WORLDWIDE PDB
PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report (i)

Jun 9, 2022 – 01:21 pm BST

PDB ID	:	7PPG
Title	:	CRYSTAL STRUCTURE OF NAMPT IN COMPLEX WITH COMPOUND 9
Authors	:	Hillig, R.C.
Deposited on	:	2021-09-13
Resolution	:	2.13 Å(reported)

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

|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.28.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0267
CCP4	:	7.1.010 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.28.1

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 2.13 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.
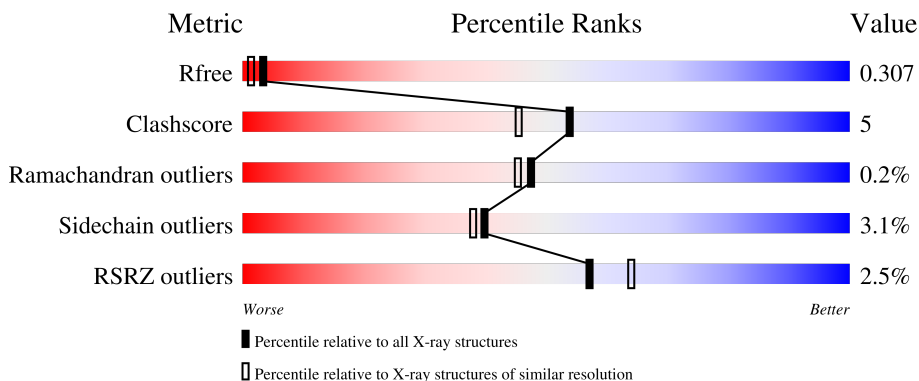
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2523 (2.16-2.12)
Clashscore	141614	2653 (2.16-2.12)
Ramachandran outliers	138981	2618 (2.16-2.12)
Sidechain outliers	138945	2617 (2.16-2.12)
RSRZ outliers	127900	2485 (2.16-2.12)

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	492	2% / 85% / 7% · 5%
1	B	492	2% / 85% / 10% 5%
1	C	492	2% / 83% / 10% · 5%
1	D	492	3% / 86% / 8% 5%

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 16462 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 Nicotinamide phosphoribosyltransferase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	467	Total	C	N	O	S	0	1	0
			3744	2409	619	709	7			
1	B	466	Total	C	N	O	S	0	1	0
			3738	2405	618	708	7			
1	C	467	Total	C	N	O	S	0	0	0
			3736	2405	618	706	7			
1	D	467	Total	C	N	O	S	0	2	0
			3753	2416	620	710	7			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	0	GLY	-	expression tag	UNP P43490
B	0	GLY	-	expression tag	UNP P43490
C	0	GLY	-	expression tag	UNP P43490
D	0	GLY	-	expression tag	UNP P43490

- Molecule 2 is PHOSPHATE ION (three-letter code: PO4) (formula: O_4P).

PO4

O3

O^-

O2 O^- — P = O O1

P

O^-

O4

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

- Molecule 3 is N-[4-[(4R)-1-cyclopentyl-4-methyl-6-oxidanylidene-4,5-dihydropyridazin-3-yl] phenyl]-1,3-dihydropyrrolo[3,4-c]pyridine-2-carboxamide (three-letter code: 7YX) (formula: $C_{24}H_{27}N_5O_2$) (labeled as "Ligand of Interest" by depositor).
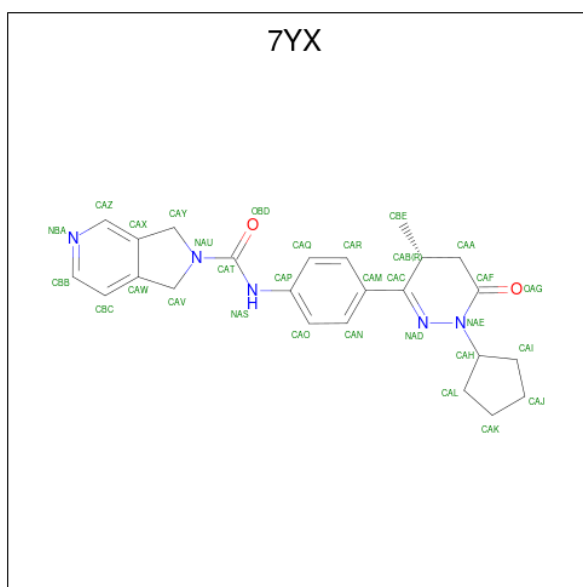
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total 31	C 24	N 5	O 2	0	0
3	B	1	Total 31	C 24	N 5	O 2	0	0
3	C	1	Total 31	C 24	N 5	O 2	0	0
3	D	1	Total 31	C 24	N 5	O 2	0	0

- Molecule 4 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).

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

- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	325	Total 325	O 325	0	0
5	B	334	Total 334	O 334	0	0
5	C	336	Total 336	O 336	0	0
5	D	321	Total 321	O 321	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: Nicotinamide phosphoribosyltransferase
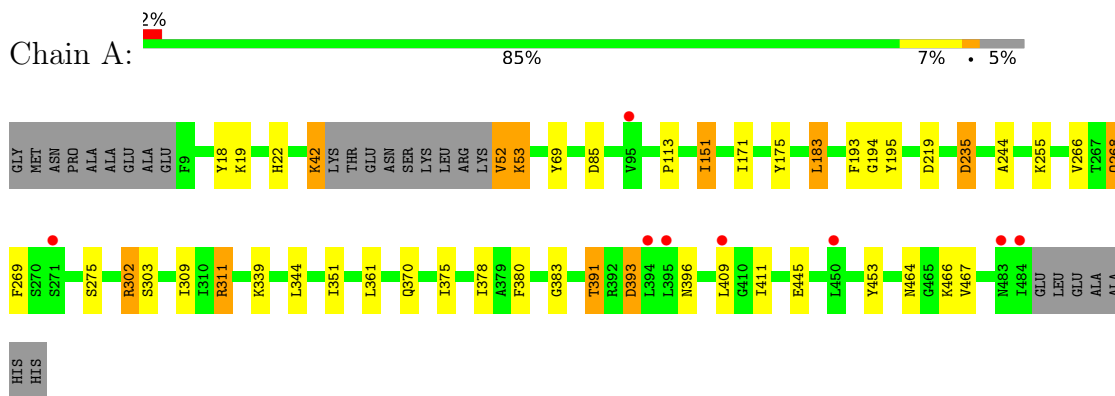
- Molecule 1: Nicotinamide phosphoribosyltransferase

- Molecule 1: Nicotinamide phosphoribosyltransferase

R434 L450 E451 G454 Q455 H459 N464 V467 N483 I484 GLU LEU GLU ALA ALA HIS HIS

• Molecule 1: Nicotinamide phosphoribosyltransferase

Chain D:

3%

86%

8% 5%

GLY MET ASN PRO ALA ALA GLU ALA GLU F9 A14 Y18 K19 H22 N29 K42 LYS THR GLU ASN SER LYS LEU ARG LYS V52 K53 Y64 K77 V86 Y87 K88 F91 D94 I104 K107 P113 K117 A118 V119 T137 C141 I151

L177 Y195 I206 D219 L226 V242 P243 A244 H247 K255 S270 S275 D279 K289 R302 I309 I310 R311 P312 I351 Q352 G353 D354 G355 I378 D393 G408 L409 G410 I411 L432 L450 Y453 H459 N464 E475

