WORLDWIDE PDB
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wwPDB X-ray Structure Validation Summary Report ⓘ

Jan 7, 2024 – 10:14 am GMT

PDB ID	:	6EVE
Title	:	Structure of R175A S. cerevisiae Fdc1 with prFMN in the iminium form
Authors	:	Bailey, S.S.; David, L.
Deposited on	:	2017-11-01
Resolution	:	2.05 Å(reported)

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

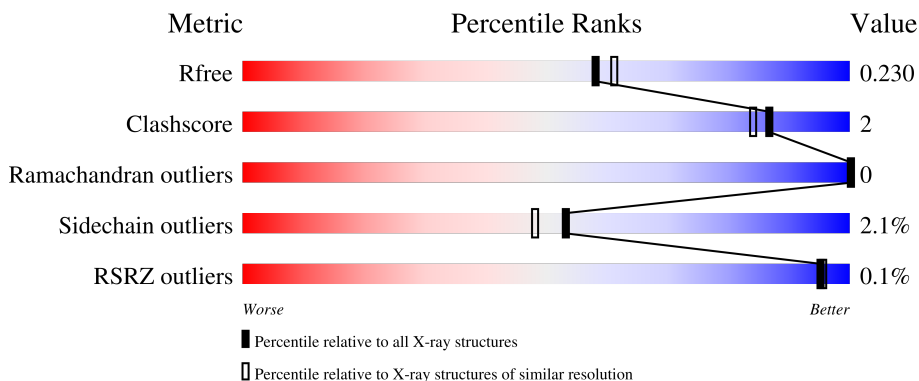|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (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:
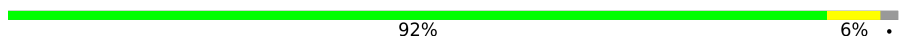*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.05 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		0.230
Clashscore		2
Ramachandran outliers		0
Sidechain outliers		2.1%
RSRZ outliers		0.1%

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	1692 (2.04-2.04)
Clashscore	141614	1773 (2.04-2.04)
Ramachandran outliers	138981	1752 (2.04-2.04)
Sidechain outliers	138945	1752 (2.04-2.04)
RSRZ outliers	127900	1672 (2.04-2.04)

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	509	92% 6% •
1	B	509	91% 7% ••
1	C	509	91% 7% •
1	D	509	90% 7% •

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 17196 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 Ferulic acid decarboxylase 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	500	Total	C	N	O	S	0	11	0
			3976	2558	648	745	25			
1	B	499	Total	C	N	O	S	0	9	0
			3941	2537	639	742	23			
1	C	500	Total	C	N	O	S	0	10	0
			3951	2543	642	742	24			
1	D	497	Total	C	N	O	S	0	9	0
			3931	2534	636	737	24			

There are 28 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	175	ALA	ARG	engineered mutation	UNP Q03034
A	504	HIS	-	expression tag	UNP Q03034
A	505	HIS	-	expression tag	UNP Q03034
A	506	HIS	-	expression tag	UNP Q03034
A	507	HIS	-	expression tag	UNP Q03034
A	508	HIS	-	expression tag	UNP Q03034
A	509	HIS	-	expression tag	UNP Q03034
B	175	ALA	ARG	engineered mutation	UNP Q03034
B	504	HIS	-	expression tag	UNP Q03034
B	505	HIS	-	expression tag	UNP Q03034
B	506	HIS	-	expression tag	UNP Q03034
B	507	HIS	-	expression tag	UNP Q03034
B	508	HIS	-	expression tag	UNP Q03034
B	509	HIS	-	expression tag	UNP Q03034
C	175	ALA	ARG	engineered mutation	UNP Q03034
C	504	HIS	-	expression tag	UNP Q03034
C	505	HIS	-	expression tag	UNP Q03034
C	506	HIS	-	expression tag	UNP Q03034
C	507	HIS	-	expression tag	UNP Q03034
C	508	HIS	-	expression tag	UNP Q03034
C	509	HIS	-	expression tag	UNP Q03034

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Chain	Residue	Modelled	Actual	Comment	Reference
D	175	ALA	ARG	engineered mutation	UNP Q03034
D	504	HIS	-	expression tag	UNP Q03034
D	505	HIS	-	expression tag	UNP Q03034
D	506	HIS	-	expression tag	UNP Q03034
D	507	HIS	-	expression tag	UNP Q03034
D	508	HIS	-	expression tag	UNP Q03034
D	509	HIS	-	expression tag	UNP Q03034

- Molecule 2 is 1-deoxy-5-O-phosphono-1-(3,3,4,5-tetramethyl-9,11-dioxo-2,3,8,9,10,11-hexah ydro-7H-quinolino[1,8-fg]pteridin-12-ium-7-y l)-D-ribitol (three-letter code: 4LU) (formula: $C_{22}H_{30}N_4O_9P$).
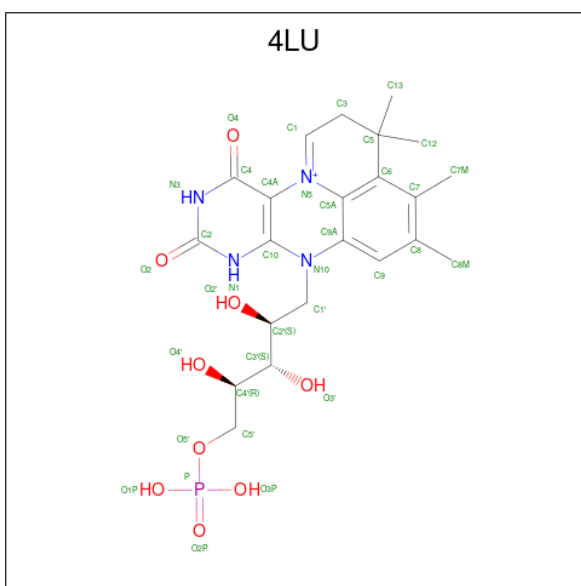
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			36	22	4	9	1		
2	B	1	Total	C	N	O	P	0	0
			36	22	4	9	1		
2	C	1	Total	C	N	O	P	0	0
			36	22	4	9	1		
2	D	1	Total	C	N	O	P	0	0
			36	22	4	9	1		

