wwPDB X-ray Structure Validation Summary Report (i)

Aug 26, 2024 – 10:19 AM EDT

PDB ID	:	8VHU
Title	:	Crystal structure of dATP bound E. coli class Ia ribonucleotide reductase alpha construct fused with the C-terminal tail of E. coli class Ia beta subunit
Authors	:	Funk, M.A.; Zimanyi, C.M.; Drennan, C.L.
Deposited on	:	2024-01-02
Resolution	:	2.10 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*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) 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 (i)) were used in the production of this report:

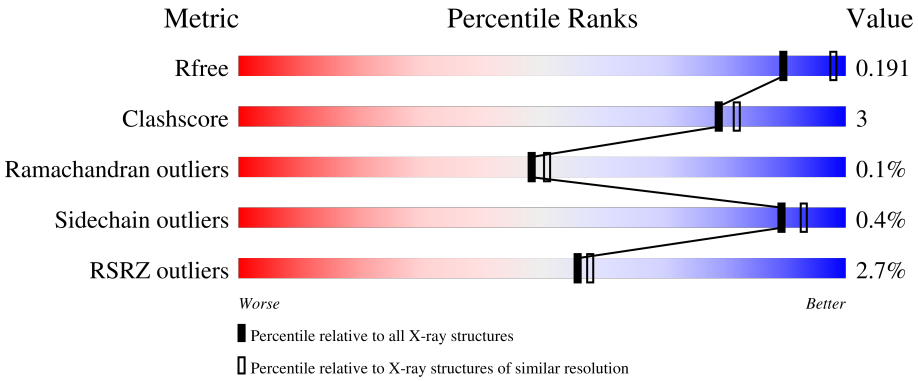
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.002 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.38.3

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 2.10 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	6234 (2.10-2.10)
Clashscore	180529	6893 (2.10-2.10)
Ramachandran outliers	177936	6839 (2.10-2.10)
Sidechain outliers	177891	6840 (2.10-2.10)
RSRZ outliers	164620	6234 (2.10-2.10)

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	807	2% 86% 6% 8%
1	B	807	3% 82% 7% 11%

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 13172 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 Fusion protein of Ribonucleoside-diphosphate reductase 1 subunits alpha and beta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	743	Total	C	N	O	S	0	4	0
			5954	3778	1018	1133	25			
1	B	719	Total	C	N	O	S	0	2	0
			5755	3659	981	1091	24			

There are 76 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-18	MET	-	initiating methionine	UNP P00452
A	-17	GLY	-	expression tag	UNP P00452
A	-16	SER	-	expression tag	UNP P00452
A	-15	SER	-	expression tag	UNP P00452
A	-14	HIS	-	expression tag	UNP P00452
A	-13	HIS	-	expression tag	UNP P00452
A	-12	HIS	-	expression tag	UNP P00452
A	-11	HIS	-	expression tag	UNP P00452
A	-10	HIS	-	expression tag	UNP P00452
A	-9	HIS	-	expression tag	UNP P00452
A	-8	SER	-	expression tag	UNP P00452
A	-7	SER	-	expression tag	UNP P00452
A	-6	GLY	-	expression tag	UNP P00452
A	-5	LEU	-	expression tag	UNP P00452
A	-4	VAL	-	expression tag	UNP P00452
A	-3	PRO	-	expression tag	UNP P00452
A	-2	ARG	-	expression tag	UNP P00452
A	-1	GLY	-	expression tag	UNP P00452
A	0	SER	-	expression tag	UNP P00452
A	735	ARG	-	linker	UNP P00452
A	736	ASP	-	linker	UNP P00452
A	737	GLY	-	linker	UNP P00452
A	1325	ALA	-	linker	UNP P00452
A	1326	GLU	-	linker	UNP P00452

Continued on next page...

Continued from previous page...

