

# Full wwPDB X-ray Structure Validation Report (i)

#### Aug 22, 2023 – 09:49 PM EDT

PDB ID	:	3DKL
Title	:	Crystal structure of phosphorylated mimic form of human NAMPT complexed
		with benzamide and phosphoribosyl pyrophosphate
Authors	:	Ho, M.; Burgos, E.S.; Almo, S.C.; Schramm, V.L.
Deposited on	:	2008-06-25
Resolution	:	1.89 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 (1)) were used in the production of this report:

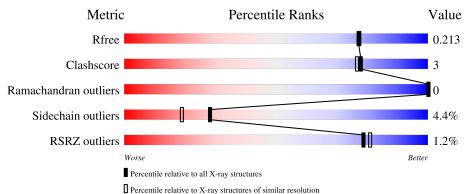
Xtriage (Phenix) EDS buster-report Percentile statistics Refmac CCP4 Ideal geometry (proteins) Ideal geometry (DNA, RNA)	: : : : :	20191225.v01 (using entries in the PDB archive December 25th 2019) 5.8.0158 7.0.044 (Gargrove) Engh & Huber (2001) Parkinson et al. (1996)
Ideal geometry (DNA, RNA) Validation Pipeline (wwPDB-VP)		Parkinson et al. (1996) 2.35

# 1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:  $X\text{-}RAY \, DIFFRACTION$ 

The reported resolution of this entry is 1.89 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	$\begin{array}{c} \textbf{Whole archive} \\ (\#\textbf{Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries,\ resolution\ range}({ m \AA}))$
$R_{free}$	130704	6207 (1.90-1.90)
Clashscore	141614	6847 (1.90-1.90)
Ramachandran outliers	138981	6760 (1.90-1.90)
Sidechain outliers	138945	6760 (1.90-1.90)
RSRZ outliers	127900	6082 (1.90-1.90)

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	А	484	% 87%	8%	•••
1	В	484	% 86%	10%	•



#### 3DKL

# 2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 7943 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.

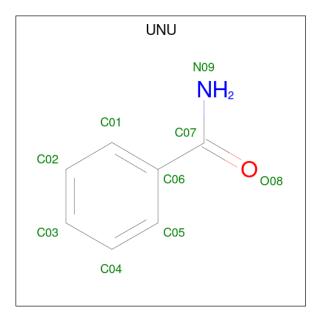
• Molecule 1 is a protein called Nicotinamide phosphoribosyltransferase.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
1	А	464	Total	-	11	0	S 7	0	3	0
				2401	-	(07	( 			
1	В	464	Total 3717	C 2392	N 613	0 705	${ m S}7$	0	1	0

• Molecule 2 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	А	2	Total Mg 2 2	0	0
2	В	2	Total Mg 2 2	0	0

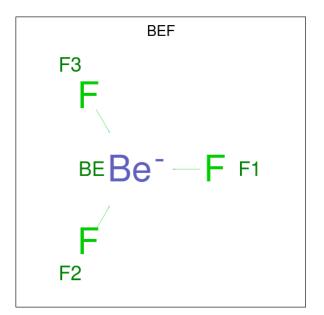
• Molecule 3 is BENZAMIDE (three-letter code: UNU) (formula:  $C_7H_7NO$ ).





Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	А	1	Total C N O 9 7 1 1	0	0
3	В	1	Total C N O 9 7 1 1	0	0

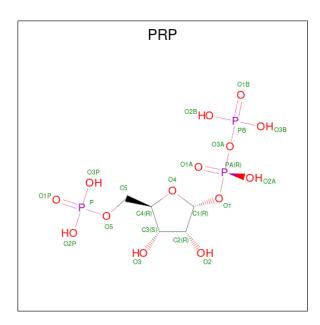
• Molecule 4 is BERYLLIUM TRIFLUORIDE ION (three-letter code: BEF) (formula: BeF<sub>3</sub>).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	А	1	Total Be F 4 1 3	0	0
4	В	1	Total Be F 4 1 3	0	0

• Molecule 5 is 1-O-pyrophosphono-5-O-phosphono-alpha-D-ribofuranose (three-letter code: PRP) (formula:  $C_5H_{13}O_{14}P_3$ ).





Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	В	1	Total         C         O         P           22         5         14         3	0	0
5	В	1	Total         C         O         P           22         5         14         3	0	0

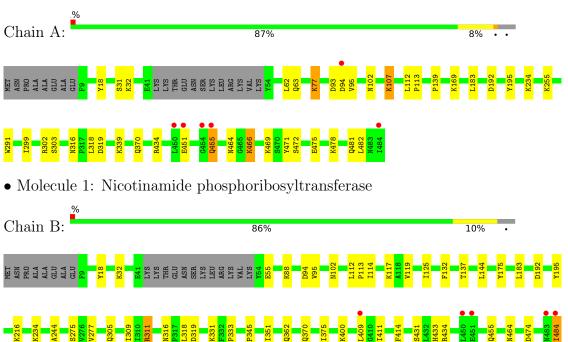
• Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	А	199	Total O 199 199	0	0
6	В	224	Total         O           224         224	0	0



# 3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.



• Molecule 1: Nicotinamide phosphoribosyltransferase



## 4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants	61.13Å 106.59Å 83.24Å	Depositor
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$90.00^{\circ}$ $96.78^{\circ}$ $90.00^{\circ}$	Depositor
Resolution (Å)	28.56 - 1.89	Depositor
Resolution (A)	28.21 - 1.89	EDS
% Data completeness	96.6 (28.56-1.89)	Depositor
(in resolution range)	96.6 (28.21-1.89)	EDS
R <sub>merge</sub>	0.08	Depositor
R <sub>sym</sub>	(Not available)	Depositor
$< I/\sigma(I) > 1$	$1.92 (at 1.89 \text{\AA})$	Xtriage
Refinement program	REFMAC 5.2.0019	Depositor
D D.	0.177 , $0.214$	Depositor
$R, R_{free}$	0.176 , $0.213$	DCC
$R_{free}$ test set	4084 reflections $(5.00%)$	wwPDB-VP
Wilson B-factor $(Å^2)$	23.6	Xtriage
Anisotropy	0.062	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$ , $B_{sol}(Å^2)$	0.36 , $38.5$	EDS
L-test for twinning <sup>2</sup>	$ \langle L  \rangle = 0.50, \langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.96	EDS
Total number of atoms	7943	wwPDB-VP
Average B, all atoms $(Å^2)$	23.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 4.57% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>Theoretical 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.



<sup>&</sup>lt;sup>1</sup>Intensities estimated from amplitudes.

# 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: PRP, UNU, MG, BEF

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).

Mal	Mol Chain		nd lengths	Bond angles		
IVIOI	Chain	RMSZ	# Z  > 5	RMSZ	# Z  > 5	
1	А	0.91	0/3826	0.84	3/5184~(0.1%)	
1	В	0.91	1/3808~(0.0%)	0.87	5/5161~(0.1%)	
All	All	0.91	1/7634~(0.0%)	0.85	8/10345~(0.1%)	

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	В	311	ARG	CD-NE	-5.16	1.37	1.46

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
1	В	311	ARG	NE-CZ-NH2	-20.82	109.89	120.30
1	А	302	ARG	NE-CZ-NH2	-14.49	113.06	120.30
1	В	311	ARG	NE-CZ-NH1	12.42	126.51	120.30
1	А	302	ARG	NE-CZ-NH1	10.41	125.51	120.30
1	В	311	ARG	CG-CD-NE	-5.79	99.64	111.80
1	В	192	ASP	CB-CG-OD1	5.68	123.41	118.30
1	В	474	ASP	CB-CG-OD1	5.53	123.28	118.30
1	А	192	ASP	CB-CG-OD1	5.14	122.92	118.30

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



Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	А	3729	0	3711	20	0
1	В	3717	0	3692	24	0
2	А	2	0	0	0	0
2	В	2	0	0	0	0
3	А	9	0	7	0	0
3	В	9	0	7	0	0
4	А	4	0	0	0	0
4	В	4	0	0	0	0
5	В	44	0	14	1	0
6	А	199	0	0	1	0
6	В	224	0	0	2	0
All	All	7943	0	7431	44	0

the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 3.

