WORLDWIDE wwPDB PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Nov 5, 2023 – 04:36 PM EST

PDB ID : 5CGN

Title : Structure of quasiracemic Ala-Magainin 2 with a beta amino acid substitution at position 8

Authors : Hayouka, Z.; Thomas, N.C.; Mortenson, D.E.; Satyshur, K.A.; Weisblum, B.; Forest, K.T.; Gellman, S.H.

Deposited on : 2015-07-09

Resolution : 2.20 Å(reported)

The following versions of software and data (see references ⓘ) were used in the production of this report:

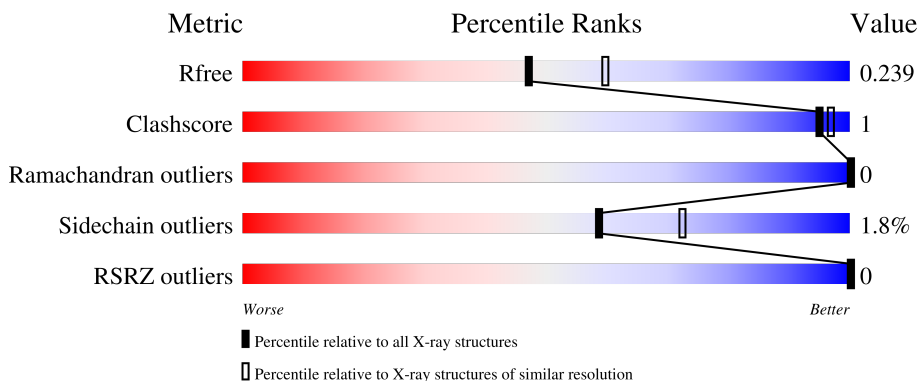|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance ⓘ

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

The reported resolution of this entry is 2.20 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	Percentile Ranks	Value
Rfree		0.239
Clashscore		1
Ramachandran outliers		0
Sidechain outliers		1.8%
RSRZ outliers		0

Worse   *Better*

▌ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	4898 (2.20-2.20)
Clashscore	141614	5594 (2.20-2.20)
Ramachandran outliers	138981	5503 (2.20-2.20)
Sidechain outliers	138945	5504 (2.20-2.20)
RSRZ outliers	127900	4800 (2.20-2.20)

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	23	83% 13% •
1	B	23	91% • •
1	C	23	96% •
1	D	23	96% •
2	E	23	83% 9% • •

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Mol	Chain	Length	Quality of chain
2	F	23	87% 9%
2	G	23	87% 9%
2	H	23	87% 9%

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 1336 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 (with D amino acids) called D-Ala-Magainin Derivative.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	22	Total	C	N	O	S	0	0	0
			156	104	26	25	1			
1	B	22	Total	C	N	O	S	0	0	0
			157	105	26	25	1			
1	C	22	Total	C	N	O	S	0	0	0
			160	107	27	25	1			
1	D	22	Total	C	N	O	S	0	0	0
			158	106	26	25	1			

- Molecule 2 is a protein called L-ACPC8-Ala-Magainin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	E	22	Total	C	N	O	S	0	0	0
			167	113	28	25	1			
2	F	22	Total	C	N	O	S	0	0	0
			171	116	29	25	1			
2	G	22	Total	C	N	O	S	0	0	0
			167	113	28	25	1			
2	H	22	Total	C	N	O	S	0	0	0
			167	113	28	25	1			

- Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	Cl	0	0
			1	1		
3	B	1	Total	Cl	0	0
			1	1		

- Molecule 4 is water.

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

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 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: D-Ala-Magainin Derivative

Chain A:

83%   13%   •

- Molecule 1: D-Ala-Magainin Derivative

Chain B:

91%   •   •

- Molecule 1: D-Ala-Magainin Derivative

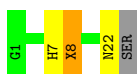Chain C:

96%   •

- Molecule 1: D-Ala-Magainin Derivative

Chain D:

96%   •

- Molecule 2: L-ACPC8-Ala-Magainin

Chain E:
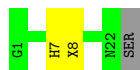
83%   9%   •   •

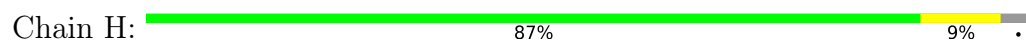- Molecule 2: L-ACPC8-Ala-Magainin

Chain F:

