Full wwPDB X-ray Structure Validation Report ⓘ

Oct 22, 2024 – 03:03 AM EDT

PDB ID	:	3HZN
Title	:	Structure of the Salmonella typhimurium nfnB dihydropteridine reductase
Authors	:	Anderson, S.M.; Wawrzak, Z.; Onopriyenko, O.; Skarina, T.; Anderson, W.F.; Savchenko, A.; Center for Structural Genomics of Infectious Diseases (CSGID)
Deposited on	:	2009-06-23
Resolution	:	2.40 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp
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:

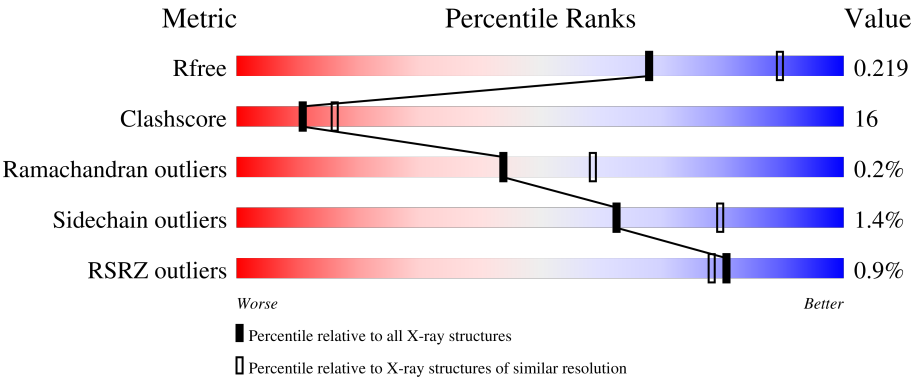
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.40 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	4642 (2.40-2.40)
Clashscore	180529	5218 (2.40-2.40)
Ramachandran outliers	177936	5158 (2.40-2.40)
Sidechain outliers	177891	5159 (2.40-2.40)
RSRZ outliers	164620	4642 (2.40-2.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	220	86% 13%
1	B	220	2% 79% 20%
1	C	220	79% 19%
1	D	220	80% 19%
1	E	220	85% 15%

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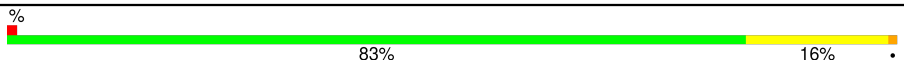
Mol	Chain	Length	Quality of chain
1	F	220	
1	G	220	
1	H	220	

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	TLA	H	218	-	X	X	-
3	SIN	A	219	-	-	X	-
3	SIN	A	221	-	-	X	-
3	SIN	A	223	-	-	X	-
3	SIN	B	220	-	-	-	X
3	SIN	B	222	-	-	X	-
3	SIN	C	222	-	-	X	-
3	SIN	C	226	-	-	X	-
3	SIN	C	228	-	-	-	X
3	SIN	D	223	-	-	X	-
3	SIN	D	224	-	-	X	-
3	SIN	D	225	-	-	X	-
3	SIN	E	218	-	-	X	-
3	SIN	E	222	-	-	X	-
3	SIN	F	222	-	-	-	X
3	SIN	G	218	-	-	X	-
3	SIN	G	222	-	-	-	X
3	SIN	H	219	-	-	X	-
3	SIN	H	223	-	-	-	X
4	MLI	B	224	-	-	-	X
4	MLI	B	225	-	-	X	-
4	MLI	C	230	-	-	-	X
4	MLI	C	231	-	-	X	-
4	MLI	D	226	-	-	X	-
4	MLI	D	227	-	-	X	-
4	MLI	D	228	-	-	X	-
4	MLI	E	223	-	-	X	-
4	MLI	F	224	-	-	X	X
4	MLI	G	224	-	-	-	X
5	CL	C	235	-	-	X	-
5	CL	C	236	-	-	X	-
5	CL	D	230	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
6	FLC	B	218	-	-	X	-
6	FLC	F	218	-	-	X	-

2 Entry composition (i)

There are 9 unique types of molecules in this entry. The entry contains 15104 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Oxygen-insensitive NAD(P)H nitroreductase.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	219	Total	C	N	O	S	Se	0	3	0
			1715	1083	291	334	1	6			
1	B	219	Total	C	N	O	S	Se	0	3	0
			1713	1082	293	331	1	6			
1	C	218	Total	C	N	O	S	Se	0	1	0
			1698	1073	289	329	1	6			
1	D	219	Total	C	N	O	S	Se	0	3	0
			1720	1089	292	332	1	6			
1	E	219	Total	C	N	O	S	Se	0	0	0
			1700	1073	291	329	1	6			
1	F	219	Total	C	N	O	S	Se	0	1	0
			1705	1076	291	331	1	6			
1	G	218	Total	C	N	O	S	Se	0	1	0
			1698	1073	289	329	1	6			
1	H	220	Total	C	N	O	S	Se	0	3	0
			1725	1088	295	335	1	6			

There are 24 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-2	SER	-	expression tag	UNP P15888
A	-1	ASN	-	expression tag	UNP P15888
A	0	ALA	-	expression tag	UNP P15888
B	-2	SER	-	expression tag	UNP P15888
B	-1	ASN	-	expression tag	UNP P15888
B	0	ALA	-	expression tag	UNP P15888
C	-2	SER	-	expression tag	UNP P15888
C	-1	ASN	-	expression tag	UNP P15888
C	0	ALA	-	expression tag	UNP P15888
D	-2	SER	-	expression tag	UNP P15888
D	-1	ASN	-	expression tag	UNP P15888
D	0	ALA	-	expression tag	UNP P15888
E	-2	SER	-	expression tag	UNP P15888

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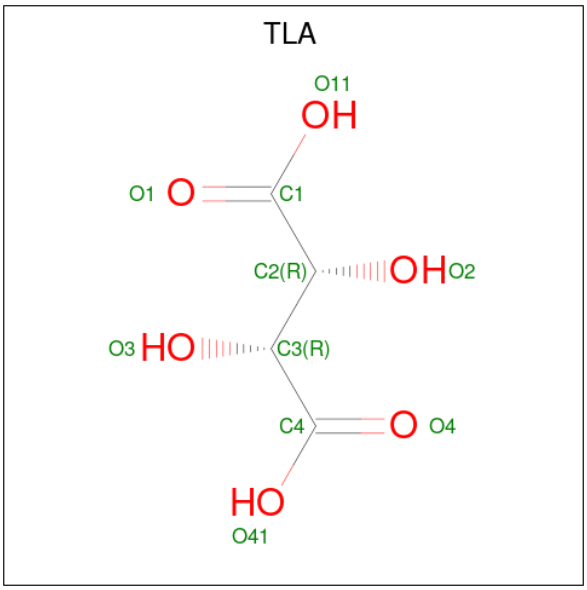
Chain	Residue	Modelled	Actual	Comment	Reference
E	-1	ASN	-	expression tag	UNP P15888
E	0	ALA	-	expression tag	UNP P15888
F	-2	SER	-	expression tag	UNP P15888
F	-1	ASN	-	expression tag	UNP P15888
F	0	ALA	-	expression tag	UNP P15888
G	-2	SER	-	expression tag	UNP P15888
G	-1	ASN	-	expression tag	UNP P15888
G	0	ALA	-	expression tag	UNP P15888
H	-2	SER	-	expression tag	UNP P15888
H	-1	ASN	-	expression tag	UNP P15888
H	0	ALA	-	expression tag	UNP P15888

- Molecule 2 is L(+)-TARTARIC ACID (three-letter code: TLA) (formula: $C_4H_6O_6$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	A	1	Total	C	O	0	0
			10	4	6		
2	B	1	Total	C	O	0	0
			10	4	6		
2	C	1	Total	C	O	0	0
			10	4	6		
2	C	1	Total	C	O	0	0
			10	4	6		
2	D	1	Total	C	O	0	0
			10	4	6		
2	F	1	Total	C	O	0	0
			10	4	6		

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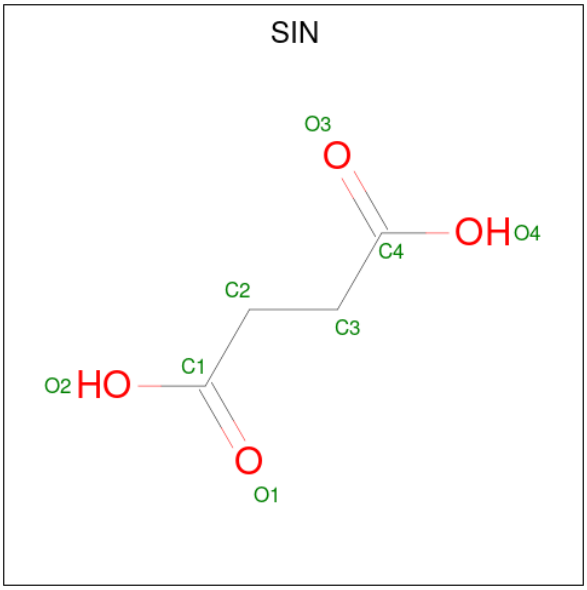
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	H	1	Total C O 10 4 6	0	0

- Molecule 3 is SUCCINIC ACID (three-letter code: SIN) (formula: $C_4H_6O_4$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C O 8 4 4	0	0
3	A	1	Total C O 8 4 4	0	0
3	A	1	Total C O 8 4 4	0	0
3	A	1	Total C O 8 4 4	0	0
3	A	1	Total C O 8 4 4	0	0
3	A	1	Total C O 8 4 4	0	0
3	B	1	Total C O 8 4 4	0	0
3	B	1	Total C O 8 4 4	0	0
3	B	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	C	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	D	1	Total C O 8 4 4	0	0
3	E	1	Total C O 8 4 4	0	0
3	E	1	Total C O 8 4 4	0	0
3	E	1	Total C O 8 4 4	0	0
3	E	1	Total C O 8 4 4	0	0
3	E	1	Total C O 8 4 4	0	0
3	F	1	Total C O 8 4 4	0	0

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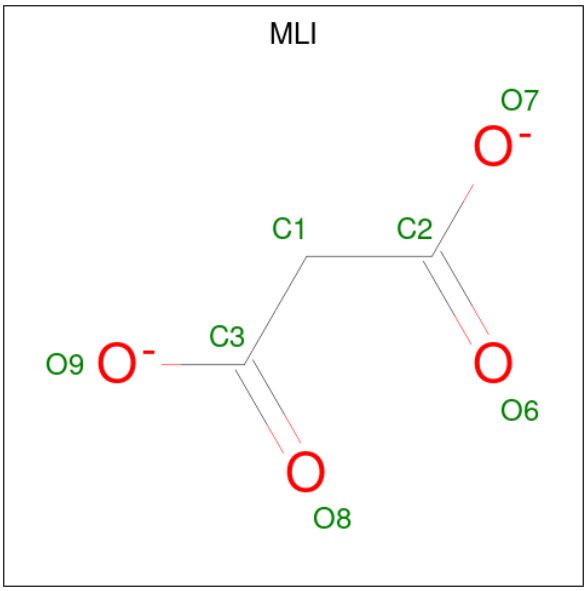
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	F	1	Total C O 8 4 4	0	0
3	F	1	Total C O 8 4 4	0	0
3	F	1	Total C O 8 4 4	0	0
3	G	1	Total C O 8 4 4	0	0
3	G	1	Total C O 8 4 4	0	0
3	G	1	Total C O 8 4 4	0	0
3	G	1	Total C O 8 4 4	0	0
3	G	1	Total C O 8 4 4	0	0
3	H	1	Total C O 8 4 4	0	0
3	H	1	Total C O 8 4 4	0	0
3	H	1	Total C O 8 4 4	0	0
3	H	1	Total C O 8 4 4	0	0
3	H	1	Total C O 8 4 4	0	0

- Molecule 4 is MALONATE ION (three-letter code: MLI) (formula: $C_3H_2O_4$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total	C	O	0	0
			7	3	4		
4	A	1	Total	C	O	0	0
			7	3	4		
4	A	1	Total	C	O	0	0
			7	3	4		
4	A	1	Total	C	O	0	0
			7	3	4		
4	B	1	Total	C	O	0	0
			7	3	4		
4	B	1	Total	C	O	0	0
			7	3	4		
4	B	1	Total	C	O	0	0
			7	3	4		
4	C	1	Total	C	O	0	0
			7	3	4		
4	C	1	Total	C	O	0	0
			7	3	4		
4	C	1	Total	C	O	0	0
			7	3	4		
4	C	1	Total	C	O	0	0
			7	3	4		
4	D	1	Total	C	O	0	0
			7	3	4		
4	D	1	Total	C	O	0	0
			7	3	4		
4	D	1	Total	C	O	0	0
			7	3	4		

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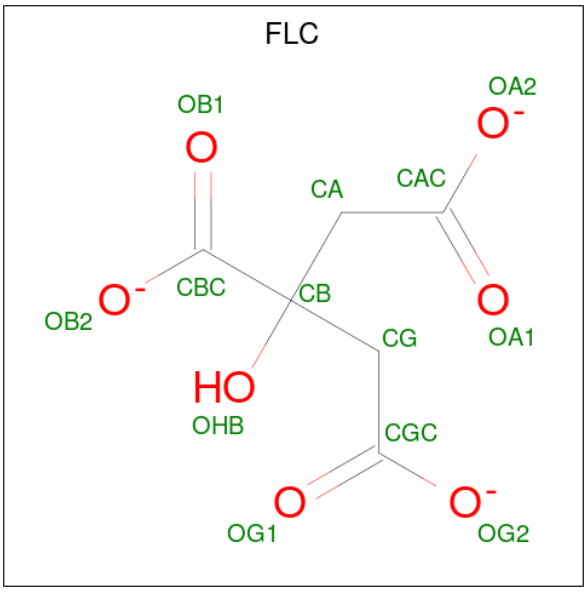
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	E	1	Total C O 7 3 4	0	0
4	F	1	Total C O 7 3 4	0	0
4	G	1	Total C O 7 3 4	0	0
4	G	1	Total C O 7 3 4	0	0
4	H	1	Total C O 7 3 4	0	0

- Molecule 5 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total Cl 1 1	0	0
5	B	1	Total Cl 1 1	0	0
5	C	4	Total Cl 4 4	0	0
5	D	2	Total Cl 2 2	0	0
5	E	2	Total Cl 2 2	0	0
5	F	1	Total Cl 1 1	0	0
5	G	1	Total Cl 1 1	0	0

- Molecule 6 is CITRATE ANION (three-letter code: FLC) (formula: $C_6H_5O_7$).