K478 I484 GLU LEU GLU ALA ALA HIS HIS
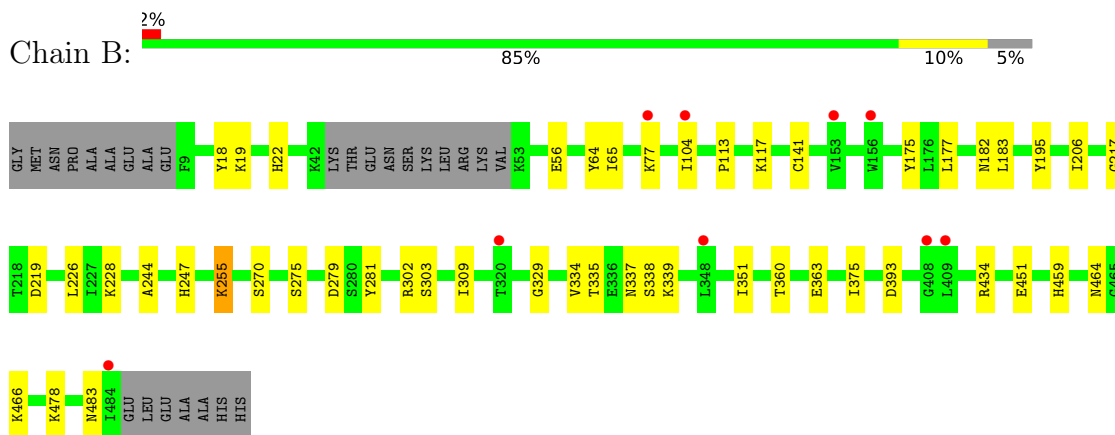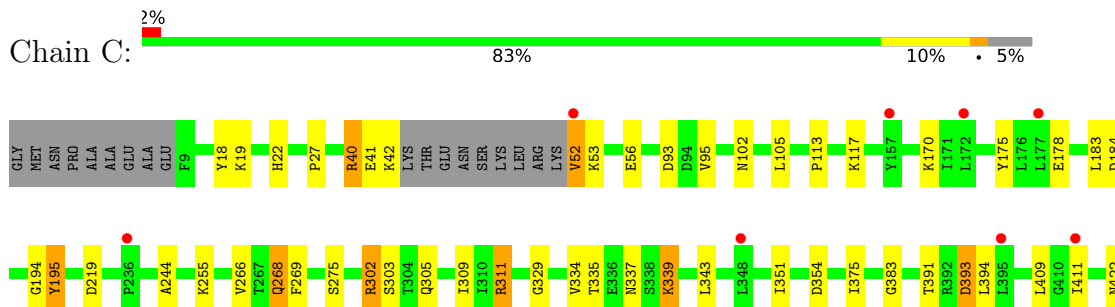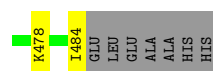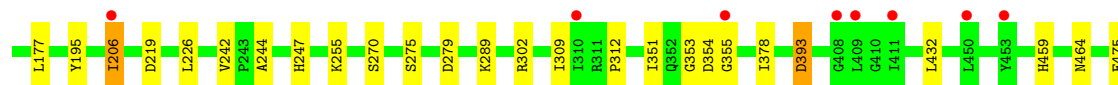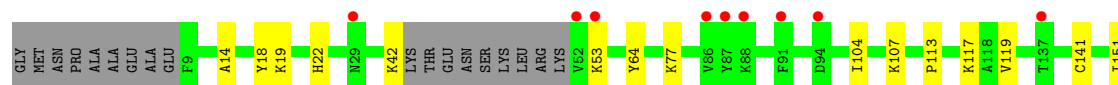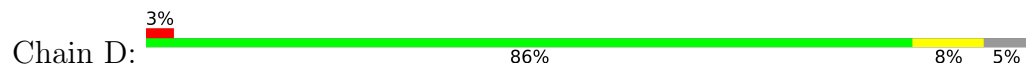
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	82.96Å 106.18Å 121.34Å 90.00° 96.53° 90.00°	Depositor
Resolution (Å)	48.59 – 2.13 48.59 – 2.13	Depositor EDS
% Data completeness (in resolution range)	98.0 (48.59-2.13) 98.0 (48.59-2.13)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.12	Depositor
$< I/\sigma(I) >$ [1]	1.43 (at 2.12Å)	Xtriage
Refinement program	REFMAC 5.8.0267	Depositor
R, R_{free}	0.253 , 0.302 0.259 , 0.307	Depositor DCC
R_{free} test set	5747 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	18.4	Xtriage
Anisotropy	0.287	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	(Not available) , (Not available)	EDS
L-test for twinning[2]	$< |L| > = 0.49, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	16462	wwPDB-VP
Average B, all atoms (Å^2)	21.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 79.75 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 5.2121e-07. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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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 ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: PO4, EDO, 7YX

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	0.69	0/3832	0.79	2/5192 (0.0%)
1	B	0.70	0/3826	0.76	1/5183 (0.0%)
1	C	0.69	0/3824	0.79	4/5181 (0.1%)
1	D	0.68	0/3841	0.77	1/5204 (0.0%)
All	All	0.69	0/15323	0.78	8/20760 (0.0%)

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	302	ARG	NE-CZ-NH1	9.44	125.02	120.30
1	A	302	ARG	NE-CZ-NH1	8.72	124.66	120.30
1	C	302	ARG	NE-CZ-NH2	-6.85	116.88	120.30
1	A	302	ARG	NE-CZ-NH2	-6.62	116.99	120.30
1	D	302	ARG	NE-CZ-NH1	-6.44	117.08	120.30
1	C	311	ARG	NE-CZ-NH2	5.48	123.04	120.30
1	C	40	ARG	NE-CZ-NH1	5.16	122.88	120.30
1	B	302	ARG	NE-CZ-NH1	-5.03	117.78	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	3744	0	3724	40	0
1	B	3738	0	3717	38	0
1	C	3736	0	3721	41	0
1	D	3753	0	3736	36	0
2	A	10	0	0	0	0
2	B	5	0	0	0	0
2	C	10	0	0	1	0
2	D	10	0	0	1	0
3	A	31	0	0	0	0
3	B	31	0	0	0	0
3	C	31	0	0	0	0
3	D	31	0	0	3	0
4	A	8	0	12	2	0
4	B	4	0	5	2	0
4	D	4	0	5	1	0
5	A	325	0	0	17	0
5	B	334	0	0	13	0
5	C	336	0	0	18	0
5	D	321	0	0	12	0
All	All	16462	0	14920	158	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 5.

