



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 04:21 PM UTC

PDB ID : 4U0U / pdb_00004u0u
Title : Wild type eukaryotic fic domain containing protein with ADP
Authors : Cole, A.R.; Bunney, T.D.; Katan, M.
Deposited on : 2014-07-14
Resolution : 2.98 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 ⓘ 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 ⓘ](#)) were used in the production of this report:

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

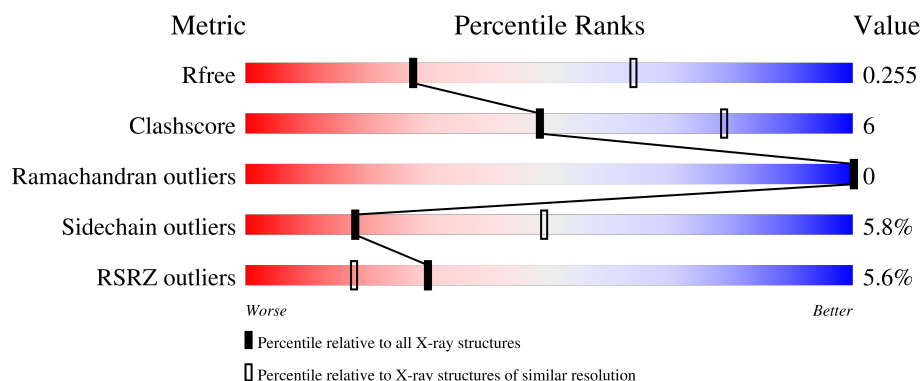
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.98 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}	180053	3580 (3.00-2.96)
Clashscore	190562	3904 (3.00-2.96)
Ramachandran outliers	187476	3761 (3.00-2.96)
Sidechain outliers	187428	3764 (3.00-2.96)
RSRZ outliers	180081	3579 (3.00-2.96)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	344	5% 82% 12% • •
1	B	344	6% 80% 12% • 6%

2 Entry composition [i](#)

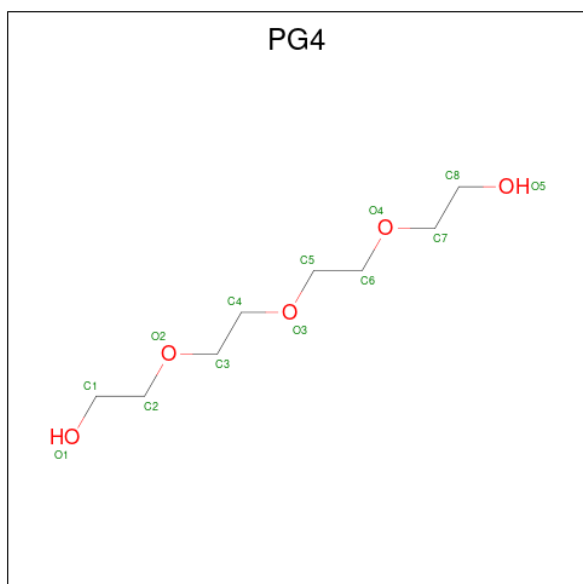
There are 5 unique types of molecules in this entry. The entry contains 5430 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Adenosine monophosphate-protein transferase FICD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	1	0
			2646	1688	451	496	11			
1	B	323	Total	C	N	O	S	0	1	0
			2533	1621	429	471	12			

- Molecule 2 is TETRAETHYLENE GLYCOL (CCD ID: PG4) (formula: $C_8H_{18}O_5$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	A	1	Total	C	O	0	0
			13	8	5		
2	A	1	Total	C	O	0	0
			6	4	2		
2	B	1	Total	C	O	0	0
			13	8	5		

- Molecule 3 is ADENOSINE-5'-DIPHOSPHATE (CCD ID: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
3	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

