

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

#### Feb 15, 2024 – 08:13 AM EST

PDB ID : 8W0H

Title: Crystal structure of Acetyl-CoA synthetase 2 from Candida albicans in com-

plex with an isopropyl AMP ester inhibitor (trigonal form)

Authors: Seattle Structural Genomics Center for Infectious Disease; Seattle Structural

Genomics Center for Infectious Disease (SSGCID)

Deposited on : 2024-02-13

Resolution : 2.95 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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: 2.36

buster-report : 1.1.7 (2018)

Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)

Refmac : 5.8.0158

CCP4 : 7.0.044 (Gargrove)

Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

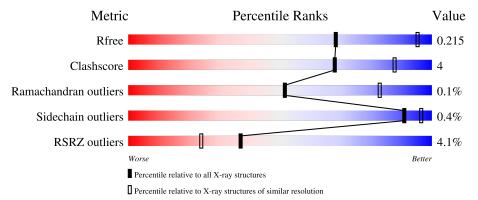
Validation Pipeline (wwPDB-VP) : 2.36

## 1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.95 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	Similar resolution
Metric	$(\# \mathrm{Entries})$	$(\#  ext{Entries},  ext{ resolution range}( ext{Å}))$
$R_{free}$	130704	3104 (3.00-2.92)
Clashscore	141614	3462 (3.00-2.92)
Ramachandran outliers	138981	3340 (3.00-2.92)
Sidechain outliers	138945	3343 (3.00-2.92)
RSRZ outliers	127900	2986 (3.00-2.92)

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	686	86%	10%	<del>.</del>
1	В	686	87%	9%	
1	С	686	87%	9%	5%



# 2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 15515 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 2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace		
1	Λ	A 660	Total	С	N	О	S	0	0	0	
1	A	660	5115	3266	868	967	14	U	U	U	
1	В	660	Total	С	N	О	S	0	0	0	
1	Ъ	000	5125	3271	871	969	14	0	0		
1	С	654	Total	С	N	О	S	0	0	0	
1		004	5081	3244	861	962	14	0	U		

There are 51 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	MET	-	initiating methionine	UNP Q8NJN3
A	2	HIS	-	expression tag	UNP Q8NJN3
A	3	HIS	-	expression tag	UNP Q8NJN3
A	4	HIS	-	expression tag	UNP Q8NJN3
A	5	HIS	-	expression tag	UNP Q8NJN3
A	6	HIS	-	expression tag	UNP Q8NJN3
A	7	HIS	-	expression tag	UNP Q8NJN3
A	8	HIS	-	expression tag	UNP Q8NJN3
A	9	HIS	_	expression tag	UNP Q8NJN3
A	10	GLU	-	expression tag	UNP Q8NJN3
A	11	ASN	-	expression tag	UNP Q8NJN3
A	12	LEU	-	expression tag	UNP Q8NJN3
A	13	TYR	-	expression tag	UNP Q8NJN3
A	14	PHE	-	expression tag	UNP Q8NJN3
A	15	GLN	-	expression tag	UNP Q8NJN3
A	16	GLY	-	expression tag	UNP Q8NJN3
A	403	ALA	VAL	engineered mutation	UNP Q8NJN3
В	1	MET	-	initiating methionine	UNP Q8NJN3
В	2	HIS	-	expression tag	UNP Q8NJN3
В	3	HIS	-	expression tag	UNP Q8NJN3
В	4	HIS	-	expression tag	UNP Q8NJN3
В	5	HIS	-	expression tag	UNP Q8NJN3
В	6	HIS	-	expression tag	UNP Q8NJN3



