



# Full wwPDB X-ray Structure Validation Report ⓘ

Jan 21, 2019 – 01:02 PM EST

PDB ID : 6FAK  
Title : Human afamin orthorhombic crystal form by controlled hydration  
Authors : Rupp, B.; Naschberger, A.; Bowler, M.W.  
Deposited on : 2017-12-15  
Resolution : 1.90 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](mailto: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.

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

MolProbity : 4.02b-467  
Mogul : 1.7.3 (157068), CSD as539be (2018)  
Xtriage (Phenix) : 1.13  
EDS : rb-20031633  
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)  
Refmac : 5.8.0158  
CCP4 : 7.0 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : rb-20031633

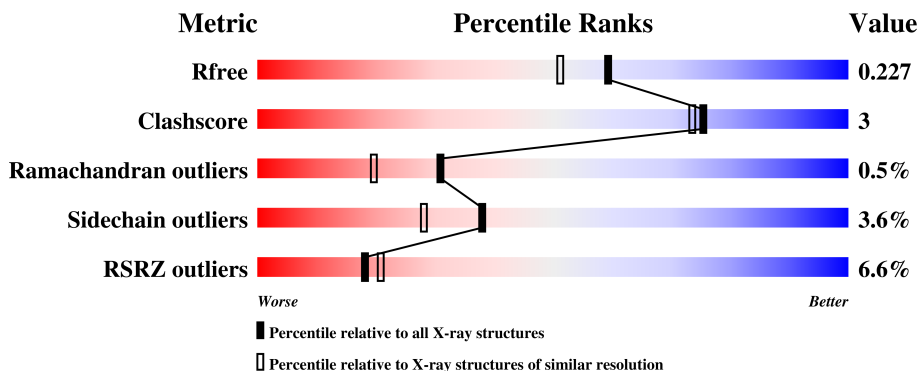
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 1.90 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))
$R_{free}$	111664	5502 (1.90-1.90)
Clashscore	122126	6115 (1.90-1.90)
Ramachandran outliers	120053	6048 (1.90-1.90)
Sidechain outliers	120020	6048 (1.90-1.90)
RSRZ outliers	108989	5379 (1.90-1.90)

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 on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	586	

## 2 Entry composition [i](#)

There are 12 unique types of molecules in this entry. The entry contains 5300 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.

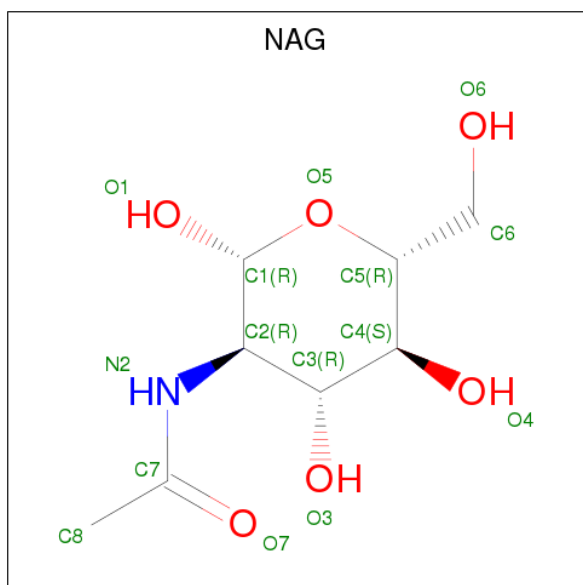
- Molecule 1 is a protein called Afamin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	575	4860	3055	823	940	42	0	27	0

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	579	LYS	-	expression tag	UNP P43652
A	580	GLY	-	expression tag	UNP P43652
A	581	GLU	-	expression tag	UNP P43652
A	582	ASN	-	expression tag	UNP P43652
A	583	LEU	-	expression tag	UNP P43652
A	584	TYR	-	expression tag	UNP P43652
A	585	PHE	-	expression tag	UNP P43652
A	586	GLN	-	expression tag	UNP P43652

