



# Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 07:49 AM GMT

PDB ID : 1WCM  
Title : COMPLETE 12-SUBUNIT RNA POLYMERASE II AT 3.8 ANG  
Authors : Armache, K.-J.; Mitterweger, S.; Meinhart, A.; Cramer, P.  
Deposited on : 2004-11-17  
Resolution : 3.80 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

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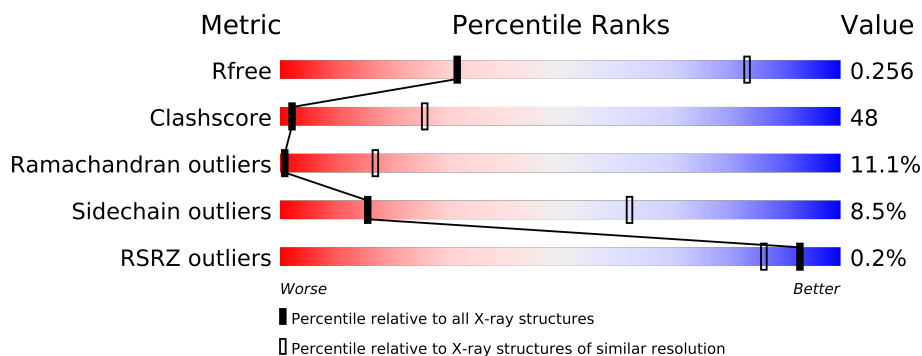
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.15 2013  
Xtriage (Phenix) : dev-1323  
EDS : stable22639  
Percentile statistics : 21963  
Refmac : 5.8.0049  
CCP4 : 6.3.0 (Settle)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : stable22683

# 1 Overall quality at a glance

The reported resolution of this entry is 3.80 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	66092	1162 (4.20-3.40)
Clashscore	79885	1100 (4.10-3.50)
Ramachandran outliers	78287	1050 (4.10-3.50)
Sidechain outliers	78261	1042 (4.10-3.50)
RSRZ outliers	66119	1163 (4.20-3.40)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	1733	
2	B	1224	
3	C	318	
4	D	177	
5	E	215	
6	F	155	
7	G	171	
8	H	146	
9	I	122	
10	J	70	
11	K	120	
12	L	70	

## 2 Entry composition

There are 14 unique types of molecules in this entry. The entry contains 30945 atoms, of which 0 are hydrogen and 0 are deuterium.

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 DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1416	Total	C	N	O	S	0	0	0
			11140	7021	1946	2111	62			

- Molecule 2 is a protein called DNA-DIRECTED RNA POLYMERASE II SECOND LARGEST SUBUNIT.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1097	Total	C	N	O	S	0	0	0
			8720	5526	1523	1617	54			

- Molecule 3 is a protein called DNA-DIRECTED RNA POLYMERASE II 45 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 4 is a protein called DNA-DIRECTED RNA POLYMERASE II 32 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	177	Total	C	N	O	S	0	0	0
			1356	840	241	273	2			

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 6 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 23

## KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	84	Total	C	N	O	S	0	0	0
			679	434	115	127	3			

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASE II 19 KD POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	133	Total	C	N	O	S	0	0	0
			1068	673	180	211	4			

- Molecule 9 is a protein called DNA-DIRECTED RNA POLYMERASE II 14.2 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 10 is a protein called DNA-DIRECTED RNA POLYMERASES I, II AND III 8.3 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 11 is a protein called DNA-DIRECTED RNA POLYMERASE II 13.6 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	115	Total	C	N	O	S	0	0	1
			920	590	157	171	2			

- Molecule 12 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7 KDA POLYPEPTIDE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

- Molecule 13 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
13	J	1	Total	Zn	0	0
			1	1		
13	B	1	Total	Zn	0	0
			1	1		
13	I	2	Total	Zn	0	0
			2	2		
13	C	1	Total	Zn	0	0
			1	1		
13	A	2	Total	Zn	0	0
			2	2		
13	L	1	Total	Zn	0	0
			1	1		

- Molecule 14 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

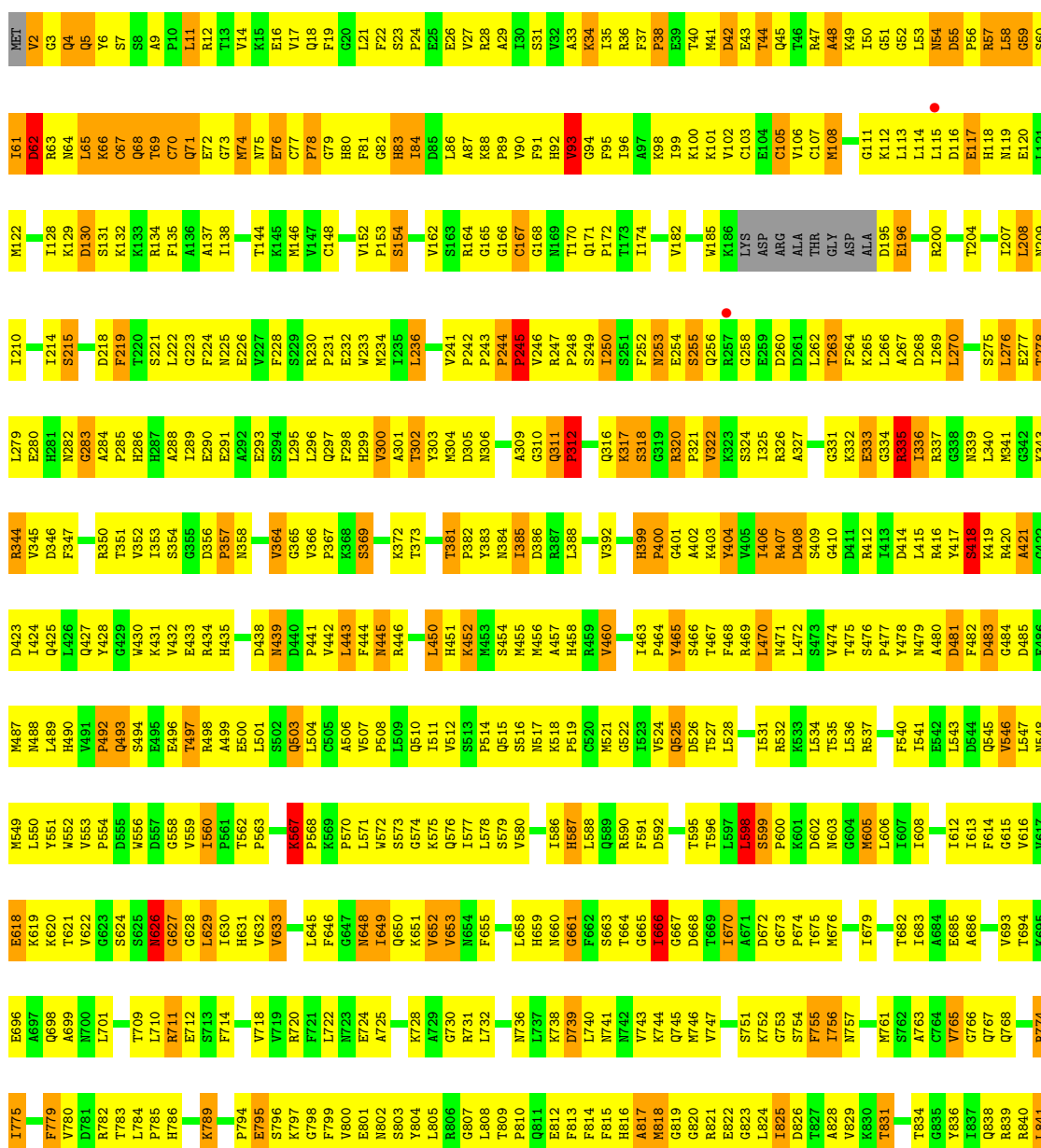
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
14	A	1	Total	Mg	0	0
			1	1		

### 3 Residue-property plots

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.

#### • Molecule 1: DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT

Chain A:





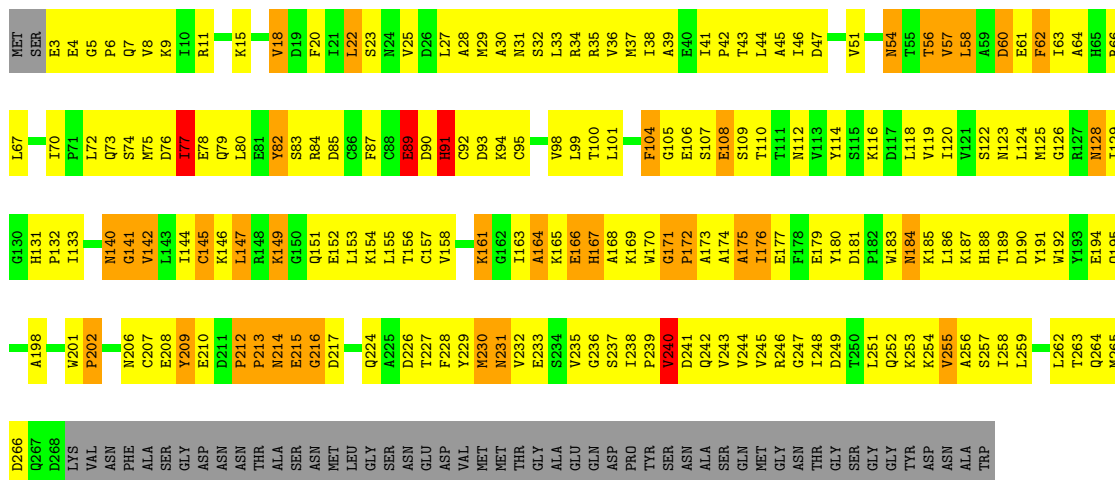
I1139	F1069	D998	S933	M868	C741	Y679	S614	T549	V479	G410	GLY	E194	F129
A1140	M1072	M999	K934	S889	E742	T680	M615	D550	S480	P411	ILE	C195	V130
A1143	P1000	F1000	D935	T870	I743	W881	R617	M552	L483	L412	LYS	F196	K133
A1144	F1001	F1001	D936	T871	H744	S882	R617	M552	L483	L413	K345	F197	K134
S1145	N1074	A1003	S937	S872	P745	S683	R620	I554	R485	Q415	E346	D198	ARG
F1146	T1077	T339	S938	T873	S746	L684	R620	I554	R485		K347	D279	THR
L1147		P940	T339	L685	W747	L685	E621	I555	Y486		Y351	G200	
R1150	K1080	V1007	L941	E686	L748	E687	K622	T556	T487	K418		G201	
L1151	L1081	P1008	L942	E687	L749	E687	E623	T557	Y488	T419		Y202	GLU
M1152	M1082	P1009	S943	G688	G750	G688	L624	S559	S489	F421		F203	ALA
L1153	A1083	L1010	S944	L689	W751	G689	K625	S559	S489	F421		F204	ILE
A1154	G1084	I1011	E945	G690	A752	G690	I626	E560	T491		Q357	I284	ASP
S1155	I1085	I1012	E945	E691	A753	E691	F627	W561	L492	L424		I285	VAL
D1156	F1086	M1013	I948	E692		E692	T628	G562	S493		E359	G207	PRO
F1157	F1087	P1013	I949	R693	I756	R693	D629	M563	H494	D427	F360	G207	GLY
A1158	G1088	A1016	V949	D694	P757	D694	A630	L566	H494	I428	L361	K210	ARG
F1159	T1090	I1017	D950	E695	F758	E695	G631	L566	H496	F429	P362	V211	GLU
V1160	Y1091	P1018	E951	E696	P759	E696	G632	Y569	T498	T435	H363	V212	LEU
H1161		S1019	V952	E697	D760	E697	V633	W570	T498	T436	I364	V213	LYS
C1163	L1094	R1020	L953	E698	H761	E698	Y634	P571	T499	V437	T365	A214	TYR
G1164	L1096	M1021	T955	E699	N762	E699	R635	H572	P501	GLU	Q366	R217	GLU
I1165	R1097	T1022	T956	I701	S764	I701	L637	W573	F502	ALA	E368	R217	LEU
C1166	H1097	N957	N957	L702	P765	L702	F638	S574	GLY	HIS	G369	V223	ALA
G1167	M1098	L1026	D959	I703	R766	I703	T639	P575	ARG	ASP	F370	Q224	GLU
L1168	V1099	L1027	D959	A704	N767	A704	V640	D576	ASP	PHE	E371	V225	GLU
M1169	D1100	E1028	F963	Q705	T768	Q705	E641	A577	GLY	ASN	S372	F226	SER
T1170	D1101	C1029	V964	Q706	T769	Q706	D642	T578	LYS	MET	R373	F227	GLU
V1171	K1102	L1030	K965	E707	S771	E707	E644	R579	LEU	LYS	K374	K227	ASP
I1172	I1103	L1031	V966	D709	A772	D709	H648	W580	A509	L446	A375	A229	ASP
A1173	H1104	S1032	R969	L710	H773	L710	K649	F581	P511	A447	F376	A230	SER
K1174	L1105	V1033	S905	E711	G774	E711	E650	W585	R512	A450	L378	S252	GLU
L1175	A1107	V1034	S906	P712	Q776	P712	L651	W586	Q513	P233	K310	P233	GLY
N1176	R1108	A1036	K972	A715	Q776	A715	K652	H587	L514	T453	Y380	T234	K164
G1177	G1109	G1039	I973	ASN	W778	ASN	V653	G588	H515	T454	M381	S235	V165
H1178	P1110	M1040	P974	GLU	G779	GLU	R654	V589	T517	S455	I382	H236	F166
Q1179	T1115	E1041	Q975	GLU	W780	GLU	K655	H590	H518	G456	M383	V237	I167
E1181	R1116	A1044	Q977	ASN	V781	ASN	G656	H591	W519	L457	R384	A238	G168
C1182	Q1117	S1045	G977	ASP	T782	ASP	H657	N592	G520	A459	L386	E239	
G1184	P1118	P1046	F980	LEU	T783	LEU	T658	P593	L521	A460	L387	T240	
C1186	V1119	F1047	A951	W784	Y785	W784	L661	A594	V522	L461	C388	T240	
D1186	R1122	I1050	S952	D722	A786	D722	K662	R595	C523	A462	A389	L244	
N1187	S1123	T1050	L853	D723	P787	P725	A663	L596	P524	T463	L390	L251	
K1188	R1124	T1051	L854	P725	Q788	Q788	E663	L600	A525	G464	D391	T251	
I1189	D1125	H954	F855	R727	R788	R788	E665	R601	E526	N465	R392	L254	
D1190	G1126	G955	F856	K728	W792	W792	E665	P528	T527	W466	K393	T329	
I1191	G1127	G1054	R857	I729	A793	I729	K668	E529	P528	G467	D394	A330	K257
Y1192		S1055	S858	R730	N794	R730	ILE	R604	G530	GLU	Q395	L331	L258
Q1193	G1131	S1056	Y859	R731	I795	R731	GLU	R605		GLN	D396	D332	Y289
I1194	L1059	L1059	M860	S732	L796	S732	GLY	R606		LYS		F333	G280
H1195	R1060	R1060	D861	H733	Y797	H733	GLY	G607	L539	ALA	F401	I334	R261
L1196	E1134	T952	Q862	H734	Y798	H734	PHE	G607	L539	ALA		G335	S187
P1197	R1135	Q1065	E863	A735	P799	A735	GLU	D608		MET	K404	ARG	S265
Y1198	L1136	S1066	K864	T736	Q800	T736	ASP	I609	M542	THR	R405	L189	D188
A1199	C1137	R1067	K865	T737	R801	T737	VAL	M610		SER		K287	L189
A1200	M1138	G1068	G867	F738	L803	F738	E678	P611	S546	ARG	L408	T288	K191
								V613	G548	G478	A409	K270	K193





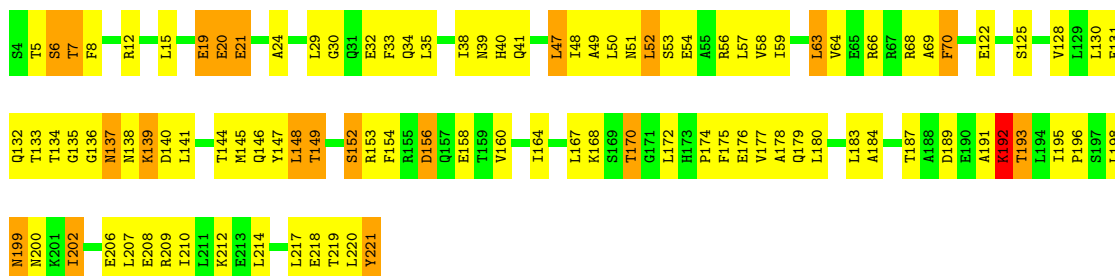
• Molecule 3: DNA-DIRECTED RNA POLYMERASE II 45 KDA POLYPEPTIDE

Chain C:



• Molecule 4: DNA-DIRECTED RNA POLYMERASE II 32 KDA POLYPEPTIDE

Chain D:



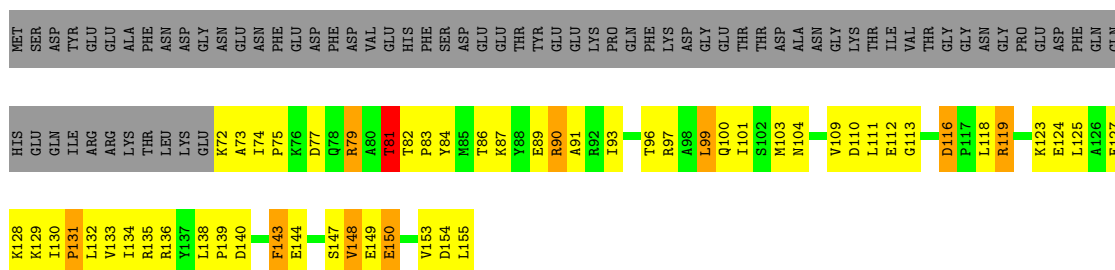
• Molecule 5: DNA-DIRECTED RNA POLYMERASES I, II, AND III 27 KDA POLYPEPTIDE

Chain E:



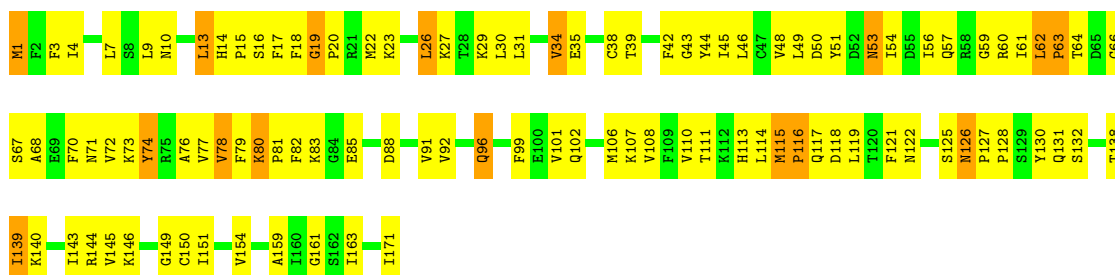
• Molecule 6: DNA-DIRECTED RNA POLYMERASES I, II, AND III 23 KDA POLYPEPTIDE

Chain F:



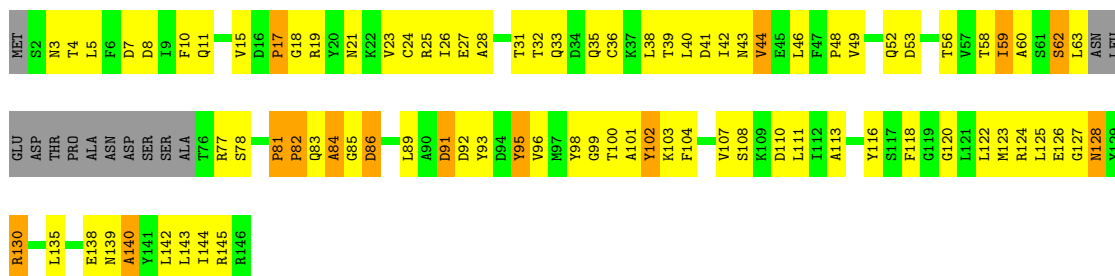
● Molecule 7: DNA-DIRECTED RNA POLYMERASE II 19 KD POLYPEPTIDE

Chain G:



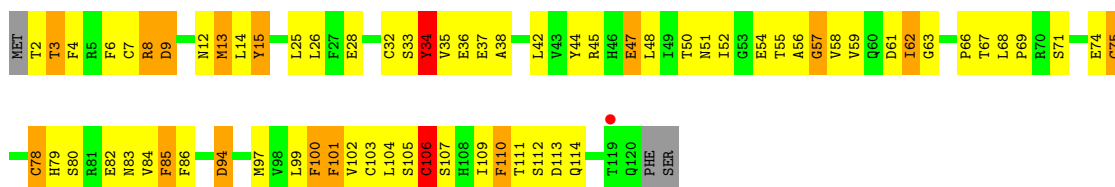
● Molecule 8: DNA-DIRECTED RNA POLYMERASES I, II, AND III 14.5 KDA POLYPEPTIDE

Chain H:



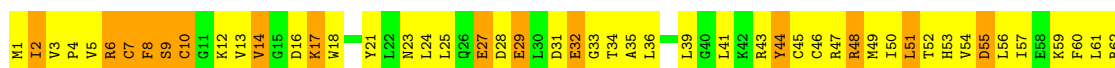
● Molecule 9: DNA-DIRECTED RNA POLYMERASE II 14.2 KDA POLYPEPTIDE

Chain I: 



● Molecule 10: DNA-DIRECTED RNA POLYMERASES I, II AND III 8.3 KDA POLYPEPTIDE

Chain J: 





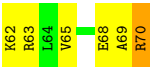
• Molecule 11: DNA-DIRECTED RNA POLYMERASE II 13.6 KDA POLYPEPTIDE

Chain K:



• Molecule 12: DNA-DIRECTED RNA POLYMERASES I, II, AND III 7.7 KDA POLYPEPTIDE

Chain L:



## 4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	222.72Å 395.13Å 284.30Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.80 47.39 – 3.80	Depositor EDS
% Data completeness (in resolution range)	99.1 (50.00-3.80) 99.2 (47.39-3.80)	Depositor EDS
$R_{merge}$	0.07	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.21 (at 3.77Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, $R_{free}$	0.257 , 0.285 0.225 , 0.256	Depositor DCC
$R_{free}$ test set	2439 reflections (2.04%)	DCC
Wilson B-factor (Å <sup>2</sup> )	116.1	Xtriage
Anisotropy	0.510	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.26 , 36.2	EDS
Estimated twinning fraction	0.015 for 1/2*h-1/2*k,-3/2*h-1/2*k,-l 0.021 for 1/2*h+1/2*k,3/2*h-1/2*k,-l	Xtriage
L-test for twinning	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.31$	Xtriage
Outliers	0 of 121835 reflections	Xtriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	30945	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	98.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.81% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

## 5 Model quality

### 5.1 Standard geometry

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

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	0.48	0/11339	0.73	4/15334 (0.0%)
2	B	0.47	0/8890	0.70	1/11990 (0.0%)
3	C	0.52	0/2133	0.76	0/2891
4	D	0.45	0/1365	0.71	1/1837 (0.1%)
5	E	0.43	0/1788	0.64	0/2406
6	F	0.53	0/691	0.78	0/933
7	G	0.53	0/1368	0.74	0/1844
8	H	0.40	0/1086	0.66	0/1470
9	I	0.48	0/989	0.77	0/1331
10	J	0.54	0/541	0.89	1/727 (0.1%)
11	K	0.50	0/938	0.68	0/1267
12	L	0.55	0/365	0.79	0/485
All	All	0.48	0/31493	0.72	7/42515 (0.0%)

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
3	C	0	1
All	All	0	2

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	J	10	CYS	CA-CB-SG	8.66	129.59	114.00
1	A	1403	GLU	N-CA-C	5.38	125.53	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	567	LYS	C-N-CD	5.34	139.62	128.40
2	B	1185	CYS	N-CA-C	-5.30	96.69	111.00
1	A	452	LYS	N-CA-C	-5.21	96.94	111.00
4	D	7	THR	N-CA-C	5.15	124.90	111.00
1	A	344	ARG	N-CA-C	-5.05	97.37	111.00

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	303	TYR	Sidechain
3	C	82	TYR	Sidechain

## 5.2 Close contacts ⓘ

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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11140	0	11217	1180	0
2	B	8720	0	8745	919	0
3	C	2095	0	2051	244	0
4	D	1356	0	1319	114	0
5	E	1752	0	1776	154	0
6	F	679	0	701	84	0
7	G	1340	0	1357	150	0
8	H	1068	0	1040	104	0
9	I	971	0	927	94	0
10	J	532	0	542	93	0
11	K	920	0	929	83	0
12	L	363	0	386	45	0
13	A	2	0	0	0	0
13	B	1	0	0	0	0
13	C	1	0	0	0	0
13	I	2	0	0	0	0
13	J	1	0	0	0	0
13	L	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	A	1	0	0	0	0
All	All	30945	0	30990	2984	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 48.