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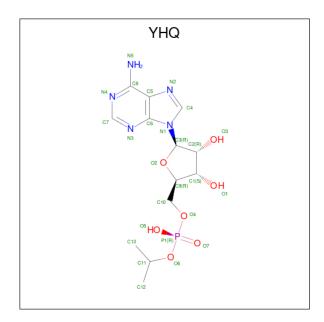
Chain	Residue	Modelled	Actual	Comment	Reference
В	7	HIS	-	expression tag	UNP Q8NJN3
В	8	HIS	-	expression tag	UNP Q8NJN3
В	9	HIS	-	expression tag	UNP Q8NJN3
В	10	GLU	-	expression tag	UNP Q8NJN3
В	11	ASN	-	expression tag	UNP Q8NJN3
В	12	LEU	-	expression tag	UNP Q8NJN3
В	13	TYR	-	expression tag	UNP Q8NJN3
В	14	PHE	-	expression tag	UNP Q8NJN3
В	15	GLN	-	expression tag	UNP Q8NJN3
В	16	GLY	-	expression tag	UNP Q8NJN3
В	403	ALA	VAL	engineered mutation	UNP Q8NJN3
С	1	MET	-	initiating methionine	UNP Q8NJN3
С	2	HIS	-	expression tag	UNP Q8NJN3
С	3	HIS	-	expression tag	UNP Q8NJN3
С	4	HIS	-	expression tag	UNP Q8NJN3
С	5	HIS	-	expression tag	UNP Q8NJN3
С	6	HIS	-	expression tag	UNP Q8NJN3
С	7	HIS	-	expression tag	UNP Q8NJN3
С	8	HIS	-	expression tag	UNP Q8NJN3
С	9	HIS	-	expression tag	UNP Q8NJN3
С	10	GLU	-	expression tag	UNP Q8NJN3
С	11	ASN	-	expression tag	UNP Q8NJN3
С	12	LEU	=	expression tag	UNP Q8NJN3
С	13	TYR	=	expression tag	UNP Q8NJN3
С	14	PHE	=	expression tag	UNP Q8NJN3
С	15	GLN	-	expression tag	UNP Q8NJN3
С	16	GLY	-	expression tag	UNP Q8NJN3
С	403	ALA	VAL	engineered mutation	UNP Q8NJN3

• Molecule 2 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	${f Atoms}$	ZeroOcc	AltConf
2	A	1	Total Cl 1 1	0	0
2	В	1	Total Cl 1 1	0	0
2	С	1	Total Cl 1 1	0	0

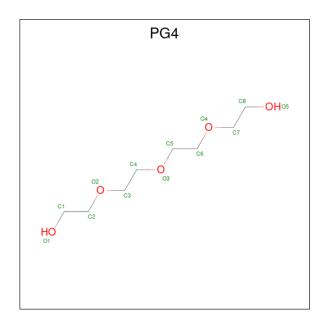
• Molecule 3 is 5'-O- $\{(R)$ -hydroxy[(propan-2-yl)oxy]phosphoryl $\}$ adenosine (three-letter code: YHQ) (formula:  $C_{13}H_{20}N_5O_7P$ ) (labeled as "Ligand of Interest" by depositor).





Mol	Chain	Residues	Atoms				ZeroOcc	AltConf		
2	Λ	1	Total	С	N	О	Р	0	0	
3	Λ	1	26	13	5	7	1	0	0	
2	B	1	Total	С	N	О	Р	0	0	
3	Б	1	26	13	5	7	1	U		
2	С	1	Total	С	N	О	Р	0	0	
3	C		26	13	5	7	1	U		

 $\bullet$  Molecule 4 is TETRAETHYLENE GLYCOL (three-letter code: PG4) (formula:  $\mathrm{C_8H_{18}O_5}).$ 



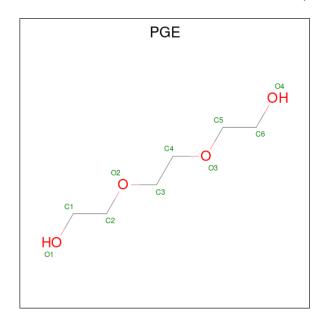
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total 13	C 8	O 5	0	0