- Molecule 4 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

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

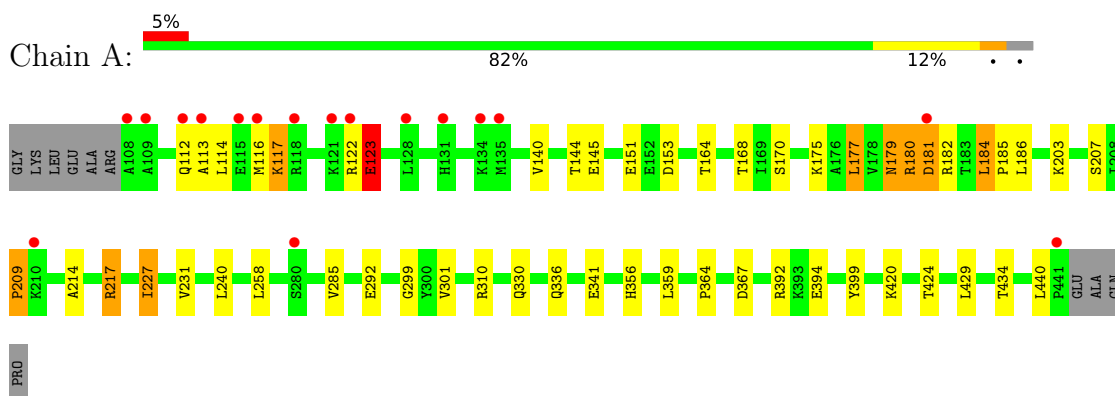
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	87	Total	O	0	0
			87	87		
5	B	76	Total	O	0	0
			76	76		

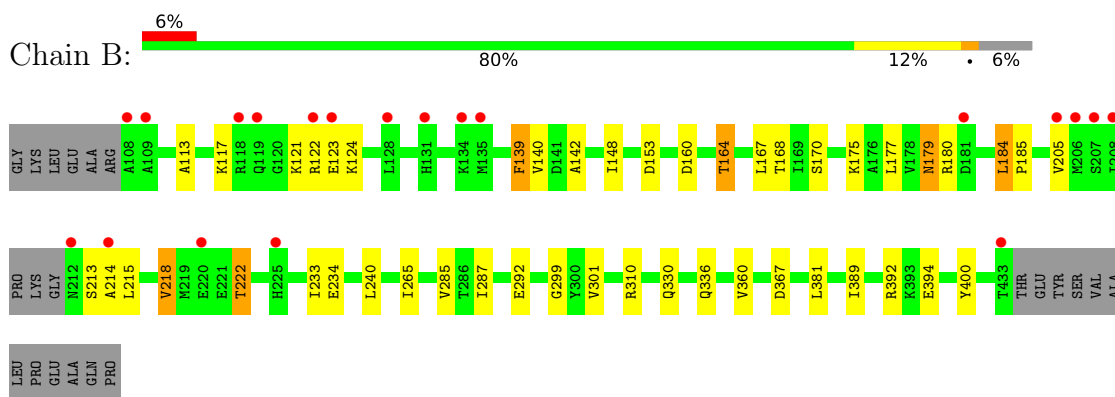
3 Residue-property plots

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: Adenosine monophosphate-protein transferase FICD



- Molecule 1: Adenosine monophosphate-protein transferase FICD



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α , β , γ	77.75Å 109.04Å 131.60Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	45.62 – 2.98 45.62 – 2.98	Depositor EDS
% Data completeness (in resolution range)	84.1 (45.62-2.98) 84.2 (45.62-2.98)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	7.31 (at 2.96Å)	Xtriage
Refinement program	BUSTER 2.10.0	Depositor
R, R_{free}	0.199 , 0.256 (Not available) , 0.255	Depositor DCC
R_{free} test set	964 reflections (4.88%)	wwPDB-VP
Wilson B-factor (Å ²)	38.7	Xtriage
Anisotropy	0.041	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 58.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.53$, $\langle L^2 \rangle = 0.37$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	5430	wwPDB-VP
Average B, all atoms (Å ²)	32.0	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 48.46 % 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 8.5708e-05. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: ADP, MG, PG4

