	450 (100%)	0	100	100
1	B	450/450 (100%)	450 (100%)	0	100	100
1	C	450/450 (100%)	450 (100%)	0	100	100
1	D	450/450 (100%)	450 (100%)	0	100	100
1	E	450/450 (100%)	450 (100%)	0	100	100
1	F	450/450 (100%)	450 (100%)	0	100	100
1	G	450/450 (100%)	450 (100%)	0	100	100
1	H	450/450 (100%)	450 (100%)	0	100	100
1	I	450/450 (100%)	450 (100%)	0	100	100
1	J	450/450 (100%)	450 (100%)	0	100	100
1	K	450/450 (100%)	450 (100%)	0	100	100
1	L	450/450 (100%)	450 (100%)	0	100	100
1	M	450/450 (100%)	450 (100%)	0	100	100
1	N	450/450 (100%)	450 (100%)	0	100	100
1	O	450/450 (100%)	450 (100%)	0	100	100
1	P	450/450 (100%)	450 (100%)	0	100	100
1	Q	450/450 (100%)	450 (100%)	0	100	100
1	R	450/450 (100%)	450 (100%)	0	100	100
1	S	450/450 (100%)	450 (100%)	0	100	100
1	T	450/450 (100%)	450 (100%)	0	100	100
1	U	450/450 (100%)	450 (100%)	0	100	100
1	V	450/450 (100%)	450 (100%)	0	100	100
1	W	450/450 (100%)	450 (100%)	0	100	100
1	X	450/450 (100%)	450 (100%)	0	100	100
1	Y	450/450 (100%)	450 (100%)	0	100	100
1	Z	450/450 (100%)	450 (100%)	0	100	100
1	a	450/450 (100%)	450 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	b	450/450 (100%)	450 (100%)	0	100	100
1	c	450/450 (100%)	450 (100%)	0	100	100
1	d	450/450 (100%)	450 (100%)	0	100	100
1	e	450/450 (100%)	450 (100%)	0	100	100
1	f	450/450 (100%)	450 (100%)	0	100	100
1	g	450/450 (100%)	450 (100%)	0	100	100
1	h	450/450 (100%)	450 (100%)	0	100	100
1	i	450/450 (100%)	450 (100%)	0	100	100
1	j	450/450 (100%)	450 (100%)	0	100	100
1	k	450/450 (100%)	450 (100%)	0	100	100
1	l	450/450 (100%)	450 (100%)	0	100	100
1	m	450/450 (100%)	450 (100%)	0	100	100
1	n	450/450 (100%)	450 (100%)	0	100	100
1	o	450/450 (100%)	450 (100%)	0	100	100
1	p	450/450 (100%)	450 (100%)	0	100	100
1	q	450/450 (100%)	450 (100%)	0	100	100
1	r	450/450 (100%)	450 (100%)	0	100	100
1	s	450/450 (100%)	450 (100%)	0	100	100
1	t	450/450 (100%)	450 (100%)	0	100	100
1	u	450/450 (100%)	450 (100%)	0	100	100
1	v	450/450 (100%)	450 (100%)	0	100	100
1	w	450/450 (100%)	450 (100%)	0	100	100
1	x	450/450 (100%)	450 (100%)	0	100	100
1	y	450/450 (100%)	450 (100%)	0	100	100
1	z	450/450 (100%)	450 (100%)	0	100	100
All	All	27000/27000 (100%)	27000 (100%)	0	100	100

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

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (749) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	293	HIS

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Mol	Chain	Res	Type
1	A	337	ASN
1	A	377	GLN
1	A	431	GLN
1	A	487	GLN
1	A	498	ASN
1	A	553	ASN
1	A	609	GLN
1	A	647	GLN
1	A	652	ASN
1	A	674	GLN
1	A	701	GLN
1	A	736	ASN
1	B	293	HIS
1	B	337	ASN
1	B	377	GLN
1	B	431	GLN
1	B	487	GLN
1	B	498	ASN
1	B	553	ASN
1	B	609	GLN
1	B	647	GLN
1	B	652	ASN
1	B	674	GLN
1	B	701	GLN
1	B	736	ASN
1	C	293	HIS
1	C	337	ASN
1	C	431	GLN
1	C	487	GLN
1	C	498	ASN
1	C	553	ASN
1	C	609	GLN
1	C	647	GLN
1	C	652	ASN
1	C	674	GLN
1	C	701	GLN
1	C	736	ASN
1	D	293	HIS
1	D	337	ASN
1	D	377	GLN
1	D	431	GLN
1	D	487	GLN

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Mol	Chain	Res	Type
1	D	498	ASN
1	D	553	ASN
1	D	609	GLN
1	D	647	GLN
1	D	652	ASN
1	D	674	GLN
1	D	701	GLN
1	D	736	ASN
1	E	293	HIS
1	E	337	ASN
1	E	431	GLN
1	E	487	GLN
1	E	498	ASN
1	E	553	ASN
1	E	609	GLN
1	E	647	GLN
1	E	652	ASN
1	E	674	GLN
1	E	701	GLN
1	E	736	ASN
1	F	293	HIS
1	F	337	ASN
1	F	431	GLN
1	F	487	GLN
1	F	498	ASN
1	F	553	ASN
1	F	609	GLN
1	F	647	GLN
1	F	652	ASN
1	F	674	GLN
1	F	701	GLN
1	F	736	ASN
1	G	293	HIS
1	G	337	ASN
1	G	431	GLN
1	G	487	GLN
1	G	498	ASN
1	G	553	ASN
1	G	609	GLN
1	G	647	GLN
1	G	652	ASN
1	G	674	GLN

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Mol	Chain	Res	Type
1	G	701	GLN
1	G	736	ASN
1	H	293	HIS
1	H	337	ASN
1	H	377	GLN
1	H	431	GLN
1	H	487	GLN
1	H	498	ASN
1	H	553	ASN
1	H	609	GLN
1	H	647	GLN
1	H	652	ASN
1	H	674	GLN
1	H	701	GLN
1	H	736	ASN
1	I	293	HIS
1	I	337	ASN
1	I	431	GLN
1	I	487	GLN
1	I	498	ASN
1	I	553	ASN
1	I	609	GLN
1	I	647	GLN
1	I	652	ASN
1	I	674	GLN
1	I	701	GLN
1	I	736	ASN
1	J	293	HIS
1	J	337	ASN
1	J	377	GLN
1	J	431	GLN
1	J	487	GLN
1	J	498	ASN
1	J	553	ASN
1	J	609	GLN
1	J	647	GLN
1	J	652	ASN
1	J	674	GLN
1	J	701	GLN
1	J	736	ASN
1	K	293	HIS
1	K	337	ASN

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Mol	Chain	Res	Type
1	K	431	GLN
1	K	487	GLN
1	K	498	ASN
1	K	553	ASN
1	K	609	GLN
1	K	647	GLN
1	K	652	ASN
1	K	674	GLN
1	K	701	GLN
1	K	736	ASN
1	L	293	HIS
1	L	337	ASN
1	L	377	GLN
1	L	431	GLN
1	L	487	GLN
1	L	498	ASN
1	L	553	ASN
1	L	609	GLN
1	L	647	GLN
1	L	652	ASN
1	L	674	GLN
1	L	701	GLN
1	L	736	ASN
1	M	293	HIS
1	M	337	ASN
1	M	377	GLN
1	M	431	GLN
1	M	487	GLN
1	M	498	ASN
1	M	553	ASN
1	M	609	GLN
1	M	647	GLN
1	M	652	ASN
1	M	674	GLN
1	M	701	GLN
1	M	736	ASN
1	N	293	HIS
1	N	337	ASN
1	N	377	GLN
1	N	431	GLN
1	N	487	GLN
1	N	498	ASN