87%   9%   •

G1 H7 F12 N22 SER

• Molecule 2: L-ACPC8-Ala-Magainin

Chain G: 87% 9%

G1 H7 X8 N22 SER

• Molecule 2: L-ACPC8-Ala-Magainin

Chain H: 87% 9%

G1 H7 X8 N22 SER
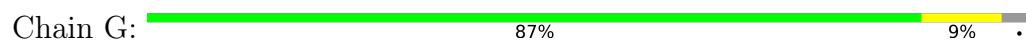
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α, β, γ	56.69Å 56.69Å 51.65Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.09 – 2.20 40.09 – 2.20	Depositor EDS
% Data completeness (in resolution range)	97.9 (40.09-2.20) 97.9 (40.09-2.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.11	Depositor
$< I/\sigma(I) >$ [1]	2.66 (at 2.20Å)	Xtriage
Refinement program	REFMAC 5.8.0123	Depositor
R, R_{free}	0.182 , 0.247 0.189 , 0.239	Depositor DCC
R_{free} test set	440 reflections (5.05%)	wwPDB-VP
Wilson B-factor (Å^2)	43.1	Xtriage
Anisotropy	0.039	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 53.9	EDS
L-test for twinning[2]	$< |L| > = 0.50, < L^2 > = 0.34$	Xtriage
Estimated twinning fraction	0.274 for k,h,-l	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	1336	wwPDB-VP
Average B, all atoms (Å^2)	50.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 27.95 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 2.0071e-03. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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[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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: MED, DIL, DVA, DLE, XCP, DPN, CL, DGL, DAL, DLY, DSG, DHI

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	1.36	0/6	1.09	0/4
1	B	0.96	0/6	0.80	0/4
1	C	1.05	0/6	0.57	0/4
1	D	0.75	0/6	0.23	0/4
2	E	0.90	0/161	0.88	0/211
2	F	0.87	0/165	0.76	0/215
2	G	0.98	0/161	0.86	0/211
2	H	0.88	0/161	0.84	0/211
All	All	0.91	0/672	0.83	0/864

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
2	E	0	1
2	F	0	1
2	G	0	1
2	H	0	1
All	All	0	4

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	E	7	HIS	Peptide

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Mol	Chain	Res	Type	Group
2	F	7	HIS	Peptide
2	G	7	HIS	Peptide
2	H	7	HIS	Peptide

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	156	0	136	2	0
1	B	157	0	138	1	0
1	C	160	0	146	0	0
1	D	158	0	140	0	0
2	E	167	0	174	1	0
2	F	171	0	185	1	0
2	G	167	0	174	0	0
2	H	167	0	174	0	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
4	A	3	0	0	0	0
4	B	4	0	0	0	0
4	C	4	0	0	0	0
4	D	4	0	0	0	0
4	E	3	0	0	0	0
4	F	1	0	0	0	0
4	G	8	0	0	0	0
4	H	4	0	0	0	0
All	All	1336	0	1267	3	0

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

All (3) 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)
2:E:8:XCP:HE	2:F:12:PHE:HA	2.01	0.43
1:A:16:DPN:HD1	1:B:5:DPN:HE1	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5:DPN:HD2	1:A:6:DLE:HD23	2.02	0.41

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 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	1/23 (4%)	1 (100%)	0	0	100	100
1	B	1/23 (4%)	1 (100%)	0	0	100	100
1	C	1/23 (4%)	1 (100%)	0	0	100	100
1	D	1/23 (4%)	1 (100%)	0	0	100	100
2	E	19/23 (83%)	18 (95%)	1 (5%)	0	100	100
2	F	19/23 (83%)	19 (100%)	0	0	100	100
2	G	19/23 (83%)	18 (95%)	1 (5%)	0	100	100
2	H	19/23 (83%)	19 (100%)	0	0	100	100
All	All	80/184 (44%)	78 (98%)	2 (2%)	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 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	
2	E	14/16 (88%)	13 (93%)	1 (7%)	14	16
2	F	15/16 (94%)	15 (100%)	0	100	100
2	G	14/16 (88%)	14 (100%)	0	100	100
2	H	14/16 (88%)	14 (100%)	0	100	100
All	All	57/64 (89%)	56 (98%)	1 (2%)	59	72

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	E	22	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
2	E	22	ASN
2	G	22	ASN
2	H	22	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

84 non-standard protein/DNA/RNA residues 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	XCP	G	8	2	8,8,9	1.61	1 (12%)	4,10,12	1.07	0
2	XCP	H	8	2	8,8,9	1.73	1 (12%)	4,10,12	1.30	1 (25%)
2	XCP	E	8	2	8,8,9	1.82	2 (25%)	4,10,12	1.29	1 (25%)
2	XCP	F	8	2	8,8,9	1.17	0	4,10,12	1.60	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	XCP	G	8	2	-	1/1/12/14	0/1/1/1
2	XCP	H	8	2	-	1/1/12/14	0/1/1/1
2	XCP	E	8	2	-	1/1/12/14	0/1/1/1
2	XCP	F	8	2	-	1/1/12/14	0/1/1/1