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	1.03	4/2705 (0.1%)	1.25	10/3679 (0.3%)
1	B	1.02	3/2587 (0.1%)	1.24	10/3517 (0.3%)
All	All	1.03	7/5292 (0.1%)	1.24	20/7196 (0.3%)

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	184	LEU	C-N	6.30	1.40	1.34
1	A	179	ASN	C-O	-5.78	1.17	1.24
1	B	179	ASN	C-O	-5.41	1.17	1.24
1	B	185	PRO	N-CD	5.34	1.55	1.47
1	A	214	ALA	C-O	-5.24	1.17	1.24
1	A	184	LEU	CA-C	-5.14	1.46	1.52
1	A	209	PRO	N-CD	5.04	1.54	1.47

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	299	GLY	N-CA-C	6.66	120.95	112.83
1	B	184	LEU	CA-C-N	-6.63	113.38	120.47
1	B	184	LEU	C-N-CA	-6.63	113.38	120.47
1	A	299	GLY	N-CA-C	6.42	120.66	112.83
1	B	139	PHE	CA-CB-CG	5.97	119.77	113.80
1	A	184	LEU	O-C-N	5.95	125.78	120.48
1	A	123	GLU	N-CA-C	-5.82	104.94	111.28
1	A	285	VAL	N-CA-C	-5.72	101.34	108.89
1	B	285	VAL	N-CA-C	-5.71	101.35	108.89
1	B	336	GLN	N-CA-C	-5.59	105.09	111.07
1	A	336	GLN	N-CA-C	-5.56	105.12	111.07
1	B	287	ILE	CA-C-N	5.51	127.67	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	287	ILE	C-N-CA	5.51	127.67	120.28
1	A	301	VAL	N-CA-C	-5.47	106.86	111.56
1	A	184	LEU	CA-C-N	-5.39	113.11	119.84
1	A	184	LEU	C-N-CA	-5.39	113.11	119.84
1	B	184	LEU	O-C-N	5.28	125.18	120.48
1	B	301	VAL	N-CA-C	-5.23	107.06	111.56
1	A	186	LEU	N-CA-C	-5.12	105.61	111.14
1	A	180	ARG	N-CA-C	5.00	117.62	111.82

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	2646	0	2556	26	0
1	B	2533	0	2438	32	0
2	A	19	0	24	0	0
2	B	13	0	18	0	0
3	A	27	0	12	0	0
3	B	27	0	12	3	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
5	A	87	0	0	0	0
5	B	76	0	0	0	0
All	All	5430	0	5060	57	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 6.

