



# Full wwPDB X-ray Structure Validation Report ⓘ

Aug 20, 2023 – 04:23 PM EDT

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

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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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 : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.35  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.35

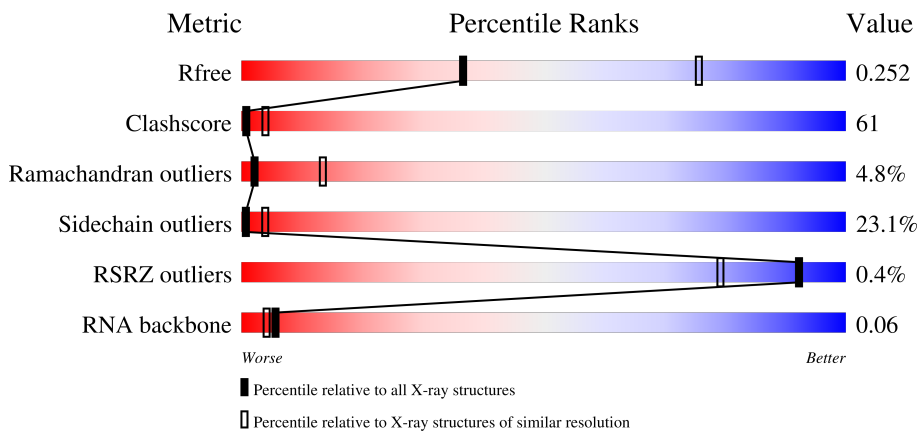
# 1 Overall quality at a glance

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.



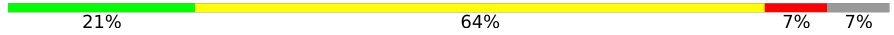

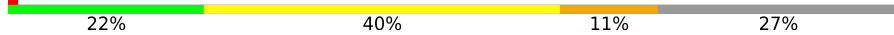
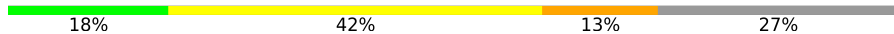
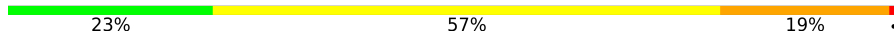
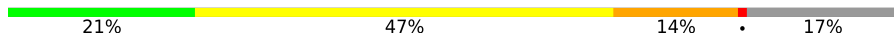
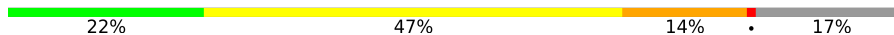
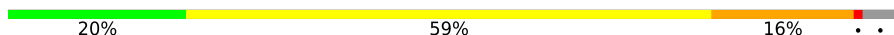
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	2092 (3.00-3.00)
Clashscore	141614	2416 (3.00-3.00)
Ramachandran outliers	138981	2333 (3.00-3.00)
Sidechain outliers	138945	2336 (3.00-3.00)
RSRZ outliers	127900	1990 (3.00-3.00)
RNA backbone	3102	1173 (3.30-2.70)

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

Mol	Chain	Length	Quality of chain
1	G	23	
1	X	23	
2	H	16	
2	Y	16	

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

## 2 Entry composition i

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\*GP\*CP\*G)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
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
			Total	C	N	O	P			
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
			Total	C	N	O	P			
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
			Total	C	N	O	S			
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).

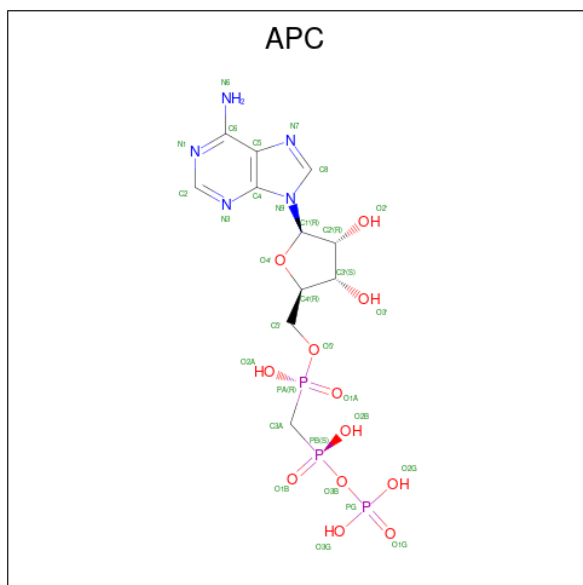
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	
9	D	2	Total	Mg	0	0
			2	2		

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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<sub>11</sub>H<sub>18</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub>).



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

- Molecule 11 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
11	G	32	Total	O	0	0
			32	32		
11	H	37	Total	O	0	0
			37	37		
11	I	22	Total	O	0	0
			22	22		
11	X	43	Total	O	0	0
			43	43		
11	Y	30	Total	O	0	0
			30	30		
11	Z	30	Total	O	0	0
			30	30		

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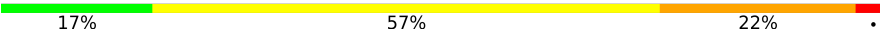
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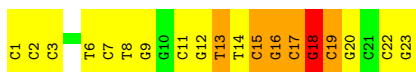
<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>		<b>ZeroOcc</b>	<b>AltConf</b>
11	A	106	Total 106	O 106	0	0
11	B	82	Total 82	O 82	0	0
11	C	482	Total 482	O 482	0	0
11	D	506	Total 506	O 506	0	0
11	E	60	Total 60	O 60	0	0
11	K	86	Total 86	O 86	0	0
11	L	104	Total 104	O 104	0	0
11	M	483	Total 483	O 483	0	0
11	N	491	Total 491	O 491	0	0
11	O	39	Total 39	O 39	0	0

### 3 Residue-property plots [i](#)

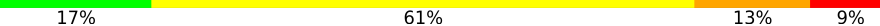
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: 



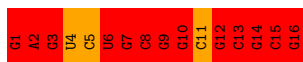
- Molecule 1: 5'-D(P\*CP\*CP\*CP\*TP\*GP\*TP\*CP\*TP\*GP\*GP\*CP\*GP\*TP\*TP\*CP\*GP\*CP\*GP\*CP\*GP\*CP\*CP\*G)-3'

Chain X: 



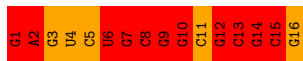
- Molecule 2: 5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3',

Chain H: 



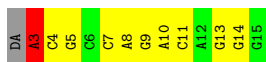
- Molecule 2: 5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3',

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'

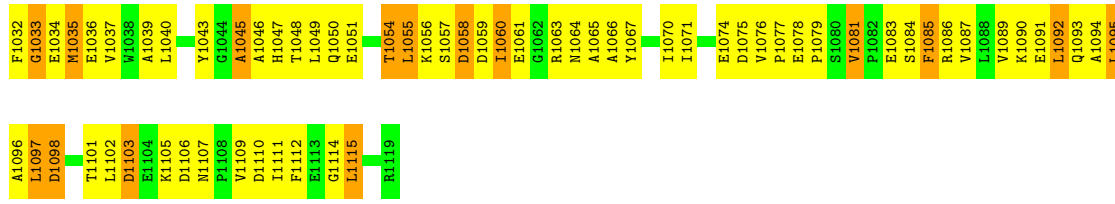




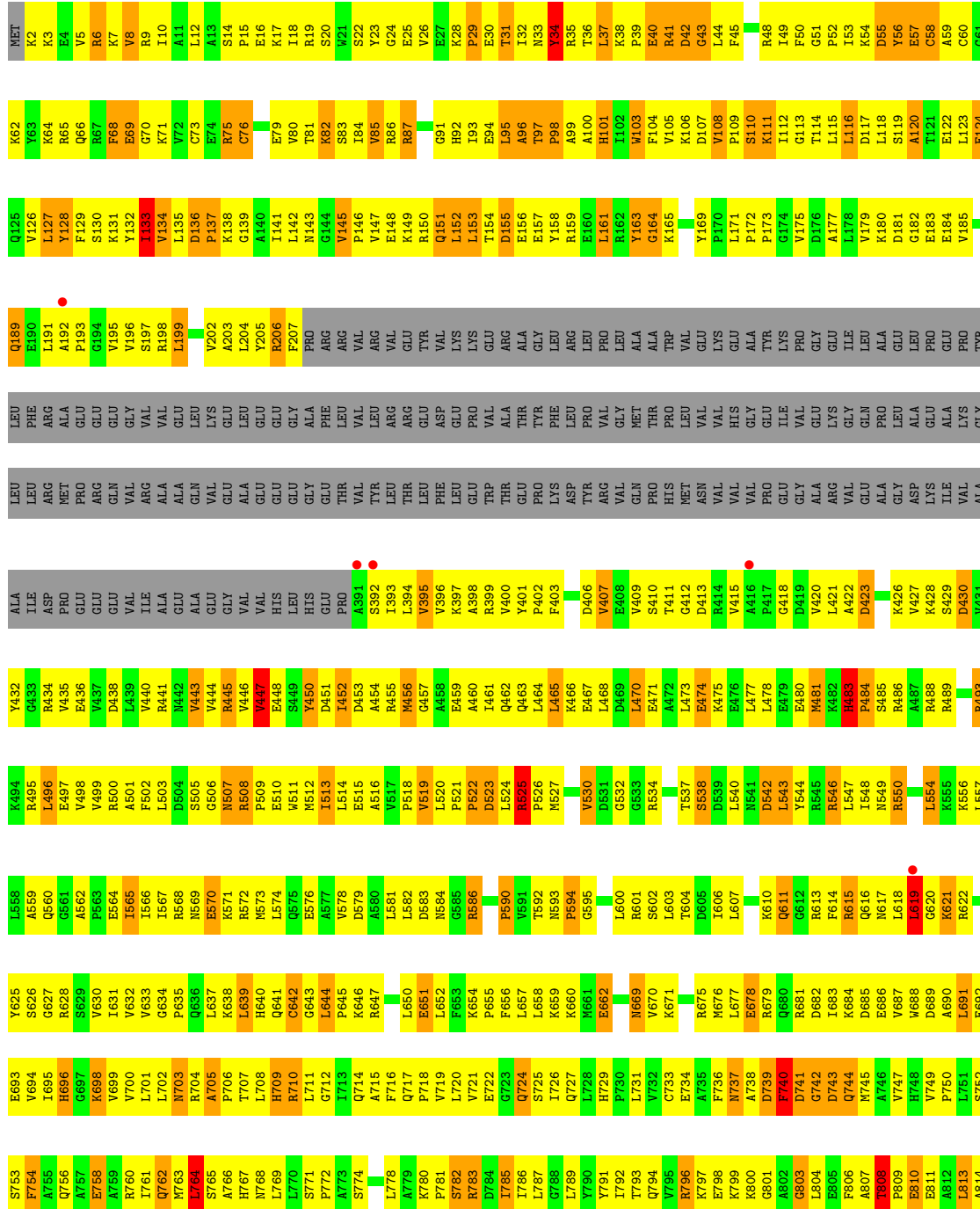
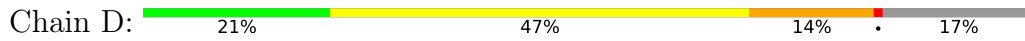




G63	L64	V65	L66	D67	F68	L69	E70	Y71	R72	L73	G74	E75	F76	P77	F78	P79	Q80	D81	E82	C83	R84	E85	K86	D87	L88	T89	Y90	Q91	L94	Y95	A96	R97	L98	Q99	L100	I101	H102	K103	G106	L107	K109	E110	D111	E112	V113	F114	L115	G116	H117	L118	P119	L120	M121	T122	E123	M124		
G125	S126	F127	I128	M129	F130	G131	A132	D133	R134	V135	L136	V137	S138	Q139	I140	H141	R142	S143	F144	G145	V146	Y147	R148	T149	P150	D151	P152	A153	R154	P155	G156	R157	L158	E159	A160	S161	I162	I163	P164	L165	P166	G169	P170	W171	I172	D173	L174	E175	V176	E177	P178	D246	G180	V181	V182	S183	M184	K185
V186	N187	K188	R189	F191	P192	L193	V194	L195	L196	L197	R198	V199	L200	D203	Q204	R209	E210	L211	G212	E216	A217	R218	L221	N222	D223	E224	S225	V226	F227	R230	P231	E232	E233	A234	L235	F239	T240	L241	L242	K243	P244	G245	D246	P247	G180	V181	V182	R250	D251	M184	K185							
K253	V254	A255	V256	V257	V258	G259	L260	L261	D262	D263	P264	R265	R266	Y267	D268	L269	G270	T271	P400	E272	G273	R274	K276	K280	L281	G282	L283	L284	L285	S286	G287	T288	L289	A291	R292	F293	E294	D295	G296	K299	D300	E301	V302	F303	L304	P305	T306	L307	R308	Y309	F311	A312	L313	T314				
P318	G319	H320	E321	V322	D323	D324	L325	D326	L327	L328	G329	R330	R331	R332	L333	R334	R335	V336	G337	E338	L339	M340	T341	D342	Q343	R344	R345	V346	G347	L348	R349	R350	L351	T288	R352	R353	G354	V355	R358	M359	L360	M361	G362	S363	E364	D365	K371	L372	V373	M374	S375	R376	P377	L378				
A381	L382	R383	E384	E385	F386	F387	R388	A389	V460	V461	D462	E463	K395	D396	T397	L398	R399	P400	L401	S402	S403	R404	R405	H406	Q407	R408	R409	I410	S411	R412	L413	G414	F415	L416	L418	T419	R422	A423	G424	F425	D426	V427	V430	H431	R432	T433	H434	Y435	G436	R437	I438	C439	P440	V441	E442	T443	P444	
I452	T453	R454	P455	V456	V457	V458	S459	R460	V461	D462	E463	L464	G465	F466	F467	R468	T469	P470	Y471	R472	R473	R474	V474	V478	T479	R480	T481	V482	V483	V484	Y485	M486	T487	A488	T489	E490	R493	Y494	T495	I496	A497	Q498	P502	L503	M506	R507	I508	A509	E510	E511	A512	C439	V513	V514	A515	R516	E517	
V518	G519	E520	P521	V522	V523	V524	S525	P526	E527	E528	V529	E530	F531	M532	D533	S534	V535	V536	K537	Q538	V539	F540	S541	V542	N543	L546	F547	P548	F549	L550	E551	D552	H553	D554	R557	M560	G561	M564	Q565	T566	Q567	A568	V569	N632	L571	I572	R573	A574	Q575	P641	A576	V577	V578	V579	M580	E581		
G582	L583	E584	E585	V586	V587	V588	R589	A593	E594	L595	Y596	A597	E598	E599	D600	G601	F602	V603	A604	K605	V606	D607	G608	M609	R610	I611	V612	V613	V614	R615	E616	D617	H618	F684	R619	L620	V621	E622	Y623	P624	L625	R626	F627	F628	Y629	R630	S631	N632	Q633	L637	R640	S702	I703	H704	R642	V643	V644	G646
Q647	R648	V649	R650	G651	G652	V653	L654	L655	D656	D657	G658	A660	S661	E662	N663	G664	F665	L666	A667	L668	G669	Q670	M671	V672	L673	V674	A675	I676	M677	P678	F679	D680	F684	R619	D686	A687	L688	V689	I690	S691	E692	E693	L694	L695	R696	K697	G698	F699	T701	S702	I703	H704	I705	E706	L773	R775		
E711	A712	R713	D714	T715	K716	L717	G718	P719	R720	E721	T726	P727	H728	L729	S730	E731	A732	A733	L734	R735	V736	L737	D738	E739	E740	R805	G741	R806	R807	V743	R744	I745	E748	K750	V751	G752	D753	I754	L755	I690	G757	R820	E821	V822	R823	G762	E764	S765	E766	P767	T768	S702	I703	H704	E771	R772	L773	R775
S776	I777	G778	F779	E780	E781	K782	R783	D784	V785	K786	D787	T788	S789	L790	R791	V792	P793	P794	G798	I799	V800	V801	R802	L803	R804	R805	L806	R807	V808	G809	D810	P811	G812	V813	E814	L815	R816	P817	G818	R819	M881	R820	E821	V822	R823	G824	V827	A828	K829	K830	R831	K832	L833	G834	V835	G836	R837	K838
L839	A840	M841	R842	H843	G844	N845	K846	G847	V848	E849	R850	K851	L852	L853	P854	V855	E856	D857	M858	H860	L861	P862	D863	G864	P865	R866	V867	D868	V869	I870	R871	P872	M873	R874	L875	G876	L877	R878	M880	N881	L882	G883	Q884	L885	L886	E887	T888	H889	L892	A893	G894	L897	G898	Q899	R900			
Y901	I902	S903	L904	Y905	F906	D907	G908	A909	K910	E911	P912	R913	I914	K915	E916	L917	L918	A919	Q920	F926	M927	K928	R929	K930	E931	E932	V936	D937	R938	K939	R940	E941	E942	G943	R946	A947	E948	K949	V953	T994	P955	G956	K957	T958	P959	E960	E961	Q962	L963	G964	L966	F967	L988	Q969	Q970			
K971	V972	L973	L974	Y975	D976	G977	R978	T979	G980	E981	P982	L983	E984	G985	P986	I987	V988	V989	Q990	M992	F993	G994	M995	K996	L997	Y998	H999	M1000	V1001	E1002	D1003	R1004	M1005	H1006	A1007	R1008	S1009	G1011	P1012	Y1013	S1014	L1015	T1016	Q1018	Q1019	P1020	L1021	G1022	G1023	K1024	A1025	L1026	F1027	Q1030	R1031			



● Molecule 6: DNA-directed RNA polymerase beta' chain





Y1145	G1081	L1020	D952	I1835	R818	A755	F693	S629	I566	L503	V443	GLU	PRO
G1146	A1082	Y1021	D953	V866	G819	Q756	V694	V630	I567	L506	V444	GLU	ARG
R1147	D1083	Y1022	A954	A887	A757	A757	I695	I631	R568	O507	R445	GLU	GLN
V1148	T1084	M1023	V955	E888	V821	E758	H696	V632	V506	O508	V446	VAL	VAL
L1149	A1085	L1024	I956	A889	A822	A759	A699	V633	R508	P509	V447	ARG	ALA
A1150	L1086	Q1025	P957	V890	L823	R760	V699	G634	K571	E510	E448	VAL	ALA
R1151	R1087	S1026	E958	V897	N824	I761	V700	P635	R572	E511	S449	ALA	ALA
E1152	T1088	G1027	E959	E893	A825	Q762	L702	Q636	H573	N512	V456	GLU	GLN
V1153	A1089	A1028	K960	K894	R826	R763	L703	L637	L574	D451	D451	VAL	VAL
E1154	D1090	K961	V895	V895	I827	L764	N703	R638	Q575	L452	L452	GLY	GLU
V1155	S1091	G1030	K962	A896	K828	S765	R704	L639	E576	D453	D453	VAL	ALA
L1156	G1092	M1031	V963	H897	V829	A774	A705	H640	A577	A454	A454	VAL	GLU
G1157	Y1093	L964	E898	E898	H830	H768	P706	O641	V578	R465	R465	HIS	GLU
V1158	L1094	Q1033	E965	L899	G831	L769	T707	C642	R579	N517	H456	GLU	GLU
L1159	F1095	Q1034	E966	I900	R832	L770	L708	G643	A580	P518	G457	GLY	GLY
L1160	R1096	I1035	A967	Q901	R833	S771	H709	G643	L581	V519	A458	GLU	PHE
E1161	K1097	L1036	D968	L902	R834	A772	R710	R645	L582	L520	E459	THR	THR
E1162	L1098	Q1037	R969	D903	S835	A773	L711	K646	D583	P521	A460	VAL	VAL
G1163	V1099	L1038	K970	V904	V836	S774	G712	R647	N584	P522	L461	VAL	ARG
R1164	D1100	C1039	L971	P905	G837	G775	I713	H648	G585	D523	Q462	LEU	ARG
Y1165	V1101	Q906	R838	Q906	R838	E776	Q714	H648	R586	L524	Q463	LEU	ARG
L1166	T1102	K973	L839	E907	K840	P777	A715	E651	R587	R525	L464	LEU	THR
S1167	R1042	I974	K908	K908	Y841	L778	F716	L652	L658	P526	L465	ASP	VAL
M1168	G1043	G975	Y841	Y841	Y841	A779	K717	F653	R588	K397	R466	GLU	GLY
D1169	L1044	E976	L851	L851	L851	K780	P718	K654	P590	V528	E467	LEU	LYS
D1170	M1045	A977	A844	A844	A844	P781	V719	P655	R599	H528	L468	GLU	GLU
V1171	Q1046	N845	N845	N845	N845	S782	L720	F656	P594	V530	D469	ARG	ARG
L1174	L1047	F982	R982	R982	R982	L782	V721	L657	G595	D531	L470	THR	ALA
A1177	P1048	L983	P946	P946	P946	R783	R721	L657	G595	V401	L471	GLY	ALA
A1178	S1049	T984	D847	D847	D847	D784	E722	L658	S596	G532	E471	PRO	THR
A1179	G1050	D985	E948	E948	E948	G723	G723	L659	S597	G533	A472	LYS	PHE
I1183	E1051	E886	L851	L851	L851	L786	Q724	K660	R598	B534	L473	LEU	LEU
Q1184	T1113	E887	A852	A852	A852	L787	S725	H661	P599	E474	E474	PRO	LEU
Y1185	T1114	R988	R988	R988	R988	G788	I726	R601	L600	K475	K475	PRO	PRO
I1186	M1116	R989	V853	V853	V853	L789	Q727	I666	R601	S538	E476	VAL	ALA
E1187	Y1117	D990	L921	L921	L921	Y790	L728	A667	S602	D539	L477	GLY	ALA
V1188	L1118	G923	I857	I857	I857	Y791	H729	P668	L603	L540	L478	THR	ALA
P1189	S1119	N924	D859	D859	D859	T793	P730	N669	T604	N541	E479	PRO	ALA
V1190	V1120	E925	L860	L860	L860	Q794	L731	V670	D605	D542	E480	TRP	TRP
L1191	P1121	L993	Q861	Q861	Q861	V795	L732	K671	L606	L543	E481	VAL	VAL
S1192	F1122	K926	D862	D862	D862	A672	C733	L607	L607	Y544	K482	VAL	VAL
P1125	L1124	W996	V863	V863	V863	R796	A735	A673	K610	R545	P484	HIS	VAL
L1192	Q1124	T997	V664	V664	V664	E798	F736	R675	Q611	R546	P484	VAL	ALA
T1193	E1063	E998	Y868	Y868	Y868	K799	N737	R676	L547	S485	R486	TYR	ALA
C1194	L1065	T1000	K871	K871	K871	K800	A738	L677	G612	I548	A487	GLY	PRO
T1196	E1001	K1002	R872	R872	R872	G803	D739	E678	F614	R550	R488	ALA	ALA
R1197	L1068	V1003	L873	L873	L873	L804	F740	R679	R615	N551	R489	GLY	GLY
Y1198	E1069	F939	E874	E874	E874	E805	G742	Q680	Q616	N652	A490	ILE	ILE
G1199	Y1070	V1007	T875	T875	T875	F806	D743	D682	L618	L554	K491	GLU	GLN
C1201	F1071	F1008	S876	S876	S876	A807	Q744	I683	L619	L557	R493	LEU	LEU
Q1202	I1072	K1009	P877	P877	P877	T908	N745	G620	K621	K494	R494	ALA	ALA
K1203	S1073	M1010	G878	G878	G878	P809	A746	D685	R622	L558	R495	PRO	PRO
C1204	L1140	G946	R879	R879	R879	E810	V747	E686	G622	A559	V435	GLU	GLU
Y1205	H1075	I947	I880	I880	I880	E810	H748	V687	V623	O560	V437	VAL	VAL
L1206	E1141	T948	L881	L881	L881	A814	V750	R688	D624	G561	D438	ALA	ALA
Y1207	A1142	I949	F882	F882	F882	A815	L751	S626	V625	A562	V498	LEU	LEU
G1143	L1143	P1017	A883	A883	A883	H816	L751	A690	S627	P563	R500	ILE	ILE
D1208	L1144	I951	R884	R884	R884	E817	F754	E692	G627	E564	R441	ASP	ASP
											F502	PRO	PRO





## 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)	Xtrriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.225 , 0.257 0.227 , 0.252	Depositor DCC
$R_{free}$ test set	11219 reflections (5.70%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	64.2	Xtrriage
Anisotropy	0.049	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.30 , 136.2	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.40$ , $\langle L^2 \rangle = 0.23$	Xtrriage
Estimated twinning fraction	0.146 for h,-k,-l	Xtrriage
$F_o, F_c$ correlation	0.89	EDS
Total number of atoms	51213	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	61.0	wwPDB-VP

Xtrriage'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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

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

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 [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	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
6:D:798:GLU:HB2	6:D:828:LYS:HE3	1.43	1.01
5:M:695:LEU:HD21	5:M:832:LYS:HD3	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:C8	2:Y:2:A:H3'	1.94	1.00
5:M:905:ILE:H	5:M:905:ILE:HD12	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
6:N:996:TRP:HA	6:N:999:THR:HG22	1.46	0.96
7:O:45:ARG:HG2	7:O:46:PRO:HD2	1.47	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:921:ARG:HB3	6:N:921:ARG:HH11	1.29	0.95
6:N:972:LEU:HG	6:N:976:GLN:HE22	1.31	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
4:B:64:GLU:HB2	4:B:165:ILE:HG21	1.48	0.94
6:N:1109:GLU:HG2	6:N:1201:CYS:HA	1.48	0.94
5:M:157:ARG:HD3	5:M:314:THR:HB	1.49	0.93
6:N:793:THR:HB	6:N:879:ARG:HD3	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:C:36:PRO:HG2	5:C:70:GLU:HB3	1.50	0.93
5:M:395:LYS:HE2	5:M:403:SER:HB2	1.49	0.93
5:M:857:ASP:HB2	5:M:978:ARG:HG2	1.49	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:H	5:M:1097:LEU:HD22	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:2:A:C8	2:Y:2:A:C3'	2.51	0.90
2:Y:8:C:O2'	2:Y:9:G:H5'	1.71	0.90
6:D:785:ILE:H	6:D:785:ILE:HD12	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:D:145:VAL:HG22	6:D:146:PRO:HD2	1.53	0.90
6:N:52:PRO:HD2	6:N:85:VAL:HG21	1.52	0.90
6:N:890:VAL:HG12	6:N:926:LYS:HD2	1.54	0.90
2:H:12:G:H5'	2:H:12:G:H8	1.38	0.89
2:Y:6:U:H2'	2:Y:7:G:C8	2.07	0.89
5:M:170:PRO:HB3	5:M:186:VAL:HG12	1.52	0.89
5:M:536:PRO:HD2	5:M:537:LYS:HZ2	1.37	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:H	5:M:39:ARG:HD2	1.34	0.88
2:H:14:G:O2'	2:H:15:C:H5'	1.72	0.88
5:M:739:GLU:HG3	5:M:742:VAL:HB	1.52	0.88
6:N:1121:PRO:HD2	6:N:1346:ARG:HH21	1.35	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:394:LEU:HD11	6:N:445:ARG:NH1	1.90	0.87
6:N:786:ILE:HG21	6:N:1027:GLY:H	1.37	0.87
6:D:708:LEU:HB3	6:D:1231:GLU:HB2	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1258:ARG:HH12	6:N:1268:PRO:HB3	1.40	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
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
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
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
1:G:22:DC:H4'	5:C:388:ARG:HD2	1.56	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
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
4:A:54:THR:HG22	4:A:158:ILE:HG13	1.56	0.85
6:D:1144:LEU:HD11	6:D:1186:VAL:HG21	1.56	0.85
2:Y:12:G:H5'	2:Y:12:G:C8	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
5:C:478:VAL:HG13	5:C:506:ASN:HB3	1.56	0.85
6:D:462:GLN:HG3	6:D:513:ILE:HD13	1.59	0.85
6:N:1036:ARG:NH2	6:N:1042:ARG:HA	1.92	0.85
6:N:1223:ILE:H	6:N:1223:ILE:HD12	1.41	0.85
2:Y:13:C:H4'	5:M:409:ARG:HH22	1.41	0.85
5:C:174:LEU:HD22	5:C:307:LEU:HB2	1.57	0.85
6:N:897:TRP:HA	6:N:900:ILE:HG12	1.58	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)
4:B:87:VAL:HG21	4:B:144:VAL:HG11	1.59	0.84
5:C:144:PRO:HG2	5:C:265:ARG:HH21	1.41	0.84
5:C:197:LEU:HD13	5:C:207:LEU:HD11	1.57	0.84
5:M:675:ALA:HB2	5:M:867:VAL:HG11	1.55	0.84
5:M:953:VAL:HG13	5:M:966:LEU:HD13	1.58	0.84
6:D:24:GLY:HA3	6:D:49:ILE:HG12	1.57	0.84
5:M:36:PRO:HG2	5:M:70:GLU:HB3	1.60	0.84
6:N:1259:VAL:HG11	6:N:1356:TYR:OH	1.77	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:D:1271:LYS:NZ	6:D:1331:ASP:HB3	1.92	0.84
6:N:86:ARG:O	6:N:522:PRO:HD2	1.77	0.84
4:L:1:MET:HG2	4:L:5:LYS:HB3	1.58	0.84
5:M:160:ALA:HB2	11:M:1183:HOH:O	1.78	0.84
5:M:467:ILE:HA	11:M:1287:HOH:O	1.76	0.84
5:M:675:ALA:HA	5:M:989:VAL:HG12	1.58	0.84
6:D:486:ARG:HA	6:D:489:ARG:HD3	1.60	0.83
4:K:34:VAL:HB	5:M:939:ARG:NH1	1.93	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
4:B:94:LEU:HD11	4:B:119:ASP:HB2	1.59	0.83
6:D:853:VAL:HG22	6:D:858:VAL:HG23	1.60	0.83
6:D:1144:LEU:HB3	6:D:1166:LEU:HD11	1.58	0.83
5:M:436:GLY:HA2	5:M:538:GLN:O	1.79	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
5:C:34:VAL:HB	5:C:38:LYS:HG3	1.60	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:512:ARG:HB3	5:C:523:ILE:HD11	1.61	0.82
6:D:141:ILE:HD11	6:D:165:LYS:HZ1	1.43	0.82
6:D:455:ARG:CB	6:D:460:ALA:HA	2.09	0.82
6:D:1046:GLN:HA	6:D:1052:THR:HA	1.61	0.82
7:O:41:GLU:HA	7:O:45:ARG:HG3	1.62	0.82
5:M:732:ALA:HA	5:M:735:ARG:HH21	1.45	0.82
6:D:119:SER:H	6:D:123:LEU:HD22	1.42	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
5:C:953:VAL:HG13	5:C:966:LEU:HD13	1.60	0.82
6:D:123:LEU:HD11	6:D:152:LEU:HD22	1.61	0.82
4:L:25:LEU:HD23	4:L:28:LEU:HD21	1.62	0.82
5:M:715:THR:HB	5:M:717:LEU:HG	1.60	0.82
5:M:405:ARG:HH22	5:M:566:THR:HG21	1.45	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
2:H:12:G:H5'	2:H:12:G:C8	2.14	0.81
4:A:117:VAL:HB	4:A:120:VAL:HG12	1.59	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:B:85:LEU:HG	4:B:127:LEU:HD23	1.62	0.81
6:D:81:THR:HG22	6:D:82:LYS:H	1.45	0.81
6:D:1464:GLU:HB3	11:D:8024:HOH:O	1.80	0.81
6:N:543:LEU:HD13	6:N:581:LEU:HA	1.59	0.81
2:H:5:C:H2'	2:H:6:U:C6	2.14	0.81
5:C:343:GLN:HA	5:C:343:GLN:HE21	1.45	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
5:M:435:TYR:HE1	5:M:539:VAL:HG22	1.44	0.81
6:N:1046:GLN:HA	6:N:1052:THR:HA	1.62	0.81
6:N:1108:ARG:HB2	6:N:1108:ARG:HH11	1.45	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)
4:A:111:ALA:HB2	4:A:127:LEU:HD23	1.63	0.81
5:C:408:ARG:HG3	5:C:455:LEU:HG	1.62	0.81
5:C:708:TYR:HB2	5:C:825:VAL:HG23	1.62	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
4:A:58:ILE:HB	4:A:61:VAL:HB	1.63	0.81
5:M:110:GLU:H	5:M:368:THR:HG21	1.45	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:239:PHE:HE1	5:M:254:VAL:HB	1.44	0.81
5:M:478:VAL:HA	5:M:506:ASN:O	1.81	0.81
1:X:13:DT:H5''	6:N:1093:TYR:CE2	2.15	0.81
6:D:1205:TYR:HD2	6:D:1215:VAL:HG21	1.44	0.81
7:E:47:LYS:HB2	7:E:52:GLU:OE2	1.79	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
5:M:585:GLU:HG2	5:M:589:ARG:HH12	1.47	0.80
6:N:73:CYS:HB3	6:N:76:CYS:O	1.82	0.80
5:C:5:ARG:HE	5:C:8:ARG:HH12	1.30	0.80
6:D:616:GLN:NE2	6:D:621:LYS:HG2	1.96	0.80
6:D:1220:ALA:HB1	6:D:1223:ILE:HD12	1.63	0.80
6:N:610:LYS:O	6:N:615:ARG:HD3	1.81	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
5:C:703:ILE:HD12	5:C:703:ILE:H	1.46	0.80
6:N:785:ILE:HG12	6:N:935:LYS:HA	1.62	0.80
7:E:13:VAL:HG21	7:E:19:LEU:HB2	1.63	0.80
5:M:736:ASP:HA	5:M:744:ARG:NH1	1.96	0.80
6:N:156:GLU:O	6:N:159:ARG:HG2	1.82	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
5:M:1056:LYS:O	6:N:624:ASP:HB2	1.81	0.80
6:N:520:LEU:HD12	6:N:521:PRO:HD2	1.64	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
1:G:17:DC:H2''	1:G:18:DG:H5'	1.62	0.79
5:M:65:VAL:HB	5:M:101:ILE:HB	1.63	0.79
5:M:854:PRO:HB2	5:M:856:GLU:HG3	1.64	0.79
5:M:915:LYS:HA	11:M:1454:HOH:O	1.83	0.79
5:M:1055:LEU:HD22	5:M:1066:ALA:HB2	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
6:D:899:LEU:HD13	6:D:914:LEU:HD21	1.62	0.79
6:D:1393:GLN:CD	6:D:1394:VAL:H	1.85	0.79
5:M:260:LEU:HB2	5:M:291:ALA:HB1	1.64	0.79
5:M:462:ASP:HB3	5:M:468:ARG:HD2	1.65	0.79
5:M:762:LYS:HD2	5:M:786:LYS:HG3	1.65	0.79
4:B:1:MET:HG2	4:B:5:LYS:HB3	1.65	0.79
5:C:710:ILE:HB	5:C:790:LEU:HD22	1.65	0.79
5:M:597:ALA:HB2	5:M:655:LEU:HD21	1.63	0.79
5:M:732:ALA:HB2	11:M:1476:HOH:O	1.82	0.79
4:L:62:LEU:HD12	4:L:62:LEU:H	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
5:C:356:ARG:HA	11:C:1191:HOH:O	1.82	0.78
6:D:550:ARG:HA	6:D:550:ARG:HE	1.45	0.78
6:N:887:ALA:HB1	6:N:893:GLU:HG3	1.66	0.78
5:M:66:LEU:HD22	5:M:372:LEU:HD23	1.66	0.78
5:M:141:HIS:O	5:M:331:ARG:HA	1.84	0.78
5:M:1034:GLU:HB3	6:N:619:LEU:HD22	1.65	0.78
5:C:2:GLU:HG3	5:C:899:GLN:HB3	1.64	0.78
6:D:771:SER:HB3	6:D:778:LEU:HD13	1.65	0.78
6:D:782:SER:H	6:D:785:ILE:HD13	1.48	0.78
4:K:87:VAL:HG21	4:K:144:VAL:HG11	1.66	0.78
5:M:360:LEU:HD23	11:M:1129:HOH:O	1.84	0.78
5:M:769:PRO:HD2	6:N:65:ARG:CZ	2.12	0.78
6:N:810:GLU:O	6:N:813:LEU:HG	1.84	0.78
6:N:1204:CYS:HB3	11:N:9238:HOH:O	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:9:G:H2'	2:Y:10:G:C8	2.17	0.78
2:Y:16:G:H21	6:N:705:ALA:CB	1.95	0.78
5:M:671:ASN:HD22	5:M:671:ASN:N	1.81	0.78
6:N:1036:ARG:HH21	6:N:1042:ARG:HA	1.48	0.78
4:L:85:LEU:HA	4:L:124:ASN:HD22	1.48	0.78
5:M:151:ASP:HB2	5:M:157:ARG:O	1.83	0.78
5:C:625:LEU:HA	5:C:639:GLN:HE21	1.47	0.78
5:C:748:GLU:HB2	5:C:799:ILE:HD12	1.64	0.78
6:D:127:LEU:HD12	6:D:128:TYR:H	1.49	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
4:A:87:VAL:HG21	4:A:144:VAL:HG11	1.65	0.78
5:C:198:ARG:HD2	5:C:204:GLN:HE21	1.47	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
5:M:1050:GLN:HE22	6:N:1471:LEU:N	1.82	0.77
6:N:774:SER:HB3	6:N:1362:LYS:O	1.84	0.77
2:Y:12:G:H2'	2:Y:13:C:C6	2.20	0.77
4:A:43:ILE:HG13	4:A:218:LEU:HD12	1.65	0.77
5:C:10:ARG:HA	5:C:10:ARG:HH11	1.47	0.77
5:C:308:ARG:HG2	11:C:1224:HOH:O	1.84	0.77
5:C:577:PRO:HD2	5:C:580:MET:SD	2.24	0.77
5:C:684:PHE:H	5:C:687:ALA:HB3	1.49	0.77
4:L:179:PHE:HB2	4:L:195:LEU:HD11	1.66	0.77
5:M:413:LEU:H	5:M:413:LEU:HD12	1.48	0.77
5:M:684:PHE:H	5:M:687:ALA:HB3	1.48	0.77
4:L:24:VAL:HG13	4:L:196:THR:HG22	1.66	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
5:C:979:THR:HG23	5:C:981:GLU:H	1.48	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
5:M:905:ILE:H	5:M:905:ILE:CD1	1.96	0.77
5:C:958:THR:HG23	5:C:961:GLU:HB2	1.67	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
6:N:1266:ARG:HG2	6:N:1267:ARG:H	1.50	0.77
5:C:328:LEU:HB2	5:C:433:THR:HB	1.66	0.77
6:D:699:VAL:H	6:D:756:GLN:NE2	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1426:LYS:HA	6:N:1429:LEU:HD13	1.66	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:774:SER:HB3	6:D:1362:LYS:O	1.84	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: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:9:ARG:HA	6:D:1455:LYS:O	1.84	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: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:202:VAL:HB	6:D:398:ALA:O	1.86	0.76
6:D:710:ARG:HG2	6:D:772:PRO:HG2	1.68	0.76
6:D:1087:ARG:HG3	6:D:1237:THR:HG21	1.67	0.76
5:M:1032:PHE:O	5:M:1036:GLU:HB2	1.86	0.76
6:N:895:VAL:HG11	6:N:922:LEU:HD21	1.65	0.76
6:D:28:LYS:HG3	6:D:29:PRO:HD2	1.68	0.76
5:M:5:ARG:NE	5:M:8:ARG:HH12	1.83	0.76
5:M:244:PRO:HD2	5:M:245:GLY:H	1.50	0.76
11:M:1524:HOH:O	6:N:616:GLN:HA	1.84	0.76
6:N:1390:LEU:HD21	11:N:9287:HOH:O	1.86	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
5:M:998:TYR:HE2	5:M:1000:MET:HG3	1.49	0.76
6:N:486:ARG:HA	6:N:489:ARG:HG2	1.68	0.76
6:N:1481:VAL:HG11	7:O:18:ARG:HA	1.68	0.76
5:C:614:ARG:HG3	5:C:620:LEU:HD22	1.68	0.76
6:N:1108:ARG:HB2	6:N:1108:ARG:NH1	2.01	0.76
6:N:1394:VAL:HB	6:N:1397:LYS:HB2	1.68	0.76
4:A:75:VAL:HA	4:A:78:ILE:HD12	1.68	0.75
4:A:222:LEU:HD21	4:B:218:LEU:HB3	1.68	0.75
6:D:25:GLU:HG3	6:D:93:ILE:HA	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:53:ILE:HD12	6:D:86:ARG:HH22	1.51	0.75
6:D:131:LYS:HG3	6:D:568:ARG:HG2	1.68	0.75
6:D:554:LEU:HD21	6:D:571:LYS:HE2	1.66	0.75
6:D:73:CYS:HB3	6:D:76:CYS:O	1.87	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: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
4:B:52:ALA:HB2	4:B:170:VAL:O	1.86	0.75
6:D:1103:HIS:CD2	6:D:1463:LYS:H	2.05	0.75
5:M:997:LEU:HD21	11:M:1517:HOH:O	1.87	0.75
6:N:136:ASP:HB3	6:N:137:PRO:HD3	1.67	0.75
1:X:17:DC:H2''	1:X:18:DG:H5'	1.66	0.75
5:C:1031:ARG:HE	6:D:621:LYS:HB3	1.50	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
5:M:378:LEU:HG	5:M:382:ILE:HD11	1.69	0.75
5:M:758:ARG:HB3	5:M:788:THR:O	1.87	0.75
6:N:603:LEU:O	6:N:606:ILE:HG22	1.87	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
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
6:N:764:LEU:HD12	6:N:765:SER:H	1.52	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:N:133:ILE:HG12	6:N:456:MET:HE2	1.68	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:D:1149:LEU:HD12	6:D:1161:GLU:O	1.87	0.75
6:N:29:PRO:HD3	6:N:548:ILE:HG21	1.68	0.75
2:H:12:G:H2'	2:H:13:C:C6	2.22	0.74
4:B:211:LEU:O	4:B:215:VAL:HG13	1.86	0.74
5:C:169:GLY:HA3	5:C:263:ASP:HB3	1.69	0.74
6:N:853:VAL:HG22	6:N:858:VAL:HG23	1.69	0.74
1:X:13:DT:H5''	6:N:1093:TYR:HE2	1.51	0.74
4:B:41:ARG:HD2	4:B:177:VAL:HG23	1.69	0.74
6:N:1155:VAL:HA	11:N:9051:HOH:O	1.88	0.74
6:N:1448:THR:O	6:N:1452:ILE:HD12	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:2:A:H3'	2:Y:2:A:H8	1.48	0.74
5:C:141:HIS:HB3	5:C:418:LEU:HD23	1.67	0.74
5:C:904:PRO:HD2	5:C:908:GLY:HA2	1.67	0.74
4:A:57:TYR:HB3	4:A:141:GLU:HG3	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
6:N:1228:SER:O	6:N:1232:PRO:HD2	1.88	0.74
2:H:9:G:H2'	2:H:10:G:C8	2.21	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
5:C:186:VAL:HG23	5:C:187:ASN:H	1.51	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:943:VAL:HG11	5:C:973:VAL:HG21	1.70	0.74
5:M:5:ARG:HB2	5:M:8:ARG:HH22	1.51	0.74
5:M:433:THR:HG21	5:M:488:ALA:HB1	1.70	0.74
5:M:807:ARG:H	5:M:807:ARG:HE	1.36	0.74
6:N:1424:VAL:HG13	6:N:1425:THR:H	1.50	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
5:C:959:PRO:HB2	11:C:1203:HOH:O	1.85	0.74
6:N:972:LEU:HG	6:N:976:GLN:NE2	2.03	0.74
4:B:59:GLU:HB2	4:B:137:ARG:NH1	1.99	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:68:PHE:HZ	5:M:71:TYR:HD2	1.36	0.74
6:N:204:LEU:HD13	6:N:445:ARG:NE	2.03	0.74
6:N:786:ILE:HG21	6:N:1027:GLY:N	2.01	0.74
4:K:39:PRO:HG3	11:L:348:HOH:O	1.86	0.73
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
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
4:A:194:LYS:HG3	11:A:338:HOH:O	1.86	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:603:LEU:O	6:D:606:ILE:HG22	1.88	0.73
11:D:8449:HOH:O	7:E:28:GLN:HG3	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
6:N:1166:LEU:H	6:N:1166:LEU:HD23	1.53	0.73
4:A:82:LEU:HD22	4:A:142:VAL:HG11	1.69	0.73
11:A:325:HOH:O	4:B:215:VAL:HG21	1.89	0.73
7:E:54:LEU:HG	7:E:58:PRO:HG2	1.71	0.73
5:C:668:LEU:HD13	5:C:995:MET:SD	2.29	0.73
5:C:722:ILE:HD12	5:C:823:VAL:HG21	1.69	0.73
6:D:483:HIS:HB2	6:D:484:PRO:HD3	1.68	0.73
6:N:959:GLU:HB2	6:N:963:TYR:CE1	2.24	0.73
6:N:1481:VAL:HG13	7:O:18:ARG:HE	1.53	0.73
5:C:810:ASP:HB3	5:C:813:VAL:HG12	1.70	0.73
6:D:171:LEU:HD21	6:D:192:ALA:CB	2.18	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
5:C:516:ARG:NE	6:D:1068:LEU:HD13	2.03	0.73
5:C:881:ASN:O	5:C:884:GLN:HG3	1.89	0.73
5:C:946:ARG:HB3	5:C:946:ARG:HH11	1.52	0.73
5:M:52:PHE:CD2	5:M:68:PHE:HB2	2.24	0.73
5:M:290:LEU:HD22	5:M:302:VAL:HG11	1.70	0.73
6:N:541:ASN:O	6:N:545:ARG:HG3	1.89	0.73
5:C:263:ASP:HB2	5:C:264:PRO:HD3	1.69	0.73
5:C:837:ASP:HA	5:C:999:HIS:HE1	1.52	0.73
5:C:1035:MET:HA	5:C:1038:TRP:CE3	2.24	0.73
6:D:171:LEU:HD23	6:D:172:PRO:HD2	1.69	0.73
6:D:1231:GLU:CD	6:D:1232:PRO:HD3	2.09	0.73
6:D:1462:LEU:HD21	6:D:1474:ALA:HB3	1.71	0.73
5:M:758:ARG:NH2	5:M:788:THR:HB	2.04	0.73
6:N:989:TYR:O	6:N:993:LEU:HG	1.87	0.73
6:D:834:THR:HG22	6:D:838:ARG:HH11	1.53	0.73
5:M:132:ALA:HB1	5:M:632:ASN:HD21	1.54	0.73
5:C:479:VAL:HG11	5:C:503:LEU:HD11	1.71	0.73
6:D:1083:ASP:O	6:D:1087:ARG:HG2	1.89	0.73
4:K:42:ARG:HH11	5:M:978:ARG:HA	1.53	0.73
4:K:189:ARG:HH12	4:L:155:LYS:HE3	1.54	0.73
4:L:218:LEU:O	4:L:222:LEU:HG	1.88	0.73
5:M:313:LEU:HD23	11:M:1189:HOH:O	1.89	0.73
6:N:1166:LEU:HD12	6:N:1171:VAL:HG22	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:48:MET:HB2	7:O:54:LEU:HB2	1.70	0.73
7:E:76:GLY:HA3	7:E:79:LEU:HD13	1.69	0.72
5:M:554:ASP:CB	5:M:880:MET:HB2	2.19	0.72
5:M:872:ASN:HD21	5:M:874:LEU:HB2	1.53	0.72
2:Y:6:U:H2'	2:Y:7:G:N7	2.03	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
6:N:643:GLY:HA3	6:N:727:GLN:HB2	1.70	0.72
5:C:768:THR:HB	5:C:771:GLU:HB3	1.72	0.72
5:M:578:VAL:HG23	5:M:579:VAL:HG12	1.71	0.72
2:H:10:G:H2'	2:H:11:C:C6	2.25	0.72
2:Y:13:C:H4'	5:M:409:ARG:NH2	2.05	0.72
5:C:312:ALA:HB1	5:C:318:PRO:HG2	1.70	0.72
5:C:710:ILE:HD12	5:C:790:LEU:HB2	1.70	0.72
5:C:850:ALA:HB2	11:C:1474:HOH:O	1.88	0.72
6:D:486:ARG:HA	6:D:489:ARG:CD	2.19	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:D:153:LEU:HD11	6:D:158:TYR:HB2	1.72	0.72
6:D:394:LEU:O	6:D:396:VAL:HG23	1.88	0.72
6:N:95:LEU:HD12	6:N:95:LEU:H	1.54	0.72
6:N:929:ARG:NH1	6:N:929:ARG:HB2	2.05	0.72
4:B:79:ILE:HA	4:B:82:LEU:HD12	1.70	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
6:N:116:LEU:HD13	6:N:118:LEU:HD11	1.71	0.72
4:A:226:SER:O	4:A:228:PRO:HD3	1.90	0.72
4:B:218:LEU:O	4:B:222:LEU:HG	1.89	0.72
5:C:464:LEU:HD21	11:C:1308:HOH:O	1.89	0.72
6:N:951:ILE:HG23	6:N:1062:ARG:HE	1.55	0.72
7:O:46:PRO:HG3	7:O:66:LYS:HD3	1.70	0.72
7:O:54:LEU:O	7:O:54:LEU:HD23	1.90	0.72
4:B:186:LEU:HD21	11:B:367:HOH:O	1.87	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
6:N:493:ARG:HG2	6:N:1390:LEU:HB2	1.71	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
4:A:61:VAL:HG23	11:A:319:HOH:O	1.90	0.71
6:D:677:LEU:HD23	6:D:683:ILE:HG13	1.72	0.71
4:K:89:PHE:HD1	4:K:120:VAL:HG23	1.54	0.71
5:M:1060:ILE:HG22	11:M:1405:HOH:O	1.90	0.71
6:N:421:LEU:HD22	6:N:444:VAL:HG11	1.69	0.71
5:C:158:TYR:HD1	5:C:314:THR:HG22	1.54	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
4:A:179:PHE:HB2	4:A:195:LEU:HD11	1.71	0.71
5:C:129:ILE:HD13	5:C:134:ARG:HB2	1.73	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:409:VAL:HG23	6:D:421:LEU:HA	1.71	0.71
6:D:646:LYS:HG3	6:D:720:LEU:HD23	1.70	0.71
4:K:153:ALA:HA	4:K:156:HIS:CE1	2.26	0.71
5:M:270:GLY:O	5:M:274:ARG:HB3	1.89	0.71
5:M:704:HIS:O	5:M:828:ALA:HA	1.90	0.71
5:M:874:LEU:HA	6:N:1023:MET:SD	2.31	0.71
5:C:143:SER:HB2	5:C:276:LYS:HZ3	1.55	0.71
5:C:1031:ARG:NE	6:D:621:LYS:HB3	2.06	0.71
4:K:56:VAL:HG22	4:K:142:VAL:HG12	1.70	0.71
5:M:34:VAL:HB	5:M:38:LYS:HG3	1.71	0.71
5:M:1090:LYS:HE3	5:M:1112:PHE:HE1	1.55	0.71
5:M:1101:THR:HG21	5:M:1111:ILE:HG23	1.71	0.71
6:N:1042:ARG:NH2	6:N:1073:SER:HB3	2.05	0.71
6:N:1136:LYS:HB2	6:N:1139:ASP:OD2	1.90	0.71
5:C:355:VAL:HA	5:C:358:ARG:HD3	1.72	0.71
5:C:950:LEU:HB3	5:C:952:LEU:HD23	1.72	0.71
6:D:119:SER:HB2	6:D:123:LEU:HB2	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
6:N:792:ILE:HD11	6:N:878:GLY:O	1.91	0.71
6:N:921:ARG:HB3	6:N:921:ARG:NH1	2.05	0.71
5:C:142:ARG:HB3	5:C:142:ARG:HH11	1.55	0.71
5:C:675:ALA:HA	5:C:989:VAL:HG13	1.71	0.71
5:C:804:VAL:HG11	5:C:824:ARG:HH21	1.56	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
6:D:1037:GLN:HG2	6:D:1042:ARG:HB3	1.73	0.71
11:M:1216:HOH:O	6:N:950:GLY:HA3	1.91	0.71
6:N:521:PRO:HG2	6:N:524:LEU:HD22	1.72	0.71
5:C:675:ALA:HB1	5:C:677:MET:SD	2.31	0.71
5:C:837:ASP:HA	5:C:999:HIS:CE1	2.25	0.71
6:D:615:ARG:NH2	6:D:1096:ARG:NH1	2.39	0.71
5:M:376:ARG:HG2	11:M:1395:HOH:O	1.90	0.71
5:M:546:LEU:HD21	11:M:1376:HOH:O	1.90	0.71
5:M:1115:LEU:HG	6:N:85:VAL:HG12	1.72	0.71
6:D:83:SER:O	6:D:86:ARG:HB3	1.90	0.71
4:K:178:ALA:HB2	5:M:864:GLY:H	1.55	0.71
5:M:325:ILE:HD11	11:M:1567:HOH:O	1.91	0.71
5:M:584:GLU:CD	5:M:584:GLU:H	1.95	0.71
5:M:1019:GLN:NE2	6:N:616:GLN:HE22	1.88	0.71
6:N:50:PHE:CG	6:N:522:PRO:HD3	2.26	0.71
6:N:1146:GLY:HA3	6:N:1207:TYR:HB2	1.71	0.71
6:D:486:ARG:HA	6:D:489:ARG:HG2	1.73	0.71
6:D:1160:LEU:HD11	6:D:1174:LEU:HD21	1.71	0.71
6:D:1332:PRO:HG3	6:D:1347:TYR:HE2	1.54	0.71
4:K:178:ALA:HB3	4:K:198:ARG:HG3	1.72	0.71
4:L:89:PHE:HB3	4:L:94:LEU:CD1	2.21	0.71
6:D:1087:ARG:HH21	6:D:1253:THR:HG22	1.56	0.70
6:D:1383:ASP:HB2	6:D:1416:ALA:HB3	1.71	0.70
6:D:1481:VAL:HG22	7:E:18:ARG:HE	1.56	0.70
5:M:609:ASN:HD22	5:M:609:ASN:N	1.86	0.70
6:N:502:PHE:CE1	6:N:509:PRO:HB3	2.26	0.70
6:N:1033:GLN:HE21	6:N:1036:ARG:NH1	1.88	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
5:C:1046:ALA:HA	6:D:1472:ILE:HG13	1.72	0.70
6:D:1093:TYR:O	6:D:1097:LYS:HG2	1.91	0.70
4:K:220:GLU:O	4:K:223:THR:HG22	1.89	0.70
6:N:1168:MET:HE3	6:N:1171:VAL:HB	1.72	0.70
6:N:1406:ARG:HG3	6:N:1412:LYS:HG2	1.72	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
5:M:1031:ARG:HA	6:N:621:LYS:O	1.92	0.70
5:C:502:PRO:HB2	5:C:509:ALA:HB3	1.73	0.70
5:C:1007:ALA:HB1	6:D:652:LEU:HD13	1.72	0.70

