



Full wwPDB X-ray Structure Validation Report ⓘ

May 23, 2020 – 03:11 pm BST

PDB ID : 2R7Z
Title : Cisplatin lesion containing RNA polymerase II elongation complex
Authors : Damsma, G.E.; Alt, A.; Brueckner, F.; Carell, T.; Cramer, P.
Deposited on : 2007-09-10
Resolution : 3.80 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

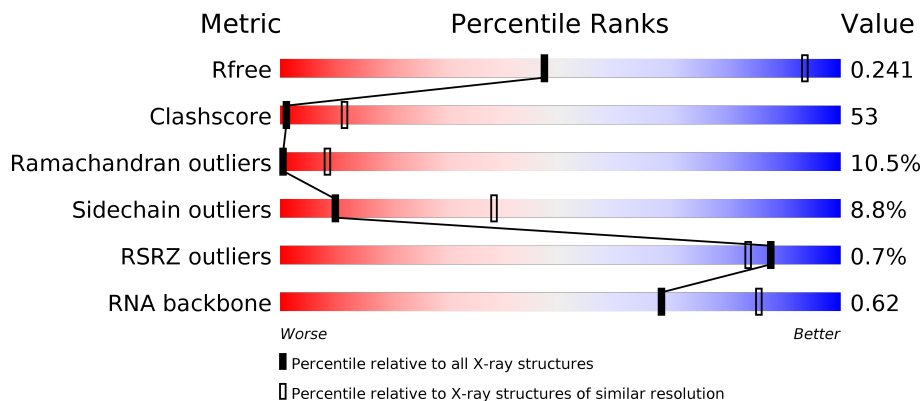
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

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}	130704	1212 (4.00-3.60)
Clashscore	141614	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)
RNA backbone	3102	1036 (4.60-3.00)

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

Mol	Chain	Length	Quality of chain
1	T	17	 65% 29% 6%
2	N	7	 71% 29%
3	P	10	 20% 70% 10%
4	A	1733	 26% 45% 10% 18%

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Mol	Chain	Length	Quality of chain
5	B	1224	<p>27% 52% 11% 9%</p>
6	C	318	<p>23% 48% 11% 16%</p>
7	D	221	<p>28% 38% 11% 20%</p>
8	E	215	<p>39% 55% 5%</p>
9	F	155	<p>19% 28% 6% 46%</p>
10	G	171	<p>37% 54% 9%</p>
11	H	146	<p>27% 52% 12% 9%</p>
12	I	122	<p>34% 52% 11% 2%</p>
13	J	70	<p>29% 47% 16% 7%</p>
14	K	120	<p>28% 57% 11% 5%</p>
15	L	70	<p>11% 39% 13% 34%</p>

2 Entry composition i

There are 18 unique types of molecules in this entry. The entry contains 31804 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a DNA chain called 5'-D(*TP*AP*CP*TP*TP*GUP*CP*CP*CP*TP*CP*CP*TP*CP*AP*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	T	17	336	163	53	104	16	0	0	0

- Molecule 2 is a DNA chain called 5'-D(*CP*AP*AP*GP*TP*AP*G)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
2	N	7	143	69	30	38	6	0	0	0

- Molecule 3 is a RNA chain called 5'-R(*UP*UP*UP*GP*AP*GP*GP*AP*GP*G)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
3	P	10	216	97	41	69	9	0	0	0

- Molecule 4 is a protein called DNA-directed RNA polymerase II subunit RPB1.

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

- Molecule 5 is a protein called DNA-directed RNA polymerase II subunit RPB2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	B	1108	8810	5580	1541	1634	55	0	0	0

- Molecule 6 is a protein called DNA-directed RNA polymerase II subunit RPB3.

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

- Molecule 7 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	D	177	1427	882	256	287	2	0	0	0

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

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

- Molecule 9 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

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

- Molecule 10 is a protein called DNA-directed RNA polymerase II subunit RPB7.

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

- Molecule 11 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

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

- Molecule 12 is a protein called DNA-directed RNA polymerase II subunit RPB9.

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

- Molecule 13 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

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

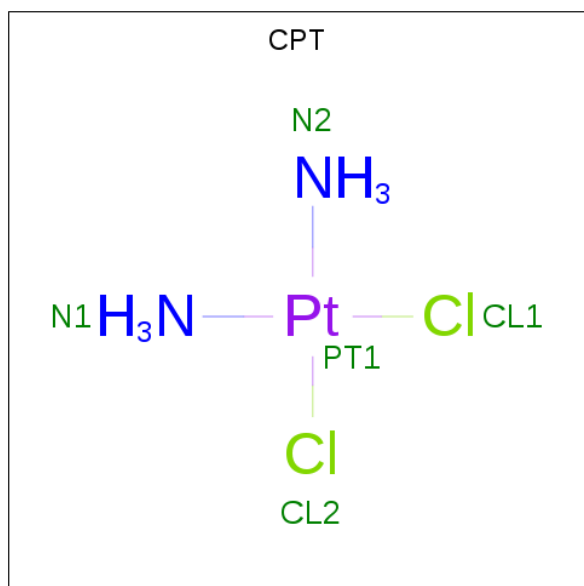
- Molecule 14 is a protein called DNA-directed RNA polymerase II subunit RPB11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	K	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			

- Molecule 15 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	L	46	Total	C	N	O	S	0	0	0
			364	224	72	64	4			

- Molecule 16 is Cisplatin (three-letter code: CPT) (formula: $\text{Cl}_2\text{H}_6\text{N}_2\text{Pt}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
16	T	1	Total	N	Pt	0	0
			3	2	1		

- Molecule 17 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
17	J	1	Total	Zn	0	0
			1	1		

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

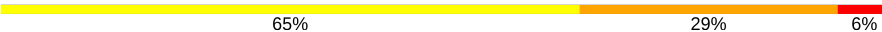
- Molecule 18 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

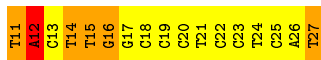
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
18	A	1	Total 1	Mg 1	0	0

3 Residue-property plots [i](#)


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

- Molecule 1: 5'-D(*TP*AP*CP*TP*TP*GUP*CP*CP*CP*TP*CP*CP*TP*CP*AP*T)-3'

Chain T: 


T11 A42 C13 T14 T15 A5 G16 G17 C18 C19 C20 T21 C22 C23 T24 C25 A26 T27

- Molecule 2: 5'-D(*CP*AP*AP*GP*TP*AP*G)-3'

Chain N: 


G1 A2 A3 G4 T5 A6 G7

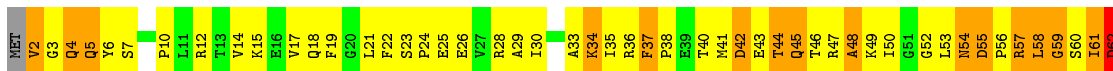
- Molecule 3: 5'-R(*UP*UP*UP*GP*AP*GP*GP*AP*GP*G)-3'

Chain P: 


U1 U2 U3 G4 Y6 G6 G7 A8 G9 G10

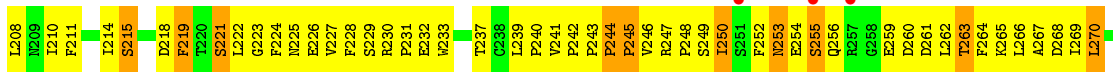
- Molecule 4: DNA-directed RNA polymerase II subunit RPB1

Chain A: 

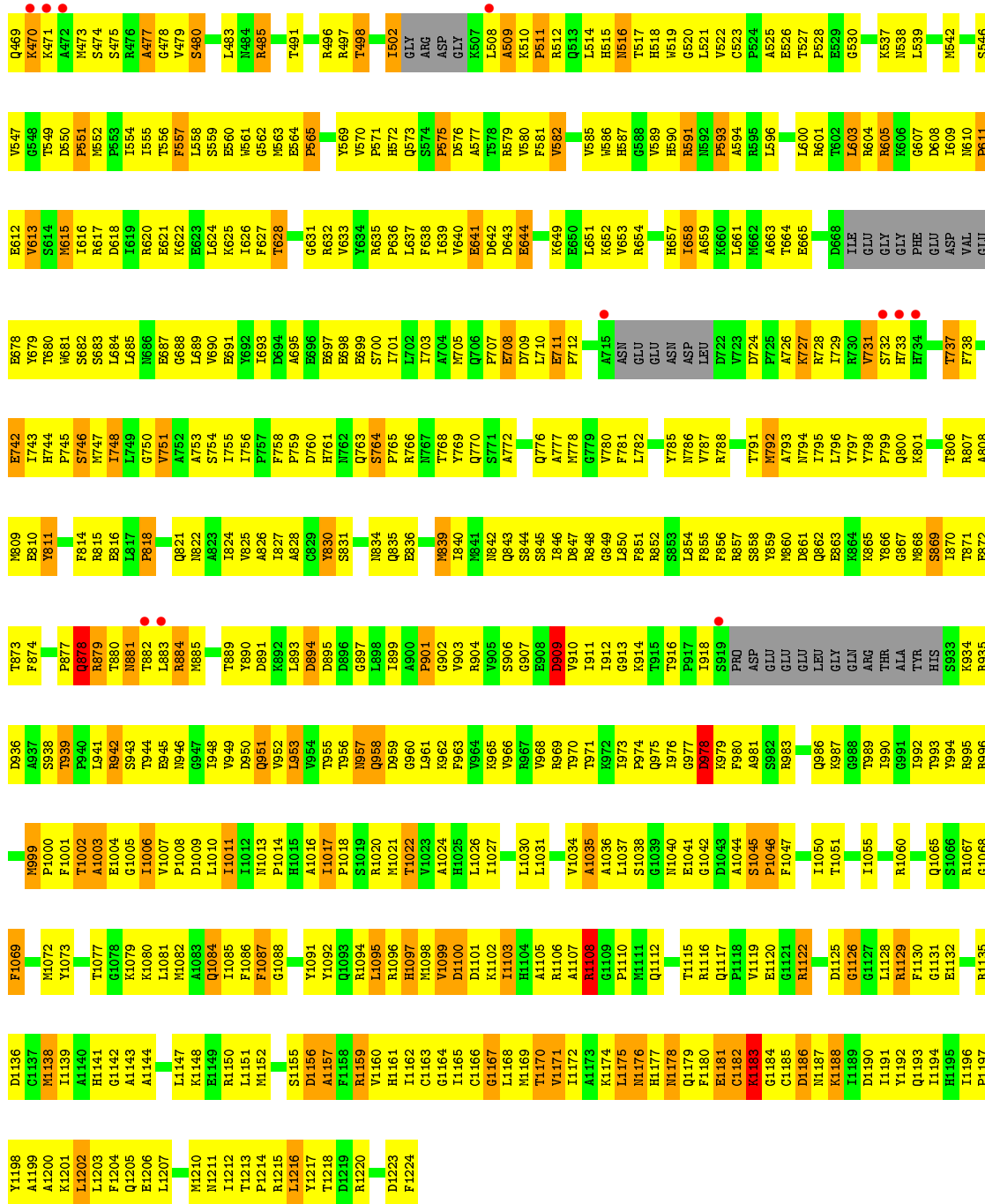

MET V2 G3 G4 Q4 Y6 Y7 S7 P10 L11 L12 T13 V14 K15 E16 V17 Q18 F19 G20 L21 F22 S23 P24 E25 E26 V27 R28 A29 I30 A33 K34 L35 R36 F37 R38 P38 E39 T40 R41 D42 E43 T44 Q45 T46 R47 A48 K49 L50 I51 G52 L53 R54 D55 P56 R57 L58 G59 S60 I61 D62


R63 R64 L65 R66 C67 O68 W69 C70 Q71 E72 G73 M74 N75 E76 G77 F78 G79 H80 H83 I84 D85 L86 A87 K88 P89 Y90 F91 A92 H93 G94 F95 I96 A97 R98 I99 K100 K101 V102 C103 E104 C105 V106 C107 M108 H109 C110 G111 K112 L113 L114 L115 D116 E117 H118 M119 M122 I128


K129 D130 I131 K132 R133 K134 T138 T144 K145 M146 V147 C148 E149 D150 D151 V152 P153 S154 D157 P158 T159 V162 S163 R164 G165 G166 C167 G168 M169 Q170 Q171 P172 V182 W185 E186 LYS ASP ARG ALLA THR G1Y ASP ALA D195 E196 R200 F264 K265 L266 A267 D268 E206 L270

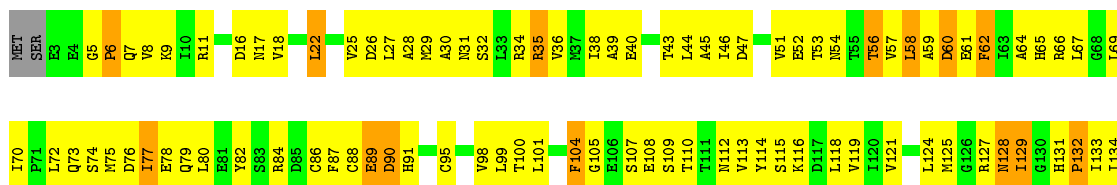

L208 R209 F211 I214 S215 D218 F219 T220 S221 L222 G223 F224 M225 E226 V227 F228 S229 R230 P231 E232 W233 T237 C238 L239 P240 V241 P242 P243 F244 F245 V246 R247 P248 S249 I250 S251 F252 M253 E254 S255 Q256 R257 G258 E259 D260 D261 L262 T263 F264 K265 L266 A267 D268 E206 L270

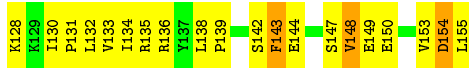
D1223	L1261	ALA	R821	V747	T675	L606	L536	R469	D408	N339	L276
L1224	V1162	SER	R825	S751	M676	F607	R537	L470	S409	L340	E277
F1225	I1163	K1092	I826	K752	F1679	I608	I541	N471	G410	M341	L278
V1226	P1163	R1093	D826	R753	T680	D609	E542	L472	D411	G342	L279
I1227	P1164	R1030	R827	G754	T682	I613	L543	S473	R412	K343	E280
V1228	I1165	V1031	A828	S755	F681	F614	D544	V474	I413	R344	E281
S1229	D1166	L1032	V829	N757	T683	G615	Q945	S475	D414	V345	N282
L1236	E1167	Q1033	R830	I757	L683	G616	V546	S476	L415	D346	G283
E1168	E1034	A966	R831	M761	A684	V616	V546	P477	R416	F347	A284
I1169	Y1035	Q968	R832	M762	E685	V617	L547	N478	R417	S348	P285
I1170	R1036	Q969	E833	G763	A686	E618	M548	N479	S418	P286	E286
K1102	L1037	T970	T834	A763	D692	K619	M549	A460	K419	E287	E287
E1103	T1038	F971	G835	C764	K620	K620	M550	A461	R420	R351	E288
I1104	K1039	H972	Y836	V765	T621	T621	Y551	F462	K420	V352	L289
L1105	Q1040	T904	I837	G766	V622	V622	W552			I353	E290
M1106	A1041	D905	K838	Q767	G623	G623	W556	D485	I424	S354	E291
V1107	F1042	F906	R839	Q768	S624	S624	W557	E486	Q425	G355	E292
M1110	D1043	T907	R840	R774	M626	M626	G558	M488	Q427	G356	E293
M1111	V1044	L908	V842	I775	G627	G627	V559	L489	Y428	P357	Q297
M1112	L1046	D909	R843	F779	G628	G628	V560	H490	G429	E360	F298
T1113	S1047	S911	R844	F780	L629	L629	V561	V491	W430	L361	H299
ALA	M1048	K985	L845	V780	I630	I630	T562	P492	W431	V300	H300
GLN	I1049	V986	E846	D781	H631	H631	T563	Q493	V432	A301	A301
GLN	E1050	R914	D847	R782	V632	V632	A564	S494	V433	V366	T302
PHE	H851	S915	L848	T783	V633	V633	I565	E495	R434	P367	Y303
ASP	Q1052	G916	M849	L784	T634	T634	I566	E496	H435	R368	M304
ASP	V1058	V999	V850	F785	R635	R635	K567	T497	I436	M305	D305
GLU	V1059	K991	H851	S786	V639	V639	P568	R498	M437	N306	N306
GLU	P1060	L992	R852	F787	F714	F714	K569	A499	D438	K372	D307
ALA	G1061	Q994	D853	S788	G640	G640	P570	E500	M439	I308	I308
GLN	E1062	G921	M854	K789	V641	V641	I571		P440	L374	A309
PHE	Q1052	D922	T855	I789	C642	C642	M672	Q603	P441	G310	G310
ASP	V1063	N996	R856	S793	F646	F646	S573	L504	V442	Y376	Q312
ASP	V1064	L997	R857	F794	G647	G647	G574	L504	V443	P377	P312
GLU	G1065	L998	M858	E795	M648	M648	K575	V507	F444	N445	Q313
GLU	L1067	V999	L860	K797	L649	L649	Q576	I511	R446	P382	A314
ASP	A1068	L1000	L861	G798	K651	K651	L577	V512	Q447	Y383	L315
ASP	Q1070	K1003	R862	F799	G650	G650	S579	S513	P448	N384	Q316
GLU	S1071	N1004	V863	V800	M654	M654	V580	P514	S449	I385	S318
GLU	I1072	E1005	R864	R802	F655	F655	M584	Q515	L450	D386	G319
GLU	G1073	I1006	F866	N802				S516	H451	R387	R320
GLU	E1074	I1007	L867	S803	L658	L658	L588	M517	K452	L388	R321
GLU	P1075	Q1008	R868	L805	M659	M659	Q589	K518	M452	V322	V322
GLU	A1076	N1009	R869	R806	N660	N660	R590	P519	S454	L391	K323
GLU	T1077	A1010	E870	G807	G661	G661	F591	C520	M455	V392	S324
GLU	M1078	Q1011	D871	L808	F662	F662	D592	M521	M456	R393	I325
GLU	M1079	L943	G872	T809	S663	S663	T595	G522	A457	N394	R326
GLU	T1080	D1013	M873	F810	T664	T664	T596	V524	R458	G395	A327
GLU	L1081	A1014	D874	Q811	G665	G665	T596	Q525	V460	P396	R328
ASN	V1015	V1015	A875	D739	I666	I666	L597	D526	K461	H399	G331
THR	T1016	T1016	A875	F813	G667	G667	L598	T527	V462	P400	K332
PHE	F1017	N953	I878	N741	I670	I670	P600	L528	I463	G401	E333
HIS	F1018	N954	F815	F815	A671	A671	K601	I531	P464	G334	G334
C1019	C1019	P955	R816	R816	D672	D672	D602	I531	Y465	R335	R335
PHE	C1020	L956	R817	R817	D672	D672	D602	I531	S466	V405	I336
ALA	L1021	F957	M818	M818	G673	G673	D602	L534	T467	I406	I336
GLY	L1022	Y958	T895	T895	P674	P674	M605	L534	F468	R407	G338



● Molecule 6: DNA-directed RNA polymerase II subunit RPB3

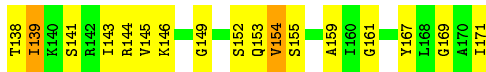
Chain C: 23% 48% 11% 16%





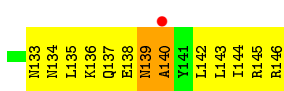
- Molecule 10: DNA-directed RNA polymerase II subunit RPB7

Chain G: 37% 54% 9%



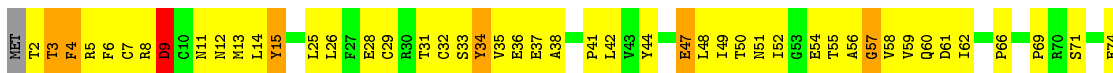
- Molecule 11: DNA-directed RNA polymerases I, II, and III subunit RPABC3

Chain H: 27% 52% 12% 9%



- Molecule 12: DNA-directed RNA polymerase II subunit RPB9

Chain I: 34% 52% 11% 2%

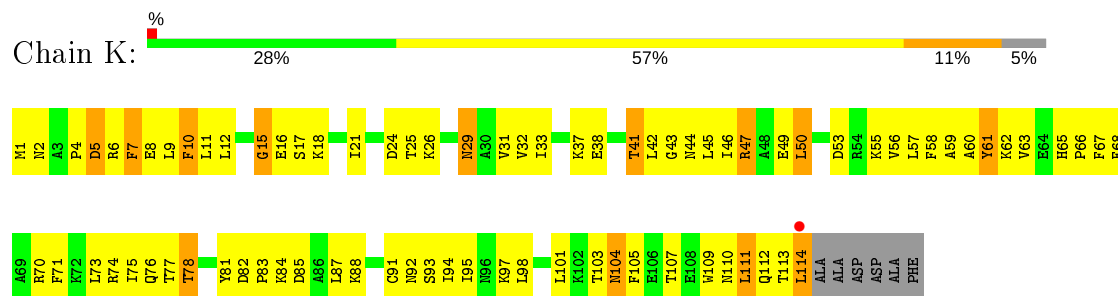


- Molecule 13: DNA-directed RNA polymerases I, II, and III subunit RPABC5

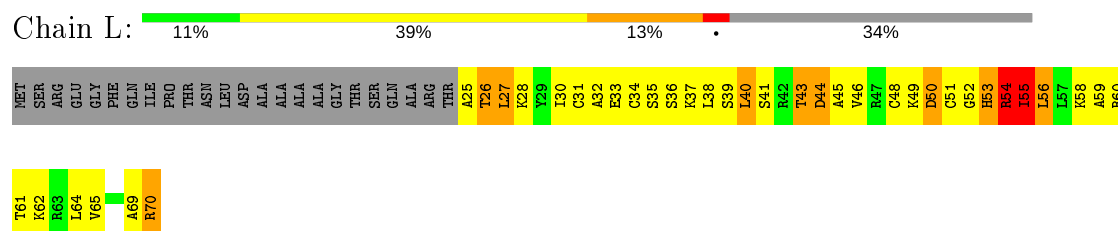
Chain J: 29% 47% 16% 7%



- Molecule 14: DNA-directed RNA polymerase II subunit RPB11



- Molecule 15: DNA-directed RNA polymerases I, II, and III subunit RPABC4



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	222.06Å 393.12Å 283.73Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.80 49.14 – 3.80	Depositor EDS
% Data completeness (in resolution range)	(Not available) (50.00-3.80) 99.8 (49.14-3.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.95 (at 3.77Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.215 , 0.240 0.216 , 0.241	Depositor DCC
R_{free} test set	2410 reflections (1.98%)	wwPDB-VP
Wilson B-factor (Å ²)	106.6	Xtriage
Anisotropy	0.442	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 59.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.26$	Xtriage
Estimated twinning fraction	0.045 for 1/2*h-1/2*k,-3/2*h-1/2*k,-l 0.045 for 1/2*h+1/2*k,3/2*h-1/2*k,-l	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	31804	wwPDB-VP
Average B, all atoms (Å ²)	116.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.84% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, CPT, 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	T	1.41	5/373 (1.3%)	1.79	11/572 (1.9%)
2	N	1.38	0/161	1.10	0/247
3	P	0.95	0/242	0.98	0/377
4	A	0.43	0/11339	0.72	4/15334 (0.0%)
5	B	0.42	0/8981	0.68	0/12108
6	C	0.44	0/2133	0.72	0/2891
7	D	0.42	0/1437	0.69	1/1925 (0.1%)
8	E	0.41	0/1788	0.65	0/2406
9	F	0.49	0/691	0.77	0/933
10	G	0.45	0/1368	0.72	0/1844
11	H	0.38	0/1086	0.65	0/1470
12	I	0.36	0/989	0.65	0/1331
13	J	0.47	0/541	0.74	0/727
14	K	0.45	0/937	0.68	0/1265
15	L	0.47	0/366	0.71	0/485
All	All	0.46	5/32432 (0.0%)	0.73	16/43915 (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	T	0	2
2	N	0	2
6	C	0	1
13	J	0	1
All	All	0	6

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	T	16	DG	N3-C4	8.85	1.41	1.35
1	T	17	DG	N3-C4	7.68	1.40	1.35
1	T	17	DG	C2-N3	6.93	1.38	1.32
1	T	16	DG	N1-C2	5.71	1.42	1.37
1	T	14	DT	O3'-P	5.20	1.67	1.61

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	T	17	DG	O4'-C1'-N9	11.85	116.29	108.00
1	T	16	DG	O4'-C1'-N9	9.50	114.65	108.00
1	T	17	DG	N3-C2-N2	7.61	125.22	119.90
4	A	567	LYS	C-N-CD	6.05	141.11	128.40
1	T	16	DG	N1-C2-N3	-5.93	120.34	123.90
1	T	15	DT	C4'-C3'-C2'	5.50	108.05	103.10
1	T	17	DG	O4'-C4'-C3'	5.42	109.25	106.00
1	T	12	DA	O4'-C1'-N9	5.42	111.79	108.00
4	A	425	GLN	N-CA-C	-5.42	96.38	111.00
4	A	466	SER	N-CA-C	5.31	125.33	111.00
1	T	16	DG	C4'-C3'-C2'	-5.09	98.52	103.10
7	D	26	THR	N-CA-C	-5.06	97.33	111.00
1	T	27	DT	C4'-C3'-C2'	5.04	107.63	103.10
4	A	311	GLN	N-CA-C	5.01	124.53	111.00
1	T	17	DG	N1-C2-N3	-5.00	120.90	123.90
1	T	16	DG	C8-N9-C1'	5.00	133.50	127.00

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	C	82	TYR	Sidechain
13	J	44	TYR	Sidechain
2	N	5	DT	Sidechain
2	N	6	DA	Sidechain
1	T	11	DT	Sidechain
1	T	12	DA	Sidechain

5.2 Too-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 hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within

the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	T	336	0	195	46	0
2	N	143	0	80	20	0
3	P	216	0	108	13	0
4	A	11140	0	11217	1294	0
5	B	8810	0	8847	1025	0
6	C	2095	0	2052	253	0
7	D	1427	0	1451	136	0
8	E	1752	0	1776	149	0
9	F	679	0	701	79	0
10	G	1340	0	1357	152	0
11	H	1068	0	1040	131	0
12	I	971	0	930	102	0
13	J	532	0	543	106	0
14	K	919	0	929	115	0
15	L	364	0	388	57	0
16	T	3	0	0	1	0
17	A	2	0	0	0	0
17	B	1	0	0	0	0
17	C	1	0	0	0	0
17	I	2	0	0	0	0
17	J	1	0	0	0	0
17	L	1	0	0	0	0
18	A	1	0	0	0	0
All	All	31804	0	31614	3347	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 53.