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Mol	Chain	Res	Type
1	N	553	ASN
1	N	609	GLN
1	N	647	GLN
1	N	652	ASN
1	N	674	GLN
1	N	701	GLN
1	N	736	ASN
1	O	293	HIS
1	O	337	ASN
1	O	431	GLN
1	O	487	GLN
1	O	498	ASN
1	O	553	ASN
1	O	609	GLN
1	O	647	GLN
1	O	652	ASN
1	O	674	GLN
1	O	701	GLN
1	O	736	ASN
1	P	293	HIS
1	P	337	ASN
1	P	377	GLN
1	P	431	GLN
1	P	487	GLN
1	P	498	ASN
1	P	553	ASN
1	P	609	GLN
1	P	647	GLN
1	P	652	ASN
1	P	674	GLN
1	P	701	GLN
1	P	736	ASN
1	Q	293	HIS
1	Q	337	ASN
1	Q	431	GLN
1	Q	487	GLN
1	Q	498	ASN
1	Q	553	ASN
1	Q	609	GLN
1	Q	647	GLN
1	Q	652	ASN
1	Q	674	GLN

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Mol	Chain	Res	Type
1	Q	701	GLN
1	Q	736	ASN
1	R	293	HIS
1	R	337	ASN
1	R	431	GLN
1	R	487	GLN
1	R	498	ASN
1	R	553	ASN
1	R	609	GLN
1	R	647	GLN
1	R	652	ASN
1	R	674	GLN
1	R	701	GLN
1	R	736	ASN
1	S	293	HIS
1	S	337	ASN
1	S	431	GLN
1	S	487	GLN
1	S	498	ASN
1	S	553	ASN
1	S	609	GLN
1	S	647	GLN
1	S	652	ASN
1	S	674	GLN
1	S	701	GLN
1	S	736	ASN
1	T	293	HIS
1	T	337	ASN
1	T	377	GLN
1	T	431	GLN
1	T	487	GLN
1	T	498	ASN
1	T	553	ASN
1	T	609	GLN
1	T	616	GLN
1	T	647	GLN
1	T	652	ASN
1	T	674	GLN
1	T	701	GLN
1	T	736	ASN
1	U	293	HIS
1	U	337	ASN

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Mol	Chain	Res	Type
1	U	377	GLN
1	U	431	GLN
1	U	487	GLN
1	U	498	ASN
1	U	553	ASN
1	U	609	GLN
1	U	647	GLN
1	U	652	ASN
1	U	674	GLN
1	U	701	GLN
1	U	736	ASN
1	V	293	HIS
1	V	337	ASN
1	V	431	GLN
1	V	487	GLN
1	V	498	ASN
1	V	553	ASN
1	V	609	GLN
1	V	647	GLN
1	V	652	ASN
1	V	674	GLN
1	V	701	GLN
1	V	736	ASN
1	W	293	HIS
1	W	337	ASN
1	W	431	GLN
1	W	487	GLN
1	W	498	ASN
1	W	553	ASN
1	W	609	GLN
1	W	647	GLN
1	W	652	ASN
1	W	674	GLN
1	W	701	GLN
1	W	736	ASN
1	X	293	HIS
1	X	337	ASN
1	X	377	GLN
1	X	431	GLN
1	X	487	GLN
1	X	498	ASN
1	X	553	ASN

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Mol	Chain	Res	Type
1	X	609	GLN
1	X	647	GLN
1	X	652	ASN
1	X	674	GLN
1	X	701	GLN
1	X	736	ASN
1	Y	293	HIS
1	Y	337	ASN
1	Y	431	GLN
1	Y	487	GLN
1	Y	498	ASN
1	Y	553	ASN
1	Y	609	GLN
1	Y	647	GLN
1	Y	652	ASN
1	Y	674	GLN
1	Y	701	GLN
1	Y	736	ASN
1	Z	293	HIS
1	Z	337	ASN
1	Z	431	GLN
1	Z	487	GLN
1	Z	498	ASN
1	Z	553	ASN
1	Z	609	GLN
1	Z	647	GLN
1	Z	652	ASN
1	Z	674	GLN
1	Z	701	GLN
1	Z	736	ASN
1	a	293	HIS
1	a	337	ASN
1	a	431	GLN
1	a	487	GLN
1	a	498	ASN
1	a	553	ASN
1	a	609	GLN
1	a	647	GLN
1	a	652	ASN
1	a	674	GLN
1	a	701	GLN
1	a	736	ASN

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Mol	Chain	Res	Type
1	b	293	HIS
1	b	337	ASN
1	b	377	GLN
1	b	431	GLN
1	b	487	GLN
1	b	498	ASN
1	b	553	ASN
1	b	609	GLN
1	b	647	GLN
1	b	652	ASN
1	b	674	GLN
1	b	701	GLN
1	b	736	ASN
1	c	293	HIS
1	c	337	ASN
1	c	431	GLN
1	c	487	GLN
1	c	498	ASN
1	c	553	ASN
1	c	609	GLN
1	c	647	GLN
1	c	652	ASN
1	c	674	GLN
1	c	701	GLN
1	c	736	ASN
1	d	293	HIS
1	d	337	ASN
1	d	431	GLN
1	d	487	GLN
1	d	498	ASN
1	d	553	ASN
1	d	609	GLN
1	d	647	GLN
1	d	652	ASN
1	d	674	GLN
1	d	701	GLN
1	d	736	ASN
1	e	293	HIS
1	e	337	ASN
1	e	431	GLN
1	e	487	GLN
1	e	498	ASN

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Mol	Chain	Res	Type
1	e	553	ASN
1	e	609	GLN
1	e	647	GLN
1	e	652	ASN
1	e	674	GLN
1	e	701	GLN
1	e	736	ASN
1	f	293	HIS
1	f	337	ASN
1	f	377	GLN
1	f	431	GLN
1	f	487	GLN
1	f	498	ASN
1	f	553	ASN
1	f	609	GLN
1	f	647	GLN
1	f	652	ASN
1	f	674	GLN
1	f	701	GLN
1	f	736	ASN
1	g	293	HIS
1	g	337	ASN
1	g	431	GLN
1	g	487	GLN
1	g	498	ASN
1	g	553	ASN
1	g	609	GLN
1	g	647	GLN
1	g	652	ASN
1	g	674	GLN
1	g	701	GLN
1	g	736	ASN
1	h	293	HIS
1	h	337	ASN
1	h	377	GLN
1	h	431	GLN
1	h	487	GLN
1	h	498	ASN
1	h	553	ASN
1	h	609	GLN
1	h	647	GLN
1	h	652	ASN

