



# Full wwPDB X-ray Structure Validation Report ⓘ

May 23, 2020 – 01:06 am BST

PDB ID : 2PPB  
Title : Crystal structure of the T. thermophilus RNAP polymerase elongation complex with the ntp substrate analog and antibiotic streptolydigin  
Authors : Vassilyev, D.G.; Vassilyeva, M.N.; Artsimovitch, I.; Landick, R.  
Deposited on : 2007-04-28  
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.

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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 : 2.11  
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) : 2.11

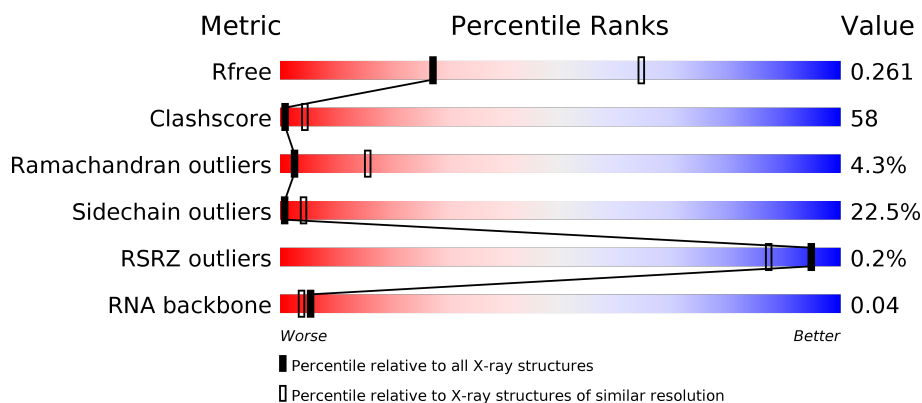
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.00 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 on 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	<div> <div>22%</div> <div>48%</div> <div>26%</div> <div>.</div> </div>
1	X	23	<div> <div>17%</div> <div>52%</div> <div>30%</div> </div>
2	H	16	<div> <div>19%</div> <div>81%</div> </div>
2	Y	16	<div> <div>25%</div> <div>75%</div> </div>

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Mol	Chain	Length	Quality of chain
3	I	14	<div><div></div><div>21%57%14%7%</div></div>
3	Z	14	<div><div></div><div>29%64%7%</div></div>
4	A	315	<div><div></div><div>17%45%10%27%</div></div>
4	B	315	<div><div></div><div>23%40%9%27%</div></div>
4	K	315	<div><div></div><div>19%43%11%27%</div></div>
4	L	315	<div><div></div><div>21%42%10%27%</div></div>
5	C	1119	<div><div></div><div>25%58%16%</div></div>
5	M	1119	<div><div></div><div>23%59%18%</div></div>
6	D	1524	<div><div></div><div>22%49%14%14%</div></div>
6	N	1524	<div><div></div><div>21%50%14%14%</div></div>
7	E	99	<div><div></div><div>22%58%14%</div></div>
7	O	99	<div><div></div><div>25%56%11%</div></div>

## 2 Entry composition

There are 12 unique types of molecules in this entry. The entry contains 51962 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 DNA (5'-D(P\*CP\*CP\*CP\*TP\*GP\*TP\*CP\*TP\*GP\*GP\*CP\*GP\*TP\*TP\*CP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3').

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

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

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

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

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

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

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

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

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

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

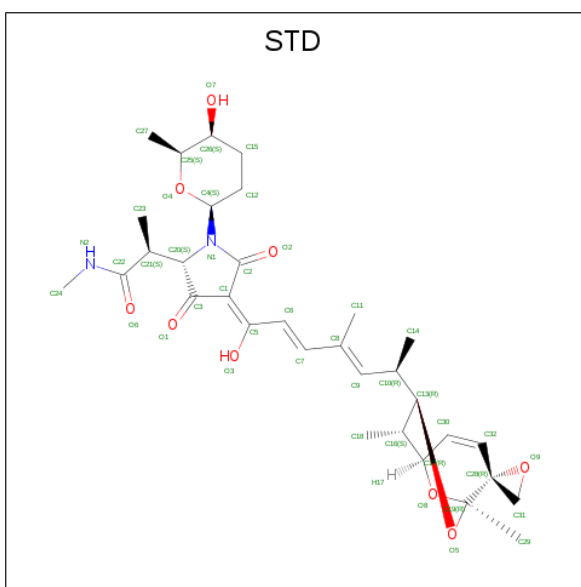
- Molecule 6 is a protein called DNA-directed RNA polymerase beta' chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	D	1314	Total	C	N	O	S	0	0	0
			10373	6565	1838	1937	33			
6	N	1314	Total	C	N	O	S	0	0	0
			10373	6565	1838	1937	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 STREPTOLYDIGIN (three-letter code: STD) (formula: C<sub>32</sub>H<sub>44</sub>N<sub>2</sub>O<sub>9</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
8	D	1	Total 43	C 32	N 2	O 9	0	0
8	N	1	Total 43	C 32	N 2	O 9	0	0

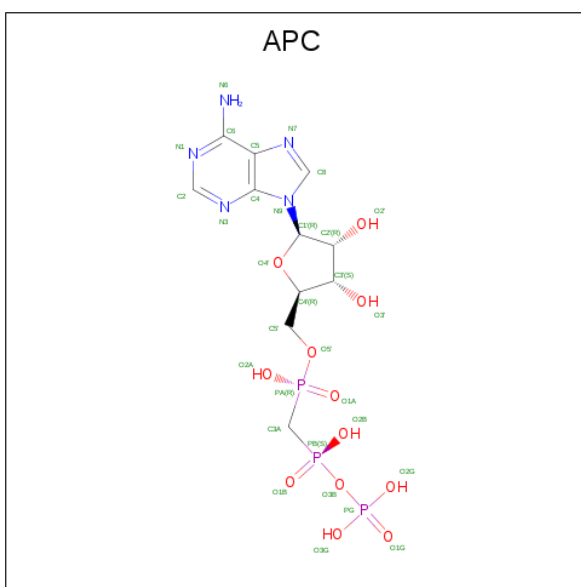
- Molecule 9 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

- Molecule 10 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
10	D	2	Total Mg 2 2	0	0
10	N	2	Total Mg 2 2	0	0

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



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

- Molecule 12 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
12	G	39	Total O 39 39	0	0
12	H	22	Total O 22 22	0	0
12	I	31	Total O 31 31	0	0
12	X	31	Total O 31 31	0	0
12	Y	26	Total O 26 26	0	0
12	Z	18	Total O 18 18	0	0
12	A	78	Total O 78 78	0	0
12	B	117	Total O 117 117	0	0
12	C	408	Total O 408 408	0	0
12	D	531	Total O 531 531	0	0

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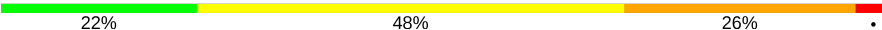
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
12	E	34	Total 34	O 34	0	0
12	K	81	Total 81	O 81	0	0
12	L	95	Total 95	O 95	0	0
12	M	396	Total 396	O 396	0	0
12	N	510	Total 510	O 510	0	0
12	O	53	Total 53	O 53	0	0

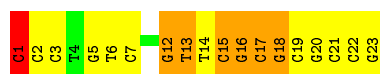


### 3 Residue-property plots [i](#)

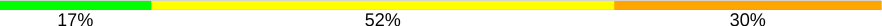
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are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

- Molecule 1: DNA (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: 



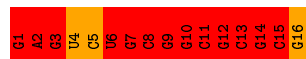
- Molecule 1: DNA (5'-D(P\*CP\*CP\*CP\*TP\*GP\*TP\*CP\*TP\*GP\*GP\*CP\*GP\*TP\*TP\*CP\*GP\*CP\*GP\*CP\*GP\*CP\*CP\*G)-3')

Chain X: 



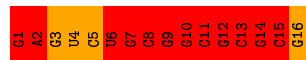
- Molecule 2: RNA (5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3')

Chain H: 



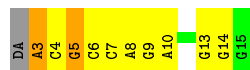
- Molecule 2: RNA (5'-R(P\*GP\*AP\*GP\*UP\*CP\*UP\*GP\*CP\*GP\*GP\*CP\*GP\*CP\*GP\*CP\*G)-3')

Chain Y: 



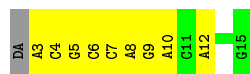
- Molecule 3: DNA (5'-D(\*AP\*AP\*CP\*GP\*CP\*CP\*AP\*GP\*AP\*CP\*AP\*GP\*GP\*G)-3')

Chain I: 




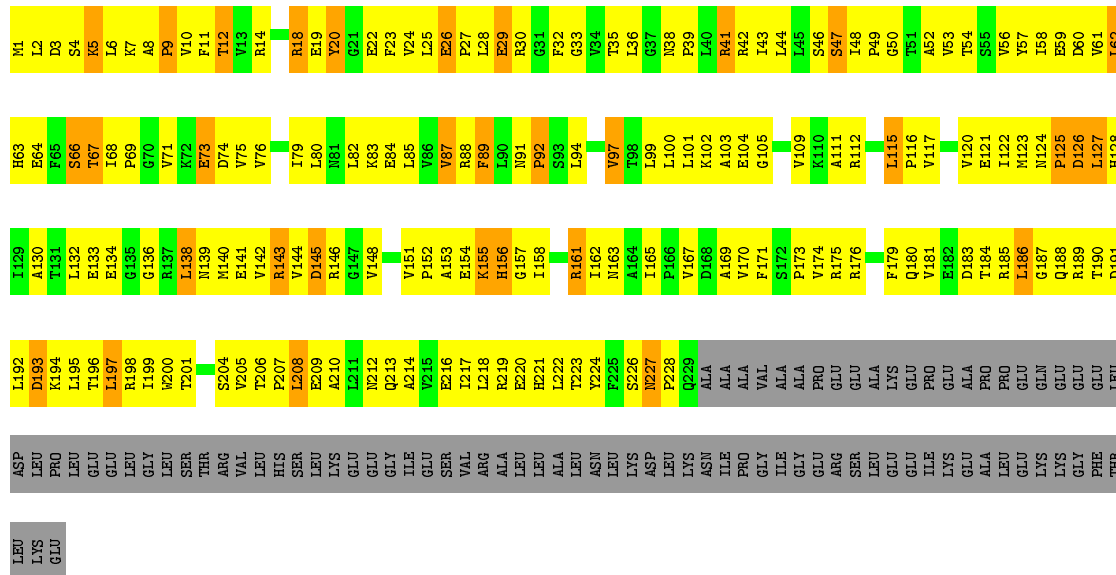
- Molecule 3: DNA (5'-D(\*AP\*AP\*CP\*GP\*CP\*CP\*AP\*GP\*AP\*CP\*AP\*GP\*GP\*G)-3')

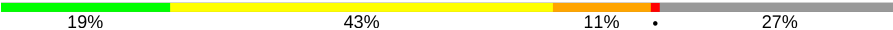
Chain Z: 

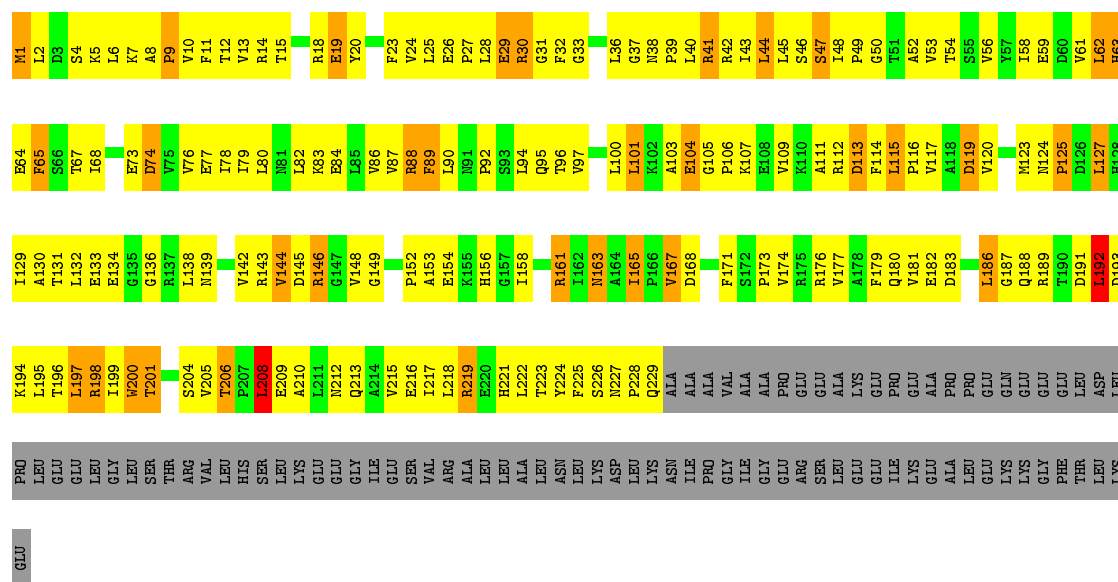


- Molecule 4: DNA-directed RNA polymerase alpha chain

Chain A: 