All (3347) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:100:THR:HG23	11:H:138:GLU:HA	1.26	1.16
10:G:138:THR:HG22	10:G:139:ILE:H	1.09	1.12
4:A:53:LEU:HD23	4:A:54:ASN:H	0.99	1.12
4:A:1094:VAL:HG13	4:A:1113:THR:HG21	1.32	1.11
5:B:510:LYS:HG3	5:B:511:PRO:HD3	1.12	1.11
5:B:273:LEU:HB2	5:B:276:ILE:HD12	1.30	1.09
1:T:22:DC:H2"	1:T:23:DC:H5"	1.16	1.08
4:A:1438:THR:HB	5:B:1144:ALA:HB3	1.37	1.06
5:B:792:MET:HE2	5:B:857:ARG:HH12	1.16	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1017:LEU:HB2	8:E:206:GLY:H	1.17	1.05
5:B:806:THR:HG22	5:B:808:ALA:H	1.22	1.03
4:A:855:THR:HG21	4:A:857:ARG:HE	1.17	1.02
8:E:22:MET:HE3	8:E:26:ARG:HH21	1.18	1.02
12:I:111:THR:HG22	12:I:112:SER:H	1.25	1.02
5:B:882:THR:HG22	5:B:884:ARG:H	1.26	1.01
4:A:1161:THR:HG22	4:A:1163:ILE:H	1.26	1.01
5:B:589:VAL:HG12	5:B:590:HIS:H	1.22	1.01
5:B:172:ILE:HD13	5:B:178:ASN:HB3	1.42	1.01
7:D:40:HIS:HB3	10:G:73:LYS:HZ3	1.22	1.00
14:K:47:ARG:HB3	14:K:47:ARG:HH11	1.24	1.00
6:C:116:LYS:HD3	6:C:140:ASN:HB3	1.40	1.00
4:A:828:ALA:CB	5:B:530:GLY:HA2	1.92	1.00
6:C:43:THR:HG22	6:C:44:LEU:H	1.24	1.00
4:A:40:THR:HG22	4:A:41:MET:HG3	1.44	1.00
5:B:918:ILE:HB	5:B:935:ARG:HD2	1.43	0.99
4:A:475:THR:HG23	4:A:476:SER:H	1.27	0.99
1:T:22:DC:H2''	1:T:23:DC:C5'	1.92	0.99
4:A:535:THR:HG21	4:A:616:VAL:HA	1.46	0.98
4:A:53:LEU:HD23	4:A:54:ASN:N	1.76	0.98
8:E:19:VAL:O	8:E:23:VAL:HG23	1.63	0.98
5:B:510:LYS:CG	5:B:511:PRO:HD3	1.92	0.98
4:A:1445:ILE:HD12	4:A:1445:ILE:H	1.23	0.98
7:D:40:HIS:HB3	10:G:73:LYS:NZ	1.80	0.96
6:C:39:ALA:HA	6:C:164:ALA:HB3	1.45	0.96
6:C:44:LEU:HB2	6:C:77:ILE:HD11	1.48	0.95
5:B:879:ARG:HH11	5:B:883:LEU:HD22	1.29	0.95
4:A:399:HIS:HB3	4:A:400:PRO:HD3	1.46	0.95
10:G:7:LEU:HB2	10:G:74:TYR:CE2	2.02	0.95
6:C:166:GLU:HG3	14:K:10:PHE:HZ	1.32	0.95
5:B:563:MET:HE3	5:B:580:VAL:HB	1.49	0.95
5:B:365:THR:HG23	5:B:367:LEU:H	1.30	0.94
5:B:233:PRO:HG2	5:B:234:ILE:HD12	1.48	0.94
8:E:94:LYS:HE2	8:E:98:ILE:HD11	1.50	0.94
11:H:4:THR:HA	11:H:60:ALA:HB2	1.49	0.94
4:A:779:PHE:HE1	4:A:785:PRO:HD3	1.32	0.93
5:B:169:ARG:HB2	5:B:454:THR:HG23	1.47	0.93
4:A:1189:SER:O	4:A:1241:ARG:HD3	1.67	0.93
6:C:47:ASP:HA	15:L:69:ALA:HB3	1.51	0.93
4:A:1127:ASP:HB3	4:A:1130:GLN:HB3	1.48	0.93
5:B:98:THR:O	5:B:126:SER:HB2	1.69	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:903:ASN:HD22	4:A:904:THR:N	1.68	0.92
5:B:483:LEU:HD11	5:B:491:THR:HG23	1.51	0.91
6:C:45:ALA:HA	6:C:72:LEU:HD12	1.51	0.91
5:B:579:ARG:HB2	5:B:586:TRP:NE1	1.85	0.91
4:A:1004:ASN:ND2	8:E:167:ARG:HD2	1.86	0.91
4:A:828:ALA:HB2	5:B:530:GLY:HA2	1.51	0.91
5:B:1159:ARG:HB3	5:B:1159:ARG:HH11	1.35	0.91
5:B:217:ARG:HE	5:B:405:ARG:HB2	1.33	0.91
4:A:829:VAL:HG21	5:B:508:LEU:HD13	1.50	0.90
10:G:1:MET:SD	10:G:79:PHE:HD1	1.93	0.90
4:A:239:LEU:HD12	4:A:240:PRO:HD2	1.52	0.90
13:J:64:ASN:HB3	13:J:65:PRO:CD	2.00	0.90
5:B:579:ARG:HB2	5:B:586:TRP:HE1	1.35	0.90
5:B:577:ALA:HB1	5:B:589:VAL:HG11	1.52	0.90
6:C:98:VAL:O	6:C:99:LEU:HD23	1.72	0.90
9:F:86:THR:OG1	9:F:89:GLU:HG3	1.72	0.90
4:A:963:ILE:HD11	4:A:1048:ASN:HB3	1.54	0.89
5:B:510:LYS:HG3	5:B:511:PRO:CD	2.02	0.89
5:B:25:ILE:HD11	5:B:653:VAL:O	1.72	0.89
1:T:11:DT:H2''	1:T:12:DA:O5'	1.71	0.89
5:B:594:ALA:HA	5:B:617:ARG:HH12	1.38	0.89
13:J:44:TYR:HA	13:J:47:ARG:HB2	1.53	0.89
4:A:763:ALA:O	4:A:803:SER:HB3	1.72	0.89
13:J:5:VAL:HG12	13:J:6:ARG:HG3	1.53	0.89
14:K:53:ASP:HB3	14:K:56:VAL:HG23	1.53	0.89
4:A:567:LYS:CG	4:A:568:PRO:HD2	2.02	0.89
4:A:709:THR:HG22	4:A:711:ARG:H	1.36	0.89
5:B:364:ILE:HG12	5:B:585:VAL:HG13	1.55	0.89
4:A:1116:LEU:N	4:A:1308:THR:HG22	1.88	0.88
6:C:7:GLN:HG2	14:K:104:ASN:HD22	1.38	0.88
4:A:646:PHE:O	4:A:650:GLN:HG3	1.73	0.88
8:E:153:HIS:HB3	8:E:196:VAL:HG11	1.56	0.88
9:F:93:ILE:HD11	9:F:134:ILE:HD11	1.56	0.88
15:L:32:ALA:HB3	15:L:55:ILE:HD12	1.54	0.88
5:B:879:ARG:NH1	5:B:883:LEU:HD22	1.87	0.88
4:A:1312:ASN:O	4:A:1316:VAL:HG23	1.74	0.88
10:G:13:LEU:HD21	10:G:17:PHE:HB2	1.55	0.88
4:A:356:ASP:HB2	4:A:469:ARG:NH1	1.89	0.88
4:A:366:VAL:HG21	4:A:460:VAL:HG22	1.56	0.88
4:A:901:LEU:H	4:A:926:GLN:NE2	1.72	0.88
6:C:133:ILE:HD11	6:C:237:SER:HA	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1166:CYS:HB2	5:B:1215:ARG:NH1	1.90	0.87
5:B:211:VAL:O	5:B:480:SER:HA	1.73	0.87
8:E:14:ARG:HH21	8:E:141:VAL:HG12	1.37	0.87
1:T:24:DT:H2''	1:T:25:DC:O5'	1.74	0.87
5:B:1002:THR:HG21	5:B:1006:ILE:HD12	1.57	0.87
4:A:49:LYS:NZ	4:A:61:ILE:HG13	1.89	0.87
5:B:1159:ARG:HB3	5:B:1159:ARG:NH1	1.89	0.87
4:A:321:PRO:O	4:A:322:VAL:HB	1.73	0.87
4:A:225:ASN:HD22	4:A:228:PHE:H	1.23	0.86
6:C:57:VAL:HG11	13:J:60:PHE:HB3	1.54	0.86
10:G:127:PRO:HG2	10:G:138:THR:HG21	1.58	0.86
5:B:1165:ILE:HG22	5:B:1166:CYS:N	1.90	0.86
4:A:441:PRO:HD2	4:A:498:ARG:NH2	1.90	0.86
9:F:82:THR:HG22	9:F:84:TYR:H	1.36	0.86
4:A:754:SER:H	4:A:757:ASN:HD22	1.23	0.86
5:B:594:ALA:HA	5:B:617:ARG:NH1	1.89	0.86
8:E:177:ARG:HD3	8:E:215:MET:HG3	1.57	0.86
4:A:427:GLN:HG3	4:A:430:TRP:CZ2	2.11	0.85
5:B:1159:ARG:HD3	5:B:1193:GLN:HG3	1.56	0.85
4:A:537:ARG:HD2	11:H:20:TYR:HE1	1.39	0.85
9:F:111:LEU:H	9:F:111:LEU:HD12	1.41	0.85
5:B:467:GLY:H	5:B:475:SER:HB3	1.40	0.85
5:B:516:ASN:N	5:B:516:ASN:HD22	1.74	0.85
8:E:22:MET:HE3	8:E:26:ARG:NH2	1.91	0.85
10:G:18:PHE:HA	10:G:22:MET:CE	2.07	0.84
5:B:798:TYR:HE2	6:C:62:PHE:CE2	1.95	0.84
10:G:138:THR:HG22	10:G:139:ILE:N	1.91	0.84
1:T:22:DC:C2'	1:T:23:DC:H5''	2.06	0.84
4:A:249:SER:O	4:A:250:ILE:HG13	1.76	0.84
2:N:6:DA:H2''	2:N:7:DG:OP2	1.76	0.84
6:C:32:SER:O	6:C:36:VAL:HG23	1.78	0.84
4:A:567:LYS:HB3	11:H:96:VAL:H	1.43	0.84
4:A:1283:VAL:HG12	4:A:1284:MET:H	1.42	0.83
11:H:4:THR:HA	11:H:60:ALA:CB	2.08	0.83
5:B:1224:PHE:HE2	8:E:171:LYS:HG3	1.43	0.83
5:B:1065:GLN:HE21	5:B:1067:ARG:N	1.75	0.83
10:G:23:LYS:HG3	10:G:56:ILE:HD11	1.61	0.83
10:G:34:VAL:HG12	10:G:45:ILE:HG21	1.60	0.83
11:H:42:ILE:HG23	11:H:95:TYR:HE1	1.40	0.83
5:B:1180:PHE:HB3	5:B:1191:ILE:HD12	1.61	0.83
12:I:26:LEU:HD23	12:I:37:GLU:HA	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:48:ILE:HG21	10:G:4:ILE:HB	1.60	0.83
8:E:117:THR:HG22	8:E:119:SER:H	1.44	0.83
1:T:18:DC:H2"	1:T:19:DC:O5'	1.79	0.83
4:A:93:VAL:HG22	4:A:301:ALA:HA	1.61	0.83
11:H:130:ARG:H	11:H:130:ARG:HD2	1.44	0.83
4:A:55:ASP:C	4:A:57:ARG:H	1.81	0.83
6:C:38:ILE:HA	6:C:173:ALA:HB2	1.61	0.83
11:H:100:THR:OG1	11:H:138:GLU:HG3	1.78	0.82
4:A:1242:VAL:HG12	4:A:1243:VAL:H	1.45	0.82
4:A:809:THR:HG23	4:A:812:GLU:OE1	1.78	0.82
6:C:43:THR:HG22	6:C:44:LEU:N	1.93	0.82
4:A:860:LEU:HD11	4:A:1393:ASN:HB2	1.59	0.82
4:A:56:PRO:O	4:A:57:ARG:HG3	1.80	0.82
10:G:14:HIS:ND1	10:G:15:PRO:HD2	1.94	0.82
8:E:16:PHE:CZ	8:E:20:LYS:HE2	2.14	0.82
4:A:1017:LEU:HB2	8:E:206:GLY:N	1.95	0.82
5:B:613:VAL:HG13	5:B:627:PHE:O	1.79	0.82
7:D:144:THR:O	7:D:148:LEU:HB2	1.79	0.82
13:J:12:LYS:O	13:J:14:VAL:HG23	1.79	0.82
1:T:20:DC:H2"	1:T:21:DT:O5'	1.80	0.82
4:A:70:CYS:O	4:A:72:GLU:HG2	1.79	0.82
4:A:743:VAL:O	4:A:747:VAL:HG23	1.79	0.82
5:B:801:LYS:O	13:J:52:THR:HG23	1.78	0.82
11:H:93:TYR:HB3	11:H:144:ILE:O	1.80	0.82
4:A:23:SER:HA	4:A:233:TRP:NE1	1.94	0.82
4:A:353:ILE:HG21	4:A:487:MET:HE3	1.61	0.82
4:A:458:HIS:CE1	4:A:507:VAL:HG21	2.15	0.82
5:B:189:LEU:HA	5:B:192:LEU:HD12	1.62	0.82
5:B:23:ALA:HB1	5:B:24:PRO:HD2	1.62	0.82
4:A:1127:ASP:HB3	4:A:1130:GLN:CB	2.09	0.81
13:J:57:ILE:HA	13:J:60:PHE:HD2	1.43	0.81
1:T:25:DC:H2"	1:T:26:DA:O5'	1.79	0.81
4:A:567:LYS:CD	4:A:568:PRO:HD2	2.11	0.81
5:B:792:MET:HE2	5:B:857:ARG:NH1	1.94	0.81
5:B:839:MET:HE3	5:B:1010:LEU:HD21	1.63	0.81
5:B:821:GLN:HE22	5:B:851:PHE:HA	1.45	0.81
4:A:886:ILE:HG22	4:A:887:GLY:N	1.95	0.80
5:B:521:LEU:HD22	5:B:633:VAL:HG12	1.60	0.80
5:B:53:GLN:HG2	5:B:547:VAL:HG22	1.61	0.80
6:C:6:PRO:HB3	6:C:25:VAL:HG12	1.64	0.80
5:B:563:MET:CE	5:B:580:VAL:HB	2.11	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:611:PRO:HB3	5:B:685:LEU:HD11	1.63	0.80
8:E:202:SER:OG	8:E:204:THR:HG22	1.81	0.80
4:A:858:ASN:ND2	4:A:860:LEU:H	1.80	0.80
5:B:710:LEU:HA	5:B:733:HIS:HB3	1.64	0.80
11:H:102:TYR:OH	11:H:122:LEU:HD22	1.81	0.80
6:C:172:PRO:O	6:C:235:VAL:HG23	1.81	0.80
5:B:244:LEU:HD21	5:B:366:GLN:NE2	1.97	0.80
11:H:59:ILE:HG22	11:H:60:ALA:N	1.97	0.80
4:A:868:TYR:HD2	4:A:1058:VAL:HG21	1.46	0.80
7:D:35:LEU:HD23	7:D:174:PRO:HD2	1.65	0.79
4:A:598:LEU:HA	11:H:122:LEU:HD13	1.64	0.79
4:A:524:VAL:HG12	4:A:525:GLN:H	1.47	0.79
4:A:475:THR:HG23	4:A:476:SER:N	1.96	0.79
5:B:782:LEU:HD12	5:B:788:ARG:HH11	1.46	0.79
3:P:3:U:H2'	3:P:4:G:C8	2.17	0.79
4:A:534:LEU:O	4:A:574:GLY:HA3	1.82	0.79
5:B:999:MET:HG3	5:B:1000:PRO:HD2	1.63	0.79
10:G:81:PRO:HG3	10:G:106:MET:SD	2.23	0.79
4:A:902:LEU:HG	4:A:926:GLN:HG3	1.64	0.79
12:I:55:THR:HG21	12:I:109:ILE:HD13	1.65	0.79
4:A:265:LYS:HD2	4:A:265:LYS:H	1.47	0.79
5:B:33:VAL:HG21	5:B:638:PHE:HZ	1.48	0.79
5:B:847:ASP:HB3	6:C:167:HIS:NE2	1.98	0.79
5:B:859:TYR:OH	5:B:941:LEU:HD12	1.83	0.78
4:A:741:ASN:HD22	4:A:744:LYS:H	1.31	0.78
5:B:882:THR:CG2	5:B:884:ARG:HB2	2.12	0.78
5:B:125:SER:HA	5:B:171:PRO:HA	1.63	0.78
5:B:549:THR:HG22	5:B:550:ASP:H	1.46	0.78
10:G:122:ASN:ND2	10:G:125:SER:HB3	1.98	0.78
12:I:85:PHE:HD2	12:I:85:PHE:H	1.27	0.78
1:T:11:DT:H2''	1:T:12:DA:C5'	2.12	0.78
7:D:49:ALA:HB2	7:D:174:PRO:HB3	1.66	0.78
8:E:213:ILE:HG12	8:E:214:CYS:H	1.47	0.78
14:K:45:LEU:HG	14:K:94:ILE:HD13	1.63	0.78
5:B:953:LEU:HD21	5:B:965:LYS:HB2	1.65	0.78
5:B:35:SER:HA	5:B:811:TYR:HE2	1.46	0.78
8:E:135:PHE:HB3	8:E:140:LEU:HD11	1.64	0.78
4:A:670:ILE:HG23	4:A:805:LEU:HD21	1.64	0.78
4:A:828:ALA:HB1	5:B:530:GLY:HA2	1.64	0.78
7:D:40:HIS:CB	10:G:73:LYS:NZ	2.47	0.78
14:K:65:HIS:CD2	14:K:67:PHE:H	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:886:ILE:HD11	4:A:943:LEU:HB3	1.64	0.78
5:B:217:ARG:NE	5:B:405:ARG:HB2	1.99	0.78
5:B:615:MET:HB3	5:B:626:ILE:HG12	1.66	0.78
7:D:189:ASP:O	7:D:193:THR:HB	1.84	0.78
4:A:446:ARG:CD	4:A:480:ALA:HB2	2.14	0.77
4:A:855:THR:HG23	4:A:857:ARG:HG3	1.66	0.77
13:J:1:MET:N	13:J:57:ILE:H	1.81	0.77
4:A:53:LEU:CD2	4:A:54:ASN:H	1.91	0.77
5:B:603:LEU:HD13	5:B:608:ASP:HB2	1.65	0.77
5:B:520:GLY:H	5:B:748:ILE:HG22	1.49	0.77
7:D:17:LYS:HE2	7:D:17:LYS:N	1.99	0.77
9:F:111:LEU:C	9:F:113:GLY:H	1.86	0.77
4:A:563:PRO:HG3	4:A:572:TRP:CZ2	2.19	0.77
14:K:47:ARG:HB3	14:K:47:ARG:NH1	1.99	0.77
4:A:779:PHE:CE1	4:A:785:PRO:HD3	2.18	0.77
4:A:885:THR:O	4:A:940:ARG:HD2	1.84	0.77
5:B:1017:ILE:HB	5:B:1018:PRO:HD3	1.65	0.77
8:E:179:GLN:HB2	8:E:182:ASP:HB2	1.67	0.77
12:I:75:CYS:HG	12:I:78:CYS:HG	1.32	0.77
4:A:1420:ASP:HB3	4:A:1422:ARG:HG3	1.65	0.77
10:G:15:PRO:HA	10:G:18:PHE:CD1	2.19	0.77
10:G:80:LYS:HD3	10:G:80:LYS:N	1.98	0.77
5:B:1085:ILE:HD12	5:B:1085:ILE:N	1.99	0.77
13:J:1:MET:N	13:J:56:LEU:N	2.33	0.77
4:A:49:LYS:HZ1	4:A:61:ILE:HG13	1.48	0.77
13:J:3:VAL:HG21	13:J:18:TRP:HB2	1.65	0.77
4:A:718:VAL:O	4:A:722:LEU:HD12	1.85	0.77
5:B:978:ASP:OD2	5:B:1098:MET:HG2	1.84	0.77
4:A:853:ASP:O	4:A:854:ASN:HB2	1.85	0.76
5:B:1065:GLN:HE21	5:B:1067:ARG:H	1.30	0.76
10:G:80:LYS:HD3	10:G:80:LYS:H	1.50	0.76
13:J:16:ASP:OD1	13:J:17:LYS:HD2	1.84	0.76
4:A:709:THR:HG23	12:I:94:ASP:HA	1.68	0.76
14:K:113:THR:O	14:K:114:LEU:HB2	1.83	0.76
5:B:996:ARG:NH2	6:C:175:ALA:H	1.84	0.76
6:C:66:ARG:NH1	13:J:2:ILE:HG21	2.00	0.76
9:F:103:MET:O	9:F:104:ASN:HB2	1.84	0.76
4:A:1208:THR:HG22	4:A:1210:GLY:H	1.51	0.76
5:B:1162:ILE:HD11	5:B:1194:ILE:HD13	1.66	0.76
4:A:496:GLU:HG2	9:F:99:LEU:HD23	1.67	0.76
10:G:18:PHE:HA	10:G:22:MET:HE3	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1116:LEU:HB2	4:A:1329:THR:OG1	1.86	0.76
5:B:705:MET:H	5:B:710:LEU:HD12	1.51	0.76
5:B:778:MET:CE	5:B:1094:ARG:HD3	2.15	0.76
4:A:414:ASP:OD1	4:A:416:ARG:HG2	1.86	0.76
5:B:862:GLN:HG2	5:B:963:PHE:HD1	1.51	0.76
5:B:467:GLY:N	5:B:475:SER:HB3	2.01	0.76
5:B:957:ASN:HD22	5:B:961:LEU:HD12	1.49	0.76
8:E:2:ASP:O	8:E:3:GLN:HG2	1.84	0.76
8:E:180:ARG:HH21	8:E:192:ARG:HB2	1.51	0.76
11:H:38:LEU:HD12	11:H:124:ARG:O	1.85	0.76
11:H:89:LEU:HB3	11:H:91:ASP:OD1	1.86	0.76
5:B:309:GLN:OE1	12:I:52:ILE:HD11	1.86	0.76
4:A:1341:ILE:HD12	4:A:1379:GLY:O	1.86	0.75
4:A:1424:VAL:HG13	4:A:1436:ILE:CD1	2.17	0.75
9:F:90:ARG:HD3	9:F:155:LEU:HD12	1.67	0.75
5:B:278:GLN:HG2	5:B:279:ASP:H	1.49	0.75
5:B:882:THR:HG22	5:B:884:ARG:N	1.98	0.75
5:B:800:GLN:HB3	13:J:52:THR:HG21	1.66	0.75
4:A:590:ARG:HH21	4:A:620:LYS:CB	1.99	0.75
13:J:8:PHE:H	13:J:49:MET:HE3	1.50	0.75
4:A:866:PHE:C	4:A:867:ILE:HD12	2.07	0.75
6:C:239:PRO:HB2	6:C:241:ASP:OD1	1.87	0.75
10:G:43:GLY:HA3	10:G:80:LYS:HB3	1.69	0.75
12:I:8:ARG:HG3	12:I:34:TYR:HE1	1.52	0.75
5:B:806:THR:HG22	5:B:808:ALA:N	2.01	0.75
8:E:14:ARG:HH21	8:E:141:VAL:CG1	1.99	0.75
13:J:44:TYR:H	13:J:44:TYR:HD2	1.34	0.75
4:A:567:LYS:HG3	4:A:568:PRO:HD2	1.67	0.75
5:B:363:HIS:O	5:B:364:ILE:HB	1.84	0.75
14:K:7:PHE:HA	14:K:10:PHE:CE2	2.22	0.75
4:A:466:SER:O	5:B:1103:ILE:HD11	1.86	0.74
5:B:758:PHE:HB3	5:B:761:HIS:HD2	1.52	0.74
4:A:537:ARG:HD2	11:H:20:TYR:CE1	2.21	0.74
12:I:111:THR:HG22	12:I:112:SER:N	2.02	0.74
3:P:3:U:H2'	3:P:4:G:H8	1.50	0.74
6:C:7:GLN:HG2	14:K:104:ASN:ND2	2.03	0.74
4:A:1239:ARG:HH22	4:A:1241:ARG:NH2	1.86	0.74
5:B:1072:MET:CE	5:B:1085:ILE:HB	2.18	0.74
6:C:147:LEU:HB2	6:C:151:GLN:HB2	1.69	0.74
14:K:65:HIS:HD2	14:K:67:PHE:H	1.36	0.74
4:A:1341:ILE:HG23	4:A:1342:GLU:N	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:981:LEU:CD2	4:A:1039:LYS:HA	2.17	0.74
5:B:1152:MET:CE	5:B:1157:ALA:HA	2.18	0.74
4:A:1279:ILE:HD11	4:A:1316:VAL:CG2	2.17	0.74
5:B:1182:CYS:SG	5:B:1182:CYS:O	2.45	0.74
5:B:214:ALA:HB3	5:B:498:THR:HA	1.69	0.74
6:C:5:GLY:O	6:C:7:GLN:HG3	1.88	0.74
7:D:12:ARG:NH2	7:D:12:ARG:HB3	2.03	0.74
5:B:637:LEU:HD12	5:B:693:ILE:HD12	1.68	0.74
4:A:185:TRP:CZ3	4:A:200:ARG:HG2	2.22	0.74
5:B:971:THR:OG1	6:C:61:GLU:HG3	1.88	0.74
7:D:52:LEU:HD21	7:D:147:TYR:HE2	1.52	0.74
11:H:23:VAL:HG22	11:H:43:ASN:HA	1.70	0.74
4:A:1004:ASN:O	4:A:1008:GLN:HB2	1.87	0.74
4:A:19:PHE:O	4:A:1416:ALA:HA	1.86	0.74
4:A:528:LEU:O	4:A:531:ILE:HG22	1.88	0.74
5:B:770:GLN:OE1	5:B:983:ARG:HA	1.87	0.74
4:A:808:LEU:HD23	4:A:813:PHE:HA	1.70	0.73
4:A:836:TYR:CE2	4:A:840:ARG:HD2	2.22	0.73
4:A:855:THR:HG21	4:A:857:ARG:NE	2.00	0.73
4:A:982:THR:HB	4:A:985:ASP:H	1.53	0.73
7:D:9:GLN:HE21	7:D:38:ILE:HD12	1.53	0.73
4:A:1444:MET:HG2	10:G:60:ARG:HA	1.70	0.73
4:A:288:ALA:HA	4:A:291:GLU:OE2	1.89	0.73
4:A:567:LYS:HB3	11:H:95:TYR:HA	1.70	0.73
5:B:273:LEU:CB	5:B:276:ILE:HD12	2.16	0.73
4:A:164:ARG:HG3	4:A:165:GLY:N	2.03	0.73
4:A:518:LYS:HE2	4:A:624:SER:O	1.88	0.73
4:A:682:THR:HG23	4:A:728:LYS:HE3	1.70	0.73
5:B:1077:THR:HG22	14:K:44:ASN:ND2	2.03	0.73
5:B:1077:THR:HG22	14:K:44:ASN:HD21	1.52	0.73
5:B:1065:GLN:NE2	5:B:1067:ARG:HG2	2.03	0.73
5:B:287:ARG:HG2	5:B:292:ILE:HA	1.70	0.73
4:A:55:ASP:CG	4:A:55:ASP:O	2.22	0.73
5:B:642:ASP:HA	5:B:649:LYS:HA	1.68	0.73
4:A:283:GLY:O	4:A:285:PRO:HD3	1.88	0.73
4:A:351:THR:HB	5:B:1103:ILE:HD12	1.71	0.73
4:A:960:ILE:HA	4:A:963:ILE:HG22	1.69	0.73
4:A:628:GLY:O	4:A:632:VAL:HG23	1.88	0.73
4:A:849:MET:HE1	4:A:1061:GLY:HA2	1.70	0.73
5:B:521:LEU:HB3	5:B:633:VAL:HG11	1.70	0.73
7:D:12:ARG:HH21	7:D:12:ARG:HB3	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:43:ARG:HG3	13:J:45:CYS:SG	2.28	0.73
8:E:153:HIS:HB3	8:E:196:VAL:CG1	2.18	0.73
6:C:194:GLU:O	6:C:195:GLN:HG3	1.87	0.73
7:D:56:ARG:HB2	7:D:148:LEU:HD22	1.69	0.73
4:A:963:ILE:HD11	4:A:1048:ASN:CB	2.19	0.72
5:B:603:LEU:HB3	5:B:609:ILE:HD11	1.70	0.72
5:B:175:ARG:HH11	5:B:175:ARG:HG2	1.53	0.72
6:C:262:LEU:HD11	14:K:87:LEU:HD23	1.71	0.72
4:A:23:SER:HB3	4:A:233:TRP:CZ2	2.24	0.72
3:P:10:G:H4'	4:A:485:ASP:OD1	1.89	0.72
5:B:798:TYR:HE2	6:C:62:PHE:CZ	2.07	0.72
6:C:47:ASP:HA	15:L:69:ALA:CB	2.17	0.72
4:A:446:ARG:HD3	4:A:480:ALA:HB2	1.71	0.72
5:B:1201:LYS:HE2	5:B:1205:GLN:OE1	1.89	0.72
5:B:190:TYR:CE2	13:J:62:ARG:HB3	2.24	0.72
5:B:401:PHE:HA	5:B:404:LYS:HG3	1.70	0.72
5:B:737:THR:HG21	12:I:66:PRO:HA	1.71	0.72
11:H:81:PRO:CB	11:H:82:PRO:HD2	2.19	0.72
4:A:794:PRO:HG2	4:A:795:GLU:OE2	1.89	0.72
4:A:590:ARG:NH2	4:A:620:LYS:HB3	2.05	0.72
5:B:911:ILE:HD11	5:B:941:LEU:HD13	1.70	0.72
7:D:18:VAL:O	7:D:19:GLU:HB2	1.89	0.72
5:B:791:THR:HG22	5:B:858:SER:O	1.88	0.72
6:C:212:PRO:HB3	6:C:213:PRO:HD2	1.70	0.72
5:B:542:MET:HE2	5:B:743:ILE:HG13	1.72	0.72
5:B:613:VAL:HG22	5:B:628:THR:HA	1.70	0.72
5:B:810:GLU:HA	5:B:815:ARG:HH12	1.53	0.72
5:B:542:MET:CE	5:B:743:ILE:HG13	2.20	0.71
5:B:957:ASN:O	5:B:959:ASP:N	2.23	0.71
5:B:1001:PHE:CE1	5:B:1073:TYR:HB2	2.25	0.71
7:D:170:THR:CG2	7:D:172:LEU:HG	2.20	0.71
5:B:847:ASP:HB3	6:C:167:HIS:CD2	2.25	0.71
8:E:124:VAL:HG13	8:E:132:ILE:HB	1.71	0.71
4:A:87:ALA:HB3	4:A:276:LEU:HD23	1.70	0.71
5:B:980:PHE:HE1	5:B:990:ILE:HD11	1.53	0.71
4:A:798:GLY:HA2	4:A:815:PHE:CD1	2.25	0.71
3:P:8:A:O2'	3:P:9:G:H5'	1.91	0.71
4:A:1118:VAL:HG12	4:A:1327:ILE:HG13	1.73	0.71
4:A:244:PRO:HG2	4:A:245:PRO:HD3	1.71	0.71
4:A:34:LYS:HG2	4:A:36:ARG:HH21	1.54	0.71
5:B:996:ARG:HH22	6:C:175:ALA:H	1.35	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:35:LEU:H	7:D:35:LEU:HD12	1.55	0.71
1:T:16:DG:H4'	4:A:1403:GLU:OE2	1.91	0.71
4:A:446:ARG:HB2	4:A:487:MET:SD	2.31	0.71
5:B:284:ILE:HD13	5:B:333:PHE:HD2	1.56	0.71
5:B:830:TYR:CE2	5:B:1000:PRO:HD3	2.26	0.71
7:D:134:THR:HG22	7:D:135:GLY:N	2.06	0.71
11:H:81:PRO:HB2	11:H:82:PRO:HD2	1.71	0.71
13:J:64:ASN:HB3	13:J:65:PRO:HD3	1.71	0.71
13:J:64:ASN:HD22	13:J:65:PRO:HD3	1.54	0.71
1:T:23:DC:H2'	1:T:24:DT:C6	2.26	0.71
4:A:164:ARG:HG3	4:A:165:GLY:H	1.56	0.71
5:B:295:GLY:H	5:B:298:LEU:HD23	1.55	0.71
5:B:515:HIS:H	5:B:518:HIS:CD2	2.09	0.71
5:B:899:ILE:HD11	5:B:911:ILE:HA	1.73	0.71
10:G:115:MET:HB2	10:G:116:PRO:HD2	1.72	0.71
4:A:1279:ILE:HD11	4:A:1316:VAL:HG21	1.72	0.70
5:B:653:VAL:CG2	5:B:689:LEU:HB3	2.21	0.70
11:H:55:LEU:HD22	11:H:144:ILE:CG2	2.21	0.70
4:A:115:LEU:O	4:A:122:MET:HE3	1.92	0.70
11:H:83:GLN:C	11:H:85:GLY:H	1.92	0.70
4:A:265:LYS:HD2	4:A:265:LYS:N	2.04	0.70
5:B:221:ASN:N	5:B:241:ARG:O	2.24	0.70
5:B:393:LYS:HA	5:B:393:LYS:HE3	1.71	0.70
6:C:36:VAL:HG21	6:C:251:LEU:HD22	1.72	0.70
9:F:97:ARG:O	9:F:101:ILE:HG13	1.91	0.70
10:G:143:ILE:HG22	10:G:144:ARG:N	2.06	0.70
11:H:15:VAL:HG22	11:H:26:ILE:HD11	1.73	0.70
4:A:1118:VAL:HG23	4:A:1306:LEU:HB2	1.74	0.70
4:A:450:LEU:HD12	4:A:450:LEU:H	1.55	0.70
4:A:666:ILE:HD12	4:A:667:GLY:H	1.57	0.70
5:B:168:GLY:H	5:B:450:ALA:HB1	1.56	0.70
7:D:170:THR:HG21	7:D:172:LEU:HG	1.73	0.70
7:D:9:GLN:NE2	7:D:38:ILE:HD12	2.07	0.70
13:J:1:MET:H1	13:J:57:ILE:H	1.37	0.70
4:A:285:PRO:HG2	4:A:288:ALA:HB3	1.73	0.70
4:A:541:ILE:HD13	4:A:549:MET:CE	2.22	0.70
4:A:590:ARG:HH21	4:A:620:LYS:HB2	1.55	0.70
4:A:351:THR:HB	5:B:1103:ILE:CD1	2.22	0.70
5:B:977:GLY:HA3	5:B:1099:VAL:HB	1.74	0.70
6:C:145:CYS:HA	13:J:2:ILE:HD11	1.73	0.70
6:C:179:GLU:HG2	6:C:180:TYR:N	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:82:THR:HG22	9:F:84:TYR:N	2.06	0.70
10:G:1:MET:SD	10:G:79:PHE:CD1	2.83	0.70
13:J:3:VAL:HG21	13:J:18:TRP:CB	2.22	0.70
5:B:1159:ARG:HD3	5:B:1193:GLN:CG	2.22	0.70
4:A:981:LEU:HD21	4:A:1039:LYS:HA	1.73	0.70
10:G:145:VAL:HG12	10:G:146:LYS:N	2.05	0.70
4:A:1283:VAL:HG12	4:A:1284:MET:N	2.07	0.70
4:A:1349:TYR:HB2	4:A:1372:VAL:HG21	1.74	0.70
4:A:567:LYS:NZ	11:H:46:LEU:HB2	2.07	0.70
4:A:853:ASP:OD1	4:A:855:THR:HB	1.90	0.70
5:B:1165:ILE:HG22	5:B:1166:CYS:H	1.57	0.70
14:K:12:LEU:HD12	14:K:12:LEU:H	1.57	0.70
4:A:92:HIS:O	4:A:94:GLY:N	2.25	0.69
6:C:114:TYR:HB3	6:C:140:ASN:O	1.92	0.69
7:D:7:THR:HB	10:G:42:PHE:CZ	2.26	0.69
5:B:616:ILE:HD12	5:B:616:ILE:N	2.07	0.69
6:C:209:TYR:H	6:C:209:TYR:HD1	1.39	0.69
5:B:798:TYR:CE2	6:C:62:PHE:CE2	2.81	0.69
11:H:111:LEU:HD23	11:H:127:GLY:O	1.93	0.69
4:A:1161:THR:HG22	4:A:1163:ILE:N	2.04	0.69
4:A:1373:ASP:HA	4:A:1376:THR:HG22	1.75	0.69
4:A:224:PHE:CZ	4:A:231:PRO:HG3	2.28	0.69
4:A:590:ARG:NH2	4:A:620:LYS:CB	2.55	0.69
5:B:846:ILE:HG23	5:B:974:PRO:HG2	1.74	0.69
15:L:27:LEU:HD13	15:L:37:LYS:HE2	1.74	0.69
4:A:1329:THR:CG2	4:A:1331:SER:H	2.04	0.69
6:C:179:GLU:HG2	6:C:180:TYR:H	1.56	0.69
10:G:138:THR:CG2	10:G:139:ILE:H	1.92	0.69
4:A:1332:PHE:H	4:A:1332:PHE:HD2	1.39	0.69
4:A:855:THR:CG2	4:A:857:ARG:HE	2.01	0.69
4:A:382:PRO:HB3	4:A:428:TYR:HE2	1.57	0.69
5:B:950:ASP:O	5:B:951:GLN:HB2	1.91	0.69
11:H:89:LEU:C	11:H:91:ASP:H	1.96	0.69
6:C:66:ARG:HH21	13:J:5:VAL:HG23	1.57	0.69
4:A:311:GLN:O	4:A:312:PRO:C	2.31	0.69
5:B:411:PRO:O	5:B:414:ALA:HB3	1.93	0.69
5:B:701:ILE:HD11	5:B:703:ILE:HD11	1.74	0.69
7:D:7:THR:HB	10:G:42:PHE:CE2	2.28	0.69
11:H:4:THR:CA	11:H:60:ALA:HB2	2.22	0.69
4:A:567:LYS:HB3	11:H:96:VAL:N	2.07	0.69
4:A:567:LYS:HD3	11:H:95:TYR:CD2	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:567:LYS:HD2	4:A:568:PRO:HD2	1.74	0.69
5:B:653:VAL:HG22	5:B:689:LEU:HB3	1.75	0.69
5:B:770:GLN:CD	5:B:983:ARG:HA	2.13	0.69
14:K:47:ARG:HH11	14:K:47:ARG:CB	2.04	0.69
5:B:515:HIS:H	5:B:518:HIS:HD2	1.40	0.69
4:A:407:ARG:HB3	4:A:430:TRP:CE2	2.28	0.69
5:B:957:ASN:ND2	5:B:961:LEU:HD12	2.08	0.69
5:B:975:GLN:O	5:B:990:ILE:HD12	1.93	0.69
5:B:852:ARG:NH2	15:L:70:ARG:OXT	2.23	0.69
4:A:1394:THR:HG21	4:A:1398:MET:SD	2.34	0.68
4:A:809:THR:H	4:A:812:GLU:HB2	1.58	0.68
6:C:213:PRO:O	6:C:214:ASN:HB2	1.90	0.68
7:D:130:LEU:O	7:D:132:GLN:N	2.25	0.68
7:D:40:HIS:CE1	7:D:41:GLN:HG3	2.29	0.68
9:F:72:LYS:HD2	9:F:142:SER:HB3	1.75	0.68
4:A:679:ILE:HG12	4:A:732:LEU:HD12	1.75	0.68
5:B:1180:PHE:HB3	5:B:1191:ILE:CD1	2.23	0.68
4:A:7:SER:HB3	5:B:1193:GLN:NE2	2.08	0.68
6:C:244:VAL:O	6:C:248:ILE:HG13	1.94	0.68
4:A:341:MET:HE1	4:A:843:LYS:NZ	2.07	0.68
4:A:913:LEU:HD12	4:A:914:GLU:H	1.58	0.68
5:B:882:THR:HB	5:B:934:LYS:O	1.94	0.68
6:C:226:ASP:O	6:C:227:THR:HB	1.92	0.68
14:K:63:VAL:O	14:K:63:VAL:HG23	1.94	0.68
4:A:463:ILE:CD1	4:A:469:ARG:HG3	2.23	0.68
4:A:546:VAL:O	4:A:550:LEU:HG	1.94	0.68
4:A:567:LYS:CB	11:H:95:TYR:HA	2.24	0.68
5:B:746:SER:HB2	5:B:1046:PRO:HG2	1.75	0.68
5:B:1095:LEU:HD12	5:B:1095:LEU:H	1.58	0.68
5:B:44:VAL:HG11	5:B:199:MET:HG2	1.74	0.68
5:B:745:PRO:O	5:B:748:ILE:HG12	1.93	0.68
5:B:435:THR:C	5:B:437:GLU:H	1.97	0.68
6:C:164:ALA:HA	6:C:167:HIS:O	1.93	0.68
7:D:153:ARG:HB3	7:D:154:PHE:CE1	2.28	0.68
10:G:49:LEU:HG	10:G:76:ALA:HA	1.75	0.68
4:A:12:ARG:HD2	5:B:1218:THR:HB	1.74	0.68
5:B:542:MET:HG2	5:B:747:MET:HB3	1.74	0.68
5:B:603:LEU:HB3	5:B:609:ILE:CD1	2.23	0.68
5:B:642:ASP:O	5:B:644:GLU:N	2.26	0.68
7:D:53:SER:HB3	7:D:152:SER:CB	2.24	0.68
4:A:751:SER:O	4:A:752:LYS:HG2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:35:GLU:OE2	10:G:48:VAL:HG23	1.94	0.68
4:A:1066:VAL:O	4:A:1070:GLN:HG3	1.94	0.68
4:A:475:THR:CG2	4:A:476:SER:H	2.03	0.68
4:A:524:VAL:HG12	4:A:525:GLN:N	2.08	0.68
11:H:17:PRO:HB3	11:H:24:CYS:SG	2.34	0.68
4:A:106:VAL:HG13	4:A:112:LYS:O	1.94	0.68
5:B:589:VAL:HG12	5:B:590:HIS:N	2.03	0.68
7:D:130:LEU:C	7:D:132:GLN:H	1.97	0.68
12:I:34:TYR:CD2	12:I:35:VAL:N	2.62	0.68
5:B:1072:MET:HE3	5:B:1085:ILE:HB	1.75	0.67
8:E:78:LEU:HD21	8:E:80:VAL:HG23	1.74	0.67
11:H:59:ILE:HG22	11:H:60:ALA:H	1.59	0.67
4:A:107:CYS:N	4:A:114:LEU:HD21	2.09	0.67
4:A:1438:THR:HB	5:B:1144:ALA:CB	2.19	0.67
4:A:591:PHE:HA	4:A:595:THR:HG21	1.74	0.67
4:A:901:LEU:O	4:A:921:GLY:N	2.28	0.67
12:I:54:GLU:HB3	12:I:100:PHE:HE2	1.58	0.67
4:A:673:GLY:O	4:A:676:MET:HB2	1.95	0.67
5:B:1166:CYS:HB2	5:B:1215:ARG:HH12	1.57	0.67
5:B:184:ALA:HB1	5:B:188:ASP:HB3	1.76	0.67
5:B:516:ASN:H	5:B:516:ASN:HD22	1.39	0.67
5:B:65:GLU:HG3	5:B:66:ASP:H	1.59	0.67
5:B:693:ILE:HD13	5:B:701:ILE:HD13	1.76	0.67
5:B:705:MET:H	5:B:710:LEU:CD1	2.07	0.67
8:E:198:ILE:HD11	8:E:212:ARG:HG3	1.75	0.67
8:E:90:VAL:HG23	8:E:120:ALA:HA	1.76	0.67
15:L:32:ALA:HB3	15:L:55:ILE:CD1	2.21	0.67
4:A:1293:SER:OG	4:A:1294:PRO:HD2	1.94	0.67
4:A:1333:ILE:O	4:A:1337:GLU:HG3	1.95	0.67
4:A:107:CYS:SG	4:A:171:GLN:HG2	2.35	0.67
4:A:381:THR:HG23	4:A:383:TYR:H	1.59	0.67
5:B:758:PHE:CE1	5:B:1027:ILE:HG22	2.30	0.67
8:E:180:ARG:NH2	8:E:192:ARG:HB2	2.08	0.67
4:A:50:ILE:C	4:A:52:GLY:H	1.96	0.67
4:A:675:THR:O	4:A:679:ILE:HG13	1.95	0.67
5:B:800:GLN:HB3	13:J:52:THR:CG2	2.24	0.67
4:A:1325:THR:O	8:E:148:GLU:HB2	1.94	0.67
9:F:132:LEU:O	9:F:148:VAL:HG22	1.95	0.67
14:K:21:ILE:HG12	14:K:33:ILE:HG12	1.77	0.67
14:K:50:LEU:HD11	14:K:75:ILE:HD13	1.77	0.67
4:A:1299:VAL:HG12	4:A:1300:LYS:N	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:535:THR:CG2	4:A:616:VAL:HA	2.22	0.67
4:A:1324:PRO:HB2	8:E:142:VAL:HG11	1.76	0.67
4:A:1206:ASP:O	4:A:1274:ARG:NH1	2.27	0.67
4:A:1063:MET:CG	4:A:1436:ILE:HG23	2.24	0.67
4:A:172:PRO:HD3	4:A:185:TRP:NE1	2.10	0.67
4:A:547:LEU:HD22	14:K:58:PHE:CD1	2.30	0.67
4:A:1444:MET:CG	10:G:60:ARG:HA	2.25	0.67
4:A:683:ILE:HG21	4:A:801:GLU:HG3	1.75	0.67
4:A:984:LYS:O	4:A:988:LEU:HB2	1.94	0.67
4:A:1143:LEU:HD12	4:A:1146:VAL:HG23	1.75	0.67
4:A:1206:ASP:HB3	4:A:1274:ARG:HH12	1.60	0.66
5:B:240:ILE:CG2	5:B:254:LEU:HB3	2.25	0.66
6:C:43:THR:CG2	6:C:44:LEU:H	2.03	0.66
4:A:356:ASP:HB2	4:A:469:ARG:HH12	1.58	0.66
4:A:679:ILE:O	4:A:683:ILE:HG13	1.95	0.66
4:A:849:MET:CE	4:A:1061:GLY:HA2	2.25	0.66
4:A:1005:GLU:O	4:A:1009:ASN:HB2	1.95	0.66
4:A:1291:VAL:HG13	4:A:1292:PRO:HD2	1.77	0.66
4:A:353:ILE:HD13	4:A:487:MET:HE2	1.77	0.66
2:N:3:DA:H2"	2:N:4:DG:OP2	1.95	0.66
5:B:778:MET:HE2	5:B:1094:ARG:HG2	1.77	0.66
5:B:756:ILE:O	5:B:759:PRO:HD3	1.96	0.66
9:F:125:LEU:O	9:F:125:LEU:HG	1.95	0.66
10:G:34:VAL:HG11	10:G:74:TYR:HE1	1.59	0.66
4:A:225:ASN:ND2	4:A:228:PHE:H	1.90	0.66
4:A:79:GLY:HA3	4:A:243:PRO:CG	2.26	0.66
4:A:567:LYS:HD3	11:H:95:TYR:CG	2.30	0.66
4:A:590:ARG:HG3	4:A:590:ARG:NH1	2.10	0.66
8:E:114:ASN:O	8:E:115:ASN:HB3	1.95	0.66
9:F:111:LEU:N	9:F:111:LEU:HD12	2.11	0.66
2:N:1:DC:H1'	2:N:2:DA:O5'	1.96	0.66
4:A:1121:GLU:HG2	4:A:1122:PRO:HD2	1.78	0.66
4:A:67:CYS:O	4:A:70:CYS:HB3	1.95	0.66
9:F:130:ILE:O	9:F:148:VAL:HG21	1.95	0.66
10:G:47:CYS:O	10:G:76:ALA:HB1	1.95	0.66
12:I:54:GLU:HB3	12:I:100:PHE:CE2	2.30	0.66
4:A:499:ALA:O	4:A:503:GLN:HB2	1.96	0.66
4:A:14:VAL:HG21	5:B:1216:LEU:HD12	1.78	0.66
5:B:37:PHE:CE1	5:B:41:LYS:HG3	2.31	0.66
6:C:67:LEU:HD11	6:C:155:LEU:CD1	2.26	0.66
7:D:128:VAL:O	7:D:132:GLN:HG3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:23:LYS:HG3	10:G:56:ILE:CD1	2.25	0.66
12:I:8:ARG:HG3	12:I:34:TYR:CE1	2.31	0.66
13:J:2:ILE:HG12	13:J:57:ILE:HD12	1.77	0.66
13:J:48:ARG:HD2	13:J:49:MET:N	2.10	0.66
14:K:6:ARG:O	14:K:9:LEU:HG	1.96	0.66
4:A:982:THR:HG22	4:A:984:LYS:H	1.60	0.66
12:I:62:ILE:HG12	12:I:62:ILE:O	1.94	0.66
14:K:10:PHE:CD2	14:K:10:PHE:N	2.64	0.66
4:A:265:LYS:HZ3	4:A:322:VAL:HG13	1.59	0.66
4:A:340:LEU:HD21	5:B:1200:ALA:N	2.11	0.66
5:B:737:THR:CG2	12:I:66:PRO:HA	2.26	0.66
5:B:758:PHE:HB3	5:B:761:HIS:CD2	2.30	0.66
7:D:52:LEU:HD21	7:D:147:TYR:CE2	2.31	0.66
7:D:7:THR:O	7:D:9:GLN:N	2.29	0.66
5:B:121:ASN:HA	5:B:207:GLY:CA	2.26	0.65
6:C:73:GLN:HB3	6:C:131:HIS:H	1.61	0.65
5:B:798:TYR:CE2	6:C:62:PHE:HE2	2.15	0.65
4:A:248:PRO:O	4:A:260:ASP:HB2	1.95	0.65
4:A:376:TYR:OH	4:A:498:ARG:HD2	1.97	0.65
4:A:541:ILE:HG22	4:A:546:VAL:HG23	1.79	0.65
4:A:68:GLN:C	4:A:70:CYS:H	1.99	0.65
4:A:960:ILE:O	4:A:963:ILE:HG22	1.96	0.65
9:F:89:GLU:OE2	9:F:134:ILE:HG21	1.96	0.65
4:A:269:ILE:HD11	4:A:300:VAL:HA	1.77	0.65
4:A:58:LEU:HD22	4:A:80:HIS:O	1.96	0.65
4:A:61:ILE:HG22	4:A:62:ASP:H	1.61	0.65
5:B:220:GLY:O	5:B:222:ILE:HG13	1.97	0.65
5:B:333:PHE:O	5:B:334:ILE:HG13	1.96	0.65
6:C:133:ILE:CD1	6:C:237:SER:HA	2.26	0.65
8:E:47:CYS:HA	8:E:52:ARG:O	1.97	0.65
4:A:1445:ILE:HD11	10:G:68:ALA:HB1	1.79	0.65
13:J:3:VAL:HG21	13:J:18:TRP:CG	2.31	0.65
4:A:588:LEU:O	4:A:606:LEU:HA	1.95	0.65
5:B:1099:VAL:CG1	5:B:1100:ASP:N	2.60	0.65
5:B:69:LEU:HD22	5:B:429:PHE:CE1	2.32	0.65
6:C:18:VAL:HG12	6:C:18:VAL:O	1.96	0.65
4:A:868:TYR:CE1	4:A:1064:VAL:HG11	2.31	0.65
4:A:1224:LEU:HD12	4:A:1241:ARG:O	1.97	0.65
5:B:120:ARG:HG2	5:B:955:THR:HG21	1.79	0.65
11:H:100:THR:HG22	11:H:101:ALA:N	2.12	0.65
13:J:44:TYR:HA	13:J:47:ARG:CB	2.24	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:101:LEU:HD23	14:K:101:LEU:O	1.96	0.65
4:A:107:CYS:H	4:A:114:LEU:HD21	1.61	0.65
4:A:728:LYS:HA	4:A:731:ARG:HB2	1.79	0.65
6:C:183:TRP:O	6:C:185:LYS:N	2.29	0.65
5:B:1065:GLN:HB2	6:C:201:TRP:CZ3	2.32	0.65
15:L:70:ARG:HG2	15:L:70:ARG:HH11	1.62	0.65
4:A:306:ASN:HB2	4:A:324:SER:HB3	1.77	0.65
4:A:298:PHE:HZ	4:A:314:ALA:HB2	1.61	0.65
4:A:852:TYR:CD2	4:A:1060:PRO:HB2	2.32	0.65
4:A:548:ASN:HA	14:K:60:ALA:HB1	1.79	0.65
5:B:916:THR:O	5:B:935:ARG:HG3	1.97	0.65
5:B:96:TYR:HB2	5:B:129:PHE:HB2	1.77	0.65
5:B:902:GLY:O	15:L:65:VAL:HG11	1.97	0.65
6:C:232:VAL:HG21	6:C:244:VAL:HG22	1.79	0.65
4:A:1100:ARG:NH2	4:A:1351:GLU:HG2	2.12	0.65
4:A:1424:VAL:HG11	5:B:1139:ILE:HD13	1.78	0.65
4:A:224:PHE:CE2	4:A:231:PRO:HG3	2.32	0.65
5:B:102:VAL:HG23	5:B:112:LEU:HB2	1.79	0.65
5:B:708:GLU:O	5:B:710:LEU:N	2.30	0.65
5:B:797:TYR:HB2	5:B:852:ARG:O	1.97	0.65
14:K:49:GLU:HG3	14:K:94:ILE:HG12	1.79	0.65
1:T:23:DC:H2''	1:T:24:DT:H5'	1.78	0.65
4:A:1227:ILE:HG22	4:A:1228:TRP:H	1.62	0.64
4:A:680:THR:HA	4:A:683:ILE:HD12	1.79	0.64
4:A:746:MET:HE3	5:B:1018:PRO:HG2	1.79	0.64
4:A:901:LEU:H	4:A:926:GLN:HE21	1.45	0.64
5:B:172:ILE:HG22	5:B:173:MET:N	2.12	0.64
5:B:233:PRO:HG2	5:B:234:ILE:CD1	2.26	0.64
5:B:282:ILE:HD12	5:B:382:ILE:HD13	1.79	0.64
4:A:698:GLN:HA	12:I:97:MET:O	1.97	0.64
15:L:40:LEU:HD13	15:L:44:ASP:HB3	1.79	0.64
4:A:172:PRO:HD3	4:A:185:TRP:HE1	1.62	0.64
4:A:54:ASN:HB3	4:A:247:ARG:HH12	1.63	0.64
4:A:416:ARG:C	4:A:417:TYR:HD2	2.00	0.64
5:B:1166:CYS:O	5:B:1168:LEU:N	2.28	0.64
5:B:1197:PRO:HG2	5:B:1200:ALA:HB2	1.78	0.64
5:B:684:LEU:H	5:B:684:LEU:HD12	1.61	0.64
13:J:1:MET:H1	13:J:57:ILE:N	1.95	0.64
14:K:29:ASN:O	14:K:76:GLN:HG3	1.98	0.64
4:A:102:VAL:HG11	4:A:211:PHE:CE2	2.32	0.64
4:A:560:ILE:HG13	11:H:78:SER:HB2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:84:ILE:HD11	4:A:270:LEU:HD22	1.78	0.64
5:B:185:THR:H	5:B:188:ASP:HB2	1.62	0.64
5:B:467:GLY:H	5:B:475:SER:CB	2.08	0.64
5:B:562:GLY:HA3	5:B:590:HIS:CE1	2.31	0.64
5:B:593:PRO:HG2	5:B:617:ARG:NH2	2.12	0.64
15:L:28:LYS:HB2	15:L:39:SER:HA	1.79	0.64
1:T:20:DC:H4'	4:A:447:GLN:NE2	2.12	0.64
4:A:965:GLN:O	4:A:968:GLN:HB2	1.97	0.64
5:B:1065:GLN:HG3	5:B:1067:ARG:H	1.62	0.64
5:B:114:PRO:HG2	5:B:115:GLN:H	1.63	0.64
6:C:208:GLU:O	6:C:210:GLU:N	2.30	0.64
10:G:91:VAL:HG23	10:G:141:SER:O	1.97	0.64
4:A:1002:GLY:HA3	4:A:1007:ILE:HG21	1.79	0.64
4:A:1227:ILE:HG22	4:A:1228:TRP:N	2.12	0.64
4:A:30:ILE:HG23	5:B:1170:THR:HG23	1.79	0.64
4:A:1410:PHE:HA	5:B:1212:ILE:HD11	1.79	0.64
6:C:214:ASN:HB3	6:C:217:ASP:OD2	1.98	0.64
4:A:1341:ILE:HG23	4:A:1342:GLU:H	1.62	0.64
4:A:1100:ARG:HH21	4:A:1351:GLU:CG	2.11	0.64
4:A:768:GLN:HG2	4:A:816:HIS:HA	1.79	0.64
7:D:202:ILE:HG21	7:D:207:LEU:HB2	1.79	0.64
5:B:1138:MET:HA	5:B:1138:MET:HE3	1.80	0.64
5:B:824:ILE:CG2	5:B:1087:PHE:HE2	2.10	0.64
13:J:36:LEU:HD12	13:J:47:ARG:NH1	2.13	0.64
13:J:8:PHE:H	13:J:49:MET:CE	2.11	0.64
4:A:1299:VAL:HG12	4:A:1300:LYS:H	1.63	0.64
4:A:1329:THR:HG22	4:A:1331:SER:N	2.13	0.64
4:A:399:HIS:CB	4:A:400:PRO:HD3	2.24	0.64
5:B:361:LEU:HD21	5:B:377:PHE:CD2	2.33	0.64
13:J:23:ASN:C	13:J:25:LEU:H	2.01	0.64
13:J:1:MET:H1	13:J:56:LEU:N	1.96	0.64
4:A:114:LEU:O	4:A:115:LEU:HG	1.98	0.64
5:B:465:ASN:HD22	5:B:465:ASN:N	1.95	0.64
5:B:515:HIS:HD2	5:B:517:THR:H	1.44	0.64
6:C:166:GLU:HG3	14:K:10:PHE:CZ	2.24	0.64
6:C:251:LEU:HD12	6:C:251:LEU:O	1.98	0.64
6:C:76:ASP:O	6:C:79:GLN:HG2	1.97	0.64
13:J:14:VAL:HG12	13:J:50:ILE:HD11	1.78	0.64
4:A:346:ASP:HB3	5:B:1108:ARG:H	1.63	0.64
7:D:170:THR:HB	7:D:172:LEU:H	1.62	0.64
4:A:341:MET:HE1	4:A:843:LYS:HZ3	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:720:ARG:O	4:A:724:GLU:HB2	1.98	0.63
5:B:378:LEU:O	5:B:382:ILE:HG13	1.98	0.63
8:E:213:ILE:HG12	8:E:214:CYS:N	2.13	0.63
11:H:41:ASP:O	11:H:42:ILE:HG13	1.98	0.63
11:H:82:PRO:O	11:H:84:ALA:N	2.27	0.63
4:A:55:ASP:N	4:A:56:PRO:HD3	2.12	0.63
5:B:1183:LYS:HE3	5:B:1183:LYS:N	2.13	0.63
5:B:744:HIS:HD2	5:B:746:SER:OG	1.81	0.63
7:D:8:PHE:CZ	7:D:40:HIS:HA	2.33	0.63
5:B:822:ASN:ND2	13:J:52:THR:HG21	2.12	0.63
4:A:1329:THR:CG2	4:A:1331:SER:HB3	2.28	0.63
4:A:406:ILE:HG22	4:A:412:ARG:HA	1.81	0.63
5:B:1152:MET:HE3	5:B:1157:ALA:HA	1.79	0.63
5:B:526:GLU:HG2	5:B:538:ASN:HD22	1.64	0.63
5:B:850:LEU:HD12	5:B:851:PHE:N	2.12	0.63
6:C:105:GLY:HA3	6:C:149:LYS:O	1.99	0.63
7:D:31:GLN:O	7:D:34:GLN:HG3	1.99	0.63
10:G:3:PHE:CD1	10:G:80:LYS:NZ	2.65	0.63
5:B:822:ASN:HD22	13:J:52:THR:HG21	1.62	0.63
4:A:1166:ASP:OD2	4:A:1239:ARG:HD2	1.98	0.63
4:A:1198:ASP:O	4:A:1202:MET:HG2	1.99	0.63
4:A:339:ASN:O	4:A:343:LYS:HG2	1.98	0.63
5:B:1001:PHE:CZ	5:B:1073:TYR:HB2	2.33	0.63
5:B:44:VAL:CG1	5:B:199:MET:HG2	2.28	0.63
5:B:827:ILE:HD12	5:B:1086:PHE:HD2	1.64	0.63
6:C:177:GLU:HB2	6:C:231:ASN:HB3	1.81	0.63
11:H:42:ILE:HG23	11:H:95:TYR:CE1	2.30	0.63
1:T:23:DC:H2'	1:T:24:DT:H71	1.81	0.63
4:A:1209:MET:SD	4:A:1236:LEU:HD22	2.38	0.63
4:A:1420:ASP:O	4:A:1421:CYS:HB2	1.98	0.63
4:A:35:ILE:HG22	4:A:84:ILE:HD12	1.81	0.63
5:B:345:LYS:O	5:B:347:LYS:HG2	1.98	0.63
5:B:65:GLU:HG3	5:B:66:ASP:N	2.14	0.63
5:B:879:ARG:HH11	5:B:883:LEU:CD2	2.06	0.63
5:B:95:ILE:HG13	5:B:130:VAL:HG22	1.80	0.63
15:L:40:LEU:HD22	15:L:44:ASP:CG	2.19	0.63
5:B:1197:PRO:HG2	5:B:1200:ALA:CB	2.28	0.63
5:B:579:ARG:CB	5:B:586:TRP:HE1	2.08	0.63
7:D:35:LEU:CD2	7:D:173:HIS:HB3	2.28	0.63
7:D:47:LEU:HD12	7:D:48:ILE:H	1.62	0.63
4:A:144:THR:O	4:A:146:MET:HG3	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:438:ASP:O	4:A:439:ASN:HB2	1.97	0.63
10:G:15:PRO:HA	10:G:18:PHE:CE1	2.34	0.63
10:G:18:PHE:HA	10:G:22:MET:HE2	1.81	0.63
12:I:25:LEU:HB3	12:I:38:ALA:HB2	1.79	0.63
4:A:1148:ILE:HG23	12:I:49:ILE:HB	1.80	0.63
4:A:356:ASP:OD2	14:K:65:HIS:HE1	1.82	0.63
4:A:1329:THR:HG22	4:A:1331:SER:H	1.63	0.63
4:A:1424:VAL:HG13	4:A:1436:ILE:HD11	1.80	0.63
4:A:90:VAL:CG1	4:A:297:GLN:HA	2.28	0.63
9:F:109:VAL:HG12	9:F:110:ASP:N	2.14	0.63
4:A:993:LEU:HD22	4:A:1046:LEU:HD22	1.80	0.63
4:A:381:THR:CG2	4:A:383:TYR:H	2.12	0.63
4:A:450:LEU:N	4:A:450:LEU:HD12	2.14	0.63
4:A:341:MET:CE	4:A:843:LYS:NZ	2.61	0.63
5:B:1096:ARG:O	5:B:1097:HIS:HB2	1.99	0.63
5:B:424:LEU:O	5:B:428:ILE:HG13	1.99	0.63
5:B:866:TYR:HD1	5:B:870:ILE:O	1.82	0.63
5:B:1224:PHE:CE2	8:E:171:LYS:HG3	2.31	0.63
12:I:80:SER:HB2	12:I:103:CYS:SG	2.39	0.63
13:J:64:ASN:HB3	13:J:65:PRO:HD2	1.80	0.63
4:A:117:GLU:H	4:A:117:GLU:CD	2.01	0.62
4:A:857:ARG:HD3	4:A:861:GLY:O	1.99	0.62
4:A:870:GLU:HB2	8:E:204:THR:HG21	1.80	0.62
4:A:903:ASN:HD22	4:A:904:THR:H	1.47	0.62
5:B:324:ILE:HD13	5:B:330:ALA:HA	1.79	0.62
5:B:753:ALA:O	5:B:756:ILE:HG13	1.99	0.62
5:B:955:THR:HG22	5:B:956:THR:O	1.98	0.62
6:C:146:LYS:C	6:C:147:LEU:HD23	2.20	0.62
7:D:17:LYS:HE2	7:D:17:LYS:H	1.62	0.62
10:G:79:PHE:CE2	10:G:105:PRO:HD2	2.34	0.62
12:I:111:THR:CG2	12:I:112:SER:H	2.07	0.62
15:L:53:HIS:O	15:L:55:ILE:HG12	1.99	0.62
4:A:1370:LEU:O	4:A:1374:VAL:HG23	1.98	0.62
4:A:40:THR:CG2	4:A:41:MET:HG3	2.25	0.62
4:A:826:ASP:O	4:A:830:LYS:HB2	1.99	0.62
5:B:850:LEU:HD12	5:B:851:PHE:H	1.65	0.62
5:B:1081:LEU:HD12	5:B:1085:ILE:HD11	1.80	0.62
6:C:38:ILE:HA	6:C:173:ALA:CB	2.30	0.62
7:D:63:LEU:HD12	7:D:129:LEU:HG	1.81	0.62
1:T:23:DC:H2''	1:T:24:DT:C5'	2.30	0.62
4:A:382:PRO:CB	4:A:428:TYR:HE2	2.12	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:783:THR:HG21	4:A:815:PHE:CZ	2.35	0.62
4:A:901:LEU:HA	4:A:907:THR:OG1	1.99	0.62
5:B:999:MET:HG2	5:B:1007:VAL:HG22	1.80	0.62
4:A:7:SER:HB2	5:B:1175:LEU:HD22	1.81	0.62
5:B:400:HIS:O	5:B:402:GLY:N	2.32	0.62
10:G:1:MET:O	10:G:3:PHE:CE1	2.52	0.62
10:G:96:GLN:HG3	10:G:97:HIS:HD2	1.64	0.62
11:H:44:VAL:O	11:H:44:VAL:HG12	2.00	0.62
3:P:2:U:C2'	3:P:3:U:O5'	2.48	0.62
1:T:19:DC:H2''	1:T:20:DC:O5'	1.99	0.62
4:A:1206:ASP:HB3	4:A:1274:ARG:NH1	2.15	0.62
4:A:298:PHE:CZ	4:A:314:ALA:HB2	2.35	0.62
4:A:90:VAL:HG13	4:A:297:GLN:HA	1.81	0.62
5:B:376:PHE:HB3	5:B:586:TRP:CZ3	2.35	0.62
4:A:1323:ASP:C	4:A:1325:THR:H	2.03	0.62
4:A:541:ILE:HG21	4:A:549:MET:HE3	1.81	0.62
4:A:590:ARG:O	4:A:591:PHE:HB2	2.00	0.62
5:B:821:GLN:NE2	5:B:851:PHE:HA	2.14	0.62
6:C:100:THR:HG22	6:C:101:LEU:N	2.15	0.62
4:A:513:SER:HB2	4:A:520:CYS:HB3	1.80	0.62
4:A:856:THR:HB	4:A:865:GLN:HB2	1.81	0.62
5:B:1073:TYR:CE2	5:B:1080:LYS:HG2	2.35	0.62
5:B:579:ARG:HH11	5:B:579:ARG:HG2	1.65	0.62
4:A:782:ARG:NH2	5:B:699:GLU:O	2.32	0.62
7:D:134:THR:HG22	7:D:135:GLY:H	1.65	0.62
4:A:1208:THR:HG22	4:A:1210:GLY:N	2.14	0.62
4:A:34:LYS:HB3	4:A:36:ARG:HE	1.65	0.62
4:A:746:MET:CE	5:B:1018:PRO:HG2	2.29	0.62
5:B:1008:PRO:HB2	5:B:1010:LEU:O	1.99	0.62
5:B:429:PHE:HA	5:B:432:MET:HE3	1.82	0.62
5:B:899:ILE:CD1	5:B:911:ILE:HA	2.29	0.62
8:E:176:PRO:O	8:E:212:ARG:HA	1.99	0.62
10:G:51:TYR:C	10:G:51:TYR:CD2	2.72	0.62
4:A:1323:ASP:O	4:A:1325:THR:N	2.33	0.62
4:A:1454:MET:HG3	4:A:1454:MET:O	1.99	0.62
4:A:23:SER:HA	4:A:233:TRP:CD1	2.35	0.62
4:A:17:VAL:HA	5:B:1215:ARG:O	1.99	0.62
5:B:520:GLY:N	5:B:748:ILE:HG22	2.14	0.62
6:C:113:VAL:O	6:C:144:ILE:HB	2.00	0.62
10:G:91:VAL:HA	10:G:101:VAL:HA	1.82	0.62
12:I:82:GLU:HB3	12:I:104:LEU:HD12	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:11:DT:H2''	1:T:12:DA:H5'	1.81	0.62
4:A:265:LYS:HE2	4:A:322:VAL:CG1	2.29	0.62
4:A:761:MET:HA	4:A:804:TYR:HB2	1.82	0.62
