



Full wwPDB EM Validation Report ⓘ

Mar 7, 2026 – 01:49 AM UTC

PDB ID : 7ANW / pdb_00007anw
EMDB ID : EMD-11834
Title : hSARM1 NAD⁺ complex
Authors : Sporny, M.; Guez-Haddad, J.; Khazma, T.; Yaron, A.; Mim, C.; Isupov, M.N.;
Zalk, R.; Dessau, M.; Hons, M.; Opatowsky, Y.
Deposited on : 2020-10-13
Resolution : 2.68 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.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

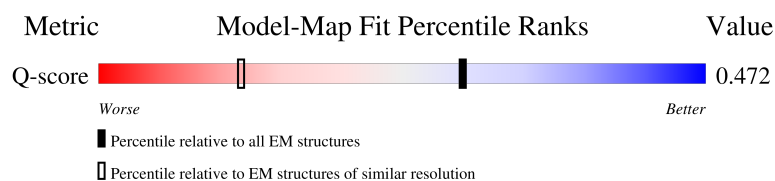
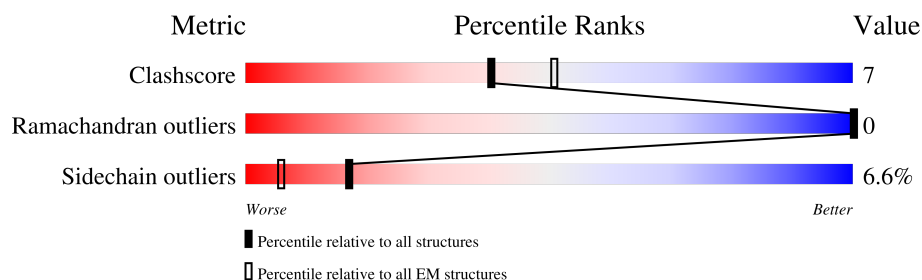
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 2.68 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.



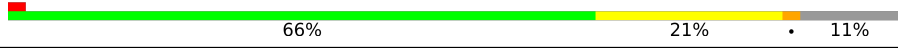
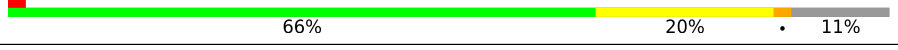
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	9255 (2.18 - 3.18)

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	A	725	 66% 20% • 11%
1	B	725	 66% 21% • 11%
1	C	725	 66% 21% • 11%
1	D	725	 66% 20% • 11%

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Mol	Chain	Length	Quality of chain
1	E	725	
1	F	725	
1	G	725	
1	H	725	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	NAD	A	801	X	-	-	-
2	NAD	B	801	X	-	-	-
2	NAD	C	801	X	-	-	-
2	NAD	D	801	X	-	-	-
2	NAD	E	801	X	-	-	-
2	NAD	F	801	X	-	-	-
2	NAD	G	801	X	-	-	-
2	NAD	H	801	X	-	-	-

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 40520 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 NAD(+) hydrolase SARM1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	B	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	C	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	D	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	E	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	F	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	G	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		
1	H	645	Total	C	N	O	S	0	0
			5021	3166	901	930	24		

There are 216 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	0	SER	-	expression tag	UNP Q6SZW1
A	1	TYR	-	expression tag	UNP Q6SZW1
A	2	HIS	-	expression tag	UNP Q6SZW1
A	3	HIS	-	expression tag	UNP Q6SZW1
A	4	HIS	-	expression tag	UNP Q6SZW1
A	5	HIS	-	expression tag	UNP Q6SZW1
A	6	HIS	-	expression tag	UNP Q6SZW1
A	7	HIS	-	expression tag	UNP Q6SZW1
A	8	ASP	-	expression tag	UNP Q6SZW1
A	9	TYR	-	expression tag	UNP Q6SZW1
A	10	ASP	-	expression tag	UNP Q6SZW1
A	11	ILE	-	expression tag	UNP Q6SZW1
A	12	PRO	-	expression tag	UNP Q6SZW1
A	13	THR	-	expression tag	UNP Q6SZW1

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Chain	Residue	Modelled	Actual	Comment	Reference
A	14	THR	-	expression tag	UNP Q6SZW1
A	15	GLU	-	expression tag	UNP Q6SZW1
A	16	ASN	-	expression tag	UNP Q6SZW1
A	17	LEU	-	expression tag	UNP Q6SZW1
A	18	TYR	-	expression tag	UNP Q6SZW1
A	19	PHE	-	expression tag	UNP Q6SZW1
A	20	GLN	-	expression tag	UNP Q6SZW1
A	21	GLY	-	expression tag	UNP Q6SZW1
A	22	ALA	-	expression tag	UNP Q6SZW1
A	23	MET	-	expression tag	UNP Q6SZW1
A	24	GLY	-	expression tag	UNP Q6SZW1
A	25	SER	-	expression tag	UNP Q6SZW1
A	642	GLN	GLU	conflict	UNP Q6SZW1
B	0	SER	-	expression tag	UNP Q6SZW1
B	1	TYR	-	expression tag	UNP Q6SZW1
B	2	HIS	-	expression tag	UNP Q6SZW1
B	3	HIS	-	expression tag	UNP Q6SZW1
B	4	HIS	-	expression tag	UNP Q6SZW1
B	5	HIS	-	expression tag	UNP Q6SZW1
B	6	HIS	-	expression tag	UNP Q6SZW1
B	7	HIS	-	expression tag	UNP Q6SZW1
B	8	ASP	-	expression tag	UNP Q6SZW1
B	9	TYR	-	expression tag	UNP Q6SZW1
B	10	ASP	-	expression tag	UNP Q6SZW1
B	11	ILE	-	expression tag	UNP Q6SZW1
B	12	PRO	-	expression tag	UNP Q6SZW1
B	13	THR	-	expression tag	UNP Q6SZW1
B	14	THR	-	expression tag	UNP Q6SZW1
B	15	GLU	-	expression tag	UNP Q6SZW1
B	16	ASN	-	expression tag	UNP Q6SZW1
B	17	LEU	-	expression tag	UNP Q6SZW1
B	18	TYR	-	expression tag	UNP Q6SZW1
B	19	PHE	-	expression tag	UNP Q6SZW1
B	20	GLN	-	expression tag	UNP Q6SZW1
B	21	GLY	-	expression tag	UNP Q6SZW1
B	22	ALA	-	expression tag	UNP Q6SZW1
B	23	MET	-	expression tag	UNP Q6SZW1
B	24	GLY	-	expression tag	UNP Q6SZW1
B	25	SER	-	expression tag	UNP Q6SZW1
B	642	GLN	GLU	conflict	UNP Q6SZW1
C	0	SER	-	expression tag	UNP Q6SZW1
C	1	TYR	-	expression tag	UNP Q6SZW1

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Chain	Residue	Modelled	Actual	Comment	Reference
C	2	HIS	-	expression tag	UNP Q6SZW1
C	3	HIS	-	expression tag	UNP Q6SZW1
C	4	HIS	-	expression tag	UNP Q6SZW1
C	5	HIS	-	expression tag	UNP Q6SZW1
C	6	HIS	-	expression tag	UNP Q6SZW1
C	7	HIS	-	expression tag	UNP Q6SZW1
C	8	ASP	-	expression tag	UNP Q6SZW1
C	9	TYR	-	expression tag	UNP Q6SZW1
C	10	ASP	-	expression tag	UNP Q6SZW1
C	11	ILE	-	expression tag	UNP Q6SZW1
C	12	PRO	-	expression tag	UNP Q6SZW1
C	13	THR	-	expression tag	UNP Q6SZW1
C	14	THR	-	expression tag	UNP Q6SZW1
C	15	GLU	-	expression tag	UNP Q6SZW1
C	16	ASN	-	expression tag	UNP Q6SZW1
C	17	LEU	-	expression tag	UNP Q6SZW1
C	18	TYR	-	expression tag	UNP Q6SZW1
C	19	PHE	-	expression tag	UNP Q6SZW1
C	20	GLN	-	expression tag	UNP Q6SZW1
C	21	GLY	-	expression tag	UNP Q6SZW1
C	22	ALA	-	expression tag	UNP Q6SZW1
C	23	MET	-	expression tag	UNP Q6SZW1
C	24	GLY	-	expression tag	UNP Q6SZW1
C	25	SER	-	expression tag	UNP Q6SZW1
C	642	GLN	GLU	conflict	UNP Q6SZW1
D	0	SER	-	expression tag	UNP Q6SZW1
D	1	TYR	-	expression tag	UNP Q6SZW1
D	2	HIS	-	expression tag	UNP Q6SZW1
D	3	HIS	-	expression tag	UNP Q6SZW1
D	4	HIS	-	expression tag	UNP Q6SZW1
D	5	HIS	-	expression tag	UNP Q6SZW1
D	6	HIS	-	expression tag	UNP Q6SZW1
D	7	HIS	-	expression tag	UNP Q6SZW1
D	8	ASP	-	expression tag	UNP Q6SZW1
D	9	TYR	-	expression tag	UNP Q6SZW1
D	10	ASP	-	expression tag	UNP Q6SZW1
D	11	ILE	-	expression tag	UNP Q6SZW1
D	12	PRO	-	expression tag	UNP Q6SZW1
D	13	THR	-	expression tag	UNP Q6SZW1
D	14	THR	-	expression tag	UNP Q6SZW1
D	15	GLU	-	expression tag	UNP Q6SZW1
D	16	ASN	-	expression tag	UNP Q6SZW1

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Chain	Residue	Modelled	Actual	Comment	Reference
D	17	LEU	-	expression tag	UNP Q6SZW1
D	18	TYR	-	expression tag	UNP Q6SZW1
D	19	PHE	-	expression tag	UNP Q6SZW1
D	20	GLN	-	expression tag	UNP Q6SZW1
D	21	GLY	-	expression tag	UNP Q6SZW1
D	22	ALA	-	expression tag	UNP Q6SZW1
D	23	MET	-	expression tag	UNP Q6SZW1
D	24	GLY	-	expression tag	UNP Q6SZW1
D	25	SER	-	expression tag	UNP Q6SZW1
D	642	GLN	GLU	conflict	UNP Q6SZW1
E	0	SER	-	expression tag	UNP Q6SZW1
E	1	TYR	-	expression tag	UNP Q6SZW1
E	2	HIS	-	expression tag	UNP Q6SZW1
E	3	HIS	-	expression tag	UNP Q6SZW1
E	4	HIS	-	expression tag	UNP Q6SZW1
E	5	HIS	-	expression tag	UNP Q6SZW1
E	6	HIS	-	expression tag	UNP Q6SZW1
E	7	HIS	-	expression tag	UNP Q6SZW1
E	8	ASP	-	expression tag	UNP Q6SZW1
E	9	TYR	-	expression tag	UNP Q6SZW1
E	10	ASP	-	expression tag	UNP Q6SZW1
E	11	ILE	-	expression tag	UNP Q6SZW1
E	12	PRO	-	expression tag	UNP Q6SZW1
E	13	THR	-	expression tag	UNP Q6SZW1
E	14	THR	-	expression tag	UNP Q6SZW1
E	15	GLU	-	expression tag	UNP Q6SZW1
E	16	ASN	-	expression tag	UNP Q6SZW1
E	17	LEU	-	expression tag	UNP Q6SZW1
E	18	TYR	-	expression tag	UNP Q6SZW1
E	19	PHE	-	expression tag	UNP Q6SZW1
E	20	GLN	-	expression tag	UNP Q6SZW1
E	21	GLY	-	expression tag	UNP Q6SZW1
E	22	ALA	-	expression tag	UNP Q6SZW1
E	23	MET	-	expression tag	UNP Q6SZW1
E	24	GLY	-	expression tag	UNP Q6SZW1
E	25	SER	-	expression tag	UNP Q6SZW1
E	642	GLN	GLU	conflict	UNP Q6SZW1
F	0	SER	-	expression tag	UNP Q6SZW1
F	1	TYR	-	expression tag	UNP Q6SZW1
F	2	HIS	-	expression tag	UNP Q6SZW1
F	3	HIS	-	expression tag	UNP Q6SZW1
F	4	HIS	-	expression tag	UNP Q6SZW1

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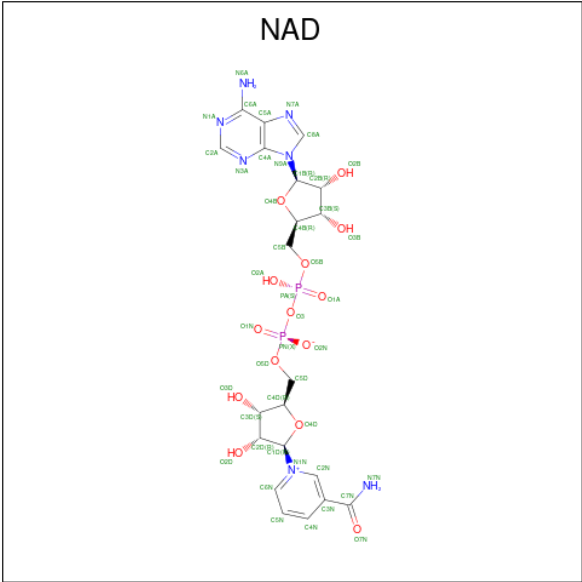
Chain	Residue	Modelled	Actual	Comment	Reference
F	5	HIS	-	expression tag	UNP Q6SZW1
F	6	HIS	-	expression tag	UNP Q6SZW1
F	7	HIS	-	expression tag	UNP Q6SZW1
F	8	ASP	-	expression tag	UNP Q6SZW1
F	9	TYR	-	expression tag	UNP Q6SZW1
F	10	ASP	-	expression tag	UNP Q6SZW1
F	11	ILE	-	expression tag	UNP Q6SZW1
F	12	PRO	-	expression tag	UNP Q6SZW1
F	13	THR	-	expression tag	UNP Q6SZW1
F	14	THR	-	expression tag	UNP Q6SZW1
F	15	GLU	-	expression tag	UNP Q6SZW1
F	16	ASN	-	expression tag	UNP Q6SZW1
F	17	LEU	-	expression tag	UNP Q6SZW1
F	18	TYR	-	expression tag	UNP Q6SZW1
F	19	PHE	-	expression tag	UNP Q6SZW1
F	20	GLN	-	expression tag	UNP Q6SZW1
F	21	GLY	-	expression tag	UNP Q6SZW1
F	22	ALA	-	expression tag	UNP Q6SZW1
F	23	MET	-	expression tag	UNP Q6SZW1
F	24	GLY	-	expression tag	UNP Q6SZW1
F	25	SER	-	expression tag	UNP Q6SZW1
F	642	GLN	GLU	conflict	UNP Q6SZW1
G	0	SER	-	expression tag	UNP Q6SZW1
G	1	TYR	-	expression tag	UNP Q6SZW1
G	2	HIS	-	expression tag	UNP Q6SZW1
G	3	HIS	-	expression tag	UNP Q6SZW1
G	4	HIS	-	expression tag	UNP Q6SZW1
G	5	HIS	-	expression tag	UNP Q6SZW1
G	6	HIS	-	expression tag	UNP Q6SZW1
G	7	HIS	-	expression tag	UNP Q6SZW1
G	8	ASP	-	expression tag	UNP Q6SZW1
G	9	TYR	-	expression tag	UNP Q6SZW1
G	10	ASP	-	expression tag	UNP Q6SZW1
G	11	ILE	-	expression tag	UNP Q6SZW1
G	12	PRO	-	expression tag	UNP Q6SZW1
G	13	THR	-	expression tag	UNP Q6SZW1
G	14	THR	-	expression tag	UNP Q6SZW1
G	15	GLU	-	expression tag	UNP Q6SZW1
G	16	ASN	-	expression tag	UNP Q6SZW1
G	17	LEU	-	expression tag	UNP Q6SZW1
G	18	TYR	-	expression tag	UNP Q6SZW1
G	19	PHE	-	expression tag	UNP Q6SZW1

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Chain	Residue	Modelled	Actual	Comment	Reference
G	20	GLN	-	expression tag	UNP Q6SZW1
G	21	GLY	-	expression tag	UNP Q6SZW1
G	22	ALA	-	expression tag	UNP Q6SZW1
G	23	MET	-	expression tag	UNP Q6SZW1
G	24	GLY	-	expression tag	UNP Q6SZW1
G	25	SER	-	expression tag	UNP Q6SZW1
G	642	GLN	GLU	conflict	UNP Q6SZW1
H	0	SER	-	expression tag	UNP Q6SZW1
H	1	TYR	-	expression tag	UNP Q6SZW1
H	2	HIS	-	expression tag	UNP Q6SZW1
H	3	HIS	-	expression tag	UNP Q6SZW1
H	4	HIS	-	expression tag	UNP Q6SZW1
H	5	HIS	-	expression tag	UNP Q6SZW1
H	6	HIS	-	expression tag	UNP Q6SZW1
H	7	HIS	-	expression tag	UNP Q6SZW1
H	8	ASP	-	expression tag	UNP Q6SZW1
H	9	TYR	-	expression tag	UNP Q6SZW1
H	10	ASP	-	expression tag	UNP Q6SZW1
H	11	ILE	-	expression tag	UNP Q6SZW1
H	12	PRO	-	expression tag	UNP Q6SZW1
H	13	THR	-	expression tag	UNP Q6SZW1
H	14	THR	-	expression tag	UNP Q6SZW1
H	15	GLU	-	expression tag	UNP Q6SZW1
H	16	ASN	-	expression tag	UNP Q6SZW1
H	17	LEU	-	expression tag	UNP Q6SZW1
H	18	TYR	-	expression tag	UNP Q6SZW1
H	19	PHE	-	expression tag	UNP Q6SZW1
H	20	GLN	-	expression tag	UNP Q6SZW1
H	21	GLY	-	expression tag	UNP Q6SZW1
H	22	ALA	-	expression tag	UNP Q6SZW1
H	23	MET	-	expression tag	UNP Q6SZW1
H	24	GLY	-	expression tag	UNP Q6SZW1
H	25	SER	-	expression tag	UNP Q6SZW1
H	642	GLN	GLU	conflict	UNP Q6SZW1

- Molecule 2 is NICOTINAMIDE-ADENINE-DINUCLEOTIDE (CCD ID: NAD) (formula: $C_{21}H_{27}N_7O_{14}P_2$).



Mol	Chain	Residues	Atoms					AltConf
2	A	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	B	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	C	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	D	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	E	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	F	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	G	1	Total	C	N	O	P	0
			44	21	7	14	2	
2	H	1	Total	C	N	O	P	0
			44	21	7	14	2	