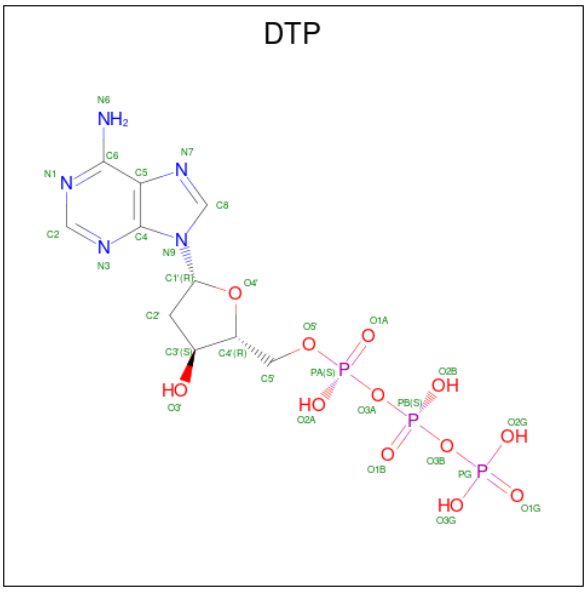
Chain	Residue	Modelled	Actual	Comment	Reference
A	1327	ASP	-	linker	UNP P00452
A	1328	ALA	-	linker	UNP P00452
A	1329	GLN	-	linker	UNP P00452
A	1330	ASP	-	linker	UNP P00452
A	1331	ASP	-	linker	UNP P00452
A	1332	LEU	-	linker	UNP P00452
A	1333	VAL	-	linker	UNP P00452
A	1334	PRO	-	linker	UNP P00452
A	1335	SER	-	linker	UNP P00452
A	1336	ILE	-	linker	UNP P00452
A	1337	GLN	-	linker	UNP P00452
A	1338	ASP	-	linker	UNP P00452
A	1339	ASP	-	linker	UNP P00452
A	1340	GLY	-	linker	UNP P00452
B	-18	MET	-	initiating methionine	UNP P00452
B	-17	GLY	-	expression tag	UNP P00452
B	-16	SER	-	expression tag	UNP P00452
B	-15	SER	-	expression tag	UNP P00452
B	-14	HIS	-	expression tag	UNP P00452
B	-13	HIS	-	expression tag	UNP P00452
B	-12	HIS	-	expression tag	UNP P00452
B	-11	HIS	-	expression tag	UNP P00452
B	-10	HIS	-	expression tag	UNP P00452
B	-9	HIS	-	expression tag	UNP P00452
B	-8	SER	-	expression tag	UNP P00452
B	-7	SER	-	expression tag	UNP P00452
B	-6	GLY	-	expression tag	UNP P00452
B	-5	LEU	-	expression tag	UNP P00452
B	-4	VAL	-	expression tag	UNP P00452
B	-3	PRO	-	expression tag	UNP P00452
B	-2	ARG	-	expression tag	UNP P00452
B	-1	GLY	-	expression tag	UNP P00452
B	0	SER	-	expression tag	UNP P00452
B	735	ARG	-	linker	UNP P00452
B	736	ASP	-	linker	UNP P00452
B	737	GLY	-	linker	UNP P00452
B	1325	ALA	-	linker	UNP P00452
B	1326	GLU	-	linker	UNP P00452
B	1327	ASP	-	linker	UNP P00452
B	1328	ALA	-	linker	UNP P00452
B	1329	GLN	-	linker	UNP P00452
B	1330	ASP	-	linker	UNP P00452

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
B	1331	ASP	-	linker	UNP P00452
B	1332	LEU	-	linker	UNP P00452
B	1333	VAL	-	linker	UNP P00452
B	1334	PRO	-	linker	UNP P00452
B	1335	SER	-	linker	UNP P00452
B	1336	ILE	-	linker	UNP P00452
B	1337	GLN	-	linker	UNP P00452
B	1338	ASP	-	linker	UNP P00452
B	1339	ASP	-	linker	UNP P00452
B	1340	GLY	-	linker	UNP P00452

- Molecule 2 is 2'-DEOXYADENOSINE 5'-TRIPHOSPHATE (three-letter code: DTP) (formula: $C_{10}H_{16}N_5O_{12}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			30	10	5	12	3		
2	A	1	Total	C	N	O	P	0	0
			30	10	5	12	3		
2	B	1	Total	C	N	O	P	0	0
			30	10	5	12	3		

- Molecule 3 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	2	Total Mg 2 2	0	0
3	B	1	Total Mg 1 1	0	0

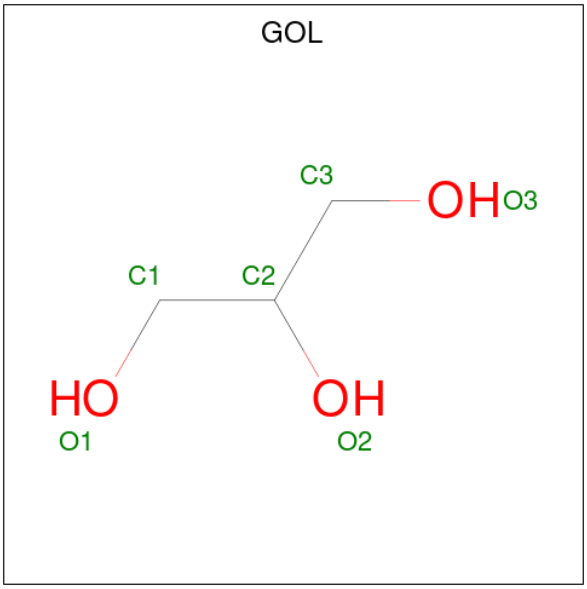
- Molecule 4 is SODIUM ION (three-letter code: NA) (formula: Na).

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

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

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

- Molecule 6 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	B	1	Total C O 6 3 3	0	0

- Molecule 7 is water.

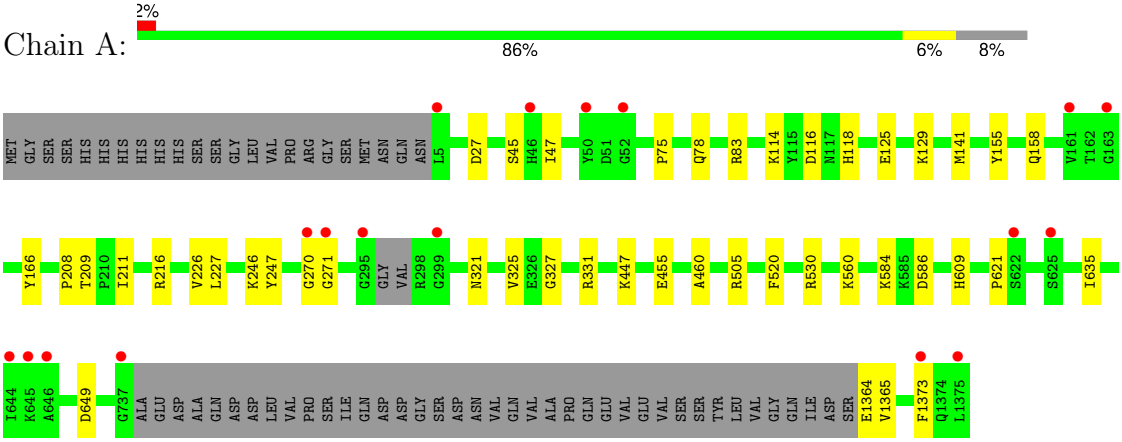
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	712	Total O 712 712	0	0
7	B	645	Total O 645 645	0	0

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.