Chain K: 



T1101	F1032	G970	Y901	6836	R772	H704	R642	V569	L503	V441	E379	V317	K252	K185	D124
L1102	G1033	K971	I902	D837	L773	I705	R643	P570	M506	E442	A380	P318	A253	V186	
D1103	E1034	V972	S903	L838	L774	E706	V643	I572	M507	E443	A381	G319	E254	M187	F127
E1104	M1035	V973	P904	R839	R775	R707	P444	I573	I508	P445	I382	K188	A255	K188	I128
K1105	E1036	L974	I905	R840	S776	E708	V645	A574	I509	E446	R383	E320	E256	K189	I129
D1106	E1037	L975	P906	R841	I777	E709	E646	A575	A509	E447	E384	G321	K190	K190	M130
M1107	H1038	D976	D907	R842	E778	I710	R647	Q575	A510	I447	F385	V322	L260	F191	G131
P1108	A1039	G977	G908	R843	G779	E711	R648	A576	E511	I448	F386	D323	L261	F192	A132
	L1040	R978	A909	R844	E780	A712	R649	P577	E512	I449	S387	D324	L262	P193	A133
	E1041	R979	I910	R845	R781	R713	R650	V578	V513	G450	R388	I325	D263	V194	R134
	G1042	G980	E911	R846	A782	E714	R651	V579	V514	L451	S389	G326	D264	K195	V135
	A1043	E981	P912	R847	R783	E715	E654	M581	A515	I452	Q390	H327	R265	L196	L136
	A1044	R982	R913	R848	L784	E716	L654	T581	R516	T453	L391	L328	R266	L197	V137
	A1045	E983	I914	R849	L785	E717	L655	E582	R517	T454	S392	G329	R267	K198	S138
	A1046	E984	R915	R850	A656	E718	A656	L583	R518	L455	Q393	N330	Y267	V199	
	H1047	G985	E916	R851	D657	E720	D657	E584		A456	F394	R331	D268	L200	I140
	T1048	P986	L917	R852	R721	E721	E660	E585	P521	A457	K395	R332	E271	G201	H141
	Q1050	R987	L918	R853	I722	E722	A660	E586	P522	Y458	K396	I333	A272	Y202	R142
	E1051	V988	A919	R854	T723	E723		V587	I523	E459	E397	R334	A273	D203	S143
	M1052	V989	Q920	R855	R724	E724			I524	R460	T398	T335	G274	Q204	P144
	L1053	A921	A921	R856	D725	E725		L595	S525	V461	N399	V336	R274	E205	G145
	T1054	F922	F922	R857	I726	E726		Y596	P526	D462	P400	G337	Y275	T206	V146
	L1055	E923	E923	R858	G795	E727		A597	E527	E463	L401	E338	K276	L207	Y147
	K1056	V924	V924	R859	E796	H728		E598	E528	L464	S402	L339	A277		
	S1057	Y925	Y925	R860	E797	I729		E599	V529	G465	S403	M340	E278	F148	T149
	K995	R926	F926	R861	G798	E730		E600	E530	F466	L404	T341	E279	P150	
	K996	G927	G927	R862	L799	A732		G601	F531	I467	R405	D342	R280	G212	
	V998			R863	R800	A733		E602	M532	R468	L281	Q343	R281	E216	P152
	M1000		R930	R864	R801	I734		V603	D533	T469	K407	F344	G282	L217	A153
				R865	R802	R735			V534	P470	R408	R345	I283	V218	R154
				R866	R803	D736		D607	S535	Y471	R409	V346	R284	Q219	P155
				R867	R804	L737		G608	P536	R472	I410	R350	L285	G220	G156
				R868	R805	E740		M609	K537	R473	S411	R350	S286	R221	G157
				R869	L806	E741		R610	Q538	V474	A412	V351	G287	M222	Y158
				R870	R807	F678		V611	V539	V475	L413	A352	R288	E223	
				R871	R808	F679		V612	F540	G476	G414		T289	E224	
				R872	E809	V743			S541	G477	P415	V355	L289		S161
				R873	D810	R744		V615	V542	V478	G416	R356	I291	F227	I162
				R874	R811	E745		E616	M543	V479	G417	E357	R292	A228	I163
				R875	R812	I746		D617	T544	T480	L418	R358	F293	M229	P164
				R876	E814	A747		G618	M545	D481	T419	M359	E294	R230	L165
				R877	L815			R619	L546	E482	R420	L360	P231	P166	P166
				R878	R816			L620	I547	V483	R421	M361	E297	E232	K167
				R879	R817	F751		V621	E548	V484	R422	G362	F298	E233	R168
				R880	R820	D752		E622	P549	Y485	A423	S363	K299	A234	G169
				R881		D753			L550	M486	E424	E364	D800	L235	
				R882		I755			E551	T487		D365	E301	I236	M171
				R883		E756		L625	M552	A488	V427	S366	V302	I172	I172
				R884		R758		R626	H552	T489	R428	L367	F303	L238	D173
				R885		T759		R627	D553	E490	D429	T368	L304	F239	L174
				R886		E760				V430	P369	P369	P305	E175	E175
				R887		T760		R630	R557	D491	H431	A370	T306	L242	V176
				R888		S760		S631	G561	D492	R432	K371	T307	R243	E177
				R889		F761		N632	S562	I496	T433	L372	L308	P244	P178
				R890		K762		G633	M563	A497	H434	V373	Y309	G245	M179
				R891		E698		G634	M564	Q498	H435	N374	L310	D246	G180
				R892		F699		T635	Q565	A499	Q436	S375	F311	P247	V161
				R893		T768		A636	Q566	M500	R437	R376	A312	V182	
				R894		F769		L637	T566	T501			E377	R250	S183
				R895		E770		S702	Q567	E703			L313		
				R896		E771		I703	A568	P502	P440	L378	T314	D251	M184