5:B:1073:TYR:OH	6:C:179:GLU:HG3	1.99	0.62
7:D:33:PHE:CE1	10:G:80:LYS:HE3	2.35	0.62
4:A:1017:LEU:HB3	8:E:205:SER:HA	1.82	0.62
11:H:91:ASP:C	11:H:93:TYR:H	2.04	0.62
4:A:1124:HIS:HB3	4:A:1130:GLN:HG2	1.82	0.61
5:B:766:ARG:HH22	5:B:1020:ARG:HH11	1.48	0.61
6:C:101:LEU:HD22	6:C:118:LEU:HD21	1.81	0.61
7:D:14:ARG:O	7:D:16:LYS:HD3	2.00	0.61
4:A:663:SER:OG	4:A:664:THR:N	2.32	0.61
4:A:903:ASN:ND2	4:A:904:THR:N	2.46	0.61
5:B:1084:GLN:NE2	5:B:1084:GLN:H	1.98	0.61
6:C:66:ARG:NH2	13:J:5:VAL:HG23	2.15	0.61
7:D:153:ARG:NH2	7:D:184:ALA:HA	2.15	0.61
8:E:195:VAL:HG22	8:E:213:ILE:HG13	1.81	0.61
5:B:807:ARG:HG2	5:B:1045:SER:OG	1.99	0.61
8:E:157:SER:OG	8:E:160:GLU:HG3	2.01	0.61
4:A:1356:ILE:HD13	4:A:1363:VAL:HG21	1.81	0.61
4:A:728:LYS:O	4:A:732:LEU:HG	2.00	0.61
4:A:842:VAL:HG11	5:B:1136:ASP:OD2	2.00	0.61
4:A:961:ARG:HH11	4:A:961:ARG:HG3	1.66	0.61
5:B:69:LEU:HD13	5:B:429:PHE:HD1	1.65	0.61
5:B:569:TYR:CE1	5:B:589:VAL:HG21	2.35	0.61
7:D:47:LEU:CD1	7:D:48:ILE:H	2.13	0.61
10:G:117:GLN:C	10:G:119:LEU:H	2.03	0.61
10:G:153:GLN:HG2	10:G:154:VAL:HG23	1.82	0.61
4:A:1039:LYS:HE3	4:A:1043:ASP:OD2	2.01	0.61
4:A:19:PHE:HB3	4:A:1413:GLY:HA2	1.81	0.61
4:A:718:VAL:HG12	4:A:722:LEU:HD11	1.82	0.61
5:B:37:PHE:CD1	5:B:41:LYS:HG3	2.36	0.61
5:B:705:MET:N	5:B:710:LEU:HD12	2.14	0.61
7:D:5:THR:HG23	10:G:9:LEU:HD13	1.82	0.61
11:H:61:SER:O	11:H:62:SER:HB3	2.01	0.61
4:A:138:ILE:CD1	4:A:222:LEU:HD23	2.31	0.61
4:A:21:LEU:HD11	4:A:1414:ALA:HA	1.83	0.61
4:A:269:ILE:HD13	4:A:300:VAL:HG22	1.81	0.61
4:A:321:PRO:O	4:A:322:VAL:CB	2.48	0.61
4:A:784:LEU:HD11	4:A:815:PHE:CE2	2.35	0.61
5:B:1164:GLY:HA3	5:B:1190:ASP:OD2	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:108:PHE:HE1	9:F:131:PRO:HG3	1.66	0.61
10:G:128:PRO:O	10:G:138:THR:HG23	2.01	0.61
4:A:1035:TYR:O	4:A:1037:LEU:N	2.34	0.61
4:A:87:ALA:CB	4:A:276:LEU:HD23	2.31	0.61
4:A:353:ILE:HG21	4:A:487:MET:CE	2.31	0.61
4:A:470:LEU:HD22	4:A:487:MET:CE	2.30	0.61
4:A:29:ALA:HB1	5:B:1184:GLY:CA	2.31	0.61
5:B:295:GLY:N	5:B:298:LEU:HD23	2.16	0.61
6:C:147:LEU:N	6:C:147:LEU:HD23	2.14	0.61
4:A:870:GLU:HG2	8:E:208:TYR:CG	2.35	0.61
4:A:172:PRO:HB3	4:A:185:TRP:CE2	2.35	0.61
5:B:1165:ILE:CG2	5:B:1166:CYS:N	2.61	0.61
5:B:359:GLU:O	5:B:362:PRO:HD3	2.00	0.61
6:C:186:LEU:HD21	6:C:224:GLN:O	2.01	0.61
4:A:1444:MET:HG2	10:G:60:ARG:CA	2.29	0.61
3:P:2:U:H2'	3:P:3:U:O5'	2.00	0.61
4:A:896:ARG:NH2	4:A:1030:ARG:NH2	2.49	0.61
4:A:4:GLN:O	4:A:5:GLN:HB2	2.00	0.61
5:B:1096:ARG:O	5:B:1097:HIS:CB	2.48	0.61
5:B:508:LEU:O	5:B:509:ALA:CB	2.49	0.61
5:B:654:ARG:HH11	5:B:654:ARG:HG3	1.65	0.61
6:C:238:ILE:HG22	6:C:243:VAL:HG23	1.83	0.61
6:C:241:ASP:O	6:C:245:VAL:HG23	2.00	0.61
4:A:1373:ASP:HA	4:A:1376:THR:CG2	2.30	0.61
4:A:1450:LEU:HG	4:A:1450:LEU:O	2.01	0.61
4:A:427:GLN:HG3	4:A:430:TRP:CE2	2.36	0.61
5:B:121:ASN:HA	5:B:207:GLY:HA2	1.83	0.61
6:C:45:ALA:HA	6:C:72:LEU:CD1	2.28	0.61
7:D:17:LYS:H	7:D:17:LYS:CE	2.14	0.61
8:E:15:ALA:O	8:E:19:VAL:HG23	2.01	0.61
1:T:11:DT:O2	2:N:7:DG:N2	2.33	0.61
4:A:1094:VAL:HG13	4:A:1113:THR:CG2	2.21	0.60
4:A:337:ARG:HD3	5:B:1132:GLU:OE1	2.00	0.60
4:A:345:VAL:HG23	4:A:346:ASP:O	2.01	0.60
5:B:955:THR:CG2	5:B:956:THR:N	2.64	0.60
6:C:100:THR:HG22	6:C:101:LEU:H	1.65	0.60
4:A:1424:VAL:HG22	4:A:1436:ILE:HD11	1.83	0.60
4:A:152:VAL:HG13	4:A:153:PRO:HD2	1.82	0.60
4:A:269:ILE:CD1	4:A:300:VAL:HA	2.30	0.60
5:B:872:GLU:CD	5:B:914:LYS:HE2	2.21	0.60
5:B:948:ILE:HG22	5:B:949:VAL:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:145:VAL:CG1	10:G:146:LYS:N	2.64	0.60
4:A:1063:MET:SD	4:A:1436:ILE:HG12	2.42	0.60
4:A:694:THR:O	4:A:698:GLN:HG3	2.02	0.60
5:B:1097:HIS:H	5:B:1098:MET:HE2	1.66	0.60
5:B:842:ASN:ND2	5:B:845:SER:OG	2.35	0.60
8:E:10:SER:O	8:E:14:ARG:HG3	2.00	0.60
13:J:9:SER:HB2	13:J:45:CYS:HB2	1.83	0.60
4:A:29:ALA:HB1	5:B:1184:GLY:HA2	1.84	0.60
4:A:50:ILE:O	4:A:52:GLY:N	2.32	0.60
4:A:882:SER:HB3	4:A:953:ASN:OD1	2.00	0.60
8:E:124:VAL:HA	8:E:132:ILE:HD12	1.82	0.60
9:F:119:ARG:HH11	9:F:119:ARG:HG3	1.66	0.60
13:J:44:TYR:CD2	13:J:44:TYR:N	2.68	0.60
2:N:2:DA:OP1	2:N:2:DA:H3'	2.01	0.60
4:A:1121:GLU:CG	4:A:1122:PRO:HD2	2.31	0.60
4:A:384:ASN:CG	4:A:388:LEU:HD12	2.22	0.60
4:A:896:ARG:HD3	4:A:897:TYR:CE1	2.36	0.60
8:E:135:PHE:HD2	8:E:140:LEU:HD21	1.66	0.60
4:A:1030:ARG:HG3	4:A:1034:GLU:OE2	2.00	0.60
4:A:49:LYS:HZ1	4:A:61:ILE:N	1.99	0.60
5:B:1182:CYS:O	5:B:1183:LYS:O	2.20	0.60
5:B:582:VAL:HG23	5:B:626:ILE:HB	1.82	0.60
11:H:81:PRO:CB	11:H:82:PRO:CD	2.80	0.60
3:P:3:U:O2'	4:A:320:ARG:NH2	2.35	0.60
4:A:377:PRO:HG3	4:A:493:GLN:HG3	1.83	0.60
4:A:384:ASN:OD1	4:A:388:LEU:HD12	2.01	0.60
4:A:590:ARG:HG3	4:A:590:ARG:HH11	1.65	0.60
4:A:672:ASP:HB2	4:A:736:ASN:OD1	2.01	0.60
4:A:958:VAL:HG11	4:A:1049:ILE:HG23	1.83	0.60
4:A:1410:PHE:HA	5:B:1212:ILE:CD1	2.31	0.60
5:B:601:ARG:O	5:B:605:ARG:HG3	2.01	0.60
5:B:611:PRO:HG2	5:B:685:LEU:HD21	1.83	0.60
5:B:912:ILE:HB	5:B:939:THR:OG1	2.01	0.60
4:A:1290:LYS:O	4:A:1291:VAL:HG23	2.02	0.60
4:A:1323:ASP:OD1	4:A:1325:THR:HB	2.02	0.60
5:B:294:ASP:O	5:B:296:GLU:N	2.31	0.60
8:E:48:ASP:CG	8:E:49:SER:H	2.05	0.60
5:B:1115:THR:O	5:B:1116:ARG:HB2	2.02	0.60
5:B:570:VAL:CG2	5:B:573:GLN:HB3	2.31	0.60
5:B:825:VAL:CG1	5:B:826:ALA:N	2.65	0.60
4:A:567:LYS:HZ1	11:H:46:LEU:HB2	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:903:ASN:HD22	4:A:903:ASN:C	2.04	0.60
5:B:1163:CYS:SG	5:B:1165:ILE:HB	2.41	0.60
5:B:882:THR:HG21	5:B:884:ARG:HB2	1.84	0.60
10:G:45:ILE:HG22	10:G:45:ILE:O	2.02	0.60
15:L:38:LEU:O	15:L:39:SER:HB3	2.02	0.60
4:A:1032:LEU:O	4:A:1036:ARG:HD3	2.01	0.59
4:A:1102:LYS:HG2	4:A:1106:ASN:HD21	1.65	0.59
4:A:466:SER:HA	14:K:2:ASN:HD22	1.67	0.59
4:A:781:ASP:O	4:A:789:LYS:HA	2.02	0.59
4:A:344:ARG:HA	5:B:1129:ARG:HA	1.84	0.59
5:B:522:VAL:HG11	5:B:537:LYS:HB3	1.82	0.59
5:B:744:HIS:CG	5:B:745:PRO:HD2	2.36	0.59
5:B:799:PRO:HB3	5:B:818:PRO:HG2	1.83	0.59
6:C:124:LEU:O	6:C:127:ARG:HG2	2.02	0.59
7:D:172:LEU:HD22	7:D:176:GLU:OE1	2.01	0.59
4:A:1102:LYS:HG2	4:A:1106:ASN:ND2	2.16	0.59
4:A:841:LEU:O	4:A:845:LEU:HG	2.02	0.59
4:A:858:ASN:HD22	4:A:858:ASN:C	2.04	0.59
4:A:960:ILE:HA	4:A:963:ILE:CG2	2.32	0.59
8:E:14:ARG:NH2	8:E:141:VAL:HG12	2.13	0.59
9:F:111:LEU:C	9:F:113:GLY:N	2.53	0.59
10:G:91:VAL:HB	10:G:139:ILE:O	2.01	0.59
4:A:1149:ALA:HB2	12:I:47:GLU:HA	1.83	0.59
6:C:66:ARG:NH2	13:J:3:VAL:O	2.35	0.59
14:K:21:ILE:HG23	14:K:31:VAL:HG11	1.84	0.59
15:L:31:CYS:SG	15:L:34:CYS:SG	3.00	0.59
4:A:1317:MET:O	4:A:1322:ILE:HD11	2.01	0.59
4:A:53:LEU:HD22	4:A:54:ASN:HD22	1.66	0.59
5:B:115:GLN:HG2	5:B:193:LYS:HB2	1.82	0.59
5:B:192:LEU:O	5:B:193:LYS:HB2	2.02	0.59
5:B:408:LEU:O	5:B:411:PRO:HD2	2.02	0.59
8:E:161:LYS:HD2	8:E:195:VAL:HG23	1.84	0.59
11:H:40:LEU:HD13	11:H:123:MET:HB2	1.85	0.59
4:A:1151:GLU:HA	12:I:44:TYR:O	2.01	0.59
12:I:55:THR:HG22	12:I:58:VAL:HG21	1.84	0.59
4:A:86:LEU:HG	4:A:237:THR:O	2.03	0.59
6:C:98:VAL:C	6:C:99:LEU:HD23	2.22	0.59
7:D:63:LEU:HD13	7:D:133:THR:OG1	2.02	0.59
8:E:17:ARG:O	8:E:21:GLU:HG3	2.02	0.59
10:G:119:LEU:HD12	10:G:131:GLN:O	2.03	0.59
10:G:27:LYS:O	10:G:30:LEU:HB3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:34:VAL:HG11	10:G:74:TYR:CE1	2.37	0.59
10:G:51:TYR:O	10:G:54:ILE:HG13	2.02	0.59
4:A:1153:TYR:CE1	12:I:42:LEU:HD13	2.36	0.59
15:L:55:ILE:O	15:L:56:LEU:HB2	2.02	0.59
4:A:1015:VAL:HG12	4:A:1019:CYS:SG	2.43	0.59
4:A:1445:ILE:H	4:A:1445:ILE:CD1	2.00	0.59
4:A:37:PHE:HB2	4:A:52:GLY:HA3	1.84	0.59
4:A:869:GLY:O	8:E:204:THR:HG21	2.01	0.59
5:B:167:ILE:HG22	5:B:453:ILE:HD12	1.84	0.59
5:B:347:LYS:HG3	5:B:348:ARG:H	1.67	0.59
5:B:57:TYR:N	5:B:57:TYR:HD1	2.01	0.59
12:I:106:CYS:O	12:I:107:SER:HB2	2.01	0.59
12:I:55:THR:CG2	12:I:58:VAL:HG21	2.33	0.59
4:A:1116:LEU:HD11	4:A:1118:VAL:HG13	1.84	0.59
4:A:399:HIS:HB3	4:A:400:PRO:CD	2.27	0.59
5:B:1000:PRO:O	5:B:1007:VAL:HG23	2.02	0.59
5:B:824:ILE:HG23	5:B:1087:PHE:HE2	1.67	0.59
8:E:144:ILE:HG13	8:E:145:THR:N	2.17	0.59
4:A:1343:ALA:HB2	8:E:150:VAL:HG22	1.83	0.59
4:A:1114:PRO:HB2	4:A:1311:VAL:HG23	1.84	0.59
9:F:130:ILE:O	9:F:148:VAL:CG2	2.51	0.59
10:G:1:MET:SD	10:G:1:MET:C	2.81	0.59
4:A:1041:ALA:O	4:A:1045:VAL:HG23	2.01	0.59
4:A:1341:ILE:CG2	4:A:1342:GLU:N	2.66	0.59
4:A:37:PHE:N	4:A:37:PHE:CD1	2.69	0.59
4:A:42:ASP:HA	4:A:46:THR:O	2.03	0.59
6:C:77:ILE:HG23	6:C:161:LYS:HE3	1.85	0.59
4:A:1349:TYR:CA	4:A:1372:VAL:HG21	2.32	0.59
4:A:252:PHE:O	4:A:253:ASN:HB2	2.03	0.59
4:A:341:MET:CE	4:A:843:LYS:HZ3	2.16	0.59
5:B:827:ILE:HD12	5:B:1086:PHE:CD2	2.37	0.59
5:B:35:SER:O	5:B:39:ARG:HG3	2.03	0.59
6:C:69:LEU:HD12	6:C:69:LEU:N	2.18	0.59
8:E:178:ILE:HG22	8:E:213:ILE:O	2.03	0.59
4:A:503:GLN:NE2	9:F:90:ARG:HH21	2.00	0.59
4:A:596:THR:O	4:A:598:LEU:N	2.35	0.59
4:A:49:LYS:HZ3	4:A:61:ILE:HG13	1.63	0.59
4:A:63:ARG:HA	4:A:74:MET:SD	2.43	0.59
4:A:954:TRP:HB3	4:A:955:PRO:HD2	1.85	0.59
5:B:542:MET:HB3	5:B:636:PRO:HD2	1.85	0.59
5:B:918:ILE:HG21	5:B:935:ARG:NH1	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:13:DC:H2'	1:T:14:DT:H71	1.85	0.59
4:A:1313:LEU:HD23	4:A:1338:VAL:HG21	1.85	0.58
4:A:222:LEU:O	4:A:224:PHE:N	2.36	0.58
4:A:84:ILE:CD1	4:A:270:LEU:HD22	2.32	0.58
4:A:2:VAL:HG21	5:B:1157:ALA:C	2.23	0.58
5:B:502:ILE:HD12	5:B:502:ILE:H	1.68	0.58
5:B:642:ASP:HB3	5:B:649:LYS:CD	2.32	0.58
6:C:8:VAL:HG12	6:C:9:LYS:N	2.18	0.58
10:G:106:MET:CG	10:G:107:LYS:N	2.66	0.58
4:A:1130:GLN:HE21	4:A:1134:ILE:HD11	1.67	0.58
4:A:741:ASN:HD21	4:A:743:VAL:HB	1.68	0.58
4:A:774:ARG:HB2	4:A:797:LYS:O	2.02	0.58
4:A:890:ASP:H	4:A:1296:GLY:HA3	1.68	0.58
4:A:1410:PHE:HD2	5:B:1212:ILE:HD12	1.69	0.58
5:B:326:ASP:OD2	5:B:328:GLU:HB2	2.02	0.58
5:B:168:GLY:N	5:B:450:ALA:HB1	2.17	0.58
11:H:83:GLN:O	11:H:85:GLY:N	2.36	0.58
15:L:40:LEU:HD22	15:L:44:ASP:CB	2.34	0.58
4:A:852:TYR:CE2	4:A:1060:PRO:HB2	2.39	0.58
4:A:1409:LEU:HD13	5:B:1207:LEU:HD21	1.85	0.58
5:B:792:MET:HG3	5:B:855:PHE:HE1	1.68	0.58
11:H:93:TYR:CD2	11:H:143:LEU:HB3	2.38	0.58
13:J:14:VAL:HG12	13:J:14:VAL:O	2.03	0.58
13:J:45:CYS:O	13:J:48:ARG:HG3	2.03	0.58
4:A:547:LEU:HD22	14:K:58:PHE:CE1	2.38	0.58
4:A:185:TRP:HZ3	4:A:200:ARG:HG2	1.65	0.58
5:B:1065:GLN:NE2	5:B:1067:ARG:H	1.99	0.58
6:C:174:ALA:O	6:C:175:ALA:HB3	2.04	0.58
10:G:149:GLY:O	10:G:159:ALA:HB1	2.02	0.58
10:G:49:LEU:HD21	10:G:77:VAL:HG23	1.85	0.58
6:C:66:ARG:NH1	13:J:2:ILE:CG2	2.67	0.58
13:J:44:TYR:HD2	13:J:44:TYR:N	1.99	0.58
14:K:53:ASP:OD1	14:K:55:LYS:HB2	2.02	0.58
5:B:254:LEU:HD23	5:B:381:MET:HE1	1.85	0.58
5:B:293:PRO:HG2	5:B:296:GLU:HB3	1.86	0.58
9:F:111:LEU:O	9:F:113:GLY:N	2.34	0.58
14:K:31:VAL:HG12	14:K:32:VAL:N	2.17	0.58
4:A:1114:PRO:O	4:A:1115:SER:O	2.21	0.58
4:A:369:SER:HB2	14:K:2:ASN:OD1	2.03	0.58
4:A:541:ILE:HG21	4:A:549:MET:CE	2.33	0.58
4:A:785:PRO:HG2	4:A:786:HIS:HD2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:910:PRO:HB3	4:A:917:SER:H	1.68	0.58
5:B:20:ASP:O	5:B:22:SER:N	2.37	0.58
6:C:31:ASN:O	6:C:34:ARG:HB3	2.04	0.58
14:K:6:ARG:O	14:K:8:GLU:N	2.37	0.58
4:A:666:ILE:HG23	5:B:1026:LEU:HB3	1.86	0.58
4:A:858:ASN:ND2	4:A:861:GLY:H	2.01	0.58
1:T:22:DC:OP1	5:B:1122:ARG:HB3	2.04	0.58
5:B:265:SER:O	5:B:266:ALA:HB3	2.03	0.58
5:B:345:LYS:O	5:B:347:LYS:N	2.35	0.58
6:C:238:ILE:CG2	6:C:242:GLN:HB2	2.34	0.58
8:E:177:ARG:HD3	8:E:215:MET:CG	2.31	0.58
5:B:1006:ILE:HG23	13:J:45:CYS:SG	2.44	0.58
4:A:1334:ASP:O	4:A:1337:GLU:N	2.36	0.58
4:A:152:VAL:CG1	4:A:153:PRO:HD2	2.33	0.58
4:A:63:ARG:HA	4:A:74:MET:CE	2.34	0.58
5:B:828:ALA:HB2	5:B:1085:ILE:HG23	1.85	0.58
5:B:863:GLU:OE2	5:B:873:THR:HA	2.03	0.58
7:D:145:MET:O	7:D:149:THR:HB	2.03	0.58
4:A:1017:LEU:CB	8:E:205:SER:HA	2.34	0.58
12:I:55:THR:O	12:I:55:THR:HG22	2.02	0.58
4:A:1313:LEU:HD23	4:A:1338:VAL:CG2	2.34	0.58
4:A:372:LYS:HA	4:A:435:HIS:ND1	2.19	0.58
4:A:675:THR:OG1	4:A:736:ASN:ND2	2.37	0.58
4:A:92:HIS:CD2	4:A:304:MET:HE3	2.39	0.58
5:B:980:PHE:CA	5:B:1095:LEU:HD11	2.34	0.58
1:T:21:DT:H2''	1:T:22:DC:O5'	2.03	0.58
4:A:347:PHE:HE2	4:A:375:THR:HG23	1.69	0.58
4:A:445:ASN:HB2	4:A:454:SER:O	2.03	0.58
4:A:55:ASP:C	4:A:57:ARG:N	2.52	0.58
5:B:969:ARG:NH1	6:C:61:GLU:OE1	2.37	0.58
6:C:107:SER:C	6:C:109:SER:H	2.07	0.58
6:C:249:ASP:O	6:C:252:GLN:HB3	2.04	0.58
9:F:89:GLU:O	9:F:93:ILE:HG13	2.04	0.58
11:H:22:LYS:O	11:H:23:VAL:HG23	2.04	0.58
4:A:1116:LEU:CD1	4:A:1118:VAL:HG13	2.34	0.57
4:A:494:SER:O	4:A:497:THR:N	2.37	0.57
4:A:541:ILE:HD13	4:A:549:MET:HE1	1.85	0.57
5:B:172:ILE:HD13	5:B:178:ASN:CB	2.25	0.57
8:E:145:THR:HG21	8:E:187:TYR:CD2	2.39	0.57
13:J:1:MET:N	13:J:56:LEU:H	2.00	0.57
13:J:64:ASN:CB	13:J:65:PRO:CD	2.78	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:27:LEU:HB3	15:L:37:LYS:HD3	1.86	0.57
4:A:49:LYS:HE2	4:A:61:ILE:HD12	1.84	0.57
4:A:685:GLU:HG3	4:A:686:ALA:N	2.18	0.57
5:B:525:ALA:O	5:B:768:THR:HG23	2.05	0.57
5:B:54:PHE:HA	5:B:58:THR:HB	1.85	0.57
5:B:576:ASP:HA	5:B:622:LYS:NZ	2.20	0.57
5:B:57:TYR:CD1	5:B:57:TYR:N	2.69	0.57
10:G:106:MET:HG2	10:G:107:LYS:N	2.19	0.57
4:A:577:ILE:O	4:A:580:VAL:HG23	2.04	0.57
4:A:626:ASN:O	4:A:631:HIS:CD2	2.57	0.57
4:A:701:LEU:HD21	12:I:114:GLN:HB2	1.86	0.57
5:B:758:PHE:HZ	5:B:1031:LEU:HD22	1.69	0.57
5:B:1031:LEU:HD11	5:B:1042:GLY:HA3	1.85	0.57
7:D:54:GLU:O	7:D:58:VAL:HG23	2.03	0.57
4:A:1447:GLU:OE2	10:G:23:LYS:HB2	2.04	0.57
3:P:3:U:H4'	4:A:323:LYS:NZ	2.19	0.57
4:A:382:PRO:HB3	4:A:428:TYR:CE2	2.38	0.57
4:A:863:VAL:HG11	4:A:866:PHE:CD2	2.38	0.57
5:B:100:PRO:HD2	5:B:180:TYR:CE1	2.40	0.57
8:E:101:GLN:NE2	8:E:127:ILE:HG21	2.19	0.57
10:G:79:PHE:HE2	10:G:105:PRO:HG2	1.69	0.57
11:H:58:THR:HB	11:H:143:LEU:HD13	1.86	0.57
13:J:47:ARG:HG2	13:J:47:ARG:HH11	1.69	0.57
14:K:65:HIS:CD2	14:K:67:PHE:HB2	2.39	0.57
4:A:102:VAL:O	4:A:105:CYS:HB2	2.04	0.57
4:A:1313:LEU:O	4:A:1315:GLU:N	2.37	0.57
4:A:1341:ILE:O	4:A:1344:GLY:N	2.38	0.57
4:A:268:ASP:HB3	4:A:299:HIS:CE1	2.39	0.57
4:A:34:LYS:HG2	4:A:36:ARG:NH2	2.19	0.57
5:B:217:ARG:C	5:B:217:ARG:HD2	2.24	0.57
9:F:118:LEU:O	9:F:118:LEU:HD12	2.05	0.57
4:A:868:TYR:CD2	4:A:1058:VAL:HG21	2.35	0.57
4:A:138:ILE:HD13	4:A:222:LEU:HD23	1.86	0.57
4:A:215:SER:O	4:A:218:ASP:HB2	2.04	0.57
4:A:565:ILE:O	4:A:570:PRO:HA	2.05	0.57
4:A:647:GLY:O	4:A:651:LYS:HG3	2.04	0.57
9:F:90:ARG:HD3	9:F:155:LEU:CD1	2.35	0.57
7:D:175:PHE:HZ	10:G:85:GLU:HG3	1.68	0.57
11:H:142:LEU:C	11:H:143:LEU:HD12	2.25	0.57
4:A:1220:PHE:O	4:A:1221:LYS:HB2	2.03	0.57
4:A:34:LYS:CG	4:A:36:ARG:HH21	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:844:ALA:O	4:A:845:LEU:HD23	2.04	0.57
5:B:557:PHE:C	5:B:557:PHE:CD2	2.77	0.57
5:B:579:ARG:N	5:B:589:VAL:HG13	2.18	0.57
5:B:604:ARG:NH1	5:B:691:GLU:OE2	2.38	0.57
6:C:213:PRO:HG2	6:C:214:ASN:H	1.69	0.57
7:D:52:LEU:O	7:D:54:GLU:N	2.36	0.57
8:E:94:LYS:CE	8:E:98:ILE:HD11	2.30	0.57
9:F:90:ARG:HG3	9:F:91:ALA:N	2.18	0.57
10:G:143:ILE:CG2	10:G:144:ARG:N	2.67	0.57
4:A:1336:MET:CE	4:A:1381:LEU:HG	2.35	0.57
4:A:477:PRO:HG2	4:A:521:MET:HG2	1.87	0.57
4:A:600:PRO:C	4:A:602:ASP:H	2.05	0.57
4:A:71:GLN:C	4:A:73:GLY:H	2.08	0.57
5:B:1069:PHE:HD1	5:B:1069:PHE:H	1.52	0.57
5:B:794:ASN:C	5:B:795:ILE:HD12	2.25	0.57
5:B:955:THR:HG22	5:B:956:THR:N	2.20	0.57
4:A:385:ILE:HG22	4:A:386:ASP:N	2.20	0.57
5:B:357:GLN:O	5:B:366:GLN:HA	2.04	0.57
5:B:594:ALA:CA	5:B:617:ARG:HH12	2.15	0.57
5:B:847:ASP:C	5:B:849:GLY:H	2.07	0.57
6:C:212:PRO:CB	6:C:213:PRO:HD2	2.35	0.57
8:E:134:THR:C	8:E:135:PHE:HD1	2.08	0.57
4:A:1239:ARG:HH22	4:A:1241:ARG:HH22	1.51	0.57
4:A:1116:LEU:H	4:A:1308:THR:HG22	1.69	0.57
4:A:477:PRO:CG	4:A:521:MET:HG2	2.35	0.57
5:B:1099:VAL:O	5:B:1101:ASP:N	2.38	0.57
5:B:190:TYR:HD2	13:J:62:ARG:O	1.88	0.57
5:B:31:TRP:CE3	5:B:34:ILE:HD12	2.40	0.57
6:C:238:ILE:HG23	6:C:242:GLN:HB2	1.85	0.57
7:D:17:LYS:HG2	7:D:17:LYS:O	2.04	0.57
10:G:1:MET:SD	10:G:1:MET:O	2.63	0.57
4:A:442:VAL:O	4:A:457:ALA:HA	2.05	0.56
4:A:44:THR:O	4:A:45:GLN:HB2	2.04	0.56
4:A:590:ARG:HB3	4:A:605:MET:N	2.20	0.56
5:B:552:MET:HA	5:B:555:ILE:HB	1.87	0.56
15:L:34:CYS:SG	15:L:34:CYS:O	2.63	0.56
4:A:115:LEU:HB2	4:A:122:MET:HE2	1.87	0.56
4:A:93:VAL:HG11	4:A:305:ASP:HB3	1.86	0.56
4:A:444:PHE:CB	4:A:458:HIS:HD2	2.17	0.56
4:A:886:ILE:CG2	4:A:887:GLY:N	2.67	0.56
5:B:642:ASP:HB3	5:B:649:LYS:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:70:ILE:HG12	6:C:142:VAL:HG11	1.87	0.56
4:A:946:VAL:HG13	8:E:201:LYS:HB3	1.85	0.56
10:G:59:GLY:HA3	10:G:70:PHE:CD2	2.41	0.56
4:A:886:ILE:HD11	4:A:943:LEU:CB	2.35	0.56
5:B:1102:LYS:O	5:B:1103:ILE:C	2.44	0.56
5:B:603:LEU:HD13	5:B:608:ASP:CB	2.33	0.56
5:B:616:ILE:HG23	5:B:700:SER:OG	2.06	0.56
5:B:635:ARG:NH2	5:B:742:GLU:OE2	2.38	0.56
5:B:792:MET:HA	5:B:856:PHE:O	2.06	0.56
5:B:912:ILE:O	5:B:938:SER:HB3	2.05	0.56
6:C:181:ASP:OD1	6:C:186:LEU:HD13	2.05	0.56
8:E:3:GLN:HG3	8:E:4:GLU:N	2.20	0.56
8:E:55:ARG:HD2	8:E:83:CYS:O	2.05	0.56
9:F:135:ARG:HD3	9:F:143:PHE:CD2	2.39	0.56
11:H:110:ASP:O	11:H:128:ASN:ND2	2.38	0.56
12:I:14:LEU:HA	12:I:28:GLU:O	2.06	0.56
13:J:21:TYR:CE1	13:J:36:LEU:HD21	2.40	0.56
4:A:168:GLY:O	4:A:169:ASN:C	2.44	0.56
6:C:73:GLN:NE2	6:C:75:MET:HB2	2.20	0.56
10:G:25:TYR:HE2	10:G:29:LYS:HD2	1.70	0.56
4:A:282:ASN:O	4:A:284:ALA:N	2.38	0.56
5:B:1183:LYS:HA	5:B:1186:ASP:HA	1.88	0.56
5:B:97:VAL:HG12	5:B:178:ASN:HD21	1.70	0.56
6:C:77:ILE:HA	6:C:129:ILE:HD11	1.88	0.56
10:G:74:TYR:H	10:G:74:TYR:HD2	1.51	0.56
11:H:89:LEU:O	11:H:91:ASP:N	2.36	0.56
14:K:49:GLU:HG3	14:K:94:ILE:CG1	2.35	0.56
4:A:42:ASP:HB3	4:A:45:GLN:H	1.70	0.56
5:B:1072:MET:HE1	5:B:1085:ILE:HB	1.87	0.56
5:B:195:CYS:SG	5:B:196:PRO:HD2	2.46	0.56
5:B:880:THR:O	5:B:881:ASN:HB2	2.05	0.56
6:C:40:GLU:HA	6:C:163:ILE:HG21	1.87	0.56
7:D:195:ILE:HG22	7:D:198:LEU:HG	1.85	0.56
7:D:7:THR:HG21	7:D:32:GLU:CD	2.25	0.56
4:A:860:LEU:CD1	4:A:1393:ASN:HB2	2.31	0.56
4:A:356:ASP:HB2	4:A:469:ARG:HH11	1.71	0.56
4:A:384:ASN:O	4:A:385:ILE:C	2.43	0.56
5:B:839:MET:HG3	5:B:1010:LEU:HD11	1.86	0.56
5:B:1085:ILE:H	5:B:1085:ILE:HD12	1.70	0.56
5:B:225:VAL:HG12	5:B:238:ALA:HB2	1.88	0.56
5:B:94:LYS:HG2	5:B:95:ILE:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:254:LYS:O	6:C:258:ILE:HD13	2.05	0.56
9:F:143:PHE:C	9:F:143:PHE:HD1	2.09	0.56
7:D:40:HIS:CB	10:G:73:LYS:HZ3	2.05	0.56
11:H:23:VAL:HG13	11:H:42:ILE:O	2.05	0.56
4:A:75:ASN:O	4:A:76:GLU:CB	2.54	0.56
4:A:965:GLN:HA	4:A:968:GLN:HG3	1.87	0.56
5:B:258:LEU:HG	5:B:258:LEU:O	2.05	0.56
5:B:620:ARG:NH2	12:I:89:GLN:NE2	2.54	0.56
5:B:39:ARG:NH2	5:B:665:GLU:HG2	2.20	0.56
5:B:707:PRO:O	5:B:711:GLU:HG3	2.06	0.56
5:B:906:SER:O	5:B:941:LEU:HD23	2.05	0.56
7:D:160:VAL:O	7:D:164:ILE:HG13	2.06	0.56
13:J:64:ASN:ND2	13:J:65:PRO:HD3	2.21	0.56
3:P:3:U:H4'	4:A:323:LYS:HZ3	1.71	0.56
4:A:1341:ILE:CG2	4:A:1342:GLU:H	2.18	0.56
4:A:262:LEU:O	4:A:264:PHE:N	2.39	0.56
5:B:113:TYR:CD2	5:B:192:LEU:HD22	2.41	0.56
5:B:981:ALA:HB2	5:B:987:LYS:HA	1.87	0.56
10:G:117:GLN:O	10:G:119:LEU:N	2.37	0.56
4:A:1063:MET:HG3	4:A:1436:ILE:HG23	1.88	0.56
4:A:269:ILE:HG12	4:A:299:HIS:HB3	1.86	0.56
4:A:68:GLN:O	4:A:70:CYS:N	2.34	0.56
5:B:176:SER:O	5:B:182:SER:HB3	2.05	0.56
5:B:299:GLU:HB3	5:B:571:PRO:HG3	1.87	0.56
5:B:365:THR:HG23	5:B:367:LEU:N	2.13	0.56
9:F:138:LEU:HB3	9:F:139:PRO:HD2	1.87	0.56
14:K:10:PHE:HD2	14:K:10:PHE:N	2.03	0.56
14:K:46:ILE:O	14:K:50:LEU:HB2	2.04	0.56
4:A:1100:ARG:HH21	4:A:1351:GLU:HG2	1.69	0.56
4:A:1164:PRO:HG2	4:A:1165:GLU:H	1.71	0.56
4:A:442:VAL:HB	4:A:489:LEU:HD11	1.87	0.56
4:A:947:PHE:HD2	4:A:954:TRP:CZ2	2.24	0.56
5:B:1087:PHE:HD2	5:B:1088:GLY:N	2.04	0.56
5:B:260:GLY:O	5:B:267:ARG:HD3	2.06	0.56
5:B:305:VAL:HG12	5:B:305:VAL:O	2.05	0.56
5:B:405:ARG:CZ	5:B:632:ARG:HG2	2.36	0.56
5:B:516:ASN:ND2	5:B:516:ASN:N	2.47	0.56
5:B:731:VAL:HG12	5:B:732:SER:N	2.20	0.56
6:C:203:GLN:HG2	6:C:207:CYS:SG	2.46	0.56
6:C:248:ILE:HD13	14:K:101:LEU:HD22	1.88	0.56
9:F:111:LEU:H	9:F:111:LEU:CD1	2.15	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:81:THR:HB	9:F:136:ARG:HH11	1.70	0.56
12:I:33:SER:O	12:I:35:VAL:HG23	2.06	0.56
1:T:12:DA:H2''	1:T:13:DC:O5'	2.05	0.56
4:A:1149:ALA:CB	12:I:47:GLU:HA	2.36	0.55
4:A:1214:GLU:O	4:A:1218:GLN:HG2	2.05	0.55
4:A:335:ARG:NH1	5:B:1202:LEU:HD13	2.21	0.55
4:A:605:MET:HE3	4:A:614:PHE:O	2.06	0.55
5:B:637:LEU:HD21	5:B:742:GLU:OE2	2.05	0.55
5:B:758:PHE:CE2	5:B:1044:ALA:HA	2.40	0.55
5:B:861:ASP:OD1	5:B:862:GLN:N	2.39	0.55
11:H:135:LEU:HD13	11:H:137:GLN:HE21	1.71	0.55
12:I:85:PHE:CD1	12:I:99:LEU:HD13	2.41	0.55
14:K:42:LEU:HD21	14:K:46:ILE:HD11	1.88	0.55
14:K:58:PHE:HB3	14:K:76:GLN:HB3	1.87	0.55
14:K:45:LEU:HG	14:K:94:ILE:CD1	2.33	0.55
4:A:44:THR:HG22	4:A:44:THR:O	2.06	0.55
5:B:1196:ILE:HB	5:B:1197:PRO:HD2	1.88	0.55
5:B:222:ILE:O	5:B:240:ILE:HA	2.06	0.55
5:B:259:TYR:HB2	5:B:268:THR:HG23	1.88	0.55
5:B:310:MET:O	5:B:313:MET:HB2	2.06	0.55
5:B:906:SER:HA	5:B:946:ASN:HB2	1.88	0.55
4:A:482:PHE:O	5:B:989:THR:HG23	2.06	0.55
6:C:152:GLU:HG2	6:C:153:LEU:H	1.72	0.55
10:G:14:HIS:CD2	10:G:16:SER:HB2	2.41	0.55
13:J:1:MET:H1	13:J:56:LEU:CA	2.20	0.55
1:T:12:DA:C2	2:N:6:DA:C2	2.94	0.55
4:A:709:THR:HG21	12:I:93:LYS:O	2.06	0.55
4:A:768:GLN:CG	4:A:816:HIS:HA	2.36	0.55
4:A:867:ILE:HG22	4:A:872:GLY:N	2.22	0.55
5:B:1065:GLN:HE21	5:B:1067:ARG:HG2	1.72	0.55
5:B:226:PHE:HA	5:B:395:GLN:HG3	1.86	0.55
5:B:515:HIS:CD2	5:B:517:THR:H	2.23	0.55
8:E:198:ILE:CD1	8:E:212:ARG:HG3	2.36	0.55
8:E:78:LEU:C	8:E:78:LEU:HD23	2.27	0.55
10:G:9:LEU:HG	10:G:10:ASN:N	2.20	0.55
11:H:116:TYR:HE2	11:H:140:ALA:CB	2.19	0.55
3:P:2:U:O2'	3:P:3:U:H5'	2.06	0.55
4:A:278:THR:O	4:A:278:THR:HG22	2.07	0.55
4:A:416:ARG:O	4:A:417:TYR:HD2	1.89	0.55
5:B:1135:ARG:O	5:B:1139:ILE:HG13	2.07	0.55
4:A:22:PHE:CE1	5:B:1213:THR:HG22	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:332:ASP:O	5:B:334:ILE:N	2.37	0.55
5:B:446:LEU:O	5:B:447:ALA:HB3	2.06	0.55
8:E:124:VAL:HG13	8:E:132:ILE:CB	2.35	0.55
12:I:71:SER:OG	12:I:83:ASN:HB2	2.07	0.55
4:A:1260:LEU:HG	4:A:1260:LEU:O	2.07	0.55
4:A:34:LYS:CB	4:A:36:ARG:HE	2.18	0.55
10:G:44:TYR:O	10:G:78:VAL:HG12	2.07	0.55
4:A:567:LYS:HB3	11:H:95:TYR:CA	2.35	0.55
4:A:1349:TYR:CB	4:A:1372:VAL:HG21	2.36	0.55
4:A:1402:PHE:CE1	4:A:1403:GLU:HG3	2.42	0.55
4:A:1445:ILE:HD12	10:G:59:GLY:O	2.07	0.55
4:A:317:LYS:O	4:A:318:SER:CB	2.55	0.55
5:B:778:MET:CE	5:B:1094:ARG:CD	2.85	0.55
5:B:94:LYS:O	5:B:130:VAL:HG13	2.07	0.55
8:E:42:PHE:HZ	8:E:58:MET:HE3	1.72	0.55
10:G:1:MET:HE3	10:G:80:LYS:O	2.06	0.55
11:H:127:GLY:O	11:H:128:ASN:HB2	2.06	0.55
4:A:1155:ASP:OD2	4:A:1161:THR:HG23	2.06	0.55
4:A:154:SER:HB3	4:A:162:VAL:HG21	1.89	0.55
4:A:590:ARG:HH11	4:A:590:ARG:CG	2.19	0.55
4:A:816:HIS:CD2	5:B:764:SER:HB2	2.42	0.55
4:A:843:LYS:HD3	4:A:846:GLU:OE2	2.07	0.55
4:A:845:LEU:HD22	4:A:1374:VAL:HG21	1.89	0.55
5:B:215:GLN:HA	5:B:215:GLN:NE2	2.21	0.55
5:B:358:LYS:HA	5:B:366:GLN:HB3	1.89	0.55
5:B:637:LEU:O	5:B:690:VAL:HG13	2.06	0.55
6:C:31:ASN:O	6:C:34:ARG:N	2.40	0.55
4:A:1035:TYR:O	4:A:1037:LEU:HD23	2.07	0.55
4:A:93:VAL:HG13	4:A:301:ALA:HB1	1.89	0.55
4:A:767:GLN:HB2	4:A:799:PHE:HD1	1.71	0.55
4:A:785:PRO:HG2	4:A:786:HIS:CD2	2.41	0.55
4:A:10:PRO:O	5:B:1193:GLN:HB3	2.06	0.55
5:B:361:LEU:N	5:B:362:PRO:CD	2.70	0.55
5:B:806:THR:CG2	5:B:808:ALA:HB3	2.37	0.55
7:D:176:GLU:C	7:D:178:ALA:H	2.10	0.55
15:L:25:ALA:O	15:L:26:THR:HB	2.07	0.55
2:N:1:DC:H1'	2:N:2:DA:C5'	2.37	0.55
4:A:265:LYS:HE2	4:A:322:VAL:HG13	1.89	0.55
4:A:308:ILE:HG22	4:A:309:ALA:H	1.71	0.55
4:A:709:THR:HB	4:A:712:GLU:HG3	1.88	0.55
4:A:981:LEU:HD23	4:A:1039:LYS:HA	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:351:TYR:CE1	5:B:355:ILE:HD11	2.42	0.55
5:B:866:TYR:O	5:B:868:MET:N	2.40	0.55
6:C:147:LEU:HD12	6:C:151:GLN:O	2.07	0.55
6:C:45:ALA:O	6:C:159:ALA:HA	2.07	0.55
9:F:76:LYS:O	9:F:79:ARG:HD3	2.07	0.55
4:A:853:ASP:OD1	4:A:855:THR:CB	2.55	0.55
5:B:758:PHE:CE1	5:B:1027:ILE:CG2	2.90	0.55
5:B:1172:ILE:O	5:B:1172:ILE:HG22	2.07	0.55
5:B:69:LEU:HD22	5:B:429:PHE:HE1	1.71	0.55
5:B:473:MET:O	5:B:475:SER:N	2.40	0.55
5:B:640:VAL:HG12	5:B:640:VAL:O	2.07	0.55
5:B:874:PHE:HA	5:B:913:GLY:O	2.06	0.55
10:G:73:LYS:HE2	10:G:74:TYR:O	2.07	0.55
5:B:1099:VAL:HG12	5:B:1100:ASP:H	1.71	0.54
5:B:953:LEU:CD2	5:B:965:LYS:HB2	2.35	0.54
6:C:11:ARG:HD3	6:C:209:TYR:CE2	2.42	0.54
12:I:52:ILE:HG13	12:I:52:ILE:O	2.06	0.54
15:L:49:LYS:O	15:L:50:ASP:CB	2.54	0.54
15:L:30:ILE:O	15:L:56:LEU:HA	2.07	0.54
15:L:58:LYS:HG2	15:L:58:LYS:O	2.06	0.54
4:A:1191:TRP:CD1	4:A:1256:GLU:HB2	2.41	0.54
4:A:1291:VAL:HG13	4:A:1292:PRO:CD	2.35	0.54
4:A:1308:THR:HG23	4:A:1309:ASP:N	2.22	0.54
4:A:1336:MET:HE3	4:A:1381:LEU:HG	1.88	0.54
4:A:19:PHE:HE1	4:A:1396:ALA:HB3	1.71	0.54
4:A:718:VAL:O	4:A:721:PHE:HB2	2.08	0.54
5:B:180:TYR:HD1	5:B:180:TYR:H	1.54	0.54
5:B:570:VAL:HG23	5:B:573:GLN:HB3	1.88	0.54
1:T:20:DC:H4'	4:A:447:GLN:HE22	1.71	0.54
12:I:60:GLN:NE2	12:I:107:SER:OG	2.40	0.54
13:J:5:VAL:O	13:J:6:ARG:O	2.26	0.54
4:A:244:PRO:CG	4:A:245:PRO:HD3	2.38	0.54
4:A:3:GLY:O	4:A:4:GLN:CB	2.56	0.54
4:A:61:ILE:HG22	4:A:62:ASP:N	2.23	0.54
4:A:767:GLN:NE2	4:A:774:ARG:HB3	2.22	0.54
4:A:808:LEU:HG	4:A:812:GLU:HB3	1.89	0.54
5:B:1223:ASP:O	5:B:1224:PHE:HB2	2.08	0.54
5:B:865:LYS:HE2	5:B:871:THR:OG1	2.06	0.54
7:D:56:ARG:HD3	7:D:149:THR:HA	1.88	0.54
8:E:124:VAL:HG13	8:E:132:ILE:HD12	1.88	0.54
4:A:1441:PHE:CE2	9:F:89:GLU:HG2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1006:ILE:HD13	13:J:44:TYR:CE2	2.43	0.54
4:A:219:PHE:O	4:A:222:LEU:O	2.25	0.54
5:B:459:TYR:CE1	5:B:469:GLN:HG2	2.42	0.54
6:C:73:GLN:HE21	6:C:75:MET:N	2.05	0.54
1:T:12:DA:H2''	1:T:13:DC:C5'	2.37	0.54
1:T:18:DC:H3'	1:T:18:DC:P	2.48	0.54
4:A:1074:GLU:N	4:A:1075:PRO:HD2	2.23	0.54
4:A:366:VAL:CG2	4:A:460:VAL:HG22	2.34	0.54
4:A:69:THR:C	4:A:71:GLN:N	2.61	0.54
4:A:979:SER:OG	4:A:980:ASP:N	2.41	0.54
5:B:1004:GLU:O	6:C:177:GLU:HG2	2.08	0.54
5:B:1038:SER:C	5:B:1040:ASN:H	2.10	0.54
7:D:209:ARG:O	7:D:212:LYS:HB2	2.08	0.54
7:D:40:HIS:CB	10:G:73:LYS:HZ2	2.18	0.54
9:F:119:ARG:HG3	9:F:119:ARG:NH1	2.23	0.54
4:A:1435:PRO:HA	4:A:1439:GLY:O	2.06	0.54
4:A:182:VAL:HG22	4:A:201:VAL:HA	1.89	0.54
4:A:3:GLY:O	4:A:4:GLN:HB2	2.08	0.54
5:B:309:GLN:CD	12:I:52:ILE:HD11	2.28	0.54
5:B:39:ARG:HH21	5:B:665:GLU:CD	2.11	0.54
5:B:825:VAL:HG12	5:B:826:ALA:N	2.21	0.54
4:A:265:LYS:NZ	4:A:322:VAL:HG13	2.23	0.54
4:A:401:GLY:C	4:A:435:HIS:CD2	2.81	0.54
4:A:829:VAL:C	4:A:831:THR:H	2.10	0.54
5:B:1069:PHE:HA	5:B:1085:ILE:O	2.07	0.54
5:B:796:LEU:HD12	5:B:852:ARG:O	2.08	0.54
7:D:39:ASN:ND2	7:D:41:GLN:HB2	2.23	0.54
4:A:1346:ALA:HB3	8:E:149:LEU:HD13	1.89	0.54
12:I:51:ASN:O	12:I:54:GLU:HG3	2.08	0.54
15:L:39:SER:O	15:L:40:LEU:HG	2.08	0.54
4:A:41:MET:HB3	4:A:48:ALA:O	2.08	0.54
4:A:774:ARG:NH2	4:A:797:LYS:HB2	2.23	0.54
4:A:774:ARG:O	4:A:775:ILE:C	2.46	0.54
4:A:831:THR:HG23	4:A:832:ALA:N	2.21	0.54
5:B:1152:MET:HE1	5:B:1157:ALA:HA	1.89	0.54
5:B:130:VAL:HB	5:B:167:ILE:CD1	2.38	0.54
5:B:185:THR:O	5:B:188:ASP:HB2	2.07	0.54
5:B:205:ILE:N	5:B:205:ILE:HD12	2.23	0.54
6:C:46:ILE:HD12	6:C:67:LEU:HB3	1.89	0.54
6:C:8:VAL:HG12	6:C:9:LYS:H	1.73	0.54
7:D:167:LEU:O	7:D:170:THR:OG1	2.26	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:85:GLU:HB2	8:E:88:VAL:HG22	1.89	0.54
9:F:143:PHE:C	9:F:143:PHE:CD1	2.78	0.54
11:H:102:TYR:N	11:H:102:TYR:CD2	2.76	0.54
14:K:65:HIS:HD2	14:K:67:PHE:N	2.05	0.54
4:A:910:PRO:HB3	4:A:917:SER:N	2.22	0.54
5:B:1099:VAL:HG12	5:B:1100:ASP:N	2.23	0.54
5:B:576:ASP:HA	5:B:622:LYS:HZ2	1.73	0.54
5:B:658:ILE:HG22	5:B:659:ALA:N	2.22	0.54
5:B:653:VAL:HG22	5:B:689:LEU:HD13	1.90	0.54
5:B:948:ILE:O	5:B:968:VAL:HG13	2.08	0.54
6:C:116:LYS:HD3	6:C:140:ASN:CB	2.27	0.54
12:I:103:CYS:HB3	12:I:106:CYS:SG	2.48	0.54
14:K:15:GLY:O	14:K:16:GLU:HG3	2.08	0.54
4:A:1254:ALA:O	4:A:1255:GLU:HB2	2.07	0.53
4:A:1329:THR:HG23	4:A:1331:SER:H	1.73	0.53
4:A:172:PRO:HG3	4:A:185:TRP:CZ2	2.43	0.53
4:A:401:GLY:C	4:A:435:HIS:HD2	2.10	0.53
4:A:472:LEU:O	4:A:475:THR:HG22	2.07	0.53
4:A:899:VAL:HB	4:A:929:LEU:CD1	2.38	0.53
5:B:1001:PHE:CD2	6:C:34:ARG:NH2	2.76	0.53
7:D:7:THR:HG21	7:D:32:GLU:OE2	2.08	0.53
7:D:39:ASN:HD22	7:D:41:GLN:HB2	1.73	0.53
9:F:89:GLU:HB3	9:F:134:ILE:CD1	2.39	0.53
11:H:99:GLY:HA3	11:H:118:PHE:HA	1.89	0.53
4:A:130:ASP:O	4:A:133:LYS:N	2.39	0.53
4:A:714:PHE:O	4:A:718:VAL:HG23	2.08	0.53
4:A:806:ARG:HH12	5:B:729:ILE:CD1	2.20	0.53
5:B:39:ARG:HG2	5:B:39:ARG:HH11	1.73	0.53
5:B:1084:GLN:OE1	6:C:189:THR:CG2	2.57	0.53
6:C:259:LEU:HD13	14:K:91:CYS:HB2	1.90	0.53
11:H:58:THR:HG22	11:H:59:ILE:N	2.23	0.53
13:J:27:GLU:C	13:J:29:GLU:H	2.12	0.53
4:A:1225:PHE:HE2	4:A:1227:ILE:HD11	1.72	0.53
4:A:167:CYS:SG	4:A:167:CYS:O	2.66	0.53
4:A:347:PHE:CE2	4:A:375:THR:HG23	2.43	0.53
4:A:940:ARG:HH11	4:A:940:ARG:HG2	1.72	0.53
5:B:1162:ILE:O	5:B:1171:VAL:HG21	2.08	0.53
5:B:485:ARG:NH2	5:B:782:LEU:HD11	2.23	0.53
6:C:142:VAL:H	13:J:16:ASP:HB3	1.72	0.53
7:D:52:LEU:C	7:D:54:GLU:H	2.11	0.53
10:G:88:ASP:OD2	10:G:88:ASP:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:5:LEU:HD22	11:H:133:ASN:O	2.09	0.53
4:A:335:ARG:HA	4:A:339:ASN:HB2	1.90	0.53
4:A:846:GLU:OE1	4:A:1425:SER:OG	2.27	0.53
4:A:858:ASN:HD22	4:A:861:GLY:H	1.56	0.53
5:B:810:GLU:HB2	5:B:815:ARG:HH22	1.74	0.53
6:C:101:LEU:HD13	6:C:118:LEU:HD23	1.90	0.53
6:C:125:MET:HB2	6:C:127:ARG:NH2	2.23	0.53
6:C:35:ARG:NH1	14:K:41:THR:H	2.06	0.53
8:E:124:VAL:HG13	8:E:132:ILE:CG1	2.39	0.53
10:G:61:ILE:HG23	10:G:66:GLY:O	2.08	0.53
11:H:56:THR:HB	11:H:145:ARG:HG2	1.90	0.53
4:A:130:ASP:O	4:A:131:SER:C	2.47	0.53
4:A:504:LEU:HD12	4:A:504:LEU:N	2.24	0.53
5:B:1176:ASN:C	5:B:1178:ASN:H	2.10	0.53
5:B:449:ASN:C	5:B:451:LYS:H	2.12	0.53
7:D:49:ALA:HB2	7:D:174:PRO:CB	2.37	0.53
7:D:53:SER:HB3	7:D:152:SER:HB2	1.91	0.53
10:G:102:GLN:HG3	10:G:106:MET:O	2.08	0.53
14:K:50:LEU:HD11	14:K:75:ILE:CD1	2.37	0.53
4:A:971:PHE:CE2	4:A:1040:GLN:HG2	2.44	0.53
4:A:1329:THR:H	4:A:1335:ILE:HD11	1.73	0.53
4:A:332:LYS:O	4:A:333:GLU:HB2	2.09	0.53
4:A:416:ARG:C	4:A:417:TYR:CD2	2.81	0.53
4:A:541:ILE:HD13	4:A:549:MET:HE3	1.91	0.53
4:A:665:GLY:HA2	5:B:1026:LEU:HD22	1.91	0.53
4:A:68:GLN:HE22	4:A:80:HIS:CG	2.27	0.53
4:A:84:ILE:HG23	4:A:84:ILE:O	2.07	0.53
8:E:207:ARG:CB	8:E:207:ARG:HH11	2.20	0.53
4:A:504:LEU:HD11	9:F:91:ALA:HB1	1.91	0.53
12:I:85:PHE:N	12:I:85:PHE:CD2	2.74	0.53
13:J:44:TYR:CA	13:J:47:ARG:HB2	2.33	0.53
4:A:1372:VAL:O	4:A:1376:THR:HG22	2.07	0.53
4:A:658:LEU:HD13	5:B:831:SER:HA	1.90	0.53
4:A:786:HIS:CD2	4:A:786:HIS:N	2.74	0.53
5:B:483:LEU:HD11	5:B:491:THR:CG2	2.32	0.53
9:F:86:THR:HG23	9:F:89:GLU:OE1	2.09	0.53
15:L:48:CYS:HB3	15:L:51:CYS:O	2.08	0.53
4:A:1120:LEU:CD1	4:A:1120:LEU:H	2.22	0.53
4:A:1198:ASP:HB3	4:A:1201:ALA:HB3	1.90	0.53
4:A:1283:VAL:CG1	4:A:1284:MET:H	2.17	0.53
4:A:1289:ARG:NH1	4:A:1326:ARG:NH1	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:42:ASP:C	4:A:44:THR:H	2.12	0.53
4:A:464:PRO:HG2	4:A:465:TYR:HD1	1.72	0.53
4:A:503:GLN:HE21	9:F:90:ARG:HH21	1.55	0.53
5:B:287:ARG:NH1	5:B:324:ILE:O	2.41	0.53
5:B:745:PRO:O	5:B:747:MET:N	2.41	0.53
8:E:78:LEU:HD21	8:E:80:VAL:CG2	2.37	0.53
10:G:34:VAL:CG1	10:G:45:ILE:HG21	2.36	0.53
11:H:103:LYS:HG2	11:H:104:PHE:N	2.24	0.53
11:H:15:VAL:HG22	11:H:26:ILE:CD1	2.39	0.53
11:H:83:GLN:C	11:H:85:GLY:N	2.60	0.53
14:K:55:LYS:HB3	14:K:81:TYR:CD1	2.44	0.53
4:A:682:THR:CG2	4:A:728:LYS:HE3	2.37	0.53
5:B:126:SER:O	5:B:169:ARG:HA	2.09	0.53
5:B:286:PHE:CD1	5:B:297:ILE:HG23	2.44	0.53
5:B:744:HIS:ND1	5:B:745:PRO:HD2	2.24	0.53
8:E:207:ARG:HH11	8:E:207:ARG:HB3	1.74	0.53
10:G:85:GLU:HG2	10:G:86:VAL:N	2.24	0.53
12:I:2:THR:O	12:I:3:THR:C	2.46	0.53
13:J:7:CYS:SG	13:J:46:CYS:HA	2.49	0.53
4:A:1076:ALA:HA	4:A:1079:MET:CE	2.38	0.53
4:A:1140:HIS:CE1	4:A:1272:THR:HG23	2.43	0.53
4:A:1325:THR:HG23	8:E:146:HIS:O	2.08	0.53
4:A:567:LYS:HB2	4:A:568:PRO:CD	2.39	0.53
5:B:1001:PHE:CE2	6:C:34:ARG:NE	2.77	0.53
6:C:144:ILE:O	6:C:145:CYS:HB3	2.09	0.53
12:I:13:MET:CE	12:I:14:LEU:H	2.22	0.53
14:K:82:ASP:OD1	14:K:84:LYS:N	2.41	0.53
1:T:19:DC:H2''	1:T:20:DC:C5'	2.39	0.53
4:A:1356:ILE:HG21	4:A:1363:VAL:HG23	1.90	0.52
4:A:157:ASP:C	4:A:159:THR:H	2.12	0.52
4:A:352:VAL:O	4:A:467:THR:HB	2.09	0.52
4:A:50:ILE:C	4:A:52:GLY:N	2.60	0.52
4:A:524:VAL:CG1	4:A:525:GLN:H	2.21	0.52
4:A:899:VAL:HB	4:A:929:LEU:HD12	1.90	0.52
4:A:901:LEU:HG	4:A:926:GLN:HE21	1.74	0.52
4:A:901:LEU:HB2	4:A:926:GLN:HG2	1.90	0.52
4:A:665:GLY:HA2	5:B:1026:LEU:CD2	2.39	0.52
5:B:112:LEU:HD12	5:B:113:TYR:H	1.73	0.52
5:B:315:LYS:N	5:B:316:PRO:HD2	2.24	0.52
5:B:33:VAL:HG21	5:B:638:PHE:CZ	2.36	0.52
5:B:999:MET:HB3	5:B:1007:VAL:HG21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:13:LEU:CD2	10:G:17:PHE:HB2	2.34	0.52
13:J:27:GLU:O	13:J:29:GLU:N	2.39	0.52
4:A:1120:LEU:CD1	4:A:1120:LEU:N	2.72	0.52
4:A:18:GLN:O	5:B:1215:ARG:HG2	2.10	0.52
4:A:79:GLY:HA3	4:A:243:PRO:HG3	1.91	0.52
4:A:24:PRO:HD2	4:A:233:TRP:HE1	1.74	0.52
4:A:523:ILE:CD1	4:A:649:ILE:HG21	2.38	0.52
4:A:527:THR:CG2	4:A:650:GLN:HA	2.40	0.52
4:A:1409:LEU:CD1	5:B:1207:LEU:HD21	2.39	0.52
6:C:53:THR:O	6:C:153:LEU:HA	2.09	0.52
7:D:151:PHE:N	7:D:151:PHE:CD1	2.77	0.52
8:E:192:ARG:HG3	8:E:192:ARG:HH11	1.73	0.52
8:E:83:CYS:HG	8:E:110:PHE:HZ	1.54	0.52
10:G:34:VAL:HG12	10:G:45:ILE:CG2	2.34	0.52
4:A:997:LEU:N	4:A:997:LEU:HD23	2.23	0.52
5:B:464:GLY:HA2	5:B:479:VAL:O	2.09	0.52
6:C:39:ALA:CA	6:C:164:ALA:HB3	2.29	0.52
9:F:118:LEU:O	9:F:122:MET:HG3	2.09	0.52
10:G:143:ILE:HG23	10:G:169:GLY:O	2.09	0.52
4:A:1329:THR:HG21	4:A:1331:SER:HB3	1.92	0.52
4:A:1364:ASN:O	4:A:1365:TYR:C	2.47	0.52
4:A:35:ILE:CG2	4:A:84:ILE:HD12	2.39	0.52
5:B:130:VAL:HB	5:B:167:ILE:HD12	1.91	0.52
5:B:558:LEU:HD21	5:B:600:LEU:HD11	1.91	0.52
5:B:811:TYR:N	5:B:811:TYR:CD1	2.78	0.52
5:B:880:THR:HB	5:B:934:LYS:HD2	1.92	0.52
8:E:16:PHE:CE2	8:E:20:LYS:HE2	2.44	0.52
9:F:116:ASP:O	9:F:120:ILE:HG13	2.10	0.52
11:H:12:VAL:HA	11:H:28:ALA:HB2	1.92	0.52
4:A:1348:LEU:O	4:A:1352:VAL:HG23	2.09	0.52
4:A:1377:THR:O	4:A:1379:GLY:N	2.42	0.52
4:A:567:LYS:HD2	4:A:568:PRO:CD	2.40	0.52
4:A:699:ALA:HB3	4:A:701:LEU:HG	1.91	0.52
5:B:1095:LEU:CD1	5:B:1095:LEU:H	2.19	0.52
5:B:860:MET:HG2	5:B:861:ASP:N	2.25	0.52
4:A:255:SER:OG	5:B:918:ILE:HG23	2.09	0.52
6:C:252:GLN:HG3	14:K:95:ILE:HG23	1.92	0.52
7:D:66:ARG:O	7:D:70:PHE:HB2	2.09	0.52
9:F:77:ASP:C	9:F:79:ARG:H	2.12	0.52
11:H:126:GLU:C	11:H:130:ARG:HH22	2.13	0.52
4:A:1389:PHE:C	4:A:1389:PHE:CD1	2.82	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1445:ILE:HD12	4:A:1445:ILE:N	2.07	0.52
4:A:298:PHE:CD2	4:A:299:HIS:N	2.78	0.52
4:A:853:ASP:OD2	4:A:855:THR:CG2	2.58	0.52
5:B:1031:LEU:CD2	5:B:1044:ALA:HB2	2.40	0.52
5:B:25:ILE:HD11	5:B:653:VAL:C	2.29	0.52
5:B:638:PHE:HB3	5:B:651:LEU:HD22	1.90	0.52
5:B:763:GLN:HG2	5:B:765:PRO:HD2	1.92	0.52
11:H:40:LEU:HD22	11:H:123:MET:CE	2.40	0.52
13:J:1:MET:H3	13:J:56:LEU:H	1.57	0.52
14:K:61:TYR:C	14:K:61:TYR:CD2	2.80	0.52
1:T:16:DG:N2	2:N:2:DA:C2	2.78	0.52
4:A:254:GLU:O	4:A:256:GLN:N	2.41	0.52
6:C:263:THR:C	6:C:265:MET:H	2.12	0.52
9:F:75:PRO:HG2	9:F:78:GLN:HB2	1.92	0.52
10:G:7:LEU:HB2	10:G:74:TYR:HE2	1.67	0.52
10:G:83:LYS:HG2	10:G:149:GLY:HA2	1.91	0.52
11:H:36:CYS:HA	11:H:126:GLU:O	2.09	0.52
12:I:7:CYS:HB3	12:I:14:LEU:HD21	1.90	0.52
4:A:1021:LEU:O	4:A:1025:ARG:HG2	2.10	0.52
4:A:1313:LEU:HB3	4:A:1338:VAL:HG21	1.92	0.52
4:A:262:LEU:HD12	4:A:328:ARG:NH2	2.24	0.52
4:A:40:THR:HG22	4:A:41:MET:CG	2.28	0.52
4:A:438:ASP:OD1	4:A:461:LYS:HA	2.10	0.52
4:A:982:THR:N	4:A:985:ASP:HB2	2.25	0.52
5:B:983:ARG:HD2	5:B:1091:TYR:HB3	1.92	0.52
5:B:29:ASP:OD1	5:B:658:ILE:HD13	2.10	0.52
5:B:846:ILE:HA	5:B:850:LEU:HB3	1.91	0.52
5:B:899:ILE:CG2	5:B:949:VAL:HG21	2.40	0.52
7:D:191:ALA:C	7:D:193:THR:H	2.12	0.52
11:H:107:VAL:O	11:H:108:SER:O	2.28	0.52
4:A:1011:GLN:NE2	4:A:1015:VAL:HG21	2.25	0.52
4:A:1259:MET:C	4:A:1261:LYS:H	2.12	0.52
4:A:767:GLN:HE21	4:A:774:ARG:HB3	1.75	0.52
5:B:213:ILE:HD12	5:B:497:ARG:HB3	1.92	0.52
5:B:616:ILE:HG13	5:B:697:GLU:HG3	1.92	0.52
5:B:782:LEU:HD12	5:B:788:ARG:NH1	2.20	0.52
5:B:806:THR:HB	5:B:809:MET:HG3	1.92	0.52
5:B:890:TYR:CZ	5:B:910:VAL:HG21	2.45	0.52
6:C:161:LYS:O	6:C:170:TRP:NE1	2.42	0.52
7:D:210:ILE:O	7:D:214:LEU:HG	2.10	0.52
11:H:113:ALA:HB2	11:H:126:GLU:HG3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:58:THR:HG22	11:H:59:ILE:H	1.74	0.52
15:L:28:LYS:HB2	15:L:39:SER:CA	2.39	0.52
4:A:148:CYS:O	4:A:168:GLY:HA2	2.09	0.52
5:B:843:GLN:HB2	5:B:993:THR:HB	1.91	0.52
6:C:86:CYS:O	6:C:88:CYS:N	2.41	0.52
10:G:7:LEU:HD11	10:G:45:ILE:HD11	1.92	0.52
11:H:104:PHE:CE2	11:H:136:LYS:HG2	2.45	0.52
11:H:89:LEU:C	11:H:91:ASP:N	2.63	0.52
12:I:6:PHE:HA	12:I:14:LEU:HG	1.92	0.52
12:I:82:GLU:HB3	12:I:104:LEU:CD1	2.39	0.52
6:C:175:ALA:CB	13:J:43:ARG:HH12	2.23	0.52
6:C:175:ALA:CB	13:J:43:ARG:NH1	2.72	0.52
14:K:41:THR:HG22	14:K:42:LEU:N	2.25	0.52
1:T:23:DC:H2'	1:T:24:DT:H6	1.71	0.52
4:A:1168:GLU:O	4:A:1172:LEU:HG	2.10	0.51
4:A:230:ARG:H	4:A:233:TRP:HE3	1.52	0.51
4:A:360:GLU:HG3	4:A:459:ARG:HH12	1.73	0.51
4:A:825:ILE:O	4:A:829:VAL:HG23	2.10	0.51
4:A:868:TYR:CE1	4:A:1064:VAL:CG1	2.92	0.51
4:A:961:ARG:HG3	4:A:961:ARG:NH1	2.24	0.51
5:B:1180:PHE:O	5:B:1181:GLU:O	2.27	0.51
5:B:368:GLU:O	5:B:370:PHE:N	2.42	0.51
5:B:753:ALA:HA	5:B:756:ILE:CD1	2.40	0.51
5:B:899:ILE:HD11	5:B:910:VAL:O	2.10	0.51