All (2984) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:77:CYS:O	1:A:78:PRO:O	1.65	1.14
10:J:5:VAL:HG12	10:J:6:ARG:HG3	1.30	1.11
7:G:138:THR:HG22	7:G:139:ILE:H	1.12	1.09
1:A:53:LEU:HD23	1:A:54:ASN:N	1.69	1.06
4:D:40:HIS:HB3	7:G:73:LYS:NZ	1.69	1.06
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.37	1.04
8:H:100:THR:HG23	8:H:138:GLU:HA	1.37	1.03
2:B:217:ARG:HE	2:B:405:ARG:HB2	1.21	1.03
4:D:48:ILE:HG21	7:G:4:ILE:HB	1.40	1.03
1:A:855:THR:HG21	1:A:857:ARG:HE	1.22	1.02
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.23	1.02
7:G:15:PRO:HA	7:G:18:PHE:CD1	1.96	1.00
2:B:549:THR:HG22	2:B:550:ASP:H	1.24	0.99
2:B:65:GLU:HG3	2:B:66:ASP:H	1.27	0.98
2:B:806:THR:HG22	2:B:808:ALA:H	1.27	0.98
9:I:85:PHE:HD2	9:I:85:PHE:H	1.06	0.98
1:A:1017:LEU:HB2	5:E:206:GLY:H	1.26	0.98
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.46	0.97
7:G:7:LEU:HB2	7:G:74:TYR:CE2	2.00	0.97
6:F:93:ILE:HD11	6:F:134:ILE:HD11	1.42	0.97
1:A:779:PHE:HE1	1:A:785:PRO:HD3	1.28	0.97
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.45	0.97
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.00	0.97
1:A:1329:THR:HG22	1:A:1331:SER:H	1.30	0.95
1:A:754:SER:H	1:A:757:ASN:HD22	1.11	0.95
1:A:77:CYS:SG	1:A:77:CYS:O	2.24	0.95
2:B:46:GLN:HG3	2:B:47:GLN:H	1.28	0.95
2:B:189:LEU:HA	2:B:192:LEU:HD12	1.45	0.95
3:C:166:GLU:HG3	11:K:10:PHE:HZ	1.31	0.95
3:C:142:VAL:H	10:J:16:ASP:HB3	1.31	0.95
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.47	0.95
2:B:806:THR:N	2:B:809:MET:HE3	1.81	0.94
11:K:47:ARG:HH11	11:K:47:ARG:HB3	1.32	0.94
4:D:47:LEU:HD13	4:D:48:ILE:H	1.31	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:84:ILE:HD11	1:A:270:LEU:HD13	1.50	0.94
1:A:709:THR:HG22	1:A:711:ARG:H	1.32	0.93
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.50	0.93
1:A:53:LEU:HD23	1:A:54:ASN:H	1.26	0.93
8:H:4:THR:HA	8:H:60:ALA:HB2	1.52	0.92
9:I:34:TYR:HD2	9:I:35:VAL:N	1.67	0.92
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.50	0.92
1:A:901:LEU:H	1:A:926:GLN:NE2	1.67	0.92
1:A:963:ILE:HD11	1:A:1048:ASN:HB3	1.50	0.92
1:A:40:THR:HG22	1:A:41:MET:HG3	1.52	0.92
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.50	0.92
6:F:81:THR:HG21	6:F:136:ARG:HD3	1.52	0.91
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.51	0.91
2:B:824:ILE:HG22	2:B:1087:PHE:HE2	1.31	0.91
4:D:134:THR:HG22	4:D:136:GLY:H	1.36	0.90
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.53	0.90
2:B:1201:LYS:HE2	2:B:1205:GLN:OE1	1.72	0.89
5:E:180:ARG:HH21	5:E:192:ARG:HB2	1.38	0.89
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.54	0.89
1:A:524:VAL:HG12	1:A:525:GLN:H	1.37	0.89
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.03	0.89
11:K:65:HIS:HD2	11:K:67:PHE:H	1.21	0.88
2:B:212:LEU:HD23	2:B:480:SER:HB2	1.55	0.88
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.04	0.88
2:B:98:THR:O	2:B:126:SER:HB2	1.73	0.88
1:A:353:ILE:HG21	1:A:487:MET:HE3	1.55	0.87
1:A:55:ASP:C	1:A:57:ARG:H	1.72	0.87
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.04	0.87
9:I:34:TYR:CD2	9:I:35:VAL:N	2.42	0.87
8:H:81:PRO:HB2	8:H:82:PRO:HD2	1.56	0.87
5:E:22:MET:HE3	5:E:26:ARG:HE	1.40	0.87
10:J:16:ASP:OD1	10:J:17:LYS:HD2	1.75	0.87
3:C:44:LEU:HB2	3:C:77:ILE:HD11	1.53	0.86
1:A:1445:ILE:H	1:A:1445:ILE:HD12	1.39	0.86
9:I:75:CYS:SG	9:I:79:HIS:N	2.49	0.86
1:A:903:ASN:HD22	1:A:904:THR:N	1.73	0.86
4:D:40:HIS:HB3	7:G:73:LYS:HZ1	1.38	0.86
4:D:144:THR:O	4:D:148:LEU:HB2	1.75	0.86
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.57	0.86
2:B:589:VAL:HG12	2:B:590:HIS:H	1.40	0.86
7:G:1:MET:SD	7:G:79:PHE:CD1	2.69	0.86
10:J:57:ILE:HA	10:J:60:PHE:HD2	1.41	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:56:PRO:O	1:A:57:ARG:HG3	1.76	0.86
3:C:232:VAL:HG21	3:C:244:VAL:HG22	1.58	0.86
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.38	0.86
1:A:1189:SER:O	1:A:1241:ARG:HD3	1.75	0.85
2:B:168:GLY:H	2:B:450:ALA:HB1	1.38	0.85
3:C:164:ALA:HA	3:C:167:HIS:O	1.76	0.85
3:C:20:PHE:HE1	3:C:22:LEU:HD12	1.42	0.85
2:B:1224:PHE:HE2	5:E:171:LYS:HG3	1.40	0.85
1:A:351:THR:HB	2:B:1103:ILE:HD12	1.58	0.85
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.57	0.85
3:C:47:ASP:HA	12:L:69:ALA:CB	2.06	0.85
2:B:515:HIS:H	2:B:518:HIS:HD2	1.19	0.85
2:B:705:MET:H	2:B:710:LEU:HD12	1.42	0.85
7:G:1:MET:SD	7:G:79:PHE:HD1	2.00	0.84
7:G:138:THR:HG22	7:G:139:ILE:N	1.92	0.84
2:B:955:THR:HG23	12:L:54:ARG:O	1.77	0.84
2:B:483:LEU:HD11	2:B:491:THR:HG23	1.58	0.84
2:B:37:PHE:CE1	2:B:41:LYS:HG3	2.13	0.84
3:C:43:THR:HG22	3:C:44:LEU:N	1.93	0.84
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.58	0.84
5:E:19:VAL:O	5:E:23:VAL:HG23	1.78	0.84
2:B:806:THR:H	2:B:809:MET:HE3	1.41	0.83
2:B:882:THR:HG22	2:B:884:ARG:H	1.44	0.83
3:C:213:PRO:O	3:C:214:ASN:HB2	1.76	0.83
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.60	0.83
1:A:70:CYS:O	1:A:72:GLU:HG2	1.76	0.83
2:B:233:PRO:HG2	2:B:234:ILE:HD12	1.58	0.83
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	1.61	0.83
10:J:64:ASN:HB3	10:J:65:PRO:CD	2.08	0.83
2:B:363:HIS:O	2:B:364:ILE:HB	1.77	0.83
2:B:842:ASN:ND2	2:B:845:SER:H	1.77	0.83
1:A:1329:THR:HG22	1:A:1331:SER:N	1.93	0.83
1:A:79:GLY:HA3	1:A:243:PRO:CG	2.08	0.83
1:A:598:LEU:HA	8:H:122:LEU:HD13	1.61	0.83
8:H:23:VAL:HG22	8:H:43:ASN:HA	1.61	0.83
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.61	0.82
3:C:66:ARG:NH2	10:J:5:VAL:HG23	1.94	0.82
2:B:847:ASP:HB3	3:C:167:HIS:HE2	1.45	0.82
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	2.15	0.82
8:H:40:LEU:HD13	8:H:123:MET:HB2	1.61	0.82
1:A:335:ARG:NH1	2:B:1202:LEU:HD13	1.94	0.82
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.45	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:128:PRO:O	7:G:138:THR:HG23	1.78	0.81
2:B:847:ASP:HB3	3:C:167:HIS:NE2	1.95	0.81
2:B:35:SER:HA	2:B:811:TYR:HE2	1.45	0.81
1:A:503:GLN:HE21	6:F:90:ARG:HH21	1.25	0.81
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.60	0.81
1:A:438:ASP:O	1:A:439:ASN:HB2	1.78	0.81
2:B:1096:ARG:O	2:B:1097:HIS:HB2	1.79	0.81
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.13	0.81
1:A:567:LYS:HG3	1:A:568:PRO:HD2	1.60	0.81
1:A:1118:VAL:HG12	1:A:1327:ILE:HG13	1.63	0.81
1:A:709:THR:HG23	9:I:94:ASP:HA	1.63	0.81
1:A:534:LEU:O	1:A:574:GLY:HA3	1.81	0.81
1:A:340:LEU:HD13	1:A:1429:ILE:HG23	1.61	0.81
3:C:56:THR:HG22	3:C:57:VAL:H	1.46	0.81
1:A:335:ARG:HA	1:A:339:ASN:HB2	1.64	0.80
1:A:567:LYS:NZ	8:H:46:LEU:HB2	1.96	0.80
1:A:1332:PHE:H	1:A:1332:PHE:HD2	1.27	0.80
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.62	0.80
2:B:1163:CYS:SG	2:B:1165:ILE:HB	2.21	0.80
4:D:170:THR:CG2	4:D:172:LEU:HG	2.11	0.80
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.63	0.80
1:A:249:SER:O	1:A:250:ILE:HG13	1.81	0.80
1:A:344:ARG:HD2	2:B:1118:PRO:O	1.82	0.80
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	1.80	0.80
1:A:76:GLU:O	1:A:76:GLU:HG3	1.81	0.80
7:G:23:LYS:HG3	7:G:56:ILE:HD11	1.63	0.80
2:B:401:PHE:HA	2:B:404:LYS:HG3	1.61	0.80
1:A:741:ASN:HD22	1:A:744:LYS:H	1.26	0.80
3:C:32:SER:O	3:C:36:VAL:HG23	1.82	0.80
2:B:918:ILE:HB	2:B:935:ARG:HD2	1.62	0.80
10:J:14:VAL:CG1	10:J:50:ILE:HD11	2.12	0.80
2:B:1162:ILE:HG22	2:B:1163:CYS:H	1.47	0.80
2:B:102:VAL:HG23	2:B:112:LEU:HB2	1.62	0.79
2:B:515:HIS:HD2	2:B:517:THR:H	1.27	0.79
3:C:212:PRO:HB3	3:C:213:PRO:HD2	1.63	0.79
5:E:29:PHE:O	5:E:30:ILE:HG13	1.82	0.79
1:A:886:ILE:HD11	1:A:943:LEU:HB3	1.62	0.79
1:A:67:CYS:O	1:A:70:CYS:HB3	1.82	0.79
2:B:25:ILE:HD11	2:B:653:VAL:O	1.82	0.79
2:B:1159:ARG:HD3	2:B:1193:GLN:HG3	1.64	0.79
11:K:113:THR:O	11:K:114:LEU:HB2	1.81	0.79
3:C:262:LEU:HD11	11:K:87:LEU:HD23	1.62	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:43:THR:HG22	3:C:44:LEU:H	1.48	0.79
1:A:356:ASP:HB2	1:A:469:ARG:NH1	1.97	0.79
1:A:93:VAL:HG13	1:A:301:ALA:HB1	1.62	0.78
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.64	0.78
2:B:465:ASN:HD22	2:B:465:ASN:N	1.78	0.78
1:A:855:THR:HG21	1:A:857:ARG:NE	1.97	0.78
4:D:153:ARG:NH2	4:D:184:ALA:HA	1.98	0.78
1:A:858:ASN:ND2	1:A:860:LEU:H	1.81	0.78
2:B:200:GLY:HA2	2:B:202:TYR:CE2	2.18	0.78
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.64	0.78
2:B:1065:GLN:HE21	2:B:1066:SER:N	1.82	0.78
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.30	0.78
8:H:102:TYR:OH	8:H:122:LEU:HD22	1.82	0.78
1:A:340:LEU:HD21	2:B:1200:ALA:N	1.99	0.78
4:D:40:HIS:HB3	7:G:73:LYS:HZ3	1.48	0.77
8:H:42:ILE:HG23	8:H:95:TYR:HE1	1.47	0.77
4:D:130:LEU:C	4:D:132:GLN:H	1.86	0.77
5:E:175:LEU:HD23	5:E:176:PRO:HD2	1.66	0.77
2:B:120:ARG:HG2	2:B:955:THR:HG21	1.65	0.77
2:B:613:VAL:HG13	2:B:627:PHE:O	1.85	0.77
1:A:1329:THR:H	1:A:1335:ILE:HD11	1.49	0.77
1:A:1341:ILE:HG23	1:A:1342:GLU:N	1.98	0.77
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.64	0.77
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.65	0.77
2:B:1034:VAL:HG12	2:B:1035:ALA:N	1.98	0.77
1:A:388:LEU:O	1:A:392:VAL:HG23	1.85	0.77
1:A:1424:VAL:HG11	2:B:1139:ILE:HD13	1.67	0.77
7:G:81:PRO:HG3	7:G:106:MET:SD	2.25	0.77
2:B:955:THR:HG22	2:B:956:THR:N	2.00	0.77
3:C:98:VAL:C	3:C:99:LEU:HD23	2.05	0.77
3:C:77:ILE:HG23	3:C:161:LYS:HE3	1.67	0.77
2:B:53:GLN:HG2	2:B:547:VAL:HG22	1.67	0.77
1:A:1116:LEU:N	1:A:1308:THR:HG22	2.00	0.77
1:A:855:THR:HG23	1:A:857:ARG:HG3	1.67	0.76
11:K:45:LEU:HG	11:K:94:ILE:HD13	1.65	0.76
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.66	0.76
2:B:863:GLU:OE2	2:B:873:THR:HA	1.85	0.76
1:A:356:ASP:HB2	1:A:469:ARG:HH11	1.50	0.76
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.67	0.76
1:A:1409:LEU:HD13	2:B:1207:LEU:HD21	1.67	0.76
1:A:590:ARG:NH1	1:A:590:ARG:HG3	2.00	0.76
5:E:117:THR:HG22	5:E:119:SER:H	1.50	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:598:LEU:HD22	8:H:25:ARG:NH1	2.01	0.76
2:B:361:LEU:HD21	2:B:377:PHE:CD2	2.19	0.76
2:B:37:PHE:CD1	2:B:41:LYS:HG3	2.20	0.76
2:B:778:MET:HE1	2:B:1094:ARG:HD3	1.66	0.76
1:A:1341:ILE:HD12	1:A:1379:GLY:O	1.85	0.76
11:K:21:ILE:HG12	11:K:33:ILE:HG12	1.67	0.76
2:B:579:ARG:HB2	2:B:586:TRP:NE1	2.00	0.76
1:A:528:LEU:O	1:A:531:ILE:HG22	1.86	0.76
1:A:265:LYS:HZ3	1:A:322:VAL:HG13	1.49	0.76
1:A:588:LEU:O	1:A:606:LEU:HA	1.85	0.76
9:I:34:TYR:HE2	9:I:36:GLU:HB3	1.49	0.76
2:B:172:ILE:HD13	2:B:178:ASN:HB3	1.68	0.76
1:A:590:ARG:HH11	1:A:590:ARG:HG3	1.51	0.75
1:A:23:SER:HB3	1:A:233:TRP:CZ2	2.21	0.75
1:A:1422:ARG:HH22	2:B:1224:PHE:C	1.90	0.75
1:A:560:ILE:HG13	8:H:78:SER:HB2	1.68	0.75
2:B:1069:PHE:HD1	2:B:1069:PHE:H	1.34	0.75
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.68	0.75
5:E:90:VAL:HG23	5:E:120:ALA:HA	1.69	0.75
1:A:91:PHE:HB2	1:A:297:GLN:NE2	2.02	0.75
11:K:46:ILE:O	11:K:50:LEU:HB2	1.85	0.75
2:B:879:ARG:HH11	2:B:883:LEU:HD22	1.50	0.75
2:B:37:PHE:HE2	2:B:542:MET:HA	1.52	0.75
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.68	0.75
1:A:23:SER:HB3	1:A:233:TRP:CE2	2.21	0.75
7:G:43:GLY:HA3	7:G:80:LYS:HB3	1.68	0.74
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.22	0.74
2:B:580:VAL:HG22	2:B:624:LEU:HB3	1.69	0.74
5:E:198:ILE:HD11	5:E:212:ARG:HG3	1.69	0.74
1:A:230:ARG:H	1:A:233:TRP:HE3	1.34	0.74
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.67	0.74
6:F:111:LEU:C	6:F:113:GLY:H	1.90	0.74
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.17	0.74
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.84	0.74
1:A:244:PRO:HB2	1:A:245:PRO:HD3	1.69	0.74
1:A:836:TYR:CE2	1:A:840:ARG:HD2	2.21	0.74
1:A:87:ALA:CB	1:A:276:LEU:HD23	2.18	0.74
1:A:1323:ASP:OD1	1:A:1325:THR:HB	1.88	0.74
2:B:801:LYS:O	10:J:52:THR:HG23	1.86	0.74
12:L:48:CYS:HB3	12:L:51:CYS:O	1.88	0.74
2:B:899:ILE:HD11	2:B:911:ILE:HA	1.68	0.74
2:B:859:TYR:OH	2:B:941:LEU:HD12	1.86	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1312:ASN:O	1:A:1316:VAL:HG23	1.88	0.74
5:E:2:ASP:O	5:E:3:GLN:HG2	1.87	0.74
4:D:66:ARG:HD2	4:D:133:THR:HB	1.68	0.74
2:B:978:ASP:OD2	2:B:1098:MET:HG2	1.88	0.74
1:A:590:ARG:NH2	1:A:620:LYS:HB3	2.01	0.74
1:A:55:ASP:C	1:A:57:ARG:N	2.41	0.74
1:A:1450:LEU:HG	1:A:1450:LEU:O	1.88	0.74
2:B:953:LEU:HD21	2:B:965:LYS:HB2	1.68	0.74
1:A:1402:PHE:CE1	1:A:1403:GLU:HG3	2.23	0.74
2:B:806:THR:HG22	2:B:808:ALA:N	2.03	0.73
1:A:768:GLN:CG	1:A:816:HIS:HA	2.18	0.73
2:B:955:THR:HG22	2:B:956:THR:H	1.53	0.73
2:B:1183:LYS:HE3	2:B:1183:LYS:N	2.03	0.73
1:A:535:THR:HG21	1:A:616:VAL:HA	1.70	0.73
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.24	0.73
1:A:253:ASN:HB3	2:B:935:ARG:NH2	2.03	0.73
1:A:254:GLU:HB2	2:B:935:ARG:HH12	1.52	0.73
5:E:22:MET:HE3	5:E:26:ARG:NE	2.03	0.73
5:E:202:SER:OG	5:E:204:THR:HG22	1.89	0.73
1:A:1332:PHE:HD2	1:A:1332:PHE:N	1.86	0.73
1:A:351:THR:HB	2:B:1103:ILE:CD1	2.18	0.73
5:E:192:ARG:HH11	5:E:192:ARG:HG3	1.51	0.73
1:A:321:PRO:O	1:A:322:VAL:HB	1.88	0.73
8:H:59:ILE:HG22	8:H:60:ALA:N	2.02	0.73
5:E:213:ILE:HG12	5:E:214:CYS:H	1.54	0.73
8:H:36:CYS:HA	8:H:126:GLU:O	1.89	0.73
2:B:408:LEU:HG	2:B:409:ALA:H	1.52	0.73
7:G:138:THR:CG2	7:G:139:ILE:H	1.95	0.73
1:A:754:SER:H	1:A:757:ASN:ND2	1.86	0.73
1:A:164:ARG:HG3	1:A:165:GLY:H	1.52	0.73
1:A:853:ASP:OD1	1:A:855:THR:HB	1.89	0.73
12:L:30:ILE:O	12:L:56:LEU:HA	1.88	0.73
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.69	0.73
1:A:567:LYS:HD3	8:H:95:TYR:CD2	2.24	0.73
5:E:16:PHE:CZ	5:E:20:LYS:HE2	2.24	0.73
1:A:335:ARG:HH12	2:B:1202:LEU:HD13	1.54	0.72
2:B:871:THR:HG22	2:B:872:GLU:O	1.88	0.72
4:D:5:THR:O	4:D:6:SER:O	2.07	0.72
1:A:1445:ILE:N	1:A:1445:ILE:HD12	2.04	0.72
3:C:73:GLN:HB3	3:C:131:HIS:H	1.55	0.72
2:B:766:ARG:HH22	2:B:1020:ARG:HH11	1.37	0.72
10:J:36:LEU:HD12	10:J:47:ARG:NH1	2.04	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:81:PRO:CB	8:H:82:PRO:HD2	2.18	0.72
2:B:378:LEU:HD12	2:B:378:LEU:O	1.88	0.72
2:B:516:ASN:N	2:B:516:ASN:HD22	1.87	0.72
2:B:616:ILE:HG13	2:B:697:GLU:HG3	1.70	0.72
2:B:411:PRO:O	2:B:414:ALA:HB3	1.88	0.72
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.20	0.72
2:B:594:ALA:HA	2:B:617:ARG:NH1	2.05	0.72
1:A:475:THR:HG23	1:A:476:SER:N	2.05	0.72
2:B:217:ARG:NE	2:B:405:ARG:HB2	2.03	0.72
1:A:1420:ASP:HB3	1:A:1422:ARG:HG3	1.71	0.72
2:B:701:ILE:HD11	2:B:703:ILE:HD11	1.72	0.72
2:B:603:LEU:HD13	2:B:608:ASP:HB2	1.72	0.72
4:D:130:LEU:O	4:D:132:GLN:N	2.22	0.72
1:A:741:ASN:HD21	1:A:743:VAL:HB	1.54	0.72
2:B:1182:CYS:SG	2:B:1182:CYS:O	2.48	0.72
2:B:1115:THR:HG22	2:B:1117:GLN:HG3	1.71	0.72
2:B:745:PRO:O	2:B:748:ILE:HG12	1.89	0.71
1:A:783:THR:HG21	1:A:815:PHE:CZ	2.25	0.71
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.70	0.71
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.05	0.71
12:L:32:ALA:HB3	12:L:55:ILE:HD12	1.71	0.71
1:A:1114:PRO:O	1:A:1115:SER:O	2.06	0.71
1:A:808:LEU:HD23	1:A:813:PHE:HA	1.71	0.71
10:J:5:VAL:HG12	10:J:6:ARG:CG	2.15	0.71
7:G:80:LYS:HD3	7:G:80:LYS:N	2.06	0.71
6:F:138:LEU:HB3	6:F:139:PRO:HD2	1.72	0.71
1:A:1437:GLY:O	1:A:1439:GLY:N	2.23	0.71
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.72	0.71
3:C:175:ALA:O	3:C:176:ILE:HG13	1.90	0.71
1:A:1239:ARG:HH22	1:A:1241:ARG:NH2	1.88	0.71
7:G:18:PHE:HA	7:G:22:MET:HE3	1.73	0.71
2:B:1099:VAL:O	2:B:1101:ASP:N	2.24	0.71
1:A:1152:ILE:HG13	9:I:44:TYR:HB3	1.71	0.71
8:H:113:ALA:HB2	8:H:126:GLU:HG3	1.72	0.71
2:B:1169:MET:HE1	2:B:1201:LYS:HA	1.71	0.70
8:H:59:ILE:HG22	8:H:60:ALA:H	1.54	0.70
4:D:47:LEU:HD13	4:D:48:ILE:N	2.03	0.70
2:B:708:GLU:O	2:B:710:LEU:N	2.24	0.70
1:A:75:ASN:O	1:A:76:GLU:HB3	1.91	0.70
2:B:365:THR:HG23	2:B:367:LEU:H	1.54	0.70
1:A:164:ARG:HG3	1:A:165:GLY:N	2.04	0.70
1:A:384:ASN:OD1	1:A:388:LEU:HD12	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:91:PHE:HB2	1:A:297:GLN:HE22	1.54	0.70
5:E:179:GLN:HB2	5:E:182:ASP:HB2	1.73	0.70
1:A:899:VAL:HB	1:A:929:LEU:CD1	2.21	0.70
2:B:227:LYS:HB2	2:B:395:GLN:OE1	1.90	0.70
2:B:1159:ARG:NH1	2:B:1159:ARG:HB3	2.06	0.70
1:A:816:HIS:CD2	2:B:764:SER:HB2	2.26	0.70
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.27	0.70
2:B:579:ARG:HB2	2:B:586:TRP:HE1	1.57	0.70
1:A:794:PRO:HG2	1:A:795:GLU:OE2	1.92	0.70
3:C:167:HIS:CE1	12:L:70:ARG:HB3	2.27	0.70
2:B:211:VAL:O	2:B:480:SER:HA	1.91	0.70
2:B:1197:PRO:HG2	2:B:1200:ALA:CB	2.22	0.70
1:A:441:PRO:HD2	1:A:498:ARG:NH2	2.06	0.70
2:B:1006:ILE:HD13	10:J:44:TYR:CE2	2.26	0.70
1:A:901:LEU:HD22	1:A:919:ILE:CG2	2.22	0.70
1:A:1438:THR:HB	2:B:1144:ALA:HB3	1.74	0.70
11:K:47:ARG:HB3	11:K:47:ARG:NH1	2.05	0.70
2:B:593:PRO:HG2	2:B:617:ARG:NH2	2.06	0.70
1:A:1308:THR:HG23	1:A:1309:ASP:N	2.06	0.70
1:A:92:HIS:O	1:A:94:GLY:N	2.24	0.70
2:B:642:ASP:HB3	2:B:649:LYS:CG	2.21	0.70
1:A:302:THR:HA	1:A:305:ASP:O	1.92	0.70
7:G:14:HIS:CD2	7:G:16:SER:HB2	2.27	0.70
7:G:18:PHE:HA	7:G:22:MET:CE	2.22	0.70
1:A:466:SER:O	2:B:1103:ILE:HD11	1.92	0.70
1:A:68:GLN:C	1:A:70:CYS:H	1.95	0.70
1:A:1424:VAL:HG13	1:A:1436:ILE:HD11	1.74	0.70
1:A:913:LEU:HD12	1:A:914:GLU:N	2.05	0.69
11:K:65:HIS:CD2	11:K:67:PHE:H	2.05	0.69
1:A:14:VAL:HG21	2:B:1216:LEU:HD13	1.75	0.69
2:B:393:LYS:HA	2:B:393:LYS:HE3	1.74	0.69
4:D:33:PHE:CE1	7:G:80:LYS:HE3	2.27	0.69
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.57	0.69
1:A:1445:ILE:HG12	7:G:18:PHE:CE2	2.27	0.69
2:B:1065:GLN:HE21	2:B:1067:ARG:N	1.91	0.69
4:D:48:ILE:CG2	7:G:4:ILE:HB	2.19	0.69
2:B:642:ASP:O	2:B:644:GLU:N	2.22	0.69
1:A:225:ASN:HD22	1:A:228:PHE:H	1.39	0.69
2:B:1087:PHE:HD2	2:B:1088:GLY:N	1.90	0.69
2:B:737:THR:HG21	9:I:66:PRO:HA	1.74	0.69
3:C:184:ASN:ND2	3:C:187:LYS:HA	2.07	0.69
2:B:975:GLN:HG2	2:B:976:ILE:H	1.56	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.28	0.69
1:A:1004:ASN:ND2	5:E:167:ARG:HD2	2.07	0.69
3:C:45:ALA:HA	3:C:72:LEU:HD12	1.74	0.69
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.22	0.69
5:E:135:PHE:HB3	5:E:140:LEU:HD11	1.75	0.69
2:B:766:ARG:NH2	2:B:1020:ARG:HH11	1.90	0.69
9:I:71:SER:OG	9:I:83:ASN:HB2	1.92	0.69
8:H:4:THR:HA	8:H:60:ALA:CB	2.22	0.69
6:F:86:THR:OG1	6:F:89:GLU:HG3	1.93	0.69
3:C:20:PHE:CE1	3:C:22:LEU:HD12	2.25	0.69
4:D:170:THR:HG21	4:D:172:LEU:HG	1.74	0.69
11:K:50:LEU:HD11	11:K:75:ILE:HD13	1.73	0.69
2:B:953:LEU:O	2:B:953:LEU:HD23	1.92	0.69
2:B:728:ARG:HH12	2:B:1047:PHE:HB3	1.57	0.69
6:F:82:THR:HG22	6:F:84:TYR:H	1.58	0.69
1:A:1343:ALA:HB2	5:E:150:VAL:HG22	1.75	0.69
2:B:654:ARG:H	2:B:657:HIS:HD2	1.39	0.69
2:B:642:ASP:HB3	2:B:649:LYS:HG3	1.74	0.69
1:A:1120:LEU:O	1:A:1323:ASP:HB2	1.93	0.69
2:B:770:GLN:OE1	2:B:983:ARG:HA	1.92	0.69
1:A:78:PRO:HA	2:B:1201:LYS:NZ	2.08	0.69
1:A:1329:THR:CG2	1:A:1331:SER:H	2.03	0.69
3:C:166:GLU:HG3	11:K:10:PHE:CZ	2.21	0.69
1:A:858:ASN:HD22	1:A:858:ASN:C	1.94	0.69
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.74	0.69
1:A:463:ILE:HD12	1:A:469:ARG:HD2	1.74	0.68
1:A:106:VAL:HG13	1:A:112:LYS:O	1.93	0.68
2:B:333:PHE:O	2:B:334:ILE:HG13	1.92	0.68
1:A:1239:ARG:HH22	1:A:1241:ARG:HH22	1.40	0.68
1:A:1424:VAL:HG13	1:A:1436:ILE:CD1	2.24	0.68
1:A:107:CYS:H	1:A:114:LEU:HD21	1.57	0.68
3:C:172:PRO:O	3:C:235:VAL:HG23	1.93	0.68
1:A:666:ILE:HD12	1:A:667:GLY:H	1.57	0.68
9:I:111:THR:HG22	9:I:112:SER:N	2.09	0.68
1:A:248:PRO:O	1:A:260:ASP:HB2	1.93	0.68
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.74	0.68
1:A:1291:VAL:HG13	1:A:1292:PRO:HD2	1.74	0.68
2:B:65:GLU:HG3	2:B:66:ASP:N	2.05	0.68
6:F:97:ARG:O	6:F:101:ILE:HG13	1.93	0.68
1:A:1002:GLY:HA3	1:A:1007:ILE:HG21	1.75	0.68
1:A:152:VAL:CG1	1:A:153:PRO:HD2	2.24	0.68
2:B:95:ILE:HG13	2:B:130:VAL:HG22	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:35:ILE:HG22	1:A:35:ILE:O	1.93	0.68
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.75	0.68
1:A:450:LEU:N	1:A:450:LEU:HD12	2.09	0.68
2:B:1197:PRO:HG2	2:B:1200:ALA:HB2	1.76	0.68
12:L:38:LEU:O	12:L:39:SER:HB3	1.93	0.68
3:C:263:THR:C	3:C:265:MET:H	1.97	0.68
3:C:179:GLU:HG2	3:C:180:TYR:N	2.09	0.68
1:A:856:THR:HB	1:A:865:GLN:HB2	1.75	0.68
2:B:112:LEU:HD12	2:B:113:TYR:H	1.58	0.68
9:I:13:MET:HG3	9:I:14:LEU:N	2.09	0.68
2:B:1099:VAL:CG1	2:B:1100:ASP:N	2.56	0.68
1:A:107:CYS:N	1:A:114:LEU:HD21	2.08	0.68
1:A:19:PHE:O	1:A:1416:ALA:HA	1.93	0.68
1:A:675:THR:O	1:A:679:ILE:HG13	1.93	0.68
1:A:809:THR:OG1	1:A:812:GLU:HG3	1.94	0.68
4:D:34:GLN:O	4:D:47:LEU:HD23	1.94	0.68
2:B:707:PRO:O	2:B:711:GLU:HG3	1.93	0.68
11:K:31:VAL:HG12	11:K:32:VAL:N	2.08	0.68
2:B:549:THR:HG22	2:B:550:ASP:N	2.05	0.67
1:A:351:THR:HG22	2:B:1103:ILE:HA	1.75	0.67
2:B:1162:ILE:HG22	2:B:1163:CYS:N	2.09	0.67
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.29	0.67
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.28	0.67
1:A:63:ARG:HA	1:A:74:MET:SD	2.35	0.67
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.59	0.67
4:D:40:HIS:CB	7:G:73:LYS:HZ3	2.07	0.67
1:A:798:GLY:HA2	1:A:815:PHE:CD1	2.29	0.67
2:B:39:ARG:HH21	2:B:665:GLU:HG2	1.59	0.67
4:D:29:LEU:HD22	7:G:82:PHE:CE2	2.28	0.67
7:G:14:HIS:ND1	7:G:15:PRO:HD2	2.09	0.67
9:I:50:THR:HG22	9:I:52:ILE:H	1.60	0.67
3:C:114:TYR:HB3	3:C:140:ASN:O	1.94	0.67
2:B:1002:THR:HG23	2:B:1006:ILE:HG13	1.77	0.67
2:B:839:MET:HG3	2:B:1010:LEU:HD11	1.77	0.67
5:E:15:ALA:O	5:E:19:VAL:HG23	1.94	0.67
8:H:93:TYR:HB3	8:H:144:ILE:O	1.93	0.67
9:I:101:PHE:N	9:I:101:PHE:CD1	2.61	0.67
3:C:67:LEU:HD11	3:C:155:LEU:CD1	2.25	0.67
2:B:995:ARG:HH12	3:C:165:LYS:HG2	1.59	0.67
1:A:903:ASN:C	1:A:903:ASN:HD22	1.97	0.67
2:B:569:TYR:CE1	2:B:589:VAL:HG21	2.30	0.67
2:B:515:HIS:CD2	2:B:517:THR:H	2.11	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:388:LEU:HD22	1:A:432:VAL:HG21	1.76	0.67
1:A:23:SER:HA	1:A:233:TRP:CD1	2.30	0.67
1:A:567:LYS:HE3	8:H:46:LEU:HB2	1.77	0.67
6:F:97:ARG:HD3	6:F:130:ILE:HG23	1.77	0.67
8:H:81:PRO:CB	8:H:82:PRO:CD	2.72	0.67
3:C:186:LEU:HD21	3:C:224:GLN:O	1.95	0.67
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.24	0.67
2:B:999:MET:HA	2:B:999:MET:CE	2.25	0.67
2:B:563:MET:HE3	2:B:580:VAL:HB	1.76	0.67
4:D:176:GLU:O	4:D:178:ALA:N	2.26	0.67
7:G:143:ILE:HG22	7:G:144:ARG:N	2.08	0.67
1:A:842:VAL:HG11	2:B:1136:ASP:OD2	1.95	0.67
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.59	0.67
1:A:79:GLY:HA3	1:A:243:PRO:HG2	1.74	0.67
4:D:53:SER:HB3	4:D:152:SER:CB	2.25	0.67
2:B:831:SER:HB3	2:B:994:TYR:OH	1.95	0.67
6:F:125:LEU:O	6:F:125:LEU:HG	1.94	0.67
1:A:567:LYS:HB3	8:H:96:VAL:H	1.60	0.66
2:B:192:LEU:O	2:B:193:LYS:HB2	1.94	0.66
6:F:90:ARG:HD3	6:F:155:LEU:CD1	2.24	0.66
2:B:615:MET:HB3	2:B:626:ILE:HG12	1.76	0.66
1:A:311:GLN:HB3	1:A:312:PRO:HD3	1.76	0.66
7:G:91:VAL:HB	7:G:139:ILE:O	1.95	0.66
9:I:34:TYR:CE2	9:I:36:GLU:HB3	2.30	0.66
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.30	0.66
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.76	0.66
9:I:51:ASN:O	9:I:54:GLU:HG3	1.95	0.66
9:I:52:ILE:HG13	9:I:52:ILE:O	1.95	0.66
1:A:979:SER:OG	1:A:981:LEU:HG	1.94	0.66
1:A:1107:VAL:O	1:A:1107:VAL:HG12	1.96	0.66
2:B:1159:ARG:HB3	2:B:1159:ARG:HH11	1.60	0.66
2:B:635:ARG:NH2	2:B:742:GLU:OE2	2.26	0.66
2:B:1051:THR:HB	2:B:1054:GLY:H	1.61	0.66
1:A:75:ASN:O	1:A:76:GLU:CB	2.43	0.66
3:C:179:GLU:HG2	3:C:180:TYR:H	1.61	0.66
1:A:18:GLN:HB2	2:B:1215:ARG:HB2	1.77	0.66
2:B:902:GLY:O	12:L:65:VAL:HG11	1.96	0.66
1:A:1332:PHE:N	1:A:1332:PHE:CD2	2.58	0.66
3:C:18:VAL:HG12	3:C:18:VAL:O	1.94	0.66
2:B:1223:ASP:O	2:B:1224:PHE:HB2	1.94	0.66
1:A:843:LYS:HD3	1:A:846:GLU:OE2	1.95	0.66
5:E:48:ASP:CG	5:E:49:SER:H	1.99	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2:VAL:HG21	2:B:1158:PHE:N	2.11	0.66
1:A:541:ILE:HD13	1:A:549:MET:CE	2.26	0.66
2:B:996:ARG:NH1	3:C:38:ILE:HG23	2.10	0.66
2:B:370:PHE:HE2	2:B:373:ARG:HH11	1.42	0.66
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.76	0.66
1:A:69:THR:C	1:A:71:GLN:H	1.98	0.66
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.96	0.66
6:F:90:ARG:HG3	6:F:91:ALA:N	2.11	0.66
2:B:1056:SER:HB3	2:B:1066:SER:HB2	1.78	0.66
2:B:952:VAL:HG12	2:B:953:LEU:H	1.61	0.66
2:B:557:PHE:CD2	2:B:557:PHE:C	2.68	0.66
1:A:84:ILE:HG23	1:A:84:ILE:O	1.95	0.66
1:A:55:ASP:CG	1:A:55:ASP:O	2.32	0.66
1:A:385:ILE:HG22	1:A:386:ASP:N	2.10	0.66
2:B:1045:SER:O	2:B:1046:PRO:O	2.14	0.66
1:A:866:PHE:O	1:A:867:ILE:HG13	1.94	0.66
2:B:999:MET:HE3	2:B:999:MET:HA	1.76	0.66
3:C:238:ILE:CG2	3:C:242:GLN:HB2	2.25	0.66
2:B:378:LEU:O	2:B:382:ILE:HG13	1.96	0.66
1:A:399:HIS:O	1:A:401:GLY:N	2.28	0.66
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.78	0.66
3:C:152:GLU:OE2	3:C:154:LYS:HE3	1.95	0.66
1:A:1227:ILE:HG22	1:A:1228:TRP:N	2.10	0.66
1:A:1161:THR:HG22	1:A:1163:ILE:N	2.04	0.66
5:E:176:PRO:O	5:E:212:ARG:HA	1.96	0.66
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.77	0.66
3:C:189:THR:HG22	3:C:190:ASP:H	1.60	0.65
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.78	0.65
7:G:30:LEU:HD13	7:G:72:VAL:HG11	1.77	0.65
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.31	0.65
1:A:332:LYS:HG3	1:A:333:GLU:HG2	1.79	0.65
1:A:986:ILE:HG22	1:A:987:VAL:N	2.10	0.65
4:D:122:GLU:HA	4:D:125:SER:OG	1.95	0.65
2:B:604:ARG:NH2	2:B:613:VAL:O	2.29	0.65
2:B:642:ASP:HA	2:B:649:LYS:HA	1.77	0.65
4:D:176:GLU:C	4:D:178:ALA:H	1.98	0.65
2:B:857:ARG:HD2	2:B:945:GLU:OE1	1.95	0.65
1:A:867:ILE:HD12	5:E:208:TYR:HE1	1.58	0.65
3:C:43:THR:CG2	3:C:44:LEU:H	2.08	0.65
3:C:177:GLU:HB2	3:C:231:ASN:HB3	1.78	0.65
12:L:58:LYS:O	12:L:58:LYS:HG2	1.96	0.65
8:H:56:THR:HB	8:H:145:ARG:HG2	1.79	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:372:LYS:HA	1:A:435:HIS:ND1	2.11	0.65
1:A:384:ASN:CG	1:A:388:LEU:HD12	2.17	0.65
2:B:1182:CYS:C	2:B:1183:LYS:HE3	2.17	0.65
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.31	0.65
1:A:547:LEU:HD22	11:K:58:PHE:CD1	2.32	0.65
1:A:69:THR:O	1:A:71:GLN:N	2.29	0.65
5:E:46:TYR:CD2	5:E:58:MET:HG2	2.31	0.65
2:B:229:ALA:HB1	2:B:231:PRO:HD2	1.79	0.65
2:B:197:PHE:CZ	2:B:816:GLU:HG2	2.32	0.65
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.37	0.65
3:C:189:THR:HG22	3:C:190:ASP:N	2.11	0.65
1:A:979:SER:OG	1:A:980:ASP:N	2.28	0.65
2:B:850:LEU:HD12	2:B:851:PHE:H	1.62	0.65
6:F:119:ARG:HG3	6:F:119:ARG:HH11	1.61	0.65
2:B:798:TYR:HE2	3:C:62:PHE:CE2	2.15	0.65
1:A:590:ARG:HH21	1:A:620:LYS:HB3	1.62	0.65
4:D:50:LEU:HD11	7:G:4:ILE:HD11	1.79	0.65
2:B:975:GLN:O	2:B:990:ILE:HD12	1.97	0.65
12:L:39:SER:O	12:L:40:LEU:HG	1.97	0.65
5:E:84:ASP:O	5:E:86:PRO:HD3	1.97	0.65
7:G:7:LEU:HD11	7:G:45:ILE:HD11	1.78	0.65
3:C:43:THR:CG2	3:C:44:LEU:N	2.59	0.65
1:A:504:LEU:HD11	6:F:91:ALA:HB1	1.77	0.65
6:F:111:LEU:N	6:F:111:LEU:HD12	2.12	0.65
12:L:32:ALA:HB3	12:L:55:ILE:CD1	2.27	0.65
9:I:102:VAL:HG12	9:I:103:CYS:N	2.12	0.65
8:H:38:LEU:HD12	8:H:124:ARG:O	1.96	0.65
2:B:847:ASP:C	2:B:849:GLY:H	1.98	0.65
3:C:168:ALA:O	3:C:170:TRP:N	2.30	0.65
1:A:818:MET:HA	2:B:514:LEU:HB3	1.79	0.65
2:B:357:GLN:O	2:B:366:GLN:HA	1.97	0.65
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.27	0.65
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.79	0.65
2:B:798:TYR:HE2	3:C:62:PHE:CZ	2.14	0.65
1:A:1017:LEU:HB3	5:E:205:SER:HA	1.79	0.65
2:B:704:ALA:HB3	2:B:741:CYS:SG	2.37	0.65
2:B:770:GLN:CD	2:B:983:ARG:HA	2.16	0.65
7:G:110:VAL:HG22	7:G:161:GLY:O	1.97	0.65
1:A:869:GLY:O	5:E:204:THR:HG21	1.97	0.64
2:B:824:ILE:HG22	2:B:1087:PHE:CE2	2.23	0.64
1:A:1341:ILE:HG23	1:A:1342:GLU:H	1.61	0.64
12:L:31:CYS:HB3	12:L:35:SER:N	2.13	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1348:LEU:HG	1:A:1372:VAL:HG23	1.78	0.64
2:B:1172:ILE:O	2:B:1172:ILE:HG22	1.96	0.64
1:A:844:ALA:C	1:A:845:LEU:HD23	2.18	0.64
3:C:165:LYS:O	11:K:6:ARG:NH1	2.30	0.64
11:K:53:ASP:HB3	11:K:56:VAL:HG23	1.79	0.64
6:F:135:ARG:HD3	6:F:143:PHE:CD2	2.32	0.64
2:B:899:ILE:CD1	2:B:911:ILE:HA	2.27	0.64
2:B:1180:PHE:HB3	2:B:1191:ILE:HD12	1.80	0.64
1:A:535:THR:HG23	1:A:575:LYS:HE2	1.79	0.64
3:C:183:TRP:CZ2	3:C:207:CYS:HB3	2.32	0.64
1:A:1017:LEU:HB2	5:E:206:GLY:N	2.07	0.64
2:B:23:ALA:HB1	2:B:24:PRO:CD	2.26	0.64
1:A:1115:SER:O	1:A:1116:LEU:HB3	1.96	0.64
1:A:50:ILE:O	1:A:52:GLY:N	2.28	0.64
1:A:442:VAL:HB	1:A:489:LEU:HD11	1.77	0.64
1:A:154:SER:HB3	1:A:162:VAL:HG21	1.79	0.64
1:A:1293:SER:OG	1:A:1294:PRO:HD2	1.97	0.64
2:B:880:THR:O	2:B:881:ASN:HB2	1.96	0.64
2:B:1007:VAL:CG2	2:B:1008:PRO:HD2	2.26	0.64
1:A:665:GLY:HA2	2:B:1026:LEU:HD21	1.78	0.64
1:A:23:SER:HA	1:A:233:TRP:NE1	2.12	0.64
1:A:1039:LYS:HG3	1:A:1043:ASP:OD2	1.98	0.64
2:B:601:ARG:O	2:B:605:ARG:HG3	1.97	0.64
1:A:672:ASP:HB2	1:A:736:ASN:OD1	1.98	0.64
7:G:34:VAL:CG1	7:G:45:ILE:HG21	2.26	0.64
1:A:743:VAL:O	1:A:747:VAL:HG23	1.96	0.64
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.33	0.64
7:G:59:GLY:HA3	7:G:70:PHE:CD2	2.33	0.64
3:C:66:ARG:NH1	10:J:2:ILE:HG21	2.13	0.64
4:D:56:ARG:HB2	4:D:148:LEU:HD22	1.80	0.64
2:B:580:VAL:HG22	2:B:624:LEU:CB	2.27	0.64
1:A:1348:LEU:HG	1:A:1372:VAL:CG2	2.27	0.64
7:G:9:LEU:HD12	7:G:10:ASN:H	1.63	0.64
4:D:56:ARG:HA	4:D:148:LEU:HD13	1.79	0.64
1:A:503:GLN:HE21	6:F:90:ARG:NH2	1.95	0.64
1:A:670:ILE:HG23	1:A:805:LEU:CD2	2.28	0.64
1:A:720:ARG:O	1:A:724:GLU:HB2	1.97	0.64
5:E:157:SER:OG	5:E:160:GLU:HG3	1.97	0.64
1:A:88:LYS:HE3	1:A:280:GLU:OE2	1.98	0.64
2:B:604:ARG:NH1	2:B:691:GLU:OE2	2.31	0.64
12:L:31:CYS:SG	12:L:34:CYS:N	2.69	0.64
8:H:89:LEU:C	8:H:91:ASP:H	2.02	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:47:ARG:HH12	1:A:254:GLU:HG2	1.63	0.64
2:B:1085:ILE:HD12	2:B:1085:ILE:N	2.12	0.64
2:B:1165:ILE:HG22	2:B:1166:CYS:N	2.13	0.64
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.13	0.64
2:B:842:ASN:HD22	2:B:845:SER:CB	2.11	0.63
10:J:47:ARG:HH11	10:J:47:ARG:HG2	1.63	0.63
5:E:22:MET:CE	5:E:26:ARG:HH21	2.11	0.63
1:A:1063:MET:HG3	1:A:1436:ILE:HG23	1.80	0.63
2:B:862:GLN:HG2	2:B:963:PHE:HD1	1.63	0.63
1:A:899:VAL:HB	1:A:929:LEU:HD11	1.80	0.63
4:D:54:GLU:O	4:D:58:VAL:HG23	1.99	0.63
1:A:404:TYR:HB2	1:A:433:GLU:HB2	1.81	0.63
3:C:99:LEU:HA	3:C:119:VAL:O	1.98	0.63
5:E:213:ILE:HG12	5:E:214:CYS:N	2.12	0.63
1:A:500:GLU:OE2	2:B:1145:SER:HB2	1.99	0.63
2:B:731:VAL:HG12	2:B:732:SER:H	1.62	0.63
3:C:66:ARG:HH21	10:J:5:VAL:HG23	1.60	0.63
11:K:49:GLU:HG3	11:K:94:ILE:HG12	1.80	0.63
1:A:897:TYR:HD2	1:A:936:LEU:HD13	1.62	0.63
2:B:309:GLN:HG3	9:I:52:ILE:CD1	2.29	0.63
2:B:622:LYS:HE2	9:I:59:VAL:HG22	1.79	0.63
7:G:1:MET:HE3	7:G:80:LYS:C	2.19	0.63
3:C:212:PRO:CB	3:C:213:PRO:HD2	2.29	0.63
1:A:1341:ILE:CG2	1:A:1342:GLU:N	2.62	0.63
1:A:4:GLN:O	1:A:5:GLN:O	2.17	0.63
7:G:74:TYR:HD2	7:G:74:TYR:H	1.46	0.63
1:A:591:PHE:HA	1:A:595:THR:HG21	1.80	0.63
2:B:879:ARG:NH1	2:B:883:LEU:HD22	2.13	0.63
1:A:981:LEU:HD21	1:A:1038:THR:C	2.19	0.63
4:D:191:ALA:O	4:D:193:THR:N	2.32	0.63
1:A:1224:LEU:HD12	1:A:1241:ARG:O	1.99	0.63
1:A:1057:VAL:HG12	1:A:1058:VAL:H	1.63	0.63
6:F:86:THR:HG23	6:F:89:GLU:OE1	1.98	0.63
9:I:8:ARG:CG	9:I:34:TYR:HE1	2.12	0.63
1:A:886:ILE:HG22	1:A:887:GLY:N	2.13	0.63
1:A:295:LEU:O	1:A:298:PHE:HB3	1.97	0.63
5:E:124:VAL:HG13	5:E:132:ILE:HD12	1.79	0.63
1:A:567:LYS:CB	8:H:95:TYR:HA	2.28	0.62
5:E:23:VAL:HG13	5:E:78:LEU:HD13	1.80	0.62
8:H:99:GLY:N	8:H:118:PHE:HD2	1.97	0.62
2:B:121:ASN:HA	2:B:207:GLY:HA2	1.81	0.62
2:B:217:ARG:C	2:B:217:ARG:HD2	2.19	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:114:LEU:HD13	1:A:171:GLN:OE1	1.99	0.62
2:B:63:ILE:O	2:B:67:SER:HB3	1.98	0.62
4:D:40:HIS:CB	7:G:73:LYS:NZ	2.55	0.62
2:B:212:LEU:CD2	2:B:480:SER:HB2	2.29	0.62
11:K:49:GLU:HG3	11:K:94:ILE:CG1	2.29	0.62
2:B:906:SER:O	2:B:941:LEU:HD23	1.99	0.62
9:I:101:PHE:HD1	9:I:101:PHE:H	1.46	0.62
2:B:205:ILE:O	2:B:207:GLY:N	2.32	0.62
1:A:1261:LYS:O	1:A:1264:GLU:HB3	1.99	0.62
2:B:953:LEU:CD2	2:B:965:LYS:HB2	2.28	0.62
1:A:1206:ASP:HB3	1:A:1274:ARG:HH12	1.64	0.62
1:A:1445:ILE:HG12	7:G:18:PHE:HE2	1.62	0.62
6:F:89:GLU:OE2	6:F:134:ILE:HG21	1.98	0.62
1:A:1454:MET:O	1:A:1454:MET:HG3	1.98	0.62
1:A:129:LYS:O	1:A:130:ASP:HB2	1.99	0.62
9:I:6:PHE:HB3	9:I:12:ASN:O	1.98	0.62
1:A:90:VAL:HG13	1:A:297:GLN:HA	1.82	0.62
2:B:1152:MET:CE	2:B:1157:ALA:HA	2.29	0.62
1:A:366:VAL:HG21	1:A:460:VAL:HG22	1.81	0.62
1:A:1021:LEU:O	1:A:1024:SER:HB3	1.99	0.62
7:G:1:MET:C	7:G:1:MET:SD	2.78	0.62
1:A:475:THR:CG2	1:A:476:SER:N	2.63	0.62
1:A:646:PHE:O	1:A:650:GLN:HG3	1.99	0.62
3:C:238:ILE:HG23	3:C:242:GLN:HB2	1.81	0.62
10:J:12:LYS:O	10:J:14:VAL:HG23	2.00	0.62
2:B:97:VAL:HG12	2:B:178:ASN:HD21	1.64	0.62
1:A:134:ARG:HG2	1:A:134:ARG:O	1.99	0.62
2:B:171:PRO:HD2	2:B:457:LEU:HD13	1.82	0.62
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.29	0.62
1:A:481:ASP:OD1	1:A:485:ASP:OD2	2.18	0.62
2:B:121:ASN:HA	2:B:207:GLY:CA	2.29	0.62
1:A:590:ARG:HD2	1:A:605:MET:HB3	1.82	0.62
2:B:1065:GLN:NE2	2:B:1066:SER:N	2.47	0.62
1:A:1120:LEU:HD12	1:A:1120:LEU:N	2.14	0.62
1:A:412:ARG:NH2	2:B:1108:ARG:NH1	2.48	0.62
2:B:549:THR:H	2:B:628:THR:HG23	1.65	0.61
2:B:365:THR:HG23	2:B:367:LEU:HG	1.82	0.61
6:F:111:LEU:H	6:F:111:LEU:HD12	1.65	0.61
1:A:722:LEU:O	1:A:725:ALA:HB3	1.99	0.61
4:D:202:ILE:HG21	4:D:207:LEU:HB2	1.82	0.61
3:C:244:VAL:O	3:C:248:ILE:HG13	2.00	0.61
2:B:43:LEU:HD11	2:B:811:TYR:O	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1027:ALA:O	1:A:1031:VAL:HG23	2.00	0.61
1:A:1444:MET:CE	6:F:135:ARG:HB2	2.30	0.61
1:A:467:THR:O	1:A:469:ARG:HG3	2.00	0.61
2:B:999:MET:HE2	2:B:1000:PRO:HD2	1.80	0.61
1:A:49:LYS:HE2	1:A:61:ILE:HD12	1.81	0.61
5:E:157:SER:C	5:E:159:ASP:H	2.04	0.61
2:B:731:VAL:HG12	2:B:732:SER:N	2.16	0.61
9:I:85:PHE:N	9:I:85:PHE:HD2	1.88	0.61
2:B:852:ARG:HH22	12:L:70:ARG:C	2.04	0.61
2:B:1001:PHE:CE2	3:C:34:ARG:CZ	2.84	0.61
1:A:382:PRO:HB3	1:A:428:TYR:HE2	1.65	0.61
8:H:100:THR:OG1	8:H:138:GLU:HG3	2.00	0.61
8:H:126:GLU:C	8:H:130:ARG:HH22	2.03	0.61