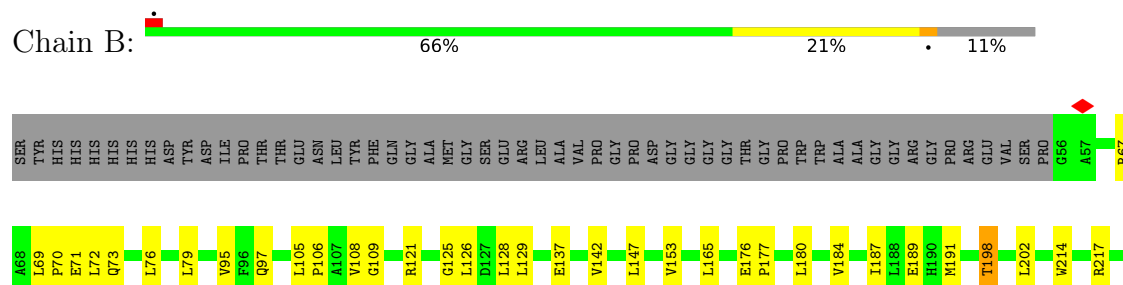
3 Residue-property plots

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

• Molecule 1: NAD(+) hydrolase SARM1



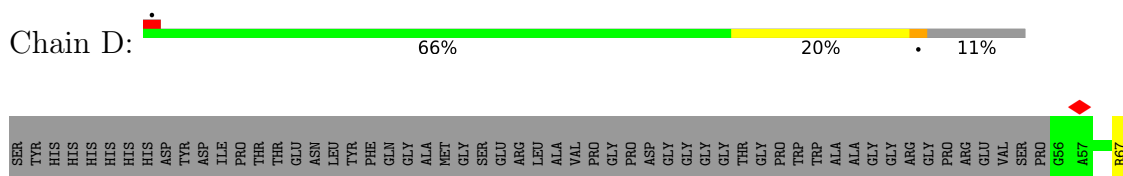
• Molecule 1: NAD(+) hydrolase SARM1

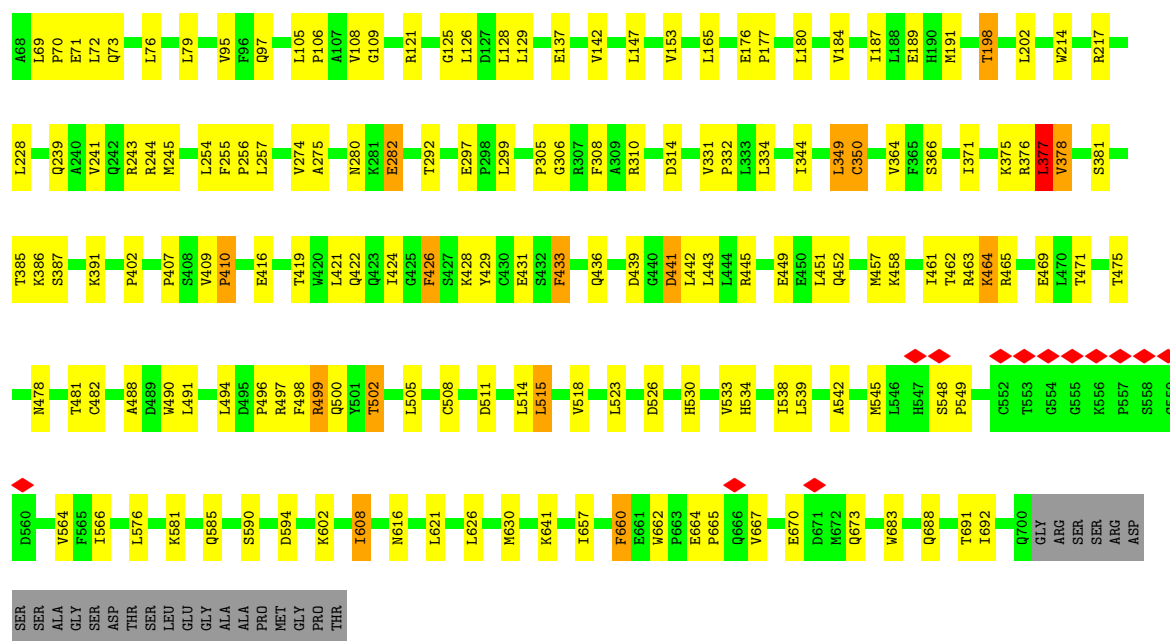


- Molecule 1: NAD(+) hydrolase SARM1

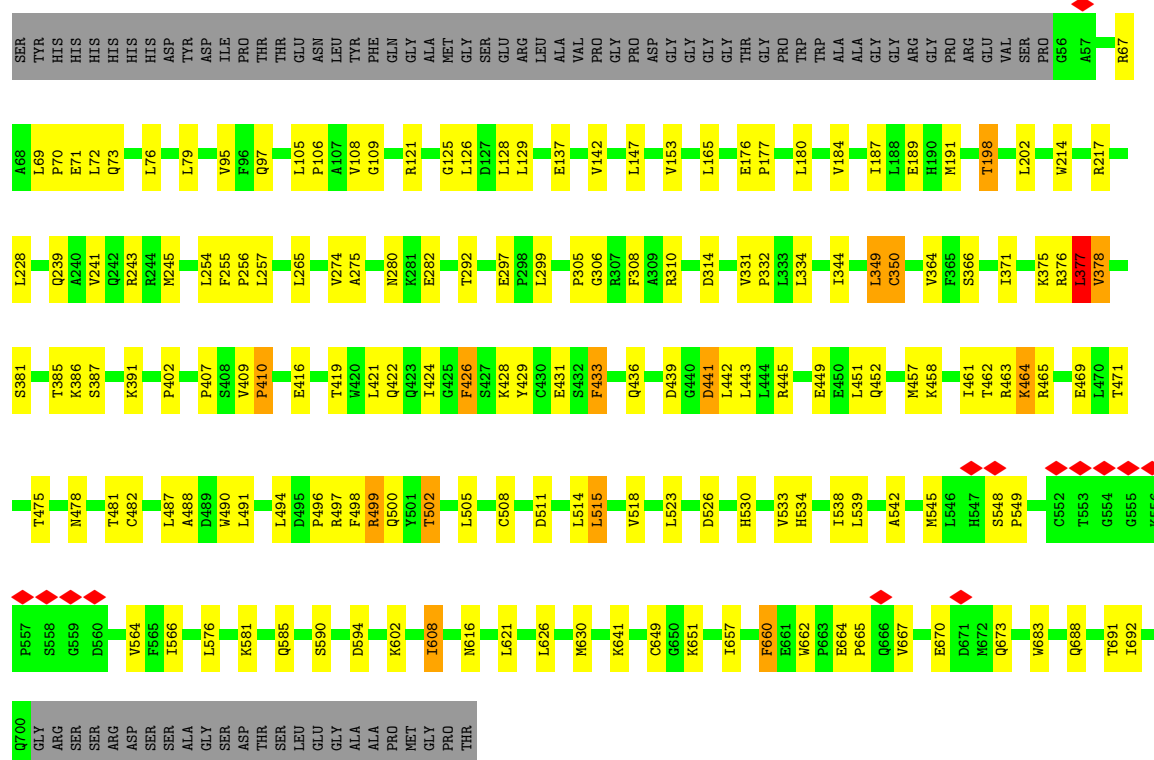


- Molecule 1: NAD(+) hydrolase SARM1





• Molecule 1: NAD(+) hydrolase SARM1



• Molecule 1: NAD(+) hydrolase SARM1





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	159340	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.595	Depositor
Minimum map value	-0.170	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.029	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	289.45, 289.45, 289.45	wwPDB
Map dimensions	350, 350, 350	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.827, 0.827, 0.827	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.64	2/5106 (0.0%)	1.36	41/6906 (0.6%)
1	B	0.62	0/5106	1.36	39/6906 (0.6%)
1	C	0.62	0/5106	1.36	39/6906 (0.6%)
1	D	0.62	0/5106	1.36	39/6906 (0.6%)
1	E	0.62	0/5106	1.36	39/6906 (0.6%)
1	F	0.62	0/5106	1.36	39/6906 (0.6%)
1	G	0.62	0/5106	1.36	39/6906 (0.6%)
1	H	0.62	0/5106	1.36	39/6906 (0.6%)
All	All	0.62	2/40848 (0.0%)	1.36	314/55248 (0.6%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	484	ARG	CD-NE	9.40	1.59	1.46
1	A	484	ARG	CG-CD	-7.17	1.30	1.52

All (314) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	375	LYS	CB-CA-C	-9.31	99.77	111.22
1	B	375	LYS	CB-CA-C	-9.30	99.78	111.22
1	D	375	LYS	CB-CA-C	-9.30	99.78	111.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	375	LYS	CB-CA-C	-9.30	99.78	111.22
1	A	375	LYS	CB-CA-C	-9.29	99.80	111.22
1	C	375	LYS	CB-CA-C	-9.28	99.80	111.22
1	G	375	LYS	CB-CA-C	-9.28	99.80	111.22
1	H	375	LYS	CB-CA-C	-9.28	99.81	111.22
1	B	502	THR	CA-CB-OG1	-9.27	95.70	109.60
1	D	502	THR	CA-CB-OG1	-9.27	95.70	109.60
1	F	502	THR	CA-CB-OG1	-9.27	95.70	109.60
1	H	502	THR	CA-CB-OG1	-9.27	95.70	109.60
1	C	502	THR	CA-CB-OG1	-9.26	95.71	109.60
1	E	502	THR	CA-CB-OG1	-9.26	95.71	109.60
1	G	502	THR	CA-CB-OG1	-9.26	95.71	109.60
1	A	502	THR	CA-CB-OG1	-9.26	95.72	109.60
1	D	538	ILE	N-CA-C	-9.11	101.52	110.72
1	C	538	ILE	N-CA-C	-9.10	101.53	110.72
1	G	538	ILE	N-CA-C	-9.10	101.53	110.72
1	A	538	ILE	N-CA-C	-9.10	101.53	110.72
1	E	538	ILE	N-CA-C	-9.10	101.53	110.72
1	B	538	ILE	N-CA-C	-9.07	101.56	110.72
1	F	538	ILE	N-CA-C	-9.07	101.56	110.72
1	H	538	ILE	N-CA-C	-9.07	101.56	110.72
1	C	378	VAL	N-CA-C	-8.81	104.23	111.81
1	G	378	VAL	N-CA-C	-8.81	104.23	111.81
1	E	378	VAL	N-CA-C	-8.78	104.26	111.81
1	D	378	VAL	N-CA-C	-8.78	104.26	111.81
1	B	378	VAL	N-CA-C	-8.78	104.26	111.81
1	F	378	VAL	N-CA-C	-8.78	104.26	111.81
1	H	378	VAL	N-CA-C	-8.78	104.26	111.81
1	A	378	VAL	N-CA-C	-8.75	104.29	111.81
1	A	484	ARG	CG-CD-NE	7.59	128.70	112.00
1	A	462	THR	CA-CB-OG1	-7.57	98.25	109.60
1	B	462	THR	CA-CB-OG1	-7.55	98.27	109.60
1	D	462	THR	CA-CB-OG1	-7.55	98.27	109.60
1	F	462	THR	CA-CB-OG1	-7.55	98.27	109.60
1	H	462	THR	CA-CB-OG1	-7.55	98.27	109.60
1	C	462	THR	CA-CB-OG1	-7.51	98.33	109.60
1	E	462	THR	CA-CB-OG1	-7.51	98.33	109.60
1	G	462	THR	CA-CB-OG1	-7.51	98.33	109.60
1	C	465	ARG	CG-CD-NE	-7.36	95.81	112.00
1	E	465	ARG	CG-CD-NE	-7.36	95.81	112.00
1	G	465	ARG	CG-CD-NE	-7.36	95.81	112.00
1	D	465	ARG	CG-CD-NE	-7.36	95.81	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	465	ARG	CG-CD-NE	-7.36	95.81	112.00
1	B	465	ARG	CG-CD-NE	-7.35	95.84	112.00
1	F	465	ARG	CG-CD-NE	-7.35	95.84	112.00
1	A	465	ARG	CG-CD-NE	-7.34	95.84	112.00
1	A	461	ILE	N-CA-C	-6.72	104.46	111.58
1	C	461	ILE	N-CA-C	-6.72	104.46	111.58
1	E	461	ILE	N-CA-C	-6.72	104.46	111.58
1	G	461	ILE	N-CA-C	-6.72	104.46	111.58
1	B	461	ILE	N-CA-C	-6.71	104.47	111.58
1	F	461	ILE	N-CA-C	-6.71	104.47	111.58
1	D	461	ILE	N-CA-C	-6.68	104.50	111.58
1	H	461	ILE	N-CA-C	-6.68	104.50	111.58
1	A	386	LYS	CB-CA-C	6.60	121.90	110.68
1	G	386	LYS	CB-CA-C	6.60	121.90	110.68
1	D	490	TRP	N-CA-C	-6.58	104.27	112.90
1	H	490	TRP	N-CA-C	-6.58	104.27	112.90
1	E	490	TRP	N-CA-C	-6.57	104.29	112.90
1	F	490	TRP	N-CA-C	-6.57	104.29	112.90
1	C	490	TRP	N-CA-C	-6.57	104.29	112.90
1	G	490	TRP	N-CA-C	-6.57	104.29	112.90
1	C	386	LYS	CB-CA-C	6.57	121.85	110.68
1	E	386	LYS	CB-CA-C	6.57	121.85	110.68
1	A	490	TRP	N-CA-C	-6.57	104.30	112.90
1	B	386	LYS	CB-CA-C	6.57	121.84	110.68
1	F	386	LYS	CB-CA-C	6.57	121.84	110.68
1	H	386	LYS	CB-CA-C	6.57	121.84	110.68
1	B	490	TRP	N-CA-C	-6.56	104.30	112.90
1	D	386	LYS	CB-CA-C	6.56	121.83	110.68
1	H	515	LEU	N-CA-C	-6.48	104.41	112.90
1	A	515	LEU	N-CA-C	-6.48	104.42	112.90
1	C	515	LEU	N-CA-C	-6.48	104.42	112.90
1	E	515	LEU	N-CA-C	-6.48	104.42	112.90
1	G	515	LEU	N-CA-C	-6.48	104.42	112.90
1	D	515	LEU	N-CA-C	-6.47	104.43	112.90
1	F	515	LEU	N-CA-C	-6.47	104.43	112.90
1	B	515	LEU	N-CA-C	-6.46	104.44	112.90
1	C	433	PHE	N-CA-C	-6.42	105.44	113.28
1	E	433	PHE	N-CA-C	-6.42	105.44	113.28
1	G	433	PHE	N-CA-C	-6.42	105.44	113.28
1	B	433	PHE	N-CA-C	-6.41	105.46	113.28
1	F	433	PHE	N-CA-C	-6.41	105.46	113.28
1	A	433	PHE	N-CA-C	-6.40	105.47	113.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	433	PHE	N-CA-C	-6.40	105.47	113.28
1	H	433	PHE	N-CA-C	-6.40	105.47	113.28
1	A	376	ARG	N-CA-C	-6.30	104.84	114.16
1	E	376	ARG	N-CA-C	-6.30	104.84	114.16
1	C	376	ARG	N-CA-C	-6.28	104.86	114.16
1	E	245	MET	N-CA-C	-6.28	104.51	111.36
1	B	376	ARG	N-CA-C	-6.28	104.87	114.16
1	D	376	ARG	N-CA-C	-6.28	104.87	114.16
1	F	376	ARG	N-CA-C	-6.28	104.87	114.16
1	H	376	ARG	N-CA-C	-6.28	104.87	114.16
1	C	245	MET	N-CA-C	-6.28	104.52	111.36
1	D	245	MET	N-CA-C	-6.27	104.53	111.36
1	G	376	ARG	N-CA-C	-6.26	104.89	114.16
1	B	245	MET	N-CA-C	-6.25	104.55	111.36
1	F	245	MET	N-CA-C	-6.25	104.55	111.36
1	H	245	MET	N-CA-C	-6.25	104.55	111.36
1	A	245	MET	N-CA-C	-6.25	104.55	111.36
1	G	245	MET	N-CA-C	-6.25	104.55	111.36
1	D	499	ARG	N-CA-C	-6.22	105.55	113.01
1	F	499	ARG	N-CA-C	-6.22	105.55	113.01
1	A	499	ARG	N-CA-C	-6.20	105.56	113.01
1	E	499	ARG	N-CA-C	-6.20	105.58	113.01
1	G	499	ARG	N-CA-C	-6.20	105.58	113.01
1	B	499	ARG	N-CA-C	-6.17	105.60	113.01
1	H	499	ARG	N-CA-C	-6.17	105.60	113.01
1	C	499	ARG	N-CA-C	-6.17	105.60	113.01
1	A	198	THR	CA-CB-OG1	-6.11	100.43	109.60
1	C	198	THR	CA-CB-OG1	-6.11	100.43	109.60
1	G	198	THR	CA-CB-OG1	-6.11	100.43	109.60
1	E	198	THR	CA-CB-OG1	-6.11	100.44	109.60
1	H	198	THR	CA-CB-OG1	-6.11	100.44	109.60
1	F	198	THR	CA-CB-OG1	-6.08	100.48	109.60
1	B	198	THR	CA-CB-OG1	-6.07	100.49	109.60
1	D	198	THR	CA-CB-OG1	-6.07	100.49	109.60
1	B	292	THR	N-CA-C	-6.07	106.21	113.97
1	B	464	LYS	N-CA-C	-6.06	105.71	113.23
1	F	464	LYS	N-CA-C	-6.06	105.71	113.23
1	F	292	THR	N-CA-C	-6.05	106.22	113.97
1	C	292	THR	N-CA-C	-6.05	106.22	113.97
1	G	292	THR	N-CA-C	-6.05	106.22	113.97
1	E	292	THR	N-CA-C	-6.05	106.23	113.97
1	H	292	THR	N-CA-C	-6.04	106.25	113.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	292	THR	N-CA-C	-6.03	106.25	113.97
1	A	292	THR	N-CA-C	-6.03	106.26	113.97
1	A	464	LYS	N-CA-C	-6.03	105.75	113.23
1	C	464	LYS	N-CA-C	-6.03	105.75	113.23
1	E	464	LYS	N-CA-C	-6.03	105.75	113.23
1	D	464	LYS	N-CA-C	-6.03	105.76	113.23
1	H	464	LYS	N-CA-C	-6.03	105.76	113.23
1	G	464	LYS	N-CA-C	-6.02	105.77	113.23
1	D	475	THR	N-CA-C	-5.91	106.04	113.72
1	F	475	THR	N-CA-C	-5.91	106.04	113.72
1	A	475	THR	N-CA-C	-5.90	106.06	113.72
1	C	475	THR	N-CA-C	-5.90	106.06	113.72
1	E	475	THR	N-CA-C	-5.90	106.06	113.72
1	G	475	THR	N-CA-C	-5.90	106.06	113.72
1	B	475	THR	N-CA-C	-5.88	106.08	113.72
1	H	475	THR	N-CA-C	-5.88	106.08	113.72
1	A	282	GLU	CA-C-N	-5.79	114.06	122.69
1	A	282	GLU	C-N-CA	-5.79	114.06	122.69
1	E	282	GLU	CA-C-N	-5.79	114.06	122.69
1	E	282	GLU	C-N-CA	-5.79	114.06	122.69
1	C	282	GLU	CA-C-N	-5.78	114.07	122.69
1	C	282	GLU	C-N-CA	-5.78	114.07	122.69
1	G	282	GLU	CA-C-N	-5.78	114.07	122.69
1	G	282	GLU	C-N-CA	-5.78	114.07	122.69
1	B	282	GLU	CA-C-N	-5.78	114.08	122.69
1	B	282	GLU	C-N-CA	-5.78	114.08	122.69
1	D	282	GLU	CA-C-N	-5.78	114.08	122.69
1	D	282	GLU	C-N-CA	-5.78	114.08	122.69
1	F	282	GLU	CA-C-N	-5.78	114.08	122.69
1	F	282	GLU	C-N-CA	-5.78	114.08	122.69
1	H	282	GLU	CA-C-N	-5.78	114.08	122.69
1	H	282	GLU	C-N-CA	-5.78	114.08	122.69
1	A	407	PRO	N-CD-CG	-5.74	94.60	103.20
1	C	407	PRO	N-CD-CG	-5.74	94.60	103.20
1	G	407	PRO	N-CD-CG	-5.74	94.60	103.20
1	B	439	ASP	CB-CA-C	-5.73	101.48	112.43
1	D	439	ASP	CB-CA-C	-5.73	101.48	112.43
1	F	439	ASP	CB-CA-C	-5.73	101.48	112.43
1	H	439	ASP	CB-CA-C	-5.73	101.48	112.43
1	E	407	PRO	N-CD-CG	-5.73	94.61	103.20
1	B	407	PRO	N-CD-CG	-5.72	94.63	103.20
1	A	469	GLU	N-CA-C	-5.71	105.13	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	439	ASP	CB-CA-C	-5.71	101.53	112.43
1	C	469	GLU	N-CA-C	-5.71	105.14	111.36
1	E	469	GLU	N-CA-C	-5.71	105.14	111.36
1	G	469	GLU	N-CA-C	-5.71	105.14	111.36
1	A	439	ASP	CB-CA-C	-5.71	101.53	112.43
1	C	439	ASP	CB-CA-C	-5.71	101.53	112.43
1	E	439	ASP	CB-CA-C	-5.71	101.53	112.43
1	D	407	PRO	N-CD-CG	-5.70	94.65	103.20
1	F	407	PRO	N-CD-CG	-5.70	94.65	103.20
1	H	407	PRO	N-CD-CG	-5.70	94.65	103.20
1	B	469	GLU	N-CA-C	-5.69	105.16	111.36
1	D	469	GLU	N-CA-C	-5.69	105.16	111.36
1	F	469	GLU	N-CA-C	-5.69	105.16	111.36
1	H	469	GLU	N-CA-C	-5.69	105.16	111.36
1	A	508	CYS	N-CA-C	-5.54	105.73	112.88
1	E	508	CYS	N-CA-C	-5.53	105.74	112.88
1	E	377	LEU	N-CA-C	-5.52	106.59	113.38
1	B	508	CYS	N-CA-C	-5.52	105.76	112.88
1	D	508	CYS	N-CA-C	-5.51	105.77	112.88
1	F	508	CYS	N-CA-C	-5.51	105.77	112.88
1	H	508	CYS	N-CA-C	-5.51	105.77	112.88
1	C	508	CYS	N-CA-C	-5.51	105.77	112.88
1	G	508	CYS	N-CA-C	-5.51	105.77	112.88
1	B	660	PHE	CB-CA-C	5.50	119.32	110.29
1	G	660	PHE	CB-CA-C	5.49	119.30	110.29
1	A	377	LEU	N-CA-C	-5.49	106.63	113.38
1	D	436	GLN	CB-CA-C	-5.49	100.89	110.17
1	H	436	GLN	CB-CA-C	-5.49	100.89	110.17
1	C	530	HIS	CA-CB-CG	-5.49	108.31	113.80
1	A	436	GLN	CB-CA-C	-5.48	100.90	110.17
1	B	377	LEU	N-CA-C	-5.48	106.64	113.38
1	C	660	PHE	CB-CA-C	5.48	119.28	110.29
1	D	377	LEU	N-CA-C	-5.48	106.64	113.38
1	F	377	LEU	N-CA-C	-5.48	106.64	113.38
1	H	377	LEU	N-CA-C	-5.48	106.64	113.38
1	E	660	PHE	CB-CA-C	5.48	119.27	110.29
1	F	660	PHE	CB-CA-C	5.48	119.27	110.29
1	A	530	HIS	CA-CB-CG	-5.47	108.33	113.80
1	B	436	GLN	CB-CA-C	-5.47	100.92	110.17
1	D	660	PHE	CB-CA-C	5.47	119.27	110.29
1	E	530	HIS	CA-CB-CG	-5.47	108.33	113.80
1	F	530	HIS	CA-CB-CG	-5.47	108.33	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	660	PHE	CB-CA-C	5.47	119.27	110.29
1	C	436	GLN	CB-CA-C	-5.46	100.94	110.17
1	G	436	GLN	CB-CA-C	-5.46	100.94	110.17
1	A	660	PHE	CB-CA-C	5.46	119.24	110.29
1	F	436	GLN	CB-CA-C	-5.46	100.94	110.17
1	E	436	GLN	CB-CA-C	-5.45	100.95	110.17
1	B	530	HIS	CA-CB-CG	-5.44	108.36	113.80
1	C	377	LEU	N-CA-C	-5.44	106.69	113.38
1	G	377	LEU	N-CA-C	-5.44	106.69	113.38
1	H	530	HIS	CA-CB-CG	-5.43	108.37	113.80
1	G	530	HIS	CA-CB-CG	-5.43	108.37	113.80
1	B	441	ASP	N-CA-C	-5.42	106.50	113.23
1	D	441	ASP	N-CA-C	-5.42	106.50	113.23
1	F	441	ASP	N-CA-C	-5.42	106.50	113.23
1	H	441	ASP	N-CA-C	-5.42	106.50	113.23
1	D	530	HIS	CA-CB-CG	-5.41	108.39	113.80
1	C	538	ILE	O-C-N	5.40	127.39	121.83
1	G	538	ILE	O-C-N	5.40	127.39	121.83
1	B	538	ILE	O-C-N	5.39	127.38	121.83
1	F	538	ILE	O-C-N	5.39	127.38	121.83
1	A	441	ASP	N-CA-C	-5.37	106.57	113.23
1	C	441	ASP	N-CA-C	-5.37	106.57	113.23
1	E	441	ASP	N-CA-C	-5.37	106.57	113.23
1	G	441	ASP	N-CA-C	-5.37	106.57	113.23
1	D	538	ILE	O-C-N	5.37	127.36	121.83
1	H	538	ILE	O-C-N	5.37	127.36	121.83
1	H	465	ARG	N-CA-C	-5.35	105.11	111.69
1	A	465	ARG	N-CA-C	-5.35	105.11	111.69
1	C	465	ARG	N-CA-C	-5.34	105.12	111.69
1	E	465	ARG	N-CA-C	-5.34	105.12	111.69
1	G	465	ARG	N-CA-C	-5.34	105.12	111.69
1	A	538	ILE	O-C-N	5.34	127.33	121.83
1	E	538	ILE	O-C-N	5.34	127.33	121.83
1	F	465	ARG	N-CA-C	-5.33	105.13	111.69
1	B	465	ARG	N-CA-C	-5.33	105.14	111.69
1	D	465	ARG	N-CA-C	-5.33	105.14	111.69
1	G	424	ILE	N-CA-C	-5.32	107.12	112.17
1	C	424	ILE	N-CA-C	-5.29	107.14	112.17
1	E	424	ILE	N-CA-C	-5.29	107.14	112.17
1	B	424	ILE	N-CA-C	-5.27	107.16	112.17
1	D	424	ILE	N-CA-C	-5.27	107.16	112.17
1	F	424	ILE	N-CA-C	-5.27	107.16	112.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	424	ILE	N-CA-C	-5.27	107.16	112.17
1	A	424	ILE	N-CA-C	-5.26	107.17	112.17
1	D	465	ARG	CB-CG-CD	5.24	123.36	111.30
1	H	465	ARG	CB-CG-CD	5.24	123.36	111.30
1	C	465	ARG	CB-CG-CD	5.24	123.36	111.30
1	E	465	ARG	CB-CG-CD	5.24	123.36	111.30
1	G	465	ARG	CB-CG-CD	5.24	123.36	111.30
1	B	465	ARG	CB-CG-CD	5.23	123.34	111.30
1	F	465	ARG	CB-CG-CD	5.23	123.34	111.30
1	A	465	ARG	CB-CG-CD	5.23	123.33	111.30
1	H	308	PHE	CB-CA-C	5.20	119.37	110.01
1	A	308	PHE	CB-CA-C	5.20	119.36	110.01
1	E	308	PHE	CB-CA-C	5.20	119.36	110.01
1	D	308	PHE	CB-CA-C	5.19	119.35	110.01
1	F	308	PHE	CB-CA-C	5.18	119.34	110.01
1	C	308	PHE	CB-CA-C	5.18	119.34	110.01
1	G	308	PHE	CB-CA-C	5.18	119.34	110.01
1	G	426	PHE	CA-CB-CG	-5.18	108.62	113.80
1	B	308	PHE	CB-CA-C	5.17	119.32	110.01
1	A	497	ARG	CG-CD-NE	-5.17	100.63	112.00
1	C	426	PHE	CA-CB-CG	-5.16	108.64	113.80
1	E	426	PHE	CA-CB-CG	-5.16	108.64	113.80
1	A	452	GLN	CB-CG-CD	-5.16	103.84	112.60
1	G	497	ARG	CG-CD-NE	-5.16	100.66	112.00
1	B	426	PHE	CA-CB-CG	-5.15	108.65	113.80
1	F	426	PHE	CA-CB-CG	-5.15	108.65	113.80
1	E	497	ARG	CG-CD-NE	-5.15	100.67	112.00
1	C	497	ARG	CG-CD-NE	-5.14	100.69	112.00
1	D	426	PHE	CA-CB-CG	-5.14	108.66	113.80
1	H	426	PHE	CA-CB-CG	-5.14	108.66	113.80
1	A	484	ARG	CD-NE-CZ	5.14	131.59	124.40
1	B	452	GLN	CB-CG-CD	-5.13	103.89	112.60
1	D	452	GLN	CB-CG-CD	-5.13	103.89	112.60
1	F	452	GLN	CB-CG-CD	-5.13	103.89	112.60
1	H	452	GLN	CB-CG-CD	-5.13	103.89	112.60
1	A	426	PHE	CA-CB-CG	-5.12	108.67	113.80
1	C	280	ASN	CB-CA-C	-5.12	102.36	110.81
1	C	452	GLN	CB-CG-CD	-5.12	103.90	112.60
1	B	497	ARG	CG-CD-NE	-5.12	100.74	112.00
1	F	497	ARG	CG-CD-NE	-5.12	100.74	112.00
1	F	280	ASN	CB-CA-C	-5.12	102.37	110.81
1	A	280	ASN	CB-CA-C	-5.11	102.37	110.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	497	ARG	CG-CD-NE	-5.11	100.75	112.00
1	E	452	GLN	CB-CG-CD	-5.11	103.91	112.60
1	G	452	GLN	CB-CG-CD	-5.11	103.91	112.60
1	H	280	ASN	CB-CA-C	-5.11	102.38	110.81
1	B	280	ASN	CB-CA-C	-5.11	102.38	110.81
1	D	280	ASN	CB-CA-C	-5.11	102.38	110.81
1	G	280	ASN	CB-CA-C	-5.11	102.38	110.81
1	H	497	ARG	CG-CD-NE	-5.11	100.76	112.00
1	E	280	ASN	CB-CA-C	-5.11	102.39	110.81
1	B	243	ARG	CB-CA-C	-5.04	102.42	110.79
1	F	243	ARG	CB-CA-C	-5.04	102.42	110.79
1	A	243	ARG	CB-CA-C	-5.03	102.45	110.79
1	D	243	ARG	CB-CA-C	-5.03	102.45	110.79
1	H	243	ARG	CB-CA-C	-5.03	102.45	110.79
1	C	243	ARG	CB-CA-C	-5.02	102.45	110.79
1	E	243	ARG	CB-CA-C	-5.01	102.47	110.79
1	G	243	ARG	CB-CA-C	-5.01	102.47	110.79