● Molecule 5: DNA-directed RNA polymerase beta chain

Chain M:  23% 59% 18%

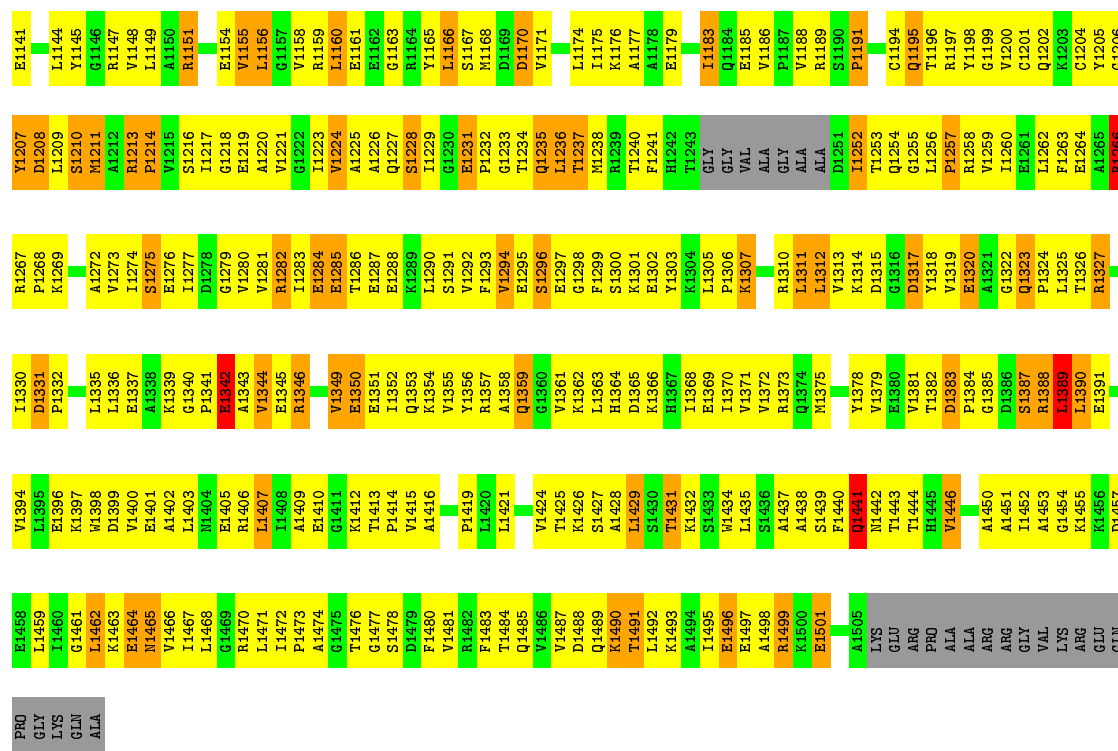
M1	E2	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21	R22	R23	R24	R25	R26	R27	R28	R29	R30	R31	R32	R33	R34	R35	R36	R37	R38	R39	R40	R41	R42	R43	R44	R45	R46	R47	R48	R49	R50	R51	R52	R53	R54	R55	R56	R57	R58	R59	R60	R61	R62																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
M63	M64	M65	M66	M67	M68	M69	M70	M71	M72	M73	M74	M75	M76	M77	M78	M79	M80	M81	M82	M83	M84	M85	M86	M87	M88	M89	M90	M91	M92	M93	M94	M95	M96	M97	M98	M99	M100	M101	M102	M103	M104	M105	M106	M107	M108	M109	M110	M111	M112	M113	M114	M115	M116	M117	M118	M119	M120	M121	M122	M123	M124	M125																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
S126	F127	I128	I129	N130	G131	A132	D133	R134	V135	I136	R137	V138	S139	Q139	H140	F141	F142	S143	P144	G145	A146	P147	F148	T149	P150	D151	P152	L153	I154	G155	R156	G157	S158	T159	A160	D161	S162	I163	I164	R165	G166	R167	G168	T169	E170	H171	A172	I173	L174	E175	V176	E177	P178	N179	G180	V181	V182	D183	M184	K185	L186	N187																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
K188	R189	F190	F191	P192	L193	V194	L195	L196	R197	R198	V199	V200	G201	Y202	D203	Q204	E205	S206	T207	L208	L209	A210	R211	G212	L213	L214	L215	L216	L217	L218	L219	L220	L221	L222	D223	E224	S225	V226	V227	A228	M229	R230	E231	E232	E233	A234	L235	L236	R237	L238	L239	L240	L241	L242	R243	P244	V245	D246	P247	P248	R249	L250	D251																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
K252	Y253	G254	L255	L256	L257	D258	D259	P260	L261	R262	L263	L264	L265	L266	L267	L268	L269	L270	L271	L272	L273	L274	L275	L276	L277	L278	L279	L280	L281	L282	L283	L284	L285	L286	L287	L288	L289	L290	L291	L292	L293	L294	L295	L296	L297	L298	L299	L300	L301	L302	L303	L304	L305	L306	L307	L308	L309	L310	L311	L312	L313	L314	L315	L316	L317	L318	L319	L320	L321	L322	L323	L324	L325	L326	L327	L328	L329	L330	L331	L332	L333	L334	L335	L336	L337	L338	L339	L340	L341	L342	L343	L344	L345	L346	L347	L348	L349	L350	L351	L352	L353	L354	L355	L356	L357	L358	L359	L360	L361	L362	L363	L364	L365	L366	L367	L368	L369	L370	L371	L372	L373	L374	L375	L376	L377	L378	L379	L380	L381	L382	L383	L384	L385	L386	L387	L388	L389	L390	L391	L392	L393	L394	L395	L396	L397	L398	L399	L400	L401	L402	L403	L404	L405	L406	L407	L408	L409	L410	L411	L412	L413	L414	L415	L416	L417	L418	L419	L420	L421	L422	L423	L424	L425	L426	L427	L428	L429	L430	L431	L432	L433	L434	L435	L436	L437	L438	L439	L440	L441	L442	L443	L444	L445	L446	L447	L448	L449	L450	L451	L452	L453	L454	L455	L456	L457	L458	L459	L460	L461	L462	L463	L464	L465	L466	L467	L468	L469	L470	L471	L472	L473	L474	L475	L476	L477	L478	L479	L480	L481	L482	L483	L484	L485	L486	L487	L488	L489	L490	L491	L492	L493	L494	L495	L496	L497	L498	L499	L500	L501	L502	L503	L504	L505	L506	L507	L508	L509	L510	L511	L512	L513	L514	L515	L516	L517	L518	L519	L520	L521	L522	L523	L524	L525	L526	L527	L528	L529	L530	L531	L532	L533	L534	L535	L536	L537	L538	L539	L540	L541	L542	L543	L544	L545	L546	L547	L548	L549	L550	L551	L552	L553	L554	L555	L556	L557	L558	L559	L560	L561	L562	L563	L564	L565	L566	L567	L568	L569	L570	L571	L572	L573	L574	L575	L576	L577	L578	L579	L580	L581	L582	L583	L584	L585	L586	L587	L588	L589	L590	L591	L592	L593	L594	L595	L596	L597	L598	L599	L600	L601	L602	L603	L604	L605	L606	L607	L608	L609	L610	L611	L612	L613	L614	L615	L616	L617	L618	L619	L620	L621	L622	L623	L624	L625	L626	L627	L628	L629	L630	L631	L632	L633	L634	L635	L636	L637	L638	L639	L640	L641	L642	L643	L644	L645	L646	L647	L648	L649	L650	L651	L652	L653	L654	L655	L656	L657	L658	L659	L660	L661	L662	L663	L664	L665	L666	L667	L668	L669	L670	L671	L672	L673	L674	L675	L676	L677	L678	L679	L680	L681	L682	L683	L684	L685	L686	L687	L688	L689	L690	L691	L692	L693	L694	L695	L696	L697	L698	L699	L700	L701	L702	L703	L704	L705	L706	L707	L708	L709	L710	L711	L712	L713	L714	L715	L716	L717	L718	L719	L720	L721	L722	L723	L724	L725	L726	L727	L728	L729	L730	L731	L732	L733	L734	L735	L736	L737	L738	L739	L740	L741	L742	L743	L744	L745	L746	L747	L748	L749	L750	L751	L752	L753	L754	L755	L756	L757	L758	L759	L760	L761	L762	L763	L764	L765	L766	L767	L768	L769	L770	L771	L772	L773	L774	L775	L776	L777	L778	L779	L780	L781	L782	L783	L784	L785	L786	L787	L788	L789	L790	L791	L792	L793	L794	L795	L796	L797	L798	L799	L800	L801	L802	L803	L804	L805	L806	L807	L808	L809	L810	L811	L812	L813	L814	L815	L816	L817	L818	L819	L820	L821	L822	L823	L824	L825	L826	L827	L828	L829	L830	L831	L832	L833	L834	L835	L836	L837	L838	L839	L840	L841	L842	L843	L844	L845	L846	L847	L848	L849	L850	L851	L852	L853	L854	L855	L856	L857	L858	L859	L860	L861	L862	L863	L864	L865	L866	L867	L868	L869	L870	L871	L872	L873	L874	L875	L876	L877	L878	L879	L880	L881	L882	L883	L884	L885	L886	L887	L888	L889	L890	L891	L892	L893	L894	L895	L896	L897	L898	L899	L900	L901	L902	L903	L904	L905	L906	L907	L908	L909	L910	L911	L912	L913	L914	L915	L916	L917	L918	L919	L920	L921	L922	L923	L924	L925	L926	L927	L928	L929	L930	L931	L932	L933	L934	L935	L936	L937	L938	L939	L940	L941	L942	L943	L944	L945	L946	L947	L948	L949	L950	L951	L952	L953	L954	L955	L956	L957	L958	L959	L960	L961	L962	L963	L964	L965	L966	L967	L968	L969	L970	L971	L972	L973	L974	L975	L976	L977	L978	L979	L980	L981	L982	L983	L984	L985	L986	L987	L988	L989	L990	L991	L992	L993	L994	L995	L996	L997	L998	L999	L1000	L1001	L1002	L1003	L1004	L1005	L1006	L1007	L1008	L1009	L1010	L1011	L1012	L1013	L1014	L1015	L1016	L1017	L1018	L1019	L1020	L1021	L1022	L1023	L1024	L1025	L1026	L1027	L1028	L1029	L1030	L1031	L1032	L1033	L1034	L1035	L1036	L1037	L1038	L1039	L1040	L1041	L1042	L1043	L1044	L1045	L1046	L1047	L1048	L1049	L1050	L1051	L1052	L1053	L1054	L1055	L1056	L1057	L1058	L1059	L1060	L1061	L1062	L1063	L1064	L1065	L1066	L1067	L1068	L1069	L1070	L1071	L1072	L1073	L1074	L1075	L1076	L1077	L1078	L1079	L1080	L1081	L1082	L1083	L1084	L1085	L1086	L1087	L1088	L1089	L1090	L1091	L1092	L1093	L1094	L1095	L1096	L1097	L1098	L1099	L1100	L1101	L1102	L1103	L1104	L1105	L1106	L1107	L1108	L1109	L1110	L1111	L1112	L1113	L1114	L1115	L1116	L1117	L1118	L1119	L1120	L1121	L1122	L1123	L1124	L1125	L1126	L1127	L1128	L1129	L1130	L1131	L1132	L1133	L1134	L1135	L1136	L1137	L1138	L1139	L1140	L1141	L1142	L1143	L1144	L1145	L1146	L1147	L1148	L1149	L1150	L1151	L1152	L1153	L1154	L1155	L1156	L1157	L1158	L1159	L1160	L1161	L1162	L1163	L1164	L1165	L1166	L1167	L1168	L1169	L1170	L1171	L1172	L1173	L1174	L1175	L1176	L1177	L1178	L1179	L1180	L1181	L1182	L1183	L1184	L1185	L1186	L1187	L1188	L1189	L1190	L1191	L1192	L1193	L1194	L1195	L1196	L1197	L1198	L1199	L1200	L1201	L1202	L1203	L1204	L1205	L1206	L1207	L1208	L1209	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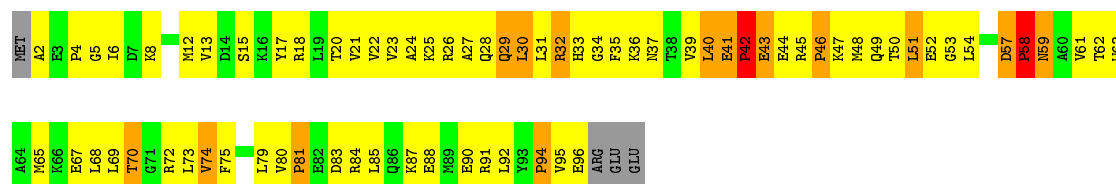


L1078	Y1015	D952	G819	Q756	V694	R628	E564	V494	D430	LYS	GLU	PRQ	V186	L123
K1079	G1018	D953	E820	A757	I695	S629	E564	R495	V431	ILE	ALA	GLU	K187	E124
A1082	P1019	A954	A822	E758	H896	V630	I565	L496	Y432	VAL	LYS	PRQ	G188	Q125
D1083	L1020	V955	A822	A759	H896	V630	I565	E497	G433	ALA	GLY	TYR	Q189	L126
T1084	Y1021	I956	D892	A759	K698	V632	I567	V498	R434	ALA	LEU	LEU	E190	L127
A1085	Y1022	P957	N824	I761	V699	V633	I568	V499	V435	ILE	LEU	PHE	L191	L128
L1086	V1023	E958	A825	Q762	V700	G634	N569	B500	E436	ASP	ARG	ARG	A192	L129
R1087	G1026	E959	P826	M763	L701	P635	E570	A501	V437	PRO	MET	ALA	P193	S130
D1090	S1027	R960	A896	M764	L702	Q636	K571	F502	D438	GLU	PRO	GLU	G194	K131
Y1093	A1028	Q961	R899	A766	R704	K638	R572	L503	R441	VAL	GLN	GLU	V195	V132
L1094	R1029	L900	G831	R767	A705	L639	L574	G506	V442	VAL	VAL	GLY	S197	V134
T1095	G1030	R832	R831	N768	P706	H640	Q575	N507	V443	ILE	ARG	VAL	K198	L135
R1096	M1031	E966	R832	L769	T707	Q641	E576	R508	V444	ALA	ALA	VAL	L199	D136
K1097	P1032	A967	E933	L770	H709	C642	A577	P509	R445	GLU	ALA	GLU	D200	P137
L1098	Q1033	D968	S835	P772	R710	L644	V578	E510	V446	GLN	GLN	LEU	G201	K138
I1099	Q1034	R969	V836	A773	R711	P645	L581	N512	V447	GLY	VAL	LYS	V202	G139
D1100	I1035	K970	G837	S774	L712	K646	L582	N513	E448	VAL	ALA	LEU	A203	A140
V1101	R1036	L971	R838	G775	I713	R647	D583	L514	S449	VAL	GLU	LEU	L204	I141
T1102	Q1037	R972	L839	Q714	I714	M648	N584	E515	Y450	HIS	GLU	GLU	R205	L142
R1103	L1038	Q973	K940	P777	A715	A649	G585	A516	D451	VAL	GLU	GLY	Z207	N143
H1104	C1039	R974	K912	L778	F716	L650	G585	V517	I452	LEU	GLY	ALA	F207	G144
E1105	G1040	E975	D913	A779	Q717	E651	R586	V517	D453	HIS	GLY	GLY	PRO	V145
L1106	L1041	Q976	V842	K780	P718	L652	P590	V519	R455	PRO	THR	LEU	ARG	P146
T1107	R1042	A977	A844	P781	V719	F853	V591	L520	M456	VAL	VAL	VAL	ARG	V147
R1108	G1043	E978	N845	S782	L720	K654	T592	L520	G457	VAL	TYR	LEU	VAL	E148
A1109	L1044	R979	R838	P783	V721	P655	N593	P522	A458	LEU	ARG	VAL	ARG	K149
E1110	M1045	P980	D947	D784	E722	F656	P594	D523	E459	THR	ARG	GLU	VAL	R150
D1111	Q1046	G981	E948	L785	G723	L657	G595	L524	A460	GLY	ARG	GLY	TYR	Q151
C1112	K1047	R982	A849	I786	Q724	L658	S596	R525	A460	LEU	LEU	ASP	VAL	L152
G1113	S1048	L983	L850	L787	S725	K659	D597	P526	Q463	PHE	GLY	GLU	LYS	L153
T1114	G1050	R984	L851	G788	I726	K660	R598	M527	L464	LEU	GLU	PRQ	LYS	T154
L1115	E1051	P986	V858	L789	Q727	M661	P599	V528	L465	THR	THR	VAL	ARG	E157
M1116	T1052	E987	D859	Y791	H729	E662	R601	Q529	K466	GLU	GLU	ALA	ARG	E160
Y1117	F1053	R988	L860	I792	P730	I666	S602	V530	E467	THR	THR	TYR	GLY	L161
T1118	E1054	V989	Q861	T793	L731	G666	R601	D531	L468	PRO	PRO	PHE	LEU	R162
S1119	V1055	D990	D862	Q794	C733	V670	L603	G532	D469	LYS	ASP	LEU	ARG	Y163
P1120	P1056	Q991	V863	V795	C733	K671	T604	G533	L470	TYR	TYR	PRQ	LEU	G164
L1121	V1057	L992	V864	R796	E734	E675	I606	T537	E471	ARG	ARG	VAL	PRQ	Q165
L1122	R1058	L993	T865	K799	A735	R675	L607	S538	K475	VAL	GLN	GLY	ALA	Q166
Q1124	S1059	D994	V866	K799	F736	M676	L607	D539	E476	MET	MET	ALA	E167	E167
F1125	F1061	L995	R867	K900	H737	L677	K610	S410	L477	THR	THR	ALA	ALA	T168
D1126	R1062	M996	Y868	K900	A738	E678	K610	G412	L478	PRO	HIS	PRQ	TRP	Y169
E1127	E1063	T999	M869	G803	D739	R679	R613	D542	E479	MET	LEU	VAL	VAL	P170
L1128	G1063	T1000	G838	L804	F740	Q680	F614	L543	E480	ASN	VAL	GLU	GLU	L171
T1129	L1064	E1001	F939	E805	D741	R681	R615	Y544	M481	VAL	VAL	LYS	LYS	P172
R1130	L1065	T1001	R872	F806	G742	D632	Q616	R545	K482	VAL	VAL	HIS	GLY	P173
E1131	T1066	K1002	F941	A807	D743	I683	N517	R546	H483	VAL	VAL	GLY	ALA	G174
S1131	V1067	V1003	E874	T808	Q744	K684	L618	L547	P484	PRO	PRO	GLU	ALA	V175
L1132	L1068	T1004	T943	P809	M745	D685	L619	T548	S485	GLU	GLU	ILE	LYS	D176
E1133	E1069	Q1005	T944	E810	A746	E686	G620	N549	R486	VAL	VAL	GLY	PRO	D177
R1134	Y1070	S945	P877	E811	A746	V687	K621	N549	R487	ALA	ALA	GLY	GLY	L178
L1135	G1071	G946	G878	A812	V749	V688	R622	L554	A487	ARG	ARG	LYS	GLY	V179
R1136	I1072	I947	R879	L813	P750	D689	V623	L554	R489	VAL	VAL	GLN	ILE	K180
R1137	T948	T948	I948	A814	L751	A690	D624	L557	R489	GLY	GLY	GLN	LEU	D181
A1138	H1075	E1012	R884	E817	F754	A690	Y625	L557	A490	ALA	ALA	PRO	LEU	G182
D1139	G1076	E1013	G950	E817	A755	E692	S626	Q560	K491	GLY	GLY	LEU	GLU	E183
T1140	A1077	M1014	R885	R818	A755	E693	G627	G561	R493	ASP	ASP	ASP	LEU	