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:197:LEU:HG	4:A:199:ILE:HD11	1.75	0.69
5:C:134:ARG:HH21	5:C:392:SER:HB2	1.56	0.69
5:C:431:HIS:HD2	5:C:433:THR:H	1.41	0.69
5:C:511:GLU:O	5:C:526:PRO:HD3	1.93	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:D:399:ARG:HH11	6:D:430:ASP:HB2	1.57	0.69
6:D:656:PHE:HB3	6:D:694:VAL:HG11	1.73	0.69
7:E:41:GLU:OE1	7:E:42:PRO:HD3	1.93	0.69
4:L:52:ALA:HB2	4:L:170:VAL:O	1.92	0.69
5:M:689:VAL:HG12	5:M:690:ILE:H	1.57	0.69
6:N:54:LYS:HD2	6:N:55:ASP:H	1.58	0.69
6:N:586:ARG:NH2	6:N:1444:THR:HG21	2.07	0.69
6:N:889:ALA:HB3	6:N:930:LEU:HD12	1.74	0.69
6:N:1124:GLN:HB3	6:N:1135:ARG:HD3	1.74	0.69
2:H:8:C:H5''	11:H:37:HOH:O	1.93	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
6:D:644:LEU:HD23	6:D:718:PRO:HB3	1.73	0.69
6:D:1403:LEU:HD23	6:D:1407:LEU:HD13	1.74	0.69
5:M:580:MET:SD	5:M:584:GLU:HG3	2.33	0.69
5:M:881:ASN:O	5:M:884:GLN:HG3	1.91	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:C:31:GLN:HB3	5:C:71:TYR:OH	1.92	0.69
5:C:411:SER:HA	5:C:451:LEU:O	1.93	0.69
6:D:554:LEU:HD11	6:D:571:LYS:HD3	1.75	0.69
5:M:331:ARG:NH2	5:M:427:VAL:HG13	2.07	0.69
5:M:405:ARG:HH22	5:M:566:THR:CG2	2.05	0.69
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:634:GLY:HA2	6:D:727:GLN:HE21	1.57	0.68
6:D:781:PRO:HG2	6:D:911:LEU:HD23	1.75	0.68
6:D:1046:GLN:HG2	6:D:1052:THR:HG22	1.74	0.68
5:M:904:PRO:HD2	5:M:908:GLY:HA2	1.75	0.68
6:N:489:ARG:NH2	6:N:1389:LEU:HD21	2.07	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:C:946:ARG:HH22	6:D:861:GLN:HE22	1.40	0.68
4:K:94:LEU:HD21	4:K:119:ASP:HB3	1.74	0.68
5:M:148:PHE:HZ	5:M:281:LEU:HD13	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:252:LYS:NZ	5:M:296:GLY:HA3	2.08	0.68
5:M:479:VAL:HG11	5:M:503:LEU:HD11	1.75	0.68
1:G:14:DT:H6	1:G:14:DT:H5'	1.59	0.68
4:B:197:LEU:HD21	4:B:199:ILE:HD11	1.74	0.68
6:D:524:LEU:O	6:D:526:PRO:HD3	1.92	0.68
6:D:1399:ASP:O	6:D:1403:LEU:HB2	1.93	0.68
4:L:61:VAL:HG21	4:L:75:VAL:HG21	1.75	0.68
5:M:333:ILE:H	5:M:465:GLY:CA	2.05	0.68
6:N:807:ALA:HB2	6:N:833:GLU:OE1	1.93	0.68
6:N:1492:LEU:HD12	6:N:1493:LYS:NZ	2.09	0.68
4:B:59:GLU:CB	4:B:137:ARG:HH12	2.03	0.68
5:C:158:TYR:O	5:C:310:LEU:HD11	1.93	0.68
6:D:868:TYR:HB2	6:D:873:LEU:HD12	1.76	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
6:D:1380:GLU:HG3	6:D:1420:LEU:HD12	1.74	0.68
5:M:343:GLN:HG2	5:M:385:PHE:HB2	1.75	0.68
5:C:5:ARG:CZ	5:C:8:ARG:HH22	2.06	0.68
6:D:98:PRO:HB3	11:D:8058:HOH:O	1.93	0.68
6:D:409:VAL:CG2	6:D:421:LEU:HA	2.24	0.68
6:D:526:PRO:HA	11:D:8171:HOH:O	1.93	0.68
6:D:800:LYS:HE3	6:D:804:LEU:HD22	1.74	0.68
6:D:964:LEU:HD21	6:D:1058:ARG:HE	1.57	0.68
5:M:305:PRO:HG3	5:M:308:ARG:HH22	1.59	0.68
6:N:1161:GLU:HG2	6:N:1164:ARG:HB2	1.74	0.68
6:D:22:SER:HB2	6:D:92:HIS:HB3	1.76	0.68
6:D:988:ARG:O	6:D:992:ILE:HG13	1.94	0.68
4:K:58:ILE:HG21	4:K:68:ILE:HD11	1.75	0.68
6:N:1191:PRO:HG2	6:N:1370:ILE:HD13	1.74	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
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:D:1252:ILE:HG13	6:D:1253:THR:H	1.59	0.68
5:M:874:LEU:O	5:M:877:PRO:HD2	1.93	0.68
6:N:119:SER:HB2	6:N:123:LEU:H	1.59	0.68
6:N:394:LEU:O	6:N:396:VAL:HG23	1.94	0.68
6:N:879:ARG:HH21	6:N:904:VAL:N	1.90	0.68
6:D:455:ARG:HB3	6:D:459:GLU:HG2	1.76	0.68
6:D:984:THR:HG22	6:D:987:GLU:HG3	1.76	0.68
5:M:244:PRO:HG2	5:M:246:ASP:OD2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:510:ALA:HB3	5:M:513:VAL:HG23	1.76	0.68
5:M:536:PRO:HD2	5:M:537:LYS:NZ	2.08	0.68
6:N:1111:ASP:CG	6:N:1203:LYS:HG3	2.14	0.68
4:B:85:LEU:HA	4:B:124:ASN:HD22	1.57	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
5:M:292:ARG:HD2	5:M:299:LYS:NZ	2.08	0.68
5:M:516:ARG:NH1	5:M:521:PRO:HB3	2.09	0.68
7:O:51:LEU:HD23	7:O:52:GLU:H	1.59	0.68
5:C:709:GLU:HG3	5:C:824:ARG:HG2	1.76	0.67
5:M:495:THR:H	5:M:530:GLU:CD	1.96	0.67
5:M:768:THR:HB	5:M:771:GLU:HB3	1.75	0.67
6:N:546:ARG:NH1	6:N:546:ARG:HB3	2.08	0.67
2:H:8:C:HO2'	2:H:9:G:H5'	1.58	0.67
5:C:106:GLY:O	5:C:107:LEU:HD23	1.94	0.67
5:C:610:ARG:HD3	5:C:622:GLU:OE2	1.94	0.67
6:D:29:PRO:CG	6:D:549:ASN:HD21	2.07	0.67
6:D:782:SER:N	6:D:785:ILE:HD13	2.08	0.67
6:D:1252:ILE:HG13	6:D:1253:THR:N	2.09	0.67
4:L:206:THR:HG22	4:L:209:GLU:H	1.59	0.67
5:M:432:ARG:HH22	6:N:1047:LYS:HD3	1.59	0.67
5:M:438:ILE:HD11	5:M:467:ILE:HD12	1.75	0.67
5:M:762:LYS:HD3	5:M:784:ASP:O	1.94	0.67
5:M:1111:ILE:HG13	5:M:1112:PHE:H	1.57	0.67
6:N:402:PRO:HG2	11:N:9030:HOH:O	1.93	0.67
2:Y:11:C:H2'	2:Y:12:G:C8	2.30	0.67
5:C:1:MET:HG2	5:C:900:ARG:HH22	1.60	0.67
5:C:762:LYS:HD2	5:C:786:LYS:HB2	1.75	0.67
5:M:1034:GLU:HB3	6:N:619:LEU:HD13	1.75	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:433:THR:HG22	5:C:437:ARG:HH11	1.58	0.67
5:C:630:ARG:HA	5:C:705:ILE:HD13	1.77	0.67
5:C:1050:GLN:HE22	6:D:1471:LEU:HB2	1.59	0.67
6:D:786:ILE:HG21	6:D:1027:GLY:H	1.58	0.67
6:D:952:ASP:HA	6:D:1062:ARG:HH21	1.60	0.67
6:D:1101:VAL:CG2	6:D:1424:VAL:HG23	2.23	0.67
6:N:524:LEU:O	6:N:526:PRO:HD3	1.95	0.67
6:N:814:ALA:O	6:N:818:ARG:HG3	1.95	0.67
6:N:1124:GLN:NE2	6:N:1135:ARG:HA	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1434:TRP:CZ3	6:N:1457:ASP:HB2	2.29	0.67
5:C:909:ALA:HB1	5:C:914:ILE:HD11	1.76	0.67
6:D:455:ARG:HB2	6:D:460:ALA:CA	2.25	0.67
6:D:610:LYS:O	6:D:615:ARG:HD3	1.93	0.67
6:D:654:LYS:HB3	6:D:655:PRO:HD3	1.77	0.67
5:M:549:PHE:CD1	5:M:886:LEU:HD23	2.30	0.67
6:N:483:HIS:HB2	6:N:484:PRO:HD3	1.76	0.67
4:B:58:ILE:HB	4:B:61:VAL:HB	1.76	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
5:M:805:ARG:HD3	5:M:823:VAL:HG22	1.75	0.67
6:N:131:LYS:HD3	6:N:456:MET:SD	2.35	0.67
6:N:520:LEU:HD21	6:N:524:LEU:HD23	1.76	0.67
5:M:252:LYS:HA	11:M:1276:HOH:O	1.95	0.67
6:N:394:LEU:HD21	6:N:445:ARG:HH22	1.58	0.67
6:N:1201:CYS:SG	6:N:1204:CYS:HB2	2.35	0.67
4:B:206:THR:HG22	4:B:209:GLU:H	1.59	0.67
5:C:443:THR:HG22	5:C:453:THR:HB	1.77	0.67
6:D:134:VAL:HB	6:D:464:LEU:HD11	1.75	0.67
6:D:396:VAL:O	6:D:398:ALA:N	2.25	0.67
6:D:715:ALA:HB3	6:D:764:LEU:HA	1.76	0.67
6:D:1393:GLN:OE1	6:D:1394:VAL:HG23	1.95	0.67
5:M:1115:LEU:HB3	6:N:89:ARG:NH1	2.10	0.67
6:N:908:LYS:HB2	6:N:1027:GLY:HA3	1.76	0.67
6:N:971:LEU:O	6:N:975:GLU:HG2	1.94	0.67
5:C:872:ASN:HD22	5:C:872:ASN:C	1.99	0.67
6:D:101:HIS:HD1	6:D:103:TRP:HB2	1.59	0.67
6:D:1498:ALA:HB2	7:E:88:GLU:OE1	1.95	0.67
4:K:1:MET:SD	4:K:5:LYS:HB3	2.35	0.67
5:M:971:LYS:HA	5:M:988:VAL:HA	1.76	0.67
6:N:1340:GLY:O	6:N:1344:VAL:HG23	1.94	0.67
6:N:1480:PHE:HB2	11:N:9408:HOH:O	1.94	0.67
1:G:17:DC:H4'	6:D:628:ARG:CZ	2.25	0.67
6:D:963:TYR:CE2	6:D:1002:LYS:HB3	2.29	0.67
6:D:1465:ASN:ND2	6:D:1470:ARG:HB3	2.09	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
5:M:552:HIS:CD2	5:M:886:LEU:HD22	2.30	0.67
6:N:1267:ARG:HG3	6:N:1271:LYS:HZ3	1.59	0.67
1:G:18:DG:O3'	5:C:1001:VAL:HB	1.94	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)
5:C:5:ARG:NE	5:C:8:ARG:HH22	1.93	0.66
5:C:244:PRO:HG3	11:C:1490:HOH:O	1.95	0.66
5:C:518:LYS:O	5:C:520:GLU:HG2	1.95	0.66
5:C:884:GLN:HB3	5:C:992:MET:HE1	1.75	0.66
6:D:38:LYS:NZ	6:D:59:ALA:HB1	2.09	0.66
6:D:127:LEU:HD12	6:D:128:TYR:N	2.10	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:D:584:ASN:HB2	6:D:602:SER:HB3	1.78	0.66
6:D:786:ILE:HG21	6:D:1027:GLY:N	2.10	0.66
6:D:1252:ILE:O	6:D:1256:LEU:HD12	1.95	0.66
5:M:473:ARG:HA	5:M:531:PHE:HD1	1.60	0.66
6:N:1346:ARG:HD3	11:N:9293:HOH:O	1.95	0.66
1:G:14:DT:H2''	1:G:15:DC:H5'	1.76	0.66
4:A:79:ILE:HA	4:A:82:LEU:HD12	1.77	0.66
5:C:270:GLY:O	5:C:274:ARG:HB3	1.96	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:M:45:GLN:HB2	5:M:71:TYR:CE2	2.31	0.66
5:M:433:THR:HG22	5:M:437:ARG:NH1	2.10	0.66
5:M:561:GLY:O	5:M:564:MET:HG3	1.95	0.66
5:M:764:GLU:HB2	6:N:54:LYS:HD3	1.77	0.66
6:N:1121:PRO:HD2	6:N:1346:ARG:NH2	2.09	0.66
5:C:435:TYR:CE1	5:C:539:VAL:HG22	2.31	0.66
5:C:494:TYR:HB3	11:C:1172:HOH:O	1.96	0.66
5:C:1103:ASP:HB3	5:C:1105:LYS:HZ1	1.59	0.66
6:D:480:GLU:O	6:D:484:PRO:HD2	1.96	0.66
5:M:251:ASP:HB3	5:M:252:LYS:HD2	1.78	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
6:N:1000:THR:O	6:N:1003:VAL:HG12	1.95	0.66
5:C:313:LEU:HB2	5:C:321:GLU:HG3	1.76	0.66
5:C:315:ALA:HB3	11:C:1454:HOH:O	1.94	0.66
5:M:102:HIS:HB2	5:M:106:GLY:O	1.95	0.66
5:M:288:ARG:HG3	11:M:1542:HOH:O	1.94	0.66
5:M:841:ASN:ND2	5:M:844:GLY:H	1.93	0.66
6:N:800:LYS:NZ	6:N:804:LEU:HD13	2.11	0.66
6:N:813:LEU:O	6:N:817:GLU:HB2	1.96	0.66
6:N:1266:ARG:HG2	6:N:1267:ARG:N	2.10	0.66
5:C:516:ARG:HD2	5:C:521:PRO:HA	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:52:PRO:HG2	6:D:80:VAL:HG13	1.76	0.66
6:N:900:ILE:HG22	6:N:914:LEU:HD11	1.75	0.66
6:N:1111:ASP:HB2	6:N:1203:LYS:HZ1	1.60	0.66
5:C:151:ASP:HB2	5:C:157:ARG:O	1.95	0.66
5:C:987:ILE:HG13	11:C:1149:HOH:O	1.94	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
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
5:M:861:LEU:HD13	5:M:865:THR:CG2	2.25	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
4:A:14:ARG:HH22	4:A:24:VAL:HG23	1.61	0.66
4:B:125:PRO:HD2	11:B:346:HOH:O	1.94	0.66
5:C:629:TYR:HA	11:C:1337:HOH:O	1.96	0.66
5:C:1091:GLU:OE1	6:D:613:ARG:HG2	1.96	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:M:443:THR:HG21	6:N:1078:ARG:NE	2.10	0.66
5:M:689:VAL:HG12	5:M:690:ILE:N	2.11	0.66
6:N:1111:ASP:HB2	6:N:1203:LYS:NZ	2.11	0.66
5:C:236:ILE:HG13	11:C:1121:HOH:O	1.96	0.66
5:C:244:PRO:HD2	5:C:245:GLY:H	1.60	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
4:K:124:ASN:HD22	4:K:127:LEU:HD22	1.60	0.66
5:M:473:ARG:HA	5:M:531:PHE:CD1	2.30	0.66
5:M:810:ASP:OD2	5:M:815:LEU:HD22	1.96	0.66
6:N:396:VAL:HG12	6:N:447:VAL:HA	1.76	0.66
6:N:542:ASP:HA	6:N:545:ARG:HE	1.60	0.66
7:O:45:ARG:HG2	7:O:46:PRO:CD	2.24	0.66
2:H:6:U:H5'	11:H:45:HOH:O	1.94	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
5:C:755:LEU:HD21	5:C:792:VAL:HG22	1.75	0.66
5:C:838:LYS:HG3	5:C:997:LEU:HB2	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
6:D:1252:ILE:HA	11:D:8219:HOH:O	1.96	0.66
6:D:1396:GLU:HA	6:D:1399:ASP:OD2	1.96	0.66
4:L:221:HIS:HB3	11:L:365:HOH:O	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:267:TYR:HB2	5:M:272:ALA:HB1	1.78	0.66
5:M:979:THR:HG23	5:M:981:GLU:H	1.60	0.66
6:N:1044:LEU:HD22	6:N:1052:THR:HG22	1.76	0.66
4:A:117:VAL:HB	4:A:120:VAL:CG1	2.26	0.66
5:C:12:VAL:HG13	5:C:13:ILE:HG12	1.78	0.66
5:C:69:LEU:HD13	5:C:109:LYS:HE3	1.78	0.66
6:D:481:MET:HE2	6:D:493:ARG:HB2	1.76	0.66
6:D:1089:ALA:HB3	11:D:8250:HOH:O	1.95	0.66
6:D:1189:ARG:HB3	6:D:1204:CYS:HA	1.78	0.66
5:M:553:ASP:HA	5:M:881:ASN:HA	1.78	0.66
5:M:861:LEU:HD23	5:M:863:ASP:H	1.61	0.66
5:M:928:LYS:NZ	5:M:932:GLU:HG3	2.10	0.66
6:N:468:LEU:HB3	11:N:9068:HOH:O	1.96	0.66
6:N:618:LEU:HB3	6:N:619:LEU:HD23	1.78	0.66
6:N:1151:ARG:HG2	6:N:1187:PRO:HB2	1.77	0.66
5:C:83:CYS:HA	5:C:88:LEU:HB2	1.78	0.65
6:D:890:VAL:HG11	6:D:922:LEU:HD13	1.78	0.65
6:D:1329:ALA:O	6:D:1330:ILE:HD12	1.96	0.65
4:K:198:ARG:HH22	5:M:932:GLU:HB3	1.61	0.65
5:M:200:LEU:HD13	5:M:300:ASP:CG	2.16	0.65
5:M:502:PRO:HB2	5:M:509:ALA:HB3	1.77	0.65
5:M:690:ILE:CD1	5:M:833:LEU:HD23	2.26	0.65
6:N:413:ASP:O	6:N:435:VAL:HG23	1.96	0.65
6:N:553:ARG:O	6:N:557:LEU:HG	1.96	0.65
7:O:27:ALA:HB2	7:O:61:VAL:HG12	1.77	0.65
5:C:608:GLY:C	5:C:609:ASN:HD22	1.99	0.65
5:C:676:ILE:CG2	5:C:988:VAL:HG13	2.27	0.65
6:D:761:ILE:HG23	7:E:6:ILE:HD11	1.78	0.65
5:M:98:LEU:HD13	5:M:110:GLU:O	1.95	0.65
6:N:769:LEU:HD12	6:N:770:LEU:HG	1.77	0.65
6:N:917:GLN:O	6:N:921:ARG:HG2	1.96	0.65
6:N:1148:VAL:HB	6:N:1203:LYS:O	1.96	0.65
6:N:1342:GLU:HA	11:N:9208:HOH:O	1.96	0.65
5:C:52:PHE:CD2	5:C:68:PHE:HB2	2.31	0.65
5:C:194:VAL:HA	5:C:197:LEU:HD12	1.78	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
6:D:796:ARG:HH21	6:D:828:LYS:HE2	1.61	0.65
5:M:689:VAL:HB	5:M:870:ILE:HG13	1.78	0.65
5:M:911:GLU:O	5:M:915:LYS:HG2	1.96	0.65
6:N:788:GLY:O	6:N:792:ILE:HG22	1.95	0.65

