



Full wwPDB EM Validation Report ⓘ

Dec 14, 2024 – 09:52 PM EST

PDB ID : 1Q5A
EMDB ID : EMD-1052
Title : S-shaped trans interactions of cadherins model based on fitting C-cadherin (1L3W) to 3D map of desmosomes obtained by electron tomography
Authors : He, W.; Cowin, P.; Stokes, D.L.
Deposited on : 2003-08-06
Resolution : 30.00 Å(reported)
Based on initial model : 1L3W

This is a Full wwPDB EM 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/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev113
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4.02b-467
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.40

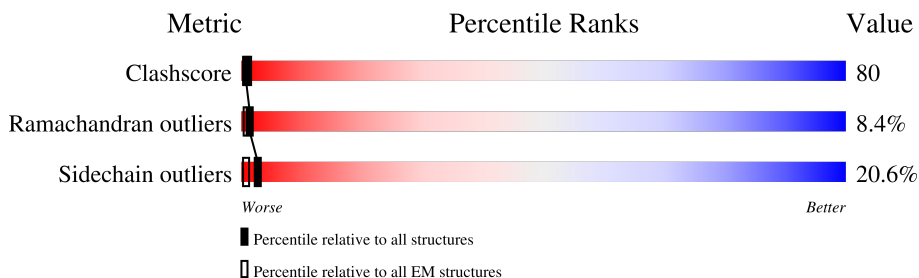
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 30.00 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)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	880	
1	B	880	

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 criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	NAG	A	801	-	-	X	-
2	NAG	A	805	X	-	X	-
2	NAG	A	806	X	-	X	-
2	NAG	A	807	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	NAG	A	809	-	-	X	-
2	NAG	A	810	-	-	X	-
2	NAG	A	902	X	-	X	-
2	NAG	A	903	X	-	-	-
2	NAG	A	904	-	-	X	-
2	NAG	B	801	-	-	X	-
2	NAG	B	805	X	-	X	-
2	NAG	B	806	X	-	X	-
2	NAG	B	807	-	-	X	-
2	NAG	B	809	-	-	X	-
2	NAG	B	810	-	-	X	-
2	NAG	B	902	X	-	X	-
2	NAG	B	903	X	-	-	-
2	NAG	B	904	-	-	X	-
3	NDG	A	811	-	-	X	-
3	NDG	B	811	-	-	X	-

2 Entry composition [\(i\)](#)

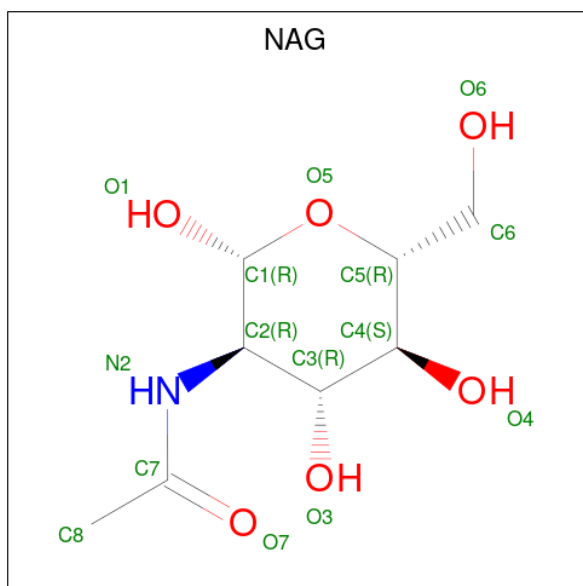
There are 4 unique types of molecules in this entry. The entry contains 8826 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 EP-cadherin.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	540	Total	C	N	O	S	0	0
			4191	2635	695	850	11		
1	B	540	Total	C	N	O	S	0	0
			4191	2635	695	850	11		

- Molecule 2 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
2	A	1	Total	C	N	O	0
			14	8	1	5	
2	A	1	Total	C	N	O	0
			14	8	1	5	
2	A	1	Total	C	N	O	0
			14	8	1	5	
2	A	1	Total	C	N	O	0
			14	8	1	5	

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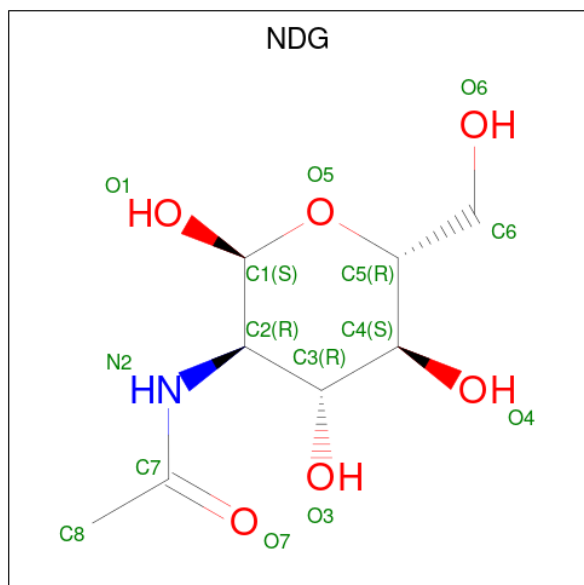
Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	A	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0
2	B	1	Total 14	8	1	5	0

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
2	B	1	14	8	1	5	0

- Molecule 3 is 2-acetamido-2-deoxy-alpha-D-glucopyranose (three-letter code: NDG) (formula: C₈H₁₅NO₆).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
3	A	1	14	8	1	5	0
3	A	1	14	8	1	5	0
3	B	1	14	8	1	5	0
3	B	1	14	8	1	5	0

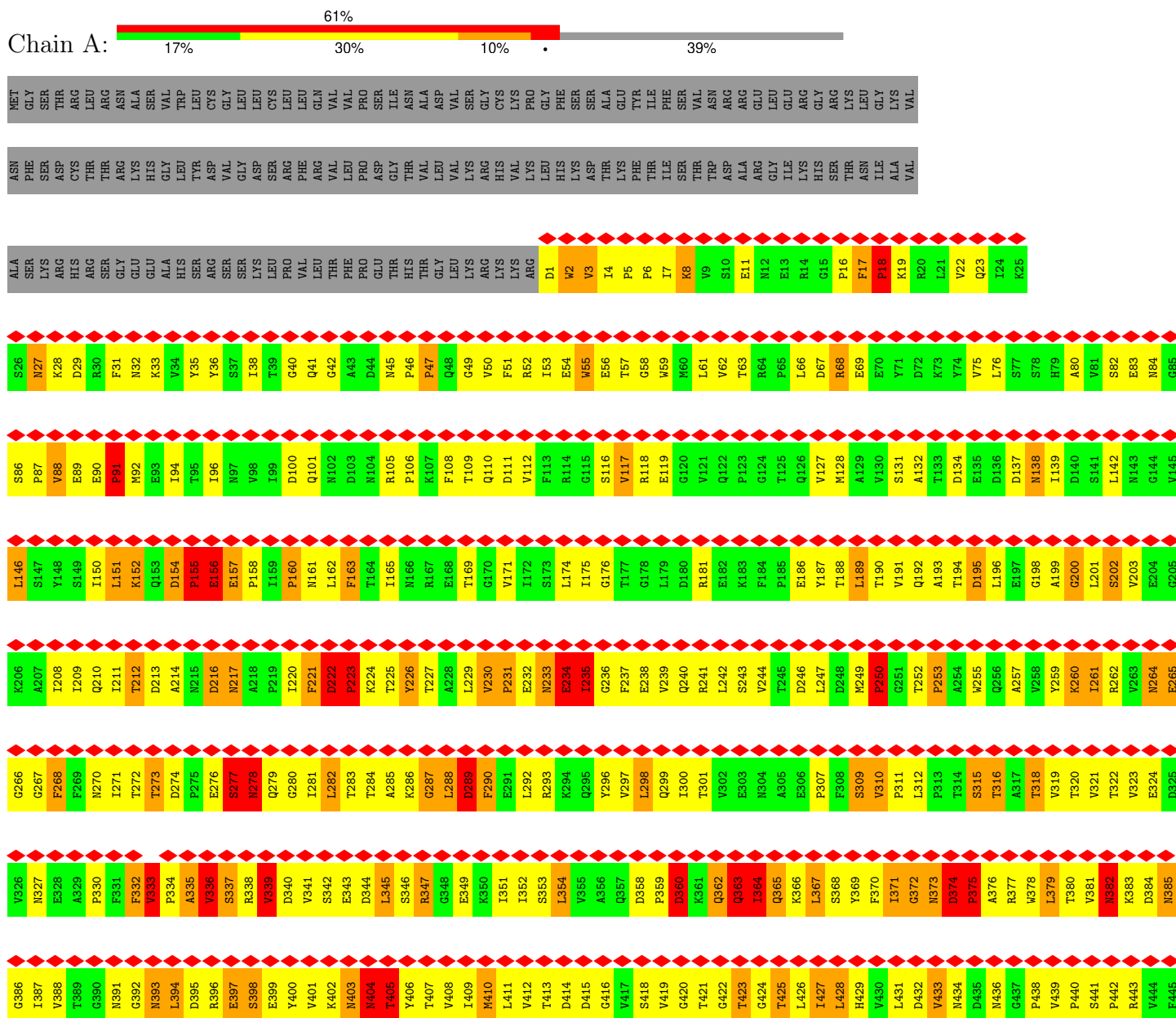
- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		AltConf
			Total	Ca	
4	A	12	12	12	0
4	B	12	12	12	0

3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: EP-cadherin



G386	T446	D506	PHE	ARG	SER
I387	M447	Y507	LEU	ASN	LEU
V388	C448	S508	LEU	ASP	SER
T389	D449	I509	LEU	VAL	LEU
G390	Q450	Y510	LEU	VAL	ASN
N391	M451	V511	PHE	THR	SER
G392	P452	L512	LEU	LEU	SER
N393	E453	L513	LYS	MET	ASN
L394	P454	S514	ARG	ASN	ASN
D395	Q455	D515	LYS	ALA	ASN
R396	V456	A516	VAL	HIS	ASP
E397	L457	A517	VAL	THR	HIS
S398	T458	Q617	LYS	ARG	ASP
E399	I459	N618	GLU	PRO	TYR
Y400	S460	N619	PRO	ARG	ASN
V401	D461	P520	LEU	PRO	LEU
K402	A462	Q521	LEU	ASN	SER
M403	D463	L522	PRO	PRO	ASP
Y404	I464	T523	GLU	ASP	TRP
T405	P465	T524	ASP	ILE	GLY
Y406	P466	V525	THR	GLY	SER
T407	M467	N526	ARG	ASN	ARG
V408	T468	A527	ASP	PHE	ARG
I409	Y469	I528	ILE	ILE	ARG
M410	P470	V529	PHE	LEU	LYS
L411	Y471	C530	TYR	LEU	ALA
V412	K472	S531	TYR	GLY	GLY
T413	V473	C532	GLU	ALA	GLY
D414	S474	E533	GLU	ALA	GLY
D415	L475	G534	GLY	ASP	ASP
G416	S476	K535	GLY	ASP	ASP
V417	H477	A536	GLU	THR	GLU
S418	G478	I537	GLU	THR	GLU
V419	S479	K538	ALA	ALA	GLU
G420	D480	C539	GLN	PRO	TYR
T421	L481	Q540	ASP	PRO	TYR
G422	T482	GLU	ASP	ASP	ASP
T423	W483	LYS	LEU	SER	SER
G424	K484	LEU	LEU	LEU	LEU
T425	A485	GLN	LEU	VAL	PHE
L426	E486	VAL	GLN	VAL	ASP
I427	L487	LEU	LEU	ASP	TYR
L428	D488	PRO	LEU	GLY	GLU
H429	S489	ILE	LEU	LEU	GLY
V430	K490	ILE	ARG	GLY	SER
L431	G491	LEU	PRO	SER	GLY
D432	T492	VAL	ASP	GLU	ASP
V433	S493	ILE	ILE	ALA	ILE
M434	M494	LEU	MET	ALA	ALA
D435	L495	GLY			
M436	L496	LEU			
G437	S497	LEU			
P438	P498	LEU			
V439	T499	ILE			
P440	Q500	LEU			
S441	Q501	LEU			
P442	L502	LEU			
R443	K503	LEU			
V444	K504	LEU			
F445	G505	LEU			

4 Experimental information

Property	Value	Source
EM reconstruction method	TOMOGRAPHY	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of tilted images used	Not provided	
Resolution determination method	Not provided	
CTF correction method	no CTF correction. Imaging at underfocus 0.4 micron with CM200FEG microscope at 50,000 magnification	Depositor
Microscope	FEI/PHILIPS CM200FEG	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	1200	Depositor
Minimum defocus (nm)	300	Depositor
Maximum defocus (nm)	500	Depositor
Magnification	68276	Depositor
Image detector	GENERIC GATAN	Depositor
Maximum voxel value	2603.000	Depositor
Minimum voxel value	-1866.000	Depositor
Average voxel value	1323.980	Depositor
Voxel value standard deviation	218.755	Depositor
Recommended contour level	1760	Depositor
Tomogram size (Å)	3720.19, 3720.19, 617.61	wwPDB
Tomogram dimensions	512, 512, 85	wwPDB
Tomogram angles (°)	90, 90, 90	wwPDB
Grid spacing (Å)	7.266, 7.266, 7.266	Depositor

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, NAG, NDG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.70	8/4276 (0.2%)	1.44	81/5839 (1.4%)
1	B	0.70	8/4276 (0.2%)	1.39	79/5839 (1.4%)
All	All	0.70	16/8552 (0.2%)	1.42	160/11678 (1.4%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	1	4
1	B	0	4
All	All	1	8

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	335	ALA	CA-CB	-8.37	1.34	1.52
1	B	335	ALA	CA-CB	-8.33	1.34	1.52
1	A	539	CYS	CB-SG	8.17	1.96	1.82
1	B	539	CYS	CB-SG	8.15	1.96	1.82
1	B	223	PRO	CG-CD	7.02	1.73	1.50
1	A	223	PRO	CG-CD	7.00	1.73	1.50
1	A	523	THR	N-CA	-6.26	1.33	1.46
1	B	523	THR	N-CA	-6.24	1.33	1.46
1	A	522	LEU	N-CA	-5.98	1.34	1.46
1	A	18	PRO	N-CD	5.97	1.56	1.47
1	B	522	LEU	N-CA	-5.97	1.34	1.46
1	B	18	PRO	N-CD	5.91	1.56	1.47
1	A	530	CYS	CB-SG	5.53	1.91	1.82
1	B	530	CYS	CB-SG	5.46	1.91	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	499	THR	CA-CB	5.05	1.66	1.53
1	B	499	THR	CA-CB	5.02	1.66	1.53

All (160) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	490	LYS	N-CA-CB	-28.44	59.41	110.60
1	A	520	PRO	CA-C-N	-13.30	87.95	117.20
1	B	520	PRO	CA-C-N	-13.28	87.99	117.20
1	B	290	PHE	N-CA-C	12.73	145.38	111.00
1	A	235	ILE	N-CA-C	12.72	145.34	111.00
1	B	235	ILE	N-CA-C	12.72	145.34	111.00
1	A	290	PHE	N-CA-C	12.71	145.32	111.00
1	B	374	ASP	N-CA-C	11.61	142.35	111.00
1	A	374	ASP	N-CA-C	11.61	142.34	111.00
1	A	17	PHE	C-N-CD	-11.55	95.19	120.60
1	B	17	PHE	C-N-CD	-11.54	95.22	120.60
1	B	398	SER	N-CA-C	11.37	141.70	111.00
1	A	398	SER	N-CA-C	11.36	141.68	111.00
1	B	465	PRO	C-N-CD	-11.04	96.31	120.60
1	A	465	PRO	C-N-CD	-11.03	96.33	120.60
1	B	222	ASP	CB-CG-OD2	10.06	127.35	118.30
1	A	222	ASP	CB-CG-OD2	10.03	127.33	118.30
1	A	236	GLY	N-CA-C	-9.99	88.11	113.10
1	B	236	GLY	N-CA-C	-9.98	88.15	113.10
1	A	230	VAL	C-N-CD	-9.94	98.73	120.60
1	B	230	VAL	C-N-CD	-9.92	98.77	120.60
1	A	374	ASP	CB-CA-C	-9.67	91.05	110.40
1	B	374	ASP	CB-CA-C	-9.66	91.08	110.40
1	B	376	ALA	N-CA-C	9.65	137.04	111.00
1	A	376	ALA	N-CA-C	9.64	137.04	111.00
1	B	522	LEU	CA-CB-CG	-9.38	93.74	115.30
1	A	522	LEU	CA-CB-CG	-9.36	93.77	115.30
1	B	223	PRO	N-CA-C	-9.30	87.91	112.10
1	B	520	PRO	N-CA-C	9.30	136.28	112.10
1	A	221	PHE	C-N-CA	-9.30	98.46	121.70
1	B	221	PHE	C-N-CA	-9.29	98.46	121.70
1	A	223	PRO	N-CA-C	-9.29	87.94	112.10
1	A	520	PRO	N-CA-C	9.29	136.25	112.10
1	B	481	LEU	N-CA-C	-9.29	85.92	111.00
1	A	481	LEU	N-CA-C	-9.27	85.97	111.00
1	B	481	LEU	CA-CB-CG	-8.76	95.16	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	481	LEU	CA-CB-CG	-8.75	95.17	115.30
1	A	289	ASP	C-N-CA	-8.43	100.62	121.70
1	B	289	ASP	C-N-CA	-8.42	100.66	121.70
1	A	516	ALA	N-CA-C	-8.35	88.47	111.00
1	B	516	ALA	N-CA-C	-8.35	88.46	111.00
1	B	222	ASP	C-N-CD	-8.21	102.54	120.60
1	A	290	PHE	CA-C-N	-8.20	99.16	117.20
1	B	290	PHE	CA-C-N	-8.19	99.18	117.20
1	A	222	ASP	C-N-CD	-8.19	102.59	120.60
1	A	46	PRO	C-N-CD	-8.05	102.89	120.60
1	B	46	PRO	C-N-CD	-8.03	102.93	120.60
1	B	233	ASN	N-CA-C	7.88	132.28	111.00
1	A	233	ASN	N-CA-C	7.86	132.22	111.00
1	A	336	VAL	N-CA-C	7.82	132.10	111.00
1	B	336	VAL	N-CA-C	7.81	132.09	111.00
1	B	522	LEU	C-N-CA	-7.79	102.21	121.70
1	A	522	LEU	C-N-CA	-7.78	102.25	121.70
1	B	362	GLN	N-CA-C	-7.71	90.18	111.00
1	A	362	GLN	N-CA-C	-7.71	90.20	111.00
1	A	234	GLU	N-CA-C	-7.59	90.51	111.00
1	B	234	GLU	N-CA-C	-7.58	90.52	111.00
1	A	234	GLU	C-N-CA	7.42	140.24	121.70
1	B	234	GLU	C-N-CA	7.41	140.22	121.70
1	A	521	GLN	C-N-CA	-7.38	103.25	121.70
1	B	521	GLN	C-N-CA	-7.38	103.26	121.70
1	A	490	LYS	CB-CA-C	7.32	125.04	110.40
1	B	277	SER	N-CA-C	-7.21	91.54	111.00
1	A	277	SER	N-CA-C	-7.20	91.56	111.00
1	A	337	SER	N-CA-C	-7.19	91.59	111.00
1	B	337	SER	N-CA-C	-7.16	91.67	111.00
1	B	503	LYS	N-CA-C	7.01	129.94	111.00
1	A	503	LYS	N-CA-C	7.00	129.91	111.00
1	B	523	THR	N-CA-CB	-6.95	97.10	110.30
1	A	523	THR	N-CA-CB	-6.93	97.13	110.30
1	A	492	THR	N-CA-C	6.78	129.30	111.00
1	B	492	THR	N-CA-C	6.75	129.23	111.00
1	B	448	CYS	CA-CB-SG	-6.70	101.95	114.00
1	A	448	CYS	CA-CB-SG	-6.68	101.98	114.00
1	A	398	SER	C-N-CA	-6.57	105.29	121.70
1	B	476	SER	N-CA-C	6.57	128.72	111.00
1	A	476	SER	N-CA-C	6.56	128.72	111.00
1	B	491	GLY	N-CA-C	6.55	129.47	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	398	SER	C-N-CA	-6.55	105.33	121.70
1	A	491	GLY	N-CA-C	6.53	129.43	113.10
1	B	525	VAL	N-CA-C	-6.50	93.46	111.00
1	A	525	VAL	N-CA-C	-6.48	93.50	111.00
1	A	335	ALA	N-CA-C	-6.32	93.95	111.00
1	B	335	ALA	N-CA-C	-6.31	93.96	111.00
1	B	532	CYS	N-CA-C	6.30	128.01	111.00
1	A	532	CYS	N-CA-C	6.30	128.00	111.00
1	B	234	GLU	CA-C-N	-6.28	103.38	117.20
1	A	234	GLU	CA-C-N	-6.28	103.39	117.20
1	A	222	ASP	N-CA-C	6.17	127.64	111.00
1	B	222	ASP	N-CA-C	6.15	127.61	111.00
1	A	235	ILE	CA-C-N	-6.14	103.91	116.20
1	A	397	GLU	C-N-CA	-6.14	106.35	121.70
1	B	235	ILE	CA-C-N	-6.13	103.94	116.20
1	B	397	GLU	C-N-CA	-6.12	106.40	121.70
1	A	18	PRO	CA-N-CD	-6.11	102.94	111.50
1	B	503	LYS	CB-CA-C	-6.09	98.21	110.40
1	A	503	LYS	CB-CA-C	-6.07	98.25	110.40
1	B	18	PRO	CA-N-CD	-6.07	103.00	111.50
1	B	502	LEU	N-CA-C	6.07	127.40	111.00
1	A	502	LEU	N-CA-C	6.04	127.31	111.00
1	A	2	TRP	N-CA-C	-6.03	94.72	111.00
1	B	2	TRP	N-CA-C	-6.01	94.77	111.00
1	B	374	ASP	C-N-CD	5.97	140.95	128.40
1	B	222	ASP	N-CA-CB	5.96	121.32	110.60
1	A	374	ASP	C-N-CD	5.95	140.90	128.40
1	A	222	ASP	N-CA-CB	5.95	121.31	110.60
1	A	364	ILE	N-CA-C	-5.93	95.00	111.00
1	B	364	ILE	N-CA-C	-5.93	95.00	111.00
1	B	376	ALA	CA-C-N	-5.85	104.33	117.20
1	A	376	ALA	CA-C-N	-5.83	104.36	117.20
1	A	382	ASN	N-CA-C	-5.83	95.27	111.00
1	B	382	ASN	N-CA-C	-5.81	95.31	111.00
1	B	471	TYR	N-CA-C	5.74	126.51	111.00
1	A	471	TYR	N-CA-C	5.73	126.46	111.00
1	A	481	LEU	CA-C-N	-5.67	104.72	117.20
1	B	481	LEU	CA-C-N	-5.67	104.72	117.20
1	A	374	ASP	C-N-CA	-5.67	98.20	122.00
1	B	374	ASP	C-N-CA	-5.67	98.20	122.00
1	B	403	ASN	N-CA-C	-5.63	95.81	111.00
1	A	403	ASN	N-CA-C	-5.62	95.83	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	221	PHE	CA-C-N	5.58	129.48	117.20
1	A	221	PHE	CA-C-N	5.57	129.46	117.20
1	A	505	GLY	N-CA-C	5.57	127.02	113.10
1	B	505	GLY	N-CA-C	5.54	126.96	113.10
1	B	502	LEU	CB-CA-C	-5.54	99.67	110.20
1	A	502	LEU	CB-CA-C	-5.52	99.71	110.20
1	A	157	GLU	C-N-CD	-5.48	108.54	120.60
1	B	157	GLU	C-N-CD	-5.47	108.57	120.60
1	B	519	ASN	N-CA-C	5.35	125.45	111.00
1	A	519	ASN	N-CA-C	5.35	125.44	111.00
1	A	405	THR	N-CA-C	5.33	125.40	111.00
1	B	405	THR	N-CA-C	5.32	125.35	111.00
1	A	367	LEU	CA-CB-CG	-5.31	103.08	115.30
1	B	367	LEU	CA-CB-CG	-5.29	103.12	115.30
1	A	521	GLN	N-CA-C	-5.21	96.93	111.00
1	B	521	GLN	N-CA-C	-5.21	96.94	111.00
1	A	290	PHE	O-C-N	5.19	131.01	122.70
1	A	532	CYS	N-CA-CB	-5.16	101.31	110.60
1	B	290	PHE	O-C-N	5.16	130.96	122.70
1	B	520	PRO	C-N-CA	5.15	134.58	121.70
1	B	532	CYS	N-CA-CB	-5.14	101.35	110.60
1	A	520	PRO	C-N-CA	5.13	134.54	121.70
1	A	18	PRO	CA-CB-CG	-5.13	94.25	104.00
1	B	522	LEU	N-CA-C	-5.12	97.17	111.00
1	A	522	LEU	N-CA-C	-5.11	97.19	111.00
1	B	18	PRO	CA-CB-CG	-5.11	94.28	104.00
1	A	339	VAL	N-CA-C	5.11	124.80	111.00
1	B	339	VAL	N-CA-C	5.10	124.77	111.00
1	B	16	PRO	C-N-CA	-5.09	108.98	121.70
1	A	16	PRO	C-N-CA	-5.07	109.02	121.70
1	A	332	PHE	N-CA-C	-5.04	97.39	111.00
1	B	234	GLU	O-C-N	5.03	130.75	122.70
1	B	332	PHE	N-CA-C	-5.03	97.43	111.00
1	A	470	PRO	N-CA-C	5.02	125.16	112.10
1	B	221	PHE	N-CA-C	5.02	124.56	111.00
1	A	539	CYS	N-CA-C	5.01	124.53	111.00
1	B	470	PRO	N-CA-C	5.01	125.13	112.10
1	B	539	CYS	N-CA-C	5.01	124.53	111.00
1	A	221	PHE	N-CA-C	5.01	124.52	111.00
1	A	234	GLU	O-C-N	5.00	130.71	122.70