All (158) 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:64:TYR:CE2	1:B:206:ILE:HD11	1.92	1.03
1:A:393[B]:ASP:OD1	5:A:601:HOH:O	1.78	1.00
1:D:206[A]:ILE:HD12	1:D:226:LEU:HD11	1.48	0.95
1:A:393[B]:ASP:CG	5:A:601:HOH:O	2.02	0.95
1:C:40:ARG:HD3	1:C:422:ASN:O	1.66	0.94
1:D:206[A]:ILE:CD1	1:D:226:LEU:HD11	2.07	0.84
1:A:183:LEU:HD11	5:A:834:HOH:O	1.79	0.83
1:C:343:LEU:HB3	5:C:601:HOH:O	1.78	0.82
1:D:104:ILE:HD11	1:D:141:CYS:SG	2.19	0.81
1:A:171:ILE:HD13	5:A:751:HOH:O	1.80	0.81
1:D:206[A]:ILE:CD1	1:D:226:LEU:CD1	2.61	0.79
1:C:40:ARG:CD	1:C:422:ASN:O	2.31	0.77
1:B:65:ILE:HD11	5:B:760:HOH:O	1.84	0.77
1:C:391:THR:HG22	5:C:739:HOH:O	1.85	0.76
1:B:104:ILE:HD11	1:B:141:CYS:SG	2.27	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:64:TYR:CD2	1:B:206:ILE:HD11	2.24	0.72
1:D:247:HIS:HE1	1:D:279:ASP:OD1	1.73	0.72
1:A:445:GLU:CD	5:A:611:HOH:O	2.28	0.72
1:B:363:GLU:HG3	5:B:797:HOH:O	1.89	0.71
1:D:393:ASP:OD2	5:D:601:HOH:O	2.07	0.71
1:B:247:HIS:HE1	1:B:279:ASP:OD1	1.74	0.70
1:C:170:LYS:HE3	5:C:736:HOH:O	1.92	0.70
1:A:467:VAL:HG21	5:A:843:HOH:O	1.93	0.69
1:D:206[A]:ILE:HD12	1:D:226:LEU:CD1	2.20	0.69
1:C:268:GLN:HE21	1:C:268:GLN:HA	1.57	0.69
2:D:503:PO4:O3	5:D:602:HOH:O	2.11	0.68
1:B:64:TYR:CZ	1:B:206:ILE:HD11	2.28	0.68
1:A:339:LYS:O	5:A:602:HOH:O	2.12	0.67
1:A:311:ARG:CG	1:A:351:ILE:HG23	2.25	0.67
1:C:184:ASP:OD1	5:C:603:HOH:O	2.12	0.67
1:C:450:LEU:O	5:C:604:HOH:O	2.14	0.65
1:A:42:LYS:O	5:A:603:HOH:O	2.14	0.65
1:D:353:GLY:O	5:D:603:HOH:O	2.14	0.65
1:A:85:ASP:OD2	5:A:604:HOH:O	2.14	0.64
4:A:504:EDO:H22	5:A:864:HOH:O	1.96	0.64
1:D:151:ILE:HG13	5:D:719:HOH:O	1.97	0.64
1:A:268:GLN:HE21	1:A:268:GLN:HA	1.61	0.64
1:D:206[A]:ILE:HD13	1:D:206[A]:ILE:N	2.12	0.63
1:A:235:ASP:HA	5:A:881:HOH:O	1.98	0.62
1:D:270:SER:N	5:D:605:HOH:O	2.32	0.62
1:B:177:LEU:HD13	1:B:183:LEU:CD1	2.30	0.61
1:D:64:TYR:CZ	1:D:206[A]:ILE:HD11	2.35	0.61
1:A:311:ARG:HG2	1:A:351:ILE:HG23	1.83	0.61
1:D:355:GLY:N	5:D:612:HOH:O	2.34	0.61
1:B:182:ASN:C	1:B:183:LEU:HD12	2.22	0.60
1:B:177:LEU:HD13	1:B:183:LEU:HD11	1.82	0.60
1:D:177:LEU:CD1	1:D:484:ILE:HD11	2.31	0.60
1:C:105:LEU:HD11	5:C:703:HOH:O	2.03	0.59
1:D:104:ILE:CD1	1:D:141:CYS:SG	2.91	0.58
1:B:255:LYS:HD3	1:B:281:TYR:CD1	2.38	0.58
1:C:391:THR:HG23	1:C:393:ASP:H	1.67	0.58
1:C:178:GLU:HG3	5:C:711:HOH:O	2.01	0.58
1:D:177:LEU:HD13	1:D:484:ILE:HD11	1.87	0.57
1:C:455:GLN:HG3	5:C:841:HOH:O	2.05	0.57
1:A:311:ARG:HG3	1:A:351:ILE:HG23	1.86	0.57
1:D:484:ILE:C	5:D:730:HOH:O	2.42	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A:755:HOH:O	4:B:501:EDO:H21	2.03	0.57
1:D:354:ASP:OD1	5:D:604:HOH:O	2.18	0.56
1:D:247:HIS:CE1	1:D:279:ASP:OD1	2.57	0.56
1:A:361:LEU:HD21	1:A:380:PHE:CD2	2.42	0.55
1:B:247:HIS:CE1	1:B:279:ASP:OD1	2.59	0.54
1:D:312:PRO:HB2	5:D:786:HOH:O	2.08	0.54
1:D:355:GLY:CA	5:D:612:HOH:O	2.55	0.53
1:A:344:LEU:HD21	5:A:692:HOH:O	2.07	0.53
1:B:255:LYS:NZ	5:B:617:HOH:O	2.41	0.53
1:C:178:GLU:O	1:C:339:LYS:HD3	2.09	0.53
1:C:335:THR:C	5:C:601:HOH:O	2.48	0.52
1:B:104:ILE:CD1	1:B:141:CYS:SG	2.97	0.52
1:B:335:THR:HG23	5:B:712:HOH:O	2.09	0.51
1:C:467:VAL:HG22	5:C:811:HOH:O	2.09	0.51
1:A:391:THR:CG2	1:A:393[B]:ASP:H	2.25	0.50
1:A:391:THR:HG22	1:A:393[B]:ASP:H	1.77	0.50
1:A:370:GLN:NE2	5:A:613:HOH:O	2.38	0.50
1:D:206[A]:ILE:HD13	1:D:226:LEU:CD1	2.40	0.50
1:A:391:THR:CG2	1:A:393[A]:ASP:H	2.25	0.49
1:B:451:GLU:HB3	5:B:827:HOH:O	2.12	0.49
1:B:360:THR:HG21	5:B:649:HOH:O	2.12	0.49
1:A:391:THR:HG22	1:A:393[A]:ASP:H	1.78	0.49
5:C:745:HOH:O	4:D:501:EDO:H21	2.13	0.49
1:A:52:VAL:N	5:A:623:HOH:O	2.46	0.49
1:B:339:LYS:HA	1:B:339:LYS:CE	2.43	0.48
1:B:183:LEU:HD12	1:B:183:LEU:N	2.29	0.48
1:C:183:LEU:HD11	1:C:484:ILE:HG12	1.96	0.48
1:A:175:TYR:HB3	1:A:375:ILE:HG13	1.95	0.47
1:B:64:TYR:CD2	1:B:206:ILE:CD1	2.95	0.47
1:D:242:VAL:HG13	3:D:504:7YX:CAK	2.44	0.47
1:A:193:PHE:HB3	4:A:504:EDO:H11	1.96	0.47
1:C:337:ASN:HB2	5:C:890:HOH:O	2.14	0.47
1:C:56:GLU:HG2	5:C:680:HOH:O	2.15	0.47
1:A:309:ILE:HG22	1:A:351:ILE:HG22	1.96	0.46
1:D:242:VAL:CG1	3:D:504:7YX:CAK	2.93	0.46
1:C:93:ASP:OD2	1:C:95:VAL:HG22	2.14	0.46
1:C:27:PRO:HG2	5:C:615:HOH:O	2.13	0.46
1:C:266:VAL:O	1:C:302:ARG:NH2	2.48	0.46
1:A:266:VAL:O	1:A:302:ARG:NH2	2.49	0.46
1:A:19:LYS:HA	1:A:22:HIS:ND1	2.31	0.46
1:C:41:GLU:HG2	1:C:42:LYS:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:206:ILE:HD13	1:B:226:LEU:HD11	1.97	0.45
1:B:255:LYS:HB2	5:B:610:HOH:O	2.16	0.45
1:B:19:LYS:HA	1:B:22:HIS:ND1	2.32	0.45
1:C:354:ASP:OD1	5:C:606:HOH:O	2.20	0.45
1:D:19:LYS:HA	1:D:22:HIS:ND1	2.32	0.45
1:D:177:LEU:O	1:D:177:LEU:HD23	2.17	0.45
1:A:113:PRO:HA	1:A:464:ASN:HD22	1.82	0.44
1:C:40:ARG:HD2	1:C:422:ASN:O	2.16	0.44
1:C:244:ALA:HA	1:C:275:SER:O	2.17	0.44
1:B:113:PRO:HA	1:B:464:ASN:HD22	1.82	0.44
1:C:309:ILE:HG22	1:C:351:ILE:HG22	1.98	0.44
1:C:409:LEU:CD1	1:C:411:ILE:HD11	2.48	0.44
1:A:311:ARG:HG3	1:A:351:ILE:CG2	2.46	0.44
1:B:339:LYS:HA	1:B:339:LYS:HE2	2.00	0.44
1:C:391:THR:HG23	1:C:393:ASP:N	2.33	0.44
1:D:309:ILE:HG22	1:D:351:ILE:HG22	1.99	0.44
1:B:309:ILE:HG22	1:B:351:ILE:HG22	1.99	0.44
1:A:244:ALA:HA	1:A:275:SER:O	2.17	0.44
1:A:269:PHE:O	1:A:302:ARG:NH2	2.34	0.44
1:A:453:TYR:HB2	5:A:855:HOH:O	2.18	0.44
1:B:77:LYS:HE2	5:B:911:HOH:O	2.18	0.44
1:C:19:LYS:HA	1:C:22:HIS:ND1	2.32	0.44
1:C:195:TYR:OH	1:D:14:ALA:HA	2.18	0.44
1:C:113:PRO:HA	1:C:464:ASN:HD22	1.83	0.43
1:D:244:ALA:HA	1:D:275:SER:O	2.17	0.43
1:C:269:PHE:O	1:C:302:ARG:NH2	2.35	0.43
1:C:311:ARG:NH1	2:C:502:PO4:O4	2.45	0.43
1:C:394:LEU:HB2	5:C:739:HOH:O	2.19	0.43
1:D:113:PRO:HA	1:D:464:ASN:HD22	1.83	0.43
1:D:242:VAL:HG13	3:D:504:7YX:CAL	2.48	0.43
1:B:228:LYS:HE2	5:B:880:HOH:O	2.17	0.43
1:C:52:VAL:HG23	1:C:53:LYS:H	1.83	0.43
1:B:175:TYR:HB3	1:B:375:ILE:HG13	2.00	0.43
1:A:361:LEU:CD2	1:A:380:PHE:CD2	3.01	0.42
1:B:244:ALA:HA	1:B:275:SER:O	2.19	0.42
1:B:270:SER:HB2	5:B:890:HOH:O	2.19	0.42
1:C:329:GLY:HA2	1:C:334:VAL:CG2	2.49	0.42
1:A:69:TYR:CD2	1:A:151:ILE:HD11	2.54	0.42
1:A:393[A]:ASP:HA	5:A:601:HOH:O	2.18	0.42
1:B:217:GLY:HA3	5:B:769:HOH:O	2.20	0.42
1:B:247:HIS:HD2	4:B:501:EDO:O2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:175:TYR:HB3	1:C:375:ILE:HG13	2.01	0.42
1:A:409:LEU:CD1	1:A:411:ILE:HD11	2.50	0.41
1:C:194:GLY:CA	1:C:383:GLY:HA2	2.50	0.41
1:A:393[A]:ASP:O	1:A:393[A]:ASP:OD1	2.37	0.41
1:A:391:THR:CG2	1:A:393[A]:ASP:HB3	2.50	0.41
1:D:355:GLY:HA2	5:D:612:HOH:O	2.19	0.41
1:B:337:ASN:HB2	5:B:875:HOH:O	2.21	0.41
1:D:117:LYS:HA	1:D:459:HIS:O	2.21	0.41
1:A:194:GLY:CA	1:A:383:GLY:HA2	2.51	0.41
1:B:56:GLU:HG3	5:B:801:HOH:O	2.19	0.41
1:B:117:LYS:HA	1:B:459:HIS:O	2.21	0.41
1:C:467:VAL:HG21	5:C:881:HOH:O	2.20	0.41
1:D:475[A]:GLU:OE1	5:D:607:HOH:O	2.22	0.41
1:D:104:ILE:HD12	1:D:113:PRO:CD	2.51	0.41
1:D:119:VAL:HG12	1:D:432:LEU:CD2	2.51	0.41
1:C:117:LYS:HA	1:C:459:HIS:O	2.21	0.40
1:C:102:ASN:ND2	5:C:646:HOH:O	2.54	0.40
1:B:329:GLY:HA2	1:B:334:VAL:CG2	2.51	0.40
1:B:434:ARG:HD3	1:B:434:ARG:HA	1.96	0.40
1:A:42:LYS:HE3	1:A:396:ASN:HD21	1.86	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	464/492 (94%)	447 (96%)	16 (3%)	1 (0%)	47	45
1	B	463/492 (94%)	450 (97%)	12 (3%)	1 (0%)	47	45
1	C	463/492 (94%)	447 (96%)	14 (3%)	2 (0%)	34	29
1	D	465/492 (94%)	450 (97%)	15 (3%)	0	100	100
All	All	1855/1968 (94%)	1794 (97%)	57 (3%)	4 (0%)	47	45