7:G:122:ASN:ND2	7:G:125:SER:HB3	2.16	0.61
2:B:882:THR:HG22	2:B:884:ARG:N	2.13	0.61
2:B:465:ASN:ND2	2:B:465:ASN:N	2.49	0.61
1:A:1299:VAL:HG12	1:A:1300:LYS:N	2.15	0.61
10:J:53:HIS:C	10:J:53:HIS:CD2	2.73	0.61
1:A:1116:LEU:HG	1:A:1308:THR:HB	1.83	0.61
7:G:23:LYS:HG3	7:G:56:ILE:CD1	2.29	0.61
1:A:407:ARG:HG2	1:A:430:TRP:CH2	2.35	0.61
2:B:860:MET:HG2	2:B:861:ASP:N	2.14	0.61
1:A:1444:MET:HG2	7:G:60:ARG:HA	1.83	0.61
1:A:907:THR:CG2	1:A:908:LEU:N	2.63	0.61
2:B:642:ASP:HB3	2:B:649:LYS:HD2	1.82	0.61
2:B:314:LEU:O	2:B:317:CYS:HB3	2.00	0.61
1:A:1436:ILE:O	1:A:1437:GLY:C	2.39	0.61
1:A:1007:ILE:C	1:A:1009:ASN:H	2.02	0.61
1:A:119:ASN:O	1:A:122:MET:HB3	2.01	0.61
1:A:144:THR:O	1:A:146:MET:HG3	2.01	0.61
1:A:590:ARG:O	1:A:591:PHE:HB2	2.01	0.61
2:B:824:ILE:CG2	2:B:1087:PHE:HE2	2.08	0.61
2:B:287:ARG:NH1	2:B:324:ILE:O	2.34	0.61
2:B:949:VAL:HG12	2:B:950:ASP:N	2.15	0.61
1:A:1151:GLU:OE2	9:I:45:ARG:HD2	2.01	0.61
1:A:1074:GLU:HB3	1:A:1075:PRO:CD	2.30	0.61
1:A:1097:GLY:O	1:A:1100:ARG:HB3	2.01	0.61
5:E:78:LEU:HD23	5:E:79:TRP:N	2.16	0.60
9:I:111:THR:HG22	9:I:112:SER:H	1.65	0.60
3:C:238:ILE:HG22	3:C:243:VAL:HG23	1.83	0.60
1:A:265:LYS:NZ	1:A:322:VAL:HG22	2.15	0.60
2:B:758:PHE:CE1	2:B:1027:ILE:HG22	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:197:PHE:HZ	2:B:816:GLU:HG2	1.65	0.60
1:A:518:LYS:HE2	1:A:624:SER:O	2.02	0.60
1:A:738:LYS:HB2	1:A:740:LEU:HG	1.83	0.60
5:E:207:ARG:HH11	5:E:207:ARG:CB	2.13	0.60
9:I:2:THR:O	9:I:3:THR:C	2.39	0.60
6:F:93:ILE:HD11	6:F:134:ILE:CD1	2.26	0.60
3:C:45:ALA:HA	3:C:72:LEU:CD1	2.31	0.60
2:B:980:PHE:HE2	2:B:1094:ARG:CG	2.14	0.60
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.37	0.60
1:A:146:MET:HA	1:A:171:GLN:HB2	1.83	0.60
1:A:728:LYS:O	1:A:732:LEU:HG	2.01	0.60
4:D:198:LEU:O	4:D:200:ASN:N	2.33	0.60
9:I:62:ILE:O	9:I:62:ILE:HG12	2.01	0.60
1:A:590:ARG:HB3	1:A:605:MET:N	2.15	0.60
2:B:778:MET:HE1	2:B:1094:ARG:CD	2.31	0.60
3:C:22:LEU:HD13	3:C:230:MET:CE	2.32	0.60
1:A:108:MET:SD	1:A:210:ILE:HD13	2.41	0.60
2:B:745:PRO:O	2:B:747:MET:N	2.33	0.60
2:B:46:GLN:HG3	2:B:47:GLN:N	2.07	0.60
1:A:524:VAL:HG12	1:A:525:GLN:N	2.12	0.60
1:A:224:PHE:CE2	1:A:231:PRO:HG3	2.36	0.60
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.17	0.60
1:A:1343:ALA:HB2	5:E:150:VAL:CG2	2.31	0.60
2:B:1152:MET:HE3	2:B:1157:ALA:HA	1.84	0.60
2:B:118:ARG:HH22	2:B:194:GLU:CD	2.04	0.60
2:B:446:LEU:O	2:B:447:ALA:HB3	2.02	0.60
7:G:51:TYR:C	7:G:51:TYR:CD2	2.75	0.60
2:B:822:ASN:O	10:J:48:ARG:NH1	2.34	0.60
1:A:337:ARG:HD3	2:B:1132:GLU:OE1	2.02	0.60
1:A:666:ILE:HD11	2:B:1067:ARG:O	2.02	0.60
2:B:606:LYS:HD2	2:B:608:ASP:OD2	2.01	0.60
1:A:185:TRP:CZ3	1:A:200:ARG:HG2	2.37	0.60
7:G:119:LEU:HD12	7:G:131:GLN:O	2.02	0.60
1:A:503:GLN:NE2	6:F:90:ARG:HH21	1.97	0.60
11:K:21:ILE:HG23	11:K:31:VAL:HG11	1.82	0.60
3:C:208:GLU:O	3:C:210:GLU:N	2.34	0.60
10:J:1:MET:H2	10:J:56:LEU:N	1.98	0.60
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.60
4:D:144:THR:HG21	7:G:46:LEU:HD13	1.83	0.60
2:B:1099:VAL:HG12	2:B:1100:ASP:H	1.67	0.60
3:C:124:LEU:O	3:C:125:MET:HB2	2.01	0.60
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:310:MET:O	2:B:313:MET:HB2	2.02	0.60
3:C:56:THR:HG22	3:C:57:VAL:N	2.16	0.60
2:B:189:LEU:O	2:B:192:LEU:N	2.28	0.60
1:A:254:GLU:HB2	2:B:935:ARG:NH1	2.17	0.60
1:A:255:SER:OG	2:B:918:ILE:HG23	2.02	0.60
8:H:81:PRO:HB2	8:H:82:PRO:CD	2.29	0.60
4:D:56:ARG:HD3	4:D:149:THR:HA	1.82	0.60
1:A:384:ASN:O	1:A:386:ASP:N	2.34	0.60
11:K:60:ALA:O	11:K:73:LEU:HD12	2.01	0.60
1:A:854:ASN:HB3	1:A:1000:LEU:HD21	1.83	0.60
1:A:1059:HIS:ND1	6:F:86:THR:HA	2.17	0.60
2:B:955:THR:CG2	2:B:956:THR:H	2.15	0.60
1:A:613:ILE:O	1:A:614:PHE:HB3	2.01	0.60
1:A:1291:VAL:HG13	1:A:1292:PRO:CD	2.31	0.60
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.83	0.60
12:L:60:ARG:HG2	12:L:61:THR:H	1.67	0.60
1:A:401:GLY:C	1:A:435:HIS:HD2	2.06	0.59
2:B:1115:THR:O	2:B:1116:ARG:HB2	2.01	0.59
9:I:105:SER:O	9:I:106:CYS:HB3	2.01	0.59
8:H:91:ASP:C	8:H:93:TYR:H	2.05	0.59
2:B:1224:PHE:CE2	5:E:171:LYS:HG3	2.30	0.59
2:B:705:MET:N	2:B:710:LEU:HD12	2.16	0.59
1:A:69:THR:C	1:A:71:GLN:N	2.55	0.59
1:A:12:ARG:HD2	2:B:1218:THR:HB	1.83	0.59
3:C:35:ARG:NH1	11:K:41:THR:OG1	2.35	0.59
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.84	0.59
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.42	0.59
3:C:66:ARG:NH1	3:C:144:ILE:O	2.35	0.59
1:A:768:GLN:HG2	1:A:816:HIS:CA	2.30	0.59
1:A:152:VAL:HG12	1:A:153:PRO:HD2	1.83	0.59
10:J:57:ILE:HA	10:J:60:PHE:CD2	2.30	0.59
2:B:744:HIS:CG	2:B:745:PRO:HD2	2.37	0.59
9:I:85:PHE:HD1	9:I:99:LEU:HD13	1.67	0.59
11:K:10:PHE:CD2	11:K:10:PHE:N	2.71	0.59
1:A:469:ARG:NH2	2:B:991:GLY:O	2.36	0.59
2:B:172:ILE:HD13	2:B:178:ASN:CB	2.32	0.59
1:A:115:LEU:O	1:A:122:MET:HE2	2.02	0.59
2:B:622:LYS:CE	9:I:59:VAL:HG22	2.32	0.59
4:D:220:LEU:O	4:D:221:TYR:HD1	1.85	0.59
3:C:254:LYS:O	3:C:256:ALA:N	2.35	0.59
2:B:1099:VAL:HG12	2:B:1100:ASP:N	2.17	0.59
2:B:515:HIS:H	2:B:518:HIS:CD2	2.10	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:616:ILE:CG1	2:B:697:GLU:HA	2.33	0.59
1:A:1313:LEU:O	1:A:1315:GLU:N	2.35	0.59
1:A:866:PHE:C	1:A:867:ILE:HG13	2.22	0.59
4:D:128:VAL:O	4:D:132:GLN:HG3	2.03	0.59
10:J:14:VAL:HG12	10:J:14:VAL:O	2.03	0.59
1:A:1341:ILE:CG2	1:A:1342:GLU:H	2.15	0.59
1:A:384:ASN:O	1:A:385:ILE:C	2.41	0.59
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.83	0.59
2:B:787:VAL:O	2:B:787:VAL:HG12	2.02	0.59
1:A:310:GLY:O	1:A:312:PRO:HD2	2.03	0.59
2:B:118:ARG:HH11	2:B:204:ILE:HD11	1.68	0.59
9:I:55:THR:HG21	9:I:109:ILE:HD13	1.84	0.59
4:D:156:ASP:C	4:D:158:GLU:H	2.03	0.59
1:A:913:LEU:HD12	1:A:914:GLU:H	1.66	0.59
2:B:980:PHE:HD2	2:B:1094:ARG:HA	1.67	0.59
2:B:1180:PHE:O	2:B:1181:GLU:O	2.20	0.59
1:A:774:ARG:NH2	1:A:797:LYS:HB2	2.17	0.59
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.85	0.59
5:E:90:VAL:HA	5:E:120:ALA:HB2	1.85	0.59
1:A:472:LEU:O	1:A:475:THR:HB	2.03	0.59
1:A:1430:LEU:HB2	1:A:1432:GLN:HG3	1.85	0.59
8:H:44:VAL:HG12	8:H:44:VAL:O	2.03	0.59
1:A:1017:LEU:CB	5:E:205:SER:HA	2.33	0.59
1:A:407:ARG:HB3	1:A:430:TRP:CE2	2.38	0.59
1:A:1345:ARG:HG3	1:A:1376:THR:HG21	1.84	0.59
1:A:782:ARG:NH2	2:B:699:GLU:O	2.34	0.59
1:A:1385:THR:HG22	1:A:1386:ARG:N	2.18	0.59
1:A:855:THR:CG2	1:A:857:ARG:HE	2.07	0.58
6:F:103:MET:O	6:F:104:ASN:HB2	2.03	0.58
1:A:107:CYS:SG	1:A:171:GLN:HG2	2.42	0.58
2:B:196:PRO:HG2	2:B:197:PHE:H	1.68	0.58
2:B:205:ILE:HD12	2:B:205:ILE:N	2.17	0.58
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.18	0.58
1:A:1105:LEU:HD22	1:A:1384:VAL:HG21	1.83	0.58
1:A:971:PHE:CE2	1:A:1040:GLN:HG2	2.37	0.58
2:B:838:SER:HB2	2:B:989:THR:O	2.03	0.58
3:C:254:LYS:O	3:C:258:ILE:HD13	2.04	0.58
2:B:180:TYR:HD1	2:B:180:TYR:H	1.51	0.58
11:K:63:VAL:HG23	11:K:63:VAL:O	2.03	0.58
1:A:853:ASP:OD1	1:A:855:THR:CB	2.51	0.58
7:G:14:HIS:HD2	7:G:16:SER:HB2	1.66	0.58
4:D:130:LEU:HD22	4:D:134:THR:OG1	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:532:ARG:HH22	1:A:745:GLN:HG2	1.67	0.58
1:A:1444:MET:HE2	6:F:135:ARG:HB2	1.86	0.58
2:B:359:GLU:O	2:B:362:PRO:HD3	2.04	0.58
12:L:53:HIS:O	12:L:55:ILE:HG12	2.04	0.58
1:A:800:VAL:HG22	1:A:812:GLU:HB3	1.85	0.58
1:A:658:LEU:HD23	1:A:659:HIS:CE1	2.38	0.58
4:D:51:ASN:O	4:D:54:GLU:HB3	2.04	0.58
2:B:265:SER:O	2:B:266:ALA:HB3	2.02	0.58
4:D:33:PHE:CZ	7:G:80:LYS:HE3	2.38	0.58
2:B:825:VAL:CG1	2:B:826:ALA:N	2.67	0.58
2:B:705:MET:H	2:B:710:LEU:CD1	2.14	0.58
2:B:616:ILE:N	2:B:616:ILE:HD12	2.18	0.58
9:I:102:VAL:CG1	9:I:103:CYS:N	2.65	0.58
3:C:241:ASP:O	3:C:245:VAL:HG23	2.03	0.58
1:A:567:LYS:CG	1:A:568:PRO:CD	2.79	0.58
6:F:99:LEU:HD12	6:F:99:LEU:O	2.04	0.58
2:B:811:TYR:N	2:B:811:TYR:CD1	2.71	0.58
1:A:325:ILE:HG21	2:B:1210:MET:HG3	1.84	0.58
5:E:39:LEU:O	5:E:42:PHE:HB3	2.02	0.58
1:A:262:LEU:O	1:A:264:PHE:N	2.37	0.58
10:J:23:ASN:C	10:J:25:LEU:H	2.05	0.58
2:B:283:VAL:O	2:B:286:PHE:N	2.37	0.58
8:H:143:LEU:N	8:H:143:LEU:HD12	2.19	0.58
1:A:254:GLU:HG3	2:B:935:ARG:HH22	1.67	0.58
2:B:957:ASN:O	2:B:959:ASP:N	2.37	0.58
1:A:828:ALA:CB	2:B:530:GLY:HA2	2.33	0.58
12:L:43:THR:O	12:L:43:THR:HG22	2.02	0.58
1:A:135:PHE:C	1:A:137:ALA:H	2.06	0.58
1:A:1155:ASP:OD1	1:A:1161:THR:HA	2.03	0.58
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.38	0.58
4:D:134:THR:CG2	4:D:135:GLY:N	2.66	0.58
11:K:65:HIS:CD2	11:K:67:PHE:HB2	2.38	0.58
1:A:67:CYS:O	1:A:68:GLN:HB2	2.04	0.58
1:A:1057:VAL:HG12	1:A:1058:VAL:N	2.18	0.58
1:A:665:GLY:O	1:A:667:GLY:N	2.37	0.58
1:A:63:ARG:HA	1:A:74:MET:CE	2.34	0.58
1:A:1030:ARG:NH1	1:A:1035:TYR:OH	2.37	0.58
11:K:12:LEU:H	11:K:12:LEU:HD12	1.68	0.58
1:A:1166:ASP:OD2	1:A:1239:ARG:HD2	2.03	0.58
9:I:14:LEU:HA	9:I:28:GLU:O	2.04	0.58
3:C:235:VAL:HG13	10:J:13:VAL:CG2	2.34	0.58
1:A:471:ASN:OD1	1:A:472:LEU:N	2.36	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2:VAL:HG21	2:B:1158:PHE:CA	2.34	0.58
1:A:549:MET:SD	1:A:577:ILE:HD11	2.43	0.58
1:A:1116:LEU:HD11	1:A:1118:VAL:HG13	1.86	0.58
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.34	0.58
11:K:47:ARG:HH11	11:K:47:ARG:CB	2.11	0.58
2:B:1103:ILE:O	2:B:1122:ARG:NH1	2.37	0.58
1:A:1400:CYS:SG	1:A:1409:LEU:HG	2.44	0.58
1:A:1418:LEU:HD23	2:B:1222:ARG:HD2	1.86	0.58
5:E:114:ASN:O	5:E:115:ASN:HB3	2.03	0.58
1:A:278:THR:O	1:A:282:ASN:HB2	2.04	0.58
5:E:14:ARG:HH21	5:E:141:VAL:CG1	2.17	0.58
1:A:965:GLN:O	1:A:968:GLN:HB2	2.04	0.58
2:B:117:ALA:HA	2:B:122:LEU:HD12	1.85	0.57
1:A:35:ILE:HA	1:A:52:GLY:O	2.04	0.57
2:B:589:VAL:HG12	2:B:590:HIS:N	2.17	0.57
4:D:153:ARG:HH22	4:D:184:ALA:HA	1.68	0.57
1:A:265:LYS:NZ	1:A:322:VAL:HG13	2.17	0.57
2:B:1031:LEU:HD23	2:B:1044:ALA:HB2	1.85	0.57
12:L:27:LEU:O	12:L:28:LYS:HG2	2.03	0.57
8:H:18:GLY:O	8:H:19:ARG:HB2	2.04	0.57
1:A:77:CYS:O	1:A:78:PRO:C	2.40	0.57
1:A:853:ASP:O	1:A:854:ASN:HB2	2.04	0.57
1:A:35:ILE:HG22	1:A:84:ILE:HD12	1.86	0.57
1:A:868:TYR:HD2	1:A:1058:VAL:HG21	1.68	0.57
9:I:55:THR:CG2	9:I:58:VAL:HG21	2.34	0.57
1:A:446:ARG:HD3	1:A:480:ALA:HB2	1.86	0.57
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.43	0.57
2:B:460:ALA:HB1	2:B:466:TRP:CZ3	2.38	0.57
1:A:79:GLY:HA3	1:A:243:PRO:HG3	1.86	0.57
7:G:7:LEU:CD1	7:G:45:ILE:HD11	2.33	0.57
7:G:106:MET:CG	7:G:107:LYS:N	2.66	0.57
7:G:3:PHE:CD1	7:G:80:LYS:NZ	2.70	0.57
2:B:65:GLU:CG	2:B:66:ASP:H	2.11	0.57
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.85	0.57
1:A:50:ILE:C	1:A:52:GLY:H	2.06	0.57
1:A:666:ILE:CD1	1:A:667:GLY:H	2.18	0.57
2:B:737:THR:CG2	9:I:66:PRO:HA	2.33	0.57
1:A:49:LYS:HZ1	1:A:61:ILE:N	2.03	0.57
1:A:61:ILE:O	1:A:63:ARG:N	2.38	0.57
4:D:189:ASP:O	4:D:193:THR:HB	2.05	0.57
1:A:1051:ALA:O	1:A:1055:ARG:HG3	2.04	0.57
7:G:1:MET:O	7:G:3:PHE:CE1	2.58	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1164:PRO:HG2	1:A:1165:GLU:H	1.69	0.57
2:B:604:ARG:HH22	2:B:614:SER:HA	1.69	0.57
1:A:47:ARG:HH12	1:A:254:GLU:CG	2.17	0.57
1:A:698:GLN:HA	9:I:97:MET:O	2.04	0.57
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.32	0.57
1:A:1209:MET:HE1	1:A:1236:LEU:HB3	1.85	0.57
1:A:289:ILE:C	1:A:291:GLU:H	2.07	0.57
6:F:109:VAL:HG12	6:F:110:ASP:N	2.20	0.57
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.20	0.57
2:B:952:VAL:HG12	2:B:953:LEU:N	2.20	0.57
3:C:239:PRO:HB2	3:C:241:ASP:OD1	2.05	0.57
1:A:195:ASP:O	1:A:196:GLU:HB3	2.02	0.57
2:B:1196:ILE:HB	2:B:1197:PRO:HD2	1.86	0.57
1:A:11:LEU:HB2	2:B:1193:GLN:OE1	2.04	0.57
1:A:321:PRO:O	1:A:322:VAL:CB	2.53	0.57
2:B:615:MET:C	2:B:616:ILE:HD12	2.25	0.57
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.86	0.57
1:A:1029:ARG:HG3	1:A:1029:ARG:HH11	1.70	0.57
7:G:7:LEU:O	7:G:73:LYS:HD2	2.05	0.57
3:C:36:VAL:HG21	3:C:251:LEU:HD22	1.86	0.57
1:A:658:LEU:HD13	2:B:831:SER:HA	1.86	0.57
2:B:850:LEU:HD12	2:B:851:PHE:N	2.19	0.57
1:A:1349:TYR:CE1	1:A:1368:MET:HE3	2.40	0.57
8:H:99:GLY:N	8:H:118:PHE:CD2	2.72	0.57
7:G:99:PHE:HZ	7:G:163:ILE:HD13	1.70	0.57
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.73	0.57
10:J:1:MET:N	10:J:56:LEU:N	2.53	0.57
1:A:244:PRO:CB	1:A:245:PRO:HD3	2.34	0.57
1:A:863:VAL:HG11	1:A:866:PHE:CD2	2.39	0.57
5:E:78:LEU:C	5:E:78:LEU:HD23	2.24	0.57
2:B:1001:PHE:CE2	3:C:34:ARG:NE	2.73	0.57
1:A:2:VAL:HG21	2:B:1157:ALA:C	2.25	0.57
1:A:875:ALA:HA	1:A:878:ILE:HD12	1.87	0.57
8:H:83:GLN:C	8:H:85:GLY:H	2.08	0.57
1:A:490:HIS:HB3	2:B:1150:ARG:NH1	2.20	0.57
1:A:1198:ASP:O	1:A:1202:MET:HG2	2.05	0.57
7:G:3:PHE:CE1	7:G:80:LYS:HE2	2.40	0.57
2:B:980:PHE:CD2	2:B:1094:ARG:HA	2.40	0.57
2:B:579:ARG:HG2	2:B:579:ARG:HH11	1.70	0.57
1:A:836:TYR:CD2	1:A:840:ARG:HD2	2.40	0.57
1:A:231:PRO:HA	1:A:234:MET:HE2	1.86	0.57
1:A:1396:ALA:O	1:A:1398:MET:N	2.38	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:949:VAL:HG12	2:B:950:ASP:H	1.70	0.57
11:K:61:TYR:C	11:K:61:TYR:CD2	2.78	0.57
7:G:1:MET:HG3	7:G:85:GLU:OE2	2.05	0.56
3:C:31:ASN:O	3:C:32:SER:C	2.42	0.56
2:B:899:ILE:HD11	2:B:910:VAL:O	2.04	0.56
2:B:911:ILE:HD11	2:B:941:LEU:HD13	1.86	0.56
2:B:309:GLN:HG3	9:I:52:ILE:HD11	1.87	0.56
1:A:897:TYR:CD2	1:A:936:LEU:HD13	2.40	0.56
1:A:1364:ASN:HD22	1:A:1365:TYR:N	2.02	0.56
4:D:59:ILE:HG21	4:D:145:MET:SD	2.45	0.56
2:B:1099:VAL:C	2:B:1101:ASP:H	2.07	0.56
2:B:955:THR:CG2	2:B:956:THR:N	2.67	0.56
1:A:844:ALA:O	1:A:845:LEU:HD23	2.05	0.56
1:A:21:LEU:HG	1:A:1413:GLY:O	2.05	0.56
1:A:541:ILE:HD13	1:A:549:MET:HE1	1.88	0.56
4:D:52:LEU:HD21	4:D:147:TYR:HE2	1.70	0.56
1:A:998:LEU:H	1:A:998:LEU:HD12	1.69	0.56
1:A:958:VAL:O	1:A:958:VAL:HG12	2.05	0.56
1:A:663:SER:OG	1:A:664:THR:N	2.36	0.56
10:J:3:VAL:HA	10:J:53:HIS:CE1	2.39	0.56
7:G:35:GLU:OE2	7:G:48:VAL:HG23	2.05	0.56
6:F:130:ILE:O	6:F:148:VAL:HG21	2.06	0.56
6:F:109:VAL:HG11	6:F:123:LYS:HG2	1.85	0.56
2:B:114:PRO:O	2:B:116:GLU:N	2.38	0.56
1:A:252:PHE:O	1:A:256:GLN:NE2	2.39	0.56
5:E:180:ARG:HH21	5:E:192:ARG:CB	2.15	0.56
2:B:376:PHE:CE2	2:B:569:TYR:HD2	2.23	0.56
3:C:252:GLN:HG3	11:K:95:ILE:HG23	1.87	0.56
2:B:1001:PHE:HE2	3:C:34:ARG:CZ	2.17	0.56
10:J:14:VAL:HG12	10:J:50:ILE:HD11	1.87	0.56
1:A:886:ILE:HD11	1:A:943:LEU:CB	2.35	0.56
2:B:1034:VAL:CG1	2:B:1035:ALA:N	2.67	0.56
1:A:311:GLN:HB3	1:A:312:PRO:CD	2.33	0.56
2:B:54:PHE:HA	2:B:58:THR:HB	1.86	0.56
2:B:224:GLN:O	2:B:238:ALA:HA	2.05	0.56
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.06	0.56
1:A:1283:VAL:HG12	1:A:1284:MET:N	2.21	0.56
8:H:116:TYR:HB2	8:H:123:MET:HB3	1.86	0.56
1:A:1063:MET:CG	1:A:1436:ILE:HG23	2.34	0.56
1:A:265:LYS:HE2	1:A:322:VAL:CG1	2.35	0.56
4:D:68:ARG:C	4:D:70:PHE:H	2.09	0.56
3:C:146:LYS:C	3:C:147:LEU:HD23	2.26	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:98:TYR:C	8:H:118:PHE:HD2	2.08	0.56
1:A:714:PHE:O	1:A:718:VAL:HG23	2.05	0.56
1:A:907:THR:HG22	1:A:908:LEU:N	2.20	0.56
1:A:1409:LEU:HD13	2:B:1207:LEU:CD2	2.36	0.56
11:K:21:ILE:HG23	11:K:31:VAL:CG1	2.36	0.56
1:A:382:PRO:HD3	1:A:428:TYR:CD2	2.40	0.56
1:A:427:GLN:HB2	1:A:430:TRP:CD1	2.41	0.56
1:A:185:TRP:HZ3	1:A:200:ARG:HG2	1.71	0.56
3:C:60:ASP:OD2	12:L:60:ARG:NH2	2.39	0.56
2:B:984:HIS:CG	2:B:1025:HIS:HB2	2.41	0.56
8:H:40:LEU:CD1	8:H:123:MET:HB2	2.34	0.56
1:A:547:LEU:HD22	11:K:58:PHE:CE1	2.41	0.56
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.88	0.56
2:B:351:TYR:O	2:B:355:ILE:HG13	2.05	0.56
1:A:1035:TYR:O	1:A:1037:LEU:N	2.37	0.56
2:B:190:TYR:CE2	10:J:62:ARG:HB3	2.40	0.56
7:G:111:THR:HB	7:G:114:LEU:HB2	1.88	0.56
1:A:940:ARG:HG2	1:A:940:ARG:HH11	1.71	0.56
3:C:5:GLY:O	3:C:7:GLN:HG3	2.06	0.56
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.40	0.56
1:A:963:ILE:HD13	1:A:1049:ILE:HG12	1.87	0.56
5:E:94:LYS:CE	5:E:98:ILE:HD11	2.31	0.56
6:F:90:ARG:HD3	6:F:155:LEU:HD11	1.88	0.56
2:B:1162:ILE:HD11	2:B:1194:ILE:HD13	1.87	0.56
2:B:465:ASN:HD22	2:B:465:ASN:H	1.53	0.56
11:K:90:ALA:O	11:K:94:ILE:HG13	2.04	0.56
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.88	0.56
2:B:295:GLY:H	2:B:298:LEU:HD23	1.70	0.56
4:D:192:LYS:HZ3	4:D:199:ASN:HA	1.71	0.56
1:A:416:ARG:C	1:A:417:TYR:HD2	2.09	0.56
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.40	0.56
11:K:82:ASP:OD1	11:K:84:LYS:N	2.38	0.56
6:F:75:PRO:O	6:F:77:ASP:O	2.23	0.56
5:E:93:MET:SD	5:E:97:VAL:HG23	2.46	0.56
1:A:586:ILE:HG22	1:A:587:HIS:N	2.21	0.56
10:J:53:HIS:CD2	10:J:54:VAL:N	2.74	0.56
7:G:1:MET:O	7:G:1:MET:SD	2.64	0.56
1:A:356:ASP:OD2	11:K:65:HIS:HE1	1.88	0.56
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.66	0.56
1:A:492:PRO:O	1:A:493:GLN:NE2	2.38	0.56
1:A:774:ARG:O	1:A:775:ILE:C	2.43	0.56
2:B:526:GLU:OE2	2:B:752:ALA:HB2	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:I:25:LEU:HB3	9:I:38:ALA:HB2	1.88	0.56
1:A:1074:GLU:HB3	1:A:1075:PRO:HD3	1.87	0.56
2:B:833:TYR:N	2:B:833:TYR:CD1	2.73	0.56
12:L:47:ARG:HG3	12:L:47:ARG:HH11	1.70	0.56
1:A:1127:ASP:HB3	1:A:1130:GLN:CB	2.35	0.56
2:B:604:ARG:NH2	2:B:614:SER:HA	2.20	0.56
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.88	0.56
1:A:722:LEU:HD22	1:A:799:PHE:CD1	2.41	0.56
4:D:156:ASP:C	4:D:158:GLU:N	2.60	0.56
4:D:192:LYS:HZ3	4:D:192:LYS:HB3	1.70	0.56
2:B:745:PRO:C	2:B:747:MET:H	2.09	0.55
2:B:114:PRO:HG2	2:B:115:GLN:H	1.71	0.55
1:A:265:LYS:HD2	1:A:265:LYS:N	2.20	0.55
2:B:893:LEU:HD11	2:B:910:VAL:HG11	1.88	0.55
5:E:35:VAL:C	5:E:37:LEU:H	2.10	0.55
1:A:798:GLY:HA2	1:A:815:PHE:HD1	1.68	0.55
1:A:1279:ILE:HD11	1:A:1316:VAL:HG21	1.88	0.55
2:B:603:LEU:HB3	2:B:609:ILE:CD1	2.37	0.55
1:A:899:VAL:HB	1:A:929:LEU:HD12	1.87	0.55
1:A:1336:MET:HE3	1:A:1381:LEU:HG	1.88	0.55
1:A:1010:ALA:HA	1:A:1013:ASP:OD2	2.06	0.55
2:B:376:PHE:HB3	2:B:586:TRP:CZ3	2.42	0.55
2:B:53:GLN:HG2	2:B:547:VAL:CG2	2.36	0.55
1:A:98:LYS:O	1:A:99:ILE:C	2.45	0.55
7:G:145:VAL:HG12	7:G:146:LYS:N	2.21	0.55
2:B:258:LEU:O	2:B:258:LEU:HG	2.05	0.55
1:A:567:LYS:HE3	8:H:46:LEU:HD12	1.89	0.55
5:E:23:VAL:O	5:E:28:TYR:HB2	2.07	0.55
1:A:504:LEU:HD12	1:A:504:LEU:N	2.21	0.55
5:E:29:PHE:C	5:E:30:ILE:HG13	2.26	0.55
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.41	0.55
1:A:265:LYS:HD2	1:A:265:LYS:H	1.72	0.55
5:E:3:GLN:HG3	5:E:4:GLU:N	2.20	0.55
3:C:174:ALA:O	3:C:175:ALA:HB2	2.05	0.55
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.36	0.55
12:L:36:SER:O	12:L:37:LYS:C	2.44	0.55
1:A:1197:LEU:HD12	1:A:1209:MET:HE1	1.87	0.55
9:I:68:LEU:HB3	9:I:84:VAL:HG23	1.87	0.55
1:A:1214:GLU:O	1:A:1218:GLN:HG2	2.05	0.55
1:A:350:ARG:HB2	1:A:488:ASN:OD1	2.07	0.55
2:B:129:PHE:HA	2:B:165:VAL:O	2.06	0.55
1:A:857:ARG:HD3	1:A:861:GLY:O	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.21	0.55
1:A:90:VAL:HG12	1:A:91:PHE:N	2.22	0.55
2:B:324:ILE:HD13	2:B:330:ALA:HA	1.88	0.55
1:A:548:ASN:HA	11:K:60:ALA:HB1	1.89	0.55
9:I:74:GLU:HA	9:I:80:SER:O	2.06	0.55
1:A:1242:VAL:O	1:A:1243:VAL:HB	2.07	0.55
7:G:17:PHE:C	7:G:19:GLY:H	2.10	0.55
3:C:31:ASN:OD1	3:C:34:ARG:NH1	2.40	0.55
2:B:1159:ARG:HD3	2:B:1193:GLN:CG	2.37	0.55
1:A:666:ILE:N	1:A:666:ILE:HD12	2.21	0.55
2:B:1034:VAL:C	2:B:1036:ALA:H	2.09	0.55
11:K:50:LEU:HD11	11:K:75:ILE:CD1	2.37	0.55
6:F:111:LEU:C	6:F:113:GLY:N	2.56	0.55
1:A:730:GLY:O	1:A:732:LEU:N	2.40	0.55
2:B:557:PHE:HD2	2:B:557:PHE:C	2.09	0.55
3:C:258:ILE:N	3:C:258:ILE:HD12	2.22	0.55
6:F:77:ASP:C	6:F:79:ARG:H	2.10	0.55
2:B:843:GLN:O	2:B:846:ILE:HB	2.07	0.55
2:B:882:THR:HB	2:B:934:LYS:O	2.06	0.55
1:A:71:GLN:C	1:A:73:GLY:H	2.09	0.55
4:D:51:ASN:O	4:D:52:LEU:O	2.25	0.55
2:B:696:GLU:O	2:B:699:GLU:HB2	2.07	0.55
1:A:458:HIS:CE1	1:A:507:VAL:HG21	2.41	0.55
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.31	0.55
3:C:76:ASP:O	3:C:79:GLN:HG2	2.06	0.55
1:A:56:PRO:O	1:A:57:ARG:CG	2.51	0.55
7:G:27:LYS:O	7:G:30:LEU:HB3	2.07	0.55
2:B:97:VAL:HG12	2:B:178:ASN:ND2	2.22	0.55
1:A:658:LEU:HD23	1:A:659:HIS:HE1	1.72	0.55
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.71	0.55
1:A:567:LYS:HD3	8:H:95:TYR:CG	2.42	0.55
2:B:1082:MET:O	3:C:189:THR:HG23	2.07	0.55
1:A:1342:GLU:CG	5:E:198:ILE:HD13	2.37	0.55
1:A:896:ARG:NH2	1:A:1030:ARG:NH2	2.55	0.55
2:B:205:ILE:CD1	2:B:205:ILE:N	2.68	0.55
7:G:51:TYR:O	7:G:54:ILE:HG13	2.06	0.55
3:C:3:GLU:HG2	3:C:4:GLU:N	2.22	0.55
7:G:125:SER:OG	7:G:128:PRO:HA	2.07	0.55
2:B:579:ARG:N	2:B:589:VAL:HG13	2.22	0.55
2:B:35:SER:O	2:B:39:ARG:HG3	2.05	0.55
2:B:39:ARG:HG2	2:B:39:ARG:HH11	1.72	0.55
3:C:235:VAL:HG13	10:J:13:VAL:HG23	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1435:PRO:HA	1:A:1439:GLY:O	2.06	0.55
1:A:92:HIS:HB3	1:A:95:PHE:HB2	1.89	0.55
1:A:114:LEU:O	1:A:115:LEU:HG	2.07	0.55
1:A:49:LYS:NZ	1:A:61:ILE:HG13	2.22	0.55
1:A:1032:LEU:O	1:A:1036:ARG:HD3	2.07	0.55
10:J:43:ARG:HG3	10:J:45:CYS:SG	2.47	0.54
2:B:710:LEU:O	2:B:711:GLU:HG2	2.06	0.54
1:A:269:ILE:HG12	1:A:299:HIS:HB3	1.88	0.54
2:B:95:ILE:CG1	2:B:130:VAL:HG22	2.37	0.54
1:A:166:GLY:O	1:A:167:CYS:SG	2.64	0.54
1:A:816:HIS:HE2	2:B:764:SER:H	1.55	0.54
3:C:18:VAL:CG2	3:C:240:VAL:HB	2.37	0.54
2:B:582:VAL:HG23	2:B:626:ILE:HB	1.89	0.54
2:B:654:ARG:H	2:B:657:HIS:CD2	2.23	0.54
3:C:263:THR:C	3:C:265:MET:N	2.61	0.54
2:B:195:CYS:SG	2:B:197:PHE:HB2	2.47	0.54
1:A:3:GLY:O	1:A:4:GLN:HB2	2.06	0.54
3:C:226:ASP:O	3:C:227:THR:HB	2.07	0.54
6:F:73:ALA:HA	6:F:143:PHE:CE1	2.43	0.54
6:F:90:ARG:HD3	6:F:155:LEU:HD12	1.88	0.54
1:A:939:ASP:O	1:A:943:LEU:HG	2.07	0.54
3:C:98:VAL:O	3:C:99:LEU:HD23	2.08	0.54
5:E:157:SER:C	5:E:159:ASP:N	2.60	0.54
1:A:1299:VAL:HG12	1:A:1300:LYS:H	1.72	0.54
2:B:223:VAL:HG11	2:B:381:MET:HG2	1.88	0.54
8:H:95:TYR:HB3	8:H:144:ILE:HB	1.89	0.54
2:B:746:SER:HB2	2:B:1046:PRO:HG2	1.89	0.54
1:A:1115:SER:C	1:A:1308:THR:HG22	2.28	0.54
1:A:845:LEU:HB3	1:A:848:ILE:HD12	1.88	0.54
2:B:38:PHE:HD1	2:B:811:TYR:CD2	2.24	0.54
1:A:265:LYS:CE	1:A:322:VAL:HG13	2.37	0.54
1:A:546:VAL:O	1:A:550:LEU:HG	2.08	0.54
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.08	0.54
1:A:299:HIS:C	1:A:301:ALA:H	2.11	0.54
2:B:516:ASN:ND2	2:B:516:ASN:N	2.51	0.54
2:B:1115:THR:CG2	2:B:1117:GLN:HG3	2.36	0.54
1:A:1373:ASP:HA	1:A:1376:THR:HG22	1.89	0.54
11:K:12:LEU:N	11:K:12:LEU:HD12	2.22	0.54
2:B:971:THR:OG1	3:C:61:GLU:HG3	2.07	0.54
1:A:381:THR:HG23	1:A:383:TYR:H	1.73	0.54
8:H:100:THR:HG22	8:H:101:ALA:N	2.21	0.54
8:H:89:LEU:HB3	8:H:91:ASP:OD1	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:814:PHE:O	1:A:817:ALA:HB3	2.08	0.54
2:B:980:PHE:HE1	2:B:990:ILE:HD11	1.73	0.54
2:B:483:LEU:HD11	2:B:491:THR:CG2	2.34	0.54
2:B:872:GLU:HA	2:B:915:THR:O	2.08	0.54
5:E:207:ARG:HH11	5:E:207:ARG:HB3	1.73	0.54
1:A:108:MET:SD	1:A:108:MET:N	2.79	0.54
8:H:139:ASN:O	8:H:140:ALA:HB2	2.08	0.54
10:J:44:TYR:HA	10:J:47:ARG:CB	2.37	0.54
2:B:847:ASP:C	2:B:849:GLY:N	2.61	0.54
1:A:847:ASP:OD1	1:A:848:ILE:HG13	2.07	0.54
1:A:534:LEU:HG	1:A:534:LEU:O	2.07	0.54
9:I:50:THR:CG2	9:I:52:ILE:HG12	2.38	0.54
1:A:244:PRO:O	1:A:247:ARG:N	2.41	0.54
1:A:353:ILE:HD13	1:A:487:MET:HE2	1.90	0.54
5:E:78:LEU:HD21	5:E:80:VAL:HG23	1.89	0.54
1:A:71:GLN:O	1:A:73:GLY:N	2.38	0.54
2:B:234:ILE:N	2:B:234:ILE:HD12	2.23	0.54
1:A:666:ILE:H	2:B:1026:LEU:HD22	1.72	0.54
2:B:315:LYS:N	2:B:316:PRO:HD2	2.23	0.54
1:A:567:LYS:HB3	8:H:95:TYR:CA	2.37	0.54
11:K:47:ARG:O	11:K:47:ARG:HD2	2.08	0.54
4:D:56:ARG:HD2	4:D:149:THR:OG1	2.08	0.54
3:C:181:ASP:OD2	3:C:185:LYS:N	2.41	0.54
1:A:545:GLN:O	1:A:546:VAL:C	2.46	0.54
2:B:833:TYR:N	2:B:833:TYR:HD1	2.06	0.54
1:A:1149:ALA:HB2	9:I:47:GLU:HA	1.90	0.54
5:E:55:ARG:HD2	5:E:83:CYS:O	2.08	0.54
2:B:640:VAL:O	2:B:641:GLU:C	2.46	0.54
2:B:57:TYR:CD1	2:B:57:TYR:N	2.74	0.54
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.08	0.54
6:F:96:THR:O	6:F:100:GLN:HG3	2.07	0.54
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.08	0.54
1:A:817:ALA:O	1:A:819:GLY:N	2.41	0.54
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.33	0.54
1:A:1377:THR:O	1:A:1379:GLY:N	2.41	0.54
2:B:125:SER:HA	2:B:171:PRO:HA	1.89	0.54
2:B:1180:PHE:HB3	2:B:1191:ILE:CD1	2.38	0.54
5:E:46:TYR:CE2	5:E:58:MET:HA	2.43	0.54
3:C:8:VAL:HG12	3:C:9:LYS:N	2.23	0.54
9:I:82:GLU:HB3	9:I:104:LEU:HD12	1.90	0.54
2:B:806:THR:HA	2:B:1045:SER:OG	2.07	0.53
10:J:44:TYR:N	10:J:44:TYR:CD2	2.76	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:694:THR:O	1:A:698:GLN:HG3	2.08	0.53
2:B:1074:ASN:HB2	2:B:1081:LEU:HD21	1.90	0.53
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.90	0.53
2:B:39:ARG:HG2	2:B:39:ARG:NH1	2.23	0.53
2:B:803:LEU:CD1	2:B:1032:SER:HB3	2.38	0.53
2:B:1068:GLY:O	2:B:1069:PHE:O	2.27	0.53
4:D:202:ILE:CG2	4:D:207:LEU:HB2	2.38	0.53
4:D:24:ALA:HA	7:G:83:LYS:O	2.08	0.53
9:I:32:CYS:SG	9:I:33:SER:N	2.81	0.53
6:F:118:LEU:O	6:F:118:LEU:HD12	2.07	0.53
1:A:1279:ILE:HD11	1:A:1316:VAL:CG2	2.37	0.53
11:K:65:HIS:HD2	11:K:67:PHE:N	1.98	0.53
5:E:22:MET:HE1	5:E:26:ARG:HH21	1.74	0.53
3:C:18:VAL:HG23	3:C:240:VAL:HB	1.90	0.53
7:G:56:ILE:O	7:G:57:GLN:HB2	2.06	0.53
1:A:1372:VAL:O	1:A:1376:THR:HG22	2.08	0.53
1:A:262:LEU:C	1:A:264:PHE:H	2.11	0.53
1:A:567:LYS:CB	1:A:568:PRO:CD	2.85	0.53
3:C:39:ALA:CA	3:C:164:ALA:HB3	2.28	0.53
1:A:47:ARG:O	1:A:48:ALA:HB2	2.08	0.53
9:I:13:MET:O	9:I:14:LEU:HD23	2.08	0.53
2:B:763:GLN:HG2	2:B:765:PRO:CD	2.35	0.53
2:B:865:LYS:NZ	2:B:869:SER:HA	2.22	0.53
1:A:475:THR:CG2	1:A:476:SER:H	2.19	0.53
1:A:417:TYR:CD2	1:A:417:TYR:N	2.75	0.53
9:I:61:ASP:C	9:I:63:GLY:H	2.12	0.53
5:E:9:ILE:HD11	5:E:53:PRO:HD3	1.91	0.53
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.39	0.53
4:D:29:LEU:HD22	7:G:82:PHE:CD2	2.44	0.53
10:J:44:TYR:HD2	10:J:44:TYR:H	1.55	0.53
1:A:528:LEU:HD23	1:A:751:SER:HA	1.91	0.53
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.43	0.53
1:A:366:VAL:CG2	1:A:460:VAL:HG22	2.39	0.53
2:B:235:SER:OG	2:B:236:HIS:CD2	2.61	0.53
10:J:3:VAL:HA	10:J:53:HIS:ND1	2.24	0.53
5:E:192:ARG:NH1	5:E:192:ARG:HG3	2.21	0.53
3:C:27:LEU:O	3:C:28:ALA:C	2.47	0.53
1:A:858:ASN:ND2	1:A:858:ASN:C	2.59	0.53
2:B:213:ILE:HD12	2:B:497:ARG:HB3	1.90	0.53
2:B:181:LEU:HD22	2:B:189:LEU:HD22	1.91	0.53
2:B:841:MET:SD	2:B:846:ILE:HD11	2.49	0.53
11:K:47:ARG:HD3	11:K:59:ALA:O	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:356:ASP:O	1:A:358:ASN:N	2.42	0.53
2:B:999:MET:HE2	2:B:1000:PRO:CD	2.38	0.53
1:A:503:GLN:C	1:A:504:LEU:HD12	2.29	0.53
5:E:90:VAL:HG22	5:E:90:VAL:O	2.08	0.53
1:A:306:ASN:HD21	1:A:322:VAL:HB	1.74	0.53
4:D:63:LEU:HD13	4:D:133:THR:OG1	2.08	0.53
4:D:130:LEU:C	4:D:132:GLN:N	2.54	0.53
1:A:464:PRO:HG2	1:A:465:TYR:HD1	1.73	0.53
4:D:53:SER:HB3	4:D:152:SER:CA	2.38	0.53
5:E:116:ILE:HG22	5:E:117:THR:N	2.23	0.53
2:B:1050:ILE:HG22	2:B:1051:THR:N	2.24	0.53
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.44	0.53
1:A:567:LYS:HZ1	8:H:46:LEU:HB2	1.69	0.53
1:A:43:GLU:O	1:A:44:THR:HB	2.09	0.53
2:B:880:THR:HB	2:B:934:LYS:HD2	1.90	0.53
1:A:90:VAL:CG1	1:A:297:GLN:HA	2.39	0.53
7:G:62:LEU:HB3	7:G:63:PRO:CD	2.39	0.53
1:A:590:ARG:HB2	1:A:605:MET:HB3	1.90	0.53
8:H:4:THR:CA	8:H:60:ALA:HB2	2.34	0.53
3:C:166:GLU:O	3:C:167:HIS:HB2	2.08	0.53
1:A:81:PHE:CZ	2:B:1208:MET:HE2	2.44	0.53
1:A:1438:THR:HB	2:B:1144:ALA:CB	2.37	0.53
4:D:191:ALA:C	4:D:193:THR:H	2.12	0.53
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.24	0.53
2:B:281:PRO:O	2:B:283:VAL:N	2.41	0.53
1:A:1336:MET:CE	1:A:1381:LEU:HG	2.38	0.53
1:A:673:GLY:O	1:A:676:MET:HB2	2.09	0.53
2:B:493:SER:HA	2:B:751:VAL:HG21	1.89	0.53
1:A:618:GLU:O	1:A:620:LYS:N	2.41	0.53
8:H:113:ALA:HB1	8:H:125:LEU:O	2.09	0.53
1:A:867:ILE:HD12	5:E:208:TYR:CE1	2.41	0.53
10:J:44:TYR:HD2	10:J:44:TYR:N	2.07	0.53
2:B:785:TYR:CD1	2:B:785:TYR:C	2.82	0.53
1:A:1094:VAL:HG12	1:A:1095:THR:N	2.24	0.53
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.91	0.53
2:B:555:ILE:HD11	2:B:587:HIS:CE1	2.44	0.53
1:A:548:ASN:OD1	11:K:60:ALA:HB1	2.09	0.53
1:A:577:ILE:HA	1:A:580:VAL:HG23	1.91	0.53
1:A:877:HIS:C	1:A:878:ILE:HG13	2.29	0.53
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.74	0.53
1:A:1164:PRO:O	1:A:1166:ASP:N	2.43	0.52
1:A:818:MET:N	2:B:514:LEU:HD23	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:55:ASP:N	1:A:56:PRO:HD3	2.24	0.52
3:C:147:LEU:HD12	3:C:151:GLN:O	2.09	0.52
2:B:1107:ALA:O	2:B:1108:ARG:HG2	2.09	0.52
1:A:1322:ILE:O	1:A:1324:PRO:HD3	2.10	0.52
1:A:34:LYS:HB3	1:A:36:ARG:HE	1.73	0.52
2:B:777:ALA:HA	2:B:1095:LEU:HA	1.90	0.52
10:J:27:GLU:C	10:J:29:GLU:H	2.13	0.52
1:A:567:LYS:HB3	8:H:96:VAL:N	2.23	0.52
7:G:1:MET:SD	7:G:79:PHE:CE1	3.02	0.52
2:B:843:GLN:HB2	2:B:993:THR:HB	1.91	0.52
9:I:8:ARG:HG2	9:I:34:TYR:HE1	1.73	0.52
1:A:399:HIS:HB3	1:A:400:PRO:CD	2.30	0.52
1:A:1323:ASP:C	1:A:1325:THR:H	2.12	0.52
3:C:73:GLN:NE2	3:C:74:SER:H	2.07	0.52
1:A:311:GLN:O	1:A:312:PRO:C	2.47	0.52
1:A:1030:ARG:HG3	1:A:1034:GLU:OE2	2.09	0.52
2:B:496:ARG:HB3	2:B:496:ARG:HH11	1.73	0.52
2:B:810:GLU:HB2	2:B:815:ARG:HH22	1.74	0.52
1:A:207:ILE:O	1:A:208:LEU:C	2.48	0.52
1:A:364:VAL:O	1:A:364:VAL:HG13	2.08	0.52
1:A:598:LEU:O	1:A:599:SER:C	2.47	0.52
8:H:41:ASP:OD2	8:H:122:LEU:N	2.41	0.52
11:K:7:PHE:HA	11:K:10:PHE:CE2	2.45	0.52
1:A:1004:ASN:OD1	1:A:1005:GLU:N	2.42	0.52
1:A:1007:ILE:C	1:A:1009:ASN:N	2.62	0.52
2:B:526:GLU:HG2	2:B:538:ASN:HD22	1.74	0.52
4:D:33:PHE:CZ	7:G:80:LYS:CE	2.92	0.52
1:A:901:LEU:HD22	1:A:919:ILE:HG22	1.91	0.52
1:A:874:ASP:N	1:A:1058:VAL:HG22	2.24	0.52
2:B:1208:MET:O	2:B:1211:ASN:N	2.40	0.52
1:A:1120:LEU:HD13	1:A:1304:TRP:O	2.09	0.52
1:A:578:LEU:HD23	1:A:612:ILE:CD1	2.39	0.52
2:B:370:PHE:HE2	2:B:373:ARG:NH1	2.08	0.52
1:A:1365:TYR:O	1:A:1367:HIS:N	2.42	0.52
2:B:240:ILE:O	2:B:240:ILE:HG23	2.09	0.52
2:B:798:TYR:CE2	3:C:62:PHE:CE2	2.97	0.52
2:B:35:SER:HA	2:B:811:TYR:CE2	2.35	0.52
1:A:306:ASN:ND2	1:A:322:VAL:HB	2.24	0.52
2:B:615:MET:CB	2:B:626:ILE:HG12	2.39	0.52
1:A:18:GLN:CB	2:B:1215:ARG:HB2	2.40	0.52
5:E:168:TYR:HB2	5:E:170:LEU:HG	1.90	0.52
8:H:31:THR:O	8:H:31:THR:HG22	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:127:GLY:O	8:H:128:ASN:HB2	2.10	0.52
4:D:47:LEU:HD11	7:G:3:PHE:CD2	2.45	0.52
7:G:80:LYS:HG2	7:G:80:LYS:O	2.09	0.52
6:F:109:VAL:HG13	6:F:127:GLU:OE1	2.09	0.52
1:A:401:GLY:C	1:A:435:HIS:CD2	2.82	0.52
2:B:862:GLN:HG2	2:B:963:PHE:CD1	2.44	0.52
2:B:616:ILE:HG13	2:B:697:GLU:HA	1.92	0.52
1:A:1007:ILE:O	1:A:1009:ASN:N	2.41	0.52
1:A:346:ASP:HB3	2:B:1108:ARG:H	1.75	0.52
2:B:57:TYR:HD1	2:B:57:TYR:N	2.08	0.52
5:E:161:LYS:HD2	5:E:195:VAL:HG23	1.92	0.52
7:G:79:PHE:CZ	7:G:106:MET:HE2	2.44	0.52
6:F:101:ILE:HD11	6:F:124:GLU:OE1	2.09	0.52
1:A:757:ASN:HA	2:B:1021:MET:SD	2.50	0.52
1:A:42:ASP:HB3	1:A:45:GLN:H	1.73	0.52
11:K:31:VAL:CG1	11:K:32:VAL:N	2.72	0.52
7:G:111:THR:HG22	7:G:113:HIS:H	1.74	0.52
1:A:1289:ARG:HD2	1:A:1303:GLU:OE2	2.10	0.52
1:A:1305:VAL:HG12	1:A:1306:LEU:N	2.25	0.52
4:D:167:LEU:O	4:D:170:THR:OG1	2.23	0.52
1:A:382:PRO:HD3	1:A:428:TYR:CE2	2.45	0.52
2:B:1107:ALA:O	2:B:1108:ARG:O	2.28	0.52
2:B:948:ILE:HG22	2:B:949:VAL:O	2.09	0.52
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.10	0.52
11:K:85:ASP:O	11:K:88:LYS:HB2	2.10	0.52
1:A:78:PRO:HA	2:B:1201:LYS:HZ1	1.74	0.52
8:H:59:ILE:O	8:H:60:ALA:HB3	2.10	0.52
1:A:871:ASP:HB3	5:E:204:THR:HG23	1.91	0.52
1:A:901:LEU:H	1:A:926:GLN:HE21	1.56	0.52
1:A:901:LEU:HD22	1:A:919:ILE:HG21	1.92	0.52
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.91	0.52
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.92	0.52
1:A:1141:THR:OG1	1:A:1205:LYS:HD3	2.10	0.52
5:E:14:ARG:HH21	5:E:141:VAL:HG12	1.73	0.52
1:A:628:GLY:O	1:A:632:VAL:HG23	2.10	0.52
1:A:853:ASP:OD1	1:A:855:THR:N	2.43	0.52
10:J:45:CYS:O	10:J:48:ARG:HG3	2.10	0.52
2:B:1102:LYS:O	2:B:1103:ILE:C	2.47	0.52
2:B:377:PHE:C	2:B:379:GLY:N	2.62	0.52
1:A:1325:THR:O	5:E:148:GLU:HB2	2.10	0.52
1:A:64:ASN:O	1:A:65:LEU:C	2.48	0.52
1:A:18:GLN:HB3	2:B:1215:ARG:HG3	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:460:ALA:HB1	2:B:466:TRP:CE3	2.45	0.52
10:J:53:HIS:HD2	10:J:54:VAL:N	2.08	0.51
10:J:1:MET:HE2	10:J:60:PHE:CE2	2.45	0.51
9:I:100:PHE:N	9:I:100:PHE:CD1	2.78	0.51
6:F:81:THR:HB	6:F:136:ARG:HH11	1.75	0.51
2:B:1132:GLU:O	2:B:1135:ARG:HB3	2.09	0.51
3:C:263:THR:O	3:C:265:MET:N	2.43	0.51
1:A:996:ASN:O	1:A:998:LEU:HD12	2.10	0.51
2:B:984:HIS:CD2	2:B:1025:HIS:HB2	2.45	0.51
4:D:210:ILE:O	4:D:214:LEU:HG	2.10	0.51
11:K:69:ALA:O	11:K:70:ARG:HB3	2.11	0.51
1:A:482:PHE:C	1:A:484:GLY:H	2.13	0.51
1:A:58:LEU:HD22	1:A:80:HIS:O	2.11	0.51
6:F:81:THR:HG21	6:F:136:ARG:CD	2.33	0.51
3:C:215:GLU:O	3:C:217:ASP:N	2.43	0.51
7:G:26:LEU:O	7:G:27:LYS:C	2.48	0.51
9:I:102:VAL:CG1	9:I:103:CYS:H	2.24	0.51
1:A:630:ILE:HD13	1:A:646:PHE:CZ	2.45	0.51
1:A:365:GLY:O	1:A:468:PHE:HA	2.11	0.51
3:C:54:ASN:HB2	3:C:153:LEU:HD12	1.93	0.51
9:I:69:PRO:HG2	9:I:85:PHE:CD2	2.46	0.51
2:B:1007:VAL:HG22	2:B:1008:PRO:CD	2.38	0.51
1:A:1342:GLU:OE2	5:E:212:ARG:NH1	2.43	0.51
2:B:1183:LYS:CE	2:B:1183:LYS:N	2.71	0.51
2:B:637:LEU:O	2:B:690:VAL:HG13	2.10	0.51
1:A:483:ASP:O	2:B:979:LYS:HE3	2.11	0.51
1:A:18:GLN:O	2:B:1215:ARG:HG2	2.09	0.51
3:C:239:PRO:O	3:C:241:ASP:N	2.43	0.51
2:B:108:VAL:HG12	2:B:109:THR:H	1.74	0.51
1:A:89:PRO:HB2	1:A:204:THR:HG22	1.92	0.51
6:F:130:ILE:O	6:F:148:VAL:CG2	2.58	0.51
3:C:6:PRO:HB3	3:C:25:VAL:HG12	1.92	0.51
12:L:34:CYS:SG	12:L:51:CYS:SG	3.08	0.51
1:A:746:MET:CE	2:B:1018:PRO:HG2	2.40	0.51
9:I:50:THR:HG22	9:I:51:ASN:N	2.26	0.51
2:B:230:ALA:N	2:B:231:PRO:HD2	2.25	0.51
1:A:1161:THR:OG1	1:A:1239:ARG:NH2	2.44	0.51
1:A:901:LEU:CG	1:A:926:GLN:HE21	2.22	0.51
1:A:840:ARG:O	1:A:841:LEU:C	2.47	0.51
1:A:608:ILE:HB	1:A:613:ILE:HD11	1.92	0.51
7:G:117:GLN:O	7:G:119:LEU:N	2.43	0.51
2:B:900:ALA:HB3	12:L:61:THR:OG1	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:1110:PRO:O	2:B:1119:VAL:HG13	2.11	0.51
2:B:877:PRO:C	2:B:878:GLN:HG3	2.31	0.51