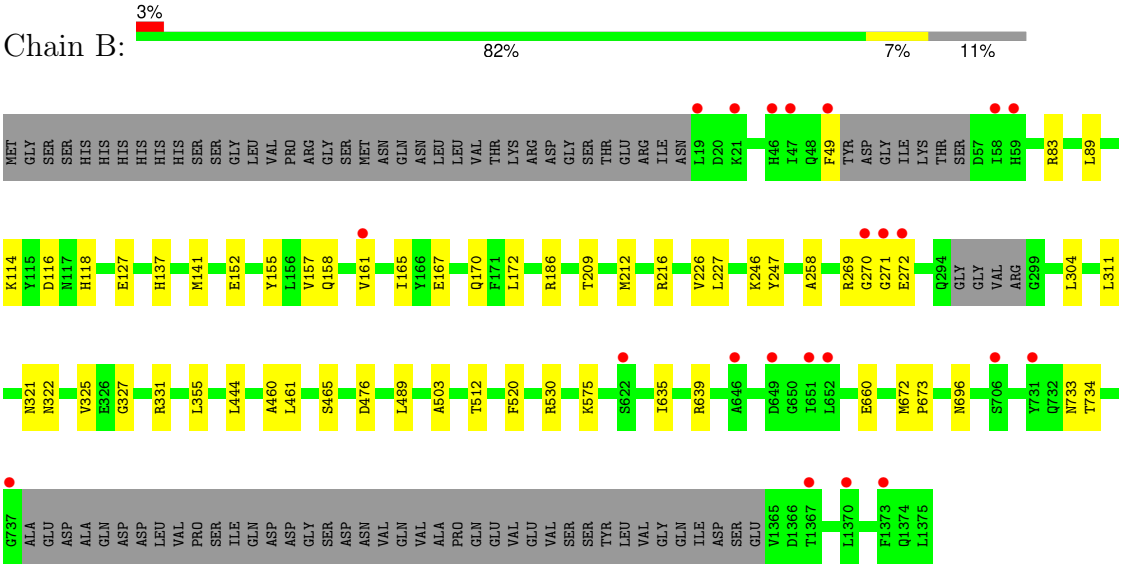
• Molecule 1: Fusion protein of Ribonucleoside-diphosphate reductase 1 subunits alpha and beta

Chain A:



• Molecule 1: Fusion protein of Ribonucleoside-diphosphate reductase 1 subunits alpha and beta

Chain B:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	88.21Å 111.21Å 209.70Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.15 – 2.10 49.15 – 2.10	Depositor EDS
% Data completeness (in resolution range)	98.4 (49.15-2.10) 98.3 (49.15-2.10)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.70 (at 2.10Å)	Xtriage
Refinement program	PHENIX 1.19.2_4158	Depositor
R, R_{free}	0.159 , 0.192 0.158 , 0.191	Depositor DCC
R_{free} test set	117059 reflections (3.12%)	wwPDB-VP
Wilson B-factor (Å^2)	37.2	Xtriage
Anisotropy	0.490	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 57.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	13172	wwPDB-VP
Average B, all atoms (Å^2)	48.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.98% 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, CL, MG, GOL, DTP

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	0.23	0/6082	0.41	0/8234
1	B	0.23	0/5881	0.41	0/7964
All	All	0.23	0/11963	0.41	0/16198

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	5954	0	5860	28	1
1	B	5755	0	5653	32	1
2	A	60	0	24	0	0
2	B	30	0	12	0	0
3	A	2	0	0	0	0
3	B	1	0	0	0	0
4	A	1	0	0	0	0
5	A	3	0	0	0	0
5	B	3	0	0	0	0
6	B	6	0	8	0	0
7	A	712	0	0	9	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	B	645	0	0	4	0
All	All	13172	0	11557	60	1

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.

The worst 5 of 60 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:321:ASN:O	1:B:331:ARG:NH1	2.17	0.76
1:A:321:ASN:O	1:A:331:ARG:NH1	2.23	0.71
1:B:152:GLU:HG3	1:B:165:ILE:HD11	1.73	0.71
1:B:246:LYS:NZ	7:B:1506:HOH:O	2.27	0.68
1:A:125:GLU:O	7:A:1501:HOH:O	2.11	0.67

All (1) 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)
1:A:447:LYS:NZ	1:B:476:ASP:OD2[3_554]	2.16	0.04

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	741/807 (92%)	724 (98%)	16 (2%)	1 (0%)	48 51
1	B	713/807 (88%)	699 (98%)	13 (2%)	1 (0%)	48 51
All	All	1454/1614 (90%)	1423 (98%)	29 (2%)	2 (0%)	48 51

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	216	ARG
1	B	216	ARG

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	643/694 (93%)	640 (100%)	3 (0%)	86 91
1	B	620/694 (89%)	618 (100%)	2 (0%)	91 94
All	All	1263/1388 (91%)	1258 (100%)	5 (0%)	89 93