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	484	ARG	Sidechain

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5021	0	5096	75	0
1	B	5021	0	5096	73	0
1	C	5021	0	5096	75	0
1	D	5021	0	5096	77	0
1	E	5021	0	5096	76	0
1	F	5021	0	5096	70	0
1	G	5021	0	5096	77	0
1	H	5021	0	5096	73	0
2	A	44	0	26	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	44	0	26	0	0
2	C	44	0	26	0	0
2	D	44	0	26	0	0
2	E	44	0	26	0	0
2	F	44	0	26	0	0
2	G	44	0	26	0	0
2	H	44	0	26	0	0
All	All	40520	0	40976	572	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (572) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:515:LEU:O	1:H:518:VAL:HG12	1.91	0.71
1:G:515:LEU:O	1:G:518:VAL:HG12	1.91	0.71
1:A:515:LEU:O	1:A:518:VAL:HG12	1.91	0.71
1:D:515:LEU:O	1:D:518:VAL:HG12	1.91	0.71
1:C:515:LEU:O	1:C:518:VAL:HG12	1.90	0.71
1:E:515:LEU:O	1:E:518:VAL:HG12	1.90	0.71
1:F:515:LEU:O	1:F:518:VAL:HG12	1.91	0.71
1:B:515:LEU:O	1:B:518:VAL:HG12	1.91	0.70
1:A:121:ARG:HA	1:A:125:GLY:HA2	1.78	0.65
1:E:121:ARG:HA	1:E:125:GLY:HA2	1.79	0.65
1:H:121:ARG:HA	1:H:125:GLY:HA2	1.79	0.65
1:F:121:ARG:HA	1:F:125:GLY:HA2	1.79	0.65
1:G:121:ARG:HA	1:G:125:GLY:HA2	1.79	0.65
1:D:121:ARG:HA	1:D:125:GLY:HA2	1.79	0.65
1:B:121:ARG:HA	1:B:125:GLY:HA2	1.79	0.65
1:C:121:ARG:HA	1:C:125:GLY:HA2	1.79	0.64
1:H:255:PHE:HB3	1:H:256:PRO:HD3	1.81	0.63
1:G:255:PHE:HB3	1:G:256:PRO:HD3	1.81	0.62
1:A:255:PHE:HB3	1:A:256:PRO:HD3	1.81	0.62
1:F:255:PHE:HB3	1:F:256:PRO:HD3	1.81	0.62
1:E:255:PHE:HB3	1:E:256:PRO:HD3	1.81	0.62
1:B:255:PHE:HB3	1:B:256:PRO:HD3	1.81	0.62
1:D:255:PHE:HB3	1:D:256:PRO:HD3	1.81	0.62
1:C:255:PHE:HB3	1:C:256:PRO:HD3	1.81	0.61
1:A:664:GLU:O	1:A:667:VAL:HG22	2.01	0.61
1:H:491:LEU:HD11	1:H:505:LEU:HD12	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:491:LEU:HD11	1:A:505:LEU:HD12	1.83	0.60
1:H:664:GLU:O	1:H:667:VAL:HG22	2.01	0.60
1:B:664:GLU:O	1:B:667:VAL:HG22	2.01	0.60
1:G:491:LEU:HD11	1:G:505:LEU:HD12	1.83	0.60
1:D:491:LEU:HD11	1:D:505:LEU:HD12	1.83	0.60
1:B:491:LEU:HD11	1:B:505:LEU:HD12	1.83	0.60
1:E:491:LEU:HD11	1:E:505:LEU:HD12	1.83	0.60
1:G:664:GLU:O	1:G:667:VAL:HG22	2.01	0.60
1:E:664:GLU:O	1:E:667:VAL:HG22	2.01	0.59
1:F:491:LEU:HD11	1:F:505:LEU:HD12	1.83	0.59
1:C:657:ILE:HD11	1:C:662:TRP:CZ2	2.38	0.59
1:C:491:LEU:HD11	1:C:505:LEU:HD12	1.83	0.59
1:D:657:ILE:HD11	1:D:662:TRP:CZ2	2.38	0.59
1:H:657:ILE:HD11	1:H:662:TRP:CZ2	2.38	0.59
1:G:548:SER:HB3	1:G:549:PRO:HD3	1.85	0.59
1:G:657:ILE:HD11	1:G:662:TRP:CZ2	2.38	0.59
1:B:499:ARG:HG2	1:B:499:ARG:HH11	1.68	0.59
1:B:657:ILE:HD11	1:B:662:TRP:CZ2	2.38	0.59
1:E:657:ILE:HD11	1:E:662:TRP:CZ2	2.38	0.59
1:F:657:ILE:HD11	1:F:662:TRP:CZ2	2.38	0.59
1:D:664:GLU:O	1:D:667:VAL:HG22	2.01	0.59
1:A:499:ARG:HG2	1:A:499:ARG:HH11	1.68	0.59
1:F:499:ARG:HG2	1:F:499:ARG:HH11	1.68	0.59
1:F:664:GLU:O	1:F:667:VAL:HG22	2.01	0.59
1:A:657:ILE:HD11	1:A:662:TRP:CZ2	2.38	0.58
1:C:664:GLU:O	1:C:667:VAL:HG22	2.01	0.58
1:F:548:SER:HB3	1:F:549:PRO:HD3	1.85	0.58
1:C:499:ARG:HG2	1:C:499:ARG:HH11	1.68	0.58
1:E:499:ARG:HG2	1:E:499:ARG:HH11	1.68	0.58
1:H:499:ARG:HG2	1:H:499:ARG:HH11	1.68	0.58
1:A:548:SER:HB3	1:A:549:PRO:HD3	1.85	0.58
1:E:548:SER:HB3	1:E:549:PRO:HD3	1.85	0.58
1:D:499:ARG:HH11	1:D:499:ARG:HG2	1.68	0.58
1:D:548:SER:HB3	1:D:549:PRO:HD3	1.85	0.57
1:G:499:ARG:HG2	1:G:499:ARG:HH11	1.68	0.57
1:A:105:LEU:HD23	1:A:109:GLY:HA2	1.87	0.57
1:B:548:SER:HB3	1:B:549:PRO:HD3	1.85	0.57
1:C:548:SER:HB3	1:C:549:PRO:HD3	1.85	0.57
1:D:73:GLN:HA	1:D:76:LEU:HD12	1.87	0.57
1:H:105:LEU:HD23	1:H:109:GLY:HA2	1.87	0.57
1:H:548:SER:HB3	1:H:549:PRO:HD3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:377:LEU:O	1:A:381:SER:HB3	2.05	0.57
1:E:73:GLN:HA	1:E:76:LEU:HD12	1.87	0.57
1:G:377:LEU:O	1:G:381:SER:HB3	2.05	0.57
1:H:377:LEU:O	1:H:381:SER:HB3	2.05	0.57
1:B:377:LEU:O	1:B:381:SER:HB3	2.05	0.56
1:C:73:GLN:HA	1:C:76:LEU:HD12	1.87	0.56
1:C:105:LEU:HD23	1:C:109:GLY:HA2	1.87	0.56
1:D:105:LEU:HD23	1:D:109:GLY:HA2	1.87	0.56
1:F:105:LEU:HD23	1:F:109:GLY:HA2	1.87	0.56
1:C:378:VAL:CG1	1:C:402:PRO:HG2	2.36	0.56
1:D:377:LEU:O	1:D:381:SER:HB3	2.05	0.56
1:E:105:LEU:HD23	1:E:109:GLY:HA2	1.87	0.56
1:E:377:LEU:O	1:E:381:SER:HB3	2.05	0.56
1:F:378:VAL:CG1	1:F:402:PRO:HG2	2.36	0.56
1:D:378:VAL:CG1	1:D:402:PRO:HG2	2.36	0.56
1:E:378:VAL:CG1	1:E:402:PRO:HG2	2.36	0.56
1:G:378:VAL:CG1	1:G:402:PRO:HG2	2.36	0.56
1:G:105:LEU:HD23	1:G:109:GLY:HA2	1.87	0.56
1:B:105:LEU:HD23	1:B:109:GLY:HA2	1.87	0.56
1:B:378:VAL:CG1	1:B:402:PRO:HG2	2.36	0.56
1:F:73:GLN:HA	1:F:76:LEU:HD12	1.87	0.56
1:F:377:LEU:O	1:F:381:SER:HB3	2.05	0.56
1:H:73:GLN:HA	1:H:76:LEU:HD12	1.87	0.56
1:A:378:VAL:CG1	1:A:402:PRO:HG2	2.36	0.56
1:G:73:GLN:HA	1:G:76:LEU:HD12	1.87	0.55
1:C:377:LEU:O	1:C:381:SER:HB3	2.05	0.55
1:A:73:GLN:HA	1:A:76:LEU:HD12	1.87	0.55
1:H:378:VAL:CG1	1:H:402:PRO:HG2	2.36	0.55
1:B:73:GLN:HA	1:B:76:LEU:HD12	1.87	0.55
1:C:334:LEU:HD11	1:C:349:LEU:HD12	1.89	0.54
1:D:334:LEU:HD11	1:D:349:LEU:HD12	1.89	0.54
1:B:334:LEU:HD11	1:B:349:LEU:HD12	1.89	0.54
1:G:334:LEU:HD11	1:G:349:LEU:HD12	1.89	0.53
1:H:334:LEU:HD11	1:H:349:LEU:HD12	1.89	0.53
1:A:334:LEU:HD11	1:A:349:LEU:HD12	1.89	0.53
1:D:105:LEU:HB3	1:D:109:GLY:HA3	1.91	0.53
1:E:105:LEU:HB3	1:E:109:GLY:HA3	1.91	0.53
1:E:334:LEU:HD11	1:E:349:LEU:HD12	1.89	0.53
1:F:105:LEU:HB3	1:F:109:GLY:HA3	1.91	0.53
1:B:105:LEU:HB3	1:B:109:GLY:HA3	1.91	0.52
1:E:69:LEU:HB2	1:E:70:PRO:HD3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:334:LEU:HD11	1:F:349:LEU:HD12	1.89	0.52
1:C:69:LEU:HB2	1:C:70:PRO:HD3	1.91	0.52
1:C:105:LEU:HB3	1:C:109:GLY:HA3	1.91	0.52
1:D:69:LEU:HB2	1:D:70:PRO:HD3	1.91	0.52
1:G:105:LEU:HB3	1:G:109:GLY:HA3	1.91	0.52
1:A:105:LEU:HB3	1:A:109:GLY:HA3	1.91	0.52
1:B:498:PHE:HE1	1:B:534:HIS:CD2	2.28	0.52
1:F:69:LEU:HB2	1:F:70:PRO:HD3	1.91	0.52
1:H:105:LEU:HB3	1:H:109:GLY:HA3	1.91	0.52
1:A:254:LEU:HD23	1:A:257:LEU:HD12	1.92	0.52
1:A:498:PHE:HE1	1:A:534:HIS:CD2	2.28	0.52
1:B:69:LEU:HB2	1:B:70:PRO:HD3	1.91	0.52
1:E:254:LEU:HD23	1:E:257:LEU:HD12	1.92	0.52
1:C:498:PHE:HE1	1:C:534:HIS:CD2	2.28	0.52
1:D:254:LEU:HD23	1:D:257:LEU:HD12	1.92	0.51
1:D:630:MET:HG2	1:D:667:VAL:HG23	1.92	0.51
1:H:254:LEU:HD23	1:H:257:LEU:HD12	1.92	0.51
1:H:498:PHE:HE1	1:H:534:HIS:CD2	2.28	0.51
1:F:630:MET:HG2	1:F:667:VAL:HG23	1.92	0.51
1:A:69:LEU:HB2	1:A:70:PRO:HD3	1.91	0.51
1:D:498:PHE:HE1	1:D:534:HIS:CD2	2.28	0.51
1:G:254:LEU:HD23	1:G:257:LEU:HD12	1.92	0.51
1:B:254:LEU:HD23	1:B:257:LEU:HD12	1.92	0.51
1:C:254:LEU:HD23	1:C:257:LEU:HD12	1.92	0.51
1:F:254:LEU:HD23	1:F:257:LEU:HD12	1.92	0.51
1:G:498:PHE:HE1	1:G:534:HIS:CD2	2.28	0.51
1:G:69:LEU:HB2	1:G:70:PRO:HD3	1.91	0.51
1:D:176:GLU:HB2	1:D:177:PRO:HD3	1.93	0.51
1:E:498:PHE:HE1	1:E:534:HIS:CD2	2.28	0.51
1:F:176:GLU:HB2	1:F:177:PRO:HD3	1.93	0.51
1:C:630:MET:HG2	1:C:667:VAL:HG23	1.92	0.51
1:F:498:PHE:HE1	1:F:534:HIS:CD2	2.28	0.51
1:A:176:GLU:HB2	1:A:177:PRO:HD3	1.93	0.50
1:H:630:MET:HG2	1:H:667:VAL:HG23	1.92	0.50
1:E:630:MET:HG2	1:E:667:VAL:HG23	1.92	0.50
1:H:69:LEU:HB2	1:H:70:PRO:HD3	1.91	0.50
1:H:176:GLU:HB2	1:H:177:PRO:HD3	1.93	0.50
1:A:630:MET:HG2	1:A:667:VAL:HG23	1.92	0.50
1:B:539:LEU:O	1:B:542:ALA:HB3	2.12	0.50
1:B:630:MET:HG2	1:B:667:VAL:HG23	1.92	0.50
1:C:539:LEU:O	1:C:542:ALA:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:630:MET:HG2	1:G:667:VAL:HG23	1.92	0.50
1:B:176:GLU:HB2	1:B:177:PRO:HD3	1.93	0.50
1:A:539:LEU:O	1:A:542:ALA:HB3	2.12	0.50
1:C:105:LEU:HD12	1:C:106:PRO:HD2	1.94	0.50
1:E:176:GLU:HB2	1:E:177:PRO:HD3	1.93	0.50
1:G:176:GLU:HB2	1:G:177:PRO:HD3	1.93	0.50
1:A:105:LEU:HD12	1:A:106:PRO:HD2	1.94	0.49
1:H:539:LEU:O	1:H:542:ALA:HB3	2.12	0.49
1:C:176:GLU:HB2	1:C:177:PRO:HD3	1.93	0.49
1:E:458:LYS:O	1:E:463:ARG:NH2	2.45	0.49
1:D:539:LEU:O	1:D:542:ALA:HB3	2.12	0.49
1:B:105:LEU:HD12	1:B:106:PRO:HD2	1.94	0.49
1:C:306:GLY:O	1:C:310:ARG:HG3	2.13	0.49
1:D:306:GLY:O	1:D:310:ARG:HG3	2.13	0.49
1:E:306:GLY:O	1:E:310:ARG:HG3	2.13	0.49
1:E:539:LEU:O	1:E:542:ALA:HB3	2.12	0.49
1:F:539:LEU:O	1:F:542:ALA:HB3	2.12	0.49
1:A:306:GLY:O	1:A:310:ARG:HG3	2.13	0.49
1:B:458:LYS:O	1:B:463:ARG:NH2	2.45	0.49
1:F:306:GLY:O	1:F:310:ARG:HG3	2.13	0.49
1:E:105:LEU:HD12	1:E:106:PRO:HD2	1.94	0.49
1:B:306:GLY:O	1:B:310:ARG:HG3	2.13	0.48
1:H:105:LEU:HD12	1:H:106:PRO:HD2	1.94	0.48
1:A:426:PHE:C	1:A:428:LYS:H	2.21	0.48
1:D:458:LYS:O	1:D:463:ARG:NH2	2.45	0.48
1:G:306:GLY:O	1:G:310:ARG:HG3	2.13	0.48
1:H:306:GLY:O	1:H:310:ARG:HG3	2.13	0.48
1:D:105:LEU:HD12	1:D:106:PRO:HD2	1.94	0.48
1:G:105:LEU:HD12	1:G:106:PRO:HD2	1.94	0.48
1:H:426:PHE:C	1:H:428:LYS:H	2.21	0.48
1:C:381:SER:HG	1:C:387:SER:HG	1.57	0.48
1:C:426:PHE:C	1:C:428:LYS:H	2.21	0.48
1:F:105:LEU:HD12	1:F:106:PRO:HD2	1.94	0.48
1:G:539:LEU:O	1:G:542:ALA:HB3	2.12	0.48
1:E:665:PRO:O	1:E:673:GLN:HG2	2.14	0.48
1:B:426:PHE:C	1:B:428:LYS:H	2.21	0.48
1:D:426:PHE:C	1:D:428:LYS:H	2.21	0.48
1:G:142:VAL:HG22	1:G:180:LEU:HB2	1.96	0.47
1:A:458:LYS:O	1:A:463:ARG:NH2	2.45	0.47
1:A:545:MET:HA	1:A:549:PRO:HD2	1.97	0.47
1:G:545:MET:HA	1:G:549:PRO:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:665:PRO:O	1:B:673:GLN:HG2	2.14	0.47
1:D:665:PRO:O	1:D:673:GLN:HG2	2.14	0.47
1:H:142:VAL:HG22	1:H:180:LEU:HB2	1.96	0.47
1:B:142:VAL:HG22	1:B:180:LEU:HB2	1.96	0.47
1:C:665:PRO:O	1:C:673:GLN:HG2	2.14	0.47
1:F:426:PHE:C	1:F:428:LYS:H	2.21	0.47
1:F:665:PRO:O	1:F:673:GLN:HG2	2.14	0.47
1:G:426:PHE:C	1:G:428:LYS:H	2.21	0.47
1:G:665:PRO:O	1:G:673:GLN:HG2	2.14	0.47
1:E:426:PHE:C	1:E:428:LYS:H	2.21	0.47
1:H:545:MET:HA	1:H:549:PRO:HD2	1.97	0.47
1:A:445:ARG:NH2	1:H:464:LYS:HE2	2.30	0.47
1:A:665:PRO:O	1:A:673:GLN:HG2	2.14	0.47
1:B:464:LYS:HE2	1:C:445:ARG:NH2	2.30	0.47
1:C:142:VAL:HG22	1:C:180:LEU:HB2	1.96	0.47
1:G:105:LEU:HD23	1:G:108:VAL:O	2.15	0.47
1:H:665:PRO:O	1:H:673:GLN:HG2	2.14	0.47
1:B:545:MET:HA	1:B:549:PRO:HD2	1.97	0.47
1:F:545:MET:HA	1:F:549:PRO:HD2	1.97	0.47
1:D:464:LYS:HE2	1:E:445:ARG:NH2	2.30	0.47
1:D:523:LEU:HD23	1:D:523:LEU:HA	1.74	0.47
1:F:105:LEU:HD23	1:F:108:VAL:O	2.15	0.47
1:D:142:VAL:HG22	1:D:180:LEU:HB2	1.96	0.46
1:A:142:VAL:HG22	1:A:180:LEU:HB2	1.96	0.46
1:C:105:LEU:HD23	1:C:108:VAL:O	2.15	0.46
1:C:409:VAL:N	1:C:410:PRO:CD	2.79	0.46
1:E:142:VAL:HG22	1:E:180:LEU:HB2	1.96	0.46
1:H:105:LEU:HD23	1:H:108:VAL:O	2.15	0.46
1:B:105:LEU:HD23	1:B:108:VAL:O	2.15	0.46
1:B:683:TRP:HA	1:B:691:THR:HG21	1.98	0.46
1:D:409:VAL:N	1:D:410:PRO:CD	2.79	0.46
1:E:105:LEU:HD23	1:E:108:VAL:O	2.15	0.46
1:F:142:VAL:HG22	1:F:180:LEU:HB2	1.96	0.46
1:A:72:LEU:O	1:A:76:LEU:HG	2.16	0.46
1:B:72:LEU:O	1:B:76:LEU:HG	2.16	0.46
1:B:409:VAL:N	1:B:410:PRO:CD	2.79	0.46
1:D:105:LEU:HD23	1:D:108:VAL:O	2.15	0.46
1:C:539:LEU:HD12	1:C:539:LEU:HA	1.76	0.46
1:D:443:LEU:C	1:D:445:ARG:H	2.24	0.46
1:E:545:MET:HA	1:E:549:PRO:HD2	1.97	0.46
1:G:409:VAL:N	1:G:410:PRO:CD	2.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:683:TRP:HA	1:H:691:THR:HG21	1.98	0.46
1:C:72:LEU:O	1:C:76:LEU:HG	2.16	0.46
1:C:458:LYS:O	1:C:463:ARG:NH2	2.45	0.46
1:E:443:LEU:C	1:E:445:ARG:H	2.24	0.46
1:H:72:LEU:O	1:H:76:LEU:HG	2.16	0.46
1:A:409:VAL:N	1:A:410:PRO:CD	2.79	0.46
1:C:545:MET:HA	1:C:549:PRO:HD2	1.97	0.46
1:D:683:TRP:HA	1:D:691:THR:HG21	1.98	0.46
1:E:409:VAL:N	1:E:410:PRO:CD	2.79	0.46
1:F:409:VAL:N	1:F:410:PRO:CD	2.79	0.46
1:F:464:LYS:HE2	1:G:445:ARG:NH2	2.30	0.46
1:A:105:LEU:HD23	1:A:108:VAL:O	2.15	0.46
1:A:214:TRP:HA	1:A:217:ARG:HG3	1.98	0.46
1:B:523:LEU:HA	1:B:523:LEU:HD23	1.74	0.46
1:E:621:LEU:HD13	1:E:660:PHE:CD2	2.51	0.46
1:C:254:LEU:HD13	1:C:274:VAL:HG13	1.98	0.46
1:C:443:LEU:C	1:C:445:ARG:H	2.24	0.46
1:B:67:ARG:O	1:B:71:GLU:HG2	2.17	0.45
1:C:464:LYS:HE2	1:D:445:ARG:NH2	2.31	0.45
1:D:545:MET:HA	1:D:549:PRO:HD2	1.97	0.45
1:E:72:LEU:O	1:E:76:LEU:HG	2.16	0.45
1:F:443:LEU:C	1:F:445:ARG:H	2.24	0.45
1:F:621:LEU:HD13	1:F:660:PHE:CD2	2.51	0.45
1:G:464:LYS:HE2	1:H:445:ARG:NH2	2.32	0.45
1:H:214:TRP:HA	1:H:217:ARG:HG3	1.98	0.45
1:H:409:VAL:N	1:H:410:PRO:CD	2.79	0.45
1:H:458:LYS:O	1:H:463:ARG:NH2	2.45	0.45
1:A:626:LEU:HD12	1:A:660:PHE:HZ	1.81	0.45
1:B:214:TRP:HA	1:B:217:ARG:HG3	1.98	0.45
1:C:67:ARG:O	1:C:71:GLU:HG2	2.17	0.45
1:F:72:LEU:O	1:F:76:LEU:HG	2.16	0.45
1:F:683:TRP:HA	1:F:691:THR:HG21	1.98	0.45
1:G:72:LEU:O	1:G:76:LEU:HG	2.16	0.45
1:G:458:LYS:O	1:G:463:ARG:NH2	2.45	0.45
1:B:443:LEU:C	1:B:445:ARG:H	2.24	0.45
1:C:683:TRP:HA	1:C:691:THR:HG21	1.98	0.45
1:D:67:ARG:O	1:D:71:GLU:HG2	2.17	0.45
1:D:72:LEU:O	1:D:76:LEU:HG	2.16	0.45
1:D:626:LEU:HD12	1:D:660:PHE:HZ	1.81	0.45
1:H:523:LEU:HD23	1:H:523:LEU:HA	1.74	0.45
1:H:626:LEU:HD12	1:H:660:PHE:HZ	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:67:ARG:O	1:A:71:GLU:HG2	2.16	0.45
1:B:626:LEU:HD12	1:B:660:PHE:HZ	1.81	0.45
1:D:442:LEU:HD23	1:D:442:LEU:HA	1.78	0.45
1:G:214:TRP:HA	1:G:217:ARG:HG3	1.98	0.45
1:D:621:LEU:HD13	1:D:660:PHE:CD2	2.51	0.45
1:E:67:ARG:O	1:E:71:GLU:HG2	2.17	0.45
1:A:464:LYS:HE2	1:B:445:ARG:NH2	2.31	0.45
1:G:165:LEU:HD21	1:G:198:THR:HG23	1.99	0.45
1:G:265:LEU:HD23	1:G:265:LEU:HA	1.88	0.45
1:H:165:LEU:HD21	1:H:198:THR:HG23	1.99	0.45
1:A:165:LEU:HD21	1:A:198:THR:HG23	1.99	0.45
1:A:621:LEU:HD13	1:A:660:PHE:CD2	2.51	0.45
1:D:165:LEU:HD21	1:D:198:THR:HG23	1.99	0.45
1:E:254:LEU:HD13	1:E:274:VAL:HG13	1.98	0.45
1:E:626:LEU:HD12	1:E:660:PHE:HZ	1.81	0.45
1:F:67:ARG:O	1:F:71:GLU:HG2	2.17	0.45
1:F:458:LYS:O	1:F:463:ARG:NH2	2.45	0.45
1:E:464:LYS:HE2	1:F:445:ARG:NH2	2.31	0.45
