Full wwPDB X-ray Structure Validation Report (i)

Oct 9, 2023 – 08:31 AM EDT

PDB ID	:	7KDN
Title	:	Crystal structure of Acetyl-CoA Synthetase in Complex with Adenosine-5'-pr opylphosphate from Aspergillus fumigatus
Authors	:	Seattle Structural Genomics Center for Infectious Disease (SSGCID)
Deposited on	:	2020-10-09
Resolution	:	2.80 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*
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	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
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)	:	2.35.1

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 2.80 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.
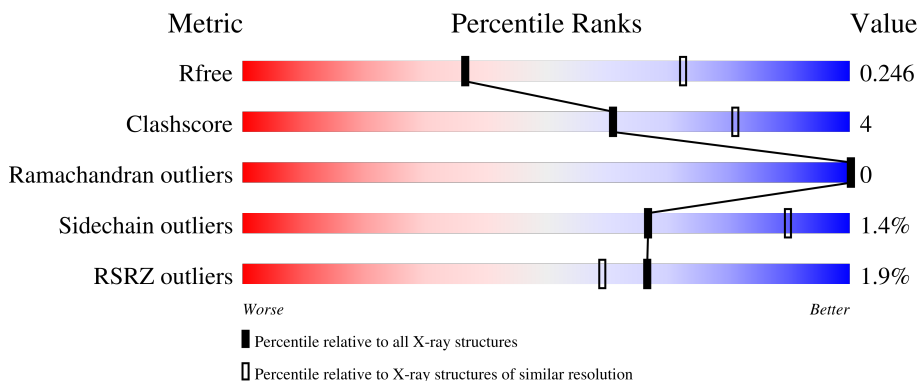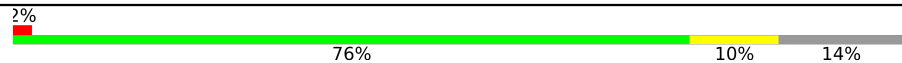

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3140 (2.80-2.80)
Clashscore	141614	3569 (2.80-2.80)
Ramachandran outliers	138981	3498 (2.80-2.80)
Sidechain outliers	138945	3500 (2.80-2.80)
RSRZ outliers	127900	3078 (2.80-2.80)

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	685	79% 11% · 9%
1	B	685	75% 9% 16%
1	C	685	64% 11% · 24%
1	D	685	77% 9% 14%
1	E	685	80% 8% 12%

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Mol	Chain	Length	Quality of chain
1	F	685	

2%

76%   10%   14%

2 Entry composition ⓘ

There are 3 unique types of molecules in this entry. The entry contains 26663 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 Acetyl-coenzyme A synthetase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	622	Total	C	N	O	S	0	1	0
			4711	3015	800	881	15			
1	B	575	Total	C	N	O	S	0	0	0
			4346	2784	737	810	15			
1	C	518	Total	C	N	O	S	0	0	0
			4032	2590	681	746	15			
1	D	590	Total	C	N	O	S	0	0	0
			4411	2825	747	824	15			
1	E	605	Total	C	N	O	S	0	2	0
			4567	2929	780	843	15			
1	F	589	Total	C	N	O	S	0	0	0
			4397	2816	748	818	15			

There are 96 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-14	MET	-	initiating methionine	UNP Q4WQ02
A	-13	HIS	-	expression tag	UNP Q4WQ02
A	-12	HIS	-	expression tag	UNP Q4WQ02
A	-11	HIS	-	expression tag	UNP Q4WQ02
A	-10	HIS	-	expression tag	UNP Q4WQ02
A	-9	HIS	-	expression tag	UNP Q4WQ02
A	-8	HIS	-	expression tag	UNP Q4WQ02
A	-7	HIS	-	expression tag	UNP Q4WQ02
A	-6	HIS	-	expression tag	UNP Q4WQ02
A	-5	GLU	-	expression tag	UNP Q4WQ02
A	-4	ASN	-	expression tag	UNP Q4WQ02
A	-3	LEU	-	expression tag	UNP Q4WQ02
A	-2	TYR	-	expression tag	UNP Q4WQ02
A	-1	PHE	-	expression tag	UNP Q4WQ02
A	0	GLN	-	expression tag	UNP Q4WQ02
A	1	GLY	-	expression tag	UNP Q4WQ02
B	-14	MET	-	initiating methionine	UNP Q4WQ02

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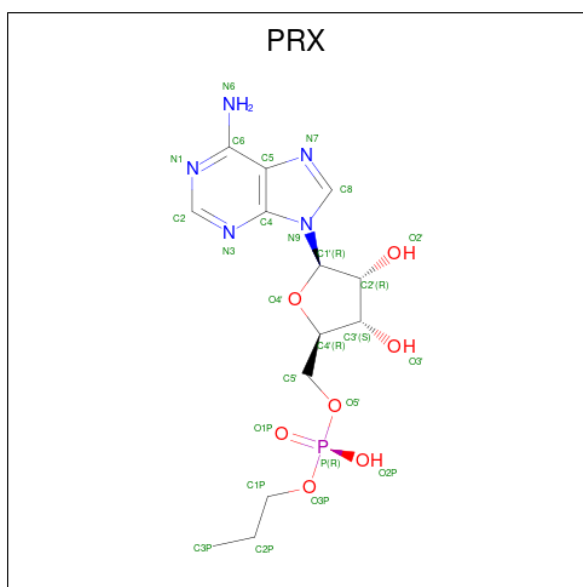
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Chain	Residue	Modelled	Actual	Comment	Reference
B	-13	HIS	-	expression tag	UNP Q4WQ02
B	-12	HIS	-	expression tag	UNP Q4WQ02
B	-11	HIS	-	expression tag	UNP Q4WQ02
B	-10	HIS	-	expression tag	UNP Q4WQ02
B	-9	HIS	-	expression tag	UNP Q4WQ02
B	-8	HIS	-	expression tag	UNP Q4WQ02
B	-7	HIS	-	expression tag	UNP Q4WQ02
B	-6	HIS	-	expression tag	UNP Q4WQ02
B	-5	GLU	-	expression tag	UNP Q4WQ02
B	-4	ASN	-	expression tag	UNP Q4WQ02
B	-3	LEU	-	expression tag	UNP Q4WQ02
B	-2	TYR	-	expression tag	UNP Q4WQ02
B	-1	PHE	-	expression tag	UNP Q4WQ02
B	0	GLN	-	expression tag	UNP Q4WQ02
B	1	GLY	-	expression tag	UNP Q4WQ02
C	-14	MET	-	initiating methionine	UNP Q4WQ02
C	-13	HIS	-	expression tag	UNP Q4WQ02
C	-12	HIS	-	expression tag	UNP Q4WQ02
C	-11	HIS	-	expression tag	UNP Q4WQ02
C	-10	HIS	-	expression tag	UNP Q4WQ02
C	-9	HIS	-	expression tag	UNP Q4WQ02
C	-8	HIS	-	expression tag	UNP Q4WQ02
C	-7	HIS	-	expression tag	UNP Q4WQ02
C	-6	HIS	-	expression tag	UNP Q4WQ02
C	-5	GLU	-	expression tag	UNP Q4WQ02
C	-4	ASN	-	expression tag	UNP Q4WQ02
C	-3	LEU	-	expression tag	UNP Q4WQ02
C	-2	TYR	-	expression tag	UNP Q4WQ02
C	-1	PHE	-	expression tag	UNP Q4WQ02
C	0	GLN	-	expression tag	UNP Q4WQ02
C	1	GLY	-	expression tag	UNP Q4WQ02
D	-14	MET	-	initiating methionine	UNP Q4WQ02
D	-13	HIS	-	expression tag	UNP Q4WQ02
D	-12	HIS	-	expression tag	UNP Q4WQ02
D	-11	HIS	-	expression tag	UNP Q4WQ02
D	-10	HIS	-	expression tag	UNP Q4WQ02
D	-9	HIS	-	expression tag	UNP Q4WQ02
D	-8	HIS	-	expression tag	UNP Q4WQ02
D	-7	HIS	-	expression tag	UNP Q4WQ02
D	-6	HIS	-	expression tag	UNP Q4WQ02
D	-5	GLU	-	expression tag	UNP Q4WQ02
D	-4	ASN	-	expression tag	UNP Q4WQ02

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Chain	Residue	Modelled	Actual	Comment	Reference
D	-3	LEU	-	expression tag	UNP Q4WQ02
D	-2	TYR	-	expression tag	UNP Q4WQ02
D	-1	PHE	-	expression tag	UNP Q4WQ02
D	0	GLN	-	expression tag	UNP Q4WQ02
D	1	GLY	-	expression tag	UNP Q4WQ02
E	-14	MET	-	initiating methionine	UNP Q4WQ02
E	-13	HIS	-	expression tag	UNP Q4WQ02
E	-12	HIS	-	expression tag	UNP Q4WQ02
E	-11	HIS	-	expression tag	UNP Q4WQ02
E	-10	HIS	-	expression tag	UNP Q4WQ02
E	-9	HIS	-	expression tag	UNP Q4WQ02
E	-8	HIS	-	expression tag	UNP Q4WQ02
E	-7	HIS	-	expression tag	UNP Q4WQ02
E	-6	HIS	-	expression tag	UNP Q4WQ02
E	-5	GLU	-	expression tag	UNP Q4WQ02
E	-4	ASN	-	expression tag	UNP Q4WQ02
E	-3	LEU	-	expression tag	UNP Q4WQ02
E	-2	TYR	-	expression tag	UNP Q4WQ02
E	-1	PHE	-	expression tag	UNP Q4WQ02
E	0	GLN	-	expression tag	UNP Q4WQ02
E	1	GLY	-	expression tag	UNP Q4WQ02
F	-14	MET	-	initiating methionine	UNP Q4WQ02
F	-13	HIS	-	expression tag	UNP Q4WQ02
F	-12	HIS	-	expression tag	UNP Q4WQ02
F	-11	HIS	-	expression tag	UNP Q4WQ02
F	-10	HIS	-	expression tag	UNP Q4WQ02
F	-9	HIS	-	expression tag	UNP Q4WQ02
F	-8	HIS	-	expression tag	UNP Q4WQ02
F	-7	HIS	-	expression tag	UNP Q4WQ02
F	-6	HIS	-	expression tag	UNP Q4WQ02
F	-5	GLU	-	expression tag	UNP Q4WQ02
F	-4	ASN	-	expression tag	UNP Q4WQ02
F	-3	LEU	-	expression tag	UNP Q4WQ02
F	-2	TYR	-	expression tag	UNP Q4WQ02
F	-1	PHE	-	expression tag	UNP Q4WQ02
F	0	GLN	-	expression tag	UNP Q4WQ02
F	1	GLY	-	expression tag	UNP Q4WQ02

- Molecule 2 is ADENOSINE-5'-MONOPHOSPHATE-PROPYL ESTER (three-letter code: PRX) (formula: $C_{13}H_{20}N_5O_7P$) (labeled as "Ligand of Interest" by depositor).

