



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 04:50 AM GMT

PDB ID : 2O5J  
Title : Crystal structure of the T. thermophilus RNAP polymerase elongation complex with the NTP substrate analog  
Authors : Vassylyev, D.G.; Vassylyeva, M.N.  
Deposited on : 2006-12-06  
Resolution : 3.00 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](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

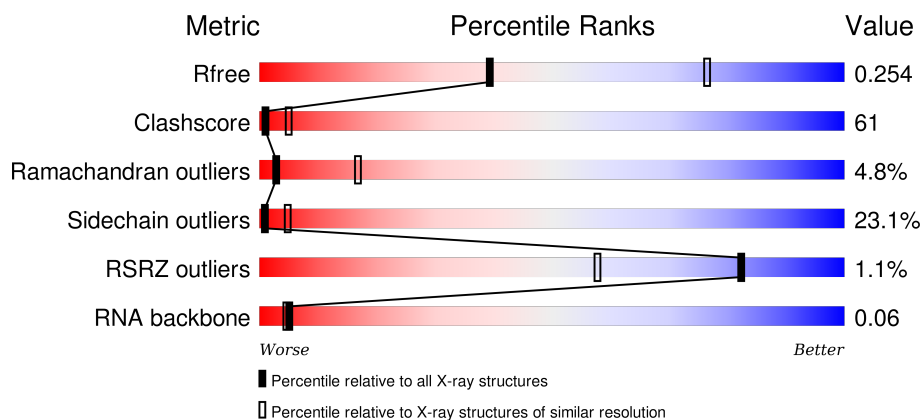
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 3.00 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	91344	1578 (3.00-3.00)
Clashscore	102246	1912 (3.00-3.00)
Ramachandran outliers	100387	1853 (3.00-3.00)
Sidechain outliers	100360	1856 (3.00-3.00)
RSRZ outliers	91569	1592 (3.00-3.00)
RNA backbone	2183	1036 (3.40-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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	G	23	<div> <div>17%</div> <div>57%</div> <div>22%</div> <div>.</div> </div>
1	X	23	<div> <div>17%</div> <div>61%</div> <div>13%</div> <div>9%</div> </div>
2	H	16	<div> <div>19%</div> <div>81%</div> </div>
2	Y	16	<div> <div>31%</div> <div>69%</div> </div>

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Mol	Chain	Length	Quality of chain
3	I	14	<div><div></div><div>21%64%7%7%</div></div>
3	Z	14	<div><div></div><div>29%64%7%</div></div>
4	A	315	<div><div></div><div>21%42%10%27%</div></div>
4	B	315	<div><div>%</div><div></div><div>22%40%11%27%</div></div>
4	K	315	<div><div>%</div><div></div><div>23%42%8%27%</div></div>
4	L	315	<div><div>%</div><div></div><div>18%42%13%27%</div></div>
5	C	1119	<div><div>%</div><div></div><div>23%57%19%.</div></div>
5	M	1119	<div><div>%</div><div></div><div>23%58%18%.</div></div>
6	D	1524	<div><div>%</div><div></div><div>21%47%14%.17%</div></div>
6	N	1524	<div><div>%</div><div></div><div>22%47%14%.17%</div></div>
7	E	99	<div><div>2%</div><div></div><div>22%49%23%..</div></div>
7	O	99	<div><div>%</div><div></div><div>20%59%16%..</div></div>

## 2 Entry composition

There are 11 unique types of molecules in this entry. The entry contains 51213 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(P\*CP\*CP\*CP\*TP\*GP\*TP\*CP\*TP\*GP\*GP\*CP\*GP\*TP\*TP\*CP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	G	23	Total	C	N	O	P	0	0	0
			467	220	80	144	23			
1	X	23	Total	C	N	O	P	0	0	0
			467	220	80	144	23			

- Molecule 2 is a RNA chain called 5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	H	16	Total	C	N	O	P	0	0	0
			347	153	64	114	16			
2	Y	16	Total	C	N	O	P	0	0	0
			347	153	64	114	16			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	I	13	Total	C	N	O	P	0	0	0
			270	126	57	74	13			
3	Z	13	Total	C	N	O	P	0	0	0
			270	126	57	74	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase alpha chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	A	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
4	B	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	K	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
4	L	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			

- Molecule 5 is a protein called DNA-directed RNA polymerase beta chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	C	1119	Total	C	N	O	S	0	0	0
			8829	5581	1577	1647	24			
5	M	1119	Total	C	N	O	S	0	0	0
			8829	5581	1577	1647	24			

- Molecule 6 is a protein called DNA-directed RNA polymerase beta' chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	D	1264	Total	C	N	O	S	0	0	0
			9960	6302	1773	1852	33			
6	N	1264	Total	C	N	O	S	0	0	0
			9960	6302	1773	1852	33			

- Molecule 7 is a protein called DNA-directed RNA polymerase omega chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	E	95	Total	C	N	O	S	0	0	0
			770	491	133	142	4			
7	O	95	Total	C	N	O	S	0	0	0
			770	491	133	142	4			

- Molecule 8 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	D	2	Total	Zn	0	0
			2	2		
8	N	2	Total	Zn	0	0
			2	2		

- Molecule 9 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

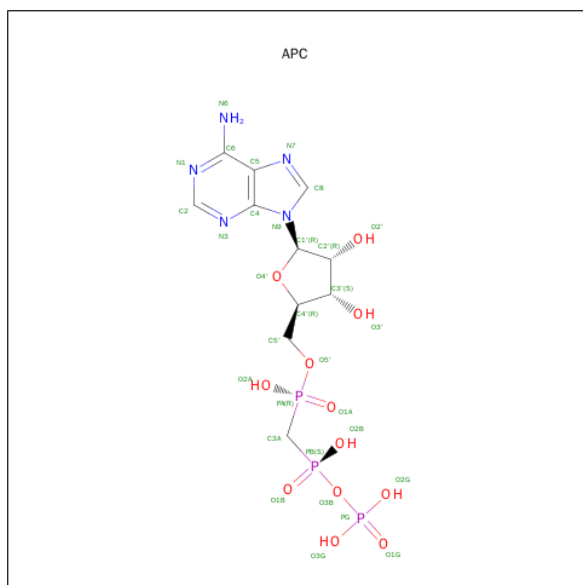
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	D	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	N	2	Total	Mg	0	0
			2	2		

- Molecule 10 is DIPHOSPHOMETHYLPHOSPHONIC ACID ADENOSYL ESTER (three-letter code: APC) (formula:  $C_{11}H_{18}N_5O_{12}P_3$ ).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
10	D	1	Total	C	N	O	P	0	0
			31	11	5	12	3		
10	N	1	Total	C	N	O	P	0	0
			31	11	5	12	3		

- Molecule 11 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
11	A	106	Total	O	0	0
			106	106		
11	B	82	Total	O	0	0
			82	82		
11	C	482	Total	O	0	0
			482	482		
11	D	506	Total	O	0	0
			506	506		
11	E	60	Total	O	0	0
			60	60		
11	G	32	Total	O	0	0
			32	32		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
11	H	37	Total 37	O 37	0	0
11	I	22	Total 22	O 22	0	0
11	K	86	Total 86	O 86	0	0
11	L	104	Total 104	O 104	0	0
11	M	483	Total 483	O 483	0	0
11	N	491	Total 491	O 491	0	0
11	O	39	Total 39	O 39	0	0
11	X	43	Total 43	O 43	0	0
11	Y	30	Total 30	O 30	0	0
11	Z	30	Total 30	O 30	0	0

### 3 Residue-property plots

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

- Molecule 1: 5'-D(P\*CP\*CP\*CP\*TP\*GP\*TP\*CP\*TP\*GP\*GP\*CP\*GP\*TP\*TP\*CP\*GP\*CP\*GP\*CP\*GP\*CP\*CP\*G)-3'

Chain G: 



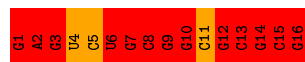
- Molecule 1: 5'-D(P\*CP\*CP\*CP\*TP\*GP\*TP\*CP\*TP\*GP\*GP\*CP\*GP\*TP\*TP\*CP\*GP\*CP\*GP\*CP\*GP\*CP\*CP\*G)-3'

Chain X: 



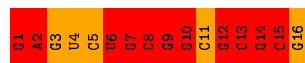
- Molecule 2: 5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3',

Chain H: 



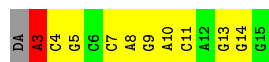
- Molecule 2: 5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3',

Chain Y: 



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

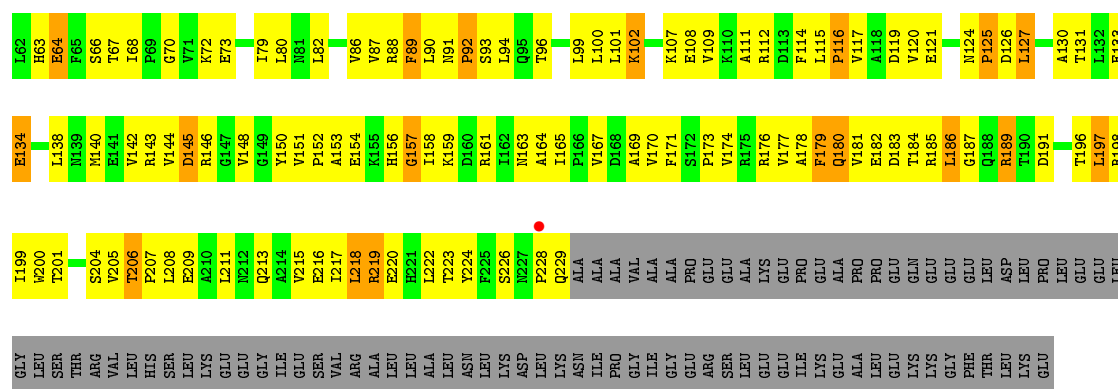
Chain I: 



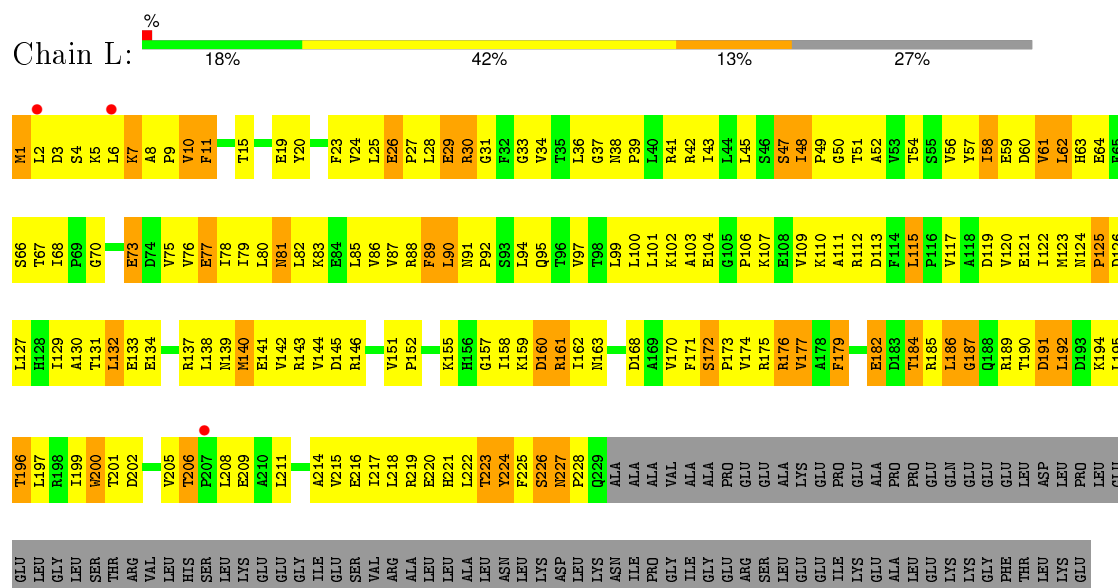
- Molecule 3: 5'-D(\*AP\*AP\*CP\*GP\*CP\*CP\*AP\*GP\*AP\*CP\*AP\*GP\*GP\*G)-3'



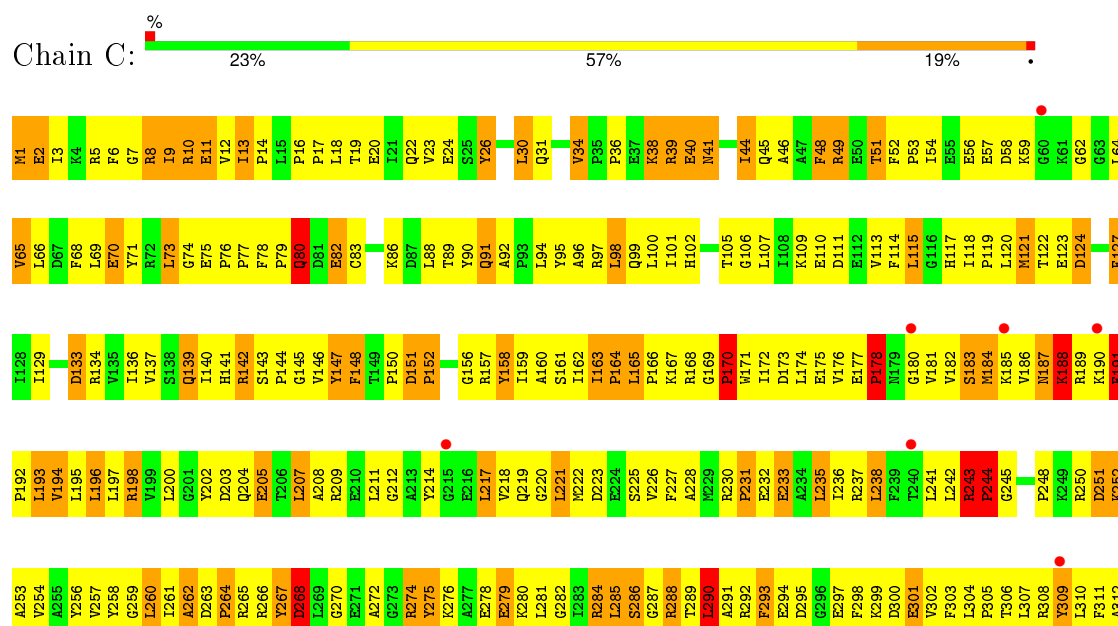




• Molecule 4: DNA-directed RNA polymerase alpha chain



• Molecule 5: DNA-directed RNA polymerase beta chain





A1096	F1032	K971	Y001	L839	S776	E711	O647	G582	R518	I452	A381	P318	A253	V186	G125
L1097	G1033	V972	I902	A840	I777	A712	R648	L583	G519	T453	A382	G319	V254	H187	S126
D1098	E1034	S903	I903	H841	F778	R713	V649	E584	P521	T454	R383	E321	A255	R188	F127
T1101	M1035	L974	P904	R842	G779	D714	R650	E585	P522	T455	R384	H322	V256	R189	I128
L1102	E1036	Y975	I905	H843	K781	K716	K651	E586	I523	L456	E384	V322	V257	F191	N129
D1103	V1037	Y976	F906	H844	K782	T715	G652	V587	I524	A456	F385	D323	Y258	F192	N130
E1104	G1038	G977	D907	H845	A782	L717	D653	V588	V524	A457	F386	D324	G259	L193	G131
K1105	A1039	R978	G908	K846	R783	G718	L654	R589	S525	Y458	S387	I325	L261	V194	A132
D1106	L1040	T979	A909	R847	R784	F719	L655	E589	P526	A459	R388	D326	A262	L195	D133
N1107	Y1043	G980	K910	V848	V785	E720	A656	A593	E527	R460	S392	H327	A263	L196	V134
P1108	G1044	E981	E911	H849	K786	R721	D657	A594	E528	V461	G393	G329	D263	L197	V136
V1109	A1045	K851	P912	A850	D787	I726	G658	L595	V529	D462	F394	R330	P264	R198	G145
D1110	A1046	K851	E913	H851	T788	P727	A660	A597	E530	E463	R331	R332	R265	R199	S138
I1111	H1047	K915	I914	L852	S789	F727	A661	E598	F531	L464	K395	D396	R266	L200	Q139
F1112	P1048	P985	E916	L853	R791	R728	S661	E599	M532	G465	D397	I333	Y267	D268	I140
E1113	L1049	R987	L917	H855	V792	L729	N663	D600	V534	F466	T398	R334	L269	D203	H141
G1114	Q1050	V988	L918	E856	V793	S730	G664	G601	S535	R468	I467	T335	G270	Q204	R142
L1115	E1051	V989	A919	D857	F794	A732	F685	E602	P536	T469	P400	V336	E271	E205	S143
		G990	Q920	M858	F794	A733	L666	V603	K537	P470	L401	G337	A272	T236	P144
	T1054	Q991		P859	G798	L734	A657	A604	Q538	Y471	S402	G273	G272	L207	G145
	L1055	M992	F926	H860	V799	R735	L673	K605	V539	R472	S403	L339	R274	A208	H146
	K1056	F993	G927	L861	V800	D736	A675	V612	F540	R473	L404	M340	Y275	R209	Y147
	S1057	K928	K928	P862	R801	L737	G670	D607	S541	V474	R405	T341	K276	E210	F148
	D1058	M994	R929	D863	R802	D738	M671	G608	V542		H406	D342		L211	T149
	D1059	K995	K930	G884	T803	E739	V672	M609	M543	Y478	K407	Q343	K280	G212	P150
	I1060	E997	G931	T865	V804	E740	L674	R610	L546	T479	R408	R344	G282	E216	P152
	E1061	Y998	E932	P866	R805	G741	V674	I611	J547	T480	R409	R345	G283	E217	A153
	K1062	H999	M999	V867	L806	V742	A675	V612	P548	V483	S411	G347	R284	V218	R154
	M1000	V936	V936	D868	R807	V743	M677	R614	F549	Y485	L413	A349	L285	L221	P155
	N1001	D937	K938	V869	R808	R744	P678	V615	L550	M486	G414	R350	G287	N222	G156
	E1002	K938	R938	L870	G809	I745	F679	E616	E551	T487	P415	L351	R288	D223	Y158
	D1003	R939	E940	N872	P811	E748	D680	D618	H552	T488	L418	A352	T289	E224	R159
	A1066	K1004	V941	P873	G812	V749	F684	R619	D564	T489	L419	R353	S225	G225	A160
	I1070	H1006	E942	L874	V813	K750	E685	L620	B557	E490	T419	G354	A291	Y226	S161
	I1071	E943	V943	G875	E814	P751	D686	V621				R292	R292	F227	I162
	E1074	R946	R946	V876	L815	G752	A637	E622		R493	R422	R358	F293	R230	I163
	D1075	A947	G947	S878	K816	D753	L688	Y623	M560	Y494	A423	R358	E294	E294	P164
	V1076	E948	R879	V879	P817	I754	V689	P624	G561	T495	G424	M359	D295	P231	L165
	P1077	K949	K949	V819	V819	V756	L690	L625	M564	I496	F425	L360	G296	E232	L174
	E1078	N881	R820	V819	R820	G757	S691	R626	M564	A497	D426	N361	G296	E233	E175
	P1079	L882	E821	R820	E821	R758	E692	R627	Q565	Q498	V427	G362			
	G1080	G853	V822	V822	V822	T759	E693	F628	T566			S363	D300	A284	G169
	V1081	K884	R824	R824	R824	K762	L694	Y629	Q567	P502	V430	E364	E301	L285	P170
	P1082	L885	R824	R824	R824	G763	L695	R630	Q567	L503	H431	D365	F302		W171
	E1083	L886	K957	K957	K957	E764	K696	S631	M569	N506	T433	S366	F303	T240	I172
	S1084	E887	T958	T958	T958	R764	R697	N632	P570	N506	R432	L367	L304	L241	D173
	F1085	T888	V855	V855	V855	S765	D698	Q633	L571	R507	H434	T368	P305	L242	E175
	R1086	H889	Q829	Q829	Q829	E766	F699	L637	I572	I508	Y435	P389	T306	R243	V176
	V1087	E961	K830	K830	K830	T767	V700	L637	R573	A509	G436	A370	L307	R244	E177
	L1088	R831	R831	R831	R831	T768	T701	R640	M574	A510	R437	K371	L307	G245	P178
	V1089	K832	K832	K832	K832	F769	S702	R640	Q575	E511	L438	Y309	R308	D246	N179
	K1090	L833	L833	L833	L833	E770	V703	P641	A576	R512	G439	L372	P247	D246	M178
	E1091	Q1025	Q834	Q834	Q834	R771	H704	R642	P577	V513	P440	N374	F311	P248	V181
	Q1026	A1026	R835	R835	R835	R772	V705	V843	V578	V514	V441	S375	A312	K249	V182
	F1027	P967	V835	V835	V835	L773	E706	V644	V579	A515	E442	R376	L313	R250	S183
	Q1030	Q969	G836	G836	G836	L774	V645	V644	M580	R516	T443	P377	T314	D251	M184
	L1092	Q1093	D837	D837	D837	R775	V710	G646	T581	R517	P444	L378		K252	K185
	A1094	L1095	K838	K838	K838										

Chain D: ■ 21% ■ 47% ■ 14% ■ 17%

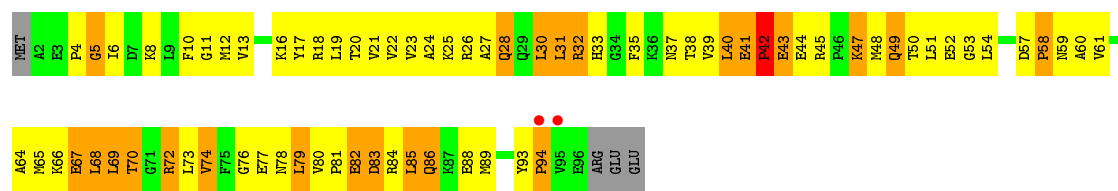
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K1	Green	0.21
K2	Green	0.21
K3	Green	0.21
K4	Green	0.21
K5	Green	0.21
K6	Green	0.21
K7	Green	0.21
K8	Green	0.21
K9	Green	0.21
K10	Green	0.21
K11	Orange	0.47
K12	Orange	0.47
K13	Orange	0.47
K14	Orange	0.47
K15	Orange	0.47
K16	Orange	0.47
K17	Orange	0.47
K18	Orange	0.47
K19	Orange	0.47
K20	Orange	0.47
K21	Red	0.14
K22	Red	0.14
K23	Red	0.14
K24	Red	0.14
K25	Red	0.14
K26	Red	0.14
K27	Red	0.14
K28	Red	0.14
K29	Red	0.14
K30	Red	0.14
K31	Grey	0.17
K32	Grey	0.17
K33	Grey	0.17
K34	Grey	0.17
K35	Grey	0.17
K36	Grey	0.17
K37	Grey	0.17
K38	Grey	0.17
K39	Grey	0.17
K40	Grey	0.17



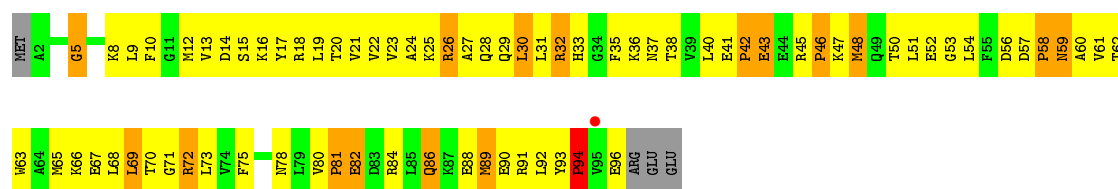




- Molecule 7: DNA-directed RNA polymerase omega chain



- Molecule 7: DNA-directed RNA polymerase omega chain





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 41	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	152.34Å 152.34Å 524.57Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.00 38.29 – 3.00	Depositor EDS
% Data completeness (in resolution range)	89.3 (40.00-3.00) 83.5 (38.29-3.00)	Depositor EDS
$R_{merge}$	0.08	Depositor
$R_{sym}$	0.08	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.51 (at 3.01Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.225 , 0.257 0.229 , 0.254	Depositor DCC
$R_{free}$ test set	11219 reflections (5.70%)	DCC
Wilson B-factor (Å <sup>2</sup> )	64.2	Xtriage
Anisotropy	0.049	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 170.4	EDS
Estimated twinning fraction	0.146 for h,-k,-l	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.40$ , $\langle L^2 \rangle = 0.23$	Xtriage
Outliers	0 of 196921 reflections	Xtriage
$F_o, F_c$ correlation	0.88	EDS
Total number of atoms	51213	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.44% of the height of the origin peak. No significant pseudotranslation is detected.*

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

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

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	G	1.04	1/520 (0.2%)	1.12	1/798 (0.1%)
1	X	1.12	2/520 (0.4%)	1.14	1/798 (0.1%)
2	H	1.39	3/387 (0.8%)	2.45	39/601 (6.5%)
2	Y	1.36	3/387 (0.8%)	2.44	33/601 (5.5%)
3	I	0.72	0/304	0.92	1/467 (0.2%)
3	Z	0.73	0/304	0.91	0/467
4	A	0.69	0/1838	0.76	0/2498
4	B	0.76	0/1838	0.76	2/2498 (0.1%)
4	K	0.73	0/1838	0.82	3/2498 (0.1%)
4	L	0.73	0/1838	0.78	4/2498 (0.2%)
5	C	0.79	1/8997 (0.0%)	0.89	17/12164 (0.1%)
5	M	0.78	1/8997 (0.0%)	0.90	17/12164 (0.1%)
6	D	0.79	1/10128 (0.0%)	0.91	18/13681 (0.1%)
6	N	0.79	2/10128 (0.0%)	0.89	22/13681 (0.2%)
7	E	0.83	1/784 (0.1%)	1.07	3/1057 (0.3%)
7	O	0.78	1/784 (0.1%)	1.07	3/1057 (0.3%)
All	All	0.80	16/49592 (0.0%)	0.95	164/67528 (0.2%)

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	G	0	6
1	X	0	5
2	H	0	2
2	Y	0	1
3	I	0	1
All	All	0	15

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	H	1	G	OP3-P	10.56	1.73	1.61
1	G	1	DC	OP3-P	-7.74	1.51	1.61
1	X	1	DC	OP3-P	-7.13	1.52	1.61
7	E	94	PRO	N-CA	6.34	1.58	1.47
5	C	439	CYS	CB-SG	-6.08	1.72	1.82
7	O	94	PRO	N-CA	6.07	1.57	1.47
2	Y	7	G	C5-C6	-6.04	1.36	1.42
6	N	1039	CYS	CB-SG	-5.96	1.72	1.81
6	D	1101	VAL	CB-CG2	-5.49	1.41	1.52
2	Y	1	G	OP3-P	5.44	1.67	1.61
2	Y	2	A	O3'-P	-5.32	1.54	1.61
5	M	422	ARG	CG-CD	5.29	1.65	1.51
2	H	9	G	C5-C6	-5.22	1.37	1.42
2	H	2	A	C3'-O3'	-5.17	1.34	1.42
6	N	103	TRP	CB-CG	-5.10	1.41	1.50
1	X	13	DT	O3'-P	5.04	1.67	1.61

All (164) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Y	2	A	N9-C1'-C2'	-18.09	90.48	114.00
5	M	409	ARG	NE-CZ-NH1	15.09	127.85	120.30
2	Y	7	G	N9-C1'-C2'	-12.29	98.02	114.00
7	E	94	PRO	CA-N-CD	-11.28	95.71	111.50
2	H	1	G	N9-C1'-C2'	11.20	128.56	114.00
7	O	94	PRO	CA-N-CD	-11.13	95.92	111.50
2	H	7	G	N9-C1'-C2'	-11.00	99.70	114.00
5	M	409	ARG	NE-CZ-NH2	-9.94	115.33	120.30
2	H	2	A	N9-C1'-C2'	-9.73	101.29	112.00
2	H	2	A	P-O3'-C3'	-9.28	108.56	119.70
7	O	94	PRO	N-CA-C	9.25	136.15	112.10
7	E	94	PRO	N-CA-C	9.02	135.55	112.10
2	H	9	G	O4'-C1'-N9	9.00	115.40	108.20
2	Y	2	A	O4'-C1'-N9	-8.97	101.03	108.20
2	Y	14	G	O4'-C1'-N9	8.84	115.27	108.20
2	Y	4	U	O4'-C1'-N1	8.73	115.18	108.20
2	Y	9	G	O4'-C1'-N9	8.71	115.17	108.20
5	C	409	ARG	NE-CZ-NH1	8.58	124.59	120.30
2	H	4	U	O4'-C1'-N1	8.56	115.05	108.20
6	N	1389	LEU	CA-CB-CG	8.45	134.74	115.30
2	H	6	U	O4'-C1'-N1	8.40	114.92	108.20
4	K	197	LEU	CA-CB-CG	8.16	134.07	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	243	ARG	C-N-CD	-8.15	102.66	120.60
2	Y	14	G	N9-C1'-C2'	-8.15	103.03	112.00
2	Y	5	C	O4'-C1'-N1	8.11	114.69	108.20
2	H	5	C	O4'-C1'-N1	8.05	114.64	108.20
2	Y	9	G	C5'-C4'-O4'	-7.86	99.66	109.10
2	H	14	G	O4'-C1'-N9	7.86	114.49	108.20
2	H	13	C	N1-C1'-C2'	-7.86	103.36	112.00
2	H	1	G	O4'-C1'-N9	-7.78	101.98	108.20
2	H	9	G	C5'-C4'-O4'	-7.76	99.79	109.10
2	Y	6	U	O4'-C1'-N1	7.69	114.35	108.20
2	Y	9	G	N9-C1'-C2'	-7.67	103.56	112.00
2	H	12	G	O4'-C1'-N9	7.67	114.34	108.20
2	H	14	G	N9-C1'-C2'	-7.52	103.73	112.00
5	M	98	LEU	CA-CB-CG	7.48	132.49	115.30
6	N	1429	LEU	CA-CB-CG	7.42	132.35	115.30
5	M	243	ARG	C-N-CD	-7.36	104.41	120.60
5	C	409	ARG	NE-CZ-NH2	-7.30	116.65	120.30
2	Y	3	G	OP1-P-OP2	-7.28	108.68	119.60
2	H	9	G	N9-C1'-C2'	-7.26	104.01	112.00
2	Y	14	G	O5'-P-OP2	7.21	119.35	110.70
2	Y	12	G	O4'-C1'-N9	7.18	113.95	108.20
6	N	1244	GLY	N-CA-C	7.15	130.97	113.10
6	D	1244	GLY	N-CA-C	7.14	130.96	113.10
6	N	1244	GLY	CA-C-N	7.05	130.29	116.20
6	D	133	ILE	CA-C-N	-7.03	101.73	117.20
5	M	861	LEU	CA-CB-CG	7.02	131.45	115.30
2	H	8	C	O4'-C1'-N1	6.99	113.79	108.20
2	Y	3	G	O4'-C1'-N9	-6.85	102.72	108.20
2	Y	12	G	N9-C1'-C2'	-6.84	104.48	112.00
2	Y	2	A	OP1-P-OP2	-6.83	109.35	119.60
6	D	1244	GLY	CA-C-N	6.80	129.81	116.20
6	D	133	ILE	C-N-CA	6.79	138.68	121.70
5	M	422	ARG	NE-CZ-NH1	6.74	123.67	120.30
6	D	1243	THR	CA-C-N	6.71	129.63	116.20
4	K	218	LEU	CA-CB-CG	6.71	130.74	115.30
6	D	1096	ARG	NE-CZ-NH2	-6.65	116.97	120.30
2	H	12	G	N9-C1'-C2'	-6.58	104.76	112.00
2	Y	1	G	OP1-P-OP2	-6.48	109.87	119.60
2	H	1	G	OP1-P-OP2	-6.47	109.90	119.60
6	N	1243	THR	CA-C-N	6.46	129.12	116.20
2	Y	2	A	C3'-C2'-C1'	-6.45	96.34	101.50
2	H	10	G	O4'-C1'-N9	6.44	113.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	207	LEU	CA-CB-CG	6.41	130.04	115.30
4	B	90	LEU	CA-CB-CG	6.41	130.03	115.30
2	H	2	A	OP1-P-OP2	-6.39	110.02	119.60
2	H	13	C	O4'-C1'-N1	6.36	113.29	108.20
2	Y	13	C	N1-C1'-C2'	-6.34	105.03	112.00
2	Y	8	C	O4'-C1'-N1	6.33	113.26	108.20
2	H	10	G	N9-C1'-C2'	-6.29	105.08	112.00
5	M	207	LEU	CA-CB-CG	6.28	129.75	115.30
2	H	3	G	OP1-P-OP2	-6.28	110.18	119.60
6	D	153	LEU	CA-CB-CG	6.24	129.64	115.30
2	H	2	A	N9-C4-C5	6.18	108.27	105.80
2	H	2	A	C4'-C3'-C2'	6.17	108.77	102.60
2	H	14	G	O5'-P-OP2	6.16	118.09	110.70
2	H	7	G	C4'-C3'-O3'	6.13	125.26	113.00
4	L	90	LEU	CA-CB-CG	6.13	129.39	115.30
6	N	1243	THR	C-N-CA	-6.13	109.44	122.30
2	Y	13	C	O4'-C1'-N1	6.08	113.07	108.20
2	H	11	C	N1-C1'-C2'	-6.08	105.32	112.00
6	N	450	TYR	CA-C-N	-6.04	103.91	117.20
6	D	1429	LEU	CA-CB-CG	5.98	129.06	115.30
2	H	6	U	C3'-C2'-C1'	5.95	106.26	101.50
2	H	11	C	O4'-C1'-N1	5.94	112.95	108.20
2	Y	16	G	O4'-C1'-N9	5.91	112.93	108.20
2	H	15	C	O4'-C1'-N1	5.91	112.92	108.20
2	Y	7	G	C4'-C3'-O3'	5.90	124.81	113.00
6	N	394	LEU	CA-CB-CG	5.90	128.88	115.30
2	Y	6	U	C3'-C2'-C1'	5.89	106.21	101.50
2	H	2	A	C8-N9-C4	-5.87	103.45	105.80
6	D	1363	LEU	CA-CB-CG	5.83	128.71	115.30
2	Y	11	C	O4'-C1'-N1	5.82	112.86	108.20
6	D	1109	GLU	CA-C-N	-5.81	104.43	117.20
6	D	1243	THR	C-N-CA	-5.79	110.14	122.30
6	N	1109	GLU	CA-C-N	-5.78	104.49	117.20
5	C	58	ASP	C-N-CA	5.76	136.09	121.70
6	N	153	LEU	CA-CB-CG	5.75	128.52	115.30
2	Y	10	G	O4'-C1'-N9	5.73	112.79	108.20
5	M	58	ASP	C-N-CA	5.73	136.04	121.70
1	G	18	DG	N9-C1'-C2'	-5.73	101.72	112.60
6	D	1109	GLU	C-N-CA	5.70	135.96	121.70
5	M	304	LEU	CA-CB-CG	5.66	128.31	115.30
2	H	7	G	O4'-C1'-N9	5.64	112.72	108.20
2	Y	11	C	N1-C1'-C2'	-5.63	105.81	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	450	TYR	CA-CB-CG	-5.61	102.75	113.40
6	N	488	ARG	NE-CZ-NH1	5.59	123.09	120.30
4	K	186	LEU	CA-CB-CG	5.58	128.15	115.30
4	L	115	LEU	CA-CB-CG	5.58	128.13	115.30
2	H	1	G	C4'-C3'-C2'	5.57	108.17	102.60
6	N	450	TYR	CA-CB-CG	-5.54	102.88	113.40
5	M	424	GLY	N-CA-C	5.53	126.93	113.10
2	Y	10	G	N9-C1'-C2'	-5.51	105.94	112.00
5	C	422	ARG	NE-CZ-NH1	5.50	123.05	120.30
6	N	619	LEU	CA-CB-CG	5.49	127.92	115.30
2	H	2	A	P-O5'-C5'	-5.48	112.13	120.90
2	Y	1	G	C2'-C3'-O3'	-5.48	97.45	109.50
6	N	1109	GLU	C-N-CA	5.48	135.39	121.70
6	D	619	LEU	CA-CB-CG	5.46	127.86	115.30
6	N	1244	GLY	CA-C-O	-5.46	110.78	120.60
2	Y	7	G	O4'-C1'-N9	5.44	112.56	108.20
5	C	165	LEU	C-N-CD	-5.44	108.63	120.60
5	C	600	ASP	CB-CG-OD1	-5.40	113.44	118.30
4	L	186	LEU	CA-CB-CG	-5.40	102.88	115.30
6	D	764	LEU	CA-CB-CG	5.40	127.71	115.30
5	M	165	LEU	C-N-CD	-5.38	108.75	120.60
1	X	18	DG	N9-C1'-C2'	-5.36	102.42	112.60
5	C	30	LEU	CA-CB-CG	5.36	127.63	115.30
6	D	1101	VAL	CB-CA-C	-5.36	101.23	111.40
4	L	192	LEU	CA-CB-CG	5.34	127.59	115.30
5	C	600	ASP	CB-CG-OD2	5.34	123.11	118.30
5	C	728	HIS	CA-C-N	5.29	128.84	117.20
6	N	488	ARG	NE-CZ-NH2	-5.28	117.66	120.30
2	H	16	G	O4'-C1'-N9	5.27	112.41	108.20
5	M	285	LEU	CA-CB-CG	5.26	127.39	115.30
5	M	728	HIS	CA-C-N	5.25	128.75	117.20
5	M	409	ARG	CA-CB-CG	5.25	124.94	113.40
5	M	409	ARG	CD-NE-CZ	5.22	130.91	123.60
5	M	728	HIS	C-N-CA	-5.21	108.69	121.70
3	I	3	DA	OP1-P-OP2	-5.20	111.80	119.60
5	C	858	MET	CB-CG-SD	-5.20	96.81	112.40
5	C	244	PRO	CA-N-CD	-5.19	104.24	111.50
5	C	191	PHE	C-N-CA	-5.17	100.27	122.00
6	N	621	LYS	CA-C-N	5.16	128.54	117.20
6	N	813	LEU	CA-CB-CG	5.15	127.15	115.30
2	H	16	G	C5'-C4'-O4'	-5.15	102.92	109.10
6	D	813	LEU	CA-CB-CG	5.14	127.13	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	E	50	THR	C-N-CA	5.14	134.56	121.70
5	C	165	LEU	C-N-CA	5.13	143.56	122.00
6	N	1201	CYS	CA-CB-SG	-5.13	104.76	114.00
5	C	328	LEU	CA-CB-CG	-5.11	103.55	115.30
2	Y	15	C	O4'-C1'-N1	5.10	112.28	108.20
5	M	997	LEU	CB-CG-CD2	-5.10	102.34	111.00
2	H	12	G	C4'-C3'-C2'	5.09	107.69	102.60
7	O	50	THR	C-N-CA	5.09	134.43	121.70
2	H	2	A	C3'-C2'-C1'	-5.09	97.43	101.50
6	N	1112	CYS	CA-CB-SG	5.08	123.14	114.00
2	Y	12	G	C4'-C3'-C2'	5.06	107.66	102.60
5	C	728	HIS	C-N-CA	-5.05	109.07	121.70
4	B	115	LEU	CA-CB-CG	5.04	126.90	115.30
6	D	1244	GLY	CA-C-O	-5.04	111.52	120.60
6	N	1039	CYS	CA-CB-SG	-5.03	104.95	114.00
6	N	496	LEU	CA-CB-CG	5.00	126.80	115.30

There are no chirality outliers.

All (15) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	G	13	DT	Sidechain
1	G	15	DC	Sidechain
1	G	16	DG	Sidechain
1	G	17	DC	Sidechain
1	G	18	DG	Sidechain
1	G	19	DC	Sidechain
2	H	14	G	Sidechain
2	H	16	G	Sidechain
3	I	3	DA	Sidechain
1	X	13	DT	Sidechain
1	X	15	DC	Sidechain
1	X	16	DG	Sidechain
1	X	17	DC	Sidechain
1	X	18	DG	Sidechain
2	Y	14	G	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	G	467	0	259	43	0
1	X	467	0	259	43	0
2	H	347	0	174	58	0
2	Y	347	0	174	81	0
3	I	270	0	144	14	0
3	Z	270	0	144	12	0
4	A	1806	0	1861	169	0
4	B	1806	0	1861	174	0
4	K	1806	0	1861	182	0
4	L	1806	0	1861	199	0
5	C	8829	0	8933	1208	0
5	M	8829	0	8933	1204	0
6	D	9960	0	10183	1379	0
6	N	9960	0	10183	1351	0
7	E	770	0	784	108	0
7	O	770	0	784	101	0
8	D	2	0	0	0	0
8	N	2	0	0	0	0
9	D	2	0	0	0	0
9	N	2	0	0	0	0
10	D	31	0	14	2	0
10	N	31	0	14	2	0
11	A	106	0	0	16	0
11	B	82	0	0	21	0
11	C	482	0	0	120	0
11	D	506	0	0	138	0
11	E	60	0	0	6	0
11	G	32	0	0	3	0
11	H	37	0	0	3	0
11	I	22	0	0	3	0
11	K	86	0	0	19	0
11	L	104	0	0	23	0
11	M	483	0	0	129	0
11	N	491	0	0	115	0
11	O	39	0	0	6	0
11	X	43	0	0	4	0
11	Y	30	0	0	6	0
11	Z	30	0	0	4	0
All	All	51213	0	48426	5871	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 61.

