



# wwPDB X-ray Structure Validation Summary Report ⓘ

Nov 5, 2023 – 02:26 AM EST

PDB ID : 6VPQ  
Title : Crystal structure of the C-terminal domain of DENR  
Authors : Lomakin, I.B.; Steitz, T.A.  
Deposited on : 2020-02-04  
Resolution : 1.74 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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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 : 1.8.5 (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

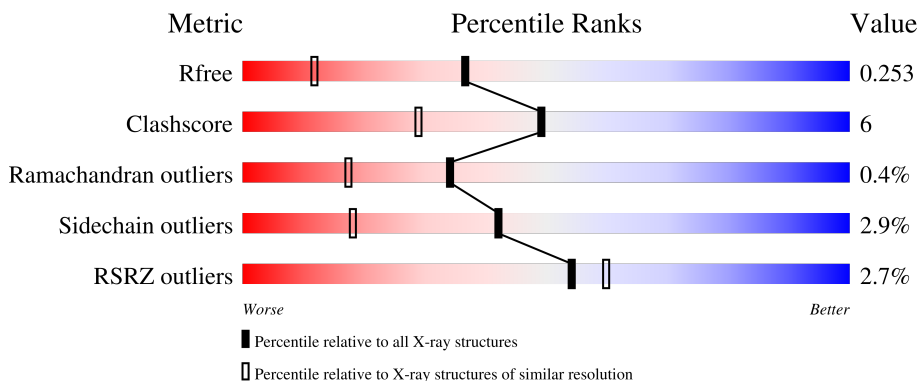
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*




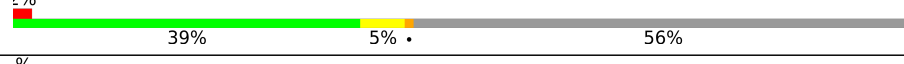

The reported resolution of this entry is 1.74 Å.

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.



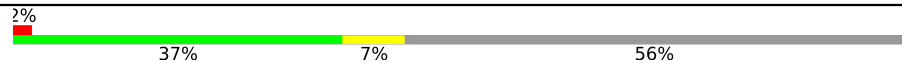
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	3764 (1.76-1.72)
Clashscore	141614	3923 (1.76-1.72)
Ramachandran outliers	138981	3878 (1.76-1.72)
Sidechain outliers	138945	3878 (1.76-1.72)
RSRZ outliers	127900	3705 (1.76-1.72)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	198	
1	B	198	
1	C	198	
1	D	198	
1	E	198	

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Mol	Chain	Length	Quality of chain
1	F	198	 2% 37% 7% 56%

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	MG	A	201	-	-	-	X
2	MG	E	203	-	-	-	X

## 2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 4920 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 Density-regulated protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	87	712	456	113	141	2	4	5	0
1	B	87	721	465	113	141	2	0	6	0
1	C	87	712	454	111	144	3	0	6	0
1	D	87	704	447	115	140	2	0	3	0
1	E	87	724	466	112	144	2	0	7	0
1	F	87	712	457	114	139	2	0	5	0

- Molecule 2 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	4	Total	Mg	0	0
			4	4		
2	B	5	Total	Mg	0	0
			5	5		
2	C	2	Total	Mg	0	0
			2	2		
2	D	2	Total	Mg	0	0
			2	2		
2	E	3	Total	Mg	0	0
			3	3		
2	F	7	Total	Mg	0	0
			7	7		

- Molecule 3 is TRIETHYLENE GLYCOL (three-letter code: PGE) (formula: C<sub>6</sub>H<sub>14</sub>O<sub>4</sub>).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C O 7 4 3	0	0
3	A	1	Total C O 7 4 3	0	0
3	B	1	Total C O 7 4 3	0	0
3	B	1	Total C O 7 4 3	0	0
3	C	1	Total C O 14 8 6	0	1
3	C	1	Total C O 4 2 2	0	0
3	C	1	Total C O 7 4 3	0	0
3	D	1	Total C O 20 12 8	0	1
3	E	1	Total C O 4 2 2	0	0
3	F	1	Total C O 10 6 4	0	0
3	F	1	Total C O 7 4 3	0	0

- Molecule 4 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
4	A	1	Total C O 4 2 2	0	0
4	F	1	Total C O 4 2 2	0	0
4	F	1	Total C O 4 2 2	0	0

- Molecule 5 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total Ca 1 1	0	0
5	C	1	Total Ca 1 1	0	0
5	D	1	Total Ca 1 1	0	0

- Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	84	Total O 86 86	0	2
6	B	82	Total O 83 83	0	1
6	C	87	Total O 90 90	0	3

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<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>	<b>ZeroOcc</b>	<b>AltConf</b>
6	D	79	Total O 82 82	0	3
6	E	72	Total O 76 76	0	4
6	F	84	Total O 86 86	0	2







## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	64.67Å 47.26Å 95.50Å 90.00° 106.29° 90.00°	Depositor
Resolution (Å)	91.67 – 1.74 91.67 – 1.74	Depositor EDS
% Data completeness (in resolution range)	89.5 (91.67-1.74) 99.0 (91.67-1.74)	Depositor EDS
$R_{merge}$	0.10	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.09 (at 1.74Å)	Xtrriage
Refinement program	PHENIX 1.13_2998	Depositor
R, $R_{free}$	0.178 , 0.247 0.185 , 0.253	Depositor DCC
$R_{free}$ test set	2686 reflections (4.74%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	32.1	Xtrriage
Anisotropy	0.277	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.32 , 46.4	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.97	EDS
Total number of atoms	4920	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	48.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.53% 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

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PGE, MG, CA, ACT, CSO

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	0.41	0/729	0.56	0/982
1	B	0.42	0/744	0.57	0/1000
1	C	0.42	0/732	0.55	0/987
1	D	0.36	0/715	0.52	0/961
1	E	0.35	0/750	0.52	0/1011
1	F	0.42	0/729	0.55	0/982
All	All	0.40	0/4399	0.55	0/5923

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	712	0	720	11	0
1	B	721	0	743	15	0
1	C	712	0	712	9	0
1	D	704	0	704	6	0
1	E	724	0	743	7	0
1	F	712	0	728	13	0
2	A	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	5	0	0	0	0
2	C	2	0	0	0	0
2	D	2	0	0	0	0
2	E	3	0	0	0	0
2	F	7	0	0	0	0
3	A	14	0	18	1	0
3	B	14	0	18	5	0
3	C	25	0	31	3	0
3	D	20	0	28	3	0
3	E	4	0	5	0	0
3	F	17	0	23	3	0
4	A	4	0	3	0	0
4	F	8	0	6	2	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
6	A	86	0	0	3	2
6	B	83	0	0	3	0
6	C	90	0	0	4	0
6	D	82	0	0	3	0
6	E	76	0	0	2	2
6	F	86	0	0	4	0
All	All	4920	0	4482	52	2

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 6.

The worst 5 of 52 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:B:124:LYS:NZ	6:B:301:HOH:O	2.08	0.84
1:B:121:PRO:HB3	3:B:207:PGE:H62	1.63	0.77
1:C:151:LYS:NZ	6:C:302:HOH:O	2.21	0.74
1:A:146[B]:ARG:NH1	6:A:316[B]:HOH:O	2.21	0.73
3:C:202[A]:PGE:O1	6:C:301:HOH:O	2.11	0.67

All (2) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:315:HOH:O	6:E:305:HOH:O[1_645]	2.02	0.18
6:A:368:HOH:O	6:E:360:HOH:O[1_645]	2.17	0.03

### 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	89/198 (45%)	89 (100%)	0	0	100	100
1	B	91/198 (46%)	89 (98%)	2 (2%)	0	100	100
1	C	90/198 (46%)	89 (99%)	1 (1%)	0	100	100
1	D	87/198 (44%)	85 (98%)	1 (1%)	1 (1%)	14	3
1	E	92/198 (46%)	90 (98%)	1 (1%)	1 (1%)	14	3
1	F	89/198 (45%)	88 (99%)	1 (1%)	0	100	100
All	All	538/1188 (45%)	530 (98%)	6 (1%)	2 (0%)	34	17

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	111	VAL
1	E	111	VAL

#### 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	79/167 (47%)	79 (100%)	0	100	100
1	B	81/167 (48%)	74 (91%)	7 (9%)	10	1
1	C	80/167 (48%)	75 (94%)	5 (6%)	18	3
1	D	77/167 (46%)	74 (96%)	3 (4%)	32	10
1	E	82/167 (49%)	82 (100%)	0	100	100
1	F	79/167 (47%)	76 (96%)	3 (4%)	33	11
All	All	478/1002 (48%)	460 (96%)	18 (4%)	42	11

5 of 18 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	138	GLU
1	F	158[B]	VAL
1	F	158[A]	VAL
1	C	141[B]	LEU
1	D	128	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