- Molecule 2 is N-ACETYL-D-GLUCOSAMINE (three-letter code: NAG) (formula:  $C_8H_{15}NO_6$ ).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total	C	N	O	0	0
			14	8	1	5		
2	A	1	Total	C	N	O	0	0
			14	8	1	5		
2	A	1	Total	C	N	O	0	0
			14	8	1	5		
2	A	1	Total	C	N	O	0	0
			14	8	1	5		

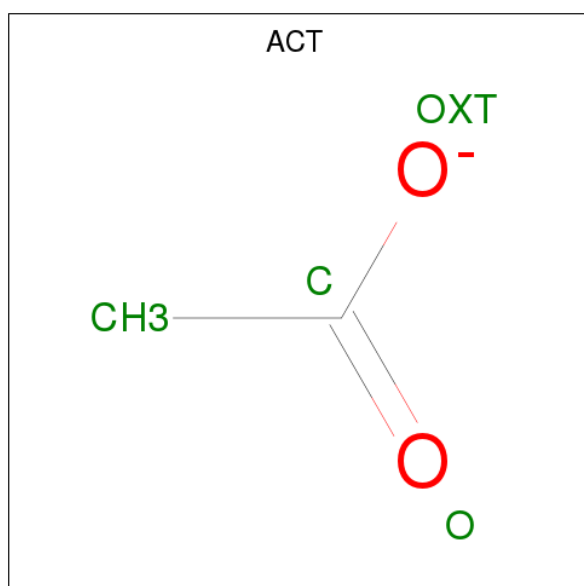
- Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

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

- Molecule 4 is SODIUM ION (three-letter code: NA) (formula: Na).

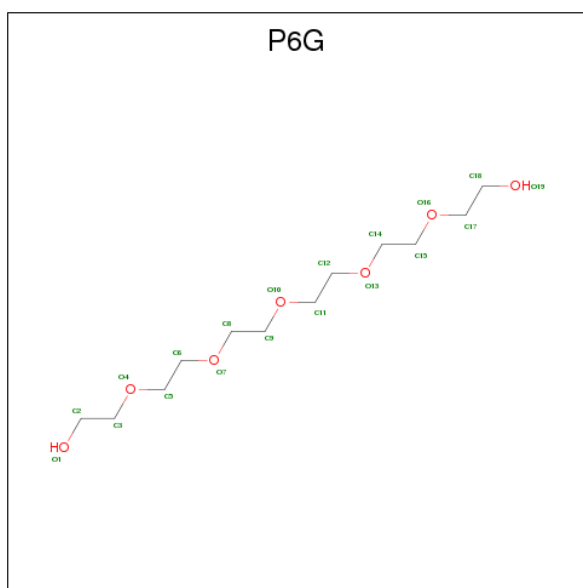
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total	Na	0	0
			1	1		

- Molecule 5 is ACETATE ION (three-letter code: ACT) (formula: C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>).



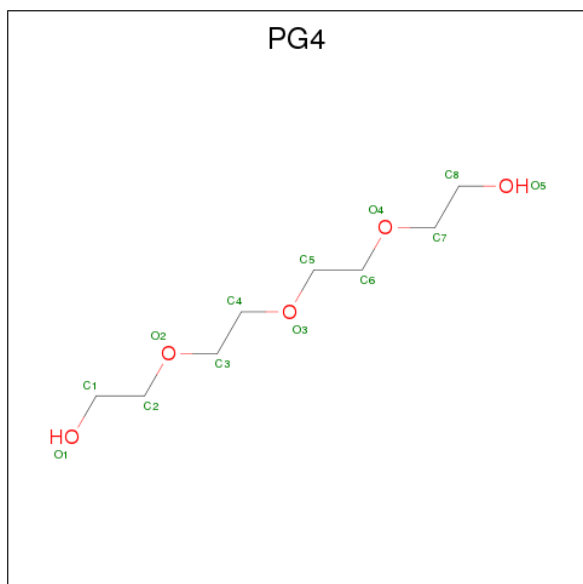
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	A	1	Total	C	O	0	0
			4	2	2		

- Molecule 6 is HEXAETHYLENE GLYCOL (three-letter code: P6G) (formula:  $C_{12}H_{26}O_7$ ).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	A	1	Total	C	O	0	0
			19	12	7		
6	A	1	Total	C	O	0	0
			18	12	6		

- Molecule 7 is TETRAETHYLENE GLYCOL (three-letter code: PG4) (formula:  $C_8H_{18}O_5$ ).