1:E:683:TRP:HA	1:E:691:THR:HG21	1.98	0.45
1:F:165:LEU:HD21	1:F:198:THR:HG23	1.99	0.45
1:F:184:VAL:HA	1:F:187:ILE:HD12	1.99	0.45
1:G:621:LEU:HD13	1:G:660:PHE:CD2	2.51	0.45
1:G:626:LEU:HD12	1:G:660:PHE:HZ	1.81	0.45
1:A:254:LEU:HD13	1:A:274:VAL:HG13	1.98	0.45
1:A:539:LEU:HD12	1:A:539:LEU:HA	1.76	0.45
1:A:683:TRP:HA	1:A:691:THR:HG21	1.98	0.45
1:G:331:VAL:N	1:G:332:PRO:HD2	2.32	0.45
1:H:621:LEU:HD13	1:H:660:PHE:CD2	2.51	0.45
1:A:523:LEU:HD23	1:A:523:LEU:HA	1.74	0.44
1:B:621:LEU:HD13	1:B:660:PHE:CD2	2.51	0.44
1:C:165:LEU:HD21	1:C:198:THR:HG23	1.99	0.44
1:C:626:LEU:HD12	1:C:660:PHE:HZ	1.81	0.44
1:E:539:LEU:HD12	1:E:539:LEU:HA	1.76	0.44
1:G:184:VAL:HA	1:G:187:ILE:HD12	1.99	0.44
1:B:331:VAL:N	1:B:332:PRO:HD2	2.32	0.44
1:C:214:TRP:HA	1:C:217:ARG:HG3	1.98	0.44
1:C:331:VAL:N	1:C:332:PRO:HD2	2.32	0.44
1:E:184:VAL:HA	1:E:187:ILE:HD12	1.99	0.44
1:F:214:TRP:HA	1:F:217:ARG:HG3	1.98	0.44
1:F:626:LEU:HD12	1:F:660:PHE:HZ	1.81	0.44
1:G:254:LEU:HD13	1:G:274:VAL:HG13	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:443:LEU:C	1:H:445:ARG:H	2.24	0.44
1:A:608:ILE:HD11	1:A:641:LYS:HG3	1.99	0.44
1:B:254:LEU:HD13	1:B:274:VAL:HG13	1.98	0.44
1:C:621:LEU:HD13	1:C:660:PHE:CD2	2.51	0.44
1:C:688:GLN:O	1:C:692:ILE:HG12	2.18	0.44
1:E:214:TRP:HA	1:E:217:ARG:HG3	1.98	0.44
1:E:688:GLN:O	1:E:692:ILE:HG12	2.18	0.44
1:F:254:LEU:HD13	1:F:274:VAL:HG13	1.98	0.44
1:F:331:VAL:N	1:F:332:PRO:HD2	2.32	0.44
1:G:443:LEU:C	1:G:445:ARG:H	2.24	0.44
1:H:67:ARG:O	1:H:71:GLU:HG2	2.17	0.44
1:A:265:LEU:HD23	1:A:265:LEU:HA	1.88	0.44
1:D:688:GLN:O	1:D:692:ILE:HG12	2.18	0.44
1:H:254:LEU:HD13	1:H:274:VAL:HG13	1.98	0.44
1:H:331:VAL:N	1:H:332:PRO:HD2	2.32	0.44
1:B:184:VAL:HA	1:B:187:ILE:HD12	1.99	0.44
1:B:608:ILE:HD11	1:B:641:LYS:HG3	1.99	0.44
1:D:214:TRP:HA	1:D:217:ARG:HG3	1.98	0.44
1:D:254:LEU:HD13	1:D:274:VAL:HG13	1.98	0.44
1:G:67:ARG:O	1:G:71:GLU:HG2	2.17	0.44
1:G:683:TRP:HA	1:G:691:THR:HG21	1.98	0.44
1:B:688:GLN:O	1:B:692:ILE:HG12	2.18	0.44
1:D:378:VAL:HG11	1:D:402:PRO:HG2	2.00	0.44
1:E:331:VAL:N	1:E:332:PRO:HD2	2.32	0.44
1:F:688:GLN:O	1:F:692:ILE:HG12	2.18	0.44
1:H:184:VAL:HA	1:H:187:ILE:HD12	1.99	0.44
1:A:331:VAL:N	1:A:332:PRO:HD2	2.32	0.44
1:G:688:GLN:O	1:G:692:ILE:HG12	2.18	0.44
1:B:165:LEU:HD21	1:B:198:THR:HG23	1.99	0.44
1:D:331:VAL:N	1:D:332:PRO:HD2	2.32	0.44
1:E:498:PHE:C	1:E:500:GLN:N	2.76	0.44
1:G:378:VAL:HG11	1:G:402:PRO:HG2	2.00	0.44
1:A:184:VAL:HA	1:A:187:ILE:HD12	1.99	0.43
1:A:443:LEU:C	1:A:445:ARG:H	2.24	0.43
1:B:378:VAL:HG11	1:B:402:PRO:HG2	2.00	0.43
1:D:184:VAL:HA	1:D:187:ILE:HD12	1.99	0.43
1:D:576:LEU:O	1:D:576:LEU:HD12	2.19	0.43
1:E:533:VAL:HG23	1:F:526:ASP:OD2	2.18	0.43
1:F:378:VAL:HG11	1:F:402:PRO:HG2	2.00	0.43
1:H:608:ILE:HD11	1:H:641:LYS:HG3	1.99	0.43
1:E:165:LEU:HD21	1:E:198:THR:HG23	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:387:SER:O	1:E:391:LYS:HE2	2.18	0.43
1:F:576:LEU:HD12	1:F:576:LEU:O	2.19	0.43
1:G:498:PHE:C	1:G:500:GLN:N	2.76	0.43
1:G:533:VAL:HG23	1:H:526:ASP:OD2	2.18	0.43
1:H:688:GLN:O	1:H:692:ILE:HG12	2.18	0.43
1:A:526:ASP:OD2	1:H:533:VAL:HG23	2.19	0.43
1:C:471:THR:O	1:C:471:THR:HG22	2.18	0.43
1:C:608:ILE:HD11	1:C:641:LYS:HG3	1.99	0.43
1:E:378:VAL:HG11	1:E:402:PRO:HG2	2.00	0.43
1:F:305:PRO:HB3	1:F:350:CYS:HB3	2.01	0.43
1:G:146:ARG:HE	1:G:146:ARG:HB2	1.60	0.43
1:G:387:SER:O	1:G:391:LYS:HE2	2.18	0.43
1:H:511:ASP:OD1	1:H:514:LEU:HG	2.18	0.43
1:B:471:THR:O	1:B:471:THR:HG22	2.18	0.43
1:C:511:ASP:OD1	1:C:514:LEU:HG	2.18	0.43
1:D:511:ASP:OD1	1:D:514:LEU:HG	2.18	0.43
1:F:387:SER:O	1:F:391:LYS:HE2	2.18	0.43
1:H:378:VAL:HG11	1:H:402:PRO:HG2	2.00	0.43
1:A:533:VAL:HG23	1:B:526:ASP:OD2	2.19	0.43
1:B:533:VAL:HG23	1:C:526:ASP:OD2	2.19	0.43
1:B:576:LEU:O	1:B:576:LEU:HD12	2.19	0.43
1:E:305:PRO:HB3	1:E:350:CYS:HB3	2.01	0.43
1:E:511:ASP:OD1	1:E:514:LEU:HG	2.18	0.43
1:E:608:ILE:HD11	1:E:641:LYS:HG3	1.99	0.43
1:G:608:ILE:HD11	1:G:641:LYS:HG3	1.99	0.43
1:H:387:SER:O	1:H:391:LYS:HE2	2.18	0.43
1:A:387:SER:O	1:A:391:LYS:HE2	2.18	0.43
1:C:378:VAL:HG11	1:C:402:PRO:HG2	2.00	0.43
1:D:305:PRO:HB3	1:D:350:CYS:HB3	2.01	0.43
1:D:608:ILE:HD11	1:D:641:LYS:HG3	1.99	0.43
1:E:451:LEU:HD12	1:E:451:LEU:HA	1.86	0.43
1:F:498:PHE:C	1:F:500:GLN:N	2.76	0.43
1:F:533:VAL:HG23	1:G:526:ASP:OD2	2.19	0.43
1:F:608:ILE:HD11	1:F:641:LYS:HG3	1.99	0.43
1:G:539:LEU:HD12	1:G:539:LEU:HA	1.76	0.43
1:C:305:PRO:HB3	1:C:350:CYS:HB3	2.01	0.43
1:D:275:ALA:CB	1:D:344:ILE:HG21	2.49	0.43
1:D:387:SER:O	1:D:391:LYS:HE2	2.18	0.43
1:D:498:PHE:C	1:D:500:GLN:H	2.27	0.43
1:H:576:LEU:HD12	1:H:576:LEU:O	2.18	0.43
1:A:498:PHE:C	1:A:500:GLN:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:305:PRO:HB3	1:B:350:CYS:HB3	2.01	0.43
1:B:511:ASP:OD1	1:B:514:LEU:HG	2.18	0.43
1:D:79:LEU:HD23	1:D:79:LEU:HA	1.84	0.43
1:D:471:THR:O	1:D:471:THR:HG22	2.18	0.43
1:E:275:ALA:CB	1:E:344:ILE:HG21	2.49	0.43
1:E:523:LEU:HA	1:E:523:LEU:HD23	1.74	0.43
1:G:305:PRO:HB3	1:G:350:CYS:HB3	2.01	0.43
1:A:378:VAL:HG11	1:A:402:PRO:HG2	2.00	0.43
1:C:184:VAL:HA	1:C:187:ILE:HD12	1.99	0.43
1:C:387:SER:O	1:C:391:LYS:HE2	2.18	0.43
1:C:533:VAL:HG23	1:D:526:ASP:OD2	2.19	0.43
1:E:441:ASP:OD1	1:E:441:ASP:O	2.37	0.43
1:F:471:THR:O	1:F:471:THR:HG22	2.18	0.43
1:H:498:PHE:C	1:H:500:GLN:N	2.76	0.43
1:A:471:THR:O	1:A:471:THR:HG22	2.18	0.43
1:A:688:GLN:O	1:A:692:ILE:HG12	2.18	0.43
1:E:471:THR:O	1:E:471:THR:HG22	2.18	0.43
1:F:275:ALA:CB	1:F:344:ILE:HG21	2.49	0.43
1:F:409:VAL:O	1:F:410:PRO:C	2.62	0.43
1:H:441:ASP:OD1	1:H:441:ASP:O	2.37	0.43
1:A:305:PRO:HB3	1:A:350:CYS:HB3	2.01	0.42
1:A:409:VAL:O	1:A:410:PRO:C	2.62	0.42
1:F:441:ASP:OD1	1:F:441:ASP:O	2.37	0.42
1:G:498:PHE:C	1:G:500:GLN:H	2.27	0.42
1:A:441:ASP:OD1	1:A:441:ASP:O	2.37	0.42
1:B:387:SER:O	1:B:391:LYS:HE2	2.18	0.42
1:C:498:PHE:C	1:C:500:GLN:H	2.27	0.42
1:C:576:LEU:HD12	1:C:576:LEU:O	2.19	0.42
1:D:441:ASP:O	1:D:441:ASP:OD1	2.37	0.42
1:D:533:VAL:HG23	1:E:526:ASP:OD2	2.19	0.42
1:E:409:VAL:O	1:E:410:PRO:C	2.62	0.42
1:G:441:ASP:OD1	1:G:441:ASP:O	2.37	0.42
1:G:511:ASP:OD1	1:G:514:LEU:HG	2.18	0.42
1:B:441:ASP:OD1	1:B:441:ASP:O	2.37	0.42
1:C:129:LEU:HD21	1:C:147:LEU:HD23	2.02	0.42
1:C:275:ALA:CB	1:C:344:ILE:HG21	2.49	0.42
1:C:441:ASP:OD1	1:C:441:ASP:O	2.37	0.42
1:G:275:ALA:CB	1:G:344:ILE:HG21	2.49	0.42
1:G:523:LEU:HA	1:G:523:LEU:HD23	1.74	0.42
1:H:146:ARG:HE	1:H:146:ARG:HB2	1.60	0.42
1:H:305:PRO:HB3	1:H:350:CYS:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:129:LEU:HD21	1:A:147:LEU:HD23	2.02	0.42
1:B:129:LEU:HD21	1:B:147:LEU:HD23	2.02	0.42
1:F:511:ASP:OD1	1:F:514:LEU:HG	2.18	0.42
1:G:471:THR:O	1:G:471:THR:HG22	2.18	0.42
1:H:79:LEU:HB3	1:H:128:LEU:HD21	2.02	0.42
1:B:498:PHE:C	1:B:500:GLN:H	2.27	0.42
1:D:239:GLN:HB2	1:E:478:ASN:OD1	2.20	0.42
1:G:409:VAL:O	1:G:410:PRO:C	2.62	0.42
1:H:275:ALA:CB	1:H:344:ILE:HG21	2.49	0.42
1:A:79:LEU:HD23	1:A:79:LEU:HA	1.84	0.42
1:A:79:LEU:HB3	1:A:128:LEU:HD21	2.02	0.42
1:A:511:ASP:OD1	1:A:514:LEU:HG	2.18	0.42
1:B:409:VAL:O	1:B:410:PRO:C	2.62	0.42
1:D:451:LEU:HD12	1:D:451:LEU:HA	1.86	0.42
1:E:349:LEU:HD23	1:E:349:LEU:HA	1.84	0.42
1:E:498:PHE:C	1:E:500:GLN:H	2.27	0.42
1:E:576:LEU:HD12	1:E:576:LEU:O	2.18	0.42
1:G:442:LEU:HD23	1:G:442:LEU:HA	1.78	0.42
1:B:79:LEU:HB3	1:B:128:LEU:HD21	2.02	0.42
1:C:239:GLN:HB2	1:D:478:ASN:OD1	2.20	0.42
1:D:409:VAL:O	1:D:410:PRO:C	2.62	0.42
1:E:239:GLN:HB2	1:F:478:ASN:OD1	2.20	0.42
1:E:442:LEU:HA	1:E:442:LEU:HD23	1.78	0.42
1:E:487:LEU:HA	1:E:487:LEU:HD23	1.81	0.42
1:F:498:PHE:C	1:F:500:GLN:H	2.27	0.42
1:G:79:LEU:HB3	1:G:128:LEU:HD21	2.02	0.42
1:G:239:GLN:HB2	1:H:478:ASN:OD1	2.20	0.42
1:G:576:LEU:HD12	1:G:576:LEU:O	2.18	0.42
1:B:275:ALA:CB	1:B:344:ILE:HG21	2.49	0.42
1:C:79:LEU:HB3	1:C:128:LEU:HD21	2.02	0.42
1:C:409:VAL:O	1:C:410:PRO:C	2.62	0.42
1:G:359:GLN:HE21	1:G:359:GLN:HB2	1.64	0.42
1:H:129:LEU:HD21	1:H:147:LEU:HD23	2.02	0.42
1:H:446:LEU:HD23	1:H:446:LEU:HA	1.90	0.42
1:H:458:LYS:HA	1:H:458:LYS:HD3	1.83	0.42
1:A:275:ALA:CB	1:A:344:ILE:HG21	2.49	0.42
1:A:576:LEU:HD12	1:A:576:LEU:O	2.18	0.42
1:B:581:LYS:O	1:B:585:GLN:HB2	2.20	0.42
1:B:535:ARG:HH11	1:B:535:ARG:HD2	1.54	0.41
1:C:581:LYS:O	1:C:585:GLN:HB2	2.20	0.41
1:D:129:LEU:HD21	1:D:147:LEU:HD23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:191:MET:HB3	1:E:202:LEU:HD11	2.02	0.41
1:G:129:LEU:HD21	1:G:147:LEU:HD23	2.02	0.41
1:H:471:THR:O	1:H:471:THR:HG22	2.18	0.41
1:H:581:LYS:O	1:H:585:GLN:HB2	2.20	0.41
1:A:581:LYS:O	1:A:585:GLN:HB2	2.20	0.41
1:C:282:GLU:O	1:C:282:GLU:HG2	2.20	0.41
1:C:442:LEU:HA	1:C:442:LEU:HD23	1.78	0.41
1:D:79:LEU:HB3	1:D:128:LEU:HD21	2.02	0.41
1:F:79:LEU:HB3	1:F:128:LEU:HD21	2.02	0.41
1:F:239:GLN:HB2	1:G:478:ASN:OD1	2.20	0.41
1:H:498:PHE:C	1:H:500:GLN:H	2.27	0.41
1:A:429:TYR:CE1	1:A:457:MET:HG3	2.56	0.41
1:D:310:ARG:O	1:D:314:ASP:HB2	2.21	0.41
1:D:421:LEU:HD11	1:D:433:PHE:CG	2.56	0.41
1:E:429:TYR:CE1	1:E:457:MET:HG3	2.56	0.41
1:F:539:LEU:HD12	1:F:539:LEU:HA	1.76	0.41
1:H:282:GLU:O	1:H:282:GLU:HG2	2.21	0.41
1:B:442:LEU:HA	1:B:442:LEU:HD23	1.78	0.41
1:C:498:PHE:C	1:C:500:GLN:N	2.76	0.41
1:H:429:TYR:CE1	1:H:457:MET:HG3	2.56	0.41
1:A:478:ASN:OD1	1:H:239:GLN:HB2	2.20	0.41
1:A:498:PHE:C	1:A:500:GLN:N	2.76	0.41
1:C:451:LEU:HD12	1:C:451:LEU:HA	1.86	0.41
1:D:191:MET:HB3	1:D:202:LEU:HD11	2.02	0.41
1:E:310:ARG:O	1:E:314:ASP:HB2	2.21	0.41
1:E:421:LEU:HD11	1:E:433:PHE:CG	2.56	0.41
1:H:409:VAL:O	1:H:410:PRO:C	2.62	0.41
1:A:239:GLN:HB2	1:B:478:ASN:OD1	2.20	0.41
1:A:442:LEU:HD23	1:A:442:LEU:HA	1.78	0.41
1:B:239:GLN:HB2	1:C:478:ASN:OD1	2.20	0.41
1:D:282:GLU:O	1:D:282:GLU:HG2	2.21	0.41
1:D:498:PHE:C	1:D:500:GLN:N	2.76	0.41
1:E:79:LEU:HB3	1:E:128:LEU:HD21	2.02	0.41
1:F:581:LYS:O	1:F:585:GLN:HB2	2.20	0.41
1:H:310:ARG:O	1:H:314:ASP:HB2	2.21	0.41
1:B:310:ARG:O	1:B:314:ASP:HB2	2.21	0.41
1:E:488:ALA:HB2	1:E:502:THR:HG21	2.03	0.41
1:F:129:LEU:HD21	1:F:147:LEU:HD23	2.02	0.41
1:G:446:LEU:HA	1:G:446:LEU:HD23	1.90	0.41
1:A:282:GLU:O	1:A:282:GLU:HG2	2.21	0.41
1:A:451:LEU:HD12	1:A:451:LEU:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:359:GLN:HE21	1:B:359:GLN:HB2	1.64	0.41
1:B:421:LEU:HD11	1:B:433:PHE:CG	2.56	0.41
1:B:429:TYR:CE1	1:B:457:MET:HG3	2.56	0.41
1:C:421:LEU:HD11	1:C:433:PHE:CG	2.56	0.41
1:C:429:TYR:CE1	1:C:457:MET:HG3	2.56	0.41
1:D:488:ALA:HB2	1:D:502:THR:HG21	2.03	0.41
1:D:548:SER:CB	1:D:549:PRO:HD3	2.51	0.41
1:E:129:LEU:HD21	1:E:147:LEU:HD23	2.01	0.41
1:F:429:TYR:CE1	1:F:457:MET:HG3	2.56	0.41
1:G:282:GLU:O	1:G:282:GLU:HG2	2.20	0.41
1:G:310:ARG:O	1:G:314:ASP:HB2	2.21	0.41
1:G:429:TYR:CE1	1:G:457:MET:HG3	2.56	0.41
1:H:191:MET:HB3	1:H:202:LEU:HD11	2.02	0.41
1:A:191:MET:HB3	1:A:202:LEU:HD11	2.02	0.41
1:C:310:ARG:O	1:C:314:ASP:HB2	2.21	0.41
1:D:429:TYR:CE1	1:D:457:MET:HG3	2.56	0.41
1:F:487:LEU:HA	1:F:487:LEU:HD23	1.81	0.41
1:A:548:SER:CB	1:A:549:PRO:HD3	2.51	0.40
1:A:649:CYS:HB2	1:A:651:LYS:HG2	2.03	0.40
1:B:165:LEU:CD2	1:B:198:THR:HG23	2.52	0.40
1:B:282:GLU:O	1:B:282:GLU:HG2	2.21	0.40
1:B:494:LEU:HA	1:B:494:LEU:HD12	1.80	0.40
1:C:191:MET:HB3	1:C:202:LEU:HD11	2.02	0.40
1:C:488:ALA:HB2	1:C:502:THR:HG21	2.03	0.40
1:C:649:CYS:HB2	1:C:651:LYS:HG2	2.03	0.40
1:D:244:ARG:HD2	1:D:244:ARG:HA	1.95	0.40
1:F:165:LEU:CD2	1:F:198:THR:HG23	2.51	0.40
1:G:421:LEU:HD11	1:G:433:PHE:CG	2.56	0.40
1:D:458:LYS:HA	1:D:458:LYS:HD3	1.83	0.40
1:D:581:LYS:O	1:D:585:GLN:HB2	2.20	0.40
1:E:649:CYS:HB2	1:E:651:LYS:HG2	2.03	0.40
1:G:133:LEU:HD23	1:G:133:LEU:HA	1.96	0.40
1:G:451:LEU:HD12	1:G:451:LEU:HA	1.86	0.40
1:G:581:LYS:O	1:G:585:GLN:HB2	2.20	0.40
1:G:165:LEU:CD2	1:G:198:THR:HG23	2.52	0.40
1:B:498:PHE:C	1:B:500:GLN:N	2.76	0.40
1:C:487:LEU:HD23	1:C:487:LEU:HA	1.81	0.40
1:E:165:LEU:CD2	1:E:198:THR:HG23	2.52	0.40
1:E:265:LEU:HD23	1:E:265:LEU:HA	1.88	0.40
1:E:581:LYS:O	1:E:585:GLN:HB2	2.20	0.40
1:F:310:ARG:O	1:F:314:ASP:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:191:MET:HB3	1:G:202:LEU:HD11	2.02	0.40
1:H:165:LEU:CD2	1:H:198:THR:HG23	2.52	0.40
1:H:426:PHE:C	1:H:428:LYS:N	2.80	0.40
1:H:488:ALA:HB2	1:H:502:THR:HG21	2.03	0.40
1:A:377:LEU:HD22	1:A:386:LYS:HD3	2.04	0.40
1:A:488:ALA:HB2	1:A:502:THR:HG21	2.03	0.40
1:B:191:MET:HB3	1:B:202:LEU:HD11	2.02	0.40
1:C:523:LEU:HD23	1:C:523:LEU:HA	1.74	0.40
1:D:165:LEU:CD2	1:D:198:THR:HG23	2.51	0.40
1:D:539:LEU:HA	1:D:539:LEU:HD12	1.76	0.40
1:F:421:LEU:HD11	1:F:433:PHE:CG	2.56	0.40
1:F:451:LEU:HD12	1:F:451:LEU:HA	1.86	0.40
1:F:488:ALA:HB2	1:F:502:THR:HG21	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	643/725 (89%)	589 (92%)	54 (8%)	0	100	100
1	B	643/725 (89%)	590 (92%)	53 (8%)	0	100	100
1	C	643/725 (89%)	589 (92%)	54 (8%)	0	100	100
1	D	643/725 (89%)	590 (92%)	53 (8%)	0	100	100
1	E	643/725 (89%)	589 (92%)	54 (8%)	0	100	100
1	F	643/725 (89%)	590 (92%)	53 (8%)	0	100	100
1	G	643/725 (89%)	589 (92%)	54 (8%)	0	100	100
1	H	643/725 (89%)	590 (92%)	53 (8%)	0	100	100
All	All	5144/5800 (89%)	4716 (92%)	428 (8%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	535/593 (90%)	500 (94%)	35 (6%)	15	34
1	B	535/593 (90%)	498 (93%)	37 (7%)	14	31
1	C	535/593 (90%)	500 (94%)	35 (6%)	15	34
1	D	535/593 (90%)	500 (94%)	35 (6%)	15	34
1	E	535/593 (90%)	500 (94%)	35 (6%)	15	34
1	F	535/593 (90%)	499 (93%)	36 (7%)	15	32
1	G	535/593 (90%)	500 (94%)	35 (6%)	15	34
1	H	535/593 (90%)	499 (93%)	36 (7%)	15	32
All	All	4280/4744 (90%)	3996 (93%)	284 (7%)	17	33