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Mol	Chain	Res	Type
1	h	674	GLN
1	h	701	GLN
1	h	736	ASN
1	i	293	HIS
1	i	337	ASN
1	i	377	GLN
1	i	431	GLN
1	i	487	GLN
1	i	498	ASN
1	i	553	ASN
1	i	609	GLN
1	i	647	GLN
1	i	652	ASN
1	i	674	GLN
1	i	701	GLN
1	i	736	ASN
1	j	293	HIS
1	j	337	ASN
1	j	377	GLN
1	j	431	GLN
1	j	487	GLN
1	j	498	ASN
1	j	553	ASN
1	j	609	GLN
1	j	647	GLN
1	j	652	ASN
1	j	674	GLN
1	j	701	GLN
1	j	736	ASN
1	k	293	HIS
1	k	337	ASN
1	k	431	GLN
1	k	487	GLN
1	k	498	ASN
1	k	553	ASN
1	k	609	GLN
1	k	647	GLN
1	k	652	ASN
1	k	674	GLN
1	k	701	GLN
1	k	736	ASN
1	l	293	HIS

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Mol	Chain	Res	Type
1	l	337	ASN
1	l	431	GLN
1	l	487	GLN
1	l	498	ASN
1	l	553	ASN
1	l	609	GLN
1	l	647	GLN
1	l	652	ASN
1	l	674	GLN
1	l	701	GLN
1	l	736	ASN
1	m	293	HIS
1	m	337	ASN
1	m	377	GLN
1	m	431	GLN
1	m	487	GLN
1	m	498	ASN
1	m	553	ASN
1	m	609	GLN
1	m	616	GLN
1	m	647	GLN
1	m	652	ASN
1	m	674	GLN
1	m	701	GLN
1	m	736	ASN
1	n	293	HIS
1	n	337	ASN
1	n	377	GLN
1	n	431	GLN
1	n	487	GLN
1	n	498	ASN
1	n	553	ASN
1	n	609	GLN
1	n	647	GLN
1	n	652	ASN
1	n	674	GLN
1	n	701	GLN
1	n	736	ASN
1	o	293	HIS
1	o	337	ASN
1	o	377	GLN
1	o	431	GLN

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Mol	Chain	Res	Type
1	o	487	GLN
1	o	498	ASN
1	o	553	ASN
1	o	609	GLN
1	o	647	GLN
1	o	652	ASN
1	o	674	GLN
1	o	701	GLN
1	o	736	ASN
1	p	293	HIS
1	p	337	ASN
1	p	431	GLN
1	p	487	GLN
1	p	498	ASN
1	p	553	ASN
1	p	609	GLN
1	p	647	GLN
1	p	652	ASN
1	p	674	GLN
1	p	701	GLN
1	p	736	ASN
1	q	293	HIS
1	q	337	ASN
1	q	431	GLN
1	q	487	GLN
1	q	498	ASN
1	q	553	ASN
1	q	609	GLN
1	q	647	GLN
1	q	652	ASN
1	q	674	GLN
1	q	701	GLN
1	q	736	ASN
1	r	293	HIS
1	r	337	ASN
1	r	431	GLN
1	r	487	GLN
1	r	498	ASN
1	r	553	ASN
1	r	609	GLN
1	r	647	GLN
1	r	652	ASN

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Mol	Chain	Res	Type
1	r	674	GLN
1	r	701	GLN
1	r	736	ASN
1	s	293	HIS
1	s	337	ASN
1	s	377	GLN
1	s	431	GLN
1	s	487	GLN
1	s	498	ASN
1	s	553	ASN
1	s	609	GLN
1	s	647	GLN
1	s	652	ASN
1	s	674	GLN
1	s	701	GLN
1	s	736	ASN
1	t	293	HIS
1	t	337	ASN
1	t	431	GLN
1	t	487	GLN
1	t	498	ASN
1	t	553	ASN
1	t	609	GLN
1	t	647	GLN
1	t	652	ASN
1	t	674	GLN
1	t	701	GLN
1	t	736	ASN
1	u	293	HIS
1	u	337	ASN
1	u	431	GLN
1	u	487	GLN
1	u	498	ASN
1	u	553	ASN
1	u	609	GLN
1	u	647	GLN
1	u	652	ASN
1	u	674	GLN
1	u	701	GLN
1	u	736	ASN
1	v	293	HIS
1	v	337	ASN

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Mol	Chain	Res	Type
1	v	377	GLN
1	v	431	GLN
1	v	487	GLN
1	v	498	ASN
1	v	553	ASN
1	v	609	GLN
1	v	647	GLN
1	v	652	ASN
1	v	674	GLN
1	v	701	GLN
1	v	736	ASN
1	w	293	HIS
1	w	337	ASN
1	w	431	GLN
1	w	487	GLN
1	w	498	ASN
1	w	553	ASN
1	w	609	GLN
1	w	647	GLN
1	w	652	ASN
1	w	674	GLN
1	w	701	GLN
1	w	736	ASN
1	x	293	HIS
1	x	337	ASN
1	x	431	GLN
1	x	487	GLN
1	x	498	ASN
1	x	553	ASN
1	x	609	GLN
1	x	647	GLN
1	x	652	ASN
1	x	674	GLN
1	x	701	GLN
1	x	736	ASN
1	y	293	HIS
1	y	337	ASN
1	y	431	GLN
1	y	487	GLN
1	y	498	ASN
1	y	553	ASN
1	y	609	GLN

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Mol	Chain	Res	Type
1	y	647	GLN
1	y	652	ASN
1	y	674	GLN
1	y	701	GLN
1	y	736	ASN
1	z	293	HIS
1	z	337	ASN
1	z	377	GLN
1	z	431	GLN
1	z	487	GLN
1	z	498	ASN
1	z	553	ASN
1	z	609	GLN
1	z	647	GLN
1	z	652	ASN
1	z	674	GLN
1	z	701	GLN
1	z	736	ASN
1	1	293	HIS
1	1	337	ASN
1	1	377	GLN
1	1	431	GLN
1	1	487	GLN
1	1	498	ASN
1	1	553	ASN
1	1	609	GLN
1	1	647	GLN
1	1	652	ASN
1	1	674	GLN
1	1	701	GLN
1	1	736	ASN
1	2	293	HIS
1	2	337	ASN
1	2	377	GLN
1	2	431	GLN
1	2	487	GLN
1	2	498	ASN
1	2	553	ASN
1	2	609	GLN
1	2	647	GLN
1	2	652	ASN
1	2	674	GLN

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Mol	Chain	Res	Type
1	2	701	GLN
1	2	736	ASN
1	3	293	HIS
1	3	337	ASN
1	3	431	GLN
1	3	487	GLN
1	3	498	ASN
1	3	553	ASN
1	3	609	GLN
1	3	647	GLN
1	3	652	ASN
1	3	674	GLN
1	3	701	GLN
1	3	736	ASN
1	4	293	HIS
1	4	337	ASN
1	4	377	GLN
1	4	431	GLN
1	4	487	GLN
1	4	498	ASN
1	4	553	ASN
1	4	609	GLN
1	4	647	GLN
1	4	652	ASN
1	4	674	GLN
1	4	701	GLN
1	4	736	ASN
1	5	293	HIS
1	5	337	ASN
1	5	377	GLN
1	5	431	GLN
1	5	487	GLN
1	5	498	ASN
1	5	553	ASN
1	5	609	GLN
1	5	647	GLN
1	5	652	ASN
1	5	674	GLN
1	5	701	GLN
1	5	736	ASN
1	6	293	HIS
1	6	337	ASN

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Mol	Chain	Res	Type
1	6	431	GLN
1	6	487	GLN
1	6	498	ASN
1	6	553	ASN
1	6	609	GLN
1	6	647	GLN
1	6	652	ASN
1	6	674	GLN
1	6	701	GLN
1	6	736	ASN
1	7	293	HIS
1	7	337	ASN
1	7	431	GLN
1	7	487	GLN
1	7	498	ASN
1	7	553	ASN
1	7	609	GLN
1	7	647	GLN
1	7	652	ASN
1	7	674	GLN
1	7	701	GLN
1	7	736	ASN
1	8	293	HIS
1	8	337	ASN
1	8	431	GLN
1	8	487	GLN
1	8	498	ASN
1	8	553	ASN
1	8	609	GLN
1	8	647	GLN
1	8	652	ASN
1	8	674	GLN
1	8	701	GLN
1	8	736	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

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.