All (5871) 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)
2:Y:7:G:N1	5:M:1014:SER:HA	1.62	1.13
2:Y:16:G:H21	6:N:705:ALA:HB1	1.11	1.12
6:N:18:ILE:HG23	6:N:518:PRO:HG3	1.33	1.10
5:C:409:ARG:HA	5:C:454:SER:HA	1.27	1.10
6:N:1189:ARG:HB3	6:N:1204:CYS:HA	1.34	1.09
6:D:695:ILE:HD11	6:D:718:PRO:HB2	1.31	1.08
4:K:112:ARG:HE	4:K:125:PRO:HB2	1.15	1.07
6:D:908:LYS:HB2	6:D:1027:GLY:HA3	1.39	1.04
4:B:59:GLU:HB2	4:B:137:ARG:HH12	1.20	1.04
6:N:1220:ALA:HB1	6:N:1223:ILE:HD13	1.39	1.03
6:D:783:ARG:HA	6:D:1028:ALA:HA	1.40	1.03
6:N:1335:LEU:HD23	6:N:1344:VAL:HG22	1.39	1.03
6:D:161:LEU:HD21	6:D:452:ILE:HG21	1.38	1.02
5:C:305:PRO:HG3	5:C:308:ARG:HH22	1.22	1.02
5:C:752:GLY:H	5:C:792:VAL:HB	1.25	1.01
5:M:695:LEU:HD21	5:M:832:LYS:HD3	1.43	1.01
6:D:798:GLU:HB2	6:D:828:LYS:HE3	1.43	1.01
5:C:433:THR:HG21	5:C:488:ALA:HB1	1.42	1.01
5:M:946:ARG:HB3	5:M:946:ARG:HH11	1.22	1.01
6:N:180:LYS:HG2	6:N:183:GLU:HB2	1.42	1.01
2:Y:2:A:H3'	2:Y:2:A:C8	1.94	1.00
5:M:905:ILE:HD12	5:M:905:ILE:H	1.27	1.00
6:N:633:VAL:HG22	6:N:635:PRO:HD3	1.43	1.00
4:L:179:PHE:HB3	4:L:197:LEU:HD12	1.44	0.99
2:Y:7:G:H1	5:M:1014:SER:HA	0.85	0.99
6:D:637:LEU:HD21	6:D:642:CYS:HA	1.45	0.99
6:N:783:ARG:HA	6:N:1028:ALA:HA	1.41	0.98
2:Y:7:G:H21	5:M:1021:LEU:HB2	1.27	0.98
6:N:1379:VAL:HG12	6:N:1419:PRO:HA	1.40	0.98
6:N:95:LEU:HD11	6:N:517:VAL:HG23	1.46	0.97
5:C:578:VAL:HG13	5:C:671:ASN:HB3	1.46	0.97
6:N:1042:ARG:HH21	6:N:1073:SER:HB3	1.28	0.97
6:D:1183:ILE:HG22	6:N:561:GLY:HA2	1.47	0.97
2:Y:7:G:H1	5:M:1014:SER:CA	1.79	0.96
4:A:85:LEU:HA	4:A:124:ASN:HD22	1.28	0.96
6:D:1109:GLU:HG2	6:D:1201:CYS:HA	1.44	0.96
6:D:1112:CYS:HB2	6:D:1195:GLN:HG2	1.45	0.96
5:M:333:ILE:H	5:M:465:GLY:HA3	1.31	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:579:VAL:HG11	5:C:887:GLU:HG3	1.47	0.96
7:O:45:ARG:HG2	7:O:46:PRO:HD2	1.47	0.96
6:N:996:TRP:HA	6:N:999:THR:HG22	1.46	0.96
6:D:455:ARG:HB2	6:D:460:ALA:HA	1.47	0.95
5:M:110:GLU:HG3	5:M:369:PRO:HB3	1.44	0.95
6:N:543:LEU:HD22	6:N:580:ALA:HB1	1.47	0.95
6:N:972:LEU:HG	6:N:976:GLN:HE22	1.31	0.95
6:N:921:ARG:HH11	6:N:921:ARG:HB3	1.29	0.95
5:C:636:ALA:HB3	5:C:703:ILE:HD13	1.46	0.95
4:L:89:PHE:HB3	4:L:94:LEU:HD13	1.47	0.94
6:N:1144:LEU:HD12	6:N:1171:VAL:HG13	1.48	0.94
5:M:478:VAL:HG13	5:M:506:ASN:HB3	1.48	0.94
5:M:120:LEU:HD22	5:M:121:MET:H	1.32	0.94
6:N:1109:GLU:HG2	6:N:1201:CYS:HA	1.48	0.94
4:B:64:GLU:HB2	4:B:165:ILE:HG21	1.48	0.94
6:N:793:THR:HB	6:N:879:ARG:HD3	1.49	0.93
5:M:157:ARG:HD3	5:M:314:THR:HB	1.49	0.93
6:D:136:ASP:HB3	6:D:137:PRO:HD3	1.51	0.93
5:M:304:LEU:HD23	5:M:305:PRO:HD3	1.47	0.93
5:C:39:ARG:H	5:C:39:ARG:HD2	1.31	0.93
5:M:183:SER:HB2	5:M:190:LYS:HG2	1.48	0.93
5:M:939:ARG:HB3	5:M:982:PRO:HG3	1.47	0.93
2:Y:12:G:H8	2:Y:12:G:H5'	1.32	0.93
6:N:1487:VAL:HG11	6:N:1492:LEU:HD23	1.50	0.93
5:M:857:ASP:HB2	5:M:978:ARG:HG2	1.49	0.93
5:M:395:LYS:HE2	5:M:403:SER:HB2	1.49	0.93
5:C:36:PRO:HG2	5:C:70:GLU:HB3	1.50	0.93
4:B:18:ARG:HH12	4:B:123:MET:HE1	1.33	0.93
2:Y:2:A:H5''	6:N:671:LYS:HZ1	1.31	0.92
1:X:18:DG:H2''	1:X:19:DC:H5'	1.51	0.92
6:D:1223:ILE:HG22	6:D:1227:GLN:HE21	1.33	0.92
5:M:313:LEU:HD13	5:M:321:GLU:HB2	1.50	0.92
1:X:14:DT:H5''	6:N:1089:ALA:HA	1.48	0.92
4:B:97:VAL:HG11	4:B:120:VAL:HG21	1.52	0.92
6:D:143:ASN:HD21	6:D:145:VAL:HG12	1.32	0.92
6:N:133:ILE:HD12	6:N:153:LEU:HD13	1.50	0.91
5:M:1097:LEU:HD22	5:M:1097:LEU:H	1.33	0.91
5:M:197:LEU:HD13	5:M:207:LEU:HD11	1.52	0.91
5:C:313:LEU:HB2	11:C:1168:HOH:O	1.70	0.91
11:B:374:HOH:O	6:D:847:ASP:HB3	1.69	0.91
5:C:673:LEU:HD22	5:C:867:VAL:HA	1.52	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:6:U:H2'	2:H:7:G:C8	2.06	0.90
2:Y:8:C:O2'	2:Y:9:G:H5'	1.71	0.90
2:Y:2:A:C3'	2:Y:2:A:C8	2.51	0.90
6:D:785:ILE:HD12	6:D:785:ILE:H	1.34	0.90
2:H:13:C:H4'	5:C:409:ARG:HH22	1.37	0.90
6:D:1253:THR:O	6:D:1257:PRO:HD2	1.71	0.90
6:N:52:PRO:HD2	6:N:85:VAL:HG21	1.52	0.90
6:D:145:VAL:HG22	6:D:146:PRO:HD2	1.53	0.90
6:N:890:VAL:HG12	6:N:926:LYS:HD2	1.54	0.90
2:Y:6:U:H2'	2:Y:7:G:C8	2.07	0.89
2:H:12:G:H5'	2:H:12:G:H8	1.38	0.89
5:M:536:PRO:HD2	5:M:537:LYS:HZ2	1.37	0.89
5:M:170:PRO:HB3	5:M:186:VAL:HG12	1.52	0.89
4:L:87:VAL:HG21	4:L:144:VAL:HG11	1.53	0.89
6:N:507:ASN:HD22	6:N:507:ASN:H	1.16	0.89
6:D:785:ILE:HG22	6:D:789:LEU:HD11	1.53	0.89
5:C:1049:LEU:HD23	6:D:1472:ILE:HD12	1.55	0.89
5:C:176:VAL:HG12	5:C:182:VAL:HG13	1.54	0.89
5:C:260:LEU:HB2	5:C:291:ALA:HB1	1.55	0.89
6:N:206:ARG:HG2	6:N:394:LEU:HD22	1.55	0.89
6:D:613:ARG:NH1	6:D:616:GLN:HG2	1.88	0.88
5:M:755:LEU:HD21	5:M:792:VAL:HG22	1.52	0.88
5:C:305:PRO:HG3	5:C:308:ARG:NH2	1.88	0.88
6:D:206:ARG:HG2	6:D:394:LEU:HD22	1.52	0.88
5:M:578:VAL:HG11	5:M:991:GLN:HB3	1.56	0.88
2:Y:14:G:O2'	2:Y:15:C:H5'	1.73	0.88
6:D:1468:LEU:HD22	6:D:1470:ARG:HB2	1.52	0.88
5:M:39:ARG:HD2	5:M:39:ARG:H	1.34	0.88
2:H:14:G:O2'	2:H:15:C:H5'	1.72	0.88
6:N:1121:PRO:HD2	6:N:1346:ARG:HH21	1.35	0.88
5:M:739:GLU:HG3	5:M:742:VAL:HB	1.52	0.88
5:C:148:PHE:HE2	5:C:281:LEU:HD13	1.39	0.88
6:D:204:LEU:HD21	6:D:400:VAL:HB	1.53	0.88
5:C:759:THR:HB	5:C:785:VAL:HG11	1.56	0.88
2:H:8:C:O2'	2:H:9:G:H5'	1.71	0.88
5:M:537:LYS:H	5:M:537:LYS:HD2	1.38	0.88
6:N:1253:THR:O	6:N:1257:PRO:HD2	1.74	0.88
1:X:15:DC:H4'	5:M:1035:MET:SD	2.13	0.87
6:N:786:ILE:HG21	6:N:1027:GLY:H	1.37	0.87
6:N:394:LEU:HD11	6:N:445:ARG:NH1	1.90	0.87
6:N:1258:ARG:HH12	6:N:1268:PRO:HB3	1.40	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:708:LEU:HB3	6:D:1231:GLU:HB2	1.55	0.87
6:D:786:ILE:HG22	6:D:1026:SER:HB3	1.55	0.87
4:L:59:GLU:HB2	4:L:137:ARG:HH12	1.39	0.87
5:C:1055:LEU:HD22	5:C:1066:ALA:HB2	1.54	0.87
5:M:64:LEU:HB2	5:M:359:MET:SD	2.14	0.87
4:K:117:VAL:HB	4:K:120:VAL:HG12	1.57	0.87
4:B:82:LEU:HA	4:B:85:LEU:HD12	1.57	0.87
5:C:342:ASP:HA	5:C:345:ARG:HD2	1.55	0.87
6:N:87:ARG:HB3	6:N:523:ASP:HB3	1.57	0.86
6:N:1124:GLN:HE21	6:N:1135:ARG:HA	1.37	0.86
1:G:18:DG:H2''	1:G:19:DC:H5'	1.57	0.86
5:M:700:TYR:HB3	5:M:833:LEU:HD13	1.55	0.86
5:C:578:VAL:HG11	5:C:991:GLN:HB3	1.57	0.86
4:B:56:VAL:HG13	4:B:142:VAL:HG12	1.55	0.86
2:Y:7:G:H21	5:M:1021:LEU:CB	1.87	0.86
5:C:721:ARG:HG2	5:C:820:ARG:HH22	1.41	0.86
1:G:22:DC:H4'	5:C:388:ARG:HD2	1.56	0.86
6:N:501:ALA:HB1	6:N:1453:ALA:HB2	1.58	0.86
5:C:573:ARG:HB2	5:C:573:ARG:HH11	1.39	0.86
6:N:1492:LEU:HB3	6:N:1493:LYS:HE2	1.57	0.86
4:A:178:ALA:HB3	4:A:198:ARG:HG3	1.58	0.86
5:C:192:PRO:HD2	5:C:195:LEU:HB2	1.55	0.86
4:L:102:LYS:NZ	4:L:137:ARG:HG2	1.91	0.86
4:B:103:ALA:HB1	4:B:107:LYS:HD3	1.57	0.86
6:D:484:PRO:HB3	6:D:488:ARG:HE	1.38	0.85
6:D:1144:LEU:HD11	6:D:1186:VAL:HG21	1.56	0.85
4:A:54:THR:HG22	4:A:158:ILE:HG13	1.56	0.85
2:Y:12:G:C8	2:Y:12:G:H5'	2.11	0.85
5:M:345:ARG:HA	5:M:348:LEU:HD12	1.57	0.85
5:M:810:ASP:HB3	5:M:813:VAL:HG12	1.57	0.85
2:Y:16:G:N2	6:N:705:ALA:HB1	1.90	0.85
6:D:462:GLN:HG3	6:D:513:ILE:HD13	1.59	0.85
5:C:478:VAL:HG13	5:C:506:ASN:HB3	1.56	0.85
6:N:1223:ILE:H	6:N:1223:ILE:HD12	1.41	0.85
6:N:1036:ARG:NH2	6:N:1042:ARG:HA	1.92	0.85
2:Y:13:C:H4'	5:M:409:ARG:HH22	1.41	0.85
6:N:897:TRP:HA	6:N:900:ILE:HG12	1.58	0.85
5:C:174:LEU:HD22	5:C:307:LEU:HB2	1.57	0.85
5:C:587:VAL:HG11	5:C:666:LEU:HD22	1.56	0.85
6:D:526:PRO:O	6:D:537:THR:HA	1.77	0.85
2:Y:2:A:H5''	6:N:671:LYS:NZ	1.90	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:144:PRO:HG2	5:C:265:ARG:HH21	1.41	0.84
5:M:953:VAL:HG13	5:M:966:LEU:HD13	1.58	0.84
5:M:675:ALA:HB2	5:M:867:VAL:HG11	1.55	0.84
4:B:87:VAL:HG21	4:B:144:VAL:HG11	1.59	0.84
5:C:197:LEU:HD13	5:C:207:LEU:HD11	1.57	0.84
6:D:24:GLY:HA3	6:D:49:ILE:HG12	1.57	0.84
6:N:1259:VAL:HG11	6:N:1356:TYR:OH	1.77	0.84
5:M:36:PRO:HG2	5:M:70:GLU:HB3	1.60	0.84
5:C:409:ARG:HA	5:C:454:SER:CA	2.07	0.84
5:M:141:HIS:HB3	5:M:418:LEU:HD23	1.57	0.84
5:M:5:ARG:HE	5:M:8:ARG:HH22	1.24	0.84
5:C:857:ASP:HB3	5:C:978:ARG:HG2	1.60	0.84
5:C:687:ALA:HB2	6:D:740:PHE:HB2	1.59	0.84
6:N:86:ARG:O	6:N:522:PRO:HD2	1.77	0.84
6:D:1271:LYS:NZ	6:D:1331:ASP:HB3	1.92	0.84
5:M:467:ILE:HA	11:M:1287:HOH:O	1.76	0.84
5:M:160:ALA:HB2	11:M:1183:HOH:O	1.78	0.84
5:M:675:ALA:HA	5:M:989:VAL:HG12	1.58	0.84
4:L:1:MET:HG2	4:L:5:LYS:HB3	1.58	0.84
4:K:34:VAL:HB	5:M:939:ARG:NH1	1.93	0.83
6:D:486:ARG:HA	6:D:489:ARG:HD3	1.60	0.83
5:C:1031:ARG:HA	6:D:621:LYS:O	1.76	0.83
5:M:595:LEU:HG	5:M:655:LEU:HD12	1.59	0.83
6:D:1144:LEU:HB3	6:D:1166:LEU:HD11	1.58	0.83
4:B:94:LEU:HD11	4:B:119:ASP:HB2	1.59	0.83
5:M:436:GLY:HA2	5:M:538:GLN:O	1.79	0.83
6:D:853:VAL:HG22	6:D:858:VAL:HG23	1.60	0.83
4:L:102:LYS:HD3	4:L:139:ASN:HB2	1.59	0.83
5:C:326:ASP:HB3	5:C:431:HIS:HB2	1.60	0.83
6:D:8:VAL:HG23	6:D:1457:ASP:HB3	1.59	0.83
6:D:28:LYS:HB2	6:D:41:ARG:HH11	1.43	0.83
2:H:14:G:H4'	5:C:567:GLN:HE22	1.44	0.83
5:C:987:ILE:HG23	6:D:948:THR:HG21	1.60	0.83
6:N:111:LYS:HE2	6:N:1452:ILE:HD13	1.60	0.83
5:M:1065:ALA:HB1	5:M:1077:PRO:HG2	1.59	0.83
2:Y:5:C:H2'	2:Y:6:U:C6	2.13	0.83
5:C:751:PRO:HG3	5:C:796:GLU:HA	1.58	0.83
6:D:396:VAL:HG12	6:D:447:VAL:HA	1.61	0.83
6:N:1205:TYR:HD2	6:N:1215:VAL:HG21	1.43	0.83
6:D:1228:SER:O	6:D:1232:PRO:HD2	1.78	0.83
5:C:478:VAL:HA	5:C:506:ASN:O	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:12:VAL:HG12	5:M:534:VAL:HG13	1.61	0.82
6:D:521:PRO:HG2	6:D:524:LEU:HD22	1.59	0.82
6:N:119:SER:H	6:N:123:LEU:HD22	1.44	0.82
6:D:1389:LEU:HG	6:D:1390:LEU:H	1.44	0.82
6:D:1481:VAL:HG11	7:E:18:ARG:HA	1.59	0.82
6:N:172:PRO:HG3	11:N:9050:HOH:O	1.79	0.82
5:C:34:VAL:HB	5:C:38:LYS:HG3	1.60	0.82
7:O:41:GLU:HA	7:O:45:ARG:HG3	1.62	0.82
6:D:455:ARG:CB	6:D:460:ALA:HA	2.09	0.82
6:D:141:ILE:HD11	6:D:165:LYS:HZ1	1.43	0.82
6:D:1046:GLN:HA	6:D:1052:THR:HA	1.61	0.82
5:C:512:ARG:HB3	5:C:523:ILE:HD11	1.61	0.82
5:M:732:ALA:HA	5:M:735:ARG:HH21	1.45	0.82
6:D:434:ARG:H	6:D:447:VAL:HG22	1.42	0.82
6:D:1449:GLU:HA	6:D:1452:ILE:HD12	1.60	0.82
6:D:119:SER:H	6:D:123:LEU:HD22	1.42	0.82
6:D:123:LEU:HD11	6:D:152:LEU:HD22	1.61	0.82
5:M:715:THR:HB	5:M:717:LEU:HG	1.60	0.82
5:C:953:VAL:HG13	5:C:966:LEU:HD13	1.60	0.82
4:L:25:LEU:HD23	4:L:28:LEU:HD21	1.62	0.82
5:M:701:THR:HG22	5:M:832:LYS:HG2	1.62	0.82
6:N:540:LEU:H	6:N:540:LEU:HD12	1.44	0.82
5:M:405:ARG:HH22	5:M:566:THR:HG21	1.45	0.82
2:H:12:G:H5'	2:H:12:G:C8	2.14	0.81
5:C:146:VAL:HG11	5:C:306:THR:HB	1.62	0.81
7:O:18:ARG:HD3	7:O:75:PHE:HE1	1.44	0.81
4:A:117:VAL:HB	4:A:120:VAL:HG12	1.59	0.81
6:N:543:LEU:HD13	6:N:581:LEU:HA	1.59	0.81
4:B:85:LEU:HG	4:B:127:LEU:HD23	1.62	0.81
6:D:1464:GLU:HB3	11:D:8024:HOH:O	1.80	0.81
6:D:81:THR:HG22	6:D:82:LYS:H	1.45	0.81
2:H:5:C:H2'	2:H:6:U:C6	2.14	0.81
5:M:435:TYR:HE1	5:M:539:VAL:HG22	1.44	0.81
6:D:616:GLN:HE22	6:D:621:LYS:HG2	1.44	0.81
6:D:618:LEU:HD11	6:D:1463:LYS:HE2	1.62	0.81
6:N:1108:ARG:HH11	6:N:1108:ARG:HB2	1.45	0.81
5:C:343:GLN:HA	5:C:343:GLN:HE21	1.45	0.81
6:N:1046:GLN:HA	6:N:1052:THR:HA	1.62	0.81
4:B:59:GLU:HG3	4:B:139:ASN:ND2	1.94	0.81
6:D:799:LYS:HB3	6:D:826:PRO:HG2	1.63	0.81
6:D:1376:MET:SD	6:D:1421:LEU:HD13	2.20	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:408:ARG:HG3	5:C:455:LEU:HG	1.62	0.81
4:A:111:ALA:HB2	4:A:127:LEU:HD23	1.63	0.81
5:M:139:GLN:O	5:M:333:ILE:HA	1.81	0.81
6:N:119:SER:HB2	6:N:123:LEU:HB2	1.62	0.81
5:C:708:TYR:HB2	5:C:825:VAL:HG23	1.62	0.81
5:M:110:GLU:H	5:M:368:THR:HG21	1.45	0.81
4:A:58:ILE:HB	4:A:61:VAL:HB	1.63	0.81
5:M:442:GLU:HG2	5:M:454:SER:HB2	1.63	0.81
6:N:400:VAL:HG22	6:N:443:VAL:HG21	1.61	0.81
6:D:793:THR:HG21	6:D:906:GLN:HG2	1.63	0.81
5:M:478:VAL:HA	5:M:506:ASN:O	1.81	0.81
5:M:239:PHE:HE1	5:M:254:VAL:HB	1.44	0.81
1:X:13:DT:H5''	6:N:1093:TYR:CE2	2.15	0.81
7:E:47:LYS:HB2	7:E:52:GLU:OE2	1.79	0.81
6:D:1205:TYR:HD2	6:D:1215:VAL:HG21	1.44	0.81
2:H:13:C:H4'	5:C:409:ARG:NH2	1.96	0.81
6:D:1262:LEU:HD21	6:D:1351:GLU:HG3	1.63	0.80
6:D:772:PRO:HB3	6:D:1224:VAL:HG13	1.61	0.80
5:M:677:MET:HE1	5:M:679:PHE:HD1	1.46	0.80
6:N:73:CYS:HB3	6:N:76:CYS:O	1.82	0.80
5:M:585:GLU:HG2	5:M:589:ARG:HH12	1.47	0.80
6:N:610:LYS:O	6:N:615:ARG:HD3	1.81	0.80
6:D:1220:ALA:HB1	6:D:1223:ILE:HD12	1.63	0.80
6:D:616:GLN:NE2	6:D:621:LYS:HG2	1.96	0.80
5:C:5:ARG:HE	5:C:8:ARG:HH12	1.30	0.80
4:L:97:VAL:HG11	4:L:120:VAL:HG21	1.62	0.80
7:O:40:LEU:HB3	7:O:72:ARG:HH21	1.45	0.80
6:N:785:ILE:HG12	6:N:935:LYS:HA	1.62	0.80
5:C:703:ILE:HD12	5:C:703:ILE:H	1.46	0.80
6:N:156:GLU:O	6:N:159:ARG:HG2	1.82	0.80
5:M:736:ASP:HA	5:M:744:ARG:NH1	1.96	0.80
7:E:13:VAL:HG21	7:E:19:LEU:HB2	1.63	0.80
5:C:677:MET:SD	5:C:987:ILE:HG21	2.22	0.80
5:C:949:LYS:HD3	6:D:796:ARG:HH22	1.44	0.80
6:N:520:LEU:HD12	6:N:521:PRO:HD2	1.64	0.80
5:M:1056:LYS:O	6:N:624:ASP:HB2	1.81	0.80
4:A:206:THR:HG22	4:A:209:GLU:HG3	1.62	0.79
2:Y:7:G:N2	5:M:1021:LEU:HB2	1.96	0.79
6:D:740:PHE:HB3	11:D:8291:HOH:O	1.82	0.79
6:D:1153:VAL:HG13	6:N:561:GLY:HA3	1.63	0.79
6:D:1196:THR:HG23	11:D:8314:HOH:O	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:481:MET:SD	6:N:1388:ARG:HB3	2.22	0.79
5:M:65:VAL:HB	5:M:101:ILE:HB	1.63	0.79
1:G:17:DC:H2"	1:G:18:DG:H5'	1.62	0.79
5:M:1055:LEU:HD22	5:M:1066:ALA:HB2	1.64	0.79
5:M:915:LYS:HA	11:M:1454:HOH:O	1.83	0.79
5:M:854:PRO:HB2	5:M:856:GLU:HG3	1.64	0.79
5:M:1109:VAL:HG22	6:N:3:LYS:HE3	1.62	0.79
6:N:96:ALA:HB3	6:N:554:LEU:HD23	1.64	0.79
5:C:1017:THR:OG1	5:C:1019:GLN:HG2	1.83	0.79
5:C:139:GLN:HG2	5:C:334:ARG:HB2	1.65	0.79
5:M:260:LEU:HB2	5:M:291:ALA:HB1	1.64	0.79
5:M:762:LYS:HD2	5:M:786:LYS:HG3	1.65	0.79
6:D:1393:GLN:CD	6:D:1394:VAL:H	1.85	0.79
6:D:899:LEU:HD13	6:D:914:LEU:HD21	1.62	0.79
5:M:462:ASP:HB3	5:M:468:ARG:HD2	1.65	0.79
5:M:597:ALA:HB2	5:M:655:LEU:HD21	1.63	0.79
5:C:710:ILE:HB	5:C:790:LEU:HD22	1.65	0.79
4:B:1:MET:HG2	4:B:5:LYS:HB3	1.65	0.79
5:M:732:ALA:HB2	11:M:1476:HOH:O	1.82	0.79
4:L:62:LEU:H	4:L:62:LEU:HD12	1.45	0.79
6:D:1003:VAL:O	6:D:1007:VAL:HG23	1.83	0.79
6:D:1495:ILE:HG12	7:E:80:VAL:HG11	1.63	0.79
5:M:292:ARG:HD2	5:M:299:LYS:HZ3	1.47	0.79
4:K:31:GLY:HA3	4:L:42:ARG:HH21	1.49	0.78
6:N:796:ARG:HE	6:N:828:LYS:HZ3	1.30	0.78
6:N:1459:LEU:HB3	6:N:1465:ASN:HD21	1.47	0.78
5:C:140:ILE:HG22	5:C:333:ILE:HG13	1.64	0.78
6:N:887:ALA:HB1	6:N:893:GLU:HG3	1.66	0.78
6:D:550:ARG:HA	6:D:550:ARG:HE	1.45	0.78
5:C:356:ARG:HA	11:C:1191:HOH:O	1.82	0.78
5:M:1034:GLU:HB3	6:N:619:LEU:HD22	1.65	0.78
5:M:141:HIS:O	5:M:331:ARG:HA	1.84	0.78
5:M:66:LEU:HD22	5:M:372:LEU:HD23	1.66	0.78
5:C:2:GLU:HG3	5:C:899:GLN:HB3	1.64	0.78
6:D:782:SER:H	6:D:785:ILE:HD13	1.48	0.78
6:D:771:SER:HB3	6:D:778:LEU:HD13	1.65	0.78
5:M:360:LEU:HD23	11:M:1129:HOH:O	1.84	0.78
4:K:87:VAL:HG21	4:K:144:VAL:HG11	1.66	0.78
6:N:1204:CYS:HB3	11:N:9238:HOH:O	1.82	0.78
6:N:810:GLU:O	6:N:813:LEU:HG	1.84	0.78
5:M:769:PRO:HD2	6:N:65:ARG:CZ	2.12	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:16:G:H21	6:N:705:ALA:CB	1.95	0.78
2:Y:9:G:H2'	2:Y:10:G:C8	2.17	0.78
6:N:1036:ARG:HH21	6:N:1042:ARG:HA	1.48	0.78
5:M:671:ASN:HD22	5:M:671:ASN:N	1.81	0.78
5:M:151:ASP:HB2	5:M:157:ARG:O	1.83	0.78
4:L:85:LEU:HA	4:L:124:ASN:HD22	1.48	0.78
5:M:1090:LYS:HD2	6:N:90:MET:HG3	1.66	0.78
6:N:1045:MET:HE2	6:N:1073:SER:HB3	1.63	0.78
6:D:127:LEU:HD12	6:D:128:TYR:H	1.49	0.78
5:C:748:GLU:HB2	5:C:799:ILE:HD12	1.64	0.78
5:C:625:LEU:HA	5:C:639:GLN:HE21	1.47	0.78
5:C:198:ARG:HD2	5:C:204:GLN:HE21	1.47	0.78
4:A:87:VAL:HG21	4:A:144:VAL:HG11	1.65	0.78
5:C:752:GLY:N	5:C:792:VAL:HB	1.99	0.77
6:D:1099:VAL:HA	11:D:8257:HOH:O	1.84	0.77
5:M:12:VAL:HB	5:M:472:ARG:CZ	2.15	0.77
5:M:468:ARG:HH21	5:M:487:THR:H	1.32	0.77
6:N:774:SER:HB3	6:N:1362:LYS:O	1.84	0.77
5:M:1050:GLN:HE22	6:N:1471:LEU:N	1.82	0.77
2:Y:12:G:H2'	2:Y:13:C:C6	2.20	0.77
5:C:308:ARG:HG2	11:C:1224:HOH:O	1.84	0.77
5:M:684:PHE:H	5:M:687:ALA:HB3	1.48	0.77
4:L:179:PHE:HB2	4:L:195:LEU:HD11	1.66	0.77
5:C:684:PHE:H	5:C:687:ALA:HB3	1.49	0.77
5:C:577:PRO:HD2	5:C:580:MET:SD	2.24	0.77
5:C:10:ARG:HA	5:C:10:ARG:HH11	1.47	0.77
4:A:43:ILE:HG13	4:A:218:LEU:HD12	1.65	0.77
5:M:413:LEU:H	5:M:413:LEU:HD12	1.48	0.77
5:M:516:ARG:HD2	5:M:521:PRO:HA	1.66	0.77
6:N:394:LEU:HD21	6:N:445:ARG:NH2	1.99	0.77
4:L:24:VAL:HG13	4:L:196:THR:HG22	1.66	0.77
5:C:979:THR:HG23	5:C:981:GLU:H	1.48	0.77
5:M:905:ILE:H	5:M:905:ILE:CD1	1.96	0.77
5:C:687:ALA:HB1	11:C:1474:HOH:O	1.83	0.77
5:C:1082:PRO:HG2	6:D:1469:GLY:HA3	1.66	0.77
6:N:1266:ARG:HG2	6:N:1267:ARG:H	1.50	0.77
5:M:64:LEU:HD22	5:M:359:MET:HG3	1.66	0.77
6:N:684:LYS:HB2	6:N:686:GLU:HG3	1.66	0.77
5:C:958:THR:HG23	5:C:961:GLU:HB2	1.67	0.77
6:N:1426:LYS:HA	6:N:1429:LEU:HD13	1.66	0.77
5:C:328:LEU:HB2	5:C:433:THR:HB	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:699:VAL:H	6:D:756:GLN:NE2	1.83	0.77
5:C:139:GLN:HE21	5:C:334:ARG:HD3	1.49	0.77
5:C:433:THR:HG22	5:C:437:ARG:NH1	1.99	0.77
6:D:785:ILE:HG13	6:D:939:PHE:CE2	2.19	0.77
5:M:516:ARG:NE	6:N:1068:LEU:HD13	1.99	0.77
5:M:938:LYS:HB2	5:M:938:LYS:HZ2	1.50	0.77
6:D:774:SER:HB3	6:D:1362:LYS:O	1.84	0.77
6:N:397:LYS:O	6:N:448:GLU:HB2	1.84	0.77
5:M:511:GLU:O	5:M:526:PRO:HD3	1.84	0.77
5:M:758:ARG:CZ	5:M:788:THR:HB	2.14	0.77
6:D:136:ASP:CB	6:D:455:ARG:HE	1.99	0.77
6:D:897:TRP:HA	6:D:900:ILE:HG12	1.65	0.77
6:D:9:ARG:HA	6:D:1455:LYS:O	1.84	0.77
6:N:554:LEU:HD13	6:N:570:GLU:HG2	1.67	0.76
5:C:1083:GLU:HG2	5:C:1086:ARG:HH21	1.48	0.76
6:N:1459:LEU:HB3	6:N:1465:ASN:ND2	2.00	0.76
5:C:431:HIS:CD2	5:C:433:THR:H	2.03	0.76
6:D:908:LYS:CB	6:D:1027:GLY:HA3	2.15	0.76
6:N:1003:VAL:O	6:N:1007:VAL:HG23	1.85	0.76
5:C:874:LEU:O	5:C:877:PRO:HD2	1.86	0.76
6:D:710:ARG:HG2	6:D:772:PRO:HG2	1.68	0.76
6:N:895:VAL:HG11	6:N:922:LEU:HD21	1.65	0.76
6:D:1087:ARG:HG3	6:D:1237:THR:HG21	1.67	0.76
6:D:202:VAL:HB	6:D:398:ALA:O	1.86	0.76
5:M:1032:PHE:O	5:M:1036:GLU:HB2	1.86	0.76
11:M:1524:HOH:O	6:N:616:GLN:HA	1.84	0.76
5:M:5:ARG:NE	5:M:8:ARG:HH12	1.83	0.76
6:D:28:LYS:HG3	6:D:29:PRO:HD2	1.68	0.76
6:N:1390:LEU:HD21	11:N:9287:HOH:O	1.86	0.76
5:M:244:PRO:HD2	5:M:245:GLY:H	1.50	0.76
6:D:1271:LYS:HZ2	6:D:1331:ASP:HB3	1.48	0.76
5:C:1032:PHE:O	5:C:1036:GLU:HB2	1.85	0.76
6:N:1481:VAL:HG11	7:O:18:ARG:HA	1.68	0.76
6:N:486:ARG:HA	6:N:489:ARG:HG2	1.68	0.76
5:M:998:TYR:HE2	5:M:1000:MET:HG3	1.49	0.76
6:N:1108:ARG:NH1	6:N:1108:ARG:HB2	2.01	0.76
5:C:614:ARG:HG3	5:C:620:LEU:HD22	1.68	0.76
6:N:1394:VAL:HB	6:N:1397:LYS:HB2	1.68	0.76
6:D:131:LYS:HG3	6:D:568:ARG:HG2	1.68	0.75
4:A:222:LEU:HD21	4:B:218:LEU:HB3	1.68	0.75
6:D:53:ILE:HD12	6:D:86:ARG:HH22	1.51	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:75:VAL:HA	4:A:78:ILE:HD12	1.68	0.75
6:D:554:LEU:HD21	6:D:571:LYS:HE2	1.66	0.75
6:D:25:GLU:HG3	6:D:93:ILE:HA	1.66	0.75
6:D:455:ARG:O	6:D:460:ALA:HB2	1.87	0.75
6:N:47:GLU:HA	11:N:9490:HOH:O	1.85	0.75
6:N:122:GLU:O	6:N:126:VAL:HG23	1.84	0.75
6:D:73:CYS:HB3	6:D:76:CYS:O	1.87	0.75
6:N:399:ARG:HB2	6:N:401:TYR:CZ	2.21	0.75
5:C:1016:ILE:HD13	5:C:1016:ILE:H	1.50	0.75
5:M:312:ALA:HB1	5:M:318:PRO:HG2	1.67	0.75
6:D:1103:HIS:CD2	6:D:1463:LYS:H	2.05	0.75
6:N:136:ASP:HB3	6:N:137:PRO:HD3	1.67	0.75
5:M:997:LEU:HD21	11:M:1517:HOH:O	1.87	0.75
4:B:52:ALA:HB2	4:B:170:VAL:O	1.86	0.75
5:C:1031:ARG:HE	6:D:621:LYS:HB3	1.50	0.75
1:X:17:DC:H2''	1:X:18:DG:H5'	1.66	0.75
5:M:626:ARG:HH12	5:M:637:LEU:HB2	1.51	0.75
5:M:331:ARG:HH21	5:M:427:VAL:HG13	1.51	0.75
6:N:603:LEU:O	6:N:606:ILE:HG22	1.87	0.75
5:M:758:ARG:HB3	5:M:788:THR:O	1.87	0.75
5:M:378:LEU:HG	5:M:382:ILE:HD11	1.69	0.75
5:M:150:PRO:HA	5:M:158:TYR:HB3	1.69	0.75
6:N:496:LEU:HD12	6:N:500:ARG:HG2	1.69	0.75
5:C:650:ARG:HG3	5:C:653:ASP:HB2	1.67	0.75
4:L:162:ILE:HA	11:L:316:HOH:O	1.86	0.75
6:N:764:LEU:HD12	6:N:765:SER:H	1.52	0.75
6:N:133:ILE:HG12	6:N:456:MET:HE2	1.68	0.75
4:B:152:PRO:HB2	4:B:155:LYS:HD2	1.69	0.75
6:D:139:GLY:O	6:D:147:VAL:HB	1.87	0.75
6:D:148:GLU:HB3	6:D:151:GLN:HB2	1.69	0.75
6:D:651:GLU:HA	6:D:654:LYS:NZ	2.02	0.75
6:N:29:PRO:HD3	6:N:548:ILE:HG21	1.68	0.75
6:D:1149:LEU:HD12	6:D:1161:GLU:O	1.87	0.75
2:H:12:G:H2'	2:H:13:C:C6	2.22	0.74
6:N:853:VAL:HG22	6:N:858:VAL:HG23	1.69	0.74
5:C:169:GLY:HA3	5:C:263:ASP:HB3	1.69	0.74
4:B:211:LEU:O	4:B:215:VAL:HG13	1.86	0.74
1:X:13:DT:H5''	6:N:1093:TYR:HE2	1.51	0.74
6:N:1448:THR:O	6:N:1452:ILE:HD12	1.87	0.74
6:N:1155:VAL:HA	11:N:9051:HOH:O	1.88	0.74
4:B:41:ARG:HD2	4:B:177:VAL:HG23	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:141:HIS:HB3	5:C:418:LEU:HD23	1.67	0.74
2:Y:2:A:H8	2:Y:2:A:H3'	1.48	0.74
5:C:904:PRO:HD2	5:C:908:GLY:HA2	1.67	0.74
6:D:1195:GLN:HG3	6:D:1196:THR:N	2.02	0.74
5:M:1092:LEU:HA	5:M:1095:LEU:HD12	1.68	0.74
6:N:139:GLY:O	6:N:147:VAL:HB	1.86	0.74
4:A:57:TYR:HB3	4:A:141:GLU:HG3	1.67	0.74
6:N:1228:SER:O	6:N:1232:PRO:HD2	1.88	0.74
2:Y:10:G:H1'	11:Y:1398:HOH:O	1.86	0.74
2:Y:10:G:H2'	2:Y:11:C:C6	2.23	0.74
2:H:9:G:H2'	2:H:10:G:C8	2.21	0.74
5:C:1034:GLU:HB3	6:D:619:LEU:HD22	1.67	0.74
5:M:443:THR:HG21	6:N:1078:ARG:HE	1.52	0.74
5:C:186:VAL:HG23	5:C:187:ASN:H	1.51	0.74
6:N:1424:VAL:HG13	6:N:1425:THR:H	1.50	0.74
5:M:433:THR:HG21	5:M:488:ALA:HB1	1.70	0.74
5:M:5:ARG:HB2	5:M:8:ARG:HH22	1.51	0.74
5:C:943:VAL:HG11	5:C:973:VAL:HG21	1.70	0.74
5:M:807:ARG:H	5:M:807:ARG:HE	1.36	0.74
5:C:328:LEU:H	5:C:433:THR:CB	1.99	0.74
5:C:437:ARG:HE	5:C:469:THR:HB	1.52	0.74
5:C:872:ASN:HD21	5:C:874:LEU:HD13	1.51	0.74
6:D:581:LEU:HG	6:D:582:LEU:HG	1.68	0.74
5:M:781:LYS:HD3	5:M:781:LYS:H	1.51	0.74
6:N:409:VAL:HG21	6:N:421:LEU:HD23	1.67	0.74
5:M:673:LEU:HD22	5:M:867:VAL:HA	1.69	0.74
6:N:972:LEU:HG	6:N:976:GLN:NE2	2.03	0.74
5:C:959:PRO:HB2	11:C:1203:HOH:O	1.85	0.74
4:B:59:GLU:HB2	4:B:137:ARG:NH1	1.99	0.74
6:N:786:ILE:HG21	6:N:1027:GLY:N	2.01	0.74
6:N:204:LEU:HD13	6:N:445:ARG:NE	2.03	0.74
5:M:68:PHE:HZ	5:M:71:TYR:HD2	1.36	0.74
6:D:65:ARG:HG3	6:D:66:GLN:H	1.53	0.74
6:D:806:PHE:CE1	6:D:813:LEU:HB3	2.23	0.74
5:M:1034:GLU:N	6:N:619:LEU:HB3	2.03	0.73
6:N:1093:TYR:O	6:N:1097:LYS:HG2	1.88	0.73
4:K:39:PRO:HG3	11:L:348:HOH:O	1.86	0.73
5:C:1042:ALA:HA	6:D:1220:ALA:HB3	1.68	0.73
6:D:1098:LEU:HD23	6:D:1226:ALA:HA	1.70	0.73
6:N:166:GLN:HG3	6:N:447:VAL:HB	1.71	0.73
6:N:1166:LEU:HD23	6:N:1166:LEU:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:D:8449:HOH:O	7:E:28:GLN:HG3	1.88	0.73
6:D:603:LEU:O	6:D:606:ILE:HG22	1.88	0.73
5:M:546:LEU:HD12	5:M:565:GLN:HE22	1.50	0.73
5:M:1005:MET:HB2	6:N:648:MET:CE	2.18	0.73
4:A:194:LYS:HG3	11:A:338:HOH:O	1.86	0.73
7:E:54:LEU:HG	7:E:58:PRO:HG2	1.71	0.73
11:A:325:HOH:O	4:B:215:VAL:HG21	1.89	0.73
4:A:82:LEU:HD22	4:A:142:VAL:HG11	1.69	0.73
5:C:668:LEU:HD13	5:C:995:MET:SD	2.29	0.73
6:D:483:HIS:HB2	6:D:484:PRO:HD3	1.68	0.73
6:N:1481:VAL:HG13	7:O:18:ARG:HE	1.53	0.73
5:C:722:ILE:HD12	5:C:823:VAL:HG21	1.69	0.73
6:N:959:GLU:HB2	6:N:963:TYR:CE1	2.24	0.73
6:D:1105:ILE:HD12	6:D:1373:ARG:HH21	1.52	0.73
4:L:59:GLU:HB2	4:L:137:ARG:NH1	2.03	0.73
5:M:671:ASN:HA	11:M:1511:HOH:O	1.88	0.73
6:D:171:LEU:HD21	6:D:192:ALA:CB	2.18	0.73
5:C:810:ASP:HB3	5:C:813:VAL:HG12	1.70	0.73
5:C:881:ASN:O	5:C:884:GLN:HG3	1.89	0.73
6:N:541:ASN:O	6:N:545:ARG:HG3	1.89	0.73
5:M:52:PHE:CD2	5:M:68:PHE:HB2	2.24	0.73
5:C:946:ARG:HH11	5:C:946:ARG:HB3	1.52	0.73
5:C:516:ARG:NE	6:D:1068:LEU:HD13	2.03	0.73
5:M:290:LEU:HD22	5:M:302:VAL:HG11	1.70	0.73
6:D:1462:LEU:HD21	6:D:1474:ALA:HB3	1.71	0.73
6:N:989:TYR:O	6:N:993:LEU:HG	1.87	0.73
5:C:263:ASP:HB2	5:C:264:PRO:HD3	1.69	0.73
6:D:1231:GLU:CD	6:D:1232:PRO:HD3	2.09	0.73
5:C:1035:MET:HA	5:C:1038:TRP:CE3	2.24	0.73
5:M:758:ARG:NH2	5:M:788:THR:HB	2.04	0.73
6:D:171:LEU:HD23	6:D:172:PRO:HD2	1.69	0.73
5:C:837:ASP:HA	5:C:999:HIS:HE1	1.52	0.73
5:M:132:ALA:HB1	5:M:632:ASN:HD21	1.54	0.73
6:D:834:THR:HG22	6:D:838:ARG:HH11	1.53	0.73
6:N:1166:LEU:HD12	6:N:1171:VAL:HG22	1.71	0.73
4:K:42:ARG:HH11	5:M:978:ARG:HA	1.53	0.73
7:O:48:MET:HB2	7:O:54:LEU:HB2	1.70	0.73
5:M:313:LEU:HD23	11:M:1189:HOH:O	1.89	0.73
6:D:1083:ASP:O	6:D:1087:ARG:HG2	1.89	0.73
5:C:479:VAL:HG11	5:C:503:LEU:HD11	1.71	0.73
4:K:189:ARG:HH12	4:L:155:LYS:HE3	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:218:LEU:O	4:L:222:LEU:HG	1.88	0.73
5:M:872:ASN:HD21	5:M:874:LEU:HB2	1.53	0.72
5:M:554:ASP:CB	5:M:880:MET:HB2	2.19	0.72
7:E:76:GLY:HA3	7:E:79:LEU:HD13	1.69	0.72
2:Y:6:U:H2'	2:Y:7:G:N7	2.03	0.72
6:N:643:GLY:HA3	6:N:727:GLN:HB2	1.70	0.72
5:C:1095:LEU:HD23	6:D:582:LEU:HD22	1.71	0.72
5:M:756:VAL:O	5:M:789:SER:HB3	1.89	0.72
5:M:578:VAL:HG23	5:M:579:VAL:HG12	1.71	0.72
5:C:768:THR:HB	5:C:771:GLU:HB3	1.72	0.72
2:Y:13:C:H4'	5:M:409:ARG:NH2	2.05	0.72
2:H:10:G:H2'	2:H:11:C:C6	2.25	0.72
5:C:850:ALA:HB2	11:C:1474:HOH:O	1.88	0.72
5:C:312:ALA:HB1	5:C:318:PRO:HG2	1.70	0.72
6:D:486:ARG:HA	6:D:489:ARG:CD	2.19	0.72
5:C:710:ILE:HD12	5:C:790:LEU:HB2	1.70	0.72
6:N:95:LEU:H	6:N:95:LEU:HD12	1.54	0.72
6:D:394:LEU:O	6:D:396:VAL:HG23	1.88	0.72
6:D:153:LEU:HD11	6:D:158:TYR:HB2	1.72	0.72
6:D:25:GLU:HA	6:D:92:HIS:O	1.89	0.72
6:D:68:PHE:HB2	11:D:8148:HOH:O	1.89	0.72
6:N:929:ARG:HB2	6:N:929:ARG:NH1	2.05	0.72
5:C:677:MET:HB3	5:C:987:ILE:HD13	1.71	0.72
6:D:1465:ASN:HD21	6:D:1470:ARG:HE	1.36	0.72
5:M:412:ALA:HB1	5:M:419:THR:HG21	1.71	0.72
4:B:79:ILE:HA	4:B:82:LEU:HD12	1.70	0.72
6:N:116:LEU:HD13	6:N:118:LEU:HD11	1.71	0.72
7:O:54:LEU:O	7:O:54:LEU:HD23	1.90	0.72
7:O:46:PRO:HG3	7:O:66:LYS:HD3	1.70	0.72
5:C:464:LEU:HD21	11:C:1308:HOH:O	1.89	0.72
4:B:218:LEU:O	4:B:222:LEU:HG	1.89	0.72
6:N:951:ILE:HG23	6:N:1062:ARG:HE	1.55	0.72
4:A:226:SER:O	4:A:228:PRO:HD3	1.90	0.72
6:N:493:ARG:HG2	6:N:1390:LEU:HB2	1.71	0.72
6:D:53:ILE:HD12	6:D:86:ARG:NH2	2.04	0.72
4:K:189:ARG:NH1	4:L:155:LYS:HE3	2.04	0.72
4:B:186:LEU:HD21	11:B:367:HOH:O	1.87	0.72
6:D:30:GLU:HB3	6:D:40:GLU:HG2	1.71	0.72
5:C:689:VAL:HB	5:C:870:ILE:HG13	1.71	0.72
6:N:179:VAL:HG13	6:N:183:GLU:HB3	1.72	0.72
6:N:1205:TYR:CD2	6:N:1215:VAL:HG21	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:122:GLU:O	6:D:126:VAL:HG23	1.90	0.72
6:D:810:GLU:O	6:D:813:LEU:HG	1.89	0.72
4:K:38:ASN:HB2	5:M:980:GLY:HA3	1.71	0.72
5:M:608:GLY:C	5:M:609:ASN:HD22	1.94	0.72
5:M:1060:ILE:HG22	11:M:1405:HOH:O	1.90	0.71
4:K:89:PHE:HD1	4:K:120:VAL:HG23	1.54	0.71
4:A:61:VAL:HG23	11:A:319:HOH:O	1.90	0.71
6:N:421:LEU:HD22	6:N:444:VAL:HG11	1.69	0.71
6:D:677:LEU:HD23	6:D:683:ILE:HG13	1.72	0.71
5:C:409:ARG:CA	5:C:454:SER:HA	2.16	0.71
5:C:861:LEU:HA	5:C:974:LEU:HD12	1.72	0.71
6:N:133:ILE:HG21	6:N:454:ALA:HB1	1.71	0.71
5:C:158:TYR:HD1	5:C:314:THR:HG22	1.54	0.71
5:C:436:GLY:O	5:C:459:ALA:HB2	1.90	0.71
5:C:675:ALA:HB2	5:C:867:VAL:HG11	1.71	0.71
6:D:646:LYS:HG3	6:D:720:LEU:HD23	1.70	0.71
5:M:874:LEU:HA	6:N:1023:MET:SD	2.31	0.71
5:M:704:HIS:O	5:M:828:ALA:HA	1.90	0.71
5:C:129:ILE:HD13	5:C:134:ARG:HB2	1.73	0.71
4:K:153:ALA:HA	4:K:156:HIS:CE1	2.26	0.71
4:A:179:PHE:HB2	4:A:195:LEU:HD11	1.71	0.71
5:M:270:GLY:O	5:M:274:ARG:HB3	1.89	0.71
6:D:409:VAL:HG23	6:D:421:LEU:HA	1.71	0.71
5:M:1101:THR:HG21	5:M:1111:ILE:HG23	1.71	0.71
5:M:1090:LYS:HE3	5:M:1112:PHE:HE1	1.55	0.71
6:N:1042:ARG:NH2	6:N:1073:SER:HB3	2.05	0.71
5:C:1031:ARG:NE	6:D:621:LYS:HB3	2.06	0.71
5:C:143:SER:HB2	5:C:276:LYS:HZ3	1.55	0.71
5:M:34:VAL:HB	5:M:38:LYS:HG3	1.71	0.71
4:K:56:VAL:HG22	4:K:142:VAL:HG12	1.70	0.71
6:N:1136:LYS:HB2	6:N:1139:ASP:OD2	1.90	0.71
6:N:921:ARG:NH1	6:N:921:ARG:HB3	2.05	0.71
6:N:792:ILE:HD11	6:N:878:GLY:O	1.91	0.71
6:D:119:SER:HB2	6:D:123:LEU:HB2	1.72	0.71
5:C:950:LEU:HB3	5:C:952:LEU:HD23	1.72	0.71
5:M:554:ASP:HB2	5:M:880:MET:HB2	1.71	0.71
6:N:145:VAL:HG22	6:N:146:PRO:HD2	1.71	0.71
5:C:355:VAL:HA	5:C:358:ARG:HD3	1.72	0.71
5:C:675:ALA:HA	5:C:989:VAL:HG13	1.71	0.71
6:D:1037:GLN:HG2	6:D:1042:ARG:HB3	1.73	0.71
6:N:521:PRO:HG2	6:N:524:LEU:HD22	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:185:VAL:HG11	6:D:191:LEU:HD21	1.72	0.71
6:D:421:LEU:HB2	6:D:427:VAL:HG12	1.72	0.71
11:M:1216:HOH:O	6:N:950:GLY:HA3	1.91	0.71
5:C:804:VAL:HG11	5:C:824:ARG:HH21	1.56	0.71
5:C:142:ARG:HB3	5:C:142:ARG:HH11	1.55	0.71
5:C:675:ALA:HB1	5:C:677:MET:SD	2.31	0.71
5:M:1115:LEU:HG	6:N:85:VAL:HG12	1.72	0.71
5:M:546:LEU:HD21	11:M:1376:HOH:O	1.90	0.71
5:C:837:ASP:HA	5:C:999:HIS:CE1	2.25	0.71
5:M:376:ARG:HG2	11:M:1395:HOH:O	1.90	0.71
6:D:615:ARG:NH2	6:D:1096:ARG:NH1	2.39	0.71
5:M:1019:GLN:NE2	6:N:616:GLN:HE22	1.88	0.71
6:N:1146:GLY:HA3	6:N:1207:TYR:HB2	1.71	0.71
6:N:50:PHE:CG	6:N:522:PRO:HD3	2.26	0.71
4:K:178:ALA:HB2	5:M:864:GLY:H	1.55	0.71
6:D:83:SER:O	6:D:86:ARG:HB3	1.90	0.71
5:M:325:ILE:HD11	11:M:1567:HOH:O	1.91	0.71
5:M:584:GLU:H	5:M:584:GLU:CD	1.95	0.71
4:L:89:PHE:HB3	4:L:94:LEU:CD1	2.21	0.71
4:K:178:ALA:HB3	4:K:198:ARG:HG3	1.72	0.71
6:D:486:ARG:HA	6:D:489:ARG:HG2	1.73	0.71
6:D:1332:PRO:HG3	6:D:1347:TYR:HE2	1.54	0.71
6:D:1160:LEU:HD11	6:D:1174:LEU:HD21	1.71	0.71
6:N:1033:GLN:HE21	6:N:1036:ARG:NH1	1.88	0.70
6:D:1087:ARG:HH21	6:D:1253:THR:HG22	1.56	0.70
6:D:1481:VAL:HG22	7:E:18:ARG:HE	1.56	0.70
5:M:609:ASN:N	5:M:609:ASN:HD22	1.86	0.70
6:D:1383:ASP:HB2	6:D:1416:ALA:HB3	1.71	0.70
6:N:502:PHE:CE1	6:N:509:PRO:HB3	2.26	0.70
6:N:1094:LEU:HB2	6:N:1260:ILE:HD11	1.72	0.70
2:H:12:G:H1'	5:C:393:GLN:HG2	1.73	0.70
6:N:1168:MET:HE3	6:N:1171:VAL:HB	1.72	0.70
6:D:1093:TYR:O	6:D:1097:LYS:HG2	1.91	0.70
5:C:1046:ALA:HA	6:D:1472:ILE:HG13	1.72	0.70
6:N:1406:ARG:HG3	6:N:1412:LYS:HG2	1.72	0.70
4:K:220:GLU:O	4:K:223:THR:HG22	1.89	0.70
5:M:1031:ARG:HA	6:N:621:LYS:O	1.92	0.70
1:G:13:DT:H5''	6:D:1093:TYR:CE2	2.26	0.70
4:L:102:LYS:HE3	4:L:104:GLU:HG3	1.73	0.70
6:N:78:VAL:HG12	6:N:80:VAL:HG22	1.74	0.70
6:N:507:ASN:H	6:N:507:ASN:ND2	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1007:ALA:HB1	6:D:652:LEU:HD13	1.72	0.70
5:C:502:PRO:HB2	5:C:509:ALA:HB3	1.73	0.70
2:H:6:U:H2'	2:H:7:G:N7	2.05	0.70
5:C:1017:THR:HB	6:D:613:ARG:HH22	1.56	0.70
5:M:108:ILE:HB	5:M:368:THR:OG1	1.91	0.70
6:D:403:PHE:HB2	6:D:423:ASP:OD1	1.91	0.70
2:Y:2:A:OP2	6:N:671:LYS:NZ	2.25	0.70
6:N:786:ILE:HG22	6:N:1026:SER:HB3	1.73	0.70
5:M:433:THR:HG22	5:M:437:ARG:HH11	1.56	0.70
6:D:150:ARG:HH22	6:D:473:LEU:HD21	1.57	0.70
6:N:434:ARG:HB3	6:N:434:ARG:NH1	2.07	0.70
6:D:177:ALA:HB3	6:D:205:TYR:OH	1.90	0.70
5:C:1085:PHE:O	5:C:1089:VAL:HG23	1.91	0.70
6:D:1090:ASP:HA	6:D:1093:TYR:HB2	1.72	0.70
6:D:1098:LEU:HD21	6:D:1229:ILE:HD12	1.73	0.70
4:K:48:ILE:HB	11:K:973:HOH:O	1.90	0.70
6:D:179:VAL:HG13	6:D:183:GLU:HB3	1.74	0.70
5:C:244:PRO:HB3	11:C:1256:HOH:O	1.92	0.70
5:M:745:ILE:HD12	5:M:745:ILE:H	1.57	0.70
5:C:673:LEU:HB3	5:C:868:ASP:OD1	1.92	0.70
6:D:1209:LEU:HD23	6:D:1210:SER:N	2.06	0.70
6:D:117:ASP:HB2	6:D:495:ARG:NH2	2.07	0.70
6:D:117:ASP:H	6:D:150:ARG:NH1	1.90	0.70
5:C:144:PRO:HG2	5:C:265:ARG:NH2	2.06	0.70
6:D:1496:GLU:HA	6:D:1499:ARG:NE	2.06	0.70
6:N:565:ILE:H	6:N:565:ILE:HD12	1.56	0.70
5:M:806:LEU:HD11	5:M:824:ARG:NH2	2.06	0.70
4:K:88:ARG:O	4:K:121:GLU:HG2	1.91	0.70
2:Y:9:G:H2'	2:Y:10:G:H8	1.56	0.70
6:N:1042:ARG:O	6:N:1057:VAL:HB	1.92	0.70
6:D:496:LEU:O	6:D:500:ARG:HG2	1.92	0.70
5:M:39:ARG:HD2	5:M:39:ARG:N	2.05	0.70
5:C:762:LYS:HD3	5:C:784:ASP:O	1.90	0.70
4:A:227:ASN:O	4:B:11:PHE:HB3	1.91	0.70
6:D:584:ASN:OD1	6:D:590:PRO:HD2	1.91	0.70
6:D:1005:GLN:HA	6:D:1005:GLN:HE21	1.57	0.70
6:D:119:SER:HB2	6:D:123:LEU:H	1.57	0.70
6:N:871:LYS:HB3	6:N:873:LEU:HD21	1.74	0.70
6:D:1086:LEU:HD12	11:D:8404:HOH:O	1.91	0.70
4:L:110:LYS:HD3	4:L:126:ASP:HA	1.74	0.70
4:B:38:ASN:HB3	4:B:39:PRO:HD3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:874:LEU:HD12	5:C:874:LEU:H	1.56	0.69
7:O:54:LEU:HA	7:O:58:PRO:HG2	1.74	0.69
6:N:462:GLN:HB2	6:N:513:ILE:HD13	1.74	0.69
6:D:105:VAL:HG21	6:D:128:TYR:HE1	1.57	0.69
4:B:89:PHE:HB3	4:B:94:LEU:HD12	1.74	0.69
5:C:841:ASN:H	5:C:841:ASN:HD22	1.38	0.69
6:N:760:ARG:HH11	7:O:61:VAL:HG23	1.57	0.69
4:A:56:VAL:HG22	4:A:142:VAL:HG13	1.73	0.69
5:M:242:LEU:HD13	11:M:1532:HOH:O	1.92	0.69
5:C:886:LEU:HD13	6:D:951:ILE:HG13	1.73	0.69
6:D:684:LYS:HB3	6:D:686:GLU:HG3	1.72	0.69
5:C:547:ILE:HG21	5:C:550:LEU:HD13	1.74	0.69
6:D:546:ARG:HA	11:D:8178:HOH:O	1.91	0.69
5:C:689:VAL:HG12	5:C:690:ILE:H	1.56	0.69
6:D:786:ILE:HD13	6:D:908:LYS:HB2	1.75	0.69
5:M:872:ASN:ND2	5:M:874:LEU:HB2	2.06	0.69
6:D:38:LYS:HG2	6:D:39:PRO:HD2	1.73	0.69
5:C:159:ILE:HG13	11:C:1362:HOH:O	1.93	0.69
5:M:877:PRO:HG2	6:N:1023:MET:SD	2.31	0.69
6:D:1395:LEU:HD23	6:D:1396:GLU:N	2.08	0.69
5:M:333:ILE:N	5:M:465:GLY:HA3	2.05	0.69
6:D:136:ASP:HB2	6:D:455:ARG:HE	1.57	0.69
6:N:554:LEU:HD21	6:N:571:LYS:HD3	1.75	0.69
6:D:141:ILE:HD11	6:D:165:LYS:NZ	2.08	0.69
6:D:1147:ARG:HB3	6:D:1188:VAL:HG21	1.73	0.69
6:D:756:GLN:HG3	6:D:760:ARG:HH11	1.57	0.69
6:N:41:ARG:HD3	6:N:42:ASP:H	1.57	0.69
6:D:1192:LEU:HB3	6:D:1345:GLU:OE2	1.92	0.69
7:O:31:LEU:HD21	7:O:60:ALA:HB2	1.73	0.69
5:C:341:THR:HA	11:C:1289:HOH:O	1.91	0.69
5:C:457:ALA:HB3	5:C:538:GLN:HA	1.74	0.69
5:C:69:LEU:HB2	5:C:97:ARG:HB2	1.73	0.69
5:C:265:ARG:HH11	5:C:267:TYR:HB3	1.55	0.69
5:C:872:ASN:HD21	5:C:874:LEU:CD1	2.04	0.69
6:N:130:SER:HB3	6:N:132:TYR:HE1	1.57	0.69
6:D:957:PRO:HA	11:D:8083:HOH:O	1.91	0.69
5:C:1100:GLN:HE21	5:C:1100:GLN:HA	1.57	0.69
6:D:741:ASP:O	6:D:743:ASP:N	2.25	0.69
5:M:838:LYS:HG2	11:M:1491:HOH:O	1.93	0.69
6:D:1059:SER:HA	11:D:8349:HOH:O	1.93	0.69
5:M:853:LEU:HD23	5:M:858:MET:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:54:LYS:HD2	6:N:55:ASP:H	1.58	0.69
5:C:431:HIS:HD2	5:C:433:THR:H	1.41	0.69
5:C:578:VAL:HG23	5:C:579:VAL:HG12	1.74	0.69
6:D:95:LEU:HD21	6:D:574:LEU:HD21	1.73	0.69
6:N:1124:GLN:HB3	6:N:1135:ARG:HD3	1.74	0.69
5:M:689:VAL:HG12	5:M:690:ILE:H	1.57	0.69
5:C:134:ARG:HH21	5:C:392:SER:HB2	1.56	0.69
4:A:197:LEU:HG	4:A:199:ILE:HD11	1.75	0.69
6:N:586:ARG:NH2	6:N:1444:THR:HG21	2.07	0.69
6:D:656:PHE:HB3	6:D:694:VAL:HG11	1.73	0.69
4:L:52:ALA:HB2	4:L:170:VAL:O	1.92	0.69
6:N:889:ALA:HB3	6:N:930:LEU:HD12	1.74	0.69
7:E:41:GLU:OE1	7:E:42:PRO:HD3	1.93	0.69
6:D:399:ARG:HH11	6:D:430:ASP:HB2	1.57	0.69
5:C:511:GLU:O	5:C:526:PRO:HD3	1.93	0.69
2:H:8:C:H5"	11:H:37:HOH:O	1.93	0.69
6:D:644:LEU:HD23	6:D:718:PRO:HB3	1.73	0.69
5:M:881:ASN:O	5:M:884:GLN:HG3	1.91	0.69
6:D:1403:LEU:HD23	6:D:1407:LEU:HD13	1.74	0.69
4:B:64:GLU:HA	4:B:165:ILE:HD13	1.75	0.69
5:C:1034:GLU:H	6:D:619:LEU:HD13	1.58	0.69
5:M:580:MET:SD	5:M:584:GLU:HG3	2.33	0.69
5:C:411:SER:HA	5:C:451:LEU:O	1.93	0.69
5:M:331:ARG:NH2	5:M:427:VAL:HG13	2.07	0.69
1:X:17:DC:H5"	5:M:1030:GLN:HE21	1.58	0.69
11:B:374:HOH:O	6:D:851:LEU:HD21	1.93	0.69
5:M:405:ARG:HH22	5:M:566:THR:CG2	2.05	0.69
6:D:554:LEU:HD11	6:D:571:LYS:HD3	1.75	0.69
5:C:31:GLN:HB3	5:C:71:TYR:OH	1.92	0.69
6:D:781:PRO:HG2	6:D:911:LEU:HD23	1.75	0.68
6:D:634:GLY:HA2	6:D:727:GLN:HE21	1.57	0.68
5:C:182:VAL:HG21	5:C:220:GLY:O	1.93	0.68
6:D:10:ILE:HB	6:D:1451:ALA:HA	1.73	0.68
6:D:1046:GLN:HG2	6:D:1052:THR:HG22	1.74	0.68
6:N:489:ARG:NH2	6:N:1389:LEU:HD21	2.07	0.68
5:M:904:PRO:HD2	5:M:908:GLY:HA2	1.75	0.68
6:N:834:THR:HG22	6:N:838:ARG:HH11	1.58	0.68
5:C:405:ARG:HG3	5:C:442:GLU:OE1	1.93	0.68
5:M:479:VAL:HG11	5:M:503:LEU:HD11	1.75	0.68
4:K:94:LEU:HD21	4:K:119:ASP:HB3	1.74	0.68
5:C:946:ARG:HH22	6:D:861:GLN:HE22	1.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:148:PHE:HZ	5:M:281:LEU:HD13	1.57	0.68
5:M:252:LYS:NZ	5:M:296:GLY:HA3	2.08	0.68
6:D:1399:ASP:O	6:D:1403:LEU:HB2	1.93	0.68
5:M:333:ILE:H	5:M:465:GLY:CA	2.05	0.68
1:G:14:DT:H5'	1:G:14:DT:H6	1.59	0.68
6:N:1492:LEU:HD12	6:N:1493:LYS:NZ	2.09	0.68
4:L:61:VAL:HG21	4:L:75:VAL:HG21	1.75	0.68
6:D:524:LEU:O	6:D:526:PRO:HD3	1.92	0.68
4:B:197:LEU:HD21	4:B:199:ILE:HD11	1.74	0.68
6:N:807:ALA:HB2	6:N:833:GLU:OE1	1.93	0.68
4:B:59:GLU:CB	4:B:137:ARG:HH12	2.03	0.68
6:D:1109:GLU:HG2	6:D:1201:CYS:CA	2.20	0.68
6:D:1196:THR:HG22	11:D:8501:HOH:O	1.94	0.68
5:C:158:TYR:O	5:C:310:LEU:HD11	1.93	0.68
6:D:1380:GLU:HG3	6:D:1420:LEU:HD12	1.74	0.68
6:D:868:TYR:HB2	6:D:873:LEU:HD12	1.76	0.68
5:M:343:GLN:HG2	5:M:385:PHE:HB2	1.75	0.68
6:D:98:PRO:HB3	11:D:8058:HOH:O	1.93	0.68
5:M:305:PRO:HG3	5:M:308:ARG:HH22	1.59	0.68
6:D:526:PRO:HA	11:D:8171:HOH:O	1.93	0.68
5:C:5:ARG:CZ	5:C:8:ARG:HH22	2.06	0.68
6:D:964:LEU:HD21	6:D:1058:ARG:HE	1.57	0.68
6:D:409:VAL:CG2	6:D:421:LEU:HA	2.24	0.68
6:N:1161:GLU:HG2	6:N:1164:ARG:HB2	1.74	0.68
6:D:800:LYS:HE3	6:D:804:LEU:HD22	1.74	0.68
6:N:1191:PRO:HG2	6:N:1370:ILE:HD13	1.74	0.68
6:D:22:SER:HB2	6:D:92:HIS:HB3	1.76	0.68
4:K:58:ILE:HG21	4:K:68:ILE:HD11	1.75	0.68
6:D:988:ARG:O	6:D:992:ILE:HG13	1.94	0.68
5:C:435:TYR:HE1	5:C:539:VAL:HG22	1.58	0.68
6:D:650:LEU:HD23	6:D:691:LEU:HD23	1.75	0.68
5:M:874:LEU:O	5:M:877:PRO:HD2	1.93	0.68
6:D:1197:ARG:HB3	6:D:1396:GLU:HG3	1.74	0.68
6:D:1223:ILE:CG2	6:D:1227:GLN:HE21	2.06	0.68
6:N:879:ARG:HH21	6:N:904:VAL:N	1.90	0.68
6:D:1252:ILE:HG13	6:D:1253:THR:H	1.59	0.68
6:N:394:LEU:O	6:N:396:VAL:HG23	1.94	0.68
6:N:119:SER:HB2	6:N:123:LEU:H	1.59	0.68
6:N:1111:ASP:CG	6:N:1203:LYS:HG3	2.14	0.68
5:M:536:PRO:HD2	5:M:537:LYS:NZ	2.08	0.68
6:D:455:ARG:HB3	6:D:459:GLU:HG2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:244:PRO:HG2	5:M:246:ASP:OD2	1.94	0.68
5:M:510:ALA:HB3	5:M:513:VAL:HG23	1.76	0.68
6:D:984:THR:HG22	6:D:987:GLU:HG3	1.76	0.68
5:C:408:ARG:HG2	5:C:454:SER:HB3	1.74	0.68
6:D:1032:PRO:HB2	11:D:8254:HOH:O	1.93	0.68
6:N:526:PRO:O	6:N:537:THR:HA	1.94	0.68
4:B:85:LEU:HA	4:B:124:ASN:HD22	1.57	0.68
5:M:516:ARG:NH1	5:M:521:PRO:HB3	2.09	0.68
5:M:292:ARG:HD2	5:M:299:LYS:NZ	2.08	0.68
7:O:51:LEU:HD23	7:O:52:GLU:H	1.59	0.68
6:N:546:ARG:NH1	6:N:546:ARG:HB3	2.08	0.67
5:C:709:GLU:HG3	5:C:824:ARG:HG2	1.76	0.67
5:M:768:THR:HB	5:M:771:GLU:HB3	1.75	0.67
5:M:495:THR:H	5:M:530:GLU:CD	1.96	0.67
5:M:1111:ILE:HG13	5:M:1112:PHE:H	1.57	0.67
2:H:8:C:HO2'	2:H:9:G:H5'	1.58	0.67
6:D:782:SER:N	6:D:785:ILE:HD13	2.08	0.67
5:M:438:ILE:HD11	5:M:467:ILE:HD12	1.75	0.67
6:D:1252:ILE:HG13	6:D:1253:THR:N	2.09	0.67
6:D:29:PRO:CG	6:D:549:ASN:HD21	2.07	0.67
6:N:402:PRO:HG2	11:N:9030:HOH:O	1.93	0.67
5:M:762:LYS:HD3	5:M:784:ASP:O	1.94	0.67
5:C:106:GLY:O	5:C:107:LEU:HD23	1.94	0.67
5:M:432:ARG:HH22	6:N:1047:LYS:HD3	1.59	0.67
4:L:206:THR:HG22	4:L:209:GLU:H	1.59	0.67
5:C:610:ARG:HD3	5:C:622:GLU:OE2	1.94	0.67
5:M:1034:GLU:HB3	6:N:619:LEU:HD13	1.75	0.67
2:Y:11:C:H2'	2:Y:12:G:C8	2.30	0.67
6:N:637:LEU:HD11	6:N:641:GLN:C	2.15	0.67
6:N:1412:LYS:O	6:N:1414:PRO:HD3	1.93	0.67
5:C:762:LYS:HD2	5:C:786:LYS:HB2	1.75	0.67
5:C:1:MET:HG2	5:C:900:ARG:HH22	1.60	0.67
5:C:433:THR:HG22	5:C:437:ARG:HH11	1.58	0.67
6:D:786:ILE:HG21	6:D:1027:GLY:H	1.58	0.67
6:D:1101:VAL:CG2	6:D:1424:VAL:HG23	2.23	0.67
5:C:1050:GLN:HE22	6:D:1471:LEU:HB2	1.59	0.67
6:N:524:LEU:O	6:N:526:PRO:HD3	1.95	0.67
6:N:1124:GLN:NE2	6:N:1135:ARG:HA	2.10	0.67
6:N:1434:TRP:CZ3	6:N:1457:ASP:HB2	2.29	0.67
6:N:814:ALA:O	6:N:818:ARG:HG3	1.95	0.67
5:C:630:ARG:HA	5:C:705:ILE:HD13	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:952:ASP:HA	6:D:1062:ARG:HH21	1.60	0.67
6:D:455:ARG:HB2	6:D:460:ALA:CA	2.25	0.67
5:M:549:PHE:CD1	5:M:886:LEU:HD23	2.30	0.67
6:D:654:LYS:HB3	6:D:655:PRO:HD3	1.77	0.67
6:D:610:LYS:O	6:D:615:ARG:HD3	1.93	0.67
6:N:483:HIS:HB2	6:N:484:PRO:HD3	1.76	0.67
5:C:909:ALA:HB1	5:C:914:ILE:HD11	1.76	0.67
6:N:520:LEU:HD21	6:N:524:LEU:HD23	1.76	0.67
6:N:131:LYS:HD3	6:N:456:MET:SD	2.35	0.67
5:M:805:ARG:HD3	5:M:823:VAL:HG22	1.75	0.67
5:C:235:LEU:HD21	11:C:1313:HOH:O	1.93	0.67
5:C:898:GLY:HA2	11:C:1408:HOH:O	1.94	0.67
4:B:58:ILE:HB	4:B:61:VAL:HB	1.76	0.67
6:N:1201:CYS:SG	6:N:1204:CYS:HB2	2.35	0.67
6:N:394:LEU:HD21	6:N:445:ARG:HH22	1.58	0.67
5:M:252:LYS:HA	11:M:1276:HOH:O	1.95	0.67
5:C:443:THR:HG22	5:C:453:THR:HB	1.77	0.67
6:N:908:LYS:HB2	6:N:1027:GLY:HA3	1.76	0.67
6:D:134:VAL:HB	6:D:464:LEU:HD11	1.75	0.67
5:M:1115:LEU:HB3	6:N:89:ARG:NH1	2.10	0.67
6:D:396:VAL:O	6:D:398:ALA:N	2.25	0.67
6:D:1393:GLN:OE1	6:D:1394:VAL:HG23	1.95	0.67
4:B:206:THR:HG22	4:B:209:GLU:H	1.59	0.67
6:N:971:LEU:O	6:N:975:GLU:HG2	1.94	0.67
6:D:715:ALA:HB3	6:D:764:LEU:HA	1.76	0.67
5:C:872:ASN:HD22	5:C:872:ASN:C	1.99	0.67
6:N:1340:GLY:O	6:N:1344:VAL:HG23	1.94	0.67
6:D:101:HIS:HD1	6:D:103:TRP:HB2	1.59	0.67
5:M:971:LYS:HA	5:M:988:VAL:HA	1.76	0.67
6:N:1480:PHE:HB2	11:N:9408:HOH:O	1.94	0.67
4:K:1:MET:SD	4:K:5:LYS:HB3	2.35	0.67
6:D:1498:ALA:HB2	7:E:88:GLU:OE1	1.95	0.67
6:D:1465:ASN:ND2	6:D:1470:ARG:HB3	2.09	0.67
6:N:1267:ARG:HG3	6:N:1271:LYS:HZ3	1.59	0.67
1:G:17:DC:H4'	6:D:628:ARG:CZ	2.25	0.67
5:M:552:HIS:CD2	5:M:886:LEU:HD22	2.30	0.67
6:D:1485:GLN:HE21	7:E:78:ASN:HA	1.60	0.67
5:M:399:ASN:OD1	5:M:401:LEU:HB3	1.95	0.67
6:D:963:TYR:CE2	6:D:1002:LYS:HB3	2.29	0.67
5:C:884:GLN:HB3	5:C:992:MET:HE1	1.75	0.66
2:H:11:C:H2'	2:H:12:G:C8	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:786:ILE:HG21	6:D:1027:GLY:N	2.10	0.66
6:D:127:LEU:HD12	6:D:128:TYR:N	2.10	0.66
6:D:1252:ILE:O	6:D:1256:LEU:HD12	1.95	0.66
6:D:396:VAL:HG12	6:D:398:ALA:HB2	1.77	0.66
6:D:434:ARG:N	6:D:447:VAL:HG22	2.09	0.66
6:N:1346:ARG:HD3	11:N:9293:HOH:O	1.95	0.66
1:G:18:DG:O3'	5:C:1001:VAL:HB	1.94	0.66
5:C:5:ARG:NE	5:C:8:ARG:HH22	1.93	0.66
5:C:518:LYS:O	5:C:520:GLU:HG2	1.95	0.66
6:D:38:LYS:NZ	6:D:59:ALA:HB1	2.09	0.66
5:C:244:PRO:HG3	11:C:1490:HOH:O	1.95	0.66
6:D:584:ASN:HB2	6:D:602:SER:HB3	1.78	0.66
5:M:473:ARG:HA	5:M:531:PHE:HD1	1.60	0.66
5:M:764:GLU:HB2	6:N:54:LYS:HD3	1.77	0.66
5:M:433:THR:HG22	5:M:437:ARG:NH1	2.10	0.66
1:G:14:DT:H2"	1:G:15:DC:H5'	1.76	0.66
5:C:270:GLY:O	5:C:274:ARG:HB3	1.96	0.66
6:N:1121:PRO:HD2	6:N:1346:ARG:NH2	2.09	0.66
5:M:45:GLN:HB2	5:M:71:TYR:CE2	2.31	0.66
5:M:561:GLY:O	5:M:564:MET:HG3	1.95	0.66
4:A:79:ILE:HA	4:A:82:LEU:HD12	1.77	0.66
6:D:716:PHE:CE1	6:D:765:SER:HB3	2.30	0.66
6:D:977:ALA:HB1	6:D:983:LEU:HD21	1.77	0.66
4:K:150:TYR:HE2	4:K:152:PRO:HG3	1.60	0.66
5:C:435:TYR:CE1	5:C:539:VAL:HG22	2.31	0.66
6:N:1000:THR:O	6:N:1003:VAL:HG12	1.95	0.66
6:D:480:GLU:O	6:D:484:PRO:HD2	1.96	0.66
5:C:494:TYR:HB3	11:C:1172:HOH:O	1.96	0.66
5:M:953:VAL:HB	5:M:962:GLN:NE2	2.10	0.66
6:N:119:SER:H	6:N:123:LEU:CD2	2.07	0.66
5:M:251:ASP:HB3	5:M:252:LYS:HD2	1.78	0.66
5:C:1103:ASP:HB3	5:C:1105:LYS:HZ1	1.59	0.66
5:M:102:HIS:HB2	5:M:106:GLY:O	1.95	0.66
5:C:313:LEU:HB2	5:C:321:GLU:HG3	1.76	0.66
6:N:1266:ARG:HG2	6:N:1267:ARG:N	2.10	0.66
6:N:813:LEU:O	6:N:817:GLU:HB2	1.96	0.66
5:M:288:ARG:HG3	11:M:1542:HOH:O	1.94	0.66
5:C:315:ALA:HB3	11:C:1454:HOH:O	1.94	0.66
6:N:800:LYS:NZ	6:N:804:LEU:HD13	2.11	0.66
5:M:841:ASN:ND2	5:M:844:GLY:H	1.93	0.66
6:N:1111:ASP:HB2	6:N:1203:LYS:HZ1	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:900:ILE:HG22	6:N:914:LEU:HD11	1.75	0.66
6:D:52:PRO:HG2	6:D:80:VAL:HG13	1.76	0.66
5:C:516:ARG:HD2	5:C:521:PRO:HA	1.76	0.66
5:C:987:ILE:HG13	11:C:1149:HOH:O	1.94	0.66
5:C:151:ASP:HB2	5:C:157:ARG:O	1.95	0.66
5:C:1118:LYS:HA	6:D:23:TYR:OH	1.95	0.66
4:K:31:GLY:HA3	4:L:42:ARG:NH2	2.09	0.66
6:N:796:ARG:NE	6:N:828:LYS:HZ3	1.94	0.66
6:N:1106:VAL:HG11	6:N:1474:ALA:HB1	1.78	0.66
5:M:861:LEU:HD13	5:M:865:THR:CG2	2.25	0.66
4:L:56:VAL:HG13	4:L:142:VAL:HG12	1.78	0.66
5:M:129:ILE:HG12	5:M:386:PHE:O	1.95	0.66
6:N:1111:ASP:HB2	6:N:1203:LYS:NZ	2.11	0.66
6:D:691:LEU:O	6:D:695:ILE:HG22	1.95	0.66
6:D:1462:LEU:HD22	6:D:1472:ILE:HG22	1.77	0.66
5:C:1091:GLU:OE1	6:D:613:ARG:HG2	1.96	0.66
4:B:125:PRO:HD2	11:B:346:HOH:O	1.94	0.66
5:M:689:VAL:HG12	5:M:690:ILE:N	2.11	0.66
5:M:443:THR:HG21	6:N:1078:ARG:NE	2.10	0.66
4:A:14:ARG:HH22	4:A:24:VAL:HG23	1.61	0.66
5:C:629:TYR:HA	11:C:1337:HOH:O	1.96	0.66
5:C:678:PRO:HD2	11:D:8199:HOH:O	1.95	0.66
6:D:879:ARG:HH21	6:D:903:ASP:HA	1.60	0.66
7:O:45:ARG:HG2	7:O:46:PRO:CD	2.24	0.66
6:N:542:ASP:HA	6:N:545:ARG:HE	1.60	0.66
6:N:396:VAL:HG12	6:N:447:VAL:HA	1.76	0.66
5:M:810:ASP:OD2	5:M:815:LEU:HD22	1.96	0.66
5:C:244:PRO:HD2	5:C:245:GLY:H	1.60	0.66
5:M:473:ARG:HA	5:M:531:PHE:CD1	2.30	0.66
5:C:236:ILE:HG13	11:C:1121:HOH:O	1.96	0.66
4:K:124:ASN:HD22	4:K:127:LEU:HD22	1.60	0.66
5:C:838:LYS:HG3	5:C:997:LEU:HB2	1.78	0.66
2:H:6:U:H5'	11:H:45:HOH:O	1.94	0.66
5:C:755:LEU:HD21	5:C:792:VAL:HG22	1.75	0.66
6:D:1396:GLU:HA	6:D:1399:ASP:OD2	1.96	0.66
5:M:267:TYR:HB2	5:M:272:ALA:HB1	1.78	0.66
6:D:466:LYS:HA	11:D:8320:HOH:O	1.95	0.66
6:D:568:ARG:O	6:D:572:ARG:HG3	1.96	0.66
5:M:979:THR:HG23	5:M:981:GLU:H	1.60	0.66
6:D:1252:ILE:HA	11:D:8219:HOH:O	1.96	0.66
6:N:1044:LEU:HD22	6:N:1052:THR:HG22	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:221:HIS:HB3	11:L:365:HOH:O	1.96	0.66
5:C:516:ARG:HE	6:D:1068:LEU:HD13	1.60	0.66
5:C:597:ALA:HB2	5:C:655:LEU:HD21	1.78	0.66
6:N:618:LEU:HB3	6:N:619:LEU:HD23	1.78	0.66
5:M:553:ASP:HA	5:M:881:ASN:HA	1.78	0.66
6:D:1189:ARG:HB3	6:D:1204:CYS:HA	1.78	0.66
5:M:928:LYS:NZ	5:M:932:GLU:HG3	2.10	0.66
5:C:69:LEU:HD13	5:C:109:LYS:HE3	1.78	0.66
6:N:468:LEU:HB3	11:N:9068:HOH:O	1.96	0.66
5:C:12:VAL:HG13	5:C:13:ILE:HG12	1.78	0.66
4:A:117:VAL:HB	4:A:120:VAL:CG1	2.26	0.66
6:D:1089:ALA:HB3	11:D:8250:HOH:O	1.95	0.66
5:M:861:LEU:HD23	5:M:863:ASP:H	1.61	0.66
6:D:481:MET:HE2	6:D:493:ARG:HB2	1.76	0.66
6:N:1151:ARG:HG2	6:N:1187:PRO:HB2	1.77	0.66
4:K:198:ARG:HH22	5:M:932:GLU:HB3	1.61	0.65
5:M:690:ILE:CD1	5:M:833:LEU:HD23	2.26	0.65
6:D:890:VAL:HG11	6:D:922:LEU:HD13	1.78	0.65
6:N:413:ASP:O	6:N:435:VAL:HG23	1.96	0.65
7:O:27:ALA:HB2	7:O:61:VAL:HG12	1.77	0.65
5:M:502:PRO:HB2	5:M:509:ALA:HB3	1.77	0.65
5:C:83:CYS:HA	5:C:88:LEU:HB2	1.78	0.65
6:D:1329:ALA:O	6:D:1330:ILE:HD12	1.96	0.65
6:N:553:ARG:O	6:N:557:LEU:HG	1.96	0.65
5:M:200:LEU:HD13	5:M:300:ASP:CG	2.16	0.65
5:C:676:ILE:CG2	5:C:988:VAL:HG13	2.27	0.65
6:N:1148:VAL:HB	6:N:1203:LYS:O	1.96	0.65
5:M:98:LEU:HD13	5:M:110:GLU:O	1.95	0.65
6:N:917:GLN:O	6:N:921:ARG:HG2	1.96	0.65
6:D:761:ILE:HG23	7:E:6:ILE:HD11	1.78	0.65
6:N:769:LEU:HD12	6:N:770:LEU:HG	1.77	0.65
6:N:1342:GLU:HA	11:N:9208:HOH:O	1.96	0.65
5:C:608:GLY:C	5:C:609:ASN:HD22	1.99	0.65
6:D:796:ARG:HH21	6:D:828:LYS:HE2	1.61	0.65
6:N:788:GLY:O	6:N:792:ILE:HG22	1.95	0.65
5:M:689:VAL:HB	5:M:870:ILE:HG13	1.78	0.65
5:C:194:VAL:HA	5:C:197:LEU:HD12	1.78	0.65
5:M:911:GLU:O	5:M:915:LYS:HG2	1.96	0.65
5:C:52:PHE:CD2	5:C:68:PHE:HB2	2.31	0.65
5:C:937:ASP:HB2	5:C:940:GLU:HG3	1.78	0.65
5:C:1067:TYR:O	5:C:1071:ILE:HG12	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:879:ARG:HG3	6:D:879:ARG:HH11	1.60	0.65
6:D:1476:THR:HG23	7:E:21:VAL:HG22	1.77	0.65
6:N:150:ARG:HG3	11:N:9044:HOH:O	1.96	0.65
1:G:17:DC:O3'	6:D:628:ARG:NH2	2.29	0.65
11:M:1409:HOH:O	7:O:31:LEU:HD13	1.96	0.65
5:M:129:ILE:HD13	5:M:134:ARG:HB2	1.78	0.65
6:N:960:LYS:HB3	11:N:9374:HOH:O	1.96	0.65
4:B:213:GLN:O	4:B:217:ILE:HD13	1.96	0.65
6:N:1112:CYS:HB2	6:N:1195:GLN:HG2	1.78	0.65
4:L:102:LYS:HB2	4:L:139:ASN:OD1	1.96	0.65
6:N:1490:LYS:HE2	7:O:93:TYR:OH	1.96	0.65
6:N:1437:ALA:O	6:N:1446:VAL:HG21	1.95	0.65
6:N:660:LYS:HD2	6:N:694:VAL:HG22	1.78	0.65
5:C:22:GLN:HE22	5:C:407:LYS:HG2	1.59	0.65
6:D:1231:GLU:HG2	6:D:1235:GLN:CD	2.16	0.65
6:N:778:LEU:HA	6:N:780:LYS:HE2	1.78	0.65
6:N:1174:LEU:HD22	6:N:1183:ILE:HD13	1.79	0.65
2:Y:10:G:O2'	2:Y:11:C:H5'	1.96	0.65
5:C:971:LYS:HA	5:C:988:VAL:HA	1.79	0.65
4:K:112:ARG:NE	4:K:125:PRO:HB2	2.00	0.65
5:M:305:PRO:HG3	5:M:308:ARG:NH2	2.12	0.65
6:N:132:TYR:HA	11:N:9432:HOH:O	1.96	0.65
5:C:274:ARG:HG3	5:C:285:LEU:HD22	1.79	0.65
6:N:421:LEU:HB2	6:N:427:VAL:HG12	1.79	0.65
5:C:837:ASP:O	5:C:848:VAL:HG13	1.96	0.65
5:M:705:ILE:HA	5:M:827:VAL:O	1.97	0.65
5:C:841:ASN:N	5:C:841:ASN:HD22	1.91	0.65
4:A:197:LEU:HD23	4:A:197:LEU:H	1.62	0.65
6:N:661:MET:HA	6:N:666:ILE:HD12	1.79	0.65
5:M:808:ARG:NH2	5:M:820:ARG:HH21	1.95	0.65
5:C:328:LEU:H	5:C:433:THR:HB	1.61	0.65
2:H:12:G:O2'	2:H:13:C:H5'	1.97	0.65
4:B:137:ARG:NH1	4:B:139:ASN:HB3	2.11	0.65
6:N:754:PHE:CE2	6:N:1476:THR:HG21	2.32	0.65
6:N:637:LEU:HD21	6:N:642:CYS:HA	1.79	0.65
5:M:435:TYR:CE1	5:M:539:VAL:HG22	2.29	0.65
6:D:131:LYS:HA	6:D:456:MET:HB2	1.77	0.65
5:M:937:ASP:HB3	5:M:940:GLU:H	1.62	0.65
6:D:133:ILE:O	6:D:152:LEU:HB2	1.97	0.65
6:D:996:TRP:O	6:D:1000:THR:HG22	1.96	0.65
5:C:17:PRO:HB2	5:C:20:GLU:HB2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1060:ILE:HG23	5:C:1061:GLU:H	1.62	0.65
6:N:876:SER:O	6:N:880:ILE:HG12	1.97	0.65
6:D:50:PHE:HB3	6:D:522:PRO:HG3	1.79	0.65
6:N:74:GLU:HB3	6:N:75:ARG:NH2	2.12	0.65
4:K:27:PRO:HG2	4:K:186:LEU:HD13	1.77	0.65
4:B:54:THR:HG22	4:B:158:ILE:HG13	1.78	0.65
7:O:28:GLN:HB3	7:O:32:ARG:HH22	1.61	0.65
1:G:16:DG:OP1	5:C:1031:ARG:HD3	1.95	0.65
6:N:131:LYS:HG2	6:N:568:ARG:HG2	1.79	0.65
6:D:1084:THR:OG1	6:D:1238:MET:HA	1.96	0.65
6:N:948:THR:HB	11:N:9020:HOH:O	1.97	0.65
5:M:1056:LYS:HB3	6:N:624:ASP:H	1.60	0.65
5:C:290:LEU:HD22	5:C:302:VAL:HG11	1.79	0.65
6:D:822:ALA:HB1	11:D:8089:HOH:O	1.97	0.65
7:E:27:ALA:HB2	7:E:61:VAL:HG12	1.79	0.65
5:M:442:GLU:HG2	5:M:454:SER:CB	2.26	0.64
6:N:1147:ARG:HB3	6:N:1188:VAL:HG21	1.79	0.64
6:D:895:VAL:O	6:D:899:LEU:HG	1.97	0.64
6:D:882:PHE:HA	6:D:885:ILE:HD12	1.79	0.64
5:C:689:VAL:HG12	5:C:690:ILE:N	2.12	0.64
5:M:158:TYR:CE1	5:M:313:LEU:HG	2.33	0.64
5:C:343:GLN:HA	5:C:343:GLN:NE2	2.11	0.64
5:M:166:PRO:HG3	11:M:1337:HOH:O	1.97	0.64
2:H:10:G:O2'	2:H:11:C:H5'	1.97	0.64
6:D:1101:VAL:HG21	6:D:1424:VAL:HG23	1.78	0.64
6:N:996:TRP:O	6:N:1000:THR:HG22	1.96	0.64
6:N:793:THR:HB	6:N:879:ARG:CD	2.25	0.64
5:C:158:TYR:CD1	5:C:313:LEU:HG	2.32	0.64
5:C:470:PRO:HB2	5:C:534:VAL:HG21	1.78	0.64
6:D:141:ILE:HD13	6:D:450:TYR:HB3	1.79	0.64
6:N:1087:ARG:HB3	6:N:1256:LEU:HD22	1.79	0.64
6:D:484:PRO:CB	6:D:488:ARG:HE	2.07	0.64
7:E:48:MET:HB2	7:E:54:LEU:HD12	1.80	0.64
5:M:462:ASP:CG	5:M:463:GLU:H	2.01	0.64
5:M:771:GLU:HG3	11:M:1181:HOH:O	1.96	0.64
4:K:52:ALA:HA	11:K:1094:HOH:O	1.96	0.64
4:B:25:LEU:O	4:B:28:LEU:HD21	1.97	0.64
5:C:525:SER:HB2	5:C:527:GLU:HG3	1.79	0.64
6:N:762:GLN:HA	11:N:9032:HOH:O	1.97	0.64
6:D:792:ILE:HG23	6:D:793:THR:HG23	1.79	0.64
6:D:1209:LEU:HD21	7:E:16:LYS:NZ	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:140:ILE:HA	5:M:332:ARG:O	1.97	0.64
4:K:30:ARG:HH22	5:M:938:LYS:HD2	1.63	0.64
5:C:146:VAL:HG22	5:C:162:ILE:HG23	1.77	0.64
6:D:402:PRO:HA	6:D:443:VAL:HG23	1.80	0.64
6:D:119:SER:OG	6:D:123:LEU:HD13	1.96	0.64
6:D:804:LEU:HB2	6:D:830:ALA:O	1.98	0.64
5:C:609:ASN:N	5:C:609:ASN:HD22	1.94	0.64
5:M:542:VAL:HG23	11:M:1602:HOH:O	1.96	0.64
4:A:48:ILE:HD12	4:A:174:VAL:HG21	1.78	0.64
6:N:15:PRO:HA	6:N:18:ILE:HG12	1.79	0.64
4:B:59:GLU:HG3	4:B:139:ASN:HD22	1.61	0.64
4:L:177:VAL:HG12	4:L:199:ILE:HG12	1.79	0.64
6:N:786:ILE:HD13	6:N:1027:GLY:HA3	1.78	0.64
6:N:396:VAL:HG12	6:N:398:ALA:HB2	1.80	0.64
4:L:138:LEU:HD12	11:L:362:HOH:O	1.98	0.64
5:M:29:ALA:O	5:M:44:ILE:HG12	1.96	0.64
5:M:836:GLY:HA3	6:N:724:GLN:NE2	2.12	0.64
4:A:12:THR:OG1	4:A:24:VAL:HB	1.97	0.64
4:A:71:VAL:HG22	4:A:132:LEU:HG	1.78	0.64
5:M:362:GLY:HA3	5:M:367:LEU:HD23	1.78	0.64
4:A:36:LEU:O	4:A:40:LEU:HG	1.97	0.64
3:Z:8:DA:H1'	3:Z:9:DG:H5'	1.79	0.64
6:N:1422:MET:SD	6:N:1426:LYS:HB3	2.37	0.64
2:H:9:G:O2'	2:H:10:G:H5'	1.97	0.64
5:M:684:PHE:CD2	5:M:685:GLU:HG2	2.33	0.64
7:O:47:LYS:HA	7:O:54:LEU:HB3	1.80	0.64
6:D:104:PHE:HB3	6:D:512:MET:SD	2.38	0.64
6:D:613:ARG:HH12	6:D:616:GLN:HG2	1.62	0.64
5:C:204:GLN:OE1	5:C:221:LEU:HD12	1.97	0.64
4:B:212:ASN:O	4:B:215:VAL:HG22	1.97	0.64
6:D:813:LEU:HD21	11:D:8233:HOH:O	1.97	0.64
11:A:362:HOH:O	5:C:832:LYS:HD2	1.98	0.64
5:C:124:ASP:OD2	5:C:592:LEU:HB2	1.97	0.64
6:D:823:LEU:HD23	6:D:823:LEU:O	1.98	0.64
6:N:91:GLY:O	6:N:519:VAL:N	2.21	0.64
5:C:839:LEU:HD22	5:C:996:LYS:HA	1.80	0.64
5:M:265:ARG:NH2	5:M:332:ARG:HH22	1.95	0.64
6:N:554:LEU:O	6:N:558:LEU:HG	1.96	0.64
4:L:59:GLU:HG3	4:L:137:ARG:HH22	1.63	0.64
5:C:1105:LYS:NZ	5:C:1107:ASN:HD22	1.96	0.64
6:D:71:LYS:HB2	6:D:71:LYS:NZ	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:973:GLN:HB3	11:D:8398:HOH:O	1.96	0.64
6:D:1471:LEU:HD23	11:D:8477:HOH:O	1.98	0.64
5:M:100:LEU:HD23	5:M:368:THR:HA	1.80	0.64
6:D:1087:ARG:HD2	6:D:1256:LEU:HD13	1.78	0.64
6:D:860:LEU:HD23	6:D:877:PRO:HB2	1.79	0.64
6:N:1380:GLU:HG3	6:N:1381:VAL:N	2.13	0.64
6:N:41:ARG:HD3	6:N:42:ASP:N	2.13	0.64
6:D:1485:GLN:NE2	7:E:79:LEU:H	1.96	0.64
6:N:679:ARG:HB2	6:N:682:ASP:OD2	1.98	0.64
6:N:1415:VAL:HB	11:N:9268:HOH:O	1.96	0.64
6:N:17:LYS:HA	6:N:20:SER:HB3	1.80	0.64
6:D:1044:LEU:HD21	6:D:1053:PHE:O	1.98	0.64
5:C:872:ASN:HD22	5:C:873:PRO:N	1.95	0.64
5:M:9:ILE:HG21	11:M:1490:HOH:O	1.98	0.64
6:D:496:LEU:HD21	6:D:1388:ARG:HG3	1.79	0.64
5:M:170:PRO:HG2	11:M:1194:HOH:O	1.98	0.64
5:C:194:VAL:HG21	5:C:221:LEU:O	1.97	0.64
6:N:29:PRO:HG3	6:N:549:ASN:HD21	1.61	0.64
5:M:1005:MET:HB2	6:N:648:MET:HE1	1.78	0.64
5:C:18:LEU:HD12	5:C:18:LEU:H	1.61	0.64
6:D:18:ILE:HG23	6:D:518:PRO:HG3	1.80	0.64
5:M:410:ILE:HD11	5:M:455:LEU:HB3	1.79	0.64
5:M:906:PHE:CD1	6:N:1067:VAL:HG22	2.33	0.64
6:D:136:ASP:CG	6:D:463:GLN:HB3	2.18	0.64
5:M:314:THR:HG21	11:M:1381:HOH:O	1.97	0.64
5:M:342:ASP:O	5:M:345:ARG:HG2	1.98	0.64
6:D:486:ARG:HA	6:D:489:ARG:CG	2.28	0.64
5:C:9:ILE:HG13	5:C:907:ASP:OD2	1.98	0.64
6:N:1353:GLN:HB3	6:N:1357:ARG:NE	2.12	0.64
2:H:11:C:H2'	2:H:12:G:H8	1.63	0.63
5:C:688:ILE:HG21	5:C:871:LEU:HD23	1.80	0.63
6:D:637:LEU:HB2	11:D:8105:HOH:O	1.98	0.63
6:N:792:ILE:HD13	6:N:793:THR:HG22	1.80	0.63
4:K:117:VAL:HB	4:K:120:VAL:CG1	2.26	0.63
4:A:206:THR:HG22	4:A:209:GLU:H	1.63	0.63
6:N:1491:THR:O	6:N:1495:ILE:HD13	1.98	0.63
5:M:598:GLU:O	5:M:651:LYS:HG3	1.98	0.63
4:K:226:SER:O	4:K:228:PRO:HD3	1.97	0.63
4:L:175:ARG:O	6:N:851:LEU:HD11	1.98	0.63
5:C:694:LEU:HD21	5:C:868:ASP:HB3	1.80	0.63
6:N:887:ALA:HB1	6:N:893:GLU:CG	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:971:LEU:HA	6:N:974:ILE:HD12	1.80	0.63
6:N:1462:LEU:HD22	6:N:1472:ILE:HG22	1.79	0.63
4:B:42:ARG:HA	4:B:42:ARG:NH1	2.13	0.63
6:D:1169:ASP:O	6:D:1173:LEU:HD13	1.98	0.63
5:M:83:CYS:HA	5:M:88:LEU:HB2	1.78	0.63
6:D:440:VAL:HB	6:D:441:ARG:HH21	1.61	0.63
7:O:41:GLU:HB2	7:O:45:ARG:CZ	2.27	0.63
5:C:1031:ARG:NH2	6:D:621:LYS:HG3	2.13	0.63
5:C:174:LEU:HB3	5:C:307:LEU:HD13	1.79	0.63
5:C:265:ARG:HB3	5:C:267:TYR:CD2	2.34	0.63
6:D:1119:SER:HA	6:D:1186:VAL:O	1.99	0.63
6:N:474:GLU:O	6:N:478:LEU:HG	1.98	0.63
4:K:156:HIS:CD2	4:K:158:ILE:HG12	2.34	0.63
6:N:760:ARG:HH11	7:O:61:VAL:CG2	2.11	0.63
5:M:861:LEU:HD13	5:M:865:THR:HG23	1.79	0.63
6:D:632:VAL:HG22	11:D:8291:HOH:O	1.99	0.63
5:M:395:LYS:HD3	5:M:397:GLU:OE2	1.99	0.63
5:C:284:ARG:HG3	5:C:285:LEU:H	1.64	0.63
6:N:806:PHE:CE1	6:N:813:LEU:HB3	2.34	0.63
5:M:549:PHE:CD2	5:M:886:LEU:HB3	2.33	0.63
6:D:610:LYS:HA	6:D:615:ARG:HD3	1.80	0.63
5:C:631:SER:HB3	5:C:637:LEU:HD11	1.79	0.63
6:D:1412:LYS:O	6:D:1414:PRO:HD3	1.99	0.63
6:N:799:LYS:O	6:N:826:PRO:HD2	1.98	0.63
6:D:705:ALA:HB3	6:D:706:PRO:HD3	1.80	0.63
2:Y:12:G:O2'	2:Y:13:C:H5'	1.98	0.63
2:Y:12:G:H2'	2:Y:13:C:H6	1.64	0.63
2:Y:7:G:H2'	2:Y:7:G:N3	2.12	0.63
6:N:98:PRO:HA	11:N:9070:HOH:O	1.97	0.63
6:N:1109:GLU:OE1	6:N:1201:CYS:HB2	1.98	0.63
5:C:874:LEU:HG	6:D:1023:MET:SD	2.39	0.63
1:X:17:DC:H5''	5:M:1030:GLN:NE2	2.14	0.63
5:C:143:SER:CB	5:C:276:LYS:HZ3	2.10	0.63
6:D:1185:GLU:HG2	6:N:559:ALA:HB1	1.80	0.63
5:M:729:LEU:HD13	6:N:675:ARG:CZ	2.29	0.63
6:N:654:LYS:O	6:N:658:LEU:HG	1.98	0.63
6:N:1402:ALA:HA	11:N:9043:HOH:O	1.98	0.63
5:M:352:ALA:HA	5:M:355:VAL:HG12	1.80	0.63
5:C:437:ARG:HB3	5:C:467:ILE:HB	1.80	0.63
5:C:410:ILE:HG21	5:C:438:ILE:HD11	1.79	0.63
6:D:1047:LYS:HG2	6:D:1053:PHE:CZ	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:657:LEU:HD22	6:D:691:LEU:HD23	1.81	0.63
6:D:82:LYS:HB3	6:D:84:ILE:HG12	1.79	0.63
5:M:759:THR:HB	5:M:785:VAL:CG1	2.28	0.63
5:M:1005:MET:HE1	6:N:724:GLN:HA	1.81	0.63
5:C:100:LEU:HD22	5:C:372:LEU:HD22	1.81	0.63
5:M:146:VAL:HG12	5:M:162:ILE:HG12	1.81	0.63
5:C:805:ARG:HD3	5:C:807:ARG:HG3	1.81	0.63
5:C:408:ARG:HG3	5:C:455:LEU:H	1.64	0.63
4:B:123:MET:C	4:B:125:PRO:HD3	2.19	0.63
5:C:157:ARG:HG3	5:C:314:THR:CG2	2.29	0.63
6:D:119:SER:H	6:D:123:LEU:CD2	2.11	0.63
7:E:54:LEU:HG	7:E:58:PRO:CG	2.28	0.63
6:D:704:ARG:HD3	6:D:738:ALA:HB2	1.79	0.63
5:M:432:ARG:HG3	11:M:1314:HOH:O	1.99	0.63
5:M:650:ARG:HG3	5:M:653:ASP:HB2	1.81	0.63
5:C:600:ASP:OD1	5:C:651:LYS:N	2.32	0.63
5:C:906:PHE:CE1	6:D:1067:VAL:HA	2.34	0.63
5:C:690:ILE:CD1	5:C:833:LEU:HD23	2.29	0.63
5:C:672:VAL:HG12	5:C:699:PHE:CE1	2.34	0.63
5:C:670:GLN:NE2	5:C:699:PHE:O	2.30	0.63
5:C:276:LYS:HG2	5:C:280:LYS:NZ	2.14	0.63
5:C:279:GLU:HG3	5:C:280:LYS:HG3	1.79	0.63
6:N:675:ARG:HA	6:N:678:GLU:HG2	1.80	0.63
5:M:693:GLU:HA	5:M:696:LYS:HD2	1.80	0.63
4:A:220:GLU:O	4:A:223:THR:HG22	1.99	0.63
6:N:696:HIS:HD2	7:O:59:ASN:HB2	1.64	0.63
5:M:176:VAL:HG12	5:M:182:VAL:HG12	1.80	0.63
6:N:1049:SER:O	6:N:1079:LYS:HE3	1.98	0.63
4:K:12:THR:OG1	4:K:24:VAL:HB	1.99	0.63
6:D:614:PHE:CZ	6:D:1438:ALA:HB1	2.34	0.63
5:C:327:HIS:HA	5:C:433:THR:OG1	1.98	0.63
5:C:410:ILE:HD12	5:C:438:ILE:CG1	2.29	0.63
5:C:441:VAL:HG13	5:C:559:LEU:HA	1.81	0.63
6:D:793:THR:O	6:D:879:ARG:HD3	1.99	0.63
6:D:753:SER:HB2	11:D:8449:HOH:O	1.98	0.63
7:E:48:MET:N	7:E:54:LEU:HB2	2.14	0.63
5:M:290:LEU:H	5:M:290:LEU:HD23	1.64	0.63
2:H:4:U:H2'	2:H:5:C:C6	2.34	0.62
3:I:8:DA:H1'	3:I:9:DG:H5'	1.81	0.62
5:C:98:LEU:O	5:C:109:LYS:HD2	1.99	0.62
6:N:131:LYS:HE2	6:N:564:GLU:OE1	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1033:GLY:O	5:C:1037:VAL:HG23	1.97	0.62
5:C:10:ARG:HA	5:C:10:ARG:NH1	2.12	0.62
5:M:580:MET:HB3	5:M:584:GLU:OE1	1.99	0.62
6:N:1440:PHE:HB3	11:N:9289:HOH:O	1.99	0.62
1:X:14:DT:H3'	6:N:610:LYS:NZ	2.14	0.62
2:H:6:U:C2'	2:H:7:G:C8	2.82	0.62
6:D:455:ARG:CZ	6:D:463:GLN:HG3	2.29	0.62
5:M:304:LEU:HG	5:M:308:ARG:HH21	1.64	0.62
5:C:218:VAL:HA	5:C:221:LEU:HD23	1.81	0.62
5:C:710:ILE:HD12	5:C:790:LEU:HD13	1.81	0.62
6:N:165:LYS:HA	6:N:199:LEU:HD22	1.81	0.62
6:D:1364:HIS:ND1	6:D:1366:LYS:HG3	2.14	0.62
6:D:1267:ARG:HB2	6:D:1267:ARG:HH11	1.64	0.62
7:E:70:THR:HB	7:E:72:ARG:HG2	1.81	0.62
5:C:882:LEU:HD23	5:C:885:ILE:HB	1.81	0.62
6:D:891:GLU:HB2	11:D:8407:HOH:O	1.98	0.62
6:N:95:LEU:HB2	11:N:9070:HOH:O	1.99	0.62
6:D:1029:ARG:HH22	10:D:3999:APC:PG	2.22	0.62
6:N:1219:GLU:HG2	6:N:1221:VAL:HG23	1.81	0.62
5:M:906:PHE:CE1	6:N:1067:VAL:HA	2.35	0.62
4:K:180:GLN:HE22	5:M:937:ASP:HA	1.65	0.62
6:D:143:ASN:ND2	6:D:145:VAL:HG12	2.10	0.62
5:C:1037:VAL:O	5:C:1041:GLU:HG3	1.99	0.62
5:M:44:ILE:HG23	5:M:344:PHE:HE1	1.64	0.62
6:D:175:VAL:HG11	11:D:8081:HOH:O	1.99	0.62
5:C:775:ARG:HD2	5:C:782:ALA:HB3	1.80	0.62
6:D:1437:ALA:O	6:D:1446:VAL:HG21	1.99	0.62
5:C:840:ALA:HB2	5:C:846:LYS:HG3	1.79	0.62
5:C:750:LYS:HD3	6:D:681:ARG:HD3	1.81	0.62
5:M:576:ALA:HB3	5:M:900:ARG:NH1	2.13	0.62
4:B:20:TYR:OH	4:B:198:ARG:HD2	1.98	0.62
2:H:9:G:H2'	2:H:10:G:H8	1.63	0.62
6:D:574:LEU:O	6:D:578:VAL:HG23	1.98	0.62
6:N:895:VAL:O	6:N:899:LEU:HG	2.00	0.62
5:M:307:LEU:HG	5:M:311:PHE:CE2	2.34	0.62
7:E:54:LEU:O	7:E:54:LEU:HD23	2.00	0.62
5:M:468:ARG:HE	5:M:487:THR:N	1.98	0.62
6:D:1000:THR:O	6:D:1003:VAL:HG12	1.99	0.62
5:M:807:ARG:H	5:M:807:ARG:NE	1.96	0.62
5:C:720:GLU:HG2	5:C:760:SER:HB3	1.82	0.62
6:N:1051:GLU:HG3	6:N:1051:GLU:O	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1098:ASP:HB2	6:N:21:TRP:HZ2	1.64	0.62
4:L:211:LEU:O	4:L:215:VAL:HG13	2.00	0.62
5:M:537:LYS:HE3	5:M:905:ILE:HD13	1.81	0.62
5:M:135:VAL:HG11	5:M:407:LYS:HA	1.81	0.62
6:D:1083:ASP:OD1	6:D:1252:ILE:HD12	2.00	0.62
5:C:144:PRO:HA	5:C:163:ILE:HD11	1.81	0.62
6:D:138:LYS:HD3	11:D:8147:HOH:O	2.00	0.62
6:N:1125:PRO:HB3	6:N:1130:ARG:HH22	1.64	0.62
6:D:853:VAL:HG11	6:D:860:LEU:HG	1.81	0.62
6:N:172:PRO:HG2	6:N:175:VAL:HG21	1.82	0.62
5:M:759:THR:HA	5:M:786:LYS:O	2.00	0.62
6:D:660:LYS:HD2	6:D:694:VAL:HG22	1.80	0.62
6:N:1424:VAL:HG13	6:N:1425:THR:N	2.14	0.62
2:Y:6:U:C2'	2:Y:7:G:C8	2.82	0.62
5:M:1090:LYS:HG2	5:M:1112:PHE:HZ	1.65	0.62
5:C:573:ARG:HB2	5:C:573:ARG:NH1	2.13	0.62
7:O:41:GLU:HG2	7:O:42:PRO:HD3	1.82	0.62
6:N:130:SER:HB3	6:N:132:TYR:CE1	2.34	0.62
6:N:166:GLN:CG	6:N:396:VAL:HG13	2.29	0.62
6:D:396:VAL:C	6:D:398:ALA:H	2.03	0.62
6:D:398:ALA:HB1	6:D:446:VAL:H	1.64	0.62
4:L:58:ILE:CG2	4:L:61:VAL:HB	2.29	0.62
6:D:1495:ILE:HG21	7:E:80:VAL:HG13	1.82	0.62
6:N:764:LEU:HD12	6:N:765:SER:N	2.14	0.62
1:X:20:DG:H3'	11:X:610:HOH:O	2.00	0.62
5:C:798:GLY:H	5:C:827:VAL:CG1	2.13	0.62
1:X:14:DT:H2''	1:X:15:DC:H5'	1.80	0.62
5:C:410:ILE:O	5:C:452:ILE:HA	1.99	0.62
5:C:329:GLY:N	5:C:488:ALA:HB3	2.13	0.62
5:C:436:GLY:HA2	5:C:538:GLN:O	1.99	0.62
6:N:1146:GLY:O	6:N:1207:TYR:HB2	2.00	0.62
6:D:792:ILE:O	6:D:878:GLY:HA3	1.99	0.62
5:M:273:GLY:HA2	5:M:276:LYS:HE3	1.80	0.62
5:M:1087:VAL:HG23	6:N:524:LEU:HD11	1.80	0.62
5:M:120:LEU:HD22	5:M:121:MET:N	2.11	0.62
5:C:162:ILE:HD11	5:C:306:THR:HG21	1.82	0.62
5:M:457:ALA:HB3	5:M:538:GLN:HA	1.80	0.62
5:M:587:VAL:HG12	5:M:588:VAL:N	2.13	0.62
2:Y:1:G:O6	5:M:773:LEU:HD12	2.00	0.62
6:N:741:ASP:O	6:N:743:ASP:N	2.29	0.62
5:C:554:ASP:HB2	6:D:1061:PHE:HE2	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:674:VAL:HG23	5:C:869:VAL:HG13	1.82	0.62
5:C:702:SER:HB3	5:C:996:LYS:HZ2	1.63	0.62
5:M:113:VAL:HG11	5:M:373:VAL:CG1	2.30	0.62
5:M:194:VAL:HA	5:M:197:LEU:HD12	1.82	0.62
5:M:194:VAL:HG11	5:M:221:LEU:O	2.00	0.62
2:Y:7:G:C2	5:M:1014:SER:HA	2.33	0.62
11:N:9137:HOH:O	7:O:17:TYR:HB2	1.99	0.62
6:D:81:THR:HG22	6:D:82:LYS:N	2.14	0.62
6:N:471:GLU:O	6:N:474:GLU:HB3	2.00	0.62
6:N:490:ALA:O	6:N:493:ARG:HG3	1.99	0.62
5:C:862:PRO:HD2	5:C:925:TYR:OH	2.00	0.62
7:O:86:GLN:O	7:O:90:GLU:HG3	2.00	0.62
6:N:639:LEU:HB3	11:N:9466:HOH:O	1.98	0.62
2:Y:10:G:H2'	2:Y:11:C:H6	1.64	0.62
6:N:1121:PRO:HD3	6:N:1346:ARG:HE	1.63	0.62
4:L:102:LYS:HZ1	4:L:137:ARG:HG2	1.64	0.62
5:M:629:TYR:HB3	11:M:1373:HOH:O	1.99	0.62
5:C:830:LYS:HD3	5:C:832:LYS:HE2	1.82	0.62
5:M:265:ARG:HB3	5:M:267:TYR:CE2	2.35	0.61
5:M:23:VAL:HA	5:M:121:MET:HE1	1.81	0.61
6:N:902:LEU:HD23	6:N:902:LEU:H	1.65	0.61
5:M:928:LYS:HZ2	5:M:932:GLU:HG3	1.65	0.61
4:B:78:ILE:O	4:B:82:LEU:HG	2.00	0.61
6:N:626:SER:HB2	6:N:748:HIS:CE1	2.34	0.61
6:D:550:ARG:HE	6:D:550:ARG:CA	2.11	0.61
6:N:41:ARG:HD3	6:N:42:ASP:HB2	1.80	0.61
4:K:58:ILE:HB	4:K:61:VAL:HB	1.82	0.61
5:C:101:ILE:HG23	5:C:107:LEU:HD22	1.82	0.61
4:B:102:LYS:NZ	4:B:139:ASN:HB2	2.14	0.61
6:N:1036:ARG:HB3	6:N:1036:ARG:NH1	2.15	0.61
5:M:1030:GLN:NE2	6:N:628:ARG:HD3	2.15	0.61
5:C:343:GLN:HB2	5:C:385:PHE:CE2	2.34	0.61
6:N:583:ASP:OD2	6:N:604:THR:HG21	1.99	0.61
5:M:198:ARG:NH1	5:M:231:PRO:HG3	2.15	0.61
5:C:456:ALA:HB1	5:C:538:GLN:O	1.99	0.61
6:D:762:GLN:HB2	7:E:16:LYS:HE2	1.82	0.61
6:D:544:TYR:O	6:D:548:ILE:HG12	2.00	0.61
5:M:83:CYS:HG	5:M:90:TYR:HD2	1.47	0.61
6:D:440:VAL:HB	6:D:441:ARG:HE	1.63	0.61
11:M:1524:HOH:O	6:N:621:LYS:HE3	2.00	0.61
5:C:436:GLY:HA3	5:C:538:GLN:OE1	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:707:THR:HG23	6:D:712:GLY:HA3	1.81	0.61
6:D:101:HIS:ND1	6:D:103:TRP:HB2	2.15	0.61
5:C:7:GLY:C	5:C:8:ARG:HD2	2.20	0.61
5:M:30:LEU:HA	5:M:44:ILE:HG12	1.80	0.61
6:D:559:ALA:HB2	11:D:8141:HOH:O	1.98	0.61
4:A:41:ARG:O	4:A:45:LEU:HD13	2.00	0.61
5:C:400:PRO:HG2	5:C:593:ALA:HB2	1.82	0.61
2:H:13:C:H2'	2:H:14:G:H8	1.65	0.61
5:C:672:VAL:HG12	5:C:699:PHE:HE1	1.65	0.61
6:D:1219:GLU:HA	7:E:17:TYR:HE2	1.65	0.61
6:D:1101:VAL:HG13	6:D:1427:SER:OG	2.00	0.61
6:D:135:LEU:HA	6:D:453:ASP:O	2.01	0.61
6:D:677:LEU:HD21	6:D:687:VAL:HG11	1.81	0.61
4:B:47:SER:OG	4:B:48:ILE:HD12	1.99	0.61
6:D:1267:ARG:CB	6:D:1267:ARG:HH11	2.13	0.61
5:M:909:ALA:HB1	5:M:914:ILE:HD11	1.81	0.61
5:C:1076:VAL:HG21	11:D:8371:HOH:O	1.99	0.61
5:C:464:LEU:O	5:C:466:PHE:N	2.34	0.61
4:K:90:LEU:HB2	4:K:119:ASP:OD2	2.01	0.61
6:D:10:ILE:HD12	6:D:1450:ALA:HB3	1.82	0.61
5:M:759:THR:HB	5:M:785:VAL:CG2	2.31	0.61
4:A:182:GLU:O	4:A:194:LYS:HB3	2.00	0.61
6:N:584:ASN:ND2	6:N:590:PRO:HD2	2.16	0.61
5:C:79:PRO:HG2	5:C:82:GLU:HB2	1.80	0.61
6:D:1493:LYS:O	6:D:1497:GLU:HG2	2.01	0.61
4:A:181:VAL:HG11	11:A:382:HOH:O	2.01	0.61
2:Y:4:U:H2'	2:Y:5:C:C6	2.36	0.61
5:M:110:GLU:N	5:M:368:THR:HG21	2.14	0.61
5:C:99:GLN:HB3	5:C:109:LYS:HD3	1.81	0.61
4:L:78:ILE:O	4:L:82:LEU:HG	2.00	0.61
5:C:857:ASP:CB	5:C:978:ARG:HG2	2.31	0.61
6:D:955:VAL:HG11	6:D:1015:TYR:HE2	1.66	0.61
6:D:724:GLN:HG3	6:D:725:SER:N	2.14	0.61
4:B:133:GLU:HA	4:B:133:GLU:OE1	2.00	0.61
5:C:398:THR:HG21	5:C:567:GLN:HA	1.83	0.61
6:N:50:PHE:CD2	6:N:522:PRO:HD3	2.36	0.61
11:N:9036:HOH:O	7:O:89:MET:HE1	1.99	0.61
5:M:694:LEU:HD21	5:M:868:ASP:HB3	1.83	0.61
5:C:198:ARG:HD2	5:C:204:GLN:NE2	2.15	0.61
6:D:123:LEU:HG	6:D:152:LEU:HD13	1.82	0.61
6:D:1346:ARG:HH12	6:D:1349:VAL:HG11	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:408:ARG:NE	5:M:455:LEU:HD11	2.15	0.61
5:C:431:HIS:CG	5:C:432:ARG:N	2.69	0.61
5:C:988:VAL:HG23	11:C:1330:HOH:O	2.00	0.61
6:D:633:VAL:HB	6:D:740:PHE:CE1	2.36	0.61
5:C:1060:ILE:HG22	5:C:1086:ARG:NH2	2.15	0.61
5:M:113:VAL:HG11	5:M:373:VAL:HG11	1.81	0.61
5:C:318:PRO:HD2	5:C:321:GLU:OE1	2.01	0.61
6:N:507:ASN:HD22	6:N:507:ASN:N	1.90	0.61
6:N:135:LEU:HA	6:N:453:ASP:O	2.01	0.61
6:D:393:ILE:HD13	11:D:8118:HOH:O	2.01	0.61
5:M:676:ILE:CG2	5:M:988:VAL:HG13	2.31	0.61
6:D:615:ARG:HH22	6:D:1096:ARG:HD2	1.64	0.61
5:M:524:VAL:CG1	5:M:528:GLU:HB2	2.31	0.61
5:M:232:GLU:HB3	11:M:1516:HOH:O	1.99	0.61
6:N:1105:ILE:HD11	6:N:1374:GLN:OE1	2.01	0.61
2:H:12:G:H2'	2:H:13:C:H6	1.66	0.61
5:C:578:VAL:HG21	5:C:991:GLN:O	2.01	0.61
4:K:41:ARG:HH21	5:M:977:GLY:HA2	1.65	0.61
5:C:267:TYR:HB2	5:C:272:ALA:HB1	1.82	0.61
7:O:30:LEU:O	7:O:35:PHE:HA	2.01	0.61
5:M:983:ILE:HG21	5:M:987:ILE:HD12	1.80	0.61
4:A:39:PRO:O	4:A:43:ILE:HG12	1.99	0.61
5:M:554:ASP:HB3	5:M:880:MET:O	2.01	0.61
5:C:911:GLU:O	5:C:915:LYS:HG2	2.00	0.61
5:M:816:LYS:HB2	5:M:819:VAL:HG21	1.83	0.61
5:C:252:LYS:HB3	5:C:298:PHE:HZ	1.65	0.61
6:D:19:ARG:HH21	6:D:516:ALA:HB2	1.64	0.61
6:N:619:LEU:HD12	6:N:621:LYS:HZ3	1.66	0.60
4:A:124:ASN:ND2	4:A:127:LEU:HD22	2.16	0.60
6:D:8:VAL:HB	6:D:1434:TRP:CH2	2.36	0.60
6:D:153:LEU:CD1	6:D:158:TYR:HB2	2.31	0.60
5:M:464:LEU:O	5:M:466:PHE:N	2.33	0.60
