Full wwPDB X-ray Structure Validation Report (i)

Sep 28, 2024 – 10:30 PM EDT

PDB ID	:	1Z7S
Title	:	The crystal structure of coxsackievirus A21
Authors	:	Xiao, C.; Bator-Kelly, C.M.; Rieder, E.; Chipman, P.R.; Craig, A.; Kuhn, R.J.; Wimmer, E.; Rossmann, M.G.
Deposited on	:	2005-03-28
Resolution	:	3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

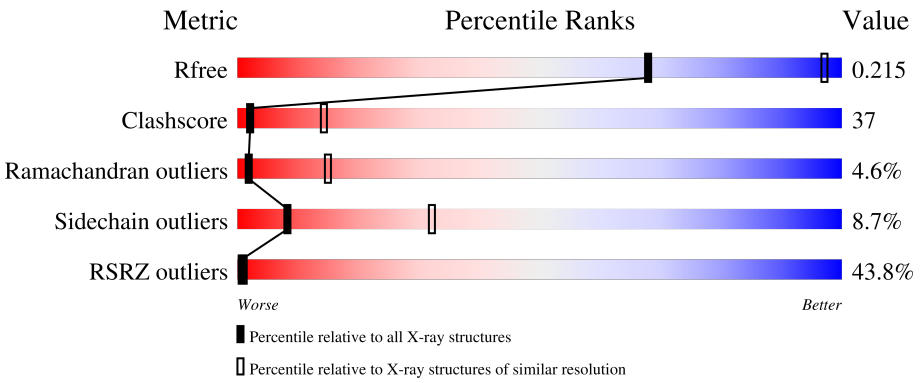
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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}	164625	1370 (3.20-3.20)
Clashscore	180529	1497 (3.20-3.20)
Ramachandran outliers	177936	1479 (3.20-3.20)
Sidechain outliers	177891	1478 (3.20-3.20)
RSRZ outliers	164620	1371 (3.20-3.20)

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%

Mol	Chain	Length	Quality of chain
1	1	298	43% 38% 52% 5% 5%
2	2	272	44% 44% 49% 5% • •
3	3	240	39% 42% 48% 9%
4	4	68	49% 49% 38% 10% •

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit crite-

ria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
6	MYR	1	300	-	-	X	-

2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 6765 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 Human COXSACKIEVIRUS A21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	1	283	2229	1411	380	428	10	0	0	0

- Molecule 2 is a protein called Human COXSACKIEVIRUS A21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	2	267	2069	1314	349	394	12	0	0	0

- Molecule 3 is a protein called Human coxsackievirus A21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	3	239	1846	1178	305	343	20	0	0	0

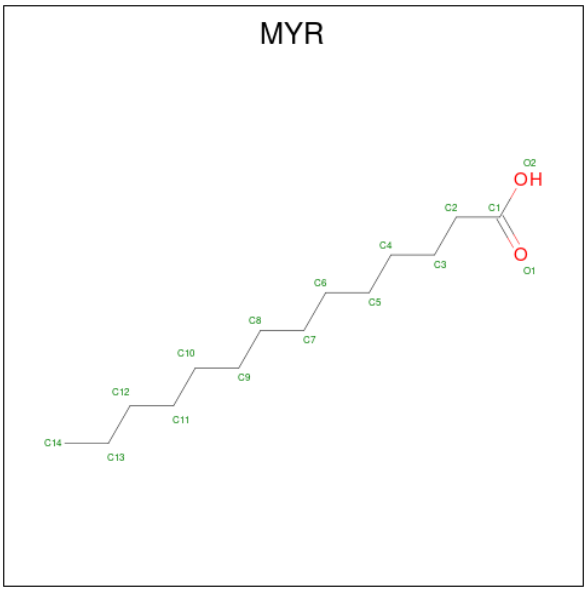
- Molecule 4 is a protein called Human coxsackievirus A21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	4	68	513	311	90	111	1	0	0	0

- Molecule 5 is CALCIUM ION (three-letter code: CA) (formula: Ca).

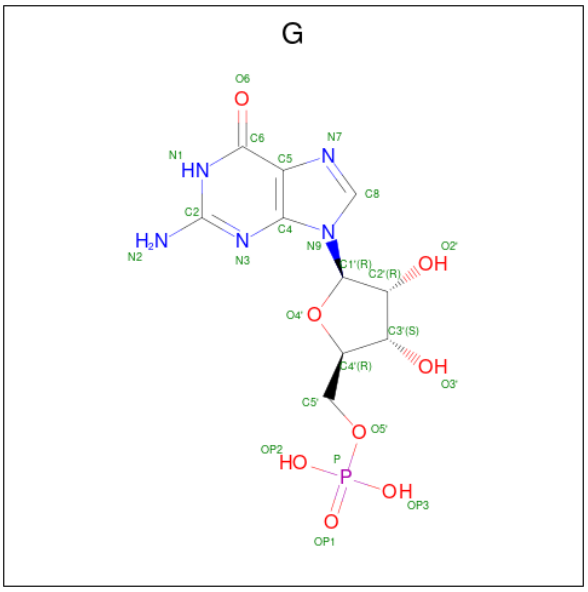
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Ca		
5	1	1	1	1	0	0

- Molecule 6 is MYRISTIC ACID (three-letter code: MYR) (formula: $C_{14}H_{28}O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
6	1	1	16	14	2	0	0
			Total	C	O		
6	4	1	15	14	1	0	0

- Molecule 7 is GUANOSINE-5'-MONOPHOSPHATE (three-letter code: G) (formula: $C_{10}H_{14}N_5O_8P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
7	2	1	23	10	5	7	1	0	0

- Molecule 8 is water.

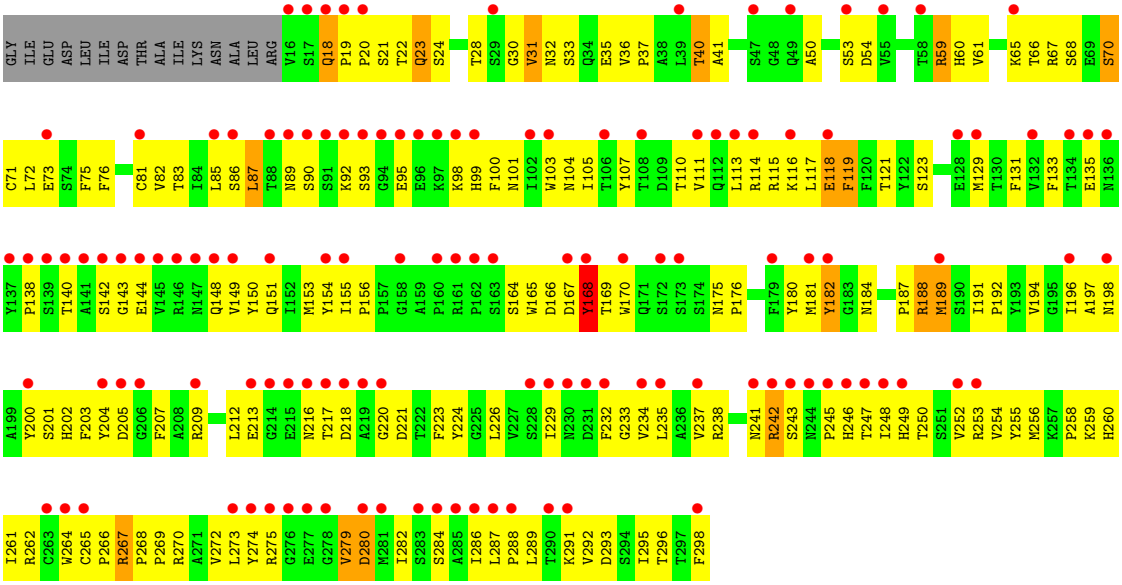
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
8	1	28	28	28	0	0
			Total	O		
8	2	9	9	9	0	0
			Total	O		
8	3	16	16	16	0	0

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. 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. 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.

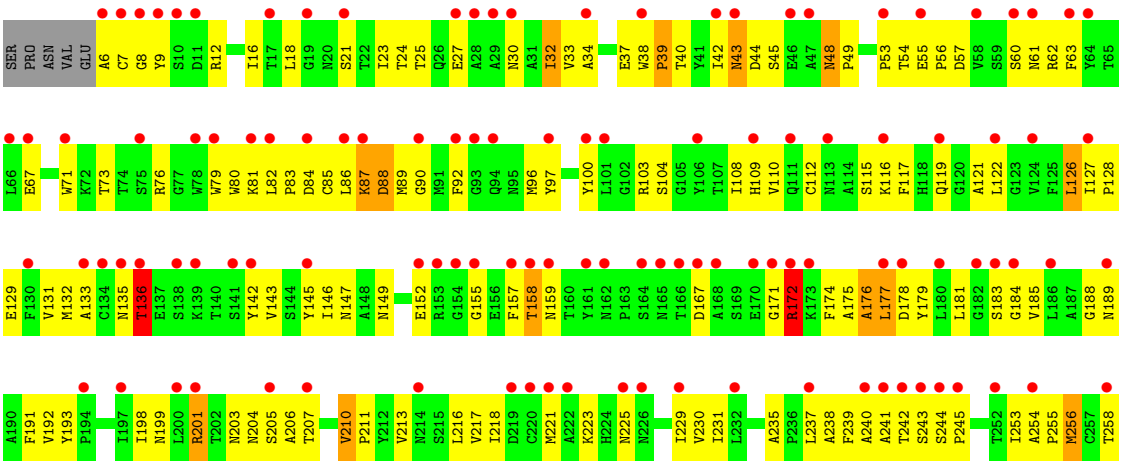
- Molecule 1: Human COXSACKIEVIRUS A21

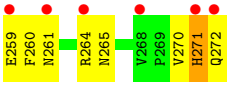
Chain 1:



- Molecule 2: Human COXSACKIEVIRUS A21

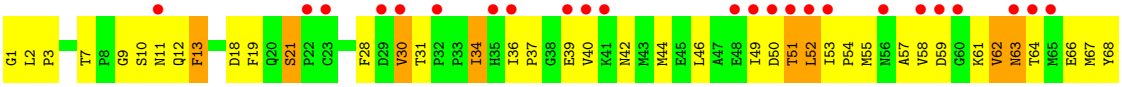
Chain 2:

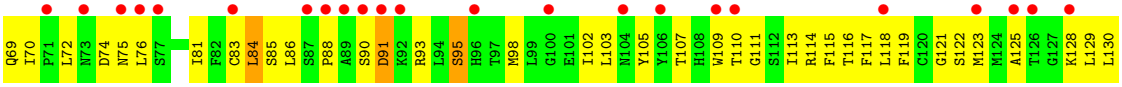


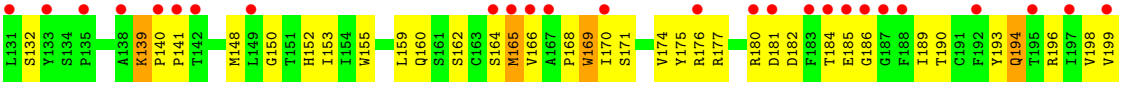


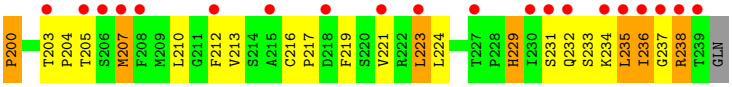
• Molecule 3: Human coxsackievirus A21

Chain 3:



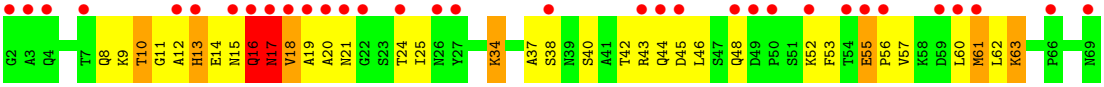






• Molecule 4: Human coxsackievirus A21

Chain 4:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 42 3 2	Depositor
Cell constants a, b, c, α, β, γ	348.01Å 348.01Å 348.01Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.72 – 3.20 49.72 – 3.20	Depositor EDS
% Data completeness (in resolution range)	94.3 (49.72-3.20) 94.3 (49.72-3.20)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	6.81 (at 3.19Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.224 , 0.235 0.203 , 0.215	Depositor DCC
R_{free} test set	8790 reflections (7.91%)	wwPDB-VP
Wilson B-factor (Å^2)	59.7	Xtriage
Anisotropy	0.000	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 40.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.42$, $< L^2 > = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.34	EDS
Total number of atoms	6765	wwPDB-VP
Average B, all atoms (Å^2)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.18% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: CA, MYR

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	1	0.39	0/2291	0.66	0/3124
2	2	0.41	0/2126	0.68	0/2908
3	3	0.41	0/1895	0.69	0/2579
4	4	0.45	0/520	0.71	1/705 (0.1%)
All	All	0.40	0/6832	0.68	1/9316 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	4	16	GLN	N-CA-C	-5.39	96.45	111.00

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	1	2229	0	2148	209	0
2	2	2069	0	1988	149	0
3	3	1846	0	1836	166	0
4	4	513	0	493	47	0
5	1	1	0	0	0	0
6	1	16	0	27	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	4	15	0	27	0	0
7	2	23	0	12	0	0
8	1	28	0	0	2	0
8	2	9	0	0	0	0
8	3	16	0	0	1	0
All	All	6765	0	6531	485	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 37.