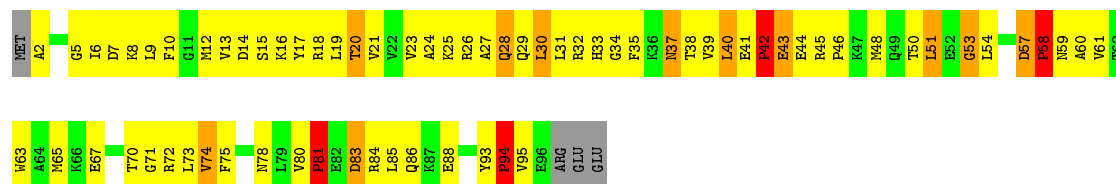




- Molecule 7: DNA-directed RNA polymerase omega chain



- Molecule 7: DNA-directed RNA polymerase omega chain



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 41	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	155.38Å 155.38Å 496.99Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.00 39.78 – 3.00	Depositor EDS
% Data completeness (in resolution range)	87.8 (40.00-3.00) 82.1 (39.78-3.00)	Depositor EDS
$R_{merge}$	0.11	Depositor
$R_{sym}$	0.11	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.84 (at 3.01Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.234 , 0.266 0.235 , 0.261	Depositor DCC
$R_{free}$ test set	10938 reflections (5.70%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	58.4	Xtriage
Anisotropy	0.050	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 114.4	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.41$ , $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	0.147 for h,-k,-l	Xtriage
$F_o, F_c$ correlation	0.87	EDS
Total number of atoms	51962	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	54.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.89% 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 ⓘ

### 5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z  > 5$	RMSZ	# $ Z  > 5$
1	G	0.90	1/520 (0.2%)	1.13	2/798 (0.3%)
1	X	0.97	1/520 (0.2%)	1.14	0/798
2	H	1.48	5/387 (1.3%)	2.79	37/601 (6.2%)
2	Y	1.46	2/387 (0.5%)	2.77	38/601 (6.3%)
3	I	0.81	0/304	1.22	3/467 (0.6%)
3	Z	0.76	0/304	1.10	1/467 (0.2%)
4	A	0.73	0/1838	0.79	2/2498 (0.1%)
4	B	0.73	0/1838	0.78	4/2498 (0.2%)
4	K	0.72	0/1838	0.82	3/2498 (0.1%)
4	L	0.76	0/1838	0.79	3/2498 (0.1%)
5	C	0.77	0/8997	0.89	15/12164 (0.1%)
5	M	0.79	2/8997 (0.0%)	0.90	14/12164 (0.1%)
6	D	0.82	12/10547 (0.1%)	0.93	21/14245 (0.1%)
6	N	0.81	7/10547 (0.1%)	0.90	16/14245 (0.1%)
7	E	0.77	1/784 (0.1%)	1.06	3/1057 (0.3%)
7	O	0.81	1/784 (0.1%)	1.07	4/1057 (0.4%)
All	All	0.81	32/50430 (0.1%)	0.97	166/68656 (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	7
2	H	0	2
2	Y	0	1
6	D	0	1
All	All	0	17

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	D	133	ILE	N-CA	11.89	1.70	1.46
6	D	132	TYR	CA-C	9.71	1.78	1.52
2	Y	1	G	C3'-O3'	8.60	1.54	1.42
2	H	1	G	OP3-P	-7.94	1.51	1.61
6	D	456	MET	N-CA	7.80	1.61	1.46
6	N	133	ILE	N-CA	7.50	1.61	1.46
6	D	455	ARG	CA-C	7.38	1.72	1.52
1	X	1	DC	OP3-P	-7.22	1.52	1.61
6	D	132	TYR	CD2-CE2	6.96	1.49	1.39
2	H	1	G	C3'-O3'	6.93	1.51	1.42
6	N	132	TYR	CA-C	6.81	1.70	1.52
6	D	132	TYR	CD1-CE1	6.67	1.49	1.39
1	G	1	DC	OP3-P	-6.63	1.53	1.61
6	D	134	VAL	N-CA	6.61	1.59	1.46
6	N	456	MET	N-CA	6.42	1.59	1.46
2	Y	2	A	P-O5'	6.25	1.66	1.59
2	H	2	A	P-O5'	6.17	1.66	1.59
6	D	455	ARG	N-CA	6.13	1.58	1.46
2	H	1	G	C2'-C1'	6.12	1.60	1.53
7	E	94	PRO	N-CA	5.98	1.57	1.47
7	O	94	PRO	N-CA	5.92	1.57	1.47
6	D	132	TYR	CB-CG	5.89	1.60	1.51
6	N	132	TYR	CD2-CE2	5.84	1.48	1.39
6	N	455	ARG	CA-C	5.70	1.67	1.52
6	D	132	TYR	N-CA	5.68	1.57	1.46
6	N	1039	CYS	CB-SG	-5.47	1.73	1.81
5	M	887	GLU	CB-CG	5.40	1.62	1.52
2	H	1	G	P-O5'	5.32	1.65	1.59
6	D	103	TRP	CB-CG	-5.23	1.40	1.50
5	M	887	GLU	CG-CD	5.14	1.59	1.51
6	D	133	ILE	CA-C	5.11	1.66	1.52
6	N	134	VAL	N-CA	5.07	1.56	1.46