PRX

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total 26	C 13	N 5	O 7	P 1	0	0
2	B	1	Total 26	C 13	N 5	O 7	P 1	0	0
2	C	1	Total 26	C 13	N 5	O 7	P 1	0	0
2	D	1	Total 26	C 13	N 5	O 7	P 1	0	0
2	E	1	Total 26	C 13	N 5	O 7	P 1	0	0
2	F	1	Total 26	C 13	N 5	O 7	P 1	0	0

- Molecule 3 is water.

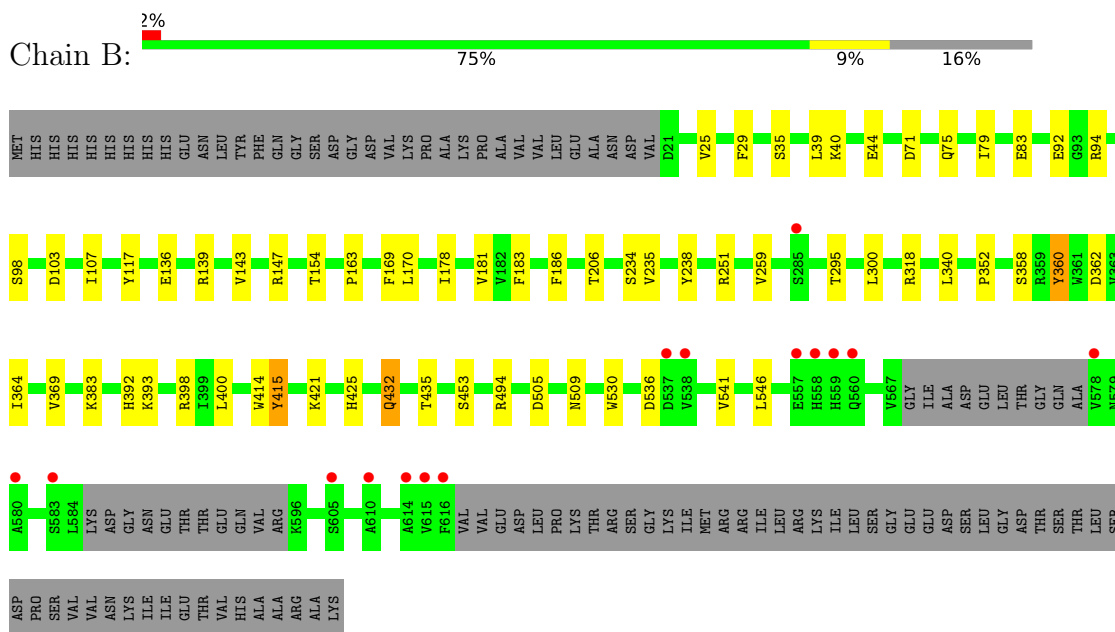| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	11	Total 11	O 11	0	0
3	B	6	Total 6	O 6	0	0
3	C	5	Total 5	O 5	0	0
3	D	10	Total 10	O 10	0	0
3	E	5	Total 5	O 5	0	0
3	F	6	Total 6	O 6	0	0

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.
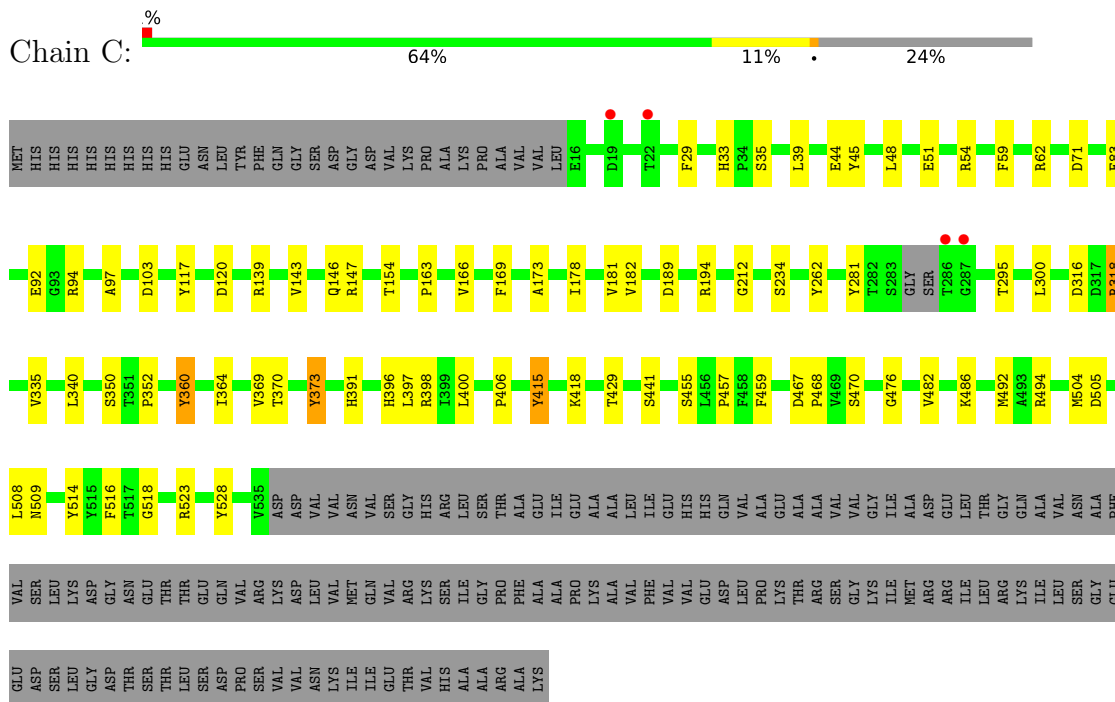
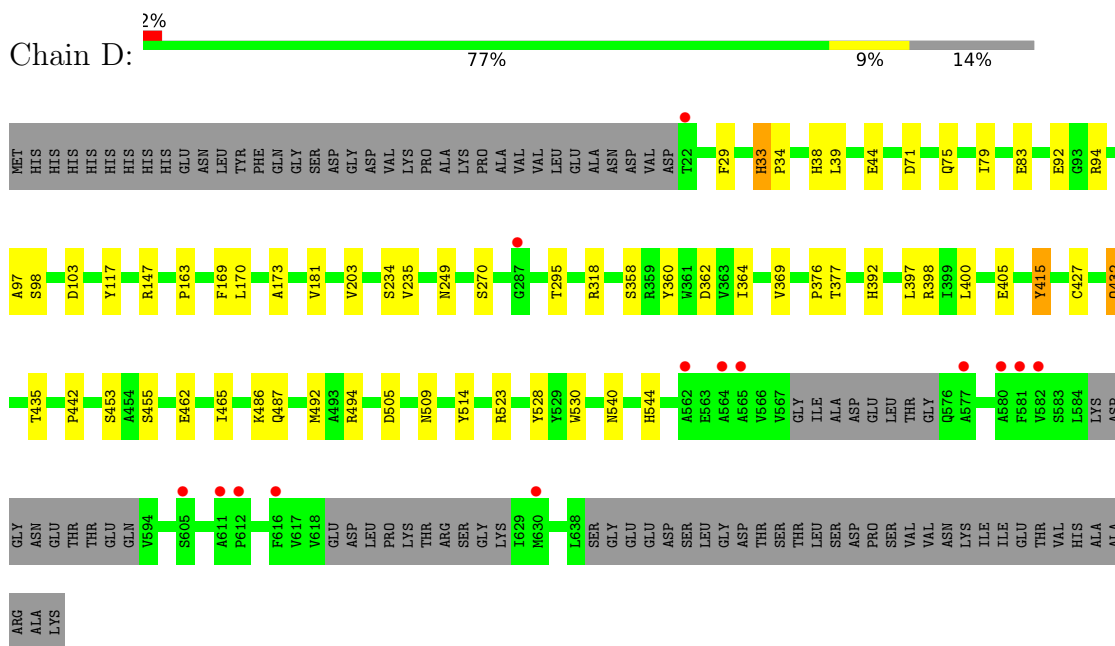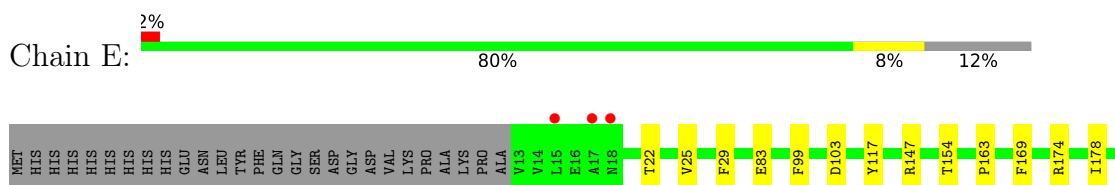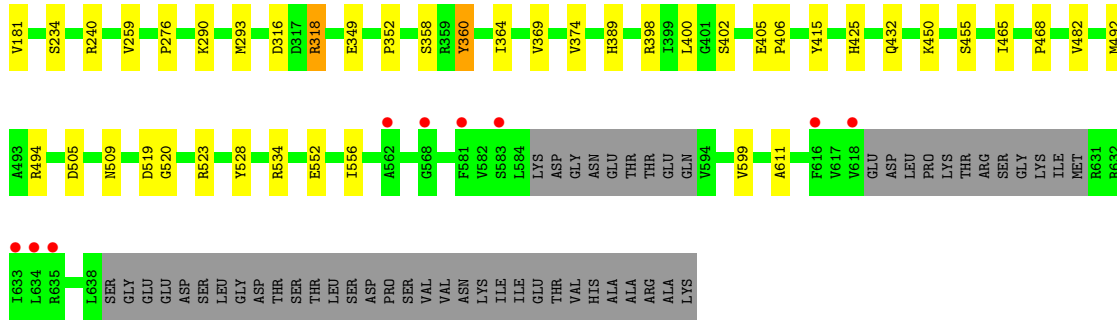• Molecule 1: Acetyl-coenzyme A synthetase