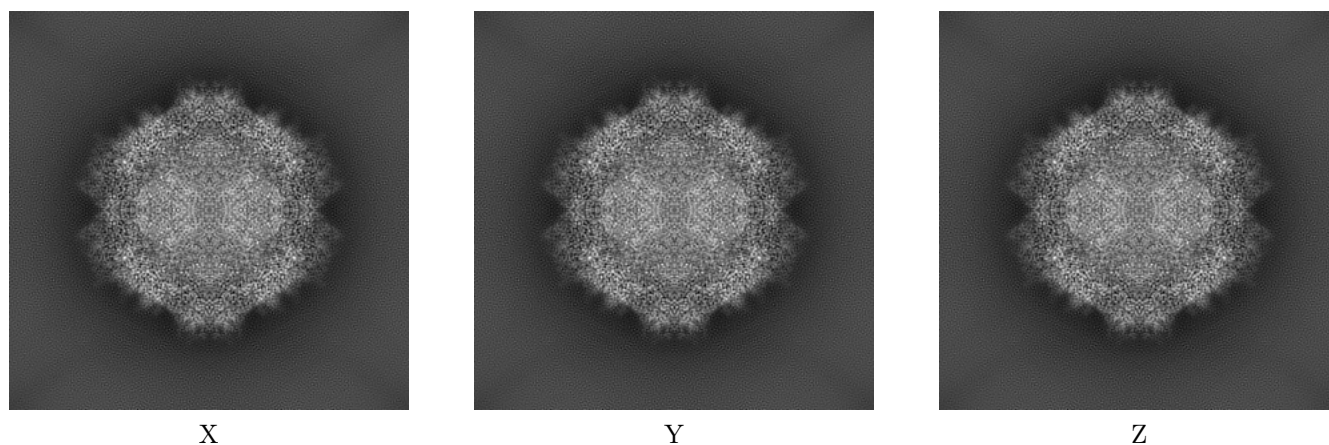
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-24513. 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](#)

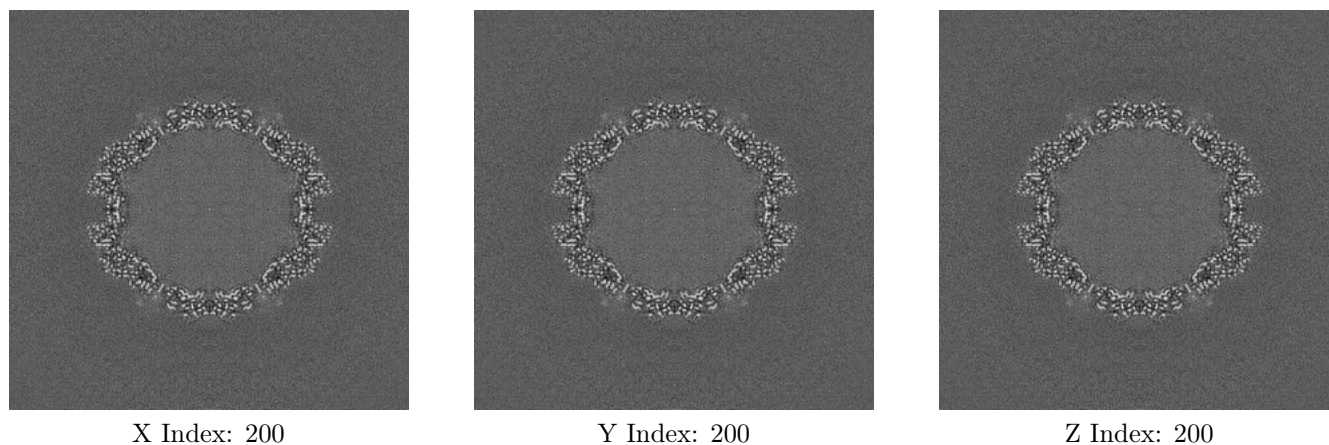
6.1.1 Primary map



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

6.2 Central slices [i](#)

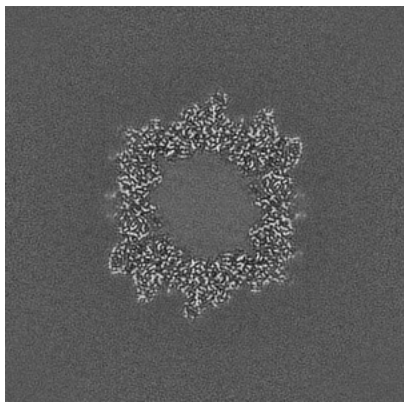
6.2.1 Primary map



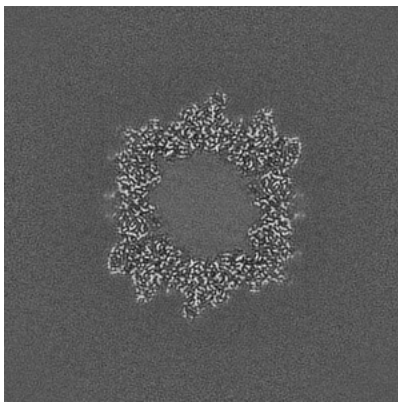
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

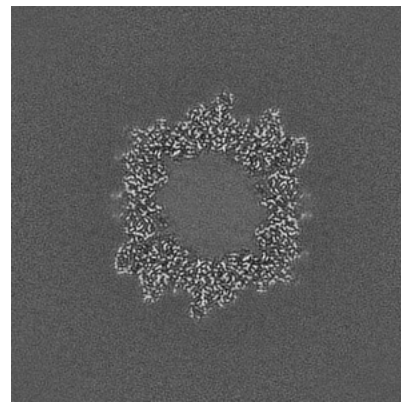
6.3.1 Primary map



X Index: 263



Y Index: 263

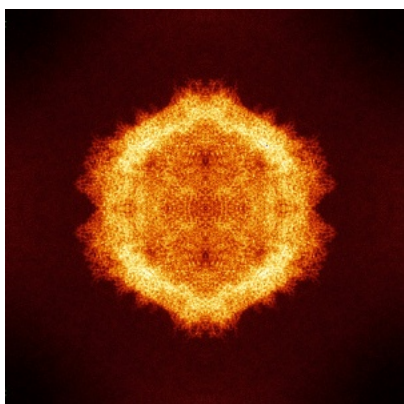


Z Index: 263

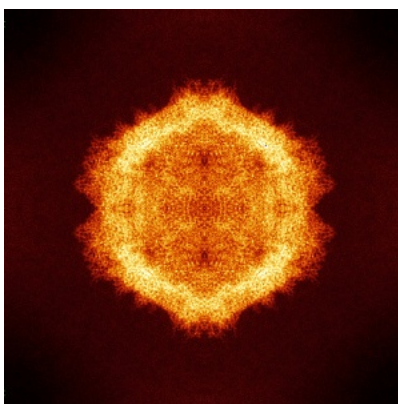
The images above show the largest variance slices of the map in three orthogonal directions.