All (57) 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:A:151:GLU:OE2	1:A:182:ARG:NH1	1.81	1.14
1:A:177:LEU:O	1:A:181:ASP:OD1	1.72	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:123:GLU:OE1	1:A:123:GLU:N	1.92	1.01
1:B:218:VAL:O	1:B:222:THR:OG1	1.85	0.94
1:A:145:GLU:OE2	1:A:175:LYS:NZ	2.03	0.90
1:B:214:ALA:O	1:B:218:VAL:CG2	2.21	0.88
1:B:214:ALA:O	1:B:218:VAL:HG22	1.73	0.88
1:A:114:LEU:HD21	1:A:145:GLU:OE1	1.75	0.87
1:A:175:LYS:O	1:A:179:ASN:ND2	2.08	0.85
1:B:167:LEU:CD1	1:B:180:ARG:HD3	2.07	0.85
1:B:167:LEU:HD12	1:B:180:ARG:HD3	1.62	0.81
1:B:175:LYS:O	1:B:179:ASN:ND2	2.20	0.73
1:A:112:GLN:O	1:A:116:MET:HB2	1.88	0.73
1:B:184:LEU:C	1:B:184:LEU:HD23	2.16	0.70
1:A:184:LEU:C	1:A:184:LEU:HD23	2.18	0.68
1:B:215:LEU:HA	1:B:218:VAL:HG23	1.80	0.63
1:B:121:LYS:O	1:B:124:LYS:N	2.33	0.62
1:B:214:ALA:O	1:B:218:VAL:HG23	2.00	0.62
1:A:356:HIS:NE2	1:A:399:TYR:OH	2.37	0.56
1:A:181:ASP:OD1	1:A:181:ASP:N	2.39	0.54
1:A:123:GLU:H	1:A:123:GLU:CD	2.02	0.54
1:A:122:ARG:HB2	1:A:123:GLU:OE1	2.10	0.51
1:A:392:ARG:NH1	1:A:394:GLU:OE2	2.44	0.51
1:B:392:ARG:NH1	1:B:394:GLU:OE2	2.44	0.51
1:B:215:LEU:CA	1:B:218:VAL:HG23	2.41	0.51
1:A:420:LYS:O	1:A:424:THR:HG23	2.11	0.50
1:B:215:LEU:O	1:B:218:VAL:HG23	2.12	0.50
1:B:164:THR:O	1:B:168:THR:HG23	2.12	0.49
1:A:227:ILE:O	1:A:231:VAL:HG22	2.13	0.48
1:B:233:ILE:HG23	1:B:234[B]:GLU:HG3	1.95	0.48
1:B:233:ILE:HG23	1:B:234[A]:GLU:HG2	1.96	0.48
1:B:381:LEU:HD13	1:B:389:ILE:HD13	1.94	0.48
1:B:215:LEU:HA	1:B:218:VAL:CG2	2.44	0.47
1:B:140:VAL:HG11	1:B:170:SER:HB2	1.97	0.47
1:A:140:VAL:HG11	1:A:170:SER:HB2	1.97	0.46
1:B:113:ALA:O	1:B:117:LYS:N	2.47	0.46
1:A:217:ARG:HD2	1:A:440:LEU:HD21	1.98	0.46
1:B:184:LEU:C	1:B:184:LEU:CD2	2.85	0.45
1:A:113:ALA:O	1:A:117:LYS:N	2.48	0.45
1:A:184:LEU:C	1:A:184:LEU:CD2	2.85	0.45
1:B:122:ARG:O	1:B:123:GLU:C	2.59	0.45
1:B:160:ASP:O	1:B:164:THR:OG1	2.34	0.44
1:B:180:ARG:O	1:B:180:ARG:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:258:LEU:HD13	1:B:265:ILE:HD11	1.99	0.44
1:A:184:LEU:HD23	1:A:184:LEU:O	2.18	0.43
1:A:203:LYS:O	1:A:207:SER:HB3	2.19	0.43
1:B:215:LEU:C	1:B:218:VAL:HG23	2.43	0.43
1:A:122:ARG:HE	1:A:122:ARG:HB3	1.61	0.43
1:B:139:PHE:CD2	1:B:142:ALA:HB2	2.53	0.43
1:B:400:TYR:OH	3:B:502:ADP:H3'	2.19	0.43
1:A:164:THR:O	1:A:168:THR:HG23	2.20	0.42
1:B:121:LYS:O	1:B:124:LYS:CB	2.68	0.41
1:B:360:VAL:HG13	3:B:502:ADP:H1'	2.02	0.41
1:A:359:LEU:HD11	1:A:364:PRO:HG3	2.03	0.41
1:B:167:LEU:HD13	1:B:180:ARG:HD3	1.99	0.41
1:A:144:THR:HG21	1:A:175:LYS:HB3	2.02	0.40
1:B:360:VAL:CG1	3:B:502:ADP:N3	2.85	0.40