4:A:225:PHE:CE1	4:B:40:LEU:HD11	2.35	0.60
6:N:780:LYS:HD3	6:N:912:LYS:HE3	1.82	0.60
6:N:1145:TYR:O	6:N:1147:ARG:HG2	2.01	0.60
6:N:1045:MET:HG3	6:N:1073:SER:OG	2.00	0.60
6:D:1166:LEU:HD23	6:D:1166:LEU:H	1.65	0.60
6:N:489:ARG:CZ	6:N:1389:LEU:HD21	2.31	0.60
5:C:626:ARG:H	5:C:639:GLN:NE2	1.98	0.60
6:N:1243:THR:HG22	11:N:9395:HOH:O	2.01	0.60
6:N:699:VAL:HG22	6:N:756:GLN:HE22	1.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:873:LEU:HD11	11:D:8072:HOH:O	2.01	0.60
5:C:597:ALA:HA	5:C:655:LEU:HD11	1.83	0.60
4:B:115:LEU:HB3	11:B:371:HOH:O	2.01	0.60
6:N:1350:GLU:O	6:N:1354:LYS:HG2	2.02	0.60
2:Y:13:C:H2'	2:Y:14:G:H8	1.64	0.60
5:C:881:ASN:HD22	5:C:881:ASN:N	1.99	0.60
6:N:1109:GLU:HG2	6:N:1201:CYS:CA	2.29	0.60
5:M:537:LYS:N	5:M:537:LYS:HD2	2.12	0.60
6:N:1007:VAL:HG12	6:N:1011:PHE:CE2	2.35	0.60
6:D:136:ASP:CB	6:D:137:PRO:HD3	2.30	0.60
6:N:1268:PRO:HD2	6:N:1271:LYS:NZ	2.15	0.60
5:C:806:LEU:HD13	5:C:813:VAL:HG21	1.83	0.60
6:N:804:LEU:HB2	6:N:830:ALA:O	2.02	0.60
4:K:111:ALA:HB2	4:K:127:LEU:HD23	1.82	0.60
5:C:798:GLY:H	5:C:827:VAL:HG11	1.66	0.60
5:C:136:ILE:HG21	5:C:336:VAL:HG13	1.81	0.60
6:D:592:THR:N	6:D:600:LEU:HD11	2.16	0.60
4:K:209:GLU:HB3	11:K:1765:HOH:O	2.00	0.60
2:H:1:G:N2	5:C:770:GLU:HB3	2.17	0.60
11:N:9248:HOH:O	7:O:16:LYS:HB2	2.02	0.60
4:K:42:ARG:NH2	4:L:34:VAL:HB	2.15	0.60
5:C:575:GLN:HB2	5:C:670:GLN:OE1	2.02	0.60
4:A:85:LEU:HA	4:A:124:ASN:ND2	2.08	0.60
6:D:1216:SER:HB3	7:E:16:LYS:H	1.67	0.60
6:D:754:PHE:CD1	7:E:24:ALA:HB1	2.36	0.60
6:N:118:LEU:HD13	6:N:124:GLU:OE2	2.01	0.60
5:C:56:GLU:HB3	5:C:64:LEU:HD23	1.82	0.60
4:K:112:ARG:HE	4:K:125:PRO:CB	2.03	0.60
5:M:110:GLU:H	5:M:368:THR:CG2	2.12	0.60
5:M:751:PRO:HA	5:M:792:VAL:HB	1.83	0.60
6:D:853:VAL:HG13	6:D:858:VAL:O	2.01	0.60
5:C:627:ARG:O	5:C:638:ASP:HB2	2.00	0.60
6:N:1228:SER:HB2	11:N:9308:HOH:O	2.00	0.60
5:M:805:ARG:HG2	5:M:823:VAL:HG13	1.84	0.60
5:M:1007:ALA:HB1	6:N:652:LEU:HD13	1.84	0.60
6:N:929:ARG:HB2	6:N:929:ARG:HH11	1.65	0.60
5:C:86:LYS:HB3	11:C:1560:HOH:O	2.02	0.60
5:C:764:GLU:HG3	6:D:54:LYS:NZ	2.15	0.60
6:N:1109:GLU:CD	6:N:1202:GLN:H	2.03	0.60
6:D:1371:VAL:HG12	6:D:1375:MET:CE	2.32	0.60
6:D:480:GLU:HB2	11:D:8139:HOH:O	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:28:LYS:HA	11:D:8201:HOH:O	2.01	0.60
6:D:829:VAL:HA	11:D:8279:HOH:O	2.01	0.60
7:E:54:LEU:HA	7:E:58:PRO:HG2	1.83	0.60
5:M:671:ASN:N	5:M:671:ASN:ND2	2.50	0.60
6:D:764:LEU:HD11	6:D:766:ALA:HB3	1.84	0.60
6:N:1438:ALA:N	6:N:1446:VAL:HG11	2.16	0.60
5:C:326:ASP:HB2	5:C:431:HIS:ND1	2.17	0.60
6:D:1042:ARG:HH21	6:D:1061:PHE:HZ	1.50	0.60
6:D:1263:PHE:HB3	6:D:1424:VAL:HG11	1.83	0.60
6:D:762:GLN:HE22	7:E:20:THR:CG2	2.15	0.60
6:D:1336:LEU:HD11	6:D:1341:PRO:HG3	1.82	0.60
5:M:759:THR:HG21	5:M:783:ARG:HH21	1.67	0.60
6:N:399:ARG:HE	6:N:431:VAL:HG23	1.65	0.60
5:C:65:VAL:HG23	5:C:101:ILE:HB	1.83	0.60
6:D:952:ASP:HA	6:D:1062:ARG:NH2	2.16	0.60
6:N:1438:ALA:O	6:N:1443:THR:HG22	2.01	0.60
5:C:660:ALA:HB1	5:C:667:ALA:O	2.02	0.60
5:C:859:PRO:HB3	5:C:974:LEU:HD23	1.83	0.60
5:C:573:ARG:CG	5:C:670:GLN:HE22	2.14	0.60
6:D:127:LEU:HD22	6:D:460:ALA:CB	2.32	0.60
6:N:522:PRO:O	6:N:525:ARG:HD3	2.02	0.60
6:D:109:PRO:O	6:D:111:LYS:HD3	2.01	0.60
6:D:896:ALA:HB2	11:D:8341:HOH:O	2.02	0.60
5:M:52:PHE:CG	5:M:68:PHE:HB2	2.36	0.60
5:M:1033:GLY:O	5:M:1037:VAL:HG23	2.02	0.60
5:M:637:LEU:HD22	5:M:659:PRO:HG2	1.83	0.60
6:N:29:PRO:HD3	6:N:548:ILE:CG2	2.32	0.60
5:C:943:VAL:HG11	5:C:973:VAL:CG2	2.31	0.60
5:C:910:LYS:HB2	11:C:1325:HOH:O	2.01	0.60
6:D:54:LYS:HD2	6:D:55:ASP:H	1.66	0.60
5:C:19:THR:O	5:C:23:VAL:HG23	2.01	0.60
6:N:610:LYS:HA	11:N:9272:HOH:O	2.01	0.60
5:C:843:HIS:HA	11:C:1257:HOH:O	2.01	0.60
5:M:267:TYR:HB2	5:M:272:ALA:CB	2.32	0.60
6:N:398:ALA:HB2	6:N:447:VAL:HA	1.82	0.60
1:G:18:DG:H2''	1:G:19:DC:C5'	2.32	0.60
6:D:8:VAL:HB	6:D:1434:TRP:HH2	1.67	0.60
6:D:119:SER:CB	6:D:123:LEU:HD13	2.31	0.60
6:D:1495:ILE:HG22	6:D:1499:ARG:HH21	1.66	0.60
6:D:963:TYR:CD2	6:D:1002:LYS:HB3	2.37	0.60
6:N:633:VAL:HG22	6:N:635:PRO:CD	2.25	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:144:PRO:HG3	5:M:265:ARG:NH1	2.16	0.60
5:M:143:SER:C	5:M:276:LYS:HZ3	2.05	0.60
6:N:1267:ARG:HG3	6:N:1271:LYS:NZ	2.17	0.60
6:D:521:PRO:CG	6:D:524:LEU:HD22	2.29	0.60
6:D:1376:MET:HE3	6:D:1421:LEU:HB2	1.83	0.60
6:D:1205:TYR:CD2	6:D:1215:VAL:HG21	2.31	0.60
6:N:76:CYS:HB3	11:N:9086:HOH:O	2.01	0.60
5:C:1099:VAL:HA	6:D:9:ARG:O	2.02	0.60
6:D:1255:GLY:O	6:D:1259:VAL:HG23	2.02	0.60
5:M:409:ARG:HA	5:M:454:SER:HA	1.84	0.59
6:N:1192:LEU:HD13	6:N:1345:GLU:HG2	1.83	0.59
6:D:116:LEU:CD2	6:D:150:ARG:HD3	2.32	0.59
5:C:721:ARG:HG3	5:C:820:ARG:HH12	1.66	0.59
5:M:1005:MET:CE	6:N:724:GLN:HA	2.32	0.59
6:D:1485:GLN:NE2	7:E:78:ASN:HA	2.17	0.59
6:D:1259:VAL:HG11	6:D:1356:TYR:OH	2.02	0.59
5:M:127:PHE:HB3	11:M:1483:HOH:O	2.01	0.59
5:C:461:VAL:HG12	11:C:1351:HOH:O	2.02	0.59
5:C:45:GLN:HG2	5:C:49:ARG:CZ	2.32	0.59
6:N:185:VAL:HG21	6:N:203:ALA:HB2	1.84	0.59
4:K:151:VAL:HB	4:K:169:ALA:HB3	1.84	0.59
4:A:83:LYS:NZ	4:A:168:ASP:HB2	2.17	0.59
6:N:761:ILE:HB	7:O:20:THR:HG23	1.83	0.59
6:D:456:MET:HG2	6:D:459:GLU:OE1	2.02	0.59
5:C:148:PHE:CE2	5:C:281:LEU:HD13	2.28	0.59
5:C:218:VAL:HG22	5:C:221:LEU:HD21	1.84	0.59
6:N:478:LEU:HD23	6:N:496:LEU:HD21	1.84	0.59
6:N:1106:VAL:HG11	6:N:1474:ALA:CB	2.31	0.59
6:N:477:LEU:HD11	6:N:495:ARG:HD3	1.84	0.59
6:N:495:ARG:O	6:N:499:VAL:HG23	2.02	0.59
4:A:159:LYS:NZ	4:A:166:PRO:HD3	2.17	0.59
6:D:970:LYS:HD3	6:D:995:LEU:HD13	1.84	0.59
2:H:7:G:H2'	2:H:7:G:N3	2.17	0.59
5:M:876:VAL:HG13	5:M:881:ASN:ND2	2.16	0.59
6:D:99:ALA:O	6:D:514:LEU:N	2.33	0.59
6:D:1080:GLY:O	6:D:1083:ASP:HB3	2.02	0.59
6:D:436:GLU:CD	6:D:445:ARG:HG3	2.22	0.59
6:N:1268:PRO:HD2	6:N:1271:LYS:HZ2	1.67	0.59
6:D:1231:GLU:O	6:D:1235:GLN:HG3	2.02	0.59
4:K:89:PHE:HB3	4:K:94:LEU:HD13	1.84	0.59
6:D:1335:LEU:HD23	6:D:1344:VAL:HG22	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:480:GLU:O	6:N:484:PRO:HD2	2.02	0.59
5:C:26:TYR:HD2	5:C:121:MET:HB2	1.66	0.59
4:A:8:ALA:HB1	4:B:224:TYR:HE1	1.65	0.59
6:N:1375:MET:HB3	6:N:1422:MET:O	2.02	0.59
5:C:583:LEU:HB3	11:C:1190:HOH:O	2.01	0.59
5:M:1051:GLU:OE1	5:M:1056:LYS:HE2	2.03	0.59
5:M:1056:LYS:HD3	6:N:625:TYR:HD1	1.67	0.59
6:N:966:GLU:HA	6:N:969:ARG:NH2	2.18	0.59
4:K:67:THR:CG2	5:M:609:ASN:HD21	2.15	0.59
4:K:133:GLU:OE1	5:M:605:LYS:HB3	2.02	0.59
5:M:149:THR:HG21	11:M:1567:HOH:O	2.01	0.59
5:M:18:LEU:H	5:M:18:LEU:HD12	1.67	0.59
6:D:1438:ALA:N	6:D:1446:VAL:HG11	2.17	0.59
5:C:252:LYS:HB3	5:C:298:PHE:CZ	2.38	0.59
6:N:794:GLN:HG2	6:N:1017:PHE:CZ	2.38	0.59
6:N:983:LEU:HD13	6:N:991:GLN:OE1	2.02	0.59
6:N:161:LEU:O	6:N:161:LEU:HD23	2.03	0.59
6:N:23:TYR:O	6:N:49:ILE:HG23	2.01	0.59
6:N:615:ARG:HG3	6:N:619:LEU:HD21	1.84	0.59
2:Y:6:U:H1'	11:Y:2617:HOH:O	2.03	0.59
6:N:1209:LEU:HD23	6:N:1210:SER:H	1.66	0.59
6:D:135:LEU:H	6:D:135:LEU:HD12	1.67	0.59
5:C:318:PRO:HG3	11:C:1342:HOH:O	2.01	0.59
4:L:68:ILE:HD13	11:L:362:HOH:O	2.01	0.59
4:K:31:GLY:CA	4:L:42:ARG:HH21	2.15	0.59
4:A:38:ASN:HB3	4:A:39:PRO:HD3	1.85	0.59
6:D:172:PRO:HG2	6:D:175:VAL:HG21	1.84	0.59
5:C:352:ALA:HA	5:C:355:VAL:HG12	1.85	0.59
6:N:1412:LYS:HD2	6:N:1414:PRO:HG3	1.83	0.59
4:K:209:GLU:O	4:K:213:GLN:HG3	2.02	0.59
4:A:89:PHE:CZ	4:A:146:ARG:HB2	2.37	0.59
6:D:769:LEU:HD12	6:D:919:PHE:HE1	1.68	0.59
5:C:73:LEU:HD22	5:C:94:LEU:HD13	1.84	0.59
6:D:803:GLY:HA3	11:D:8427:HOH:O	2.00	0.59
6:D:1209:LEU:HD23	6:D:1210:SER:H	1.65	0.59
6:N:156:GLU:HB2	6:N:157:GLU:OE1	2.02	0.59
6:N:1389:LEU:HG	6:N:1390:LEU:HG	1.84	0.59
5:M:854:PRO:HB2	5:M:856:GLU:CG	2.32	0.59
5:M:468:ARG:HH21	5:M:487:THR:N	2.00	0.59
4:A:91:ASN:OD1	4:A:92:PRO:HD2	2.03	0.59
4:K:79:ILE:HA	4:K:82:LEU:HD12	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:106:LYS:HG2	11:D:8237:HOH:O	2.01	0.59
5:C:260:LEU:HD22	11:C:1406:HOH:O	2.00	0.59
5:C:274:ARG:HB2	5:C:285:LEU:HD13	1.85	0.59
4:A:54:THR:HB	4:A:143:ARG:HG2	1.85	0.59
5:C:627:ARG:HG3	5:C:628:PHE:H	1.67	0.59
5:C:516:ARG:NH1	5:C:521:PRO:HB3	2.17	0.59
5:C:835:VAL:HG12	11:C:1129:HOH:O	2.03	0.59
6:N:1059:SER:OG	6:N:1065:LEU:HD12	2.03	0.59
6:N:1009:LYS:HG2	11:N:9338:HOH:O	2.03	0.59
6:N:787:LEU:HD13	6:N:1023:MET:HA	1.84	0.59
6:D:1465:ASN:HD21	6:D:1470:ARG:HB3	1.68	0.59
6:N:455:ARG:HB3	6:N:460:ALA:HA	1.83	0.59
5:C:193:LEU:HD21	11:C:1142:HOH:O	2.02	0.59
6:N:481:MET:CE	6:N:493:ARG:HA	2.32	0.59
5:M:1055:LEU:CD2	5:M:1066:ALA:HB2	2.31	0.59
6:N:422:ALA:HA	11:N:9357:HOH:O	2.01	0.59
4:K:5:LYS:HE3	4:K:5:LYS:HA	1.85	0.59
5:M:119:PRO:HG2	5:M:386:PHE:CG	2.37	0.59
6:N:584:ASN:OD1	6:N:590:PRO:HD2	2.03	0.59
5:C:692:GLU:HG2	5:C:696:LYS:HE2	1.83	0.59
5:M:575:GLN:HB2	5:M:670:GLN:HG2	1.85	0.59
6:D:161:LEU:CD2	6:D:452:ILE:HD13	2.33	0.59
6:D:1440:PHE:CG	6:D:1441:GLN:N	2.71	0.59
7:E:17:TYR:O	7:E:21:VAL:HG23	2.03	0.59
6:D:462:GLN:O	6:D:466:LYS:HE3	2.03	0.59
6:D:93:ILE:HG13	6:D:519:VAL:HG22	1.85	0.59
5:C:833:LEU:HD21	5:C:839:LEU:HD11	1.84	0.59
5:M:498:GLN:HA	5:M:533:ASP:OD2	2.03	0.59
5:M:140:ILE:HB	5:M:331:ARG:HG2	1.83	0.59
6:N:86:ARG:HD3	6:N:523:ASP:OD2	2.02	0.59
4:L:94:LEU:HD11	4:L:119:ASP:CB	2.33	0.59
6:N:860:LEU:HD23	6:N:877:PRO:HB2	1.85	0.59
6:N:396:VAL:O	6:N:398:ALA:N	2.31	0.59
4:B:94:LEU:HD11	4:B:119:ASP:CB	2.32	0.59
4:K:224:TYR:HB3	4:L:9:PRO:HB2	1.83	0.59
5:M:1000:MET:HB3	5:M:1002:GLU:HG2	1.84	0.59
4:A:225:PHE:HE1	4:B:40:LEU:HD11	1.68	0.59
6:N:970:LYS:HA	6:N:973:GLN:CD	2.23	0.59
5:C:492:ASP:CG	5:C:518:LYS:HB3	2.24	0.59
5:M:1081:VAL:HG23	5:M:1086:ARG:HH21	1.67	0.59
2:Y:11:C:O2'	2:Y:12:G:H5''	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:488:ALA:HA	11:C:1287:HOH:O	2.02	0.58
6:N:191:LEU:HB3	6:N:393:ILE:HD12	1.85	0.58
6:D:582:LEU:HA	6:D:603:LEU:HD12	1.85	0.58
5:M:755:LEU:HD12	5:M:790:LEU:HG	1.85	0.58
5:C:342:ASP:O	5:C:346:VAL:HG23	2.03	0.58
5:C:218:VAL:HG22	5:C:221:LEU:CD2	2.33	0.58
6:D:799:LYS:O	6:D:826:PRO:HD2	2.02	0.58
6:D:401:TYR:CZ	6:D:429:SER:HA	2.38	0.58
5:C:48:PHE:O	5:C:52:PHE:HB2	2.02	0.58
4:L:173:PRO:HB2	11:L:366:HOH:O	2.02	0.58
1:G:2:DC:H2'	1:G:3:DC:C6	2.38	0.58
5:C:983:ILE:HG21	5:C:987:ILE:HD11	1.85	0.58
2:H:9:G:C8	2:H:9:G:H5'	2.38	0.58
5:M:701:THR:HG21	5:M:830:LYS:HE2	1.84	0.58
5:M:946:ARG:CB	5:M:946:ARG:HH11	2.08	0.58
1:X:18:DG:H5'	1:X:18:DG:H8	1.68	0.58
6:N:464:LEU:O	6:N:468:LEU:HG	2.02	0.58
6:N:567:ILE:O	6:N:571:LYS:HG2	2.03	0.58
4:A:54:THR:CG2	4:A:158:ILE:HG13	2.30	0.58
7:O:18:ARG:HD3	7:O:75:PHE:CE1	2.33	0.58
6:D:918:ALA:O	6:D:922:LEU:HG	2.02	0.58
5:C:1009:SER:HB2	6:D:651:GLU:O	2.03	0.58
4:B:20:TYR:HE2	4:B:198:ARG:HB3	1.68	0.58
4:A:5:LYS:HE3	4:A:5:LYS:HA	1.84	0.58
4:L:174:VAL:HG23	11:L:366:HOH:O	2.02	0.58
5:C:913:GLU:O	5:C:917:LEU:HG	2.03	0.58
6:D:693:GLU:HA	11:D:8294:HOH:O	2.03	0.58
6:N:728:LEU:HD21	6:N:733:CYS:SG	2.43	0.58
2:Y:8:C:HO2'	2:Y:9:G:H5'	1.66	0.58
6:N:15:PRO:O	6:N:18:ILE:HB	2.03	0.58
5:C:398:THR:HA	11:C:1367:HOH:O	2.03	0.58
7:O:48:MET:N	7:O:54:LEU:HB2	2.18	0.58
6:D:1236:LEU:CD1	6:D:1359:GLN:HB3	2.33	0.58
4:B:99:LEU:HB3	4:B:114:PHE:CD2	2.38	0.58
6:D:835:SER:N	6:D:838:ARG:HD3	2.18	0.58
7:O:40:LEU:CB	7:O:72:ARG:HH21	2.15	0.58
6:N:815:ALA:HA	6:N:818:ARG:HD2	1.84	0.58
5:M:861:LEU:HA	5:M:974:LEU:HD12	1.85	0.58
6:D:752:SER:HB2	11:D:8371:HOH:O	2.03	0.58
2:Y:13:C:C4'	5:M:409:ARG:HH22	2.13	0.58
6:N:1146:GLY:CA	6:N:1207:TYR:HB2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:695:ILE:HD11	6:N:718:PRO:HB2	1.84	0.58
6:D:124:GLU:O	6:D:127:LEU:HD12	2.02	0.58
5:M:102:HIS:NE2	5:M:365:ASP:HA	2.18	0.58
6:N:522:PRO:HG2	6:N:523:ASP:H	1.68	0.58
6:D:1084:THR:HB	6:D:1241:PHE:CD2	2.38	0.58
6:D:1238:MET:HG3	11:D:8018:HOH:O	2.03	0.58
5:M:252:LYS:HZ3	5:M:296:GLY:HA3	1.69	0.58
4:A:44:LEU:O	4:A:174:VAL:HG21	2.04	0.58
6:N:1112:CYS:HB2	6:N:1195:GLN:CG	2.34	0.58
6:N:989:TYR:HA	6:N:992:ILE:HD12	1.83	0.58
6:D:101:HIS:O	6:D:105:VAL:HG23	2.02	0.58
4:L:59:GLU:CB	4:L:137:ARG:HH22	2.16	0.58
6:D:23:TYR:O	6:D:49:ILE:HG23	2.03	0.58
6:D:957:PRO:HG2	6:D:1007:VAL:HG22	1.85	0.58
6:N:711:LEU:HD21	6:N:768:ASN:CB	2.33	0.58
6:N:962:GLN:HG2	6:N:966:GLU:OE1	2.03	0.58
5:M:497:ALA:HA	5:M:515:ALA:HA	1.85	0.58
4:A:9:PRO:HB3	4:A:25:LEU:HG	1.84	0.58
5:M:938:LYS:HB2	5:M:938:LYS:NZ	2.18	0.58
6:D:50:PHE:CD2	6:D:522:PRO:HD3	2.38	0.58
7:E:48:MET:HG2	7:E:49:GLN:H	1.69	0.58
5:C:1100:GLN:HA	5:C:1100:GLN:NE2	2.18	0.58
6:N:136:ASP:CB	6:N:137:PRO:HD3	2.33	0.58
6:D:426:LYS:HE3	6:D:427:VAL:HG23	1.85	0.58
5:M:99:GLN:HG2	5:M:109:LYS:HG3	1.85	0.58
5:C:211:LEU:CD1	5:C:308:ARG:HA	2.34	0.58
5:C:548:PRO:HD3	5:C:842:ARG:HD2	1.86	0.58
5:C:580:MET:SD	5:C:584:GLU:HG3	2.44	0.58
5:C:1014:SER:HB2	5:C:1017:THR:HG23	1.85	0.58
5:C:712:ALA:O	5:C:820:ARG:HB3	2.04	0.58
6:D:1271:LYS:HZ1	6:D:1331:ASP:HB3	1.69	0.58
4:B:177:VAL:HG12	4:B:199:ILE:HG23	1.86	0.58
5:C:841:ASN:H	5:C:841:ASN:ND2	2.02	0.58
5:M:841:ASN:HD21	5:M:844:GLY:H	1.51	0.58
6:N:584:ASN:HD21	6:N:589:ALA:HA	1.67	0.58
6:N:1486:VAL:HG23	11:N:9307:HOH:O	2.03	0.58
5:M:347:GLY:HA2	11:M:1457:HOH:O	2.02	0.58
5:M:831:ARG:HA	11:M:1437:HOH:O	2.04	0.58
1:G:6:DT:H2"	1:G:7:DC:C6	2.39	0.58
5:M:701:THR:CG2	5:M:832:LYS:HG2	2.32	0.58
5:C:573:ARG:HB3	11:C:1209:HOH:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:996:TRP:HA	6:N:999:THR:CG2	2.25	0.58
5:M:34:VAL:HG12	11:M:1176:HOH:O	2.04	0.58
5:M:54:ILE:CG2	5:M:66:LEU:HB3	2.34	0.58
5:M:549:PHE:HB3	5:M:552:HIS:HD2	1.67	0.58
6:D:871:LYS:HE2	6:D:873:LEU:HD21	1.86	0.58
7:E:26:ARG:O	7:E:30:LEU:HD12	2.04	0.58
5:C:693:GLU:OE1	5:C:696:LYS:HD2	2.03	0.58
2:Y:13:C:H2'	2:Y:14:G:C8	2.39	0.58
5:M:1094:ALA:HA	6:N:90:MET:HE1	1.86	0.58
5:M:874:LEU:HD12	5:M:874:LEU:H	1.69	0.58
6:D:1373:ARG:HE	6:D:1374:GLN:NE2	2.02	0.58
5:M:431:HIS:H	5:M:434:HIS:CE1	2.22	0.58
6:D:465:LEU:HD22	6:D:510:GLU:HA	1.86	0.58
6:D:206:ARG:HB3	6:D:206:ARG:HH11	1.68	0.58
6:N:1119:SER:O	6:N:1121:PRO:HD3	2.04	0.58
5:M:1056:LYS:HD3	6:N:751:LEU:HD11	1.86	0.58
6:N:966:GLU:HA	6:N:969:ARG:HH22	1.67	0.58
5:C:358:ARG:HH22	5:C:373:VAL:C	2.06	0.58
5:M:91:GLN:CD	5:M:383:ARG:HH22	2.08	0.58
4:B:54:THR:CG2	4:B:158:ILE:HG13	2.33	0.58
6:N:134:VAL:HG12	6:N:152:LEU:HD22	1.86	0.58
6:D:1017:PHE:HE1	11:D:8095:HOH:O	1.87	0.58
5:M:444:PRO:HD2	5:M:452:ILE:O	2.04	0.58
6:N:1081:GLY:O	6:N:1084:THR:HG22	2.04	0.58
4:K:211:LEU:O	4:K:215:VAL:HG23	2.04	0.58
6:D:786:ILE:HD11	6:D:908:LYS:HD3	1.85	0.58
6:D:116:LEU:HD22	6:D:118:LEU:HD21	1.86	0.58
6:D:616:GLN:HG3	11:D:8092:HOH:O	2.03	0.58
5:M:310:LEU:HB2	11:M:1183:HOH:O	2.03	0.58
6:D:182:GLY:HA3	6:D:400:VAL:HG11	1.85	0.58
6:D:396:VAL:C	6:D:398:ALA:N	2.56	0.58
4:B:99:LEU:HG	11:B:336:HOH:O	2.03	0.58
5:M:464:LEU:HB2	11:M:1525:HOH:O	2.03	0.58
5:M:549:PHE:HB3	5:M:552:HIS:CD2	2.39	0.58
6:N:970:LYS:HG3	6:N:973:GLN:OE1	2.04	0.58
5:C:775:ARG:NH1	5:C:782:ALA:HB1	2.18	0.58
6:N:930:LEU:O	6:N:934:LEU:HG	2.04	0.58
3:I:7:DC:H5''	6:D:1264:GLU:OE2	2.04	0.58
6:N:161:LEU:HD21	11:N:9092:HOH:O	2.02	0.58
5:M:452:ILE:HD12	5:M:452:ILE:H	1.69	0.58
5:C:211:LEU:HD11	5:C:308:ARG:HA	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:875:GLY:O	5:M:879:ARG:HD2	2.03	0.57
6:N:1397:LYS:HE3	6:N:1432:LYS:HD2	1.85	0.57
5:M:1030:GLN:HB2	6:N:626:SER:OG	2.04	0.57
6:D:1171:VAL:O	6:D:1175:ILE:HG13	2.04	0.57
5:M:470:PRO:HD3	5:M:485:TYR:CE2	2.39	0.57
5:M:715:THR:HG21	11:M:1222:HOH:O	2.03	0.57
6:D:890:VAL:HG23	11:D:8341:HOH:O	2.03	0.57
5:C:626:ARG:H	5:C:639:GLN:HE21	1.50	0.57
5:M:1032:PHE:O	5:M:1033:GLY:O	2.21	0.57
5:M:546:LEU:CD1	5:M:565:GLN:HE22	2.17	0.57
5:C:959:PRO:HG2	11:C:1413:HOH:O	2.03	0.57
6:D:810:GLU:HB3	11:D:8233:HOH:O	2.03	0.57
5:C:1101:THR:OG1	6:D:5:VAL:HG12	2.03	0.57
5:M:134:ARG:HH11	5:M:392:SER:CB	2.17	0.57
5:C:495:THR:HG23	11:C:1226:HOH:O	2.03	0.57
1:X:6:DT:H2'	1:X:7:DC:C6	2.39	0.57
5:M:535:SER:HB3	5:M:537:LYS:NZ	2.19	0.57
5:C:573:ARG:HB3	5:C:670:GLN:HE22	1.69	0.57
6:N:149:LYS:HD2	6:N:150:ARG:H	1.69	0.57
6:D:400:VAL:HG22	6:D:443:VAL:HG21	1.85	0.57
6:N:62:LYS:HG3	6:N:75:ARG:NH1	2.19	0.57
6:D:30:GLU:HB3	6:D:40:GLU:CB	2.34	0.57
7:O:32:ARG:HB2	7:O:32:ARG:CZ	2.34	0.57
6:N:677:LEU:HD23	6:N:683:ILE:HG13	1.86	0.57
2:Y:14:G:H4'	11:Y:1734:HOH:O	2.03	0.57
2:H:10:G:H2'	2:H:11:C:H6	1.66	0.57
2:H:13:C:H2'	2:H:14:G:C8	2.39	0.57
6:N:637:LEU:HD11	6:N:641:GLN:HB2	1.86	0.57
4:K:42:ARG:HH21	4:L:31:GLY:C	2.08	0.57
5:C:577:PRO:HB3	5:C:842:ARG:NH2	2.18	0.57
5:C:99:GLN:HB3	5:C:109:LYS:CD	2.34	0.57
5:M:205:GLU:HA	5:M:209:ARG:NH1	2.20	0.57
5:C:264:PRO:HG3	11:C:1383:HOH:O	2.04	0.57
4:L:123:MET:C	4:L:125:PRO:HD3	2.24	0.57
6:N:399:ARG:HE	6:N:431:VAL:CG2	2.18	0.57
6:D:30:GLU:HB3	6:D:40:GLU:CG	2.34	0.57
6:D:444:VAL:HB	11:D:8164:HOH:O	2.04	0.57
5:M:79:PRO:HG2	5:M:82:GLU:HB2	1.85	0.57
6:D:614:PHE:CE2	6:D:1438:ALA:HB1	2.39	0.57
11:Y:1707:HOH:O	5:M:777:ILE:HG21	2.03	0.57
6:D:959:GLU:CD	6:D:959:GLU:H	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:510:GLU:HB2	6:N:511:TRP:CZ3	2.39	0.57
6:D:1418:LYS:HD3	6:D:1419:PRO:HD2	1.85	0.57
4:K:145:ASP:HB3	11:K:1799:HOH:O	2.03	0.57
4:K:49:PRO:HB3	4:K:148:VAL:HG22	1.86	0.57
7:O:33:HIS:HB2	7:O:37:ASN:ND2	2.18	0.57
5:M:1031:ARG:HG3	6:N:621:LYS:HB3	1.86	0.57
6:D:793:THR:HG21	6:D:906:GLN:CG	2.33	0.57
6:N:394:LEU:HG	6:N:396:VAL:HG23	1.85	0.57
4:L:58:ILE:HG21	4:L:68:ILE:HD11	1.85	0.57
5:C:1030:GLN:NE2	6:D:628:ARG:HD3	2.20	0.57
6:D:155:ASP:O	6:D:159:ARG:HG3	2.04	0.57
2:Y:9:G:O2'	2:Y:10:G:H5'	2.04	0.57
6:D:879:ARG:NH1	6:D:879:ARG:HG3	2.17	0.57
5:C:584:GLU:H	5:C:584:GLU:CD	2.07	0.57
4:K:181:VAL:HG21	5:M:939:ARG:HH11	1.70	0.57
5:M:975:TYR:HE1	11:M:1220:HOH:O	1.86	0.57
5:C:468:ARG:HE	5:C:487:THR:N	2.02	0.57
6:D:525:ARG:HB2	6:D:538:SER:HB3	1.86	0.57
4:B:170:VAL:HG11	6:D:848:GLU:OE1	2.04	0.57
6:N:28:LYS:HG3	6:N:29:PRO:HD2	1.87	0.57
5:M:841:ASN:HD22	5:M:841:ASN:C	2.07	0.57
5:M:166:PRO:HB3	11:M:1157:HOH:O	2.03	0.57
5:M:452:ILE:HD12	5:M:452:ILE:N	2.19	0.57
6:D:501:ALA:HB1	6:D:1453:ALA:HB2	1.87	0.57
6:N:1191:PRO:HG3	11:N:9238:HOH:O	2.03	0.57
6:N:758:GLU:HA	7:O:20:THR:HG21	1.86	0.57
6:N:1336:LEU:HA	6:N:1344:VAL:CG2	2.34	0.57
6:D:772:PRO:HB3	6:D:1224:VAL:CG1	2.34	0.57
5:M:205:GLU:HA	5:M:209:ARG:CZ	2.34	0.57
6:N:1083:ASP:O	6:N:1087:ARG:HG2	2.05	0.57
4:A:43:ILE:HG13	4:A:218:LEU:CD1	2.33	0.57
6:N:583:ASP:CG	6:N:586:ARG:HG3	2.25	0.57
1:G:20:DG:H4'	5:C:394:PHE:CE1	2.39	0.57
2:Y:11:C:H2'	2:Y:12:G:H8	1.66	0.57
5:C:971:LYS:HD2	5:C:986:PRO:HG2	1.87	0.57
1:G:13:DT:H5''	6:D:1093:TYR:HE2	1.68	0.57
6:D:1263:PHE:HE2	6:D:1371:VAL:HG11	1.69	0.57
4:B:85:LEU:HG	4:B:127:LEU:CD2	2.32	0.57
6:N:1129:THR:HG23	6:N:1130:ARG:H	1.69	0.57
6:D:1103:HIS:CD2	6:D:1463:LYS:HB2	2.40	0.57
6:N:139:GLY:HA2	6:N:451:ASP:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:567:GLN:O	5:M:997:LEU:HD12	2.05	0.57
4:A:221:HIS:HB3	4:B:36:LEU:HD21	1.86	0.57
6:D:1020:LEU:HD21	6:D:1038:LEU:HD12	1.86	0.57
4:L:214:ALA:O	4:L:217:ILE:HG22	2.04	0.57
4:A:100:LEU:HD22	4:A:102:LYS:HE2	1.87	0.57
5:M:498:GLN:OE1	6:N:1067:VAL:HB	2.05	0.57
6:N:1023:MET:O	6:N:1028:ALA:HB3	2.05	0.57
6:D:1224:VAL:HA	6:D:1227:GLN:OE1	2.05	0.57
6:D:1216:SER:CB	7:E:16:LYS:H	2.18	0.57
5:M:121:MET:HE3	5:M:125:GLY:HA2	1.87	0.57
5:M:208:ALA:HB3	5:M:209:ARG:HH21	1.70	0.57
6:D:1332:PRO:HG3	6:D:1347:TYR:CE2	2.37	0.57
6:D:1335:LEU:HD22	6:D:1344:VAL:HG13	1.86	0.57
4:L:124:ASN:OD1	4:L:127:LEU:HB2	2.05	0.57
6:N:1153:VAL:HG12	6:N:1155:VAL:HG13	1.86	0.57
6:D:1485:GLN:HE21	7:E:79:LEU:H	1.51	0.57
5:M:693:GLU:HA	5:M:696:LYS:CD	2.34	0.57
5:C:834:GLN:HB2	11:C:1129:HOH:O	2.04	0.57
4:A:68:ILE:HD12	4:A:68:ILE:H	1.69	0.57
5:M:1046:ALA:HB2	11:N:9022:HOH:O	2.03	0.57
5:C:188:LYS:HD3	11:C:1301:HOH:O	2.03	0.57
4:K:138:LEU:HD11	4:K:140:MET:SD	2.44	0.57
5:C:1049:LEU:HD11	5:C:1053:LEU:HD11	1.87	0.57
1:X:19:DC:H5"	5:M:1001:VAL:HB	1.87	0.57
5:C:144:PRO:CG	5:C:265:ARG:HH21	2.13	0.57
5:C:472:ARG:HG3	5:C:534:VAL:HG22	1.85	0.57
6:N:434:ARG:HB3	6:N:434:ARG:HH11	1.70	0.57
5:C:192:PRO:HD2	5:C:195:LEU:CB	2.32	0.57
5:M:691:SER:OG	5:M:694:LEU:HG	2.04	0.57
5:M:162:ILE:O	5:M:164:PRO:HD3	2.05	0.57
5:C:1105:LYS:HZ3	5:C:1107:ASN:HB2	1.70	0.57
5:C:1103:ASP:OD1	6:D:3:LYS:HD3	2.05	0.57
6:N:54:LYS:CD	6:N:55:ASP:H	2.17	0.57
2:Y:7:G:C8	2:Y:7:G:C5'	2.88	0.57
6:D:657:LEU:HD22	6:D:691:LEU:CD2	2.35	0.57
7:O:17:TYR:O	7:O:21:VAL:HG23	2.05	0.57
4:K:42:ARG:CZ	4:L:34:VAL:HB	2.35	0.57
6:D:455:ARG:C	6:D:460:ALA:HB2	2.25	0.57
5:M:174:LEU:HD22	5:M:307:LEU:HD13	1.87	0.57
4:L:79:ILE:HA	4:L:82:LEU:HD12	1.87	0.57
5:C:531:PHE:HB2	11:C:1172:HOH:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1085:PHE:O	5:M:1089:VAL:HG23	2.05	0.57
5:C:975:TYR:HA	5:C:982:PRO:HA	1.86	0.57
6:D:65:ARG:CG	6:D:66:GLN:H	2.18	0.57
5:M:400:PRO:HG2	5:M:593:ALA:HB2	1.87	0.57
6:D:1406:ARG:HD2	6:D:1412:LYS:HZ3	1.70	0.57
6:N:161:LEU:HD13	6:N:452:ILE:HD13	1.87	0.57
4:B:88:ARG:HG3	11:B:365:HOH:O	2.04	0.57
5:C:51:THR:OG1	5:C:348:LEU:HG	2.05	0.57
6:N:1025:GLN:NE2	6:N:1025:GLN:HA	2.20	0.57
5:C:949:LYS:HA	11:C:1221:HOH:O	2.05	0.56
6:N:1057:VAL:HG13	6:N:1069:GLU:HB3	1.87	0.56
6:N:1045:MET:HB3	6:N:1073:SER:HA	1.87	0.56
7:O:41:GLU:HB2	7:O:45:ARG:NE	2.19	0.56
5:M:578:VAL:CG2	5:M:579:VAL:HG12	2.34	0.56
5:M:871:LEU:HD11	5:M:992:MET:SD	2.44	0.56
5:M:286:SER:HB3	11:M:1441:HOH:O	2.05	0.56
5:M:1050:GLN:OE1	6:N:1471:LEU:HA	2.04	0.56
5:M:716:LYS:HZ1	6:N:36:THR:HG23	1.69	0.56
2:Y:8:C:H5'	11:Y:1683:HOH:O	2.04	0.56
5:C:338:GLU:O	5:C:341:THR:HG22	2.05	0.56
1:G:22:DC:H4'	5:C:388:ARG:CD	2.33	0.56
6:D:1436:SER:HB3	11:D:8024:HOH:O	2.05	0.56
7:E:19:LEU:O	7:E:23:VAL:HG23	2.05	0.56
5:M:292:ARG:HH11	5:M:299:LYS:HD3	1.70	0.56
6:N:714:GLN:NE2	6:N:765:SER:HA	2.20	0.56
4:A:225:PHE:HB2	11:A:325:HOH:O	2.05	0.56
6:N:1091:SER:OG	6:N:1234:THR:HG23	2.04	0.56
5:M:805:ARG:HH11	5:M:805:ARG:HB3	1.70	0.56
6:N:824:ASN:HD22	6:N:824:ASN:C	2.09	0.56
4:A:52:ALA:HB2	4:A:170:VAL:O	2.04	0.56
4:L:43:ILE:O	4:L:47:SER:HB3	2.05	0.56
5:C:412:ALA:HB1	5:C:419:THR:HG21	1.87	0.56
5:C:676:ILE:HD13	6:D:948:THR:HB	1.88	0.56
6:D:1042:ARG:O	6:D:1057:VAL:HB	2.04	0.56
6:N:1189:ARG:HD2	6:N:1204:CYS:SG	2.46	0.56
6:D:1226:ALA:HB2	11:D:8257:HOH:O	2.05	0.56
6:D:758:GLU:HA	6:D:762:GLN:NE2	2.20	0.56
6:D:136:ASP:HB3	6:D:455:ARG:HE	1.70	0.56
6:N:80:VAL:HG12	6:N:81:THR:O	2.05	0.56
5:M:121:MET:CE	5:M:125:GLY:HA2	2.34	0.56
6:N:1493:LYS:O	6:N:1496:GLU:HG2	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:148:PHE:CZ	5:C:281:LEU:HB3	2.39	0.56
5:M:39:ARG:HG3	5:M:39:ARG:HH11	1.68	0.56
6:D:1236:LEU:HD11	6:D:1361:VAL:HG23	1.88	0.56
7:O:13:VAL:HG21	7:O:19:LEU:HB2	1.88	0.56
7:E:59:ASN:N	7:E:59:ASN:HD22	2.02	0.56
6:D:696:HIS:NE2	7:E:54:LEU:HD11	2.20	0.56
7:E:80:VAL:HG22	11:E:151:HOH:O	2.06	0.56
6:N:828:LYS:HG2	6:N:863:VAL:HG22	1.86	0.56
6:N:806:PHE:HE1	6:N:813:LEU:HB3	1.69	0.56
5:M:886:LEU:HD12	6:N:951:ILE:HG13	1.87	0.56
5:M:546:LEU:HD12	5:M:565:GLN:NE2	2.18	0.56
5:C:186:VAL:HG11	11:C:1130:HOH:O	2.05	0.56
5:C:943:VAL:HG23	5:C:985:GLY:H	1.70	0.56
5:C:159:ILE:HD13	11:C:1523:HOH:O	2.06	0.56
6:D:703:ASN:ND2	6:D:704:ARG:H	2.03	0.56
7:E:41:GLU:HG2	7:E:42:PRO:HD3	1.87	0.56
6:N:799:LYS:HE2	6:N:824:ASN:O	2.04	0.56
6:N:794:GLN:HG3	6:N:795:VAL:N	2.20	0.56
6:N:36:THR:C	6:N:38:LYS:H	2.07	0.56
4:B:201:THR:HG21	4:B:205:VAL:HG23	1.87	0.56
6:N:1238:MET:HA	6:N:1241:PHE:CE2	2.40	0.56
5:M:257:VAL:HA	11:M:1334:HOH:O	2.04	0.56
5:M:1054:THR:HG21	5:M:1079:PRO:HB3	1.87	0.56
4:L:92:PRO:HA	4:L:146:ARG:NH2	2.20	0.56
4:L:92:PRO:HA	4:L:146:ARG:CZ	2.35	0.56
7:O:84:ARG:HD3	11:O:1385:HOH:O	2.05	0.56
1:X:2:DC:H2"	1:X:3:DC:C6	2.40	0.56
5:C:333:ILE:HD13	5:C:467:ILE:HG13	1.86	0.56
5:C:838:LYS:O	5:C:839:LEU:HD23	2.06	0.56
6:D:700:VAL:HG22	6:D:718:PRO:HG3	1.87	0.56
5:M:532:MET:HB3	11:M:1310:HOH:O	2.04	0.56
5:C:577:PRO:HA	5:C:671:ASN:ND2	2.20	0.56
6:D:754:PHE:HE1	7:E:28:GLN:HE22	1.53	0.56
6:N:988:ARG:O	6:N:992:ILE:HG13	2.05	0.56
6:D:117:ASP:N	6:D:150:ARG:NH1	2.53	0.56
6:D:116:LEU:HD11	6:D:464:LEU:HB3	1.86	0.56
6:N:47:GLU:OE1	6:N:53:ILE:HB	2.06	0.56
6:D:847:ASP:O	6:D:851:LEU:HG	2.06	0.56
6:N:1271:LYS:NZ	6:N:1331:ASP:HB2	2.20	0.56
6:N:481:MET:HE3	6:N:1388:ARG:HG3	1.88	0.56
5:M:48:PHE:O	5:M:52:PHE:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:668:LEU:HD13	5:M:995:MET:HE2	1.87	0.56
6:D:65:ARG:H	6:D:68:PHE:HE1	1.51	0.56
6:D:36:THR:C	6:D:38:LYS:H	2.09	0.56
5:M:611:ILE:HG13	5:M:625:LEU:HD21	1.87	0.56
4:L:187:GLY:HA3	11:L:397:HOH:O	2.05	0.56
6:N:704:ARG:HD3	6:N:738:ALA:HB2	1.87	0.56
4:B:160:ASP:HB3	11:B:345:HOH:O	2.05	0.56
4:A:42:ARG:NH2	4:B:34:VAL:HB	2.20	0.56
6:N:1336:LEU:HA	6:N:1344:VAL:HG21	1.86	0.56
1:G:16:DG:H5"	5:C:1031:ARG:HB3	1.88	0.56
6:D:117:ASP:HB2	6:D:495:ARG:HH21	1.69	0.56
6:N:792:ILE:O	6:N:878:GLY:HA3	2.04	0.56
5:C:284:ARG:HG3	5:C:285:LEU:N	2.19	0.56
4:A:54:THR:HB	4:A:143:ARG:CG	2.35	0.56
5:M:457:ALA:N	5:M:540:PHE:O	2.36	0.56
6:D:29:PRO:HG3	6:D:549:ASN:HD21	1.69	0.56
6:N:119:SER:HB2	6:N:123:LEU:CB	2.33	0.56
5:M:577:PRO:HG3	5:M:993:PHE:CE1	2.41	0.56
6:D:1267:ARG:HG2	6:D:1267:ARG:O	2.05	0.56
4:B:16:GLN:HG3	11:B:397:HOH:O	2.05	0.56
1:X:14:DT:H5'	1:X:14:DT:H6	1.70	0.56
5:C:437:ARG:HA	5:C:467:ILE:HG21	1.86	0.56
5:C:451:LEU:C	5:C:452:ILE:HD12	2.26	0.56
2:H:11:C:O2'	2:H:12:G:H5"	2.05	0.56
6:N:180:LYS:HD2	6:N:180:LYS:H	1.69	0.56
5:C:697:ARG:O	5:C:699:PHE:N	2.39	0.56
7:O:46:PRO:C	7:O:47:LYS:HG2	2.25	0.56
6:D:136:ASP:OD1	6:D:463:GLN:HB3	2.05	0.56
6:N:853:VAL:HG11	6:N:860:LEU:HG	1.88	0.56
5:M:307:LEU:HD12	5:M:310:LEU:HD23	1.87	0.56
4:K:178:ALA:HB2	5:M:864:GLY:N	2.21	0.56
5:C:12:VAL:HG13	5:C:13:ILE:CG1	2.36	0.56
6:D:964:LEU:HD22	6:D:1058:ARG:HH21	1.70	0.56
5:M:626:ARG:HH22	5:M:637:LEU:HD13	1.70	0.56
5:C:804:VAL:HG11	5:C:824:ARG:NH2	2.19	0.56
5:C:232:GLU:O	5:C:235:LEU:HB3	2.05	0.56
6:N:960:LYS:NZ	6:N:1041:LEU:HD13	2.21	0.56
5:M:600:ASP:OD1	5:M:651:LYS:HB2	2.05	0.56
5:C:693:GLU:HA	5:C:696:LYS:HG3	1.88	0.56
4:B:117:VAL:HG22	11:B:392:HOH:O	2.06	0.56
4:K:206:THR:HG23	4:K:207:PRO:HD2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:92:PRO:HD3	11:K:1047:HOH:O	2.05	0.56
11:M:1366:HOH:O	6:N:6:ARG:HB2	2.04	0.56
5:M:516:ARG:HE	6:N:1068:LEU:HD13	1.69	0.56
5:M:516:ARG:HH21	6:N:1068:LEU:HB3	1.71	0.56
5:C:265:ARG:NH1	5:C:267:TYR:HB3	2.20	0.56
5:M:1070:ILE:HG21	6:N:655:PRO:HB2	1.88	0.56
6:N:24:GLY:HA3	6:N:49:ILE:HG12	1.87	0.56
6:D:1124:GLN:HG2	6:D:1133:ARG:HG3	1.88	0.56
6:D:906:GLN:HB3	6:D:911:LEU:HD11	1.88	0.56
5:M:695:LEU:HD11	11:M:1250:HOH:O	2.05	0.56
6:D:1102:THR:HB	11:D:8257:HOH:O	2.04	0.56
5:M:260:LEU:HB2	11:M:1400:HOH:O	2.05	0.56
6:D:116:LEU:HD13	6:D:118:LEU:HD11	1.87	0.56
6:N:883:ALA:HB2	11:N:9040:HOH:O	2.04	0.56
5:C:162:ILE:HD12	5:C:172:ILE:HB	1.86	0.56
5:C:265:ARG:HD2	5:C:267:TYR:HB3	1.88	0.56
6:D:703:ASN:HD22	6:D:704:ARG:H	1.53	0.56
5:M:172:ILE:HG23	5:M:184:MET:HE3	1.87	0.56
7:E:30:LEU:O	7:E:35:PHE:HA	2.06	0.56
5:C:654:LEU:HD13	5:C:664:GLY:N	2.21	0.56
4:L:101:LEU:HA	11:L:368:HOH:O	2.06	0.56
6:D:1091:SER:HB3	6:D:1234:THR:OG1	2.05	0.56
5:M:1034:GLU:H	6:N:619:LEU:HD13	1.71	0.56
5:C:410:ILE:HD12	5:C:438:ILE:HG13	1.88	0.56
5:C:439:CYS:HB2	5:C:541:SER:HB2	1.87	0.56
4:L:197:LEU:HD23	4:L:199:ILE:HG13	1.87	0.56
6:D:137:PRO:HD2	6:D:453:ASP:CG	2.27	0.56
4:B:124:ASN:ND2	4:B:127:LEU:HD22	2.21	0.56
6:N:150:ARG:HD3	6:N:464:LEU:HD21	1.88	0.56
6:D:28:LYS:HB2	6:D:41:ARG:NH1	2.19	0.56
6:N:482:LYS:HE2	6:N:1384:PRO:HG2	1.88	0.56
5:C:897:LEU:HD23	5:C:924:VAL:HG21	1.88	0.56
5:M:290:LEU:HB3	5:M:302:VAL:HG12	1.88	0.56
6:N:1353:GLN:HB3	6:N:1357:ARG:HE	1.70	0.56
6:D:714:GLN:NE2	6:D:765:SER:HA	2.20	0.56
7:E:27:ALA:CB	7:E:61:VAL:HG12	2.35	0.56
7:E:40:LEU:HB3	7:E:72:ARG:HH21	1.68	0.56
3:I:3:DA:H3'	11:I:500:HOH:O	2.05	0.56
2:Y:8:C:O5'	2:Y:8:C:H6	1.89	0.56
6:N:783:ARG:CA	6:N:1028:ALA:HA	2.26	0.56
5:C:578:VAL:HG13	5:C:671:ASN:CB	2.29	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1222:GLY:O	6:D:1225:ALA:HB3	2.06	0.56
7:O:54:LEU:HG	7:O:58:PRO:HG2	1.88	0.56
5:M:569:VAL:HG12	5:M:996:LYS:O	2.07	0.56
5:C:474:VAL:HG12	5:C:531:PHE:HA	1.88	0.56
7:O:13:VAL:HG13	7:O:75:PHE:CZ	2.41	0.56
5:M:1050:GLN:HE22	6:N:1470:ARG:C	2.09	0.56
5:C:358:ARG:HA	5:C:361:MET:HG2	1.87	0.56
7:O:27:ALA:CB	7:O:61:VAL:HG12	2.35	0.56
4:A:102:LYS:HZ2	4:A:139:ASN:HD21	1.54	0.56
5:C:680:ASP:HB2	5:C:682:TYR:CE2	2.40	0.56
5:C:233:GLU:HB3	11:C:1182:HOH:O	2.06	0.56
5:M:1057:SER:HB2	6:N:622:ARG:O	2.05	0.56
6:D:1197:ARG:HB3	6:D:1396:GLU:CG	2.36	0.55
6:D:1209:LEU:HD11	7:E:16:LYS:HD2	1.88	0.55
6:D:710:ARG:CG	6:D:772:PRO:HG2	2.34	0.55
5:C:150:PRO:HA	5:C:158:TYR:HB3	1.89	0.55
5:C:166:PRO:HD2	5:C:263:ASP:O	2.06	0.55
6:N:1121:PRO:CD	6:N:1346:ARG:HH21	2.14	0.55
4:L:59:GLU:CG	4:L:137:ARG:HH22	2.18	0.55
4:K:94:LEU:HD11	4:K:119:ASP:CG	2.25	0.55
6:D:1336:LEU:HD22	6:D:1421:LEU:HB2	1.87	0.55
6:D:957:PRO:CG	6:D:1007:VAL:HA	2.36	0.55
6:N:165:LYS:HG2	6:N:448:GLU:OE2	2.06	0.55
4:K:32:PHE:O	4:K:36:LEU:HG	2.05	0.55
5:M:697:ARG:O	5:M:699:PHE:N	2.38	0.55
4:L:101:LEU:HD11	4:L:113:ASP:HB3	1.89	0.55
7:E:31:LEU:HD21	7:E:60:ALA:HB2	1.88	0.55
2:Y:9:G:C8	2:Y:9:G:H5'	2.41	0.55
5:C:676:ILE:HG21	5:C:988:VAL:HG13	1.88	0.55
6:D:700:VAL:HG12	6:D:749:VAL:HG12	1.88	0.55
4:K:112:ARG:HG2	4:K:125:PRO:CB	2.37	0.55
5:M:946:ARG:HB3	5:M:946:ARG:NH1	2.07	0.55
5:C:850:ALA:HA	6:D:632:VAL:HG11	1.87	0.55
5:C:1016:ILE:CD1	5:C:1016:ILE:H	2.16	0.55
6:D:462:GLN:HG2	6:D:466:LYS:NZ	2.21	0.55
6:D:114:THR:HG22	6:D:495:ARG:HA	1.87	0.55
5:C:267:TYR:HB2	5:C:272:ALA:CB	2.37	0.55
6:N:1258:ARG:NH1	6:N:1268:PRO:HB3	2.16	0.55
6:N:834:THR:HG22	6:N:838:ARG:NH1	2.21	0.55
6:D:804:LEU:HD23	6:D:804:LEU:H	1.71	0.55
6:N:120:ALA:HB2	11:N:9298:HOH:O	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1020:PRO:O	5:C:1021:LEU:HD12	2.07	0.55
5:C:965:GLU:O	5:C:969:GLN:HG2	2.05	0.55
6:N:1016:PRO:HB3	11:N:9351:HOH:O	2.04	0.55
6:N:1165:TYR:CE2	6:N:1214:PRO:HB3	2.42	0.55
6:D:473:LEU:O	6:D:477:LEU:HG	2.06	0.55
5:M:943:VAL:HG23	5:M:985:GLY:H	1.72	0.55
5:C:472:ARG:HG2	5:C:483:VAL:HG22	1.88	0.55
5:C:759:THR:HB	5:C:785:VAL:CG1	2.33	0.55
4:L:58:ILE:HG22	4:L:61:VAL:H	1.71	0.55
6:N:402:PRO:HA	6:N:443:VAL:HG23	1.88	0.55
5:M:173:ASP:HB2	5:M:185:LYS:NZ	2.22	0.55
5:M:134:ARG:HD3	5:M:392:SER:HB3	1.86	0.55
4:B:48:ILE:HG13	11:B:331:HOH:O	2.07	0.55
5:C:92:ALA:HB2	5:C:120:LEU:HD11	1.87	0.55
4:B:30:ARG:HH22	5:C:854:PRO:CG	2.20	0.55
6:D:808:THR:OG1	6:D:809:PRO:HD3	2.07	0.55
5:C:401:LEU:HD21	5:C:565:GLN:HE21	1.71	0.55
5:M:265:ARG:HB3	5:M:267:TYR:CD2	2.42	0.55
5:M:138:SER:HB3	5:M:333:ILE:HG23	1.88	0.55
5:M:975:TYR:HA	5:M:982:PRO:HA	1.89	0.55
6:D:1007:VAL:HG12	6:D:1011:PHE:CE2	2.40	0.55
4:K:72:LYS:HE3	5:M:641:PRO:O	2.06	0.55
5:C:527:GLU:OE1	5:C:528:GLU:HG3	2.06	0.55
5:C:136:ILE:CG2	5:C:336:VAL:HG22	2.36	0.55
4:B:30:ARG:HH22	5:C:854:PRO:HG2	1.72	0.55
5:M:115:LEU:HD12	5:M:115:LEU:O	2.06	0.55
4:K:57:TYR:CE2	4:K:59:GLU:HA	2.41	0.55
5:C:780:GLU:HG2	11:C:1242:HOH:O	2.06	0.55
4:A:183:ASP:HB3	11:A:321:HOH:O	2.07	0.55
6:D:887:ALA:HB3	11:D:8116:HOH:O	2.06	0.55
5:C:139:GLN:O	5:C:333:ILE:HA	2.07	0.55
6:N:1209:LEU:HG	6:N:1219:GLU:OE1	2.07	0.55
6:N:1335:LEU:CD2	6:N:1344:VAL:HG22	2.27	0.55
6:D:117:ASP:H	6:D:150:ARG:HH12	1.55	0.55
5:M:987:ILE:HG12	6:N:948:THR:HG21	1.88	0.55
5:C:5:ARG:NE	5:C:8:ARG:HH12	2.00	0.55
5:M:285:LEU:O	5:M:285:LEU:HD23	2.06	0.55
5:C:431:HIS:NE2	5:C:432:ARG:HB2	2.22	0.55
6:N:1027:GLY:HA2	11:N:9239:HOH:O	2.06	0.55
5:M:433:THR:CG2	5:M:488:ALA:HB1	2.35	0.55
6:N:957:PRO:HG2	6:N:1007:VAL:HG22	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:112:ILE:HB	6:D:512:MET:SD	2.46	0.55
6:N:52:PRO:HD2	6:N:85:VAL:CG2	2.32	0.55
1:X:17:DC:H2''	1:X:18:DG:C5'	2.37	0.55
6:N:116:LEU:HD21	6:N:464:LEU:HD22	1.88	0.55
6:N:119:SER:N	6:N:123:LEU:HD22	2.17	0.55
6:D:1481:VAL:HG12	6:D:1481:VAL:O	2.07	0.55
5:M:626:ARG:HH12	5:M:637:LEU:CB	2.17	0.55
4:B:41:ARG:HD2	4:B:177:VAL:CG2	2.37	0.55
6:N:1105:ILE:HD13	11:N:9367:HOH:O	2.05	0.55
6:N:161:LEU:HD22	6:N:452:ILE:HG21	1.87	0.55
6:D:794:GLN:HB3	6:D:1017:PHE:HZ	1.72	0.55
4:A:153:ALA:HA	4:A:156:HIS:NE2	2.22	0.55
5:C:1045:ALA:HB1	5:C:1048:THR:HB	1.89	0.55
6:N:827:ILE:H	6:N:827:ILE:HD12	1.72	0.55
6:D:801:GLY:HA2	11:D:8362:HOH:O	2.06	0.55
6:N:18:ILE:CG2	6:N:518:PRO:HG3	2.22	0.55
5:C:140:ILE:CG2	5:C:333:ILE:HG13	2.34	0.55
5:C:141:HIS:HA	11:C:1222:HOH:O	2.06	0.55
5:C:411:SER:OG	5:C:413:LEU:HD12	2.07	0.55
5:C:949:LYS:HD3	6:D:796:ARG:NH2	2.19	0.55
5:M:141:HIS:CB	5:M:418:LEU:HD23	2.33	0.55
4:K:177:VAL:O	5:M:864:GLY:CA	2.55	0.55
4:K:181:VAL:HG21	5:M:939:ARG:NH1	2.20	0.55
1:G:18:DG:H8	1:G:18:DG:H5'	1.72	0.55
6:D:554:LEU:HD21	6:D:571:LYS:CE	2.36	0.55
6:N:137:PRO:HB2	6:N:138:LYS:HD3	1.89	0.55
5:M:660:ALA:HB1	5:M:667:ALA:O	2.06	0.55
6:N:43:GLY:N	11:N:9087:HOH:O	2.40	0.55
4:K:72:LYS:HG3	5:M:641:PRO:HB2	1.87	0.55
5:M:752:GLY:O	6:N:679:ARG:HG2	2.06	0.55
5:M:176:VAL:C	5:M:178:PRO:HD3	2.27	0.55
5:M:1067:TYR:CE1	5:M:1071:ILE:HD11	2.41	0.55
5:M:719:PRO:HB2	11:M:1137:HOH:O	2.07	0.55
5:M:730:SER:O	5:M:734:LEU:HD13	2.07	0.55
4:L:205:VAL:HG11	11:L:322:HOH:O	2.05	0.55
6:N:1097:LYS:O	6:N:1101:VAL:HG23	2.07	0.55
6:N:1425:THR:HG22	6:N:1429:LEU:CD1	2.36	0.55
5:C:437:ARG:NE	5:C:469:THR:HB	2.20	0.55
5:C:753:ASP:O	5:C:792:VAL:HG23	2.07	0.55
6:N:183:GLU:HG2	6:N:184:GLU:N	2.21	0.55
5:M:535:SER:HB3	5:M:537:LYS:HZ2	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1147:ARG:HB3	6:D:1188:VAL:CG2	2.37	0.55
6:N:123:LEU:O	6:N:126:VAL:HB	2.07	0.55
6:D:119:SER:N	6:D:123:LEU:HD22	2.18	0.55
4:A:206:THR:HG23	4:A:208:LEU:H	1.72	0.55
6:D:1495:ILE:HG22	6:D:1499:ARG:HE	1.72	0.55
4:K:5:LYS:O	4:K:8:ALA:HB2	2.07	0.55
4:K:150:TYR:CE2	4:K:152:PRO:HG3	2.42	0.55
5:C:290:LEU:HB3	5:C:302:VAL:HG12	1.88	0.55
5:C:397:GLU:OE2	5:C:633:GLN:HG2	2.07	0.55
5:M:1098:ASP:HB2	6:N:21:TRP:CZ2	2.42	0.55
6:N:737:ASN:ND2	10:N:4999:APC:O3'	2.37	0.55
6:N:840:LYS:HE2	6:N:841:TYR:CE2	2.42	0.55
4:K:161:ARG:HA	11:K:728:HOH:O	2.07	0.55
5:M:1022:GLY:HA3	5:M:1026:GLN:O	2.07	0.55
4:B:55:SER:OG	4:B:143:ARG:HD3	2.06	0.55
6:D:1105:ILE:HD12	6:D:1373:ARG:NH2	2.19	0.55
5:M:139:GLN:HE21	5:M:418:LEU:HD22	1.72	0.55
4:K:30:ARG:HH12	5:M:938:LYS:HD2	1.70	0.55
5:C:182:VAL:HG12	5:C:193:LEU:CD1	2.37	0.55
5:C:194:VAL:HG12	5:C:204:GLN:HE22	1.72	0.55
5:M:12:VAL:HB	5:M:472:ARG:NH2	2.22	0.55
6:D:1389:LEU:HG	6:D:1390:LEU:HG	1.89	0.55
5:M:239:PHE:CE1	5:M:254:VAL:HB	2.33	0.55
6:N:1393:GLN:HB2	6:N:1398:TRP:CZ2	2.42	0.55
6:D:899:LEU:HD12	6:D:900:ILE:HG23	1.88	0.55
6:N:1457:ASP:O	6:N:1459:LEU:HD12	2.07	0.55
4:B:154:GLU:CD	4:B:155:LYS:HZ1	2.10	0.55
6:D:30:GLU:HB3	6:D:40:GLU:HB3	1.89	0.55
5:M:609:ASN:N	5:M:609:ASN:ND2	2.54	0.55
6:N:696:HIS:CD2	7:O:59:ASN:HB2	2.41	0.55
6:D:1266:ARG:HG2	6:D:1267:ARG:N	2.20	0.55
6:D:57:GLU:HG2	6:D:58:CYS:N	2.21	0.55
5:C:374:ASN:ND2	5:C:377:PRO:HD3	2.21	0.55
5:C:751:PRO:HA	5:C:792:VAL:HB	1.89	0.55
1:G:12:DG:H2"	1:G:13:DT:O5'	2.06	0.55
5:M:700:TYR:CB	5:M:833:LEU:HD22	2.37	0.55
6:D:618:LEU:HB3	6:D:619:LEU:HD23	1.89	0.55
6:D:119:SER:HB2	6:D:123:LEU:CB	2.37	0.55
6:D:403:PHE:CD2	6:D:444:VAL:HG23	2.41	0.55
5:M:173:ASP:O	5:M:184:MET:HA	2.06	0.55
6:D:474:GLU:O	6:D:478:LEU:HG	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:73:GLU:OE1	4:K:130:ALA:HA	2.06	0.55
4:B:181:VAL:HB	11:B:355:HOH:O	2.06	0.55
6:D:630:VAL:HA	6:D:744:GLN:CG	2.37	0.55
2:H:3:G:H1'	11:C:1128:HOH:O	2.06	0.55
4:B:7:LYS:HG2	11:B:368:HOH:O	2.07	0.55
6:N:1263:PHE:O	6:N:1424:VAL:HG12	2.07	0.54
2:Y:7:G:H8	2:Y:7:G:O5'	1.90	0.54
2:H:7:G:C5'	2:H:7:G:C8	2.91	0.54
6:N:1192:LEU:HD22	6:N:1345:GLU:HG2	1.89	0.54
6:D:1425:THR:HG21	11:D:8492:HOH:O	2.06	0.54
6:N:520:LEU:CD1	6:N:521:PRO:HD2	2.35	0.54
5:C:313:LEU:CB	5:C:321:GLU:HG3	2.37	0.54
6:D:447:VAL:HG23	6:D:448:GLU:N	2.21	0.54
6:N:1125:PRO:C	6:N:1130:ARG:HH12	2.11	0.54
7:O:13:VAL:HG11	7:O:18:ARG:HB3	1.89	0.54
6:N:482:LYS:HB2	6:N:1388:ARG:NH2	2.21	0.54
6:D:890:VAL:HG11	6:D:922:LEU:CD1	2.37	0.54
5:M:587:VAL:HG11	5:M:666:LEU:HD22	1.88	0.54
4:A:53:VAL:HG13	4:A:142:VAL:HG12	1.89	0.54
5:C:1:MET:CG	5:C:900:ARG:HH22	2.19	0.54
5:C:20:GLU:O	5:C:24:GLU:HG2	2.07	0.54
6:N:584:ASN:CG	6:N:590:PRO:HD2	2.27	0.54
5:M:716:LYS:NZ	6:N:36:THR:HA	2.21	0.54
6:D:630:VAL:HA	6:D:744:GLN:HG2	1.89	0.54
6:N:1500:LYS:HB3	11:N:9412:HOH:O	2.07	0.54
6:D:827:ILE:HG22	6:D:837:GLY:HA2	1.88	0.54
6:D:675:ARG:HA	6:D:678:GLU:CD	2.27	0.54
5:C:714:ASP:HB2	5:C:818:GLY:O	2.07	0.54
4:L:219:ARG:HB2	11:L:344:HOH:O	2.06	0.54
4:B:24:VAL:HG22	4:B:196:THR:HB	1.90	0.54
5:C:842:ARG:HH21	5:C:993:PHE:HB3	1.73	0.54
6:D:115:LEU:HD13	6:D:502:PHE:CD1	2.42	0.54
6:D:1087:ARG:HD2	6:D:1256:LEU:HD22	1.89	0.54
6:D:445:ARG:HG2	6:D:445:ARG:HH11	1.71	0.54
5:C:1032:PHE:O	5:C:1033:GLY:O	2.26	0.54
5:M:244:PRO:CD	5:M:245:GLY:H	2.20	0.54
5:M:666:LEU:HD11	5:M:668:LEU:HD21	1.88	0.54
5:C:814:GLU:HB3	11:C:1562:HOH:O	2.06	0.54
5:M:607:ASP:HB2	5:M:610:ARG:O	2.06	0.54
6:D:967:ALA:HA	11:D:8411:HOH:O	2.06	0.54
5:M:15:LEU:HG	5:M:458:TYR:CE1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:141:ILE:HD13	6:N:450:TYR:O	2.07	0.54
6:N:171:LEU:HD21	6:N:192:ALA:CB	2.37	0.54
5:M:1060:ILE:HG23	5:M:1061:GLU:H	1.73	0.54
6:N:98:PRO:C	6:N:458:ALA:HB3	2.27	0.54
5:C:413:LEU:HD11	5:C:452:ILE:HD11	1.89	0.54
5:C:1046:ALA:HB2	6:D:1476:THR:H	1.72	0.54
6:D:165:LYS:HD3	6:D:448:GLU:CD	2.27	0.54
6:N:1120:VAL:O	6:N:1185:GLU:HA	2.08	0.54
4:L:59:GLU:CG	4:L:139:ASN:HD22	2.20	0.54
5:M:851:LYS:HE2	5:M:852:ILE:O	2.08	0.54
5:M:674:VAL:HG12	5:M:990:GLY:O	2.07	0.54
6:N:111:LYS:HG2	6:N:1452:ILE:HD11	1.89	0.54
6:D:119:SER:HB2	6:D:123:LEU:HD13	1.88	0.54
6:D:133:ILE:HG12	6:D:153:LEU:O	2.07	0.54
5:C:367:LEU:O	5:C:371:LYS:HB3	2.06	0.54
5:C:508:ILE:HG13	5:C:526:PRO:HB3	1.89	0.54
5:C:526:PRO:HG2	11:C:1239:HOH:O	2.06	0.54
4:K:152:PRO:HB3	4:K:154:GLU:OE2	2.07	0.54
4:A:83:LYS:HZ3	4:A:168:ASP:HB2	1.72	0.54
5:C:200:LEU:HD13	5:C:300:ASP:CG	2.27	0.54
5:M:250:ARG:HG2	5:M:253:ALA:HB3	1.90	0.54
6:D:685:ASP:HA	6:D:688:TRP:CD1	2.41	0.54
5:C:715:THR:HG22	5:C:717:LEU:HG	1.90	0.54
5:M:1008:ARG:NH2	5:M:1012:PRO:O	2.41	0.54
2:Y:5:C:H5'	5:M:764:GLU:OE2	2.06	0.54
5:C:432:ARG:HH22	6:D:1053:PHE:HZ	1.55	0.54
5:C:1060:ILE:HG23	5:C:1061:GLU:N	2.23	0.54
6:D:137:PRO:HD2	6:D:453:ASP:OD2	2.07	0.54
5:C:12:VAL:HG12	5:C:534:VAL:HG13	1.89	0.54
5:C:289:THR:O	5:C:291:ALA:N	2.40	0.54
6:D:204:LEU:HD12	6:D:396:VAL:HB	1.88	0.54
5:C:198:ARG:HH11	5:C:204:GLN:HG2	1.71	0.54
5:M:983:ILE:HG21	5:M:987:ILE:CD1	2.37	0.54
4:L:81:ASN:ND2	4:L:127:LEU:HD11	2.22	0.54
6:N:28:LYS:HB3	6:N:41:ARG:HD2	1.89	0.54
7:O:51:LEU:CD2	7:O:52:GLU:H	2.19	0.54
7:O:28:GLN:CB	7:O:32:ARG:HH22	2.21	0.54
5:M:598:GLU:HG3	5:M:623:TYR:OH	2.08	0.54
5:C:292:ARG:HD2	5:C:299:LYS:HE2	1.90	0.54
4:A:149:GLY:O	4:A:171:PHE:HB2	2.08	0.54
4:L:54:THR:HG22	4:L:158:ILE:HG13	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:971:LEU:HG	6:D:972:LEU:HD22	1.89	0.54
5:M:1008:ARG:NH1	5:M:1011:GLY:N	2.56	0.54
5:M:1060:ILE:HD12	5:M:1064:ASN:HD21	1.72	0.54
6:N:1192:LEU:HD21	6:N:1372:VAL:HG13	1.89	0.54
6:N:132:TYR:O	6:N:456:MET:HB3	2.06	0.54
6:D:622:ARG:HD2	11:D:8134:HOH:O	2.07	0.54
4:B:99:LEU:HD13	4:B:144:VAL:HG21	1.90	0.54
6:N:1255:GLY:O	6:N:1259:VAL:HG23	2.08	0.54
5:M:1085:PHE:HE2	6:N:1468:LEU:HG	1.72	0.54
5:C:897:LEU:O	5:C:899:GLN:HG2	2.08	0.54
5:M:554:ASP:HB3	5:M:880:MET:HB2	1.87	0.54
6:D:1485:GLN:NE2	7:E:79:LEU:N	2.55	0.54
6:D:38:LYS:HG2	6:D:39:PRO:CD	2.37	0.54
6:N:462:GLN:CB	6:N:513:ILE:HD13	2.37	0.54
11:N:9184:HOH:O	7:O:80:VAL:HG21	2.08	0.54
5:M:1067:TYR:CZ	5:M:1071:ILE:HD11	2.43	0.54
6:D:731:LEU:CD1	6:D:931:LEU:HB3	2.37	0.54
6:N:1054:GLU:HB3	11:N:9098:HOH:O	2.07	0.54
5:C:869:VAL:HA	11:C:1453:HOH:O	2.08	0.54
6:N:754:PHE:HE2	6:N:1476:THR:HG21	1.72	0.54
6:D:1373:ARG:HE	6:D:1374:GLN:HE21	1.56	0.54
5:M:332:ARG:HA	5:M:465:GLY:O	2.07	0.54
6:D:135:LEU:HD13	6:D:148:GLU:HB2	1.89	0.54
5:M:132:ALA:HB1	5:M:632:ASN:ND2	2.20	0.54
5:M:943:VAL:HG11	5:M:973:VAL:HG21	1.90	0.54
5:C:310:LEU:O	5:C:314:THR:HG23	2.07	0.54
5:C:182:VAL:HG21	5:C:220:GLY:C	2.28	0.54
6:D:394:LEU:H	6:D:394:LEU:HD23	1.73	0.54
5:C:479:VAL:HG23	11:C:1232:HOH:O	2.08	0.54
6:D:203:ALA:HB1	11:D:8118:HOH:O	2.06	0.54
5:C:806:LEU:CD1	5:C:813:VAL:HG21	2.37	0.54
5:M:164:PRO:HB2	11:M:1226:HOH:O	2.07	0.54
5:C:607:ASP:HB3	5:C:610:ARG:H	1.71	0.54
5:M:89:THR:HG21	5:M:383:ARG:NH2	2.23	0.54
4:L:92:PRO:HA	4:L:146:ARG:NH1	2.23	0.54
6:N:141:ILE:H	6:N:141:ILE:HD12	1.73	0.54
5:C:16:PRO:HD2	5:C:458:TYR:HA	1.89	0.54
6:D:989:TYR:O	6:D:993:LEU:HG	2.08	0.54
4:B:33:GLY:O	4:B:195:LEU:HD13	2.08	0.54
5:C:861:LEU:HD12	5:C:865:THR:HG23	1.88	0.54
5:C:577:PRO:HA	5:C:671:ASN:HD21	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:461:VAL:HA	11:M:1287:HOH:O	2.07	0.54
7:O:41:GLU:HG2	7:O:42:PRO:CD	2.37	0.54
5:M:304:LEU:CD2	5:M:305:PRO:HD3	2.29	0.54
6:D:133:ILE:CG2	6:D:454:ALA:HB1	2.37	0.54
5:M:837:ASP:O	5:M:848:VAL:HG13	2.06	0.54
6:D:685:ASP:HA	6:D:688:TRP:NE1	2.22	0.54
5:M:248:PRO:HA	11:M:1493:HOH:O	2.07	0.54
6:D:62:LYS:HD2	6:D:75:ARG:HD2	1.90	0.54
6:N:1246:VAL:HB	11:N:9392:HOH:O	2.07	0.54
4:A:6:LEU:HD11	11:A:387:HOH:O	2.07	0.54
4:A:115:LEU:HD22	11:A:317:HOH:O	2.07	0.54
6:N:90:MET:HE1	6:N:518:PRO:HB2	1.89	0.54
5:C:833:LEU:HD11	5:C:839:LEU:HD21	1.89	0.54
5:C:668:LEU:O	5:C:995:MET:HB3	2.08	0.54
5:C:1017:THR:HB	6:D:613:ARG:NH2	2.22	0.54
6:D:470:LEU:H	6:D:470:LEU:HD23	1.73	0.54
5:M:1097:LEU:HD22	5:M:1097:LEU:N	2.13	0.54
6:D:165:LYS:HA	6:D:199:LEU:CD1	2.38	0.54
6:D:708:LEU:HB3	6:D:1231:GLU:CB	2.35	0.54
5:C:496:ILE:HD12	5:C:496:ILE:N	2.23	0.54
6:D:111:LYS:HG2	6:D:1452:ILE:HD11	1.90	0.54
7:E:47:LYS:HA	7:E:54:LEU:HB3	1.88	0.54
4:L:159:LYS:HB2	11:L:316:HOH:O	2.08	0.54
6:N:583:ASP:OD1	6:N:586:ARG:HG3	2.07	0.54
4:A:24:VAL:HG13	4:A:196:THR:HG22	1.89	0.54
4:K:14:ARG:HH22	4:K:24:VAL:HG23	1.73	0.54
11:B:382:HOH:O	6:D:685:ASP:HB3	2.08	0.54
6:D:926:LYS:HA	6:D:929:ARG:HD2	1.88	0.54
4:A:101:LEU:HB3	4:A:114:PHE:CD2	2.43	0.54
6:D:1209:LEU:HD21	7:E:16:LYS:HZ1	1.73	0.54
6:D:799:LYS:O	6:D:829:VAL:HG22	2.08	0.54
5:C:100:LEU:HD22	5:C:372:LEU:CD2	2.38	0.54
5:C:1101:THR:OG1	5:C:1109:VAL:HB	2.08	0.54
6:N:776:GLU:HB3	6:N:912:LYS:HE2	1.90	0.54
5:C:397:GLU:OE1	5:C:631:SER:HB2	2.08	0.54
6:D:471:GLU:O	6:D:474:GLU:HB3	2.08	0.54
5:M:620:LEU:H	5:M:620:LEU:HD12	1.72	0.54
5:C:684:PHE:N	5:C:687:ALA:HB3	2.19	0.54
6:N:996:TRP:HB2	11:N:9079:HOH:O	2.07	0.54
6:N:131:LYS:HZ3	6:N:568:ARG:HB2	1.72	0.54
5:M:1095:LEU:HB2	5:M:1097:LEU:HD23	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:B:374:HOH:O	6:D:851:LEU:HD11	2.07	0.54
6:N:436:GLU:HB2	6:N:445:ARG:HG3	1.89	0.54
4:L:137:ARG:HD3	4:L:137:ARG:C	2.28	0.54
4:L:5:LYS:O	4:L:8:ALA:HB2	2.07	0.54
5:M:468:ARG:HE	5:M:487:THR:CA	2.21	0.54
6:D:1003:VAL:HG11	6:D:1041:LEU:HD23	1.90	0.54
6:D:964:LEU:HD21	6:D:1058:ARG:NE	2.22	0.54
6:N:868:TYR:HB2	6:N:873:LEU:HD12	1.89	0.54
4:A:91:ASN:ND2	4:A:93:SER:H	2.06	0.54
4:A:42:ARG:HH12	4:B:34:VAL:HG11	1.72	0.54
5:M:225:SER:HB2	11:M:1245:HOH:O	2.08	0.54
6:D:565:ILE:HB	6:D:566:ILE:HD12	1.90	0.54
6:N:177:ALA:HB3	6:N:205:TYR:OH	2.08	0.54
6:D:754:PHE:CG	7:E:24:ALA:HB1	2.43	0.53
6:D:127:LEU:HD22	6:D:460:ALA:HB3	1.90	0.53
4:A:22:GLU:OE2	4:A:198:ARG:HB3	2.08	0.53
6:N:478:LEU:O	6:N:1388:ARG:NH2	2.42	0.53
6:D:53:ILE:HA	6:D:86:ARG:NE	2.23	0.53
5:C:911:GLU:HB3	5:C:912:PRO:HD3	1.90	0.53
5:M:510:ALA:HB3	5:M:513:VAL:CG2	2.37	0.53
6:N:1462:LEU:O	6:N:1466:VAL:HG23	2.08	0.53
6:D:600:LEU:HD12	6:D:600:LEU:H	1.72	0.53
6:D:32:ILE:HB	6:D:527:MET:HE3	1.90	0.53
6:N:1122:LEU:HB3	11:N:9164:HOH:O	2.09	0.53
5:C:758:ARG:HH22	5:C:788:THR:HB	1.73	0.53
5:C:497:ALA:HA	5:C:515:ALA:HA	1.90	0.53
5:M:57:GLU:O	5:M:62:GLY:HA3	2.07	0.53
2:H:13:C:C4'	5:C:409:ARG:HH22	2.13	0.53
6:N:1168:MET:CE	6:N:1171:VAL:HB	2.37	0.53
6:N:1191:PRO:HG2	6:N:1370:ILE:CD1	2.38	0.53
6:N:875:THR:HB	6:N:880:ILE:HD11	1.90	0.53
5:C:157:ARG:NH1	5:C:217:LEU:HD22	2.23	0.53
5:C:285:LEU:HD12	5:C:288:ARG:O	2.07	0.53
6:N:168:THR:CG2	6:N:206:ARG:HH12	2.21	0.53
5:M:34:VAL:HB	5:M:38:LYS:CG	2.38	0.53
6:D:22:SER:CB	6:D:92:HIS:HB3	2.37	0.53
5:M:259:GLY:HA3	11:M:1270:HOH:O	2.08	0.53
4:K:72:LYS:HD2	5:M:606:VAL:HG11	1.90	0.53
6:N:462:GLN:HA	6:N:513:ILE:HD13	1.89	0.53
3:Z:10:DA:H5"	6:N:121:THR:HG21	1.89	0.53
6:N:1262:LEU:HD21	6:N:1351:GLU:HG3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:11:DC:H5	11:I:331:HOH:O	1.91	0.53
4:L:73:GLU:HB3	4:L:77:GLU:CG	2.38	0.53
6:N:619:LEU:HD23	6:N:619:LEU:N	2.23	0.53
5:C:438:ILE:HG23	5:C:453:THR:OG1	2.08	0.53
6:N:1114:THR:CG2	6:N:1195:GLN:HB3	2.38	0.53
5:C:577:PRO:HG3	5:C:993:PHE:CE1	2.42	0.53
5:C:1049:LEU:CD1	5:C:1053:LEU:HD11	2.39	0.53
5:C:1054:THR:HG22	5:C:1082:PRO:HG3	1.89	0.53
4:L:94:LEU:HD11	4:L:119:ASP:HB3	1.91	0.53
6:N:394:LEU:HG	6:N:396:VAL:CG2	2.38	0.53
1:G:17:DC:H2''	1:G:18:DG:C5'	2.36	0.53
6:D:1184:GLN:HB2	6:N:559:ALA:HA	1.90	0.53
6:D:126:VAL:HG21	11:D:8125:HOH:O	2.07	0.53
6:N:817:GLU:O	6:N:821:VAL:HG23	2.08	0.53
5:C:134:ARG:HE	5:C:392:SER:HB3	1.72	0.53
6:D:1063:GLU:HG3	6:D:1064:GLY:N	2.24	0.53
5:C:1105:LYS:HZ2	5:C:1107:ASN:HD22	1.55	0.53
6:D:955:VAL:HG11	6:D:1015:TYR:CE2	2.42	0.53
5:C:136:ILE:HG22	5:C:336:VAL:HG22	1.88	0.53
6:N:473:LEU:O	6:N:477:LEU:HG	2.08	0.53
4:L:201:THR:HG21	4:L:205:VAL:HG23	1.90	0.53
4:K:171:PHE:O	4:K:173:PRO:HD3	2.08	0.53
5:M:512:ARG:HD3	5:M:523:ILE:HD11	1.90	0.53
7:O:91:ARG:HG2	11:O:2238:HOH:O	2.08	0.53
5:C:462:ASP:OD1	5:C:462:ASP:N	2.41	0.53
6:N:95:LEU:HD13	6:N:515:GLU:C	2.28	0.53
6:D:781:PRO:O	6:D:786:ILE:HD11	2.07	0.53
6:N:878:GLY:HA2	6:N:881:LEU:HD23	1.90	0.53
5:M:205:GLU:HB2	11:M:1398:HOH:O	2.07	0.53
5:C:274:ARG:HB2	5:C:285:LEU:CD1	2.38	0.53
4:B:5:LYS:O	4:B:8:ALA:HB2	2.08	0.53
6:D:957:PRO:HG2	6:D:1007:VAL:HA	1.89	0.53
6:D:1010:ASN:ND2	11:D:8083:HOH:O	2.41	0.53
5:M:344:PHE:HE2	5:M:378:LEU:HD21	1.74	0.53
6:N:1078:ARG:HH11	6:N:1078:ARG:HG3	1.72	0.53
5:M:1045:ALA:HB1	5:M:1048:THR:HB	1.90	0.53
5:M:334:ARG:O	5:M:339:LEU:HD11	2.09	0.53
5:M:642:ARG:HD2	11:M:1230:HOH:O	2.08	0.53
4:A:62:LEU:HD13	11:A:334:HOH:O	2.08	0.53
5:M:1019:GLN:HG2	5:M:1058:ASP:OD1	2.08	0.53
6:N:1148:VAL:HG13	6:N:1163:GLY:HA2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:872:ASN:ND2	5:C:874:LEU:H	2.06	0.53
6:D:758:GLU:O	6:D:762:GLN:HG2	2.08	0.53
5:M:140:ILE:HD11	5:M:412:ALA:HB2	1.91	0.53
1:X:17:DC:H4'	6:N:628:ARG:CD	2.38	0.53
5:C:309:TYR:HA	5:C:312:ALA:HB3	1.90	0.53
4:L:58:ILE:HB	4:L:61:VAL:CG1	2.39	0.53
6:D:152:LEU:HD11	11:D:8125:HOH:O	2.09	0.53
6:D:1376:MET:HE1	6:D:1421:LEU:HD22	1.90	0.53
4:L:121:GLU:OE2	4:L:123:MET:HG2	2.09	0.53
6:N:1231:GLU:HB3	6:N:1232:PRO:CD	2.38	0.53
6:D:191:LEU:HD11	6:D:395:VAL:CG2	2.38	0.53
6:N:886:VAL:HG13	6:N:930:LEU:HD11	1.89	0.53
6:N:814:ALA:HB1	6:N:818:ARG:NH2	2.24	0.53
6:N:800:LYS:HZ1	6:N:804:LEU:HD22	1.73	0.53
6:N:769:LEU:HD11	6:N:919:PHE:CZ	2.43	0.53
5:C:905:ILE:HG22	5:C:906:PHE:N	2.23	0.53
4:A:159:LYS:HZ1	4:A:166:PRO:HD3	1.72	0.53
4:A:102:LYS:NZ	4:A:139:ASN:HD21	2.06	0.53
4:K:57:TYR:CZ	4:K:59:GLU:HA	2.43	0.53
4:B:159:LYS:N	4:B:159:LYS:HD3	2.24	0.53
5:M:224:GLU:HB2	5:M:227:PHE:CD1	2.44	0.53
4:K:20:TYR:HD2	4:K:21:GLY:N	2.07	0.53
4:K:9:PRO:HB3	4:K:25:LEU:CG	2.38	0.53
4:A:175:ARG:CZ	4:A:176:ARG:HD3	2.37	0.53
4:K:176:ARG:HG3	4:K:200:TRP:CE3	2.44	0.53
5:C:167:LYS:HE3	11:C:1598:HOH:O	2.08	0.53
6:D:643:GLY:O	6:D:726:ILE:HG23	2.08	0.53
6:N:1112:CYS:SG	6:N:1195:GLN:HG2	2.49	0.53
5:M:532:MET:HG2	5:M:533:ASP:O	2.08	0.53
6:N:700:VAL:HG22	6:N:718:PRO:HG3	1.91	0.53
6:N:996:TRP:CA	6:N:999:THR:HG22	2.29	0.53
6:D:806:PHE:HE1	6:D:813:LEU:HD23	1.72	0.53
4:K:20:TYR:HD2	4:K:21:GLY:H	1.55	0.53
5:C:1006:HIS:HA	5:C:1027:PHE:CD1	2.43	0.53
6:D:864:VAL:HG12	6:D:865:THR:H	1.74	0.53
11:K:1782:HOH:O	5:M:640:ARG:HG2	2.08	0.53
1:X:22:DC:H4'	5:M:388:ARG:HG3	1.90	0.53
5:C:326:ASP:CB	5:C:431:HIS:HB2	2.37	0.53
5:C:329:GLY:HA3	5:C:489:THR:HG23	1.89	0.53
4:L:33:GLY:O	4:L:195:LEU:HD22	2.09	0.53
6:D:1221:VAL:HG12	6:D:1222:GLY:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:25:LYS:HA	7:E:28:GLN:HE21	1.74	0.53
4:B:99:LEU:HD13	4:B:144:VAL:CG2	2.39	0.53
5:C:218:VAL:HG23	5:C:311:PHE:HE1	1.72	0.53
6:D:132:TYR:C	6:D:133:ILE:HD13	2.29	0.53
5:M:463:GLU:HB3	11:M:1525:HOH:O	2.09	0.53
6:D:1041:LEU:HD12	6:D:1058:ARG:HA	1.90	0.53
6:D:960:LYS:HE2	6:D:1041:LEU:HD22	1.91	0.53
5:M:515:ALA:HB3	5:M:524:VAL:CG2	2.39	0.53
6:N:679:ARG:HB2	6:N:682:ASP:CG	2.29	0.53
5:C:257:VAL:HG21	11:C:1481:HOH:O	2.08	0.53
2:Y:7:G:O6	5:M:1015:LEU:HB2	2.09	0.53
5:C:217:LEU:HD23	5:C:217:LEU:N	2.24	0.53
6:N:1271:LYS:HZ1	6:N:1331:ASP:HB2	1.72	0.53
7:E:18:ARG:HD3	11:E:116:HOH:O	2.09	0.53
5:M:769:PRO:HG2	6:N:65:ARG:HD3	1.90	0.53
6:D:592:THR:H	6:D:600:LEU:HD11	1.74	0.53
6:D:995:LEU:HD11	11:D:8411:HOH:O	2.08	0.53
6:D:43:GLY:N	11:D:8160:HOH:O	2.41	0.53
4:B:50:GLY:HA3	4:B:171:PHE:O	2.08	0.53
5:C:881:ASN:HD22	5:C:881:ASN:H	1.55	0.53
5:C:679:PHE:C	6:D:943:THR:HG22	2.29	0.53
6:D:161:LEU:HD22	6:D:452:ILE:HD13	1.91	0.53
5:C:305:PRO:HA	5:C:308:ARG:HB3	1.90	0.53
6:D:181:ASP:O	6:D:204:LEU:HA	2.08	0.53
6:N:1128:VAL:O	6:N:1129:THR:C	2.47	0.53
5:C:545:ASN:OD1	5:C:583:LEU:HD13	2.08	0.53
6:D:1435:LEU:HD23	6:D:1467:ILE:HD12	1.91	0.53
7:O:73:LEU:HD12	7:O:73:LEU:N	2.24	0.53
5:M:549:PHE:CG	5:M:886:LEU:HD23	2.43	0.53
4:K:218:LEU:HG	11:K:1711:HOH:O	2.09	0.53
6:D:1258:ARG:HG2	11:D:8324:HOH:O	2.09	0.53
4:K:47:SER:HB3	4:K:217:ILE:HD13	1.90	0.53
5:M:142:ARG:HA	5:M:330:ASN:O	2.09	0.53
6:N:1200:VAL:HG22	6:N:1373:ARG:HH12	1.73	0.53
6:N:808:THR:OG1	6:N:809:PRO:HD3	2.09	0.53
5:M:644:VAL:HG22	5:M:647:GLN:OE1	2.08	0.53
1:X:12:DG:H2''	1:X:13:DT:H5'	1.90	0.53
5:M:1101:THR:OG1	5:M:1109:VAL:HB	2.08	0.53
5:M:1101:THR:HG21	5:M:1111:ILE:CG2	2.38	0.53
5:C:442:GLU:HA	11:C:1416:HOH:O	2.08	0.53
6:D:1037:GLN:OE1	6:D:1042:ARG:HD3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:695:ILE:HG21	6:D:720:LEU:HD11	1.89	0.53
6:D:1441:GLN:NE2	6:D:1442:ASN:HB2	2.25	0.53
5:M:264:PRO:HB3	5:M:289:THR:CB	2.38	0.53
5:M:264:PRO:HB3	5:M:289:THR:HB	1.90	0.53
5:M:394:PHE:HD1	5:M:633:GLN:HE22	1.56	0.53
6:N:792:ILE:HG13	6:N:881:LEU:HD21	1.91	0.53
6:N:1086:LEU:HB2	6:N:1087:ARG:NH1	2.23	0.53
5:C:195:LEU:HG	5:C:238:LEU:CD1	2.38	0.53
6:N:482:LYS:HB2	6:N:1388:ARG:HH21	1.73	0.53
5:M:759:THR:HB	5:M:785:VAL:HG13	1.90	0.53
4:L:10:VAL:HG23	4:L:26:GLU:O	2.09	0.53
5:C:957:LYS:HD3	5:C:961:GLU:OE1	2.09	0.53
5:M:172:ILE:H	5:M:172:ILE:HD12	1.73	0.53
4:B:206:THR:CG2	4:B:209:GLU:H	2.20	0.53
5:C:798:GLY:HA3	5:C:828:ALA:O	2.09	0.53
4:K:49:PRO:HG3	11:K:867:HOH:O	2.09	0.53
6:D:827:ILE:O	6:D:837:GLY:HA3	2.09	0.53
6:D:971:LEU:HG	6:D:972:LEU:N	2.22	0.53
6:D:1176:LYS:HA	6:D:1179:GLU:OE1	2.09	0.53
4:K:100:LEU:HG	4:K:101:LEU:N	2.22	0.53
5:M:1008:ARG:HB2	5:M:1027:PHE:HB2	1.91	0.52
11:Z:1999:HOH:O	6:N:1426:LYS:HG3	2.08	0.52
6:N:705:ALA:CB	6:N:706:PRO:HD3	2.39	0.52
5:C:443:THR:HA	5:C:452:ILE:O	2.09	0.52
4:L:37:GLY:HA3	4:L:179:PHE:CD1	2.45	0.52
6:D:1465:ASN:ND2	6:D:1470:ARG:HE	2.05	0.52
5:C:1031:ARG:HH21	6:D:621:LYS:HG3	1.73	0.52
6:N:166:GLN:HG2	6:N:396:VAL:HG13	1.91	0.52
5:M:953:VAL:HG22	5:M:966:LEU:HD11	1.90	0.52
6:N:496:LEU:CD1	6:N:500:ARG:HG2	2.39	0.52
5:M:949:LYS:HD3	6:N:796:ARG:HH22	1.74	0.52
5:M:821:GLU:HB3	11:M:1453:HOH:O	2.08	0.52
6:N:882:PHE:O	6:N:886:VAL:HG23	2.08	0.52
5:C:1:MET:HG2	5:C:900:ARG:NH2	2.23	0.52
4:B:28:LEU:HG	4:B:193:ASP:O	2.08	0.52
5:M:367:LEU:HB3	5:M:371:LYS:HG2	1.90	0.52
5:M:69:LEU:HB2	5:M:97:ARG:HB2	1.91	0.52
1:G:20:DG:H4'	5:C:394:PHE:CZ	2.44	0.52
6:N:1503:VAL:HG21	11:N:9060:HOH:O	2.07	0.52
6:N:1058:ARG:HG2	11:N:9214:HOH:O	2.08	0.52
4:A:186:LEU:HB3	4:A:192:LEU:CD1	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1269:LYS:HB3	6:D:1269:LYS:NZ	2.24	0.52
7:E:32:ARG:HB2	7:E:32:ARG:HH11	1.74	0.52
5:M:260:LEU:CB	5:M:291:ALA:HB1	2.36	0.52
6:N:520:LEU:HG	6:N:521:PRO:N	2.24	0.52
5:M:305:PRO:HA	5:M:308:ARG:HB3	1.91	0.52
5:C:143:SER:HB2	5:C:276:LYS:NZ	2.24	0.52
5:C:260:LEU:HG	5:C:261:ILE:HG13	1.91	0.52
6:N:204:LEU:HD13	6:N:445:ARG:HE	1.72	0.52
5:M:456:ALA:HB1	5:M:538:GLN:O	2.09	0.52
6:N:1236:LEU:HD11	6:N:1361:VAL:HG23	1.90	0.52
4:K:70:GLY:H	5:M:607:ASP:CG	2.12	0.52
6:D:610:LYS:HA	6:D:615:ARG:CD	2.39	0.52
6:N:1053:PHE:CE1	6:N:1072:ILE:HD12	2.44	0.52
5:C:1105:LYS:O	5:C:1107:ASN:N	2.42	0.52
5:M:134:ARG:HH11	5:M:392:SER:HB3	1.74	0.52
5:M:89:THR:HA	5:M:129:ILE:O	2.08	0.52
5:C:251:ASP:HB3	5:C:252:LYS:HD2	1.91	0.52
4:L:43:ILE:HG21	4:L:214:ALA:HA	1.91	0.52
5:M:74:GLY:O	5:M:76:PRO:HD3	2.09	0.52
2:H:8:C:H6	2:H:8:C:O5'	1.92	0.52
6:N:899:LEU:HD12	6:N:900:ILE:HG23	1.91	0.52
6:N:789:LEU:O	6:N:793:THR:HG23	2.08	0.52
4:K:180:GLN:HA	5:M:937:ASP:OD1	2.08	0.52
5:M:1092:LEU:HA	5:M:1095:LEU:CD1	2.39	0.52
5:M:218:VAL:HG22	5:M:221:LEU:CD2	2.39	0.52
6:D:1081:GLY:HA2	6:D:1241:PHE:CD1	2.45	0.52
6:N:496:LEU:O	6:N:496:LEU:HD12	2.09	0.52
6:D:426:LYS:CE	6:D:427:VAL:HG23	2.40	0.52
5:M:432:ARG:NH2	6:N:1047:LYS:HD3	2.22	0.52
7:O:80:VAL:HG13	11:O:1385:HOH:O	2.09	0.52
6:D:975:GLU:HA	6:D:975:GLU:OE1	2.08	0.52
4:L:7:LYS:HE3	4:L:186:LEU:HD13	1.90	0.52
4:K:163:ASN:HA	11:K:2179:HOH:O	2.10	0.52
6:N:104:PHE:HD1	6:N:512:MET:HG2	1.74	0.52
2:Y:7:G:H22	5:M:1014:SER:CA	2.23	0.52
5:M:1105:LYS:O	5:M:1107:ASN:N	2.42	0.52
5:M:850:ALA:HA	6:N:632:VAL:HG11	1.92	0.52
6:N:644:LEU:HD12	6:N:645:PRO:HD2	1.91	0.52
5:M:860:HIS:CE1	5:M:975:TYR:HB2	2.45	0.52
5:C:110:GLU:HG3	5:C:369:PRO:HB3	1.92	0.52
5:M:1001:VAL:HG22	11:M:1555:HOH:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1248:GLY:HA2	6:D:1251:ASP:OD2	2.09	0.52
5:C:487:THR:HB	5:C:490:GLU:HG3	1.90	0.52
6:D:202:VAL:HG11	6:D:400:VAL:HG12	1.91	0.52
6:D:434:ARG:HB2	6:D:447:VAL:CG2	2.40	0.52
6:N:1121:PRO:CD	6:N:1346:ARG:HE	2.22	0.52
6:D:628:ARG:HB2	11:D:8067:HOH:O	2.08	0.52
5:M:690:ILE:HD11	5:M:833:LEU:HD23	1.91	0.52
5:M:674:VAL:HG23	5:M:869:VAL:HG13	1.92	0.52
6:N:119:SER:CB	6:N:123:LEU:HB2	2.38	0.52
5:M:807:ARG:N	5:M:807:ARG:HE	2.05	0.52
5:C:1105:LYS:HD2	5:C:1107:ASN:ND2	2.25	0.52
4:B:43:ILE:HG23	4:B:47:SER:CB	2.40	0.52
5:C:290:LEU:HB3	5:C:302:VAL:CG1	2.39	0.52
6:N:584:ASN:HD22	6:N:585:GLY:N	2.08	0.52
4:L:43:ILE:HG23	4:L:47:SER:CB	2.39	0.52
4:B:12:THR:OG1	4:B:24:VAL:HB	2.10	0.52
6:N:192:ALA:HB1	6:N:193:PRO:HD2	1.92	0.52
6:D:557:LEU:HD11	11:D:8469:HOH:O	2.08	0.52
6:D:64:LYS:HD2	11:D:8441:HOH:O	2.09	0.52
5:C:230:ARG:HG2	5:C:230:ARG:HH11	1.73	0.52
6:N:1118:ILE:HD12	11:N:9016:HOH:O	2.09	0.52
1:X:13:DT:OP1	6:N:1093:TYR:HE2	1.93	0.52
5:C:327:HIS:HA	5:C:431:HIS:CD2	2.44	0.52
5:C:538:GLN:HG3	5:C:539:VAL:N	2.24	0.52
5:C:559:LEU:HD23	5:C:563:ASN:OD1	2.10	0.52
6:N:1165:TYR:OH	6:N:1202:GLN:HG2	2.09	0.52
5:M:684:PHE:N	5:M:687:ALA:HB3	2.21	0.52
6:N:787:LEU:CD1	6:N:1023:MET:HA	2.39	0.52
6:D:1112:CYS:CB	6:D:1195:GLN:HG2	2.29	0.52
5:M:328:LEU:HD13	5:M:433:THR:HB	1.90	0.52
6:D:95:LEU:HB3	6:D:515:GLU:O	2.09	0.52
6:N:568:ARG:O	6:N:572:ARG:HG3	2.08	0.52
5:C:173:ASP:O	5:C:184:MET:HA	2.09	0.52
6:D:1232:PRO:HA	6:D:1235:GLN:OE1	2.10	0.52
5:M:839:LEU:HD23	5:M:996:LYS:HA	1.92	0.52
6:D:1184:GLN:HB2	6:N:559:ALA:CB	2.39	0.52
5:M:5:ARG:HE	5:M:8:ARG:NH2	2.02	0.52
5:M:470:PRO:HB2	5:M:534:VAL:HG21	1.92	0.52
6:D:52:PRO:CG	6:D:80:VAL:HG13	2.39	0.52
6:N:109:PRO:HB3	6:N:494:LYS:NZ	2.25	0.52
4:L:27:PRO:HB3	4:L:192:LEU:HD22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:816:LYS:HZ3	5:C:816:LYS:H	1.57	0.52
6:D:1118:ILE:HD11	11:D:8142:HOH:O	2.09	0.52
6:N:832:ARG:HB3	6:N:833:GLU:OE1	2.09	0.52
6:N:654:LYS:HB3	6:N:655:PRO:HD3	1.91	0.52
6:D:600:LEU:N	6:D:600:LEU:HD12	2.25	0.52
5:M:1071:ILE:O	6:N:659:LYS:HD3	2.09	0.52
6:D:820:GLU:HB2	6:D:836:VAL:HG11	1.92	0.52
6:D:989:TYR:CE1	6:D:993:LEU:HD21	2.44	0.52
6:N:44:LEU:H	6:N:44:LEU:HD12	1.75	0.52
5:C:1062:GLY:HA2	11:C:1284:HOH:O	2.10	0.52
4:A:190:THR:HA	11:A:369:HOH:O	2.08	0.52
5:M:754:ILE:HG12	5:M:791:ARG:NH1	2.25	0.52
5:M:516:ARG:NH2	6:N:1068:LEU:HB3	2.25	0.52
6:N:1045:MET:HE2	6:N:1073:SER:CB	2.35	0.52
6:D:142:LEU:CD2	6:D:146:PRO:HA	2.40	0.52
5:M:218:VAL:O	5:M:221:LEU:HG	2.10	0.52
5:C:258:TYR:HB3	11:C:1335:HOH:O	2.08	0.52
5:M:5:ARG:CZ	5:M:8:ARG:HH12	2.22	0.52
6:D:834:THR:HA	6:D:838:ARG:NH1	2.24	0.52
6:N:1034:GLN:NE2	6:N:1243:THR:HB	2.25	0.52
5:M:971:LYS:HG2	5:M:988:VAL:CB	2.40	0.52
6:N:1440:PHE:O	6:N:1441:GLN:O	2.28	0.52
6:D:660:LYS:HD2	6:D:694:VAL:CG2	2.40	0.52
7:E:45:ARG:HG2	11:E:129:HOH:O	2.09	0.52
5:M:1009:SER:OG	6:N:654:LYS:HD2	2.09	0.52
5:M:18:LEU:HD22	5:M:404:LEU:HD21	1.91	0.52
7:O:36:LYS:HA	7:O:36:LYS:HE2	1.90	0.52
4:K:64:GLU:HA	4:K:165:ILE:HD13	1.91	0.52
4:L:109:VAL:O	4:L:129:ILE:HG12	2.09	0.52
5:M:1008:ARG:HH12	5:M:1011:GLY:H	1.58	0.52
5:M:1019:GLN:HE22	6:N:616:GLN:HE22	1.58	0.52
1:X:12:DG:H2''	1:X:13:DT:C5'	2.40	0.52
5:C:39:ARG:H	5:C:39:ARG:CD	2.03	0.52
6:N:1492:LEU:HD12	6:N:1493:LYS:HZ1	1.73	0.52
5:C:13:ILE:HD11	5:C:483:VAL:HG21	1.92	0.52
6:D:82:LYS:HD2	11:D:8499:HOH:O	2.08	0.52
7:E:48:MET:CB	7:E:54:LEU:HB2	2.39	0.52
5:M:589:ARG:HH11	5:M:589:ARG:HB2	1.73	0.52
5:C:9:ILE:HD12	5:C:9:ILE:H	1.75	0.52
5:M:757:GLY:HA2	5:M:789:SER:OG	2.10	0.52
6:D:615:ARG:HH22	6:D:1096:ARG:CD	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:206:THR:HG23	4:L:208:LEU:H	1.73	0.52
4:K:8:ALA:HB1	4:L:224:TYR:CE1	2.45	0.52
6:D:1498:ALA:HB1	7:E:84:ARG:NH2	2.25	0.52
4:A:14:ARG:HH22	4:A:24:VAL:CG2	2.23	0.52
5:C:22:GLN:C	5:C:121:MET:HE1	2.30	0.52
4:K:73:GLU:CD	4:K:130:ALA:HA	2.30	0.52
6:N:610:LYS:HG3	11:N:9272:HOH:O	2.09	0.52
6:N:619:LEU:HD12	6:N:621:LYS:NZ	2.25	0.52
5:C:859:PRO:O	5:C:867:VAL:HG22	2.09	0.52
5:C:983:ILE:HB	11:C:1149:HOH:O	2.10	0.52
5:C:564:MET:SD	5:C:995:MET:HG3	2.50	0.52
5:M:157:ARG:HG2	11:M:1381:HOH:O	2.09	0.52
4:A:178:ALA:HB3	4:A:198:ARG:CG	2.37	0.52
5:C:748:GLU:CB	5:C:799:ILE:HD12	2.39	0.52
5:M:1032:PHE:HZ	5:M:1040:LEU:HD13	1.74	0.52
4:A:222:LEU:HD13	4:B:218:LEU:HD23	1.90	0.52
6:N:756:GLN:NE2	6:N:760:ARG:HD2	2.24	0.52
6:D:684:LYS:HD3	6:D:686:GLU:OE1	2.10	0.52
5:C:65:VAL:CG2	5:C:101:ILE:HB	2.40	0.52
5:M:91:GLN:NE2	5:M:383:ARG:NH2	2.57	0.52
5:M:352:ALA:HA	5:M:355:VAL:CG1	2.39	0.52
6:N:452:ILE:HG22	11:N:9064:HOH:O	2.10	0.52
6:N:141:ILE:HD12	6:N:141:ILE:N	2.25	0.52
5:C:996:LYS:HE3	11:C:1151:HOH:O	2.10	0.52
7:O:54:LEU:HA	7:O:58:PRO:CG	2.39	0.52
5:M:212:GLY:HA3	5:M:218:VAL:HG21	1.91	0.52
6:N:204:LEU:HD12	6:N:396:VAL:CG2	2.40	0.52
5:M:565:GLN:OE1	5:M:842:ARG:HG2	2.10	0.52
6:D:651:GLU:HA	6:D:654:LYS:HZ2	1.73	0.52
4:K:156:HIS:CD2	4:K:157:GLY:N	2.77	0.52
5:C:774:LEU:HD23	5:C:775:ARG:N	2.25	0.52
6:D:543:LEU:O	6:D:546:ARG:HB2	2.10	0.52
5:C:102:HIS:HB2	5:C:106:GLY:O	2.10	0.52
6:N:656:PHE:HB3	6:N:694:VAL:HG11	1.92	0.52
6:D:731:LEU:HD13	6:D:931:LEU:HB3	1.91	0.52
6:N:1270:ALA:O	6:N:1329:ALA:HB3	2.09	0.52
4:L:216:GLU:HG3	4:L:220:GLU:OE1	2.10	0.52
6:N:616:GLN:NE2	11:N:9292:HOH:O	2.43	0.52
5:M:1094:ALA:HA	6:N:90:MET:CE	2.39	0.52
6:N:642:CYS:SG	6:N:716:PHE:HB2	2.50	0.52
5:C:1018:GLN:C	5:C:1019:GLN:HE21	2.14	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:124:ASN:N	4:B:125:PRO:HD3	2.23	0.52
6:D:525:ARG:HB2	6:D:538:SER:CB	2.40	0.52
5:C:1037:VAL:HG12	5:C:1041:GLU:OE2	2.10	0.52
7:O:67:GLU:HB3	7:O:73:LEU:HD11	1.91	0.52
6:N:1403:LEU:O	6:N:1407:LEU:HD13	2.10	0.52
6:N:1440:PHE:CG	6:N:1441:GLN:N	2.78	0.52
6:D:399:ARG:HD3	6:D:430:ASP:OD2	2.09	0.52
4:K:1:MET:O	4:K:6:LEU:HD22	2.10	0.52
5:C:20:GLU:OE2	5:C:460:ARG:NH1	2.42	0.52
6:D:1267:ARG:NH1	6:D:1267:ARG:HB2	2.24	0.52
6:D:820:GLU:HA	6:D:825:ALA:O	2.10	0.52
5:M:353:ARG:HA	11:M:1274:HOH:O	2.09	0.52
5:M:1109:VAL:HA	6:N:3:LYS:HE3	1.92	0.51
6:N:95:LEU:H	6:N:95:LEU:CD1	2.20	0.51
6:N:632:VAL:HG23	6:N:725:SER:HB2	1.92	0.51
5:M:557:ARG:NH1	5:M:879:ARG:HD3	2.25	0.51
6:N:396:VAL:CG1	6:N:447:VAL:HA	2.41	0.51
6:D:206:ARG:CG	6:D:394:LEU:HD22	2.33	0.51
6:D:396:VAL:CG1	6:D:447:VAL:HA	2.36	0.51
4:A:67:THR:CG2	5:C:609:ASN:HD21	2.23	0.51
6:N:960:LYS:HZ1	6:N:1041:LEU:HD13	1.75	0.51
5:M:576:ALA:HB3	5:M:900:ARG:HH11	1.75	0.51
4:A:9:PRO:HD2	4:B:224:TYR:CE1	2.45	0.51
6:N:461:ILE:O	6:N:465:LEU:HB2	2.09	0.51
5:C:286:SER:HB3	5:C:299:LYS:HE3	1.92	0.51
6:N:1020:LEU:HD21	6:N:1035:ILE:CG2	2.40	0.51
4:A:163:ASN:HD21	5:C:744:ARG:NH2	2.08	0.51
6:N:709:HIS:CD2	6:N:709:HIS:H	2.28	0.51
5:C:843:HIS:CB	5:C:884:GLN:HG2	2.40	0.51
6:N:754:PHE:O	6:N:758:GLU:HG2	2.10	0.51
5:M:557:ARG:HD3	5:M:560:MET:SD	2.50	0.51
6:D:1098:LEU:CD2	6:D:1226:ALA:HA	2.38	0.51
5:M:139:GLN:NE2	5:M:418:LEU:HD22	2.25	0.51
5:M:110:GLU:HG3	5:M:369:PRO:CB	2.29	0.51
6:N:50:PHE:CB	6:N:522:PRO:HG3	2.40	0.51
6:N:52:PRO:CG	6:N:80:VAL:HG13	2.39	0.51
4:K:41:ARG:O	4:K:45:LEU:HD12	2.10	0.51
6:N:1496:GLU:HA	6:N:1499:ARG:CZ	2.40	0.51
5:C:157:ARG:HG3	5:C:314:THR:HG21	1.92	0.51
5:C:176:VAL:C	5:C:178:PRO:HD3	2.31	0.51
5:C:144:PRO:N	5:C:276:LYS:NZ	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1121:PRO:HA	6:N:1185:GLU:HG2	1.90	0.51
6:N:1267:ARG:HA	6:N:1271:LYS:HZ1	1.75	0.51
5:C:198:ARG:CZ	5:C:203:ASP:HA	2.39	0.51
4:L:182:GLU:OE1	4:L:194:LYS:O	2.29	0.51
6:D:1118:ILE:HG13	6:D:1192:LEU:HD13	1.92	0.51
5:M:97:ARG:HA	5:M:111:ASP:O	2.10	0.51
6:N:35:ARG:HG3	6:N:35:ARG:HH11	1.75	0.51
5:M:787:ASP:HB3	11:M:1300:HOH:O	2.09	0.51
6:D:831:GLY:HA3	11:D:8198:HOH:O	2.09	0.51
4:K:102:LYS:NZ	4:K:115:LEU:HD22	2.24	0.51
6:N:1248:GLY:O	6:N:1252:ILE:HG12	2.10	0.51
4:A:188:GLN:HG3	4:A:189:ARG:H	1.74	0.51
4:A:138:LEU:O	4:A:138:LEU:HD23	2.10	0.51
5:C:141:HIS:C	5:C:331:ARG:HG2	2.31	0.51
6:N:879:ARG:NH1	6:N:879:ARG:HG3	2.25	0.51
5:M:211:LEU:CD1	5:M:308:ARG:HA	2.40	0.51
1:X:18:DG:H2''	1:X:19:DC:C5'	2.31	0.51
4:L:102:LYS:HZ2	4:L:137:ARG:HG2	1.72	0.51
1:G:19:DC:OP1	5:C:1001:VAL:HG11	2.10	0.51
5:C:194:VAL:CG1	5:C:204:GLN:HE22	2.22	0.51
6:D:813:LEU:HD12	6:D:814:ALA:N	2.26	0.51
5:C:841:ASN:HD21	5:C:845:ASN:N	2.08	0.51
6:N:889:ALA:CB	6:N:930:LEU:HD12	2.39	0.51
5:M:771:GLU:O	5:M:775:ARG:HG2	2.11	0.51
4:B:206:THR:HG23	4:B:208:LEU:H	1.75	0.51
5:M:841:ASN:HD21	5:M:845:ASN:H	1.58	0.51
6:N:703:ASN:ND2	6:N:704:ARG:N	2.58	0.51
4:A:26:GLU:HG3	4:A:184:THR:HG21	1.91	0.51
7:E:39:VAL:HG22	7:E:67:GLU:HG2	1.92	0.51
6:N:1377:LYS:HE3	6:N:1394:VAL:HG13	1.92	0.51
6:D:762:GLN:HE22	7:E:20:THR:HG21	1.75	0.51
5:M:1087:VAL:HG23	6:N:524:LEU:HD21	1.92	0.51
6:N:793:THR:CB	6:N:879:ARG:HD3	2.31	0.51
5:C:163:ILE:HG13	5:C:163:ILE:O	2.08	0.51
6:D:483:HIS:ND1	6:D:483:HIS:N	2.59	0.51
6:D:1464:GLU:HA	6:D:1467:ILE:CD1	2.40	0.51
6:N:172:PRO:HG2	6:N:175:VAL:CG2	2.41	0.51
4:L:36:LEU:O	4:L:39:PRO:HD2	2.10	0.51
5:C:946:ARG:NH1	5:C:946:ARG:HB3	2.25	0.51
5:M:804:VAL:HB	5:M:824:ARG:HB2	1.93	0.51
6:N:871:LYS:HB3	6:N:873:LEU:CD2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:552:HIS:CD2	6:D:1064:GLY:HA2	2.46	0.51
5:C:547:ILE:HD13	5:C:550:LEU:HD13	1.91	0.51
6:D:690:ALA:O	6:D:694:VAL:HG23	2.10	0.51
5:M:173:ASP:OD1	5:M:185:LYS:HG3	2.11	0.51
5:M:79:PRO:HD2	5:M:82:GLU:OE1	2.10	0.51
5:C:598:GLU:HG3	5:C:623:TYR:OH	2.10	0.51
6:N:977:ALA:HB1	6:N:983:LEU:HD21	1.91	0.51
4:K:9:PRO:HB3	4:K:25:LEU:HG	1.92	0.51
5:M:976:ASP:HB2	11:M:1439:HOH:O	2.10	0.51
4:B:216:GLU:HA	4:B:219:ARG:NH1	2.25	0.51
5:C:605:LYS:HD2	5:C:612:VAL:HB	1.92	0.51
6:N:1090:ASP:HA	6:N:1093:TYR:HB2	1.91	0.51
5:C:328:LEU:HB3	5:C:488:ALA:HB2	1.93	0.51
2:H:8:C:H2'	2:H:9:G:C8	2.46	0.51
5:C:678:PRO:O	6:D:943:THR:HA	2.10	0.51
4:B:102:LYS:NZ	4:B:137:ARG:NE	2.59	0.51
6:D:582:LEU:HD23	6:D:603:LEU:CD1	2.41	0.51
5:M:23:VAL:N	5:M:121:MET:HE1	2.25	0.51
6:N:701:LEU:HD12	6:N:701:LEU:H	1.74	0.51
6:D:145:VAL:CG2	6:D:146:PRO:HD2	2.33	0.51
6:D:394:LEU:O	6:D:396:VAL:N	2.43	0.51
5:C:195:LEU:HG	5:C:238:LEU:HD12	1.91	0.51
5:C:343:GLN:HB2	5:C:385:PHE:CD2	2.46	0.51
6:D:1491:THR:O	6:D:1495:ILE:HD13	2.11	0.51
4:L:124:ASN:HD21	4:L:127:LEU:HD22	1.74	0.51
4:K:158:ILE:O	4:K:159:LYS:HE2	2.11	0.51
4:L:202:ASP:HA	11:L:321:HOH:O	2.10	0.51
4:A:98:THR:HG22	11:A:364:HOH:O	2.09	0.51
5:C:640:ARG:O	5:C:642:ARG:HG2	2.10	0.51
5:M:351:LEU:HD22	5:M:377:PRO:HB2	1.92	0.51
5:M:855:VAL:HG11	11:M:1481:HOH:O	2.11	0.51
6:N:1100:ASP:HB3	6:N:1428:ALA:HB1	1.92	0.51
5:C:334:ARG:HG2	5:C:338:GLU:CD	2.31	0.51
5:C:432:ARG:HH12	6:D:1072:ILE:HD11	1.75	0.51
6:N:1366:LYS:HA	6:N:1369:GLU:OE1	2.11	0.51
5:M:879:ARG:HH21	6:N:1029:ARG:NH2	2.08	0.51
5:C:564:MET:HE1	5:C:995:MET:HB2	1.92	0.51
6:D:1101:VAL:HG21	6:D:1424:VAL:HA	1.93	0.51
6:N:879:ARG:HH21	6:N:903:ASP:C	2.13	0.51
6:N:153:LEU:HD22	6:N:158:TYR:HB2	1.93	0.51
6:N:1129:THR:O	6:N:1130:ARG:HD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:58:PRO:C	7:E:59:ASN:HD22	2.13	0.51
4:L:24:VAL:HG13	4:L:196:THR:CG2	2.39	0.51
5:M:549:PHE:HA	11:M:1469:HOH:O	2.10	0.51
4:B:40:LEU:O	4:B:44:LEU:HG	2.11	0.51
6:N:1094:LEU:HB2	6:N:1260:ILE:CD1	2.38	0.51
6:D:540:LEU:HA	6:D:543:LEU:CD1	2.40	0.51
6:D:705:ALA:CB	6:D:706:PRO:HD3	2.40	0.51
4:A:5:LYS:O	4:A:8:ALA:HB2	2.10	0.51
4:A:88:ARG:HD2	4:A:121:GLU:OE1	2.10	0.51
5:C:835:VAL:HG13	5:C:836:GLY:N	2.25	0.51
6:D:31:THR:HB	6:D:527:MET:HE1	1.92	0.51
6:N:1107:VAL:HA	6:N:1200:VAL:O	2.11	0.51
5:C:612:VAL:HG12	11:C:1460:HOH:O	2.10	0.51
6:N:864:VAL:HB	11:N:9142:HOH:O	2.10	0.51
5:M:913:GLU:O	5:M:917:LEU:HG	2.11	0.51
5:C:603:VAL:H	5:C:647:GLN:H	1.57	0.51
4:L:29:GLU:OE2	4:L:29:GLU:HA	2.10	0.51
5:M:1090:LYS:HE3	5:M:1112:PHE:CE1	2.42	0.51
6:N:1191:PRO:HB2	11:N:9021:HOH:O	2.10	0.51
6:D:903:ASP:O	6:D:904:VAL:HG13	2.11	0.51
6:N:1476:THR:HG23	7:O:21:VAL:HG22	1.92	0.51
6:N:634:GLY:O	6:N:637:LEU:HB3	2.11	0.51
6:N:1033:GLN:O	6:N:1037:GLN:HG3	2.10	0.51
6:N:1042:ARG:HH21	6:N:1045:MET:HE2	1.76	0.51
6:D:129:PHE:C	6:D:568:ARG:HH21	2.14	0.51