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

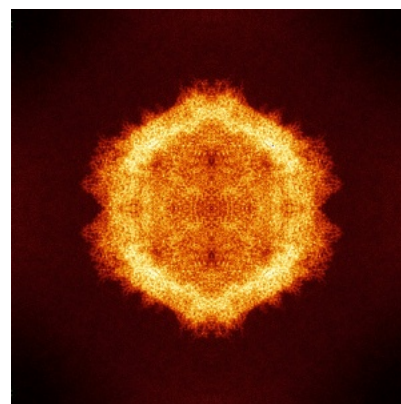
6.4.1 Primary map



X



Y

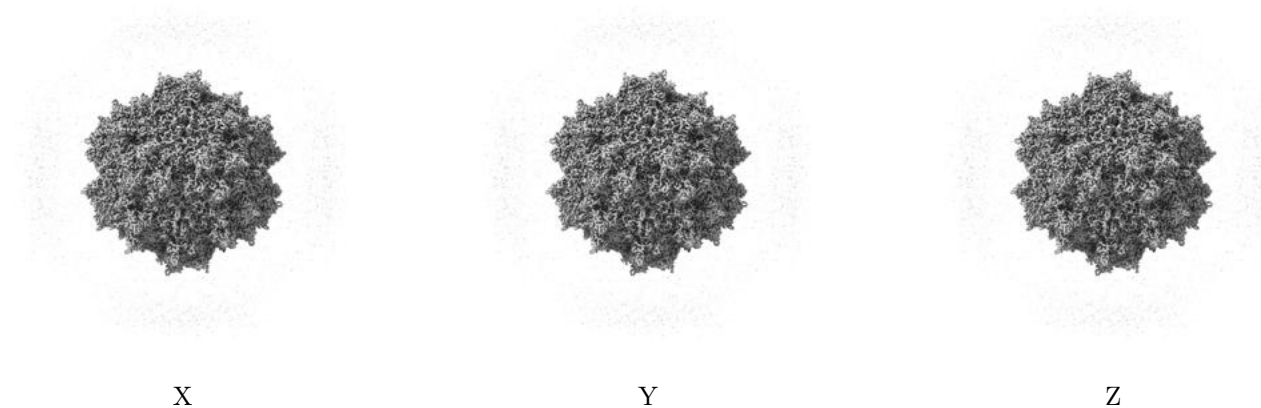


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 2.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

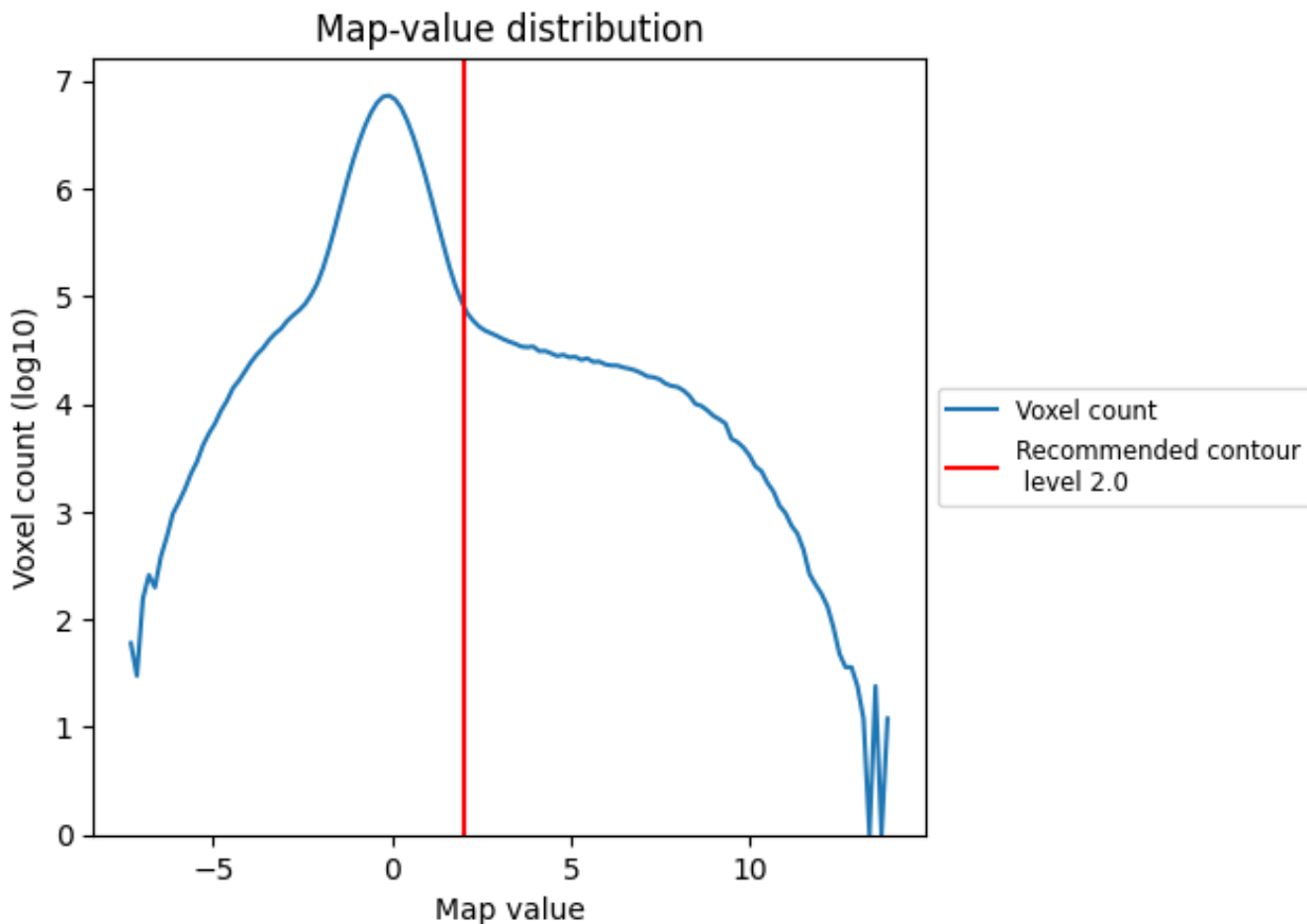
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