- Molecule 3 is MANGANESE (II) ION (three-letter code: MN) (formula: Mn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total 1	Mn 1	0	0
3	B	1	Total 1	Mn 1	0	0
3	C	1	Total 1	Mn 1	0	0
3	D	2	Total 2	Mn 2	0	0

- Molecule 4 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total 1	K 1	0	0
4	B	1	Total 1	K 1	0	0
4	C	1	Total 1	K 1	0	0

- Molecule 5 is water.

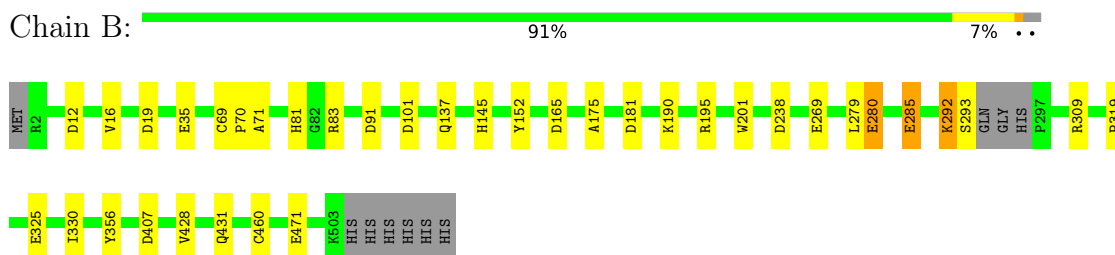| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	323	Total 323	O 323	0	0
5	B	317	Total 317	O 317	0	0
5	C	356	Total 356	O 356	0	0
5	D	249	Total 249	O 249	0	0

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.
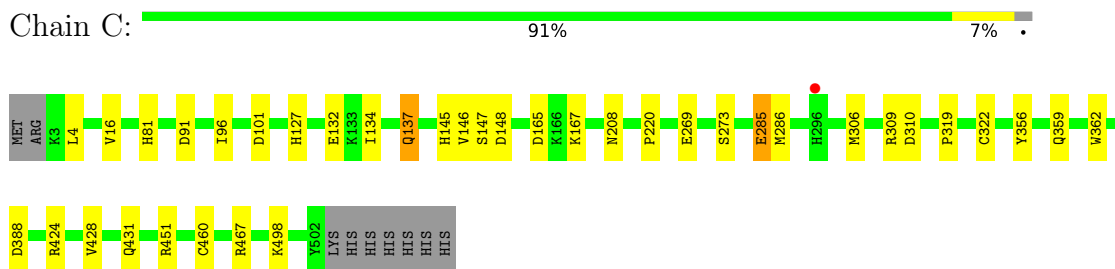
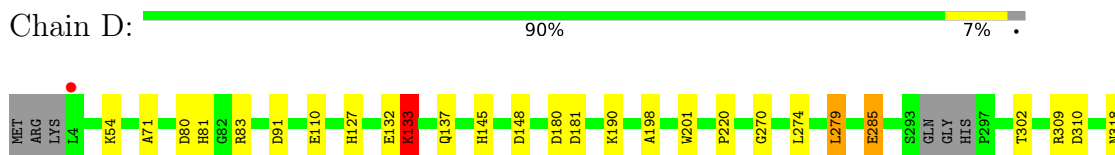• Molecule 1: Ferulic acid decarboxylase 1

Chain A:

92%   6%   •

M1 D12 V16 L23 A71 H81 D91 P92 K93 I134 Q137 H145 D148 D181 V188 R195 D238 E285 S293 GLN GLY HIS P297 M306 R309 P319 E325 Y356 K370 R392 V428 Q431 D436

C460 R467 S473 K487 G488 L489 K503 HIS HIS HIS HIS HIS HIS

• Molecule 1: Ferulic acid decarboxylase 1

Chain B:

91%   7%   • •

MET R2 D12 V16 D19 E35 C69 P70 A71 H81 G82 R83 D91 D101 Q137 H145 Y152 D165 A175 D181 K190 R195 W201 D238 E269 L279 E280 E285 K292 S293 GLN GLY HIS P297 R309 P319

E325 I330 Y356 D407 V428 Q431 C460 E471 K503 HIS HIS HIS HIS HIS HIS

• Molecule 1: Ferulic acid decarboxylase 1

Chain C:

91%   7%   •

MET ARG K3 L4 V16 H81 D91 I96 D101 H127 E132 K133 I134 Q137 H145 V146 S147 D148 D165 K166 K167 N208 P220 E269 S273 E285 M286 H296 M306 R309 D310 P319 C322 Y356 Q359 W362

D388 R424 V428 Q431 R451 C460 R467 K498 Y502 LYS HIS HIS HIS HIS HIS HIS

• Molecule 1: Ferulic acid decarboxylase 1

Chain D:

90%   7%   •

MET ARG LYS L4 K54 A71 D80 H81 G82 R83 D91 E110 H127 E132 K133 Q137 H145 D148 D180 D181 K190 A198 W201 P220 G270 L274 L279 E285 S293 GLN GLY HIS P297 T302 R309 D310 N318