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	490	LYS	CA

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	17	PHE	Sidechain
1	A	18	PRO	Mainchain
1	A	222	ASP	Mainchain
1	A	520	PRO	Mainchain
1	B	17	PHE	Sidechain
1	B	18	PRO	Mainchain
1	B	222	ASP	Mainchain
1	B	520	PRO	Mainchain

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	4191	0	4085	709	0
1	B	4191	0	4090	721	0
2	A	182	0	169	94	0
2	B	182	0	169	93	0
3	A	28	0	24	9	0
3	B	28	0	24	9	0
4	A	12	0	0	0	0
4	B	12	0	0	0	0
All	All	8826	0	8561	1395	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 80.

All (1395) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:464:ILE:HD12	1:B:465:PRO:CD	1.30	1.58
1:A:464:ILE:HD12	1:A:465:PRO:CD	1.30	1.55
1:A:87:PRO:CG	1:B:89:GLU:HB3	1.16	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:464:ILE:CD1	1:B:465:PRO:HD2	1.50	1.41
1:A:464:ILE:CD1	1:A:465:PRO:HD2	1.50	1.37
1:A:87:PRO:CG	1:B:89:GLU:CB	2.03	1.36
1:A:82:SER:O	1:B:91:PRO:HD2	1.18	1.32
1:A:82:SER:OG	1:B:91:PRO:CB	1.79	1.28
1:A:31:PHE:HB2	1:B:93:GLU:OE2	1.08	1.25
1:A:82:SER:OG	1:B:91:PRO:HB2	1.12	1.23
1:B:540:GLN:O	1:B:540:GLN:CD	1.79	1.20
1:A:87:PRO:HG3	1:B:89:GLU:CB	1.66	1.19
1:A:540:GLN:CD	1:A:540:GLN:O	1.79	1.19
1:A:31:PHE:CB	1:B:93:GLU:OE2	1.90	1.18
1:B:450:GLN:HG2	1:B:532:CYS:O	1.43	1.18
1:A:84:ASN:HB2	1:B:79:HIS:CE1	1.77	1.17
1:A:423:THR:HB	2:A:810:NAG:C7	1.76	1.16
1:B:469:TYR:CG	1:B:470:PRO:HD2	1.81	1.16
1:B:482:THR:HG23	1:B:499:THR:CG2	1.74	1.16
1:A:482:THR:HG23	1:A:499:THR:CG2	1.75	1.15
1:B:234:GLU:H	1:B:235:ILE:HG23	1.08	1.15
1:A:450:GLN:HG2	1:A:532:CYS:O	1.44	1.15
1:A:8:LYS:H	1:A:8:LYS:HD2	1.04	1.15
1:A:474:SER:HB2	1:A:512:LEU:HG	1.25	1.15
1:A:469:TYR:CG	1:A:470:PRO:HD2	1.81	1.14
1:B:423:THR:HB	2:B:810:NAG:C7	1.76	1.13
1:B:8:LYS:H	1:B:8:LYS:HD2	1.04	1.13
1:B:301:THR:HG21	2:B:805:NAG:H82	1.29	1.12
1:B:403:ASN:HB2	2:B:902:NAG:H83	1.30	1.12
1:B:154:ASP:C	2:B:801:NAG:H82	1.70	1.12
1:A:89:GLU:OE1	1:B:1:ASP:C	1.88	1.11
1:B:338:ARG:HD3	1:B:352:ILE:HG22	1.26	1.11
1:A:154:ASP:C	2:A:801:NAG:H82	1.70	1.10
1:B:222:ASP:OD1	1:B:222:ASP:O	1.69	1.10
1:B:227:THR:HG21	2:B:807:NAG:C8	1.82	1.10
1:A:32:ASN:HD21	1:A:83:GLU:HB2	0.98	1.10
1:A:227:THR:HG21	2:A:807:NAG:C8	1.82	1.09
1:A:234:GLU:H	1:A:235:ILE:HG23	1.08	1.09
1:A:301:THR:HG21	2:A:805:NAG:H82	1.29	1.09
1:A:222:ASP:OD1	1:A:222:ASP:O	1.69	1.09
1:A:90:GLU:O	1:B:1:ASP:OD1	1.70	1.08
1:A:338:ARG:HD3	1:A:352:ILE:HG22	1.26	1.07
1:A:482:THR:HG23	1:A:499:THR:HG22	1.09	1.07
1:A:485:ALA:O	1:A:486:GLU:HG2	1.54	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:32:ASN:HD21	1:B:83:GLU:HB2	0.98	1.07
1:B:450:GLN:CG	1:B:532:CYS:O	2.02	1.07
1:A:450:GLN:CG	1:A:532:CYS:O	2.03	1.07
1:B:485:ALA:O	1:B:486:GLU:HG2	1.54	1.07
1:A:335:ALA:HB1	3:A:811:NDG:O6	1.54	1.06
1:A:403:ASN:HB2	2:A:902:NAG:H83	1.30	1.06
1:B:464:ILE:CD1	1:B:465:PRO:CD	2.20	1.06
1:B:474:SER:HB2	1:B:512:LEU:HG	1.25	1.06
1:A:290:PHE:HB2	1:A:292:LEU:N	1.69	1.06
1:B:335:ALA:HB1	3:B:811:NDG:O6	1.55	1.06
1:B:482:THR:HG23	1:B:499:THR:HG22	1.09	1.06
1:B:290:PHE:HB2	1:B:292:LEU:N	1.69	1.06
1:A:90:GLU:HB2	1:B:2:TRP:HB2	1.35	1.05
1:B:337:SER:HA	1:B:427:ILE:HG23	1.38	1.05
1:A:87:PRO:CD	1:B:89:GLU:HB3	1.86	1.05
1:B:290:PHE:HB2	1:B:292:LEU:H	0.89	1.05
1:A:84:ASN:CB	1:B:79:HIS:HE1	1.70	1.04
1:A:469:TYR:CD1	1:A:470:PRO:HD2	1.92	1.04
1:B:469:TYR:CD1	1:B:470:PRO:HD2	1.91	1.03
1:A:464:ILE:CD1	1:A:465:PRO:CD	2.20	1.03
1:A:522:LEU:HD22	1:A:523:THR:HB	1.39	1.03
1:B:522:LEU:HD22	1:B:523:THR:HB	1.39	1.03
1:B:482:THR:CG2	1:B:499:THR:N	2.22	1.03
1:A:84:ASN:HB2	1:B:79:HIS:HE1	0.91	1.03
1:A:482:THR:CG2	1:A:499:THR:N	2.22	1.02
1:A:432:ASP:OD2	1:A:464:ILE:HG22	1.60	1.02
1:A:482:THR:HG21	1:A:499:THR:H	1.23	1.02
1:B:403:ASN:HB2	2:B:902:NAG:C8	1.90	1.02
1:B:432:ASP:OD2	1:B:464:ILE:HG22	1.60	1.02
1:A:403:ASN:HB2	2:A:902:NAG:C8	1.90	1.01
1:B:450:GLN:HB2	1:B:533:GLU:HA	1.41	1.01
1:A:337:SER:HA	1:A:427:ILE:HG23	1.38	1.01
1:B:274:ASP:O	1:B:278:ASN:HA	1.61	1.01
1:A:450:GLN:HB2	1:A:533:GLU:HA	1.41	1.01
1:B:188:THR:HG23	1:B:208:ILE:HG12	1.43	1.00
1:A:82:SER:HG	1:B:91:PRO:CB	1.61	1.00
1:A:290:PHE:HB2	1:A:292:LEU:H	0.88	1.00
1:A:274:ASP:O	1:A:278:ASN:HA	1.61	1.00
1:A:188:THR:HG23	1:A:208:ILE:HG12	1.43	0.99
1:A:482:THR:CG2	1:A:499:THR:H	1.76	0.99
1:A:523:THR:HG23	1:A:524:VAL:H	1.26	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:523:THR:HG23	1:B:524:VAL:H	1.26	0.99
1:B:366:LYS:HG3	1:B:367:LEU:H	1.28	0.99
1:B:482:THR:HG21	1:B:499:THR:H	1.23	0.99
1:B:320:THR:HG21	2:B:807:NAG:N2	1.78	0.98
1:A:320:THR:HG21	2:A:807:NAG:N2	1.78	0.98
1:A:82:SER:O	1:B:91:PRO:CD	2.12	0.97
1:B:482:THR:CG2	1:B:499:THR:H	1.76	0.97
1:A:8:LYS:H	1:A:8:LYS:CD	1.74	0.97
1:A:366:LYS:HG3	1:A:367:LEU:H	1.28	0.96
1:A:32:ASN:HD21	1:A:83:GLU:CB	1.79	0.96
1:A:235:ILE:CG1	1:A:287:GLY:HA2	1.96	0.96
1:B:8:LYS:H	1:B:8:LYS:CD	1.74	0.96
1:B:32:ASN:HD21	1:B:83:GLU:CB	1.79	0.96
1:B:235:ILE:CG1	1:B:287:GLY:HA2	1.96	0.96
1:B:227:THR:HG21	2:B:807:NAG:H83	1.48	0.96
1:A:290:PHE:CB	1:A:292:LEU:H	1.79	0.95
1:A:82:SER:OG	1:B:91:PRO:CA	2.14	0.94
1:A:366:LYS:CG	1:A:367:LEU:H	1.80	0.94
1:A:227:THR:HG21	2:A:807:NAG:H83	1.48	0.94
1:B:366:LYS:CG	1:B:367:LEU:H	1.80	0.94
1:B:290:PHE:CB	1:B:292:LEU:H	1.79	0.93
1:A:289:ASP:O	1:A:290:PHE:HB3	1.67	0.93
1:A:32:ASN:ND2	1:A:83:GLU:HB2	1.84	0.93
1:A:482:THR:HG21	1:A:499:THR:N	1.81	0.93
1:A:396:ARG:HH22	1:A:464:ILE:HB	1.33	0.93
1:B:464:ILE:HD12	1:B:465:PRO:HD2	0.94	0.93
1:B:289:ASP:O	1:B:290:PHE:HB3	1.67	0.93
1:A:195:ASP:HB2	1:A:201:LEU:H	1.34	0.92
1:A:87:PRO:HG2	1:B:89:GLU:CB	2.00	0.92
1:A:87:PRO:HG2	1:B:89:GLU:HB3	1.49	0.92
2:A:805:NAG:H62	2:A:806:NAG:C7	2.00	0.92
1:B:27:ASN:HD22	1:B:28:LYS:N	1.66	0.92
1:A:446:THR:HG23	1:A:539:CYS:SG	2.09	0.92
1:B:320:THR:HG21	2:B:807:NAG:HN2	1.31	0.92
1:A:335:ALA:CB	3:A:811:NDG:O6	2.18	0.92
1:B:446:THR:HG23	1:B:539:CYS:SG	2.09	0.92
1:A:27:ASN:HD22	1:A:28:LYS:N	1.66	0.92
1:A:352:ILE:HG13	1:A:388:VAL:HB	1.51	0.92
1:B:403:ASN:HB2	2:B:902:NAG:C7	2.00	0.92
1:A:227:THR:HG21	2:A:807:NAG:C7	1.99	0.92
1:A:517:GLN:O	1:A:519:ASN:N	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:227:THR:HG21	2:B:807:NAG:C7	1.99	0.91
1:B:32:ASN:ND2	1:B:83:GLU:HB2	1.84	0.91
1:B:195:ASP:HB2	1:B:201:LEU:H	1.34	0.91
1:B:464:ILE:HD12	1:B:465:PRO:HD3	1.53	0.91
1:A:403:ASN:HB2	2:A:902:NAG:C7	2.00	0.91
1:A:404:ASN:O	1:A:404:ASN:ND2	2.03	0.91
2:B:805:NAG:H62	2:B:806:NAG:C7	1.99	0.91
1:B:335:ALA:CB	3:B:811:NDG:O6	2.18	0.91
1:B:396:ARG:HH22	1:B:464:ILE:HB	1.33	0.91
1:A:320:THR:HG21	2:A:807:NAG:HN2	1.31	0.91
2:A:805:NAG:O5	2:A:806:NAG:H83	1.71	0.91
1:B:352:ILE:HG13	1:B:388:VAL:HB	1.51	0.91
1:A:90:GLU:HB2	1:B:2:TRP:CB	2.00	0.90
1:B:404:ASN:O	1:B:404:ASN:ND2	2.03	0.90
1:A:464:ILE:HD12	1:A:465:PRO:HD2	0.94	0.90
1:B:518:ASN:O	1:B:520:PRO:HD3	1.72	0.90
1:A:340:ASP:HA	1:A:429:HIS:HB3	1.53	0.90
1:A:378:TRP:HB2	1:A:379:LEU:HD23	1.53	0.90
1:A:234:GLU:N	1:A:235:ILE:HG23	1.86	0.90
1:B:482:THR:HG21	1:B:499:THR:N	1.81	0.90
2:B:805:NAG:O5	2:B:806:NAG:H83	1.71	0.90
1:A:518:ASN:O	1:A:520:PRO:HD3	1.72	0.90
1:B:396:ARG:NH2	1:B:464:ILE:CG2	2.35	0.90
1:B:517:GLN:O	1:B:519:ASN:N	2.03	0.90
1:A:374:ASP:O	1:A:375:PRO:C	2.06	0.89
1:A:396:ARG:NH2	1:A:464:ILE:CG2	2.35	0.89
1:A:464:ILE:HD11	1:A:465:PRO:HD2	1.53	0.89
1:B:374:ASP:O	1:B:375:PRO:C	2.06	0.89
1:B:234:GLU:N	1:B:235:ILE:HG23	1.86	0.89
1:A:523:THR:HG23	1:A:524:VAL:CG2	2.03	0.89
1:A:371:ILE:CD1	1:A:381:VAL:HG11	2.03	0.89
1:A:449:ASP:H	1:A:532:CYS:HB3	1.37	0.89
1:B:338:ARG:HD3	1:B:352:ILE:CG2	2.02	0.89
1:B:464:ILE:HD11	1:B:465:PRO:HD2	1.53	0.89
1:B:154:ASP:HB3	1:B:155:PRO:HD2	1.54	0.89
1:B:523:THR:HG23	1:B:524:VAL:CG2	2.03	0.89
1:A:8:LYS:HD2	1:A:8:LYS:N	1.87	0.89
1:B:8:LYS:HD2	1:B:8:LYS:N	1.87	0.88
1:B:371:ILE:CD1	1:B:381:VAL:HG11	2.03	0.88
1:A:338:ARG:HD3	1:A:352:ILE:CG2	2.02	0.88
1:B:340:ASP:HA	1:B:429:HIS:HB3	1.53	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:449:ASP:H	1:B:532:CYS:HB3	1.37	0.88
1:A:343:GLU:HB3	1:A:433:VAL:HG21	1.55	0.88
1:B:257:ALA:O	1:B:273:THR:HG21	1.74	0.88
1:B:378:TRP:HB2	1:B:379:LEU:HD23	1.53	0.88
1:A:87:PRO:CD	1:B:89:GLU:CB	2.46	0.87
1:A:221:PHE:HE1	1:A:315:SER:O	1.56	0.87
1:B:483:TRP:CZ3	1:B:498:PRO:HG3	2.09	0.87
1:A:154:ASP:HB3	1:A:155:PRO:HD2	1.54	0.87
1:A:318:THR:HG21	2:A:806:NAG:H5	1.56	0.87
1:A:333:VAL:HB	1:A:334:PRO:HD3	1.56	0.87
1:A:464:ILE:HD12	1:A:465:PRO:HD3	1.53	0.87
1:A:441:SER:OG	1:A:442:PRO:HD3	1.75	0.87
1:B:441:SER:OG	1:B:442:PRO:HD3	1.75	0.87
1:B:320:THR:HG21	2:B:807:NAG:C2	2.05	0.87
1:A:257:ALA:O	1:A:273:THR:HG21	1.74	0.86
1:A:320:THR:HG21	2:A:807:NAG:C2	2.05	0.86
1:A:440:PRO:CD	1:A:522:LEU:HD12	2.05	0.86
1:B:318:THR:HG21	2:B:806:NAG:H5	1.56	0.86
1:A:483:TRP:CZ3	1:A:498:PRO:HG3	2.09	0.86
1:A:523:THR:HG23	1:A:524:VAL:N	1.90	0.86
1:B:486:GLU:HB2	1:B:495:LEU:HB2	1.56	0.86
1:A:82:SER:HG	1:B:91:PRO:HB2	0.90	0.86
1:B:343:GLU:HB3	1:B:433:VAL:HG21	1.55	0.86
1:A:486:GLU:HB2	1:A:495:LEU:HB2	1.56	0.86
1:B:423:THR:CB	2:B:810:NAG:C7	2.54	0.86
1:A:90:GLU:CB	1:B:2:TRP:HB2	2.06	0.86
1:B:221:PHE:HE1	1:B:315:SER:O	1.56	0.86
1:B:333:VAL:HB	1:B:334:PRO:HD3	1.56	0.86
1:A:235:ILE:HG13	1:A:287:GLY:HA2	1.58	0.85
1:B:438:PRO:HB3	1:B:471:TYR:HE2	1.41	0.85
1:B:440:PRO:CD	1:B:522:LEU:HD12	2.05	0.85
1:A:423:THR:CB	2:A:810:NAG:C7	2.54	0.85
1:B:451:ASN:N	1:B:533:GLU:O	2.10	0.85
1:A:464:ILE:HD12	1:A:465:PRO:N	1.91	0.85
1:A:483:TRP:HZ2	1:A:507:TYR:CE1	1.95	0.85
1:B:464:ILE:HD12	1:B:465:PRO:N	1.91	0.85
1:A:375:PRO:HB3	1:A:400:TYR:CE2	2.12	0.85
1:B:483:TRP:HZ2	1:B:507:TYR:CE1	1.95	0.85
1:A:87:PRO:HG2	1:B:89:GLU:CG	2.06	0.84
1:B:483:TRP:HZ2	1:B:507:TYR:HE1	1.24	0.84
1:A:440:PRO:HD2	1:A:522:LEU:HD12	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:523:THR:HG23	1:B:524:VAL:N	1.90	0.84
1:A:89:GLU:OE2	1:B:3:VAL:HG13	1.76	0.84
1:A:483:TRP:HZ2	1:A:507:TYR:HE1	1.24	0.84
1:B:235:ILE:HG13	1:B:287:GLY:HA2	1.58	0.84
1:A:230:VAL:O	1:A:324:GLU:N	2.11	0.84
1:A:396:ARG:NE	1:A:432:ASP:HB2	1.93	0.83
1:A:451:ASN:N	1:A:533:GLU:O	2.10	0.83
1:A:469:TYR:CG	1:A:470:PRO:CD	2.61	0.83
1:B:375:PRO:HB3	1:B:400:TYR:CE2	2.12	0.83
1:A:423:THR:HB	2:A:810:NAG:N2	1.93	0.83
1:B:147:SER:OG	1:B:167:ARG:HD2	1.78	0.83
1:A:32:ASN:ND2	1:A:83:GLU:H	1.77	0.83
1:A:155:PRO:HB2	2:A:801:NAG:H81	1.59	0.83
1:B:230:VAL:O	1:B:324:GLU:N	2.11	0.83
1:B:440:PRO:HD2	1:B:522:LEU:HD12	1.59	0.83
1:A:423:THR:CB	2:A:810:NAG:N2	2.42	0.83
1:A:89:GLU:OE1	1:B:1:ASP:CA	2.09	0.83
1:A:234:GLU:H	1:A:235:ILE:CG2	1.92	0.83
1:A:289:ASP:O	1:A:289:ASP:OD2	1.97	0.83
1:B:289:ASP:O	1:B:289:ASP:OD2	1.97	0.83
1:B:396:ARG:NE	1:B:432:ASP:HB2	1.93	0.83
1:A:87:PRO:HD3	1:B:89:GLU:HB2	1.61	0.83
1:B:423:THR:HB	2:B:810:NAG:N2	1.93	0.83
1:B:448:CYS:O	1:B:452:PRO:HG3	1.79	0.83
1:A:438:PRO:HB3	1:A:471:TYR:HE2	1.41	0.82
1:A:448:CYS:O	1:A:452:PRO:HG3	1.79	0.82
1:B:28:LYS:HD3	1:B:88:VAL:HG12	1.61	0.82
1:B:32:ASN:ND2	1:B:83:GLU:H	1.77	0.82
1:B:423:THR:CB	2:B:810:NAG:N2	2.42	0.82
1:A:540:GLN:O	1:A:540:GLN:OE1	1.97	0.82
1:B:154:ASP:HB3	2:B:801:NAG:HN2	1.45	0.82
1:A:87:PRO:HD3	1:B:89:GLU:CB	2.10	0.82
1:A:154:ASP:HB3	2:A:801:NAG:N2	1.95	0.82
1:B:155:PRO:HB2	2:B:801:NAG:H81	1.59	0.82
1:A:154:ASP:HB3	2:A:801:NAG:HN2	1.44	0.82
1:B:482:THR:HG21	1:B:500:GLN:N	1.94	0.82
1:B:154:ASP:HB3	2:B:801:NAG:N2	1.95	0.81
1:A:446:THR:HG21	1:A:537:ILE:O	1.79	0.81
1:B:469:TYR:CG	1:B:470:PRO:CD	2.61	0.81
1:B:299:GLN:HG2	1:B:318:THR:HG23	1.63	0.81
1:B:290:PHE:CE2	1:B:293:ARG:HB2	2.16	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:469:TYR:CD2	1:A:470:PRO:HD2	2.16	0.81
1:A:482:THR:HG21	1:A:500:GLN:N	1.94	0.81
1:B:446:THR:HG21	1:B:537:ILE:O	1.79	0.81
1:A:265:GLU:HB3	1:A:268:PHE:HE2	1.46	0.81
1:A:486:GLU:O	1:A:494:MET:HA	1.81	0.81
1:B:265:GLU:HB3	1:B:268:PHE:HE2	1.46	0.81
1:A:290:PHE:CE2	1:A:293:ARG:HB2	2.16	0.81
1:A:517:GLN:C	1:A:519:ASN:H	1.84	0.81
1:B:277:SER:C	1:B:278:ASN:HD22	1.83	0.81
1:A:396:ARG:HH21	1:A:464:ILE:HG22	1.46	0.80
1:B:290:PHE:HD2	1:B:293:ARG:H	1.28	0.80
1:A:299:GLN:HG2	1:A:318:THR:HG23	1.62	0.80
1:B:540:GLN:O	1:B:540:GLN:OE1	1.97	0.80
1:A:28:LYS:HD3	1:A:88:VAL:HG12	1.61	0.80
1:A:84:ASN:CG	1:B:77:SER:OG	2.19	0.80
1:A:432:ASP:OD2	1:A:464:ILE:CG2	2.30	0.80
1:B:432:ASP:OD2	1:B:464:ILE:CG2	2.30	0.80
1:B:517:GLN:C	1:B:519:ASN:H	1.84	0.80
1:B:486:GLU:O	1:B:494:MET:HA	1.81	0.80
1:A:365:GLN:HG3	1:A:365:GLN:O	1.82	0.80
1:B:469:TYR:CD2	1:B:470:PRO:HD2	2.16	0.80
1:A:82:SER:C	1:B:91:PRO:HD2	2.01	0.79
1:B:396:ARG:HD3	1:B:431:LEU:C	2.02	0.79
1:A:27:ASN:HD22	1:A:27:ASN:C	1.85	0.79
1:A:127:VAL:HG13	1:A:128:MET:H	1.46	0.79
1:A:290:PHE:HD2	1:A:293:ARG:H	1.28	0.79
1:B:540:GLN:O	1:B:540:GLN:CG	2.31	0.79
1:B:195:ASP:HB3	1:B:200:GLY:HA3	1.65	0.79
1:B:482:THR:OG1	1:B:500:GLN:HG2	1.82	0.79
1:B:232:GLU:HG3	1:B:290:PHE:N	1.98	0.79
1:B:523:THR:CG2	1:B:524:VAL:H	1.94	0.79
1:A:496:LEU:HD21	1:A:509:ILE:HD13	1.63	0.79
1:B:27:ASN:HD22	1:B:27:ASN:C	1.85	0.79
1:B:496:LEU:HD21	1:B:509:ILE:HD13	1.63	0.79
2:B:904:NAG:O7	2:B:904:NAG:H3	1.82	0.79
1:A:195:ASP:HB3	1:A:200:GLY:HA3	1.65	0.79
1:A:485:ALA:O	1:A:486:GLU:CG	2.30	0.79
1:A:449:ASP:HB3	1:A:532:CYS:H	1.47	0.79
1:B:127:VAL:HG13	1:B:128:MET:H	1.46	0.79
1:A:406:TYR:CD1	2:A:808:NAG:H83	2.17	0.79
1:B:234:GLU:H	1:B:235:ILE:CG2	1.92	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:365:GLN:O	1:B:365:GLN:HG3	1.82	0.79
1:A:222:ASP:OD1	1:A:222:ASP:C	2.20	0.79
1:A:277:SER:C	1:A:278:ASN:HD22	1.84	0.79
1:A:155:PRO:C	1:A:157:GLU:H	1.86	0.78
1:A:156:GLU:HG3	1:A:160:PRO:HB3	1.66	0.78
1:A:396:ARG:HD3	1:A:431:LEU:C	2.03	0.78
1:B:396:ARG:HH21	1:B:464:ILE:HG22	1.46	0.78
1:A:482:THR:OG1	1:A:500:GLN:HG2	1.82	0.78
1:B:155:PRO:C	1:B:157:GLU:H	1.86	0.78
1:B:147:SER:OG	1:B:167:ARG:CG	2.32	0.78
1:B:485:ALA:O	1:B:486:GLU:CG	2.30	0.78
1:B:406:TYR:CD1	2:B:808:NAG:H83	2.17	0.78
2:B:809:NAG:H61	2:B:810:NAG:H62	1.65	0.78
2:A:904:NAG:O7	2:A:904:NAG:H3	1.82	0.78
1:B:147:SER:OG	1:B:167:ARG:CD	2.32	0.78
1:A:154:ASP:CB	1:A:155:PRO:HD2	2.13	0.78
1:A:371:ILE:HD11	1:A:381:VAL:HG11	1.64	0.78
1:B:371:ILE:HD11	1:B:381:VAL:HG11	1.64	0.78
1:A:89:GLU:OE1	1:B:2:TRP:N	2.18	0.77
1:A:290:PHE:HZ	1:A:296:TYR:HH	1.31	0.77
1:A:432:ASP:CG	1:A:464:ILE:HG22	2.05	0.77
1:B:154:ASP:CB	1:B:155:PRO:HD2	2.13	0.77
1:B:524:VAL:CG2	2:B:904:NAG:H81	2.14	0.77
1:A:232:GLU:HG3	1:A:290:PHE:N	1.98	0.77
1:A:540:GLN:O	1:A:540:GLN:CG	2.30	0.77
1:B:501:GLN:HG2	1:B:501:GLN:O	1.84	0.77
1:A:89:GLU:CD	1:B:1:ASP:H3	1.86	0.77
1:A:523:THR:CG2	1:A:524:VAL:N	2.46	0.77
1:B:301:THR:HG21	2:B:805:NAG:C8	2.12	0.77
1:B:523:THR:HG23	1:B:524:VAL:HG22	1.67	0.77
1:A:301:THR:HG21	2:A:805:NAG:C8	2.12	0.77
1:A:505:GLY:C	1:A:506:ASP:OD1	2.23	0.77
2:A:809:NAG:H61	2:A:810:NAG:H62	1.65	0.77
1:B:222:ASP:OD1	1:B:222:ASP:C	2.20	0.77
1:B:505:GLY:C	1:B:506:ASP:OD1	2.23	0.77
1:B:362:GLN:O	1:B:364:ILE:HG23	1.85	0.77
1:B:194:THR:HB	1:B:198:GLY:HA2	1.66	0.77
1:B:449:ASP:HB3	1:B:532:CYS:H	1.47	0.77
1:A:238:GLU:HA	1:A:283:THR:HG22	1.66	0.76
1:B:223:PRO:HD2	1:B:226:TYR:OH	1.85	0.76
1:B:186:GLU:O	2:B:801:NAG:O7	2.03	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:238:GLU:HA	1:B:283:THR:HG22	1.66	0.76
1:B:432:ASP:CG	1:B:464:ILE:HG22	2.05	0.76
1:A:524:VAL:CG2	2:A:904:NAG:H81	2.14	0.76
1:A:272:THR:HG22	1:A:273:THR:H	1.51	0.76
1:A:366:LYS:CG	1:A:367:LEU:N	2.48	0.76