5:C:217:LEU:HD23	5:C:217:LEU:H	1.76	0.51
5:M:710:ILE:HD12	5:M:790:LEU:HB2	1.91	0.51
4:L:102:LYS:HD3	4:L:139:ASN:CB	2.35	0.51
5:M:64:LEU:HD13	5:M:359:MET:HG3	1.93	0.51
6:N:1452:ILE:HG22	6:N:1453:ALA:N	2.25	0.51
6:N:828:LYS:HD3	6:N:862:ASP:OD2	2.11	0.51
4:B:40:LEU:HD21	4:B:215:VAL:HG12	1.93	0.51
5:C:1088:LEU:HD23	5:C:1089:VAL:N	2.26	0.51
5:C:52:PHE:CG	5:C:68:PHE:HB2	2.46	0.51
6:N:1117:TYR:CE2	6:N:1151:ARG:HD3	2.45	0.51
4:A:221:HIS:HA	4:A:224:TYR:HD2	1.76	0.51
6:D:631:ILE:HG21	6:D:745:MET:SD	2.50	0.51
5:M:892:LEU:HD11	5:M:967:PHE:CE1	2.45	0.51
6:N:415:VAL:O	6:N:432:TYR:HA	2.11	0.51
6:D:933:ALA:O	6:D:937:TYR:HD1	1.93	0.51
5:M:163:ILE:O	5:M:163:ILE:HG13	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:573:ARG:CB	5:C:670:GLN:HE22	2.23	0.51
6:D:1101:VAL:HG23	6:D:1424:VAL:HG23	1.93	0.51
5:M:169:GLY:HA2	5:M:263:ASP:OD1	2.11	0.51
6:D:582:LEU:HD23	6:D:603:LEU:HD12	1.92	0.51
6:N:542:ASP:O	6:N:546:ARG:HG3	2.10	0.51
5:C:158:TYR:CE1	5:C:314:THR:HA	2.46	0.51
5:M:5:ARG:HB2	5:M:8:ARG:NH2	2.21	0.51
6:D:1347:TYR:CD2	6:D:1348:LEU:HD12	2.46	0.51
6:N:62:LYS:HB2	6:N:73:CYS:SG	2.51	0.51
5:C:957:LYS:HD3	5:C:961:GLU:CD	2.30	0.51
5:C:352:ALA:HA	5:C:355:VAL:CG1	2.41	0.51
4:K:26:GLU:HG2	4:K:27:PRO:CA	2.40	0.51
6:D:566:ILE:HD12	6:D:566:ILE:H	1.76	0.51
5:C:1008:ARG:NH2	5:C:1011:GLY:H	2.09	0.51
5:M:550:LEU:O	5:M:550:LEU:HD12	2.10	0.51
4:L:160:ASP:HB3	4:L:161:ARG:HD2	1.92	0.51
5:C:80:GLN:HE22	5:C:122:THR:HG23	1.76	0.51
5:C:878:SER:HA	6:D:1034:GLN:OE1	2.11	0.51
5:C:147:TYR:HB3	11:C:1186:HOH:O	2.10	0.51
7:O:10:PHE:CZ	7:O:16:LYS:HE3	2.46	0.51
6:N:1023:MET:HG2	6:N:1029:ARG:HB2	1.93	0.51
6:D:1441:GLN:CD	6:D:1442:ASN:HB2	2.31	0.51
5:M:160:ALA:HB3	5:M:174:LEU:HB2	1.93	0.51
6:N:481:MET:SD	6:N:493:ARG:HA	2.51	0.51
6:D:1040:GLY:O	6:D:1060:SER:HB3	2.11	0.51
6:D:393:ILE:HG21	11:D:8118:HOH:O	2.11	0.51
6:D:413:ASP:O	6:D:435:VAL:HG23	2.11	0.51
7:E:41:GLU:CG	7:E:42:PRO:HD3	2.41	0.51
6:D:1379:VAL:HG12	6:D:1419:PRO:HA	1.93	0.51
5:M:1047:HIS:H	5:M:1047:HIS:CD2	2.28	0.51
4:B:7:LYS:O	4:B:7:LYS:HD2	2.11	0.51
6:D:671:LYS:HG3	11:D:8106:HOH:O	2.11	0.51
5:C:604:ALA:HB3	5:C:612:VAL:O	2.10	0.51
6:D:154:THR:HG22	6:D:157:GLU:OE2	2.10	0.51
6:D:785:ILE:HG13	6:D:939:PHE:HE2	1.74	0.51
6:N:1379:VAL:HA	6:N:1420:LEU:HB2	1.92	0.51
5:C:1019:GLN:HE22	5:C:1058:ASP:CB	2.24	0.51
6:N:155:ASP:N	11:N:9432:HOH:O	2.43	0.51
6:N:133:ILE:HD13	6:N:158:TYR:CD2	2.45	0.51
5:C:288:ARG:HB2	5:C:288:ARG:NH1	2.26	0.51
6:D:181:ASP:HA	6:D:205:TYR:CD1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1087:ARG:HB3	6:N:1256:LEU:CD2	2.41	0.51
5:M:571:LEU:HD21	5:M:700:TYR:HA	1.93	0.51
6:D:1151:ARG:HG2	6:D:1187:PRO:HB2	1.92	0.51
4:B:89:PHE:HB3	4:B:94:LEU:CD1	2.39	0.51
7:E:48:MET:HG2	7:E:49:GLN:N	2.26	0.51
5:M:660:ALA:HA	11:M:1443:HOH:O	2.11	0.51
6:N:409:VAL:CG1	6:N:435:VAL:HG11	2.41	0.51
5:M:1007:ALA:HB2	6:N:648:MET:HG2	1.91	0.51
5:C:552:HIS:ND1	5:C:886:LEU:HD22	2.26	0.51
5:C:3:ILE:HA	5:C:900:ARG:O	2.11	0.51
4:A:14:ARG:HG3	4:A:14:ARG:HH11	1.75	0.51
4:B:48:ILE:HD12	4:B:48:ILE:H	1.76	0.51
7:E:27:ALA:HA	7:E:30:LEU:HD13	1.93	0.51
5:C:730:SER:O	5:C:734:LEU:HD13	2.11	0.51
7:E:33:HIS:CD2	7:E:89:MET:HG2	2.45	0.51
5:M:628:PHE:HA	11:M:1256:HOH:O	2.10	0.51
5:M:1016:ILE:HG12	5:M:1017:THR:N	2.26	0.51
6:D:1023:MET:O	6:D:1028:ALA:HB3	2.11	0.50
6:N:1222:GLY:O	6:N:1225:ALA:HB3	2.11	0.50
7:E:16:LYS:HA	11:E:128:HOH:O	2.10	0.50
6:N:50:PHE:HB3	6:N:522:PRO:HG3	1.92	0.50
5:C:978:ARG:NH1	11:C:1599:HOH:O	2.44	0.50
5:C:1034:GLU:HG2	6:D:619:LEU:HD13	1.93	0.50
6:D:133:ILE:HG21	6:D:454:ALA:HB1	1.93	0.50
6:D:550:ARG:HA	6:D:550:ARG:NE	2.20	0.50
6:D:978:TYR:HB2	6:D:983:LEU:HD12	1.93	0.50
5:M:692:GLU:O	5:M:696:LYS:HG3	2.10	0.50
5:M:773:LEU:O	5:M:777:ILE:HG13	2.11	0.50
5:M:1046:ALA:HB3	5:M:1047:HIS:HD2	1.76	0.50
4:B:160:ASP:HA	11:B:363:HOH:O	2.09	0.50
5:M:15:LEU:HD12	5:M:15:LEU:H	1.77	0.50
6:N:710:ARG:C	6:N:712:GLY:H	2.14	0.50
6:D:719:VAL:O	6:D:721:VAL:HG23	2.10	0.50
6:N:1101:VAL:HG22	6:N:1428:ALA:HB2	1.94	0.50
5:C:328:LEU:C	5:C:488:ALA:HB3	2.30	0.50
5:C:338:GLU:HA	5:C:341:THR:HG22	1.93	0.50
6:N:1146:GLY:HA3	6:N:1207:TYR:CB	2.39	0.50
6:N:643:GLY:O	6:N:726:ILE:HG23	2.09	0.50
6:N:633:VAL:HB	6:N:740:PHE:CE1	2.46	0.50
5:M:144:PRO:HB2	11:M:1136:HOH:O	2.11	0.50
5:M:289:THR:O	5:M:291:ALA:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:151:GLN:HA	11:D:8479:HOH:O	2.12	0.50
5:M:943:VAL:HG11	5:M:973:VAL:CG2	2.41	0.50
5:C:148:PHE:HB2	5:C:313:LEU:CD2	2.41	0.50
5:C:468:ARG:CZ	5:C:485:TYR:O	2.59	0.50
5:M:439:CYS:HB2	5:M:541:SER:HB3	1.92	0.50
6:D:133:ILE:HG13	6:D:153:LEU:HD12	1.93	0.50
5:C:920:GLN:O	5:C:924:VAL:HG23	2.11	0.50
5:C:51:THR:HG23	5:C:348:LEU:HD23	1.93	0.50
10:N:4999:APC:H8	10:N:4999:APC:H5'1	1.93	0.50
4:K:92:PRO:HG3	4:K:146:ARG:HH12	1.76	0.50
5:M:916:GLU:HG3	5:M:917:LEU:HD23	1.93	0.50
6:D:611:GLN:HG3	6:D:611:GLN:O	2.11	0.50
6:N:937:TYR:CD1	6:N:937:TYR:N	2.79	0.50
5:M:888:THR:HG21	11:M:1248:HOH:O	2.10	0.50
6:N:1424:VAL:CG1	6:N:1425:THR:H	2.22	0.50
5:C:436:GLY:HA2	5:C:456:ALA:CB	2.41	0.50
6:D:657:LEU:HB2	6:D:691:LEU:HD22	1.93	0.50
5:M:537:LYS:HG3	5:M:905:ILE:CD1	2.42	0.50
4:A:111:ALA:HB3	4:A:124:ASN:O	2.11	0.50
6:D:1403:LEU:O	6:D:1407:LEU:HB2	2.11	0.50
6:D:134:VAL:O	6:D:134:VAL:HG23	2.11	0.50
5:M:1115:LEU:CG	6:N:85:VAL:HG12	2.40	0.50
1:G:18:DG:O4'	5:C:1002:GLU:HB3	2.11	0.50
5:M:852:ILE:N	5:M:852:ILE:HD12	2.26	0.50
5:M:589:ARG:HG3	5:M:596:TYR:CZ	2.46	0.50
5:C:1105:LYS:NZ	5:C:1107:ASN:HB2	2.26	0.50
5:M:364:GLU:HB2	11:M:1318:HOH:O	2.10	0.50
5:M:702:SER:OG	5:M:831:ARG:HB2	2.11	0.50
5:C:1021:LEU:HD23	11:C:1374:HOH:O	2.11	0.50
5:M:726:ILE:HB	11:M:1385:HOH:O	2.10	0.50
6:D:926:LYS:HA	6:D:929:ARG:CD	2.41	0.50
2:Y:7:G:OP1	6:N:530:VAL:HG13	2.11	0.50
5:C:433:THR:C	5:C:435:TYR:H	2.15	0.50
2:Y:2:A:H8	2:Y:2:A:C3'	2.12	0.50
5:M:141:HIS:C	5:M:331:ARG:HG3	2.32	0.50
5:C:1019:GLN:N	5:C:1019:GLN:HE21	2.08	0.50
6:D:131:LYS:HG3	6:D:568:ARG:CG	2.41	0.50
6:D:150:ARG:HG3	6:D:464:LEU:HD22	1.93	0.50
5:M:1087:VAL:HG22	5:M:1091:GLU:OE1	2.10	0.50
5:M:22:GLN:C	5:M:121:MET:HE1	2.32	0.50
5:M:862:PRO:HA	5:M:975:TYR:CE2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:218:VAL:HA	5:M:221:LEU:HD23	1.93	0.50
6:D:434:ARG:H	6:D:447:VAL:CG2	2.20	0.50
1:G:18:DG:H5"	6:D:628:ARG:NH2	2.26	0.50
6:D:87:ARG:HB2	6:D:523:ASP:HB3	1.93	0.50
5:M:5:ARG:NE	5:M:8:ARG:NH1	2.57	0.50
5:C:610:ARG:HG3	5:C:622:GLU:HG3	1.94	0.50
3:Z:10:DA:H5"	6:N:121:THR:CG2	2.41	0.50
4:B:20:TYR:CE2	4:B:198:ARG:HB3	2.45	0.50
5:C:737:LEU:HD21	5:C:741:GLY:CA	2.42	0.50
11:N:9174:HOH:O	7:O:81:PRO:HG2	2.11	0.50
2:Y:6:U:OP1	6:N:528:VAL:HG13	2.12	0.50
6:N:1195:GLN:HG3	6:N:1196:THR:N	2.27	0.50
6:N:637:LEU:CD2	6:N:642:CYS:HA	2.41	0.50
7:O:54:LEU:HG	7:O:58:PRO:CG	2.42	0.50
6:N:896:ALA:O	6:N:900:ILE:HG23	2.12	0.50
5:M:395:LYS:HE3	5:M:407:LYS:HE2	1.92	0.50
4:K:177:VAL:O	5:M:864:GLY:HA2	2.12	0.50
5:C:721:ARG:HA	5:C:820:ARG:NH2	2.26	0.50
6:D:29:PRO:CB	6:D:549:ASN:HD21	2.23	0.50
5:M:1055:LEU:HD11	5:M:1076:VAL:HB	1.94	0.50
4:L:62:LEU:HD12	4:L:62:LEU:N	2.22	0.50
5:M:807:ARG:N	5:M:807:ARG:NE	2.59	0.50
6:D:171:LEU:HD21	6:D:192:ALA:HB1	1.91	0.50
5:M:757:GLY:HA2	5:M:789:SER:CB	2.42	0.50
5:C:597:ALA:CA	5:C:655:LEU:HD11	2.41	0.50
4:B:43:ILE:HG21	4:B:214:ALA:HA	1.94	0.50
5:C:460:ARG:HB3	11:C:1158:HOH:O	2.11	0.50
4:K:24:VAL:HG22	4:K:196:THR:CG2	2.41	0.50
5:C:185:LYS:HE2	5:C:190:LYS:HZ3	1.75	0.50
5:C:1006:HIS:HD1	5:C:1027:PHE:HD1	1.60	0.50
6:N:1020:LEU:HD21	6:N:1035:ILE:HG23	1.93	0.50
5:C:732:ALA:HA	5:C:735:ARG:NH1	2.26	0.50
11:C:1228:HOH:O	6:D:2:LYS:HA	2.11	0.50
6:D:542:ASP:OD2	6:D:542:ASP:N	2.42	0.50
6:N:613:ARG:HH11	6:N:616:GLN:HG2	1.76	0.50
5:C:690:ILE:HD12	5:C:833:LEU:HD23	1.94	0.50
2:H:14:G:P	5:C:409:ARG:HH12	2.35	0.50
6:N:758:GLU:HA	7:O:20:THR:CG2	2.42	0.50
6:D:470:LEU:HD12	6:D:503:LEU:CD2	2.42	0.50
5:M:158:TYR:HE1	5:M:314:THR:HA	1.76	0.50
6:N:890:VAL:HG23	6:N:890:VAL:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1267:ARG:HA	6:N:1331:ASP:HB2	1.94	0.50
5:M:810:ASP:HB3	5:M:813:VAL:CG1	2.36	0.50
6:D:108:VAL:HG23	6:D:109:PRO:HD3	1.94	0.50
5:M:1005:MET:HB2	6:N:648:MET:HE3	1.92	0.50
5:M:836:GLY:HA3	6:N:724:GLN:HE21	1.76	0.50
5:C:630:ARG:HA	5:C:705:ILE:CD1	2.41	0.50
5:C:22:GLN:NE2	5:C:407:LYS:HG2	2.26	0.50
7:O:28:GLN:HB3	7:O:32:ARG:NH2	2.25	0.50
5:M:410:ILE:CD1	5:M:455:LEU:HB3	2.42	0.50
6:D:155:ASP:O	6:D:159:ARG:N	2.41	0.50
5:M:754:ILE:HG12	5:M:791:ARG:HH12	1.77	0.50
6:N:1240:THR:HB	6:N:1252:ILE:HD13	1.92	0.50
5:C:713:ARG:NH2	6:D:532:GLY:H	2.09	0.50
5:C:275:TYR:HA	11:C:1297:HOH:O	2.11	0.50
6:N:619:LEU:HB2	6:N:621:LYS:HD3	1.92	0.50
5:C:702:SER:HB3	5:C:996:LYS:NZ	2.27	0.50
6:N:1192:LEU:HD21	6:N:1372:VAL:CG1	2.42	0.50
5:C:301:GLU:O	5:C:305:PRO:HG2	2.12	0.50
5:M:876:VAL:O	5:M:879:ARG:O	2.30	0.50
6:N:1394:VAL:HG11	6:N:1397:LYS:HE2	1.94	0.50
5:C:580:MET:HB3	5:C:584:GLU:OE1	2.11	0.50
6:N:1037:GLN:HG2	6:N:1042:ARG:HB2	1.93	0.50
6:D:1440:PHE:O	6:D:1441:GLN:O	2.30	0.50
5:M:120:LEU:HD13	5:M:121:MET:O	2.12	0.50
6:N:150:ARG:CD	6:N:464:LEU:HD21	2.41	0.50
5:C:820:ARG:HB2	11:C:1271:HOH:O	2.12	0.50
6:D:1103:HIS:NE2	6:D:1463:LYS:HB2	2.27	0.50
7:E:68:LEU:CD1	7:E:73:LEU:HD22	2.41	0.50
5:C:627:ARG:CG	5:C:628:PHE:H	2.25	0.50
5:M:622:GLU:O	5:M:624:PRO:HD3	2.11	0.50
5:M:192:PRO:HB2	5:M:195:LEU:HB2	1.93	0.50
6:N:690:ALA:O	6:N:694:VAL:HG23	2.12	0.50
5:M:837:ASP:HA	5:M:999:HIS:CE1	2.46	0.50
4:B:174:VAL:HG13	4:B:200:TRP:O	2.12	0.50
4:B:26:GLU:HB3	4:B:194:LYS:HG3	1.93	0.50
6:D:902:LEU:H	6:D:902:LEU:HD23	1.75	0.50
6:N:845:ASN:N	6:N:848:GLU:HG3	2.26	0.50
5:M:1020:PRO:O	5:M:1021:LEU:HD12	2.11	0.50
5:M:1034:GLU:HB3	6:N:619:LEU:CD2	2.40	0.50
6:D:634:GLY:CA	6:D:727:GLN:HE21	2.23	0.50
5:C:564:MET:HE2	5:C:565:GLN:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:52:PRO:HG2	6:N:80:VAL:HG13	1.93	0.50
6:D:397:LYS:O	6:D:448:GLU:HB2	2.12	0.50
6:N:1237:THR:N	11:N:9434:HOH:O	2.45	0.50
5:M:5:ARG:NE	5:M:8:ARG:HH22	2.00	0.50
6:N:475:LYS:HA	6:N:478:LEU:HG	1.94	0.50
5:C:999:HIS:HD2	5:C:1004:LYS:NZ	2.10	0.50
6:N:1139:ASP:HB3	6:N:1357:ARG:NH2	2.27	0.50
5:C:290:LEU:H	5:C:290:LEU:HD23	1.75	0.50
6:D:54:LYS:CD	6:D:55:ASP:H	2.25	0.50
6:N:982:PHE:HB3	6:N:983:LEU:HD23	1.92	0.50
6:N:79:GLU:HG3	11:N:9414:HOH:O	2.12	0.50
5:C:57:GLU:O	5:C:62:GLY:HA3	2.12	0.50
6:D:562:ALA:HB1	6:D:567:ILE:HD11	1.94	0.50
1:X:8:DT:H2"	1:X:9:DG:C8	2.46	0.50
6:N:637:LEU:HD12	6:N:641:GLN:OE1	2.12	0.50
5:C:842:ARG:HG3	5:C:995:MET:HE1	1.93	0.50
6:D:100:ALA:HA	6:D:514:LEU:H	1.76	0.50
6:D:127:LEU:HD23	6:D:134:VAL:HG22	1.93	0.50
6:D:477:LEU:HD13	6:D:496:LEU:HA	1.94	0.50
6:D:510:GLU:O	6:D:513:ILE:HD12	2.12	0.50
5:M:22:GLN:OE1	5:M:407:LYS:HB3	2.12	0.50
5:C:265:ARG:HD2	5:C:267:TYR:CB	2.41	0.50
6:N:1087:ARG:HE	6:N:1253:THR:HG23	1.77	0.50
7:E:18:ARG:O	7:E:22:VAL:HG23	2.12	0.50
6:D:133:ILE:HG13	6:D:153:LEU:CD1	2.41	0.50
6:N:714:GLN:CD	6:N:765:SER:HA	2.33	0.50
6:N:1236:LEU:HD11	6:N:1361:VAL:CG2	2.42	0.50
5:M:290:LEU:HB3	5:M:302:VAL:CG1	2.41	0.50
6:D:683:ILE:HG23	6:D:687:VAL:HG21	1.94	0.50
6:D:739:ASP:O	6:D:741:ASP:N	2.45	0.50
5:M:432:ARG:HH21	6:N:1048:PRO:HD2	1.77	0.50
5:C:906:PHE:CZ	6:D:1067:VAL:HA	2.46	0.50
6:D:721:VAL:HG12	6:D:722:GLU:N	2.26	0.50
5:M:17:PRO:HG3	11:M:1503:HOH:O	2.12	0.50
6:D:1021:TYR:HA	11:D:8152:HOH:O	2.11	0.50
5:M:32:ALA:HB2	11:M:1235:HOH:O	2.12	0.50
4:B:62:LEU:HD12	4:B:62:LEU:H	1.77	0.50
5:C:408:ARG:CG	5:C:455:LEU:H	2.24	0.49
2:H:7:G:H8	2:H:7:G:O5'	1.95	0.49
6:N:1364:HIS:CE1	6:N:1366:LYS:HG3	2.47	0.49
6:N:787:LEU:HD21	6:N:1023:MET:HE2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1042:ARG:NH2	11:N:9443:HOH:O	2.45	0.49
5:M:139:GLN:HE21	5:M:418:LEU:CD2	2.25	0.49
6:N:1489:GLN:O	6:N:1493:LYS:HG2	2.12	0.49
5:C:97:ARG:HA	5:C:111:ASP:O	2.12	0.49
6:D:1144:LEU:HD11	6:D:1186:VAL:CG2	2.37	0.49
6:D:82:LYS:CB	6:D:84:ILE:HG12	2.42	0.49
6:N:1459:LEU:HD21	6:N:1468:LEU:HD22	1.93	0.49
6:N:143:ASN:OD1	6:N:145:VAL:HG12	2.11	0.49
6:N:502:PHE:CZ	6:N:509:PRO:HB3	2.46	0.49
6:N:838:ARG:HG2	6:N:838:ARG:NH1	2.26	0.49
6:D:977:ALA:CB	6:D:983:LEU:HD21	2.42	0.49
5:M:134:ARG:CD	5:M:392:SER:HB3	2.42	0.49
5:M:77:PRO:HG2	5:M:117:HIS:NE2	2.27	0.49
3:Z:9:DG:H2"	3:Z:10:DA:C8	2.47	0.49
6:D:1443:THR:O	6:D:1447:LEU:HD13	2.11	0.49
5:C:73:LEU:N	5:C:73:LEU:HD23	2.27	0.49
6:D:926:LYS:HG3	11:D:8014:HOH:O	2.11	0.49
6:N:1020:LEU:HD23	6:N:1021:TYR:N	2.27	0.49
4:A:163:ASN:HD21	5:C:744:ARG:HH22	1.59	0.49
6:N:864:VAL:HB	11:N:9057:HOH:O	2.11	0.49
5:C:113:VAL:O	5:C:115:LEU:HG	2.11	0.49
5:C:119:PRO:HG2	5:C:386:PHE:CD2	2.47	0.49
6:D:1128:VAL:O	6:D:1129:THR:C	2.50	0.49
6:D:1402:ALA:HB3	11:D:8309:HOH:O	2.11	0.49
5:M:616:GLU:OE1	5:M:616:GLU:HA	2.11	0.49
5:M:1019:GLN:CD	6:N:616:GLN:HE22	2.15	0.49
6:D:634:GLY:CA	6:D:727:GLN:HG2	2.43	0.49
5:C:577:PRO:HB2	5:C:580:MET:HG2	1.93	0.49
1:G:12:DG:H2"	1:G:13:DT:C5'	2.43	0.49
5:M:415:PRO:HD2	5:M:418:LEU:HD13	1.94	0.49
6:N:1010:ASN:HB3	11:N:9288:HOH:O	2.12	0.49
6:N:522:PRO:HG2	6:N:523:ASP:N	2.26	0.49
4:B:86:VAL:HG12	4:B:124:ASN:HB2	1.94	0.49
5:C:264:PRO:HD2	11:C:1410:HOH:O	2.12	0.49
6:D:29:PRO:HB3	6:D:549:ASN:HD21	1.77	0.49
6:D:185:VAL:HG21	6:D:203:ALA:HB2	1.93	0.49
5:M:676:ILE:O	5:M:676:ILE:HG23	2.11	0.49
5:M:583:LEU:N	5:M:584:GLU:OE2	2.45	0.49
5:M:198:ARG:HE	5:M:198:ARG:HA	1.77	0.49
6:D:709:HIS:CD2	6:D:709:HIS:N	2.80	0.49
6:D:547:LEU:HB3	11:D:8068:HOH:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:959:PRO:O	5:M:963:LEU:HG	2.11	0.49
5:M:21:ILE:HD12	5:M:21:ILE:H	1.77	0.49
7:E:83:ASP:O	7:E:86:GLN:HG3	2.13	0.49
5:C:881:ASN:N	5:C:881:ASN:ND2	2.60	0.49
6:N:1189:ARG:NH1	6:N:1203:LYS:HB2	2.28	0.49
6:D:762:GLN:NE2	7:E:20:THR:OG1	2.45	0.49
5:M:276:LYS:O	5:M:280:LYS:HB3	2.12	0.49
6:N:996:TRP:CE2	6:N:1056:PRO:HG2	2.47	0.49
6:N:957:PRO:HG3	6:N:1007:VAL:HA	1.94	0.49
6:N:133:ILE:CG2	6:N:454:ALA:HB1	2.41	0.49
5:C:260:LEU:HA	5:C:291:ALA:CB	2.42	0.49
6:D:1143:GLY:O	6:D:1147:ARG:NE	2.45	0.49
7:O:18:ARG:O	7:O:22:VAL:HG23	2.12	0.49
7:O:68:LEU:HD12	7:O:73:LEU:HD22	1.93	0.49
6:D:1495:ILE:HG12	7:E:80:VAL:CG1	2.39	0.49
6:N:437:VAL:HG13	6:N:444:VAL:HG22	1.94	0.49
5:C:54:ILE:HG22	5:C:66:LEU:HB3	1.95	0.49
5:C:64:LEU:HD22	5:C:359:MET:HG3	1.93	0.49
4:L:47:SER:HB2	4:L:217:ILE:HD13	1.95	0.49
6:D:836:VAL:O	6:D:840:LYS:HG3	2.12	0.49
4:L:103:ALA:HB1	4:L:107:LYS:CE	2.42	0.49
5:C:689:VAL:HG11	5:C:870:ILE:HD11	1.94	0.49
5:C:674:VAL:CG2	5:C:869:VAL:HG13	2.42	0.49
5:C:876:VAL:O	5:C:879:ARG:O	2.30	0.49
6:D:737:ASN:O	6:D:737:ASN:CG	2.50	0.49
5:M:689:VAL:HG11	5:M:870:ILE:HD11	1.93	0.49
6:D:1384:PRO:HG3	6:D:1389:LEU:HA	1.92	0.49
5:C:8:ARG:N	5:C:907:ASP:OD2	2.45	0.49
6:D:519:VAL:HG12	6:D:544:TYR:CE2	2.48	0.49
6:D:172:PRO:HG2	6:D:175:VAL:CG2	2.42	0.49
6:D:1258:ARG:HA	6:D:1261:GLU:OE2	2.12	0.49
4:A:83:LYS:HE2	4:A:170:VAL:HG13	1.93	0.49
4:A:68:ILE:HD12	4:A:68:ILE:N	2.27	0.49
6:D:1124:GLN:HG2	6:D:1133:ARG:CG	2.42	0.49
4:A:190:THR:HG23	11:A:369:HOH:O	2.12	0.49
5:M:897:LEU:HD12	11:M:1461:HOH:O	2.12	0.49
4:B:62:LEU:HD13	4:B:63:HIS:CE1	2.47	0.49
5:C:1022:GLY:HA3	5:C:1026:GLN:O	2.12	0.49
6:D:17:LYS:O	6:D:20:SER:HB3	2.12	0.49
6:N:516:ALA:O	6:N:518:PRO:HD3	2.13	0.49
5:C:432:ARG:HH12	6:D:1072:ILE:CD1	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1374:GLN:OE1	6:D:1377:LYS:HD3	2.12	0.49
6:D:118:LEU:HD21	6:D:464:LEU:HD13	1.94	0.49
6:D:465:LEU:HD13	6:D:513:ILE:HD11	1.95	0.49
4:K:30:ARG:NH2	5:M:938:LYS:HD2	2.25	0.49
5:C:490:GLU:HB3	5:C:493:ARG:CZ	2.42	0.49
5:M:736:ASP:HA	5:M:744:ARG:HH11	1.77	0.49
5:C:1001:VAL:O	5:C:1001:VAL:HG12	2.13	0.49
6:D:1168:MET:HE3	6:D:1171:VAL:HG21	1.94	0.49
5:C:496:ILE:HA	5:C:531:PHE:O	2.11	0.49
6:N:10:ILE:HG13	6:N:1434:TRP:CZ2	2.47	0.49
5:M:574:ALA:HB2	11:M:1443:HOH:O	2.12	0.49
4:K:218:LEU:O	4:K:222:LEU:HD13	2.12	0.49
4:A:199:ILE:N	4:A:199:ILE:HD12	2.26	0.49
5:M:340:MET:HG2	5:M:386:PHE:HE1	1.78	0.49
5:M:1009:SER:HB3	6:N:651:GLU:O	2.13	0.49
2:H:16:G:H21	6:D:705:ALA:HB1	1.78	0.49
7:O:33:HIS:HB2	7:O:37:ASN:HD21	1.77	0.49
6:D:1125:PRO:HB3	6:D:1130:ARG:NH1	2.27	0.49
5:M:1016:ILE:HD13	5:M:1017:THR:H	1.78	0.49
6:D:638:LYS:HD2	6:D:932:ASP:CG	2.33	0.49
5:C:304:LEU:HA	11:C:1215:HOH:O	2.12	0.49
5:C:409:ARG:HD2	5:C:452:ILE:CG2	2.42	0.49
5:C:449:ILE:C	5:C:451:LEU:H	2.15	0.49
5:C:437:ARG:O	5:C:467:ILE:HD13	2.12	0.49
5:M:471:TYR:HB2	11:M:1201:HOH:O	2.11	0.49
6:N:641:GLN:HB3	6:N:717:GLN:O	2.12	0.49
6:D:1263:PHE:O	6:D:1424:VAL:HG12	2.12	0.49
5:M:265:ARG:HH22	5:M:332:ARG:HH22	1.60	0.49
6:N:897:TRP:HA	6:N:900:ILE:CG1	2.37	0.49
5:M:23:VAL:CA	5:M:121:MET:HE1	2.43	0.49
5:C:150:PRO:HG3	5:C:158:TYR:HD2	1.78	0.49
6:D:1087:ARG:HG3	6:D:1237:THR:CG2	2.40	0.49
6:D:138:LYS:HD2	6:D:450:TYR:OH	2.13	0.49
5:C:537:LYS:HD2	5:C:537:LYS:H	1.78	0.49
6:D:108:VAL:CB	6:D:109:PRO:HD3	2.42	0.49
6:N:137:PRO:HD2	6:N:453:ASP:OD1	2.12	0.49
5:M:561:GLY:HA2	5:M:564:MET:HG3	1.93	0.49
6:N:1139:ASP:O	6:N:1142:ALA:HB3	2.13	0.49
6:D:610:LYS:CA	6:D:615:ARG:HD3	2.42	0.49
6:N:800:LYS:HE3	6:N:804:LEU:HB3	1.93	0.49
5:C:127:PHE:O	5:C:133:ASP:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:127:PHE:O	5:M:133:ASP:HA	2.13	0.49
5:M:837:ASP:HA	5:M:999:HIS:HE1	1.78	0.49
6:D:1418:LYS:HD3	6:D:1419:PRO:CD	2.42	0.49
6:D:926:LYS:HA	6:D:929:ARG:HH11	1.78	0.49
5:M:319:GLY:HA3	11:M:1388:HOH:O	2.11	0.49
5:C:165:LEU:HD11	11:C:1123:HOH:O	2.13	0.49
6:N:947:ILE:HG23	11:N:9083:HOH:O	2.11	0.49
6:N:1101:VAL:HG21	6:N:1424:VAL:HG23	1.95	0.49
4:B:102:LYS:HZ1	4:B:137:ARG:NE	2.11	0.49
6:D:613:ARG:O	6:D:616:GLN:HB3	2.13	0.49
5:M:403:SER:O	5:M:407:LYS:HG3	2.13	0.49
5:C:162:ILE:HD12	5:C:172:ILE:CB	2.43	0.49
5:C:270:GLY:O	5:C:274:ARG:HD2	2.12	0.49
5:C:264:PRO:HB3	5:C:289:THR:CB	2.43	0.49
5:C:192:PRO:HB2	5:C:195:LEU:H	1.78	0.49
6:D:108:VAL:HB	6:D:109:PRO:HD3	1.94	0.49
5:M:1065:ALA:HB1	5:M:1077:PRO:CG	2.36	0.49
6:D:899:LEU:HD13	6:D:914:LEU:CD2	2.37	0.49
6:D:957:PRO:O	6:D:960:LYS:HB3	2.13	0.49
5:M:31:GLN:NE2	5:M:71:TYR:OH	2.45	0.49
6:D:191:LEU:HG	6:D:197:SER:OG	2.13	0.49
5:C:89:THR:HA	5:C:129:ILE:O	2.12	0.49
5:M:902:ILE:O	5:M:904:PRO:HD3	2.12	0.49
5:C:841:ASN:N	5:C:841:ASN:ND2	2.60	0.49
7:E:38:THR:HG23	7:E:41:GLU:OE2	2.13	0.49
5:M:146:VAL:HG12	5:M:162:ILE:HA	1.93	0.49
5:C:101:ILE:HG22	5:C:102:HIS:N	2.27	0.49
6:N:151:GLN:HG3	6:N:152:LEU:H	1.78	0.49
5:M:250:ARG:HH11	5:M:250:ARG:HG3	1.78	0.49
5:C:1111:ILE:HD12	5:C:1112:PHE:H	1.78	0.49
5:M:25:SER:CB	5:M:335:THR:HB	2.42	0.49
4:A:73:GLU:OE1	4:A:130:ALA:HA	2.12	0.49
5:C:596:TYR:HB2	11:C:1524:HOH:O	2.12	0.49
6:N:1338:ALA:HB2	11:N:9199:HOH:O	2.12	0.49
6:D:1211:MET:SD	6:D:1213:ARG:HG2	2.52	0.49
4:K:63:HIS:CD2	4:K:66:SER:HB2	2.48	0.49
5:C:141:HIS:CE1	5:C:334:ARG:HG3	2.47	0.49
6:N:1213:ARG:NH2	7:O:15:SER:HA	2.27	0.49
6:D:754:PHE:CE2	6:D:1476:THR:HG21	2.48	0.49
6:N:1487:VAL:HA	11:N:9036:HOH:O	2.11	0.49
5:C:98:LEU:N	5:C:98:LEU:HD12	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:116:LEU:HD22	6:N:118:LEU:HG	1.95	0.49
5:C:150:PRO:HG3	5:C:158:TYR:CD2	2.47	0.49
5:C:162:ILE:O	5:C:164:PRO:HD3	2.12	0.49
6:D:1087:ARG:CG	6:D:1237:THR:HG21	2.41	0.49
5:C:265:ARG:O	5:C:288:ARG:HD2	2.13	0.49
6:D:204:LEU:O	6:D:394:LEU:HD23	2.13	0.49
5:C:537:LYS:HG3	5:C:545:ASN:HD21	1.78	0.49
6:D:1000:THR:HG23	6:D:1001:GLU:N	2.28	0.49
4:L:111:ALA:HB3	4:L:124:ASN:O	2.13	0.49
6:D:1192:LEU:HD22	6:D:1345:GLU:CG	2.43	0.49
6:N:827:ILE:O	6:N:837:GLY:HA3	2.12	0.49
5:M:374:ASN:HD22	5:M:377:PRO:HD3	1.76	0.49
5:M:136:ILE:HD11	11:M:1417:HOH:O	2.12	0.49
6:N:1156:LEU:HG	6:N:1177:ALA:HB2	1.94	0.49
5:C:918:LEU:HD23	5:C:968:LEU:HA	1.93	0.49
6:N:1488:ASP:OD1	6:N:1488:ASP:N	2.46	0.49
6:N:92:HIS:HA	6:N:517:VAL:O	2.13	0.49
5:C:433:THR:CG2	5:C:488:ALA:HB1	2.28	0.49
5:C:689:VAL:O	5:C:869:VAL:HG23	2.13	0.49
5:C:677:MET:HE1	5:C:974:LEU:HD23	1.94	0.49
5:C:575:GLN:HG2	5:C:671:ASN:OD1	2.11	0.49
5:M:328:LEU:N	5:M:328:LEU:HD12	2.28	0.49
5:M:328:LEU:HD11	5:M:434:HIS:CD2	2.47	0.49
6:N:538:SER:O	6:N:541:ASN:ND2	2.45	0.49
5:M:301:GLU:O	5:M:305:PRO:HG2	2.13	0.49
5:C:368:THR:N	5:C:369:PRO:HD2	2.28	0.49
5:C:313:LEU:HA	5:C:321:GLU:HG3	1.94	0.49
5:M:68:PHE:CZ	5:M:71:TYR:HD2	2.24	0.49
6:D:38:LYS:HZ1	6:D:59:ALA:HB1	1.77	0.49
5:M:971:LYS:HE2	11:M:1216:HOH:O	2.13	0.49
6:N:565:ILE:HD12	6:N:565:ILE:N	2.26	0.49
5:M:524:VAL:HG12	5:M:528:GLU:HB2	1.95	0.49
5:C:190:LYS:HB2	11:C:1219:HOH:O	2.13	0.49
6:N:1498:ALA:HB2	7:O:88:GLU:OE1	2.13	0.49
6:N:703:ASN:ND2	6:N:704:ARG:H	2.11	0.49
5:C:1040:LEU:HD21	5:C:1048:THR:HG22	1.95	0.49
4:A:173:PRO:HB2	4:A:205:VAL:HG22	1.94	0.49
6:D:915:VAL:HG11	6:D:931:LEU:HD21	1.94	0.49
4:B:176:ARG:HG3	4:B:200:TRP:CE3	2.47	0.49
6:D:883:ALA:HB2	11:D:8066:HOH:O	2.12	0.49
6:D:184:GLU:HG3	11:D:8384:HOH:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:737:ASN:ND2	10:D:3999:APC:O3'	2.38	0.49
5:M:498:GLN:NE2	6:N:1068:LEU:HG	2.28	0.49
5:M:687:ALA:HB2	6:N:740:PHE:HB2	1.95	0.49
5:M:433:THR:O	5:M:437:ARG:HD2	2.12	0.49
6:D:508:ARG:HD2	6:D:509:PRO:HD2	1.94	0.49
6:N:545:ARG:HB2	6:N:545:ARG:CZ	2.42	0.49
5:M:981:GLU:HG3	5:M:982:PRO:HD2	1.94	0.49
6:D:396:VAL:CG1	6:D:447:VAL:HG12	2.42	0.49
5:M:759:THR:HB	5:M:785:VAL:HG22	1.95	0.49
5:C:860:HIS:CE1	5:C:975:TYR:HB2	2.48	0.49
5:C:722:ILE:O	5:C:722:ILE:HG23	2.13	0.49
6:D:192:ALA:HB1	6:D:193:PRO:HD2	1.94	0.49
5:C:762:LYS:HD2	5:C:786:LYS:CB	2.42	0.49
4:B:173:PRO:HA	4:B:202:ASP:OD2	2.13	0.49
6:N:829:VAL:O	6:N:835:SER:HB3	2.12	0.49
5:C:906:PHE:CD1	6:D:1067:VAL:HG13	2.48	0.49
5:C:46:ALA:O	5:C:49:ARG:HG2	2.13	0.49
6:D:729:HIS:CE1	6:D:731:LEU:HB2	2.48	0.49
5:M:893:ALA:HB2	5:M:918:LEU:HD12	1.95	0.49
4:L:176:ARG:HE	6:N:847:ASP:CG	2.17	0.49
4:B:57:TYR:CE2	4:B:161:ARG:HG2	2.48	0.49
6:N:739:ASP:O	6:N:741:ASP:N	2.45	0.48
5:C:439:CYS:SG	5:C:442:GLU:HB2	2.52	0.48
5:C:439:CYS:SG	5:C:442:GLU:N	2.75	0.48
5:C:853:LEU:HB2	5:C:858:MET:CE	2.42	0.48
6:D:1033:GLN:N	11:D:8254:HOH:O	2.46	0.48
6:N:1114:THR:HG23	6:N:1114:THR:O	2.13	0.48
6:D:1026:SER:C	6:D:1028:ALA:H	2.17	0.48
2:Y:2:A:C4'	2:Y:2:A:C8	2.95	0.48
5:C:579:VAL:CG1	5:C:887:GLU:HG3	2.33	0.48
6:D:1102:THR:CG2	6:D:1370:ILE:HG22	2.42	0.48
11:C:1216:HOH:O	6:D:606:ILE:HD11	2.12	0.48
4:L:89:PHE:CD1	4:L:120:VAL:HG13	2.48	0.48
5:M:174:LEU:HD13	5:M:307:LEU:HD13	1.94	0.48
5:C:276:LYS:O	5:C:280:LYS:HB2	2.12	0.48
6:D:1231:GLU:CG	6:D:1232:PRO:HD3	2.43	0.48
5:M:673:LEU:HB3	5:M:868:ASP:OD1	2.13	0.48
6:N:470:LEU:H	6:N:470:LEU:CD2	2.24	0.48
5:M:490:GLU:HG2	5:M:493:ARG:CZ	2.42	0.48
4:L:124:ASN:ND2	4:L:127:LEU:HB2	2.28	0.48
4:L:24:VAL:HG12	4:L:26:GLU:OE2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:699:VAL:H	6:D:756:GLN:HE22	1.55	0.48
5:M:376:ARG:NH1	5:M:376:ARG:HG3	2.28	0.48
4:K:1:MET:O	4:K:6:LEU:HD13	2.12	0.48
5:C:18:LEU:HD22	5:C:404:LEU:CD2	2.43	0.48
5:M:127:PHE:HZ	5:M:336:VAL:HG11	1.78	0.48
6:N:729:HIS:CE1	6:N:731:LEU:H	2.31	0.48
5:M:262:ALA:HB3	11:M:1334:HOH:O	2.13	0.48
6:D:675:ARG:HA	6:D:678:GLU:HG2	1.94	0.48
5:M:250:ARG:HG2	5:M:253:ALA:CB	2.43	0.48
5:M:642:ARG:HG3	5:M:657:ASP:OD2	2.13	0.48
5:M:630:ARG:HA	11:M:1247:HOH:O	2.12	0.48
6:D:1136:LYS:HB2	6:D:1139:ASP:OD1	2.13	0.48
5:M:95:TYR:CD2	5:M:114:PHE:HB2	2.47	0.48
6:D:1217:ILE:HD12	6:D:1480:PHE:CE2	2.48	0.48
5:C:1049:LEU:CD2	6:D:1472:ILE:HD12	2.37	0.48
5:M:217:LEU:HD12	5:M:311:PHE:CD2	2.48	0.48
4:B:111:ALA:HB3	4:B:124:ASN:O	2.12	0.48
5:M:39:ARG:CD	5:M:39:ARG:H	2.18	0.48
6:D:522:PRO:HG2	6:D:523:ASP:H	1.78	0.48
4:A:180:GLN:HB3	4:A:182:GLU:OE2	2.11	0.48
5:M:302:VAL:O	5:M:306:THR:HG23	2.14	0.48
5:M:19:THR:HG22	5:M:404:LEU:CD1	2.41	0.48
6:D:1366:LYS:HA	6:D:1369:GLU:OE2	2.13	0.48
6:D:689:ASP:O	6:D:693:GLU:HG3	2.12	0.48
5:M:642:ARG:NH1	11:M:1230:HOH:O	2.45	0.48
5:M:1043:TYR:CE1	6:N:710:ARG:HG3	2.48	0.48
4:L:30:ARG:HB2	4:L:30:ARG:HH11	1.78	0.48
5:C:1102:LEU:N	6:D:7:LYS:O	2.46	0.48
4:A:108:GLU:OE2	4:A:131:THR:HG22	2.13	0.48
6:N:646:LYS:NZ	6:N:722:GLU:HG2	2.28	0.48
5:C:723:THR:HG23	5:C:725:ASP:H	1.78	0.48
6:D:1483:PHE:N	6:D:1483:PHE:CD1	2.81	0.48
1:X:16:DG:N2	11:X:2005:HOH:O	2.46	0.48
5:C:398:THR:HB	5:C:399:ASN:HD22	1.79	0.48
5:C:674:VAL:HG23	5:C:869:VAL:O	2.13	0.48
6:N:1220:ALA:O	6:N:1224:VAL:HG23	2.14	0.48
6:N:1026:SER:C	6:N:1028:ALA:H	2.16	0.48
5:C:548:PRO:HG3	5:C:842:ARG:NH1	2.28	0.48
5:M:98:LEU:HD21	5:M:373:VAL:HG21	1.95	0.48
6:N:543:LEU:HA	6:N:546:ARG:HG3	1.96	0.48
6:N:202:VAL:HB	6:N:398:ALA:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:164:GLY:O	6:D:199:LEU:HD12	2.13	0.48
5:M:736:ASP:HA	5:M:744:ARG:HH12	1.75	0.48
5:C:981:GLU:HG3	5:C:982:PRO:CD	2.43	0.48
5:M:842:ARG:NH2	5:M:887:GLU:CD	2.66	0.48
6:N:959:GLU:O	6:N:963:TYR:HD1	1.96	0.48
6:N:678:GLU:HB3	11:N:9222:HOH:O	2.13	0.48
6:D:764:LEU:HD12	6:D:766:ALA:H	1.79	0.48
6:N:757:ALA:CB	7:O:24:ALA:HB2	2.42	0.48
4:B:115:LEU:O	4:B:115:LEU:HD12	2.13	0.48
4:A:150:TYR:OH	5:C:696:LYS:HA	2.12	0.48
4:L:174:VAL:HG13	4:L:200:TRP:O	2.13	0.48
5:C:119:PRO:HB2	11:C:1174:HOH:O	2.12	0.48
6:N:619:LEU:HG	6:N:621:LYS:HE2	1.94	0.48
5:C:1083:GLU:HA	5:C:1086:ARG:HE	1.79	0.48
5:M:368:THR:N	5:M:369:PRO:HD2	2.29	0.48
5:C:98:LEU:HD13	5:C:110:GLU:O	2.13	0.48
6:N:155:ASP:O	6:N:159:ARG:HB3	2.13	0.48
6:N:606:ILE:HG23	11:N:9149:HOH:O	2.12	0.48
6:N:181:ASP:O	6:N:204:LEU:HA	2.13	0.48
6:D:1147:ARG:O	6:D:1166:LEU:HD23	2.12	0.48
6:D:50:PHE:CB	6:D:522:PRO:HG3	2.43	0.48
6:N:119:SER:N	6:N:123:LEU:HB2	2.28	0.48
7:O:73:LEU:HD12	7:O:73:LEU:H	1.79	0.48
5:M:52:PHE:HB3	5:M:53:PRO:HD3	1.95	0.48
6:D:139:GLY:HA2	6:D:451:ASP:O	2.13	0.48
5:M:880:MET:HE1	6:N:1243:THR:O	2.13	0.48
5:C:622:GLU:O	5:C:624:PRO:HD3	2.14	0.48
6:N:1238:MET:HA	6:N:1241:PHE:HE2	1.76	0.48
6:D:827:ILE:H	6:D:827:ILE:HD12	1.77	0.48
4:L:73:GLU:OE1	4:L:130:ALA:HA	2.13	0.48
6:N:759:ALA:O	6:N:763:MET:HB3	2.14	0.48
1:X:8:DT:H2''	1:X:9:DG:H8	1.77	0.48
5:M:959:PRO:HB2	11:M:1487:HOH:O	2.13	0.48
6:D:1213:ARG:HH12	7:E:11:GLY:HA2	1.78	0.48
6:D:881:LEU:HA	11:D:8376:HOH:O	2.13	0.48
1:X:12:DG:H2''	1:X:13:DT:O5'	2.14	0.48
2:Y:7:G:H5''	2:Y:7:G:C8	2.49	0.48
6:N:15:PRO:HB3	11:N:9303:HOH:O	2.12	0.48
5:M:1103:ASP:OD1	6:N:3:LYS:HD2	2.13	0.48
6:N:92:HIS:CA	6:N:519:VAL:HG23	2.43	0.48
5:C:415:PRO:HD2	5:C:418:LEU:HD13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:675:ALA:CA	5:C:989:VAL:HG13	2.43	0.48
6:D:785:ILE:O	6:D:789:LEU:HG	2.14	0.48
5:C:688:ILE:CG2	5:C:871:LEU:HD23	2.43	0.48
6:N:1378:TYR:O	6:N:1379:VAL:HG13	2.13	0.48
5:M:342:ASP:HA	5:M:345:ARG:CD	2.43	0.48
6:D:133:ILE:HG13	6:D:153:LEU:HG	1.95	0.48
6:N:939:PHE:O	6:N:943:THR:HG23	2.13	0.48
6:D:1495:ILE:HG22	6:D:1499:ARG:NH2	2.28	0.48
6:N:399:ARG:HH21	6:N:431:VAL:HG22	1.78	0.48
6:N:584:ASN:HD21	6:N:590:PRO:HD2	1.77	0.48
5:C:601:GLY:HA3	5:C:615:TYR:HA	1.95	0.48
5:M:1012:PRO:HB2	5:M:1021:LEU:O	2.13	0.48
6:N:613:ARG:HA	6:N:613:ARG:HD3	1.62	0.48
6:N:95:LEU:HA	6:N:551:ASN:ND2	2.28	0.48
5:C:326:ASP:HB2	5:C:431:HIS:CG	2.49	0.48
5:C:409:ARG:NH1	5:C:444:PRO:HG2	2.28	0.48
2:H:11:C:C2'	2:H:12:G:H5''	2.44	0.48
6:N:1066:THR:HG22	6:N:1069:GLU:OE1	2.12	0.48
5:M:260:LEU:HG	5:M:261:ILE:HG12	1.95	0.48
7:O:41:GLU:N	7:O:42:PRO:CD	2.76	0.48
6:N:902:LEU:HB3	11:N:9040:HOH:O	2.13	0.48
4:B:18:ARG:NH1	4:B:123:MET:HE1	2.14	0.48
5:M:218:VAL:HG22	5:M:221:LEU:HD21	1.94	0.48
5:C:1034:GLU:HA	5:C:1037:VAL:CG2	2.43	0.48
5:M:16:PRO:HG2	5:M:485:TYR:OH	2.14	0.48
6:N:500:ARG:HG3	11:N:9399:HOH:O	2.14	0.48
5:M:44:ILE:HD12	5:M:344:PHE:CD1	2.48	0.48
6:N:42:ASP:O	6:N:43:GLY:O	2.32	0.48
5:M:607:ASP:HB3	5:M:609:ASN:H	1.79	0.48
5:C:159:ILE:HD11	11:C:1246:HOH:O	2.13	0.48
6:N:1441:GLN:OE1	6:N:1442:ASN:HB2	2.13	0.48
6:N:583:ASP:HB2	6:N:604:THR:OG1	2.14	0.48
4:B:23:PHE:HZ	4:B:207:PRO:HB2	1.78	0.48
5:M:21:ILE:HD11	11:M:1541:HOH:O	2.13	0.48
5:M:95:TYR:HD2	5:M:114:PHE:HB2	1.79	0.48
6:D:110:SER:HB3	6:D:113:GLY:H	1.77	0.48
5:C:168:ARG:HB2	11:C:1136:HOH:O	2.13	0.48
5:M:61:LYS:HD3	5:M:61:LYS:O	2.14	0.48
2:Y:7:G:H8	2:Y:7:G:C5'	2.27	0.48
5:C:691:SER:HB2	5:C:858:MET:SD	2.53	0.48
6:N:1102:THR:HG22	6:N:1222:GLY:HA3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1378:TYR:HA	6:N:1395:LEU:H	1.78	0.48
6:D:762:GLN:CB	7:E:16:LYS:HE2	2.44	0.48
5:M:260:LEU:HA	5:M:291:ALA:CB	2.43	0.48
6:D:462:GLN:HA	6:D:513:ILE:HD13	1.94	0.48
5:C:176:VAL:HG13	11:C:1142:HOH:O	2.14	0.48
6:D:1381:VAL:HG13	11:D:8400:HOH:O	2.14	0.48
7:E:23:VAL:HG22	7:E:68:LEU:HD23	1.96	0.48
4:K:224:TYR:HD1	11:K:1342:HOH:O	1.96	0.48
6:N:490:ALA:HA	6:N:1390:LEU:CD1	2.44	0.48
4:L:124:ASN:N	4:L:125:PRO:HD3	2.29	0.48
5:M:626:ARG:HB3	5:M:626:ARG:HH11	1.79	0.48
6:D:963:TYR:HE2	6:D:1002:LYS:HB3	1.78	0.48
5:C:1103:ASP:OD1	5:C:1109:VAL:HG22	2.14	0.48
5:M:845:ASN:ND2	11:M:1407:HOH:O	2.46	0.48
4:L:173:PRO:HG3	11:L:367:HOH:O	2.14	0.48
5:C:758:ARG:NH2	5:C:788:THR:HB	2.29	0.48
6:D:42:ASP:O	6:D:43:GLY:O	2.31	0.48
5:C:205:GLU:O	5:C:209:ARG:HD2	2.14	0.48
6:N:1152:GLU:OE2	6:N:1154:GLU:HG3	2.13	0.48
5:M:767:PRO:HD3	11:M:1522:HOH:O	2.14	0.48
6:N:93:ILE:HB	6:N:517:VAL:HB	1.96	0.48
5:C:562:SER:HB3	11:C:1416:HOH:O	2.12	0.48
5:C:405:ARG:NE	5:C:566:THR:HG21	2.28	0.48
6:D:644:LEU:HD23	6:D:718:PRO:CB	2.43	0.48
6:D:792:ILE:O	6:D:792:ILE:HG12	2.13	0.48
4:B:102:LYS:HZ2	4:B:139:ASN:HB2	1.78	0.48
6:N:1484:THR:H	7:O:25:LYS:NZ	2.11	0.48
6:N:1336:LEU:CD1	6:N:1341:PRO:HG3	2.44	0.48
6:D:1112:CYS:HB2	6:D:1195:GLN:CG	2.32	0.48
7:O:57:ASP:H	7:O:58:PRO:HD3	1.79	0.48
6:N:1499:ARG:HB2	6:N:1499:ARG:HH11	1.78	0.48
5:M:1095:LEU:HD21	6:N:603:LEU:HB3	1.95	0.48
5:C:265:ARG:H	5:C:289:THR:HG21	1.78	0.48
6:N:394:LEU:HD21	6:N:445:ARG:CZ	2.43	0.48
5:C:587:VAL:HG23	11:C:1190:HOH:O	2.12	0.48
6:D:1381:VAL:HB	6:D:1389:LEU:O	2.14	0.48
6:D:119:SER:N	6:D:123:LEU:HB2	2.29	0.48
6:D:81:THR:HB	6:D:85:VAL:HG22	1.95	0.48
6:N:1383:ASP:HB2	6:N:1416:ALA:HB3	1.96	0.48
4:L:23:PHE:O	4:L:196:THR:HA	2.14	0.48
4:K:38:ASN:CB	5:M:980:GLY:HA3	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:172:ILE:HG23	5:M:184:MET:SD	2.54	0.48
6:N:804:LEU:HD23	6:N:804:LEU:H	1.79	0.48
5:M:716:LYS:HZ1	6:N:36:THR:HA	1.78	0.48
6:D:671:LYS:O	6:D:675:ARG:HG3	2.14	0.48
6:D:562:ALA:HB1	6:D:567:ILE:CD1	2.44	0.48
5:C:317:VAL:HG23	11:C:1254:HOH:O	2.14	0.48
4:A:215:VAL:HG21	4:B:225:PHE:CD1	2.49	0.48
6:N:1098:LEU:HD23	6:N:1371:VAL:HG21	1.96	0.48
4:L:226:SER:O	4:L:228:PRO:HD3	2.14	0.48
2:Y:7:G:H2'	2:Y:8:C:OP1	2.14	0.48
2:Y:9:G:C5'	2:Y:9:G:C8	2.97	0.48
5:C:833:LEU:HD13	5:C:996:LYS:HD2	1.96	0.48
6:N:1109:GLU:CG	6:N:1201:CYS:HA	2.34	0.48
6:N:1223:ILE:H	6:N:1223:ILE:CD1	2.19	0.48
6:D:727:GLN:NE2	11:D:8105:HOH:O	2.46	0.48
6:N:786:ILE:HD13	6:N:1027:GLY:CA	2.44	0.48
6:D:1094:LEU:O	6:D:1098:LEU:HD13	2.14	0.48
6:D:1221:VAL:O	6:D:1224:VAL:HB	2.14	0.48
6:D:581:LEU:H	6:D:581:LEU:HD23	1.77	0.48
6:N:546:ARG:HH11	6:N:546:ARG:HB3	1.78	0.48
5:C:260:LEU:CD1	5:C:261:ILE:HG13	2.43	0.48
1:G:23:DG:N2	11:G:185:HOH:O	2.46	0.48
6:D:1120:VAL:HB	6:D:1144:LEU:HD21	1.96	0.48
6:D:153:LEU:HB3	11:D:8252:HOH:O	2.14	0.48
7:O:22:VAL:CG1	7:O:68:LEU:HD21	2.44	0.48
4:K:36:LEU:O	4:K:39:PRO:HD2	2.14	0.48
5:C:774:LEU:HD11	11:D:8351:HOH:O	2.14	0.48
6:N:974:ILE:HD11	6:N:995:LEU:HD22	1.95	0.48
5:M:129:ILE:HG22	5:M:130:ASN:N	2.29	0.48
4:A:156:HIS:CD2	4:A:157:GLY:N	2.82	0.48
5:M:21:ILE:HD12	5:M:21:ILE:N	2.29	0.48
5:M:256:TYR:HB2	11:M:1408:HOH:O	2.13	0.48
7:E:5:GLY:HA3	7:E:8:LYS:HD2	1.96	0.48
5:M:1013:TYR:HB3	5:M:1018:GLN:OE1	2.13	0.48
6:D:650:LEU:HD23	6:D:691:LEU:CD2	2.43	0.48
5:M:684:PHE:HD2	11:N:9180:HOH:O	1.97	0.48
5:C:681:GLY:O	6:D:633:VAL:HG11	2.14	0.48
6:D:1097:LYS:O	6:D:1101:VAL:HG23	2.13	0.48
6:D:1105:ILE:HG23	6:D:1373:ARG:NH2	2.28	0.48
6:D:1462:LEU:HD21	6:D:1474:ALA:CB	2.42	0.48
5:M:101:ILE:HG22	5:M:102:HIS:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1030:GLN:HE22	6:N:628:ARG:HD3	1.78	0.48
6:N:9:ARG:HA	6:N:1455:LYS:O	2.13	0.48
5:M:1040:LEU:N	5:M:1040:LEU:HD12	2.29	0.48
6:D:93:ILE:HG13	6:D:519:VAL:CG2	2.43	0.48
5:M:91:GLN:NE2	5:M:383:ARG:HH22	2.12	0.48
4:A:36:LEU:HD11	4:B:221:HIS:CD2	2.49	0.48
6:D:769:LEU:HB2	6:D:919:PHE:CE1	2.49	0.48
6:D:675:ARG:HB3	6:D:675:ARG:CZ	2.43	0.48
4:L:7:LYS:O	4:L:7:LYS:HD2	2.14	0.48
3:I:4:DC:H2''	3:I:5:DG:O5'	2.14	0.48
4:B:153:ALA:HA	4:B:156:HIS:CE1	2.49	0.48
5:C:322:VAL:HG23	5:C:322:VAL:O	2.14	0.48
1:X:14:DT:H3'	6:N:610:LYS:HZ1	1.79	0.47
6:N:94:GLU:O	6:N:551:ASN:ND2	2.45	0.47
5:C:433:THR:O	5:C:437:ARG:HD2	2.14	0.47
6:D:796:ARG:O	6:D:797:LYS:HD2	2.14	0.47
6:N:783:ARG:HH12	6:N:1029:ARG:NH2	2.12	0.47
6:N:1378:TYR:OH	6:N:1431:THR:HA	2.14	0.47
6:D:117:ASP:N	6:D:150:ARG:HH11	2.12	0.47
6:N:525:ARG:HB2	6:N:538:SER:CB	2.43	0.47
6:N:84:ILE:O	6:N:87:ARG:HG3	2.13	0.47
5:M:503:LEU:HD23	5:M:507:ARG:O	2.14	0.47
5:M:152:PRO:HB2	11:M:1160:HOH:O	2.14	0.47
5:C:193:LEU:N	5:C:193:LEU:HD12	2.29	0.47
5:C:144:PRO:HA	5:C:163:ILE:CD1	2.44	0.47
1:G:18:DG:H5''	6:D:628:ARG:HH22	1.79	0.47
5:M:571:LEU:HD21	5:M:700:TYR:CD2	2.49	0.47
5:M:833:LEU:HD21	5:M:839:LEU:HD11	1.96	0.47
5:M:780:GLU:HG3	5:M:781:LYS:HD3	1.96	0.47
5:M:604:ALA:HB3	5:M:612:VAL:O	2.14	0.47
5:M:969:GLN:CD	5:M:971:LYS:HE3	2.34	0.47
5:M:129:ILE:HG13	5:M:386:PHE:HB3	1.96	0.47
4:K:213:GLN:O	4:K:217:ILE:HG13	2.13	0.47
4:A:150:TYR:CE1	5:C:696:LYS:HA	2.49	0.47
5:M:257:VAL:HG22	11:M:1151:HOH:O	2.13	0.47
5:C:715:THR:CG2	5:C:717:LEU:HG	2.43	0.47
6:D:932:ASP:O	6:D:935:LYS:HB3	2.14	0.47
6:D:796:ARG:NE	6:D:828:LYS:HZ2	2.12	0.47
6:D:1429:LEU:HG	6:D:1441:GLN:HG3	1.96	0.47
3:I:9:DG:H2''	3:I:10:DA:C8	2.50	0.47
7:O:57:ASP:N	7:O:58:PRO:HD3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:47:GLU:O	6:N:51:GLY:N	2.47	0.47
6:N:58:CYS:HA	6:N:78:VAL:HG11	1.96	0.47
5:C:158:TYR:CD1	5:C:314:THR:HG22	2.44	0.47
6:D:1087:ARG:NH2	6:D:1253:THR:HG22	2.27	0.47
6:D:1228:SER:HA	11:D:8193:HOH:O	2.14	0.47
6:D:1147:ARG:HB2	6:D:1166:LEU:HD21	1.96	0.47
6:D:1147:ARG:HD2	6:D:1188:VAL:HG21	1.96	0.47
5:M:487:THR:OG1	5:M:490:GLU:HG3	2.13	0.47
6:D:756:GLN:CG	6:D:760:ARG:HH11	2.25	0.47
5:C:31:GLN:HB3	5:C:71:TYR:HH	1.78	0.47
6:N:838:ARG:HG2	6:N:838:ARG:HH11	1.79	0.47
5:M:252:LYS:HZ2	5:M:296:GLY:HA3	1.77	0.47
4:K:2:LEU:HA	4:K:6:LEU:HD22	1.96	0.47
4:K:111:ALA:HB3	4:K:124:ASN:O	2.13	0.47
6:D:440:VAL:CB	6:D:441:ARG:HH21	2.26	0.47
5:C:185:LYS:HB3	5:C:188:LYS:O	2.13	0.47
6:D:1124:GLN:HA	6:D:1125:PRO:HD3	1.65	0.47
6:D:42:ASP:CG	6:D:48:ARG:HH22	2.18	0.47
6:D:902:LEU:HD13	11:D:8066:HOH:O	2.12	0.47
6:N:861:GLN:H	6:N:861:GLN:NE2	2.12	0.47
6:N:573:MET:HE2	11:N:9331:HOH:O	2.14	0.47
2:Y:7:G:O6	5:M:1015:LEU:N	2.45	0.47
6:D:1101:VAL:HG21	6:D:1424:VAL:CA	2.44	0.47
6:D:1441:GLN:OE1	6:D:1442:ASN:HB2	2.13	0.47
6:N:628:ARG:HG3	6:N:628:ARG:NH1	2.30	0.47
6:N:1130:ARG:HD3	11:N:9173:HOH:O	2.13	0.47
3:Z:4:DC:H4'	11:Z:1418:HOH:O	2.15	0.47
6:D:520:LEU:HD12	6:D:521:PRO:HD2	1.97	0.47
6:D:619:LEU:N	6:D:619:LEU:HD23	2.29	0.47
5:C:77:PRO:HB2	5:C:78:PHE:CD1	2.49	0.47
5:M:287:GLY:O	5:M:288:ARG:C	2.52	0.47
5:C:31:GLN:HG2	5:C:31:GLN:O	2.14	0.47
4:A:26:GLU:HG2	4:A:27:PRO:HG3	1.96	0.47
5:M:734:LEU:HD11	11:M:1385:HOH:O	2.14	0.47
4:A:171:PHE:O	4:A:173:PRO:HD3	2.15	0.47
5:M:620:LEU:N	5:M:620:LEU:HD12	2.29	0.47
4:A:73:GLU:H	4:A:73:GLU:CD	2.17	0.47
5:C:1102:LEU:HB2	6:D:7:LYS:HB2	1.96	0.47
6:D:583:ASP:OD2	6:D:604:THR:HG21	2.14	0.47
5:M:764:GLU:HG3	6:N:54:LYS:HD3	1.96	0.47
6:N:610:LYS:HB2	11:N:9190:HOH:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:95:LEU:N	6:N:95:LEU:HD12	2.24	0.47
5:C:437:ARG:HH21	5:C:469:THR:HG22	1.80	0.47
5:C:398:THR:HG21	5:C:567:GLN:C	2.34	0.47
6:D:1033:GLN:O	6:D:1037:GLN:HG3	2.14	0.47
6:D:1200:VAL:N	11:D:8286:HOH:O	2.47	0.47
7:E:16:LYS:HD3	7:E:17:TYR:CE1	2.49	0.47
5:M:65:VAL:HG12	5:M:67:ASP:OD2	2.14	0.47
4:B:64:GLU:HG2	4:B:64:GLU:O	2.14	0.47
5:C:158:TYR:HE1	5:C:314:THR:HA	1.79	0.47
5:C:148:PHE:HZ	5:C:281:LEU:HB3	1.78	0.47
6:N:394:LEU:O	6:N:396:VAL:N	2.47	0.47
5:M:675:ALA:CA	5:M:989:VAL:HG12	2.38	0.47
7:O:26:ARG:NH1	7:O:29:GLN:HE21	2.13	0.47
6:D:1262:LEU:HD23	6:D:1352:ILE:CG1	2.44	0.47
5:C:625:LEU:O	5:C:627:ARG:N	2.47	0.47
6:D:147:VAL:HG12	11:D:8415:HOH:O	2.14	0.47
6:N:1231:GLU:HB3	6:N:1232:PRO:HD3	1.96	0.47
5:M:610:ARG:NH1	5:M:612:VAL:HG23	2.30	0.47
5:M:798:GLY:H	5:M:827:VAL:CG1	2.28	0.47
5:C:361:MET:HG3	5:C:371:LYS:HD2	1.96	0.47
5:C:244:PRO:CD	5:C:245:GLY:H	2.26	0.47
6:N:756:GLN:HE22	6:N:760:ARG:HB3	1.80	0.47
5:M:474:VAL:HG12	5:M:531:PHE:HA	1.96	0.47
5:M:1049:LEU:HD23	6:N:1472:ILE:HD12	1.95	0.47
4:A:67:THR:HG23	5:C:609:ASN:HD21	1.79	0.47
5:C:18:LEU:HD22	5:C:404:LEU:HD21	1.95	0.47
6:N:820:GLU:HA	6:N:825:ALA:O	2.15	0.47
6:D:159:ARG:HB3	6:D:163:TYR:OH	2.14	0.47
5:M:1067:TYR:HB3	11:M:1303:HOH:O	2.13	0.47
5:M:734:LEU:HD21	11:M:1385:HOH:O	2.14	0.47
4:A:101:LEU:HD22	4:A:114:PHE:CZ	2.49	0.47
4:K:9:PRO:HB3	4:K:25:LEU:HD21	1.95	0.47
4:K:64:GLU:HG3	4:K:64:GLU:O	2.13	0.47
6:D:783:ARG:HA	6:D:1028:ALA:CA	2.29	0.47
5:M:537:LYS:H	5:M:537:LYS:CD	2.20	0.47
6:N:1023:MET:HG2	6:N:1029:ARG:H	1.80	0.47
6:D:1220:ALA:HB1	6:D:1223:ILE:CD1	2.40	0.47
5:M:310:LEU:O	5:M:314:THR:HG23	2.14	0.47
5:C:144:PRO:N	5:C:276:LYS:HZ2	2.12	0.47
5:C:759:THR:HG21	5:C:783:ARG:NH2	2.30	0.47
6:N:1268:PRO:HD3	6:N:1331:ASP:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:13:VAL:HG12	7:O:14:ASP:N	2.29	0.47
6:N:493:ARG:CZ	6:N:1391:GLU:HA	2.45	0.47
4:B:154:GLU:HB3	4:B:155:LYS:HZ2	1.78	0.47
4:B:40:LEU:HD22	4:B:211:LEU:CD1	2.43	0.47
6:D:683:ILE:N	6:D:683:ILE:HD12	2.29	0.47
6:D:884:ARG:HG2	11:D:8116:HOH:O	2.14	0.47
7:O:8:LYS:O	7:O:12:MET:HG3	2.14	0.47
6:D:876:SER:O	6:D:880:ILE:HG12	2.15	0.47
5:M:764:GLU:CB	6:N:54:LYS:HD3	2.44	0.47
5:M:1090:LYS:CD	6:N:90:MET:HG3	2.40	0.47
5:C:874:LEU:HD11	6:D:787:LEU:HD23	1.97	0.47
6:N:1220:ALA:CB	6:N:1223:ILE:HD13	2.27	0.47
6:D:634:GLY:HA3	6:D:727:GLN:HG2	1.97	0.47
6:N:1432:LYS:HA	11:N:9333:HOH:O	2.13	0.47
6:D:1107:VAL:HA	6:D:1200:VAL:O	2.14	0.47
6:D:1223:ILE:HG22	6:D:1227:GLN:NE2	2.16	0.47
6:N:520:LEU:HD11	6:N:524:LEU:HD23	1.96	0.47
5:C:260:LEU:C	5:C:260:LEU:HD12	2.34	0.47
6:D:138:LYS:HE2	11:D:8030:HOH:O	2.14	0.47
6:D:23:TYR:O	6:D:91:GLY:HA2	2.14	0.47
5:M:7:GLY:O	5:M:8:ARG:NE	2.48	0.47
6:N:119:SER:H	6:N:123:LEU:HB2	1.79	0.47
6:N:493:ARG:NH2	6:N:1391:GLU:HA	2.29	0.47
5:M:68:PHE:HZ	5:M:71:TYR:CD2	2.23	0.47
5:C:626:ARG:N	5:C:639:GLN:HE21	2.13	0.47
4:A:79:ILE:HG21	4:A:165:ILE:HD11	1.94	0.47
5:C:722:ILE:CD1	5:C:823:VAL:HG21	2.39	0.47
6:D:401:TYR:HB2	11:D:8164:HOH:O	2.14	0.47
6:D:1160:LEU:CD1	6:D:1174:LEU:HD21	2.42	0.47
4:B:45:LEU:HD21	6:D:855:HIS:NE2	2.30	0.47
5:M:86:LYS:HD2	11:M:1208:HOH:O	2.14	0.47
2:Y:8:C:H2'	2:Y:9:G:N7	2.30	0.47
5:M:1090:LYS:HG2	5:M:1112:PHE:CZ	2.48	0.47
6:N:1204:CYS:C	11:N:9238:HOH:O	2.51	0.47
5:C:874:LEU:HD11	6:D:787:LEU:CD2	2.44	0.47
6:N:634:GLY:HA2	6:N:727:GLN:HE21	1.79	0.47
5:C:564:MET:HG3	5:C:565:GLN:N	2.29	0.47
5:M:331:ARG:CB	5:M:331:ARG:HH11	2.27	0.47
5:M:437:ARG:C	5:M:438:ILE:HD12	2.35	0.47
6:D:455:ARG:CB	6:D:460:ALA:CA	2.86	0.47
6:D:137:PRO:HD3	6:D:455:ARG:HH21	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:177:VAL:O	5:M:864:GLY:HA3	2.15	0.47
4:B:124:ASN:HD21	4:B:127:LEU:HD22	1.78	0.47
6:N:127:LEU:HD13	6:N:128:TYR:CD2	2.49	0.47
6:N:204:LEU:O	6:N:394:LEU:HD23	2.14	0.47
5:C:287:GLY:O	5:C:288:ARG:C	2.53	0.47
6:D:206:ARG:HB2	6:D:392:SER:O	2.14	0.47
6:D:398:ALA:HA	6:D:446:VAL:O	2.15	0.47
5:C:1030:GLN:NE2	5:C:1030:GLN:HA	2.29	0.47
5:M:689:VAL:HG11	5:M:870:ILE:CD1	2.44	0.47
5:C:1115:LEU:HG	6:D:85:VAL:HG12	1.97	0.47
5:M:589:ARG:HG3	5:M:596:TYR:CE1	2.50	0.47
5:M:1056:LYS:HD3	6:N:625:TYR:CD1	2.50	0.47
5:M:462:ASP:CG	5:M:463:GLU:N	2.67	0.47
6:D:1496:GLU:HA	6:D:1499:ARG:CZ	2.44	0.47
5:M:45:GLN:HE21	5:M:68:PHE:HE2	1.62	0.47
5:M:769:PRO:HG2	6:N:65:ARG:CD	2.45	0.47
4:L:81:ASN:O	4:L:127:LEU:HD21	2.15	0.47
6:D:97:THR:HG21	6:D:571:LYS:HZ3	1.80	0.47
6:N:1353:GLN:HG2	6:N:1368:ILE:CD1	2.45	0.47
5:M:172:ILE:HG23	5:M:184:MET:CE	2.45	0.47
5:M:162:ILE:HB	5:M:172:ILE:HB	1.96	0.47
6:D:800:LYS:HE3	6:D:804:LEU:HD13	1.96	0.47
4:A:69:PRO:HA	5:C:607:ASP:OD1	2.14	0.47
5:M:119:PRO:HG2	5:M:386:PHE:CD2	2.49	0.47
6:N:666:ILE:HG13	6:N:666:ILE:H	1.41	0.47
4:L:43:ILE:HG23	4:L:47:SER:HB3	1.97	0.47
4:B:117:VAL:HG11	11:B:324:HOH:O	2.14	0.47
4:A:101:LEU:HD23	4:A:140:MET:HG2	1.95	0.47
5:C:1008:ARG:NH2	5:C:1011:GLY:N	2.62	0.47
4:L:161:ARG:HD2	4:L:161:ARG:N	2.30	0.47
6:D:638:LYS:HD2	6:D:932:ASP:OD1	2.14	0.47
5:C:322:VAL:HB	11:C:1379:HOH:O	2.15	0.47
6:N:1197:ARG:HB2	6:N:1197:ARG:HH11	1.80	0.47
5:M:27:ARG:HD3	5:M:28:ARG:N	2.29	0.47
5:M:430:VAL:HG13	6:N:1075:HIS:ND1	2.30	0.47
5:M:926:PHE:HD2	5:M:930:LYS:HE3	1.80	0.47
5:M:1031:ARG:NH1	6:N:621:LYS:HZ2	2.13	0.47
6:N:519:VAL:HA	6:N:544:TYR:OH	2.15	0.47
2:H:10:G:C2'	2:H:11:C:H5'	2.45	0.47
6:D:720:LEU:H	6:D:720:LEU:HD12	1.80	0.47
5:C:688:ILE:N	11:C:1474:HOH:O	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:573:ARG:HG2	5:C:670:GLN:OE1	2.15	0.47
6:D:1462:LEU:HD23	6:D:1473:PRO:HD2	1.96	0.47
6:D:135:LEU:HB2	6:D:148:GLU:O	2.15	0.47
5:M:996:LYS:HE3	11:M:1161:HOH:O	2.14	0.47
5:C:204:GLN:OE1	5:C:222:MET:HA	2.15	0.47
6:D:1384:PRO:HG3	6:D:1389:LEU:CA	2.45	0.47
7:E:64:ALA:O	7:E:68:LEU:HD13	2.14	0.47
6:D:53:ILE:HA	6:D:86:ARG:CZ	2.44	0.47
5:M:376:ARG:HH11	5:M:376:ARG:HG3	1.80	0.47
4:B:58:ILE:HD13	4:B:140:MET:HB3	1.96	0.47
5:M:1070:ILE:HG23	6:N:656:PHE:CD1	2.50	0.47
5:C:26:TYR:CD2	5:C:121:MET:HB2	2.49	0.47
5:M:78:PHE:HB3	5:M:82:GLU:OE1	2.14	0.47
5:M:603:VAL:H	5:M:647:GLN:H	1.63	0.47
5:C:964:LYS:NZ	5:C:968:LEU:HD21	2.29	0.47
6:D:173:PRO:HB2	11:D:8270:HOH:O	2.13	0.47
4:L:152:PRO:HG2	6:N:857:ILE:HD12	1.96	0.47
6:N:26:VAL:HG21	6:N:519:VAL:HG11	1.97	0.47
5:C:553:ASP:OD1	5:C:843:HIS:HB3	2.14	0.47
2:H:7:G:H5"	2:H:7:G:C8	2.50	0.47
4:K:112:ARG:HG2	4:K:125:PRO:CA	2.45	0.47
6:N:1221:VAL:HG12	6:N:1222:GLY:N	2.30	0.47
6:N:1476:THR:C	6:N:1478:SER:N	2.67	0.47
5:M:688:ILE:CD1	5:M:847:GLY:HA3	2.45	0.47
6:D:1472:ILE:HD13	6:D:1472:ILE:N	2.29	0.47
5:C:1016:ILE:HG12	5:C:1017:THR:N	2.29	0.47
6:D:116:LEU:HD22	6:D:118:LEU:CD2	2.45	0.47
5:C:470:PRO:HD3	5:C:485:TYR:HE2	1.79	0.47
1:G:19:DC:P	5:C:1001:VAL:HB	2.55	0.47
5:C:1036:GLU:O	5:C:1039:ALA:HB3	2.14	0.47
6:N:711:LEU:HD21	6:N:768:ASN:HB2	1.95	0.47
4:L:222:LEU:HA	4:L:225:PHE:CE1	2.50	0.47
5:M:625:LEU:O	5:M:627:ARG:N	2.48	0.47
6:N:756:GLN:O	6:N:756:GLN:NE2	2.48	0.47
6:D:704:ARG:HH12	6:D:743:ASP:CB	2.28	0.47
5:C:937:ASP:HB2	5:C:940:GLU:CG	2.43	0.47
4:A:89:PHE:HZ	4:A:146:ARG:HB2	1.80	0.47
5:M:69:LEU:HD21	5:M:99:GLN:HG3	1.97	0.47
6:N:845:ASN:ND2	6:N:846:PRO:HD2	2.30	0.47
4:A:73:GLU:CD	4:A:130:ALA:HA	2.35	0.47
6:N:1156:LEU:HD21	6:N:1177:ALA:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:21:DC:H3'	11:X:589:HOH:O	2.14	0.47
5:C:769:PRO:HB3	11:D:8366:HOH:O	2.15	0.47
6:N:884:ARG:HG2	11:N:9101:HOH:O	2.14	0.47
4:L:140:MET:HG2	4:L:141:GLU:N	2.28	0.47
6:N:439:LEU:HG	11:N:9125:HOH:O	2.15	0.47
4:B:162:ILE:HD12	4:B:163:ASN:N	2.29	0.47
7:O:38:THR:HG21	7:O:63:TRP:CZ3	2.50	0.47
5:C:437:ARG:HG2	5:C:467:ILE:O	2.15	0.47
5:C:674:VAL:HG11	5:C:992:MET:HB3	1.97	0.47
2:H:8:C:H2'	2:H:9:G:N7	2.30	0.47
6:D:796:ARG:HH21	6:D:828:LYS:CE	2.27	0.47
4:L:34:VAL:HA	4:L:179:PHE:HE1	1.79	0.47
5:M:876:VAL:HG13	5:M:881:ASN:HD21	1.79	0.47
6:D:1191:PRO:HB3	6:D:1370:ILE:HD13	1.95	0.47
6:D:710:ARG:C	6:D:712:GLY:H	2.18	0.47
5:C:1095:LEU:HD22	6:D:101:HIS:CE1	2.49	0.47
5:M:151:ASP:OD1	5:M:154:ARG:HB3	2.15	0.47
5:C:146:VAL:CG2	5:C:162:ILE:HG23	2.43	0.47
6:D:130:SER:HB3	6:D:132:TYR:CE1	2.50	0.47
6:D:896:ALA:O	6:D:899:LEU:HD12	2.15	0.47
5:M:806:LEU:HD11	5:M:824:ARG:HH22	1.79	0.47
5:M:822:VAL:CB	5:M:824:ARG:HH21	2.28	0.47
6:N:1442:ASN:CG	6:N:1444:THR:HB	2.36	0.47
6:N:1462:LEU:HD21	6:N:1474:ALA:HB3	1.97	0.47
4:A:48:ILE:CD1	4:A:210:ALA:HB1	2.44	0.47
6:N:1118:ILE:HG12	6:N:1193:THR:HG23	1.97	0.47
4:B:110:LYS:HD3	4:B:112:ARG:HG2	1.97	0.47
4:B:51:THR:HG23	11:B:316:HOH:O	2.15	0.47
2:Y:15:C:H2'	2:Y:16:G:C8	2.50	0.46
2:H:4:U:O2'	2:H:5:C:H5'	2.15	0.46
5:C:872:ASN:ND2	5:C:874:LEU:N	2.63	0.46
6:D:161:LEU:HD21	6:D:452:ILE:CG2	2.27	0.46
5:M:498:GLN:HE22	6:N:1067:VAL:CG1	2.28	0.46
5:C:580:MET:HB3	5:C:584:GLU:CD	2.35	0.46
6:D:1198:TYR:HE2	6:D:1377:LYS:HD2	1.80	0.46
6:D:118:LEU:HD13	6:D:461:ILE:HD12	1.97	0.46
6:D:502:PHE:HA	11:D:8084:HOH:O	2.14	0.46
6:D:502:PHE:CZ	6:D:509:PRO:HB3	2.50	0.46
4:L:94:LEU:HD11	4:L:119:ASP:HB2	1.97	0.46
4:K:177:VAL:HG13	4:K:199:ILE:CD1	2.45	0.46
5:C:69:LEU:C	5:C:70:GLU:HG2	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:265:ARG:HD2	5:C:267:TYR:CG	2.50	0.46
6:N:1121:PRO:HB2	6:N:1135:ARG:HH12	1.79	0.46
5:C:1098:ASP:O	6:D:10:ILE:HA	2.15	0.46
7:E:54:LEU:HA	7:E:58:PRO:CG	2.44	0.46
5:M:678:PRO:HD2	11:N:9146:HOH:O	2.14	0.46
6:N:481:MET:CE	6:N:1388:ARG:HG3	2.44	0.46
6:N:1389:LEU:HG	6:N:1390:LEU:H	1.79	0.46
6:N:493:ARG:HD2	6:N:494:LYS:N	2.30	0.46
6:N:10:ILE:HD11	6:N:1434:TRP:NE1	2.30	0.46
5:C:999:HIS:HB2	11:C:1358:HOH:O	2.15	0.46
6:N:462:GLN:O	6:N:466:LYS:HG3	2.15	0.46
5:C:900:ARG:NH1	11:C:1210:HOH:O	2.48	0.46
5:C:1103:ASP:N	5:C:1107:ASN:O	2.44	0.46
4:K:111:ALA:HB2	4:K:127:LEU:CD2	2.45	0.46
6:N:1149:LEU:HD23	6:N:1187:PRO:O	2.15	0.46
4:B:27:PRO:C	4:B:28:LEU:HD23	2.35	0.46
4:A:88:ARG:NH1	4:A:89:PHE:O	2.47	0.46
6:N:134:VAL:CG1	6:N:152:LEU:HD22	2.45	0.46
5:C:394:PHE:CE1	5:C:632:ASN:HB3	2.49	0.46
5:C:292:ARG:HB2	5:C:299:LYS:HG2	1.97	0.46
6:N:1122:LEU:HD11	6:N:1186:VAL:HG23	1.97	0.46
7:O:91:ARG:HH11	7:O:92:LEU:HD21	1.80	0.46
4:A:175:ARG:NH2	4:A:176:ARG:HD3	2.30	0.46
6:D:843:PHE:CE1	6:D:864:VAL:HG11	2.50	0.46
4:A:133:GLU:OE1	5:C:605:LYS:HB3	2.16	0.46
5:C:737:LEU:HD21	5:C:741:GLY:C	2.36	0.46
5:M:2:GLU:O	5:M:3:ILE:HD13	2.15	0.46
6:N:92:HIS:HA	6:N:519:VAL:HG23	1.96	0.46
5:C:859:PRO:HB3	5:C:974:LEU:CD2	2.44	0.46
2:H:9:G:C5'	2:H:9:G:C8	2.98	0.46
6:D:647:ARG:HA	6:D:650:LEU:HD12	1.96	0.46
6:D:1468:LEU:HD23	6:D:1468:LEU:O	2.15	0.46
6:D:136:ASP:OD2	6:D:464:LEU:HD23	2.15	0.46
4:K:181:VAL:H	5:M:937:ASP:CG	2.19	0.46
5:M:940:GLU:HG3	11:M:1220:HOH:O	2.15	0.46
5:M:862:PRO:HD3	5:M:973:VAL:O	2.14	0.46
6:N:133:ILE:HB	6:N:153:LEU:CD1	2.45	0.46
5:C:172:ILE:H	5:C:172:ILE:HD12	1.80	0.46
5:C:193:LEU:N	5:C:193:LEU:CD1	2.78	0.46
6:N:434:ARG:NH2	6:N:447:VAL:HG11	2.29	0.46
5:M:751:PRO:HB2	6:N:680:GLN:NE2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:689:VAL:CG1	5:M:690:ILE:H	2.25	0.46
5:C:207:LEU:HD22	5:C:221:LEU:HD13	1.97	0.46
7:E:48:MET:HB2	7:E:54:LEU:HB2	1.96	0.46
6:N:1381:VAL:HB	6:N:1389:LEU:O	2.14	0.46
5:M:911:GLU:HB2	5:M:912:PRO:HD3	1.97	0.46
4:L:124:ASN:HD21	4:L:127:LEU:HB2	1.80	0.46
5:M:1050:GLN:NE2	6:N:1471:LEU:N	2.58	0.46
5:C:1100:GLN:HB3	6:D:9:ARG:HH21	1.80	0.46
5:M:668:LEU:HD13	5:M:995:MET:CE	2.44	0.46
6:D:66:GLN:O	6:D:69:GLU:HB3	2.16	0.46
6:D:69:GLU:HG2	6:D:70:GLY:N	2.30	0.46
6:D:540:LEU:HA	6:D:543:LEU:HD11	1.97	0.46
6:D:871:LYS:NZ	6:N:442:ASN:HD22	2.13	0.46
5:M:79:PRO:HA	5:M:90:TYR:HE2	1.80	0.46
6:N:452:ILE:HB	11:N:9092:HOH:O	2.14	0.46
6:N:33:ASN:O	6:N:36:THR:O	2.33	0.46
4:A:42:ARG:HH12	4:B:34:VAL:CG1	2.28	0.46
5:C:292:ARG:HD2	5:C:299:LYS:CE	2.46	0.46
5:M:512:ARG:HB3	5:M:523:ILE:HD11	1.97	0.46
4:A:7:LYS:HE3	4:A:186:LEU:HD22	1.97	0.46
5:M:897:LEU:HD11	5:M:920:GLN:HB3	1.97	0.46
5:C:713:ARG:HH22	6:D:532:GLY:H	1.62	0.46
5:C:718:GLY:HA3	5:C:761:PHE:CE1	2.50	0.46
6:D:1100:ASP:HB3	6:D:1428:ALA:HB1	1.97	0.46
5:C:456:ALA:HA	5:C:541:SER:HA	1.97	0.46
6:N:1369:GLU:HA	6:N:1372:VAL:HG12	1.97	0.46
6:N:793:THR:OG1	6:N:905:PRO:HA	2.14	0.46
6:N:133:ILE:HG22	6:N:455:ARG:N	2.30	0.46
6:N:564:GLU:O	6:N:567:ILE:HG13	2.16	0.46
6:N:890:VAL:HG12	6:N:926:LYS:CD	2.35	0.46
6:N:396:VAL:C	6:N:398:ALA:N	2.69	0.46
6:D:164:GLY:HA3	11:D:8094:HOH:O	2.15	0.46
5:C:494:TYR:HD2	5:C:530:GLU:HB3	1.81	0.46
5:C:212:GLY:HA3	5:C:218:VAL:HG21	1.96	0.46
6:D:119:SER:HB2	6:D:123:LEU:N	2.29	0.46
5:M:677:MET:HB3	5:M:987:ILE:HD13	1.96	0.46
4:B:170:VAL:HG23	4:B:170:VAL:O	2.16	0.46
5:M:798:GLY:HA3	5:M:828:ALA:O	2.15	0.46
4:B:206:THR:HG23	4:B:208:LEU:N	2.29	0.46
4:K:26:GLU:HG3	4:K:184:THR:HG21	1.95	0.46
6:N:799:LYS:HB3	6:N:826:PRO:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:600:ASP:OD1	5:C:651:LYS:HB2	2.15	0.46
5:M:831:ARG:NH1	5:M:999:HIS:HB3	2.31	0.46
4:K:200:TRP:HZ2	11:M:1430:HOH:O	1.97	0.46
6:N:1252:ILE:HA	11:N:9048:HOH:O	2.14	0.46
1:X:15:DC:H2"	1:X:16:DG:H8	1.80	0.46
6:N:18:ILE:HG23	6:N:518:PRO:CG	2.23	0.46
2:H:5:C:O5'	2:H:5:C:H6	1.98	0.46
6:N:1335:LEU:HD13	6:N:1347:TYR:CE2	2.50	0.46
6:D:116:LEU:HG	6:D:468:LEU:CD1	2.46	0.46
6:D:117:ASP:O	6:D:150:ARG:HD2	2.16	0.46
6:N:792:ILE:HD13	6:N:793:THR:CG2	2.44	0.46
6:N:204:LEU:HB3	6:N:445:ARG:HH21	1.81	0.46
5:M:739:GLU:OE2	5:M:744:ARG:HA	2.14	0.46
4:L:102:LYS:HD2	4:L:138:LEU:O	2.15	0.46
5:C:197:LEU:HB3	5:C:202:TYR:HB2	1.97	0.46
6:D:1394:VAL:HB	6:D:1397:LYS:HB2	1.97	0.46
5:M:286:SER:OG	5:M:299:LYS:HE3	2.15	0.46
4:L:184:THR:CG2	4:L:194:LYS:HB2	2.45	0.46
4:L:39:PRO:HD3	11:L:348:HOH:O	2.16	0.46
5:M:611:ILE:HD11	5:M:641:PRO:HG3	1.97	0.46
5:C:75:GLU:HA	5:C:76:PRO:HD3	1.79	0.46
5:C:889:HIS:CE1	6:D:951:ILE:HG22	2.50	0.46
5:C:159:ILE:CG2	5:C:175:GLU:HB2	2.45	0.46
5:M:401:LEU:HG	5:M:402:SER:N	2.29	0.46
6:N:820:GLU:CB	6:N:836:VAL:HG21	2.45	0.46
5:M:381:ALA:HB2	11:M:1457:HOH:O	2.15	0.46
4:L:43:ILE:HD12	4:L:217:ILE:CG2	2.45	0.46
4:A:156:HIS:CD2	4:A:157:GLY:H	2.32	0.46
6:D:844:ALA:O	6:D:867:ARG:HB3	2.15	0.46
4:A:18:ARG:O	4:A:207:PRO:HD3	2.15	0.46
6:N:911:LEU:O	6:N:915:VAL:HG23	2.14	0.46
5:M:984:GLU:HG3	6:N:944:THR:O	2.15	0.46
6:D:407:VAL:HG13	6:D:422:ALA:HB2	1.97	0.46
5:M:948:GLU:OE1	5:M:955:PRO:HA	2.16	0.46
6:N:1146:GLY:O	6:N:1207:TYR:N	2.48	0.46
6:N:1221:VAL:O	6:N:1224:VAL:HB	2.15	0.46
6:N:637:LEU:CD1	6:N:641:GLN:HB2	2.45	0.46
5:C:1046:ALA:HB3	6:D:1476:THR:HB	1.98	0.46
5:M:326:ASP:OD1	5:M:427:VAL:HG22	2.14	0.46
5:M:217:LEU:HD12	5:M:311:PHE:HA	1.96	0.46
4:K:30:ARG:NH1	5:M:938:LYS:HD2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:434:ARG:HB2	6:D:447:VAL:HG22	1.98	0.46
6:D:1184:GLN:N	6:N:559:ALA:O	2.47	0.46
5:C:198:ARG:HD3	5:C:228:ALA:HA	1.98	0.46
6:D:123:LEU:HD11	6:D:152:LEU:CD2	2.39	0.46
5:M:468:ARG:HB3	5:M:486:MET:O	2.14	0.46
6:D:399:ARG:HH11	6:D:430:ASP:CB	2.25	0.46
4:K:52:ALA:HB2	4:K:170:VAL:O	2.15	0.46
5:M:109:LYS:HE2	5:M:111:ASP:HA	1.97	0.46
4:A:173:PRO:O	4:A:201:THR:HG22	2.16	0.46
4:A:101:LEU:HD22	4:A:114:PHE:CE2	2.49	0.46
5:C:605:LYS:CD	5:C:612:VAL:HB	2.45	0.46
5:M:61:LYS:NZ	11:M:1290:HOH:O	2.48	0.46
5:M:1093:GLN:HB3	6:N:90:MET:SD	2.55	0.46
6:D:785:ILE:HG22	6:D:789:LEU:CD1	2.36	0.46
5:C:1083:GLU:CG	5:C:1086:ARG:HH21	2.25	0.46
6:N:880:ILE:O	6:N:883:ALA:HB3	2.15	0.46
5:M:937:ASP:O	5:M:941:VAL:HG23	2.16	0.46
5:M:939:ARG:CB	5:M:982:PRO:HG3	2.33	0.46
5:C:181:VAL:HG12	5:C:182:VAL:N	2.30	0.46
5:M:689:VAL:O	5:M:869:VAL:HG23	2.15	0.46
4:K:224:TYR:HB3	4:L:9:PRO:CB	2.45	0.46
6:D:1335:LEU:CD2	6:D:1344:VAL:HG22	2.46	0.46
6:N:400:VAL:O	6:N:400:VAL:HG13	2.16	0.46
6:D:1002:LYS:HA	11:D:8149:HOH:O	2.16	0.46
6:N:654:LYS:HB2	6:N:654:LYS:NZ	2.31	0.46
4:K:23:PHE:O	4:K:196:THR:HA	2.16	0.46
5:M:1047:HIS:N	5:M:1047:HIS:CD2	2.83	0.46
5:C:737:LEU:HD21	5:C:741:GLY:N	2.30	0.46
5:C:732:ALA:HA	5:C:735:ARG:CZ	2.45	0.46
5:C:226:VAL:HG13	5:C:227:PHE:CD1	2.51	0.46
5:C:445:GLU:HA	5:C:449:ILE:HD12	1.97	0.46
5:C:971:LYS:HB2	5:C:986:PRO:HB2	1.97	0.46
6:D:1042:ARG:NH2	6:D:1061:PHE:HZ	2.12	0.46
4:A:86:VAL:HG12	4:A:124:ASN:HB2	1.97	0.46
5:C:1082:PRO:HD2	6:D:1468:LEU:O	2.15	0.46
5:M:260:LEU:HA	5:M:291:ALA:HB2	1.98	0.46
5:M:467:ILE:HG23	11:M:1287:HOH:O	2.15	0.46
6:D:436:GLU:HB2	6:D:445:ARG:CG	2.45	0.46
4:L:68:ILE:HG21	11:L:362:HOH:O	2.15	0.46
6:D:618:LEU:HD12	6:D:1439:SER:HB3	1.96	0.46
5:C:902:ILE:O	5:C:904:PRO:HD3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1393:GLN:HE22	6:D:1394:VAL:HB	1.80	0.46
6:N:30:GLU:HB3	6:N:40:GLU:HB3	1.96	0.46
5:M:146:VAL:CG2	5:M:281:LEU:HD11	2.46	0.46
6:D:987:GLU:O	6:D:991:GLN:HB2	2.15	0.46
6:D:1213:ARG:HH12	7:E:10:PHE:C	2.19	0.46
6:N:611:GLN:O	6:N:611:GLN:HG3	2.14	0.46
5:M:748:GLU:HA	5:M:799:ILE:HD13	1.97	0.46
1:X:15:DC:H2"	1:X:16:DG:C8	2.51	0.46
6:N:1145:TYR:HD2	6:N:1168:MET:SD	2.39	0.46
6:D:786:ILE:CG2	6:D:1026:SER:HB3	2.37	0.46
6:D:785:ILE:H	6:D:785:ILE:CD1	2.13	0.46
6:D:939:PHE:O	6:D:943:THR:HG23	2.16	0.46
6:N:1209:LEU:CD2	6:N:1210:SER:H	2.28	0.46
5:M:906:PHE:CZ	6:N:1067:VAL:HA	2.51	0.46
6:D:1101:VAL:HG12	6:D:1374:GLN:HB3	1.97	0.46
6:D:438:ASP:HB2	6:D:445:ARG:NH1	2.31	0.46
5:C:545:ASN:OD1	5:C:583:LEU:HD22	2.16	0.46
5:M:694:LEU:HD21	5:M:868:ASP:OD2	2.15	0.46
5:C:218:VAL:O	5:C:221:LEU:HG	2.16	0.46
6:N:62:LYS:HG3	6:N:75:ARG:HD2	1.98	0.46
6:N:397:LYS:HB3	6:N:448:GLU:CB	2.46	0.46
5:M:1036:GLU:O	5:M:1039:ALA:HB3	2.16	0.46
5:M:567:GLN:HG2	11:M:1537:HOH:O	2.15	0.46
6:N:403:PHE:CE2	6:N:444:VAL:HG23	2.51	0.46
5:C:232:GLU:O	5:C:236:ILE:HD12	2.16	0.46
5:C:1101:THR:HG23	5:C:1109:VAL:O	2.16	0.46
6:N:960:LYS:HD3	11:N:9374:HOH:O	2.15	0.46
5:C:524:VAL:HG13	5:C:528:GLU:HB2	1.98	0.46
6:N:1402:ALA:HB2	6:N:1415:VAL:CG2	2.46	0.46
6:N:984:THR:CG2	6:N:987:GLU:H	2.29	0.46
5:C:834:GLN:HE21	5:C:834:GLN:HB2	1.58	0.46
6:D:31:THR:HB	6:D:527:MET:CE	2.46	0.46
6:D:1031:ASN:HB3	6:D:1034:GLN:CD	2.36	0.46
5:C:522:VAL:HG21	11:C:1425:HOH:O	2.15	0.46
5:C:1081:VAL:HG23	11:C:1198:HOH:O	2.16	0.46
5:M:1008:ARG:HH12	5:M:1011:GLY:N	2.14	0.46
5:C:418:LEU:N	5:C:418:LEU:HD12	2.31	0.46
5:C:437:ARG:HG2	5:C:467:ILE:HB	1.98	0.46
6:N:1112:CYS:CB	6:N:1195:GLN:HG2	2.44	0.46
6:D:749:VAL:HA	6:D:750:PRO:HD3	1.82	0.46
6:D:783:ARG:HH22	6:D:1239:ARG:HH22	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:401:LEU:CD2	5:C:565:GLN:HE21	2.29	0.46
6:N:543:LEU:CD1	6:N:581:LEU:HA	2.38	0.46
5:M:864:GLY:O	5:M:866:PRO:HD3	2.15	0.46
6:D:1228:SER:O	6:D:1232:PRO:CD	2.58	0.46
5:M:674:VAL:HG21	5:M:871:LEU:HG	1.98	0.46
5:C:516:ARG:HH21	6:D:1068:LEU:HB3	1.81	0.46
6:D:33:ASN:HB2	6:D:40:GLU:OE1	2.16	0.46
6:N:1349:VAL:HA	6:N:1368:ILE:HG21	1.98	0.46
5:M:745:ILE:CD1	5:M:745:ILE:H	2.22	0.46
6:N:760:ARG:NH1	7:O:61:VAL:HG23	2.27	0.46
6:D:951:ILE:HD13	6:D:951:ILE:O	2.16	0.46
6:D:800:LYS:CE	6:D:804:LEU:HD22	2.43	0.46
6:N:968:ASP:O	6:N:971:LEU:HB3	2.16	0.46
6:N:974:ILE:CD1	6:N:995:LEU:HD22	2.45	0.46
5:M:91:GLN:NE2	5:M:117:HIS:O	2.49	0.46
5:C:404:LEU:HD22	5:C:591:SER:HB3	1.98	0.46
5:C:231:PRO:HD2	11:C:1261:HOH:O	2.16	0.46
6:N:707:THR:HG22	6:N:712:GLY:HA3	1.96	0.46
4:K:185:ARG:HD2	4:K:185:ARG:O	2.15	0.46
5:M:1019:GLN:NE2	11:N:9292:HOH:O	2.48	0.46
5:M:1060:ILE:CD1	5:M:1064:ASN:HD21	2.29	0.46
5:M:1031:ARG:HE	6:N:621:LYS:HB3	1.80	0.46
5:C:333:ILE:HD12	5:C:333:ILE:N	2.31	0.46
6:N:1366:LYS:O	6:N:1370:ILE:HG12	2.15	0.46
6:N:644:LEU:HD12	6:N:645:PRO:CD	2.46	0.46
6:N:1394:VAL:HB	6:N:1397:LYS:CB	2.43	0.46
5:M:433:THR:C	5:M:435:TYR:H	2.18	0.46
6:N:1002:LYS:HA	11:N:9185:HOH:O	2.15	0.46
6:D:617:ASN:HA	11:D:8092:HOH:O	2.15	0.46
6:N:902:LEU:HD13	11:N:9040:HOH:O	2.14	0.46
5:C:217:LEU:HD11	5:C:314:THR:OG1	2.16	0.46
5:C:169:GLY:CA	5:C:263:ASP:HB3	2.44	0.46
6:D:443:VAL:CG1	6:D:445:ARG:HH22	2.29	0.46
6:D:1166:LEU:HD12	6:D:1171:VAL:HG22	1.98	0.46
5:M:342:ASP:O	5:M:346:VAL:HG23	2.16	0.46
6:N:481:MET:HE3	6:N:496:LEU:HD23	1.98	0.46
6:D:899:LEU:HB3	6:D:921:ARG:NH1	2.31	0.46
6:N:65:ARG:HA	6:N:65:ARG:HD2	1.70	0.46
6:N:30:GLU:HB3	6:N:40:GLU:CB	2.45	0.46
6:N:959:GLU:O	6:N:963:TYR:CD1	2.70	0.46
6:N:1353:GLN:HG2	6:N:1368:ILE:HD11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:124:ASP:OD1	5:C:124:ASP:N	2.48	0.46
6:D:71:LYS:HB2	6:D:71:LYS:HZ3	1.79	0.46
4:L:175:ARG:HD3	4:L:202:ASP:HB3	1.98	0.46
6:D:19:ARG:H	6:D:19:ARG:HG2	1.51	0.46
1:G:6:DT:H71	11:G:2394:HOH:O	2.16	0.46
6:D:926:LYS:HG2	6:D:929:ARG:NH1	2.30	0.46
5:C:758:ARG:HH11	5:C:758:ARG:HG2	1.81	0.46
7:E:37:ASN:HD22	7:E:89:MET:CE	2.29	0.46
5:C:737:LEU:HD21	5:C:741:GLY:H	1.81	0.46
6:D:638:LYS:NZ	11:D:8121:HOH:O	2.48	0.46
5:C:322:VAL:HG13	11:C:1193:HOH:O	2.14	0.46
6:D:407:VAL:HA	6:D:422:ALA:CB	2.46	0.46
6:N:115:LEU:HB2	6:N:498:VAL:HG11	1.98	0.46
5:M:568:ALA:HB3	11:M:1233:HOH:O	2.15	0.46
6:N:491:LYS:O	6:N:491:LYS:HD2	2.16	0.46
5:C:430:VAL:HG12	6:D:1078:ARG:HG3	1.98	0.45
6:N:1192:LEU:HD22	6:N:1345:GLU:CG	2.46	0.45
6:N:783:ARG:NH1	6:N:1029:ARG:CZ	2.79	0.45
6:D:496:LEU:HD21	6:D:1388:ARG:CG	2.44	0.45
5:M:100:LEU:HD12	5:M:101:ILE:O	2.16	0.45
4:K:198:ARG:NH2	5:M:932:GLU:HB3	2.30	0.45
6:D:1123:PHE:CZ	6:D:1178:ALA:HB1	2.51	0.45
5:C:219:GLN:HA	5:C:222:MET:HE2	1.98	0.45
5:C:950:LEU:HB3	5:C:952:LEU:CD2	2.44	0.45
5:C:5:ARG:HB2	5:C:5:ARG:HE	1.65	0.45
5:M:195:LEU:O	5:M:199:VAL:HG23	2.16	0.45
6:N:770:LEU:HD11	6:N:919:PHE:HE2	1.80	0.45
5:M:352:ALA:CA	5:M:355:VAL:HG12	2.44	0.45
6:N:1051:GLU:HB3	11:N:9122:HOH:O	2.15	0.45
6:N:1262:LEU:HD21	6:N:1351:GLU:CG	2.46	0.45
5:M:1043:TYR:HA	6:N:710:ARG:NH1	2.30	0.45
6:D:14:SER:O	6:D:17:LYS:N	2.49	0.45
6:D:639:LEU:HD12	6:D:640:HIS:H	1.81	0.45
6:D:1218:GLY:HA2	11:D:8043:HOH:O	2.15	0.45
6:N:631:ILE:HG21	6:N:745:MET:HG3	1.97	0.45
5:M:688:ILE:HD12	5:M:847:GLY:HA3	1.99	0.45
5:C:573:ARG:CB	5:C:573:ARG:HH11	2.19	0.45
5:C:669:GLY:HA3	5:C:995:MET:HA	1.98	0.45
6:D:1098:LEU:CD2	6:D:1229:ILE:HD12	2.44	0.45
3:I:8:DA:H1'	3:I:9:DG:C5'	2.46	0.45
7:O:41:GLU:HG2	7:O:42:PRO:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:114:THR:HB	6:D:498:VAL:HG21	1.98	0.45
5:M:211:LEU:HD22	11:M:1152:HOH:O	2.17	0.45
4:K:198:ARG:HH22	5:M:932:GLU:CB	2.26	0.45
5:C:146:VAL:HG13	5:C:162:ILE:HA	1.97	0.45
6:N:206:ARG:HG3	6:N:206:ARG:HH11	1.81	0.45
5:C:203:ASP:O	5:C:207:LEU:HB2	2.16	0.45
6:N:119:SER:OG	6:N:123:LEU:HD13	2.16	0.45
6:N:1380:GLU:OE2	6:N:1390:LEU:HA	2.15	0.45
6:N:470:LEU:H	6:N:470:LEU:HD23	1.81	0.45
4:L:121:GLU:OE1	4:L:123:MET:HG2	2.16	0.45
5:M:30:LEU:HD12	5:M:30:LEU:O	2.17	0.45
5:M:44:ILE:HG23	5:M:344:PHE:CE1	2.47	0.45
6:N:409:VAL:HG11	6:N:435:VAL:HG21	1.98	0.45
4:K:39:PRO:O	4:K:43:ILE:HG12	2.17	0.45
6:N:1136:LYS:O	6:N:1140:ILE:HG13	2.15	0.45
5:M:146:VAL:HG21	5:M:281:LEU:HD11	1.98	0.45
5:M:192:PRO:HD2	5:M:195:LEU:HD22	1.98	0.45
5:C:189:ARG:HD3	5:C:190:LYS:H	1.81	0.45
6:N:772:PRO:HB2	11:N:9024:HOH:O	2.15	0.45
6:N:95:LEU:HA	6:N:551:ASN:HD21	1.81	0.45
5:C:398:THR:HG21	5:C:567:GLN:CA	2.46	0.45
6:D:508:ARG:NH1	11:D:8038:HOH:O	2.50	0.45
5:M:1115:LEU:O	6:N:89:ARG:CZ	2.64	0.45
5:M:479:VAL:HG22	5:M:506:ASN:HA	1.98	0.45
4:L:59:GLU:HG2	4:L:139:ASN:HD22	1.80	0.45
6:D:896:ALA:O	6:D:900:ILE:HG23	2.17	0.45
6:N:796:ARG:NE	6:N:828:LYS:NZ	2.61	0.45
5:C:10:ARG:HH11	5:C:11:GLU:H	1.63	0.45
5:M:577:PRO:HB3	5:M:842:ARG:NH1	2.31	0.45
6:N:963:TYR:H	6:N:963:TYR:HD1	1.63	0.45
6:N:756:GLN:HE21	6:N:760:ARG:HD2	1.82	0.45
5:C:832:LYS:HE3	11:C:1519:HOH:O	2.15	0.45
6:N:465:LEU:HD22	6:N:510:GLU:HA	1.97	0.45
6:D:884:ARG:HA	11:D:8116:HOH:O	2.16	0.45
5:C:640:ARG:HA	11:C:1183:HOH:O	2.16	0.45
5:M:350:ARG:HB3	5:M:377:PRO:HB3	1.97	0.45
6:D:1402:ALA:HB2	6:D:1415:VAL:CG2	2.46	0.45
6:D:1135:ARG:HD2	6:D:1139:ASP:OD2	2.17	0.45
6:N:907:GLU:O	6:N:911:LEU:HG	2.15	0.45
4:L:112:ARG:H	4:L:112:ARG:HG2	1.48	0.45
5:M:801:VAL:HG23	5:M:802:ARG:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1207:TYR:HA	6:D:1214:PRO:HA	1.97	0.45
4:L:50:GLY:HA3	4:L:171:PHE:O	2.16	0.45
6:N:31:THR:OG1	6:N:32:ILE:N	2.49	0.45
4:K:16:GLN:NE2	11:K:788:HOH:O	2.47	0.45
6:N:169:TYR:HB3	6:N:195:VAL:HG11	1.99	0.45
6:D:530:VAL:HB	6:D:534:ARG:HB2	1.99	0.45
5:C:431:HIS:CD2	5:C:432:ARG:N	2.85	0.45
5:C:569:VAL:HA	5:C:570:PRO:HD3	1.85	0.45
5:M:9:ILE:HD11	5:M:537:LYS:HZ3	1.81	0.45
6:N:781:PRO:O	6:N:786:ILE:HD11	2.17	0.45
5:C:401:LEU:HD22	5:C:546:LEU:HD13	1.99	0.45
5:C:1055:LEU:HD22	5:C:1066:ALA:CB	2.37	0.45
5:C:1063:ARG:O	5:C:1066:ALA:HB3	2.16	0.45
6:D:136:ASP:HB3	6:D:137:PRO:CD	2.33	0.45
6:D:606:ILE:O	6:D:613:ARG:HB2	2.16	0.45
5:M:479:VAL:HG21	5:M:503:LEU:CD1	2.46	0.45
5:M:310:LEU:HD11	11:M:1381:HOH:O	2.15	0.45
4:K:41:ARG:HA	4:K:44:LEU:HD12	1.97	0.45
5:C:265:ARG:HB3	5:C:267:TYR:CE2	2.51	0.45
6:D:165:LYS:HA	6:D:199:LEU:HD13	1.97	0.45
6:D:396:VAL:CG1	6:D:398:ALA:HB2	2.46	0.45
6:D:44:LEU:O	6:D:525:ARG:NH2	2.49	0.45
5:C:523:ILE:HG23	5:C:523:ILE:O	2.17	0.45
5:C:385:PHE:O	5:C:389:SER:HB2	2.16	0.45
6:D:1376:MET:CE	6:D:1421:LEU:HD22	2.46	0.45
4:A:206:THR:HG23	4:A:208:LEU:N	2.31	0.45
5:M:468:ARG:NE	5:M:487:THR:HG23	2.32	0.45
5:C:625:LEU:HA	5:C:639:GLN:NE2	2.24	0.45
5:M:1007:ALA:HB1	6:N:652:LEU:CD1	2.46	0.45
5:C:810:ASP:HA	5:C:811:PRO:HD3	1.68	0.45
4:K:158:ILE:HA	11:K:1352:HOH:O	2.15	0.45
6:N:800:LYS:HE3	6:N:804:LEU:HD22	1.98	0.45
5:M:77:PRO:HG2	5:M:117:HIS:CE1	2.51	0.45
5:C:403:SER:O	5:C:407:LYS:HD3	2.16	0.45
5:M:817:PRO:O	6:N:532:GLY:HA2	2.15	0.45
5:C:1008:ARG:HB2	5:C:1027:PHE:HB2	1.99	0.45
4:A:186:LEU:HB2	11:A:361:HOH:O	2.17	0.45
6:N:106:LYS:CE	6:N:125:GLN:HE22	2.30	0.45
5:M:601:GLY:HA3	5:M:615:TYR:HA	1.97	0.45
6:D:819:GLY:HA2	11:D:8465:HOH:O	2.17	0.45
5:M:1105:LYS:C	5:M:1107:ASN:HD22	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1476:THR:C	6:N:1478:SER:H	2.19	0.45
6:D:1476:THR:O	6:D:1482:ARG:HA	2.17	0.45
1:G:15:DC:H2''	1:G:16:DG:H8	1.82	0.45
5:C:146:VAL:HG11	5:C:306:THR:CB	2.41	0.45
5:C:260:LEU:HA	5:C:291:ALA:HB2	1.97	0.45
6:N:204:LEU:HD12	6:N:396:VAL:HG21	1.97	0.45
3:Z:4:DC:H2''	3:Z:5:DG:O5'	2.16	0.45
4:K:94:LEU:HD11	4:K:119:ASP:HB3	1.98	0.45
6:D:618:LEU:CD1	6:D:1439:SER:HB3	2.47	0.45
6:D:1344:VAL:HG12	6:D:1348:LEU:CD1	2.46	0.45
6:N:497:GLU:O	6:N:500:ARG:HB2	2.16	0.45
5:M:769:PRO:HD2	6:N:65:ARG:NE	2.32	0.45
6:N:41:ARG:CD	6:N:42:ASP:H	2.28	0.45
6:D:68:PHE:HZ	11:D:8399:HOH:O	1.98	0.45
7:E:45:ARG:HB2	7:E:45:ARG:HE	1.62	0.45
4:B:48:ILE:HG22	4:B:173:PRO:HD2	1.99	0.45
5:M:165:LEU:HA	5:M:166:PRO:O	2.16	0.45
4:K:13:VAL:HG22	4:K:23:PHE:HD1	1.82	0.45
4:A:9:PRO:HB3	4:A:25:LEU:CG	2.46	0.45
6:N:152:LEU:HD23	6:N:152:LEU:N	2.31	0.45
6:D:794:GLN:OE1	6:D:905:PRO:HG3	2.15	0.45
5:M:250:ARG:NH1	5:M:250:ARG:HG3	2.31	0.45
5:M:375:SER:HA	11:M:1564:HOH:O	2.14	0.45
5:C:168:ARG:HH11	5:C:168:ARG:HG3	1.82	0.45
5:M:122:THR:HB	5:M:124:ASP:OD1	2.17	0.45
4:L:2:LEU:O	4:L:6:LEU:HD23	2.16	0.45
5:M:43:GLY:HA2	5:M:341:THR:HG21	1.96	0.45
1:X:13:DT:OP1	6:N:1093:TYR:CE2	2.70	0.45
6:N:618:LEU:HD22	6:N:619:LEU:HD22	1.98	0.45
5:C:329:GLY:CA	5:C:489:THR:HG23	2.46	0.45
5:C:567:GLN:HB2	5:C:997:LEU:HD12	1.98	0.45
5:C:833:LEU:CD1	5:C:996:LYS:HD2	2.47	0.45
6:D:1057:VAL:HG13	6:D:1069:GLU:HB3	1.98	0.45
6:N:1475:GLY:O	6:N:1478:SER:HB3	2.16	0.45
5:M:695:LEU:O	5:M:695:LEU:HD23	2.16	0.45
6:N:179:VAL:HG21	6:N:191:LEU:HD23	1.99	0.45
5:M:516:ARG:CZ	6:N:1068:LEU:HD13	2.44	0.45
5:M:876:VAL:HG12	5:M:876:VAL:O	2.17	0.45
6:D:1153:VAL:CG1	6:N:561:GLY:HA3	2.41	0.45
6:D:1198:TYR:N	11:D:8501:HOH:O	2.48	0.45
5:M:139:GLN:HA	5:M:411:SER:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1016:ILE:HD13	5:C:1016:ILE:N	2.24	0.45
6:N:701:LEU:N	6:N:701:LEU:HD12	2.32	0.45
6:N:168:THR:OG1	6:N:206:ARG:NH2	2.49	0.45
5:M:690:ILE:CG2	5:M:852:ILE:HG13	2.47	0.45
6:D:1389:LEU:HD13	11:D:8087:HOH:O	2.17	0.45
5:M:31:GLN:CD	5:M:34:VAL:HG23	2.36	0.45
6:N:1031:ASN:HB3	6:N:1034:GLN:OE1	2.15	0.45
6:D:36:THR:O	6:D:38:LYS:N	2.49	0.45
6:N:1412:LYS:NZ	6:N:1414:PRO:HG3	2.32	0.45
7:O:28:GLN:HB3	7:O:32:ARG:HH12	1.82	0.45
6:N:682:ASP:N	6:N:682:ASP:OD1	2.49	0.45
5:C:51:THR:CG2	5:C:348:LEU:HD23	2.46	0.45
3:I:3:DA:H4'	5:C:423:ALA:HB1	1.97	0.45
6:D:32:ILE:HD12	6:D:527:MET:HG2	1.97	0.45
4:L:73:GLU:HB3	4:L:77:GLU:HG3	1.97	0.45
6:N:845:ASN:H	6:N:848:GLU:HG3	1.81	0.45
6:N:945:SER:OG	6:N:947:ILE:HG13	2.16	0.45
6:D:1213:ARG:NH2	7:E:10:PHE:O	2.44	0.45
6:D:1135:ARG:HB3	6:D:1140:ILE:CG1	2.47	0.45
5:M:662:GLU:HG2	5:M:663:ASN:CG	2.37	0.45
5:M:1034:GLU:CB	6:N:619:LEU:HD13	2.45	0.45
6:N:515:GLU:HG3	11:N:9303:HOH:O	2.16	0.45
5:C:570:PRO:O	5:C:702:SER:HB2	2.16	0.45
2:H:9:G:C5'	2:H:9:G:H8	2.30	0.45
6:D:1102:THR:HG23	6:D:1370:ILE:HG22	1.99	0.45
6:D:1484:THR:O	7:E:25:LYS:HD3	2.17	0.45
5:C:160:ALA:HB3	5:C:174:LEU:HB2	1.97	0.45
6:D:10:ILE:HD11	6:D:1434:TRP:CE2	2.51	0.45
5:M:987:ILE:HG12	6:N:948:THR:CG2	2.46	0.45
6:N:784:ASP:HB3	6:N:939:PHE:CE2	2.51	0.45
6:N:1232:PRO:O	6:N:1236:LEU:HG	2.16	0.45
5:C:837:ASP:OD1	5:C:999:HIS:NE2	2.50	0.45
5:C:910:LYS:HG3	5:C:912:PRO:HD2	1.99	0.45
4:K:58:ILE:HG21	4:K:68:ILE:CD1	2.46	0.45
6:D:992:ILE:HG21	11:D:8500:HOH:O	2.16	0.45
6:D:1406:ARG:HB2	6:D:1412:LYS:HZ3	1.82	0.45
5:C:551:GLU:HB3	5:C:906:PHE:CD2	2.52	0.45
4:A:41:ARG:HH11	4:A:177:VAL:HB	1.82	0.45
5:C:56:GLU:CB	5:C:64:LEU:HD23	2.46	0.45
5:M:829:GLN:NE2	5:M:831:ARG:HH21	2.15	0.45
5:C:603:VAL:O	5:C:646:GLY:HA2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:615:TYR:HB3	5:M:617:ASP:OD1	2.16	0.45
5:M:899:GLN:HG3	5:M:901:TYR:CZ	2.51	0.45
6:D:576:GLU:HA	6:D:579:ASP:OD2	2.17	0.45
6:N:587:ARG:HG2	6:N:587:ARG:HH11	1.81	0.45
6:D:633:VAL:HG22	6:D:635:PRO:HD3	1.98	0.45
6:D:1225:ALA:HB2	6:D:1367:HIS:ND1	2.32	0.45
6:N:993:LEU:HA	11:N:9079:HOH:O	2.17	0.45
5:C:1060:ILE:O	5:C:1063:ARG:HG2	2.15	0.45
5:M:860:HIS:CE1	5:M:977:GLY:HA2	2.52	0.45
4:B:97:VAL:HG13	11:B:325:HOH:O	2.17	0.45
7:E:80:VAL:HG11	7:E:85:LEU:HD23	1.98	0.45
6:N:969:ARG:O	6:N:973:GLN:HG3	2.17	0.45
5:M:806:LEU:O	5:M:821:GLU:HB2	2.17	0.45
6:D:998:GLU:O	6:D:1002:LYS:HG3	2.17	0.45
6:D:974:ILE:O	6:D:983:LEU:HD11	2.16	0.45
5:M:844:GLY:O	5:M:846:LYS:HG3	2.16	0.45
6:N:777:PRO:HG2	6:N:916:TYR:HB2	1.98	0.45
5:C:906:PHE:CE1	6:D:1067:VAL:HG13	2.52	0.45
6:D:1261:GLU:O	6:D:1264:GLU:O	2.35	0.45
6:N:987:GLU:O	6:N:991:GLN:HG3	2.16	0.45
6:N:36:THR:O	6:N:38:LYS:N	2.49	0.45
6:N:1262:LEU:HD23	6:N:1352:ILE:HA	1.99	0.45