All (284) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	95	VAL
1	A	97	GLN
1	A	126	LEU
1	A	137	GLU
1	A	153	VAL
1	A	189	GLU
1	A	228	LEU
1	A	241	VAL
1	A	297	GLU
1	A	299	LEU
1	A	349	LEU
1	A	350	CYS
1	A	364	VAL
1	A	366	SER
1	A	371	ILE
1	A	377	LEU

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Mol	Chain	Res	Type
1	A	385	THR
1	A	410	PRO
1	A	416	GLU
1	A	419	THR
1	A	422	GLN
1	A	431	GLU
1	A	449	GLU
1	A	481	THR
1	A	482	CYS
1	A	494	LEU
1	A	496	PRO
1	A	564	VAL
1	A	566	ILE
1	A	590	SER
1	A	594	ASP
1	A	602	LYS
1	A	608	ILE
1	A	616	ASN
1	A	670	GLU
1	B	95	VAL
1	B	97	GLN
1	B	126	LEU
1	B	137	GLU
1	B	153	VAL
1	B	189	GLU
1	B	228	LEU
1	B	241	VAL
1	B	297	GLU
1	B	299	LEU
1	B	313	VAL
1	B	349	LEU
1	B	350	CYS
1	B	364	VAL
1	B	366	SER
1	B	371	ILE
1	B	377	LEU
1	B	385	THR
1	B	410	PRO
1	B	416	GLU
1	B	419	THR
1	B	422	GLN
1	B	431	GLU

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Mol	Chain	Res	Type
1	B	449	GLU
1	B	481	THR
1	B	482	CYS
1	B	494	LEU
1	B	496	PRO
1	B	564	VAL
1	B	566	ILE
1	B	590	SER
1	B	594	ASP
1	B	595	VAL
1	B	602	LYS
1	B	608	ILE
1	B	616	ASN
1	B	670	GLU
1	C	95	VAL
1	C	97	GLN
1	C	126	LEU
1	C	137	GLU
1	C	153	VAL
1	C	189	GLU
1	C	228	LEU
1	C	241	VAL
1	C	297	GLU
1	C	299	LEU
1	C	349	LEU
1	C	350	CYS
1	C	364	VAL
1	C	366	SER
1	C	371	ILE
1	C	377	LEU
1	C	385	THR
1	C	410	PRO
1	C	416	GLU
1	C	419	THR
1	C	422	GLN
1	C	431	GLU
1	C	449	GLU
1	C	481	THR
1	C	482	CYS
1	C	494	LEU
1	C	496	PRO
1	C	564	VAL

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Mol	Chain	Res	Type
1	C	566	ILE
1	C	590	SER
1	C	594	ASP
1	C	602	LYS
1	C	608	ILE
1	C	616	ASN
1	C	670	GLU
1	D	95	VAL
1	D	97	GLN
1	D	126	LEU
1	D	137	GLU
1	D	153	VAL
1	D	189	GLU
1	D	228	LEU
1	D	241	VAL
1	D	297	GLU
1	D	299	LEU
1	D	349	LEU
1	D	350	CYS
1	D	364	VAL
1	D	366	SER
1	D	371	ILE
1	D	377	LEU
1	D	385	THR
1	D	410	PRO
1	D	416	GLU
1	D	419	THR
1	D	422	GLN
1	D	431	GLU
1	D	449	GLU
1	D	481	THR
1	D	482	CYS
1	D	494	LEU
1	D	496	PRO
1	D	564	VAL
1	D	566	ILE
1	D	590	SER
1	D	594	ASP
1	D	602	LYS
1	D	608	ILE
1	D	616	ASN
1	D	670	GLU

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Mol	Chain	Res	Type
1	E	95	VAL
1	E	97	GLN
1	E	126	LEU
1	E	137	GLU
1	E	153	VAL
1	E	189	GLU
1	E	228	LEU
1	E	241	VAL
1	E	297	GLU
1	E	299	LEU
1	E	349	LEU
1	E	350	CYS
1	E	364	VAL
1	E	366	SER
1	E	371	ILE
1	E	377	LEU
1	E	385	THR
1	E	410	PRO
1	E	416	GLU
1	E	419	THR
1	E	422	GLN
1	E	431	GLU
1	E	449	GLU
1	E	481	THR
1	E	482	CYS
1	E	494	LEU
1	E	496	PRO
1	E	564	VAL
1	E	566	ILE
1	E	590	SER
1	E	594	ASP
1	E	602	LYS
1	E	608	ILE
1	E	616	ASN
1	E	670	GLU
1	F	95	VAL
1	F	97	GLN
1	F	126	LEU
1	F	137	GLU
1	F	153	VAL
1	F	189	GLU
1	F	228	LEU

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Mol	Chain	Res	Type
1	F	241	VAL
1	F	297	GLU
1	F	299	LEU
1	F	349	LEU
1	F	350	CYS
1	F	364	VAL
1	F	366	SER
1	F	371	ILE
1	F	377	LEU
1	F	385	THR
1	F	410	PRO
1	F	416	GLU
1	F	419	THR
1	F	422	GLN
1	F	431	GLU
1	F	449	GLU
1	F	481	THR
1	F	482	CYS
1	F	494	LEU
1	F	496	PRO
1	F	564	VAL
1	F	566	ILE
1	F	590	SER
1	F	594	ASP
1	F	595	VAL
1	F	602	LYS
1	F	608	ILE
1	F	616	ASN
1	F	670	GLU
1	G	95	VAL
1	G	97	GLN
1	G	126	LEU
1	G	137	GLU
1	G	153	VAL
1	G	189	GLU
1	G	228	LEU
1	G	241	VAL
1	G	297	GLU
1	G	299	LEU
1	G	349	LEU
1	G	350	CYS
1	G	364	VAL

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Mol	Chain	Res	Type
1	G	366	SER
1	G	371	ILE
1	G	377	LEU
1	G	385	THR
1	G	410	PRO
1	G	416	GLU
1	G	419	THR
1	G	422	GLN
1	G	431	GLU
1	G	449	GLU
1	G	481	THR
1	G	482	CYS
1	G	494	LEU
1	G	496	PRO
1	G	564	VAL
1	G	566	ILE
1	G	590	SER
1	G	594	ASP
1	G	602	LYS
1	G	608	ILE
1	G	616	ASN
1	G	670	GLU
1	H	95	VAL
1	H	97	GLN
1	H	126	LEU
1	H	137	GLU
1	H	153	VAL
1	H	189	GLU
1	H	228	LEU
1	H	241	VAL
1	H	297	GLU
1	H	299	LEU
1	H	349	LEU
1	H	350	CYS
1	H	364	VAL
1	H	366	SER
1	H	371	ILE
1	H	377	LEU
1	H	385	THR
1	H	410	PRO
1	H	416	GLU
1	H	419	THR

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Mol	Chain	Res	Type
1	H	422	GLN
1	H	431	GLU
1	H	449	GLU
1	H	481	THR
1	H	482	CYS
1	H	494	LEU
1	H	496	PRO
1	H	564	VAL
1	H	566	ILE
1	H	590	SER
1	H	594	ASP
1	H	595	VAL
1	H	602	LYS
1	H	608	ILE
1	H	616	ASN
1	H	670	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (62) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	225	HIS
1	A	232	ASN
1	A	239	GLN
1	A	359	GLN
1	A	383	ASN
1	A	631	GLN
1	A	640	HIS
1	B	225	HIS
1	B	232	ASN
1	B	239	GLN
1	B	359	GLN
1	B	383	ASN
1	B	585	GLN
1	B	631	GLN
1	B	640	HIS
1	C	225	HIS
1	C	232	ASN
1	C	239	GLN
1	C	359	GLN
1	C	383	ASN
1	C	422	GLN
1	C	530	HIS

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Mol	Chain	Res	Type
1	C	631	GLN
1	C	640	HIS
1	D	232	ASN
1	D	239	GLN
1	D	359	GLN
1	D	383	ASN
1	D	422	GLN
1	D	631	GLN
1	D	640	HIS
1	E	232	ASN
1	E	239	GLN
1	E	359	GLN
1	E	383	ASN
1	E	631	GLN
1	E	640	HIS
1	F	232	ASN
1	F	239	GLN
1	F	359	GLN
1	F	383	ASN
1	F	422	GLN
1	F	585	GLN
1	F	631	GLN
1	F	640	HIS
1	G	225	HIS
1	G	232	ASN
1	G	239	GLN
1	G	359	GLN
1	G	383	ASN
1	G	585	GLN
1	G	631	GLN
1	G	640	HIS
1	H	225	HIS
1	H	232	ASN
1	H	239	GLN
1	H	359	GLN
1	H	383	ASN
1	H	530	HIS
1	H	585	GLN
1	H	631	GLN
1	H	640	HIS

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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

8 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
2	NAD	B	801	-	46,48,48	0.60	1 (2%)	64,73,73	0.58	0
2	NAD	F	801	-	46,48,48	0.60	1 (2%)	64,73,73	0.58	0
2	NAD	G	801	-	46,48,48	0.61	1 (2%)	64,73,73	0.58	0
2	NAD	C	801	-	46,48,48	0.60	1 (2%)	64,73,73	0.58	0
2	NAD	A	801	-	46,48,48	0.60	1 (2%)	64,73,73	0.58	0
2	NAD	E	801	-	46,48,48	0.60	1 (2%)	64,73,73	0.58	0
2	NAD	H	801	-	46,48,48	0.61	1 (2%)	64,73,73	0.58	0
2	NAD	D	801	-	46,48,48	0.60	1 (2%)	64,73,73	0.58	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAD	B	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	F	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	G	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	C	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	A	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	E	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	H	801	-	1/1/11/11	11/30/62/62	0/5/5/5
2	NAD	D	801	-	1/1/11/11	11/30/62/62	0/5/5/5

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	801	NAD	C2N-N1N	2.63	1.37	1.35
2	F	801	NAD	C2N-N1N	2.63	1.37	1.35
2	H	801	NAD	C2N-N1N	2.63	1.37	1.35
2	A	801	NAD	C2N-N1N	2.61	1.37	1.35
2	C	801	NAD	C2N-N1N	2.61	1.37	1.35
2	E	801	NAD	C2N-N1N	2.61	1.37	1.35
2	G	801	NAD	C2N-N1N	2.61	1.37	1.35
2	B	801	NAD	C2N-N1N	2.57	1.37	1.35

There are no bond angle outliers.