2:B:327:ARG:O	2:B:331:LEU:HD13	2.11	0.51
8:H:27:GLU:HA	8:H:38:LEU:O	2.11	0.51
3:C:168:ALA:C	3:C:170:TRP:N	2.64	0.51
1:A:50:ILE:C	1:A:52:GLY:N	2.64	0.51
2:B:879:ARG:HH11	2:B:883:LEU:CD2	2.20	0.51
1:A:817:ALA:O	1:A:818:MET:C	2.48	0.51
1:A:399:HIS:CG	1:A:400:PRO:N	2.78	0.51
2:B:1166:CYS:O	2:B:1166:CYS:SG	2.69	0.51
2:B:953:LEU:HD23	2:B:965:LYS:H	1.76	0.51
1:A:809:THR:H	1:A:812:GLU:HB2	1.76	0.51
2:B:492:LEU:O	2:B:495:LEU:N	2.40	0.51
7:G:150:CYS:C	7:G:151:ILE:HG13	2.31	0.51
3:C:191:TYR:HD2	3:C:201:TRP:CD1	2.28	0.51
9:I:4:PHE:HE1	9:I:6:PHE:HE2	1.58	0.51
2:B:999:MET:HB3	2:B:1007:VAL:HG21	1.92	0.51
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.17	0.51
7:G:17:PHE:CD2	7:G:17:PHE:N	2.78	0.51
1:A:535:THR:CG2	1:A:616:VAL:HA	2.40	0.51
1:A:746:MET:HE3	2:B:1018:PRO:HG2	1.92	0.51
1:A:49:LYS:HZ3	1:A:61:ILE:HG13	1.75	0.51
1:A:1334:ASP:O	1:A:1336:MET:N	2.43	0.51
1:A:418:SER:O	1:A:420:ARG:N	2.43	0.51
1:A:241:VAL:HG13	1:A:266:LEU:HD13	1.91	0.51
5:E:92:THR:O	5:E:95:THR:HB	2.11	0.51
3:C:46:ILE:HG13	3:C:72:LEU:HD11	1.93	0.51
3:C:76:ASP:O	3:C:77:ILE:C	2.48	0.51
2:B:1065:GLN:NE2	2:B:1067:ARG:N	2.53	0.51
1:A:265:LYS:HE2	1:A:322:VAL:HG13	1.93	0.51
4:D:66:ARG:O	4:D:70:PHE:HB2	2.10	0.51
1:A:134:ARG:O	1:A:138:ILE:HG13	2.11	0.51
1:A:632:VAL:O	1:A:633:VAL:C	2.48	0.51
7:G:49:LEU:HG	7:G:76:ALA:HA	1.93	0.51
1:A:263:THR:HG22	1:A:263:THR:O	2.09	0.51
1:A:37:PHE:N	1:A:37:PHE:CD1	2.79	0.51
3:C:142:VAL:N	10:J:16:ASP:HB3	2.14	0.51
1:A:244:PRO:CB	1:A:245:PRO:CD	2.89	0.51
4:D:175:PHE:HZ	7:G:85:GLU:HG3	1.75	0.51
2:B:1087:PHE:HD2	2:B:1088:GLY:H	1.58	0.51
3:C:39:ALA:HA	3:C:164:ALA:CB	2.31	0.51
2:B:1084:GLN:OE1	3:C:189:THR:CG2	2.59	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:22:LEU:HD13	3:C:230:MET:HE1	1.93	0.51
1:A:388:LEU:HD22	1:A:432:VAL:CG2	2.41	0.51
1:A:23:SER:O	1:A:24:PRO:C	2.47	0.51
2:B:594:ALA:HA	2:B:617:ARG:HH12	1.76	0.51
1:A:60:SER:C	1:A:61:ILE:HG13	2.30	0.51
4:D:176:GLU:C	4:D:178:ALA:N	2.63	0.51
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.41	0.51
2:B:780:VAL:HG12	2:B:782:LEU:O	2.10	0.51
7:G:1:MET:O	7:G:3:PHE:CD1	2.64	0.51
1:A:1153:TYR:CE1	9:I:42:LEU:HD13	2.46	0.51
1:A:783:THR:HG21	1:A:815:PHE:CE2	2.46	0.51
2:B:102:VAL:HG22	2:B:112:LEU:HD22	1.93	0.51
3:C:47:ASP:CA	12:L:69:ALA:CB	2.87	0.51
8:H:82:PRO:O	8:H:84:ALA:N	2.35	0.51
12:L:40:LEU:HD22	12:L:44:ASP:CG	2.31	0.51
1:A:1157:ASP:C	1:A:1159:ARG:H	2.14	0.51
1:A:763:ALA:O	1:A:803:SER:HB3	2.11	0.51
5:E:128:PRO:HA	5:E:129:PRO:C	2.32	0.51
2:B:44:VAL:O	2:B:45:SER:C	2.48	0.51
1:A:68:GLN:O	1:A:70:CYS:N	2.43	0.50
1:A:1342:GLU:HG3	5:E:198:ILE:HD13	1.93	0.50
1:A:1063:MET:SD	1:A:1436:ILE:HG12	2.52	0.50
1:A:24:PRO:HD2	1:A:233:TRP:CD1	2.45	0.50
3:C:258:ILE:CD1	3:C:258:ILE:N	2.74	0.50
1:A:1364:ASN:O	1:A:1365:TYR:C	2.50	0.50
3:C:215:GLU:O	3:C:216:GLY:C	2.50	0.50
1:A:76:GLU:CG	1:A:76:GLU:O	2.57	0.50
2:B:364:ILE:HG22	2:B:365:THR:N	2.26	0.50
1:A:14:VAL:CG2	2:B:1216:LEU:HD13	2.40	0.50
6:F:119:ARG:NH1	6:F:119:ARG:HG3	2.26	0.50
2:B:235:SER:C	2:B:236:HIS:HD2	2.14	0.50
5:E:168:TYR:CB	5:E:170:LEU:HG	2.40	0.50
3:C:91:HIS:HD2	3:C:91:HIS:O	1.94	0.50
2:B:1174:LYS:O	2:B:1176:ASN:N	2.44	0.50
2:B:997:GLU:H	2:B:997:GLU:CD	2.13	0.50
7:G:53:ASN:HD22	7:G:53:ASN:N	2.09	0.50
2:B:973:ILE:HG23	2:B:974:PRO:HD2	1.93	0.50
4:D:134:THR:HG22	4:D:135:GLY:N	2.27	0.50
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.46	0.50
2:B:282:ILE:CD1	2:B:382:ILE:HD13	2.37	0.50
1:A:1447:GLU:OE2	7:G:23:LYS:HB2	2.12	0.50
1:A:269:ILE:CG1	1:A:299:HIS:HB3	2.42	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:98:VAL:HG23	3:C:122:SER:HB3	1.93	0.50
1:A:442:VAL:O	1:A:457:ALA:HA	2.12	0.50
2:B:309:GLN:OE1	9:I:52:ILE:HD11	2.11	0.50
1:A:577:ILE:O	1:A:580:VAL:HG23	2.11	0.50
1:A:218:ASP:HA	1:A:221:SER:OG	2.11	0.50
1:A:1028:THR:O	1:A:1032:LEU:HD12	2.12	0.50
7:G:117:GLN:C	7:G:119:LEU:H	2.15	0.50
1:A:885:THR:O	1:A:940:ARG:HD2	2.10	0.50
2:B:1039:GLY:HA2	10:J:51:LEU:HD21	1.91	0.50
1:A:909:ASP:O	1:A:911:SER:N	2.45	0.50
1:A:823:GLY:O	1:A:825:ILE:N	2.44	0.50
1:A:829:VAL:C	1:A:831:THR:H	2.14	0.50
2:B:1022:THR:HG23	2:B:1022:THR:O	2.10	0.50
3:C:145:CYS:HA	10:J:2:ILE:HD11	1.92	0.50
2:B:179:CYS:SG	2:B:181:LEU:HB2	2.52	0.50
2:B:300:HIS:CE1	2:B:376:PHE:CE1	2.99	0.50
7:G:26:LEU:O	7:G:29:LYS:N	2.43	0.50
2:B:360:PHE:CD2	2:B:360:PHE:C	2.85	0.50
2:B:758:PHE:CE1	2:B:1027:ILE:CG2	2.95	0.50
1:A:881:GLN:NE2	1:A:958:VAL:O	2.38	0.50
1:A:406:ILE:HG13	1:A:431:LYS:HB2	1.93	0.50
1:A:784:LEU:HB3	1:A:785:PRO:HD2	1.94	0.50
1:A:367:PRO:HA	1:A:463:ILE:O	2.10	0.50
4:D:56:ARG:NH2	4:D:57:LEU:HD21	2.26	0.50
1:A:283:GLY:O	1:A:285:PRO:HD3	2.10	0.50
2:B:1034:VAL:HG12	2:B:1035:ALA:H	1.74	0.50
2:B:765:PRO:O	2:B:768:THR:N	2.44	0.50
1:A:1120:LEU:CD1	1:A:1120:LEU:H	2.24	0.50
2:B:311:LEU:O	2:B:312:GLU:C	2.48	0.50
2:B:63:ILE:HD12	2:B:421:PHE:CE2	2.46	0.50
2:B:435:THR:CG2	2:B:437:GLU:HB2	2.41	0.50
7:G:80:LYS:O	7:G:82:PHE:CE1	2.65	0.50
2:B:882:THR:O	2:B:883:LEU:HB2	2.11	0.50
1:A:399:HIS:CB	1:A:400:PRO:CD	2.88	0.50
4:D:64:VAL:C	4:D:66:ARG:H	2.14	0.50
9:I:55:THR:HG22	9:I:58:VAL:HG21	1.92	0.50
10:J:23:ASN:C	10:J:25:LEU:N	2.64	0.50
1:A:1209:MET:CE	1:A:1236:LEU:HB3	2.42	0.50
1:A:244:PRO:HB2	1:A:245:PRO:CD	2.41	0.50
1:A:857:ARG:NH1	6:F:139:PRO:HB2	2.27	0.50
3:C:22:LEU:HD13	3:C:230:MET:HE3	1.93	0.50
1:A:874:ASP:CA	1:A:1058:VAL:HG22	2.42	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:443:LEU:O	1:A:489:LEU:HD12	2.12	0.50
2:B:552:MET:C	2:B:554:ILE:H	2.15	0.50
1:A:1005:GLU:O	1:A:1009:ASN:HB2	2.12	0.50
1:A:738:LYS:C	1:A:740:LEU:H	2.15	0.50
2:B:806:THR:CG2	2:B:808:ALA:HB3	2.41	0.50
9:I:100:PHE:N	9:I:100:PHE:HD1	2.09	0.50
2:B:642:ASP:CB	2:B:649:LYS:HA	2.42	0.50
9:I:111:THR:HG22	9:I:113:ASP:N	2.27	0.50
1:A:215:SER:HB3	1:A:218:ASP:OD2	2.12	0.50
12:L:27:LEU:HD13	12:L:37:LYS:HE2	1.94	0.50
1:A:416:ARG:C	1:A:417:TYR:CD2	2.85	0.50
2:B:1039:GLY:HA2	10:J:51:LEU:CD2	2.42	0.50
2:B:890:TYR:O	2:B:892:LYS:N	2.45	0.50
2:B:558:LEU:C	2:B:560:GLU:H	2.15	0.50
7:G:81:PRO:HA	7:G:85:GLU:OE1	2.12	0.50
1:A:466:SER:HB3	2:B:1103:ILE:HG12	1.93	0.50
2:B:642:ASP:CA	2:B:649:LYS:HA	2.41	0.50
1:A:1319:VAL:HG13	1:A:1320:PRO:HD2	1.94	0.50
2:B:806:THR:HG22	2:B:808:ALA:HB3	1.94	0.49
3:C:168:ALA:C	3:C:170:TRP:H	2.16	0.49
3:C:18:VAL:O	3:C:20:PHE:HD2	1.95	0.49
2:B:521:LEU:HD13	2:B:633:VAL:HB	1.93	0.49
12:L:48:CYS:SG	12:L:49:LYS:N	2.85	0.49
1:A:794:PRO:C	1:A:796:SER:H	2.15	0.49
2:B:284:ILE:HG12	2:B:324:ILE:HD12	1.92	0.49
2:B:1006:ILE:HD13	10:J:44:TYR:HE2	1.72	0.49
2:B:579:ARG:CB	2:B:586:TRP:HE1	2.24	0.49
1:A:1410:PHE:HA	2:B:1212:ILE:CD1	2.41	0.49
2:B:603:LEU:HB3	2:B:609:ILE:HG13	1.92	0.49
2:B:995:ARG:NH1	3:C:165:LYS:HG2	2.27	0.49
1:A:1130:GLN:O	1:A:1134:ILE:HG13	2.12	0.49
1:A:512:VAL:HA	1:A:519:PRO:HA	1.93	0.49
10:J:32:GLU:O	10:J:34:THR:N	2.44	0.49
1:A:58:LEU:O	1:A:59:GLY:O	2.30	0.49
8:H:102:TYR:N	8:H:102:TYR:CD2	2.80	0.49
8:H:27:GLU:HG2	8:H:39:THR:HG23	1.93	0.49
8:H:84:ALA:C	8:H:86:ASP:H	2.15	0.49
5:E:22:MET:CE	5:E:26:ARG:NH2	2.74	0.49
3:C:243:VAL:HG12	3:C:243:VAL:O	2.11	0.49
1:A:1420:ASP:O	1:A:1421:CYS:HB2	2.12	0.49
1:A:504:LEU:HD11	6:F:91:ALA:CB	2.41	0.49
3:C:140:ASN:O	3:C:141:GLY:O	2.30	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:982:THR:HB	1:A:985:ASP:H	1.76	0.49
2:B:299:GLU:HB3	2:B:571:PRO:HG3	1.94	0.49
1:A:316:GLN:O	1:A:317:LYS:C	2.50	0.49
2:B:550:ASP:OD1	2:B:551:PRO:HD2	2.13	0.49
2:B:1002:THR:HG21	2:B:1006:ILE:HD12	1.93	0.49
10:J:7:CYS:SG	10:J:49:MET:HE3	2.52	0.49
1:A:783:THR:HG22	1:A:784:LEU:HG	1.93	0.49
2:B:980:PHE:HE2	2:B:1094:ARG:CB	2.24	0.49
1:A:873:MET:C	1:A:1058:VAL:CG2	2.80	0.49
1:A:873:MET:HG2	1:A:957:PRO:HB3	1.95	0.49
4:D:153:ARG:C	4:D:154:PHE:CD1	2.86	0.49
1:A:402:ALA:CB	1:A:434:ARG:HA	2.43	0.49
1:A:1004:ASN:O	1:A:1008:GLN:HB2	2.12	0.49
1:A:541:ILE:HD13	1:A:549:MET:HE3	1.94	0.49
1:A:852:TYR:HA	1:A:1060:PRO:HB3	1.94	0.49
2:B:496:ARG:NH1	2:B:539:LEU:HB2	2.27	0.49
3:C:90:ASP:O	3:C:91:HIS:CB	2.60	0.49
2:B:773:MET:C	2:B:775:LYS:H	2.13	0.49
1:A:84:ILE:HD11	1:A:270:LEU:CD1	2.34	0.49
3:C:99:LEU:HD23	3:C:99:LEU:N	2.26	0.49
1:A:311:GLN:CB	1:A:312:PRO:HD3	2.42	0.49
1:A:1349:TYR:HB2	1:A:1372:VAL:HG21	1.95	0.49
1:A:877:HIS:O	1:A:878:ILE:CG1	2.60	0.49
2:B:1174:LYS:O	2:B:1176:ASN:HB2	2.11	0.49
1:A:317:LYS:O	1:A:318:SER:CB	2.60	0.49
1:A:573:SER:O	1:A:576:GLN:HB2	2.12	0.49
1:A:116:ASP:O	1:A:118:HIS:N	2.45	0.49
1:A:765:VAL:HG12	1:A:766:GLY:N	2.26	0.49
2:B:199:MET:N	2:B:199:MET:SD	2.79	0.49
3:C:66:ARG:NH2	10:J:3:VAL:O	2.45	0.49
8:H:41:ASP:O	8:H:42:ILE:HG13	2.13	0.49
9:I:99:LEU:C	9:I:100:PHE:HD1	2.16	0.49
2:B:916:THR:O	2:B:935:ARG:HG3	2.12	0.49
1:A:903:ASN:C	1:A:903:ASN:ND2	2.64	0.49
1:A:903:ASN:ND2	1:A:905:ASP:H	2.09	0.49
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.37	0.49
3:C:30:ALA:O	3:C:33:LEU:HB3	2.11	0.49
2:B:728:ARG:NH1	2:B:1047:PHE:HB3	2.26	0.49
1:A:61:ILE:HG22	1:A:62:ASP:H	1.78	0.49
3:C:254:LYS:C	3:C:256:ALA:H	2.15	0.49
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.92	0.49
7:G:80:LYS:HD3	7:G:80:LYS:H	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:845:LEU:O	1:A:846:GLU:C	2.49	0.49
1:A:340:LEU:HD21	2:B:1200:ALA:CA	2.43	0.49
1:A:1120:LEU:CD1	1:A:1120:LEU:N	2.76	0.49
12:L:49:LYS:O	12:L:50:ASP:CB	2.60	0.49
1:A:311:GLN:CB	1:A:312:PRO:CD	2.91	0.49
1:A:545:GLN:O	1:A:548:ASN:N	2.45	0.49
1:A:414:ASP:OD1	1:A:416:ARG:HG3	2.11	0.49
1:A:540:PHE:HB3	1:A:571:LEU:HD23	1.95	0.49
5:E:153:HIS:HB3	5:E:196:VAL:HG11	1.94	0.49
1:A:622:VAL:HG22	1:A:622:VAL:O	2.13	0.49
2:B:1197:PRO:HG2	2:B:1200:ALA:HB3	1.92	0.49
1:A:299:HIS:O	1:A:301:ALA:N	2.46	0.49
2:B:360:PHE:O	2:B:361:LEU:C	2.51	0.49
1:A:262:LEU:C	1:A:264:PHE:N	2.66	0.49
1:A:1053:PHE:C	1:A:1055:ARG:H	2.15	0.49
2:B:773:MET:C	2:B:775:LYS:N	2.65	0.49
1:A:1280:GLU:O	1:A:1281:ARG:O	2.30	0.49
2:B:210:LYS:HG3	2:B:461:LEU:O	2.13	0.49
1:A:244:PRO:HG2	1:A:245:PRO:CD	2.43	0.49
1:A:244:PRO:O	1:A:246:VAL:N	2.46	0.49
1:A:854:ASN:CB	1:A:1000:LEU:HD21	2.43	0.49
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.93	0.49
1:A:21:LEU:HD11	1:A:1414:ALA:HA	1.95	0.49
2:B:831:SER:CB	2:B:994:TYR:OH	2.60	0.49
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.43	0.49
10:J:27:GLU:O	10:J:29:GLU:N	2.45	0.49
1:A:1076:ALA:HA	1:A:1079:MET:CE	2.41	0.49
1:A:1195:LEU:HD11	1:A:1267:MET:HE3	1.95	0.49
1:A:1388:GLY:O	1:A:1390:ASN:N	2.46	0.49
2:B:734:HIS:O	2:B:735:ALA:HB2	2.12	0.49
1:A:1327:ILE:HG22	5:E:147:HIS:CE1	2.48	0.49
2:B:189:LEU:O	2:B:192:LEU:HB2	2.13	0.49
12:L:34:CYS:O	12:L:35:SER:C	2.52	0.49
1:A:450:LEU:H	1:A:450:LEU:HD12	1.78	0.49
3:C:163:ILE:O	3:C:165:LYS:N	2.45	0.49
7:G:9:LEU:HG	7:G:10:ASN:N	2.27	0.49
8:H:99:GLY:HA3	8:H:118:PHE:HA	1.95	0.49
5:E:169:ARG:HH12	6:F:74:ILE:HD11	1.78	0.49
1:A:629:LEU:O	1:A:633:VAL:HG23	2.12	0.49
5:E:202:SER:HB3	5:E:205:SER:O	2.12	0.48
2:B:563:MET:HA	2:B:589:VAL:O	2.13	0.48
2:B:1034:VAL:O	2:B:1036:ALA:N	2.46	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:872:GLU:CD	2:B:914:LYS:HE2	2.33	0.48
11:K:108:GLU:O	11:K:112:GLN:HG2	2.12	0.48
2:B:251:ILE:HG22	2:B:251:ILE:O	2.13	0.48
1:A:1045:VAL:O	1:A:1049:ILE:HG13	2.13	0.48
1:A:335:ARG:CA	1:A:339:ASN:HB2	2.40	0.48
2:B:653:VAL:HG23	2:B:689:LEU:HB3	1.94	0.48
2:B:361:LEU:N	2:B:362:PRO:CD	2.75	0.48
12:L:46:VAL:CG1	12:L:56:LEU:HD12	2.43	0.48
3:C:147:LEU:HD23	3:C:147:LEU:N	2.28	0.48
2:B:950:ASP:O	2:B:951:GLN:HB2	2.14	0.48
1:A:82:GLY:O	1:A:241:VAL:N	2.42	0.48
1:A:552:TRP:O	1:A:554:PRO:HD3	2.13	0.48
3:C:167:HIS:CD2	3:C:168:ALA:H	2.31	0.48
2:B:515:HIS:CD2	2:B:517:THR:HG23	2.48	0.48
2:B:38:PHE:CD1	2:B:811:TYR:CD2	3.01	0.48
3:C:99:LEU:HD12	3:C:118:LEU:HD13	1.94	0.48
2:B:642:ASP:CB	2:B:649:LYS:HG3	2.42	0.48
1:A:1120:LEU:HD12	1:A:1120:LEU:H	1.78	0.48
4:D:192:LYS:HB3	4:D:192:LYS:NZ	2.28	0.48
10:J:32:GLU:O	10:J:35:ALA:N	2.47	0.48
2:B:1040:ASN:O	2:B:1041:GLU:C	2.50	0.48
1:A:369:SER:CB	11:K:2:ASN:OD1	2.60	0.48
2:B:744:HIS:HD2	2:B:746:SER:OG	1.95	0.48
9:I:85:PHE:CD1	9:I:99:LEU:HD13	2.45	0.48
9:I:13:MET:HG3	9:I:14:LEU:H	1.74	0.48
1:A:300:VAL:O	1:A:300:VAL:HG12	2.12	0.48
1:A:1369:ALA:O	1:A:1373:ASP:OD2	2.31	0.48
7:G:96:GLN:HA	7:G:121:PHE:CE2	2.48	0.48
7:G:43:GLY:CA	7:G:80:LYS:HB3	2.42	0.48
1:A:785:PRO:HG2	1:A:786:HIS:HD2	1.78	0.48
1:A:40:THR:HG22	1:A:41:MET:CG	2.32	0.48
1:A:41:MET:HB3	1:A:48:ALA:O	2.13	0.48
1:A:353:ILE:HG21	1:A:487:MET:CE	2.37	0.48
3:C:25:VAL:HG23	3:C:228:PHE:CE1	2.48	0.48
1:A:341:MET:CE	2:B:1135:ARG:NH1	2.76	0.48
1:A:340:LEU:HD13	1:A:1429:ILE:CG2	2.38	0.48
12:L:52:GLY:O	12:L:53:HIS:C	2.52	0.48
5:E:124:VAL:HA	5:E:132:ILE:HD12	1.95	0.48
1:A:683:ILE:HD13	1:A:801:GLU:HG3	1.95	0.48
1:A:16:GLU:HB3	1:A:1418:LEU:HD11	1.95	0.48
1:A:977:LYS:HB3	1:A:978:PRO:HD2	1.95	0.48
1:A:174:ILE:HG23	1:A:182:VAL:O	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:255:VAL:O	3:C:255:VAL:HG12	2.14	0.48
6:F:124:GLU:HB3	6:F:130:ILE:HG12	1.94	0.48
6:F:89:GLU:HB3	6:F:134:ILE:HD13	1.95	0.48
11:K:24:ASP:OD1	11:K:26:LYS:HB2	2.14	0.48
5:E:22:MET:HE3	5:E:26:ARG:HH21	1.77	0.48
1:A:351:THR:HG21	2:B:1103:ILE:HG13	1.95	0.48
2:B:842:ASN:ND2	2:B:845:SER:OG	2.44	0.48
12:L:46:VAL:O	12:L:46:VAL:HG12	2.14	0.48
5:E:13:TRP:O	5:E:16:PHE:HB3	2.14	0.48
1:A:1340:GLY:O	1:A:1343:ALA:N	2.43	0.48
2:B:180:TYR:CD1	2:B:180:TYR:N	2.82	0.48
1:A:277:GLU:C	1:A:279:LEU:H	2.17	0.48
1:A:357:PRO:HD2	2:B:833:TYR:CE1	2.48	0.48
2:B:223:VAL:CG1	2:B:381:MET:HG2	2.42	0.48
1:A:626:ASN:O	1:A:628:GLY:N	2.44	0.48
4:D:20:GLU:O	4:D:21:GLU:O	2.32	0.48
1:A:551:TYR:CE2	11:K:62:LYS:HE2	2.49	0.48
4:D:35:LEU:N	4:D:35:LEU:HD12	2.29	0.48
10:J:16:ASP:O	10:J:18:TRP:N	2.47	0.48
7:G:1:MET:CE	7:G:1:MET:O	2.61	0.48
2:B:542:MET:HG2	2:B:747:MET:HB3	1.96	0.48
2:B:520:GLY:HA2	2:B:748:ILE:HG22	1.95	0.48
2:B:847:ASP:O	2:B:849:GLY:N	2.47	0.48
1:A:38:PRO:HA	1:A:270:LEU:HD23	1.95	0.48
2:B:125:SER:HA	2:B:172:ILE:H	1.78	0.48
2:B:333:PHE:C	2:B:334:ILE:HG13	2.34	0.48
3:C:91:HIS:CD2	3:C:91:HIS:O	2.67	0.48
3:C:105:GLY:O	3:C:149:LYS:O	2.32	0.48
3:C:11:ARG:HD3	3:C:209:TYR:CE2	2.48	0.48
1:A:960:ILE:O	1:A:961:ARG:C	2.50	0.48
1:A:78:PRO:HA	2:B:1201:LYS:HZ2	1.77	0.48
1:A:1220:PHE:CD1	1:A:1224:LEU:HD23	2.49	0.48
1:A:901:LEU:HG	1:A:926:GLN:NE2	2.25	0.48
8:H:84:ALA:C	8:H:86:ASP:N	2.67	0.48
1:A:68:GLN:C	1:A:70:CYS:N	2.65	0.48
2:B:803:LEU:HD12	2:B:1032:SER:HB3	1.95	0.48
2:B:893:LEU:HD11	2:B:910:VAL:CG1	2.44	0.48
2:B:616:ILE:HG12	2:B:697:GLU:HA	1.94	0.48
2:B:593:PRO:HG2	2:B:617:ARG:CZ	2.43	0.48
1:A:541:ILE:HG21	1:A:549:MET:HE3	1.94	0.48
2:B:205:ILE:O	2:B:206:ASN:C	2.52	0.48
3:C:254:LYS:C	3:C:256:ALA:N	2.67	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:166:GLY:O	1:A:167:CYS:CB	2.62	0.48
1:A:1073:GLY:O	1:A:1076:ALA:HB3	2.13	0.48
2:B:387:LEU:O	2:B:392:ARG:HB2	2.13	0.48
2:B:459:TYR:CD2	2:B:459:TYR:C	2.86	0.48
1:A:53:LEU:CD2	1:A:54:ASN:N	2.61	0.48
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.93	0.48
1:A:1327:ILE:HG22	5:E:147:HIS:HE1	1.77	0.48
3:C:77:ILE:CG2	3:C:161:LYS:HE3	2.39	0.48
7:G:13:LEU:CD2	7:G:17:PHE:HB2	2.38	0.48
2:B:954:VAL:O	12:L:55:ILE:O	2.31	0.48
6:F:77:ASP:C	6:F:79:ARG:N	2.67	0.48
1:A:381:THR:CG2	1:A:383:TYR:H	2.27	0.48
2:B:461:LEU:HD12	2:B:461:LEU:N	2.29	0.48
3:C:209:TYR:H	3:C:209:TYR:HD1	1.60	0.48
2:B:1187:ASN:HD21	2:B:1190:ASP:HB3	1.79	0.48
4:D:138:ASN:OD1	4:D:141:LEU:HB2	2.13	0.48
1:A:929:LEU:HD23	1:A:983:ILE:HG21	1.96	0.48
1:A:1001:ARG:O	1:A:1002:GLY:O	2.31	0.48
1:A:62:ASP:HB3	1:A:64:ASN:ND2	2.28	0.48
1:A:332:LYS:O	1:A:334:GLY:N	2.46	0.48
1:A:1451:VAL:C	1:A:1453:TYR:H	2.15	0.48
1:A:420:ARG:O	1:A:421:ALA:C	2.51	0.48
3:C:194:GLU:O	3:C:195:GLN:HG3	2.14	0.48
7:G:91:VAL:HG12	7:G:92:VAL:N	2.28	0.47
6:F:99:LEU:HD21	7:G:64:THR:O	2.14	0.47
2:B:844:SER:O	2:B:847:ASP:HB2	2.14	0.47
4:D:137:ASN:HD22	4:D:137:ASN:C	2.17	0.47
2:B:234:ILE:H	2:B:234:ILE:HD12	1.79	0.47
7:G:26:LEU:HD12	7:G:56:ILE:HD13	1.95	0.47
3:C:35:ARG:NH1	11:K:41:THR:H	2.12	0.47
1:A:730:GLY:C	1:A:732:LEU:H	2.17	0.47
11:K:93:SER:O	11:K:97:LYS:HG3	2.14	0.47
7:G:77:VAL:O	7:G:77:VAL:HG12	2.14	0.47
10:J:2:ILE:HG12	10:J:57:ILE:HD12	1.95	0.47
8:H:58:THR:HG22	8:H:59:ILE:H	1.79	0.47
2:B:806:THR:HG22	2:B:808:ALA:CB	2.44	0.47
1:A:863:VAL:HG11	1:A:866:PHE:CE2	2.49	0.47
6:F:132:LEU:N	6:F:132:LEU:HD23	2.28	0.47
3:C:214:ASN:HB3	3:C:217:ASP:OD2	2.15	0.47
10:J:64:ASN:CB	10:J:65:PRO:CD	2.88	0.47
2:B:864:LYS:N	2:B:872:GLU:OE1	2.46	0.47
1:A:326:ARG:HH22	1:A:1407:GLU:HG3	1.77	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:236:LEU:HD23	1:A:236:LEU:N	2.30	0.47
7:G:143:ILE:CG2	7:G:144:ARG:N	2.75	0.47
3:C:107:SER:C	3:C:109:SER:H	2.17	0.47
7:G:44:TYR:O	7:G:78:VAL:HA	2.14	0.47
1:A:1101:LEU:O	1:A:1101:LEU:HD12	2.14	0.47
1:A:1446:ASP:HB2	6:F:133:VAL:CG2	2.44	0.47
8:H:91:ASP:O	8:H:93:TYR:N	2.46	0.47
6:F:127:GLU:O	6:F:129:LYS:HG3	2.14	0.47
1:A:35:ILE:CG2	1:A:84:ILE:HD12	2.44	0.47
1:A:768:GLN:NE2	1:A:816:HIS:ND1	2.62	0.47
1:A:741:ASN:ND2	1:A:743:VAL:HB	2.24	0.47
1:A:1291:VAL:HG13	1:A:1292:PRO:N	2.29	0.47
2:B:27:ALA:O	2:B:29:ASP:N	2.47	0.47
2:B:903:VAL:HG12	2:B:904:ARG:N	2.28	0.47
1:A:1333:ILE:HG22	1:A:1334:ASP:N	2.29	0.47
2:B:750:GLY:O	2:B:751:VAL:C	2.53	0.47
5:E:161:LYS:C	5:E:163:GLU:H	2.17	0.47
5:E:161:LYS:C	5:E:163:GLU:N	2.68	0.47
2:B:523:CYS:SG	2:B:524:PRO:HD2	2.54	0.47
1:A:1162:VAL:HG12	1:A:1162:VAL:O	2.14	0.47
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.97	0.47
8:H:58:THR:HB	8:H:143:LEU:HD13	1.97	0.47
1:A:563:PRO:HG3	1:A:572:TRP:CE2	2.49	0.47
3:C:46:ILE:HG23	3:C:157:CYS:HB3	1.96	0.47
1:A:921:GLY:O	1:A:922:ASP:C	2.53	0.47
1:A:93:VAL:CG1	1:A:301:ALA:HB1	2.37	0.47
1:A:1431:GLY:HA3	2:B:1152:MET:SD	2.55	0.47
1:A:444:PHE:HB2	1:A:458:HIS:HD2	1.80	0.47
1:A:1006:ILE:HD12	5:E:163:GLU:HG3	1.95	0.47
2:B:882:THR:HG21	2:B:935:ARG:HA	1.95	0.47
3:C:238:ILE:HD11	3:C:246:ARG:NH1	2.30	0.47
1:A:341:MET:HE1	1:A:843:LYS:HZ3	1.79	0.47
1:A:92:HIS:HB2	1:A:236:LEU:HD21	1.96	0.47
1:A:95:PHE:O	1:A:96:ILE:C	2.53	0.47
2:B:373:ARG:CG	2:B:566:LEU:HD23	2.45	0.47
5:E:157:SER:HG	5:E:160:GLU:HG3	1.78	0.47
1:A:167:CYS:O	1:A:167:CYS:SG	2.72	0.47
6:F:140:ASP:C	6:F:140:ASP:OD1	2.52	0.47
4:D:40:HIS:CE1	4:D:41:GLN:HG3	2.49	0.47
2:B:745:PRO:C	2:B:747:MET:N	2.68	0.47
1:A:1441:PHE:HB2	6:F:135:ARG:O	2.15	0.47
2:B:918:ILE:HD12	2:B:935:ARG:HD3	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:242:GLN:C	3:C:244:VAL:N	2.68	0.47
10:J:13:VAL:C	10:J:14:VAL:HG23	2.34	0.47
1:A:299:HIS:C	1:A:301:ALA:N	2.67	0.47
1:A:730:GLY:C	1:A:732:LEU:N	2.67	0.47
1:A:1227:ILE:CG2	1:A:1228:TRP:N	2.78	0.47
1:A:1127:ASP:HB3	1:A:1130:GLN:HB2	1.96	0.47
1:A:1265:ASN:O	1:A:1268:LEU:N	2.41	0.47
8:H:33:GLN:C	8:H:35:GLN:H	2.18	0.47
2:B:1160:VAL:HG11	2:B:1169:MET:SD	2.55	0.47
10:J:16:ASP:OD1	10:J:17:LYS:N	2.42	0.47
8:H:89:LEU:C	8:H:91:ASP:N	2.68	0.47
8:H:138:GLU:O	8:H:139:ASN:C	2.52	0.47
10:J:47:ARG:HG2	10:J:47:ARG:NH1	2.29	0.47
10:J:48:ARG:HD2	10:J:49:MET:N	2.29	0.47
1:A:547:LEU:HD22	11:K:58:PHE:HD1	1.78	0.47
2:B:1084:GLN:C	2:B:1085:ILE:HD12	2.34	0.47
3:C:6:PRO:HB3	3:C:25:VAL:CG1	2.45	0.47
1:A:872:GLY:O	1:A:1058:VAL:HG23	2.13	0.47
1:A:496:GLU:O	1:A:499:ALA:HB3	2.15	0.47
2:B:653:VAL:HG22	2:B:689:LEU:HB3	1.95	0.47
9:I:111:THR:CG2	9:I:112:SER:N	2.77	0.47
3:C:183:TRP:O	3:C:185:LYS:N	2.48	0.47
2:B:205:ILE:HG22	2:B:206:ASN:N	2.30	0.47
1:A:1451:VAL:O	1:A:1454:MET:HG2	2.15	0.47
2:B:225:VAL:HA	2:B:237:VAL:O	2.14	0.47
9:I:61:ASP:O	9:I:63:GLY:N	2.47	0.47
1:A:898:ARG:HB2	1:A:933:TYR:CE1	2.49	0.47
2:B:383:ASN:O	2:B:384:ARG:C	2.53	0.47
2:B:1214:PRO:HG2	2:B:1214:PRO:O	2.14	0.47
2:B:305:VAL:O	2:B:305:VAL:HG12	2.15	0.47
1:A:648:ASN:O	1:A:649:ILE:C	2.53	0.47
10:J:1:MET:HE2	10:J:60:PHE:HE2	1.80	0.47
1:A:567:LYS:HD2	1:A:568:PRO:CD	2.45	0.47
1:A:590:ARG:CG	1:A:590:ARG:HH11	2.18	0.47
5:E:22:MET:HE3	5:E:26:ARG:NH2	2.30	0.47
9:I:75:CYS:SG	9:I:80:SER:N	2.85	0.47
4:D:64:VAL:C	4:D:66:ARG:N	2.67	0.47
2:B:333:PHE:O	2:B:334:ILE:CG1	2.61	0.47
7:G:143:ILE:HG22	7:G:144:ARG:H	1.76	0.47
2:B:230:ALA:N	2:B:231:PRO:CD	2.77	0.47
1:A:1261:LYS:HA	1:A:1264:GLU:HB3	1.96	0.47
4:D:195:ILE:HG22	4:D:198:LEU:HG	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:279:LEU:O	1:A:284:ALA:HB2	2.15	0.47
3:C:89:GLU:O	3:C:90:ASP:HB3	2.15	0.47
1:A:699:ALA:HB3	1:A:701:LEU:HG	1.95	0.47
5:E:145:THR:HG21	5:E:187:TYR:CE2	2.50	0.47
4:D:206:GLU:C	4:D:208:GLU:N	2.68	0.47
2:B:455:SER:O	2:B:456:GLY:C	2.51	0.47
8:H:111:LEU:HD23	8:H:127:GLY:O	2.15	0.47
11:K:59:ALA:HA	11:K:74:ARG:O	2.15	0.47
1:A:402:ALA:HB1	1:A:433:GLU:O	2.15	0.47
2:B:552:MET:HA	2:B:555:ILE:HB	1.96	0.47
5:E:157:SER:O	5:E:159:ASP:N	2.48	0.47
5:E:55:ARG:C	5:E:57:MET:H	2.17	0.47
3:C:90:ASP:OD1	3:C:90:ASP:O	2.33	0.47
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.40	0.47
1:A:553:VAL:HG22	1:A:652:VAL:CG2	2.44	0.47
11:K:52:ASN:O	11:K:54:ARG:N	2.48	0.47
3:C:133:ILE:HD12	3:C:237:SER:HA	1.96	0.47
10:J:56:LEU:O	10:J:59:LYS:N	2.45	0.47
3:C:77:ILE:O	3:C:79:GLN:N	2.46	0.47
5:E:135:PHE:CD2	5:E:140:LEU:HD21	2.37	0.47
7:G:13:LEU:O	7:G:67:SER:HA	2.15	0.47
2:B:865:LYS:HE2	2:B:871:THR:OG1	2.15	0.47
1:A:326:ARG:HG2	1:A:327:ALA:N	2.29	0.47
2:B:1050:ILE:CG2	2:B:1051:THR:N	2.78	0.47
1:A:2:VAL:CG2	2:B:1158:PHE:HA	2.45	0.47
1:A:347:PHE:H	2:B:1107:ALA:HA	1.80	0.47
2:B:298:LEU:HD13	2:B:314:LEU:HD13	1.97	0.47
3:C:253:LYS:O	3:C:256:ALA:HB3	2.15	0.47
5:E:55:ARG:C	5:E:57:MET:N	2.69	0.47
2:B:558:LEU:O	2:B:560:GLU:N	2.47	0.47
1:A:984:LYS:O	1:A:985:ASP:C	2.54	0.47
5:E:153:HIS:HB3	5:E:196:VAL:CG1	2.44	0.47
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.50	0.47
8:H:15:VAL:HG22	8:H:26:ILE:HD11	1.96	0.47
6:F:128:LYS:HD3	6:F:149:GLU:O	2.15	0.47
9:I:85:PHE:N	9:I:85:PHE:CD2	2.60	0.46
6:F:132:LEU:O	6:F:148:VAL:HG22	2.15	0.46
6:F:99:LEU:C	6:F:99:LEU:HD12	2.36	0.46
2:B:582:VAL:HG12	2:B:587:HIS:NE2	2.30	0.46
1:A:500:GLU:OE2	1:A:1438:THR:HG21	2.14	0.46
2:B:1017:ILE:CB	2:B:1018:PRO:HD3	2.44	0.46
1:A:510:GLN:HA	1:A:510:GLN:OE1	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:38:ILE:HG22	4:D:39:ASN:O	2.14	0.46
9:I:56:ALA:O	9:I:57:GLY:O	2.34	0.46
7:G:14:HIS:HD2	7:G:16:SER:CB	2.28	0.46
10:J:8:PHE:H	10:J:49:MET:CE	2.28	0.46
2:B:376:PHE:HE2	2:B:569:TYR:HD2	1.62	0.46
4:D:154:PHE:HB2	4:D:160:VAL:HG22	1.97	0.46
1:A:1435:PRO:O	1:A:1436:ILE:HG13	2.15	0.46
1:A:105:CYS:O	1:A:114:LEU:HG	2.14	0.46
1:A:1147:THR:HG22	9:I:48:LEU:HD12	1.97	0.46
3:C:133:ILE:CD1	3:C:237:SER:HA	2.45	0.46
2:B:681:TRP:O	2:B:683:SER:N	2.49	0.46
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.14	0.46
4:D:47:LEU:CD1	4:D:48:ILE:N	2.77	0.46
1:A:1444:MET:HE1	6:F:135:ARG:HB2	1.97	0.46
1:A:761:MET:HA	1:A:804:TYR:HB2	1.97	0.46
1:A:335:ARG:O	1:A:336:ILE:C	2.52	0.46
2:B:39:ARG:HH21	2:B:665:GLU:CG	2.26	0.46
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.43	0.46
3:C:179:GLU:O	3:C:180:TYR:HB3	2.14	0.46
2:B:758:PHE:HE1	2:B:1027:ILE:HG22	1.77	0.46
2:B:756:ILE:O	2:B:759:PRO:HD3	2.14	0.46
1:A:1369:ALA:O	1:A:1370:LEU:C	2.52	0.46
1:A:89:PRO:C	1:A:204:THR:HG21	2.36	0.46
1:A:1237:ILE:HG22	1:A:1238:ILE:N	2.29	0.46
8:H:142:LEU:C	8:H:143:LEU:HD12	2.36	0.46
1:A:853:ASP:O	1:A:854:ASN:CB	2.64	0.46
6:F:109:VAL:HG21	6:F:124:GLU:HA	1.97	0.46
6:F:131:PRO:C	6:F:132:LEU:HD23	2.35	0.46
1:A:254:GLU:O	1:A:256:GLN:N	2.47	0.46
2:B:1001:PHE:C	2:B:1001:PHE:CD1	2.89	0.46
2:B:653:VAL:HG22	2:B:689:LEU:HD13	1.97	0.46
6:F:111:LEU:O	6:F:113:GLY:N	2.48	0.46
7:G:115:MET:HB3	7:G:116:PRO:CD	2.42	0.46
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.70	0.46
2:B:638:PHE:HB2	2:B:741:CYS:O	2.16	0.46
2:B:654:ARG:O	2:B:656:GLY:N	2.48	0.46
3:C:112:ASN:HB2	3:C:114:TYR:CE1	2.50	0.46
1:A:979:SER:HG	1:A:981:LEU:HG	1.80	0.46
2:B:726:ALA:HB1	2:B:1051:THR:HG21	1.96	0.46
1:A:577:ILE:C	1:A:579:SER:N	2.65	0.46
1:A:896:ARG:NH2	1:A:1030:ARG:HH21	2.13	0.46
1:A:1019:CYS:O	1:A:1022:LEU:N	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:369:SER:HB3	11:K:2:ASN:HD21	1.80	0.46
2:B:613:VAL:HG22	2:B:628:THR:HA	1.96	0.46
6:F:143:PHE:C	6:F:143:PHE:CD1	2.89	0.46
2:B:400:HIS:ND1	2:B:517:THR:HG21	2.31	0.46
2:B:104:GLU:OE1	12:L:54:ARG:NH2	2.49	0.46
2:B:401:PHE:HD2	2:B:521:LEU:HD12	1.79	0.46
2:B:603:LEU:HD13	2:B:608:ASP:CB	2.43	0.46
1:A:498:ARG:O	1:A:501:LEU:N	2.47	0.46
9:I:106:CYS:O	9:I:107:SER:HB2	2.16	0.46
2:B:834:ASN:HA	2:B:838:SER:O	2.15	0.46
1:A:1150:SER:O	1:A:1151:GLU:HG3	2.15	0.46
12:L:27:LEU:HD23	12:L:27:LEU:N	2.29	0.46
4:D:19:GLU:O	4:D:21:GLU:N	2.49	0.46
3:C:82:TYR:O	3:C:83:SER:C	2.54	0.46
2:B:999:MET:HG2	2:B:1007:VAL:HG22	1.97	0.46
2:B:1197:PRO:O	2:B:1200:ALA:N	2.48	0.46
2:B:865:LYS:HZ2	2:B:869:SER:HA	1.81	0.46
1:A:500:GLU:OE2	2:B:1145:SER:CB	2.63	0.46
1:A:17:VAL:HA	2:B:1215:ARG:O	2.15	0.46
1:A:1369:ALA:O	1:A:1372:VAL:HG12	2.14	0.46
2:B:981:ALA:HB3	2:B:1095:LEU:HD21	1.97	0.46
1:A:626:ASN:O	1:A:631:HIS:CD2	2.69	0.46
2:B:1060:ARG:HD2	2:B:1060:ARG:HA	1.53	0.46
3:C:66:ARG:CZ	10:J:2:ILE:HG21	2.46	0.46
8:H:123:MET:HG2	8:H:124:ARG:N	2.31	0.46
8:H:25:ARG:HA	8:H:41:ASP:HA	1.98	0.46
8:H:58:THR:HG22	8:H:59:ILE:N	2.31	0.46
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.51	0.46
2:B:990:ILE:HG22	2:B:991:GLY:N	2.31	0.46
2:B:465:ASN:ND2	2:B:465:ASN:H	2.12	0.46
2:B:1034:VAL:HG23	2:B:1059:LEU:HD13	1.98	0.46
1:A:614:PHE:C	1:A:614:PHE:CD1	2.89	0.46
2:B:284:ILE:HG23	2:B:324:ILE:CD1	2.45	0.46
2:B:1152:MET:O	2:B:1154:ALA:N	2.49	0.46
1:A:1283:VAL:HG12	1:A:1284:MET:H	1.81	0.46
1:A:1132:LYS:O	1:A:1134:ILE:N	2.49	0.46
1:A:34:LYS:HD3	1:A:34:LYS:N	2.31	0.46
1:A:7:SER:CB	2:B:1175:LEU:HD22	2.45	0.46
1:A:1265:ASN:C	1:A:1267:MET:N	2.67	0.46
3:C:100:THR:HG22	3:C:101:LEU:N	2.31	0.46
3:C:259:LEU:CD1	11:K:91:CYS:HB2	2.45	0.46
1:A:1116:LEU:C	1:A:1116:LEU:HD12	2.36	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:563:MET:CE	2:B:580:VAL:HB	2.43	0.46
3:C:33:LEU:O	3:C:34:ARG:C	2.54	0.46
3:C:181:ASP:OD1	3:C:186:LEU:HD13	2.16	0.46
1:A:655:PHE:O	1:A:658:LEU:HB3	2.16	0.46
1:A:1100:ARG:NH2	1:A:1351:GLU:HG2	2.31	0.46
4:D:192:LYS:NZ	4:D:199:ASN:HA	2.30	0.46
5:E:35:VAL:O	5:E:37:LEU:N	2.48	0.46
2:B:1174:LYS:O	2:B:1175:LEU:C	2.53	0.46
3:C:104:PHE:HD2	3:C:105:GLY:N	2.14	0.46
2:B:1189:ILE:HG22	2:B:1190:ASP:N	2.31	0.46
1:A:553:VAL:HG13	1:A:648:ASN:HB3	1.97	0.46
2:B:843:GLN:O	2:B:844:SER:C	2.54	0.46
11:K:58:PHE:HB3	11:K:76:GLN:HE21	1.81	0.46
1:A:524:VAL:HG12	1:A:525:GLN:HE21	1.81	0.46
1:A:525:GLN:CD	2:B:836:GLU:HG2	2.36	0.46
5:E:22:MET:HE3	5:E:26:ARG:CZ	2.46	0.46
2:B:711:GLU:H	2:B:712:PRO:HD2	1.80	0.46
1:A:344:ARG:HG2	1:A:344:ARG:HH11	1.80	0.46
2:B:893:LEU:HD22	2:B:897:GLY:C	2.36	0.46
2:B:118:ARG:HG2	2:B:204:ILE:HD13	1.97	0.46
1:A:134:ARG:HD3	1:A:221:SER:O	2.16	0.46
1:A:971:PHE:HE2	1:A:1040:GLN:HG2	1.80	0.46
2:B:560:GLU:O	2:B:561:TRP:CD1	2.69	0.46
1:A:600:PRO:C	1:A:602:ASP:H	2.19	0.46
2:B:185:THR:H	2:B:188:ASP:HB2	1.80	0.46
7:G:108:VAL:HG13	7:G:159:ALA:O	2.15	0.46
2:B:405:ARG:HA	2:B:631:GLY:O	2.16	0.46
7:G:14:HIS:CD2	7:G:16:SER:CB	2.98	0.46
1:A:779:PHE:CE1	1:A:785:PRO:CD	2.93	0.46
1:A:253:ASN:HB3	2:B:935:ARG:CZ	2.45	0.46
2:B:882:THR:CG2	2:B:884:ARG:HB2	2.46	0.46
6:F:81:THR:HB	6:F:136:ARG:NH1	2.30	0.46
3:C:242:GLN:C	3:C:244:VAL:H	2.18	0.46
1:A:28:ARG:O	1:A:29:ALA:C	2.55	0.46
10:J:23:ASN:O	10:J:25:LEU:N	2.49	0.46
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.46	0.46
2:B:345:LYS:O	2:B:347:LYS:HG2	2.16	0.46
8:H:7:ASP:O	8:H:8:ASP:HB2	2.15	0.46
2:B:729:ILE:O	2:B:729:ILE:HG22	2.15	0.46
8:H:110:ASP:O	8:H:128:ASN:ND2	2.48	0.45
8:H:128:ASN:CG	8:H:128:ASN:O	2.54	0.45
1:A:43:GLU:O	1:A:44:THR:CB	2.64	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:I:4:PHE:HE1	9:I:6:PHE:CE2	2.34	0.45
3:C:75:MET:O	3:C:246:ARG:NH2	2.49	0.45
2:B:168:GLY:HA2	2:B:454:THR:OG1	2.15	0.45
1:A:71:GLN:C	1:A:73:GLY:N	2.69	0.45
1:A:608:ILE:HG13	1:A:613:ILE:HD12	1.97	0.45
7:G:115:MET:CB	7:G:116:PRO:HD2	2.41	0.45
1:A:1053:PHE:C	1:A:1055:ARG:N	2.70	0.45
5:E:161:LYS:O	5:E:163:GLU:N	2.49	0.45
2:B:1186:ASP:C	2:B:1186:ASP:OD1	2.54	0.45
1:A:1297:GLU:HG3	1:A:1297:GLU:H	1.51	0.45
3:C:70:ILE:HG12	3:C:142:VAL:HG11	1.98	0.45
8:H:93:TYR:CD1	8:H:93:TYR:N	2.84	0.45
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.50	0.45
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.92	0.45
1:A:1444:MET:CG	7:G:60:ARG:HA	2.46	0.45
2:B:114:PRO:O	2:B:117:ALA:N	2.48	0.45
2:B:1162:ILE:CG2	2:B:1163:CYS:H	2.25	0.45
1:A:1377:THR:O	1:A:1378:GLN:C	2.54	0.45
11:K:31:VAL:HG12	11:K:32:VAL:H	1.79	0.45
1:A:231:PRO:C	1:A:233:TRP:H	2.18	0.45
2:B:1182:CYS:O	2:B:1183:LYS:C	2.54	0.45
3:C:67:LEU:HD11	3:C:155:LEU:HD12	1.97	0.45
1:A:1018:PHE:O	1:A:1021:LEU:HB3	2.17	0.45
3:C:256:ALA:C	3:C:258:ILE:H	2.19	0.45
1:A:408:ASP:C	1:A:410:GLY:H	2.18	0.45
3:C:63:ILE:O	3:C:64:ALA:C	2.55	0.45
2:B:511:PRO:O	2:B:512:ARG:C	2.54	0.45
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.31	0.45
7:G:139:ILE:HG22	7:G:140:LYS:N	2.31	0.45
7:G:106:MET:HG2	7:G:107:LYS:N	2.31	0.45
7:G:1:MET:HE1	7:G:80:LYS:H	1.80	0.45
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.97	0.45
2:B:785:TYR:C	2:B:787:VAL:H	2.19	0.45
2:B:879:ARG:O	2:B:880:THR:HB	2.15	0.45
1:A:874:ASP:O	1:A:876:ALA:N	2.50	0.45
1:A:250:ILE:O	1:A:258:GLY:HA3	2.16	0.45
1:A:298:PHE:O	1:A:301:ALA:HB3	2.15	0.45
4:D:53:SER:HB3	4:D:152:SER:HA	1.98	0.45
1:A:95:PHE:CD1	1:A:234:MET:HG2	2.51	0.45
1:A:492:PRO:HB2	1:A:497:THR:HG22	1.98	0.45
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.81	0.45
1:A:120:GLU:C	1:A:122:MET:N	2.70	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:112:ASN:N	3:C:112:ASN:HD22	2.12	0.45
1:A:673:GLY:N	1:A:674:PRO:HD2	2.30	0.45
3:C:90:ASP:O	3:C:91:HIS:HB3	2.16	0.45
2:B:570:VAL:HA	2:B:571:PRO:HD2	1.74	0.45
1:A:755:PHE:O	1:A:756:ILE:C	2.55	0.45
7:G:73:LYS:HE3	7:G:74:TYR:O	2.17	0.45
1:A:41:MET:HB2	1:A:42:ASP:H	1.46	0.45
1:A:33:ALA:O	1:A:83:HIS:HD2	1.99	0.45
12:L:30:ILE:HG22	12:L:31:CYS:N	2.32	0.45
2:B:899:ILE:O	2:B:952:VAL:HG21	2.16	0.45
5:E:17:ARG:O	5:E:20:LYS:HB2	2.16	0.45
2:B:130:VAL:HG23	2:B:167:ILE:HD12	1.98	0.45
1:A:1348:LEU:O	1:A:1352:VAL:HG23	2.16	0.45
4:D:54:GLU:OE1	4:D:164:ILE:HD11	2.16	0.45
1:A:1156:PRO:HA	1:A:1190:PRO:CB	2.46	0.45
1:A:474:VAL:HG22	1:A:474:VAL:O	2.16	0.45
2:B:293:PRO:HG2	2:B:296:GLU:HB3	1.98	0.45
6:F:147:SER:OG	6:F:150:GLU:HG3	2.15	0.45
2:B:46:GLN:CG	2:B:47:GLN:H	2.10	0.45
2:B:826:ALA:HB2	2:B:1008:PRO:HB3	1.98	0.45
8:H:82:PRO:C	8:H:84:ALA:H	2.17	0.45
2:B:521:LEU:HB3	2:B:633:VAL:CG1	2.46	0.45
1:A:1001:ARG:HG2	1:A:1001:ARG:HH11	1.82	0.45
1:A:2:VAL:HG21	2:B:1158:PHE:HA	1.98	0.45
4:D:51:ASN:ND2	4:D:54:GLU:OE2	2.50	0.45
7:G:117:GLN:C	7:G:119:LEU:N	2.69	0.45
1:A:135:PHE:C	1:A:137:ALA:N	2.70	0.45
1:A:289:ILE:O	1:A:291:GLU:N	2.50	0.45
2:B:237:VAL:HG12	2:B:238:ALA:N	2.31	0.45
2:B:969:ARG:NH1	3:C:61:GLU:OE1	2.49	0.45
10:J:51:LEU:O	10:J:51:LEU:HD12	2.17	0.45
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.46	0.45
1:A:701:LEU:HD21	9:I:114:GLN:HB2	1.98	0.45
2:B:936:ASP:OD1	2:B:938:SER:N	2.43	0.45
2:B:784:ASN:O	2:B:788:ARG:HG3	2.17	0.45
2:B:410:GLY:O	2:B:412:LEU:N	2.50	0.45
8:H:62:SER:O	8:H:63:LEU:C	2.54	0.45
5:E:136:ASN:OD1	5:E:137:GLU:N	2.50	0.45
1:A:84:ILE:O	1:A:84:ILE:CG2	2.63	0.45
4:D:153:ARG:HB3	4:D:154:PHE:CE1	2.52	0.45
2:B:1065:GLN:HE21	2:B:1066:SER:CA	2.30	0.45
2:B:873:THR:O	2:B:914:LYS:HA	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:167:ARG:HD3	5:E:167:ARG:HA	1.78	0.45
1:A:1343:ALA:O	1:A:1346:ALA:HB3	2.16	0.45
2:B:840:ILE:CG2	2:B:994:TYR:HD1	2.30	0.45
3:C:146:LYS:HB2	10:J:61:LEU:HD11	1.97	0.45
1:A:332:LYS:HG3	1:A:333:GLU:N	2.30	0.45
12:L:58:LYS:O	12:L:59:ALA:O	2.34	0.45
1:A:767:GLN:HB2	1:A:799:PHE:HD1	1.82	0.45
3:C:105:GLY:HA3	3:C:149:LYS:O	2.17	0.45
2:B:854:LEU:HB3	2:B:856:PHE:HE1	1.81	0.45
8:H:4:THR:O	8:H:5:LEU:HD23	2.17	0.45
1:A:1161:THR:CG2	1:A:1163:ILE:HG13	2.46	0.45
7:G:15:PRO:O	7:G:16:SER:C	2.55	0.45
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.46	0.45
3:C:76:ASP:OD2	3:C:128:ASN:N	2.49	0.45
1:A:44:THR:O	1:A:45:GLN:HB2	2.17	0.45
1:A:253:ASN:CB	2:B:935:ARG:CZ	2.94	0.45
1:A:709:THR:HG22	1:A:710:LEU:N	2.32	0.45
1:A:524:VAL:CG1	1:A:525:GLN:H	2.18	0.45
1:A:353:ILE:CD1	1:A:487:MET:HE2	2.46	0.45
1:A:353:ILE:CG2	1:A:487:MET:HE3	2.38	0.45
1:A:499:ALA:O	1:A:503:GLN:HB2	2.16	0.45
5:E:212:ARG:HH11	5:E:212:ARG:HG3	1.82	0.45
2:B:603:LEU:HA	2:B:603:LEU:HD22	1.86	0.45
2:B:979:LYS:HG3	2:B:989:THR:HG22	1.98	0.45
1:A:1053:PHE:O	1:A:1055:ARG:N	2.50	0.45
5:E:129:PRO:O	5:E:130:ALA:O	2.34	0.45
1:A:982:THR:O	1:A:985:ASP:HB2	2.16	0.45
2:B:294:ASP:N	2:B:294:ASP:OD2	2.50	0.45
1:A:415:LEU:HD23	1:A:415:LEU:HA	1.75	0.45
9:I:15:TYR:N	9:I:15:TYR:CD1	2.84	0.45
1:A:244:PRO:HG2	1:A:245:PRO:HD2	1.99	0.45
8:H:143:LEU:C	8:H:144:ILE:HG13	2.38	0.45
3:C:77:ILE:C	3:C:79:GLN:H	2.20	0.45
1:A:353:ILE:HB	1:A:470:LEU:CD2	2.47	0.45
2:B:1001:PHE:CD2	3:C:34:ARG:NH2	2.84	0.45
1:A:666:ILE:CD1	1:A:667:GLY:N	2.80	0.45
9:I:110:PHE:CD2	9:I:110:PHE:N	2.85	0.45
2:B:204:ILE:C	2:B:205:ILE:HD12	2.36	0.45
2:B:769:TYR:O	2:B:772:ALA:N	2.50	0.45
1:A:1445:ILE:HD11	7:G:61:ILE:HG12	1.99	0.45
1:A:341:MET:HE1	1:A:843:LYS:NZ	2.31	0.45
1:A:841:LEU:O	1:A:845:LEU:HG	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.47	0.45
11:K:46:ILE:O	11:K:46:ILE:HG22	2.16	0.45
2:B:603:LEU:HB3	2:B:609:ILE:HD11	1.99	0.45
2:B:307:ASP:O	2:B:309:GLN:N	2.50	0.45
11:K:53:ASP:O	11:K:55:LYS:N	2.50	0.45