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	333/344 (97%)	324 (97%)	9 (3%)	0	100	100
1	B	320/344 (93%)	314 (98%)	6 (2%)	0	100	100
All	All	653/688 (95%)	638 (98%)	15 (2%)	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	277/302 (92%)	259 (94%)	18 (6%)	15	45
1	B	261/302 (86%)	248 (95%)	13 (5%)	22	54
All	All	538/604 (89%)	507 (94%)	31 (6%)	18	49

All (31) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	117	LYS
1	A	123	GLU
1	A	153	ASP
1	A	177	LEU
1	A	180	ARG
1	A	181	ASP
1	A	185	PRO
1	A	209	PRO
1	A	217	ARG
1	A	227	ILE
1	A	240	LEU
1	A	292	GLU
1	A	310	ARG
1	A	330	GLN
1	A	341	GLU
1	A	367	ASP
1	A	429	LEU
1	A	434	THR
1	B	148	ILE
1	B	153	ASP
1	B	164	THR
1	B	177	LEU
1	B	205	VAL
1	B	213	SER
1	B	218	VAL
1	B	222	THR
1	B	240	LEU
1	B	292	GLU
1	B	310	ARG
1	B	330	GLN
1	B	367	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such

sidechains are listed below:

Mol	Chain	Res	Type
1	A	363	HIS
1	A	383	GLN
1	B	212	ASN
1	B	363	HIS
1	B	383	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 7 ligands modelled in this entry, 2 are monoatomic - leaving 5 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	PG4	A	502	-	5,5,12	0.59	0	4,4,11	0.43	0
2	PG4	A	501	-	12,12,12	0.69	0	11,11,11	0.76	0
3	ADP	B	502	4	28,29,29	0.42	0	43,45,45	0.51	0
2	PG4	B	501	-	12,12,12	0.69	0	11,11,11	0.41	0
3	ADP	A	503	4	28,29,29	0.26	0	43,45,45	0.76	3 (6%)

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	PG4	A	502	-	-	0/3/3/10	-
2	PG4	A	501	-	-	7/10/10/10	-
3	ADP	B	502	4	-	5/16/32/32	0/3/3/3
2	PG4	B	501	-	-	6/10/10/10	-
3	ADP	A	503	4	-	5/16/32/32	0/3/3/3

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	503	ADP	O3B-PB-O2B	2.23	116.17	107.80
3	A	503	ADP	O3B-PB-O3A	2.11	111.72	104.64
3	A	503	ADP	O2B-PB-O1B	-2.02	102.96	110.83

There are no chirality outliers.

All (23) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	503	ADP	C5'-O5'-PA-O2A
3	B	502	ADP	C5'-O5'-PA-O3A
2	A	501	PG4	O3-C5-C6-O4
2	A	501	PG4	O2-C3-C4-O3
2	A	501	PG4	O1-C1-C2-O2
2	A	501	PG4	O4-C7-C8-O5
2	B	501	PG4	O1-C1-C2-O2
2	B	501	PG4	O4-C7-C8-O5
3	A	503	ADP	PB-O3A-PA-O1A
2	A	501	PG4	C3-C4-O3-C5
2	A	501	PG4	C8-C7-O4-C6
2	A	501	PG4	C5-C6-O4-C7
2	B	501	PG4	C4-C3-O2-C2
3	A	503	ADP	C5'-O5'-PA-O1A
3	A	503	ADP	C5'-O5'-PA-O3A
3	B	502	ADP	C5'-O5'-PA-O1A
3	B	502	ADP	C5'-O5'-PA-O2A
2	B	501	PG4	C6-C5-O3-C4
3	A	503	ADP	C4'-C5'-O5'-PA
2	B	501	PG4	O3-C5-C6-O4
2	B	501	PG4	C8-C7-O4-C6