All (8) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	A	801	NAD	C1B
2	B	801	NAD	C1B
2	C	801	NAD	C1B
2	D	801	NAD	C1B
2	E	801	NAD	C1B
2	F	801	NAD	C1B
2	G	801	NAD	C1B
2	H	801	NAD	C1B

All (88) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	801	NAD	C5B-O5B-PA-O1A
2	A	801	NAD	C5D-O5D-PN-O3
2	A	801	NAD	C5D-O5D-PN-O1N

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Mol	Chain	Res	Type	Atoms
2	A	801	NAD	C5D-O5D-PN-O2N
2	B	801	NAD	C5B-O5B-PA-O1A
2	B	801	NAD	C5D-O5D-PN-O3
2	B	801	NAD	C5D-O5D-PN-O1N
2	B	801	NAD	C5D-O5D-PN-O2N
2	C	801	NAD	C5B-O5B-PA-O1A
2	C	801	NAD	C5D-O5D-PN-O3
2	C	801	NAD	C5D-O5D-PN-O1N
2	C	801	NAD	C5D-O5D-PN-O2N
2	D	801	NAD	C5B-O5B-PA-O1A
2	D	801	NAD	C5D-O5D-PN-O3
2	D	801	NAD	C5D-O5D-PN-O1N
2	D	801	NAD	C5D-O5D-PN-O2N
2	E	801	NAD	C5B-O5B-PA-O1A
2	E	801	NAD	C5D-O5D-PN-O3
2	E	801	NAD	C5D-O5D-PN-O1N
2	E	801	NAD	C5D-O5D-PN-O2N
2	F	801	NAD	C5B-O5B-PA-O1A
2	F	801	NAD	C5D-O5D-PN-O3
2	F	801	NAD	C5D-O5D-PN-O1N
2	F	801	NAD	C5D-O5D-PN-O2N
2	G	801	NAD	C5B-O5B-PA-O1A
2	G	801	NAD	C5D-O5D-PN-O3
2	G	801	NAD	C5D-O5D-PN-O1N
2	G	801	NAD	C5D-O5D-PN-O2N
2	H	801	NAD	C5B-O5B-PA-O1A
2	H	801	NAD	C5D-O5D-PN-O3
2	H	801	NAD	C5D-O5D-PN-O1N
2	H	801	NAD	C5D-O5D-PN-O2N
2	A	801	NAD	C3D-C4D-C5D-O5D
2	B	801	NAD	C3D-C4D-C5D-O5D
2	C	801	NAD	C3D-C4D-C5D-O5D
2	D	801	NAD	C3D-C4D-C5D-O5D
2	E	801	NAD	C3D-C4D-C5D-O5D
2	F	801	NAD	C3D-C4D-C5D-O5D
2	G	801	NAD	C3D-C4D-C5D-O5D
2	H	801	NAD	C3D-C4D-C5D-O5D
2	A	801	NAD	O4D-C4D-C5D-O5D
2	B	801	NAD	O4D-C4D-C5D-O5D
2	C	801	NAD	O4D-C4D-C5D-O5D
2	D	801	NAD	O4D-C4D-C5D-O5D
2	E	801	NAD	O4D-C4D-C5D-O5D

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Mol	Chain	Res	Type	Atoms
2	F	801	NAD	O4D-C4D-C5D-O5D
2	G	801	NAD	O4D-C4D-C5D-O5D
2	H	801	NAD	O4D-C4D-C5D-O5D
2	A	801	NAD	O4B-C1B-N9A-C4A
2	B	801	NAD	O4B-C1B-N9A-C4A
2	C	801	NAD	O4B-C1B-N9A-C4A
2	D	801	NAD	O4B-C1B-N9A-C4A
2	E	801	NAD	O4B-C1B-N9A-C4A
2	F	801	NAD	O4B-C1B-N9A-C4A
2	G	801	NAD	O4B-C1B-N9A-C4A
2	H	801	NAD	O4B-C1B-N9A-C4A
2	A	801	NAD	O4B-C1B-N9A-C8A
2	B	801	NAD	O4B-C1B-N9A-C8A
2	C	801	NAD	O4B-C1B-N9A-C8A
2	D	801	NAD	O4B-C1B-N9A-C8A
2	E	801	NAD	O4B-C1B-N9A-C8A
2	F	801	NAD	O4B-C1B-N9A-C8A
2	G	801	NAD	O4B-C1B-N9A-C8A
2	H	801	NAD	O4B-C1B-N9A-C8A
2	A	801	NAD	C4B-C5B-O5B-PA
2	B	801	NAD	C4B-C5B-O5B-PA
2	C	801	NAD	C4B-C5B-O5B-PA
2	D	801	NAD	C4B-C5B-O5B-PA
2	E	801	NAD	C4B-C5B-O5B-PA
2	F	801	NAD	C4B-C5B-O5B-PA
2	G	801	NAD	C4B-C5B-O5B-PA
2	H	801	NAD	C4B-C5B-O5B-PA
2	A	801	NAD	O4B-C4B-C5B-O5B
2	B	801	NAD	O4B-C4B-C5B-O5B
2	D	801	NAD	O4B-C4B-C5B-O5B
2	F	801	NAD	O4B-C4B-C5B-O5B
2	H	801	NAD	O4B-C4B-C5B-O5B
2	C	801	NAD	O4B-C4B-C5B-O5B
2	E	801	NAD	O4B-C4B-C5B-O5B
2	G	801	NAD	O4B-C4B-C5B-O5B
2	B	801	NAD	C3B-C4B-C5B-O5B
2	D	801	NAD	C3B-C4B-C5B-O5B
2	E	801	NAD	C3B-C4B-C5B-O5B
2	F	801	NAD	C3B-C4B-C5B-O5B
2	H	801	NAD	C3B-C4B-C5B-O5B
2	A	801	NAD	C3B-C4B-C5B-O5B
2	C	801	NAD	C3B-C4B-C5B-O5B

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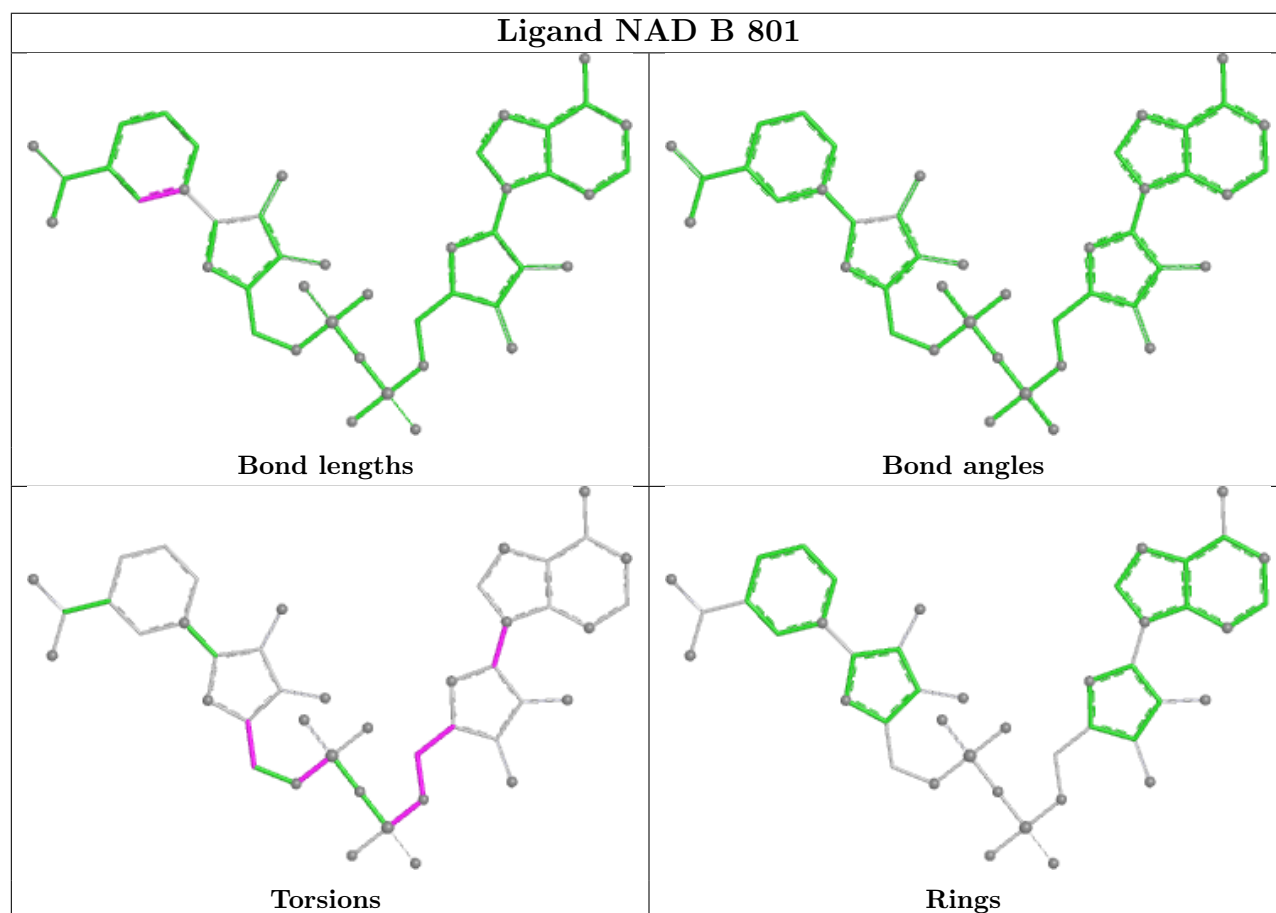
Continued from previous page...

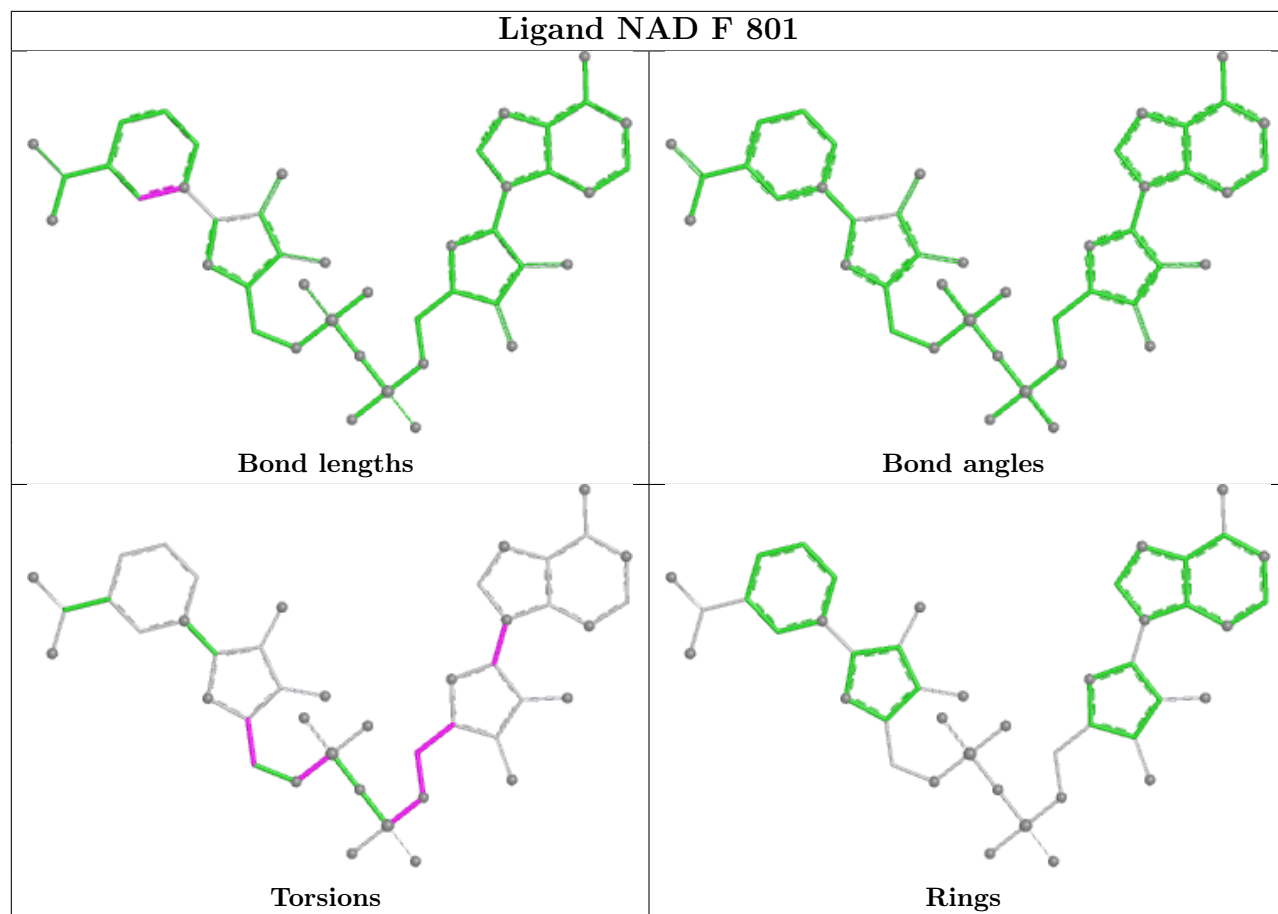
Mol	Chain	Res	Type	Atoms
2	G	801	NAD	C3B-C4B-C5B-O5B

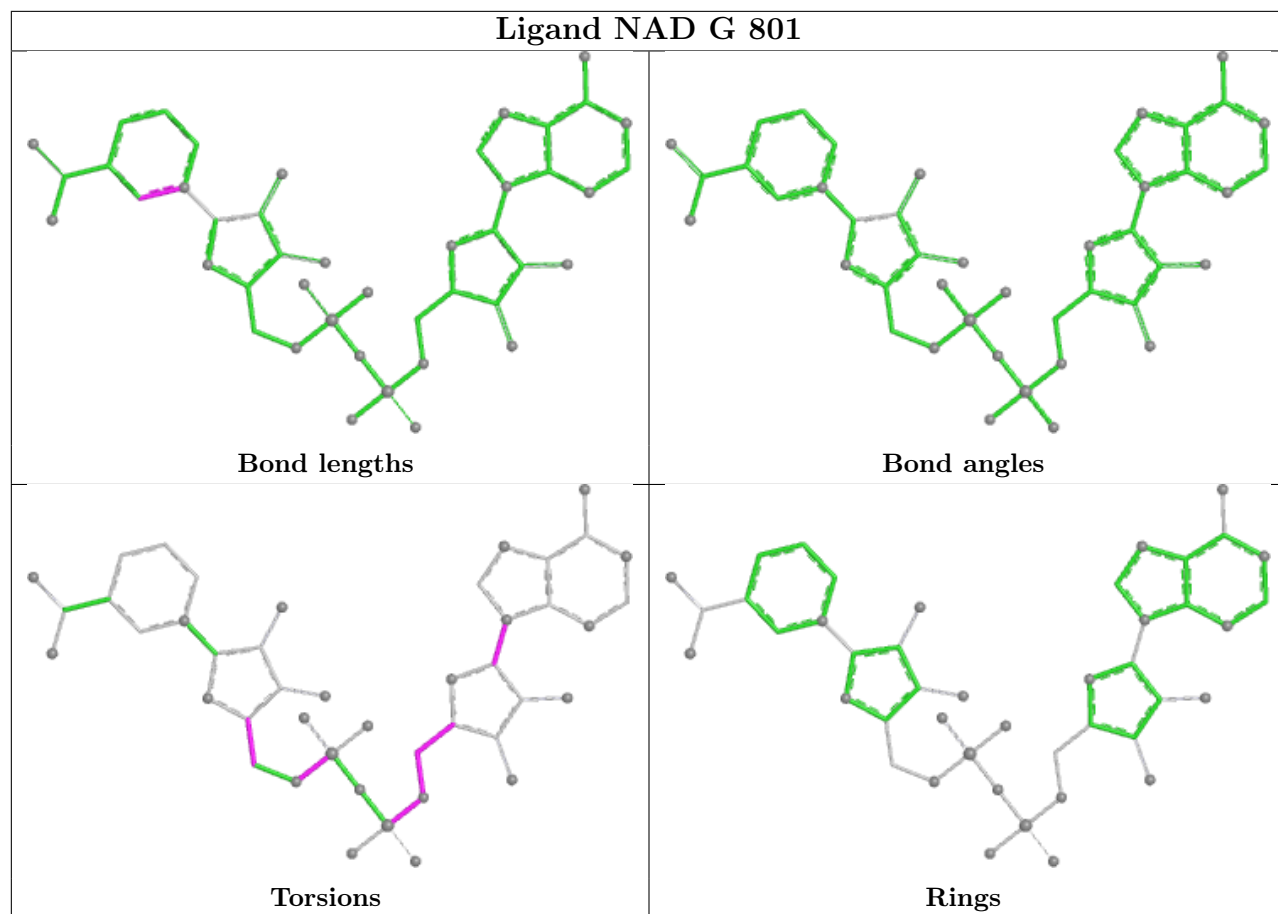
There are no ring outliers.

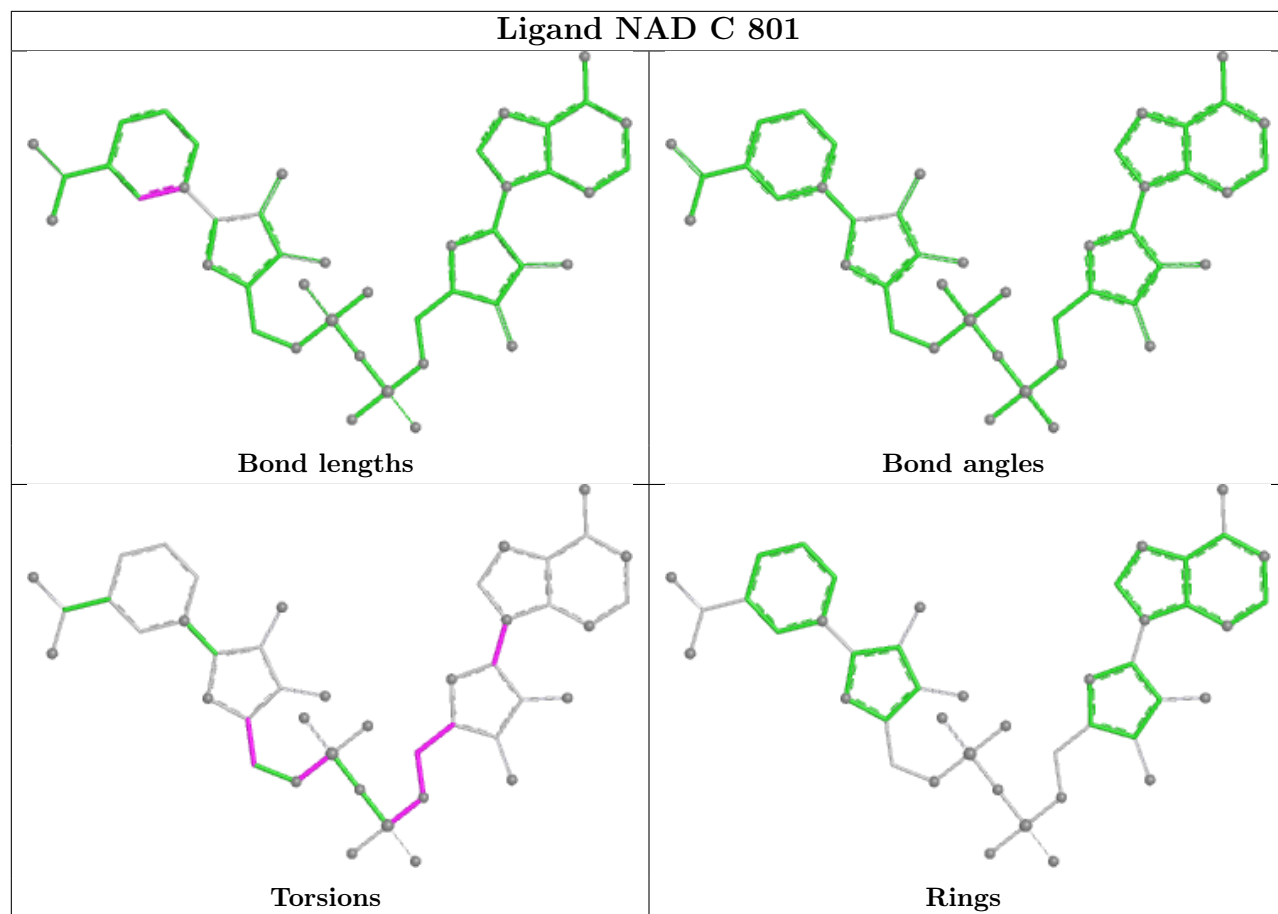
No monomer is involved in short contacts.