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:54:THR:HG22	4:B:158:ILE:HG13	1.78	0.65
5:C:1060:ILE:HG23	5:C:1061:GLU:H	1.62	0.65
6:D:50:PHE:HB3	6:D:522:PRO:HG3	1.79	0.65
4:K:27:PRO:HG2	4:K:186:LEU:HD13	1.77	0.65
6:N:74:GLU:HB3	6:N:75:ARG:NH2	2.12	0.65
6:N:876:SER:O	6:N:880:ILE:HG12	1.97	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
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
6:D:1084:THR:OG1	6:D:1238:MET:HA	1.96	0.65
7:E:27:ALA:HB2	7:E:61:VAL:HG12	1.79	0.65
5:M:1056:LYS:HB3	6:N:624:ASP:H	1.60	0.65
6:N:131:LYS:HG2	6:N:568:ARG:HG2	1.79	0.65
6:N:948:THR:HB	11:N:9020:HOH:O	1.97	0.65
6:D:882:PHE:HA	6:D:885:ILE:HD12	1.79	0.64
6:D:895:VAL:O	6:D:899:LEU:HG	1.97	0.64
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
5:C:343:GLN:HA	5:C:343:GLN:NE2	2.11	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: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
4:B:25:LEU:O	4:B:28:LEU:HD21	1.97	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
5:C:525:SER:HB2	5:C:527:GLU:HG3	1.79	0.64
6:D:141:ILE:HD13	6:D:450:TYR:HB3	1.79	0.64
6:D:484:PRO:CB	6:D:488:ARG:HE	2.07	0.64
6:D:1101:VAL:HG21	6:D:1424:VAL:HG23	1.78	0.64
7:E:48:MET:HB2	7:E:54:LEU:HD12	1.80	0.64
4:K:52:ALA:HA	11:K:1094:HOH:O	1.96	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
6:N:762:GLN:HA	11:N:9032:HOH:O	1.97	0.64
6:N:793:THR:HB	6:N:879:ARG:CD	2.25	0.64
6:N:996:TRP:O	6:N:1000:THR:HG22	1.96	0.64
6:N:1087:ARG:HB3	6:N:1256:LEU:HD22	1.79	0.64
4:A:48:ILE:HD12	4:A:174:VAL:HG21	1.78	0.64
5:C:146:VAL:HG22	5:C:162:ILE:HG23	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:609:ASN:HD22	5:C:609:ASN:N	1.94	0.64
6:D:119:SER:OG	6:D:123:LEU:HD13	1.96	0.64
6:D:402:PRO:HA	6:D:443:VAL:HG23	1.80	0.64
6:D:792:ILE:HG23	6:D:793:THR:HG23	1.79	0.64
6:D:804:LEU:HB2	6:D:830:ALA:O	1.98	0.64
6:D:1209:LEU:HD21	7:E:16:LYS:NZ	2.12	0.64
4:K:30:ARG:HH22	5:M:938:LYS:HD2	1.63	0.64
5:M:140:ILE:HA	5:M:332:ARG:O	1.97	0.64
5:M:542:VAL:HG23	11:M:1602:HOH:O	1.96	0.64
3:Z:8:DA:H1'	3:Z:9:DG:H5'	1.79	0.64
4:A:12:THR:OG1	4:A:24:VAL:HB	1.97	0.64
4:A:36:LEU:O	4:A:40:LEU:HG	1.97	0.64
4:A:71:VAL:HG22	4:A:132:LEU:HG	1.78	0.64
4:B:59:GLU:HG3	4:B:139:ASN:HD22	1.61	0.64
4:L:138:LEU:HD12	11:L:362:HOH:O	1.98	0.64
4:L:177:VAL:HG12	4:L:199:ILE:HG12	1.79	0.64
5:M:29:ALA:O	5:M:44:ILE:HG12	1.96	0.64
5:M:362:GLY:HA3	5:M:367:LEU:HD23	1.78	0.64
5:M:836:GLY:HA3	6:N:724:GLN:NE2	2.12	0.64
6:N:15:PRO:HA	6:N:18:ILE:HG12	1.79	0.64
6:N:396:VAL:HG12	6:N:398:ALA:HB2	1.80	0.64
6:N:786:ILE:HD13	6:N:1027:GLY:HA3	1.78	0.64
2:H:9:G:O2'	2:H:10:G:H5'	1.97	0.64
11:A:362:HOH:O	5:C:832:LYS:HD2	1.98	0.64
4:B:212:ASN:O	4:B:215:VAL:HG22	1.97	0.64
5:C:124:ASP:OD2	5:C:592:LEU:HB2	1.97	0.64
5:C:204:GLN:OE1	5:C:221:LEU:HD12	1.97	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
6:D:813:LEU:HD21	11:D:8233:HOH:O	1.97	0.64
6:D:823:LEU:HD23	6:D:823:LEU:O	1.98	0.64
5:M:684:PHE:CD2	5:M:685:GLU:HG2	2.33	0.64
6:N:1422:MET:SD	6:N:1426:LYS:HB3	2.37	0.64
7:O:47:LYS:HA	7:O:54:LEU:HB3	1.80	0.64
5:C:839:LEU:HD22	5:C:996:LYS:HA	1.80	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
6:D:973:GLN:HB3	11:D:8398:HOH:O	1.96	0.64
4:L:59:GLU:HG3	4:L:137:ARG:HH22	1.63	0.64
5:M:265:ARG:NH2	5:M:332:ARG:HH22	1.95	0.64
6:N:91:GLY:O	6:N:519:VAL:N	2.21	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:554:LEU:O	6:N:558:LEU:HG	1.96	0.64
6:D:860:LEU:HD23	6:D:877:PRO:HB2	1.79	0.64
6:D:1087:ARG:HD2	6:D:1256:LEU:HD13	1.78	0.64
6:D:1471:LEU:HD23	11:D:8477:HOH:O	1.98	0.64
6:D:1485:GLN:NE2	7:E:79:LEU:H	1.96	0.64
5:M:100:LEU:HD23	5:M:368:THR:HA	1.80	0.64
6:N:17:LYS:HA	6:N:20:SER:HB3	1.80	0.64
6:N:41:ARG:HD3	6:N:42:ASP:N	2.13	0.64
6:N:679:ARG:HB2	6:N:682:ASP:OD2	1.98	0.64
6:N:1380:GLU:HG3	6:N:1381:VAL:N	2.13	0.64
6:N:1415:VAL:HB	11:N:9268:HOH:O	1.96	0.64
5:C:18:LEU:H	5:C:18:LEU:HD12	1.61	0.64
5:C:194:VAL:HG21	5:C:221:LEU:O	1.97	0.64
5:C:872:ASN:HD22	5:C:873:PRO:N	1.95	0.64
6:D:18:ILE:HG23	6:D:518:PRO:HG3	1.80	0.64
6:D:496:LEU:HD21	6:D:1388:ARG:HG3	1.79	0.64
6:D:1044:LEU:HD21	6:D:1053:PHE:O	1.98	0.64
5:M:9:ILE:HG21	11:M:1490:HOH:O	1.98	0.64
5:M:170:PRO:HG2	11:M:1194:HOH:O	1.98	0.64
5:M:410:ILE:HD11	5:M:455:LEU:HB3	1.79	0.64
5:M:1005:MET:HB2	6:N:648:MET:HE1	1.78	0.64
6:N:29:PRO:HG3	6:N:549:ASN:HD21	1.61	0.64
5:C:9:ILE:HG13	5:C:907:ASP:OD2	1.98	0.64
6:D:136:ASP:CG	6:D:463:GLN:HB3	2.18	0.64
6:D:486:ARG:HA	6:D:489:ARG:CG	2.28	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
5:M:906:PHE:CD1	6:N:1067:VAL:HG22	2.33	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
4:A:206:THR:HG22	4:A:209:GLU:H	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
4:K:117:VAL:HB	4:K:120:VAL:CG1	2.26	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:M:598:GLU:O	5:M:651:LYS:HG3	1.98	0.63
6:N:792:ILE:HD13	6:N:793:THR:HG22	1.80	0.63
6:N:1491:THR:O	6:N:1495:ILE:HD13	1.98	0.63
4:B:42:ARG:NH1	4:B:42:ARG:HA	2.13	0.63
5:C:694:LEU:HD21	5:C:868:ASP:HB3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:440:VAL:HB	6:D:441:ARG:HH21	1.61	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:N:887:ALA:HB1	6:N:893:GLU:CG	2.27	0.63
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
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
5:C:1031:ARG:NH2	6:D:621:LYS:HG3	2.13	0.63
6:D:1119:SER:HA	6:D:1186:VAL:O	1.99	0.63
4:K:156:HIS:CD2	4:K:158:ILE:HG12	2.34	0.63
5:M:861:LEU:HD13	5:M:865:THR:HG23	1.79	0.63
6:N:474:GLU:O	6:N:478:LEU:HG	1.98	0.63
6:N:760:ARG:HH11	7:O:61:VAL:CG2	2.11	0.63
7:O:41:GLU:HB2	7:O:45:ARG:CZ	2.27	0.63
5:C:284:ARG:HG3	5:C:285:LEU:H	1.64	0.63
5:C:631:SER:HB3	5:C:637:LEU:HD11	1.79	0.63
6:D:610:LYS:HA	6:D:615:ARG:HD3	1.80	0.63
6:D:632:VAL:HG22	11:D:8291:HOH:O	1.99	0.63
6:D:705:ALA:HB3	6:D:706:PRO:HD3	1.80	0.63
6:D:1412:LYS:O	6:D:1414:PRO:HD3	1.99	0.63
5:M:395:LYS:HD3	5:M:397:GLU:OE2	1.99	0.63
5:M:549:PHE:CD2	5:M:886:LEU:HB3	2.33	0.63
6:N:799:LYS:O	6:N:826:PRO:HD2	1.98	0.63
6:N:806:PHE:CE1	6:N:813:LEU:HB3	2.34	0.63
1:X:17:DC:H5''	5:M:1030:GLN:NE2	2.14	0.63
2:Y:7:G:H2'	2:Y:7:G:N3	2.12	0.63
2:Y:12:G:H2'	2:Y:13:C:H6	1.64	0.63
2:Y:12:G:O2'	2:Y:13:C:H5'	1.98	0.63
5:C:143:SER:CB	5:C:276:LYS:HZ3	2.10	0.63
5:C:874:LEU:HG	6:D:1023:MET:SD	2.39	0.63
6:D:1185:GLU:HG2	6:N:559:ALA:HB1	1.80	0.63
5:M:352:ALA:HA	5:M:355:VAL:HG12	1.80	0.63
5:M:729:LEU:HD13	6:N:675:ARG:CZ	2.29	0.63
6:N:98:PRO:HA	11:N:9070:HOH:O	1.97	0.63
6:N:654:LYS:O	6:N:658:LEU:HG	1.98	0.63
6:N:1109:GLU:OE1	6:N:1201:CYS:HB2	1.98	0.63
6:N:1402:ALA:HA	11:N:9043:HOH:O	1.98	0.63
5:C:100:LEU:HD22	5:C:372:LEU:HD22	1.81	0.63
5:C:410:ILE:HG21	5:C:438:ILE:HD11	1.79	0.63
5:C:437:ARG:HB3	5:C:467:ILE:HB	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:805:ARG:HD3	5:C:807:ARG:HG3	1.81	0.63
6:D:82:LYS:HB3	6:D:84:ILE:HG12	1.79	0.63
6:D:657:LEU:HD22	6:D:691:LEU:HD23	1.81	0.63
6:D:1047:LYS:HG2	6:D:1053:PHE:CZ	2.33	0.63
5:M:146:VAL:HG12	5:M:162:ILE:HG12	1.81	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
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
5:C:408:ARG:HG3	5:C:455:LEU:H	1.64	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
6:D:119:SER:H	6:D:123:LEU:CD2	2.11	0.63
6:D:704:ARG:HD3	6:D:738:ALA:HB2	1.79	0.63
7:E:54:LEU:HG	7:E:58:PRO:CG	2.28	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
4:A:220:GLU:O	4:A:223:THR:HG22	1.99	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
5:C:670:GLN:NE2	5:C:699:PHE:O	2.30	0.63
5:C:672:VAL:HG12	5:C:699:PHE:CE1	2.34	0.63
5:C:690:ILE:CD1	5:C:833:LEU:HD23	2.29	0.63
6:D:614:PHE:CZ	6:D:1438:ALA:HB1	2.34	0.63
4:K:12:THR:OG1	4:K:24:VAL:HB	1.99	0.63
5:M:176:VAL:HG12	5:M:182:VAL:HG12	1.80	0.63
5:M:693:GLU:HA	5:M:696:LYS:HD2	1.80	0.63
6:N:675:ARG:HA	6:N:678:GLU:HG2	1.80	0.63
6:N:696:HIS:HD2	7:O:59:ASN:HB2	1.64	0.63
6:N:1049:SER:O	6:N:1079:LYS:HE3	1.98	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:753:SER:HB2	11:D:8449:HOH:O	1.98	0.63
6:D:793:THR:O	6:D:879:ARG:HD3	1.99	0.63
7:E:48:MET:N	7:E:54:LEU:HB2	2.14	0.63
5:M:290:LEU:HD23	5:M:290:LEU:H	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:10:ARG:HA	5:C:10:ARG:NH1	2.12	0.62
5:C:98:LEU:O	5:C:109:LYS:HD2	1.99	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:M:580:MET:HB3	5:M:584:GLU:OE1	1.99	0.62
6:N:131:LYS:HE2	6:N:564:GLU:OE1	1.98	0.62
6:N:1440:PHE:HB3	11:N:9289:HOH:O	1.99	0.62
2:H:6:U:C2'	2:H:7:G:C8	2.82	0.62
1:X:14:DT:H3'	6:N:610:LYS:NZ	2.14	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
5:C:882:LEU:HD23	5:C:885:ILE:HB	1.81	0.62
6:D:455:ARG:CZ	6:D:463:GLN:HG3	2.29	0.62
6:D:891:GLU:HB2	11:D:8407:HOH:O	1.98	0.62
6:D:1267:ARG:HB2	6:D:1267:ARG:HH11	1.64	0.62
6:D:1364:HIS:ND1	6:D:1366:LYS:HG3	2.14	0.62
7:E:70:THR:HB	7:E:72:ARG:HG2	1.81	0.62
5:M:304:LEU:HG	5:M:308:ARG:HH21	1.64	0.62
6:N:165:LYS:HA	6:N:199:LEU:HD22	1.81	0.62
4:B:20:TYR:OH	4:B:198:ARG:HD2	1.98	0.62
5:C:750:LYS:HD3	6:D:681:ARG:HD3	1.81	0.62
5:C:775:ARG:HD2	5:C:782:ALA:HB3	1.80	0.62
5:C:840:ALA:HB2	5:C:846:LYS:HG3	1.79	0.62
5:C:1037:VAL:O	5:C:1041:GLU:HG3	1.99	0.62
6:D:143:ASN:ND2	6:D:145:VAL:HG12	2.10	0.62
6:D:175:VAL:HG11	11:D:8081:HOH:O	1.99	0.62
6:D:1029:ARG:HH22	10:D:3999:APC:PG	2.22	0.62
6:D:1437:ALA:O	6:D:1446:VAL:HG21	1.99	0.62
4:K:180:GLN:HE22	5:M:937:ASP:HA	1.65	0.62
5:M:44:ILE:HG23	5:M:344:PHE:HE1	1.64	0.62
5:M:576:ALA:HB3	5:M:900:ARG:NH1	2.13	0.62
5:M:906:PHE:CE1	6:N:1067:VAL:HA	2.35	0.62
6:N:95:LEU:HB2	11:N:9070:HOH:O	1.99	0.62
6:N:1219:GLU:HG2	6:N:1221:VAL:HG23	1.81	0.62
2:H:9:G:H2'	2:H:10:G:H8	1.63	0.62
5:C:720:GLU:HG2	5:C:760:SER:HB3	1.82	0.62
6:D:574:LEU:O	6:D:578:VAL:HG23	1.98	0.62
6:D:1000:THR:O	6:D:1003:VAL:HG12	1.99	0.62
7:E:54:LEU:HD23	7:E:54:LEU:O	2.00	0.62
4:L:211:LEU:O	4:L:215:VAL:HG13	2.00	0.62
5:M:307:LEU:HG	5:M:311:PHE:CE2	2.34	0.62
5:M:468:ARG:HE	5:M:487:THR:N	1.98	0.62
5:M:807:ARG:H	5:M:807:ARG:NE	1.96	0.62
5:M:1098:ASP:HB2	6:N:21:TRP:HZ2	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:895:VAL:O	6:N:899:LEU:HG	2.00	0.62
6:N:1051:GLU:HG3	6:N:1051:GLU:O	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:D:660:LYS:HD2	6:D:694:VAL:HG22	1.80	0.62
6:D:853:VAL:HG11	6:D:860:LEU:HG	1.81	0.62
6:D:1083:ASP:OD1	6:D:1252:ILE:HD12	2.00	0.62
5:M:135:VAL:HG11	5:M:407:LYS:HA	1.81	0.62
5:M:537:LYS:HE3	5:M:905:ILE:HD13	1.81	0.62
5:M:759:THR:HA	5:M:786:LYS:O	2.00	0.62
6:N:172:PRO:HG2	6:N:175:VAL:HG21	1.82	0.62
6:N:1125:PRO:HB3	6:N:1130:ARG:HH22	1.64	0.62
1:X:20:DG:H3'	11:X:610:HOH:O	2.00	0.62
2:Y:6:U:C2'	2:Y:7:G:C8	2.82	0.62
5:C:573:ARG:HB2	5:C:573:ARG:NH1	2.13	0.62
5:C:798:GLY:H	5:C:827:VAL:CG1	2.13	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
6:D:1495:ILE:HG21	7:E:80:VAL:HG13	1.82	0.62
4:L:58:ILE:CG2	4:L:61:VAL:HB	2.29	0.62
5:M:1090:LYS:HG2	5:M:1112:PHE:HZ	1.65	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:N:764:LEU:HD12	6:N:765:SER:N	2.14	0.62
6:N:1424:VAL:HG13	6:N:1425:THR:N	2.14	0.62
7:O:41:GLU:HG2	7:O:42:PRO:HD3	1.82	0.62
1:X:14:DT:H2''	1:X:15:DC:H5'	1.80	0.62
2:Y:1:G:O6	5:M:773:LEU:HD12	2.00	0.62
5:C:162:ILE:HD11	5:C:306:THR:HG21	1.82	0.62
5:C:329:GLY:N	5:C:488:ALA:HB3	2.13	0.62
5:C:410:ILE:O	5:C:452:ILE:HA	1.99	0.62
5:C:436:GLY:HA2	5:C:538:GLN:O	1.99	0.62
6:D:792:ILE:O	6:D:878:GLY:HA3	1.99	0.62
5:M:120:LEU:HD22	5:M:121:MET:N	2.11	0.62
5:M:273:GLY:HA2	5:M:276:LYS:HE3	1.80	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
5:M:1087:VAL:HG23	6:N:524:LEU:HD11	1.80	0.62
6:N:1146:GLY:O	6:N:1207:TYR:HB2	2.00	0.62
5:C:554:ASP:HB2	6:D:1061:PHE:HE2	1.65	0.62
5:C:674:VAL:HG23	5:C:869:VAL:HG13	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:N:741:ASP:O	6:N:743:ASP:N	2.29	0.62
2:Y:7:G:C2	5:M:1014:SER:HA	2.33	0.62
5:C:862:PRO:HD2	5:C:925:TYR:OH	2.00	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
6:N:639:LEU:HB3	11:N:9466:HOH:O	1.98	0.62
11:N:9137:HOH:O	7:O:17:TYR:HB2	1.99	0.62
7:O:86:GLN:O	7:O:90:GLU:HG3	2.00	0.62
2:Y:10:G:H2'	2:Y:11:C:H6	1.64	0.62
5:C:830:LYS:HD3	5:C:832:LYS:HE2	1.82	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
6:N:1121:PRO:HD3	6:N:1346:ARG:HE	1.63	0.62
4:B:78:ILE:O	4:B:82:LEU:HG	2.00	0.61
5:C:101:ILE:HG23	5:C:107:LEU:HD22	1.82	0.61
6:D:550:ARG:HE	6:D:550:ARG:CA	2.11	0.61
4:K:58:ILE:HB	4:K:61:VAL:HB	1.82	0.61
5:M:23:VAL:HA	5:M:121:MET:HE1	1.81	0.61
5:M:265:ARG:HB3	5:M:267:TYR:CE2	2.35	0.61
5:M:928:LYS:HZ2	5:M:932:GLU:HG3	1.65	0.61
6:N:41:ARG:HD3	6:N:42:ASP:HB2	1.80	0.61
6:N:626:SER:HB2	6:N:748:HIS:CE1	2.34	0.61
6:N:902:LEU:HD23	6:N:902:LEU:H	1.65	0.61
4:B:102:LYS:NZ	4:B:139:ASN:HB2	2.14	0.61
5:C:343:GLN:HB2	5:C:385:PHE:CE2	2.34	0.61
5:M:198:ARG:NH1	5:M:231:PRO:HG3	2.15	0.61
5:M:1030:GLN:NE2	6:N:628:ARG:HD3	2.15	0.61
6:N:583:ASP:OD2	6:N:604:THR:HG21	1.99	0.61
6:N:1036:ARG:NH1	6:N:1036:ARG:HB3	2.15	0.61
5:C:456:ALA:HB1	5:C:538:GLN:O	1.99	0.61
6:D:440:VAL:HB	6:D:441:ARG:HE	1.63	0.61
6:D:544:TYR:O	6:D:548:ILE:HG12	2.00	0.61
6:D:762:GLN:HB2	7:E:16:LYS:HE2	1.82	0.61
5:M:83:CYS:HG	5:M:90:TYR:HD2	1.47	0.61
4:A:41:ARG:O	4:A:45:LEU:HD13	2.00	0.61
5:C:7:GLY:C	5:C:8:ARG:HD2	2.20	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:436:GLY:HA3	5:C:538:GLN:OE1	2.01	0.61
6:D:101:HIS:ND1	6:D:103:TRP:HB2	2.15	0.61
6:D:559:ALA:HB2	11:D:8141:HOH:O	1.98	0.61
6:D:707:THR:HG23	6:D:712:GLY:HA3	1.81	0.61
5:M:30:LEU:HA	5:M:44:ILE:HG12	1.80	0.61
11:M:1524:HOH:O	6:N:621:LYS:HE3	2.00	0.61
2:H:13:C:H2'	2:H:14:G:H8	1.65	0.61
4:B:47:SER:OG	4:B:48:ILE:HD12	1.99	0.61
5:C:400:PRO:HG2	5:C:593:ALA:HB2	1.82	0.61
5:C:672:VAL:HG12	5:C:699:PHE:HE1	1.65	0.61
5:C:1076:VAL:HG21	11:D:8371:HOH:O	1.99	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
6:D:1101:VAL:HG13	6:D:1427:SER:OG	2.00	0.61
6:D:1219:GLU:HA	7:E:17:TYR:HE2	1.65	0.61
6:D:1267:ARG:HH11	6:D:1267:ARG:CB	2.13	0.61
5:M:909:ALA:HB1	5:M:914:ILE:HD11	1.81	0.61
4:A:181:VAL:HG11	11:A:382:HOH:O	2.01	0.61
4:A:182:GLU:O	4:A:194:LYS:HB3	2.00	0.61
5:C:79:PRO:HG2	5:C:82:GLU:HB2	1.80	0.61
5:C:464:LEU:O	5:C:466:PHE:N	2.34	0.61
6:D:10:ILE:HD12	6:D:1450:ALA:HB3	1.82	0.61
6:D:1493:LYS:O	6:D:1497:GLU:HG2	2.01	0.61
4:K:90:LEU:HB2	4:K:119:ASP:OD2	2.01	0.61
5:M:759:THR:HB	5:M:785:VAL:CG2	2.31	0.61
6:N:584:ASN:ND2	6:N:590:PRO:HD2	2.16	0.61
2:Y:4:U:H2'	2:Y:5:C:C6	2.36	0.61
4:B:133:GLU:OE1	4:B:133:GLU:HA	2.00	0.61
5:C:99:GLN:HB3	5:C:109:LYS:HD3	1.81	0.61
5:C:857:ASP:CB	5:C:978:ARG:HG2	2.31	0.61
6:D:724:GLN:HG3	6:D:725:SER:N	2.14	0.61
6:D:955:VAL:HG11	6:D:1015:TYR:HE2	1.66	0.61
4:L:78:ILE:O	4:L:82:LEU:HG	2.00	0.61
5:M:110:GLU:N	5:M:368:THR:HG21	2.14	0.61
5:C:198:ARG:HD2	5:C:204:GLN:NE2	2.15	0.61
5:C:398:THR:HG21	5:C:567:GLN:HA	1.83	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
5:M:408:ARG:NE	5:M:455:LEU:HD11	2.15	0.61
5:M:694:LEU:HD21	5:M:868:ASP:HB3	1.83	0.61
6:N:50:PHE:CD2	6:N:522:PRO:HD3	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:N:9036:HOH:O	7:O:89:MET:HE1	1.99	0.61
5:C:318:PRO:HD2	5:C:321:GLU:OE1	2.01	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
5:C:1060:ILE:HG22	5:C:1086:ARG:NH2	2.15	0.61
6:D:393:ILE:HD13	11:D:8118:HOH:O	2.01	0.61
6:D:615:ARG:HH22	6:D:1096:ARG:HD2	1.64	0.61
6:D:633:VAL:HB	6:D:740:PHE:CE1	2.36	0.61
5:M:113:VAL:HG11	5:M:373:VAL:HG11	1.81	0.61
5:M:232:GLU:HB3	11:M:1516:HOH:O	1.99	0.61
5:M:524:VAL:CG1	5:M:528:GLU:HB2	2.31	0.61
5:M:676:ILE:CG2	5:M:988:VAL:HG13	2.31	0.61
6:N:135:LEU:HA	6:N:453:ASP:O	2.01	0.61
6:N:507:ASN:HD22	6:N:507:ASN:N	1.90	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
4:A:39:PRO:O	4:A:43:ILE:HG12	1.99	0.61
5:C:252:LYS:HB3	5:C:298:PHE:HZ	1.65	0.61
5:C:267:TYR:HB2	5:C:272:ALA:HB1	1.82	0.61
5:C:578:VAL:HG21	5:C:991:GLN:O	2.01	0.61
5:C:911:GLU:O	5:C:915:LYS:HG2	2.00	0.61
6:D:19:ARG:HH21	6:D:516:ALA:HB2	1.64	0.61
4:K:41:ARG:HH21	5:M:977:GLY:HA2	1.65	0.61
5:M:554:ASP:HB3	5:M:880:MET:O	2.01	0.61
5:M:816:LYS:HB2	5:M:819:VAL:HG21	1.83	0.61
5:M:983:ILE:HG21	5:M:987:ILE:HD12	1.80	0.61
7:O:30:LEU:O	7:O:35:PHE:HA	2.01	0.61
4:A:124:ASN:ND2	4:A:127:LEU:HD22	2.16	0.60
4:A:225:PHE:CE1	4:B:40:LEU:HD11	2.35	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
6:N:619:LEU:HD12	6:N:621:LYS:HZ3	1.66	0.60
6:N:780:LYS:HD3	6:N:912:LYS:HE3	1.82	0.60
4:B:115:LEU:HB3	11:B:371:HOH:O	2.01	0.60
5:C:597:ALA:HA	5:C:655:LEU:HD11	1.83	0.60
5:C:626:ARG:H	5:C:639:GLN:NE2	1.98	0.60
6:D:873:LEU:HD11	11:D:8072:HOH:O	2.01	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
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:N:1045:MET:HG3	6:N:1073:SER:OG	2.00	0.60
6:N:1145:TYR:O	6:N:1147:ARG:HG2	2.01	0.60
6:N:1243:THR:HG22	11:N:9395:HOH:O	2.01	0.60
6:N:1350:GLU:O	6:N:1354:LYS:HG2	2.02	0.60
2:H:1:G:N2	5:C:770:GLU:HB3	2.17	0.60
2:Y:13:C:H2'	2:Y:14:G:H8	1.64	0.60
5:C:136:ILE:HG21	5:C:336:VAL:HG13	1.81	0.60
5:C:798:GLY:H	5:C:827:VAL:HG11	1.66	0.60
5:C:806:LEU:HD13	5:C:813:VAL:HG21	1.83	0.60
5:C:881:ASN:HD22	5:C:881:ASN:N	1.99	0.60
6:D:136:ASP:CB	6:D:137:PRO:HD3	2.30	0.60
6:D:592:THR:N	6:D:600:LEU:HD11	2.16	0.60
4:K:111:ALA:HB2	4:K:127:LEU:HD23	1.82	0.60
4:K:209:GLU:HB3	11:K:1765:HOH:O	2.00	0.60
5:M:537:LYS:HD2	5:M:537:LYS:N	2.12	0.60
6:N:804:LEU:HB2	6:N:830:ALA:O	2.02	0.60
6:N:1007:VAL:HG12	6:N:1011:PHE:CE2	2.35	0.60
6:N:1109:GLU:HG2	6:N:1201:CYS:CA	2.29	0.60
6:N:1268:PRO:HD2	6:N:1271:LYS:NZ	2.15	0.60
4:A:85:LEU:HA	4:A:124:ASN:ND2	2.08	0.60
5:C:56:GLU:HB3	5:C:64:LEU:HD23	1.82	0.60
5:C:575:GLN:HB2	5:C:670:GLN:OE1	2.02	0.60
6:D:754:PHE:CD1	7:E:24:ALA:HB1	2.36	0.60
6:D:1216:SER:HB3	7:E:16:LYS:H	1.67	0.60
4:K:42:ARG:NH2	4:L:34:VAL:HB	2.15	0.60
6:N:118:LEU:HD13	6:N:124:GLU:OE2	2.01	0.60
11:N:9248:HOH:O	7:O:16:LYS:HB2	2.02	0.60
5:C:86:LYS:HB3	11:C:1560:HOH:O	2.02	0.60
5:C:627:ARG:O	5:C:638:ASP:HB2	2.00	0.60
5:C:764:GLU:HG3	6:D:54:LYS:NZ	2.15	0.60
6:D:853:VAL:HG13	6:D:858:VAL:O	2.01	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
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
6:N:1228:SER:HB2	11:N:9308:HOH:O	2.00	0.60
6:D:28:LYS:HA	11:D:8201:HOH:O	2.01	0.60
6:D:480:GLU:HB2	11:D:8139:HOH:O	2.00	0.60
6:D:764:LEU:HD11	6:D:766:ALA:HB3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:829:VAL:HA	11:D:8279:HOH:O	2.01	0.60
6:D:1371:VAL:HG12	6:D:1375:MET:CE	2.32	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:N:1109:GLU:CD	6:N:1202:GLN:H	2.03	0.60
6:N:1438:ALA:N	6:N:1446:VAL:HG11	2.16	0.60
5:C:65:VAL:HG23	5:C:101:ILE:HB	1.83	0.60
5:C:326:ASP:HB2	5:C:431:HIS:ND1	2.17	0.60
5:C:660:ALA:HB1	5:C:667:ALA:O	2.02	0.60
6:D:762:GLN:HE22	7:E:20:THR:CG2	2.15	0.60
6:D:952:ASP:HA	6:D:1062:ARG:NH2	2.16	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: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
6:N:1438:ALA:O	6:N:1443:THR:HG22	2.01	0.60
5:C:19:THR:O	5:C:23:VAL:HG23	2.01	0.60
5:C:573:ARG:CG	5:C:670:GLN:HE22	2.14	0.60
5:C:859:PRO:HB3	5:C:974:LEU:HD23	1.83	0.60
5:C:910:LYS:HB2	11:C:1325:HOH:O	2.01	0.60
5:C:943:VAL:HG11	5:C:973:VAL:CG2	2.31	0.60
6:D:54:LYS:HD2	6:D:55:ASP:H	1.66	0.60
6:D:109:PRO:O	6:D:111:LYS:HD3	2.01	0.60
6:D:127:LEU:HD22	6:D:460:ALA:CB	2.32	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:637:LEU:HD22	5:M:659:PRO:HG2	1.83	0.60
5:M:1033:GLY:O	5:M:1037:VAL:HG23	2.02	0.60
6:N:29:PRO:HD3	6:N:548:ILE:CG2	2.32	0.60
6:N:522:PRO:O	6:N:525:ARG:HD3	2.02	0.60
1:G:18:DG:H2''	1:G:19:DC:C5'	2.32	0.60
5:C:843:HIS:HA	11:C:1257:HOH:O	2.01	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:963:TYR:CD2	6:D:1002:LYS:HB3	2.37	0.60
6:D:1495:ILE:HG22	6:D:1499:ARG:HH21	1.66	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
6:N:610:LYS:HA	11:N:9272:HOH:O	2.01	0.60
5:C:1099:VAL:HA	6:D:9:ARG:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:521:PRO:CG	6:D:524:LEU:HD22	2.29	0.60
6:D:1205:TYR:CD2	6:D:1215:VAL:HG21	2.31	0.60
6:D:1255:GLY:O	6:D:1259:VAL:HG23	2.02	0.60
6:D:1376:MET:HE3	6:D:1421:LEU:HB2	1.83	0.60
5:M:143:SER:C	5:M:276:LYS:HZ3	2.05	0.60
5:M:144:PRO:HG3	5:M:265:ARG:NH1	2.16	0.60
6:N:76:CYS:HB3	11:N:9086:HOH:O	2.01	0.60
6:N:633:VAL:HG22	6:N:635:PRO:CD	2.25	0.60
6:N:1267:ARG:HG3	6:N:1271:LYS:NZ	2.17	0.60
4:A:83:LYS:NZ	4:A:168:ASP:HB2	2.17	0.59
5:C:45:GLN:HG2	5:C:49:ARG:CZ	2.32	0.59
5:C:461:VAL:HG12	11:C:1351:HOH:O	2.02	0.59
5:C:721:ARG:HG3	5:C:820:ARG:HH12	1.66	0.59
6:D:116:LEU:CD2	6:D:150:ARG:HD3	2.32	0.59
6:D:1259:VAL:HG11	6:D:1356:TYR:OH	2.02	0.59
6:D:1485:GLN:NE2	7:E:78:ASN:HA	2.17	0.59
4:K:151:VAL:HB	4:K:169:ALA:HB3	1.84	0.59
5:M:127:PHE:HB3	11:M:1483:HOH:O	2.01	0.59
5:M:409:ARG:HA	5:M:454:SER:HA	1.84	0.59
5:M:1005:MET:CE	6:N:724:GLN:HA	2.32	0.59
6:N:185:VAL:HG21	6:N:203:ALA:HB2	1.84	0.59
6:N:1192:LEU:HD13	6:N:1345:GLU:HG2	1.83	0.59
4:A:159:LYS:NZ	4:A:166:PRO:HD3	2.17	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:D:456:MET:HG2	6:D:459:GLU:OE1	2.02	0.59
6:D:970:LYS:HD3	6:D:995:LEU:HD13	1.84	0.59
6:N:477:LEU:HD11	6:N:495:ARG:HD3	1.84	0.59
6:N:478:LEU:HD23	6:N:496:LEU:HD21	1.84	0.59
6:N:495:ARG:O	6:N:499:VAL:HG23	2.02	0.59
6:N:761:ILE:HB	7:O:20:THR:HG23	1.83	0.59
6:N:1106:VAL:HG11	6:N:1474:ALA:CB	2.31	0.59
2:H:7:G:N3	2:H:7:G:H2'	2.17	0.59
4:A:8:ALA:HB1	4:B:224:TYR:HE1	1.65	0.59
5:C:26:TYR:HD2	5:C:121:MET:HB2	1.66	0.59
6:D:99:ALA:O	6:D:514:LEU:N	2.33	0.59
6:D:436:GLU:CD	6:D:445:ARG:HG3	2.22	0.59
6:D:1080:GLY:O	6:D:1083:ASP:HB3	2.02	0.59
6:D:1231:GLU:O	6:D:1235:GLN:HG3	2.02	0.59
6:D:1335:LEU:HD23	6:D:1344:VAL:HG22	1.84	0.59
4:K:89:PHE:HB3	4:K:94:LEU:HD13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:876:VAL:HG13	5:M:881:ASN:ND2	2.16	0.59
6:N:480:GLU:O	6:N:484:PRO:HD2	2.02	0.59
6:N:1268:PRO:HD2	6:N:1271:LYS:HZ2	1.67	0.59
5:C:252:LYS:HB3	5:C:298:PHE:CZ	2.38	0.59
5:C:583:LEU:HB3	11:C:1190:HOH:O	2.01	0.59
6:D:1438:ALA:N	6:D:1446:VAL:HG11	2.17	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:18:LEU:H	5:M:18:LEU:HD12	1.67	0.59
5:M:149:THR:HG21	11:M:1567: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:23:TYR:O	6:N:49:ILE:HG23	2.01	0.59
6:N:161:LEU:O	6:N:161:LEU:HD23	2.03	0.59
6:N:794:GLN:HG2	6:N:1017:PHE:CZ	2.38	0.59
6:N:966:GLU:HA	6:N:969:ARG:NH2	2.18	0.59
6:N:983:LEU:HD13	6:N:991:GLN:OE1	2.02	0.59
6:N:1375:MET:HB3	6:N:1422:MET:O	2.02	0.59
2:Y:6:U:H1'	11:Y:2617:HOH:O	2.03	0.59
4:A:38:ASN:HB3	4:A:39:PRO:HD3	1.85	0.59
4:A:89:PHE:CZ	4:A:146:ARG:HB2	2.37	0.59
5:C:73:LEU:HD22	5:C:94:LEU:HD13	1.84	0.59
5:C:318:PRO:HG3	11:C:1342:HOH:O	2.01	0.59
5:C:352:ALA:HA	5:C:355:VAL:HG12	1.85	0.59
6:D:135:LEU:H	6:D:135:LEU:HD12	1.67	0.59
6:D:172:PRO:HG2	6:D:175:VAL:HG21	1.84	0.59
6:D:769:LEU:HD12	6:D:919:PHE:HE1	1.68	0.59
6:D:803:GLY:HA3	11:D:8427:HOH:O	2.00	0.59
4:K:31:GLY:CA	4:L:42:ARG:HH21	2.15	0.59
4:K:209:GLU:O	4:K:213:GLN:HG3	2.02	0.59
4:L:68:ILE:HD13	11:L:362:HOH:O	2.01	0.59
6:N:615:ARG:HG3	6:N:619:LEU:HD21	1.84	0.59
6:N:1209:LEU:HD23	6:N:1210:SER:H	1.66	0.59
6:N:1412:LYS:HD2	6:N:1414:PRO:HG3	1.83	0.59
4:A:91:ASN:OD1	4:A:92:PRO:HD2	2.03	0.59
6:D:1209:LEU:HD23	6:D:1210:SER:H	1.65	0.59
4:K:79:ILE:HA	4:K:82:LEU:HD12	1.84	0.59
5:M:468:ARG:HH21	5:M:487:THR:N	2.00	0.59
5:M:854:PRO:HB2	5:M:856:GLU:CG	2.32	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:54:THR:HB	4:A:143:ARG:HG2	1.85	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
5:C:516:ARG:NH1	5:C:521:PRO:HB3	2.17	0.59
5:C:627:ARG:HG3	5:C:628:PHE:H	1.67	0.59
5:C:835:VAL:HG12	11:C:1129:HOH:O	2.03	0.59
6:D:106:LYS:HG2	11:D:8237:HOH:O	2.01	0.59
6:N:1009:LYS:HG2	11:N:9338:HOH:O	2.03	0.59
6:N:1059:SER:OG	6:N:1065:LEU:HD12	2.03	0.59
5:C:193:LEU:HD21	11:C:1142:HOH:O	2.02	0.59
5:C:692:GLU:HG2	5:C:696:LYS:HE2	1.83	0.59
6:D:1465:ASN:HD21	6:D:1470:ARG:HB3	1.68	0.59
4:K:5:LYS:HA	4:K:5:LYS:HE3	1.85	0.59
5:M:119:PRO:HG2	5:M:386:PHE:CG	2.37	0.59
5:M:575:GLN:HB2	5:M:670:GLN:HG2	1.85	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
6:N:455:ARG:HB3	6:N:460:ALA:HA	1.83	0.59
6:N:481:MET:CE	6:N:493:ARG:HA	2.32	0.59
6:N:584:ASN:OD1	6:N:590:PRO:HD2	2.03	0.59
6:N:787:LEU:HD13	6:N:1023:MET:HA	1.84	0.59
6:D:93:ILE:HG13	6:D:519:VAL:HG22	1.85	0.59
6:D:161:LEU:CD2	6:D:452:ILE:HD13	2.33	0.59
6:D:462:GLN:O	6:D:466:LYS:HE3	2.03	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
4:A:225:PHE:HE1	4:B:40:LEU:HD11	1.68	0.59
4:B:94:LEU:HD11	4:B:119:ASP:CB	2.32	0.59
5:C:492:ASP:CG	5:C:518:LYS:HB3	2.24	0.59
5:C:833:LEU:HD21	5:C:839:LEU:HD11	1.84	0.59
4:K:224:TYR:HB3	4:L:9:PRO:HB2	1.83	0.59
4:L:94:LEU:HD11	4:L:119:ASP:CB	2.33	0.59
5:M:140:ILE:HB	5:M:331:ARG:HG2	1.83	0.59
5:M:498:GLN:HA	5:M:533:ASP:OD2	2.03	0.59
5:M:1000:MET:HB3	5:M:1002:GLU:HG2	1.84	0.59
5:M:1081:VAL:HG23	5:M:1086:ARG:HH21	1.67	0.59
6:N:86:ARG:HD3	6:N:523:ASP:OD2	2.02	0.59
6:N:396:VAL:O	6:N:398:ALA:N	2.31	0.59
6:N:860:LEU:HD23	6:N:877:PRO:HB2	1.85	0.59
6:N:970:LYS:HA	6:N:973:GLN:CD	2.23	0.59
1:G:2:DC:H2"	1:G:3:DC:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:11:C:O2'	2:Y:12:G:H5''	2.02	0.58
5:C:48:PHE:O	5:C:52:PHE:HB2	2.02	0.58
5:C:218:VAL:HG22	5:C:221:LEU:CD2	2.33	0.58
5:C:342:ASP:O	5:C:346:VAL:HG23	2.03	0.58
5:C:488:ALA:HA	11:C:1287:HOH:O	2.02	0.58
6:D:401:TYR:CZ	6:D:429:SER:HA	2.38	0.58
6:D:582:LEU:HA	6:D:603:LEU:HD12	1.85	0.58
6:D:799:LYS:O	6:D:826:PRO:HD2	2.02	0.58
4:L:173:PRO:HB2	11:L:366:HOH:O	2.02	0.58
5:M:755:LEU:HD12	5:M:790:LEU:HG	1.85	0.58
6:N:191:LEU:HB3	6:N:393:ILE:HD12	1.85	0.58
2:H:9:G:H5'	2:H:9:G:C8	2.38	0.58
1:X:18:DG:H5'	1:X:18:DG:H8	1.68	0.58
4:A:5:LYS:HA	4:A:5:LYS:HE3	1.84	0.58
4:A:54:THR:CG2	4:A:158:ILE:HG13	2.30	0.58
4:B:20:TYR:HE2	4:B:198:ARG:HB3	1.68	0.58
5:C:913:GLU:O	5:C:917:LEU:HG	2.03	0.58
5:C:983:ILE:HG21	5:C:987:ILE:HD11	1.85	0.58
5:C:1009:SER:HB2	6:D:651:GLU:O	2.03	0.58
6:D:693:GLU:HA	11:D:8294:HOH:O	2.03	0.58
6:D:918:ALA:O	6:D:922:LEU:HG	2.02	0.58
4:L:174:VAL:HG23	11:L:366:HOH:O	2.02	0.58
5:M:701:THR:HG21	5:M:830:LYS:HE2	1.84	0.58
5:M:946:ARG:HH11	5:M:946:ARG:CB	2.08	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
6:N:728:LEU:HD21	6:N:733:CYS:SG	2.43	0.58
7:O:18:ARG:HD3	7:O:75:PHE:CE1	2.33	0.58
2:Y:8:C:HO2'	2:Y:9:G:H5'	1.66	0.58
4:B:99:LEU:HB3	4:B:114:PHE:CD2	2.38	0.58
5:C:398:THR:HA	11:C:1367:HOH:O	2.03	0.58
6:D:752:SER:HB2	11:D:8371:HOH:O	2.03	0.58
6:D:835:SER:N	6:D:838:ARG:HD3	2.18	0.58
6:D:1236:LEU:CD1	6:D:1359:GLN:HB3	2.33	0.58
5:M:861:LEU:HA	5:M:974:LEU:HD12	1.85	0.58
6:N:15:PRO:O	6:N:18:ILE:HB	2.03	0.58
6:N:815:ALA:HA	6:N:818:ARG:HD2	1.84	0.58
7:O:40:LEU:CB	7:O:72:ARG:HH21	2.15	0.58
7:O:48:MET:N	7:O:54:LEU:HB2	2.18	0.58
2:Y:13:C:C4'	5:M:409:ARG:HH22	2.13	0.58
4:A:44:LEU:O	4:A:174:VAL:HG21	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:124:GLU:O	6:D:127:LEU:HD12	2.02	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:102:HIS:NE2	5:M:365:ASP:HA	2.18	0.58
5:M:252:LYS:HZ3	5:M:296:GLY:HA3	1.69	0.58
6:N:522:PRO:HG2	6:N:523:ASP:H	1.68	0.58
6:N:695:ILE:HD11	6:N:718:PRO:HB2	1.84	0.58
6:N:1146:GLY:CA	6:N:1207:TYR:HB2	2.33	0.58
4:A:9:PRO:HB3	4:A:25:LEU:HG	1.84	0.58
6:D:23:TYR:O	6:D:49:ILE:HG23	2.03	0.58
6:D:101:HIS:O	6:D:105:VAL:HG23	2.02	0.58
6:D:957:PRO:HG2	6:D:1007:VAL:HG22	1.85	0.58
4:L:59:GLU:CB	4:L:137:ARG:HH22	2.16	0.58
5:M:497:ALA:HA	5:M:515:ALA:HA	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
6:N:989:TYR:HA	6:N:992:ILE:HD12	1.83	0.58
6:N:1112:CYS:HB2	6:N:1195:GLN:CG	2.34	0.58
5:C:1100:GLN:HA	5:C:1100:GLN:NE2	2.18	0.58
6:D:50:PHE:CD2	6:D:522:PRO:HD3	2.38	0.58
6:D:426:LYS:HE3	6:D:427:VAL:HG23	1.85	0.58
7:E:48:MET:HG2	7:E:49:GLN:H	1.69	0.58
5:M:99:GLN:HG2	5:M:109:LYS:HG3	1.85	0.58
5:M:938:LYS:HB2	5:M:938:LYS:NZ	2.18	0.58
6:N:136:ASP:CB	6:N:137:PRO:HD3	2.33	0.58
1:G:6:DT:H2 <sup>7</sup>	1:G:7:DC:C6	2.39	0.58
4:B:177:VAL:HG12	4:B:199:ILE:HG23	1.86	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:712:ALA:O	5:C:820:ARG:HB3	2.04	0.58
5:C:841:ASN:H	5:C:841:ASN:ND2	2.02	0.58
5:C:1014:SER:HB2	5:C:1017:THR:HG23	1.85	0.58
6:D:1271:LYS:HZ1	6:D:1331:ASP:HB3	1.69	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
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:C:573:ARG:HB3	11:C:1209:HOH:O	2.03	0.58
5:C:693:GLU:OE1	5:C:696:LYS:HD2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
5:M:701:THR:CG2	5:M:832:LYS:HG2	2.32	0.58
6:N:996:TRP:HA	6:N:999:THR:CG2	2.25	0.58
2:Y:13:C:H2'	2:Y:14:G:C8	2.39	0.58
4:B:54:THR:CG2	4:B:158:ILE:HG13	2.33	0.58
5:C:358:ARG:HH22	5:C:373:VAL:C	2.06	0.58
6:D:206:ARG:HB3	6:D:206:ARG:HH11	1.68	0.58
6:D:465:LEU:HD22	6:D:510:GLU:HA	1.86	0.58
6:D:1017:PHE:HE1	11:D:8095:HOH:O	1.87	0.58
6:D:1373:ARG:HE	6:D:1374:GLN:NE2	2.02	0.58
4:K:211:LEU:O	4:K:215:VAL:HG23	2.04	0.58
5:M:91:GLN:CD	5:M:383:ARG:HH22	2.08	0.58
5:M:431:HIS:H	5:M:434:HIS:CE1	2.22	0.58
5:M:444:PRO:HD2	5:M:452:ILE:O	2.04	0.58
5:M:874:LEU:H	5:M:874:LEU:HD12	1.69	0.58
5:M:1056:LYS:HD3	6:N:751:LEU:HD11	1.86	0.58
5:M:1094:ALA:HA	6:N:90:MET:HE1	1.86	0.58
6:N:134:VAL:HG12	6:N:152:LEU:HD22	1.86	0.58
6:N:966:GLU:HA	6:N:969:ARG:HH22	1.67	0.58
6:N:1081:GLY:O	6:N:1084:THR:HG22	2.04	0.58
6:N:1119:SER:O	6:N:1121:PRO:HD3	2.04	0.58
3:I:7:DC:H5''	6:D:1264:GLU:OE2	2.04	0.58
4:B:99:LEU:HG	11:B:336:HOH:O	2.03	0.58
5:C:775:ARG:NH1	5:C:782:ALA:HB1	2.18	0.58
6:D:116:LEU:HD22	6:D:118:LEU:HD21	1.86	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
6:D:616:GLN:HG3	11:D:8092:HOH:O	2.03	0.58
6:D:786:ILE:HD11	6:D:908:LYS:HD3	1.85	0.58
5:M:310:LEU:HB2	11:M:1183:HOH:O	2.03	0.58
5:M:452:ILE:H	5:M:452:ILE:HD12	1.69	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:161:LEU:HD21	11:N:9092:HOH:O	2.02	0.58
6:N:930:LEU:O	6:N:934:LEU:HG	2.04	0.58
6:N:970:LYS:HG3	6:N:973:GLN:OE1	2.04	0.58
1:X:6:DT:H2''	1:X:7:DC:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:211:LEU:HD11	5:C:308:ARG:HA	1.86	0.57
5:C:495:THR:HG23	11:C:1226:HOH:O	2.03	0.57
5:C:626:ARG:H	5:C:639:GLN:HE21	1.50	0.57
5:C:959:PRO:HG2	11:C:1413:HOH:O	2.03	0.57
5:C:1101:THR:OG1	6:D:5:VAL:HG12	2.03	0.57
6:D:810:GLU:HB3	11:D:8233:HOH:O	2.03	0.57
6:D:890:VAL:HG23	11:D:8341:HOH:O	2.03	0.57
6:D:1171:VAL:O	6:D:1175:ILE:HG13	2.04	0.57
5:M:134:ARG:HH11	5:M:392:SER:CB	2.17	0.57
5:M:470:PRO:HD3	5:M:485:TYR:CE2	2.39	0.57
5:M:546:LEU:CD1	5:M:565:GLN:HE22	2.17	0.57
5:M:715:THR:HG21	11:M:1222:HOH:O	2.03	0.57
5:M:875:GLY:O	5:M:879:ARG:HD2	2.03	0.57
5:M:1030:GLN:HB2	6:N:626:SER:OG	2.04	0.57
5:M:1032:PHE:O	5:M:1033:GLY:O	2.21	0.57
6:N:1397:LYS:HE3	6:N:1432:LYS:HD2	1.85	0.57
5:C:573:ARG:HB3	5:C:670:GLN:HE22	1.69	0.57
6:D:30:GLU:HB3	6:D:40:GLU:CB	2.34	0.57
6:D:400:VAL:HG22	6:D:443:VAL:HG21	1.85	0.57
5:M:535:SER:HB3	5:M:537:LYS:NZ	2.19	0.57
6:N:62:LYS:HG3	6:N:75:ARG:NH1	2.19	0.57
6:N:149:LYS:HD2	6:N:150:ARG:H	1.69	0.57
6:N:677:LEU:HD23	6:N:683:ILE:HG13	1.86	0.57
7:O:32:ARG:CZ	7:O:32:ARG:HB2	2.34	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
2:Y:14:G:H4'	11:Y:1734:HOH:O	2.03	0.57
11:Y:1707:HOH:O	5:M:777:ILE:HG21	2.03	0.57
5:C:99:GLN:HB3	5:C:109:LYS:CD	2.34	0.57
5:C:264:PRO:HG3	11:C:1383:HOH:O	2.04	0.57
5:C:577:PRO:HB3	5:C:842:ARG:NH2	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
6:D:614:PHE:CE2	6:D:1438:ALA:HB1	2.39	0.57
6:D:959:GLU:H	6:D:959:GLU:CD	2.04	0.57
6:D:1418:LYS:HD3	6:D:1419:PRO:HD2	1.85	0.57
4:K:42:ARG:HH21	4:L:31:GLY:C	2.08	0.57
4:K:49:PRO:HB3	4:K:148:VAL:HG22	1.86	0.57
4:K:145:ASP:HB3	11:K:1799:HOH:O	2.03	0.57
4:L:123:MET:C	4:L:125:PRO:HD3	2.24	0.57
5:M:79:PRO:HG2	5:M:82:GLU:HB2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:205:GLU:HA	5:M:209:ARG:NH1	2.20	0.57
6:N:399:ARG:HE	6:N:431:VAL:CG2	2.18	0.57
6:N:510:GLU:HB2	6:N:511:TRP:CZ3	2.39	0.57
6:N:637:LEU:HD11	6:N:641:GLN:HB2	1.86	0.57
7:O:33:HIS:HB2	7:O:37:ASN:ND2	2.18	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
6:D:793:THR:HG21	6:D:906:GLN:CG	2.33	0.57
4:L:58:ILE:HG21	4:L:68:ILE:HD11	1.85	0.57
5:M:1031:ARG:HG3	6:N:621:LYS:HB3	1.86	0.57
6:N:394:LEU:HG	6:N:396:VAL:HG23	1.85	0.57
2:Y:9:G:O2'	2:Y:10:G:H5'	2.04	0.57
4:B:170:VAL:HG11	6:D:848:GLU:OE1	2.04	0.57
5:C:468:ARG:HE	5:C:487:THR:N	2.02	0.57
5:C:584:GLU:H	5:C:584:GLU:CD	2.07	0.57
6:D:501:ALA:HB1	6:D:1453:ALA:HB2	1.87	0.57
6:D:525:ARG:HB2	6:D:538:SER:HB3	1.86	0.57
6:D:879:ARG:HG3	6:D:879:ARG:NH1	2.17	0.57
4:K:181:VAL:HG21	5:M:939:ARG:HH11	1.70	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
5:M:841:ASN:C	5:M:841:ASN:HD22	2.07	0.57
5:M:975:TYR:HE1	11:M:1220:HOH:O	1.86	0.57
6:N:28:LYS:HG3	6:N:29:PRO:HD2	1.87	0.57
1:G:20:DG:H4'	5:C:394:PHE:CE1	2.39	0.57
4:A:43:ILE:HG13	4:A:218:LEU:CD1	2.33	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:583:ASP:CG	6:N:586:ARG:HG3	2.25	0.57
6:N:758:GLU:HA	7:O:20:THR:HG21	1.86	0.57
6:N:1083:ASP:O	6:N:1087:ARG:HG2	2.05	0.57
6:N:1191:PRO:HG3	11:N:9238:HOH:O	2.03	0.57
6:N:1336:LEU:HA	6:N:1344:VAL:CG2	2.34	0.57
1:G:13:DT:H5''	6:D:1093:TYR:HE2	1.68	0.57
2:Y:11:C:H2'	2:Y:12:G:H8	1.66	0.57
4:A:100:LEU:HD22	4:A:102:LYS:HE2	1.87	0.57
4:A:221:HIS:HB3	4:B:36:LEU:HD21	1.86	0.57
4:B:85:LEU:HG	4:B:127:LEU:CD2	2.32	0.57
5:C:971:LYS:HD2	5:C:986:PRO:HG2	1.87	0.57
6:D:1020:LEU:HD21	6:D:1038:LEU:HD12	1.86	0.57
6:D:1103:HIS:CD2	6:D:1463:LYS:HB2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1263:PHE:HE2	6:D:1371:VAL:HG11	1.69	0.57
4:L:214:ALA:O	4:L:217:ILE:HG22	2.04	0.57
5:M:567:GLN:O	5:M:997:LEU:HD12	2.05	0.57
6:N:139:GLY:HA2	6:N:451:ASP:O	2.05	0.57
6:N:1129:THR:HG23	6:N:1130:ARG:H	1.69	0.57
4:A:68:ILE:H	4:A:68:ILE:HD12	1.69	0.57
5:C:188:LYS:HD3	11:C:1301:HOH:O	2.03	0.57
5:C:834:GLN:HB2	11:C:1129:HOH:O	2.04	0.57
6:D:1216:SER:CB	7:E:16:LYS:H	2.18	0.57
6:D:1224:VAL:HA	6:D:1227:GLN:OE1	2.05	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
6:D:1485:GLN:HE21	7:E:79:LEU:H	1.51	0.57
4:K:138:LEU:HD11	4:K:140:MET:SD	2.44	0.57
4:L:124:ASN:OD1	4:L:127:LEU:HB2	2.05	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
5:M:498:GLN:OE1	6:N:1067:VAL:HB	2.05	0.57
5:M:693:GLU:HA	5:M:696:LYS:CD	2.34	0.57
5:M:1046:ALA:HB2	11:N:9022:HOH:O	2.03	0.57
6:N:1023:MET:O	6:N:1028:ALA:HB3	2.05	0.57
6:N:1153:VAL:HG12	6:N:1155:VAL:HG13	1.86	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:192:PRO:HD2	5:C:195:LEU:CB	2.32	0.57
5:C:472:ARG:HG3	5:C:534:VAL:HG22	1.85	0.57
5:C:1049:LEU:HD11	5:C:1053:LEU:HD11	1.87	0.57
5:C:1103:ASP:OD1	6:D:3:LYS:HD3	2.05	0.57
5:C:1105:LYS:HZ3	5:C:1107:ASN:HB2	1.70	0.57
5:M:162:ILE:O	5:M:164:PRO:HD3	2.05	0.57
5:M:691:SER:OG	5:M:694:LEU:HG	2.04	0.57
6:N:434:ARG:HB3	6:N:434:ARG:HH11	1.70	0.57
2:Y:7:G:C8	2:Y:7:G:C5'	2.88	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
5:C:531:PHE:HB2	11:C:1172:HOH:O	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
6:D:455:ARG:C	6:D:460:ALA:HB2	2.25	0.57
6:D:657:LEU:HD22	6:D:691:LEU:CD2	2.35	0.57
6:D:1406:ARG:HD2	6:D:1412:LYS:HZ3	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:42:ARG:CZ	4:L:34:VAL:HB	2.35	0.57
4:L:79:ILE:HA	4:L:82:LEU:HD12	1.87	0.57
5:M:174:LEU:HD22	5:M:307:LEU:HD13	1.87	0.57
5:M:400:PRO:HG2	5:M:593:ALA:HB2	1.87	0.57
5:M:1085:PHE:O	5:M:1089:VAL:HG23	2.05	0.57
6:N:54:LYS:CD	6:N:55:ASP:H	2.17	0.57
6:N:161:LEU:HD13	6:N:452:ILE:HD13	1.87	0.57
6:N:1025:GLN:NE2	6:N:1025:GLN:HA	2.20	0.57
7:O:17:TYR:O	7:O:21:VAL:HG23	2.05	0.57
5:C:949:LYS:HA	11:C:1221:HOH:O	2.05	0.56
5:M:286:SER:HB3	11:M:1441:HOH:O	2.05	0.56
5:M:578:VAL:CG2	5:M:579:VAL:HG12	2.34	0.56
5:M:716:LYS:HZ1	6:N:36:THR:HG23	1.69	0.56
5:M:871:LEU:HD11	5:M:992:MET:SD	2.44	0.56
5:M:1050:GLN:OE1	6:N:1471:LEU:HA	2.04	0.56
6:N:1045:MET:HB3	6:N:1073:SER:HA	1.87	0.56
6:N:1057:VAL:HG13	6:N:1069:GLU:HB3	1.87	0.56
7:O:41:GLU:HB2	7:O:45:ARG:NE	2.19	0.56
1:G:22:DC:H4'	5:C:388:ARG:CD	2.33	0.56
2:Y:8:C:H5'	11:Y:1683:HOH:O	2.04	0.56
4:A:52:ALA:HB2	4:A:170:VAL:O	2.04	0.56
4:A:225:PHE:HB2	11:A:325:HOH:O	2.05	0.56
5:C:338:GLU:O	5:C:341:THR:HG22	2.05	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
4:L:43:ILE:O	4:L:47:SER:HB3	2.05	0.56
5:M:292:ARG:HH11	5:M:299:LYS:HD3	1.70	0.56
5:M:805:ARG:HB3	5:M:805:ARG:HH11	1.70	0.56
6:N:714:GLN:NE2	6:N:765:SER:HA	2.20	0.56
6:N:824:ASN:C	6:N:824:ASN:HD22	2.09	0.56
6:N:1091:SER:OG	6:N:1234:THR:HG23	2.04	0.56
1:X:2:DC:H2''	1:X:3:DC:C6	2.40	0.56
4:B:201:THR:HG21	4:B:205:VAL:HG23	1.87	0.56
5:C:148:PHE:CZ	5:C:281:LEU:HB3	2.39	0.56
5:C:159:ILE:HD13	11:C:1523:HOH:O	2.06	0.56
5:C:186:VAL:HG11	11:C:1130:HOH:O	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
5:C:943:VAL:HG23	5:C:985:GLY:H	1.70	0.56
6:D:136:ASP:HB3	6:D:455:ARG:HE	1.70	0.56
6:D:696:HIS:NE2	7:E:54:LEU:HD11	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:703:ASN:ND2	6:D:704:ARG:H	2.03	0.56
6:D:758:GLU:HA	6:D:762:GLN:NE2	2.20	0.56
6:D:1042:ARG:O	6:D:1057:VAL:HB	2.04	0.56
6:D:1226:ALA:HB2	11:D:8257:HOH:O	2.05	0.56
6:D:1236:LEU:HD11	6:D:1361:VAL:HG23	1.88	0.56
7:E:41:GLU:HG2	7:E:42:PRO:HD3	1.87	0.56
7:E:59:ASN:HD22	7:E:59:ASN:N	2.02	0.56
7:E:80:VAL:HG22	11:E:151:HOH:O	2.06	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
5:M:39:ARG:HH11	5:M:39:ARG:HG3	1.68	0.56
5:M:121:MET:CE	5:M:125:GLY:HA2	2.34	0.56
5:M:257:VAL:HA	11:M:1334:HOH:O	2.04	0.56
5:M:546:LEU:HD12	5:M:565:GLN:NE2	2.18	0.56
5:M:886:LEU:HD12	6:N:951:ILE:HG13	1.87	0.56
5:M:1054:THR:HG21	5:M:1079:PRO:HB3	1.87	0.56
6:N:36:THR:C	6:N:38:LYS:H	2.07	0.56
6:N:80:VAL:HG12	6:N:81:THR:O	2.05	0.56
6:N:794:GLN:HG3	6:N:795:VAL:N	2.20	0.56
6:N:799:LYS:HE2	6:N:824:ASN:O	2.04	0.56
6:N:806:PHE:HE1	6:N:813:LEU:HB3	1.69	0.56
6:N:828:LYS:HG2	6:N:863:VAL:HG22	1.86	0.56
6:N:1189:ARG:HD2	6:N:1204:CYS:SG	2.46	0.56
6:N:1238:MET:HA	6:N:1241:PHE:CE2	2.40	0.56
6:N:1493:LYS:O	6:N:1496:GLU:HG2	2.04	0.56
7:O:13:VAL:HG21	7:O:19:LEU:HB2	1.88	0.56
7:O:84:ARG:HD3	11:O:1385:HOH:O	2.05	0.56
4:A:42:ARG:NH2	4:B:34:VAL:HB	2.20	0.56
4:B:160:ASP:HB3	11:B:345:HOH:O	2.05	0.56
5:C:333:ILE:HD13	5:C:467:ILE:HG13	1.86	0.56
5:C:577:PRO:HA	5:C:671:ASN:ND2	2.20	0.56
5:C:838:LYS:O	5:C:839:LEU:HD23	2.06	0.56
6:D:36:THR:C	6:D:38:LYS:H	2.09	0.56
6:D:65:ARG:H	6:D:68:PHE:HE1	1.51	0.56
6:D:116:LEU:HD11	6:D:464:LEU:HB3	1.86	0.56
6:D:117:ASP:N	6:D:150:ARG:NH1	2.53	0.56
6:D:700:VAL:HG22	6:D:718:PRO:HG3	1.87	0.56
6:D:754:PHE:HE1	7:E:28:GLN:HE22	1.53	0.56
6:D:847:ASP:O	6:D:851:LEU:HG	2.06	0.56
4:L:187:GLY:HA3	11:L:397:HOH:O	2.05	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:532:MET:HB3	11:M:1310:HOH:O	2.04	0.56
5:M:611:ILE:HG13	5:M:625:LEU:HD21	1.87	0.56
5:M:668:LEU:HD13	5:M:995:MET:HE2	1.87	0.56
6:N:47:GLU:OE1	6:N:53:ILE:HB	2.06	0.56
6:N:481:MET:HE3	6:N:1388:ARG:HG3	1.88	0.56
6:N:704:ARG:HD3	6:N:738:ALA:HB2	1.87	0.56
6:N:988:ARG:O	6:N:992:ILE:HG13	2.05	0.56
6:N:1271:LYS:NZ	6:N:1331:ASP:HB2	2.20	0.56
1:G:16:DG:H5''	5:C:1031:ARG:HB3	1.88	0.56
4:A:54:THR:HB	4:A:143:ARG:CG	2.35	0.56
4:B:16:GLN:HG3	11:B:397:HOH:O	2.05	0.56
5:C:284:ARG:HG3	5:C:285:LEU:N	2.19	0.56
6:D:29:PRO:HG3	6:D:549:ASN:HD21	1.69	0.56
6:D:117:ASP:HB2	6:D:495:ARG:HH21	1.69	0.56
6:D:1267:ARG:O	6:D:1267:ARG:HG2	2.05	0.56
5:M:457:ALA:N	5:M:540:PHE:O	2.36	0.56
5:M:577:PRO:HG3	5:M:993:PHE:CE1	2.41	0.56
6:N:119:SER:HB2	6:N:123:LEU:CB	2.33	0.56
6:N:792:ILE:O	6:N:878:GLY:HA3	2.04	0.56
6:N:1336:LEU:HA	6:N:1344:VAL:HG21	1.86	0.56
2:H:11:C:O2'	2:H:12:G:H5''	2.05	0.56
1:X:14:DT:H6	1:X:14:DT:H5'	1.70	0.56
4:B:117:VAL:HG22	11:B:392:HOH:O	2.06	0.56
5:C:12:VAL:HG13	5:C:13:ILE:CG1	2.36	0.56
5:C:232:GLU:O	5:C:235:LEU:HB3	2.05	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
5:C:693:GLU:HA	5:C:696:LYS:HG3	1.88	0.56
5:C:697:ARG:O	5:C:699:PHE:N	2.39	0.56
5:C:804:VAL:HG11	5:C:824:ARG:NH2	2.19	0.56
6:D:136:ASP:OD1	6:D:463:GLN:HB3	2.05	0.56
6:D:964:LEU:HD22	6:D:1058:ARG:HH21	1.70	0.56
4:K:92:PRO:HD3	11:K:1047:HOH:O	2.05	0.56
4:K:178:ALA:HB2	5:M:864:GLY:N	2.21	0.56
4:K:206:THR:HG23	4:K:207:PRO:HD2	1.88	0.56
5:M:307:LEU:HD12	5:M:310:LEU:HD23	1.87	0.56
5:M:600:ASP:OD1	5:M:651:LYS:HB2	2.05	0.56
5:M:626:ARG:HH22	5:M:637:LEU:HD13	1.70	0.56
11:M:1366:HOH:O	6:N:6:ARG:HB2	2.04	0.56
6:N:180:LYS:H	6:N:180:LYS:HD2	1.69	0.56