1:B:156:GLU:HG3	1:B:160:PRO:HB3	1.66	0.76
1:A:194:THR:HB	1:A:198:GLY:HA2	1.66	0.76
1:A:501:GLN:O	1:A:501:GLN:HG2	1.84	0.76
1:B:188:THR:HG23	1:B:208:ILE:CG1	2.16	0.76
1:A:362:GLN:O	1:A:364:ILE:HG23	1.85	0.76
1:B:523:THR:CG2	1:B:524:VAL:N	2.46	0.76
1:A:188:THR:HG23	1:A:208:ILE:CG1	2.16	0.75
1:A:371:ILE:HD12	1:A:410:MET:HB3	1.68	0.75
1:A:241:ARG:HE	1:A:281:ILE:HD12	1.51	0.75
1:A:289:ASP:O	1:A:290:PHE:CB	2.25	0.75
1:A:448:CYS:SG	1:A:537:ILE:HG22	2.27	0.75
1:A:523:THR:HG23	1:A:524:VAL:HG22	1.67	0.75
1:B:290:PHE:CD2	1:B:293:ARG:N	2.55	0.75
1:B:440:PRO:HB3	1:B:457:LEU:HD21	1.68	0.75
1:A:440:PRO:HB3	1:A:457:LEU:HD21	1.67	0.75
1:A:90:GLU:HB3	1:B:2:TRP:HD1	1.52	0.75
1:A:196:LEU:HB2	1:A:199:ALA:HB3	1.67	0.75
1:B:196:LEU:HB2	1:B:199:ALA:HB3	1.67	0.75
1:A:186:GLU:O	2:A:801:NAG:O7	2.03	0.75
1:A:223:PRO:HD2	1:A:226:TYR:OH	1.85	0.75
1:B:272:THR:HG22	1:B:273:THR:H	1.51	0.75
1:B:290:PHE:HZ	1:B:296:TYR:HH	1.33	0.75
1:A:87:PRO:HG3	1:B:89:GLU:HB3	0.75	0.75
1:B:396:ARG:NH2	1:B:464:ILE:HB	2.02	0.75
1:A:84:ASN:HD22	1:B:79:HIS:CE1	2.04	0.75
1:A:90:GLU:C	1:B:1:ASP:OD1	2.26	0.75
1:A:396:ARG:NH2	1:A:464:ILE:HB	2.02	0.75
1:B:449:ASP:HB3	1:B:532:CYS:N	2.02	0.75
1:B:450:GLN:HG3	1:B:533:GLU:OE2	1.87	0.74
1:A:449:ASP:HB3	1:A:532:CYS:N	2.02	0.74
1:B:241:ARG:HE	1:B:281:ILE:HD12	1.51	0.74
1:B:448:CYS:SG	1:B:537:ILE:HG22	2.27	0.74
1:A:450:GLN:HG3	1:A:533:GLU:OE2	1.88	0.74
1:B:364:ILE:O	1:B:364:ILE:HG13	1.87	0.74
1:A:396:ARG:HH21	1:A:464:ILE:CG2	1.99	0.74
1:A:364:ILE:HG13	1:A:364:ILE:O	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:366:LYS:CG	1:B:367:LEU:N	2.48	0.74
1:B:223:PRO:HB2	1:B:226:TYR:CE2	2.23	0.74
1:B:298:LEU:N	1:B:298:LEU:HD23	2.03	0.74
1:A:87:PRO:HG2	1:B:89:GLU:HG3	1.67	0.73
1:B:451:ASN:O	1:B:534:GLY:HA2	1.88	0.73
1:A:290:PHE:HE2	1:A:293:ARG:HB2	1.52	0.73
1:B:371:ILE:HD12	1:B:410:MET:HB3	1.68	0.73
1:A:223:PRO:HB2	1:A:226:TYR:CE2	2.23	0.73
1:A:333:VAL:CB	1:A:334:PRO:HD3	2.18	0.73
1:A:373:ASN:ND2	1:A:374:ASP:H	1.87	0.73
1:B:373:ASN:ND2	1:B:374:ASP:H	1.87	0.73
1:A:276:GLU:HG3	1:A:277:SER:H	1.54	0.73
1:A:474:SER:CB	1:A:512:LEU:HG	2.14	0.73
1:A:273:THR:O	2:A:803:NAG:H82	1.89	0.73
1:B:33:LYS:HB3	1:B:83:GLU:HG2	1.71	0.73
1:B:333:VAL:CB	1:B:334:PRO:HD3	2.18	0.73
1:A:320:THR:CG2	2:A:807:NAG:N2	2.52	0.72
1:B:273:THR:O	2:B:803:NAG:H82	1.89	0.72
1:B:396:ARG:HH21	1:B:464:ILE:CG2	1.98	0.72
1:A:35:TYR:HB3	1:B:90:GLU:OE1	1.89	0.72
1:B:320:THR:CG2	2:B:807:NAG:N2	2.52	0.72
1:A:298:LEU:N	1:A:298:LEU:HD23	2.03	0.72
1:A:451:ASN:O	1:A:534:GLY:HA2	1.88	0.72
1:A:511:VAL:HG23	1:A:523:THR:O	1.89	0.72
1:A:87:PRO:CG	1:B:89:GLU:CG	2.67	0.72
1:A:342:SER:HA	1:A:431:LEU:HB2	1.71	0.72
1:B:342:SER:HA	1:B:431:LEU:HB2	1.71	0.72
1:B:276:GLU:HG3	1:B:277:SER:H	1.54	0.72
1:B:276:GLU:CG	1:B:277:SER:H	2.03	0.72
1:B:366:LYS:HG3	1:B:367:LEU:N	2.04	0.72
1:B:394:LEU:HD12	1:B:394:LEU:N	2.05	0.72
1:A:33:LYS:HB3	1:A:83:GLU:HG2	1.71	0.72
1:B:474:SER:CB	1:B:512:LEU:HG	2.14	0.72
1:A:28:LYS:NZ	1:B:4:ILE:H	1.87	0.71
1:A:90:GLU:HB3	1:B:2:TRP:CD1	2.25	0.71
1:A:405:THR:OG1	1:A:406:TYR:N	2.22	0.71
1:A:364:ILE:O	1:A:364:ILE:CG1	2.37	0.71
1:A:227:THR:O	2:A:812:NAG:O5	2.09	0.71
1:A:482:THR:CG2	1:A:499:THR:CG2	2.62	0.71
1:B:511:VAL:HG23	1:B:523:THR:O	1.89	0.71
1:A:276:GLU:CG	1:A:277:SER:H	2.03	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:320:THR:CG2	2:A:807:NAG:HN2	2.02	0.71
1:A:394:LEU:N	1:A:394:LEU:HD12	2.05	0.71
1:B:364:ILE:O	1:B:364:ILE:CG1	2.37	0.71
1:A:434:ASN:OD1	1:A:467:ASN:HB3	1.91	0.71
1:B:227:THR:O	2:B:812:NAG:O5	2.09	0.71
1:B:414:ASP:HB3	1:B:420:GLY:HA3	1.73	0.71
1:B:229:LEU:HD23	1:B:322:THR:HB	1.73	0.71
1:A:290:PHE:CD2	1:A:293:ARG:N	2.55	0.71
1:A:474:SER:HB2	1:A:512:LEU:CG	2.15	0.71
1:B:316:THR:O	2:B:806:NAG:H82	1.91	0.71
1:A:187:TYR:HA	2:A:801:NAG:C7	2.21	0.71
1:A:368:SER:HG	1:A:370:PHE:HE1	1.39	0.71
1:A:438:PRO:HB3	1:A:471:TYR:CE2	2.26	0.71
1:A:366:LYS:HG3	1:A:367:LEU:N	2.04	0.70
1:A:414:ASP:HB3	1:A:420:GLY:HA3	1.73	0.70
1:B:290:PHE:HE2	1:B:293:ARG:HB2	1.52	0.70
1:B:403:ASN:CB	2:B:902:NAG:N2	2.54	0.70
1:B:434:ASN:OD1	1:B:467:ASN:HB3	1.90	0.70
1:B:482:THR:CG2	1:B:499:THR:CG2	2.62	0.70
1:B:438:PRO:HB3	1:B:471:TYR:CE2	2.26	0.70
1:A:316:THR:O	2:A:806:NAG:H82	1.91	0.70
1:B:187:TYR:HA	2:B:801:NAG:C7	2.21	0.70
1:A:403:ASN:CB	2:A:902:NAG:N2	2.54	0.70
1:B:320:THR:CG2	2:B:807:NAG:HN2	2.02	0.70
1:B:337:SER:CA	1:B:427:ILE:HG23	2.20	0.70
1:B:485:ALA:C	1:B:486:GLU:HG2	2.11	0.70
1:B:523:THR:HG23	1:B:524:VAL:HG23	1.74	0.70
1:A:289:ASP:O	1:A:289:ASP:CG	2.29	0.69
1:A:523:THR:HG23	1:A:524:VAL:HG23	1.74	0.69
1:A:53:ILE:HG13	1:A:59:TRP:O	1.93	0.69
1:A:229:LEU:HD23	1:A:322:THR:HB	1.73	0.69
1:A:485:ALA:C	1:A:486:GLU:HG2	2.11	0.69
1:B:27:ASN:C	1:B:27:ASN:ND2	2.46	0.69
1:B:186:GLU:OE1	2:B:801:NAG:H62	1.93	0.69
1:B:289:ASP:O	1:B:289:ASP:CG	2.30	0.69
1:B:483:TRP:CZ2	1:B:507:TYR:HE1	2.09	0.69
1:B:396:ARG:HE	1:B:432:ASP:HB2	1.57	0.69
1:A:27:ASN:C	1:A:27:ASN:ND2	2.46	0.69
1:B:53:ILE:HG13	1:B:59:TRP:O	1.93	0.69
1:B:289:ASP:O	1:B:290:PHE:CB	2.25	0.69
1:A:186:GLU:OE1	2:A:801:NAG:H62	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:396:ARG:HE	1:A:432:ASP:HB2	1.57	0.69
1:B:242:LEU:HD12	1:B:280:GLY:O	1.93	0.69
1:B:396:ARG:HD3	1:B:431:LEU:O	1.93	0.69
1:A:337:SER:CA	1:A:427:ILE:HG23	2.20	0.68
1:B:1:ASP:CG	1:B:2:TRP:H	1.96	0.68
1:B:282:LEU:HD23	1:B:283:THR:N	2.08	0.68
1:A:242:LEU:HD12	1:A:280:GLY:O	1.93	0.68
1:B:272:THR:HG22	1:B:273:THR:N	2.09	0.68
1:B:290:PHE:HZ	1:B:296:TYR:OH	1.77	0.68
1:B:396:ARG:HE	1:B:432:ASP:CB	2.07	0.68
1:A:282:LEU:HD23	1:A:283:THR:H	1.59	0.68
1:A:347:ARG:CD	1:A:392:GLY:H	2.07	0.68
1:B:155:PRO:HB2	2:B:801:NAG:C8	2.24	0.68
1:B:347:ARG:CD	1:B:392:GLY:H	2.07	0.68
1:A:282:LEU:HD23	1:A:283:THR:N	2.08	0.68
1:B:440:PRO:HA	1:B:458:THR:O	1.94	0.68
1:A:137:ASP:OD2	1:A:139:ILE:HG22	1.94	0.67
1:A:155:PRO:HB2	2:A:801:NAG:C8	2.24	0.67
1:A:272:THR:HG22	1:A:273:THR:N	2.09	0.67
1:A:482:THR:HG21	1:A:500:GLN:H	1.58	0.67
1:B:396:ARG:NH2	1:B:464:ILE:CB	2.58	0.67
1:A:232:GLU:HG2	1:A:289:ASP:HA	1.77	0.67
1:A:371:ILE:CG2	1:A:372:GLY:N	2.57	0.67
1:B:232:GLU:HG2	1:B:289:ASP:HA	1.77	0.67
1:B:371:ILE:CG2	1:B:372:GLY:N	2.57	0.67
1:B:401:VAL:HG13	1:B:405:THR:O	1.95	0.67
1:A:1:ASP:CG	1:A:2:TRP:H	1.96	0.67
2:A:902:NAG:O7	2:A:902:NAG:H3	1.95	0.67
1:B:333:VAL:HB	1:B:334:PRO:CD	2.24	0.67
1:B:347:ARG:CG	1:B:392:GLY:H	2.08	0.67
1:A:347:ARG:CG	1:A:392:GLY:H	2.08	0.67
1:A:195:ASP:HB2	1:A:201:LEU:N	2.08	0.67
1:A:290:PHE:HZ	1:A:296:TYR:OH	1.77	0.67
1:A:403:ASN:HB2	2:A:902:NAG:N2	2.10	0.67
1:A:423:THR:HB	2:A:810:NAG:C8	2.24	0.67
1:B:187:TYR:HA	2:B:801:NAG:C8	2.25	0.67
1:B:224:LYS:HE3	1:B:316:THR:O	1.95	0.67
1:A:224:LYS:HE3	1:A:316:THR:O	1.95	0.67
1:B:221:PHE:CE1	1:B:315:SER:O	2.45	0.67
1:B:403:ASN:HB2	2:B:902:NAG:N2	2.10	0.67
1:A:187:TYR:HA	2:A:801:NAG:C8	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:396:ARG:HD3	1:A:431:LEU:O	1.94	0.67
1:A:366:LYS:HG3	1:A:367:LEU:HG	1.77	0.66
1:B:423:THR:HB	2:B:810:NAG:C8	2.24	0.66
1:A:222:ASP:O	1:A:222:ASP:CG	2.32	0.66
1:A:347:ARG:HD2	1:A:392:GLY:H	1.60	0.66
1:A:396:ARG:NH2	1:A:464:ILE:CB	2.58	0.66
1:B:482:THR:HG21	1:B:500:GLN:H	1.58	0.66
1:A:440:PRO:HA	1:A:458:THR:O	1.94	0.66
2:B:902:NAG:O7	2:B:902:NAG:H3	1.95	0.66
1:A:396:ARG:HE	1:A:432:ASP:CB	2.07	0.66
1:B:282:LEU:HD23	1:B:283:THR:H	1.58	0.66
1:B:373:ASN:ND2	1:B:374:ASP:N	2.43	0.66
1:B:464:ILE:O	1:B:467:ASN:HB2	1.96	0.66
1:A:88:VAL:HA	1:B:92:MET:HG2	1.76	0.66
1:A:320:THR:HG21	2:A:807:NAG:H2	1.76	0.66
1:B:137:ASP:OD2	1:B:139:ILE:HG22	1.94	0.66
1:B:440:PRO:HD2	1:B:522:LEU:CD1	2.26	0.66
1:B:482:THR:OG1	1:B:500:GLN:CG	2.44	0.66
1:A:401:VAL:HG13	1:A:405:THR:O	1.95	0.66
1:B:347:ARG:HD2	1:B:392:GLY:H	1.60	0.66
1:A:32:ASN:CG	1:A:33:LYS:H	1.98	0.66
1:A:82:SER:OG	1:B:91:PRO:C	2.33	0.66
1:A:373:ASN:ND2	1:A:374:ASP:N	2.43	0.66
1:A:446:THR:CG2	1:A:537:ILE:O	2.44	0.66
1:B:32:ASN:CG	1:B:33:LYS:H	1.98	0.66
1:B:366:LYS:HG3	1:B:367:LEU:HG	1.77	0.66
1:A:482:THR:OG1	1:A:500:GLN:CG	2.44	0.66
1:B:320:THR:HG21	2:B:807:NAG:H2	1.76	0.66
1:A:483:TRP:CZ2	1:A:507:TYR:HE1	2.09	0.66
1:A:488:ASP:HB2	1:A:493:SER:OG	1.97	0.65
2:A:805:NAG:C6	2:A:806:NAG:C7	2.74	0.65
1:B:524:VAL:HG21	2:B:904:NAG:H81	1.77	0.65
1:A:524:VAL:HG21	2:A:904:NAG:H81	1.77	0.65
1:B:405:THR:OG1	1:B:406:TYR:N	2.22	0.65
1:B:440:PRO:HD3	1:B:522:LEU:HD12	1.78	0.65
1:A:28:LYS:NZ	1:B:4:ILE:N	2.38	0.65
1:B:341:VAL:HG21	1:B:345:LEU:HD12	1.79	0.65
1:A:32:ASN:ND2	1:A:83:GLU:N	2.44	0.65
1:A:327:ASN:HA	1:A:360:ASP:OD2	1.97	0.65
1:A:464:ILE:O	1:A:467:ASN:HB2	1.96	0.65
1:B:195:ASP:HB2	1:B:201:LEU:N	2.08	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:809:NAG:C6	2:B:810:NAG:H62	2.26	0.65
1:B:474:SER:HB2	1:B:512:LEU:CG	2.15	0.65
1:B:482:THR:HG21	1:B:499:THR:CA	2.27	0.65
2:A:809:NAG:C6	2:A:810:NAG:H62	2.26	0.65
1:A:364:ILE:O	1:A:364:ILE:HD12	1.97	0.64
1:B:524:VAL:HG23	2:B:904:NAG:H81	1.78	0.64
1:A:524:VAL:HG23	2:A:904:NAG:H81	1.78	0.64
1:B:364:ILE:O	1:B:364:ILE:HD12	1.98	0.64
1:A:440:PRO:HD2	1:A:522:LEU:CD1	2.26	0.64
1:A:469:TYR:CD2	1:A:470:PRO:CD	2.81	0.64
1:B:232:GLU:HG3	1:B:290:PHE:H	1.61	0.64
1:B:446:THR:CG2	1:B:537:ILE:O	2.44	0.64
1:A:333:VAL:HB	1:A:334:PRO:CD	2.24	0.64
1:A:375:PRO:HB3	1:A:400:TYR:CD2	2.33	0.64
1:B:504:LYS:NZ	1:B:531:SER:OG	2.31	0.64
2:B:904:NAG:O7	2:B:904:NAG:C3	2.45	0.64
1:A:212:THR:HG22	1:A:213:ASP:H	1.62	0.64
1:B:347:ARG:HG3	1:B:392:GLY:H	1.62	0.64
1:B:406:TYR:CE1	2:B:808:NAG:H83	2.32	0.64
1:B:409:ILE:HG12	1:B:425:THR:HG23	1.80	0.64
1:A:346:SER:OG	1:A:349:GLU:HG3	1.97	0.64
1:B:227:THR:CG2	2:B:807:NAG:C7	2.76	0.64
1:B:488:ASP:HB2	1:B:493:SER:OG	1.97	0.64
1:A:486:GLU:O	1:A:494:MET:CA	2.46	0.64
1:B:32:ASN:ND2	1:B:83:GLU:N	2.44	0.64
1:A:406:TYR:CE1	2:A:808:NAG:H83	2.32	0.64
1:A:486:GLU:O	1:A:495:LEU:N	2.31	0.64
1:A:232:GLU:HG3	1:A:290:PHE:H	1.61	0.63
1:A:419:VAL:HG13	2:A:809:NAG:O7	1.98	0.63
1:B:364:ILE:O	1:B:364:ILE:CD1	2.46	0.63
1:B:371:ILE:HG22	1:B:372:GLY:N	2.14	0.63
1:A:154:ASP:O	2:A:801:NAG:H82	1.98	0.63
1:A:482:THR:HG22	1:A:499:THR:N	2.13	0.63
1:B:346:SER:OG	1:B:349:GLU:HG3	1.97	0.63
1:A:347:ARG:HG3	1:A:392:GLY:H	1.62	0.63
1:A:518:ASN:O	1:A:520:PRO:CD	2.46	0.63
1:B:22:VAL:HG22	1:B:23:GLN:N	2.14	0.63
1:B:486:GLU:O	1:B:494:MET:CA	2.46	0.63
1:A:446:THR:CG2	1:A:539:CYS:SG	2.86	0.63
1:A:341:VAL:HG21	1:A:345:LEU:HD12	1.79	0.63
1:B:154:ASP:O	2:B:801:NAG:H82	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:419:VAL:HG13	2:B:809:NAG:O7	1.98	0.63
1:A:127:VAL:HG22	1:A:128:MET:N	2.14	0.63
1:A:343:GLU:HB3	1:A:433:VAL:CG2	2.28	0.63
1:A:482:THR:HG21	1:A:499:THR:CA	2.27	0.63
1:B:212:THR:HG22	1:B:213:ASP:H	1.62	0.63
1:B:327:ASN:HA	1:B:360:ASP:OD2	1.97	0.63
1:A:142:LEU:HB3	1:A:196:LEU:HA	1.81	0.63
1:B:154:ASP:CA	2:B:801:NAG:H82	2.29	0.63
1:B:375:PRO:HB3	1:B:400:TYR:CD2	2.33	0.63
1:B:446:THR:CG2	1:B:539:CYS:SG	2.86	0.63
1:B:403:ASN:CB	2:B:902:NAG:C7	2.76	0.63
1:A:87:PRO:CD	1:B:89:GLU:HB2	2.22	0.63
1:A:364:ILE:O	1:A:364:ILE:CD1	2.46	0.63
1:B:524:VAL:HG23	2:B:904:NAG:C8	2.29	0.63
1:A:154:ASP:CA	2:A:801:NAG:H82	2.29	0.62
1:A:504:LYS:NZ	1:A:531:SER:OG	2.31	0.62
2:A:904:NAG:O7	2:A:904:NAG:C3	2.45	0.62
1:B:142:LEU:HB3	1:B:196:LEU:HA	1.80	0.62
1:B:469:TYR:CD2	1:B:470:PRO:CD	2.81	0.62
1:A:22:VAL:HG22	1:A:23:GLN:N	2.14	0.62
1:B:482:THR:HG22	1:B:499:THR:N	2.13	0.62
1:A:31:PHE:CG	1:B:93:GLU:OE2	2.52	0.62
1:A:371:ILE:HG22	1:A:372:GLY:N	2.14	0.62
1:A:524:VAL:HG23	2:A:904:NAG:C8	2.29	0.62
1:A:374:ASP:O	1:A:375:PRO:O	2.17	0.62
1:B:343:GLU:HB3	1:B:433:VAL:CG2	2.28	0.62
1:B:368:SER:HG	1:B:370:PHE:HE1	1.47	0.62
1:A:409:ILE:HG12	1:A:425:THR:HG23	1.80	0.62
1:A:440:PRO:HD3	1:A:522:LEU:HD12	1.78	0.62
1:A:411:LEU:HD22	1:A:421:THR:HG23	1.81	0.62
1:B:147:SER:OG	1:B:167:ARG:HG3	1.99	0.62
1:B:265:GLU:HB3	1:B:268:PHE:CE2	2.31	0.62
1:B:517:GLN:C	1:B:519:ASN:N	2.47	0.62
1:B:222:ASP:O	1:B:222:ASP:CG	2.32	0.62
1:B:486:GLU:O	1:B:495:LEU:N	2.32	0.62
1:B:508:SER:HB3	1:B:526:ASN:OD1	2.00	0.62
1:A:508:SER:HB3	1:A:526:ASN:OD1	2.00	0.62
1:A:227:THR:CG2	2:A:807:NAG:C7	2.76	0.62
1:B:518:ASN:O	1:B:520:PRO:CD	2.46	0.62
1:A:524:VAL:CG2	2:A:904:NAG:C8	2.78	0.61
1:B:411:LEU:HD22	1:B:421:THR:HG23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:449:ASP:H	1:B:532:CYS:CB	2.12	0.61
1:A:221:PHE:CE1	1:A:315:SER:O	2.45	0.61
1:B:212:THR:HG22	1:B:213:ASP:N	2.15	0.61
1:A:181:ARG:NE	1:A:213:ASP:OD1	2.34	0.61
1:A:403:ASN:O	1:A:405:THR:N	2.33	0.61
1:B:181:ARG:NE	1:B:213:ASP:OD1	2.34	0.61
1:B:524:VAL:CG2	2:B:904:NAG:C8	2.78	0.61
1:B:68:ARG:HD3	1:B:100:ASP:HA	1.82	0.61
1:B:379:LEU:HD23	1:B:379:LEU:H	1.66	0.61
1:B:127:VAL:HG22	1:B:128:MET:N	2.14	0.61
1:B:469:TYR:CE1	1:B:470:PRO:HD2	2.34	0.61
1:A:89:GLU:CD	1:B:3:VAL:HG13	2.20	0.61
1:B:374:ASP:O	1:B:375:PRO:O	2.17	0.61
1:A:469:TYR:CE1	1:A:470:PRO:HD2	2.34	0.61
1:B:154:ASP:O	1:B:155:PRO:C	2.36	0.61
1:B:475:LEU:O	1:B:479:SER:HB3	2.01	0.61
1:A:415:ASP:OD1	1:A:416:GLY:N	2.27	0.61
2:B:805:NAG:C6	2:B:806:NAG:C7	2.74	0.61
1:A:265:GLU:HB3	1:A:268:PHE:CE2	2.31	0.60
1:A:379:LEU:HD23	1:A:379:LEU:H	1.66	0.60
1:B:403:ASN:O	1:B:405:THR:N	2.33	0.60
1:A:68:ARG:HD3	1:A:100:ASP:HA	1.82	0.60
1:A:371:ILE:CG2	1:A:372:GLY:H	2.13	0.60
1:B:371:ILE:CG2	1:B:372:GLY:H	2.13	0.60
1:A:403:ASN:CB	2:A:902:NAG:C7	2.76	0.60
1:B:239:VAL:HG13	1:B:240:GLN:H	1.67	0.60
1:B:396:ARG:NH2	1:B:464:ILE:HG21	2.17	0.60
1:B:415:ASP:OD1	1:B:416:GLY:N	2.27	0.60
1:A:232:GLU:CG	1:A:290:PHE:N	2.64	0.60
1:A:212:THR:HG22	1:A:213:ASP:N	2.15	0.60
1:A:336:VAL:HB	1:A:426:LEU:HD23	1.84	0.60
1:A:154:ASP:O	1:A:155:PRO:C	2.36	0.60
1:A:475:LEU:O	1:A:479:SER:HB3	2.01	0.60
1:B:116:SER:HA	1:B:210:GLN:O	2.02	0.60
1:A:514:SER:HA	1:A:517:GLN:O	2.02	0.60
1:A:155:PRO:C	1:A:157:GLU:N	2.56	0.59
1:A:116:SER:HA	1:A:210:GLN:O	2.02	0.59
1:B:447:MET:HB2	1:B:529:VAL:HG22	1.84	0.59
1:B:189:LEU:N	1:B:189:LEU:HD23	2.17	0.59
1:A:189:LEU:N	1:A:189:LEU:HD23	2.17	0.59
1:A:49:GLY:O	1:A:63:THR:HG21	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:146:LEU:HA	1:A:194:THR:O	2.02	0.59
1:B:232:GLU:CG	1:B:290:PHE:N	2.64	0.59
1:A:239:VAL:HG13	1:A:240:GLN:H	1.67	0.59
1:B:367:LEU:CB	1:B:413:THR:O	2.51	0.59
1:B:221:PHE:HA	1:B:244:VAL:HG12	1.85	0.59
1:B:38:ILE:HG22	1:B:53:ILE:HG22	1.85	0.59
1:B:268:PHE:HA	1:B:285:ALA:HB3	1.85	0.59
1:A:363:GLN:O	1:A:364:ILE:HG22	2.03	0.59
1:A:38:ILE:HG22	1:A:53:ILE:HG22	1.85	0.59
1:A:154:ASP:CB	2:A:801:NAG:HN2	2.16	0.59
1:A:268:PHE:HA	1:A:285:ALA:HB3	1.85	0.59
1:A:286:LYS:O	1:A:287:GLY:O	2.21	0.59
1:B:232:GLU:HG2	1:B:289:ASP:CA	2.33	0.59
1:B:299:GLN:C	1:B:300:ILE:HD12	2.24	0.59
1:A:473:VAL:HA	1:A:513:LEU:HD23	1.85	0.58
1:B:514:SER:HA	1:B:517:GLN:O	2.02	0.58
1:B:473:VAL:HA	1:B:513:LEU:HD23	1.85	0.58
1:A:335:ALA:HB1	3:A:811:NDG:C6	2.33	0.58
1:B:195:ASP:CB	1:B:200:GLY:HA3	2.33	0.58
1:B:309:SER:O	1:B:310:VAL:HG23	2.03	0.58
1:B:443:ARG:HA	1:B:525:VAL:HG13	1.85	0.58
1:A:154:ASP:CB	1:A:155:PRO:CD	2.82	0.58
1:A:367:LEU:CB	1:A:413:THR:O	2.51	0.58
1:A:508:SER:HA	1:A:526:ASN:HA	1.84	0.58
1:B:146:LEU:HA	1:B:194:THR:O	2.02	0.58
1:A:537:ILE:HG12	1:A:538:LYS:N	2.19	0.58
1:B:336:VAL:HB	1:B:426:LEU:HD23	1.84	0.58
1:B:363:GLN:O	1:B:364:ILE:HG22	2.03	0.58
1:A:235:ILE:HG12	1:A:287:GLY:HA2	1.82	0.58
1:A:299:GLN:C	1:A:300:ILE:HD12	2.24	0.58
1:A:443:ARG:HA	1:A:525:VAL:HG13	1.85	0.58
1:B:443:ARG:HG3	1:B:443:ARG:HH11	1.67	0.58
