Full wwPDB X-ray Structure Validation Report (i)

Jan 31, 2016 – 11:03 PM GMT

PDB ID	:	1W5C
Title	:	Photosystem II from Thermosynechococcus elongatus
Authors	:	Biesiadka, J.; Loll, B.; Kern, J.; Irrgang, K.-D.; Saenger, W.
Deposited on	:	2004-08-06
Resolution	:	3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

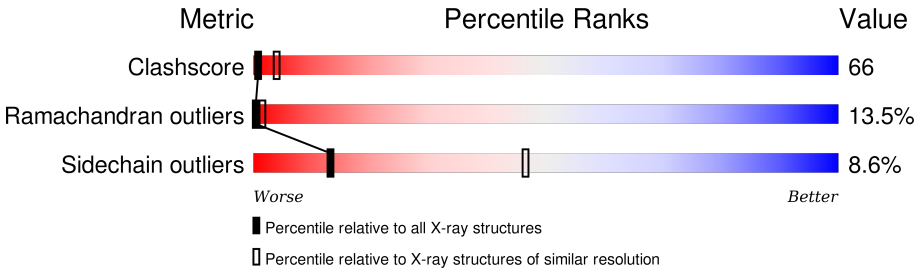
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	NOT EXECUTED
EDS	:	NOT EXECUTED
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.20 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	360	23% 54% 13% • 8%
1	G	360	25% 54% 12% • 8%
2	B	510	32% 49% 11% • 6%
2	H	510	32% 49% 11% • 6%
3	C	473	30% 49% 12% • 7%
3	I	473	29% 48% 14% • 7%
4	D	352	24% 59% 14% ••

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Mol	Chain	Length	Quality of chain
4	J	352	26% 59% 14%
5	E	84	24% 49% 14% 10%
5	K	84	23% 49% 15% 10%
6	F	44	14% 52% 14% 5% 16%
6	L	44	16% 45% 16% 7% 16%
7	O	179	68% 32%
7	P	179	66% 34%
8	S	100	43% 57%
8	U	100	39% 61%
9	T	163	56% 26% 17%
9	V	163	53% 29% 17%
10	X	359	52% 48%
10	Y	359	53% 47%

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
11	CLA	A	1342	X	-	-	-
11	CLA	A	1343	X	-	-	-
11	CLA	A	1344	X	-	-	-
11	CLA	A	1346	X	-	-	-
11	CLA	B	1482	X	-	-	-
11	CLA	B	1483	X	-	-	-
11	CLA	B	1484	X	-	-	-
11	CLA	B	1485	X	-	-	-
11	CLA	B	1486	X	-	-	-
11	CLA	B	1487	X	-	-	-
11	CLA	B	1488	X	-	-	-
11	CLA	B	1489	X	-	-	-
11	CLA	B	1490	X	-	-	-
11	CLA	B	1491	X	-	-	-
11	CLA	B	1492	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
11	CLA	B	1493	X	-	-	-
11	CLA	B	1494	X	-	-	-
11	CLA	B	1495	X	-	-	-
11	CLA	B	1496	X	-	-	-
11	CLA	B	1497	X	-	-	-
11	CLA	C	1459	X	-	-	-
11	CLA	C	1460	X	-	-	-
11	CLA	C	1461	X	-	-	-
11	CLA	C	1462	X	-	-	-
11	CLA	C	1463	X	-	-	-
11	CLA	C	1464	X	-	-	-
11	CLA	C	1465	X	-	-	-
11	CLA	C	1466	X	-	-	-
11	CLA	C	1467	X	-	-	-
11	CLA	C	1468	X	-	-	-
11	CLA	C	1469	X	-	-	-
11	CLA	C	1470	X	-	-	-
11	CLA	C	1471	X	-	-	-
11	CLA	D	1351	X	-	-	-
11	CLA	D	1353	X	-	-	-
11	CLA	G	1342	X	-	-	-
11	CLA	G	1343	X	-	-	-
11	CLA	G	1344	X	-	-	-
11	CLA	G	1346	X	-	-	-
11	CLA	H	1482	X	-	-	-
11	CLA	H	1483	X	-	-	-
11	CLA	H	1484	X	-	-	-
11	CLA	H	1485	X	-	-	-
11	CLA	H	1486	X	-	-	-
11	CLA	H	1487	X	-	-	-
11	CLA	H	1488	X	-	-	-
11	CLA	H	1489	X	-	-	-
11	CLA	H	1490	X	-	-	-
11	CLA	H	1491	X	-	-	-
11	CLA	H	1492	X	-	-	-
11	CLA	H	1493	X	-	-	-
11	CLA	H	1494	X	-	-	-
11	CLA	H	1495	X	-	-	-
11	CLA	H	1496	X	-	-	-
11	CLA	H	1497	X	-	-	-
11	CLA	I	1459	X	-	-	-
11	CLA	I	1460	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
11	CLA	I	1461	X	-	-	-
11	CLA	I	1462	X	-	-	-
11	CLA	I	1463	X	-	-	-
11	CLA	I	1464	X	-	-	-
11	CLA	I	1465	X	-	-	-
11	CLA	I	1466	X	-	-	-
11	CLA	I	1467	X	-	-	-
11	CLA	I	1468	X	-	-	-
11	CLA	I	1469	X	-	-	-
11	CLA	I	1470	X	-	-	-
11	CLA	I	1471	X	-	-	-
11	CLA	J	1351	X	-	-	-
11	CLA	J	1353	X	-	-	-

2 Entry composition

There are 18 unique types of molecules in this entry. The entry contains 35614 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called PHOTOSYSTEM Q(B) PROTEIN 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	332	Total	C	N	O	S	0	0	31
			2279	1505	370	390	14			
1	G	332	Total	C	N	O	S	0	0	31
			2279	1505	370	390	14			

- Molecule 2 is a protein called PHOTOSYSTEM II CORE LIGHT HARVESTING PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	479	Total	C	N	O	S	0	0	66
			3053	2027	504	510	12			
2	H	479	Total	C	N	O	S	0	0	66
			3053	2027	504	510	12			

- Molecule 3 is a protein called PHOTOSYSTEM II CP43 PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	438	Total	C	N	O	S	0	0	73
			2791	1861	467	452	11			
3	I	438	Total	C	N	O	S	0	0	73
			2791	1861	467	452	11			

- Molecule 4 is a protein called PHOTOSYSTEM II REACTION CENTER D2 PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	350	Total	C	N	O	S	0	0	0
			2602	1719	421	450	12			
4	J	350	Total	C	N	O	S	0	0	0
			2602	1719	421	450	12			

- Molecule 5 is a protein called CYTOCHROME B559 ALPHA SUBUNIT.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	76	Total	C	N	O	0	0	5
			536	354	89	93			
5	K	76	Total	C	N	O	0	0	5
			536	354	89	93			

- Molecule 6 is a protein called CYTOCHROME B559 BETA SUBUNIT.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	37	Total	C	N	O	S	0	0	0
			297	202	48	46	1			
6	L	37	Total	C	N	O	S	0	0	0
			297	202	48	46	1			

- Molecule 7 is a protein called PHOTOSYSTEM II MANGANESE-STABILIZING POLYPEPTIDE.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
7	O	179	Total	C	N	O	0	0	3
			883	531	176	176			
7	P	179	Total	C	N	O	0	0	3
			883	531	176	176			

- Molecule 8 is a protein called PHOTOSYSTEM II 12 KDA EXTRINSIC PROTEIN.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
8	S	100	Total	C	N	O	0	0	0
			499	299	100	100			
8	U	100	Total	C	N	O	0	0	0
			499	299	100	100			

- Molecule 9 is a protein called CYTOCHROME C-550.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	T	136	Total	C	N	O	S	0	0	0
			1058	672	176	206	4			
9	V	136	Total	C	N	O	S	0	0	0
			1058	672	176	206	4			

- Molecule 10 is a protein called UNASSIGNED SUBUNITS.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	X	359	Total	C	N	O	0	0	0
			1791	1073	359	359			

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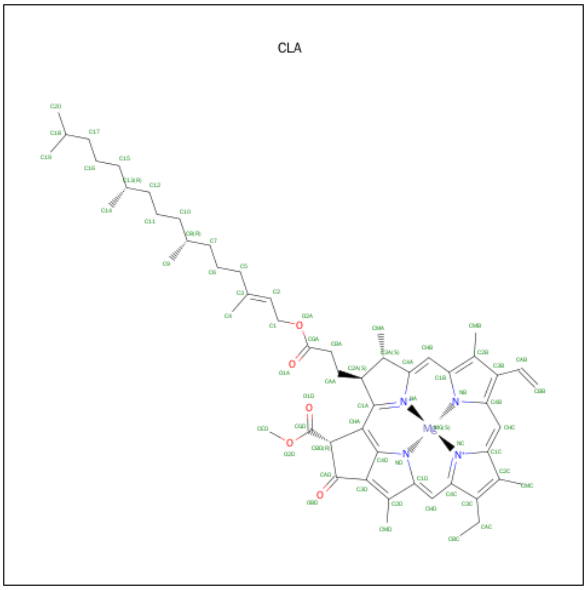
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	Y	359	Total 1791	C 1073	N 359	O 359	0	0	0

- Molecule 11 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
11	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
11	A	1	Total 61	C 51	Mg 1	N 4	O 5	0	0
11	A	1	Total 45	C 35	Mg 1	N 4	O 5	0	0
11	A	1	Total 51	C 41	Mg 1	N 4	O 5	0	0
11	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
11	B	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
11	B	1	Total 45	C 35	Mg 1	N 4	O 5	0	0
11	B	1	Total 47	C 37	Mg 1	N 4	O 5	0	0
11	B	1	Total 41	C 33	Mg 1	N 4	O 3	0	0
11	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
11	B	1	Total C Mg N O 65 55 1 4 5	0	0
11	B	1	Total C Mg N O 50 40 1 4 5	0	0
11	B	1	Total C Mg N O 45 35 1 4 5	0	0
11	B	1	Total C Mg N 27 22 1 4	0	0
11	B	1	Total C Mg N O 65 55 1 4 5	0	0
11	B	1	Total C Mg N O 45 35 1 4 5	0	0
11	B	1	Total C Mg N O 65 55 1 4 5	0	0
11	B	1	Total C Mg N O 55 45 1 4 5	0	0
11	B	1	Total C Mg N O 65 55 1 4 5	0	0
11	B	1	Total C Mg N O 41 33 1 4 3	0	0
11	C	1	Total C Mg N O 45 35 1 4 5	0	0
11	C	1	Total C Mg N O 47 37 1 4 5	0	0
11	C	1	Total C Mg N 27 22 1 4	0	0
11	C	1	Total C Mg N O 56 46 1 4 5	0	0
11	C	1	Total C Mg N O 55 45 1 4 5	0	0
11	C	1	Total C Mg N O 56 46 1 4 5	0	0
11	C	1	Total C Mg N O 65 55 1 4 5	0	0
11	C	1	Total C Mg N O 50 40 1 4 5	0	0
11	C	1	Total C Mg N O 47 37 1 4 5	0	0
11	C	1	Total C Mg N 27 22 1 4	0	0
11	C	1	Total C Mg N O 41 33 1 4 3	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
11	C	1	Total	C	Mg	N	O	0	0
			41	33	1	4	3		
11	C	1	Total	C	Mg	N	O	0	0
			41	33	1	4	3		
11	D	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
11	D	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
11	G	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
11	G	1	Total	C	Mg	N	O	0	0
			61	51	1	4	5		
11	G	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
11	G	1	Total	C	Mg	N	O	0	0
			51	41	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			60	50	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			47	37	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			41	33	1	4	3		
11	H	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			50	40	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
11	H	1	Total	C	Mg	N		0	0
			27	22	1	4			
11	H	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			45	35	1	4	5		
11	H	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

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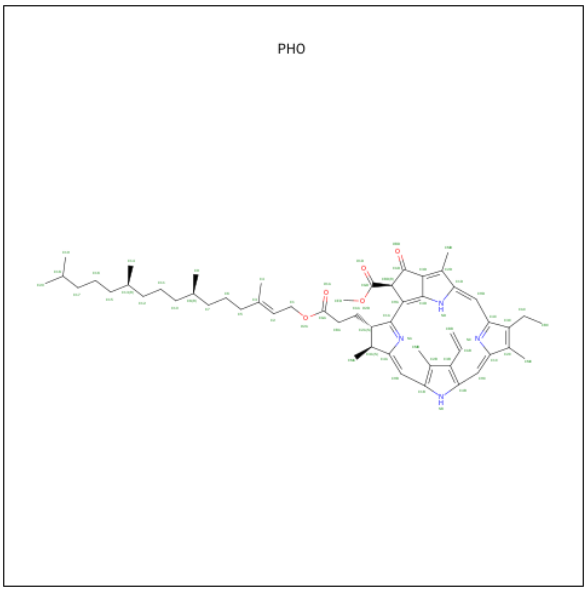
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
11	H	1	Total C Mg N O 55 45 1 4 5	0	0
11	H	1	Total C Mg N O 65 55 1 4 5	0	0
11	H	1	Total C Mg N O 41 33 1 4 3	0	0
11	I	1	Total C Mg N O 45 35 1 4 5	0	0
11	I	1	Total C Mg N O 47 37 1 4 5	0	0
11	I	1	Total C Mg N 27 22 1 4	0	0
11	I	1	Total C Mg N O 56 46 1 4 5	0	0
11	I	1	Total C Mg N O 55 45 1 4 5	0	0
11	I	1	Total C Mg N O 56 46 1 4 5	0	0
11	I	1	Total C Mg N O 65 55 1 4 5	0	0
11	I	1	Total C Mg N O 50 40 1 4 5	0	0
11	I	1	Total C Mg N O 47 37 1 4 5	0	0
11	I	1	Total C Mg N 27 22 1 4	0	0
11	I	1	Total C Mg N O 41 33 1 4 3	0	0
11	I	1	Total C Mg N O 41 33 1 4 3	0	0
11	I	1	Total C Mg N O 41 33 1 4 3	0	0
11	J	1	Total C Mg N O 65 55 1 4 5	0	0
11	J	1	Total C Mg N O 50 40 1 4 5	0	0

- Molecule 12 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
12	A	1	Total C N O 64 55 4 5	0	0
12	D	1	Total C N O 54 45 4 5	0	0
12	G	1	Total C N O 64 55 4 5	0	0
12	J	1	Total C N O 54 45 4 5	0	0

- Molecule 13 is MANGANESE (II) ION (three-letter code: MN) (formula: Mn).

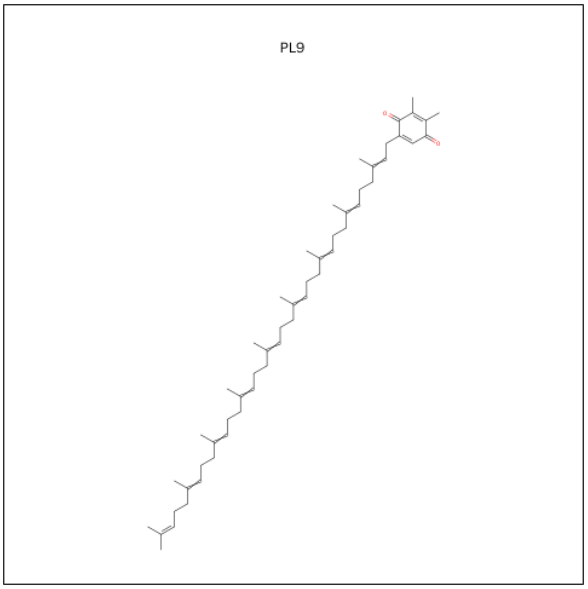
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
13	G	4	Total Mn 4 4	0	0
13	A	4	Total Mn 4 4	0	0

- Molecule 14 is FE (II) ION (three-letter code: FE2) (formula: Fe).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
14	G	1	Total Fe 1 1	0	0
14	A	1	Total Fe 1 1	0	0

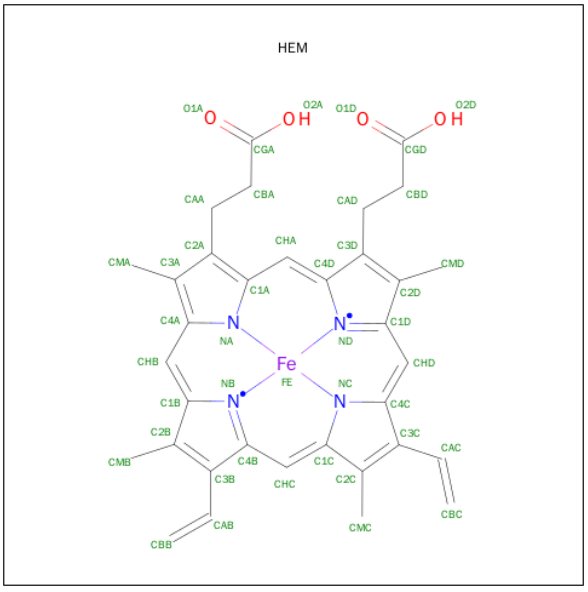
- Molecule 15 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18
,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,

3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: $C_{53}H_{80}O_2$).



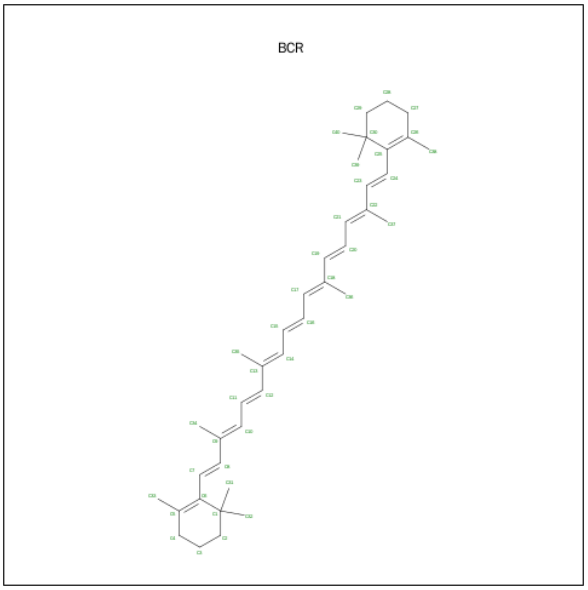
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
15	D	1	Total C 6 6	0	0
15	J	1	Total C 6 6	0	0

- Molecule 16 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



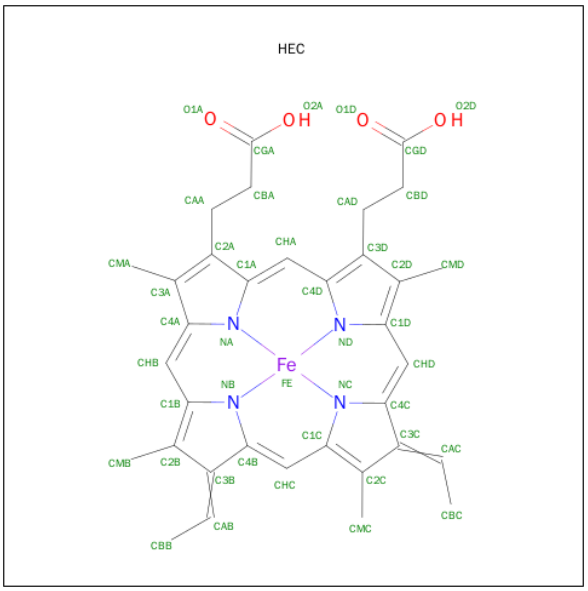
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
16	E	1	Total	C	Fe	N	0	0
			25	20	1	4		
16	L	1	Total	C	Fe	N	0	0
			25	20	1	4		

- Molecule 17 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
17	F	1	Total	C	0	0
			40	40		
17	L	1	Total	C	0	0
			40	40		

- Molecule 18 is HEME C (three-letter code: HEC) (formula: $C_{34}H_{34}FeN_4O_4$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
18	T	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		
18	V	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

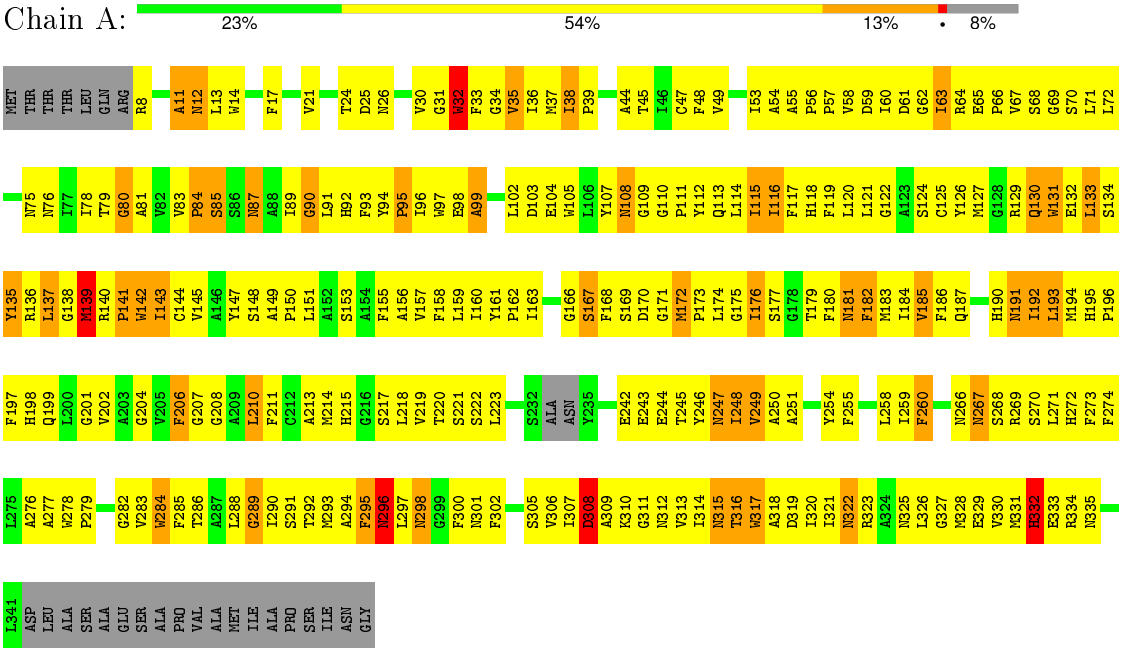
3 Residue-property plots (i)

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

Note EDS was not executed.

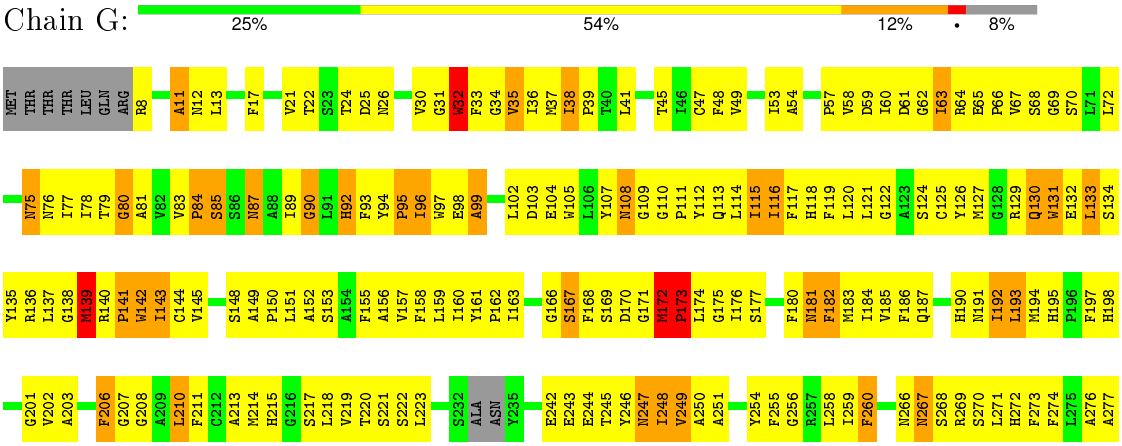
- Molecule 1: PHOTOSYSTEM Q(B) PROTEIN 1

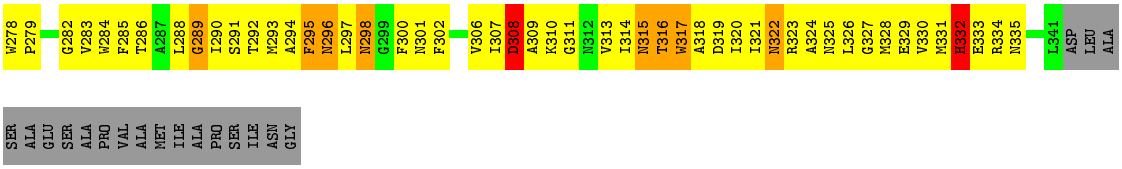
Chain A:



- Molecule 1: PHOTOSYSTEM Q(B) PROTEIN 1

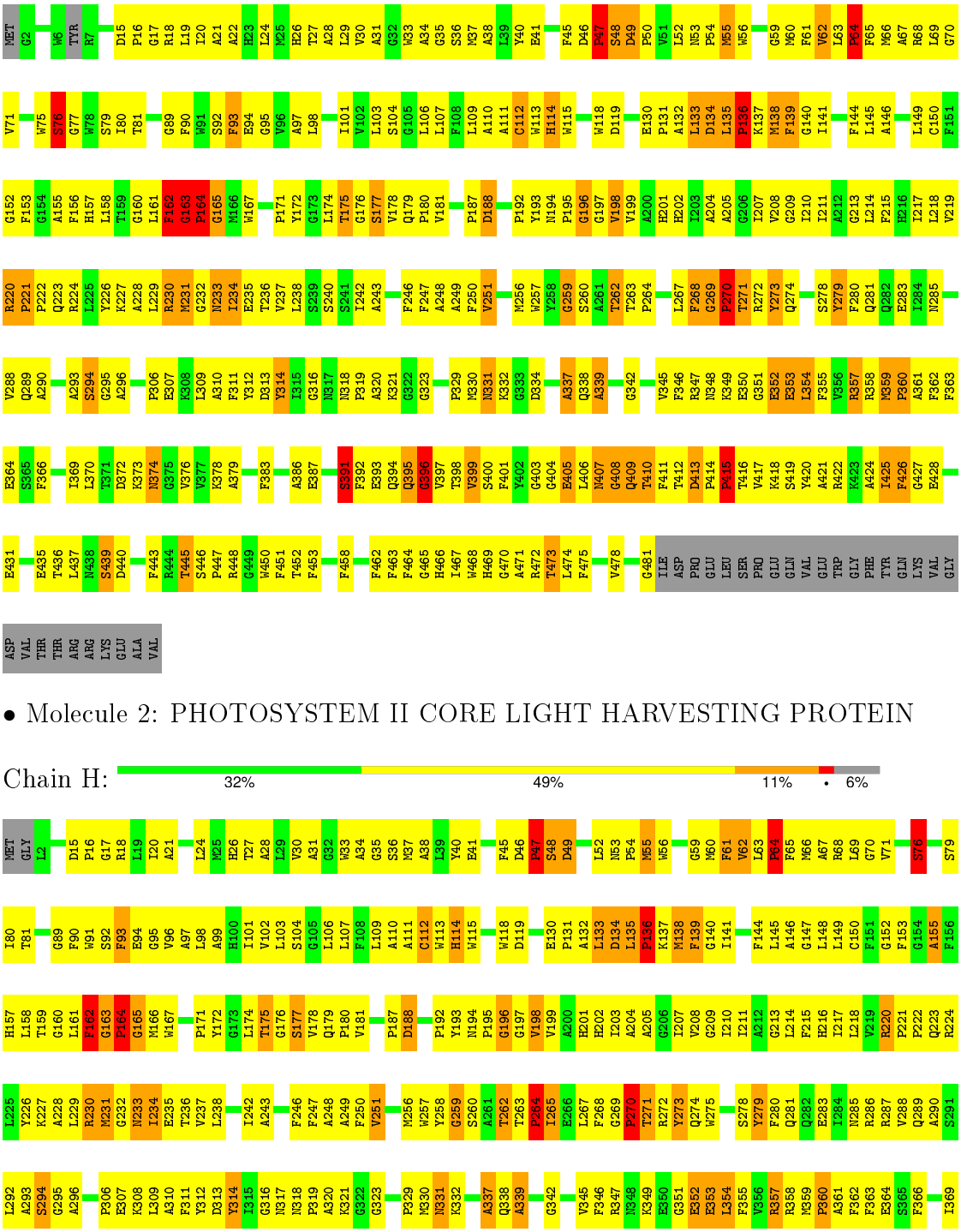
Chain G:





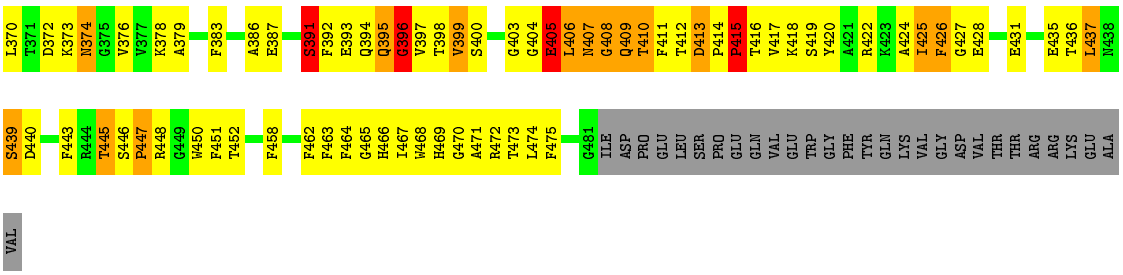
• Molecule 2: PHOTOSYSTEM II CORE LIGHT HARVESTING PROTEIN

Chain B:



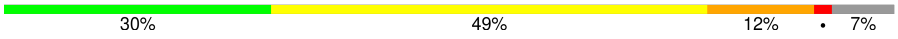
• Molecule 2: PHOTOSYSTEM II CORE LIGHT HARVESTING PROTEIN

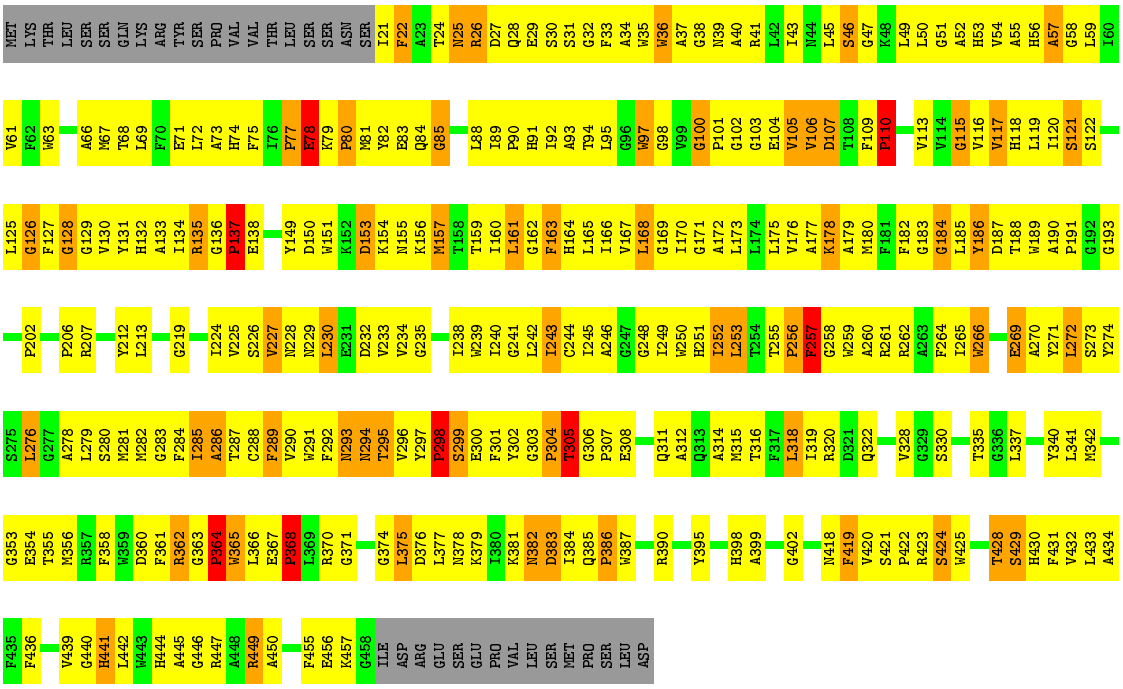
Chain H:



- Molecule 3: PHOTOSYSTEM II CP43 PROTEIN

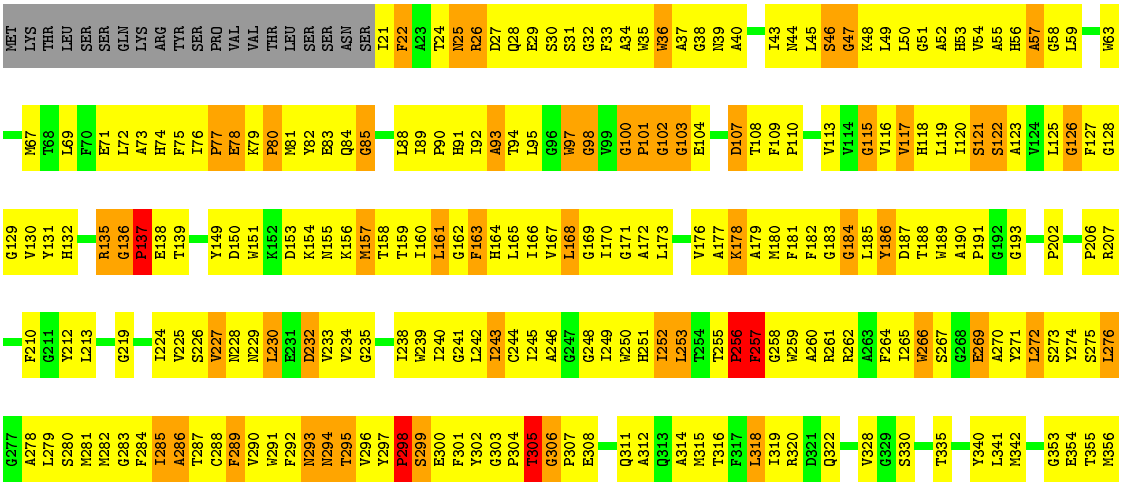
Chain C:

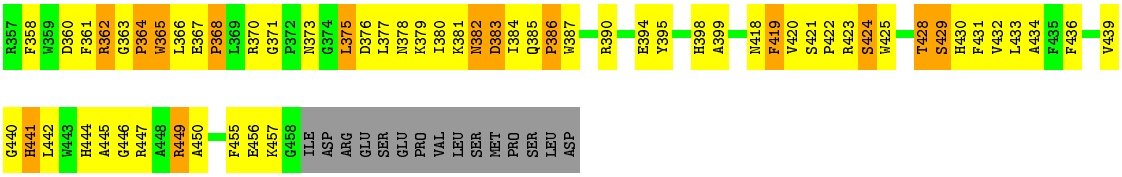




- Molecule 3: PHOTOSYSTEM II CP43 PROTEIN

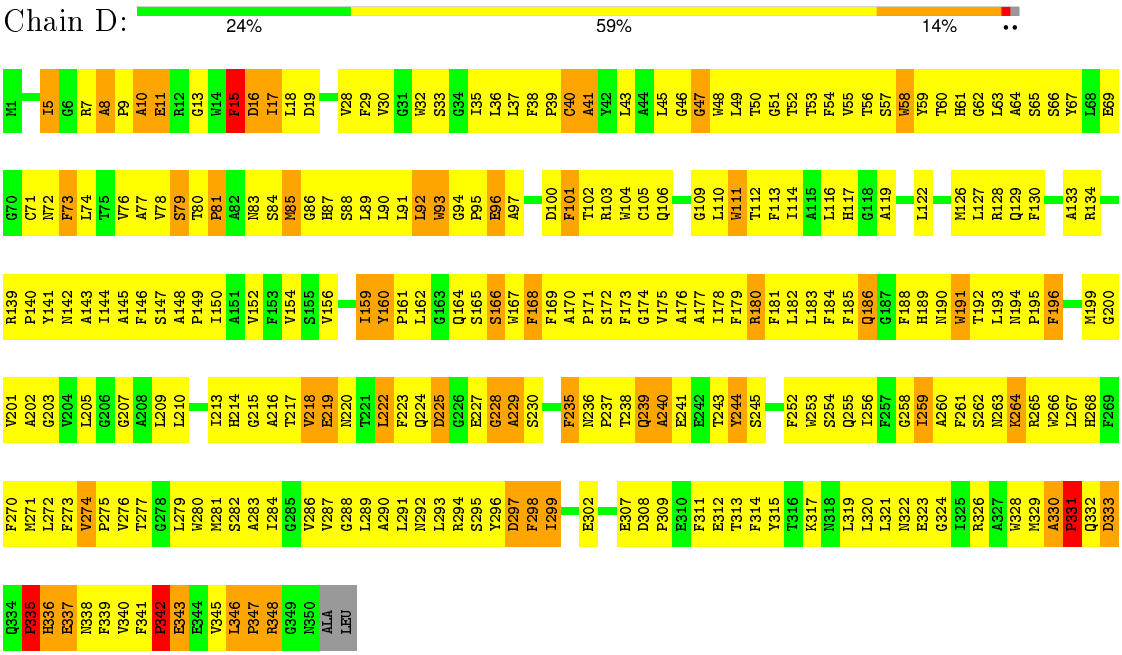
Chain I:





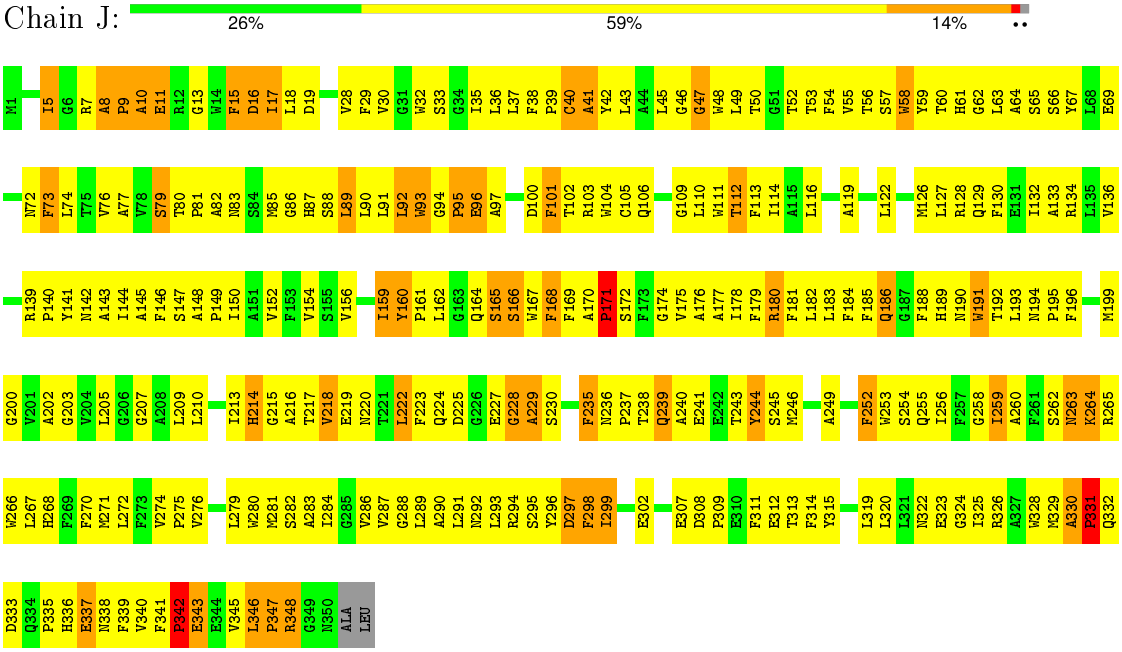
• Molecule 4: PHOTOSYSTEM II REACTION CENTER D2 PROTEIN

Chain D:



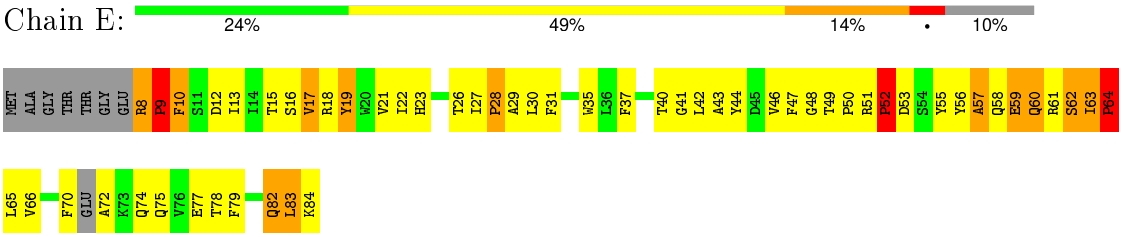
• Molecule 4: PHOTOSYSTEM II REACTION CENTER D2 PROTEIN

Chain J:



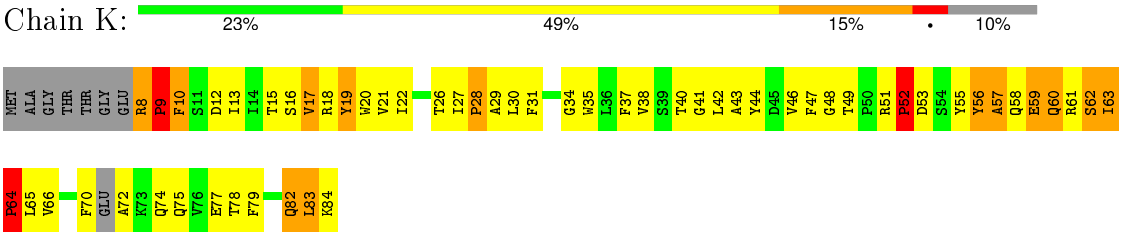
• Molecule 5: CYTOCHROME B559 ALPHA SUBUNIT

Chain E:



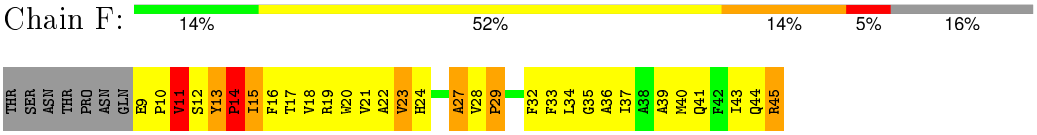
• Molecule 5: CYTOCHROME B559 ALPHA SUBUNIT

Chain K:



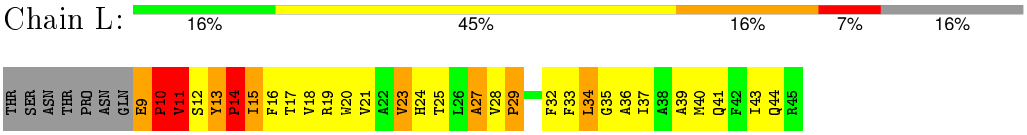
• Molecule 6: CYTOCHROME B559 BETA SUBUNIT

Chain F:



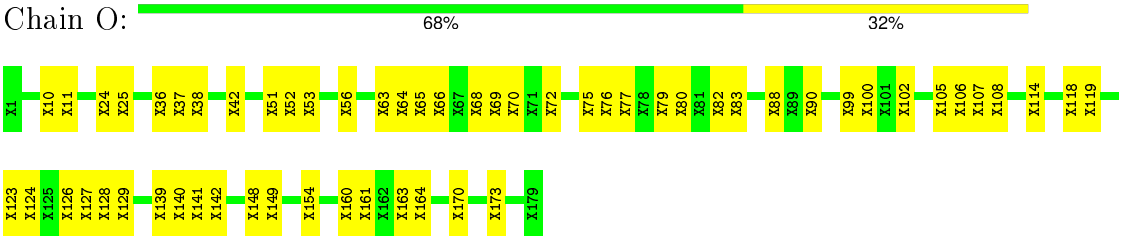
• Molecule 6: CYTOCHROME B559 BETA SUBUNIT

Chain L:



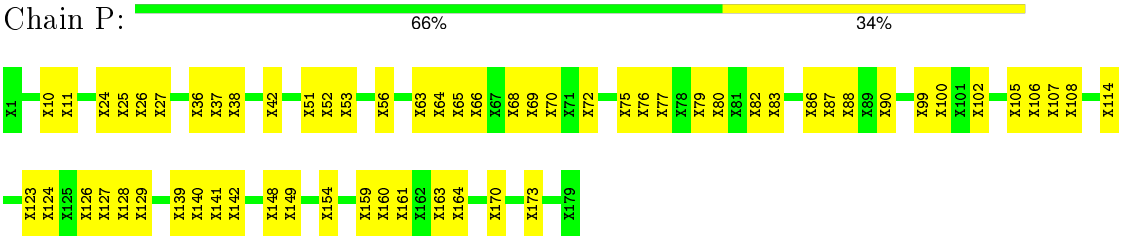
• Molecule 7: PHOTOSYSTEM II MANGANESE-STABILIZING POLYPEPTIDE

Chain O:



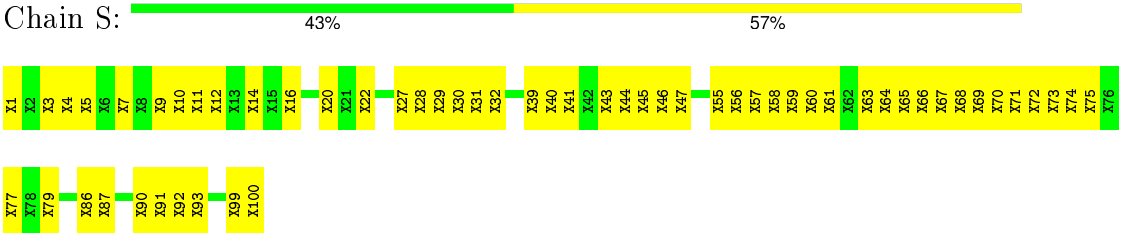
• Molecule 7: PHOTOSYSTEM II MANGANESE-STABILIZING POLYPEPTIDE

Chain P:



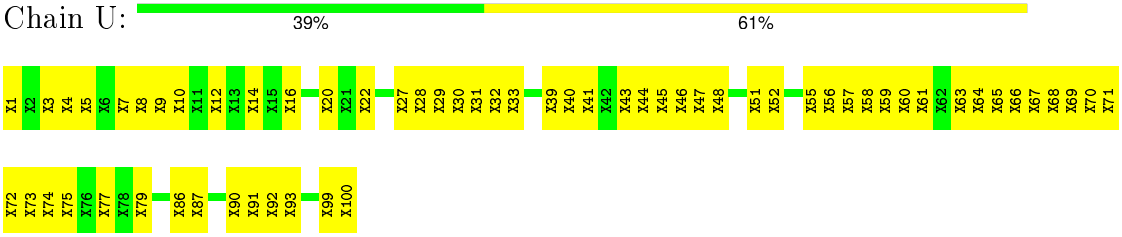
• Molecule 8: PHOTOSYSTEM II 12 KDA EXTRINSIC PROTEIN

Chain S:



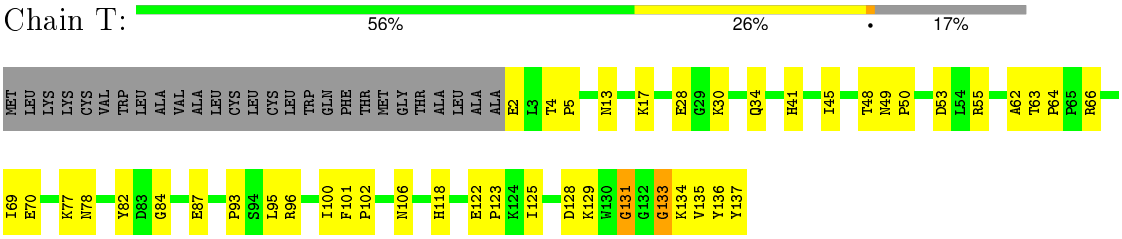
• Molecule 8: PHOTOSYSTEM II 12 KDA EXTRINSIC PROTEIN

Chain U:



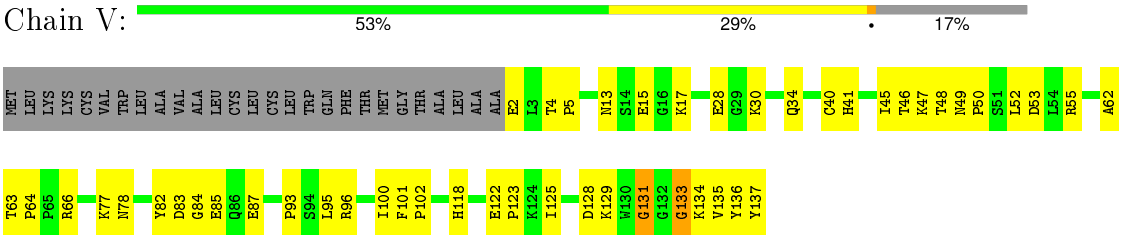
• Molecule 9: CYTOCHROME C-550

Chain T:



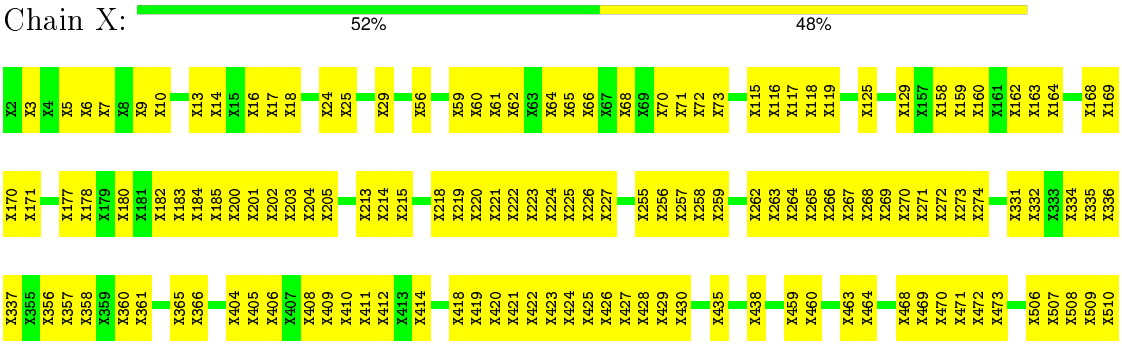
• Molecule 9: CYTOCHROME C-550

Chain V:



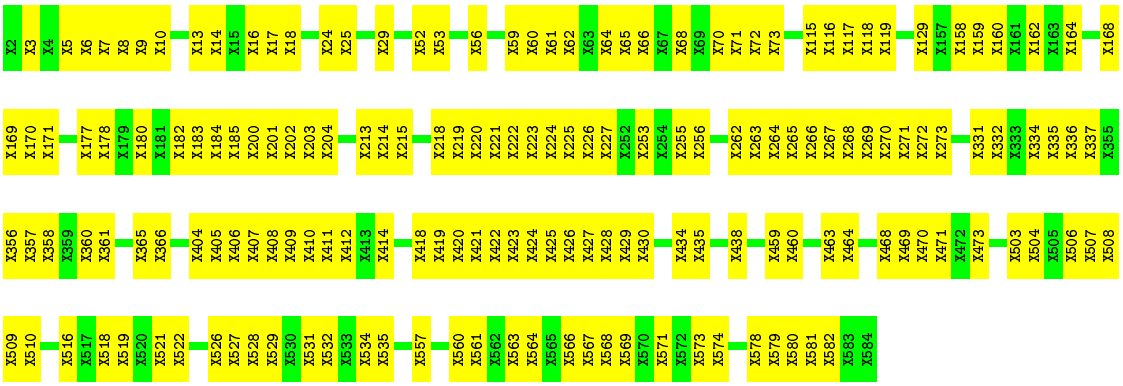
• Molecule 10: UNASSIGNED SUBUNITS

Chain X:



- Molecule 10: UNASSIGNED SUBUNITS

Chain Y:



4 Data and refinement statistics (i)

Xtriage (Phenix) and EDS were not executed - this section will therefore be incomplete.

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	127.52Å 224.61Å 305.63Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	10.00 – 3.20	Depositor
% Data completeness (in resolution range)	75.6 (10.00-3.20)	Depositor
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	CNS 1.0	Depositor
R, R_{free}	(Not available) , (Not available)	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	35614	wwPDB-VP
Average B, all atoms (Å^2)	45.0	wwPDB-VP

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PHO, MN, CLA, PL9, FE2, HEC, HEM, BCR

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	0.69	0/2315	0.88	1/3161 (0.0%)
1	G	0.66	0/2315	0.91	2/3161 (0.1%)
2	B	0.69	0/3081	0.98	9/4202 (0.2%)
2	H	0.67	0/3081	0.99	9/4202 (0.2%)
3	C	0.62	0/2806	0.90	3/3822 (0.1%)
3	I	0.62	0/2806	0.89	5/3822 (0.1%)
4	D	0.70	0/2688	0.96	4/3678 (0.1%)
4	J	0.69	0/2688	0.97	5/3678 (0.1%)
5	E	0.62	0/547	0.89	0/751
5	K	0.66	0/547	0.95	1/751 (0.1%)
6	F	0.77	0/307	1.19	4/421 (1.0%)
6	L	0.79	0/307	1.21	4/421 (1.0%)
9	T	0.65	0/1079	0.81	0/1466
9	V	0.69	0/1079	0.81	0/1466
All	All	0.67	0/25646	0.94	47/35002 (0.1%)

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	0	1
1	G	0	1
2	B	0	1
2	H	0	1
All	All	0	4

There are no bond length outliers.

All (47) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	H	270	PRO	CA-N-CD	-14.97	90.54	111.50
2	B	270	PRO	CA-N-CD	-13.49	92.62	111.50
4	J	171	PRO	CA-N-CD	-11.70	95.12	111.50
2	B	47	PRO	CA-N-CD	-11.20	95.81	111.50
2	B	396	GLY	N-CA-C	-10.89	85.88	113.10
2	H	396	GLY	N-CA-C	-10.79	86.13	113.10
3	C	110	PRO	CA-N-CD	-10.78	96.40	111.50
4	J	342	PRO	CA-N-CD	-10.54	96.75	111.50
2	B	76	SER	N-CA-C	-10.36	83.02	111.00
2	H	76	SER	N-CA-C	-10.32	83.12	111.00
4	D	342	PRO	CA-N-CD	-10.27	97.12	111.50
2	H	264	PRO	CA-N-CD	-10.23	97.17	111.50
1	G	173	PRO	CA-N-CD	-9.94	97.59	111.50
4	D	335	PRO	CA-N-CD	-9.80	97.78	111.50
6	L	14	PRO	CA-N-CD	-9.77	97.82	111.50
6	L	10	PRO	CA-N-CD	-9.54	98.15	111.50
2	H	47	PRO	CA-N-CD	-9.29	98.50	111.50
6	F	14	PRO	CA-N-CD	-8.87	99.08	111.50
3	C	137	PRO	CA-N-CD	-8.62	99.43	111.50
5	K	64	PRO	CA-N-CD	-8.15	100.09	111.50
3	I	137	PRO	CA-N-CD	-8.12	100.13	111.50
6	F	45	ARG	N-CA-C	-7.97	89.49	111.00
2	H	162	PHE	C-N-CA	6.87	136.72	122.30
2	B	162	PHE	C-N-CA	6.26	135.44	122.30
2	B	164	PRO	CA-N-CD	-6.04	103.04	111.50
3	C	100	GLY	N-CA-C	-5.95	98.23	113.10
3	I	256	PRO	CA-N-CD	-5.88	103.26	111.50
2	B	391	SER	N-CA-C	5.84	126.77	111.00
6	F	13	TYR	N-CA-C	5.82	126.71	111.00
2	H	391	SER	N-CA-C	5.81	126.68	111.00
3	I	100	GLY	N-CA-C	-5.79	98.61	113.10
6	L	13	TYR	N-CA-C	5.75	126.52	111.00
2	H	91	TRP	CA-CB-CG	-5.72	102.84	113.70
2	B	268	PHE	CB-CA-C	-5.68	99.03	110.40
2	H	164	PRO	CA-N-CD	-5.67	103.56	111.50
6	F	13	TYR	C-N-CD	-5.59	108.29	120.60
6	L	9	GLU	C-N-CD	-5.59	108.31	120.60
4	D	5	ILE	N-CA-C	5.57	126.04	111.00
3	I	107	ASP	CB-CA-C	-5.46	99.47	110.40
1	G	172	MET	C-N-CD	-5.41	108.70	120.60
4	J	5	ILE	N-CA-C	5.35	125.44	111.00
1	A	137	LEU	CA-CB-CG	5.16	127.16	115.30
2	B	163	GLY	N-CA-C	5.15	125.99	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	J	331	PRO	CA-N-CD	-5.15	104.29	111.50
3	I	136	GLY	N-CA-C	-5.09	100.37	113.10
4	J	9	PRO	N-CA-CB	5.06	109.37	103.30
4	D	15	PHE	N-CA-C	5.02	124.55	111.00

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	332	HIS	Sidechain
2	B	273	TYR	Sidechain
1	G	332	HIS	Sidechain
2	H	273	TYR	Sidechain

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	2279	0	2113	445	0
1	G	2279	0	2113	452	0
2	B	3053	0	2666	441	0
2	H	3053	0	2666	456	0
3	C	2791	0	2530	447	0
3	I	2791	0	2530	445	0
4	D	2602	0	2383	463	0
4	J	2602	0	2383	473	0
5	E	536	0	480	87	0
5	K	536	0	480	91	0
6	F	297	0	304	56	0
6	L	297	0	304	62	0
7	O	883	0	221	43	0
7	P	883	0	219	45	0
8	S	499	0	116	50	0
8	U	499	0	115	52	0
9	T	1058	0	1066	59	0
9	V	1058	0	1066	62	0
10	X	1791	0	396	137	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	Y	1791	0	393	135	0
11	A	222	0	207	37	0
11	B	846	0	774	84	0
11	C	598	0	458	69	0
11	D	115	0	111	19	0
11	G	222	0	207	33	0
11	H	846	0	774	91	0
11	I	598	0	458	69	0
11	J	115	0	111	16	0
12	A	64	0	74	14	0
12	D	54	0	51	4	0
12	G	64	0	74	17	0
12	J	54	0	51	9	0
13	A	4	0	0	0	0
13	G	4	0	0	0	0
14	A	1	0	0	0	0
14	G	1	0	0	0	0
15	D	6	0	1	1	0
15	J	6	0	1	1	0
16	E	25	0	4	2	0
16	L	25	0	4	2	0
17	F	40	0	56	4	0
17	L	40	0	56	3	0
18	T	43	0	31	3	0
18	V	43	0	31	2	0
All	All	35614	0	28078	4207	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 66.