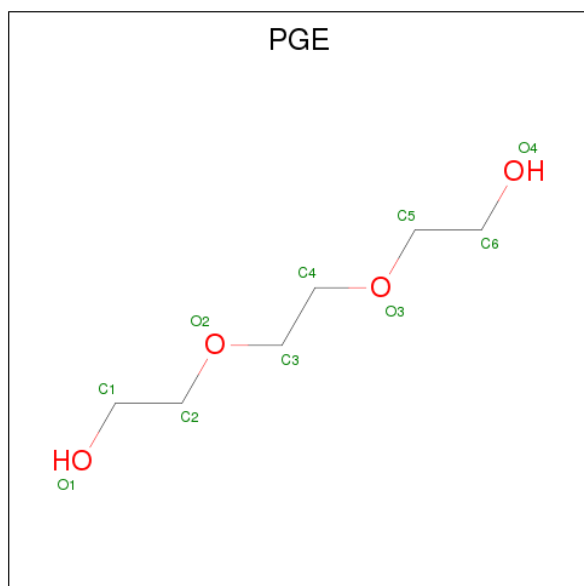
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
7	A	1	Total	C	O	0	0
			13	8	5		

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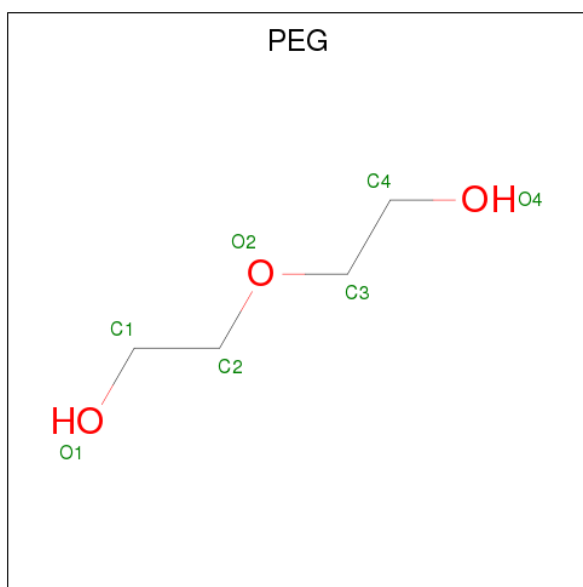
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
7	A	1	Total	C	O	0	0
			13	8	5		

- Molecule 8 is TRIETHYLENE GLYCOL (three-letter code: PGE) (formula:  $C_6H_{14}O_4$ ).



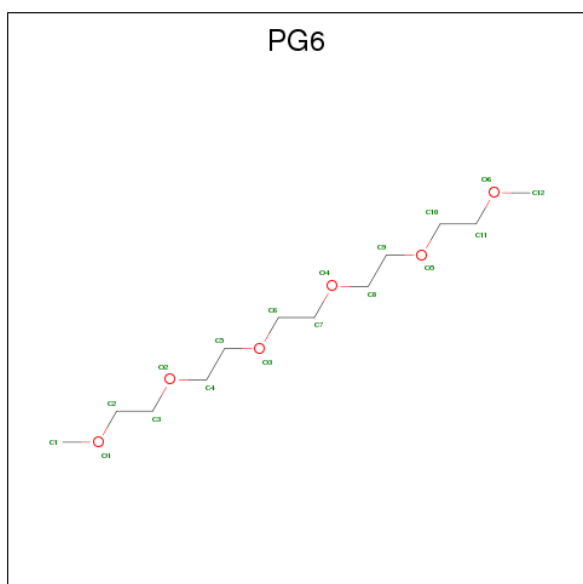
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
8	A	1	Total	C	O	0	0
			10	6	4		
8	A	1	Total	C	O	0	0
			10	6	4		

- Molecule 9 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula:  $C_4H_{10}O_3$ ).