• Molecule 1: Acetyl-coenzyme A synthetase
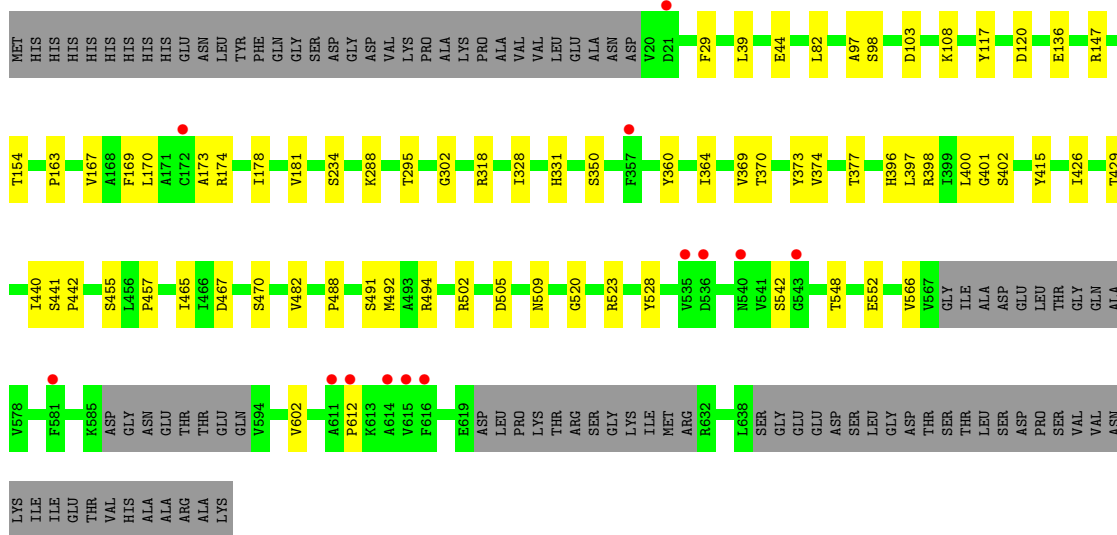

• Molecule 1: Acetyl-coenzyme A synthetase

Chain C:

• Molecule 1: Acetyl-coenzyme A synthetase

Chain D:

• Molecule 1: Acetyl-coenzyme A synthetase

Chain E:

V181 S234 R240 V259 P276 K290 M293 D316 D317 R318 E349 P352 S358 R359 Y360 I364 V369 V374 H389 R398 I399 L400 G401 S402 E405 P406 Y415 H425 Q432 K450 S455 I465 P468 V482 M492

A493 R494 D505 N509 D519 G520 R523 Y528 R534 E552 I556 A562 G568 F581 V582 S583 L584 LYS ASP GLY ASN GLU THR THR GLU GLN V594 V599 A611 F616 V617 V618 GLU ASP LEU PRO LYS THR ARG SER GLY LYS ILE MET R631 R632

I633 L634 R635 L638 SER GLY GLU GLU ASP SER LEU GLY ASP THR SER THR LEU SER ASP PRO SER VAL VAL ASN LYS ILE ILE GLU THR VAL HIS ALA ALA ARG ALA LYS

• Molecule 1: Acetyl-coenzyme A synthetase

Chain F:

2%

76% 10% 14%

MET HIS HIS HIS HIS HIS HIS HIS GLU ASN LEU TYR PHE GLN GLY SER ASP GLY ASP VAL LYS PRO ALA LYS PRO ALA VAL VAL LEU GLU ALA ASN ASP V20 D21 F29 L39 E44 L82 A97 S98 D103 K108 Y117 D120 E136 R147

T154 P163 V167 A168 F169 L170 A171 C172 A173 R174 I178 V181 S234 K288 T295 G302 R318 I328 H331 S350 F357 Y360 I364 V369 T370 Y373 V374 T377 H396 L397 R398 I399 L400 G401 S402 Y415 I426 T429

I440 S441 P442 S455 L456 P457 I465 I466 D467 S470 V482 P488 S491 M492 A493 R494 R502 D505 N509 G520 R523 Y528 V535 D536 N540 V541 S542 G543 T548 E552 V566 V567 GLY ILE ALA ASP GLU LEU THR GLY GLN ALA

V578 F581 K585 ASP GLY ASN GLU THR THR GLU GLN V594 V602 A611 P612 K613 A614 V615 F616 E619 ASP LEU PRO LYS THR ARG SER GLY LYS ILE MET ARG R632 L638 SER GLY GLU GLU ASP SER LEU GLY ASP THR SER THR LEU SER ASP PRO SER VAL VAL ASN

LYS ILE ILE GLU THR VAL HIS ALA ALA ARG ALA LYS

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	103.79Å　　104.21Å　　125.65Å 68.15°　　66.55°　　62.22°	Depositor
Resolution (Å)	47.92　–　2.80 47.92　–　2.80	Depositor EDS
% Data completeness (in resolution range)	98.1 (47.92-2.80) 98.0 (47.92-2.80)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.86 (at 2.81Å)	Xtriage
Refinement program	PHENIX 1.18.2_3874	Depositor
R, R_{free}	0.215　,　0.246 0.215　,　0.246	Depositor DCC
R_{free} test set	1999 reflections (1.99%)	wwPDB-VP
Wilson B-factor (Å^2)	55.0	Xtriage
Anisotropy	0.747	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 29.6	EDS
L-test for twinning[2]	$< |L| > = 0.50, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.016 for -k,-h,-l	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	26663	wwPDB-VP
Average B, all atoms (Å^2)	65.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.12% 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: PRX

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	0.25	0/4840	0.43	0/6609
1	B	0.25	0/4467	0.43	0/6099
1	C	0.25	0/4150	0.42	0/5658
1	D	0.26	0/4532	0.43	0/6194
1	E	0.25	0/4699	0.42	0/6414
1	F	0.25	0/4520	0.42	0/6178
All	All	0.25	0/27208	0.43	0/37152

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	4711	0	4395	48	0
1	B	4346	0	4038	35	0
1	C	4032	0	3810	44	0
1	D	4411	0	4026	38	0
1	E	4567	0	4229	30	0
1	F	4397	0	3998	39	0
2	A	26	0	19	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	26	0	19	0	0
2	C	26	0	19	1	0
2	D	26	0	19	1	0
2	E	26	0	19	0	0
2	F	26	0	19	0	0
3	A	11	0	0	0	0
3	B	6	0	0	0	0
3	C	5	0	0	0	0
3	D	10	0	0	0	0
3	E	5	0	0	0	0
3	F	6	0	0	0	0
All	All	26663	0	24610	229	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 4.