All (485) 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)
1:1:275:ARG:HD3	1:1:282:ILE:HG22	1.28	1.07
4:4:11:GLY:H	4:4:14:GLU:HG3	1.20	1.04
1:1:110:THR:HA	3:3:232:GLN:HE22	1.18	1.04
4:4:34:LYS:H	4:4:34:LYS:HD2	1.14	1.03
3:3:61:LYS:O	3:3:64:THR:HG22	1.60	1.01
1:1:85:LEU:HD11	1:1:103:TRP:HB2	1.52	0.90
3:3:55:MET:HG3	3:3:70:ILE:HD11	1.53	0.89
1:1:131:PHE:HE1	1:1:254:VAL:HG22	1.35	0.88
2:2:48:ASN:HB3	2:2:49:PRO:HD3	1.56	0.88
4:4:62:LEU:HD23	4:4:62:LEU:H	1.39	0.87
1:1:92:LYS:HB2	1:1:95:GLU:HG3	1.54	0.87
2:2:108:ILE:HG13	2:2:126:LEU:HD11	1.56	0.86
2:2:135:ASN:O	2:2:171:GLY:HA2	1.77	0.83
1:1:90:SER:HB3	1:1:95:GLU:HB3	1.60	0.83
1:1:131:PHE:CE1	1:1:254:VAL:HG22	2.15	0.82
2:2:27:GLU:HB2	2:2:204:ASN:OD1	1.81	0.81
1:1:110:THR:HA	3:3:232:GLN:NE2	1.94	0.80
2:2:12:ARG:HH21	3:3:159:LEU:HD21	1.46	0.80
4:4:11:GLY:N	4:4:14:GLU:HG3	1.96	0.79
3:3:51:THR:HG21	3:3:98:MET:HB2	1.61	0.79
1:1:275:ARG:CD	1:1:282:ILE:HG22	2.12	0.79
1:1:202:HIS:C	1:1:203:PHE:HD2	1.87	0.78
4:4:34:LYS:HD2	4:4:34:LYS:N	1.97	0.78
2:2:198:ILE:HA	2:2:203:ASN:HD21	1.47	0.78
1:1:275:ARG:HD3	1:1:282:ILE:CG2	2.12	0.77
2:2:63:PHE:CD1	2:2:254:ALA:HB2	2.20	0.77
2:2:43:ASN:H	2:2:43:ASN:ND2	1.82	0.76
2:2:116:LYS:HD3	3:3:123:MET:CE	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:166:VAL:O	3:3:168:PRO:HD3	1.86	0.75
3:3:44:MET:HA	3:3:44:MET:HE2	1.68	0.75
1:1:129:MET:CE	1:1:256:MET:HG2	2.16	0.75
1:1:168:TYR:CD1	1:1:169:THR:N	2.55	0.74
3:3:9:GLY:O	3:3:12:GLN:HG2	1.86	0.74
2:2:38:TRP:CD1	2:2:39:PRO:HD2	2.22	0.74
4:4:16:GLN:O	4:4:18:VAL:N	2.20	0.74
2:2:103:ARG:HB2	2:2:218:ILE:HG13	1.70	0.73
1:1:216:ASN:HB3	1:1:218:ASP:OD1	1.88	0.73
1:1:105:ILE:CD1	1:1:235:LEU:HG	2.19	0.73
2:2:127:ILE:HG23	2:2:193:TYR:CE2	2.24	0.73
3:3:235:LEU:HD23	3:3:235:LEU:H	1.53	0.73
1:1:154:TYR:HB2	6:1:300:MYR:H122	1.69	0.72
1:1:280:ASP:HA	2:2:133:ALA:HB1	1.71	0.72
1:1:70:SER:HB2	3:3:42:ASN:OD1	1.90	0.72
1:1:98:LYS:HA	3:3:238:ARG:NH2	2.05	0.71
1:1:104:ASN:HA	1:1:234:VAL:HG12	1.72	0.71
1:1:65:LYS:NZ	3:3:110:THR:HG21	2.06	0.71
1:1:105:ILE:HD11	1:1:235:LEU:HG	1.70	0.71
1:1:270:ARG:NH1	2:2:184:GLY:HA3	2.06	0.71
4:4:15:ASN:CG	4:4:21:ASN:HB2	2.13	0.69
2:2:244:SER:N	2:2:245:PRO:HD3	2.06	0.69
1:1:73:GLU:OE1	1:1:260:HIS:N	2.25	0.68
1:1:261:ILE:HG12	1:1:262:ARG:N	2.08	0.68
3:3:128:LYS:O	3:3:194:GLN:HB2	1.93	0.68
1:1:129:MET:HE1	1:1:256:MET:HG2	1.75	0.68
3:3:193:TYR:HD2	3:3:196:ARG:HA	1.58	0.67
3:3:236:ILE:HG12	3:3:237:GLY:N	2.09	0.67
1:1:207:PHE:CE2	1:1:224:TYR:HB2	2.29	0.67
1:1:85:LEU:HB2	1:1:252:VAL:CG1	2.25	0.67
1:1:168:TYR:HD1	1:1:169:THR:N	1.93	0.67
2:2:86:LEU:HD23	2:2:89:MET:HG3	1.75	0.67
3:3:236:ILE:HG23	3:3:237:GLY:H	1.58	0.67
2:2:23:ILE:HG21	2:2:109:HIS:CD2	2.30	0.66
1:1:68:SER:HB2	4:4:44:GLN:NE2	2.10	0.66
2:2:12:ARG:HH21	3:3:159:LEU:CD2	2.07	0.66
1:1:209:ARG:HA	2:2:223:LYS:HE2	1.78	0.66
1:1:116:LYS:O	1:1:119:PHE:HB2	1.97	0.65
1:1:168:TYR:HD1	1:1:169:THR:H	1.43	0.65
1:1:154:TYR:HB3	1:1:176:PRO:HG2	1.78	0.65
1:1:37:PRO:HB2	1:1:54:ASP:HB3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:51:THR:HG21	3:3:98:MET:CB	2.27	0.65
1:1:291:LYS:HD3	3:3:59:ASP:HB2	1.79	0.65
1:1:170:TRP:CE3	1:1:238:ARG:HD3	2.32	0.65
1:1:191:ILE:HD11	6:1:300:MYR:H112	1.79	0.65
2:2:42:ILE:HG22	2:2:217:VAL:HG12	1.78	0.64
2:2:108:ILE:HG23	2:2:253:ILE:CD1	2.27	0.64
3:3:30:VAL:HG12	3:3:31:THR:N	2.13	0.64
2:2:242:THR:HG22	2:2:243:SER:H	1.61	0.64
2:2:116:LYS:HD3	3:3:123:MET:HE2	1.80	0.64
1:1:280:ASP:HA	2:2:133:ALA:CB	2.28	0.63
1:1:85:LEU:HD11	1:1:103:TRP:CB	2.26	0.63
1:1:82:VAL:O	1:1:110:THR:HG23	1.97	0.63
1:1:86:SER:OG	1:1:249:HIS:HE1	1.81	0.62
1:1:90:SER:HB3	1:1:95:GLU:CB	2.28	0.62
1:1:40:THR:OG1	1:1:41:ALA:N	2.32	0.62
1:1:168:TYR:CE1	1:1:169:THR:HG23	2.34	0.62
1:1:291:LYS:HA	3:3:62:VAL:HG21	1.82	0.62
1:1:217:THR:CG2	2:2:272:GLN:HE21	2.13	0.62
3:3:18:ASP:C	3:3:19:PHE:HD2	2.02	0.62
3:3:30:VAL:CG1	3:3:31:THR:N	2.62	0.62
1:1:217:THR:HG21	2:2:272:GLN:HE21	1.65	0.62
1:1:110:THR:CA	3:3:232:GLN:HE22	2.05	0.62
1:1:85:LEU:HB2	1:1:252:VAL:HG12	1.82	0.62
2:2:198:ILE:HA	2:2:203:ASN:ND2	2.14	0.61
3:3:62:VAL:HG12	3:3:63:ASN:H	1.65	0.61
1:1:36:VAL:HG23	1:1:36:VAL:O	2.00	0.61
3:3:55:MET:HE1	3:3:84:LEU:HG	1.83	0.61
1:1:264:TRP:CD1	3:3:36:ILE:HB	2.36	0.61
2:2:199:ASN:HD22	3:3:118:LEU:HD11	1.66	0.60
1:1:83:THR:HG22	1:1:254:VAL:HB	1.83	0.60
2:2:108:ILE:HG13	2:2:126:LEU:CD1	2.31	0.60
3:3:39:GLU:HG2	3:3:40:VAL:N	2.16	0.60
2:2:192:VAL:HG11	3:3:98:MET:CE	2.32	0.60
4:4:34:LYS:H	4:4:34:LYS:CD	1.98	0.60
2:2:116:LYS:HD3	3:3:123:MET:HE3	1.82	0.60
3:3:9:GLY:HA2	3:3:12:GLN:OE1	2.01	0.59
3:3:55:MET:HE1	3:3:84:LEU:CG	2.31	0.59
1:1:286:ILE:O	1:1:287:LEU:HD23	2.02	0.59
2:2:21:SER:HB2	2:2:63:PHE:HB2	1.83	0.59
1:1:204:TYR:CD2	1:1:229:ILE:HD13	2.38	0.59
1:1:267:ARG:HB3	2:2:193:TYR:OH	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:13:HIS:CG	4:4:13:HIS:O	2.53	0.59
1:1:207:PHE:CZ	2:2:145:TYR:HA	2.38	0.59
4:4:16:GLN:CD	4:4:16:GLN:H	2.05	0.59
1:1:129:MET:HE2	1:1:256:MET:HG2	1.85	0.59
2:2:104:SER:HB2	2:2:258:THR:HG22	1.84	0.58
2:2:119:GLN:OE1	3:3:204:PRO:HB2	2.03	0.58
3:3:174:VAL:HG13	3:3:175:TYR:HD2	1.67	0.58
3:3:53:ILE:HD11	3:3:213:VAL:HB	1.84	0.58
3:3:58:VAL:HG12	3:3:59:ASP:N	2.18	0.58
3:3:66:GLU:HA	3:3:69:GLN:NE2	2.18	0.58
3:3:76:LEU:HD23	3:3:76:LEU:H	1.69	0.58
2:2:237:LEU:HD12	2:2:238:ALA:H	1.67	0.58
3:3:182:ASP:O	3:3:185:GLU:HG3	2.04	0.58
2:2:56:PRO:HG2	2:2:260:PHE:HE2	1.68	0.58
1:1:253:ARG:HG3	1:1:253:ARG:HH11	1.68	0.58
2:2:48:ASN:HB3	2:2:49:PRO:CD	2.33	0.58
4:4:62:LEU:HD23	4:4:62:LEU:N	2.14	0.58
1:1:119:PHE:CE1	1:1:269:PRO:HG3	2.39	0.57
3:3:62:VAL:HG12	3:3:63:ASN:N	2.18	0.57
1:1:82:VAL:HG21	1:1:256:MET:HG3	1.86	0.57
4:4:24:THR:C	4:4:25:ILE:HD13	2.25	0.57
1:1:268:PRO:HD3	2:2:193:TYR:CE1	2.39	0.57
3:3:10:SER:O	3:3:11:ASN:HB2	2.04	0.57
1:1:168:TYR:HE1	1:1:169:THR:HG23	1.68	0.56
1:1:298:PHE:CD1	3:3:83:CYS:HB3	2.41	0.56
3:3:13:PHE:C	3:3:13:PHE:CD2	2.78	0.56
2:2:62:ARG:O	2:2:254:ALA:HA	2.06	0.56
1:1:298:PHE:CE1	3:3:83:CYS:HB3	2.40	0.56
3:3:75:ASN:HA	8:3:251:HOH:O	2.04	0.56
1:1:82:VAL:HG13	1:1:107:TYR:HA	1.87	0.56
1:1:181:MET:HB3	1:1:184:ASN:HD22	1.70	0.56
1:1:207:PHE:CD2	1:1:224:TYR:HB2	2.41	0.56
2:2:12:ARG:NH1	2:2:12:ARG:HG2	2.20	0.55
1:1:221:ASP:OD2	2:2:172:ARG:HD3	2.05	0.55
2:2:76:ARG:HE	2:2:159:ASN:HB3	1.71	0.55
1:1:82:VAL:CG1	1:1:107:TYR:HA	2.37	0.55
2:2:53:PRO:HG3	2:2:261:ASN:HD21	1.70	0.55
1:1:286:ILE:C	1:1:287:LEU:HD23	2.27	0.55
1:1:99:HIS:HB3	1:1:165:TRP:HB3	1.89	0.55
3:3:103:LEU:HD21	3:3:219:PHE:HZ	1.72	0.55
1:1:90:SER:HB2	1:1:247:THR:HG23	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:98:LYS:HA	3:3:238:ARG:HH21	1.71	0.54
1:1:181:MET:HB3	1:1:184:ASN:ND2	2.23	0.54
2:2:23:ILE:HG22	2:2:24:THR:N	2.21	0.54
1:1:65:LYS:HZ2	3:3:110:THR:HG21	1.71	0.54
1:1:65:LYS:HZ1	3:3:110:THR:HG21	1.72	0.54
2:2:34:ALA:HB2	2:2:210:VAL:HG23	1.89	0.54
2:2:80:TRP:O	2:2:81:LYS:HD3	2.08	0.54
3:3:130:LEU:C	3:3:130:LEU:HD23	2.28	0.54
2:2:82:LEU:HD21	2:2:229:ILE:HD11	1.90	0.54
3:3:84:LEU:HD23	3:3:85:SER:H	1.73	0.54
3:3:235:LEU:H	3:3:235:LEU:CD2	2.21	0.54