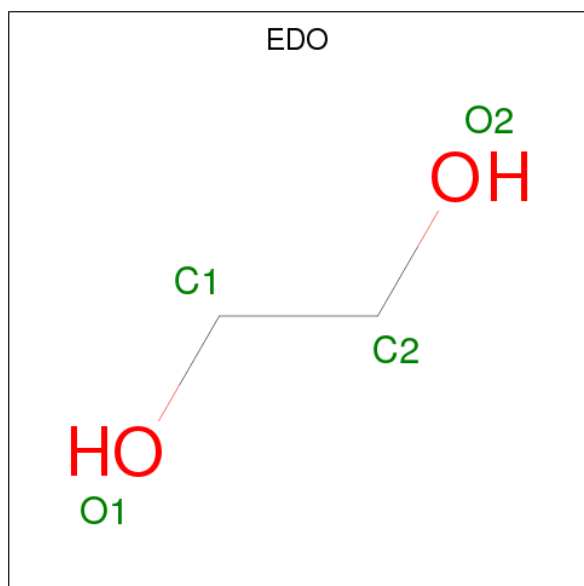
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	A	1	Total C O 7 4 3	0	0
9	A	1	Total C O 6 4 2	0	0
9	A	1	Total C O 7 4 3	0	0
9	A	1	Total C O 7 4 3	0	0

- Molecule 10 is 1-(2-METHOXY-ETHOXY)-2-{2-[2-(2-METHOXY-ETHOXY)-ETHOXY]-ETHANE (three-letter code: PG6) (formula: C<sub>12</sub>H<sub>26</sub>O<sub>6</sub>).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
10	A	1	Total	C	O	0	0
			18	12	6		

- Molecule 11 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: C<sub>2</sub>H<sub>6</sub>O<sub>2</sub>).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
11	A	1	Total	C	O	0	0
			4	2	2		
11	A	1	Total	C	O	0	0
			4	2	2		

- Molecule 12 is water.

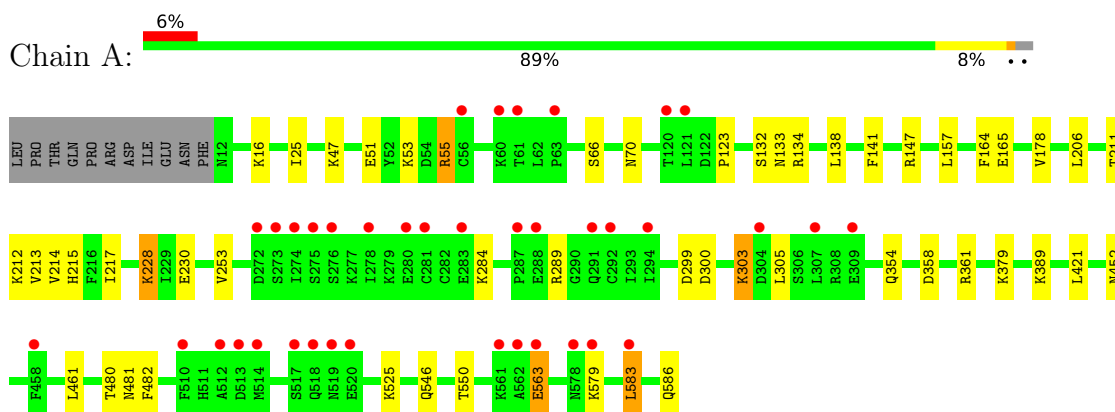
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
12	A	242	Total	O	0	0
			242	242		



### 3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA 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: Afamin