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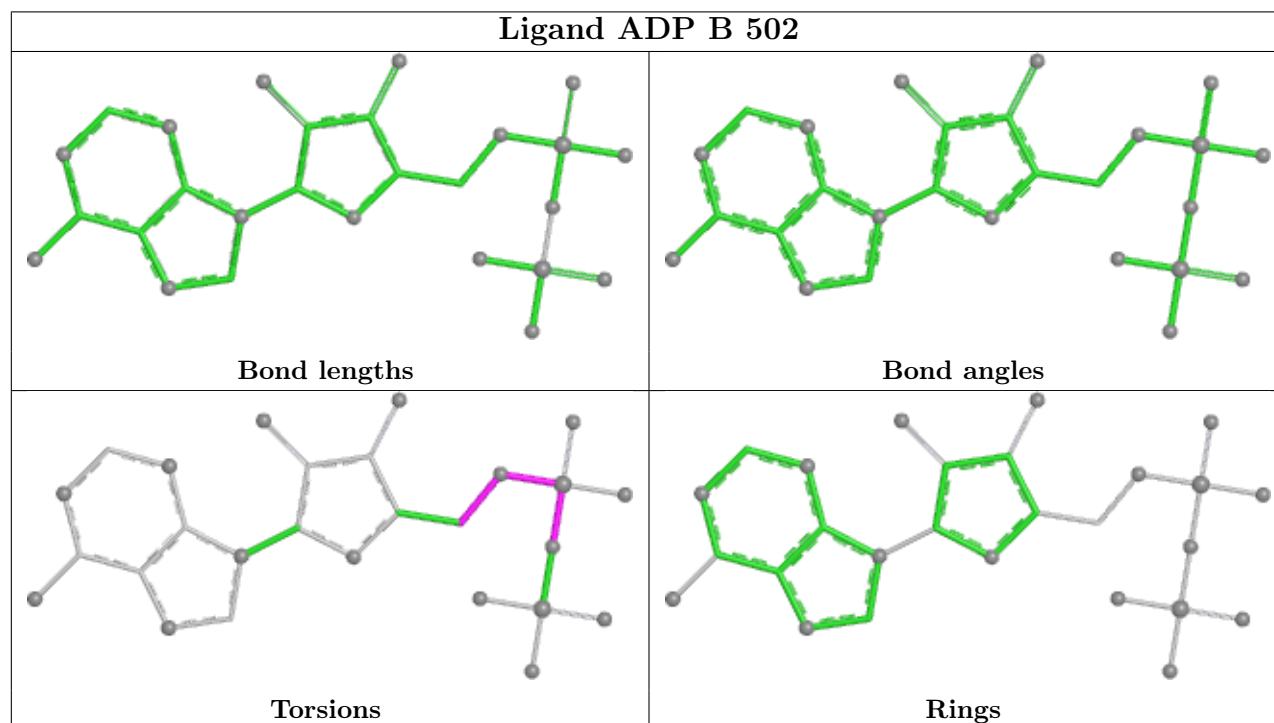
Mol	Chain	Res	Type	Atoms
3	B	502	ADP	C4'-C5'-O5'-PA
3	B	502	ADP	PB-O3A-PA-O2A