1:1:204:TYR:CE2	1:1:229:ILE:HD13	2.43	0.53
2:2:142:TYR:CE2	2:2:172:ARG:HG2	2.43	0.53
3:3:86:LEU:O	3:3:186:GLY:HA3	2.08	0.53
2:2:181:LEU:HD12	2:2:185:VAL:HG23	1.90	0.53
3:3:111:GLY:O	3:3:169:TRP:HB2	2.08	0.53
2:2:192:VAL:HG11	3:3:98:MET:HE3	1.89	0.53
3:3:54:PRO:HG3	3:3:68:TYR:HE2	1.73	0.53
1:1:259:LYS:HE3	4:4:37:ALA:O	2.09	0.53
3:3:110:THR:HA	3:3:169:TRP:CZ3	2.43	0.53
2:2:119:GLN:HB2	2:2:238:ALA:HB3	1.90	0.53
1:1:140:THR:C	1:1:142:SER:H	2.11	0.52
3:3:168:PRO:O	3:3:170:ILE:HG13	2.09	0.52
4:4:24:THR:O	4:4:25:ILE:HD13	2.09	0.52
2:2:23:ILE:HG12	2:2:63:PHE:CE2	2.44	0.52
2:2:242:THR:HG22	2:2:243:SER:N	2.25	0.52
1:1:70:SER:HB2	3:3:42:ASN:CG	2.29	0.52
2:2:12:ARG:HG2	2:2:12:ARG:HH11	1.75	0.52
2:2:84:ASP:C	2:2:86:LEU:H	2.13	0.52
2:2:271:HIS:N	2:2:271:HIS:CD2	2.77	0.52
3:3:181:ASP:OD2	3:3:182:ASP:N	2.43	0.52
1:1:143:GLY:HA3	1:1:246:HIS:CD2	2.44	0.52
1:1:155:ILE:HA	1:1:175:ASN:ND2	2.25	0.52
1:1:253:ARG:HG3	1:1:253:ARG:NH1	2.25	0.52
1:1:261:ILE:HG12	1:1:262:ARG:H	1.74	0.52
1:1:275:ARG:HB2	1:1:282:ILE:CG2	2.40	0.52
2:2:57:ASP:HA	2:2:61:ASN:HD22	1.75	0.52
3:3:125:ALA:HB2	3:3:199:VAL:HG12	1.92	0.52
1:1:40:THR:HG23	3:3:162:SER:HB2	1.90	0.52
1:1:220:GLY:HA2	1:1:223:PHE:CE1	2.44	0.52
2:2:60:SER:HB3	2:2:92:PHE:HA	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:61:LYS:O	3:3:64:THR:CG2	2.49	0.51
3:3:57:ALA:C	3:3:62:VAL:HG22	2.31	0.51
2:2:21:SER:CB	2:2:63:PHE:HB2	2.40	0.51
1:1:28:THR:HG21	1:1:53:SER:HB3	1.91	0.51
1:1:218:ASP:HB2	2:2:172:ARG:NE	2.26	0.51
1:1:232:PHE:CD1	6:1:300:MYR:H41	2.46	0.51
2:2:175:ALA:O	2:2:177:LEU:N	2.42	0.51
1:1:282:ILE:HG13	1:1:282:ILE:O	2.10	0.51
2:2:240:ALA:HB2	3:3:204:PRO:HD3	1.92	0.51
1:1:221:ASP:HA	2:2:143:VAL:O	2.11	0.51
4:4:16:GLN:O	4:4:18:VAL:HG12	2.11	0.51
1:1:264:TRP:NE1	3:3:36:ILE:HB	2.26	0.51
1:1:85:LEU:CD1	1:1:103:TRP:HB2	2.34	0.51
3:3:233:SER:O	3:3:234:LYS:C	2.49	0.51
1:1:67:ARG:HD3	3:3:44:MET:CB	2.41	0.50
1:1:189:MET:SD	6:1:300:MYR:H132	2.51	0.50
1:1:242:ARG:HB2	1:1:242:ARG:HH11	1.77	0.50
2:2:84:ASP:O	2:2:86:LEU:N	2.41	0.50
3:3:174:VAL:HG13	3:3:175:TYR:CD2	2.46	0.50
4:4:15:ASN:O	4:4:16:GLN:C	2.49	0.50
2:2:191:PHE:C	2:2:193:TYR:H	2.14	0.50
2:2:43:ASN:ND2	2:2:43:ASN:N	2.56	0.50
3:3:52:LEU:HD11	3:3:210:LEU:HB3	1.93	0.50
3:3:129:LEU:N	3:3:129:LEU:HD23	2.26	0.50
3:3:150:GLY:O	3:3:152:HIS:HD2	1.94	0.50
2:2:183:SER:HB2	2:2:185:VAL:HG22	1.93	0.50
3:3:132:SER:O	3:3:189:ILE:HA	2.12	0.50
4:4:18:VAL:HG22	4:4:18:VAL:O	2.12	0.50
3:3:58:VAL:O	3:3:62:VAL:HG23	2.11	0.49
3:3:116:THR:HG23	3:3:164:SER:OG	2.11	0.49
4:4:18:VAL:HG22	4:4:20:ALA:HB3	1.94	0.49
1:1:194:VAL:HA	3:3:28:PHE:HE2	1.77	0.49
3:3:88:PRO:HB3	3:3:103:LEU:HD13	1.93	0.49
2:2:79:TRP:CE2	2:2:155:GLY:HA3	2.47	0.49
4:4:14:GLU:HA	4:4:14:GLU:OE1	2.12	0.49
1:1:189:MET:HE1	6:1:300:MYR:H132	1.94	0.49
1:1:198:ASN:CB	3:3:34:ILE:HD12	2.43	0.49
3:3:57:ALA:O	3:3:62:VAL:HG22	2.12	0.49
1:1:154:TYR:CB	6:1:300:MYR:H122	2.41	0.49
3:3:21:SER:O	4:4:38:SER:HB3	2.12	0.49
4:4:44:GLN:OE1	4:4:46:LEU:HD11	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:67:ARG:NH1	4:4:48:GLN:HE22	2.10	0.49
1:1:107:TYR:HB3	1:1:256:MET:HE1	1.94	0.49
1:1:59:ARG:HD3	1:1:60:HIS:O	2.13	0.49
2:2:157:PHE:HA	2:2:176:ALA:HB1	1.93	0.49
3:3:176:ARG:HG2	3:3:184:THR:HB	1.94	0.49
1:1:131:PHE:HB2	1:1:187:PRO:HG2	1.95	0.48
1:1:202:HIS:O	1:1:203:PHE:HD2	1.96	0.48
1:1:121:THR:O	1:1:202:HIS:HB2	2.13	0.48
1:1:221:ASP:HB2	2:2:142:TYR:CE1	2.48	0.48
2:2:128:PRO:HD2	2:2:193:TYR:CD2	2.47	0.48
3:3:84:LEU:HD23	3:3:85:SER:N	2.28	0.48
1:1:67:ARG:HD3	3:3:44:MET:HB2	1.94	0.48
1:1:272:VAL:HG12	1:1:288:PRO:HG3	1.95	0.48
2:2:76:ARG:NH2	3:3:66:GLU:OE2	2.36	0.48
3:3:139:LYS:HD2	3:3:140:PRO:O	2.14	0.48
3:3:189:ILE:N	3:3:189:ILE:HD12	2.28	0.48
1:1:114:ARG:O	1:1:118:GLU:HB2	2.13	0.48
1:1:288:PRO:HD2	3:3:63:ASN:OD1	2.14	0.48
1:1:66:THR:C	1:1:68:SER:H	2.17	0.48
1:1:107:TYR:HB3	1:1:256:MET:CE	2.44	0.48
1:1:221:ASP:HB2	2:2:142:TYR:CD1	2.48	0.48
2:2:104:SER:CB	2:2:258:THR:HG22	2.44	0.48
2:2:108:ILE:HG23	2:2:253:ILE:HD12	1.94	0.48
1:1:23:GLN:OE1	3:3:217:PRO:HG2	2.13	0.48
1:1:261:ILE:CG1	1:1:262:ARG:N	2.76	0.48
3:3:46:LEU:HA	3:3:49:ILE:CD1	2.43	0.48
3:3:110:THR:HG22	3:3:111:GLY:N	2.29	0.48
1:1:19:PRO:HA	1:1:20:PRO:HD3	1.75	0.48
1:1:76:PHE:HB3	1:1:258:PRO:HG2	1.95	0.48
3:3:76:LEU:HG	3:3:76:LEU:O	2.14	0.48
4:4:8:GLN:HB2	4:4:25:ILE:HG22	1.96	0.48
1:1:189:MET:CE	6:1:300:MYR:H132	2.44	0.47
2:2:43:ASN:H	2:2:43:ASN:HD22	1.58	0.47
3:3:115:PHE:CE1	3:3:189:ILE:HG12	2.49	0.47
3:3:165:MET:HE3	3:3:166:VAL:O	2.14	0.47
1:1:270:ARG:HH21	1:1:274:TYR:HA	1.79	0.47
2:2:158:THR:OG1	2:2:159:ASN:N	2.48	0.47
4:4:17:ASN:OD1	4:4:17:ASN:N	2.48	0.47
1:1:203:PHE:N	1:1:203:PHE:CD2	2.82	0.47
2:2:37:GLU:OE1	3:3:37:PRO:HA	2.14	0.47
2:2:84:ASP:OD1	2:2:149:ASN:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:178:ASP:OD1	2:2:179:TYR:N	2.47	0.47
1:1:194:VAL:HA	3:3:28:PHE:CE2	2.50	0.47
2:2:43:ASN:O	2:2:45:SER:N	2.48	0.47
2:2:108:ILE:HD12	2:2:253:ILE:HD12	1.96	0.47
3:3:72:LEU:O	3:3:207:MET:HE2	2.15	0.47
1:1:232:PHE:CE1	6:1:300:MYR:H22	2.50	0.47
2:2:12:ARG:NH2	3:3:159:LEU:HD21	2.23	0.47
3:3:55:MET:HE1	3:3:84:LEU:HD12	1.95	0.47
3:3:76:LEU:HB3	3:3:196:ARG:CD	2.45	0.47
1:1:21:SER:HA	1:1:66:THR:HG22	1.97	0.47
1:1:33:SER:OG	1:1:35:GLU:HB2	2.14	0.47
1:1:204:TYR:HB3	1:1:226:LEU:HA	1.97	0.47
3:3:88:PRO:CB	3:3:103:LEU:HD13	2.45	0.47
3:3:95:SER:O	3:3:229:HIS:HE1	1.97	0.47
3:3:98:MET:O	3:3:102:ILE:HG13	2.15	0.47
4:4:55:GLU:O	4:4:57:VAL:N	2.43	0.47
1:1:191:ILE:HD13	6:1:300:MYR:H92	1.96	0.46
1:1:289:LEU:HD12	3:3:67:MET:SD	2.54	0.46
1:1:155:ILE:HA	1:1:175:ASN:HD22	1.80	0.46
1:1:170:TRP:CZ3	1:1:238:ARG:HD3	2.51	0.46
3:3:18:ASP:O	3:3:19:PHE:HD2	1.98	0.46
1:1:70:SER:HB2	3:3:42:ASN:ND2	2.30	0.46
2:2:189:ASN:HA	3:3:51:THR:HG22	1.96	0.46
1:1:100:PHE:CD2	1:1:165:TRP:HA	2.50	0.46
1:1:135:GLU:HG2	1:1:182:TYR:CZ	2.50	0.46
1:1:266:PRO:HG3	3:3:40:VAL:HG21	1.97	0.46
4:4:16:GLN:O	4:4:17:ASN:C	2.54	0.46
1:1:115:ARG:HD3	3:3:105:TYR:OH	2.15	0.46
2:2:83:PRO:HG2	2:2:96:MET:HE3	1.97	0.46
3:3:7:THR:O	3:3:10:SER:HB2	2.14	0.46
1:1:149:VAL:HG22	1:1:181:MET:SD	2.55	0.46
3:3:107:THR:HB	3:3:223:LEU:HB3	1.97	0.46
1:1:140:THR:HG22	1:1:140:THR:O	2.15	0.46
1:1:151:GLN:HE21	1:1:153:MET:HB2	1.81	0.46
1:1:197:ALA:HA	2:2:216:LEU:HD21	1.97	0.46
2:2:76:ARG:HB3	2:2:157:PHE:O	2.15	0.46
1:1:289:LEU:CD1	3:3:67:MET:SD	3.04	0.46
2:2:239:PHE:HD2	2:2:240:ALA:H	1.64	0.46
3:3:121:GLY:CA	3:3:207:MET:HG3	2.46	0.46
4:4:16:GLN:C	4:4:18:VAL:N	2.68	0.46
4:4:18:VAL:HG13	4:4:21:ASN:OD1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:68:SER:HB2	4:4:44:GLN:HE22	1.80	0.45
1:1:203:PHE:HD2	1:1:203:PHE:N	2.12	0.45
3:3:18:ASP:OD2	4:4:40:SER:HB3	2.15	0.45
3:3:74:ASP:HB2	3:3:205:THR:OG1	2.16	0.45
1:1:298:PHE:CZ	3:3:190:THR:HG22	2.51	0.45
2:2:16:ILE:HD11	2:2:207:THR:HG21	1.98	0.45
3:3:110:THR:HG23	3:3:169:TRP:CE2	2.51	0.45
3:3:91:ASP:OD2	3:3:93:ARG:HB2	2.16	0.45
2:2:61:ASN:HA	2:2:255:PRO:HG2	1.97	0.45
3:3:1:GLY:O	3:3:3:PRO:HD3	2.16	0.45
2:2:33:VAL:HG21	2:2:38:TRP:CZ3	2.51	0.45
2:2:136:THR:HG23	2:2:136:THR:O	2.17	0.45