All (229) 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:C:476:GLY:O	1:C:523:ARG:NH2	2.26	0.68
1:D:432:GLN:HB3	2:D:701:PRX:H5'2	1.79	0.65
1:C:505:ASP:HA	1:C:509:ASN:HB2	1.79	0.64
1:F:373:TYR:HH	1:F:429:THR:HG1	1.45	0.64
1:B:364:ILE:HG23	1:B:369:VAL:HB	1.81	0.63
1:E:103:ASP:OD1	1:E:174:ARG:NH1	2.28	0.63
1:C:364:ILE:HG23	1:C:369:VAL:HB	1.82	0.61
1:C:33:HIS:ND1	1:C:35:SER:O	2.34	0.61
1:F:364:ILE:HG23	1:F:369:VAL:HB	1.83	0.61
1:C:51:GLU:HG2	1:C:59:PHE:HB2	1.84	0.60
1:F:39:LEU:HD22	1:F:44:GLU:HG2	1.83	0.58
1:F:482:VAL:HA	1:F:520:GLY:HA2	1.84	0.58
1:C:120:ASP:HA	1:C:350:SER:HB2	1.85	0.58
1:A:281:TYR:HA	1:A:291:GLY:HA2	1.84	0.58
1:A:364:ILE:HG23	1:A:369:VAL:HB	1.85	0.57
1:A:39:LEU:HD22	1:A:44:GLU:HG2	1.87	0.56
1:C:51:GLU:OE2	1:C:62:ARG:NH1	2.38	0.56
1:A:25:VAL:HG22	1:A:425:HIS:CD2	2.41	0.55
1:B:362:ASP:OD1	1:B:392:HIS:NE2	2.35	0.55
1:E:468:PRO:HG3	1:E:482:VAL:HG13	1.89	0.55
1:C:352:PRO:HG3	1:C:360:TYR:CZ	2.42	0.55
1:E:400:LEU:HD23	1:E:415:TYR:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:406:PRO:HD3	2:A:701:PRX:H3	1.88	0.55
1:E:117:TYR:CD1	1:E:163:PRO:HD3	2.42	0.54
1:B:136:GLU:OE1	1:B:139:ARG:NH1	2.41	0.54
1:E:465:ILE:HG12	1:E:523:ARG:HH21	1.73	0.54
1:D:486:LYS:HG2	1:D:514:TYR:HE1	1.73	0.54
1:A:16:GLU:OE1	1:A:532:ARG:NE	2.38	0.54
1:B:107:ILE:HG12	1:D:79:ILE:HG21	1.89	0.53
1:D:377:THR:N	1:D:405:GLU:OE2	2.41	0.53
1:E:482:VAL:HA	1:E:520:GLY:HA2	1.90	0.53
1:B:393:LYS:O	1:B:421:LYS:NZ	2.39	0.53
1:F:154:THR:HG22	1:F:178:ILE:HB	1.90	0.53
1:E:29:PHE:CE2	1:E:398:ARG:HG2	2.43	0.53
1:E:599:VAL:HG13	1:E:611:ALA:HB1	1.90	0.53
1:F:400:LEU:HD23	1:F:415:TYR:CE1	2.43	0.53
1:F:97:ALA:HB3	1:F:173:ALA:HB1	1.90	0.53
1:D:400:LEU:HB3	1:D:415:TYR:CZ	2.44	0.52
1:E:455:SER:HA	1:E:528:TYR:CD2	2.44	0.52
1:F:98:SER:OG	1:F:170:LEU:O	2.26	0.52
1:B:29:PHE:CE2	1:B:398:ARG:HG2	2.45	0.52
1:F:302:GLY:HA3	1:F:491:SER:HB2	1.92	0.52
1:A:169:PHE:CZ	1:A:181:VAL:HG21	2.44	0.52
1:A:555:LEU:HD22	1:A:598:LEU:HG	1.91	0.52
1:A:400:LEU:HB3	1:A:415:TYR:CZ	2.46	0.51
1:E:519:ASP:OD1	1:E:534:ARG:HD2	2.11	0.51
1:F:295:THR:HG23	1:F:494:ARG:HG3	1.93	0.51
1:D:39:LEU:HD22	1:D:44:GLU:HG2	1.93	0.51
1:E:358:SER:HB3	1:E:389:HIS:HB3	1.92	0.51
1:E:99:PHE:HA	1:E:103:ASP:HB2	1.94	0.50
1:E:505:ASP:HA	1:E:509:ASN:HB2	1.93	0.50
1:F:467:ASP:HB3	1:F:470:SER:HB3	1.93	0.50
1:B:169:PHE:CZ	1:B:181:VAL:HG21	2.46	0.50
1:B:358:SER:HB2	1:B:392:HIS:HE1	1.76	0.50
1:B:400:LEU:HB3	1:B:415:TYR:CZ	2.47	0.50
1:E:364:ILE:HG23	1:E:369:VAL:HB	1.94	0.50
1:C:169:PHE:CZ	1:C:181:VAL:HG21	2.47	0.50
1:A:432:GLN:HB3	2:A:701:PRX:H5'2	1.93	0.49
1:B:39:LEU:HD22	1:B:44:GLU:HG2	1.94	0.49
1:A:505:ASP:HA	1:A:509:ASN:HB2	1.93	0.49
1:D:33:HIS:ND1	1:D:34:PRO:HD2	2.27	0.49
1:F:602:VAL:HG11	1:F:612:PRO:HD3	1.95	0.49
1:A:582:VAL:HG11	1:A:598:LEU:HD21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:25:VAL:HG22	1:B:425:HIS:CD2	2.47	0.49
1:D:427:CYS:HA	1:D:442:PRO:HG2	1.95	0.48
1:D:465:ILE:HG12	1:D:523:ARG:HH11	1.78	0.48
1:B:541:VAL:HB	1:B:546:LEU:HD13	1.95	0.48
1:C:29:PHE:CE2	1:C:398:ARG:HG2	2.48	0.48
1:F:169:PHE:CZ	1:F:181:VAL:HG21	2.48	0.48
1:A:117:TYR:CD1	1:A:163:PRO:HD3	2.48	0.48
1:C:154:THR:HG22	1:C:178:ILE:HB	1.96	0.48
1:C:429:THR:HA	1:C:441:SER:HB2	1.94	0.48
1:D:362:ASP:OD1	1:D:392:HIS:NE2	2.41	0.48
1:E:25:VAL:HG22	1:E:425:HIS:CD2	2.48	0.48
1:C:117:TYR:CD1	1:C:163:PRO:HD3	2.49	0.48
1:E:400:LEU:HB3	1:E:415:TYR:CZ	2.49	0.48
1:C:45:TYR:OH	1:C:457:PRO:O	2.27	0.48
1:B:383:LYS:HE2	1:B:414:TRP:HB2	1.96	0.48
1:D:505:ASP:HA	1:D:509:ASN:HB2	1.96	0.47
1:E:405:GLU:HG3	1:E:406:PRO:HD2	1.95	0.47
1:F:505:ASP:HA	1:F:509:ASN:HB2	1.96	0.47
1:B:358:SER:HB2	1:B:392:HIS:CE1	2.50	0.47
1:C:455:SER:HA	1:C:528:TYR:CD2	2.49	0.47
1:A:421:LYS:O	1:A:423:GLU:HG3	2.14	0.47
1:A:374:VAL:O	1:A:402:SER:HA	2.15	0.47
1:C:373:TYR:OH	1:C:429:THR:OG1	2.25	0.47
1:A:97:ALA:HB3	1:A:173:ALA:HB1	1.96	0.47
1:A:432:GLN:HG3	1:A:435:THR:HG23	1.95	0.47
1:D:432:GLN:HG3	1:D:435:THR:HG23	1.96	0.47
1:F:400:LEU:HB3	1:F:415:TYR:CZ	2.50	0.47
1:B:505:ASP:HA	1:B:509:ASN:HB2	1.96	0.47
1:B:352:PRO:HG3	1:B:360:TYR:CZ	2.50	0.47
1:C:146:GLN:HG3	1:C:262:TYR:CE1	2.49	0.47
1:C:97:ALA:HB3	1:C:173:ALA:HB1	1.96	0.46
1:D:169:PHE:CZ	1:D:181:VAL:HG21	2.50	0.46
1:B:147:ARG:HD2	1:B:234:SER:OG	2.15	0.46
1:D:455:SER:HA	1:D:528:TYR:CD2	2.50	0.46
1:D:462:GLU:OE1	1:D:487:GLN:NE2	2.39	0.46
1:B:75:GLN:OE1	1:B:92:GLU:HG3	2.16	0.46
1:B:432:GLN:HG3	1:B:435:THR:HG23	1.96	0.46
1:E:22:THR:HG22	1:E:450:LYS:HE2	1.96	0.46
1:B:71:ASP:N	1:B:94:ARG:O	2.48	0.46
1:D:29:PHE:CE2	1:D:398:ARG:HG2	2.50	0.46
1:F:288:LYS:O	1:F:502:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:40:LYS:NZ	1:F:108:LYS:O	2.49	0.46
1:A:406:PRO:HD3	2:A:701:PRX:C2	2.45	0.46
1:F:374:VAL:O	1:F:402:SER:HA	2.16	0.46
1:A:352:PRO:HG3	1:A:360:TYR:CZ	2.51	0.46
1:D:71:ASP:N	1:D:94:ARG:O	2.49	0.45
1:F:465:ILE:HG12	1:F:523:ARG:HH11	1.81	0.45
1:D:358:SER:HB2	1:D:392:HIS:HE1	1.81	0.45
1:C:300:LEU:HD22	1:C:340:LEU:HD11	1.99	0.45
1:D:364:ILE:HG23	1:D:369:VAL:HB	1.98	0.45
1:E:534:ARG:HE	1:E:534:ARG:HB3	1.64	0.45
1:F:117:TYR:CD1	1:F:163:PRO:HD3	2.51	0.45
1:C:71:ASP:N	1:C:94:ARG:O	2.48	0.45
1:A:29:PHE:CE2	1:A:398:ARG:HG2	2.52	0.45
1:B:453:SER:HB2	1:B:530:TRP:CE2	2.51	0.45
1:D:358:SER:HB2	1:D:392:HIS:CE1	2.52	0.45
1:F:492:MET:O	1:F:494:ARG:NH1	2.50	0.45
1:A:486:LYS:HG2	1:A:514:TYR:HE1	1.82	0.45
1:F:82:LEU:HG	1:F:488:PRO:HG3	1.97	0.45
1:C:120:ASP:OD1	1:C:212:GLY:N	2.48	0.44
1:E:83:GLU:OE1	1:E:83:GLU:N	2.45	0.44
1:F:370:THR:HA	1:F:396:HIS:O	2.17	0.44
1:A:295:THR:HG23	1:A:494:ARG:HG3	1.99	0.44
1:A:492:MET:O	1:A:494:ARG:NH1	2.49	0.44
1:C:48:LEU:HB3	1:C:459:PHE:CE1	2.52	0.44
1:D:147:ARG:HD2	1:D:234:SER:OG	2.17	0.44
1:D:492:MET:O	1:D:494:ARG:NH1	2.49	0.44
1:A:455:SER:HA	1:A:528:TYR:CD2	2.53	0.44
1:C:147:ARG:HD2	1:C:234:SER:OG	2.18	0.44
1:F:29:PHE:CE2	1:F:398:ARG:HG2	2.53	0.44
1:A:103:ASP:OD1	1:A:174:ARG:NH1	2.44	0.44
1:A:427:CYS:HA	1:A:442:PRO:HG2	1.99	0.44
1:B:139:ARG:O	1:B:143:VAL:HG23	2.18	0.44
1:C:486:LYS:HG2	1:C:514:TYR:HE1	1.83	0.44
1:D:97:ALA:HB3	1:D:173:ALA:HB1	1.98	0.44
1:E:492:MET:O	1:E:494:ARG:NH1	2.50	0.44
1:B:295:THR:HG23	1:B:494:ARG:HG3	1.99	0.44
1:B:300:LEU:HD22	1:B:340:LEU:HD11	2.00	0.44
1:F:442:PRO:HG3	1:F:455:SER:OG	2.17	0.44
1:F:455:SER:HA	1:F:528:TYR:CD2	2.53	0.44
1:A:519:ASP:OD1	1:A:534:ARG:HD2	2.17	0.44
1:B:117:TYR:CD1	1:B:163:PRO:HD3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:374:VAL:O	1:E:402:SER:HA	2.18	0.43
1:F:377:THR:CB	1:F:542:SER:HA	2.48	0.43
1:A:193:ASP:OD2	1:A:288:LYS:NZ	2.50	0.43
1:B:154:THR:HA	1:B:178:ILE:O	2.18	0.43
1:E:352:PRO:HG3	1:E:360:TYR:CZ	2.53	0.43
1:B:235:VAL:HG23	1:B:251:ARG:HG2	2.00	0.43
1:A:186:PHE:CE1	1:A:609:PHE:HZ	2.36	0.43
1:F:397:LEU:HD12	1:F:397:LEU:HA	1.87	0.43
1:C:54:ARG:NH1	1:D:38:HIS:O	2.51	0.43
1:D:98:SER:OG	1:D:170:LEU:O	2.36	0.43
1:D:295:THR:HG23	1:D:494:ARG:HG3	2.00	0.43
1:A:83:GLU:OE1	1:A:83:GLU:N	2.49	0.43
1:B:98:SER:OG	1:B:170:LEU:O	2.37	0.43
1:C:492:MET:O	1:C:494:ARG:NH1	2.51	0.43
1:D:117:TYR:CD1	1:D:163:PRO:HD3	2.53	0.43
1:F:103:ASP:OD1	1:F:174:ARG:NH1	2.47	0.43
1:A:631:ARG:O	1:A:635:ARG:HG3	2.19	0.43
1:B:183:PHE:HB3	1:B:186:PHE:CE2	2.54	0.43
1:B:400:LEU:HD22	1:B:415:TYR:CE1	2.54	0.43
1:C:194:ARG:HG2	1:C:281:TYR:CG	2.54	0.42
1:F:440:ILE:HA	1:F:457:PRO:HA	2.00	0.42
1:D:75:GLN:OE1	1:D:92:GLU:HG3	2.20	0.42
1:A:71:ASP:N	1:A:94:ARG:O	2.51	0.42
1:A:98:SER:OG	1:A:170:LEU:O	2.37	0.42
1:D:147:ARG:HA	1:D:147:ARG:HD3	1.87	0.42
1:C:504:MET:SD	1:C:508:LEU:HD12	2.59	0.42
1:A:361:TRP:CD1	1:A:390:ILE:HG13	2.55	0.42
1:C:406:PRO:HD3	2:C:701:PRX:H3	2.00	0.42
1:A:465:ILE:HG12	1:A:523:ARG:HH21	1.84	0.42
1:C:139:ARG:O	1:C:143:VAL:HG23	2.20	0.42
1:A:154:THR:HG22	1:A:178:ILE:HB	2.01	0.42
1:C:370:THR:HA	1:C:396:HIS:O	2.20	0.42
1:E:169:PHE:CZ	1:E:181:VAL:HG21	2.53	0.42
1:F:548:THR:O	1:F:552:GLU:HG3	2.20	0.42
1:C:83:GLU:OE1	1:C:83:GLU:N	2.49	0.42
1:D:486:LYS:HG2	1:D:514:TYR:CE1	2.52	0.42
1:F:136:GLU:HG3	1:F:167:VAL:HG11	2.02	0.42
1:F:400:LEU:O	1:F:426:ILE:HA	2.20	0.42
1:B:147:ARG:HA	1:B:147:ARG:HD3	1.87	0.42
1:E:147:ARG:HD2	1:E:234:SER:OG	2.20	0.42
1:F:147:ARG:HD2	1:F:234:SER:OG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:397:LEU:HD12	1:D:397:LEU:HA	1.79	0.41
1:C:418:LYS:HA	1:C:418:LYS:HD3	1.88	0.41
1:D:376:PRO:HD2	1:D:405:GLU:HG2	2.02	0.41
1:A:22:THR:HG22	1:A:448:SER:HB3	2.02	0.41
1:D:94:ARG:NH2	1:D:270:SER:O	2.54	0.41
1:D:453:SER:HB2	1:D:530:TRP:CE2	2.55	0.41
1:E:240:ARG:HH21	1:E:349:GLU:CD	2.23	0.41
1:A:161:MET:SD	1:A:325:VAL:HG13	2.61	0.41
1:A:400:LEU:HD22	1:A:415:TYR:CE1	2.55	0.41
1:B:206:THR:HG22	1:B:238:TYR:HB3	2.03	0.41
1:C:166:VAL:HG13	1:C:335:VAL:HG13	2.01	0.41
1:C:400:LEU:HB3	1:C:415:TYR:CE2	2.56	0.41
1:F:552:GLU:HG2	1:F:566:VAL:HG23	2.03	0.41
1:A:72:LYS:NZ	1:D:71:ASP:HB3	2.36	0.41
1:A:107:ILE:HG12	1:B:79:ILE:HG21	2.02	0.41
1:D:540:ASN:HA	1:D:544:HIS:O	2.21	0.41
1:E:316:ASP:O	1:E:318:ARG:NH1	2.45	0.41
1:F:120:ASP:HA	1:F:350:SER:HB2	2.02	0.41
1:C:516:PHE:CZ	1:C:518:GLY:HA2	2.56	0.41
1:E:154:THR:HA	1:E:178:ILE:O	2.20	0.41
1:E:276:PRO:HB3	1:E:293:MET:SD	2.60	0.41
1:B:83:GLU:OE1	1:B:83:GLU:N	2.50	0.41
1:E:552:GLU:O	1:E:556:ILE:HG13	2.20	0.41
1:F:373:TYR:HD1	1:F:401:GLY:HA3	1.86	0.41
1:F:429:THR:HG22	1:F:441:SER:OG	2.21	0.41
1:A:376:PRO:HG2	1:A:405:GLU:HG2	2.02	0.41
1:A:418:LYS:HA	1:A:418:LYS:HD3	1.93	0.41
1:A:328:ILE:HA	1:A:331:HIS:HB2	2.02	0.40
1:C:467:ASP:HB3	1:C:470:SER:HB3	2.02	0.40
1:C:486:LYS:HG2	1:C:514:TYR:CE1	2.56	0.40
1:A:94:ARG:NH2	1:A:270:SER:O	2.54	0.40
1:C:295:THR:HG23	1:C:494:ARG:HG3	2.03	0.40
1:F:328:ILE:HA	1:F:331:HIS:HB2	2.04	0.40
1:C:468:PRO:HG3	1:C:482:VAL:HG13	2.03	0.40
1:A:135:ARG:O	1:A:139:ARG:HG3	2.21	0.40
1:A:505:ASP:OD1	1:A:509:ASN:ND2	2.44	0.40
1:C:316:ASP:O	1:C:318:ARG:NH1	2.54	0.40
1:C:397:LEU:HG	1:C:400:LEU:HD11	2.02	0.40
1:A:534:ARG:HE	1:A:534:ARG:HB3	1.76	0.40
1:C:39:LEU:HD22	1:C:44:GLU:HG2	2.03	0.40
1:C:182:VAL:HG22	1:C:194:ARG:HD3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:83:GLU:OE1	1:D:83:GLU:N	2.52	0.40
1:D:203:VAL:HG13	1:D:235:VAL:HG13	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	617/685 (90%)	599 (97%)	18 (3%)	0	100	100
1	B	569/685 (83%)	552 (97%)	17 (3%)	0	100	100
1	C	514/685 (75%)	495 (96%)	19 (4%)	0	100	100
1	D	582/685 (85%)	566 (97%)	16 (3%)	0	100	100
1	E	601/685 (88%)	583 (97%)	18 (3%)	0	100	100
1	F	581/685 (85%)	563 (97%)	18 (3%)	0	100	100
All	All	3464/4110 (84%)	3358 (97%)	106 (3%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	466/574 (81%)	461 (99%)	5 (1%)	73	92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	428/574 (75%)	420 (98%)	8 (2%)	57	85
1	C	411/574 (72%)	403 (98%)	8 (2%)	57	85
1	D	423/574 (74%)	416 (98%)	7 (2%)	60	87
1	E	441/574 (77%)	436 (99%)	5 (1%)	73	92
1	F	420/574 (73%)	418 (100%)	2 (0%)	88	96
All	All	2589/3444 (75%)	2554 (99%)	35 (1%)	67	90