6:D:407:VAL:HA	6:D:422:ALA:HB2	1.99	0.45
6:N:954:ALA:HB1	6:N:1039:CYS:SG	2.57	0.45
4:A:13:VAL:HG22	4:A:23:PHE:CD1	2.51	0.45
6:D:1492:LEU:HD22	6:D:1492:LEU:O	2.16	0.45
6:N:1147:ARG:CB	6:N:1188:VAL:HG21	2.44	0.45
11:C:1135:HOH:O	6:D:750:PRO:HB3	2.16	0.45
6:N:1209:LEU:O	6:N:1210:SER:C	2.54	0.45
6:N:1336:LEU:HD11	6:N:1341:PRO:HG3	1.99	0.45
6:N:634:GLY:N	6:N:635:PRO:HD3	2.32	0.45
5:C:1046:ALA:O	6:D:1472:ILE:HD11	2.16	0.45
5:M:265:ARG:H	5:M:289:THR:HG21	1.80	0.45
1:G:15:DC:H2"	1:G:16:DG:C8	2.52	0.45
6:N:542:ASP:HA	6:N:545:ARG:NE	2.30	0.45
5:M:689:VAL:CG1	5:M:690:ILE:N	2.79	0.45
6:D:525:ARG:HB2	6:D:538:SER:OG	2.17	0.45
4:L:1:MET:HB2	11:L:357:HOH:O	2.17	0.45
5:M:564:MET:SD	5:M:565:GLN:N	2.90	0.45
6:N:28:LYS:CG	6:N:29:PRO:HD2	2.47	0.45
4:K:189:ARG:HG3	4:K:191:ASP:OD1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:33:ASN:O	6:D:36:THR:O	2.34	0.45
5:C:76:PRO:HA	5:C:77:PRO:HD3	1.89	0.45
6:D:1345:GLU:O	6:D:1349:VAL:HG23	2.16	0.45
4:B:213:GLN:HG2	11:B:331:HOH:O	2.17	0.45
5:C:22:GLN:OE1	5:C:407:LYS:HB3	2.16	0.45
5:M:358:ARG:HB3	5:M:371:LYS:O	2.17	0.45
4:L:45:LEU:HD22	6:N:851:LEU:CD2	2.47	0.45
4:L:19:GLU:N	4:L:19:GLU:OE2	2.49	0.45
7:O:84:ARG:HB3	11:O:1385:HOH:O	2.15	0.45
6:N:837:GLY:O	6:N:841:TYR:CD1	2.70	0.45
5:M:882:LEU:HD23	5:M:882:LEU:N	2.32	0.45
5:M:243:ARG:HB3	11:M:1168:HOH:O	2.16	0.45
5:C:855:VAL:HG13	5:C:856:GLU:OE2	2.17	0.45
11:A:316:HOH:O	4:B:148:VAL:HG23	2.17	0.45
5:C:14:PRO:HB2	11:C:1307:HOH:O	2.17	0.45
1:X:14:DT:H3'	6:N:610:LYS:HZ3	1.81	0.45
2:Y:8:C:H2'	2:Y:9:G:C8	2.52	0.45
6:D:1102:THR:HG22	6:D:1222:GLY:HA3	1.99	0.45
6:D:1426:LYS:HA	6:D:1429:LEU:HD13	1.99	0.45
6:D:1465:ASN:ND2	6:D:1471:LEU:O	2.50	0.45
5:C:1095:LEU:CD2	6:D:582:LEU:HD22	2.43	0.45
5:C:703:ILE:CD1	5:C:703:ILE:H	2.17	0.45
6:N:876:SER:HB3	11:N:9301:HOH:O	2.17	0.45
6:N:127:LEU:HD12	6:N:127:LEU:H	1.82	0.45
6:D:484:PRO:HB3	6:D:488:ARG:NE	2.17	0.45
5:M:36:PRO:HB2	5:M:70:GLU:HG2	1.98	0.45
5:M:678:PRO:HG2	6:N:943:THR:HA	1.99	0.45
6:D:1010:ASN:HB3	11:D:8019:HOH:O	2.17	0.45
5:C:899:GLN:NE2	5:C:901:TYR:OH	2.50	0.45
5:C:813:VAL:HG22	5:C:814:GLU:N	2.32	0.45
5:M:798:GLY:H	5:M:827:VAL:HG11	1.82	0.45
5:C:54:ILE:CG2	5:C:66:LEU:HB3	2.47	0.45
6:N:675:ARG:O	6:N:678:GLU:HG2	2.17	0.45
6:D:761:ILE:HG12	7:E:65:MET:HE1	1.99	0.45
6:N:777:PRO:CG	6:N:916:TYR:HB2	2.47	0.45
6:D:1369:GLU:HA	6:D:1372:VAL:HG12	1.98	0.45
5:M:817:PRO:C	5:M:819:VAL:H	2.20	0.45
1:X:6:DT:H2''	1:X:7:DC:C5	2.52	0.45
5:C:248:PRO:HG3	11:C:1252:HOH:O	2.17	0.45
6:N:1425:THR:O	6:N:1429:LEU:HD12	2.16	0.44
5:C:689:VAL:HG21	5:C:870:ILE:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:754:PHE:CZ	6:N:1476:THR:HG21	2.52	0.44
6:N:700:VAL:HG13	6:N:718:PRO:HG2	2.00	0.44
5:M:265:ARG:HB3	5:M:267:TYR:CZ	2.52	0.44
5:M:461:VAL:HG13	5:M:465:GLY:HA2	1.98	0.44
6:N:999:THR:HA	6:N:1002:LYS:HD2	1.98	0.44
6:D:112:ILE:HD11	6:D:461:ILE:CG2	2.47	0.44
6:N:793:THR:O	6:N:879:ARG:HD3	2.17	0.44
4:L:102:LYS:HE3	4:L:104:GLU:CG	2.43	0.44
4:A:20:TYR:HE2	4:A:198:ARG:HB2	1.82	0.44
6:D:1119:SER:O	6:D:1121:PRO:HD3	2.16	0.44
6:D:1147:ARG:O	6:D:1165:TYR:HA	2.18	0.44
5:M:490:GLU:HG2	5:M:493:ARG:NH2	2.32	0.44
6:N:1231:GLU:HA	6:N:1234:THR:OG1	2.17	0.44
5:M:1003:ASP:OD1	5:M:1004:LYS:HG2	2.16	0.44
4:A:179:PHE:HB2	4:A:195:LEU:CD1	2.45	0.44
5:M:199:VAL:HG13	5:M:235:LEU:HG	1.99	0.44
5:M:400:PRO:HG2	5:M:593:ALA:CB	2.47	0.44
6:N:1151:ARG:HG2	6:N:1187:PRO:CB	2.45	0.44
5:M:80:GLN:HE21	5:M:84:ARG:NH2	2.15	0.44
4:A:83:LYS:HG3	4:A:170:VAL:HG21	1.98	0.44
5:M:334:ARG:HG3	11:M:1156:HOH:O	2.17	0.44
5:C:1008:ARG:HH12	5:C:1010:THR:HA	1.81	0.44
6:D:1487:VAL:HG12	6:D:1488:ASP:N	2.31	0.44
6:D:950:GLY:O	6:D:953:ASP:HB2	2.16	0.44
5:C:1084:SER:HA	5:C:1087:VAL:HG12	1.99	0.44
6:D:6:ARG:HH11	6:D:6:ARG:HG2	1.82	0.44
6:N:54:LYS:HE3	6:N:55:ASP:HB2	1.99	0.44
6:N:705:ALA:HB3	6:N:706:PRO:HD3	1.99	0.44
2:Y:4:U:O2'	2:Y:5:C:H5'	2.16	0.44
5:C:674:VAL:HG12	5:C:990:GLY:O	2.18	0.44
5:C:676:ILE:O	6:D:948:THR:HB	2.17	0.44
6:D:783:ARG:HH12	6:D:1239:ARG:NH2	2.15	0.44
5:M:9:ILE:O	5:M:9:ILE:HD12	2.18	0.44
6:D:1183:ILE:O	6:D:1183:ILE:HG13	2.16	0.44
6:D:1377:LYS:O	6:D:1395:LEU:HB3	2.18	0.44
6:D:116:LEU:HD11	6:D:464:LEU:CB	2.46	0.44
4:L:94:LEU:HD21	4:L:119:ASP:HB2	1.99	0.44
4:B:84:GLU:OE1	4:B:127:LEU:HD11	2.17	0.44
6:N:434:ARG:H	6:N:447:VAL:HG22	1.82	0.44
5:C:783:ARG:HG2	5:C:785:VAL:HB	1.98	0.44
6:D:1232:PRO:HB3	6:D:1361:VAL:HG21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1184:GLN:HB2	6:N:559:ALA:CA	2.47	0.44
6:D:1271:LYS:HD3	6:D:1331:ASP:N	2.32	0.44
5:C:1038:TRP:HA	5:C:1041:GLU:OE1	2.17	0.44
5:M:13:ILE:HD12	5:M:13:ILE:O	2.17	0.44
6:D:1486:VAL:CG1	7:E:22:VAL:HG13	2.46	0.44
6:N:400:VAL:HG22	6:N:443:VAL:CG2	2.41	0.44
6:N:470:LEU:HD12	6:N:503:LEU:HD21	1.99	0.44
5:C:817:PRO:C	5:C:819:VAL:H	2.20	0.44
5:M:676:ILE:HG21	5:M:988:VAL:HG13	1.99	0.44
6:D:584:ASN:CG	6:D:590:PRO:HD2	2.37	0.44
5:M:853:LEU:HB3	5:M:858:MET:HE2	2.00	0.44
6:N:1472:ILE:O	6:N:1477:GLY:HA3	2.17	0.44
4:K:26:GLU:HG2	4:K:27:PRO:N	2.32	0.44
6:D:15:PRO:O	6:D:19:ARG:HG2	2.18	0.44
5:M:670:GLN:NE2	5:M:699:PHE:O	2.51	0.44
6:D:1014:ASN:O	6:D:1016:PRO:HD3	2.17	0.44
5:C:422:ARG:HB2	11:C:1579:HOH:O	2.17	0.44
5:C:532:MET:HG2	5:C:533:ASP:N	2.32	0.44
5:M:1013:TYR:CZ	5:M:1063:ARG:HD2	2.52	0.44
2:Y:11:C:C2'	2:Y:12:G:H5''	2.47	0.44
6:N:85:VAL:HG23	6:N:86:ARG:N	2.33	0.44
5:C:97:ARG:HB3	5:C:109:LYS:HE3	1.99	0.44
1:X:18:DG:P	6:N:628:ARG:HH21	2.40	0.44
5:M:208:ALA:O	5:M:218:VAL:HG21	2.17	0.44
6:D:396:VAL:HB	6:D:398:ALA:HB3	1.98	0.44
3:Z:6:DC:P	6:N:1266:ARG:HH12	2.41	0.44
6:D:525:ARG:HG2	6:D:525:ARG:O	2.17	0.44
6:D:10:ILE:O	6:D:1451:ALA:HA	2.18	0.44
5:M:405:ARG:NH2	5:M:566:THR:CG2	2.79	0.44
6:N:784:ASP:HB3	6:N:939:PHE:HE2	1.82	0.44
5:C:748:GLU:HA	5:C:799:ILE:HD12	1.99	0.44
5:C:595:LEU:HD22	5:C:625:LEU:HD23	2.00	0.44
5:M:780:GLU:HG3	5:M:781:LYS:H	1.83	0.44
6:D:420:VAL:O	6:D:421:LEU:HD23	2.17	0.44
5:C:352:ALA:CA	5:C:355:VAL:HG12	2.47	0.44
5:M:859:PRO:HB3	5:M:974:LEU:HD23	1.99	0.44
5:C:44:ILE:HG22	5:C:45:GLN:N	2.31	0.44
4:L:19:GLU:O	4:L:200:TRP:HA	2.18	0.44
6:D:156:GLU:O	6:D:159:ARG:HB2	2.18	0.44
4:B:30:ARG:HB3	4:B:30:ARG:CZ	2.47	0.44
4:L:201:THR:HG21	4:L:205:VAL:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:471:GLU:H	6:D:471:GLU:HG2	1.52	0.44
4:L:73:GLU:CD	4:L:130:ALA:HA	2.38	0.44
6:N:35:ARG:HG3	6:N:35:ARG:NH1	2.33	0.44
5:M:1043:TYR:CE2	6:N:763:MET:HA	2.53	0.44
6:D:593:ASN:HB2	11:D:8122:HOH:O	2.18	0.44
6:D:1432:LYS:HB3	6:D:1432:LYS:NZ	2.32	0.44
6:N:530:VAL:HB	6:N:534:ARG:HB2	1.99	0.44
2:Y:16:G:H3'	11:Y:968:HOH:O	2.17	0.44
5:C:553:ASP:OD1	5:C:881:ASN:HB2	2.17	0.44
2:H:7:G:C5'	2:H:7:G:H8	2.29	0.44
6:N:1213:ARG:HH22	7:O:15:SER:HA	1.83	0.44
5:M:1084:SER:HA	5:M:1087:VAL:HG12	1.98	0.44
5:C:172:ILE:HG12	11:C:1177:HOH:O	2.17	0.44
6:N:436:GLU:OE2	6:N:445:ARG:HD3	2.18	0.44
5:C:721:ARG:CG	5:C:820:ARG:HH12	2.29	0.44
5:C:503:LEU:HD23	5:C:507:ARG:O	2.17	0.44
5:C:479:VAL:HG22	5:C:506:ASN:HA	1.99	0.44
5:C:952:LEU:HB3	5:C:966:LEU:HD11	2.00	0.44
6:D:1000:THR:HG23	6:D:1001:GLU:H	1.82	0.44
5:M:949:LYS:CD	6:N:796:ARG:HH22	2.29	0.44
4:L:124:ASN:ND2	4:L:127:LEU:HD22	2.32	0.44
5:C:957:LYS:NZ	5:C:957:LYS:HB2	2.33	0.44
6:D:651:GLU:HG2	11:D:8181:HOH:O	2.17	0.44
6:D:654:LYS:O	6:D:658:LEU:HG	2.17	0.44
5:C:52:PHE:O	5:C:54:ILE:N	2.50	0.44
5:M:252:LYS:HD2	5:M:252:LYS:N	2.32	0.44
7:O:24:ALA:O	7:O:28:GLN:HG3	2.17	0.44
4:A:150:TYR:CZ	5:C:696:LYS:HA	2.53	0.44
5:C:189:ARG:NH1	5:C:190:LYS:HD2	2.33	0.44
6:N:1262:LEU:HA	6:N:1262:LEU:HD12	1.77	0.44
4:A:219:ARG:HD3	4:B:219:ARG:HG3	1.99	0.44
5:M:94:LEU:HD12	5:M:95:TYR:N	2.32	0.44
4:B:95:GLN:HA	4:B:146:ARG:HD2	1.99	0.44
4:A:47:SER:HB3	4:A:217:ILE:HD13	2.00	0.44
5:M:1034:GLU:CB	6:N:619:LEU:HD22	2.44	0.44
5:C:393:GLN:HE21	5:C:393:GLN:HB2	1.62	0.44
5:C:566:THR:O	5:C:566:THR:HG22	2.18	0.44
5:C:689:VAL:CG1	5:C:853:LEU:HD13	2.47	0.44
5:C:673:LEU:HD21	5:C:867:VAL:HG12	2.00	0.44
6:D:875:THR:HG22	6:D:879:ARG:HB2	2.00	0.44
6:N:1336:LEU:CD2	6:N:1421:LEU:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:12:DG:H1'	1:G:13:DT:H5'	1.99	0.44
5:M:140:ILE:HG22	5:M:333:ILE:CD1	2.48	0.44
6:D:95:LEU:HD23	6:D:96:ALA:H	1.82	0.44
6:N:50:PHE:HB3	6:N:522:PRO:CD	2.47	0.44
6:N:899:LEU:CB	6:N:917:GLN:HG2	2.48	0.44
5:C:170:PRO:HB2	11:C:1335:HOH:O	2.17	0.44
7:E:13:VAL:HG11	7:E:18:ARG:HB3	2.00	0.44
6:D:1344:VAL:HG11	6:D:1421:LEU:CD2	2.48	0.44
6:D:550:ARG:NH1	6:D:573:MET:SD	2.88	0.44
4:L:121:GLU:CD	4:L:123:MET:HG2	2.37	0.44
6:D:554:LEU:HD12	6:D:570:GLU:HB3	2.00	0.44
4:L:38:ASN:HB3	4:L:39:PRO:HD3	2.00	0.44
4:A:165:ILE:O	4:A:165:ILE:HG13	2.18	0.44
5:C:492:ASP:OD2	5:C:518:LYS:HB3	2.18	0.44
6:N:1139:ASP:HB3	6:N:1357:ARG:CZ	2.48	0.44
6:D:1380:GLU:HA	6:D:1391:GLU:O	2.18	0.44
6:D:800:LYS:HD3	6:D:800:LYS:O	2.18	0.44
5:C:106:GLY:C	5:C:107:LEU:HD23	2.38	0.44
6:N:1149:LEU:HD22	6:N:1187:PRO:HG2	2.00	0.44
4:B:47:SER:OG	4:B:48:ILE:N	2.49	0.44
5:M:18:LEU:HD23	5:M:542:VAL:HG21	2.00	0.44
6:D:15:PRO:HD3	6:D:511:TRP:CE3	2.52	0.44
5:M:69:LEU:HD12	5:M:97:ARG:HB3	1.98	0.44
5:C:189:ARG:HD3	5:C:190:LYS:N	2.33	0.44
5:M:15:LEU:HD12	5:M:15:LEU:N	2.31	0.44
7:O:62:THR:HB	11:O:844:HOH:O	2.18	0.44
5:M:548:PRO:HB2	5:M:843:HIS:HE1	1.83	0.44
5:M:1034:GLU:HB3	6:N:619:LEU:CD1	2.46	0.44
5:C:690:ILE:HG23	5:C:852:ILE:HA	1.99	0.44
6:N:1147:ARG:O	6:N:1166:LEU:HD23	2.17	0.44
6:N:644:LEU:HD12	6:N:645:PRO:N	2.33	0.44
5:C:579:VAL:HB	5:C:890:LEU:HD21	1.98	0.44
6:D:1201:CYS:SG	6:D:1204:CYS:HB2	2.57	0.44
6:D:1367:HIS:O	6:D:1371:VAL:HG23	2.17	0.44
5:M:23:VAL:HA	5:M:121:MET:CE	2.48	0.44
5:C:69:LEU:CD1	5:C:109:LYS:HE3	2.45	0.44
5:C:148:PHE:HB2	5:C:313:LEU:HD22	1.99	0.44
6:D:1080:GLY:O	6:D:1083:ASP:N	2.50	0.44
5:C:473:ARG:HA	5:C:531:PHE:CD1	2.53	0.44
6:D:119:SER:H	6:D:123:LEU:HB2	1.83	0.44
5:C:650:ARG:CG	5:C:653:ASP:HB2	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:33:ASN:HB2	6:D:40:GLU:OE2	2.18	0.44
5:C:549:PHE:CD2	5:C:886:LEU:HB3	2.52	0.44
5:M:496:ILE:HA	5:M:531:PHE:O	2.18	0.44
5:C:235:LEU:C	5:C:235:LEU:HD23	2.37	0.44
4:B:48:ILE:N	4:B:48:ILE:HD12	2.32	0.44
5:C:524:VAL:CG1	5:C:528:GLU:HB2	2.48	0.44
4:A:132:LEU:N	4:A:132:LEU:HD12	2.32	0.44
5:M:198:ARG:HG2	5:M:204:GLN:HE22	1.82	0.44
5:C:41:ASN:O	5:C:46:ALA:HB2	2.17	0.44
4:L:7:LYS:C	4:L:7:LYS:HD2	2.37	0.44
7:O:5:GLY:HA3	7:O:8:LYS:HD2	1.99	0.44
4:A:151:VAL:HB	4:A:169:ALA:HB3	2.00	0.44
1:X:13:DT:OP2	6:N:1096:ARG:NH2	2.45	0.44
6:N:95:LEU:HA	6:N:551:ASN:OD1	2.17	0.44
5:C:329:GLY:CA	5:C:488:ALA:HB3	2.48	0.44
6:N:1192:LEU:HD23	11:N:9021:HOH:O	2.17	0.44
6:N:637:LEU:HD11	6:N:642:CYS:N	2.33	0.44
5:C:546:LEU:HD13	5:C:565:GLN:HE22	1.82	0.44
6:D:115:LEU:HD12	6:D:499:VAL:HG22	2.00	0.44
5:M:284:ARG:O	5:M:301:GLU:HB2	2.18	0.44
6:N:124:GLU:O	6:N:127:LEU:HD12	2.18	0.44
6:N:131:LYS:NZ	6:N:568:ARG:HB2	2.32	0.44
6:N:1259:VAL:HG11	6:N:1356:TYR:HH	1.81	0.44
6:D:1463:LYS:O	6:D:1467:ILE:HG13	2.18	0.44
6:D:123:LEU:CD1	6:D:152:LEU:HD22	2.41	0.44
6:N:711:LEU:HD22	6:N:714:GLN:NE2	2.33	0.44
5:C:862:PRO:HD3	5:C:973:VAL:O	2.18	0.44
5:M:728:HIS:C	5:M:729:LEU:HG	2.38	0.44
5:M:728:HIS:O	5:M:729:LEU:HG	2.17	0.44
4:B:58:ILE:HG21	4:B:61:VAL:HG23	2.00	0.44
6:N:121:THR:HB	11:N:9300:HOH:O	2.17	0.44
4:L:143:ARG:NE	4:L:145:ASP:OD1	2.51	0.44
4:L:73:GLU:OE1	4:L:131:THR:N	2.51	0.44
4:B:19:GLU:O	4:B:200:TRP:HA	2.18	0.44
6:N:884:ARG:CZ	6:N:884:ARG:HB3	2.45	0.44
6:D:1432:LYS:HG2	6:D:1433:SER:N	2.33	0.44
6:N:955:VAL:HG11	6:N:1015:TYR:CE2	2.52	0.44
5:M:1060:ILE:HG21	5:M:1083:GLU:OE1	2.17	0.44
2:Y:10:G:C2'	2:Y:11:C:H5'	2.47	0.44
6:D:1098:LEU:HD21	6:D:1229:ILE:CD1	2.44	0.44
6:D:128:TYR:O	6:D:457:GLY:HA2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:95:LEU:HD23	6:D:96:ALA:N	2.32	0.44
6:N:578:VAL:O	6:N:581:LEU:HD23	2.17	0.44
5:M:479:VAL:HG21	5:M:503:LEU:HD11	1.98	0.44
4:K:34:VAL:HG23	4:K:179:PHE:HZ	1.82	0.44
4:K:44:LEU:HD13	4:K:177:VAL:HG11	2.00	0.44
5:C:288:ARG:HH11	5:C:288:ARG:CB	2.31	0.44
6:D:489:ARG:NH1	11:D:8508:HOH:O	2.49	0.44
6:D:8:VAL:HG23	6:D:1457:ASP:CB	2.37	0.44
5:M:12:VAL:HG13	5:M:13:ILE:HG13	2.00	0.44
6:D:1481:VAL:HG22	7:E:18:ARG:HH21	1.83	0.44
6:N:493:ARG:HG2	6:N:1390:LEU:CB	2.43	0.44
5:M:854:PRO:HB2	5:M:856:GLU:CD	2.38	0.44
5:M:721:ARG:HH21	5:M:783:ARG:NH1	2.15	0.44
6:D:554:LEU:CD1	6:D:571:LYS:HD3	2.45	0.44
5:M:971:LYS:HG2	5:M:988:VAL:HB	2.00	0.44
6:D:615:ARG:NH2	6:D:1096:ARG:CZ	2.81	0.44
7:E:41:GLU:HB2	7:E:45:ARG:CZ	2.48	0.44
5:M:808:ARG:NH2	5:M:820:ARG:NH2	2.65	0.44
4:K:26:GLU:HG2	4:K:27:PRO:HA	1.99	0.44
5:M:165:LEU:HD12	5:M:166:PRO:C	2.38	0.44
5:M:84:ARG:HG2	5:M:131:GLY:O	2.18	0.44
6:N:984:THR:HG22	6:N:987:GLU:HG3	1.99	0.44
5:C:964:LYS:O	5:C:968:LEU:HG	2.17	0.44
4:K:185:ARG:HB2	11:K:1437:HOH:O	2.17	0.44
5:C:137:VAL:HG22	5:C:391:LEU:HG	2.00	0.44
5:M:41:ASN:O	5:M:46:ALA:HB2	2.18	0.44
6:D:418:GLY:O	6:D:428:LYS:HB3	2.18	0.44
6:N:1100:ASP:HB3	6:N:1428:ALA:CB	2.47	0.44
6:D:1045:MET:O	6:D:1053:PHE:HD1	2.01	0.44
5:C:874:LEU:C	5:C:877:PRO:HD2	2.38	0.44
6:N:1102:THR:O	6:N:1102:THR:HG22	2.18	0.44
6:N:1221:VAL:O	6:N:1224:VAL:N	2.50	0.44
6:N:1478:SER:O	6:N:1482:ARG:N	2.51	0.44
5:C:573:ARG:HD2	5:C:699:PHE:HA	2.00	0.44
6:N:1037:GLN:OE1	6:N:1042:ARG:HD2	2.17	0.44
5:M:140:ILE:HD12	5:M:140:ILE:O	2.18	0.44
5:C:1055:LEU:CD2	5:C:1066:ALA:HB2	2.37	0.44
6:D:569:ASN:HA	6:D:572:ARG:NE	2.33	0.44
6:N:1481:VAL:O	6:N:1481:VAL:HG12	2.18	0.44
6:D:81:THR:HB	6:D:85:VAL:CG2	2.48	0.44
6:N:486:ARG:CA	6:N:489:ARG:HG2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:486:MET:HG3	5:M:490:GLU:HB2	2.00	0.44
6:N:962:GLN:O	6:N:966:GLU:HG3	2.18	0.44
5:C:355:VAL:CG2	5:C:372:LEU:HG	2.48	0.44
6:D:18:ILE:HD12	6:D:518:PRO:HG3	1.99	0.44
6:N:639:LEU:HD23	6:N:639:LEU:H	1.83	0.44
5:M:198:ARG:HG2	5:M:204:GLN:NE2	2.33	0.44
6:D:19:ARG:NE	6:D:94:GLU:OE1	2.51	0.44
5:C:127:PHE:CE1	5:C:136:ILE:HG12	2.53	0.44
4:A:5:LYS:HE2	4:B:224:TYR:OH	2.18	0.44
4:L:43:ILE:HD12	4:L:217:ILE:HG21	2.00	0.44
4:L:101:LEU:HD23	4:L:101:LEU:C	2.38	0.44
4:A:26:GLU:HG2	4:A:27:PRO:N	2.33	0.44
6:D:675:ARG:HA	6:D:678:GLU:CG	2.48	0.44
4:K:102:LYS:HZ1	4:K:115:LEU:HD22	1.82	0.44
6:N:646:LYS:HG2	6:N:720:LEU:HB3	1.99	0.44
3:I:4:DC:H3'	11:I:2461:HOH:O	2.18	0.44
6:N:163:TYR:HE1	6:N:198:ARG:HH12	1.66	0.44
1:X:15:DC:P	6:N:610:LYS:HE2	2.58	0.43
2:Y:5:C:H6	2:Y:5:C:O5'	2.00	0.43
5:C:409:ARG:HB3	5:C:454:SER:OG	2.17	0.43
5:C:563:ASN:O	5:C:567:GLN:HG2	2.18	0.43
6:D:632:VAL:O	6:D:727:GLN:HA	2.18	0.43
6:N:1045:MET:CB	6:N:1073:SER:HA	2.48	0.43
1:G:11:DC:H5"	6:D:1442:ASN:ND2	2.33	0.43
7:E:28:GLN:HB2	7:E:28:GLN:HE21	1.56	0.43
5:C:703:ILE:HD11	11:C:1597:HOH:O	2.17	0.43
5:M:940:GLU:N	11:M:1220:HOH:O	2.51	0.43
5:C:279:GLU:HG3	5:C:280:LYS:N	2.33	0.43
5:C:285:LEU:HD23	5:C:285:LEU:O	2.18	0.43
5:M:578:VAL:HG21	5:M:991:GLN:O	2.18	0.43
6:D:26:VAL:HG11	6:D:44:LEU:HD23	2.00	0.43
6:D:834:THR:CG2	6:D:838:ARG:HH11	2.27	0.43
5:M:52:PHE:O	5:M:54:ILE:N	2.51	0.43
6:N:165:LYS:HG2	6:N:397:LYS:HD3	2.00	0.43
4:A:222:LEU:HD22	4:B:218:LEU:HD23	2.00	0.43
5:M:669:GLY:HA3	5:M:995:MET:HA	1.99	0.43
4:B:40:LEU:HD22	4:B:211:LEU:HD12	1.99	0.43
6:D:393:ILE:HD12	11:D:8204:HOH:O	2.18	0.43
5:M:971:LYS:HG2	5:M:988:VAL:N	2.33	0.43
6:N:1164:ARG:NH1	6:N:1170:ASP:OD2	2.51	0.43
5:C:22:GLN:O	5:C:121:MET:HE1	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:177:GLU:N	5:M:178:PRO:HD3	2.32	0.43
6:D:675:ARG:O	6:D:678:GLU:HG2	2.17	0.43
6:D:60:CYS:SG	6:D:62:LYS:HG3	2.58	0.43
5:C:745:ILE:HD11	5:C:803:THR:OG1	2.18	0.43
5:M:1008:ARG:NH2	5:M:1020:PRO:HB3	2.33	0.43
6:N:1261:GLU:O	6:N:1264:GLU:O	2.35	0.43
6:N:1165:TYR:HB2	11:N:9241:HOH:O	2.18	0.43
11:M:1170:HOH:O	6:N:754:PHE:HB2	2.18	0.43
5:C:568:ALA:HB1	5:C:668:LEU:HB2	2.00	0.43
5:M:147:TYR:CE2	5:M:280:LYS:HE2	2.52	0.43
5:C:1058:ASP:O	5:C:1060:ILE:N	2.51	0.43
5:M:307:LEU:CD1	5:M:310:LEU:HD23	2.48	0.43
6:N:155:ASP:O	6:N:159:ARG:N	2.49	0.43
6:N:204:LEU:HB3	6:N:445:ARG:NH2	2.32	0.43
6:N:1087:ARG:HB3	6:N:1237:THR:HG21	2.00	0.43
6:D:56:TYR:C	6:D:80:VAL:HG11	2.38	0.43
6:D:1262:LEU:HD21	6:D:1351:GLU:CG	2.43	0.43
6:N:1383:ASP:HA	6:N:1384:PRO:HD3	1.71	0.43
4:L:86:VAL:HG12	4:L:124:ASN:HB2	1.99	0.43
5:M:842:ARG:NH2	5:M:887:GLU:OE1	2.51	0.43
5:C:841:ASN:HD21	5:C:845:ASN:H	1.65	0.43
5:C:101:ILE:HD12	5:C:107:LEU:HD13	2.00	0.43
6:D:1066:THR:OG1	6:D:1067:VAL:N	2.51	0.43
6:D:1438:ALA:CA	6:D:1446:VAL:HG11	2.48	0.43
5:M:573:ARG:HB3	5:M:670:GLN:OE1	2.18	0.43
5:M:672:VAL:HG12	5:M:699:PHE:HE1	1.82	0.43
6:D:827:ILE:HG23	6:D:840:LYS:NZ	2.33	0.43
4:K:114:PHE:O	4:K:116:PRO:HD3	2.18	0.43
6:N:732:VAL:HG12	6:N:732:VAL:O	2.18	0.43
4:L:83:LYS:HE2	4:L:168:ASP:HB2	2.00	0.43
11:M:1450:HOH:O	6:N:1456:LYS:HB3	2.17	0.43
2:Y:9:G:C5'	2:Y:9:G:H8	2.30	0.43
5:C:431:HIS:CG	5:C:432:ARG:H	2.35	0.43
2:H:5:C:H2'	2:H:6:U:C5	2.52	0.43
6:N:645:PRO:HG3	6:N:725:SER:O	2.18	0.43
5:M:876:VAL:H	5:M:877:PRO:CD	2.31	0.43
5:M:873:PRO:O	5:M:877:PRO:HD3	2.18	0.43
5:M:144:PRO:N	5:M:276:LYS:HZ3	2.15	0.43
6:D:477:LEU:HD21	6:D:495:ARG:NH1	2.33	0.43
5:C:1031:ARG:CZ	6:D:621:LYS:NZ	2.81	0.43
6:N:53:ILE:HA	6:N:86:ARG:HD2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:30:ARG:HH22	5:M:938:LYS:CD	2.28	0.43
6:N:154:THR:HG23	6:N:157:GLU:H	1.82	0.43
6:N:436:GLU:OE1	6:N:445:ARG:O	2.36	0.43
6:D:411:THR:HG23	6:D:436:GLU:HA	2.01	0.43
5:M:569:VAL:HA	5:M:570:PRO:HD3	1.88	0.43
5:M:342:ASP:HA	5:M:345:ARG:HD3	1.99	0.43
5:M:677:MET:HE1	5:M:679:PHE:CD1	2.38	0.43
6:N:481:MET:CE	6:N:496:LEU:HD23	2.48	0.43
6:N:481:MET:HE1	6:N:493:ARG:HA	2.01	0.43
6:D:957:PRO:HG3	6:D:1007:VAL:HA	2.00	0.43
6:N:813:LEU:HB2	6:N:839:LEU:HD21	1.99	0.43
4:B:65:PHE:CE1	6:D:813:LEU:HD13	2.54	0.43
4:K:133:GLU:OE2	4:K:134:GLU:HB2	2.17	0.43
6:D:409:VAL:CG1	6:D:435:VAL:HG11	2.48	0.43
7:E:41:GLU:H	7:E:41:GLU:CD	2.21	0.43
5:C:71:TYR:HA	5:C:96:ALA:HB2	2.00	0.43
5:C:124:ASP:OD2	5:C:592:LEU:HD12	2.19	0.43
5:M:198:ARG:HE	5:M:198:ARG:CA	2.32	0.43
5:M:816:LYS:HB2	5:M:819:VAL:CG2	2.47	0.43
6:D:827:ILE:HG22	6:D:837:GLY:CA	2.47	0.43
5:M:351:LEU:HD11	11:M:1564:HOH:O	2.17	0.43
5:M:601:GLY:O	5:M:648:ARG:HA	2.18	0.43
4:L:91:ASN:N	4:L:91:ASN:OD1	2.51	0.43
5:C:360:LEU:HD22	11:C:1160:HOH:O	2.17	0.43
6:N:57:GLU:OE2	6:N:61:GLY:HA2	2.18	0.43
6:N:615:ARG:NH2	6:N:1096:ARG:HD2	2.34	0.43
6:N:1209:LEU:HD21	7:O:17:TYR:OH	2.19	0.43
7:O:21:VAL:HG12	7:O:25:LYS:HD2	1.99	0.43
5:M:879:ARG:HH21	6:N:1029:ARG:HH22	1.65	0.43
6:D:1105:ILE:HG22	11:D:8286:HOH:O	2.17	0.43
6:D:1471:LEU:HD21	6:D:1477:GLY:HA2	1.99	0.43
5:M:328:LEU:HD11	5:M:434:HIS:HD2	1.82	0.43
5:C:36:PRO:CG	5:C:70:GLU:HB3	2.36	0.43
1:X:17:DC:O3'	6:N:628:ARG:NE	2.51	0.43
6:N:606:ILE:CG2	6:N:607:LEU:HG	2.48	0.43
5:C:466:PHE:O	5:C:468:ARG:N	2.52	0.43
6:N:1453:ALA:O	6:N:1455:LYS:HG2	2.18	0.43
6:D:1117:TYR:CE1	6:D:1187:PRO:HA	2.53	0.43
6:D:1486:VAL:HG12	7:E:22:VAL:HG13	2.00	0.43
6:D:1046:GLN:HG2	6:D:1052:THR:CG2	2.44	0.43
6:N:471:GLU:OE1	6:N:503:LEU:HD21	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:462:ASP:HB3	5:M:468:ARG:CD	2.43	0.43
5:M:490:GLU:HG2	5:M:493:ARG:NH1	2.33	0.43
6:D:957:PRO:HG3	11:D:8019:HOH:O	2.17	0.43
5:M:587:VAL:CG1	5:M:588:VAL:N	2.79	0.43
5:M:567:GLN:C	5:M:997:LEU:HD12	2.38	0.43
5:M:1003:ASP:OD2	6:N:724:GLN:NE2	2.52	0.43
6:N:970:LYS:HE2	11:N:9402:HOH:O	2.18	0.43
5:C:142:ARG:NH2	5:C:325:ILE:HG12	2.34	0.43
6:N:832:ARG:NE	6:N:832:ARG:HA	2.33	0.43
5:M:166:PRO:HA	11:M:1128:HOH:O	2.17	0.43
4:A:48:ILE:HD11	4:A:210:ALA:HB1	2.00	0.43
6:N:794:GLN:HG2	6:N:1017:PHE:CE1	2.53	0.43
7:O:65:MET:O	7:O:69:LEU:HD12	2.17	0.43
5:C:256:TYR:CE1	5:C:293:PHE:HB2	2.53	0.43
6:N:615:ARG:HH22	6:N:1096:ARG:CD	2.31	0.43
5:M:1101:THR:C	5:M:1102:LEU:HD12	2.38	0.43
5:C:853:LEU:HB2	5:C:858:MET:HE2	2.01	0.43
6:D:1099:VAL:HG23	6:D:1226:ALA:HB1	2.00	0.43
6:D:1209:LEU:O	6:D:1210:SER:C	2.53	0.43
6:D:95:LEU:CD2	6:D:574:LEU:HD21	2.45	0.43
5:M:1095:LEU:HB2	5:M:1097:LEU:CD2	2.47	0.43
5:M:39:ARG:NH1	5:M:39:ARG:HG3	2.29	0.43
6:N:111:LYS:HG2	6:N:1452:ILE:CD1	2.48	0.43
6:D:1271:LYS:CE	6:D:1331:ASP:H	2.32	0.43
6:D:108:VAL:CG2	6:D:109:PRO:HD3	2.47	0.43
6:D:1436:SER:N	11:D:8024:HOH:O	2.49	0.43
6:D:899:LEU:HB3	6:D:921:ARG:HH12	1.83	0.43
5:C:976:ASP:HB3	5:C:979:THR:HG22	2.00	0.43
6:N:40:GLU:HB3	6:N:41:ARG:H	1.68	0.43
5:C:814:GLU:O	5:C:816:LYS:NZ	2.52	0.43
4:K:55:SER:HB2	4:K:158:ILE:HB	2.00	0.43
5:M:853:LEU:O	5:M:858:MET:HE1	2.19	0.43
4:L:52:ALA:HB2	4:L:170:VAL:C	2.38	0.43
5:M:162:ILE:HB	5:M:172:ILE:HD13	2.00	0.43
5:C:610:ARG:HD3	5:C:622:GLU:CD	2.38	0.43
6:D:711:LEU:HD21	6:D:768:ASN:CB	2.49	0.43
5:M:399:ASN:O	5:M:400:PRO:C	2.57	0.43
4:K:127:LEU:HA	11:K:827:HOH:O	2.17	0.43
6:D:1406:ARG:CB	6:D:1412:LYS:HZ3	2.31	0.43
4:K:116:PRO:HG3	11:K:2001:HOH:O	2.17	0.43
4:B:216:GLU:HA	4:B:219:ARG:HH12	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1122:LEU:O	6:D:1135:ARG:HB2	2.18	0.43
5:M:37:GLU:HA	11:M:1579:HOH:O	2.18	0.43
5:C:250:ARG:HG2	5:C:253:ALA:HB3	2.00	0.43
6:N:1467:ILE:H	6:N:1467:ILE:HG13	1.55	0.43
6:D:415:VAL:O	6:D:432:TYR:HA	2.18	0.43
6:N:1101:VAL:HG13	6:N:1427:SER:OG	2.18	0.43
5:C:398:THR:OG1	5:C:566:THR:O	2.21	0.43
6:N:1148:VAL:HG11	6:N:1203:LYS:HB3	2.00	0.43
6:D:695:ILE:HD13	6:D:720:LEU:HD11	2.00	0.43
6:N:781:PRO:HB3	6:N:785:ILE:CG2	2.49	0.43
6:N:1431:THR:OG1	6:N:1432:LYS:N	2.51	0.43
6:D:127:LEU:CD2	6:D:134:VAL:HG22	2.49	0.43
6:N:525:ARG:HB2	6:N:538:SER:HB3	2.00	0.43
6:N:893:GLU:O	6:N:896:ALA:HB3	2.18	0.43
4:L:99:LEU:HD13	4:L:144:VAL:CG2	2.49	0.43
5:C:496:ILE:HG13	5:C:531:PHE:HB2	2.01	0.43
6:D:522:PRO:HG2	6:D:523:ASP:N	2.33	0.43
7:O:26:ARG:HE	7:O:30:LEU:HD12	1.84	0.43
7:O:67:GLU:HB3	7:O:73:LEU:CD1	2.48	0.43
6:D:52:PRO:HG2	6:D:80:VAL:HA	2.00	0.43
6:N:62:LYS:HG3	6:N:75:ARG:HH11	1.84	0.43
4:L:86:VAL:O	4:L:86:VAL:HG13	2.18	0.43
5:C:975:TYR:N	5:C:975:TYR:CD1	2.86	0.43
6:D:554:LEU:HD11	6:D:571:LYS:CD	2.48	0.43
5:M:666:LEU:HD11	5:M:668:LEU:CD2	2.48	0.43
6:N:41:ARG:HB2	11:N:9006:HOH:O	2.18	0.43
6:D:683:ILE:HG23	6:D:687:VAL:CG2	2.48	0.43
5:M:771:GLU:HB2	11:M:1204:HOH:O	2.18	0.43
6:D:716:PHE:CZ	6:D:765:SER:HB3	2.54	0.43
5:C:18:LEU:HD13	5:C:590:ASP:CB	2.48	0.43
5:C:230:ARG:HA	5:C:231:PRO:HD3	1.84	0.43
6:N:961:LYS:HG2	11:N:9172:HOH:O	2.17	0.43
6:D:475:LYS:NZ	11:D:8306:HOH:O	2.51	0.43
5:C:602:GLU:OE1	5:C:648:ARG:HG2	2.18	0.43
4:A:19:GLU:O	4:A:200:TRP:HA	2.18	0.43
5:M:179:ASN:ND2	11:M:1597:HOH:O	2.50	0.43
2:Y:5:C:H2'	2:Y:6:U:C5	2.50	0.43
5:C:140:ILE:HG13	5:C:411:SER:O	2.18	0.43
6:D:1098:LEU:HD11	6:D:1263:PHE:CE2	2.53	0.43
6:D:1422:MET:CE	6:D:1427:SER:HA	2.48	0.43
6:N:994:GLN:O	6:N:998:GLU:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:396:VAL:CG1	6:N:447:VAL:HG12	2.47	0.43
4:B:103:ALA:N	11:B:348:HOH:O	2.51	0.43
5:C:1118:LYS:O	5:C:1119:ARG:HB2	2.18	0.43
6:D:849:ALA:O	6:D:853:VAL:HG23	2.18	0.43
6:D:80:VAL:HG12	6:D:81:THR:O	2.18	0.43
5:M:31:GLN:NE2	5:M:31:GLN:O	2.52	0.43
6:D:171:LEU:HD11	11:D:8204:HOH:O	2.19	0.43
6:D:33:ASN:HB2	6:D:40:GLU:CD	2.38	0.43
5:M:285:LEU:HD12	5:M:288:ARG:O	2.19	0.43
5:M:771:GLU:HG2	5:M:771:GLU:O	2.19	0.43
5:C:631:SER:CB	5:C:637:LEU:HD11	2.45	0.43
6:N:826:PRO:O	6:N:836:VAL:HG13	2.18	0.43
4:B:100:LEU:O	4:B:115:LEU:HG	2.19	0.43
4:B:23:PHE:O	4:B:196:THR:HA	2.19	0.43
4:L:54:THR:CG2	4:L:158:ILE:HG13	2.48	0.43
6:N:12:LEU:HD21	6:N:104:PHE:CE1	2.52	0.43
5:M:882:LEU:HD11	6:N:1038:LEU:HB3	2.00	0.43
4:L:227:ASN:H	4:L:227:ASN:ND2	2.16	0.43
6:D:556:LYS:O	6:D:560:GLN:HG3	2.19	0.43
7:O:70:THR:HG22	7:O:71:GLY:N	2.33	0.43
6:D:586:ARG:HH22	6:D:1444:THR:HG21	1.83	0.43
5:M:834:GLN:HB3	11:M:1436:HOH:O	2.19	0.43
5:C:815:LEU:HD23	11:C:1323:HOH:O	2.19	0.43
4:L:223:THR:HG23	11:L:379:HOH:O	2.18	0.43
5:C:140:ILE:HA	5:C:332:ARG:O	2.18	0.43
6:N:1148:VAL:CG1	6:N:1163:GLY:HA2	2.48	0.43
6:N:1207:TYR:HA	6:N:1214:PRO:HA	2.00	0.43
6:D:782:SER:O	6:D:786:ILE:HG13	2.18	0.43
5:C:949:LYS:CD	6:D:796:ARG:HH22	2.24	0.43
6:N:179:VAL:CG1	6:N:183:GLU:HB3	2.45	0.43
6:D:470:LEU:H	6:D:470:LEU:CD2	2.31	0.43
6:D:496:LEU:HD11	6:D:1388:ARG:HG3	2.01	0.43
5:M:151:ASP:OD2	5:M:152:PRO:HD2	2.19	0.43
5:M:194:VAL:CG1	5:M:221:LEU:HB2	2.48	0.43
5:C:493:ARG:HE	5:C:493:ARG:HB2	1.53	0.43
6:D:400:VAL:CG2	6:D:443:VAL:HG21	2.48	0.43
6:D:1336:LEU:CD1	6:D:1341:PRO:HG3	2.49	0.43
6:N:949:ILE:N	11:N:9020:HOH:O	2.51	0.43
6:D:699:VAL:H	6:D:756:GLN:HE21	1.62	0.43
6:N:399:ARG:NE	6:N:430:ASP:HB2	2.33	0.43
5:M:805:ARG:NH1	5:M:807:ARG:HD3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1003:ASP:OD1	5:C:1004:LYS:HD3	2.19	0.43
5:C:17:PRO:O	5:C:20:GLU:HB3	2.19	0.43
4:K:7:LYS:HD2	4:K:186:LEU:HD21	2.00	0.43
5:M:352:ALA:C	5:M:355:VAL:HG12	2.39	0.43
6:D:1438:ALA:O	6:D:1443:THR:HG22	2.18	0.43
5:M:672:VAL:HG12	5:M:699:PHE:CE1	2.54	0.43
5:M:99:GLN:NE2	5:M:109:LYS:HB2	2.33	0.43
5:M:716:LYS:NZ	6:N:36:THR:HG23	2.31	0.43
6:D:935:LYS:HE3	11:D:8312:HOH:O	2.18	0.43
6:D:867:ARG:O	6:D:867:ARG:HD2	2.19	0.43
6:N:106:LYS:HE2	6:N:125:GLN:HE22	1.84	0.43
5:C:250:ARG:HD2	11:C:1278:HOH:O	2.18	0.43
6:N:816:HIS:N	6:N:816:HIS:ND1	2.65	0.43
6:D:662:GLU:OE2	6:D:669:ASN:HA	2.18	0.43
6:N:207:PHE:HB3	11:N:9229:HOH:O	2.18	0.43
5:M:1019:GLN:HA	5:M:1020:PRO:HD3	1.86	0.43
6:N:1424:VAL:CG1	6:N:1425:THR:N	2.82	0.43
5:C:441:VAL:O	5:C:559:LEU:HG	2.18	0.43
6:N:1144:LEU:HA	6:N:1147:ARG:HG3	2.00	0.43
5:C:875:GLY:O	5:C:879:ARG:HD2	2.19	0.43
6:D:787:LEU:HD13	6:D:1023:MET:HA	2.00	0.43
5:C:751:PRO:HA	5:C:792:VAL:CG1	2.49	0.43
6:N:191:LEU:HD22	6:N:393:ILE:HD13	2.00	0.43
5:M:553:ASP:OD2	5:M:883:GLY:HA3	2.18	0.43
6:N:525:ARG:CD	6:N:525:ARG:H	2.31	0.43
5:M:193:LEU:HD22	5:M:307:LEU:HD21	2.00	0.43
6:N:456:MET:HG2	11:N:9491:HOH:O	2.18	0.43
6:N:607:LEU:HD23	11:N:9149:HOH:O	2.19	0.43
5:C:258:TYR:CD2	5:C:258:TYR:N	2.84	0.43
5:C:145:GLY:H	5:C:163:ILE:HG13	1.83	0.43
5:C:759:THR:HG23	11:C:1516:HOH:O	2.19	0.43
6:D:1268:PRO:HD2	6:D:1271:LYS:HD3	2.01	0.43
6:D:1262:LEU:HD23	6:D:1352:ILE:HG12	2.00	0.43
5:C:7:GLY:H	5:C:904:PRO:HD2	1.84	0.43
5:C:626:ARG:HG3	5:C:626:ARG:HH11	1.84	0.43
4:A:43:ILE:HD11	4:B:35:THR:HG21	2.00	0.43
5:C:981:GLU:HG3	5:C:982:PRO:HD3	2.01	0.43
5:C:909:ALA:HB1	5:C:914:ILE:CD1	2.47	0.43
5:C:1103:ASP:OD2	5:C:1108:PRO:O	2.37	0.43
7:O:28:GLN:CA	7:O:32:ARG:HH22	2.32	0.43
6:D:440:VAL:CG2	6:D:441:ARG:HH21	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:111:ASP:CG	5:M:112:GLU:HG2	2.39	0.43
6:N:1498:ALA:CB	7:O:84:ARG:HE	2.31	0.43
5:C:714:ASP:N	5:C:818:GLY:O	2.52	0.43
4:A:108:GLU:HB3	4:A:110:LYS:CE	2.49	0.43
6:D:189:GLN:HG3	11:D:8023:HOH:O	2.19	0.43
2:Y:7:G:N2	5:M:1014:SER:HA	2.32	0.43
6:N:1264:GLU:HG3	6:N:1425:THR:OG1	2.19	0.43
5:M:1103:ASP:OD2	6:N:3:LYS:HD2	2.18	0.43
5:C:983:ILE:HG21	5:C:987:ILE:CD1	2.49	0.43
6:N:1112:CYS:O	6:N:1189:ARG:NH2	2.52	0.43
5:M:701:THR:CG2	5:M:830:LYS:HE2	2.46	0.43
6:N:695:ILE:CD1	6:N:718:PRO:HB2	2.48	0.43
6:D:1441:GLN:NE2	6:D:1442:ASN:H	2.17	0.43
3:I:8:DA:OP1	6:D:1426:LYS:HE3	2.19	0.43
6:D:497:GLU:O	6:D:500:ARG:HB2	2.19	0.43
5:C:1031:ARG:CZ	6:D:621:LYS:HZ2	2.32	0.43
5:M:175:GLU:HB3	5:M:183:SER:OG	2.18	0.43
5:C:262:ALA:O	5:C:264:PRO:O	2.37	0.43
3:Z:5:DG:H3'	11:Z:945:HOH:O	2.18	0.43
4:L:76:VAL:HA	4:L:79:ILE:HG12	2.00	0.43
5:M:851:LYS:HD2	5:M:852:ILE:H	1.84	0.43
1:G:23:DG:OP1	5:C:388:ARG:NH1	2.52	0.43
4:L:9:PRO:HB3	4:L:25:LEU:CD2	2.49	0.43
6:D:799:LYS:N	11:D:8279:HOH:O	2.52	0.43
5:M:299:LYS:HG3	11:M:1441:HOH:O	2.19	0.43
5:C:894:GLY:HA2	5:C:901:TYR:OH	2.19	0.43
4:L:26:GLU:HB2	4:L:27:PRO:HA	2.01	0.43
5:M:564:MET:CB	11:M:1517:HOH:O	2.67	0.43
6:N:407:VAL:HA	6:N:422:ALA:CB	2.49	0.43
5:C:946:ARG:HD3	5:C:984:GLU:HB3	2.01	0.43
5:M:290:LEU:N	5:M:290:LEU:HD23	2.32	0.43
6:D:30:GLU:N	11:D:8061:HOH:O	2.52	0.43
5:M:822:VAL:HB	5:M:824:ARG:HH21	1.84	0.43
6:D:764:LEU:HD12	6:D:765:SER:N	2.34	0.43
6:D:767:HIS:CE1	7:E:6:ILE:HG21	2.54	0.43
6:N:1150:ALA:CB	6:N:1151:ARG:HD2	2.48	0.43
6:N:826:PRO:HD2	6:N:829:VAL:HG22	2.00	0.43
6:D:820:GLU:HG3	6:D:836:VAL:HG11	1.99	0.43
4:A:215:VAL:HG11	4:B:225:PHE:HD1	1.84	0.43
6:N:508:ARG:HD3	11:N:9337:HOH:O	2.18	0.43
4:L:70:GLY:N	11:L:402:HOH:O	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:953:ASP:OD2	6:N:953:ASP:N	2.52	0.43
5:C:139:GLN:HE21	5:C:334:ARG:CD	2.25	0.42
5:C:399:ASN:ND2	5:C:402:SER:OG	2.52	0.42
6:D:786:ILE:CD1	6:D:908:LYS:HD3	2.49	0.42
5:M:687:ALA:C	5:M:688:ILE:HG13	2.39	0.42
5:M:874:LEU:HD23	6:N:783:ARG:HB3	2.01	0.42
5:M:141:HIS:NE2	5:M:332:ARG:HD2	2.34	0.42
6:D:101:HIS:HD2	6:D:514:LEU:HD11	1.83	0.42
6:N:860:LEU:HD22	6:N:881:LEU:HD23	2.01	0.42
5:M:208:ALA:HB3	5:M:209:ARG:NH2	2.33	0.42
5:C:313:LEU:HD13	5:C:321:GLU:CG	2.49	0.42
5:C:265:ARG:NH1	11:C:1308:HOH:O	2.51	0.42
6:D:397:LYS:HB3	6:D:448:GLU:CB	2.49	0.42
6:D:397:LYS:HD3	6:D:448:GLU:OE1	2.19	0.42
4:L:59:GLU:HB2	4:L:137:ARG:CZ	2.49	0.42
6:D:1123:PHE:CE2	6:D:1184:GLN:HA	2.54	0.42
5:C:583:LEU:O	5:C:587:VAL:HG23	2.20	0.42
5:M:436:GLY:HA2	5:M:538:GLN:C	2.35	0.42
6:D:133:ILE:HG13	6:D:153:LEU:CG	2.48	0.42
7:O:26:ARG:HD3	7:O:73:LEU:CD2	2.49	0.42
6:D:1344:VAL:HG12	6:D:1348:LEU:HD13	2.00	0.42
5:C:614:ARG:HG3	5:C:620:LEU:CD2	2.43	0.42
6:N:1153:VAL:O	6:N:1160:LEU:HG	2.19	0.42
6:N:963:TYR:HA	6:N:966:GLU:OE2	2.19	0.42
6:D:175:VAL:HG21	11:D:8081:HOH:O	2.19	0.42
4:K:133:GLU:HG3	5:M:605:LYS:HA	2.01	0.42
6:D:739:ASP:OD1	6:D:741:ASP:OD1	2.37	0.42
6:N:586:ARG:HH22	6:N:1444:THR:HG21	1.84	0.42
7:E:41:GLU:N	7:E:42:PRO:CD	2.81	0.42
7:O:51:LEU:HD12	11:O:1058:HOH:O	2.19	0.42
5:M:515:ALA:HB3	5:M:524:VAL:HG21	2.01	0.42
5:M:519:GLY:HA3	11:M:1314:HOH:O	2.19	0.42
6:D:701:LEU:O	6:D:747:VAL:HA	2.20	0.42
5:C:599:GLU:HA	5:C:651:LYS:HG3	2.00	0.42
5:C:251:ASP:HB3	5:C:252:LYS:CD	2.48	0.42
6:N:984:THR:HG23	6:N:987:GLU:H	1.84	0.42
5:C:183:SER:OG	5:C:190:LYS:HG2	2.18	0.42
5:M:458:TYR:CD1	5:M:458:TYR:N	2.86	0.42
5:C:500:ASN:HA	11:C:1162:HOH:O	2.19	0.42
6:D:1490:LYS:HB2	7:E:93:TYR:OH	2.19	0.42
5:M:1058:ASP:O	5:M:1060:ILE:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1103:ASP:N	5:M:1107:ASN:O	2.49	0.42
5:C:571:LEU:HD12	5:C:996:LYS:HZ2	1.84	0.42
5:M:684:PHE:O	5:M:685:GLU:C	2.58	0.42
6:N:783:ARG:HG3	6:N:783:ARG:H	1.53	0.42
5:C:580:MET:CE	5:C:584:GLU:HG3	2.49	0.42
6:N:522:PRO:HA	6:N:525:ARG:NE	2.34	0.42
5:C:313:LEU:CA	5:C:321:GLU:HG3	2.48	0.42
6:D:1231:GLU:OE2	6:D:1232:PRO:HD3	2.18	0.42
1:G:23:DG:H5"	5:C:388:ARG:NH2	2.35	0.42
6:N:501:ALA:CB	6:N:1453:ALA:HB2	2.38	0.42
6:D:26:VAL:HG11	6:D:44:LEU:CD2	2.48	0.42
5:M:12:VAL:HB	5:M:472:ARG:NH1	2.34	0.42
6:D:1046:GLN:HG2	6:D:1052:THR:CA	2.49	0.42
6:D:893:GLU:O	6:D:896:ALA:HB3	2.20	0.42
5:C:747:ALA:C	5:C:799:ILE:HG23	2.39	0.42
6:D:699:VAL:HG21	6:D:760:ARG:HB3	2.01	0.42
6:N:714:GLN:HE22	6:N:768:ASN:HD22	1.67	0.42
6:N:407:VAL:HA	6:N:422:ALA:HB2	2.01	0.42
6:D:171:LEU:HD21	6:D:192:ALA:HB3	2.00	0.42
5:C:816:LYS:HB2	5:C:819:VAL:HG21	2.00	0.42
5:C:352:ALA:O	5:C:355:VAL:HG12	2.19	0.42
6:N:756:GLN:NE2	6:N:760:ARG:HB3	2.34	0.42
5:M:191:PHE:HB2	5:M:192:PRO:HD3	2.01	0.42
5:M:235:LEU:HD21	11:M:1276:HOH:O	2.18	0.42
6:N:161:LEU:HB2	11:N:9073:HOH:O	2.19	0.42
6:D:794:GLN:HB3	6:D:1017:PHE:CZ	2.51	0.42
6:D:969:ARG:HA	11:D:8045:HOH:O	2.19	0.42
6:D:564:GLU:HA	6:D:567:ILE:HD12	2.01	0.42
5:M:136:ILE:HA	5:M:136:ILE:HD13	1.93	0.42
5:M:960:GLU:HG3	5:M:961:GLU:N	2.32	0.42
4:A:152:PRO:HB3	4:A:154:GLU:OE1	2.19	0.42
4:L:106:PRO:HG3	4:L:133:GLU:O	2.19	0.42
5:C:437:ARG:CB	5:C:467:ILE:HB	2.49	0.42
6:D:1047:LYS:HG2	6:D:1053:PHE:CE2	2.54	0.42
4:B:102:LYS:HZ3	4:B:139:ASN:HB2	1.84	0.42
5:C:573:ARG:CD	5:C:670:GLN:HE22	2.32	0.42
6:D:137:PRO:HG3	6:D:467:GLU:OE1	2.20	0.42
6:D:98:PRO:HG3	6:D:462:GLN:HE22	1.85	0.42
6:N:45:PHE:HB3	6:N:86:ARG:HH22	1.83	0.42
5:M:203:ASP:O	5:M:207:LEU:HB2	2.18	0.42
5:C:267:TYR:N	5:C:267:TYR:CD2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:206:ARG:HG3	6:N:206:ARG:NH1	2.34	0.42
5:M:869:VAL:HG22	5:M:871:LEU:HD23	2.01	0.42
4:A:55:SER:HB2	4:A:158:ILE:HB	2.01	0.42
6:D:829:VAL:O	6:D:835:SER:HB2	2.19	0.42
6:D:185:VAL:HG21	6:D:191:LEU:CD2	2.49	0.42
6:D:191:LEU:HB2	6:D:195:VAL:HG12	2.00	0.42
6:D:423:ASP:N	6:D:423:ASP:OD1	2.52	0.42
6:D:711:LEU:HD22	6:D:714:GLN:NE2	2.34	0.42
6:D:701:LEU:CD1	6:D:715:ALA:HB2	2.49	0.42
4:L:56:VAL:HG12	4:L:57:TYR:N	2.34	0.42
5:C:259:GLY:O	5:C:290:LEU:O	2.37	0.42
6:D:440:VAL:HB	6:D:441:ARG:NH2	2.30	0.42
4:K:206:THR:HG23	4:K:207:PRO:CD	2.49	0.42
6:N:840:LYS:HE2	6:N:841:TYR:HE2	1.84	0.42
6:D:32:ILE:HD13	6:D:37:LEU:O	2.19	0.42
4:B:169:ALA:HB1	4:B:171:PHE:CE2	2.54	0.42
6:N:631:ILE:HG21	6:N:745:MET:CG	2.49	0.42
5:M:617:ASP:HB2	5:M:619:ARG:NE	2.33	0.42
6:D:625:TYR:CD1	6:D:625:TYR:N	2.88	0.42
5:C:297:GLU:HG3	11:C:1205:HOH:O	2.18	0.42
6:N:63:TYR:HB3	6:N:68:PHE:CE1	2.54	0.42
2:Y:16:G:H5'	6:N:742:GLY:C	2.39	0.42
5:C:399:ASN:O	5:C:400:PRO:C	2.57	0.42
5:C:690:ILE:HD11	5:C:833:LEU:HD23	2.00	0.42
5:M:695:LEU:CD2	5:M:832:LYS:HD3	2.29	0.42
6:N:785:ILE:CG1	6:N:935:LYS:HA	2.43	0.42
6:D:1109:GLU:CG	6:D:1201:CYS:HA	2.31	0.42
6:D:455:ARG:NH1	6:D:463:GLN:HG3	2.35	0.42
6:N:921:ARG:HH11	6:N:921:ARG:CB	2.15	0.42
6:N:903:ASP:O	6:N:904:VAL:HG13	2.19	0.42
5:C:214:TYR:OH	5:C:312:ALA:HB2	2.19	0.42
6:N:441:ARG:HH22	6:N:445:ARG:NH2	2.16	0.42
5:C:626:ARG:O	5:C:638:ASP:HA	2.19	0.42
5:M:526:PRO:HA	5:M:529:VAL:CG2	2.50	0.42
5:M:526:PRO:HA	5:M:529:VAL:HG23	2.01	0.42
5:M:244:PRO:HD2	5:M:245:GLY:N	2.28	0.42
6:N:409:VAL:HG12	6:N:435:VAL:HG11	2.01	0.42
6:D:193:PRO:HG2	11:D:8081:HOH:O	2.18	0.42
5:C:362:GLY:HA2	5:C:371:LYS:NZ	2.34	0.42
5:C:1085:PHE:O	5:C:1088:LEU:HB3	2.18	0.42
6:N:462:GLN:CA	6:N:513:ILE:HD13	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:146:VAL:CG1	5:M:162:ILE:HG12	2.48	0.42
5:C:86:LYS:HB2	5:C:88:LEU:HD23	2.01	0.42
5:M:364:GLU:O	5:M:367:LEU:HG	2.18	0.42
3:Z:8:DA:H1'	3:Z:9:DG:C5'	2.46	0.42
5:C:695:LEU:HD11	5:C:832:LYS:HB3	2.02	0.42
5:C:588:VAL:HA	5:C:591:SER:OG	2.19	0.42
4:A:221:HIS:HA	4:A:224:TYR:CD2	2.54	0.42
2:H:2:A:H2'	2:H:3:G:O5'	2.20	0.42
5:M:334:ARG:HA	5:M:338:GLU:OE2	2.19	0.42
4:K:9:PRO:HB3	4:K:25:LEU:CD2	2.50	0.42
5:M:894:GLY:HA2	5:M:901:TYR:OH	2.19	0.42
6:N:653:PHE:CD1	6:N:653:PHE:N	2.87	0.42
5:M:654:LEU:HD13	5:M:664:GLY:N	2.34	0.42
6:N:688:TRP:HA	6:N:688:TRP:CE3	2.54	0.42
6:N:739:ASP:OD1	6:N:741:ASP:OD1	2.36	0.42
5:C:689:VAL:CG1	5:C:690:ILE:N	2.82	0.42
5:C:839:LEU:CD2	5:C:996:LYS:HA	2.47	0.42
6:N:1365:ASP:O	6:N:1369:GLU:HG3	2.19	0.42
1:G:12:DG:H2''	1:G:13:DT:H5'	2.01	0.42
6:N:989:TYR:CE1	6:N:993:LEU:HD21	2.54	0.42
6:D:118:LEU:O	6:D:120:ALA:N	2.53	0.42
6:D:118:LEU:CD1	6:D:461:ILE:HD12	2.50	0.42
6:D:114:THR:CG2	6:D:495:ARG:HA	2.49	0.42
5:M:937:ASP:OD2	5:M:939:ARG:HG2	2.20	0.42
5:M:208:ALA:CB	5:M:209:ARG:HH21	2.32	0.42
6:D:486:ARG:CA	6:D:489:ARG:HG2	2.47	0.42
6:D:29:PRO:HD3	11:D:8201:HOH:O	2.18	0.42
6:D:1389:LEU:HG	6:D:1390:LEU:N	2.24	0.42
5:M:566:THR:HG22	5:M:566:THR:O	2.18	0.42
6:D:79:GLU:HG2	6:D:80:VAL:N	2.33	0.42
6:D:838:ARG:NH1	6:D:838:ARG:HG2	2.34	0.42
5:C:924:VAL:HG12	11:C:1285:HOH:O	2.18	0.42
4:L:182:GLU:OE1	4:L:194:LYS:HD2	2.20	0.42
5:M:1032:PHE:HB3	6:N:620:GLY:O	2.20	0.42
5:C:352:ALA:C	5:C:355:VAL:HG12	2.39	0.42
4:L:142:VAL:HG23	4:L:142:VAL:O	2.18	0.42
4:L:56:VAL:HG22	4:L:142:VAL:HG12	2.01	0.42
5:C:609:ASN:N	5:C:609:ASN:ND2	2.63	0.42
6:N:1401:GLU:OE2	6:N:1415:VAL:HG21	2.20	0.42
6:D:440:VAL:HB	6:D:441:ARG:NE	2.32	0.42
5:C:807:ARG:C	11:C:1277:HOH:O	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:817:GLU:HA	6:D:836:VAL:HG21	2.02	0.42
5:C:227:PHE:HB3	11:C:1552:HOH:O	2.20	0.42
5:M:602:GLU:OE1	5:M:648:ARG:HB3	2.18	0.42
6:D:1487:VAL:HB	7:E:74:VAL:HG23	2.00	0.42
6:N:955:VAL:HG11	6:N:1015:TYR:CZ	2.54	0.42
4:L:106:PRO:HA	4:L:133:GLU:O	2.20	0.42
5:C:663:ASN:C	5:C:665:PHE:H	2.23	0.42
5:C:191:PHE:CE2	5:C:196:LEU:HD12	2.55	0.42
5:M:1060:ILE:O	5:M:1064:ASN:ND2	2.53	0.42
5:M:1111:ILE:HG13	5:M:1112:PHE:N	2.31	0.42
5:C:333:ILE:HG12	5:C:467:ILE:HD11	2.01	0.42
5:C:431:HIS:HD2	5:C:433:THR:OG1	2.03	0.42
5:C:408:ARG:O	5:C:454:SER:HA	2.19	0.42
2:H:9:G:N2	11:H:26:HOH:O	2.53	0.42
5:C:874:LEU:HA	6:D:1023:MET:SD	2.60	0.42
5:M:536:PRO:HB3	5:M:906:PHE:HD1	1.84	0.42
6:N:1036:ARG:HH11	6:N:1036:ARG:HB3	1.82	0.42
5:C:1096:ALA:HB2	6:D:101:HIS:NE2	2.34	0.42
6:D:116:LEU:HD23	6:D:150:ARG:HH11	1.85	0.42
1:X:19:DC:H3'	11:X:2000:HOH:O	2.19	0.42
6:N:131:LYS:HZ3	6:N:568:ARG:CB	2.32	0.42
6:N:166:GLN:OE1	6:N:396:VAL:HG22	2.20	0.42
5:M:833:LEU:HD11	5:M:839:LEU:HD21	2.01	0.42
6:D:1121:PRO:HG3	6:D:1185:GLU:OE2	2.19	0.42
5:M:810:ASP:HA	5:M:811:PRO:HD3	1.67	0.42
5:C:710:ILE:CD1	5:C:790:LEU:HD13	2.49	0.42
5:C:620:LEU:HD11	11:C:1436:HOH:O	2.19	0.42
5:M:889:HIS:HE1	6:N:951:ILE:H	1.67	0.42
5:C:77:PRO:HD3	5:C:91:GLN:O	2.20	0.42
6:D:610:LYS:C	6:D:615:ARG:HD3	2.39	0.42
5:M:473:ARG:HG3	5:M:474:VAL:N	2.35	0.42
6:N:656:PHE:HB3	6:N:694:VAL:CG1	2.50	0.42
4:K:13:VAL:HG22	4:K:23:PHE:CD1	2.55	0.42
6:D:54:LYS:CG	6:D:55:ASP:H	2.32	0.42
5:C:693:GLU:HA	5:C:696:LYS:HE3	2.00	0.42
5:M:575:GLN:NE2	5:M:670:GLN:OE1	2.52	0.42
6:D:959:GLU:CD	6:D:959:GLU:N	2.73	0.42
6:D:841:TYR:HB3	6:D:843:PHE:CZ	2.54	0.42
5:C:606:VAL:HG23	5:C:645:VAL:HG12	2.02	0.42
6:D:709:HIS:CD2	6:D:709:HIS:H	2.37	0.42
5:C:1111:ILE:H	5:C:1111:ILE:HG13	1.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1211:MET:HE1	6:D:1213:ARG:HD3	2.00	0.42
5:C:644:VAL:HB	11:C:1372:HOH:O	2.20	0.42
6:N:1158:VAL:HG12	6:N:1159:ARG:N	2.35	0.42
5:C:895:TYR:HA	11:C:1275:HOH:O	2.20	0.42
4:B:101:LEU:HD23	4:B:101:LEU:C	2.40	0.42
6:N:19:ARG:HE	6:N:516:ALA:CB	2.32	0.42
5:C:140:ILE:HD11	5:C:412:ALA:HB2	2.01	0.42
6:N:1365:ASP:N	6:N:1365:ASP:OD2	2.53	0.42
6:N:1055:VAL:HA	6:N:1056:PRO:HD3	1.90	0.42
6:N:998:GLU:O	6:N:1002:LYS:HG3	2.20	0.42
5:M:98:LEU:N	5:M:98:LEU:HD12	2.35	0.42
6:N:506:GLY:O	6:N:507:ASN:C	2.58	0.42
4:L:75:VAL:O	4:L:79:ILE:HG23	2.19	0.42
4:B:142:VAL:HG23	4:B:142:VAL:O	2.18	0.42
6:D:1103:HIS:HD2	6:D:1463:LYS:H	1.59	0.42
5:C:966:LEU:HD12	5:C:966:LEU:HA	1.94	0.42
5:M:783:ARG:HE	5:M:785:VAL:CG1	2.32	0.42
6:N:137:PRO:HD2	6:N:453:ASP:CG	2.39	0.42
6:D:806:PHE:HE1	6:D:813:LEU:HB3	1.79	0.42
5:M:580:MET:O	5:M:902:ILE:HA	2.19	0.42
6:N:1047:LYS:HG2	6:N:1053:PHE:CE1	2.54	0.42
6:D:711:LEU:HD21	6:D:768:ASN:HB2	2.01	0.42
5:M:1009:SER:OG	5:M:1010:THR:N	2.53	0.42
4:K:213:GLN:NE2	11:K:1765:HOH:O	2.51	0.42
5:M:69:LEU:HD12	5:M:97:ARG:CB	2.49	0.42
6:D:820:GLU:OE1	6:D:840:LYS:HE3	2.20	0.42
5:M:458:TYR:HD1	5:M:458:TYR:N	2.18	0.42
5:C:137:VAL:N	5:C:391:LEU:HD21	2.33	0.42
4:L:189:ARG:HG3	4:L:189:ARG:O	2.19	0.42
4:A:161:ARG:HA	4:A:161:ARG:NE	2.34	0.42
6:N:457:GLY:C	6:N:459:GLU:N	2.72	0.42
5:M:1111:ILE:HG12	5:M:1111:ILE:H	1.43	0.42
5:C:541:SER:OG	5:C:542:VAL:N	2.52	0.42
6:D:1072:ILE:HG12	11:D:8010:HOH:O	2.20	0.42
6:D:695:ILE:HD13	6:D:720:LEU:CD1	2.50	0.42
5:C:401:LEU:HD21	5:C:565:GLN:NE2	2.34	0.42
6:D:462:GLN:HG2	6:D:466:LYS:HZ2	1.85	0.42
6:D:470:LEU:HD21	11:D:8038:HOH:O	2.19	0.42
6:N:879:ARG:HH11	6:N:879:ARG:CG	2.32	0.42
6:D:87:ARG:NH2	11:D:8227:HOH:O	2.53	0.42
6:D:1341:PRO:O	6:D:1343:ALA:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:677:MET:HE3	5:M:678:PRO:O	2.19	0.42
5:C:1105:LYS:HD2	5:C:1107:ASN:HD22	1.83	0.42
6:D:54:LYS:HB3	6:D:57:GLU:OE2	2.20	0.42
3:I:3:DA:O4'	5:C:423:ALA:HB2	2.20	0.42
5:C:780:GLU:H	5:C:780:GLU:HG3	1.53	0.42
4:A:184:THR:N	11:A:321:HOH:O	2.53	0.42
5:M:628:PHE:CZ	5:M:703:ILE:HD13	2.55	0.42
6:D:698:LYS:HE3	6:D:698:LYS:HB3	1.92	0.42
7:E:66:LYS:HD2	7:E:69:LEU:HD23	2.02	0.42
6:D:780:LYS:HD2	6:D:912:LYS:HB2	2.02	0.42
5:M:1035:MET:H	5:M:1035:MET:HG3	1.65	0.42
6:N:19:ARG:HH11	6:N:19:ARG:HG3	1.85	0.42
5:C:139:GLN:HA	5:C:411:SER:O	2.19	0.42
5:C:431:HIS:CD2	5:C:432:ARG:HB2	2.55	0.42
5:C:442:GLU:HG2	5:C:454:SER:H	1.84	0.42
6:N:1221:VAL:O	6:N:1222:GLY:C	2.58	0.42
6:D:116:LEU:HD23	6:D:150:ARG:NH1	2.35	0.42
6:D:127:LEU:CD1	6:D:128:TYR:N	2.80	0.42
6:N:574:LEU:O	6:N:578:VAL:HG23	2.19	0.42
4:B:81:ASN:O	4:B:127:LEU:HD21	2.20	0.42
4:L:58:ILE:HG21	4:L:61:VAL:HB	2.00	0.42
6:D:1451:ALA:O	6:D:1452:ILE:C	2.57	0.42
6:N:1078:ARG:NH1	6:N:1078:ARG:HG3	2.34	0.42
6:N:403:PHE:CD2	6:N:444:VAL:HG23	2.55	0.42
4:A:182:GLU:HG2	4:A:194:LYS:HG2	2.02	0.42
6:N:1415:VAL:HG22	11:N:9043:HOH:O	2.19	0.42
5:M:909:ALA:CB	5:M:914:ILE:HD11	2.47	0.42
4:A:8:ALA:HB1	4:B:224:TYR:CE1	2.51	0.42
6:N:673:ALA:O	6:N:677:LEU:HD12	2.19	0.42
6:N:683:ILE:HG23	6:N:687:VAL:HG21	2.01	0.42
4:L:73:GLU:CB	4:L:77:GLU:HG3	2.50	0.42
6:D:48:ARG:HB3	6:D:48:ARG:HE	1.53	0.42
7:E:33:HIS:CE1	7:E:89:MET:HB3	2.55	0.42
6:D:1444:THR:OG1	6:D:1445:HIS:N	2.53	0.42
6:N:600:LEU:HD12	6:N:600:LEU:H	1.83	0.42
6:N:596:SER:HB3	6:N:598:ARG:NE	2.35	0.42
5:M:20:GLU:OE2	5:M:460:ARG:HD3	2.20	0.42
4:K:107:LYS:HD3	4:K:108:GLU:O	2.20	0.42
3:I:13:DG:H2"	3:I:14:DG:C8	2.55	0.42
5:C:719:PRO:HD2	11:C:1241:HOH:O	2.20	0.42
2:Y:7:G:H22	5:M:1014:SER:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:536:PRO:CD	5:M:537:LYS:HZ2	2.17	0.42
6:N:632:VAL:O	6:N:727:GLN:HA	2.20	0.42
5:M:872:ASN:HD21	5:M:874:LEU:HD13	1.85	0.42
5:C:577:PRO:HA	5:C:993:PHE:CD2	2.54	0.42
7:O:47:LYS:CA	7:O:54:LEU:HB3	2.49	0.42
6:D:461:ILE:O	6:D:465:LEU:HB2	2.18	0.42
6:N:628:ARG:HG3	6:N:628:ARG:HH11	1.84	0.42
5:C:182:VAL:HG12	5:C:193:LEU:HD13	2.01	0.42
6:N:446:VAL:O	6:N:447:VAL:O	2.38	0.42
4:K:91:ASN:HB3	11:K:1721:HOH:O	2.20	0.42
5:C:537:LYS:CG	5:C:545:ASN:HD21	2.33	0.42
6:D:50:PHE:HB3	6:D:522:PRO:CG	2.46	0.42
5:C:208:ALA:O	5:C:218:VAL:HG21	2.19	0.42
5:C:208:ALA:HB1	5:C:218:VAL:CG1	2.50	0.42
5:M:456:ALA:HA	5:M:541:SER:HA	2.01	0.42
4:L:25:LEU:CD2	4:L:28:LEU:HD21	2.40	0.42
6:D:82:LYS:HB2	11:D:8499:HOH:O	2.20	0.42
6:D:1341:PRO:O	6:D:1344:VAL:N	2.53	0.42
7:E:59:ASN:ND2	7:E:59:ASN:N	2.68	0.42
6:D:1001:GLU:O	6:D:1004:THR:HB	2.20	0.42
6:N:397:LYS:HB3	6:N:448:GLU:HB3	2.01	0.42
5:M:549:PHE:HE2	5:M:887:GLU:HA	1.85	0.42
4:B:152:PRO:HG2	6:D:857:ILE:HD12	2.01	0.42
5:M:757:GLY:HA2	5:M:789:SER:HB3	2.02	0.42
5:M:605:LYS:O	5:M:611:ILE:HA	2.20	0.42
5:C:71:TYR:HA	5:C:96:ALA:CB	2.50	0.42
5:M:728:HIS:NE2	5:M:775:ARG:NH1	2.67	0.42
6:N:804:LEU:HD12	6:N:830:ALA:O	2.20	0.42
5:M:1049:LEU:HD23	6:N:1472:ILE:CD1	2.49	0.42
4:A:70:GLY:O	4:A:132:LEU:HA	2.19	0.42
5:C:598:GLU:O	5:C:651:LYS:HG3	2.20	0.42
4:B:22:GLU:HG2	4:B:198:ARG:HG2	2.00	0.42
5:M:917:LEU:HB3	11:M:1461:HOH:O	2.20	0.42
6:N:859:ASP:HB3	6:N:861:GLN:NE2	2.35	0.42
6:N:1463:LYS:O	6:N:1467:ILE:HG13	2.19	0.42
6:N:1137:ARG:HG3	11:N:9103:HOH:O	2.19	0.42
5:M:63:GLY:HA3	5:M:103:LYS:HG3	2.02	0.42
5:M:1013:TYR:CE1	5:M:1020:PRO:HG3	2.55	0.41
2:H:13:C:C3'	5:C:409:ARG:HH22	2.32	0.41
6:D:1042:ARG:HD2	6:D:1045:MET:CE	2.50	0.41
6:D:789:LEU:HD13	6:D:911:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:564:MET:HE3	5:C:564:MET:O	2.20	0.41
5:M:263:ASP:HB2	5:M:264:PRO:HD3	2.02	0.41
6:N:1000:THR:HG23	6:N:1001:GLU:N	2.34	0.41
6:D:105:VAL:HG12	11:D:8237:HOH:O	2.20	0.41
6:D:581:LEU:HG	6:D:582:LEU:N	2.35	0.41
5:C:1031:ARG:NH1	6:D:621:LYS:NZ	2.68	0.41
4:K:30:ARG:HD2	4:K:30:ARG:HA	1.87	0.41
5:M:940:GLU:O	5:M:943:VAL:HG12	2.19	0.41
6:N:206:ARG:CG	6:N:394:LEU:HD22	2.36	0.41
6:N:1267:ARG:HD2	6:N:1271:LYS:HE2	2.01	0.41
6:N:1206:GLY:O	6:N:1215:VAL:HG23	2.20	0.41
6:D:82:LYS:C	6:D:84:ILE:N	2.74	0.41
6:N:1381:VAL:HG22	6:N:1398:TRP:CZ2	2.54	0.41
6:D:890:VAL:HG23	6:D:890:VAL:O	2.19	0.41
6:D:1495:ILE:HG22	6:D:1499:ARG:NE	2.35	0.41
5:M:292:ARG:HD2	5:M:299:LYS:CE	2.49	0.41
5:M:842:ARG:HG3	5:M:995:MET:HE3	2.02	0.41
5:M:842:ARG:HH22	5:M:887:GLU:CD	2.23	0.41
5:C:186:VAL:HG23	5:C:187:ASN:N	2.26	0.41
5:C:848:VAL:HG12	5:C:849:VAL:N	2.35	0.41
5:M:756:VAL:O	5:M:789:SER:CB	2.66	0.41
5:C:129:ILE:CG1	5:C:134:ARG:HD3	2.50	0.41
6:N:1399:ASP:O	6:N:1403:LEU:HB2	2.19	0.41
5:C:243:ARG:N	5:C:244:PRO:HD3	2.32	0.41
5:M:745:ILE:HG21	11:M:1187:HOH:O	2.19	0.41
4:K:14:ARG:HH11	4:K:14:ARG:HG3	1.85	0.41
4:A:89:PHE:CE2	4:A:146:ARG:HB2	2.55	0.41
4:L:43:ILE:HG23	4:L:217:ILE:HG21	2.02	0.41
4:L:143:ARG:NH1	4:L:158:ILE:HG21	2.35	0.41
6:D:926:LYS:HB3	6:D:926:LYS:HE2	1.93	0.41
6:D:566:ILE:N	6:D:566:ILE:HD12	2.35	0.41
6:N:12:LEU:HD23	6:N:12:LEU:HA	1.84	0.41
5:C:1084:SER:O	5:C:1087:VAL:HG12	2.20	0.41
6:N:485:SER:HA	11:N:9344:HOH:O	2.19	0.41
6:N:107:ASP:O	6:N:108:VAL:C	2.57	0.41
2:Y:7:G:H22	5:M:1014:SER:N	2.17	0.41
5:C:873:PRO:O	5:C:877:PRO:HD3	2.20	0.41
6:N:1209:LEU:HD13	11:N:9248:HOH:O	2.20	0.41
6:D:1472:ILE:O	6:D:1477:GLY:HA3	2.19	0.41
6:D:12:LEU:HD21	6:D:104:PHE:CZ	2.55	0.41
6:D:134:VAL:HA	6:D:151:GLN:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:52:PRO:CB	6:N:80:VAL:HG13	2.50	0.41
5:C:636:ALA:HB3	5:C:703:ILE:CD1	2.33	0.41
5:M:217:LEU:HD13	11:M:1269:HOH:O	2.20	0.41
6:D:1248:GLY:O	6:D:1252:ILE:HG12	2.20	0.41
6:N:394:LEU:HD11	6:N:445:ARG:HH12	1.81	0.41
5:M:39:ARG:NH2	11:M:1341:HOH:O	2.52	0.41
6:D:522:PRO:HA	6:D:525:ARG:NE	2.34	0.41
4:L:9:PRO:HB3	4:L:25:LEU:HG	2.03	0.41
6:D:960:LYS:NZ	6:D:1040:GLY:O	2.45	0.41
5:C:89:THR:O	5:C:91:GLN:HG3	2.20	0.41
5:M:274:ARG:HG3	5:M:285:LEU:HD22	2.02	0.41
5:C:68:PHE:HZ	5:C:71:TYR:HD2	1.68	0.41
6:D:984:THR:HG23	6:D:986:ARG:H	1.84	0.41
5:M:354:GLY:O	5:M:358:ARG:HD3	2.19	0.41
4:L:175:ARG:HG2	4:L:175:ARG:H	1.61	0.41
6:N:1498:ALA:HB1	7:O:84:ARG:HE	1.86	0.41
6:N:709:HIS:CD2	6:N:709:HIS:N	2.89	0.41
5:M:1016:ILE:CG1	5:M:1017:THR:N	2.82	0.41
4:L:106:PRO:HG3	4:L:134:GLU:CD	2.41	0.41
6:N:1363:LEU:O	6:N:1363:LEU:HD12	2.20	0.41
5:C:704:HIS:O	5:C:829:GLN:OE1	2.38	0.41
7:E:44:GLU:HA	11:E:110:HOH:O	2.20	0.41
6:N:66:GLN:O	6:N:69:GLU:HB3	2.20	0.41
5:M:957:LYS:NZ	5:M:957:LYS:HB2	2.35	0.41
4:A:111:ALA:CB	4:A:127:LEU:HD23	2.42	0.41
7:E:28:GLN:HG2	7:E:32:ARG:HH22	1.86	0.41
5:M:211:LEU:HD11	5:M:308:ARG:HA	2.02	0.41
4:K:41:ARG:HG3	4:K:177:VAL:CG1	2.50	0.41
5:C:182:VAL:CG2	5:C:220:GLY:O	2.67	0.41
5:C:468:ARG:NH2	11:C:1462:HOH:O	2.53	0.41
6:D:412:GLY:HA2	6:D:434:ARG:NH1	2.34	0.41
4:K:91:ASN:O	4:K:94:LEU:HD12	2.20	0.41
6:D:1464:GLU:HA	6:D:1467:ILE:HD11	2.02	0.41
4:L:88:ARG:HD2	4:L:123:MET:SD	2.61	0.41
5:M:666:LEU:HD12	5:M:667:ALA:N	2.35	0.41
5:M:29:ALA:HB2	5:M:337:GLY:HA3	2.01	0.41
6:D:420:VAL:C	6:D:421:LEU:HD23	2.40	0.41
5:C:552:HIS:HD2	6:D:1064:GLY:HA2	1.86	0.41
6:D:481:MET:CE	6:D:493:ARG:HB2	2.47	0.41
5:M:1070:ILE:HG23	6:N:656:PHE:HD1	1.84	0.41
5:M:670:GLN:NE2	5:M:699:PHE:CG	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:48:ILE:HG22	4:L:173:PRO:HD2	2.03	0.41
6:N:704:ARG:CZ	6:N:737:ASN:O	2.69	0.41
4:A:42:ARG:HH22	4:B:34:VAL:HB	1.85	0.41
5:C:1006:HIS:HA	5:C:1027:PHE:HD1	1.83	0.41
5:M:913:GLU:O	5:M:916:GLU:HB3	2.20	0.41
5:C:115:LEU:H	5:C:115:LEU:HG	1.70	0.41
4:A:128:HIS:HE1	4:A:131:THR:HG23	1.86	0.41
7:E:8:LYS:O	7:E:12:MET:HG3	2.20	0.41
4:B:132:LEU:HD23	4:B:136:GLY:O	2.20	0.41
5:C:6:PHE:N	5:C:6:PHE:CD1	2.88	0.41
6:D:783:ARG:HD2	6:D:1029:ARG:HG2	2.02	0.41
6:N:633:VAL:C	6:N:635:PRO:HD3	2.40	0.41
4:K:42:ARG:HH11	5:M:978:ARG:CA	2.28	0.41
6:N:782:SER:O	6:N:786:ILE:HG13	2.20	0.41
6:D:754:PHE:O	6:D:758:GLU:HG2	2.20	0.41
5:C:1016:ILE:HG12	5:C:1017:THR:H	1.84	0.41
6:D:124:GLU:O	6:D:128:TYR:HB2	2.19	0.41
6:D:496:LEU:HD12	6:D:500:ARG:HG2	2.03	0.41
6:D:98:PRO:HA	6:D:515:GLU:HA	2.01	0.41
6:N:899:LEU:HB3	6:N:917:GLN:HG2	2.01	0.41
5:M:23:VAL:HG13	11:M:1414:HOH:O	2.20	0.41
5:M:632:ASN:HB3	5:M:633:GLN:NE2	2.35	0.41
4:K:181:VAL:O	5:M:938:LYS:N	2.54	0.41
5:C:98:LEU:C	5:C:109:LYS:HD2	2.40	0.41
6:N:159:ARG:NH2	11:N:9468:HOH:O	2.53	0.41
6:N:1124:GLN:HA	6:N:1125:PRO:HD3	1.60	0.41
6:D:1236:LEU:HD12	6:D:1359:GLN:HB3	2.03	0.41
5:M:13:ILE:HG23	5:M:483:VAL:HG21	2.02	0.41
6:N:493:ARG:CG	6:N:1390:LEU:HB2	2.45	0.41
6:N:470:LEU:HD12	6:N:503:LEU:CD2	2.50	0.41
5:M:1085:PHE:CE2	6:N:1468:LEU:HG	2.52	0.41
6:N:1155:VAL:HG12	11:N:9051:HOH:O	2.20	0.41
4:K:36:LEU:HD11	11:L:365:HOH:O	2.20	0.41
6:N:1440:PHE:C	6:N:1440:PHE:CD2	2.93	0.41
5:M:1067:TYR:O	5:M:1071:ILE:HG12	2.20	0.41
6:D:972:LEU:HD23	11:D:8045:HOH:O	2.19	0.41
6:D:1100:ASP:HB3	6:D:1428:ALA:CB	2.49	0.41
6:D:1110:ALA:O	6:D:1111:ASP:C	2.58	0.41
3:Z:13:DG:H2''	3:Z:14:DG:C8	2.55	0.41
1:X:11:DC:H2''	1:X:12:DG:H8	1.85	0.41
1:X:12:DG:H2'	1:X:13:DT:H72	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:569:VAL:HG13	5:C:996:LYS:HZ3	1.84	0.41
6:N:1114:THR:O	6:N:1114:THR:CG2	2.68	0.41
6:D:906:GLN:HB3	6:D:911:LEU:CD1	2.49	0.41
6:N:1330:ILE:HB	6:N:1347:TYR:OH	2.20	0.41
5:C:669:GLY:C	5:C:670:GLN:HG2	2.41	0.41
5:C:842:ARG:HG3	5:C:995:MET:CE	2.51	0.41
6:D:510:GLU:HG2	11:D:8320:HOH:O	2.20	0.41
6:D:112:ILE:HA	6:D:512:MET:HE3	2.02	0.41
5:M:217:LEU:CD1	5:M:311:PHE:HA	2.50	0.41
5:M:928:LYS:O	5:M:932:GLU:HG3	2.21	0.41
4:K:94:LEU:HD11	4:K:119:ASP:CB	2.51	0.41
6:N:8:VAL:HG12	6:N:9:ARG:N	2.34	0.41
6:D:28:LYS:HD2	11:D:8201:HOH:O	2.20	0.41
6:D:1481:VAL:HG11	7:E:18:ARG:CA	2.42	0.41
6:D:1481:VAL:HG22	7:E:18:ARG:NE	2.28	0.41
6:D:1046:GLN:HG2	6:D:1052:THR:CB	2.51	0.41
5:M:292:ARG:HB2	5:M:299:LYS:HG2	2.02	0.41
5:M:309:TYR:HA	5:M:312:ALA:HB3	2.02	0.41
5:M:780:GLU:HG3	5:M:781:LYS:N	2.35	0.41
5:M:259:GLY:O	5:M:290:LEU:O	2.38	0.41
5:M:580:MET:HE1	5:M:665:PHE:CZ	2.55	0.41
6:N:800:LYS:CE	6:N:804:LEU:HD13	2.50	0.41
5:C:692:GLU:O	5:C:696:LYS:HG3	2.20	0.41
2:H:2:A:C2'	2:H:3:G:O5'	2.68	0.41
5:C:715:THR:HA	11:C:1542:HOH:O	2.20	0.41
4:K:174:VAL:HG13	4:K:200:TRP:O	2.20	0.41
5:C:603:VAL:HG11	5:C:606:VAL:HG22	2.03	0.41
6:N:710:ARG:C	6:N:712:GLY:N	2.74	0.41
5:M:25:SER:OG	5:M:335:THR:HB	2.20	0.41
5:C:137:VAL:CG2	5:C:391:LEU:HG	2.50	0.41
6:D:702:LEU:N	6:D:702:LEU:HD12	2.35	0.41
5:C:118:ILE:HG22	5:C:382:ILE:HD13	2.01	0.41
5:C:791:ARG:O	5:C:793:PRO:HD3	2.20	0.41
6:D:1154:GLU:HB3	6:N:563:PRO:HB3	2.01	0.41
7:E:43:GLU:HG3	7:E:43:GLU:H	1.69	0.41
5:M:1008:ARG:HA	5:M:1027:PHE:CD2	2.54	0.41
2:Y:16:G:O3'	6:N:741:ASP:OD1	2.39	0.41
5:C:141:HIS:CD2	5:C:141:HIS:C	2.93	0.41
5:C:673:LEU:CD2	5:C:867:VAL:HG12	2.50	0.41
2:H:7:G:H2'	2:H:8:C:OP1	2.20	0.41
6:N:716:PHE:O	6:N:718:PRO:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:668:LEU:HD12	5:C:668:LEU:H	1.86	0.41
6:D:1153:VAL:HG12	6:D:1155:VAL:HG22	2.02	0.41
6:N:956:ILE:HA	6:N:957:PRO:HD3	1.93	0.41
5:M:23:VAL:HA	11:M:1414:HOH:O	2.21	0.41
5:M:395:LYS:HE2	5:M:403:SER:CB	2.36	0.41
5:C:318:PRO:HB2	11:C:1545:HOH:O	2.20	0.41
5:C:265:ARG:HB2	11:C:1165:HOH:O	2.21	0.41
6:D:1457:ASP:O	6:D:1459:LEU:HD12	2.21	0.41
7:O:9:LEU:HB3	7:O:19:LEU:CD2	2.50	0.41
6:D:838:ARG:HH11	6:D:838:ARG:HG2	1.86	0.41
5:M:983:ILE:O	5:M:983:ILE:HG22	2.20	0.41
5:M:713:ARG:HB3	5:M:720:GLU:OE2	2.20	0.41
5:M:993:PHE:HE1	5:M:995:MET:HE2	1.85	0.41
6:D:1485:GLN:HG2	6:D:1485:GLN:H	1.75	0.41
6:N:1406:ARG:HE	6:N:1407:LEU:HD12	1.84	0.41
6:D:1494:ALA:HB1	7:E:88:GLU:OE2	2.21	0.41
5:M:80:GLN:HE21	5:M:84:ARG:HH21	1.68	0.41
5:C:764:GLU:HG3	6:D:54:LYS:HZ3	1.85	0.41
6:N:729:HIS:HE1	6:N:731:LEU:HG	1.85	0.41
5:C:348:LEU:HD12	5:C:348:LEU:HA	1.90	0.41
5:C:1012:PRO:HB2	5:C:1021:LEU:O	2.20	0.41
6:N:937:TYR:H	6:N:937:TYR:HD1	1.66	0.41
6:N:63:TYR:HB3	6:N:68:PHE:CD1	2.55	0.41
6:D:641:GLN:HB3	6:D:717:GLN:O	2.20	0.41
5:C:754:ILE:HD12	5:C:789:SER:HB3	2.02	0.41
5:C:443:THR:HG21	6:D:1078:ARG:NH2	2.36	0.41
5:C:491:GLU:CB	11:C:1287:HOH:O	2.68	0.41
5:C:694:LEU:HD21	5:C:868:ASP:CB	2.47	0.41
6:D:1107:VAL:HG12	6:D:1217:ILE:HA	2.02	0.41
6:D:1223:ILE:HD11	6:D:1462:LEU:HD12	2.03	0.41
1:G:14:DT:H5"	11:D:8242:HOH:O	2.21	0.41
5:M:158:TYR:CZ	5:M:313:LEU:HG	2.55	0.41
6:N:701:LEU:O	6:N:747:VAL:HA	2.21	0.41
5:M:1092:LEU:HD23	5:M:1095:LEU:HD13	2.03	0.41
5:C:263:ASP:C	5:C:264:PRO:O	2.59	0.41
5:M:738:ASP:HB2	5:M:744:ARG:HB3	2.02	0.41
5:M:469:THR:OG1	5:M:470:PRO:HD2	2.21	0.41
6:D:1393:GLN:NE2	6:D:1394:VAL:HB	2.36	0.41
5:C:595:LEU:HD12	11:C:1444:HOH:O	2.21	0.41
4:L:11:PHE:CE1	4:L:23:PHE:HB3	2.55	0.41
5:M:668:LEU:H	5:M:668:LEU:HD12	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:358:ARG:CA	5:C:361:MET:HG2	2.51	0.41
6:D:764:LEU:HD23	6:D:767:HIS:CD2	2.54	0.41
6:N:916:TYR:O	6:N:919:PHE:HB3	2.19	0.41
7:O:93:TYR:HA	7:O:94:PRO:HD2	1.87	0.41
6:N:709:HIS:HA	6:N:1227:GLN:HB3	2.01	0.41
6:D:717:GLN:HG2	11:D:8027:HOH:O	2.21	0.41
5:M:73:LEU:O	5:M:73:LEU:HD12	2.21	0.41
6:N:1134:LEU:HB3	11:N:9479:HOH:O	2.20	0.41
4:B:229:GLN:HB2	4:B:229:GLN:HE21	1.62	0.41
5:M:1021:LEU:HA	11:M:1512:HOH:O	2.21	0.41
6:N:1425:THR:HG22	6:N:1429:LEU:HD12	2.01	0.41
1:X:15:DC:OP2	6:N:610:LYS:HE2	2.21	0.41
2:H:14:G:C2'	2:H:15:C:H5'	2.48	0.41
6:D:1197:ARG:CB	6:D:1396:GLU:HG3	2.45	0.41
6:N:1007:VAL:HA	11:N:9288:HOH:O	2.21	0.41
6:N:879:ARG:HH11	6:N:879:ARG:HG3	1.84	0.41
6:D:446:VAL:O	6:D:447:VAL:O	2.39	0.41
5:M:674:VAL:HG11	5:M:992:MET:HB3	2.02	0.41
4:A:178:ALA:HA	11:C:1156:HOH:O	2.20	0.41
6:D:525:ARG:HA	6:D:526:PRO:HD3	1.73	0.41
4:K:224:TYR:HB3	4:L:9:PRO:CG	2.51	0.41
7:O:19:LEU:O	7:O:23:VAL:HG23	2.20	0.41
4:L:124:ASN:CG	4:L:127:LEU:HB2	2.41	0.41
4:L:81:ASN:HD21	4:L:127:LEU:HD11	1.85	0.41
5:C:639:GLN:HG2	11:C:1396:HOH:O	2.19	0.41
6:N:28:LYS:CB	6:N:41:ARG:HD2	2.50	0.41
6:N:407:VAL:HG12	6:N:409:VAL:H	1.85	0.41
6:D:185:VAL:HG11	6:D:197:SER:OG	2.20	0.41
7:E:76:GLY:N	7:E:79:LEU:HD22	2.36	0.41
6:N:1406:ARG:HE	6:N:1407:LEU:CD1	2.33	0.41
6:D:1086:LEU:HA	11:D:8250:HOH:O	2.21	0.41
6:N:832:ARG:HA	6:N:832:ARG:CZ	2.51	0.41
6:N:1117:TYR:CD2	6:N:1117:TYR:N	2.88	0.41
6:N:769:LEU:HD11	6:N:919:PHE:CE2	2.56	0.41
5:C:599:GLU:OE2	5:C:619:ARG:NH2	2.54	0.41
1:G:6:DT:H2'	1:G:7:DC:C5	2.55	0.41
5:C:185:LYS:HE2	5:C:190:LYS:NZ	2.35	0.41
5:M:1096:ALA:O	6:N:13:ALA:CB	2.68	0.41
5:C:242:LEU:HD11	11:C:1327:HOH:O	2.21	0.41
5:C:1079:PRO:HB2	11:D:8463:HOH:O	2.19	0.41
5:M:393:GLN:NE2	5:M:406:HIS:HE1	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:965:GLU:HA	6:N:965:GLU:OE1	2.20	0.41
5:C:140:ILE:HD13	5:C:331:ARG:CZ	2.51	0.41
5:C:676:ILE:O	5:C:676:ILE:HD13	2.21	0.41
5:C:690:ILE:HG13	5:C:694:LEU:HD12	2.01	0.41
6:N:1336:LEU:HD22	6:N:1421:LEU:HB2	2.03	0.41
6:N:1336:LEU:CA	6:N:1344:VAL:HG21	2.50	0.41
5:M:471:TYR:CD2	5:M:533:ASP:HA	2.56	0.41
5:M:878:SER:OG	6:N:1029:ARG:HD2	2.20	0.41
5:C:1046:ALA:HA	6:D:1472:ILE:CG1	2.44	0.41
5:M:140:ILE:HG13	5:M:411:SER:O	2.20	0.41
5:M:280:LYS:NZ	5:M:280:LYS:HB2	2.35	0.41
6:D:470:LEU:N	6:D:470:LEU:HD23	2.36	0.41
6:N:89:ARG:O	6:N:521:PRO:HB3	2.20	0.41
4:B:64:GLU:CA	4:B:165:ILE:HD13	2.48	0.41
6:N:875:THR:HG22	6:N:879:ARG:HB2	2.03	0.41
5:M:193:LEU:HD21	11:M:1471:HOH:O	2.21	0.41
5:C:150:PRO:HA	5:C:158:TYR:HD2	1.86	0.41
5:C:172:ILE:HG23	5:C:184:MET:CE	2.51	0.41
6:D:434:ARG:HB2	6:D:447:VAL:HG21	2.03	0.41
3:Z:5:DG:H1'	3:Z:6:DC:H5'	2.01	0.41
6:N:119:SER:HB2	6:N:123:LEU:N	2.31	0.41
5:C:385:PHE:HA	5:C:389:SER:OG	2.21	0.41
6:D:996:TRP:CE3	6:D:996:TRP:HA	2.56	0.41
6:N:796:ARG:O	6:N:828:LYS:HD2	2.21	0.41
5:C:957:LYS:HG2	5:C:961:GLU:CB	2.51	0.41
6:N:165:LYS:O	6:N:167:GLU:HG3	2.20	0.41
6:N:708:LEU:HD22	6:N:1234:THR:OG1	2.21	0.41
4:B:65:PHE:CD1	4:B:65:PHE:N	2.88	0.41
6:N:648:MET:HE2	11:N:9201:HOH:O	2.20	0.41
5:M:704:HIS:HA	11:M:1346:HOH:O	2.21	0.41
4:K:159:LYS:NZ	4:K:164:ALA:O	2.50	0.41
6:D:1063:GLU:HG3	6:D:1064:GLY:H	1.84	0.41
6:D:703:ASN:ND2	6:D:704:ARG:N	2.67	0.41
5:M:495:THR:HG21	5:M:524:VAL:HG11	2.03	0.41
4:L:209:GLU:HG2	11:L:361:HOH:O	2.21	0.41
6:N:1472:ILE:HB	6:N:1474:ALA:O	2.21	0.41
5:C:1067:TYR:HB3	11:C:1435:HOH:O	2.21	0.41
6:N:1437:ALA:C	6:N:1446:VAL:HG21	2.40	0.41
4:K:10:VAL:HG12	4:K:12:THR:HG22	2.02	0.41
4:K:14:ARG:HB2	4:K:14:ARG:CZ	2.50	0.41
6:N:728:LEU:HD12	6:N:729:HIS:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:848:VAL:HG12	5:M:849:VAL:N	2.36	0.41
4:K:173:PRO:HB2	4:K:205:VAL:HG22	2.03	0.41
6:N:791:TYR:CD2	6:N:945:SER:HB2	2.56	0.41
5:M:86:LYS:HZ3	5:M:812:GLY:H	1.69	0.41
6:D:1492:LEU:HD11	11:D:8102:HOH:O	2.21	0.41
4:A:154:GLU:H	4:A:154:GLU:CD	2.24	0.41
6:N:749:VAL:HA	6:N:750:PRO:HD3	1.87	0.41
6:D:938:GLY:O	6:D:942:SER:HB3	2.21	0.41
7:E:4:PRO:HG3	11:E:115:HOH:O	2.21	0.41
5:C:438:ILE:HA	5:C:455:LEU:HA	2.03	0.41
6:N:1147:ARG:HB3	6:N:1188:VAL:CG2	2.50	0.41
5:C:876:VAL:H	5:C:877:PRO:CD	2.33	0.41
4:B:137:ARG:CZ	4:B:139:ASN:HB3	2.51	0.41
6:N:180:LYS:CG	6:N:183:GLU:HB2	2.31	0.41
5:M:874:LEU:CD1	5:M:874:LEU:H	2.34	0.41
6:D:1191:PRO:CB	6:D:1370:ILE:HD13	2.51	0.41
6:D:1425:THR:HG22	6:D:1429:LEU:CD1	2.50	0.41
6:D:1429:LEU:HD12	6:D:1440:PHE:HE1	1.85	0.41
1:G:12:DG:H2'	1:G:13:DT:H72	2.02	0.41
6:D:456:MET:N	6:D:459:GLU:OE1	2.49	0.41
5:M:102:HIS:CE1	5:M:365:ASP:HA	2.55	0.41
6:N:47:GLU:HG3	6:N:51:GLY:O	2.21	0.41
5:C:160:ALA:HB2	5:C:310:LEU:HB2	2.02	0.41
5:C:468:ARG:NE	5:C:485:TYR:O	2.54	0.41
5:C:1030:GLN:O	6:D:622:ARG:HA	2.21	0.41
5:M:674:VAL:CG2	5:M:871:LEU:HG	2.51	0.41
5:C:808:ARG:NH2	5:C:820:ARG:CZ	2.84	0.41
6:D:1117:TYR:HB2	6:D:1188:VAL:O	2.21	0.41
6:D:1435:LEU:HB2	6:D:1457:ASP:OD2	2.21	0.41
6:D:1003:VAL:O	6:D:1006:ALA:HB3	2.21	0.41
4:L:26:GLU:HB3	4:L:194:LYS:HG3	2.03	0.41
6:N:773:ALA:HB2	11:N:9308:HOH:O	2.21	0.41
6:D:36:THR:C	6:D:38:LYS:N	2.75	0.41
6:N:1406:ARG:NE	6:N:1407:LEU:HD12	2.36	0.41
5:C:911:GLU:OE1	6:D:951:ILE:HD12	2.21	0.41
6:N:1041:LEU:O	6:N:1041:LEU:HD23	2.21	0.41
6:N:1438:ALA:CA	6:N:1446:VAL:HG11	2.51	0.41
3:I:7:DC:OP2	6:D:1266:ARG:NE	2.54	0.41
5:C:606:VAL:HG11	5:C:643:VAL:O	2.21	0.41
4:B:80:LEU:HA	4:B:83:LYS:HD2	2.03	0.41
6:N:954:ALA:C	6:N:1039:CYS:SG	2.99	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:945:ARG:NE	11:C:1564:HOH:O	2.54	0.41
4:L:49:PRO:HG3	11:L:364:HOH:O	2.20	0.41
1:G:8:DT:H2"	1:G:9:DG:C8	2.55	0.41
6:N:668:PRO:HB3	11:N:9371:HOH:O	2.20	0.41
5:C:436:GLY:O	5:C:459:ALA:CB	2.65	0.40
6:N:1213:ARG:HD2	6:N:1214:PRO:N	2.35	0.40
5:M:572:ILE:HD11	5:M:701:THR:CB	2.51	0.40
5:M:685:GLU:HG3	5:M:686:ASP:N	2.36	0.40
6:D:1403:LEU:HD22	11:D:8028:HOH:O	2.21	0.40
1:G:11:DC:H2"	1:G:12:DG:H8	1.85	0.40
6:N:957:PRO:HG3	11:N:9288:HOH:O	2.20	0.40
6:D:495:ARG:O	6:D:499:VAL:HG23	2.21	0.40
6:N:50:PHE:HB3	6:N:522:PRO:CG	2.51	0.40
6:N:792:ILE:H	6:N:792:ILE:HG22	1.63	0.40
4:K:44:LEU:HD13	4:K:177:VAL:CG1	2.51	0.40
6:N:127:LEU:HA	6:N:132:TYR:HD1	1.86	0.40
5:C:174:LEU:O	5:C:310:LEU:HD22	2.22	0.40
6:N:434:ARG:HH22	6:N:447:VAL:HG11	1.86	0.40
6:N:137:PRO:HD2	6:N:453:ASP:CB	2.50	0.40
5:M:776:SER:HA	5:M:780:GLU:HB3	2.02	0.40
4:K:38:ASN:CG	5:M:980:GLY:CA	2.89	0.40
5:C:52:PHE:CE1	5:C:66:LEU:HG	2.56	0.40
5:M:494:TYR:HB3	5:M:530:GLU:OE2	2.21	0.40
6:N:800:LYS:HZ1	6:N:804:LEU:HD13	1.86	0.40
4:B:48:ILE:HA	4:B:49:PRO:HD3	1.88	0.40
4:L:172:SER:HA	4:L:173:PRO:HD3	1.88	0.40
6:D:972:LEU:HD13	6:D:972:LEU:HA	1.94	0.40
6:D:645:PRO:CD	6:D:726:ILE:HG12	2.51	0.40
4:K:101:LEU:HD23	4:K:101:LEU:C	2.41	0.40
5:C:1065:ALA:HB3	11:C:1284:HOH:O	2.20	0.40
5:M:256:TYR:HE1	11:M:1452:HOH:O	2.04	0.40
4:B:80:LEU:HG	6:D:844:ALA:HA	2.02	0.40
5:C:250:ARG:HG2	5:C:253:ALA:CB	2.51	0.40
4:B:66:SER:O	4:B:75:VAL:HG23	2.21	0.40
5:M:1:MET:HE3	11:M:1165:HOH:O	2.21	0.40
5:C:327:HIS:CD2	5:C:431:HIS:NE2	2.88	0.40
5:C:410:ILE:HD12	5:C:438:ILE:HG12	2.00	0.40
5:C:874:LEU:HD12	5:C:874:LEU:N	2.30	0.40
6:D:1093:TYR:CE1	6:D:1097:LYS:HE2	2.57	0.40
5:C:1053:LEU:CD1	6:D:1466:VAL:HG22	2.51	0.40
6:N:996:TRP:CZ2	6:N:1056:PRO:HG2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1095:LEU:HD23	5:C:1095:LEU:HA	1.93	0.40
5:M:395:LYS:O	5:M:633:GLN:NE2	2.54	0.40
6:N:701:LEU:HD13	6:N:748:HIS:HB2	2.03	0.40
5:C:150:PRO:HA	5:C:158:TYR:CD2	2.56	0.40
5:C:164:PRO:HD2	5:C:170:PRO:O	2.20	0.40
5:C:267:TYR:O	5:C:268:ASP:C	2.59	0.40
5:C:260:LEU:CB	5:C:291:ALA:HB1	2.37	0.40
6:D:141:ILE:CD1	6:D:450:TYR:HB3	2.48	0.40
6:N:1271:LYS:HZ3	6:N:1271:LYS:HB2	1.86	0.40
4:L:137:ARG:CZ	4:L:139:ASN:HB3	2.52	0.40
6:D:1184:GLN:HB2	6:N:559:ALA:HB1	2.02	0.40
5:C:474:VAL:HG23	5:C:478:VAL:O	2.21	0.40
5:C:5:ARG:HB3	5:C:902:ILE:HD12	2.02	0.40
6:N:493:ARG:NE	6:N:1390:LEU:O	2.54	0.40
5:C:958:THR:CG2	5:C:961:GLU:HB2	2.46	0.40
4:A:182:GLU:N	4:A:182:GLU:OE2	2.54	0.40
4:K:219:ARG:HG2	4:L:222:LEU:HD12	2.03	0.40
11:K:1711:HOH:O	4:L:222:LEU:HD11	2.21	0.40
4:K:159:LYS:HA	4:K:159:LYS:HD3	1.90	0.40
5:M:474:VAL:HG13	5:M:530:GLU:C	2.42	0.40
6:D:999:THR:O	6:D:1002:LYS:HB2	2.21	0.40
5:M:80:GLN:HG2	5:M:90:TYR:CZ	2.56	0.40
6:N:1105:ILE:HA	11:N:9367:HOH:O	2.21	0.40
1:G:20:DG:H3'	11:G:38:HOH:O	2.20	0.40
5:C:1008:ARG:NH1	5:C:1010:THR:HA	2.37	0.40
4:K:101:LEU:HD12	4:K:114:PHE:N	2.36	0.40
5:C:605:LYS:O	5:C:611:ILE:HA	2.21	0.40
5:C:80:GLN:HB3	5:C:80:GLN:HE21	1.63	0.40
5:C:80:GLN:HG2	5:C:90:TYR:CE2	2.56	0.40
5:C:1090:LYS:HE2	5:C:1112:PHE:CE1	2.56	0.40
6:N:646:LYS:HG3	6:N:721:VAL:O	2.20	0.40
6:N:955:VAL:HG11	6:N:1015:TYR:OH	2.21	0.40
4:L:70:GLY:O	4:L:132:LEU:HA	2.21	0.40
5:C:1078:GLU:HA	5:C:1079:PRO:HD3	1.93	0.40
4:L:90:LEU:O	4:L:90:LEU:HD12	2.21	0.40
6:D:34:TYR:O	6:D:35:ARG:C	2.60	0.40
4:L:185:ARG:NH1	11:L:381:HOH:O	2.55	0.40
6:D:965:GLU:HA	6:D:968:ASP:HB3	2.02	0.40
3:Z:3:DA:H1'	11:Z:824:HOH:O	2.20	0.40
4:A:107:LYS:HE2	4:A:113:ASP:OD2	2.21	0.40
1:X:12:DG:C8	1:X:13:DT:H72	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:12:G:C5'	2:Y:12:G:C8	2.96	0.40
5:C:408:ARG:NE	5:C:542:VAL:HG23	2.37	0.40
5:C:676:ILE:HG22	5:C:988:VAL:O	2.21	0.40
6:D:1071:PHE:HB3	11:D:8010:HOH:O	2.22	0.40
6:D:796:ARG:C	6:D:797:LYS:HD2	2.42	0.40
4:K:42:ARG:NH2	4:L:31:GLY:O	2.40	0.40
5:C:697:ARG:HG3	5:C:697:ARG:O	2.21	0.40
6:D:1221:VAL:O	6:D:1222:GLY:C	2.59	0.40
6:D:1477:GLY:O	6:D:1478:SER:C	2.59	0.40
5:M:141:HIS:CA	5:M:331:ARG:HG3	2.52	0.40
5:M:437:ARG:HB3	5:M:467:ILE:HB	2.03	0.40
6:D:456:MET:HG3	11:D:8208:HOH:O	2.21	0.40
6:N:525:ARG:HB2	6:N:538:SER:HB2	2.03	0.40
5:M:217:LEU:HD11	5:M:314:THR:OG1	2.21	0.40
5:C:97:ARG:HB3	5:C:109:LYS:CE	2.51	0.40
6:N:168:THR:HG21	6:N:206:ARG:HH12	1.86	0.40
6:D:400:VAL:O	6:D:402:PRO:HD3	2.20	0.40
6:N:1087:ARG:CB	6:N:1256:LEU:HD22	2.49	0.40
6:D:1117:TYR:CD1	6:D:1187:PRO:HA	2.57	0.40
6:D:107:ASP:O	6:D:108:VAL:C	2.60	0.40
6:D:1046:GLN:HG2	6:D:1052:THR:HA	2.03	0.40
5:C:710:ILE:HB	5:C:790:LEU:CD2	2.43	0.40
5:M:720:GLU:OE1	5:M:758:ARG:HD2	2.21	0.40
5:M:626:ARG:NH1	5:M:629:TYR:HB2	2.37	0.40
6:D:810:GLU:C	6:D:813:LEU:HG	2.39	0.40
5:M:610:ARG:HD2	5:M:622:GLU:HG3	2.04	0.40
6:D:421:LEU:HD21	6:D:429:SER:OG	2.21	0.40
5:C:909:ALA:CB	5:C:914:ILE:HD11	2.45	0.40
5:M:80:GLN:HG2	5:M:90:TYR:CE1	2.57	0.40
6:D:681:ARG:HB2	6:D:681:ARG:HE	1.66	0.40
5:M:909:ALA:HB1	5:M:914:ILE:CD1	2.48	0.40
4:A:156:HIS:HD2	4:A:157:GLY:N	2.20	0.40
4:A:175:ARG:HH21	4:A:176:ARG:HE	1.68	0.40
6:N:12:LEU:HD21	6:N:104:PHE:CZ	2.57	0.40
6:N:415:VAL:HG12	6:N:416:ALA:N	2.37	0.40
5:M:1034:GLU:H	6:N:619:LEU:HB3	1.79	0.40
5:C:431:HIS:CD2	5:C:433:THR:OG1	2.74	0.40
6:D:700:VAL:HG13	6:D:718:PRO:HG2	2.03	0.40
6:D:789:LEU:O	6:D:793:THR:HG23	2.21	0.40
5:M:684:PHE:CG	5:M:685:GLU:N	2.90	0.40
6:D:1221:VAL:O	6:D:1224:VAL:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:139:GLN:OE1	5:M:415:PRO:HD3	2.22	0.40
1:G:14:DT:C2'	1:G:15:DC:H5'	2.49	0.40
5:M:1091:GLU:HA	6:N:520:LEU:HD13	2.03	0.40
4:L:58:ILE:HG22	4:L:61:VAL:HB	2.03	0.40
6:N:501:ALA:HB1	6:N:1453:ALA:CB	2.40	0.40
6:D:1481:VAL:CG2	7:E:18:ARG:HE	2.30	0.40
6:N:1108:ARG:NH1	11:N:9097:HOH:O	2.54	0.40
6:N:135:LEU:HD22	6:N:147:VAL:HG23	2.02	0.40
4:K:35:THR:HG23	4:L:39:PRO:HA	2.03	0.40
4:K:67:THR:HG22	5:M:627:ARG:HH21	1.87	0.40
4:K:88:ARG:NH1	4:K:88:ARG:HG2	2.37	0.40
5:C:782:ALA:O	5:C:784:ASP:N	2.54	0.40
4:B:43:ILE:HG23	4:B:47:SER:HB3	2.02	0.40
4:B:43:ILE:HG23	4:B:47:SER:OG	2.20	0.40
2:H:16:G:H5'	6:D:742:GLY:HA3	2.04	0.40
6:D:817:GLU:O	6:D:821:VAL:HG23	2.21	0.40
6:N:44:LEU:CD1	6:N:44:LEU:H	2.34	0.40
6:N:691:LEU:HG	6:N:720:LEU:HD21	2.02	0.40
5:M:926:PHE:CD2	5:M:930:LYS:HE3	2.55	0.40
5:C:773:LEU:O	5:C:777:ILE:HG13	2.20	0.40
4:B:67:THR:HB	4:B:74:ASP:OD1	2.21	0.40
5:C:739:GLU:HG2	5:C:739:GLU:H	1.62	0.40
6:D:1037:GLN:CG	6:D:1042:ARG:HB3	2.47	0.40
6:N:1147:ARG:O	6:N:1165:TYR:HA	2.21	0.40
6:N:637:LEU:HD21	6:N:641:GLN:O	2.22	0.40
3:I:8:DA:H2"	3:I:9:DG:OP2	2.22	0.40
5:C:1019:GLN:HE22	5:C:1058:ASP:HB2	1.86	0.40
5:C:636:ALA:CB	5:C:703:ILE:HD13	2.34	0.40
4:B:165:ILE:HA	4:B:166:PRO:HD3	1.95	0.40
5:C:160:ALA:HB1	5:C:306:THR:OG1	2.21	0.40
6:D:1083:ASP:OD2	6:D:1241:PHE:HB3	2.21	0.40
5:C:182:VAL:HG12	5:C:193:LEU:HD11	2.02	0.40
5:C:144:PRO:CG	5:C:265:ARG:NH2	2.80	0.40
6:N:1044:LEU:HD13	6:N:1052:THR:HG21	2.04	0.40
5:C:7:GLY:O	5:C:8:ARG:HD2	2.21	0.40
4:A:206:THR:CG2	4:A:209:GLU:H	2.32	0.40
5:C:626:ARG:HG2	11:C:1192:HOH:O	2.21	0.40
6:D:51:GLY:HA3	6:D:86:ARG:HA	2.04	0.40
4:A:82:LEU:CD2	4:A:142:VAL:HG11	2.43	0.40
5:C:520:GLU:HA	5:C:521:PRO:HD3	1.96	0.40
6:N:1047:LYS:HB3	6:N:1048:PRO:CD	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:170:VAL:HG13	11:M:1536:HOH:O	2.20	0.40
4:K:18:ARG:O	4:K:207:PRO:HD3	2.22	0.40
6:D:630:VAL:HA	6:D:744:GLN:HG3	2.03	0.40
5:C:300:ASP:OD2	5:C:303:PHE:HB3	2.22	0.40
5:C:1006:HIS:O	6:D:627:GLY:HA2	2.21	0.40
6:D:1269:LYS:HB3	6:D:1269:LYS:HZ2	1.85	0.40
4:L:133:GLU:HB3	4:L:134:GLU:H	1.62	0.40
5:C:743:VAL:HG13	5:C:800:VAL:HG11	2.02	0.40
5:M:324:ASP:HA	11:M:1465:HOH:O	2.22	0.40
6:D:506:GLY:O	6:D:507:ASN:C	2.59	0.40
6:N:112:ILE:O	6:N:112:ILE:HD12	2.22	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	227/315 (72%)	206 (91%)	14 (6%)	7 (3%)	5	28
4	B	227/315 (72%)	206 (91%)	15 (7%)	6 (3%)	7	33
4	K	227/315 (72%)	208 (92%)	13 (6%)	6 (3%)	7	33
4	L	227/315 (72%)	206 (91%)	15 (7%)	6 (3%)	7	33
5	C	1117/1119 (100%)	919 (82%)	136 (12%)	62 (6%)	2	13
5	M	1117/1119 (100%)	923 (83%)	133 (12%)	61 (6%)	2	13
6	D	1258/1524 (82%)	1051 (84%)	149 (12%)	58 (5%)	3	18
6	N	1258/1524 (82%)	1058 (84%)	140 (11%)	60 (5%)	3	17
7	E	93/99 (94%)	76 (82%)	11 (12%)	6 (6%)	1	8
7	O	93/99 (94%)	74 (80%)	12 (13%)	7 (8%)	1	6
All	All	5844/6744 (87%)	4927 (84%)	638 (11%)	279 (5%)	3	17