5:B:945:GLU:O	5:B:946:ASN:HB3	2.10	0.51
5:B:992:ILE:HG12	5:B:993:THR:N	2.25	0.51
12:I:110:PHE:H	12:I:110:PHE:HD2	1.58	0.51
4:A:320:ARG:NH1	4:A:320:ARG:HG3	2.25	0.51
4:A:451:HIS:CD2	4:A:1074:GLU:HG3	2.45	0.51
4:A:471:ASN:OD1	4:A:472:LEU:N	2.43	0.51
4:A:765:VAL:HG23	4:A:802:ASN:O	2.10	0.51
4:A:958:VAL:HG22	4:A:1052:GLN:HB3	1.92	0.51
5:B:189:LEU:O	5:B:192:LEU:N	2.39	0.51
5:B:20:ASP:C	5:B:22:SER:H	2.14	0.51
5:B:549:THR:HB	5:B:628:THR:OG1	2.10	0.51
5:B:687:GLU:O	5:B:689:LEU:HG	2.11	0.51
5:B:843:GLN:O	5:B:846:ILE:N	2.43	0.51
6:C:99:LEU:HA	6:C:119:VAL:O	2.10	0.51
6:C:59:ALA:O	6:C:62:PHE:HB3	2.10	0.51
7:D:137:ASN:HD22	7:D:137:ASN:C	2.13	0.51
15:L:28:LYS:HB2	15:L:39:SER:CB	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:35:ILE:HD13	4:A:241:VAL:HG11	1.93	0.51
4:A:511:ILE:O	4:A:519:PRO:HA	2.10	0.51
4:A:730:GLY:O	4:A:732:LEU:N	2.43	0.51
4:A:903:ASN:ND2	4:A:903:ASN:C	2.63	0.51
6:C:248:ILE:HG23	14:K:98:LEU:HD22	1.92	0.51
7:D:17:LYS:H	7:D:17:LYS:CD	2.23	0.51
7:D:185:CYS:CB	7:D:211:LEU:HD22	2.40	0.51
8:E:175:LEU:HD23	8:E:176:PRO:HD2	1.91	0.51
4:A:567:LYS:CE	11:H:46:LEU:HB2	2.40	0.51
1:T:19:DC:C4	1:T:20:DC:N4	2.79	0.51
4:A:69:THR:O	4:A:71:GLN:N	2.43	0.51
4:A:853:ASP:OD2	4:A:855:THR:HG22	2.10	0.51
4:A:18:GLN:HB2	5:B:1215:ARG:HB2	1.93	0.51
7:D:21:GLU:HB2	7:D:22:GLU:OE1	2.11	0.51
6:C:29:MET:HE1	14:K:98:LEU:HG	1.93	0.51
15:L:46:VAL:O	15:L:46:VAL:HG12	2.10	0.51
2:N:6:DA:C2'	2:N:7:DG:OP2	2.55	0.51
4:A:1208:THR:O	4:A:1212:VAL:HG23	2.10	0.51
4:A:23:SER:HB3	4:A:233:TRP:CE2	2.46	0.51
4:A:244:PRO:O	4:A:246:VAL:N	2.43	0.51
4:A:261:ASP:O	4:A:264:PHE:HB2	2.11	0.51
4:A:388:LEU:O	4:A:392:VAL:HG23	2.10	0.51
5:B:1045:SER:O	5:B:1046:PRO:O	2.27	0.51
5:B:288:ALA:HA	5:B:331:LEU:HD12	1.91	0.51
5:B:610:ASN:O	5:B:612:GLU:N	2.44	0.51
6:C:253:LYS:O	6:C:256:ALA:HB3	2.10	0.51
4:A:567:LYS:HE3	11:H:46:LEU:HB2	1.93	0.51
11:H:47:PHE:CD2	11:H:95:TYR:HD1	2.28	0.51
1:T:18:DC:H3'	1:T:18:DC:OP1	2.11	0.51
4:A:93:VAL:CG2	4:A:301:ALA:HA	2.36	0.51
4:A:320:ARG:HG3	4:A:320:ARG:HH11	1.74	0.51
4:A:34:LYS:H	4:A:34:LYS:HD3	1.75	0.51
4:A:470:LEU:HD12	4:A:471:ASN:O	2.11	0.51
4:A:831:THR:CG2	4:A:832:ALA:N	2.72	0.51
5:B:1085:ILE:CD1	5:B:1085:ILE:N	2.69	0.51
5:B:1103:ILE:O	5:B:1122:ARG:NH1	2.43	0.51
5:B:640:VAL:O	5:B:641:GLU:C	2.49	0.51
9:F:116:ASP:HB3	9:F:119:ARG:HB2	1.93	0.51
13:J:48:ARG:HE	13:J:49:MET:HE2	1.75	0.51
4:A:1209:MET:CE	4:A:1236:LEU:HB3	2.40	0.51
4:A:1332:PHE:N	4:A:1332:PHE:CD2	2.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:367:PRO:HD3	4:A:467:THR:O	2.10	0.51
4:A:913:LEU:HD12	4:A:914:GLU:N	2.23	0.51
5:B:1099:VAL:C	5:B:1101:ASP:H	2.14	0.51
5:B:33:VAL:HG12	5:B:681:TRP:HZ3	1.76	0.51
5:B:792:MET:H	5:B:857:ARG:HA	1.74	0.51
5:B:980:PHE:CD2	5:B:1094:ARG:HA	2.46	0.51
7:D:47:LEU:HD12	7:D:48:ILE:N	2.25	0.51
4:A:108:MET:N	4:A:108:MET:SD	2.84	0.51
4:A:1265:ASN:C	4:A:1267:MET:N	2.64	0.51
4:A:1144:LYS:HB2	4:A:1268:LEU:O	2.11	0.51
4:A:1364:ASN:C	4:A:1364:ASN:HD22	2.14	0.51
4:A:276:LEU:HD13	4:A:293:GLU:HA	1.93	0.51
4:A:567:LYS:CB	4:A:568:PRO:CD	2.88	0.51
4:A:567:LYS:CG	4:A:568:PRO:CD	2.83	0.51
4:A:577:ILE:C	4:A:579:SER:N	2.62	0.51
5:B:102:VAL:CG2	5:B:112:LEU:HD22	2.41	0.51
4:A:666:ILE:HD11	5:B:1067:ARG:O	2.11	0.51
6:C:36:VAL:HG21	6:C:251:LEU:HB2	1.93	0.51
4:A:1125:ALA:C	4:A:1127:ASP:H	2.14	0.51
4:A:1444:MET:CE	9:F:135:ARG:HB2	2.41	0.51
4:A:317:LYS:O	4:A:318:SER:HB3	2.11	0.51
5:B:1011:ILE:O	5:B:1011:ILE:HG22	2.10	0.51
5:B:197:PHE:CZ	5:B:816:GLU:HG2	2.46	0.51
5:B:882:THR:CB	5:B:934:LYS:O	2.59	0.51
5:B:903:VAL:HG12	5:B:904:ARG:N	2.26	0.51
5:B:996:ARG:NH2	6:C:175:ALA:N	2.56	0.51
7:D:134:THR:CG2	7:D:135:GLY:N	2.74	0.51
8:E:28:TYR:CE1	8:E:78:LEU:HD13	2.46	0.51
11:H:130:ARG:N	11:H:130:ARG:HD2	2.21	0.51
12:I:34:TYR:HD2	12:I:35:VAL:N	2.08	0.51
4:A:227:VAL:HG21	7:D:14:ARG:HH12	1.76	0.51
4:A:382:PRO:CA	4:A:428:TYR:HE2	2.24	0.51
5:B:1002:THR:O	5:B:1004:GLU:N	2.44	0.51
4:A:466:SER:HB2	5:B:1099:VAL:HG11	1.93	0.51
5:B:516:ASN:ND2	5:B:516:ASN:H	2.08	0.51
5:B:521:LEU:HD13	5:B:633:VAL:CG1	2.41	0.51
6:C:259:LEU:HD13	14:K:91:CYS:CB	2.41	0.51
8:E:83:CYS:SG	8:E:110:PHE:HZ	2.34	0.51
4:A:852:TYR:CD1	9:F:136:ARG:HB3	2.45	0.51
4:A:849:MET:HB3	4:A:1063:MET:SD	2.50	0.50
4:A:166:GLY:O	4:A:167:CYS:SG	2.69	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:37:PHE:H	4:A:37:PHE:HD1	1.58	0.50
5:B:1050:ILE:HG22	5:B:1051:THR:N	2.25	0.50
5:B:234:ILE:HD12	5:B:234:ILE:N	2.26	0.50
5:B:44:VAL:O	5:B:45:SER:C	2.49	0.50
5:B:680:THR:O	5:B:684:LEU:HD12	2.11	0.50
5:B:894:ASP:HB2	15:L:58:LYS:NZ	2.25	0.50
5:B:859:TYR:CZ	5:B:941:LEU:HD12	2.46	0.50
5:B:957:ASN:O	5:B:960:GLY:N	2.44	0.50
7:D:34:GLN:C	7:D:36:LYS:H	2.14	0.50
1:T:13:DC:H2''	1:T:14:DT:O5'	2.11	0.50
4:A:1143:LEU:O	4:A:1146:VAL:HG23	2.12	0.50
4:A:283:GLY:O	4:A:285:PRO:CD	2.58	0.50
4:A:92:HIS:HD2	4:A:304:MET:HE3	1.75	0.50
4:A:69:THR:C	4:A:71:GLN:H	2.15	0.50
4:A:852:TYR:CD2	4:A:1060:PRO:CB	2.95	0.50
4:A:89:PRO:O	4:A:204:THR:HG21	2.10	0.50
4:A:878:ILE:HG21	4:A:955:PRO:HB2	1.93	0.50
4:A:7:SER:HB3	5:B:1193:GLN:HE21	1.76	0.50
5:B:1198:TYR:O	5:B:1201:LYS:HB3	2.10	0.50
5:B:205:ILE:O	5:B:207:GLY:N	2.44	0.50
5:B:284:ILE:HG23	5:B:324:ILE:HD12	1.93	0.50
5:B:579:ARG:HG2	5:B:579:ARG:NH1	2.26	0.50
6:C:101:LEU:HD22	6:C:118:LEU:CD2	2.41	0.50
4:A:870:GLU:HG2	8:E:208:TYR:CD2	2.46	0.50
13:J:43:ARG:HG2	13:J:46:CYS:SG	2.52	0.50
4:A:907:THR:HG23	4:A:908:LEU:N	2.26	0.50
5:B:661:LEU:HD23	5:B:679:TYR:O	2.11	0.50
5:B:657:HIS:CE1	5:B:689:LEU:HD11	2.47	0.50
7:D:153:ARG:C	7:D:154:PHE:CD1	2.85	0.50
4:A:537:ARG:NH1	11:H:120:GLY:O	2.43	0.50
11:H:76:THR:HG22	11:H:76:THR:O	2.10	0.50
15:L:40:LEU:HD13	15:L:44:ASP:CB	2.40	0.50
4:A:446:ARG:HB3	4:A:478:TYR:HB3	1.93	0.50
4:A:492:PRO:O	4:A:493:GLN:NE2	2.45	0.50
4:A:18:GLN:CB	5:B:1215:ARG:HB2	2.42	0.50
5:B:446:LEU:HD23	5:B:446:LEU:N	2.26	0.50
8:E:198:ILE:HD11	8:E:212:ARG:CG	2.42	0.50
4:A:1116:LEU:N	4:A:1308:THR:CG2	2.69	0.50
4:A:106:VAL:HG13	4:A:112:LYS:N	2.26	0.50
4:A:1343:ALA:O	4:A:1346:ALA:HB3	2.12	0.50
4:A:146:MET:HB3	4:A:171:GLN:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:172:PRO:HB3	4:A:185:TRP:CD2	2.46	0.50
4:A:471:ASN:O	4:A:474:VAL:HG12	2.11	0.50
4:A:535:THR:HG23	4:A:575:LYS:HE2	1.93	0.50
4:A:942:PHE:C	4:A:942:PHE:CD2	2.85	0.50
5:B:1162:ILE:HG22	5:B:1163:CYS:H	1.76	0.50
5:B:797:TYR:C	5:B:798:TYR:HD2	2.15	0.50
5:B:885:MET:HA	5:B:936:ASP:HB2	1.94	0.50
6:C:66:ARG:NH1	6:C:144:ILE:O	2.43	0.50
6:C:22:LEU:HD13	6:C:230:MET:CE	2.41	0.50
9:F:99:LEU:HD12	9:F:103:MET:HG3	1.94	0.50
4:A:1445:ILE:HD11	10:G:68:ALA:CB	2.39	0.50
11:H:103:LYS:HG2	11:H:104:PHE:H	1.75	0.50
4:A:1006:ILE:CD1	8:E:163:GLU:HG3	2.42	0.50
4:A:873:MET:C	4:A:1058:VAL:HG23	2.31	0.50
4:A:146:MET:HA	4:A:171:GLN:HB2	1.91	0.50
4:A:600:PRO:HG2	4:A:601:LYS:H	1.75	0.50
5:B:240:ILE:O	5:B:240:ILE:HG23	2.10	0.50
5:B:69:LEU:HD13	5:B:429:PHE:CD1	2.47	0.50
5:B:780:VAL:HG21	13:J:56:LEU:HD11	1.92	0.50
5:B:956:THR:CG2	5:B:960:GLY:HA2	2.42	0.50
6:C:174:ALA:O	6:C:175:ALA:CB	2.59	0.50
6:C:187:LYS:C	6:C:189:THR:H	2.15	0.50
7:D:56:ARG:HA	7:D:148:LEU:HD13	1.94	0.50
10:G:80:LYS:HG2	10:G:80:LYS:O	2.12	0.50
4:A:1152:ILE:HG13	12:I:44:TYR:HD2	1.76	0.50
5:B:190:TYR:HE2	13:J:62:ARG:HB3	1.72	0.50
4:A:1146:VAL:HG11	4:A:1207:LEU:HD12	1.94	0.50
4:A:204:THR:O	4:A:206:GLU:N	2.45	0.50
4:A:265:LYS:NZ	4:A:322:VAL:HG22	2.27	0.50
4:A:331:GLY:O	4:A:332:LYS:O	2.30	0.50
4:A:335:ARG:HA	4:A:339:ASN:HD22	1.76	0.50
4:A:982:THR:O	4:A:985:ASP:HB2	2.12	0.50
5:B:766:ARG:NH2	5:B:1020:ARG:HD3	2.26	0.50
8:E:20:LYS:NZ	8:E:60:PHE:CE1	2.79	0.50
10:G:4:ILE:HG12	10:G:77:VAL:HG22	1.92	0.50
12:I:101:PHE:CD1	12:I:101:PHE:N	2.79	0.50
15:L:27:LEU:HD13	15:L:37:LYS:CE	2.41	0.50
4:A:265:LYS:CE	4:A:322:VAL:HG13	2.42	0.50
4:A:241:VAL:HG13	4:A:266:LEU:HD13	1.93	0.50
4:A:37:PHE:HD1	4:A:37:PHE:N	2.09	0.50
4:A:598:LEU:O	4:A:599:SER:C	2.49	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:670:ILE:HG23	4:A:805:LEU:CD2	2.40	0.50
4:A:901:LEU:N	4:A:926:GLN:NE2	2.52	0.50
4:A:888:GLY:O	4:A:940:ARG:NH2	2.45	0.50
5:B:1020:ARG:HB2	5:B:1022:THR:HG22	1.94	0.50
4:A:1431:GLY:HA3	5:B:1152:MET:SD	2.52	0.50
4:A:325:ILE:HG21	5:B:1210:MET:HG3	1.93	0.50
5:B:172:ILE:CG2	5:B:173:MET:N	2.75	0.50
5:B:25:ILE:HG23	5:B:658:ILE:CD1	2.41	0.50
5:B:546:SER:OG	5:B:631:GLY:N	2.38	0.50
5:B:299:GLU:OE2	5:B:572:HIS:HE1	1.94	0.50
6:C:242:GLN:HB3	6:C:246:ARG:HG3	1.94	0.50
8:E:17:ARG:O	8:E:20:LYS:HB2	2.11	0.50
10:G:17:PHE:N	10:G:17:PHE:CD2	2.78	0.50
12:I:59:VAL:C	12:I:61:ASP:H	2.15	0.50
14:K:60:ALA:O	14:K:73:LEU:HD12	2.11	0.50
6:C:167:HIS:HA	14:K:6:ARG:HH12	1.76	0.50
4:A:98:LYS:O	4:A:102:VAL:HG23	2.12	0.50
4:A:119:ASN:O	4:A:122:MET:HB3	2.11	0.50
4:A:1111:MET:CE	4:A:1330:ASN:OD1	2.60	0.50
4:A:630:ILE:HG23	4:A:642:CYS:SG	2.52	0.50
4:A:816:HIS:CD2	5:B:764:SER:H	2.29	0.50
4:A:351:THR:HG22	5:B:1103:ILE:HA	1.94	0.50
5:B:1106:ARG:HD3	5:B:1126:GLY:O	2.12	0.50
5:B:117:ALA:HA	5:B:122:LEU:HD12	1.93	0.50
5:B:347:LYS:HG3	5:B:348:ARG:N	2.27	0.50
5:B:582:VAL:HA	5:B:626:ILE:O	2.12	0.50
8:E:205:SER:O	8:E:207:ARG:N	2.45	0.50
10:G:1:MET:CE	10:G:80:LYS:O	2.60	0.50
12:I:86:PHE:CE1	12:I:100:PHE:HB2	2.47	0.50
14:K:46:ILE:HG21	14:K:87:LEU:HD11	1.94	0.50
4:A:1062:GLU:OE2	9:F:88:TYR:OH	2.30	0.49
4:A:88:LYS:HE3	4:A:280:GLU:OE2	2.12	0.49
4:A:58:LEU:O	4:A:59:GLY:O	2.30	0.49
4:A:973:ILE:HD13	4:A:1036:ARG:O	2.11	0.49
5:B:824:ILE:CG2	5:B:1087:PHE:CE2	2.93	0.49
4:A:345:VAL:HG11	5:B:1130:PHE:HB2	1.95	0.49
6:C:251:LEU:O	6:C:255:VAL:HG23	2.11	0.49
12:I:26:LEU:CD2	12:I:37:GLU:HA	2.39	0.49
13:J:14:VAL:CG1	13:J:50:ILE:HD11	2.41	0.49
14:K:53:ASP:C	14:K:55:LYS:H	2.16	0.49
14:K:7:PHE:O	14:K:11:LEU:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:49:LYS:NZ	4:A:61:ILE:CG1	2.71	0.49
5:B:378:LEU:HD12	5:B:378:LEU:O	2.12	0.49
5:B:621:GLU:HG3	5:B:621:GLU:O	2.12	0.49
6:C:18:VAL:CG2	6:C:240:VAL:HB	2.42	0.49
10:G:38:CYS:SG	10:G:44:TYR:CE1	3.03	0.49
11:H:116:TYR:HB2	11:H:123:MET:HB3	1.95	0.49
4:A:1164:PRO:HG2	4:A:1165:GLU:HG3	1.94	0.49
4:A:1319:VAL:HG13	4:A:1320:PRO:HD2	1.93	0.49
4:A:244:PRO:HG2	4:A:245:PRO:CD	2.41	0.49
4:A:332:LYS:HG3	4:A:333:GLU:HG2	1.94	0.49
4:A:696:GLU:OE2	4:A:702:LEU:HD21	2.13	0.49
5:B:1183:LYS:C	5:B:1185:CYS:H	2.16	0.49
5:B:977:GLY:HA3	5:B:1099:VAL:CB	2.42	0.49
6:C:73:GLN:HE21	6:C:75:MET:H	1.59	0.49
8:E:12:LEU:HD21	8:E:58:MET:SD	2.53	0.49
10:G:14:HIS:CE1	10:G:15:PRO:HD2	2.46	0.49
4:A:1098:VAL:N	4:A:1099:PRO:HD2	2.27	0.49
4:A:840:ARG:O	4:A:841:LEU:C	2.51	0.49
5:B:1161:HIS:HB3	5:B:1171:VAL:HG11	1.95	0.49
5:B:171:PRO:HD2	5:B:457:LEU:HD13	1.95	0.49
5:B:658:ILE:O	5:B:661:LEU:HB2	2.11	0.49
5:B:846:ILE:CG2	5:B:974:PRO:HG2	2.41	0.49
5:B:918:ILE:HG21	5:B:935:ARG:HH11	1.76	0.49
6:C:70:ILE:HD11	6:C:144:ILE:HG12	1.93	0.49
8:E:168:TYR:HB3	8:E:170:LEU:HG	1.94	0.49
8:E:79:TRP:CD1	8:E:96:PHE:HE1	2.30	0.49
13:J:7:CYS:HB3	13:J:10:CYS:SG	2.51	0.49
14:K:58:PHE:HE2	14:K:74:ARG:HE	1.57	0.49
4:A:302:THR:HA	4:A:305:ASP:O	2.12	0.49
4:A:417:TYR:CD2	4:A:417:TYR:N	2.80	0.49
4:A:590:ARG:HB2	4:A:605:MET:HB3	1.94	0.49
4:A:527:THR:HG21	4:A:650:GLN:HA	1.95	0.49
4:A:779:PHE:O	4:A:780:VAL:C	2.51	0.49
4:A:929:LEU:CD2	4:A:983:ILE:HG21	2.42	0.49
5:B:175:ARG:NH1	5:B:175:ARG:HG2	2.24	0.49
5:B:121:ASN:ND2	5:B:207:GLY:HA3	2.28	0.49
5:B:35:SER:HA	5:B:811:TYR:CE2	2.37	0.49
5:B:882:THR:HG22	5:B:884:ARG:HB2	1.93	0.49
6:C:137:LYS:HB3	6:C:138:GLU:OE1	2.13	0.49
10:G:96:GLN:HA	10:G:121:PHE:CE2	2.48	0.49
11:H:40:LEU:HD12	11:H:122:LEU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:58:THR:HB	11:H:143:LEU:HB2	1.95	0.49
14:K:47:ARG:HD2	14:K:47:ARG:C	2.32	0.49
4:A:1317:MET:HG3	4:A:1327:ILE:HG21	1.93	0.49
4:A:262:LEU:C	4:A:264:PHE:N	2.66	0.49
4:A:2:VAL:HG21	5:B:1157:ALA:O	2.11	0.49
4:A:316:GLN:O	4:A:317:LYS:C	2.51	0.49
5:B:1166:CYS:HB2	5:B:1215:ARG:HH11	1.75	0.49
5:B:224:GLN:O	5:B:238:ALA:HA	2.12	0.49
5:B:237:VAL:HG22	5:B:257:LYS:HA	1.95	0.49
10:G:1:MET:O	10:G:3:PHE:CD1	2.65	0.49
4:A:1189:SER:OG	4:A:1190:PRO:HD2	2.13	0.49
4:A:1334:ASP:O	4:A:1336:MET:N	2.45	0.49
4:A:1394:THR:HG22	4:A:1395:GLY:N	2.27	0.49
4:A:412:ARG:HH22	5:B:1108:ARG:HH22	1.61	0.49
4:A:526:ASP:OD1	5:B:1013:ASN:ND2	2.44	0.49
4:A:54:ASN:HB3	4:A:247:ARG:HH22	1.78	0.49
4:A:590:ARG:NH2	4:A:620:LYS:HB2	2.22	0.49
4:A:798:GLY:HA2	4:A:815:PHE:HD1	1.72	0.49
4:A:852:TYR:HA	4:A:1060:PRO:HB3	1.94	0.49
5:B:31:TRP:CZ3	5:B:34:ILE:HD12	2.48	0.49
6:C:70:ILE:HD13	6:C:115:SER:HB3	1.94	0.49
6:C:184:ASN:HD21	6:C:187:LYS:HA	1.77	0.49
6:C:70:ILE:HD11	6:C:144:ILE:CG1	2.43	0.49
7:D:130:LEU:C	7:D:132:GLN:N	2.65	0.49
7:D:27:LEU:HD13	7:D:173:HIS:HD2	1.78	0.49
8:E:135:PHE:CB	8:E:140:LEU:HD11	2.37	0.49
4:A:417:TYR:O	4:A:418:SER:C	2.50	0.49
4:A:55:ASP:N	4:A:56:PRO:CD	2.76	0.49
4:A:63:ARG:HA	4:A:74:MET:HE2	1.94	0.49
5:B:364:ILE:HG12	5:B:585:VAL:CG1	2.36	0.49
5:B:843:GLN:O	5:B:844:SER:C	2.51	0.49
8:E:24:LYS:HB3	8:E:30:ILE:HD12	1.95	0.49
12:I:100:PHE:CD1	12:I:100:PHE:N	2.81	0.49
14:K:110:ASN:C	14:K:112:GLN:H	2.16	0.49
4:A:1001:ARG:O	4:A:1002:GLY:O	2.31	0.49
4:A:1273:LEU:N	4:A:1273:LEU:HD12	2.28	0.49
4:A:381:THR:HG21	4:A:383:TYR:CD1	2.47	0.49
4:A:537:ARG:HH12	11:H:122:LEU:HG	1.77	0.49
4:A:711:ARG:NH1	12:I:95:THR:HB	2.27	0.49
4:A:909:ASP:C	4:A:911:SER:H	2.16	0.49
5:B:1156:ASP:HB3	5:B:1197:PRO:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:654:ARG:H	5:B:657:HIS:HD2	1.61	0.49
5:B:758:PHE:CZ	5:B:1031:LEU:HD22	2.48	0.49
5:B:806:THR:HG22	5:B:808:ALA:CB	2.43	0.49
5:B:973:ILE:HG23	5:B:974:PRO:HD2	1.95	0.49
6:C:191:TYR:CD2	6:C:201:TRP:CD1	3.01	0.49
6:C:258:ILE:N	6:C:258:ILE:HD12	2.28	0.49
11:H:40:LEU:HD22	11:H:123:MET:HE3	1.94	0.49
4:A:1305:VAL:HG12	4:A:1306:LEU:N	2.28	0.49
4:A:474:VAL:HG22	4:A:478:TYR:HE1	1.77	0.49
4:A:597:LEU:HD12	4:A:597:LEU:N	2.28	0.49
4:A:699:ALA:O	4:A:700:ASN:HB3	2.13	0.49
4:A:767:GLN:OE1	4:A:799:PHE:HB2	2.13	0.49
5:B:1068:GLY:O	5:B:1069:PHE:O	2.31	0.49
5:B:1202:LEU:HD23	5:B:1206:GLU:HG3	1.93	0.49
5:B:661:LEU:HD11	5:B:684:LEU:HD21	1.93	0.49
5:B:796:LEU:HD21	5:B:821:GLN:HE21	1.77	0.49
5:B:824:ILE:HG12	13:J:48:ARG:HH12	1.77	0.49
6:C:40:GLU:HA	6:C:163:ILE:CG2	2.43	0.49
7:D:202:ILE:CG2	7:D:207:LEU:HB2	2.43	0.49
7:D:47:LEU:HD11	10:G:3:PHE:CD2	2.48	0.49
12:I:100:PHE:N	12:I:100:PHE:HD1	2.11	0.49
4:A:105:CYS:O	4:A:114:LEU:HG	2.13	0.48
4:A:150:THR:O	4:A:150:THR:HG22	2.13	0.48
4:A:18:GLN:HB3	5:B:1215:ARG:HG3	1.93	0.48
4:A:416:ARG:HG3	4:A:417:TYR:CD2	2.48	0.48
4:A:655:PHE:O	4:A:658:LEU:HB3	2.13	0.48
5:B:181:LEU:HD22	5:B:189:LEU:HD22	1.95	0.48
5:B:652:LYS:HB3	5:B:689:LEU:CD2	2.43	0.48
5:B:894:ASP:HB2	15:L:58:LYS:HZ3	1.78	0.48
6:C:113:VAL:HG23	6:C:147:LEU:HD21	1.95	0.48
6:C:183:TRP:CE2	6:C:207:CYS:HB3	2.47	0.48
5:B:996:ARG:NH1	6:C:38:ILE:HG23	2.27	0.48
8:E:42:PHE:HZ	8:E:58:MET:CE	2.25	0.48
9:F:109:VAL:HG12	9:F:110:ASP:H	1.78	0.48
10:G:117:GLN:C	10:G:119:LEU:N	2.67	0.48
13:J:57:ILE:HA	13:J:60:PHE:CD2	2.34	0.48
15:L:52:GLY:O	15:L:54:ARG:N	2.46	0.48
15:L:70:ARG:HG2	15:L:70:ARG:NH1	2.27	0.48
2:N:5:DT:H2"	2:N:6:DA:OP2	2.13	0.48
4:A:1210:GLY:O	4:A:1214:GLU:HG2	2.13	0.48
4:A:244:PRO:O	4:A:247:ARG:N	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:285:PRO:CG	4:A:288:ALA:HB3	2.43	0.48
4:A:266:LEU:HD21	4:A:303:TYR:CE1	2.48	0.48
4:A:353:ILE:HB	4:A:470:LEU:HD23	1.96	0.48
4:A:35:ILE:O	4:A:35:ILE:HG22	2.11	0.48
4:A:722:LEU:HD21	4:A:794:PRO:HB3	1.95	0.48
4:A:912:LEU:O	4:A:979:SER:N	2.44	0.48
5:B:1034:VAL:HG12	5:B:1035:ALA:N	2.27	0.48
5:B:253:THR:HG22	5:B:254:LEU:N	2.27	0.48
5:B:265:SER:O	5:B:266:ALA:CB	2.61	0.48
5:B:435:THR:CG2	5:B:437:GLU:HB2	2.43	0.48
7:D:219:THR:HG22	7:D:220:LEU:O	2.13	0.48
7:D:51:ASN:O	7:D:52:LEU:O	2.31	0.48
7:D:59:ILE:HG21	7:D:145:MET:SD	2.53	0.48
8:E:168:TYR:CB	8:E:170:LEU:HG	2.43	0.48
10:G:25:TYR:CE2	10:G:29:LYS:HD2	2.48	0.48
11:H:127:GLY:HA3	11:H:130:ARG:NH2	2.28	0.48
11:H:62:SER:O	11:H:63:LEU:C	2.52	0.48
12:I:55:THR:HG22	12:I:58:VAL:CG2	2.44	0.48
14:K:47:ARG:O	14:K:47:ARG:HD2	2.13	0.48
4:A:470:LEU:HD22	4:A:487:MET:HE3	1.94	0.48
4:A:921:GLY:O	4:A:922:ASP:C	2.51	0.48
5:B:95:ILE:CG1	5:B:130:VAL:HG22	2.42	0.48
5:B:840:ILE:HD13	5:B:994:TYR:CE1	2.49	0.48
5:B:942:ARG:O	5:B:944:THR:N	2.46	0.48
7:D:144:THR:HG21	10:G:46:LEU:HD13	1.95	0.48
7:D:47:LEU:CD1	10:G:3:PHE:HD2	2.26	0.48
9:F:81:THR:HB	9:F:136:ARG:NH1	2.28	0.48
11:H:128:ASN:CG	11:H:128:ASN:O	2.51	0.48
1:T:24:DT:H2''	1:T:25:DC:C5'	2.44	0.48
1:T:26:DA:H2''	1:T:27:DT:O5'	2.11	0.48
4:A:1115:SER:O	4:A:1311:VAL:HG22	2.14	0.48
4:A:1441:PHE:CZ	9:F:89:GLU:HA	2.48	0.48
4:A:441:PRO:HD2	4:A:498:ARG:CZ	2.43	0.48
4:A:444:PHE:HB3	4:A:458:HIS:CD2	2.49	0.48
5:B:827:ILE:O	5:B:1085:ILE:HG23	2.13	0.48
5:B:1132:GLU:O	5:B:1135:ARG:HB3	2.13	0.48
5:B:56:ASP:CB	5:B:57:TYR:HD1	2.26	0.48
5:B:769:TYR:O	5:B:772:ALA:N	2.45	0.48
6:C:132:PRO:O	6:C:134:ILE:HG13	2.14	0.48
6:C:215:GLU:O	6:C:216:GLY:C	2.51	0.48
11:H:139:ASN:O	11:H:140:ALA:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:34:TYR:C	12:I:34:TYR:CD2	2.87	0.48
4:A:1007:ILE:O	4:A:1010:ALA:N	2.46	0.48
4:A:1437:GLY:HA3	9:F:88:TYR:CD2	2.49	0.48
4:A:41:MET:O	4:A:50:ILE:HG13	2.14	0.48
4:A:44:THR:O	4:A:45:GLN:CB	2.62	0.48
4:A:663:SER:HA	5:B:1014:PRO:HB3	1.95	0.48
5:B:63:ILE:HA	5:B:421:PHE:CE2	2.49	0.48
6:C:142:VAL:O	6:C:142:VAL:HG12	2.13	0.48
7:D:12:ARG:HH21	7:D:12:ARG:CB	2.22	0.48
11:H:8:ASP:HB3	11:H:10:PHE:CE1	2.49	0.48
4:A:567:LYS:HD3	11:H:95:TYR:HA	1.95	0.48
12:I:29:CYS:SG	12:I:32:CYS:SG	3.12	0.48
4:A:1242:VAL:HG12	4:A:1243:VAL:N	2.21	0.48
4:A:1385:THR:HG22	4:A:1386:ARG:N	2.29	0.48
5:B:65:GLU:HG3	5:B:66:ASP:OD1	2.13	0.48
5:B:843:GLN:O	5:B:846:ILE:HB	2.14	0.48
6:C:184:ASN:ND2	6:C:187:LYS:HA	2.29	0.48
8:E:39:LEU:O	8:E:42:PHE:HB3	2.12	0.48
9:F:97:ARG:HG3	9:F:101:ILE:HD11	1.95	0.48
10:G:88:ASP:HB3	10:G:144:ARG:HA	1.95	0.48
12:I:15:TYR:CD1	12:I:15:TYR:N	2.82	0.48
13:J:8:PHE:N	13:J:49:MET:HE3	2.24	0.48
4:A:1134:ILE:O	4:A:1138:ILE:HG13	2.13	0.48
4:A:116:ASP:O	4:A:118:HIS:N	2.47	0.48
4:A:289:ILE:C	4:A:291:GLU:H	2.17	0.48
5:B:1002:THR:O	5:B:1005:GLY:N	2.43	0.48
5:B:51:PHE:CD2	5:B:173:MET:HB3	2.48	0.48
5:B:521:LEU:HD13	5:B:633:VAL:HG12	1.95	0.48
5:B:589:VAL:CG1	5:B:590:HIS:H	2.04	0.48
5:B:654:ARG:NH1	5:B:654:ARG:HG3	2.28	0.48
10:G:14:HIS:CD2	10:G:16:SER:CB	2.96	0.48
11:H:101:ALA:HB2	11:H:116:TYR:CE1	2.49	0.48
14:K:85:ASP:O	14:K:88:LYS:HB2	2.13	0.48
15:L:33:GLU:OE2	15:L:55:ILE:HD11	2.14	0.48
4:A:1076:ALA:HA	4:A:1079:MET:HE3	1.95	0.48
4:A:1389:PHE:CD1	4:A:1390:ASN:N	2.82	0.48
4:A:19:PHE:HB3	4:A:1413:GLY:CA	2.43	0.48
4:A:666:ILE:HD12	4:A:667:GLY:N	2.26	0.48
4:A:836:TYR:CD2	4:A:840:ARG:HD2	2.49	0.48
4:A:886:ILE:HG13	4:A:943:LEU:CD1	2.43	0.48
5:B:1156:ASP:O	5:B:1157:ALA:O	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:309:GLN:O	5:B:312:GLU:HB3	2.13	0.48
7:D:16:LYS:H	7:D:16:LYS:HD3	1.78	0.48
4:A:1444:MET:HE1	9:F:135:ARG:HB2	1.95	0.48
11:H:44:VAL:HG13	11:H:48:PRO:HA	1.96	0.48
4:A:1162:VAL:HG12	4:A:1162:VAL:O	2.14	0.48
4:A:1279:ILE:HD11	4:A:1316:VAL:HG22	1.95	0.48
4:A:699:ALA:O	4:A:700:ASN:CB	2.61	0.48
4:A:35:ILE:HD12	4:A:83:HIS:O	2.13	0.48
4:A:898:ARG:O	4:A:1029:ARG:NH1	2.46	0.48
5:B:1174:LYS:O	5:B:1176:ASN:N	2.47	0.48
5:B:261:ARG:HB3	5:B:261:ARG:NH1	2.29	0.48
5:B:314:LEU:O	5:B:317:CYS:HB3	2.14	0.48
5:B:683:SER:O	5:B:687:GLU:HB2	2.14	0.48
6:C:6:PRO:CB	6:C:25:VAL:HG12	2.41	0.48
12:I:50:THR:HG22	12:I:52:ILE:H	1.79	0.48
15:L:52:GLY:O	15:L:53:HIS:C	2.51	0.48
3:P:8:A:C2'	3:P:9:G:H5'	2.44	0.48
4:A:939:ASP:OD2	4:A:1020:CYS:HA	2.14	0.48
4:A:1120:LEU:N	4:A:1120:LEU:HD12	2.29	0.48
4:A:1162:VAL:HG11	12:I:41:PRO:HG3	1.96	0.48
4:A:224:PHE:CE1	4:A:231:PRO:HG3	2.49	0.48
4:A:622:VAL:HG13	4:A:622:VAL:O	2.14	0.48
5:B:1183:LYS:CE	5:B:1183:LYS:N	2.76	0.48
5:B:280:ILE:CG2	5:B:285:ILE:HG13	2.43	0.48
5:B:863:GLU:O	5:B:961:LEU:HD22	2.14	0.48
7:D:151:PHE:CE2	10:G:89:GLY:HA2	2.49	0.48
14:K:7:PHE:HA	14:K:10:PHE:HE2	1.76	0.48
3:P:5:A:H2'	3:P:6:G:C8	2.49	0.48
4:A:1094:VAL:HG12	4:A:1095:THR:N	2.29	0.47
4:A:148:CYS:HB3	4:A:168:GLY:HA2	1.96	0.47
4:A:218:ASP:HA	4:A:221:SER:OG	2.14	0.47
4:A:22:PHE:HB2	5:B:1211:ASN:ND2	2.28	0.47
4:A:474:VAL:HG22	4:A:474:VAL:O	2.13	0.47
4:A:72:GLU:O	4:A:73:GLY:O	2.32	0.47
4:A:809:THR:O	4:A:813:PHE:N	2.37	0.47
4:A:92:HIS:O	4:A:93:VAL:C	2.52	0.47
5:B:1183:LYS:HE3	5:B:1183:LYS:O	2.14	0.47
5:B:25:ILE:HG23	5:B:658:ILE:HD11	1.96	0.47
5:B:806:THR:HG22	5:B:808:ALA:HB3	1.96	0.47
6:C:166:GLU:O	6:C:167:HIS:HB2	2.14	0.47
11:H:40:LEU:CD1	11:H:123:MET:HB2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:6:ARG:C	14:K:8:GLU:H	2.16	0.47
15:L:28:LYS:HG3	15:L:39:SER:OG	2.13	0.47
15:L:40:LEU:CD1	15:L:44:ASP:HB3	2.44	0.47
4:A:1019:CYS:O	4:A:1022:LEU:N	2.47	0.47
4:A:361:LEU:HD12	4:A:474:VAL:HB	1.96	0.47
4:A:445:ASN:HB2	4:A:455:MET:HG2	1.96	0.47
5:B:190:TYR:CD2	13:J:62:ARG:HB3	2.49	0.47
5:B:300:HIS:O	5:B:303:TYR:HE2	1.97	0.47
5:B:611:PRO:CB	5:B:685:LEU:HD11	2.41	0.47
6:C:112:ASN:HB2	6:C:114:TYR:CE1	2.49	0.47
10:G:66:GLY:O	10:G:67:SER:C	2.52	0.47
11:H:118:PHE:N	11:H:118:PHE:CD1	2.82	0.47
11:H:135:LEU:HD13	11:H:137:GLN:NE2	2.28	0.47
11:H:4:THR:HG22	11:H:5:LEU:H	1.79	0.47
4:A:1316:VAL:HG12	4:A:1316:VAL:O	2.13	0.47
1:T:16:DG:H5"	4:A:1403:GLU:HG2	1.95	0.47
4:A:335:ARG:NH1	5:B:1202:LEU:HD22	2.30	0.47
4:A:365:GLY:O	4:A:468:PHE:HA	2.13	0.47
4:A:399:HIS:CB	4:A:400:PRO:CD	2.86	0.47
4:A:382:PRO:HD3	4:A:428:TYR:CD2	2.49	0.47
4:A:626:ASN:O	4:A:631:HIS:HD2	1.97	0.47
4:A:811:GLN:O	4:A:812:GLU:C	2.53	0.47
4:A:946:VAL:HG22	8:E:201:LYS:HD2	1.95	0.47
5:B:269:ILE:HG22	5:B:282:ILE:HG23	1.94	0.47
5:B:604:ARG:NH2	5:B:613:VAL:O	2.48	0.47
6:C:209:TYR:N	6:C:209:TYR:CD1	2.76	0.47
12:I:105:SER:O	12:I:106:CYS:HB3	2.14	0.47
12:I:4:PHE:CD1	12:I:4:PHE:C	2.88	0.47
13:J:16:ASP:O	13:J:18:TRP:N	2.47	0.47
6:C:175:ALA:HB1	13:J:43:ARG:NH1	2.30	0.47
4:A:1030:ARG:NH1	4:A:1035:TYR:OH	2.48	0.47
4:A:1220:PHE:CE2	4:A:1263:ILE:HG23	2.49	0.47
4:A:626:ASN:C	4:A:628:GLY:H	2.16	0.47
4:A:996:ASN:C	4:A:998:LEU:HD12	2.35	0.47
4:A:1409:LEU:HD13	5:B:1207:LEU:CD2	2.43	0.47
5:B:293:PRO:HG2	5:B:296:GLU:CB	2.44	0.47
5:B:90:ILE:CD1	5:B:432:MET:SD	3.02	0.47
5:B:796:LEU:HD11	5:B:821:GLN:NE2	2.29	0.47
5:B:840:ILE:HB	5:B:1011:ILE:HB	1.96	0.47
6:C:52:GLU:CD	6:C:154:LYS:HD2	2.34	0.47
7:D:176:GLU:O	7:D:178:ALA:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:34:GLN:C	7:D:36:LYS:N	2.67	0.47
8:E:43:LYS:O	8:E:45:LYS:N	2.45	0.47
9:F:93:ILE:HD11	9:F:134:ILE:CD1	2.37	0.47
10:G:138:THR:HG22	10:G:139:ILE:HG13	1.96	0.47
10:G:44:TYR:O	10:G:78:VAL:HA	2.13	0.47
12:I:92:ARG:HG2	12:I:94:ASP:OD1	2.14	0.47
13:J:23:ASN:C	13:J:25:LEU:N	2.66	0.47
13:J:7:CYS:HA	13:J:49:MET:HE3	1.97	0.47
2:N:6:DA:O5'	2:N:6:DA:H2'	2.14	0.47
4:A:1261:LYS:O	4:A:1264:GLU:HB3	2.13	0.47
4:A:1436:ILE:O	4:A:1437:GLY:C	2.51	0.47
4:A:961:ARG:HG2	4:A:965:GLN:HE21	1.79	0.47
5:B:167:ILE:O	5:B:167:ILE:HG22	2.15	0.47
5:B:401:PHE:HB2	5:B:517:THR:OG1	2.14	0.47
5:B:29:ASP:HB3	5:B:658:ILE:CD1	2.44	0.47
5:B:781:PHE:HE2	5:B:793:ALA:HB1	1.79	0.47
7:D:191:ALA:O	7:D:193:THR:N	2.47	0.47
8:E:19:VAL:HG11	8:E:80:VAL:HG11	1.96	0.47
12:I:80:SER:CB	12:I:103:CYS:SG	3.02	0.47
12:I:49:ILE:HG22	12:I:49:ILE:O	2.13	0.47
15:L:38:LEU:HD11	15:L:49:LYS:HE2	1.95	0.47
4:A:873:MET:C	4:A:1058:VAL:CG2	2.83	0.47
4:A:24:PRO:HD2	4:A:233:TRP:NE1	2.29	0.47
4:A:404:TYR:HB2	4:A:433:GLU:HB2	1.97	0.47
4:A:444:PHE:HB2	4:A:458:HIS:HD2	1.80	0.47
4:A:466:SER:CA	14:K:2:ASN:HD22	2.28	0.47
4:A:623:GLY:C	4:A:625:SER:H	2.17	0.47
4:A:738:LYS:HB2	4:A:740:LEU:HG	1.96	0.47
4:A:853:ASP:OD1	4:A:855:THR:N	2.47	0.47
5:B:37:PHE:CE2	5:B:542:MET:HA	2.50	0.47
5:B:575:PRO:HG2	5:B:576:ASP:H	1.78	0.47
5:B:680:THR:O	5:B:684:LEU:CD1	2.63	0.47
5:B:847:ASP:C	5:B:849:GLY:N	2.67	0.47
7:D:19:GLU:O	7:D:21:GLU:N	2.48	0.47
12:I:83:ASN:HA	12:I:102:VAL:O	2.14	0.47
1:T:20:DC:H2''	1:T:21:DT:C5'	2.44	0.47
4:A:1280:GLU:O	4:A:1282:VAL:HG23	2.15	0.47
4:A:1364:ASN:HD22	4:A:1365:TYR:N	2.13	0.47
4:A:1373:ASP:CA	4:A:1376:THR:HG22	2.44	0.47
4:A:310:GLY:O	4:A:312:PRO:HD2	2.14	0.47
4:A:591:PHE:HA	4:A:595:THR:CG2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:993:LEU:HD23	4:A:1022:LEU:HD21	1.95	0.47
4:A:15:LYS:HD3	5:B:1220:ARG:HH21	1.80	0.47
5:B:857:ARG:HD2	5:B:945:GLU:OE1	2.15	0.47
6:C:174:ALA:HA	13:J:10:CYS:O	2.15	0.47
4:A:1389:PHE:CZ	4:A:1402:PHE:CE2	3.02	0.47
4:A:23:SER:O	4:A:25:GLU:N	2.47	0.47
4:A:808:LEU:HD23	4:A:813:PHE:CA	2.40	0.47
4:A:899:VAL:CG2	4:A:908:LEU:HD21	2.45	0.47
4:A:947:PHE:CD2	4:A:954:TRP:CZ2	3.02	0.47
5:B:465:ASN:N	5:B:465:ASN:ND2	2.63	0.47
5:B:909:ASP:OD1	5:B:909:ASP:N	2.47	0.47
5:B:953:LEU:O	5:B:953:LEU:HD23	2.14	0.47
6:C:105:GLY:O	6:C:149:LYS:O	2.32	0.47
10:G:101:VAL:CG1	10:G:102:GLN:N	2.77	0.47
10:G:1:MET:HG2	10:G:85:GLU:OE1	2.14	0.47
4:A:340:LEU:HD13	4:A:1429:ILE:HG23	1.97	0.47
4:A:244:PRO:CB	4:A:245:PRO:HD3	2.45	0.47
5:B:435:THR:C	5:B:437:GLU:N	2.66	0.47
5:B:824:ILE:O	5:B:824:ILE:HG22	2.14	0.47
5:B:970:THR:HG22	5:B:971:THR:N	2.30	0.47
9:F:82:THR:CG2	9:F:84:TYR:H	2.18	0.47
12:I:106:CYS:O	12:I:107:SER:CB	2.62	0.47
14:K:57:LEU:HD12	14:K:77:THR:O	2.15	0.47
4:A:547:LEU:HD22	14:K:58:PHE:HD1	1.76	0.47
15:L:38:LEU:CD1	15:L:49:LYS:HE2	2.45	0.47
4:A:1205:LYS:O	4:A:1206:ASP:C	2.54	0.47
4:A:1315:GLU:C	4:A:1317:MET:H	2.18	0.47
4:A:14:VAL:HG21	5:B:1216:LEU:CD1	2.44	0.47
4:A:377:PRO:HD3	4:A:493:GLN:OE1	2.14	0.47
4:A:384:ASN:O	4:A:386:ASP:N	2.47	0.47
4:A:472:LEU:O	4:A:475:THR:HB	2.15	0.47
4:A:528:LEU:HD23	4:A:751:SER:HA	1.96	0.47
5:B:29:ASP:CG	5:B:658:ILE:HD13	2.35	0.47
5:B:360:PHE:CD2	5:B:360:PHE:C	2.88	0.47
5:B:376:PHE:CE2	5:B:569:TYR:HD2	2.33	0.47
5:B:798:TYR:CD2	5:B:798:TYR:N	2.82	0.47
6:C:46:ILE:HG23	6:C:157:CYS:HB3	1.96	0.47
6:C:69:LEU:N	6:C:69:LEU:CD1	2.78	0.47
7:D:24:ALA:C	7:D:26:THR:H	2.18	0.47
10:G:125:SER:OG	10:G:128:PRO:HA	2.14	0.47
11:H:100:THR:CG2	11:H:101:ALA:N	2.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1362:TYR:CD1	4:A:1363:VAL:N	2.83	0.47
4:A:618:GLU:O	4:A:621:THR:N	2.36	0.47
4:A:737:LEU:HA	4:A:737:LEU:HD23	1.69	0.47
4:A:871:ASP:OD2	4:A:873:MET:HB2	2.15	0.47
5:B:1007:VAL:CG2	5:B:1008:PRO:HD2	2.45	0.47
4:A:351:THR:CB	5:B:1103:ILE:HD12	2.44	0.47
5:B:1160:VAL:CG1	5:B:1161:HIS:N	2.78	0.47
5:B:1201:LYS:HE2	5:B:1205:GLN:CD	2.35	0.47
5:B:118:ARG:HH11	5:B:204:ILE:HD11	1.80	0.47
5:B:844:SER:O	5:B:847:ASP:HB2	2.14	0.47
5:B:986:GLN:OE1	5:B:986:GLN:HA	2.13	0.47
8:E:157:SER:C	8:E:159:ASP:N	2.68	0.47
8:E:94:LYS:HG3	8:E:98:ILE:HD11	1.97	0.47
11:H:11:GLN:HA	11:H:53:ASP:O	2.15	0.47
15:L:40:LEU:HB3	15:L:41:SER:H	1.52	0.47
4:A:247:ARG:HG3	4:A:247:ARG:HH11	1.81	0.46
4:A:252:PHE:O	4:A:253:ASN:CB	2.63	0.46
4:A:862:ASN:HA	8:E:174:GLN:HB3	1.97	0.46
4:A:757:ASN:HA	5:B:1021:MET:SD	2.55	0.46
5:B:1138:MET:HA	5:B:1138:MET:CE	2.45	0.46
5:B:230:ALA:N	5:B:231:PRO:HD2	2.30	0.46
5:B:293:PRO:CG	5:B:296:GLU:OE1	2.63	0.46
5:B:90:ILE:HD11	5:B:432:MET:SD	2.55	0.46
6:C:77:ILE:C	6:C:79:GLN:H	2.18	0.46
8:E:164:LEU:HD11	8:E:211:TYR:CE1	2.50	0.46
8:E:90:VAL:O	8:E:90:VAL:HG22	2.15	0.46
8:E:94:LYS:HG3	8:E:98:ILE:CD1	2.45	0.46
4:A:1438:THR:HG22	9:F:92:ARG:HD2	1.97	0.46
11:H:24:CYS:HB2	11:H:44:VAL:HG21	1.96	0.46
12:I:8:ARG:CG	12:I:34:TYR:HE1	2.26	0.46
12:I:5:ARG:HG2	12:I:6:PHE:O	2.15	0.46
4:A:1029:ARG:HG3	4:A:1029:ARG:HH11	1.80	0.46
4:A:1280:GLU:O	4:A:1281:ARG:C	2.53	0.46
4:A:469:ARG:HB3	4:A:469:ARG:HH11	1.80	0.46
4:A:596:THR:C	4:A:598:LEU:N	2.69	0.46
5:B:181:LEU:HD22	5:B:189:LEU:CD2	2.45	0.46
5:B:388:CYS:O	5:B:391:ASP:N	2.43	0.46
5:B:38:PHE:CD1	5:B:811:TYR:CD2	3.04	0.46
5:B:40:GLU:HG2	5:B:40:GLU:O	2.14	0.46
4:A:315:LEU:HD13	5:B:471:LYS:HB3	1.97	0.46
5:B:616:ILE:CD1	5:B:616:ILE:N	2.76	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:957:ASN:O	5:B:958:GLN:C	2.53	0.46
10:G:87:VAL:HG21	10:G:103:VAL:HG11	1.97	0.46
10:G:79:PHE:HE2	10:G:105:PRO:CG	2.28	0.46
4:A:1072:ILE:HD11	4:A:1368:MET:HG2	1.97	0.46
4:A:332:LYS:H	4:A:337:ARG:HB3	1.79	0.46
4:A:349:ALA:C	5:B:1128:LEU:HD11	2.35	0.46
4:A:500:GLU:OE2	4:A:1438:THR:HG21	2.15	0.46
4:A:629:LEU:O	4:A:633:VAL:HG23	2.15	0.46
4:A:665:GLY:O	4:A:667:GLY:N	2.48	0.46
4:A:726:ARG:O	4:A:729:ALA:HB3	2.14	0.46
5:B:1001:PHE:CE2	6:C:34:ARG:CZ	2.99	0.46
5:B:1034:VAL:HG21	5:B:1055:ILE:HG23	1.96	0.46
5:B:1142:GLY:C	5:B:1144:ALA:H	2.18	0.46
5:B:121:ASN:OD1	5:B:963:PHE:HZ	1.99	0.46
5:B:212:LEU:HD12	5:B:409:ALA:HB1	1.98	0.46
5:B:43:LEU:HD11	5:B:811:TYR:O	2.15	0.46
5:B:603:LEU:HB3	5:B:609:ILE:CG1	2.46	0.46
5:B:664:THR:HG23	5:B:678:GLU:N	2.29	0.46
5:B:94:LYS:HG2	5:B:95:ILE:H	1.78	0.46
6:C:43:THR:CG2	6:C:44:LEU:N	2.64	0.46
8:E:29:PHE:O	8:E:30:ILE:HG13	2.15	0.46
6:C:66:ARG:CZ	13:J:2:ILE:HG21	2.44	0.46
13:J:48:ARG:C	13:J:48:ARG:HD2	2.35	0.46
1:T:11:DT:C2'	1:T:12:DA:H5'	2.46	0.46
4:A:713:SER:O	4:A:717:ASN:ND2	2.49	0.46
4:A:971:PHE:HE2	4:A:1040:GLN:HG2	1.81	0.46
5:B:1125:ASP:O	5:B:1126:GLY:O	2.34	0.46
5:B:1167:GLY:H	5:B:1217:TYR:HE1	1.64	0.46
5:B:593:PRO:O	5:B:594:ALA:C	2.53	0.46
5:B:580:VAL:HG13	5:B:624:LEU:HB3	1.97	0.46
6:C:27:LEU:O	6:C:30:ALA:N	2.49	0.46
6:C:69:LEU:H	6:C:69:LEU:CD1	2.28	0.46
6:C:6:PRO:HB3	6:C:25:VAL:CG1	2.41	0.46
8:E:85:GLU:O	8:E:88:VAL:HG23	2.15	0.46
12:I:29:CYS:SG	12:I:31:THR:HB	2.56	0.46
4:A:854:ASN:HB2	4:A:1000:LEU:HD21	1.96	0.46
4:A:210:ILE:O	4:A:214:ILE:HG13	2.14	0.46
4:A:253:ASN:HB3	5:B:935:ARG:NH2	2.31	0.46
4:A:264:PHE:O	4:A:267:ALA:HB3	2.15	0.46
4:A:528:LEU:HD23	4:A:751:SER:CA	2.46	0.46
4:A:65:LEU:O	4:A:66:LYS:C	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1166:CYS:O	5:B:1166:CYS:SG	2.74	0.46
5:B:29:ASP:HB3	5:B:658:ILE:HD13	1.98	0.46
5:B:641:GLU:HA	5:B:641:GLU:OE1	2.15	0.46
5:B:871:THR:HG22	5:B:872:GLU:N	2.30	0.46
6:C:189:THR:HG22	6:C:190:ASP:N	2.31	0.46
6:C:18:VAL:HG23	6:C:240:VAL:HB	1.96	0.46
9:F:75:PRO:O	9:F:77:ASP:O	2.32	0.46
4:A:1000:LEU:HD23	4:A:1000:LEU:HA	1.81	0.46
4:A:1349:TYR:N	4:A:1372:VAL:HG21	2.31	0.46
4:A:206:GLU:O	4:A:210:ILE:HG13	2.16	0.46
4:A:512:VAL:HA	4:A:519:PRO:HA	1.97	0.46
4:A:608:ILE:HD12	4:A:613:ILE:CD1	2.45	0.46
4:A:65:LEU:O	4:A:66:LYS:O	2.34	0.46
5:B:102:VAL:O	5:B:109:THR:HA	2.16	0.46
5:B:1034:VAL:O	5:B:1037:LEU:N	2.45	0.46
5:B:283:VAL:O	5:B:286:PHE:N	2.49	0.46
5:B:31:TRP:HA	5:B:31:TRP:CE3	2.50	0.46
5:B:555:ILE:HD11	5:B:587:HIS:CE1	2.51	0.46
7:D:156:ASP:C	7:D:158:GLU:H	2.19	0.46
8:E:93:MET:SD	8:E:97:VAL:HG23	2.55	0.46
11:H:4:THR:O	11:H:5:LEU:HD23	2.16	0.46
5:B:797:TYR:O	13:J:1:MET:HG2	2.15	0.46
4:A:1437:GLY:CA	9:F:88:TYR:CD2	2.99	0.46
4:A:218:ASP:O	4:A:219:PHE:C	2.53	0.46
4:A:265:LYS:HE2	4:A:322:VAL:HG11	1.98	0.46
5:B:165:VAL:HG11	5:B:448:ILE:CD1	2.46	0.46
5:B:361:LEU:HD11	5:B:377:PHE:CD2	2.50	0.46
5:B:39:ARG:NH2	5:B:665:GLU:CD	2.69	0.46
5:B:903:VAL:O	5:B:948:ILE:HG23	2.16	0.46
6:C:125:MET:HB2	6:C:127:ARG:HH21	1.81	0.46
6:C:77:ILE:CG2	6:C:161:LYS:HE3	2.45	0.46
11:H:128:ASN:O	11:H:128:ASN:OD1	2.34	0.46
14:K:107:THR:O	14:K:111:LEU:HG	2.16	0.46
4:A:1239:ARG:HB3	4:A:1239:ARG:NH1	2.31	0.46
4:A:416:ARG:HG3	4:A:417:TYR:CE2	2.51	0.46
4:A:556:TRP:CZ3	4:A:558:GLY:HA2	2.51	0.46
4:A:738:LYS:C	4:A:740:LEU:H	2.19	0.46
4:A:75:ASN:O	4:A:76:GLU:HB3	2.15	0.46
4:A:806:ARG:NH1	5:B:729:ILE:HG13	2.31	0.46
7:D:27:LEU:HD13	7:D:173:HIS:CD2	2.50	0.46
7:D:185:CYS:HB2	7:D:211:LEU:HD22	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:7:THR:HB	10:G:42:PHE:HZ	1.77	0.46
8:E:55:ARG:C	8:E:57:MET:N	2.69	0.46
8:E:46:TYR:CD2	8:E:58:MET:HG2	2.51	0.46
4:A:351:THR:HB	5:B:1103:ILE:HD11	1.97	0.46
4:A:61:ILE:CG2	4:A:62:ASP:H	2.22	0.46
4:A:909:ASP:O	4:A:911:SER:N	2.49	0.46
5:B:227:LYS:HB2	5:B:395:GLN:OE1	2.16	0.46
5:B:758:PHE:HB2	5:B:1024:ALA:HB1	1.98	0.46
5:B:893:LEU:HD22	5:B:897:GLY:C	2.36	0.46
5:B:980:PHE:HE2	5:B:1094:ARG:HB2	1.81	0.46
7:D:153:ARG:HB3	7:D:154:PHE:CD1	2.51	0.46
8:E:20:LYS:NZ	8:E:60:PHE:HE1	2.13	0.46
11:H:138:GLU:O	11:H:139:ASN:C	2.53	0.46
12:I:69:PRO:HG2	12:I:85:PHE:CD2	2.50	0.46
4:A:128:ILE:O	4:A:134:ARG:HG3	2.16	0.46
4:A:259:GLU:OE1	4:A:263:THR:HG21	2.16	0.46
4:A:298:PHE:HD2	4:A:299:HIS:N	2.13	0.46
4:A:346:ASP:CG	5:B:1108:ARG:HA	2.36	0.46
4:A:683:ILE:HG21	4:A:801:GLU:CG	2.45	0.46
4:A:711:ARG:O	4:A:714:PHE:HB3	2.15	0.46
4:A:960:ILE:CA	4:A:963:ILE:HG22	2.41	0.46
4:A:10:PRO:HD2	5:B:1191:ILE:O	2.16	0.46
5:B:221:ASN:OD1	5:B:242:SER:HA	2.16	0.46
5:B:228:LYS:O	5:B:229:ALA:O	2.34	0.46
5:B:412:LEU:HB3	5:B:466:TRP:CZ2	2.51	0.46
5:B:555:ILE:HG22	5:B:556:THR:N	2.31	0.46
5:B:591:ARG:O	5:B:593:PRO:HD3	2.16	0.46
5:B:780:VAL:HG21	13:J:56:LEU:CD1	2.46	0.46
5:B:825:VAL:HG21	5:B:1092:TYR:HE1	1.80	0.46
5:B:883:LEU:O	5:B:885:MET:N	2.49	0.46
5:B:975:GLN:HG2	5:B:976:ILE:N	2.31	0.46
7:D:138:ASN:OD1	7:D:141:LEU:HB2	2.15	0.46
12:I:12:ASN:HB3	12:I:13:MET:H	1.55	0.46
14:K:55:LYS:HB3	14:K:81:TYR:CE1	2.51	0.46
4:A:254:GLU:HB2	5:B:935:ARG:HH12	1.80	0.45
4:A:92:HIS:O	4:A:95:PHE:N	2.46	0.45
5:B:118:ARG:CG	5:B:204:ILE:HD13	2.46	0.45
5:B:520:GLY:HA2	5:B:748:ILE:HG22	1.98	0.45
5:B:764:SER:HB3	5:B:765:PRO:CD	2.46	0.45
5:B:863:GLU:OE1	5:B:962:LYS:HD2	2.16	0.45
10:G:1:MET:CE	10:G:1:MET:O	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:31:THR:O	11:H:31:THR:HG22	2.16	0.45
12:I:80:SER:OG	12:I:105:SER:HB2	2.16	0.45
2:N:1:DC:H1'	2:N:2:DA:H5'	1.98	0.45
2:N:3:DA:H1'	2:N:4:DG:H5'	1.97	0.45
4:A:1195:LEU:HD11	4:A:1267:MET:CE	2.45	0.45
4:A:1397:LEU:HB2	4:A:1426:GLU:OE1	2.16	0.45
4:A:252:PHE:O	4:A:256:GLN:NE2	2.49	0.45
4:A:340:LEU:CD2	5:B:1199:ALA:HB3	2.47	0.45
4:A:474:VAL:C	4:A:477:PRO:HD2	2.35	0.45
4:A:573:SER:O	4:A:576:GLN:HB2	2.14	0.45
5:B:1040:ASN:O	5:B:1042:GLY:N	2.50	0.45
5:B:778:MET:HE1	5:B:1094:ARG:HD3	1.95	0.45
5:B:240:ILE:HG22	5:B:254:LEU:HB3	1.98	0.45
5:B:324:ILE:CG2	5:B:325:GLN:N	2.79	0.45
5:B:745:PRO:C	5:B:747:MET:N	2.69	0.45
4:A:254:GLU:HB2	5:B:935:ARG:HH22	1.81	0.45
7:D:12:ARG:O	7:D:14:ARG:HG3	2.16	0.45
4:A:203:SER:OG	4:A:206:GLU:HB2	2.17	0.45
4:A:347:PHE:H	5:B:1107:ALA:HA	1.80	0.45
4:A:464:PRO:O	4:A:465:TYR:O	2.35	0.45
4:A:577:ILE:O	4:A:579:SER:N	2.48	0.45
4:A:913:LEU:HD21	4:A:915:SER:OG	2.15	0.45
5:B:1004:GLU:HB2	5:B:1006:ILE:HG13	1.97	0.45
5:B:1162:ILE:HD11	5:B:1194:ILE:CD1	2.43	0.45
5:B:1161:HIS:NE2	5:B:1175:LEU:HD21	2.31	0.45
5:B:126:SER:CB	5:B:172:ILE:HD11	2.45	0.45
5:B:521:LEU:HB3	5:B:633:VAL:CG1	2.42	0.45
5:B:593:PRO:HG2	5:B:617:ARG:CZ	2.45	0.45
5:B:750:GLY:O	5:B:751:VAL:C	2.54	0.45
8:E:55:ARG:C	8:E:57:MET:H	2.19	0.45
10:G:30:LEU:HD22	10:G:72:VAL:HG11	1.97	0.45
14:K:12:LEU:HD12	14:K:12:LEU:N	2.29	0.45
2:N:2:DA:H2''	2:N:3:DA:OP2	2.15	0.45
4:A:1095:THR:HG21	4:A:1103:GLU:OE1	2.16	0.45
4:A:1323:ASP:C	4:A:1325:THR:N	2.70	0.45
4:A:399:HIS:O	4:A:401:GLY:N	2.49	0.45
4:A:650:GLN:HB3	4:A:654:ASN:HD21	1.82	0.45
4:A:898:ARG:HB2	4:A:933:TYR:CE1	2.52	0.45
5:B:1202:LEU:O	5:B:1206:GLU:HG3	2.16	0.45
5:B:32:ALA:O	5:B:35:SER:HB2	2.16	0.45
5:B:39:ARG:HG2	5:B:39:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:G:132:SER:HB3	10:G:135:ASP:HB2	1.97	0.45
11:H:95:TYR:CE2	11:H:97:MET:HG3	2.52	0.45
13:J:19:GLU:O	13:J:23:ASN:HB2	2.16	0.45
1:T:18:DC:H5'	4:A:832:ALA:O	2.17	0.45
4:A:1438:THR:CB	5:B:1144:ALA:HB3	2.27	0.45
5:B:844:SER:O	5:B:847:ASP:N	2.46	0.45
6:C:252:GLN:CG	14:K:95:ILE:HG23	2.46	0.45
7:D:29:LEU:O	7:D:30:GLY:C	2.52	0.45
8:E:22:MET:CE	8:E:26:ARG:HE	2.30	0.45
10:G:108:VAL:HG13	10:G:159:ALA:O	2.17	0.45
12:I:32:CYS:SG	12:I:33:SER:N	2.89	0.45
14:K:31:VAL:CG1	14:K:32:VAL:N	2.80	0.45
14:K:58:PHE:CE2	14:K:74:ARG:NE	2.76	0.45
4:A:552:TRP:NE1	14:K:62:LYS:HB3	2.31	0.45
4:A:313:GLN:O	4:A:314:ALA:HB3	2.16	0.45
4:A:666:ILE:HD12	4:A:666:ILE:N	2.32	0.45
4:A:73:GLY:O	4:A:75:ASN:N	2.50	0.45
4:A:889:SER:HB3	4:A:1297:GLU:HG2	1.98	0.45
5:B:1160:VAL:HG12	5:B:1161:HIS:N	2.32	0.45
5:B:131:ASP:HA	5:B:164:LYS:HB3	1.97	0.45
5:B:189:LEU:HD12	5:B:196:PRO:HA	1.99	0.45
5:B:212:LEU:HD12	5:B:409:ALA:CB	2.47	0.45
5:B:449:ASN:O	5:B:451:LYS:N	2.50	0.45
5:B:53:GLN:HG2	5:B:547:VAL:CG2	2.38	0.45
6:C:143:LEU:HD21	6:C:146:LYS:CE	2.47	0.45
6:C:76:ASP:OD2	6:C:128:ASN:N	2.48	0.45
7:D:195:ILE:CG2	7:D:198:LEU:HG	2.46	0.45
10:G:45:ILE:HD13	10:G:78:VAL:HG13	1.98	0.45
14:K:53:ASP:HB3	14:K:56:VAL:CG2	2.35	0.45
14:K:88:LYS:O	14:K:91:CYS:HB2	2.17	0.45
1:T:23:DC:H2''	1:T:24:DT:O5'	2.16	0.45
4:A:1146:VAL:HG11	4:A:1207:LEU:CD1	2.47	0.45
4:A:1355:VAL:O	4:A:1355:VAL:HG12	2.17	0.45
4:A:1404:GLU:HB2	4:A:1408:ILE:HG13	1.98	0.45
4:A:341:MET:CE	4:A:843:LYS:HZ1	2.30	0.45
5:B:1096:ARG:HA	5:B:1098:MET:HE2	1.99	0.45
5:B:311:LEU:O	5:B:312:GLU:C	2.55	0.45
5:B:315:LYS:HE3	12:I:4:PHE:CD2	2.52	0.45
5:B:282:ILE:CD1	5:B:382:ILE:HD13	2.47	0.45
6:C:107:SER:O	6:C:109:SER:N	2.47	0.45
8:E:145:THR:HG21	8:E:187:TYR:CE2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:73:ALA:HA	9:F:143:PHE:CE1	2.52	0.45
10:G:143:ILE:CG2	10:G:144:ARG:H	2.29	0.45
12:I:82:GLU:O	12:I:104:LEU:HG	2.16	0.45
14:K:53:ASP:C	14:K:55:LYS:N	2.70	0.45
3:P:5:A:H2'	3:P:6:G:H8	1.82	0.45
4:A:1226:VAL:HG12	4:A:1227:ILE:N	2.32	0.45
4:A:1299:VAL:CG1	4:A:1300:LYS:H	2.28	0.45
4:A:146:MET:CA	4:A:171:GLN:HB2	2.47	0.45