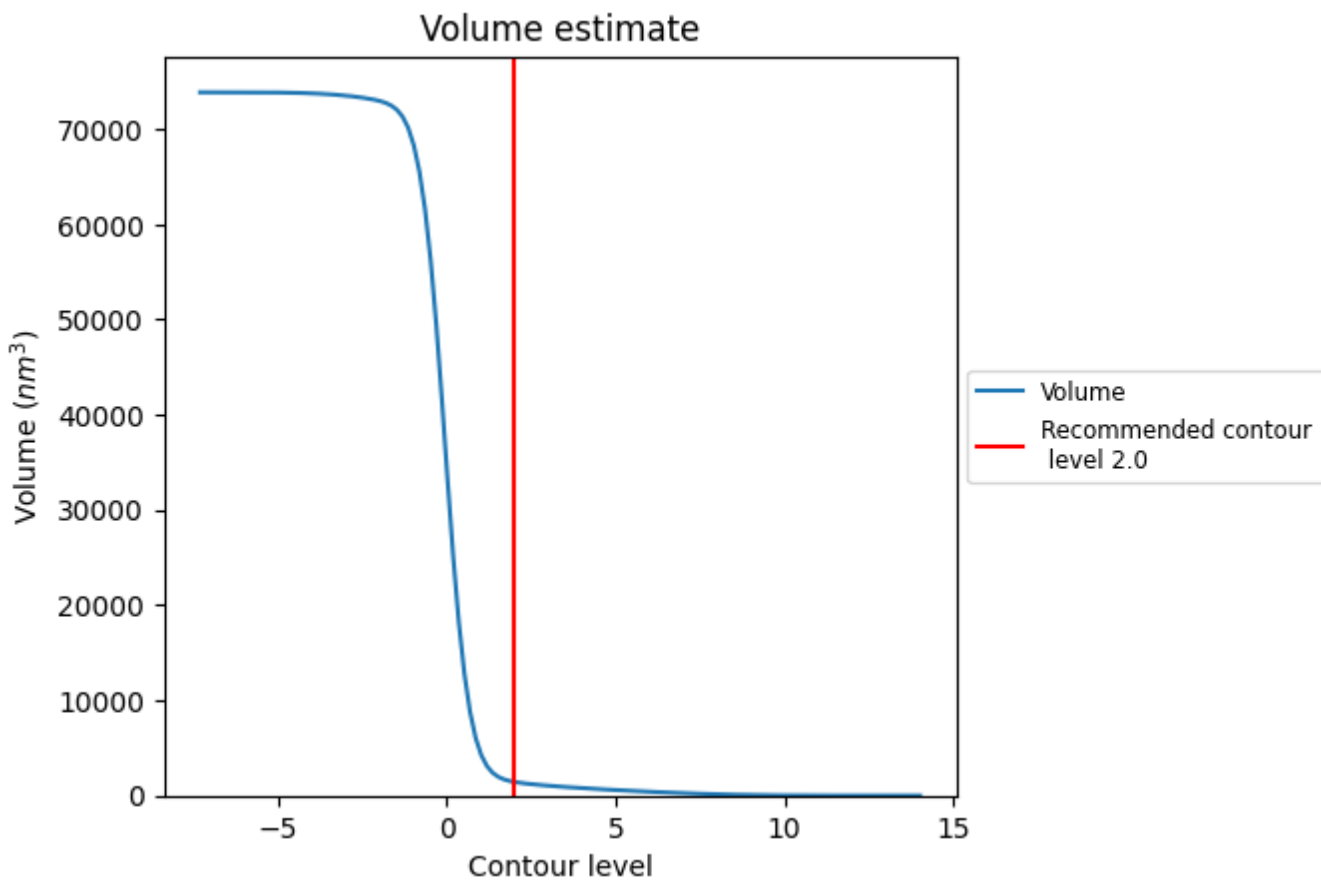
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

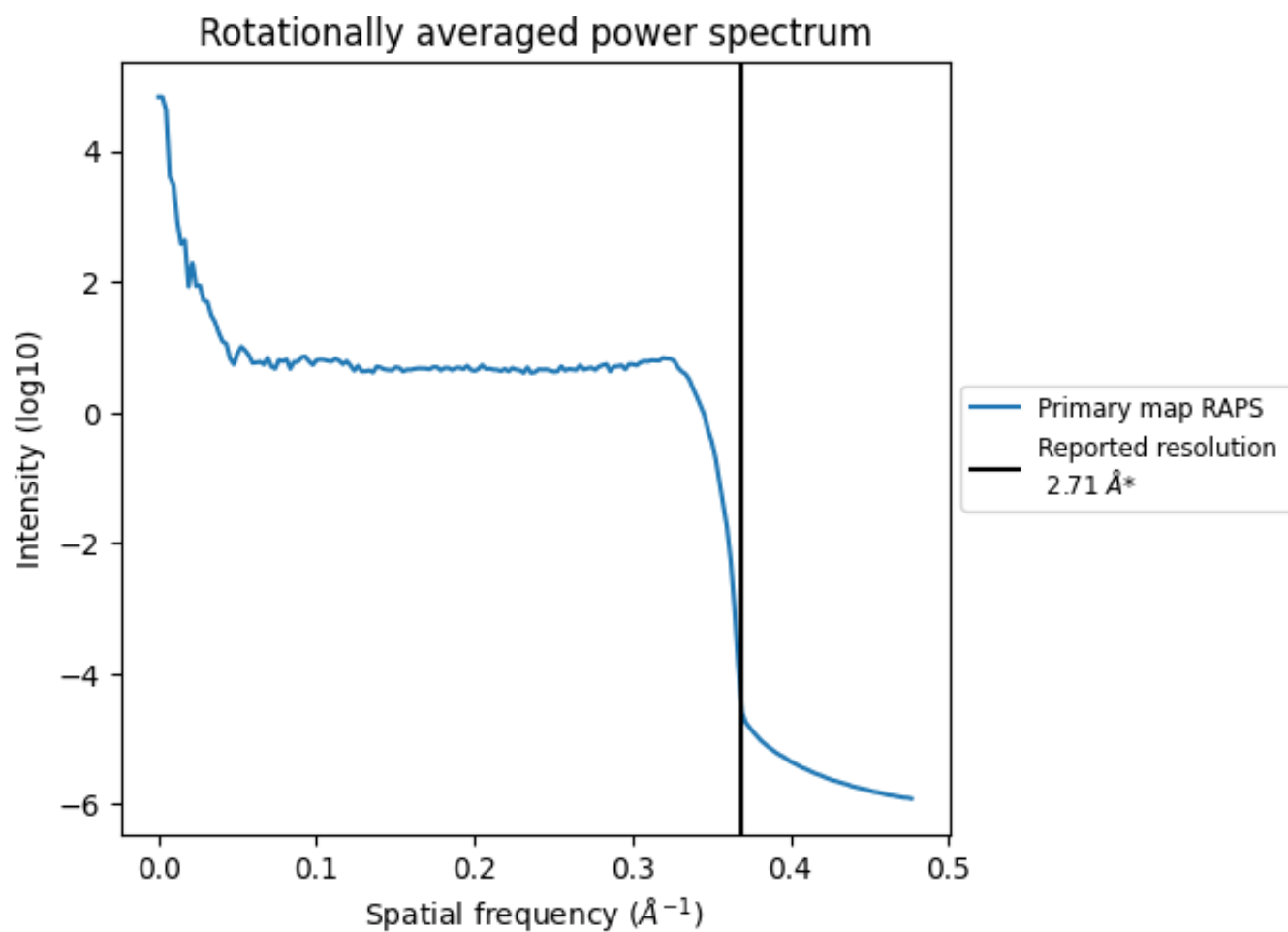
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1432 nm^3 ; this corresponds to an approximate mass of 1293 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 0.369\AA^{-1}