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	53	LYS
1	C	483	ASN
1	B	483	ASN
1	C	454	GLY

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	412/430 (96%)	394 (96%)	18 (4%)	28	24
1	B	411/430 (96%)	402 (98%)	9 (2%)	52	53
1	C	411/430 (96%)	399 (97%)	12 (3%)	42	40
1	D	413/430 (96%)	399 (97%)	14 (3%)	37	34
All	All	1647/1720 (96%)	1594 (97%)	53 (3%)	40	37

All (53) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	TYR
1	A	42	LYS
1	A	52	VAL
1	A	53	LYS
1	A	151	ILE
1	A	183	LEU
1	A	195	TYR
1	A	219	ASP
1	A	235	ASP
1	A	255	LYS
1	A	268	GLN
1	A	303	SER
1	A	311	ARG
1	A	378	ILE
1	A	391	THR
1	A	393[A]	ASP

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Mol	Chain	Res	Type
1	A	393[B]	ASP
1	A	466	LYS
1	B	18	TYR
1	B	195	TYR
1	B	219	ASP
1	B	255	LYS
1	B	303	SER
1	B	338	SER
1	B	393	ASP
1	B	466	LYS
1	B	478	LYS
1	C	18	TYR
1	C	52	VAL
1	C	195	TYR
1	C	219	ASP
1	C	255	LYS
1	C	268	GLN
1	C	303	SER
1	C	305	GLN
1	C	339	LYS
1	C	393	ASP
1	C	434	ARG
1	C	455	GLN
1	D	18	TYR
1	D	42	LYS
1	D	53	LYS
1	D	77	LYS
1	D	107	LYS
1	D	195	TYR
1	D	206[A]	ILE
1	D	206[B]	ILE
1	D	219	ASP
1	D	255	LYS
1	D	289	LYS
1	D	378	ILE
1	D	393	ASP
1	D	478	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	268	GLN

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Mol	Chain	Res	Type
1	A	396	ASN
1	A	464	ASN
1	A	481	GLN
1	B	92	GLN
1	B	247	HIS
1	B	305	GLN
1	B	459	HIS
1	B	464	ASN
1	C	268	GLN
1	C	305	GLN
1	C	464	ASN
1	C	481	GLN
1	D	129	ASN
1	D	247	HIS
1	D	464	ASN
1	D	481	GLN

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 ⓘ

15 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	PO4	D	503	-	4,4,4	1.32	1 (25%)	6,6,6	0.45	0
2	PO4	D	502	-	4,4,4	0.56	0	6,6,6	0.53	0
4	EDO	B	501	-	3,3,3	0.75	0	2,2,2	0.08	0
3	7YX	A	503	-	34,35,35	3.07	11 (32%)	42,50,50	2.51	16 (38%)
2	PO4	B	502	-	4,4,4	0.87	0	6,6,6	0.43	0
2	PO4	A	501	-	4,4,4	0.90	0	6,6,6	0.80	0
3	7YX	B	503	-	34,35,35	3.07	10 (29%)	42,50,50	3.09	17 (40%)
4	EDO	A	504	-	3,3,3	0.05	0	2,2,2	0.33	0
4	EDO	D	501	-	3,3,3	0.77	0	2,2,2	0.47	0
4	EDO	A	505	-	3,3,3	0.32	0	2,2,2	0.24	0
2	PO4	C	502	-	4,4,4	1.00	0	6,6,6	0.79	0
2	PO4	C	501	-	4,4,4	1.07	0	6,6,6	0.64	0
3	7YX	C	503	-	34,35,35	3.05	13 (38%)	42,50,50	2.69	15 (35%)
3	7YX	D	504	-	34,35,35	2.98	12 (35%)	42,50,50	2.34	15 (35%)
2	PO4	A	502	-	4,4,4	0.91	0	6,6,6	0.57	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	7YX	C	503	-	-	3/16/47/47	0/5/5/5
4	EDO	A	504	-	-	1/1/1/1	-
3	7YX	A	503	-	-	3/16/47/47	0/5/5/5
4	EDO	B	501	-	-	1/1/1/1	-
3	7YX	B	503	-	-	3/16/47/47	0/5/5/5
4	EDO	D	501	-	-	1/1/1/1	-
4	EDO	A	505	-	-	1/1/1/1	-
3	7YX	D	504	-	-	3/16/47/47	0/5/5/5