All (4207) 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)
4:D:330:ALA:HB1	4:D:331:PRO:CD	1.48	1.42
4:J:330:ALA:HB1	4:J:331:PRO:CD	1.54	1.36
1:G:84:PRO:CG	1:G:173:PRO:HG3	1.56	1.35
4:D:330:ALA:CB	4:D:331:PRO:CD	1.99	1.33
4:J:330:ALA:CB	4:J:331:PRO:CD	2.07	1.28
1:G:84:PRO:CD	1:G:173:PRO:HG3	1.64	1.26
1:A:309:ALA:O	9:V:2:GLU:HA	1.27	1.23
4:J:171:PRO:HD3	4:J:181:PHE:CE2	1.75	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:45:PHE:CD2	2:H:47:PRO:HD3	1.75	1.21
1:A:309:ALA:O	9:V:2:GLU:CA	1.91	1.17
6:L:12:SER:O	6:L:14:PRO:HD2	1.43	1.17
4:J:331:PRO:CG	4:J:339:PHE:HB3	1.74	1.17
2:B:45:PHE:CD2	2:B:47:PRO:HD3	1.80	1.15
2:H:61:PHE:O	2:H:64:PRO:HD2	1.44	1.15
5:K:62:SER:C	5:K:64:PRO:HD3	1.67	1.14
3:I:296:VAL:CG1	11:I:1459:CLA:HAA1	1.77	1.14
6:F:12:SER:O	6:F:14:PRO:HD2	1.48	1.13
3:I:449:ARG:HG3	3:I:449:ARG:HH11	1.08	1.13
4:D:331:PRO:CG	4:D:339:PHE:HB3	1.78	1.13
4:J:330:ALA:HB3	4:J:331:PRO:HD2	1.28	1.13
4:D:52:THR:HG22	4:D:67:TYR:HE1	1.09	1.12
4:J:171:PRO:HD3	4:J:181:PHE:CD2	1.83	1.12
4:D:126:MET:HA	4:D:129:GLN:HE21	1.11	1.12
4:J:330:ALA:CB	4:J:331:PRO:HD2	1.74	1.10
1:A:142:TRP:HB3	4:D:220:ASN:OD1	1.49	1.10
4:J:331:PRO:HG3	4:J:339:PHE:CB	1.79	1.10
4:J:126:MET:HA	4:J:129:GLN:HE21	1.03	1.10
1:G:186:PHE:HD2	1:G:192:ILE:HD11	1.16	1.09
4:J:331:PRO:CG	4:J:339:PHE:CB	2.29	1.09
4:J:113:PHE:HA	11:J:1353:CLA:HED1	1.34	1.09
3:I:228:ASN:HA	3:I:295:THR:HG21	1.34	1.09
1:A:47:CYS:SG	1:A:114:LEU:HD23	1.93	1.08
3:C:296:VAL:CG1	11:C:1459:CLA:HAA1	1.81	1.08
1:A:143:ILE:HG13	4:D:220:ASN:HD22	1.12	1.08
1:G:142:TRP:HB3	4:J:220:ASN:OD1	1.51	1.08
4:D:330:ALA:CB	4:D:331:PRO:HD2	1.73	1.08
1:A:186:PHE:HD2	1:A:192:ILE:HD11	1.13	1.08
3:C:449:ARG:HH11	3:C:449:ARG:HG3	1.07	1.08
1:G:84:PRO:HG2	1:G:173:PRO:HG3	1.26	1.07
4:J:52:THR:HG22	4:J:67:TYR:HE1	1.12	1.07
3:C:228:ASN:HA	3:C:295:THR:HG21	1.37	1.07
5:K:62:SER:O	5:K:64:PRO:HD3	1.50	1.07
4:D:113:PHE:HA	11:D:1353:CLA:HED1	1.35	1.07
4:D:331:PRO:HG3	4:D:339:PHE:CB	1.84	1.07
1:A:127:MET:HE2	1:A:151:LEU:HD22	1.28	1.07
3:I:296:VAL:HG11	11:I:1459:CLA:CAA	1.85	1.06
3:C:296:VAL:HG11	11:C:1459:CLA:CAA	1.86	1.06
2:B:61:PHE:O	2:B:64:PRO:HD2	1.52	1.06
1:G:114:LEU:HA	11:G:1346:CLA:HED1	1.35	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:45:PHE:CE2	2:H:47:PRO:HD3	1.90	1.05
4:J:126:MET:O	4:J:129:GLN:HG2	1.55	1.05
4:J:331:PRO:HG2	4:J:339:PHE:HB3	1.24	1.05
4:D:330:ALA:HB3	4:D:331:PRO:HD2	1.21	1.05
3:I:296:VAL:HG11	11:I:1459:CLA:HAA1	1.04	1.04
3:C:187:ASP:HB3	3:C:230:LEU:HD23	1.37	1.04
1:G:47:CYS:SG	1:G:114:LEU:HD23	1.97	1.04
4:D:330:ALA:CB	4:D:331:PRO:HD3	1.75	1.04
2:B:400:SER:HB3	2:B:410:THR:HB	1.38	1.03
3:C:106:VAL:O	3:C:107:ASP:CB	1.98	1.03
1:A:138:GLY:HA2	3:C:455:PHE:CE1	1.93	1.03
4:D:126:MET:O	4:D:129:GLN:HG2	1.58	1.03
1:A:63:ILE:HG12	1:A:64:ARG:H	1.20	1.02
1:G:63:ILE:HG12	1:G:64:ARG:H	1.23	1.02
4:D:331:PRO:HG2	4:D:339:PHE:HB3	1.39	1.01
1:G:84:PRO:HG2	1:G:173:PRO:CG	1.89	1.01
4:D:122:LEU:HD21	11:D:1351:CLA:H92	1.39	1.01
1:A:309:ALA:O	9:V:2:GLU:CB	2.09	1.01
3:I:187:ASP:HB3	3:I:230:LEU:HD23	1.43	1.01
2:H:30:VAL:HG12	11:H:1486:CLA:HAC1	1.39	1.00
2:H:400:SER:HB3	2:H:410:THR:HB	1.38	1.00
1:G:138:GLY:HA2	3:I:455:PHE:CE1	1.96	1.00
1:G:143:ILE:HG13	4:J:220:ASN:HD22	1.26	1.00
4:J:330:ALA:HB1	4:J:331:PRO:HD3	1.01	1.00
1:A:63:ILE:HG13	3:C:335:THR:CG2	1.91	1.00
6:F:37:ILE:HA	6:F:40:MET:HE2	1.42	0.99
5:E:22:ILE:HG23	10:X:568:UNK:CB	1.92	0.99
4:J:171:PRO:CD	4:J:181:PHE:CE2	2.44	0.99
3:C:43:ILE:HG22	11:C:1467:CLA:HMC1	1.43	0.99
4:J:122:LEU:HD21	11:J:1351:CLA:H92	1.41	0.99
3:C:296:VAL:HG11	11:C:1459:CLA:HAA1	1.00	0.99
1:G:310:LYS:HA	9:T:2:GLU:HA	1.43	0.99
1:A:183:MET:HE1	11:A:1343:CLA:HHD	1.45	0.98
4:J:86:GLY:HA2	4:J:166:SER:HB3	1.44	0.98
2:B:347:ARG:HB3	2:B:351:GLY:HA2	1.41	0.98
3:C:37:ALA:HA	11:C:1466:CLA:HBA2	1.45	0.98
4:D:86:GLY:HA2	4:D:166:SER:HB3	1.44	0.98
2:H:347:ARG:HB3	2:H:351:GLY:HA2	1.46	0.98
3:I:311:GLN:HG2	3:I:355:THR:CG2	1.94	0.98
1:G:63:ILE:HG13	3:I:335:THR:CG2	1.93	0.97
3:C:311:GLN:HG2	3:C:355:THR:CG2	1.94	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:22:ILE:HG23	10:Y:568:UNK:CB	1.94	0.97
4:D:160:TYR:HB3	4:D:161:PRO:HD3	1.47	0.97
1:A:114:LEU:HA	11:A:1346:CLA:HED1	1.43	0.97
1:G:278:TRP:HB3	1:G:279:PRO:HD3	1.42	0.97
3:I:43:ILE:HG22	11:I:1467:CLA:HMC1	1.46	0.97
1:G:310:LYS:HB2	9:T:2:GLU:N	1.78	0.97
4:D:331:PRO:CG	4:D:339:PHE:CB	2.43	0.97
2:H:30:VAL:CG1	11:H:1486:CLA:HAC1	1.93	0.97
4:J:340:VAL:O	4:J:342:PRO:CD	2.13	0.97
3:I:311:GLN:HG2	3:I:355:THR:HG21	1.44	0.97
3:I:37:ALA:HA	11:I:1466:CLA:HBA2	1.45	0.96
4:D:52:THR:HG22	4:D:67:TYR:CE1	2.00	0.96
7:P:65:UNK:C	7:P:66:UNK:CA	2.42	0.96
5:K:65:LEU:C	5:K:66:VAL:CA	2.33	0.96
2:H:135:LEU:HB2	2:H:136:PRO:HD3	1.44	0.96
3:I:363:GLY:O	3:I:367:GLU:HG2	1.65	0.96
4:J:340:VAL:O	4:J:342:PRO:HD2	1.64	0.96
3:I:107:ASP:O	3:I:110:PRO:HD2	1.63	0.96
9:T:129:LYS:HE3	9:T:135:VAL:HG21	1.45	0.96
1:A:310:LYS:HB2	9:V:2:GLU:N	1.81	0.96
7:O:65:UNK:C	7:O:66:UNK:CA	2.44	0.96
2:B:149:LEU:HG	11:B:1484:CLA:HBC1	1.47	0.96
1:A:186:PHE:CD2	1:A:192:ILE:HD11	2.00	0.95
2:B:135:LEU:HB2	2:B:136:PRO:HD3	1.49	0.95
6:F:41:GLN:HB3	10:X:331:UNK:CB	1.96	0.95
1:G:221:SER:HA	4:J:139:ARG:HB2	1.49	0.95
4:D:345:VAL:HG12	4:D:345:VAL:O	1.63	0.95
4:J:52:THR:HG22	4:J:67:TYR:CE1	2.01	0.95
3:I:398:HIS:C	3:I:399:ALA:CA	2.36	0.95
6:L:41:GLN:HB3	10:Y:331:UNK:CB	1.96	0.94
4:J:160:TYR:HB3	4:J:161:PRO:HD3	1.47	0.94
9:V:133:GLY:O	9:V:137:TYR:HB2	1.67	0.94
2:B:45:PHE:CE2	2:B:47:PRO:HD3	2.01	0.94
1:G:272:HIS:CD2	4:J:218:VAL:HG21	2.02	0.94
3:I:173:LEU:O	3:I:176:VAL:HG12	1.67	0.94
1:A:221:SER:HA	4:D:139:ARG:HB2	1.48	0.94
4:J:253:TRP:HB2	4:J:260:ALA:HB2	1.50	0.94
1:G:186:PHE:CD2	1:G:192:ILE:HD11	2.03	0.93
2:H:31:ALA:H	11:H:1486:CLA:HBC3	1.31	0.93
2:H:149:LEU:HG	11:H:1484:CLA:HBC1	1.51	0.93
3:C:363:GLY:O	3:C:367:GLU:HG2	1.68	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:345:VAL:O	4:J:345:VAL:HG12	1.68	0.93
1:A:272:HIS:CD2	4:D:218:VAL:HG21	2.04	0.93
4:J:148:ALA:HB3	4:J:149:PRO:HD3	1.51	0.93
3:C:106:VAL:O	3:C:107:ASP:HB2	1.13	0.93
5:E:26:THR:HG21	16:E:1085:HEM:C2C	2.03	0.93
4:D:307:GLU:O	4:D:309:PRO:HD3	1.67	0.93
3:C:398:HIS:C	3:C:399:ALA:CA	2.37	0.93
3:C:224:ILE:CA	3:C:225:VAL:N	2.32	0.92
6:L:10:PRO:HB2	6:L:19:ARG:HH11	1.34	0.92
1:G:84:PRO:CG	1:G:173:PRO:CG	2.44	0.92
4:D:164:GLN:HE22	4:D:189:HIS:HE1	1.13	0.92
3:I:224:ILE:CA	3:I:225:VAL:N	2.32	0.92
3:I:449:ARG:HH11	3:I:449:ARG:CG	1.82	0.92
3:C:311:GLN:HG2	3:C:355:THR:HG21	1.51	0.92
2:H:150:CYS:HB2	11:H:1484:CLA:HMC3	1.51	0.92
2:B:59:GLY:CA	11:B:1488:CLA:HED1	1.98	0.92
3:C:173:LEU:O	3:C:176:VAL:HG12	1.70	0.92
2:B:263:THR:HG22	2:B:263:THR:O	1.69	0.92
3:I:155:ASN:O	3:I:159:THR:HG23	1.70	0.91
5:K:62:SER:O	5:K:64:PRO:CD	2.18	0.91
2:H:53:ASN:N	2:H:54:PRO:HD3	1.83	0.91
3:C:155:ASN:HB2	3:C:255:THR:HG22	1.53	0.91
2:B:60:MET:CA	2:B:61:PHE:N	2.33	0.91
2:B:53:ASN:N	2:B:54:PRO:HD3	1.83	0.91
1:A:330:VAL:HG12	4:D:347:PRO:HA	1.53	0.91
9:V:129:LYS:HE3	9:V:135:VAL:HG21	1.50	0.91
1:A:175:GLY:H	12:A:1345:PHO:H192	1.35	0.91
3:C:294:ASN:O	3:C:295:THR:HG23	1.70	0.91
1:A:310:LYS:HA	9:V:2:GLU:HA	1.51	0.91
4:J:307:GLU:O	4:J:309:PRO:HD3	1.71	0.91
1:A:81:ALA:HB3	1:A:174:LEU:O	1.70	0.90
1:A:129:ARG:HH21	4:D:256:ILE:HG23	1.33	0.90
1:G:129:ARG:HH21	4:J:256:ILE:HG23	1.32	0.90
5:K:26:THR:HG21	16:L:1046:HEM:C2C	2.06	0.90
9:T:133:GLY:O	9:T:137:TYR:HB2	1.71	0.90
3:I:95:LEU:O	3:I:185:LEU:HA	1.71	0.90
2:H:60:MET:CA	2:H:61:PHE:N	2.35	0.90
4:D:148:ALA:HB3	4:D:149:PRO:HD3	1.54	0.90
4:J:331:PRO:HG3	4:J:339:PHE:CG	2.07	0.90
1:G:286:THR:HG22	11:G:1342:CLA:O1D	1.72	0.90
2:H:263:THR:O	2:H:263:THR:HG22	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:278:TRP:HB3	1:A:279:PRO:HD3	1.53	0.90
1:A:57:PRO:HG3	1:A:68:SER:HB3	1.52	0.89
2:H:397:VAL:HA	2:H:417:VAL:HG21	1.54	0.89
1:G:92:HIS:HA	3:I:219:GLY:CA	2.02	0.89
4:J:126:MET:HA	4:J:129:GLN:NE2	1.86	0.89
1:A:222:SER:C	1:A:223:LEU:CA	2.40	0.89
2:H:180:PRO:C	2:H:181:VAL:CA	2.41	0.89
4:D:253:TRP:HB2	4:D:260:ALA:HB2	1.54	0.89
4:J:323:GLU:HG2	4:J:326:ARG:HH21	1.36	0.89
1:G:63:ILE:HG13	3:I:335:THR:HG21	1.54	0.89
4:D:102:THR:HG22	5:E:46:VAL:O	1.71	0.89
3:I:155:ASN:HB2	3:I:255:THR:HG22	1.54	0.89
1:G:81:ALA:HB3	1:G:174:LEU:O	1.74	0.88
2:B:180:PRO:C	2:B:181:VAL:CA	2.41	0.88
1:G:175:GLY:H	12:G:1345:PHO:H192	1.39	0.88
5:E:59:GLU:O	5:E:60:GLN:HB3	1.72	0.88
1:G:24:THR:C	1:G:25:ASP:CA	2.42	0.87
3:I:242:LEU:O	3:I:245:ILE:HG13	1.74	0.87
1:A:127:MET:HE2	1:A:151:LEU:CD2	2.04	0.87
2:H:59:GLY:CA	11:H:1488:CLA:HED1	2.04	0.87
5:K:62:SER:C	5:K:64:PRO:CD	2.43	0.87
1:A:286:THR:HG22	11:A:1342:CLA:O1D	1.73	0.87
3:C:95:LEU:O	3:C:185:LEU:HA	1.75	0.87
4:J:323:GLU:HG2	4:J:326:ARG:NH2	1.90	0.87
2:B:80:ILE:C	2:B:81:THR:CA	2.43	0.87
1:G:57:PRO:HG3	1:G:68:SER:HB3	1.54	0.87
1:G:309:ALA:O	9:T:2:GLU:HA	1.75	0.87
1:G:330:VAL:HG12	4:J:347:PRO:HA	1.53	0.87
3:C:190:ALA:C	3:C:191:PRO:CA	2.43	0.87
1:A:24:THR:C	1:A:25:ASP:CA	2.43	0.87
3:I:273:SER:HB2	3:I:445:ALA:HB2	1.57	0.86
3:C:242:LEU:O	3:C:245:ILE:HG13	1.75	0.86
2:H:80:ILE:C	2:H:81:THR:CA	2.43	0.86
4:J:102:THR:HG22	5:K:46:VAL:O	1.74	0.86
3:C:341:LEU:C	3:C:342:MET:CA	2.43	0.86
3:C:149:TYR:CA	3:C:150:ASP:N	2.39	0.86
1:A:92:HIS:HA	3:C:219:GLY:CA	2.05	0.86
3:C:212:TYR:C	3:C:213:LEU:CA	2.43	0.86
2:H:329:PRO:CA	2:H:330:MET:N	2.39	0.86
4:D:330:ALA:HB1	4:D:331:PRO:HD3	0.87	0.86
3:C:245:ILE:HD12	3:C:246:ALA:N	1.90	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:65:LEU:C	5:E:66:VAL:CA	2.44	0.86
3:C:449:ARG:HH11	3:C:449:ARG:CG	1.86	0.85
1:A:334:ARG:C	1:A:335:ASN:CA	2.44	0.85
4:D:323:GLU:HG2	4:D:326:ARG:HH21	1.41	0.85
1:G:222:SER:C	1:G:223:LEU:CA	2.44	0.85
3:I:190:ALA:C	3:I:191:PRO:CA	2.44	0.85
4:D:258:GLY:O	4:D:259:ILE:HG13	1.76	0.85
2:H:135:LEU:HB2	2:H:136:PRO:CD	2.06	0.85
2:H:31:ALA:HA	2:H:34:ALA:HB3	1.56	0.85
2:B:329:PRO:CA	2:B:330:MET:N	2.39	0.85
4:J:331:PRO:HG3	4:J:339:PHE:HB2	1.59	0.85
2:B:150:CYS:HB2	11:B:1484:CLA:HMC3	1.57	0.85
2:H:354:LEU:HD11	2:H:378:LYS:CB	2.06	0.85
3:I:212:TYR:C	3:I:213:LEU:CA	2.45	0.85
2:H:414:PRO:HB2	2:H:415:PRO:HD3	1.59	0.85
3:C:82:TYR:HA	3:C:422:PRO:HG2	1.57	0.85
1:A:254:TYR:OH	4:D:129:GLN:HB2	1.77	0.85
3:I:341:LEU:C	3:I:342:MET:CA	2.45	0.85
1:G:334:ARG:C	1:G:335:ASN:CA	2.45	0.85
3:I:82:TYR:HA	3:I:422:PRO:HG2	1.59	0.84
3:I:353:GLY:CA	3:I:354:GLU:N	2.40	0.84
7:P:68:UNK:CA	7:P:69:UNK:N	2.40	0.84
3:I:449:ARG:HG3	3:I:449:ARG:NH1	1.87	0.84
6:F:10:PRO:HB2	6:F:19:ARG:HH11	1.40	0.84
3:I:376:ASP:HB2	3:I:379:LYS:HG3	1.57	0.84
4:J:223:PHE:CE2	4:J:245:SER:HB3	2.13	0.84
3:C:353:GLY:CA	3:C:354:GLU:N	2.40	0.84
2:H:263:THR:H	2:H:264:PRO:CD	1.91	0.84
1:G:254:TYR:OH	4:J:129:GLN:HB2	1.78	0.84
3:C:376:ASP:HB2	3:C:379:LYS:HG3	1.56	0.84
2:B:320:ALA:C	2:B:321:LYS:CA	2.46	0.84
5:E:70:PHE:CA	5:E:72:ALA:N	2.41	0.84
2:H:271:THR:HG1	2:H:274:GLN:HG3	1.43	0.84
4:D:164:GLN:HE22	4:D:189:HIS:CE1	1.96	0.84
3:I:228:ASN:CA	3:I:295:THR:HG21	2.07	0.84
7:O:68:UNK:CA	7:O:69:UNK:N	2.41	0.84
4:D:103:ARG:HG2	4:D:106:GLN:OE1	1.78	0.84
4:D:274:VAL:HB	4:D:275:PRO:HD3	1.57	0.84
4:J:343:GLU:OE1	4:J:343:GLU:N	2.11	0.83
3:I:53:HIS:HB3	11:I:1470:CLA:OBD	1.78	0.83
1:G:34:GLY:HA2	1:G:37:MET:HB3	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:334:UNK:C	10:Y:335:UNK:O	2.22	0.83
1:G:248:ILE:HD12	4:J:235:PHE:HZ	1.43	0.83
5:K:70:PHE:CA	5:K:72:ALA:N	2.41	0.83
2:B:425:ILE:HG23	2:B:425:ILE:O	1.78	0.83
4:J:164:GLN:HE22	4:J:189:HIS:HE1	1.23	0.83
3:I:149:TYR:CA	3:I:150:ASP:N	2.41	0.83
3:C:155:ASN:O	3:C:159:THR:HG23	1.78	0.83
1:A:63:ILE:HG13	3:C:335:THR:HG21	1.59	0.83
2:H:55:MET:C	2:H:56:TRP:CA	2.47	0.83
5:K:59:GLU:O	5:K:60:GLN:HB3	1.75	0.83
2:H:320:ALA:C	2:H:321:LYS:CA	2.47	0.83
3:I:40:ALA:O	3:I:43:ILE:HG12	1.78	0.83
1:G:176:ILE:HG12	11:G:1343:CLA:HED3	1.61	0.83
2:H:271:THR:OG1	2:H:274:GLN:HG3	1.78	0.83
2:H:316:GLY:HA2	2:H:443:PHE:CD1	2.13	0.83
2:B:397:VAL:HA	2:B:417:VAL:HG21	1.61	0.82
3:I:456:GLU:C	3:I:457:LYS:CA	2.48	0.82
2:H:130:GLU:CA	2:H:131:PRO:N	2.42	0.82
2:B:316:GLY:HA2	2:B:443:PHE:CD1	2.14	0.82
3:I:280:SER:HB2	3:I:434:ALA:O	1.79	0.82
1:A:307:ILE:O	1:A:309:ALA:N	2.09	0.82
2:H:31:ALA:N	11:H:1486:CLA:HBC3	1.94	0.82
1:G:217:SER:OG	4:J:142:ASN:HA	1.79	0.82
2:H:355:PHE:O	2:H:370:LEU:HA	1.80	0.82
2:H:236:THR:HB	2:H:473:THR:CG2	2.09	0.82
2:B:161:LEU:O	2:B:162:PHE:HB2	1.80	0.82
4:J:274:VAL:HB	4:J:275:PRO:HD3	1.61	0.82
2:H:141:ILE:HB	2:H:217:ILE:HD12	1.62	0.82
3:I:294:ASN:O	3:I:295:THR:HG23	1.80	0.82
2:H:89:GLY:CA	2:H:90:PHE:N	2.43	0.82
6:F:12:SER:O	6:F:14:PRO:CD	2.26	0.81
1:A:290:ILE:HD11	11:A:1342:CLA:OBD	1.80	0.81
4:J:61:HIS:HB3	4:J:63:LEU:HD13	1.61	0.81
2:H:24:LEU:HD23	2:H:111:ALA:N	1.96	0.81
4:J:171:PRO:HG3	4:J:181:PHE:CG	2.15	0.81
3:I:266:TRP:HB3	3:I:271:TYR:OH	1.81	0.81
2:H:45:PHE:CD2	2:H:47:PRO:CD	2.60	0.81
2:B:236:THR:HB	2:B:473:THR:CG2	2.11	0.81
2:B:130:GLU:CA	2:B:131:PRO:N	2.43	0.81
3:I:89:ILE:HB	3:I:90:PRO:HD3	1.62	0.81
4:J:258:GLY:O	4:J:259:ILE:HG13	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:445:ALA:HB1	11:C:1463:CLA:HED1	1.61	0.81
3:C:456:GLU:C	3:C:457:LYS:CA	2.48	0.81
2:H:306:PRO:CA	2:H:307:GLU:N	2.43	0.81
3:I:260:ALA:HB1	11:I:1464:CLA:HAA2	1.60	0.81
1:A:242:GLU:CA	1:A:243:GLU:N	2.43	0.81
8:U:5:UNK:C	8:U:7:UNK:N	2.40	0.81
2:B:163:GLY:O	2:B:165:GLY:N	2.13	0.81
2:B:15:ASP:CA	2:B:16:PRO:N	2.43	0.81
2:B:354:LEU:HD11	2:B:378:LYS:CB	2.09	0.81
3:I:95:LEU:HD23	3:I:97:TRP:HZ3	1.45	0.81
4:D:86:GLY:HA2	4:D:166:SER:CB	2.10	0.81
2:B:89:GLY:CA	2:B:90:PHE:N	2.43	0.81
2:B:414:PRO:HB2	2:B:415:PRO:HD3	1.63	0.81
2:H:15:ASP:CA	2:H:16:PRO:N	2.44	0.81
2:B:55:MET:C	2:B:56:TRP:CA	2.49	0.81
1:A:34:GLY:HA2	1:A:37:MET:HB3	1.61	0.80
3:C:228:ASN:CA	3:C:295:THR:HG21	2.11	0.80
1:A:63:ILE:HG12	1:A:64:ARG:N	1.96	0.80
4:D:223:PHE:CE2	4:D:245:SER:HB3	2.15	0.80
2:B:306:PRO:CA	2:B:307:GLU:N	2.43	0.80
1:A:39:PRO:HB2	11:A:1346:CLA:HAB	1.63	0.80
2:H:187:PRO:CA	2:H:188:ASP:N	2.44	0.80
4:J:122:LEU:HD21	11:J:1351:CLA:C9	2.11	0.80
1:A:202:VAL:O	1:A:206:PHE:HB2	1.82	0.80
4:D:53:THR:HG22	4:D:67:TYR:CD1	2.16	0.80
3:C:53:HIS:HB3	11:C:1470:CLA:OBD	1.80	0.80
2:B:236:THR:HB	2:B:473:THR:HG23	1.64	0.80
2:H:295:GLY:C	2:H:296:ALA:CA	2.50	0.80
1:A:217:SER:OG	4:D:142:ASN:HA	1.80	0.80
2:B:295:GLY:C	2:B:296:ALA:CA	2.50	0.80
3:I:154:LYS:NZ	3:I:261:ARG:HD3	1.97	0.80
10:X:334:UNK:C	10:X:335:UNK:O	2.26	0.80
3:C:185:LEU:O	3:C:230:LEU:HD21	1.82	0.80
3:C:449:ARG:HG3	3:C:449:ARG:NH1	1.88	0.80
6:F:19:ARG:O	6:F:23:VAL:HG23	1.80	0.80
1:G:30:VAL:CA	1:G:31:GLY:N	2.45	0.80
4:D:126:MET:HA	4:D:129:GLN:NE2	1.95	0.80
1:G:141:PRO:HG2	3:I:446:GLY:O	1.81	0.80
1:A:141:PRO:HG2	3:C:446:GLY:O	1.82	0.80
1:G:63:ILE:HG12	1:G:64:ARG:N	1.97	0.79
1:A:30:VAL:CA	1:A:31:GLY:N	2.45	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:84:PRO:CD	1:G:173:PRO:CG	2.55	0.79
3:C:56:HIS:HE1	11:C:1467:CLA:HMA1	1.47	0.79
2:B:27:THR:HG22	2:B:107:LEU:HD13	1.63	0.79
1:G:39:PRO:HB2	11:G:1346:CLA:HAB	1.64	0.79
4:J:103:ARG:HG2	4:J:106:GLN:OE1	1.82	0.79
1:G:193:LEU:HB3	4:J:179:PHE:CD1	2.18	0.79
2:H:61:PHE:O	2:H:64:PRO:CD	2.29	0.79
1:A:142:TRP:CB	4:D:220:ASN:OD1	2.31	0.79
2:B:187:PRO:CA	2:B:188:ASP:N	2.46	0.79
1:G:219:VAL:HG21	4:J:268:HIS:CD2	2.16	0.79
2:H:161:LEU:O	2:H:162:PHE:HB2	1.81	0.79
3:C:260:ALA:HB1	11:C:1464:CLA:HAA2	1.63	0.79
3:I:56:HIS:HE1	11:I:1467:CLA:HMA1	1.47	0.79
2:H:270:PRO:O	2:H:271:THR:HG23	1.82	0.79
3:C:266:TRP:HB3	3:C:271:TYR:OH	1.81	0.79
1:G:222:SER:O	1:G:246:TYR:HA	1.83	0.79
3:I:100:GLY:O	3:I:101:PRO:C	2.17	0.79
6:L:12:SER:O	6:L:14:PRO:CD	2.30	0.79
2:B:135:LEU:HB2	2:B:136:PRO:CD	2.11	0.79
4:J:196:PHE:CE1	4:J:284:ILE:HB	2.18	0.79
1:A:176:ILE:HG12	11:A:1343:CLA:HED3	1.65	0.79
2:B:474:LEU:HD11	11:B:1489:CLA:HAA2	1.65	0.79
4:J:74:LEU:HD23	4:J:175:VAL:HG11	1.62	0.78
4:J:164:GLN:HE22	4:J:189:HIS:CE1	2.00	0.78
2:H:45:PHE:O	2:H:47:PRO:HD2	1.84	0.78
4:J:86:GLY:HA2	4:J:166:SER:CB	2.12	0.78
3:C:206:PRO:CA	3:C:207:ARG:N	2.46	0.78
1:G:258:LEU:HA	4:J:128:ARG:HH12	1.49	0.78
4:D:69:GLU:HG2	5:E:55:TYR:OH	1.83	0.78
10:X:59:UNK:O	10:X:60:UNK:C	2.31	0.78
3:I:245:ILE:HD12	3:I:246:ALA:N	1.99	0.78
3:I:52:ALA:HA	11:I:1469:CLA:HMB3	1.66	0.78
9:T:129:LYS:HE3	9:T:135:VAL:CG2	2.14	0.78
4:D:196:PHE:CE1	4:D:284:ILE:HB	2.18	0.78
1:A:143:ILE:HG13	4:D:220:ASN:ND2	1.96	0.78
2:H:383:PHE:O	7:P:107:UNK:HA	1.82	0.78
3:I:305:THR:OG1	3:I:307:PRO:HD2	1.84	0.78
3:I:304:PRO:HG2	3:I:398:HIS:O	1.83	0.78
3:I:206:PRO:CA	3:I:207:ARG:N	2.46	0.78
1:G:161:TYR:CE2	1:G:186:PHE:HE1	2.00	0.78
6:L:19:ARG:O	6:L:23:VAL:HG23	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:261:ARG:HA	3:C:266:TRP:HZ2	1.49	0.77
11:H:1496:CLA:H152	11:H:1497:CLA:HMD3	1.64	0.77
1:A:297:LEU:CD2	3:C:428:THR:HG21	2.14	0.77
4:D:331:PRO:HG3	4:D:339:PHE:CG	2.19	0.77
1:G:187:GLN:HB2	11:G:1342:CLA:HAC2	1.66	0.77
1:G:183:MET:HG2	11:G:1342:CLA:HBC2	1.65	0.77
3:C:273:SER:HB2	3:C:445:ALA:HB2	1.65	0.77
1:A:193:LEU:HB3	4:D:179:PHE:CD1	2.19	0.77
2:B:330:MET:HE2	2:B:446:SER:HB3	1.66	0.77
2:H:248:ALA:O	2:H:251:VAL:HG23	1.85	0.77
6:F:12:SER:C	6:F:14:PRO:HD2	2.03	0.77
6:F:28:VAL:HB	6:F:29:PRO:HD3	1.66	0.77
3:C:305:THR:OG1	3:C:307:PRO:HD2	1.84	0.77
6:L:28:VAL:HB	6:L:29:PRO:HD3	1.66	0.77
4:D:323:GLU:HG2	4:D:326:ARG:NH2	1.99	0.77
1:A:248:ILE:HD12	4:D:235:PHE:HZ	1.49	0.77
4:J:87:HIS:CE1	4:J:162:LEU:HA	2.19	0.77
2:H:474:LEU:HD11	11:H:1489:CLA:HAA2	1.67	0.77
4:D:122:LEU:HD21	11:D:1351:CLA:C9	2.14	0.77
2:H:229:LEU:C	2:H:231:MET:H	1.86	0.77
1:G:294:ALA:C	1:G:296:ASN:H	1.88	0.77
3:I:261:ARG:HA	3:I:266:TRP:HZ2	1.50	0.77
3:C:167:VAL:O	3:C:170:ILE:HG22	1.85	0.77
1:A:330:VAL:CG1	4:D:347:PRO:HA	2.14	0.77
7:P:11:UNK:HA	7:P:173:UNK:CB	2.14	0.77
4:D:343:GLU:OE1	4:D:343:GLU:N	2.16	0.76
2:B:215:PHE:CZ	11:B:1490:CLA:HMD3	2.20	0.76
1:G:242:GLU:CA	1:G:243:GLU:N	2.48	0.76
4:J:267:LEU:O	4:J:271:MET:HG3	1.84	0.76
6:L:37:ILE:HA	6:L:40:MET:HE2	1.67	0.76
2:H:24:LEU:HD11	11:H:1497:CLA:HBC2	1.64	0.76
2:H:236:THR:HB	2:H:473:THR:HG23	1.66	0.76
1:A:149:ALA:HB3	1:A:150:PRO:HD3	1.66	0.76
2:B:24:LEU:HD23	2:B:111:ALA:N	2.00	0.76
4:J:176:ALA:HA	4:J:179:PHE:HD2	1.49	0.76
4:D:340:VAL:O	4:D:342:PRO:HD2	1.86	0.76
2:B:355:PHE:O	2:B:370:LEU:HA	1.84	0.76
4:J:53:THR:HG22	4:J:67:TYR:CD1	2.20	0.76
2:H:134:ASP:O	2:H:136:PRO:HD2	1.85	0.76
4:D:87:HIS:CE1	4:D:162:LEU:HA	2.21	0.76
7:O:11:UNK:HA	7:O:173:UNK:CB	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:45:PHE:CD2	2:B:47:PRO:CD	2.65	0.76
3:C:52:ALA:HA	11:C:1469:CLA:HMB3	1.68	0.76
2:B:271:THR:OG1	2:B:274:GLN:HG3	1.84	0.76
2:B:383:PHE:O	7:O:107:UNK:HA	1.85	0.76
1:G:62:GLY:CA	1:G:87:ASN:HB3	2.16	0.76
4:J:345:VAL:O	4:J:346:LEU:CB	2.32	0.76
6:L:10:PRO:HB2	6:L:19:ARG:NH1	2.00	0.76
5:K:27:ILE:HB	5:K:28:PRO:HD3	1.67	0.76
1:G:206:PHE:HE1	11:G:1342:CLA:HMB1	1.51	0.76
2:B:160:GLY:HA2	2:B:163:GLY:HA2	1.66	0.76
10:X:470:UNK:O	10:X:473:UNK:N	2.19	0.76
2:H:118:TRP:C	2:H:119:ASP:CA	2.54	0.76
1:A:206:PHE:HE1	11:A:1342:CLA:HMB1	1.51	0.76
2:B:141:ILE:HB	2:B:217:ILE:HD12	1.66	0.76
1:G:290:ILE:HD11	11:G:1342:CLA:OBD	1.85	0.75
8:U:59:UNK:O	8:U:61:UNK:N	2.20	0.75
3:I:169:GLY:HA2	3:I:244:CYS:SG	2.26	0.75
1:G:143:ILE:HD11	4:J:217:THR:HA	1.68	0.75
2:B:31:ALA:HA	2:B:34:ALA:HB3	1.66	0.75
1:A:64:ARG:O	1:A:66:PRO:HD3	1.86	0.75
2:H:52:LEU:HD22	2:H:337:ALA:HB1	1.68	0.75
2:H:246:PHE:HE1	2:H:463:PHE:HB2	1.51	0.75
6:L:37:ILE:HA	6:L:40:MET:CE	2.16	0.75
1:A:62:GLY:CA	1:A:87:ASN:HB3	2.16	0.75
3:I:116:VAL:HG23	3:I:117:VAL:N	2.01	0.75
2:B:229:LEU:C	2:B:231:MET:H	1.89	0.75
8:S:59:UNK:O	8:S:61:UNK:N	2.18	0.75
2:H:138:MET:SD	11:H:1496:CLA:HBC2	2.26	0.75
4:D:340:VAL:O	4:D:342:PRO:CD	2.34	0.75
1:G:330:VAL:CG1	4:J:347:PRO:HA	2.16	0.75
3:I:185:LEU:O	3:I:230:LEU:HD21	1.86	0.75
5:K:13:ILE:HG22	5:K:19:TYR:CD2	2.21	0.75
2:B:263:THR:N	2:B:264:PRO:HD3	2.02	0.75
3:C:225:VAL:HG13	3:C:289:PHE:HA	1.67	0.75
3:C:35:TRP:CE2	3:C:36:TRP:HD1	2.05	0.75
2:B:248:ALA:O	2:B:251:VAL:HG23	1.86	0.75
2:B:270:PRO:O	2:B:271:THR:HG23	1.86	0.75
2:H:229:LEU:O	2:H:231:MET:N	2.20	0.75
7:O:83:UNK:HA	7:O:90:UNK:CB	2.16	0.75
2:B:118:TRP:C	2:B:119:ASP:CA	2.55	0.75
2:H:31:ALA:H	11:H:1486:CLA:CBC	1.99	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:294:ALA:C	1:A:296:ASN:H	1.87	0.75
5:E:62:SER:O	5:E:64:PRO:N	2.20	0.75
1:A:143:ILE:N	4:D:220:ASN:ND2	2.35	0.75
5:E:13:ILE:HG22	5:E:19:TYR:CD2	2.21	0.75
4:D:167:TRP:O	4:D:168:PHE:HB2	1.86	0.75
3:C:315:MET:HG3	3:C:365:TRP:HZ3	1.52	0.74
1:A:222:SER:O	1:A:246:TYR:HA	1.86	0.74
4:J:69:GLU:HG2	5:K:55:TYR:OH	1.86	0.74
9:V:48:THR:OG1	18:V:1138:HEC:HMD3	1.87	0.74
8:S:5:UNK:C	8:S:7:UNK:N	2.42	0.74
2:B:268:PHE:HB2	2:B:448:ARG:HH11	1.52	0.74
4:D:61:HIS:HB3	4:D:63:LEU:HD13	1.68	0.74
3:C:189:TRP:HE1	3:C:295:THR:HG22	1.50	0.74
11:B:1496:CLA:H152	11:B:1497:CLA:HMD3	1.68	0.74
1:G:84:PRO:HG2	1:G:173:PRO:CD	2.16	0.74
4:D:74:LEU:HD23	4:D:175:VAL:HG11	1.67	0.74
1:G:142:TRP:CB	4:J:220:ASN:OD1	2.32	0.74
9:T:48:THR:OG1	18:T:1138:HEC:HMD3	1.88	0.74
2:B:246:PHE:HE1	2:B:463:PHE:HB2	1.53	0.74
2:B:271:THR:HG1	2:B:274:GLN:HG3	1.50	0.74
9:V:129:LYS:HE3	9:V:135:VAL:CG2	2.17	0.74
2:H:330:MET:CE	2:H:446:SER:HB3	2.18	0.74
2:B:138:MET:SD	11:B:1496:CLA:HBC2	2.27	0.74
4:D:308:ASP:HB3	4:D:311:PHE:HB2	1.68	0.74
1:A:258:LEU:HD12	4:D:128:ARG:NH1	2.02	0.74
4:D:329:MET:O	4:D:330:ALA:O	2.06	0.74
2:B:257:TRP:HB2	2:B:452:THR:HG21	1.69	0.74
2:H:263:THR:N	2:H:264:PRO:HD2	2.03	0.74
1:A:247:ASN:ND2	1:A:247:ASN:O	2.20	0.74
5:K:62:SER:O	5:K:63:ILE:C	2.26	0.74
3:C:304:PRO:HG2	3:C:398:HIS:O	1.87	0.74
1:G:258:LEU:HD12	4:J:128:ARG:NH1	2.03	0.74
3:C:278:ALA:O	3:C:282:MET:HG3	1.87	0.74
1:G:310:LYS:NZ	5:K:58:GLN:HG2	2.03	0.74
2:H:52:LEU:C	2:H:54:PRO:HD3	2.08	0.74
3:C:78:GLU:OE2	3:C:104:GLU:HA	1.88	0.74
10:Y:507:UNK:O	10:Y:509:UNK:N	2.21	0.74
3:C:370:ARG:HE	3:C:371:GLY:H	1.34	0.73
2:B:134:ASP:O	2:B:136:PRO:HD2	1.88	0.73
1:G:81:ALA:HB3	1:G:174:LEU:C	2.08	0.73
1:A:309:ALA:O	9:V:2:GLU:CG	2.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:1488:CLA:H171	4:J:281:MET:HE1	1.68	0.73
1:A:107:TYR:C	1:A:109:GLY:H	1.91	0.73
1:A:63:ILE:HG13	3:C:335:THR:HG23	1.68	0.73
2:B:229:LEU:O	2:B:231:MET:N	2.21	0.73
1:A:258:LEU:HD12	4:D:128:ARG:CZ	2.18	0.73
3:C:81:MET:HE3	3:C:301:PHE:HA	1.69	0.73
1:A:62:GLY:HA2	1:A:87:ASN:HB3	1.70	0.73
4:J:308:ASP:HB3	4:J:311:PHE:HB2	1.69	0.73
1:G:306:VAL:HG12	1:G:313:VAL:HG22	1.69	0.73
1:G:149:ALA:HB3	1:G:150:PRO:HD3	1.71	0.73
4:J:292:ASN:O	4:J:294:ARG:HG2	1.88	0.73
3:C:120:ILE:O	3:C:122:SER:N	2.21	0.73
2:B:167:TRP:CG	2:B:267:LEU:HD11	2.23	0.73
4:J:196:PHE:HE1	4:J:284:ILE:HB	1.52	0.73
1:A:309:ALA:O	9:V:2:GLU:HG2	1.88	0.73
5:E:62:SER:O	5:E:63:ILE:C	2.26	0.73
3:I:315:MET:HG3	3:I:365:TRP:HZ3	1.54	0.73
2:B:24:LEU:HD11	11:B:1497:CLA:HBC2	1.69	0.73
1:G:62:GLY:HA2	1:G:87:ASN:HB3	1.69	0.73
3:C:100:GLY:O	3:C:101:PRO:C	2.23	0.73
4:J:15:PHE:O	4:J:18:LEU:N	2.21	0.73
1:A:332:HIS:CD2	1:A:333:GLU:H	2.06	0.73
3:I:113:VAL:O	3:I:117:VAL:HG23	1.89	0.73
1:G:258:LEU:HD12	4:J:128:ARG:CZ	2.17	0.73
6:F:43:ILE:CG2	6:F:45:ARG:O	2.36	0.73
2:H:347:ARG:HB2	2:H:398:THR:CB	2.19	0.73
1:G:202:VAL:O	1:G:206:PHE:HB2	1.89	0.73
3:I:445:ALA:HB1	11:I:1463:CLA:HED1	1.71	0.73
4:J:340:VAL:O	4:J:342:PRO:HD3	1.87	0.73
9:V:133:GLY:O	9:V:137:TYR:CB	2.37	0.73
1:G:248:ILE:HD12	4:J:235:PHE:CZ	2.24	0.73
4:D:37:LEU:HD23	4:D:37:LEU:C	2.10	0.73
1:G:222:SER:O	1:G:246:TYR:CA	2.37	0.73
4:D:83:ASN:CG	4:D:336:HIS:HD2	1.92	0.72
1:G:219:VAL:HG11	4:J:268:HIS:CG	2.24	0.72
2:H:247:PHE:O	2:H:251:VAL:HG22	1.89	0.72
4:J:171:PRO:CD	4:J:181:PHE:CD2	2.67	0.72
4:J:343:GLU:OE2	9:T:134:LYS:NZ	2.22	0.72
3:C:423:ARG:HG3	3:C:423:ARG:O	1.89	0.72
3:C:187:ASP:CB	3:C:230:LEU:HD23	2.19	0.72
1:G:64:ARG:O	1:G:66:PRO:HD3	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:52:LEU:C	2:B:54:PRO:HD3	2.08	0.72
7:O:42:UNK:CB	7:O:53:UNK:HA	2.18	0.72
2:H:263:THR:N	2:H:264:PRO:CD	2.52	0.72
3:I:315:MET:O	3:I:319:ILE:HG13	1.88	0.72
2:H:395:GLN:CB	2:H:397:VAL:H	2.02	0.72
7:O:68:UNK:CA	7:O:69:UNK:H	2.03	0.72
3:C:89:ILE:HB	3:C:90:PRO:HD3	1.69	0.72
7:P:83:UNK:HA	7:P:90:UNK:CB	2.20	0.72
3:I:287:THR:HG22	3:I:430:HIS:CB	2.20	0.72
3:C:287:THR:HG22	3:C:430:HIS:CB	2.19	0.72
4:D:290:ALA:C	4:D:291:LEU:HD12	2.09	0.72
1:G:38:ILE:HB	1:G:39:PRO:HD3	1.70	0.72
2:H:172:TYR:HA	2:H:280:PHE:HE1	1.55	0.72
1:A:81:ALA:HB3	1:A:174:LEU:C	2.09	0.72
2:B:31:ALA:HB2	11:B:1486:CLA:HBC3	1.70	0.72
3:C:95:LEU:HD23	3:C:97:TRP:HZ3	1.55	0.72
2:B:172:TYR:HA	2:B:280:PHE:HE1	1.55	0.72
2:H:257:TRP:HB2	2:H:452:THR:HG21	1.71	0.72
4:J:83:ASN:CG	4:J:336:HIS:HD2	1.92	0.72
11:G:1344:CLA:HAB	11:J:1351:CLA:H62	1.70	0.72
2:H:349:LYS:HD2	2:H:394:GLN:HA	1.71	0.72
4:D:145:ALA:HA	4:D:276:VAL:HG22	1.70	0.72
4:J:152:VAL:HG13	11:J:1351:CLA:HED3	1.72	0.72
1:G:129:ARG:NH2	4:J:256:ILE:HG23	2.04	0.72
2:B:61:PHE:O	2:B:64:PRO:CD	2.33	0.72
2:B:69:LEU:HD23	11:B:1487:CLA:HMA1	1.72	0.72
1:A:258:LEU:HA	4:D:128:ARG:HH12	1.54	0.72
10:Y:509:UNK:O	10:Y:510:UNK:C	2.35	0.72
3:I:102:GLY:H	3:I:193:GLY:CA	2.03	0.72
1:G:94:TYR:OH	1:G:108:ASN:ND2	2.22	0.72
4:D:331:PRO:HG3	4:D:339:PHE:HB2	1.72	0.71
4:J:329:MET:O	4:J:330:ALA:O	2.08	0.71
3:I:167:VAL:O	3:I:170:ILE:HG22	1.90	0.71
3:C:169:GLY:HA2	3:C:244:CYS:SG	2.29	0.71
1:A:112:TYR:CZ	1:A:116:ILE:HD11	2.25	0.71
1:G:247:ASN:O	1:G:247:ASN:ND2	2.22	0.71
10:X:177:UNK:O	10:X:178:UNK:C	2.38	0.71
4:J:37:LEU:C	4:J:37:LEU:HD23	2.11	0.71
3:C:56:HIS:CE1	11:C:1467:CLA:HMA1	2.25	0.71
1:A:143:ILE:HD11	4:D:217:THR:HA	1.72	0.71
1:A:133:LEU:HA	1:A:136:ARG:HB2	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:331:MET:HE2	4:D:346:LEU:O	1.90	0.71
1:G:297:LEU:CD2	3:I:428:THR:HG21	2.21	0.71
4:J:290:ALA:C	4:J:291:LEU:HD12	2.10	0.71
1:A:143:ILE:H	4:D:220:ASN:ND2	1.89	0.71
5:E:26:THR:O	5:E:29:ALA:HB3	1.90	0.71
5:K:10:PHE:HE2	6:L:19:ARG:NE	1.88	0.71
3:C:113:VAL:O	3:C:117:VAL:HG23	1.90	0.71
3:I:423:ARG:O	3:I:423:ARG:HG3	1.90	0.71
4:J:88:SER:C	4:J:90:LEU:H	1.91	0.71
2:H:106:LEU:HB3	11:H:1496:CLA:H121	1.72	0.71
3:I:304:PRO:O	3:I:305:THR:HG23	1.90	0.71
4:D:196:PHE:HE1	4:D:284:ILE:HB	1.53	0.71
1:A:129:ARG:NH2	4:D:256:ILE:HG23	2.05	0.71
2:B:163:GLY:O	2:B:164:PRO:C	2.25	0.71
1:G:63:ILE:O	1:G:64:ARG:HD2	1.89	0.71
5:E:56:TYR:O	5:E:57:ALA:HB2	1.90	0.71
3:C:154:LYS:NZ	3:C:261:ARG:HD3	2.05	0.71
2:B:31:ALA:H	11:B:1486:CLA:HBC3	1.56	0.71
3:C:116:VAL:HG23	3:C:117:VAL:N	2.04	0.71
2:H:425:ILE:HG23	2:H:425:ILE:O	1.90	0.71
2:H:330:MET:HE2	2:H:446:SER:HB3	1.72	0.71
4:D:176:ALA:HA	4:D:179:PHE:HD2	1.55	0.71
1:G:295:PHE:O	3:I:291:TRP:CZ3	2.44	0.71
3:I:50:LEU:HD23	3:I:132:HIS:CD2	2.26	0.71
2:H:233:ASN:O	2:H:233:ASN:CG	2.28	0.71
7:P:42:UNK:CB	7:P:53:UNK:HA	2.21	0.71
4:J:253:TRP:O	4:J:256:ILE:N	2.22	0.70
4:J:72:ASN:O	4:J:74:LEU:N	2.23	0.70
2:H:391:SER:O	2:H:392:PHE:CB	2.38	0.70
1:G:310:LYS:CA	9:T:2:GLU:HA	2.20	0.70
1:G:219:VAL:HG21	4:J:268:HIS:HD2	1.53	0.70
3:I:370:ARG:HE	3:I:371:GLY:H	1.37	0.70
2:B:247:PHE:O	2:B:251:VAL:HG22	1.91	0.70
5:E:27:ILE:HB	5:E:28:PRO:HD3	1.72	0.70
3:I:278:ALA:O	3:I:282:MET:HG3	1.91	0.70
3:I:225:VAL:HG13	3:I:289:PHE:HA	1.73	0.70
2:B:330:MET:CE	2:B:446:SER:HB3	2.21	0.70
1:G:310:LYS:CB	9:T:2:GLU:N	2.52	0.70
4:J:235:PHE:CE1	4:J:237:PRO:HB3	2.26	0.70
4:D:15:PHE:O	4:D:18:LEU:N	2.25	0.70
2:H:27:THR:HG22	2:H:107:LEU:HD13	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:113:PHE:CA	11:D:1353:CLA:HED1	2.19	0.70
3:I:189:TRP:HE1	3:I:295:THR:HG22	1.55	0.70
4:D:148:ALA:HA	4:D:280:TRP:NE1	2.06	0.70
5:E:10:PHE:HE2	6:F:19:ARG:NE	1.89	0.70
4:J:38:PHE:O	4:J:39:PRO:C	2.27	0.70
2:H:69:LEU:HD23	11:H:1487:CLA:HMA1	1.72	0.70
2:B:233:ASN:O	2:B:233:ASN:CG	2.30	0.70
2:B:45:PHE:O	2:B:47:PRO:HD2	1.91	0.70
1:A:84:PRO:HD3	1:A:173:PRO:HB3	1.72	0.70
3:C:261:ARG:HA	3:C:266:TRP:CZ2	2.26	0.70
1:A:219:VAL:HG21	4:D:268:HIS:CD2	2.26	0.70
9:V:55:ARG:HH21	9:V:128:ASP:HA	1.57	0.70
10:Y:59:UNK:O	10:Y:60:UNK:C	2.38	0.70
2:H:468:TRP:O	2:H:471:ALA:HB3	1.92	0.70
1:A:187:GLN:HB2	11:A:1342:CLA:HAC2	1.73	0.70
2:H:398:THR:C	2:H:400:SER:H	1.93	0.70
1:G:307:ILE:O	1:G:309:ALA:N	2.24	0.70
7:P:68:UNK:CA	7:P:69:UNK:H	2.04	0.70
1:G:206:PHE:CE1	11:G:1342:CLA:HMB1	2.26	0.70
1:G:60:ILE:HD12	1:G:83:VAL:CG1	2.22	0.70
4:J:111:TRP:O	4:J:114:ILE:N	2.25	0.70
4:J:291:LEU:HD12	4:J:291:LEU:N	2.06	0.70
1:G:331:MET:HE2	4:J:346:LEU:O	1.92	0.70
3:I:52:ALA:HB2	11:I:1469:CLA:HMA1	1.74	0.70
2:H:215:PHE:CZ	11:H:1490:CLA:HMD3	2.27	0.70
3:I:178:LYS:HA	3:I:182:PHE:HB2	1.74	0.70
2:B:263:THR:HG22	2:B:448:ARG:CZ	2.22	0.69
4:J:188:PHE:CZ	4:J:326:ARG:HG2	2.27	0.69
3:I:56:HIS:CE1	11:I:1467:CLA:HMA1	2.26	0.69
1:G:314:ILE:HG23	4:J:58:TRP:CZ3	2.27	0.69
2:H:94:GLU:HG3	2:H:95:GLY:N	2.07	0.69
3:I:178:LYS:HD3	3:I:178:LYS:C	2.13	0.69
3:I:187:ASP:OD1	3:I:187:ASP:O	2.10	0.69
5:K:58:GLN:HE22	9:T:4:THR:HG23	1.57	0.69
2:B:79:SER:C	2:B:80:ILE:HG13	2.13	0.69
1:G:107:TYR:C	1:G:109:GLY:H	1.94	0.69
1:A:60:ILE:HB	1:A:83:VAL:CG1	2.22	0.69
4:D:88:SER:C	4:D:90:LEU:H	1.94	0.69
3:I:390:ARG:HD2	9:T:100:ILE:HD12	1.73	0.69
10:Y:71:UNK:C	10:Y:73:UNK:N	2.54	0.69
4:J:145:ALA:HA	4:J:276:VAL:HG22	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:T:93:PRO:HA	9:T:101:PHE:CD2	2.27	0.69
2:B:360:PRO:HB2	2:B:363:PHE:HD2	1.57	0.69
1:G:70:SER:O	1:G:75:ASN:HB2	1.93	0.69
3:C:189:TRP:CH2	3:C:363:GLY:HA2	2.27	0.69
1:G:129:ARG:NH2	4:J:256:ILE:HA	2.06	0.69
1:A:129:ARG:HH22	4:D:256:ILE:HA	1.58	0.69
1:A:127:MET:CE	1:A:151:LEU:HD22	2.16	0.69
4:J:91:LEU:HA	11:J:1353:CLA:O1D	1.93	0.69
7:P:142:UNK:HA	7:P:149:UNK:CB	2.22	0.69
1:A:309:ALA:C	9:V:2:GLU:HA	2.11	0.69
4:D:209:LEU:HD23	4:D:209:LEU:C	2.12	0.69
1:G:330:VAL:HG11	4:J:328:TRP:CZ2	2.28	0.69
3:C:318:LEU:HD12	3:C:318:LEU:O	1.92	0.69
2:H:360:PRO:HB2	2:H:363:PHE:HD2	1.57	0.69
2:H:468:TRP:CD1	4:J:144:ILE:HD11	2.27	0.69
3:C:280:SER:HB2	3:C:434:ALA:O	1.92	0.69
1:A:38:ILE:HB	1:A:39:PRO:HD3	1.74	0.69
2:B:221:PRO:HB3	11:B:1490:CLA:HED3	1.74	0.69
2:B:233:ASN:O	2:B:235:GLU:N	2.26	0.69
2:H:330:MET:O	2:H:331:ASN:CG	2.32	0.69
4:D:39:PRO:O	4:D:43:LEU:HB2	1.93	0.69
1:A:129:ARG:NH2	4:D:256:ILE:HA	2.07	0.69
3:I:376:ASP:CB	3:I:379:LYS:HG3	2.23	0.69
4:J:235:PHE:CD1	4:J:235:PHE:O	2.46	0.69
2:B:332:LYS:O	2:B:439:SER:HA	1.93	0.69
4:J:61:HIS:HB3	4:J:63:LEU:CD1	2.22	0.68
1:A:310:LYS:CB	9:V:2:GLU:N	2.53	0.68
1:A:141:PRO:O	1:A:143:ILE:N	2.26	0.68
3:C:178:LYS:HA	3:C:182:PHE:HB2	1.75	0.68
2:B:468:TRP:O	2:B:471:ALA:HB3	1.91	0.68
1:A:113:GLN:O	1:A:117:PHE:HD2	1.75	0.68
9:V:93:PRO:HA	9:V:101:PHE:CD2	2.29	0.68
4:D:169:PHE:O	4:D:181:PHE:HE2	1.76	0.68
3:C:176:VAL:O	3:C:180:MET:HG2	1.93	0.68
4:J:209:LEU:C	4:J:209:LEU:HD23	2.14	0.68
3:C:376:ASP:CB	3:C:379:LYS:HG3	2.22	0.68
9:T:78:ASN:OD1	9:T:96:ARG:NH2	2.26	0.68
3:C:377:LEU:O	3:C:381:LYS:HD3	1.93	0.68
4:J:176:ALA:HA	4:J:179:PHE:CD2	2.27	0.68
1:G:129:ARG:HH22	4:J:256:ILE:HA	1.57	0.68
2:H:256:MET:SD	2:H:263:THR:HG23	2.34	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:234:ILE:O	2:B:235:GLU:C	2.30	0.68
2:B:66:MET:O	2:B:71:VAL:HB	1.93	0.68
4:D:343:GLU:OE2	9:V:134:LYS:NZ	2.26	0.68
1:G:133:LEU:HA	1:G:136:ARG:HB2	1.76	0.68
3:I:128:GLY:HA3	11:I:1471:CLA:CMC	2.24	0.68
3:I:37:ALA:HA	11:I:1466:CLA:CBA	2.21	0.68
3:I:35:TRP:CE2	3:I:36:TRP:HD1	2.11	0.68
2:B:468:TRP:CD1	4:D:144:ILE:HD11	2.29	0.68
2:B:349:LYS:HD2	2:B:394:GLN:HA	1.75	0.68
3:I:225:VAL:O	3:I:225:VAL:HG12	1.94	0.68
2:H:234:ILE:O	2:H:235:GLU:C	2.32	0.68
2:H:61:PHE:O	2:H:63:LEU:N	2.26	0.68
11:A:1344:CLA:HAB	11:D:1351:CLA:H62	1.74	0.68
1:G:143:ILE:N	4:J:220:ASN:ND2	2.41	0.68
7:O:142:UNK:HA	7:O:149:UNK:CB	2.22	0.68
4:J:79:SER:HA	4:J:172:SER:HB3	1.76	0.68
1:G:136:ARG:HE	10:Y:29:UNK:CB	2.07	0.68
3:I:154:LYS:HZ1	3:I:261:ARG:HD3	1.58	0.68
3:I:261:ARG:HA	3:I:266:TRP:CZ2	2.28	0.68
1:A:206:PHE:CE1	11:A:1342:CLA:HMB1	2.28	0.68
2:B:52:LEU:HD22	2:B:337:ALA:HB1	1.75	0.68
1:A:121:LEU:O	1:A:121:LEU:HD23	1.94	0.68
3:C:187:ASP:O	3:C:187:ASP:OD1	2.11	0.68
5:K:13:ILE:HG22	5:K:19:TYR:HD2	1.59	0.68
4:D:345:VAL:CG1	4:D:345:VAL:O	2.36	0.68
3:C:128:GLY:HA3	11:C:1471:CLA:CMC	2.23	0.68
3:C:170:ILE:HG23	3:C:171:GLY:N	2.08	0.68
1:A:175:GLY:N	12:A:1345:PHO:H192	2.08	0.67
3:C:178:LYS:HD3	3:C:178:LYS:C	2.14	0.67
1:G:96:ILE:HG22	11:G:1346:CLA:OBD	1.94	0.67
1:A:330:VAL:HG11	4:D:328:TRP:CZ2	2.29	0.67
3:C:225:VAL:HG12	3:C:225:VAL:O	1.95	0.67
1:A:133:LEU:HD12	4:D:256:ILE:CG1	2.23	0.67
2:B:64:PRO:O	2:B:67:ALA:HB3	1.95	0.67
6:L:10:PRO:CB	6:L:19:ARG:HH11	2.07	0.67
3:C:354:GLU:C	3:C:356:MET:H	1.97	0.67
1:A:94:TYR:OH	1:A:108:ASN:ND2	2.27	0.67
3:I:260:ALA:O	3:I:264:PHE:HD2	1.77	0.67
3:C:240:ILE:HD12	11:C:1465:CLA:H91	1.76	0.67
2:H:318:ASN:O	2:H:320:ALA:N	2.27	0.67
5:E:41:GLY:O	5:E:44:TYR:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:54:VAL:O	3:I:57:ALA:HB3	1.94	0.67
4:D:291:LEU:HD12	4:D:291:LEU:N	2.09	0.67
1:A:222:SER:O	1:A:246:TYR:CA	2.41	0.67
4:J:331:PRO:CG	4:J:339:PHE:CG	2.74	0.67
1:G:60:ILE:HD12	1:G:83:VAL:HG13	1.76	0.67
4:J:289:LEU:CD2	4:J:294:ARG:HB3	2.24	0.67
2:H:214:LEU:O	2:H:217:ILE:HG22	1.95	0.67
3:C:186:TYR:HE2	3:C:188:THR:HG23	1.60	0.67
2:B:201:HIS:HD2	2:B:202:HIS:ND1	1.92	0.67
8:S:59:UNK:O	8:S:60:UNK:C	2.42	0.67
10:X:71:UNK:C	10:X:73:UNK:N	2.57	0.67
1:G:315:ASN:O	1:G:316:THR:OG1	2.13	0.67
3:C:52:ALA:HB2	11:C:1469:CLA:HMA1	1.77	0.67
1:G:332:HIS:CD2	1:G:333:GLU:H	2.12	0.67
1:A:331:MET:CE	4:D:346:LEU:O	2.42	0.67
4:J:126:MET:O	4:J:129:GLN:CG	2.37	0.67
2:B:347:ARG:HB2	2:B:398:THR:CB	2.24	0.67
1:A:219:VAL:HG11	4:D:268:HIS:CG	2.29	0.67
1:G:214:MET:HA	1:G:217:SER:HB3	1.77	0.67
11:H:1495:CLA:HBA1	11:H:1495:CLA:HBD	1.77	0.67
1:A:297:LEU:HD23	3:C:428:THR:HG21	1.75	0.67
3:C:37:ALA:HA	11:C:1466:CLA:CBA	2.23	0.67
11:B:1495:CLA:HBD	11:B:1495:CLA:HBA1	1.76	0.67
1:G:99:ALA:CB	1:G:104:GLU:OE1	2.43	0.67
10:Y:177:UNK:O	10:Y:178:UNK:C	2.42	0.67
1:G:84:PRO:HD3	1:G:173:PRO:HG3	1.73	0.67
2:H:462:PHE:CE1	11:H:1494:CLA:HMB3	2.30	0.67
2:H:233:ASN:O	2:H:235:GLU:N	2.27	0.67
3:C:269:GLU:O	3:C:272:LEU:HB3	1.93	0.67
4:D:145:ALA:HA	4:D:276:VAL:CG2	2.24	0.67
1:A:8:ARG:N	1:A:11:ALA:HB3	2.10	0.67
2:H:61:PHE:O	2:H:62:VAL:C	2.33	0.67
2:B:395:GLN:CB	2:B:397:VAL:H	2.08	0.67
3:I:82:TYR:CD2	3:I:302:TYR:O	2.48	0.67
1:A:267:ASN:O	1:A:270:SER:N	2.27	0.67
2:H:288:VAL:O	2:H:292:LEU:HB2	1.95	0.67
4:J:113:PHE:CA	11:J:1353:CLA:HED1	2.21	0.66
4:D:126:MET:O	4:D:129:GLN:CG	2.41	0.66
1:A:127:MET:CE	1:A:151:LEU:CD2	2.72	0.66
2:B:106:LEU:HB3	11:B:1496:CLA:H121	1.77	0.66
2:B:30:VAL:O	2:B:34:ALA:N	2.21	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:70:SER:O	1:A:75:ASN:HB2	1.93	0.66
5:E:8:ARG:HB2	5:E:9:PRO:HD2	1.76	0.66
4:D:38:PHE:O	4:D:39:PRO:C	2.32	0.66
1:A:63:ILE:CG1	3:C:335:THR:HG23	2.25	0.66
3:I:176:VAL:O	3:I:180:MET:HG2	1.94	0.66
2:B:256:MET:SD	2:B:263:THR:HG23	2.35	0.66
2:H:49:ASP:OD2	2:H:52:LEU:N	2.29	0.66
1:G:316:THR:HG22	1:G:318:ALA:H	1.60	0.66
3:C:79:LYS:HE2	3:C:83:GLU:HG2	1.75	0.66
1:G:286:THR:CG2	11:G:1342:CLA:O1D	2.43	0.66
1:G:214:MET:CE	12:J:1352:PHO:HED1	2.25	0.66
2:H:64:PRO:O	2:H:67:ALA:HB3	1.96	0.66
3:I:315:MET:O	3:I:319:ILE:CG1	2.43	0.66
3:I:187:ASP:CB	3:I:230:LEU:HD23	2.21	0.66
2:H:167:TRP:CG	2:H:267:LEU:HD11	2.30	0.66
4:D:61:HIS:HB3	4:D:63:LEU:CD1	2.24	0.66
3:C:298:PRO:O	3:C:299:SER:CB	2.44	0.66
10:X:509:UNK:O	10:X:510:UNK:C	2.43	0.66
2:B:413:ASP:N	2:B:413:ASP:OD1	2.27	0.66
6:L:12:SER:C	6:L:14:PRO:HD2	2.14	0.66
4:D:72:ASN:O	4:D:74:LEU:N	2.29	0.66
1:G:218:LEU:HD11	1:G:255:PHE:HD2	1.60	0.66
4:D:188:PHE:CZ	4:D:326:ARG:HG2	2.30	0.66
6:F:9:GLU:N	6:F:10:PRO:HD3	2.10	0.66
1:A:131:TRP:CH2	11:C:1463:CLA:HAA2	2.30	0.66
1:A:99:ALA:CB	1:A:104:GLU:OE1	2.44	0.66
1:G:8:ARG:N	1:G:11:ALA:HB3	2.10	0.66
3:I:318:LEU:HD12	3:I:318:LEU:O	1.96	0.66
6:L:33:PHE:O	6:L:36:ALA:N	2.29	0.66
1:A:143:ILE:CG1	4:D:220:ASN:HD22	2.00	0.66
1:A:63:ILE:O	1:A:64:ARG:HD2	1.96	0.66
2:H:332:LYS:O	2:H:439:SER:HA	1.94	0.66
1:G:113:GLN:O	1:G:117:PHE:HD2	1.79	0.66
1:G:133:LEU:HD12	4:J:256:ILE:CG1	2.26	0.66
11:A:1346:CLA:HBB1	11:A:1346:CLA:HMB1	1.78	0.66
4:J:263:ASN:O	4:J:266:TRP:N	2.28	0.66
3:C:77:PRO:C	3:C:79:LYS:H	1.99	0.66
3:C:50:LEU:O	3:C:54:VAL:HG23	1.96	0.66
4:J:235:PHE:HE1	4:J:237:PRO:HB3	1.61	0.66
3:C:40:ALA:O	3:C:43:ILE:HG12	1.95	0.66
1:A:315:ASN:O	1:A:316:THR:CB	2.44	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:170:ILE:HG23	3:I:171:GLY:N	2.11	0.65
2:H:16:PRO:HG3	2:H:132:ALA:O	1.96	0.65
6:F:10:PRO:HB2	6:F:19:ARG:NH1	2.10	0.65
1:A:266:ASN:O	1:A:267:ASN:O	2.14	0.65
3:C:312:ALA:O	3:C:316:THR:HG23	1.96	0.65
2:H:263:THR:H	2:H:264:PRO:HD2	1.58	0.65
1:G:142:TRP:HB3	4:J:220:ASN:CG	2.17	0.65
2:B:139:PHE:CG	2:B:139:PHE:O	2.49	0.65
1:A:316:THR:HG22	1:A:318:ALA:H	1.61	0.65
1:G:84:PRO:HD2	1:G:173:PRO:HG3	1.71	0.65
3:C:189:TRP:HE1	3:C:295:THR:CG2	2.09	0.65
2:B:398:THR:C	2:B:400:SER:H	1.98	0.65
2:H:397:VAL:HA	2:H:417:VAL:CG2	2.26	0.65
1:A:310:LYS:CA	9:V:2:GLU:HA	2.22	0.65
2:H:217:ILE:HG12	2:H:217:ILE:O	1.96	0.65
3:C:50:LEU:HD23	3:C:132:HIS:CD2	2.31	0.65
1:G:63:ILE:HG13	3:I:335:THR:HG23	1.79	0.65
5:K:56:TYR:O	5:K:57:ALA:HB2	1.96	0.65
1:G:315:ASN:O	1:G:316:THR:CB	2.45	0.65
11:G:1344:CLA:CED	4:J:175:VAL:HG13	2.27	0.65
1:A:134:SER:HA	1:A:139:MET:HB3	1.78	0.65
3:C:315:MET:O	3:C:319:ILE:HG13	1.95	0.65
2:B:94:GLU:HG3	2:B:95:GLY:N	2.11	0.65
2:B:352:GLU:O	2:B:354:LEU:N	2.29	0.65
3:C:45:LEU:O	3:C:46:SER:C	2.35	0.65
2:H:372:ASP:N	2:H:376:VAL:O	2.24	0.65
4:J:253:TRP:HB2	4:J:260:ALA:CB	2.24	0.65
1:A:137:LEU:HD12	1:A:139:MET:HE1	1.79	0.65
3:I:180:MET:HG3	3:I:181:PHE:H	1.62	0.65
1:A:248:ILE:HD12	4:D:235:PHE:CZ	2.31	0.65
2:B:195:PRO:O	2:B:196:GLY:C	2.35	0.65
3:I:289:PHE:O	3:I:293:ASN:CB	2.45	0.65
1:A:286:THR:CG2	11:A:1342:CLA:O1D	2.45	0.65
4:D:253:TRP:HB2	4:D:260:ALA:CB	2.27	0.65
2:H:194:ASN:OD1	2:H:196:GLY:N	2.30	0.65
2:B:229:LEU:C	2:B:231:MET:N	2.50	0.65
1:A:315:ASN:O	1:A:316:THR:OG1	2.14	0.65
10:Y:470:UNK:O	10:Y:473:UNK:N	2.29	0.65
1:G:180:PHE:CD2	4:J:192:THR:HB	2.32	0.65
2:H:263:THR:HG22	2:H:448:ARG:CZ	2.26	0.65
2:B:330:MET:O	2:B:331:ASN:CG	2.36	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:167:TRP:O	4:D:168:PHE:CB	2.45	0.65
4:J:148:ALA:HA	4:J:280:TRP:NE1	2.12	0.65
2:B:288:VAL:HG23	2:B:289:GLN:N	2.12	0.65
1:A:60:ILE:HD12	1:A:83:VAL:HG13	1.79	0.65
1:A:314:ILE:HG23	4:D:58:TRP:CZ3	2.31	0.65
1:A:136:ARG:HE	10:X:29:UNK:CB	2.10	0.65
3:C:128:GLY:HA2	11:C:1471:CLA:HBC2	1.78	0.65
1:G:143:ILE:H	4:J:220:ASN:ND2	1.95	0.65
9:T:133:GLY:O	9:T:137:TYR:CB	2.42	0.65
4:D:176:ALA:HA	4:D:179:PHE:CD2	2.32	0.65
2:B:17:GLY:O	2:B:20:ILE:HB	1.96	0.65
2:H:109:LEU:O	2:H:112:CYS:HB2	1.97	0.65
1:G:141:PRO:O	1:G:143:ILE:N	2.29	0.65
5:K:26:THR:O	5:K:29:ALA:HB3	1.97	0.65
2:B:268:PHE:O	2:B:269:GLY:O	2.15	0.65
10:Y:506:UNK:O	10:Y:507:UNK:C	2.44	0.65
10:Y:71:UNK:O	10:Y:73:UNK:N	2.29	0.65
1:G:58:VAL:N	1:G:67:VAL:O	2.29	0.64
1:G:83:VAL:HG22	4:J:314:PHE:HE1	1.62	0.64
4:J:39:PRO:O	4:J:43:LEU:HB2	1.96	0.64
4:J:88:SER:C	4:J:90:LEU:N	2.50	0.64
4:D:91:LEU:HA	11:D:1353:CLA:O1D	1.97	0.64
2:B:79:SER:O	2:B:80:ILE:HG13	1.97	0.64
1:G:159:LEU:O	1:G:163:ILE:HG13	1.96	0.64
1:G:166:GLY:O	1:G:167:SER:HB2	1.97	0.64
4:J:161:PRO:HB3	4:J:167:TRP:HA	1.79	0.64
1:A:160:ILE:HD12	3:C:431:PHE:HE1	1.62	0.64
11:A:1344:CLA:CED	4:D:175:VAL:HG13	2.27	0.64
3:I:298:PRO:O	3:I:299:SER:CB	2.44	0.64
1:G:307:ILE:C	1:G:309:ALA:H	2.01	0.64
3:C:304:PRO:O	3:C:305:THR:HG23	1.97	0.64
4:D:274:VAL:CB	4:D:275:PRO:HD3	2.26	0.64
1:A:258:LEU:HG	4:D:128:ARG:HH22	1.62	0.64
2:H:452:THR:HG22	2:H:452:THR:O	1.96	0.64
3:C:235:GLY:O	3:C:238:ILE:HB	1.97	0.64
6:L:16:PHE:HZ	10:Y:557:UNK:HA	1.63	0.64
1:G:289:GLY:O	1:G:292:THR:HB	1.97	0.64
4:J:193:LEU:O	4:J:195:PRO:HD3	1.96	0.64
5:K:62:SER:O	5:K:64:PRO:N	2.30	0.64
4:D:193:LEU:O	4:D:195:PRO:HD3	1.97	0.64
3:C:120:ILE:C	3:C:122:SER:H	2.01	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:T:55:ARG:HH21	9:T:128:ASP:HA	1.61	0.64
2:H:229:LEU:C	2:H:231:MET:N	2.49	0.64
3:I:78:GLU:OE2	3:I:104:GLU:HA	1.98	0.64
1:G:214:MET:O	1:G:215:HIS:C	2.34	0.64
1:G:217:SER:HG	4:J:142:ASN:HA	1.63	0.64
1:A:60:ILE:HD12	1:A:83:VAL:CG1	2.27	0.64
2:B:235:GLU:OE1	2:B:472:ARG:HD3	1.97	0.64
3:I:162:GLY:HA2	3:I:248:GLY:HA2	1.78	0.64
10:X:507:UNK:O	10:X:509:UNK:N	2.31	0.64
2:B:158:LEU:HB3	2:B:199:VAL:HG22	1.80	0.64
2:H:236:THR:HB	2:H:473:THR:HG21	1.79	0.64
1:A:161:TYR:HB3	1:A:162:PRO:HD3	1.77	0.64
1:G:36:ILE:O	1:G:39:PRO:HD2	1.96	0.64
4:D:347:PRO:O	4:D:348:ARG:CB	2.46	0.64
2:B:362:PHE:CE2	4:D:184:PHE:HZ	2.15	0.64
2:B:452:THR:O	2:B:452:THR:HG22	1.98	0.64
2:H:223:GLN:O	2:H:227:LYS:N	2.31	0.64
4:J:7:ARG:O	4:J:8:ALA:O	2.14	0.64
1:G:180:PHE:CE2	4:J:192:THR:HB	2.32	0.64
1:A:309:ALA:O	9:V:2:GLU:HB3	1.95	0.64
10:X:331:UNK:O	10:X:334:UNK:N	2.31	0.64
2:B:135:LEU:O	2:B:138:MET:N	2.31	0.64
1:G:307:ILE:C	1:G:309:ALA:N	2.46	0.64
4:D:272:LEU:HD23	4:D:272:LEU:C	2.17	0.64
3:I:77:PRO:C	3:I:79:LYS:H	2.01	0.64
3:I:122:SER:O	3:I:125:LEU:N	2.31	0.64
4:D:152:VAL:HG21	4:D:279:LEU:HD13	1.80	0.64
6:F:29:PRO:O	6:F:32:PHE:HB3	1.97	0.64
4:D:235:PHE:CD1	4:D:235:PHE:O	2.50	0.64
1:A:269:ARG:NE	4:D:222:LEU:HD13	2.12	0.64
5:E:58:GLN:HE22	9:V:4:THR:HG23	1.63	0.64
11:H:1496:CLA:ND	11:H:1497:CLA:HBB2	2.13	0.64
3:C:40:ALA:O	3:C:43:ILE:HG23	1.96	0.64
1:A:142:TRP:HB3	4:D:220:ASN:CG	2.16	0.64
2:H:354:LEU:CD1	2:H:378:LYS:CB	2.75	0.64
1:G:309:ALA:O	9:T:2:GLU:CA	2.46	0.64
1:G:326:LEU:O	1:G:329:GLU:N	2.31	0.64
1:G:117:PHE:HZ	1:G:168:PHE:CZ	2.16	0.64
3:I:260:ALA:CB	11:I:1464:CLA:HAA2	2.28	0.64
6:L:29:PRO:O	6:L:32:PHE:HB3	1.97	0.64
1:A:283:VAL:HG21	12:A:1345:PHO:HMC1	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:217:ILE:O	2:B:217:ILE:HG12	1.97	0.64
8:U:55:UNK:O	8:U:56:UNK:C	2.46	0.64
5:E:8:ARG:HB2	5:E:9:PRO:CD	2.28	0.64
6:F:16:PHE:HZ	10:X:557:UNK:HA	1.62	0.64
5:K:37:PHE:CE1	5:K:42:LEU:HB2	2.33	0.64
1:G:137:LEU:HD12	1:G:139:MET:CE	2.29	0.64
1:G:78:ILE:HG23	1:G:176:ILE:HG21	1.79	0.64
3:I:424:SER:O	3:I:428:THR:OG1	2.15	0.64
4:D:57:SER:O	4:D:59:TYR:N	2.31	0.64
4:D:126:MET:HE2	4:D:146:PHE:HB3	1.79	0.64
3:C:164:HIS:HA	3:C:167:VAL:HG23	1.80	0.64
4:D:7:ARG:O	4:D:8:ALA:O	2.16	0.64
4:J:167:TRP:O	4:J:168:PHE:HB2	1.98	0.63
4:J:253:TRP:CB	4:J:260:ALA:HB2	2.27	0.63
3:C:54:VAL:O	3:C:57:ALA:HB3	1.99	0.63
4:J:126:MET:HE2	4:J:146:PHE:HB3	1.79	0.63
2:B:214:LEU:O	2:B:217:ILE:HG22	1.97	0.63
5:E:13:ILE:HG22	5:E:19:TYR:HD2	1.59	0.63
4:J:74:LEU:CD2	4:J:175:VAL:HG11	2.29	0.63
1:A:307:ILE:C	1:A:309:ALA:H	2.01	0.63
4:D:289:LEU:CD2	4:D:294:ARG:HB3	2.28	0.63
3:C:176:VAL:HG13	3:C:177:ALA:N	2.13	0.63
3:I:189:TRP:CH2	3:I:363:GLY:HA2	2.32	0.63
1:A:34:GLY:O	1:A:36:ILE:N	2.32	0.63
1:G:269:ARG:NE	4:J:222:LEU:HD13	2.12	0.63
1:G:85:SER:OG	1:G:113:GLN:HG3	1.99	0.63
1:A:161:TYR:CE2	1:A:186:PHE:HE1	2.16	0.63
3:C:287:THR:HG22	3:C:430:HIS:HB3	1.79	0.63
3:C:35:TRP:C	3:C:37:ALA:H	2.01	0.63
4:J:145:ALA:HA	4:J:276:VAL:CG2	2.27	0.63
4:J:330:ALA:O	4:J:332:GLN:N	2.30	0.63
3:C:289:PHE:O	3:C:293:ASN:CB	2.47	0.63
11:G:1346:CLA:HBB1	11:G:1346:CLA:HMB1	1.79	0.63
1:G:331:MET:CE	4:J:346:LEU:O	2.46	0.63
1:G:258:LEU:O	4:J:128:ARG:NH2	2.32	0.63
2:H:139:PHE:CG	2:H:139:PHE:O	2.51	0.63
8:U:59:UNK:O	8:U:60:UNK:C	2.46	0.63
1:A:104:GLU:HG2	1:A:108:ASN:ND2	2.14	0.63
10:X:71:UNK:O	10:X:73:UNK:N	2.32	0.63
2:B:194:ASN:OD1	2:B:196:GLY:N	2.31	0.63
3:C:362:ARG:HG3	3:C:362:ARG:HH11	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:50:LEU:O	3:I:54:VAL:HG23	1.99	0.63
1:A:310:LYS:HA	9:V:2:GLU:CA	2.27	0.63
2:H:233:ASN:O	2:H:233:ASN:ND2	2.32	0.63
1:A:181:ASN:O	1:A:182:PHE:C	2.36	0.63
4:D:65:SER:HB2	4:D:77:ALA:O	1.98	0.63
1:G:98:GLU:O	1:G:99:ALA:HB3	1.99	0.63
1:G:104:GLU:OE2	7:P:36:UNK:CB	2.46	0.63
4:D:45:LEU:HD22	4:D:49:LEU:HD11	1.81	0.63
1:A:84:PRO:HA	1:A:112:TYR:CG	2.34	0.63
4:J:15:PHE:O	4:J:16:ASP:C	2.36	0.63
4:D:263:ASN:O	4:D:266:TRP:N	2.28	0.63
1:G:85:SER:HA	1:G:109:GLY:O	1.97	0.63
1:G:181:ASN:O	1:G:182:PHE:C	2.37	0.63
1:G:60:ILE:HB	1:G:83:VAL:CG1	2.28	0.63
1:G:84:PRO:HG2	1:G:173:PRO:HD3	1.78	0.63
1:A:297:LEU:HD22	3:C:428:THR:HG21	1.79	0.63
2:B:233:ASN:O	2:B:233:ASN:ND2	2.32	0.63
2:B:391:SER:O	2:B:392:PHE:CB	2.46	0.63
3:I:188:THR:HG21	3:I:298:PRO:HB3	1.81	0.63
1:A:117:PHE:HZ	1:A:168:PHE:CZ	2.17	0.63
11:B:1496:CLA:ND	11:B:1497:CLA:HBB2	2.13	0.63
3:I:97:TRP:CZ3	3:I:178:LYS:NZ	2.66	0.63
8:S:55:UNK:O	8:S:56:UNK:C	2.47	0.63
5:K:37:PHE:CD1	5:K:42:LEU:HB2	2.33	0.63
3:I:45:LEU:O	3:I:46:SER:C	2.37	0.63
4:J:171:PRO:CD	4:J:181:PHE:CZ	2.82	0.62
4:J:62:GLY:HA3	5:K:63:ILE:CG2	2.29	0.62
1:A:201:GLY:HA3	1:A:286:THR:OG1	1.98	0.62
2:B:93:PHE:O	2:B:94:GLU:C	2.37	0.62
3:I:186:TYR:HE2	3:I:188:THR:HG23	1.64	0.62
2:B:263:THR:CG2	2:B:263:THR:O	2.43	0.62
1:A:294:ALA:C	1:A:296:ASN:N	2.51	0.62
4:D:63:LEU:N	4:D:63:LEU:HD12	2.14	0.62
3:C:264:PHE:HD1	3:C:274:TYR:HE1	1.48	0.62
4:D:253:TRP:CB	4:D:260:ALA:HB2	2.29	0.62
3:I:95:LEU:HD23	3:I:97:TRP:CZ3	2.32	0.62
9:T:129:LYS:CE	9:T:135:VAL:HG21	2.23	0.62
7:O:51:UNK:O	7:O:82:UNK:HA	1.99	0.62
3:I:202:PRO:CA	3:I:235:GLY:HA3	2.29	0.62
1:G:201:GLY:HA3	1:G:286:THR:OG1	2.00	0.62
3:I:91:HIS:HE1	11:I:1460:CLA:O1D	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:43:ILE:HG23	6:F:45:ARG:O	1.99	0.62
1:A:137:LEU:HD12	1:A:139:MET:CE	2.29	0.62
9:V:129:LYS:CE	9:V:135:VAL:HG21	2.26	0.62
7:P:99:UNK:O	7:P:102:UNK:N	2.31	0.62
4:D:329:MET:O	4:D:330:ALA:C	2.36	0.62
2:H:138:MET:C	2:H:140:GLY:H	2.02	0.62
3:C:91:HIS:HE1	11:C:1460:CLA:O1D	1.81	0.62
3:I:69:LEU:CD1	3:I:115:GLY:HA3	2.30	0.62
2:H:195:PRO:O	2:H:196:GLY:C	2.37	0.62
2:H:288:VAL:O	2:H:292:LEU:CB	2.48	0.62
10:X:225:UNK:C	10:X:227:UNK:N	2.62	0.62
3:C:250:TRP:HA	3:C:253:LEU:HD12	1.80	0.62
3:C:260:ALA:O	3:C:264:PHE:HD2	1.82	0.62
2:B:16:PRO:HG3	2:B:132:ALA:O	2.00	0.62
5:K:58:GLN:CD	9:T:2:GLU:N	2.53	0.62
2:H:201:HIS:HD2	2:H:202:HIS:ND1	1.98	0.62
4:D:235:PHE:CE1	4:D:237:PRO:HB3	2.33	0.62
10:X:6:UNK:O	10:X:7:UNK:C	2.48	0.62
2:B:338:GLN:O	2:B:339:ALA:O	2.17	0.62
1:G:112:TYR:CZ	1:G:116:ILE:HD11	2.34	0.62
3:I:312:ALA:O	3:I:316:THR:HG23	1.99	0.62
5:K:8:ARG:HB2	5:K:9:PRO:CD	2.30	0.62
10:Y:200:UNK:O	10:Y:204:UNK:N	2.32	0.62
3:I:189:TRP:HE1	3:I:295:THR:CG2	2.13	0.62
2:H:158:LEU:HB3	2:H:199:VAL:HG22	1.81	0.62
4:J:272:LEU:HD23	4:J:272:LEU:C	2.20	0.62
3:C:307:PRO:HA	3:C:358:PHE:CD1	2.34	0.62
4:J:274:VAL:CB	4:J:275:PRO:HD3	2.30	0.62
1:G:151:LEU:HG	1:G:155:PHE:CE2	2.35	0.62
7:O:88:UNK:O	7:O:139:UNK:HA	2.00	0.62
3:I:269:GLU:O	3:I:272:LEU:HB3	1.99	0.62
3:I:287:THR:HG22	3:I:430:HIS:HB3	1.79	0.62
11:H:1488:CLA:H171	4:J:281:MET:CE	2.30	0.62
3:C:161:LEU:O	3:C:164:HIS:HB2	1.99	0.62
1:A:96:ILE:HG22	11:A:1346:CLA:OBD	1.99	0.62
2:B:397:VAL:HA	2:B:417:VAL:CG2	2.29	0.62
2:H:79:SER:C	2:H:80:ILE:HG13	2.20	0.62
8:U:90:UNK:O	8:U:91:UNK:C	2.43	0.62
1:G:131:TRP:CH2	11:I:1463:CLA:HAA2	2.35	0.62
3:I:240:ILE:HD12	11:I:1465:CLA:H91	1.81	0.62
4:J:110:LEU:O	4:J:114:ILE:HG13	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:287:THR:HG22	3:C:430:HIS:HB2	1.81	0.62
3:I:63:TRP:HE1	11:I:1462:CLA:C2C	2.12	0.62
10:Y:6:UNK:O	10:Y:7:UNK:C	2.48	0.62
4:D:238:THR:O	4:D:239:GLN:CB	2.48	0.62
1:G:326:LEU:C	1:G:328:MET:H	2.04	0.62
3:I:58:GLY:HA2	3:I:125:LEU:HD12	1.82	0.62
2:B:354:LEU:CD1	2:B:378:LYS:CB	2.78	0.62
4:J:345:VAL:O	4:J:345:VAL:CG1	2.41	0.62
4:J:323:GLU:CG	4:J:326:ARG:HH21	2.10	0.62
3:I:135:ARG:C	3:I:136:GLY:O	2.36	0.62
3:C:276:LEU:CD1	11:C:1466:CLA:HBB1	2.29	0.61
10:X:224:UNK:O	10:X:227:UNK:N	2.33	0.61
2:H:403:GLY:H	2:H:407:ASN:HB2	1.65	0.61
1:G:311:GLY:HA3	9:T:125:ILE:HG21	1.80	0.61
4:J:152:VAL:HG21	4:J:279:LEU:HD13	1.82	0.61
4:J:104:TRP:CE2	4:J:109:GLY:HA3	2.35	0.61
1:A:183:MET:CE	11:A:1343:CLA:HHD	2.25	0.61
1:G:96:ILE:HG12	1:G:96:ILE:O	1.99	0.61
3:I:188:THR:CG2	3:I:298:PRO:HB3	2.30	0.61
3:I:354:GLU:C	3:I:356:MET:H	2.02	0.61
4:D:46:GLY:HA2	4:D:49:LEU:HD12	1.82	0.61
1:G:160:ILE:HD12	3:I:431:PHE:HE1	1.65	0.61
11:A:1342:CLA:H122	12:A:1345:PHO:H3A	1.82	0.61
3:C:58:GLY:HA2	3:C:125:LEU:HD12	1.81	0.61
1:G:63:ILE:CG1	3:I:335:THR:HG23	2.30	0.61
3:I:176:VAL:HG13	3:I:177:ALA:N	2.15	0.61
1:A:266:ASN:O	1:A:267:ASN:C	2.37	0.61
2:B:197:GLY:O	2:B:198:VAL:C	2.39	0.61
1:G:133:LEU:HD12	4:J:256:ILE:HG13	1.83	0.61
1:G:278:TRP:HB3	1:G:279:PRO:CD	2.24	0.61
3:I:284:PHE:HE1	3:I:431:PHE:CD1	2.18	0.61
3:C:260:ALA:CB	11:C:1464:CLA:HAA2	2.30	0.61
2:B:138:MET:C	2:B:140:GLY:H	2.04	0.61
1:G:63:ILE:CG1	3:I:335:THR:CG2	2.74	0.61
5:E:16:SER:O	5:E:17:VAL:HB	2.00	0.61
2:H:18:ARG:NH1	2:H:115:TRP:CZ2	2.69	0.61
3:I:390:ARG:CD	9:T:100:ILE:HD12	2.30	0.61
3:I:54:VAL:HB	3:I:129:GLY:HA2	1.81	0.61
2:H:235:GLU:OE1	2:H:472:ARG:HD3	2.01	0.61
2:H:263:THR:O	2:H:263:THR:CG2	2.47	0.61
1:A:180:PHE:CE2	4:D:192:THR:HB	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:189:HIS:HA	4:D:294:ARG:HH11	1.65	0.61
1:A:102:LEU:HD11	1:A:105:TRP:CE3	2.35	0.61
3:I:116:VAL:CG2	3:I:117:VAL:N	2.64	0.61
4:D:104:TRP:CE2	4:D:109:GLY:HA3	2.35	0.61
2:B:316:GLY:HA2	2:B:443:PHE:HD1	1.62	0.61
3:C:102:GLY:H	3:C:193:GLY:CA	2.13	0.61
2:B:403:GLY:H	2:B:407:ASN:HB2	1.64	0.61
1:G:289:GLY:O	1:G:293:MET:HG3	2.00	0.61
2:H:24:LEU:HB3	2:H:111:ALA:HB2	1.82	0.61
2:H:163:GLY:O	2:H:164:PRO:C	2.38	0.61
3:C:315:MET:HG3	3:C:365:TRP:CZ3	2.36	0.61
4:D:88:SER:C	4:D:90:LEU:N	2.52	0.61
1:A:214:MET:O	1:A:215:HIS:C	2.38	0.61
1:G:294:ALA:C	1:G:296:ASN:N	2.50	0.61
2:H:135:LEU:O	2:H:138:MET:N	2.34	0.61
11:A:1342:CLA:HBD	11:A:1343:CLA:HAC2	1.83	0.61
1:A:58:VAL:N	1:A:67:VAL:O	2.33	0.61
2:B:458:PHE:CG	11:B:1485:CLA:HMC3	2.35	0.61
2:B:31:ALA:CB	11:B:1486:CLA:HBC3	2.30	0.61
1:A:218:LEU:HD11	1:A:255:PHE:HD2	1.66	0.61
3:C:82:TYR:CD2	3:C:302:TYR:O	2.53	0.61
1:A:295:PHE:O	3:C:291:TRP:CZ3	2.53	0.61
3:I:259:TRP:HZ3	11:I:1464:CLA:H12	1.66	0.61
2:H:316:GLY:HA2	2:H:443:PHE:HD1	1.66	0.61
7:P:51:UNK:O	7:P:82:UNK:HA	1.99	0.61
4:J:171:PRO:HD2	4:J:181:PHE:CZ	2.36	0.61
2:H:364:GLU:OE1	4:J:296:TYR:CD2	2.54	0.61
4:D:111:TRP:O	4:D:114:ILE:N	2.34	0.61
3:C:367:GLU:O	3:C:368:PRO:C	2.38	0.61
3:I:230:LEU:O	3:I:234:VAL:HG23	2.01	0.61
4:J:223:PHE:HE2	4:J:245:SER:HB3	1.63	0.61
7:P:10:UNK:O	7:P:173:UNK:CB	2.49	0.61
1:A:157:VAL:O	1:A:157:VAL:HG12	2.01	0.60
3:C:162:GLY:HA2	3:C:248:GLY:HA2	1.82	0.60
2:B:445:THR:OG1	2:B:446:SER:N	2.33	0.60
2:H:288:VAL:O	2:H:292:LEU:N	2.25	0.60
1:A:306:VAL:HG23	1:A:308:ASP:H	1.65	0.60
8:S:27:UNK:O	8:S:28:UNK:C	2.48	0.60
10:Y:468:UNK:O	10:Y:469:UNK:C	2.49	0.60
7:O:105:UNK:O	7:O:106:UNK:CB	2.49	0.60
4:D:337:GLU:HG3	4:D:339:PHE:HE2	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:297:LEU:HD22	3:I:428:THR:HG21	1.82	0.60
2:H:268:PHE:HB2	2:H:448:ARG:HH11	1.66	0.60
3:I:315:MET:HG3	3:I:365:TRP:CZ3	2.36	0.60
2:B:68:ARG:HB3	2:B:267:LEU:HD13	1.83	0.60
1:G:99:ALA:HB2	1:G:104:GLU:OE1	2.01	0.60
5:E:41:GLY:O	5:E:44:TYR:HB2	2.01	0.60
1:G:156:ALA:HA	1:G:160:ILE:HB	1.83	0.60
1:A:151:LEU:HG	1:A:155:PHE:CE2	2.36	0.60
4:D:87:HIS:HE1	4:D:162:LEU:HA	1.64	0.60
2:B:285:ASN:O	2:B:289:GLN:HB2	2.01	0.60
8:S:12:UNK:C	8:S:14:UNK:N	2.60	0.60
8:S:1:UNK:O	8:S:3:UNK:N	2.32	0.60
2:H:93:PHE:O	2:H:94:GLU:C	2.40	0.60
3:C:73:ALA:HB3	3:C:74:HIS:HD2	1.66	0.60
7:O:75:UNK:O	7:O:76:UNK:C	2.50	0.60
1:G:121:LEU:HD23	1:G:121:LEU:O	2.01	0.60
3:I:128:GLY:HA2	11:I:1471:CLA:HBC2	1.83	0.60
2:B:462:PHE:CE1	11:B:1494:CLA:HMB3	2.35	0.60
2:B:149:LEU:HG	11:B:1484:CLA:CBC	2.28	0.60
10:Y:225:UNK:C	10:Y:227:UNK:N	2.62	0.60
10:Y:560:UNK:O	10:Y:561:UNK:C	2.50	0.60
1:A:207:GLY:O	1:A:210:LEU:HB3	2.02	0.60
6:F:36:ALA:O	6:F:39:ALA:HB3	2.01	0.60
1:A:143:ILE:N	4:D:220:ASN:HD21	1.99	0.60
2:H:352:GLU:O	2:H:354:LEU:N	2.35	0.60
2:B:223:GLN:O	2:B:227:LYS:N	2.34	0.60
3:I:225:VAL:HG22	3:I:289:PHE:HD1	1.67	0.60
3:I:35:TRP:C	3:I:37:ALA:H	2.04	0.60
3:I:52:ALA:CA	11:I:1469:CLA:HMB3	2.32	0.60
4:J:191:TRP:HZ3	4:J:194:ASN:ND2	1.98	0.60
6:F:33:PHE:O	6:F:36:ALA:N	2.34	0.60
4:D:253:TRP:O	4:D:256:ILE:N	2.29	0.60
2:B:33:TRP:HE1	11:B:1488:CLA:HBC2	1.65	0.60
2:B:346:PHE:O	2:B:354:LEU:HB3	2.02	0.60
4:J:102:THR:O	4:J:105:CYS:HB2	2.02	0.60
2:B:318:ASN:O	2:B:320:ALA:N	2.35	0.60
1:G:137:LEU:HD12	1:G:139:MET:HE1	1.84	0.60
3:I:264:PHE:HD1	3:I:274:TYR:HE1	1.50	0.60
4:D:74:LEU:CD2	4:D:175:VAL:HG11	2.32	0.60
3:I:367:GLU:O	3:I:368:PRO:C	2.39	0.60
1:G:310:LYS:HD2	5:K:58:GLN:HG3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:166:GLY:O	1:A:167:SER:HB2	2.02	0.60
3:C:226:SER:OG	3:C:227:VAL:N	2.34	0.60
1:G:314:ILE:HG23	4:J:58:TRP:HZ3	1.67	0.60
5:K:13:ILE:HA	5:K:16:SER:HB2	1.84	0.60
4:D:102:THR:O	4:D:105:CYS:HB2	2.02	0.60
3:C:362:ARG:HG3	3:C:362:ARG:NH1	2.16	0.60
5:K:8:ARG:HB2	5:K:9:PRO:HD2	1.84	0.60
8:U:30:UNK:O	8:U:31:UNK:C	2.49	0.60
4:J:331:PRO:HG2	4:J:339:PHE:CB	2.07	0.60
4:D:152:VAL:HG13	11:D:1351:CLA:HED3	1.83	0.60
4:D:62:GLY:HA3	5:E:63:ILE:CG2	2.32	0.60
3:I:363:GLY:O	3:I:364:PRO:O	2.20	0.60
3:C:319:ILE:HD11	3:C:384:ILE:HD11	1.83	0.60
1:G:244:GLU:OE2	1:G:246:TYR:CE1	2.55	0.60
2:B:238:LEU:HD21	2:B:469:HIS:CD2	2.37	0.60
1:G:127:MET:O	1:G:130:GLN:HB3	2.02	0.60
4:J:61:HIS:CB	4:J:63:LEU:HD13	2.30	0.59
6:L:33:PHE:O	6:L:35:GLY:N	2.34	0.59
2:H:362:PHE:CE2	4:J:184:PHE:HZ	2.19	0.59
4:D:223:PHE:HE2	4:D:245:SER:HB3	1.67	0.59
1:G:211:PHE:CE2	1:G:274:PHE:HE2	2.19	0.59
1:G:267:ASN:O	1:G:270:SER:N	2.34	0.59
3:I:287:THR:HG22	3:I:430:HIS:HB2	1.82	0.59
2:H:135:LEU:HD12	2:H:232:GLY:HA2	1.83	0.59
2:H:445:THR:OG1	2:H:446:SER:N	2.34	0.59
1:A:60:ILE:HD12	1:A:84:PRO:HD2	1.83	0.59
1:A:180:PHE:CD2	4:D:192:THR:HB	2.37	0.59
1:G:62:GLY:O	1:G:63:ILE:HB	2.01	0.59
4:J:235:PHE:O	4:J:237:PRO:HD3	2.01	0.59
4:D:235:PHE:O	4:D:237:PRO:HD3	2.02	0.59
11:G:1344:CLA:HED3	4:J:175:VAL:HG13	1.82	0.59
1:G:175:GLY:N	12:G:1345:PHO:H192	2.13	0.59
2:H:272:ARG:HG2	2:H:273:TYR:CD2	2.36	0.59
2:H:135:LEU:HD22	2:H:237:VAL:HG21	1.83	0.59
1:G:143:ILE:HG13	4:J:220:ASN:ND2	2.08	0.59
1:A:104:GLU:OE2	7:O:36:UNK:CB	2.50	0.59
3:C:390:ARG:HD2	9:V:100:ILE:HD12	1.84	0.59
2:H:113:TRP:HD1	11:H:1496:CLA:H191	1.67	0.59
2:H:446:SER:HB2	2:H:447:PRO:HD2	1.85	0.59
2:H:458:PHE:CG	11:H:1485:CLA:HMC3	2.37	0.59
3:C:54:VAL:HB	3:C:129:GLY:HA2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:172:TYR:HA	2:B:280:PHE:CE1	2.37	0.59
3:I:297:TYR:HD1	3:I:302:TYR:CZ	2.20	0.59
1:A:99:ALA:HB2	1:A:104:GLU:OE1	2.02	0.59
6:L:16:PHE:CZ	10:Y:557:UNK:HA	2.37	0.59
4:D:236:ASN:C	4:D:238:THR:H	2.05	0.59
10:X:200:UNK:O	10:X:204:UNK:N	2.35	0.59
10:Y:331:UNK:O	10:Y:334:UNK:N	2.35	0.59
3:C:49:LEU:O	3:C:50:LEU:C	2.40	0.59
2:H:347:ARG:HD2	2:H:398:THR:CB	2.32	0.59
3:C:63:TRP:HE1	11:C:1462:CLA:C2C	2.15	0.59
10:X:182:UNK:O	10:X:184:UNK:N	2.36	0.59
1:A:159:LEU:O	1:A:163:ILE:HG13	2.03	0.59
1:A:311:GLY:HA3	9:V:125:ILE:HG21	1.83	0.59
1:G:297:LEU:HD23	3:I:428:THR:HG21	1.84	0.59
4:J:87:HIS:HE1	4:J:161:PRO:O	1.85	0.59
2:H:106:LEU:HD22	11:H:1496:CLA:H143	1.84	0.59
1:A:192:ILE:O	1:A:195:HIS:N	2.35	0.59
3:C:188:THR:HG21	3:C:298:PRO:HB3	1.84	0.59
2:B:347:ARG:HD2	2:B:398:THR:CB	2.33	0.59
5:K:10:PHE:CD2	6:L:19:ARG:NH2	2.70	0.59
1:A:214:MET:HA	1:A:217:SER:HB3	1.85	0.59
7:O:82:UNK:O	7:O:90:UNK:CB	2.50	0.59
1:G:104:GLU:HG2	1:G:108:ASN:ND2	2.18	0.59
5:E:37:PHE:CE1	5:E:42:LEU:HB3	2.38	0.59
2:B:313:ASP:O	2:B:314:TYR:O	2.18	0.59
10:Y:357:UNK:O	10:Y:361:UNK:N	2.36	0.59
4:D:152:VAL:CG2	4:D:279:LEU:HB3	2.32	0.59
4:D:61:HIS:CB	4:D:63:LEU:HD13	2.32	0.59
3:C:248:GLY:O	3:C:252:ILE:HG13	2.03	0.59
3:C:52:ALA:CA	11:C:1469:CLA:HMB3	2.32	0.59
1:A:96:ILE:O	1:A:96:ILE:HG12	2.01	0.59
2:B:236:THR:HB	2:B:473:THR:HG21	1.85	0.59
2:B:415:PRO:O	2:B:419:SER:N	2.32	0.59
7:O:123:UNK:O	7:O:124:UNK:C	2.50	0.59
5:E:74:GLN:O	5:E:77:GLU:N	2.36	0.59
11:G:1342:CLA:HBD	11:G:1343:CLA:HAC2	1.85	0.59
1:A:78:ILE:HG23	1:A:176:ILE:HG21	1.84	0.59
1:A:83:VAL:HG22	4:D:314:PHE:HE1	1.66	0.59
2:B:220:ARG:HB3	2:B:221:PRO:HD2	1.83	0.59
5:E:42:LEU:O	5:E:43:ALA:C	2.41	0.59
6:F:16:PHE:CZ	10:X:557:UNK:HA	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:357:UNK:O	10:Y:360:UNK:N	2.35	0.59
7:P:75:UNK:O	7:P:76:UNK:C	2.51	0.59
8:S:30:UNK:O	8:S:31:UNK:C	2.51	0.59
2:B:193:TYR:CE1	2:B:259:GLY:HA2	2.38	0.59
1:G:134:SER:HA	1:G:139:MET:HB3	1.84	0.59
1:G:131:TRP:HB2	1:G:144:CYS:HB2	1.85	0.59
3:I:266:TRP:CD1	3:I:266:TRP:N	2.71	0.59
3:C:126:GLY:O	3:C:130:VAL:HG23	2.03	0.59
3:C:188:THR:CG2	3:C:298:PRO:HB3	2.32	0.59
4:D:209:LEU:HD21	4:D:213:ILE:HD11	1.85	0.59
4:D:161:PRO:HB3	4:D:167:TRP:HA	1.85	0.59
3:I:116:VAL:HG23	3:I:117:VAL:H	1.68	0.59
1:G:49:VAL:O	1:G:53:ILE:HG13	2.03	0.59
10:Y:118:UNK:O	10:Y:119:UNK:C	2.49	0.59
1:G:84:PRO:HA	1:G:112:TYR:CG	2.38	0.59
2:B:353:GLU:O	2:B:354:LEU:O	2.21	0.59
6:L:18:VAL:O	6:L:21:VAL:N	2.36	0.59
4:J:347:PRO:O	4:J:348:ARG:CB	2.51	0.59
1:A:90:GLY:O	1:A:167:SER:HA	2.02	0.59
7:P:88:UNK:O	7:P:139:UNK:HA	2.02	0.59
8:S:44:UNK:O	8:S:45:UNK:C	2.50	0.59
3:I:163:PHE:O	11:I:1470:CLA:HBB1	2.03	0.58
4:J:171:PRO:HG3	4:J:181:PHE:CD1	2.38	0.58
2:H:145:LEU:O	2:H:146:ALA:C	2.41	0.58
1:A:85:SER:HA	1:A:109:GLY:O	2.03	0.58
1:A:60:ILE:HB	1:A:83:VAL:HG12	1.85	0.58
3:C:250:TRP:CD1	3:C:250:TRP:O	2.56	0.58
2:B:470:GLY:O	2:B:473:THR:HB	2.03	0.58
1:A:63:ILE:CG1	1:A:64:ARG:N	2.64	0.58
5:K:58:GLN:HE22	9:T:4:THR:CG2	2.15	0.58
4:J:46:GLY:HA2	4:J:49:LEU:HD12	1.85	0.58
4:J:52:THR:CG2	4:J:67:TYR:HE1	2.01	0.58
5:E:58:GLN:HE22	9:V:4:THR:CG2	2.16	0.58
2:B:167:TRP:CB	2:B:267:LEU:HD11	2.33	0.58
2:B:31:ALA:N	11:B:1486:CLA:HBC3	2.18	0.58
1:G:114:LEU:HA	11:G:1346:CLA:CED	2.24	0.58
2:H:351:GLY:O	2:H:353:GLU:N	2.36	0.58
9:T:4:THR:HB	9:T:5:PRO:CD	2.33	0.58
4:D:274:VAL:HB	4:D:275:PRO:CD	2.32	0.58
10:Y:224:UNK:O	10:Y:227:UNK:N	2.36	0.58
1:G:137:LEU:HB2	1:G:139:MET:CE	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:276:LEU:CD1	11:I:1466:CLA:HBB1	2.33	0.58
3:C:286:ALA:HB2	11:C:1460:CLA:HMD3	1.84	0.58
1:A:131:TRP:O	1:A:134:SER:HB2	2.04	0.58
3:C:264:PHE:HD1	3:C:274:TYR:CE1	2.21	0.58
2:H:353:GLU:O	2:H:354:LEU:O	2.21	0.58
2:H:172:TYR:O	2:H:174:LEU:HG	2.03	0.58
2:B:109:LEU:O	2:B:112:CYS:HB2	2.03	0.58
4:J:152:VAL:HG11	11:J:1351:CLA:HBA1	1.84	0.58
4:D:191:TRP:CZ2	4:D:286:VAL:HG22	2.39	0.58
3:C:228:ASN:OD1	3:C:229:ASN:N	2.36	0.58
2:B:76:SER:O	7:P:66:UNK:CA	2.52	0.58
2:B:201:HIS:CD2	2:B:202:HIS:ND1	2.71	0.58
2:H:197:GLY:O	2:H:198:VAL:C	2.42	0.58
5:E:10:PHE:CD2	6:F:19:ARG:NH2	2.72	0.58
2:H:332:LYS:O	2:H:439:SER:CA	2.51	0.58
1:G:90:GLY:O	1:G:167:SER:HA	2.03	0.58
4:D:79:SER:HA	4:D:172:SER:HB3	1.85	0.58
4:D:302:GLU:OE1	7:O:114:UNK:CB	2.52	0.58
7:P:105:UNK:O	7:P:106:UNK:CB	2.50	0.58
2:H:17:GLY:O	2:H:20:ILE:HB	2.03	0.58
10:X:578:UNK:C	10:X:580:UNK:N	2.64	0.58
11:G:1342:CLA:H143	12:G:1345:PHO:H62	1.85	0.58
1:G:183:MET:HA	11:G:1342:CLA:HMD2	1.83	0.58
3:I:156:LYS:O	3:I:160:ILE:HG13	2.03	0.58
4:J:87:HIS:HE1	4:J:162:LEU:HA	1.66	0.58
4:J:191:TRP:CZ2	4:J:286:VAL:HG22	2.39	0.58
4:J:65:SER:HB2	4:J:77:ALA:O	2.02	0.58
4:D:36:LEU:HD23	11:D:1353:CLA:HBB2	1.84	0.58
4:D:16:ASP:O	4:D:17:ILE:C	2.41	0.58
3:C:320:ARG:NH1	9:V:49:ASN:OD1	2.36	0.58
1:G:161:TYR:CE2	1:G:186:PHE:CE1	2.89	0.58
1:G:161:TYR:HB3	1:G:162:PRO:HD3	1.86	0.58
1:G:157:VAL:CG1	1:G:172:MET:HB3	2.34	0.58
1:A:157:VAL:CG1	1:A:172:MET:HB3	2.34	0.58
2:H:53:ASN:N	2:H:54:PRO:CD	2.62	0.58
5:E:59:GLU:O	5:E:60:GLN:CB	2.49	0.58
3:I:291:TRP:HD1	3:I:292:PHE:CD2	2.21	0.58
2:B:435:GLU:O	2:B:436:THR:CB	2.48	0.58
2:B:372:ASP:N	2:B:376:VAL:O	2.31	0.58
3:I:362:ARG:HG3	3:I:362:ARG:HH11	1.69	0.58
3:C:36:TRP:O	11:C:1466:CLA:H43	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:244:GLU:OE2	1:A:246:TYR:CE1	2.57	0.58
4:J:16:ASP:O	4:J:17:ILE:C	2.42	0.58
3:I:286:ALA:HB2	11:I:1460:CLA:HMD3	1.86	0.58
2:H:163:GLY:O	2:H:165:GLY:N	2.35	0.58
1:A:85:SER:OG	1:A:113:GLN:HG3	2.04	0.58
3:C:283:GLY:O	3:C:286:ALA:HB3	2.02	0.58
4:D:93:TRP:HH2	11:D:1353:CLA:HBA2	1.69	0.58
3:C:315:MET:O	3:C:319:ILE:CG1	2.52	0.58
2:H:398:THR:C	2:H:400:SER:N	2.57	0.58
1:A:98:GLU:O	1:A:99:ALA:HB3	2.02	0.58
10:Y:519:UNK:O	10:Y:522:UNK:N	2.36	0.58
5:K:15:THR:HG22	5:K:15:THR:O	2.02	0.58
1:G:131:TRP:O	1:G:134:SER:HB2	2.03	0.58
1:G:176:ILE:HG23	1:G:180:PHE:CE1	2.39	0.58
4:J:91:LEU:C	4:J:93:TRP:H	2.06	0.58
2:H:30:VAL:HB	11:H:1486:CLA:HBC1	1.86	0.58
2:H:31:ALA:HA	2:H:34:ALA:CB	2.29	0.58
1:A:207:GLY:O	1:A:210:LEU:N	2.37	0.58
3:C:56:HIS:ND1	11:C:1467:CLA:HHB	2.18	0.58
3:C:363:GLY:O	3:C:364:PRO:O	2.21	0.58
3:I:109:PHE:HB3	3:I:110:PRO:HD3	1.85	0.58
4:J:148:ALA:HB3	4:J:149:PRO:CD	2.30	0.58
2:B:425:ILE:O	2:B:426:PHE:HB3	2.03	0.58
3:C:235:GLY:HA2	3:C:238:ILE:HD12	1.84	0.58
3:I:73:ALA:HB3	3:I:74:HIS:HD2	1.69	0.58
9:V:4:THR:HB	9:V:5:PRO:CD	2.33	0.58
4:D:52:THR:CG2	4:D:67:TYR:HE1	2.00	0.58
5:E:63:ILE:HG22	5:E:63:ILE:O	2.03	0.58
1:A:63:ILE:CG1	3:C:335:THR:CG2	2.75	0.58
3:I:248:GLY:O	3:I:252:ILE:HG13	2.03	0.58
2:H:243:ALA:O	2:H:246:PHE:HB3	2.04	0.58
2:H:425:ILE:O	2:H:426:PHE:HB3	2.02	0.58
7:O:64:UNK:HA	7:O:70:UNK:O	2.04	0.58
4:J:225:ASP:O	4:J:225:ASP:OD1	2.21	0.58