## 4 Data and refinement statistics i

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	109.77Å 113.33Å 48.80Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	78.85 – 1.90 78.85 – 1.90	Depositor EDS
% Data completeness (in resolution range)	98.6 (78.85-1.90) 98.6 (78.85-1.90)	Depositor EDS
$R_{merge}$	0.05	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.71 (at 1.90Å)	Xtrriage
Refinement program	REFMAC 5.8.0189	Depositor
R, $R_{free}$	0.177 , 0.219 0.188 , 0.227	Depositor DCC
$R_{free}$ test set	2460 reflections (5.12%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	30.8	Xtrriage
Anisotropy	0.138	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.36 , 55.8	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.31$	Xtrriage
Estimated twinning fraction	0.016 for k,h,-l	Xtrriage
$F_o, F_c$ correlation	0.96	EDS
Total number of atoms	5300	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	45.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.90% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  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: PGE, NAG, CL, NA, EDO, PG6, PG4, P6G, ACT, PEG

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	0.71	0/4961	0.76	0/6689

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4860	0	4695	34	0
2	A	56	0	51	0	0
3	A	1	0	0	0	0
4	A	1	0	0	0	0
5	A	4	0	3	0	0
6	A	37	0	49	1	0
7	A	26	0	36	0	0
8	A	20	0	28	0	0
9	A	27	0	37	0	0
10	A	18	0	26	3	0
11	A	8	0	12	0	0
12	A	242	0	0	3	0
All	All	5300	0	4937	34	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 3.

All (34) 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:A:206:LEU:HD11	1:A:211[A]:THR:HG22	1.62	0.81
1:A:583[A]:LEU:O	1:A:583[A]:LEU:HD13	1.82	0.78
1:A:211[B]:THR:HG23	1:A:212[B]:LYS:N	1.98	0.76
1:A:354[B]:GLN:NE2	1:A:481[B]:ASN:HD21	1.89	0.71
1:A:211[B]:THR:CG2	1:A:212[B]:LYS:N	2.60	0.65
1:A:354[B]:GLN:HE22	1:A:481[B]:ASN:HD21	1.47	0.61
1:A:583[A]:LEU:O	1:A:583[A]:LEU:CD1	2.50	0.60
1:A:481[B]:ASN:O	1:A:481[B]:ASN:OD1	2.24	0.54
1:A:452:ASN:HB3	10:A:814:PG6:H51	1.91	0.53
1:A:481[B]:ASN:C	1:A:481[B]:ASN:OD1	2.48	0.51
1:A:482:PHE:CE2	10:A:814:PG6:H11	2.45	0.51
1:A:51:GLU:O	1:A:55:ARG:HD2	2.10	0.51
1:A:586:GLN:HA	12:A:980:HOH:O	2.11	0.51
1:A:212[B]:LYS:O	1:A:213:VAL:C	2.50	0.51
1:A:354[B]:GLN:CD	1:A:481[B]:ASN:HD21	2.15	0.50
1:A:132[A]:SER:O	1:A:133[A]:ASN:HB2	2.12	0.50
1:A:358:ASP:HA	1:A:361[B]:ARG:HG3	1.93	0.49
1:A:354[B]:GLN:HE22	1:A:481[B]:ASN:ND2	2.09	0.49
1:A:482:PHE:HE2	10:A:814:PG6:H11	1.79	0.47
1:A:141:PHE:HZ	1:A:164:PHE:CD2	2.32	0.47
1:A:141:PHE:CZ	1:A:164:PHE:CD2	3.05	0.45
1:A:212[B]:LYS:O	1:A:215[B]:HIS:HB2	2.17	0.45
1:A:134:ARG:NE	1:A:165:GLU:OE1	2.30	0.45
1:A:525:LYS:HD2	12:A:954:HOH:O	2.16	0.45
1:A:421:LEU:HD11	1:A:461:LEU:HD11	2.00	0.44
1:A:214:VAL:HG13	1:A:217:ILE:HD12	1.99	0.43
1:A:123:PRO:HG3	1:A:178:VAL:HG22	1.99	0.43
1:A:212[B]:LYS:HB2	1:A:212[B]:LYS:HE3	1.48	0.43
1:A:379:LYS:HG2	6:A:804:P6G:H151	2.00	0.43
1:A:123:PRO:CG	1:A:178:VAL:HG22	2.49	0.43
1:A:25:ILE:HG23	1:A:253[B]:VAL:CG1	2.50	0.42
1:A:546:GLN:O	1:A:550:THR:HG23	2.21	0.41
1:A:299:ASP:OD1	1:A:300:ASP:N	2.54	0.41
1:A:228:LYS:HG2	12:A:960:HOH:O	2.20	0.41