4:A:28:ARG:O	4:A:29:ALA:C	2.55	0.45
4:A:320:ARG:HH21	4:A:323:LYS:HZ1	1.65	0.45
5:B:1038:SER:C	5:B:1040:ASN:N	2.70	0.45
5:B:979:LYS:HG2	5:B:1095:LEU:HD13	1.99	0.45
5:B:270:LYS:HA	5:B:281:PRO:HA	1.99	0.45
5:B:466:TRP:O	5:B:468:GLU:N	2.48	0.45
5:B:512:ARG:HG2	5:B:512:ARG:HH11	1.82	0.45
12:I:69:PRO:HG2	12:I:85:PHE:CE2	2.52	0.45
15:L:36:SER:O	15:L:37:LYS:C	2.55	0.45
15:L:43:THR:O	15:L:43:THR:HG22	2.15	0.45
4:A:1394:THR:CG2	4:A:1398:MET:SD	3.04	0.45
4:A:445:ASN:HA	4:A:478:TYR:CE2	2.52	0.45
4:A:683:ILE:HD13	4:A:801:GLU:CG	2.47	0.45
4:A:871:ASP:OD1	4:A:1366:ARG:NH2	2.49	0.45
4:A:936:LEU:O	4:A:939:ASP:HB2	2.17	0.45
5:B:436:VAL:O	5:B:436:VAL:HG12	2.17	0.45
5:B:828:ALA:O	5:B:834:ASN:ND2	2.48	0.45
6:C:179:GLU:CG	6:C:180:TYR:N	2.78	0.45
6:C:183:TRP:CZ2	6:C:207:CYS:HB3	2.51	0.45
6:C:226:ASP:O	6:C:227:THR:CB	2.61	0.45
6:C:259:LEU:HD21	14:K:92:ASN:CG	2.38	0.45
12:I:58:VAL:HG12	12:I:58:VAL:O	2.16	0.45
13:J:12:LYS:O	13:J:14:VAL:CG2	2.59	0.45
14:K:17:SER:O	14:K:18:LYS:C	2.54	0.45
4:A:1170:ILE:HG22	4:A:1174:PHE:HE1	1.82	0.45
4:A:1152:ILE:HG22	4:A:1192:LEU:O	2.17	0.45
4:A:1224:LEU:HD11	4:A:1240:CYS:HB2	1.99	0.45
4:A:1299:VAL:CG1	4:A:1300:LYS:N	2.78	0.45
4:A:34:LYS:CD	4:A:34:LYS:N	2.80	0.45
5:B:1007:VAL:HG22	5:B:1008:PRO:HD2	1.98	0.45
5:B:1096:ARG:O	5:B:1097:HIS:CG	2.70	0.45
5:B:1151:LEU:N	5:B:1151:LEU:CD1	2.80	0.45
5:B:281:PRO:O	5:B:283:VAL:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:284:ILE:HG23	5:B:324:ILE:CD1	2.47	0.45
5:B:519:TRP:HE1	5:B:635:ARG:NH2	2.15	0.45
5:B:882:THR:O	5:B:883:LEU:HB2	2.16	0.45
6:C:29:MET:CE	14:K:98:LEU:HG	2.47	0.45
6:C:31:ASN:O	6:C:32:SER:C	2.55	0.45
8:E:133:GLU:HB3	8:E:135:PHE:HE1	1.81	0.45
8:E:24:LYS:HG3	8:E:25:ASP:N	2.32	0.45
10:G:7:LEU:CD1	10:G:45:ILE:HD11	2.47	0.45
11:H:82:PRO:C	11:H:84:ALA:H	2.15	0.45
14:K:56:VAL:HA	14:K:77:THR:HG22	1.98	0.45
4:A:1120:LEU:H	4:A:1120:LEU:HD13	1.82	0.44
4:A:106:VAL:HG13	4:A:112:LYS:H	1.82	0.44
4:A:231:PRO:C	4:A:233:TRP:H	2.20	0.44
4:A:774:ARG:H	4:A:774:ARG:HG2	1.49	0.44
4:A:788:SER:O	4:A:789:LYS:O	2.35	0.44
4:A:920:LEU:HD23	4:A:920:LEU:C	2.37	0.44
4:A:963:ILE:HD13	4:A:1049:ILE:CG1	2.46	0.44
5:B:550:ASP:OD1	5:B:551:PRO:HD2	2.17	0.44
5:B:558:LEU:O	5:B:561:TRP:N	2.49	0.44
5:B:563:MET:HE2	5:B:587:HIS:C	2.37	0.44
5:B:695:ALA:O	5:B:698:GLU:HB3	2.17	0.44
5:B:797:TYR:HE1	5:B:854:LEU:CD2	2.30	0.44
5:B:799:PRO:CB	5:B:818:PRO:HG2	2.47	0.44
6:C:27:LEU:O	6:C:28:ALA:C	2.56	0.44
7:D:195:ILE:O	7:D:198:LEU:HG	2.17	0.44
8:E:114:ASN:O	8:E:115:ASN:CB	2.63	0.44
9:F:128:LYS:HD3	9:F:149:GLU:O	2.17	0.44
10:G:152:SER:O	10:G:153:GLN:HB2	2.17	0.44
11:H:91:ASP:C	11:H:93:TYR:N	2.70	0.44
13:J:64:ASN:CB	13:J:65:PRO:HD3	2.44	0.44
4:A:1433:MET:CE	10:G:63:PRO:HB2	2.47	0.44
4:A:157:ASP:C	4:A:159:THR:N	2.70	0.44
4:A:23:SER:O	4:A:26:GLU:N	2.50	0.44
4:A:568:PRO:HG2	4:A:569:LYS:H	1.83	0.44
4:A:994:GLN:HA	4:A:997:LEU:HG	1.99	0.44
4:A:1428:VAL:HG22	5:B:1147:LEU:HD21	1.98	0.44
5:B:1177:HIS:O	5:B:1179:GLN:N	2.51	0.44
5:B:596:LEU:O	5:B:600:LEU:HG	2.17	0.44
5:B:600:LEU:O	5:B:609:ILE:HD12	2.17	0.44
6:C:239:PRO:O	6:C:241:ASP:N	2.50	0.44
7:D:151:PHE:N	7:D:151:PHE:HD1	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:21:GLU:O	8:E:24:LYS:HG2	2.17	0.44
7:D:48:ILE:HG21	10:G:4:ILE:HD12	1.99	0.44
11:H:130:ARG:HB3	11:H:133:ASN:HB2	1.99	0.44
11:H:116:TYR:HE2	11:H:140:ALA:HB1	1.82	0.44
11:H:91:ASP:O	11:H:93:TYR:N	2.47	0.44
14:K:93:SER:O	14:K:97:LYS:HG3	2.17	0.44
4:A:114:LEU:HD13	4:A:171:GLN:OE1	2.17	0.44
4:A:138:ILE:HD12	4:A:222:LEU:HD23	1.98	0.44
4:A:353:ILE:HB	4:A:470:LEU:CD2	2.47	0.44
4:A:35:ILE:HA	4:A:52:GLY:O	2.17	0.44
4:A:53:LEU:CD2	4:A:54:ASN:HD22	2.30	0.44
5:B:1030:LEU:HD12	5:B:1030:LEU:HA	1.83	0.44
4:A:373:THR:HG21	5:B:1105:ALA:HB3	1.98	0.44
5:B:527:THR:OG1	5:B:528:PRO:HD2	2.18	0.44
5:B:840:ILE:CG2	5:B:994:TYR:HD1	2.30	0.44
5:B:952:VAL:HG12	5:B:953:LEU:N	2.33	0.44
5:B:995:ARG:HH12	6:C:165:LYS:HG2	1.82	0.44
6:C:238:ILE:HD11	6:C:246:ARG:NH1	2.32	0.44
6:C:26:ASP:O	6:C:27:LEU:C	2.56	0.44
8:E:61:GLN:HG2	8:E:62:ALA:N	2.32	0.44
14:K:103:THR:O	14:K:105:PHE:N	2.50	0.44
1:T:24:DT:OP2	5:B:942:ARG:NH2	2.50	0.44
4:A:108:MET:O	4:A:109:HIS:HB2	2.18	0.44
4:A:1100:ARG:NH2	4:A:1351:GLU:CG	2.76	0.44
4:A:1130:GLN:HA	4:A:1133:LEU:HD12	2.00	0.44
4:A:472:LEU:O	4:A:475:THR:CG2	2.65	0.44
4:A:648:ASN:O	4:A:649:ILE:C	2.55	0.44
4:A:784:LEU:HB3	4:A:785:PRO:HD2	1.98	0.44
5:B:882:THR:HG21	5:B:935:ARG:HA	2.00	0.44
6:C:193:TYR:CD1	6:C:193:TYR:C	2.90	0.44
6:C:208:GLU:C	6:C:210:GLU:H	2.21	0.44
4:A:1162:VAL:CG1	12:I:41:PRO:HG3	2.48	0.44
14:K:57:LEU:N	14:K:76:GLN:O	2.50	0.44
14:K:49:GLU:OE2	14:K:97:LYS:HE3	2.16	0.44
4:A:1068:ALA:HA	4:A:1367:HIS:ND1	2.32	0.44
4:A:1148:ILE:O	12:I:48:LEU:N	2.46	0.44
4:A:1277:GLU:C	4:A:1279:ILE:H	2.20	0.44
4:A:262:LEU:C	4:A:264:PHE:H	2.21	0.44
4:A:563:PRO:HG3	4:A:572:TRP:CE2	2.52	0.44
4:A:412:ARG:NH2	5:B:1108:ARG:NH2	2.65	0.44
4:A:341:MET:CE	5:B:1135:ARG:NH1	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:519:TRP:C	5:B:519:TRP:CD1	2.91	0.44
5:B:615:MET:HA	5:B:625:LYS:O	2.18	0.44
5:B:810:GLU:HA	5:B:815:ARG:NH1	2.29	0.44
5:B:846:ILE:HG23	5:B:974:PRO:CG	2.46	0.44
6:C:61:GLU:HA	6:C:64:ALA:HB3	2.00	0.44
8:E:48:ASP:CG	8:E:49:SER:N	2.71	0.44
8:E:55:ARG:NH1	8:E:113:GLN:NE2	2.66	0.44
7:D:29:LEU:HD22	10:G:82:PHE:CE2	2.53	0.44
11:H:81:PRO:HB2	11:H:82:PRO:CD	2.44	0.44
13:J:36:LEU:HB2	13:J:47:ARG:NH1	2.33	0.44
14:K:24:ASP:OD1	14:K:26:LYS:N	2.51	0.44
14:K:68:PHE:HB3	14:K:70:ARG:NH1	2.32	0.44
2:N:4:DG:H1'	2:N:5:DT:H5'	1.99	0.44
4:A:1260:LEU:CG	4:A:1260:LEU:O	2.64	0.44
4:A:1450:LEU:CG	4:A:1450:LEU:O	2.65	0.44
4:A:464:PRO:HG2	4:A:465:TYR:CD1	2.51	0.44
5:B:842:ASN:HB3	5:B:1009:ASP:HA	2.00	0.44
5:B:1216:LEU:C	5:B:1217:TYR:HD1	2.21	0.44
5:B:36:ALA:HA	5:B:39:ARG:HD2	1.99	0.44
5:B:402:GLY:HA2	5:B:695:ALA:HB3	1.99	0.44
7:D:153:ARG:HG2	7:D:218:GLU:HG3	1.99	0.44
8:E:138:ALA:HA	8:E:141:VAL:HG23	2.00	0.44
10:G:48:VAL:HG13	10:G:74:TYR:HD1	1.82	0.44
12:I:78:CYS:O	12:I:80:SER:N	2.51	0.44
4:A:1265:ASN:O	4:A:1267:MET:N	2.51	0.44
4:A:1385:THR:HG22	4:A:1386:ARG:H	1.82	0.44
4:A:456:MET:HB3	4:A:507:VAL:HG22	2.00	0.44
5:B:203:PHE:HB3	5:B:205:ILE:CD1	2.48	0.44
5:B:23:ALA:HB1	5:B:24:PRO:CD	2.42	0.44
5:B:244:LEU:HD13	5:B:247:GLY:O	2.18	0.44
5:B:278:GLN:HG2	5:B:279:ASP:N	2.26	0.44
5:B:615:MET:C	5:B:616:ILE:HD12	2.36	0.44
5:B:661:LEU:C	5:B:663:ALA:H	2.20	0.44
5:B:745:PRO:C	5:B:747:MET:H	2.21	0.44
6:C:200:GLU:O	6:C:202:PRO:HD3	2.18	0.44
7:D:156:ASP:C	7:D:158:GLU:N	2.71	0.44
7:D:51:ASN:O	7:D:54:GLU:HB3	2.18	0.44
2:N:1:DC:H2''	2:N:2:DA:OP2	2.16	0.44
4:A:834:THR:HG21	4:A:1077:THR:OG1	2.18	0.44
4:A:1105:LEU:HD22	4:A:1384:VAL:HG21	1.99	0.44
4:A:1191:TRP:HA	4:A:1191:TRP:CE3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:1289:ARG:HD2	4:A:1303:GLU:OE2	2.18	0.44
4:A:1118:VAL:CG2	4:A:1306:LEU:HB2	2.45	0.44
4:A:56:PRO:O	4:A:57:ARG:CG	2.57	0.44
4:A:626:ASN:O	4:A:628:GLY:N	2.50	0.44
4:A:808:LEU:CD2	4:A:813:PHE:HA	2.45	0.44
4:A:844:ALA:C	4:A:845:LEU:HD23	2.38	0.44
4:A:903:ASN:ND2	4:A:905:ASP:H	2.16	0.44
4:A:14:VAL:CG2	5:B:1216:LEU:HD12	2.46	0.44
5:B:525:ALA:O	5:B:768:THR:HA	2.17	0.44
7:D:50:LEU:HD13	7:D:55:ALA:CB	2.48	0.44
8:E:180:ARG:NH2	8:E:192:ARG:HD2	2.32	0.44
10:G:101:VAL:HG12	10:G:102:GLN:N	2.33	0.44
14:K:59:ALA:HA	14:K:74:ARG:O	2.17	0.44
14:K:78:THR:O	14:K:81:TYR:HB3	2.18	0.44
15:L:28:LYS:CB	15:L:39:SER:HA	2.47	0.44
4:A:1293:SER:OG	4:A:1295:THR:CG2	2.66	0.44
4:A:130:ASP:HB3	4:A:133:LYS:HB2	2.00	0.44
4:A:1313:LEU:HD23	4:A:1338:VAL:HB	2.00	0.44
4:A:23:SER:O	4:A:24:PRO:C	2.53	0.44
4:A:345:VAL:CG1	5:B:1130:PHE:HB2	2.48	0.44
4:A:845:LEU:HB3	4:A:848:ILE:HD12	2.00	0.44
5:B:981:ALA:HB3	5:B:1095:LEU:HD21	1.99	0.44
4:A:343:LYS:CE	5:B:1156:ASP:OD2	2.66	0.44
5:B:196:PRO:HG2	5:B:197:PHE:H	1.82	0.44
5:B:222:ILE:HG22	5:B:223:VAL:N	2.32	0.44
5:B:314:LEU:O	5:B:318:VAL:HG23	2.18	0.44
5:B:361:LEU:HD11	5:B:377:PHE:CE2	2.52	0.44
5:B:37:PHE:HE1	5:B:41:LYS:HG3	1.78	0.44
5:B:123:THR:OG1	5:B:458:LYS:HE2	2.18	0.44
5:B:552:MET:C	5:B:554:ILE:H	2.22	0.44
6:C:121:VAL:O	6:C:121:VAL:HG12	2.17	0.44
6:C:241:ASP:OD1	6:C:242:GLN:N	2.48	0.44
6:C:62:PHE:O	6:C:66:ARG:HG3	2.18	0.44
7:D:18:VAL:O	7:D:18:VAL:HG23	2.18	0.44
8:E:55:ARG:HB2	8:E:84:ASP:OD2	2.18	0.44
14:K:58:PHE:HB3	14:K:76:GLN:HE21	1.83	0.44
4:A:1429:ILE:O	5:B:1197:PRO:HG3	2.18	0.43
4:A:224:PHE:HD2	4:A:229:SER:O	2.00	0.43
4:A:418:SER:O	4:A:420:ARG:N	2.51	0.43
4:A:576:GLN:HG3	11:H:119:GLY:HA3	2.00	0.43
4:A:836:TYR:CZ	4:A:840:ARG:HD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1147:LEU:CD2	5:B:1151:LEU:HD22	2.48	0.43
4:A:1339:LEU:HD13	8:E:147:HIS:CD2	2.52	0.43
4:A:1434:ALA:O	4:A:1436:ILE:N	2.50	0.43
4:A:427:GLN:HB2	4:A:430:TRP:CE2	2.53	0.43
4:A:666:ILE:N	5:B:1026:LEU:HD13	2.33	0.43
4:A:768:GLN:NE2	4:A:816:HIS:HD1	2.16	0.43
4:A:996:ASN:O	4:A:998:LEU:HD12	2.17	0.43
5:B:1072:MET:HE3	5:B:1085:ILE:HD13	1.99	0.43
5:B:1110:PRO:HG2	5:B:1119:VAL:HG22	2.00	0.43
5:B:840:ILE:HD13	5:B:994:TYR:HE1	1.83	0.43
8:E:207:ARG:CB	8:E:207:ARG:NH1	2.81	0.43
4:A:1444:MET:O	9:F:133:VAL:N	2.51	0.43
4:A:504:LEU:HD11	9:F:91:ALA:CB	2.48	0.43
11:H:116:TYR:O	11:H:122:LEU:HA	2.17	0.43
12:I:8:ARG:HB2	12:I:9:ASP:OD1	2.18	0.43
4:A:552:TRP:HE1	14:K:62:LYS:HB3	1.83	0.43
14:K:87:LEU:O	14:K:88:LYS:C	2.56	0.43
15:L:49:LYS:O	15:L:50:ASP:HB3	2.17	0.43
4:A:1120:LEU:O	4:A:1323:ASP:HB2	2.18	0.43
4:A:270:LEU:O	4:A:270:LEU:HD12	2.18	0.43
4:A:396:PRO:HG3	4:A:416:ARG:HB3	1.99	0.43
4:A:427:GLN:O	4:A:428:TYR:C	2.56	0.43
4:A:886:ILE:HG13	4:A:943:LEU:HD12	1.99	0.43
4:A:412:ARG:HH22	5:B:1108:ARG:NH2	2.16	0.43
4:A:490:HIS:HB3	5:B:1150:ARG:NH1	2.32	0.43
5:B:166:PHE:C	5:B:167:ILE:HG13	2.39	0.43
5:B:333:PHE:O	5:B:334:ILE:CG1	2.66	0.43
5:B:38:PHE:HD1	5:B:811:TYR:CD2	2.36	0.43
5:B:558:LEU:O	5:B:560:GLU:N	2.50	0.43
5:B:681:TRP:HA	5:B:684:LEU:HD13	2.00	0.43
5:B:806:THR:C	5:B:808:ALA:N	2.69	0.43
6:C:114:TYR:HB2	6:C:116:LYS:HG2	2.01	0.43
7:D:134:THR:CG2	7:D:135:GLY:H	2.29	0.43
7:D:139:LYS:HB2	7:D:139:LYS:HE2	1.88	0.43
8:E:102:GLU:O	8:E:104:ASN:N	2.51	0.43
8:E:81:GLU:HG2	8:E:82:PHE:N	2.33	0.43
9:F:79:ARG:NH2	9:F:150:GLU:OE1	2.39	0.43
10:G:21:ARG:HD3	10:G:21:ARG:HA	1.68	0.43
11:H:100:THR:HG22	11:H:101:ALA:H	1.81	0.43
4:A:115:LEU:HB2	4:A:122:MET:CE	2.49	0.43
4:A:1227:ILE:CG2	4:A:1228:TRP:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:108:MET:HB3	4:A:210:ILE:HD13	2.00	0.43
4:A:54:ASN:HB3	4:A:247:ARG:NH1	2.31	0.43
4:A:680:THR:HA	4:A:683:ILE:CD1	2.48	0.43
4:A:814:PHE:O	4:A:817:ALA:HB3	2.19	0.43
5:B:129:PHE:HE2	5:B:166:PHE:CD1	2.36	0.43
5:B:284:ILE:HD13	5:B:333:PHE:CD2	2.43	0.43
5:B:785:TYR:CD1	5:B:786:ASN:N	2.86	0.43
8:E:171:LYS:HD3	8:E:171:LYS:N	2.33	0.43
8:E:28:TYR:CD1	8:E:78:LEU:HD13	2.53	0.43
10:G:115:MET:HB2	10:G:116:PRO:CD	2.47	0.43
11:H:4:THR:HG22	11:H:5:LEU:N	2.33	0.43
11:H:95:TYR:HE2	11:H:97:MET:CG	2.31	0.43
5:B:992:ILE:HD11	14:K:66:PRO:HB2	1.99	0.43
14:K:65:HIS:CG	14:K:66:PRO:HD2	2.53	0.43
15:L:55:ILE:O	15:L:56:LEU:CB	2.64	0.43
4:A:1209:MET:HE1	4:A:1236:LEU:HB3	2.00	0.43
4:A:78:PRO:HA	5:B:1201:LYS:NZ	2.33	0.43
5:B:1147:LEU:HD23	5:B:1151:LEU:HD22	2.00	0.43
5:B:34:ILE:O	5:B:37:PHE:N	2.52	0.43
5:B:582:VAL:HG12	5:B:587:HIS:NE2	2.33	0.43
5:B:882:THR:O	5:B:883:LEU:CB	2.67	0.43
9:F:99:LEU:O	9:F:103:MET:HG2	2.19	0.43
4:A:548:ASN:OD1	14:K:60:ALA:HB1	2.18	0.43
1:T:12:DA:C2'	1:T:13:DC:H5'	2.49	0.43
4:A:1042:PHE:CE2	4:A:1046:LEU:HD11	2.53	0.43
4:A:1114:PRO:HG2	4:A:1115:SER:H	1.82	0.43
4:A:1206:ASP:C	4:A:1274:ARG:NH1	2.71	0.43
4:A:68:GLN:C	4:A:70:CYS:N	2.68	0.43
4:A:709:THR:CG2	4:A:711:ARG:HB2	2.49	0.43
4:A:853:ASP:O	4:A:854:ASN:CB	2.62	0.43
4:A:963:ILE:HD13	4:A:1049:ILE:HG12	2.01	0.43
5:B:280:ILE:HG21	5:B:285:ILE:HG13	2.00	0.43
5:B:393:LYS:HA	5:B:393:LYS:CE	2.45	0.43
5:B:520:GLY:CA	5:B:748:ILE:HG22	2.48	0.43
5:B:785:TYR:C	5:B:785:TYR:CD1	2.91	0.43
13:J:31:ASP:O	13:J:32:GLU:C	2.57	0.43
15:L:61:THR:HG22	15:L:62:LYS:N	2.33	0.43
1:T:12:DA:H2''	1:T:13:DC:H5'	2.00	0.43
4:A:1394:THR:HG22	4:A:1395:GLY:H	1.83	0.43
4:A:29:ALA:HB1	5:B:1184:GLY:HA3	2.01	0.43
4:A:399:HIS:NE2	4:A:462:VAL:HG11	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:1034:VAL:O	5:B:1036:ALA:N	2.51	0.43
5:B:1115:THR:HG22	5:B:1117:GLN:HG3	2.01	0.43
5:B:37:PHE:HE2	5:B:542:MET:HA	1.84	0.43
5:B:97:VAL:HG12	5:B:178:ASN:ND2	2.32	0.43
7:D:48:ILE:CG2	10:G:4:ILE:HB	2.39	0.43
4:A:1102:LYS:O	4:A:1106:ASN:ND2	2.51	0.43
4:A:116:ASP:C	4:A:118:HIS:N	2.70	0.43
4:A:1435:PRO:O	4:A:1436:ILE:HG13	2.19	0.43
4:A:415:LEU:HA	4:A:415:LEU:HD23	1.83	0.43
4:A:535:THR:HG21	4:A:616:VAL:CA	2.33	0.43
4:A:596:THR:C	4:A:598:LEU:H	2.22	0.43
4:A:600:PRO:C	4:A:602:ASP:N	2.72	0.43
5:B:826:ALA:HB2	5:B:1008:PRO:HB3	1.99	0.43
5:B:259:TYR:HD1	5:B:259:TYR:H	1.67	0.43
5:B:308:TRP:CD1	5:B:308:TRP:N	2.85	0.43
5:B:879:ARG:HA	5:B:879:ARG:HD3	1.81	0.43
6:C:107:SER:C	6:C:109:SER:N	2.72	0.43
8:E:177:ARG:O	8:E:212:ARG:CD	2.66	0.43
8:E:28:TYR:CE1	8:E:78:LEU:CD1	3.02	0.43
9:F:84:TYR:N	9:F:84:TYR:CD1	2.87	0.43
10:G:110:VAL:HG22	10:G:161:GLY:O	2.19	0.43
10:G:80:LYS:CD	10:G:80:LYS:N	2.78	0.43
11:H:10:PHE:N	11:H:10:PHE:CD1	2.87	0.43
4:A:1017:LEU:O	4:A:1017:LEU:HD12	2.18	0.43
4:A:106:VAL:CG1	4:A:112:LYS:N	2.82	0.43
4:A:47:ARG:HH12	4:A:254:GLU:CG	2.31	0.43
4:A:466:SER:HB2	5:B:1099:VAL:CG1	2.49	0.43
4:A:475:THR:CG2	4:A:476:SER:N	2.67	0.43
4:A:709:THR:HB	4:A:712:GLU:H	1.84	0.43
4:A:850:VAL:HG21	4:A:1058:VAL:HG11	2.01	0.43
4:A:89:PRO:C	4:A:204:THR:HG21	2.39	0.43
4:A:91:PHE:HB2	4:A:297:GLN:HE22	1.84	0.43
5:B:761:HIS:HB2	5:B:1024:ALA:HB2	2.00	0.43
5:B:1187:ASN:O	5:B:1188:LYS:CB	2.66	0.43
5:B:1196:ILE:HD12	5:B:1200:ALA:HB3	2.00	0.43
5:B:125:SER:CA	5:B:171:PRO:HA	2.42	0.43
5:B:763:GLN:O	5:B:765:PRO:N	2.52	0.43
5:B:814:PHE:C	5:B:816:GLU:N	2.73	0.43
5:B:872:GLU:OE2	5:B:914:LYS:HE2	2.18	0.43
5:B:95:ILE:HG13	5:B:130:VAL:CG2	2.47	0.43
6:C:22:LEU:HD13	6:C:230:MET:HE1	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:4:SER:C	7:D:5:THR:OG1	2.56	0.43
9:F:82:THR:HA	9:F:83:PRO:HD3	1.87	0.43
9:F:89:GLU:HB3	9:F:134:ILE:HD11	2.01	0.43
11:H:93:TYR:N	11:H:93:TYR:CD1	2.87	0.43
12:I:98:VAL:HG12	12:I:99:LEU:N	2.33	0.43
13:J:1:MET:H1	13:J:56:LEU:HB2	1.83	0.43
13:J:57:ILE:CA	13:J:60:PHE:HD2	2.24	0.43
5:B:848:ARG:NH1	13:J:8:PHE:O	2.52	0.43
6:C:47:ASP:CA	15:L:69:ALA:CB	2.93	0.43
4:A:12:ARG:NE	5:B:1192:TYR:HE2	2.17	0.43
4:A:1402:PHE:CD1	4:A:1403:GLU:HG3	2.54	0.43
4:A:1434:ALA:HA	4:A:1435:PRO:HD3	1.82	0.43
5:B:236:HIS:CE1	5:B:389:ALA:HA	2.54	0.43
5:B:508:LEU:O	5:B:509:ALA:HB2	2.19	0.43
5:B:542:MET:HB3	5:B:636:PRO:CD	2.48	0.43
5:B:918:ILE:HD12	5:B:935:ARG:HD3	2.01	0.43
6:C:16:ASP:C	6:C:17:ASN:ND2	2.71	0.43
6:C:65:HIS:O	6:C:69:LEU:HD13	2.19	0.43
9:F:77:ASP:C	9:F:79:ARG:N	2.72	0.43
15:L:46:VAL:CG1	15:L:56:LEU:HD12	2.48	0.43
4:A:1225:PHE:CE2	4:A:1227:ILE:HD11	2.53	0.42
4:A:340:LEU:HD21	5:B:1199:ALA:HB3	2.01	0.42
4:A:61:ILE:O	4:A:63:ARG:N	2.52	0.42
4:A:899:VAL:HG22	4:A:908:LEU:HD21	2.00	0.42
5:B:1081:LEU:O	5:B:1082:MET:C	2.57	0.42
5:B:100:PRO:HD2	5:B:180:TYR:HE1	1.81	0.42
5:B:522:VAL:HG12	5:B:523:CYS:N	2.34	0.42
5:B:56:ASP:HB2	5:B:57:TYR:HD1	1.84	0.42
5:B:603:LEU:HB3	5:B:609:ILE:HG13	2.01	0.42
5:B:840:ILE:HG21	5:B:994:TYR:HD1	1.84	0.42
6:C:191:TYR:HD2	6:C:201:TRP:CD1	2.37	0.42
4:A:1006:ILE:HD11	8:E:163:GLU:HG3	2.00	0.42
8:E:60:PHE:CD2	8:E:60:PHE:C	2.91	0.42
11:H:127:GLY:HA3	11:H:130:ARG:HH22	1.83	0.42
15:L:46:VAL:HG13	15:L:56:LEU:HD12	1.99	0.42
4:A:1010:ALA:O	4:A:1013:ASP:HB2	2.19	0.42
4:A:830:LYS:HG2	4:A:1098:VAL:HG21	2.01	0.42
4:A:110:CYS:HB3	4:A:167:CYS:SG	2.59	0.42
4:A:1191:TRP:HD1	4:A:1256:GLU:HB2	1.83	0.42
4:A:1261:LYS:HA	4:A:1264:GLU:HB3	2.00	0.42
4:A:557:ASP:O	4:A:559:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:843:LYS:HA	4:A:843:LYS:HD3	1.75	0.42
4:A:964:ILE:O	4:A:967:ALA:HB3	2.19	0.42
5:B:1084:GLN:OE1	6:C:189:THR:HG22	2.18	0.42
5:B:1107:ALA:O	5:B:1108:ARG:O	2.36	0.42
5:B:1162:ILE:HG22	5:B:1163:CYS:N	2.33	0.42
5:B:189:LEU:O	5:B:192:LEU:HB2	2.19	0.42
5:B:496:ARG:NH1	5:B:539:LEU:HB2	2.33	0.42
5:B:549:THR:HG22	5:B:550:ASP:N	2.23	0.42
5:B:542:MET:CG	5:B:747:MET:HB3	2.46	0.42
6:C:213:PRO:O	6:C:214:ASN:CB	2.65	0.42
7:D:192:LYS:HE3	7:D:204:ASP:OD1	2.19	0.42
8:E:147:HIS:CD2	8:E:149:LEU:H	2.36	0.42
12:I:13:MET:O	12:I:14:LEU:HD23	2.19	0.42
14:K:8:GLU:O	14:K:37:LYS:HD2	2.20	0.42
4:A:1074:GLU:H	4:A:1075:PRO:HD2	1.82	0.42
4:A:1214:GLU:OE1	4:A:1214:GLU:HA	2.19	0.42
4:A:1111:MET:HE2	4:A:1330:ASN:OD1	2.19	0.42
4:A:215:SER:HB3	4:A:218:ASP:OD2	2.19	0.42
4:A:391:LEU:O	4:A:394:ASN:HB2	2.20	0.42
4:A:806:ARG:HD3	5:B:728:ARG:HA	2.01	0.42
4:A:914:GLU:HB2	4:A:979:SER:O	2.18	0.42
4:A:932:GLU:O	4:A:935:GLN:HB3	2.20	0.42
5:B:1202:LEU:HD22	5:B:1206:GLU:CD	2.40	0.42
5:B:129:PHE:HE2	5:B:166:PHE:HD1	1.67	0.42
5:B:100:PRO:HD3	5:B:172:ILE:HD12	2.00	0.42
5:B:240:ILE:CD1	5:B:377:PHE:HE2	2.32	0.42
5:B:860:MET:HG2	5:B:861:ASP:H	1.84	0.42
6:C:138:GLU:OE1	6:C:138:GLU:N	2.48	0.42
7:D:63:LEU:O	7:D:129:LEU:HD11	2.20	0.42
4:A:1107:VAL:HG12	4:A:1107:VAL:O	2.19	0.42
4:A:452:LYS:HE3	5:B:1141:HIS:ND1	2.34	0.42
4:A:573:SER:O	4:A:574:GLY:C	2.57	0.42
5:B:37:PHE:C	5:B:37:PHE:CD1	2.92	0.42
5:B:822:ASN:O	13:J:48:ARG:NH1	2.52	0.42
5:B:848:ARG:HD2	13:J:7:CYS:O	2.19	0.42
6:C:66:ARG:NH2	13:J:5:VAL:CG2	2.81	0.42
7:D:122:GLU:HA	7:D:125:SER:OG	2.19	0.42
8:E:164:LEU:HD21	8:E:211:TYR:CG	2.54	0.42
10:G:79:PHE:HZ	10:G:106:MET:CE	2.33	0.42
11:H:145:ARG:O	11:H:146:ARG:HB2	2.19	0.42
12:I:56:ALA:O	12:I:57:GLY:O	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:74:GLU:HA	12:I:80:SER:O	2.19	0.42
13:J:63:TYR:O	13:J:64:ASN:HB2	2.18	0.42
4:A:899:VAL:CG2	4:A:1029:ARG:HG2	2.49	0.42
4:A:302:THR:CG2	4:A:303:TYR:N	2.81	0.42
4:A:47:ARG:HH12	4:A:254:GLU:HG2	1.84	0.42
4:A:961:ARG:O	4:A:965:GLN:HG3	2.18	0.42
4:A:344:ARG:NE	5:B:1120:GLU:HB2	2.35	0.42
5:B:180:TYR:N	5:B:180:TYR:CD1	2.86	0.42
5:B:199:MET:N	5:B:199:MET:SD	2.76	0.42
5:B:424:LEU:HD22	5:B:453:ILE:HD11	2.00	0.42
5:B:742:GLU:O	5:B:743:ILE:C	2.58	0.42
1:T:24:DT:OP1	5:B:857:ARG:NH2	2.52	0.42
6:C:160:LYS:O	6:C:161:LYS:O	2.37	0.42
7:D:47:LEU:CD1	10:G:3:PHE:CD2	3.02	0.42
8:E:16:PHE:HZ	8:E:20:LYS:HE2	1.74	0.42
9:F:72:LYS:O	9:F:73:ALA:CB	2.67	0.42
11:H:55:LEU:HD22	11:H:144:ILE:HG21	1.98	0.42
11:H:81:PRO:HB3	11:H:82:PRO:HD2	1.99	0.42
14:K:109:TRP:O	14:K:112:GLN:HB2	2.19	0.42
14:K:18:LYS:NZ	14:K:38:GLU:HG2	2.34	0.42
14:K:63:VAL:O	14:K:63:VAL:CG2	2.63	0.42
4:A:1036:ARG:HH11	4:A:1036:ARG:HG2	1.85	0.42
4:A:1444:MET:HE3	4:A:1444:MET:HB2	1.86	0.42
4:A:241:VAL:HA	4:A:242:PRO:HD2	1.83	0.42
4:A:84:ILE:HD11	4:A:270:LEU:HD13	2.02	0.42
4:A:534:LEU:HG	4:A:534:LEU:O	2.19	0.42
4:A:574:GLY:O	4:A:575:LYS:C	2.58	0.42
4:A:577:ILE:O	4:A:578:LEU:C	2.55	0.42
4:A:664:THR:CG2	4:A:665:GLY:N	2.83	0.42
5:B:1110:PRO:O	5:B:1119:VAL:HG13	2.20	0.42
5:B:112:LEU:HD21	5:B:117:ALA:HB2	2.02	0.42
5:B:197:PHE:HZ	5:B:816:GLU:HG2	1.85	0.42
5:B:121:ASN:HD22	5:B:207:GLY:HA3	1.84	0.42
5:B:498:THR:HB	5:B:537:LYS:O	2.20	0.42
5:B:763:GLN:O	5:B:764:SER:C	2.58	0.42
5:B:776:GLN:O	5:B:1095:LEU:HA	2.19	0.42
5:B:806:THR:O	5:B:809:MET:HG3	2.19	0.42
5:B:831:SER:HB3	5:B:994:TYR:OH	2.20	0.42
6:C:133:ILE:CD1	6:C:237:SER:CA	2.94	0.42
7:D:161:GLY:O	7:D:165:GLN:HG3	2.20	0.42
8:E:124:VAL:HG13	8:E:132:ILE:CD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:857:ARG:CZ	9:F:139:PRO:HG3	2.49	0.42
10:G:99:PHE:CZ	10:G:143:ILE:HD13	2.54	0.42
12:I:4:PHE:HD1	12:I:4:PHE:C	2.22	0.42
13:J:41:LEU:HD23	13:J:41:LEU:N	2.34	0.42
15:L:34:CYS:O	15:L:36:SER:N	2.53	0.42
2:N:5:DT:H2'	2:N:5:DT:H6	1.53	0.42
4:A:872:GLY:O	4:A:1058:VAL:HG23	2.20	0.42
4:A:1197:LEU:HD11	4:A:1238:ILE:HD11	2.01	0.42
4:A:207:ILE:O	4:A:211:PHE:HD1	2.02	0.42
4:A:793:SER:HB2	4:A:794:PRO:HD2	2.01	0.42
5:B:661:LEU:C	5:B:663:ALA:N	2.73	0.42
6:C:259:LEU:HD12	6:C:259:LEU:HA	1.93	0.42
7:D:47:LEU:CD1	7:D:48:ILE:N	2.81	0.42
8:E:136:ASN:OD1	8:E:138:ALA:N	2.53	0.42
6:C:235:VAL:HG21	13:J:6:ARG:NH2	2.35	0.42
14:K:43:GLY:HA2	14:K:71:PHE:CZ	2.55	0.42
2:N:3:DA:H1'	2:N:4:DG:C8	2.55	0.42
4:A:1120:LEU:HD23	4:A:1124:HIS:O	2.19	0.42
4:A:1364:ASN:C	4:A:1364:ASN:ND2	2.73	0.42
4:A:33:ALA:O	4:A:83:HIS:HD2	2.02	0.42
4:A:683:ILE:HD13	4:A:801:GLU:HG3	2.02	0.42
4:A:901:LEU:HD13	4:A:919:ILE:HG23	2.02	0.42
4:A:341:MET:HE1	5:B:1135:ARG:NH1	2.34	0.42
5:B:468:GLU:HB3	5:B:469:GLN:H	1.70	0.42
5:B:469:GLN:HB2	5:B:470:LYS:H	1.52	0.42
5:B:563:MET:HE2	5:B:587:HIS:O	2.19	0.42
5:B:579:ARG:HD2	5:B:586:TRP:CZ2	2.55	0.42
5:B:889:THR:HG22	5:B:891:ASP:H	1.84	0.42
6:C:104:PHE:HD2	6:C:105:GLY:H	1.67	0.42
6:C:44:LEU:HD21	6:C:159:ALA:CB	2.50	0.42
6:C:80:LEU:HD11	6:C:95:CYS:C	2.40	0.42
9:F:72:LYS:O	9:F:73:ALA:HB3	2.20	0.42
12:I:13:MET:HE2	12:I:14:LEU:H	1.84	0.42
13:J:47:ARG:HG2	13:J:47:ARG:NH1	2.31	0.42
14:K:65:HIS:HD2	14:K:67:PHE:HB2	1.84	0.42
14:K:83:PRO:O	14:K:84:LYS:C	2.58	0.42
4:A:1007:ILE:C	4:A:1009:ASN:H	2.24	0.42
4:A:1173:HIS:C	4:A:1174:PHE:CD1	2.93	0.42
4:A:399:HIS:CG	4:A:400:PRO:N	2.87	0.42
4:A:434:ARG:HE	4:A:437:MET:HG3	1.85	0.42
4:A:525:GLN:HG3	5:B:836:GLU:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:883:LEU:CD2	4:A:1021:LEU:HB2	2.50	0.42
5:B:1216:LEU:O	5:B:1217:TYR:HD1	2.01	0.42
5:B:169:ARG:HB2	5:B:454:THR:CG2	2.33	0.42
5:B:234:ILE:HG21	5:B:237:VAL:CG2	2.50	0.42
5:B:903:VAL:CG1	5:B:904:ARG:N	2.83	0.42
6:C:112:ASN:CB	6:C:114:TYR:CE1	3.02	0.42
6:C:248:ILE:H	6:C:248:ILE:HG13	1.65	0.42
6:C:56:THR:HG22	6:C:58:LEU:HD23	2.01	0.42
6:C:80:LEU:HD11	6:C:95:CYS:CA	2.49	0.42
9:F:97:ARG:HA	9:F:97:ARG:HD2	1.79	0.42
11:H:113:ALA:HB1	11:H:125:LEU:O	2.20	0.42
11:H:33:GLN:C	11:H:35:GLN:H	2.22	0.42
12:I:2:THR:HG22	12:I:2:THR:O	2.20	0.42
13:J:3:VAL:CG2	13:J:18:TRP:CG	3.01	0.42
4:A:1120:LEU:O	4:A:1323:ASP:N	2.52	0.42
4:A:407:ARG:HB3	4:A:430:TRP:NE1	2.34	0.42
4:A:418:SER:C	4:A:420:ARG:N	2.72	0.42
4:A:433:GLU:OE1	5:B:1108:ARG:NH1	2.53	0.42
4:A:600:PRO:O	4:A:602:ASP:N	2.52	0.42
4:A:91:PHE:HB3	4:A:96:ILE:HG12	2.02	0.42
5:B:376:PHE:HE2	5:B:569:TYR:HD2	1.68	0.42
5:B:956:THR:HG22	5:B:957:ASN:N	2.35	0.42
7:D:195:ILE:HG22	7:D:195:ILE:O	2.20	0.42
4:A:1346:ALA:CB	8:E:149:LEU:HD13	2.50	0.42
8:E:22:MET:HB2	8:E:187:TYR:CE1	2.55	0.42
12:I:59:VAL:C	12:I:61:ASP:N	2.73	0.42
12:I:92:ARG:HB3	12:I:95:THR:OG1	2.19	0.42
4:A:1127:ASP:O	4:A:1130:GLN:HB3	2.20	0.41
4:A:1385:THR:C	4:A:1387:HIS:N	2.72	0.41
4:A:249:SER:O	4:A:250:ILE:CG1	2.60	0.41
4:A:463:ILE:HB	4:A:464:PRO:HD2	2.01	0.41
4:A:353:ILE:HG21	4:A:487:MET:HG3	2.01	0.41
4:A:590:ARG:HD2	4:A:605:MET:CB	2.50	0.41
4:A:49:LYS:HZ2	4:A:60:SER:HA	1.84	0.41
4:A:639:PRO:HG2	4:A:640:GLN:H	1.84	0.41
5:B:1177:HIS:C	5:B:1179:GLN:H	2.24	0.41
5:B:39:ARG:NH2	5:B:665:GLU:CG	2.83	0.41
5:B:581:PHE:HA	5:B:585:VAL:O	2.19	0.41
5:B:603:LEU:HA	5:B:603:LEU:HD22	1.87	0.41
6:C:187:LYS:HG3	6:C:219:PHE:CE1	2.54	0.41
7:D:16:LYS:O	7:D:16:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:79:ARG:HG3	9:F:144:GLU:OE1	2.19	0.41
12:I:50:THR:HG22	12:I:51:ASN:N	2.35	0.41
14:K:68:PHE:N	14:K:68:PHE:CD2	2.85	0.41
14:K:6:ARG:HA	14:K:6:ARG:HD3	1.94	0.41
4:A:59:GLY:HA2	4:A:67:CYS:SG	2.61	0.41
4:A:606:LEU:O	4:A:613:ILE:HB	2.20	0.41
4:A:715:GLU:O	4:A:717:ASN:N	2.53	0.41
4:A:730:GLY:C	4:A:732:LEU:N	2.73	0.41
4:A:886:ILE:CD1	4:A:943:LEU:HB3	2.42	0.41
5:B:1202:LEU:O	5:B:1203:LEU:C	2.57	0.41
5:B:286:PHE:O	5:B:289:LEU:HB2	2.20	0.41
5:B:331:LEU:HD12	5:B:331:LEU:N	2.35	0.41
5:B:412:LEU:HB3	5:B:466:TRP:HZ2	1.85	0.41
5:B:558:LEU:C	5:B:560:GLU:N	2.74	0.41
5:B:807:ARG:HG2	5:B:1045:SER:HG	1.83	0.41
6:C:236:GLY:C	6:C:238:ILE:N	2.71	0.41
8:E:192:ARG:HG3	8:E:192:ARG:NH1	2.34	0.41
9:F:147:SER:OG	9:F:150:GLU:HG3	2.20	0.41
4:A:106:VAL:HA	4:A:114:LEU:HD21	2.03	0.41
4:A:1283:VAL:CG1	4:A:1284:MET:N	2.77	0.41
4:A:1138:ILE:CG2	4:A:1316:VAL:HG13	2.51	0.41
4:A:836:TYR:OH	4:A:1403:GLU:OE2	2.35	0.41
4:A:1409:LEU:HA	4:A:1409:LEU:HD23	1.92	0.41
4:A:208:LEU:HD23	4:A:208:LEU:C	2.40	0.41
4:A:635:ARG:HH11	4:A:635:ARG:HA	1.85	0.41
4:A:858:ASN:ND2	4:A:860:LEU:N	2.59	0.41
4:A:867:ILE:CG2	4:A:872:GLY:N	2.84	0.41
4:A:996:ASN:HA	4:A:998:LEU:HD12	2.02	0.41
5:B:1097:HIS:H	5:B:1098:MET:CE	2.31	0.41
5:B:1119:VAL:HG23	5:B:1126:GLY:HA2	2.02	0.41
5:B:1169:MET:CE	5:B:1204:PHE:HB2	2.50	0.41
5:B:298:LEU:CD2	5:B:298:LEU:N	2.83	0.41
5:B:542:MET:HE1	5:B:743:ILE:HG21	2.01	0.41
6:C:104:PHE:HD2	6:C:105:GLY:N	2.19	0.41
6:C:58:LEU:N	6:C:58:LEU:CD2	2.83	0.41
8:E:117:THR:O	8:E:120:ALA:HB3	2.20	0.41
8:E:62:ALA:HB3	8:E:78:LEU:HD22	2.01	0.41
10:G:79:PHE:CE2	10:G:105:PRO:HG2	2.53	0.41
10:G:111:THR:HB	10:G:114:LEU:HB2	2.01	0.41
10:G:96:GLN:HB3	10:G:121:PHE:CE2	2.55	0.41
11:H:42:ILE:CG2	11:H:43:ASN:N	2.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:28:LYS:HB2	15:L:39:SER:HB2	2.02	0.41
15:L:40:LEU:HA	15:L:40:LEU:HD23	1.91	0.41
4:A:1007:ILE:C	4:A:1009:ASN:N	2.73	0.41
4:A:996:ASN:HB3	4:A:1050:GLU:OE2	2.20	0.41
4:A:516:SER:O	4:A:517:ASN:C	2.58	0.41
4:A:775:ILE:HG21	4:A:783:THR:HG23	2.02	0.41
4:A:6:TYR:CD1	4:A:7:SER:N	2.88	0.41
4:A:986:ILE:O	4:A:990:VAL:HG23	2.19	0.41
5:B:1147:LEU:O	5:B:1148:LYS:C	2.57	0.41
5:B:1182:CYS:C	5:B:1183:LYS:HE3	2.41	0.41
5:B:172:ILE:HG22	5:B:173:MET:H	1.84	0.41
5:B:405:ARG:NH2	5:B:632:ARG:HD3	2.35	0.41
5:B:604:ARG:O	5:B:607:GLY:N	2.54	0.41
5:B:801:LYS:O	13:J:52:THR:CG2	2.60	0.41
5:B:824:ILE:HG12	13:J:48:ARG:NH1	2.36	0.41
6:C:145:CYS:HA	13:J:2:ILE:CD1	2.43	0.41
6:C:242:GLN:C	6:C:244:VAL:H	2.24	0.41
6:C:243:VAL:HG12	6:C:243:VAL:O	2.20	0.41
9:F:88:TYR:N	9:F:88:TYR:CD1	2.88	0.41
10:G:26:LEU:O	10:G:27:LYS:C	2.59	0.41
4:A:567:LYS:CD	11:H:95:TYR:HA	2.50	0.41
4:A:711:ARG:HH11	12:I:95:THR:HB	1.85	0.41
15:L:65:VAL:HG23	15:L:65:VAL:O	2.21	0.41
4:A:1362:TYR:HD1	4:A:1363:VAL:N	2.18	0.41
4:A:472:LEU:O	4:A:475:THR:CB	2.69	0.41
4:A:53:LEU:O	4:A:54:ASN:C	2.59	0.41
4:A:54:ASN:HA	4:A:58:LEU:HD12	2.03	0.41
4:A:683:ILE:O	4:A:686:ALA:N	2.53	0.41
5:B:1084:GLN:CD	5:B:1084:GLN:N	2.74	0.41
5:B:211:VAL:HG23	5:B:483:LEU:HB2	2.02	0.41
5:B:218:SER:O	5:B:219:ALA:O	2.38	0.41
5:B:401:PHE:HD2	5:B:521:LEU:HD12	1.85	0.41
5:B:618:ASP:OD1	5:B:621:GLU:HB3	2.20	0.41
5:B:605:ARG:NH1	5:B:639:ILE:HD13	2.35	0.41
5:B:726:ALA:O	5:B:727:LYS:O	2.39	0.41
5:B:865:LYS:NZ	5:B:869:SER:HA	2.35	0.41
6:C:100:THR:CG2	6:C:101:LEU:N	2.83	0.41
6:C:131:HIS:HA	6:C:132:PRO:HD3	1.93	0.41
6:C:175:ALA:HB2	13:J:10:CYS:HB2	2.03	0.41
6:C:229:TYR:CD1	6:C:229:TYR:N	2.87	0.41
6:C:17:ASN:N	6:C:240:VAL:HG11	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:24:LYS:HB2	8:E:24:LYS:HE3	1.77	0.41
10:G:126:ASN:HA	10:G:126:ASN:HD22	1.54	0.41
10:G:145:VAL:CG1	10:G:146:LYS:H	2.32	0.41
10:G:15:PRO:O	10:G:16:SER:C	2.59	0.41
11:H:100:THR:HG1	11:H:138:GLU:HG3	1.84	0.41
14:K:31:VAL:O	14:K:74:ARG:HA	2.21	0.41
15:L:55:ILE:HG12	15:L:55:ILE:H	1.41	0.41
4:A:973:ILE:HD11	4:A:1038:THR:HG23	2.03	0.41
4:A:1212:VAL:O	4:A:1216:ILE:HG13	2.19	0.41
4:A:1138:ILE:HG21	4:A:1316:VAL:HG13	2.03	0.41
4:A:224:PHE:CD2	4:A:231:PRO:HG3	2.56	0.41
4:A:42:ASP:HB3	4:A:45:GLN:CA	2.51	0.41
4:A:438:ASP:OD1	4:A:462:VAL:HG23	2.21	0.41
4:A:971:PHE:N	4:A:971:PHE:CD1	2.88	0.41
5:B:34:ILE:O	5:B:35:SER:C	2.59	0.41
5:B:616:ILE:HG13	5:B:697:GLU:HA	2.02	0.41
5:B:770:GLN:HG2	5:B:983:ARG:O	2.20	0.41
5:B:862:GLN:HG2	5:B:963:PHE:CD1	2.42	0.41
5:B:843:GLN:N	5:B:994:TYR:O	2.37	0.41
6:C:242:GLN:C	6:C:244:VAL:N	2.72	0.41
6:C:254:LYS:HB3	6:C:254:LYS:HE2	1.89	0.41
10:G:14:HIS:HD2	10:G:16:SER:CB	2.33	0.41
14:K:5:ASP:O	14:K:6:ARG:C	2.58	0.41
4:A:1127:ASP:HB3	4:A:1130:GLN:HB2	1.95	0.41
4:A:1315:GLU:C	4:A:1317:MET:N	2.73	0.41
4:A:1365:TYR:O	4:A:1367:HIS:N	2.54	0.41
4:A:1385:THR:C	4:A:1387:HIS:H	2.23	0.41
4:A:243:PRO:CB	4:A:244:PRO:HD2	2.50	0.41
4:A:298:PHE:O	4:A:299:HIS:C	2.59	0.41
4:A:302:THR:HG22	4:A:303:TYR:N	2.35	0.41
4:A:404:TYR:CD2	4:A:414:ASP:HA	2.56	0.41
4:A:52:GLY:O	4:A:56:PRO:HG2	2.21	0.41
4:A:53:LEU:CD2	4:A:54:ASN:N	2.64	0.41
4:A:845:LEU:O	4:A:846:GLU:C	2.59	0.41
5:B:313:MET:O	5:B:316:PRO:HG2	2.20	0.41
5:B:383:ASN:O	5:B:384:ARG:C	2.58	0.41
5:B:466:TRP:HA	5:B:466:TRP:CE3	2.54	0.41
6:C:167:HIS:HD2	6:C:168:ALA:H	1.69	0.41
8:E:124:VAL:CG1	8:E:132:ILE:HB	2.47	0.41
8:E:163:GLU:O	8:E:164:LEU:C	2.58	0.41
15:L:43:THR:C	15:L:45:ALA:H	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:19:DC:H2''	1:T:20:DC:H5'	2.02	0.41
1:T:15:DT:H73	16:T:67:CPT:N1	2.35	0.41
4:A:1273:LEU:CD1	4:A:1273:LEU:N	2.83	0.41
4:A:1364:ASN:O	4:A:1366:ARG:HG3	2.21	0.41
4:A:1405:THR:HB	4:A:1406:VAL:H	1.58	0.41
4:A:1409:LEU:O	4:A:1412:ALA:HB3	2.20	0.41
4:A:1423:GLY:O	4:A:1424:VAL:C	2.59	0.41
4:A:224:PHE:CD2	4:A:231:PRO:HD3	2.56	0.41
4:A:316:GLN:HB2	4:A:322:VAL:HG23	2.02	0.41
4:A:360:GLU:O	4:A:361:LEU:C	2.57	0.41
4:A:361:LEU:CD1	4:A:474:VAL:HB	2.51	0.41
4:A:860:LEU:CB	4:A:862:ASN:OD1	2.69	0.41
5:B:1079:LYS:N	6:C:27:LEU:HD21	2.36	0.41
5:B:172:ILE:CG2	5:B:173:MET:H	2.34	0.41
6:C:179:GLU:CG	6:C:180:TYR:H	2.28	0.41
7:D:138:ASN:C	7:D:140:ASP:N	2.74	0.41
7:D:173:HIS:NE2	7:D:201:LYS:NZ	2.69	0.41
10:G:1:MET:HG2	10:G:85:GLU:CD	2.41	0.41
14:K:55:LYS:CB	14:K:81:TYR:CE1	3.04	0.41
4:A:1072:ILE:O	4:A:1075:PRO:HG2	2.21	0.41
4:A:1348:LEU:HG	4:A:1372:VAL:HG23	2.01	0.41
4:A:252:PHE:HB2	4:A:256:GLN:CD	2.40	0.41
4:A:322:VAL:HG12	4:A:322:VAL:O	2.21	0.41
4:A:43:GLU:O	4:A:44:THR:CB	2.68	0.41
4:A:512:VAL:O	4:A:512:VAL:HG12	2.21	0.41
4:A:567:LYS:CB	4:A:568:PRO:HD2	2.50	0.41
4:A:935:GLN:O	4:A:938:LYS:N	2.54	0.41
5:B:1002:THR:O	5:B:1003:ALA:C	2.59	0.41
5:B:526:GLU:CG	5:B:538:ASN:HD22	2.31	0.41
5:B:979:LYS:HG2	5:B:1095:LEU:CD1	2.50	0.41
7:D:53:SER:H	7:D:148:LEU:CD2	2.34	0.41
7:D:192:LYS:HB3	7:D:192:LYS:HZ2	1.85	0.41
8:E:102:GLU:C	8:E:104:ASN:N	2.71	0.41
8:E:124:VAL:N	8:E:125:PRO:HD2	2.35	0.41
11:H:143:LEU:N	11:H:143:LEU:HD12	2.36	0.41
12:I:62:ILE:O	12:I:62:ILE:CG1	2.66	0.41
12:I:85:PHE:HD1	12:I:99:LEU:HD13	1.83	0.41
4:A:58:LEU:HD13	4:A:243:PRO:HA	2.02	0.41
4:A:42:ASP:HB3	4:A:45:GLN:N	2.33	0.41
4:A:71:GLN:O	4:A:73:GLY:N	2.50	0.41
4:A:818:MET:HA	5:B:514:LEU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:838:GLN:O	4:A:842:VAL:HG23	2.21	0.41
5:B:1106:ARG:HG3	5:B:1107:ALA:N	2.35	0.41
5:B:255:GLN:HB2	5:B:272:THR:HB	2.01	0.41
5:B:26:THR:O	5:B:29:ASP:HB2	2.21	0.41
5:B:334:ILE:HG22	5:B:334:ILE:O	2.21	0.41
5:B:431:TYR:CD2	5:B:447:ALA:HB2	2.56	0.41
5:B:729:ILE:HG22	5:B:729:ILE:O	2.21	0.41
5:B:830:TYR:O	5:B:831:SER:C	2.59	0.41
6:C:69:LEU:HD12	6:C:69:LEU:H	1.85	0.41
8:E:157:SER:C	8:E:159:ASP:H	2.23	0.41
10:G:154:VAL:HG12	10:G:155:SER:N	2.36	0.41
11:H:118:PHE:O	11:H:120:GLY:N	2.53	0.41
14:K:68:PHE:HB3	14:K:70:ARG:HH11	1.84	0.41
4:A:1119:TYR:O	4:A:1120:LEU:O	2.39	0.41
4:A:1347:ALA:O	4:A:1348:LEU:C	2.59	0.41
4:A:1443:VAL:C	4:A:1444:MET:HG3	2.40	0.41
4:A:388:LEU:HD22	4:A:432:VAL:HB	2.02	0.41
4:A:666:ILE:HD11	5:B:1086:PHE:HE1	1.86	0.41
4:A:860:LEU:HB3	4:A:862:ASN:OD1	2.21	0.41
4:A:971:PHE:O	4:A:972:HIS:C	2.59	0.41
5:B:977:GLY:HA3	5:B:1099:VAL:CG2	2.50	0.41
4:A:412:ARG:NH2	5:B:1108:ARG:NH1	2.69	0.41
5:B:170:LEU:HA	5:B:171:PRO:HD2	1.89	0.41
5:B:212:LEU:HD13	5:B:409:ALA:HA	2.03	0.41
5:B:329:THR:O	5:B:332:ASP:HB3	2.20	0.41
5:B:465:ASN:ND2	5:B:477:ALA:HB2	2.35	0.41
5:B:615:MET:O	5:B:697:GLU:HG3	2.20	0.41
5:B:777:ALA:HA	5:B:1095:LEU:HA	2.02	0.41
5:B:806:THR:HG21	5:B:808:ALA:HB3	2.02	0.41
5:B:878:GLN:O	5:B:879:ARG:C	2.58	0.41
5:B:895:ASP:C	5:B:897:GLY:H	2.24	0.41
8:E:55:ARG:O	8:E:57:MET:N	2.53	0.41
10:G:22:MET:C	10:G:24:GLN:N	2.74	0.41
10:G:99:PHE:C	10:G:99:PHE:CD1	2.95	0.41
12:I:54:GLU:OE2	12:I:118:ARG:CZ	2.69	0.41
4:A:1242:VAL:O	4:A:1243:VAL:HB	2.21	0.40
4:A:335:ARG:O	4:A:336:ILE:C	2.60	0.40
4:A:522:GLY:HA2	4:A:630:ILE:CD1	2.51	0.40
4:A:901:LEU:HD22	4:A:919:ILE:HG22	2.03	0.40
5:B:174:LEU:HD22	5:B:202:TYR:CE1	2.56	0.40
5:B:174:LEU:HD21	5:B:204:ILE:HD11	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:258:LEU:O	5:B:258:LEU:CG	2.67	0.40
5:B:877:PRO:C	5:B:878:GLN:HG3	2.42	0.40
6:C:186:LEU:HB3	6:C:188:HIS:CD2	2.56	0.40
6:C:217:ASP:HA	6:C:218:PRO:HD3	1.89	0.40
5:B:1001:PHE:HD2	6:C:34:ARG:NH2	2.17	0.40
6:C:80:LEU:CD1	6:C:95:CYS:HA	2.51	0.40
7:D:158:GLU:O	7:D:161:GLY:N	2.51	0.40
11:H:127:GLY:O	11:H:128:ASN:CB	2.69	0.40
11:H:5:LEU:N	11:H:60:ALA:HB2	2.37	0.40
13:J:59:LYS:H	13:J:59:LYS:HG2	1.72	0.40
14:K:46:ILE:O	14:K:46:ILE:HG22	2.21	0.40
6:C:167:HIS:CE1	15:L:70:ARG:HA	2.57	0.40
1:T:11:DT:H1'	1:T:12:DA:H5'	2.02	0.40
4:A:1237:ILE:HG22	4:A:1238:ILE:N	2.36	0.40
4:A:42:ASP:HB3	4:A:45:GLN:HA	2.03	0.40
4:A:486:GLU:O	4:A:487:MET:HG2	2.21	0.40
4:A:781:ASP:O	4:A:782:ARG:HB3	2.21	0.40
5:B:129:PHE:CE2	5:B:166:PHE:HD1	2.39	0.40
5:B:552:MET:C	5:B:554:ILE:N	2.74	0.40
5:B:758:PHE:O	5:B:760:ASP:N	2.54	0.40
6:C:54:ASN:HB2	6:C:153:LEU:CD1	2.52	0.40
7:D:63:LEU:HA	7:D:63:LEU:HD22	1.66	0.40
8:E:191:LYS:O	8:E:193:GLY:N	2.55	0.40
10:G:79:PHE:CE2	10:G:105:PRO:CG	3.03	0.40
15:L:25:ALA:O	15:L:26:THR:CB	2.69	0.40
2:N:3:DA:C1'	2:N:4:DG:H5'	2.52	0.40
4:A:1215:ARG:HG2	4:A:1215:ARG:HH11	1.87	0.40
4:A:1317:MET:HE1	4:A:1338:VAL:HG11	2.02	0.40
4:A:1434:ALA:CB	4:A:1436:ILE:HD12	2.52	0.40
4:A:18:GLN:H	5:B:1215:ARG:HB2	1.86	0.40
4:A:219:PHE:CD2	4:A:231:PRO:HD2	2.56	0.40
4:A:325:ILE:HG22	5:B:1210:MET:HE1	2.02	0.40
4:A:711:ARG:O	4:A:714:PHE:N	2.51	0.40
4:A:935:GLN:O	4:A:936:LEU:C	2.59	0.40
4:A:964:ILE:O	4:A:967:ALA:N	2.55	0.40
4:A:7:SER:CB	5:B:1193:GLN:NE2	2.83	0.40
5:B:33:VAL:O	5:B:36:ALA:HB3	2.22	0.40
5:B:610:ASN:C	5:B:612:GLU:H	2.25	0.40
5:B:616:ILE:CG1	5:B:697:GLU:HA	2.51	0.40
5:B:858:SER:HA	5:B:966:VAL:O	2.22	0.40
6:C:204:SER:C	6:C:206:ASN:N	2.73	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:52:GLU:HB3	6:C:154:LYS:HB2	2.03	0.40
6:C:59:ALA:O	6:C:62:PHE:CB	2.69	0.40
7:D:29:LEU:N	7:D:29:LEU:HD23	2.35	0.40
9:F:77:ASP:O	9:F:79:ARG:N	2.54	0.40
11:H:9:ILE:HA	11:H:55:LEU:O	2.21	0.40
13:J:1:MET:H2	13:J:57:ILE:H	1.65	0.40
2:N:5:DT:H1'	2:N:6:DA:H5'	2.03	0.40
4:A:289:ILE:C	4:A:291:GLU:N	2.74	0.40
4:A:535:THR:CG2	4:A:575:LYS:HE2	2.50	0.40
4:A:693:VAL:HA	4:A:696:GLU:HB3	2.03	0.40
4:A:853:ASP:C	4:A:853:ASP:OD1	2.60	0.40
4:A:863:VAL:HG11	4:A:866:PHE:CE2	2.56	0.40
5:B:839:MET:CE	5:B:1010:LEU:HD21	2.42	0.40
5:B:1060:ARG:HA	5:B:1060:ARG:HD2	1.74	0.40
5:B:118:ARG:HG2	5:B:204:ILE:HD13	2.03	0.40
5:B:205:ILE:N	5:B:205:ILE:CD1	2.84	0.40
5:B:294:ASP:C	5:B:296:GLU:H	2.22	0.40
5:B:564:GLU:HA	5:B:565:PRO:HD2	1.93	0.40
5:B:766:ARG:HD3	5:B:766:ARG:HA	1.91	0.40
5:B:797:TYR:HE1	5:B:854:LEU:HD21	1.86	0.40
5:B:796:LEU:HD12	5:B:797:TYR:N	2.37	0.40
5:B:895:ASP:C	5:B:897:GLY:N	2.74	0.40
6:C:67:LEU:HD11	6:C:155:LEU:HD13	2.02	0.40
7:D:159:THR:O	7:D:163:VAL:HG23	2.21	0.40
9:F:154:ASP:HB3	9:F:155:LEU:H	1.67	0.40
10:G:119:LEU:HD13	10:G:132:SER:HB2	2.03	0.40
12:I:34:TYR:HE2	12:I:36:GLU:HB3	1.86	0.40
13:J:52:THR:HG22	13:J:52:THR:O	2.20	0.40
4:A:103:CYS:C	4:A:105:CYS:N	2.75	0.40
4:A:1121:GLU:O	4:A:1122:PRO:C	2.59	0.40
4:A:1215:ARG:HG2	4:A:1215:ARG:NH1	2.37	0.40
4:A:1313:LEU:HD23	4:A:1338:VAL:CB	2.52	0.40
4:A:1377:THR:O	4:A:1378:GLN:C	2.59	0.40
4:A:431:LYS:HE3	4:A:431:LYS:HB2	1.95	0.40
4:A:463:ILE:HD13	4:A:469:ARG:HG3	2.00	0.40
4:A:534:LEU:CD1	4:A:541:ILE:HD11	2.51	0.40
4:A:57:ARG:O	4:A:68:GLN:NE2	2.42	0.40
4:A:709:THR:HG22	4:A:711:ARG:N	2.18	0.40
4:A:783:THR:HG21	4:A:815:PHE:CE2	2.56	0.40
4:A:878:ILE:HG23	4:A:956:LEU:N	2.36	0.40
4:A:95:PHE:O	4:A:96:ILE:C	2.59	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:986:ILE:HG22	4:A:987:VAL:N	2.37	0.40
5:B:1035:ALA:HB1	5:B:1040:ASN:O	2.21	0.40
5:B:1110:PRO:HG2	5:B:1119:VAL:CG2	2.51	0.40
5:B:1163:CYS:HB3	5:B:1166:CYS:O	2.22	0.40
5:B:126:SER:HB3	5:B:172:ILE:CD1	2.51	0.40
5:B:203:PHE:N	5:B:203:PHE:CD1	2.89	0.40
5:B:308:TRP:HA	5:B:311:LEU:HD12	2.03	0.40
4:A:804:TYR:OH	5:B:763:GLN:HA	2.21	0.40
5:B:889:THR:CG2	5:B:891:ASP:OD2	2.69	0.40
6:C:62:PHE:O	6:C:65:HIS:HB3	2.22	0.40
6:C:89:GLU:O	6:C:90:ASP:HB3	2.21	0.40
8:E:120:ALA:O	8:E:122:LYS:N	2.55	0.40
8:E:63:ASN:HA	8:E:64:PRO:HD3	1.78	0.40
12:I:13:MET:HG3	12:I:14:LEU:N	2.37	0.40
13:J:36:LEU:HD12	13:J:47:ARG:HH12	1.82	0.40
4:A:551:TYR:CE2	14:K:62:LYS:HE2	2.57	0.40
6:C:165:LYS:O	14:K:6:ARG:NH1	2.53	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	A	1406/1733 (81%)	988 (70%)	277 (20%)	141 (10%)	0	9
5	B	1090/1224 (89%)	754 (69%)	217 (20%)	119 (11%)	0	8
6	C	264/318 (83%)	181 (69%)	50 (19%)	33 (12%)	0	6
7	D	173/221 (78%)	125 (72%)	28 (16%)	20 (12%)	0	6
8	E	212/215 (99%)	157 (74%)	38 (18%)	17 (8%)	1	14
9	F	82/155 (53%)	62 (76%)	15 (18%)	5 (6%)	1	20
10	G	169/171 (99%)	131 (78%)	30 (18%)	8 (5%)	2	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	H	129/146 (88%)	90 (70%)	19 (15%)	20 (16%)	0	4
12	I	117/122 (96%)	84 (72%)	23 (20%)	10 (8%)	1	12
13	J	63/70 (90%)	36 (57%)	15 (24%)	12 (19%)	0	2
14	K	112/120 (93%)	86 (77%)	20 (18%)	6 (5%)	2	22
15	L	44/70 (63%)	17 (39%)	14 (32%)	13 (30%)	0	0
All	All	3861/4565 (85%)	2711 (70%)	746 (19%)	404 (10%)	0	8