3:I:49:LEU:O	3:I:50:LEU:C	2.39	0.57
2:H:161:LEU:O	2:H:162:PHE:CB	2.52	0.57
4:D:91:LEU:C	4:D:93:TRP:H	2.08	0.57
2:B:394:GLN:O	2:B:395:GLN:CB	2.51	0.57
1:G:310:LYS:HA	9:T:2:GLU:CA	2.27	0.57
4:J:263:ASN:O	4:J:264:LYS:C	2.42	0.57
2:H:280:PHE:CZ	2:H:312:TYR:HD2	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:53:ASN:N	2:B:54:PRO:CD	2.62	0.57
8:U:1:UNK:O	8:U:3:UNK:N	2.36	0.57
12:G:1345:PHO:CBB	4:J:205:LEU:HD21	2.34	0.57
3:I:225:VAL:HG22	3:I:289:PHE:CD1	2.39	0.57
1:G:288:LEU:HD13	3:I:432:VAL:HG22	1.86	0.57
4:J:152:VAL:CG2	4:J:279:LEU:HB3	2.34	0.57
2:H:265:ILE:HD12	2:H:270:PRO:HA	1.87	0.57
2:H:94:GLU:CG	2:H:95:GLY:N	2.66	0.57
3:C:97:TRP:CZ3	3:C:178:LYS:NZ	2.72	0.57
2:B:161:LEU:O	2:B:162:PHE:CB	2.51	0.57
3:C:355:THR:HG22	3:C:355:THR:O	2.04	0.57
4:D:160:TYR:HB3	4:D:161:PRO:CD	2.28	0.57
3:C:116:VAL:CG2	3:C:117:VAL:N	2.67	0.57
2:H:313:ASP:O	2:H:314:TYR:O	2.21	0.57
3:C:21:ILE:O	3:C:22:PHE:CB	2.53	0.57
4:D:330:ALA:O	4:D:332:GLN:N	2.37	0.57
2:H:221:PRO:HB3	11:H:1490:CLA:HED3	1.85	0.57
2:H:68:ARG:HB3	2:H:267:LEU:HD13	1.85	0.57
4:D:56:THR:N	5:E:49:THR:HG22	2.19	0.57
1:A:131:TRP:HB2	1:A:144:CYS:HB2	1.86	0.57
1:A:142:TRP:CH2	1:A:273:PHE:CE1	2.92	0.57
1:A:126:TYR:O	1:A:130:GLN:HB2	2.05	0.57
4:D:148:ALA:HB3	4:D:149:PRO:CD	2.32	0.57
4:D:235:PHE:HD2	4:D:243:THR:CG2	2.17	0.57
2:H:18:ARG:O	2:H:21:ALA:HB3	2.05	0.57
4:J:302:GLU:OE1	7:P:114:UNK:CB	2.51	0.57
4:J:179:PHE:HA	4:J:182:LEU:HD12	1.87	0.57
2:H:27:THR:O	11:H:1486:CLA:HBC1	2.05	0.57
4:D:52:THR:O	4:D:66:SER:HA	2.04	0.57
3:C:250:TRP:CD1	3:C:250:TRP:C	2.77	0.57
3:C:35:TRP:C	3:C:37:ALA:N	2.57	0.57
1:G:142:TRP:CH2	1:G:273:PHE:CE1	2.93	0.57
4:D:267:LEU:O	4:D:271:MET:HG3	2.04	0.57
7:O:10:UNK:O	7:O:173:UNK:CB	2.53	0.57
8:S:59:UNK:C	8:S:61:UNK:N	2.67	0.57
1:G:98:GLU:O	1:G:99:ALA:CB	2.52	0.57
3:I:154:LYS:HZ3	3:I:261:ARG:HD3	1.70	0.57
1:A:210:LEU:HD12	1:A:210:LEU:C	2.24	0.57
4:D:152:VAL:CG2	4:D:279:LEU:HD13	2.34	0.57
3:C:163:PHE:O	11:C:1470:CLA:HBB1	2.05	0.57
1:A:114:LEU:HA	11:A:1346:CLA:CED	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:24:LEU:HB3	2:B:111:ALA:HB2	1.87	0.57
2:B:113:TRP:HD1	11:B:1496:CLA:H191	1.69	0.57
2:H:424:ALA:O	2:H:426:PHE:N	2.37	0.57
1:A:35:VAL:HG12	1:A:35:VAL:O	2.04	0.57
8:U:27:UNK:O	8:U:28:UNK:C	2.51	0.57
7:P:24:UNK:O	7:P:25:UNK:O	2.23	0.57
4:J:156:VAL:HG12	4:J:156:VAL:O	2.04	0.57
1:G:283:VAL:HG21	12:G:1345:PHO:HMC1	1.87	0.57
4:J:296:TYR:HE1	4:J:322:ASN:HD22	1.51	0.57
2:H:24:LEU:HD23	2:H:111:ALA:CA	2.33	0.57
3:C:154:LYS:HZ1	3:C:261:ARG:HD3	1.68	0.57
2:B:293:ALA:O	2:B:295:GLY:N	2.37	0.57
7:O:107:UNK:O	7:O:108:UNK:CB	2.52	0.57
10:X:468:UNK:O	10:X:469:UNK:C	2.52	0.57
4:D:15:PHE:O	4:D:16:ASP:C	2.43	0.57
2:B:360:PRO:O	2:B:361:ALA:HB3	2.05	0.57
3:I:235:GLY:O	3:I:238:ILE:HB	2.05	0.57
8:S:90:UNK:O	8:S:91:UNK:C	2.51	0.57
1:G:192:ILE:O	1:G:195:HIS:N	2.38	0.57
3:I:161:LEU:O	3:I:164:HIS:HB2	2.04	0.57
4:J:63:LEU:N	4:J:63:LEU:HD12	2.19	0.57
2:B:272:ARG:HG2	2:B:273:TYR:CD2	2.39	0.57
4:D:191:TRP:HZ3	4:D:194:ASN:ND2	2.03	0.57
3:C:259:TRP:HZ3	11:C:1464:CLA:H12	1.69	0.57
2:B:249:ALA:HA	11:B:1485:CLA:HMD3	1.87	0.57
1:G:331:MET:O	1:G:332:HIS:O	2.21	0.57
4:D:323:GLU:CG	4:D:326:ARG:HH21	2.13	0.57
4:J:235:PHE:HD2	4:J:243:THR:CG2	2.16	0.57
3:I:279:LEU:O	3:I:280:SER:C	2.43	0.57
1:A:219:VAL:HG21	4:D:268:HIS:HD2	1.68	0.57
1:G:298:ASN:N	1:G:298:ASN:OD1	2.38	0.57
12:G:1345:PHO:CAB	4:J:205:LEU:HD21	2.34	0.57
1:G:207:GLY:O	1:G:210:LEU:N	2.38	0.57
3:I:264:PHE:HD1	3:I:274:TYR:CE1	2.23	0.57
4:J:57:SER:O	4:J:59:TYR:N	2.38	0.57
1:A:183:MET:HA	11:A:1342:CLA:HMD2	1.87	0.57
3:I:228:ASN:OD1	3:I:229:ASN:N	2.38	0.57
8:U:92:UNK:O	8:U:93:UNK:CB	2.52	0.57
2:H:435:GLU:O	2:H:436:THR:CB	2.50	0.57
3:I:21:ILE:O	3:I:22:PHE:CB	2.52	0.57
8:S:64:UNK:O	8:S:65:UNK:C	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:325:ILE:O	4:J:329:MET:HB3	2.05	0.57
4:J:331:PRO:CG	4:J:339:PHE:HB2	2.24	0.57
6:L:36:ALA:O	6:L:39:ALA:HB3	2.05	0.57
1:A:309:ALA:C	9:V:2:GLU:HG2	2.24	0.57
2:H:458:PHE:HB3	11:H:1485:CLA:HBC2	1.86	0.57
1:A:116:ILE:HG22	1:A:117:PHE:N	2.19	0.57
3:C:276:LEU:HD12	3:C:276:LEU:O	2.05	0.57
3:I:377:LEU:O	3:I:381:LYS:HD3	2.05	0.57
3:C:318:LEU:HD12	3:C:318:LEU:C	2.24	0.57
1:A:276:ALA:HB2	4:D:215:GLY:C	2.26	0.57
3:I:244:CYS:HA	11:I:1464:CLA:HMC3	1.86	0.57
3:I:283:GLY:O	3:I:286:ALA:HB3	2.04	0.57
1:G:214:MET:HE2	12:J:1352:PHO:HED1	1.87	0.57
4:J:152:VAL:CG2	4:J:279:LEU:HD13	2.34	0.57
2:H:474:LEU:HG	11:H:1489:CLA:HED1	1.86	0.57
4:D:191:TRP:HA	4:D:191:TRP:CE3	2.40	0.57
6:F:33:PHE:O	6:F:35:GLY:N	2.37	0.57
3:C:266:TRP:CD1	3:C:266:TRP:N	2.73	0.57
3:I:116:VAL:CG2	3:I:117:VAL:H	2.18	0.57
9:V:133:GLY:O	9:V:137:TYR:CA	2.53	0.57
7:P:82:UNK:O	7:P:90:UNK:CB	2.53	0.57
8:U:12:UNK:C	8:U:14:UNK:N	2.66	0.57
2:H:270:PRO:C	2:H:271:THR:HG23	2.24	0.56
1:A:156:ALA:HA	1:A:160:ILE:HB	1.87	0.56
1:G:248:ILE:CD1	4:J:235:PHE:CZ	2.88	0.56
5:K:59:GLU:O	5:K:60:GLN:CB	2.50	0.56
8:S:57:UNK:C	8:S:59:UNK:N	2.62	0.56
2:H:360:PRO:O	2:H:361:ALA:HB3	2.05	0.56
1:G:151:LEU:HG	1:G:155:PHE:HE2	1.70	0.56
8:U:71:UNK:O	8:U:74:UNK:N	2.38	0.56
8:U:40:UNK:O	8:U:41:UNK:C	2.53	0.56
1:G:207:GLY:O	1:G:210:LEU:HB3	2.05	0.56
1:G:214:MET:O	1:G:217:SER:N	2.38	0.56
6:L:37:ILE:HG12	6:L:40:MET:CE	2.35	0.56
1:A:107:TYR:O	1:A:109:GLY:N	2.38	0.56
2:B:474:LEU:HG	11:B:1489:CLA:HED1	1.86	0.56
2:B:27:THR:O	11:B:1486:CLA:HBC1	2.05	0.56
2:H:397:VAL:O	2:H:411:PHE:O	2.23	0.56
4:J:263:ASN:O	4:J:265:ARG:N	2.38	0.56
2:B:54:PRO:O	2:B:55:MET:C	2.42	0.56
4:D:235:PHE:HE1	4:D:237:PRO:HB3	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:U:59:UNK:C	8:U:61:UNK:N	2.69	0.56
8:S:92:UNK:O	8:S:93:UNK:CB	2.51	0.56
10:X:357:UNK:O	10:X:361:UNK:N	2.38	0.56
4:J:337:GLU:HG3	4:J:339:PHE:HE2	1.69	0.56
1:G:157:VAL:O	1:G:157:VAL:HG12	2.05	0.56
1:G:116:ILE:CD1	1:G:158:PHE:HD1	2.18	0.56
2:B:364:GLU:OE1	4:D:296:TYR:CD2	2.58	0.56
3:C:284:PHE:HE1	3:C:431:PHE:CD1	2.24	0.56
2:B:458:PHE:HB3	11:B:1485:CLA:HBC2	1.87	0.56
2:B:473:THR:HG21	11:B:1489:CLA:HED3	1.86	0.56
2:B:144:PHE:HE1	2:B:210:ILE:HG23	1.69	0.56
2:B:450:TRP:NE1	11:B:1488:CLA:HBA1	2.19	0.56
2:H:394:GLN:O	2:H:395:GLN:CB	2.53	0.56
2:H:172:TYR:HA	2:H:280:PHE:CE1	2.37	0.56
2:H:174:LEU:HD11	2:H:309:LEU:HD21	1.87	0.56
3:C:297:TYR:HD1	3:C:302:TYR:CZ	2.23	0.56
3:I:297:TYR:HD1	3:I:302:TYR:CE2	2.23	0.56
1:G:258:LEU:HG	4:J:128:ARG:HH22	1.69	0.56
1:A:248:ILE:CD1	4:D:235:PHE:CZ	2.88	0.56
8:U:57:UNK:C	8:U:59:UNK:N	2.65	0.56
9:T:87:GLU:CD	9:T:96:ARG:HH22	2.07	0.56
8:S:69:UNK:O	8:S:70:UNK:C	2.53	0.56
10:Y:404:UNK:O	10:Y:408:UNK:CB	2.54	0.56
2:H:369:ILE:O	2:H:379:ALA:O	2.23	0.56
4:J:289:LEU:HD22	4:J:294:ARG:HB3	1.87	0.56
1:A:310:LYS:NZ	5:E:58:GLN:HG2	2.20	0.56
2:H:236:THR:CB	2:H:473:THR:HG21	2.35	0.56
2:H:54:PRO:O	2:H:55:MET:C	2.43	0.56
1:G:267:ASN:O	1:G:268:SER:C	2.44	0.56
3:I:362:ARG:NH1	3:I:362:ARG:HG3	2.21	0.56
2:H:144:PHE:HE1	2:H:210:ILE:HG23	1.69	0.56
4:J:96:GLU:HA	4:J:96:GLU:OE1	2.05	0.56
3:I:258:GLY:O	3:I:262:ARG:NE	2.39	0.56
3:C:258:GLY:O	3:C:262:ARG:NE	2.37	0.56
2:B:475:PHE:CE1	4:D:140:PRO:HG3	2.39	0.56
11:B:1482:CLA:HBD	11:B:1482:CLA:CGA	2.35	0.56
4:J:89:LEU:O	4:J:90:LEU:C	2.44	0.56
2:H:270:PRO:O	2:H:271:THR:CG2	2.53	0.56
4:D:164:GLN:NE2	4:D:189:HIS:HE1	1.95	0.56
2:H:392:PHE:O	2:H:395:GLN:HA	2.05	0.56
10:Y:182:UNK:O	10:Y:184:UNK:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:298:ASN:OD1	1:A:298:ASN:N	2.38	0.56
3:C:120:ILE:C	3:C:122:SER:N	2.57	0.56
3:C:270:ALA:O	3:C:274:TYR:HD2	1.86	0.56
3:I:367:GLU:HB2	3:I:368:PRO:HD3	1.87	0.56
1:G:218:LEU:CD1	1:G:255:PHE:HD2	2.18	0.56
7:P:107:UNK:O	7:P:108:UNK:CB	2.52	0.56
4:J:37:LEU:C	4:J:37:LEU:CD2	2.74	0.56
2:B:332:LYS:O	2:B:439:SER:CA	2.54	0.56
2:H:285:ASN:O	2:H:289:GLN:HB2	2.06	0.56
3:I:51:GLY:O	3:I:52:ALA:C	2.44	0.56
6:L:37:ILE:HG22	6:L:41:GLN:HE21	1.69	0.56
2:H:134:ASP:O	2:H:136:PRO:CD	2.53	0.56
1:A:133:LEU:HD12	4:D:256:ILE:HG13	1.87	0.56
8:S:5:UNK:O	8:S:7:UNK:N	2.37	0.56
3:C:69:LEU:CD1	3:C:115:GLY:HA3	2.35	0.56
8:U:90:UNK:C	8:U:91:UNK:O	2.52	0.56
1:G:266:ASN:O	1:G:267:ASN:C	2.44	0.56
1:G:93:PHE:CE1	1:G:95:PRO:CG	2.88	0.56
3:I:39:ASN:ND2	11:I:1466:CLA:H11	2.20	0.56
2:H:61:PHE:HZ	11:H:1488:CLA:HBB1	1.71	0.56
4:D:171:PRO:HG3	4:D:181:PHE:CG	2.40	0.56
3:C:189:TRP:NE1	3:C:295:THR:HG22	2.18	0.56
1:A:151:LEU:HG	1:A:155:PHE:HE2	1.71	0.56
1:G:34:GLY:O	1:G:36:ILE:N	2.39	0.56
3:C:376:ASP:C	3:C:378:ASN:N	2.58	0.56
10:X:118:UNK:O	10:X:119:UNK:C	2.51	0.56
4:D:184:PHE:O	4:D:188:PHE:HB2	2.06	0.56
4:J:16:ASP:O	4:J:19:ASP:N	2.39	0.56
1:G:315:ASN:HA	1:G:319:ASP:OD2	2.05	0.56
4:D:292:ASN:O	4:D:294:ARG:HG2	2.05	0.56
3:C:367:GLU:O	3:C:370:ARG:HB2	2.06	0.56
2:B:318:ASN:OD1	2:B:318:ASN:C	2.44	0.56
2:H:293:ALA:O	2:H:295:GLY:N	2.39	0.56
4:D:45:LEU:CD2	4:D:49:LEU:HD11	2.37	0.56
4:D:263:ASN:O	4:D:265:ARG:N	2.39	0.56
8:S:40:UNK:O	8:S:41:UNK:C	2.54	0.56
2:H:413:ASP:N	2:H:413:ASP:OD1	2.33	0.56
4:J:160:TYR:HB3	4:J:161:PRO:CD	2.29	0.55
4:J:171:PRO:HD2	4:J:181:PHE:CE2	2.36	0.55
3:C:36:TRP:O	3:C:36:TRP:HE3	1.89	0.55
2:B:92:SER:O	2:B:93:PHE:C	2.44	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:62:GLY:O	1:A:63:ILE:HB	2.04	0.55
2:H:278:SER:O	2:H:281:GLN:HG2	2.06	0.55
9:T:55:ARG:NH2	9:T:128:ASP:OD1	2.39	0.55
3:C:297:TYR:HD1	3:C:302:TYR:CE2	2.24	0.55
3:C:72:LEU:O	3:C:75:PHE:N	2.38	0.55
1:G:126:TYR:O	1:G:130:GLN:HB2	2.06	0.55
2:H:338:GLN:O	2:H:339:ALA:O	2.23	0.55
2:H:338:GLN:O	2:H:431:GLU:O	2.24	0.55
10:X:404:UNK:O	10:X:408:UNK:CB	2.54	0.55
1:G:210:LEU:O	1:G:213:ALA:HB3	2.06	0.55
3:I:43:ILE:CG2	11:I:1467:CLA:HMC1	2.29	0.55
3:C:424:SER:O	3:C:428:THR:OG1	2.23	0.55
4:J:216:ALA:O	4:J:220:ASN:ND2	2.39	0.55
3:I:377:LEU:O	3:I:381:LYS:HB2	2.07	0.55
8:U:5:UNK:O	8:U:7:UNK:N	2.38	0.55
5:K:42:LEU:O	5:K:43:ALA:C	2.45	0.55
2:H:238:LEU:HD21	2:H:469:HIS:CD2	2.41	0.55
1:A:174:LEU:HD22	12:A:1345:PHO:H151	1.88	0.55
1:A:195:HIS:HE1	1:A:197:PHE:CD1	2.25	0.55
3:C:167:VAL:HG22	11:C:1470:CLA:HMB2	1.87	0.55
3:C:56:HIS:O	3:C:57:ALA:C	2.44	0.55
2:B:138:MET:HA	2:B:141:ILE:HG22	1.89	0.55
11:B:1486:CLA:HMC1	11:B:1486:CLA:HBC2	1.87	0.55
3:I:186:TYR:HE2	3:I:188:THR:CG2	2.20	0.55
3:I:307:PRO:HA	3:I:358:PHE:CD1	2.42	0.55
3:I:318:LEU:HD12	3:I:318:LEU:C	2.27	0.55
2:B:338:GLN:O	2:B:431:GLU:O	2.23	0.55
3:C:227:VAL:HG11	3:C:233:VAL:HG23	1.88	0.55
2:H:144:PHE:CE1	2:H:210:ILE:HG23	2.41	0.55
3:I:167:VAL:HG22	11:I:1470:CLA:HMB2	1.87	0.55
4:J:169:PHE:O	4:J:181:PHE:HE2	1.90	0.55
4:J:189:HIS:HA	4:J:294:ARG:HH11	1.71	0.55
2:H:103:LEU:HD23	2:H:103:LEU:N	2.20	0.55
3:C:284:PHE:HE1	3:C:431:PHE:CE1	2.25	0.55
9:T:134:LYS:C	9:T:137:TYR:H	2.10	0.55
4:D:263:ASN:O	4:D:264:LYS:C	2.45	0.55
5:E:15:THR:O	5:E:15:THR:HG22	2.05	0.55
3:C:230:LEU:O	3:C:234:VAL:HG23	2.06	0.55
3:I:67:MET:O	3:I:71:GLU:N	2.39	0.55
1:G:157:VAL:HG13	1:G:172:MET:HB3	1.89	0.55
1:G:195:HIS:HE1	1:G:197:PHE:CD1	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:164:HIS:HA	3:I:167:VAL:HG23	1.87	0.55
4:J:36:LEU:HD23	11:J:1353:CLA:HBB2	1.88	0.55
2:H:92:SER:O	2:H:93:PHE:C	2.45	0.55
10:Y:568:UNK:O	10:Y:569:UNK:C	2.54	0.55
1:A:331:MET:O	1:A:332:HIS:C	2.45	0.55
4:D:345:VAL:O	4:D:346:LEU:CB	2.54	0.55
2:B:426:PHE:O	2:B:426:PHE:HD1	1.90	0.55
5:K:37:PHE:CE1	5:K:42:LEU:CB	2.89	0.55
1:G:116:ILE:HG12	1:G:158:PHE:HD1	1.72	0.55
3:I:276:LEU:HD12	3:I:276:LEU:O	2.06	0.55
5:E:58:GLN:CD	9:V:2:GLU:N	2.61	0.55
2:H:24:LEU:HD23	2:H:110:ALA:C	2.26	0.55
1:A:176:ILE:HG23	1:A:180:PHE:CE1	2.41	0.55
4:D:126:MET:HE1	4:D:143:ALA:O	2.07	0.55
3:C:37:ALA:CA	11:C:1466:CLA:HBA2	2.30	0.55
9:V:136:TYR:O	9:V:137:TYR:CG	2.59	0.55
3:C:202:PRO:CA	3:C:235:GLY:HA3	2.37	0.55
6:F:18:VAL:O	6:F:21:VAL:N	2.39	0.55
3:C:135:ARG:HG3	3:C:136:GLY:H	1.70	0.55
7:P:123:UNK:O	7:P:124:UNK:C	2.55	0.55
4:J:238:THR:O	4:J:239:GLN:CB	2.54	0.55
3:I:320:ARG:NH1	9:T:49:ASN:OD1	2.39	0.55
1:G:116:ILE:HG22	1:G:117:PHE:N	2.21	0.55
3:I:56:HIS:ND1	11:I:1467:CLA:HHB	2.22	0.55
4:J:62:GLY:C	4:J:63:LEU:HD12	2.27	0.55
5:K:35:TRP:CE3	6:L:39:ALA:HB2	2.42	0.55
2:H:94:GLU:CG	2:H:95:GLY:H	2.20	0.55
4:D:56:THR:CB	5:E:49:THR:HG22	2.37	0.55
3:I:189:TRP:NE1	3:I:295:THR:HG22	2.22	0.55
5:K:16:SER:O	5:K:17:VAL:HB	2.07	0.55
2:H:201:HIS:HB2	11:H:1483:CLA:C1B	2.37	0.55
2:B:172:TYR:O	2:B:174:LEU:HG	2.06	0.55
4:D:37:LEU:CD2	4:D:37:LEU:C	2.75	0.55
2:B:193:TYR:OH	2:B:259:GLY:HA2	2.07	0.55
3:I:226:SER:OG	3:I:227:VAL:N	2.38	0.55
10:Y:214:UNK:O	10:Y:218:UNK:N	2.40	0.55
3:I:36:TRP:O	3:I:36:TRP:HE3	1.89	0.55
11:H:1496:CLA:H171	11:H:1497:CLA:CMD	2.37	0.55
2:H:271:THR:HG22	2:H:448:ARG:HE	1.70	0.55
3:C:284:PHE:O	3:C:285:ILE:C	2.45	0.55
4:D:58:TRP:HA	4:D:62:GLY:HA2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:166:ILE:HD11	3:C:249:ILE:HD13	1.88	0.55
1:G:220:THR:C	1:G:222:SER:H	2.10	0.55
3:I:135:ARG:HG3	3:I:136:GLY:H	1.72	0.55
8:U:44:UNK:O	8:U:45:UNK:C	2.54	0.55
7:O:99:UNK:O	7:O:102:UNK:N	2.39	0.55
2:H:30:VAL:HG12	11:H:1486:CLA:HHD	1.87	0.55
2:H:37:MET:O	2:H:40:TYR:N	2.40	0.55
4:D:190:ASN:HB2	4:D:296:TYR:HD1	1.71	0.55
3:C:298:PRO:O	3:C:299:SER:HB3	2.06	0.55
2:B:94:GLU:CG	2:B:95:GLY:N	2.69	0.55
1:A:332:HIS:HD2	1:A:333:GLU:H	1.54	0.55
1:G:89:ILE:HD11	1:G:108:ASN:HB3	1.89	0.55
10:X:225:UNK:O	10:X:226:UNK:C	2.55	0.55
2:B:193:TYR:CZ	2:B:259:GLY:HA2	2.42	0.55
8:S:73:UNK:O	8:S:74:UNK:C	2.54	0.55
1:G:95:PRO:O	1:G:105:TRP:NE1	2.40	0.55
10:X:13:UNK:O	10:X:14:UNK:C	2.54	0.55
1:G:198:HIS:O	1:G:201:GLY:N	2.37	0.54
4:J:46:GLY:O	4:J:47:GLY:C	2.45	0.54
4:D:152:VAL:HG11	11:D:1351:CLA:HBA1	1.89	0.54
4:D:56:THR:HB	5:E:49:THR:HG22	1.90	0.54
2:H:396:GLY:C	2:H:398:THR:N	2.60	0.54
1:A:331:MET:O	1:A:332:HIS:O	2.25	0.54
2:B:246:PHE:CZ	2:B:463:PHE:HD1	2.24	0.54
2:H:323:GLY:CA	4:J:293:LEU:HD22	2.38	0.54
10:X:420:UNK:O	10:X:421:UNK:C	2.55	0.54
3:I:330:SER:HB3	7:P:56:UNK:O	2.07	0.54
3:I:120:ILE:O	3:I:122:SER:N	2.40	0.54
3:I:259:TRP:CZ3	11:I:1464:CLA:H12	2.42	0.54
3:C:284:PHE:O	3:C:286:ALA:N	2.40	0.54
4:D:72:ASN:OD1	4:D:72:ASN:O	2.24	0.54
3:C:119:LEU:O	3:C:122:SER:OG	2.25	0.54
3:C:240:ILE:HA	3:C:243:ILE:HB	1.89	0.54
3:C:33:PHE:O	3:C:34:ALA:HB3	2.07	0.54
2:B:153:PHE:O	2:B:157:HIS:HB3	2.07	0.54
2:B:398:THR:C	2:B:400:SER:N	2.60	0.54
2:H:346:PHE:O	2:H:354:LEU:HB3	2.07	0.54
9:V:133:GLY:O	9:V:137:TYR:N	2.40	0.54
4:D:239:GLN:O	4:D:240:ALA:HB3	2.06	0.54
1:G:13:LEU:O	1:G:17:PHE:N	2.39	0.54
3:I:447:ARG:HG2	3:I:447:ARG:HH11	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:107:TYR:C	1:G:109:GLY:N	2.59	0.54
11:G:1342:CLA:H122	12:G:1345:PHO:H3A	1.88	0.54
4:J:56:THR:HB	5:K:49:THR:HG22	1.88	0.54
5:K:10:PHE:HD2	6:L:19:ARG:NH2	2.06	0.54
2:B:270:PRO:C	2:B:271:THR:HG23	2.27	0.54
4:D:272:LEU:O	4:D:272:LEU:HD23	2.06	0.54
1:G:248:ILE:CD1	4:J:235:PHE:HZ	2.18	0.54
1:A:217:SER:HG	4:D:142:ASN:HA	1.70	0.54
8:S:27:UNK:O	8:S:28:UNK:O	2.24	0.54
1:G:278:TRP:CB	1:G:279:PRO:HD3	2.27	0.54
6:L:33:PHE:C	6:L:35:GLY:N	2.60	0.54
1:A:310:LYS:HD2	5:E:58:GLN:HG3	1.89	0.54
2:H:450:TRP:NE1	11:H:1488:CLA:HBA1	2.22	0.54
3:C:433:LEU:O	3:C:434:ALA:C	2.44	0.54
3:C:150:ASP:O	3:C:151:TRP:C	2.46	0.54
4:J:126:MET:HE1	4:J:143:ALA:O	2.08	0.54
2:B:107:LEU:HD23	11:B:1497:CLA:HBC1	1.88	0.54
2:B:144:PHE:CE1	2:B:210:ILE:HG23	2.42	0.54
4:D:89:LEU:O	4:D:90:LEU:C	2.46	0.54
3:I:116:VAL:O	3:I:117:VAL:C	2.46	0.54
1:A:220:THR:C	1:A:222:SER:H	2.10	0.54
2:H:193:TYR:CE1	2:H:259:GLY:HA2	2.42	0.54
2:B:52:LEU:HD23	2:B:311:PHE:CD2	2.42	0.54
2:B:359:MET:HB3	2:B:426:PHE:HB3	1.88	0.54
9:V:55:ARG:HG3	9:V:131:GLY:HA2	1.90	0.54
3:C:377:LEU:O	3:C:381:LYS:HB2	2.08	0.54
3:C:74:HIS:CD2	3:C:74:HIS:H	2.26	0.54
8:U:64:UNK:O	8:U:65:UNK:C	2.55	0.54
3:I:137:PRO:O	3:I:138:GLU:HB2	2.08	0.54
1:G:135:TYR:O	1:G:136:ARG:HG2	2.07	0.54
2:H:446:SER:HB2	2:H:447:PRO:CD	2.37	0.54
3:C:168:LEU:HD23	11:C:1459:CLA:HMC2	1.90	0.54
2:B:68:ARG:NH1	2:B:262:THR:O	2.40	0.54
3:I:355:THR:O	3:I:355:THR:HG22	2.07	0.54
5:K:12:ASP:O	5:K:16:SER:N	2.40	0.54
1:A:267:ASN:O	1:A:268:SER:C	2.45	0.54
3:C:75:PHE:CZ	3:C:77:PRO:HG3	2.42	0.54
1:G:311:GLY:HA3	9:T:125:ILE:CG2	2.38	0.54
2:H:475:PHE:CE1	4:J:140:PRO:HG3	2.42	0.54
4:J:191:TRP:HA	4:J:191:TRP:CE3	2.42	0.54
4:J:45:LEU:HD22	4:J:49:LEU:HD11	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:279:LEU:HD11	12:D:1352:PHO:HBC3	1.90	0.54
2:B:134:ASP:O	2:B:136:PRO:CD	2.55	0.54
2:B:31:ALA:H	11:B:1486:CLA:CBC	2.19	0.54
2:B:446:SER:HB2	2:B:447:PRO:HD2	1.90	0.54
1:G:310:LYS:HZ1	5:K:58:GLN:HG2	1.71	0.54
2:B:271:THR:HG22	2:B:448:ARG:HE	1.72	0.54
8:S:57:UNK:O	8:S:58:UNK:C	2.56	0.54
2:H:422:ARG:O	2:H:425:ILE:HG22	2.07	0.54
7:O:148:UNK:O	7:O:149:UNK:CB	2.53	0.54
2:B:194:ASN:O	2:B:195:PRO:C	2.43	0.54
8:U:67:UNK:O	8:U:68:UNK:C	2.55	0.54
11:H:1482:CLA:CGA	11:H:1482:CLA:HBD	2.38	0.54
2:H:31:ALA:N	11:H:1486:CLA:CBC	2.66	0.54
2:H:468:TRP:HD1	4:J:144:ILE:HD11	1.71	0.54
2:H:470:GLY:O	2:H:473:THR:HB	2.07	0.54
1:A:210:LEU:O	1:A:213:ALA:HB3	2.08	0.54
3:C:170:ILE:CG2	3:C:171:GLY:N	2.71	0.54
3:C:186:TYR:HE2	3:C:188:THR:CG2	2.21	0.54
3:I:376:ASP:C	3:I:378:ASN:N	2.59	0.54
10:X:506:UNK:O	10:X:507:UNK:C	2.55	0.54
10:X:5:UNK:O	10:X:6:UNK:C	2.56	0.54
10:X:17:UNK:O	10:X:18:UNK:C	2.55	0.54
1:A:271:LEU:O	1:A:271:LEU:HG	2.08	0.54
2:B:205:ALA:O	2:B:209:GLY:N	2.41	0.54
1:A:326:LEU:C	1:A:328:MET:H	2.09	0.54
2:H:167:TRP:CB	2:H:267:LEU:HD11	2.38	0.54
2:H:462:PHE:HA	11:H:1492:CLA:HMC1	1.90	0.54
11:A:1344:CLA:HED3	4:D:175:VAL:HG13	1.89	0.54
2:B:211:ILE:O	2:B:214:LEU:HG	2.08	0.54
2:B:215:PHE:HZ	11:B:1490:CLA:HMD3	1.71	0.54
2:B:346:PHE:O	2:B:353:GLU:O	2.25	0.54
5:E:13:ILE:HA	5:E:16:SER:HB2	1.89	0.54
2:H:202:HIS:HE1	11:H:1484:CLA:NB	2.04	0.54
2:B:280:PHE:CZ	2:B:312:TYR:HD2	2.26	0.54
3:C:116:VAL:O	3:C:117:VAL:C	2.46	0.54
3:C:318:LEU:CD1	3:C:328:VAL:HG21	2.38	0.54
3:C:291:TRP:HD1	3:C:292:PHE:CD2	2.26	0.54
3:C:135:ARG:C	3:C:136:GLY:O	2.44	0.54
3:I:449:ARG:NH1	11:I:1463:CLA:O1D	2.41	0.54
3:I:127:PHE:CE2	11:I:1471:CLA:HBC1	2.43	0.54
6:F:40:MET:O	6:F:43:ILE:HG13	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:134:SER:C	1:A:136:ARG:H	2.10	0.54
4:D:209:LEU:HD23	4:D:209:LEU:O	2.07	0.54
2:B:63:LEU:O	2:B:64:PRO:C	2.45	0.54
4:J:139:ARG:HB3	4:J:141:TYR:HD1	1.73	0.54
9:V:134:LYS:O	9:V:137:TYR:O	2.26	0.54
4:D:183:LEU:O	4:D:184:PHE:C	2.46	0.54
8:S:55:UNK:O	8:S:58:UNK:N	2.40	0.54
8:S:67:UNK:O	8:S:68:UNK:C	2.56	0.54
4:J:313:THR:C	4:J:315:TYR:N	2.61	0.54
2:H:269:GLY:H	2:H:448:ARG:HB2	1.73	0.54
12:A:1345:PHO:CBB	4:D:205:LEU:HD21	2.37	0.54
1:A:78:ILE:HD12	1:A:78:ILE:H	1.73	0.54
4:D:313:THR:C	4:D:315:TYR:N	2.60	0.54
2:B:24:LEU:HD23	2:B:111:ALA:CA	2.36	0.54
5:K:16:SER:HB3	5:K:19:TYR:HB3	1.90	0.54
3:I:82:TYR:HB3	3:I:302:TYR:C	2.28	0.54
1:A:258:LEU:CD1	4:D:128:ARG:NH2	2.71	0.54
1:A:98:GLU:O	1:A:99:ALA:CB	2.56	0.54
3:I:250:TRP:CD1	3:I:250:TRP:C	2.81	0.54
1:G:324:ALA:HB2	4:J:329:MET:HE2	1.89	0.53
3:I:126:GLY:O	3:I:130:VAL:HG23	2.08	0.53
3:I:37:ALA:CA	11:I:1466:CLA:HBA2	2.29	0.53
1:G:210:LEU:HD13	12:J:1352:PHO:ND	2.24	0.53
2:B:33:TRP:NE1	11:B:1488:CLA:HBC2	2.22	0.53
11:B:1494:CLA:OBD	11:B:1495:CLA:HHC	2.08	0.53
2:H:280:PHE:O	2:H:283:GLU:HB3	2.07	0.53
4:J:33:SER:OG	4:J:128:ARG:HA	2.08	0.53
10:X:59:UNK:O	10:X:61:UNK:N	2.41	0.53
10:X:59:UNK:C	10:X:61:UNK:N	2.70	0.53
4:J:40:CYS:O	4:J:41:ALA:C	2.46	0.53
10:Y:425:UNK:O	10:Y:429:UNK:CB	2.56	0.53
10:X:270:UNK:O	10:X:271:UNK:C	2.57	0.53
9:V:13:ASN:HD21	9:V:17:LYS:CG	2.22	0.53
10:Y:578:UNK:C	10:Y:580:UNK:N	2.65	0.53
1:G:219:VAL:HG11	4:J:268:HIS:CD2	2.44	0.53
1:G:302:PHE:HE1	4:J:74:LEU:HD12	1.73	0.53
1:G:84:PRO:O	1:G:85:SER:O	2.26	0.53
3:I:33:PHE:O	3:I:34:ALA:HB3	2.09	0.53
9:V:4:THR:HB	9:V:5:PRO:HD2	1.89	0.53
2:H:27:THR:O	2:H:30:VAL:N	2.37	0.53
1:A:288:LEU:O	1:A:290:ILE:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:74:LEU:HA	4:D:175:VAL:HG11	1.90	0.53
2:B:201:HIS:HB2	11:B:1483:CLA:C1B	2.38	0.53
9:V:134:LYS:C	9:V:137:TYR:H	2.12	0.53
2:H:318:ASN:OD1	2:H:318:ASN:C	2.47	0.53
4:D:179:PHE:HA	4:D:182:LEU:HD12	1.89	0.53
5:E:56:TYR:O	5:E:57:ALA:CB	2.55	0.53
7:P:64:UNK:HA	7:P:70:UNK:O	2.09	0.53
10:X:435:UNK:O	10:X:438:UNK:N	2.41	0.53
1:G:174:LEU:HD22	12:G:1345:PHO:H151	1.89	0.53
4:J:279:LEU:HD11	12:J:1352:PHO:HBC3	1.90	0.53
4:D:110:LEU:O	4:D:114:ILE:HG13	2.09	0.53
3:C:290:VAL:HA	3:C:297:TYR:CD2	2.43	0.53
5:K:55:TYR:O	5:K:56:TYR:HB2	2.07	0.53
8:S:31:UNK:O	8:S:32:UNK:C	2.57	0.53
2:B:475:PHE:CZ	4:D:134:ARG:HB2	2.43	0.53
10:Y:336:UNK:O	10:Y:337:UNK:CB	2.56	0.53
2:B:323:GLY:CA	4:D:293:LEU:HD22	2.39	0.53
1:G:26:ASN:CA	4:J:255:GLN:NE2	2.72	0.53
3:C:179:ALA:O	3:C:184:GLY:HA2	2.09	0.53
10:X:519:UNK:O	10:X:522:UNK:N	2.41	0.53
1:G:132:GLU:O	1:G:134:SER:N	2.41	0.53
1:G:133:LEU:HB2	4:J:252:PHE:CE2	2.43	0.53
4:J:56:THR:N	5:K:49:THR:HG22	2.23	0.53
2:H:139:PHE:HB2	11:H:1491:CLA:CHD	2.38	0.53
1:A:201:GLY:HA2	1:A:282:GLY:O	2.07	0.53
11:B:1496:CLA:H171	11:B:1497:CLA:CMD	2.39	0.53
2:B:396:GLY:C	2:B:398:THR:N	2.60	0.53
3:I:173:LEU:O	3:I:176:VAL:CG1	2.51	0.53
5:E:16:SER:HB3	5:E:19:TYR:HB3	1.90	0.53
5:K:17:VAL:O	5:K:21:VAL:HG23	2.08	0.53
2:B:309:LEU:O	2:B:312:TYR:N	2.42	0.53
4:J:184:PHE:O	4:J:188:PHE:HB2	2.09	0.53
3:C:82:TYR:HB3	3:C:302:TYR:C	2.29	0.53
2:B:314:TYR:OH	2:B:334:ASP:OD1	2.25	0.53
3:I:284:PHE:HE1	3:I:431:PHE:CE1	2.25	0.53
2:H:135:LEU:CD1	2:H:232:GLY:HA2	2.38	0.53
2:H:33:TRP:HE1	11:H:1488:CLA:HBC2	1.73	0.53
2:H:220:ARG:HD2	2:H:221:PRO:HD2	1.90	0.53
1:A:186:PHE:CD2	1:A:192:ILE:CD1	2.84	0.53
4:D:181:PHE:CZ	4:D:185:PHE:HE1	2.27	0.53
4:D:191:TRP:HA	4:D:191:TRP:HE3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:296:TYR:HE1	4:D:322:ASN:HD22	1.56	0.53
6:F:33:PHE:C	6:F:35:GLY:N	2.62	0.53
3:C:455:PHE:O	3:C:456:GLU:CG	2.56	0.53
1:G:255:PHE:CZ	1:G:259:ILE:HD12	2.44	0.53
1:A:218:LEU:HA	1:A:221:SER:OG	2.09	0.53
1:A:218:LEU:CD1	1:A:255:PHE:HD2	2.20	0.53
3:C:376:ASP:HB2	3:C:379:LYS:CG	2.34	0.53
9:V:55:ARG:NH2	9:V:128:ASP:OD1	2.41	0.53
3:C:72:LEU:O	3:C:75:PHE:HB3	2.08	0.53
4:J:210:LEU:HD11	4:J:270:PHE:CD2	2.43	0.53
1:G:285:PHE:O	1:G:289:GLY:N	2.33	0.53
3:I:270:ALA:O	3:I:274:TYR:HD2	1.91	0.53
3:I:40:ALA:HA	3:I:43:ILE:HG23	1.91	0.53
2:H:98:LEU:O	2:H:101:ILE:N	2.41	0.53
3:C:39:ASN:ND2	11:C:1466:CLA:H11	2.23	0.53
1:G:140:ARG:O	4:J:220:ASN:HB3	2.08	0.53
2:B:24:LEU:HD23	2:B:110:ALA:C	2.28	0.53
2:B:220:ARG:HD2	2:B:221:PRO:HD2	1.90	0.53
2:B:446:SER:HB2	2:B:447:PRO:CD	2.39	0.53
4:D:184:PHE:C	4:D:184:PHE:CD1	2.80	0.53
1:G:271:LEU:O	1:G:271:LEU:HG	2.09	0.53
9:V:78:ASN:OD1	9:V:96:ARG:NH2	2.41	0.53
1:G:168:PHE:O	1:G:170:ASP:O	2.26	0.53
3:I:287:THR:OG1	3:I:288:CYS:N	2.41	0.53
2:H:107:LEU:HD23	11:H:1497:CLA:HBC1	1.90	0.53
4:D:289:LEU:HD22	4:D:294:ARG:HB3	1.90	0.53
1:A:36:ILE:O	1:A:39:PRO:HD2	2.09	0.53
3:C:367:GLU:HB2	3:C:368:PRO:HD3	1.89	0.53
2:B:106:LEU:HD22	11:B:1496:CLA:H143	1.89	0.53
2:B:135:LEU:HD12	2:B:232:GLY:HA2	1.90	0.53
2:B:15:ASP:CA	2:B:16:PRO:CD	2.87	0.53
5:E:17:VAL:O	5:E:21:VAL:HG23	2.09	0.53
3:I:318:LEU:CD1	3:I:328:VAL:HG21	2.38	0.53
3:I:320:ARG:HD2	9:T:49:ASN:ND2	2.24	0.53
10:Y:262:UNK:O	10:Y:263:UNK:C	2.57	0.53
4:J:339:PHE:HD1	4:J:341:PHE:CE1	2.27	0.53
1:G:290:ILE:C	1:G:292:THR:N	2.59	0.53
2:H:220:ARG:HB3	2:H:221:PRO:HD2	1.90	0.53
1:A:288:LEU:O	1:A:291:SER:N	2.42	0.53
4:D:283:ALA:O	4:D:287:VAL:HG23	2.09	0.53
4:D:71:CYS:CB	4:D:76:VAL:HG22	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:132:GLU:O	1:A:134:SER:N	2.42	0.53
3:C:240:ILE:HD12	11:C:1465:CLA:C9	2.39	0.53
2:B:236:THR:CB	2:B:473:THR:HG21	2.39	0.53
2:H:52:LEU:HD23	2:H:311:PHE:CD2	2.44	0.53
4:D:148:ALA:HA	4:D:280:TRP:HE1	1.73	0.53
4:D:272:LEU:CD2	4:D:276:VAL:HG21	2.39	0.53
3:I:290:VAL:HA	3:I:297:TYR:CD2	2.43	0.53
3:I:79:LYS:HE2	3:I:83:GLU:HG2	1.90	0.53
8:S:71:UNK:O	8:S:74:UNK:N	2.41	0.53
1:A:211:PHE:CE2	1:A:274:PHE:HE2	2.26	0.53
3:C:156:LYS:O	3:C:160:ILE:HG13	2.09	0.53
4:D:216:ALA:O	4:D:220:ASN:ND2	2.42	0.53
1:G:255:PHE:CE1	1:G:259:ILE:HD12	2.44	0.53
3:I:252:ILE:O	3:I:253:LEU:C	2.46	0.53
3:I:433:LEU:O	3:I:434:ALA:C	2.47	0.53
9:T:100:ILE:C	9:T:102:PRO:HD3	2.29	0.53
4:D:46:GLY:O	4:D:47:GLY:C	2.46	0.53
10:Y:5:UNK:O	10:Y:6:UNK:C	2.56	0.53
10:X:357:UNK:O	10:X:360:UNK:N	2.41	0.53
10:Y:184:UNK:O	10:Y:185:UNK:C	2.57	0.53
10:Y:13:UNK:O	10:Y:14:UNK:C	2.57	0.53
9:T:13:ASN:HD21	9:T:17:LYS:CG	2.22	0.53
4:J:283:ALA:O	4:J:287:VAL:HG23	2.08	0.53
1:A:302:PHE:HE1	4:D:74:LEU:HD12	1.73	0.53
1:A:314:ILE:HG23	4:D:58:TRP:HZ3	1.74	0.53
4:D:209:LEU:CD2	4:D:209:LEU:C	2.77	0.53
1:A:34:GLY:C	1:A:36:ILE:H	2.12	0.53
1:G:142:TRP:O	1:G:145:VAL:N	2.41	0.53
2:B:135:LEU:HD22	2:B:237:VAL:HG21	1.91	0.53
2:B:462:PHE:HA	11:B:1492:CLA:HMC1	1.91	0.53
5:E:16:SER:O	5:E:17:VAL:CB	2.57	0.53
2:H:76:SER:O	7:O:66:UNK:CA	2.57	0.53
4:D:139:ARG:HB3	4:D:141:TYR:HD1	1.74	0.53
2:B:49:ASP:OD2	2:B:52:LEU:N	2.41	0.53
2:B:362:PHE:HE2	4:D:184:PHE:HZ	1.57	0.53
4:J:58:TRP:HA	4:J:62:GLY:HA2	1.90	0.52
4:J:52:THR:O	4:J:67:TYR:HD1	1.92	0.52
4:J:76:VAL:HG12	4:J:77:ALA:N	2.23	0.52
2:H:473:THR:HG21	11:H:1489:CLA:HED3	1.92	0.52
1:A:289:GLY:O	1:A:292:THR:HB	2.09	0.52
1:G:246:TYR:O	1:G:247:ASN:CG	2.47	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:246:PHE:CZ	2:H:463:PHE:HD1	2.27	0.52
1:A:97:TRP:O	1:A:98:GLU:C	2.47	0.52
3:I:318:LEU:HD11	3:I:328:VAL:HG21	1.90	0.52
10:X:200:UNK:O	10:X:201:UNK:C	2.57	0.52
8:U:14:UNK:C	8:U:16:UNK:N	2.70	0.52
10:Y:420:UNK:O	10:Y:421:UNK:C	2.56	0.52
8:S:99:UNK:O	8:S:100:UNK:C	2.58	0.52
4:J:56:THR:CB	5:K:49:THR:HG22	2.39	0.52
2:H:247:PHE:HB2	11:H:1489:CLA:HBC1	1.91	0.52
4:D:313:THR:C	4:D:315:TYR:H	2.12	0.52
1:A:142:TRP:O	1:A:145:VAL:N	2.42	0.52
3:C:259:TRP:CZ3	11:C:1464:CLA:H12	2.44	0.52
1:A:93:PHE:CE1	1:A:95:PRO:CG	2.92	0.52
9:T:4:THR:HB	9:T:5:PRO:HD2	1.90	0.52
10:X:356:UNK:O	10:X:357:UNK:C	2.57	0.52
3:C:67:MET:O	3:C:71:GLU:N	2.42	0.52
4:J:32:TRP:O	4:J:35:ILE:N	2.43	0.52
4:D:340:VAL:O	4:D:342:PRO:HD3	2.07	0.52
1:G:330:VAL:HG12	4:J:347:PRO:CA	2.35	0.52
6:F:19:ARG:O	6:F:23:VAL:CG2	2.54	0.52
4:D:16:ASP:O	4:D:19:ASP:N	2.42	0.52
7:P:148:UNK:O	7:P:149:UNK:CB	2.57	0.52
3:I:74:HIS:CD2	3:I:74:HIS:N	2.77	0.52
4:J:239:GLN:O	4:J:240:ALA:HB3	2.09	0.52
4:J:111:TRP:O	4:J:112:THR:C	2.47	0.52
2:H:263:THR:CG2	2:H:448:ARG:CZ	2.87	0.52
6:F:15:ILE:HG22	6:F:15:ILE:O	2.09	0.52
2:B:62:VAL:HG13	11:B:1486:CLA:O2D	2.10	0.52
2:B:61:PHE:HZ	11:B:1488:CLA:HBB1	1.73	0.52
3:C:137:PRO:O	3:C:138:GLU:HB2	2.08	0.52
10:Y:272:UNK:O	10:Y:273:UNK:C	2.57	0.52
1:G:193:LEU:HD13	4:J:179:PHE:HB3	1.92	0.52
1:G:214:MET:HE1	12:J:1352:PHO:HED1	1.91	0.52
12:G:1345:PHO:HAB	4:J:205:LEU:HD21	1.90	0.52
1:A:294:ALA:O	1:A:296:ASN:N	2.43	0.52
4:D:80:THR:HB	4:D:168:PHE:HA	1.91	0.52
4:D:35:ILE:O	4:D:35:ILE:CG2	2.57	0.52
4:D:32:TRP:O	4:D:35:ILE:N	2.42	0.52
10:Y:459:UNK:O	10:Y:460:UNK:C	2.56	0.52
3:I:183:GLY:O	3:I:184:GLY:O	2.28	0.52
4:J:80:THR:HB	4:J:168:PHE:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:72:ASN:OD1	4:J:72:ASN:O	2.27	0.52
1:A:122:GLY:O	1:A:125:CYS:N	2.42	0.52
3:C:244:CYS:HA	11:C:1464:CLA:HMC3	1.90	0.52
3:C:35:TRP:O	3:C:37:ALA:N	2.43	0.52
2:H:415:PRO:O	2:H:418:LYS:N	2.43	0.52
3:I:376:ASP:HB3	3:I:379:LYS:H	1.75	0.52
3:C:116:VAL:HG23	3:C:117:VAL:H	1.73	0.52
8:U:31:UNK:O	8:U:32:UNK:C	2.55	0.52
4:J:174:GLY:O	4:J:178:ILE:HG13	2.10	0.52
1:A:49:VAL:O	1:A:53:ILE:HG13	2.10	0.52
7:P:37:UNK:O	7:P:38:UNK:CB	2.58	0.52
8:U:46:UNK:O	8:U:47:UNK:C	2.55	0.52
3:I:39:ASN:HB2	11:I:1466:CLA:HAA2	1.90	0.52
4:J:167:TRP:O	4:J:168:PHE:CB	2.58	0.52
4:J:45:LEU:CD2	4:J:49:LEU:HD11	2.40	0.52
4:J:88:SER:O	4:J:90:LEU:N	2.43	0.52
9:V:2:GLU:O	9:V:4:THR:N	2.41	0.52
2:H:138:MET:C	2:H:140:GLY:N	2.63	0.52
2:H:66:MET:O	2:H:71:VAL:HB	2.10	0.52
1:A:34:GLY:C	1:A:36:ILE:N	2.62	0.52
1:G:309:ALA:HB2	5:K:52:PRO:O	2.10	0.52
4:D:88:SER:O	4:D:167:TRP:HZ3	1.92	0.52
1:G:331:MET:O	1:G:332:HIS:C	2.46	0.52
2:B:309:LEU:O	2:B:310:ALA:C	2.48	0.52
10:Y:3:UNK:O	10:Y:6:UNK:N	2.43	0.52
10:X:158:UNK:O	10:X:162:UNK:N	2.42	0.52
4:J:91:LEU:O	4:J:93:TRP:N	2.42	0.52
6:F:28:VAL:HB	6:F:29:PRO:CD	2.37	0.52
2:B:37:MET:O	2:B:40:TYR:N	2.43	0.52
3:I:69:LEU:HD13	3:I:115:GLY:HA3	1.91	0.52
2:B:18:ARG:NH1	2:B:115:TRP:CZ2	2.78	0.52
10:Y:59:UNK:O	10:Y:61:UNK:N	2.43	0.52
2:H:314:TYR:H	2:H:427:GLY:HA3	1.75	0.52
1:G:102:LEU:HD11	1:G:105:TRP:CE3	2.45	0.52
10:Y:219:UNK:O	10:Y:220:UNK:C	2.58	0.52
1:G:129:ARG:HH22	4:J:256:ILE:CA	2.22	0.52
3:I:429:SER:O	3:I:432:VAL:HB	2.10	0.52
6:L:15:ILE:O	6:L:15:ILE:HG22	2.09	0.52
2:H:64:PRO:HG3	2:H:267:LEU:O	2.09	0.52
4:D:54:PHE:HB3	5:E:47:PHE:CG	2.44	0.52
5:E:62:SER:C	5:E:64:PRO:HD3	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:142:TRP:CH2	1:A:273:PHE:HE1	2.28	0.52
3:C:252:ILE:O	3:C:253:LEU:C	2.49	0.52
11:B:1485:CLA:HMC2	11:B:1492:CLA:H191	1.92	0.52
2:B:94:GLU:CG	2:B:95:GLY:H	2.23	0.52
1:G:310:LYS:HZ2	5:K:58:GLN:HG2	1.75	0.52
2:B:149:LEU:C	11:B:1484:CLA:HBC2	2.30	0.52
2:H:279:TYR:O	2:H:281:GLN:N	2.43	0.52
2:H:79:SER:O	2:H:80:ILE:HG13	2.09	0.52
2:H:425:ILE:HG23	2:H:426:PHE:HD2	1.75	0.52
5:E:51:ARG:O	5:E:53:ASP:N	2.43	0.52
3:C:25:ASN:O	3:C:26:ARG:CB	2.58	0.52
1:G:184:ILE:HA	11:G:1342:CLA:HBC1	1.92	0.52
2:H:33:TRP:O	2:H:36:SER:HB3	2.10	0.52
1:A:290:ILE:C	1:A:292:THR:N	2.62	0.52
4:D:279:LEU:CD1	12:D:1352:PHO:HBC3	2.40	0.52
4:D:57:SER:O	4:D:58:TRP:C	2.47	0.52
1:A:151:LEU:CG	1:A:155:PHE:HE2	2.23	0.52
2:B:247:PHE:HB2	11:B:1489:CLA:HBC1	1.92	0.52
3:C:450:ALA:O	3:C:455:PHE:N	2.41	0.52
2:B:362:PHE:HE2	4:D:184:PHE:CZ	2.27	0.52
3:C:77:PRO:C	3:C:79:LYS:N	2.64	0.52
10:Y:200:UNK:O	10:Y:201:UNK:C	2.58	0.52
4:J:236:ASN:C	4:J:238:THR:H	2.12	0.52
3:I:227:VAL:HG11	3:I:233:VAL:HG23	1.92	0.52
10:X:268:UNK:O	10:X:269:UNK:C	2.58	0.52
9:V:46:THR:OG1	9:V:52:LEU:O	2.26	0.52
2:B:103:LEU:HD23	2:B:103:LEU:N	2.24	0.52
1:A:323:ARG:HG3	4:D:329:MET:HA	1.91	0.51
3:I:168:LEU:HD23	11:I:1459:CLA:HMC2	1.92	0.51
6:F:37:ILE:HG22	6:F:41:GLN:HE21	1.75	0.51
3:I:450:ALA:O	3:I:455:PHE:N	2.43	0.51
2:H:201:HIS:CD2	2:H:202:HIS:ND1	2.76	0.51
3:C:376:ASP:HB3	3:C:379:LYS:H	1.76	0.51
2:H:426:PHE:HD1	2:H:426:PHE:O	1.93	0.51
2:H:314:TYR:HA	2:H:427:GLY:HA3	1.92	0.51
10:Y:158:UNK:O	10:Y:162:UNK:N	2.43	0.51
1:G:162:PRO:HB3	1:G:168:PHE:HA	1.93	0.51
3:I:35:TRP:C	3:I:37:ALA:N	2.59	0.51
5:K:63:ILE:N	5:K:64:PRO:CD	2.73	0.51
1:A:60:ILE:HG23	1:A:61:ASP:N	2.25	0.51
1:A:129:ARG:HH22	4:D:256:ILE:CA	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:132:GLU:C	1:A:134:SER:N	2.63	0.51
3:C:176:VAL:HG23	3:C:234:VAL:HG12	1.92	0.51
2:B:138:MET:O	2:B:140:GLY:N	2.44	0.51
2:B:164:PRO:CB	11:B:1487:CLA:O1D	2.58	0.51
2:H:166:MET:HE3	11:H:1484:CLA:HED2	1.93	0.51
3:I:162:GLY:CA	3:I:248:GLY:HA2	2.40	0.51
2:B:49:ASP:OD2	2:B:52:LEU:HB2	2.10	0.51
1:A:248:ILE:O	1:A:251:ALA:N	2.38	0.51
4:D:16:ASP:O	4:D:18:LEU:N	2.44	0.51
5:E:37:PHE:CD1	5:E:42:LEU:HB2	2.46	0.51
1:G:151:LEU:CG	1:G:155:PHE:HE2	2.23	0.51
9:V:28:GLU:HA	9:V:28:GLU:OE1	2.10	0.51
1:G:134:SER:C	1:G:136:ARG:H	2.12	0.51
1:G:60:ILE:HB	1:G:83:VAL:HG12	1.91	0.51
2:H:138:MET:HA	2:H:141:ILE:HG22	1.92	0.51
1:A:84:PRO:HG2	1:A:173:PRO:HG3	1.92	0.51
3:C:282:MET:O	3:C:285:ILE:HB	2.10	0.51
3:C:176:VAL:CG1	3:C:177:ALA:N	2.73	0.51
3:C:35:TRP:CE3	3:C:36:TRP:HB3	2.45	0.51
10:X:563:UNK:O	10:X:566:UNK:N	2.43	0.51
4:D:100:ASP:CB	4:D:103:ARG:HB2	2.40	0.51
3:I:280:SER:O	3:I:434:ALA:HB1	2.10	0.51
8:U:55:UNK:O	8:U:58:UNK:N	2.43	0.51
3:I:80:PRO:HB2	3:I:83:GLU:HB3	1.92	0.51
3:C:227:VAL:HG12	3:C:227:VAL:O	2.09	0.51
8:U:43:UNK:O	8:U:47:UNK:N	2.42	0.51
4:J:291:LEU:N	4:J:291:LEU:CD1	2.73	0.51
2:H:110:ALA:HA	11:H:1496:CLA:C20	2.40	0.51
2:H:220:ARG:CD	2:H:221:PRO:HD2	2.41	0.51
11:C:1466:CLA:HBA1	11:C:1466:CLA:HBD	1.93	0.51
2:B:164:PRO:HB2	11:B:1487:CLA:O1D	2.10	0.51
5:K:51:ARG:O	5:K:53:ASP:N	2.43	0.51
2:B:263:THR:CG2	2:B:448:ARG:CZ	2.88	0.51
10:X:177:UNK:O	10:X:180:UNK:N	2.43	0.51
5:E:37:PHE:CE1	5:E:42:LEU:CB	2.93	0.51
9:V:30:LYS:HG2	9:V:118:HIS:CE1	2.45	0.51
3:I:418:ASN:CA	3:I:419:PHE:N	2.74	0.51
10:X:516:UNK:O	10:X:518:UNK:N	2.44	0.51
1:G:60:ILE:HG23	1:G:61:ASP:N	2.25	0.51
6:L:29:PRO:O	6:L:33:PHE:HD1	1.92	0.51
2:H:138:MET:O	2:H:140:GLY:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:1486:CLA:HMB1	11:H:1486:CLA:HBB1	1.93	0.51
1:A:122:GLY:C	1:A:124:SER:N	2.64	0.51
4:D:152:VAL:HG23	4:D:279:LEU:HB3	1.91	0.51
2:B:37:MET:HG2	2:B:62:VAL:HG21	1.92	0.51
3:I:280:SER:HA	3:I:434:ALA:HA	1.92	0.51
4:J:274:VAL:HB	4:J:275:PRO:CD	2.37	0.51
3:C:109:PHE:O	3:C:113:VAL:HG23	2.11	0.51
1:G:69:GLY:C	1:G:75:ASN:OD1	2.49	0.51
5:K:8:ARG:CB	5:K:9:PRO:CD	2.88	0.51
7:P:160:UNK:O	7:P:161:UNK:C	2.59	0.51
1:A:326:LEU:O	1:A:329:GLU:N	2.43	0.51
4:J:329:MET:O	4:J:330:ALA:C	2.47	0.51
1:G:193:LEU:HB3	4:J:179:PHE:CE1	2.45	0.51
5:K:31:PHE:CE1	6:L:35:GLY:HA2	2.46	0.51
5:K:35:TRP:CD2	6:L:39:ALA:HB2	2.45	0.51
1:A:107:TYR:C	1:A:109:GLY:N	2.56	0.51
4:D:152:VAL:HG12	11:D:1351:CLA:H43	1.92	0.51
4:D:181:PHE:CZ	4:D:185:PHE:CE1	2.98	0.51
1:A:93:PHE:C	1:A:95:PRO:HD3	2.31	0.51
3:C:116:VAL:CG2	3:C:117:VAL:H	2.23	0.51
3:C:74:HIS:CD2	3:C:74:HIS:N	2.78	0.51
2:B:288:VAL:HG23	2:B:289:GLN:H	1.75	0.51
1:A:159:LEU:HD11	1:A:163:ILE:HD11	1.91	0.51
1:G:122:GLY:C	1:G:124:SER:N	2.64	0.51
4:J:9:PRO:O	4:J:10:ALA:CB	2.58	0.51
10:X:422:UNK:O	10:X:423:UNK:C	2.58	0.51
1:G:32:TRP:O	1:G:35:VAL:N	2.42	0.51
9:T:30:LYS:O	9:T:34:GLN:HG3	2.10	0.51
1:A:54:ALA:CB	1:A:72:LEU:HD12	2.40	0.51
4:J:136:VAL:HG12	4:J:136:VAL:O	2.09	0.51
4:D:330:ALA:O	4:D:333:ASP:N	2.37	0.51
1:G:210:LEU:HD12	1:G:210:LEU:C	2.31	0.51
4:J:296:TYR:O	4:J:296:TYR:CD2	2.63	0.51
4:J:296:TYR:CE1	4:J:319:LEU:HD23	2.46	0.51
6:L:37:ILE:HA	6:L:40:MET:HE3	1.91	0.51
2:H:68:ARG:CG	2:H:69:LEU:N	2.74	0.51
1:A:83:VAL:HG22	4:D:314:PHE:CE1	2.45	0.51
3:C:430:HIS:NE2	11:C:1460:CLA:ND	2.59	0.51
1:A:132:GLU:C	1:A:134:SER:H	2.13	0.51
3:I:367:GLU:O	3:I:370:ARG:HB2	2.11	0.51
1:A:93:PHE:O	1:A:95:PRO:HD3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:143:ILE:N	4:J:220:ASN:HD21	2.08	0.51
10:Y:59:UNK:C	10:Y:61:UNK:N	2.72	0.51
10:X:184:UNK:O	10:X:185:UNK:C	2.59	0.51
1:G:120:LEU:O	1:G:124:SER:N	2.44	0.51
7:O:160:UNK:O	7:O:161:UNK:C	2.59	0.51
10:Y:422:UNK:O	10:Y:423:UNK:C	2.59	0.51
1:G:132:GLU:C	1:G:134:SER:H	2.15	0.51
2:H:40:TYR:O	2:H:41:GLU:C	2.48	0.51
3:C:225:VAL:HG22	3:C:289:PHE:HD1	1.76	0.51
4:D:62:GLY:C	4:D:63:LEU:HD12	2.31	0.51
10:X:568:UNK:O	10:X:569:UNK:C	2.58	0.51
2:B:246:PHE:CE1	2:B:463:PHE:HB2	2.40	0.51
3:C:80:PRO:HB2	3:C:83:GLU:CB	2.41	0.51
3:I:235:GLY:HA2	3:I:238:ILE:HD12	1.93	0.51
10:Y:264:UNK:O	10:Y:265:UNK:C	2.57	0.51
3:C:330:SER:HB3	7:O:56:UNK:O	2.10	0.51
1:G:118:HIS:O	1:G:119:PHE:C	2.49	0.51
3:I:35:TRP:O	3:I:37:ALA:N	2.43	0.51
3:I:449:ARG:NH1	3:I:449:ARG:CG	2.53	0.51
2:H:61:PHE:CZ	11:H:1488:CLA:HBB1	2.45	0.51
1:A:112:TYR:CE1	1:A:116:ILE:CD1	2.93	0.51
1:A:140:ARG:O	4:D:220:ASN:HB3	2.10	0.51
4:J:209:LEU:C	4:J:209:LEU:CD2	2.80	0.51
2:H:280:PHE:CE2	2:H:312:TYR:HB3	2.46	0.51
3:C:322:GLN:HE22	3:C:381:LYS:HA	1.76	0.51
10:X:203:UNK:O	10:X:204:UNK:C	2.58	0.51
8:U:63:UNK:O	8:U:64:UNK:CB	2.58	0.51
2:H:475:PHE:CZ	4:J:134:ARG:HB2	2.46	0.51
1:A:54:ALA:HB2	1:A:72:LEU:HD12	1.93	0.51
10:X:459:UNK:O	10:X:460:UNK:C	2.56	0.51
4:D:210:LEU:HD11	4:D:270:PHE:CD2	2.46	0.51
3:C:385:GLN:HB3	3:C:386:PRO:HD2	1.93	0.51
1:G:132:GLU:C	1:G:134:SER:N	2.63	0.51
1:G:207:GLY:O	1:G:208:GLY:C	2.49	0.51
1:G:317:TRP:CG	4:J:177:ALA:HB2	2.46	0.51
3:I:36:TRP:O	11:I:1466:CLA:H43	2.10	0.51
2:H:462:PHE:HE1	11:H:1494:CLA:HMB3	1.76	0.51
3:C:281:MET:O	3:C:282:MET:C	2.49	0.51
3:C:127:PHE:CE2	11:C:1471:CLA:HBC1	2.45	0.51
2:B:220:ARG:CB	2:B:221:PRO:HD2	2.41	0.51
2:B:67:ALA:HA	2:B:71:VAL:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:93:ALA:O	3:I:94:THR:C	2.49	0.51
3:I:455:PHE:O	3:I:456:GLU:CG	2.59	0.51
1:A:220:THR:O	4:D:139:ARG:HD2	2.11	0.51
2:B:314:TYR:HA	2:B:427:GLY:HA3	1.92	0.51
5:E:74:GLN:O	5:E:75:GLN:C	2.47	0.51
4:D:172:SER:O	4:D:173:PHE:HB2	2.11	0.51
1:G:93:PHE:C	1:G:95:PRO:HD3	2.32	0.51
10:X:264:UNK:O	10:X:265:UNK:C	2.59	0.51
10:X:64:UNK:O	10:X:65:UNK:C	2.57	0.51
3:I:24:THR:O	3:I:25:ASN:CB	2.58	0.51
4:J:52:THR:O	4:J:66:SER:HA	2.10	0.50
5:K:38:VAL:HG11	6:L:40:MET:HG2	1.91	0.50
2:H:24:LEU:HB3	2:H:111:ALA:CB	2.41	0.50
4:D:39:PRO:O	4:D:43:LEU:CB	2.59	0.50
11:C:1463:CLA:HAC1	11:C:1463:CLA:H92	1.92	0.50
4:J:213:ILE:O	4:J:214:HIS:C	2.49	0.50
2:B:61:PHE:O	2:B:62:VAL:C	2.48	0.50
2:B:202:HIS:HE1	11:B:1484:CLA:NB	2.09	0.50
2:H:424:ALA:C	2:H:426:PHE:H	2.13	0.50
3:C:72:LEU:O	3:C:73:ALA:C	2.49	0.50
1:A:315:ASN:HA	1:A:319:ASP:OD2	2.11	0.50
2:B:194:ASN:OD1	2:B:194:ASN:C	2.50	0.50
10:Y:201:UNK:O	10:Y:202:UNK:C	2.59	0.50
10:X:262:UNK:O	10:X:263:UNK:C	2.58	0.50
7:O:127:UNK:O	7:O:129:UNK:N	2.44	0.50
10:Y:412:UNK:C	10:Y:414:UNK:N	2.72	0.50
1:G:176:ILE:HG23	1:G:180:PHE:HE1	1.76	0.50
3:I:156:LYS:O	3:I:157:MET:C	2.50	0.50
1:A:116:ILE:CD1	1:A:158:PHE:HD1	2.24	0.50
4:D:126:MET:CE	4:D:146:PHE:HB3	2.42	0.50
1:A:145:VAL:HA	1:A:148:SER:HB3	1.93	0.50
3:C:39:ASN:HB2	11:C:1466:CLA:HAA2	1.92	0.50
3:I:370:ARG:HA	3:I:375:LEU:H	1.76	0.50
3:C:455:PHE:O	3:C:456:GLU:CB	2.59	0.50
3:I:376:ASP:HB2	3:I:379:LYS:CG	2.35	0.50
1:A:193:LEU:HD13	4:D:179:PHE:HB3	1.91	0.50
1:A:248:ILE:CD1	4:D:235:PHE:HZ	2.17	0.50
4:J:16:ASP:O	4:J:18:LEU:N	2.45	0.50
1:G:211:PHE:CE2	1:G:274:PHE:CE2	2.99	0.50
9:V:87:GLU:CD	9:V:96:ARG:HH22	2.15	0.50
9:V:64:PRO:HD2	9:V:66:ARG:NH2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:93:TRP:HH2	11:J:1353:CLA:HBA2	1.76	0.50
3:C:150:ASP:CB	3:C:271:TYR:HE2	2.25	0.50
2:B:27:THR:CG2	2:B:107:LEU:HD13	2.37	0.50
2:B:37:MET:HG2	2:B:62:VAL:CG2	2.42	0.50
3:I:180:MET:HG3	3:I:181:PHE:N	2.27	0.50
5:E:18:ARG:O	5:E:21:VAL:HB	2.11	0.50
3:C:308:GLU:O	3:C:311:GLN:HB2	2.12	0.50
2:H:193:TYR:CZ	2:H:259:GLY:HA2	2.46	0.50
9:T:134:LYS:O	9:T:137:TYR:N	2.43	0.50
4:J:222:LEU:HA	4:J:244:TYR:HA	1.93	0.50
10:Y:270:UNK:O	10:Y:271:UNK:C	2.60	0.50
7:P:163:UNK:O	7:P:164:UNK:O	2.29	0.50
1:G:177:SER:O	1:G:180:PHE:N	2.44	0.50
3:I:56:HIS:O	3:I:57:ALA:C	2.50	0.50
4:J:313:THR:C	4:J:315:TYR:H	2.13	0.50
1:A:60:ILE:HB	1:A:83:VAL:HG11	1.91	0.50
1:G:141:PRO:HG2	3:I:446:GLY:C	2.30	0.50
2:B:397:VAL:O	2:B:399:VAL:N	2.44	0.50
5:K:10:PHE:HE2	6:L:19:ARG:CZ	2.24	0.50
2:B:270:PRO:O	2:B:271:THR:CG2	2.59	0.50
2:B:197:GLY:O	2:B:199:VAL:N	2.43	0.50
10:Y:356:UNK:O	10:Y:357:UNK:C	2.59	0.50
8:U:66:UNK:O	8:U:70:UNK:N	2.45	0.50
5:K:74:GLN:O	5:K:75:GLN:C	2.49	0.50
10:Y:573:UNK:O	10:Y:574:UNK:C	2.60	0.50
4:J:330:ALA:O	4:J:333:ASP:N	2.37	0.50
1:G:288:LEU:O	1:G:289:GLY:C	2.48	0.50
3:I:53:HIS:NE2	11:I:1467:CLA:NB	2.60	0.50
3:I:281:MET:O	3:I:282:MET:C	2.50	0.50
2:H:68:ARG:HH22	11:H:1485:CLA:HED3	1.76	0.50
3:I:188:THR:HG21	3:I:298:PRO:CB	2.41	0.50
3:I:298:PRO:O	3:I:299:SER:HB3	2.10	0.50
6:L:21:VAL:O	6:L:25:THR:HG23	2.12	0.50
8:S:14:UNK:C	8:S:16:UNK:N	2.72	0.50
1:A:305:SER:O	1:A:313:VAL:HG13	2.11	0.50
10:X:68:UNK:C	10:X:70:UNK:N	2.74	0.50
1:G:323:ARG:HG3	4:J:329:MET:HA	1.94	0.50
2:H:15:ASP:CA	2:H:16:PRO:CD	2.88	0.50
2:H:68:ARG:HG3	2:H:69:LEU:N	2.27	0.50
3:C:188:THR:CG2	3:C:300:GLU:OE1	2.60	0.50
3:C:230:LEU:HD12	3:C:230:LEU:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:142:TRP:CH2	1:G:273:PHE:HE1	2.30	0.50
1:G:37:MET:O	1:G:38:ILE:C	2.49	0.50
2:B:397:VAL:C	2:B:399:VAL:H	2.15	0.50
4:D:159:ILE:O	4:D:160:TYR:C	2.50	0.50
4:D:88:SER:O	4:D:167:TRP:CZ3	2.65	0.50
1:A:255:PHE:CZ	1:A:259:ILE:HD12	2.46	0.50
4:D:272:LEU:HD21	4:D:276:VAL:HG21	1.93	0.50
2:H:290:ALA:O	2:H:294:SER:HB3	2.12	0.50
1:G:258:LEU:CD1	4:J:128:ARG:NH2	2.75	0.50
5:E:37:PHE:CE2	5:E:43:ALA:HA	2.47	0.50
5:E:8:ARG:CB	5:E:9:PRO:CD	2.87	0.50
3:I:80:PRO:HB2	3:I:83:GLU:CB	2.40	0.50
1:A:311:GLY:HA3	9:V:125:ILE:CG2	2.41	0.50
10:X:168:UNK:O	10:X:169:UNK:C	2.59	0.50
7:P:127:UNK:O	7:P:129:UNK:N	2.45	0.50
10:X:412:UNK:C	10:X:414:UNK:N	2.73	0.50
1:G:60:ILE:HB	1:G:83:VAL:HG11	1.93	0.50
3:I:119:LEU:O	3:I:122:SER:OG	2.30	0.50
4:J:190:ASN:HB2	4:J:296:TYR:HD1	1.76	0.50
6:L:33:PHE:HA	6:L:36:ALA:HB3	1.94	0.50
11:H:1485:CLA:HMC2	11:H:1492:CLA:H191	1.93	0.50
1:A:84:PRO:HG3	1:A:112:TYR:CE2	2.47	0.50
1:A:288:LEU:HD13	3:C:432:VAL:HG22	1.92	0.50
3:I:366:LEU:HD12	3:I:366:LEU:O	2.12	0.50
4:J:209:LEU:HD21	4:J:213:ILE:HD11	1.92	0.50
3:I:178:LYS:CA	3:I:182:PHE:HB2	2.40	0.50
2:H:397:VAL:C	2:H:399:VAL:H	2.15	0.50
4:J:183:LEU:O	4:J:184:PHE:C	2.49	0.50
2:B:366:PHE:HD2	2:B:425:ILE:HD11	1.75	0.50
7:O:123:UNK:O	7:O:126:UNK:N	2.45	0.50
8:S:29:UNK:O	8:S:30:UNK:C	2.59	0.50
10:Y:168:UNK:O	10:Y:169:UNK:C	2.60	0.50
5:E:82:GLN:O	5:E:84:LYS:N	2.43	0.50
11:H:1496:CLA:H171	11:H:1497:CLA:HMD1	1.93	0.50
11:A:1342:CLA:H143	12:A:1345:PHO:H62	1.93	0.50
2:B:135:LEU:O	2:B:137:LYS:N	2.45	0.50
2:B:351:GLY:O	2:B:353:GLU:N	2.45	0.50
2:H:346:PHE:O	2:H:353:GLU:O	2.29	0.50
10:Y:203:UNK:O	10:Y:204:UNK:C	2.59	0.50
1:G:266:ASN:O	1:G:267:ASN:O	2.30	0.50
10:Y:526:UNK:O	10:Y:529:UNK:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:17:UNK:O	10:Y:18:UNK:C	2.59	0.50
1:G:276:ALA:HB2	4:J:215:GLY:C	2.32	0.50
1:G:107:TYR:O	1:G:109:GLY:N	2.44	0.50
6:L:14:PRO:O	6:L:15:ILE:HB	2.12	0.50
11:H:1486:CLA:HMC1	11:H:1486:CLA:HBC2	1.94	0.50
2:H:63:LEU:O	2:H:64:PRO:C	2.48	0.50
1:A:118:HIS:O	1:A:119:PHE:C	2.47	0.50
1:A:290:ILE:CD1	11:A:1342:CLA:OBD	2.58	0.50
12:A:1345:PHO:CAB	4:D:205:LEU:HD21	2.41	0.50
1:A:184:ILE:HA	11:A:1342:CLA:HBC1	1.94	0.50
4:D:53:THR:HG21	6:F:37:ILE:HD11	1.93	0.50
3:C:159:THR:HA	3:C:252:ILE:HA	1.94	0.50
4:J:209:LEU:HD23	4:J:209:LEU:O	2.12	0.50
2:B:220:ARG:CD	2:B:221:PRO:HD2	2.41	0.50
2:B:400:SER:HB3	2:B:410:THR:CB	2.27	0.50
5:E:18:ARG:NH1	10:X:564:UNK:CB	2.75	0.50
2:H:418:LYS:O	2:H:419:SER:C	2.48	0.50
5:E:10:PHE:HD2	6:F:19:ARG:NH2	2.09	0.50
5:E:10:PHE:HE2	6:F:19:ARG:HE	1.60	0.50
3:I:322:GLN:HE22	3:I:381:LYS:HA	1.77	0.50
3:C:318:LEU:HD11	3:C:328:VAL:HG21	1.93	0.50
5:K:41:GLY:O	5:K:44:TYR:HB2	2.11	0.50
10:Y:225:UNK:O	10:Y:226:UNK:C	2.59	0.50
10:X:423:UNK:O	10:X:424:UNK:C	2.60	0.50
2:H:178:VAL:O	2:H:179:GLN:HG3	2.11	0.50
3:I:120:ILE:C	3:I:122:SER:N	2.66	0.49
3:I:170:ILE:CG2	3:I:171:GLY:N	2.75	0.49
3:I:169:GLY:CA	3:I:244:CYS:SG	3.00	0.49
2:H:211:ILE:O	2:H:214:LEU:HG	2.10	0.49
1:A:183:MET:HE2	11:A:1343:CLA:HBC3	1.92	0.49
1:A:210:LEU:HD12	1:A:210:LEU:O	2.12	0.49
3:C:449:ARG:NH1	11:C:1463:CLA:O1D	2.45	0.49
1:A:114:LEU:O	1:A:115:ILE:C	2.49	0.49
2:B:236:THR:HG23	2:B:237:VAL:N	2.27	0.49
1:G:34:GLY:C	1:G:36:ILE:N	2.65	0.49
4:J:276:VAL:O	4:J:280:TRP:HD1	1.95	0.49
2:H:415:PRO:O	2:H:419:SER:N	2.37	0.49
1:A:69:GLY:C	1:A:75:ASN:OD1	2.51	0.49
2:H:437:LEU:O	2:H:439:SER:N	2.43	0.49
3:I:74:HIS:H	3:I:74:HIS:CD2	2.28	0.49
5:K:37:PHE:CE2	5:K:43:ALA:HA	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S:72:UNK:O	8:S:73:UNK:C	2.57	0.49
10:Y:405:UNK:O	10:Y:409:UNK:N	2.44	0.49
10:X:263:UNK:O	10:X:264:UNK:C	2.60	0.49
2:B:408:GLY:O	2:B:409:GLN:HB2	2.12	0.49
1:A:65:GLU:CD	4:D:312:GLU:OE1	2.50	0.49
10:X:526:UNK:C	10:X:528:UNK:N	2.73	0.49
12:G:1345:PHO:HBB2	4:J:205:LEU:HD21	1.93	0.49
1:G:60:ILE:HD12	1:G:84:PRO:HD2	1.94	0.49
3:I:166:ILE:HD11	3:I:249:ILE:HD13	1.95	0.49
4:J:191:TRP:HA	4:J:191:TRP:HE3	1.76	0.49
1:A:279:PRO:HB2	12:A:1345:PHO:HBC1	1.94	0.49
6:F:29:PRO:O	6:F:33:PHE:HD1	1.95	0.49
3:C:40:ALA:HA	3:C:43:ILE:HG23	1.94	0.49
1:A:133:LEU:HB2	4:D:252:PHE:CE2	2.47	0.49
2:B:139:PHE:HB2	11:B:1491:CLA:CHD	2.42	0.49
2:B:468:TRP:HD1	4:D:144:ILE:HD11	1.73	0.49
4:J:235:PHE:CD2	4:J:243:THR:HG21	2.47	0.49
10:Y:225:UNK:O	10:Y:227:UNK:N	2.46	0.49
10:Y:418:UNK:O	10:Y:419:UNK:C	2.59	0.49
10:X:24:UNK:O	10:X:25:UNK:C	2.61	0.49
10:Y:255:UNK:O	10:Y:256:UNK:C	2.61	0.49
10:Y:221:UNK:O	10:Y:222:UNK:C	2.60	0.49
10:X:214:UNK:O	10:X:218:UNK:N	2.44	0.49
2:B:478:VAL:O	2:B:481:GLY:N	2.45	0.49
1:G:277:ALA:O	1:G:278:TRP:C	2.50	0.49
3:I:272:LEU:O	3:I:273:SER:C	2.49	0.49
2:H:69:LEU:HB3	11:H:1487:CLA:CMA	2.42	0.49
2:H:264:PRO:HB2	2:H:267:LEU:HD12	1.94	0.49
1:A:172:MET:SD	1:A:179:THR:HG23	2.53	0.49
1:A:285:PHE:O	1:A:289:GLY:N	2.35	0.49
3:C:279:LEU:O	3:C:280:SER:C	2.50	0.49
4:D:296:TYR:O	4:D:297:ASP:HB3	2.12	0.49
3:C:242:LEU:HD12	3:C:245:ILE:HD11	1.95	0.49
4:D:276:VAL:O	4:D:280:TRP:HD1	1.95	0.49
8:S:91:UNK:O	8:S:92:UNK:CB	2.59	0.49
1:G:35:VAL:O	1:G:35:VAL:HG12	2.11	0.49
10:Y:526:UNK:C	10:Y:528:UNK:N	2.72	0.49
9:V:122:GLU:N	9:V:123:PRO:HD2	2.27	0.49
10:X:426:UNK:O	10:X:427:UNK:C	2.60	0.49
3:I:284:PHE:O	3:I:285:ILE:C	2.50	0.49
2:H:94:GLU:HG3	2:H:95:GLY:H	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:145:VAL:HA	1:G:148:SER:HB3	1.93	0.49
3:C:370:ARG:HE	3:C:371:GLY:N	2.06	0.49
1:G:34:GLY:C	1:G:36:ILE:H	2.15	0.49
2:B:397:VAL:O	2:B:411:PHE:O	2.30	0.49
1:A:330:VAL:HG12	4:D:347:PRO:CA	2.36	0.49
9:T:136:TYR:O	9:T:137:TYR:CG	2.65	0.49
3:C:440:GLY:O	3:C:441:HIS:C	2.50	0.49
4:D:96:GLU:HA	4:D:96:GLU:OE1	2.12	0.49
3:I:240:ILE:HA	3:I:243:ILE:HB	1.93	0.49
4:J:181:PHE:CZ	4:J:185:PHE:HE1	2.31	0.49
4:J:186:GLN:HB2	11:J:1351:CLA:HBC1	1.93	0.49
3:C:287:THR:OG1	3:C:288:CYS:N	2.46	0.49
4:D:296:TYR:CD2	4:D:296:TYR:O	2.65	0.49
17:F:1046:BCR:H331	17:F:1046:BCR:H343	1.94	0.49
3:C:270:ALA:C	3:C:274:TYR:HD2	2.16	0.49
3:C:299:SER:HB2	3:C:303:GLY:O	2.11	0.49
2:B:145:LEU:O	2:B:146:ALA:C	2.50	0.49
11:B:1496:CLA:H13	11:B:1497:CLA:HMD2	1.94	0.49
2:B:136:PRO:HG2	2:B:221:PRO:HG3	1.94	0.49
3:I:299:SER:HB2	3:I:303:GLY:O	2.13	0.49
1:G:309:ALA:O	9:T:2:GLU:CB	2.60	0.49
2:B:280:PHE:O	2:B:283:GLU:HB3	2.13	0.49
2:B:243:ALA:O	2:B:246:PHE:HB3	2.13	0.49
3:C:109:PHE:HD2	3:C:110:PRO:HD3	1.77	0.49
3:C:235:GLY:HA2	3:C:238:ILE:CD1	2.43	0.49
3:C:387:TRP:O	3:C:390:ARG:HG2	2.11	0.49
2:H:272:ARG:NH1	4:J:164:GLN:HA	2.27	0.49
2:H:160:GLY:HA2	2:H:163:GLY:HA2	1.94	0.49
1:A:278:TRP:CB	1:A:279:PRO:HD3	2.36	0.49
1:A:58:VAL:HB	1:A:83:VAL:HB	1.94	0.49
4:D:191:TRP:CE3	4:D:289:LEU:HD11	2.48	0.49
4:D:313:THR:OG1	4:D:315:TYR:HB3	2.13	0.49
1:A:142:TRP:O	1:A:143:ILE:C	2.50	0.49
2:B:138:MET:C	2:B:140:GLY:N	2.65	0.49
2:B:263:THR:O	2:B:448:ARG:NH1	2.45	0.49
2:B:424:ALA:C	2:B:426:PHE:H	2.16	0.49
3:C:109:PHE:CD2	3:C:110:PRO:HD3	2.47	0.49
1:A:219:VAL:HG11	4:D:268:HIS:CD2	2.47	0.49
1:G:93:PHE:CE1	1:G:95:PRO:HG2	2.48	0.49
6:L:17:THR:O	6:L:20:TRP:HB3	2.13	0.49
2:B:278:SER:O	2:B:281:GLN:HG2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:X:418:UNK:O	10:X:419:UNK:C	2.61	0.49
3:I:430:HIS:NE2	11:I:1460:CLA:ND	2.61	0.49
3:I:265:ILE:H	3:I:274:TYR:HH	1.58	0.49
1:A:184:ILE:O	1:A:185:VAL:C	2.51	0.49
4:D:291:LEU:CD1	4:D:291:LEU:N	2.76	0.49
11:C:1471:CLA:HHD	11:C:1471:CLA:HBC3	1.95	0.49
2:B:24:LEU:HD12	11:B:1496:CLA:HED2	1.94	0.49
2:B:466:HIS:O	2:B:468:TRP:N	2.45	0.49
2:H:149:LEU:C	11:H:1484:CLA:HBC2	2.32	0.49
1:G:330:VAL:HG11	4:J:328:TRP:HZ2	1.78	0.49
2:B:18:ARG:O	2:B:21:ALA:HB3	2.13	0.49
10:X:170:UNK:O	10:X:171:UNK:C	2.61	0.49
4:D:199:MET:O	4:D:200:GLY:C	2.51	0.49
1:A:26:ASN:CA	4:D:255:GLN:NE2	2.76	0.49
7:O:163:UNK:O	7:O:164:UNK:O	2.31	0.49
1:G:83:VAL:HG13	4:J:314:PHE:CZ	2.47	0.49
4:J:186:GLN:CB	11:J:1351:CLA:HBC1	2.43	0.49
4:J:253:TRP:O	4:J:254:SER:C	2.50	0.49
1:A:141:PRO:HG2	3:C:446:GLY:C	2.33	0.49
11:C:1464:CLA:HMC2	11:C:1465:CLA:H121	1.94	0.49
3:C:156:LYS:O	3:C:157:MET:C	2.51	0.49
3:C:250:TRP:O	3:C:250:TRP:HD1	1.94	0.49
4:D:253:TRP:O	4:D:254:SER:C	2.51	0.49
3:I:319:ILE:HD11	3:I:384:ILE:HD11	1.95	0.49
3:I:176:VAL:HG23	3:I:234:VAL:HG12	1.94	0.49
2:H:309:LEU:O	2:H:310:ALA:C	2.50	0.49
1:A:330:VAL:HG21	4:D:328:TRP:CZ2	2.48	0.49
1:A:330:VAL:HG11	4:D:328:TRP:HZ2	1.76	0.49
9:T:55:ARG:HG3	9:T:131:GLY:HA2	1.95	0.49
4:J:188:PHE:CE1	4:J:326:ARG:HG2	2.48	0.49
1:A:89:ILE:HD11	1:A:108:ASN:HB3	1.95	0.49
10:Y:357:UNK:O	10:Y:358:UNK:C	2.60	0.49
8:U:20:UNK:C	8:U:22:UNK:H	2.26	0.49
2:H:205:ALA:O	2:H:209:GLY:N	2.45	0.49
1:A:326:LEU:C	1:A:328:MET:N	2.66	0.49
1:G:326:LEU:C	1:G:328:MET:N	2.64	0.49
1:G:186:PHE:CD2	1:G:192:ILE:CD1	2.86	0.49
1:G:58:VAL:HB	1:G:83:VAL:HB	1.95	0.49
4:J:122:LEU:CD2	11:J:1351:CLA:H92	2.28	0.49
4:J:181:PHE:CZ	4:J:185:PHE:CE1	3.01	0.49
4:J:53:THR:HG21	6:L:37:ILE:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:429:SER:O	3:C:432:VAL:HB	2.12	0.49
4:D:174:GLY:O	4:D:178:ILE:HG13	2.12	0.49
5:E:63:ILE:N	5:E:64:PRO:HD3	2.28	0.49
1:A:137:LEU:HB2	1:A:139:MET:CE	2.42	0.49
3:C:259:TRP:O	3:C:260:ALA:C	2.52	0.49
2:B:61:PHE:CZ	11:B:1488:CLA:HBB1	2.48	0.49
2:B:347:ARG:HB3	2:B:351:GLY:CA	2.28	0.49
4:J:263:ASN:C	4:J:265:ARG:N	2.66	0.49
1:A:330:VAL:CG1	4:D:347:PRO:CA	2.89	0.49
9:T:128:ASP:HB3	9:T:134:LYS:HG3	1.95	0.49
2:H:230:ARG:O	2:H:231:MET:C	2.51	0.49
2:B:463:PHE:C	2:B:465:GLY:N	2.66	0.49
10:X:168:UNK:O	10:X:170:UNK:N	2.46	0.49
10:Y:64:UNK:O	10:Y:65:UNK:C	2.60	0.49
3:I:27:ASP:O	3:I:31:SER:HB2	2.12	0.49
1:G:76:ASN:OD1	1:G:76:ASN:C	2.51	0.49
1:G:290:ILE:O	1:G:292:THR:N	2.45	0.49
3:I:35:TRP:CE3	3:I:36:TRP:HB3	2.47	0.49
3:I:442:LEU:HD21	11:I:1463:CLA:C1B	2.43	0.49
4:J:54:PHE:HB3	5:K:47:PHE:CG	2.48	0.49
4:J:57:SER:O	4:J:58:TRP:C	2.50	0.49
6:L:11:VAL:CG1	6:L:12:SER:N	2.76	0.49
2:H:24:LEU:HD23	2:H:111:ALA:HA	1.94	0.49
4:J:199:MET:O	4:J:200:GLY:C	2.51	0.49
2:B:69:LEU:HB3	11:B:1487:CLA:CMA	2.43	0.49
2:H:397:VAL:O	2:H:399:VAL:N	2.43	0.49
3:I:159:THR:HA	3:I:252:ILE:HA	1.94	0.49
2:H:52:LEU:HD23	2:H:311:PHE:CE2	2.48	0.49
8:U:4:UNK:O	8:U:7:UNK:CB	2.61	0.49
7:O:141:UNK:O	7:O:149:UNK:CB	2.61	0.49
5:E:41:GLY:O	5:E:42:LEU:C	2.50	0.49
10:X:219:UNK:O	10:X:220:UNK:C	2.60	0.49
4:D:116:LEU:O	4:D:119:ALA:HB3	2.12	0.49
10:X:573:UNK:O	10:X:574:UNK:C	2.61	0.49
8:S:43:UNK:O	8:S:47:UNK:N	2.46	0.49
10:X:405:UNK:O	10:X:409:UNK:N	2.46	0.49
8:U:99:UNK:O	8:U:100:UNK:C	2.59	0.49
4:J:279:LEU:CD1	12:J:1352:PHO:HBC3	2.42	0.48
5:K:63:ILE:O	5:K:63:ILE:HG22	2.12	0.48
2:H:113:TRP:CD1	11:H:1496:CLA:H191	2.48	0.48
1:A:278:TRP:HB3	1:A:279:PRO:CD	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:445:ALA:CB	11:C:1463:CLA:HED1	2.36	0.48
3:C:178:LYS:CA	3:C:182:PHE:HB2	2.42	0.48
4:J:126:MET:CE	4:J:146:PHE:HB3	2.43	0.48
2:B:462:PHE:HA	11:B:1492:CLA:CMC	2.43	0.48
3:I:304:PRO:C	3:I:305:THR:CG2	2.81	0.48
2:B:263:THR:O	2:B:448:ARG:NH2	2.46	0.48
3:I:82:TYR:HD2	3:I:302:TYR:O	1.96	0.48
2:B:415:PRO:O	2:B:418:LYS:N	2.46	0.48
4:D:235:PHE:CD2	4:D:243:THR:HG21	2.47	0.48
10:Y:59:UNK:O	10:Y:62:UNK:N	2.46	0.48
8:S:63:UNK:O	8:S:64:UNK:CB	2.60	0.48
1:G:122:GLY:O	1:G:125:CYS:N	2.45	0.48
3:C:28:GLN:O	3:C:30:SER:N	2.46	0.48
3:I:52:ALA:HA	11:I:1469:CLA:CMB	2.41	0.48
1:G:214:MET:CE	12:J:1352:PHO:CED	2.91	0.48
6:L:40:MET:O	6:L:43:ILE:HG13	2.13	0.48
2:H:263:THR:O	2:H:448:ARG:NH2	2.45	0.48
1:A:161:TYR:HA	1:A:294:ALA:HB1	1.95	0.48
4:D:48:TRP:O	4:D:52:THR:OG1	2.20	0.48
1:A:142:TRP:CZ2	1:A:273:PHE:CE1	3.01	0.48
3:C:449:ARG:HH12	11:C:1463:CLA:HAA1	1.78	0.48
2:B:24:LEU:HB3	2:B:111:ALA:CB	2.43	0.48
4:J:184:PHE:CD1	4:J:184:PHE:C	2.86	0.48
10:X:64:UNK:C	10:X:66:UNK:N	2.74	0.48
10:X:425:UNK:O	10:X:429:UNK:CB	2.61	0.48
1:G:301:ASN:C	1:G:301:ASN:OD1	2.51	0.48
10:Y:410:UNK:O	10:Y:411:UNK:C	2.60	0.48
1:G:201:GLY:HA2	1:G:282:GLY:O	2.13	0.48
11:I:1466:CLA:HBA1	11:I:1466:CLA:HBD	1.94	0.48
3:I:43:ILE:HG22	11:I:1467:CLA:HBC2	1.96	0.48
3:I:265:ILE:N	3:I:274:TYR:HH	2.11	0.48
3:I:150:ASP:CB	3:I:271:TYR:HE2	2.25	0.48
1:G:83:VAL:HG22	4:J:314:PHE:CE1	2.44	0.48
2:H:135:LEU:CB	2:H:136:PRO:CD	2.86	0.48
4:D:171:PRO:HG3	4:D:181:PHE:CD1	2.48	0.48
4:D:57:SER:HB2	4:D:63:LEU:O	2.13	0.48
2:H:149:LEU:HG	11:H:1484:CLA:CBC	2.34	0.48
2:B:178:VAL:O	2:B:179:GLN:HG3	2.12	0.48
2:H:415:PRO:O	2:H:416:THR:C	2.49	0.48
5:E:10:PHE:HE2	6:F:19:ARG:CZ	2.25	0.48
4:D:225:ASP:O	4:D:225:ASP:OD1	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:360:PRO:HB2	2:H:363:PHE:CD2	2.44	0.48
3:I:75:PHE:CZ	3:I:77:PRO:HG3	2.48	0.48
4:D:263:ASN:C	4:D:265:ARG:N	2.65	0.48
2:B:314:TYR:H	2:B:427:GLY:HA3	1.79	0.48
8:S:69:UNK:C	8:S:71:UNK:N	2.77	0.48
8:S:39:UNK:O	8:S:40:UNK:O	2.31	0.48
4:J:9:PRO:O	4:J:10:ALA:HB2	2.12	0.48
10:Y:268:UNK:O	10:Y:269:UNK:C	2.61	0.48
5:K:74:GLN:O	5:K:77:GLU:N	2.45	0.48
10:Y:426:UNK:O	10:Y:427:UNK:C	2.60	0.48
1:A:301:ASN:C	1:A:301:ASN:OD1	2.51	0.48
2:H:236:THR:CB	2:H:473:THR:CG2	2.88	0.48
3:C:225:VAL:HG22	3:C:289:PHE:CD1	2.48	0.48
4:D:192:THR:OG1	4:D:193:LEU:N	2.46	0.48
3:C:442:LEU:HD21	11:C:1463:CLA:C1B	2.43	0.48
1:G:142:TRP:O	1:G:143:ILE:C	2.52	0.48
1:G:142:TRP:CG	4:J:220:ASN:OD1	2.67	0.48
1:G:332:HIS:HD2	1:G:333:GLU:H	1.60	0.48
3:C:354:GLU:C	3:C:356:MET:N	2.63	0.48
7:P:42:UNK:CB	7:P:52:UNK:O	2.61	0.48
3:C:382:ASN:O	3:C:383:ASP:HB2	2.13	0.48
4:D:222:LEU:HA	4:D:244:TYR:HA	1.94	0.48
8:U:73:UNK:O	8:U:74:UNK:C	2.59	0.48
8:U:74:UNK:O	8:U:75:UNK:C	2.61	0.48
8:S:71:UNK:O	8:S:72:UNK:C	2.58	0.48
3:I:28:GLN:O	3:I:30:SER:N	2.46	0.48
3:I:122:SER:O	3:I:123:ALA:C	2.52	0.48
4:J:81:PRO:O	4:J:168:PHE:HD1	1.97	0.48
2:H:263:THR:H	2:H:264:PRO:HD3	1.72	0.48
3:C:288:CYS:O	3:C:289:PHE:C	2.50	0.48
4:D:48:TRP:HB2	4:D:114:ILE:HD13	1.95	0.48
3:C:81:MET:O	3:C:84:GLN:N	2.37	0.48
2:B:114:HIS:NE2	11:B:1497:CLA:NB	2.62	0.48
5:K:16:SER:O	5:K:17:VAL:CB	2.61	0.48
4:J:340:VAL:HG12	4:J:340:VAL:O	2.14	0.48
1:A:255:PHE:CE1	1:A:259:ILE:HD12	2.47	0.48
3:C:358:PHE:C	3:C:360:ASP:H	2.17	0.48
2:H:362:PHE:HE2	4:J:184:PHE:CZ	2.32	0.48
1:A:258:LEU:HD12	4:D:128:ARG:NH2	2.28	0.48
4:J:95:PRO:O	4:J:96:GLU:O	2.31	0.48
10:Y:435:UNK:O	10:Y:438:UNK:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:X:567:UNK:O	10:X:571:UNK:N	2.47	0.48
3:I:440:GLY:O	3:I:441:HIS:C	2.51	0.48
3:I:49:LEU:O	3:I:52:ALA:N	2.47	0.48
4:J:88:SER:O	4:J:167:TRP:HZ3	1.96	0.48
4:J:46:GLY:O	4:J:49:LEU:N	2.45	0.48
2:H:65:PHE:O	2:H:66:MET:C	2.50	0.48
4:D:53:THR:HG22	4:D:67:TYR:CE1	2.48	0.48
4:D:76:VAL:HG12	4:D:77:ALA:N	2.28	0.48
6:F:33:PHE:HA	6:F:36:ALA:HB3	1.96	0.48
2:H:393:GLU:C	2:H:395:GLN:N	2.64	0.48
1:G:221:SER:HB2	4:J:139:ARG:O	2.14	0.48
4:D:46:GLY:O	4:D:49:LEU:N	2.47	0.48
10:Y:263:UNK:O	10:Y:264:UNK:C	2.61	0.48
7:P:127:UNK:O	7:P:128:UNK:C	2.61	0.48
8:S:46:UNK:O	8:S:47:UNK:C	2.61	0.48
10:X:272:UNK:O	10:X:273:UNK:C	2.61	0.48
3:I:382:ASN:O	3:I:383:ASP:HB2	2.12	0.48
3:I:161:LEU:HD21	11:I:1464:CLA:HBB1	1.95	0.48
3:I:171:GLY:O	3:I:172:ALA:C	2.50	0.48
4:J:54:PHE:HE1	6:L:33:PHE:CE2	2.32	0.48
1:A:192:ILE:HG23	1:A:293:MET:HE1	1.95	0.48
6:F:22:ALA:O	6:F:24:HIS:N	2.47	0.48
1:A:127:MET:HB2	1:A:147:TYR:HD1	1.77	0.48
2:B:30:VAL:HG12	11:B:1486:CLA:HHD	1.96	0.48
3:I:178:LYS:O	3:I:178:LYS:HD3	2.14	0.48
4:D:159:ILE:O	4:D:162:LEU:N	2.46	0.48
4:D:87:HIS:HE1	4:D:161:PRO:O	1.96	0.48
2:B:75:TRP:C	2:B:77:GLY:H	2.11	0.48
1:G:330:VAL:CG1	4:J:347:PRO:CA	2.90	0.48
9:T:48:THR:HG1	18:T:1138:HEC:HMD3	1.79	0.48
2:H:372:ASP:O	2:H:374:ASN:N	2.43	0.48
8:U:71:UNK:C	8:U:73:UNK:N	2.76	0.48
10:Y:218:UNK:O	10:Y:219:UNK:C	2.62	0.48
4:J:298:PHE:O	10:Y:129:UNK:O	2.31	0.48
3:I:385:GLN:HB3	3:I:386:PRO:HD2	1.96	0.48
3:I:32:GLY:O	3:I:34:ALA:N	2.43	0.48
2:H:263:THR:O	2:H:448:ARG:NH1	2.46	0.48
4:D:298:PHE:O	4:D:299:ILE:HB	2.14	0.48
2:B:24:LEU:HD23	2:B:111:ALA:HA	1.95	0.48
2:B:471:ALA:O	2:B:472:ARG:C	2.51	0.48
2:B:98:LEU:O	2:B:101:ILE:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:222:SER:O	1:G:246:TYR:CB	2.62	0.48
2:H:258:TYR:O	2:H:259:GLY:O	2.32	0.48
2:H:52:LEU:O	2:H:337:ALA:HB3	2.13	0.48
2:B:426:PHE:O	2:B:426:PHE:CD1	2.67	0.48
1:A:214:MET:O	1:A:217:SER:N	2.47	0.48
8:S:57:UNK:O	8:S:59:UNK:N	2.47	0.48
1:G:159:LEU:HD11	1:G:163:ILE:HD11	1.95	0.48
3:C:227:VAL:CG1	3:C:233:VAL:HG23	2.44	0.48
4:J:224:GLN:HE21	4:J:227:GLU:CB	2.27	0.48
1:A:35:VAL:O	1:A:35:VAL:CG1	2.62	0.48
1:G:32:TRP:O	1:G:35:VAL:HB	2.14	0.48
4:J:152:VAL:HG23	4:J:279:LEU:HB3	1.95	0.48
2:H:215:PHE:HZ	11:H:1490:CLA:HMD3	1.78	0.48
11:H:1494:CLA:OBD	11:H:1495:CLA:HHC	2.13	0.48
1:A:198:HIS:O	1:A:201:GLY:N	2.47	0.48
10:X:331:UNK:O	10:X:332:UNK:C	2.61	0.48
4:D:129:GLN:OE1	4:D:143:ALA:HA	2.14	0.48
3:I:176:VAL:CG1	3:I:177:ALA:N	2.77	0.48
5:K:18:ARG:O	5:K:21:VAL:HB	2.14	0.48
1:A:258:LEU:O	4:D:128:ARG:NH2	2.46	0.48
3:C:69:LEU:HD13	3:C:115:GLY:HA3	1.94	0.48
7:P:141:UNK:O	7:P:149:UNK:CB	2.62	0.48
3:C:75:PHE:CE2	3:C:77:PRO:HG3	2.49	0.48
8:U:71:UNK:O	8:U:72:UNK:C	2.61	0.48
10:Y:578:UNK:O	10:Y:579:UNK:C	2.62	0.48
10:Y:168:UNK:O	10:Y:170:UNK:N	2.47	0.48
4:J:116:LEU:O	4:J:119:ALA:HB3	2.14	0.48
1:G:133:LEU:HB2	4:J:252:PHE:HE2	1.79	0.48
4:J:159:ILE:O	4:J:160:TYR:C	2.51	0.48
4:J:313:THR:OG1	4:J:315:TYR:HB3	2.12	0.48
2:H:234:ILE:O	2:H:237:VAL:N	2.46	0.48
4:D:113:PHE:CZ	17:F:1046:BCR:HC41	2.49	0.48
3:C:53:HIS:NE2	11:C:1467:CLA:NB	2.62	0.48
3:C:170:ILE:HG23	3:C:171:GLY:H	1.78	0.48
3:I:188:THR:HG21	3:I:298:PRO:CA	2.44	0.48
5:K:18:ARG:NH1	10:Y:564:UNK:CB	2.77	0.48
3:I:109:PHE:O	3:I:113:VAL:HG23	2.14	0.48
2:B:52:LEU:O	2:B:337:ALA:HB3	2.13	0.48
1:G:330:VAL:HG21	4:J:328:TRP:CZ2	2.49	0.48
8:U:90:UNK:O	8:U:91:UNK:O	2.32	0.48
10:X:159:UNK:O	10:X:160:UNK:C	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:G:1344:CLA:HBB2	12:J:1352:PHO:H91	1.96	0.47
1:G:279:PRO:HB2	12:G:1345:PHO:HBC1	1.96	0.47
1:G:58:VAL:CG1	1:G:109:GLY:HA3	2.44	0.47
3:I:51:GLY:HA2	3:I:54:VAL:HB	1.96	0.47
4:J:101:PHE:O	4:J:104:TRP:HB3	2.13	0.47
4:D:111:TRP:O	4:D:112:THR:C	2.52	0.47
1:A:134:SER:O	1:A:136:ARG:N	2.42	0.47
3:C:185:LEU:O	3:C:186:TYR:O	2.31	0.47
4:D:213:ILE:O	4:D:214:HIS:C	2.52	0.47
3:I:188:THR:CG2	3:I:300:GLU:OE1	2.61	0.47
4:D:342:PRO:O	4:D:345:VAL:CG2	2.62	0.47
1:G:258:LEU:HD12	4:J:128:ARG:NH2	2.29	0.47
2:B:195:PRO:O	2:B:197:GLY:N	2.46	0.47
3:I:72:LEU:O	3:I:75:PHE:HB3	2.14	0.47
10:Y:404:UNK:O	10:Y:405:UNK:CB	2.62	0.47
10:X:405:UNK:O	10:X:406:UNK:C	2.61	0.47
7:P:26:UNK:O	7:P:27:UNK:C	2.62	0.47
1:G:137:LEU:HD12	1:G:139:MET:HE3	1.97	0.47
1:G:84:PRO:CG	1:G:173:PRO:HD3	2.43	0.47
3:I:284:PHE:O	3:I:286:ALA:N	2.48	0.47
4:J:111:TRP:O	4:J:113:PHE:N	2.47	0.47
4:J:279:LEU:O	4:J:283:ALA:HB2	2.14	0.47
4:J:296:TYR:O	4:J:297:ASP:HB3	2.15	0.47
6:L:24:HIS:HA	6:L:27:ALA:HB3	1.95	0.47
1:A:181:ASN:O	1:A:183:MET:N	2.48	0.47
1:A:288:LEU:O	1:A:289:GLY:C	2.52	0.47
4:D:122:LEU:CD2	11:D:1351:CLA:H92	2.28	0.47
4:D:189:HIS:ND1	4:D:294:ARG:NH1	2.62	0.47
4:D:73:PHE:CE2	4:D:175:VAL:HG21	2.48	0.47
3:C:43:ILE:CG2	11:C:1467:CLA:HMC1	2.29	0.47
3:C:276:LEU:HD11	11:C:1466:CLA:HBB1	1.94	0.47
2:B:162:PHE:CB	11:B:1487:CLA:HMD3	2.44	0.47
2:B:33:TRP:O	2:B:36:SER:HB3	2.14	0.47
2:B:40:TYR:O	2:B:41:GLU:C	2.50	0.47
4:D:88:SER:O	4:D:90:LEU:N	2.48	0.47
2:H:194:ASN:O	2:H:195:PRO:C	2.51	0.47
4:D:103:ARG:O	4:D:104:TRP:C	2.50	0.47
8:S:9:UNK:O	8:S:11:UNK:N	2.47	0.47
2:H:408:GLY:O	2:H:409:GLN:HB2	2.13	0.47
8:U:27:UNK:O	8:U:28:UNK:O	2.32	0.47
3:C:118:HIS:HA	3:C:121:SER:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:8:UNK:O	10:Y:9:UNK:C	2.62	0.47
9:T:41:HIS:HA	9:T:45:ILE:O	2.15	0.47
2:H:345:VAL:O	2:H:345:VAL:HG23	2.13	0.47
3:I:243:ILE:HG22	3:I:244:CYS:N	2.30	0.47
1:A:112:TYR:OH	1:A:116:ILE:HD11	2.14	0.47
5:E:31:PHE:CE1	6:F:35:GLY:HA2	2.49	0.47
1:G:143:ILE:CG1	4:J:220:ASN:HD22	2.12	0.47
1:A:127:MET:HB2	1:A:147:TYR:CD1	2.49	0.47
3:I:455:PHE:O	3:I:456:GLU:CB	2.61	0.47
10:Y:563:UNK:O	10:Y:566:UNK:N	2.47	0.47
2:H:76:SER:HA	7:O:69:UNK:CB	2.44	0.47
1:A:244:GLU:HG3	1:A:245:THR:N	2.30	0.47
6:L:18:VAL:O	6:L:19:ARG:C	2.51	0.47
7:P:142:UNK:CA	7:P:149:UNK:CB	2.91	0.47
5:K:41:GLY:O	5:K:44:TYR:N	2.47	0.47
3:C:390:ARG:CD	9:V:100:ILE:HD12	2.43	0.47
9:V:100:ILE:C	9:V:102:PRO:HD3	2.34	0.47
10:Y:526:UNK:O	10:Y:527:UNK:C	2.61	0.47
10:Y:428:UNK:C	10:Y:430:UNK:N	2.77	0.47
5:K:82:GLN:O	5:K:84:LYS:N	2.47	0.47
1:G:84:PRO:HG3	1:G:112:TYR:CE2	2.49	0.47
11:I:1464:CLA:HBA2	11:I:1464:CLA:H3A	1.49	0.47
3:I:40:ALA:O	3:I:43:ILE:HG23	2.14	0.47
4:J:54:PHE:HE1	6:L:33:PHE:CD2	2.31	0.47
2:H:33:TRP:NE1	11:H:1488:CLA:HBC2	2.28	0.47
1:A:84:PRO:O	1:A:85:SER:O	2.31	0.47
4:D:52:THR:O	4:D:67:TYR:HD1	1.98	0.47
3:C:264:PHE:CD2	3:C:264:PHE:N	2.82	0.47
4:J:127:LEU:C	4:J:129:GLN:H	2.18	0.47
1:G:63:ILE:CG1	1:G:64:ARG:N	2.65	0.47
2:B:263:THR:N	2:B:264:PRO:CD	2.76	0.47
2:B:424:ALA:O	2:B:426:PHE:N	2.44	0.47
2:H:372:ASP:C	2:H:374:ASN:H	2.18	0.47
10:X:225:UNK:O	10:X:227:UNK:N	2.47	0.47
1:G:190:HIS:ND1	1:G:298:ASN:ND2	2.61	0.47
10:X:115:UNK:O	10:X:119:UNK:N	2.47	0.47
3:I:227:VAL:O	3:I:227:VAL:HG12	2.13	0.47
10:X:526:UNK:O	10:X:527:UNK:C	2.63	0.47
10:Y:24:UNK:O	10:Y:25:UNK:C	2.62	0.47
1:G:129:ARG:NH2	4:J:256:ILE:CA	2.74	0.47
4:J:191:TRP:CZ2	4:J:286:VAL:CG2	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:334:UNK:O	10:Y:335:UNK:O	2.31	0.47
12:A:1345:PHO:HBB2	4:D:205:LEU:HD21	1.95	0.47
5:E:35:TRP:CE3	6:F:39:ALA:HB2	2.49	0.47
3:C:154:LYS:HZ3	3:C:261:ARG:HD3	1.75	0.47
3:C:187:ASP:HB3	3:C:230:LEU:CD2	2.27	0.47
11:B:1496:CLA:H171	11:B:1497:CLA:HMD1	1.95	0.47
3:I:81:MET:SD	3:I:90:PRO:HG3	2.54	0.47
2:B:172:TYR:HB3	2:B:309:LEU:CD2	2.44	0.47
3:C:376:ASP:C	3:C:378:ASN:H	2.17	0.47
10:X:357:UNK:O	10:X:358:UNK:C	2.63	0.47
10:Y:170:UNK:O	10:Y:171:UNK:C	2.60	0.47
7:P:79:UNK:O	7:P:80:UNK:C	2.62	0.47
1:G:294:ALA:O	1:G:296:ASN:N	2.48	0.47
2:H:137:LYS:O	2:H:141:ILE:HG22	2.14	0.47