1:A:221:PHE:HA	1:A:244:VAL:HG12	1.85	0.58
1:A:232:GLU:HG2	1:A:289:ASP:CA	2.33	0.58
1:B:332:PHE:CD2	1:B:424:GLY:HA3	2.39	0.58
1:B:42:GLY:HA2	1:B:47:PRO:O	2.04	0.58
1:B:49:GLY:O	1:B:63:THR:HG21	2.02	0.58
1:B:154:ASP:CB	1:B:155:PRO:CD	2.82	0.58
1:B:406:TYR:HB3	1:B:428:LEU:CD2	2.33	0.58
1:B:508:SER:HA	1:B:526:ASN:HA	1.84	0.58
1:A:309:SER:O	1:A:310:VAL:HG23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:406:TYR:HB3	1:A:428:LEU:CD2	2.33	0.58
1:A:320:THR:CG2	2:A:807:NAG:C2	2.76	0.57
1:A:335:ALA:HB1	3:A:811:NDG:H6	1.69	0.57
1:A:447:MET:HB2	1:A:529:VAL:HG22	1.84	0.57
1:B:450:GLN:HB2	1:B:533:GLU:CA	2.26	0.57
1:A:332:PHE:CD2	1:A:424:GLY:HA3	2.39	0.57
1:B:286:LYS:O	1:B:287:GLY:O	2.21	0.57
1:A:330:PRO:HD3	1:A:414:ASP:HB2	1.86	0.57
1:A:443:ARG:HG3	1:A:443:ARG:HH11	1.67	0.57
1:A:505:GLY:HA2	1:A:529:VAL:H	1.69	0.57
1:B:226:TYR:CE2	1:B:242:LEU:HD23	2.39	0.57
1:A:42:GLY:HA2	1:A:47:PRO:O	2.04	0.57
1:A:222:ASP:N	1:A:243:SER:O	2.38	0.57
1:B:330:PRO:HD3	1:B:414:ASP:HB2	1.86	0.57
1:B:537:ILE:HG12	1:B:538:LYS:N	2.19	0.57
1:A:68:ARG:HG3	1:A:69:GLU:N	2.19	0.57
1:A:240:GLN:HG3	1:A:241:ARG:N	2.19	0.57
1:B:505:GLY:HA2	1:B:529:VAL:H	1.70	0.57
1:A:517:GLN:C	1:A:519:ASN:N	2.47	0.57
1:A:189:LEU:HD21	1:A:209:ILE:HD12	1.87	0.57
1:A:195:ASP:CB	1:A:200:GLY:HA3	2.33	0.57
1:A:369:TYR:HD1	1:A:383:LYS:O	1.88	0.57
1:B:222:ASP:N	1:B:243:SER:O	2.38	0.57
1:B:240:GLN:HG3	1:B:241:ARG:N	2.19	0.56
1:B:296:TYR:HB2	1:B:321:VAL:HB	1.86	0.56
1:B:336:VAL:HG12	1:B:338:ARG:HB2	1.87	0.56
1:A:296:TYR:HB2	1:A:321:VAL:HB	1.86	0.56
1:A:449:ASP:H	1:A:532:CYS:CB	2.12	0.56
1:A:226:TYR:CE2	1:A:242:LEU:HD23	2.39	0.56
1:B:32:ASN:CG	1:B:33:LYS:N	2.59	0.56
1:B:155:PRO:C	1:B:157:GLU:N	2.56	0.56
1:B:378:TRP:O	1:B:391:ASN:HB2	2.06	0.56
1:A:108:PHE:CE1	1:A:203:VAL:HG23	2.40	0.56
1:A:396:ARG:NH2	1:A:464:ILE:HG21	2.17	0.56
1:B:394:LEU:N	1:B:394:LEU:CD1	2.69	0.56
1:A:155:PRO:N	2:A:801:NAG:H82	2.20	0.56
1:A:336:VAL:HG12	1:A:338:ARG:HB2	1.87	0.56
1:B:108:PHE:CE1	1:B:203:VAL:HG23	2.40	0.56
1:B:118:ARG:HA	1:B:212:THR:HB	1.87	0.56
1:B:335:ALA:HB1	3:B:811:NDG:C6	2.33	0.56
1:B:32:ASN:HD22	1:B:83:GLU:H	1.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:154:ASP:CB	2:B:801:NAG:HN2	2.16	0.56
1:B:189:LEU:HD21	1:B:209:ILE:HD12	1.87	0.56
1:B:393:ASN:C	1:B:394:LEU:HD12	2.25	0.56
1:B:259:TYR:O	1:B:260:LYS:HB3	2.05	0.56
1:B:333:VAL:CG2	1:B:334:PRO:HD3	2.36	0.56
1:B:369:TYR:HD1	1:B:383:LYS:O	1.88	0.56
1:A:162:LEU:O	1:A:174:LEU:HD12	2.06	0.56
1:A:394:LEU:N	1:A:394:LEU:CD1	2.69	0.55
1:B:155:PRO:N	2:B:801:NAG:H82	2.20	0.55
1:B:365:GLN:O	1:B:365:GLN:CG	2.54	0.55
1:A:259:TYR:O	1:A:260:LYS:HB3	2.05	0.55
1:B:68:ARG:HG3	1:B:69:GLU:N	2.19	0.55
1:B:339:VAL:HG21	1:B:351:ILE:CG2	2.37	0.55
1:A:32:ASN:HD22	1:A:83:GLU:H	1.51	0.55
1:A:118:ARG:HA	1:A:212:THR:HB	1.87	0.55
1:A:393:ASN:C	1:A:394:LEU:HD12	2.25	0.55
1:A:459:ILE:HG21	1:A:471:TYR:CE2	2.42	0.55
1:B:272:THR:CG2	1:B:273:THR:H	2.19	0.55
1:A:339:VAL:HG21	1:A:351:ILE:CG2	2.36	0.55
1:A:406:TYR:HB3	1:A:428:LEU:HD21	1.87	0.55
1:B:406:TYR:HB3	1:B:428:LEU:HD21	1.87	0.55
1:A:32:ASN:CG	1:A:33:LYS:N	2.59	0.55
1:A:154:ASP:CG	1:A:155:PRO:CD	2.75	0.55
1:A:241:ARG:NE	1:A:281:ILE:HD12	2.22	0.55
1:A:439:VAL:HG13	1:A:522:LEU:HD11	1.88	0.55
1:B:278:ASN:HD22	1:B:278:ASN:N	2.05	0.55
1:B:403:ASN:CB	2:B:902:NAG:H83	2.21	0.55
1:A:272:THR:CG2	1:A:273:THR:H	2.19	0.55
1:A:378:TRP:O	1:A:391:ASN:HB2	2.06	0.55
1:B:28:LYS:HB3	1:B:88:VAL:HG11	1.89	0.55
1:B:482:THR:HG21	1:B:499:THR:C	2.27	0.55
1:A:155:PRO:HG2	2:A:801:NAG:O7	2.07	0.55
1:A:466:PRO:O	1:A:468:THR:N	2.40	0.55
1:B:117:VAL:O	1:B:211:ILE:HA	2.07	0.55
1:B:162:LEU:O	1:B:174:LEU:HD12	2.06	0.55
1:A:169:THR:OG1	1:A:171:VAL:HG23	2.07	0.55
1:B:75:VAL:O	1:B:76:LEU:HD23	2.07	0.55
1:B:226:TYR:O	1:B:227:THR:CG2	2.55	0.55
1:B:330:PRO:HB3	1:B:358:ASP:HB2	1.89	0.55
1:B:466:PRO:O	1:B:468:THR:N	2.40	0.55
1:A:333:VAL:CG2	1:A:334:PRO:HD3	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:419:VAL:CG1	1:B:420:GLY:N	2.70	0.54
1:A:226:TYR:HB2	1:A:319:VAL:HG22	1.90	0.54
1:B:438:PRO:HB2	1:B:513:LEU:HD12	1.89	0.54
1:A:226:TYR:O	1:A:227:THR:CG2	2.55	0.54
1:A:367:LEU:C	1:A:367:LEU:HD12	2.28	0.54
1:A:419:VAL:CG1	1:A:420:GLY:N	2.70	0.54
1:A:84:ASN:ND2	1:B:77:SER:OG	2.41	0.54
1:B:155:PRO:HG2	2:B:801:NAG:O7	2.07	0.54
1:B:363:GLN:C	1:B:364:ILE:CG2	2.75	0.54
1:A:75:VAL:O	1:A:76:LEU:HD23	2.08	0.54
1:A:482:THR:HG21	1:A:499:THR:C	2.27	0.54
1:B:235:ILE:HG12	1:B:287:GLY:HA2	1.82	0.54
1:B:154:ASP:CG	1:B:155:PRO:CD	2.75	0.54
1:B:367:LEU:HD12	1:B:367:LEU:C	2.28	0.54
1:A:363:GLN:C	1:A:364:ILE:CG2	2.76	0.54
1:A:438:PRO:HB2	1:A:513:LEU:HD12	1.89	0.54
1:A:82:SER:OG	1:B:91:PRO:N	2.40	0.54
1:A:371:ILE:HG23	1:A:372:GLY:H	1.73	0.54
1:B:432:ASP:CG	1:B:464:ILE:CG2	2.74	0.54
1:B:439:VAL:HG13	1:B:522:LEU:HD11	1.88	0.54
1:A:22:VAL:HG22	1:A:23:GLN:H	1.73	0.54
1:A:154:ASP:C	2:A:801:NAG:C8	2.62	0.54
1:A:318:THR:CG2	2:A:806:NAG:H5	2.34	0.54
1:B:332:PHE:HD2	1:B:424:GLY:HA3	1.73	0.54
1:B:490:LYS:O	1:B:490:LYS:HG2	2.08	0.54
1:A:117:VAL:O	1:A:211:ILE:HA	2.07	0.54
1:B:459:ILE:HG21	1:B:471:TYR:CE2	2.42	0.54
1:A:84:ASN:ND2	1:B:79:HIS:CE1	2.76	0.53
1:B:443:ARG:HG3	1:B:443:ARG:NH1	2.23	0.53
1:A:28:LYS:HB3	1:A:88:VAL:HG11	1.89	0.53
1:A:373:ASN:HB3	1:A:409:ILE:H	1.74	0.53
1:B:450:GLN:CB	1:B:532:CYS:O	2.56	0.53
1:A:330:PRO:HB3	1:A:358:ASP:HB2	1.89	0.53
1:B:249:MET:O	1:B:252:THR:HB	2.08	0.53
1:B:268:PHE:CD2	1:B:268:PHE:N	2.75	0.53
1:B:403:ASN:C	1:B:405:THR:H	2.12	0.53
1:B:458:THR:HG22	1:B:493:SER:HB3	1.90	0.53
1:B:252:THR:HG23	1:B:253:PRO:HD2	1.90	0.53
1:B:276:GLU:CG	1:B:277:SER:N	2.71	0.53
1:A:369:TYR:O	1:A:383:LYS:HG2	2.09	0.53
1:A:450:GLN:CB	1:A:532:CYS:O	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:105:ARG:HG3	1:B:106:PRO:HD2	1.91	0.53
1:B:217:ASN:N	1:B:217:ASN:ND2	2.56	0.53
1:A:249:MET:O	1:A:252:THR:HB	2.09	0.53
1:A:522:LEU:CD2	1:A:523:THR:HB	2.26	0.53
1:A:533:GLU:HA	1:A:533:GLU:OE2	2.09	0.53
1:B:533:GLU:HA	1:B:533:GLU:OE2	2.09	0.53
1:A:88:VAL:HA	1:B:92:MET:CG	2.39	0.53
1:A:347:ARG:HG3	1:A:391:ASN:HA	1.91	0.53
1:B:312:LEU:O	3:B:804:NDG:C8	2.57	0.53
1:A:242:LEU:O	1:A:279:GLN:HB3	2.09	0.53
1:A:276:GLU:CG	1:A:277:SER:N	2.71	0.53
1:A:458:THR:HG22	1:A:493:SER:HB3	1.91	0.53
1:B:22:VAL:HG22	1:B:23:GLN:H	1.73	0.53
1:B:169:THR:OG1	1:B:171:VAL:HG23	2.07	0.53
1:B:318:THR:CG2	2:B:806:NAG:H5	2.34	0.53
1:B:450:GLN:CB	1:B:533:GLU:HA	2.29	0.53
1:A:84:ASN:CG	1:B:77:SER:HG	2.12	0.53
1:A:105:ARG:HG3	1:A:106:PRO:HD2	1.91	0.53
1:A:367:LEU:HD13	1:A:412:VAL:HG23	1.91	0.53
1:A:512:LEU:HD11	1:A:519:ASN:HD21	1.74	0.53
1:B:352:ILE:CG1	1:B:388:VAL:HB	2.33	0.53
1:B:367:LEU:HD13	1:B:412:VAL:HG23	1.91	0.53
1:B:482:THR:HG22	1:B:482:THR:O	2.09	0.53
1:B:512:LEU:HD11	1:B:519:ASN:HD21	1.74	0.53
1:B:226:TYR:HB2	1:B:319:VAL:HG22	1.89	0.52
1:B:242:LEU:O	1:B:279:GLN:HB3	2.09	0.52
1:B:426:LEU:HD13	1:B:426:LEU:O	2.10	0.52
1:A:217:ASN:N	1:A:217:ASN:ND2	2.56	0.52
1:A:268:PHE:C	1:A:285:ALA:HB3	2.30	0.52
1:A:312:LEU:O	3:A:804:NDG:C8	2.57	0.52
1:A:523:THR:CG2	1:A:524:VAL:H	1.94	0.52
1:A:194:THR:HG22	1:A:195:ASP:N	2.25	0.52
1:B:194:THR:HG22	1:B:195:ASP:N	2.25	0.52
1:B:268:PHE:C	1:B:285:ALA:HB3	2.30	0.52
1:B:347:ARG:HG3	1:B:391:ASN:HA	1.91	0.52
1:A:82:SER:O	1:B:90:GLU:OE2	2.25	0.52
1:A:403:ASN:C	1:A:405:THR:H	2.12	0.52
1:B:227:THR:CG2	2:B:807:NAG:H83	2.32	0.52
1:A:432:ASP:CG	1:A:464:ILE:CG2	2.74	0.52
1:B:373:ASN:HB3	1:B:409:ILE:H	1.74	0.52
1:A:90:GLU:CB	1:B:2:TRP:CD1	2.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:THR:HG23	1:A:253:PRO:HD2	1.91	0.52
1:A:379:LEU:H	1:A:379:LEU:CD2	2.22	0.52
1:B:369:TYR:O	1:B:383:LYS:HG2	2.09	0.52
1:B:396:ARG:CZ	1:B:432:ASP:HB2	2.40	0.52
1:A:31:PHE:CD2	1:A:32:ASN:HB2	2.44	0.52
1:A:33:LYS:HB3	1:A:83:GLU:CG	2.40	0.52
1:A:332:PHE:HD2	1:A:424:GLY:HA3	1.73	0.52
1:A:450:GLN:HB2	1:A:533:GLU:CA	2.26	0.52
1:B:155:PRO:CD	2:B:801:NAG:H82	2.40	0.52
1:B:31:PHE:CD2	1:B:32:ASN:HB2	2.44	0.51
1:B:221:PHE:HB3	1:B:223:PRO:O	2.10	0.51
1:A:458:THR:HA	1:A:493:SER:HA	1.93	0.51
1:B:371:ILE:HG23	1:B:372:GLY:H	1.73	0.51
1:B:482:THR:CG2	1:B:499:THR:CA	2.87	0.51
1:B:8:LYS:CD	1:B:8:LYS:N	2.51	0.51
1:B:272:THR:CG2	2:B:803:NAG:HN2	2.23	0.51
1:A:471:TYR:CD1	1:A:471:TYR:N	2.79	0.51
1:A:428:LEU:HD23	1:A:428:LEU:O	2.11	0.51
1:B:333:VAL:CB	1:B:334:PRO:CD	2.88	0.51
1:B:514:SER:HB3	1:B:517:GLN:O	2.10	0.51
1:A:426:LEU:HD13	1:A:426:LEU:O	2.10	0.51
1:A:482:THR:CG2	1:A:499:THR:CA	2.87	0.51
1:A:505:GLY:O	1:A:506:ASP:OD1	2.28	0.51
1:A:151:LEU:HD12	1:A:190:THR:O	2.11	0.51
1:A:155:PRO:CD	2:A:801:NAG:H82	2.40	0.51
1:A:336:VAL:O	1:A:426:LEU:HD22	2.10	0.51
1:A:514:SER:HB3	1:A:517:GLN:O	2.10	0.51
1:B:450:GLN:CG	1:B:533:GLU:OE2	2.58	0.51
1:B:471:TYR:CD1	1:B:471:TYR:N	2.79	0.51
1:B:505:GLY:O	1:B:506:ASP:OD1	2.28	0.51
1:B:522:LEU:CD2	1:B:523:THR:HB	2.26	0.51
2:B:809:NAG:H61	2:B:810:NAG:C6	2.39	0.51
1:A:365:GLN:O	1:A:365:GLN:CG	2.54	0.51
1:B:154:ASP:C	2:B:801:NAG:C8	2.62	0.51
1:A:272:THR:CG2	2:A:803:NAG:HN2	2.23	0.51
1:B:142:LEU:O	1:B:196:LEU:HD23	2.11	0.51
1:B:458:THR:HG22	1:B:493:SER:CB	2.41	0.51
1:A:142:LEU:O	1:A:196:LEU:HD23	2.11	0.51
1:A:297:VAL:CG2	2:A:807:NAG:H62	2.41	0.51
1:B:138:ASN:C	1:B:138:ASN:HD22	2.13	0.50
1:B:336:VAL:O	1:B:426:LEU:HD22	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:382:ASN:OD1	1:B:385:ASN:N	2.45	0.50
1:B:397:GLU:N	1:B:397:GLU:OE1	2.44	0.50
1:A:138:ASN:C	1:A:138:ASN:HD22	2.13	0.50
1:A:221:PHE:HB3	1:A:223:PRO:O	2.10	0.50
1:A:347:ARG:HD2	1:A:392:GLY:N	2.25	0.50
1:A:449:ASP:CB	1:A:532:CYS:H	2.22	0.50
1:A:450:GLN:CG	1:A:533:GLU:OE2	2.58	0.50
1:A:496:LEU:HD21	1:A:509:ILE:CD1	2.38	0.50
1:B:154:ASP:O	2:B:801:NAG:C8	2.60	0.50
1:B:217:ASN:N	1:B:217:ASN:HD22	2.09	0.50
1:B:428:LEU:O	1:B:428:LEU:HD23	2.11	0.50
1:A:155:PRO:HG2	2:A:801:NAG:C7	2.42	0.50
1:A:396:ARG:CZ	1:A:432:ASP:HB2	2.41	0.50
1:B:261:ILE:HD11	1:B:264:ASN:HD22	1.77	0.50
1:A:154:ASP:O	2:A:801:NAG:C8	2.60	0.50
1:B:28:LYS:CD	1:B:88:VAL:HG12	2.38	0.50
1:B:368:SER:OG	1:B:370:PHE:HE1	1.94	0.50
1:A:234:GLU:HB2	1:A:235:ILE:HG22	1.93	0.50
1:A:278:ASN:HD22	1:A:278:ASN:N	2.05	0.50
1:B:347:ARG:HD2	1:B:392:GLY:N	2.25	0.50
1:A:449:ASP:CB	1:A:532:CYS:N	2.74	0.50
1:A:457:LEU:HD23	1:A:494:MET:SD	2.52	0.50
1:B:419:VAL:HG22	2:B:809:NAG:H81	1.93	0.50
1:B:423:THR:HB	2:B:810:NAG:H83	1.94	0.50
1:A:84:ASN:CB	1:B:79:HIS:CE1	2.62	0.50
1:A:216:ASP:HB2	1:A:217:ASN:ND2	2.27	0.50
1:B:151:LEU:HD12	1:B:190:THR:O	2.11	0.50
1:B:276:GLU:HG3	1:B:277:SER:N	2.25	0.50
1:B:297:VAL:CG2	2:B:807:NAG:H62	2.41	0.50
1:B:338:ARG:HB3	1:B:339:VAL:HG22	1.92	0.50
1:B:457:LEU:HD23	1:B:494:MET:SD	2.52	0.50
1:A:11:GLU:OE2	1:A:69:GLU:OE1	2.30	0.50
1:A:186:GLU:OE1	2:A:801:NAG:C6	2.59	0.50
1:A:458:THR:HG22	1:A:493:SER:CB	2.42	0.50
1:B:80:ALA:O	1:B:88:VAL:HG23	2.11	0.50
1:B:241:ARG:NE	1:B:281:ILE:HD12	2.22	0.50
1:B:363:GLN:C	1:B:364:ILE:HG23	2.32	0.50
1:B:432:ASP:CB	1:B:464:ILE:CG2	2.89	0.50
1:B:458:THR:HA	1:B:493:SER:HA	1.93	0.50
2:B:807:NAG:O7	2:B:807:NAG:H3	2.11	0.50
1:A:80:ALA:O	1:A:88:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:217:ASN:N	1:A:217:ASN:HD22	2.10	0.50
1:A:266:GLY:N	1:A:268:PHE:CE2	2.76	0.50
1:A:335:ALA:CB	3:A:811:NDG:C6	2.90	0.50
1:A:382:ASN:OD1	1:A:385:ASN:N	2.45	0.50
1:A:443:ARG:HG3	1:A:443:ARG:NH1	2.24	0.50
1:A:338:ARG:HB3	1:A:339:VAL:HG22	1.92	0.49
1:B:27:ASN:C	1:B:29:ASP:H	2.15	0.49
1:B:109:THR:HG22	1:B:110:GLN:HG3	1.94	0.49
1:B:155:PRO:HG2	2:B:801:NAG:C7	2.42	0.49
1:B:496:LEU:HD21	1:B:509:ILE:CD1	2.38	0.49
1:A:27:ASN:C	1:A:29:ASP:H	2.15	0.49
1:A:419:VAL:HG22	2:A:809:NAG:H81	1.94	0.49
1:B:151:LEU:HD12	1:B:151:LEU:H	1.78	0.49
1:A:76:LEU:O	1:A:94:ILE:N	2.44	0.49
1:A:155:PRO:O	1:A:157:GLU:N	2.43	0.49
1:A:432:ASP:CB	1:A:464:ILE:CG2	2.89	0.49
1:B:252:THR:CG2	1:B:253:PRO:HD2	2.43	0.49
1:B:273:THR:H	2:B:803:NAG:HN2	1.61	0.49
1:A:82:SER:H	1:B:90:GLU:C	2.15	0.49
1:A:273:THR:H	2:A:803:NAG:HN2	1.60	0.49
1:A:352:ILE:HG13	1:A:388:VAL:CB	2.33	0.49
1:B:76:LEU:O	1:B:94:ILE:N	2.44	0.49
1:B:216:ASP:HB2	1:B:217:ASN:ND2	2.27	0.49
1:B:402:LYS:C	1:B:403:ASN:O	2.46	0.49
1:A:261:ILE:HD11	1:A:264:ASN:HD22	1.77	0.49
1:A:290:PHE:CE2	1:A:293:ARG:CB	2.92	0.49
1:A:327:ASN:OD1	1:A:360:ASP:OD1	2.30	0.49
1:A:363:GLN:C	1:A:364:ILE:HG23	2.32	0.49
1:A:368:SER:OG	1:A:370:PHE:HE1	1.94	0.49
1:A:512:LEU:HD11	1:A:519:ASN:ND2	2.28	0.49
1:B:234:GLU:HB2	1:B:235:ILE:HG22	1.93	0.49
1:A:282:LEU:CD2	1:A:283:THR:N	2.76	0.49
1:A:482:THR:HG22	1:A:482:THR:O	2.09	0.49
1:A:352:ILE:CG1	1:A:388:VAL:HB	2.33	0.49
1:A:451:ASN:O	1:A:534:GLY:CA	2.60	0.49
2:A:807:NAG:O7	2:A:807:NAG:H3	2.11	0.49
1:B:281:ILE:HG23	1:B:281:ILE:O	2.13	0.49
1:B:282:LEU:CD2	1:B:283:THR:N	2.76	0.49
1:B:320:THR:CG2	2:B:807:NAG:C2	2.76	0.49
1:B:373:ASN:ND2	1:B:374:ASP:OD1	2.45	0.49
1:A:68:ARG:HD3	1:A:100:ASP:CA	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:268:PHE:CD2	1:A:268:PHE:N	2.75	0.49
1:B:109:THR:HG22	1:B:110:GLN:CG	2.42	0.49
1:B:192:GLN:HA	1:B:203:VAL:O	2.13	0.49
2:B:809:NAG:H62	2:B:810:NAG:O6	2.13	0.49
1:A:151:LEU:HD12	1:A:151:LEU:H	1.78	0.49
1:A:226:TYR:C	1:A:227:THR:HG23	2.33	0.49
1:B:11:GLU:OE2	1:B:69:GLU:OE1	2.30	0.49
1:B:33:LYS:HB3	1:B:83:GLU:CG	2.40	0.49
1:B:327:ASN:OD1	1:B:360:ASP:OD1	2.30	0.49
1:B:335:ALA:CB	3:B:811:NDG:C6	2.90	0.49
1:A:310:VAL:HG12	1:A:312:LEU:HG	1.95	0.49
1:A:336:VAL:CG1	1:A:338:ARG:HB2	2.43	0.49
1:A:397:GLU:OE1	1:A:397:GLU:N	2.45	0.49
1:A:423:THR:HB	2:A:810:NAG:H83	1.94	0.49
1:A:432:ASP:CB	1:A:464:ILE:HG21	2.43	0.49
1:B:310:VAL:HG12	1:B:312:LEU:HG	1.95	0.49
1:A:8:LYS:CD	1:A:8:LYS:N	2.51	0.48
1:A:365:GLN:HA	1:A:416:GLY:HA3	1.95	0.48
2:A:809:NAG:H62	2:A:810:NAG:O6	2.13	0.48
1:B:154:ASP:CG	1:B:155:PRO:HD2	2.33	0.48
1:B:186:GLU:OE1	2:B:801:NAG:C6	2.59	0.48
1:B:512:LEU:HD11	1:B:519:ASN:ND2	2.28	0.48
1:A:41:GLN:HA	1:A:45:ASN:HB2	1.95	0.48
1:A:367:LEU:HD13	1:A:412:VAL:CG2	2.43	0.48
1:B:41:GLN:HA	1:B:45:ASN:HB2	1.96	0.48
1:B:266:GLY:N	1:B:268:PHE:CE2	2.76	0.48
1:A:89:GLU:OE2	1:B:3:VAL:CG1	2.55	0.48
1:A:154:ASP:CG	1:A:155:PRO:HD2	2.33	0.48
1:A:224:LYS:HE3	2:A:806:NAG:H82	1.95	0.48
1:A:224:LYS:CE	2:A:806:NAG:C8	2.91	0.48
1:B:224:LYS:CE	2:B:806:NAG:C8	2.91	0.48
1:B:336:VAL:CG1	1:B:338:ARG:HB2	2.43	0.48
1:B:432:ASP:CB	1:B:464:ILE:HG21	2.43	0.48
1:A:250:PRO:O	1:A:255:TRP:CE3	2.66	0.48
1:A:373:ASN:ND2	1:A:374:ASP:OD1	2.45	0.48
1:B:151:LEU:O	1:B:152:LYS:HB2	2.13	0.48
1:A:109:THR:HG22	1:A:110:GLN:CG	2.42	0.48
1:A:109:THR:HG22	1:A:110:GLN:HG3	1.94	0.48
1:A:281:ILE:O	1:A:281:ILE:HG23	2.13	0.48
1:B:119:GLU:OE2	1:B:216:ASP:OD1	2.32	0.48
1:B:155:PRO:O	1:B:157:GLU:N	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:352:ILE:HG13	1:B:388:VAL:CB	2.33	0.48
1:B:367:LEU:HD13	1:B:412:VAL:CG2	2.43	0.48
1:A:192:GLN:HA	1:A:203:VAL:O	2.13	0.48
1:A:252:THR:CG2	1:A:253:PRO:HD2	2.43	0.48
1:A:333:VAL:CB	1:A:334:PRO:CD	2.88	0.48
1:B:67:ASP:OD2	1:B:69:GLU:HB2	2.13	0.48
1:B:150:ILE:HD11	1:B:165:ILE:HB	1.96	0.48
1:B:367:LEU:HB2	1:B:413:THR:O	2.12	0.48
2:B:812:NAG:C1	2:B:812:NAG:O7	2.60	0.48
1:A:151:LEU:O	1:A:152:LYS:HB2	2.13	0.48
1:B:226:TYR:C	1:B:227:THR:HG23	2.33	0.48
1:A:367:LEU:HB2	1:A:413:THR:O	2.12	0.48
1:B:225:THR:HA	1:B:318:THR:O	2.14	0.48
1:B:250:PRO:O	1:B:255:TRP:CE3	2.66	0.48
1:B:365:GLN:HA	1:B:416:GLY:HA3	1.95	0.48
1:A:366:LYS:HG2	1:A:367:LEU:H	1.75	0.47