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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C O 13 8 5	0	0
4	В	1	Total C O 13 8 5	0	0
4	В	1	Total C O 13 8 5	0	0
4	С	1	Total C O 13 8 5	0	0
4	С	1	Total C O 13 8 5	0	0

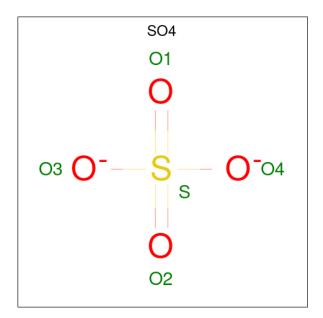
 $\bullet$  Molecule 5 is TRIETHYLENE GLYCOL (three-letter code: PGE) (formula:  $\mathrm{C_6H_{14}O_4}).$ 



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total C O 10 6 4	0	0
5	В	1	Total C O 10 6 4	0	0
5	С	1	Total C O 10 6 4	0	0

 $\bullet$  Molecule 6 is SULFATE ION (three-letter code: SO4) (formula:  $\mathrm{O_4S}).$ 





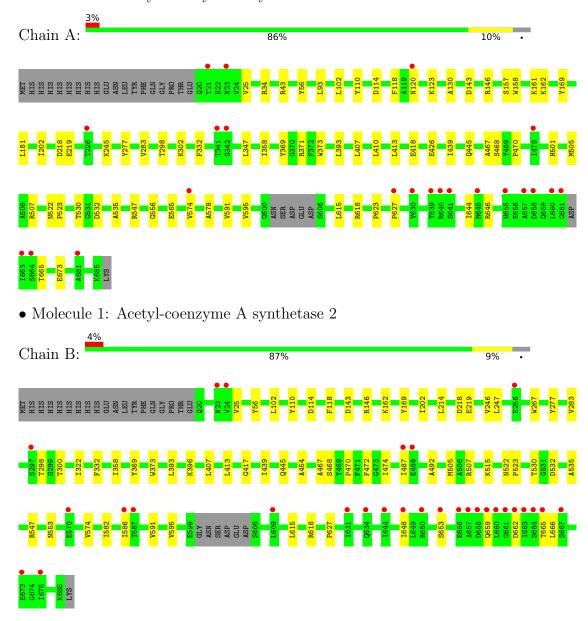
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	В	1	Total 5	O 4	S 1	0	0



# 3 Residue-property plots (i)

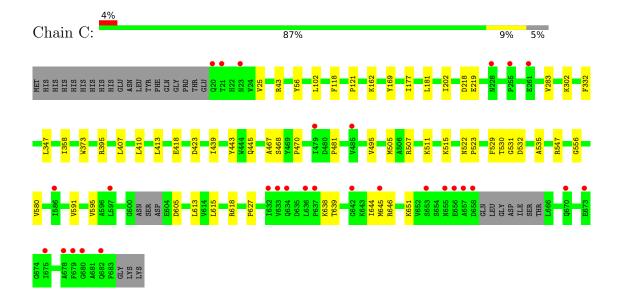
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Acetyl-coenzyme A synthetase 2



• Molecule 1: Acetyl-coenzyme A synthetase 2







# 4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 31 2 1	Depositor
Cell constants	113.92Å 113.92Å 354.44Å	Domogiton
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$90.00^{\circ}$ $90.00^{\circ}$ $120.00^{\circ}$	Depositor
Resolution (Å)	49.33 - 2.95	Depositor
Resolution (A)	49.33 - 2.95	EDS
% Data completeness	100.0 (49.33-2.95)	Depositor
(in resolution range)	$100.0 \ (49.33-2.95)$	EDS
$R_{merge}$	0.17	Depositor
$R_{sym}$	(Not available)	Depositor
$< I/\sigma(I) > 1$	1.83 (at 2.96Å)	Xtriage
Refinement program	PHENIX (dev_5233: ???)	Depositor
D D	0.188 , 0.224	Depositor
$R, R_{free}$	0.188 , $0.215$	DCC
$R_{free}$ test set	2981 reflections (5.20%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	71.8	Xtriage
Anisotropy	0.040	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$ , $B_{sol}(Å^2)$	0.33 , 41.6	EDS
L-test for twinning <sup>2</sup>	$< L >=0.51, < L^2>=0.34$	Xtriage
Estimated twinning fraction	0.011 for -h,-k,l	Xtriage
$F_o, F_c$ correlation	0.95	EDS
Total number of atoms	15515	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	75.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 7.94% of the height of the origin peak. No significant pseudotranslation is detected.