All (35) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	103	ASP
1	A	318	ARG
1	A	360	TYR
1	A	415	TYR
1	A	432	GLN
1	B	35	SER
1	B	103	ASP
1	B	259	VAL
1	B	318	ARG
1	B	360	TYR
1	B	415	TYR
1	B	432	GLN
1	B	536	ASP
1	C	92	GLU
1	C	103	ASP
1	C	189	ASP
1	C	318	ARG
1	C	360	TYR
1	C	373	TYR
1	C	391	HIS
1	C	415	TYR
1	D	33	HIS
1	D	103	ASP
1	D	249	ASN
1	D	318	ARG
1	D	360	TYR
1	D	415	TYR
1	D	432	GLN
1	E	259	VAL
1	E	290	LYS

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Mol	Chain	Res	Type
1	E	318	ARG
1	E	360	TYR
1	E	432	GLN
1	F	318	ARG
1	F	360	TYR

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

Mol	Chain	Res	Type
1	F	87	ASN

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 ⓘ

6 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#$|Z| > 2$	Counts	RMSZ	#$|Z| > 2$
2	PRX	F	701	-	25,28,28	0.57	0	27,41,41	0.76	1 (3%)
2	PRX	E	701	-	25,28,28	0.58	0	27,41,41	0.75	1 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	PRX	B	701	-	25,28,28	0.59	0	27,41,41	0.76	1 (3%)
2	PRX	C	701	-	25,28,28	0.59	0	27,41,41	0.77	1 (3%)
2	PRX	D	701	-	25,28,28	0.59	0	27,41,41	0.74	1 (3%)
2	PRX	A	701	-	25,28,28	0.61	0	27,41,41	0.72	1 (3%)

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	PRX	F	701	-	-	1/11/31/31	0/3/3/3
2	PRX	E	701	-	-	1/11/31/31	0/3/3/3
2	PRX	B	701	-	-	0/11/31/31	0/3/3/3
2	PRX	C	701	-	-	0/11/31/31	0/3/3/3
2	PRX	D	701	-	-	0/11/31/31	0/3/3/3
2	PRX	A	701	-	-	0/11/31/31	0/3/3/3

There are no bond length outliers.

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	701	PRX	C5-C6-N6	2.36	123.93	120.35
2	D	701	PRX	C5-C6-N6	2.32	123.88	120.35
2	F	701	PRX	C5-C6-N6	2.32	123.87	120.35
2	E	701	PRX	C5-C6-N6	2.31	123.87	120.35
2	B	701	PRX	C5-C6-N6	2.31	123.86	120.35
2	A	701	PRX	C5-C6-N6	2.22	123.73	120.35

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	F	701	PRX	O3P-C1P-C2P-C3P
2	E	701	PRX	O3P-C1P-C2P-C3P

There are no ring outliers.

3 monomers are involved in 5 short contacts:

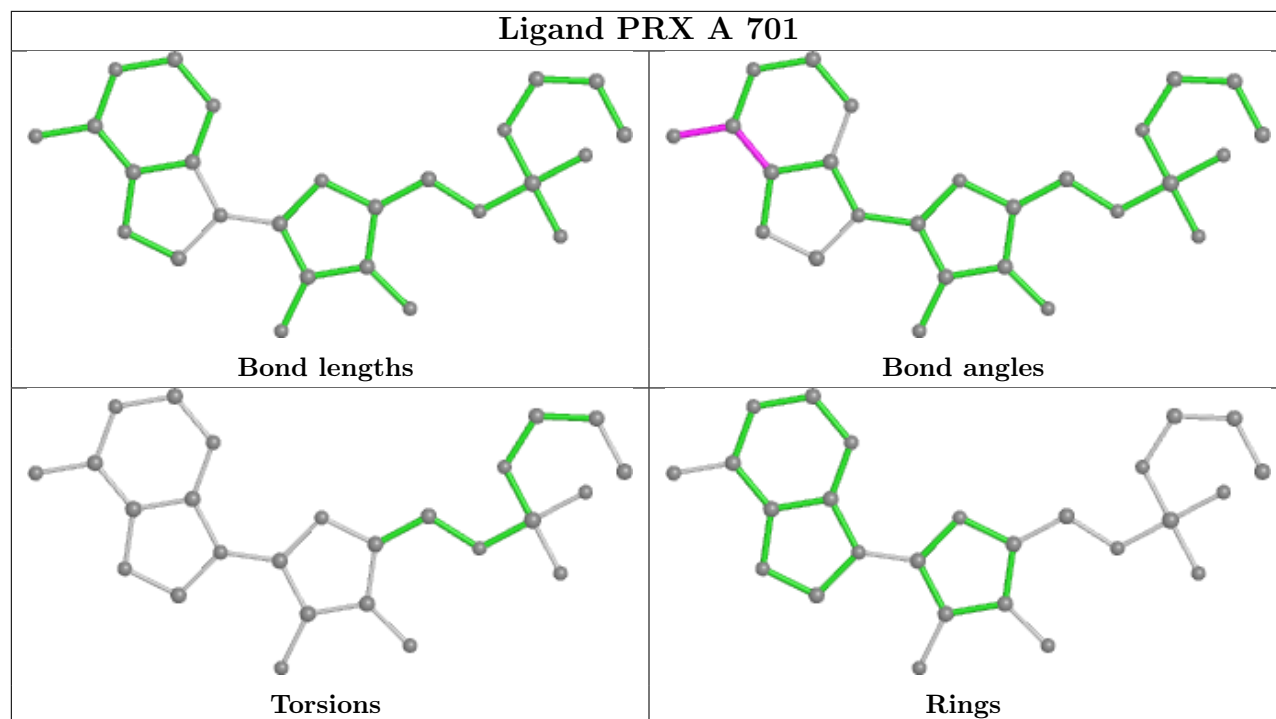| Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	701	PRX	1	0
2	D	701	PRX	1	0
2	A	701	PRX	3	0