All (44) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic	Clash
1100111-1	1100111-2	distance $(Å)$	overlap (Å)
1:A:469:LYS:HE2	6:A:645:HOH:O	1.59	1.02
1:B:484:ILE:H	1:B:484:ILE:HD13	1.30	0.96
1:A:316:ASN:HD22	1:A:319:ASP:H	1.28	0.78
1:B:316:ASN:HD22	1:B:319:ASP:H	1.37	0.70
1:B:431:SER:OG	1:B:433:HIS:HE1	1.76	0.67
1:A:63:GLN:HE22	1:A:471:TYR:H	1.44	0.63
1:B:311:ARG:NH2	5:B:504:PRP:O2	2.30	0.61
1:B:484:ILE:H	1:B:484:ILE:CD1	2.08	0.60
1:A:478:LYS:HA	1:A:481:GLN:HE21	1.67	0.59
1:A:169:LYS:HG2	1:A:482:LEU:HD11	1.85	0.58
1:A:113:PRO:HA	1:A:464:ASN:HD22	1.70	0.55
1:A:472:SER:OG	1:A:475:GLU:HG3	2.07	0.54
1:B:333:PRO:HD2	1:B:345:PRO:HG3	1.91	0.52
1:B:484:ILE:HD13	1:B:484:ILE:N	2.13	0.52
1:A:31:SER:HB2	1:A:139:PRO:HB3	1.91	0.51
1:A:478:LYS:HG3	1:A:481:GLN:NE2	2.26	0.49
1:A:316:ASN:ND2	1:A:319:ASP:H	2.04	0.49
1:A:107:LYS:HA	1:A:107:LYS:HE3	1.95	0.49
1:A:112:LEU:O	1:A:464:ASN:HA	2.14	0.48
1:B:88:LYS:O	1:B:88:LYS:HD2	2.14	0.47
1:B:244:ALA:HA	1:B:275:SER:O	2.15	0.47

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		Interatomic	Clash
Atom-1	Atom-2	distance (Å)	overlap (Å)
1:B:311:ARG:HG3	1:B:351:ILE:HG23	1.96	0.47
1:B:277:VAL:HA	1:B:311:ARG:HB3	1.97	0.47
1:B:175:TYR:HB3	1:B:375:ILE:HG13	1.98	0.46
1:A:77:LYS:HA	1:A:77:LYS:HD2	1.40	0.46
1:A:31:SER:O	1:A:139:PRO:HA	2.17	0.45
1:A:478:LYS:HG3	1:A:481:GLN:HE22	1.82	0.45
1:B:117:LYS:O	1:B:132:PHE:HA	2.18	0.43
1:B:362:GLN:NE2	6:B:650:HOH:O	2.51	0.43
1:B:414:PHE:N	1:B:414:PHE:CD2	2.86	0.43
1:B:275:SER:HA	1:B:309:ILE:O	2.19	0.43
1:A:291:TRP:CE3	1:A:299:ILE:HD11	2.55	0.42
1:A:455:GLN:HE21	1:A:455:GLN:HB2	1.59	0.42
1:B:114:ILE:HD11	1:B:144:LEU:HG	2.02	0.41
1:B:137:THR:OG1	1:B:464:ASN:ND2	2.48	0.41
1:B:434:ARG:HA	1:B:434:ARG:HD3	1.88	0.41
1:B:331:LYS:HD2	1:B:331:LYS:HA	1.88	0.41
1:B:112:LEU:O	1:B:464:ASN:HA	2.21	0.41
1:B:113:PRO:HA	1:B:464:ASN:HD22	1.86	0.41
1:A:93:ASP:OD2	1:A:94:ASP:N	2.54	0.41
1:B:400:LYS:NZ	6:B:637:HOH:O	2.49	0.41
1:A:107:LYS:HB2	1:A:107:LYS:NZ	2.35	0.40
1:A:466:LYS:HA	1:A:466:LYS:HD2	1.87	0.40
1:B:119:VAL:HG21	1:B:125:ILE:HD11	2.03	0.40

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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	Perce	ntiles
1	А	463/484~(96%)	449 (97%)	14 (3%)	0	100	100
1	В	461/484 (95%)	449 (97%)	12 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	924/968~(96%)	898~(97%)	26~(3%)	0	100 100	

There are no Ramachandran outliers to report.

#### 5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	А	411/425~(97%)	392~(95%)	19 (5%)	27 17
1	В	409/425~(96%)	392~(96%)	17 (4%)	30 20
All	All	820/850~(96%)	784 (96%)	36~(4%)	28 19

All (36) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	А	18	TYR
1	А	32	LYS
1	А	62	LEU
1	А	77	LYS
1	А	95	VAL
1	А	102	ASN
1	А	107	LYS
1	А	183	LEU
1	А	195	TYR
1	А	234	LYS
1	А	255	LYS
1	А	303	SER
1	А	318	LEU
1	А	339	LYS
1	А	370	GLN
1	А	434	ARG
1	А	451	GLU
1	А	455	GLN
1	А	466	LYS
1	В	18	TYR