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



<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: YHQ, SO4, PG4, CL, PGE

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		
	Chain	RMSZ	# Z  > 5	RMSZ	# Z  > 5	
1	A	0.26	0/5243	0.47	0/7127	
1	В	0.25	0/5254	0.47	0/7143	
1	С	0.26	0/5209	0.47	0/7081	
All	All	0.25	0/15706	0.47	0/21351	

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	5115	0	5009	45	0
1	В	5125	0	5022	37	0
1	С	5081	0	4969	39	0
2	A	1	0	0	0	0
2	В	1	0	0	0	0
2	С	1	0	0	0	0
3	A	26	0	0	1	0
3	В	26	0	0	1	0
3	С	26	0	0	1	0
4	A	26	0	36	2	0



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	.,	10	1

Mol	Chain	Non-H	H(model)	$\mathbf{H}(\mathbf{added})$	Clashes	Symm-Clashes
4	В	26	0	36	0	0
4	С	26	0	36	0	0
5	A	10	0	14	0	0
5	В	10	0	14	1	0
5	С	10	0	14	0	0
6	В	5	0	0	0	0
All	All	15515	0	15150	115	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.

The worst 5 of 115 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	$\begin{array}{c} {\rm Interatomic} \\ {\rm distance} \ ({\rm \AA}) \end{array}$	$egin{aligned}  ext{Clash} \  ext{overlap } ( ext{Å}) \end{aligned}$
1:C:532:ASP:OD1	1:C:547:ARG:HD2	1.75	0.86
1:A:120:ASN:ND2	1:A:123:LYS:HD2	2.10	0.67
1:A:591:VAL:HG23	1:A:627:PRO:HA	1.75	0.67
1:A:120:ASN:O	1:A:120:ASN:OD1	2.13	0.67
1:A:565:GLU:OE2	1:A:646:ARG:NH1	2.30	0.65

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	Analysed Favoured Allowed		Outliers	Perce	ntiles
1	A	654/686~(95%)	628 (96%)	26 (4%)	0	100	100
1	В	656/686 (96%)	634 (97%)	22 (3%)	0	100	100
1	С	648/686 (94%)	625 (96%)	22 (3%)	1 (0%)	47	79
All	All	1958/2058 (95%)	1887 (96%)	70 (4%)	1 (0%)	51	83



All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	С	605	ASP

#### 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	540/568 (95%)	536 (99%)	4 (1%)	84	93	
1	В	542/568 (95%)	540 (100%)	2 (0%)	91	96	
1	С	537/568 (94%)	536 (100%)	1 (0%)	93	98	
All	All	1619/1704 (95%)	1612 (100%)	7 (0%)	91	96	

5 of 7 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	665	THR
1	В	300	THR
1	С	651	LYS
1	В	659	GLN
1	A	302	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	$\operatorname{Res}$	Type
1	A	120	ASN
1	С	343	HIS