1:A:108:MET:HB3	1:A:210:ILE:CD1	2.46	0.45
1:A:947:PHE:CD2	1:A:954:TRP:CZ2	3.04	0.45
1:A:1215:ARG:HA	1:A:1215:ARG:HD2	1.72	0.45
1:A:590:ARG:HH21	1:A:620:LYS:CB	2.28	0.45
2:B:113:TYR:CD2	2:B:192:LEU:HD22	2.51	0.45
2:B:1081:LEU:O	2:B:1082:MET:C	2.55	0.45
2:B:1008:PRO:HB2	2:B:1010:LEU:O	2.17	0.45
1:A:668:ASP:HA	1:A:741:ASN:OD1	2.17	0.45
1:A:1409:LEU:O	1:A:1412:ALA:HB3	2.17	0.45
2:B:1177:HIS:O	2:B:1179:GLN:N	2.50	0.45
2:B:758:PHE:N	2:B:759:PRO:CD	2.80	0.45
1:A:1349:TYR:CA	1:A:1372:VAL:HG21	2.47	0.45
5:E:43:LYS:O	5:E:45:LYS:N	2.48	0.45
2:B:329:THR:O	2:B:332:ASP:HB3	2.16	0.45
3:C:144:ILE:O	3:C:145:CYS:HB3	2.17	0.44
7:G:31:LEU:HD22	7:G:48:VAL:HG21	1.99	0.44
1:A:325:ILE:O	1:A:326:ARG:C	2.55	0.44
1:A:1401:SER:O	1:A:1402:PHE:HB2	2.18	0.44
3:C:38:ILE:HA	3:C:173:ALA:HB2	1.98	0.44
2:B:730:ARG:O	2:B:731:VAL:O	2.36	0.44
2:B:294:ASP:O	2:B:296:GLU:N	2.48	0.44
7:G:48:VAL:HG13	7:G:74:TYR:HD1	1.82	0.44
3:C:44:LEU:HD23	3:C:45:ALA:N	2.32	0.44
2:B:562:GLY:HA3	2:B:590:HIS:CE1	2.53	0.44
3:C:262:LEU:HA	3:C:262:LEU:HD23	1.75	0.44
1:A:929:LEU:CD2	1:A:983:ILE:HG21	2.47	0.44
5:E:124:VAL:HB	5:E:125:PRO:HD3	2.00	0.44
1:A:407:ARG:HG2	1:A:430:TRP:CZ3	2.52	0.44
3:C:123:ASN:ND2	3:C:125:MET:SD	2.90	0.44
1:A:1451:VAL:C	1:A:1453:TYR:N	2.70	0.44
2:B:640:VAL:O	2:B:640:VAL:HG12	2.16	0.44
2:B:570:VAL:HG23	2:B:573:GLN:HB3	1.99	0.44
1:A:1265:ASN:O	1:A:1267:MET:N	2.50	0.44
2:B:661:LEU:C	2:B:663:ALA:H	2.19	0.44
2:B:546:SER:OG	2:B:631:GLY:N	2.39	0.44
1:A:41:MET:O	1:A:42:ASP:C	2.56	0.44
1:A:709:THR:HB	1:A:712:GLU:HG3	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:I:8:ARG:CG	9:I:34:TYR:CE1	2.94	0.44
2:B:1072:MET:HE3	2:B:1085:ILE:HD13	2.00	0.44
1:A:352:VAL:HG12	1:A:353:ILE:N	2.32	0.44
3:C:27:LEU:O	3:C:30:ALA:N	2.50	0.44
2:B:1001:PHE:HD2	3:C:34:ARG:HH21	1.66	0.44
11:K:42:LEU:O	11:K:46:ILE:HG13	2.17	0.44
2:B:1178:ASN:O	2:B:1179:GLN:C	2.56	0.44
7:G:9:LEU:CD1	7:G:10:ASN:H	2.30	0.44
1:A:1011:GLN:NE2	1:A:1015:VAL:HG21	2.31	0.44
1:A:215:SER:O	1:A:218:ASP:HB2	2.17	0.44
1:A:1280:GLU:O	1:A:1281:ARG:C	2.55	0.44
1:A:1101:LEU:HB2	1:A:1355:VAL:HG11	1.99	0.44
2:B:293:PRO:HG2	2:B:296:GLU:CB	2.47	0.44
7:G:127:PRO:HG2	7:G:138:THR:HG21	1.98	0.44
1:A:595:THR:O	1:A:596:THR:HG23	2.18	0.44
10:J:48:ARG:HE	10:J:49:MET:HE2	1.82	0.44
6:F:89:GLU:HB3	6:F:134:ILE:CD1	2.48	0.44
1:A:901:LEU:O	1:A:921:GLY:N	2.48	0.44
11:K:95:ILE:O	11:K:98:LEU:HB2	2.17	0.44
4:D:170:THR:HB	4:D:172:LEU:H	1.83	0.44
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.48	0.44
1:A:666:ILE:HD12	1:A:667:GLY:N	2.30	0.44
1:A:92:HIS:O	1:A:95:PHE:N	2.34	0.44
2:B:324:ILE:CG2	2:B:325:GLN:N	2.79	0.44
5:E:48:ASP:CG	5:E:49:SER:N	2.69	0.44
2:B:753:ALA:HA	2:B:756:ILE:HD12	2.00	0.44
2:B:108:VAL:HG12	2:B:109:THR:N	2.33	0.44
11:K:35:PHE:CD1	11:K:71:PHE:CE1	3.05	0.44
7:G:34:VAL:HG12	7:G:45:ILE:CG2	2.41	0.44
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.53	0.44
11:K:24:ASP:OD2	11:K:74:ARG:NH1	2.49	0.44
1:A:33:ALA:HB1	1:A:35:ILE:HG13	2.00	0.44
9:I:34:TYR:C	9:I:34:TYR:CD2	2.90	0.44
2:B:1084:GLN:NE2	2:B:1084:GLN:N	2.66	0.44
1:A:401:GLY:O	1:A:435:HIS:CD2	2.71	0.44
3:C:248:ILE:HG23	11:K:98:LEU:HD22	2.00	0.44
3:C:246:ARG:HA	3:C:249:ASP:HB3	1.99	0.44
2:B:581:PHE:HA	2:B:585:VAL:O	2.17	0.44
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.98	0.44
2:B:862:GLN:O	2:B:914:LYS:HE3	2.18	0.44
2:B:1181:GLU:O	2:B:1182:CYS:HB2	2.18	0.44
1:A:103:CYS:O	1:A:106:VAL:O	2.35	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:308:TRP:HA	2:B:311:LEU:HD12	1.99	0.44
2:B:258:LEU:O	2:B:259:TYR:O	2.36	0.44
3:C:83:SER:O	3:C:85:ASP:N	2.51	0.44
8:H:11:GLN:HA	8:H:53:ASP:O	2.18	0.44
1:A:1426:GLU:H	1:A:1426:GLU:HG2	1.57	0.44
2:B:436:VAL:HG12	2:B:436:VAL:O	2.18	0.44
6:F:116:ASP:C	6:F:116:ASP:OD1	2.55	0.44
10:J:53:HIS:NE2	10:J:55:ASP:HA	2.33	0.44
1:A:243:PRO:O	1:A:244:PRO:C	2.55	0.44
1:A:1153:TYR:CD2	1:A:1163:ILE:HD11	2.52	0.44
1:A:1335:ILE:CG2	1:A:1335:ILE:O	2.65	0.44
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.99	0.44
1:A:336:ILE:HG22	1:A:337:ARG:N	2.32	0.44
1:A:93:VAL:HG23	1:A:304:MET:HE3	1.99	0.44
2:B:172:ILE:CG2	2:B:173:MET:N	2.81	0.44
9:I:111:THR:HG21	9:I:113:ASP:HB2	1.99	0.44
2:B:312:GLU:O	2:B:315:LYS:N	2.50	0.44
1:A:18:GLN:H	2:B:1215:ARG:HB2	1.83	0.44
1:A:883:LEU:CD2	1:A:1021:LEU:HB2	2.48	0.44
1:A:218:ASP:O	1:A:219:PHE:C	2.56	0.44
5:E:114:ASN:O	5:E:115:ASN:CB	2.65	0.44
1:A:278:THR:HG22	1:A:278:THR:O	2.17	0.44
1:A:282:ASN:O	1:A:284:ALA:N	2.51	0.44
1:A:652:VAL:O	1:A:653:VAL:C	2.56	0.44
4:D:49:ALA:HB2	4:D:174:PRO:HB3	1.99	0.44
2:B:680:THR:O	2:B:684:LEU:HD12	2.18	0.44
8:H:10:PHE:N	8:H:10:PHE:CD1	2.85	0.44
8:H:116:TYR:HE2	8:H:140:ALA:CB	2.30	0.44
1:A:1116:LEU:CD1	1:A:1118:VAL:HG13	2.48	0.44
3:C:161:LYS:O	3:C:170:TRP:NE1	2.51	0.44
1:A:51:GLY:HA2	1:A:56:PRO:HA	2.00	0.44
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.53	0.44
1:A:335:ARG:HB3	1:A:336:ILE:H	1.65	0.44
10:J:13:VAL:O	10:J:14:VAL:CG2	2.66	0.44
1:A:494:SER:H	1:A:497:THR:HB	1.82	0.44
1:A:1438:THR:HG22	1:A:1438:THR:O	2.17	0.44
2:B:1031:LEU:CD2	2:B:1044:ALA:HB2	2.48	0.44
1:A:1370:LEU:O	1:A:1374:VAL:HG23	2.17	0.44
7:G:9:LEU:CG	7:G:10:ASN:N	2.81	0.44
12:L:61:THR:CG2	12:L:63:ARG:HG2	2.48	0.44
2:B:265:SER:O	2:B:266:ALA:CB	2.65	0.44
2:B:286:PHE:CD1	2:B:297:ILE:HG23	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:11:GLN:O	8:H:28:ALA:HB1	2.17	0.44
2:B:424:LEU:O	2:B:428:ILE:HG13	2.18	0.44
1:A:26:GLU:O	1:A:27:VAL:C	2.54	0.44
2:B:203:PHE:N	2:B:203:PHE:CD1	2.86	0.44
1:A:966:ASN:O	1:A:967:ALA:C	2.56	0.44
7:G:3:PHE:CD1	7:G:80:LYS:HE2	2.53	0.44
2:B:181:LEU:CD2	2:B:189:LEU:HD22	2.47	0.44
1:A:47:ARG:HH22	1:A:254:GLU:HA	1.83	0.44
2:B:882:THR:O	2:B:883:LEU:CB	2.65	0.44
3:C:22:LEU:HD23	3:C:25:VAL:HG21	2.00	0.44
1:A:427:GLN:HB2	1:A:430:TRP:NE1	2.32	0.44
1:A:350:ARG:HH11	1:A:350:ARG:HG3	1.83	0.44
2:B:1110:PRO:HG3	2:B:1124:ARG:O	2.18	0.44
3:C:90:ASP:CG	3:C:90:ASP:O	2.57	0.44
2:B:661:LEU:C	2:B:663:ALA:N	2.71	0.44
10:J:1:MET:HB2	10:J:1:MET:HE2	1.86	0.44
8:H:91:ASP:C	8:H:93:TYR:N	2.72	0.44
1:A:853:ASP:OD1	1:A:855:THR:CG2	2.66	0.44
7:G:18:PHE:HZ	7:G:68:ALA:HB2	1.83	0.44
3:C:170:TRP:O	3:C:171:GLY:C	2.57	0.44
11:K:47:ARG:C	11:K:47:ARG:HD2	2.38	0.44
1:A:963:ILE:HD13	1:A:1049:ILE:CG1	2.47	0.44
5:E:94:LYS:HE2	5:E:98:ILE:CD1	2.38	0.44
2:B:1099:VAL:C	2:B:1101:ASP:N	2.70	0.44
5:E:135:PHE:CB	5:E:140:LEU:HD11	2.47	0.44
2:B:906:SER:O	2:B:907:GLY:O	2.34	0.44
1:A:1015:VAL:O	1:A:1018:PHE:N	2.49	0.44
1:A:1132:LYS:O	1:A:1135:ARG:N	2.51	0.44
1:A:89:PRO:HB2	1:A:204:THR:CG2	2.48	0.44
3:C:259:LEU:HD11	11:K:91:CYS:HB2	1.99	0.44
2:B:794:ASN:O	2:B:795:ILE:HD12	2.17	0.44
2:B:794:ASN:C	2:B:795:ILE:HD12	2.37	0.44
1:A:556:TRP:CZ2	1:A:558:GLY:HA2	2.53	0.44
1:A:373:THR:HG21	2:B:1105:ALA:HB3	1.98	0.44
10:J:53:HIS:CD2	10:J:54:VAL:C	2.92	0.43
4:D:138:ASN:C	4:D:140:ASP:N	2.70	0.43
8:H:10:PHE:HE2	8:H:36:CYS:HG	1.65	0.43
1:A:40:THR:CG2	1:A:41:MET:HG3	2.36	0.43
2:B:839:MET:HG3	2:B:1010:LEU:CD1	2.44	0.43
2:B:763:GLN:HG2	2:B:765:PRO:CG	2.48	0.43
3:C:73:GLN:HE21	3:C:74:SER:H	1.65	0.43
2:B:693:ILE:HD13	2:B:701:ILE:HD13	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:500:GLU:OE1	2:B:1143:ALA:C	2.57	0.43
1:A:526:ASP:OD1	2:B:1013:ASN:ND2	2.49	0.43
2:B:838:SER:CB	2:B:989:THR:O	2.64	0.43
1:A:18:GLN:O	2:B:1215:ARG:CG	2.66	0.43
1:A:1373:ASP:HA	1:A:1376:THR:CG2	2.47	0.43
1:A:1453:TYR:O	1:A:1454:MET:HB3	2.18	0.43
1:A:626:ASN:C	1:A:628:GLY:H	2.21	0.43
1:A:456:MET:HB2	1:A:478:TYR:OH	2.18	0.43
1:A:1226:VAL:HG22	1:A:1240:CYS:HB3	2.00	0.43
1:A:42:ASP:HB3	1:A:45:GLN:HA	2.00	0.43
2:B:579:ARG:HA	2:B:589:VAL:HG13	1.99	0.43
1:A:846:GLU:HB2	1:A:847:ASP:H	1.66	0.43
2:B:1207:LEU:HB3	2:B:1212:ILE:HG22	1.99	0.43
2:B:51:PHE:HB2	2:B:173:MET:CE	2.48	0.43
2:B:414:ALA:O	2:B:415:GLN:C	2.57	0.43
1:A:152:VAL:HG12	1:A:153:PRO:CD	2.47	0.43
1:A:932:GLU:O	1:A:936:LEU:HG	2.18	0.43
5:E:129:PRO:O	5:E:130:ALA:C	2.57	0.43
1:A:559:VAL:O	1:A:559:VAL:HG12	2.17	0.43
1:A:942:PHE:C	1:A:942:PHE:CD2	2.91	0.43
4:D:33:PHE:CE2	7:G:80:LYS:NZ	2.72	0.43
2:B:113:TYR:HB3	2:B:114:PRO:HD2	2.00	0.43
11:K:58:PHE:CB	11:K:76:GLN:HE21	2.31	0.43
11:K:58:PHE:HE2	11:K:74:ARG:HE	1.57	0.43
4:D:135:GLY:C	4:D:137:ASN:H	2.21	0.43
2:B:825:VAL:HG12	2:B:826:ALA:N	2.32	0.43
1:A:12:ARG:O	2:B:1194:ILE:HG22	2.18	0.43
2:B:765:PRO:O	2:B:767:ASN:N	2.51	0.43
1:A:224:PHE:CZ	1:A:231:PRO:HG3	2.52	0.43
2:B:1177:HIS:C	2:B:1179:GLN:H	2.21	0.43
1:A:575:LYS:NZ	1:A:615:GLY:H	2.16	0.43
7:G:115:MET:CB	7:G:116:PRO:CD	2.96	0.43
2:B:60:GLN:O	2:B:63:ILE:HG22	2.18	0.43
1:A:522:GLY:O	1:A:646:PHE:HE2	2.01	0.43
2:B:62:ILE:HG23	2:B:418:LYS:HG2	1.99	0.43
1:A:1148:ILE:HB	1:A:1196:GLU:O	2.18	0.43
3:C:238:ILE:HD11	3:C:246:ARG:HH11	1.83	0.43
7:G:66:GLY:O	7:G:67:SER:C	2.56	0.43
10:J:41:LEU:HD11	10:J:50:ILE:HG13	2.00	0.43
1:A:269:ILE:HD11	1:A:300:VAL:HA	2.01	0.43
1:A:65:LEU:O	1:A:66:LYS:C	2.57	0.43
4:D:51:ASN:OD1	4:D:52:LEU:O	2.37	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:58:THR:O	2:B:62:ILE:HG13	2.18	0.43
1:A:508:PRO:O	1:A:511:ILE:HG13	2.18	0.43
2:B:1137:CYS:O	2:B:1140:ALA:HB3	2.17	0.43
3:C:41:ILE:HA	3:C:42:PRO:HD3	1.84	0.43
1:A:752:LYS:HA	1:A:752:LYS:HD3	1.83	0.43
4:D:138:ASN:O	4:D:140:ASP:N	2.52	0.43
8:H:40:LEU:HD21	8:H:142:LEU:HD21	2.00	0.43
7:G:14:HIS:CE1	7:G:15:PRO:HD2	2.52	0.43
1:A:341:MET:HE3	2:B:1135:ARG:NH1	2.33	0.43
2:B:32:ALA:O	2:B:35:SER:HB2	2.19	0.43
3:C:31:ASN:O	3:C:35:ARG:HG3	2.18	0.43
1:A:578:LEU:HD23	1:A:612:ILE:HD11	1.99	0.43
2:B:591:ARG:O	2:B:592:ASN:C	2.56	0.43
1:A:247:ARG:HG3	1:A:247:ARG:O	2.18	0.43
8:H:123:MET:HE3	8:H:142:LEU:CD2	2.48	0.43
5:E:29:PHE:O	5:E:30:ILE:CG1	2.59	0.43
11:K:31:VAL:CG1	11:K:32:VAL:H	2.31	0.43
2:B:859:TYR:CE1	2:B:941:LEU:HD12	2.53	0.43
4:D:68:ARG:C	4:D:70:PHE:N	2.70	0.43
2:B:519:TRP:C	2:B:519:TRP:CD1	2.91	0.43
7:G:88:ASP:OD2	7:G:88:ASP:N	2.49	0.43
1:A:1344:GLY:O	1:A:1345:ARG:C	2.56	0.43
4:D:51:ASN:O	4:D:52:LEU:C	2.57	0.43
1:A:896:ARG:HD3	1:A:897:TYR:HE1	1.84	0.43
7:G:119:LEU:HD13	7:G:132:SER:HB2	2.00	0.43
12:L:61:THR:HG22	12:L:63:ARG:HG2	2.01	0.43
2:B:418:LYS:O	2:B:420:LEU:N	2.51	0.43
1:A:1124:HIS:HB3	1:A:1130:GLN:HG2	2.00	0.43
3:C:226:ASP:O	3:C:227:THR:CB	2.66	0.43
3:C:80:LEU:HD22	3:C:129:ILE:HD13	2.01	0.43
11:K:100:ALA:O	11:K:103:THR:HB	2.18	0.43
1:A:1111:MET:H	1:A:1111:MET:HG2	1.56	0.43
3:C:70:ILE:HD11	3:C:144:ILE:CG1	2.49	0.43
10:J:2:ILE:HG22	10:J:3:VAL:O	2.18	0.43
2:B:824:ILE:CD1	10:J:48:ARG:NH1	2.81	0.43
9:I:8:ARG:HG3	9:I:34:TYR:CD1	2.54	0.43
5:E:18:THR:O	5:E:19:VAL:C	2.55	0.43
1:A:886:ILE:CD1	1:A:943:LEU:HB3	2.41	0.43
1:A:427:GLN:O	1:A:428:TYR:C	2.56	0.43
7:G:10:ASN:OD1	7:G:71:ASN:HA	2.19	0.43
1:A:1015:VAL:O	1:A:1016:THR:C	2.57	0.43
2:B:26:THR:O	2:B:29:ASP:HB2	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:900:ALA:O	2:B:903:VAL:HG23	2.19	0.43
8:H:103:LYS:HG2	8:H:104:PHE:N	2.34	0.43
1:A:58:LEU:HD13	1:A:243:PRO:HA	2.00	0.43
8:H:38:LEU:HD13	8:H:125:LEU:CD1	2.49	0.43
1:A:817:ALA:HA	2:B:764:SER:OG	2.17	0.43
2:B:1034:VAL:C	2:B:1036:ALA:N	2.72	0.43
3:C:99:LEU:HD22	3:C:120:ILE:HG12	2.01	0.43
1:A:23:SER:CB	1:A:233:TRP:NE1	2.82	0.43
5:E:124:VAL:HG13	5:E:132:ILE:CB	2.45	0.43
1:A:679:ILE:O	1:A:682:THR:N	2.52	0.43
1:A:682:THR:HG23	1:A:728:LYS:HE3	2.00	0.43
1:A:382:PRO:CB	1:A:428:TYR:HE2	2.30	0.43
4:D:52:LEU:CD2	4:D:147:TYR:HE2	2.31	0.43
1:A:552:TRP:HE3	1:A:651:LYS:HB3	1.83	0.43
3:C:92:CYS:C	3:C:94:LYS:N	2.72	0.43
1:A:86:LEU:HD13	1:A:90:VAL:HG23	2.00	0.43
2:B:911:ILE:HG22	2:B:912:ILE:HG13	2.00	0.43
2:B:351:TYR:CD1	2:B:355:ILE:HD11	2.53	0.43
3:C:183:TRP:CE2	3:C:207:CYS:HB3	2.54	0.43
2:B:1106:ARG:NH2	2:B:1109:GLY:H	2.17	0.43
2:B:237:VAL:HG22	2:B:257:LYS:HA	2.00	0.43
2:B:129:PHE:CD2	2:B:166:PHE:HA	2.53	0.43
8:H:15:VAL:HG22	8:H:26:ILE:CG1	2.49	0.43
1:A:477:PRO:HG2	1:A:521:MET:HG2	2.00	0.43
7:G:126:ASN:HA	7:G:126:ASN:HD22	1.56	0.43
11:K:101:LEU:HD23	11:K:101:LEU:O	2.19	0.43
8:H:40:LEU:HD22	8:H:123:MET:CE	2.48	0.43
8:H:3:ASN:HB3	8:H:4:THR:H	1.63	0.43
2:B:192:LEU:O	2:B:193:LYS:CB	2.62	0.43
1:A:73:GLY:O	1:A:75:ASN:N	2.52	0.43
1:A:320:ARG:HA	1:A:321:PRO:HD3	1.89	0.43
2:B:593:PRO:O	2:B:596:LEU:N	2.52	0.43
9:I:103:CYS:HB3	9:I:107:SER:H	1.83	0.43
12:L:47:ARG:HG3	12:L:47:ARG:NH1	2.33	0.43
3:C:91:HIS:ND1	3:C:158:VAL:HG11	2.33	0.43
1:A:693:VAL:HA	1:A:696:GLU:HB3	2.01	0.43
1:A:148:CYS:O	1:A:168:GLY:HA2	2.19	0.43
2:B:1029:CYS:HA	2:B:1089:PRO:O	2.19	0.43
5:E:205:SER:O	5:E:206:GLY:C	2.58	0.42
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.19	0.42
2:B:1085:ILE:CD1	2:B:1085:ILE:N	2.81	0.42
2:B:200:GLY:HA2	2:B:202:TYR:HE2	1.81	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:685:GLU:HG3	1:A:686:ALA:N	2.34	0.42
1:A:309:ALA:C	1:A:311:GLN:H	2.21	0.42
2:B:758:PHE:HB3	2:B:761:HIS:CD2	2.54	0.42
9:I:84:VAL:HG13	9:I:84:VAL:O	2.19	0.42
2:B:235:SER:C	2:B:236:HIS:CD2	2.93	0.42
2:B:792:MET:HA	2:B:856:PHE:O	2.19	0.42
2:B:694:ASP:O	2:B:698:GLU:HB2	2.18	0.42
1:A:100:LYS:O	1:A:102:VAL:N	2.52	0.42
2:B:855:PHE:C	2:B:855:PHE:CD1	2.90	0.42
3:C:58:LEU:CD2	3:C:58:LEU:N	2.81	0.42
1:A:861:GLY:HA3	5:E:174:GLN:NE2	2.34	0.42
2:B:785:TYR:C	2:B:787:VAL:N	2.71	0.42
1:A:41:MET:O	1:A:50:ILE:HG13	2.20	0.42
9:I:75:CYS:SG	9:I:79:HIS:CA	3.07	0.42
2:B:710:LEU:C	2:B:711:GLU:HG2	2.40	0.42
6:F:154:ASP:HB3	6:F:155:LEU:H	1.64	0.42
3:C:33:LEU:HG	3:C:37:MET:CE	2.50	0.42
11:K:49:GLU:HG3	11:K:94:ILE:HG13	2.00	0.42
5:E:117:THR:O	5:E:120:ALA:N	2.44	0.42
2:B:123:THR:O	2:B:125:SER:N	2.47	0.42
1:A:535:THR:O	1:A:575:LYS:HG3	2.19	0.42
1:A:475:THR:HG23	1:A:476:SER:H	1.76	0.42
1:A:682:THR:HA	1:A:685:GLU:HG2	2.00	0.42
1:A:1036:ARG:HH11	1:A:1036:ARG:HG2	1.83	0.42
5:E:131:THR:HG21	5:E:191:LYS:HZ1	1.84	0.42
1:A:1209:MET:SD	1:A:1236:LEU:HD22	2.59	0.42
2:B:762:ASN:OD1	2:B:1022:THR:HA	2.19	0.42
1:A:537:ARG:NH1	8:H:120:GLY:O	2.49	0.42
5:E:31:THR:OG1	5:E:34:GLU:N	2.50	0.42
1:A:1168:GLU:O	1:A:1172:LEU:HG	2.19	0.42
1:A:1115:SER:O	1:A:1116:LEU:CB	2.67	0.42
1:A:711:ARG:HA	9:I:97:MET:HE1	1.99	0.42
5:E:22:MET:O	5:E:26:ARG:HG3	2.19	0.42
2:B:708:GLU:O	2:B:709:ASP:C	2.58	0.42
1:A:339:ASN:O	1:A:343:LYS:HG2	2.19	0.42
1:A:298:PHE:HD2	1:A:299:HIS:CD2	2.37	0.42
1:A:1409:LEU:CD1	2:B:1207:LEU:HD21	2.42	0.42
2:B:552:MET:C	2:B:554:ILE:N	2.72	0.42
2:B:654:ARG:C	2:B:656:GLY:H	2.23	0.42
12:L:40:LEU:HD13	12:L:44:ASP:CB	2.49	0.42
2:B:63:ILE:HA	2:B:421:PHE:CE2	2.54	0.42
1:A:277:GLU:O	1:A:279:LEU:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:466:TRP:CE3	2:B:466:TRP:HA	2.53	0.42
2:B:257:LYS:N	2:B:270:LYS:O	2.52	0.42
5:E:35:VAL:C	5:E:37:LEU:N	2.72	0.42
2:B:258:LEU:CG	2:B:258:LEU:O	2.66	0.42
1:A:570:PRO:C	1:A:571:LEU:HD12	2.40	0.42
5:E:112:TYR:CZ	5:E:136:ASN:HB2	2.54	0.42
3:C:92:CYS:O	3:C:94:LYS:N	2.52	0.42
7:G:1:MET:HE3	7:G:80:LYS:O	2.19	0.42
7:G:81:PRO:C	7:G:82:PHE:CD1	2.93	0.42
1:A:901:LEU:N	1:A:926:GLN:NE2	2.50	0.42
5:E:22:MET:HE1	5:E:26:ARG:NH2	2.34	0.42
2:B:651:LEU:HD11	2:B:707:PRO:CB	2.49	0.42
1:A:741:ASN:HD22	1:A:744:LYS:N	2.07	0.42
2:B:1032:SER:O	2:B:1036:ALA:HB2	2.19	0.42
1:A:29:ALA:HB1	2:B:1184:GLY:HA2	2.00	0.42
2:B:1115:THR:CG2	2:B:1117:GLN:CG	2.97	0.42
2:B:834:ASN:ND2	2:B:1013:ASN:HB2	2.34	0.42
1:A:1039:LYS:HE3	1:A:1043:ASP:OD2	2.19	0.42
4:D:146:GLN:O	4:D:147:TYR:C	2.57	0.42
2:B:298:LEU:CD2	2:B:298:LEU:N	2.83	0.42
9:I:58:VAL:O	9:I:58:VAL:HG12	2.19	0.42
5:E:114:ASN:HD22	5:E:114:ASN:HA	1.62	0.42
1:A:1147:THR:HA	1:A:1197:LEU:HD23	2.00	0.42
7:G:99:PHE:CD1	7:G:99:PHE:C	2.93	0.42
1:A:1149:ALA:CB	9:I:47:GLU:HA	2.49	0.42
5:E:101:GLN:NE2	5:E:127:ILE:HG21	2.34	0.42
1:A:823:GLY:C	1:A:825:ILE:N	2.72	0.42
1:A:1265:ASN:C	1:A:1267:MET:H	2.23	0.42
1:A:660:ASN:O	1:A:661:GLY:O	2.37	0.42
4:D:180:LEU:HA	4:D:180:LEU:HD23	1.75	0.42
2:B:1006:ILE:HG22	10:J:45:CYS:HB3	2.02	0.42
1:A:804:TYR:OH	1:A:816:HIS:NE2	2.53	0.42
2:B:1084:GLN:NE2	2:B:1084:GLN:H	2.17	0.42
1:A:367:PRO:HB3	1:A:465:TYR:O	2.19	0.42
3:C:236:GLY:C	3:C:238:ILE:N	2.72	0.42
1:A:324:SER:O	1:A:325:ILE:C	2.56	0.42
1:A:224:PHE:CD2	1:A:231:PRO:HG3	2.54	0.42
2:B:582:VAL:HA	2:B:626:ILE:O	2.19	0.42
1:A:19:PHE:HB3	1:A:1413:GLY:HA2	2.02	0.42
9:I:101:PHE:HD1	9:I:110:PHE:O	2.02	0.42
3:C:67:LEU:HD11	3:C:155:LEU:HD13	2.01	0.42
2:B:753:ALA:HA	2:B:756:ILE:CD1	2.48	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:145:VAL:CG1	7:G:146:LYS:N	2.81	0.42
1:A:1289:ARG:NH1	1:A:1326:ARG:NH1	2.67	0.42
5:E:127:ILE:O	5:E:130:ALA:HB3	2.20	0.42
1:A:1170:ILE:H	1:A:1170:ILE:HG13	1.62	0.42
1:A:53:LEU:HD22	1:A:54:ASN:HD22	1.85	0.42
1:A:853:ASP:OD1	1:A:855:THR:HG22	2.17	0.42
1:A:1161:THR:HG22	1:A:1163:ILE:HG13	2.02	0.42
1:A:1115:SER:OG	1:A:1116:LEU:N	2.53	0.42
2:B:992:ILE:HD11	11:K:66:PRO:HB2	2.01	0.42
10:J:41:LEU:CD1	10:J:50:ILE:HG13	2.49	0.42
3:C:131:HIS:HA	3:C:132:PRO:HD3	1.92	0.42
3:C:123:ASN:HD22	3:C:125:MET:CG	2.29	0.42
1:A:807:GLY:HA2	2:B:760:ASP:O	2.19	0.42
2:B:1106:ARG:HD3	2:B:1127:GLY:CA	2.49	0.42
1:A:1031:VAL:HG12	1:A:1031:VAL:O	2.20	0.42
1:A:210:ILE:O	1:A:214:ILE:HG13	2.19	0.42
1:A:264:PHE:O	1:A:267:ALA:HB3	2.20	0.42
1:A:1029:ARG:HG3	1:A:1029:ARG:NH1	2.34	0.42
1:A:31:SER:OG	1:A:82:GLY:HA2	2.19	0.42
10:J:31:ASP:O	10:J:32:GLU:C	2.58	0.42
1:A:765:VAL:HG23	1:A:802:ASN:O	2.20	0.42
3:C:80:LEU:HD11	3:C:95:CYS:CA	2.49	0.42
8:H:40:LEU:CD2	8:H:142:LEU:HD21	2.50	0.42
2:B:796:LEU:HD12	2:B:852:ARG:O	2.19	0.42
1:A:67:CYS:O	1:A:68:GLN:CB	2.67	0.42
1:A:337:ARG:CZ	1:A:839:ARG:HH12	2.33	0.42
2:B:1131:GLY:O	2:B:1132:GLU:C	2.58	0.42
2:B:1162:ILE:CG2	2:B:1163:CYS:N	2.79	0.42
5:E:177:ARG:O	5:E:212:ARG:CD	2.68	0.42
1:A:1434:ALA:HA	1:A:1435:PRO:HD3	1.76	0.42
1:A:231:PRO:O	1:A:233:TRP:N	2.52	0.42
1:A:535:THR:CG2	1:A:575:LYS:HE2	2.49	0.42
2:B:654:ARG:N	2:B:657:HIS:HD2	2.13	0.42
9:I:111:THR:CG2	9:I:113:ASP:HB2	2.49	0.42
1:A:427:GLN:HB2	1:A:430:TRP:CE2	2.55	0.42
1:A:481:ASP:OD1	1:A:483:ASP:OD2	2.38	0.42
1:A:1010:ALA:O	1:A:1013:ASP:HB2	2.20	0.42
1:A:444:PHE:CB	1:A:458:HIS:HD2	2.33	0.42
3:C:229:TYR:CD1	3:C:229:TYR:N	2.88	0.42
2:B:1198:TYR:CD2	2:B:1198:TYR:C	2.93	0.42
1:A:818:MET:H	2:B:514:LEU:HD23	1.83	0.42
1:A:466:SER:HB2	2:B:1099:VAL:HG11	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:249:SER:HB2	1:A:250:ILE:H	1.66	0.42
1:A:306:ASN:ND2	1:A:322:VAL:CG1	2.82	0.42
1:A:497:THR:HG22	1:A:498:ARG:N	2.34	0.42
2:B:167:ILE:HG22	2:B:453:ILE:HD12	2.01	0.42
4:D:191:ALA:C	4:D:193:THR:N	2.73	0.42
1:A:1072:ILE:O	1:A:1075:PRO:HD2	2.20	0.42
3:C:257:SER:C	3:C:258:ILE:HD12	2.40	0.42
1:A:275:SER:O	1:A:279:LEU:HG	2.19	0.42
1:A:877:HIS:C	1:A:878:ILE:CG1	2.88	0.42
4:D:7:THR:CB	7:G:42:PHE:CZ	3.03	0.42
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.55	0.42
1:A:817:ALA:O	1:A:820:GLY:N	2.52	0.42
3:C:15:LYS:O	3:C:240:VAL:HG22	2.20	0.42
5:E:133:GLU:HB3	5:E:135:PHE:HE1	1.84	0.42
1:A:23:SER:HB3	1:A:233:TRP:NE1	2.35	0.42
2:B:702:LEU:HD12	2:B:703:ILE:H	1.84	0.42
2:B:1216:LEU:N	2:B:1216:LEU:HD23	2.35	0.42
2:B:731:VAL:CG1	2:B:732:SER:N	2.81	0.42
1:A:1206:ASP:HB3	1:A:1274:ARG:NH1	2.34	0.42
3:C:8:VAL:HG12	3:C:9:LYS:H	1.83	0.42
2:B:213:ILE:HD13	2:B:213:ILE:HA	1.88	0.42
2:B:1219:ASP:O	2:B:1219:ASP:OD1	2.38	0.42
2:B:986:GLN:OE1	2:B:986:GLN:HA	2.20	0.42
1:A:1335:ILE:HG23	1:A:1339:LEU:HD12	2.01	0.42
1:A:901:LEU:HA	1:A:907:THR:OG1	2.20	0.42
9:I:12:ASN:HB3	9:I:13:MET:H	1.57	0.42
2:B:624:LEU:HA	2:B:624:LEU:HD12	1.84	0.42
2:B:366:GLN:O	2:B:367:LEU:O	2.38	0.42
1:A:606:LEU:HB3	1:A:614:PHE:CE2	2.54	0.42
1:A:231:PRO:C	1:A:233:TRP:N	2.73	0.42
2:B:1069:PHE:CD1	2:B:1069:PHE:N	2.78	0.42
3:C:174:ALA:O	3:C:175:ALA:CB	2.67	0.42
1:A:441:PRO:HD2	1:A:498:ARG:CZ	2.49	0.42
6:F:82:THR:HA	6:F:83:PRO:HD3	1.80	0.42
2:B:307:ASP:O	2:B:308:TRP:C	2.58	0.42
1:A:935:GLN:C	1:A:937:VAL:N	2.72	0.42
1:A:852:TYR:CD2	1:A:1060:PRO:CB	3.03	0.42
1:A:825:ILE:HG22	1:A:826:ASP:N	2.34	0.42
2:B:1029:CYS:HB3	2:B:1086:PHE:CZ	2.55	0.42
5:E:61:GLN:HG2	5:E:62:ALA:N	2.35	0.42
8:H:48:PRO:O	8:H:49:VAL:HG23	2.20	0.42
4:D:179:GLN:O	4:D:183:LEU:HB2	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:77:CYS:C	1:A:78:PRO:O	2.45	0.41
1:A:1217:LYS:O	1:A:1221:LYS:N	2.52	0.41
2:B:604:ARG:HG3	2:B:611:PRO:HA	2.02	0.41
5:E:201:LYS:HA	5:E:206:GLY:O	2.19	0.41
6:F:97:ARG:NH1	6:F:100:GLN:OE1	2.53	0.41
6:F:72:LYS:O	6:F:73:ALA:HB3	2.20	0.41
1:A:1339:LEU:HD13	5:E:147:HIS:CD2	2.55	0.41
1:A:254:GLU:CG	2:B:935:ARG:HH22	2.31	0.41
2:B:515:HIS:O	2:B:518:HIS:HB2	2.20	0.41
2:B:1182:CYS:O	2:B:1183:LYS:O	2.37	0.41
2:B:593:PRO:O	2:B:595:ARG:N	2.53	0.41
2:B:596:LEU:O	2:B:600:LEU:HG	2.19	0.41
1:A:472:LEU:O	1:A:475:THR:CB	2.68	0.41
9:I:83:ASN:HA	9:I:102:VAL:O	2.19	0.41
2:B:373:ARG:HG3	2:B:566:LEU:HD23	2.01	0.41
2:B:205:ILE:CG2	2:B:206:ASN:N	2.83	0.41
2:B:1106:ARG:HG3	2:B:1107:ALA:N	2.34	0.41
3:C:208:GLU:C	3:C:210:GLU:H	2.22	0.41
1:A:116:ASP:O	1:A:117:GLU:C	2.57	0.41
4:D:206:GLU:O	4:D:208:GLU:N	2.53	0.41
1:A:1111:MET:CE	1:A:1330:ASN:OD1	2.68	0.41
4:D:209:ARG:O	4:D:212:LYS:HB2	2.20	0.41
4:D:217:LEU:O	4:D:219:THR:N	2.53	0.41
2:B:610:ASN:O	2:B:612:GLU:N	2.53	0.41
10:J:2:ILE:CG2	10:J:3:VAL:N	2.83	0.41
8:H:127:GLY:HA3	8:H:130:ARG:NH2	2.35	0.41
7:G:18:PHE:HA	7:G:22:MET:HE2	1.99	0.41
1:A:1444:MET:HE3	1:A:1444:MET:HB2	1.86	0.41
6:F:143:PHE:HD1	6:F:143:PHE:C	2.23	0.41
6:F:93:ILE:HD13	6:F:148:VAL:HG13	2.02	0.41
2:B:193:LYS:HD3	2:B:787:VAL:HG11	2.01	0.41
1:A:1044:TRP:O	1:A:1045:VAL:C	2.59	0.41
2:B:1099:VAL:HG13	2:B:1100:ASP:N	2.34	0.41
2:B:233:PRO:HG2	2:B:234:ILE:CD1	2.40	0.41
1:A:843:LYS:HD3	1:A:843:LYS:HA	1.82	0.41
2:B:1197:PRO:O	2:B:1200:ALA:HB3	2.20	0.41
2:B:1165:ILE:CG2	2:B:1166:CYS:N	2.83	0.41
4:D:53:SER:CB	4:D:153:ARG:H	2.32	0.41
5:E:198:ILE:HD11	5:E:212:ARG:CG	2.46	0.41
4:D:66:ARG:CD	4:D:133:THR:HB	2.43	0.41
2:B:954:VAL:HA	2:B:964:VAL:HG22	2.01	0.41
2:B:820:GLY:C	2:B:1091:TYR:CE1	2.94	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:277:GLU:C	1:A:279:LEU:N	2.73	0.41
1:A:1076:ALA:HA	1:A:1079:MET:HE3	2.01	0.41
2:B:1187:ASN:OD1	2:B:1189:ILE:N	2.52	0.41
2:B:854:LEU:HD23	2:B:854:LEU:HA	1.83	0.41
3:C:94:LYS:HE3	3:C:94:LYS:HB2	1.86	0.41
2:B:278:GLN:HG2	2:B:279:ASP:H	1.85	0.41
2:B:1002:THR:O	2:B:1003:ALA:C	2.59	0.41
1:A:1059:HIS:CE1	6:F:86:THR:HA	2.55	0.41
2:B:918:ILE:HG21	2:B:935:ARG:NH1	2.36	0.41
1:A:55:ASP:N	1:A:56:PRO:CD	2.83	0.41
3:C:252:GLN:CG	11:K:95:ILE:HG23	2.50	0.41
2:B:365:THR:HG23	2:B:367:LEU:N	2.27	0.41
1:A:1372:VAL:CG1	1:A:1373:ASP:N	2.82	0.41
1:A:1206:ASP:O	1:A:1274:ARG:NH1	2.51	0.41
1:A:1385:THR:HG22	1:A:1386:ARG:H	1.84	0.41
1:A:414:ASP:OD1	1:A:416:ARG:CG	2.68	0.41
6:F:74:ILE:HG23	6:F:75:PRO:HD2	2.01	0.41
2:B:235:SER:O	2:B:236:HIS:HD2	2.04	0.41
1:A:626:ASN:HB3	1:A:627:GLY:H	1.71	0.41
1:A:890:ASP:H	1:A:1296:GLY:HA3	1.84	0.41
11:K:68:PHE:CD2	11:K:68:PHE:N	2.86	0.41
5:E:82:PHE:CD1	5:E:82:PHE:N	2.88	0.41
2:B:827:ILE:O	2:B:827:ILE:HG22	2.20	0.41
4:D:138:ASN:O	4:D:141:LEU:N	2.54	0.41
1:A:870:GLU:HG2	5:E:208:TYR:CG	2.55	0.41
2:B:822:ASN:HD22	10:J:52:THR:HG21	1.85	0.41
1:A:1041:ALA:O	1:A:1044:TRP:HB3	2.20	0.41
1:A:356:ASP:C	1:A:358:ASN:H	2.24	0.41
2:B:839:MET:HE3	2:B:1010:LEU:HD21	2.02	0.41
2:B:839:MET:HE1	2:B:980:PHE:CB	2.51	0.41
1:A:70:CYS:O	1:A:70:CYS:SG	2.78	0.41
1:A:1450:LEU:HD21	7:G:19:GLY:O	2.20	0.41
1:A:93:VAL:CG2	1:A:304:MET:HE3	2.50	0.41
4:D:153:ARG:O	4:D:154:PHE:CG	2.73	0.41
1:A:443:LEU:HD11	1:A:455:MET:SD	2.59	0.41
1:A:457:ALA:HB3	1:A:506:ALA:HA	2.01	0.41
1:A:90:VAL:HG13	1:A:297:GLN:OE1	2.20	0.41
6:F:111:LEU:N	6:F:111:LEU:CD1	2.83	0.41
2:B:638:PHE:HD2	2:B:690:VAL:HG22	1.86	0.41
2:B:603:LEU:HB3	2:B:609:ILE:CG1	2.50	0.41
1:A:683:ILE:O	1:A:686:ALA:HB3	2.20	0.41
3:C:116:LYS:HD3	3:C:140:ASN:HB3	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:123:ASN:HD21	3:C:125:MET:HA	1.85	0.41
2:B:821:GLN:NE2	2:B:851:PHE:HA	2.35	0.41
1:A:940:ARG:NH1	1:A:940:ARG:HG2	2.35	0.41
2:B:769:TYR:C	2:B:771:SER:N	2.73	0.41
2:B:214:ALA:HB3	2:B:498:THR:HA	2.01	0.41
10:J:56:LEU:O	10:J:57:ILE:C	2.58	0.41
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.86	0.41
6:F:96:THR:O	6:F:99:LEU:HB3	2.21	0.41
11:K:10:PHE:CD1	11:K:11:LEU:CD2	3.04	0.41
9:I:34:TYR:O	9:I:35:VAL:CG2	2.69	0.41
2:B:579:ARG:CA	2:B:589:VAL:HG13	2.51	0.41
1:A:667:GLY:HA3	3:C:192:TRP:CH2	2.56	0.41
2:B:1183:LYS:HE3	2:B:1183:LYS:O	2.20	0.41
2:B:552:MET:O	2:B:554:ILE:N	2.53	0.41
3:C:116:LYS:HD3	3:C:140:ASN:HA	2.03	0.41
2:B:948:ILE:C	2:B:949:VAL:O	2.56	0.41
1:A:1127:ASP:O	1:A:1130:GLN:HB3	2.20	0.41
1:A:444:PHE:CB	1:A:458:HIS:CD2	3.03	0.41
2:B:1164:GLY:HA3	2:B:1190:ASP:OD2	2.21	0.41
7:G:149:GLY:O	7:G:159:ALA:HB1	2.20	0.41
1:A:474:VAL:C	1:A:477:PRO:HD2	2.41	0.41
2:B:69:LEU:HD22	2:B:429:PHE:CE1	2.56	0.41
1:A:599:SER:HB2	1:A:603:ASN:H	1.84	0.41
10:J:7:CYS:CA	10:J:49:MET:HE3	2.51	0.41
2:B:918:ILE:HD12	2:B:935:ARG:CD	2.51	0.41
1:A:356:ASP:OD2	11:K:65:HIS:CE1	2.71	0.41
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.36	0.41
5:E:171:LYS:HA	5:E:171:LYS:HD3	1.89	0.41
2:B:1162:ILE:O	2:B:1171:VAL:HG21	2.20	0.41
2:B:687:GLU:O	2:B:689:LEU:HG	2.20	0.41
1:A:265:LYS:HZ1	1:A:322:VAL:HG22	1.84	0.41
2:B:952:VAL:O	2:B:953:LEU:HB3	2.21	0.41
2:B:130:VAL:CG2	2:B:167:ILE:HD12	2.50	0.41
1:A:958:VAL:HG22	1:A:1052:GLN:HB3	2.03	0.41
1:A:1334:ASP:C	1:A:1336:MET:N	2.73	0.41
9:I:61:ASP:C	9:I:63:GLY:N	2.73	0.41
1:A:621:THR:O	1:A:629:LEU:HB2	2.21	0.41
1:A:1157:ASP:O	1:A:1159:ARG:N	2.54	0.41
1:A:822:GLU:O	1:A:825:ILE:HB	2.21	0.41
2:B:558:LEU:C	2:B:560:GLU:N	2.74	0.41
5:E:145:THR:HG21	5:E:187:TYR:CD2	2.56	0.41
2:B:575:PRO:HG2	2:B:576:ASP:H	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:56:THR:O	8:H:144:ILE:HA	2.21	0.41
1:A:464:PRO:HG2	1:A:465:TYR:CD1	2.54	0.41
1:A:353:ILE:HD13	1:A:487:MET:CE	2.50	0.41
5:E:98:ILE:O	5:E:99:HIS:C	2.59	0.41
3:C:240:VAL:O	3:C:244:VAL:HG23	2.21	0.41
2:B:168:GLY:N	2:B:450:ALA:HB1	2.19	0.41
5:E:60:PHE:CE2	5:E:80:VAL:HB	2.56	0.41
1:A:343:LYS:HE2	2:B:1156:ASP:OD2	2.21	0.41
1:A:1425:SER:O	1:A:1429:ILE:HG13	2.21	0.41
11:K:113:THR:O	11:K:114:LEU:CB	2.63	0.41
4:D:196:PRO:C	4:D:198:LEU:H	2.23	0.41
2:B:446:LEU:O	2:B:447:ALA:CB	2.66	0.41
11:K:12:LEU:CD1	11:K:12:LEU:H	2.32	0.41
1:A:446:ARG:NH1	1:A:479:ASN:O	2.54	0.41
1:A:1334:ASP:C	1:A:1336:MET:H	2.23	0.41
2:B:496:ARG:NH1	2:B:496:ARG:HB3	2.36	0.41
1:A:789:LYS:HE3	9:I:67:THR:HB	2.03	0.41
1:A:452:LYS:HE2	1:A:452:LYS:HB3	1.74	0.41
2:B:589:VAL:CG1	2:B:590:HIS:H	2.11	0.41
2:B:1080:LYS:HD2	3:C:188:HIS:HB2	2.03	0.41
1:A:1410:PHE:C	1:A:1412:ALA:H	2.23	0.41
5:E:116:ILE:CG2	5:E:117:THR:N	2.83	0.41
2:B:912:ILE:HD11	2:B:966:VAL:HG23	2.03	0.41
2:B:637:LEU:HD23	2:B:742:GLU:HA	2.02	0.41
1:A:809:THR:O	1:A:810:PRO:C	2.59	0.41
1:A:774:ARG:CZ	1:A:797:LYS:CB	2.98	0.41
12:L:62:LYS:O	12:L:63:ARG:C	2.59	0.41
4:D:156:ASP:O	4:D:158:GLU:N	2.54	0.41
3:C:11:ARG:NH2	3:C:206:ASN:OD1	2.54	0.41
2:B:522:VAL:HG12	2:B:523:CYS:N	2.36	0.41
2:B:487:THR:O	2:B:490:SER:HB3	2.21	0.41
2:B:20:ASP:O	2:B:22:SER:N	2.45	0.41
1:A:242:PRO:O	1:A:247:ARG:NE	2.52	0.41
1:A:596:THR:C	1:A:598:LEU:N	2.73	0.41
1:A:1444:MET:O	6:F:132:LEU:HA	2.20	0.41
1:A:1059:HIS:CE1	6:F:87:LYS:H	2.39	0.41
6:F:99:LEU:O	6:F:103:MET:CG	2.69	0.41
2:B:102:VAL:CG2	2:B:112:LEU:HB2	2.41	0.41
2:B:479:VAL:O	2:B:480:SER:HB3	2.20	0.41
5:E:98:ILE:O	5:E:100:ILE:N	2.53	0.41
5:E:23:VAL:O	5:E:28:TYR:HD1	2.03	0.41
2:B:842:ASN:HD21	2:B:845:SER:H	1.60	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:343:LYS:NZ	2:B:1151:LEU:O	2.46	0.41
1:A:744:LYS:O	1:A:747:VAL:N	2.54	0.41
11:K:40:HIS:O	11:K:41:THR:C	2.59	0.41
2:B:1208:MET:HA	2:B:1212:ILE:O	2.20	0.41
5:E:90:VAL:CA	5:E:120:ALA:HB2	2.49	0.41
1:A:527:THR:O	1:A:531:ILE:HB	2.21	0.41
2:B:1068:GLY:O	2:B:1069:PHE:C	2.59	0.41
3:C:73:GLN:HE21	3:C:74:SER:N	2.19	0.41
2:B:595:ARG:O	2:B:596:LEU:C	2.59	0.41
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.97	0.41
1:A:541:ILE:CG2	1:A:546:VAL:HG23	2.50	0.41
1:A:332:LYS:C	1:A:334:GLY:H	2.25	0.41
3:C:177:GLU:HG3	3:C:231:ASN:HD22	1.86	0.41
1:A:645:LEU:O	1:A:646:PHE:C	2.59	0.41
1:A:1299:VAL:CG1	1:A:1300:LYS:N	2.83	0.41
11:K:43:GLY:HA3	11:K:61:TYR:CE1	2.56	0.41
1:A:586:ILE:CG2	1:A:587:HIS:N	2.83	0.41
1:A:1213:GLY:O	1:A:1214:GLU:C	2.59	0.41
2:B:492:LEU:O	2:B:493:SER:C	2.60	0.41
2:B:288:ALA:HA	2:B:331:LEU:HD12	2.02	0.41
1:A:829:VAL:C	1:A:831:THR:N	2.74	0.41
1:A:116:ASP:C	1:A:118:HIS:N	2.71	0.41
4:D:206:GLU:C	4:D:208:GLU:H	2.23	0.41
7:G:101:VAL:HG12	7:G:102:GLN:N	2.35	0.41
7:G:74:TYR:N	7:G:74:TYR:CD2	2.88	0.41
1:A:567:LYS:HG3	1:A:568:PRO:CD	2.39	0.41
2:B:65:GLU:HG3	2:B:66:ASP:OD1	2.21	0.41
2:B:800:GLN:CA	10:J:52:THR:HG22	2.51	0.41
2:B:1147:LEU:CD2	2:B:1151:LEU:HD22	2.51	0.41
2:B:1200:ALA:O	2:B:1203:LEU:HB3	2.21	0.41
2:B:910:VAL:HG12	2:B:911:ILE:N	2.35	0.41
1:A:1152:ILE:CG1	9:I:44:TYR:HB3	2.46	0.41
1:A:577:ILE:O	1:A:578:LEU:C	2.56	0.41
1:A:1019:CYS:O	1:A:1023:ARG:N	2.45	0.41
2:B:54:PHE:CE2	2:B:59:LEU:HD13	2.55	0.41
1:A:7:SER:HB2	2:B:1175:LEU:HD22	2.03	0.41
2:B:435:THR:C	2:B:437:GLU:H	2.23	0.41
1:A:838:GLN:HG2	1:A:1073:GLY:HA3	2.03	0.41
1:A:373:THR:HG21	2:B:1105:ALA:CB	2.51	0.41
2:B:390:LEU:O	2:B:391:ASP:C	2.58	0.41
3:C:62:PHE:O	3:C:66:ARG:HG3	2.21	0.40
8:H:96:VAL:HA	8:H:142:LEU:O	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:801:LYS:N	10:J:52:THR:HG22	2.36	0.40
1:A:445:ASN:CB	1:A:455:MET:HG2	2.44	0.40
1:A:296:LEU:O	1:A:297:GLN:C	2.58	0.40
1:A:1120:LEU:CD1	1:A:1304:TRP:O	2.69	0.40
9:I:50:THR:HG22	9:I:52:ILE:N	2.32	0.40
2:B:838:SER:CA	2:B:989:THR:O	2.69	0.40
1:A:935:GLN:O	1:A:936:LEU:C	2.59	0.40
1:A:1011:GLN:O	1:A:1012:ARG:C	2.59	0.40
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.56	0.40
1:A:416:ARG:O	1:A:417:TYR:HD2	2.03	0.40
1:A:1135:ARG:C	1:A:1137:ALA:H	2.24	0.40
2:B:810:GLU:CB	2:B:815:ARG:HH22	2.33	0.40
3:C:80:LEU:CD1	3:C:95:CYS:HA	2.51	0.40
2:B:487:THR:CG2	2:B:488:TYR:N	2.84	0.40
1:A:514:PRO:C	1:A:516:SER:N	2.75	0.40
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.51	0.40
2:B:1087:PHE:CD2	2:B:1088:GLY:N	2.80	0.40
6:F:123:LYS:O	6:F:124:GLU:C	2.58	0.40
2:B:841:MET:O	2:B:993:THR:HA	2.21	0.40
2:B:211:VAL:HG23	2:B:483:LEU:HB2	2.03	0.40
1:A:306:ASN:HB2	1:A:324:SER:HB3	2.02	0.40
1:A:532:ARG:O	1:A:535:THR:HB	2.22	0.40
12:L:38:LEU:O	12:L:39:SER:CB	2.63	0.40
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.42	0.40
7:G:50:ASP:O	7:G:51:TYR:C	2.58	0.40
1:A:877:HIS:O	1:A:878:ILE:HG12	2.21	0.40
1:A:1333:ILE:O	1:A:1337:GLU:HG3	2.21	0.40
1:A:7:SER:C	1:A:9:ALA:H	2.23	0.40
1:A:6:TYR:CD1	1:A:7:SER:N	2.89	0.40
10:J:34:THR:O	10:J:35:ALA:C	2.59	0.40
1:A:1173:HIS:C	1:A:1174:PHE:CD1	2.94	0.40
1:A:1389:PHE:CD1	1:A:1389:PHE:C	2.94	0.40
7:G:82:PHE:CD1	7:G:82:PHE:N	2.90	0.40
1:A:1163:ILE:HG22	1:A:1164:PRO:HD2	2.04	0.40
2:B:520:GLY:H	2:B:748:ILE:HG22	1.87	0.40
1:A:870:GLU:HB2	5:E:204:THR:HG21	2.03	0.40
1:A:1118:VAL:O	1:A:1118:VAL:HG23	2.20	0.40
1:A:1332:PHE:HA	1:A:1335:ILE:HB	2.03	0.40
1:A:255:SER:O	1:A:256:GLN:HG3	2.20	0.40
1:A:913:LEU:HD23	1:A:919:ILE:HD12	2.04	0.40
1:A:399:HIS:O	1:A:400:PRO:C	2.58	0.40
1:A:70:CYS:O	1:A:71:GLN:C	2.59	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:1135:ARG:O	2:B:1138:MET:N	2.54	0.40
1:A:344:ARG:HG2	1:A:344:ARG:NH1	2.36	0.40
1:A:432:VAL:O	1:A:433:GLU:C	2.60	0.40
1:A:1434:ALA:CB	1:A:1436:ILE:HD12	2.52	0.40
1:A:326:ARG:NH2	1:A:1407:GLU:HG3	2.36	0.40
1:A:24:PRO:O	1:A:28:ARG:HG3	2.21	0.40
2:B:1178:ASN:O	2:B:1180:PHE:CD1	2.74	0.40
2:B:519:TRP:HE1	2:B:635:ARG:NH2	2.19	0.40
2:B:983:ARG:HD2	2:B:1091:TYR:HB3	2.02	0.40
2:B:309:GLN:CG	9:I:52:ILE:HD11	2.51	0.40
1:A:331:GLY:O	1:A:332:LYS:HB3	2.20	0.40
4:D:51:ASN:C	4:D:52:LEU:O	2.59	0.40
1:A:1313:LEU:C	1:A:1315:GLU:H	2.24	0.40
2:B:286:PHE:HE2	2:B:375:ALA:HB1	1.87	0.40
5:E:127:ILE:O	5:E:127:ILE:HG13	2.21	0.40
3:C:206:ASN:OD1	3:C:229:TYR:CD2	2.74	0.40
2:B:500:THR:HA	2:B:501:PRO:HD2	1.87	0.40
10:J:3:VAL:HA	10:J:4:PRO:HD3	1.88	0.40
1:A:455:MET:HE1	2:B:1134:GLU:HB3	2.02	0.40
5:E:16:PHE:O	5:E:17:ARG:C	2.59	0.40
2:B:593:PRO:O	2:B:594:ALA:C	2.60	0.40
2:B:701:ILE:HG13	2:B:702:LEU:N	2.35	0.40
1:A:1227:ILE:CG2	1:A:1228:TRP:H	2.35	0.40
2:B:758:PHE:HZ	2:B:1031:LEU:HD22	1.86	0.40
2:B:758:PHE:O	2:B:760:ASP:N	2.54	0.40
1:A:1370:LEU:O	1:A:1373:ASP:HB2	2.21	0.40
1:A:130:ASP:O	1:A:132:LYS:N	2.55	0.40
1:A:1027:ALA:O	1:A:1028:THR:C	2.59	0.40
2:B:901:PRO:O	2:B:949:VAL:HB	2.21	0.40
1:A:172:PRO:HD3	1:A:185:TRP:HE1	1.86	0.40
3:C:245:VAL:C	3:C:247:GLY:N	2.74	0.40
2:B:641:GLU:C	2:B:643:ASP:H	2.25	0.40
2:B:1124:ARG:O	2:B:1125:ASP:CB	2.68	0.40
1:A:696:GLU:O	1:A:696:GLU:HG2	2.21	0.40
1:A:1067:LEU:HD12	1:A:1071:SER:OG	2.21	0.40
2:B:798:TYR:CE2	3:C:62:PHE:HE2	2.38	0.40
10:J:2:ILE:H	10:J:57:ILE:HG22	1.87	0.40
1:A:252:PHE:HB2	1:A:256:GLN:CD	2.42	0.40
11:K:65:HIS:CG	11:K:66:PRO:HD2	2.56	0.40
5:E:23:VAL:HG13	5:E:78:LEU:CD1	2.49	0.40
5:E:23:VAL:O	5:E:23:VAL:HG12	2.21	0.40
1:A:69:THR:O	1:A:71:GLN:HG2	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:874:ASP:HA	1:A:1058:VAL:HG22	2.03	0.40
1:A:403:LYS:O	1:A:404:TYR:CG	2.74	0.40
1:A:222:LEU:O	1:A:224:PHE:N	2.55	0.40
1:A:1205:LYS:O	1:A:1206:ASP:C	2.59	0.40
1:A:1019:CYS:O	1:A:1020:CYS:C	2.60	0.40
1:A:1381:LEU:HD23	1:A:1381:LEU:HA	1.77	0.40
1:A:418:SER:C	1:A:420:ARG:H	2.24	0.40
7:G:49:LEU:HD23	7:G:49:LEU:N	2.35	0.40
2:B:386:LEU:O	2:B:388:CYS:N	2.55	0.40
5:E:8:ASN:O	5:E:8:ASN:OD1	2.40	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone ⓘ