All (166) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	1	G	N9-C1'-C2'	25.00	146.50	114.00
2	Y	1	G	N9-C1'-C2'	20.87	141.13	114.00
2	Y	1	G	P-O3'-C3'	19.40	142.98	119.70
2	H	1	G	P-O3'-C3'	19.01	142.51	119.70
2	Y	2	A	O4'-C1'-N9	16.04	121.03	108.20
2	H	1	G	O4'-C1'-N9	-15.64	95.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Y	2	A	N9-C1'-C2'	-15.35	94.04	114.00
6	D	1266	ARG	NE-CZ-NH2	-12.51	114.05	120.30
2	H	2	A	N9-C1'-C2'	-12.48	97.78	114.00
2	H	7	G	N9-C1'-C2'	-11.54	99.00	114.00
5	M	243	ARG	C-N-CD	-11.39	95.53	120.60
7	O	94	PRO	CA-N-CD	-11.38	95.57	111.50
2	Y	7	G	N9-C1'-C2'	-11.32	99.28	114.00
3	I	7	DC	O5'-P-OP2	11.29	124.25	110.70
7	E	94	PRO	CA-N-CD	-10.62	96.63	111.50
2	Y	14	G	N9-C1'-C2'	-10.29	100.63	114.00
7	O	94	PRO	N-CA-C	9.59	137.02	112.10
2	H	16	G	C4'-C3'-O3'	9.26	131.53	113.00
7	E	94	PRO	N-CA-C	9.09	135.73	112.10
2	H	14	G	N9-C1'-C2'	-8.92	102.19	112.00
6	N	1389	LEU	CA-CB-CG	8.72	135.35	115.30
2	Y	16	G	C4'-C3'-O3'	8.70	130.40	113.00
6	D	1266	ARG	NE-CZ-NH1	8.66	124.63	120.30
2	Y	9	G	N9-C1'-C2'	-8.59	102.55	112.00
2	Y	1	G	O4'-C1'-N9	-8.53	101.37	108.20
2	H	2	A	O4'-C1'-N9	8.51	115.00	108.20
2	H	6	U	O4'-C1'-N1	8.50	115.00	108.20
6	D	152	LEU	CA-CB-CG	8.40	134.63	115.30
5	C	409	ARG	NE-CZ-NH1	8.28	124.44	120.30
2	H	2	A	P-O3'-C3'	-8.19	109.88	119.70
2	Y	6	U	O4'-C1'-N1	8.17	114.74	108.20
2	Y	2	A	P-O3'-C3'	-8.14	109.93	119.70
6	N	1266	ARG	NE-CZ-NH1	8.10	124.35	120.30
6	N	1266	ARG	NE-CZ-NH2	-8.09	116.26	120.30
2	H	2	A	OP1-P-OP2	-8.07	107.50	119.60
2	H	5	C	O4'-C1'-N1	8.06	114.65	108.20
2	H	9	G	N9-C1'-C2'	-8.03	103.16	112.00
2	Y	5	C	O4'-C1'-N1	7.92	114.53	108.20
3	Z	7	DC	O5'-P-OP2	7.87	120.14	110.70
6	D	581	LEU	CA-CB-CG	7.87	133.39	115.30
2	Y	9	G	O4'-C1'-N9	7.83	114.46	108.20
5	C	243	ARG	C-N-CD	-7.76	103.53	120.60
6	D	1090	ASP	CB-CG-OD2	7.66	125.19	118.30
2	H	12	G	O4'-C1'-N9	7.63	114.31	108.20
5	C	409	ARG	NE-CZ-NH2	-7.61	116.50	120.30
2	Y	11	C	N1-C1'-C2'	-7.59	103.65	112.00
2	Y	2	A	OP1-P-OP2	-7.50	108.35	119.60
2	Y	15	C	O4'-C1'-N1	7.37	114.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	15	C	O4'-C1'-N1	7.36	114.08	108.20
2	H	9	G	O4'-C1'-N9	7.32	114.06	108.20
2	H	9	G	C5'-C4'-O4'	-7.29	100.36	109.10
2	Y	8	C	O4'-C1'-N1	7.29	114.03	108.20
4	L	90	LEU	CA-CB-CG	7.28	132.05	115.30
6	N	1090	ASP	CB-CG-OD2	7.21	124.79	118.30
2	Y	12	G	O4'-C1'-N9	7.20	113.96	108.20
2	Y	10	G	O4'-C1'-N9	7.16	113.93	108.20
5	M	409	ARG	NE-CZ-NH1	7.11	123.86	120.30
4	B	138	LEU	CA-CB-CG	7.07	131.55	115.30
6	D	1429	LEU	CA-CB-CG	7.03	131.47	115.30
2	Y	14	G	O4'-C1'-N9	6.94	113.75	108.20
2	H	16	G	O4'-C1'-N9	6.91	113.72	108.20
2	H	10	G	N9-C1'-C2'	-6.90	104.41	112.00
2	H	1	G	C3'-C2'-C1'	6.84	106.97	101.50
2	Y	1	G	C3'-C2'-C1'	6.78	106.92	101.50
2	H	8	C	O4'-C1'-N1	6.78	113.62	108.20
6	D	456	MET	CB-CA-C	-6.74	96.92	110.40
5	C	815	LEU	CA-CB-CG	6.73	130.78	115.30
2	Y	9	G	C5'-C4'-O4'	-6.72	101.04	109.10
2	H	14	G	O4'-C1'-N9	6.71	113.57	108.20
2	H	15	C	N1-C1'-C2'	-6.69	104.64	112.00
2	H	10	G	O4'-C1'-N9	6.65	113.52	108.20
5	M	88	LEU	CA-CB-CG	6.63	130.54	115.30
2	Y	10	G	N9-C1'-C2'	-6.61	104.72	112.00
2	H	1	G	OP1-P-OP2	-6.61	109.69	119.60
2	H	11	C	O4'-C1'-N1	6.59	113.47	108.20
6	D	132	TYR	C-N-CA	6.58	138.16	121.70
2	Y	7	G	C4'-C3'-O3'	6.53	126.06	113.00
5	M	285	LEU	CA-CB-CG	6.53	130.32	115.30
2	Y	1	G	C2'-C3'-O3'	6.51	124.12	113.70
5	M	165	LEU	C-N-CD	-6.46	106.39	120.60
2	Y	3	G	OP1-P-OP2	-6.44	109.94	119.60
2	Y	4	U	OP1-P-OP2	-6.40	110.00	119.60
2	Y	11	C	O4'-C1'-N1	6.39	113.31	108.20
6	N	1492	LEU	CA-CB-CG	6.38	129.98	115.30
3	I	5	DG	OP2-P-O3'	6.33	119.13	105.20
2	H	4	U	OP1-P-OP2	-6.32	110.11	119.60
2	Y	1	G	OP1-P-OP2	-6.32	110.12	119.60
6	D	1440	PHE	CB-CG-CD2	6.25	125.17	120.80
5	C	861	LEU	CA-CB-CG	6.22	129.61	115.30
5	M	409	ARG	NE-CZ-NH2	-6.21	117.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	K	186	LEU	CA-CB-CG	6.18	129.52	115.30
2	H	2	A	O4'-C4'-C3'	-6.13	97.87	104.00
2	H	1	G	O3'-P-O5'	6.12	115.62	104.00
6	N	1109	GLU	C-N-CA	6.12	137.00	121.70
4	A	186	LEU	CA-CB-CG	6.12	129.37	115.30
2	Y	16	G	O4'-C1'-N9	6.03	113.02	108.20
6	D	133	ILE	CB-CA-C	-6.01	99.58	111.60
2	H	3	G	OP1-P-OP2	-6.01	110.59	119.60
5	C	18	LEU	CA-CB-CG	-6.00	101.49	115.30
2	Y	6	U	C3'-C2'-C1'	5.97	106.28	101.50
6	D	1252	ILE	CA-C-N	5.96	130.30	117.20
5	M	244	PRO	CA-N-CD	-5.92	103.21	111.50
2	H	13	C	O4'-C1'-N1	5.92	112.94	108.20
2	H	6	U	C3'-C2'-C1'	5.91	106.23	101.50
2	H	7	G	C4'-C3'-O3'	5.91	124.83	113.00
5	M	861	LEU	CA-CB-CG	5.91	128.89	115.30
6	D	1109	GLU	C-N-CA	5.90	136.44	121.70
6	D	1236	LEU	CA-CB-CG	5.86	128.77	115.30
2	Y	16	G	N9-C1'-C2'	-5.85	105.57	112.00
1	G	12	DG	OP1-P-O3'	-5.83	92.39	105.20
5	C	165	LEU	C-N-CD	-5.81	107.82	120.60
2	H	16	G	N9-C1'-C2'	-5.79	105.64	112.00
2	H	11	C	N1-C1'-C2'	-5.78	105.64	112.00
6	D	1068	LEU	CA-CB-CG	-5.77	102.03	115.30
6	D	166	GLN	CA-C-N	-5.72	104.61	117.20
6	D	1109	GLU	CA-C-N	-5.71	104.65	117.20
2	H	13	C	N1-C1'-C2'	-5.67	105.76	112.00
6	N	813	LEU	CA-CB-CG	5.66	128.31	115.30
4	K	208	LEU	CA-CB-CG	5.64	128.27	115.30
5	C	58	ASP	C-N-CA	5.61	135.73	121.70
2	Y	1	G	C1'-O4'-C4'	5.59	114.37	109.90
5	M	673	LEU	CA-CB-CG	-5.59	102.45	115.30
5	M	58	ASP	C-N-CA	5.58	135.64	121.70
7	O	93	TYR	C-N-CD	-5.56	108.36	120.60
4	L	138	LEU	CA-CB-CG	5.55	128.07	115.30
5	C	260	LEU	CA-CB-CG	5.54	128.05	115.30
6	N	1109	GLU	CA-C-N	-5.49	105.12	117.20
6	D	1389	LEU	CA-CB-CG	5.48	127.90	115.30
2	Y	16	G	C5'-C4'-O4'	-5.47	102.53	109.10
6	N	152	LEU	CA-CB-CG	5.45	127.82	115.30
5	C	285	LEU	CA-CB-CG	5.44	127.81	115.30
6	D	972	LEU	CA-CB-CG	5.41	127.75	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Y	13	C	O4'-C1'-N1	5.38	112.50	108.20
6	N	153	LEU	CA-CB-CG	5.35	127.61	115.30
5	M	264	PRO	C-N-CA	-5.33	108.37	121.70
1	G	12	DG	OP2-P-O3'	5.30	116.87	105.20
6	N	1252	ILE	CA-C-N	5.30	128.87	117.20
7	E	50	THR	C-N-CA	5.22	134.74	121.70
3	I	3	DA	OP1-P-OP2	-5.21	111.78	119.60
5	C	728	HIS	CA-C-N	5.20	128.64	117.20
2	H	2	A	C4'-C3'-C2'	5.19	107.79	102.60
5	M	165	LEU	C-N-CA	5.19	143.79	122.00
6	N	1183	ILE	CG1-CB-CG2	-5.18	100.01	111.40
4	B	197	LEU	CA-CB-CG	5.17	127.19	115.30
2	Y	15	C	N1-C1'-C2'	-5.17	106.32	112.00
4	K	192	LEU	CA-CB-CG	-5.16	103.44	115.30
6	D	1440	PHE	CB-CG-CD1	-5.14	117.20	120.80
6	N	132	TYR	C-N-CA	5.14	134.55	121.70
5	C	165	LEU	C-N-CA	5.12	143.51	122.00
4	L	80	LEU	CA-CB-CG	5.12	127.08	115.30
5	C	546	LEU	CA-CB-CG	-5.11	103.56	115.30
5	C	737	LEU	CA-CB-CG	5.10	127.03	115.30
4	B	2	LEU	CA-CB-CG	5.09	127.00	115.30
6	D	80	VAL	C-N-CA	5.08	134.41	121.70
5	M	260	LEU	CA-CB-CG	5.07	126.97	115.30
7	O	50	THR	C-N-CA	5.07	134.38	121.70
6	D	621	LYS	CA-C-N	5.07	128.35	117.20
5	C	88	LEU	CA-CB-CG	5.05	126.92	115.30
5	M	728	HIS	CA-C-N	5.05	128.32	117.20
6	N	1090	ASP	CB-CG-OD1	-5.04	113.77	118.30
4	B	62	LEU	CA-CB-CG	5.03	126.88	115.30
4	A	115	LEU	CA-CB-CG	5.03	126.87	115.30
2	Y	13	C	N1-C1'-C2'	-5.03	106.47	112.00
6	N	621	LYS	CA-C-N	5.01	128.22	117.20
6	N	1331	ASP	CB-CG-OD2	5.01	122.81	118.30
2	Y	1	G	C4'-C3'-C2'	-5.01	97.59	102.60

There are no chirality outliers.

All (17) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	D	1093	TYR	Sidechain
1	G	1	DC	Sidechain
1	G	13	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	G	15	DC	Sidechain
1	G	16	DG	Sidechain
1	G	17	DC	Sidechain
1	G	18	DG	Sidechain
2	H	1	G	Sidechain
2	H	14	G	Sidechain
1	X	1	DC	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
1	X	19	DC	Sidechain
2	Y	14	G	Sidechain

## 5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	G	467	0	259	46	0
1	X	467	0	259	45	0
2	H	347	0	174	75	0
2	Y	347	0	174	61	0
3	I	270	0	144	18	0
3	Z	270	0	144	18	0
4	A	1806	0	1861	186	0
4	B	1806	0	1861	178	0
4	K	1806	0	1861	206	0
4	L	1806	0	1861	173	0
5	C	8829	0	8933	1078	0
5	M	8829	0	8933	1061	0
6	D	10373	0	10599	1472	0
6	N	10373	0	10599	1397	0
7	E	770	0	784	124	0
7	O	770	0	784	105	0
8	D	43	0	34	6	0
8	N	43	0	31	6	0
9	D	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	N	2	0	0	0	0
10	D	2	0	0	0	0
10	N	2	0	0	0	0
11	D	31	0	14	5	0
11	M	31	0	14	2	0
12	A	78	0	0	13	0
12	B	117	0	0	29	0
12	C	408	0	0	103	0
12	D	531	0	0	107	0
12	E	34	0	0	17	0
12	G	39	0	0	6	0
12	H	22	0	0	6	0
12	I	31	0	0	3	0
12	K	81	0	0	26	0
12	L	95	0	0	12	0
12	M	396	0	0	100	0
12	N	510	0	0	120	0
12	O	53	0	0	16	0
12	X	31	0	0	5	0
12	Y	26	0	0	3	0
12	Z	18	0	0	3	0
All	All	51962	0	49323	5743	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 58.