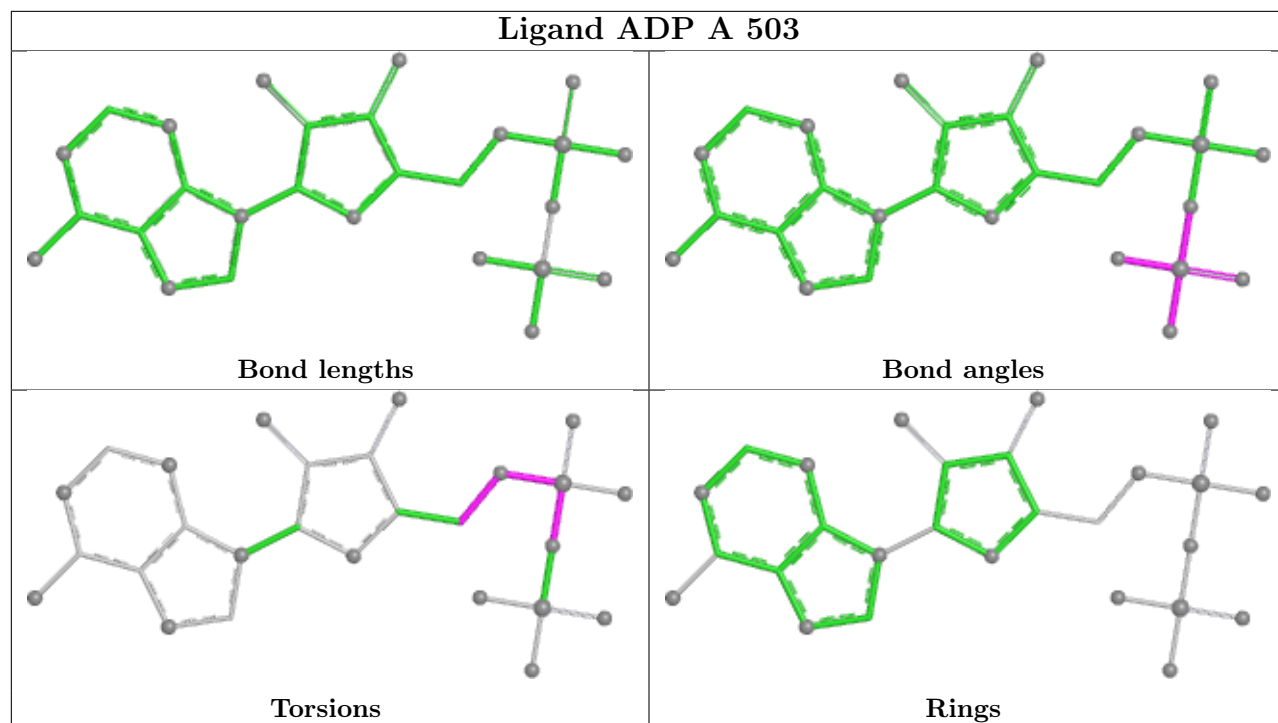
There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	502	ADP	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 than 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.





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(Å ²)	Q < 0.9
1	A	334/344 (97%)	0.09	17 (5%)	33 20	6, 25, 76, 98	1 (0%)
1	B	323/344 (93%)	0.35	20 (6%)	26 16	8, 33, 78, 100	1 (0%)
All	All	657/688 (95%)	0.22	37 (5%)	30 18	6, 28, 78, 100	2 (0%)

All (37) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	108	ALA	4.2
1	B	108	ALA	3.9
1	A	131	HIS	3.8
1	B	122	ARG	3.6
1	B	109	ALA	3.5
1	A	109	ALA	3.3
1	A	122	ARG	3.2
1	B	119	GLN	3.2
1	B	208	ILE	3.1
1	B	212	ASN	3.0
1	B	214	ALA	3.0
1	A	181	ASP	3.0
1	B	206	MET	3.0
1	A	128	LEU	2.9
1	B	123	GLU	2.7
1	A	210	LYS	2.7
1	B	181	ASP	2.7
1	B	118	ARG	2.6
1	B	433	THR	2.6
1	B	134	LYS	2.6
1	A	134	LYS	2.6
1	B	207	SER	2.5
1	A	118	ARG	2.5
1	B	205	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
1	A	115	GLU	2.5
1	A	112	GLN	2.4
1	B	135	MET	2.4
1	A	116	MET	2.3
1	A	135	MET	2.2
1	B	131	HIS	2.1
1	B	220	GLU	2.1
1	A	280	SER	2.1
1	A	441	PRO	2.1
1	B	128	LEU	2.1
1	A	113	ALA	2.1
1	A	121	LYS	2.0
1	B	225	HIS	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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.