1:1:198:ASN:HB3	3:3:34:ILE:HD12	1.99	0.45
1:1:273:LEU:HD23	8:1:320:HOH:O	2.17	0.45
2:2:244:SER:N	2:2:245:PRO:CD	2.77	0.45
3:3:55:MET:HE1	3:3:84:LEU:CD1	2.46	0.45
2:2:34:ALA:HB3	2:2:211:PRO:HD2	1.99	0.45
1:1:99:HIS:CE1	1:1:165:TRP:CE3	3.04	0.44
1:1:87:LEU:HD11	1:1:250:THR:HB	1.98	0.44
2:2:121:ALA:HB3	2:2:235:ALA:HB3	1.99	0.44
3:3:55:MET:CE	3:3:84:LEU:HG	2.45	0.44
3:3:90:SER:O	3:3:91:ASP:C	2.56	0.44
1:1:117:LEU:HB3	1:1:202:HIS:CE1	2.52	0.44
1:1:205:ASP:HA	2:2:131:VAL:HG22	2.00	0.44
3:3:76:LEU:HB3	3:3:196:ARG:HD3	2.00	0.44
3:3:199:VAL:HB	3:3:203:THR:HB	1.99	0.44
3:3:216:CYS:HB3	3:3:217:PRO:HD2	1.99	0.44
1:1:105:ILE:HG12	1:1:233:GLY:O	2.17	0.44
1:1:181:MET:O	1:1:182:TYR:C	2.56	0.44
2:2:86:LEU:CD2	2:2:89:MET:HG3	2.44	0.44
2:2:201:ARG:HB2	3:3:123:MET:HA	2.00	0.44
3:3:39:GLU:HG2	3:3:40:VAL:H	1.81	0.44
3:3:193:TYR:CD2	3:3:196:ARG:HA	2.46	0.44
4:4:15:ASN:OD1	4:4:21:ASN:HB2	2.17	0.44
1:1:212:LEU:O	2:2:270:VAL:HG12	2.17	0.44
1:1:81:CYS:HB2	1:1:255:TYR:CE1	2.53	0.44
2:2:192:VAL:HG11	3:3:98:MET:HE2	1.99	0.44
3:3:81:ILE:HD11	3:3:193:TYR:CE1	2.52	0.44
4:4:55:GLU:N	4:4:56:PRO:CD	2.81	0.44
1:1:111:VAL:HG21	3:3:232:GLN:HB2	2.00	0.44
1:1:202:HIS:O	1:1:203:PHE:CD2	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:114:ARG:NH2	3:3:216:CYS:HA	2.33	0.44
4:4:20:ALA:C	4:4:21:ASN:OD1	2.56	0.44
2:2:132:MET:HB2	2:2:174:PHE:CD1	2.53	0.44
1:1:286:ILE:O	1:1:286:ILE:HG13	2.17	0.44
2:2:55:GLU:HG2	2:2:259:GLU:HB3	1.99	0.44
3:3:117:PHE:HB2	3:3:155:TRP:CZ3	2.53	0.44
2:2:7:CYS:HB2	2:2:9:TYR:HE2	1.83	0.43
2:2:128:PRO:HD2	2:2:193:TYR:CE2	2.53	0.43
2:2:147:ASN:ND2	2:2:172:ARG:O	2.50	0.43
2:2:87:LYS:HB2	2:2:97:TYR:CE2	2.52	0.43
2:2:191:PHE:CZ	3:3:52:LEU:HD22	2.53	0.43
1:1:86:SER:OG	1:1:249:HIS:CE1	2.68	0.43
1:1:133:PHE:HB2	1:1:180:TYR:HE2	1.83	0.43
3:3:155:TRP:CD1	3:3:155:TRP:C	2.89	0.43
1:1:168:TYR:CD1	1:1:168:TYR:C	2.89	0.43
1:1:202:HIS:C	1:1:203:PHE:CD2	2.77	0.43
1:1:216:ASN:HA	8:1:312:HOH:O	2.18	0.43
1:1:226:LEU:O	1:1:229:ILE:HG12	2.19	0.43
2:2:18:LEU:HD11	2:2:256:MET:CE	2.48	0.43
1:1:89:ASN:OD1	1:1:243:SER:HA	2.19	0.43
2:2:32:ILE:C	2:2:32:ILE:HD12	2.38	0.43
2:2:239:PHE:CD2	2:2:240:ALA:N	2.86	0.43
1:1:143:GLY:HA3	1:1:246:HIS:NE2	2.33	0.43
1:1:168:TYR:CE1	1:1:169:THR:CG2	3.01	0.43
1:1:260:HIS:HA	4:4:42:THR:HG23	2.01	0.43
2:2:34:ALA:HB3	2:2:211:PRO:CD	2.48	0.43
3:3:30:VAL:CG1	3:3:31:THR:H	2.31	0.43
3:3:199:VAL:HB	3:3:203:THR:CG2	2.49	0.43
1:1:298:PHE:HZ	3:3:190:THR:HG22	1.84	0.43
2:2:239:PHE:HD2	2:2:240:ALA:N	2.15	0.43
1:1:267:ARG:NH1	2:2:193:TYR:OH	2.52	0.43
3:3:110:THR:HG23	3:3:169:TRP:CZ2	2.53	0.43
4:4:60:LEU:HD12	4:4:61:MET:H	1.83	0.43
1:1:135:GLU:OE1	1:1:150:TYR:OH	2.28	0.43
1:1:167:ASP:O	1:1:169:THR:N	2.52	0.43
2:2:30:ASN:ND2	4:4:57:VAL:HG21	2.33	0.43
2:2:76:ARG:HA	2:2:76:ARG:HD2	1.70	0.43
2:2:83:PRO:HG3	2:2:221:MET:HB3	2.00	0.43
3:3:171:SER:HB2	3:3:176:ARG:CZ	2.49	0.43
1:1:87:LEU:CD1	1:1:250:THR:HB	2.49	0.43
1:1:154:TYR:O	1:1:156:PRO:HD3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:268:PRO:HG3	2:2:189:ASN:O	2.19	0.43
1:1:279:VAL:O	1:1:280:ASP:O	2.35	0.43
2:2:71:TRP:CE2	2:2:237:LEU:HB2	2.54	0.43
4:4:15:ASN:ND2	4:4:25:ILE:HG13	2.33	0.43
1:1:22:THR:O	1:1:23:GLN:C	2.58	0.42
2:2:146:ILE:HD11	2:2:270:VAL:HG23	2.01	0.42
1:1:82:VAL:HG21	1:1:256:MET:HE2	2.01	0.42
4:4:55:GLU:O	4:4:57:VAL:HG12	2.19	0.42
1:1:154:TYR:CE1	6:1:300:MYR:H102	2.54	0.42
2:2:115:SER:C	2:2:117:PHE:H	2.22	0.42
1:1:188:ARG:HD2	3:3:21:SER:HB3	2.01	0.42
1:1:273:LEU:HD11	3:3:231:SER:HB2	2.01	0.42
2:2:110:VAL:HB	2:2:206:ALA:HB3	2.02	0.42
2:2:86:LEU:HA	2:2:89:MET:HG2	2.00	0.42
2:2:242:THR:HG21	2:2:244:SER:OG	2.20	0.42
2:2:67:GLU:HG3	2:2:152:GLU:OE1	2.19	0.42
2:2:201:ARG:HH21	3:3:119:PHE:HE1	1.67	0.42
3:3:51:THR:O	3:3:212:PHE:HA	2.18	0.42
3:3:203:THR:O	3:3:204:PRO:C	2.58	0.42
1:1:164:SER:C	1:1:166:ASP:H	2.23	0.42
2:2:42:ILE:HG12	2:2:259:GLU:OE2	2.19	0.42
2:2:271:HIS:H	2:2:271:HIS:HD2	1.68	0.42
2:2:42:ILE:HG12	2:2:259:GLU:CD	2.40	0.42
3:3:177:ARG:HG3	3:3:184:THR:HG21	2.01	0.42
1:1:99:HIS:HB3	1:1:165:TRP:CB	2.50	0.42
3:3:42:ASN:OD1	3:3:44:MET:HB2	2.19	0.42
3:3:177:ARG:H	3:3:184:THR:HG21	1.85	0.42
2:2:86:LEU:O	2:2:88:ASP:N	2.53	0.42
3:3:54:PRO:HG3	3:3:68:TYR:CE2	2.52	0.42
3:3:141:PRO:HG2	3:3:190:THR:HG21	2.01	0.42
1:1:71:CYS:O	1:1:72:LEU:C	2.57	0.41
1:1:113:LEU:O	1:1:113:LEU:HD12	2.20	0.41
2:2:119:GLN:HG2	3:3:122:SER:N	2.35	0.41
4:4:9:LYS:O	4:4:10:THR:C	2.58	0.41
1:1:100:PHE:HD1	1:1:101:ASN:N	2.18	0.41
1:1:170:TRP:CG	1:1:238:ARG:NH1	2.88	0.41
2:2:109:HIS:CE1	2:2:205:SER:HB3	2.54	0.41
3:3:40:VAL:HG22	4:4:53:PHE:CE1	2.55	0.41
3:3:103:LEU:HD21	3:3:219:PHE:CZ	2.53	0.41
1:1:270:ARG:HG2	1:1:274:TYR:CZ	2.56	0.41
3:3:119:PHE:CZ	3:3:121:GLY:HA3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:148:GLN:HE22	1:1:241:ASN:HB2	1.85	0.41
1:1:191:ILE:HA	1:1:192:PRO:HD3	1.82	0.41
1:1:282:ILE:O	1:1:282:ILE:CG1	2.68	0.41
3:3:219:PHE:HE1	3:3:221:VAL:CG1	2.34	0.41
4:4:45:ASP:OD2	4:4:45:ASP:C	2.58	0.41
1:1:24:SER:HB3	1:1:61:VAL:O	2.21	0.41
1:1:273:LEU:N	1:1:273:LEU:HD22	2.36	0.41
4:4:16:GLN:NE2	4:4:16:GLN:CA	2.83	0.41
1:1:18:GLN:OE1	1:1:18:GLN:HA	2.21	0.41
3:3:58:VAL:CG1	3:3:59:ASP:N	2.82	0.41
3:3:81:ILE:HD11	3:3:193:TYR:CD1	2.56	0.41
4:4:16:GLN:CA	4:4:16:GLN:HE21	2.33	0.41
1:1:100:PHE:CD1	1:1:100:PHE:C	2.94	0.41
1:1:218:ASP:HB2	2:2:172:ARG:CD	2.51	0.41
1:1:261:ILE:CG1	1:1:262:ARG:H	2.33	0.41
2:2:122:LEU:HD22	2:2:231:ILE:HG22	2.02	0.41
2:2:237:LEU:HD12	2:2:238:ALA:N	2.34	0.41
1:1:30:GLY:O	1:1:31:VAL:HB	2.21	0.41
1:1:154:TYR:CD1	6:1:300:MYR:H102	2.56	0.41
1:1:154:TYR:CG	6:1:300:MYR:H122	2.56	0.41
2:2:23:ILE:CG2	2:2:109:HIS:CD2	3.03	0.41
2:2:121:ALA:N	2:2:235:ALA:HB3	2.36	0.41
2:2:191:PHE:CE1	3:3:52:LEU:HD22	2.56	0.41
3:3:46:LEU:HA	3:3:49:ILE:HD12	2.02	0.41
3:3:196:ARG:O	3:3:198:VAL:HG23	2.19	0.41
4:4:18:VAL:O	4:4:20:ALA:N	2.54	0.41
1:1:82:VAL:HG21	1:1:256:MET:CG	2.51	0.41
2:2:188:GLY:HA3	3:3:68:TYR:CZ	2.56	0.41
3:3:109:TRP:CZ3	3:3:113:ILE:HD11	2.56	0.41
1:1:75:PHE:HD2	1:1:76:PHE:CE1	2.39	0.40
1:1:123:SER:O	1:1:200:TYR:HB2	2.21	0.40
1:1:282:ILE:CD1	1:1:284:SER:HB3	2.51	0.40
1:1:292:VAL:O	1:1:293:ASP:C	2.57	0.40
2:2:84:ASP:HB2	2:2:225:ASN:OD1	2.21	0.40
2:2:211:PRO:O	2:2:213:VAL:HG23	2.22	0.40
2:2:6:ALA:C	2:2:8:GLY:H	2.24	0.40
2:2:62:ARG:O	2:2:255:PRO:HD2	2.22	0.40
4:4:62:LEU:O	4:4:63:LYS:C	2.59	0.40
1:1:170:TRP:CD2	1:1:238:ARG:HD3	2.57	0.40
1:1:237:VAL:HG12	1:1:238:ARG:H	1.85	0.40
1:1:89:ASN:HB3	1:1:248:ILE:HG22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:295:ILE:HG23	1:1:296:THR:HG23	2.04	0.40
2:2:30:ASN:CG	4:4:57:VAL:CG2	2.90	0.40
2:2:79:TRP:HB3	2:2:157:PHE:CE1	2.56	0.40
2:2:271:HIS:CD2	2:2:271:HIS:H	2.39	0.40
2:2:23:ILE:CG2	2:2:24:THR:N	2.84	0.40
2:2:54:THR:O	2:2:259:GLU:HA	2.21	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	1	281/298 (94%)	233 (83%)	36 (13%)	12 (4%)	2 16
2	2	265/272 (97%)	226 (85%)	28 (11%)	11 (4%)	2 17
3	3	237/240 (99%)	203 (86%)	24 (10%)	10 (4%)	2 17
4	4	66/68 (97%)	52 (79%)	8 (12%)	6 (9%)	0 3
All	All	849/878 (97%)	714 (84%)	96 (11%)	39 (5%)	2 15