1:A:290:ILE:HD11	11:A:1342:CLA:CAD	2.44	0.47
1:A:292:THR:HG23	3:C:428:THR:CG2	2.44	0.47
3:C:32:GLY:O	3:C:34:ALA:N	2.46	0.47
3:I:311:GLN:HA	3:I:355:THR:HG21	1.95	0.47
3:I:398:HIS:O	3:I:399:ALA:CA	2.63	0.47
1:G:248:ILE:O	1:G:250:ALA:N	2.47	0.47
4:J:235:PHE:CD1	4:J:235:PHE:C	2.87	0.47
3:C:376:ASP:OD2	3:C:379:LYS:HE3	2.14	0.47
2:B:425:ILE:HG23	2:B:426:PHE:HD2	1.79	0.47
10:X:470:UNK:O	10:X:471:UNK:C	2.62	0.47
1:G:104:GLU:HG2	1:G:108:ASN:HD21	1.79	0.47
5:K:15:THR:O	5:K:15:THR:CG2	2.63	0.47
2:B:278:SER:C	2:B:279:TYR:O	2.50	0.47
4:D:224:GLN:HE21	4:D:227:GLU:CB	2.27	0.47
4:D:337:GLU:HG3	4:D:339:PHE:CE2	2.49	0.47
4:J:339:PHE:CD1	4:J:341:PHE:CE1	3.03	0.47
4:J:72:ASN:C	4:J:76:VAL:HG23	2.35	0.47
6:L:28:VAL:HB	6:L:29:PRO:CD	2.39	0.47
1:G:137:LEU:HB2	1:G:139:MET:HE3	1.97	0.47
3:I:50:LEU:O	3:I:54:VAL:N	2.46	0.47
4:J:39:PRO:O	4:J:43:LEU:CB	2.62	0.47
1:A:153:SER:HB3	11:A:1342:CLA:H43	1.96	0.47
4:D:55:VAL:O	4:D:66:SER:HB3	2.15	0.47
1:A:137:LEU:CD1	1:A:139:MET:HE1	2.44	0.47
3:C:127:PHE:C	3:C:129:GLY:H	2.17	0.47
3:I:364:PRO:O	3:I:365:TRP:C	2.51	0.47
3:C:370:ARG:HA	3:C:375:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:127:MET:O	1:A:130:GLN:HB3	2.14	0.47
2:B:135:LEU:O	2:B:136:PRO:C	2.53	0.47
2:B:162:PHE:HB3	11:B:1487:CLA:HMD3	1.97	0.47
2:B:68:ARG:CG	2:B:69:LEU:N	2.76	0.47
2:B:392:PHE:O	2:B:395:GLN:HA	2.14	0.47
3:I:188:THR:HG21	3:I:298:PRO:HA	1.96	0.47
2:B:207:ILE:CG1	2:B:208:VAL:N	2.78	0.47
1:G:259:ILE:O	1:G:260:PHE:CB	2.62	0.47
2:H:192:PRO:HG3	11:H:1483:CLA:HBA2	1.95	0.47
3:C:304:PRO:C	3:C:305:THR:CG2	2.83	0.47
2:H:310:ALA:O	2:H:428:GLU:HB2	2.15	0.47
4:D:188:PHE:CE1	4:D:326:ARG:HG2	2.48	0.47
2:H:243:ALA:C	2:H:246:PHE:HB3	2.34	0.47
7:O:42:UNK:CB	7:O:52:UNK:O	2.63	0.47
3:I:387:TRP:O	3:I:390:ARG:HG2	2.15	0.47
1:A:104:GLU:HG2	1:A:108:ASN:HD21	1.80	0.47
2:B:288:VAL:CG2	2:B:289:GLN:N	2.78	0.47
3:I:425:TRP:CZ2	11:I:1462:CLA:O1A	2.68	0.47
10:Y:115:UNK:O	10:Y:119:UNK:N	2.47	0.47
10:X:578:UNK:O	10:X:579:UNK:C	2.63	0.47
8:U:69:UNK:O	8:U:70:UNK:C	2.63	0.47
1:A:53:ILE:O	1:A:71:LEU:HB2	2.14	0.47
7:O:79:UNK:O	7:O:80:UNK:C	2.62	0.47
1:G:54:ALA:HB2	1:G:72:LEU:HD12	1.97	0.47
1:G:65:GLU:HG2	1:G:65:GLU:O	2.15	0.47
10:X:560:UNK:O	10:X:561:UNK:C	2.62	0.47
4:D:156:VAL:HG12	4:D:156:VAL:O	2.14	0.47
3:I:245:ILE:O	3:I:249:ILE:HG12	2.15	0.47
4:J:166:SER:O	4:J:167:TRP:C	2.50	0.47
5:K:30:LEU:HD13	6:L:28:VAL:HG13	1.97	0.47
2:H:132:ALA:O	2:H:133:LEU:CB	2.62	0.47
1:A:58:VAL:CG1	1:A:109:GLY:HA3	2.45	0.47
11:A:1342:CLA:HAB	11:A:1344:CLA:HMD2	1.97	0.47
4:D:43:LEU:HG	4:D:113:PHE:CZ	2.50	0.47
4:D:56:THR:OG1	4:D:57:SER:N	2.48	0.47
3:C:162:GLY:CA	3:C:248:GLY:HA2	2.43	0.47
3:C:314:ALA:O	3:C:315:MET:C	2.53	0.47
1:A:246:TYR:O	1:A:247:ASN:CG	2.52	0.47
2:H:203:ILE:O	2:H:207:ILE:HG23	2.14	0.47
2:B:415:PRO:O	2:B:416:THR:C	2.54	0.47
1:G:79:THR:O	1:G:80:GLY:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:159:ILE:O	4:J:162:LEU:N	2.45	0.47
4:J:57:SER:HB2	4:J:63:LEU:O	2.15	0.47
4:J:74:LEU:HA	4:J:175:VAL:HG11	1.97	0.47
2:H:24:LEU:HD12	11:H:1496:CLA:HED2	1.97	0.47
11:A:1342:CLA:HBB1	11:D:1351:CLA:NC	2.30	0.47
1:A:129:ARG:NH2	4:D:256:ILE:CA	2.75	0.47
3:C:172:ALA:O	3:C:175:LEU:N	2.47	0.47
1:G:218:LEU:HD11	1:G:255:PHE:CD2	2.45	0.47
1:A:221:SER:HB2	4:D:139:ARG:O	2.15	0.47
2:B:179:GLN:HB3	2:B:180:PRO:HD2	1.96	0.47
3:I:82:TYR:HB3	3:I:302:TYR:O	2.14	0.47
2:H:463:PHE:C	2:H:465:GLY:N	2.68	0.47
10:Y:177:UNK:O	10:Y:180:UNK:N	2.47	0.47
2:B:372:ASP:O	2:B:374:ASN:N	2.46	0.47
2:H:147:GLY:O	2:H:148:LEU:C	2.53	0.47
2:H:155:ALA:O	2:H:159:THR:CB	2.63	0.47
1:A:196:PRO:O	1:A:199:GLN:HB2	2.14	0.47
9:T:122:GLU:N	9:T:123:PRO:HD2	2.29	0.47
1:G:181:ASN:O	1:G:183:MET:N	2.48	0.47
4:J:189:HIS:ND1	4:J:294:ARG:NH1	2.63	0.47
6:L:37:ILE:HG12	6:L:40:MET:HE2	1.97	0.47
2:H:136:PRO:HG2	2:H:221:PRO:HG3	1.97	0.47
2:H:330:MET:O	2:H:331:ASN:CB	2.63	0.47
1:G:62:GLY:CA	1:G:87:ASN:CB	2.90	0.47
2:H:309:LEU:O	2:H:312:TYR:N	2.48	0.47
9:T:133:GLY:O	9:T:137:TYR:CA	2.62	0.47
8:U:7:UNK:O	8:U:9:UNK:N	2.48	0.47
8:S:90:UNK:C	8:S:91:UNK:O	2.62	0.47
1:G:93:PHE:O	1:G:95:PRO:HD3	2.14	0.47
5:K:78:THR:O	5:K:79:PHE:C	2.53	0.47
3:I:436:PHE:O	3:I:439:VAL:HB	2.15	0.47
1:G:320:ILE:O	1:G:321:ILE:C	2.53	0.46
1:G:45:THR:HA	12:G:1345:PHO:H93	1.97	0.46
1:G:57:PRO:HA	1:G:67:VAL:O	2.14	0.46
4:J:192:THR:OG1	4:J:193:LEU:N	2.48	0.46
4:J:48:TRP:HB2	4:J:114:ILE:HD13	1.97	0.46
4:J:113:PHE:CZ	17:L:1047:BCR:HC41	2.50	0.46
1:A:59:ASP:O	1:A:60:ILE:C	2.52	0.46
4:D:190:ASN:CG	4:D:322:ASN:HD21	2.18	0.46
3:C:57:ALA:O	3:C:58:GLY:C	2.52	0.46
3:I:229:ASN:CB	3:I:232:ASP:OD1	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:214:LEU:O	2:B:217:ILE:CG2	2.63	0.46
4:J:342:PRO:O	4:J:345:VAL:CG2	2.63	0.46
5:K:10:PHE:CE2	6:L:19:ARG:CZ	2.98	0.46
2:B:174:LEU:O	2:B:175:THR:O	2.32	0.46
8:U:39:UNK:O	8:U:40:UNK:O	2.33	0.46
6:F:17:THR:O	6:F:20:TRP:HB3	2.15	0.46
10:X:221:UNK:O	10:X:222:UNK:C	2.63	0.46
4:D:335:PRO:O	4:D:337:GLU:N	2.48	0.46
4:D:83:ASN:CG	4:D:336:HIS:CD2	2.81	0.46
3:I:225:VAL:CG1	3:I:225:VAL:O	2.62	0.46
3:I:242:LEU:HD12	3:I:245:ILE:HD11	1.97	0.46
3:I:273:SER:CB	3:I:445:ALA:HB2	2.37	0.46
4:J:111:TRP:C	4:J:113:PHE:N	2.66	0.46
4:J:191:TRP:HZ2	4:J:286:VAL:CG2	2.29	0.46
4:J:87:HIS:C	4:J:167:TRP:CZ3	2.88	0.46
2:H:462:PHE:HA	11:H:1492:CLA:CMC	2.45	0.46
3:C:122:SER:O	3:C:125:LEU:N	2.48	0.46
3:C:188:THR:HG21	3:C:298:PRO:CB	2.45	0.46
2:B:113:TRP:CD1	11:B:1496:CLA:H191	2.49	0.46
9:T:2:GLU:O	9:T:4:THR:N	2.45	0.46
2:H:193:TYR:CE1	2:H:260:SER:N	2.84	0.46
4:D:274:VAL:CB	4:D:275:PRO:CD	2.91	0.46
3:I:135:ARG:O	3:I:136:GLY:O	2.34	0.46
7:O:99:UNK:O	7:O:100:UNK:C	2.62	0.46
3:I:179:ALA:O	3:I:184:GLY:HA2	2.14	0.46
1:A:13:LEU:O	1:A:17:PHE:N	2.40	0.46
1:A:79:THR:O	1:A:80:GLY:O	2.33	0.46
3:I:244:CYS:HA	11:I:1464:CLA:CMC	2.45	0.46
3:I:267:SER:O	3:I:271:TYR:N	2.40	0.46
1:A:122:GLY:C	1:A:124:SER:H	2.19	0.46
5:E:35:TRP:CD2	6:F:39:ALA:HB2	2.50	0.46
3:C:245:ILE:O	3:C:249:ILE:HG12	2.15	0.46
3:I:370:ARG:HE	3:I:371:GLY:N	2.09	0.46
2:B:61:PHE:O	2:B:63:LEU:N	2.48	0.46
5:E:12:ASP:O	5:E:16:SER:N	2.48	0.46
4:J:148:ALA:HB2	4:J:276:VAL:HG13	1.97	0.46
3:I:207:ARG:HA	3:I:210:PHE:CB	2.45	0.46
5:E:37:PHE:HE1	5:E:42:LEU:HB3	1.79	0.46
1:G:166:GLY:O	1:G:167:SER:CB	2.59	0.46
2:B:193:TYR:CE1	2:B:260:SER:N	2.83	0.46
10:X:580:UNK:C	10:X:582:UNK:N	2.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:327:GLY:O	4:J:324:GLY:HA3	2.16	0.46
10:X:336:UNK:O	10:X:337:UNK:CB	2.64	0.46
10:X:410:UNK:O	10:X:411:UNK:C	2.64	0.46
11:G:1342:CLA:HAB	11:G:1344:CLA:HMD2	1.97	0.46
1:G:292:THR:HG23	3:I:428:THR:CG2	2.44	0.46
3:I:170:ILE:HG23	3:I:171:GLY:H	1.78	0.46
2:H:471:ALA:O	2:H:472:ARG:C	2.54	0.46
4:D:298:PHE:O	10:X:129:UNK:O	2.33	0.46
3:C:61:VAL:HG21	3:C:125:LEU:HD12	1.97	0.46
3:C:276:LEU:CD2	11:C:1466:CLA:HBB1	2.46	0.46
3:C:95:LEU:HD23	3:C:97:TRP:CZ3	2.42	0.46
1:A:110:GLY:O	1:A:111:PRO:C	2.53	0.46
2:B:450:TRP:O	2:B:451:PHE:C	2.51	0.46
1:A:87:ASN:O	1:A:87:ASN:ND2	2.48	0.46
2:B:50:PRO:O	2:B:54:PRO:HG3	2.15	0.46
1:A:248:ILE:O	1:A:250:ALA:N	2.48	0.46
3:I:318:LEU:HD21	3:I:380:ILE:HG21	1.97	0.46
3:I:72:LEU:O	3:I:73:ALA:C	2.54	0.46
1:A:166:GLY:O	1:A:167:SER:CB	2.63	0.46
1:A:167:SER:OG	1:A:169:SER:HB2	2.15	0.46
10:X:182:UNK:O	10:X:183:UNK:C	2.62	0.46
8:S:66:UNK:O	8:S:70:UNK:N	2.48	0.46
10:Y:158:UNK:O	10:Y:159:UNK:C	2.62	0.46
1:G:65:GLU:CD	4:J:312:GLU:OE1	2.54	0.46
3:C:418:ASN:CA	3:C:419:PHE:N	2.78	0.46
3:I:270:ALA:C	3:I:274:TYR:HD2	2.19	0.46
4:J:154:VAL:O	4:J:159:ILE:HG13	2.15	0.46
4:J:57:SER:O	4:J:60:THR:HG22	2.16	0.46
4:J:88:SER:O	4:J:167:TRP:CZ3	2.68	0.46
5:K:38:VAL:CG1	6:L:40:MET:HG2	2.46	0.46
4:D:279:LEU:O	4:D:283:ALA:HB2	2.15	0.46
1:A:142:TRP:CZ2	1:A:273:PHE:CD1	3.04	0.46
1:G:142:TRP:CZ2	1:G:273:PHE:CE1	3.04	0.46
2:B:31:ALA:HA	2:B:34:ALA:CB	2.41	0.46
2:B:68:ARG:HG3	2:B:69:LEU:N	2.30	0.46
3:I:298:PRO:O	3:I:299:SER:OG	2.34	0.46
1:G:220:THR:O	4:J:139:ARG:HD2	2.15	0.46
2:B:419:SER:HA	2:B:422:ARG:HE	1.80	0.46
5:K:27:ILE:HB	5:K:28:PRO:CD	2.40	0.46
1:A:32:TRP:O	1:A:35:VAL:HB	2.15	0.46
3:I:257:PHE:HB3	3:I:258:GLY:H	1.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:9:PRO:O	4:D:10:ALA:CB	2.64	0.46
1:G:116:ILE:CG1	1:G:158:PHE:HD1	2.29	0.46
3:I:120:ILE:C	3:I:122:SER:H	2.18	0.46
3:I:150:ASP:CB	3:I:271:TYR:CE2	2.99	0.46
2:H:26:HIS:HB2	11:H:1493:CLA:HMB2	1.97	0.46
1:A:160:ILE:HD12	3:C:431:PHE:CE1	2.47	0.46
3:C:280:SER:HA	3:C:434:ALA:HA	1.96	0.46
3:C:93:ALA:O	3:C:94:THR:C	2.52	0.46
4:J:126:MET:HE1	4:J:147:SER:N	2.31	0.46
3:C:370:ARG:O	3:C:375:LEU:N	2.49	0.46
5:K:37:PHE:CZ	5:K:43:ALA:HA	2.50	0.46
8:S:71:UNK:C	8:S:73:UNK:N	2.74	0.46
10:Y:412:UNK:O	10:Y:414:UNK:N	2.49	0.46
2:B:219:VAL:HG12	2:B:219:VAL:O	2.16	0.46
1:G:153:SER:HB3	11:G:1342:CLA:H43	1.98	0.46
3:I:282:MET:O	3:I:285:ILE:HB	2.16	0.46
1:A:157:VAL:O	1:A:157:VAL:CG1	2.64	0.46
3:C:41:ARG:HB2	11:C:1469:CLA:O1D	2.16	0.46
1:G:142:TRP:CZ2	1:G:273:PHE:CD1	3.04	0.46
5:K:19:TYR:CD1	5:K:19:TYR:C	2.88	0.46
2:H:174:LEU:O	2:H:175:THR:O	2.34	0.46
9:T:134:LYS:O	9:T:137:TYR:O	2.34	0.46
4:D:92:LEU:HA	4:D:104:TRP:CD1	2.51	0.46
8:S:74:UNK:O	8:S:75:UNK:C	2.61	0.46
10:Y:160:UNK:O	10:Y:164:UNK:CB	2.64	0.46
10:Y:534:UNK:O	10:Y:535:UNK:C	2.64	0.46
9:V:62:ALA:HB2	9:V:82:TYR:CE1	2.50	0.46
3:I:91:HIS:CE1	11:I:1460:CLA:O1D	2.66	0.46
3:I:273:SER:OG	3:I:274:TYR:N	2.49	0.46
4:J:73:PHE:CE2	4:J:175:VAL:HG21	2.51	0.46
4:J:164:GLN:NE2	4:J:189:HIS:HE1	2.01	0.46
4:J:93:TRP:CD1	4:J:93:TRP:N	2.83	0.46
6:F:27:ALA:O	6:F:28:VAL:C	2.54	0.46
1:G:114:LEU:O	1:G:115:ILE:C	2.54	0.46
2:H:194:ASN:OD1	2:H:194:ASN:C	2.54	0.46
4:J:272:LEU:CD2	4:J:276:VAL:HG21	2.44	0.46
2:B:422:ARG:O	2:B:425:ILE:HG22	2.16	0.46
2:H:246:PHE:CE1	2:H:463:PHE:HB2	2.40	0.46
1:G:97:TRP:O	1:G:98:GLU:C	2.53	0.46
5:K:41:GLY:O	5:K:42:LEU:C	2.54	0.46
1:G:32:TRP:O	1:G:33:PHE:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:V:83:ASP:OD1	9:V:85:GLU:HB2	2.16	0.46
2:H:218:LEU:O	2:H:218:LEU:HD12	2.16	0.46
10:X:428:UNK:C	10:X:430:UNK:N	2.77	0.46
3:I:240:ILE:HD12	11:I:1465:CLA:C9	2.46	0.46
2:H:135:LEU:O	2:H:136:PRO:C	2.54	0.46
1:A:176:ILE:HG23	1:A:180:PHE:HE1	1.79	0.46
1:A:187:GLN:NE2	1:A:325:ASN:OD1	2.49	0.46
1:A:210:LEU:HD13	12:D:1352:PHO:ND	2.31	0.46
4:D:71:CYS:HB2	4:D:76:VAL:HG22	1.98	0.46
4:D:71:CYS:HB3	4:D:76:VAL:HG22	1.98	0.46
3:C:164:HIS:O	3:C:167:VAL:N	2.49	0.46
3:C:171:GLY:O	3:C:172:ALA:C	2.55	0.46
3:C:270:ALA:O	3:C:271:TYR:C	2.53	0.46
1:G:244:GLU:HG3	1:G:245:THR:N	2.31	0.46
4:J:139:ARG:HH11	4:J:141:TYR:HE1	1.64	0.46
2:H:197:GLY:O	2:H:199:VAL:N	2.49	0.46
6:L:19:ARG:O	6:L:23:VAL:CG2	2.59	0.46
1:A:193:LEU:HB3	4:D:179:PHE:CE1	2.50	0.46
10:X:469:UNK:O	10:X:470:UNK:C	2.63	0.46
8:S:27:UNK:C	8:S:28:UNK:O	2.64	0.46
10:X:580:UNK:O	10:X:581:UNK:C	2.64	0.46
10:X:218:UNK:O	10:X:219:UNK:C	2.64	0.46
1:G:54:ALA:CB	1:G:72:LEU:HD12	2.46	0.46
10:Y:516:UNK:O	10:Y:518:UNK:N	2.49	0.46
10:Y:365:UNK:O	10:Y:366:UNK:C	2.64	0.46
9:V:77:LYS:HG2	9:V:95:LEU:HD22	1.97	0.46
1:A:76:ASN:C	1:A:76:ASN:OD1	2.54	0.46
1:G:137:LEU:CD1	1:G:139:MET:HE1	2.46	0.46
3:I:288:CYS:O	3:I:289:PHE:C	2.55	0.46
3:I:449:ARG:HH12	11:I:1463:CLA:HAA1	1.81	0.46
4:J:55:VAL:O	4:J:66:SER:HB3	2.16	0.46
2:H:249:ALA:HA	11:H:1485:CLA:HMD3	1.97	0.46
4:D:52:THR:CG2	4:D:76:VAL:HG11	2.46	0.46
4:D:91:LEU:O	4:D:93:TRP:N	2.49	0.46
1:A:134:SER:CA	1:A:139:MET:HB3	2.44	0.46
1:A:244:GLU:HG3	1:A:245:THR:H	1.81	0.46
4:D:139:ARG:HH11	4:D:141:TYR:HE1	1.64	0.46
2:H:207:ILE:CG1	2:H:208:VAL:N	2.78	0.46
2:H:49:ASP:OD2	2:H:52:LEU:HB2	2.16	0.46
2:B:52:LEU:HD23	2:B:311:PHE:CE2	2.51	0.46
2:B:293:ALA:O	2:B:294:SER:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:381:LYS:O	3:C:382:ASN:HB3	2.15	0.46
10:X:3:UNK:O	10:X:6:UNK:N	2.49	0.46
10:Y:3:UNK:C	10:Y:5:UNK:N	2.77	0.46
1:A:32:TRP:O	1:A:35:VAL:N	2.49	0.46
4:J:156:VAL:O	4:J:156:VAL:CG1	2.64	0.46
8:U:72:UNK:O	8:U:73:UNK:C	2.62	0.46
4:J:10:ALA:O	4:J:11:GLU:CB	2.64	0.46
4:D:9:PRO:O	4:D:10:ALA:HB2	2.16	0.46
11:I:1464:CLA:HMC2	11:I:1465:CLA:H121	1.97	0.45
3:I:431:PHE:O	3:I:432:VAL:C	2.54	0.45
2:H:27:THR:CG2	2:H:107:LEU:HD13	2.43	0.45
2:B:272:ARG:NH1	4:D:164:GLN:HA	2.31	0.45
4:D:57:SER:O	4:D:60:THR:HG22	2.16	0.45
6:F:35:GLY:O	6:F:36:ALA:C	2.52	0.45
3:C:164:HIS:O	3:C:167:VAL:HG23	2.15	0.45
1:A:141:PRO:CG	3:C:446:GLY:O	2.58	0.45
4:J:139:ARG:NH1	4:J:141:TYR:HE1	2.13	0.45
2:B:70:GLY:HA2	2:B:178:VAL:HG11	1.97	0.45
8:S:9:UNK:O	8:S:10:UNK:C	2.55	0.45
4:D:32:TRP:O	4:D:33:SER:C	2.54	0.45
10:X:266:UNK:O	10:X:267:UNK:C	2.63	0.45
4:D:203:GLY:O	4:D:207:GLY:N	2.46	0.45
3:I:118:HIS:HA	3:I:121:SER:HB3	1.98	0.45
1:G:131:TRP:O	1:G:134:SER:CB	2.64	0.45
1:G:171:GLY:HA2	1:G:182:PHE:CE1	2.51	0.45
1:G:176:ILE:CG2	1:G:180:PHE:HE1	2.29	0.45
1:G:215:HIS:O	1:G:219:VAL:HG23	2.16	0.45
1:G:288:LEU:O	1:G:290:ILE:N	2.50	0.45
3:I:128:GLY:HA3	11:I:1471:CLA:HMC3	1.97	0.45
4:J:87:HIS:CE1	4:J:161:PRO:O	2.69	0.45
5:K:61:ARG:O	5:K:62:SER:HB2	2.15	0.45
10:Y:331:UNK:O	10:Y:334:UNK:CB	2.64	0.45
4:D:186:GLN:CB	11:D:1351:CLA:HBC1	2.47	0.45
2:B:132:ALA:O	2:B:133:LEU:CB	2.64	0.45
2:B:450:TRP:O	2:B:453:PHE:N	2.29	0.45
3:C:398:HIS:O	3:C:399:ALA:CA	2.62	0.45
3:I:376:ASP:OD2	3:I:379:LYS:HE3	2.16	0.45
4:D:64:ALA:HB1	4:D:69:GLU:HB3	1.98	0.45
3:C:66:ALA:HB1	10:X:517:UNK:HA	1.97	0.45
10:Y:419:UNK:O	10:Y:423:UNK:N	2.49	0.45
8:U:86:UNK:O	8:U:87:UNK:C	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:567:UNK:O	10:Y:571:UNK:N	2.48	0.45
1:G:206:PHE:CZ	11:J:1351:CLA:HAA1	2.51	0.45
2:H:145:LEU:CD1	11:H:1496:CLA:HMB2	2.47	0.45
2:H:214:LEU:HD12	2:H:215:PHE:N	2.31	0.45
1:A:172:MET:HA	1:A:173:PRO:HD3	1.44	0.45
1:A:290:ILE:O	1:A:292:THR:N	2.50	0.45
1:A:190:HIS:ND1	1:A:298:ASN:ND2	2.63	0.45
3:C:167:VAL:CG2	11:C:1470:CLA:HMB2	2.47	0.45
3:C:242:LEU:O	3:C:243:ILE:C	2.55	0.45
2:B:110:ALA:HA	11:B:1496:CLA:C20	2.45	0.45
2:B:450:TRP:CE2	11:B:1488:CLA:HBA1	2.51	0.45
2:B:62:VAL:HG12	2:B:66:MET:HE2	1.98	0.45
2:B:395:GLN:CB	2:B:397:VAL:CB	2.95	0.45
3:I:304:PRO:O	3:I:305:THR:CG2	2.63	0.45
6:F:9:GLU:N	6:F:10:PRO:CD	2.79	0.45
4:D:33:SER:OG	4:D:128:ARG:HA	2.16	0.45
10:X:202:UNK:O	10:X:203:UNK:C	2.64	0.45
3:I:250:TRP:CD1	3:I:250:TRP:O	2.69	0.45
3:C:24:THR:O	3:C:25:ASN:CB	2.64	0.45
10:Y:531:UNK:O	10:Y:532:UNK:C	2.62	0.45
4:D:40:CYS:O	4:D:41:ALA:C	2.54	0.45
9:T:64:PRO:HD2	9:T:66:ARG:NH2	2.30	0.45
4:D:83:ASN:OD1	4:D:336:HIS:HD2	1.98	0.45
4:J:191:TRP:O	4:J:194:ASN:N	2.38	0.45
11:H:1488:CLA:H203	4:J:281:MET:SD	2.57	0.45
4:D:126:MET:HE1	4:D:147:SER:N	2.32	0.45
2:H:396:GLY:O	2:H:398:THR:N	2.50	0.45
4:D:87:HIS:C	4:D:167:TRP:CZ3	2.90	0.45
4:D:81:PRO:O	4:D:168:PHE:HD1	1.99	0.45
1:G:222:SER:O	1:G:246:TYR:O	2.34	0.45
3:I:358:PHE:C	3:I:360:ASP:H	2.18	0.45
2:H:193:TYR:OH	2:H:259:GLY:HA2	2.15	0.45
2:B:309:LEU:O	2:B:311:PHE:N	2.50	0.45
5:E:37:PHE:CZ	5:E:43:ALA:HA	2.52	0.45
3:I:77:PRO:C	3:I:79:LYS:N	2.66	0.45
3:I:25:ASN:O	3:I:26:ARG:CB	2.64	0.45
5:E:82:GLN:O	5:E:83:LEU:C	2.54	0.45
4:D:199:MET:O	4:D:202:ALA:N	2.50	0.45
1:G:180:PHE:CZ	4:J:192:THR:HB	2.51	0.45
3:I:267:SER:H	3:I:270:ALA:HB3	1.82	0.45
4:J:103:ARG:O	4:J:104:TRP:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:171:GLY:HA2	1:A:182:PHE:CE1	2.51	0.45
1:A:176:ILE:CG2	1:A:180:PHE:HE1	2.29	0.45
4:D:186:GLN:HB2	11:D:1351:CLA:HBC1	1.99	0.45
4:D:56:THR:HG22	5:E:49:THR:HG22	1.99	0.45
3:C:161:LEU:HD21	11:C:1464:CLA:HBB1	1.98	0.45
3:C:167:VAL:HG13	11:C:1470:CLA:HMB2	1.98	0.45
3:C:55:ALA:O	3:C:56:HIS:C	2.55	0.45
4:J:129:GLN:OE1	4:J:143:ALA:HA	2.16	0.45
3:I:228:ASN:HA	3:I:295:THR:CG2	2.25	0.45
4:J:264:LYS:C	4:J:266:TRP:H	2.20	0.45
2:H:193:TYR:HD1	2:H:260:SER:CB	2.29	0.45
10:Y:202:UNK:O	10:Y:203:UNK:C	2.64	0.45
2:B:204:ALA:O	2:B:205:ALA:C	2.55	0.45
7:O:127:UNK:O	7:O:128:UNK:C	2.64	0.45
10:Y:64:UNK:C	10:Y:66:UNK:N	2.75	0.45
7:O:154:UNK:HA	7:O:170:UNK:HA	1.98	0.45
3:C:366:LEU:O	3:C:366:LEU:HD12	2.17	0.45
10:Y:503:UNK:O	10:Y:504:UNK:C	2.65	0.45
3:I:56:HIS:O	3:I:59:LEU:HB3	2.16	0.45
4:J:315:TYR:CE1	4:J:319:LEU:HD12	2.52	0.45
4:J:53:THR:HG22	4:J:67:TYR:CE1	2.52	0.45
17:L:1047:BCR:H331	17:L:1047:BCR:H343	1.98	0.45
2:H:114:HIS:NE2	11:H:1497:CLA:NB	2.65	0.45
2:H:267:LEU:H	2:H:267:LEU:HG	1.57	0.45
2:H:64:PRO:CB	2:H:268:PHE:CZ	2.99	0.45
2:H:464:PHE:CE1	4:J:144:ILE:HG23	2.51	0.45
3:C:129:GLY:C	3:C:131:TYR:N	2.70	0.45
3:C:273:SER:CB	3:C:445:ALA:HB2	2.42	0.45
3:C:84:GLN:O	3:C:85:GLY:C	2.55	0.45
1:G:141:PRO:CG	3:I:446:GLY:O	2.60	0.45
2:B:152:GLY:O	2:B:153:PHE:C	2.53	0.45
2:B:234:ILE:O	2:B:237:VAL:N	2.49	0.45
1:A:62:GLY:CA	1:A:87:ASN:CB	2.92	0.45
2:H:398:THR:O	2:H:400:SER:N	2.50	0.45
2:B:192:PRO:HG3	11:B:1483:CLA:HBA2	1.98	0.45
2:B:280:PHE:CE2	2:B:312:TYR:HB3	2.52	0.45
3:C:82:TYR:CA	3:C:422:PRO:HG2	2.38	0.45
4:D:35:ILE:O	4:D:35:ILE:HG22	2.15	0.45
9:T:93:PRO:HG3	9:T:101:PHE:CD1	2.52	0.45
1:A:104:GLU:O	1:A:104:GLU:HG2	2.17	0.45
1:A:32:TRP:O	1:A:33:PHE:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:227:VAL:CG1	3:I:233:VAL:HG23	2.47	0.45
9:T:30:LYS:HG2	9:T:118:HIS:CE1	2.51	0.45
10:X:213:UNK:O	10:X:214:UNK:C	2.65	0.45
7:O:63:UNK:O	7:O:72:UNK:N	2.49	0.45
1:G:290:ILE:HD11	11:G:1342:CLA:CAD	2.46	0.45
1:G:320:ILE:O	1:G:322:ASN:N	2.50	0.45
3:I:127:PHE:C	3:I:129:GLY:H	2.20	0.45
3:I:270:ALA:O	3:I:271:TYR:C	2.54	0.45
4:J:48:TRP:O	4:J:52:THR:OG1	2.23	0.45
2:H:215:PHE:CD2	2:H:216:HIS:N	2.84	0.45
2:H:220:ARG:CB	2:H:221:PRO:HD2	2.47	0.45
2:H:68:ARG:NH1	2:H:262:THR:O	2.49	0.45
2:H:67:ALA:HA	2:H:71:VAL:O	2.17	0.45
1:A:157:VAL:HG13	1:A:172:MET:HB3	1.99	0.45
1:A:317:TRP:CG	4:D:177:ALA:HB2	2.51	0.45
4:D:171:PRO:HG3	4:D:181:PHE:CD2	2.52	0.45
3:C:244:CYS:HA	11:C:1464:CLA:CMC	2.47	0.45
3:C:37:ALA:C	3:C:39:ASN:H	2.19	0.45
4:D:139:ARG:NH1	4:D:141:TYR:HE1	2.14	0.45
2:H:150:CYS:N	11:H:1484:CLA:HBC2	2.32	0.45
4:J:272:LEU:HD23	4:J:272:LEU:O	2.17	0.45
4:D:148:ALA:CB	4:D:276:VAL:HA	2.46	0.45
3:C:402:GLY:CA	3:C:420:VAL:HG13	2.47	0.45
1:A:215:HIS:HB3	4:D:271:MET:CE	2.46	0.45
5:K:27:ILE:O	5:K:28:PRO:C	2.54	0.45
10:X:470:UNK:C	10:X:472:UNK:N	2.78	0.45
2:H:18:ARG:O	2:H:21:ALA:N	2.48	0.45
8:S:4:UNK:O	8:S:7:UNK:CB	2.65	0.45
3:C:109:PHE:HB3	3:C:110:PRO:CD	2.47	0.45
7:O:142:UNK:CA	7:O:149:UNK:CB	2.93	0.45
10:X:200:UNK:O	10:X:203:UNK:N	2.50	0.45
10:Y:519:UNK:C	10:Y:521:UNK:N	2.80	0.45
8:U:69:UNK:C	8:U:71:UNK:N	2.80	0.45
10:X:269:UNK:O	10:X:270:UNK:C	2.63	0.45
7:O:24:UNK:O	7:O:25:UNK:O	2.34	0.45
4:J:83:ASN:O	4:J:83:ASN:OD1	2.34	0.45
4:J:287:VAL:O	4:J:290:ALA:HB3	2.16	0.45
4:D:54:PHE:HE1	6:F:33:PHE:CD2	2.34	0.45
6:F:33:PHE:CE1	17:F:1046:BCR:H14C	2.52	0.45
3:C:169:GLY:CA	3:C:244:CYS:SG	3.03	0.45
2:B:393:GLU:C	2:B:395:GLN:N	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:230:LEU:O	3:I:230:LEU:HD12	2.16	0.45
5:K:51:ARG:O	5:K:52:PRO:C	2.56	0.45
2:B:310:ALA:O	2:B:428:GLU:HB2	2.17	0.45
6:F:10:PRO:CB	6:F:19:ARG:HH11	2.20	0.45
8:U:57:UNK:O	8:U:58:UNK:C	2.63	0.45
3:C:80:PRO:HB2	3:C:83:GLU:HB2	1.99	0.45
2:B:357:ARG:NH1	4:D:338:ASN:O	2.50	0.45
3:I:56:HIS:O	3:I:59:LEU:CB	2.65	0.45
1:G:180:PHE:CG	4:J:192:THR:HB	2.52	0.45
2:H:31:ALA:CB	11:H:1486:CLA:HBC3	2.46	0.45
11:H:1488:CLA:H143	4:J:281:MET:HE1	1.98	0.45
1:A:119:PHE:CD2	12:A:1345:PHO:H111	2.52	0.45
4:D:315:TYR:CE1	4:D:319:LEU:HD12	2.51	0.45
2:B:396:GLY:O	2:B:398:THR:N	2.50	0.45
2:H:426:PHE:O	2:H:426:PHE:CD1	2.70	0.45
2:B:360:PRO:HB2	2:B:363:PHE:CD2	2.43	0.45
10:X:201:UNK:O	10:X:202:UNK:C	2.63	0.45
2:H:238:LEU:CD2	2:H:469:HIS:CG	3.00	0.45
2:B:345:VAL:HG23	2:B:345:VAL:O	2.17	0.45
4:J:43:LEU:HG	4:J:113:PHE:CZ	2.52	0.45
5:K:35:TRP:O	5:K:35:TRP:CD1	2.70	0.45
6:L:14:PRO:O	6:L:15:ILE:CB	2.65	0.45
2:B:45:PHE:C	2:B:47:PRO:HD2	2.37	0.45
3:C:364:PRO:O	3:C:365:TRP:C	2.55	0.45
1:G:48:PHE:CD2	1:G:48:PHE:C	2.90	0.45
3:I:81:MET:HB3	3:I:301:PHE:O	2.17	0.45
5:E:18:ARG:NE	5:E:22:ILE:HD11	2.32	0.45
5:K:18:ARG:NE	5:K:22:ILE:HD11	2.32	0.45
3:I:82:TYR:CA	3:I:422:PRO:HG2	2.39	0.45
10:Y:507:UNK:O	10:Y:508:UNK:C	2.64	0.45
7:P:142:UNK:C	7:P:149:UNK:CB	2.95	0.45
1:A:120:LEU:O	1:A:124:SER:N	2.49	0.44
1:A:207:GLY:O	1:A:208:GLY:C	2.54	0.44
4:D:74:LEU:HA	4:D:175:VAL:CG1	2.46	0.44
4:D:294:ARG:HB2	4:D:295:SER:H	1.56	0.44
5:E:49:THR:HA	5:E:50:PRO:HD3	1.79	0.44
3:I:370:ARG:O	3:I:375:LEU:N	2.49	0.44
2:B:133:LEU:O	2:B:134:ASP:CB	2.65	0.44
3:I:305:THR:O	3:I:306:GLY:C	2.55	0.44
2:H:174:LEU:HD23	2:H:308:LYS:HB3	1.98	0.44
2:H:49:ASP:CG	2:H:49:ASP:O	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:425:ILE:O	2:B:426:PHE:CB	2.65	0.44
1:G:258:LEU:O	4:J:128:ARG:CZ	2.65	0.44
2:B:358:ARG:O	2:B:360:PRO:HD3	2.17	0.44
10:Y:224:UNK:O	10:Y:225:UNK:C	2.64	0.44
1:G:93:PHE:CZ	1:G:95:PRO:HG3	2.51	0.44
3:I:447:ARG:HG2	3:I:447:ARG:NH1	2.32	0.44
4:J:32:TRP:O	4:J:35:ILE:HB	2.18	0.44
1:G:122:GLY:C	1:G:124:SER:H	2.20	0.44
3:I:167:VAL:CG2	11:I:1470:CLA:HMB2	2.46	0.44
11:I:1471:CLA:HHD	11:I:1471:CLA:HBC3	1.99	0.44
1:A:162:PRO:HB3	1:A:168:PHE:HA	2.00	0.44
3:C:431:PHE:O	3:C:432:VAL:C	2.53	0.44
3:C:150:ASP:CB	3:C:271:TYR:CE2	3.00	0.44
3:C:164:HIS:HA	3:C:167:VAL:CG2	2.47	0.44
3:C:35:TRP:CZ3	3:C:36:TRP:HB3	2.52	0.44
3:I:229:ASN:HB2	3:I:232:ASP:OD1	2.18	0.44
3:I:188:THR:HG21	3:I:300:GLU:OE1	2.17	0.44
3:C:311:GLN:HA	3:C:355:THR:HG21	1.99	0.44
5:K:10:PHE:HE2	6:L:19:ARG:HE	1.62	0.44
2:H:280:PHE:O	2:H:283:GLU:N	2.50	0.44
4:D:235:PHE:CD1	4:D:235:PHE:C	2.90	0.44
7:P:11:UNK:CA	7:P:173:UNK:CB	2.90	0.44
10:Y:200:UNK:O	10:Y:203:UNK:N	2.51	0.44
2:B:222:PRO:O	2:B:226:TYR:N	2.42	0.44
4:J:302:GLU:HB3	7:P:114:UNK:CB	2.47	0.44
4:J:96:GLU:OE1	4:J:96:GLU:CA	2.66	0.44
2:H:286:ARG:HG3	2:H:287:ARG:N	2.31	0.44
8:S:77:UNK:C	8:S:79:UNK:N	2.79	0.44
1:G:112:TYR:CE1	1:G:116:ILE:CD1	3.00	0.44
1:G:176:ILE:CG1	11:G:1343:CLA:HED3	2.41	0.44
1:G:279:PRO:CB	12:G:1345:PHO:HBC1	2.48	0.44
1:G:288:LEU:O	1:G:291:SER:N	2.50	0.44
1:A:320:ILE:O	1:A:321:ILE:C	2.56	0.44
1:A:78:ILE:HB	4:D:298:PHE:HZ	1.81	0.44
1:A:206:PHE:CZ	11:D:1351:CLA:HAA1	2.52	0.44
1:A:131:TRP:O	1:A:134:SER:CB	2.65	0.44
1:A:105:TRP:CZ3	1:A:111:PRO:HG3	2.53	0.44
2:B:139:PHE:CD1	2:B:139:PHE:O	2.70	0.44
11:G:1346:CLA:CBB	11:G:1346:CLA:HMB1	2.46	0.44
3:I:88:LEU:O	3:I:89:ILE:C	2.56	0.44
2:B:418:LYS:O	2:B:419:SER:C	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:425:ILE:O	2:H:426:PHE:CB	2.64	0.44
10:X:223:UNK:O	10:X:224:UNK:C	2.65	0.44
4:J:210:LEU:HD11	4:J:270:PHE:HD2	1.81	0.44
10:X:9:UNK:O	10:X:10:UNK:C	2.62	0.44
4:J:203:GLY:O	4:J:207:GLY:N	2.48	0.44
4:D:273:PHE:O	4:D:277:THR:OG1	2.24	0.44
2:H:265:ILE:HD13	2:H:265:ILE:HA	1.77	0.44
11:H:1488:CLA:C17	4:J:281:MET:HE1	2.43	0.44
1:A:57:PRO:CG	1:A:68:SER:HB3	2.36	0.44
3:C:243:ILE:HG22	3:C:244:CYS:N	2.32	0.44
3:C:43:ILE:HG22	11:C:1467:CLA:CMC	2.31	0.44
3:C:49:LEU:O	3:C:52:ALA:N	2.51	0.44
2:B:172:TYR:HB3	2:B:309:LEU:HD21	1.98	0.44
5:E:10:PHE:CE2	6:F:19:ARG:CZ	3.01	0.44
4:D:235:PHE:CD2	4:D:243:THR:CG2	2.99	0.44
3:C:109:PHE:HB3	3:C:110:PRO:HD2	1.98	0.44
7:O:142:UNK:C	7:O:149:UNK:CB	2.96	0.44
2:B:372:ASP:C	2:B:374:ASN:H	2.19	0.44
1:A:55:ALA:HA	1:A:56:PRO:HD3	1.75	0.44
4:D:337:GLU:CG	4:D:339:PHE:HE2	2.28	0.44
4:D:339:PHE:HD1	4:D:341:PHE:CE1	2.35	0.44
4:J:52:THR:CG2	4:J:76:VAL:HG11	2.47	0.44
2:H:270:PRO:O	2:H:271:THR:CB	2.65	0.44
6:F:33:PHE:C	6:F:35:GLY:H	2.21	0.44
10:X:331:UNK:O	10:X:334:UNK:CB	2.65	0.44
3:C:177:ALA:O	3:C:178:LYS:C	2.56	0.44
2:B:145:LEU:CD1	11:B:1496:CLA:HMB2	2.48	0.44
3:I:92:ILE:O	3:I:93:ALA:C	2.55	0.44
1:G:218:LEU:HA	1:G:221:SER:OG	2.17	0.44
2:H:196:GLY:O	2:H:197:GLY:C	2.54	0.44
5:E:23:HIS:HD2	16:E:1085:HEM:NB	2.14	0.44
10:X:158:UNK:O	10:X:159:UNK:C	2.63	0.44
3:I:276:LEU:HD13	11:I:1466:CLA:HBB1	1.99	0.44
3:I:225:VAL:HA	3:I:289:PHE:CE1	2.52	0.44
4:J:93:TRP:HA	4:J:97:ALA:HB2	2.00	0.44
2:H:31:ALA:HB2	11:H:1486:CLA:HBC3	1.99	0.44
2:H:445:THR:HG23	2:H:450:TRP:NE1	2.33	0.44
2:B:272:ARG:CG	2:B:273:TYR:N	2.80	0.44
3:C:430:HIS:O	3:C:434:ALA:N	2.46	0.44
3:C:91:HIS:O	3:C:92:ILE:C	2.56	0.44
3:C:168:LEU:O	11:C:1459:CLA:HMC1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:269:GLU:N	11:C:1467:CLA:HBC1	2.32	0.44
3:C:38:GLY:HA3	11:C:1469:CLA:C2D	2.47	0.44
3:C:172:ALA:O	3:C:173:LEU:C	2.56	0.44
3:C:188:THR:HG21	3:C:300:GLU:OE1	2.18	0.44
3:C:51:GLY:O	3:C:52:ALA:C	2.56	0.44
2:H:172:TYR:CE1	2:H:279:TYR:CZ	3.05	0.44
6:F:18:VAL:O	6:F:21:VAL:HB	2.17	0.44
10:X:255:UNK:O	10:X:256:UNK:C	2.65	0.44
2:H:35:GLY:O	2:H:38:ALA:HB3	2.18	0.44
10:Y:68:UNK:C	10:Y:70:UNK:N	2.74	0.44
9:T:28:GLU:OE1	9:T:28:GLU:HA	2.18	0.44
9:T:77:LYS:HG2	9:T:95:LEU:HD22	1.99	0.44
9:V:40:CYS:SG	9:V:47:LYS:HB2	2.58	0.44
4:D:331:PRO:CG	4:D:339:PHE:CG	2.93	0.44
4:J:330:ALA:HB3	4:J:331:PRO:CD	2.00	0.44
3:I:43:ILE:HG13	3:I:44:ASN:N	2.32	0.44
4:J:56:THR:OG1	4:J:57:SER:N	2.50	0.44
4:J:91:LEU:C	4:J:93:TRP:N	2.69	0.44
1:A:83:VAL:HG13	4:D:314:PHE:CZ	2.53	0.44
3:C:91:HIS:CE1	11:C:1460:CLA:O1D	2.67	0.44
4:D:111:TRP:HB3	4:D:112:THR:H	1.67	0.44
4:D:191:TRP:CZ2	4:D:286:VAL:CG2	3.01	0.44
4:D:51:GLY:O	4:D:52:THR:C	2.56	0.44
3:C:271:TYR:O	3:C:272:LEU:C	2.54	0.44
3:C:56:HIS:O	3:C:59:LEU:HB3	2.18	0.44
2:B:445:THR:HG23	2:B:450:TRP:NE1	2.33	0.44
2:B:468:TRP:O	2:B:471:ALA:CB	2.64	0.44
2:B:65:PHE:O	2:B:66:MET:C	2.56	0.44
1:A:222:SER:O	1:A:246:TYR:CB	2.65	0.44
1:A:259:ILE:O	1:A:260:PHE:CB	2.65	0.44
2:H:309:LEU:O	2:H:311:PHE:N	2.50	0.44
2:B:280:PHE:O	2:B:283:GLU:N	2.50	0.44
4:D:148:ALA:HB2	4:D:276:VAL:HA	2.00	0.44
1:G:248:ILE:O	1:G:249:VAL:C	2.55	0.44
1:G:258:LEU:HG	4:J:128:ARG:NH2	2.33	0.44
2:B:238:LEU:CD2	2:B:469:HIS:CG	3.01	0.44
1:A:13:LEU:O	1:A:14:TRP:C	2.55	0.44
4:D:335:PRO:O	4:D:336:HIS:C	2.56	0.44
3:I:242:LEU:O	3:I:243:ILE:C	2.56	0.44
2:H:45:PHE:CE2	2:H:47:PRO:CD	2.82	0.44
2:H:468:TRP:O	2:H:471:ALA:CB	2.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:112:TYR:CE1	1:A:116:ILE:HD12	2.53	0.44
1:A:112:TYR:CE1	1:A:116:ILE:HD11	2.53	0.44
4:D:122:LEU:HA	4:D:122:LEU:HD23	1.80	0.44
4:D:296:TYR:CE1	4:D:319:LEU:HD23	2.53	0.44
1:A:134:SER:C	1:A:136:ARG:N	2.71	0.44
1:A:273:PHE:CD2	1:A:273:PHE:C	2.92	0.44
1:G:47:CYS:SG	1:G:114:LEU:CD2	2.89	0.44
2:H:195:PRO:O	2:H:198:VAL:N	2.50	0.44
2:H:425:ILE:CG2	2:H:426:PHE:CD2	3.01	0.44
3:C:46:SER:O	3:C:47:GLY:C	2.56	0.44
1:G:167:SER:OG	1:G:169:SER:HB2	2.18	0.44
3:I:46:SER:O	3:I:47:GLY:C	2.56	0.44
1:A:311:GLY:O	1:A:312:ASN:C	2.56	0.44
10:Y:159:UNK:O	10:Y:160:UNK:C	2.63	0.44
10:X:168:UNK:C	10:X:170:UNK:N	2.81	0.44
10:X:463:UNK:O	10:X:464:UNK:C	2.66	0.44
7:P:154:UNK:HA	7:P:170:UNK:HA	2.00	0.44
9:T:69:ILE:O	9:T:70:GLU:C	2.56	0.44
1:G:157:VAL:O	1:G:157:VAL:CG1	2.65	0.44
1:G:320:ILE:HD11	4:J:63:LEU:HD21	1.98	0.44
4:J:160:TYR:CZ	4:J:164:GLN:OE1	2.70	0.44
2:H:97:ALA:O	2:H:98:LEU:C	2.52	0.44
1:A:192:ILE:C	1:A:194:MET:N	2.71	0.44
1:A:57:PRO:HA	1:A:67:VAL:O	2.18	0.44
11:A:1346:CLA:CBB	11:A:1346:CLA:HMB1	2.43	0.44
1:G:34:GLY:O	1:G:38:ILE:N	2.51	0.44
3:I:97:TRP:O	3:I:98:GLY:C	2.56	0.44
2:H:396:GLY:O	2:H:397:VAL:C	2.56	0.44
5:E:19:TYR:CD1	5:E:19:TYR:C	2.90	0.44
4:D:342:PRO:O	4:D:345:VAL:HG23	2.17	0.44
1:G:258:LEU:O	4:J:128:ARG:NH1	2.51	0.44
18:V:1138:HEC:HHA	18:V:1138:HEC:HAD2	1.61	0.44
1:A:258:LEU:HG	4:D:128:ARG:NH2	2.31	0.44
4:D:261:PHE:CD1	4:D:266:TRP:HD1	2.36	0.44
1:G:211:PHE:CD2	1:G:274:PHE:HE2	2.36	0.44
5:E:51:ARG:O	5:E:52:PRO:C	2.54	0.44
1:G:21:VAL:O	1:G:22:THR:C	2.56	0.44
3:I:420:VAL:HG12	3:I:421:SER:N	2.33	0.44
12:G:1345:PHO:HAB	4:J:205:LEU:CD2	2.47	0.43
4:J:61:HIS:CE1	4:J:80:THR:OG1	2.71	0.43
1:A:176:ILE:CG2	1:A:180:PHE:CE1	3.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:111:TRP:C	4:D:113:PHE:N	2.68	0.43
4:D:286:VAL:C	4:D:288:GLY:N	2.69	0.43
4:D:72:ASN:C	4:D:76:VAL:HG23	2.38	0.43
1:A:78:ILE:HD12	10:X:125:UNK:CB	2.48	0.43
3:C:170:ILE:CG2	3:C:171:GLY:H	2.29	0.43
3:C:189:TRP:HH2	3:C:363:GLY:HA2	1.80	0.43
3:C:341:LEU:CD2	3:C:375:LEU:HD13	2.48	0.43
2:B:176:GLY:O	2:B:177:SER:HB3	2.18	0.43
2:B:213:GLY:O	2:B:214:LEU:C	2.57	0.43
1:G:307:ILE:O	1:G:308:ASP:C	2.53	0.43
4:J:148:ALA:HA	4:J:280:TRP:HE1	1.80	0.43
3:C:395:TYR:O	3:C:398:HIS:N	2.37	0.43
2:B:425:ILE:CG2	2:B:426:PHE:CD2	3.00	0.43
3:I:318:LEU:HA	3:I:340:TYR:CD1	2.53	0.43
10:Y:423:UNK:O	10:Y:424:UNK:C	2.65	0.43
8:S:20:UNK:C	8:S:22:UNK:H	2.29	0.43
9:T:62:ALA:HB2	9:T:82:TYR:CE1	2.53	0.43
1:A:91:LEU:HA	1:A:91:LEU:HD12	1.88	0.43
4:J:320:LEU:HA	4:J:320:LEU:HD23	1.73	0.43
2:H:450:TRP:CE2	11:H:1488:CLA:HBA1	2.54	0.43
1:A:177:SER:O	1:A:180:PHE:N	2.51	0.43
4:D:127:LEU:O	4:D:130:PHE:N	2.51	0.43
1:A:142:TRP:CG	4:D:220:ASN:OD1	2.71	0.43
2:B:29:LEU:HD12	11:B:1495:CLA:HBB2	2.00	0.43
4:D:218:VAL:O	4:D:219:GLU:C	2.55	0.43
4:D:148:ALA:HB2	4:D:276:VAL:HG13	1.98	0.43
2:B:419:SER:OG	2:B:420:TYR:N	2.51	0.43
2:H:316:GLY:HA2	2:H:443:PHE:CE1	2.51	0.43
2:B:18:ARG:O	2:B:21:ALA:N	2.51	0.43
2:H:153:PHE:O	2:H:157:HIS:HB3	2.19	0.43
2:B:19:LEU:O	2:B:22:ALA:HB3	2.18	0.43
7:O:37:UNK:O	7:O:38:UNK:CB	2.66	0.43
1:G:77:ILE:H	1:G:77:ILE:HG13	1.64	0.43
1:G:116:ILE:HG12	1:G:158:PHE:CD1	2.51	0.43
1:G:202:VAL:O	1:G:206:PHE:N	2.47	0.43
4:J:103:ARG:HA	4:J:106:GLN:HG3	2.01	0.43
2:H:62:VAL:HG13	11:H:1486:CLA:O2D	2.18	0.43
3:C:170:ILE:O	3:C:171:GLY:C	2.56	0.43
2:B:24:LEU:HD21	2:B:110:ALA:HB1	2.01	0.43
2:H:400:SER:HB3	2:H:410:THR:CB	2.28	0.43
1:A:331:MET:HE3	4:D:346:LEU:O	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:V:134:LYS:O	9:V:137:TYR:N	2.50	0.43
4:J:218:VAL:O	4:J:219:GLU:C	2.56	0.43
2:H:278:SER:C	2:H:279:TYR:O	2.56	0.43
10:X:56:UNK:O	10:X:59:UNK:N	2.50	0.43
2:H:222:PRO:O	2:H:223:GLN:C	2.56	0.43
10:Y:200:UNK:O	10:Y:203:UNK:CB	2.66	0.43
10:Y:265:UNK:O	10:Y:266:UNK:C	2.66	0.43
4:D:200:GLY:O	4:D:201:VAL:C	2.56	0.43
2:B:218:LEU:HD12	2:B:218:LEU:O	2.18	0.43
1:G:172:MET:N	1:G:182:PHE:CD1	2.75	0.43
3:I:445:ALA:CB	11:I:1463:CLA:HED1	2.45	0.43
3:I:165:LEU:O	3:I:169:GLY:N	2.50	0.43
3:I:282:MET:SD	11:I:1465:CLA:H42	2.57	0.43
4:J:59:TYR:N	4:J:59:TYR:CD1	2.87	0.43
6:L:34:LEU:HD12	6:L:34:LEU:HA	1.84	0.43
2:H:68:ARG:NH2	11:H:1485:CLA:CED	2.82	0.43
2:H:162:PHE:HB3	11:H:1487:CLA:HHD	2.00	0.43
4:D:117:HIS:NE2	11:D:1353:CLA:NA	2.66	0.43
3:C:188:THR:HG21	3:C:298:PRO:CA	2.48	0.43
3:C:61:VAL:HG21	3:C:125:LEU:CD1	2.48	0.43
4:D:252:PHE:O	4:D:256:ILE:HG13	2.17	0.43
3:C:319:ILE:CD1	3:C:384:ILE:HD11	2.47	0.43
2:B:135:LEU:CD1	2:B:232:GLY:HA2	2.48	0.43
2:B:29:LEU:HA	2:B:29:LEU:HD23	1.70	0.43
2:B:464:PHE:CE1	4:D:144:ILE:HG23	2.53	0.43
2:B:309:LEU:C	2:B:311:PHE:N	2.68	0.43
3:C:82:TYR:HB3	3:C:302:TYR:O	2.18	0.43
2:B:359:MET:CE	2:B:366:PHE:HB2	2.49	0.43
10:X:59:UNK:O	10:X:62:UNK:N	2.50	0.43
10:X:470:UNK:O	10:X:472:UNK:N	2.51	0.43
2:H:18:ARG:NH2	2:H:118:TRP:CE3	2.87	0.43
1:G:300:PHE:CE2	11:I:1462:CLA:H93	2.54	0.43
1:G:121:LEU:HD23	1:G:121:LEU:C	2.39	0.43
1:G:84:PRO:HD3	1:G:173:PRO:HB3	2.00	0.43
1:G:210:LEU:HD12	1:G:210:LEU:O	2.19	0.43
3:I:241:GLY:O	3:I:245:ILE:HG23	2.18	0.43
5:K:34:GLY:O	5:K:38:VAL:HG23	2.19	0.43
6:L:33:PHE:C	6:L:35:GLY:H	2.22	0.43
2:H:63:LEU:CB	2:H:64:PRO:CD	2.96	0.43
1:A:116:ILE:HG12	1:A:158:PHE:HD1	1.82	0.43
1:A:320:ILE:HD11	4:D:63:LEU:HD21	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:1344:CLA:HBB2	12:D:1352:PHO:H91	2.00	0.43
5:E:35:TRP:CD1	5:E:35:TRP:O	2.72	0.43
3:C:271:TYR:O	3:C:274:TYR:HB2	2.19	0.43
3:C:272:LEU:O	3:C:276:LEU:N	2.51	0.43
3:C:32:GLY:O	3:C:33:PHE:HB2	2.17	0.43
1:A:38:ILE:CB	1:A:39:PRO:HD3	2.46	0.43
2:B:68:ARG:HH22	11:B:1485:CLA:HED3	1.84	0.43
2:B:63:LEU:CB	2:B:64:PRO:CD	2.97	0.43
2:B:92:SER:O	2:B:95:GLY:N	2.50	0.43
3:I:115:GLY:O	3:I:116:VAL:C	2.56	0.43
1:A:218:LEU:HD11	1:A:255:PHE:CD2	2.50	0.43
2:H:309:LEU:C	2:H:311:PHE:N	2.69	0.43
1:A:215:HIS:HB3	4:D:271:MET:HE2	2.00	0.43
2:H:18:ARG:NH2	2:H:118:TRP:CZ3	2.86	0.43
10:X:160:UNK:O	10:X:164:UNK:CB	2.66	0.43
1:G:160:ILE:HD12	3:I:431:PHE:CE1	2.49	0.43
1:G:161:TYR:HA	1:G:294:ALA:HB1	2.00	0.43
1:G:59:ASP:O	1:G:60:ILE:C	2.57	0.43
4:J:249:ALA:O	4:J:252:PHE:HB3	2.17	0.43
2:H:242:ILE:HD11	11:H:1492:CLA:HBB1	2.00	0.43
3:C:225:VAL:HA	3:C:289:PHE:CE1	2.54	0.43
4:D:91:LEU:HD13	4:D:93:TRP:CZ3	2.52	0.43
3:C:240:ILE:CD1	11:C:1465:CLA:H91	2.48	0.43
2:B:396:GLY:O	2:B:397:VAL:C	2.56	0.43
3:I:90:PRO:O	3:I:93:ALA:HB3	2.19	0.43
5:E:13:ILE:CG2	5:E:19:TYR:HD2	2.29	0.43
3:I:290:VAL:HA	3:I:297:TYR:CE2	2.54	0.43
3:C:376:ASP:O	3:C:378:ASN:N	2.51	0.43
7:O:11:UNK:CA	7:O:173:UNK:CB	2.93	0.43
2:B:230:ARG:O	2:B:231:MET:C	2.57	0.43
5:E:27:ILE:O	5:E:28:PRO:C	2.56	0.43
3:C:318:LEU:HA	3:C:340:TYR:CD1	2.54	0.43
1:G:110:GLY:O	1:G:111:PRO:C	2.53	0.43
4:J:298:PHE:O	4:J:299:ILE:HB	2.19	0.43
3:I:150:ASP:O	3:I:151:TRP:C	2.56	0.43
3:I:264:PHE:CD2	3:I:264:PHE:N	2.87	0.43
3:I:38:GLY:HA3	11:I:1469:CLA:C2D	2.49	0.43
4:J:190:ASN:ND2	4:J:193:LEU:HD12	2.34	0.43
6:L:33:PHE:HB2	17:L:1047:BCR:H363	2.00	0.43
4:D:185:PHE:O	4:D:186:GLN:C	2.56	0.43
4:D:56:THR:H	5:E:49:THR:HG22	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:24:HIS:HA	6:F:27:ALA:HB3	1.99	0.43
4:J:127:LEU:O	4:J:130:PHE:N	2.51	0.43
4:D:154:VAL:O	4:D:159:ILE:HG13	2.18	0.43
1:G:222:SER:O	1:G:246:TYR:HB2	2.19	0.43
3:C:421:SER:HA	3:C:422:PRO:HD3	1.81	0.43
5:E:10:PHE:CE2	6:F:19:ARG:NH2	2.87	0.43
8:U:57:UNK:O	8:U:59:UNK:N	2.52	0.43
3:C:115:GLY:O	3:C:116:VAL:C	2.56	0.43
2:B:332:LYS:O	2:B:440:ASP:N	2.52	0.43
1:G:105:TRP:CZ3	1:G:111:PRO:HG3	2.54	0.43
10:Y:580:UNK:O	10:Y:581:UNK:C	2.66	0.43
3:I:85:GLY:N	3:I:419:PHE:CE2	2.87	0.43
2:H:204:ALA:O	2:H:205:ALA:C	2.56	0.43
2:H:152:GLY:O	2:H:153:PHE:C	2.55	0.43
1:G:119:PHE:CD2	12:G:1345:PHO:H111	2.54	0.43
4:J:46:GLY:O	4:J:48:TRP:N	2.52	0.43
6:L:11:VAL:HG12	6:L:12:SER:N	2.34	0.43
2:H:64:PRO:HB3	2:H:268:PHE:CZ	2.53	0.43
6:F:14:PRO:O	6:F:15:ILE:HB	2.18	0.43
4:D:279:LEU:HD22	11:D:1351:CLA:HBA2	2.01	0.43
2:B:462:PHE:HE1	11:B:1494:CLA:HMB3	1.84	0.43
1:A:272:HIS:HD2	4:D:218:VAL:HG21	1.73	0.43
2:B:359:MET:HE3	2:B:366:PHE:CB	2.49	0.43
1:A:214:MET:O	1:A:217:SER:HB3	2.19	0.43
5:E:15:THR:O	5:E:15:THR:CG2	2.66	0.43
2:B:279:TYR:O	2:B:281:GLN:N	2.51	0.43
8:U:77:UNK:C	8:U:79:UNK:N	2.80	0.43
3:C:27:ASP:O	3:C:31:SER:HB2	2.19	0.43
1:G:131:TRP:CE3	1:G:132:GLU:N	2.86	0.43
11:G:1342:CLA:HBB1	11:J:1351:CLA:NC	2.33	0.43
4:J:246:MET:O	4:J:249:ALA:HB3	2.19	0.43
3:C:188:THR:HG21	3:C:298:PRO:HA	2.00	0.43
2:B:71:VAL:CG1	2:B:93:PHE:H	2.32	0.43
2:B:94:GLU:O	2:B:97:ALA:HB3	2.19	0.43
2:H:410:THR:OG1	2:H:411:PHE:N	2.52	0.43
4:J:272:LEU:HD21	4:J:276:VAL:HG21	2.00	0.43
18:T:1138:HEC:HHA	18:T:1138:HEC:HAD2	1.60	0.43
1:G:75:ASN:HA	1:G:75:ASN:HD22	1.59	0.43
1:A:121:LEU:HD23	1:A:121:LEU:C	2.38	0.43
1:A:8:ARG:N	1:A:11:ALA:CB	2.80	0.43
3:I:75:PHE:CE1	3:I:76:ILE:O	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:425:TRP:CZ2	11:C:1462:CLA:O1A	2.72	0.43
2:H:70:GLY:HA2	2:H:178:VAL:HG11	2.00	0.43
4:D:228:GLY:O	4:D:229:ALA:HB3	2.19	0.43
4:D:85:MET:HE2	4:D:85:MET:HB2	1.82	0.43
4:J:336:HIS:C	4:J:336:HIS:ND1	2.73	0.43
1:G:187:GLN:CB	11:G:1342:CLA:HAC2	2.43	0.43
4:J:160:TYR:CB	4:J:161:PRO:HD3	2.34	0.43
2:H:162:PHE:CB	11:H:1487:CLA:HMD3	2.49	0.43
2:H:96:VAL:O	2:H:99:ALA:HB3	2.19	0.43
1:A:277:ALA:O	1:A:278:TRP:C	2.56	0.43
4:D:111:TRP:O	4:D:113:PHE:N	2.52	0.43
1:A:180:PHE:CZ	4:D:192:THR:HB	2.54	0.43
4:D:190:ASN:HD22	4:D:193:LEU:HD12	1.84	0.43
4:D:91:LEU:C	4:D:93:TRP:N	2.71	0.43
1:A:142:TRP:C	1:A:144:CYS:N	2.70	0.43
3:C:128:GLY:HA3	11:C:1471:CLA:HMC3	1.99	0.43
4:D:213:ILE:O	4:D:216:ALA:N	2.52	0.43
4:J:127:LEU:C	4:J:129:GLN:N	2.72	0.43
2:H:201:HIS:CE1	11:H:1484:CLA:HMB3	2.54	0.43
9:V:13:ASN:HB2	9:V:15:GLU:OE1	2.19	0.43
10:X:116:UNK:O	10:X:117:UNK:C	2.67	0.43
8:U:51:UNK:O	8:U:52:UNK:O	2.37	0.43
2:B:26:HIS:HB2	11:B:1493:CLA:HMB2	1.99	0.43
1:G:210:LEU:HD13	12:J:1352:PHO:C1D	2.48	0.42
11:I:1463:CLA:HMD3	11:I:1465:CLA:HAB	2.01	0.42
3:I:170:ILE:CG2	3:I:171:GLY:H	2.33	0.42
2:H:139:PHE:CD1	2:H:139:PHE:O	2.71	0.42
2:H:466:HIS:O	2:H:468:TRP:N	2.52	0.42
3:C:280:SER:O	3:C:434:ALA:HB1	2.19	0.42
4:D:288:GLY:C	4:D:290:ALA:N	2.73	0.42
6:F:33:PHE:HB2	17:F:1046:BCR:H363	2.00	0.42
3:C:35:TRP:CE2	3:C:36:TRP:CD1	2.96	0.42
3:C:374:GLY:O	3:C:375:LEU:HB2	2.19	0.42
2:H:347:ARG:O	2:H:396:GLY:HA2	2.19	0.42
4:J:149:PRO:O	4:J:150:ILE:C	2.57	0.42
9:T:133:GLY:O	9:T:137:TYR:N	2.51	0.42
2:B:158:LEU:CB	2:B:199:VAL:HG22	2.48	0.42
2:H:407:ASN:O	2:H:408:GLY:O	2.37	0.42
1:A:211:PHE:CE2	1:A:274:PHE:CE2	3.06	0.42
10:X:516:UNK:O	10:X:517:UNK:C	2.67	0.42
1:A:323:ARG:O	1:A:326:LEU:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:192:ILE:O	1:G:194:MET:N	2.52	0.42
4:J:296:TYR:CZ	4:J:319:LEU:CD2	3.02	0.42
4:D:93:TRP:HA	4:D:97:ALA:HB2	2.00	0.42
3:C:269:GLU:OE1	3:C:447:ARG:HD3	2.19	0.42
1:A:93:PHE:CE1	1:A:95:PRO:HG2	2.54	0.42
1:A:95:PRO:O	1:A:105:TRP:NE1	2.52	0.42
3:I:89:ILE:HB	3:I:90:PRO:CD	2.42	0.42
2:H:395:GLN:CB	2:H:397:VAL:CB	2.97	0.42
3:C:322:GLN:NE2	3:C:381:LYS:HA	2.34	0.42
3:I:226:SER:O	3:I:227:VAL:C	2.57	0.42
10:Y:266:UNK:O	10:Y:267:UNK:C	2.67	0.42
3:I:85:GLY:N	3:I:419:PHE:HE2	2.18	0.42
10:X:412:UNK:O	10:X:414:UNK:N	2.52	0.42
7:P:86:UNK:O	7:P:87:UNK:CB	2.67	0.42
9:V:41:HIS:HA	9:V:45:ILE:O	2.18	0.42
1:A:322:ASN:O	1:A:323:ARG:C	2.56	0.42
1:G:290:ILE:C	1:G:292:THR:H	2.23	0.42
3:I:272:LEU:O	3:I:276:LEU:N	2.52	0.42
2:H:213:GLY:O	2:H:214:LEU:C	2.57	0.42
1:A:204:GLY:HA3	1:A:282:GLY:HA3	2.00	0.42
4:D:59:TYR:CD1	4:D:59:TYR:N	2.85	0.42
3:C:178:LYS:O	3:C:182:PHE:HB2	2.19	0.42
3:C:56:HIS:O	3:C:59:LEU:CB	2.67	0.42
1:A:95:PRO:HB3	11:A:1346:CLA:OBD	2.19	0.42
3:I:178:LYS:CD	3:I:178:LYS:C	2.85	0.42
3:I:299:SER:C	3:I:301:PHE:N	2.70	0.42
4:D:161:PRO:HG2	4:D:170:ALA:HB2	2.02	0.42
1:G:244:GLU:OE2	4:J:264:LYS:NZ	2.52	0.42
1:A:222:SER:O	1:A:246:TYR:O	2.37	0.42
2:B:359:MET:HE3	2:B:366:PHE:HB2	2.02	0.42
10:Y:507:UNK:C	10:Y:509:UNK:N	2.80	0.42
2:H:275:TRP:HZ2	2:H:359:MET:O	2.03	0.42
3:C:80:PRO:HB2	3:C:83:GLU:HB3	2.00	0.42
2:H:332:LYS:O	2:H:440:ASP:N	2.52	0.42
2:H:314:TYR:N	2:H:427:GLY:HA3	2.35	0.42
10:X:531:UNK:O	10:X:532:UNK:C	2.66	0.42
7:P:63:UNK:O	7:P:72:UNK:N	2.53	0.42
10:Y:52:UNK:O	10:Y:53:UNK:C	2.66	0.42
2:H:357:ARG:NH1	4:J:338:ASN:O	2.52	0.42
1:G:41:LEU:HD13	12:G:1345:PHO:C2	2.50	0.42
3:I:264:PHE:CE2	11:I:1464:CLA:HBA1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:286:VAL:C	4:J:288:GLY:N	2.68	0.42
5:E:58:GLN:NE2	9:V:4:THR:OG1	2.53	0.42
2:H:214:LEU:HG	2:H:215:PHE:H	1.85	0.42
4:J:200:GLY:HA3	4:J:282:SER:HB3	2.02	0.42
4:D:43:LEU:O	4:D:113:PHE:HE1	2.03	0.42
5:E:30:LEU:HD13	6:F:28:VAL:HG13	2.01	0.42
3:C:186:TYR:CE2	3:C:188:THR:HG23	2.49	0.42
3:C:33:PHE:CZ	3:C:40:ALA:HB1	2.54	0.42
2:B:242:ILE:HD11	11:B:1492:CLA:HBB1	2.00	0.42
10:Y:563:UNK:O	10:Y:564:UNK:C	2.68	0.42
2:H:208:VAL:HG21	11:H:1483:CLA:HMC1	2.01	0.42
2:H:195:PRO:O	2:H:197:GLY:N	2.52	0.42
3:C:420:VAL:HG12	3:C:421:SER:N	2.35	0.42
6:F:23:VAL:HG12	6:F:23:VAL:O	2.19	0.42
2:B:425:ILE:HG23	2:B:426:PHE:CD2	2.54	0.42
1:A:258:LEU:CD1	4:D:128:ARG:CZ	2.95	0.42
10:X:215:UNK:O	10:X:219:UNK:N	2.52	0.42
4:J:82:ALA:HB3	4:J:85:MET:HE3	2.01	0.42
1:G:192:ILE:C	1:G:194:MET:N	2.69	0.42
3:I:55:ALA:O	3:I:56:HIS:C	2.57	0.42
2:H:135:LEU:O	2:H:137:LYS:N	2.52	0.42
12:A:1345:PHO:HAB	4:D:205:LEU:HD21	2.01	0.42
3:C:163:PHE:CE2	3:C:252:ILE:HD13	2.53	0.42
3:C:269:GLU:OE2	3:C:447:ARG:NH1	2.52	0.42
3:C:299:SER:C	3:C:301:PHE:N	2.71	0.42
3:C:445:ALA:HB1	11:C:1463:CLA:CED	2.41	0.42
3:C:52:ALA:HA	11:C:1469:CLA:CMB	2.41	0.42
2:B:214:LEU:HD12	2:B:215:PHE:N	2.34	0.42
3:I:113:VAL:O	3:I:116:VAL:HG22	2.19	0.42
6:L:9:GLU:N	6:L:10:PRO:HD2	2.34	0.42
4:J:223:PHE:HD2	4:J:243:THR:O	2.03	0.42
4:J:244:TYR:HB2	4:J:245:SER:H	1.66	0.42
3:C:88:LEU:O	3:C:89:ILE:C	2.57	0.42
2:H:452:THR:CG2	2:H:452:THR:O	2.65	0.42
9:V:30:LYS:O	9:V:34:GLN:HG3	2.20	0.42
1:A:65:GLU:HG2	1:A:65:GLU:O	2.19	0.42
9:V:40:CYS:O	9:V:40:CYS:SG	2.77	0.42
4:J:191:TRP:CZ3	4:J:194:ASN:ND2	2.85	0.42
2:H:176:GLY:O	2:H:177:SER:HB3	2.19	0.42
2:H:263:THR:HG22	2:H:448:ARG:NH2	2.34	0.42
3:C:286:ALA:O	3:C:287:THR:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:193:LEU:HD11	4:D:315:TYR:HE2	1.83	0.42
4:D:93:TRP:CD1	4:D:93:TRP:N	2.86	0.42
3:C:160:ILE:O	3:C:161:LEU:C	2.58	0.42
3:C:272:LEU:O	3:C:273:SER:C	2.55	0.42
1:A:102:LEU:O	1:A:105:TRP:HB3	2.20	0.42
2:B:464:PHE:HD2	11:B:1492:CLA:HAC2	1.84	0.42
2:B:248:ALA:O	2:B:251:VAL:CG2	2.63	0.42
2:B:468:TRP:CD1	4:D:144:ILE:CD1	2.99	0.42
1:A:64:ARG:C	1:A:66:PRO:HD3	2.38	0.42
4:D:223:PHE:HB3	4:D:225:ASP:OD1	2.20	0.42
4:J:64:ALA:HB1	4:J:69:GLU:HB3	2.00	0.42
2:H:425:ILE:HG23	2:H:426:PHE:CD2	2.52	0.42
7:P:123:UNK:O	7:P:126:UNK:N	2.53	0.42
10:X:365:UNK:O	10:X:366:UNK:C	2.63	0.42
1:A:327:GLY:O	4:D:324:GLY:HA3	2.19	0.42
1:G:116:ILE:HD13	1:G:158:PHE:HB3	2.01	0.42
1:G:176:ILE:CG2	1:G:180:PHE:CE1	3.02	0.42
1:G:195:HIS:CE1	1:G:197:PHE:CD1	3.06	0.42
3:I:265:ILE:C	3:I:266:TRP:CD1	2.93	0.42
4:J:190:ASN:CG	4:J:322:ASN:HD21	2.23	0.42
4:J:92:LEU:C	4:J:93:TRP:CD1	2.93	0.42
2:H:236:THR:N	2:H:473:THR:OG1	2.52	0.42
4:D:194:ASN:HA	4:D:195:PRO:HD3	1.84	0.42
1:A:134:SER:HA	1:A:139:MET:CB	2.47	0.42
3:C:51:GLY:HA2	3:C:54:VAL:CG2	2.50	0.42
2:B:330:MET:O	2:B:331:ASN:CB	2.68	0.42
3:I:450:ALA:HB1	3:I:455:PHE:HB2	2.02	0.42
5:K:13:ILE:CG2	5:K:19:TYR:HD2	2.28	0.42
4:J:235:PHE:CZ	4:J:237:PRO:HA	2.55	0.42
10:X:71:UNK:O	10:X:72:UNK:C	2.67	0.42
10:X:507:UNK:C	10:X:509:UNK:N	2.83	0.42
8:U:31:UNK:O	8:U:33:UNK:N	2.53	0.42
1:G:187:GLN:NE2	1:G:325:ASN:OD1	2.53	0.42
6:L:27:ALA:O	6:L:28:VAL:C	2.58	0.42
1:A:310:LYS:HZ1	5:E:58:GLN:HG2	1.84	0.42
11:H:1496:CLA:HMA3	11:H:1497:CLA:HMC2	2.02	0.42
3:C:225:VAL:CG1	3:C:225:VAL:O	2.64	0.42
4:D:127:LEU:C	4:D:129:GLN:H	2.22	0.42
3:C:172:ALA:N	11:C:1459:CLA:CAC	2.83	0.42
3:C:165:LEU:O	3:C:169:GLY:N	2.51	0.42
3:C:187:ASP:CB	3:C:230:LEU:CD2	2.94	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:50:LEU:O	3:C:54:VAL:N	2.50	0.42
1:A:143:ILE:CA	4:D:220:ASN:ND2	2.83	0.42
2:B:464:PHE:HE1	4:D:144:ILE:HG23	1.85	0.42
5:K:58:GLN:NE2	9:T:2:GLU:O	2.53	0.42
3:I:107:ASP:O	3:I:110:PRO:CD	2.52	0.42
4:J:148:ALA:CB	4:J:276:VAL:HA	2.50	0.42
5:K:10:PHE:CE2	6:L:19:ARG:NH2	2.88	0.42
2:B:362:PHE:CE2	4:D:184:PHE:CZ	3.00	0.42
5:E:27:ILE:HB	5:E:28:PRO:CD	2.45	0.42
4:D:264:LYS:C	4:D:266:TRP:H	2.23	0.42
7:O:75:UNK:O	7:O:77:UNK:N	2.53	0.42
10:Y:213:UNK:O	10:Y:214:UNK:C	2.67	0.42
10:X:266:UNK:O	10:X:268:UNK:N	2.53	0.42
10:Y:16:UNK:O	10:Y:17:UNK:C	2.64	0.42
2:B:401:PHE:CD1	2:B:401:PHE:N	2.87	0.42
1:G:323:ARG:O	1:G:326:LEU:HB2	2.20	0.42
1:G:83:VAL:HA	1:G:84:PRO:HD3	1.87	0.42
3:I:239:TRP:O	3:I:243:ILE:N	2.37	0.42
2:H:167:TRP:CH2	2:H:177:SER:HA	2.55	0.42
2:H:98:LEU:O	2:H:99:ALA:C	2.58	0.42
1:A:81:ALA:CB	1:A:174:LEU:O	2.56	0.42
4:D:193:LEU:HB3	4:D:295:SER:HB3	2.02	0.42
1:A:133:LEU:HB2	4:D:252:PHE:HE2	1.85	0.42
3:C:41:ARG:NH1	11:C:1469:CLA:OBD	2.50	0.42
3:C:95:LEU:HA	3:C:95:LEU:HD12	1.89	0.42
3:I:314:ALA:O	3:I:315:MET:C	2.58	0.42
3:I:315:MET:O	3:I:319:ILE:CB	2.68	0.42
4:J:213:ILE:O	4:J:216:ALA:N	2.53	0.42
3:C:367:GLU:HB2	3:C:368:PRO:CD	2.50	0.42
2:B:30:VAL:HB	11:B:1486:CLA:HAC1	2.02	0.42
2:B:167:TRP:HA	2:B:177:SER:O	2.19	0.42
2:B:397:VAL:C	2:B:399:VAL:N	2.73	0.42
1:G:244:GLU:HG3	1:G:245:THR:H	1.85	0.42
3:I:305:THR:C	3:I:307:PRO:HD2	2.40	0.42
3:I:305:THR:O	3:I:307:PRO:N	2.53	0.42
4:J:128:ARG:O	4:J:128:ARG:HG2	2.18	0.42
2:B:243:ALA:C	2:B:246:PHE:HB3	2.39	0.42
7:P:75:UNK:O	7:P:77:UNK:N	2.53	0.42
10:Y:405:UNK:O	10:Y:408:UNK:N	2.53	0.42
10:Y:253:UNK:C	10:Y:255:UNK:N	2.82	0.42
4:D:200:GLY:O	4:D:203:GLY:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Y:9:UNK:O	10:Y:10:UNK:C	2.67	0.42
10:Y:463:UNK:O	10:Y:464:UNK:C	2.68	0.42
2:B:369:ILE:O	2:B:379:ALA:O	2.38	0.42
9:T:106:ASN:HD22	9:T:106:ASN:N	2.18	0.42
1:G:150:PRO:HB3	11:G:1342:CLA:H62	2.01	0.42
3:I:37:ALA:C	3:I:39:ASN:H	2.22	0.42
4:J:100:ASP:CB	4:J:103:ARG:H	2.33	0.42
4:J:190:ASN:HD22	4:J:193:LEU:HD12	1.83	0.42
2:H:164:PRO:CB	11:H:1487:CLA:O1D	2.68	0.42
2:H:37:MET:HG2	2:H:62:VAL:HG21	2.01	0.42
11:A:1344:CLA:HBC3	4:D:178:ILE:HG23	2.02	0.42
4:D:63:LEU:N	4:D:63:LEU:CD1	2.80	0.42
2:B:240:SER:HB3	11:B:1491:CLA:C4B	2.50	0.42
2:B:35:GLY:O	2:B:38:ALA:HB3	2.20	0.42
5:K:19:TYR:HE2	16:L:1046:HEM:C2A	2.38	0.42
4:D:161:PRO:CG	4:D:170:ALA:HB2	2.50	0.42
2:B:208:VAL:HG21	11:B:1483:CLA:HMC1	2.02	0.42
1:A:330:VAL:HG21	4:D:328:TRP:CH2	2.55	0.42
3:I:376:ASP:C	3:I:378:ASN:H	2.22	0.42
8:U:9:UNK:O	8:U:10:UNK:C	2.62	0.42
2:B:18:ARG:NH2	2:B:115:TRP:O	2.52	0.42
3:C:73:ALA:HB3	3:C:74:HIS:CD2	2.50	0.42
3:I:75:PHE:CE2	3:I:77:PRO:HG3	2.55	0.42
3:I:47:GLY:O	3:I:48:LYS:C	2.56	0.42
10:X:224:UNK:O	10:X:225:UNK:C	2.68	0.42
2:B:222:PRO:O	2:B:223:GLN:C	2.57	0.42
1:A:167:SER:OG	1:A:169:SER:CB	2.68	0.42
10:Y:182:UNK:O	10:Y:183:UNK:C	2.67	0.42
4:J:35:ILE:CG2	4:J:35:ILE:O	2.68	0.42
10:X:272:UNK:C	10:X:274:UNK:N	2.82	0.42
2:H:386:ALA:O	2:H:387:GLU:C	2.58	0.42
3:I:373:ASN:N	3:I:373:ASN:OD1	2.53	0.42
4:J:337:GLU:HG3	4:J:339:PHE:CE2	2.53	0.41
1:G:193:LEU:HD22	4:J:179:PHE:CD1	2.55	0.41
11:I:1463:CLA:CMD	11:I:1465:CLA:HAB	2.50	0.41
2:H:45:PHE:C	2:H:47:PRO:HD2	2.40	0.41
11:H:1492:CLA:CMA	11:H:1493:CLA:HBC2	2.49	0.41
11:H:1496:CLA:H171	11:H:1497:CLA:HMD3	2.02	0.41
4:D:54:PHE:HE1	6:F:33:PHE:CE2	2.38	0.41
5:K:19:TYR:HD1	5:K:20:TRP:N	2.18	0.41
1:G:256:GLY:HA2	1:G:260:PHE:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:293:ALA:O	2:H:294:SER:C	2.56	0.41
2:H:463:PHE:C	2:H:465:GLY:H	2.23	0.41
4:D:236:ASN:C	4:D:238:THR:N	2.71	0.41
10:X:204:UNK:O	10:X:205:UNK:C	2.68	0.41
6:F:18:VAL:HA	6:F:21:VAL:HG23	2.02	0.41
5:E:82:GLN:C	5:E:84:LYS:N	2.72	0.41
9:T:63:THR:O	9:T:84:GLY:HA3	2.20	0.41
3:C:133:ALA:C	3:C:134:ILE:HG13	2.40	0.41
1:G:323:ARG:HA	1:G:326:LEU:HD12	2.01	0.41
1:G:290:ILE:CD1	11:G:1342:CLA:OBD	2.63	0.41
1:G:84:PRO:HD3	1:G:173:PRO:CB	2.50	0.41
3:I:122:SER:O	3:I:126:GLY:N	2.48	0.41
3:I:160:ILE:O	3:I:161:LEU:C	2.57	0.41
3:I:259:TRP:O	3:I:260:ALA:C	2.58	0.41
4:J:100:ASP:CB	4:J:103:ARG:HB2	2.50	0.41
4:J:191:TRP:CE3	4:J:289:LEU:HD11	2.55	0.41
6:L:36:ALA:O	6:L:40:MET:HG3	2.21	0.41
4:J:199:MET:O	4:J:202:ALA:N	2.53	0.41
4:D:191:TRP:HZ2	4:D:286:VAL:CG2	2.32	0.41
3:C:51:GLY:HA2	3:C:54:VAL:HB	2.01	0.41
1:A:93:PHE:CZ	1:A:95:PRO:HG3	2.55	0.41
2:B:468:TRP:HD1	4:D:144:ILE:CD1	2.34	0.41
2:H:397:VAL:C	2:H:399:VAL:N	2.73	0.41
4:D:149:PRO:O	4:D:150:ILE:C	2.57	0.41
1:A:21:VAL:O	1:A:24:THR:CB	2.68	0.41
2:H:414:PRO:HB2	2:H:415:PRO:CD	2.41	0.41
4:J:235:PHE:HD2	4:J:243:THR:HG21	1.83	0.41
2:H:316:GLY:CA	2:H:443:PHE:CE1	3.04	0.41
10:Y:470:UNK:O	10:Y:471:UNK:C	2.68	0.41
1:G:152:ALA:O	1:G:155:PHE:N	2.53	0.41
10:X:578:UNK:O	10:X:580:UNK:N	2.54	0.41
8:S:69:UNK:O	8:S:71:UNK:N	2.53	0.41
1:G:110:GLY:N	1:G:111:PRO:CD	2.82	0.41
9:V:53:ASP:OD1	9:V:53:ASP:C	2.58	0.41
4:D:320:LEU:HD23	4:D:320:LEU:HA	1.78	0.41
4:J:335:PRO:O	4:J:336:HIS:C	2.58	0.41
4:J:337:GLU:CG	4:J:339:PHE:HE2	2.31	0.41
1:G:157:VAL:HG21	11:G:1343:CLA:CMC	2.49	0.41
11:I:1465:CLA:HBA1	11:I:1465:CLA:H3A	1.83	0.41
3:I:276:LEU:HD13	3:I:276:LEU:HA	1.86	0.41
4:J:286:VAL:O	4:J:287:VAL:C	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:50:THR:O	4:J:54:PHE:N	2.45	0.41
6:L:33:PHE:O	6:L:34:LEU:C	2.57	0.41
10:Y:331:UNK:O	10:Y:332:UNK:C	2.66	0.41
2:H:236:THR:HG23	2:H:237:VAL:N	2.34	0.41
1:A:192:ILE:O	1:A:194:MET:N	2.53	0.41
11:B:1496:CLA:HMA3	11:B:1497:CLA:HMC2	2.02	0.41
2:B:94:GLU:HG3	2:B:95:GLY:H	1.79	0.41
2:H:366:PHE:HD2	2:H:425:ILE:HD11	1.86	0.41
1:G:102:LEU:O	1:G:105:TRP:HB3	2.20	0.41
3:I:84:GLN:O	3:I:85:GLY:C	2.58	0.41
4:D:10:ALA:O	4:D:11:GLU:CB	2.67	0.41
2:B:348:ASN:C	2:B:350:GLU:N	2.73	0.41
4:J:180:ARG:CD	4:J:180:ARG:C	2.88	0.41
2:H:451:PHE:CD2	2:H:451:PHE:C	2.94	0.41
4:D:83:ASN:O	4:D:84:SER:C	2.59	0.41
3:I:156:LYS:HD2	3:I:156:LYS:HA	1.89	0.41
3:I:275:SER:HB2	11:I:1465:CLA:HAA1	2.03	0.41
4:J:179:PHE:O	4:J:182:LEU:HB2	2.20	0.41
4:J:288:GLY:C	4:J:290:ALA:N	2.72	0.41
1:A:157:VAL:HG21	11:A:1343:CLA:CMC	2.50	0.41
4:D:55:VAL:CG1	4:D:56:THR:N	2.82	0.41
4:D:253:TRP:HE1	15:D:1354:PL9:C1	2.32	0.41
2:B:162:PHE:HB3	11:B:1487:CLA:HHD	2.02	0.41
3:C:105:VAL:O	3:C:107:ASP:N	2.54	0.41
3:C:450:ALA:HB1	3:C:455:PHE:HB2	2.01	0.41
3:I:97:TRP:CE3	3:I:178:LYS:NZ	2.88	0.41
2:B:201:HIS:HA	11:B:1483:CLA:C4B	2.49	0.41
2:B:421:ALA:O	2:B:424:ALA:N	2.53	0.41
8:U:5:UNK:O	8:U:8:UNK:N	2.54	0.41
10:Y:56:UNK:O	10:Y:59:UNK:N	2.54	0.41
3:C:382:ASN:OD1	3:C:382:ASN:N	2.52	0.41
4:D:262:SER:O	4:D:263:ASN:HB2	2.20	0.41
1:G:267:ASN:O	1:G:271:LEU:N	2.38	0.41
2:H:405:GLU:O	2:H:406:LEU:HB2	2.20	0.41
10:Y:116:UNK:O	10:Y:117:UNK:C	2.68	0.41
1:G:84:PRO:CG	1:G:173:PRO:CD	2.88	0.41
4:J:152:VAL:CG1	11:J:1351:CLA:HBA1	2.51	0.41
5:E:58:GLN:OE1	9:V:2:GLU:HB2	2.19	0.41
2:H:59:GLY:CA	11:H:1488:CLA:CED	2.88	0.41
2:H:69:LEU:HD23	11:H:1487:CLA:CMA	2.46	0.41
1:A:58:VAL:HG13	1:A:109:GLY:HA3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:153:ASP:OD1	3:C:155:ASN:N	2.51	0.41
3:C:56:HIS:O	3:C:57:ALA:O	2.39	0.41
5:K:65:LEU:O	5:K:66:VAL:CA	2.68	0.41
3:I:395:TYR:O	3:I:398:HIS:N	2.37	0.41
11:H:1483:CLA:H143	11:H:1483:CLA:H111	1.94	0.41
2:H:419:SER:OG	2:H:420:TYR:N	2.53	0.41
1:G:69:GLY:HA2	1:G:75:ASN:OD1	2.21	0.41
2:B:195:PRO:O	2:B:198:VAL:N	2.53	0.41
7:P:99:UNK:O	7:P:100:UNK:C	2.68	0.41
10:X:3:UNK:C	10:X:5:UNK:N	2.78	0.41
1:A:300:PHE:CE2	11:C:1462:CLA:H93	2.56	0.41
4:J:228:GLY:O	4:J:229:ALA:HB3	2.20	0.41
4:D:180:ARG:C	4:D:180:ARG:CD	2.89	0.41
1:G:45:THR:CA	12:G:1345:PHO:H93	2.50	0.41
1:G:139:MET:HE3	1:G:139:MET:HB2	1.80	0.41
3:I:129:GLY:C	3:I:131:TYR:N	2.74	0.41
3:I:35:TRP:CZ3	3:I:36:TRP:HB3	2.56	0.41
2:H:24:LEU:HD21	2:H:110:ALA:HB1	2.01	0.41
2:H:464:PHE:HD2	11:H:1492:CLA:HAC2	1.86	0.41
11:H:1496:CLA:H13	11:H:1497:CLA:HMD2	2.02	0.41
2:H:71:VAL:CG1	2:H:93:PHE:H	2.34	0.41
11:A:1342:CLA:H201	12:A:1345:PHO:H43	2.03	0.41
1:A:168:PHE:O	1:A:170:ASP:O	2.38	0.41
4:D:194:ASN:OD1	4:D:196:PHE:HB2	2.20	0.41
1:A:135:TYR:O	1:A:136:ARG:HG2	2.20	0.41
3:C:188:THR:HG22	3:C:300:GLU:OE1	2.19	0.41
11:B:1496:CLA:H13	11:B:1497:CLA:CMD	2.50	0.41
2:B:471:ALA:O	2:B:473:THR:N	2.53	0.41
1:G:255:PHE:O	1:G:256:GLY:C	2.58	0.41
9:T:128:ASP:HB3	9:T:134:LYS:CG	2.50	0.41
2:H:21:ALA:CB	2:H:115:TRP:HD1	2.34	0.41
10:Y:71:UNK:O	10:Y:72:UNK:C	2.68	0.41
8:S:12:UNK:O	8:S:14:UNK:N	2.53	0.41
8:U:29:UNK:O	8:U:30:UNK:C	2.67	0.41
10:X:16:UNK:O	10:X:17:UNK:C	2.68	0.41
10:X:256:UNK:O	10:X:257:UNK:C	2.69	0.41
7:O:118:UNK:O	7:O:119:UNK:C	2.68	0.41
4:J:132:ILE:O	4:J:133:ALA:C	2.58	0.41
4:J:83:ASN:CG	4:J:336:HIS:CD2	2.83	0.41
1:G:320:ILE:C	1:G:322:ASN:N	2.73	0.41
4:J:122:LEU:HD23	4:J:122:LEU:HA	1.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:1486:CLA:CBB	11:H:1486:CLA:HMB1	2.50	0.41
2:H:237:VAL:HG22	11:H:1491:CLA:C3C	2.50	0.41
6:F:11:VAL:CG1	6:F:12:SER:N	2.83	0.41
11:C:1464:CLA:HBA2	11:C:1464:CLA:H3A	1.46	0.41
3:C:265:ILE:C	3:C:266:TRP:CD1	2.94	0.41
4:J:126:MET:HG2	4:J:130:PHE:HE1	1.85	0.41
1:G:273:PHE:CD2	1:G:273:PHE:C	2.93	0.41
2:B:157:HIS:CE1	2:B:164:PRO:O	2.73	0.41
2:B:236:THR:CB	2:B:473:THR:CG2	2.89	0.41
1:G:48:PHE:HA	1:G:115:ILE:HD11	2.02	0.41
3:I:95:LEU:C	3:I:185:LEU:HA	2.39	0.41
3:I:308:GLU:O	3:I:311:GLN:HB2	2.21	0.41
2:B:75:TRP:O	2:B:76:SER:CB	2.68	0.41
2:B:201:HIS:CE1	11:B:1484:CLA:HMB3	2.56	0.41
4:J:262:SER:O	4:J:263:ASN:HB2	2.21	0.41
1:G:272:HIS:HD2	4:J:218:VAL:HG21	1.74	0.41
2:B:263:THR:HG22	2:B:448:ARG:NH2	2.36	0.41
1:A:248:ILE:O	1:A:249:VAL:C	2.59	0.41
8:S:7:UNK:O	8:S:9:UNK:N	2.53	0.41
7:P:88:UNK:CB	7:P:140:UNK:O	2.69	0.41
4:J:224:GLN:O	4:J:225:ASP:C	2.58	0.41
10:Y:215:UNK:O	10:Y:219:UNK:N	2.54	0.41
4:D:200:GLY:HA3	4:D:282:SER:HB3	2.03	0.41
4:J:298:PHE:O	10:Y:129:UNK:CB	2.69	0.41
2:H:224:ARG:O	2:H:228:ALA:HB2	2.19	0.41
3:I:272:LEU:HD21	11:I:1466:CLA:C1B	2.51	0.41
3:I:35:TRP:O	3:I:36:TRP:CG	2.74	0.41
6:L:35:GLY:O	6:L:36:ALA:C	2.58	0.41
2:H:64:PRO:HB2	2:H:268:PHE:CZ	2.55	0.41
2:H:37:MET:HG2	2:H:62:VAL:CG2	2.51	0.41
4:J:199:MET:SD	4:J:281:MET:HE3	2.61	0.41
3:I:168:LEU:O	11:I:1459:CLA:HMC1	2.20	0.41
1:A:45:THR:HA	12:A:1345:PHO:H93	2.02	0.41
1:A:84:PRO:CD	1:A:173:PRO:HB3	2.46	0.41
1:A:191:ASN:O	1:A:192:ILE:C	2.59	0.41
3:C:92:ILE:O	3:C:93:ALA:C	2.59	0.41
2:B:466:HIS:C	2:B:468:TRP:N	2.73	0.41
2:B:64:PRO:HG3	2:B:267:LEU:O	2.21	0.41
2:H:349:LYS:HG3	2:H:394:GLN:O	2.21	0.41
2:H:193:TYR:O	2:H:195:PRO:HD3	2.20	0.41
4:D:101:PHE:O	4:D:104:TRP:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:GLY:HA2	1:A:75:ASN:OD1	2.20	0.41
1:G:167:SER:OG	1:G:169:SER:CB	2.69	0.41
10:Y:223:UNK:O	10:Y:224:UNK:C	2.68	0.41
3:C:257:PHE:HB3	3:C:258:GLY:H	1.59	0.41
4:D:281:MET:HA	4:D:281:MET:HE3	2.03	0.41
1:A:48:PHE:CD2	1:A:48:PHE:C	2.94	0.41
1:G:202:VAL:O	1:G:203:ALA:C	2.59	0.41
1:G:214:MET:O	1:G:217:SER:HB3	2.20	0.41
3:I:57:ALA:O	3:I:58:GLY:C	2.58	0.41
1:G:60:ILE:HD12	1:G:83:VAL:HG12	1.99	0.41
11:I:1463:CLA:H93	11:I:1464:CLA:H51	2.02	0.41
4:J:253:TRP:HE1	15:J:1354:PL9:C1	2.33	0.41
4:J:161:PRO:HG2	4:J:170:ALA:HB2	2.03	0.41
4:J:313:THR:O	4:J:315:TYR:N	2.54	0.41
4:J:76:VAL:O	4:J:77:ALA:HB2	2.20	0.41
2:H:31:ALA:HB3	2:H:104:SER:HB2	2.03	0.41
2:H:217:ILE:CG1	2:H:217:ILE:O	2.66	0.41
2:H:317:ASN:HA	2:H:330:MET:HE3	2.03	0.41
2:H:95:GLY:O	2:H:96:VAL:C	2.58	0.41
2:H:133:LEU:O	2:H:134:ASP:CB	2.68	0.41
2:H:263:THR:O	2:H:448:ARG:CZ	2.69	0.41
2:H:69:LEU:HA	2:H:69:LEU:HD12	1.84	0.41
1:A:176:ILE:HG23	11:A:1343:CLA:HED1	2.03	0.41
4:D:190:ASN:ND2	4:D:193:LEU:HD12	2.36	0.41
4:D:50:THR:O	4:D:54:PHE:HB2	2.21	0.41
1:A:150:PRO:HB3	11:A:1342:CLA:H62	2.02	0.41
4:D:298:PHE:O	10:X:129:UNK:CB	2.68	0.41
1:A:142:TRP:HH2	1:A:273:PHE:CE1	2.38	0.41
3:C:122:SER:O	3:C:126:GLY:N	2.48	0.41
11:C:1465:CLA:HBA1	11:C:1465:CLA:H3A	1.80	0.41
3:C:245:ILE:C	3:C:245:ILE:HD12	2.41	0.41
3:C:39:ASN:O	3:C:40:ALA:C	2.59	0.41
2:B:141:ILE:O	2:B:144:PHE:HB3	2.21	0.41
2:B:214:LEU:HA	2:B:217:ILE:HG22	2.02	0.41
2:B:220:ARG:CB	2:B:221:PRO:CD	2.99	0.41
2:B:63:LEU:HA	2:B:66:MET:CE	2.51	0.41
2:B:31:ALA:HB3	2:B:104:SER:HB2	2.02	0.41
2:B:30:VAL:CG1	11:B:1486:CLA:HAC1	2.51	0.41
10:X:563:UNK:O	10:X:564:UNK:C	2.68	0.41
3:I:394:GLU:OE2	3:I:398:HIS:CD2	2.74	0.41
2:H:166:MET:HE1	2:H:198:VAL:HG11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:305:THR:C	3:C:307:PRO:HD2	2.41	0.41
2:B:263:THR:O	2:B:448:ARG:CZ	2.69	0.41
4:J:188:PHE:CE2	4:J:326:ARG:HG2	2.56	0.41
3:I:322:GLN:NE2	3:I:381:LYS:HA	2.36	0.41
4:D:100:ASP:CB	4:D:103:ARG:H	2.34	0.41
2:B:21:ALA:CB	2:B:115:TRP:HD1	2.34	0.41
2:B:18:ARG:NH2	2:B:118:TRP:CE3	2.89	0.41
2:B:18:ARG:NH2	2:B:118:TRP:CZ3	2.89	0.41
3:I:102:GLY:O	3:I:103:GLY:O	2.38	0.41
2:H:359:MET:HB3	2:H:426:PHE:HB3	2.02	0.41
2:H:358:ARG:O	2:H:360:PRO:HD3	2.21	0.41
3:C:238:ILE:O	3:C:239:TRP:C	2.58	0.41
3:I:63:TRP:NE1	11:I:1462:CLA:C2C	2.83	0.41
2:H:238:LEU:HD23	2:H:469:HIS:CG	2.56	0.41
10:Y:580:UNK:C	10:Y:582:UNK:N	2.79	0.41
10:X:268:UNK:O	10:X:271:UNK:N	2.54	0.41
3:C:183:GLY:O	3:C:184:GLY:O	2.38	0.41
10:X:519:UNK:C	10:X:521:UNK:N	2.82	0.41
10:Y:532:UNK:C	10:Y:534:UNK:N	2.83	0.41
10:X:258:UNK:O	10:X:259:UNK:C	2.68	0.41
10:Y:406:UNK:O	10:Y:407:UNK:C	2.68	0.41
2:B:224:ARG:O	2:B:228:ALA:HB2	2.21	0.41
3:C:436:PHE:O	3:C:439:VAL:HB	2.21	0.41
1:G:134:SER:HA	1:G:139:MET:CB	2.51	0.41
1:G:176:ILE:HG22	1:G:177:SER:N	2.36	0.41
3:I:161:LEU:O	3:I:164:HIS:N	2.46	0.41
4:J:294:ARG:HB2	4:J:295:SER:H	1.51	0.41
2:H:92:SER:O	2:H:95:GLY:N	2.54	0.41
1:A:296:ASN:ND2	1:A:298:ASN:OD1	2.54	0.41
1:A:184:ILE:HD11	4:D:186:GLN:CD	2.42	0.41
4:D:286:VAL:O	4:D:287:VAL:C	2.58	0.41
3:C:164:HIS:C	3:C:166:ILE:N	2.74	0.41
3:C:36:TRP:O	3:C:36:TRP:CE3	2.73	0.41
2:B:347:ARG:H	2:B:398:THR:CB	2.34	0.41
1:G:104:GLU:HG2	1:G:104:GLU:O	2.20	0.41
2:B:196:GLY:O	2:B:197:GLY:C	2.59	0.41
2:H:222:PRO:O	2:H:226:TYR:N	2.45	0.41
1:G:151:LEU:CD2	1:G:155:PHE:HE2	2.33	0.41
2:B:238:LEU:HD23	2:B:469:HIS:CG	2.56	0.41
8:U:47:UNK:O	8:U:48:UNK:C	2.69	0.41
5:K:82:GLN:O	5:K:83:LEU:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:321:LEU:O	4:D:324:GLY:N	2.54	0.41
1:G:131:TRP:C	1:G:131:TRP:CD2	2.91	0.40
3:I:33:PHE:CZ	3:I:40:ALA:HB1	2.56	0.40
4:J:42:TYR:O	4:J:43:LEU:C	2.60	0.40
4:J:72:ASN:O	4:J:73:PHE:C	2.60	0.40
1:A:290:ILE:C	1:A:292:THR:H	2.25	0.40
4:D:62:GLY:HA3	5:E:63:ILE:HG23	2.03	0.40
3:C:241:GLY:O	3:C:245:ILE:HG23	2.21	0.40
3:C:250:TRP:HA	3:C:253:LEU:CD1	2.50	0.40
3:I:365:TRP:CG	3:I:366:LEU:N	2.90	0.40
11:B:1486:CLA:CBB	11:B:1486:CLA:HMB1	2.51	0.40
2:B:37:MET:O	2:B:38:ALA:C	2.59	0.40
3:I:298:PRO:HB3	3:I:300:GLU:OE1	2.22	0.40
1:G:307:ILE:O	1:G:310:LYS:N	2.40	0.40
1:G:256:GLY:O	1:G:260:PHE:O	2.38	0.40
1:G:248:ILE:O	1:G:251:ALA:N	2.48	0.40
4:D:32:TRP:O	4:D:35:ILE:HB	2.21	0.40
3:I:73:ALA:HB3	3:I:74:HIS:CD2	2.52	0.40
5:K:37:PHE:CE1	5:K:42:LEU:HB3	2.56	0.40
10:X:519:UNK:O	10:X:520:UNK:C	2.69	0.40
10:X:162:UNK:O	10:X:163:UNK:C	2.65	0.40
10:Y:268:UNK:O	10:Y:271:UNK:N	2.53	0.40
3:I:382:ASN:OD1	3:I:382:ASN:N	2.53	0.40
8:S:86:UNK:O	8:S:87:UNK:C	2.68	0.40
4:D:335:PRO:C	4:D:337:GLU:N	2.74	0.40
4:J:56:THR:H	5:K:49:THR:HG22	1.86	0.40
1:A:44:ALA:O	1:A:45:THR:C	2.58	0.40
1:A:67:VAL:HG21	4:D:317:LYS:NZ	2.35	0.40
4:D:56:THR:CG2	5:E:49:THR:HG22	2.51	0.40
1:A:133:LEU:HD12	4:D:256:ILE:HG12	1.99	0.40
3:I:189:TRP:C	3:I:190:ALA:O	2.58	0.40
1:G:142:TRP:HH2	1:G:273:PHE:CE1	2.38	0.40
3:I:185:LEU:O	3:I:186:TYR:O	2.38	0.40
2:H:347:ARG:CB	2:H:398:THR:CB	2.95	0.40
2:B:150:CYS:N	11:B:1484:CLA:HBC2	2.36	0.40
2:H:193:TYR:CD1	2:H:260:SER:CB	3.03	0.40
2:H:416:THR:O	2:H:420:TYR:HB2	2.21	0.40
2:B:290:ALA:O	2:B:294:SER:HB3	2.21	0.40
2:H:18:ARG:HH21	2:H:118:TRP:HE3	1.69	0.40
7:O:88:UNK:CB	7:O:140:UNK:O	2.69	0.40
3:C:67:MET:O	3:C:68:THR:C	2.59	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:P:159:UNK:C	7:P:161:UNK:N	2.81	0.40
11:G:1344:CLA:HED1	4:J:179:PHE:CZ	2.56	0.40
3:I:265:ILE:N	3:I:274:TYR:OH	2.47	0.40
3:I:275:SER:HA	3:I:278:ALA:HB2	2.03	0.40
4:J:91:LEU:HD13	4:J:93:TRP:CZ3	2.56	0.40
2:H:468:TRP:CD1	4:J:144:ILE:CD1	3.02	0.40
1:A:110:GLY:N	1:A:111:PRO:CD	2.85	0.40
2:B:346:PHE:O	2:B:354:LEU:CB	2.68	0.40
1:G:87:ASN:O	1:G:87:ASN:ND2	2.55	0.40
11:B:1483:CLA:H41	11:B:1483:CLA:H62	1.92	0.40
3:C:297:TYR:CD1	3:C:302:TYR:CZ	3.05	0.40
3:I:138:GLU:C	3:I:139:THR:CA	2.90	0.40
10:Y:168:UNK:C	10:Y:170:UNK:N	2.82	0.40
1:A:12:ASN:C	1:A:14:TRP:N	2.75	0.40
5:E:78:THR:O	5:E:79:PHE:C	2.57	0.40
9:T:53:ASP:OD1	9:T:53:ASP:C	2.59	0.40
1:G:326:LEU:O	1:G:328:MET:N	2.53	0.40
4:J:335:PRO:O	4:J:337:GLU:N	2.54	0.40
1:G:112:TYR:OH	1:G:116:ILE:HD11	2.20	0.40
1:G:180:PHE:CD2	4:J:192:THR:CG2	3.04	0.40
3:I:170:ILE:O	3:I:171:GLY:C	2.59	0.40
4:J:92:LEU:HA	4:J:104:TRP:CD1	2.56	0.40
4:J:185:PHE:O	4:J:186:GLN:C	2.59	0.40
2:H:99:ALA:O	2:H:103:LEU:HG	2.21	0.40
1:A:119:PHE:O	1:A:120:LEU:C	2.57	0.40
11:D:1351:CLA:HAB	11:D:1351:CLA:HMB1	1.85	0.40
1:A:254:TYR:CE2	4:D:133:ALA:HB2	2.56	0.40
4:J:127:LEU:O	4:J:129:GLN:N	2.54	0.40
2:B:156:PHE:CB	11:B:1487:CLA:HAC1	2.51	0.40
2:B:237:VAL:HG22	11:B:1491:CLA:C3C	2.50	0.40
10:X:507:UNK:O	10:X:508:UNK:C	2.69	0.40
1:A:316:THR:O	1:A:318:ALA:N	2.55	0.40
2:H:407:ASN:O	2:H:408:GLY:C	2.60	0.40
8:U:1:UNK:C	8:U:3:UNK:N	2.85	0.40
8:U:27:UNK:C	8:U:28:UNK:O	2.70	0.40
10:Y:434:UNK:O	10:Y:435:UNK:C	2.70	0.40
2:B:386:ALA:O	2:B:387:GLU:C	2.60	0.40
1:G:157:VAL:C	1:G:158:PHE:CD2	2.95	0.40
1:G:317:TRP:CE3	1:G:320:ILE:HD12	2.56	0.40
3:I:244:CYS:HB3	11:I:1465:CLA:H93	2.02	0.40
2:H:464:PHE:HE1	4:J:144:ILE:HG23	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:1343:CLA:H143	11:A:1343:CLA:H112	1.93	0.40
1:A:161:TYR:CE2	1:A:186:PHE:CE1	3.05	0.40
1:A:172:MET:N	1:A:182:PHE:CD1	2.83	0.40
1:A:283:VAL:O	1:A:284:TRP:C	2.60	0.40
1:A:317:TRP:N	4:D:63:LEU:HD23	2.37	0.40
5:E:61:ARG:O	5:E:62:SER:HB2	2.22	0.40
11:B:1486:CLA:HBB1	11:B:1486:CLA:HMB1	2.03	0.40
2:B:97:ALA:O	2:B:98:LEU:C	2.59	0.40
6:L:18:VAL:O	6:L:21:VAL:HB	2.21	0.40
2:B:174:LEU:HD11	2:B:309:LEU:HD21	2.02	0.40
3:I:376:ASP:O	3:I:377:LEU:C	2.60	0.40
3:I:320:ARG:HD2	9:T:49:ASN:CG	2.42	0.40
11:H:1482:CLA:H61	11:H:1482:CLA:H41	1.91	0.40
4:J:136:VAL:CG1	4:J:136:VAL:O	2.69	0.40
10:X:534:UNK:O	10:X:535:UNK:C	2.67	0.40
9:V:63:THR:O	9:V:84:GLY:HA3	2.22	0.40
4:D:78:VAL:HG12	4:D:78:VAL:O	2.20	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	295/360 (82%)	188 (64%)	67 (23%)	40 (14%)	0 1
1	G	295/360 (82%)	184 (62%)	71 (24%)	40 (14%)	0 1
2	B	399/510 (78%)	244 (61%)	94 (24%)	61 (15%)	0 1
2	H	399/510 (78%)	246 (62%)	94 (24%)	59 (15%)	0 1
3	C	353/473 (75%)	205 (58%)	96 (27%)	52 (15%)	0 1
3	I	353/473 (75%)	206 (58%)	99 (28%)	48 (14%)	0 1
4	D	348/352 (99%)	223 (64%)	76 (22%)	49 (14%)	0 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	J	348/352 (99%)	222 (64%)	79 (23%)	47 (14%)	0 1
5	E	67/84 (80%)	40 (60%)	13 (19%)	14 (21%)	0 0
5	K	67/84 (80%)	43 (64%)	10 (15%)	14 (21%)	0 0
6	F	35/44 (80%)	24 (69%)	4 (11%)	7 (20%)	0 0
6	L	35/44 (80%)	22 (63%)	6 (17%)	7 (20%)	0 0
9	T	134/163 (82%)	121 (90%)	11 (8%)	2 (2%)	13 55
9	V	134/163 (82%)	124 (92%)	8 (6%)	2 (2%)	13 55
All	All	3262/3972 (82%)	2092 (64%)	728 (22%)	442 (14%)	0 1