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	H	8	XCP	CA-CB	-4.42	1.49	1.55
2	E	8	XCP	CA-CB	-3.83	1.50	1.55
2	G	8	XCP	CA-C	3.74	1.56	1.50
2	E	8	XCP	CA-C	2.65	1.54	1.50

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	E	8	XCP	O-C-CA	-2.41	119.52	125.16
2	H	8	XCP	CD-CG-CB	2.08	107.72	104.18

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	E	8	XCP	O-C-CA-CB
2	F	8	XCP	O-C-CA-CB
2	G	8	XCP	O-C-CA-CB
2	H	8	XCP	O-C-CA-CB

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	E	8	XCP	1	0

5.5　Carbohydrates　ⓘ

There are no monosaccharides in this entry.

5.6　Ligand geometry　ⓘ

Of 2 ligands modelled in this entry, 2 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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, 95th 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(Å²)	Q<0.9
1	A	2/23 (8%)	0.35	0	100	100	44, 44, 44, 55	0
1	B	2/23 (8%)	-0.11	0	100	100	46, 46, 46, 56	0
1	C	2/23 (8%)	0.14	0	100	100	48, 48, 48, 72	0
1	D	2/23 (8%)	-0.52	0	100	100	54, 54, 54, 74	0
2	E	21/23 (91%)	-0.37	0	100	100	34, 47, 65, 110	0
2	F	21/23 (91%)	-0.27	0	100	100	35, 55, 77, 100	0
2	G	21/23 (91%)	-0.47	0	100	100	32, 44, 66, 93	0
2	H	21/23 (91%)	-0.38	0	100	100	32, 44, 73, 74	0
All	All	92/184 (50%)	-0.34	0	100	100	32, 49, 74, 110	0

There are no RSRZ outliers to report.