#### 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 16 ligands modelled in this entry, 3 are monoatomic - leaving 13 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 Res L		Link Bond lengths			В	ond ang	eles		
MIOI	туре	Chain	nes	LIIIK	Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
4	PG4	A	704	-	12,12,12	0.29	0	11,11,11	0.17	0
6	SO4	В	701	-	4,4,4	0.63	0	6,6,6	0.05	0
4	PG4	С	704	-	12,12,12	0.28	0	11,11,11	0.23	0
5	PGE	A	705	-	9,9,9	0.30	0	8,8,8	0.50	0
5	PGE	В	706	-	9,9,9	0.29	0	8,8,8	0.60	0
4	PG4	С	703	-	12,12,12	0.29	0	11,11,11	0.17	0
4	PG4	A	703	-	12,12,12	0.29	0	11,11,11	0.17	0
3	YHQ	A	702	-	25,28,28	0.65	0	27,42,42	0.76	1 (3%)
4	PG4	В	704	-	12,12,12	0.29	0	11,11,11	0.17	0
3	YHQ	С	702	-	25,28,28	0.64	0	27,42,42	0.75	1 (3%)
4	PG4	В	705	-	12,12,12	0.29	0	11,11,11	0.14	0
5	PGE	С	705	-	9,9,9	0.28	0	8,8,8	0.52	0
3	YHQ	В	703	-	25,28,28	0.64	0	27,42,42	0.76	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	$\mathbf{Type}$	Chain	$\operatorname{Res}$	Link	Chirals	Torsions	Rings
4	PG4	A	704	-	-	0/10/10/10	-



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Mol	Type	Chain	$\operatorname{Res}$	Link	Chirals	Torsions	Rings
4	PG4	С	704	-	-	2/10/10/10	-
5	PGE	A	705	-	-	3/7/7/7	-
5	PGE	В	706	-	-	1/7/7/7	-
4	PG4	С	703	ı	-	3/10/10/10	-
4	PG4	A	703	-	-	2/10/10/10	-
3	YHQ	A	702	-	-	0/11/31/31	0/3/3/3
4	PG4	В	704	-	-	2/10/10/10	-
3	YHQ	С	702	-	-	0/11/31/31	0/3/3/3
4	PG4	В	705	-	_	3/10/10/10	_
5	PGE	С	705	-	_	2/7/7/7	_
3	YHQ	В	703	-	-	0/11/31/31	0/3/3/3

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(^{o})$	$\operatorname{Ideal}({}^{o})$
3	A	702	YHQ	C5-C8-N5	2.30	123.85	120.35
3	В	703	YHQ	C5-C8-N5	2.27	123.81	120.35
3	С	702	YHQ	C5-C8-N5	2.27	123.80	120.35

There are no chirality outliers.

5 of 18 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	С	703	PG4	O2-C3-C4-O3
4	С	703	PG4	O4-C7-C8-O5
4	В	704	PG4	O2-C3-C4-O3
4	В	705	PG4	O1-C1-C2-O2
4	С	703	PG4	O1-C1-C2-O2

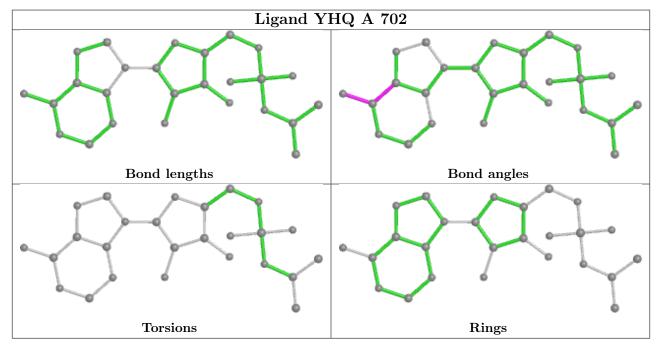
There are no ring outliers.