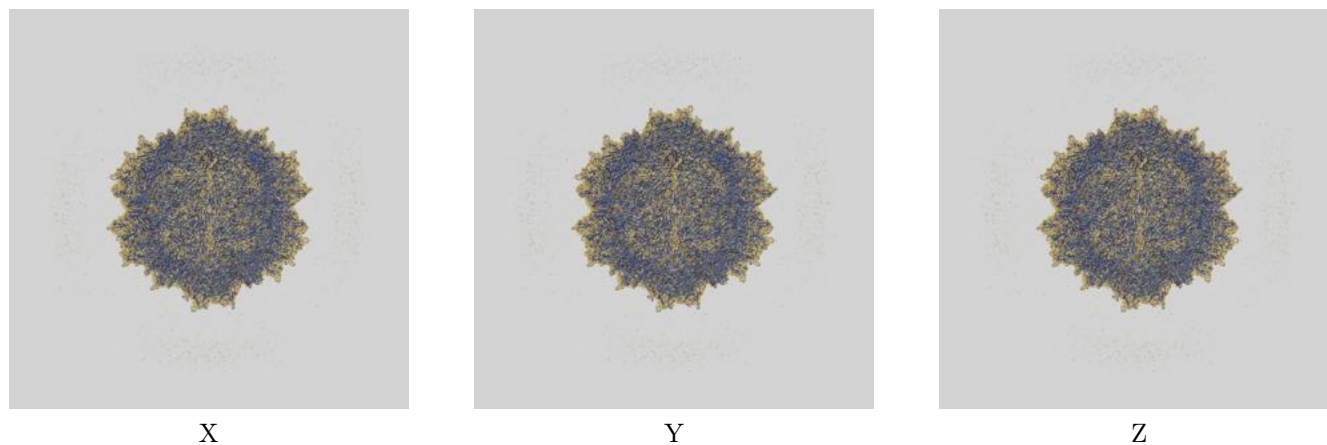
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

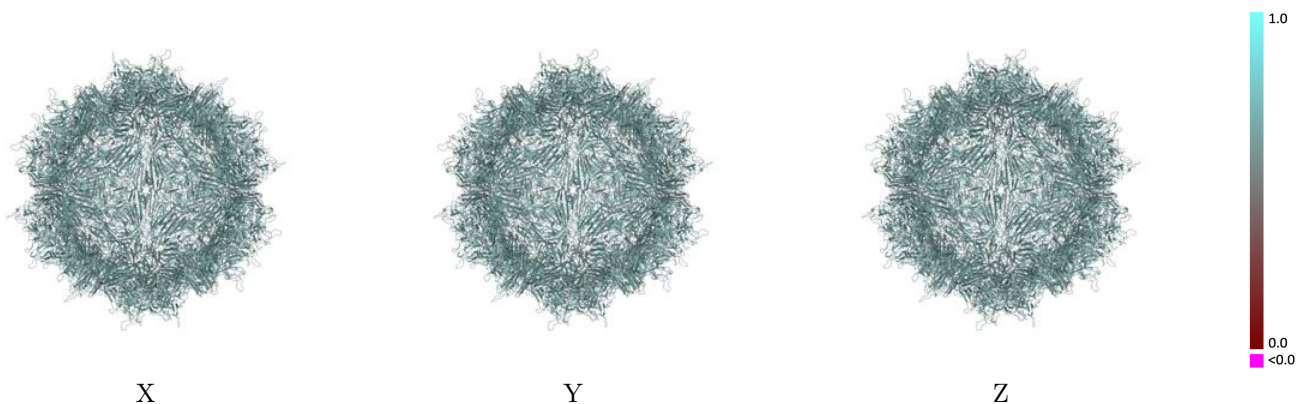
This section contains information regarding the fit between EMDB map EMD-24513 and PDB model 7RL1. Per-residue inclusion information can be found in section 3 on page 29.

9.1 Map-model overlay [i](#)



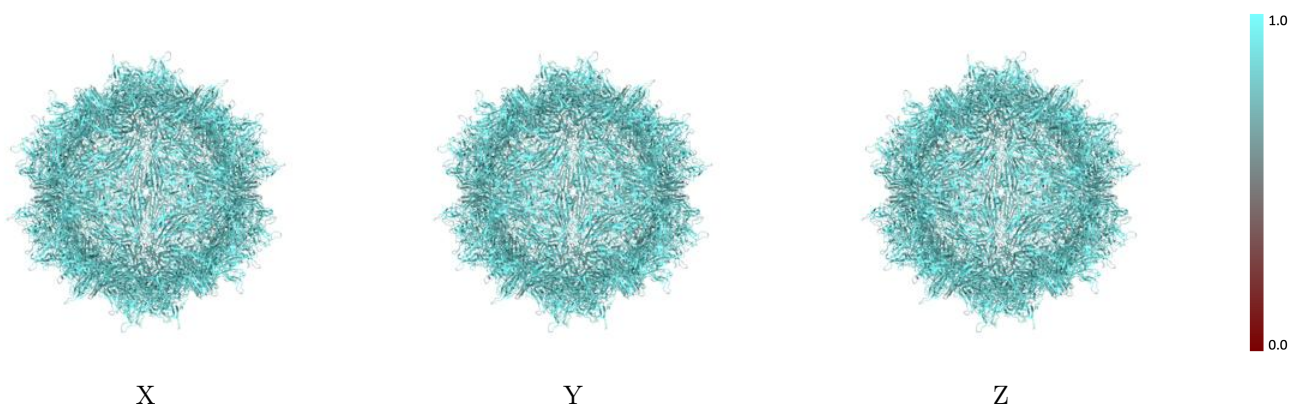
The images above show the 3D surface view of the map at the recommended contour level 2.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