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	117.48Å 98.64Å 118.17Å 90.00° 97.24° 90.00°	Depositor
Resolution (Å)	77.89 – 2.05 77.89 – 2.05	Depositor EDS
% Data completeness (in resolution range)	99.7 (77.89-2.05) 99.7 (77.89-2.05)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.50 (at 2.05Å)	Xtriage
Refinement program	REFMAC 5.8.0158	Depositor
R, R_{free}	0.183 , 0.226 0.191 , 0.230	Depositor DCC
R_{free} test set	8336 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å^2)	25.2	Xtriage
Anisotropy	0.639	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 37.6	EDS
L-test for twinning[2]	$< |L| > = 0.49, < L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.015 for l,-k,h	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	17196	wwPDB-VP
Average B, all atoms (Å^2)	28.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.02% of the height of the origin peak. No significant pseudotranslation is detected.*

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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: MN, 4LU, K

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	0.89	0/4074	0.90	4/5534 (0.1%)
1	B	0.98	5/4039 (0.1%)	0.93	13/5490 (0.2%)
1	C	0.87	1/4051 (0.0%)	0.92	9/5512 (0.2%)
1	D	0.88	2/4029 (0.0%)	0.89	10/5477 (0.2%)
All	All	0.90	8/16193 (0.0%)	0.91	36/22013 (0.2%)

The worst 5 of 8 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	285	GLU	N-CA	-14.44	1.17	1.46
1	B	280	GLU	N-CA	-12.26	1.21	1.46
1	B	175	ALA	N-CA	-9.97	1.26	1.46
1	B	175	ALA	CA-C	-8.21	1.31	1.52
1	D	201	TRP	CE3-CZ3	5.74	1.48	1.38

The worst 5 of 36 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	195	ARG	NE-CZ-NH2	-8.90	115.85	120.30
1	A	467	ARG	NE-CZ-NH2	8.29	124.45	120.30
1	B	195	ARG	NE-CZ-NH1	8.10	124.35	120.30
1	D	83	ARG	NE-CZ-NH1	7.53	124.06	120.30
1	A	309	ARG	NE-CZ-NH1	7.10	123.85	120.30

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	3976	0	3954	13	0
1	B	3941	0	3903	11	0
1	C	3951	0	3907	17	0
1	D	3931	0	3906	18	0
2	A	36	0	28	2	0
2	B	36	0	26	4	0
2	C	36	0	28	2	0
2	D	36	0	28	3	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	2	0	0	0	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
5	A	323	0	0	1	0
5	B	317	0	0	1	0
5	C	356	0	0	3	0
5	D	249	0	0	2	0
All	All	17196	0	15780	68	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 2.

The worst 5 of 68 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:D:601:4LU:H5	2:D:601:4LU:H14	1.33	1.08
2:A:601:4LU:H5	2:A:601:4LU:H14	1.40	1.03
2:C:601:4LU:H14	2:C:601:4LU:H5	1.40	1.02
2:B:601:4LU:H14	2:B:601:4LU:H5	1.43	0.99
2:D:601:4LU:H14	2:D:601:4LU:C13	2.06	0.85

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	507/509 (100%)	492 (97%)	15 (3%)	0	100	100
1	B	504/509 (99%)	492 (98%)	12 (2%)	0	100	100
1	C	508/509 (100%)	495 (97%)	13 (3%)	0	100	100
1	D	501/509 (98%)	487 (97%)	14 (3%)	0	100	100
All	All	2020/2036 (99%)	1966 (97%)	54 (3%)	0	100	100

There are no Ramachandran outliers to report.

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	440/443 (99%)	429 (98%)	11 (2%)	47	40
1	B	435/443 (98%)	426 (98%)	9 (2%)	53	48
1	C	436/443 (98%)	428 (98%)	8 (2%)	59	55
1	D	435/443 (98%)	424 (98%)	11 (2%)	47	40
All	All	1746/1772 (98%)	1707 (98%)	39 (2%)	53	46

5 of 39 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	54	LYS
1	D	279	LEU
1	D	110	GLU

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Mol	Chain	Res	Type
1	D	137	GLN
1	D	460[A]	CYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 22 such sidechains are listed below:

Mol	Chain	Res	Type
1	C	431	GLN
1	D	137	GLN
1	D	127	HIS
1	D	145	HIS
1	B	127	HIS

5.3.3   RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5   Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6   Ligand geometry ⓘ

Of 12 ligands modelled in this entry, 8 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	#$|Z| > 2$
2	4LU	C	601	3,4	35,39,39	1.67	4 (11%)	46,62,62	2.27	14 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
2	4LU	B	601	3,4	35,39,39	3.11	8 (22%)	46,62,62	2.32	15 (32%)
2	4LU	D	601	3	35,39,39	1.67	4 (11%)	46,62,62	2.23	17 (36%)
2	4LU	A	601	3,4	35,39,39	1.84	5 (14%)	46,62,62	2.02	12 (26%)

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	4LU	C	601	3,4	-	0/18/30/30	0/4/4/4
2	4LU	B	601	3,4	-	2/18/30/30	0/4/4/4
2	4LU	D	601	3	-	1/18/30/30	0/4/4/4
2	4LU	A	601	3,4	-	2/18/30/30	0/4/4/4

The worst 5 of 21 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	601	4LU	C1'-N10	-15.01	1.10	1.48
2	D	601	4LU	O2-C2	6.36	1.36	1.23
2	B	601	4LU	O2-C2	5.88	1.35	1.23
2	C	601	4LU	O2-C2	5.85	1.35	1.23
2	A	601	4LU	O2-C2	5.79	1.35	1.23

The worst 5 of 58 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	601	4LU	C4-C4A-C10	-7.77	114.84	121.08
2	B	601	4LU	C4-C4A-C10	-6.98	115.47	121.08
2	D	601	4LU	C5-C6-C5A	-6.12	114.80	121.48
2	A	601	4LU	C4-C4A-C10	-5.93	116.32	121.08
2	D	601	4LU	C4-C4A-C10	-5.84	116.39	121.08

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	601	4LU	C2'-C3'-C4'-C5'
2	B	601	4LU	C2'-C3'-C4'-C5'
2	A	601	4LU	C4'-C5'-O5'-P

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Mol	Chain	Res	Type	Atoms
2	D	601	4LU	C4'-C5'-O5'-P
2	B	601	4LU	C4'-C5'-O5'-P

There are no ring outliers.