All (404) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	42	ASP
4	A	44	THR
4	A	48	ALA
4	A	54	ASN
4	A	55	ASP
4	A	57	ARG
4	A	62	ASP
4	A	66	LYS
4	A	67	CYS
4	A	73	GLY
4	A	74	MET
4	A	93	VAL
4	A	154	SER
4	A	223	GLY
4	A	250	ILE
4	A	253	ASN
4	A	255	SER
4	A	286	HIS
4	A	311	GLN
4	A	312	PRO
4	A	318	SER
4	A	322	VAL
4	A	332	LYS
4	A	335	ARG
4	A	336	ILE
4	A	385	ILE
4	A	423	ASP
4	A	536	LEU
4	A	567	LYS
4	A	597	LEU

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Mol	Chain	Res	Type
4	A	626	ASN
4	A	780	VAL
4	A	789	LYS
4	A	968	GLN
4	A	1002	GLY
4	A	1036	ARG
4	A	1115	SER
4	A	1120	LEU
4	A	1122	PRO
4	A	1223	ASP
4	A	1314	SER
4	A	1365	TYR
4	A	1366	ARG
4	A	1378	GLN
4	A	1405	THR
5	B	21	GLU
5	B	45	SER
5	B	108	VAL
5	B	206	ASN
5	B	219	ALA
5	B	229	ALA
5	B	258	LEU
5	B	259	TYR
5	B	266	ALA
5	B	334	ILE
5	B	367	LEU
5	B	401	PHE
5	B	474	SER
5	B	509	ALA
5	B	643	ASP
5	B	709	ASP
5	B	727	LYS
5	B	731	VAL
5	B	751	VAL
5	B	764	SER
5	B	943	SER
5	B	951	GLN
5	B	958	GLN
5	B	1046	PRO
5	B	1069	PHE
5	B	1097	HIS
5	B	1100	ASP