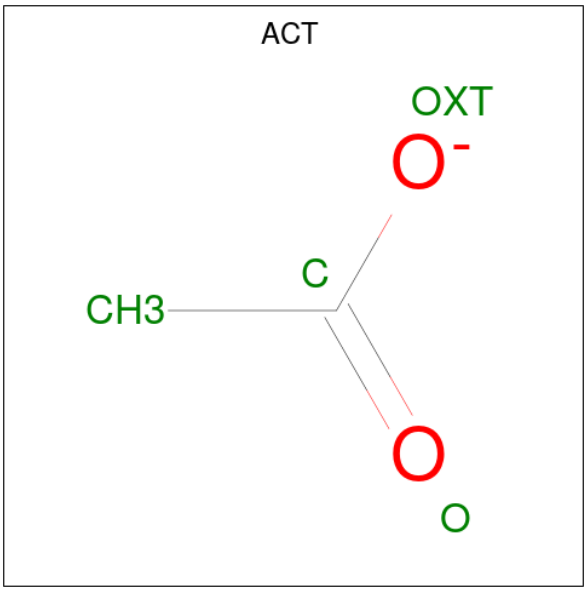


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	B	1	Total C O 13 6 7	0	0
6	F	1	Total C O 13 6 7	0	0

- Molecule 7 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	B	1	Total Na 1 1	0	0
7	C	1	Total Na 1 1	0	0
7	E	1	Total Na 1 1	0	0
7	H	1	Total Na 1 1	0	0

- Molecule 8 is ACETATE ION (three-letter code: ACT) (formula: $C_2H_3O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
8	C	1	Total C O 4 2 2	0	0
8	D	1	Total C O 4 2 2	0	0
8	G	1	Total C O 4 2 2	0	0

- Molecule 9 is water.

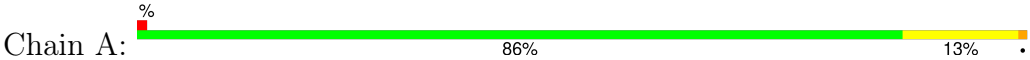
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	A	111	Total O 114 114	0	3
9	B	66	Total O 67 67	0	1
9	C	128	Total O 130 130	0	2
9	D	130	Total O 131 131	0	1
9	E	108	Total O 109 109	0	1
9	F	113	Total O 114 114	0	1
9	G	78	Total O 80 80	0	2
9	H	75	Total O 76 76	0	1

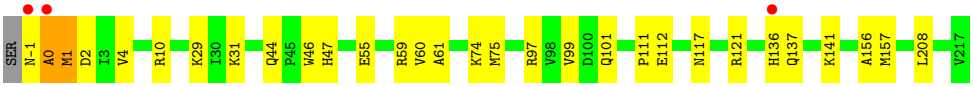
3 Residue-property plots (i)

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 electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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: Oxygen-insensitive NAD(P)H nitroreductase

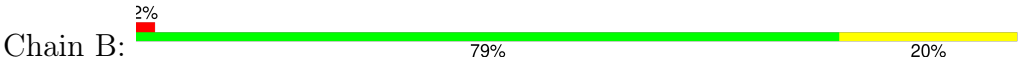
Chain A:

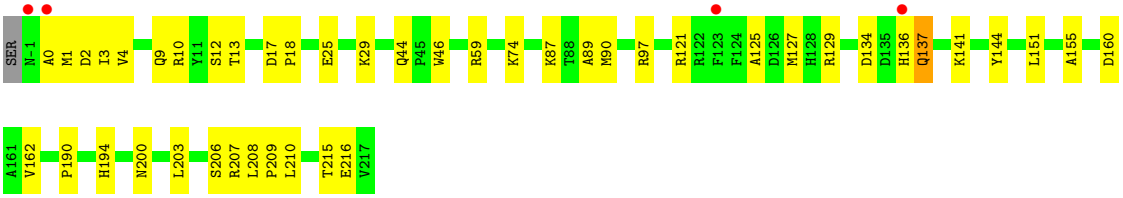




• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

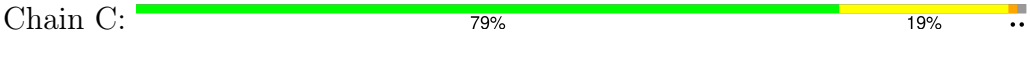
Chain B:

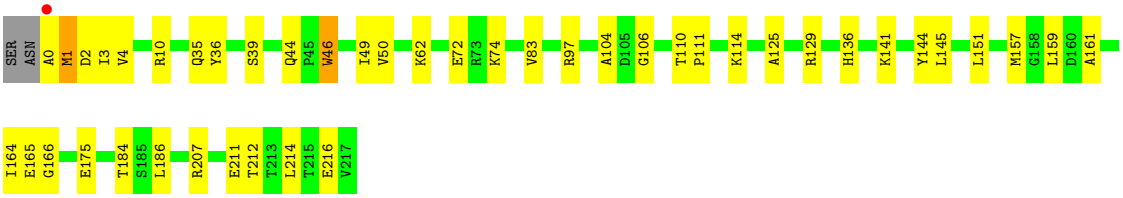




• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

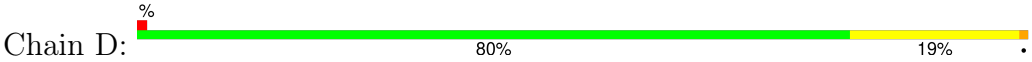
Chain C:





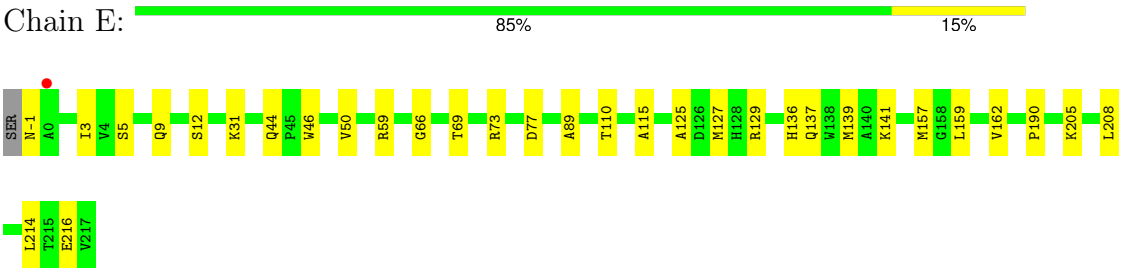
• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

Chain D:



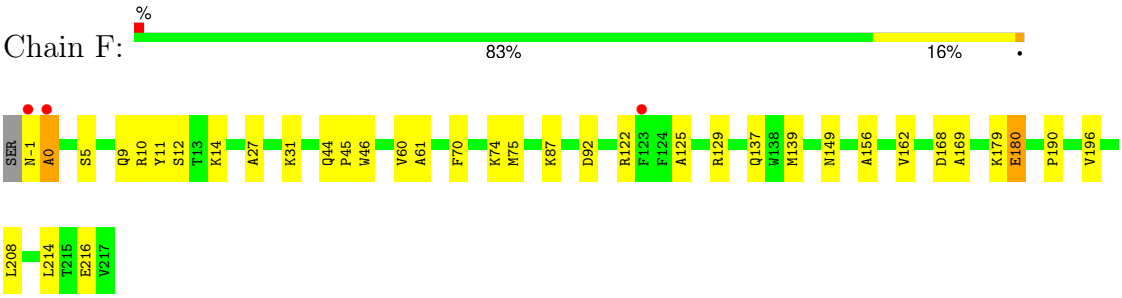
• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

Chain E:



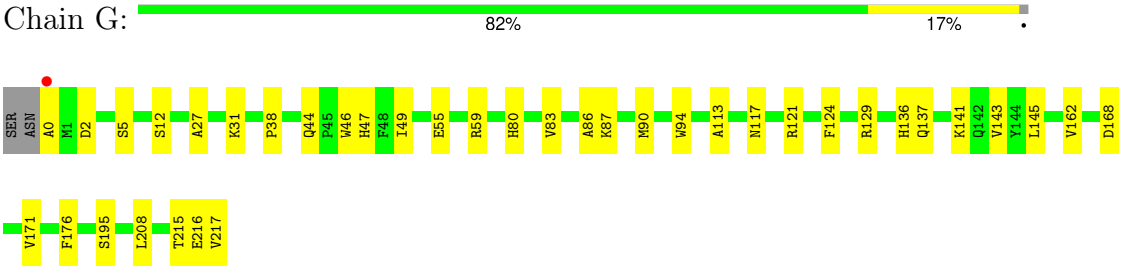
• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

Chain F:



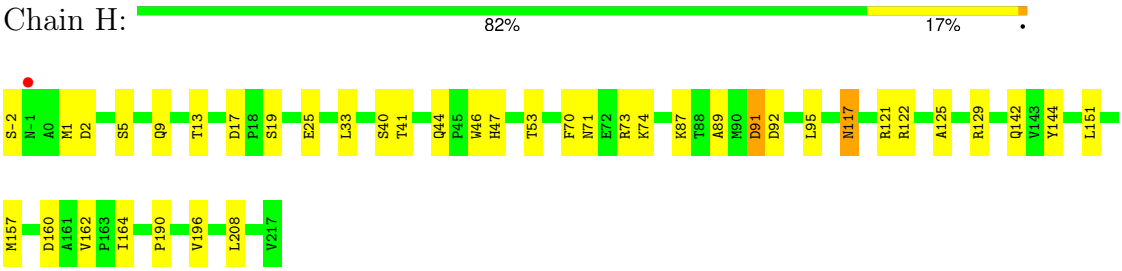
• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

Chain G:



• Molecule 1: Oxygen-insensitive NAD(P)H nitroreductase

Chain H:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	280.34Å 96.76Å 131.84Å 90.00° 90.36° 90.00°	Depositor
Resolution (Å)	30.00 – 2.40 30.00 – 2.40	Depositor EDS
% Data completeness (in resolution range)	99.1 (30.00-2.40) 98.9 (30.00-2.40)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	7.37 (at 2.39Å)	Xtriage
Refinement program	REFMAC	Depositor
R, R_{free}	0.177 , 0.222 0.177 , 0.219	Depositor DCC
R_{free} test set	6862 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å^2)	37.1	Xtriage
Anisotropy	0.071	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 49.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.010 for -h,-k,l	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	15104	wwPDB-VP
Average B, all atoms (Å^2)	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.98% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: NA, MLI, ACT, TLA, SIN, FLC, CL

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	0.48	0/1753	0.54	0/2362
1	B	0.44	0/1752	0.52	0/2361
1	C	0.53	0/1730	0.58	0/2331
1	D	0.50	0/1756	0.55	0/2366
1	E	0.48	0/1729	0.55	0/2330
1	F	0.47	0/1737	0.54	0/2341
1	G	0.45	0/1730	0.50	0/2331
1	H	0.42	0/1763	0.51	0/2375
All	All	0.47	0/13950	0.54	0/18797

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

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	1715	0	1685	70	0
1	B	1713	0	1685	61	0
1	C	1698	0	1668	75	0
1	D	1720	0	1686	63	0
1	E	1700	0	1668	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	F	1705	0	1672	71	0
1	G	1698	0	1668	43	0
1	H	1725	0	1696	54	0
2	A	10	0	4	1	0
2	B	10	0	4	0	0
2	C	20	0	8	0	0
2	D	10	0	4	0	0
2	F	10	0	4	1	0
2	H	10	0	4	4	0
3	A	48	0	24	33	0
3	B	24	0	12	9	0
3	C	72	0	36	28	0
3	D	56	0	28	24	0
3	E	40	0	20	14	0
3	F	32	0	16	3	0
3	G	40	0	20	10	0
3	H	40	0	20	13	0
4	A	28	0	8	0	0
4	B	21	0	6	7	0
4	C	28	0	8	10	0
4	D	21	0	6	7	0
4	E	7	0	2	7	0
4	F	7	0	2	5	0
4	G	14	0	4	2	0
4	H	7	0	2	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	4	0	0	4	0
5	D	2	0	0	3	0
5	E	2	0	0	0	0
5	F	1	0	0	0	0
5	G	1	0	0	0	0
6	B	13	0	5	5	0
6	F	13	0	5	19	0
7	B	1	0	0	0	0
7	C	1	0	0	0	0
7	E	1	0	0	0	0
7	H	1	0	0	0	0
8	C	4	0	3	0	0
8	D	4	0	3	0	0
8	G	4	0	3	0	0
9	A	114	0	0	6	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	B	67	0	0	2	0
9	C	130	0	0	4	0
9	D	131	0	0	5	0
9	E	109	0	0	0	0
9	F	114	0	0	10	0
9	G	80	0	0	4	0
9	H	76	0	0	6	0
All	All	15104	0	13689	455	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 16.