All (47) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	503	7YX	CAA-CAF	-9.97	1.35	1.51
3	C	503	7YX	CAA-CAF	-8.68	1.37	1.51
3	A	503	7YX	CAC-NAD	8.13	1.35	1.29
3	A	503	7YX	CAA-CAF	-7.98	1.38	1.51
3	D	504	7YX	CAA-CAF	-7.42	1.39	1.51
3	A	503	7YX	CAY-CAX	-7.15	1.40	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	503	7YX	CAB-CAC	-6.92	1.41	1.51
3	D	504	7YX	CAC-NAD	6.87	1.34	1.29
3	D	504	7YX	CAV-CAW	-6.53	1.41	1.50
3	C	503	7YX	CAB-CAC	-6.51	1.42	1.51
3	C	503	7YX	CAY-CAX	-6.19	1.42	1.50
3	C	503	7YX	CAV-CAW	-6.11	1.42	1.50
3	B	503	7YX	CAV-CAW	-6.10	1.42	1.50
3	D	504	7YX	CAM-CAC	-6.08	1.39	1.48
3	D	504	7YX	CAY-CAX	-5.54	1.42	1.50
3	C	503	7YX	CAC-NAD	5.39	1.33	1.29
3	A	503	7YX	CAB-CAC	-5.33	1.44	1.51
3	B	503	7YX	CAY-CAX	-5.27	1.43	1.50
3	A	503	7YX	CAV-CAW	-4.74	1.43	1.50
3	B	503	7YX	CAC-NAD	4.74	1.32	1.29
3	B	503	7YX	CAZ-NBA	4.52	1.44	1.34
3	A	503	7YX	CAP-NAS	-4.51	1.32	1.41
3	A	503	7YX	CAM-CAC	-4.42	1.41	1.48
3	C	503	7YX	CAM-CAC	-4.39	1.41	1.48
3	D	504	7YX	CAB-CAC	-4.29	1.45	1.51
3	D	504	7YX	CAP-NAS	-3.98	1.33	1.41
3	D	504	7YX	CAZ-NBA	3.90	1.42	1.34
3	B	503	7YX	CAM-CAC	-3.86	1.42	1.48
3	B	503	7YX	CAV-NAU	3.65	1.52	1.46
3	C	503	7YX	CAP-NAS	-3.24	1.35	1.41
3	C	503	7YX	CBB-NBA	3.18	1.43	1.33
3	A	503	7YX	CAZ-NBA	3.18	1.41	1.34
3	C	503	7YX	CAZ-NBA	3.05	1.40	1.34
3	A	503	7YX	CBC-CAW	-2.98	1.34	1.39
3	C	503	7YX	CAV-NAU	2.91	1.51	1.46
3	C	503	7YX	CBC-CAW	-2.82	1.34	1.39
3	B	503	7YX	CAL-CAH	2.76	1.60	1.53
3	A	503	7YX	NAE-NAD	-2.60	1.32	1.37
3	B	503	7YX	CBB-NBA	2.37	1.40	1.33
3	C	503	7YX	CAT-NAS	2.26	1.41	1.37
3	D	504	7YX	CAJ-CAI	-2.22	1.42	1.51
3	C	503	7YX	CAY-NAU	-2.22	1.43	1.46
3	A	503	7YX	CAX-CAW	-2.21	1.35	1.39
3	D	504	7YX	CBC-CAW	-2.18	1.35	1.39
3	D	504	7YX	CBB-NBA	2.15	1.40	1.33
2	D	503	PO4	P-O1	2.14	1.55	1.50
3	D	504	7YX	NAE-NAD	-2.08	1.33	1.37

All (63) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	B	503	7YX	CAX-CAY-NAU	10.48	107.42	102.46
3	C	503	7YX	CAA-CAF-NAE	8.18	124.71	114.18
3	A	503	7YX	CAA-CAF-NAE	7.72	124.12	114.18
3	B	503	7YX	CAA-CAB-CAC	7.61	118.28	108.13
3	B	503	7YX	CAA-CAF-NAE	7.34	123.63	114.18
3	D	504	7YX	CAA-CAF-NAE	7.29	123.56	114.18
3	C	503	7YX	CAX-CAY-NAU	6.95	105.75	102.46
3	C	503	7YX	CAA-CAB-CAC	6.67	117.03	108.13
3	A	503	7YX	CAA-CAB-CAC	5.62	115.64	108.13
3	B	503	7YX	CAW-CAV-NAU	5.22	104.93	102.46
3	C	503	7YX	CAC-NAD-NAE	5.22	124.44	118.97
3	B	503	7YX	CAC-NAD-NAE	4.87	124.08	118.97
3	D	504	7YX	CAA-CAB-CAC	4.67	114.36	108.13
3	D	504	7YX	CAC-NAD-NAE	4.64	123.83	118.97
3	A	503	7YX	CBB-CBC-CAW	4.62	123.49	119.47
3	A	503	7YX	CAC-NAD-NAE	4.60	123.80	118.97
3	A	503	7YX	CAW-CAV-NAU	-4.29	100.44	102.46
3	C	503	7YX	OAG-CAF-NAE	-3.91	116.15	120.83
3	D	504	7YX	CBB-CBC-CAW	3.90	122.87	119.47
3	B	503	7YX	CAB-CAC-NAD	-3.81	118.00	122.84
3	A	503	7YX	CBC-CBB-NBA	-3.61	117.34	123.62
3	C	503	7YX	CAN-CAM-CAC	3.60	125.02	120.75
3	D	504	7YX	CBC-CBB-NBA	-3.52	117.48	123.62
3	D	504	7YX	CAX-CAY-NAU	-3.52	100.80	102.46
3	B	503	7YX	CBB-CBC-CAW	3.38	122.42	119.47
3	D	504	7YX	OAG-CAF-CAA	-3.35	115.81	122.06
3	A	503	7YX	CAJ-CAI-CAH	-3.33	96.92	104.68
3	B	503	7YX	OAG-CAF-CAA	-3.31	115.89	122.06
3	B	503	7YX	CAR-CAQ-CAP	3.29	124.11	120.30
3	D	504	7YX	CAM-CAC-NAD	-3.13	112.04	115.95
3	A	503	7YX	CAN-CAM-CAC	3.11	124.44	120.75
3	C	503	7YX	CAJ-CAI-CAH	-3.06	97.55	104.68
3	C	503	7YX	CAB-CAC-NAD	-3.04	118.99	122.84
3	A	503	7YX	CAK-CAJ-CAI	-3.03	95.80	105.99
3	B	503	7YX	CBE-CAB-CAA	-3.02	102.10	112.52
3	B	503	7YX	CAJ-CAI-CAH	-2.96	97.78	104.68
3	D	504	7YX	CAW-CAV-NAU	-2.94	101.07	102.46
3	B	503	7YX	CAO-CAP-CAQ	-2.84	115.14	119.03
3	D	504	7YX	CAK-CAJ-CAI	-2.83	96.48	105.99
3	A	503	7YX	OAG-CAF-NAE	-2.78	117.51	120.83
3	D	504	7YX	CAL-CAH-NAE	-2.65	109.89	113.32
3	C	503	7YX	CAO-CAP-CAQ	-2.60	115.47	119.03
3	D	504	7YX	CAB-CAA-CAF	2.59	116.06	111.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	504	7YX	OBD-CAT-NAU	-2.59	118.14	121.78
3	C	503	7YX	CAR-CAQ-CAP	2.52	123.20	120.30
3	B	503	7YX	CBC-CBB-NBA	-2.47	119.32	123.62
3	C	503	7YX	CBE-CAB-CAA	-2.45	104.07	112.52
3	D	504	7YX	CBE-CAB-CAC	2.45	113.58	109.70
3	A	503	7YX	CAP-NAS-CAT	-2.44	121.22	126.12
3	C	503	7YX	OBD-CAT-NAU	-2.38	118.44	121.78
3	D	504	7YX	CAJ-CAK-CAL	-2.35	98.07	105.99
3	A	503	7YX	OBD-CAT-NAU	-2.32	118.52	121.78
3	B	503	7YX	CAK-CAJ-CAI	-2.29	98.30	105.99
3	B	503	7YX	CAO-CAP-NAS	2.28	128.06	120.40
3	C	503	7YX	CAK-CAJ-CAI	-2.26	98.38	105.99
3	B	503	7YX	CBE-CAB-CAC	-2.26	106.11	109.70
3	A	503	7YX	CAV-CAW-CAX	2.24	112.30	110.53
3	C	503	7YX	CAO-CAP-NAS	2.16	127.65	120.40
3	B	503	7YX	CAN-CAM-CAC	2.15	123.30	120.75
3	C	503	7YX	CAW-CAV-NAU	2.10	103.46	102.46
3	A	503	7YX	CAR-CAM-CAC	-2.05	118.33	120.75
3	A	503	7YX	OAG-CAF-CAA	-2.03	118.27	122.06
3	A	503	7YX	CAQ-CAR-CAM	2.00	123.11	120.78