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Mol	Chain	Res	Type
5	B	1108	ARG
5	B	1156	ASP
5	B	1157	ALA
5	B	1171	VAL
5	B	1175	LEU
5	B	1178	ASN
5	B	1181	GLU
5	B	1182	CYS
5	B	1183	LYS
5	B	1188	LYS
6	C	87	PHE
6	C	141	GLY
6	C	149	LYS
6	C	161	LYS
6	C	173	ALA
6	C	184	ASN
6	C	209	TYR
6	C	214	ASN
6	C	215	GLU
7	D	5	THR
7	D	8	PHE
7	D	19	GLU
7	D	20	GLU
7	D	21	GLU
7	D	52	LEU
7	D	131	GLU
7	D	192	LYS
7	D	199	ASN
8	E	44	ALA
8	E	130	ALA
8	E	192	ARG
8	E	206	GLY
10	G	62	LEU
10	G	63	PRO
10	G	118	ASP
10	G	139	ILE
11	H	108	SER
11	H	128	ASN
12	I	3	THR
12	I	9	ASP
12	I	47	GLU
13	J	2	ILE

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Mol	Chain	Res	Type
13	J	6	ARG
13	J	17	LYS
13	J	29	GLU
13	J	32	GLU
13	J	55	ASP
13	J	64	ASN
14	K	7	PHE
15	L	35	SER
15	L	50	ASP
15	L	53	HIS
15	L	60	ARG
4	A	58	LEU
4	A	59	GLY
4	A	69	THR
4	A	76	GLU
4	A	113	LEU
4	A	117	GLU
4	A	205	GLU
4	A	226	GLU
4	A	263	THR
4	A	283	GLY
4	A	410	GLY
4	A	465	TYR
4	A	517	ASN
4	A	543	LEU
4	A	601	LYS
4	A	609	ASP
4	A	619	LYS
4	A	661	GLY
4	A	666	ILE
4	A	716	ASP
4	A	731	ARG
4	A	775	ILE
4	A	847	ASP
4	A	875	ALA
4	A	986	ILE
4	A	1124	HIS
4	A	1212	VAL
4	A	1221	LYS
4	A	1255	GLU
5	B	58	THR
5	B	67	SER