All (279) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	29	GLU
4	A	187	GLY
4	B	29	GLU
4	B	187	GLY
5	C	178	PRO
5	C	231	PRO
5	C	244	PRO
5	C	288	ARG
5	C	290	LEU
5	C	369	PRO
5	C	462	ASP
5	C	465	GLY
5	C	548	PRO
5	C	627	ARG
5	C	680	ASP
5	C	727	PRO
5	C	908	GLY
5	C	1033	GLY
5	C	1106	ASP
6	D	40	GLU
6	D	43	GLY
6	D	55	ASP
6	D	137	PRO
6	D	447	VAL
6	D	705	ALA
6	D	742	GLY
6	D	832	ARG
6	D	844	ALA
6	D	1028	ALA
6	D	1129	THR
6	D	1389	LEU
6	D	1441	GLN
7	E	42	PRO
4	K	29	GLU
4	K	187	GLY
4	L	29	GLU
4	L	187	GLY
5	M	170	PRO
5	M	178	PRO
5	M	191	PHE
5	M	231	PRO
5	M	244	PRO

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Mol	Chain	Res	Type
5	M	288	ARG
5	M	290	LEU
5	M	369	PRO
5	M	462	ASP
5	M	465	GLY
5	M	548	PRO
5	M	680	ASP
5	M	727	PRO
5	M	908	GLY
5	M	1033	GLY
5	M	1106	ASP
6	N	40	GLU
6	N	43	GLY
6	N	55	ASP
6	N	137	PRO
6	N	447	VAL
6	N	705	ALA
6	N	742	GLY
6	N	832	ARG
6	N	844	ALA
6	N	1028	ALA
6	N	1129	THR
6	N	1389	LEU
6	N	1441	GLN
7	O	42	PRO
5	C	40	GLU
5	C	44	ILE
5	C	59	LYS
5	C	152	PRO
5	C	156	GLY
5	C	170	PRO
5	C	191	PHE
5	C	251	ASP
5	C	363	SER
5	C	418	LEU
5	C	457	ALA
5	C	529	VAL
5	C	626	ARG
5	C	698	ASP
5	C	783	ARG
5	C	784	ASP
5	C	864	GLY