6:N:853:VAL:HG11	6:N:860:LEU:HG	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:960:LYS:NZ	6:N:1041:LEU:HD13	2.21	0.56
7:O:46:PRO:C	7:O:47:LYS:HG2	2.25	0.56
5:C:265:ARG:NH1	5:C:267:TYR:HB3	2.20	0.56
6:D:1124:GLN:HG2	6:D:1133:ARG:HG3	1.88	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: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
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
5:C:654:LEU:HD13	5:C:664:GLY:N	2.21	0.56
6:D:116:LEU:HD13	6:D:118:LEU:HD11	1.87	0.56
6:D:703:ASN:HD22	6:D:704:ARG:H	1.53	0.56
6:D:906:GLN:HB3	6:D:911:LEU:HD11	1.88	0.56
6:D:1091:SER:HB3	6:D:1234:THR:OG1	2.05	0.56
6:D:1102:THR:HB	11:D:8257:HOH:O	2.04	0.56
7:E:30:LEU:O	7:E:35:PHE:HA	2.06	0.56
4:L:101:LEU:HA	11:L:368:HOH:O	2.06	0.56
5:M:172:ILE:HG23	5:M:184:MET:HE3	1.87	0.56
5:M:260:LEU:HB2	11:M:1400:HOH:O	2.05	0.56
5:M:695:LEU:HD11	11:M:1250:HOH:O	2.05	0.56
6:N:883:ALA:HB2	11:N:9040:HOH:O	2.04	0.56
3:I:3:DA:H3'	11:I:500:HOH:O	2.05	0.56
4:B:124:ASN:ND2	4:B:127:LEU:HD22	2.21	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
5:C:897:LEU:HD23	5:C:924:VAL:HG21	1.88	0.56
6:D:28:LYS:HB2	6:D:41:ARG:NH1	2.19	0.56
6:D:137:PRO:HD2	6:D:453:ASP:CG	2.27	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
4:L:197:LEU:HD23	4:L:199:ILE:HG13	1.87	0.56
5:M:290:LEU:HB3	5:M:302:VAL:HG12	1.88	0.56
5:M:1034:GLU:H	6:N:619:LEU:HD13	1.71	0.56
6:N:150:ARG:HD3	6:N:464:LEU:HD21	1.88	0.56
6:N:482:LYS:HE2	6:N:1384:PRO:HG2	1.88	0.56
6:N:1353:GLN:HB3	6:N:1357:ARG:HE	1.70	0.56
2:Y:8:C:H6	2:Y:8:C:O5'	1.89	0.56
4:A:102:LYS:HZ2	4:A:139:ASN:HD21	1.54	0.56
5:C:233:GLU:HB3	11:C:1182:HOH:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:358:ARG:HA	5:C:361:MET:HG2	1.87	0.56
5:C:474:VAL:HG12	5:C:531:PHE:HA	1.88	0.56
5:C:578:VAL:HG13	5:C:671:ASN:CB	2.29	0.56
5:C:680:ASP:HB2	5:C:682:TYR:CE2	2.40	0.56
6:D:1222:GLY:O	6:D:1225:ALA:HB3	2.06	0.56
5:M:569:VAL:HG12	5:M:996:LYS:O	2.07	0.56
5:M:1050:GLN:HE22	6:N:1470:ARG:C	2.09	0.56
5:M:1057:SER:HB2	6:N:622:ARG:O	2.05	0.56
6:N:783:ARG:CA	6:N:1028:ALA:HA	2.26	0.56
7:O:13:VAL:HG13	7:O:75:PHE:CZ	2.41	0.56
7:O:27:ALA:CB	7:O:61:VAL:HG12	2.35	0.56
7:O:54:LEU:HG	7:O:58:PRO:HG2	1.88	0.56
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:D:710:ARG:CG	6:D:772:PRO:HG2	2.34	0.55
6:D:957:PRO:CG	6:D:1007:VAL:HA	2.36	0.55
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:1336:LEU:HD22	6:D:1421:LEU:HB2	1.87	0.55
7:E:31:LEU:HD21	7:E:60:ALA:HB2	1.88	0.55
4:K:32:PHE:O	4:K:36:LEU:HG	2.05	0.55
4:K:94:LEU:HD11	4:K:119:ASP:CG	2.25	0.55
4:L:59:GLU:CG	4:L:137:ARG:HH22	2.18	0.55
4:L:101:LEU:HD11	4:L:113:ASP:HB3	1.89	0.55
5:M:697:ARG:O	5:M:699:PHE:N	2.38	0.55
6:N:165:LYS:HG2	6:N:448:GLU:OE2	2.06	0.55
6:N:1121:PRO:CD	6:N:1346:ARG:HH21	2.14	0.55
2:Y:9:G:H5'	2:Y:9:G:C8	2.41	0.55
5:C:267:TYR:HB2	5:C:272:ALA:CB	2.37	0.55
5:C:676:ILE:HG21	5:C:988:VAL:HG13	1.88	0.55
5:C:850:ALA:HA	6:D:632:VAL:HG11	1.87	0.55
5:C:965:GLU:O	5:C:969:GLN:HG2	2.05	0.55
5:C:1016:ILE:H	5:C:1016:ILE:CD1	2.16	0.55
5:C:1020:PRO:O	5:C:1021:LEU:HD12	2.07	0.55
6:D:114:THR:HG22	6:D:495:ARG:HA	1.87	0.55
6:D:462:GLN:HG2	6:D:466:LYS:NZ	2.21	0.55
6:D:700:VAL:HG12	6:D:749:VAL:HG12	1.88	0.55
6:D:804:LEU:HD23	6:D:804:LEU:H	1.71	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
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)
6:N:834:THR:HG22	6:N:838:ARG:NH1	2.21	0.55
6:N:1016:PRO:HB3	11:N:9351:HOH:O	2.04	0.55
6:N:1258:ARG:NH1	6:N:1268:PRO:HB3	2.16	0.55
4:B:30:ARG:HH22	5:C:854:PRO:CG	2.20	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
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
6:D:473:LEU:O	6:D:477:LEU:HG	2.06	0.55
6:D:808:THR:OG1	6:D:809:PRO:HD3	2.07	0.55
4:L:58:ILE:HG22	4:L:61:VAL:H	1.71	0.55
5:M:134:ARG:HD3	5:M:392:SER:HB3	1.86	0.55
5:M:173:ASP:HB2	5:M:185:LYS:NZ	2.22	0.55
5:M:943:VAL:HG23	5:M:985:GLY:H	1.72	0.55
6:N:402:PRO:HA	6:N:443:VAL:HG23	1.88	0.55
6:N:1165:TYR:CE2	6:N:1214:PRO:HB3	2.42	0.55
4:A:183:ASP:HB3	11:A:321:HOH:O	2.07	0.55
4:B:30:ARG:HH22	5:C:854:PRO:HG2	1.72	0.55
5:C:136:ILE:CG2	5:C:336:VAL:HG22	2.36	0.55
5:C:401:LEU:HD21	5:C:565:GLN:HE21	1.71	0.55
5:C:527:GLU:OE1	5:C:528:GLU:HG3	2.06	0.55
5:C:780:GLU:HG2	11:C:1242:HOH:O	2.06	0.55
6:D:887:ALA:HB3	11:D:8116:HOH:O	2.06	0.55
6:D:1007:VAL:HG12	6:D:1011:PHE:CE2	2.40	0.55
4:K:57:TYR:CE2	4:K:59:GLU:HA	2.41	0.55
4:K:72:LYS:HE3	5:M:641:PRO:O	2.06	0.55
5:M:115:LEU:O	5:M:115:LEU:HD12	2.06	0.55
5:M:138:SER:HB3	5:M:333:ILE:HG23	1.88	0.55
5:M:265:ARG:HB3	5:M:267:TYR:CD2	2.42	0.55
5:M:975:TYR:HA	5:M:982:PRO:HA	1.89	0.55
5:C:5:ARG:NE	5:C:8:ARG:HH12	2.00	0.55
5:C:139:GLN:O	5:C:333:ILE:HA	2.07	0.55
6:D:117:ASP:H	6:D:150:ARG:HH12	1.55	0.55
5:M:285:LEU:HD23	5:M:285:LEU:O	2.06	0.55
5:M:987:ILE:HG12	6:N:948:THR:HG21	1.88	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
1:X:17:DC:H2''	1:X:18:DG:C5'	2.37	0.55
4:A:153:ALA:HA	4:A:156:HIS:NE2	2.22	0.55
4:B:41:ARG:HD2	4:B:177:VAL:CG2	2.37	0.55
5:C:431:HIS:NE2	5:C:432:ARG:HB2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1045:ALA:HB1	5:C:1048:THR:HB	1.89	0.55
6:D:112:ILE:HB	6:D:512:MET:SD	2.46	0.55
6:D:794:GLN:HB3	6:D:1017:PHE:HZ	1.72	0.55
6:D:801:GLY:HA2	11:D:8362:HOH:O	2.06	0.55
6:D:1481:VAL:O	6:D:1481:VAL:HG12	2.07	0.55
5:M:433:THR:CG2	5:M:488:ALA:HB1	2.35	0.55
5:M:626:ARG:HH12	5:M:637:LEU:CB	2.17	0.55
6:N:52:PRO:HD2	6:N:85:VAL:CG2	2.32	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:N:161:LEU:HD22	6:N:452:ILE:HG21	1.87	0.55
6:N:827:ILE:HD12	6:N:827:ILE:H	1.72	0.55
6:N:957:PRO:HG2	6:N:1007:VAL:HG22	1.87	0.55
6:N:1027:GLY:HA2	11:N:9239:HOH:O	2.06	0.55
6:N:1105:ILE:HD13	11:N:9367:HOH:O	2.05	0.55
1:G:18:DG:H5'	1:G:18:DG:H8	1.72	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
6:D:554:LEU:HD21	6:D:571:LYS:CE	2.36	0.55
4:K:72:LYS:HG3	5:M:641:PRO:HB2	1.87	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
4:L:205:VAL:HG11	11:L:322:HOH:O	2.05	0.55
5:M:141:HIS:CB	5:M:418:LEU:HD23	2.33	0.55
5:M:176:VAL:C	5:M:178:PRO:HD3	2.27	0.55
5:M:660:ALA:HB1	5:M:667:ALA:O	2.06	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
5:M:752:GLY:O	6:N:679:ARG:HG2	2.06	0.55
5:M:1067:TYR:CE1	5:M:1071:ILE:HD11	2.41	0.55
6:N:18:ILE:CG2	6:N:518:PRO:HG3	2.22	0.55
6:N:43:GLY:N	11:N:9087:HOH:O	2.40	0.55
6:N:137:PRO:HB2	6:N:138:LYS:HD3	1.89	0.55
4:A:206:THR:HG23	4:A:208:LEU:H	1.72	0.55
4:B:55:SER:OG	4:B:143:ARG:HD3	2.06	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:119:SER:N	6:D:123:LEU:HD22	2.18	0.55
6:D:1147:ARG:HB3	6:D:1188:VAL:CG2	2.37	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
4:K:161:ARG:HA	11:K:728:HOH:O	2.07	0.55
5:M:535:SER:HB3	5:M:537:LYS:HZ2	1.71	0.55
5:M:1022:GLY:HA3	5:M:1026:GLN:O	2.07	0.55
5:M:1098:ASP:HB2	6:N:21:TRP:CZ2	2.42	0.55
6:N:123:LEU:O	6:N:126:VAL:HB	2.07	0.55
6:N:183:GLU:HG2	6:N:184:GLU:N	2.21	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
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
4:B:154:GLU:CD	4:B:155:LYS:HZ1	2.10	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:C:374:ASN:ND2	5:C:377:PRO:HD3	2.21	0.55
6:D:30:GLU:HB3	6:D:40:GLU:HB3	1.89	0.55
6:D:57:GLU:HG2	6:D:58:CYS:N	2.21	0.55
6:D:899:LEU:HD12	6:D:900:ILE:HG23	1.88	0.55
6:D:1105:ILE:HD12	6:D:1373:ARG:NH2	2.19	0.55
6:D:1266:ARG:HG2	6:D:1267:ARG:N	2.20	0.55
6:D:1389:LEU:HG	6:D:1390:LEU:HG	1.89	0.55
4:K:30:ARG:HH12	5:M:938:LYS:HD2	1.70	0.55
5:M:12:VAL:HB	5:M:472:ARG:NH2	2.22	0.55
5:M:139:GLN:HE21	5:M:418:LEU:HD22	1.72	0.55
5:M:239:PHE:CE1	5:M:254:VAL:HB	2.33	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:N:1393:GLN:HB2	6:N:1398:TRP:CZ2	2.42	0.55
6:N:1457:ASP:O	6:N:1459:LEU:HD12	2.07	0.55
1:G:12:DG:H2''	1:G:13:DT:O5'	2.06	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
4:B:181:VAL:HB	11:B:355:HOH:O	2.06	0.55
5:C:751:PRO:HA	5:C:792:VAL:HB	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
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)
6:D:618:LEU:HB3	6:D:619:LEU:HD23	1.89	0.55
6:D:630:VAL:HA	6:D:744:GLN:CG	2.37	0.55
4:K:73:GLU:OE1	4:K:130:ALA:HA	2.06	0.55
5:M:173:ASP:O	5:M:184:MET:HA	2.06	0.55
5:M:700:TYR:CB	5:M:833:LEU:HD22	2.37	0.55
2:H:7:G:C8	2:H:7:G:C5'	2.91	0.54
2:Y:7:G:H8	2:Y:7:G:O5'	1.90	0.54
4:A:53:VAL:HG13	4:A:142:VAL:HG12	1.89	0.54
4:B:24:VAL:HG22	4:B:196:THR:HB	1.90	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
5:C:313:LEU:CB	5:C:321:GLU:HG3	2.37	0.54
5:C:714:ASP:HB2	5:C:818:GLY:O	2.07	0.54
6:D:447:VAL:HG23	6:D:448:GLU:N	2.21	0.54
6:D:630:VAL:HA	6:D:744:GLN:HG2	1.89	0.54
6:D:675:ARG:HA	6:D:678:GLU:CD	2.27	0.54
6:D:827:ILE:HG22	6:D:837:GLY:HA2	1.88	0.54
6:D:890:VAL:HG11	6:D:922:LEU:CD1	2.37	0.54
6:D:1425:THR:HG21	11:D:8492:HOH:O	2.06	0.54
4:L:219:ARG:HB2	11:L:344:HOH:O	2.06	0.54
5:M:587:VAL:HG11	5:M:666:LEU:HD22	1.88	0.54
5:M:716:LYS:NZ	6:N:36:THR:HA	2.21	0.54
6:N:482:LYS:HB2	6:N:1388:ARG:NH2	2.21	0.54
6:N:520:LEU:CD1	6:N:521:PRO:HD2	2.35	0.54
6:N:584:ASN:CG	6:N:590:PRO:HD2	2.27	0.54
6:N:1125:PRO:C	6:N:1130:ARG:HH12	2.11	0.54
6:N:1192:LEU:HD22	6:N:1345:GLU:HG2	1.89	0.54
6:N:1263:PHE:O	6:N:1424:VAL:HG12	2.07	0.54
6:N:1500:LYS:HB3	11:N:9412:HOH:O	2.07	0.54
7:O:13:VAL:HG11	7:O:18:ARG:HB3	1.89	0.54
5:C:814:GLU:HB3	11:C:1562:HOH:O	2.06	0.54
5:C:842:ARG:HH21	5:C:993:PHE:HB3	1.73	0.54
5:C:1032:PHE:O	5:C:1033:GLY:O	2.26	0.54
6:D:115:LEU:HD13	6:D:502:PHE:CD1	2.42	0.54
6:D:445:ARG:HG2	6:D:445:ARG:HH11	1.71	0.54
6:D:967:ALA:HA	11:D:8411:HOH:O	2.06	0.54
6:D:1087:ARG:HD2	6:D:1256:LEU:HD22	1.89	0.54
5:M:15:LEU:HG	5:M:458:TYR:CE1	2.43	0.54
5:M:244:PRO:CD	5:M:245:GLY:H	2.20	0.54
5:M:607:ASP:HB2	5:M:610:ARG:O	2.06	0.54
5:M:666:LEU:HD11	5:M:668:LEU:HD21	1.88	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
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:C:367:LEU:O	5:C:371:LYS:HB3	2.06	0.54
5:C:413:LEU:HD11	5:C:452:ILE:HD11	1.89	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
5:C:715:THR:HG22	5:C:717:LEU:HG	1.90	0.54
5:C:1046:ALA:HB2	6:D:1476:THR:H	1.72	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
6:D:165:LYS:HD3	6:D:448:GLU:CD	2.27	0.54
6:D:685:ASP:HA	6:D:688:TRP:CD1	2.41	0.54
4:K:152:PRO:HB3	4:K:154:GLU:OE2	2.07	0.54
4:L:59:GLU:CG	4:L:139:ASN:HD22	2.20	0.54
5:M:250:ARG:HG2	5:M:253:ALA:HB3	1.90	0.54
5:M:674:VAL:HG12	5:M:990:GLY:O	2.07	0.54
5:M:851:LYS:HE2	5:M:852:ILE:O	2.08	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
6:N:111:LYS:HG2	6:N:1452:ILE:HD11	1.89	0.54
6:N:1120:VAL:O	6:N:1185:GLU:HA	2.08	0.54
2:Y:5:C:H5'	5:M:764:GLU:OE2	2.06	0.54
4:A:149:GLY:O	4:A:171:PHE:HB2	2.08	0.54
5:C:12:VAL:HG12	5:C:534:VAL:HG13	1.89	0.54
5:C:198:ARG:HH11	5:C:204:GLN:HG2	1.71	0.54
5:C:289:THR:O	5:C:291:ALA:N	2.40	0.54
5:C:292:ARG:HD2	5:C:299:LYS:HE2	1.90	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
6:D:204:LEU:HD12	6:D:396:VAL:HB	1.88	0.54
6:D:971:LEU:HG	6:D:972:LEU:HD22	1.89	0.54
4:L:54:THR:HG22	4:L:158:ILE:HG13	1.89	0.54
4:L:81:ASN:ND2	4:L:127:LEU:HD11	2.22	0.54
5:M:598:GLU:HG3	5:M:623:TYR:OH	2.08	0.54
5:M:983:ILE:HG21	5:M:987:ILE:CD1	2.37	0.54
5:M:1008:ARG:NH2	5:M:1012:PRO:O	2.41	0.54
6:N:28:LYS:HB3	6:N:41:ARG:HD2	1.89	0.54
7:O:28:GLN:CB	7:O:32:ARG:HH22	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:51:LEU:CD2	7:O:52:GLU:H	2.19	0.54
4:B:99:LEU:HD13	4:B:144:VAL:HG21	1.90	0.54
5:C:897:LEU:O	5:C:899:GLN:HG2	2.08	0.54
6:D:38:LYS:HG2	6:D:39:PRO:CD	2.37	0.54
6:D:622:ARG:HD2	11:D:8134:HOH:O	2.07	0.54
6:D:731:LEU:CD1	6:D:931:LEU:HB3	2.37	0.54
6:D:1485:GLN:NE2	7:E:79:LEU:N	2.55	0.54
5:M:554:ASP:HB3	5:M:880:MET:HB2	1.87	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
5:M:1067:TYR:CZ	5:M:1071:ILE:HD11	2.43	0.54
5:M:1085:PHE:HE2	6:N:1468:LEU:HG	1.72	0.54
6:N:132:TYR:O	6:N:456:MET:HB3	2.06	0.54
6:N:462:GLN:CB	6:N:513:ILE:HD13	2.37	0.54
6:N:1054:GLU:HB3	11:N:9098:HOH:O	2.07	0.54
6:N:1192:LEU:HD21	6:N:1372:VAL:HG13	1.89	0.54
6:N:1255:GLY:O	6:N:1259:VAL:HG23	2.08	0.54
11:N:9184:HOH:O	7:O:80:VAL:HG21	2.08	0.54
4:B:33:GLY:O	4:B:195:LEU:HD13	2.08	0.54
5:C:16:PRO:HD2	5:C:458:TYR:HA	1.89	0.54
5:C:182:VAL:HG21	5:C:220:GLY:C	2.28	0.54
5:C:310:LEU:O	5:C:314:THR:HG23	2.07	0.54
5:C:479:VAL:HG23	11:C:1232:HOH:O	2.08	0.54
5:C:607:ASP:HB3	5:C:610:ARG:H	1.71	0.54
5:C:806:LEU:CD1	5:C:813:VAL:HG21	2.37	0.54
5:C:869:VAL:HA	11:C:1453:HOH:O	2.08	0.54
6:D:135:LEU:HD13	6:D:148:GLU:HB2	1.89	0.54
6:D:203:ALA:HB1	11:D:8118:HOH:O	2.06	0.54
6:D:394:LEU:HD23	6:D:394:LEU:H	1.73	0.54
6:D:989:TYR:O	6:D:993:LEU:HG	2.08	0.54
6:D:1373:ARG:HE	6:D:1374:GLN:HE21	1.56	0.54
4:L:92:PRO:HA	4:L:146:ARG:NH1	2.23	0.54
5:M:89:THR:HG21	5:M:383:ARG:NH2	2.23	0.54
5:M:132:ALA:HB1	5:M:632:ASN:ND2	2.20	0.54
5:M:164:PRO:HB2	11:M:1226:HOH:O	2.07	0.54
5:M:332:ARG:HA	5:M:465:GLY:O	2.07	0.54
5:M:943:VAL:HG11	5:M:973:VAL:HG21	1.90	0.54
6:N:141:ILE:H	6:N:141:ILE:HD12	1.73	0.54
6:N:754:PHE:HE2	6:N:1476:THR:HG21	1.72	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:577:PRO:HA	5:C:671:ASN:HD21	1.71	0.54
5:C:861:LEU:HD12	5:C:865:THR:HG23	1.88	0.54
6:D:62:LYS:HD2	6:D:75:ARG:HD2	1.90	0.54
6:D:133:ILE:CG2	6:D:454:ALA:HB1	2.37	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
5:M:304:LEU:CD2	5:M:305:PRO:HD3	2.29	0.54
5:M:461:VAL:HA	11:M:1287:HOH:O	2.07	0.54
5:M:837:ASP:O	5:M:848:VAL:HG13	2.06	0.54
6:N:1246:VAL:HB	11:N:9392:HOH:O	2.07	0.54
7:O:41:GLU:HG2	7:O:42:PRO:CD	2.37	0.54
4:A:24:VAL:HG13	4:A:196:THR:HG22	1.89	0.54
4:A:101:LEU:HB3	4:A:114:PHE:CD2	2.43	0.54
11:B:382:HOH:O	6:D:685:ASP:HB3	2.08	0.54
5:C:496:ILE:HD12	5:C:496:ILE:N	2.23	0.54
5:C:668:LEU:O	5:C:995:MET:HB3	2.08	0.54
5:C:833:LEU:HD11	5:C:839:LEU:HD21	1.89	0.54
5:C:1017:THR:HB	6:D:613:ARG:NH2	2.22	0.54
6:D:111:LYS:HG2	6:D:1452:ILE:HD11	1.90	0.54
6:D:165:LYS:HA	6:D:199:LEU:CD1	2.38	0.54
6:D:470:LEU:HD23	6:D:470:LEU:H	1.73	0.54
6:D:708:LEU:HB3	6:D:1231:GLU:CB	2.35	0.54
6:D:926:LYS:HA	6:D:929:ARG:HD2	1.88	0.54
7:E:47:LYS:HA	7:E:54:LEU:HB3	1.88	0.54
4:K:14:ARG:HH22	4:K:24:VAL:HG23	1.73	0.54
4:L:159:LYS:HB2	11:L:316:HOH:O	2.08	0.54
5:M:1097:LEU:HD22	5:M:1097:LEU:N	2.13	0.54
6:N:90:MET:HE1	6:N:518:PRO:HB2	1.89	0.54
6:N:583:ASP:OD1	6:N:586:ARG:HG3	2.07	0.54
5:C:100:LEU:HD22	5:C:372:LEU:CD2	2.38	0.54
5:C:397:GLU:OE1	5:C:631:SER:HB2	2.08	0.54
5:C:1101:THR:OG1	5:C:1109:VAL:HB	2.08	0.54
6:D:471:GLU:O	6:D:474:GLU:HB3	2.08	0.54
6:D:799:LYS:O	6:D:829:VAL:HG22	2.08	0.54
6:D:1209:LEU:HD21	7:E:16:LYS:HZ1	1.73	0.54
5:M:620:LEU:HD12	5:M:620:LEU:H	1.72	0.54
6:N:776:GLU:HB3	6:N:912:LYS:HE2	1.90	0.54
4:A:42:ARG:HH12	4:B:34:VAL:HG11	1.72	0.54
4:A:91:ASN:ND2	4:A:93:SER:H	2.06	0.54
11:B:374:HOH:O	6:D:851:LEU:HD11	2.07	0.54
5:C:684:PHE:N	5:C:687:ALA:HB3	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:565:ILE:HB	6:D:566:ILE:HD12	1.90	0.54
6:D:964:LEU:HD21	6:D:1058:ARG:NE	2.22	0.54
6:D:1003:VAL:HG11	6:D:1041:LEU:HD23	1.90	0.54
4:L:5:LYS:O	4:L:8:ALA:HB2	2.07	0.54
4:L:137:ARG:C	4:L:137:ARG:HD3	2.28	0.54
5:M:225:SER:HB2	11:M:1245:HOH:O	2.08	0.54
5:M:468:ARG:HE	5:M:487:THR:CA	2.21	0.54
5:M:1095:LEU:HB2	5:M:1097:LEU:HD23	1.89	0.54
6:N:131:LYS:HZ3	6:N:568:ARG:HB2	1.72	0.54
6:N:177:ALA:HB3	6:N:205:TYR:OH	2.08	0.54
6:N:436:GLU:HB2	6:N:445:ARG:HG3	1.89	0.54
6:N:868:TYR:HB2	6:N:873:LEU:HD12	1.89	0.54
6:N:996:TRP:HB2	11:N:9079:HOH:O	2.07	0.54
4:A:22:GLU:OE2	4:A:198:ARG:HB3	2.08	0.53
5:C:497:ALA:HA	5:C:515:ALA:HA	1.90	0.53
5:C:758:ARG:HH22	5:C:788:THR:HB	1.73	0.53
5:C:911:GLU:HB3	5:C:912:PRO:HD3	1.90	0.53
6:D:32:ILE:HB	6:D:527:MET:HE3	1.90	0.53
6:D:53:ILE:HA	6:D:86:ARG:NE	2.23	0.53
6:D:127:LEU:HD22	6:D:460:ALA:HB3	1.90	0.53
6:D:600:LEU:H	6:D:600:LEU:HD12	1.72	0.53
6:D:754:PHE:CG	7:E:24:ALA:HB1	2.43	0.53
5:M:57:GLU:O	5:M:62:GLY:HA3	2.07	0.53
5:M:510:ALA:HB3	5:M:513:VAL:CG2	2.37	0.53
6:N:478:LEU:O	6:N:1388:ARG:NH2	2.42	0.53
6:N:1122:LEU:HB3	11:N:9164:HOH:O	2.09	0.53
6:N:1462:LEU:O	6:N:1466:VAL:HG23	2.08	0.53
2:H:13:C:C4'	5:C:409:ARG:HH22	2.13	0.53
3:I:11:DC:H5	11:I:331:HOH:O	1.91	0.53
3:Z:10:DA:H5''	6:N:121:THR:HG21	1.89	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:D:22:SER:CB	6:D:92:HIS:HB3	2.37	0.53
4:K:72:LYS:HD2	5:M:606:VAL:HG11	1.90	0.53
4:L:73:GLU:HB3	4:L:77:GLU:CG	2.38	0.53
5:M:34:VAL:HB	5:M:38:LYS:CG	2.38	0.53
5:M:259:GLY:HA3	11:M:1270:HOH:O	2.08	0.53
6:N:168:THR:CG2	6:N:206:ARG:HH12	2.21	0.53
6:N:462:GLN:HA	6:N:513:ILE:HD13	1.89	0.53
6:N:875:THR:HB	6:N:880:ILE:HD11	1.90	0.53
6:N:1168:MET:CE	6:N:1171:VAL:HB	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1191:PRO:HG2	6:N:1370:ILE:CD1	2.38	0.53
6:N:1262:LEU:HD21	6:N:1351:GLU:HG3	1.91	0.53
1:G:17:DC:H2''	1:G:18:DG:C5'	2.36	0.53
5:C:134:ARG:HE	5:C:392:SER:HB3	1.72	0.53
5:C:136:ILE:HG22	5:C:336:VAL:HG22	1.88	0.53
5:C:438:ILE:HG23	5:C:453:THR:OG1	2.08	0.53
5:C:462:ASP:OD1	5:C:462:ASP:N	2.41	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
5:C:1105:LYS:HZ2	5:C:1107:ASN:HD22	1.55	0.53
6:D:126:VAL:HG21	11:D:8125:HOH:O	2.07	0.53
6:D:955:VAL:HG11	6:D:1015:TYR:CE2	2.42	0.53
6:D:1063:GLU:HG3	6:D:1064:GLY:N	2.24	0.53
6:D:1184:GLN:HB2	6:N:559:ALA:HA	1.90	0.53
4:K:171:PHE:O	4:K:173:PRO:HD3	2.08	0.53
4:L:94:LEU:HD11	4:L:119:ASP:HB3	1.91	0.53
4:L:201:THR:HG21	4:L:205:VAL:HG23	1.90	0.53
5:M:512:ARG:HD3	5:M:523:ILE:HD11	1.90	0.53
6:N:394:LEU:HG	6:N:396:VAL:CG2	2.38	0.53
6:N:473:LEU:O	6:N:477:LEU:HG	2.08	0.53
6:N:619:LEU:HD23	6:N:619:LEU:N	2.23	0.53
6:N:817:GLU:O	6:N:821:VAL:HG23	2.08	0.53
6:N:1114:THR:CG2	6:N:1195:GLN:HB3	2.38	0.53
7:O:91:ARG:HG2	11:O:2238:HOH:O	2.08	0.53
4:A:62:LEU:HD13	11:A:334:HOH:O	2.08	0.53
4:B:5:LYS:O	4:B:8:ALA:HB2	2.08	0.53
5:C:274:ARG:HB2	5:C:285:LEU:CD1	2.38	0.53
6:D:781:PRO:O	6:D:786:ILE:HD11	2.07	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:205:GLU:HB2	11:M:1398:HOH:O	2.07	0.53
5:M:334:ARG:O	5:M:339:LEU:HD11	2.09	0.53
5:M:344:PHE:HE2	5:M:378:LEU:HD21	1.74	0.53
5:M:642:ARG:HD2	11:M:1230:HOH:O	2.08	0.53
5:M:1045:ALA:HB1	5:M:1048:THR:HB	1.90	0.53
6:N:95:LEU:HD13	6:N:515:GLU:C	2.28	0.53
6:N:878:GLY:HA2	6:N:881:LEU:HD23	1.90	0.53
6:N:1078:ARG:HG3	6:N:1078:ARG:HH11	1.72	0.53
1:X:17:DC:H4'	6:N:628:ARG:CD	2.38	0.53
4:A:102:LYS:NZ	4:A:139:ASN:HD21	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:159:LYS:HZ1	4:A:166:PRO:HD3	1.72	0.53
4:A:175:ARG:CZ	4:A:176:ARG:HD3	2.37	0.53
4:B:159:LYS:HD3	4:B:159:LYS:N	2.24	0.53
5:C:167:LYS:HE3	11:C:1598:HOH:O	2.08	0.53
5:C:309:TYR:HA	5:C:312:ALA:HB3	1.90	0.53
5:C:872:ASN:ND2	5:C:874:LEU:H	2.06	0.53
5:C:905:ILE:HG22	5:C:906:PHE:N	2.23	0.53
6:D:152:LEU:HD11	11:D:8125:HOH:O	2.09	0.53
6:D:191:LEU:HD11	6:D:395:VAL:CG2	2.38	0.53
6:D:643:GLY:O	6:D:726:ILE:HG23	2.08	0.53
6:D:758:GLU:O	6:D:762:GLN:HG2	2.08	0.53
6:D:1376:MET:HE1	6:D:1421:LEU:HD22	1.90	0.53
4:K:9:PRO:HB3	4:K:25:LEU:CG	2.38	0.53
4:K:20:TYR:HD2	4:K:21:GLY:N	2.07	0.53
4:K:57:TYR:CZ	4:K:59:GLU:HA	2.43	0.53
4:K:176:ARG:HG3	4:K:200:TRP:CE3	2.44	0.53
4:L:58:ILE:HB	4:L:61:VAL:CG1	2.39	0.53
4:L:121:GLU:OE2	4:L:123:MET:HG2	2.09	0.53
5:M:140:ILE:HD11	5:M:412:ALA:HB2	1.91	0.53
5:M:224:GLU:HB2	5:M:227:PHE:CD1	2.44	0.53
5:M:1019:GLN:HG2	5:M:1058:ASP:OD1	2.08	0.53
6:N:769:LEU:HD11	6:N:919:PHE:CZ	2.43	0.53
6:N:800:LYS:HZ1	6:N:804:LEU:HD22	1.73	0.53
6:N:814:ALA:HB1	6:N:818:ARG:NH2	2.24	0.53
6:N:886:VAL:HG13	6:N:930:LEU:HD11	1.89	0.53
6:N:1148:VAL:HG13	6:N:1163:GLY:HA2	1.90	0.53
6:N:1231:GLU:HB3	6:N:1232:PRO:CD	2.38	0.53
1:X:22:DC:H4'	5:M:388:ARG:HG3	1.90	0.53
5:C:1006:HIS:HA	5:C:1027:PHE:CD1	2.43	0.53
6:D:806:PHE:HE1	6:D:813:LEU:HD23	1.72	0.53
6:D:864:VAL:HG12	6:D:865:THR:H	1.74	0.53
4:K:20:TYR:HD2	4:K:21:GLY:H	1.55	0.53
11:K:1782:HOH:O	5:M:640:ARG:HG2	2.08	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:N:1112:CYS:SG	6:N:1195:GLN:HG2	2.49	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
5:C:257:VAL:HG21	11:C:1481:HOH:O	2.08	0.53
5:C:326:ASP:CB	5:C:431:HIS:HB2	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:329:GLY:HA3	5:C:489:THR:HG23	1.89	0.53
6:D:132:TYR:C	6:D:133:ILE:HD13	2.29	0.53
6:D:960:LYS:HE2	6:D:1041:LEU:HD22	1.91	0.53
6:D:1041:LEU:HD12	6:D:1058:ARG:HA	1.90	0.53
6:D:1221:VAL:HG12	6:D:1222:GLY:N	2.24	0.53
7:E:25:LYS:HA	7:E:28:GLN:HE21	1.74	0.53
4:L:33:GLY:O	4:L:195:LEU:HD22	2.09	0.53
5:M:463:GLU:HB3	11:M:1525:HOH:O	2.09	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
2:Y:7:G:O6	5:M:1015:LEU:HB2	2.09	0.53
4:B:50:GLY:HA3	4:B:171:PHE:O	2.08	0.53
5:C:217:LEU:N	5:C:217:LEU:HD23	2.24	0.53
6:D:43:GLY:N	11:D:8160:HOH:O	2.41	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
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:N:1271:LYS:HZ1	6:N:1331:ASP:HB2	1.72	0.53
5:C:305:PRO:HA	5:C:308:ARG:HB3	1.90	0.53
5:C:545:ASN:OD1	5:C:583:LEU:HD13	2.08	0.53
5:C:679:PHE:C	6:D:943:THR:HG22	2.29	0.53
5:C:881:ASN:HD22	5:C:881:ASN:H	1.55	0.53
6:D:161:LEU:HD22	6:D:452:ILE:HD13	1.91	0.53
6:D:181:ASP:O	6:D:204:LEU:HA	2.08	0.53
6:D:1258:ARG:HG2	11:D:8324:HOH:O	2.09	0.53
6:D:1435:LEU:HD23	6:D:1467:ILE:HD12	1.91	0.53
4:K:47:SER:HB3	4:K:217:ILE:HD13	1.90	0.53
4:K:218:LEU:HG	11:K:1711:HOH:O	2.09	0.53
5:M:142:ARG:HA	5:M:330:ASN:O	2.09	0.53
5:M:549:PHE:CG	5:M:886:LEU:HD23	2.43	0.53
5:M:644:VAL:HG22	5:M:647:GLN:OE1	2.08	0.53
6:N:808:THR:OG1	6:N:809:PRO:HD3	2.09	0.53
6:N:1128:VAL:O	6:N:1129:THR:C	2.47	0.53
6:N:1200:VAL:HG22	6:N:1373:ARG:HH12	1.73	0.53
7:O:73:LEU:N	7:O:73:LEU:HD12	2.24	0.53
1:X:12:DG:H2''	1:X:13:DT:H5'	1.90	0.53
4:B:206:THR:CG2	4:B:209:GLU:H	2.20	0.53
5:C:195:LEU:HG	5:C:238:LEU:CD1	2.38	0.53
5:C:442:GLU:HA	11:C:1416:HOH:O	2.08	0.53
5:C:798:GLY:HA3	5:C:828:ALA:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:957:LYS:HD3	5:C:961:GLU:OE1	2.09	0.53
6:D:695:ILE:HG21	6:D:720:LEU:HD11	1.89	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:1037:GLN:OE1	6:D:1042:ARG:HD3	2.09	0.53
6:D:1176:LYS:HA	6:D:1179:GLU:OE1	2.09	0.53
6:D:1441:GLN:NE2	6:D:1442:ASN:HB2	2.25	0.53
4:K:49:PRO:HG3	11:K:867:HOH:O	2.09	0.53
4:K:100:LEU:HG	4:K:101:LEU:N	2.22	0.53
4:L:10:VAL:HG23	4:L:26:GLU:O	2.09	0.53
5:M:172:ILE:H	5:M:172:ILE:HD12	1.73	0.53
5:M:264:PRO:HB3	5:M:289:THR:HB	1.90	0.53
5:M:264:PRO:HB3	5:M:289:THR:CB	2.38	0.53
5:M:394:PHE:HD1	5:M:633:GLN:HE22	1.56	0.53
5:M:759:THR:HB	5:M:785:VAL:HG13	1.90	0.53
5:M:1101:THR:HG21	5:M:1111:ILE:CG2	2.38	0.53
5:M:1101:THR:OG1	5:M:1109:VAL:HB	2.08	0.53
6:N:482:LYS:HB2	6:N:1388:ARG:HH21	1.73	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
1:G:20:DG:H4'	5:C:394:PHE:CZ	2.44	0.52
11:Z:1999:HOH:O	6:N:1426:LYS:HG3	2.08	0.52
4:A:186:LEU:HB3	4:A:192:LEU:CD1	2.39	0.52
4:B:28:LEU:HG	4:B:193:ASP:O	2.08	0.52
5:C:1:MET:HG2	5:C:900:ARG:NH2	2.23	0.52
5:C:443:THR:HA	5:C:452:ILE:O	2.09	0.52
5:C:1031:ARG:HH21	6:D:621:LYS:HG3	1.73	0.52
6:D:1269:LYS:NZ	6:D:1269:LYS:HB3	2.24	0.52
6:D:1465:ASN:ND2	6:D:1470:ARG:HE	2.05	0.52
4:L:37:GLY:HA3	4:L:179:PHE:CD1	2.45	0.52
5:M:69:LEU:HB2	5:M:97:ARG:HB2	1.91	0.52
5:M:367:LEU:HB3	5:M:371:LYS:HG2	1.90	0.52
5:M:821:GLU:HB3	11:M:1453:HOH:O	2.08	0.52
5:M:949:LYS:HD3	6:N:796:ARG:HH22	1.74	0.52
5:M:953:VAL:HG22	5:M:966:LEU:HD11	1.90	0.52
5:M:1008:ARG:HB2	5:M:1027:PHE:HB2	1.91	0.52
6:N:166:GLN:HG2	6:N:396:VAL:HG13	1.91	0.52
6:N:496:LEU:CD1	6:N:500:ARG:HG2	2.39	0.52
6:N:705:ALA:CB	6:N:706:PRO:HD3	2.39	0.52
6:N:882:PHE:O	6:N:886:VAL:HG23	2.08	0.52
6:N:1058:ARG:HG2	11:N:9214:HOH:O	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1503:VAL:HG21	11:N:9060:HOH:O	2.07	0.52
5:C:143:SER:HB2	5:C:276:LYS:NZ	2.24	0.52
5:C:251:ASP:HB3	5:C:252:LYS:HD2	1.91	0.52
5:C:260:LEU:HG	5:C:261:ILE:HG13	1.91	0.52
5:C:1105:LYS:O	5:C:1107:ASN:N	2.42	0.52
6:D:610:LYS:HA	6:D:615:ARG:CD	2.39	0.52
7:E:32:ARG:HB2	7:E:32:ARG:HH11	1.74	0.52
4:K:70:GLY:H	5:M:607:ASP:CG	2.12	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
5:M:89:THR:HA	5:M:129:ILE:O	2.08	0.52
5:M:134:ARG:HH11	5:M:392:SER:HB3	1.74	0.52
5:M:260:LEU:CB	5:M:291:ALA:HB1	2.36	0.52
5:M:305:PRO:HA	5:M:308:ARG:HB3	1.91	0.52
5:M:456:ALA:HB1	5:M:538:GLN:O	2.09	0.52
6:N:204:LEU:HD13	6:N:445:ARG:HE	1.72	0.52
6:N:520:LEU:HG	6:N:521:PRO:N	2.24	0.52
6:N:1053:PHE:CE1	6:N:1072:ILE:HD12	2.44	0.52
6:N:1236:LEU:HD11	6:N:1361:VAL:HG23	1.90	0.52
2:H:8:C:O5'	2:H:8:C:H6	1.92	0.52
6:D:426:LYS:CE	6:D:427:VAL:HG23	2.40	0.52
6:D:975:GLU:OE1	6:D:975:GLU:HA	2.08	0.52
6:D:1081:GLY:HA2	6:D:1241:PHE:CD1	2.45	0.52
4:K:163:ASN:HA	11:K:2179:HOH:O	2.10	0.52
4:K:180:GLN:HA	5:M:937:ASP:OD1	2.08	0.52
4:L:7:LYS:HE3	4:L:186:LEU:HD13	1.90	0.52
5:M:218:VAL:HG22	5:M:221:LEU:CD2	2.39	0.52
5:M:432:ARG:NH2	6:N:1047:LYS:HD3	2.22	0.52
5:M:1092:LEU:HA	5:M:1095:LEU:CD1	2.39	0.52
6:N:104:PHE:HD1	6:N:512:MET:HG2	1.74	0.52
6:N:496:LEU:HD12	6:N:496:LEU:O	2.09	0.52
6:N:789:LEU:O	6:N:793:THR:HG23	2.08	0.52
6:N:899:LEU:HD12	6:N:900:ILE:HG23	1.91	0.52
7:O:80:VAL:HG13	11:O:1385:HOH:O	2.09	0.52
2:Y:7:G:H22	5:M:1014:SER:CA	2.23	0.52
4:B:12:THR:OG1	4:B:24:VAL:HB	2.10	0.52
4:B:43:ILE:HG23	4:B:47:SER:CB	2.40	0.52
5:C:110:GLU:HG3	5:C:369:PRO:HB3	1.92	0.52
5:C:230:ARG:HG2	5:C:230:ARG:HH11	1.73	0.52
5:C:290:LEU:HB3	5:C:302:VAL:CG1	2.39	0.52
5:C:487:THR:HB	5:C:490:GLU:HG3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1105:LYS:HD2	5:C:1107:ASN:ND2	2.25	0.52
6:D:64:LYS:HD2	11:D:8441:HOH:O	2.09	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:D:557:LEU:HD11	11:D:8469:HOH:O	2.08	0.52
6:D:628:ARG:HB2	11:D:8067:HOH:O	2.08	0.52
6:D:1248:GLY:HA2	6:D:1251:ASP:OD2	2.09	0.52
4:L:43:ILE:HG23	4:L:47:SER:CB	2.39	0.52
5:M:674:VAL:HG23	5:M:869:VAL:HG13	1.92	0.52
5:M:690:ILE:HD11	5:M:833:LEU:HD23	1.91	0.52
5:M:807:ARG:HE	5:M:807:ARG:N	2.05	0.52
5:M:850:ALA:HA	6:N:632:VAL:HG11	1.92	0.52
5:M:860:HIS:CE1	5:M:975:TYR:HB2	2.45	0.52
5:M:1001:VAL:HG22	11:M:1555:HOH:O	2.09	0.52
5:M:1105:LYS:O	5:M:1107:ASN:N	2.42	0.52
6:N:119:SER:CB	6:N:123:LEU:HB2	2.38	0.52
6:N:192:ALA:HB1	6:N:193:PRO:HD2	1.92	0.52
6:N:584:ASN:HD22	6:N:585:GLY:N	2.08	0.52
6:N:644:LEU:HD12	6:N:645:PRO:HD2	1.91	0.52
6:N:1118:ILE:HD12	11:N:9016:HOH:O	2.09	0.52
6:N:1121:PRO:CD	6:N:1346:ARG:HE	2.22	0.52
1:X:13:DT:OP1	6:N:1093:TYR:HE2	1.93	0.52
4:A:190:THR:HA	11:A:369:HOH:O	2.08	0.52
5:C:173:ASP:O	5:C:184:MET:HA	2.09	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
5:C:816:LYS:H	5:C:816:LYS:HZ3	1.57	0.52
5:C:1062:GLY:HA2	11:C:1284:HOH:O	2.10	0.52
6:D:52:PRO:CG	6:D:80:VAL:HG13	2.39	0.52
6:D:95:LEU:HB3	6:D:515:GLU:O	2.09	0.52
6:D:600:LEU:HD12	6:D:600:LEU:N	2.25	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:D:1112:CYS:CB	6:D:1195:GLN:HG2	2.29	0.52
6:D:1118:ILE:HD11	11:D:8142:HOH:O	2.09	0.52
6:D:1184:GLN:HB2	6:N:559:ALA:CB	2.39	0.52
6:D:1232:PRO:HA	6:D:1235:GLN:OE1	2.10	0.52
4:L:27:PRO:HB3	4:L:192:LEU:HD22	1.91	0.52
5:M:5:ARG:HE	5:M:8:ARG:NH2	2.02	0.52
5:M:328:LEU:HD13	5:M:433:THR:HB	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:470:PRO:HB2	5:M:534:VAL:HG21	1.92	0.52
5:M:684:PHE:N	5:M:687:ALA:HB3	2.21	0.52
5:M:754:ILE:HG12	5:M:791:ARG:NH1	2.25	0.52
5:M:839:LEU:HD23	5:M:996:LYS:HA	1.92	0.52
5:M:1071:ILE:O	6:N:659:LYS:HD3	2.09	0.52
6:N:44:LEU:H	6:N:44:LEU:HD12	1.75	0.52
6:N:109:PRO:HB3	6:N:494:LYS:NZ	2.25	0.52
6:N:568:ARG:O	6:N:572:ARG:HG3	2.08	0.52
6:N:654:LYS:HB3	6:N:655:PRO:HD3	1.91	0.52
6:N:787:LEU:CD1	6:N:1023:MET:HA	2.39	0.52
6:N:832:ARG:HB3	6:N:833:GLU:OE1	2.09	0.52
6:N:1165:TYR:OH	6:N:1202:GLN:HG2	2.09	0.52
5:C:258:TYR:HB3	11:C:1335:HOH:O	2.08	0.52
6:D:142:LEU:CD2	6:D:146:PRO:HA	2.40	0.52
6:D:660:LYS:HD2	6:D:694:VAL:CG2	2.40	0.52
6:D:834:THR:HA	6:D:838:ARG:NH1	2.24	0.52
7:E:45:ARG:HG2	11:E:129:HOH:O	2.09	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:5:ARG:CZ	5:M:8:ARG:HH12	2.22	0.52
5:M:18:LEU:HD22	5:M:404:LEU:HD21	1.91	0.52
5:M:218:VAL:O	5:M:221:LEU:HG	2.10	0.52
5:M:516:ARG:NH2	6:N:1068:LEU:HB3	2.25	0.52
5:M:971:LYS:HG2	5:M:988:VAL:CB	2.40	0.52
5:M:1009:SER:OG	6:N:654:LYS:HD2	2.09	0.52
6:N:1034:GLN:NE2	6:N:1243:THR:HB	2.25	0.52
6:N:1045:MET:HE2	6:N:1073:SER:CB	2.35	0.52
6:N:1440:PHE:O	6:N:1441:GLN:O	2.28	0.52
7:O:36:LYS:HE2	7:O:36:LYS:HA	1.90	0.52
1:X:12:DG:H2''	1:X:13:DT:C5'	2.40	0.52
4:A:14:ARG:HH22	4:A:24:VAL:CG2	2.23	0.52
5:C:9:ILE:HD12	5:C:9:ILE:H	1.75	0.52
5:C:13:ILE:HD11	5:C:483:VAL:HG21	1.92	0.52
5:C:22:GLN:C	5:C:121:MET:HE1	2.30	0.52
5:C:39:ARG:H	5:C:39:ARG:CD	2.03	0.52
6:D:82:LYS:HD2	11:D:8499:HOH:O	2.08	0.52
6:D:615:ARG:HH22	6:D:1096:ARG:CD	2.22	0.52
6:D:1498:ALA:HB1	7:E:84:ARG:NH2	2.25	0.52
7:E:48:MET:CB	7:E:54:LEU:HB2	2.39	0.52
4:K:8:ALA:HB1	4:L:224:TYR:CE1	2.45	0.52
4:K:73:GLU:CD	4:K:130:ALA:HA	2.30	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
5:M:589:ARG:HH11	5:M:589:ARG:HB2	1.73	0.52
5:M:757:GLY:HA2	5:M:789:SER:OG	2.10	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
6:N:1492:LEU:HD12	6:N:1493:LYS:HZ1	1.73	0.52
4:A:178:ALA:HB3	4:A:198:ARG:CG	2.37	0.52
4:A:222:LEU:HD13	4:B:218:LEU:HD23	1.90	0.52
5:C:65:VAL:CG2	5:C:101:ILE:HB	2.40	0.52
5:C:564:MET:SD	5:C:995:MET:HG3	2.50	0.52
5:C:748:GLU:CB	5:C:799:ILE:HD12	2.39	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
6:D:684:LYS:HD3	6:D:686:GLU:OE1	2.10	0.52
5:M:91:GLN:NE2	5:M:383:ARG:NH2	2.57	0.52
5:M:157:ARG:HG2	11:M:1381:HOH:O	2.09	0.52
5:M:352:ALA:HA	5:M:355:VAL:CG1	2.39	0.52
5:M:1032:PHE:HZ	5:M:1040:LEU:HD13	1.74	0.52
6:N:141:ILE:HD12	6:N:141:ILE:N	2.25	0.52
6:N:452:ILE:HG22	11:N:9064:HOH:O	2.10	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
6:N:756:GLN:NE2	6:N:760:ARG:HD2	2.24	0.52
5:C:102:HIS:HB2	5:C:106:GLY:O	2.10	0.52
5:C:774:LEU:HD23	5:C:775:ARG:N	2.25	0.52
5:C:996:LYS:HE3	11:C:1151:HOH:O	2.10	0.52
6:D:543:LEU:O	6:D:546:ARG:HB2	2.10	0.52
6:D:651:GLU:HA	6:D:654:LYS:HZ2	1.73	0.52
6:D:731:LEU:HD13	6:D:931:LEU:HB3	1.91	0.52
4:K:156:HIS:CD2	4:K:157:GLY:N	2.77	0.52
4:L:216:GLU:HG3	4:L:220:GLU:OE1	2.10	0.52
5:M:212:GLY:HA3	5:M:218:VAL:HG21	1.91	0.52
5:M:565:GLN:OE1	5:M:842:ARG:HG2	2.10	0.52
6:N:204:LEU:HD12	6:N:396:VAL:CG2	2.40	0.52
6:N:656:PHE:HB3	6:N:694:VAL:HG11	1.92	0.52
6:N:1270:ALA:O	6:N:1329:ALA:HB3	2.09	0.52
7:O:54:LEU:HA	7:O:58:PRO:CG	2.39	0.52
4:B:124:ASN:N	4:B:125:PRO:HD3	2.23	0.52
5:C:20:GLU:OE2	5:C:460:ARG:NH1	2.42	0.52
5:C:1018:GLN:C	5:C:1019:GLN:HE21	2.14	0.52
5:C:1037:VAL:HG12	5:C:1041:GLU:OE2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:399:ARG:HD3	6:D:430:ASP:OD2	2.09	0.52
6:D:525:ARG:HB2	6:D:538:SER:CB	2.40	0.52
6:D:820:GLU:HA	6:D:825:ALA:O	2.10	0.52
6:D:1267:ARG:HB2	6:D:1267:ARG:NH1	2.24	0.52
4:K:1:MET:O	4:K:6:LEU:HD22	2.10	0.52
5:M:353:ARG:HA	11:M:1274:HOH:O	2.09	0.52
5:M:1094:ALA:HA	6:N:90:MET:CE	2.39	0.52
6:N:616:GLN:NE2	11:N:9292:HOH:O	2.43	0.52
6:N:642:CYS:SG	6:N:716:PHE:HB2	2.50	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
7:O:67:GLU:HB3	7:O:73:LEU:HD11	1.91	0.52
4:A:9:PRO:HD2	4:B:224:TYR:CE1	2.45	0.51
4:A:67:THR:CG2	5:C:609:ASN:HD21	2.23	0.51
4:A:163:ASN:HD21	5:C:744:ARG:NH2	2.08	0.51
5:C:286:SER:HB3	5:C:299:LYS:HE3	1.92	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
5:M:557:ARG:NH1	5:M:879:ARG:HD3	2.25	0.51
5:M:576:ALA:HB3	5:M:900:ARG:HH11	1.75	0.51
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:396:VAL:CG1	6:N:447:VAL:HA	2.41	0.51
6:N:461:ILE:O	6:N:465:LEU:HB2	2.09	0.51
6:N:632:VAL:HG23	6:N:725:SER:HB2	1.92	0.51
6:N:709:HIS:CD2	6:N:709:HIS:H	2.28	0.51
6:N:960:LYS:HZ1	6:N:1041:LEU:HD13	1.75	0.51
6:N:1020:LEU:HD21	6:N:1035:ILE:CG2	2.40	0.51
4:A:138:LEU:O	4:A:138:LEU:HD23	2.10	0.51
4:A:188:GLN:HG3	4:A:189:ARG:H	1.74	0.51
5:C:144:PRO:N	5:C:276:LYS:NZ	2.58	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:198:ARG:CZ	5:C:203:ASP:HA	2.39	0.51
5:C:843:HIS:CB	5:C:884:GLN:HG2	2.40	0.51
6:D:831:GLY:HA3	11:D:8198:HOH:O	2.09	0.51
6:D:1098:LEU:CD2	6:D:1226:ALA:HA	2.38	0.51
6:D:1118:ILE:HG13	6:D:1192:LEU:HD13	1.92	0.51
4:K:41:ARG:O	4:K:45:LEU:HD12	2.10	0.51
4:K:102:LYS:NZ	4:K:115:LEU:HD22	2.24	0.51
4:L:182:GLU:OE1	4:L:194:LYS:O	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:97:ARG:HA	5:M:111:ASP:O	2.10	0.51
5:M:110:GLU:HG3	5:M:369:PRO:CB	2.29	0.51
5:M:139:GLN:NE2	5:M:418:LEU:HD22	2.25	0.51
5:M:557:ARG:HD3	5:M:560:MET:SD	2.50	0.51
5:M:787:ASP:HB3	11:M:1300:HOH:O	2.09	0.51
6:N:35:ARG:HG3	6:N:35:ARG:HH11	1.75	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
6:N:754:PHE:O	6:N:758:GLU:HG2	2.10	0.51
6:N:1121:PRO:HA	6:N:1185:GLU:HG2	1.90	0.51
6:N:1248:GLY:O	6:N:1252:ILE:HG12	2.10	0.51
6:N:1267:ARG:HA	6:N:1271:LYS:HZ1	1.75	0.51
6:N:1496:GLU:HA	6:N:1499:ARG:CZ	2.40	0.51
1:G:19:DC:OP1	5:C:1001:VAL:HG11	2.10	0.51
1:X:18:DG:H2''	1:X:19:DC:C5'	2.31	0.51
4:A:26:GLU:HG3	4:A:184:THR:HG21	1.91	0.51
4:B:206:THR:HG23	4:B:208:LEU:H	1.75	0.51
5:C:141:HIS:C	5:C:331:ARG:HG2	2.31	0.51
5:C:194:VAL:CG1	5:C:204:GLN:HE22	2.22	0.51
5:C:841:ASN:HD21	5:C:845:ASN:N	2.08	0.51
6:D:813:LEU:HD12	6:D:814:ALA:N	2.26	0.51
7:E:39:VAL:HG22	7:E:67:GLU:HG2	1.92	0.51
4:L:102:LYS:HZ2	4:L:137:ARG:HG2	1.72	0.51
5:M:211:LEU:CD1	5:M:308:ARG:HA	2.40	0.51
5:M:771:GLU:O	5:M:775:ARG:HG2	2.11	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
6:N:879:ARG:HG3	6:N:879:ARG:NH1	2.25	0.51
6:N:889:ALA:CB	6:N:930:LEU:HD12	2.39	0.51
4:B:216:GLU:HA	4:B:219:ARG:NH1	2.25	0.51
5:C:163:ILE:O	5:C:163:ILE:HG13	2.08	0.51
5:C:547:ILE:HD13	5:C:550:LEU:HD13	1.91	0.51
5:C:552:HIS:CD2	6:D:1064:GLY:HA2	2.46	0.51
5:C:598:GLU:HG3	5:C:623:TYR:OH	2.10	0.51
5:C:605:LYS:HD2	5:C:612:VAL:HB	1.92	0.51
5:C:946:ARG:HB3	5:C:946:ARG:NH1	2.25	0.51
6:D:483:HIS:ND1	6:D:483:HIS:N	2.59	0.51
6:D:690:ALA:O	6:D:694:VAL:HG23	2.10	0.51
6:D:762:GLN:HE22	7:E:20:THR:HG21	1.75	0.51
6:D:1464:GLU:HA	6:D:1467:ILE:CD1	2.40	0.51
4:K:9:PRO:HB3	4:K:25:LEU:HG	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:36:LEU:O	4:L:39:PRO:HD2	2.10	0.51
5:M:79:PRO:HD2	5:M:82:GLU:OE1	2.10	0.51
5:M:173:ASP:OD1	5:M:185:LYS:HG3	2.11	0.51
5:M:804:VAL:HB	5:M:824:ARG:HB2	1.93	0.51
5:M:976:ASP:HB2	11:M:1439:HOH:O	2.10	0.51
5:M:1087:VAL:HG23	6:N:524:LEU:HD21	1.92	0.51
6:N:172:PRO:HG2	6:N:175:VAL:CG2	2.41	0.51
6:N:793:THR:CB	6:N:879:ARG:HD3	2.31	0.51
6:N:871:LYS:HB3	6:N:873:LEU:CD2	2.40	0.51
6:N:977:ALA:HB1	6:N:983:LEU:HD21	1.91	0.51
6:N:1377:LYS:HE3	6:N:1394:VAL:HG13	1.92	0.51
2:H:8:C:H2'	2:H:9:G:C8	2.46	0.51
4:A:98:THR:HG22	11:A:364:HOH:O	2.09	0.51
4:B:102:LYS:NZ	4:B:137:ARG:NE	2.59	0.51
5:C:195:LEU:HG	5:C:238:LEU:HD12	1.91	0.51
5:C:328:LEU:HB3	5:C:488:ALA:HB2	1.93	0.51
5:C:343:GLN:HB2	5:C:385:PHE:CD2	2.46	0.51
5:C:640:ARG:O	5:C:642:ARG:HG2	2.10	0.51
5:C:678:PRO:O	6:D:943:THR:HA	2.10	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
6:D:582:LEU:HD23	6:D:603:LEU:CD1	2.41	0.51
6:D:1491:THR:O	6:D:1495:ILE:HD13	2.11	0.51
4:K:158:ILE:O	4:K:159:LYS:HE2	2.11	0.51
4:L:124:ASN:HD21	4:L:127:LEU:HD22	1.74	0.51
4:L:202:ASP:HA	11:L:321:HOH:O	2.10	0.51
5:M:23:VAL:N	5:M:121:MET:HE1	2.25	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:701:LEU:HD12	6:N:701:LEU:H	1.74	0.51
6:N:1090:ASP:HA	6:N:1093:TYR:HB2	1.91	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
4:B:40:LEU:O	4:B:44:LEU:HG	2.11	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
5:C:564:MET:HE1	5:C:995:MET:HB2	1.92	0.51
5:C:603:VAL:H	5:C:647:GLN:H	1.57	0.51
5:C:612:VAL:HG12	11:C:1460:HOH:O	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:D:1101:VAL:HG21	6:D:1424:VAL:HA	1.93	0.51
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
4:L:29:GLU:OE2	4:L:29:GLU:HA	2.10	0.51
5:M:549:PHE:HA	11:M:1469:HOH:O	2.10	0.51
5:M:879:ARG:HH21	6:N:1029:ARG:NH2	2.08	0.51
5:M:913:GLU:O	5:M:917:LEU:HG	2.11	0.51
6:N:153:LEU:HD22	6:N:158:TYR:HB2	1.93	0.51
6:N:864:VAL:HB	11:N:9142:HOH:O	2.10	0.51
6:N:879:ARG:HH21	6:N:903:ASP:C	2.13	0.51
6:N:1094:LEU:HB2	6:N:1260:ILE:CD1	2.38	0.51
6:N:1100:ASP:HB3	6:N:1428:ALA:HB1	1.92	0.51
6:N:1107:VAL:HA	6:N:1200:VAL:O	2.11	0.51
6:N:1129:THR:O	6:N:1130:ARG:HD2	2.11	0.51
6:N:1366:LYS:HA	6:N:1369:GLU:OE1	2.11	0.51
4:A:221:HIS:HA	4:A:224:TYR:HD2	1.76	0.51
4:B:40:LEU:HD21	4:B:215:VAL:HG12	1.93	0.51
5:C:52:PHE:CG	5:C:68:PHE:HB2	2.46	0.51
5:C:217:LEU:HD23	5:C:217:LEU:H	1.76	0.51
5:C:1088:LEU:HD23	5:C:1089:VAL:N	2.26	0.51
6:D:129:PHE:C	6:D:568:ARG:HH21	2.14	0.51
6:D:631:ILE:HG21	6:D:745:MET:SD	2.50	0.51
6:D:903:ASP:O	6:D:904:VAL:HG13	2.11	0.51
6:D:933:ALA:O	6:D:937:TYR:HD1	1.93	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
5:M:163:ILE:HG13	5:M:163:ILE:O	2.09	0.51
5:M:710:ILE:HD12	5:M:790:LEU:HB2	1.91	0.51
5:M:892:LEU:HD11	5:M:967:PHE:CE1	2.45	0.51
5:M:1090:LYS:HE3	5:M:1112:PHE:CE1	2.42	0.51
6:N:415:VAL:O	6:N:432:TYR:HA	2.11	0.51
6:N:634:GLY:O	6:N:637:LEU:HB3	2.11	0.51
6:N:828:LYS:HD3	6:N:862:ASP:OD2	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:N:1117:TYR:CE2	6:N:1151:ARG:HD3	2.45	0.51
6:N:1191:PRO:HB2	11:N:9021:HOH:O	2.10	0.51
6:N:1452:ILE:HG22	6:N:1453:ALA:N	2.25	0.51
6:N:1476:THR:HG23	7:O:21:VAL:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:80:GLN:HE22	5:C:122:THR:HG23	1.76	0.51
5:C:147:TYR:HB3	11:C:1186:HOH:O	2.10	0.51
5:C:158:TYR:CE1	5:C:314:THR:HA	2.46	0.51
5:C:352:ALA:HA	5:C:355:VAL:CG1	2.41	0.51
5:C:573:ARG:CB	5:C:670:GLN:HE22	2.23	0.51
5:C:878:SER:HA	6:D:1034:GLN:OE1	2.11	0.51
5:C:957:LYS:HD3	5:C:961:GLU:CD	2.30	0.51
5:C:1008:ARG:NH2	5:C:1011:GLY:H	2.09	0.51
6:D:566:ILE:HD12	6:D:566:ILE:H	1.76	0.51
6:D:582:LEU:HD23	6:D:603:LEU:HD12	1.92	0.51
6:D:1101:VAL:HG23	6:D:1424:VAL:HG23	1.93	0.51
6:D:1347:TYR:CD2	6:D:1348:LEU:HD12	2.46	0.51
4:K:26:GLU:HG2	4:K:27:PRO:CA	2.40	0.51
4:L:160:ASP:HB3	4:L:161:ARG:HD2	1.92	0.51
5:M:5:ARG:HB2	5:M:8:ARG:NH2	2.21	0.51
5:M:169:GLY:HA2	5:M:263:ASP:OD1	2.11	0.51
5:M:550:LEU:HD12	5:M:550:LEU:O	2.10	0.51
6:N:62:LYS:HB2	6:N:73:CYS:SG	2.51	0.51
6:N:542:ASP:O	6:N:546:ARG:HG3	2.10	0.51
4:B:7:LYS:O	4:B:7:LYS:HD2	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: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
6:D:671:LYS:HG3	11:D:8106:HOH:O	2.11	0.51
6:D:1040:GLY:O	6:D:1060:SER:HB3	2.11	0.51
6:D:1379:VAL:HG12	6:D:1419:PRO:HA	1.93	0.51
6:D:1441:GLN:CD	6:D:1442:ASN:HB2	2.31	0.51
7:E:41:GLU:CG	7:E:42:PRO:HD3	2.41	0.51
5:M:160:ALA:HB3	5:M:174:LEU:HB2	1.93	0.51
5:M:1047:HIS:H	5:M:1047:HIS:CD2	2.28	0.51
6:N:481:MET:SD	6:N:493:ARG:HA	2.51	0.51
6:N:1023:MET:HG2	6:N:1029:ARG:HB2	1.93	0.51
7:O:10:PHE:CZ	7:O:16:LYS:HE3	2.46	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
4:B:89:PHE:HB3	4:B:94:LEU:CD1	2.39	0.51
5:C:3:ILE:HA	5:C:900:ARG:O	2.11	0.51
5:C:288:ARG:NH1	5:C:288:ARG:HB2	2.26	0.51
5:C:552:HIS:ND1	5:C:886:LEU:HD22	2.26	0.51
5:C:730:SER:O	5:C:734:LEU:HD13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1019:GLN:HE22	5:C:1058:ASP:CB	2.24	0.51
6:D:181:ASP:HA	6:D:205:TYR:CD1	2.46	0.51
6:D:785:ILE:HG13	6:D:939:PHE:HE2	1.74	0.51
6:D:1151:ARG:HG2	6:D:1187:PRO:HB2	1.92	0.51
7:E:27:ALA:HA	7:E:30:LEU:HD13	1.93	0.51
7:E:33:HIS:CD2	7:E:89:MET:HG2	2.45	0.51
7:E:48:MET:HG2	7:E:49:GLN:N	2.26	0.51
5:M:571:LEU:HD21	5:M:700:TYR:HA	1.93	0.51
5:M:628:PHE:HA	11:M:1256:HOH:O	2.10	0.51
5:M:660:ALA:HA	11:M:1443:HOH:O	2.11	0.51
5:M:1007:ALA:HB2	6:N:648:MET:HG2	1.91	0.51
5:M:1016:ILE:HG12	5:M:1017:THR:N	2.26	0.51
6:N:133:ILE:HD13	6:N:158:TYR:CD2	2.45	0.51
6:N:155:ASP:N	11:N:9432:HOH:O	2.43	0.51
6:N:409:VAL:CG1	6:N:435:VAL:HG11	2.41	0.51
6:N:1087:ARG:HB3	6:N:1256:LEU:CD2	2.41	0.51
6:N:1379:VAL:HA	6:N:1420:LEU:HB2	1.92	0.51
4:B:160:ASP:HA	11:B:363:HOH:O	2.09	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:719:VAL:O	6:D:721:VAL:HG23	2.10	0.50
6:D:978:TYR:HB2	6:D:983:LEU:HD12	1.93	0.50
6:D:1023:MET:O	6:D:1028:ALA:HB3	2.11	0.50
7:E:16:LYS:HA	11:E:128:HOH:O	2.10	0.50
5:M:15:LEU:H	5:M:15:LEU:HD12	1.77	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
6:N:50:PHE:HB3	6:N:522:PRO:HG3	1.92	0.50
6:N:710:ARG:C	6:N:712:GLY:H	2.14	0.50
6:N:1222:GLY:O	6:N:1225:ALA:HB3	2.11	0.50
5:C:51:THR:HG23	5:C:348:LEU:HD23	1.93	0.50
5:C:148:PHE:HB2	5:C:313:LEU:CD2	2.41	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
5:C:468:ARG:CZ	5:C:485:TYR:O	2.59	0.50