All (5) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	27	ASP
1	A	649	ASP
1	A	1373	PHE
1	B	49	PHE
1	B	161	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)

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 14 ligands modelled in this entry, 10 are monoatomic - leaving 4 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	$\#\|Z\| > 2$
6	GOL	B	1406	-	5,5,5	0.37	0	5,5,5	0.34	0
2	DTP	A	1403	3	28,32,32	1.56	5 (17%)	35,50,50	1.43	4 (11%)
2	DTP	B	1401	3	28,32,32	1.59	5 (17%)	35,50,50	1.42	4 (11%)
2	DTP	A	1401	3	28,32,32	1.68	6 (21%)	35,50,50	1.42	3 (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
6	GOL	B	1406	-	-	0/4/4/4	-
2	DTP	A	1403	3	-	3/18/34/34	0/3/3/3
2	DTP	B	1401	3	-	2/18/34/34	0/3/3/3
2	DTP	A	1401	3	-	2/18/34/34	0/3/3/3

The worst 5 of 16 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	1403	DTP	C2-N3	3.77	1.37	1.32
2	B	1401	DTP	C3'-C4'	-3.74	1.43	1.53
2	A	1401	DTP	C3'-C4'	-3.73	1.43	1.53
2	B	1401	DTP	C2-N3	3.72	1.37	1.32
2	A	1401	DTP	C2-N3	3.69	1.37	1.32

The worst 5 of 11 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	1401	DTP	N3-C2-N1	-6.41	119.97	128.67
2	A	1403	DTP	N3-C2-N1	-6.26	120.17	128.67

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	1401	DTP	N3-C2-N1	-6.24	120.20	128.67
2	A	1403	DTP	C2'-C3'-C4'	2.60	108.08	102.80
2	B	1401	DTP	C2'-C3'-C4'	2.57	108.00	102.80

There are no chirality outliers.

5 of 7 torsion outliers are listed below:

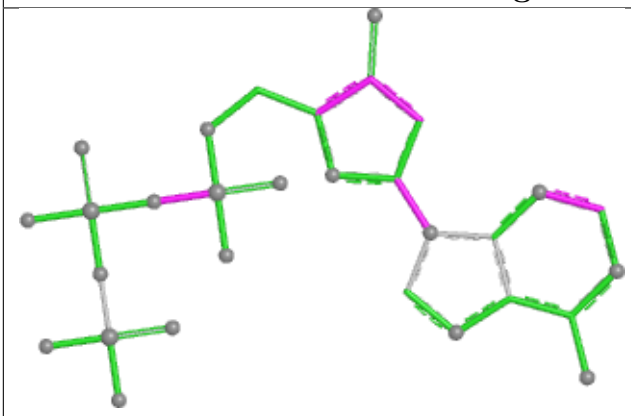
Mol	Chain	Res	Type	Atoms
2	A	1401	DTP	O4'-C4'-C5'-O5'
2	A	1403	DTP	PA-O3A-PB-O1B
2	B	1401	DTP	PA-O3A-PB-O1B
2	A	1401	DTP	C3'-C4'-C5'-O5'
2	A	1403	DTP	O4'-C4'-C5'-O5'

There are no ring outliers.

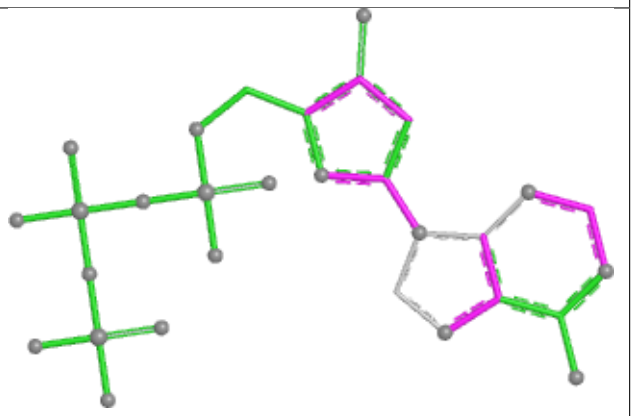
No monomer is involved in short contacts.