2:A:809:NAG:H61	2:A:810:NAG:C6	2.39	0.47
1:B:68:ARG:HD3	1:B:100:ASP:CA	2.43	0.47
1:A:67:ASP:OD2	1:A:69:GLU:HB2	2.13	0.47
1:A:119:GLU:OE2	1:A:216:ASP:OD1	2.32	0.47
1:A:246:ASP:C	1:A:247:LEU:HD12	2.35	0.47
1:B:224:LYS:HE3	2:B:806:NAG:H82	1.95	0.47
1:B:418:SER:O	1:B:419:VAL:HG23	2.14	0.47
2:B:809:NAG:C6	2:B:810:NAG:C6	2.92	0.47
1:A:82:SER:C	1:B:90:GLU:HG3	2.21	0.47
1:A:226:TYR:O	1:A:227:THR:HG23	2.15	0.47
1:A:448:CYS:SG	1:A:537:ILE:CG2	3.01	0.47
1:A:450:GLN:CB	1:A:533:GLU:HA	2.29	0.47
1:A:537:ILE:CG1	1:A:538:LYS:N	2.77	0.47
1:B:537:ILE:CG1	1:B:538:LYS:N	2.77	0.47
1:A:514:SER:HG	1:A:519:ASN:HA	1.79	0.47
2:A:809:NAG:C6	2:A:810:NAG:C6	2.92	0.47
1:B:300:ILE:HD12	1:B:300:ILE:N	2.29	0.47
1:A:227:THR:CG2	2:A:807:NAG:H83	2.32	0.47
1:B:514:SER:CA	1:B:517:GLN:O	2.62	0.47
1:A:117:VAL:O	1:A:212:THR:N	2.46	0.47
1:B:268:PHE:CA	1:B:285:ALA:HB3	2.45	0.47
1:B:301:THR:CG2	1:B:316:THR:HG23	2.45	0.47
1:A:225:THR:HA	1:A:318:THR:O	2.14	0.47
1:A:261:ILE:CD1	1:A:264:ASN:ND2	2.77	0.47
1:A:300:ILE:HD12	1:A:300:ILE:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:301:THR:CG2	1:A:316:THR:HG23	2.45	0.47
1:A:402:LYS:C	1:A:403:ASN:O	2.46	0.47
1:A:514:SER:CA	1:A:517:GLN:O	2.62	0.47
2:A:812:NAG:O7	2:A:812:NAG:C1	2.60	0.47
1:B:108:PHE:HE1	1:B:203:VAL:HG23	1.80	0.47
1:B:246:ASP:C	1:B:247:LEU:HD12	2.35	0.47
1:B:261:ILE:CD1	1:B:264:ASN:ND2	2.77	0.47
1:B:449:ASP:CB	1:B:532:CYS:N	2.74	0.47
1:A:108:PHE:HE1	1:A:203:VAL:HG23	1.80	0.47
1:A:23:GLN:HB2	1:A:59:TRP:CE3	2.50	0.47
1:A:150:ILE:HD11	1:A:165:ILE:HB	1.96	0.47
1:A:276:GLU:HG3	1:A:277:SER:N	2.25	0.47
1:A:268:PHE:CA	1:A:285:ALA:HB3	2.45	0.47
1:A:320:THR:CB	2:A:807:NAG:N2	2.78	0.47
1:B:36:TYR:O	1:B:55:TRP:HA	2.15	0.47
1:B:310:VAL:HG12	1:B:311:PRO:O	2.15	0.47
1:A:262:ARG:HG3	1:A:299:GLN:HB2	1.98	0.46
1:B:226:TYR:O	1:B:227:THR:HG23	2.15	0.46
1:B:379:LEU:H	1:B:379:LEU:CD2	2.22	0.46
1:A:310:VAL:HG12	1:A:311:PRO:O	2.15	0.46
1:B:272:THR:HG23	2:B:803:NAG:HN2	1.81	0.46
1:A:27:ASN:ND2	1:A:28:LYS:N	2.50	0.46
1:B:50:VAL:HB	1:B:51:PHE:CD1	2.50	0.46
1:B:270:ASN:OD1	1:B:271:ILE:N	2.49	0.46
1:B:371:ILE:HD12	1:B:371:ILE:HA	1.65	0.46
1:A:241:ARG:HE	1:A:281:ILE:CD1	2.24	0.46
1:A:272:THR:HG23	2:A:803:NAG:HN2	1.81	0.46
1:A:374:ASP:N	1:A:374:ASP:OD1	2.49	0.46
1:A:418:SER:O	1:A:419:VAL:HG23	2.14	0.46
1:B:54:GLU:HB2	1:B:57:THR:OG1	2.16	0.46
1:B:227:THR:N	2:B:812:NAG:H2	2.31	0.46
1:B:290:PHE:CE2	1:B:293:ARG:CB	2.92	0.46
1:A:194:THR:CG2	1:A:195:ASP:N	2.79	0.46
1:A:270:ASN:OD1	1:A:271:ILE:N	2.49	0.46
1:B:374:ASP:N	1:B:374:ASP:OD1	2.49	0.46
1:A:50:VAL:HB	1:A:51:PHE:CD1	2.50	0.46
1:A:187:TYR:HE1	1:A:211:ILE:HD11	1.81	0.46
1:A:403:ASN:CB	2:A:902:NAG:H83	2.21	0.46
1:A:415:ASP:CG	1:A:416:GLY:H	2.16	0.46
1:B:23:GLN:HB2	1:B:59:TRP:CE3	2.50	0.46
1:B:109:THR:CB	1:B:131:SER:HB2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:320:THR:CB	2:B:807:NAG:N2	2.78	0.46
1:B:363:GLN:O	1:B:364:ILE:CG2	2.63	0.46
1:B:371:ILE:HD13	1:B:381:VAL:HG11	1.95	0.46
1:B:415:ASP:CG	1:B:416:GLY:H	2.17	0.46
1:B:459:ILE:HD12	1:B:459:ILE:N	2.31	0.46
1:A:5:PRO:HA	1:A:6:PRO:HD3	1.86	0.46
1:A:373:ASN:CG	1:A:374:ASP:H	2.18	0.46
1:B:271:ILE:HG23	1:B:271:ILE:O	2.15	0.46
1:A:54:GLU:HB2	1:A:57:THR:OG1	2.16	0.46
1:A:84:ASN:O	1:B:79:HIS:CE1	2.69	0.46
1:A:506:ASP:OD1	1:A:506:ASP:N	2.49	0.46
1:B:100:ASP:OD1	1:B:101:GLN:N	2.49	0.46
1:B:187:TYR:HE1	1:B:211:ILE:HD11	1.81	0.46
1:B:373:ASN:CG	1:B:374:ASP:H	2.18	0.46
1:A:36:TYR:O	1:A:55:TRP:HA	2.15	0.46
1:A:461:ASP:HB3	1:A:468:THR:CG2	2.46	0.46
1:B:227:THR:HG22	1:B:320:THR:HB	1.98	0.46
2:B:805:NAG:C5	2:B:806:NAG:H83	2.46	0.46
1:A:227:THR:HG22	1:A:320:THR:HB	1.98	0.45
1:A:227:THR:N	2:A:812:NAG:H2	2.31	0.45
1:B:194:THR:CG2	1:B:195:ASP:N	2.79	0.45
1:A:100:ASP:OD1	1:A:101:GLN:N	2.49	0.45
1:A:152:LYS:O	1:A:189:LEU:HA	2.17	0.45
1:A:363:GLN:O	1:A:364:ILE:CG2	2.64	0.45
1:A:473:VAL:CG2	1:A:487:LEU:HD21	2.47	0.45
1:A:511:VAL:N	1:A:523:THR:O	2.46	0.45
1:B:506:ASP:OD1	1:B:506:ASP:N	2.49	0.45
1:A:408:VAL:O	1:A:426:LEU:N	2.49	0.45
1:A:459:ILE:N	1:A:459:ILE:HD12	2.31	0.45
1:B:421:THR:HG21	2:B:809:NAG:H61	1.98	0.45
1:A:380:THR:CG2	1:A:381:VAL:N	2.79	0.45
1:B:252:THR:HA	1:B:253:PRO:HD3	1.81	0.45
1:A:162:LEU:HB2	1:A:163:PHE:CE1	2.52	0.45
1:B:261:ILE:HD11	1:B:264:ASN:ND2	2.32	0.45
1:B:380:THR:CG2	1:B:381:VAL:N	2.79	0.45
1:A:109:THR:CB	1:A:131:SER:HB2	2.46	0.45
1:A:155:PRO:CB	2:A:801:NAG:C8	2.94	0.45
1:B:381:VAL:HA	1:B:387:ILE:O	2.16	0.45
1:B:461:ASP:HB3	1:B:468:THR:CG2	2.46	0.45
1:B:469:TYR:CD2	1:B:470:PRO:N	2.85	0.45
1:A:271:ILE:O	1:A:271:ILE:HG23	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:380:THR:HG22	1:A:381:VAL:N	2.32	0.45
1:A:469:TYR:CD2	1:A:470:PRO:N	2.85	0.45
1:A:469:TYR:CE2	1:A:470:PRO:HB2	2.52	0.45
1:B:109:THR:HB	1:B:131:SER:HB2	1.99	0.45
1:B:286:LYS:C	1:B:287:GLY:O	2.55	0.45
1:B:408:VAL:O	1:B:426:LEU:N	2.49	0.45
1:A:336:VAL:HG11	1:A:338:ARG:HD2	1.99	0.45
2:A:805:NAG:C5	2:A:806:NAG:H83	2.46	0.45
1:B:272:THR:CG2	1:B:273:THR:N	2.76	0.45
1:B:426:LEU:HD13	1:B:426:LEU:C	2.37	0.45
1:B:469:TYR:CE2	1:B:470:PRO:HB2	2.52	0.45
1:B:482:THR:O	1:B:483:TRP:CD2	2.70	0.45
1:A:109:THR:HB	1:A:131:SER:HB2	1.99	0.45
1:A:312:LEU:O	3:A:804:NDG:H8C1	2.17	0.45
1:A:421:THR:HG21	2:A:809:NAG:H61	1.98	0.45
1:A:450:GLN:CB	1:A:533:GLU:OE2	2.64	0.45
1:B:339:VAL:HG11	1:B:351:ILE:HG23	1.98	0.45
1:B:450:GLN:CB	1:B:533:GLU:OE2	2.64	0.45
1:A:32:ASN:HD22	1:A:83:GLU:N	2.13	0.44
1:A:440:PRO:HB3	1:A:457:LEU:CD2	2.43	0.44
1:A:482:THR:O	1:A:483:TRP:CD2	2.70	0.44
1:B:152:LYS:O	1:B:189:LEU:HA	2.17	0.44
1:B:449:ASP:CB	1:B:532:CYS:H	2.22	0.44
1:B:473:VAL:CG2	1:B:487:LEU:HD21	2.47	0.44
1:B:440:PRO:HB3	1:B:457:LEU:CD2	2.43	0.44
1:A:187:TYR:CE1	1:A:211:ILE:HD11	2.52	0.44
1:B:32:ASN:ND2	1:B:83:GLU:CB	2.62	0.44
1:B:299:GLN:CG	1:B:318:THR:HG23	2.42	0.44
1:A:67:ASP:OD1	1:A:69:GLU:HB2	2.18	0.44
1:A:339:VAL:HG11	1:A:351:ILE:HG23	1.98	0.44
1:B:232:GLU:HA	1:B:288:LEU:HD12	1.99	0.44
1:B:241:ARG:HE	1:B:281:ILE:CD1	2.24	0.44
1:B:461:ASP:HB3	1:B:468:THR:HG22	2.00	0.44
1:B:485:ALA:O	1:B:486:GLU:OE1	2.35	0.44
1:A:374:ASP:C	1:A:375:PRO:O	2.54	0.44
1:A:461:ASP:HB3	1:A:468:THR:HG22	2.00	0.44
1:B:162:LEU:HB2	1:B:163:PHE:CE1	2.52	0.44
1:B:312:LEU:O	3:B:804:NDG:H8C1	2.17	0.44
1:B:448:CYS:SG	1:B:537:ILE:CG2	3.01	0.44
1:B:519:ASN:CG	1:B:519:ASN:O	2.55	0.44
1:A:4:ILE:HA	1:A:5:PRO:HD3	1.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:67:ASP:OD1	1:B:69:GLU:HB2	2.18	0.44
1:B:86:SER:HA	1:B:87:PRO:HD3	1.83	0.44
1:B:336:VAL:HG11	1:B:338:ARG:HD2	1.99	0.44
1:B:380:THR:HG22	1:B:381:VAL:N	2.32	0.44
1:A:224:LYS:HE3	2:A:806:NAG:C8	2.48	0.44
1:A:381:VAL:HA	1:A:387:ILE:O	2.17	0.44
1:B:117:VAL:O	1:B:212:THR:N	2.46	0.44
1:B:151:LEU:HD12	1:B:151:LEU:N	2.33	0.44
1:B:187:TYR:CE1	1:B:211:ILE:HD11	2.52	0.44
1:B:374:ASP:C	1:B:375:PRO:O	2.54	0.44
1:B:396:ARG:NH2	1:B:464:ILE:HG22	2.12	0.44
1:A:151:LEU:HD12	1:A:151:LEU:N	2.33	0.44
1:A:426:LEU:HD13	1:A:426:LEU:C	2.38	0.44
1:A:261:ILE:HD11	1:A:264:ASN:ND2	2.32	0.44
1:A:485:ALA:O	1:A:486:GLU:OE1	2.35	0.44
1:B:262:ARG:HG3	1:B:299:GLN:HB2	1.98	0.44
1:B:220:ILE:O	1:B:220:ILE:HG22	2.18	0.43
1:B:290:PHE:CD2	1:B:293:ARG:O	2.71	0.43
1:B:468:THR:C	1:B:469:TYR:O	2.54	0.43
1:A:28:LYS:CD	1:A:88:VAL:HG12	2.38	0.43
1:A:286:LYS:C	1:A:287:GLY:O	2.55	0.43
1:B:27:ASN:ND2	1:B:28:LYS:N	2.50	0.43
1:B:134:ASP:HB2	1:B:146:LEU:HD11	1.99	0.43
1:B:247:LEU:HD12	1:B:247:LEU:N	2.33	0.43
1:B:366:LYS:HG2	1:B:367:LEU:H	1.75	0.43
1:B:442:PRO:HD2	1:B:457:LEU:HD12	2.00	0.43
1:B:502:LEU:HD23	1:B:502:LEU:HA	1.82	0.43
1:B:524:VAL:HG21	2:B:904:NAG:C8	2.44	0.43
1:A:134:ASP:HB2	1:A:146:LEU:HD11	1.99	0.43
1:A:220:ILE:O	1:A:220:ILE:HG22	2.18	0.43
1:A:247:LEU:HD12	1:A:247:LEU:N	2.33	0.43
1:A:421:THR:CG2	1:A:422:GLY:N	2.81	0.43
1:B:155:PRO:CB	2:B:801:NAG:C8	2.94	0.43
1:A:35:TYR:HB3	1:B:90:GLU:CD	2.38	0.43
1:B:194:THR:HG23	1:B:201:LEU:O	2.18	0.43
1:B:224:LYS:HE3	2:B:806:NAG:C8	2.48	0.43
1:B:297:VAL:HG21	2:B:807:NAG:H62	2.01	0.43
1:B:354:LEU:HD12	1:B:386:GLY:O	2.18	0.43
1:A:82:SER:HG	1:B:91:PRO:C	2.19	0.43
1:A:232:GLU:HA	1:A:288:LEU:HD12	1.99	0.43
1:A:297:VAL:HG21	2:A:807:NAG:H62	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:468:THR:C	1:A:469:TYR:O	2.54	0.43
1:B:4:ILE:HA	1:B:5:PRO:HD3	1.72	0.43
1:B:421:THR:CG2	1:B:422:GLY:N	2.81	0.43
1:A:290:PHE:CD2	1:A:293:ARG:O	2.71	0.43
1:B:195:ASP:HB3	1:B:196:LEU:HG	2.01	0.43
1:A:40:GLY:O	1:A:45:ASN:HB2	2.19	0.43
1:A:344:ASP:O	1:A:344:ASP:CG	2.57	0.43
1:A:354:LEU:HD12	1:A:386:GLY:O	2.18	0.43
1:A:519:ASN:O	1:A:519:ASN:CG	2.55	0.43
1:B:1:ASP:CG	1:B:2:TRP:N	2.70	0.43
1:B:518:ASN:C	1:B:520:PRO:CD	2.87	0.43
2:A:805:NAG:H62	2:A:806:NAG:N2	2.31	0.43
1:B:239:VAL:HG13	1:B:240:GLN:N	2.34	0.43
1:A:194:THR:HG23	1:A:201:LEU:O	2.18	0.43
1:A:239:VAL:HG13	1:A:240:GLN:N	2.33	0.43
1:A:419:VAL:HG13	1:A:420:GLY:N	2.34	0.43
1:B:188:THR:H	2:B:801:NAG:H83	1.84	0.43
1:B:367:LEU:H	1:B:367:LEU:HG	1.41	0.43
1:B:419:VAL:HG13	1:B:420:GLY:N	2.34	0.43
2:B:810:NAG:O7	2:B:810:NAG:C1	2.67	0.43
1:A:264:ASN:HB3	1:A:267:GLY:HA2	2.01	0.42
1:A:347:ARG:HG3	1:A:392:GLY:N	2.33	0.42
1:B:522:LEU:HD23	1:B:522:LEU:HA	1.36	0.42
1:A:32:ASN:ND2	1:A:83:GLU:CB	2.62	0.42
1:A:89:GLU:CD	1:B:1:ASP:N	2.37	0.42
1:A:90:GLU:O	1:A:91:PRO:O	2.37	0.42
1:A:368:SER:CB	1:A:370:PHE:HE1	2.31	0.42
1:A:371:ILE:HG13	1:A:410:MET:SD	2.59	0.42
1:A:439:VAL:HA	1:A:440:PRO:HD3	1.81	0.42
1:B:22:VAL:CG2	1:B:23:GLN:N	2.81	0.42
1:B:32:ASN:HD22	1:B:83:GLU:N	2.13	0.42
1:A:154:ASP:HB3	2:A:801:NAG:C7	2.48	0.42
1:A:450:GLN:HG3	1:A:532:CYS:O	2.10	0.42
1:B:451:ASN:O	1:B:534:GLY:CA	2.60	0.42
1:A:22:VAL:CG2	1:A:23:GLN:N	2.81	0.42
1:A:347:ARG:HD2	1:A:392:GLY:CA	2.50	0.42
1:A:371:ILE:HA	1:A:410:MET:HB3	2.02	0.42
1:A:442:PRO:HD2	1:A:457:LEU:HD12	2.00	0.42
1:A:522:LEU:HB3	1:A:523:THR:H	1.57	0.42
1:B:138:ASN:C	1:B:138:ASN:ND2	2.73	0.42
1:B:261:ILE:HD13	1:B:261:ILE:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:333:VAL:HG23	1:B:334:PRO:HD3	2.01	0.42
1:B:368:SER:CB	1:B:370:PHE:HE1	2.31	0.42
1:A:298:LEU:N	1:A:298:LEU:CD2	2.75	0.42
1:A:409:ILE:HD13	3:A:811:NDG:H8C3	2.01	0.42
1:A:518:ASN:C	1:A:520:PRO:CD	2.87	0.42
1:B:7:ILE:O	1:B:96:ILE:HG23	2.20	0.42
1:B:482:THR:HG22	1:B:499:THR:H	1.70	0.42
1:A:84:ASN:O	1:B:79:HIS:ND1	2.53	0.42
1:A:138:ASN:C	1:A:138:ASN:ND2	2.73	0.42
1:A:333:VAL:HG23	1:A:334:PRO:HD3	2.01	0.42
1:B:371:ILE:HG13	1:B:410:MET:SD	2.59	0.42
1:A:515:ASP:OD1	1:A:516:ALA:N	2.53	0.42
1:B:347:ARG:HD2	1:B:392:GLY:CA	2.50	0.42
1:B:441:SER:CB	1:B:442:PRO:HD3	2.47	0.42
1:B:511:VAL:N	1:B:523:THR:O	2.46	0.42
1:A:339:VAL:HG21	1:A:351:ILE:HG22	2.01	0.42
1:B:235:ILE:HD13	1:B:235:ILE:HG21	1.84	0.42
1:B:250:PRO:HA	1:B:255:TRP:CG	2.55	0.42
1:B:339:VAL:HG21	1:B:351:ILE:HG22	2.01	0.42
1:B:469:TYR:CE2	1:B:470:PRO:HD2	2.54	0.42
1:B:515:ASP:OD1	1:B:516:ALA:N	2.53	0.42
1:A:3:VAL:HB	1:A:4:ILE:H	1.51	0.42
1:A:469:TYR:CE2	1:A:470:PRO:HD2	2.54	0.42
1:A:524:VAL:HG21	2:A:904:NAG:C8	2.44	0.42
1:A:539:CYS:HB3	1:A:540:GLN:H	1.45	0.42
1:B:67:ASP:CG	1:B:69:GLU:HB2	2.40	0.42
1:B:335:ALA:HB3	3:B:811:NDG:O6	2.15	0.42
1:A:195:ASP:HB3	1:A:196:LEU:HG	2.01	0.42
1:A:441:SER:CB	1:A:442:PRO:HD3	2.47	0.42
1:B:40:GLY:O	1:B:45:ASN:HB2	2.19	0.42
1:B:175:ILE:CG2	1:B:176:GLY:N	2.82	0.42
1:B:230:VAL:O	1:B:323:VAL:HA	2.20	0.42
1:B:344:ASP:CG	1:B:344:ASP:O	2.57	0.42
1:A:108:PHE:HA	1:A:132:ALA:CB	2.50	0.41
1:A:239:VAL:HG11	1:A:282:LEU:HD22	2.02	0.41
1:A:502:LEU:HD22	1:A:503:LYS:H	1.85	0.41
1:B:108:PHE:HA	1:B:132:ALA:CB	2.50	0.41
1:B:264:ASN:HB3	1:B:267:GLY:HA2	2.01	0.41
1:B:371:ILE:HA	1:B:410:MET:HB3	2.02	0.41
1:B:505:GLY:H	1:B:529:VAL:HB	1.85	0.41
1:B:514:SER:HG	1:B:519:ASN:HA	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:188:THR:H	2:A:801:NAG:H83	1.84	0.41
1:A:250:PRO:HA	1:A:255:TRP:CG	2.55	0.41
2:A:810:NAG:O7	2:A:810:NAG:C1	2.67	0.41
1:B:127:VAL:HG13	1:B:128:MET:N	2.25	0.41
1:B:231:PRO:O	1:B:235:ILE:HD13	2.21	0.41
1:B:347:ARG:HG3	1:B:392:GLY:N	2.33	0.41
1:A:86:SER:HB3	1:B:92:MET:HB2	1.39	0.41
1:A:127:VAL:HG22	1:A:128:MET:HG3	2.03	0.41
1:A:505:GLY:H	1:A:529:VAL:HB	1.85	0.41
1:B:154:ASP:HB3	2:B:801:NAG:C7	2.48	0.41
1:B:231:PRO:O	1:B:288:LEU:HD12	2.20	0.41
1:B:409:ILE:HD13	3:B:811:NDG:H8C3	2.01	0.41
1:B:449:ASP:N	1:B:532:CYS:HB3	2.19	0.41
1:B:128:MET:HB3	1:B:129:ALA:H	1.62	0.41
1:A:42:GLY:CA	1:A:47:PRO:O	2.69	0.41
1:A:175:ILE:CG2	1:A:176:GLY:N	2.82	0.41
1:B:502:LEU:HD22	1:B:503:LYS:H	1.85	0.41
1:A:230:VAL:O	1:A:323:VAL:HA	2.20	0.41
1:A:230:VAL:HG23	1:A:323:VAL:HA	2.03	0.41
1:A:231:PRO:O	1:A:235:ILE:HD13	2.21	0.41
1:A:474:SER:N	1:A:512:LEU:O	2.53	0.41
1:B:19:LYS:HB3	1:B:62:VAL:HG12	2.03	0.41
1:B:230:VAL:HG23	1:B:323:VAL:HA	2.03	0.41
1:A:33:LYS:NZ	1:A:56:GLU:OE1	2.42	0.41
1:A:400:TYR:O	1:A:401:VAL:C	2.59	0.41
1:B:474:SER:N	1:B:512:LEU:O	2.53	0.41
1:A:68:ARG:HD3	1:A:100:ASP:CB	2.51	0.41
1:A:82:SER:OG	1:B:91:PRO:CD	2.68	0.41
1:A:261:ILE:HD13	1:A:261:ILE:H	1.85	0.41
1:B:68:ARG:HD3	1:B:100:ASP:CB	2.51	0.41
1:B:108:PHE:CZ	1:B:191:VAL:HG23	2.56	0.41
1:A:7:ILE:O	1:A:96:ILE:HG23	2.20	0.41
1:A:23:GLN:HA	1:A:58:GLY:O	2.21	0.41
1:A:62:VAL:O	1:A:62:VAL:HG13	2.21	0.41
1:A:108:PHE:HA	1:A:132:ALA:HB2	2.03	0.41
1:A:138:ASN:HD22	1:A:138:ASN:N	2.19	0.41
1:A:235:ILE:HD13	1:A:235:ILE:HG21	1.84	0.41
1:A:290:PHE:CG	1:A:292:LEU:HB2	2.56	0.41
1:A:316:THR:OG1	2:A:806:NAG:H83	2.21	0.41
1:A:345:LEU:HD22	1:A:349:GLU:HB2	2.03	0.41
1:B:25:LYS:NZ	1:B:29:ASP:OD2	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:33:LYS:NZ	1:B:56:GLU:OE1	2.43	0.41
1:B:373:ASN:CG	1:B:374:ASP:N	2.75	0.41
1:B:448:CYS:C	1:B:452:PRO:HG3	2.40	0.41
1:B:449:ASP:HB2	1:B:531:SER:HA	2.03	0.41
1:A:193:ALA:O	1:A:202:SER:HA	2.21	0.41
1:A:297:VAL:HG22	2:A:807:NAG:H62	2.03	0.41
1:B:108:PHE:HA	1:B:132:ALA:HB2	2.03	0.41
1:B:111:ASP:O	1:B:112:VAL:HG13	2.21	0.41
1:B:193:ALA:O	1:B:202:SER:HA	2.21	0.41
1:B:319:VAL:CG1	1:B:320:THR:N	2.84	0.41
1:A:67:ASP:CG	1:A:69:GLU:HB2	2.40	0.40
1:A:231:PRO:O	1:A:288:LEU:HD12	2.20	0.40
1:B:378:TRP:HB2	1:B:379:LEU:H	1.64	0.40
2:B:805:NAG:H62	2:B:806:NAG:N2	2.31	0.40
1:A:23:GLN:HB2	1:A:59:TRP:CD2	2.55	0.40
1:A:119:GLU:CG	1:A:214:ALA:HB3	2.51	0.40
1:A:409:ILE:HD13	3:A:811:NDG:C8	2.51	0.40
1:B:316:THR:OG1	2:B:806:NAG:H83	2.21	0.40
1:B:540:GLN:O	1:B:540:GLN:NE2	2.47	0.40
1:A:108:PHE:CZ	1:A:191:VAL:HG23	2.56	0.40
1:A:373:ASN:CG	1:A:374:ASP:N	2.75	0.40
1:A:466:PRO:O	1:A:469:TYR:N	2.46	0.40
1:B:127:VAL:HG22	1:B:128:MET:HG3	2.03	0.40
1:B:239:VAL:HG11	1:B:282:LEU:HD22	2.02	0.40
1:B:272:THR:O	1:B:281:ILE:HG22	2.21	0.40
1:B:400:TYR:O	1:B:401:VAL:C	2.59	0.40
1:A:28:LYS:NZ	1:B:4:ILE:HG22	2.37	0.40
1:A:249:MET:HA	1:A:250:PRO:HD3	1.85	0.40
1:A:319:VAL:CG1	1:A:320:THR:N	2.84	0.40
1:A:371:ILE:HD12	1:A:371:ILE:HA	1.65	0.40
1:A:423:THR:CG2	2:A:810:NAG:N2	2.84	0.40
1:B:23:GLN:HB2	1:B:59:TRP:CD2	2.55	0.40
1:B:23:GLN:HA	1:B:58:GLY:O	2.21	0.40
1:B:298:LEU:N	1:B:298:LEU:CD2	2.75	0.40
1:B:396:ARG:HH21	1:B:432:ASP:CG	2.25	0.40
1:B:423:THR:CG2	2:B:810:NAG:N2	2.84	0.40
1:A:111:ASP:O	1:A:112:VAL:HG13	2.21	0.40
1:B:409:ILE:HD13	3:B:811:NDG:C8	2.51	0.40
1:B:432:ASP:CG	1:B:433:VAL:N	2.74	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	538/880 (61%)	401 (74%)	92 (17%)	45 (8%)	0	9
1	B	538/880 (61%)	401 (74%)	92 (17%)	45 (8%)	0	9
All	All	1076/1760 (61%)	802 (74%)	184 (17%)	90 (8%)	1	9