All (442) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	11	ALA
1	A	12	ASN
1	A	63	ILE
1	A	80	GLY
1	A	85	SER
1	A	95	PRO
1	A	139	MET
1	A	141	PRO
1	A	142	TRP
1	A	172	MET
1	A	248	ILE
1	A	249	VAL
1	A	260	PHE
1	A	267	ASN
1	A	308	ASP
1	A	315	ASN
1	A	316	THR
1	A	332	HIS
2	B	46	ASP
2	B	62	VAL
2	B	93	PHE
2	B	133	LEU
2	B	134	ASP
2	B	135	LEU
2	B	163	GLY
2	B	171	PRO
2	B	175	THR
2	B	198	VAL

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Mol	Chain	Res	Type
2	B	230	ARG
2	B	234	ILE
2	B	269	GLY
2	B	314	TYR
2	B	339	ALA
2	B	353	GLU
2	B	354	LEU
2	B	395	GLN
2	B	404	GLY
2	B	405	GLU
2	B	425	ILE
3	C	22	PHE
3	C	25	ASN
3	C	26	ARG
3	C	46	SER
3	C	107	ASP
3	C	135	ARG
3	C	184	GLY
3	C	186	TYR
3	C	227	VAL
3	C	253	LEU
3	C	256	PRO
3	C	295	THR
3	C	364	PRO
3	C	365	TRP
3	C	382	ASN
3	C	383	ASP
4	D	5	ILE
4	D	8	ALA
4	D	10	ALA
4	D	11	GLU
4	D	15	PHE
4	D	16	ASP
4	D	40	CYS
4	D	58	TRP
4	D	73	PHE
4	D	96	GLU
4	D	166	SER
4	D	218	VAL
4	D	222	LEU
4	D	230	SER
4	D	239	GLN