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Mol	Chain	Res	Type
5	B	68	THR
5	B	260	GLY
5	B	282	ILE
5	B	328	GLU
5	B	369	GLY
5	B	394	ASP
5	B	450	ALA
5	B	467	GLY
5	B	470	LYS
5	B	477	ALA
5	B	591	ARG
5	B	605	ARG
5	B	613	VAL
5	B	712	PRO
5	B	792	MET
5	B	867	GLY
5	B	884	ARG
5	B	907	GLY
5	B	1003	ALA
5	B	1041	GLU
5	B	1103	ILE
5	B	1126	GLY
5	B	1131	GLY
5	B	1155	SER
5	B	1167	GLY
5	B	1186	ASP
6	C	78	GLU
6	C	84	ARG
6	C	108	GLU
6	C	110	THR
6	C	156	THR
6	C	175	ALA
6	C	216	GLY
6	C	231	ASN
7	D	9	GLN
7	D	53	SER
7	D	177	VAL
8	E	73	PRO
8	E	74	ASP
8	E	106	GLN
8	E	121	MET
8	E	174	GLN

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Mol	Chain	Res	Type
9	F	73	ALA
9	F	81	THR
9	F	154	ASP
10	G	167	TYR
11	H	59	ILE
11	H	62	SER
11	H	81	PRO
11	H	82	PRO
11	H	84	ALA
11	H	90	ALA
11	H	140	ALA
12	I	11	ASN
12	I	57	GLY
12	I	79	HIS
12	I	91	ARG
12	I	106	CYS
13	J	28	ASP
14	K	15	GLY
14	K	104	ASN
15	L	43	THR
15	L	54	ARG
4	A	4	GLN
4	A	232	GLU
4	A	298	PHE
4	A	321	PRO
4	A	331	GLY
4	A	399	HIS
4	A	418	SER
4	A	846	GLU
4	A	854	ASN
4	A	871	ASP
4	A	1016	THR
4	A	1324	PRO
4	A	1335	ILE
4	A	1377	THR
4	A	1393	ASN
4	A	1402	PHE
5	B	46	GLN
5	B	184	ALA
5	B	193	LYS
5	B	257	LYS
5	B	460	ALA

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Mol	Chain	Res	Type
5	B	559	SER
5	B	641	GLU
5	B	708	GLU
5	B	711	GLU
5	B	738	PHE
5	B	746	SER
5	B	754	SER
5	B	878	GLN
5	B	879	ARG
5	B	881	ASN
5	B	942	ARG
5	B	1016	ALA
5	B	1035	ALA
5	B	1143	ALA
6	C	90	ASP
6	C	153	LEU
6	C	212	PRO
6	C	213	PRO
6	C	240	VAL
7	D	6	SER
7	D	218	GLU
8	E	43	LYS
8	E	45	LYS
8	E	59	SER
8	E	103	LYS
8	E	115	ASN
9	F	112	GLU
10	G	35	GLU
11	H	32	THR
11	H	109	LYS
12	I	107	SER
13	J	27	GLU
14	K	111	LEU
15	L	44	ASP
15	L	55	ILE
15	L	59	ALA
4	A	45	GLN
4	A	70	CYS
4	A	128	ILE
4	A	169	ASN
4	A	219	PHE
4	A	400	PRO

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Mol	Chain	Res	Type
4	A	424	ILE
4	A	592	ASP
4	A	852	TYR
4	A	916	GLY
4	A	958	VAL
4	A	1126	ALA
4	A	1229	SER
4	A	1281	ARG
4	A	1302	PRO
4	A	1438	THR
5	B	65	GLU
5	B	171	PRO
5	B	333	PHE
5	B	365	THR
5	B	409	ALA
5	B	478	GLY
5	B	480	SER
5	B	869	SER
5	B	909	ASP
5	B	1017	ILE
6	C	60	ASP
6	C	132	PRO
6	C	167	HIS
6	C	208	GLU
6	C	217	ASP
7	D	13	ARG
8	E	76	GLY
10	G	154	VAL
11	H	17	PRO
11	H	60	ALA
11	H	77	ARG
11	H	92	ASP
11	H	139	ASN
12	I	95	THR
13	J	24	LEU
13	J	33	GLY
14	K	29	ASN
15	L	64	LEU
4	A	61	ILE
4	A	84	ILE
4	A	245	PRO
4	A	544	ASP

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Mol	Chain	Res	Type
4	A	591	PHE
4	A	599	SER
4	A	782	ARG
4	A	910	PRO
4	A	920	LEU
4	A	1114	PRO
4	A	1116	LEU
4	A	1128	GLN
4	A	1165	GLU
4	A	1242	VAL
4	A	1297	GLU
4	A	1300	LYS
5	B	24	PRO
5	B	28	GLU
5	B	114	PRO
5	B	115	GLN
5	B	262	GLU
5	B	295	GLY
5	B	309	GLN
5	B	346	GLU
5	B	362	PRO
5	B	421	PHE
5	B	436	VAL
5	B	551	PRO
5	B	565	PRO
5	B	978	ASP
5	B	1045	SER
6	C	142	VAL
6	C	148	ARG
7	D	15	LEU
7	D	31	GLN
7	D	174	PRO
8	E	104	ASN
9	F	104	ASN
11	H	52	GLN
14	K	4	PRO
15	L	40	LEU
4	A	5	GLN
4	A	111	GLY
4	A	419	LYS
4	A	492	PRO
4	A	598	LEU

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Mol	Chain	Res	Type
4	A	753	GLY
4	A	1071	SER
5	B	283	VAL
5	B	611	PRO
5	B	688	GLY
5	B	1011	ILE
6	C	195	GLN
7	D	16	LYS
11	H	12	VAL
11	H	83	GLN
15	L	26	THR
15	L	56	LEU
4	A	568	PRO
4	A	600	PRO
4	A	627	GLY
4	A	1341	ILE
5	B	575	PRO
7	D	202	ILE
10	G	20	PRO
4	A	244	PRO
4	A	1435	PRO
5	B	818	PRO
6	C	51	VAL
6	C	139	GLY
13	J	14	VAL
4	A	196	GLU
4	A	284	ALA
4	A	1031	VAL
4	A	1164	PRO
5	B	511	PRO
5	B	1214	PRO
6	C	6	PRO
8	E	38	PRO
4	A	357	PRO
4	A	765	VAL
5	B	658	ILE
5	B	901	PRO
11	H	44	VAL

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	A	1239/1520 (82%)	1124 (91%)	115 (9%)	9	35
5	B	962/1061 (91%)	887 (92%)	75 (8%)	12	42
6	C	234/274 (85%)	211 (90%)	23 (10%)	8	33
7	D	159/200 (80%)	129 (81%)	30 (19%)	1	10
8	E	196/197 (100%)	190 (97%)	6 (3%)	40	65
9	F	74/137 (54%)	65 (88%)	9 (12%)	5	25
10	G	152/152 (100%)	139 (91%)	13 (9%)	10	40
11	H	117/128 (91%)	112 (96%)	5 (4%)	29	58
12	I	113/116 (97%)	104 (92%)	9 (8%)	12	42
13	J	60/65 (92%)	56 (93%)	4 (7%)	16	47
14	K	99/102 (97%)	89 (90%)	10 (10%)	7	32
15	L	40/57 (70%)	36 (90%)	4 (10%)	7	32
All	All	3445/4009 (86%)	3142 (91%)	303 (9%)	10	38

All (303) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	2	VAL
4	A	34	LYS
4	A	37	PHE
4	A	38	PRO
4	A	62	ASP
4	A	68	GLN
4	A	83	HIS
4	A	93	VAL
4	A	100	LYS
4	A	108	MET
4	A	122	MET
4	A	200	ARG
4	A	215	SER
4	A	221	SER

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Mol	Chain	Res	Type
4	A	270	LEU
4	A	302	THR
4	A	312	PRO
4	A	320	ARG
4	A	321	PRO
4	A	326	ARG
4	A	335	ARG
4	A	345	VAL
4	A	354	SER
4	A	381	THR
4	A	396	PRO
4	A	406	ILE
4	A	407	ARG
4	A	408	ASP
4	A	412	ARG
4	A	418	SER
4	A	442	VAL
4	A	443	LEU
4	A	445	ASN
4	A	449	SER
4	A	450	LEU
4	A	451	HIS
4	A	460	VAL
4	A	462	VAL
4	A	469	ARG
4	A	470	LEU
4	A	487	MET
4	A	493	GLN
4	A	503	GLN
4	A	512	VAL
4	A	515	GLN
4	A	518	LYS
4	A	560	ILE
4	A	562	THR
4	A	584	ASN
4	A	590	ARG
4	A	618	GLU
4	A	626	ASN
4	A	635	ARG
4	A	659	HIS
4	A	666	ILE
4	A	670	ILE

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Mol	Chain	Res	Type
4	A	692	ASP
4	A	711	ARG
4	A	727	ASP
4	A	739	ASP
4	A	768	GLN
4	A	774	ARG
4	A	779	PHE
4	A	821	ARG
4	A	834	THR
4	A	858	ASN
4	A	871	ASP
4	A	873	MET
4	A	903	ASN
4	A	907	THR
4	A	929	LEU
4	A	939	ASP
4	A	940	ARG
4	A	942	PHE
4	A	969	GLN
4	A	992	ASP
4	A	1001	ARG
4	A	1017	LEU
4	A	1029	ARG
4	A	1035	TYR
4	A	1037	LEU
4	A	1067	LEU
4	A	1110	ASN
4	A	1111	MET
4	A	1116	LEU
4	A	1120	LEU
4	A	1122	PRO
4	A	1127	ASP
4	A	1138	ILE
4	A	1146	VAL
4	A	1152	ILE
4	A	1155	ASP
4	A	1173	HIS
4	A	1187	GLN
4	A	1206	ASP
4	A	1240	CYS
4	A	1264	GLU
4	A	1271	ILE

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Mol	Chain	Res	Type
4	A	1291	VAL
4	A	1295	THR
4	A	1298	TYR
4	A	1329	THR
4	A	1332	PHE
4	A	1333	ILE
4	A	1359	ASP
4	A	1364	ASN
4	A	1372	VAL
4	A	1386	ARG
4	A	1389	PHE
4	A	1405	THR
4	A	1415	SER
4	A	1432	GLN
4	A	1442	ASP
4	A	1443	VAL
4	A	1445	ILE
5	B	30	SER
5	B	37	PHE
5	B	46	GLN
5	B	57	TYR
5	B	61	ASP
5	B	175	ARG
5	B	188	ASP
5	B	194	GLU
5	B	199	MET
5	B	217	ARG
5	B	223	VAL
5	B	250	PHE
5	B	261	ARG
5	B	268	THR
5	B	298	LEU
5	B	365	THR
5	B	371	GLU
5	B	393	LYS
5	B	399	ASP
5	B	401	PHE
5	B	427	ASP
5	B	429	PHE
5	B	463	THR
5	B	465	ASN
5	B	466	TRP

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Mol	Chain	Res	Type
5	B	485	ARG
5	B	498	THR
5	B	502	ILE
5	B	516	ASN
5	B	557	PHE
5	B	582	VAL
5	B	593	PRO
5	B	603	LEU
5	B	615	MET
5	B	628	THR
5	B	644	GLU
5	B	682	SER
5	B	724	ASP
5	B	737	THR
5	B	742	GLU
5	B	748	ILE
5	B	755	ILE
5	B	787	VAL
5	B	811	TYR
5	B	830	TYR
5	B	835	GLN
5	B	839	MET
5	B	878	GLN
5	B	894	ASP
5	B	901	PRO
5	B	909	ASP
5	B	939	THR
5	B	953	LEU
5	B	957	ASN
5	B	978	ASP
5	B	999	MET
5	B	1002	THR
5	B	1006	ILE
5	B	1022	THR
5	B	1047	PHE
5	B	1084	GLN
5	B	1087	PHE
5	B	1095	LEU
5	B	1099	VAL
5	B	1108	ARG
5	B	1112	GLN
5	B	1122	ARG

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Mol	Chain	Res	Type
5	B	1129	ARG
5	B	1138	MET
5	B	1159	ARG
5	B	1170	THR
5	B	1176	ASN
5	B	1183	LYS
5	B	1202	LEU
5	B	1216	LEU
6	C	22	LEU
6	C	35	ARG
6	C	56	THR
6	C	58	LEU
6	C	60	ASP
6	C	62	PHE
6	C	74	SER
6	C	77	ILE
6	C	89	GLU
6	C	91	HIS
6	C	104	PHE
6	C	128	ASN
6	C	129	ILE
6	C	140	ASN
6	C	147	LEU
6	C	163	ILE
6	C	166	GLU
6	C	193	TYR
6	C	209	TYR
6	C	214	ASN
6	C	240	VAL
6	C	251	LEU
6	C	266	ASP
7	D	5	THR
7	D	8	PHE
7	D	11	ARG
7	D	12	ARG
7	D	13	ARG
7	D	15	LEU
7	D	16	LYS
7	D	17	LYS
7	D	19	GLU
7	D	22	GLU
7	D	47	LEU

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Mol	Chain	Res	Type
7	D	50	LEU
7	D	63	LEU
7	D	70	PHE
7	D	126	ILE
7	D	137	ASN
7	D	139	LYS
7	D	148	LEU
7	D	149	THR
7	D	151	PHE
7	D	152	SER
7	D	170	THR
7	D	174	PRO
7	D	182	SER
7	D	187	THR
7	D	192	LYS
7	D	193	THR
7	D	202	ILE
7	D	206	GLU
7	D	221	TYR
8	E	60	PHE
8	E	74	ASP
8	E	104	ASN
8	E	114	ASN
8	E	132	ILE
8	E	153	HIS
9	F	79	ARG
9	F	81	THR
9	F	90	ARG
9	F	99	LEU
9	F	111	LEU
9	F	122	MET
9	F	143	PHE
9	F	148	VAL
9	F	153	VAL
10	G	1	MET
10	G	13	LEU
10	G	21	ARG
10	G	45	ILE
10	G	52	ASP
10	G	74	TYR
10	G	78	VAL
10	G	79	PHE

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Mol	Chain	Res	Type
10	G	80	LYS
10	G	87	VAL
10	G	88	ASP
10	G	126	ASN
10	G	171	ILE
11	H	86	ASP
11	H	95	TYR
11	H	102	TYR
11	H	130	ARG
11	H	134	ASN
12	I	4	PHE
12	I	9	ASP
12	I	15	TYR
12	I	34	TYR
12	I	75	CYS
12	I	85	PHE
12	I	86	PHE
12	I	100	PHE
12	I	101	PHE
13	J	16	ASP
13	J	44	TYR
13	J	46	CYS
13	J	48	ARG
14	K	1	MET
14	K	5	ASP
14	K	10	PHE
14	K	25	THR
14	K	41	THR
14	K	47	ARG
14	K	50	LEU
14	K	61	TYR
14	K	78	THR
14	K	114	LEU
15	L	27	LEU
15	L	54	ARG
15	L	55	ILE
15	L	70	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (95) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	54	ASN

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Mol	Chain	Res	Type
4	A	92	HIS
4	A	225	ASN
4	A	299	HIS
4	A	339	ASN
4	A	435	HIS
4	A	447	GLN
4	A	451	HIS
4	A	493	GLN
4	A	503	GLN
4	A	517	ASN
4	A	631	HIS
4	A	654	ASN
4	A	736	ASN
4	A	741	ASN
4	A	757	ASN
4	A	768	GLN
4	A	786	HIS
4	A	858	ASN
4	A	903	ASN
4	A	926	GLN
4	A	965	GLN
4	A	994	GLN
4	A	1106	ASN
4	A	1130	GLN
4	A	1140	HIS
4	A	1173	HIS
4	A	1364	ASN
5	B	121	ASN
5	B	178	ASN
5	B	215	GLN
5	B	236	HIS
5	B	350	GLN
5	B	363	HIS
5	B	366	GLN
5	B	465	ASN
5	B	484	ASN
5	B	513	GLN
5	B	515	HIS
5	B	516	ASN
5	B	518	HIS
5	B	538	ASN
5	B	734	HIS

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Mol	Chain	Res	Type
5	B	744	HIS
5	B	763	GLN
5	B	821	GLN
5	B	842	ASN
5	B	957	ASN
5	B	1015	HIS
5	B	1065	GLN
5	B	1076	HIS
5	B	1117	GLN
5	B	1161	HIS
5	B	1179	GLN
5	B	1193	GLN
5	B	1211	ASN
6	C	17	ASN
6	C	24	ASN
6	C	73	GLN
6	C	79	GLN
6	C	112	ASN
6	C	123	ASN
6	C	167	HIS
6	C	252	GLN
7	D	9	GLN
7	D	39	ASN
7	D	40	HIS
7	D	74	GLN
7	D	137	ASN
7	D	143	ASN
7	D	179	GLN
8	E	8	ASN
8	E	32	GLN
8	E	101	GLN
8	E	104	ASN
8	E	113	GLN
8	E	114	ASN
8	E	143	ASN
8	E	147	HIS
10	G	14	HIS
10	G	53	ASN
10	G	97	HIS
10	G	122	ASN
10	G	126	ASN
11	H	131	ASN

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Mol	Chain	Res	Type
11	H	137	GLN
12	I	12	ASN
12	I	60	GLN
12	I	89	GLN
12	I	90	GLN
13	J	64	ASN
14	K	44	ASN
14	K	65	HIS
14	K	76	GLN
14	K	89	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
3	P	9/10 (90%)	1 (11%)	0

All (1) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
3	P	3	U

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 10 ligands modelled in this entry, 9 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond

length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
16	CPT	T	67	1	0,2,4	0.00	-	-		

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.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
16	T	67	CPT	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q < 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2	OWAB(Å ²)	Q < 0.9		
1	T	17/17 (100%)	-0.41	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	110, 139, 169, 175	0
100	100							
2	N	7/7 (100%)	0.36	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	148, 156, 169, 171	0
100	100							
3	P	10/10 (100%)	-0.28	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	118, 128, 165, 172	0
100	100							
4	A	1416/1733 (81%)	-0.32	7 (0%) <table border="1"><tr><td>91</td><td>87</td></tr></table>	91	87	44, 103, 161, 199	0
91	87							
5	B	1108/1224 (90%)	-0.26	13 (1%) <table border="1"><tr><td>79</td><td>72</td></tr></table>	79	72	47, 116, 176, 199	0
79	72							
6	C	266/318 (83%)	-0.40	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	64, 100, 144, 162	0
100	100							
7	D	177/221 (80%)	-0.19	1 (0%) <table border="1"><tr><td>89</td><td>85</td></tr></table>	89	85	70, 120, 177, 190	0
89	85							
8	E	214/215 (99%)	-0.24	1 (0%) <table border="1"><tr><td>91</td><td>87</td></tr></table>	91	87	79, 144, 185, 197	0
91	87							
9	F	84/155 (54%)	-0.54	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	53, 81, 115, 132	0
100	100							
10	G	171/171 (100%)	-0.31	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	82, 103, 141, 150	0
100	100							
11	H	133/146 (91%)	0.15	3 (2%) <table border="1"><tr><td>60</td><td>52</td></tr></table>	60	52	119, 149, 180, 188	0
60	52							
12	I	119/122 (97%)	-0.10	2 (1%) <table border="1"><tr><td>70</td><td>62</td></tr></table>	70	62	94, 150, 183, 199	0
70	62							
13	J	65/70 (92%)	-0.60	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	71, 96, 131, 140	0
100	100							
14	K	114/120 (95%)	-0.40	1 (0%) <table border="1"><tr><td>84</td><td>79</td></tr></table>	84	79	64, 101, 130, 149	0
84	79							
15	L	46/70 (65%)	-0.11	0 <table border="1"><tr><td>100</td><td>100</td></tr></table>	100	100	96, 154, 172, 178	0
100	100							
All	All	3947/4599 (85%)	-0.28	28 (0%) <table border="1"><tr><td>87</td><td>83</td></tr></table>	87	83	44, 111, 175, 199	0
87	83							

All (28) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	A	1176	LEU	10.4
4	A	1175	SER	5.1
5	B	471	LYS	4.9
4	A	1455	PRO	3.7
5	B	470	LYS	3.7
4	A	257	ARG	3.1
11	H	140	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
5	B	508	LEU	2.8
5	B	734	HIS	2.8
5	B	883	LEU	2.8
5	B	882	THR	2.7
4	A	255	SER	2.6
5	B	133	LYS	2.6
5	B	919	SER	2.5
8	E	51	GLY	2.4
12	I	119	THR	2.3
11	H	107	VAL	2.3
4	A	251	SER	2.2
12	I	120	GLN	2.2
7	D	8	PHE	2.2
5	B	92	PHE	2.1
5	B	733	HIS	2.1
4	A	1092	LYS	2.1
5	B	715	ALA	2.1
5	B	472	ALA	2.1
5	B	732	SER	2.1
11	H	113	ALA	2.0
14	K	114	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
16	CPT	T	67	3/5	0.96	0.23	131,131,131,132	0
18	MG	A	1736	1/1	0.97	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
17	ZN	A	1734	1/1	0.98	0.09	108,108,108,108	0
17	ZN	I	204	1/1	0.99	0.07	196,196,196,196	0
17	ZN	C	319	1/1	0.99	0.14	60,60,60,60	0
17	ZN	L	105	1/1	0.99	0.10	127,127,127,127	0
17	ZN	J	101	1/1	0.99	0.22	68,68,68,68	0
17	ZN	B	1307	1/1	0.99	0.19	71,71,71,71	0
17	ZN	I	203	1/1	0.99	0.14	113,113,113,113	0
17	ZN	A	1735	1/1	1.00	0.13	65,65,65,65	0

6.5 Other polymers [i](#)

There are no such residues in this entry.