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

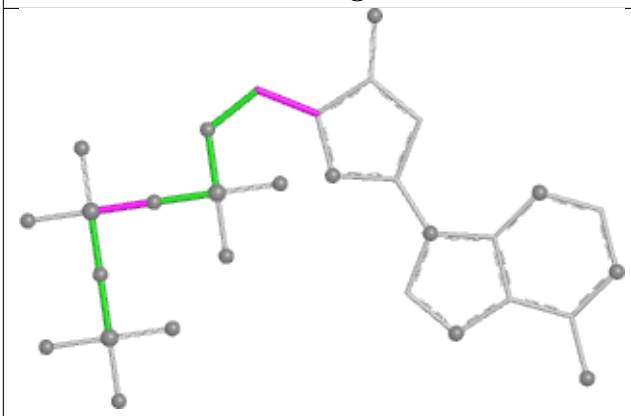
Ligand DTP A 1403



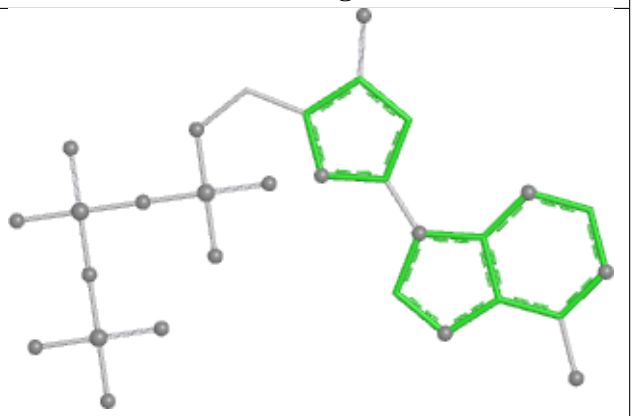
Bond lengths



Bond angles

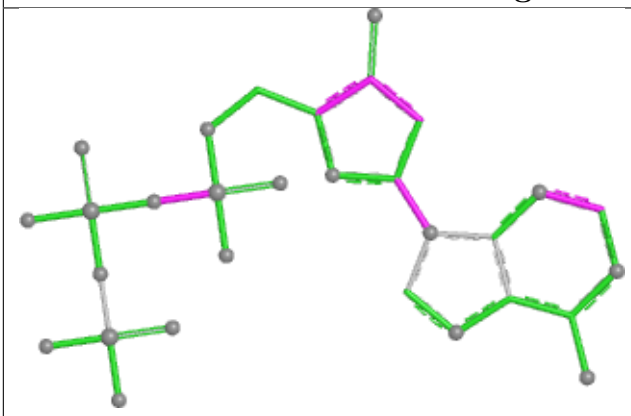


Torsions

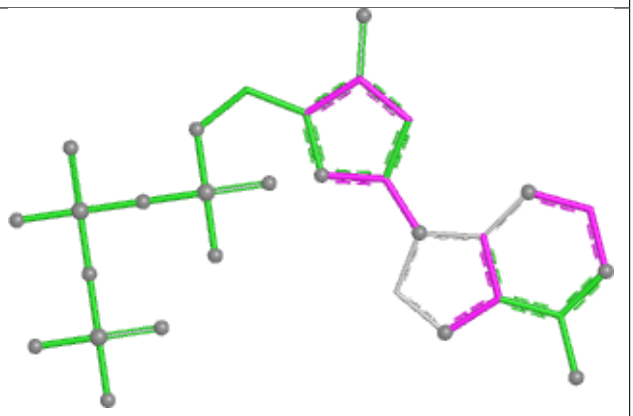


Rings

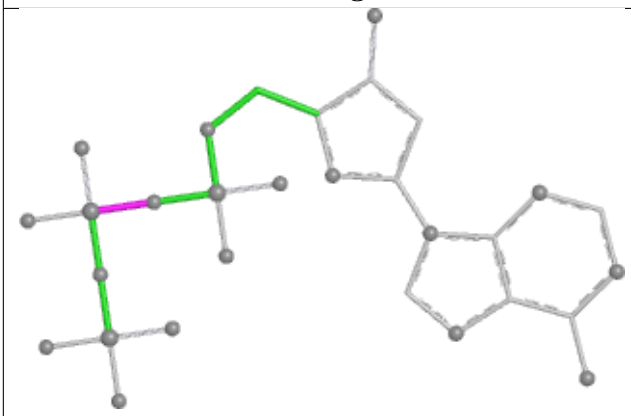
Ligand DTP B 1401



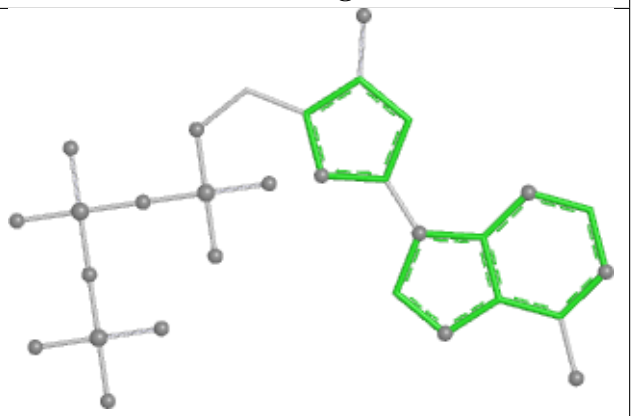
Bond lengths



Bond angles

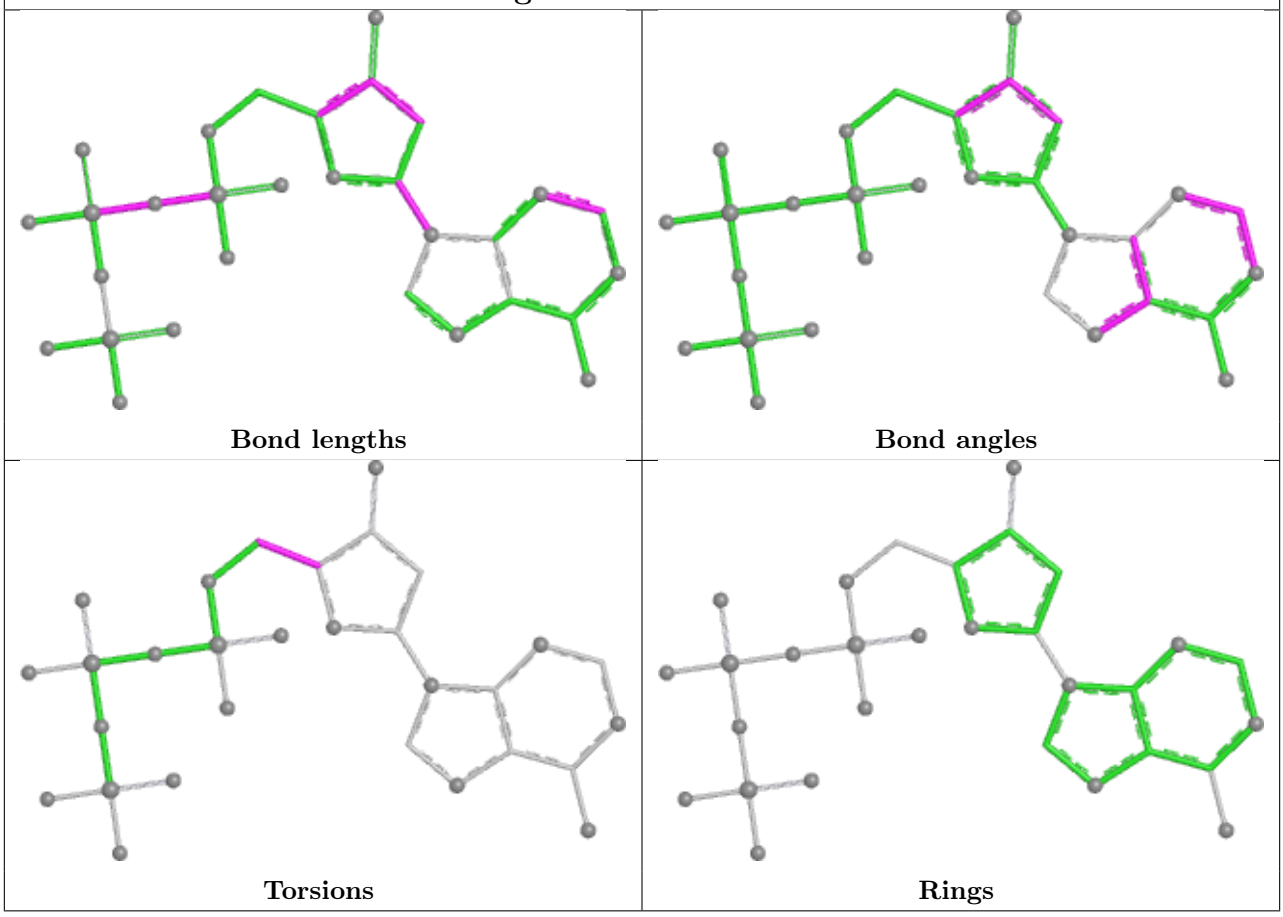


Torsions



Rings

Ligand DTP A 1401



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

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	743/807 (92%)	-0.12	18 (2%)	59	61	15, 40, 79, 135	4 (0%)
1	B	719/807 (89%)	0.01	22 (3%)	51	53	18, 43, 92, 161	2 (0%)
All	All	1462/1614 (90%)	-0.06	40 (2%)	56	58	15, 41, 85, 161	6 (0%)

The worst 5 of 40 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	270	GLY	4.8
1	B	737	GLY	4.7
1	A	646	ALA	4.7
1	A	5	LEU	4.1
1	B	646	ALA	4.1

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

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

6.3 Carbohydrates

There are no monosaccharides in this entry.