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	1406/1733 (81%)	949 (68%)	293 (21%)	164 (12%)	1	15
2	B	1077/1224 (88%)	735 (68%)	221 (20%)	121 (11%)	1	16
3	C	264/318 (83%)	159 (60%)	66 (25%)	39 (15%)	0	9
4	D	173/177 (98%)	122 (70%)	34 (20%)	17 (10%)	1	21
5	E	212/215 (99%)	148 (70%)	49 (23%)	15 (7%)	2	33
6	F	82/155 (53%)	64 (78%)	14 (17%)	4 (5%)	3	45
7	G	169/171 (99%)	131 (78%)	26 (15%)	12 (7%)	2	33
8	H	129/146 (88%)	84 (65%)	29 (22%)	16 (12%)	1	14
9	I	117/122 (96%)	80 (68%)	29 (25%)	8 (7%)	2	35
10	J	63/70 (90%)	37 (59%)	10 (16%)	16 (25%)	0	2
11	K	113/120 (94%)	89 (79%)	18 (16%)	6 (5%)	3	42
12	L	44/70 (63%)	19 (43%)	14 (32%)	11 (25%)	0	2
All	All	3849/4521 (85%)	2617 (68%)	803 (21%)	429 (11%)	1	17



All (429) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	5	GLN
1	A	48	ALA
1	A	54	ASN
1	A	55	ASP
1	A	57	ARG
1	A	62	ASP
1	A	65	LEU
1	A	74	MET
1	A	76	GLU
1	A	78	PRO
1	A	93	VAL
1	A	130	ASP
1	A	154	SER
1	A	167	CYS
1	A	250	ILE
1	A	255	SER
1	A	286	HIS
1	A	311	GLN
1	A	322	VAL
1	A	333	GLU
1	A	335	ARG
1	A	385	ILE
1	A	418	SER
1	A	423	ASP
1	A	424	ILE
1	A	536	LEU
1	A	567	LYS
1	A	619	LYS
1	A	626	ASN
1	A	666	ILE
1	A	775	ILE
1	A	968	GLN
1	A	1002	GLY
1	A	1036	ARG
1	A	1115	SER
1	A	1122	PRO
1	A	1223	ASP
1	A	1281	ARG
1	A	1314	SER
1	A	1341	ILE
1	A	1365	TYR
1	A	1366	ARG