All (455) 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)
3:A:219:SIN:H21	1:B:137:GLN:CB	1.52	1.39
1:D:-1:ASN:N	1:D:156:ALA:HB1	1.38	1.32
1:D:10:ARG:HE	3:D:223:SIN:C2	1.46	1.29
1:F:61:ALA:HA	1:F:75:MSE:CE	1.64	1.25
1:D:60:VAL:HG12	1:D:75:MSE:CE	1.70	1.20
1:A:29:LYS:HE3	4:B:225:MLI:O8	1.41	1.19
1:F:87:LYS:HB2	1:F:139:MSE:CE	1.75	1.14
1:F:61:ALA:HA	1:F:75:MSE:HE2	1.20	1.13
1:E:141:LYS:NZ	3:E:222:SIN:H32	1.63	1.12
1:E:141:LYS:HZ1	3:E:222:SIN:H32	1.03	1.11
1:A:137:GLN:HB3	3:A:219:SIN:H32	1.13	1.11
1:D:10:ARG:HE	3:D:223:SIN:H22	1.12	1.11
1:H:74:LYS:HE2	3:H:219:SIN:O1	1.49	1.11
1:C:1:MSE:CG	1:C:2:ASP:HA	1.81	1.10
1:F:11:TYR:HA	6:F:218:FLC:CG	1.82	1.10
1:C:1:MSE:HG2	1:C:2:ASP:HA	1.10	1.09
1:F:11:TYR:HA	6:F:218:FLC:HG1	1.31	1.09
1:F:12:SER:H	6:F:218:FLC:CA	1.64	1.08
1:F:87:LYS:HB2	1:F:139:MSE:HE1	1.24	1.08
1:A:61:ALA:HA	1:A:75:MSE:CE	1.84	1.07
1:A:61:ALA:HA	1:A:75:MSE:HE2	1.08	1.07
1:C:10:ARG:HE	3:C:222:SIN:H31	0.96	1.07
1:C:1:MSE:HB2	1:C:3:ILE:N	1.70	1.07
1:C:114:LYS:HE2	3:C:226:SIN:H31	1.10	1.06
1:C:10:ARG:HE	3:C:222:SIN:C3	1.66	1.06
1:F:12:SER:H	6:F:218:FLC:HA1	1.10	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:12:SER:N	6:F:218:FLC:HA1	1.70	1.04
1:D:60:VAL:HG12	1:D:75:MSE:HE2	1.40	1.03
3:A:219:SIN:H21	1:B:137:GLN:HB2	1.09	1.03
1:A:60:VAL:HG12	1:A:75:MSE:HE3	1.37	1.02
1:A:61:ALA:CA	1:A:75:MSE:HE2	1.88	1.02
1:D:59:ARG:HH22	3:D:222:SIN:H31	1.16	1.02
1:C:114:LYS:HE2	3:C:226:SIN:C3	1.89	1.01
3:A:219:SIN:H21	1:B:137:GLN:HB3	1.42	1.01
1:D:10:ARG:HE	3:D:223:SIN:H21	1.24	1.01
1:C:10:ARG:NE	3:C:222:SIN:H31	1.74	1.01
3:E:218:SIN:H32	9:F:489:HOH:O	1.60	1.01
1:C:1:MSE:HB2	1:C:3:ILE:H	1.21	1.00
1:D:-1:ASN:H1	1:D:156:ALA:HB1	0.89	0.99
1:D:-1:ASN:N	1:D:156:ALA:CB	2.26	0.98
1:F:12:SER:N	6:F:218:FLC:HG2	1.78	0.97
1:D:10:ARG:NE	3:D:223:SIN:H22	1.80	0.97
3:A:219:SIN:C2	1:B:137:GLN:HB2	1.94	0.97
6:F:218:FLC:CGC	6:F:218:FLC:OB2	2.09	0.96
1:E:59:ARG:HH22	3:E:221:SIN:H21	1.28	0.96
3:A:219:SIN:O4	1:B:137:GLN:HB3	1.66	0.96
1:G:208:LEU:H	1:H:44:GLN:HE22	1.08	0.96
1:A:208:LEU:H	1:B:44:GLN:HE22	1.12	0.95
1:C:136:HIS:HB2	3:C:223:SIN:O4	1.66	0.94
1:C:151:LEU:HD22	3:C:222:SIN:O4	1.67	0.94
1:B:155:ALA:HB2	3:B:222:SIN:H31	1.48	0.93
1:D:60:VAL:HG12	1:D:75:MSE:HE1	1.47	0.93
1:E:44:GLN:HE22	1:F:208:LEU:H	1.15	0.93
1:D:10:ARG:NE	3:D:223:SIN:C2	2.30	0.93
1:C:1:MSE:CB	1:C:3:ILE:H	1.81	0.92
1:C:44:GLN:HE22	1:D:208:LEU:H	1.09	0.92
1:E:208:LEU:H	1:F:44:GLN:HE22	1.17	0.92
1:A:44:GLN:HE22	1:B:208:LEU:H	1.15	0.91
1:C:166:GLY:H	4:C:231:MLI:H11	1.34	0.91
1:D:10:ARG:HH21	3:D:223:SIN:C1	1.82	0.91
1:D:75:MSE:HE3	1:D:188:VAL:HG11	1.53	0.91
1:F:61:ALA:HA	1:F:75:MSE:HE1	1.52	0.89
1:H:33:LEU:CD1	1:H:157:MSE:HE3	2.03	0.89
1:C:166:GLY:N	4:C:231:MLI:H11	1.88	0.88
1:C:1:MSE:HE2	1:C:1:MSE:H	1.38	0.88
1:H:41:THR:HG21	1:H:121:ARG:HG3	1.54	0.87
1:C:114:LYS:CE	3:C:226:SIN:H31	2.03	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:87:LYS:CB	1:F:139:MSE:HE1	2.05	0.86
1:G:59:ARG:HH22	3:G:218:SIN:H31	1.38	0.86
1:F:61:ALA:CA	1:F:75:MSE:HE2	2.03	0.86
1:F:12:SER:H	6:F:218:FLC:HG2	1.39	0.86
1:A:59:ARG:HH22	3:A:220:SIN:H21	1.41	0.85
1:D:60:VAL:CG1	1:D:75:MSE:CE	2.53	0.85
1:E:141:LYS:NZ	3:E:222:SIN:C3	2.39	0.85
1:F:61:ALA:CA	1:F:75:MSE:CE	2.52	0.84
1:C:165:GLU:H	4:C:231:MLI:C1	1.90	0.84
6:B:218:FLC:OB1	6:B:218:FLC:CAC	2.25	0.84
5:C:235:CL:CL	5:D:231:CL:CL	2.70	0.84
1:A:29:LYS:CE	4:B:225:MLI:O8	2.24	0.83
4:E:223:MLI:H12	4:F:224:MLI:C2	2.08	0.83
1:E:59:ARG:HH22	3:E:221:SIN:C2	1.91	0.83
1:G:136:HIS:CE1	1:G:137:GLN:HE21	1.96	0.83
1:A:1:MSE:HA	9:A:755:HOH:O	1.76	0.82
3:A:219:SIN:C2	1:B:137:GLN:CB	2.48	0.82
1:H:33:LEU:CD1	1:H:157:MSE:CE	2.58	0.82
1:G:27:ALA:HB1	3:G:221:SIN:H21	1.62	0.82
1:E:31:LYS:HE2	1:F:216:GLU:OE2	1.78	0.81
1:C:106:GLY:HA3	3:C:228:SIN:H31	1.62	0.81
1:C:10:ARG:HH21	3:C:222:SIN:C4	1.93	0.81
1:F:87:LYS:HB2	1:F:139:MSE:HE2	1.63	0.81
1:G:44:GLN:HE22	1:H:208:LEU:H	1.29	0.80
3:H:219:SIN:H32	9:H:724:HOH:O	1.81	0.80
3:A:223:SIN:H31	9:A:775:HOH:O	1.81	0.80
3:D:224:SIN:H21	1:E:115:ALA:HB2	1.64	0.80
1:A:60:VAL:O	1:A:75:MSE:HE1	1.82	0.79
1:C:166:GLY:H	4:C:231:MLI:C1	1.94	0.79
3:D:219:SIN:H22	9:D:482:HOH:O	1.82	0.79
1:H:33:LEU:HD11	1:H:157:MSE:HE3	1.64	0.79
1:D:214:LEU:HD23	4:D:227:MLI:H12	1.66	0.77
9:A:804:HOH:O	1:B:127:MSE:HE1	1.84	0.77
1:A:136:HIS:ND1	1:A:137:GLN:HG3	1.99	0.77
1:E:59:ARG:NH2	3:E:221:SIN:H21	1.98	0.77
1:A:137:GLN:CB	3:A:219:SIN:H32	2.05	0.77
4:D:228:MLI:H11	9:D:759:HOH:O	1.84	0.77
1:F:11:TYR:HA	6:F:218:FLC:HG2	1.64	0.77
1:H:33:LEU:HD11	1:H:157:MSE:CE	2.15	0.76
1:A:141:LYS:CE	3:A:219:SIN:H31	2.15	0.76
1:D:151:LEU:HD22	3:D:223:SIN:O1	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:117:ASN:HD21	1:G:121:ARG:HH22	1.31	0.76
1:A:137:GLN:HB3	3:A:219:SIN:C3	2.06	0.75
1:B:134:ASP:HA	1:B:136[B]:HIS:CE1	2.21	0.75
1:B:10:ARG:HE	3:B:222:SIN:H32	1.50	0.75
1:D:199[B]:PHE:HD2	1:E:110:THR:HG22	1.51	0.75
1:F:11:TYR:CA	6:F:218:FLC:CG	2.62	0.74
4:E:223:MLI:C1	4:F:224:MLI:C2	2.65	0.74
1:C:1:MSE:CG	1:C:3:ILE:H	2.01	0.74
1:C:62:LYS:HE2	1:C:175:GLU:OE1	1.87	0.74
1:A:141:LYS:HE2	3:A:219:SIN:H31	1.68	0.74
1:C:74:LYS:HG3	9:C:271:HOH:O	1.88	0.74
1:D:59:ARG:NH2	3:D:222:SIN:H31	2.00	0.73
1:D:-1:ASN:H1	1:D:156:ALA:CB	1.84	0.73
4:E:223:MLI:H11	4:F:224:MLI:O7	1.90	0.72
1:C:165:GLU:H	4:C:231:MLI:H12	1.54	0.72
1:F:11:TYR:CA	6:F:218:FLC:HG2	2.19	0.72
1:B:10:ARG:HB2	3:B:222:SIN:H32	1.70	0.72
1:H:40:SER:O	1:H:41:THR:HB	1.89	0.72
1:H:33:LEU:HD12	1:H:157:MSE:HE3	1.71	0.71
1:H:74:LYS:N	3:H:219:SIN:O2	2.23	0.71
1:A:-1:ASN:HA	1:B:1:MSE:HA	1.72	0.71
1:A:111:PRO:HD3	3:A:223:SIN:H22	1.73	0.71
1:A:112:GLU:HA	3:H:219:SIN:O4	1.90	0.70
3:A:219:SIN:C4	1:B:137:GLN:HB3	2.21	0.70
3:C:226:SIN:H22	1:F:70:PHE:HA	1.72	0.70
4:D:226:MLI:O7	1:H:196:VAL:HG21	1.91	0.70
1:F:179:LYS:HB3	1:F:180:GLU:OE1	1.93	0.69
1:H:41:THR:O	1:H:41:THR:CG2	2.39	0.69
1:C:97:ARG:NH1	5:C:236:CL:CL	2.59	0.69
1:H:41:THR:O	1:H:41:THR:HG22	1.92	0.69
1:C:165:GLU:H	4:C:231:MLI:C2	2.05	0.69
1:G:208:LEU:N	1:H:44:GLN:HE22	1.86	0.69
1:G:87:LYS:HE3	1:G:94:TRP:CG	2.28	0.68
4:E:223:MLI:C1	4:F:224:MLI:O7	2.41	0.68
1:A:60:VAL:HG12	1:A:75:MSE:CE	2.20	0.67
1:C:165:GLU:N	4:C:231:MLI:H12	2.10	0.67
9:A:526:HOH:O	3:H:219:SIN:H31	1.95	0.67
1:H:73[A]:ARG:HB3	3:H:219:SIN:O2	1.94	0.67
4:C:232:MLI:H11	9:C:762:HOH:O	1.95	0.67
1:D:136:HIS:HA	4:D:226:MLI:O6	1.94	0.67
1:E:31:LYS:HD3	1:F:214:LEU:HD21	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:208:LEU:H	1:H:44:GLN:NE2	1.88	0.66
1:B:151:LEU:HD22	3:B:222:SIN:O2	1.95	0.66
1:E:141:LYS:HZ3	3:E:222:SIN:C3	2.06	0.66
1:D:10:ARG:NE	3:D:223:SIN:H21	2.02	0.66