6.4 Ligands

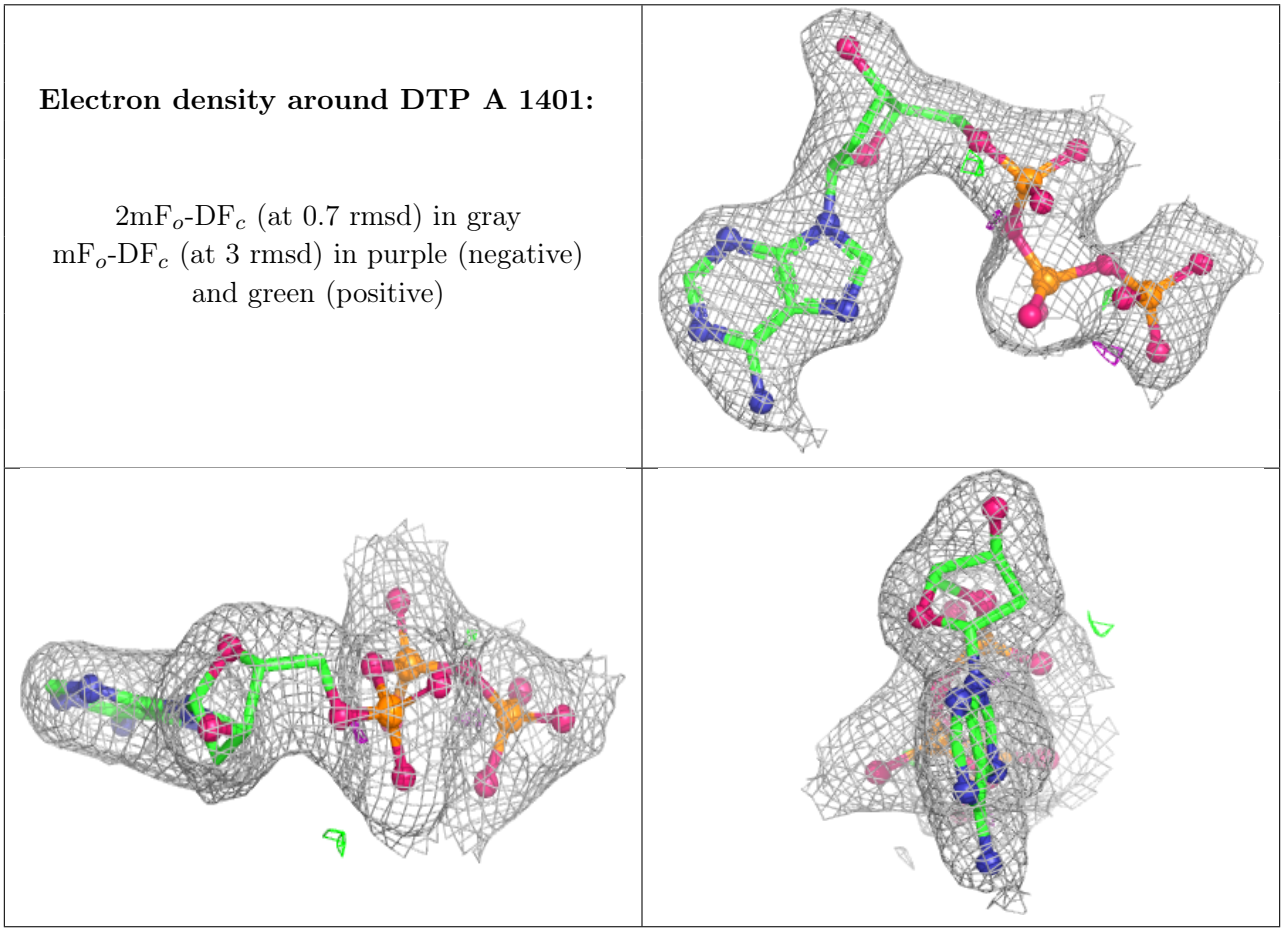
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' 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
5	CL	A	1407	1/1	0.72	0.29	105,105,105,105	0
5	CL	B	1404	1/1	0.94	0.13	76,76,76,76	0
5	CL	B	1405	1/1	0.95	0.24	65,65,65,65	0
6	GOL	B	1406	6/6	0.95	0.09	45,56,58,58	0
5	CL	A	1408	1/1	0.96	0.11	54,54,54,54	0
4	NA	A	1405	1/1	0.97	0.17	44,44,44,44	0
2	DTP	A	1401	30/30	0.97	0.07	34,45,63,157	0
2	DTP	A	1403	30/30	0.97	0.06	29,35,43,93	0
2	DTP	B	1401	30/30	0.98	0.06	28,33,38,43	0
3	MG	B	1402	1/1	0.99	0.03	36,36,36,36	0
5	CL	B	1403	1/1	0.99	0.06	42,42,42,42	0
3	MG	A	1402	1/1	0.99	0.04	49,49,49,49	0
5	CL	A	1406	1/1	0.99	0.04	41,41,41,41	0
3	MG	A	1404	1/1	0.99	0.05	39,39,39,39	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

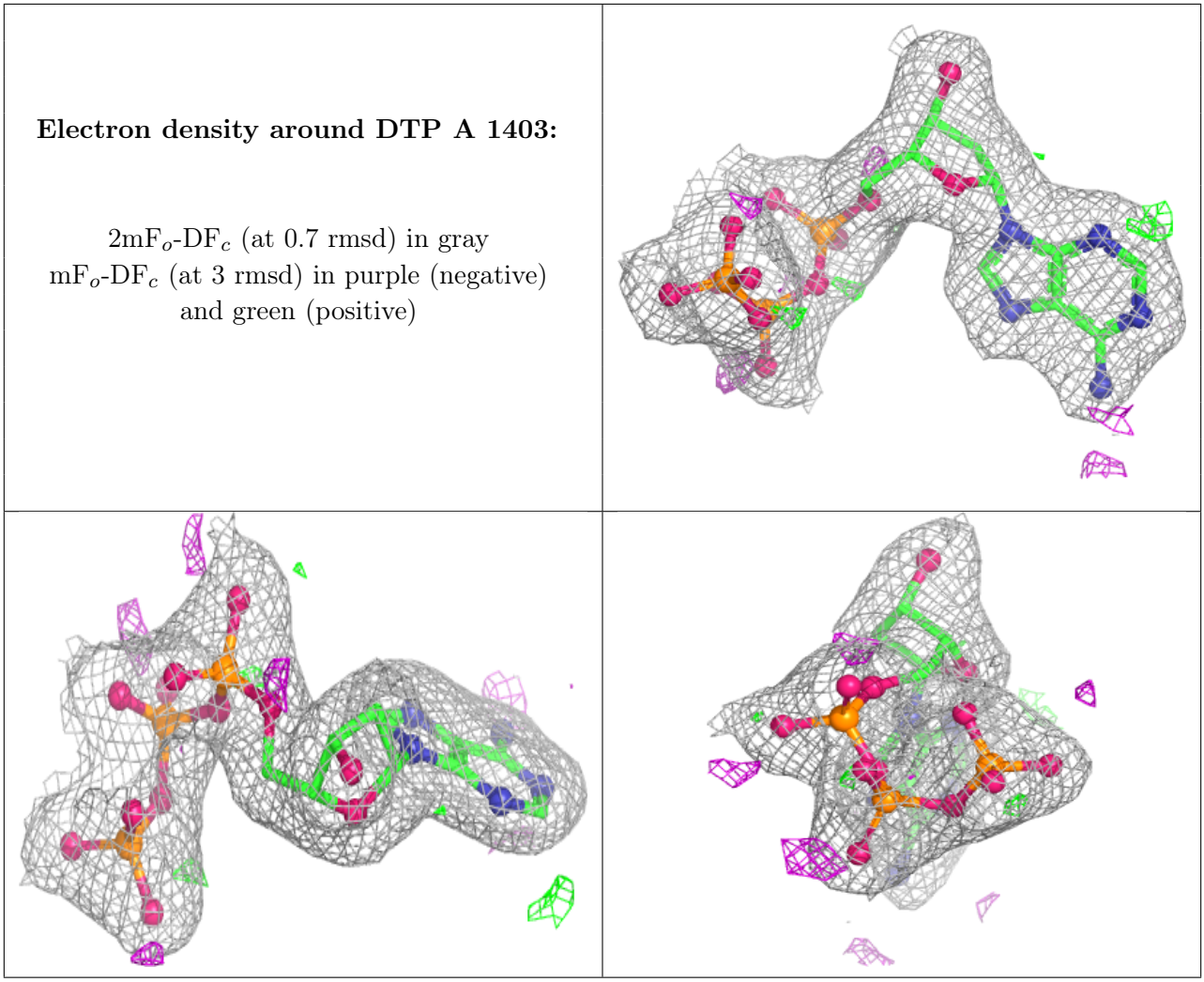
Electron density around DTP A 1401:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