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Mol	Chain	Res	Type
4	D	241	GLU
4	D	297	ASP
4	D	330	ALA
4	D	331	PRO
4	D	346	LEU
4	D	347	PRO
5	E	9	PRO
5	E	10	PHE
5	E	17	VAL
5	E	57	ALA
5	E	59	GLU
5	E	60	GLN
5	E	62	SER
6	F	13	TYR
6	F	14	PRO
6	F	15	ILE
1	G	11	ALA
1	G	12	ASN
1	G	63	ILE
1	G	80	GLY
1	G	85	SER
1	G	95	PRO
1	G	139	MET
1	G	141	PRO
1	G	142	TRP
1	G	182	PHE
1	G	248	ILE
1	G	249	VAL
1	G	260	PHE
1	G	267	ASN
1	G	315	ASN
1	G	316	THR
1	G	332	HIS
2	H	46	ASP
2	H	62	VAL
2	H	93	PHE
2	H	133	LEU
2	H	134	ASP
2	H	135	LEU
2	H	163	GLY
2	H	171	PRO
2	H	175	THR

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Mol	Chain	Res	Type
2	H	198	VAL
2	H	230	ARG
2	H	234	ILE
2	H	262	THR
2	H	314	TYR
2	H	339	ALA
2	H	353	GLU
2	H	354	LEU
2	H	395	GLN
2	H	404	GLY
2	H	405	GLU
2	H	406	LEU
2	H	425	ILE
3	I	22	PHE
3	I	25	ASN
3	I	26	ARG
3	I	46	SER
3	I	135	ARG
3	I	184	GLY
3	I	186	TYR
3	I	227	VAL
3	I	253	LEU
3	I	256	PRO
3	I	295	THR
3	I	364	PRO
3	I	365	TRP
3	I	383	ASP
4	J	5	ILE
4	J	8	ALA
4	J	10	ALA
4	J	11	GLU
4	J	16	ASP
4	J	40	CYS
4	J	58	TRP
4	J	73	PHE
4	J	96	GLU
4	J	166	SER
4	J	218	VAL
4	J	222	LEU
4	J	230	SER
4	J	239	GLN
4	J	241	GLU