6 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	$\# Z  > 2$
1	CSO	D	154	1	3,6,7	0.75	0	0,6,8	-	-
1	CSO	F	154	1	3,6,7	0.71	0	0,6,8	-	-
1	CSO	C	154	1	3,6,7	0.59	0	0,6,8	-	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	CSO	E	154	1	3,6,7	0.70	0	0,6,8	-	-
1	CSO	A	154	1	3,6,7	0.73	0	0,6,8	-	-
1	CSO	B	154	1	3,6,7	0.52	0	0,6,8	-	-

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
1	CSO	D	154	1	-	0/1/5/7	-
1	CSO	F	154	1	-	0/1/5/7	-
1	CSO	C	154	1	-	0/1/5/7	-
1	CSO	E	154	1	-	0/1/5/7	-
1	CSO	A	154	1	-	0/1/5/7	-
1	CSO	B	154	1	-	0/1/5/7	-

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.

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 42 ligands modelled in this entry, 26 are monoatomic - leaving 16 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
3	PGE	E	204	-	3,3,9	0.33	0	2,2,8	0.28	0
3	PGE	C	204	-	6,6,9	0.31	0	5,5,8	0.30	0
4	ACT	A	207	-	3,3,3	1.38	1 (33%)	3,3,3	1.51	0
3	PGE	B	207	-	6,6,9	0.33	0	5,5,8	0.31	0
3	PGE	C	202[B]	-	6,6,9	0.28	0	5,5,8	0.35	0
3	PGE	D	202[B]	-	9,9,9	0.32	0	8,8,8	0.19	0
3	PGE	F	209	-	6,6,9	0.29	0	5,5,8	0.33	0
4	ACT	F	210	-	3,3,3	0.75	0	3,3,3	1.51	0
3	PGE	A	204	-	6,6,9	0.32	0	5,5,8	0.23	0
4	ACT	F	211	-	3,3,3	1.35	0	3,3,3	1.56	0
3	PGE	F	208	-	9,9,9	0.31	0	8,8,8	0.30	0
3	PGE	B	206	-	6,6,9	0.36	0	5,5,8	0.47	0
3	PGE	C	203	-	3,3,9	0.32	0	2,2,8	0.31	0
3	PGE	C	202[A]	-	6,6,9	0.28	0	5,5,8	0.28	0
3	PGE	D	202[A]	-	9,9,9	0.32	0	8,8,8	0.22	0
3	PGE	A	205	2	6,6,9	0.28	0	5,5,8	0.41	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
3	PGE	E	204	-	-	1/1/1/7	-
3	PGE	C	204	-	-	2/4/4/7	-
3	PGE	B	207	-	-	3/4/4/7	-
3	PGE	C	202[B]	-	-	2/4/4/7	-
3	PGE	D	202[B]	-	-	5/7/7/7	-
3	PGE	F	209	-	-	3/4/4/7	-
3	PGE	A	204	-	-	3/4/4/7	-
3	PGE	F	208	-	-	3/7/7/7	-
3	PGE	B	206	-	-	1/4/4/7	-
3	PGE	C	203	-	-	0/1/1/7	-
3	PGE	C	202[A]	-	-	2/4/4/7	-
3	PGE	D	202[A]	-	-	5/7/7/7	-
3	PGE	A	205	2	-	2/4/4/7	-

All (1) bond length outliers are listed below:



Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	207	ACT	CH3-C	2.03	1.57	1.49

There are no bond angle outliers.

There are no chirality outliers.

5 of 32 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	F	208	PGE	O2-C3-C4-O3
3	B	206	PGE	C4-C3-O2-C2
3	A	204	PGE	O2-C3-C4-O3
3	C	204	PGE	O1-C1-C2-O2
3	F	208	PGE	O3-C5-C6-O4

There are no ring outliers.

12 monomers are involved in 16 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	207	PGE	2	0
3	C	202[B]	PGE	1	0
3	D	202[B]	PGE	2	0
3	F	209	PGE	1	0
4	F	210	ACT	1	0
3	A	204	PGE	1	0
4	F	211	ACT	1	0
3	F	208	PGE	2	0
3	B	206	PGE	3	0
3	C	203	PGE	1	0
3	C	202[A]	PGE	1	0
3	D	202[A]	PGE	1	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	86/198 (43%)	-0.43	1 (1%) 79 84	29, 44, 66, 90	0
1	B	86/198 (43%)	-0.23	3 (3%) 44 49	25, 36, 63, 121	0
1	C	86/198 (43%)	-0.29	2 (2%) 60 66	27, 40, 69, 115	0
1	D	86/198 (43%)	-0.17	4 (4%) 31 36	32, 45, 77, 130	0
1	E	86/198 (43%)	-0.35	1 (1%) 79 84	31, 45, 72, 99	0
1	F	86/198 (43%)	0.13	3 (3%) 44 49	27, 39, 70, 148	0
All	All	516/1188 (43%)	-0.22	14 (2%) 54 60	25, 42, 73, 148	0