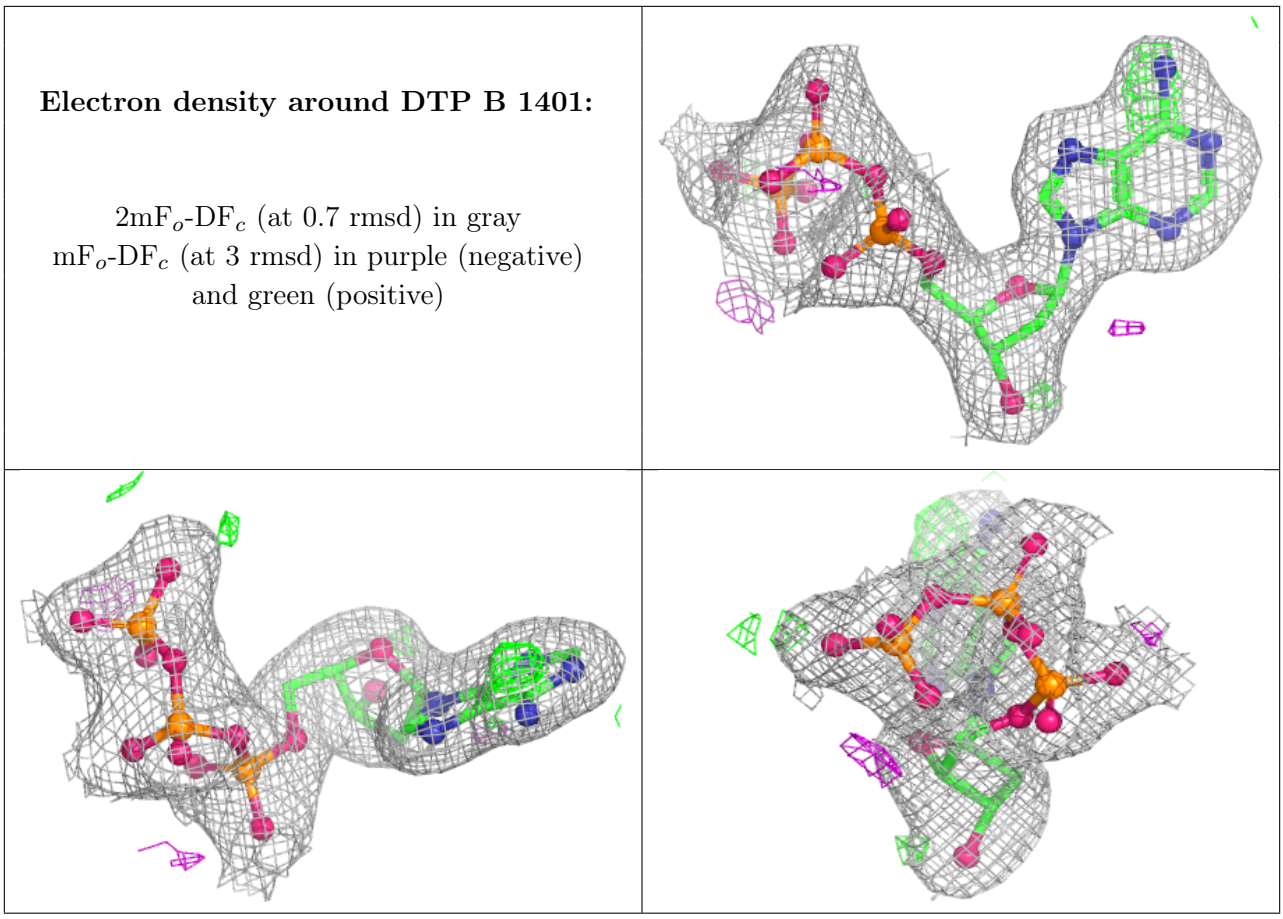
Electron density around DTP A 1403:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around DTP B 1401:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers

There are no such residues in this entry.