All (90) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	91	PRO
1	A	155	PRO
1	A	235	ILE
1	A	347	ARG
1	A	363	GLN
1	A	364	ILE
1	A	374	ASP
1	A	404	ASN
1	A	467	ASN
1	A	476	SER
1	A	502	LEU
1	A	517	GLN
1	A	518	ASN
1	A	519	ASN
1	B	91	PRO
1	B	155	PRO
1	B	235	ILE
1	B	347	ARG
1	B	363	GLN
1	B	364	ILE
1	B	374	ASP
1	B	404	ASN
1	B	467	ASN
1	B	476	SER
1	B	502	LEU

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Mol	Chain	Res	Type
1	B	517	GLN
1	B	518	ASN
1	B	519	ASN
1	A	3	VAL
1	A	156	GLU
1	A	260	LYS
1	A	287	GLY
1	A	470	PRO
1	A	503	LYS
1	B	3	VAL
1	B	156	GLU
1	B	260	LYS
1	B	287	GLY
1	B	470	PRO
1	B	503	LYS
1	A	55	TRP
1	A	212	THR
1	A	250	PRO
1	A	333	VAL
1	A	360	ASP
1	A	372	GLY
1	A	377	ARG
1	A	506	ASP
1	B	55	TRP
1	B	212	THR
1	B	250	PRO
1	B	333	VAL
1	B	360	ASP
1	B	372	GLY
1	B	377	ARG
1	B	506	ASP
1	A	152	LYS
1	A	223	PRO
1	A	359	PRO
1	A	375	PRO
1	B	152	LYS
1	B	223	PRO
1	B	359	PRO
1	B	375	PRO
1	A	160	PRO
1	A	265	GLU
1	A	278	ASN