There are no chirality outliers.
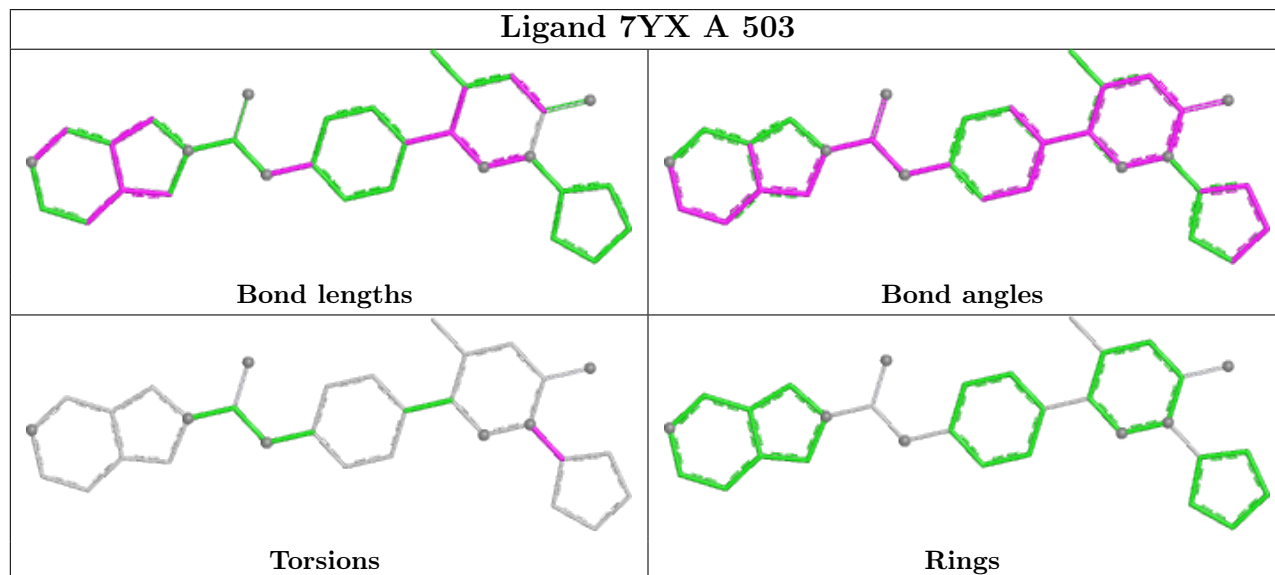
All (16) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	503	7YX	CAI-CAH-NAE-NAD
3	A	503	7YX	CAL-CAH-NAE-NAD
3	A	503	7YX	CAL-CAH-NAE-CAF
3	B	503	7YX	CAI-CAH-NAE-NAD
3	B	503	7YX	CAI-CAH-NAE-CAF
3	B	503	7YX	CAL-CAH-NAE-CAF
3	C	503	7YX	CAI-CAH-NAE-NAD
3	C	503	7YX	CAL-CAH-NAE-CAF
3	D	504	7YX	CAI-CAH-NAE-NAD
3	D	504	7YX	CAI-CAH-NAE-CAF
4	A	505	EDO	O1-C1-C2-O2
4	B	501	EDO	O1-C1-C2-O2
4	A	504	EDO	O1-C1-C2-O2
4	D	501	EDO	O1-C1-C2-O2
3	C	503	7YX	CAI-CAH-NAE-CAF
3	D	504	7YX	CAL-CAH-NAE-CAF

There are no ring outliers.

6 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	D	503	PO4	1	0
4	B	501	EDO	2	0
4	A	504	EDO	2	0
4	D	501	EDO	1	0
2	C	502	PO4	1	0
3	D	504	7YX	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 7YX A 503

Bond lengths

Bond angles

Torsions

Rings

Ligand 7YX B 503

Bond lengths

Bond angles

Torsions

Rings

Ligand 7YX C 503

Bond lengths

Bond angles

Torsions

Rings

Ligand 7YX D 504

Bond lengths

Bond angles

Torsions

Rings
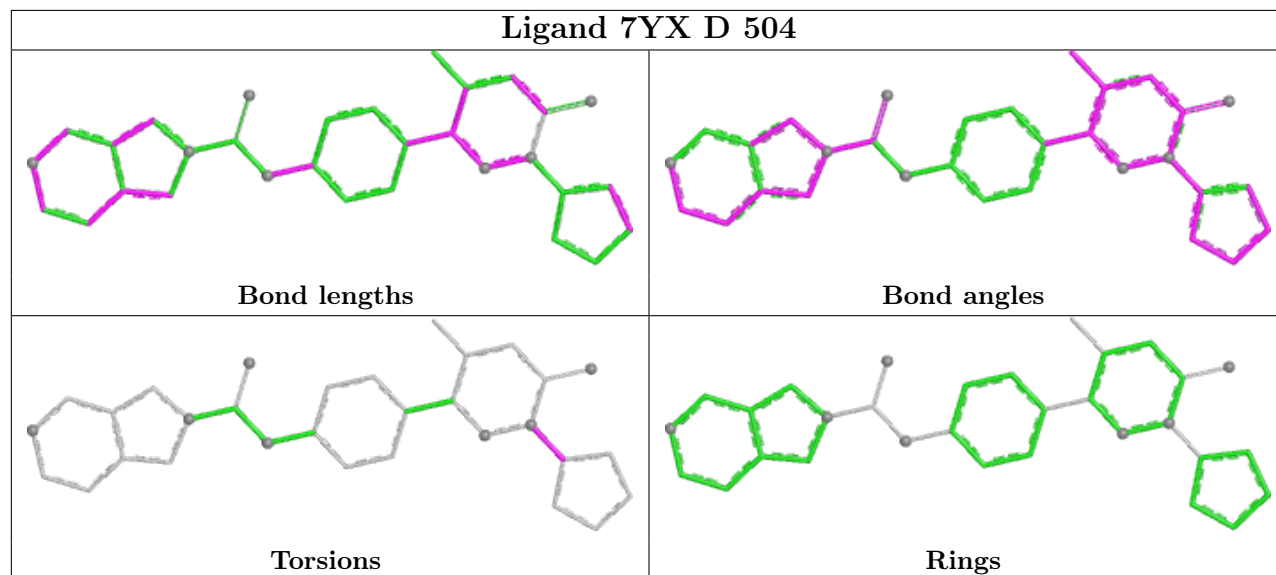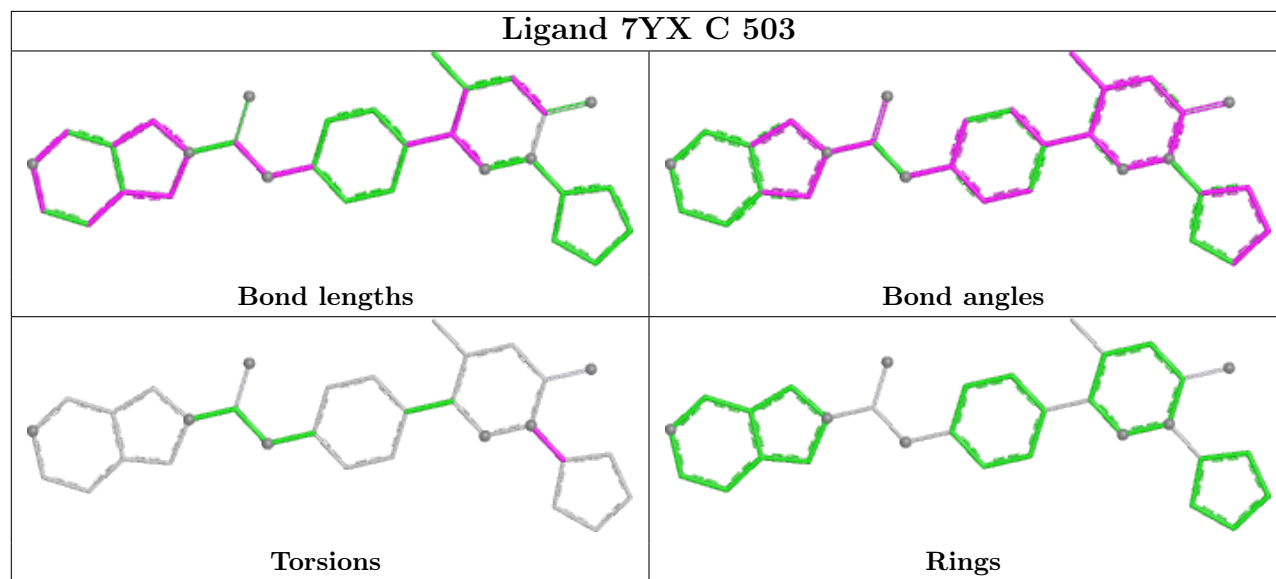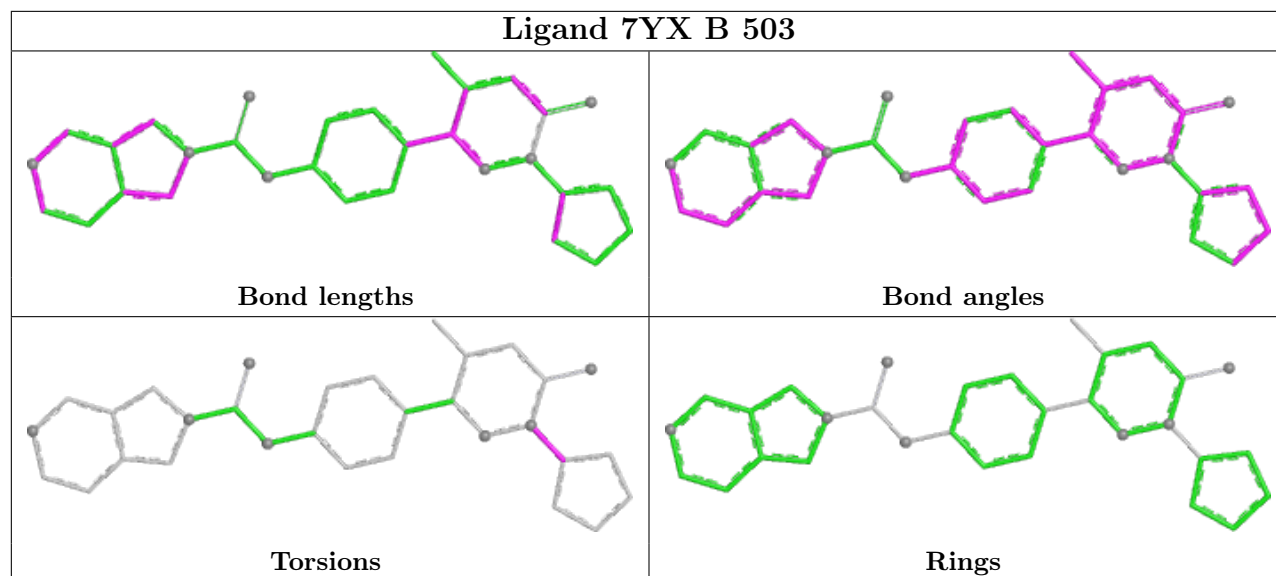
5.7 Other polymers ⓘ