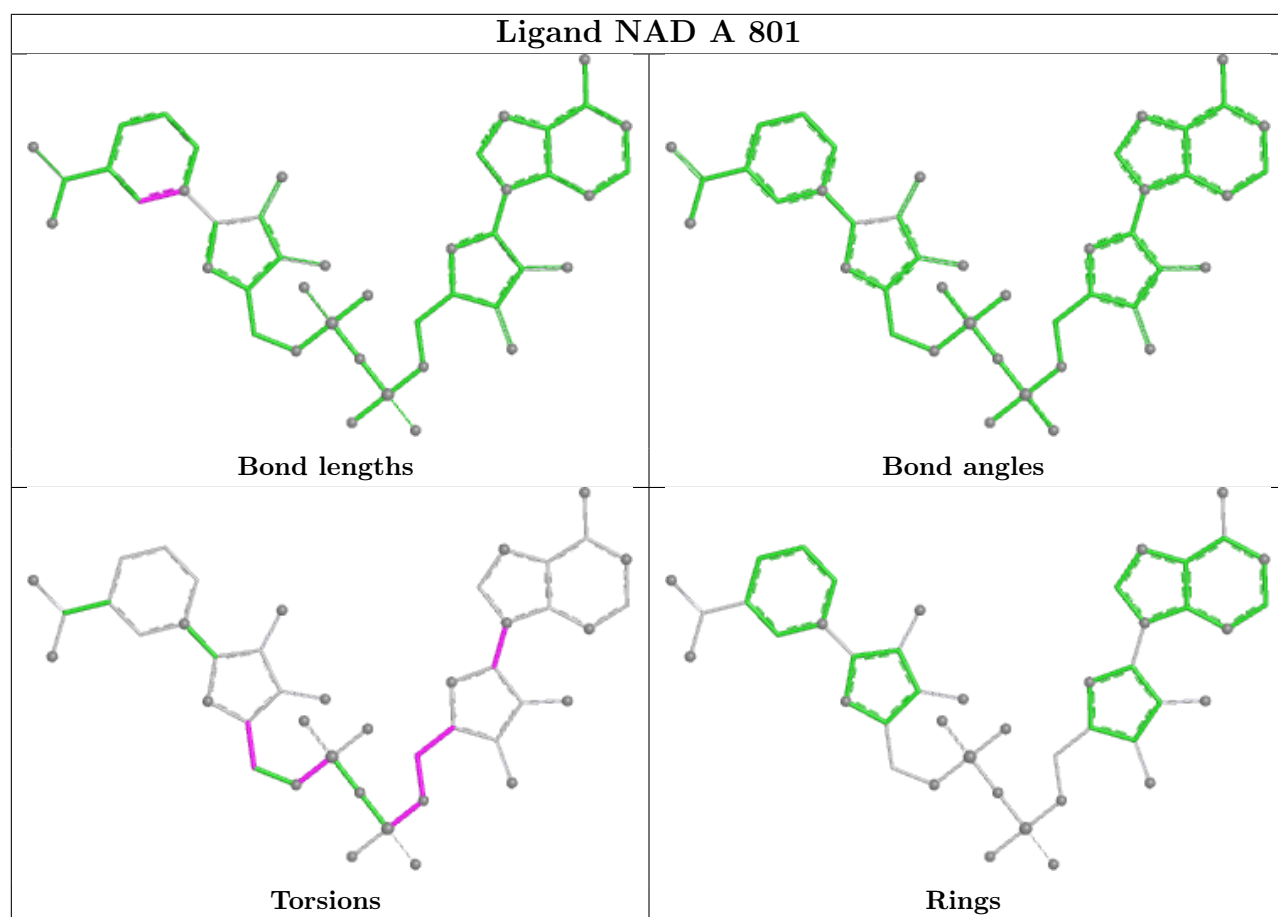
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

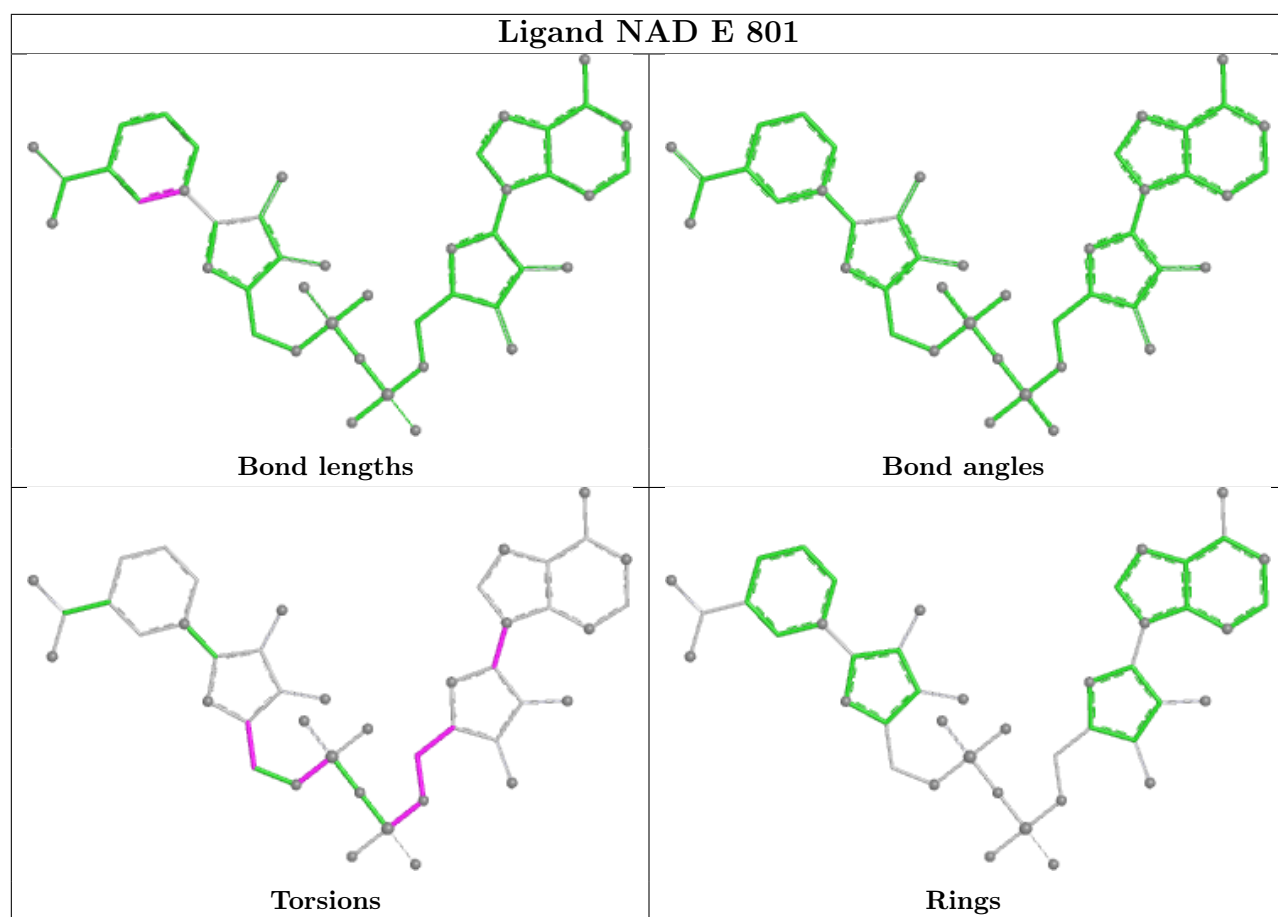


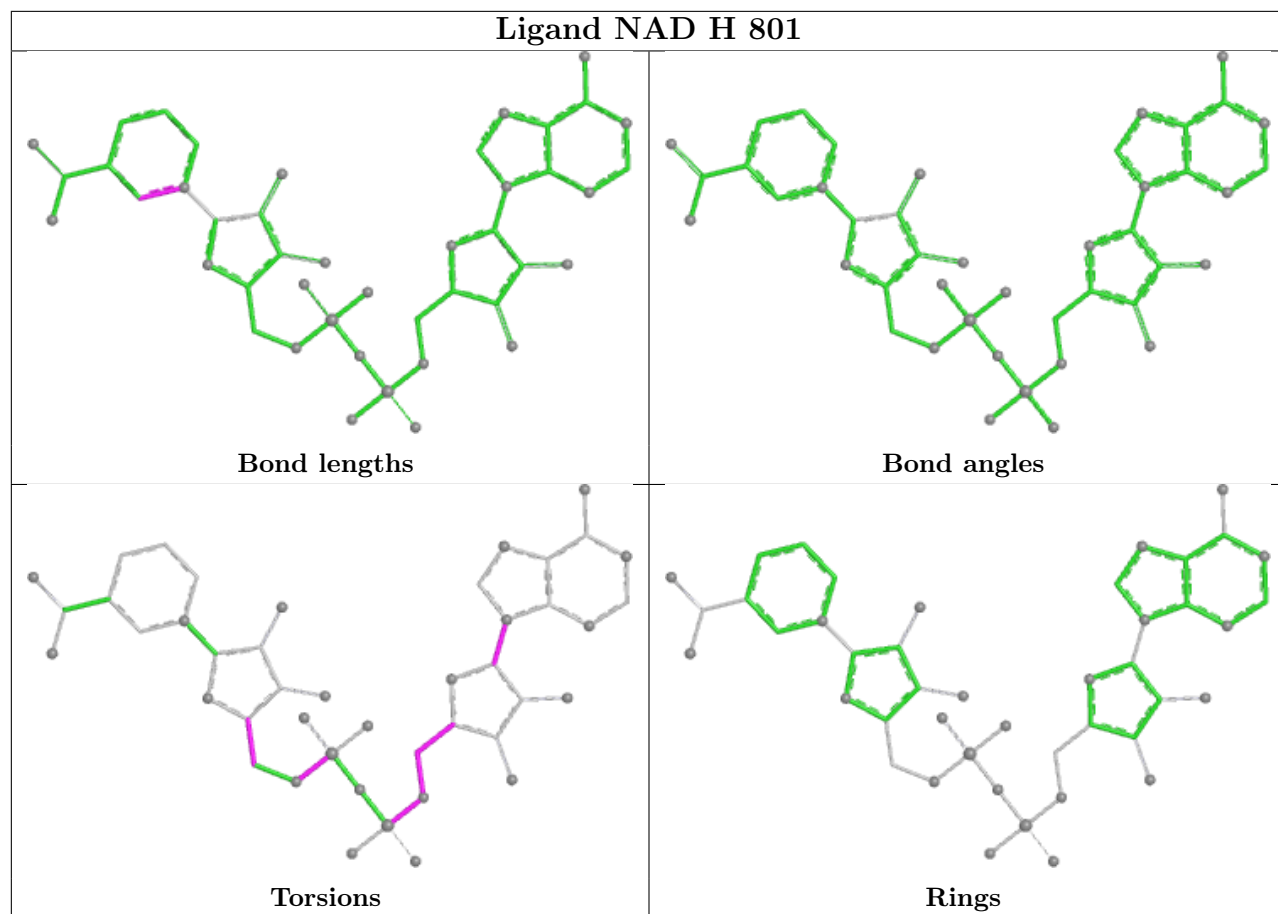


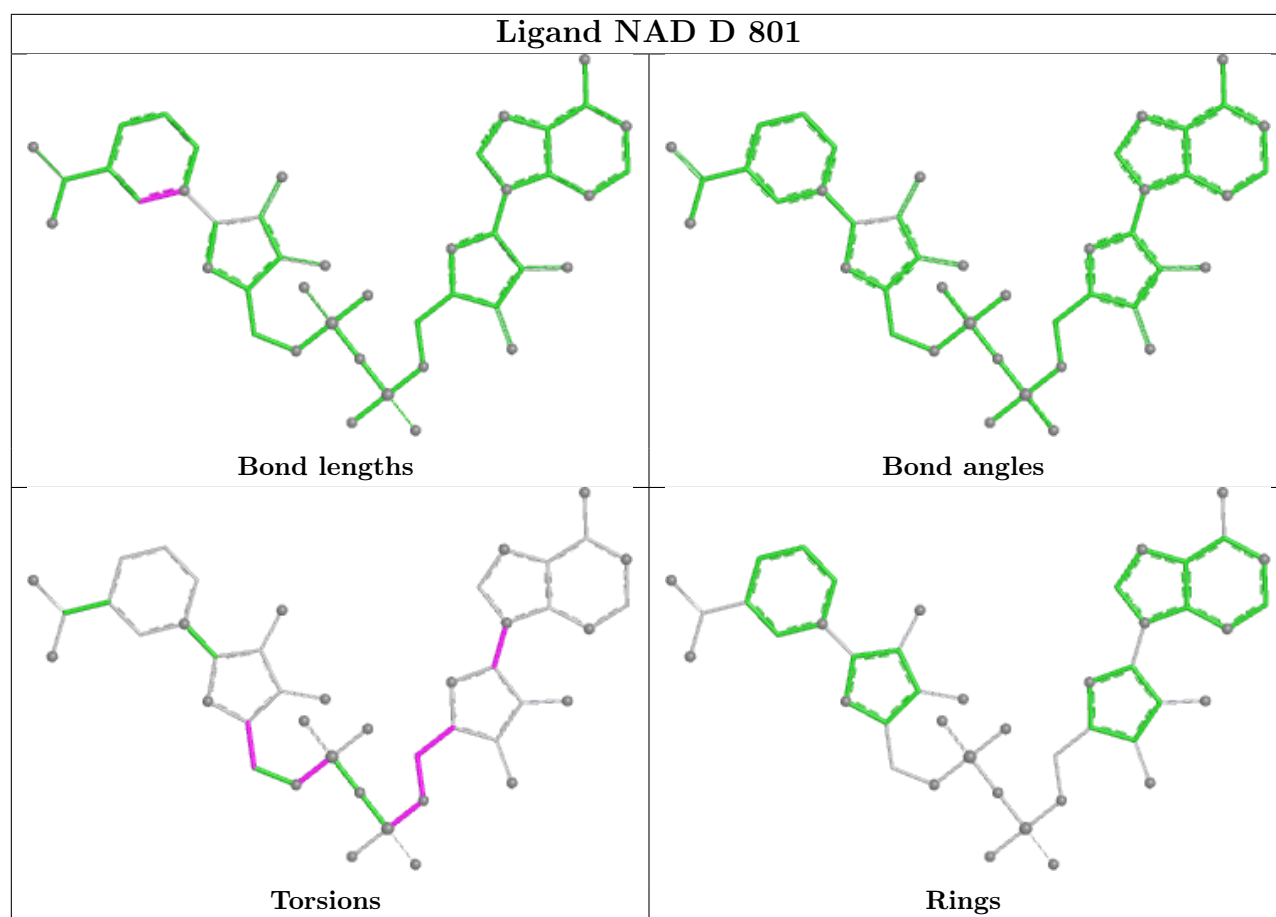












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

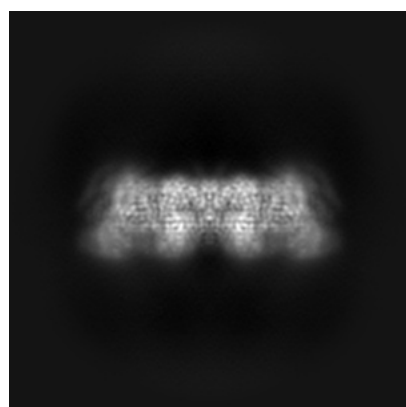
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11834. These allow visual inspection of the internal detail of the map and identification of artifacts.

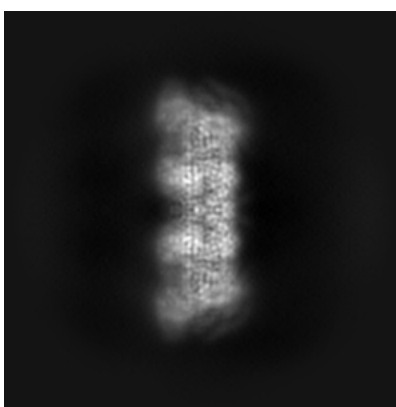
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

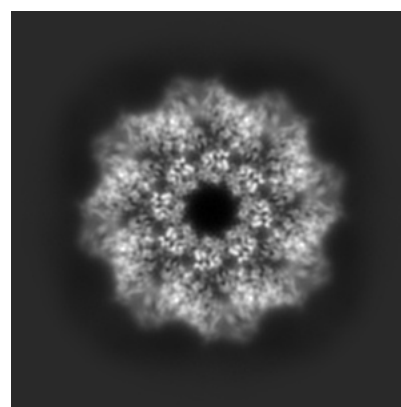
6.1.1 Primary map



X



Y

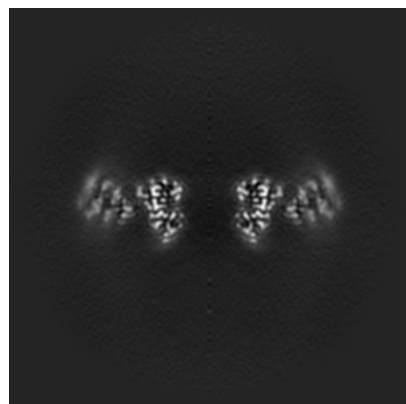


Z

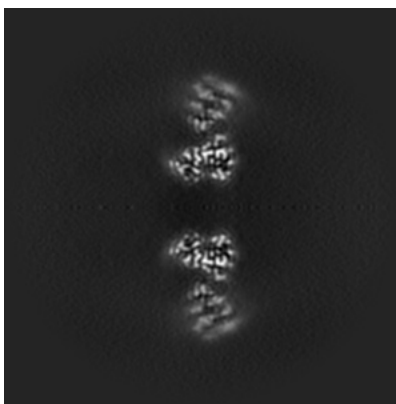
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

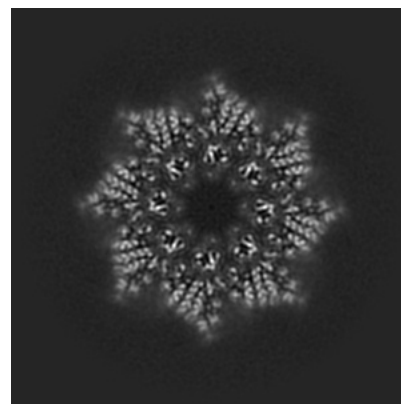
6.2.1 Primary map



X Index: 175



Y Index: 175

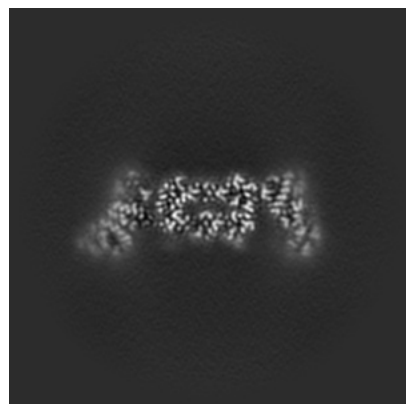


Z Index: 175

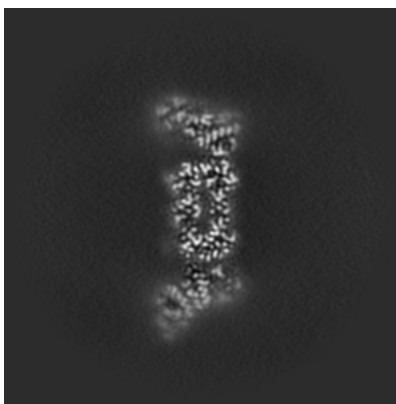
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

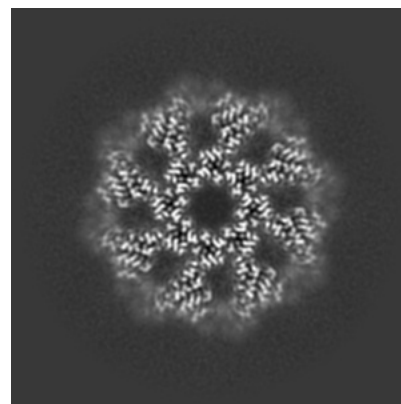
6.3.1 Primary map



X Index: 207



Y Index: 143

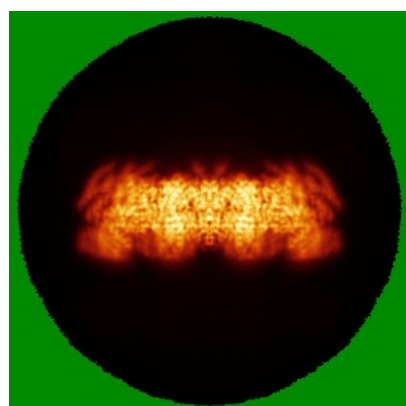


Z Index: 162

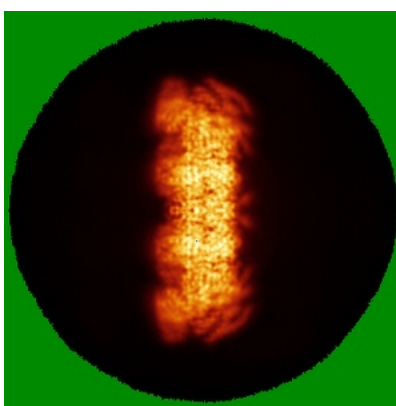
The images above show the largest variance slices of the map in three orthogonal directions.