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Mol	Chain	Res	Type
5	C	1059	ASP
6	D	34	TYR
6	D	120	ALA
6	D	164	GLY
6	D	620	GLY
6	D	740	PHE
6	D	803	GLY
6	D	1208	ASP
6	D	1342	GLU
6	D	1385	GLY
6	D	1452	ILE
6	D	1454	GLY
7	E	53	GLY
7	E	58	PRO
5	M	40	GLU
5	M	44	ILE
5	M	59	LYS
5	M	152	PRO
5	M	156	GLY
5	M	223	ASP
5	M	251	ASP
5	M	363	SER
5	M	418	LEU
5	M	529	VAL
5	M	626	ARG
5	M	627	ARG
5	M	698	ASP
5	M	905	ILE
5	M	1005	MET
5	M	1059	ASP
6	N	120	ALA
6	N	164	GLY
6	N	594	PRO
6	N	620	GLY
6	N	740	PHE
6	N	803	GLY
6	N	1125	PRO
6	N	1208	ASP
6	N	1221	VAL
6	N	1385	GLY
6	N	1424	VAL
6	N	1452	ILE

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Mol	Chain	Res	Type
6	N	1454	GLY
7	O	53	GLY
7	O	58	PRO
4	A	3	ASP
5	C	74	GLY
5	C	164	PRO
5	C	188	LYS
5	C	223	ASP
5	C	262	ALA
5	C	268	ASP
5	C	325	ILE
5	C	424	GLY
5	C	517	ARG
5	C	740	GLU
5	C	808	ARG
6	D	37	LEU
6	D	96	ALA
6	D	110	SER
6	D	395	VAL
6	D	507	ASN
6	D	594	PRO
6	D	696	HIS
6	D	822	ALA
6	D	924	MET
6	D	1125	PRO
6	D	1196	THR
6	D	1341	PRO
7	E	43	GLU
4	L	191	ASP
5	M	74	GLY
5	M	164	PRO
5	M	188	LYS
5	M	268	ASP
5	M	424	GLY
5	M	457	ALA
5	M	517	ARG
5	M	808	ARG
5	M	864	GLY
5	M	984	GLU
6	N	37	LEU
6	N	96	ALA
6	N	395	VAL