All (5743) 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)
6:D:133:ILE:N	6:D:133:ILE:CA	1.70	1.55
6:D:132:TYR:C	6:D:132:TYR:CA	1.78	1.49
7:E:92:LEU:HD23	12:E:113:HOH:O	1.25	1.32
2:Y:2:A:OP2	6:N:671:LYS:NZ	1.72	1.21
6:D:87:ARG:HD3	6:D:524:LEU:HD11	1.30	1.12
6:N:165:LYS:HB2	6:N:397:LYS:HB2	1.20	1.11
2:H:7:G:H21	5:C:1021:LEU:HB2	1.13	1.11
2:H:16:G:H21	6:D:705:ALA:HB1	1.03	1.10
6:N:478:LEU:HD22	6:N:1388:ARG:HE	1.16	1.09
5:M:554:ASP:HB2	5:M:880:MET:HB2	1.32	1.08
6:D:501:ALA:HB1	6:D:1453:ALA:HB2	1.37	1.06
5:C:162:ILE:HD11	5:C:306:THR:HG21	1.36	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1034:GLU:HB3	6:N:619:LEU:HD22	1.37	1.06
1:G:21:DC:H4'	5:C:134:ARG:HH21	1.18	1.06
7:E:92:LEU:CD2	12:E:113:HOH:O	1.88	1.06
1:X:14:DT:H2''	1:X:15:DC:H5'	1.37	1.06
1:G:14:DT:H2''	1:G:15:DC:H5'	1.33	1.05
6:N:432:TYR:HB3	6:N:450:TYR:HB2	1.37	1.05
6:D:398:ALA:HB2	6:D:447:VAL:HA	1.37	1.04
5:M:1011:GLY:HA2	5:M:1026:GLN:HE21	1.21	1.03
6:D:165:LYS:HB2	6:D:397:LYS:HB2	1.37	1.03
7:E:45:ARG:HG2	7:E:46:PRO:HD2	1.38	1.03
4:B:94:LEU:HD11	4:B:119:ASP:HB2	1.35	1.03
6:N:204:LEU:HB3	6:N:441:ARG:HH22	1.22	1.02
6:D:676:MET:HE1	6:D:683:ILE:HA	1.41	1.02
6:D:32:ILE:HD12	6:D:527:MET:HG2	1.40	1.01
6:D:1300:SER:HB2	6:N:60:CYS:HB3	1.42	1.00
5:C:987:ILE:HG23	6:D:948:THR:HG21	1.44	1.00
7:E:23:VAL:CG1	7:E:61:VAL:HG13	1.92	1.00
5:M:874:LEU:HD11	6:N:787:LEU:HD22	1.43	1.00
2:H:16:G:N2	6:D:705:ALA:HB1	1.76	1.00
6:D:908:LYS:HB3	6:D:1027:GLY:HA3	1.43	1.00
6:D:521:PRO:HB2	6:D:524:LEU:HD13	1.41	1.00
5:M:334:ARG:HD2	5:M:418:LEU:HD21	1.41	0.99
6:D:1284:GLU:HB2	6:N:75:ARG:HE	1.24	0.99
5:C:86:LYS:HG2	5:C:813:VAL:HB	1.39	0.98
5:C:1034:GLU:HB3	6:D:619:LEU:HD22	1.44	0.98
6:D:136:ASP:HB3	6:D:137:PRO:HD3	1.45	0.98
1:G:23:DG:H2'	6:D:534:ARG:HH21	1.26	0.98
6:D:928:ALA:HA	6:D:931:LEU:HD12	1.44	0.98
5:C:626:ARG:HB2	5:C:639:GLN:HE22	1.28	0.98
6:D:115:LEU:HD13	6:D:499:VAL:HG22	1.45	0.98
4:L:22:GLU:HG2	4:L:198:ARG:HG2	1.42	0.98
6:N:51:GLY:HA3	6:N:86:ARG:HA	1.41	0.98
6:D:1284:GLU:HB2	6:N:75:ARG:NE	1.79	0.97
6:N:1406:ARG:HG3	6:N:1412:LYS:HG3	1.46	0.97
2:Y:1:G:O2'	2:Y:2:A:H5''	1.63	0.97
5:C:775:ARG:HH21	5:C:782:ALA:HB1	1.27	0.96
7:O:23:VAL:HG12	7:O:61:VAL:HG13	1.44	0.96
5:C:979:THR:HG23	5:C:981:GLU:H	1.26	0.96
6:D:116:LEU:HD13	6:D:118:LEU:HD21	1.46	0.96
6:D:1281:VAL:HG23	6:D:1319:VAL:HG21	1.45	0.96
5:C:516:ARG:HD2	5:C:521:PRO:HA	1.45	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:145:VAL:HG22	6:D:146:PRO:HD2	1.46	0.96
6:N:1144:LEU:HD22	6:N:1166:LEU:HD11	1.48	0.96
5:M:979:THR:HG23	5:M:981:GLU:H	1.29	0.96
5:M:711:GLU:HG2	5:M:822:VAL:HG12	1.47	0.96
5:M:636:ALA:HB3	5:M:703:ILE:HD13	1.48	0.96
6:D:1240:THR:HG23	6:D:1253:THR:HB	1.44	0.96
6:D:1468:LEU:HD22	6:D:1470:ARG:HB2	1.45	0.96
5:C:115:LEU:HD22	5:C:373:VAL:HG11	1.48	0.95
6:D:1485:GLN:HE21	7:E:80:VAL:H	1.04	0.95
2:Y:6:U:H2'	2:Y:7:G:C8	2.01	0.95
6:D:1297:GLU:O	6:N:52:PRO:HA	1.65	0.95
6:D:409:VAL:HG21	6:D:421:LEU:HD23	1.48	0.95
6:D:1281:VAL:HG11	6:D:1313:VAL:HG13	1.46	0.95
6:D:148:GLU:HB3	6:D:151:GLN:HB2	1.48	0.95
7:O:23:VAL:CG1	7:O:61:VAL:HG13	1.97	0.95
6:D:165:LYS:H	6:D:397:LYS:H	1.11	0.95
6:N:525:ARG:HB2	6:N:538:SER:HB3	1.47	0.94
6:D:1153:VAL:HG13	6:N:561:GLY:HA3	1.46	0.94
2:H:7:G:N2	5:C:1021:LEU:HB2	1.81	0.94
5:M:135:VAL:HG11	5:M:407:LYS:HA	1.47	0.94
6:N:438:ASP:HB2	6:N:445:ARG:HH12	1.32	0.94
4:A:64:GLU:HG3	4:A:165:ILE:HD13	1.49	0.94
5:C:274:ARG:HG3	5:C:285:LEU:HD22	1.49	0.94
5:M:10:ARG:HA	5:M:10:ARG:NH1	1.83	0.94
6:D:1240:THR:HG21	6:D:1355:VAL:HG13	1.49	0.94
2:H:6:U:H2'	2:H:7:G:C8	2.02	0.94
5:C:889:HIS:HE1	6:D:951:ILE:H	1.12	0.93
6:D:1261:GLU:HA	6:D:1266:ARG:HD2	1.51	0.93
6:D:525:ARG:HB2	6:D:538:SER:HB3	1.50	0.93
4:K:224:TYR:HB3	4:L:9:PRO:HB2	1.51	0.93
5:M:409:ARG:HA	5:M:454:SER:HA	1.51	0.93
6:N:540:LEU:HA	6:N:543:LEU:HD12	1.51	0.93
6:N:637:LEU:HD21	6:N:642:CYS:HA	1.47	0.93
5:M:847:GLY:HA2	6:N:741:ASP:HA	1.51	0.92
1:G:18:DG:H2''	1:G:19:DC:H5'	1.49	0.92
2:Y:12:G:H8	2:Y:12:G:H5'	1.33	0.92
6:D:890:VAL:HG11	6:D:922:LEU:HD13	1.50	0.92
6:D:1481:VAL:HG11	7:E:18:ARG:HA	1.50	0.92
6:D:1282:ARG:HB3	6:N:75:ARG:C	1.90	0.91
4:L:57:TYR:HB3	4:L:141:GLU:HG3	1.49	0.91
6:D:799:LYS:HB3	6:D:826:PRO:HG2	1.53	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1220:ALA:HB1	6:N:1223:ILE:HD13	1.52	0.91
5:M:1054:THR:HG22	5:M:1059:ASP:HB2	1.51	0.91
6:N:977:ALA:HB1	6:N:983:LEU:HD21	1.50	0.91
6:N:990:ASP:HA	6:N:993:LEU:HD12	1.52	0.91
5:C:1031:ARG:HA	6:D:621:LYS:O	1.69	0.91
6:N:1281:VAL:HG11	6:N:1313:VAL:HG13	1.51	0.91
5:C:292:ARG:HE	5:C:294:GLU:HG2	1.33	0.91
5:M:512:ARG:HB3	5:M:523:ILE:HD11	1.52	0.91
6:N:1382:THR:HA	6:N:1389:LEU:HD13	1.52	0.91
4:A:117:VAL:HB	4:A:120:VAL:HG12	1.53	0.91
6:N:161:LEU:HD21	6:N:452:ILE:HG21	1.53	0.91
6:N:1440:PHE:HB3	12:N:9281:HOH:O	1.69	0.90
5:M:626:ARG:H	5:M:639:GLN:HE21	1.14	0.90
5:M:478:VAL:HA	5:M:506:ASN:O	1.72	0.90
6:N:1472:ILE:HG22	6:N:1474:ALA:H	1.33	0.90
5:C:64:LEU:HD22	5:C:359:MET:HG3	1.52	0.90
6:N:119:SER:HB2	6:N:123:LEU:H	1.37	0.90
5:M:762:LYS:HA	5:M:786:LYS:HD2	1.53	0.90
6:N:526:PRO:O	6:N:537:THR:HA	1.72	0.90
6:D:785:ILE:HD12	6:D:785:ILE:H	1.35	0.90
4:K:54:THR:HG22	4:K:158:ILE:HG13	1.54	0.90
4:K:117:VAL:HB	4:K:120:VAL:HG12	1.54	0.89
6:N:1232:PRO:HB3	6:N:1361:VAL:HG21	1.51	0.89
6:N:24:GLY:HA3	6:N:49:ILE:HG12	1.50	0.89
6:D:1042:ARG:HH11	6:D:1042:ARG:HB2	1.38	0.89
2:H:7:G:H1	5:C:1014:SER:HA	1.38	0.89
5:M:953:VAL:HG13	5:M:966:LEU:HD13	1.52	0.89
4:L:56:VAL:HG13	4:L:142:VAL:HG12	1.55	0.88
4:A:186:LEU:HD13	4:A:192:LEU:HD13	1.55	0.88
4:B:56:VAL:HG13	4:B:142:VAL:HG12	1.55	0.88
5:M:567:GLN:HB2	5:M:997:LEU:HD22	1.55	0.88
1:X:17:DC:H2''	1:X:18:DG:H5'	1.56	0.88
6:N:1236:LEU:HB3	6:N:1359:GLN:HB3	1.54	0.88
6:N:478:LEU:HD13	6:N:1388:ARG:HH21	1.38	0.88
6:N:799:LYS:HB3	6:N:826:PRO:HG2	1.54	0.88
6:D:165:LYS:HE2	6:D:199:LEU:HD13	1.54	0.88
6:D:477:LEU:HD21	6:D:495:ARG:HD3	1.55	0.88
6:D:133:ILE:HB	6:D:153:LEU:O	1.73	0.88
3:I:9:DG:H4'	6:D:108:VAL:HG12	1.55	0.88
6:N:478:LEU:HD22	6:N:1388:ARG:NE	1.87	0.88
5:C:579:VAL:HB	5:C:890:LEU:HD22	1.52	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:165:LYS:H	6:D:397:LYS:N	1.72	0.87
7:E:41:GLU:HA	7:E:45:ARG:HG3	1.55	0.87
6:D:164:GLY:CA	6:D:447:VAL:HB	2.03	0.87
6:D:543:LEU:HD22	6:D:580:ALA:HB1	1.56	0.87
6:D:1225:ALA:HA	6:D:1367:HIS:ND1	1.89	0.87
6:N:1213:ARG:HH22	7:O:10:PHE:HB3	1.39	0.87
6:N:169:TYR:HB3	6:N:195:VAL:HG11	1.57	0.87
4:B:109:VAL:HG21	4:B:138:LEU:HD21	1.55	0.86
5:C:395:LYS:HE2	5:C:403:SER:HB2	1.56	0.86
2:Y:14:G:O2'	2:Y:15:C:H5'	1.75	0.86
6:D:6:ARG:HG3	6:D:1470:ARG:HH12	1.40	0.86
4:B:87:VAL:HG21	4:B:144:VAL:HG11	1.56	0.86
5:C:227:PHE:HA	5:C:230:ARG:HE	1.40	0.86
6:D:1375:MET:HA	12:D:9224:HOH:O	1.74	0.86
2:H:12:G:H5'	2:H:12:G:H8	1.38	0.86
5:M:724:ARG:HH21	5:M:734:LEU:HB3	1.41	0.86