5:C:920:GLN:O	5:C:924:VAL:HG23	2.11	0.50
6:D:133:ILE:HG13	6:D:153:LEU:HD12	1.93	0.50
6:D:151:GLN:HA	11:D:8479:HOH:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:611:GLN:HG3	6:D:611:GLN:O	2.11	0.50
4:K:92:PRO:HG3	4:K:146:ARG:HH12	1.76	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
5:M:439:CYS:HB2	5:M:541:SER:HB3	1.92	0.50
5:M:888:THR:HG21	11:M:1248:HOH:O	2.10	0.50
5:M:916:GLU:HG3	5:M:917:LEU:HD23	1.93	0.50
5:M:943:VAL:HG11	5:M:973:VAL:CG2	2.41	0.50
6:N:633:VAL:HB	6:N:740:PHE:CE1	2.46	0.50
6:N:643:GLY:O	6:N:726:ILE:HG23	2.09	0.50
6:N:937:TYR:CD1	6:N:937:TYR:N	2.79	0.50
6:N:1101:VAL:HG22	6:N:1428:ALA:HB2	1.94	0.50
6:N:1146:GLY:HA3	6:N:1207:TYR:CB	2.39	0.50
10:N:4999:APC:H5'1	10:N:4999:APC:H8	1.93	0.50
1:G:18:DG:O4'	5:C:1002:GLU:HB3	2.11	0.50
4:A:111:ALA:HB3	4:A:124:ASN:O	2.11	0.50
5:C:436:GLY:HA2	5:C:456:ALA:CB	2.41	0.50
5:C:1021:LEU:HD23	11:C:1374:HOH:O	2.11	0.50
5:C:1105:LYS:NZ	5:C:1107:ASN:HB2	2.26	0.50
6:D:134:VAL:O	6:D:134:VAL:HG23	2.11	0.50
6:D:657:LEU:HB2	6:D:691:LEU:HD22	1.93	0.50
6:D:926:LYS:HA	6:D:929:ARG:CD	2.41	0.50
6:D:1403:LEU:O	6:D:1407:LEU:HB2	2.11	0.50
5:M:364:GLU:HB2	11:M:1318:HOH:O	2.10	0.50
5:M:537:LYS:HG3	5:M:905:ILE:CD1	2.42	0.50
5:M:589:ARG:HG3	5:M:596:TYR:CZ	2.46	0.50
5:M:702:SER:OG	5:M:831:ARG:HB2	2.11	0.50
5:M:726:ILE:HB	11:M:1385:HOH:O	2.10	0.50
5:M:852:ILE:N	5:M:852:ILE:HD12	2.26	0.50
5:M:1115:LEU:CG	6:N:85:VAL:HG12	2.40	0.50
6:N:1424:VAL:CG1	6:N:1425:THR:H	2.22	0.50
1:G:18:DG:H5''	6:D:628:ARG:NH2	2.26	0.50
2:Y:2:A:C3'	2:Y:2:A:H8	2.12	0.50
2:Y:7:G:OP1	6:N:530:VAL:HG13	2.11	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:433:THR:C	5:C:435:TYR:H	2.15	0.50
5:C:610:ARG:HG3	5:C:622:GLU:HG3	1.94	0.50
5:C:737:LEU:HD21	5:C:741:GLY:CA	2.42	0.50
5:C:1019:GLN:HE21	5:C:1019:GLN:N	2.08	0.50
6:D:87:ARG:HB2	6:D:523:ASP:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:D:434:ARG:H	6:D:447:VAL:CG2	2.20	0.50
5:M:5:ARG:NE	5:M:8:ARG:NH1	2.57	0.50
5:M:22:GLN:C	5:M:121:MET:HE1	2.32	0.50
5:M:141:HIS:C	5:M:331:ARG:HG3	2.32	0.50
5:M:218:VAL:HA	5:M:221:LEU:HD23	1.93	0.50
5:M:862:PRO:HA	5:M:975:TYR:CE2	2.47	0.50
5:M:1087:VAL:HG22	5:M:1091:GLU:OE1	2.10	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
4:B:43:ILE:HG21	4:B:214:ALA:HA	1.94	0.50
5:C:185:LYS:HE2	5:C:190:LYS:HZ3	1.75	0.50
5:C:460:ARG:HB3	11:C:1158:HOH:O	2.11	0.50
5:C:597:ALA:CA	5:C:655:LEU:HD11	2.41	0.50
5:C:721:ARG:HA	5:C:820:ARG:NH2	2.26	0.50
5:C:732:ALA:HA	5:C:735:ARG:NH1	2.26	0.50
5:C:1006:HIS:HD1	5:C:1027:PHE:HD1	1.60	0.50
11:C:1228:HOH:O	6:D:2:LYS:HA	2.11	0.50
6:D:29:PRO:CB	6:D:549:ASN:HD21	2.23	0.50
6:D:171:LEU:HD21	6:D:192:ALA:HB1	1.91	0.50
6:D:542:ASP:N	6:D:542:ASP:OD2	2.42	0.50
4:K:24:VAL:HG22	4:K:196:THR:CG2	2.41	0.50
4:K:177:VAL:O	5:M:864:GLY:HA2	2.12	0.50
4:L:62:LEU:HD12	4:L:62:LEU:N	2.22	0.50
5:M:395:LYS:HE3	5:M:407:LYS:HE2	1.92	0.50
5:M:757:GLY:HA2	5:M:789:SER:CB	2.42	0.50
5:M:807:ARG:NE	5:M:807:ARG:N	2.59	0.50
5:M:1055:LEU:HD11	5:M:1076:VAL:HB	1.94	0.50
6:N:637:LEU:CD2	6:N:642:CYS:HA	2.41	0.50
6:N:896:ALA:O	6:N:900:ILE:HG23	2.12	0.50
6:N:1020:LEU:HD21	6:N:1035:ILE:HG23	1.93	0.50
6:N:1195:GLN:HG3	6:N:1196:THR:N	2.27	0.50
7:O:54:LEU:HG	7:O:58:PRO:CG	2.42	0.50
2:H:14:G:P	5:C:409:ARG:HH12	2.35	0.50
5:C:22:GLN:NE2	5:C:407:LYS:HG2	2.26	0.50
5:C:275:TYR:HA	11:C:1297:HOH:O	2.11	0.50
5:C:630:ARG:HA	5:C:705:ILE:CD1	2.41	0.50
5:C:690:ILE:HD12	5:C:833:LEU:HD23	1.94	0.50
5:C:713:ARG:NH2	6:D:532:GLY:H	2.09	0.50
6:D:108:VAL:HG23	6:D:109:PRO:HD3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:155:ASP:O	6:D:159:ARG:N	2.41	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
5:M:410:ILE:CD1	5:M:455:LEU:HB3	2.42	0.50
5:M:754:ILE:HG12	5:M:791:ARG:HH12	1.77	0.50
5:M:810:ASP:HB3	5:M:813:VAL:CG1	2.36	0.50
5:M:836:GLY:HA3	6:N:724:GLN:HE21	1.76	0.50
5:M:1005:MET:HB2	6:N:648:MET:HE3	1.92	0.50
6:N:613:ARG:HH11	6:N:616:GLN:HG2	1.76	0.50
6:N:758:GLU:HA	7:O:20:THR:CG2	2.42	0.50
6:N:890:VAL:O	6:N:890:VAL:HG23	2.11	0.50
6:N:1240:THR:HB	6:N:1252:ILE:HD13	1.92	0.50
6:N:1267:ARG:HA	6:N:1331:ASP:HB2	1.94	0.50
7:O:28:GLN:HB3	7:O:32:ARG:NH2	2.25	0.50
4:B:26:GLU:HB3	4:B:194:LYS:HG3	1.93	0.50
4:B:174:VAL:HG13	4:B:200:TRP:O	2.12	0.50
5:C:301:GLU:O	5:C:305:PRO:HG2	2.12	0.50
5:C:580:MET:HB3	5:C:584:GLU:OE1	2.11	0.50
5:C:627:ARG:CG	5:C:628:PHE:H	2.25	0.50
5:C:702:SER:HB3	5:C:996:LYS:NZ	2.27	0.50
5:C:820:ARG:HB2	11:C:1271:HOH:O	2.12	0.50
6:D:902:LEU:HD23	6:D:902:LEU:H	1.75	0.50
6:D:1103:HIS:NE2	6:D:1463:LYS:HB2	2.27	0.50
6:D:1440:PHE:O	6:D:1441:GLN:O	2.30	0.50
7:E:68:LEU:CD1	7:E:73:LEU:HD22	2.41	0.50
5:M:120:LEU:HD13	5:M:121:MET:O	2.12	0.50
5:M:192:PRO:HB2	5:M:195:LEU:HB2	1.93	0.50
5:M:622:GLU:O	5:M:624:PRO:HD3	2.11	0.50
5:M:837:ASP:HA	5:M:999:HIS:CE1	2.46	0.50
5:M:876:VAL:O	5:M:879:ARG:O	2.30	0.50
6:N:150:ARG:CD	6:N:464:LEU:HD21	2.41	0.50
6:N:619:LEU:HB2	6:N:621:LYS:HD3	1.92	0.50
6:N:690:ALA:O	6:N:694:VAL:HG23	2.12	0.50
6:N:845:ASN:N	6:N:848:GLU:HG3	2.26	0.50
6:N:1037:GLN:HG2	6:N:1042:ARG:HB2	1.93	0.50
6:N:1192:LEU:HD21	6:N:1372:VAL:CG1	2.42	0.50
6:N:1394:VAL:HG11	6:N:1397:LYS:HE2	1.94	0.50
1:X:8:DT:H2 <sup>o</sup>	1:X:9:DG:C8	2.46	0.50
5:C:57:GLU:O	5:C:62:GLY:HA3	2.12	0.50
5:C:290:LEU:HD23	5:C:290:LEU:H	1.75	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)
5:C:999:HIS:HD2	5:C:1004:LYS:NZ	2.10	0.50
6:D:54:LYS:CD	6:D:55:ASP:H	2.25	0.50
6:D:397:LYS:O	6:D:448:GLU:HB2	2.12	0.50
6:D:562:ALA:HB1	6:D:567:ILE:HD11	1.94	0.50
6:D:634:GLY:CA	6:D:727:GLN:HE21	2.23	0.50
5:M:5:ARG:NE	5:M:8:ARG:HH22	2.00	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:N:52:PRO:HG2	6:N:80:VAL:HG13	1.93	0.50
6:N:79:GLU:HG3	11:N:9414:HOH:O	2.12	0.50
6:N:475:LYS:HA	6:N:478:LEU:HG	1.94	0.50
6:N:982:PHE:HB3	6:N:983:LEU:HD23	1.92	0.50
6:N:1139:ASP:HB3	6:N:1357:ARG:NH2	2.27	0.50
6:N:1237:THR:N	11:N:9434:HOH:O	2.45	0.50
4:B:62:LEU:H	4:B:62:LEU:HD12	1.77	0.50
5:C:265:ARG:HD2	5:C:267:TYR:CB	2.41	0.50
5:C:842:ARG:HG3	5:C:995:MET:HE1	1.93	0.50
5:C:906:PHE:CZ	6:D:1067:VAL:HA	2.46	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:133:ILE:HG13	6:D:153:LEU:CD1	2.41	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
6:D:683:ILE:HG23	6:D:687:VAL:HG21	1.94	0.50
6:D:721:VAL:HG12	6:D:722:GLU:N	2.26	0.50
6:D:739:ASP:O	6:D:741:ASP:N	2.45	0.50
6:D:1021:TYR:HA	11:D:8152:HOH:O	2.11	0.50
7:E:18:ARG:O	7:E:22:VAL:HG23	2.12	0.50
5:M:17:PRO:HG3	11:M:1503:HOH:O	2.12	0.50
5:M:22:GLN:OE1	5:M:407:LYS:HB3	2.12	0.50
5:M:32:ALA:HB2	11:M:1235:HOH:O	2.12	0.50
5:M:290:LEU:HB3	5:M:302:VAL:CG1	2.41	0.50
5:M:432:ARG:HH21	6:N:1048:PRO:HD2	1.77	0.50
6:N:637:LEU:HD12	6:N:641:GLN:OE1	2.12	0.50
6:N:714:GLN:CD	6:N:765:SER:HA	2.33	0.50
6:N:1087:ARG:HE	6:N:1253:THR:HG23	1.77	0.50
6:N:1236:LEU:HD11	6:N:1361:VAL:CG2	2.42	0.50
2:H:7:G:O5'	2:H:7:G:H8	1.95	0.49
3:Z:9:DG:H2''	3:Z:10:DA:C8	2.47	0.49
4:A:163:ASN:HD21	5:C:744:ARG:HH22	1.59	0.49
5:C:73:LEU:N	5:C:73:LEU:HD23	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:97:ARG:HA	5:C:111:ASP:O	2.12	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
5:C:408:ARG:CG	5:C:455:LEU:H	2.24	0.49
6:D:82:LYS:CB	6:D:84:ILE:HG12	2.42	0.49
6:D:926:LYS:HG3	11:D:8014:HOH:O	2.11	0.49
6:D:977:ALA:CB	6:D:983:LEU:HD21	2.42	0.49
6:D:1128:VAL:O	6:D:1129:THR:C	2.50	0.49
6:D:1144:LEU:HD11	6:D:1186:VAL:CG2	2.37	0.49
6:D:1402:ALA:HB3	11:D:8309:HOH:O	2.11	0.49
6:D:1443:THR:O	6:D:1447:LEU:HD13	2.11	0.49
5:M:77:PRO:HG2	5:M:117:HIS:NE2	2.27	0.49
5:M:134:ARG:CD	5:M:392:SER:HB3	2.42	0.49
5:M:139:GLN:HE21	5:M:418:LEU:CD2	2.25	0.49
5:M:616:GLU:OE1	5:M:616:GLU:HA	2.11	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:787:LEU:HD21	6:N:1023:MET:HE2	1.94	0.49
6:N:838:ARG:NH1	6:N:838:ARG:HG2	2.26	0.49
6:N:864:VAL:HB	11:N:9057:HOH:O	2.11	0.49
6:N:1020:LEU:HD23	6:N:1021:TYR:N	2.27	0.49
6:N:1042:ARG:NH2	11:N:9443:HOH:O	2.45	0.49
6:N:1364:HIS:CE1	6:N:1366:LYS:HG3	2.47	0.49
6:N:1459:LEU:HD21	6:N:1468:LEU:HD22	1.93	0.49
6:N:1489:GLN:O	6:N:1493:LYS:HG2	2.12	0.49
1:G:12:DG:H2''	1:G:13:DT:C5'	2.43	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
5:C:577:PRO:HB2	5:C:580:MET:HG2	1.93	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
6:D:547:LEU:HB3	11:D:8068:HOH:O	2.11	0.49
6:D:634:GLY:CA	6:D:727:GLN:HG2	2.43	0.49
6:D:709:HIS:N	6:D:709:HIS:CD2	2.80	0.49
7:E:83:ASP:O	7:E:86:GLN:HG3	2.13	0.49
5:M:21:ILE:H	5:M:21:ILE:HD12	1.77	0.49
5:M:198:ARG:HE	5:M:198:ARG:HA	1.77	0.49
5:M:415:PRO:HD2	5:M:418:LEU:HD13	1.94	0.49
5:M:583:LEU:N	5:M:584:GLU:OE2	2.45	0.49
5:M:676:ILE:O	5:M:676:ILE:HG23	2.11	0.49
5:M:959:PRO:O	5:M:963:LEU:HG	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1019:GLN:CD	6:N:616:GLN:HE22	2.15	0.49
6:N:522:PRO:HG2	6:N:523:ASP:N	2.26	0.49
6:N:1010:ASN:HB3	11:N:9288:HOH:O	2.12	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
5:C:260:LEU:HA	5:C:291:ALA:CB	2.42	0.49
5:C:881:ASN:N	5:C:881:ASN:ND2	2.60	0.49
6:D:762:GLN:NE2	7:E:20:THR:OG1	2.45	0.49
6:D:836:VAL:O	6:D:840:LYS:HG3	2.12	0.49
6:D:1143:GLY:O	6:D:1147:ARG:NE	2.45	0.49
6:D:1495:ILE:HG12	7:E:80:VAL:CG1	2.39	0.49
4:L:47:SER:HB2	4:L:217:ILE:HD13	1.95	0.49
4:L:103:ALA:HB1	4:L:107:LYS:CE	2.42	0.49
5:M:276:LYS:O	5:M:280:LYS:HB3	2.12	0.49
6:N:133:ILE:CG2	6:N:454:ALA:HB1	2.41	0.49
6:N:437:VAL:HG13	6:N:444:VAL:HG22	1.94	0.49
6:N:957:PRO:HG3	6:N:1007:VAL:HA	1.94	0.49
6:N:996:TRP:CE2	6:N:1056:PRO:HG2	2.47	0.49
6:N:1189:ARG:NH1	6:N:1203:LYS:HB2	2.28	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
4:A:68:ILE:HD12	4:A:68:ILE:N	2.27	0.49
4:A:83:LYS:HE2	4:A:170:VAL:HG13	1.93	0.49
4:A:190:THR:HG23	11:A:369:HOH:O	2.12	0.49
4:B:62:LEU:HD13	4:B:63:HIS:CE1	2.47	0.49
5:C:8:ARG:N	5:C:907:ASP:OD2	2.45	0.49
5:C:674:VAL:CG2	5:C:869:VAL:HG13	2.42	0.49
5:C:689:VAL:HG11	5:C:870:ILE:HD11	1.94	0.49
5:C:876:VAL:O	5:C:879:ARG:O	2.30	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:D:172:PRO:HG2	6:D:175:VAL:CG2	2.42	0.49
6:D:519:VAL:HG12	6:D:544:TYR:CE2	2.48	0.49
6:D:737:ASN:CG	6:D:737:ASN:O	2.50	0.49
6:D:1124:GLN:HG2	6:D:1133:ARG:CG	2.42	0.49
6:D:1258:ARG:HA	6:D:1261:GLU:OE2	2.12	0.49
6:D:1384:PRO:HG3	6:D:1389:LEU:HA	1.92	0.49
5:M:689:VAL:HG11	5:M:870:ILE:HD11	1.93	0.49
5:M:897:LEU:HD12	11:M:1461:HOH:O	2.12	0.49
2:H:16:G:H21	6:D:705:ALA:HB1	1.78	0.49
4:A:199:ILE:HD12	4:A:199:ILE:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:304:LEU:HA	11:C:1215:HOH:O	2.12	0.49
5:C:432:ARG:HH12	6:D:1072:ILE:CD1	2.25	0.49
5:C:490:GLU:HB3	5:C:493:ARG:CZ	2.42	0.49
5:C:496:ILE:HA	5:C:531:PHE:O	2.11	0.49
5:C:1001:VAL:O	5:C:1001:VAL:HG12	2.13	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
6:D:638:LYS:HD2	6:D:932:ASP:CG	2.33	0.49
6:D:1125:PRO:HB3	6:D:1130:ARG:NH1	2.27	0.49
6:D:1168:MET:HE3	6:D:1171:VAL:HG21	1.94	0.49
6:D:1374:GLN:OE1	6:D:1377:LYS:HD3	2.12	0.49
4:K:30:ARG:NH2	5:M:938:LYS:HD2	2.25	0.49
4:K:218:LEU:O	4:K:222:LEU:HD13	2.12	0.49
5:M:340:MET:HG2	5:M:386:PHE:HE1	1.78	0.49
5:M:574:ALA:HB2	11:M:1443:HOH:O	2.12	0.49
5:M:736:ASP:HA	5:M:744:ARG:HH11	1.77	0.49
5:M:1009:SER:HB3	6:N:651:GLU:O	2.13	0.49
5:M:1016:ILE:HD13	5:M:1017:THR:H	1.78	0.49
6:N:10:ILE:HG13	6:N:1434:TRP:CZ2	2.47	0.49
6:N:516:ALA:O	6:N:518:PRO:HD3	2.13	0.49
7:O:33:HIS:HB2	7:O:37:ASN:HD21	1.77	0.49
5:C:127:PHE:O	5:C:133:ASP:HA	2.12	0.49
5:C:150:PRO:HG3	5:C:158:TYR:HD2	1.78	0.49
5:C:165:LEU:HD11	11:C:1123:HOH:O	2.13	0.49
5:C:409:ARG:HD2	5:C:452:ILE:CG2	2.42	0.49
5:C:437:ARG:O	5:C:467:ILE:HD13	2.12	0.49
5:C:449:ILE:C	5:C:451:LEU:H	2.15	0.49
5:C:537:LYS:H	5:C:537:LYS:HD2	1.78	0.49
6:D:108:VAL:CB	6:D:109:PRO:HD3	2.42	0.49
6:D:138:LYS:HD2	6:D:450:TYR:OH	2.13	0.49
6:D:610:LYS:CA	6:D:615:ARG:HD3	2.42	0.49
6:D:926:LYS:HA	6:D:929:ARG:HH11	1.78	0.49
6:D:1087:ARG:HG3	6:D:1237:THR:CG2	2.40	0.49
6:D:1263:PHE:O	6:D:1424:VAL:HG12	2.12	0.49
6:D:1418:LYS:HD3	6:D:1419:PRO:CD	2.42	0.49
5:M:23:VAL:CA	5:M:121:MET:HE1	2.43	0.49
5:M:127:PHE:O	5:M:133:ASP:HA	2.13	0.49
5:M:265:ARG:HH22	5:M:332:ARG:HH22	1.60	0.49
5:M:319:GLY:HA3	11:M:1388:HOH:O	2.11	0.49
5:M:471:TYR:HB2	11:M:1201:HOH:O	2.11	0.49
5:M:561:GLY:HA2	5:M:564:MET:HG3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:837:ASP:HA	5:M:999:HIS:HE1	1.78	0.49
6:N:137:PRO:HD2	6:N:453:ASP:OD1	2.12	0.49
6:N:641:GLN:HB3	6:N:717:GLN:O	2.12	0.49
6:N:800:LYS:HE3	6:N:804:LEU:HB3	1.93	0.49
6:N:897:TRP:HA	6:N:900:ILE:CG1	2.37	0.49
6:N:947:ILE:HG23	11:N:9083:HOH:O	2.11	0.49
6:N:1139:ASP:O	6:N:1142:ALA:HB3	2.13	0.49
4:A:73:GLU:OE1	4:A:130:ALA:HA	2.12	0.49
4:B:102:LYS:HZ1	4:B:137:ARG:NE	2.11	0.49
5:C:89:THR:HA	5:C:129:ILE:O	2.12	0.49
5:C:101:ILE:HG22	5:C:102:HIS:N	2.27	0.49
5:C:162:ILE:HD12	5:C:172:ILE:CB	2.43	0.49
5:C:192:PRO:HB2	5:C:195:LEU:H	1.78	0.49
5:C:264:PRO:HB3	5:C:289:THR:CB	2.43	0.49
5:C:270:GLY:O	5:C:274:ARG:HD2	2.12	0.49
5:C:596:TYR:HB2	11:C:1524:HOH:O	2.12	0.49
5:C:841:ASN:N	5:C:841:ASN:ND2	2.60	0.49
5:C:1111:ILE:HD12	5:C:1112:PHE:H	1.78	0.49
6:D:108:VAL:HB	6:D:109:PRO:HD3	1.94	0.49
6:D:191:LEU:HG	6:D:197:SER:OG	2.13	0.49
6:D:613:ARG:O	6:D:616:GLN:HB3	2.13	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
6:D:1211:MET:SD	6:D:1213:ARG:HG2	2.52	0.49
7:E:38:THR:HG23	7:E:41:GLU:OE2	2.13	0.49
4:K:63:HIS:CD2	4:K:66:SER:HB2	2.48	0.49
5:M:25:SER:CB	5:M:335:THR:HB	2.42	0.49
5:M:31:GLN:NE2	5:M:71:TYR:OH	2.45	0.49
5:M:146:VAL:HG12	5:M:162:ILE:HA	1.93	0.49
5:M:250:ARG:HG3	5:M:250:ARG:HH11	1.78	0.49
5:M:403:SER:O	5:M:407:LYS:HG3	2.13	0.49
5:M:902:ILE:O	5:M:904:PRO:HD3	2.12	0.49
5:M:1065:ALA:HB1	5:M:1077:PRO:CG	2.36	0.49
6:N:151:GLN:HG3	6:N:152:LEU:H	1.78	0.49
6:N:1101:VAL:HG21	6:N:1424:VAL:HG23	1.95	0.49
6:N:1338:ALA:HB2	11:N:9199:HOH:O	2.12	0.49
5:C:98:LEU:HD12	5:C:98:LEU:N	2.28	0.49
5:C:141:HIS:CE1	5:C:334:ARG:HG3	2.47	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
5:C:265:ARG:O	5:C:288:ARG:HD2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:537:LYS:HG3	5:C:545:ASN:HD21	1.78	0.49
5:C:918:LEU:HD23	5:C:968:LEU:HA	1.93	0.49
6:D:204:LEU:O	6:D:394:LEU:HD23	2.13	0.49
6:D:754:PHE:CE2	6:D:1476:THR:HG21	2.48	0.49
6:D:1000:THR:HG23	6:D:1001:GLU:N	2.28	0.49
6:D:1087:ARG:CG	6:D:1237:THR:HG21	2.41	0.49
6:D:1192:LEU:HD22	6:D:1345:GLU:CG	2.43	0.49
4:L:111:ALA:HB3	4:L:124:ASN:O	2.13	0.49
5:M:136:ILE:HD11	11:M:1417:HOH:O	2.12	0.49
5:M:374:ASN:HD22	5:M:377:PRO:HD3	1.76	0.49
6:N:116:LEU:HD22	6:N:118:LEU:HG	1.95	0.49
6:N:827:ILE:O	6:N:837:GLY:HA3	2.12	0.49
6:N:1156:LEU:HG	6:N:1177:ALA:HB2	1.94	0.49
6:N:1213:ARG:NH2	7:O:15:SER:HA	2.27	0.49
6:N:1487:VAL:HA	11:N:9036:HOH:O	2.11	0.49
6:N:1488:ASP:OD1	6:N:1488:ASP:N	2.46	0.49
4:A:173:PRO:HB2	4:A:205:VAL:HG22	1.94	0.49
4:B:176:ARG:HG3	4:B:200:TRP:CE3	2.47	0.49
5:C:190:LYS:HB2	11:C:1219:HOH:O	2.13	0.49
5:C:313:LEU:HA	5:C:321:GLU:HG3	1.94	0.49
5:C:368:THR:N	5:C:369:PRO:HD2	2.28	0.49
5:C:433:THR:CG2	5:C:488:ALA:HB1	2.28	0.49
5:C:575:GLN:HG2	5:C:671:ASN:OD1	2.11	0.49
5:C:677:MET:HE1	5:C:974:LEU:HD23	1.94	0.49
5:C:689:VAL:O	5:C:869:VAL:HG23	2.13	0.49
5:C:1040:LEU:HD21	5:C:1048:THR:HG22	1.95	0.49
6:D:38:LYS:HZ1	6:D:59:ALA:HB1	1.77	0.49
6:D:184:GLU:HG3	11:D:8384:HOH:O	2.13	0.49
6:D:883:ALA:HB2	11:D:8066:HOH:O	2.12	0.49
6:D:915:VAL:HG11	6:D:931:LEU:HD21	1.94	0.49
5:M:68:PHE:CZ	5:M:71:TYR:HD2	2.24	0.49
5:M:301:GLU:O	5:M:305:PRO:HG2	2.13	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
5:M:524:VAL:HG12	5:M:528:GLU:HB2	1.95	0.49
5:M:971:LYS:HE2	11:M:1216:HOH:O	2.13	0.49
6:N:92:HIS:HA	6:N:517:VAL:O	2.13	0.49
6:N:538:SER:O	6:N:541:ASN:ND2	2.45	0.49
6:N:565:ILE:HD12	6:N:565:ILE:N	2.26	0.49
6:N:703:ASN:ND2	6:N:704:ARG:H	2.11	0.49
6:N:1498:ALA:HB2	7:O:88:GLU:OE1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:57:TYR:CE2	4:B:161:ARG:HG2	2.48	0.49
4:B:173:PRO:HA	4:B:202:ASP:OD2	2.13	0.49
5:C:46:ALA:O	5:C:49:ARG:HG2	2.13	0.49
5:C:722:ILE:O	5:C:722:ILE:HG23	2.13	0.49
5:C:762:LYS:HD2	5:C:786:LYS:CB	2.42	0.49
5:C:860:HIS:CE1	5:C:975:TYR:HB2	2.48	0.49
5:C:906:PHE:CD1	6:D:1067:VAL:HG13	2.48	0.49
6:D:192:ALA:HB1	6:D:193:PRO:HD2	1.94	0.49
6:D:396:VAL:CG1	6:D:447:VAL:HG12	2.42	0.49
6:D:508:ARG:HD2	6:D:509:PRO:HD2	1.94	0.49
6:D:729:HIS:CE1	6:D:731:LEU:HB2	2.48	0.49
6:D:737:ASN:ND2	10:D:3999:APC:O3'	2.38	0.49
4:L:176:ARG:HE	6:N:847:ASP:CG	2.17	0.49
5:M:433:THR:O	5:M:437:ARG:HD2	2.12	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:759:THR:HB	5:M:785:VAL:HG22	1.95	0.49
5:M:893:ALA:HB2	5:M:918:LEU:HD12	1.95	0.49
5:M:981:GLU:HG3	5:M:982:PRO:HD2	1.94	0.49
6:N:545:ARG:CZ	6:N:545:ARG:HB2	2.42	0.49
6:N:829:VAL:O	6:N:835:SER:HB3	2.12	0.49
2:Y:2:A:C8	2:Y:2:A:C4'	2.95	0.48
5:C:18:LEU:HD22	5:C:404:LEU:CD2	2.43	0.48
5:C:276:LYS:O	5:C:280:LYS:HB2	2.12	0.48
5:C:439:CYS:SG	5:C:442:GLU:N	2.75	0.48
5:C:439:CYS:SG	5:C:442:GLU:HB2	2.52	0.48
5:C:579:VAL:CG1	5:C:887:GLU:HG3	2.33	0.48
5:C:853:LEU:HB2	5:C:858:MET:CE	2.42	0.48
11:C:1216:HOH:O	6:D:606:ILE:HD11	2.12	0.48
6:D:675:ARG:HA	6:D:678:GLU:HG2	1.94	0.48
6:D:699:VAL:H	6:D:756:GLN:HE22	1.55	0.48
6:D:1026:SER:C	6:D:1028:ALA:H	2.17	0.48
6:D:1033:GLN:N	11:D:8254:HOH:O	2.46	0.48
6:D:1102:THR:CG2	6:D:1370:ILE:HG22	2.42	0.48
6:D:1136:LYS:HB2	6:D:1139:ASP:OD1	2.13	0.48
6:D:1231:GLU:CG	6:D:1232:PRO:HD3	2.43	0.48
4:K:1:MET:O	4:K:6:LEU:HD13	2.12	0.48
4:L:24:VAL:HG12	4:L:26:GLU:OE2	2.13	0.48
4:L:89:PHE:CD1	4:L:120:VAL:HG13	2.48	0.48
4:L:124:ASN:ND2	4:L:127:LEU:HB2	2.28	0.48
5:M:95:TYR:CD2	5:M:114:PHE:HB2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:127:PHE:HZ	5:M:336:VAL:HG11	1.78	0.48
5:M:174:LEU:HD13	5:M:307:LEU:HD13	1.94	0.48
5:M:250:ARG:HG2	5:M:253:ALA:CB	2.43	0.48
5:M:262:ALA:HB3	11:M:1334:HOH:O	2.13	0.48
5:M:376:ARG:HG3	5:M:376:ARG:NH1	2.28	0.48
5:M:490:GLU:HG2	5:M:493:ARG:CZ	2.42	0.48
5:M:630:ARG:HA	11:M:1247:HOH:O	2.12	0.48
5:M:642:ARG:HG3	5:M:657:ASP:OD2	2.13	0.48
5:M:673:LEU:HB3	5:M:868:ASP:OD1	2.13	0.48
6:N:470:LEU:CD2	6:N:470:LEU:H	2.24	0.48
6:N:729:HIS:CE1	6:N:731:LEU:H	2.31	0.48
6:N:739:ASP:O	6:N:741:ASP:N	2.45	0.48
6:N:1114:THR:HG23	6:N:1114:THR:O	2.13	0.48
4:A:108:GLU:OE2	4:A:131:THR:HG22	2.13	0.48
4:A:180:GLN:HB3	4:A:182:GLU:OE2	2.11	0.48
4:B:111:ALA:HB3	4:B:124:ASN:O	2.12	0.48
5:C:723:THR:HG23	5:C:725:ASP:H	1.78	0.48
5:C:1049:LEU:CD2	6:D:1472:ILE:HD12	2.37	0.48
5:C:1102:LEU:N	6:D:7:LYS:O	2.46	0.48
6:D:522:PRO:HG2	6:D:523:ASP:H	1.78	0.48
6:D:689:ASP:O	6:D:693:GLU:HG3	2.12	0.48
6:D:1217:ILE:HD12	6:D:1480:PHE:CE2	2.48	0.48
6:D:1366:LYS:HA	6:D:1369:GLU:OE2	2.13	0.48
6:D:1483:PHE:N	6:D:1483:PHE:CD1	2.81	0.48
4:L:30:ARG:HH11	4:L:30:ARG:HB2	1.78	0.48
5:M:19:THR:HG22	5:M:404:LEU:CD1	2.41	0.48
5:M:39:ARG:H	5:M:39:ARG:CD	2.18	0.48
5:M:217:LEU:HD12	5:M:311:PHE:CD2	2.48	0.48
5:M:302:VAL:O	5:M:306:THR:HG23	2.14	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
6:N:646:LYS:NZ	6:N:722:GLU:HG2	2.28	0.48
1:X:16:DG:N2	11:X:2005:HOH:O	2.46	0.48
4:A:150:TYR:OH	5:C:696:LYS:HA	2.12	0.48
4:B:115:LEU:HD12	4:B:115:LEU:O	2.13	0.48
5:C:119:PRO:HB2	11:C:1174:HOH:O	2.12	0.48
5:C:398:THR:HB	5:C:399:ASN:HD22	1.79	0.48
5:C:548:PRO:HG3	5:C:842:ARG:NH1	2.28	0.48
5:C:674:VAL:HG23	5:C:869:VAL:O	2.13	0.48
5:C:981:GLU:HG3	5:C:982:PRO:CD	2.43	0.48
6:D:164:GLY:O	6:D:199:LEU:HD12	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:764:LEU:HD12	6:D:766:ALA:H	1.79	0.48
4:L:174:VAL:HG13	4:L:200:TRP:O	2.13	0.48
5:M:98:LEU:HD21	5:M:373:VAL:HG21	1.95	0.48
5:M:736:ASP:HA	5:M:744:ARG:HH12	1.75	0.48
5:M:842:ARG:NH2	5:M:887:GLU:CD	2.66	0.48
6:N:202:VAL:HB	6:N:398:ALA:O	2.13	0.48
6:N:543:LEU:HA	6:N:546:ARG:HG3	1.96	0.48
6:N:678:GLU:HB3	11:N:9222:HOH:O	2.13	0.48
6:N:757:ALA:CB	7:O:24:ALA:HB2	2.42	0.48
6:N:959:GLU:O	6:N:963:TYR:HD1	1.96	0.48
6:N:1026:SER:C	6:N:1028:ALA:H	2.16	0.48
6:N:1220:ALA:O	6:N:1224:VAL:HG23	2.14	0.48
1:X:8:DT:H2''	1:X:9:DG:H8	1.77	0.48
5:C:98:LEU:HD13	5:C:110:GLU:O	2.13	0.48
5:C:622:GLU:O	5:C:624:PRO:HD3	2.14	0.48
5:C:1083:GLU:HA	5:C:1086:ARG:HE	1.79	0.48
6:D:50:PHE:CB	6:D:522:PRO:HG3	2.43	0.48
6:D:139:GLY:HA2	6:D:451:ASP:O	2.13	0.48
6:D:827:ILE:H	6:D:827:ILE:HD12	1.77	0.48
6:D:881:LEU:HA	11:D:8376:HOH:O	2.13	0.48
6:D:1147:ARG:O	6:D:1166:LEU:HD23	2.12	0.48
6:D:1213:ARG:HH12	7:E:11:GLY:HA2	1.78	0.48
4:L:73:GLU:OE1	4:L:130:ALA:HA	2.13	0.48
5:M:52:PHE:HB3	5:M:53:PRO:HD3	1.95	0.48
5:M:368:THR:N	5:M:369:PRO:HD2	2.29	0.48
5:M:880:MET:HE1	6:N:1243:THR:O	2.13	0.48
5:M:959:PRO:HB2	11:M:1487:HOH:O	2.13	0.48
6:N:119:SER:N	6:N:123:LEU:HB2	2.28	0.48
6:N:155:ASP:O	6:N:159:ARG:HB3	2.13	0.48
6:N:181:ASP:O	6:N:204:LEU:HA	2.13	0.48
6:N:606:ILE:HG23	11:N:9149:HOH:O	2.12	0.48
6:N:619:LEU:HG	6:N:621:LYS:HE2	1.94	0.48
6:N:759:ALA:O	6:N:763:MET:HB3	2.14	0.48
6:N:1238:MET:HA	6:N:1241:PHE:HE2	1.76	0.48
7:O:73:LEU:HD12	7:O:73:LEU:H	1.79	0.48
1:X:12:DG:H2''	1:X:13:DT:O5'	2.14	0.48
2:Y:7:G:C8	2:Y:7:G:H5''	2.49	0.48
5:C:415:PRO:HD2	5:C:418:LEU:HD13	1.95	0.48
5:C:601:GLY:HA3	5:C:615:TYR:HA	1.95	0.48
5:C:675:ALA:CA	5:C:989:VAL:HG13	2.43	0.48
5:C:688:ILE:CG2	5:C:871:LEU:HD23	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:133:ILE:HG13	6:D:153:LEU:HG	1.95	0.48
6:D:785:ILE:O	6:D:789:LEU:HG	2.14	0.48
6:D:1495:ILE:HG22	6:D:1499:ARG:NH2	2.28	0.48
5:M:342:ASP:HA	5:M:345:ARG:CD	2.43	0.48
5:M:1103:ASP:OD1	6:N:3:LYS:HD2	2.13	0.48
6:N:15:PRO:HB3	11:N:9303:HOH:O	2.12	0.48
6:N:92:HIS:CA	6:N:519:VAL:HG23	2.43	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
6:N:939:PHE:O	6:N:943:THR:HG23	2.13	0.48
6:N:1378:TYR:O	6:N:1379:VAL:HG13	2.13	0.48
2:H:11:C:C2'	2:H:12:G:H5''	2.44	0.48
4:B:18:ARG:NH1	4:B:123:MET:HE1	2.14	0.48
4:B:23:PHE:HZ	4:B:207:PRO:HB2	1.78	0.48
5:C:159:ILE:HD11	11:C:1246:HOH:O	2.13	0.48
5:C:168:ARG:HB2	11:C:1136:HOH:O	2.13	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
5:C:1034:GLU:HA	5:C:1037:VAL:CG2	2.43	0.48
6:D:110:SER:HB3	6:D:113:GLY:H	1.77	0.48
5:M:16:PRO:HG2	5:M:485:TYR:OH	2.14	0.48
5:M:21:ILE:HD11	11:M:1541:HOH:O	2.13	0.48
5:M:44:ILE:HD12	5:M:344:PHE:CD1	2.48	0.48
5:M:61:LYS:O	5:M:61:LYS:HD3	2.14	0.48
5:M:95:TYR:HD2	5:M:114:PHE:HB2	1.79	0.48
5:M:218:VAL:HG22	5:M:221:LEU:HD21	1.94	0.48
5:M:260:LEU:HG	5:M:261:ILE:HG12	1.95	0.48
5:M:607:ASP:HB3	5:M:609:ASN:H	1.79	0.48
5:M:1012:PRO:HB2	5:M:1021:LEU:O	2.13	0.48
6:N:42:ASP:O	6:N:43:GLY:O	2.32	0.48
6:N:95:LEU:HA	6:N:551:ASN:ND2	2.28	0.48
6:N:500:ARG:HG3	11:N:9399:HOH:O	2.14	0.48
6:N:583:ASP:HB2	6:N:604:THR:OG1	2.14	0.48
6:N:613:ARG:HD3	6:N:613:ARG:HA	1.62	0.48
6:N:902:LEU:HB3	11:N:9040:HOH:O	2.13	0.48
6:N:1066:THR:HG22	6:N:1069:GLU:OE1	2.12	0.48
6:N:1441:GLN:OE1	6:N:1442:ASN:HB2	2.13	0.48
7:O:41:GLU:N	7:O:42:PRO:CD	2.76	0.48
2:Y:7:G:C5'	2:Y:7:G:H8	2.27	0.48
5:C:176:VAL:HG13	11:C:1142:HOH:O	2.14	0.48
5:C:205:GLU:O	5:C:209:ARG:HD2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:691:SER:HB2	5:C:858:MET:SD	2.53	0.48
5:C:758:ARG:NH2	5:C:788:THR:HB	2.29	0.48
5:C:1103:ASP:OD1	5:C:1109:VAL:HG22	2.14	0.48
6:D:42:ASP:O	6:D:43:GLY:O	2.31	0.48
6:D:462:GLN:HA	6:D:513:ILE:HD13	1.94	0.48
6:D:762:GLN:CB	7:E:16:LYS:HE2	2.44	0.48
6:D:963:TYR:HE2	6:D:1002:LYS:HB3	1.78	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
4:L:124:ASN:N	4:L:125:PRO:HD3	2.29	0.48
4:L:173:PRO:HG3	11:L:367:HOH:O	2.14	0.48
5:M:260:LEU:HA	5:M:291:ALA:CB	2.43	0.48
5:M:626:ARG:HB3	5:M:626:ARG:HH11	1.79	0.48
5:M:767:PRO:HD3	11:M:1522:HOH:O	2.14	0.48
5:M:845:ASN:ND2	11:M:1407:HOH:O	2.46	0.48
6:N:490:ALA:HA	6:N:1390:LEU:CD1	2.44	0.48
6:N:1102:THR:HG22	6:N:1222:GLY:HA3	1.95	0.48
6:N:1152:GLU:OE2	6:N:1154:GLU:HG3	2.13	0.48
6:N:1378:TYR:HA	6:N:1395:LEU:H	1.78	0.48
4:A:215:VAL:HG21	4:B:225:PHE:CD1	2.49	0.48
4:B:102:LYS:HZ2	4:B:139:ASN:HB2	1.78	0.48
5:C:265:ARG:H	5:C:289:THR:HG21	1.78	0.48
5:C:317:VAL:HG23	11:C:1254:HOH:O	2.14	0.48
5:C:405:ARG:NE	5:C:566:THR:HG21	2.28	0.48
5:C:562:SER:HB3	11:C:1416:HOH:O	2.12	0.48
5:C:587:VAL:HG23	11:C:1190:HOH:O	2.12	0.48
6:D:81:THR:HB	6:D:85:VAL:HG22	1.95	0.48
6:D:119:SER:N	6:D:123:LEU:HB2	2.29	0.48
6:D:562:ALA:HB1	6:D:567:ILE:CD1	2.44	0.48
6:D:644:LEU:HD23	6:D:718:PRO:CB	2.43	0.48
6:D:671:LYS:O	6:D:675:ARG:HG3	2.14	0.48
6:D:792:ILE:O	6:D:792:ILE:HG12	2.13	0.48
6:D:1112:CYS:HB2	6:D:1195:GLN:CG	2.32	0.48
6:D:1381:VAL:HB	6:D:1389:LEU:O	2.14	0.48
4:K:38:ASN:CB	5:M:980:GLY:HA3	2.40	0.48
4:L:23:PHE:O	4:L:196:THR:HA	2.14	0.48
4:L:226:SER:O	4:L:228:PRO:HD3	2.14	0.48
5:M:172:ILE:HG23	5:M:184:MET:SD	2.54	0.48
5:M:716:LYS:HZ1	6:N:36:THR:HA	1.78	0.48
5:M:1095:LEU:HD21	6:N:603:LEU:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:93:ILE:HB	6:N:517:VAL:HB	1.96	0.48
6:N:394:LEU:HD21	6:N:445:ARG:CZ	2.43	0.48
6:N:804:LEU:HD23	6:N:804:LEU:H	1.79	0.48
6:N:1098:LEU:HD23	6:N:1371:VAL:HG21	1.96	0.48
6:N:1336:LEU:CD1	6:N:1341:PRO:HG3	2.44	0.48
6:N:1383:ASP:HB2	6:N:1416:ALA:HB3	1.96	0.48
6:N:1484:THR:H	7:O:25:LYS:NZ	2.11	0.48
6:N:1499:ARG:HB2	6:N:1499:ARG:HH11	1.78	0.48
7:O:57:ASP:H	7:O:58:PRO:HD3	1.79	0.48
1:G:23:DG:N2	11:G:185:HOH:O	2.46	0.48
2:Y:7:G:H2'	2:Y:8:C:OP1	2.14	0.48
2:Y:9:G:C8	2:Y:9:G:C5'	2.97	0.48
4:A:156:HIS:CD2	4:A:157:GLY:N	2.82	0.48
5:C:260:LEU:CD1	5:C:261:ILE:HG13	2.43	0.48
5:C:774:LEU:HD11	11:D:8351:HOH:O	2.14	0.48
5:C:833:LEU:HD13	5:C:996:LYS:HD2	1.96	0.48
6:D:153:LEU:HB3	11:D:8252:HOH:O	2.14	0.48
6:D:581:LEU:HD23	6:D:581:LEU:H	1.77	0.48
6:D:727:GLN:NE2	11:D:8105:HOH:O	2.46	0.48
6:D:1094:LEU:O	6:D:1098:LEU:HD13	2.14	0.48
6:D:1120:VAL:HB	6:D:1144:LEU:HD21	1.96	0.48
6:D:1221:VAL:O	6:D:1224:VAL:HB	2.14	0.48
7:E:5:GLY:HA3	7:E:8:LYS:HD2	1.96	0.48
4:K:36:LEU:O	4:K:39:PRO:HD2	2.14	0.48
5:M:21:ILE:HD12	5:M:21:ILE:N	2.29	0.48
5:M:129:ILE:HG22	5:M:130:ASN:N	2.29	0.48
5:M:256:TYR:HB2	11:M:1408:HOH:O	2.13	0.48
6:N:546:ARG:HB3	6:N:546:ARG:HH11	1.78	0.48
6:N:786:ILE:HD13	6:N:1027:GLY:CA	2.44	0.48
6:N:974:ILE:HD11	6:N:995:LEU:HD22	1.95	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
7:O:22:VAL:CG1	7:O:68:LEU:HD21	2.44	0.48
3:I:4:DC:H2''	3:I:5:DG:O5'	2.14	0.48
4:A:36:LEU:HD11	4:B:221:HIS:CD2	2.49	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
5:C:681:GLY:O	6:D:633:VAL:HG11	2.14	0.48
6:D:93:ILE:HG13	6:D:519:VAL:CG2	2.43	0.48
6:D:650:LEU:HD23	6:D:691:LEU:CD2	2.43	0.48
6:D:675:ARG:HB3	6:D:675:ARG:CZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:769:LEU:HB2	6:D:919:PHE:CE1	2.49	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
4:L:7:LYS:HD2	4:L:7:LYS:O	2.14	0.48
5:M:91:GLN:NE2	5:M:383:ARG:HH22	2.12	0.48
5:M:101:ILE:HG22	5:M:102:HIS:N	2.29	0.48
5:M:684:PHE:HD2	11:N:9180:HOH:O	1.97	0.48
5:M:1013:TYR:HB3	5:M:1018:GLN:OE1	2.13	0.48
5:M:1030:GLN:HE22	6:N:628:ARG:HD3	1.78	0.48
5:M:1040:LEU:N	5:M:1040:LEU:HD12	2.29	0.48
6:N:9:ARG:HA	6:N:1455:LYS:O	2.13	0.48
1:G:18:DG:H5''	6:D:628:ARG:HH22	1.79	0.47
1:X:14:DT:H3'	6:N:610:LYS:HZ1	1.79	0.47
4:A:150:TYR:CE1	5:C:696:LYS:HA	2.49	0.47
5:C:144:PRO:HA	5:C:163:ILE:CD1	2.44	0.47
5:C:193:LEU:HD12	5:C:193:LEU:N	2.29	0.47
5:C:433:THR:O	5:C:437:ARG:HD2	2.14	0.47
5:C:715:THR:CG2	5:C:717:LEU:HG	2.43	0.47
6:D:117:ASP:N	6:D:150:ARG:HH11	2.12	0.47
6:D:796:ARG:O	6:D:797:LYS:HD2	2.14	0.47
6:D:932:ASP:O	6:D:935:LYS:HB3	2.14	0.47
4:K:213:GLN:O	4:K:217:ILE:HG13	2.13	0.47
5:M:129:ILE:HG13	5:M:386:PHE:HB3	1.96	0.47
5:M:152:PRO:HB2	11:M:1160:HOH:O	2.14	0.47
5:M:257:VAL:HG22	11:M:1151:HOH:O	2.13	0.47
5:M:503:LEU:HD23	5:M:507:ARG:O	2.14	0.47
5:M:571:LEU:HD21	5:M:700:TYR:CD2	2.49	0.47
5:M:604:ALA:HB3	5:M:612:VAL:O	2.14	0.47
5:M:780:GLU:HG3	5:M:781:LYS:HD3	1.96	0.47
5:M:833:LEU:HD21	5:M:839:LEU:HD11	1.96	0.47
5:M:969:GLN:CD	5:M:971:LYS:HE3	2.34	0.47
6:N:84:ILE:O	6:N:87:ARG:HG3	2.13	0.47
6:N:94:GLU:O	6:N:551:ASN:ND2	2.45	0.47
6:N:525:ARG:HB2	6:N:538:SER:CB	2.43	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
3:I:9:DG:H2''	3:I:10:DA:C8	2.50	0.47
5:C:31:GLN:HB3	5:C:71:TYR:HH	1.78	0.47
5:C:158:TYR:CD1	5:C:314:THR:HG22	2.44	0.47
5:C:185:LYS:HB3	5:C:188:LYS:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:42:ASP:CG	6:D:48:ARG:HH22	2.18	0.47
6:D:440:VAL:CB	6:D:441:ARG:HH21	2.26	0.47
6:D:756:GLN:CG	6:D:760:ARG:HH11	2.25	0.47
6:D:796:ARG:NE	6:D:828:LYS:HZ2	2.12	0.47
6:D:902:LEU:HD13	11:D:8066:HOH:O	2.12	0.47
6:D:1087:ARG:NH2	6:D:1253:THR:HG22	2.27	0.47
6:D:1124:GLN:HA	6:D:1125:PRO:HD3	1.65	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
6:D:1228:SER:HA	11:D:8193:HOH:O	2.14	0.47
6:D:1429:LEU:HG	6:D:1441:GLN:HG3	1.96	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
5:M:252:LYS:HZ2	5:M:296:GLY:HA3	1.77	0.47
5:M:487:THR:OG1	5:M:490:GLU:HG3	2.13	0.47
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
6:N:573:MET:HE2	11:N:9331:HOH:O	2.14	0.47
6:N:838:ARG:HH11	6:N:838:ARG:HG2	1.79	0.47
6:N:861:GLN:NE2	6:N:861:GLN:H	2.12	0.47
7:O:57:ASP:N	7:O:58:PRO:HD3	2.30	0.47
2:Y:7:G:O6	5:M:1015:LEU:N	2.45	0.47
3:Z:4:DC:H4'	11:Z:1418:HOH:O	2.15	0.47
4:A:26:GLU:HG2	4:A:27:PRO:HG3	1.96	0.47
4:A:73:GLU:CD	4:A:73:GLU:H	2.17	0.47
4:A:171:PHE:O	4:A:173:PRO:HD3	2.15	0.47
5:C:31:GLN:O	5:C:31:GLN:HG2	2.14	0.47
5:C:77:PRO:HB2	5:C:78:PHE:CD1	2.49	0.47
5:C:1102:LEU:HB2	6:D:7:LYS:HB2	1.96	0.47
6:D:520:LEU:HD12	6:D:521:PRO:HD2	1.97	0.47
6:D:583:ASP:OD2	6:D:604:THR:HG21	2.14	0.47
6:D:619:LEU:HD23	6:D:619:LEU:N	2.29	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
5:M:287:GLY:O	5:M:288:ARG:C	2.52	0.47
5:M:620:LEU:HD12	5:M:620:LEU:N	2.29	0.47
5:M:734:LEU:HD11	11:M:1385:HOH:O	2.14	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
4:A:67:THR:HG23	5:C:609:ASN:HD21	1.79	0.47
4:A:101:LEU:HD22	4:A:114:PHE:CZ	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:64:GLU:O	4:B:64:GLU:HG2	2.14	0.47
5:C:18:LEU:HD22	5:C:404:LEU:HD21	1.95	0.47
5:C:148:PHE:HZ	5:C:281:LEU:HB3	1.78	0.47
5:C:158:TYR:HE1	5:C:314:THR:HA	1.79	0.47
5:C:244:PRO:CD	5:C:245:GLY:H	2.26	0.47
5:C:361:MET:HG3	5:C:371:LYS:HD2	1.96	0.47
5:C:398:THR:HG21	5:C:567:GLN:C	2.34	0.47
5:C:437:ARG:HH21	5:C:469:THR:HG22	1.80	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:D:159:ARG:HB3	6:D:163:TYR:OH	2.14	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
6:D:1262:LEU:HD23	6:D:1352:ILE:CG1	2.44	0.47
7:E:16:LYS:HD3	7:E:17:TYR:CE1	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
5:M:65:VAL:HG12	5:M:67:ASP:OD2	2.14	0.47
5:M:474:VAL:HG12	5:M:531:PHE:HA	1.96	0.47
5:M:610:ARG:NH1	5:M:612:VAL:HG23	2.30	0.47
5:M:675:ALA:CA	5:M:989:VAL:HG12	2.38	0.47
5:M:734:LEU:HD21	11:M:1385:HOH:O	2.14	0.47
5:M:764:GLU:HG3	6:N:54:LYS:HD3	1.96	0.47
5:M:798:GLY:H	5:M:827:VAL:CG1	2.28	0.47
5:M:1049:LEU:HD23	6:N:1472:ILE:HD12	1.95	0.47
5:M:1067:TYR:HB3	11:M:1303:HOH:O	2.13	0.47
6:N:95:LEU:HD12	6:N:95:LEU:N	2.24	0.47
6:N:394:LEU:O	6:N:396:VAL:N	2.47	0.47
6:N:610:LYS:HB2	11:N:9190:HOH:O	2.15	0.47
6:N:756:GLN:HE22	6:N:760:ARG:HB3	1.80	0.47
6:N:820:GLU:HA	6:N:825:ALA:O	2.15	0.47
6:N:1231:GLU:HB3	6:N:1232:PRO:HD3	1.96	0.47
7:O:26:ARG:NH1	7:O:29:GLN:HE21	2.13	0.47
4:B:40:LEU:HD22	4:B:211:LEU:CD1	2.43	0.47
4:B:154:GLU:HB3	4:B:155:LYS:HZ2	1.78	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:D:683:ILE:N	6:D:683:ILE:HD12	2.29	0.47
6:D:783:ARG:HA	6:D:1028:ALA:CA	2.29	0.47
6:D:876:SER:O	6:D:880:ILE:HG12	2.15	0.47
6:D:884:ARG:HG2	11:D:8116:HOH:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:M:537:LYS:H	5:M:537:LYS:CD	2.20	0.47
6:N:493:ARG:CZ	6:N:1391:GLU:HA	2.45	0.47
6:N:1023:MET:HG2	6:N:1029:ARG:H	1.80	0.47
6:N:1268:PRO:HD3	6:N:1331:ASP:HB2	1.96	0.47
7:O:8:LYS:O	7:O:12:MET:HG3	2.14	0.47
7:O:13:VAL:HG12	7:O:14:ASP:N	2.29	0.47
4:A:79:ILE:HG21	4:A:165:ILE:HD11	1.94	0.47
4:B:45:LEU:HD21	6:D:855:HIS:NE2	2.30	0.47
5:C:260:LEU:C	5:C:260:LEU:HD12	2.34	0.47
5:C:626:ARG:N	5:C:639:GLN:HE21	2.13	0.47
5:C:722:ILE:CD1	5:C:823:VAL:HG21	2.39	0.47
5:C:874:LEU:HD11	6:D:787:LEU:HD23	1.97	0.47
6:D:23:TYR:O	6:D:91:GLY:HA2	2.14	0.47
6:D:138:LYS:HE2	11:D:8030:HOH:O	2.14	0.47
6:D:401:TYR:HB2	11:D:8164:HOH:O	2.14	0.47
6:D:634:GLY:HA3	6:D:727:GLN:HG2	1.97	0.47
6:D:1107:VAL:HA	6:D:1200:VAL:O	2.14	0.47
6:D:1160:LEU:CD1	6:D:1174:LEU:HD21	2.42	0.47
6:D:1223:ILE:HG22	6:D:1227:GLN:NE2	2.16	0.47
5:M:7:GLY:O	5:M:8:ARG:NE	2.48	0.47
5:M:68:PHE:HZ	5:M:71:TYR:CD2	2.23	0.47
5:M:86:LYS:HD2	11:M:1208:HOH:O	2.14	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
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
6:N:520:LEU:HD11	6:N:524:LEU:HD23	1.96	0.47
6:N:1220:ALA:CB	6:N:1223:ILE:HD13	2.27	0.47
6:N:1432:LYS:HA	11:N:9333:HOH:O	2.13	0.47
2:Y:8:C:H2'	2:Y:9:G:N7	2.30	0.47
4:A:69:PRO:HA	5:C:607:ASP:OD1	2.14	0.47
4:A:101:LEU:HD23	4:A:140:MET:HG2	1.95	0.47
4:B:117:VAL:HG11	11:B:324:HOH:O	2.14	0.47
4:B:124:ASN:HD21	4:B:127:LEU:HD22	1.78	0.47
5:C:287:GLY:O	5:C:288:ARG:C	2.53	0.47
5:C:322:VAL:HB	11:C:1379:HOH:O	2.15	0.47
5:C:564:MET:HG3	5:C:565:GLN:N	2.29	0.47
5:C:874:LEU:HD11	6:D:787:LEU:CD2	2.44	0.47
5:C:1008:ARG:NH2	5:C:1011:GLY:N	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1030:GLN:NE2	5:C:1030:GLN:HA	2.29	0.47
5:C:1115:LEU:HG	6:D:85:VAL:HG12	1.97	0.47
6:D:97:THR:HG21	6:D:571:LYS:HZ3	1.80	0.47
6:D:137:PRO:HD3	6:D:455:ARG:HH21	1.80	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
6:D:455:ARG:CB	6:D:460:ALA:CA	2.86	0.47
6:D:638:LYS:HD2	6:D:932:ASP:OD1	2.14	0.47
6:D:800:LYS:HE3	6:D:804:LEU:HD13	1.96	0.47
6:D:1496:GLU:HA	6:D:1499:ARG:CZ	2.44	0.47
4:K:177:VAL:O	5:M:864:GLY:HA3	2.15	0.47
4:L:43:ILE:HG23	4:L:47:SER:HB3	1.97	0.47
4:L:81:ASN:O	4:L:127:LEU:HD21	2.15	0.47
4:L:161:ARG:HD2	4:L:161:ARG:N	2.30	0.47
5:M:27:ARG:HD3	5:M:28:ARG:N	2.29	0.47
5:M:45:GLN:HE21	5:M:68:PHE:HE2	1.62	0.47
5:M:119:PRO:HG2	5:M:386:PHE:CD2	2.49	0.47
5:M:162:ILE:HB	5:M:172:ILE:HB	1.96	0.47
5:M:172:ILE:HG23	5:M:184:MET:CE	2.45	0.47
5:M:331:ARG:CB	5:M:331:ARG:HH11	2.27	0.47
5:M:430:VAL:HG13	6:N:1075:HIS:ND1	2.30	0.47
5:M:437:ARG:C	5:M:438:ILE:HD12	2.35	0.47
5:M:462:ASP:CG	5:M:463:GLU:N	2.67	0.47
5:M:589:ARG:HG3	5:M:596:TYR:CE1	2.50	0.47
5:M:689:VAL:HG11	5:M:870:ILE:CD1	2.44	0.47
5:M:769:PRO:HG2	6:N:65:ARG:CD	2.45	0.47
5:M:926:PHE:HD2	5:M:930:LYS:HE3	1.80	0.47
5:M:1056:LYS:HD3	6:N:625:TYR:CD1	2.50	0.47
5:M:1090:LYS:HG2	5:M:1112:PHE:CZ	2.48	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
6:N:634:GLY:HA2	6:N:727:GLN:HE21	1.79	0.47
6:N:666:ILE:H	6:N:666:ILE:HG13	1.41	0.47
6:N:1197:ARG:HH11	6:N:1197:ARG:HB2	1.80	0.47
6:N:1204:CYS:C	11:N:9238:HOH:O	2.51	0.47
6:N:1353:GLN:HG2	6:N:1368:ILE:CD1	2.45	0.47
2:H:10:G:C2'	2:H:11:C:H5'	2.45	0.47
4:B:58:ILE:HD13	4:B:140:MET:HB3	1.96	0.47
5:C:26:TYR:CD2	5:C:121:MET:HB2	2.49	0.47
5:C:204:GLN:OE1	5:C:222:MET:HA	2.15	0.47
5:C:573:ARG:HG2	5:C:670:GLN:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:688:ILE:N	11:C:1474:HOH:O	2.47	0.47
5:C:964:LYS:NZ	5:C:968:LEU:HD21	2.29	0.47
6:D:53:ILE:HA	6:D:86:ARG:CZ	2.44	0.47
6:D:135:LEU:HB2	6:D:148:GLU:O	2.15	0.47
6:D:173:PRO:HB2	11:D:8270:HOH:O	2.13	0.47
6:D:720:LEU:H	6:D:720:LEU:HD12	1.80	0.47
6:D:1384:PRO:HG3	6:D:1389:LEU:CA	2.45	0.47
6:D:1462:LEU:HD23	6:D:1473:PRO:HD2	1.96	0.47
7:E:64:ALA:O	7:E:68:LEU:HD13	2.14	0.47
4:L:152:PRO:HG2	6:N:857:ILE:HD12	1.96	0.47
5:M:78:PHE:HB3	5:M:82:GLU:OE1	2.14	0.47
5:M:376:ARG:HG3	5:M:376:ARG:HH11	1.80	0.47
5:M:603:VAL:H	5:M:647:GLN:H	1.63	0.47
5:M:996:LYS:HE3	11:M:1161:HOH:O	2.14	0.47
5:M:1031:ARG:NH1	6:N:621:LYS:HZ2	2.13	0.47
5:M:1070:ILE:HG23	6:N:656:PHE:CD1	2.50	0.47
6:N:519:VAL:HA	6:N:544:TYR:OH	2.15	0.47
1:G:19:DC:P	5:C:1001:VAL:HB	2.55	0.47
2:H:7:G:C8	2:H:7:G:H5''	2.50	0.47
1:X:21:DC:H3'	11:X:589:HOH:O	2.14	0.47
4:A:73:GLU:CD	4:A:130:ALA:HA	2.35	0.47
4:A:89:PHE:HZ	4:A:146:ARG:HB2	1.80	0.47
4:B:162:ILE:HD12	4:B:163:ASN:N	2.29	0.47
5:C:470:PRO:HD3	5:C:485:TYR:HE2	1.79	0.47
5:C:553:ASP:OD1	5:C:843:HIS:HB3	2.14	0.47
5:C:769:PRO:HB3	11:D:8366:HOH:O	2.15	0.47
5:C:937:ASP:HB2	5:C:940:GLU:CG	2.43	0.47
5:C:1016:ILE:HG12	5:C:1017:THR:N	2.29	0.47
5:C:1036:GLU:O	5:C:1039:ALA:HB3	2.14	0.47
6:D:116:LEU:HD22	6:D:118:LEU:CD2	2.45	0.47
6:D:704:ARG:HH12	6:D:743:ASP:CB	2.28	0.47
6:D:1472:ILE:HD13	6:D:1472:ILE:N	2.29	0.47
4:K:112:ARG:HG2	4:K:125:PRO:CA	2.45	0.47
4:L:140:MET:HG2	4:L:141:GLU:N	2.28	0.47
4:L:222:LEU:HA	4:L:225:PHE:CE1	2.50	0.47
5:M:69:LEU:HD21	5:M:99:GLN:HG3	1.97	0.47
5:M:625:LEU:O	5:M:627:ARG:N	2.48	0.47
5:M:688:ILE:CD1	5:M:847:GLY:HA3	2.45	0.47
6:N:26:VAL:HG21	6:N:519:VAL:HG11	1.97	0.47
6:N:439:LEU:HG	11:N:9125:HOH:O	2.15	0.47
6:N:711:LEU:HD21	6:N:768:ASN:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:756:GLN:NE2	6:N:756:GLN:O	2.48	0.47
6:N:845:ASN:ND2	6:N:846:PRO:HD2	2.30	0.47
6:N:884:ARG:HG2	11:N:9101:HOH:O	2.14	0.47
6:N:1156:LEU:HD21	6:N:1177:ALA:HA	1.97	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
7:O:38:THR:HG21	7:O:63:TRP:CZ3	2.50	0.47
2:H:8:C:H2'	2:H:9:G:N7	2.30	0.47
4:A:48:ILE:CD1	4:A:210:ALA:HB1	2.44	0.47
4:B:51:THR:HG23	11:B:316:HOH:O	2.15	0.47
4:B:110:LYS:HD3	4:B:112:ARG:HG2	1.97	0.47
5:C:146:VAL:CG2	5:C:162:ILE:HG23	2.43	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
5:C:1095:LEU:HD22	6:D:101:HIS:CE1	2.49	0.47
6:D:130:SER:HB3	6:D:132:TYR:CE1	2.50	0.47
6:D:710:ARG:C	6:D:712:GLY:H	2.18	0.47
6:D:796:ARG:HH21	6:D:828:LYS:CE	2.27	0.47
6:D:896:ALA:O	6:D:899:LEU:HD12	2.15	0.47
6:D:1191:PRO:HB3	6:D:1370:ILE:HD13	1.95	0.47
4:L:34:VAL:HA	4:L:179:PHE:HE1	1.79	0.47
5:M:151:ASP:OD1	5:M:154:ARG:HB3	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
5:M:876:VAL:HG13	5:M:881:ASN:HD21	1.79	0.47
6:N:1118:ILE:HG12	6:N:1193:THR:HG23	1.97	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
2:H:4:U:O2'	2:H:5:C:H5'	2.15	0.46
2:Y:15:C:H2'	2:Y:16:G:C8	2.50	0.46
4:A:88:ARG:NH1	4:A:89:PHE:O	2.47	0.46
4:A:133:GLU:OE1	5:C:605:LYS:HB3	2.16	0.46
4:A:175:ARG:NH2	4:A:176:ARG:HD3	2.30	0.46
4:B:27:PRO:C	4:B:28:LEU:HD23	2.35	0.46
5:C:69:LEU:C	5:C:70:GLU:HG2	2.35	0.46
5:C:265:ARG:HD2	5:C:267:TYR:CG	2.50	0.46
5:C:292:ARG:HB2	5:C:299:LYS:HG2	1.97	0.46
5:C:394:PHE:CE1	5:C:632:ASN:HB3	2.49	0.46
5:C:580:MET:HB3	5:C:584:GLU:CD	2.35	0.46
5:C:737:LEU:HD21	5:C:741:GLY:C	2.36	0.46
5:C:872:ASN:ND2	5:C:874:LEU:N	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:900:ARG:NH1	11:C:1210:HOH:O	2.48	0.46
5:C:999:HIS:HB2	11:C:1358:HOH:O	2.15	0.46
5:C:1098:ASP:O	6:D:10:ILE:HA	2.15	0.46
5:C:1103:ASP:N	5:C:1107:ASN:O	2.44	0.46
6:D:118:LEU:HD13	6:D:461:ILE:HD12	1.97	0.46
6:D:161:LEU:HD21	6:D:452:ILE:CG2	2.27	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
6:D:843:PHE:CE1	6:D:864:VAL:HG11	2.50	0.46
6:D:1198:TYR:HE2	6:D:1377:LYS:HD2	1.80	0.46
7:E:54:LEU:HA	7:E:58:PRO:CG	2.44	0.46
4:K:111:ALA:HB2	4:K:127:LEU:CD2	2.45	0.46
4:K:177:VAL:HG13	4:K:199:ILE:CD1	2.45	0.46
4:L:94:LEU:HD11	4:L:119:ASP:HB2	1.97	0.46
5:M:2:GLU:O	5:M:3:ILE:HD13	2.15	0.46
5:M:498:GLN:HE22	6:N:1067:VAL:CG1	2.28	0.46
5:M:678:PRO:HD2	11:N:9146:HOH:O	2.14	0.46
6:N:10:ILE:HD11	6:N:1434:TRP:NE1	2.30	0.46
6:N:134:VAL:CG1	6:N:152:LEU:HD22	2.45	0.46
6:N:462:GLN:O	6:N:466:LYS:HG3	2.15	0.46
6:N:481:MET:CE	6:N:1388:ARG:HG3	2.44	0.46
6:N:493:ARG:HD2	6:N:494:LYS:N	2.30	0.46
6:N:1121:PRO:HB2	6:N:1135:ARG:HH12	1.79	0.46
6:N:1122:LEU:HD11	6:N:1186:VAL:HG23	1.97	0.46
6:N:1149:LEU:HD23	6:N:1187:PRO:O	2.15	0.46
6:N:1389:LEU:HG	6:N:1390:LEU:H	1.79	0.46
7:O:91:ARG:HH11	7:O:92:LEU:HD21	1.80	0.46
2:H:9:G:C8	2:H:9:G:C5'	2.98	0.46
4:A:7:LYS:HE3	4:A:186:LEU:HD22	1.97	0.46
4:A:42:ARG:HH12	4:B:34:VAL:CG1	2.28	0.46
5:C:172:ILE:H	5:C:172:ILE:HD12	1.80	0.46
5:C:193:LEU:CD1	5:C:193:LEU:N	2.78	0.46
5:C:207:LEU:HD22	5:C:221:LEU:HD13	1.97	0.46
5:C:292:ARG:HD2	5:C:299:LYS:CE	2.46	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
5:C:859:PRO:HB3	5:C:974:LEU:CD2	2.44	0.46
5:C:1100:GLN:HB3	6:D:9:ARG:HH21	1.80	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:136:ASP:OD2	6:D:464:LEU:HD23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:540:LEU:HA	6:D:543:LEU:HD11	1.97	0.46
6:D:647:ARG:HA	6:D:650:LEU:HD12	1.96	0.46
6:D:871:LYS:NZ	6:N:442:ASN:HD22	2.13	0.46
6:D:1100:ASP:HB3	6:D:1428:ALA:HB1	1.97	0.46
6:D:1468:LEU:O	6:D:1468:LEU:HD23	2.15	0.46