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Mol	Chain	Res	Type
1	A	289	ASP
1	A	482	THR
1	B	160	PRO
1	B	265	GLU
1	B	278	ASN
1	B	289	ASP
1	B	482	THR
1	A	498	PRO
1	A	523	THR
1	B	498	PRO
1	B	523	THR
1	A	154	ASP
1	A	307	PRO
1	B	154	ASP
1	B	307	PRO
1	A	222	ASP
1	B	222	ASP
1	A	200	GLY
1	B	200	GLY
1	A	47	PRO
1	A	158	PRO
1	B	47	PRO
1	B	158	PRO

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 PDB entries followed by that with respect to all EM entries.

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	480/779 (62%)	381 (79%)	99 (21%)	1 6
1	B	480/779 (62%)	381 (79%)	99 (21%)	1 6
All	All	960/1558 (62%)	762 (79%)	198 (21%)	3 6

All (198) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	8	LYS
1	A	18	PRO
1	A	19	LYS
1	A	27	ASN
1	A	52	ARG
1	A	61	LEU
1	A	66	LEU
1	A	68	ARG
1	A	88	VAL
1	A	91	PRO
1	A	92	MET
1	A	117	VAL
1	A	138	ASN
1	A	146	LEU
1	A	151	LEU
1	A	155	PRO
1	A	156	GLU
1	A	161	ASN
1	A	163	PHE
1	A	189	LEU
1	A	195	ASP
1	A	202	SER
1	A	216	ASP
1	A	217	ASN
1	A	223	PRO
1	A	226	TYR
1	A	231	PRO
1	A	233	ASN
1	A	234	GLU
1	A	235	ILE
1	A	237	PHE
1	A	250	PRO
1	A	253	PRO
1	A	261	ILE
1	A	264	ASN
1	A	268	PHE
1	A	273	THR
1	A	277	SER
1	A	278	ASN
1	A	282	LEU
1	A	284	THR
1	A	288	LEU
1	A	298	LEU

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Mol	Chain	Res	Type
1	A	309	SER
1	A	310	VAL
1	A	315	SER
1	A	316	THR
1	A	318	THR
1	A	333	VAL
1	A	336	VAL
1	A	339	VAL
1	A	345	LEU
1	A	353	SER
1	A	354	LEU
1	A	360	ASP
1	A	363	GLN
1	A	364	ILE
1	A	365	GLN
1	A	371	ILE
1	A	373	ASN
1	A	375	PRO
1	A	379	LEU
1	A	382	ASN
1	A	384	ASP
1	A	385	ASN
1	A	393	ASN
1	A	394	LEU
1	A	395	ASP
1	A	398	SER
1	A	399	GLU
1	A	404	ASN
1	A	405	THR
1	A	407	THR
1	A	410	MET
1	A	423	THR
1	A	425	THR
1	A	427	ILE
1	A	428	LEU
1	A	433	VAL
1	A	436	ASN
1	A	447	MET
1	A	448	CYS
1	A	461	ASP
1	A	464	ILE
1	A	465	PRO

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Mol	Chain	Res	Type
1	A	466	PRO
1	A	470	PRO
1	A	477	HIS
1	A	492	THR
1	A	509	ILE
1	A	512	LEU
1	A	517	GLN
1	A	518	ASN
1	A	519	ASN
1	A	520	PRO
1	A	522	LEU
1	A	523	THR
1	A	532	CYS
1	A	540	GLN
1	B	8	LYS
1	B	18	PRO
1	B	19	LYS
1	B	27	ASN
1	B	52	ARG
1	B	61	LEU
1	B	66	LEU
1	B	68	ARG
1	B	88	VAL
1	B	91	PRO
1	B	92	MET
1	B	117	VAL
1	B	138	ASN
1	B	146	LEU
1	B	151	LEU
1	B	155	PRO
1	B	156	GLU
1	B	161	ASN
1	B	163	PHE
1	B	189	LEU
1	B	195	ASP
1	B	202	SER
1	B	216	ASP
1	B	217	ASN
1	B	223	PRO
1	B	226	TYR
1	B	231	PRO
1	B	233	ASN

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Mol	Chain	Res	Type
1	B	234	GLU
1	B	235	ILE
1	B	237	PHE
1	B	250	PRO
1	B	253	PRO
1	B	261	ILE
1	B	264	ASN
1	B	268	PHE
1	B	273	THR
1	B	277	SER
1	B	278	ASN
1	B	282	LEU
1	B	284	THR
1	B	288	LEU
1	B	298	LEU
1	B	309	SER
1	B	310	VAL
1	B	315	SER
1	B	316	THR
1	B	318	THR
1	B	333	VAL
1	B	336	VAL
1	B	339	VAL
1	B	345	LEU
1	B	353	SER
1	B	354	LEU
1	B	360	ASP
1	B	363	GLN
1	B	364	ILE
1	B	365	GLN
1	B	371	ILE
1	B	373	ASN
1	B	375	PRO
1	B	379	LEU
1	B	382	ASN
1	B	384	ASP
1	B	385	ASN
1	B	393	ASN
1	B	394	LEU
1	B	395	ASP
1	B	398	SER
1	B	399	GLU

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Mol	Chain	Res	Type
1	B	404	ASN
1	B	405	THR
1	B	407	THR
1	B	410	MET
1	B	423	THR
1	B	425	THR
1	B	427	ILE
1	B	428	LEU
1	B	433	VAL
1	B	436	ASN
1	B	447	MET
1	B	448	CYS
1	B	461	ASP
1	B	464	ILE
1	B	465	PRO
1	B	466	PRO
1	B	470	PRO
1	B	477	HIS
1	B	492	THR
1	B	509	ILE
1	B	512	LEU
1	B	517	GLN
1	B	518	ASN
1	B	519	ASN
1	B	520	PRO
1	B	522	LEU
1	B	523	THR
1	B	532	CYS
1	B	540	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (47) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	12	ASN
1	A	27	ASN
1	A	32	ASN
1	A	45	ASN
1	A	104	ASN
1	A	110	GLN
1	A	122	GLN
1	A	138	ASN
1	A	217	ASN

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Mol	Chain	Res	Type
1	A	233	ASN
1	A	240	GLN
1	A	264	ASN
1	A	278	ASN
1	A	299	GLN
1	A	373	ASN
1	A	385	ASN
1	A	391	ASN
1	A	393	ASN
1	A	404	ASN
1	A	455	GLN
1	A	467	ASN
1	A	517	GLN
1	A	519	ASN
1	B	12	ASN
1	B	27	ASN
1	B	32	ASN
1	B	45	ASN
1	B	79	HIS
1	B	104	ASN
1	B	110	GLN
1	B	122	GLN
1	B	138	ASN
1	B	217	ASN
1	B	233	ASN
1	B	240	GLN
1	B	264	ASN
1	B	278	ASN
1	B	299	GLN
1	B	373	ASN
1	B	385	ASN
1	B	391	ASN
1	B	393	ASN
1	B	404	ASN
1	B	455	GLN
1	B	467	ASN
1	B	517	GLN
1	B	519	ASN

5.3.3 RNA ⓘ

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 54 ligands modelled in this entry, 24 are monoatomic - leaving 30 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	NAG	B	812	1	14,14,15	0.84	1 (7%)	17,19,21	0.76	1 (5%)
2	NAG	A	807	1	14,14,15	0.65	0	17,19,21	1.19	2 (11%)
2	NAG	A	812	1	14,14,15	0.83	1 (7%)	17,19,21	0.76	1 (5%)
2	NAG	B	808	1	14,14,15	0.67	0	17,19,21	0.70	0
2	NAG	A	904	1	14,14,15	0.76	1 (7%)	17,19,21	0.70	1 (5%)
2	NAG	A	801	1	14,14,15	0.70	0	17,19,21	0.97	1 (5%)
2	NAG	B	810	1	14,14,15	0.66	0	17,19,21	1.33	4 (23%)
2	NAG	B	805	1	14,14,15	0.71	0	17,19,21	1.06	1 (5%)
2	NAG	A	902	1	14,14,15	1.13	1 (7%)	17,19,21	1.09	2 (11%)
2	NAG	B	806	1	14,14,15	0.56	0	17,19,21	1.39	3 (17%)
3	NDG	A	804	1	14,14,15	0.65	0	17,19,21	0.78	0
2	NAG	A	810	1	14,14,15	0.67	0	17,19,21	1.33	4 (23%)
2	NAG	A	803	1	14,14,15	0.99	1 (7%)	17,19,21	1.15	2 (11%)
2	NAG	B	807	1	14,14,15	0.64	0	17,19,21	1.19	2 (11%)
2	NAG	B	904	1	14,14,15	0.77	1 (7%)	17,19,21	0.70	1 (5%)
2	NAG	B	809	1	14,14,15	0.77	1 (7%)	17,19,21	0.94	0
2	NAG	B	801	1	14,14,15	0.70	0	17,19,21	0.98	1 (5%)
2	NAG	A	903	1	14,14,15	0.55	0	17,19,21	0.79	0
2	NAG	A	802	1	14,14,15	0.76	1 (7%)	17,19,21	0.85	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	NAG	A	809	1	14,14,15	0.75	0	17,19,21	0.94	0
2	NAG	B	803	1	14,14,15	0.99	1 (7%)	17,19,21	1.16	2 (11%)
2	NAG	B	802	1	14,14,15	0.77	1 (7%)	17,19,21	0.85	0
3	NDG	B	804	1	14,14,15	0.64	0	17,19,21	0.78	0
3	NDG	B	811	1	14,14,15	0.86	0	17,19,21	1.97	1 (5%)
2	NAG	A	805	1	14,14,15	0.71	0	17,19,21	1.06	1 (5%)
2	NAG	A	808	1	14,14,15	0.65	0	17,19,21	0.70	0
2	NAG	B	903	1	14,14,15	0.55	0	17,19,21	0.79	0
2	NAG	A	806	1	14,14,15	0.56	0	17,19,21	1.39	3 (17%)
3	NDG	A	811	1	14,14,15	0.88	0	17,19,21	1.96	1 (5%)
2	NAG	B	902	1	14,14,15	1.12	1 (7%)	17,19,21	1.09	1 (5%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	B	812	1	-	4/6/23/26	0/1/1/1
2	NAG	A	807	1	-	5/6/23/26	0/1/1/1
2	NAG	A	812	1	-	4/6/23/26	0/1/1/1
2	NAG	B	808	1	-	3/6/23/26	0/1/1/1
2	NAG	A	904	1	-	3/6/23/26	0/1/1/1
2	NAG	A	801	1	-	4/6/23/26	0/1/1/1
2	NAG	B	810	1	-	3/6/23/26	0/1/1/1
2	NAG	B	805	1	1/1/5/7	2/6/23/26	0/1/1/1
2	NAG	A	902	1	1/1/5/7	2/6/23/26	0/1/1/1
2	NAG	B	806	1	1/1/5/7	2/6/23/26	0/1/1/1
3	NDG	A	804	1	-	0/6/23/26	0/1/1/1
2	NAG	A	810	1	-	3/6/23/26	0/1/1/1
2	NAG	A	803	1	-	2/6/23/26	0/1/1/1
2	NAG	B	807	1	-	5/6/23/26	0/1/1/1
2	NAG	B	904	1	-	3/6/23/26	0/1/1/1
2	NAG	B	809	1	-	2/6/23/26	0/1/1/1
2	NAG	B	801	1	-	4/6/23/26	0/1/1/1
2	NAG	A	903	1	1/1/5/7	2/6/23/26	0/1/1/1
2	NAG	A	802	1	-	2/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	A	809	1	-	2/6/23/26	0/1/1/1
2	NAG	B	802	1	-	2/6/23/26	0/1/1/1
2	NAG	B	803	1	-	2/6/23/26	0/1/1/1
3	NDG	B	804	1	-	0/6/23/26	0/1/1/1
3	NDG	B	811	1	-	2/6/23/26	0/1/1/1
2	NAG	A	805	1	1/1/5/7	2/6/23/26	0/1/1/1
2	NAG	A	808	1	-	3/6/23/26	0/1/1/1
2	NAG	B	903	1	1/1/5/7	2/6/23/26	0/1/1/1
2	NAG	A	806	1	1/1/5/7	2/6/23/26	0/1/1/1
3	NDG	A	811	1	-	2/6/23/26	0/1/1/1
2	NAG	B	902	1	1/1/5/7	2/6/23/26	0/1/1/1

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	902	NAG	C1-C2	3.38	1.57	1.52
2	B	902	NAG	C1-C2	3.31	1.56	1.52
2	B	803	NAG	O5-C5	2.62	1.48	1.43
2	A	803	NAG	O5-C5	2.62	1.48	1.43
2	B	904	NAG	C1-C2	-2.41	1.49	1.52
2	A	904	NAG	C1-C2	-2.39	1.49	1.52
2	B	812	NAG	C1-C2	-2.34	1.49	1.52
2	A	812	NAG	C1-C2	-2.33	1.49	1.52
2	B	802	NAG	C1-C2	2.09	1.55	1.52
2	A	802	NAG	C1-C2	2.06	1.55	1.52
2	B	809	NAG	C1-C2	-2.02	1.49	1.52

All (35) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	811	NDG	C2-N2-C7	-7.45	112.92	122.90
3	A	811	NDG	C2-N2-C7	-7.42	112.95	122.90
2	A	806	NAG	C2-N2-C7	-3.63	118.04	122.90
2	B	806	NAG	C2-N2-C7	-3.62	118.05	122.90
2	B	805	NAG	C2-N2-C7	-3.20	118.61	122.90
2	A	805	NAG	C2-N2-C7	-3.16	118.66	122.90
2	B	807	NAG	C2-N2-C7	-3.05	118.81	122.90
2	A	807	NAG	C2-N2-C7	-3.05	118.82	122.90
2	A	803	NAG	C2-N2-C7	-2.96	118.93	122.90
2	B	803	NAG	C2-N2-C7	-2.96	118.94	122.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	810	NAG	C1-C2-N2	2.53	114.41	110.43
2	B	810	NAG	C1-C2-N2	2.50	114.38	110.43
2	B	810	NAG	C4-C3-C2	-2.46	107.41	111.02
2	A	810	NAG	C4-C3-C2	-2.45	107.42	111.02
2	A	806	NAG	C4-C3-C2	-2.45	107.43	111.02
2	B	806	NAG	C4-C3-C2	-2.44	107.44	111.02
2	B	803	NAG	C1-O5-C5	2.44	115.45	112.19
2	A	803	NAG	C1-O5-C5	2.43	115.44	112.19
2	A	810	NAG	O5-C1-C2	-2.38	107.60	111.29
2	B	810	NAG	O5-C1-C2	-2.38	107.61	111.29
2	B	810	NAG	C1-O5-C5	-2.25	109.17	112.19
2	A	810	NAG	C1-O5-C5	-2.23	109.19	112.19
2	B	902	NAG	O5-C1-C2	2.17	114.65	111.29
2	A	812	NAG	C2-N2-C7	-2.16	120.01	122.90
2	A	902	NAG	O5-C1-C2	2.16	114.63	111.29
2	B	812	NAG	C2-N2-C7	-2.14	120.04	122.90
2	A	801	NAG	C1-C2-N2	-2.13	107.07	110.43
2	B	801	NAG	C1-C2-N2	-2.13	107.07	110.43
2	B	807	NAG	O5-C1-C2	-2.09	108.06	111.29
2	A	807	NAG	O5-C1-C2	-2.07	108.08	111.29
2	A	902	NAG	C1-O5-C5	2.04	114.92	112.19
2	B	904	NAG	C2-N2-C7	-2.03	120.17	122.90
2	B	806	NAG	O5-C1-C2	-2.03	108.15	111.29
2	A	904	NAG	C2-N2-C7	-2.02	120.19	122.90
2	A	806	NAG	O5-C1-C2	-2.02	108.17	111.29