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Mol	Chain	Res	Type
6	N	397	LYS
6	N	507	ASN
6	N	539	ASP
6	N	807	ALA
6	N	830	ALA
6	N	924	MET
6	N	1196	THR
6	N	1269	LYS
7	O	43	GLU
5	C	80	GLN
5	C	180	GLY
5	C	282	GLY
5	C	984	GLU
5	C	1004	LYS
5	C	1024	LYS
5	C	1045	ALA
6	D	808	THR
6	D	830	ALA
6	D	1221	VAL
6	D	1244	GLY
6	D	1269	LYS
6	D	1390	LEU
4	K	3	ASP
5	M	180	GLY
5	M	262	ALA
5	M	767	PRO
5	M	1024	LYS
6	N	34	TYR
6	N	110	SER
6	N	735	ALA
6	N	808	THR
6	N	822	ALA
6	N	1244	GLY
7	O	32	ARG
7	O	82	GLU
5	C	767	PRO
5	C	877	PRO
6	D	31	THR
6	D	807	ALA
7	E	82	GLU
5	M	80	GLN
5	M	264	PRO

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Mol	Chain	Res	Type
5	M	877	PRO
5	M	1004	LYS
5	M	1045	ALA
6	N	181	ASP
6	N	601	ARG
6	N	1390	LEU
4	A	118	ALA
4	B	48	ILE
4	B	191	ASP
5	C	11	GLU
5	C	264	PRO
5	C	905	ILE
5	C	1114	GLY
6	D	406	ASP
6	D	483	HIS
6	D	525	ARG
6	D	530	VAL
6	D	601	ARG
4	L	48	ILE
5	M	740	GLU
5	M	781	LYS
6	N	24	GLY
6	N	483	HIS
6	N	696	HIS
6	N	1222	GLY
6	N	1341	PRO
5	C	646	GLY
5	C	779	GLY
7	E	5	GLY
4	L	157	GLY
5	M	144	PRO
5	M	646	GLY
5	M	779	GLY
5	M	1114	GLY
6	N	136	ASP
6	N	526	PRO
6	N	1214	PRO
4	A	157	GLY
4	B	157	GLY
5	C	1079	PRO
6	D	565	ILE
6	D	1214	PRO

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Mol	Chain	Res	Type
4	K	9	PRO
5	M	53	PRO
4	A	9	PRO
5	C	53	PRO
6	D	134	VAL
6	D	136	ASP
6	D	1050	GLY
4	K	125	PRO
4	K	157	GLY
4	L	125	PRO
5	M	282	GLY
5	M	876	VAL
6	N	146	PRO
6	N	530	VAL
4	A	125	PRO
4	B	125	PRO
6	D	484	PRO
6	D	595	GLY
5	M	336	VAL
6	N	484	PRO
6	N	595	GLY
6	N	1050	GLY
5	C	876	VAL
6	D	98	PRO
6	D	1222	GLY
6	N	565	ILE
7	O	5	GLY

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	A	202/273 (74%)	162 (80%)	40 (20%)	1	8
4	B	202/273 (74%)	159 (79%)	43 (21%)	1	6
4	K	202/273 (74%)	162 (80%)	40 (20%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	L	202/273 (74%)	150 (74%)	52 (26%)	0	3
5	C	941/941 (100%)	704 (75%)	237 (25%)	1	3
5	M	941/941 (100%)	713 (76%)	228 (24%)	1	4
6	D	1063/1279 (83%)	825 (78%)	238 (22%)	1	5
6	N	1063/1279 (83%)	833 (78%)	230 (22%)	1	6
7	E	84/88 (96%)	59 (70%)	25 (30%)	0	2
7	O	84/88 (96%)	68 (81%)	16 (19%)	2	10
All	All	4984/5708 (87%)	3835 (77%)	1149 (23%)	1	5

All (1149) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	5	LYS
4	A	9	PRO
4	A	15	THR
4	A	26	GLU
4	A	29	GLU
4	A	47	SER
4	A	60	ASP
4	A	74	ASP
4	A	84	GLU
4	A	88	ARG
4	A	89	PHE
4	A	92	PRO
4	A	99	LEU
4	A	100	LEU
4	A	101	LEU
4	A	102	LYS
4	A	104	GLU
4	A	115	LEU
4	A	127	LEU
4	A	138	LEU
4	A	140	MET
4	A	141	GLU
4	A	142	VAL
4	A	143	ARG
4	A	148	VAL
4	A	168	ASP
4	A	174	VAL
4	A	176	ARG

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Mol	Chain	Res	Type
4	A	180	GLN
4	A	182	GLU
4	A	183	ASP
4	A	185	ARG
4	A	189	ARG
4	A	191	ASP
4	A	193	ASP
4	A	200	TRP
4	A	201	THR
4	A	206	THR
4	A	218	LEU
4	A	219	ARG
4	B	1	MET
4	B	2	LEU
4	B	3	ASP
4	B	4	SER
4	B	7	LYS
4	B	25	LEU
4	B	26	GLU
4	B	28	LEU
4	B	32	PHE
4	B	41	ARG
4	B	42	ARG
4	B	47	SER
4	B	60	ASP
4	B	62	LEU
4	B	63	HIS
4	B	65	PHE
4	B	66	SER
4	B	67	THR
4	B	73	GLU
4	B	77	GLU
4	B	81	ASN
4	B	85	LEU
4	B	89	PHE
4	B	90	LEU
4	B	93	SER
4	B	95	GLN
4	B	112	ARG
4	B	122	ILE
4	B	140	MET
4	B	155	LYS

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Mol	Chain	Res	Type
4	B	156	HIS
4	B	159	LYS
4	B	163	ASN
4	B	189	ARG
4	B	195	LEU
4	B	196	THR
4	B	197	LEU
4	B	201	THR
4	B	206	THR
4	B	213	GLN
4	B	216	GLU
4	B	221	HIS
4	B	229	GLN
5	C	1	MET
5	C	2	GLU
5	C	8	ARG
5	C	9	ILE
5	C	10	ARG
5	C	13	ILE
5	C	26	TYR
5	C	30	LEU
5	C	34	VAL
5	C	38	LYS
5	C	39	ARG
5	C	40	GLU
5	C	41	ASN
5	C	48	PHE
5	C	49	ARG
5	C	51	THR
5	C	65	VAL
5	C	70	GLU
5	C	73	LEU
5	C	80	GLN
5	C	82	GLU
5	C	91	GLN
5	C	95	TYR
5	C	98	LEU
5	C	105	THR
5	C	114	PHE
5	C	115	LEU
5	C	117	HIS
5	C	121	MET

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Mol	Chain	Res	Type
5	C	123	GLU
5	C	124	ASP
5	C	127	PHE
5	C	133	ASP
5	C	139	GLN
5	C	142	ARG
5	C	147	TYR
5	C	148	PHE
5	C	151	ASP
5	C	152	PRO
5	C	158	TYR
5	C	161	SER
5	C	163	ILE
5	C	170	PRO
5	C	171	TRP
5	C	177	GLU
5	C	178	PRO
5	C	183	SER
5	C	184	MET
5	C	187	ASN
5	C	188	LYS
5	C	193	LEU
5	C	194	VAL
5	C	196	LEU
5	C	198	ARG
5	C	205	GLU
5	C	217	LEU
5	C	221	LEU
5	C	225	SER
5	C	233	GLU
5	C	235	LEU
5	C	237	ARG
5	C	238	LEU
5	C	241	LEU
5	C	243	ARG
5	C	252	LYS
5	C	254	VAL
5	C	260	LEU
5	C	266	ARG
5	C	267	TYR
5	C	268	ASP
5	C	274	ARG

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Mol	Chain	Res	Type
5	C	275	TYR
5	C	278	GLU
5	C	279	GLU
5	C	284	ARG
5	C	285	LEU
5	C	286	SER
5	C	290	LEU
5	C	293	PHE
5	C	294	GLU
5	C	295	ASP
5	C	301	GLU
5	C	309	TYR
5	C	321	GLU
5	C	327	HIS
5	C	330	ASN
5	C	334	ARG
5	C	345	ARG
5	C	351	LEU
5	C	359	MET
5	C	360	LEU
5	C	363	SER
5	C	365	ASP
5	C	366	SER
5	C	367	LEU
5	C	368	THR
5	C	385	PHE
5	C	387	SER
5	C	390	GLN
5	C	393	GLN
5	C	394	PHE
5	C	397	GLU
5	C	398	THR
5	C	399	ASN
5	C	405	ARG
5	C	408	ARG
5	C	413	LEU
5	C	419	THR
5	C	421	GLU
5	C	422	ARG
5	C	426	ASP
5	C	433	THR
5	C	435	TYR

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Mol	Chain	Res	Type
5	C	441	VAL
5	C	445	GLU
5	C	453	THR
5	C	455	LEU
5	C	460	ARG
5	C	469	THR
5	C	484	VAL
5	C	491	GLU
5	C	492	ASP
5	C	498	GLN
5	C	503	LEU
5	C	507	ARG
5	C	508	ILE
5	C	518	LYS
5	C	525	SER
5	C	527	GLU
5	C	538	GLN
5	C	560	MET
5	C	562	SER
5	C	564	MET
5	C	567	GLN
5	C	569	VAL
5	C	573	ARG
5	C	578	VAL
5	C	586	ARG
5	C	590	ASP
5	C	602	GLU
5	C	605	LYS
5	C	609	ASN
5	C	610	ARG
5	C	611	ILE
5	C	617	ASP
5	C	620	LEU
5	C	638	ASP
5	C	639	GLN
5	C	644	VAL
5	C	647	GLN
5	C	649	VAL
5	C	657	ASP
5	C	668	LEU
5	C	676	ILE
5	C	677	MET

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Mol	Chain	Res	Type
5	C	679	PHE
5	C	684	PHE
5	C	699	PHE
5	C	701	THR
5	C	703	ILE
5	C	705	ILE
5	C	707	ARG
5	C	714	ASP
5	C	715	THR
5	C	721	ARG
5	C	727	PRO
5	C	729	LEU
5	C	739	GLU
5	C	740	GLU
5	C	748	GLU
5	C	753	ASP
5	C	766	GLU
5	C	770	GLU
5	C	774	LEU
5	C	780	GLU
5	C	784	ASP
5	C	805	ARG
5	C	807	ARG
5	C	814	GLU
5	C	816	LYS
5	C	821	GLU
5	C	825	VAL
5	C	834	GLN
5	C	841	ASN
5	C	846	LYS
5	C	856	GLU
5	C	858	MET
5	C	865	THR
5	C	868	ASP
5	C	870	ILE
5	C	872	ASN
5	C	881	ASN
5	C	890	LEU
5	C	900	ARG
5	C	904	PRO
5	C	923	GLU
5	C	937	ASP

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Mol	Chain	Res	Type
5	C	938	LYS
5	C	939	ARG
5	C	946	ARG
5	C	950	LEU
5	C	953	VAL
5	C	958	THR
5	C	960	GLU
5	C	961	GLU
5	C	963	LEU
5	C	966	LEU
5	C	971	LYS
5	C	981	GLU
5	C	988	VAL
5	C	989	VAL
5	C	995	MET
5	C	999	HIS
5	C	1002	GLU
5	C	1005	MET
5	C	1016	ILE
5	C	1019	GLN
5	C	1021	LEU
5	C	1031	ARG
5	C	1035	MET
5	C	1040	LEU
5	C	1051	GLU
5	C	1052	MET
5	C	1061	GLU
5	C	1064	ASN
5	C	1072	LYS
5	C	1080	SER
5	C	1085	PHE
5	C	1097	LEU
5	C	1098	ASP
5	C	1101	THR
5	C	1104	GLU
5	C	1105	LYS
5	C	1108	PRO
5	C	1110	ASP
5	C	1111	ILE
5	C	1118	LYS
6	D	6	ARG
6	D	8	VAL

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Mol	Chain	Res	Type
6	D	16	GLU
6	D	29	PRO
6	D	34	TYR
6	D	41	ARG
6	D	42	ASP
6	D	45	PHE
6	D	56	TYR
6	D	57	GLU
6	D	58	CYS
6	D	68	PHE
6	D	69	GLU
6	D	75	ARG
6	D	76	CYS
6	D	82	LYS
6	D	85	VAL
6	D	87	ARG
6	D	95	LEU
6	D	97	THR
6	D	101	HIS
6	D	103	TRP
6	D	108	VAL
6	D	111	LYS
6	D	116	LEU
6	D	124	GLU
6	D	127	LEU
6	D	128	TYR
6	D	133	ILE
6	D	145	VAL
6	D	149	LYS
6	D	151	GLN
6	D	152	LEU
6	D	155	ASP
6	D	161	LEU
6	D	163	TYR
6	D	169	TYR
6	D	180	LYS
6	D	189	GLN
6	D	196	VAL
6	D	198	ARG
6	D	199	LEU
6	D	206	ARG
6	D	207	PHE

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Mol	Chain	Res	Type
6	D	407	VAL
6	D	410	SER
6	D	423	ASP
6	D	430	ASP
6	D	443	VAL
6	D	445	ARG
6	D	447	VAL
6	D	452	ILE
6	D	456	MET
6	D	465	LEU
6	D	470	LEU
6	D	474	GLU
6	D	481	MET
6	D	483	HIS
6	D	485	SER
6	D	493	ARG
6	D	496	LEU
6	D	505	SER
6	D	508	ARG
6	D	513	ILE
6	D	519	VAL
6	D	522	PRO
6	D	523	ASP
6	D	525	ARG
6	D	538	SER
6	D	542	ASP
6	D	543	LEU
6	D	546	ARG
6	D	550	ARG
6	D	554	LEU
6	D	570	GLU
6	D	586	ARG
6	D	590	PRO
6	D	594	PRO
6	D	607	LEU
6	D	611	GLN
6	D	615	ARG
6	D	619	LEU
6	D	621	LYS
6	D	626	SER
6	D	639	LEU
6	D	642	CYS

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Mol	Chain	Res	Type
6	D	644	LEU
6	D	651	GLU
6	D	659	LYS
6	D	662	GLU
6	D	669	ASN
6	D	670	VAL
6	D	676	MET
6	D	678	GLU
6	D	679	ARG
6	D	682	ASP
6	D	691	LEU
6	D	692	GLU
6	D	698	LYS
6	D	703	ASN
6	D	709	HIS
6	D	710	ARG
6	D	724	GLN
6	D	733	CYS
6	D	734	GLU
6	D	736	PHE
6	D	737	ASN
6	D	739	ASP
6	D	740	PHE
6	D	741	ASP
6	D	743	ASP
6	D	744	GLN
6	D	754	PHE
6	D	758	GLU
6	D	762	GLN
6	D	763	MET
6	D	764	LEU
6	D	782	SER
6	D	783	ARG
6	D	785	ILE
6	D	791	TYR
6	D	796	ARG
6	D	808	THR
6	D	810	GLU
6	D	811	GLU
6	D	824	ASN
6	D	826	PRO
6	D	827	ILE

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Mol	Chain	Res	Type
6	D	832	ARG
6	D	833	GLU
6	D	834	THR
6	D	838	ARG
6	D	842	VAL
6	D	859	ASP
6	D	863	VAL
6	D	868	TYR
6	D	869	MET
6	D	876	SER
6	D	879	ARG
6	D	897	TRP
6	D	899	LEU
6	D	904	VAL
6	D	907	GLU
6	D	913	ASP
6	D	914	LEU
6	D	922	LEU
6	D	932	ASP
6	D	947	ILE
6	D	951	ILE
6	D	959	GLU
6	D	971	LEU
6	D	975	GLU
6	D	980	MET
6	D	982	PHE
6	D	983	LEU
6	D	988	ARG
6	D	991	GLN
6	D	1005	GLN
6	D	1014	ASN
6	D	1038	LEU
6	D	1044	LEU
6	D	1052	THR
6	D	1060	SER
6	D	1062	ARG
6	D	1063	GLU
6	D	1066	THR
6	D	1067	VAL
6	D	1070	TYR
6	D	1074	SER
6	D	1083	ASP

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Mol	Chain	Res	Type
6	D	1084	THR
6	D	1090	ASP
6	D	1093	TYR
6	D	1096	ARG
6	D	1100	ASP
6	D	1112	CYS
6	D	1114	THR
6	D	1118	ILE
6	D	1119	SER
6	D	1127	GLU
6	D	1134	LEU
6	D	1135	ARG
6	D	1139	ASP
6	D	1151	ARG
6	D	1152	GLU
6	D	1155	VAL
6	D	1164	ARG
6	D	1166	LEU
6	D	1167	SER
6	D	1196	THR
6	D	1197	ARG
6	D	1207	TYR
6	D	1211	MET
6	D	1214	PRO
6	D	1231	GLU
6	D	1232	PRO
6	D	1234	THR
6	D	1237	THR
6	D	1242	HIS
6	D	1256	LEU
6	D	1257	PRO
6	D	1259	VAL
6	D	1260	ILE
6	D	1264	GLU
6	D	1267	ARG
6	D	1271	LYS
6	D	1330	ILE
6	D	1331	ASP
6	D	1332	PRO
6	D	1337	GLU
6	D	1344	VAL
6	D	1346	ARG

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Mol	Chain	Res	Type
6	D	1347	TYR
6	D	1354	LYS
6	D	1363	LEU
6	D	1365	ASP
6	D	1376	MET
6	D	1383	ASP
6	D	1389	LEU
6	D	1393	GLN
6	D	1395	LEU
6	D	1397	LYS
6	D	1403	LEU
6	D	1415	VAL
6	D	1422	MET
6	D	1424	VAL
6	D	1426	LYS
6	D	1429	LEU
6	D	1434	TRP
6	D	1436	SER
6	D	1440	PHE
6	D	1441	GLN
6	D	1464	GLU
6	D	1465	ASN
6	D	1470	ARG
6	D	1472	ILE
6	D	1483	PHE
6	D	1488	ASP
7	E	28	GLN
7	E	30	LEU
7	E	31	LEU
7	E	32	ARG
7	E	40	LEU
7	E	41	GLU
7	E	42	PRO
7	E	47	LYS
7	E	49	GLN
7	E	51	LEU
7	E	57	ASP
7	E	67	GLU
7	E	68	LEU
7	E	69	LEU
7	E	70	THR
7	E	72	ARG

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Mol	Chain	Res	Type
7	E	74	VAL
7	E	77	GLU
7	E	79	LEU
7	E	81	PRO
7	E	82	GLU
7	E	83	ASP
7	E	85	LEU
7	E	86	GLN
7	E	94	PRO
4	K	1	MET
4	K	5	LYS
4	K	9	PRO
4	K	20	TYR
4	K	26	GLU
4	K	45	LEU
4	K	49	PRO
4	K	54	THR
4	K	58	ILE
4	K	64	GLU
4	K	80	LEU
4	K	86	VAL
4	K	89	PHE
4	K	92	PRO
4	K	93	SER
4	K	96	THR
4	K	99	LEU
4	K	102	LYS
4	K	109	VAL
4	K	116	PRO
4	K	126	ASP
4	K	127	LEU
4	K	131	THR
4	K	134	GLU
4	K	143	ARG
4	K	145	ASP
4	K	167	VAL
4	K	179	PHE
4	K	180	GLN
4	K	182	GLU
4	K	183	ASP
4	K	189	ARG
4	K	197	LEU

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Mol	Chain	Res	Type
4	K	201	THR
4	K	204	SER
4	K	206	THR
4	K	208	LEU
4	K	216	GLU
4	K	219	ARG
4	K	229	GLN
4	L	1	MET
4	L	3	ASP
4	L	4	SER
4	L	7	LYS
4	L	10	VAL
4	L	11	PHE
4	L	15	THR
4	L	20	TYR
4	L	26	GLU
4	L	30	ARG
4	L	41	ARG
4	L	47	SER
4	L	51	THR
4	L	58	ILE
4	L	60	ASP
4	L	61	VAL
4	L	62	LEU
4	L	63	HIS
4	L	64	GLU
4	L	66	SER
4	L	67	THR
4	L	73	GLU
4	L	77	GLU
4	L	80	LEU
4	L	81	ASN
4	L	89	PHE
4	L	95	GLN
4	L	100	LEU
4	L	115	LEU
4	L	117	VAL
4	L	122	ILE
4	L	132	LEU
4	L	140	MET
4	L	151	VAL
4	L	160	ASP

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Mol	Chain	Res	Type
4	L	161	ARG
4	L	163	ASN
4	L	172	SER
4	L	176	ARG
4	L	177	VAL
4	L	179	PHE
4	L	182	GLU
4	L	184	THR
4	L	190	THR
4	L	191	ASP
4	L	196	THR
4	L	200	TRP
4	L	206	THR
4	L	223	THR
4	L	224	TYR
4	L	226	SER
4	L	227	ASN
5	M	1	MET
5	M	10	ARG
5	M	26	TYR
5	M	27	ARG
5	M	30	LEU
5	M	31	GLN
5	M	33	ASP
5	M	39	ARG
5	M	42	VAL
5	M	51	THR
5	M	95	TYR
5	M	98	LEU
5	M	99	GLN
5	M	100	LEU
5	M	107	LEU
5	M	115	LEU
5	M	117	HIS
5	M	118	ILE
5	M	120	LEU
5	M	126	SER
5	M	128	ILE
5	M	133	ASP
5	M	141	HIS
5	M	142	ARG
5	M	148	PHE

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Mol	Chain	Res	Type
5	M	158	TYR
5	M	170	PRO
5	M	173	ASP
5	M	177	GLU
5	M	178	PRO
5	M	179	ASN
5	M	182	VAL
5	M	186	VAL
5	M	188	LYS
5	M	190	LYS
5	M	193	LEU
5	M	194	VAL
5	M	198	ARG
5	M	205	GLU
5	M	209	ARG
5	M	210	GLU
5	M	216	GLU
5	M	218	VAL
5	M	221	LEU
5	M	222	MET
5	M	224	GLU
5	M	225	SER
5	M	227	PHE
5	M	230	ARG
5	M	233	GLU
5	M	241	LEU
5	M	243	ARG
5	M	252	LYS
5	M	260	LEU
5	M	261	ILE
5	M	264	PRO
5	M	266	ARG
5	M	267	TYR
5	M	271	GLU
5	M	281	LEU
5	M	285	LEU
5	M	289	THR
5	M	290	LEU
5	M	293	PHE
5	M	294	GLU
5	M	301	GLU
5	M	303	PHE

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Mol	Chain	Res	Type
5	M	304	LEU
5	M	309	TYR
5	M	320	HIS
5	M	323	ASP
5	M	331	ARG
5	M	332	ARG
5	M	342	ASP
5	M	344	PHE
5	M	350	ARG
5	M	351	LEU
5	M	359	MET
5	M	361	MET
5	M	365	ASP
5	M	367	LEU
5	M	376	ARG
5	M	383	ARG
5	M	387	SER
5	M	388	ARG
5	M	393	GLN
5	M	394	PHE
5	M	401	LEU
5	M	413	LEU
5	M	419	THR
5	M	422	ARG
5	M	425	PHE
5	M	426	ASP
5	M	433	THR
5	M	440	PRO
5	M	443	THR
5	M	458	TYR
5	M	471	TYR
5	M	472	ARG
5	M	474	VAL
5	M	480	THR
5	M	485	TYR
5	M	487	THR
5	M	489	THR
5	M	503	LEU
5	M	511	GLU
5	M	516	ARG
5	M	517	ARG
5	M	520	GLU

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Mol	Chain	Res	Type
5	M	530	GLU
5	M	537	LYS
5	M	543	ASN
5	M	553	ASP
5	M	554	ASP
5	M	572	ILE
5	M	579	VAL
5	M	581	THR
5	M	585	GLU
5	M	586	ARG
5	M	589	ARG
5	M	599	GLU
5	M	602	GLU
5	M	607	ASP
5	M	609	ASN
5	M	613	VAL
5	M	616	GLU
5	M	617	ASP
5	M	620	LEU
5	M	625	LEU
5	M	627	ARG
5	M	628	PHE
5	M	645	VAL
5	M	647	GLN
5	M	654	LEU
5	M	662	GLU
5	M	668	LEU
5	M	671	ASN
5	M	677	MET
5	M	678	PRO
5	M	679	PHE
5	M	686	ASP
5	M	699	PHE
5	M	701	THR
5	M	706	GLU
5	M	711	GLU
5	M	715	THR
5	M	717	LEU
5	M	727	PRO
5	M	728	HIS
5	M	731	GLU
5	M	736	ASP

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Mol	Chain	Res	Type
5	M	737	LEU
5	M	738	ASP
5	M	739	GLU
5	M	745	ILE
5	M	748	GLU
5	M	750	LYS
5	M	751	PRO
5	M	765	SER
5	M	766	GLU
5	M	769	PRO
5	M	780	GLU
5	M	781	LYS
5	M	783	ARG
5	M	784	ASP
5	M	785	VAL
5	M	787	ASP
5	M	794	PRO
5	M	803	THR
5	M	805	ARG
5	M	806	LEU
5	M	807	ARG
5	M	814	GLU
5	M	824	ARG
5	M	834	GLN
5	M	841	ASN
5	M	856	GLU
5	M	857	ASP
5	M	862	PRO
5	M	868	ASP
5	M	870	ILE
5	M	878	SER
5	M	881	ASN
5	M	884	GLN
5	M	904	PRO
5	M	907	ASP
5	M	913	GLU
5	M	916	GLU
5	M	918	LEU
5	M	920	GLN
5	M	937	ASP
5	M	938	LYS
5	M	946	ARG

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Mol	Chain	Res	Type
5	M	953	VAL
5	M	958	THR
5	M	960	GLU
5	M	966	LEU
5	M	981	GLU
5	M	984	GLU
5	M	988	VAL
5	M	997	LEU
5	M	999	HIS
5	M	1003	ASP
5	M	1005	MET
5	M	1006	HIS
5	M	1008	ARG
5	M	1016	ILE
5	M	1017	THR
5	M	1018	GLN
5	M	1021	LEU
5	M	1027	PHE
5	M	1035	MET
5	M	1054	THR
5	M	1055	LEU
5	M	1058	ASP
5	M	1060	ILE
5	M	1074	GLU
5	M	1075	ASP
5	M	1078	GLU
5	M	1081	VAL
5	M	1085	PHE
5	M	1092	LEU
5	M	1095	LEU
5	M	1097	LEU
5	M	1098	ASP
5	M	1103	ASP
5	M	1110	ASP
5	M	1115	LEU
6	N	4	GLU
6	N	9	ARG
6	N	20	SER
6	N	21	TRP
6	N	36	THR
6	N	40	GLU
6	N	41	ARG

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Mol	Chain	Res	Type
6	N	42	ASP
6	N	44	LEU
6	N	56	TYR
6	N	57	GLU
6	N	64	LYS
6	N	65	ARG
6	N	67	ARG
6	N	68	PHE
6	N	69	GLU
6	N	75	ARG
6	N	76	CYS
6	N	79	GLU
6	N	87	ARG
6	N	95	LEU
6	N	97	THR
6	N	98	PRO
6	N	101	HIS
6	N	108	VAL
6	N	112	ILE
6	N	116	LEU
6	N	122	GLU
6	N	123	LEU
6	N	124	GLU
6	N	127	LEU
6	N	131	LYS
6	N	133	ILE
6	N	138	LYS
6	N	145	VAL
6	N	147	VAL
6	N	148	GLU
6	N	149	LYS
6	N	150	ARG
6	N	152	LEU
6	N	153	LEU
6	N	155	ASP
6	N	157	GLU
6	N	159	ARG
6	N	163	TYR
6	N	166	GLN
6	N	167	GLU
6	N	176	ASP
6	N	178	LEU

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Mol	Chain	Res	Type
6	N	180	LYS
6	N	199	LEU
6	N	405	ASP
6	N	406	ASP
6	N	414	ARG
6	N	430	ASP
6	N	434	ARG
6	N	450	TYR
6	N	451	ASP
6	N	455	ARG
6	N	456	MET
6	N	462	GLN
6	N	464	LEU
6	N	465	LEU
6	N	469	ASP
6	N	470	LEU
6	N	471	GLU
6	N	477	LEU
6	N	493	ARG
6	N	496	LEU
6	N	507	ASN
6	N	511	TRP
6	N	512	MET
6	N	513	ILE
6	N	522	PRO
6	N	523	ASP
6	N	525	ARG
6	N	537	THR
6	N	538	SER
6	N	539	ASP
6	N	542	ASP
6	N	544	TYR
6	N	550	ARG
6	N	564	GLU
6	N	565	ILE
6	N	567	ILE
6	N	576	GLU
6	N	581	LEU
6	N	584	ASN
6	N	594	PRO
6	N	617	ASN
6	N	619	LEU

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Mol	Chain	Res	Type
6	N	629	SER
6	N	635	PRO
6	N	639	LEU
6	N	641	GLN
6	N	647	ARG
6	N	660	LYS
6	N	666	ILE
6	N	669	ASN
6	N	680	GLN
6	N	682	ASP
6	N	688	TRP
6	N	692	GLU
6	N	699	VAL
6	N	701	LEU
6	N	707	THR
6	N	709	HIS
6	N	728	LEU
6	N	733	CYS
6	N	734	GLU
6	N	737	ASN
6	N	739	ASP
6	N	740	PHE
6	N	741	ASP
6	N	743	ASP
6	N	754	PHE
6	N	769	LEU
6	N	792	ILE
6	N	794	GLN
6	N	797	LYS
6	N	817	GLU
6	N	818	ARG
6	N	823	LEU
6	N	824	ASN
6	N	836	VAL
6	N	838	ARG
6	N	840	LYS
6	N	841	TYR
6	N	847	ASP
6	N	861	GLN
6	N	864	VAL
6	N	868	TYR
6	N	881	LEU

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Mol	Chain	Res	Type
6	N	888	GLU
6	N	897	TRP
6	N	902	LEU
6	N	907	GLU
6	N	913	ASP
6	N	914	LEU
6	N	921	ARG
6	N	930	LEU
6	N	939	PHE
6	N	947	ILE
6	N	951	ILE
6	N	952	ASP
6	N	953	ASP
6	N	968	ASP
6	N	976	GLN
6	N	982	PHE
6	N	983	LEU
6	N	985	ASP
6	N	988	ARG
6	N	1001	GLU
6	N	1017	PHE
6	N	1032	PRO
6	N	1034	GLN
6	N	1039	CYS
6	N	1041	LEU
6	N	1042	ARG
6	N	1046	GLN
6	N	1053	PHE
6	N	1060	SER
6	N	1062	ARG
6	N	1063	GLU
6	N	1070	TYR
6	N	1083	ASP
6	N	1088	THR
6	N	1093	TYR
6	N	1097	LYS
6	N	1098	LEU
6	N	1100	ASP
6	N	1109	GLU
6	N	1112	CYS
6	N	1115	THR
6	N	1116	ASN

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Mol	Chain	Res	Type
6	N	1129	THR
6	N	1130	ARG
6	N	1144	LEU
6	N	1151	ARG
6	N	1155	VAL
6	N	1160	LEU
6	N	1164	ARG
6	N	1166	LEU
6	N	1170	ASP
6	N	1179	GLU
6	N	1197	ARG
6	N	1198	TYR
6	N	1204	CYS
6	N	1207	TYR
6	N	1208	ASP
6	N	1211	MET
6	N	1213	ARG
6	N	1219	GLU
6	N	1228	SER
6	N	1232	PRO
6	N	1237	THR
6	N	1238	MET
6	N	1242	HIS
6	N	1251	ASP
6	N	1257	PRO
6	N	1262	LEU
6	N	1264	GLU
6	N	1271	LYS
6	N	1334	GLN
6	N	1337	GLU
6	N	1345	GLU
6	N	1348	LEU
6	N	1350	GLU
6	N	1380	GLU
6	N	1381	VAL
6	N	1383	ASP
6	N	1389	LEU
6	N	1391	GLU
6	N	1397	LYS
6	N	1412	LYS
6	N	1415	VAL
6	N	1418	LYS

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Mol	Chain	Res	Type
6	N	1422	MET
6	N	1429	LEU
6	N	1431	THR
6	N	1432	LYS
6	N	1433	SER
6	N	1440	PHE
6	N	1441	GLN
6	N	1452	ILE
6	N	1471	LEU
6	N	1472	ILE
6	N	1478	SER
6	N	1489	GLN
6	N	1492	LEU
7	O	26	ARG
7	O	30	LEU
7	O	43	GLU
7	O	46	PRO
7	O	48	MET
7	O	56	ASP
7	O	59	ASN
7	O	69	LEU
7	O	72	ARG
7	O	78	ASN
7	O	81	PRO
7	O	82	GLU
7	O	86	GLN
7	O	89	MET
7	O	94	PRO
7	O	96	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (154) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	91	ASN
4	A	124	ASN
4	A	163	ASN
4	A	180	GLN
4	A	221	HIS
4	B	81	ASN
4	B	95	GLN
4	B	124	ASN
4	B	128	HIS

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Mol	Chain	Res	Type
4	B	139	ASN
4	B	180	GLN
4	B	221	HIS
4	B	229	GLN
5	C	22	GLN
5	C	80	GLN
5	C	130	ASN
5	C	139	GLN
5	C	187	ASN
5	C	320	HIS
5	C	327	HIS
5	C	330	ASN
5	C	343	GLN
5	C	390	GLN
5	C	393	GLN
5	C	399	ASN
5	C	406	HIS
5	C	431	HIS
5	C	434	HIS
5	C	500	ASN
5	C	543	ASN
5	C	552	HIS
5	C	565	GLN
5	C	567	GLN
5	C	609	ASN
5	C	639	GLN
5	C	663	ASN
5	C	671	ASN
5	C	834	GLN
5	C	841	ASN
5	C	872	ASN
5	C	881	ASN
5	C	889	HIS
5	C	899	GLN
5	C	1019	GLN
5	C	1030	GLN
5	C	1050	GLN
5	C	1100	GLN
5	C	1107	ASN
6	D	143	ASN
6	D	166	GLN
6	D	463	GLN

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Mol	Chain	Res	Type
6	D	549	ASN
6	D	552	ASN
6	D	616	GLN
6	D	636	GLN
6	D	703	ASN
6	D	709	HIS
6	D	714	GLN
6	D	727	GLN
6	D	737	ASN
6	D	756	GLN
6	D	762	GLN
6	D	824	ASN
6	D	917	GLN
6	D	962	GLN
6	D	1005	GLN
6	D	1010	ASN
6	D	1014	ASN
6	D	1033	GLN
6	D	1103	HIS
6	D	1172	HIS
6	D	1227	GLN
6	D	1334	GLN
6	D	1359	GLN
6	D	1441	GLN
6	D	1465	ASN
6	D	1485	GLN
7	E	28	GLN
7	E	29	GLN
7	E	33	HIS
7	E	37	ASN
7	E	86	GLN
4	K	16	GLN
4	K	63	HIS
4	K	95	GLN
4	K	124	ASN
4	K	156	HIS
4	K	180	GLN
4	K	212	ASN
4	K	213	GLN
4	K	229	GLN
4	L	81	ASN
4	L	95	GLN

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Mol	Chain	Res	Type
4	L	124	ASN
4	L	227	ASN
5	M	31	GLN
5	M	91	GLN
5	M	139	GLN
5	M	204	GLN
5	M	374	ASN
5	M	393	GLN
5	M	406	HIS
5	M	543	ASN
5	M	552	HIS
5	M	556	ASN
5	M	565	GLN
5	M	567	GLN
5	M	575	GLN
5	M	609	ASN
5	M	633	GLN
5	M	639	GLN
5	M	671	ASN
5	M	704	HIS
5	M	829	GLN
5	M	841	ASN
5	M	872	ASN
5	M	881	ASN
5	M	889	HIS
5	M	899	GLN
5	M	1050	GLN
5	M	1064	ASN
5	M	1107	ASN
6	N	125	GLN
6	N	442	ASN
6	N	507	ASN
6	N	529	GLN
6	N	549	ASN
6	N	575	GLN
6	N	584	ASN
6	N	616	GLN
6	N	617	ASN
6	N	680	GLN
6	N	696	HIS
6	N	703	ASN
6	N	714	GLN

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Mol	Chain	Res	Type
6	N	727	GLN
6	N	737	ASN
6	N	744	GLN
6	N	756	GLN
6	N	824	ASN
6	N	845	ASN
6	N	861	GLN
6	N	906	GLN
6	N	976	GLN
6	N	1010	ASN
6	N	1014	ASN
6	N	1025	GLN
6	N	1033	GLN
6	N	1124	GLN
6	N	1202	GLN
6	N	1465	ASN
7	O	29	GLN
7	O	78	ASN
7	O	86	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	H	16/16 (100%)	10 (62%)	8 (50%)
2	Y	16/16 (100%)	10 (62%)	8 (50%)
All	All	32/32 (100%)	20 (62%)	16 (50%)

All (20) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
2	H	2	A
2	H	3	G
2	H	6	U
2	H	7	G
2	H	8	C
2	H	9	G
2	H	10	G
2	H	12	G
2	H	13	C
2	H	15	C
2	Y	2	A

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Mol	Chain	Res	Type
2	Y	3	G
2	Y	6	U
2	Y	7	G
2	Y	8	C
2	Y	9	G
2	Y	10	G
2	Y	12	G
2	Y	13	C
2	Y	15	C

All (16) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
2	H	1	G
2	H	6	U
2	H	7	G
2	H	8	C
2	H	9	G
2	H	12	G
2	H	13	C
2	H	15	C
2	Y	1	G
2	Y	6	U
2	Y	7	G
2	Y	8	C
2	Y	9	G
2	Y	12	G
2	Y	13	C
2	Y	15	C

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

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

## 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.



## 5.6 Ligand geometry

Of 10 ligands modelled in this entry, 8 are monoatomic - leaving 2 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
10	APC	D	3999	9	25,33,33	1.41	3 (12%)	30,52,52	1.99	7 (23%)
10	APC	N	4999	9	25,33,33	1.30	4 (16%)	30,52,52	2.11	7 (23%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
10	APC	D	3999	9	-	0/15/38/38	0/3/3/3
10	APC	N	4999	9	-	0/15/38/38	0/3/3/3

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	D	3999	APC	PB-O2B	-3.40	1.48	1.56
10	D	3999	APC	PA-O2A	-3.01	1.49	1.56
10	N	4999	APC	PB-O2B	-2.90	1.49	1.56
10	N	4999	APC	PA-O2A	-2.68	1.49	1.56
10	N	4999	APC	PA-O5'	2.74	1.60	1.57
10	N	4999	APC	PB-O3B	3.06	1.61	1.58
10	D	3999	APC	PB-O3B	3.46	1.62	1.58

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	N	4999	APC	C1'-N9-C4	-7.20	116.08	126.94
10	D	3999	APC	C1'-N9-C4	-6.78	116.72	126.94
10	N	4999	APC	C2'-C1'-N9	-4.46	107.48	114.29
10	N	4999	APC	PG-O3B-PB	-3.94	119.47	132.67

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Mol	Chain	Res	Type	Atoms	Z	Observed( $^{\circ}$ )	Ideal( $^{\circ}$ )
10	D	3999	APC	PG-O3B-PB	-3.88	119.65	132.67
10	D	3999	APC	O2'-C2'-C3'	-2.86	102.51	111.83
10	D	3999	APC	C2'-C3'-C4'	2.23	107.20	102.61
10	N	4999	APC	C2'-C3'-C4'	2.29	107.31	102.61
10	D	3999	APC	O4'-C1'-N9	2.60	113.55	108.10
10	N	4999	APC	O4'-C1'-N9	2.93	114.23	108.10
10	D	3999	APC	O2B-PB-O1B	3.06	119.75	110.12
10	N	4999	APC	O2B-PB-O1B	3.12	119.93	110.12
10	N	4999	APC	O2A-PA-O1A	3.14	119.98	110.12
10	D	3999	APC	O2A-PA-O1A	3.18	120.11	110.12

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
10	D	3999	APC	2	0
10	N	4999	APC	2	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, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	G	23/23 (100%)	-0.61	0 100 100	22, 46, 76, 79	0
1	X	23/23 (100%)	-0.68	0 100 100	21, 38, 71, 90	0
2	H	16/16 (100%)	-0.46	0 100 100	36, 56, 100, 102	0
2	Y	16/16 (100%)	-0.35	0 100 100	21, 73, 101, 103	0
3	I	13/14 (92%)	-0.75	0 100 100	49, 65, 74, 85	0
3	Z	13/14 (92%)	-0.51	0 100 100	54, 67, 80, 81	0
4	A	229/315 (72%)	-0.38	1 (0%) 93 80	41, 66, 86, 94	0
4	B	229/315 (72%)	-0.33	3 (1%) 79 53	43, 70, 85, 101	0
4	K	229/315 (72%)	-0.44	2 (0%) 85 64	41, 65, 81, 93	0
4	L	229/315 (72%)	-0.37	3 (1%) 79 53	38, 68, 80, 90	0
5	C	1119/1119 (100%)	-0.36	13 (1%) 81 55	26, 64, 86, 101	0
5	M	1119/1119 (100%)	-0.36	11 (0%) 84 60	25, 65, 89, 109	0
6	D	1264/1524 (82%)	-0.41	14 (1%) 82 58	23, 61, 83, 100	0
6	N	1264/1524 (82%)	-0.41	15 (1%) 81 55	26, 60, 84, 100	0
7	E	95/99 (95%)	-0.49	2 (2%) 67 36	35, 59, 74, 82	0
7	O	95/99 (95%)	-0.49	1 (1%) 82 58	45, 66, 80, 84	0
All	All	5976/6850 (87%)	-0.39	65 (1%) 82 58	21, 64, 86, 109	0

All (65) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
6	D	416	ALA	5.9
6	D	392	SER	4.6
6	N	427	VAL	4.4
6	N	391	ALA	4.4
4	B	147	GLY	4.2

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Mol	Chain	Res	Type	RSRZ
6	D	192	ALA	3.7
6	D	391	ALA	3.7
6	N	177	ALA	3.4
5	M	245	GLY	3.4
6	N	400	VAL	3.3
6	D	413	ASP	3.3
5	C	185	LYS	3.2
7	E	95	VAL	3.2
6	N	416	ALA	3.2
6	D	179	VAL	3.2
5	C	309	TYR	3.1
5	C	1001	VAL	3.0
4	B	3	ASP	3.0
6	D	401	TYR	3.0
6	N	169	TYR	2.9
5	C	60	GLY	2.8
5	C	215	GLY	2.7
6	D	410	SER	2.7
7	O	95	VAL	2.7
5	M	776	SER	2.6
5	M	153	ALA	2.6
5	M	183	SER	2.6
6	N	392	SER	2.6
4	A	6	LEU	2.5
5	C	769	PRO	2.5
5	C	776	SER	2.5
7	E	94	PRO	2.5
6	N	1398	TRP	2.4
5	M	936	VAL	2.4
4	B	105	GLY	2.4
6	D	991	GLN	2.4
5	C	503	LEU	2.4
5	C	524	VAL	2.3
6	N	194	GLY	2.3
4	K	228	PRO	2.3
4	L	2	LEU	2.3
6	N	178	LEU	2.3
5	M	286	SER	2.3
6	N	1126	ASP	2.3
6	N	421	LEU	2.3
5	M	768	THR	2.2
5	M	955	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
5	M	364	GLU	2.2
4	L	6	LEU	2.2
6	N	420	VAL	2.2
6	D	442	ASN	2.2
5	C	180	GLY	2.2
6	D	425	GLY	2.1
6	N	418	GLY	2.1
4	L	207	PRO	2.1
5	M	179	ASN	2.1
6	D	405	ASP	2.1
6	D	803	GLY	2.1
5	M	779	GLY	2.1
5	C	240	THR	2.1
6	D	393	ILE	2.1
4	K	2	LEU	2.0
5	C	190	LYS	2.0
5	C	529	VAL	2.0
6	N	174	GLY	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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
10	APC	N	4999	31/31	0.96	0.15	-0.47	45,49,51,54	0
10	APC	D	3999	31/31	0.96	0.15	-0.48	41,49,52,54	0
9	MG	D	8001	1/1	0.99	0.07	-1.58	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
9	MG	N	9001	1/1	0.96	0.07	-1.82	21,21,21,21	0
8	ZN	N	5058	1/1	0.95	0.04	-1.82	66,66,66,66	0
8	ZN	N	7112	1/1	0.99	0.04	-2.08	65,65,65,65	0
9	MG	D	8002	1/1	0.99	0.04	-2.40	25,25,25,25	0
8	ZN	D	4058	1/1	0.99	0.04	-2.87	66,66,66,66	0
8	ZN	D	6112	1/1	0.98	0.06	-3.14	59,59,59,59	0
9	MG	N	9002	1/1	0.98	0.06	-	23,23,23,23	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.