7:E:48:MET:HB2	7:E:54:LEU:HB2	1.96	0.46
4:K:181:VAL:H	5:M:937:ASP:CG	2.19	0.46
4:L:124:ASN:HD21	4:L:127:LEU:HB2	1.80	0.46
5:M:79:PRO:HA	5:M:90:TYR:HE2	1.80	0.46
5:M:512:ARG:HB3	5:M:523:ILE:HD11	1.97	0.46
5:M:668:LEU:HD13	5:M:995:MET:CE	2.44	0.46
5:M:689:VAL:CG1	5:M:690:ILE:H	2.25	0.46
5:M:751:PRO:HB2	6:N:680:GLN:NE2	2.30	0.46
5:M:862:PRO:HD3	5:M:973:VAL:O	2.14	0.46
5:M:897:LEU:HD11	5:M:920:GLN:HB3	1.97	0.46
5:M:911:GLU:HB2	5:M:912:PRO:HD3	1.97	0.46
5:M:940:GLU:HG3	11:M:1220:HOH:O	2.15	0.46
5:M:1050:GLN:NE2	6:N:1471:LEU:N	2.58	0.46
6:N:33:ASN:O	6:N:36:THR:O	2.33	0.46
6:N:92:HIS:HA	6:N:519:VAL:HG23	1.96	0.46
6:N:133:ILE:HB	6:N:153:LEU:CD1	2.45	0.46
6:N:434:ARG:NH2	6:N:447:VAL:HG11	2.29	0.46
6:N:452:ILE:HB	11:N:9092:HOH:O	2.14	0.46
6:N:1381:VAL:HB	6:N:1389:LEU:O	2.14	0.46
4:B:170:VAL:O	4:B:170:VAL:HG23	2.16	0.46
4:B:206:THR:HG23	4:B:208:LEU:N	2.29	0.46
5:C:212:GLY:HA3	5:C:218:VAL:HG21	1.96	0.46
5:C:456:ALA:HA	5:C:541:SER:HA	1.97	0.46
5:C:494:TYR:HD2	5:C:530:GLU:HB3	1.81	0.46
5:C:600:ASP:OD1	5:C:651:LYS:HB2	2.15	0.46
6:D:119:SER:HB2	6:D:123:LEU:N	2.29	0.46
6:D:164:GLY:HA3	11:D:8094:HOH:O	2.15	0.46
4:K:26:GLU:HG3	4:K:184:THR:HG21	1.95	0.46
4:K:200:TRP:HZ2	11:M:1430:HOH:O	1.97	0.46
5:M:677:MET:HB3	5:M:987:ILE:HD13	1.96	0.46
5:M:798:GLY:HA3	5:M:828:ALA:O	2.15	0.46
5:M:831:ARG:NH1	5:M:999:HIS:HB3	2.31	0.46
6:N:133:ILE:HG22	6:N:455:ARG:N	2.30	0.46
6:N:396:VAL:C	6:N:398:ALA:N	2.69	0.46
6:N:564:GLU:O	6:N:567:ILE:HG13	2.16	0.46
6:N:793:THR:OG1	6:N:905:PRO:HA	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:799:LYS:HB3	6:N:826:PRO:HG2	1.97	0.46
6:N:890:VAL:HG12	6:N:926:LYS:CD	2.35	0.46
6:N:1252:ILE:HA	11:N:9048:HOH:O	2.14	0.46
6:N:1369:GLU:HA	6:N:1372:VAL:HG12	1.97	0.46
2:H:5:C:H6	2:H:5:C:O5'	1.98	0.46
1:X:15:DC:H2''	1:X:16:DG:H8	1.80	0.46
4:A:18:ARG:O	4:A:207:PRO:HD3	2.15	0.46
4:A:156:HIS:CD2	4:A:157:GLY:H	2.32	0.46
5:C:75:GLU:HA	5:C:76:PRO:HD3	1.79	0.46
5:C:159:ILE:CG2	5:C:175:GLU:HB2	2.45	0.46
5:C:197:LEU:HB3	5:C:202:TYR:HB2	1.97	0.46
5:C:889:HIS:CE1	6:D:951:ILE:HG22	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:D:407:VAL:HG13	6:D:422:ALA:HB2	1.97	0.46
6:D:844:ALA:O	6:D:867:ARG:HB3	2.15	0.46
6:D:1394:VAL:HB	6:D:1397:LYS:HB2	1.97	0.46
4:L:39:PRO:HD3	11:L:348:HOH:O	2.16	0.46
4:L:43:ILE:HD12	4:L:217:ILE:CG2	2.45	0.46
4:L:102:LYS:HD2	4:L:138:LEU:O	2.15	0.46
4:L:184:THR:CG2	4:L:194:LYS:HB2	2.45	0.46
5:M:286:SER:OG	5:M:299:LYS:HE3	2.15	0.46
5:M:381:ALA:HB2	11:M:1457:HOH:O	2.15	0.46
5:M:401:LEU:HG	5:M:402:SER:N	2.29	0.46
5:M:611:ILE:HD11	5:M:641:PRO:HG3	1.97	0.46
5:M:739:GLU:OE2	5:M:744:ARG:HA	2.14	0.46
5:M:948:GLU:OE1	5:M:955:PRO:HA	2.16	0.46
5:M:984:GLU:HG3	6:N:944:THR:O	2.15	0.46
6:N:18:ILE:HG23	6:N:518:PRO:CG	2.23	0.46
6:N:204:LEU:HB3	6:N:445:ARG:HH21	1.81	0.46
6:N:792:ILE:HD13	6:N:793:THR:CG2	2.44	0.46
6:N:820:GLU:CB	6:N:836:VAL:HG21	2.45	0.46
6:N:911:LEU:O	6:N:915:VAL:HG23	2.14	0.46
6:N:1335:LEU:HD13	6:N:1347:TYR:CE2	2.50	0.46
4:A:101:LEU:HD22	4:A:114:PHE:CE2	2.49	0.46
4:A:173:PRO:O	4:A:201:THR:HG22	2.16	0.46
5:C:198:ARG:HD3	5:C:228:ALA:HA	1.98	0.46
5:C:605:LYS:CD	5:C:612:VAL:HB	2.45	0.46
5:C:1046:ALA:HB3	6:D:1476:THR:HB	1.98	0.46
6:D:123:LEU:HD11	6:D:152:LEU:CD2	2.39	0.46
6:D:399:ARG:HH11	6:D:430:ASP:CB	2.25	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
4:K:30:ARG:NH1	5:M:938:LYS:HD2	2.31	0.46
4:K:52:ALA:HB2	4:K:170:VAL:O	2.15	0.46
5:M:61:LYS:NZ	11:M:1290:HOH:O	2.48	0.46
5:M:109:LYS:HE2	5:M:111:ASP:HA	1.97	0.46
5:M:217:LEU:HD12	5:M:311:PHE:HA	1.96	0.46
5:M:326:ASP:OD1	5:M:427:VAL:HG22	2.14	0.46
5:M:468:ARG:HB3	5:M:486:MET:O	2.14	0.46
6:N:637:LEU:CD1	6:N:641:GLN:HB2	2.45	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
5:C:181:VAL:HG12	5:C:182:VAL:N	2.30	0.46
5:C:226:VAL:HG13	5:C:227:PHE:CD1	2.51	0.46
5:C:732:ALA:HA	5:C:735:ARG:CZ	2.45	0.46
5:C:737:LEU:HD21	5:C:741:GLY:N	2.30	0.46
5:C:1083:GLU:CG	5:C:1086:ARG:HH21	2.25	0.46
6:D:785:ILE:HG22	6:D:789:LEU:CD1	2.36	0.46
6:D:1002:LYS:HA	11:D:8149:HOH:O	2.16	0.46
6:D:1335:LEU:CD2	6:D:1344:VAL:HG22	2.46	0.46
4:K:23:PHE:O	4:K:196:THR:HA	2.16	0.46
4:K:224:TYR:HB3	4:L:9:PRO:CB	2.45	0.46
5:M:689:VAL:O	5:M:869:VAL:HG23	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:M:1047:HIS:CD2	5:M:1047:HIS:N	2.83	0.46
5:M:1093:GLN:HB3	6:N:90:MET:SD	2.55	0.46
6:N:400:VAL:HG13	6:N:400:VAL:O	2.16	0.46
6:N:654:LYS:HB2	6:N:654:LYS:NZ	2.31	0.46
6:N:880:ILE:O	6:N:883:ALA:HB3	2.15	0.46
4:A:86:VAL:HG12	4:A:124:ASN:HB2	1.97	0.46
5:C:445:GLU:HA	5:C:449:ILE:HD12	1.97	0.46
5:C:902:ILE:O	5:C:904:PRO:HD3	2.15	0.46
5:C:971:LYS:HB2	5:C:986:PRO:HB2	1.97	0.46
5:C:1082:PRO:HD2	6:D:1468:LEU:O	2.15	0.46
6:D:436:GLU:HB2	6:D:445:ARG:CG	2.45	0.46
6:D:618:LEU:HD12	6:D:1439:SER:HB3	1.96	0.46
6:D:987:GLU:O	6:D:991:GLN:HB2	2.15	0.46
6:D:1042:ARG:NH2	6:D:1061:PHE:HZ	2.12	0.46
6:D:1213:ARG:HH12	7:E:10:PHE:C	2.19	0.46
6:D:1393:GLN:HE22	6:D:1394:VAL:HB	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:68:ILE:HG21	11:L:362:HOH:O	2.15	0.46
5:M:146:VAL:CG2	5:M:281:LEU:HD11	2.46	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
5:M:748:GLU:HA	5:M:799:ILE:HD13	1.97	0.46
6:N:30:GLU:HB3	6:N:40:GLU:HB3	1.96	0.46
6:N:611:GLN:HG3	6:N:611:GLN:O	2.14	0.46
1:X:15:DC:H2''	1:X:16:DG:C8	2.51	0.46
5:C:218:VAL:O	5:C:221:LEU:HG	2.16	0.46
5:C:232:GLU:O	5:C:236:ILE:HD12	2.16	0.46
5:C:522:VAL:HG21	11:C:1425:HOH:O	2.15	0.46
5:C:524:VAL:HG13	5:C:528:GLU:HB2	1.98	0.46
5:C:545:ASN:OD1	5:C:583:LEU:HD22	2.16	0.46
5:C:834:GLN:HB2	5:C:834:GLN:HE21	1.58	0.46
5:C:1081:VAL:HG23	11:C:1198:HOH:O	2.16	0.46
5:C:1101:THR:HG23	5:C:1109:VAL:O	2.16	0.46
6:D:31:THR:HB	6:D:527:MET:CE	2.46	0.46
6:D:438:ASP:HB2	6:D:445:ARG:NH1	2.31	0.46
6:D:785:ILE:H	6:D:785:ILE:CD1	2.13	0.46
6:D:786:ILE:CG2	6:D:1026:SER:HB3	2.37	0.46
6:D:939:PHE:O	6:D:943:THR:HG23	2.16	0.46
6:D:1031:ASN:HB3	6:D:1034:GLN:CD	2.36	0.46
6:D:1101:VAL:HG12	6:D:1374:GLN:HB3	1.97	0.46
5:M:567:GLN:HG2	11:M:1537:HOH:O	2.15	0.46
5:M:694:LEU:HD21	5:M:868:ASP:OD2	2.15	0.46
5:M:906:PHE:CZ	6:N:1067:VAL:HA	2.51	0.46
5:M:1036:GLU:O	5:M:1039:ALA:HB3	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
6:N:403:PHE:CE2	6:N:444:VAL:HG23	2.51	0.46
6:N:960:LYS:HD3	11:N:9374:HOH:O	2.15	0.46
6:N:984:THR:CG2	6:N:987:GLU:H	2.29	0.46
6:N:1145:TYR:HD2	6:N:1168:MET:SD	2.39	0.46
6:N:1209:LEU:CD2	6:N:1210:SER:H	2.28	0.46
6:N:1402:ALA:HB2	6:N:1415:VAL:CG2	2.46	0.46
5:C:231:PRO:HD2	11:C:1261:HOH:O	2.16	0.46
5:C:401:LEU:CD2	5:C:565:GLN:HE21	2.29	0.46
5:C:404:LEU:HD22	5:C:591:SER:HB3	1.98	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
5:C:516:ARG:HH21	6:D:1068:LEU:HB3	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:33:ASN:HB2	6:D:40:GLU:OE1	2.16	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
6:D:800:LYS:CE	6:D:804:LEU:HD22	2.43	0.46
6:D:951:ILE:O	6:D:951:ILE:HD13	2.16	0.46
6:D:1228:SER:O	6:D:1232:PRO:CD	2.58	0.46
4:K:185:ARG:O	4:K:185:ARG:HD2	2.15	0.46
5:M:91:GLN:NE2	5:M:117:HIS:O	2.49	0.46
5:M:674:VAL:HG21	5:M:871:LEU:HG	1.98	0.46
5:M:745:ILE:H	5:M:745:ILE:CD1	2.22	0.46
5:M:864:GLY:O	5:M:866:PRO:HD3	2.15	0.46
5:M:1008:ARG:HH12	5:M:1011:GLY:N	2.14	0.46
6:N:543:LEU:CD1	6:N:581:LEU:HA	2.38	0.46
6:N:707:THR:HG22	6:N:712:GLY:HA3	1.96	0.46
6:N:760:ARG:NH1	7:O:61:VAL:HG23	2.27	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
6:N:1112:CYS:CB	6:N:1195:GLN:HG2	2.44	0.46
6:N:1349:VAL:HA	6:N:1368:ILE:HG21	1.98	0.46
1:G:6:DT:H71	11:G:2394:HOH:O	2.16	0.46
5:C:124:ASP:OD1	5:C:124:ASP:N	2.48	0.46
5:C:169:GLY:CA	5:C:263:ASP:HB3	2.44	0.46
5:C:217:LEU:HD11	5:C:314:THR:OG1	2.16	0.46
5:C:322:VAL:HG13	11:C:1193:HOH:O	2.14	0.46
5:C:333:ILE:N	5:C:333:ILE:HD12	2.31	0.46
5:C:737:LEU:HD21	5:C:741:GLY:H	1.81	0.46
5:C:758:ARG:HG2	5:C:758:ARG:HH11	1.81	0.46
6:D:19:ARG:H	6:D:19:ARG:HG2	1.51	0.46
6:D:71:LYS:HB2	6:D:71:LYS:HZ3	1.79	0.46
6:D:407:VAL:HA	6:D:422:ALA:CB	2.46	0.46
6:D:443:VAL:CG1	6:D:445:ARG:HH22	2.29	0.46
6:D:617:ASN:HA	11:D:8092:HOH:O	2.15	0.46
6:D:638:LYS:NZ	11:D:8121:HOH:O	2.48	0.46
6:D:899:LEU:HB3	6:D:921:ARG:NH1	2.31	0.46
6:D:926:LYS:HG2	6:D:929:ARG:NH1	2.30	0.46
6:D:1166:LEU:HD12	6:D:1171:VAL:HG22	1.98	0.46
7:E:37:ASN:HD22	7:E:89:MET:CE	2.29	0.46
4:L:175:ARG:HD3	4:L:202:ASP:HB3	1.98	0.46
5:M:342:ASP:O	5:M:346:VAL:HG23	2.16	0.46
5:M:433:THR:C	5:M:435:TYR:H	2.18	0.46
5:M:568:ALA:HB3	11:M:1233:HOH:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1019:GLN:NE2	11:N:9292:HOH:O	2.48	0.46
5:M:1031:ARG:HE	6:N:621:LYS:HB3	1.80	0.46
5:M:1060:ILE:CD1	5:M:1064:ASN:HD21	2.29	0.46
6:N:30:GLU:HB3	6:N:40:GLU:CB	2.45	0.46
6:N:65:ARG:HD2	6:N:65:ARG:HA	1.70	0.46
6:N:115:LEU:HB2	6:N:498:VAL:HG11	1.98	0.46
6:N:481:MET:HE3	6:N:496:LEU:HD23	1.98	0.46
6:N:491:LYS:HD2	6:N:491:LYS:O	2.16	0.46
6:N:644:LEU:HD12	6:N:645:PRO:CD	2.46	0.46
6:N:902:LEU:HD13	11:N:9040:HOH:O	2.14	0.46
6:N:959:GLU:O	6:N:963:TYR:CD1	2.70	0.46
6:N:1002:LYS:HA	11:N:9185:HOH:O	2.15	0.46
6:N:1353:GLN:HG2	6:N:1368:ILE:HD11	1.98	0.46
6:N:1366:LYS:O	6:N:1370:ILE:HG12	2.15	0.46
6:N:1394:VAL:HB	6:N:1397:LYS:CB	2.43	0.46
5:C:5:ARG:HE	5:C:5:ARG:HB2	1.65	0.45
5:C:219:GLN:HA	5:C:222:MET:HE2	1.98	0.45
5:C:430:VAL:HG12	6:D:1078:ARG:HG3	1.98	0.45
5:C:950:LEU:HB3	5:C:952:LEU:CD2	2.44	0.45
6:D:14:SER:O	6:D:17:LYS:N	2.49	0.45
6:D:496:LEU:HD21	6:D:1388:ARG:CG	2.44	0.45
6:D:639:LEU:HD12	6:D:640:HIS:H	1.81	0.45
6:D:1123:PHE:CZ	6:D:1178:ALA:HB1	2.51	0.45
6:D:1218:GLY:HA2	11:D:8043:HOH:O	2.15	0.45
4:K:198:ARG:NH2	5:M:932:GLU:HB3	2.30	0.45
5:M:100:LEU:HD12	5:M:101:ILE:O	2.16	0.45
5:M:195:LEU:O	5:M:199:VAL:HG23	2.16	0.45
5:M:352:ALA:CA	5:M:355:VAL:HG12	2.44	0.45
5:M:1043:TYR:HA	6:N:710:ARG:NH1	2.30	0.45
6:N:631:ILE:HG21	6:N:745:MET:HG3	1.97	0.45
6:N:770:LEU:HD11	6:N:919:PHE:HE2	1.80	0.45
6:N:783:ARG:NH1	6:N:1029:ARG:CZ	2.79	0.45
6:N:1051:GLU:HB3	11:N:9122:HOH:O	2.15	0.45
6:N:1192:LEU:HD22	6:N:1345:GLU:CG	2.46	0.45
6:N:1262:LEU:HD21	6:N:1351:GLU:CG	2.46	0.45
3:I:8:DA:H1'	3:I:9:DG:C5'	2.46	0.45
5:C:146:VAL:HG13	5:C:162:ILE:HA	1.97	0.45
5:C:189:ARG:HD3	5:C:190:LYS:H	1.81	0.45
5:C:203:ASP:O	5:C:207:LEU:HB2	2.16	0.45
5:C:573:ARG:HH11	5:C:573:ARG:CB	2.19	0.45
5:C:669:GLY:HA3	5:C:995:MET:HA	1.98	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
6:D:1098:LEU:CD2	6:D:1229:ILE:HD12	2.44	0.45
4:K:39:PRO:O	4:K:43:ILE:HG12	2.17	0.45
4:K:198:ARG:HH22	5:M:932:GLU:CB	2.26	0.45
4:L:121:GLU:OE1	4:L:123:MET:HG2	2.16	0.45
5:M:30:LEU:O	5:M:30:LEU:HD12	2.17	0.45
5:M:44:ILE:HG23	5:M:344:PHE:CE1	2.47	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:M:211:LEU:HD22	11:M:1152:HOH:O	2.17	0.45
5:M:688:ILE:HD12	5:M:847:GLY:HA3	1.99	0.45
6:N:119:SER:OG	6:N:123:LEU:HD13	2.16	0.45
6:N:206:ARG:HH11	6:N:206:ARG:HG3	1.81	0.45
6:N:409:VAL:HG11	6:N:435:VAL:HG21	1.98	0.45
6:N:470:LEU:H	6:N:470:LEU:HD23	1.81	0.45
6:N:772:PRO:HB2	11:N:9024:HOH:O	2.15	0.45
6:N:1136:LYS:O	6:N:1140:ILE:HG13	2.15	0.45
6:N:1380:GLU:OE2	6:N:1390:LEU:HA	2.15	0.45
7:O:41:GLU:HG2	7:O:42:PRO:N	2.31	0.45
5:C:10:ARG:HH11	5:C:11:GLU:H	1.63	0.45
5:C:398:THR:HG21	5:C:567:GLN:CA	2.46	0.45
5:C:640:ARG:HA	11:C:1183:HOH:O	2.16	0.45
5:C:832:LYS:HE3	11:C:1519:HOH:O	2.15	0.45
6:D:508:ARG:NH1	11:D:8038:HOH:O	2.50	0.45
6:D:530:VAL:HB	6:D:534:ARG:HB2	1.99	0.45
6:D:884:ARG:HA	11:D:8116:HOH:O	2.16	0.45
6:D:896:ALA:O	6:D:900:ILE:HG23	2.17	0.45
6:D:1135:ARG:HD2	6:D:1139:ASP:OD2	2.17	0.45
6:D:1207:TYR:HA	6:D:1214:PRO:HA	1.97	0.45
6:D:1402:ALA:HB2	6:D:1415:VAL:CG2	2.46	0.45
4:K:16:GLN:NE2	11:K:788:HOH:O	2.47	0.45
4:L:50:GLY:HA3	4:L:171:PHE:O	2.16	0.45
4:L:59:GLU:HG2	4:L:139:ASN:HD22	1.80	0.45
4:L:112:ARG:H	4:L:112:ARG:HG2	1.48	0.45
5:M:350:ARG:HB3	5:M:377:PRO:HB3	1.97	0.45
5:M:479:VAL:HG22	5:M:506:ASN:HA	1.98	0.45
5:M:577:PRO:HB3	5:M:842:ARG:NH1	2.31	0.45
5:M:801:VAL:HG23	5:M:802:ARG:N	2.31	0.45
5:M:1115:LEU:O	6:N:89:ARG:CZ	2.64	0.45
6:N:31:THR:OG1	6:N:32:ILE:N	2.49	0.45
6:N:95:LEU:HA	6:N:551:ASN:HD21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:169:TYR:HB3	6:N:195:VAL:HG11	1.99	0.45
6:N:465:LEU:HD22	6:N:510:GLU:HA	1.97	0.45
6:N:756:GLN:HE21	6:N:760:ARG:HD2	1.82	0.45
6:N:796:ARG:NE	6:N:828:LYS:NZ	2.61	0.45
6:N:907:GLU:O	6:N:911:LEU:HG	2.15	0.45
6:N:963:TYR:HD1	6:N:963:TYR:H	1.63	0.45
4:A:186:LEU:HB2	11:A:361:HOH:O	2.17	0.45
4:A:206:THR:HG23	4:A:208:LEU:N	2.31	0.45
5:C:265:ARG:HB3	5:C:267:TYR:CE2	2.51	0.45
5:C:385:PHE:O	5:C:389:SER:HB2	2.16	0.45
5:C:401:LEU:HD22	5:C:546:LEU:HD13	1.99	0.45
5:C:403:SER:O	5:C:407:LYS:HD3	2.16	0.45
5:C:431:HIS:CD2	5:C:432:ARG:N	2.85	0.45
5:C:523:ILE:HG23	5:C:523:ILE:O	2.17	0.45
5:C:569:VAL:HA	5:C:570:PRO:HD3	1.85	0.45
5:C:625:LEU:HA	5:C:639:GLN:NE2	2.24	0.45
5:C:810:ASP:HA	5:C:811:PRO:HD3	1.68	0.45
5:C:1008:ARG:HB2	5:C:1027:PHE:HB2	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:44:LEU:O	6:D:525:ARG:NH2	2.49	0.45
6:D:136:ASP:HB3	6:D:137:PRO:CD	2.33	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:606:ILE:O	6:D:613:ARG:HB2	2.16	0.45
6:D:819:GLY:HA2	11:D:8465:HOH:O	2.17	0.45
6:D:1376:MET:CE	6:D:1421:LEU:HD22	2.46	0.45
4:K:41:ARG:HA	4:K:44:LEU:HD12	1.97	0.45
4:K:158:ILE:HA	11:K:1352:HOH:O	2.15	0.45
5:M:9:ILE:HD11	5:M:537:LYS:HZ3	1.81	0.45
5:M:77:PRO:HG2	5:M:117:HIS:CE1	2.51	0.45
5:M:310:LEU:HD11	11:M:1381:HOH:O	2.15	0.45
5:M:468:ARG:NE	5:M:487:THR:HG23	2.32	0.45
5:M:479:VAL:HG21	5:M:503:LEU:CD1	2.46	0.45
5:M:601:GLY:HA3	5:M:615:TYR:HA	1.97	0.45
5:M:817:PRO:O	6:N:532:GLY:HA2	2.15	0.45
5:M:1007:ALA:HB1	6:N:652:LEU:CD1	2.46	0.45
6:N:106:LYS:CE	6:N:125:GLN:HE22	2.30	0.45
6:N:781:PRO:O	6:N:786:ILE:HD11	2.17	0.45
6:N:800:LYS:HE3	6:N:804:LEU:HD22	1.98	0.45
1:G:15:DC:H2''	1:G:16:DG:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Z:4:DC:H2''	3:Z:5:DG:O5'	2.16	0.45
4:A:9:PRO:HB3	4:A:25:LEU:CG	2.46	0.45
4:B:48:ILE:HG22	4:B:173:PRO:HD2	1.99	0.45
5:C:146:VAL:HG11	5:C:306:THR:CB	2.41	0.45
5:C:168:ARG:HH11	5:C:168:ARG:HG3	1.82	0.45
5:C:260:LEU:HA	5:C:291:ALA:HB2	1.97	0.45
6:D:68:PHE:HZ	11:D:8399:HOH:O	1.98	0.45
6:D:618:LEU:CD1	6:D:1439:SER:HB3	2.47	0.45
6:D:794:GLN:OE1	6:D:905:PRO:HG3	2.15	0.45
6:D:1344:VAL:HG12	6:D:1348:LEU:CD1	2.46	0.45
6:D:1476:THR:O	6:D:1482:ARG:HA	2.17	0.45
7:E:45:ARG:HE	7:E:45:ARG:HB2	1.62	0.45
4:K:13:VAL:HG22	4:K:23:PHE:HD1	1.82	0.45
4:K:94:LEU:HD11	4:K:119:ASP:HB3	1.98	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
5:M:122:THR:HB	5:M:124:ASP:OD1	2.17	0.45
5:M:165:LEU:HA	5:M:166:PRO:O	2.16	0.45
5:M:250:ARG:HG3	5:M:250:ARG:NH1	2.31	0.45
5:M:375:SER:HA	11:M:1564:HOH:O	2.14	0.45
5:M:769:PRO:HD2	6:N:65:ARG:NE	2.32	0.45
5:M:1105:LYS:C	5:M:1107:ASN:HD22	2.19	0.45
6:N:41:ARG:CD	6:N:42:ASP:H	2.28	0.45
6:N:152:LEU:HD23	6:N:152:LEU:N	2.31	0.45
6:N:204:LEU:HD12	6:N:396:VAL:HG21	1.97	0.45
6:N:497:GLU:O	6:N:500:ARG:HB2	2.16	0.45
6:N:1476:THR:C	6:N:1478:SER:H	2.19	0.45
3:I:3:DA:H4'	5:C:423:ALA:HB1	1.97	0.45
1:X:13:DT:OP1	6:N:1093:TYR:CE2	2.70	0.45
5:C:51:THR:CG2	5:C:348:LEU:HD23	2.46	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
5:C:1016:ILE:HD13	5:C:1016:ILE:N	2.24	0.45
6:D:32:ILE:HD12	6:D:527:MET:HG2	1.97	0.45
6:D:36:THR:O	6:D:38:LYS:N	2.49	0.45
6:D:1057:VAL:HG13	6:D:1069:GLU:HB3	1.98	0.45
6:D:1135:ARG:HB3	6:D:1140:ILE:CG1	2.47	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
6:D:1213:ARG:NH2	7:E:10:PHE:O	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1389:LEU:HD13	11:D:8087:HOH:O	2.17	0.45
4:L:73:GLU:HB3	4:L:77:GLU:HG3	1.97	0.45
5:M:31:GLN:CD	5:M:34:VAL:HG23	2.36	0.45
5:M:139:GLN:HA	5:M:411:SER:O	2.17	0.45
5:M:516:ARG:CZ	6:N:1068:LEU:HD13	2.44	0.45
5:M:662:GLU:HG2	5:M:663:ASN:CG	2.37	0.45
5:M:690:ILE:CG2	5:M:852:ILE:HG13	2.47	0.45
5:M:695:LEU:HD23	5:M:695:LEU:O	2.16	0.45
5:M:876:VAL:O	5:M:876:VAL:HG12	2.17	0.45
6:N:168:THR:OG1	6:N:206:ARG:NH2	2.49	0.45
6:N:179:VAL:HG21	6:N:191:LEU:HD23	1.99	0.45
6:N:618:LEU:HD22	6:N:619:LEU:HD22	1.98	0.45
6:N:682:ASP:OD1	6:N:682:ASP:N	2.49	0.45
6:N:701:LEU:HD12	6:N:701:LEU:N	2.32	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:N:1031:ASN:HB3	6:N:1034:GLN:OE1	2.15	0.45
6:N:1412:LYS:NZ	6:N:1414:PRO:HG3	2.32	0.45
6:N:1475:GLY:O	6:N:1478:SER:HB3	2.16	0.45
7:O:28:GLN:HB3	7:O:32:ARG:HH12	1.82	0.45
2:H:9:G:C5'	2:H:9:G:H8	2.30	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:C:160:ALA:HB3	5:C:174:LEU:HB2	1.97	0.45
5:C:551:GLU:HB3	5:C:906:PHE:CD2	2.52	0.45
5:C:570:PRO:O	5:C:702:SER:HB2	2.16	0.45
5:C:603:VAL:O	5:C:646:GLY:HA2	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
6:D:10:ILE:HD11	6:D:1434:TRP:CE2	2.51	0.45
6:D:576:GLU:HA	6:D:579:ASP:OD2	2.17	0.45
6:D:992:ILE:HG21	11:D:8500:HOH:O	2.16	0.45
6:D:1102:THR:HG23	6:D:1370:ILE:HG22	1.99	0.45
6:D:1406:ARG:HB2	6:D:1412:LYS:HZ3	1.82	0.45
6:D:1484:THR:O	7:E:25:LYS:HD3	2.17	0.45
4:K:58:ILE:HG21	4:K:68:ILE:CD1	2.46	0.45
5:M:615:TYR:HB3	5:M:617:ASP:OD1	2.16	0.45
5:M:829:GLN:NE2	5:M:831:ARG:HH21	2.15	0.45
5:M:899:GLN:HG3	5:M:901:TYR:CZ	2.51	0.45
5:M:987:ILE:HG12	6:N:948:THR:CG2	2.46	0.45
5:M:1034:GLU:CB	6:N:619:LEU:HD13	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:515:GLU:HG3	11:N:9303:HOH:O	2.16	0.45
6:N:587:ARG:HG2	6:N:587:ARG:HH11	1.81	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
4:A:13:VAL:HG22	4:A:23:PHE:CD1	2.51	0.45
4:B:97:VAL:HG13	11:B:325:HOH:O	2.17	0.45
5:C:906:PHE:CE1	6:D:1067:VAL:HG13	2.52	0.45
5:C:1060:ILE:O	5:C:1063:ARG:HG2	2.15	0.45
6:D:407:VAL:HA	6:D:422:ALA:HB2	1.99	0.45
6:D:633:VAL:HG22	6:D:635:PRO:HD3	1.98	0.45
6:D:974:ILE:O	6:D:983:LEU:HD11	2.16	0.45
6:D:998:GLU:O	6:D:1002:LYS:HG3	2.17	0.45
6:D:1225:ALA:HB2	6:D:1367:HIS:ND1	2.32	0.45
6:D:1261:GLU:O	6:D:1264:GLU:O	2.35	0.45
6:D:1492:LEU:O	6:D:1492:LEU:HD22	2.16	0.45
7:E:80:VAL:HG11	7:E:85:LEU:HD23	1.98	0.45
5:M:806:LEU:O	5:M:821:GLU:HB2	2.17	0.45
5:M:844:GLY:O	5:M:846:LYS:HG3	2.16	0.45
5:M:860:HIS:CE1	5:M:977:GLY:HA2	2.52	0.45
6:N:36:THR:O	6:N:38:LYS:N	2.49	0.45
6:N:777:PRO:HG2	6:N:916:TYR:HB2	1.98	0.45
6:N:954:ALA:HB1	6:N:1039:CYS:SG	2.57	0.45
6:N:969:ARG:O	6:N:973:GLN:HG3	2.17	0.45
6:N:987:GLU:O	6:N:991:GLN:HG3	2.16	0.45
6:N:993:LEU:HA	11:N:9079:HOH:O	2.17	0.45
6:N:1262:LEU:HD23	6:N:1352:ILE:HA	1.99	0.45
1:G:15:DC:H2"	1:G:16:DG:C8	2.52	0.45
11:A:316:HOH:O	4:B:148:VAL:HG23	2.17	0.45
4:B:213:GLN:HG2	11:B:331:HOH:O	2.17	0.45
5:C:14:PRO:HB2	11:C:1307:HOH:O	2.17	0.45
5:C:22:GLN:OE1	5:C:407:LYS:HB3	2.16	0.45
5:C:76:PRO:HA	5:C:77:PRO:HD3	1.89	0.45
5:C:855:VAL:HG13	5:C:856:GLU:OE2	2.17	0.45
5:C:1046:ALA:O	6:D:1472:ILE:HD11	2.16	0.45
11:C:1135:HOH:O	6:D:750:PRO:HB3	2.16	0.45
6:D:33:ASN:O	6:D:36:THR:O	2.34	0.45
6:D:525:ARG:HB2	6:D:538:SER:OG	2.17	0.45
6:D:1345:GLU:O	6:D:1349:VAL:HG23	2.16	0.45
4:K:189:ARG:HG3	4:K:191:ASP:OD1	2.17	0.45
4:L:1:MET:HB2	11:L:357:HOH:O	2.17	0.45
4:L:19:GLU:OE2	4:L:19:GLU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:45:LEU:HD22	6:N:851:LEU:CD2	2.47	0.45
5:M:243:ARG:HB3	11:M:1168:HOH:O	2.16	0.45
5:M:265:ARG:H	5:M:289:THR:HG21	1.80	0.45
5:M:358:ARG:HB3	5:M:371:LYS:O	2.17	0.45
5:M:564:MET:SD	5:M:565:GLN:N	2.90	0.45
5:M:689:VAL:CG1	5:M:690:ILE:N	2.79	0.45
5:M:882:LEU:N	5:M:882:LEU:HD23	2.32	0.45
6:N:28:LYS:CG	6:N:29:PRO:HD2	2.47	0.45
6:N:542:ASP:HA	6:N:545:ARG:NE	2.30	0.45
6:N:634:GLY:N	6:N:635:PRO:HD3	2.32	0.45
6:N:837:GLY:O	6:N:841:TYR:CD1	2.70	0.45
6:N:1147:ARG:CB	6:N:1188:VAL:HG21	2.44	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
7:O:84:ARG:HB3	11:O:1385:HOH:O	2.15	0.45
1:X:6:DT:H2'	1:X:7:DC:C5	2.52	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
5:C:54:ILE:CG2	5:C:66:LEU:HB3	2.47	0.45
5:C:248:PRO:HG3	11:C:1252:HOH:O	2.17	0.45
5:C:703:ILE:H	5:C:703:ILE:CD1	2.17	0.45
5:C:813:VAL:HG22	5:C:814:GLU:N	2.32	0.45
5:C:899:GLN:NE2	5:C:901:TYR:OH	2.50	0.45
5:C:1095:LEU:CD2	6:D:582:LEU:HD22	2.43	0.45
6:D:484:PRO:HB3	6:D:488:ARG:NE	2.17	0.45
6:D:761:ILE:HG12	7:E:65:MET:HE1	1.99	0.45
6:D:1010:ASN:HB3	11:D:8019:HOH:O	2.17	0.45
6:D:1102:THR:HG22	6:D:1222:GLY:HA3	1.99	0.45
6:D:1369:GLU:HA	6:D:1372:VAL:HG12	1.98	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: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
5:M:798:GLY:H	5:M:827:VAL:HG11	1.82	0.45
5:M:817:PRO:C	5:M:819:VAL:H	2.20	0.45
6:N:127:LEU:H	6:N:127:LEU:HD12	1.82	0.45
6:N:675:ARG:O	6:N:678:GLU:HG2	2.17	0.45
6:N:777:PRO:CG	6:N:916:TYR:HB2	2.47	0.45
6:N:876:SER:HB3	11:N:9301:HOH:O	2.17	0.45
4:A:20:TYR:HE2	4:A:198:ARG:HB2	1.82	0.44
4:A:83:LYS:HG3	4:A:170:VAL:HG21	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:179:PHE:HB2	4:A:195:LEU:CD1	2.45	0.44
5:C:689:VAL:HG21	5:C:870:ILE:HD12	1.99	0.44
5:C:1008:ARG:HH12	5:C:1010:THR:HA	1.81	0.44
5:C:1084:SER:HA	5:C:1087:VAL:HG12	1.99	0.44
6:D:6:ARG:HG2	6:D:6:ARG:HH11	1.82	0.44
6:D:112:ILE:HD11	6:D:461:ILE:CG2	2.47	0.44
6:D:950:GLY:O	6:D:953:ASP:HB2	2.16	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
6:D:1487:VAL:HG12	6:D:1488:ASP:N	2.31	0.44
4:L:102:LYS:HE3	4:L:104:GLU:CG	2.43	0.44
5:M:80:GLN:HE21	5:M:84:ARG:NH2	2.15	0.44
5:M:199:VAL:HG13	5:M:235:LEU:HG	1.99	0.44
5:M:265:ARG:HB3	5:M:267:TYR:CZ	2.52	0.44
5:M:334:ARG:HG3	11:M:1156:HOH:O	2.17	0.44
5:M:400:PRO:HG2	5:M:593:ALA:CB	2.47	0.44
5:M:461:VAL:HG13	5:M:465:GLY:HA2	1.98	0.44
5:M:490:GLU:HG2	5:M:493:ARG:NH2	2.32	0.44
5:M:1003:ASP:OD1	5:M:1004:LYS:HG2	2.16	0.44
6:N:700:VAL:HG13	6:N:718:PRO:HG2	2.00	0.44
6:N:754:PHE:CZ	6:N:1476:THR:HG21	2.52	0.44
6:N:793:THR:O	6:N:879:ARG:HD3	2.17	0.44
6:N:999:THR:HA	6:N:1002:LYS:HD2	1.98	0.44
6:N:1151:ARG:HG2	6:N:1187:PRO:CB	2.45	0.44
6:N:1231:GLU:HA	6:N:1234:THR:OG1	2.17	0.44
6:N:1425:THR:O	6:N:1429:LEU:HD12	2.16	0.44
2:Y:4:U:O2'	2:Y:5:C:H5'	2.16	0.44
4:B:84:GLU:OE1	4:B:127:LEU:HD11	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: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
5:C:783:ARG:HG2	5:C:785:VAL:HB	1.98	0.44
5:C:817:PRO:C	5:C:819:VAL:H	2.20	0.44
5:C:1038:TRP:HA	5:C:1041:GLU:OE1	2.17	0.44
6:D:15:PRO:O	6:D:19:ARG:HG2	2.18	0.44
6:D:116:LEU:HD11	6:D:464:LEU:CB	2.46	0.44
6:D:584:ASN:CG	6:D:590:PRO:HD2	2.37	0.44
6:D:783:ARG:HH12	6:D:1239:ARG:NH2	2.15	0.44
6:D:1014:ASN:O	6:D:1016:PRO:HD3	2.17	0.44
6:D:1183:ILE:HG13	6:D:1183:ILE:O	2.16	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:1232:PRO:HB3	6:D:1361:VAL:HG21	1.99	0.44
6:D:1271:LYS:HD3	6:D:1331:ASP:N	2.32	0.44
6:D:1377:LYS:O	6:D:1395:LEU:HB3	2.18	0.44
6:D:1486:VAL:CG1	7:E:22:VAL:HG13	2.46	0.44
4:K:26:GLU:HG2	4:K:27:PRO:N	2.32	0.44
4:L:94:LEU:HD21	4:L:119:ASP:HB2	1.99	0.44
5:M:9:ILE:HD12	5:M:9:ILE:O	2.18	0.44
5:M:13:ILE:HD12	5:M:13:ILE:O	2.17	0.44
5:M:670:GLN:NE2	5:M:699:PHE:O	2.51	0.44
5:M:676:ILE:HG21	5:M:988:VAL:HG13	1.99	0.44
5:M:853:LEU:HB3	5:M:858:MET:HE2	2.00	0.44
6:N:54:LYS:HE3	6:N:55:ASP:HB2	1.99	0.44
6:N:400:VAL:HG22	6:N:443:VAL:CG2	2.41	0.44
6:N:434:ARG:H	6:N:447:VAL:HG22	1.82	0.44
6:N:470:LEU:HD12	6:N:503:LEU:HD21	1.99	0.44
6:N:705:ALA:HB3	6:N:706:PRO:HD3	1.99	0.44
6:N:1472:ILE:O	6:N:1477:GLY:HA3	2.17	0.44
1:X:18:DG:P	6:N:628:ARG:HH21	2.40	0.44
2:Y:11:C:C2'	2:Y:12:G:H5''	2.47	0.44
3:Z:6:DC:P	6:N:1266:ARG:HH12	2.41	0.44
4:B:30:ARG:CZ	4:B:30:ARG:HB3	2.47	0.44
5:C:44:ILE:HG22	5:C:45:GLN:N	2.31	0.44
5:C:97:ARG:HB3	5:C:109:LYS:HE3	1.99	0.44
5:C:352:ALA:CA	5:C:355:VAL:HG12	2.47	0.44
5:C:595:LEU:HD22	5:C:625:LEU:HD23	2.00	0.44
5:C:748:GLU:HA	5:C:799:ILE:HD12	1.99	0.44
6:D:10:ILE:O	6:D:1451:ALA:HA	2.18	0.44
6:D:156:GLU:O	6:D:159:ARG:HB2	2.18	0.44
6:D:396:VAL:HB	6:D:398:ALA:HB3	1.98	0.44
6:D:420:VAL:O	6:D:421:LEU:HD23	2.17	0.44
6:D:471:GLU:H	6:D:471:GLU:HG2	1.52	0.44
6:D:525:ARG:O	6:D:525:ARG:HG2	2.17	0.44
6:D:593:ASN:HB2	11:D:8122:HOH:O	2.18	0.44
6:D:1432:LYS:NZ	6:D:1432:LYS:HB3	2.32	0.44
4:L:19:GLU:O	4:L:200:TRP:HA	2.18	0.44
4:L:73:GLU:CD	4:L:130:ALA:HA	2.38	0.44
4:L:201:THR:HG21	4:L:205:VAL:O	2.17	0.44
5:M:208:ALA:O	5:M:218:VAL:HG21	2.17	0.44
5:M:405:ARG:NH2	5:M:566:THR:CG2	2.79	0.44
5:M:780:GLU:HG3	5:M:781:LYS:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:859:PRO:HB3	5:M:974:LEU:HD23	1.99	0.44
5:M:1013:TYR:CZ	5:M:1063:ARG:HD2	2.52	0.44
5:M:1043:TYR:CE2	6:N:763:MET:HA	2.53	0.44
6:N:35:ARG:HG3	6:N:35:ARG:NH1	2.33	0.44
6:N:85:VAL:HG23	6:N:86:ARG:N	2.33	0.44
6:N:784:ASP:HB3	6:N:939:PHE:HE2	1.82	0.44
2:H:7:G:C5'	2:H:7:G:H8	2.29	0.44
2:Y:16:G:H3'	11:Y:968:HOH:O	2.17	0.44
4:A:47:SER:HB3	4:A:217:ILE:HD13	2.00	0.44
4:A:150:TYR:CZ	5:C:696:LYS:HA	2.53	0.44
4:A:219:ARG:HD3	4:B:219:ARG:HG3	1.99	0.44
4:B:95:GLN:HA	4:B:146:ARG:HD2	1.99	0.44
5:C:52:PHE:O	5:C:54:ILE:N	2.50	0.44
5:C:172:ILE:HG12	11:C:1177:HOH:O	2.17	0.44
5:C:189:ARG:NH1	5:C:190:LYS:HD2	2.33	0.44
5:C:479:VAL:HG22	5:C:506:ASN:HA	1.99	0.44
5:C:503:LEU:HD23	5:C:507:ARG:O	2.17	0.44
5:C:553:ASP:OD1	5:C:881:ASN:HB2	2.17	0.44
5:C:721:ARG:CG	5:C:820:ARG:HH12	2.29	0.44
5:C:952:LEU:HB3	5:C:966:LEU:HD11	2.00	0.44
5:C:957:LYS:HB2	5:C:957:LYS:NZ	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
6:D:1000:THR:HG23	6:D:1001:GLU:H	1.82	0.44
4:L:124:ASN:ND2	4:L:127:LEU:HD22	2.32	0.44
5:M:94:LEU:HD12	5:M:95:TYR:N	2.32	0.44
5:M:252:LYS:HD2	5:M:252:LYS:N	2.32	0.44
5:M:949:LYS:CD	6:N:796:ARG:HH22	2.29	0.44
5:M:1084:SER:HA	5:M:1087:VAL:HG12	1.98	0.44
6:N:436:GLU:OE2	6:N:445:ARG:HD3	2.18	0.44
6:N:530:VAL:HB	6:N:534:ARG:HB2	1.99	0.44
6:N:1213:ARG:HH22	7:O:15:SER:HA	1.83	0.44
6:N:1262:LEU:HD12	6:N:1262:LEU:HA	1.77	0.44
7:O:24:ALA:O	7:O:28:GLN:HG3	2.17	0.44
1:G:12:DG:H1'	1:G:13:DT:H5'	1.99	0.44
4:A:165:ILE:O	4:A:165:ILE:HG13	2.18	0.44
4:B:47:SER:OG	4:B:48:ILE:N	2.49	0.44
5:C:106:GLY:C	5:C:107:LEU:HD23	2.38	0.44
5:C:170:PRO:HB2	11:C:1335:HOH:O	2.17	0.44
5:C:189:ARG:HD3	5:C:190:LYS:N	2.33	0.44
5:C:393:GLN:HE21	5:C:393:GLN:HB2	1.62	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:492:ASP:OD2	5:C:518:LYS:HB3	2.18	0.44
5:C:566:THR:O	5:C:566:THR:HG22	2.18	0.44
5:C:673:LEU:HD21	5:C:867:VAL:HG12	2.00	0.44
5:C:689:VAL:CG1	5:C:853:LEU:HD13	2.47	0.44
6:D:15:PRO:HD3	6:D:511:TRP:CE3	2.52	0.44
6:D:95:LEU:HD23	6:D:96:ALA:H	1.82	0.44
6:D:550:ARG:NH1	6:D:573:MET:SD	2.88	0.44
6:D:554:LEU:HD12	6:D:570:GLU:HB3	2.00	0.44
6:D:800:LYS:O	6:D:800:LYS:HD3	2.18	0.44
6:D:875:THR:HG22	6:D:879:ARG:HB2	2.00	0.44
6:D:1344:VAL:HG11	6:D:1421:LEU:CD2	2.48	0.44
6:D:1380:GLU:HA	6:D:1391:GLU:O	2.18	0.44
7:E:13:VAL:HG11	7:E:18:ARG:HB3	2.00	0.44
4:L:38:ASN:HB3	4:L:39:PRO:HD3	2.00	0.44
4:L:121:GLU:CD	4:L:123:MET:HG2	2.37	0.44
5:M:15:LEU:HD12	5:M:15:LEU:N	2.31	0.44
5:M:18:LEU:HD23	5:M:542:VAL:HG21	2.00	0.44
5:M:69:LEU:HD12	5:M:97:ARG:HB3	1.98	0.44
5:M:140:ILE:HG22	5:M:333:ILE:CD1	2.48	0.44
5:M:548:PRO:HB2	5:M:843:HIS:HE1	1.83	0.44
5:M:1034:GLU:CB	6:N:619:LEU:HD22	2.44	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
6:N:1139:ASP:HB3	6:N:1357:ARG:CZ	2.48	0.44
6:N:1149:LEU:HD22	6:N:1187:PRO:HG2	2.00	0.44
6:N:1336:LEU:CD2	6:N:1421:LEU:HB2	2.48	0.44
7:O:62:THR:HB	11:O:844:HOH:O	2.18	0.44
4:A:132:LEU:N	4:A:132:LEU:HD12	2.32	0.44
4:A:151:VAL:HB	4:A:169:ALA:HB3	2.00	0.44
4:B:48:ILE:HD12	4:B:48:ILE:N	2.32	0.44
5:C:41:ASN:O	5:C:46:ALA:HB2	2.17	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
5:C:235:LEU:C	5:C:235:LEU:HD23	2.37	0.44
5:C:473:ARG:HA	5:C:531:PHE:CD1	2.53	0.44
5:C:524:VAL:CG1	5:C:528:GLU:HB2	2.48	0.44
5:C:549:PHE:CD2	5:C:886:LEU:HB3	2.52	0.44
5:C:579:VAL:HB	5:C:890:LEU:HD21	1.98	0.44
5:C:650:ARG:CG	5:C:653:ASP:HB2	2.44	0.44
5:C:690:ILE:HG23	5:C:852:ILE:HA	1.99	0.44
6:D:33:ASN:HB2	6:D:40:GLU:OE2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:119:SER:H	6:D:123:LEU:HB2	1.83	0.44
6:D:1080:GLY:O	6:D:1083:ASP:N	2.50	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
4:L:7:LYS:HD2	4:L:7:LYS:C	2.37	0.44
5:M:23:VAL:HA	5:M:121:MET:CE	2.48	0.44
5:M:198:ARG:HG2	5:M:204:GLN:HE22	1.82	0.44
5:M:496:ILE:HA	5:M:531:PHE:O	2.18	0.44
5:M:1034:GLU:HB3	6:N:619:LEU:CD1	2.46	0.44
6:N:644:LEU:HD12	6:N:645:PRO:N	2.33	0.44
6:N:1147:ARG:O	6:N:1166:LEU:HD23	2.17	0.44
7:O:5:GLY:HA3	7:O:8:LYS:HD2	1.99	0.44
1:X:13:DT:OP2	6:N:1096:ARG:NH2	2.45	0.44
4:B:19:GLU:O	4:B:200:TRP:HA	2.18	0.44
4:B:58:ILE:HG21	4:B:61:VAL:HG23	2.00	0.44
5:C:329:GLY:CA	5:C:488:ALA:HB3	2.48	0.44
5:C:546:LEU:HD13	5:C:565:GLN:HE22	1.82	0.44
5:C:862:PRO:HD3	5:C:973:VAL:O	2.18	0.44
6:D:115:LEU:HD12	6:D:499:VAL:HG22	2.00	0.44
6:D:123:LEU:CD1	6:D:152:LEU:HD22	2.41	0.44
6:D:1432:LYS:HG2	6:D:1433:SER:N	2.33	0.44
6:D:1463:LYS:O	6:D:1467:ILE:HG13	2.18	0.44
4:L:73:GLU:OE1	4:L:131:THR:N	2.51	0.44
4:L:143:ARG:NE	4:L:145:ASP:OD1	2.51	0.44
5:M:284:ARG:O	5:M:301:GLU:HB2	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
6:N:95:LEU:HA	6:N:551:ASN:OD1	2.17	0.44
6:N:121:THR:HB	11:N:9300:HOH:O	2.17	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:637:LEU:HD11	6:N:642:CYS:N	2.33	0.44
6:N:711:LEU:HD22	6:N:714:GLN:NE2	2.33	0.44
6:N:884:ARG:CZ	6:N:884:ARG:HB3	2.45	0.44
6:N:955:VAL:HG11	6:N:1015:TYR:CE2	2.52	0.44
6:N:1192:LEU:HD23	11:N:9021:HOH:O	2.17	0.44
6:N:1259:VAL:HG11	6:N:1356:TYR:HH	1.81	0.44
2:Y:10:G:C2'	2:Y:11:C:H5'	2.47	0.44
5:C:137:VAL:HG22	5:C:391:LEU:HG	2.00	0.44
5:C:288:ARG:CB	5:C:288:ARG:HH11	2.31	0.44
5:C:964:LYS:O	5:C:968:LEU:HG	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:8:VAL:HG23	6:D:1457:ASP:CB	2.37	0.44
6:D:95:LEU:HD23	6:D:96:ALA:N	2.32	0.44
6:D:128:TYR:O	6:D:457:GLY:HA2	2.17	0.44
6:D:418:GLY:O	6:D:428:LYS:HB3	2.18	0.44
6:D:489:ARG:NH1	11:D:8508:HOH:O	2.49	0.44
6:D:554:LEU:CD1	6:D:571:LYS:HD3	2.45	0.44
6:D:615:ARG:NH2	6:D:1096:ARG:CZ	2.81	0.44
6:D:1098:LEU:HD21	6:D:1229:ILE:CD1	2.44	0.44
6:D:1481:VAL:HG22	7:E:18:ARG:HH21	1.83	0.44
7:E:41:GLU:HB2	7:E:45:ARG:CZ	2.48	0.44
4:K:26:GLU:HG2	4:K:27:PRO:HA	1.99	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
4:K:185:ARG:HB2	11:K:1437:HOH:O	2.17	0.44
5:M:12:VAL:HG13	5:M:13:ILE:HG13	2.00	0.44
5:M:41:ASN:O	5:M:46:ALA:HB2	2.18	0.44
5:M:84:ARG:HG2	5:M:131:GLY:O	2.18	0.44
5:M:165:LEU:HD12	5:M:166:PRO:C	2.38	0.44
5:M:479:VAL:HG21	5:M:503:LEU:HD11	1.98	0.44
5:M:721:ARG:HH21	5:M:783:ARG:NH1	2.15	0.44
5:M:808:ARG:NH2	5:M:820:ARG:NH2	2.65	0.44
5:M:854:PRO:HB2	5:M:856:GLU:CD	2.38	0.44
5:M:971:LYS:HG2	5:M:988:VAL:HB	2.00	0.44
5:M:1060:ILE:HG21	5:M:1083:GLU:OE1	2.17	0.44
6:N:493:ARG:HG2	6:N:1390:LEU:CB	2.43	0.44
6:N:578:VAL:O	6:N:581:LEU:HD23	2.17	0.44
6:N:984:THR:HG22	6:N:987:GLU:HG3	1.99	0.44
3:I:4:DC:H3'	11:I:2461:HOH:O	2.18	0.44
4:A:5:LYS:HE2	4:B:224:TYR:OH	2.18	0.44
4:A:26:GLU:HG2	4:A:27:PRO:N	2.33	0.44
5:C:127:PHE:CE1	5:C:136:ILE:HG12	2.53	0.44
5:C:355:VAL:CG2	5:C:372:LEU:HG	2.48	0.44
5:C:573:ARG:HD2	5:C:699:PHE:HA	2.00	0.44
5:C:874:LEU:C	5:C:877:PRO:HD2	2.38	0.44
5:C:1055:LEU:CD2	5:C:1066:ALA:HB2	2.37	0.44
6:D:18:ILE:HD12	6:D:518:PRO:HG3	1.99	0.44
6:D:19:ARG:NE	6:D:94:GLU:OE1	2.51	0.44
6:D:81:THR:HB	6:D:85:VAL:CG2	2.48	0.44
6:D:569:ASN:HA	6:D:572:ARG:NE	2.33	0.44
6:D:675:ARG:HA	6:D:678:GLU:CG	2.48	0.44
6:D:1045:MET:O	6:D:1053:PHE:HD1	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:102:LYS:HZ1	4:K:115:LEU:HD22	1.82	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
5:M:140:ILE:O	5:M:140:ILE:HD12	2.18	0.44
5:M:198:ARG:HG2	5:M:204:GLN:NE2	2.33	0.44
5:M:486:MET:HG3	5:M:490:GLU:HB2	2.00	0.44
6:N:163:TYR:HE1	6:N:198:ARG:HH12	1.66	0.44
6:N:486:ARG:CA	6:N:489:ARG:HG2	2.45	0.44
6:N:639:LEU:HD23	6:N:639:LEU:H	1.83	0.44
6:N:646:LYS:HG2	6:N:720:LEU:HB3	1.99	0.44
6:N:962:GLN:O	6:N:966:GLU:HG3	2.18	0.44
6:N:1037:GLN:OE1	6:N:1042:ARG:HD2	2.17	0.44
6:N:1100:ASP:HB3	6:N:1428:ALA:CB	2.47	0.44
6:N:1102:THR:HG22	6:N:1102:THR:O	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
6:N:1481:VAL:O	6:N:1481:VAL:HG12	2.18	0.44
1:G:11:DC:H5''	6:D:1442:ASN:ND2	2.33	0.43
1:X:15:DC:P	6:N:610:LYS:HE2	2.58	0.43
2:Y:5:C:O5'	2:Y:5:C:H6	2.00	0.43
4:A:222:LEU:HD22	4:B:218:LEU:HD23	2.00	0.43
4:B:40:LEU:HD22	4:B:211:LEU:HD12	1.99	0.43
5:C:22:GLN:O	5:C:121:MET:HE1	2.17	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: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
5:C:703:ILE:HD11	11:C:1597:HOH:O	2.17	0.43
5:C:745:ILE:HD11	5:C:803:THR:OG1	2.18	0.43
6:D:26:VAL:HG11	6:D:44:LEU:HD23	2.00	0.43
6:D:60:CYS:SG	6:D:62:LYS:HG3	2.58	0.43
6:D:393:ILE:HD12	11:D:8204:HOH:O	2.18	0.43
6:D:632:VAL:O	6:D:727:GLN:HA	2.18	0.43
6:D:675:ARG:O	6:D:678:GLU:HG2	2.17	0.43
6:D:834:THR:CG2	6:D:838:ARG:HH11	2.27	0.43
7:E:28:GLN:HE21	7:E:28:GLN:HB2	1.56	0.43
5:M:52:PHE:O	5:M:54:ILE:N	2.51	0.43
5:M:177:GLU:N	5:M:178:PRO:HD3	2.32	0.43
5:M:578:VAL:HG21	5:M:991:GLN:O	2.18	0.43
5:M:669:GLY:HA3	5:M:995:MET:HA	1.99	0.43
5:M:940:GLU:N	11:M:1220:HOH:O	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:971:LYS:HG2	5:M:988:VAL:N	2.33	0.43
6:N:165:LYS:HG2	6:N:397:LYS:HD3	2.00	0.43
6:N:1045:MET:CB	6:N:1073:SER:HA	2.48	0.43
6:N:1164:ARG:NH1	6:N:1170:ASP:OD2	2.51	0.43
5:C:101:ILE:HD12	5:C:107:LEU:HD13	2.00	0.43
5:C:568:ALA:HB1	5:C:668:LEU:HB2	2.00	0.43
5:C:841:ASN:HD21	5:C:845:ASN:H	1.65	0.43
5:C:1058:ASP:O	5:C:1060:ILE:N	2.51	0.43
6:D:56:TYR:C	6:D:80:VAL:HG11	2.38	0.43
6:D:827:ILE:HG23	6:D:840:LYS:NZ	2.33	0.43
6:D:1066:THR:OG1	6:D:1067:VAL:N	2.51	0.43
6:D:1262:LEU:HD21	6:D:1351:GLU:CG	2.43	0.43
6:D:1438:ALA:CA	6:D:1446:VAL:HG11	2.48	0.43
4:K:114:PHE:O	4:K:116:PRO:HD3	2.18	0.43
4:L:83:LYS:HE2	4:L:168:ASP:HB2	2.00	0.43
4:L:86:VAL:HG12	4:L:124:ASN:HB2	1.99	0.43
5:M:147:TYR:CE2	5:M:280:LYS:HE2	2.52	0.43
5:M:307:LEU:CD1	5:M:310:LEU:HD23	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
5:M:842:ARG:NH2	5:M:887:GLU:OE1	2.51	0.43
5:M:1008:ARG:NH2	5:M:1020:PRO:HB3	2.33	0.43
11:M:1170:HOH:O	6:N:754:PHE:HB2	2.18	0.43
11:M:1450:HOH:O	6:N:1456:LYS:HB3	2.17	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:732:VAL:O	6:N:732:VAL:HG12	2.18	0.43
6:N:1087:ARG:HB3	6:N:1237:THR:HG21	2.00	0.43
6:N:1165:TYR:HB2	11:N:9241:HOH:O	2.18	0.43
6:N:1261:GLU:O	6:N:1264:GLU:O	2.35	0.43
6:N:1383:ASP:HA	6:N:1384:PRO:HD3	1.71	0.43
2:H:5:C:H2'	2:H:6:U:C5	2.52	0.43
2:Y:9:G:C5'	2:Y:9:G:H8	2.30	0.43
4:B:65:PHE:CE1	6:D:813:LEU:HD13	2.54	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:C:360:LEU:HD22	11:C:1160:HOH:O	2.17	0.43
5:C:431:HIS:CG	5:C:432:ARG:H	2.35	0.43
5:C:1031:ARG:CZ	6:D:621:LYS:NZ	2.81	0.43
6:D:409:VAL:CG1	6:D:435:VAL:HG11	2.48	0.43
6:D:411:THR:HG23	6:D:436:GLU:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:477:LEU:HD21	6:D:495:ARG:NH1	2.33	0.43
6:D:827:ILE:HG22	6:D:837:GLY:CA	2.47	0.43
6:D:957:PRO:HG3	6:D:1007:VAL:HA	2.00	0.43
7:E:41:GLU:H	7:E:41:GLU:CD	2.21	0.43
4:K:30:ARG:HH22	5:M:938:LYS:CD	2.28	0.43
4:K:133:GLU:OE2	4:K:134:GLU:HB2	2.17	0.43
4:L:91:ASN:OD1	4:L:91:ASN:N	2.51	0.43
5:M:144:PRO:N	5:M:276:LYS:HZ3	2.15	0.43
5:M:198:ARG:HE	5:M:198:ARG:CA	2.32	0.43
5:M:342:ASP:HA	5:M:345:ARG:HD3	1.99	0.43
5:M:351:LEU:HD11	11:M:1564:HOH:O	2.17	0.43
5:M:569:VAL:HA	5:M:570:PRO:HD3	1.88	0.43
5:M:601:GLY:O	5:M:648:ARG:HA	2.18	0.43
5:M:677:MET:HE1	5:M:679:PHE:CD1	2.38	0.43
5:M:816:LYS:HB2	5:M:819:VAL:CG2	2.47	0.43
5:M:873:PRO:O	5:M:877:PRO:HD3	2.18	0.43
5:M:876:VAL:H	5:M:877:PRO:CD	2.31	0.43
6:N:53:ILE:HA	6:N:86:ARG:HD2	1.99	0.43
6:N:57:GLU:OE2	6:N:61:GLY:HA2	2.18	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: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:N:645:PRO:HG3	6:N:725:SER:O	2.18	0.43
6:N:813:LEU:HB2	6:N:839:LEU:HD21	1.99	0.43
1:X:17:DC:O3'	6:N:628:ARG:NE	2.51	0.43
4:A:48:ILE:HD11	4:A:210:ALA:HB1	2.00	0.43
5:C:36:PRO:CG	5:C:70:GLU:HB3	2.36	0.43
5:C:142:ARG:NH2	5:C:325:ILE:HG12	2.34	0.43
5:C:256:TYR:CE1	5:C:293:PHE:HB2	2.53	0.43
5:C:466:PHE:O	5:C:468:ARG:N	2.52	0.43
6:D:957:PRO:HG3	11:D:8019:HOH:O	2.17	0.43
6:D:1046:GLN:HG2	6:D:1052:THR:CG2	2.44	0.43
6:D:1105:ILE:HG22	11:D:8286:HOH:O	2.17	0.43
6:D:1117:TYR:CE1	6:D:1187:PRO:HA	2.53	0.43
6:D:1471:LEU:HD21	6:D:1477:GLY:HA2	1.99	0.43
6:D:1486:VAL:HG12	7:E:22:VAL:HG13	2.00	0.43
5:M:166:PRO:HA	11:M:1128:HOH:O	2.17	0.43
5:M:328:LEU:HD11	5:M:434:HIS:HD2	1.82	0.43
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:567:GLN:C	5:M:997:LEU:HD12	2.38	0.43
5:M:587:VAL:CG1	5:M:588:VAL:N	2.79	0.43
5:M:879:ARG:HH21	6:N:1029:ARG:HH22	1.65	0.43
5:M:1003:ASP:OD2	6:N:724:GLN:NE2	2.52	0.43
6:N:471:GLU:OE1	6:N:503:LEU:HD21	2.18	0.43
6:N:606:ILE:CG2	6:N:607:LEU:HG	2.48	0.43
6:N:615:ARG:NH2	6:N:1096:ARG:HD2	2.34	0.43
6:N:794:GLN:HG2	6:N:1017:PHE:CE1	2.53	0.43
6:N:832:ARG:NE	6:N:832:ARG:HA	2.33	0.43
6:N:970:LYS:HE2	11:N:9402:HOH:O	2.18	0.43
6:N:1209:LEU:HD21	7:O:17:TYR:OH	2.19	0.43
6:N:1453:ALA:O	6:N:1455:LYS:HG2	2.18	0.43
7:O:21:VAL:HG12	7:O:25:LYS:HD2	1.99	0.43
7:O:65:MET:O	7:O:69:LEU:HD12	2.17	0.43
4:B:216:GLU:HA	4:B:219:ARG:HH12	1.83	0.43
5:C:250:ARG:HG2	5:C:253:ALA:HB3	2.00	0.43
5:C:610:ARG:HD3	5:C:622:GLU:CD	2.38	0.43
5:C:814:GLU:O	5:C:816:LYS:NZ	2.52	0.43
5:C:853:LEU:HB2	5:C:858:MET:HE2	2.01	0.43
5:C:976:ASP:HB3	5:C:979:THR:HG22	2.00	0.43
6:D:95:LEU:CD2	6:D:574:LEU:HD21	2.45	0.43
6:D:108:VAL:CG2	6:D:109:PRO:HD3	2.47	0.43
6:D:415:VAL:O	6:D:432:TYR:HA	2.18	0.43
6:D:711:LEU:HD21	6:D:768:ASN:CB	2.49	0.43
6:D:899:LEU:HB3	6:D:921:ARG:HH12	1.83	0.43
6:D:1099:VAL:HG23	6:D:1226:ALA:HB1	2.00	0.43
6:D:1122:LEU:O	6:D:1135:ARG:HB2	2.18	0.43
6:D:1209:LEU:O	6:D:1210:SER:C	2.53	0.43
6:D:1271:LYS:CE	6:D:1331:ASP:H	2.32	0.43
6:D:1406:ARG:CB	6:D:1412:LYS:HZ3	2.31	0.43
6:D:1436:SER:N	11:D:8024:HOH:O	2.49	0.43
4:K:55:SER:HB2	4:K:158:ILE:HB	2.00	0.43
4:K:116:PRO:HG3	11:K:2001:HOH:O	2.17	0.43
4:K:127:LEU:HA	11:K:827:HOH:O	2.17	0.43
4:L:52:ALA:HB2	4:L:170:VAL:C	2.38	0.43
5:M:37:GLU:HA	11:M:1579:HOH:O	2.18	0.43
5:M:39:ARG:HG3	5:M:39:ARG:NH1	2.29	0.43
5:M:162:ILE:HB	5:M:172:ILE:HD13	2.00	0.43
5:M:399:ASN:O	5:M:400:PRO:C	2.57	0.43
5:M:853:LEU:O	5:M:858:MET:HE1	2.19	0.43
5:M:1095:LEU:HB2	5:M:1097:LEU:CD2	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1101:THR:C	5:M:1102:LEU:HD12	2.38	0.43
6:N:40:GLU:HB3	6:N:41:ARG:H	1.68	0.43
6:N:111:LYS:HG2	6:N:1452:ILE:CD1	2.48	0.43
6:N:615:ARG:HH22	6:N:1096:ARG:CD	2.31	0.43
6:N:1467:ILE:H	6:N:1467:ILE:HG13	1.55	0.43
4:A:19:GLU:O	4:A:200:TRP:HA	2.18	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
5:C:398:THR:OG1	5:C:566:THR:O	2.21	0.43
5:C:496:ILE:HG13	5:C:531:PHE:HB2	2.01	0.43
5:C:602:GLU:OE1	5:C:648:ARG:HG2	2.18	0.43
5:C:975:TYR:N	5:C:975:TYR:CD1	2.86	0.43
6:D:52:PRO:HG2	6:D:80:VAL:HA	2.00	0.43
6:D:127:LEU:CD2	6:D:134:VAL:HG22	2.49	0.43
6:D:475:LYS:NZ	11:D:8306:HOH:O	2.51	0.43
6:D:522:PRO:HG2	6:D:523:ASP:N	2.33	0.43
6:D:554:LEU:HD11	6:D:571:LYS:CD	2.48	0.43
6:D:683:ILE:HG23	6:D:687:VAL:CG2	2.48	0.43
6:D:695:ILE:HD13	6:D:720:LEU:HD11	2.00	0.43
6:D:716:PHE:CZ	6:D:765:SER:HB3	2.54	0.43
4:L:86:VAL:HG13	4:L:86:VAL:O	2.18	0.43
4:L:99:LEU:HD13	4:L:144:VAL:CG2	2.49	0.43
5:M:179:ASN:ND2	11:M:1597:HOH:O	2.50	0.43
5:M:666:LEU:HD11	5:M:668:LEU:CD2	2.48	0.43
5:M:771:GLU:HB2	11:M:1204:HOH:O	2.18	0.43
6:N:41:ARG:HB2	11:N:9006:HOH:O	2.18	0.43
6:N:62:LYS:HG3	6:N:75:ARG:HH11	1.84	0.43
6:N:525:ARG:HB2	6:N:538:SER:HB3	2.00	0.43
6:N:781:PRO:HB3	6:N:785:ILE:CG2	2.49	0.43
6:N:893:GLU:O	6:N:896:ALA:HB3	2.18	0.43
6:N:961:LYS:HG2	11:N:9172:HOH:O	2.17	0.43
6:N:1101:VAL:HG13	6:N:1427:SER:OG	2.18	0.43
6:N:1148:VAL:HG11	6:N:1203:LYS:HB3	2.00	0.43
6:N:1431:THR:OG1	6:N:1432:LYS:N	2.51	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
2:Y:5:C:H2'	2:Y:6:U:C5	2.50	0.43
4:B:23:PHE:O	4:B:196:THR:HA	2.19	0.43
4:B:100:LEU:O	4:B:115:LEU:HG	2.19	0.43
4:B:103:ALA:N	11:B:348:HOH:O	2.51	0.43
5:C:140:ILE:HG13	5:C:411:SER:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:631:SER:CB	5:C:637:LEU:HD11	2.45	0.43
5:C:815:LEU:HD23	11:C:1323:HOH:O	2.19	0.43
5:C:1118:LYS:O	5:C:1119:ARG:HB2	2.18	0.43
6:D:33:ASN:HB2	6:D:40:GLU:CD	2.38	0.43
6:D:80:VAL:HG12	6:D:81:THR:O	2.18	0.43
6:D:171:LEU:HD11	11:D:8204:HOH:O	2.19	0.43
6:D:556:LYS:O	6:D:560:GLN:HG3	2.19	0.43
6:D:586:ARG:HH22	6:D:1444:THR:HG21	1.83	0.43
6:D:849:ALA:O	6:D:853:VAL:HG23	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