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Mol	Chain	Res	Type
1	В	32	LYS
1	В	55	GLU
1	В	94	ASP
1	В	95	VAL
1	В	102	ASN
1	В	183	LEU
1	В	195	TYR
1	В	216	LYS
1	В	234	LYS
1	В	305	GLN
1	В	318	LEU
1	В	370	GLN
1	В	409	LEU
1	В	411	ILE
1	В	455	GLN
1	В	484	ILE

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Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
1	А	63	GLN
1	А	81	GLN
1	А	316	ASN
1	А	362	GLN
1	А	455	GLN
1	А	464	ASN
1	А	481	GLN
1	В	316	ASN
1	В	362	GLN
1	В	433	HIS
1	В	455	GLN
1	В	464	ASN
1	В	481	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 monosaccharides in this entry.

## 5.6 Ligand geometry (i)

Of 10 ligands modelled in this entry, 4 are monoatomic - leaving 6 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	Mol Type Chain H		Res Link		Bond lengths			Bond angles		
10101	mor Type Cham	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z >2	
3	UNU	В	505	-	9,9,9	1.51	2 (22%)	11,11,11	0.74	0
4	BEF	А	505	1	0,3,3	-	-	-		
5	PRP	В	503	2	19,22,22	0.80	0	33,35,35	1.18	2 (6%)
5	PRP	В	504	2	19,22,22	0.71	0	33,35,35	1.32	6 (18%)
4	BEF	В	506	1	0,3,3	-	-	-		
3	UNU	А	504	-	9,9,9	1.45	1 (11%)	11,11,11	1.22	2 (18%)

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	UNU	В	505	-	-	0/4/4/4	0/1/1/1
3	UNU	А	504	-	-	0/4/4/4	0/1/1/1
5	PRP	В	504	2	-	1/16/33/33	0/1/1/1
5	PRP	В	503	2	-	1/16/33/33	0/1/1/1

All (3) bond length outliers are listed below:



Mol	Chain	Res	Type	Atoms	Ζ	Observed(Å)	$\mathrm{Ideal}(\mathrm{\AA})$
3	В	505	UNU	C01-C06	2.42	1.43	1.39
3	А	504	UNU	C01-C06	2.19	1.43	1.39
3	В	505	UNU	C03-C04	2.02	1.43	1.38

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
5	В	503	PRP	O5-P-O1P	-2.86	98.44	106.47
5	В	504	PRP	PA-O3A-PB	-2.69	123.58	132.83
5	В	504	PRP	C1-C2-C3	2.69	105.71	102.30
3	А	504	UNU	O08-C07-C06	2.68	122.83	119.63
3	А	504	UNU	O08-C07-N09	-2.32	119.28	122.58
5	В	504	PRP	O3A-PA-O1	2.30	107.12	102.48
5	В	504	PRP	O3P-P-O5	-2.10	101.15	106.73
5	В	504	PRP	P-O5-C5	2.07	124.01	118.30
5	В	503	PRP	O3P-P-O2P	2.02	115.37	107.64
5	В	504	PRP	O4-C1-C2	-2.02	102.38	104.98

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	В	504	PRP	C4-C5-O5-P
5	В	503	PRP	C4-C5-O5-P

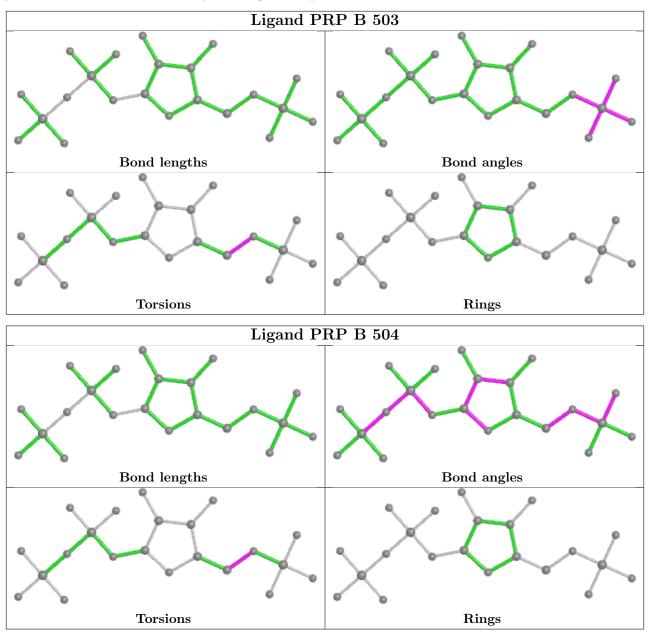
There are no ring outliers.