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 PRX F 701

Bond lengths

Bond angles

Torsions

Rings

Ligand PRX E 701

Bond lengths

Bond angles

Torsions

Rings

Ligand PRX B 701

Bond lengths

Bond angles

Torsions

Rings

Ligand PRX C 701

Bond lengths

Bond angles

Torsions

Rings

Ligand PRX D 701

Bond lengths

Bond angles

Torsions

Rings

Ligand PRX A 701

Bond lengths

Bond angles

Torsions

Rings
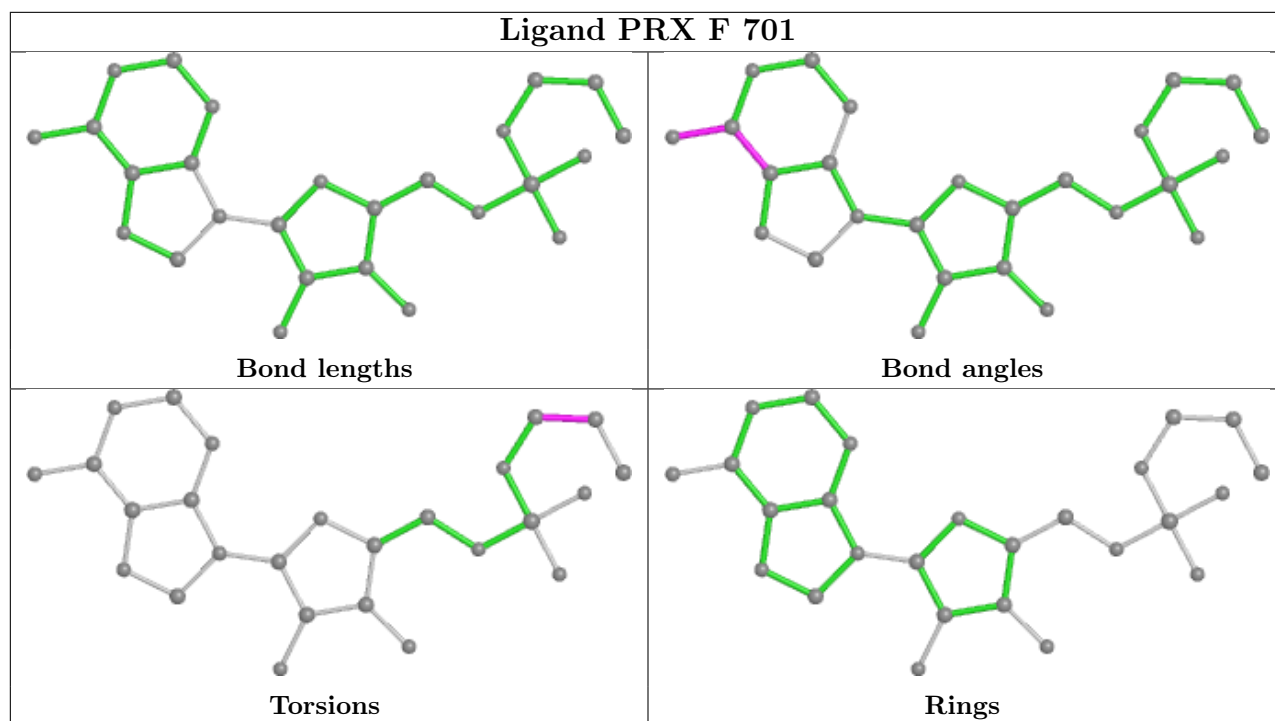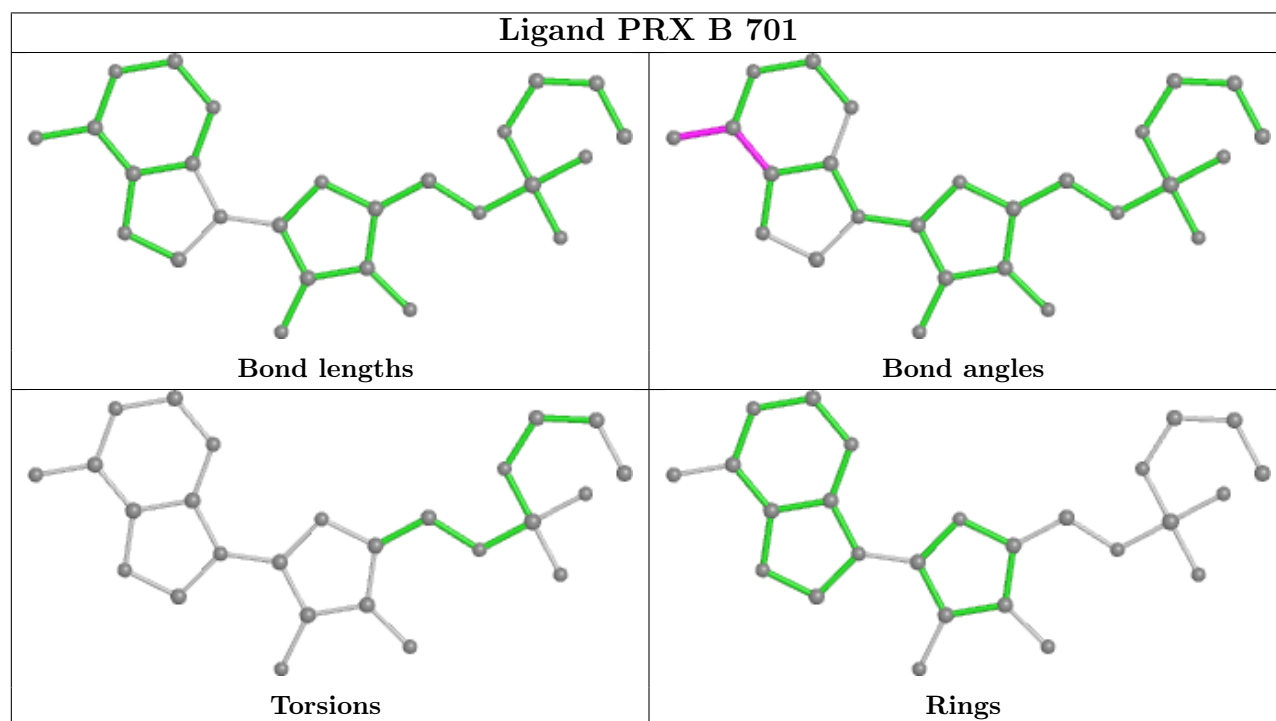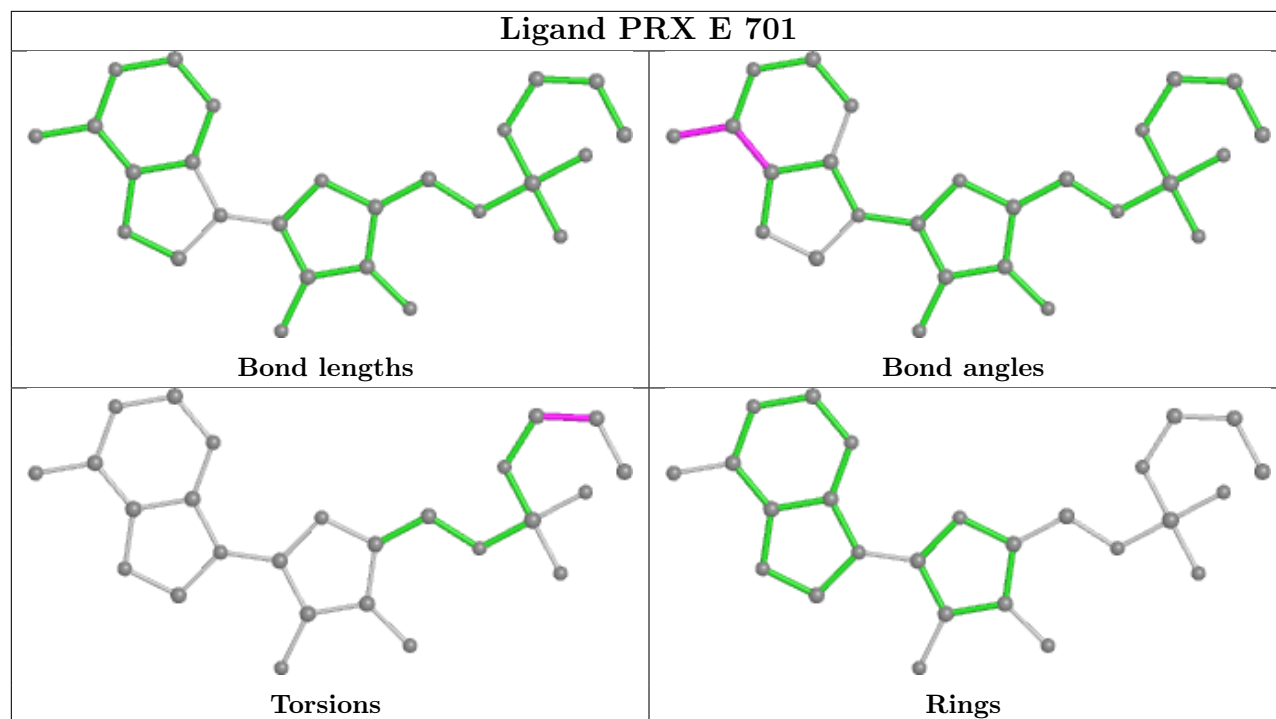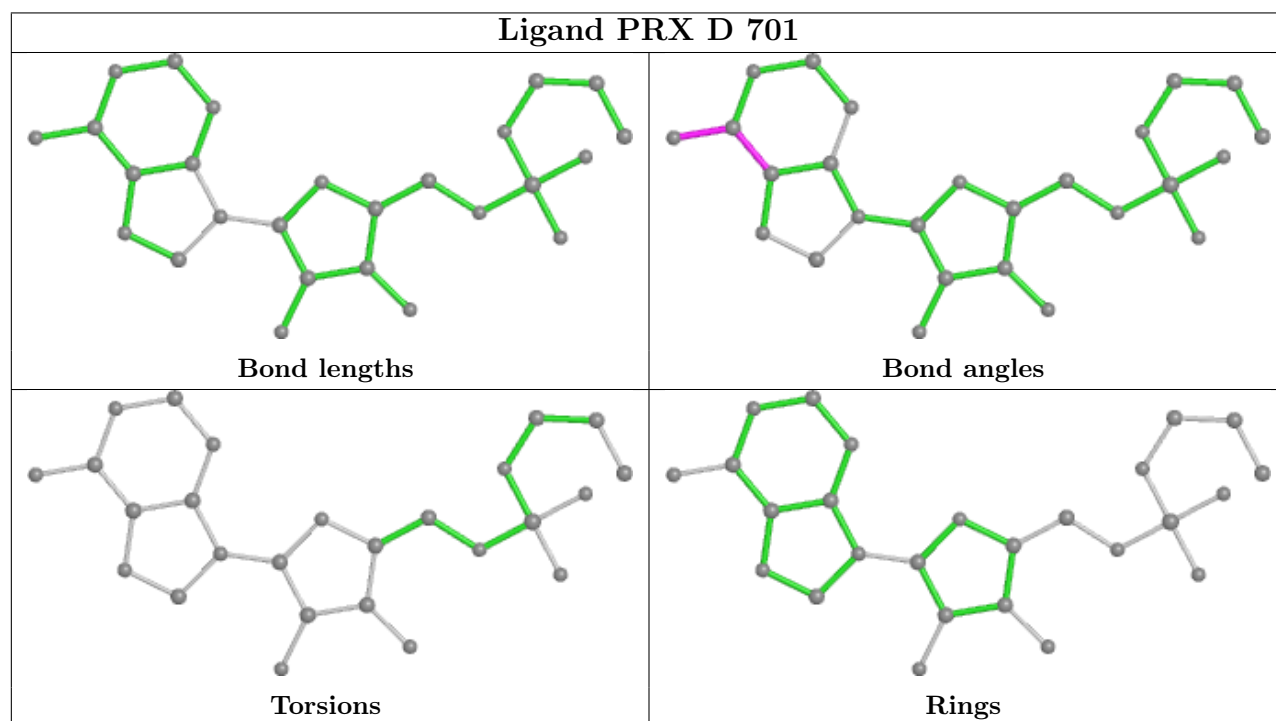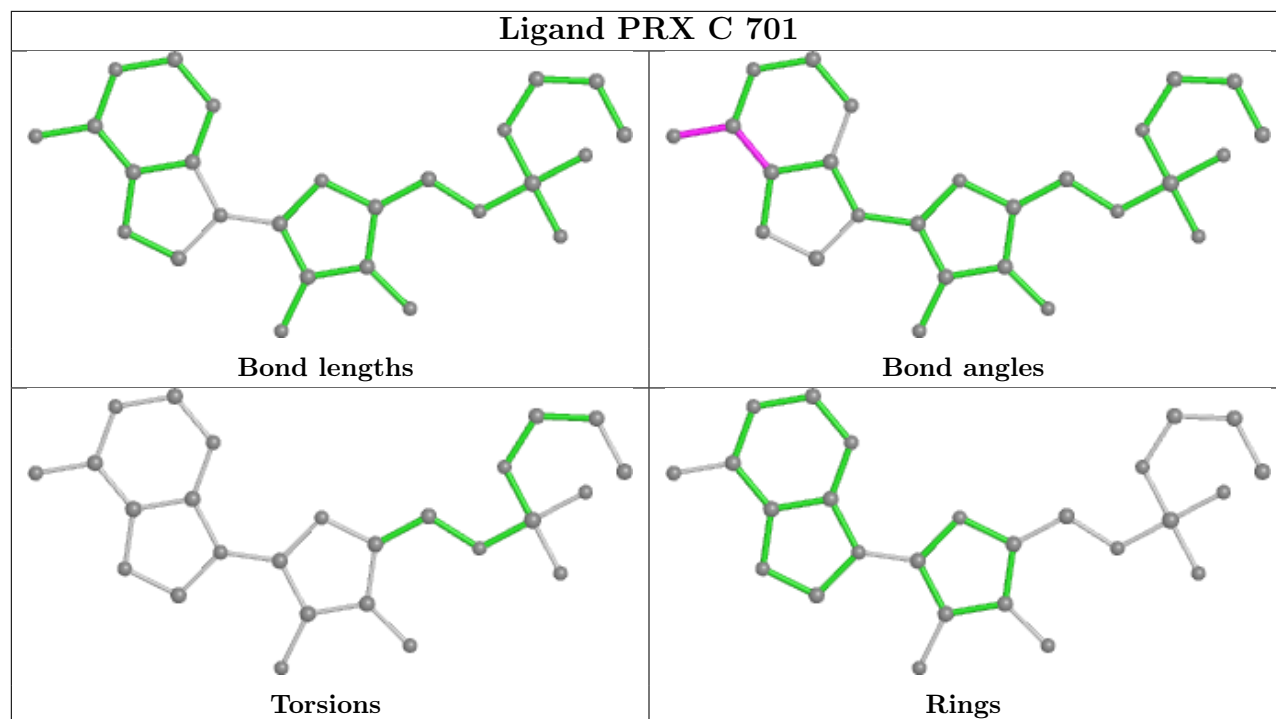
5.7 Other polymers (i)