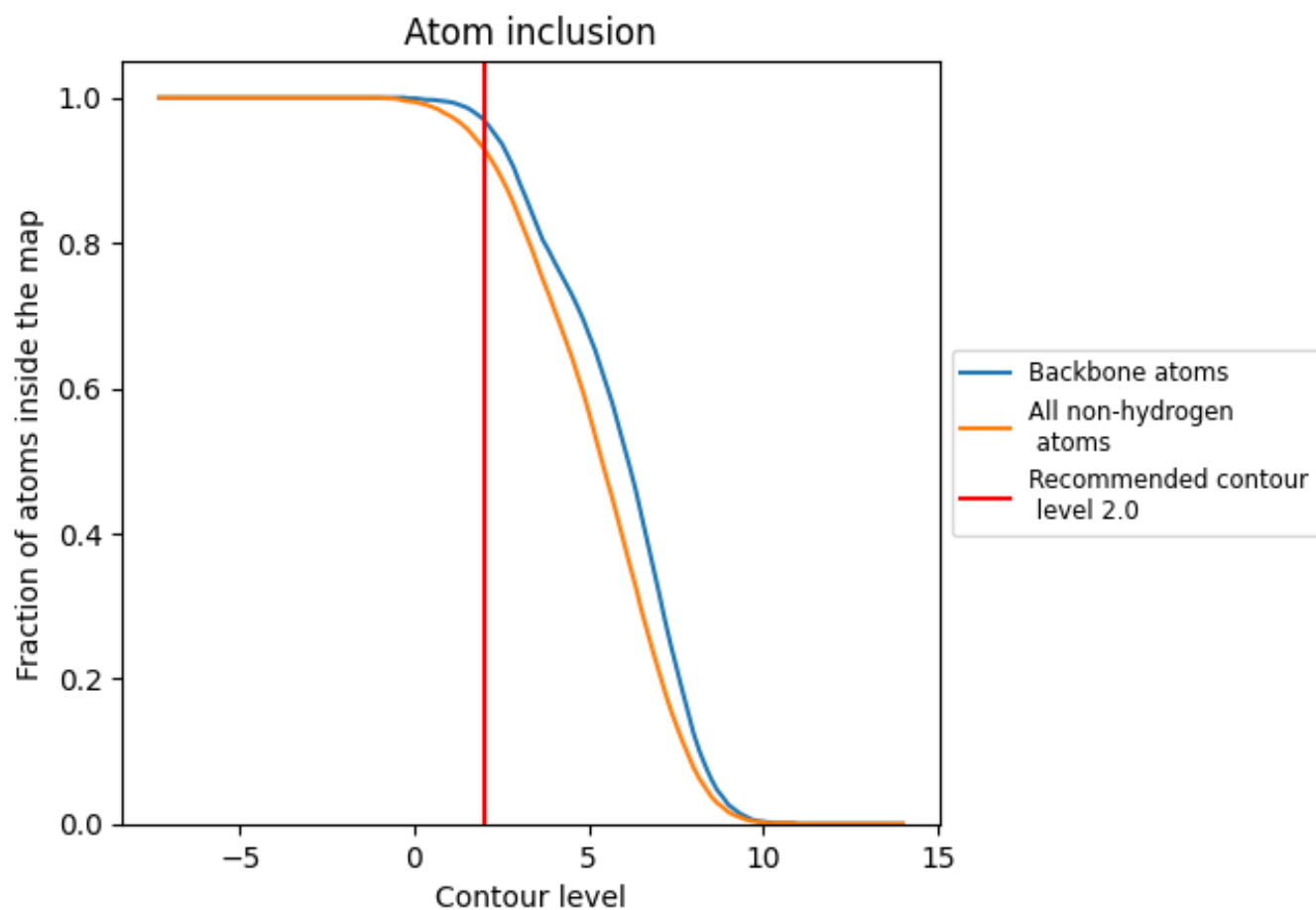
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.0).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 97% of all backbone atoms, 93% 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 (2.0) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9300	 0.6270
0	 0.6220	 0.4820
0A	 0.6220	 0.4730
1	 0.9330	 0.6310
1A	 0.5680	 0.4700
2	 0.9330	 0.6290
2A	 0.5950	 0.4840
3	 0.9340	 0.6280
3A	 0.5950	 0.4630
4	 0.9310	 0.6290
4A	 0.5680	 0.4780
5	 0.9340	 0.6290
5A	 0.5950	 0.4770
6	 0.9340	 0.6290
7	 0.9340	 0.6280
8	 0.9330	 0.6300
9	 0.5680	 0.4730
A	 0.9340	 0.6290
AA	 0.5680	 0.4710
B	 0.9330	 0.6300
BA	 0.5680	 0.4640
C	 0.9310	 0.6290
CA	 0.5950	 0.4650
D	 0.9340	 0.6280
DA	 0.6220	 0.4890
E	 0.9330	 0.6290
EA	 0.5950	 0.4740
F	 0.9340	 0.6290
FA	 0.5950	 0.4730
G	 0.9330	 0.6280
GA	 0.5680	 0.4740
H	 0.9340	 0.6290
HA	 0.5680	 0.4670
I	 0.9310	 0.6290
IA	 0.5680	 0.4750























































































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Chain	Atom inclusion	Q-score
J	 0.9330	 0.6290
JA	 0.5680	 0.4650
K	 0.9310	 0.6280
KA	 0.5950	 0.4660
L	 0.9330	 0.6300
LA	 0.5950	 0.4670
M	 0.9330	 0.6290
MA	 0.5950	 0.4760
N	 0.9340	 0.6280
NA	 0.5680	 0.4720
O	 0.9330	 0.6290
OA	 0.5680	 0.4780
P	 0.9340	 0.6280
PA	 0.5680	 0.4690
Q	 0.9310	 0.6280
QA	 0.5680	 0.4700
R	 0.9330	 0.6290
RA	 0.5680	 0.4780
S	 0.9330	 0.6290
SA	 0.5680	 0.4700
T	 0.9310	 0.6290
TA	 0.5680	 0.4850
U	 0.9330	 0.6290
UA	 0.5950	 0.4720
V	 0.9310	 0.6280
VA	 0.5950	 0.4790
W	 0.9340	 0.6290
WA	 0.5680	 0.4610
X	 0.9330	 0.6290
XA	 0.5950	 0.4710
Y	 0.9340	 0.6280
YA	 0.6220	 0.4740
Z	 0.9330	 0.6300
ZA	 0.6220	 0.4820
a	 0.9340	 0.6280
aA	 0.6220	 0.4820
b	 0.9340	 0.6290
bA	 0.6220	 0.4770
c	 0.9340	 0.6290
cA	 0.6220	 0.4820
d	 0.9340	 0.6290
dA	 0.6220	 0.4770

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Chain	Atom inclusion	Q-score
e	 0.9340	 0.6290
eA	 0.5680	 0.4790
f	 0.9340	 0.6290
fA	 0.5950	 0.4810
g	 0.9310	 0.6280
gA	 0.5680	 0.4550
h	 0.9330	 0.6300
hA	 0.5950	 0.4780
i	 0.9340	 0.6290
iA	 0.5950	 0.4790
j	 0.9340	 0.6290
jA	 0.5950	 0.4680
k	 0.9340	 0.6290
kA	 0.5680	 0.4790
l	 0.9330	 0.6290
lA	 0.6220	 0.4840
m	 0.9310	 0.6280
mA	 0.5950	 0.4690
n	 0.9340	 0.6290
nA	 0.5680	 0.4830
o	 0.9330	 0.6290
oA	 0.5680	 0.4660
p	 0.9310	 0.6290
pA	 0.5680	 0.4760
q	 0.9330	 0.6280
qA	 0.5680	 0.4640
r	 0.9330	 0.6290
rA	 0.5950	 0.4700
s	 0.9330	 0.6300
sA	 0.5680	 0.4870
t	 0.9330	 0.6290
tA	 0.6220	 0.4850
u	 0.9310	 0.6280
uA	 0.5950	 0.4720
v	 0.9340	 0.6290
vA	 0.5680	 0.4730
w	 0.9330	 0.6290
wA	 0.6220	 0.4790
x	 0.9310	 0.6280
xA	 0.5680	 0.4710
y	 0.9340	 0.6290
yA	 0.5680	 0.4770

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Chain	Atom inclusion	Q-score
z	 0.9330	 0.6290
zA	 0.5680	 0.4710