4:L:54:THR:CG2	4:L:158:ILE:HG13	2.48	0.43
4:L:223:THR:HG23	11:L:379:HOH:O	2.18	0.43
4:L:227:ASN:ND2	4:L:227:ASN:H	2.16	0.43
5:M:31:GLN:NE2	5:M:31:GLN:O	2.52	0.43
5:M:285:LEU:HD12	5:M:288:ARG:O	2.19	0.43
5:M:771:GLU:O	5:M:771:GLU:HG2	2.19	0.43
5:M:834:GLN:HB3	11:M:1436:HOH:O	2.19	0.43
5:M:882:LEU:HD11	6:N:1038:LEU:HB3	2.00	0.43
6:N:12:LEU:HD21	6:N:104:PHE:CE1	2.52	0.43
6:N:396:VAL:CG1	6:N:447:VAL:HG12	2.47	0.43
6:N:826:PRO:O	6:N:836:VAL:HG13	2.18	0.43
6:N:994:GLN:O	6:N:998:GLU:HG3	2.17	0.43
7:O:70:THR:HG22	7:O:71:GLY:N	2.33	0.43
5:C:17:PRO:O	5:C:20:GLU:HB3	2.19	0.43
5:C:140:ILE:HA	5:C:332:ARG:O	2.18	0.43
5:C:250:ARG:HD2	11:C:1278:HOH:O	2.18	0.43
5:C:493:ARG:HE	5:C:493:ARG:HB2	1.53	0.43
5:C:949:LYS:CD	6:D:796:ARG:HH22	2.24	0.43
5:C:1003:ASP:OD1	5:C:1004:LYS:HD3	2.19	0.43
6:D:400:VAL:CG2	6:D:443:VAL:HG21	2.48	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
6:D:662:GLU:OE2	6:D:669:ASN:HA	2.18	0.43
6:D:699:VAL:H	6:D:756:GLN:HE21	1.62	0.43
6:D:782:SER:O	6:D:786:ILE:HG13	2.18	0.43
6:D:867:ARG:HD2	6:D:867:ARG:O	2.19	0.43
6:D:935:LYS:HE3	11:D:8312:HOH:O	2.18	0.43
6:D:1336:LEU:CD1	6:D:1341:PRO:HG3	2.49	0.43
6:D:1438:ALA:O	6:D:1443:THR:HG22	2.18	0.43
4:K:7:LYS:HD2	4:K:186:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:99:GLN:NE2	5:M:109:LYS:HB2	2.33	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:M:352:ALA:C	5:M:355:VAL:HG12	2.39	0.43
5:M:672:VAL:HG12	5:M:699:PHE:CE1	2.54	0.43
5:M:716:LYS:NZ	6:N:36:THR:HG23	2.31	0.43
5:M:805:ARG:NH1	5:M:807:ARG:HD3	2.34	0.43
6:N:106:LYS:HE2	6:N:125:GLN:HE22	1.84	0.43
6:N:179:VAL:CG1	6:N:183:GLU:HB3	2.45	0.43
6:N:207:PHE:HB3	11:N:9229:HOH:O	2.18	0.43
6:N:399:ARG:NE	6:N:430:ASP:HB2	2.33	0.43
6:N:816:HIS:ND1	6:N:816:HIS:N	2.65	0.43
6:N:949:ILE:N	11:N:9020:HOH:O	2.51	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
4:A:43:ILE:HD11	4:B:35:THR:HG21	2.00	0.43
4:A:108:GLU:HB3	4:A:110:LYS:CE	2.49	0.43
5:C:7:GLY:H	5:C:904:PRO:HD2	1.84	0.43
5:C:145:GLY:H	5:C:163:ILE:HG13	1.83	0.43
5:C:258:TYR:N	5:C:258:TYR:CD2	2.84	0.43
5:C:441:VAL:O	5:C:559:LEU:HG	2.18	0.43
5:C:626:ARG:HH11	5:C:626:ARG:HG3	1.84	0.43
5:C:714:ASP:N	5:C:818:GLY:O	2.52	0.43
5:C:751:PRO:HA	5:C:792:VAL:CG1	2.49	0.43
5:C:759:THR:HG23	11:C:1516:HOH:O	2.19	0.43
5:C:875:GLY:O	5:C:879:ARG:HD2	2.19	0.43
5:C:909:ALA:HB1	5:C:914:ILE:CD1	2.47	0.43
5:C:981:GLU:HG3	5:C:982:PRO:HD3	2.01	0.43
5:C:1103:ASP:OD2	5:C:1108:PRO:O	2.37	0.43
6:D:189:GLN:HG3	11:D:8023:HOH:O	2.19	0.43
6:D:440:VAL:CG2	6:D:441:ARG:HH21	2.32	0.43
6:D:787:LEU:HD13	6:D:1023:MET:HA	2.00	0.43
6:D:1262:LEU:HD23	6:D:1352:ILE:HG12	2.00	0.43
6:D:1268:PRO:HD2	6:D:1271:LYS:HD3	2.01	0.43
5:M:111:ASP:CG	5:M:112:GLU:HG2	2.39	0.43
5:M:193:LEU:HD22	5:M:307:LEU:HD21	2.00	0.43
5:M:553:ASP:OD2	5:M:883:GLY:HA3	2.18	0.43
5:M:1019:GLN:HA	5:M:1020:PRO:HD3	1.86	0.43
6:N:191:LEU:HD22	6:N:393:ILE:HD13	2.00	0.43
6:N:456:MET:HG2	11:N:9491:HOH:O	2.18	0.43
6:N:525:ARG:H	6:N:525:ARG:CD	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:607:LEU:HD23	11:N:9149:HOH:O	2.19	0.43
6:N:1144:LEU:HA	6:N:1147:ARG:HG3	2.00	0.43
6:N:1424:VAL:CG1	6:N:1425:THR:N	2.82	0.43
6:N:1498:ALA:CB	7:O:84:ARG:HE	2.31	0.43
7:O:28:GLN:CA	7:O:32:ARG:HH22	2.32	0.43
1:G:23:DG:OP1	5:C:388:ARG:NH1	2.52	0.43
3:I:8:DA:OP1	6:D:1426:LYS:HE3	2.19	0.43
2:Y:7:G:N2	5:M:1014:SER:HA	2.32	0.43
3:Z:5:DG:H3'	11:Z:945:HOH:O	2.18	0.43
4:A:215:VAL:HG11	4:B:225:PHE:HD1	1.84	0.43
5:C:262:ALA:O	5:C:264:PRO:O	2.37	0.43
5:C:894:GLY:HA2	5:C:901:TYR:OH	2.19	0.43
5:C:946:ARG:HD3	5:C:984:GLU:HB3	2.01	0.43
5:C:983:ILE:HG21	5:C:987:ILE:CD1	2.49	0.43
5:C:1031:ARG:CZ	6:D:621:LYS:HZ2	2.32	0.43
6:D:30:GLU:N	11:D:8061:HOH:O	2.52	0.43
6:D:497:GLU:O	6:D:500:ARG:HB2	2.19	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:D:799:LYS:N	11:D:8279:HOH:O	2.52	0.43
6:D:820:GLU:HG3	6:D:836:VAL:HG11	1.99	0.43
6:D:1441:GLN:NE2	6:D:1442:ASN:H	2.17	0.43
4:L:9:PRO:HB3	4:L:25:LEU:CD2	2.49	0.43
4:L:26:GLU:HB2	4:L:27:PRO:HA	2.01	0.43
4:L:70:GLY:N	11:L:402:HOH:O	2.50	0.43
4:L:76:VAL:HA	4:L:79:ILE:HG12	2.00	0.43
5:M:175:GLU:HB3	5:M:183:SER:OG	2.18	0.43
5:M:290:LEU:HD23	5:M:290:LEU:N	2.32	0.43
5:M:299:LYS:HG3	11:M:1441:HOH:O	2.19	0.43
5:M:564:MET:CB	11:M:1517:HOH:O	2.67	0.43
5:M:701:THR:CG2	5:M:830:LYS:HE2	2.46	0.43
5:M:822:VAL:HB	5:M:824:ARG:HH21	1.84	0.43
5:M:851:LYS:HD2	5:M:852:ILE:H	1.84	0.43
5:M:1103:ASP:OD2	6:N:3:LYS:HD2	2.18	0.43
6:N:407:VAL:HA	6:N:422:ALA:CB	2.49	0.43
6:N:508:ARG:HD3	11:N:9337:HOH:O	2.18	0.43
6:N:695:ILE:CD1	6:N:718:PRO:HB2	2.48	0.43
6:N:826:PRO:HD2	6:N:829:VAL:HG22	2.00	0.43
6:N:953:ASP:OD2	6:N:953:ASP:N	2.52	0.43
6:N:1112:CYS:O	6:N:1189:ARG:NH2	2.52	0.43
6:N:1150:ALA:CB	6:N:1151:ARG:HD2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1264:GLU:HG3	6:N:1425:THR:OG1	2.19	0.43
5:C:139:GLN:HE21	5:C:334:ARG:CD	2.25	0.42
5:C:183:SER:OG	5:C:190:LYS:HG2	2.18	0.42
5:C:251:ASP:HB3	5:C:252:LYS:CD	2.48	0.42
5:C:265:ARG:NH1	11:C:1308:HOH:O	2.51	0.42
5:C:313:LEU:HD13	5:C:321:GLU:CG	2.49	0.42
5:C:399:ASN:ND2	5:C:402:SER:OG	2.52	0.42
5:C:500:ASN:HA	11:C:1162:HOH:O	2.19	0.42
5:C:583:LEU:O	5:C:587:VAL:HG23	2.20	0.42
5:C:599:GLU:HA	5:C:651:LYS:HG3	2.00	0.42
5:C:614:ARG:HG3	5:C:620:LEU:CD2	2.43	0.42
6:D:101:HIS:HD2	6:D:514:LEU:HD11	1.83	0.42
6:D:133:ILE:HG13	6:D:153:LEU:CG	2.48	0.42
6:D:175:VAL:HG21	11:D:8081:HOH:O	2.19	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
6:D:701:LEU:O	6:D:747:VAL:HA	2.20	0.42
6:D:739:ASP:OD1	6:D:741:ASP:OD1	2.37	0.42
6:D:786:ILE:CD1	6:D:908:LYS:HD3	2.49	0.42
6:D:1123:PHE:CE2	6:D:1184:GLN:HA	2.54	0.42
6:D:1344:VAL:HG12	6:D:1348:LEU:HD13	2.00	0.42
6:D:1490:LYS:HB2	7:E:93:TYR:OH	2.19	0.42
7:E:41:GLU:N	7:E:42:PRO:CD	2.81	0.42
4:K:133:GLU:HG3	5:M:605:LYS:HA	2.01	0.42
4:L:59:GLU:HB2	4:L:137:ARG:CZ	2.49	0.42
5:M:141:HIS:NE2	5:M:332:ARG:HD2	2.34	0.42
5:M:208:ALA:HB3	5:M:209:ARG:NH2	2.33	0.42
5:M:436:GLY:HA2	5:M:538:GLN:C	2.35	0.42
5:M:458:TYR:N	5:M:458:TYR:CD1	2.86	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
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
6:N:586:ARG:HH22	6:N:1444:THR:HG21	1.84	0.42
6:N:860:LEU:HD22	6:N:881:LEU:HD23	2.01	0.42
6:N:963:TYR:HA	6:N:966:GLU:OE2	2.19	0.42
6:N:984:THR:HG23	6:N:987:GLU:H	1.84	0.42
6:N:1153:VAL:O	6:N:1160:LEU:HG	2.19	0.42
7:O:26:ARG:HD3	7:O:73:LEU:CD2	2.49	0.42
7:O:51:LEU:HD12	11:O:1058:HOH:O	2.19	0.42
1:G:23:DG:H5''	5:C:388:ARG:NH2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:152:PRO:HB3	4:A:154:GLU:OE1	2.19	0.42
5:C:313:LEU:CA	5:C:321:GLU:HG3	2.48	0.42
5:C:352:ALA:O	5:C:355:VAL:HG12	2.19	0.42
5:C:571:LEU:HD12	5:C:996:LYS:HZ2	1.84	0.42
5:C:580:MET:CE	5:C:584:GLU:HG3	2.49	0.42
5:C:747:ALA:C	5:C:799:ILE:HG23	2.39	0.42
5:C:816:LYS:HB2	5:C:819:VAL:HG21	2.00	0.42
6:D:26:VAL:HG11	6:D:44:LEU:CD2	2.48	0.42
6:D:171:LEU:HD21	6:D:192:ALA:HB3	2.00	0.42
6:D:564:GLU:HA	6:D:567:ILE:HD12	2.01	0.42
6:D:699:VAL:HG21	6:D:760:ARG:HB3	2.01	0.42
6:D:794:GLN:HB3	6:D:1017:PHE:CZ	2.51	0.42
6:D:893:GLU:O	6:D:896:ALA:HB3	2.20	0.42
6:D:969:ARG:HA	11:D:8045:HOH:O	2.19	0.42
6:D:1046:GLN:HG2	6:D:1052:THR:CA	2.49	0.42
6:D:1231:GLU:OE2	6:D:1232:PRO:HD3	2.18	0.42
4:L:106:PRO:HG3	4:L:133:GLU:O	2.19	0.42
5:M:12:VAL:HB	5:M:472:ARG:NH1	2.34	0.42
5:M:136:ILE:HD13	5:M:136:ILE:HA	1.93	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
5:M:684:PHE:O	5:M:685:GLU:C	2.58	0.42
5:M:960:GLU:HG3	5:M:961:GLU:N	2.32	0.42
5:M:1058:ASP:O	5:M:1060:ILE:N	2.51	0.42
5:M:1103:ASP:N	5:M:1107:ASN:O	2.49	0.42
6:N:161:LEU:HB2	11:N:9073:HOH:O	2.19	0.42
6:N:407:VAL:HA	6:N:422:ALA:HB2	2.01	0.42
6:N:501:ALA:CB	6:N:1453:ALA:HB2	2.38	0.42
6:N:522:PRO:HA	6:N:525:ARG:NE	2.34	0.42
6:N:714:GLN:HE22	6:N:768:ASN:HD22	1.67	0.42
6:N:756:GLN:NE2	6:N:760:ARG:HB3	2.34	0.42
6:N:783:ARG:H	6:N:783:ARG:HG3	1.53	0.42
4:A:55:SER:HB2	4:A:158:ILE:HB	2.01	0.42
4:B:102:LYS:HZ3	4:B:139:ASN:HB2	1.84	0.42
4:B:169:ALA:HB1	4:B:171:PHE:CE2	2.54	0.42
5:C:259:GLY:O	5:C:290:LEU:O	2.37	0.42
5:C:267:TYR:CD2	5:C:267:TYR:N	2.87	0.42
5:C:297:GLU:HG3	11:C:1205:HOH:O	2.18	0.42
5:C:437:ARG:CB	5:C:467:ILE:HB	2.49	0.42
5:C:573:ARG:CD	5:C:670:GLN:HE22	2.32	0.42
6:D:32:ILE:HD13	6:D:37:LEU:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:98:PRO:HG3	6:D:462:GLN:HE22	1.85	0.42
6:D:137:PRO:HG3	6:D:467:GLU:OE1	2.20	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:OD1	6:D:423:ASP:N	2.52	0.42
6:D:440:VAL:HB	6:D:441:ARG:NH2	2.30	0.42
6:D:625:TYR:CD1	6:D:625:TYR:N	2.88	0.42
6:D:701:LEU:CD1	6:D:715:ALA:HB2	2.49	0.42
6:D:711:LEU:HD22	6:D:714:GLN:NE2	2.34	0.42
6:D:829:VAL:O	6:D:835:SER:HB2	2.19	0.42
6:D:1047:LYS:HG2	6:D:1053:PHE:CE2	2.54	0.42
4:K:206:THR:HG23	4:K:207:PRO:CD	2.49	0.42
4:L:56:VAL:HG12	4:L:57:TYR:N	2.34	0.42
5:M:203:ASP:O	5:M:207:LEU:HB2	2.18	0.42
5:M:617:ASP:HB2	5:M:619:ARG:NE	2.33	0.42
5:M:869:VAL:HG22	5:M:871:LEU:HD23	2.01	0.42
6:N:45:PHE:HB3	6:N:86:ARG:HH22	1.83	0.42
6:N:63:TYR:HB3	6:N:68:PHE:CE1	2.54	0.42
6:N:206:ARG:HG3	6:N:206:ARG:NH1	2.34	0.42
6:N:631:ILE:HG21	6:N:745:MET:CG	2.49	0.42
6:N:840:LYS:HE2	6:N:841:TYR:HE2	1.84	0.42
2:H:2:A:H2'	2:H:3:G:O5'	2.20	0.42
2:Y:16:G:H5'	6:N:742:GLY:C	2.39	0.42
3:Z:8:DA:H1'	3:Z:9:DG:C5'	2.46	0.42
4:A:221:HIS:HA	4:A:224:TYR:CD2	2.54	0.42
5:C:86:LYS:HB2	5:C:88:LEU:HD23	2.01	0.42
5:C:214:TYR:OH	5:C:312:ALA:HB2	2.19	0.42
5:C:362:GLY:HA2	5:C:371:LYS:NZ	2.34	0.42
5:C:399:ASN:O	5:C:400:PRO:C	2.57	0.42
5:C:588:VAL:HA	5:C:591:SER:OG	2.19	0.42
5:C:626:ARG:O	5:C:638:ASP:HA	2.19	0.42
5:C:690:ILE:HD11	5:C:833:LEU:HD23	2.00	0.42
5:C:695:LEU:HD11	5:C:832:LYS:HB3	2.02	0.42
5:C:1085:PHE:O	5:C:1088:LEU:HB3	2.18	0.42
6:D:193:PRO:HG2	11:D:8081:HOH:O	2.18	0.42
6:D:455:ARG:NH1	6:D:463:GLN:HG3	2.35	0.42
6:D:1109:GLU:CG	6:D:1201:CYS:HA	2.31	0.42
4:K:9:PRO:HB3	4:K:25:LEU:CD2	2.50	0.42
5:M:146:VAL:CG1	5:M:162:ILE:HG12	2.48	0.42
5:M:244:PRO:HD2	5:M:245:GLY:N	2.28	0.42
5:M:334:ARG:HA	5:M:338:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:364:GLU:O	5:M:367:LEU:HG	2.18	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:654:LEU:HD13	5:M:664:GLY:N	2.34	0.42
5:M:695:LEU:CD2	5:M:832:LYS:HD3	2.29	0.42
5:M:894:GLY:HA2	5:M:901:TYR:OH	2.19	0.42
6:N:409:VAL:HG12	6:N:435:VAL:HG11	2.01	0.42
6:N:441:ARG:HH22	6:N:445:ARG:NH2	2.16	0.42
6:N:462:GLN:CA	6:N:513:ILE:HD13	2.49	0.42
6:N:653:PHE:N	6:N:653:PHE:CD1	2.87	0.42
6:N:688:TRP:HA	6:N:688:TRP:CE3	2.54	0.42
6:N:785:ILE:CG1	6:N:935:LYS:HA	2.43	0.42
6:N:903:ASP:O	6:N:904:VAL:HG13	2.19	0.42
6:N:921:ARG:HH11	6:N:921:ARG:CB	2.15	0.42
1:G:12:DG:H2''	1:G:13:DT:H5'	2.01	0.42
5:C:191:PHE:CE2	5:C:196:LEU:HD12	2.55	0.42
5:C:227:PHE:HB3	11:C:1552:HOH:O	2.20	0.42
5:C:352:ALA:C	5:C:355:VAL:HG12	2.39	0.42
5:C:609:ASN:N	5:C:609:ASN:ND2	2.63	0.42
5:C:663:ASN:C	5:C:665:PHE:H	2.23	0.42
5:C:689:VAL:CG1	5:C:690:ILE:N	2.82	0.42
5:C:807:ARG:C	11:C:1277:HOH:O	2.58	0.42
5:C:839:LEU:CD2	5:C:996:LYS:HA	2.47	0.42
5:C:924:VAL:HG12	11:C:1285:HOH:O	2.18	0.42
6:D:29:PRO:HD3	11:D:8201:HOH:O	2.18	0.42
6:D:79:GLU:HG2	6:D:80:VAL:N	2.33	0.42
6:D:114:THR:CG2	6:D:495:ARG:HA	2.49	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:440:VAL:HB	6:D:441:ARG:NE	2.32	0.42
6:D:486:ARG:CA	6:D:489:ARG:HG2	2.47	0.42
6:D:817:GLU:HA	6:D:836:VAL:HG21	2.02	0.42
6:D:838:ARG:NH1	6:D:838:ARG:HG2	2.34	0.42
6:D:1389:LEU:HG	6:D:1390:LEU:N	2.24	0.42
6:D:1487:VAL:HB	7:E:74:VAL:HG23	2.00	0.42
4:L:56:VAL:HG22	4:L:142:VAL:HG12	2.01	0.42
4:L:106:PRO:HA	4:L:133:GLU:O	2.20	0.42
4:L:142:VAL:HG23	4:L:142:VAL:O	2.18	0.42
4:L:182:GLU:OE1	4:L:194:LYS:HD2	2.20	0.42
5:M:208:ALA:CB	5:M:209:ARG:HH21	2.32	0.42
5:M:566:THR:HG22	5:M:566:THR:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:602:GLU:OE1	5:M:648:ARG:HB3	2.18	0.42
5:M:937:ASP:OD2	5:M:939:ARG:HG2	2.20	0.42
5:M:1032:PHE:HB3	6:N:620:GLY:O	2.20	0.42
6:N:739:ASP:OD1	6:N:741:ASP:OD1	2.36	0.42
6:N:955:VAL:HG11	6:N:1015:TYR:CZ	2.54	0.42
6:N:989:TYR:CE1	6:N:993:LEU:HD21	2.54	0.42
6:N:1365:ASP:O	6:N:1369:GLU:HG3	2.19	0.42
6:N:1401:GLU:OE2	6:N:1415:VAL:HG21	2.20	0.42
2:H:9:G:N2	11:H:26:HOH:O	2.53	0.42
1:X:19:DC:H3'	11:X:2000:HOH:O	2.19	0.42
4:B:101:LEU:HD23	4:B:101:LEU:C	2.40	0.42
5:C:77:PRO:HD3	5:C:91:GLN:O	2.20	0.42
5:C:333:ILE:HG12	5:C:467:ILE:HD11	2.01	0.42
5:C:408:ARG:O	5:C:454:SER:HA	2.19	0.42
5:C:431:HIS:HD2	5:C:433:THR:OG1	2.03	0.42
5:C:606:VAL:HG23	5:C:645:VAL:HG12	2.02	0.42
5:C:620:LEU:HD11	11:C:1436:HOH:O	2.19	0.42
5:C:644:VAL:HB	11:C:1372:HOH:O	2.20	0.42
5:C:693:GLU:HA	5:C:696:LYS:HE3	2.00	0.42
5:C:710:ILE:CD1	5:C:790:LEU:HD13	2.49	0.42
5:C:874:LEU:HA	6:D:1023:MET:SD	2.60	0.42
5:C:895:TYR:HA	11:C:1275:HOH:O	2.20	0.42
5:C:1096:ALA:HB2	6:D:101:HIS:NE2	2.34	0.42
5:C:1111:ILE:H	5:C:1111:ILE:HG13	1.48	0.42
6:D:54:LYS:CG	6:D:55:ASP:H	2.32	0.42
6:D:116:LEU:HD23	6:D:150:ARG:HH11	1.85	0.42
6:D:610:LYS:C	6:D:615:ARG:HD3	2.39	0.42
6:D:709:HIS:CD2	6:D:709:HIS:H	2.37	0.42
6:D:841:TYR:HB3	6:D:843:PHE:CZ	2.54	0.42
6:D:959:GLU:CD	6:D:959:GLU:N	2.73	0.42
6:D:1121:PRO:HG3	6:D:1185:GLU:OE2	2.19	0.42
6:D:1211:MET:HE1	6:D:1213:ARG:HD3	2.00	0.42
4:K:13:VAL:HG22	4:K:23:PHE:CD1	2.55	0.42
5:M:473:ARG:HG3	5:M:474:VAL:N	2.35	0.42
5:M:536:PRO:HB3	5:M:906:PHE:HD1	1.84	0.42
5:M:575:GLN:NE2	5:M:670:GLN:OE1	2.52	0.42
5:M:810:ASP:HA	5:M:811:PRO:HD3	1.67	0.42
5:M:833:LEU:HD11	5:M:839:LEU:HD21	2.01	0.42
5:M:889:HIS:HE1	6:N:951:ILE:H	1.67	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:N:656:PHE:HB3	6:N:694:VAL:CG1	2.50	0.42
6:N:1036:ARG:HB3	6:N:1036:ARG:HH11	1.82	0.42
6:N:1158:VAL:HG12	6:N:1159:ARG:N	2.35	0.42
4:A:161:ARG:HA	4:A:161:ARG:NE	2.34	0.42
4:B:142:VAL:HG23	4:B:142:VAL:O	2.18	0.42
5:C:137:VAL:N	5:C:391:LEU:HD21	2.33	0.42
5:C:140:ILE:HD11	5:C:412:ALA:HB2	2.01	0.42
5:C:966:LEU:HD12	5:C:966:LEU:HA	1.94	0.42
6:D:711:LEU:HD21	6:D:768:ASN:HB2	2.01	0.42
6:D:806:PHE:HE1	6:D:813:LEU:HB3	1.79	0.42
6:D:820:GLU:OE1	6:D:840:LYS:HE3	2.20	0.42
6:D:1103:HIS:HD2	6:D:1463:LYS:H	1.59	0.42
4:K:213:GLN:NE2	11:K:1765:HOH:O	2.51	0.42
4:L:75:VAL:O	4:L:79:ILE:HG23	2.19	0.42
4:L:189:ARG:HG3	4:L:189:ARG:O	2.19	0.42
5:M:69:LEU:HD12	5:M:97:ARG:CB	2.49	0.42
5:M:98:LEU:N	5:M:98:LEU:HD12	2.35	0.42
5:M:458:TYR:N	5:M:458:TYR:HD1	2.18	0.42
5:M:580:MET:O	5:M:902:ILE:HA	2.19	0.42
5:M:783:ARG:HE	5:M:785:VAL:CG1	2.32	0.42
5:M:1009:SER:OG	5:M:1010:THR:N	2.53	0.42
6:N:19:ARG:HE	6:N:516:ALA:CB	2.32	0.42
6:N:137:PRO:HD2	6:N:453:ASP:CG	2.39	0.42
6:N:457:GLY:C	6:N:459:GLU:N	2.72	0.42
6:N:506:GLY:O	6:N:507:ASN:C	2.58	0.42
6:N:998:GLU:O	6:N:1002:LYS:HG3	2.20	0.42
6:N:1047:LYS:HG2	6:N:1053:PHE:CE1	2.54	0.42
6:N:1055:VAL:HA	6:N:1056:PRO:HD3	1.90	0.42
6:N:1365:ASP:OD2	6:N:1365:ASP:N	2.53	0.42
3:I:3:DA:O4'	5:C:423:ALA:HB2	2.20	0.42
4:A:184:THR:N	11:A:321:HOH:O	2.53	0.42
5:C:401:LEU:HD21	5:C:565:GLN:NE2	2.34	0.42
5:C:541:SER:OG	5:C:542:VAL:N	2.52	0.42
5:C:780:GLU:H	5:C:780:GLU:HG3	1.53	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
6:D:87:ARG:NH2	11:D:8227:HOH:O	2.53	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:695:ILE:HD13	6:D:720:LEU:CD1	2.50	0.42
6:D:698:LYS:HE3	6:D:698:LYS:HB3	1.92	0.42
6:D:780:LYS:HD2	6:D:912:LYS:HB2	2.02	0.42
6:D:1072:ILE:HG12	11:D:8010:HOH:O	2.20	0.42
6:D:1341:PRO:O	6:D:1343:ALA:N	2.52	0.42
7:E:66:LYS:HD2	7:E:69:LEU:HD23	2.02	0.42
5:M:628:PHE:CZ	5:M:703:ILE:HD13	2.55	0.42
5:M:677:MET:HE3	5:M:678:PRO:O	2.19	0.42
5:M:1111:ILE:H	5:M:1111:ILE:HG12	1.43	0.42
6:N:879:ARG:CG	6:N:879:ARG:HH11	2.32	0.42
3:I:13:DG:H2''	3:I:14:DG:C8	2.55	0.42
4:A:8:ALA:HB1	4:B:224:TYR:CE1	2.51	0.42
4:A:182:GLU:HG2	4:A:194:LYS:HG2	2.02	0.42
4:B:81:ASN:O	4:B:127:LEU:HD21	2.20	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
5:C:719:PRO:HD2	11:C:1241:HOH:O	2.20	0.42
6:D:48:ARG:HE	6:D:48:ARG:HB3	1.53	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:D:1444:THR:OG1	6:D:1445:HIS:N	2.53	0.42
6:D:1451:ALA:O	6:D:1452:ILE:C	2.57	0.42
7:E:33:HIS:CE1	7:E:89:MET:HB3	2.55	0.42
4:K:107:LYS:HD3	4:K:108:GLU:O	2.20	0.42
4:L:58:ILE:HG21	4:L:61:VAL:HB	2.00	0.42
4:L:73:GLU:CB	4:L:77:GLU:HG3	2.50	0.42
5:M:20:GLU:OE2	5:M:460:ARG:HD3	2.20	0.42
5:M:909:ALA:CB	5:M:914:ILE:HD11	2.47	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
6:N:403:PHE:CD2	6:N:444:VAL:HG23	2.55	0.42
6:N:574:LEU:O	6:N:578:VAL:HG23	2.19	0.42
6:N:596:SER:HB3	6:N:598:ARG:NE	2.35	0.42
6:N:600:LEU:HD12	6:N:600:LEU:H	1.83	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
6:N:1078:ARG:HG3	6:N:1078:ARG:NH1	2.34	0.42
6:N:1221:VAL:O	6:N:1222:GLY:C	2.58	0.42
6:N:1415:VAL:HG22	11:N:9043:HOH:O	2.19	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)
4:A:70:GLY:O	4:A:132:LEU:HA	2.19	0.42
4:B:22:GLU:HG2	4:B:198:ARG:HG2	2.00	0.42
4:B:152:PRO:HG2	6:D:857:ILE:HD12	2.01	0.42
5:C:71:TYR:HA	5:C:96:ALA:CB	2.50	0.42
5:C:182:VAL:HG12	5:C:193:LEU:HD13	2.01	0.42
5:C:208:ALA:HB1	5:C:218:VAL:CG1	2.50	0.42
5:C:208:ALA:O	5:C:218:VAL:HG21	2.19	0.42
5:C:537:LYS:CG	5:C:545:ASN:HD21	2.33	0.42
5:C:577:PRO:HA	5:C:993:PHE:CD2	2.54	0.42
5:C:598:GLU:O	5:C:651:LYS:HG3	2.20	0.42
6:D:50:PHE:HB3	6:D:522:PRO:CG	2.46	0.42
6:D:82:LYS:HB2	11:D:8499:HOH:O	2.20	0.42
6:D:461:ILE:O	6:D:465:LEU:HB2	2.18	0.42
6:D:1001:GLU:O	6:D:1004:THR:HB	2.20	0.42
6:D:1341:PRO:O	6:D:1344:VAL:N	2.53	0.42
7:E:59:ASN:N	7:E:59:ASN:ND2	2.68	0.42
4:K:91:ASN:HB3	11:K:1721:HOH:O	2.20	0.42
4:L:25:LEU:CD2	4:L:28:LEU:HD21	2.40	0.42
5:M:63:GLY:HA3	5:M:103:LYS:HG3	2.02	0.42
5:M:456:ALA:HA	5:M:541:SER:HA	2.01	0.42
5:M:536:PRO:CD	5:M:537:LYS:HZ2	2.17	0.42
5:M:549:PHE:HE2	5:M:887:GLU:HA	1.85	0.42
5:M:605:LYS:O	5:M:611:ILE:HA	2.20	0.42
5:M:728:HIS:NE2	5:M:775:ARG:NH1	2.67	0.42
5:M:757:GLY:HA2	5:M:789:SER:HB3	2.02	0.42
5:M:872:ASN:HD21	5:M:874:LEU:HD13	1.85	0.42
5:M:917:LEU:HB3	11:M:1461:HOH:O	2.20	0.42
5:M:1049:LEU:HD23	6:N:1472:ILE:CD1	2.49	0.42
6:N:397:LYS:HB3	6:N:448:GLU:HB3	2.01	0.42
6:N:446:VAL:O	6:N:447:VAL:O	2.38	0.42
6:N:628:ARG:HG3	6:N:628:ARG:HH11	1.84	0.42
6:N:632:VAL:O	6:N:727:GLN:HA	2.20	0.42
6:N:804:LEU:HD12	6:N:830:ALA:O	2.20	0.42
6:N:859:ASP:HB3	6:N:861:GLN:NE2	2.35	0.42
6:N:1137:ARG:HG3	11:N:9103:HOH:O	2.19	0.42
6:N:1463:LYS:O	6:N:1467:ILE:HG13	2.19	0.42
7:O:47:LYS:CA	7:O:54:LEU:HB3	2.49	0.42
2:H:13:C:C3'	5:C:409:ARG:HH22	2.32	0.41
4:A:89:PHE:CE2	4:A:146:ARG:HB2	2.55	0.41
5:C:129:ILE:CG1	5:C:134:ARG:HD3	2.50	0.41
5:C:186:VAL:HG23	5:C:187:ASN:N	2.26	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:243:ARG:N	5:C:244:PRO:HD3	2.32	0.41
5:C:564:MET:O	5:C:564:MET:HE3	2.20	0.41
5:C:848:VAL:HG12	5:C:849:VAL:N	2.35	0.41
5:C:1031:ARG:NH1	6:D:621:LYS:NZ	2.68	0.41
5:C:1084:SER:O	5:C:1087:VAL:HG12	2.20	0.41
6:D:82:LYS:C	6:D:84:ILE:N	2.74	0.41
6:D:105:VAL:HG12	11:D:8237:HOH:O	2.20	0.41
6:D:566:ILE:HD12	6:D:566:ILE:N	2.35	0.41
6:D:581:LEU:HG	6:D:582:LEU:N	2.35	0.41
6:D:789:LEU:HD13	6:D:911:LEU:HD21	2.02	0.41
6:D:890:VAL:HG23	6:D:890:VAL:O	2.19	0.41
6:D:926:LYS:HE2	6:D:926:LYS:HB3	1.93	0.41
6:D:1042:ARG:HD2	6:D:1045:MET:CE	2.50	0.41
6:D:1495:ILE:HG22	6:D:1499:ARG:NE	2.35	0.41
4:K:14:ARG:HH11	4:K:14:ARG:HG3	1.85	0.41
4:K:30:ARG:HA	4:K:30:ARG:HD2	1.87	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
5:M:263:ASP:HB2	5:M:264:PRO:HD3	2.02	0.41
5:M:292:ARG:HD2	5:M:299:LYS:CE	2.49	0.41
5:M:745:ILE:HG21	11:M:1187:HOH:O	2.19	0.41
5:M:756:VAL:O	5:M:789:SER:CB	2.66	0.41
5:M:842:ARG:HH22	5:M:887:GLU:CD	2.23	0.41
5:M:842:ARG:HG3	5:M:995:MET:HE3	2.02	0.41
5:M:940:GLU:O	5:M:943:VAL:HG12	2.19	0.41
5:M:1013:TYR:CE1	5:M:1020:PRO:HG3	2.55	0.41
6:N:12:LEU:HD23	6:N:12:LEU:HA	1.84	0.41
6:N:107:ASP:O	6:N:108:VAL:C	2.57	0.41
6:N:206:ARG:CG	6:N:394:LEU:HD22	2.36	0.41
6:N:485:SER:HA	11:N:9344:HOH:O	2.19	0.41
6:N:1000:THR:HG23	6:N:1001:GLU:N	2.34	0.41
6:N:1206:GLY:O	6:N:1215:VAL:HG23	2.20	0.41
6:N:1267:ARG:HD2	6:N:1271:LYS:HE2	2.01	0.41
6:N:1381:VAL:HG22	6:N:1398:TRP:CZ2	2.54	0.41
6:N:1399:ASP:O	6:N:1403:LEU:HB2	2.19	0.41
2:Y:7:G:H22	5:M:1014:SER:N	2.17	0.41
5:C:68:PHE:HZ	5:C:71:TYR:HD2	1.68	0.41
5:C:89:THR:O	5:C:91:GLN:HG3	2.20	0.41
5:C:636:ALA:HB3	5:C:703:ILE:CD1	2.33	0.41
5:C:704:HIS:O	5:C:829:GLN:OE1	2.38	0.41
5:C:873:PRO:O	5:C:877:PRO:HD3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:D:522:PRO:HA	6:D:525:ARG:NE	2.34	0.41
6:D:960:LYS:NZ	6:D:1040:GLY:O	2.45	0.41
6:D:984:THR:HG23	6:D:986:ARG:H	1.84	0.41
6:D:1248:GLY:O	6:D:1252:ILE:HG12	2.20	0.41
6:D:1472:ILE:O	6:D:1477:GLY:HA3	2.19	0.41
7:E:44:GLU:HA	11:E:110:HOH:O	2.20	0.41
4:L:9:PRO:HB3	4:L:25:LEU:HG	2.03	0.41
4:L:106:PRO:HG3	4:L:134:GLU:CD	2.41	0.41
4:L:175:ARG:H	4:L:175:ARG:HG2	1.61	0.41
5:M:39:ARG:NH2	11:M:1341:HOH:O	2.52	0.41
5:M:217:LEU:HD13	11:M:1269:HOH:O	2.20	0.41
5:M:274:ARG:HG3	5:M:285:LEU:HD22	2.02	0.41
5:M:354:GLY:O	5:M:358:ARG:HD3	2.19	0.41
5:M:957:LYS:HB2	5:M:957:LYS:NZ	2.35	0.41
5:M:1016:ILE:CG1	5:M:1017:THR:N	2.82	0.41
6:N:52:PRO:CB	6:N:80:VAL:HG13	2.50	0.41
6:N:66:GLN:O	6:N:69:GLU:HB3	2.20	0.41
6:N:394:LEU:HD11	6:N:445:ARG:HH12	1.81	0.41
6:N:709:HIS:CD2	6:N:709:HIS:N	2.89	0.41
6:N:1209:LEU:HD13	11:N:9248:HOH:O	2.20	0.41
6:N:1363:LEU:HD12	6:N:1363:LEU:O	2.20	0.41
6:N:1498:ALA:HB1	7:O:84:ARG:HE	1.86	0.41
4:A:42:ARG:HH22	4:B:34:VAL:HB	1.85	0.41
4:A:111:ALA:CB	4:A:127:LEU:HD23	2.42	0.41
4:A:128:HIS:HE1	4:A:131:THR:HG23	1.86	0.41
4:B:132:LEU:HD23	4:B:136:GLY:O	2.20	0.41
5:C:6:PHE:CD1	5:C:6:PHE:N	2.88	0.41
5:C:115:LEU:HG	5:C:115:LEU:H	1.70	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
5:C:552:HIS:HD2	6:D:1064:GLY:HA2	1.86	0.41
5:C:1006:HIS:HA	5:C:1027:PHE:HD1	1.83	0.41
6:D:412:GLY:HA2	6:D:434:ARG:NH1	2.34	0.41
6:D:420:VAL:C	6:D:421:LEU:HD23	2.40	0.41
6:D:481:MET:CE	6:D:493:ARG:HB2	2.47	0.41
6:D:1464:GLU:HA	6:D:1467:ILE:HD11	2.02	0.41
7:E:8:LYS:O	7:E:12:MET:HG3	2.20	0.41
7:E:28:GLN:HG2	7:E:32:ARG:HH22	1.86	0.41
4:K:41:ARG:HG3	4:K:177:VAL:CG1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:91:ASN:O	4:K:94:LEU:HD12	2.20	0.41
4:L:48:ILE:HG22	4:L:173:PRO:HD2	2.03	0.41
4:L:88:ARG:HD2	4:L:123:MET:SD	2.61	0.41
5:M:29:ALA:HB2	5:M:337:GLY:HA3	2.01	0.41
5:M:211:LEU:HD11	5:M:308:ARG:HA	2.02	0.41
5:M:666:LEU:HD12	5:M:667:ALA:N	2.35	0.41
5:M:670:GLN:NE2	5:M:699:PHE:CG	2.88	0.41
5:M:913:GLU:O	5:M:916:GLU:HB3	2.20	0.41
5:M:1070:ILE:HG23	6:N:656:PHE:HD1	1.84	0.41
6:N:704:ARG:CZ	6:N:737:ASN:O	2.69	0.41
3:Z:13:DG:H2''	3:Z:14:DG:C8	2.55	0.41
5:C:98:LEU:C	5:C:109:LYS:HD2	2.40	0.41
5:C:1016:ILE:HG12	5:C:1017:THR:H	1.84	0.41
6:D:98:PRO:HA	6:D:515:GLU:HA	2.01	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:754:PHE:O	6:D:758:GLU:HG2	2.20	0.41
6:D:783:ARG:HD2	6:D:1029:ARG:HG2	2.02	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
6:D:1236:LEU:HD12	6:D:1359:GLN:HB3	2.03	0.41
4:K:36:LEU:HD11	11:L:365:HOH:O	2.20	0.41
4:K:42:ARG:HH11	5:M:978:ARG:CA	2.28	0.41
4:K:181:VAL:O	5:M:938:LYS:N	2.54	0.41
5:M:13:ILE:HG23	5:M:483:VAL:HG21	2.02	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
5:M:1067:TYR:O	5:M:1071:ILE:HG12	2.20	0.41
5:M:1085:PHE:CE2	6:N:1468:LEU:HG	2.52	0.41
6:N:159:ARG:NH2	11:N:9468:HOH:O	2.53	0.41
6:N:470:LEU:HD12	6:N:503:LEU:CD2	2.50	0.41
6:N:493:ARG:CG	6:N:1390:LEU:HB2	2.45	0.41
6:N:633:VAL:C	6:N:635:PRO:HD3	2.40	0.41
6:N:782:SER:O	6:N:786:ILE:HG13	2.20	0.41
6:N:899:LEU:HB3	6:N:917:GLN:HG2	2.01	0.41
6:N:1124:GLN:HA	6:N:1125:PRO:HD3	1.60	0.41
6:N:1155:VAL:HG12	11:N:9051:HOH:O	2.20	0.41
6:N:1440:PHE:CD2	6:N:1440:PHE:C	2.93	0.41
2:H:2:A:C2'	2:H:3:G:O5'	2.68	0.41
1:X:11:DC:H2''	1:X:12:DG:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:12:DG:H2'	1:X:13:DT:H72	2.02	0.41
5:C:118:ILE:HG22	5:C:382:ILE:HD13	2.01	0.41
5:C:137:VAL:CG2	5:C:391:LEU:HG	2.50	0.41
5:C:569:VAL:HG13	5:C:996:LYS:HZ3	1.84	0.41
5:C:603:VAL:HG11	5:C:606:VAL:HG22	2.03	0.41
5:C:669:GLY:C	5:C:670:GLN:HG2	2.41	0.41
5:C:692:GLU:O	5:C:696:LYS:HG3	2.20	0.41
5:C:715:THR:HA	11:C:1542:HOH:O	2.20	0.41
5:C:791:ARG:O	5:C:793:PRO:HD3	2.20	0.41
5:C:842:ARG:HG3	5:C:995:MET:CE	2.51	0.41
6:D:28:LYS:HD2	11:D:8201:HOH:O	2.20	0.41
6:D:112:ILE:HA	6:D:512:MET:HE3	2.02	0.41
6:D:510:GLU:HG2	11:D:8320:HOH:O	2.20	0.41
6:D:702:LEU:HD12	6:D:702:LEU:N	2.35	0.41
6:D:906:GLN:HB3	6:D:911:LEU:CD1	2.49	0.41
6:D:1046:GLN:HG2	6:D:1052:THR:CB	2.51	0.41
6:D:1154:GLU:HB3	6:N:563:PRO:HB3	2.01	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
7:E:43:GLU:H	7:E:43:GLU:HG3	1.69	0.41
4:K:94:LEU:HD11	4:K:119:ASP:CB	2.51	0.41
4:K:174:VAL:HG13	4:K:200:TRP:O	2.20	0.41
5:M:25:SER:OG	5:M:335:THR:HB	2.20	0.41
5:M:217:LEU:CD1	5:M:311:PHE:HA	2.50	0.41
5:M:259:GLY:O	5:M:290:LEU:O	2.38	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:580:MET:HE1	5:M:665:PHE:CZ	2.55	0.41
5:M:780:GLU:HG3	5:M:781:LYS:N	2.35	0.41
5:M:928:LYS:O	5:M:932:GLU:HG3	2.21	0.41
6:N:8:VAL:HG12	6:N:9:ARG:N	2.34	0.41
6:N:710:ARG:C	6:N:712:GLY:N	2.74	0.41
6:N:800:LYS:CE	6:N:804:LEU:HD13	2.50	0.41
6:N:1114:THR:CG2	6:N:1114:THR:O	2.68	0.41
6:N:1330:ILE:HB	6:N:1347:TYR:OH	2.20	0.41
2:H:7:G:H2'	2:H:8:C:OP1	2.20	0.41
2:Y:16:G:O3'	6:N:741:ASP:OD1	2.39	0.41
5:C:141:HIS:C	5:C:141:HIS:CD2	2.93	0.41
5:C:265:ARG:HB2	11:C:1165:HOH:O	2.21	0.41
5:C:318:PRO:HB2	11:C:1545:HOH:O	2.20	0.41
5:C:348:LEU:HD12	5:C:348:LEU:HA	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:668:LEU:H	5:C:668:LEU:HD12	1.86	0.41
5:C:673:LEU:CD2	5:C:867:VAL:HG12	2.50	0.41
5:C:754:ILE:HD12	5:C:789:SER:HB3	2.02	0.41
5:C:764:GLU:HG3	6:D:54:LYS:HZ3	1.85	0.41
5:C:1012:PRO:HB2	5:C:1021:LEU:O	2.20	0.41
6:D:641:GLN:HB3	6:D:717:GLN:O	2.20	0.41
6:D:838:ARG:HH11	6:D:838:ARG:HG2	1.86	0.41
6:D:1153:VAL:HG12	6:D:1155:VAL:HG22	2.02	0.41
6:D:1457:ASP:O	6:D:1459:LEU:HD12	2.21	0.41
6:D:1485:GLN:H	6:D:1485:GLN:HG2	1.75	0.41
6:D:1494:ALA:HB1	7:E:88:GLU:OE2	2.21	0.41
5:M:23:VAL:HA	11:M:1414:HOH:O	2.21	0.41
5:M:80:GLN:HE21	5:M:84:ARG:HH21	1.68	0.41
5:M:395:LYS:HE2	5:M:403:SER:CB	2.36	0.41
5:M:713:ARG:HB3	5:M:720:GLU:OE2	2.20	0.41
5:M:983:ILE:O	5:M:983:ILE:HG22	2.20	0.41
5:M:993:PHE:HE1	5:M:995:MET:HE2	1.85	0.41
5:M:1008:ARG:HA	5:M:1027:PHE:CD2	2.54	0.41
6:N:63:TYR:HB3	6:N:68:PHE:CD1	2.55	0.41
6:N:716:PHE:O	6:N:718:PRO:HD3	2.21	0.41
6:N:729:HIS:HE1	6:N:731:LEU:HG	1.85	0.41
6:N:937:TYR:H	6:N:937:TYR:HD1	1.66	0.41
6:N:956:ILE:HA	6:N:957:PRO:HD3	1.93	0.41
6:N:1406:ARG:HE	6:N:1407:LEU:HD12	1.84	0.41
7:O:9:LEU:HB3	7:O:19:LEU:CD2	2.50	0.41
1:G:14:DT:H5''	11:D:8242:HOH:O	2.21	0.41
4:B:229:GLN:HE21	4:B:229:GLN:HB2	1.62	0.41
5:C:263:ASP:C	5:C:264:PRO:O	2.59	0.41
5:C:358:ARG:CA	5:C:361:MET:HG2	2.51	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:595:LEU:HD12	11:C:1444:HOH:O	2.21	0.41
5:C:694:LEU:HD21	5:C:868:ASP:CB	2.47	0.41
6:D:717:GLN:HG2	11:D:8027:HOH:O	2.21	0.41
6:D:764:LEU:HD23	6:D:767:HIS:CD2	2.54	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
6:D:1393:GLN:NE2	6:D:1394:VAL:HB	2.36	0.41
4:L:11:PHE:CE1	4:L:23:PHE:HB3	2.55	0.41
5:M:73:LEU:O	5:M:73:LEU:HD12	2.21	0.41
5:M:158:TYR:CZ	5:M:313:LEU:HG	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:469:THR:OG1	5:M:470:PRO:HD2	2.21	0.41
5:M:668:LEU:H	5:M:668:LEU:HD12	1.86	0.41
5:M:738:ASP:HB2	5:M:744:ARG:HB3	2.02	0.41
5:M:1092:LEU:HD23	5:M:1095:LEU:HD13	2.03	0.41
6:N:701:LEU:O	6:N:747:VAL:HA	2.21	0.41
6:N:709:HIS:HA	6:N:1227:GLN:HB3	2.01	0.41
6:N:916:TYR:O	6:N:919:PHE:HB3	2.19	0.41
6:N:1134:LEU:HB3	11:N:9479:HOH:O	2.20	0.41
7:O:93:TYR:HA	7:O:94:PRO:HD2	1.87	0.41
1:G:6:DT:H2'	1:G:7:DC:C5	2.55	0.41
2:H:14:G:C2'	2:H:15:C:H5'	2.48	0.41
1:X:15:DC:OP2	6:N:610:LYS:HE2	2.21	0.41
4:A:178:ALA:HA	11:C:1156:HOH:O	2.20	0.41
5:C:185:LYS:HE2	5:C:190:LYS:NZ	2.35	0.41
5:C:242:LEU:HD11	11:C:1327:HOH:O	2.21	0.41
5:C:599:GLU:OE2	5:C:619:ARG:NH2	2.54	0.41
5:C:639:GLN:HG2	11:C:1396:HOH:O	2.19	0.41
5:C:1079:PRO:HB2	11:D:8463:HOH:O	2.19	0.41
6:D:185:VAL:HG11	6:D:197:SER:OG	2.20	0.41
6:D:446:VAL:O	6:D:447:VAL:O	2.39	0.41
6:D:525:ARG:HA	6:D:526:PRO:HD3	1.73	0.41
6:D:1086:LEU:HA	11:D:8250:HOH:O	2.21	0.41
6:D:1197:ARG:CB	6:D:1396:GLU:HG3	2.45	0.41
7:E:76:GLY:N	7:E:79:LEU:HD22	2.36	0.41
4:K:224:TYR:HB3	4:L:9:PRO:CG	2.51	0.41
4:L:81:ASN:HD21	4:L:127:LEU:HD11	1.85	0.41
4:L:124:ASN:CG	4:L:127:LEU:HB2	2.41	0.41
5:M:393:GLN:NE2	5:M:406:HIS:HE1	2.18	0.41
5:M:674:VAL:HG11	5:M:992:MET:HB3	2.02	0.41
5:M:1021:LEU:HA	11:M:1512:HOH:O	2.21	0.41
5:M:1096:ALA:O	6:N:13:ALA:CB	2.68	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:N:769:LEU:HD11	6:N:919:PHE:CE2	2.56	0.41
6:N:832:ARG:HA	6:N:832:ARG:CZ	2.51	0.41
6:N:879:ARG:HG3	6:N:879:ARG:HH11	1.84	0.41
6:N:965:GLU:OE1	6:N:965:GLU:HA	2.20	0.41
6:N:1007:VAL:HA	11:N:9288:HOH:O	2.21	0.41
6:N:1117:TYR:CD2	6:N:1117:TYR:N	2.88	0.41
6:N:1406:ARG:HE	6:N:1407:LEU:CD1	2.33	0.41
6:N:1425:THR:HG22	6:N:1429:LEU:HD12	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:19:LEU:O	7:O:23:VAL:HG23	2.20	0.41
3:Z:5:DG:HI'	3:Z:6:DC:H5'	2.01	0.41
4:A:154:GLU:H	4:A:154:GLU:CD	2.24	0.41
4:B:64:GLU:CA	4:B:165:ILE:HD13	2.48	0.41
4:B:65:PHE:CD1	4:B:65:PHE:N	2.88	0.41
5:C:140:ILE:HD13	5:C:331:ARG:CZ	2.51	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
5:C:385:PHE:HA	5:C:389:SER:OG	2.21	0.41
5:C:676:ILE:HD13	5:C:676:ILE:O	2.21	0.41
5:C:690:ILE:HG13	5:C:694:LEU:HD12	2.01	0.41
5:C:957:LYS:HG2	5:C:961:GLU:CB	2.51	0.41
5:C:1046:ALA:HA	6:D:1472:ILE:CG1	2.44	0.41
5:C:1067:TYR:HB3	11:C:1435:HOH:O	2.21	0.41
6:D:434:ARG:HB2	6:D:447:VAL:HG21	2.03	0.41
6:D:470:LEU:HD23	6:D:470:LEU:N	2.36	0.41
6:D:703:ASN:ND2	6:D:704:ARG:N	2.67	0.41
6:D:938:GLY:O	6:D:942:SER:HB3	2.21	0.41
6:D:996:TRP:CE3	6:D:996:TRP:HA	2.56	0.41
6:D:1063:GLU:HG3	6:D:1064:GLY:H	1.84	0.41
6:D:1492:LEU:HD11	11:D:8102:HOH:O	2.21	0.41
7:E:4:PRO:HG3	11:E:115:HOH:O	2.21	0.41
4:K:10:VAL:HG12	4:K:12:THR:HG22	2.02	0.41
4:K:14:ARG:CZ	4:K:14:ARG:HB2	2.50	0.41
4:K:159:LYS:NZ	4:K:164:ALA:O	2.50	0.41
4:K:173:PRO:HB2	4:K:205:VAL:HG22	2.03	0.41
4:L:209:GLU:HG2	11:L:361:HOH:O	2.21	0.41
5:M:86:LYS:HZ3	5:M:812:GLY:H	1.69	0.41
5:M:140:ILE:HG13	5:M:411:SER:O	2.20	0.41
5:M:193:LEU:HD21	11:M:1471:HOH:O	2.21	0.41
5:M:280:LYS:NZ	5:M:280:LYS:HB2	2.35	0.41
5:M:471:TYR:CD2	5:M:533:ASP:HA	2.56	0.41
5:M:495:THR:HG21	5:M:524:VAL:HG11	2.03	0.41
5:M:704:HIS:HA	11:M:1346:HOH:O	2.21	0.41
5:M:848:VAL:HG12	5:M:849:VAL:N	2.36	0.41
5:M:878:SER:OG	6:N:1029:ARG:HD2	2.20	0.41
6:N:89:ARG:O	6:N:521:PRO:HB3	2.20	0.41
6:N:119:SER:HB2	6:N:123:LEU:N	2.31	0.41
6:N:165:LYS:O	6:N:167:GLU:HG3	2.20	0.41
6:N:648:MET:HE2	11:N:9201:HOH:O	2.20	0.41
6:N:708:LEU:HD22	6:N:1234:THR:OG1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:728:LEU:HD12	6:N:729:HIS:N	2.36	0.41
6:N:749:VAL:HA	6:N:750:PRO:HD3	1.87	0.41
6:N:791:TYR:CD2	6:N:945:SER:HB2	2.56	0.41
6:N:796:ARG:O	6:N:828:LYS:HD2	2.21	0.41
6:N:875:THR:HG22	6:N:879:ARG:HB2	2.03	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
6:N:1437:ALA:C	6:N:1446:VAL:HG21	2.40	0.41
6:N:1472:ILE:HB	6:N:1474:ALA:O	2.21	0.41
1:G:8:DT:H2'	1:G:9:DG:C8	2.55	0.41
1:G:12:DG:H2'	1:G:13:DT:H72	2.02	0.41
3:I:7:DC:OP2	6:D:1266:ARG:NE	2.54	0.41
4:B:80:LEU:HA	4:B:83:LYS:HD2	2.03	0.41
4:B:137:ARG:CZ	4:B:139:ASN:HB3	2.51	0.41
5:C:160:ALA:HB2	5:C:310:LEU:HB2	2.02	0.41
5:C:438:ILE:HA	5:C:455:LEU:HA	2.03	0.41
5:C:468:ARG:NE	5:C:485:TYR:O	2.54	0.41
5:C:606:VAL:HG11	5:C:643:VAL:O	2.21	0.41
5:C:808:ARG:NH2	5:C:820:ARG:CZ	2.84	0.41
5:C:876:VAL:H	5:C:877:PRO:CD	2.33	0.41
5:C:911:GLU:OE1	6:D:951:ILE:HD12	2.21	0.41
5:C:945:ARG:NE	11:C:1564:HOH:O	2.54	0.41
5:C:1030:GLN:O	6:D:622:ARG:HA	2.21	0.41
6:D:36:THR:C	6:D:38:LYS:N	2.75	0.41
6:D:456:MET:N	6:D:459:GLU:OE1	2.49	0.41
6:D:1003:VAL:O	6:D:1006:ALA:HB3	2.21	0.41
6:D:1117:TYR:HB2	6:D:1188:VAL:O	2.21	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
6:D:1435:LEU:HB2	6:D:1457:ASP:OD2	2.21	0.41
4:L:26:GLU:HB3	4:L:194:LYS:HG3	2.03	0.41
4:L:49:PRO:HG3	11:L:364:HOH:O	2.20	0.41
5:M:102:HIS:CE1	5:M:365:ASP:HA	2.55	0.41
5:M:674:VAL:CG2	5:M:871:LEU:HG	2.51	0.41
5:M:874:LEU:H	5:M:874:LEU:CD1	2.34	0.41
6:N:47:GLU:HG3	6:N:51:GLY:O	2.21	0.41
6:N:180:LYS:CG	6:N:183:GLU:HB2	2.31	0.41
6:N:668:PRO:HB3	11:N:9371:HOH:O	2.20	0.41
6:N:773:ALA:HB2	11:N:9308:HOH:O	2.21	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)
6:N:1041:LEU:HD23	6:N:1041:LEU:O	2.21	0.41
6:N:1147:ARG:HB3	6:N:1188:VAL:CG2	2.50	0.41
6:N:1406:ARG:NE	6:N:1407:LEU:HD12	2.36	0.41
6:N:1438:ALA:CA	6:N:1446:VAL:HG11	2.51	0.41
1:G:11:DC:H2''	1:G:12:DG:H8	1.85	0.40
4:B:48:ILE:HA	4:B:49:PRO:HD3	1.88	0.40
4:B:66:SER:O	4:B:75:VAL:HG23	2.21	0.40
4:B:80:LEU:HG	6:D:844:ALA:HA	2.02	0.40
5:C:52:PHE:CE1	5:C:66:LEU:HG	2.56	0.40
5:C:174:LEU:O	5:C:310:LEU:HD22	2.22	0.40
5:C:250:ARG:HG2	5:C:253:ALA:CB	2.51	0.40
5:C:436:GLY:O	5:C:459:ALA:CB	2.65	0.40
5:C:1065:ALA:HB3	11:C:1284:HOH:O	2.20	0.40
6:D:495:ARG:O	6:D:499:VAL:HG23	2.21	0.40
6:D:645:PRO:CD	6:D:726:ILE:HG12	2.51	0.40
6:D:972:LEU:HD13	6:D:972:LEU:HA	1.94	0.40
6:D:1403:LEU:HD22	11:D:8028:HOH:O	2.21	0.40
4:K:38:ASN:CG	5:M:980:GLY:CA	2.89	0.40
4:K:44:LEU:HD13	4:K:177:VAL:CG1	2.51	0.40
4:K:101:LEU:C	4:K:101:LEU:HD23	2.41	0.40
4:L:172:SER:HA	4:L:173:PRO:HD3	1.88	0.40
5:M:1:MET:HE3	11:M:1165:HOH:O	2.21	0.40
5:M:256:TYR:HE1	11:M:1452:HOH:O	2.04	0.40
5:M:494:TYR:HB3	5:M:530:GLU:OE2	2.21	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
5:M:776:SER:HA	5:M:780:GLU:HB3	2.02	0.40
6:N:50:PHE:HB3	6:N:522:PRO:CG	2.51	0.40
6:N:127:LEU:HA	6:N:132:TYR:HD1	1.86	0.40
6:N:137:PRO:HD2	6:N:453:ASP:CB	2.50	0.40
6:N:434:ARG:HH22	6:N:447:VAL:HG11	1.86	0.40
6:N:792:ILE:HG22	6:N:792:ILE:H	1.63	0.40
6:N:800:LYS:HZ1	6:N:804:LEU:HD13	1.86	0.40
6:N:957:PRO:HG3	11:N:9288:HOH:O	2.20	0.40
6:N:1213:ARG:HD2	6:N:1214:PRO:N	2.35	0.40
1:G:20:DG:H3'	11:G:38:HOH:O	2.20	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
4:A:182:GLU:OE2	4:A:182:GLU:N	2.54	0.40
5:C:5:ARG:HB3	5:C:902:ILE:HD12	2.02	0.40
5:C:80:GLN:HE21	5:C:80:GLN:HB3	1.63	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:80:GLN:HG2	5:C:90:TYR:CE2	2.56	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:260:LEU:CB	5:C:291:ALA:HB1	2.37	0.40
5:C:267:TYR:O	5:C:268:ASP:C	2.59	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:474:VAL:HG23	5:C:478:VAL:O	2.21	0.40
5:C:605:LYS:O	5:C:611:ILE:HA	2.21	0.40
5:C:874:LEU:HD12	5:C:874:LEU:N	2.30	0.40
5:C:958:THR:CG2	5:C:961:GLU:HB2	2.46	0.40
5:C:1008:ARG:NH1	5:C:1010:THR:HA	2.37	0.40
5:C:1053:LEU:CD1	6:D:1466:VAL:HG22	2.51	0.40
5:C:1078:GLU:HA	5:C:1079:PRO:HD3	1.93	0.40
5:C:1090:LYS:HE2	5:C:1112:PHE:CE1	2.56	0.40
5:C:1095:LEU:HD23	5:C:1095:LEU:HA	1.93	0.40
6:D:34:TYR:O	6:D:35:ARG:C	2.60	0.40
6:D:141:ILE:CD1	6:D:450:TYR:HB3	2.48	0.40
6:D:965:GLU:HA	6:D:968:ASP:HB3	2.02	0.40
6:D:999:THR:O	6:D:1002:LYS:HB2	2.21	0.40
6:D:1093:TYR:CE1	6:D:1097:LYS:HE2	2.57	0.40
6:D:1184:GLN:HB2	6:N:559:ALA:HB1	2.02	0.40
4:K:101:LEU:HD12	4:K:114:PHE:N	2.36	0.40
4:K:159:LYS:HD3	4:K:159:LYS:HA	1.90	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:L:70:GLY:O	4:L:132:LEU:HA	2.21	0.40
4:L:90:LEU:HD12	4:L:90:LEU:O	2.21	0.40
4:L:137:ARG:CZ	4:L:139:ASN:HB3	2.52	0.40
4:L:185:ARG:NH1	11:L:381:HOH:O	2.55	0.40
5:M:80:GLN:HG2	5:M:90:TYR:CZ	2.56	0.40
5:M:395:LYS:O	5:M:633:GLN:NE2	2.54	0.40
5:M:474:VAL:HG13	5:M:530:GLU:C	2.42	0.40
6:N:493:ARG:NE	6:N:1390:LEU:O	2.54	0.40
6:N:646:LYS:HG3	6:N:721:VAL:O	2.20	0.40
6:N:701:LEU:HD13	6:N:748:HIS:HB2	2.03	0.40
6:N:955:VAL:HG11	6:N:1015:TYR:OH	2.21	0.40
6:N:996:TRP:CZ2	6:N:1056:PRO:HG2	2.57	0.40
6:N:1105:ILE:HA	11:N:9367:HOH:O	2.21	0.40
6:N:1271:LYS:HZ3	6:N:1271:LYS:HB2	1.86	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:C8	2:Y:12:G:C5'	2.96	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
5:C:97:ARG:HB3	5:C:109:LYS:CE	2.51	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
5:C:697:ARG:O	5:C:697:ARG:HG3	2.21	0.40
5:C:710:ILE:HB	5:C:790:LEU:CD2	2.43	0.40
5:C:909:ALA:CB	5:C:914:ILE:HD11	2.45	0.40
6:D:107:ASP:O	6:D:108:VAL:C	2.60	0.40
6:D:400:VAL:O	6:D:402:PRO:HD3	2.20	0.40
6:D:421:LEU:HD21	6:D:429:SER:OG	2.21	0.40
6:D:456:MET:HG3	11:D:8208:HOH:O	2.21	0.40
6:D:681:ARG:HE	6:D:681:ARG:HB2	1.66	0.40
6:D:796:ARG:C	6:D:797:LYS:HD2	2.42	0.40
6:D:810:GLU:C	6:D:813:LEU:HG	2.39	0.40
6:D:1046:GLN:HG2	6:D:1052:THR:HA	2.03	0.40
6:D:1071:PHE:HB3	11:D:8010:HOH:O	2.22	0.40
6:D:1117:TYR:CD1	6:D:1187:PRO:HA	2.57	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
4:K:42:ARG:NH2	4:L:31:GLY:O	2.40	0.40
5:M:80:GLN:HG2	5:M:90:TYR:CE1	2.57	0.40
5:M:141:HIS:CA	5:M:331:ARG:HG3	2.52	0.40
5:M:217:LEU:HD11	5:M:314:THR:OG1	2.21	0.40
5:M:437:ARG:HB3	5:M:467:ILE:HB	2.03	0.40
5:M:610:ARG:HD2	5:M:622:GLU:HG3	2.04	0.40
5:M:626:ARG:NH1	5:M:629:TYR:HB2	2.37	0.40
5:M:720:GLU:OE1	5:M:758:ARG:HD2	2.21	0.40
5:M:909:ALA:HB1	5:M:914:ILE:CD1	2.48	0.40
6:N:12:LEU:HD21	6:N:104:PHE:CZ	2.57	0.40
6:N:168:THR:HG21	6:N:206:ARG:HH12	1.86	0.40
6:N:415:VAL:HG12	6:N:416:ALA:N	2.37	0.40
6:N:525:ARG:HB2	6:N:538:SER:HB2	2.03	0.40
6:N:1087:ARG:CB	6:N:1256:LEU:HD22	2.49	0.40
1:G:14:DT:C2'	1:G:15:DC:H5'	2.49	0.40
2:H:16:G:H5'	6:D:742:GLY:HA3	2.04	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
4:B:67:THR:HB	4:B:74:ASP:OD1	2.21	0.40
5:C:431:HIS:CD2	5:C:433:THR:OG1	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:739:GLU:H	5:C:739:GLU:HG2	1.62	0.40
5:C:773:LEU:O	5:C:777:ILE:HG13	2.20	0.40
5:C:782:ALA:O	5:C:784:ASP:N	2.54	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
6:D:817:GLU:O	6:D:821:VAL:HG23	2.21	0.40
6:D:1221:VAL:O	6:D:1224:VAL:N	2.54	0.40
6:D:1481:VAL:CG2	7:E:18:ARG:HE	2.30	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
4:L:58:ILE:HG22	4:L:61:VAL:HB	2.03	0.40
5:M:139:GLN:OE1	5:M:415:PRO:HD3	2.22	0.40
5:M:684:PHE:CG	5:M:685:GLU:N	2.90	0.40
5:M:926:PHE:CD2	5:M:930:LYS:HE3	2.55	0.40
5:M:1034:GLU:H	6:N:619:LEU:HB3	1.79	0.40
5:M:1091:GLU:HA	6:N:520:LEU:HD13	2.03	0.40
6:N:44:LEU:H	6:N:44:LEU:CD1	2.34	0.40
6:N:135:LEU:HD22	6:N:147:VAL:HG23	2.02	0.40
6:N:501:ALA:HB1	6:N:1453:ALA:CB	2.40	0.40
6:N:691:LEU:HG	6:N:720:LEU:HD21	2.02	0.40
6:N:1108:ARG:NH1	11:N:9097:HOH:O	2.54	0.40
3:I:8:DA:H2"	3:I:9:DG:OP2	2.22	0.40
4:A:82:LEU:CD2	4:A:142:VAL:HG11	2.43	0.40
4:A:206:THR:CG2	4:A:209:GLU:H	2.32	0.40
4:B:165:ILE:HA	4:B:166:PRO:HD3	1.95	0.40
5:C:7:GLY:O	5:C:8:ARG:HD2	2.21	0.40
5:C:144:PRO:CG	5:C:265:ARG:NH2	2.80	0.40
5:C:160:ALA:HB1	5:C:306:THR:OG1	2.21	0.40
5:C:182:VAL:HG12	5:C:193:LEU:HD11	2.02	0.40
5:C:300:ASP:OD2	5:C:303:PHE:HB3	2.22	0.40
5:C:520:GLU:HA	5:C:521:PRO:HD3	1.96	0.40
5:C:626:ARG:HG2	11:C:1192:HOH:O	2.21	0.40
5:C:636:ALA:CB	5:C:703:ILE:HD13	2.34	0.40
5:C:743:VAL:HG13	5:C:800:VAL:HG11	2.02	0.40
5:C:1006:HIS:O	6:D:627:GLY:HA2	2.21	0.40
5:C:1019:GLN:HE22	5:C:1058:ASP:HB2	1.86	0.40
6:D:51:GLY:HA3	6:D:86:ARG:HA	2.04	0.40
6:D:506:GLY:O	6:D:507:ASN:C	2.59	0.40
6:D:630:VAL:HA	6:D:744:GLN:HG3	2.03	0.40
6:D:1037:GLN:CG	6:D:1042:ARG:HB3	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1083:ASP:OD2	6:D:1241:PHE:HB3	2.21	0.40
6:D:1269:LYS:HB3	6:D:1269:LYS:HZ2	1.85	0.40
4:K:18:ARG:O	4:K:207:PRO:HD3	2.22	0.40
4:K:170:VAL:HG13	11:M:1536:HOH:O	2.20	0.40
4:L:133:GLU:HB3	4:L:134:GLU:H	1.62	0.40
5:M:324:ASP:HA	11:M:1465:HOH:O	2.22	0.40
6:N:112:ILE:O	6:N:112:ILE:HD12	2.22	0.40
6:N:637:LEU:HD21	6:N:641:GLN:O	2.22	0.40
6:N:1044:LEU:HD13	6:N:1052:THR:HG21	2.04	0.40
6:N:1047:LYS:HB3	6:N:1048:PRO:CD	2.51	0.40
6:N:1147:ARG:O	6:N:1165:TYR:HA	2.21	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%)	4	23
4	B	227/315 (72%)	206 (91%)	15 (7%)	6 (3%)	5	27
4	K	227/315 (72%)	208 (92%)	13 (6%)	6 (3%)	5	27
4	L	227/315 (72%)	206 (91%)	15 (7%)	6 (3%)	5	27
5	C	1117/1119 (100%)	919 (82%)	136 (12%)	62 (6%)	2	10
5	M	1117/1119 (100%)	923 (83%)	133 (12%)	61 (6%)	2	10
6	D	1258/1524 (82%)	1051 (84%)	149 (12%)	58 (5%)	2	14
6	N	1258/1524 (82%)	1058 (84%)	140 (11%)	60 (5%)	2	13
7	E	93/99 (94%)	76 (82%)	11 (12%)	6 (6%)	1	7
7	O	93/99 (94%)	74 (80%)	12 (13%)	7 (8%)	1	5
All	All	5844/6744 (87%)	4927 (84%)	638 (11%)	279 (5%)	2	13