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Mol	Chain	Res	Type
1	A	1378	GLN
1	A	1397	LEU
1	A	1403	GLU
1	A	1405	THR
1	A	1438	THR
2	B	108	VAL
2	B	115	GLN
2	B	186	GLU
2	B	206	ASN
2	B	258	LEU
2	B	259	TYR
2	B	334	ILE
2	B	367	LEU
2	B	629	ASP
2	B	643	ASP
2	B	709	ASP
2	B	727	LYS
2	B	731	VAL
2	B	746	SER
2	B	751	VAL
2	B	881	ASN
2	B	891	ASP
2	B	907	GLY
2	B	958	GLN
2	B	1006	ILE
2	B	1046	PRO
2	B	1069	PHE
2	B	1100	ASP
2	B	1108	ARG
2	B	1156	ASP
2	B	1171	VAL
2	B	1175	LEU
2	B	1181	GLU
2	B	1182	CYS
2	B	1183	LYS
2	B	1186	ASP
2	B	1188	LYS
3	C	56	THR
3	C	78	GLU
3	C	91	HIS
3	C	141	GLY
3	C	149	LYS

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Mol	Chain	Res	Type
3	C	156	THR
3	C	161	LYS
3	C	184	ASN
3	C	202	PRO
3	C	209	TYR
3	C	213	PRO
3	C	214	ASN
3	C	215	GLU
3	C	231	ASN
3	C	240	VAL
4	D	6	SER
4	D	8	PHE
4	D	12	ARG
4	D	19	GLU
4	D	20	GLU
4	D	21	GLU
4	D	52	LEU
4	D	131	GLU
4	D	177	VAL
4	D	192	LYS
4	D	199	ASN
5	E	106	GLN
5	E	130	ALA
7	G	62	LEU
7	G	63	PRO
7	G	139	ILE
8	H	81	PRO
8	H	128	ASN
8	H	140	ALA
9	I	3	THR
9	I	9	ASP
9	I	106	CYS
10	J	2	ILE
10	J	6	ARG
10	J	8	PHE
10	J	9	SER
10	J	17	LYS
10	J	28	ASP
10	J	32	GLU
10	J	64	ASN
11	K	114	LEU
12	L	50	ASP