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Mol	Chain	Res	Type
4	J	330	ALA
4	J	331	PRO
4	J	346	LEU
4	J	347	PRO
5	K	9	PRO
5	K	10	PHE
5	K	17	VAL
5	K	57	ALA
5	K	59	GLU
5	K	60	GLN
5	K	62	SER
6	L	13	TYR
6	L	14	PRO
6	L	15	ILE
1	A	35	VAL
1	A	90	GLY
1	A	108	ASN
1	A	116	ILE
1	A	182	PHE
1	A	185	VAL
1	A	192	ILE
1	A	289	GLY
2	B	76	SER
2	B	139	PHE
2	B	164	PRO
2	B	165	GLY
2	B	196	GLY
2	B	231	MET
2	B	259	GLY
2	B	262	THR
2	B	279	TYR
2	B	294	SER
2	B	331	ASN
2	B	337	ALA
2	B	406	LEU
2	B	408	GLY
2	B	409	GLN
2	B	426	PHE
2	B	437	LEU
2	B	439	SER
2	B	445	THR
3	C	80	PRO

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Mol	Chain	Res	Type
3	C	103	GLY
3	C	117	VAL
3	C	121	SER
3	C	243	ILE
3	C	299	SER
3	C	305	THR
3	C	306	GLY
3	C	361	PHE
3	C	362	ARG
4	D	28	VAL
4	D	92	LEU
4	D	165	SER
4	D	168	PHE
4	D	259	ILE
4	D	299	ILE
4	D	348	ARG
5	E	40	THR
6	F	23	VAL
6	F	34	LEU
1	G	32	TRP
1	G	35	VAL
1	G	90	GLY
1	G	99	ALA
1	G	115	ILE
1	G	116	ILE
1	G	130	GLN
1	G	181	ASN
1	G	192	ILE
1	G	289	GLY
2	H	48	SER
2	H	76	SER
2	H	155	ALA
2	H	162	PHE
2	H	164	PRO
2	H	196	GLY
2	H	231	MET
2	H	259	GLY
2	H	271	THR
2	H	279	TYR
2	H	294	SER
2	H	331	ASN
2	H	337	ALA

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Mol	Chain	Res	Type
2	H	391	SER
2	H	408	GLY
2	H	409	GLN
2	H	426	PHE
2	H	437	LEU
2	H	439	SER
2	H	445	THR
3	I	80	PRO
3	I	103	GLY
3	I	117	VAL
3	I	121	SER
3	I	243	ILE
3	I	252	ILE
3	I	299	SER
3	I	306	GLY
3	I	361	PHE
3	I	362	ARG
3	I	382	ASN
4	J	15	PHE
4	J	28	VAL
4	J	92	LEU
4	J	165	SER
4	J	168	PHE
4	J	259	ILE
4	J	297	ASP
4	J	299	ILE
4	J	343	GLU
4	J	348	ARG
5	K	48	GLY
6	L	34	LEU
1	A	32	TRP
1	A	99	ALA
1	A	115	ILE
1	A	130	GLN
1	A	133	LEU
1	A	167	SER
1	A	181	ASN
2	B	155	ALA
2	B	162	PHE
2	B	220	ARG
2	B	271	THR
2	B	342	GLY

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Mol	Chain	Res	Type
2	B	352	GLU
2	B	373	LYS
2	B	374	ASN
2	B	391	SER
3	C	36	TRP
3	C	57	ALA
3	C	106	VAL
3	C	153	ASP
3	C	257	PHE
3	C	293	ASN
3	C	298	PRO
3	C	375	LEU
3	C	441	HIS
4	D	41	ALA
4	D	94	GLY
4	D	225	ASP
4	D	228	GLY
4	D	336	HIS
4	D	343	GLU
5	E	83	LEU
6	F	27	ALA
1	G	92	HIS
1	G	108	ASN
1	G	133	LEU
1	G	167	SER
1	G	172	MET
1	G	193	LEU
1	G	308	ASP
2	H	139	PHE
2	H	220	ARG
2	H	342	GLY
2	H	352	GLU
2	H	373	LYS
3	I	98	GLY
3	I	257	PHE
3	I	298	PRO
3	I	305	THR
3	I	375	LEU
4	J	13	GLY
4	J	41	ALA
4	J	47	GLY
4	J	94	GLY

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Mol	Chain	Res	Type
5	K	40	THR
9	T	133	GLY
9	V	133	GLY
1	A	193	LEU
1	A	295	PHE
1	A	317	TRP
2	B	48	SER
2	B	177	SER
2	B	319	PRO
2	B	360	PRO
2	B	396	GLY
2	B	473	THR
3	C	29	GLU
3	C	285	ILE
3	C	286	ALA
3	C	294	ASN
4	D	17	ILE
4	D	29	PHE
4	D	47	GLY
4	D	79	SER
4	D	333	ASP
5	E	82	GLN
1	G	185	VAL
2	H	28	ALA
2	H	165	GLY
2	H	177	SER
2	H	319	PRO
2	H	360	PRO
2	H	374	ASN
2	H	396	GLY
3	I	57	ALA
3	I	153	ASP
3	I	441	HIS
4	J	17	ILE
4	J	29	PHE
4	J	228	GLY
4	J	264	LYS
5	K	82	GLN
5	K	83	LEU
9	T	131	GLY
9	V	131	GLY
1	A	135	TYR

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Mol	Chain	Res	Type
1	A	296	ASN
2	B	28	ALA
3	C	78	GLU
3	C	252	ILE
3	C	337	LEU
3	C	386	PRO
4	D	13	GLY
4	D	219	GLU
4	D	240	ALA
4	D	264	LYS
5	E	63	ILE
1	G	295	PHE
1	G	317	TRP
2	H	415	PRO
3	I	29	GLU
3	I	36	TRP
3	I	93	ALA
3	I	102	GLY
3	I	272	LEU
3	I	286	ALA
3	I	294	ASN
3	I	386	PRO
4	J	30	VAL
4	J	79	SER
4	J	89	LEU
4	J	112	THR
4	J	159	ILE
4	J	229	ALA
4	J	252	PHE
5	K	56	TYR
5	K	63	ILE
6	L	27	ALA
2	B	64	PRO
2	B	136	PRO
2	B	415	PRO
3	C	126	GLY
3	C	272	LEU
4	D	30	VAL
4	D	111	TRP
4	D	229	ALA
5	E	52	PRO
5	E	64	PRO

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Mol	Chain	Res	Type
1	G	247	ASN
2	H	64	PRO
3	I	285	ILE
3	I	293	ASN
4	J	214	HIS
4	J	263	ASN
5	K	52	PRO
6	L	23	VAL
1	A	38	ILE
4	D	274	VAL
2	H	399	VAL
6	L	11	VAL
3	C	128	GLY
4	D	159	ILE
6	F	11	VAL
1	G	38	ILE
2	H	136	PRO
2	H	467	ILE
3	I	101	PRO
2	B	467	ILE
3	C	115	GLY
5	E	48	GLY
1	G	96	ILE
3	I	115	GLY
3	I	126	GLY
4	J	160	TYR
1	A	176	ILE
3	C	85	GLY
3	C	98	GLY
3	C	105	VAL
3	C	304	PRO
3	C	368	PRO
4	D	160	TYR
3	I	47	GLY
3	I	85	GLY
2	B	399	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	217/291 (75%)	201 (93%)	16 (7%)	17 56
1	G	217/291 (75%)	200 (92%)	17 (8%)	16 53
2	B	256/407 (63%)	232 (91%)	24 (9%)	11 41
2	H	256/407 (63%)	229 (90%)	27 (10%)	8 35
3	C	243/374 (65%)	213 (88%)	30 (12%)	6 27
3	I	243/374 (65%)	212 (87%)	31 (13%)	5 25
4	D	239/283 (84%)	223 (93%)	16 (7%)	20 60
4	J	239/283 (84%)	225 (94%)	14 (6%)	24 65
5	E	49/73 (67%)	43 (88%)	6 (12%)	6 27
5	K	49/73 (67%)	43 (88%)	6 (12%)	6 27
6	F	31/38 (82%)	27 (87%)	4 (13%)	5 24
6	L	31/38 (82%)	26 (84%)	5 (16%)	3 14
9	T	117/138 (85%)	116 (99%)	1 (1%)	84 95
9	V	117/138 (85%)	116 (99%)	1 (1%)	84 95
All	All	2304/3208 (72%)	2106 (91%)	198 (9%)	13 46

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

Mol	Chain	Res	Type
1	A	32	TRP
1	A	84	PRO
1	A	87	ASN
1	A	103	ASP
1	A	131	TRP
1	A	139	MET
1	A	143	ILE
1	A	191	ASN
1	A	206	PHE
1	A	210	LEU
1	A	247	ASN
1	A	284	TRP
1	A	296	ASN
1	A	298	ASN
1	A	308	ASP
1	A	322	ASN

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Mol	Chain	Res	Type
2	B	47	PRO
2	B	48	SER
2	B	49	ASP
2	B	55	MET
2	B	64	PRO
2	B	112	CYS
2	B	114	HIS
2	B	136	PRO
2	B	138	MET
2	B	164	PRO
2	B	188	ASP
2	B	221	PRO
2	B	233	ASN
2	B	250	PHE
2	B	251	VAL
2	B	270	PRO
2	B	357	ARG
2	B	359	MET
2	B	405	GLU
2	B	407	ASN
2	B	410	THR
2	B	412	THR
2	B	413	ASP
2	B	415	PRO
3	C	77	PRO
3	C	78	GLU
3	C	97	TRP
3	C	110	PRO
3	C	137	PRO
3	C	157	MET
3	C	161	LEU
3	C	163	PHE
3	C	168	LEU
3	C	178	LYS
3	C	230	LEU
3	C	232	ASP
3	C	251	HIS
3	C	256	PRO
3	C	257	PHE
3	C	266	TRP
3	C	269	GLU
3	C	276	LEU

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Mol	Chain	Res	Type
3	C	289	PHE
3	C	298	PRO
3	C	305	THR
3	C	318	LEU
3	C	364	PRO
3	C	368	PRO
3	C	419	PHE
3	C	424	SER
3	C	428	THR
3	C	429	SER
3	C	444	HIS
3	C	449	ARG
4	D	81	PRO
4	D	85	MET
4	D	93	TRP
4	D	95	PRO
4	D	101	PHE
4	D	180	ARG
4	D	186	GLN
4	D	191	TRP
4	D	196	PHE
4	D	235	PHE
4	D	244	TYR
4	D	298	PHE
4	D	331	PRO
4	D	335	PRO
4	D	337	GLU
4	D	342	PRO
5	E	8	ARG
5	E	9	PRO
5	E	19	TYR
5	E	28	PRO
5	E	52	PRO
5	E	64	PRO
6	F	11	VAL
6	F	14	PRO
6	F	29	PRO
6	F	44	GLN
1	G	32	TRP
1	G	75	ASN
1	G	84	PRO
1	G	87	ASN

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Mol	Chain	Res	Type
1	G	103	ASP
1	G	131	TRP
1	G	139	MET
1	G	143	ILE
1	G	173	PRO
1	G	191	ASN
1	G	206	PHE
1	G	210	LEU
1	G	284	TRP
1	G	296	ASN
1	G	298	ASN
1	G	308	ASP
1	G	322	ASN
2	H	47	PRO
2	H	48	SER
2	H	49	ASP
2	H	55	MET
2	H	61	PHE
2	H	64	PRO
2	H	102	VAL
2	H	112	CYS
2	H	114	HIS
2	H	136	PRO
2	H	138	MET
2	H	164	PRO
2	H	188	ASP
2	H	233	ASN
2	H	250	PHE
2	H	251	VAL
2	H	264	PRO
2	H	265	ILE
2	H	270	PRO
2	H	357	ARG
2	H	405	GLU
2	H	407	ASN
2	H	410	THR
2	H	412	THR
2	H	413	ASP
2	H	415	PRO
2	H	447	PRO
3	I	77	PRO
3	I	78	GLU

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Mol	Chain	Res	Type
3	I	97	TRP
3	I	108	THR
3	I	122	SER
3	I	137	PRO
3	I	157	MET
3	I	158	THR
3	I	161	LEU
3	I	163	PHE
3	I	168	LEU
3	I	178	LYS
3	I	230	LEU
3	I	232	ASP
3	I	251	HIS
3	I	256	PRO
3	I	257	PHE
3	I	266	TRP
3	I	269	GLU
3	I	276	LEU
3	I	289	PHE
3	I	298	PRO
3	I	305	THR
3	I	318	LEU
3	I	368	PRO
3	I	419	PHE
3	I	424	SER
3	I	428	THR
3	I	429	SER
3	I	444	HIS
3	I	449	ARG
4	J	93	TRP
4	J	95	PRO
4	J	101	PHE
4	J	165	SER
4	J	171	PRO
4	J	180	ARG
4	J	186	GLN
4	J	191	TRP
4	J	235	PHE
4	J	244	TYR
4	J	298	PHE
4	J	331	PRO
4	J	337	GLU

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Mol	Chain	Res	Type
4	J	342	PRO
5	K	8	ARG
5	K	9	PRO
5	K	19	TYR
5	K	28	PRO
5	K	52	PRO
5	K	64	PRO
6	L	10	PRO
6	L	11	VAL
6	L	14	PRO
6	L	29	PRO
6	L	44	GLN
9	T	50	PRO
9	V	50	PRO

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (58) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	87	ASN
1	A	108	ASN
1	A	118	HIS
1	A	195	HIS
1	A	296	ASN
1	A	322	ASN
1	A	332	HIS
2	B	157	HIS
2	B	233	ASN
3	C	74	HIS
3	C	91	HIS
3	C	229	ASN
3	C	322	GLN
3	C	398	HIS
4	D	61	HIS
4	D	72	ASN
4	D	87	HIS
4	D	129	GLN
4	D	164	GLN
4	D	186	GLN
4	D	220	ASN
4	D	224	GLN
4	D	336	HIS
5	E	58	GLN

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Mol	Chain	Res	Type
6	F	41	GLN
1	G	75	ASN
1	G	87	ASN
1	G	108	ASN
1	G	118	HIS
1	G	195	HIS
1	G	267	ASN
1	G	296	ASN
1	G	322	ASN
2	H	157	HIS
2	H	233	ASN
2	H	289	GLN
3	I	74	HIS
3	I	91	HIS
3	I	132	HIS
3	I	229	ASN
3	I	322	GLN
3	I	398	HIS
4	J	61	HIS
4	J	72	ASN
4	J	87	HIS
4	J	129	GLN
4	J	164	GLN
4	J	186	GLN
4	J	220	ASN
4	J	224	GLN
4	J	255	GLN
4	J	336	HIS
5	K	58	GLN
6	L	41	GLN
9	T	106	ASN
9	T	118	HIS
9	V	106	ASN
9	V	118	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates (i)

There are no carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 92 ligands modelled in this entry, 10 are monoatomic - leaving 82 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	$\#\|Z\| > 2$
11	CLA	A	1342	1	55,73,73	1.02	2 (3%)	61,113,113	1.55	13 (21%)
11	CLA	A	1343	-	51,69,73	1.09	3 (5%)	56,108,113	1.48	7 (12%)
11	CLA	A	1344	-	32,53,73	1.34	3 (9%)	37,89,113	1.57	7 (18%)
12	PHO	A	1345	-	67,69,69	0.97	3 (4%)	84,99,99	1.32	11 (13%)
11	CLA	A	1346	-	41,59,73	1.22	3 (7%)	44,96,113	1.69	11 (25%)
11	CLA	B	1482	-	55,73,73	1.23	7 (12%)	61,113,113	1.56	8 (13%)
11	CLA	B	1483	2	50,68,73	1.13	3 (6%)	55,107,113	1.48	8 (14%)
11	CLA	B	1484	-	32,53,73	1.07	3 (9%)	37,89,113	1.60	8 (21%)
11	CLA	B	1485	2	37,55,73	1.11	2 (5%)	42,91,113	1.44	8 (19%)
11	CLA	B	1486	2	30,49,73	1.04	1 (3%)	34,84,113	1.80	8 (23%)
11	CLA	B	1487	-	55,73,73	1.40	8 (14%)	61,113,113	1.50	10 (16%)
11	CLA	B	1488	-	55,73,73	1.26	7 (12%)	61,113,113	1.57	9 (14%)
11	CLA	B	1489	2	40,58,73	1.07	3 (7%)	44,95,113	1.76	9 (20%)
11	CLA	B	1490	2	32,53,73	1.34	5 (15%)	37,89,113	1.70	10 (27%)
11	CLA	B	1491	-	18,35,73	2.71	7 (38%)	22,60,113	1.83	3 (13%)
11	CLA	B	1492	2	55,73,73	1.01	4 (7%)	61,113,113	1.63	11 (18%)
11	CLA	B	1493	-	32,53,73	1.14	2 (6%)	37,89,113	1.82	8 (21%)
11	CLA	B	1494	-	55,73,73	1.03	4 (7%)	61,113,113	1.43	8 (13%)
11	CLA	B	1495	-	45,63,73	1.23	5 (11%)	49,101,113	1.82	11 (22%)
11	CLA	B	1496	-	55,73,73	0.98	3 (5%)	61,113,113	1.58	12 (19%)
11	CLA	B	1497	2	30,49,73	1.33	6 (20%)	34,84,113	1.84	9 (26%)
11	CLA	C	1459	3	32,53,73	1.17	3 (9%)	37,89,113	1.62	8 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
11	CLA	C	1460	3	37,55,73	1.09	1 (2%)	42,91,113	1.65	7 (16%)
11	CLA	C	1461	3	18,35,73	2.54	7 (38%)	22,60,113	1.97	4 (18%)
11	CLA	C	1462	-	46,64,73	1.46	8 (17%)	50,102,113	1.64	11 (22%)
11	CLA	C	1463	3	45,63,73	1.31	8 (17%)	49,101,113	1.75	12 (24%)
11	CLA	C	1464	3	46,64,73	1.13	6 (13%)	50,102,113	1.67	12 (24%)
11	CLA	C	1465	-	55,73,73	1.05	4 (7%)	61,113,113	1.56	9 (14%)
11	CLA	C	1466	3	40,58,73	1.23	4 (10%)	44,95,113	1.75	10 (22%)
11	CLA	C	1467	3	37,55,73	1.01	2 (5%)	42,91,113	1.58	9 (21%)
11	CLA	C	1468	3	18,35,73	2.40	7 (38%)	22,60,113	1.91	4 (18%)
11	CLA	C	1469	3	30,49,73	1.00	2 (6%)	34,84,113	1.72	8 (23%)
11	CLA	C	1470	-	30,49,73	0.99	2 (6%)	34,84,113	1.77	9 (26%)
11	CLA	C	1471	-	30,49,73	1.11	4 (13%)	34,84,113	1.63	6 (17%)
11	CLA	D	1351	4	55,73,73	1.07	6 (10%)	61,113,113	1.61	12 (19%)
12	PHO	D	1352	-	57,59,69	1.16	4 (7%)	72,87,99	1.56	13 (18%)
11	CLA	D	1353	4	40,58,73	1.29	6 (15%)	44,95,113	1.58	9 (20%)
15	PL9	D	1354	-	6,6,55	2.35	2 (33%)	6,6,69	0.78	0
16	HEM	E	1085	5,6	25,32,50	3.52	14 (56%)	22,54,82	2.97	7 (31%)
17	BCR	F	1046	-	41,41,41	1.65	7 (17%)	56,56,56	2.19	24 (42%)
11	CLA	G	1342	1	55,73,73	1.20	7 (12%)	61,113,113	1.46	11 (18%)
11	CLA	G	1343	-	51,69,73	1.22	4 (7%)	56,108,113	1.52	8 (14%)
11	CLA	G	1344	-	32,53,73	1.15	2 (6%)	37,89,113	1.62	6 (16%)
12	PHO	G	1345	-	67,69,69	0.95	3 (4%)	84,99,99	1.37	12 (14%)
11	CLA	G	1346	-	41,59,73	1.21	4 (9%)	44,96,113	1.67	10 (22%)
11	CLA	H	1482	-	55,73,73	1.27	7 (12%)	61,113,113	1.58	8 (13%)
11	CLA	H	1483	2	50,68,73	1.13	5 (10%)	55,107,113	1.48	9 (16%)
11	CLA	H	1484	-	32,53,73	1.05	2 (6%)	37,89,113	1.60	8 (21%)
11	CLA	H	1485	2	37,55,73	1.14	4 (10%)	42,91,113	1.45	7 (16%)
11	CLA	H	1486	2	30,49,73	1.03	1 (3%)	34,84,113	1.83	9 (26%)
11	CLA	H	1487	-	55,73,73	1.40	8 (14%)	61,113,113	1.54	12 (19%)
11	CLA	H	1488	-	55,73,73	1.30	8 (14%)	61,113,113	1.49	10 (16%)
11	CLA	H	1489	2	40,58,73	1.07	2 (5%)	44,95,113	1.88	10 (22%)
11	CLA	H	1490	2	32,53,73	1.26	5 (15%)	37,89,113	1.70	9 (24%)
11	CLA	H	1491	-	18,35,73	2.74	8 (44%)	22,60,113	1.87	3 (13%)
11	CLA	H	1492	2	55,73,73	0.90	2 (3%)	61,113,113	1.62	12 (19%)
11	CLA	H	1493	-	32,53,73	1.23	4 (12%)	37,89,113	1.82	9 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
11	CLA	H	1494	-	55,73,73	1.09	3 (5%)	61,113,113	1.53	10 (16%)
11	CLA	H	1495	-	45,63,73	1.29	6 (13%)	49,101,113	1.85	11 (22%)
11	CLA	H	1496	-	55,73,73	0.98	4 (7%)	61,113,113	1.54	10 (16%)
11	CLA	H	1497	2	30,49,73	1.45	6 (20%)	34,84,113	1.86	8 (23%)
11	CLA	I	1459	3	32,53,73	1.09	4 (12%)	37,89,113	1.62	8 (21%)
11	CLA	I	1460	3	37,55,73	1.25	6 (16%)	42,91,113	1.52	6 (14%)
11	CLA	I	1461	3	18,35,73	2.50	7 (38%)	22,60,113	2.02	4 (18%)
11	CLA	I	1462	-	46,64,73	1.57	8 (17%)	50,102,113	1.67	12 (24%)
11	CLA	I	1463	3	45,63,73	1.16	4 (8%)	49,101,113	1.78	12 (24%)
11	CLA	I	1464	3	46,64,73	1.19	5 (10%)	50,102,113	1.66	11 (22%)
11	CLA	I	1465	-	55,73,73	1.04	4 (7%)	61,113,113	1.57	11 (18%)
11	CLA	I	1466	3	40,58,73	1.17	3 (7%)	44,95,113	1.73	11 (25%)
11	CLA	I	1467	3	37,55,73	0.97	1 (2%)	42,91,113	1.56	9 (21%)
11	CLA	I	1468	3	18,35,73	2.28	6 (33%)	22,60,113	1.91	4 (18%)
11	CLA	I	1469	3	30,49,73	0.90	0	34,84,113	1.72	9 (26%)
11	CLA	I	1470	-	30,49,73	1.04	2 (6%)	34,84,113	1.77	8 (23%)
11	CLA	I	1471	-	30,49,73	1.04	2 (6%)	34,84,113	1.70	7 (20%)
11	CLA	J	1351	4	55,73,73	1.08	5 (9%)	61,113,113	1.65	12 (19%)
12	PHO	J	1352	-	57,59,69	1.17	2 (3%)	72,87,99	1.49	12 (16%)
11	CLA	J	1353	4	40,58,73	1.28	5 (12%)	44,95,113	1.54	8 (18%)
15	PL9	J	1354	-	6,6,55	2.16	2 (33%)	6,6,69	0.80	0
16	HEM	L	1046	5,6	25,32,50	3.38	16 (64%)	22,54,82	2.88	8 (36%)
17	BCR	L	1047	-	41,41,41	1.60	7 (17%)	56,56,56	2.18	22 (39%)
18	HEC	T	1138	9	24,50,50	2.45	11 (45%)	19,82,82	4.03	7 (36%)
18	HEC	V	1138	9	24,50,50	2.34	9 (37%)	19,82,82	4.07	7 (36%)

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
11	CLA	A	1342	1	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	A	1343	-	3/3/19/25	0/33/131/135	0/0/9/9
11	CLA	A	1344	-	3/3/16/25	0/11/111/135	0/0/9/9
12	PHO	A	1345	-	-	0/53/103/103	0/1/6/6

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
11	CLA	A	1346	-	3/3/17/25	0/21/119/135	0/0/9/9
11	CLA	B	1482	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	B	1483	2	3/3/19/25	0/31/129/135	0/0/9/9
11	CLA	B	1484	-	3/3/16/25	0/11/111/135	0/0/9/9
11	CLA	B	1485	2	3/3/16/25	0/16/114/135	0/0/9/9
11	CLA	B	1486	2	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	B	1487	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	B	1488	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	B	1489	2	3/3/17/25	0/19/117/135	0/0/9/9
11	CLA	B	1490	2	1/1/16/25	0/11/111/135	0/0/9/9
11	CLA	B	1491	-	3/3/8/25	0/0/75/135	0/0/9/9
11	CLA	B	1492	2	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	B	1493	-	3/3/16/25	0/11/111/135	0/0/9/9
11	CLA	B	1494	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	B	1495	-	3/3/18/25	0/25/123/135	0/0/9/9
11	CLA	B	1496	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	B	1497	2	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	C	1459	3	3/3/16/25	0/11/111/135	0/0/9/9
11	CLA	C	1460	3	3/3/16/25	0/16/114/135	0/0/9/9
11	CLA	C	1461	3	3/3/8/25	0/0/75/135	0/0/9/9
11	CLA	C	1462	-	3/3/18/25	0/27/125/135	0/0/9/9
11	CLA	C	1463	3	3/3/18/25	0/25/123/135	0/0/9/9
11	CLA	C	1464	3	3/3/18/25	0/27/125/135	0/0/9/9
11	CLA	C	1465	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	C	1466	3	3/3/17/25	0/19/117/135	0/0/9/9
11	CLA	C	1467	3	3/3/16/25	0/16/114/135	0/0/9/9
11	CLA	C	1468	3	3/3/8/25	0/0/75/135	0/0/9/9
11	CLA	C	1469	3	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	C	1470	-	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	C	1471	-	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	D	1351	4	1/1/20/25	0/37/135/135	0/0/9/9
12	PHO	D	1352	-	-	0/41/91/103	0/1/6/6
11	CLA	D	1353	4	3/3/17/25	0/19/117/135	0/0/9/9
15	PL9	D	1354	-	-	0/0/6/73	0/1/1/1
16	HEM	E	1085	5,6	-	0/0/40/54	0/0/8/8

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
17	BCR	F	1046	-	-	0/29/63/63	0/2/2/2
11	CLA	G	1342	1	1/1/20/25	0/37/135/135	0/0/9/9
11	CLA	G	1343	-	3/3/19/25	0/33/131/135	0/0/9/9
11	CLA	G	1344	-	3/3/16/25	0/11/111/135	0/0/9/9
12	PHO	G	1345	-	-	0/53/103/103	0/1/6/6
11	CLA	G	1346	-	3/3/17/25	0/21/119/135	0/0/9/9
11	CLA	H	1482	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	H	1483	2	3/3/19/25	0/31/129/135	0/0/9/9
11	CLA	H	1484	-	3/3/16/25	0/11/111/135	0/0/9/9
11	CLA	H	1485	2	3/3/16/25	0/16/114/135	0/0/9/9
11	CLA	H	1486	2	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	H	1487	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	H	1488	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	H	1489	2	3/3/17/25	0/19/117/135	0/0/9/9
11	CLA	H	1490	2	1/1/16/25	0/11/111/135	0/0/9/9
11	CLA	H	1491	-	3/3/8/25	0/0/75/135	0/0/9/9
11	CLA	H	1492	2	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	H	1493	-	3/3/16/25	0/11/111/135	0/0/9/9
11	CLA	H	1494	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	H	1495	-	3/3/18/25	0/25/123/135	0/0/9/9
11	CLA	H	1496	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	H	1497	2	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	I	1459	3	3/3/16/25	0/11/111/135	0/0/9/9
11	CLA	I	1460	3	3/3/16/25	0/16/114/135	0/0/9/9
11	CLA	I	1461	3	3/3/8/25	0/0/75/135	0/0/9/9
11	CLA	I	1462	-	3/3/18/25	0/27/125/135	0/0/9/9
11	CLA	I	1463	3	3/3/18/25	0/25/123/135	0/0/9/9
11	CLA	I	1464	3	3/3/18/25	0/27/125/135	0/0/9/9
11	CLA	I	1465	-	3/3/20/25	0/37/135/135	0/0/9/9
11	CLA	I	1466	3	3/3/17/25	0/19/117/135	0/0/9/9
11	CLA	I	1467	3	3/3/16/25	0/16/114/135	0/0/9/9
11	CLA	I	1468	3	3/3/8/25	0/0/75/135	0/0/9/9
11	CLA	I	1469	3	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	I	1470	-	3/3/15/25	0/8/106/135	0/0/9/9
11	CLA	I	1471	-	3/3/15/25	0/8/106/135	0/0/9/9

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
11	CLA	J	1351	4	1/1/20/25	0/37/135/135	0/0/9/9
12	PHO	J	1352	-	-	0/41/91/103	0/1/6/6
11	CLA	J	1353	4	3/3/17/25	0/19/117/135	0/0/9/9
15	PL9	J	1354	-	-	0/0/6/73	0/1/1/1
16	HEM	L	1046	5,6	-	0/0/40/54	0/0/8/8
17	BCR	L	1047	-	-	0/29/63/63	0/2/2/2
18	HEC	T	1138	9	-	0/6/54/54	0/0/8/8
18	HEC	V	1138	9	-	0/6/54/54	0/0/8/8

All (385) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	E	1085	HEM	C3D-C4D	-7.18	1.40	1.50
16	E	1085	HEM	C2D-C1D	-6.86	1.40	1.50
16	E	1085	HEM	C3C-C2C	-6.48	1.35	1.52
16	L	1046	HEM	C3C-C2C	-6.35	1.36	1.52
16	L	1046	HEM	C3D-C4D	-6.23	1.41	1.50
11	H	1491	CLA	CAD-C3D	-6.12	1.41	1.51
16	L	1046	HEM	C2D-C1D	-6.12	1.41	1.50
11	B	1491	CLA	CAD-C3D	-6.00	1.41	1.51
16	L	1046	HEM	C3B-C2B	-5.72	1.37	1.52
16	E	1085	HEM	C3B-C2B	-5.53	1.38	1.52
18	T	1138	HEC	CBB-CAB	-5.53	1.26	1.49
18	V	1138	HEC	CBB-CAB	-5.46	1.27	1.49
11	I	1468	CLA	CAD-C3D	-4.84	1.43	1.51
11	H	1491	CLA	C1B-CHB	-4.74	1.33	1.43
11	C	1461	CLA	C1B-CHB	-4.73	1.33	1.43
16	E	1085	HEM	C3D-C2D	-4.63	1.40	1.52
11	C	1468	CLA	CAD-C3D	-4.59	1.43	1.51
11	I	1461	CLA	C1B-CHB	-4.57	1.34	1.43
11	C	1461	CLA	CAD-C3D	-4.48	1.44	1.51
18	V	1138	HEC	C3C-C2C	-4.41	1.36	1.40
11	I	1461	CLA	CAD-C3D	-4.41	1.44	1.51
11	I	1468	CLA	C1B-CHB	-4.28	1.34	1.43
11	B	1491	CLA	C1B-CHB	-4.10	1.35	1.43
16	E	1085	HEM	C4D-ND	-4.03	1.32	1.38
11	B	1487	CLA	C1B-CHB	-3.94	1.29	1.39
12	D	1352	PHO	CHB-C1B	-3.94	1.31	1.38
11	C	1468	CLA	C1B-CHB	-3.92	1.35	1.43
11	H	1487	CLA	C1B-CHB	-3.83	1.29	1.39
11	B	1491	CLA	C3A-C4A	-3.66	1.45	1.50
12	J	1352	PHO	CHB-C1B	-3.66	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	L	1046	HEM	C3D-C2D	-3.58	1.43	1.52
11	C	1465	CLA	C1B-CHB	-3.42	1.30	1.39
16	L	1046	HEM	C2B-C1B	-3.39	1.45	1.50
11	I	1462	CLA	C1B-CHB	-3.39	1.30	1.39
11	B	1485	CLA	C1B-CHB	-3.25	1.30	1.39
11	I	1465	CLA	C1B-CHB	-3.21	1.31	1.39
11	B	1488	CLA	C1B-CHB	-3.17	1.31	1.39
17	F	1046	BCR	C23-C22	-3.14	1.38	1.45
16	L	1046	HEM	C3B-C4B	-3.10	1.46	1.50
11	G	1342	CLA	C1B-CHB	-3.09	1.31	1.39
18	V	1138	HEC	C1B-CHB	-3.08	1.31	1.39
11	H	1483	CLA	C1B-CHB	-3.04	1.31	1.39
18	T	1138	HEC	C1B-CHB	-2.97	1.31	1.39
11	D	1351	CLA	C1B-CHB	-2.97	1.31	1.39
11	H	1488	CLA	C1B-CHB	-2.96	1.31	1.39
17	F	1046	BCR	C19-C18	-2.95	1.39	1.45
11	A	1342	CLA	C1B-CHB	-2.95	1.31	1.39
17	L	1047	BCR	C23-C22	-2.95	1.39	1.45
16	L	1046	HEM	C3C-C4C	-2.94	1.46	1.50
11	H	1492	CLA	C1B-CHB	-2.92	1.31	1.39
18	T	1138	HEC	C3C-C2C	-2.91	1.37	1.40
11	G	1344	CLA	C1B-CHB	-2.87	1.32	1.39
18	T	1138	HEC	CAD-C3D	-2.85	1.47	1.52
12	J	1352	PHO	C1D-C2D	-2.84	1.39	1.45
11	H	1485	CLA	C1B-CHB	-2.83	1.32	1.39
11	G	1343	CLA	C1B-CHB	-2.82	1.32	1.39
11	B	1495	CLA	C1B-CHB	-2.81	1.32	1.39
11	H	1493	CLA	C1B-CHB	-2.79	1.32	1.39
11	C	1462	CLA	C1B-CHB	-2.78	1.32	1.39
11	G	1342	CLA	CBA-CGA	-2.77	1.42	1.50
11	H	1495	CLA	C1B-CHB	-2.77	1.32	1.39
11	A	1343	CLA	C1B-CHB	-2.76	1.32	1.39
11	B	1484	CLA	C1B-CHB	-2.74	1.32	1.39
12	D	1352	PHO	C1D-C2D	-2.74	1.39	1.45
16	E	1085	HEM	C3C-C4C	-2.72	1.46	1.50
16	L	1046	HEM	C4D-ND	-2.72	1.34	1.38
11	A	1344	CLA	C1B-CHB	-2.71	1.32	1.39
11	G	1342	CLA	C3B-C2B	-2.68	1.36	1.40
11	B	1492	CLA	C1B-CHB	-2.60	1.32	1.39
11	H	1497	CLA	C1B-CHB	-2.60	1.32	1.39
17	L	1047	BCR	C19-C18	-2.59	1.40	1.45
18	T	1138	HEC	C3B-C2B	-2.59	1.38	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	J	1351	CLA	C1B-CHB	-2.58	1.32	1.39
11	A	1342	CLA	O1D-CGD	-2.58	1.14	1.21
11	I	1466	CLA	C1B-CHB	-2.57	1.32	1.39
12	A	1345	PHO	CHB-C1B	-2.56	1.34	1.38
11	H	1491	CLA	C3A-C4A	-2.56	1.47	1.50
11	B	1483	CLA	C1B-CHB	-2.53	1.32	1.39
11	C	1464	CLA	C1B-CHB	-2.52	1.32	1.39
16	E	1085	HEM	C2B-C1B	-2.48	1.47	1.50
11	C	1464	CLA	CBA-CGA	-2.47	1.43	1.50
12	G	1345	PHO	CHB-C1B	-2.46	1.34	1.38
11	C	1466	CLA	C1B-CHB	-2.44	1.33	1.39
11	I	1459	CLA	C3D-CAD	-2.42	1.38	1.45
11	H	1488	CLA	C3D-CAD	-2.41	1.39	1.45
16	E	1085	HEM	C2C-C1C	-2.41	1.47	1.50
18	V	1138	HEC	CAD-C3D	-2.40	1.47	1.52
11	A	1346	CLA	C1B-CHB	-2.35	1.33	1.39
11	I	1464	CLA	C1B-CHB	-2.34	1.33	1.39
16	L	1046	HEM	C2C-C1C	-2.32	1.47	1.50
11	I	1459	CLA	C1B-CHB	-2.31	1.33	1.39
16	E	1085	HEM	C1A-CHA	-2.30	1.38	1.43
11	H	1483	CLA	CAA-CBA	-2.29	1.45	1.52
11	H	1484	CLA	C1B-CHB	-2.27	1.33	1.39
11	D	1353	CLA	C1B-CHB	-2.27	1.33	1.39
11	G	1342	CLA	CAA-CBA	-2.26	1.45	1.52
11	J	1353	CLA	C1B-CHB	-2.26	1.33	1.39
11	I	1460	CLA	C1B-CHB	-2.26	1.33	1.39
16	L	1046	HEM	C1B-NB	-2.24	1.35	1.38
12	D	1352	PHO	C1C-NC	-2.22	1.33	1.38
11	B	1496	CLA	C1B-CHB	-2.20	1.33	1.39
11	B	1497	CLA	C3B-C2B	-2.19	1.37	1.40
12	A	1345	PHO	CAA-CBA	-2.16	1.45	1.52
11	B	1489	CLA	C1C-NC	-2.15	1.34	1.37
11	B	1489	CLA	C3D-CAD	-2.15	1.39	1.45
11	B	1495	CLA	CAA-CBA	-2.15	1.45	1.52
11	C	1463	CLA	C1B-CHB	-2.14	1.33	1.39
11	B	1493	CLA	C1B-CHB	-2.13	1.34	1.39
11	D	1351	CLA	C3B-C2B	-2.12	1.37	1.40
11	G	1342	CLA	C3D-CAD	-2.11	1.39	1.45
11	C	1464	CLA	C3D-CAD	-2.08	1.39	1.45
11	B	1497	CLA	C1B-CHB	-2.08	1.34	1.39
11	I	1467	CLA	C1B-CHB	-2.08	1.34	1.39
11	C	1466	CLA	C1C-NC	-2.07	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	L	1046	HEM	C4A-CHB	-2.05	1.39	1.43
11	J	1351	CLA	CBA-CGA	-2.05	1.44	1.50
11	B	1494	CLA	C3D-CAD	-2.05	1.40	1.45
11	C	1468	CLA	C4B-CHC	-2.05	1.39	1.43
11	B	1488	CLA	C3D-CAD	-2.04	1.40	1.45
11	H	1483	CLA	CBA-CGA	-2.04	1.44	1.50
12	G	1345	PHO	CAA-CBA	-2.04	1.45	1.52
11	H	1485	CLA	CAA-CBA	-2.03	1.45	1.52
11	H	1493	CLA	C3B-C2B	-2.03	1.37	1.40
11	C	1469	CLA	C3D-CAD	-2.03	1.40	1.45
11	C	1467	CLA	C3B-C2B	-2.03	1.37	1.40
11	H	1496	CLA	C3D-CAD	-2.02	1.40	1.45
11	B	1484	CLA	C3D-CAD	-2.00	1.40	1.45
11	C	1471	CLA	C4C-C3C	2.00	1.48	1.45
11	H	1495	CLA	C1C-C2C	2.01	1.48	1.44
18	T	1138	HEC	C3B-C4B	2.01	1.47	1.42
11	H	1495	CLA	C5-C3	2.01	1.55	1.51
11	C	1471	CLA	OBD-CAD	2.01	1.25	1.22
11	H	1483	CLA	C4C-C3C	2.01	1.48	1.45
11	I	1459	CLA	CAA-C2A	2.02	1.58	1.54
11	B	1486	CLA	C3B-CAB	2.02	1.52	1.47
11	G	1346	CLA	CBD-CGD	2.02	1.59	1.52
11	C	1464	CLA	C4C-C3C	2.03	1.48	1.45
11	J	1353	CLA	C4C-C3C	2.04	1.48	1.45
11	B	1495	CLA	C2-C3	2.04	1.37	1.33
11	B	1482	CLA	C1-C2	2.04	1.55	1.49
11	I	1460	CLA	CMB-C2B	2.05	1.55	1.51
18	V	1138	HEC	CMA-C3A	2.05	1.56	1.51
11	H	1486	CLA	CHC-C1C	2.05	1.41	1.35
11	B	1491	CLA	C2C-C1C	2.05	1.48	1.43
11	D	1351	CLA	CAA-C2A	2.05	1.58	1.54
11	H	1482	CLA	CHC-C1C	2.05	1.41	1.35
11	I	1463	CLA	CHC-C1C	2.06	1.41	1.35
18	V	1138	HEC	CMB-C2B	2.06	1.56	1.51
11	B	1488	CLA	C5-C3	2.07	1.56	1.51
11	D	1353	CLA	C2-C3	2.07	1.38	1.32
11	H	1488	CLA	C1-C2	2.08	1.55	1.49
11	B	1496	CLA	C4-C3	2.08	1.55	1.50
11	G	1342	CLA	C4-C3	2.08	1.55	1.50
11	H	1496	CLA	C5-C3	2.09	1.56	1.51
11	C	1463	CLA	OBD-CAD	2.09	1.25	1.22
11	D	1353	CLA	C4-C3	2.09	1.56	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A	1343	CLA	CHC-C1C	2.10	1.41	1.35
11	I	1466	CLA	CHC-C1C	2.10	1.41	1.35
11	I	1468	CLA	C2C-C1C	2.10	1.48	1.43
11	C	1462	CLA	C1C-C2C	2.10	1.48	1.44
11	H	1490	CLA	CHC-C1C	2.11	1.41	1.35
11	B	1492	CLA	C5-C3	2.12	1.56	1.51
11	B	1482	CLA	CHC-C1C	2.12	1.41	1.35
11	B	1492	CLA	CHC-C1C	2.12	1.41	1.35
11	H	1489	CLA	CAA-C2A	2.12	1.58	1.54
11	C	1468	CLA	C2C-C1C	2.13	1.48	1.43
11	D	1351	CLA	C4-C3	2.13	1.55	1.50
11	B	1487	CLA	C1C-C2C	2.14	1.48	1.44
18	T	1138	HEC	C2A-C3A	2.15	1.44	1.37
11	C	1466	CLA	CHC-C1C	2.16	1.42	1.35
11	B	1490	CLA	CMB-C2B	2.16	1.56	1.51
11	I	1470	CLA	CHC-C1C	2.16	1.42	1.35
11	C	1467	CLA	OBD-CAD	2.17	1.25	1.22
11	H	1495	CLA	O2A-CGA	2.18	1.39	1.33
11	C	1463	CLA	CHC-C1C	2.18	1.42	1.35
11	H	1497	CLA	CMA-C3A	2.18	1.58	1.53
18	T	1138	HEC	CMA-C3A	2.19	1.56	1.51
11	H	1487	CLA	C1C-C2C	2.20	1.49	1.44
11	B	1482	CLA	C1C-C2C	2.20	1.49	1.44
11	H	1482	CLA	C1C-C2C	2.20	1.49	1.44
11	C	1470	CLA	CHC-C1C	2.21	1.42	1.35
11	I	1460	CLA	C1C-C2C	2.21	1.49	1.44
11	B	1497	CLA	OBD-CAD	2.21	1.25	1.22
11	C	1469	CLA	CAA-C2A	2.21	1.58	1.53
11	J	1353	CLA	C1-C2	2.22	1.56	1.49
11	B	1495	CLA	CHC-C1C	2.22	1.42	1.35
11	I	1463	CLA	C5-C3	2.23	1.56	1.51
11	D	1353	CLA	CHC-C1C	2.23	1.42	1.35
11	C	1459	CLA	CAA-C2A	2.24	1.58	1.54
11	G	1343	CLA	CHC-C1C	2.24	1.42	1.35
11	H	1495	CLA	CHC-C1C	2.24	1.42	1.35
11	C	1464	CLA	CHC-C1C	2.24	1.42	1.35
11	C	1471	CLA	CHC-C1C	2.25	1.42	1.35
11	J	1353	CLA	CHC-C1C	2.25	1.42	1.35
11	B	1488	CLA	C1C-C2C	2.26	1.49	1.44
11	B	1485	CLA	CHC-C1C	2.26	1.42	1.35
11	H	1483	CLA	CHC-C1C	2.26	1.42	1.35
11	I	1465	CLA	CAA-C2A	2.26	1.58	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	H	1497	CLA	CAA-C2A	2.26	1.58	1.53
11	B	1483	CLA	OBD-CAD	2.26	1.25	1.22
16	L	1046	HEM	C3A-C2A	2.27	1.50	1.39
11	I	1471	CLA	OBD-CAD	2.27	1.25	1.22
11	C	1459	CLA	C4C-C3C	2.28	1.49	1.45
18	V	1138	HEC	C3C-C4C	2.28	1.48	1.42
11	C	1465	CLA	CAA-C2A	2.28	1.58	1.54
11	C	1465	CLA	CHC-C1C	2.28	1.42	1.35
11	I	1464	CLA	C1C-C2C	2.29	1.49	1.44
11	B	1497	CLA	CBD-CGD	2.29	1.60	1.52
11	I	1460	CLA	O2A-CGA	2.29	1.40	1.33
11	H	1487	CLA	C6-C5	2.29	1.60	1.52
11	B	1490	CLA	OBD-CAD	2.30	1.25	1.22
11	B	1494	CLA	CAA-C2A	2.30	1.58	1.54
11	H	1485	CLA	C1C-C2C	2.30	1.49	1.44
11	H	1490	CLA	C1C-C2C	2.30	1.49	1.44
11	C	1463	CLA	C1C-C2C	2.31	1.49	1.44
11	B	1488	CLA	C1-C2	2.31	1.56	1.49
11	C	1463	CLA	C5-C3	2.31	1.56	1.51
11	C	1463	CLA	C2-C3	2.32	1.37	1.33
11	H	1491	CLA	C2C-C1C	2.32	1.48	1.43
11	I	1465	CLA	OBD-CAD	2.33	1.25	1.22
11	I	1459	CLA	CHC-C1C	2.33	1.42	1.35
11	B	1491	CLA	CAD-CBD	2.35	1.56	1.54
11	H	1485	CLA	CHC-C1C	2.35	1.42	1.35
11	B	1487	CLA	C6-C5	2.36	1.61	1.52
11	C	1470	CLA	CAA-C2A	2.36	1.58	1.53
11	A	1344	CLA	CHC-C1C	2.36	1.42	1.35
11	H	1482	CLA	C4C-C3C	2.36	1.49	1.45
11	H	1491	CLA	CAD-CBD	2.37	1.56	1.54
11	D	1353	CLA	O2A-CGA	2.37	1.40	1.33
11	B	1483	CLA	CHC-C1C	2.37	1.42	1.35
11	H	1490	CLA	CMB-C2B	2.37	1.56	1.51
11	I	1462	CLA	C1C-C2C	2.37	1.49	1.44
12	A	1345	PHO	C3B-C4B	2.38	1.48	1.43
11	C	1471	CLA	CAA-C2A	2.40	1.58	1.53
17	F	1046	BCR	C26-C25	2.41	1.38	1.34
11	I	1464	CLA	CHC-C1C	2.41	1.42	1.35
11	B	1482	CLA	C4C-C3C	2.41	1.49	1.45
11	J	1351	CLA	C1C-C2C	2.41	1.49	1.44
11	I	1465	CLA	CHC-C1C	2.42	1.42	1.35
11	J	1351	CLA	C4-C3	2.42	1.56	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	H	1497	CLA	C1C-C2C	2.42	1.49	1.44
12	D	1352	PHO	C4-C3	2.43	1.56	1.50
11	H	1492	CLA	C4-C3	2.43	1.56	1.50
11	H	1488	CLA	C1C-C2C	2.43	1.49	1.44
11	C	1459	CLA	CHC-C1C	2.45	1.43	1.35
16	E	1085	HEM	FE-NC	2.46	2.05	1.95
11	H	1497	CLA	CBD-CGD	2.46	1.60	1.52
11	B	1493	CLA	CAA-C2A	2.46	1.59	1.54
11	H	1482	CLA	C5-C3	2.47	1.56	1.51
11	H	1489	CLA	C4-C3	2.47	1.57	1.50
12	G	1345	PHO	CHC-C1C	2.47	1.43	1.38
11	H	1496	CLA	C4-C3	2.48	1.56	1.50
11	B	1497	CLA	CAA-C2A	2.48	1.58	1.53
11	H	1487	CLA	C1-C2	2.49	1.57	1.49
11	H	1488	CLA	C4-C3	2.50	1.56	1.50
11	H	1487	CLA	CHC-C1C	2.50	1.43	1.35
11	G	1346	CLA	C4-C3	2.51	1.56	1.50
11	I	1464	CLA	CAA-C2A	2.52	1.59	1.54
11	H	1482	CLA	C1-C2	2.52	1.57	1.49
11	G	1342	CLA	CHC-C1C	2.52	1.43	1.35
11	I	1468	CLA	CAD-CBD	2.53	1.57	1.54
11	H	1490	CLA	C4C-C3C	2.55	1.49	1.45
11	I	1463	CLA	C4-C3	2.55	1.56	1.50
18	T	1138	HEC	C3C-C4C	2.55	1.48	1.42
11	I	1470	CLA	CAA-C2A	2.56	1.59	1.53
16	E	1085	HEM	C3A-C2A	2.57	1.52	1.39
11	C	1461	CLA	CAD-CBD	2.57	1.57	1.54
11	B	1497	CLA	C1C-C2C	2.58	1.49	1.44
11	C	1462	CLA	C5-C3	2.58	1.57	1.51
11	C	1461	CLA	C2C-C1C	2.58	1.49	1.43
11	B	1487	CLA	C1-C2	2.59	1.57	1.49
11	B	1487	CLA	C4C-C3C	2.59	1.49	1.45
11	G	1346	CLA	CAA-C2A	2.59	1.59	1.54
11	B	1482	CLA	C5-C3	2.59	1.57	1.51
11	I	1471	CLA	C4C-C3C	2.59	1.49	1.45
11	H	1493	CLA	C4C-C3C	2.61	1.49	1.45
11	B	1490	CLA	C1C-C2C	2.61	1.49	1.44
11	B	1482	CLA	C4-C3	2.62	1.57	1.50
11	B	1495	CLA	C4-C3	2.64	1.57	1.50
11	I	1461	CLA	C2C-C1C	2.65	1.49	1.43
11	B	1487	CLA	CHC-C1C	2.65	1.43	1.35
11	I	1460	CLA	CHC-C1C	2.66	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	D	1351	CLA	C1C-C2C	2.67	1.49	1.44
11	B	1494	CLA	CHC-C1C	2.67	1.43	1.35
11	C	1462	CLA	CHC-C1C	2.67	1.43	1.35
11	H	1491	CLA	C3C-C4C	2.67	1.49	1.43
11	C	1462	CLA	C1-C2	2.68	1.57	1.49
11	J	1351	CLA	CHC-C1C	2.72	1.43	1.35
11	B	1494	CLA	C4-C3	2.72	1.57	1.50
11	I	1461	CLA	CAD-CBD	2.72	1.57	1.54
11	B	1488	CLA	CHC-C1C	2.73	1.43	1.35
18	V	1138	HEC	CAA-C2A	2.74	1.57	1.52
11	H	1488	CLA	CHC-C1C	2.74	1.43	1.35
11	C	1465	CLA	OBD-CAD	2.74	1.26	1.22
11	B	1490	CLA	C4C-C3C	2.75	1.50	1.45
16	L	1046	HEM	FE-NC	2.76	2.06	1.95
11	I	1464	CLA	C4-C3	2.77	1.57	1.50
11	C	1468	CLA	CAD-CBD	2.78	1.57	1.54
11	D	1351	CLA	CHC-C1C	2.78	1.44	1.35
11	A	1346	CLA	C4-C3	2.79	1.57	1.50
11	G	1343	CLA	C5-C3	2.80	1.57	1.51
11	C	1464	CLA	C4-C3	2.83	1.57	1.50
11	H	1487	CLA	C5-C3	2.83	1.57	1.51
11	B	1492	CLA	C4-C3	2.84	1.57	1.50
15	J	1354	PL9	C3-C2	2.87	1.40	1.32
11	H	1494	CLA	CHC-C1C	2.87	1.44	1.35
11	H	1488	CLA	C5-C3	2.88	1.57	1.51
11	I	1462	CLA	C4-C3	2.89	1.57	1.50
18	T	1138	HEC	CAA-C2A	2.89	1.57	1.52
11	B	1489	CLA	CAA-C2A	2.89	1.59	1.54
11	H	1496	CLA	CAA-C2A	2.92	1.60	1.54
11	C	1462	CLA	C4-C3	2.92	1.57	1.50
11	I	1462	CLA	CHC-C1C	2.93	1.44	1.35
11	B	1484	CLA	CAA-C2A	2.95	1.60	1.54
11	J	1353	CLA	CAA-C2A	2.96	1.60	1.54
11	I	1461	CLA	C3C-C4C	2.97	1.50	1.43
11	H	1494	CLA	CAA-C2A	2.97	1.60	1.54
11	I	1462	CLA	C1-C2	3.00	1.58	1.49
11	H	1490	CLA	CAA-C2A	3.03	1.60	1.54
11	I	1463	CLA	CAA-C2A	3.05	1.60	1.54
11	C	1463	CLA	C4-C3	3.05	1.58	1.50
17	L	1047	BCR	C26-C25	3.07	1.39	1.34
11	H	1487	CLA	C4C-C3C	3.08	1.50	1.45
11	I	1462	CLA	C5-C3	3.08	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	I	1466	CLA	CAA-C2A	3.10	1.60	1.54
11	H	1493	CLA	CAA-C2A	3.13	1.60	1.54
11	C	1460	CLA	CAA-C2A	3.14	1.60	1.54
11	C	1461	CLA	C3C-C4C	3.14	1.50	1.43
11	H	1494	CLA	C4-C3	3.15	1.58	1.50
11	G	1346	CLA	C4C-C3C	3.16	1.50	1.45
11	A	1346	CLA	CAA-C2A	3.16	1.60	1.54
11	B	1487	CLA	C5-C3	3.20	1.58	1.51
15	J	1354	PL9	C6-C5	3.21	1.41	1.32
17	F	1046	BCR	C30-C25	3.24	1.58	1.53
11	H	1495	CLA	C4-C3	3.25	1.58	1.50
11	I	1460	CLA	CAA-C2A	3.26	1.60	1.54
11	D	1353	CLA	CAA-C2A	3.26	1.60	1.54
17	L	1047	BCR	C2-C1	3.35	1.62	1.54
11	H	1484	CLA	CAA-C2A	3.37	1.60	1.54
17	F	1046	BCR	C29-C30	3.38	1.62	1.54
11	H	1482	CLA	C4-C3	3.40	1.58	1.50
17	L	1047	BCR	C29-C30	3.44	1.62	1.54
11	G	1344	CLA	CAA-C2A	3.48	1.61	1.54
11	H	1497	CLA	OBD-CAD	3.53	1.27	1.22
11	B	1490	CLA	CAA-C2A	3.57	1.61	1.54
15	D	1354	PL9	C6-C5	3.68	1.42	1.32
15	D	1354	PL9	C3-C2	3.68	1.42	1.32
11	C	1462	CLA	C2-C3	3.69	1.40	1.33
11	B	1496	CLA	CAA-C2A	3.69	1.61	1.54
11	H	1488	CLA	CAA-C2A	3.71	1.61	1.54
11	A	1343	CLA	CAA-C2A	3.74	1.61	1.54
17	F	1046	BCR	C2-C1	3.76	1.63	1.54
17	L	1047	BCR	C30-C25	3.80	1.59	1.53
16	L	1046	HEM	C3A-C4A	3.81	1.46	1.40
11	H	1482	CLA	CAA-C2A	3.87	1.61	1.54
11	C	1463	CLA	CAA-C2A	3.87	1.61	1.54
11	B	1482	CLA	CAA-C2A	3.93	1.62	1.54
11	C	1466	CLA	CAA-C2A	3.95	1.62	1.54
17	L	1047	BCR	C1-C6	3.97	1.59	1.53
11	I	1468	CLA	C3B-C4B	4.03	1.47	1.40
11	I	1461	CLA	C2B-C1B	4.03	1.47	1.40
11	I	1462	CLA	C2-C3	4.04	1.40	1.33
11	I	1468	CLA	C2B-C1B	4.04	1.47	1.40
11	C	1462	CLA	CAA-C2A	4.08	1.62	1.54
11	B	1488	CLA	CAA-C2A	4.11	1.62	1.54
11	G	1343	CLA	CAA-C2A	4.20	1.62	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	H	1491	CLA	C2B-C1B	4.22	1.47	1.40
11	C	1468	CLA	C3B-C4B	4.22	1.47	1.40
11	H	1487	CLA	CAA-C2A	4.24	1.62	1.54
11	B	1487	CLA	CAA-C2A	4.28	1.62	1.54
16	E	1085	HEM	C3A-C4A	4.30	1.47	1.40
11	I	1461	CLA	C3B-C4B	4.38	1.47	1.40
11	I	1462	CLA	CAA-C2A	4.38	1.62	1.54
11	C	1461	CLA	C2B-C1B	4.46	1.47	1.40
11	B	1491	CLA	C2B-C1B	4.59	1.48	1.40
17	F	1046	BCR	C1-C6	4.75	1.60	1.53
11	A	1344	CLA	CAA-C2A	4.82	1.63	1.54
11	C	1468	CLA	C2B-C1B	4.88	1.48	1.40
18	V	1138	HEC	C1A-NA	4.91	1.43	1.36
11	C	1461	CLA	C3B-C4B	4.99	1.48	1.40
11	H	1491	CLA	C3B-C4B	4.99	1.48	1.40
11	B	1491	CLA	C3B-C4B	5.07	1.48	1.40
16	E	1085	HEM	C2A-C1A	5.77	1.50	1.40
16	L	1046	HEM	C2A-C1A	5.86	1.50	1.40
18	T	1138	HEC	C1A-NA	6.02	1.44	1.36