5:M:729:LEU:HD22	6:N:675:ARG:HD2	1.57	0.86
1:X:18:DG:H2''	1:X:19:DC:H5'	1.58	0.86
2:Y:12:G:C8	2:Y:12:G:H5'	2.09	0.86
5:C:597:ALA:HB2	5:C:655:LEU:HD21	1.57	0.86
2:H:12:G:H5'	2:H:12:G:C8	2.11	0.86
4:B:58:ILE:HD13	4:B:140:MET:HB3	1.55	0.86
5:M:1056:LYS:O	6:N:624:ASP:HB2	1.76	0.86
5:C:66:LEU:HD22	5:C:372:LEU:HD23	1.57	0.86
5:C:737:LEU:HD11	5:C:754:ILE:HB	1.58	0.86
4:A:143:ARG:HE	4:A:158:ILE:HG21	1.40	0.86
6:D:119:SER:HB2	6:D:123:LEU:HB2	1.58	0.86
6:D:432:TYR:HB3	6:D:450:TYR:HB2	1.57	0.86
6:D:133:ILE:HA	6:D:456:MET:CB	2.06	0.86
6:N:871:LYS:HD2	6:N:873:LEU:HD21	1.55	0.86
5:C:612:VAL:HG22	5:C:622:GLU:HG3	1.57	0.85
5:M:841:ASN:ND2	5:M:843:HIS:H	1.74	0.85
6:N:1037:GLN:HG2	6:N:1042:ARG:HB2	1.59	0.85
5:C:279:GLU:HG3	5:C:280:LYS:HD2	1.57	0.85
5:C:409:ARG:HA	5:C:454:SER:HA	1.55	0.85
6:D:486:ARG:HA	6:D:489:ARG:HG2	1.58	0.85
5:M:690:ILE:HG13	5:M:694:LEU:HD12	1.56	0.85
3:Z:6:DC:H3'	6:N:1266:ARG:NH2	1.91	0.85
5:C:1056:LYS:HD3	6:D:623:VAL:HG13	1.56	0.85
5:C:89:THR:HG21	5:C:383:ARG:HH22	1.41	0.85
6:N:806:PHE:CE1	6:N:813:LEU:HB3	2.11	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:244:PRO:HD2	5:C:245:GLY:H	1.40	0.85
5:C:587:VAL:HG11	5:C:666:LEU:HD22	1.56	0.85
6:D:164:GLY:HA3	6:D:447:VAL:HB	1.57	0.85
5:C:1054:THR:HG22	5:C:1059:ASP:HB2	1.58	0.85
5:C:276:LYS:HA	5:C:280:LYS:HD3	1.59	0.85
6:D:1426:LYS:HA	6:D:1429:LEU:HD22	1.55	0.85
4:L:94:LEU:HD23	4:L:97:VAL:HG21	1.58	0.85
5:M:722:ILE:HD12	5:M:823:VAL:HG21	1.58	0.85
5:M:328:LEU:HD13	5:M:433:THR:HB	1.57	0.85
2:H:5:C:H2'	2:H:6:U:C6	2.11	0.85
5:M:654:LEU:HD23	5:M:654:LEU:H	1.40	0.85
7:E:27:ALA:HB2	7:E:61:VAL:HG22	1.59	0.84
2:H:7:G:H21	5:C:1021:LEU:CB	1.88	0.84
5:C:428:ARG:HH21	5:C:451:LEU:HD11	1.42	0.84
6:N:9:ARG:HE	6:N:11:ALA:HB2	1.42	0.84
2:Y:8:C:O2'	2:Y:9:G:H5'	1.77	0.84
7:E:23:VAL:HG12	7:E:61:VAL:HG13	1.57	0.84
6:N:475:LYS:HA	6:N:478:LEU:HG	1.58	0.84
5:M:890:LEU:HA	5:M:914:ILE:HD11	1.57	0.84
4:L:87:VAL:HG21	4:L:144:VAL:HG11	1.59	0.84
5:C:478:VAL:HA	5:C:506:ASN:O	1.78	0.84
5:M:710:ILE:HB	5:M:790:LEU:HD22	1.59	0.84
5:M:545:ASN:HD22	5:M:583:LEU:HD21	1.41	0.84
2:H:14:G:O2'	2:H:15:C:H5'	1.76	0.84
6:N:1274:ILE:HD12	6:N:1322:GLY:HA2	1.60	0.84
2:Y:12:G:H2'	2:Y:13:C:C6	2.13	0.84
5:C:966:LEU:HD11	5:C:986:PRO:HG2	1.60	0.83
6:N:695:ILE:HG21	6:N:720:LEU:HD11	1.61	0.83
6:N:1481:VAL:HG11	7:O:18:ARG:HA	1.60	0.83
6:D:1063:GLU:HB2	12:D:9306:HOH:O	1.79	0.83
6:D:1232:PRO:HB3	6:D:1361:VAL:HG21	1.60	0.83
5:C:183:SER:HB2	5:C:190:LYS:HD3	1.60	0.83
4:L:186:LEU:HB2	4:L:192:LEU:HD11	1.60	0.83
4:B:24:VAL:HG13	4:B:196:THR:HG22	1.60	0.83
5:C:367:LEU:HA	5:C:371:LYS:HD3	1.60	0.83
6:D:493:ARG:HD3	6:D:1390:LEU:HB3	1.61	0.83
6:D:907:GLU:HG2	6:D:909:ASN:H	1.42	0.83
4:K:9:PRO:HB2	4:L:224:TYR:HB3	1.61	0.83
5:C:755:LEU:HD22	5:C:825:VAL:HG11	1.59	0.83
1:G:17:DC:H2''	1:G:18:DG:H5'	1.61	0.83
2:H:8:C:O2'	2:H:9:G:H5'	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:212:GLY:HA3	5:C:218:VAL:HG21	1.59	0.83
5:C:1018:GLN:HG3	5:C:1060:ILE:HD13	1.61	0.83
6:D:783:ARG:HD2	6:D:1029:ARG:HG2	1.59	0.82
4:A:220:GLU:O	4:A:223:THR:HG22	1.79	0.82
6:D:1379:VAL:HG12	6:D:1419:PRO:HA	1.60	0.82
4:A:9:PRO:HB2	4:B:224:TYR:HB3	1.59	0.82
6:D:526:PRO:O	6:D:537:THR:HA	1.80	0.82
6:N:522:PRO:HA	6:N:525:ARG:HH11	1.43	0.82
6:D:1209:LEU:HD23	6:D:1211:MET:H	1.45	0.82
4:L:59:GLU:HG3	4:L:139:ASN:ND2	1.94	0.82
6:D:165:LYS:N	6:D:397:LYS:H	1.76	0.82
6:D:1111:ASP:HB3	6:D:1203:LYS:HE3	1.60	0.82
6:D:906:GLN:HB3	6:D:911:LEU:HD11	1.62	0.82
2:H:16:G:H21	6:D:705:ALA:CB	1.88	0.82
5:M:851:LYS:HE3	5:M:853:LEU:HA	1.60	0.82
6:N:810:GLU:O	6:N:813:LEU:HG	1.79	0.82
2:Y:5:C:H2'	2:Y:6:U:C6	2.15	0.82
6:D:127:LEU:HD11	6:D:461:ILE:HD11	1.62	0.82
6:D:97:THR:HG23	6:D:459:GLU:HB2	1.60	0.82
5:M:1096:ALA:O	6:N:13:ALA:HB2	1.80	0.82
5:M:974:LEU:HD13	5:M:987:ILE:HB	1.62	0.81
5:M:877:PRO:HG3	6:N:1023:MET:SD	2.20	0.81
2:H:9:G:H2'	2:H:10:G:C8	2.16	0.81
5:M:12:VAL:HG11	12:M:7276:HOH:O	1.79	0.81
4:A:109:VAL:HG21	4:A:138:LEU:HD21	1.62	0.81
5:C:136:ILE:HD13	5:C:392:SER:HB3	1.62	0.81
5:C:304:LEU:HD23	5:C:305:PRO:HD3	1.62	0.81
5:M:83:CYS:HA	5:M:88:LEU:HB3	1.62	0.81
5:M:987:ILE:HG23	6:N:948:THR:HG21	1.61	0.81
6:D:1189:ARG:HD2	6:D:1203:LYS:HB3	1.62	0.81
7:E:23:VAL:CG1	7:E:61:VAL:CG1	2.58	0.81
6:N:720:LEU:H	6:N:720:LEU:HD12	1.46	0.81
6:N:172:PRO:HG2	6:N:175:VAL:HG21	1.61	0.81
6:N:398:ALA:HB2	6:N:447:VAL:HA	1.61	0.81
5:M:472:ARG:HB3	12:M:7276:HOH:O	1.80	0.81
6:N:1100:ASP:HB3	6:N:1428:ALA:HB1	1.61	0.81
6:N:846:PRO:HA	12:N:9216:HOH:O	1.79	0.81
7:E:40:LEU:HB3	7:E:72:ARG:CZ	2.11	0.81
4:B:47:SER:HB3	4:B:217:ILE:HD13	1.63	0.80
5:C:15:LEU:H	5:C:586:ARG:NH2	1.80	0.80
4:L:206:THR:HG22	4:L:209:GLU:H	1.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:493:ARG:HG2	6:N:1390:LEU:HD12	1.61	0.80
6:N:28:LYS:HB2	6:N:41:ARG:HD2	1.63	0.80
6:N:1465:ASN:HD21	6:N:1470:ARG:HD2	1.46	0.80
4:A:25:LEU:HD23	4:A:28:LEU:HD21	1.63	0.80
4:B:22:GLU:HG2	4:B:198:ARG:HG2	1.63	0.80
5:C:110:GLU:H	5:C:368:THR:HG21	1.45	0.80
5:M:579:VAL:HB	5:M:890:LEU:HD22	1.63	0.80
6:N:660:LYS:HB2	12:N:9248:HOH:O	1.81	0.80
6:N:83:SER:O	6:N:86:ARG:HB3	1.81	0.80
4:A:62:LEU:HD12	4:A:62:LEU:H	1.43	0.80
6:N:785:ILE:HD12	6:N:785:ILE:H	1.44	0.80
5:C:362:GLY:HA3	5:C:367:LEU:HD23	1.64	0.80
5:C:79:PRO:HG2	5:C:82:GLU:HB2	1.64	0.80
6:D:814:ALA:HB1	6:D:818:ARG:HH21	1.47	0.80
4:K:146:ARG:HB2	12:K:1714:HOH:O	1.81	0.80
6:N:1471:LEU:HD12	6:N:1472:ILE:H	1.47	0.80
6:D:650:LEU:HA	6:D:691:LEU:HD21	1.64	0.80
5:C:110:GLU:HG3	5:C:369:PRO:HG3	1.62	0.80
5:C:535:SER:H	5:C:538:GLN:NE2	1.79	0.80
5:M:1115:LEU:HD12	5:M:1115:LEU:H	1.44	0.80
5:C:196:LEU:HA	12:C:1255:HOH:O	1.81	0.80
7:E:30:LEU:O	7:E:35:PHE:HA	1.82	0.80
5:C:557:ARG:HB3	12:C:1341:HOH:O	1.80	0.79
4:K:129:ILE:HG12	12:K:661:HOH:O	1.82	0.79
4:K:52:ALA:HA	12:K:1273:HOH:O	1.81	0.79
6:N:774:SER:HB3	6:N:1362:LYS:O	1.83	0.79
5:C:927:GLY:HA2	5:C:930:LYS:HD3	1.65	0.79
5:M:494:TYR:HB3	12:M:7105:HOH:O	1.81	0.79
6:N:470:LEU:H	6:N:470:LEU:HD23	1.47	0.79
4:B:102:LYS:HE2	4:B:139:ASN:HB2	1.64	0.79
2:H:1:G:O2'	2:H:2:A:H5"	1.83	0.79
6:N:87:ARG:HD3	6:N:523:ASP:HB2	1.65	0.79
5:C:1050:GLN:HG2	5:C:1079:PRO:HG2	1.63	0.79
5:C:516:ARG:HE	6:D:1068:LEU:HD13	1.46	0.79
6:D:690:ALA:O	6:D:694:VAL:HG23	1.82	0.79
6:D:786:ILE:HG22	6:D:1026:SER:HB3	1.62	0.79
6:N:145:VAL:HG22	6:N:146:PRO:HD2	1.64	0.79
6:D:1291:SER:HB2	6:N:75:ARG:NE	1.98	0.79
7:E:43:GLU:HG3	7:E:44:GLU:H	1.46	0.79
5:M:292:ARG:HB2	5:M:299:LYS:HE2	1.65	0.79
6:N:1342:GLU:CD	6:N:1342:GLU:H	1.85	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:710:ARG:HD2	6:N:768:ASN:HD21	1.47	0.79
2:Y:12:G:H2'	2:Y:13:C:H6	1.45	0.79
4:B:186:LEU:HB2	4:B:192:LEU:HD11	1.63	0.79
5:C:847:GLY:HA2	6:D:741:ASP:HA	1.64	0.79
5:M:79:PRO:HG2	5:M:82:GLU:HB2	1.64	0.79
6:N:1020:LEU:HD21	6:N:1035:ILE:HG23	1.65	0.79