All (39) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1	168	TYR
1	1	280	ASP
2	2	176	ALA
2	2	241	ALA
3	3	236	ILE
4	4	17	ASN
1	1	93	SER
1	1	138	PRO
2	2	44	ASP

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Mol	Chain	Res	Type
2	2	85	CYS
2	2	167	ASP
3	3	62	VAL
3	3	63	ASN
3	3	229	HIS
3	3	238	ARG
4	4	12	ALA
4	4	18	VAL
1	1	23	GLN
1	1	32	ASN
1	1	50	ALA
1	1	182	TYR
1	1	213	GLU
2	2	48	ASN
2	2	87	LYS
2	2	136	THR
3	3	200	PRO
2	2	112	CYS
3	3	30	VAL
3	3	91	ASP
4	4	63	LYS
1	1	31	VAL
1	1	265	CYS
2	2	172	ARG
3	3	95	SER
4	4	19	ALA
2	2	90	GLY
3	3	169	TRP
1	1	245	PRO
4	4	55	GLU

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	1	249/261 (95%)	233 (94%)	16 (6%)	14 46

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	2	225/230 (98%)	204 (91%)	21 (9%)	7	29
3	3	212/213 (100%)	192 (91%)	20 (9%)	7	28
4	4	57/57 (100%)	49 (86%)	8 (14%)	3	14
All	All	743/761 (98%)	678 (91%)	65 (9%)	8	32

All (65) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1	18	GLN
1	1	40	THR
1	1	59	ARG
1	1	70	SER
1	1	87	LEU
1	1	118	GLU
1	1	119	PHE
1	1	144	GLU
1	1	168	TYR
1	1	188	ARG
1	1	189	MET
1	1	196	ILE
1	1	201	SER
1	1	242	ARG
1	1	267	ARG
1	1	279	VAL
2	2	25	THR
2	2	32	ILE
2	2	39	PRO
2	2	40	THR
2	2	43	ASN
2	2	73	THR
2	2	88	ASP
2	2	100	TYR
2	2	126	LEU
2	2	129	GLU
2	2	136	THR
2	2	158	THR
2	2	172	ARG
2	2	177	LEU
2	2	201	ARG
2	2	210	VAL
2	2	230	VAL

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Mol	Chain	Res	Type
2	2	256	MET
2	2	264	ARG
2	2	265	ASN
2	2	271	HIS
3	3	2	LEU
3	3	13	PHE
3	3	21	SER
3	3	34	ILE
3	3	50	ASP
3	3	51	THR
3	3	52	LEU
3	3	84	LEU
3	3	139	LYS
3	3	148	MET
3	3	153	ILE
3	3	160	GLN
3	3	165	MET
3	3	180	ARG
3	3	194	GLN
3	3	200	PRO
3	3	207	MET
3	3	223	LEU
3	3	224	LEU
3	3	235	LEU
4	4	10	THR
4	4	13	HIS
4	4	16	GLN
4	4	17	ASN
4	4	34	LYS
4	4	43	ARG
4	4	52	LYS
4	4	61	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (28) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	32	ASN
1	1	112	GLN
1	1	148	GLN
1	1	151	GLN
1	1	175	ASN
1	1	184	ASN

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Mol	Chain	Res	Type
1	1	198	ASN
1	1	249	HIS
2	2	43	ASN
2	2	48	ASN
2	2	109	HIS
2	2	147	ASN
2	2	214	ASN
2	2	246	GLN
2	2	261	ASN
2	2	272	GLN
3	3	108	HIS
3	3	152	HIS
3	3	160	GLN
3	3	229	HIS
3	3	232	GLN
4	4	4	GLN
4	4	15	ASN
4	4	16	GLN
4	4	26	ASN
4	4	31	ASN
4	4	39	ASN
4	4	48	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 4 ligands modelled in this entry, 1 is monoatomic - leaving 3 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	$\#\|Z\| > 2$
7	G	2	273	-	18,25,26	1.09	2 (11%)	17,37,40	0.76	1 (5%)
6	MYR	4	1	4	13,14,15	0.39	0	12,13,15	0.48	0
6	MYR	1	300	-	15,15,15	0.68	0	15,15,15	0.71	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
7	G	2	273	-	-	0/3/25/26	0/3/3/3
6	MYR	4	1	4	-	5/12/12/13	-
6	MYR	1	300	-	-	7/13/13/13	-

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	2	273	G	C8-N7	-2.52	1.30	1.34
7	2	273	G	C5-C6	-2.37	1.42	1.47

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	2	273	G	O6-C6-C5	2.21	128.71	124.32

There are no chirality outliers.