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
1	A	622/685 (90%)	-0.45	10 (1%)	72	66	41, 57, 100, 145	0
1	B	575/685 (83%)	-0.40	15 (2%)	56	46	43, 59, 123, 168	0
1	C	518/685 (75%)	-0.57	4 (0%)	86	81	44, 58, 82, 124	0
1	D	590/685 (86%)	-0.32	14 (2%)	59	49	45, 62, 107, 146	0
1	E	605/685 (88%)	-0.39	12 (1%)	65	56	42, 61, 118, 153	0
1	F	589/685 (85%)	-0.19	13 (2%)	62	52	48, 73, 118, 173	0
All	All	3499/4110 (85%)	-0.38	68 (1%)	66	59	41, 61, 112, 173	0

All (68) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	622	PRO	4.6
1	C	22	THR	4.5
1	E	568	GLY	4.1
1	B	605	SER	4.0
1	B	580	ALA	4.0
1	D	564	ALA	4.0
1	D	611	ALA	3.9
1	F	611	ALA	3.8
1	F	540	ASN	3.8
1	F	581	PHE	3.8
1	E	618	VAL	3.6
1	B	615	VAL	3.5
1	B	578	VAL	3.4
1	B	610	ALA	3.3
1	E	17	ALA	3.3
1	D	565	ALA	3.2
1	F	616	PHE	3.2
1	F	612	PRO	3.2
1	D	630	MET	3.2

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Mol	Chain	Res	Type	RSRZ
1	A	630	MET	3.1
1	B	560	GLN	3.1
1	B	537	ASP	3.1
1	B	557	GLU	3.0
1	F	543	GLY	3.0
1	D	612	PRO	3.0
1	A	618	VAL	2.9
1	B	616	PHE	2.9
1	D	605	SER	2.8
1	D	577	ALA	2.8
1	E	562	ALA	2.8
1	D	616	PHE	2.8
1	F	614	ALA	2.7
1	E	583	SER	2.6
1	D	287	GLY	2.6
1	D	580	ALA	2.6
1	E	18	ASN	2.6
1	A	582	VAL	2.6
1	D	582	VAL	2.5
1	A	611	ALA	2.5
1	B	285	SER	2.4
1	A	616	PHE	2.4
1	E	635	ARG	2.4
1	F	615	VAL	2.4
1	B	538	VAL	2.4
1	C	19	ASP	2.4
1	A	17	ALA	2.4
1	F	172	CYS	2.3
1	C	286	THR	2.3
1	E	581	PHE	2.3
1	A	555	LEU	2.3
1	C	287	GLY	2.3
1	E	616	PHE	2.3
1	B	559	HIS	2.3
1	E	634	LEU	2.3
1	F	535	VAL	2.2
1	E	633	ILE	2.2
1	D	581	PHE	2.2
1	F	357	PHE	2.2
1	B	583	SER	2.2
1	D	22	THR	2.2
1	D	562	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	B	558	HIS	2.1
1	F	21	ASP	2.1
1	B	614	ALA	2.1
1	A	563	GLU	2.1
1	A	562	ALA	2.1
1	E	15	LEU	2.0
1	F	536	ASP	2.0