1:C:1:MSE:HG3	1:C:3:ILE:H	1.60	0.65
1:F:12:SER:H	6:F:218:FLC:CG	2.09	0.65
1:H:73[B]:ARG:HB3	3:H:219:SIN:O2	1.96	0.65
1:B:1:MSE:O	4:B:225:MLI:H12	1.95	0.65
1:F:11:TYR:C	6:F:218:FLC:HG2	2.16	0.65
1:B:10:ARG:NE	3:B:222:SIN:H32	2.12	0.64
1:H:87:LYS:HE3	1:H:89:ALA:O	1.97	0.64
1:G:117:ASN:HB2	3:G:220:SIN:H21	1.78	0.64
1:A:47:HIS:HE1	1:B:215:THR:OG1	1.81	0.63
1:A:60:VAL:C	1:A:75:MSE:CE	2.67	0.63
1:A:208:LEU:H	1:B:44:GLN:NE2	1.92	0.63
1:E:31:LYS:HD3	1:F:214:LEU:CD2	2.28	0.63
1:D:7:ALA:O	5:D:230:CL:CL	2.54	0.63
1:D:199[B]:PHE:CD2	1:E:110:THR:HG22	2.32	0.63
1:A:61:ALA:CA	1:A:75:MSE:CE	2.64	0.63
1:C:184:THR:HG21	3:C:223:SIN:H22	1.79	0.62
1:H:74:LYS:CE	3:H:219:SIN:O1	2.38	0.62
1:A:141:LYS:HD3	1:B:144:TYR:CE1	2.34	0.62
1:D:60:VAL:CG1	1:D:75:MSE:HE1	2.24	0.62
1:G:59:ARG:NH2	3:G:218:SIN:H31	2.13	0.62
1:C:1:MSE:CB	1:C:2:ASP:HA	2.29	0.62
1:D:60:VAL:CG1	1:D:75:MSE:HE2	2.24	0.62
1:G:80:HIS:NE2	3:G:221:SIN:H32	2.15	0.62
1:G:47:HIS:HD2	9:G:229:HOH:O	1.82	0.62
1:C:1:MSE:CG	1:C:2:ASP:CA	2.71	0.62
1:F:169:ALA:H	3:F:223:SIN:H32	1.65	0.62
1:B:125:ALA:O	1:B:129:ARG:HG2	1.99	0.61
1:A:141:LYS:HE3	3:A:219:SIN:H31	1.83	0.61
1:E:3:ILE:N	4:E:223:MLI:O7	2.29	0.61
1:E:12:SER:HB3	1:E:162:VAL:HG23	1.81	0.61
4:G:223:MLI:H12	9:G:727:HOH:O	1.99	0.61
1:C:165:GLU:N	4:C:231:MLI:C1	2.61	0.61
1:F:60:VAL:HG12	1:F:75:MSE:HE3	1.84	0.60
1:A:208:LEU:N	1:B:44:GLN:HE22	1.93	0.60
1:F:125:ALA:O	1:F:129:ARG:HG2	2.02	0.60
1:A:60:VAL:CG1	1:A:75:MSE:HE3	2.24	0.60
1:B:10:ARG:HB2	3:B:222:SIN:C3	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:71:ASN:HA	3:H:219:SIN:O1	2.02	0.59
1:B:10:ARG:HE	3:B:222:SIN:C3	2.16	0.59
1:G:136:HIS:H	1:G:136:HIS:CD2	2.21	0.59
1:C:97:ARG:HD3	5:C:236:CL:CL	2.40	0.59
1:E:137:GLN:HG3	9:H:230:HOH:O	2.03	0.59
1:A:44:GLN:HE22	1:B:208:LEU:N	1.95	0.58
1:F:12:SER:N	6:F:218:FLC:CA	2.42	0.58
1:G:55[B]:GLU:OE1	1:G:55[B]:GLU:HA	2.02	0.58
1:C:1:MSE:CB	1:C:3:ILE:N	2.49	0.58
1:F:11:TYR:CA	6:F:218:FLC:HG1	2.19	0.58
1:G:38:PRO:HG2	1:G:145:LEU:HD21	1.86	0.58
3:A:224:SIN:O1	6:B:218:FLC:OB2	2.21	0.58
1:C:10:ARG:NE	3:C:222:SIN:C3	2.49	0.58
1:E:125:ALA:O	1:E:129:ARG:HG2	2.04	0.58
1:A:101:GLN:NE2	3:A:221:SIN:H31	2.19	0.57
1:H:40:SER:H	1:H:142:GLN:NE2	2.02	0.57
1:E:44:GLN:HE22	1:F:208:LEU:N	1.96	0.57
1:A:-1:ASN:HD22	1:B:1:MSE:HA	1.69	0.57
3:A:221:SIN:H21	1:B:208:LEU:CD2	2.35	0.57
1:D:80:HIS:NE2	3:D:225:SIN:H22	2.20	0.57
1:G:87:LYS:HE3	1:G:94:TRP:CD2	2.39	0.57
3:A:221:SIN:H21	1:B:208:LEU:HD22	1.86	0.57
4:E:223:MLI:O6	1:F:156:ALA:O	2.22	0.57
1:A:111:PRO:CD	3:A:223:SIN:H22	2.34	0.56
1:A:101:GLN:HE21	3:A:221:SIN:C3	2.17	0.56
1:A:101:GLN:HE21	3:A:221:SIN:C2	2.18	0.56
3:A:219:SIN:C2	1:B:137:GLN:HB3	2.27	0.56
1:G:90:MSE:O	1:G:129:ARG:HD3	2.06	0.56
1:A:-1:ASN:ND2	1:B:1:MSE:HG3	2.20	0.56
1:G:136:HIS:HE1	1:G:137:GLN:HE21	1.46	0.56
1:H:41:THR:CG2	1:H:121:ARG:HE	2.19	0.56
1:G:2:ASP:OD2	1:G:5:SER:HB2	2.06	0.56
1:C:1:MSE:H	1:C:1:MSE:CE	2.15	0.55
1:A:0:ALA:O	1:A:1:MSE:HB2	2.06	0.55
1:G:137:GLN:O	1:G:141:LYS:HG3	2.06	0.55
1:A:-1:ASN:C	1:A:1:MSE:H	2.10	0.55
1:A:44:GLN:NE2	1:B:208:LEU:H	1.96	0.55
1:A:157:MSE:HG2	4:B:225:MLI:H11	1.87	0.55
1:B:10:ARG:NH2	3:B:222:SIN:O1	2.31	0.55
1:C:1:MSE:CB	1:C:2:ASP:CA	2.85	0.55
1:C:4:VAL:HG21	1:D:29:LYS:HD2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:161:ALA:O	3:C:222:SIN:O3	2.25	0.55
1:E:50:VAL:HG23	1:F:214:LEU:CD1	2.37	0.55
1:A:-1:ASN:H3	1:A:156:ALA:HB1	1.72	0.55
1:C:1:MSE:HE2	1:C:1:MSE:N	2.18	0.55
1:H:151:LEU:HB2	9:H:229:HOH:O	2.07	0.54
1:F:45:PRO:HB2	1:F:139:MSE:HE2	1.88	0.54
1:H:33:LEU:HD12	1:H:157:MSE:CE	2.33	0.54
1:A:60:VAL:O	1:A:75:MSE:CE	2.53	0.54
1:H:91:ASP:OD1	1:H:91:ASP:N	2.36	0.54
1:B:210:LEU:HB2	6:B:218:FLC:OG1	2.08	0.54
1:A:31:LYS:NZ	1:B:216:GLU:OE2	2.31	0.54
1:A:61:ALA:N	1:A:75:MSE:HE2	2.23	0.54
1:H:41:THR:CG2	1:H:121:ARG:HG3	2.33	0.54
1:C:1:MSE:CG	1:C:3:ILE:N	2.71	0.54
1:A:117:ASN:HD21	1:A:121:ARG:HH22	1.54	0.54
1:F:60:VAL:O	1:F:75:MSE:HE1	2.08	0.54
1:C:151:LEU:O	3:C:222:SIN:H21	2.08	0.53
1:E:136:HIS:HB2	9:H:230:HOH:O	2.08	0.53
1:A:101:GLN:HE21	3:A:221:SIN:H22	1.73	0.53
1:F:169:ALA:H	3:F:223:SIN:C3	2.22	0.53
1:B:59:ARG:HH22	3:B:220:SIN:H22	1.74	0.53
1:C:106:GLY:CA	3:C:228:SIN:H31	2.34	0.53
1:E:50:VAL:CG2	1:F:214:LEU:HD11	2.39	0.53
4:E:223:MLI:H11	4:F:224:MLI:C2	2.36	0.53
4:D:227:MLI:O7	4:D:227:MLI:O9	2.23	0.53
1:G:59:ARG:HH22	3:G:218:SIN:C3	2.18	0.53
1:H:117:ASN:HD21	1:H:121:ARG:HH12	1.55	0.53
1:G:44:GLN:HE22	1:H:208:LEU:N	2.03	0.53
1:F:12:SER:HB2	6:F:218:FLC:HA2	1.90	0.52
1:H:125:ALA:O	1:H:129:ARG:HG2	2.09	0.52
4:D:228:MLI:C2	9:D:363:HOH:O	2.58	0.52
1:A:4:VAL:HG21	1:B:29:LYS:HD2	1.92	0.52
1:A:99:VAL:HG23	1:A:117:ASN:HD22	1.74	0.52
1:B:3:ILE:N	4:B:225:MLI:O9	2.42	0.52
1:D:40:SER:H	1:D:142:GLN:NE2	2.08	0.52
1:H:74:LYS:NZ	9:H:713:HOH:O	2.43	0.51
1:C:36:TYR:O	5:D:230:CL:CL	2.65	0.51
1:G:27:ALA:O	1:G:31:LYS:HD3	2.10	0.51
1:H:2:ASP:CG	1:H:5:SER:HB2	2.31	0.51
1:H:41:THR:CG2	1:H:121:ARG:NE	2.74	0.51
1:A:117:ASN:ND2	1:A:121:ARG:HH12	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:215:THR:OG1	1:H:47:HIS:HE1	1.94	0.51
1:E:141:LYS:HZ3	3:E:222:SIN:H31	1.75	0.51
1:F:92[A]:ASP:OD1	1:F:122:ARG:NH2	2.42	0.51
1:C:1:MSE:HG3	1:C:3:ILE:N	2.25	0.51
1:D:87:LYS:HE2	1:D:94:TRP:CG	2.46	0.51
1:C:164:ILE:HA	4:C:231:MLI:H12	1.93	0.50
1:E:216:GLU:OE2	1:F:31:LYS:HE2	2.11	0.50
4:G:224:MLI:O9	4:G:224:MLI:O7	2.26	0.50
1:C:144:TYR:CE1	1:D:141:LYS:HD3	2.47	0.50
1:E:141:LYS:HE3	3:E:222:SIN:O2	2.11	0.50
1:C:44:GLN:NE2	1:D:208:LEU:H	1.93	0.50
1:D:63:SER:HB3	1:D:172:LEU:HB2	1.93	0.50
1:C:141:LYS:HE3	1:D:137[A]:GLN:HE22	1.77	0.50
1:G:195:SER:HB2	9:G:233:HOH:O	2.12	0.50
1:D:-1:ASN:H2	1:D:156:ALA:HB1	1.62	0.50
3:A:224:SIN:O1	6:B:218:FLC:CBC	2.60	0.50
1:G:117:ASN:HD21	1:G:121:ARG:NH2	2.07	0.49
1:A:61:ALA:N	1:A:75:MSE:CE	2.75	0.49
1:G:0:ALA:O	1:H:1:MSE:HE2	2.12	0.49
1:G:27:ALA:CB	3:G:221:SIN:H21	2.39	0.49
1:G:168:ASP:CG	1:G:171:VAL:HG23	2.32	0.49
1:B:200:ASN:HA	1:B:203:LEU:HD12	1.94	0.49
1:C:1:MSE:HA	1:D:-1:ASN:HA	1.95	0.49
1:A:136:HIS:CE1	1:A:137:GLN:HG3	2.47	0.49
1:H:41:THR:HG22	1:H:121:ARG:HE	1.78	0.49
1:H:92[B]:ASP:OD1	1:H:122:ARG:NH2	2.39	0.49
1:C:184:THR:HG21	3:C:223:SIN:C2	2.42	0.49
1:F:-1:ASN:O	1:F:0:ALA:HB2	2.13	0.49
1:A:112:GLU:CA	3:H:219:SIN:O4	2.59	0.48
3:C:226:SIN:C2	1:F:70:PHE:HA	2.43	0.48
1:D:199[B]:PHE:HD2	1:E:110:THR:CG2	2.24	0.48
1:H:25:GLU:HB3	3:H:222:SIN:H22	1.96	0.48
1:H:70:PHE:O	3:H:219:SIN:C1	2.61	0.48
1:A:0:ALA:HB3	1:B:0:ALA:HB3	1.95	0.48
1:C:0:ALA:HA	1:C:1:MSE:HE2	1.96	0.48
1:F:61:ALA:CA	1:F:75:MSE:HE1	2.32	0.48
1:G:49:ILE:HB	1:G:83:VAL:HB	1.94	0.48