All (12) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	4	1	MYR	O1-C1-C2-C3
6	1	300	MYR	C1-C2-C3-C4
6	1	300	MYR	C4-C5-C6-C7
6	4	1	MYR	C4-C5-C6-C7
6	1	300	MYR	C6-C7-C8-C9
6	4	1	MYR	C11-C10-C9-C8

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Mol	Chain	Res	Type	Atoms
6	1	300	MYR	C7-C8-C9-C10
6	4	1	MYR	C6-C7-C8-C9
6	1	300	MYR	O2-C1-C2-C3
6	1	300	MYR	O1-C1-C2-C3
6	4	1	MYR	C1-C2-C3-C4
6	1	300	MYR	C2-C3-C4-C5

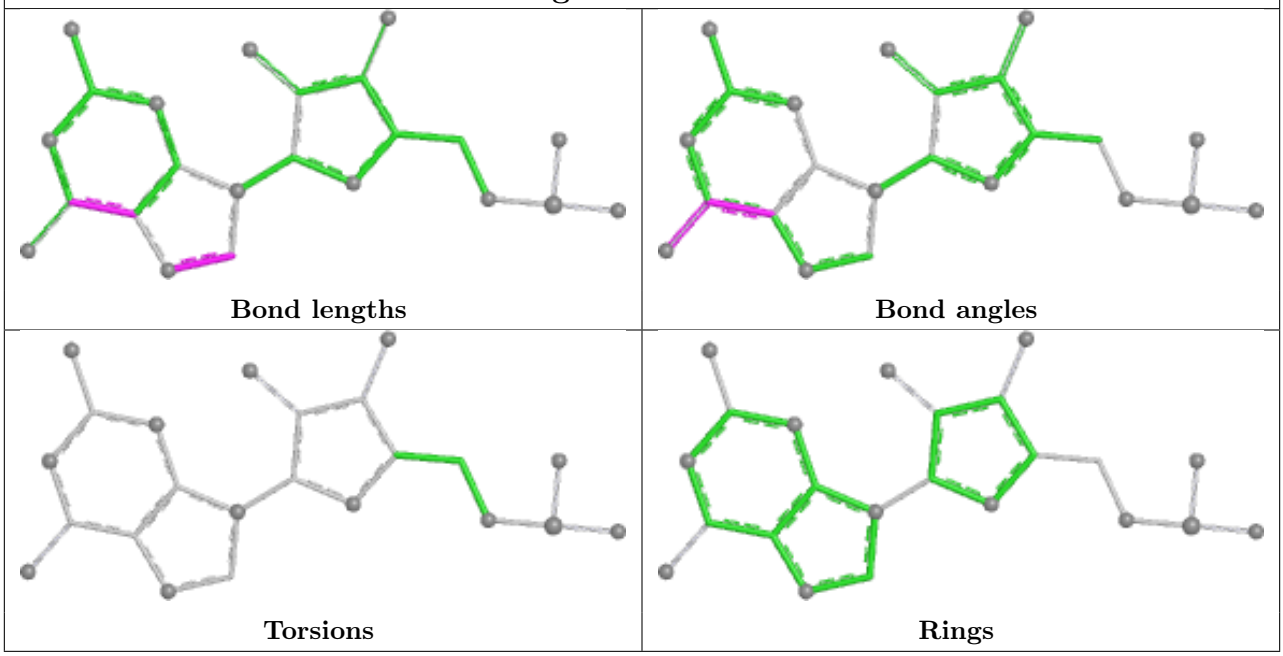
There are no ring outliers.

1 monomer is involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	1	300	MYR	12	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 G 2 273



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)

Warning: The R factor obtained from EDS is 0.4914,which does not match the depositor's R factor of 0.224. Please interpret the results in this section carefully.

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	1	283/298 (94%)	2.19	129 (45%)	1	1	5, 51, 91, 105	4 (1%)
2	2	267/272 (98%)	2.09	120 (44%)	1	1	32, 46, 79, 119	0
3	3	239/240 (99%)	1.80	93 (38%)	1	1	32, 44, 69, 135	0
4	4	68/68 (100%)	2.34	33 (48%)	0	1	32, 50, 93, 108	0
All	All	857/878 (97%)	2.06	375 (43%)	1	1	5, 47, 86, 135	4 (0%)

All (375) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	4	17	ASN	11.8
4	4	2	GLY	9.7
1	1	287	LEU	8.9
1	1	274	TYR	8.0
1	1	277	GLU	7.7
2	2	222	ALA	7.2
2	2	168	ALA	7.2
1	1	144	GLU	7.1
1	1	93	SER	6.9
3	3	238	ARG	6.6
2	2	9	TYR	6.4
2	2	6	ALA	6.3
1	1	18	GLN	6.3
2	2	7	CYS	6.1
1	1	276	GLY	6.0
1	1	285	ALA	6.0
2	2	152	GLU	5.6
1	1	143	GLY	5.6
3	3	237	GLY	5.6

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Mol	Chain	Res	Type	RSRZ
1	1	141	ALA	5.5
1	1	228	SER	5.4
1	1	140	THR	5.4
1	1	97	LYS	5.3
1	1	214	GLY	5.3
2	2	8	GLY	5.2
4	4	18	VAL	5.2
2	2	141	SER	4.9
3	3	239	THR	4.8
1	1	249	HIS	4.7
1	1	89	ASN	4.6
3	3	89	ALA	4.6
1	1	142	SER	4.6
4	4	43	ARG	4.6
2	2	242	THR	4.6
1	1	241	ASN	4.6
4	4	55	GLU	4.5
1	1	219	ALA	4.5
2	2	219	ASP	4.5
4	4	15	ASN	4.5
1	1	139	SER	4.5
1	1	160	PRO	4.4
4	4	60	LEU	4.4
3	3	206	SER	4.4
1	1	213	GLU	4.4
3	3	65	MET	4.3
4	4	16	GLN	4.3
1	1	94	GLY	4.3
3	3	11	ASN	4.3
2	2	92	PHE	4.2
1	1	181	MET	4.2
2	2	145	TYR	4.2
2	2	189	ASN	4.2
2	2	272	GLN	4.2
4	4	44	GLN	4.1
2	2	243	SER	4.1
2	2	116	LYS	4.0
1	1	234	VAL	4.0
2	2	42	ILE	4.0
3	3	88	PRO	4.0
1	1	91	SER	3.9
2	2	214	ASN	3.9

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Mol	Chain	Res	Type	RSRZ
2	2	183	SER	3.9
3	3	104	ASN	3.9
3	3	232	GLN	3.9
1	1	16	VAL	3.8
3	3	142	THR	3.8
2	2	225	ASN	3.8
1	1	129	MET	3.7
2	2	133	ALA	3.7
1	1	243	SER	3.7
1	1	284	SER	3.7
1	1	113	LEU	3.7
3	3	236	ILE	3.7
1	1	242	ARG	3.7
3	3	231	SER	3.7
1	1	246	HIS	3.7
1	1	218	ASP	3.7
1	1	288	PRO	3.7
1	1	230	ASN	3.7
3	3	203	THR	3.6
2	2	29	ALA	3.6
2	2	258	THR	3.6
1	1	231	ASP	3.6
2	2	244	SER	3.6
1	1	151	GLN	3.5
2	2	130	PHE	3.5
3	3	63	ASN	3.5
1	1	146	ARG	3.5
1	1	95	GLU	3.5
2	2	162	ASN	3.5
1	1	20	PRO	3.5
1	1	73	GLU	3.5
1	1	263	CYS	3.5
2	2	113	ASN	3.5
1	1	217	THR	3.5
4	4	19	ALA	3.5
2	2	71	TRP	3.5
3	3	100	GLY	3.5
3	3	205	THR	3.4
4	4	45	ASP	3.4
1	1	135	GLU	3.4
1	1	88	THR	3.4
3	3	212	PHE	3.4