5 monomers are involved in 6 short contacts:

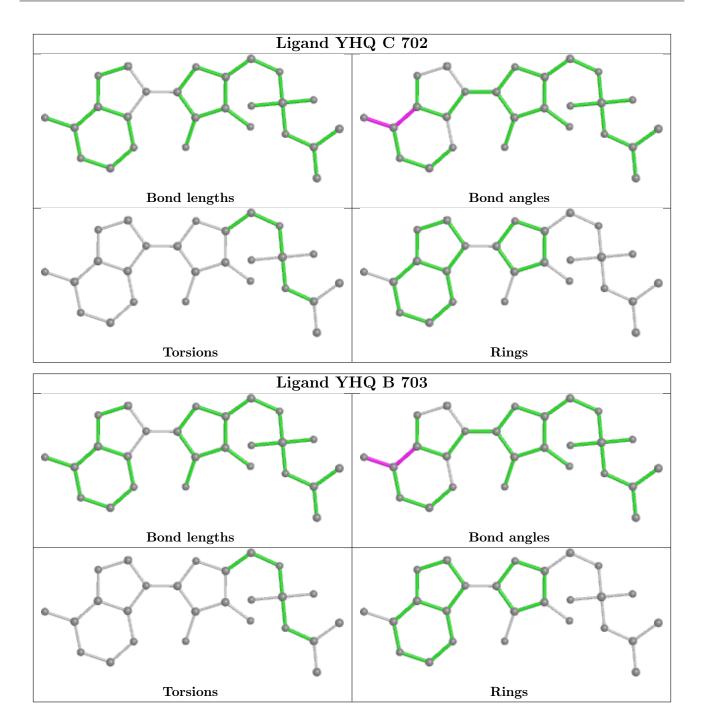
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	В	706	PGE	1	0
4	A	703	PG4	2	0
3	A	702	YHQ	1	0
3	С	702	YHQ	1	0
3	В	703	YHQ	1	0



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. 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 (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	<rsrz></rsrz>	#RSR	$\mathbb{Z} > 2$	$ ext{OWAB}( ext{Å}^2)$	Q < 0.9
1	A	660/686~(96%)	0.13	22 (3%) 4	46 30	42, 72, 122, 153	0
1	В	660/686 (96%)	0.14	29 (4%) 3	34 21	42, 70, 130, 170	0
1	С	654/686 (95%)	0.08	29 (4%) 3	34 21	42, 70, 131, 185	0
All	All	1974/2058 (95%)	0.11	80 (4%) 3	37 24	42, 71, 128, 185	0

The worst 5 of 80 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	С	657	ALA	6.3
1	В	658	ASP	5.6
1	С	658	ASP	5.0
1	В	659	GLN	4.8
1	A	640	ARG	4.6

### 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)

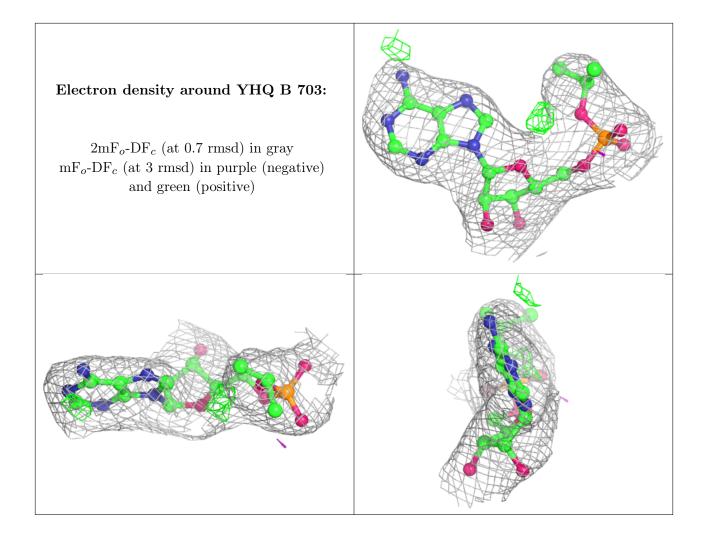
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median,  $95^{th}$  percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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