4 monomers are involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	601	4LU	2	0
2	B	601	4LU	4	0
2	D	601	4LU	3	0
2	A	601	4LU	2	0

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 4LU C 601

Bond lengths

Bond angles

Torsions

Rings

Ligand 4LU B 601

Bond lengths

Bond angles

Torsions

Rings

Ligand 4LU D 601

Bond lengths

Bond angles

Torsions

Rings

Ligand 4LU A 601

Bond lengths

Bond angles

Torsions

Rings
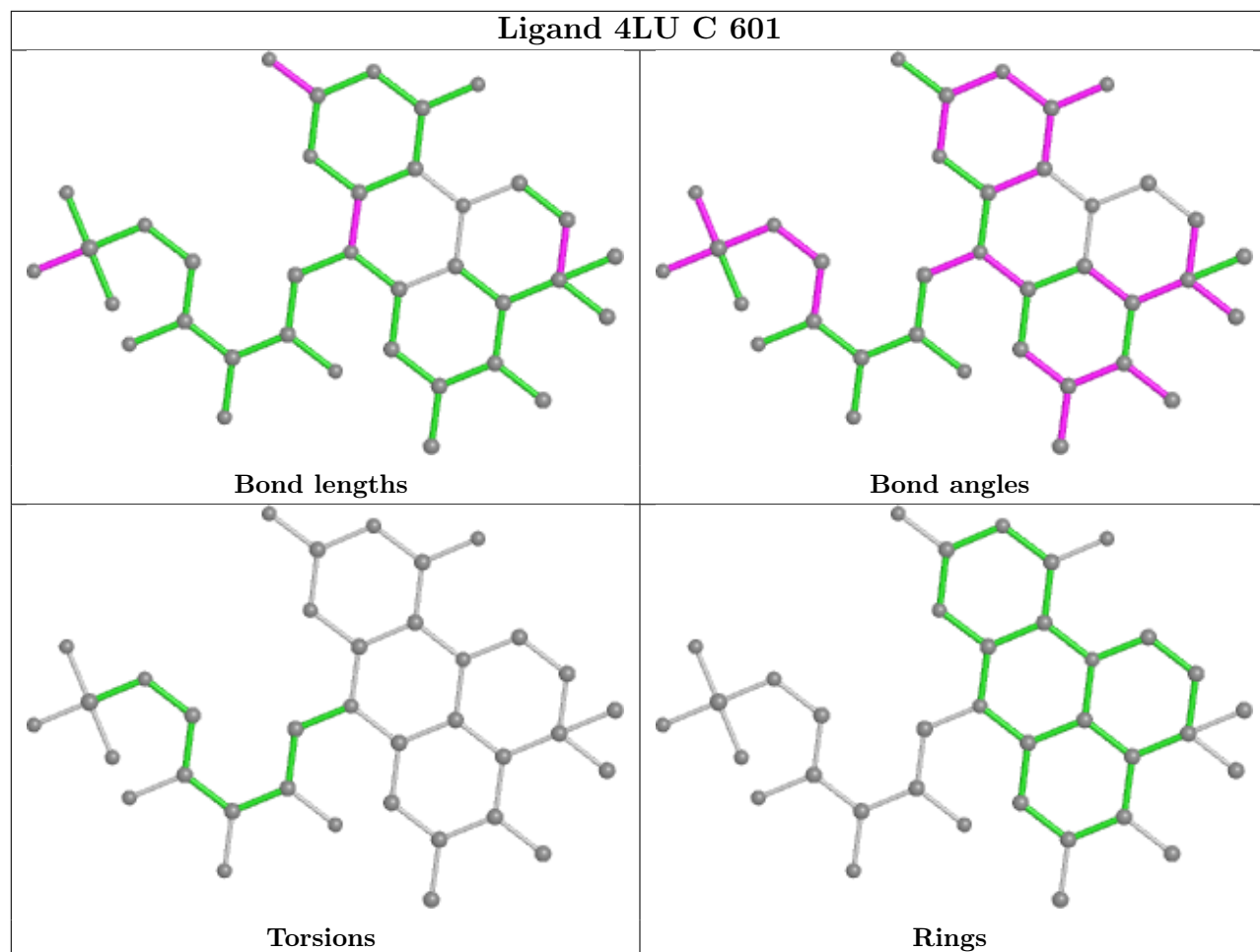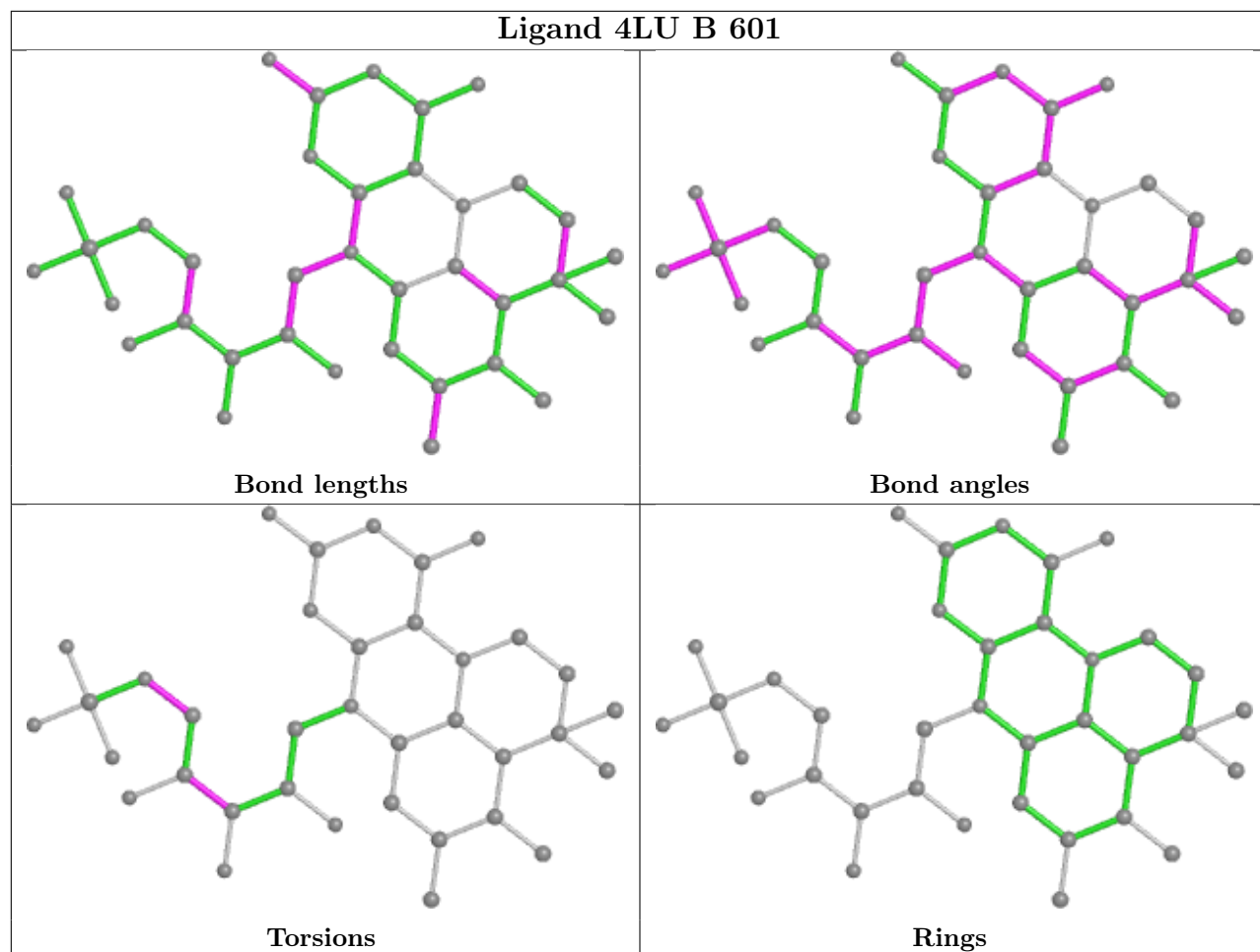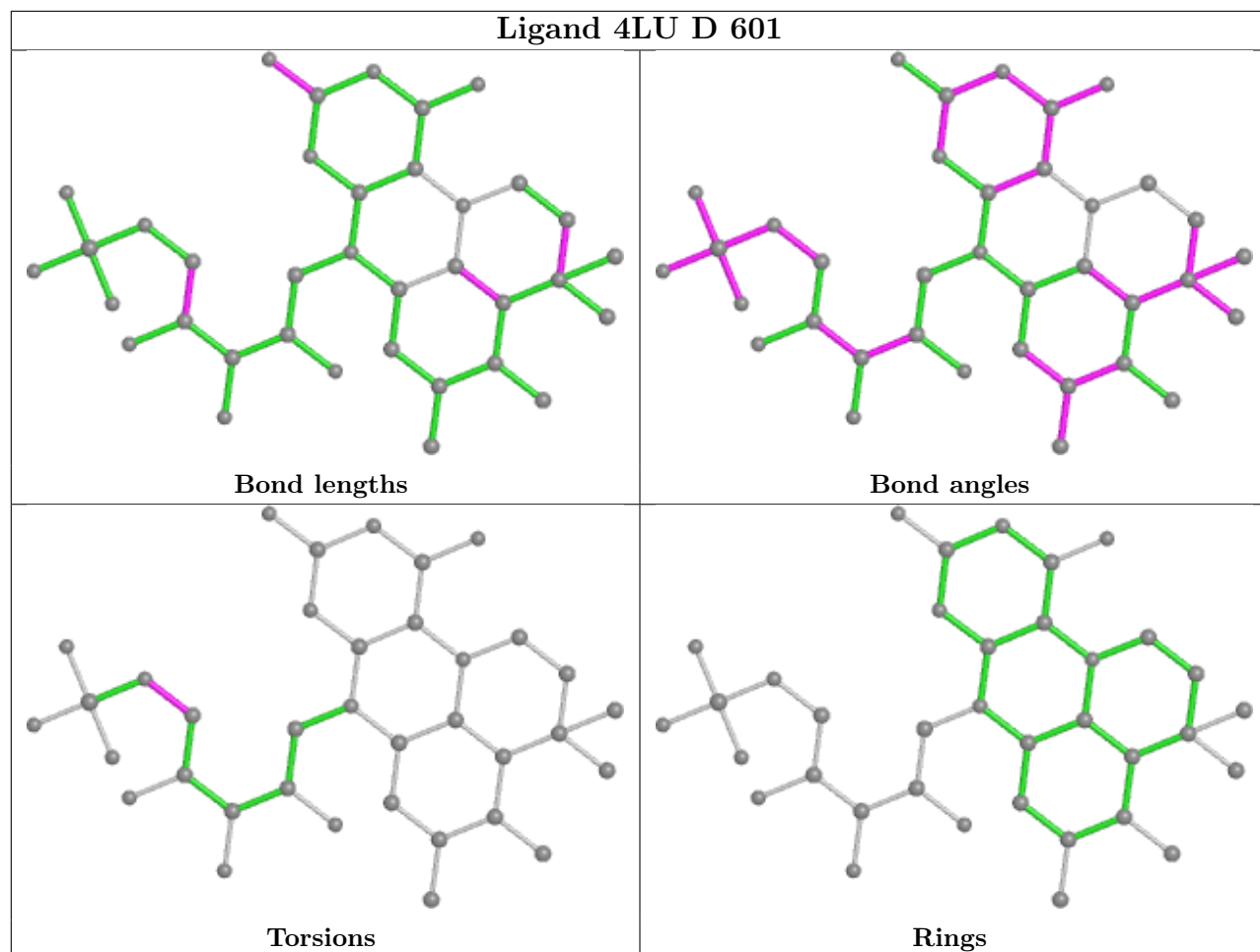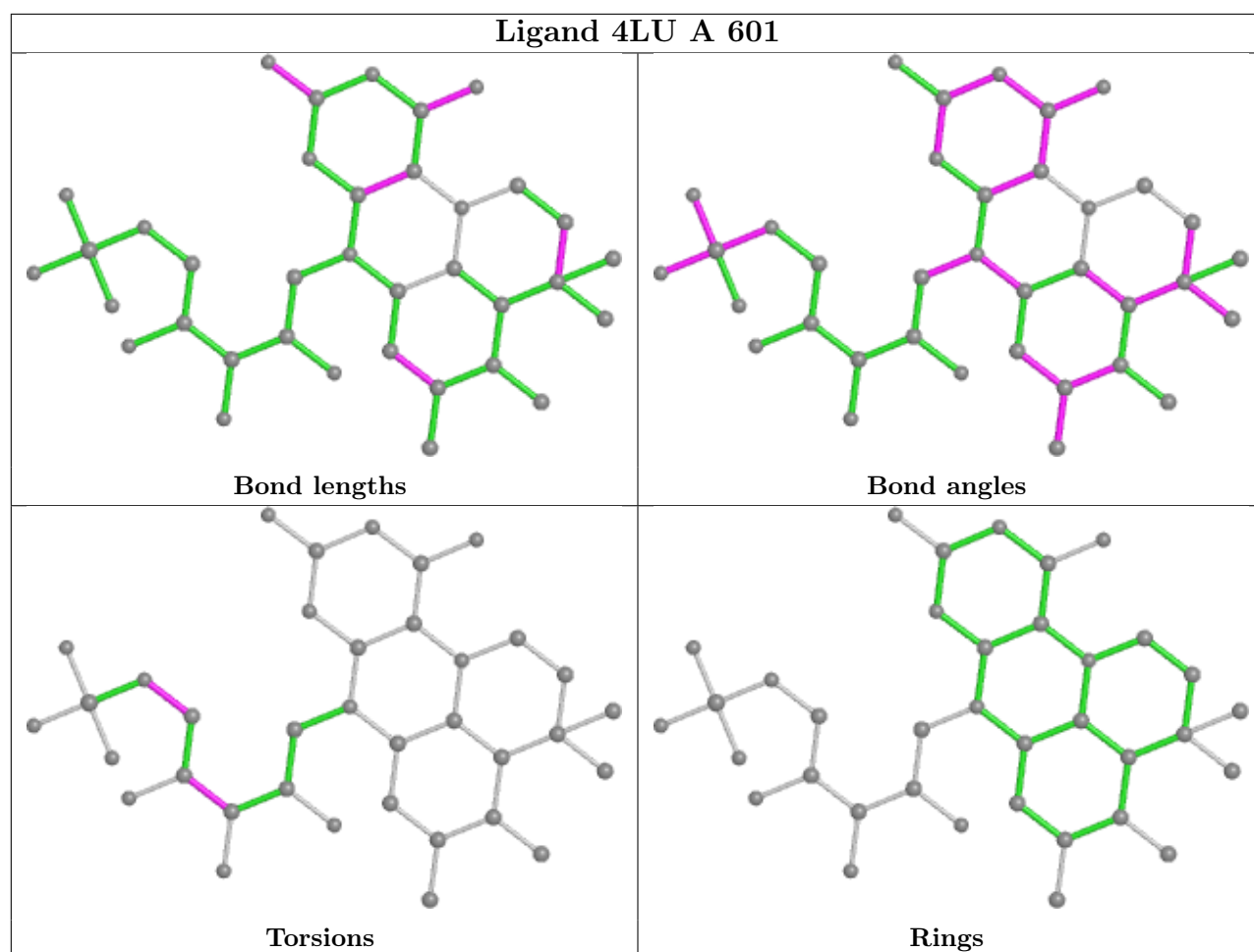
5.7 Other polymers ⓘ