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	PRX	D	701	26/26	0.95	0.13	56,65,73,74	0
2	PRX	F	701	26/26	0.95	0.13	64,77,84,87	0
2	PRX	C	701	26/26	0.96	0.13	52,62,68,71	0
2	PRX	A	701	26/26	0.96	0.17	50,54,59,61	0
2	PRX	E	701	26/26	0.96	0.18	56,61,70,74	0
2	PRX	B	701	26/26	0.96	0.14	55,65,70,71	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 PRX D 701:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
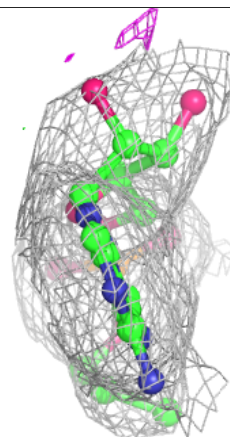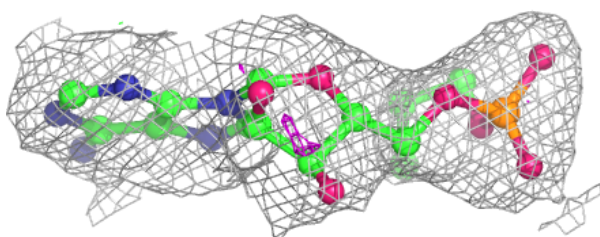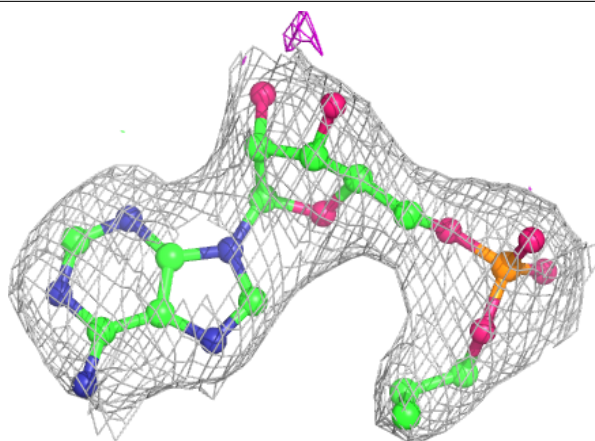and green (positive)
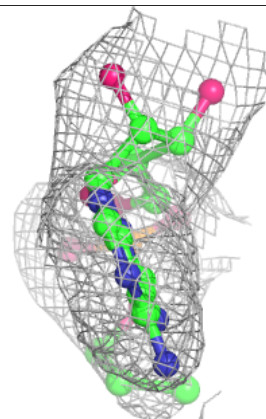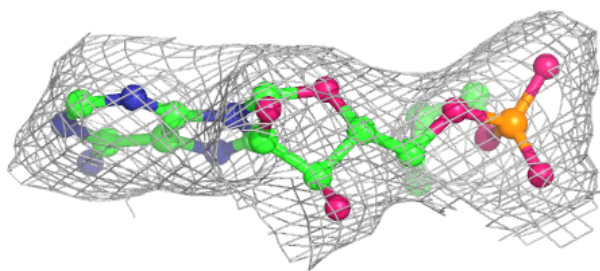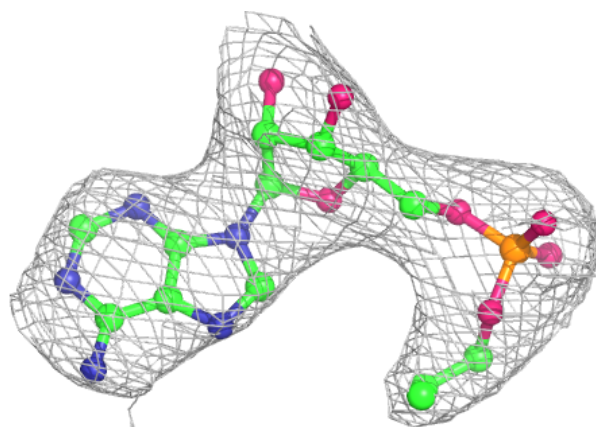
Electron density around PRX F 701:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
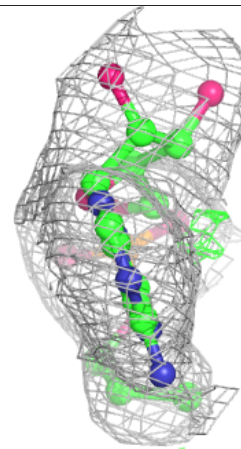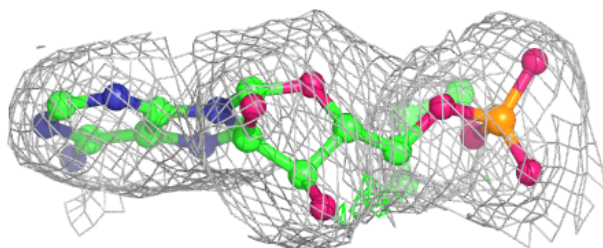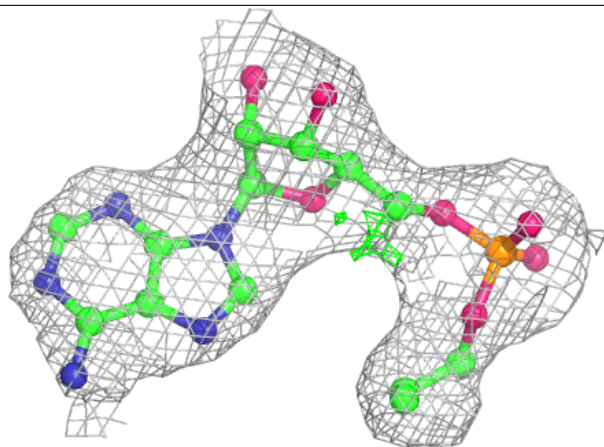$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
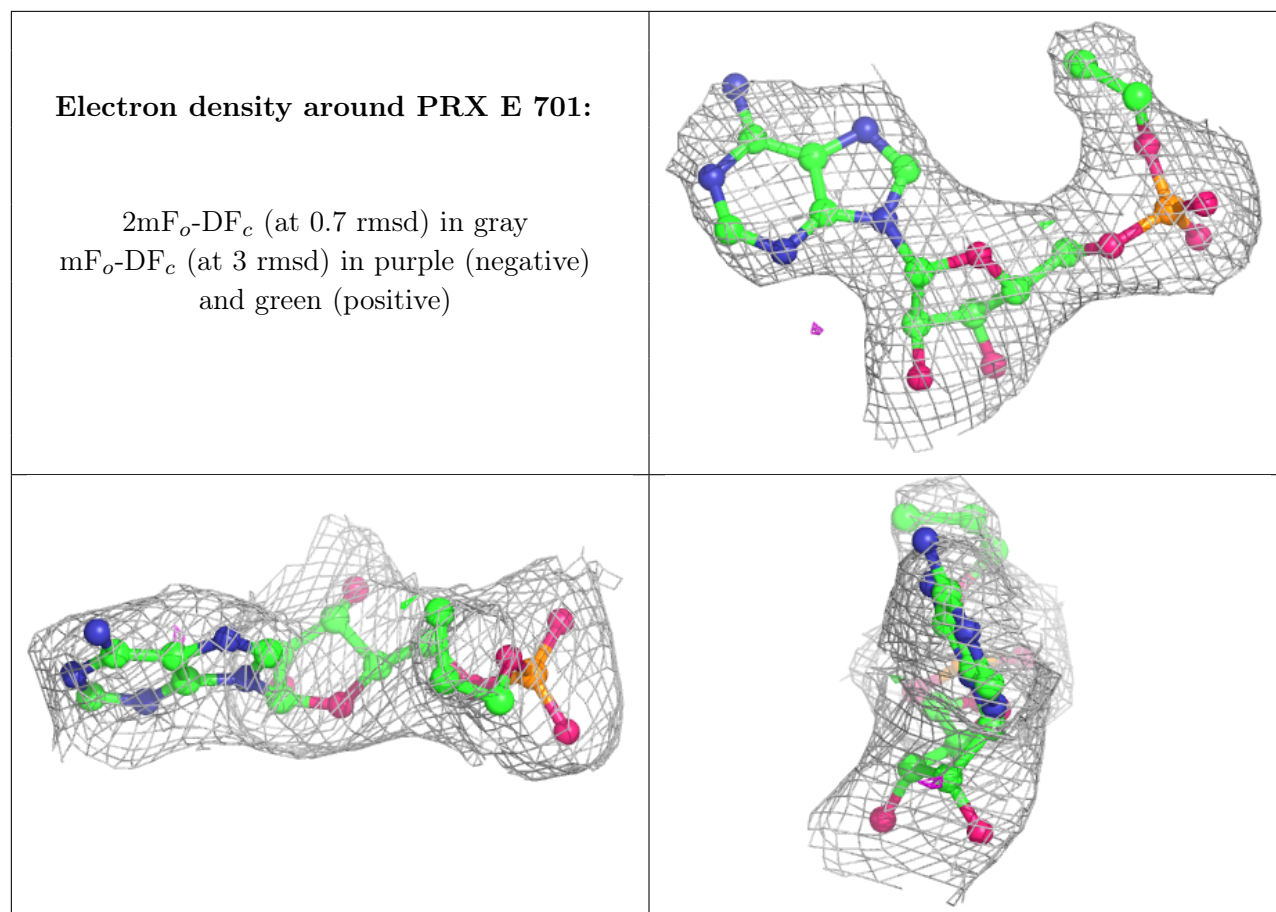and green (positive)
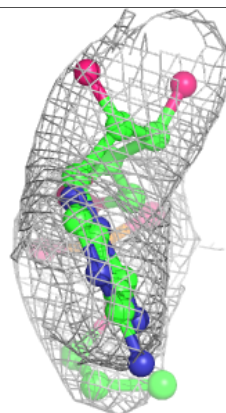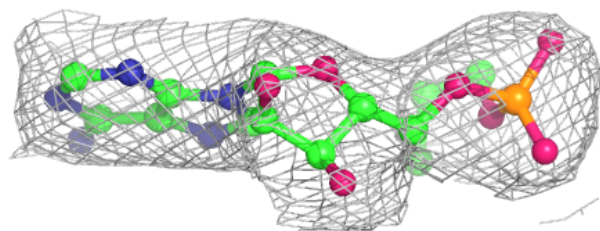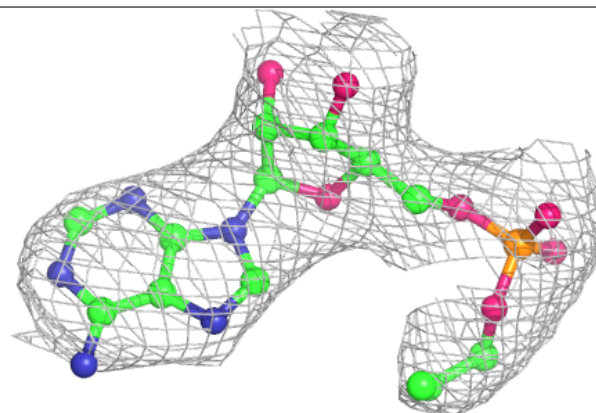
Electron density around PRX C 701:

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

Electron density around PRX A 701:

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

Electron density around PRX E 701:

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

Electron density around PRX B 701:

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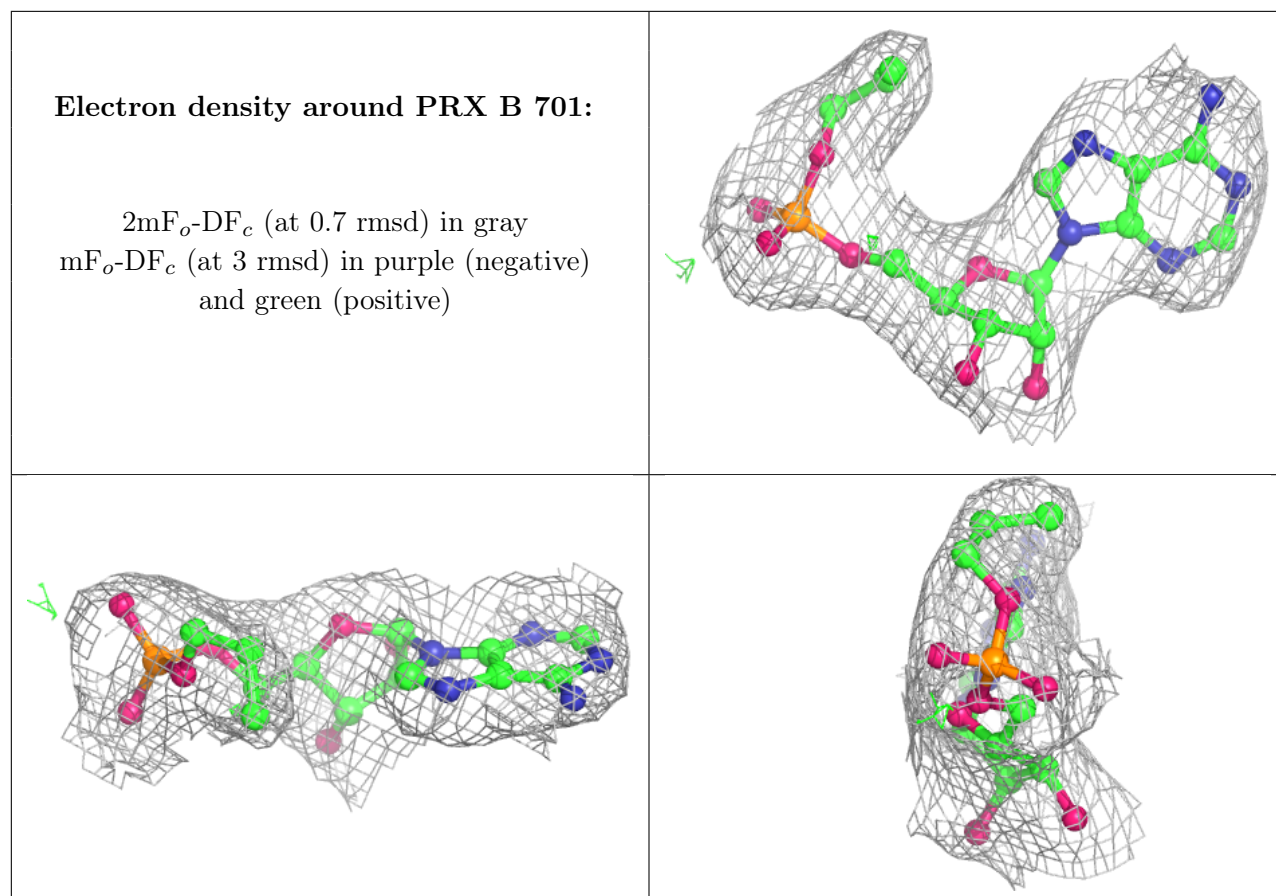mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

6.5 Other polymers ⓘ

There are no such residues in this entry.