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	601/586 (103%)	570 (95%)	28 (5%)	3 (0%)	31 20

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	284	LYS
1	A	303	LYS
1	A	563	GLU

### 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	558/542 (103%)	537 (96%)	21 (4%)	36 26

All (21) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	16	LYS
1	A	47	LYS
1	A	53	LYS
1	A	55	ARG
1	A	66	SER
1	A	70	ASN
1	A	138	LEU
1	A	147	ARG

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Mol	Chain	Res	Type
1	A	157	LEU
1	A	228	LYS
1	A	230	GLU
1	A	289	ARG
1	A	303	LYS
1	A	305	LEU
1	A	389	LYS
1	A	480[A]	THR
1	A	480[B]	THR
1	A	563	GLU
1	A	579	LYS
1	A	583[A]	LEU
1	A	583[B]	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	291	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

### 5.6 Ligand geometry [i](#)

Of 20 ligands modelled in this entry, 2 are monoatomic - leaving 18 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	NAG	A	621	1	14,14,15	0.45	0	17,19,21	0.63	0
2	NAG	A	641	1	14,14,15	0.31	0	17,19,21	0.59	0
2	NAG	A	651	1,2	14,14,15	0.27	0	17,19,21	0.63	0
2	NAG	A	652	2	14,14,15	0.34	0	17,19,21	0.62	0
5	ACT	A	803	-	1,3,3	1.62	0	0,3,3	0.00	-
6	P6G	A	804	-	18,18,18	0.54	0	17,17,17	0.57	0
6	P6G	A	805	-	17,17,18	0.52	0	16,16,17	0.25	0
7	PG4	A	806	-	12,12,12	0.36	0	11,11,11	0.37	0
7	PG4	A	807	-	12,12,12	0.55	0	11,11,11	0.72	0
8	PGE	A	808	-	9,9,9	0.50	0	8,8,8	0.26	0
8	PGE	A	809	-	9,9,9	0.54	0	8,8,8	0.21	0
9	PEG	A	810	-	6,6,6	0.46	0	5,5,5	0.26	0
9	PEG	A	811	-	5,5,6	0.51	0	4,4,5	0.53	0
9	PEG	A	812	-	6,6,6	0.47	0	5,5,5	0.44	0
9	PEG	A	813	-	6,6,6	0.56	0	5,5,5	0.52	0
10	PG6	A	814	-	17,17,17	0.49	0	16,16,16	0.40	0
11	EDO	A	815	-	3,3,3	0.66	0	2,2,2	0.16	0
11	EDO	A	816	-	3,3,3	0.57	0	2,2,2	0.10	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	NAG	A	621	1	-	0/6/23/26	0/1/1/1
2	NAG	A	641	1	-	0/6/23/26	0/1/1/1
2	NAG	A	651	1,2	-	0/6/23/26	0/1/1/1
2	NAG	A	652	2	-	0/6/23/26	0/1/1/1
5	ACT	A	803	-	-	0/0/0/0	0/0/0/0
6	P6G	A	804	-	-	0/16/16/16	0/0/0/0
6	P6G	A	805	-	-	0/15/15/16	0/0/0/0
7	PG4	A	806	-	-	0/10/10/10	0/0/0/0
7	PG4	A	807	-	-	0/10/10/10	0/0/0/0
8	PGE	A	808	-	-	0/7/7/7	0/0/0/0
8	PGE	A	809	-	-	0/7/7/7	0/0/0/0
9	PEG	A	810	-	-	0/4/4/4	0/0/0/0
9	PEG	A	811	-	-	0/3/3/4	0/0/0/0
9	PEG	A	812	-	-	0/4/4/4	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
9	PEG	A	813	-	-	0/4/4/4	0/0/0/0
10	PG6	A	814	-	-	0/15/15/15	0/0/0/0
11	EDO	A	815	-	-	0/1/1/1	0/0/0/0
11	EDO	A	816	-	-	0/1/1/1	0/0/0/0