The worst 5 of 14 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	F	109	LYS	29.9
1	F	110	THR	11.3
1	C	109	LYS	7.5
1	D	110	THR	6.6
1	B	109	LYS	6.6

### 6.2 Non-standard residues in protein, DNA, RNA chains [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
1	CSO	D	154	7/8	0.92	0.11	40,42,56,82	0
1	CSO	F	154	7/8	0.95	0.06	39,42,58,61	0
1	CSO	E	154	7/8	0.96	0.05	44,47,68,70	0
1	CSO	B	154	7/8	0.96	0.06	27,32,47,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
1	CSO	C	154	7/8	0.97	0.07	30,34,44,69	0
1	CSO	A	154	7/8	0.97	0.06	35,39,51,63	0

### 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<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	MG	E	203	1/1	0.35	0.41	112,112,112,112	0
3	PGE	F	208	10/10	0.42	0.20	66,92,96,100	0
3	PGE	C	204	7/10	0.43	0.23	77,97,106,106	0
2	MG	F	206	1/1	0.43	0.07	103,103,103,103	0
2	MG	A	201	1/1	0.49	0.46	90,90,90,90	0
2	MG	B	203	1/1	0.49	0.28	72,72,72,72	0
2	MG	A	203	1/1	0.53	0.22	98,98,98,98	0
2	MG	B	205	1/1	0.56	0.10	105,105,105,105	0
3	PGE	D	202[A]	10/10	0.65	0.23	53,68,74,76	10
3	PGE	D	202[B]	10/10	0.65	0.23	53,70,74,76	10
2	MG	F	207	1/1	0.65	0.17	96,96,96,96	0
3	PGE	A	205	7/10	0.68	0.21	87,102,108,110	0
2	MG	F	205	1/1	0.69	0.16	83,83,83,83	0
2	MG	B	202	1/1	0.72	0.14	59,59,59,59	0
3	PGE	C	202[A]	7/10	0.75	0.28	74,80,81,81	7
3	PGE	C	202[B]	7/10	0.75	0.28	76,78,82,82	7
2	MG	E	202	1/1	0.75	0.25	85,85,85,85	0
3	PGE	C	203	4/10	0.77	0.20	74,82,84,85	0
2	MG	A	202	1/1	0.79	0.07	65,65,65,65	0
3	PGE	E	204	4/10	0.80	0.20	72,73,74,75	0
4	ACT	A	207	4/4	0.80	0.38	72,88,91,96	0
5	CA	B	208	1/1	0.80	0.25	90,90,90,90	0
5	CA	C	206	1/1	0.80	0.20	95,95,95,95	0
5	CA	D	204	1/1	0.81	0.09	95,95,95,95	0
4	ACT	F	211	4/4	0.82	0.58	98,107,111,111	0
2	MG	D	201	1/1	0.82	0.13	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
3	PGE	F	209	7/10	0.83	0.19	52,70,77,80	0
3	PGE	B	207	7/10	0.83	0.28	52,76,88,88	0
2	MG	C	201	1/1	0.87	0.19	81,81,81,81	0
2	MG	D	203	1/1	0.87	0.20	79,79,79,79	0
3	PGE	B	206	7/10	0.87	0.18	41,59,67,70	0
3	PGE	A	204	7/10	0.89	0.17	61,74,79,80	0
2	MG	A	206	1/1	0.90	0.04	44,44,44,44	0
2	MG	C	205	1/1	0.91	0.05	52,52,52,52	0
2	MG	F	202	1/1	0.94	0.09	49,49,49,49	0
2	MG	E	201	1/1	0.95	0.06	60,60,60,60	0
2	MG	B	201	1/1	0.96	0.13	55,55,55,55	0
2	MG	F	201	1/1	0.96	0.06	33,33,33,33	0
2	MG	F	203	1/1	0.97	0.07	31,31,31,31	1
4	ACT	F	210	4/4	0.97	0.23	44,46,65,70	1
2	MG	B	204	1/1	0.98	0.11	53,53,53,53	0
2	MG	F	204	1/1	0.99	0.03	31,31,31,31	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.