1 monomer is involved in 1 short contact:

[	Mol	Chain	Res	Type	Clashes	Symm-Clashes
	5	В	504	PRP	1	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.





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 (i)

## 6.1 Protein, DNA and RNA chains (i)

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median,  $95^{th}$  percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	$\langle RSRZ \rangle$	#RSRZ>2	$OWAB(Å^2)$	Q<0.9
1	А	464/484~(95%)	-0.29	6 (1%) 77 79	16, 22, 34, 51	0
1	В	464/484~(95%)	-0.25	5 (1%) 80 82	16, 22, 34, 49	0
All	All	928/968~(95%)	-0.27	11 (1%) 79 81	16, 22, 34, 51	0

All (11) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	В	484	ILE	5.2
1	А	484	ILE	4.5
1	В	409	LEU	3.9
1	В	450	LEU	2.7
1	В	483	ASN	2.5
1	А	451	GLU	2.4
1	А	455	GLN	2.4
1	А	94	ASP	2.3
1	А	450	LEU	2.2
1	А	454	GLY	2.1
1	В	451	GLU	2.1

## 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 monosaccharides in this entry.

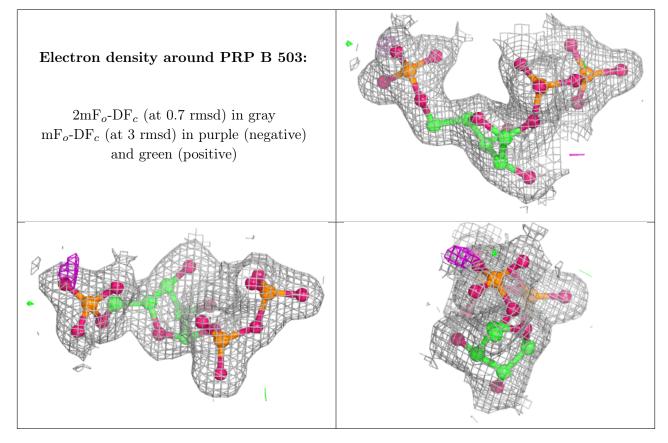


## 6.4 Ligands (i)

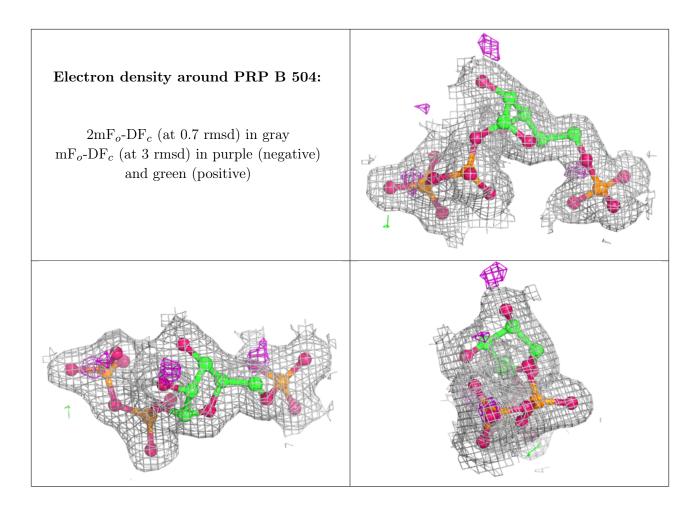
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median,  $95^{th}$  percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-factors}(\mathrm{\AA}^2)$	Q < 0.9
4	BEF	А	505	4/4	0.94	0.15	20,21,21,24	0
3	UNU	А	504	9/9	0.95	0.16	15,18,18,20	0
4	BEF	В	506	4/4	0.95	0.12	18,20,23,24	0
3	UNU	В	505	9/9	0.97	0.14	17,18,20,20	0
2	MG	В	502	1/1	0.97	0.04	20,20,20,20	0
2	MG	А	502	1/1	0.97	0.05	23,23,23,23	0
5	PRP	В	503	22/22	0.98	0.07	14,19,22,24	0
2	MG	А	501	1/1	0.99	0.07	22,22,22,22	0
2	MG	В	501	1/1	0.99	0.07	21,21,21,21	0
5	PRP	В	504	22/22	0.99	0.07	17,19,21,23	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.







## 6.5 Other polymers (i)

There are no such residues in this entry.