1:B:25:GLU:O	1:B:29:LYS:HG2	2.14	0.48
1:D:145:LEU:C	1:D:145:LEU:HD23	2.34	0.48
1:F:196:VAL:HG23	9:F:462:HOH:O	2.13	0.48
1:H:70:PHE:O	3:H:219:SIN:C2	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:101:GLN:HE21	3:A:221:SIN:H31	1.79	0.47
1:E:31:LYS:CE	9:F:627:HOH:O	2.61	0.47
1:F:92[A]:ASP:OD1	1:F:122:ARG:NH1	2.46	0.47
1:E:44:GLN:NE2	1:F:208:LEU:H	1.97	0.47
1:C:50:VAL:HG23	1:D:214:LEU:HD11	1.97	0.47
1:C:1:MSE:C	1:D:-1:ASN:HA	2.34	0.47
1:G:176:PHE:HA	3:G:218:SIN:H22	1.95	0.47
1:E:5:SER:O	1:E:9:GLN:HG2	2.14	0.47
3:E:222:SIN:O1	1:F:137:GLN:HG2	2.14	0.47
1:G:44:GLN:NE2	1:H:208:LEU:H	2.05	0.47
1:B:87:LYS:HE3	1:B:89:ALA:O	2.14	0.47
1:F:180:GLU:H	1:F:180:GLU:CD	2.18	0.47
1:H:117:ASN:ND2	1:H:121:ARG:HH12	2.13	0.47
1:A:111:PRO:HD3	3:A:223:SIN:C2	2.43	0.47
1:D:136:HIS:HB3	4:D:226:MLI:O8	2.15	0.47
1:C:161:ALA:HB3	3:C:222:SIN:H22	1.96	0.46
1:A:-1:ASN:CA	1:B:1:MSE:HA	2.44	0.46
1:C:159:LEU:O	3:C:222:SIN:O1	2.34	0.46
3:D:225:SIN:H32	9:D:461:HOH:O	2.15	0.46
1:E:214:LEU:HD21	1:F:31:LYS:HD3	1.97	0.46
1:G:141:LYS:HD3	1:H:144:TYR:CE2	2.50	0.46
1:E:50:VAL:HG23	1:F:214:LEU:HD11	1.96	0.46
1:D:45:PRO:HA	1:D:87:LYS:HD3	1.97	0.46
1:G:12:SER:HB3	1:G:162:VAL:HG23	1.98	0.46
1:D:80:HIS:NE2	3:D:225:SIN:C2	2.78	0.46
1:A:-1:ASN:H1	1:B:1:MSE:HA	1.80	0.46
1:C:1:MSE:HG3	9:C:756:HOH:O	2.16	0.46
1:F:74:LYS:NZ	2:F:219:TLA:O3	2.49	0.46
1:F:45:PRO:HB2	1:F:139:MSE:CE	2.45	0.46
1:C:157:MSE:HB3	3:C:225:SIN:H21	1.98	0.46
1:D:161:ALA:HB3	3:D:223:SIN:H31	1.97	0.46
1:G:124:PHE:CZ	2:H:218:TLA:H2	2.50	0.46
1:H:47:HIS:HD2	9:H:236:HOH:O	1.99	0.46
1:E:157:MSE:HE2	1:E:159:LEU:HD11	1.97	0.45
1:H:5:SER:O	1:H:9:GLN:HG2	2.16	0.45
1:D:90:MSE:HE2	1:D:139:MSE:SE	2.66	0.45
1:E:31:LYS:HE3	9:F:627:HOH:O	2.15	0.45
1:F:45:PRO:HB3	1:F:139:MSE:HE3	1.99	0.45
1:F:12:SER:HB3	1:F:162:VAL:HG23	1.98	0.45
1:D:161:ALA:O	3:D:223:SIN:O2	2.35	0.45
1:E:89:ALA:CA	1:E:139:MSE:HE1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:9:GLN:HG3	9:F:809:HOH:O	2.16	0.45
1:A:10:ARG:HG3	1:A:10:ARG:HH11	1.81	0.45
1:C:207:ARG:NH1	5:C:235:CL:CL	2.87	0.45
1:E:127:MSE:CE	9:F:298:HOH:O	2.64	0.45
1:A:2:ASP:N	9:A:755:HOH:O	2.50	0.45
1:B:121:ARG:HD2	9:B:234:HOH:O	2.17	0.45
1:D:10:ARG:O	1:D:205:LYS:HE2	2.17	0.45
1:E:136:HIS:N	1:E:136:HIS:CD2	2.84	0.45
1:H:162:VAL:O	1:H:190:PRO:HD2	2.17	0.45
1:A:29:LYS:HE3	4:B:225:MLI:C3	2.35	0.44
1:A:29:LYS:HG2	1:B:4:VAL:HG21	2.00	0.44
1:G:217:VAL:OXT	1:H:53:THR:OG1	2.27	0.44
1:A:59:ARG:NH2	3:A:220:SIN:H21	2.21	0.44
3:D:224:SIN:C2	1:E:115:ALA:HB2	2.40	0.44
1:E:127:MSE:HE1	9:F:298:HOH:O	2.17	0.44
1:B:2:ASP:HA	4:B:225:MLI:O9	2.18	0.44
1:C:212:THR:HG23	3:C:227:SIN:H32	1.99	0.44
1:H:33:LEU:HD11	1:H:157:MSE:HE2	1.97	0.44
1:E:208:LEU:H	1:F:44:GLN:NE2	1.99	0.44
1:F:27:ALA:O	1:F:31:LYS:HG3	2.17	0.44
2:A:218:TLA:O1	2:A:218:TLA:O3	2.31	0.44
3:C:225:SIN:O2	1:D:1:MSE:O	2.34	0.44
1:D:74:LYS:HE3	3:D:224:SIN:O3	2.17	0.44
1:B:162:VAL:O	1:B:190:PRO:HD2	2.17	0.43
1:D:14:LYS:HB3	3:D:224:SIN:O4	2.18	0.43
1:B:137:GLN:O	1:B:141:LYS:HG3	2.17	0.43
1:E:214:LEU:CD2	1:F:31:LYS:HD3	2.48	0.43
1:A:137:GLN:O	1:A:141:LYS:HG3	2.18	0.43
1:D:151:LEU:HD13	3:D:223:SIN:O1	2.18	0.43
9:C:757:HOH:O	1:D:123:PHE:HE2	2.00	0.43
1:E:162:VAL:O	1:E:190:PRO:HD2	2.18	0.43
1:F:45:PRO:CB	1:F:139:MSE:HE3	2.48	0.43
1:H:17:ASP:OD1	1:H:19:SER:HB2	2.17	0.43
1:A:101:GLN:NE2	3:A:221:SIN:H22	2.33	0.43
1:D:88:THR:O	1:D:136:HIS:CE1	2.71	0.43
1:C:10:ARG:CZ	3:C:222:SIN:H31	2.42	0.43
1:C:72:GLU:OE2	3:C:221:SIN:H31	2.18	0.43
1:F:10:ARG:HH12	6:F:218:FLC:CGC	2.31	0.43
1:G:0:ALA:HB2	1:H:-2:SER:OG	2.19	0.43
1:A:97:ARG:HD3	3:A:221:SIN:O1	2.19	0.43
1:D:88:THR:O	1:D:136:HIS:HE1	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:216:GLU:HG2	3:D:225:SIN:O4	2.19	0.42
1:H:164:ILE:HA	2:H:218:TLA:O1	2.19	0.42
3:E:218:SIN:H31	9:F:733:HOH:O	2.18	0.42
1:A:136:HIS:ND1	1:A:137:GLN:N	2.66	0.42
1:G:113:ALA:O	3:G:220:SIN:O2	2.38	0.42
1:B:137:GLN:H	1:B:137:GLN:HG2	1.58	0.42
3:E:218:SIN:H21	9:F:460:HOH:O	2.18	0.42
1:F:45:PRO:CB	1:F:139:MSE:CE	2.98	0.42
1:D:50:VAL:HG22	1:D:82:VAL:HG22	2.02	0.42
1:H:41:THR:HG21	1:H:121:ARG:CG	2.39	0.42
1:B:74:LYS:HG3	9:B:237:HOH:O	2.18	0.42
1:C:104:ALA:O	3:C:228:SIN:O2	2.37	0.42
1:F:149:ASN:HB2	9:F:231:HOH:O	2.19	0.42
1:A:-1:ASN:N	1:A:156:ALA:HB1	2.34	0.42
1:B:209:PRO:HA	6:B:218:FLC:OHB	2.19	0.42
1:C:110:THR:HB	1:C:111:PRO:CD	2.50	0.42
1:C:214:LEU:CD2	1:D:31:LYS:HD3	2.50	0.42
1:E:136:HIS:CD2	1:E:136:HIS:H	2.37	0.42
1:C:10:ARG:HH21	3:C:222:SIN:C3	2.32	0.42
1:F:61:ALA:N	1:F:75:MSE:CE	2.83	0.42
1:G:47:HIS:CD2	9:G:229:HOH:O	2.65	0.42
1:C:186:LEU:O	3:C:224:SIN:O4	2.37	0.42
1:A:10:ARG:HG3	1:A:10:ARG:NH1	2.35	0.41
1:C:49:ILE:HB	1:C:83:VAL:HB	2.02	0.41
1:G:59:ARG:HH12	3:G:218:SIN:H31	1.84	0.41
1:F:168:ASP:HA	3:F:223:SIN:C3	2.50	0.41
1:C:35:GLN:HG3	9:D:236:HOH:O	2.21	0.41
1:E:73:ARG:HD3	1:E:77:ASP:OD1	2.21	0.41
1:F:162:VAL:O	1:F:190:PRO:HD2	2.19	0.41
1:B:90:MSE:O	1:B:129:ARG:NH1	2.54	0.41
1:G:136:HIS:CD2	1:G:136:HIS:N	2.88	0.41
1:A:101:GLN:CA	3:A:221:SIN:O3	2.69	0.41
1:B:160:ASP:OD2	1:B:194:HIS:HD2	2.04	0.41
1:C:39:SER:HB3	1:C:46:TRP:CH2	2.56	0.41
1:D:26:GLU:O	1:D:30:ILE:HG23	2.20	0.41
1:E:205:LYS:NZ	3:E:218:SIN:O4	2.54	0.41
1:F:12:SER:CB	6:F:218:FLC:HA2	2.48	0.41
1:E:66:GLY:O	1:E:69:THR:HG23	2.20	0.41
1:G:86:ALA:HB2	1:G:143:VAL:HG21	2.03	0.41
1:D:10:ARG:NH2	3:D:223:SIN:C1	2.66	0.41
1:D:145:LEU:HD23	1:D:145:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:13:THR:OG1	1:H:160:ASP:HB3	2.21	0.41
1:B:12:SER:HB3	1:B:162:VAL:HG23	2.03	0.41
1:C:145:LEU:HD23	1:C:145:LEU:C	2.42	0.41
1:D:200:ASN:N	1:D:200:ASN:HD22	2.19	0.41
3:A:219:SIN:C1	1:B:141:LYS:HE3	2.51	0.41
1:B:17:ASP:HA	1:B:18:PRO:HD3	1.92	0.41
9:A:250:HOH:O	1:B:97:ARG:HD3	2.20	0.40
1:B:206:SER:O	1:B:207:ARG:HD3	2.21	0.40
1:D:6:VAL:HA	3:D:221:SIN:H22	2.03	0.40
1:F:14:LYS:HE2	6:F:218:FLC:OA2	2.21	0.40
1:H:95:LEU:HD13	1:H:122:ARG:HG2	2.02	0.40
2:H:218:TLA:O4	2:H:218:TLA:C1	2.69	0.40
1:C:1:MSE:CA	1:D:-1:ASN:HA	2.51	0.40
1:C:125:ALA:O	1:C:129:ARG:HG2	2.21	0.40
1:B:13:THR:OG1	1:B:160:ASP:HB3	2.22	0.40
1:F:180:GLU:OE1	1:F:180:GLU:N	2.55	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	220/220 (100%)	211 (96%)	7 (3%)	2 (1%)	14 22
1	B	220/220 (100%)	216 (98%)	4 (2%)	0	100 100
1	C	217/220 (99%)	215 (99%)	2 (1%)	0	100 100
1	D	220/220 (100%)	215 (98%)	4 (2%)	1 (0%)	25 38
1	E	217/220 (99%)	212 (98%)	5 (2%)	0	100 100
1	F	218/220 (99%)	215 (99%)	2 (1%)	1 (0%)	25 38
1	G	217/220 (99%)	211 (97%)	6 (3%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	H	221/220 (100%)	215 (97%)	6 (3%)	0	100 100
All	All	1750/1760 (99%)	1710 (98%)	36 (2%)	4 (0%)	44 59