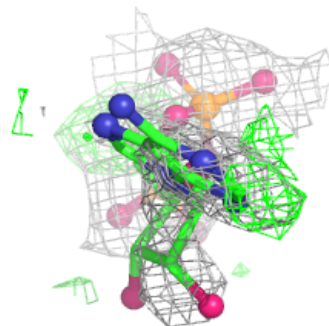
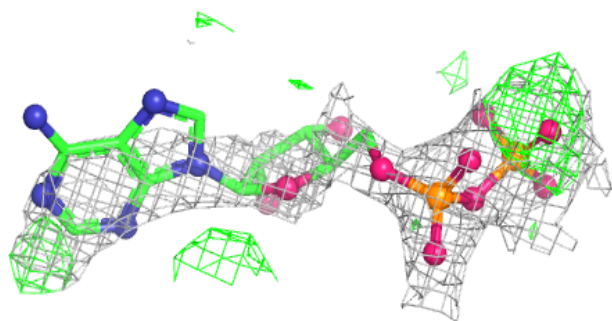
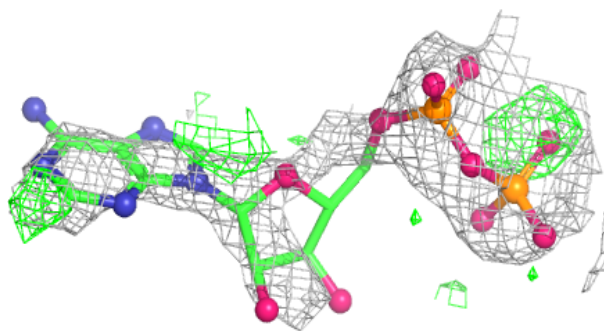
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	PG4	A	502	6/13	0.64	0.32	70,71,72,72	0
4	MG	A	504	1/1	0.71	0.13	36,36,36,36	0
2	PG4	A	501	13/13	0.79	0.21	45,48,62,62	0
4	MG	B	503	1/1	0.84	0.19	46,46,46,46	0
2	PG4	B	501	13/13	0.87	0.15	33,47,50,50	0
3	ADP	A	503	27/27	0.89	0.22	11,30,33,34	27
3	ADP	B	502	27/27	0.92	0.19	13,20,32,33	27

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.

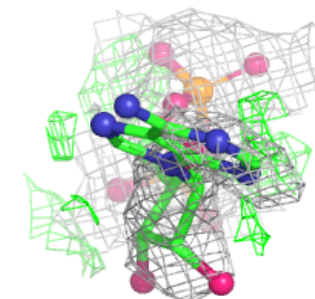
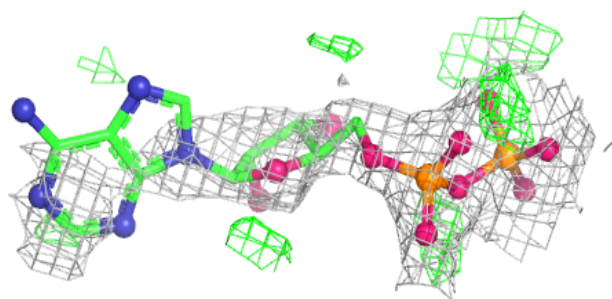
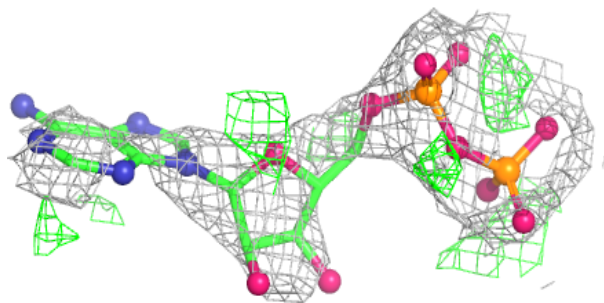
Electron density around ADP A 503:

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



Electron density around ADP B 502:

$2mF_o-DF_c$ (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.