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Mol	Chain	Res	Type
12	L	53	HIS
12	L	59	ALA
1	A	4	GLN
1	A	42	ASP
1	A	44	THR
1	A	59	GLY
1	A	61	ILE
1	A	66	LYS
1	A	70	CYS
1	A	101	LYS
1	A	111	GLY
1	A	113	LEU
1	A	244	PRO
1	A	263	THR
1	A	290	GLU
1	A	312	PRO
1	A	318	SER
1	A	336	ILE
1	A	364	VAL
1	A	409	SER
1	A	421	ALA
1	A	483	ASP
1	A	661	GLY
1	A	753	GLY
1	A	765	VAL
1	A	780	VAL
1	A	789	LYS
1	A	818	MET
1	A	824	LEU
1	A	846	GLU
1	A	847	ASP
1	A	875	ALA
1	A	986	ILE
1	A	1008	GLN
1	A	1016	THR
1	A	1116	LEU
1	A	1120	LEU
1	A	1133	LEU
1	A	1165	GLU
1	A	1212	VAL
1	A	1221	LYS
1	A	1233	ASP

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Mol	Chain	Res	Type
1	A	1335	ILE
1	A	1377	THR
1	A	1386	ARG
1	A	1389	PHE
1	A	1393	ASN
2	B	21	GLU
2	B	28	GLU
2	B	45	SER
2	B	46	GLN
2	B	114	PRO
2	B	229	ALA
2	B	260	GLY
2	B	266	ALA
2	B	282	ILE
2	B	308	TRP
2	B	513	GLN
2	B	559	SER
2	B	641	GLU
2	B	655	LYS
2	B	869	SER
2	B	888	GLY
2	B	1003	ALA
2	B	1035	ALA
2	B	1041	GLU
2	B	1126	GLY
2	B	1153	GLU
2	B	1155	SER
2	B	1157	ALA
2	B	1167	GLY
2	B	1176	ASN
2	B	1178	ASN
3	C	84	ARG
3	C	87	PHE
3	C	110	THR
3	C	142	VAL
3	C	164	ALA
3	C	169	LYS
3	C	175	ALA
3	C	216	GLY
3	C	255	VAL
3	C	264	GLN
4	D	15	LEU

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Mol	Chain	Res	Type
4	D	218	GLU
5	E	36	GLU
5	E	44	ALA
5	E	59	SER
5	E	73	PRO
5	E	74	ASP
5	E	192	ARG
5	E	206	GLY
6	F	81	THR
7	G	118	ASP
7	G	154	VAL
8	H	32	THR
8	H	59	ILE
8	H	82	PRO
8	H	84	ALA
8	H	92	ASP
8	H	107	VAL
9	I	57	GLY
9	I	62	ILE
10	J	14	VAL
10	J	29	GLU
10	J	33	GLY
11	K	53	ASP
12	L	35	SER
1	A	58	LEU
1	A	71	GLN
1	A	117	GLU
1	A	131	SER
1	A	170	THR
1	A	219	PHE
1	A	223	GLY
1	A	232	GLU
1	A	253	ASN
1	A	278	THR
1	A	317	LYS
1	A	357	PRO
1	A	399	HIS
1	A	419	LYS
1	A	439	ASN
1	A	465	TYR
1	A	517	ASN
1	A	543	LEU

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Mol	Chain	Res	Type
1	A	592	ASP
1	A	605	MET
1	A	731	ARG
1	A	817	ALA
1	A	940	ARG
1	A	1164	PRO
1	A	1309	ASP
1	A	1395	GLY
1	A	1411	GLU
2	B	58	THR
2	B	383	ASN
2	B	450	ALA
2	B	459	TYR
2	B	512	ARG
2	B	571	PRO
2	B	590	HIS
2	B	591	ARG
2	B	605	ARG
2	B	648	HIS
2	B	682	SER
2	B	711	GLU
2	B	738	PHE
2	B	792	MET
2	B	797	TYR
2	B	848	ARG
2	B	878	GLN
2	B	884	ARG
2	B	943	SER
2	B	1017	ILE
3	C	60	ASP
3	C	89	GLU
3	C	93	ASP
3	C	167	HIS
5	E	115	ASN
7	G	53	ASN
8	H	17	PRO
8	H	77	ARG
8	H	108	SER
8	H	135	LEU
9	I	78	CYS
10	J	24	LEU
10	J	51	LEU

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Mol	Chain	Res	Type
10	J	55	ASP
11	K	54	ARG
11	K	88	LYS
12	L	40	LEU
12	L	54	ARG
1	A	69	THR
1	A	276	LEU
1	A	283	GLY
1	A	400	PRO
1	A	756	ILE
1	A	795	GLU
1	A	910	PRO
1	A	958	VAL
1	A	1011	GLN
1	A	1028	THR
1	A	1114	PRO
1	A	1240	CYS
1	A	1242	VAL
1	A	1297	GLU
2	B	67	SER
2	B	68	THR
2	B	100	PRO
2	B	124	TYR
2	B	257	LYS
2	B	369	GLY
2	B	419	THR
2	B	594	ALA
2	B	620	ARG
2	B	735	ALA
2	B	883	LEU
2	B	951	GLN
2	B	1011	ILE
2	B	1082	MET
2	B	1097	HIS
2	B	1144	ALA
3	C	77	ILE
3	C	198	ALA
4	D	30	GLY
7	G	19	GLY
7	G	26	LEU
8	H	44	VAL
8	H	52	GLN

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Mol	Chain	Res	Type
9	I	47	GLU
10	J	27	GLU
11	K	29	ASN
12	L	43	THR
12	L	56	LEU
12	L	60	ARG
1	A	68	GLN
1	A	128	ILE
1	A	226	GLU
1	A	598	LEU
1	A	599	SER
1	A	633	VAL
1	A	648	ASN
1	A	649	ILE
1	A	739	ASP
1	A	755	PHE
1	A	841	LEU
1	A	871	ASP
1	A	969	GLN
1	A	1054	LEU
1	A	1266	THR
2	B	27	ALA
2	B	48	LEU
2	B	65	GLU
2	B	197	PHE
2	B	309	GLN
2	B	414	ALA
2	B	418	LYS
2	B	530	GLY
2	B	636	PRO
2	B	758	PHE
2	B	766	ARG
2	B	867	GLY
2	B	1016	ALA
3	C	108	GLU
4	D	168	LYS
5	E	40	GLU
5	E	45	LYS
6	F	112	GLU
6	F	150	GLU
7	G	34	VAL
7	G	115	MET

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Mol	Chain	Res	Type
1	A	84	ILE
1	A	245	PRO
1	A	492	PRO
1	A	525	GLN
1	A	1158	PRO
1	A	1396	ALA
2	B	313	MET
2	B	364	ILE
2	B	480	SER
2	B	836	GLU
2	B	1214	PRO
3	C	18	VAL
3	C	176	ILE
3	C	230	MET
4	D	69	ALA
4	D	139	LYS
5	E	158	SER
8	H	21	ASN
9	I	34	TYR
10	J	63	TYR
11	K	90	ALA
12	L	28	LYS
12	L	46	VAL
1	A	196	GLU
1	A	300	VAL
1	A	627	GLY
1	A	1057	VAL
2	B	611	PRO
2	B	712	PRO
3	C	172	PRO
3	C	212	PRO
1	A	652	VAL
1	A	653	VAL
2	B	501	PRO
2	B	551	PRO
5	E	37	LEU
1	A	546	VAL
1	A	825	ILE
1	A	1379	GLY
1	A	1454	MET
2	B	411	PRO
2	B	818	PRO

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Mol	Chain	Res	Type
2	B	1018	PRO
3	C	171	GLY
2	B	524	PRO
3	C	126	GLY
6	F	131	PRO
7	G	20	PRO
7	G	116	PRO
2	B	592	ASN
5	E	129	PRO

### 5.3.2 Protein sidechains ⓘ

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	1239/1520 (82%)	1135 (92%)	104 (8%)	16	63
2	B	952/1061 (90%)	866 (91%)	86 (9%)	14	59
3	C	234/274 (85%)	212 (91%)	22 (9%)	13	56
4	D	140/159 (88%)	124 (89%)	16 (11%)	8	45
5	E	196/197 (100%)	187 (95%)	9 (5%)	37	83
6	F	74/137 (54%)	65 (88%)	9 (12%)	7	42
7	G	152/152 (100%)	142 (93%)	10 (7%)	24	73
8	H	117/128 (91%)	111 (95%)	6 (5%)	33	81
9	I	113/116 (97%)	99 (88%)	14 (12%)	7	41
10	J	60/65 (92%)	54 (90%)	6 (10%)	11	53
11	K	99/102 (97%)	92 (93%)	7 (7%)	21	70
12	L	40/57 (70%)	37 (92%)	3 (8%)	19	67
All	All	3416/3968 (86%)	3124 (92%)	292 (8%)	15	62

All (292) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2	VAL
1	A	11	LEU

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Mol	Chain	Res	Type
1	A	22	PHE
1	A	34	LYS
1	A	38	PRO
1	A	62	ASP
1	A	67	CYS
1	A	83	HIS
1	A	93	VAL
1	A	105	CYS
1	A	108	MET
1	A	208	LEU
1	A	209	ASN
1	A	215	SER
1	A	236	LEU
1	A	245	PRO
1	A	270	LEU
1	A	293	GLU
1	A	302	THR
1	A	312	PRO
1	A	320	ARG
1	A	335	ARG
1	A	345	VAL
1	A	354	SER
1	A	369	SER
1	A	381	THR
1	A	404	TYR
1	A	406	ILE
1	A	407	ARG
1	A	408	ASP
1	A	418	SER
1	A	425	GLN
1	A	443	LEU
1	A	445	ASN
1	A	450	LEU
1	A	451	HIS
1	A	454	SER
1	A	460	VAL
1	A	470	LEU
1	A	481	ASP
1	A	493	GLN
1	A	497	THR
1	A	503	GLN
1	A	515	GLN

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Mol	Chain	Res	Type
1	A	560	ILE
1	A	562	THR
1	A	587	HIS
1	A	598	LEU
1	A	618	GLU
1	A	626	ASN
1	A	629	LEU
1	A	666	ILE
1	A	670	ILE
1	A	711	ARG
1	A	739	ASP
1	A	774	ARG
1	A	779	PHE
1	A	821	ARG
1	A	831	THR
1	A	834	THR
1	A	845	LEU
1	A	854	ASN
1	A	858	ASN
1	A	890	ASP
1	A	903	ASN
1	A	929	LEU
1	A	940	ARG
1	A	949	ASP
1	A	969	GLN
1	A	1006	ILE
1	A	1016	THR
1	A	1029	ARG
1	A	1032	LEU
1	A	1035	TYR
1	A	1052	GLN
1	A	1067	LEU
1	A	1110	ASN
1	A	1111	MET
1	A	1116	LEU
1	A	1122	PRO
1	A	1127	ASP
1	A	1152	ILE
1	A	1155	ASP
1	A	1170	ILE
1	A	1173	HIS
1	A	1264	GLU

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Mol	Chain	Res	Type
1	A	1271	ILE
1	A	1291	VAL
1	A	1295	THR
1	A	1298	TYR
1	A	1309	ASP
1	A	1332	PHE
1	A	1333	ILE
1	A	1359	ASP
1	A	1364	ASN
1	A	1366	ARG
1	A	1372	VAL
1	A	1400	CYS
1	A	1405	THR
1	A	1432	GLN
1	A	1442	ASP
1	A	1443	VAL
1	A	1445	ILE
1	A	1447	GLU
2	B	44	VAL
2	B	57	TYR
2	B	61	ASP
2	B	128	LEU
2	B	175	ARG
2	B	188	ASP
2	B	194	GLU
2	B	199	MET
2	B	217	ARG
2	B	223	VAL
2	B	225	VAL
2	B	261	ARG
2	B	268	THR
2	B	286	PHE
2	B	294	ASP
2	B	298	LEU
2	B	360	PHE
2	B	365	THR
2	B	371	GLU
2	B	378	LEU
2	B	393	LYS
2	B	396	ASP
2	B	401	PHE
2	B	427	ASP

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Mol	Chain	Res	Type
2	B	429	PHE
2	B	463	THR
2	B	465	ASN
2	B	466	TRP
2	B	485	ARG
2	B	496	ARG
2	B	498	THR
2	B	516	ASN
2	B	555	ILE
2	B	557	PHE
2	B	570	VAL
2	B	582	VAL
2	B	593	PRO
2	B	603	LEU
2	B	615	MET
2	B	628	THR
2	B	635	ARG
2	B	636	PRO
2	B	644	GLU
2	B	682	SER
2	B	701	ILE
2	B	724	ASP
2	B	737	THR
2	B	742	GLU
2	B	751	VAL
2	B	811	TYR
2	B	830	TYR
2	B	835	GLN
2	B	839	MET
2	B	878	GLN
2	B	894	ASP
2	B	901	PRO
2	B	909	ASP
2	B	939	THR
2	B	953	LEU
2	B	956	THR
2	B	978	ASP
2	B	986	GLN
2	B	999	MET
2	B	1002	THR
2	B	1006	ILE
2	B	1010	LEU

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Mol	Chain	Res	Type
2	B	1022	THR
2	B	1034	VAL
2	B	1047	PHE
2	B	1051	THR
2	B	1065	GLN
2	B	1069	PHE
2	B	1077	THR
2	B	1084	GLN
2	B	1087	PHE
2	B	1095	LEU
2	B	1099	VAL
2	B	1103	ILE
2	B	1122	ARG
2	B	1159	ARG
2	B	1169	MET
2	B	1170	THR
2	B	1183	LYS
2	B	1202	LEU
2	B	1212	ILE
2	B	1216	LEU
3	C	22	LEU
3	C	23	SER
3	C	29	MET
3	C	54	ASN
3	C	57	VAL
3	C	58	LEU
3	C	62	PHE
3	C	77	ILE
3	C	89	GLU
3	C	91	HIS
3	C	104	PHE
3	C	106	GLU
3	C	108	GLU
3	C	128	ASN
3	C	140	ASN
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	202	PRO
3	C	233	GLU
3	C	240	VAL
3	C	266	ASP

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Mol	Chain	Res	Type
4	D	32	GLU
4	D	47	LEU
4	D	63	LEU
4	D	70	PHE
4	D	137	ASN
4	D	139	LYS
4	D	148	LEU
4	D	149	THR
4	D	152	SER
4	D	156	ASP
4	D	170	THR
4	D	187	THR
4	D	192	LYS
4	D	193	THR
4	D	202	ILE
4	D	221	TYR
5	E	60	PHE
5	E	74	ASP
5	E	104	ASN
5	E	114	ASN
5	E	146	HIS
5	E	175	LEU
5	E	183	PRO
5	E	207	ARG
5	E	215	MET
6	F	79	ARG
6	F	81	THR
6	F	90	ARG
6	F	99	LEU
6	F	116	ASP
6	F	119	ARG
6	F	143	PHE
6	F	148	VAL
6	F	153	VAL
7	G	1	MET
7	G	13	LEU
7	G	38	CYS
7	G	39	THR
7	G	74	TYR
7	G	78	VAL
7	G	80	LYS
7	G	96	GLN

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Mol	Chain	Res	Type
7	G	126	ASN
7	G	171	ILE
8	H	62	SER
8	H	86	ASP
8	H	91	ASP
8	H	95	TYR
8	H	102	TYR
8	H	130	ARG
9	I	8	ARG
9	I	9	ASP
9	I	13	MET
9	I	15	TYR
9	I	34	TYR
9	I	75	CYS
9	I	78	CYS
9	I	85	PHE
9	I	86	PHE
9	I	94	ASP
9	I	100	PHE
9	I	101	PHE
9	I	106	CYS
9	I	110	PHE
10	J	7	CYS
10	J	9	SER
10	J	10	CYS
10	J	44	TYR
10	J	46	CYS
10	J	48	ARG
11	K	10	PHE
11	K	25	THR
11	K	42	LEU
11	K	47	ARG
11	K	50	LEU
11	K	61	TYR
11	K	78	THR
12	L	55	ILE
12	L	68	GLU
12	L	70	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	64	ASN
1	A	68	GLN
1	A	92	HIS
1	A	225	ASN
1	A	256	GLN
1	A	282	ASN
1	A	299	HIS
1	A	306	ASN
1	A	339	ASN
1	A	358	ASN
1	A	435	HIS
1	A	445	ASN
1	A	479	ASN
1	A	493	GLN
1	A	503	GLN
1	A	517	ASN
1	A	525	GLN
1	A	603	ASN
1	A	611	GLN
1	A	631	HIS
1	A	654	ASN
1	A	741	ASN
1	A	757	ASN
1	A	768	GLN
1	A	786	HIS
1	A	858	ASN
1	A	903	ASN
1	A	926	GLN
1	A	1106	ASN
1	A	1265	ASN
1	A	1364	ASN
2	B	60	GLN
2	B	178	ASN
2	B	215	GLN
2	B	236	HIS
2	B	363	HIS
2	B	366	GLN
2	B	465	ASN
2	B	484	ASN
2	B	515	HIS
2	B	518	HIS
2	B	538	ASN

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Mol	Chain	Res	Type
2	B	734	HIS
2	B	744	HIS
2	B	821	GLN
2	B	842	ASN
2	B	975	GLN
2	B	1015	HIS
2	B	1065	GLN
2	B	1076	HIS
2	B	1117	GLN
2	B	1193	GLN
3	C	73	GLN
3	C	91	HIS
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	231	ASN
3	C	252	GLN
4	D	40	HIS
4	D	137	ASN
4	D	179	GLN
5	E	8	ASN
5	E	101	GLN
5	E	104	ASN
5	E	114	ASN
5	E	147	HIS
7	G	14	HIS
7	G	53	ASN
7	G	97	HIS
7	G	126	ASN
9	I	12	ASN
9	I	60	GLN
9	I	89	GLN
10	J	53	HIS
11	K	65	HIS
11	K	76	GLN

### 5.3.3 RNA ⓘ

There are no RNA chains 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 ⓘ

There are no carbohydrates in this entry.

## 5.6 Ligand geometry ⓘ

Of 9 ligands modelled in this entry, 9 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 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 ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	1416/1733 (81%)	-0.10	3 (0%) 93 86	19, 87, 162, 200	0
2	B	1097/1224 (89%)	-0.09	4 (0%) 90 79	23, 97, 166, 194	0
3	C	266/318 (83%)	-0.15	0 100 100	37, 81, 139, 160	0
4	D	177/177 (100%)	-0.07	0 100 100	52, 108, 147, 165	0
5	E	214/215 (99%)	-0.07	0 100 100	57, 142, 187, 193	0
6	F	84/155 (54%)	-0.27	0 100 100	25, 59, 105, 124	0
7	G	171/171 (100%)	-0.10	0 100 100	57, 84, 114, 138	0
8	H	133/146 (91%)	0.15	0 100 100	101, 139, 175, 184	0
9	I	119/122 (97%)	0.13	1 (0%) 83 64	74, 130, 159, 200	0
10	J	65/70 (92%)	-0.25	0 100 100	42, 79, 120, 127	0
11	K	115/120 (95%)	-0.11	0 100 100	42, 83, 114, 123	0
12	L	46/70 (65%)	-0.01	0 100 100	76, 137, 168, 177	0
All	All	3903/4521 (86%)	-0.09	8 (0%) 93 86	19, 94, 166, 200	0

All (8) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	1176	LEU	7.1
2	B	133	LYS	2.7
9	I	119	THR	2.7
2	B	882	THR	2.6
1	A	257	ARG	2.4
1	A	115	LEU	2.4
2	B	92	PHE	2.3
2	B	883	LEU	2.2



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

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

## 6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
14	MG	A	2458	1/1	0.17	0.56	56,56,56,56	0
13	ZN	L	1071	1/1	0.12	-0.44	115,115,115,115	0
13	ZN	B	2225	1/1	0.15	-0.65	44,44,44,44	0
13	ZN	I	1121	1/1	0.12	-0.83	90,90,90,90	0
13	ZN	C	1269	1/1	0.08	-0.88	39,39,39,39	0
13	ZN	A	2457	1/1	0.09	-1.40	44,44,44,44	0
13	ZN	A	2456	1/1	0.09	-1.81	86,86,86,86	0
13	ZN	J	1066	1/1	0.15	-2.44	65,65,65,65	0
13	ZN	I	1122	1/1	0.07	-2.65	156,156,156,156	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.