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	F	0	ALA
1	A	0	ALA
1	A	1	MSE
1	D	1	MSE

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 X-ray entries followed by that with respect to entries of similar resolution.

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	183/175 (105%)	181 (99%)	2 (1%)	70 84
1	B	183/175 (105%)	181 (99%)	2 (1%)	70 84
1	C	180/175 (103%)	177 (98%)	3 (2%)	56 75
1	D	182/175 (104%)	179 (98%)	3 (2%)	58 76
1	E	180/175 (103%)	178 (99%)	2 (1%)	70 84
1	F	181/175 (103%)	178 (98%)	3 (2%)	56 75
1	G	180/175 (103%)	178 (99%)	2 (1%)	70 84
1	H	184/175 (105%)	181 (98%)	3 (2%)	58 76
All	All	1453/1400 (104%)	1433 (99%)	20 (1%)	62 79

All (20) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	46	TRP
1	A	74	LYS
1	B	46	TRP
1	B	137	GLN

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Mol	Chain	Res	Type
1	C	1	MSE
1	C	46	TRP
1	C	211	GLU
1	D	46	TRP
1	D	131	SER
1	D	205	LYS
1	E	-1	ASN
1	E	46	TRP
1	F	5	SER
1	F	46	TRP
1	F	180	GLU
1	G	46	TRP
1	G	216	GLU
1	H	46	TRP
1	H	91	ASP
1	H	117	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (33) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	-1	ASN
1	A	44	GLN
1	A	47	HIS
1	A	101	GLN
1	A	117	ASN
1	A	137	GLN
1	B	44	GLN
1	B	149	ASN
1	B	194	HIS
1	C	44	GLN
1	C	101	GLN
1	D	9	GLN
1	D	71	ASN
1	D	142	GLN
1	D	200	ASN
1	E	-1	ASN
1	E	35	GLN
1	E	44	GLN
1	E	136	HIS
1	E	149	ASN
1	F	9	GLN
1	F	35	GLN

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Mol	Chain	Res	Type
1	F	44	GLN
1	F	200	ASN
1	G	44	GLN
1	G	47	HIS
1	G	117	ASN
1	G	136	HIS
1	H	44	GLN
1	H	47	HIS
1	H	117	ASN
1	H	142	GLN
1	H	200	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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 91 ligands modelled in this entry, 16 are monoatomic - leaving 75 for Mogul analysis.

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	TLA	C	218	-	9,9,9	1.15	0	12,12,12	1.01	1 (8%)
3	SIN	B	221	-	7,7,7	1.24	0	8,8,8	1.21	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	SIN	D	221	-	7,7,7	1.26	0	8,8,8	1.18	1 (12%)
3	SIN	C	222	-	7,7,7	1.24	1 (14%)	8,8,8	1.49	2 (25%)
3	SIN	D	219	-	7,7,7	1.20	0	8,8,8	1.12	0
3	SIN	H	221	-	7,7,7	1.10	0	8,8,8	1.16	0
3	SIN	H	223	-	7,7,7	1.07	0	8,8,8	1.31	0
4	MLI	F	224	-	6,6,6	1.10	0	7,7,7	1.19	0
3	SIN	G	219	-	7,7,7	1.16	0	8,8,8	1.15	0
3	SIN	A	224	-	7,7,7	1.02	0	8,8,8	1.48	1 (12%)
2	TLA	B	219	-	9,9,9	1.40	1 (11%)	12,12,12	1.12	0
4	MLI	D	227	-	6,6,6	1.28	0	7,7,7	0.78	0
3	SIN	C	228	-	7,7,7	1.23	1 (14%)	8,8,8	0.81	0
3	SIN	B	222	-	7,7,7	1.35	0	8,8,8	1.30	0
3	SIN	E	222	-	7,7,7	1.14	0	8,8,8	1.19	1 (12%)
4	MLI	H	224	-	6,6,6	1.14	0	7,7,7	0.80	0
3	SIN	A	220	-	7,7,7	1.11	0	8,8,8	1.21	0
3	SIN	C	224	-	7,7,7	1.29	0	8,8,8	0.99	0
3	SIN	C	227	-	7,7,7	1.13	0	8,8,8	1.05	0
3	SIN	E	218	-	7,7,7	0.97	0	8,8,8	1.62	2 (25%)
4	MLI	G	224	-	6,6,6	1.08	0	7,7,7	1.12	0
3	SIN	H	222	-	7,7,7	1.09	0	8,8,8	1.13	0
2	TLA	A	218	-	9,9,9	1.23	0	12,12,12	1.04	1 (8%)
3	SIN	A	221	-	7,7,7	1.19	1 (14%)	8,8,8	1.45	2 (25%)
8	ACT	D	229	-	3,3,3	0.92	0	3,3,3	1.25	0
2	TLA	C	219	-	9,9,9	1.06	0	12,12,12	1.16	0
2	TLA	H	218	-	9,9,9	1.26	1 (11%)	12,12,12	2.31	7 (58%)
3	SIN	H	219	-	7,7,7	1.14	0	8,8,8	1.20	0
4	MLI	B	225	-	6,6,6	1.20	0	7,7,7	1.14	0
4	MLI	C	229	-	6,6,6	1.22	0	7,7,7	1.23	0
3	SIN	D	224	-	7,7,7	1.09	0	8,8,8	1.17	0
3	SIN	F	220	-	7,7,7	1.22	0	8,8,8	1.22	0
2	TLA	F	219	-	9,9,9	1.25	1 (11%)	12,12,12	1.04	1 (8%)
4	MLI	G	223	-	6,6,6	1.13	0	7,7,7	1.14	0
4	MLI	A	227	-	6,6,6	1.12	0	7,7,7	1.12	0
3	SIN	D	225	-	7,7,7	1.08	0	8,8,8	1.10	0
8	ACT	G	225	-	3,3,3	0.83	0	3,3,3	1.55	0
4	MLI	C	232	-	6,6,6	1.28	0	7,7,7	1.39	1 (14%)
3	SIN	D	223	-	7,7,7	1.38	1 (14%)	8,8,8	1.46	1 (12%)
8	ACT	C	233	-	3,3,3	0.82	0	3,3,3	1.30	0
3	SIN	B	220	-	7,7,7	1.11	0	8,8,8	1.13	0
3	SIN	A	222	-	7,7,7	1.22	0	8,8,8	1.11	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	SIN	G	220	-	7,7,7	1.29	0	8,8,8	1.60	2 (25%)
2	TLA	D	218	-	9,9,9	1.27	1 (11%)	12,12,12	1.16	1 (8%)
3	SIN	A	219	-	7,7,7	1.02	0	8,8,8	1.36	1 (12%)
3	SIN	A	223	-	7,7,7	1.03	0	8,8,8	1.47	1 (12%)
4	MLI	D	228	-	6,6,6	1.18	0	7,7,7	1.03	0
3	SIN	C	225	-	7,7,7	1.02	0	8,8,8	1.42	1 (12%)
4	MLI	A	225	-	6,6,6	1.18	0	7,7,7	1.01	0
3	SIN	G	221	-	7,7,7	1.05	0	8,8,8	1.34	1 (12%)
4	MLI	D	226	-	6,6,6	1.25	0	7,7,7	0.77	0
3	SIN	G	222	-	7,7,7	1.05	0	8,8,8	1.37	1 (12%)
6	FLC	F	218	-	12,12,12	1.37	1 (8%)	17,17,17	1.29	4 (23%)
3	SIN	E	221	-	7,7,7	1.04	0	8,8,8	1.31	0
3	SIN	G	218	-	7,7,7	1.07	0	8,8,8	1.16	0
4	MLI	B	224	-	6,6,6	1.09	0	7,7,7	1.09	0
3	SIN	C	220	-	7,7,7	1.35	0	8,8,8	1.36	1 (12%)
3	SIN	F	221	-	7,7,7	1.09	0	8,8,8	1.18	0
3	SIN	F	222	-	7,7,7	1.10	0	8,8,8	1.16	0
3	SIN	H	220	-	7,7,7	1.11	0	8,8,8	1.18	0
4	MLI	A	228	-	6,6,6	1.11	0	7,7,7	1.38	1 (14%)
4	MLI	E	223	-	6,6,6	1.19	1 (16%)	7,7,7	1.38	1 (14%)
3	SIN	C	226	-	7,7,7	1.15	0	8,8,8	1.21	0
3	SIN	D	222	-	7,7,7	1.10	0	8,8,8	1.15	0
4	MLI	C	230	-	6,6,6	1.16	0	7,7,7	0.89	0
4	MLI	C	231	-	6,6,6	1.20	0	7,7,7	1.07	0
3	SIN	C	221	-	7,7,7	1.04	0	8,8,8	1.26	0
3	SIN	C	223	-	7,7,7	1.17	0	8,8,8	0.81	0
4	MLI	B	223	-	6,6,6	1.14	0	7,7,7	1.26	0
3	SIN	E	219	-	7,7,7	1.30	0	8,8,8	1.16	0
3	SIN	D	220	-	7,7,7	1.13	0	8,8,8	1.22	0
3	SIN	F	223	-	7,7,7	1.10	0	8,8,8	1.11	0
6	FLC	B	218	-	12,12,12	1.24	1 (8%)	17,17,17	1.28	1 (5%)
4	MLI	A	226	-	6,6,6	1.25	0	7,7,7	0.81	0
3	SIN	E	220	-	7,7,7	1.18	0	8,8,8	1.11	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	TLA	C	218	-	-	4/12/12/12	-
3	SIN	B	221	-	-	3/5/5/5	-
3	SIN	D	221	-	-	5/5/5/5	-
3	SIN	C	222	-	-	3/5/5/5	-
3	SIN	D	219	-	-	3/5/5/5	-
3	SIN	H	221	-	-	4/5/5/5	-
3	SIN	H	223	-	-	4/5/5/5	-
4	MLI	F	224	-	-	2/4/4/4	-
3	SIN	G	219	-	-	4/5/5/5	-
3	SIN	A	224	-	-	2/5/5/5	-
2	TLA	B	219	-	-	0/12/12/12	-
4	MLI	D	227	-	-	0/4/4/4	-
3	SIN	C	228	-	-	5/5/5/5	-
3	SIN	B	222	-	-	3/5/5/5	-
3	SIN	E	222	-	-	3/5/5/5	-
4	MLI	H	224	-	-	0/4/4/4	-
3	SIN	A	220	-	-	5/5/5/5	-
3	SIN	C	224	-	-	3/5/5/5	-
3	SIN	C	227	-	-	5/5/5/5	-
3	SIN	E	218	-	-	4/5/5/5	-
4	MLI	G	224	-	-	0/4/4/4	-
3	SIN	H	222	-	-	2/5/5/5	-
2	TLA	A	218	-	-	10/12/12/12	-
3	SIN	A	221	-	-	3/5/5/5	-
2	TLA	C	219	-	-	8/12/12/12	-
2	TLA	H	218	-	-	9/12/12/12	-
3	SIN	H	219	-	-	5/5/5/5	-
4	MLI	B	225	-	-	0/4/4/4	-
4	MLI	C	229	-	-	0/4/4/4	-
3	SIN	D	224	-	-	5/5/5/5	-
3	SIN	F	220	-	-	2/5/5/5	-
2	TLA	F	219	-	-	0/12/12/12	-
4	MLI	G	223	-	-	0/4/4/4	-
4	MLI	A	227	-	-	0/4/4/4	-
3	SIN	D	225	-	-	1/5/5/5	-
4	MLI	C	232	-	-	2/4/4/4	-
3	SIN	D	223	-	-	5/5/5/5	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	SIN	B	220	-	-	4/5/5/5	-
3	SIN	A	222	-	-	3/5/5/5	-
3	SIN	G	220	-	-	1/5/5/5	-
2	TLA	D	218	-	-	0/12/12/12	-
3	SIN	A	219	-	-	5/5/5/5	-
3	SIN	A	223	-	-	4/5/5/5	-
4	MLI	D	228	-	-	0/4/4/4	-
3	SIN	C	225	-	-	3/5/5/5	-
4	MLI	A	225	-	-	3/4/4/4	-
3	SIN	G	221	-	-	3/5/5/5	-
4	MLI	D	226	-	-	2/4/4/4	-
3	SIN	G	222	-	-	3/5/5/5	-
6	FLC	F	218	-	-	10/16/16/16	-
3	SIN	E	221	-	-	5/5/5/5	-
3	SIN	G	218	-	-	4/5/5/5	-
4	MLI	B	224	-	-	1/4/4/4	-
3	SIN	C	220	-	-	4/5/5/5	-
3	SIN	F	221	-	-	2/5/5/5	-
3	SIN	F	222	-	-	4/5/5/5	-
3	SIN	H	220	-	-	5/5/5/5	-
4	MLI	A	228	-	-	0/4/4/4	-
4	MLI	E	223	-	-	3/4/4/4	-
3	SIN	C	226	-	-	1/5/5/5	-
3	SIN	D	222	-	-	1/5/5/5	-
4	MLI	C	230	-	-	2/4/4/4	-
4	MLI	C	231	-	-	0/4/4/4	-
3	SIN	C	221	-	-	2/5/5/5	-
3	SIN	C	223	-	-	5/5/5/5	-
4	MLI	B	223	-	-	0/4/4/4	-
3	SIN	E	219	-	-	1/5/5/5	-
3	SIN	D	220	-	-	2/5/5/5	-
3	SIN	F	223	-	-	5/5/5/5	-
6	FLC	B	218	-	-	7/16/16/16	-
4	MLI	A	226	-	-	0/4/4/4	-
3	SIN	E	220	-	-	2/5/5/5	-