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(Å^2)	Q<0.9
1	A	500/509 (98%)	-0.58	0	100	100	16, 23, 39, 57	0
1	B	499/509 (98%)	-0.65	0	100	100	17, 26, 44, 65	0
1	C	500/509 (98%)	-0.59	1 (0%)	95	95	16, 25, 43, 58	2 (0%)
1	D	497/509 (97%)	-0.62	1 (0%)	95	95	18, 28, 43, 64	0
All	All	1996/2036 (98%)	-0.61	2 (0%)	95	95	16, 26, 43, 65	2 (0%)

All (2) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	296	HIS	3.3
1	D	4[A]	LEU	2.7

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

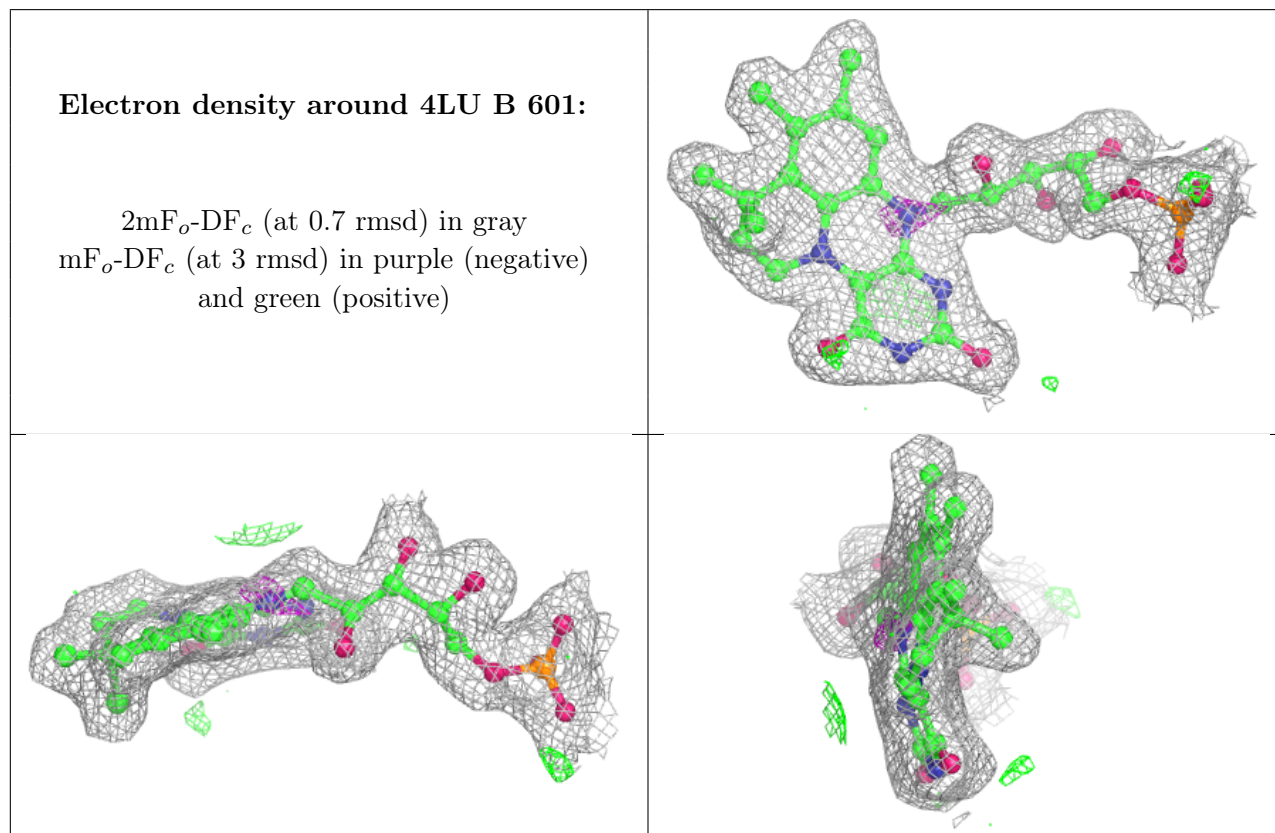There are no non-standard protein/DNA/RNA residues in this entry.