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

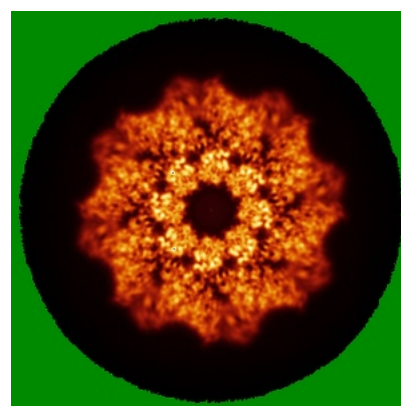
6.4.1 Primary map



X



Y

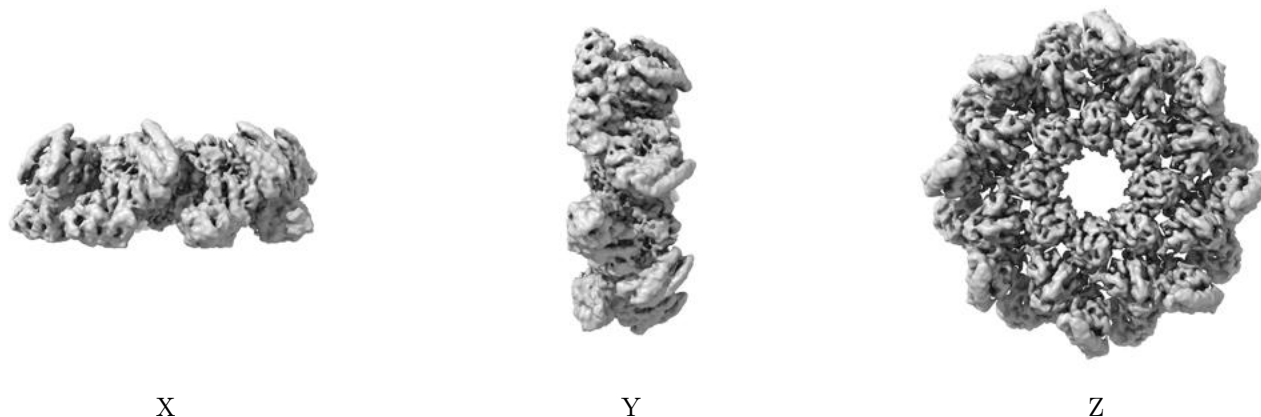


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

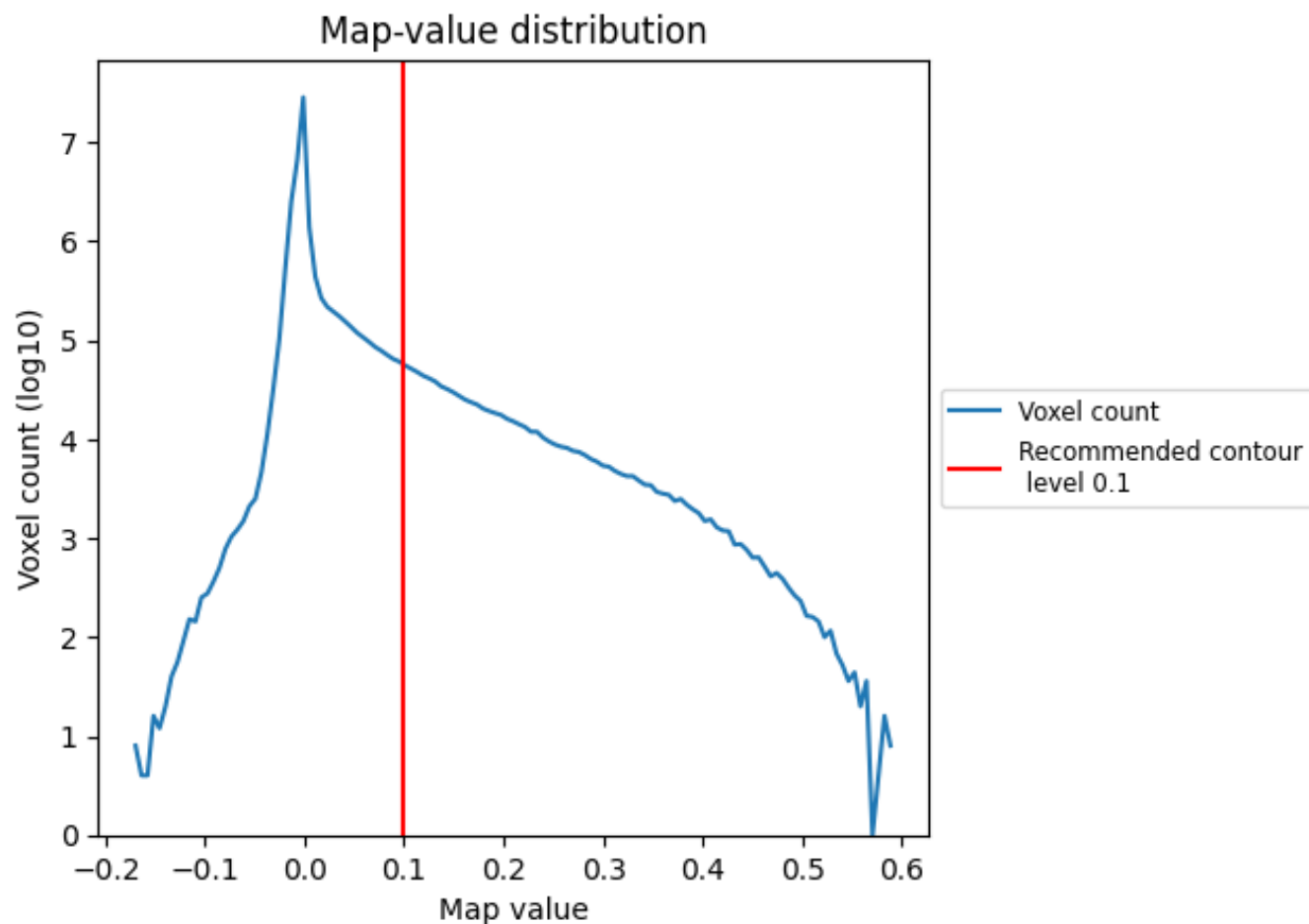
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

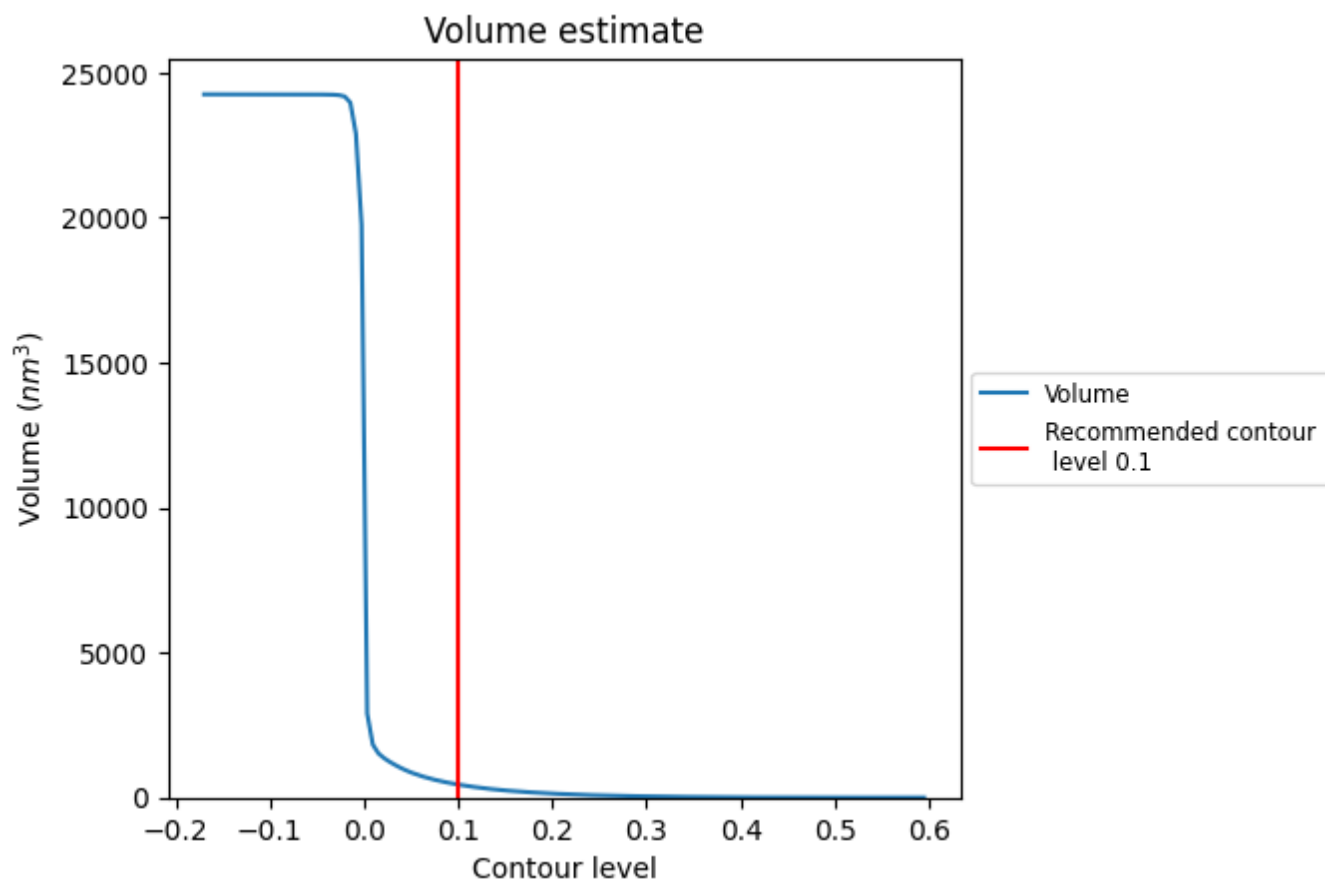
This section contains the results of statistical analysis of the map.

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.

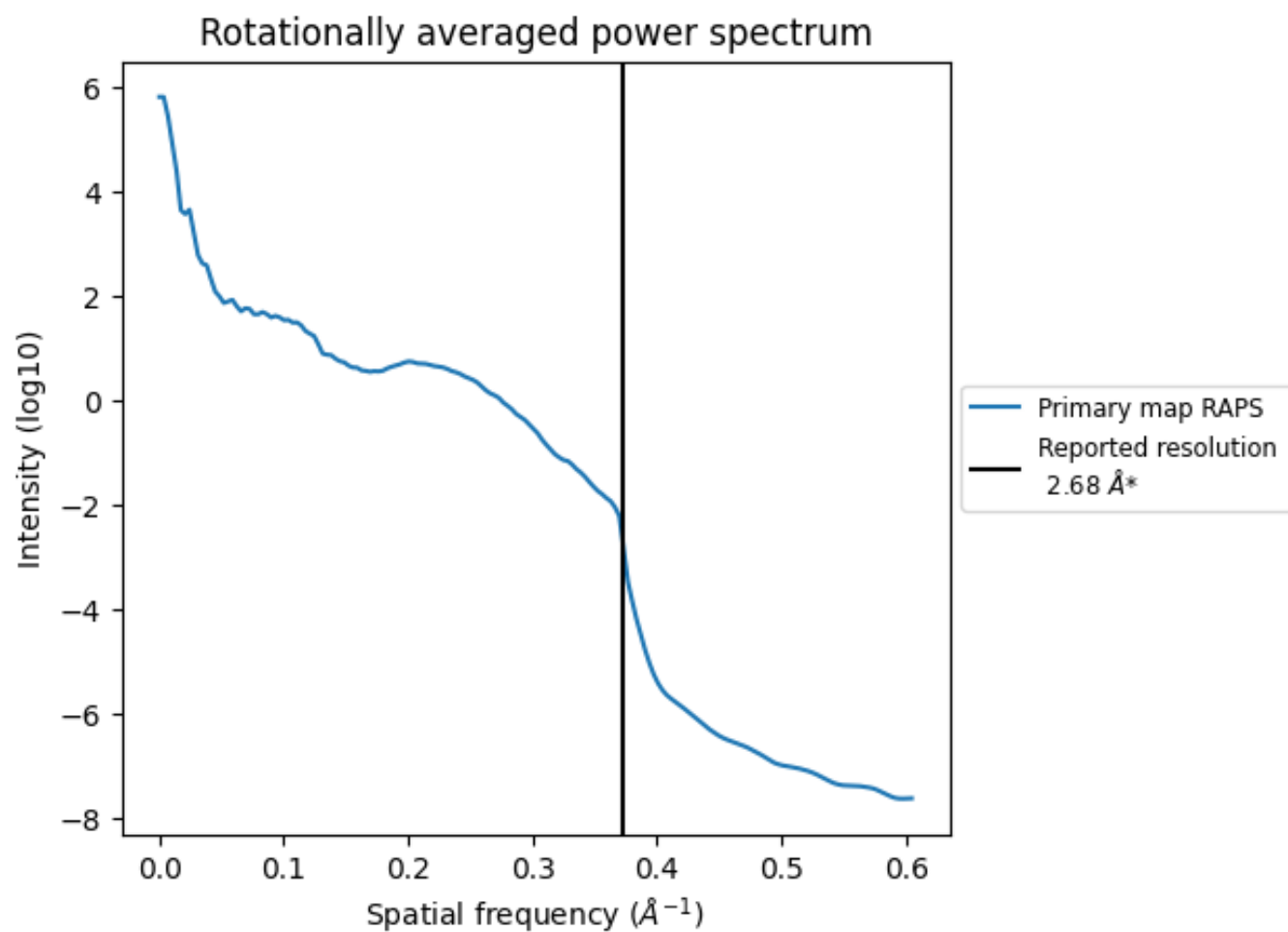
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 449 nm^3 ; this corresponds to an approximate mass of 406 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 ⓘ



*Reported resolution corresponds to spatial frequency of 0.373 Å⁻¹

8 Fourier-Shell correlation

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

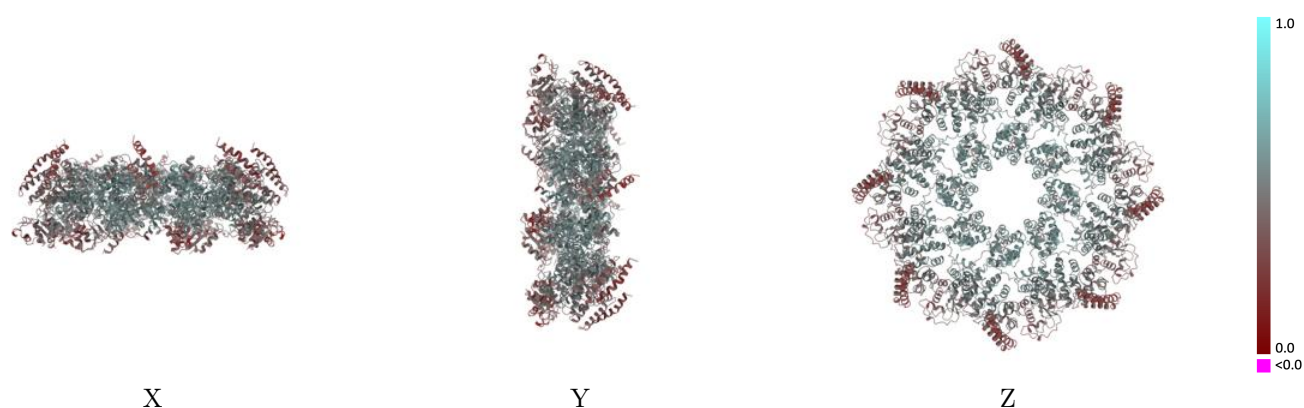
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-11834 and PDB model 7ANW. Per-residue inclusion information can be found in section 3 on page 11.

9.1 Map-model overlay [i](#)

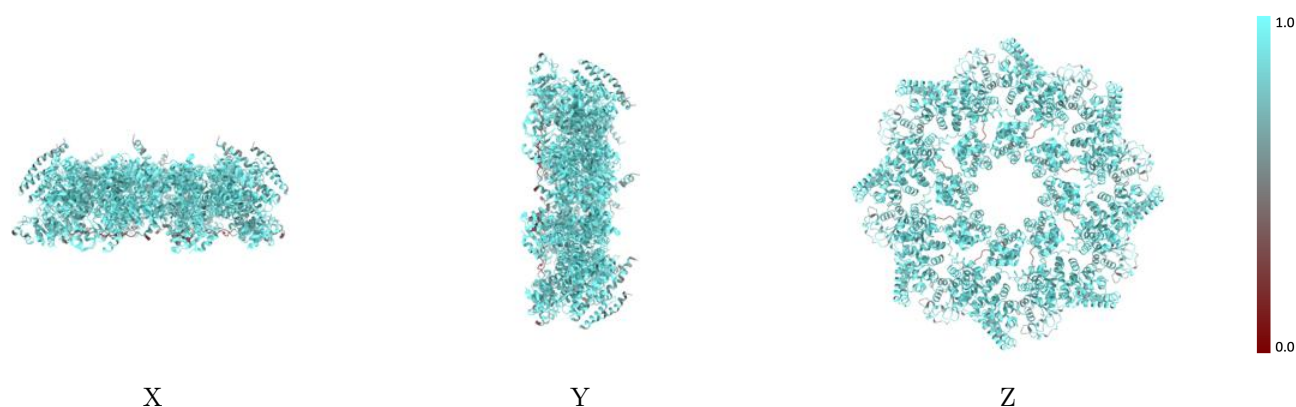
This section was not generated.

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



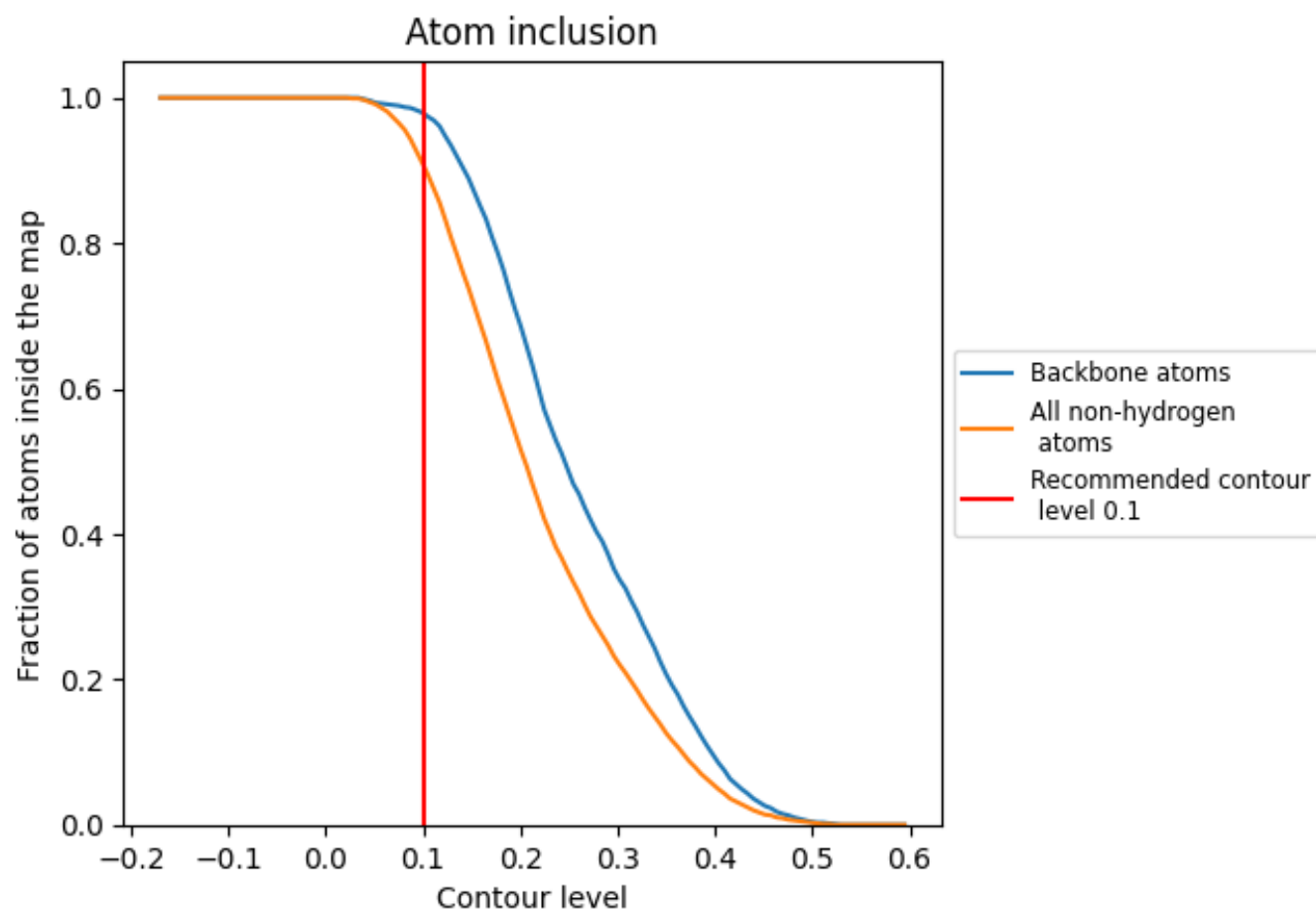
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.1).

9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 91% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9080	0.4720
A	0.9080	0.4730
B	0.9080	0.4720
C	0.9080	0.4710
D	0.9070	0.4720
E	0.9080	0.4720
F	0.9080	0.4730
G	0.9080	0.4720
H	0.9070	0.4730

1.0

0.0

<0.0