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	218	FLC	CB-CBC	-3.04	1.50	1.53
6	B	218	FLC	CB-CBC	-2.67	1.50	1.53
2	H	218	TLA	C2-C1	-2.48	1.49	1.52
3	A	221	SIN	O4-C4	-2.30	1.23	1.30
2	B	219	TLA	C2-C1	-2.17	1.49	1.52
3	D	223	SIN	O2-C1	-2.15	1.23	1.30
4	E	223	MLI	O7-C2	-2.09	1.23	1.30
3	C	222	SIN	O4-C4	-2.08	1.23	1.30
2	D	218	TLA	C2-C1	-2.06	1.49	1.52
3	C	228	SIN	O2-C1	-2.03	1.24	1.30
2	F	219	TLA	O41-C4	-2.02	1.24	1.30

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	H	218	TLA	O2-C2-C1	-4.10	101.93	110.69
3	G	220	SIN	C2-C3-C4	-3.54	104.27	113.67
2	H	218	TLA	O11-C1-C2	3.32	122.53	113.31
2	H	218	TLA	O1-C1-C2	-3.10	113.37	121.62
6	B	218	FLC	OB2-CBC-CB	2.95	118.80	113.14
6	F	218	FLC	OB2-CBC-CB	2.83	118.56	113.14
2	H	218	TLA	C2-C3-C4	2.70	115.82	109.82
4	A	228	MLI	C3-C1-C2	-2.66	103.55	112.95
3	G	222	SIN	C3-C2-C1	-2.61	106.73	113.67
3	D	221	SIN	C3-C2-C1	-2.51	107.00	113.67
3	A	221	SIN	C3-C2-C1	-2.47	107.11	113.67
2	D	218	TLA	O41-C4-C3	2.47	120.18	113.31
3	A	224	SIN	C2-C3-C4	-2.43	107.22	113.67
3	D	223	SIN	O2-C1-C2	2.42	121.66	114.00
3	C	220	SIN	O2-C1-C2	2.38	121.53	114.00
3	G	221	SIN	C3-C2-C1	-2.25	107.69	113.67
2	H	218	TLA	C3-C2-C1	2.23	114.77	109.82
3	C	222	SIN	O2-C1-C2	2.22	121.03	114.00
2	F	219	TLA	O11-C1-C2	2.20	119.41	113.31
3	C	222	SIN	O4-C4-O3	-2.19	117.71	123.33
3	A	219	SIN	O2-C1-C2	2.18	120.89	114.00
4	E	223	MLI	C3-C1-C2	-2.18	105.25	112.95
4	C	232	MLI	O7-C2-C1	2.18	121.26	114.51
3	G	220	SIN	C3-C2-C1	-2.15	107.95	113.67
3	E	218	SIN	C2-C3-C4	-2.14	107.98	113.67
3	E	218	SIN	O3-C4-C3	-2.13	116.35	123.09
6	F	218	FLC	OB1-CBC-CB	-2.12	117.99	122.09
6	F	218	FLC	OHB-CB-CBC	2.11	111.95	108.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	H	218	TLA	O2-C2-C3	-2.10	105.89	110.17
3	A	223	SIN	O4-C4-C3	2.06	120.52	114.00
3	A	221	SIN	O4-C4-C3	2.05	120.47	114.00
2	H	218	TLA	O3-C3-C2	-2.04	106.01	110.17
6	F	218	FLC	OG1-CGC-CG	-2.04	117.19	122.95
3	C	225	SIN	C2-C3-C4	-2.03	108.29	113.67
2	A	218	TLA	O11-C1-C2	2.02	118.94	113.31
3	E	222	SIN	O2-C1-C2	2.01	120.35	114.00
2	C	218	TLA	O41-C4-C3	2.01	118.90	113.31

There are no chirality outliers.

All (211) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	218	TLA	O3-C3-C4-O4
2	A	218	TLA	O3-C3-C4-O41
3	C	223	SIN	C1-C2-C3-C4
3	G	221	SIN	C1-C2-C3-C4
6	B	218	FLC	CA-CB-CBC-OB1
6	B	218	FLC	CA-CB-CBC-OB2
6	B	218	FLC	OHB-CB-CBC-OB1
6	B	218	FLC	OHB-CB-CBC-OB2
6	F	218	FLC	CG-CB-CBC-OB1
6	F	218	FLC	CG-CB-CBC-OB2
6	F	218	FLC	OHB-CB-CBC-OB1
6	F	218	FLC	OHB-CB-CBC-OB2
3	A	219	SIN	C1-C2-C3-C4
3	A	221	SIN	C1-C2-C3-C4
3	D	221	SIN	C1-C2-C3-C4
3	H	222	SIN	C1-C2-C3-C4
2	C	219	TLA	O2-C2-C3-O3
2	C	219	TLA	C1-C2-C3-C4
2	A	218	TLA	O1-C1-C2-C3
2	A	218	TLA	O11-C1-C2-C3
2	H	218	TLA	C2-C3-C4-O4
2	H	218	TLA	C2-C3-C4-O41
2	C	219	TLA	C1-C2-C3-O3
2	C	219	TLA	O2-C2-C3-C4
6	F	218	FLC	CA-CB-CG-CGC
6	F	218	FLC	CBC-CB-CG-CGC
6	F	218	FLC	OHB-CB-CG-CGC
3	A	222	SIN	C1-C2-C3-C4

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Mol	Chain	Res	Type	Atoms
2	H	218	TLA	C1-C2-C3-C4
2	A	218	TLA	O2-C2-C3-C4
2	A	218	TLA	O1-C1-C2-O2
2	A	218	TLA	O11-C1-C2-O2
2	C	219	TLA	O3-C3-C4-O4
2	C	219	TLA	O3-C3-C4-O41
3	A	220	SIN	C1-C2-C3-C4
3	C	226	SIN	C1-C2-C3-C4
3	D	223	SIN	C1-C2-C3-C4
3	E	222	SIN	C1-C2-C3-C4
2	A	218	TLA	C1-C2-C3-O3
3	D	224	SIN	C1-C2-C3-C4
3	D	225	SIN	C1-C2-C3-C4
3	E	221	SIN	C1-C2-C3-C4
6	B	218	FLC	OHB-CB-CG-CGC
3	F	223	SIN	C1-C2-C3-C4
3	G	218	SIN	C1-C2-C3-C4
3	H	219	SIN	C1-C2-C3-C4
3	H	220	SIN	C1-C2-C3-C4
3	H	221	SIN	C1-C2-C3-C4
2	H	218	TLA	O3-C3-C4-O4
3	C	225	SIN	C1-C2-C3-C4
3	C	227	SIN	C1-C2-C3-C4
2	H	218	TLA	O3-C3-C4-O41
2	A	218	TLA	O2-C2-C3-O3
2	H	218	TLA	O2-C2-C3-C4
3	C	224	SIN	C1-C2-C3-C4
6	B	218	FLC	CBC-CB-CG-CGC
2	H	218	TLA	C1-C2-C3-O3
4	F	224	MLI	C3-C1-C2-O7
2	C	218	TLA	O1-C1-C2-C3
2	A	218	TLA	C1-C2-C3-C4
2	C	219	TLA	O1-C1-C2-C3
6	B	218	FLC	CA-CB-CG-CGC
2	C	218	TLA	O11-C1-C2-C3
3	C	222	SIN	C1-C2-C3-C4
2	C	219	TLA	O11-C1-C2-C3
4	A	225	MLI	C2-C1-C3-O9
2	C	218	TLA	C2-C3-C4-O4
2	C	218	TLA	C2-C3-C4-O41
4	A	225	MLI	C2-C1-C3-O8
4	F	224	MLI	C3-C1-C2-O6

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Mol	Chain	Res	Type	Atoms
3	B	222	SIN	C1-C2-C3-C4
2	H	218	TLA	O1-C1-C2-C3
2	H	218	TLA	O11-C1-C2-C3
6	F	218	FLC	CAC-CA-CB-CBC
4	E	223	MLI	C3-C1-C2-O7
4	C	230	MLI	C3-C1-C2-O7
4	D	226	MLI	C3-C1-C2-O6
4	D	226	MLI	C3-C1-C2-O7
4	E	223	MLI	C3-C1-C2-O6
3	A	220	SIN	O2-C1-C2-C3
3	A	221	SIN	C2-C3-C4-O4
3	A	224	SIN	C2-C3-C4-O3
3	D	219	SIN	O1-C1-C2-C3
3	F	220	SIN	C2-C3-C4-O3
3	G	221	SIN	O1-C1-C2-C3
3	H	223	SIN	O1-C1-C2-C3
3	A	221	SIN	C2-C3-C4-O3
3	D	223	SIN	O2-C1-C2-C3
3	F	220	SIN	C2-C3-C4-O4
3	H	221	SIN	C2-C3-C4-O3
3	H	221	SIN	C2-C3-C4-O4
3	H	223	SIN	O2-C1-C2-C3
3	A	219	SIN	O1-C1-C2-C3
3	D	221	SIN	C2-C3-C4-O4
3	G	219	SIN	C2-C3-C4-O3
3	A	219	SIN	C2-C3-C4-O3
3	A	222	SIN	O1-C1-C2-C3
3	D	223	SIN	O1-C1-C2-C3
3	D	224	SIN	O2-C1-C2-C3
3	E	218	SIN	O1-C1-C2-C3
3	E	221	SIN	O1-C1-C2-C3
3	H	219	SIN	O2-C1-C2-C3
3	A	224	SIN	C2-C3-C4-O4
3	C	227	SIN	C2-C3-C4-O3
3	E	221	SIN	O2-C1-C2-C3
3	H	220	SIN	O1-C1-C2-C3
3	E	218	SIN	O2-C1-C2-C3
3	E	218	SIN	C2-C3-C4-O3
3	C	220	SIN	C2-C3-C4-O3
3	F	223	SIN	O1-C1-C2-C3
3	D	219	SIN	O2-C1-C2-C3
3	F	223	SIN	C2-C3-C4-O4

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Mol	Chain	Res	Type	Atoms
3	G	219	SIN	C2-C3-C4-O4
3	A	219	SIN	O2-C1-C2-C3
3	F	223	SIN	C2-C3-C4-O3
3	A	220	SIN	O1-C1-C2-C3
3	C	223	SIN	C2-C3-C4-O3
3	C	223	SIN	C2-C3-C4-O4
3	C	228	SIN	C2-C3-C4-O4
3	C	220	SIN	C2-C3-C4-O4
3	D	221	SIN	C2-C3-C4-O3
3	D	224	SIN	O1-C1-C2-C3
3	H	219	SIN	O1-C1-C2-C3
6	F	218	FLC	CA-CB-CBC-OB1
3	A	219	SIN	C2-C3-C4-O4
3	C	228	SIN	C2-C3-C4-O3
3	B	222	SIN	C2-C3-C4-O3
3	F	223	SIN	O2-C1-C2-C3
4	B	224	MLI	C2-C1-C3-O8
4	C	230	MLI	C3-C1-C2-O6
4	C	232	MLI	C3-C1-C2-O6
3	H	219	SIN	C2-C3-C4-O4
3	H	220	SIN	O2-C1-C2-C3
3	A	222	SIN	O2-C1-C2-C3
3	E	218	SIN	C2-C3-C4-O4
3	A	220	SIN	C2-C3-C4-O4
3	G	219	SIN	O2-C1-C2-C3
3	C	227	SIN	C2-C3-C4-O4
3	C	222	SIN	C2-C3-C4-O4
3	G	222	SIN	C2-C3-C4-O4
3	C	228	SIN	C1-C2-C3-C4
3	C	225	SIN	C2-C3-C4-O4
3	C	227	SIN	O2-C1-C2-C3
3	D	224	SIN	C2-C3-C4-O4
3	G	219	SIN	O1-C1-C2-C3
3	H	219	SIN	C2-C3-C4-O3
3	G	221	SIN	O2-C1-C2-C3
3	B	220	SIN	C2-C3-C4-O4
3	D	223	SIN	C2-C3-C4-O4
3	C	222	SIN	C2-C3-C4-O3
3	C	225	SIN	C2-C3-C4-O3
3	A	220	SIN	C2-C3-C4-O3
3	C	227	SIN	O1-C1-C2-C3
3	G	222	SIN	C2-C3-C4-O3