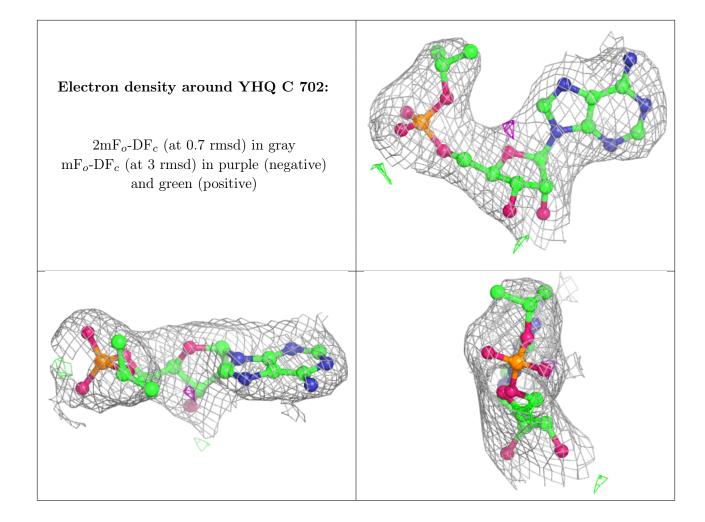
Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-}\mathbf{factors}(\mathbf{\mathring{A}}^2)$	Q < 0.9
5	PGE	A	705	10/10	0.71	0.36	65,77,83,95	0
4	PG4	С	704	13/13	0.80	0.32	75,81,96,99	0
2	CL	A	701	1/1	0.80	0.34	95,95,95,95	0
4	PG4	В	705	13/13	0.81	0.29	63,77,85,89	0
4	PG4	A	704	13/13	0.84	0.30	65,78,97,97	0
4	PG4	A	703	13/13	0.86	0.28	61,69,78,85	0
4	PG4	В	704	13/13	0.87	0.27	65,75,82,87	0
4	PG4	С	703	13/13	0.87	0.28	66,71,78,80	0
5	PGE	В	706	10/10	0.91	0.38	60,69,80,86	0
6	SO4	В	701	5/5	0.91	0.36	85,86,90,131	0
5	PGE	С	705	10/10	0.92	0.42	69,77,85,88	0
2	CL	С	701	1/1	0.94	0.37	83,83,83,83	0
3	YHQ	В	703	26/26	0.96	0.23	54,62,68,74	0
2	CL	В	702	1/1	0.97	0.17	81,81,81,81	0
3	YHQ	С	702	26/26	0.97	0.20	53,63,72,74	0
3	YHQ	A	702	26/26	0.97	0.25	51,63,68,76	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.

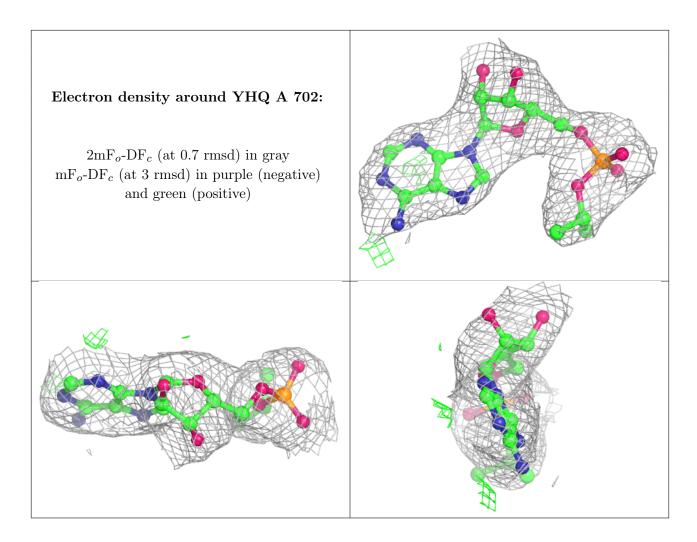












# 6.5 Other polymers (i)

There are no such residues in this entry.