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	467/492 (94%)	0.41	8 (1%)	70	75	9, 19, 36, 58	0
1	B	466/492 (94%)	0.42	9 (1%)	66	72	8, 18, 33, 64	0
1	C	467/492 (94%)	0.47	12 (2%)	56	62	8, 20, 35, 80	0
1	D	467/492 (94%)	0.49	17 (3%)	42	50	8, 19, 38, 69	0
All	All	1867/1968 (94%)	0.45	46 (2%)	57	64	8, 19, 36, 80	0

All (46) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	484	ILE	4.0
1	A	409	LEU	3.5
1	A	395	LEU	3.5
1	B	409	LEU	3.4
1	B	484	ILE	3.3
1	C	411	ILE	3.3
1	D	409	LEU	3.2
1	C	52	VAL	3.1
1	A	394	LEU	3.0
1	D	88	LYS	3.0
1	B	104	ILE	2.8
1	A	483	ASN	2.8
1	A	271	SER	2.7
1	D	453	TYR	2.7
1	D	52	VAL	2.6
1	A	484	ILE	2.6
1	D	206[A]	ILE	2.6
1	B	348	LEU	2.6
1	C	348	LEU	2.6
1	D	86	VAL	2.5
1	C	451	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
1	C	172	LEU	2.4
1	C	450	LEU	2.4
1	C	236	PRO	2.3
1	D	91	PHE	2.3
1	D	310	ILE	2.3
1	B	77	LYS	2.2
1	C	395	LEU	2.2
1	D	355	GLY	2.2
1	D	411	ILE	2.2
1	A	450	LEU	2.2
1	D	450	LEU	2.2
1	D	94	ASP	2.2
1	C	157	TYR	2.2
1	B	153	VAL	2.1
1	D	53	LYS	2.1
1	B	320	THR	2.1
1	B	156	TRP	2.1
1	C	177	LEU	2.1
1	B	408	GLY	2.1
1	A	95	VAL	2.1
1	C	467	VAL	2.1
1	D	29	ASN	2.1
1	D	137	THR	2.1
1	D	408	GLY	2.0
1	D	87	TYR	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
3	7YX	C	503	31/31	0.86	0.17	10,19,31,42	0
4	EDO	A	504	4/4	0.88	0.24	27,34,35,48	0
4	EDO	A	505	4/4	0.89	0.16	16,23,23,27	0
3	7YX	B	503	31/31	0.90	0.16	7,15,32,41	0
3	7YX	D	504	31/31	0.90	0.17	12,16,34,44	0
3	7YX	A	503	31/31	0.92	0.16	11,21,50,55	0
2	PO4	C	502	5/5	0.93	0.17	19,19,36,37	0
2	PO4	D	502	5/5	0.93	0.18	47,51,54,65	0
2	PO4	D	503	5/5	0.93	0.12	22,23,27,28	0
4	EDO	B	501	4/4	0.94	0.17	6,9,14,21	0
2	PO4	A	502	5/5	0.95	0.12	27,32,36,39	0
2	PO4	C	501	5/5	0.95	0.18	23,27,36,57	0
4	EDO	D	501	4/4	0.95	0.16	6,10,17,18	0
2	PO4	B	502	5/5	0.96	0.17	27,29,36,59	0
2	PO4	A	501	5/5	0.97	0.10	14,20,26,28	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.
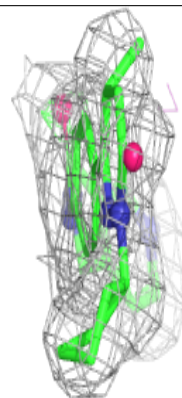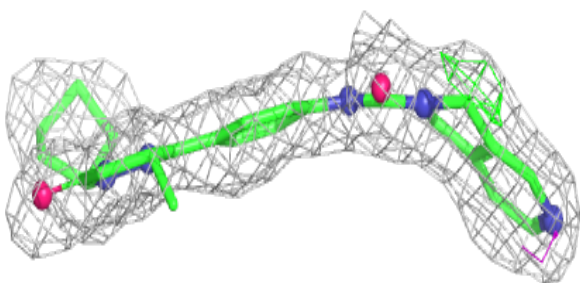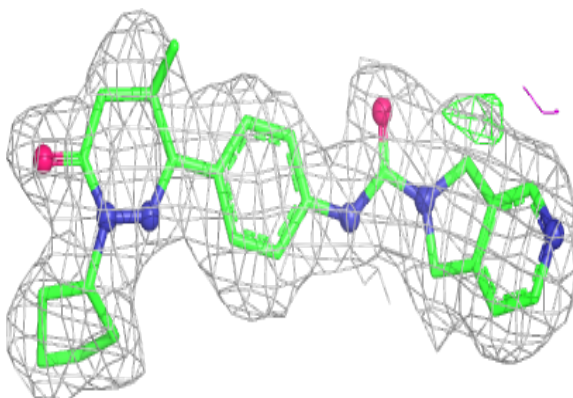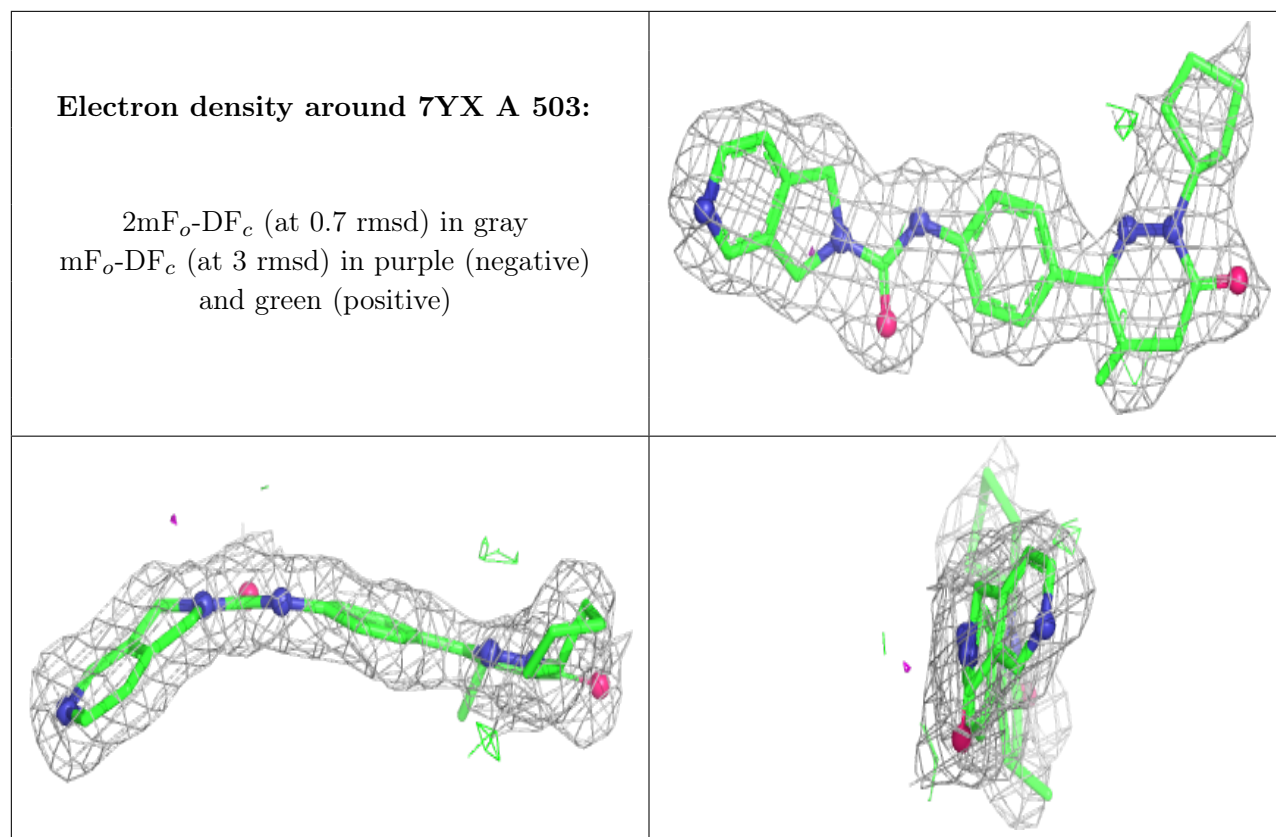