All (743) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	V	1138	HEC	CAD-C3D-C4D	-12.92	112.98	127.01
18	T	1138	HEC	CAD-C3D-C4D	-12.45	113.48	127.01
16	E	1085	HEM	C3D-C4D-CHA	-7.55	116.44	124.06
18	V	1138	HEC	CBC-CAC-C3C	-7.49	110.70	127.35
18	T	1138	HEC	CBC-CAC-C3C	-7.44	110.82	127.35
16	L	1046	HEM	C3D-C4D-CHA	-7.16	116.83	124.06
18	T	1138	HEC	CBD-CAD-C3D	-6.52	100.84	112.53
18	V	1138	HEC	CBD-CAD-C3D	-6.24	101.35	112.53
12	D	1352	PHO	CBD-CHA-C4D	-4.81	103.07	108.46
11	B	1495	CLA	CAA-C2A-C3A	-4.79	99.44	113.22
11	H	1482	CLA	CAA-C2A-C3A	-4.65	99.83	113.22
11	H	1495	CLA	CAA-C2A-C3A	-4.65	99.84	113.22
11	B	1482	CLA	CAA-C2A-C3A	-4.48	100.33	113.22
11	B	1486	CLA	CAA-C2A-C3A	-4.44	105.58	116.20
11	D	1351	CLA	OBD-CAD-CBD	-4.33	119.40	125.94
11	A	1346	CLA	OBD-CAD-CBD	-4.32	119.42	125.94
16	E	1085	HEM	C3A-C2A-C1A	-4.31	102.52	106.29
12	J	1352	PHO	CBD-CHA-C4D	-4.26	103.68	108.46
11	B	1492	CLA	C7-C6-C5	-4.23	100.56	113.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	B	1493	CLA	CAA-C2A-C3A	-4.15	101.27	113.22
11	I	1471	CLA	CAA-C2A-C3A	-4.15	106.27	116.20
11	H	1486	CLA	CAA-C2A-C3A	-4.10	106.39	116.20
11	H	1493	CLA	CAA-C2A-C3A	-4.08	101.50	113.22
12	A	1345	PHO	CBD-CHA-C4D	-4.00	103.97	108.46
11	I	1470	CLA	CMA-C3A-C2A	-3.93	106.79	116.20
11	H	1492	CLA	C7-C6-C5	-3.91	101.52	113.06
12	G	1345	PHO	CBD-CHA-C4D	-3.91	104.08	108.46
16	L	1046	HEM	C3A-C2A-C1A	-3.86	102.91	106.29
11	I	1465	CLA	C7-C6-C5	-3.82	101.77	113.06
11	C	1466	CLA	CAA-C2A-C3A	-3.82	102.24	113.22
11	H	1487	CLA	OBD-CAD-CBD	-3.79	120.22	125.94
11	G	1346	CLA	OBD-CAD-CBD	-3.78	120.23	125.94
11	C	1465	CLA	C7-C6-C5	-3.77	101.91	113.06
11	I	1466	CLA	CAA-C2A-C3A	-3.74	102.46	113.22
17	F	1046	BCR	C38-C26-C27	-3.73	106.36	113.43
11	B	1486	CLA	CMA-C3A-C2A	-3.73	107.27	116.20
11	J	1353	CLA	OBD-CAD-CBD	-3.70	120.36	125.94
11	C	1471	CLA	CAA-C2A-C3A	-3.67	107.41	116.20
11	G	1343	CLA	OBD-CAD-CBD	-3.67	120.41	125.94
11	I	1471	CLA	CMA-C3A-C2A	-3.67	107.42	116.20
11	I	1469	CLA	CAA-C2A-C3A	-3.66	107.45	116.20
11	D	1353	CLA	OBD-CAD-CBD	-3.63	120.47	125.94
11	C	1463	CLA	OBD-CAD-CBD	-3.58	120.53	125.94
11	H	1486	CLA	CMA-C3A-C2A	-3.58	107.64	116.20
11	C	1462	CLA	OBD-CAD-CBD	-3.57	120.55	125.94
11	I	1462	CLA	OBD-CAD-CBD	-3.57	120.55	125.94
11	J	1351	CLA	OBD-CAD-CBD	-3.55	120.57	125.94
11	I	1469	CLA	CMA-C3A-C2A	-3.55	107.70	116.20
11	B	1487	CLA	OBD-CAD-CBD	-3.55	120.58	125.94
11	C	1459	CLA	CAA-C2A-C3A	-3.54	103.03	113.22
11	C	1469	CLA	CMA-C3A-C2A	-3.54	107.73	116.20
11	H	1489	CLA	OBD-CAD-CBD	-3.53	120.61	125.94
11	B	1493	CLA	OBD-CAD-CBD	-3.53	120.61	125.94
11	C	1470	CLA	CMA-C3A-C2A	-3.53	107.75	116.20
11	H	1494	CLA	C7-C6-C5	-3.52	102.65	113.06
17	L	1047	BCR	C38-C26-C27	-3.52	106.76	113.43
11	C	1469	CLA	CAA-C2A-C3A	-3.52	107.78	116.20
11	B	1494	CLA	C7-C6-C5	-3.45	102.86	113.06
17	L	1047	BCR	C12-C13-C14	-3.44	113.44	118.98
11	I	1459	CLA	CAA-C2A-C3A	-3.43	103.36	113.22
11	C	1470	CLA	CAA-C2A-C3A	-3.43	108.00	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	B	1495	CLA	OBD-CAD-CBD	-3.41	120.78	125.94
11	H	1494	CLA	OBD-CAD-CBD	-3.39	120.82	125.94
11	H	1482	CLA	OBD-CAD-CBD	-3.39	120.82	125.94
11	I	1467	CLA	OBD-CAD-CBD	-3.39	120.82	125.94
11	I	1463	CLA	OBD-CAD-CBD	-3.39	120.83	125.94
11	B	1484	CLA	CAA-C2A-C3A	-3.38	103.50	113.22
11	B	1488	CLA	OBD-CAD-CBD	-3.36	120.87	125.94
11	H	1484	CLA	CAA-C2A-C3A	-3.35	103.59	113.22
11	G	1344	CLA	OBD-CAD-CBD	-3.35	120.89	125.94
11	I	1470	CLA	CAA-C2A-C3A	-3.34	108.19	116.20
11	H	1497	CLA	CAA-C2A-C3A	-3.33	108.22	116.20
11	B	1496	CLA	OBD-CAD-CBD	-3.33	120.92	125.94
11	B	1497	CLA	CAA-C2A-C3A	-3.31	108.28	116.20
11	I	1464	CLA	OBD-CAD-CBD	-3.31	120.95	125.94
11	C	1471	CLA	CMA-C3A-C2A	-3.30	108.30	116.20
11	A	1343	CLA	OBD-CAD-CBD	-3.29	120.98	125.94
11	H	1493	CLA	OBD-CAD-CBD	-3.28	120.99	125.94
11	A	1342	CLA	C7-C6-C5	-3.28	103.38	113.06
11	C	1460	CLA	OBD-CAD-CBD	-3.27	121.00	125.94
11	B	1483	CLA	CAA-C2A-C3A	-3.24	103.89	113.22
11	H	1485	CLA	OBD-CAD-CBD	-3.24	121.05	125.94
11	G	1342	CLA	C7-C6-C5	-3.22	103.55	113.06
11	I	1462	CLA	CAA-C2A-C3A	-3.22	103.97	113.22
17	F	1046	BCR	C12-C13-C14	-3.21	113.81	118.98
12	D	1352	PHO	CAA-C2A-C3A	-3.21	103.98	113.22
12	D	1352	PHO	CAB-C3B-C2B	-3.18	117.74	128.41
12	J	1352	PHO	CAB-C3B-C2B	-3.17	117.78	128.41
12	J	1352	PHO	CAA-C2A-C3A	-3.16	104.14	113.22
11	C	1467	CLA	OBD-CAD-CBD	-3.13	121.22	125.94
17	F	1046	BCR	C30-C25-C26	-3.11	118.09	122.66
11	G	1346	CLA	CMB-C2B-C1B	-3.10	123.24	128.36
17	L	1047	BCR	C33-C5-C4	-3.07	107.60	113.43
11	H	1483	CLA	OBD-CAD-CBD	-3.06	121.32	125.94
12	D	1352	PHO	C2A-C1A-NA	-3.06	108.16	112.08
11	C	1464	CLA	OBD-CAD-CBD	-3.06	121.32	125.94
11	H	1488	CLA	OBD-CAD-CBD	-3.05	121.33	125.94
11	H	1483	CLA	CAA-C2A-C3A	-3.05	104.44	113.22
11	B	1496	CLA	C7-C6-C5	-3.04	104.09	113.06
12	J	1352	PHO	C2A-C1A-NA	-3.03	108.20	112.08
11	C	1464	CLA	C7-C6-C5	-3.03	104.12	113.06
11	I	1464	CLA	C7-C6-C5	-3.01	104.16	113.06
17	L	1047	BCR	C30-C25-C26	-3.01	118.24	122.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	B	1488	CLA	CAA-C2A-C3A	-3.01	104.56	113.22
11	H	1496	CLA	C7-C6-C5	-3.00	104.19	113.06
12	A	1345	PHO	CAB-C3B-C2B	-3.00	118.34	128.41
11	G	1344	CLA	CAA-C2A-C3A	-3.00	104.58	113.22
12	G	1345	PHO	C7-C6-C5	-2.98	104.25	113.06
17	F	1046	BCR	C33-C5-C4	-2.98	107.77	113.43
11	B	1488	CLA	O1D-CGD-CBD	-2.96	120.37	124.62
11	C	1462	CLA	CAA-C2A-C3A	-2.96	104.69	113.22
11	I	1470	CLA	OBD-CAD-CBD	-2.96	121.48	125.94
12	J	1352	PHO	C7-C6-C5	-2.94	104.39	113.06
11	C	1465	CLA	OBD-CAD-CBD	-2.93	121.52	125.94
11	A	1342	CLA	CMB-C2B-C1B	-2.92	123.53	128.36
12	G	1345	PHO	CAB-C3B-C2B	-2.91	118.67	128.41
11	B	1483	CLA	OBD-CAD-CBD	-2.90	121.55	125.94
11	A	1343	CLA	CAA-C2A-C3A	-2.89	104.90	113.22
11	H	1495	CLA	OBD-CAD-CBD	-2.89	121.58	125.94
11	B	1490	CLA	OBD-CAD-CBD	-2.88	121.60	125.94
11	I	1463	CLA	C7-C6-C5	-2.87	104.57	113.06
11	B	1497	CLA	OBD-CAD-CBD	-2.87	121.60	125.94
11	C	1463	CLA	C7-C6-C5	-2.87	104.58	113.06
12	G	1345	PHO	O1D-CGD-CBD	-2.85	120.53	124.62
11	C	1459	CLA	OBD-CAD-CBD	-2.85	121.64	125.94
11	A	1344	CLA	CAA-C2A-C3A	-2.84	105.04	113.22
11	G	1342	CLA	CMB-C2B-C1B	-2.84	123.66	128.36
12	D	1352	PHO	C7-C6-C5	-2.84	104.68	113.06
11	H	1486	CLA	OBD-CAD-CBD	-2.82	121.68	125.94
11	D	1353	CLA	CAA-C2A-C3A	-2.81	105.13	113.22
11	H	1487	CLA	CMB-C2B-C1B	-2.81	123.71	128.36
11	H	1488	CLA	CAA-C2A-C3A	-2.80	105.15	113.22
11	C	1462	CLA	CMB-C2B-C1B	-2.80	123.73	128.36
11	H	1488	CLA	O1D-CGD-CBD	-2.80	120.61	124.62
11	H	1490	CLA	OBD-CAD-CBD	-2.79	121.72	125.94
12	A	1345	PHO	C7-C6-C5	-2.79	104.83	113.06
17	F	1046	BCR	C1-C6-C5	-2.77	118.58	122.66
11	H	1497	CLA	OBD-CAD-CBD	-2.77	121.75	125.94
11	I	1465	CLA	OBD-CAD-CBD	-2.77	121.76	125.94
11	B	1482	CLA	OBD-CAD-CBD	-2.77	121.76	125.94
12	A	1345	PHO	O1D-CGD-CBD	-2.76	120.67	124.62
17	L	1047	BCR	C1-C6-C5	-2.76	118.61	122.66
11	A	1346	CLA	CMB-C2B-C1B	-2.75	123.81	128.36
11	B	1487	CLA	CMB-C2B-C1B	-2.74	123.84	128.36
17	L	1047	BCR	C19-C18-C17	-2.73	114.58	118.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	J	1351	CLA	CAA-C2A-C3A	-2.73	105.36	113.22
11	B	1485	CLA	OBD-CAD-CBD	-2.73	121.83	125.94
11	G	1346	CLA	CAA-C2A-C3A	-2.72	105.40	113.22
11	B	1494	CLA	OBD-CAD-CBD	-2.72	121.83	125.94
11	H	1489	CLA	O1D-CGD-CBD	-2.71	120.74	124.62
17	L	1047	BCR	C8-C9-C10	-2.70	114.63	118.98
11	B	1490	CLA	CAA-C2A-C3A	-2.69	105.48	113.22
11	B	1489	CLA	O1D-CGD-CBD	-2.69	120.77	124.62
11	H	1490	CLA	CAA-C2A-C3A	-2.69	105.48	113.22
11	A	1342	CLA	CAA-C2A-C3A	-2.68	105.51	113.22
11	B	1485	CLA	CAA-C2A-C3A	-2.66	105.56	113.22
11	H	1486	CLA	CMB-C2B-C1B	-2.65	123.98	128.36
11	B	1490	CLA	C3B-CAB-CBB	-2.65	120.91	126.32
11	I	1462	CLA	CMB-C2B-C1B	-2.64	124.00	128.36
17	F	1046	BCR	C19-C18-C17	-2.63	114.75	118.98
11	C	1470	CLA	OBD-CAD-CBD	-2.62	121.99	125.94
11	J	1351	CLA	C5-C3-C2	-2.61	116.11	121.05
11	G	1342	CLA	CAA-C2A-C3A	-2.60	105.75	113.22
11	G	1343	CLA	CAA-C2A-C3A	-2.59	105.78	113.22
11	B	1497	CLA	CMA-C3A-C2A	-2.58	110.02	116.20
11	B	1492	CLA	OBD-CAD-CBD	-2.58	122.04	125.94
11	I	1466	CLA	OBD-CAD-CBD	-2.57	122.05	125.94
11	B	1484	CLA	OBD-CAD-CBD	-2.56	122.07	125.94
11	J	1353	CLA	CAA-C2A-C3A	-2.55	105.88	113.22
11	H	1484	CLA	OBD-CAD-CBD	-2.55	122.09	125.94
11	H	1484	CLA	CMB-C2B-C1B	-2.55	124.15	128.36
11	I	1460	CLA	OBD-CAD-CBD	-2.55	122.09	125.94
11	A	1344	CLA	OBD-CAD-CBD	-2.55	122.10	125.94
12	A	1345	PHO	C5-C3-C2	-2.54	116.24	121.05
11	B	1487	CLA	O1D-CGD-CBD	-2.52	121.01	124.62
11	H	1496	CLA	OBD-CAD-CBD	-2.52	122.14	125.94
11	C	1462	CLA	C7-C6-C5	-2.51	105.66	113.06
11	D	1351	CLA	C5-C3-C2	-2.50	116.30	121.05
17	F	1046	BCR	C23-C22-C21	-2.50	114.95	118.98
11	B	1484	CLA	CMB-C2B-C1B	-2.47	124.28	128.36
11	H	1489	CLA	CMB-C2B-C1B	-2.47	124.28	128.36
11	I	1463	CLA	CAA-C2A-C3A	-2.46	106.15	113.22
12	G	1345	PHO	C5-C3-C2	-2.44	116.42	121.05
11	C	1470	CLA	O1D-CGD-CBD	-2.44	121.13	124.62
11	H	1493	CLA	O1D-CGD-CBD	-2.43	121.13	124.62
11	I	1461	CLA	C3B-C4B-NB	-2.43	107.91	110.09
11	I	1465	CLA	C12-C11-C10	-2.43	100.93	112.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	A	1346	CLA	CAA-C2A-C3A	-2.42	106.26	113.22
11	D	1351	CLA	C2C-C1C-NC	-2.42	108.44	110.24
11	B	1486	CLA	CMB-C2B-C1B	-2.41	124.37	128.36
11	J	1351	CLA	C2C-C1C-NC	-2.41	108.45	110.24
11	I	1463	CLA	O1D-CGD-CBD	-2.41	121.17	124.62
11	C	1463	CLA	CAA-C2A-C3A	-2.41	106.29	113.22
11	A	1342	CLA	OBD-CAD-CBD	-2.40	122.32	125.94
11	B	1489	CLA	OBD-CAD-CBD	-2.39	122.33	125.94
11	C	1465	CLA	C12-C11-C10	-2.37	101.21	112.99
11	B	1487	CLA	C12-C11-C10	-2.37	101.22	112.99
11	I	1463	CLA	C3B-CAB-CBB	-2.36	121.49	126.32
11	I	1470	CLA	O1D-CGD-CBD	-2.35	121.26	124.62
11	D	1351	CLA	CAA-C2A-C3A	-2.35	106.47	113.22
11	C	1466	CLA	OBD-CAD-CBD	-2.34	122.40	125.94
11	H	1485	CLA	CAA-C2A-C3A	-2.32	106.56	113.22
11	B	1490	CLA	CMA-C3A-C2A	-2.31	104.11	114.35
11	B	1495	CLA	O1A-CGA-CBA	-2.31	114.48	123.72
11	H	1487	CLA	C12-C11-C10	-2.30	101.57	112.99
11	I	1459	CLA	OBD-CAD-CBD	-2.30	122.47	125.94
11	D	1351	CLA	C12-C11-C10	-2.29	101.61	112.99
11	H	1497	CLA	CMA-C3A-C2A	-2.29	110.71	116.20
17	F	1046	BCR	C8-C9-C10	-2.28	115.30	118.98
11	H	1492	CLA	CMB-C2B-C1B	-2.28	124.59	128.36
11	H	1495	CLA	CMB-C2B-C1B	-2.28	124.59	128.36
17	L	1047	BCR	C23-C22-C21	-2.28	115.31	118.98
11	H	1492	CLA	CAA-C2A-C3A	-2.27	106.68	113.22
11	B	1483	CLA	C7-C6-C5	-2.27	106.35	113.06
11	I	1466	CLA	O1D-CGD-CBD	-2.27	121.37	124.62
12	G	1345	PHO	C2A-C1A-NA	-2.25	109.20	112.08
17	L	1047	BCR	C32-C1-C2	-2.24	100.77	108.79
12	A	1345	PHO	C2A-C1A-NA	-2.24	109.22	112.08
11	H	1490	CLA	CMA-C3A-C2A	-2.23	104.49	114.35
11	H	1487	CLA	CAA-C2A-C3A	-2.23	106.82	113.22
11	C	1463	CLA	CMB-C2B-C1B	-2.22	124.69	128.36
11	B	1486	CLA	OBD-CAD-CBD	-2.22	122.59	125.94
11	C	1464	CLA	CAA-C2A-C3A	-2.20	106.88	113.22
11	H	1490	CLA	C3B-CAB-CBB	-2.19	121.83	126.32
11	C	1467	CLA	CMB-C2B-C1B	-2.19	124.74	128.36
11	I	1464	CLA	O1D-CGD-CBD	-2.19	121.48	124.62
11	B	1488	CLA	CMB-C2B-C1B	-2.18	124.75	128.36
11	C	1461	CLA	C3B-C4B-NB	-2.18	108.14	110.09
11	B	1493	CLA	CMB-C2B-C1B	-2.18	124.76	128.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	I	1462	CLA	C7-C6-C5	-2.17	106.65	113.06
11	C	1469	CLA	OBD-CAD-CBD	-2.17	122.66	125.94
11	C	1471	CLA	OBD-CAD-CBD	-2.15	122.69	125.94
11	I	1465	CLA	CAA-C2A-C3A	-2.15	107.04	113.22
11	J	1351	CLA	C12-C11-C10	-2.15	102.34	112.99
11	H	1489	CLA	CAA-C2A-C3A	-2.14	107.05	113.22
11	B	1487	CLA	CAA-C2A-C3A	-2.14	107.06	113.22
11	H	1493	CLA	CMB-C2B-C1B	-2.14	124.83	128.36
11	H	1483	CLA	C7-C6-C5	-2.13	106.77	113.06
11	A	1344	CLA	O1D-CGD-CBD	-2.12	121.58	124.62
11	H	1494	CLA	CMB-C2B-C1B	-2.12	124.86	128.36
11	C	1463	CLA	O1D-CGD-CBD	-2.12	121.59	124.62
11	H	1492	CLA	OBD-CAD-CBD	-2.11	122.75	125.94
11	H	1485	CLA	CMB-C2B-C1B	-2.11	124.87	128.36
11	G	1346	CLA	CMA-C3A-C2A	-2.11	105.01	114.35
11	G	1342	CLA	OBD-CAD-CBD	-2.11	122.76	125.94
11	B	1485	CLA	CMB-C2B-C1B	-2.10	124.88	128.36
11	H	1495	CLA	O1D-CGD-CBD	-2.10	121.61	124.62
11	B	1492	CLA	CAA-C2A-C3A	-2.10	107.19	113.22
11	I	1471	CLA	OBD-CAD-CBD	-2.09	122.78	125.94
11	B	1497	CLA	CMB-C2B-C1B	-2.09	124.90	128.36
11	I	1469	CLA	O1D-CGD-CBD	-2.09	121.63	124.62
11	I	1467	CLA	CAA-C2A-C3A	-2.09	107.22	113.22
11	C	1467	CLA	CAA-C2A-C3A	-2.07	107.26	113.22
11	I	1469	CLA	OBD-CAD-CBD	-2.07	122.82	125.94
11	I	1467	CLA	O1D-CGD-CBD	-2.05	121.69	124.62
11	B	1489	CLA	CAA-C2A-C3A	-2.05	107.33	113.22
11	I	1464	CLA	CAA-C2A-C3A	-2.03	107.38	113.22
11	H	1483	CLA	O1D-CGD-CBD	-2.03	121.71	124.62
11	I	1465	CLA	CMB-C2B-C1B	-2.03	125.01	128.36
11	D	1353	CLA	CMB-C2B-C1B	-2.03	125.01	128.36
11	C	1464	CLA	CMB-C2B-C1B	-2.02	125.01	128.36
11	H	1488	CLA	CMB-C2B-C1B	-2.02	125.02	128.36
11	D	1351	CLA	CMB-C2B-C1B	-2.02	125.03	128.36
11	B	1495	CLA	CMB-C2B-C1B	-2.01	125.03	128.36
12	D	1352	PHO	O1D-CGD-CBD	-2.00	121.75	124.62
11	H	1488	CLA	C2C-C1C-NC	-2.00	108.75	110.24
11	A	1346	CLA	CMA-C3A-C2A	-2.00	105.50	114.35
11	B	1497	CLA	OBD-CAD-C3D	2.00	132.44	128.35
11	B	1496	CLA	C16-C15-C13	2.01	122.15	115.49
11	H	1495	CLA	CBA-CAA-C2A	2.01	119.40	113.73
11	C	1469	CLA	C2A-C1A-CHA	2.02	127.60	123.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	T	1138	HEC	CBA-CAA-C2A	2.02	116.14	112.53
11	G	1346	CLA	CED-O2D-CGD	2.02	120.72	115.99
11	A	1346	CLA	OBD-CAD-C3D	2.02	132.49	128.35
12	J	1352	PHO	O2D-CGD-CBD	2.03	114.08	111.30
11	I	1471	CLA	O2D-CGD-CBD	2.04	114.10	111.30
11	G	1343	CLA	O2D-CGD-CBD	2.04	114.10	111.30
11	H	1487	CLA	OBD-CAD-C3D	2.04	132.53	128.35
11	H	1484	CLA	CBA-CAA-C2A	2.04	119.50	113.55
11	B	1483	CLA	CED-O2D-CGD	2.04	120.78	115.99
17	F	1046	BCR	C20-C21-C22	2.05	130.16	127.20
11	B	1493	CLA	CED-O2D-CGD	2.06	120.81	115.99
11	B	1492	CLA	C2A-C1A-CHA	2.06	127.67	123.89
11	H	1484	CLA	O2D-CGD-CBD	2.06	114.12	111.30
11	B	1490	CLA	CBA-CAA-C2A	2.07	119.58	113.55
11	B	1496	CLA	C2A-C1A-CHA	2.09	127.72	123.89
11	G	1342	CLA	CMB-C2B-C3B	2.09	129.17	125.09
18	V	1138	HEC	CAA-C2A-C1A	2.09	129.28	127.01
11	J	1353	CLA	O2D-CGD-CBD	2.09	114.17	111.30
12	D	1352	PHO	C2A-C3A-C4A	2.09	105.89	101.10
11	B	1484	CLA	CBA-CAA-C2A	2.09	119.65	113.55
11	C	1466	CLA	C2A-C1A-CHA	2.10	127.74	123.89
11	D	1353	CLA	CED-O2D-CGD	2.10	120.91	115.99
11	B	1485	CLA	CBA-CAA-C2A	2.10	119.66	113.73
11	B	1482	CLA	C2A-C1A-CHA	2.10	127.76	123.89
16	L	1046	HEM	C2D-C3D-C4D	2.10	106.01	103.90
11	C	1470	CLA	C2A-C1A-CHA	2.10	127.76	123.89
11	B	1490	CLA	O2D-CGD-CBD	2.11	114.19	111.30
11	B	1488	CLA	C6-C5-C3	2.12	117.14	112.48
11	A	1342	CLA	C2A-C1A-CHA	2.12	127.79	123.89
17	F	1046	BCR	C37-C22-C23	2.12	121.63	118.10
11	I	1467	CLA	O2D-CGD-CBD	2.12	114.21	111.30
11	C	1463	CLA	C2A-C1A-CHA	2.13	127.81	123.89
11	B	1496	CLA	C6-C7-C8	2.13	122.56	115.49
11	J	1353	CLA	CED-O2D-CGD	2.14	121.00	115.99
11	I	1462	CLA	CMB-C2B-C3B	2.14	129.28	125.09
11	A	1342	CLA	CMB-C2B-C3B	2.14	129.28	125.09
11	D	1351	CLA	C2A-C1A-CHA	2.14	127.83	123.89
12	J	1352	PHO	C2A-C3A-C4A	2.14	106.01	101.10
11	H	1487	CLA	C1D-CHD-C4C	2.15	125.86	122.60
11	I	1466	CLA	C2A-C1A-CHA	2.15	127.84	123.89
17	F	1046	BCR	C11-C10-C9	2.16	130.32	127.20
11	H	1488	CLA	C6-C5-C3	2.17	117.24	112.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	I	1464	CLA	CBA-CAA-C2A	2.17	119.86	113.73
11	C	1462	CLA	CMB-C2B-C3B	2.17	129.34	125.09
11	G	1344	CLA	CED-O2D-CGD	2.18	121.09	115.99
11	B	1484	CLA	O2D-CGD-CBD	2.18	114.28	111.30
11	H	1486	CLA	CMB-C2B-C3B	2.18	129.35	125.09
11	A	1346	CLA	CMB-C2B-C3B	2.19	129.38	125.09
11	C	1464	CLA	CBA-CAA-C2A	2.19	119.92	113.73
11	B	1495	CLA	CBA-CAA-C2A	2.19	119.92	113.73
11	I	1469	CLA	C2A-C1A-CHA	2.20	127.93	123.89
11	C	1468	CLA	C2A-C3A-C4A	2.20	106.10	103.90
11	H	1497	CLA	OBD-CAD-C3D	2.21	132.86	128.35
11	B	1495	CLA	CED-O2D-CGD	2.21	121.16	115.99
11	H	1494	CLA	C2A-C1A-CHA	2.21	127.96	123.89
11	B	1486	CLA	CED-O2D-CGD	2.21	121.18	115.99
11	I	1459	CLA	C2A-C1A-CHA	2.22	127.97	123.89
12	G	1345	PHO	CMD-C2D-C1D	2.22	128.67	125.06
11	H	1496	CLA	CBA-CAA-C2A	2.22	120.00	113.73
11	H	1492	CLA	C2A-C1A-CHA	2.22	127.98	123.89
11	H	1487	CLA	CMB-C2B-C3B	2.23	129.44	125.09
11	J	1351	CLA	CBA-CAA-C2A	2.23	120.03	113.73
11	H	1487	CLA	CBA-CAA-C2A	2.23	120.03	113.73
11	C	1464	CLA	C6-C5-C3	2.24	117.39	112.48
17	L	1047	BCR	C36-C18-C19	2.24	121.82	118.10
11	H	1482	CLA	C2A-C1A-CHA	2.24	128.01	123.89
11	B	1489	CLA	CED-O2D-CGD	2.25	121.26	115.99
11	I	1464	CLA	C2A-C1A-CHA	2.25	128.03	123.89
17	F	1046	BCR	C16-C17-C18	2.25	130.45	127.20
11	H	1489	CLA	CED-O2D-CGD	2.25	121.27	115.99
11	B	1487	CLA	C1D-CHD-C4C	2.26	126.02	122.60
11	I	1467	CLA	C2A-C1A-CHA	2.27	128.06	123.89
11	C	1459	CLA	C2A-C1A-CHA	2.28	128.07	123.89
11	B	1494	CLA	C2A-C1A-CHA	2.28	128.08	123.89
11	H	1496	CLA	C2A-C1A-CHA	2.28	128.08	123.89
11	C	1464	CLA	C2A-C1A-CHA	2.29	128.09	123.89
11	I	1468	CLA	C2A-C3A-C4A	2.30	106.21	103.90
11	G	1342	CLA	CBA-CAA-C2A	2.30	120.23	113.73
11	C	1467	CLA	O2D-CGD-CBD	2.30	114.46	111.30
11	C	1460	CLA	CBA-CAA-C2A	2.30	120.24	113.73
18	T	1138	HEC	CAA-C2A-C1A	2.31	129.51	127.01
18	V	1138	HEC	CBA-CAA-C2A	2.31	116.67	112.53
11	I	1459	CLA	CBA-CAA-C2A	2.32	120.30	113.55
11	B	1496	CLA	CBA-CAA-C2A	2.32	120.28	113.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	D	1351	CLA	CED-O2D-CGD	2.32	121.44	115.99
11	C	1462	CLA	C6-C7-C8	2.33	123.21	115.49
11	I	1460	CLA	CBA-CAA-C2A	2.33	120.31	113.73
11	B	1496	CLA	CED-O2D-CGD	2.33	121.46	115.99
12	G	1345	PHO	O2A-CGA-CBA	2.33	119.01	111.90
11	C	1459	CLA	CBA-CAA-C2A	2.34	120.36	113.55
11	H	1487	CLA	CED-O2D-CGD	2.34	121.48	115.99
12	D	1352	PHO	O2D-CGD-CBD	2.35	114.53	111.30
11	I	1471	CLA	CED-O2D-CGD	2.36	121.52	115.99
17	L	1047	BCR	C3-C4-C5	2.36	117.61	113.87
11	J	1351	CLA	O2D-CGD-CBD	2.36	114.54	111.30
11	B	1485	CLA	O2A-CGA-CBA	2.37	119.12	111.90
11	B	1490	CLA	C2A-C1A-CHA	2.37	128.25	123.89
11	I	1467	CLA	CED-O2D-CGD	2.38	121.57	115.99
11	C	1459	CLA	CED-O2D-CGD	2.39	121.59	115.99
12	A	1345	PHO	O2A-CGA-CBA	2.39	119.18	111.90
11	C	1467	CLA	CED-O2D-CGD	2.39	121.59	115.99
17	F	1046	BCR	C3-C4-C5	2.39	117.66	113.87
11	A	1344	CLA	CED-O2D-CGD	2.42	121.65	115.99
11	C	1469	CLA	CED-O2D-CGD	2.43	121.69	115.99
11	H	1492	CLA	O2D-CGD-CBD	2.43	114.63	111.30
11	C	1470	CLA	O2D-CGD-CBD	2.43	114.64	111.30
11	I	1462	CLA	O2D-CGD-CBD	2.44	114.64	111.30
16	L	1046	HEM	C2B-C3B-C4B	2.45	106.35	103.90
11	I	1462	CLA	C6-C7-C8	2.45	123.60	115.49
11	I	1470	CLA	CED-O2D-CGD	2.45	121.73	115.99
11	B	1484	CLA	C1D-CHD-C4C	2.46	126.32	122.60
11	I	1463	CLA	C2A-C1A-CHA	2.47	128.44	123.89
17	L	1047	BCR	C16-C17-C18	2.48	130.77	127.20
11	D	1353	CLA	C1-C2-C3	2.48	130.78	126.71
12	D	1352	PHO	CED-O2D-CGD	2.48	121.82	115.99
11	B	1492	CLA	C6-C7-C8	2.49	123.75	115.49
11	C	1471	CLA	CED-O2D-CGD	2.49	121.83	115.99
11	I	1467	CLA	C1D-CHD-C4C	2.49	126.38	122.60
17	F	1046	BCR	C34-C9-C8	2.49	122.25	118.10
11	G	1342	CLA	C16-C15-C13	2.50	123.76	115.49
11	A	1342	CLA	CBA-CAA-C2A	2.50	120.77	113.73
11	H	1490	CLA	C2A-C1A-CHA	2.51	128.51	123.89
11	H	1485	CLA	O2A-CGA-CBA	2.51	119.56	111.90
11	C	1467	CLA	O2A-CGA-CBA	2.52	119.56	111.90
11	A	1342	CLA	C16-C15-C13	2.52	123.85	115.49
11	B	1497	CLA	CED-O2D-CGD	2.53	121.92	115.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	H	1484	CLA	C1D-CHD-C4C	2.53	126.43	122.60
11	D	1353	CLA	O2D-CGD-CBD	2.53	114.77	111.30
11	C	1465	CLA	CED-O2D-CGD	2.53	121.93	115.99
11	I	1467	CLA	O2A-CGA-CBA	2.54	119.63	111.90
11	I	1469	CLA	O2D-CGD-CBD	2.54	114.78	111.30
11	H	1485	CLA	CED-O2D-CGD	2.54	121.95	115.99
11	D	1351	CLA	CBA-CAA-C2A	2.54	120.91	113.73
11	H	1488	CLA	O2A-CGA-CBA	2.55	119.66	111.90
17	F	1046	BCR	C36-C18-C19	2.55	122.34	118.10
11	I	1469	CLA	CED-O2D-CGD	2.55	121.97	115.99
11	H	1496	CLA	O2A-CGA-CBA	2.55	119.68	111.90
11	H	1492	CLA	O2A-CGA-CBA	2.55	119.68	111.90
11	H	1494	CLA	CED-O2D-CGD	2.56	121.98	115.99
16	E	1085	HEM	C2C-C3C-C4C	2.56	106.47	103.90
11	C	1463	CLA	O2D-CGD-CBD	2.56	114.82	111.30
11	C	1467	CLA	C2A-C1A-CHA	2.57	128.62	123.89
11	A	1346	CLA	CED-O2D-CGD	2.58	122.04	115.99
11	G	1344	CLA	C1D-CHD-C4C	2.58	126.51	122.60
11	B	1492	CLA	O2A-CGA-CBA	2.59	119.79	111.90
11	I	1459	CLA	CED-O2D-CGD	2.60	122.09	115.99
11	D	1353	CLA	C1D-CHD-C4C	2.61	126.55	122.60
11	B	1483	CLA	O2A-CGA-CBA	2.61	119.84	111.90
11	A	1342	CLA	O2D-CGD-CBD	2.61	114.88	111.30
11	A	1343	CLA	C1D-CHD-C4C	2.61	126.55	122.60
11	G	1346	CLA	CMB-C2B-C3B	2.62	130.21	125.09
11	H	1495	CLA	CED-O2D-CGD	2.62	122.13	115.99
11	B	1494	CLA	CED-O2D-CGD	2.62	122.14	115.99
11	H	1493	CLA	O2D-CGD-CBD	2.62	114.90	111.30
11	J	1351	CLA	C2A-C1A-CHA	2.64	128.75	123.89
11	I	1465	CLA	C6-C5-C3	2.65	118.30	112.48
17	L	1047	BCR	C23-C24-C25	2.66	135.31	127.32
11	B	1494	CLA	O2A-CGA-CBA	2.67	120.05	111.90
11	B	1485	CLA	C1D-CHD-C4C	2.68	126.66	122.60
11	C	1459	CLA	C1D-CHD-C4C	2.68	126.66	122.60
11	H	1486	CLA	CED-O2D-CGD	2.68	122.28	115.99
11	A	1344	CLA	C1D-CHD-C4C	2.68	126.66	122.60
11	H	1483	CLA	CED-O2D-CGD	2.68	122.28	115.99
11	I	1460	CLA	C1D-CHD-C4C	2.68	126.66	122.60
11	B	1487	CLA	CED-O2D-CGD	2.69	122.29	115.99
11	H	1488	CLA	C1D-CHD-C4C	2.69	126.67	122.60
16	E	1085	HEM	C3B-C2B-C1B	2.69	106.60	103.90
11	B	1486	CLA	C1D-CHD-C4C	2.69	126.68	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	H	1493	CLA	CED-O2D-CGD	2.70	122.32	115.99
11	I	1464	CLA	C1D-CHD-C4C	2.70	126.68	122.60
11	I	1465	CLA	CED-O2D-CGD	2.70	122.32	115.99
11	C	1465	CLA	O2A-CGA-CBA	2.71	120.16	111.90
16	L	1046	HEM	C2C-C3C-C4C	2.72	106.63	103.90
17	L	1047	BCR	C34-C9-C8	2.73	122.64	118.10
11	G	1343	CLA	CBA-CAA-C2A	2.73	121.44	113.73
11	G	1342	CLA	C1D-CHD-C4C	2.74	126.74	122.60
11	H	1490	CLA	O2D-CGD-CBD	2.74	115.06	111.30
11	H	1492	CLA	C6-C7-C8	2.75	124.61	115.49
11	I	1459	CLA	O2D-CGD-CBD	2.75	115.07	111.30
11	G	1343	CLA	C1D-CHD-C4C	2.75	126.77	122.60
11	H	1494	CLA	O2D-CGD-CBD	2.76	115.08	111.30
11	H	1485	CLA	C1D-CHD-C4C	2.76	126.78	122.60
11	B	1484	CLA	CED-O2D-CGD	2.76	122.47	115.99
12	D	1352	PHO	C6-C5-C3	2.77	118.56	112.48
17	L	1047	BCR	C1-C6-C7	2.77	123.58	115.82
11	I	1470	CLA	O2D-CGD-CBD	2.78	115.11	111.30
16	E	1085	HEM	C2B-C3B-C4B	2.78	106.68	103.90
11	C	1466	CLA	CED-O2D-CGD	2.78	122.50	115.99
11	I	1466	CLA	O2A-CGA-CBA	2.78	120.38	111.90
11	H	1483	CLA	O2A-CGA-CBA	2.78	120.38	111.90
11	J	1351	CLA	CED-O2D-CGD	2.79	122.54	115.99
11	H	1483	CLA	C1D-CHD-C4C	2.80	126.83	122.60
12	G	1345	PHO	CBD-CHA-C1A	2.80	132.95	126.36
11	I	1470	CLA	C1D-CHD-C4C	2.80	126.84	122.60
11	G	1346	CLA	C1D-CHD-C4C	2.80	126.84	122.60
17	F	1046	BCR	C1-C6-C7	2.80	123.67	115.82
11	C	1470	CLA	CED-O2D-CGD	2.81	122.57	115.99
11	B	1495	CLA	C2A-C1A-CHA	2.81	129.06	123.89
11	B	1483	CLA	C1D-CHD-C4C	2.81	126.86	122.60
11	C	1460	CLA	O2D-CGD-CBD	2.82	115.17	111.30
11	B	1488	CLA	O2A-CGA-CBA	2.82	120.50	111.90
11	I	1463	CLA	O2D-CGD-CBD	2.82	115.17	111.30
11	B	1496	CLA	O2A-CGA-CBA	2.82	120.50	111.90
11	A	1343	CLA	CBA-CAA-C2A	2.83	121.72	113.73
11	C	1465	CLA	C6-C5-C3	2.83	118.69	112.48
11	I	1465	CLA	O2A-CGA-CBA	2.83	120.53	111.90
11	H	1496	CLA	CED-O2D-CGD	2.83	122.63	115.99
11	C	1466	CLA	O2A-CGA-CBA	2.84	120.54	111.90
11	B	1488	CLA	C1D-CHD-C4C	2.84	126.91	122.60
11	G	1342	CLA	CED-O2D-CGD	2.85	122.67	115.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	I	1469	CLA	C1D-CHD-C4C	2.85	126.91	122.60
11	J	1353	CLA	C1-C2-C3	2.85	131.38	126.71
11	C	1466	CLA	CBA-CAA-C2A	2.85	121.77	113.73
12	A	1345	PHO	CBD-CHA-C1A	2.86	133.10	126.36
11	A	1342	CLA	C1D-CHD-C4C	2.87	126.94	122.60
11	B	1489	CLA	C1D-CHD-C4C	2.87	126.95	122.60
11	A	1342	CLA	O2A-CGA-CBA	2.87	120.65	111.90
11	J	1353	CLA	C1D-CHD-C4C	2.88	126.96	122.60
11	H	1482	CLA	CBA-CAA-C2A	2.88	121.87	113.73
11	C	1462	CLA	C6-C5-C3	2.88	118.81	112.48
11	H	1495	CLA	C2A-C1A-CHA	2.89	129.20	123.89
11	C	1462	CLA	O2A-CGA-CBA	2.89	120.72	111.90
11	H	1496	CLA	O2D-CGD-CBD	2.90	115.27	111.30
11	C	1464	CLA	O2A-CGA-CBA	2.90	120.72	111.90
11	H	1494	CLA	O2A-CGA-CBA	2.90	120.74	111.90
11	I	1466	CLA	CBA-CAA-C2A	2.90	121.93	113.73
11	C	1464	CLA	C1D-CHD-C4C	2.91	127.00	122.60
11	B	1485	CLA	CED-O2D-CGD	2.91	122.82	115.99
11	I	1464	CLA	O2A-CGA-CBA	2.92	120.80	111.90
11	C	1459	CLA	O2D-CGD-CBD	2.93	115.32	111.30
11	C	1460	CLA	C1D-CHD-C4C	2.93	127.04	122.60
11	C	1469	CLA	C1D-CHD-C4C	2.93	127.04	122.60
11	D	1353	CLA	O2A-CGA-CBA	2.94	120.86	111.90
11	H	1486	CLA	O2D-CGD-CBD	2.94	115.34	111.30
11	C	1460	CLA	CED-O2D-CGD	2.95	122.91	115.99
12	J	1352	PHO	C6-C5-C3	2.95	118.97	112.48
11	J	1353	CLA	O2A-CGA-CBA	2.96	120.92	111.90
11	G	1346	CLA	O2A-CGA-CBA	2.96	120.93	111.90
11	B	1492	CLA	O2D-CGD-CBD	2.97	115.37	111.30
11	H	1489	CLA	C1D-CHD-C4C	2.97	127.10	122.60
11	B	1482	CLA	CBA-CAA-C2A	2.98	122.14	113.73
11	D	1351	CLA	O2A-CGA-CBA	2.98	120.99	111.90
11	I	1462	CLA	CED-O2D-CGD	2.98	122.99	115.99
11	B	1494	CLA	C1D-CHD-C4C	2.99	127.12	122.60
12	A	1345	PHO	O2D-CGD-CBD	2.99	115.40	111.30
11	H	1494	CLA	C6-C5-C3	2.99	119.05	112.48
11	H	1495	CLA	C1D-CHD-C4C	2.99	127.13	122.60
11	I	1466	CLA	O2D-CGD-CBD	3.00	115.41	111.30
11	I	1462	CLA	C6-C5-C3	3.00	119.08	112.48
17	L	1047	BCR	C35-C13-C12	3.01	123.10	118.10
11	C	1467	CLA	C1D-CHD-C4C	3.01	127.15	122.60
11	H	1484	CLA	CED-O2D-CGD	3.02	123.06	115.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	B	1497	CLA	C1D-CHD-C4C	3.02	127.18	122.60
17	F	1046	BCR	C23-C24-C25	3.02	136.40	127.32
11	C	1471	CLA	C1D-CHD-C4C	3.03	127.18	122.60
11	B	1493	CLA	C1D-CHD-C4C	3.04	127.19	122.60
11	C	1461	CLA	C2A-C1A-CHA	3.04	127.00	122.80
18	V	1138	HEC	CAD-CBD-CGD	3.04	118.32	112.75
11	G	1344	CLA	O2D-CGD-CBD	3.04	115.47	111.30
11	C	1470	CLA	C1D-CHD-C4C	3.05	127.21	122.60
16	E	1085	HEM	C3C-C2C-C1C	3.05	106.96	103.90
11	I	1460	CLA	CED-O2D-CGD	3.05	123.15	115.99
11	B	1491	CLA	C2A-C1A-CHA	3.05	127.02	122.80
11	H	1491	CLA	C2A-C1A-CHA	3.06	127.02	122.80
11	A	1346	CLA	O2A-CGA-CBA	3.06	121.22	111.90
11	C	1463	CLA	CED-O2D-CGD	3.06	123.17	115.99
11	B	1496	CLA	O2D-CGD-CBD	3.07	115.50	111.30
11	I	1466	CLA	C1D-CHD-C4C	3.07	127.24	122.60
11	I	1463	CLA	C1D-CHD-C4C	3.07	127.25	122.60
11	G	1342	CLA	O2A-CGA-CBA	3.07	121.25	111.90
11	C	1466	CLA	O2D-CGD-CBD	3.07	115.51	111.30
12	J	1352	PHO	CED-O2D-CGD	3.07	123.19	115.99
11	C	1463	CLA	O2A-CGA-CBA	3.08	121.28	111.90
11	I	1466	CLA	CED-O2D-CGD	3.08	123.22	115.99
11	B	1489	CLA	O2A-CGA-CBA	3.09	121.30	111.90
11	A	1346	CLA	C1D-CHD-C4C	3.09	127.28	122.60
11	I	1461	CLA	C2A-C1A-CHA	3.09	127.07	122.80
11	B	1493	CLA	O2D-CGD-CBD	3.10	115.55	111.30
11	C	1469	CLA	O2D-CGD-CBD	3.10	115.56	111.30
11	B	1486	CLA	O2D-CGD-CBD	3.11	115.57	111.30
11	H	1497	CLA	C1D-CHD-C4C	3.12	127.31	122.60
11	A	1343	CLA	O2A-CGA-CBA	3.12	121.41	111.90
11	B	1495	CLA	C1D-CHD-C4C	3.13	127.34	122.60
11	C	1466	CLA	C1D-CHD-C4C	3.13	127.34	122.60
12	G	1345	PHO	CED-O2D-CGD	3.14	123.34	115.99
11	H	1497	CLA	CED-O2D-CGD	3.14	123.35	115.99
11	H	1483	CLA	O2D-CGD-CBD	3.14	115.61	111.30
11	I	1460	CLA	O2A-CGA-CBA	3.14	121.47	111.90
11	B	1482	CLA	C1D-CHD-C4C	3.15	127.37	122.60
12	J	1352	PHO	O2A-CGA-CBA	3.15	121.51	111.90
11	H	1486	CLA	C1D-CHD-C4C	3.16	127.38	122.60
11	I	1468	CLA	C2A-C1A-CHA	3.16	127.17	122.80
12	A	1345	PHO	CED-O2D-CGD	3.17	123.43	115.99
11	J	1351	CLA	O2A-CGA-CBA	3.17	121.56	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	H	1492	CLA	CED-O2D-CGD	3.17	123.43	115.99
11	I	1471	CLA	C1D-CHD-C4C	3.17	127.40	122.60
11	C	1462	CLA	C1D-CHD-C4C	3.18	127.41	122.60
11	I	1463	CLA	O2A-CGA-CBA	3.18	121.60	111.90
11	B	1495	CLA	O2D-CGD-CBD	3.20	115.68	111.30
11	B	1492	CLA	C1D-CHD-C4C	3.20	127.44	122.60
11	H	1496	CLA	C1D-CHD-C4C	3.20	127.45	122.60
16	L	1046	HEM	C3B-C2B-C1B	3.20	107.11	103.90
11	I	1462	CLA	C1D-CHD-C4C	3.21	127.45	122.60
11	H	1493	CLA	C1D-CHD-C4C	3.21	127.46	122.60
11	C	1463	CLA	C1D-CHD-C4C	3.21	127.47	122.60
11	H	1489	CLA	O2A-CGA-CBA	3.22	121.70	111.90
11	A	1342	CLA	CED-O2D-CGD	3.22	123.54	115.99
11	I	1459	CLA	C1D-CHD-C4C	3.22	127.48	122.60
12	G	1345	PHO	O2D-CGD-CBD	3.22	115.72	111.30
11	C	1465	CLA	C1D-CHD-C4C	3.23	127.49	122.60
17	F	1046	BCR	C35-C13-C12	3.23	123.47	118.10
11	B	1487	CLA	O2D-CGD-CBD	3.23	115.73	111.30
11	A	1344	CLA	O2D-CGD-CBD	3.24	115.74	111.30
16	L	1046	HEM	C3C-C2C-C1C	3.24	107.15	103.90
11	H	1482	CLA	C1D-CHD-C4C	3.24	127.51	122.60
12	J	1352	PHO	CBD-CHA-C1A	3.25	134.01	126.36
11	I	1462	CLA	O2A-CGA-CBA	3.25	121.81	111.90
11	C	1462	CLA	CED-O2D-CGD	3.25	123.62	115.99
11	B	1490	CLA	CED-O2D-CGD	3.26	123.63	115.99
11	I	1466	CLA	C1-C2-C3	3.27	132.07	126.71
11	B	1496	CLA	C1D-CHD-C4C	3.28	127.57	122.60
11	C	1468	CLA	C2A-C1A-CHA	3.29	127.34	122.80
11	H	1482	CLA	O2A-CGA-CBA	3.30	121.94	111.90
17	F	1046	BCR	C15-C14-C13	3.30	131.96	127.20
11	A	1346	CLA	O2D-CGD-CBD	3.31	115.84	111.30
12	D	1352	PHO	CBD-CHA-C1A	3.31	134.16	126.36
11	H	1490	CLA	CED-O2D-CGD	3.33	123.80	115.99
11	B	1490	CLA	C1D-CHD-C4C	3.33	127.64	122.60
11	I	1463	CLA	CED-O2D-CGD	3.33	123.81	115.99
11	B	1494	CLA	C6-C5-C3	3.34	119.80	112.48
11	B	1483	CLA	O2D-CGD-CBD	3.34	115.89	111.30
11	I	1465	CLA	C1D-CHD-C4C	3.35	127.67	122.60
11	C	1460	CLA	O2A-CGA-CBA	3.36	122.12	111.90
11	B	1492	CLA	CED-O2D-CGD	3.36	123.88	115.99
11	G	1343	CLA	O2A-CGA-CBA	3.39	122.23	111.90
11	H	1492	CLA	C1D-CHD-C4C	3.39	127.74	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	A	1343	CLA	CED-O2D-CGD	3.46	124.11	115.99
11	I	1464	CLA	CED-O2D-CGD	3.48	124.15	115.99
11	H	1490	CLA	C1D-CHD-C4C	3.52	127.93	122.60
11	H	1496	CLA	C6-C5-C3	3.52	120.21	112.48
12	D	1352	PHO	O2A-CGA-CBA	3.53	122.67	111.90
17	F	1046	BCR	C29-C30-C25	3.55	115.99	110.36
11	J	1351	CLA	C1D-CHD-C4C	3.56	127.98	122.60
11	H	1494	CLA	C1D-CHD-C4C	3.56	127.99	122.60
17	F	1046	BCR	C2-C1-C6	3.56	116.01	110.36
11	D	1351	CLA	C1D-CHD-C4C	3.57	128.00	122.60
17	L	1047	BCR	C15-C14-C13	3.59	132.38	127.20
17	L	1047	BCR	C29-C30-C25	3.59	116.04	110.36
11	I	1465	CLA	O2D-CGD-CBD	3.63	116.27	111.30
11	C	1464	CLA	CED-O2D-CGD	3.63	124.51	115.99
11	G	1343	CLA	CED-O2D-CGD	3.64	124.52	115.99
11	G	1346	CLA	O2D-CGD-CBD	3.64	116.30	111.30
11	B	1487	CLA	O2A-CGA-CBA	3.64	123.00	111.90
11	H	1487	CLA	C4A-NA-C1A	3.64	111.07	106.36
11	I	1462	CLA	C4A-NA-C1A	3.65	111.08	106.36
11	B	1487	CLA	C4A-NA-C1A	3.66	111.09	106.36
11	C	1465	CLA	O2D-CGD-CBD	3.67	116.33	111.30
11	H	1497	CLA	O2D-CGD-CBD	3.67	116.33	111.30
11	C	1464	CLA	O2D-CGD-CBD	3.67	116.34	111.30
17	L	1047	BCR	C2-C1-C6	3.67	116.18	110.36
11	C	1466	CLA	C1-C2-C3	3.67	132.73	126.71
11	B	1482	CLA	O2A-CGA-CBA	3.71	123.20	111.90
11	C	1462	CLA	C4A-NA-C1A	3.71	111.16	106.36
11	A	1343	CLA	C4A-NA-C1A	3.71	111.16	106.36
11	G	1343	CLA	C4A-NA-C1A	3.73	111.19	106.36
18	T	1138	HEC	CAD-CBD-CGD	3.74	119.60	112.75
17	F	1046	BCR	C7-C8-C9	3.76	131.95	126.22
11	B	1497	CLA	O2D-CGD-CBD	3.78	116.48	111.30
11	H	1483	CLA	C4A-NA-C1A	3.78	111.25	106.36
17	F	1046	BCR	C33-C5-C6	3.82	128.35	124.61
11	G	1342	CLA	C4A-NA-C1A	3.84	111.33	106.36
11	I	1463	CLA	C6-C5-C3	3.87	120.98	112.48
11	H	1482	CLA	CED-O2D-CGD	3.87	125.07	115.99
11	H	1487	CLA	O2A-CGA-CBA	3.87	123.71	111.90
11	B	1493	CLA	CBA-CAA-C2A	3.88	124.86	113.55
11	C	1463	CLA	C6-C5-C3	3.89	121.02	112.48
11	H	1493	CLA	CBA-CAA-C2A	3.89	124.88	113.55
11	I	1465	CLA	C4A-NA-C1A	3.91	111.42	106.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	H	1487	CLA	O2D-CGD-CBD	3.93	116.69	111.30
11	C	1468	CLA	CBD-CAD-C3D	3.93	107.16	104.39
11	H	1485	CLA	C4A-NA-C1A	3.93	111.44	106.36
11	H	1484	CLA	C4A-NA-C1A	3.95	111.47	106.36
11	I	1464	CLA	C4A-NA-C1A	3.97	111.49	106.36
11	C	1459	CLA	C4A-NA-C1A	4.00	111.53	106.36
11	C	1465	CLA	C4A-NA-C1A	4.00	111.53	106.36
12	A	1345	PHO	C4A-NA-C1A	4.03	111.81	108.21
11	G	1346	CLA	C4A-NA-C1A	4.04	111.58	106.36
11	B	1485	CLA	C4A-NA-C1A	4.04	111.58	106.36
11	H	1495	CLA	O2A-CGA-CBA	4.05	124.24	111.90
11	B	1483	CLA	C4A-NA-C1A	4.06	111.61	106.36
11	B	1494	CLA	C4A-NA-C1A	4.07	111.62	106.36
11	C	1464	CLA	C4A-NA-C1A	4.08	111.63	106.36
11	D	1351	CLA	C4A-NA-C1A	4.08	111.64	106.36
11	B	1492	CLA	C6-C5-C3	4.08	121.44	112.48
11	J	1353	CLA	C4A-NA-C1A	4.10	111.67	106.36
11	B	1488	CLA	C4A-NA-C1A	4.11	111.67	106.36
11	B	1496	CLA	C6-C5-C3	4.12	121.52	112.48
17	L	1047	BCR	C33-C5-C6	4.12	128.65	124.61
11	I	1464	CLA	O2D-CGD-CBD	4.12	116.95	111.30
11	B	1496	CLA	C4A-NA-C1A	4.15	111.73	106.36
11	H	1486	CLA	C4A-NA-C1A	4.15	111.73	106.36
11	B	1490	CLA	C4A-NA-C1A	4.16	111.74	106.36
11	H	1492	CLA	C6-C5-C3	4.17	121.64	112.48
11	H	1488	CLA	C4A-NA-C1A	4.18	111.76	106.36
11	B	1484	CLA	C4A-NA-C1A	4.21	111.80	106.36
11	A	1342	CLA	C4A-NA-C1A	4.21	111.80	106.36
17	L	1047	BCR	C7-C8-C9	4.24	132.68	126.22
11	H	1488	CLA	O2D-CGD-CBD	4.24	117.12	111.30
11	B	1482	CLA	CED-O2D-CGD	4.25	125.96	115.99
11	B	1489	CLA	O2D-CGD-CBD	4.25	117.13	111.30
11	I	1468	CLA	CBD-CAD-C3D	4.29	107.42	104.39
11	A	1346	CLA	C4A-NA-C1A	4.30	111.92	106.36
11	H	1495	CLA	O2D-CGD-CBD	4.30	117.20	111.30
11	I	1470	CLA	C4A-NA-C1A	4.30	111.92	106.36
11	D	1353	CLA	C4A-NA-C1A	4.31	111.93	106.36
11	B	1497	CLA	C4A-NA-C1A	4.32	111.95	106.36
11	B	1493	CLA	C4A-NA-C1A	4.36	112.00	106.36
11	J	1351	CLA	C4A-NA-C1A	4.37	112.01	106.36
12	J	1352	PHO	C4A-NA-C1A	4.37	112.11	108.21
11	I	1460	CLA	C4A-NA-C1A	4.38	112.02	106.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	G	1345	PHO	C4A-NA-C1A	4.38	112.12	108.21
11	B	1495	CLA	O2A-CGA-CBA	4.39	125.27	111.90
11	B	1489	CLA	C4A-NA-C1A	4.39	112.04	106.36
11	I	1466	CLA	C4A-NA-C1A	4.40	112.05	106.36
11	G	1344	CLA	C4A-NA-C1A	4.40	112.05	106.36
11	I	1467	CLA	C4A-NA-C1A	4.41	112.06	106.36
11	H	1493	CLA	C4A-NA-C1A	4.41	112.06	106.36
11	C	1466	CLA	C4A-NA-C1A	4.41	112.06	106.36
11	B	1491	CLA	CBD-CAD-C3D	4.45	107.53	104.39
11	B	1486	CLA	C4A-NA-C1A	4.46	112.12	106.36
11	H	1490	CLA	C4A-NA-C1A	4.46	112.13	106.36
11	I	1459	CLA	C4A-NA-C1A	4.47	112.14	106.36
11	C	1460	CLA	C4A-NA-C1A	4.47	112.14	106.36
11	C	1467	CLA	C4A-NA-C1A	4.47	112.15	106.36
11	A	1344	CLA	C4A-NA-C1A	4.48	112.15	106.36
11	B	1495	CLA	C4A-NA-C1A	4.48	112.15	106.36
11	H	1491	CLA	CBD-CAD-C3D	4.48	107.55	104.39
11	H	1489	CLA	O2D-CGD-CBD	4.49	117.45	111.30
11	H	1489	CLA	C1-C2-C3	4.49	134.07	126.71
11	H	1492	CLA	C4A-NA-C1A	4.50	112.17	106.36
11	H	1494	CLA	C4A-NA-C1A	4.50	112.17	106.36
11	C	1463	CLA	C4A-NA-C1A	4.50	112.18	106.36
11	H	1497	CLA	C4A-NA-C1A	4.52	112.21	106.36
11	B	1482	CLA	C4A-NA-C1A	4.52	112.21	106.36
11	I	1471	CLA	C4A-NA-C1A	4.53	112.22	106.36
18	T	1138	HEC	CAD-C3D-C2D	4.54	141.97	129.00
11	B	1492	CLA	C4A-NA-C1A	4.61	112.31	106.36
11	C	1471	CLA	C4A-NA-C1A	4.61	112.32	106.36
11	C	1461	CLA	CBD-CAD-C3D	4.62	107.65	104.39
11	C	1470	CLA	C4A-NA-C1A	4.64	112.35	106.36
11	H	1482	CLA	C4A-NA-C1A	4.64	112.36	106.36
11	H	1489	CLA	C4A-NA-C1A	4.66	112.39	106.36
11	H	1496	CLA	C4A-NA-C1A	4.68	112.41	106.36
11	B	1489	CLA	C1-C2-C3	4.68	134.38	126.71
11	I	1463	CLA	C4A-NA-C1A	4.70	112.44	106.36
11	B	1488	CLA	O2D-CGD-CBD	4.73	117.79	111.30
18	V	1138	HEC	CAD-C3D-C2D	4.75	142.56	129.00
11	H	1495	CLA	C4A-NA-C1A	4.75	112.50	106.36
11	C	1469	CLA	C4A-NA-C1A	4.87	112.66	106.36
11	I	1461	CLA	CBD-CAD-C3D	4.92	107.86	104.39
12	D	1352	PHO	C4A-NA-C1A	4.94	112.62	108.21
11	I	1469	CLA	C4A-NA-C1A	4.97	112.79	106.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	C	1468	CLA	CAD-C3D-C2D	5.31	145.68	132.80
11	B	1491	CLA	CAD-C3D-C2D	5.34	145.77	132.80
11	I	1468	CLA	CAD-C3D-C2D	5.35	145.78	132.80
11	H	1491	CLA	CAD-C3D-C2D	5.36	145.82	132.80
11	I	1461	CLA	CAD-C3D-C2D	5.51	146.16	132.80
11	C	1461	CLA	CAD-C3D-C2D	5.53	146.21	132.80
17	L	1047	BCR	C38-C26-C25	5.71	130.21	124.61
17	F	1046	BCR	C38-C26-C25	6.19	130.68	124.61
16	L	1046	HEM	CHA-C4D-ND	7.72	132.25	124.52
16	E	1085	HEM	CHA-C4D-ND	8.30	132.82	124.52

All (200) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
11	C	1471	CLA	NC
11	C	1471	CLA	ND
11	C	1471	CLA	NA
11	B	1487	CLA	NC
11	B	1487	CLA	ND
11	B	1487	CLA	NA
11	C	1468	CLA	NC
11	C	1468	CLA	ND
11	C	1468	CLA	NA
11	B	1489	CLA	NC
11	B	1489	CLA	ND
11	B	1489	CLA	NA
11	B	1497	CLA	NC
11	B	1497	CLA	ND
11	B	1497	CLA	NA
11	H	1482	CLA	NC
11	H	1482	CLA	ND
11	H	1482	CLA	NA
11	B	1482	CLA	NC
11	B	1482	CLA	ND
11	B	1482	CLA	NA
11	H	1492	CLA	NC
11	H	1492	CLA	ND
11	H	1492	CLA	NA
11	H	1493	CLA	NC
11	H	1493	CLA	ND
11	H	1493	CLA	NA
11	H	1485	CLA	NC

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Mol	Chain	Res	Type	Atom
11	H	1485	CLA	ND
11	H	1485	CLA	NA
11	B	1492	CLA	NC
11	B	1492	CLA	ND
11	B	1492	CLA	NA
11	C	1462	CLA	NC
11	C	1462	CLA	ND
11	C	1462	CLA	NA
11	I	1466	CLA	NC
11	I	1466	CLA	ND
11	I	1466	CLA	NA
11	A	1344	CLA	NC
11	A	1344	CLA	ND
11	A	1344	CLA	NA
11	I	1463	CLA	C8
11	I	1463	CLA	NC
11	I	1463	CLA	ND
11	H	1489	CLA	NC
11	H	1489	CLA	ND
11	H	1489	CLA	NA
11	G	1343	CLA	NC
11	G	1343	CLA	ND
11	G	1343	CLA	NA
11	C	1465	CLA	NC
11	C	1465	CLA	ND
11	C	1465	CLA	NA
11	B	1494	CLA	NC
11	B	1494	CLA	ND
11	B	1494	CLA	NA
11	H	1486	CLA	NC
11	H	1486	CLA	ND
11	H	1486	CLA	NA
11	B	1496	CLA	NC
11	B	1496	CLA	ND
11	B	1496	CLA	NA
11	B	1493	CLA	NC
11	B	1493	CLA	ND
11	B	1493	CLA	NA
11	B	1491	CLA	NC
11	B	1491	CLA	ND
11	B	1491	CLA	NA
11	H	1497	CLA	NC

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Mol	Chain	Res	Type	Atom
11	H	1497	CLA	ND
11	H	1497	CLA	NA
11	I	1465	CLA	NC
11	I	1465	CLA	ND
11	I	1465	CLA	NA
11	A	1342	CLA	NC
11	A	1342	CLA	ND
11	A	1342	CLA	NA
11	B	1486	CLA	NC
11	B	1486	CLA	ND
11	B	1486	CLA	NA
11	G	1346	CLA	NC
11	G	1346	CLA	ND
11	G	1346	CLA	NA
11	G	1342	CLA	ND
11	C	1469	CLA	NC
11	C	1469	CLA	ND
11	C	1469	CLA	NA
11	I	1461	CLA	NC
11	I	1461	CLA	ND
11	I	1461	CLA	NA
11	I	1470	CLA	NC
11	I	1470	CLA	ND
11	I	1470	CLA	NA
11	C	1467	CLA	NC
11	C	1467	CLA	ND
11	C	1467	CLA	NA
11	I	1462	CLA	NC
11	I	1462	CLA	ND
11	I	1462	CLA	NA
11	B	1485	CLA	NC
11	B	1485	CLA	ND
11	B	1485	CLA	NA
11	G	1344	CLA	NC
11	G	1344	CLA	ND
11	G	1344	CLA	NA
11	H	1491	CLA	NC
11	H	1491	CLA	ND
11	H	1491	CLA	NA
11	H	1488	CLA	NC
11	H	1488	CLA	ND
11	H	1488	CLA	NA

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Mol	Chain	Res	Type	Atom
11	C	1463	CLA	NC
11	C	1463	CLA	ND
11	C	1463	CLA	NA
11	J	1353	CLA	NC
11	J	1353	CLA	ND
11	J	1353	CLA	NA
11	H	1495	CLA	NC
11	H	1495	CLA	ND
11	H	1495	CLA	NA
11	I	1471	CLA	NC
11	I	1471	CLA	ND
11	I	1471	CLA	NA
11	H	1487	CLA	NC
11	H	1487	CLA	ND
11	H	1487	CLA	NA
11	C	1464	CLA	NC
11	C	1464	CLA	ND
11	C	1464	CLA	NA
11	C	1461	CLA	NC
11	C	1461	CLA	ND
11	C	1461	CLA	NA
11	I	1460	CLA	NC
11	I	1460	CLA	ND
11	I	1460	CLA	NA
11	I	1469	CLA	NC
11	I	1469	CLA	ND
11	I	1469	CLA	NA
11	I	1467	CLA	NC
11	I	1467	CLA	ND
11	I	1467	CLA	NA
11	D	1353	CLA	NC
11	D	1353	CLA	ND
11	D	1353	CLA	NA
11	A	1343	CLA	NC
11	A	1343	CLA	ND
11	A	1343	CLA	NA
11	B	1488	CLA	NC
11	B	1488	CLA	ND
11	B	1488	CLA	NA
11	C	1459	CLA	NC
11	C	1459	CLA	ND
11	C	1459	CLA	NA

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Mol	Chain	Res	Type	Atom
11	A	1346	CLA	NC
11	A	1346	CLA	ND
11	A	1346	CLA	NA
11	D	1351	CLA	ND
11	J	1351	CLA	ND
11	B	1484	CLA	NC
11	B	1484	CLA	ND
11	B	1484	CLA	NA
11	B	1483	CLA	NC
11	B	1483	CLA	ND
11	B	1483	CLA	NA
11	C	1466	CLA	NC
11	C	1466	CLA	ND
11	C	1466	CLA	NA
11	H	1490	CLA	ND
11	C	1460	CLA	NC
11	C	1460	CLA	ND
11	C	1460	CLA	NA
11	I	1464	CLA	NC
11	I	1464	CLA	ND
11	I	1464	CLA	NA
11	H	1484	CLA	NC
11	H	1484	CLA	ND
11	H	1484	CLA	NA
11	B	1490	CLA	ND
11	C	1470	CLA	NC
11	C	1470	CLA	ND
11	C	1470	CLA	NA
11	B	1495	CLA	NC
11	B	1495	CLA	ND
11	B	1495	CLA	NA
11	H	1483	CLA	NC
11	H	1483	CLA	ND
11	H	1483	CLA	NA
11	H	1494	CLA	NC
11	H	1494	CLA	ND
11	H	1494	CLA	NA
11	I	1468	CLA	NC
11	I	1468	CLA	ND
11	I	1468	CLA	NA
11	I	1459	CLA	NC
11	I	1459	CLA	ND

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Mol	Chain	Res	Type	Atom
11	I	1459	CLA	NA
11	H	1496	CLA	NC
11	H	1496	CLA	ND
11	H	1496	CLA	NA

There are no torsion outliers.

There are no ring outliers.

78 monomers are involved in 469 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
11	A	1342	CLA	18	0
11	A	1343	CLA	8	0
11	A	1344	CLA	6	0
12	A	1345	PHO	14	0
11	A	1346	CLA	7	0
11	B	1482	CLA	1	0
11	B	1483	CLA	5	0
11	B	1484	CLA	7	0
11	B	1485	CLA	5	0
11	B	1486	CLA	13	0
11	B	1487	CLA	8	0
11	B	1488	CLA	7	0
11	B	1489	CLA	4	0
11	B	1490	CLA	3	0
11	B	1491	CLA	3	0
11	B	1492	CLA	5	0
11	B	1493	CLA	1	0
11	B	1494	CLA	3	0
11	B	1495	CLA	3	0
11	B	1496	CLA	15	0
11	B	1497	CLA	10	0
11	C	1459	CLA	6	0
11	C	1460	CLA	4	0
11	C	1462	CLA	3	0
11	C	1463	CLA	8	0
11	C	1464	CLA	9	0
11	C	1465	CLA	5	0
11	C	1466	CLA	10	0
11	C	1467	CLA	8	0
11	C	1469	CLA	7	0
11	C	1470	CLA	5	0
11	C	1471	CLA	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
11	D	1351	CLA	13	0
12	D	1352	PHO	4	0
11	D	1353	CLA	6	0
15	D	1354	PL9	1	0
16	E	1085	HEM	2	0
17	F	1046	BCR	4	0
11	G	1342	CLA	19	0
11	G	1343	CLA	4	0
11	G	1344	CLA	6	0
12	G	1345	PHO	17	0
11	G	1346	CLA	6	0
11	H	1482	CLA	2	0
11	H	1483	CLA	4	0
11	H	1484	CLA	8	0
11	H	1485	CLA	6	0
11	H	1486	CLA	15	0
11	H	1487	CLA	6	0
11	H	1488	CLA	13	0
11	H	1489	CLA	4	0
11	H	1490	CLA	3	0
11	H	1491	CLA	2	0
11	H	1492	CLA	6	0
11	H	1493	CLA	2	0
11	H	1494	CLA	3	0
11	H	1495	CLA	2	0
11	H	1496	CLA	15	0
11	H	1497	CLA	10	0
11	I	1459	CLA	5	0
11	I	1460	CLA	4	0
11	I	1462	CLA	4	0
11	I	1463	CLA	9	0
11	I	1464	CLA	11	0
11	I	1465	CLA	9	0
11	I	1466	CLA	10	0
11	I	1467	CLA	7	0
11	I	1469	CLA	5	0
11	I	1470	CLA	4	0
11	I	1471	CLA	5	0
11	J	1351	CLA	11	0
12	J	1352	PHO	9	0
11	J	1353	CLA	5	0
15	J	1354	PL9	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
16	L	1046	HEM	2	0
17	L	1047	BCR	3	0
18	T	1138	HEC	3	0
18	V	1138	HEC	2	0

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section will therefore be empty.

6.2 Non-standard residues in protein, DNA, RNA chains

EDS was not executed - this section will therefore be empty.

6.3 Carbohydrates

EDS was not executed - this section will therefore be empty.

6.4 Ligands

EDS was not executed - this section will therefore be empty.

6.5 Other polymers

EDS was not executed - this section will therefore be empty.