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, 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
2	4LU	B	601	36/36	0.96	0.09	15,18,22,25	0
2	4LU	A	601	36/36	0.97	0.10	15,17,22,28	0
2	4LU	D	601	36/36	0.97	0.09	16,22,25,26	0
2	4LU	C	601	36/36	0.98	0.09	15,20,27,31	0
3	MN	D	603	1/1	0.99	0.05	32,32,32,32	0
4	K	A	603	1/1	0.99	0.11	18,18,18,18	0
4	K	B	603	1/1	0.99	0.09	21,21,21,21	0
4	K	C	603	1/1	0.99	0.09	19,19,19,19	0
3	MN	A	602	1/1	1.00	0.09	24,24,24,24	0
3	MN	B	602	1/1	1.00	0.07	27,27,27,27	0
3	MN	C	602	1/1	1.00	0.07	24,24,24,24	0
3	MN	D	602	1/1	1.00	0.08	24,24,24,24	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.
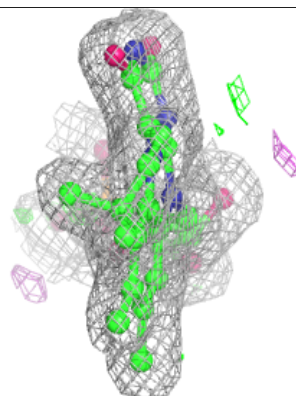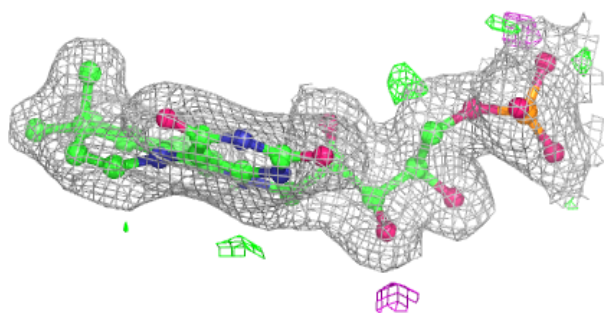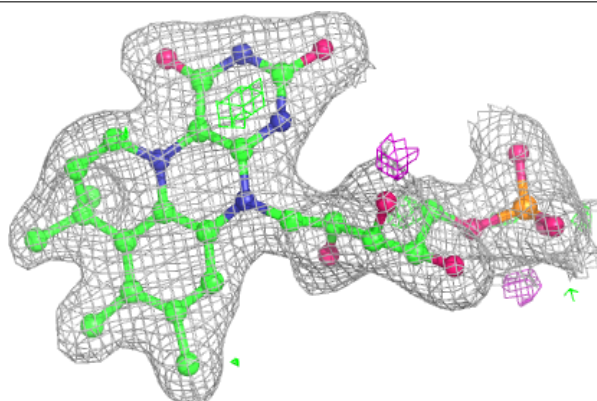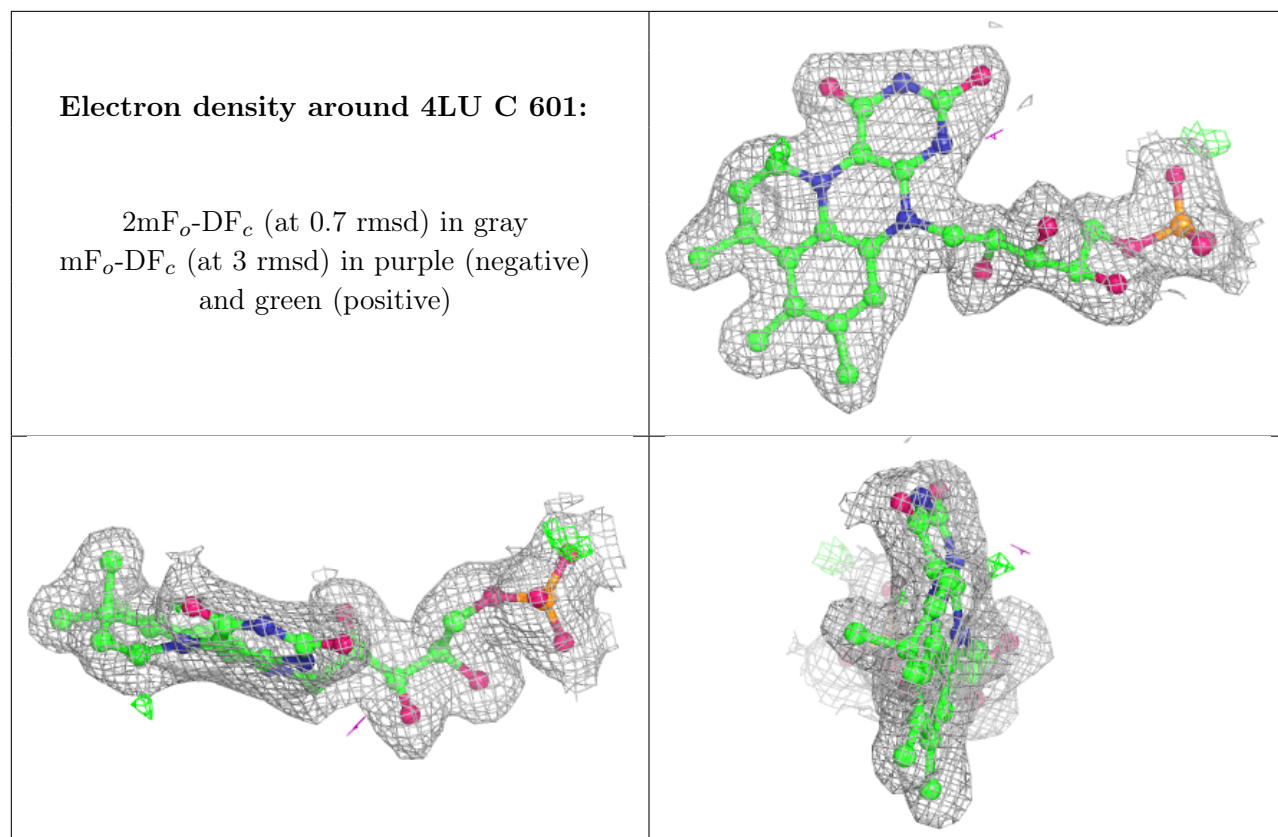
Electron density around 4LU B 601:

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

Electron density around 4LU A 601:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
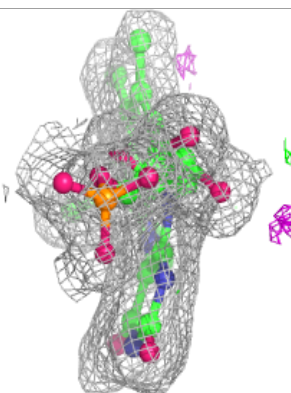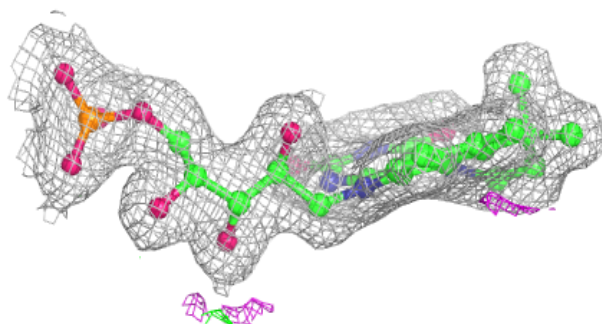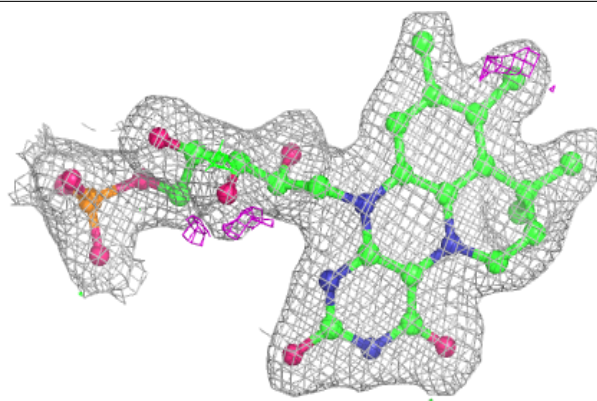
Electron density around 4LU D 601:

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

Electron density around 4LU C 601:

$2mF_o$-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.