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Mol	Chain	Res	Type	Atoms
3	B	220	SIN	O1-C1-C2-C3
3	B	220	SIN	O2-C1-C2-C3
3	C	221	SIN	O1-C1-C2-C3
3	B	220	SIN	C2-C3-C4-O3
3	E	221	SIN	C2-C3-C4-O3
3	D	224	SIN	C2-C3-C4-O3
3	C	221	SIN	O2-C1-C2-C3
3	F	222	SIN	O2-C1-C2-C3
3	E	221	SIN	C2-C3-C4-O4
3	A	223	SIN	O2-C1-C2-C3
3	C	223	SIN	O2-C1-C2-C3
4	A	225	MLI	C3-C1-C2-O7
4	C	232	MLI	C3-C1-C2-O7
3	B	221	SIN	C2-C3-C4-O4
3	D	220	SIN	O1-C1-C2-C3
3	D	223	SIN	C2-C3-C4-O3
3	B	222	SIN	C2-C3-C4-O4
6	F	218	FLC	CA-CB-CBC-OB2
3	D	221	SIN	O1-C1-C2-C3
3	E	220	SIN	C2-C3-C4-O4
3	A	223	SIN	C2-C3-C4-O3
3	C	220	SIN	O1-C1-C2-C3
3	F	221	SIN	O1-C1-C2-C3
3	A	223	SIN	C2-C3-C4-O4
3	E	222	SIN	O1-C1-C2-C3
3	H	223	SIN	C2-C3-C4-O3
3	B	221	SIN	C2-C3-C4-O3
3	C	224	SIN	O1-C1-C2-C3
3	C	220	SIN	O2-C1-C2-C3
3	D	221	SIN	O2-C1-C2-C3
3	F	222	SIN	O1-C1-C2-C3
3	F	222	SIN	C2-C3-C4-O4
3	C	223	SIN	O1-C1-C2-C3
3	C	224	SIN	O2-C1-C2-C3
3	H	220	SIN	C2-C3-C4-O3
3	A	223	SIN	O1-C1-C2-C3
3	C	228	SIN	O2-C1-C2-C3
3	F	221	SIN	O2-C1-C2-C3
3	G	218	SIN	O1-C1-C2-C3
3	H	223	SIN	C2-C3-C4-O4
3	E	220	SIN	C2-C3-C4-O3
3	E	222	SIN	O2-C1-C2-C3

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Mol	Chain	Res	Type	Atoms
3	H	222	SIN	O1-C1-C2-C3
3	D	220	SIN	O2-C1-C2-C3
4	E	223	MLI	C2-C1-C3-O9
3	C	228	SIN	O1-C1-C2-C3
3	H	220	SIN	C2-C3-C4-O4
3	D	219	SIN	C2-C3-C4-O4
3	F	222	SIN	C2-C3-C4-O3
3	G	222	SIN	O2-C1-C2-C3
3	H	221	SIN	O1-C1-C2-C3
3	E	219	SIN	O2-C1-C2-C3
3	G	218	SIN	C2-C3-C4-O4
3	D	222	SIN	O2-C1-C2-C3
3	B	221	SIN	O2-C1-C2-C3
3	G	218	SIN	C2-C3-C4-O3
3	G	220	SIN	C2-C3-C4-O4

There are no ring outliers.

45 monomers are involved in 195 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	D	221	SIN	1	0
3	C	222	SIN	12	0
3	D	219	SIN	1	0
4	F	224	MLI	5	0
3	A	224	SIN	2	0
4	D	227	MLI	2	0
3	C	228	SIN	3	0
3	B	222	SIN	8	0
3	E	222	SIN	7	0
3	A	220	SIN	2	0
3	C	224	SIN	1	0
3	C	227	SIN	1	0
3	E	218	SIN	4	0
4	G	224	MLI	1	0
3	H	222	SIN	1	0
2	A	218	TLA	1	0
3	A	221	SIN	10	0
2	H	218	TLA	4	0
3	H	219	SIN	12	0
4	B	225	MLI	7	0
3	D	224	SIN	4	0
2	F	219	TLA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	G	223	MLI	1	0
3	D	225	SIN	4	0
4	C	232	MLI	1	0
3	D	223	SIN	12	0
3	B	220	SIN	1	0
3	G	220	SIN	2	0
3	A	219	SIN	15	0
3	A	223	SIN	4	0
4	D	228	MLI	2	0
3	C	225	SIN	2	0
3	G	221	SIN	3	0
4	D	226	MLI	3	0
6	F	218	FLC	19	0
3	E	221	SIN	3	0
3	G	218	SIN	5	0
4	E	223	MLI	7	0
3	C	226	SIN	5	0
3	D	222	SIN	2	0
4	C	231	MLI	9	0
3	C	221	SIN	1	0
3	C	223	SIN	3	0
3	F	223	SIN	3	0
6	B	218	FLC	5	0

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	213/220 (96%)	-0.80	3 (1%)	73	70	20, 31, 52, 66	3 (1%)
1	B	213/220 (96%)	-0.42	4 (1%)	66	62	22, 40, 61, 96	3 (1%)
1	C	212/220 (96%)	-0.92	1 (0%)	87	85	17, 27, 46, 75	1 (0%)
1	D	213/220 (96%)	-0.82	2 (0%)	81	78	17, 29, 46, 59	3 (1%)
1	E	213/220 (96%)	-0.72	1 (0%)	87	85	21, 34, 55, 76	0
1	F	213/220 (96%)	-0.68	3 (1%)	73	70	21, 34, 58, 86	1 (0%)
1	G	212/220 (96%)	-0.54	1 (0%)	87	85	25, 39, 59, 88	1 (0%)
1	H	214/220 (97%)	-0.38	1 (0%)	87	85	18, 42, 65, 74	3 (1%)
All	All	1703/1760 (96%)	-0.66	16 (0%)	81	78	17, 34, 57, 96	15 (0%)

All (16) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	0	ALA	6.4
1	D	-1	ASN	5.6
1	G	0	ALA	5.6
1	A	0	ALA	5.1
1	B	0	ALA	4.5
1	D	0	ALA	4.1
1	F	-1	ASN	3.4
1	B	-1	ASN	3.2
1	A	-1	ASN	3.1
1	B	136[A]	HIS	2.9
1	E	0	ALA	2.5
1	F	0	ALA	2.4
1	B	123	PHE	2.2
1	A	136	HIS	2.2
1	F	123	PHE	2.1
1	H	-1	ASN	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	SIN	H	223	8/8	0.56	0.59	52,55,56,57	8
4	MLI	C	230	7/7	0.59	0.49	49,51,53,55	7
4	MLI	G	224	7/7	0.59	0.53	56,59,61,62	7
3	SIN	C	228	8/8	0.60	0.41	28,32,36,38	8
3	SIN	F	222	8/8	0.63	0.47	49,56,58,58	8
4	MLI	F	224	7/7	0.64	0.46	47,50,51,53	7
4	MLI	B	224	7/7	0.65	0.54	60,61,64,65	7
3	SIN	C	224	8/8	0.65	0.32	14,27,37,38	8
3	SIN	G	222	8/8	0.66	0.40	32,49,57,58	8
3	SIN	C	227	8/8	0.68	0.38	35,41,44,44	8
3	SIN	H	222	8/8	0.69	0.33	41,51,54,56	8
4	MLI	D	228	7/7	0.70	0.33	29,37,43,47	7
4	MLI	D	226	7/7	0.71	0.34	26,31,38,42	7
3	SIN	C	223	8/8	0.72	0.27	78,92,98,98	0
3	SIN	E	222	8/8	0.73	0.30	31,32,41,42	8
3	SIN	G	219	8/8	0.77	0.24	76,82,87,89	0
3	SIN	A	224	8/8	0.77	0.38	45,49,54,55	8
3	SIN	B	221	8/8	0.77	0.21	63,72,80,80	0
4	MLI	C	232	7/7	0.77	0.26	13,26,34,38	7
3	SIN	G	221	8/8	0.79	0.25	75,79,88,89	0
4	MLI	A	225	7/7	0.79	0.26	21,26,33,33	7
3	SIN	F	223	8/8	0.79	0.21	81,90,93,93	0
4	MLI	B	225	7/7	0.79	0.21	20,27,36,39	7
3	SIN	A	219	8/8	0.79	0.25	29,36,41,43	8
3	SIN	B	222	8/8	0.80	0.27	18,24,30,31	8
3	SIN	B	220	8/8	0.80	0.48	47,52,55,56	8
4	MLI	C	231	7/7	0.81	0.33	22,29,41,43	7

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	SIN	E	220	8/8	0.81	0.25	69,80,88,89	0
2	TLA	C	219	10/10	0.81	0.25	44,50,52,52	10
4	MLI	D	227	7/7	0.81	0.22	31,32,41,43	7
2	TLA	A	218	10/10	0.81	0.37	47,56,58,63	10
3	SIN	H	221	8/8	0.81	0.21	92,94,95,96	0
3	SIN	E	219	8/8	0.81	0.21	75,78,83,83	0
7	NA	E	226	1/1	0.81	0.18	55,55,55,55	0
3	SIN	G	220	8/8	0.82	0.25	19,26,27,33	8
8	ACT	G	225	4/4	0.82	0.19	69,69,69,69	0
3	SIN	D	221	8/8	0.83	0.24	20,27,39,47	8
3	SIN	H	220	8/8	0.83	0.25	63,70,73,74	8
3	SIN	A	223	8/8	0.84	0.32	42,47,55,59	8
8	ACT	C	233	4/4	0.84	0.31	61,64,64,65	0
7	NA	B	227	1/1	0.84	0.30	56,56,56,56	0
3	SIN	C	222	8/8	0.85	0.22	3,10,22,43	8
2	TLA	C	218	10/10	0.85	0.14	112,115,116,116	0
3	SIN	D	224	8/8	0.85	0.24	10,22,30,42	8
6	FLC	F	218	13/13	0.85	0.22	9,26,30,36	13
6	FLC	B	218	13/13	0.86	0.30	39,49,53,55	13
3	SIN	D	223	8/8	0.86	0.22	6,11,25,26	8
3	SIN	E	221	8/8	0.86	0.16	82,88,91,93	0
3	SIN	G	218	8/8	0.87	0.14	86,89,92,93	0
3	SIN	D	222	8/8	0.87	0.18	43,53,61,62	8
3	SIN	F	221	8/8	0.87	0.18	93,95,99,100	0
3	SIN	D	220	8/8	0.87	0.17	58,71,74,75	0
4	MLI	G	223	7/7	0.87	0.27	14,17,25,25	7
3	SIN	A	220	8/8	0.87	0.15	76,83,91,92	0
3	SIN	C	221	8/8	0.88	0.23	41,44,46,48	8
3	SIN	F	220	8/8	0.88	0.18	48,65,76,78	0
4	MLI	E	223	7/7	0.88	0.18	14,17,31,37	7
3	SIN	A	221	8/8	0.88	0.25	16,23,36,47	8
3	SIN	C	226	8/8	0.89	0.17	2,12,24,29	8
3	SIN	C	220	8/8	0.89	0.17	40,61,76,76	0
3	SIN	D	225	8/8	0.89	0.16	61,62,79,83	0
3	SIN	C	225	8/8	0.89	0.18	16,25,36,39	8
3	SIN	H	219	8/8	0.89	0.24	15,26,33,34	8
8	ACT	D	229	4/4	0.89	0.18	51,52,53,54	0
4	MLI	A	226	7/7	0.89	0.16	41,48,63,65	0
4	MLI	A	227	7/7	0.90	0.30	10,16,18,18	7
7	NA	C	238	1/1	0.90	0.23	59,59,59,59	0
4	MLI	A	228	7/7	0.90	0.19	74,82,87,89	0
5	CL	D	230	1/1	0.90	0.31	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	TLA	H	218	10/10	0.90	0.13	40,57,64,74	0
3	SIN	A	222	8/8	0.90	0.15	23,61,73,82	0
3	SIN	D	219	8/8	0.92	0.11	44,55,64,72	0
5	CL	E	225	1/1	0.93	0.20	66,66,66,66	0
4	MLI	H	224	7/7	0.94	0.14	32,37,47,50	7
5	CL	F	225	1/1	0.94	0.23	80,80,80,80	0
5	CL	B	226	1/1	0.94	0.15	68,68,68,68	0
3	SIN	E	218	8/8	0.94	0.11	33,48,62,63	0
5	CL	E	224	1/1	0.94	0.27	80,80,80,80	0
7	NA	H	225	1/1	0.95	0.26	49,49,49,49	0
2	TLA	D	218	10/10	0.96	0.08	24,31,37,46	0
2	TLA	B	219	10/10	0.96	0.08	41,52,65,70	0
4	MLI	B	223	7/7	0.96	0.09	33,36,47,50	0
5	CL	C	234	1/1	0.97	0.08	53,53,53,53	0
2	TLA	F	219	10/10	0.97	0.07	29,37,52,54	0
5	CL	G	226	1/1	0.97	0.20	59,59,59,59	0
4	MLI	C	229	7/7	0.97	0.07	35,37,47,50	0
5	CL	C	236	1/1	0.98	0.22	67,67,67,67	0
5	CL	C	237	1/1	0.98	0.26	68,68,68,68	0
5	CL	A	229	1/1	0.98	0.27	57,57,57,57	0
5	CL	C	235	1/1	0.98	0.04	28,28,28,28	1
5	CL	D	231	1/1	0.99	0.05	30,30,30,30	1

6.5 Other polymers (i)

There are no such residues in this entry.