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

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, 95th 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(Å²)	Q<0.9
1	DSG	C	22	8/9	0.74	0.21	84,88,94,96	0
1	MED	C	21	8/9	0.83	0.14	62,73,90,94	0
1	DSG	D	22	8/9	0.83	0.16	57,64,70,78	0
1	DSG	B	22	8/9	0.84	0.15	68,85,95,97	0
1	DGL	B	19	9/10	0.88	0.22	46,48,90,97	0
1	DLY	C	4	5/10	0.88	0.21	41,50,52,52	0
1	DSG	A	22	8/9	0.88	0.12	79,83,91,91	0
1	MED	D	21	8/9	0.90	0.15	46,55,66,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	DGL	D	19	9/10	0.91	0.13	45,52,68,76	0
1	DGL	C	19	9/10	0.92	0.15	57,70,84,94	0
1	DLE	C	6	8/9	0.92	0.14	42,48,50,51	0
1	DGL	A	19	9/10	0.93	0.19	42,50,76,89	0
1	DIL	C	20	8/9	0.93	0.15	63,68,71,77	0
1	DPN	D	5	11/12	0.93	0.12	42,52,56,61	0
1	DHI	C	7	10/11	0.93	0.27	42,72,117,121	0
1	DHI	B	7	10/11	0.94	0.14	35,47,66,69	0
1	DPN	C	5	11/12	0.94	0.17	43,51,61,62	0
1	DHI	D	7	10/11	0.94	0.14	43,63,92,97	0
1	DLY	B	14	6/10	0.94	0.11	28,35,36,36	0
1	DHI	A	7	10/11	0.94	0.15	35,54,90,92	0
1	DLY	C	11	5/10	0.95	0.10	35,40,42,45	0
1	DPN	B	5	11/12	0.95	0.16	34,42,52,57	0
1	DLY	C	14	9/10	0.95	0.17	41,47,76,85	0
1	DAL	C	18	5/6	0.95	0.09	53,59,60,78	0
1	DAL	D	18	5/6	0.95	0.11	38,42,45,47	0
1	DLE	D	6	8/9	0.95	0.14	39,46,56,58	0
1	DAL	B	8	5/6	0.95	0.09	24,26,29,29	0
1	DLY	A	10	9/10	0.95	0.15	33,35,60,72	0
1	DIL	A	20	8/9	0.96	0.12	45,46,52,57	0
1	DLY	D	14	6/10	0.96	0.11	39,41,47,50	0
1	DIL	D	20	8/9	0.96	0.13	45,46,50,56	0
1	DLY	B	4	5/10	0.96	0.11	37,38,41,43	0
1	DLY	C	10	9/10	0.96	0.19	41,46,69,70	0
1	DLY	A	11	5/10	0.96	0.10	29,30,31,32	0
1	DLY	D	4	5/10	0.96	0.09	50,55,60,63	0
1	DAL	C	8	5/6	0.96	0.18	35,43,44,49	0
1	DAL	C	9	5/6	0.96	0.10	33,39,40,41	0
1	DPN	A	5	11/12	0.97	0.10	34,45,56,60	0
1	DAL	D	9	5/6	0.97	0.07	35,36,39,39	0
1	DAL	C	15	5/6	0.97	0.07	43,43,45,48	0
1	DPN	A	16	11/12	0.97	0.12	31,35,39,41	0
1	DPN	B	16	11/12	0.97	0.11	31,34,39,43	0
1	DPN	C	16	11/12	0.97	0.08	39,41,48,48	0
1	DPN	D	16	11/12	0.97	0.09	36,38,39,42	0
1	DVA	B	17	7/8	0.97	0.10	35,36,40,42	0
1	DVA	C	17	7/8	0.97	0.14	48,51,55,58	0
1	DAL	A	18	5/6	0.97	0.08	42,44,48,53	0
1	DAL	B	18	5/6	0.97	0.09	35,44,48,51	0
1	DIL	D	2	8/9	0.97	0.13	55,64,68,68	0
1	DLY	B	10	9/10	0.97	0.12	35,38,76,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($Å^2$)	Q<0.9
1	DLY	A	4	5/10	0.97	0.10	39,42,44,47	0
1	DIL	A	2	8/9	0.97	0.13	41,55,66,73	0
1	DLY	B	11	5/10	0.97	0.07	31,32,33,34	0
1	DIL	B	2	8/9	0.97	0.12	50,58,69,74	0
1	DLY	D	11	6/10	0.97	0.12	39,40,43,52	0
1	DIL	B	20	8/9	0.97	0.11	36,42,43,43	0
1	DPN	A	12	11/12	0.97	0.10	27,30,37,39	0
1	DPN	B	12	11/12	0.97	0.11	27,29,34,38	0
1	MED	B	21	8/9	0.97	0.09	40,47,53,63	0
1	DPN	C	12	11/12	0.97	0.10	38,40,45,47	0
1	DPN	D	12	11/12	0.97	0.09	34,37,44,47	0
1	DAL	A	13	5/6	0.97	0.11	27,29,35,37	0
1	DAL	C	13	5/6	0.97	0.11	39,39,43,47	0
1	DLY	A	14	5/10	0.97	0.12	29,30,33,35	0
1	DIL	C	2	8/9	0.97	0.10	39,56,71,71	0
2	XCP	F	8	8/9	0.97	0.12	32,37,41,44	0
2	XCP	G	8	8/9	0.97	0.10	27,34,38,41	0
2	XCP	H	8	8/9	0.97	0.14	29,35,39,41	0
1	MED	A	21	8/9	0.98	0.08	49,54,68,68	0
1	DAL	B	13	5/6	0.98	0.10	31,31,36,36	0
1	DAL	A	9	5/6	0.98	0.06	31,31,34,37	0
1	DAL	B	9	5/6	0.98	0.08	27,28,30,31	0
1	DLY	D	10	9/10	0.98	0.13	38,50,85,88	0
1	DVA	A	17	7/8	0.98	0.09	38,41,44,45	0
1	DLE	B	6	8/9	0.98	0.11	33,35,44,48	0
1	DAL	A	8	5/6	0.98	0.07	27,28,31,31	0
2	XCP	E	8	8/9	0.98	0.09	34,40,43,45	0
1	DVA	D	17	7/8	0.98	0.10	34,37,43,43	0
1	DAL	B	15	5/6	0.98	0.08	28,29,30,34	0
1	DAL	D	8	5/6	0.98	0.09	33,37,38,40	0
1	DAL	A	15	5/6	0.99	0.10	34,34,36,41	0
1	DLE	A	6	8/9	0.99	0.09	31,36,43,45	0
1	DAL	D	13	5/6	0.99	0.06	35,39,39,40	0
1	DAL	D	15	5/6	0.99	0.08	36,38,40,43	0

6.3 Carbohydrates ⓘ

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, 95th 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	CL	A	101	1/1	0.53	0.33	82,82,82,82	1
3	CL	B	101	1/1	0.95	0.07	68,68,68,68	1

6.5 Other polymers (i)

There are no such residues in this entry.