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.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	A	804	P6G	1	0
10	A	814	PG6	3	0

## 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 Fit of model and data [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	575/586 (98%)	0.23	38 (6%) <b>18</b> <b>21</b>	22, 36, 92, 144	0

All (38) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	519	ASN	11.9
1	A	579	LYS	11.8
1	A	517	SER	8.8
1	A	283	GLU	5.1
1	A	280	GLU	4.4
1	A	63	PRO	4.2
1	A	272	ASP	4.1
1	A	274	ILE	4.1
1	A	278	ILE	4.0
1	A	563	GLU	3.5
1	A	61	THR	3.4
1	A	60	LYS	3.4
1	A	513	ASP	3.4
1	A	518	GLN	3.3
1	A	273	SER	3.1
1	A	520	GLU	3.0
1	A	562	ALA	2.9
1	A	120	THR	2.9
1	A	275	SER	2.8
1	A	514	MET	2.8
1	A	288	GLU	2.7
1	A	583[A]	LEU	2.7
1	A	304	ASP	2.6
1	A	307	LEU	2.6
1	A	309	GLU	2.5
1	A	287	PRO	2.5
1	A	276	SER	2.5

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Mol	Chain	Res	Type	RSRZ
1	A	458	PHE	2.4
1	A	512	ALA	2.4
1	A	294	ILE	2.3
1	A	291	GLN	2.3
1	A	56	CYS	2.3
1	A	578	ASN	2.2
1	A	561	LYS	2.2
1	A	510	PHE	2.2
1	A	292	CYS	2.1
1	A	121	LEU	2.1
1	A	281	CYS	2.1

## 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 carbohydrates 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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
2	NAG	A	621	14/15	0.68	0.27	76,86,92,94	0
11	EDO	A	816	4/4	0.70	0.21	57,77,77,83	0
9	PEG	A	811	6/7	0.72	0.28	55,63,69,71	0
6	P6G	A	805	18/19	0.74	0.24	68,84,107,109	0
2	NAG	A	652	14/15	0.78	0.28	66,84,91,93	0
9	PEG	A	813	7/7	0.82	0.17	51,55,67,68	0
2	NAG	A	641	14/15	0.83	0.16	55,65,72,76	0
8	PGE	A	809	10/10	0.83	0.14	56,67,71,71	0
5	ACT	A	803	4/4	0.83	0.13	62,65,70,74	0
9	PEG	A	810	7/7	0.85	0.14	75,76,83,83	0
11	EDO	A	815	4/4	0.85	0.16	44,49,52,55	0
10	PG6	A	814	18/18	0.85	0.19	48,63,71,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
6	P6G	A	804	19/19	0.85	0.14	42,57,78,93	0
7	PG4	A	807	13/13	0.87	0.14	56,66,75,77	0
2	NAG	A	651	14/15	0.87	0.16	49,62,82,92	0
9	PEG	A	812	7/7	0.88	0.15	56,63,67,72	0
8	PGE	A	808	10/10	0.93	0.12	43,60,86,87	0
4	NA	A	802	1/1	0.94	0.26	45,45,45,45	0
7	PG4	A	806	13/13	0.95	0.10	31,37,56,61	0
3	CL	A	801	1/1	0.96	0.09	39,39,39,39	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.