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Mol	Chain	Res	Type	RSRZ
1	1	147	ASN	3.4
1	1	244	ASN	3.4
1	1	96	GLU	3.4
2	2	170	GLU	3.4
1	1	179	PHE	3.4
2	2	166	THR	3.4
4	4	69	ASN	3.4
1	1	111	VAL	3.3
1	1	99	HIS	3.3
3	3	49	ILE	3.3
4	4	22	GLY	3.3
1	1	291	LYS	3.3
4	4	49	ASP	3.3
2	2	60	SER	3.3
3	3	227	THR	3.3
2	2	46	GLU	3.2
4	4	56	PRO	3.2
2	2	245	PRO	3.2
2	2	21	SER	3.2
2	2	75	SER	3.2
1	1	136	ASN	3.2
4	4	13	HIS	3.2
1	1	65	LYS	3.2
4	4	3	ALA	3.2
4	4	48	GLN	3.1
1	1	92	LYS	3.1
3	3	73	ASN	3.1
2	2	226	ASN	3.1
4	4	61	MET	3.1
1	1	134	THR	3.1
3	3	30	VAL	3.1
2	2	167	ASP	3.0
1	1	198	ASN	3.0
1	1	245	PRO	3.0
2	2	153	ARG	3.0
1	1	137	TYR	3.0
4	4	59	ASP	3.0
2	2	87	LYS	3.0
3	3	92	LYS	3.0
2	2	90	GLY	3.0
2	2	135	ASN	3.0
2	2	81	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
2	2	67	GLU	3.0
3	3	56	ASN	3.0
3	3	166	VAL	3.0
1	1	229	ILE	3.0
1	1	86	SER	3.0
2	2	205	SER	3.0
2	2	252	THR	3.0
2	2	43	ASN	3.0
3	3	75	ASN	3.0
3	3	23	CYS	3.0
2	2	19	GLY	3.0
2	2	220	CYS	2.9
2	2	158	THR	2.9
2	2	79	TRP	2.9
1	1	128	GLU	2.9
1	1	155	ILE	2.9
3	3	59	ASP	2.9
3	3	90	SER	2.9
2	2	155	GLY	2.9
2	2	127	ILE	2.9
3	3	208	PHE	2.9
1	1	275	ARG	2.9
3	3	29	ASP	2.9
2	2	134	CYS	2.8
1	1	281	MET	2.8
2	2	111	GLN	2.8
1	1	248	ILE	2.8
2	2	186	LEU	2.8
4	4	52	LYS	2.8
3	3	32	PRO	2.8
3	3	197	ILE	2.8
1	1	215	GLU	2.8
3	3	185	GLU	2.8
3	3	128	LYS	2.8
2	2	109	HIS	2.8
3	3	180	ARG	2.8
1	1	154	TYR	2.8
2	2	58	VAL	2.8
2	2	106	TYR	2.7
1	1	132	VAL	2.7
1	1	149	VAL	2.7
1	1	253	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
2	2	184	GLY	2.7
2	2	27	GLU	2.7
2	2	159	ASN	2.7
2	2	261	ASN	2.7
1	1	290	THR	2.7
3	3	64	THR	2.7
3	3	35	HIS	2.7
1	1	90	SER	2.7
4	4	38	SER	2.7
1	1	216	ASN	2.7
1	1	19	PRO	2.7
3	3	106	TYR	2.7
1	1	81	CYS	2.7
3	3	83	CYS	2.7
1	1	161	ARG	2.7
2	2	11	ASP	2.7
3	3	218	ASP	2.7
3	3	170	ILE	2.7
3	3	183	PHE	2.7
1	1	98	LYS	2.7
1	1	106	THR	2.7
2	2	28	ALA	2.7
2	2	177	LEU	2.7
1	1	103	TRP	2.7
1	1	189	MET	2.7
1	1	114	ARG	2.7
2	2	34	ALA	2.6
1	1	247	THR	2.6
1	1	55	VAL	2.6
1	1	116	LYS	2.6
2	2	122	LEU	2.6
3	3	123	MET	2.6
3	3	234	LYS	2.6
2	2	157	PHE	2.6
1	1	206	GLY	2.6
3	3	48	GLU	2.6
1	1	53	SER	2.6
1	1	205	ASP	2.6
3	3	181	ASP	2.6
1	1	148	GLN	2.6
2	2	97	TYR	2.6
4	4	27	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
2	2	17	THR	2.6
4	4	26	ASN	2.6
2	2	64	TYR	2.5
1	1	209	ARG	2.5
2	2	241	ALA	2.5
3	3	221	VAL	2.5
2	2	86	LEU	2.5
3	3	192	PHE	2.5
3	3	235	LEU	2.5
1	1	162	PRO	2.5
2	2	268	VAL	2.5
1	1	158	GLY	2.5
2	2	139	LYS	2.5
2	2	254	ALA	2.5
3	3	207	MET	2.5
1	1	47	SER	2.5
1	1	232	PHE	2.5
1	1	283	SER	2.5
2	2	61	ASN	2.5
3	3	71	PRO	2.5
2	2	172	ARG	2.5
1	1	112	GLN	2.5
1	1	173	SER	2.5
3	3	187	GLY	2.5
4	4	12	ALA	2.5
1	1	58	THR	2.4
2	2	164	SER	2.4
1	1	182	TYR	2.4
3	3	133	TYR	2.4
3	3	165	MET	2.4
4	4	20	ALA	2.4
2	2	229	ILE	2.4
2	2	82	LEU	2.4
1	1	278	GLY	2.4
3	3	76	LEU	2.4
1	1	108	THR	2.4
2	2	154	GLY	2.4
4	4	7	THR	2.4
1	1	138	PRO	2.4
1	1	280	ASP	2.4
2	2	84	ASP	2.4
2	2	173	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
3	3	109	TRP	2.4
4	4	24	THR	2.4
4	4	4	GLN	2.4
3	3	36	ILE	2.4
2	2	240	ALA	2.4
2	2	161	TYR	2.3
2	2	197	ILE	2.3
2	2	200	LEU	2.3
2	2	138	SER	2.3
1	1	118	GLU	2.3
2	2	47	ALA	2.3
1	1	49	GLN	2.3
2	2	142	TYR	2.3
1	1	163	SER	2.3
4	4	21	ASN	2.3
2	2	221	MET	2.3
3	3	58	VAL	2.3
3	3	126	THR	2.3
3	3	167	ALA	2.3
3	3	96	HIS	2.3
3	3	52	LEU	2.3
1	1	145	VAL	2.3
1	1	172	SER	2.3
2	2	10	SER	2.3
2	2	124	VAL	2.3
2	2	182	GLY	2.3
3	3	199	VAL	2.3
2	2	271	HIS	2.3
1	1	264	TRP	2.3
3	3	53	ILE	2.3
4	4	54	THR	2.3
3	3	186	GLY	2.3
2	2	180	LEU	2.3
2	2	78	TRP	2.2
3	3	184	THR	2.2
1	1	85	LEU	2.2
2	2	101	LEU	2.2
3	3	60	GLY	2.2
3	3	164	SER	2.2
1	1	167	ASP	2.2
3	3	141	PRO	2.2
2	2	136	THR	2.2

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Mol	Chain	Res	Type	RSRZ
2	2	94	GLN	2.2
3	3	176	ARG	2.2
3	3	118	LEU	2.2
1	1	196	ILE	2.2
3	3	39	GLU	2.2
2	2	38	TRP	2.2
3	3	51	THR	2.2
1	1	204	TYR	2.2
1	1	298	PHE	2.2
1	1	273	LEU	2.2
3	3	50	ASP	2.2
2	2	100	TYR	2.2
3	3	125	ALA	2.1
1	1	102	ILE	2.1
1	1	286	ILE	2.1
2	2	201	ARG	2.1
3	3	140	PRO	2.1
4	4	50	PRO	2.1
1	1	17	SER	2.1
1	1	39	LEU	2.1
3	3	40	VAL	2.1
2	2	207	THR	2.1
3	3	195	THR	2.1
2	2	178	ASP	2.1
3	3	91	ASP	2.1
3	3	230	ILE	2.1
2	2	63	PHE	2.1
3	3	188	PHE	2.1
3	3	135	PRO	2.1
3	3	149	LEU	2.1
1	1	237	VAL	2.1
3	3	215	ALA	2.1
2	2	30	ASN	2.1
2	2	194	PRO	2.1
1	1	170	TRP	2.1
3	3	77	SER	2.1
1	1	200	TYR	2.1
2	2	93	GLY	2.1
3	3	41	LYS	2.1
2	2	232	LEU	2.1
2	2	259	GLU	2.1
4	4	66	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
1	1	252	VAL	2.1
1	1	168	TYR	2.1
3	3	87	SER	2.1
1	1	235	LEU	2.1
3	3	110	THR	2.0
2	2	237	LEU	2.0
3	3	131	LEU	2.0
2	2	53	PRO	2.0
2	2	55	GLU	2.0
2	2	264	ARG	2.0
2	2	171	GLY	2.0
2	2	119	GLN	2.0
1	1	29	SER	2.0
2	2	66	LEU	2.0
3	3	223	LEU	2.0
2	2	165	ASN	2.0
3	3	22	PRO	2.0
3	3	138	ALA	2.0
1	1	220	GLY	2.0
1	1	265	CYS	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 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, 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
7	G	2	273	23/24	0.66	0.45	94,98,113,114	23
6	MYR	4	1	15/16	0.76	0.39	58,70,82,83	0
6	MYR	1	300	16/16	0.84	0.28	36,41,71,72	0

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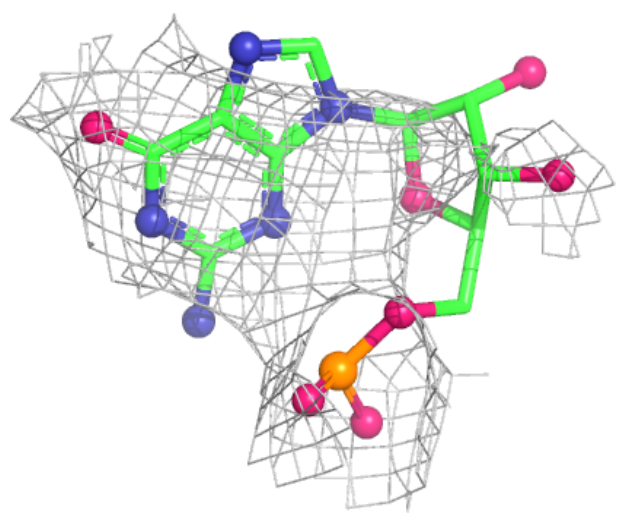
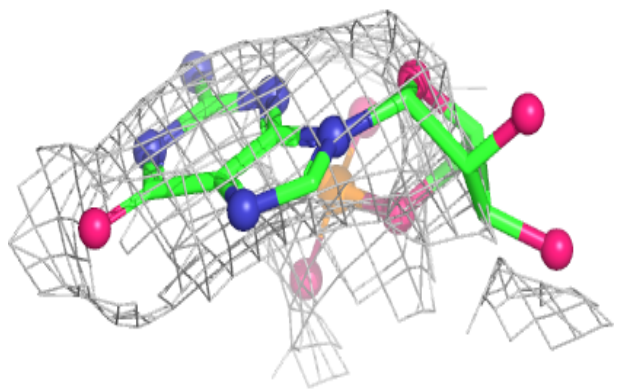
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
5	CA	1	299	1/1	0.86	0.09	58,58,58,58	0

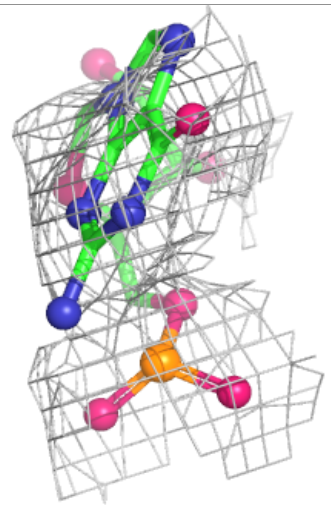
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around G 2 273:

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 (i)

There are no such residues in this entry.