Electron density around 7YX C 503:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
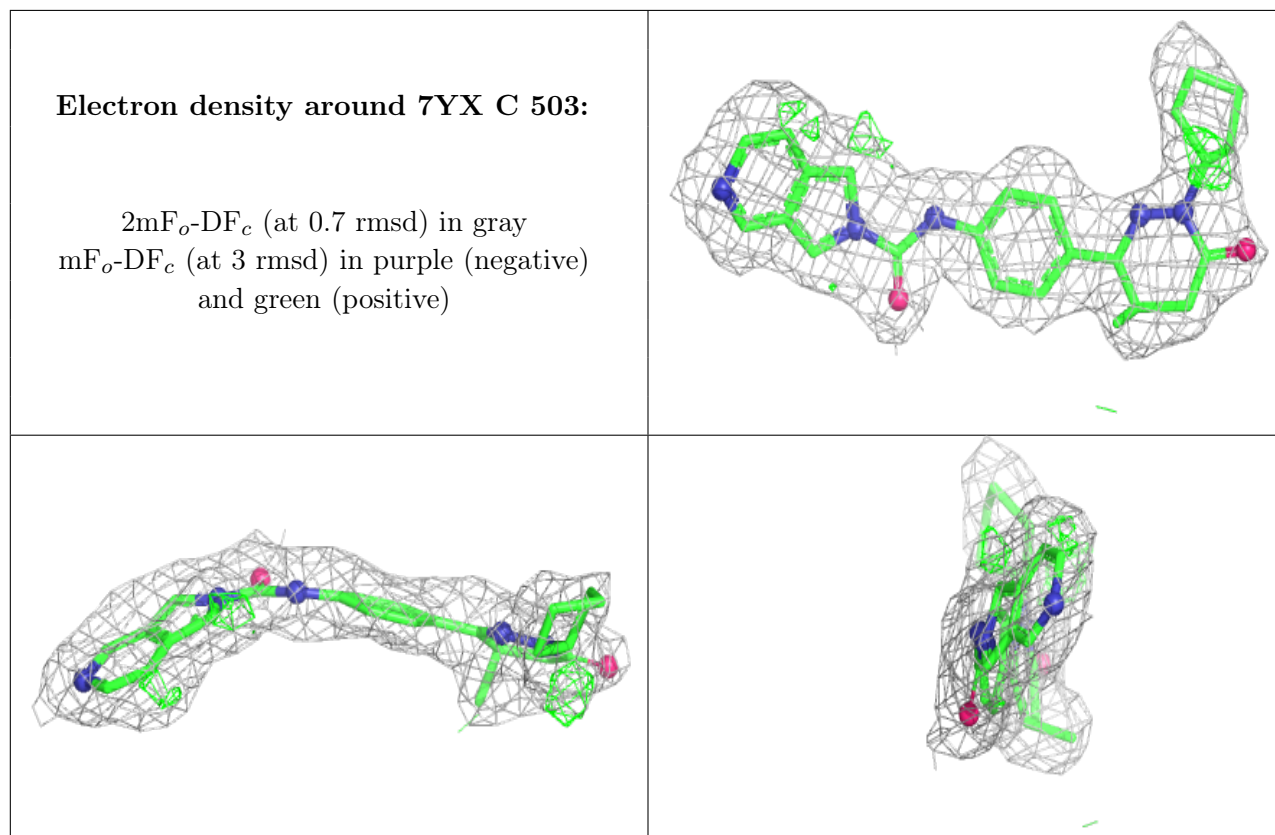
Electron density around 7YX B 503:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
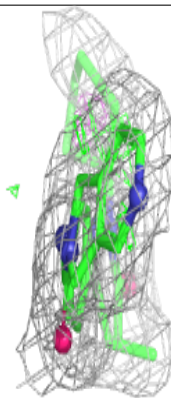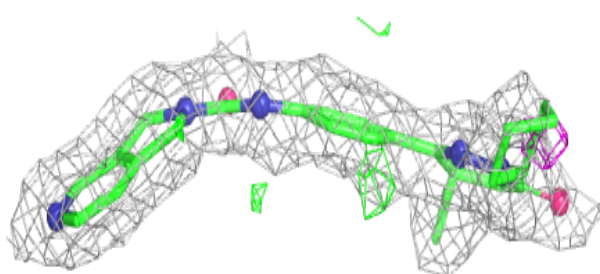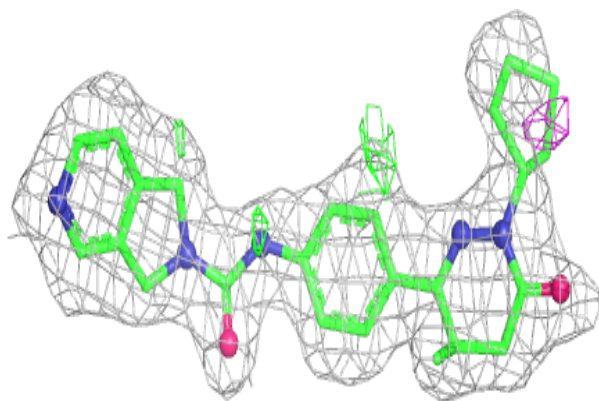
Electron density around 7YX D 504:

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 7YX A 503:

$2mF_o$-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.