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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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 [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
4	A	202/273 (74%)	162 (80%)	40 (20%)	<b>1</b> <b>7</b>
4	B	202/273 (74%)	159 (79%)	43 (21%)	<b>1</b> <b>5</b>
4	K	202/273 (74%)	162 (80%)	40 (20%)	<b>1</b> <b>7</b>

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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%)	0	3
5	M	941/941 (100%)	713 (76%)	228 (24%)	0	3
6	D	1063/1279 (83%)	825 (78%)	238 (22%)	1	4
6	N	1063/1279 (83%)	833 (78%)	230 (22%)	1	5
7	E	84/88 (96%)	59 (70%)	25 (30%)	0	1
7	O	84/88 (96%)	68 (81%)	16 (19%)	1	8
All	All	4984/5708 (87%)	3835 (77%)	1149 (23%)	1	4

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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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

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

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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 [i](#)

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 [i](#)

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

#### 5.5 Carbohydrates [i](#)

There are no monosaccharides 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	N	4999	9	27,33,33	1.25	4 (14%)	31,52,52	1.93	7 (22%)
10	APC	D	3999	9	27,33,33	1.39	3 (11%)	31,52,52	1.97	8 (25%)

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	N	4999	9	-	8/15/38/38	0/3/3/3
10	APC	D	3999	9	-	8/15/38/38	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	-3.54	1.48	1.56
10	D	3999	APC	PB-O3B	3.53	1.62	1.58
10	D	3999	APC	PA-O2A	-3.13	1.49	1.56
10	N	4999	APC	PB-O3B	3.13	1.61	1.58
10	N	4999	APC	PB-O2B	-3.02	1.49	1.56
10	N	4999	APC	PA-O2A	-2.80	1.49	1.56
10	N	4999	APC	PA-O5'	2.06	1.60	1.57

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	N	4999	APC	C1'-N9-C4	-6.01	116.08	126.64
10	D	3999	APC	C1'-N9-C4	-5.65	116.72	126.64
10	D	3999	APC	C5-C6-N6	4.52	127.21	120.35
10	N	4999	APC	C5-C6-N6	4.29	126.87	120.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	N	4999	APC	PB-O3B-PG	-3.73	119.47	132.62
10	D	3999	APC	PB-O3B-PG	-3.68	119.65	132.62
10	D	3999	APC	O2A-PA-O1A	3.01	120.11	110.07
10	N	4999	APC	O2A-PA-O1A	2.97	119.98	110.07
10	N	4999	APC	O2B-PB-O1B	2.95	119.93	110.07
10	D	3999	APC	O2B-PB-O1B	2.90	119.75	110.07
10	D	3999	APC	O2'-C2'-C3'	-2.88	102.51	111.82
10	N	4999	APC	C2'-C3'-C4'	2.40	107.31	102.64
10	D	3999	APC	C2'-C3'-C4'	2.34	107.20	102.64
10	D	3999	APC	C3'-C2'-C1'	2.19	104.28	100.98
10	N	4999	APC	C3'-C2'-C1'	2.08	104.11	100.98

There are no chirality outliers.

All (16) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
10	D	3999	APC	PA-C3A-PB-O1B
10	D	3999	APC	PA-C3A-PB-O3B
10	D	3999	APC	PB-C3A-PA-O1A
10	D	3999	APC	PB-C3A-PA-O5'
10	D	3999	APC	O4'-C4'-C5'-O5'
10	N	4999	APC	PA-C3A-PB-O1B
10	N	4999	APC	PA-C3A-PB-O3B
10	N	4999	APC	PB-C3A-PA-O1A
10	N	4999	APC	PB-C3A-PA-O5'
10	N	4999	APC	C5'-O5'-PA-O2A
10	N	4999	APC	O4'-C4'-C5'-O5'
10	N	4999	APC	C4'-C5'-O5'-PA
10	D	3999	APC	C3'-C4'-C5'-O5'
10	D	3999	APC	C4'-C5'-O5'-PA
10	N	4999	APC	PA-C3A-PB-O2B
10	D	3999	APC	C5'-O5'-PA-O2A

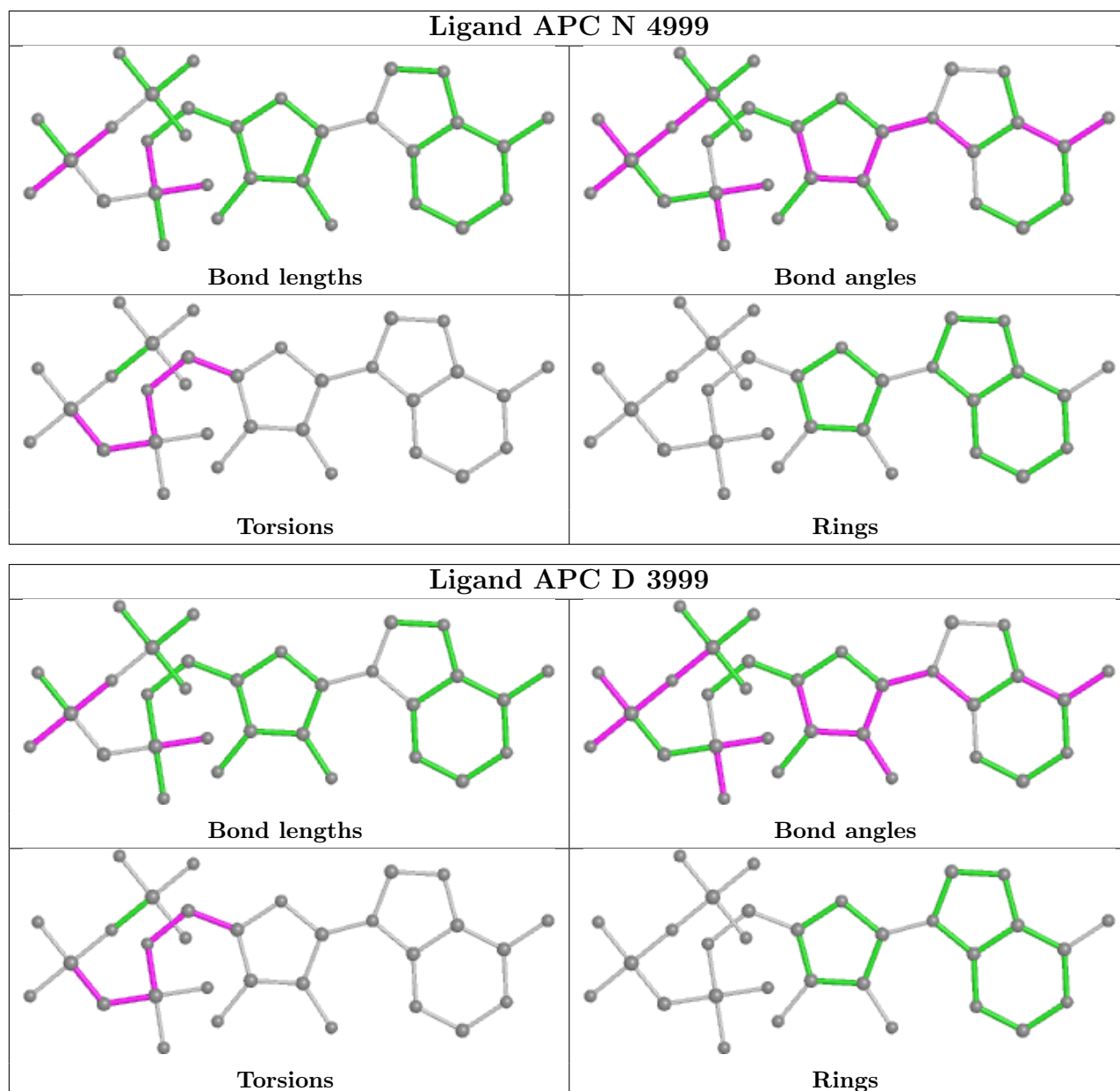
There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
10	N	4999	APC	2	0
10	D	3999	APC	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,

bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



## 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 i

### 6.1 Protein, DNA and RNA chains i

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%)	-0.73	0 100 100	22, 46, 76, 79	0
1	X	23/23 (100%)	-0.67	0 100 100	21, 38, 71, 90	0
2	H	16/16 (100%)	-0.58	0 100 100	36, 56, 100, 102	0
2	Y	16/16 (100%)	-0.62	0 100 100	21, 73, 101, 103	0
3	I	13/14 (92%)	-0.89	0 100 100	49, 65, 74, 85	0
3	Z	13/14 (92%)	-0.86	0 100 100	54, 67, 80, 81	0
4	A	229/315 (72%)	-0.62	0 100 100	41, 66, 86, 94	0
4	B	229/315 (72%)	-0.55	2 (0%) 84 63	43, 70, 85, 101	0
4	K	229/315 (72%)	-0.61	1 (0%) 92 79	41, 65, 81, 93	0
4	L	229/315 (72%)	-0.60	0 100 100	38, 68, 80, 90	0
5	C	1119/1119 (100%)	-0.60	3 (0%) 94 84	26, 64, 86, 101	0
5	M	1119/1119 (100%)	-0.58	6 (0%) 91 75	25, 65, 89, 109	0
6	D	1264/1524 (82%)	-0.65	5 (0%) 92 79	23, 61, 83, 100	0
6	N	1264/1524 (82%)	-0.66	5 (0%) 92 79	26, 60, 84, 100	0
7	E	95/99 (95%)	-0.66	0 100 100	35, 59, 74, 82	0
7	O	95/99 (95%)	-0.67	0 100 100	45, 66, 80, 84	0
All	All	5976/6850 (87%)	-0.62	22 (0%) 92 79	21, 64, 86, 109	0

All (22) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
6	D	416	ALA	4.9
4	B	147	GLY	4.3
6	D	391	ALA	3.5
6	N	427	VAL	3.2
6	D	192	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
6	D	392	SER	3.0
6	N	416	ALA	2.8
6	N	391	ALA	2.8
5	M	936	VAL	2.7
6	N	421	LEU	2.7
5	C	1001	VAL	2.6
5	C	185	LYS	2.6
4	B	148	VAL	2.4
6	N	177	ALA	2.3
5	M	306	THR	2.3
6	D	619	LEU	2.3
5	M	174	LEU	2.2
5	M	418	LEU	2.2
5	C	309	TYR	2.1
5	M	172	ILE	2.1
5	M	183	SER	2.1
4	K	44	LEU	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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.

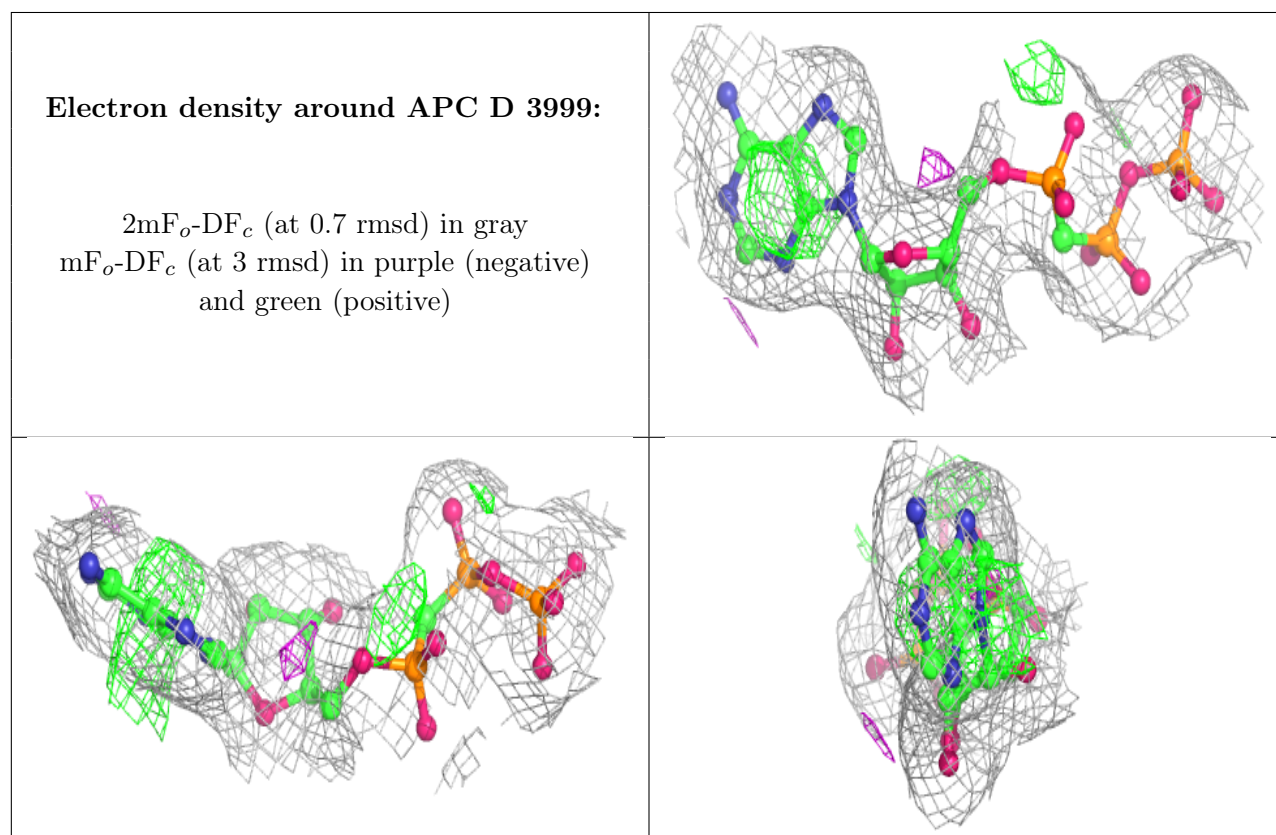
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
8	ZN	N	5058	1/1	0.97	0.09	66,66,66,66	0
10	APC	D	3999	31/31	0.97	0.16	41,49,52,54	0
9	MG	N	9002	1/1	0.98	0.09	23,23,23,23	0
10	APC	N	4999	31/31	0.98	0.16	45,49,51,54	0
9	MG	D	8002	1/1	0.99	0.09	25,25,25,25	0
9	MG	N	9001	1/1	0.99	0.11	21,21,21,21	0

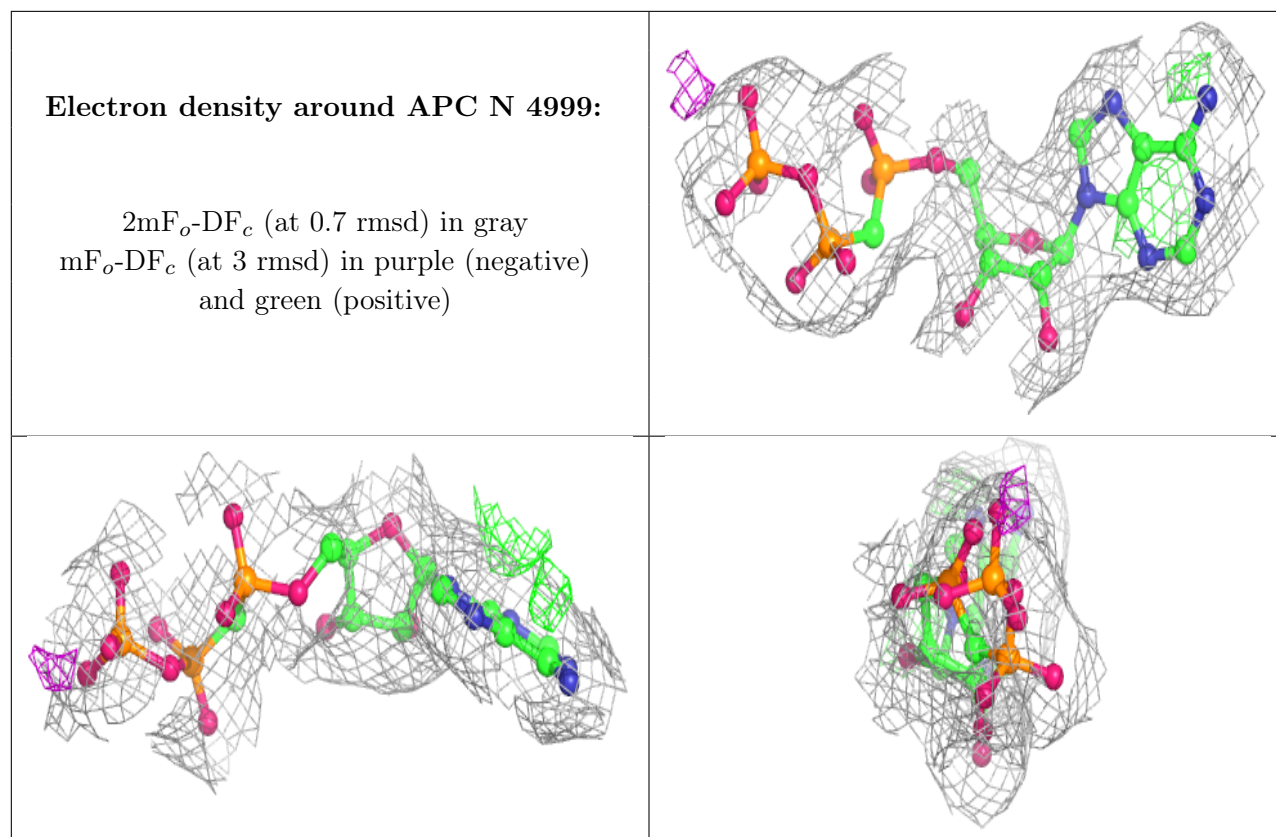
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
8	ZN	D	6112	1/1	0.99	0.14	59,59,59,59	0
8	ZN	D	4058	1/1	0.99	0.09	66,66,66,66	0
9	MG	D	8001	1/1	0.99	0.10	23,23,23,23	0
8	ZN	N	7112	1/1	1.00	0.13	65,65,65,65	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.





## 6.5 Other polymers [i](#)

There are no such residues in this entry.