All (8) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	A	805	NAG	C1
2	A	806	NAG	C1
2	A	902	NAG	C1
2	A	903	NAG	C1
2	B	805	NAG	C1
2	B	806	NAG	C1
2	B	902	NAG	C1
2	B	903	NAG	C1

All (76) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	807	NAG	C3-C2-N2-C7

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Mol	Chain	Res	Type	Atoms
2	A	808	NAG	C1-C2-N2-C7
2	A	810	NAG	C1-C2-N2-C7
2	A	812	NAG	C1-C2-N2-C7
2	A	902	NAG	C3-C2-N2-C7
2	A	904	NAG	C3-C2-N2-C7
2	B	807	NAG	C3-C2-N2-C7
2	B	808	NAG	C1-C2-N2-C7
2	B	810	NAG	C1-C2-N2-C7
2	B	812	NAG	C1-C2-N2-C7
2	B	902	NAG	C3-C2-N2-C7
2	B	904	NAG	C3-C2-N2-C7
3	A	811	NDG	C4-C5-C6-O6
3	B	811	NDG	C4-C5-C6-O6
2	A	807	NAG	C4-C5-C6-O6
2	B	807	NAG	C4-C5-C6-O6
3	A	811	NDG	O5-C5-C6-O6
3	B	811	NDG	O5-C5-C6-O6
2	A	802	NAG	C4-C5-C6-O6
2	B	802	NAG	C4-C5-C6-O6
2	A	809	NAG	O5-C5-C6-O6
2	B	809	NAG	O5-C5-C6-O6
2	A	809	NAG	C4-C5-C6-O6
2	B	809	NAG	C4-C5-C6-O6
2	A	807	NAG	O5-C5-C6-O6
2	B	807	NAG	O5-C5-C6-O6
2	A	807	NAG	C8-C7-N2-C2
2	B	807	NAG	C8-C7-N2-C2
2	A	805	NAG	O5-C5-C6-O6
2	B	805	NAG	O5-C5-C6-O6
2	B	802	NAG	O5-C5-C6-O6
2	A	802	NAG	O5-C5-C6-O6
2	A	904	NAG	C4-C5-C6-O6
2	B	904	NAG	C4-C5-C6-O6
2	A	805	NAG	C4-C5-C6-O6
2	B	805	NAG	C4-C5-C6-O6
2	A	810	NAG	C4-C5-C6-O6
2	B	810	NAG	C4-C5-C6-O6
2	A	812	NAG	O5-C5-C6-O6
2	B	812	NAG	O5-C5-C6-O6
2	A	807	NAG	O7-C7-N2-C2
2	B	807	NAG	O7-C7-N2-C2
2	A	803	NAG	C4-C5-C6-O6

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Mol	Chain	Res	Type	Atoms
2	B	803	NAG	C4-C5-C6-O6
2	A	810	NAG	O5-C5-C6-O6
2	B	810	NAG	O5-C5-C6-O6
2	A	904	NAG	O5-C5-C6-O6
2	B	904	NAG	O5-C5-C6-O6
2	A	801	NAG	C4-C5-C6-O6
2	B	801	NAG	C4-C5-C6-O6
2	A	803	NAG	O5-C5-C6-O6
2	B	803	NAG	O5-C5-C6-O6
2	B	903	NAG	C4-C5-C6-O6
2	A	903	NAG	C4-C5-C6-O6
2	B	806	NAG	C4-C5-C6-O6
2	A	806	NAG	C4-C5-C6-O6
2	A	808	NAG	C4-C5-C6-O6
2	B	808	NAG	C4-C5-C6-O6
2	A	801	NAG	C3-C2-N2-C7
2	A	903	NAG	C3-C2-N2-C7
2	B	801	NAG	C3-C2-N2-C7
2	B	903	NAG	C3-C2-N2-C7
2	A	801	NAG	O5-C5-C6-O6
2	B	801	NAG	O5-C5-C6-O6
2	A	801	NAG	C1-C2-N2-C7
2	A	902	NAG	C1-C2-N2-C7
2	B	801	NAG	C1-C2-N2-C7
2	B	902	NAG	C1-C2-N2-C7
2	B	806	NAG	O5-C5-C6-O6
2	A	806	NAG	O5-C5-C6-O6
2	A	808	NAG	C3-C2-N2-C7
2	A	812	NAG	C3-C2-N2-C7
2	B	808	NAG	C3-C2-N2-C7
2	B	812	NAG	C3-C2-N2-C7
2	B	812	NAG	C4-C5-C6-O6
2	A	812	NAG	C4-C5-C6-O6

There are no ring outliers.

26 monomers are involved in 205 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	812	NAG	3	0
2	A	807	NAG	17	0
2	A	812	NAG	3	0
2	B	808	NAG	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	904	NAG	8	0
2	A	801	NAG	22	0
2	B	810	NAG	13	0
2	B	805	NAG	7	0
2	A	902	NAG	8	0
2	B	806	NAG	12	0
3	A	804	NDG	2	0
2	A	810	NAG	13	0
2	A	803	NAG	4	0
2	B	807	NAG	16	0
2	B	904	NAG	8	0
2	B	809	NAG	8	0
2	B	801	NAG	22	0
2	A	809	NAG	8	0
2	B	803	NAG	4	0
3	B	804	NDG	2	0
3	B	811	NDG	7	0
2	A	805	NAG	7	0
2	A	808	NAG	2	0
2	A	806	NAG	12	0
3	A	811	NDG	7	0
2	B	902	NAG	8	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

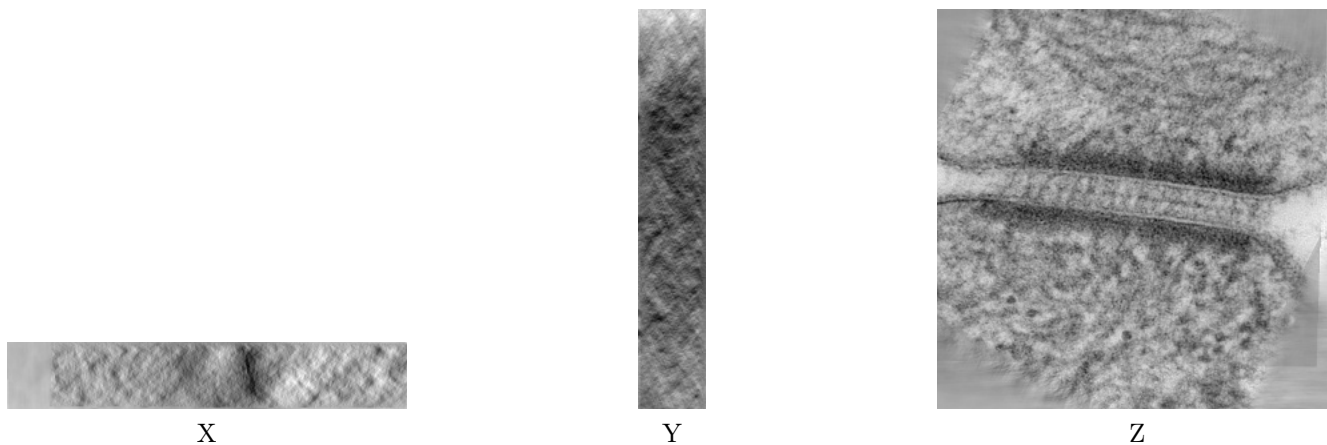
5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Tomogram visualisation [i](#)

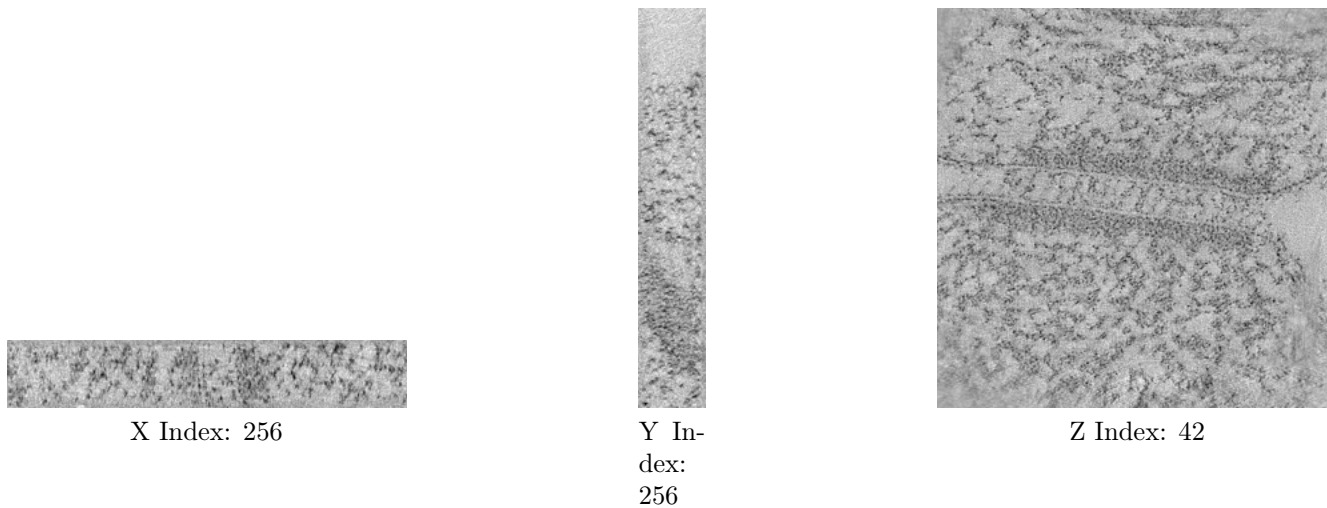
This section contains visualisations of the EMDB entry EMD-1052. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

6.1 Orthogonal projections [i](#)



The images above show the tomogram projected in three orthogonal directions.

6.2 Central slices [i](#)

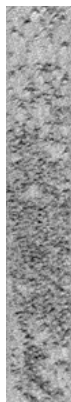
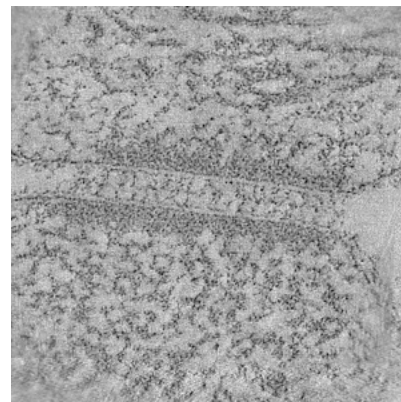


The images above show central slices of the tomogram in three orthogonal directions.

6.3 Largest variance slices [i](#)



X Index: 243

Y Index:
315

Z Index: 39

The images above show the largest variance slices of the tomogram in three orthogonal directions.

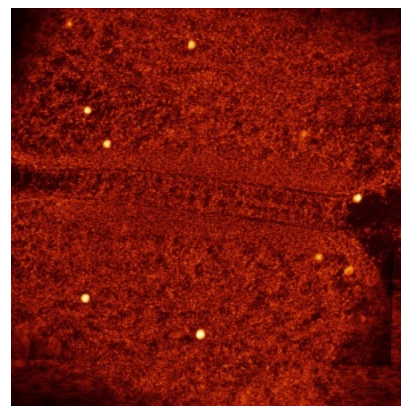
6.4 Orthogonal standard-deviation projections (False-color) [i](#)



X



Y



Z

The images above show the tomogram projected in three orthogonal directions.

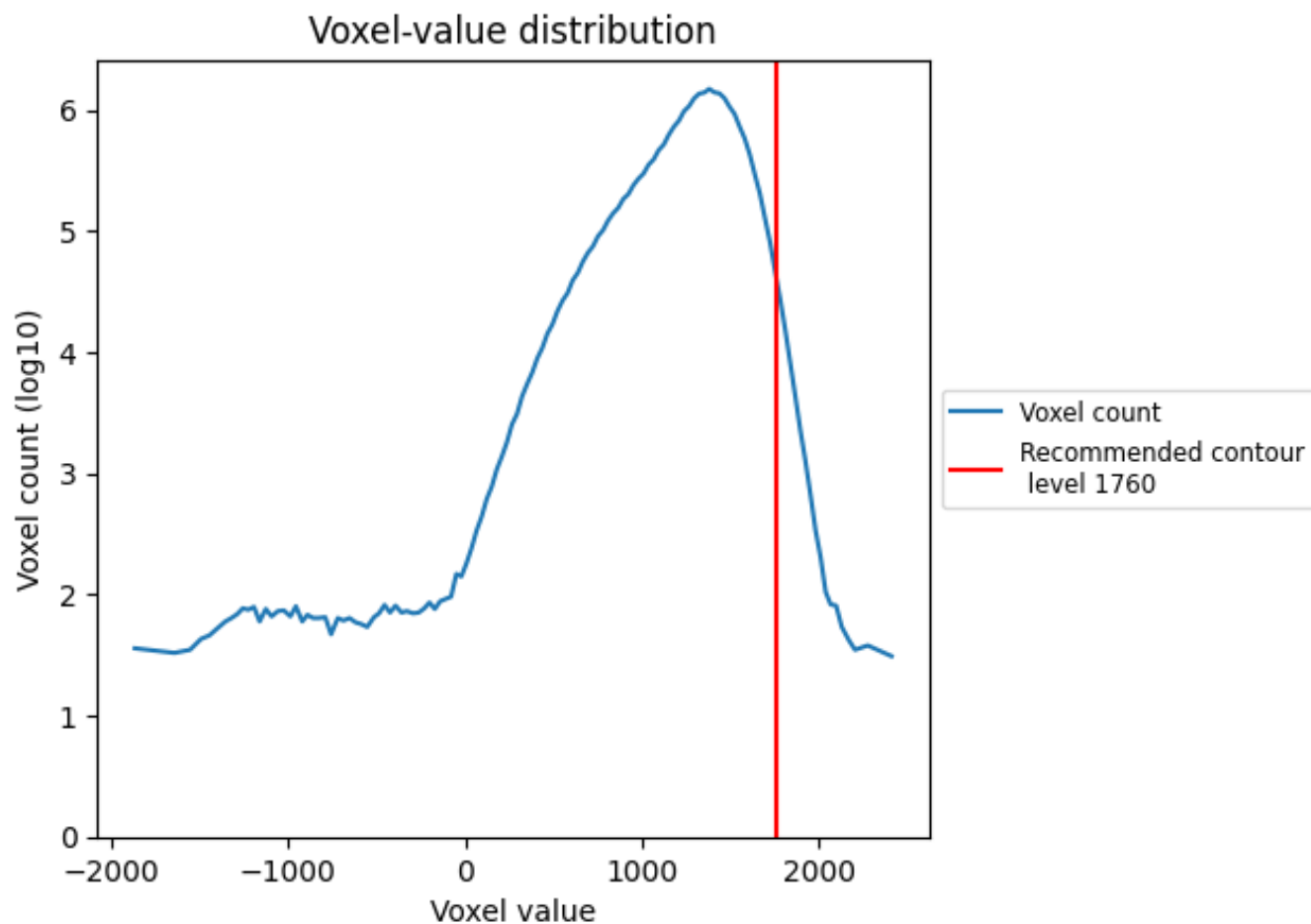
6.5 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Tomogram analysis [i](#)

This section contains the results of statistical analysis of the tomogram.

7.1 Voxel-value distribution [i](#)



The voxel-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic.

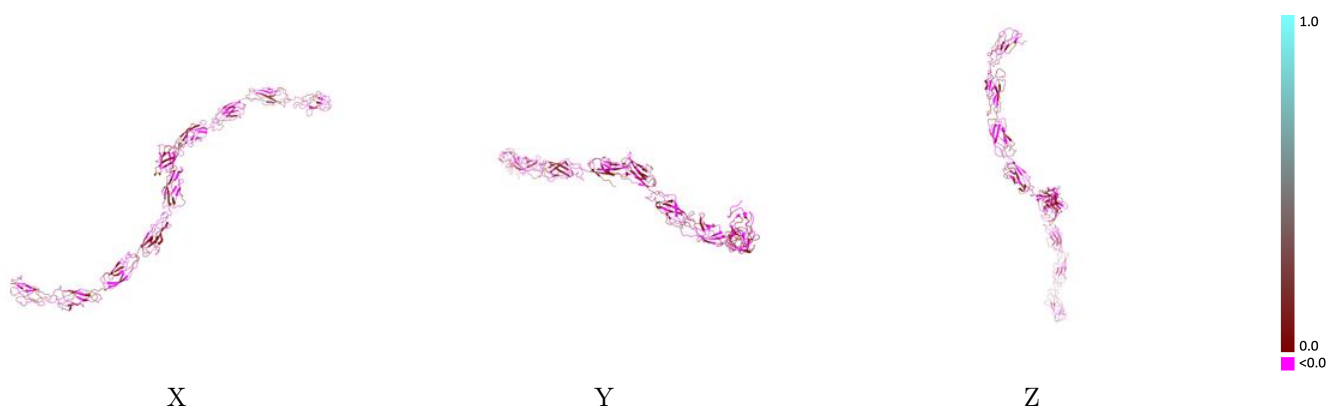
8 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-1052 and PDB model 1Q5A. Per-residue inclusion information can be found in section 3 on page 7.

8.1 Map-model overlay [i](#)

This section was not generated.

8.2 Q-score mapped to coordinate model [i](#)

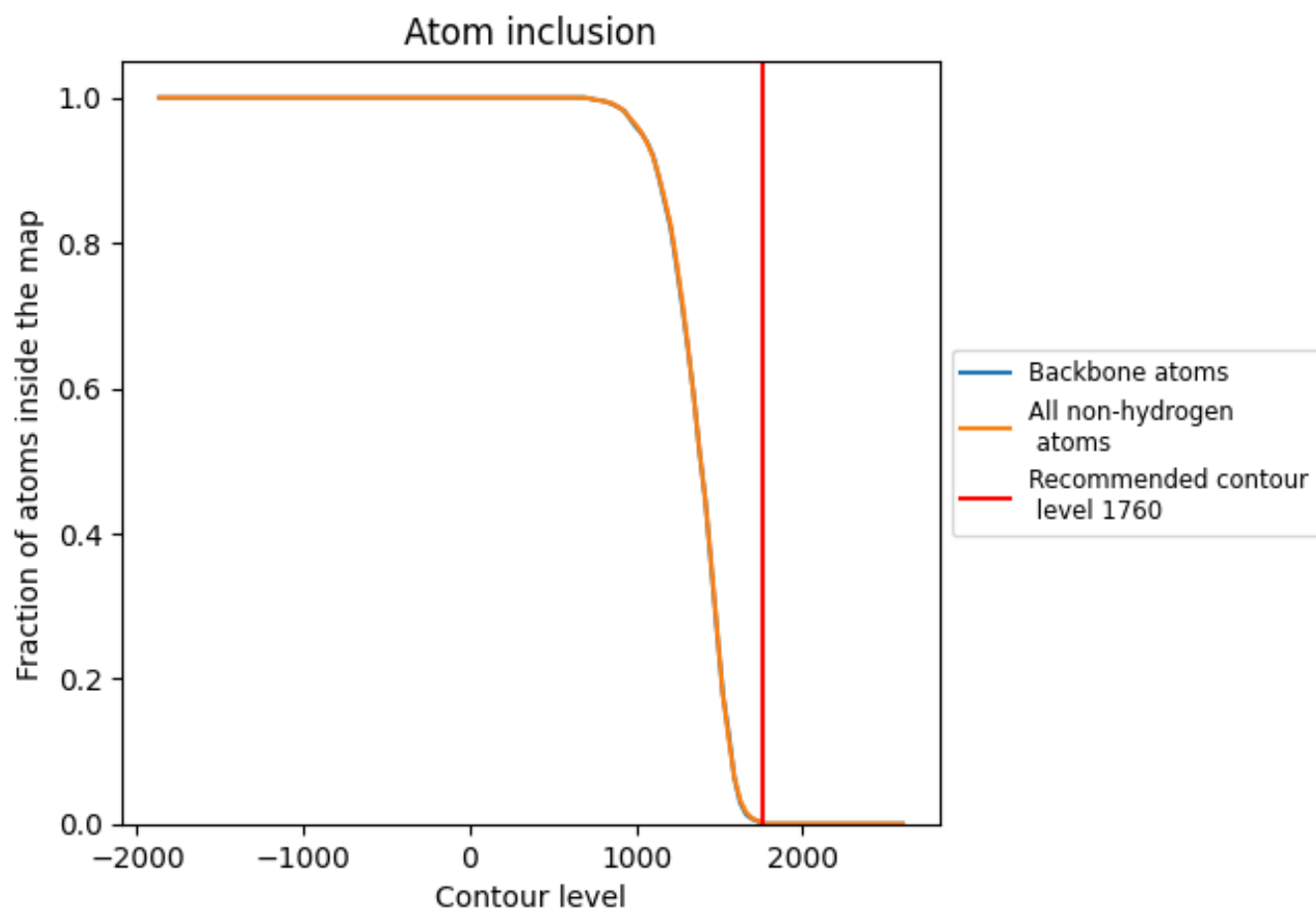


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

8.3 Atom inclusion mapped to coordinate model [i](#)

This section was not generated.

8.4 Atom inclusion [i](#)



At the recommended contour level, 0% of all backbone atoms, 0% of all non-hydrogen atoms, are inside the map.

8.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (1760) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.0010	0.0050
A	0.0020	0.0070
B	0.0000	0.0030