7:O:25:LYS:HA	7:O:28:GLN:HE21	1.46	0.79
2:Y:9:G:H2'	2:Y:10:G:C8	2.18	0.79
6:D:525:ARG:HG2	6:D:541:ASN:HD21	1.49	0.78
4:B:182:GLU:HG3	4:B:194:LYS:HD2	1.63	0.78
6:N:1240:THR:HG21	6:N:1355:VAL:HG13	1.65	0.78
7:O:40:LEU:HD21	7:O:67:GLU:HA	1.66	0.78
6:D:1144:LEU:HD11	6:D:1186:VAL:HG21	1.64	0.78
6:D:204:LEU:HD13	6:D:441:ARG:HH22	1.48	0.78
6:N:619:LEU:HD12	6:N:621:LYS:NZ	1.99	0.78
5:M:801:VAL:HG23	5:M:802:ARG:HG3	1.65	0.78
6:N:1294:VAL:HG22	6:N:1325:LEU:HD21	1.65	0.78
6:N:520:LEU:HD21	6:N:524:LEU:HB3	1.65	0.78
6:D:1295:GLU:HB3	6:N:76:CYS:HB2	1.66	0.78
6:D:47:GLU:CD	6:D:53:ILE:HB	2.04	0.78
5:M:142:ARG:NH1	5:M:325:ILE:HA	1.99	0.78
5:M:516:ARG:HD3	5:M:521:PRO:HA	1.64	0.78
5:M:675:ALA:HA	5:M:989:VAL:HG12	1.63	0.78
6:N:1389:LEU:HG	6:N:1390:LEU:HD23	1.65	0.78
5:C:630:ARG:HH21	5:C:706:GLU:HA	1.49	0.78
6:D:433:GLY:HA2	6:D:449:SER:C	2.04	0.78
6:D:456:MET:O	6:D:459:GLU:HB3	1.84	0.78
4:L:80:LEU:HG	6:N:844:ALA:HA	1.63	0.78
5:C:36:PRO:HG2	5:C:70:GLU:HB3	1.66	0.78
6:D:783:ARG:HA	6:D:1028:ALA:HA	1.65	0.78
6:D:28:LYS:HB3	6:D:41:ARG:HD2	1.66	0.78
2:H:12:G:H2'	2:H:13:C:C6	2.17	0.78
5:M:557:ARG:HG2	5:M:879:ARG:HB3	1.64	0.78
6:D:584:ASN:HB2	6:D:602:SER:HB3	1.65	0.78
6:D:5:VAL:HB	6:D:1468:LEU:HD11	1.64	0.78
5:M:584:GLU:HB2	12:M:7223:HOH:O	1.82	0.78
6:N:1149:LEU:HD11	6:N:1160:LEU:HD13	1.65	0.78
6:N:970:LYS:HG2	6:N:995:LEU:HD13	1.64	0.78
7:O:27:ALA:HB2	7:O:61:VAL:HG22	1.64	0.78
6:D:52:PRO:HA	12:D:9054:HOH:O	1.84	0.77
6:N:1379:VAL:HG12	6:N:1419:PRO:HA	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:437:ARG:HG2	5:C:467:ILE:HB	1.67	0.77
6:D:1233:GLY:O	6:D:1237:THR:HB	1.84	0.77
5:M:952:LEU:HB3	5:M:966:LEU:HD11	1.66	0.77
5:C:312:ALA:HB1	5:C:318:PRO:HG2	1.65	0.77
5:C:65:VAL:HG23	5:C:101:ILE:HB	1.64	0.77
4:K:89:PHE:HD1	4:K:120:VAL:HG23	1.49	0.77
6:N:1493:LYS:O	6:N:1497:GLU:HG2	1.84	0.77
5:C:636:ALA:HB3	5:C:703:ILE:HD13	1.67	0.77
5:M:810:ASP:HB3	5:M:813:VAL:HG22	1.65	0.77
4:L:59:GLU:HB2	4:L:137:ARG:HH12	1.49	0.77
5:M:10:ARG:HA	5:M:10:ARG:HH11	1.47	0.77
5:C:1116:ALA:HB3	12:C:1130:HOH:O	1.84	0.77
5:C:88:LEU:HD12	5:C:89:THR:H	1.47	0.77
6:D:169:TYR:HB3	6:D:195:VAL:HG11	1.67	0.77
6:D:637:LEU:HD21	6:D:642:CYS:HA	1.64	0.77
6:D:1282:ARG:NH2	6:N:72:VAL:HG21	1.99	0.77
6:N:73:CYS:HB3	6:N:76:CYS:O	1.84	0.77
6:D:396:VAL:HB	6:D:447:VAL:HG12	1.67	0.77
4:K:221:HIS:HB3	4:L:36:LEU:HD11	1.64	0.77
6:N:164:GLY:HA3	6:N:447:VAL:HB	1.67	0.77
7:O:35:PHE:HZ	7:O:60:ALA:HA	1.49	0.77
5:C:1105:LYS:HG3	5:C:1107:ASN:HD22	1.49	0.77
7:E:25:LYS:HA	7:E:28:GLN:HE21	1.48	0.77
5:M:1009:SER:HB2	6:N:651:GLU:O	1.85	0.77
5:M:703:ILE:H	5:M:703:ILE:HD12	1.50	0.77
6:N:204:LEU:HB3	6:N:441:ARG:NH2	1.98	0.77
6:N:827:ILE:HB	6:N:828:LYS:HE3	1.67	0.77
6:D:838:ARG:HH21	6:D:863:VAL:HG11	1.50	0.77
7:E:36:LYS:NZ	7:E:45:ARG:HH22	1.83	0.77
4:B:89:PHE:HB3	4:B:94:LEU:HD12	1.66	0.76
6:D:1046:GLN:HA	6:D:1052:THR:HA	1.68	0.76
6:D:1291:SER:HB3	6:D:1293:PHE:HE1	1.49	0.76
6:D:396:VAL:HG21	6:D:445:ARG:HD3	1.65	0.76
6:D:133:ILE:HG12	6:D:456:MET:HB3	1.68	0.76
6:D:73:CYS:HB3	6:D:76:CYS:O	1.84	0.76
6:N:136:ASP:HB3	6:N:137:PRO:HD3	1.65	0.76
5:C:478:VAL:HG13	5:C:506:ASN:HB3	1.65	0.76
5:M:203:ASP:OD1	5:M:205:GLU:HG3	1.85	0.76
5:M:941:VAL:HA	5:M:944:LEU:HD12	1.67	0.76
6:N:544:TYR:O	6:N:548:ILE:HG12	1.86	0.76
6:D:1236:LEU:HA	6:D:1359:GLN:HE21	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1383:ASP:HB2	6:N:1416:ALA:HB3	1.65	0.76
6:N:1438:ALA:O	6:N:1443:THR:HG22	1.86	0.76
6:N:520:LEU:HD11	6:N:524:LEU:HD13	1.68	0.76
1:G:17:DC:H5"	5:C:1030:GLN:HE21	1.48	0.76
5:C:904:PRO:HD2	5:C:908:GLY:HA2	1.68	0.76
5:C:939:ARG:HB3	5:C:982:PRO:HG3	1.67	0.76
5:M:579:VAL:HG11	5:M:887:GLU:HG3	1.66	0.76
5:M:971:LYS:HA	5:M:988:VAL:HA	1.66	0.76
6:N:1223:ILE:H	6:N:1223:ILE:HD12	1.50	0.76
6:N:403:PHE:HA	12:N:9471:HOH:O	1.84	0.76
6:D:1382:THR:HG21	6:D:1418:LYS:HE3	1.65	0.76
6:D:789:LEU:HD13	6:D:934:LEU:HD22	1.68	0.76
4:L:58:ILE:HD13	4:L:140:MET:HB3	1.68	0.76
5:M:862:PRO:HB3	5:M:929:ARG:HH22	1.50	0.76
6:N:11:ALA:HB1	6:N:507:ASN:OD1	1.84	0.76
5:C:284:ARG:HG2	5:C:285:LEU:H	1.51	0.76
5:M:889:HIS:HE1	6:N:951:ILE:H	1.33	0.76
6:D:136:ASP:HB2	6:D:455:ARG:HH22	1.51	0.76
5:M:312:ALA:HB1	5:M:318:PRO:HG2	1.68	0.76
5:C:794:PRO:HB2	5:C:1027:PHE:CZ	2.21	0.76
6:D:1427:SER:HB2	12:D:9224:HOH:O	1.86	0.76
6:N:1042:ARG:O	6:N:1057:VAL:HB	1.86	0.76
6:N:30:GLU:HG3	6:N:41:ARG:HG2	1.68	0.76
6:N:51:GLY:HA3	6:N:86:ARG:CA	2.14	0.76
6:D:1476:THR:HG22	7:E:21:VAL:HG22	1.67	0.75
2:H:12:G:H2'	2:H:13:C:H6	1.51	0.75
5:M:578:VAL:HG11	5:M:991:GLN:HB3	1.67	0.75
6:N:699:VAL:H	6:N:756:GLN:NE2	1.82	0.75
4:A:58:ILE:HD13	4:A:140:MET:HB3	1.67	0.75
6:D:773:ALA:HA	6:D:1228:SER:HB3	1.67	0.75
6:D:900:ILE:HG22	6:D:914:LEU:HD21	1.66	0.75
5:M:965:GLU:HA	5:M:968:LEU:HD12	1.67	0.75
6:N:1406:ARG:HD2	6:N:1412:LYS:HE3	1.67	0.75
5:M:1007:ALA:HB1	6:N:652:LEU:HD13	1.69	0.75
6:D:1353:GLN:HE21	6:D:1357:ARG:NE	1.83	0.75
6:D:760:ARG:O	6:D:764:LEU:HD23	1.87	0.75
4:K:95:GLN:HA	12:K:1714:HOH:O	1.85	0.75
5:M:367:LEU:O	5:M:372:LEU:HD13	1.86	0.75
5:M:753:ASP:O	5:M:792:VAL:HG23	1.86	0.75
6:N:1101:VAL:HG21	6:N:1424:VAL:HG22	1.67	0.75
7:O:30:LEU:O	7:O:35:PHE:HA	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:415:VAL:HG13	6:D:419:ASP:HB3	1.69	0.75
6:D:567:ILE:HG22	6:D:571:LYS:NZ	2.00	0.75
6:N:143:ASN:HD21	6:N:145:VAL:HG12	1.51	0.75
2:H:10:G:O2'	2:H:11:C:H5'	1.87	0.75
6:N:1046:GLN:HA	6:N:1052:THR:HA	1.69	0.75
4:B:38:ASN:HB2	12:B:368:HOH:O	1.85	0.75
5:C:1054:THR:HG21	5:C:1079:PRO:HB3	1.67	0.75
4:A:228:PRO:HG3	12:A:318:HOH:O	1.86	0.75
6:D:455:ARG:HA	12:D:9294:HOH:O	1.86	0.75
4:K:103:ALA:HB3	12:K:672:HOH:O	1.87	0.75
5:M:195:LEU:HD11	5:M:238:LEU:HB2	1.68	0.75
6:N:1129:THR:HG23	6:N:1130:ARG:H	1.51	0.75
6:D:1189:ARG:HB3	6:D:1204:CYS:HA	1.68	0.75
6:D:785:ILE:HG22	6:D:789:LEU:HD11	1.68	0.75
6:D:895:VAL:HG11	6:D:922:LEU:HD21	1.69	0.75
5:M:904:PRO:HD2	5:M:908:GLY:HA2	1.68	0.75
4:A:79:ILE:HG21	4:A:165:ILE:HD11	1.68	0.75
4:A:80:LEU:HA	4:A:83:LYS:HE3	1.67	0.75
5:C:636:ALA:HA	12:C:1463:HOH:O	1.86	0.75
5:M:69:LEU:HD22	5:M:70:GLU:HG3	1.69	0.75
7:O:54:LEU:HD23	7:O:58:PRO:HD2	1.67	0.75
5:C:176:VAL:HG12	5:C:182:VAL:HG13	1.67	0.74
6:D:952:ASP:HA	6:D:1062:ARG:NH2	2.00	0.74
7:E:27:ALA:CB	7:E:61:VAL:HG22	2.16	0.74
5:M:1011:GLY:HA2	5:M:1026:GLN:NE2	2.01	0.74
5:C:141:HIS:HB3	5:C:418:LEU:HG	1.67	0.74
6:D:1353:GLN:HE21	6:D:1357:ARG:HE	1.34	0.74
6:D:203:ALA:HB2	12:D:9157:HOH:O	1.86	0.74
6:N:557:LEU:HD11	6:N:566:ILE:HG22	1.68	0.74
6:D:678:GLU:HG2	6:D:679:ARG:HG3	1.68	0.74
2:H:13:C:H4'	5:C:409:ARG:NH2	2.02	0.74
6:N:486:ARG:HA	6:N:489:ARG:HG2	1.70	0.74
4:A:12:THR:HG23	4:A:24:VAL:HB	1.68	0.74
5:C:383:ARG:HB2	5:C:383:ARG:NH1	2.02	0.74
12:G:1182:HOH:O	6:D:706:PRO:HA	1.87	0.74
5:C:810:ASP:HB3	5:C:813:VAL:HG13	1.68	0.74
6:D:842:VAL:HG22	12:D:9048:HOH:O	1.87	0.74
4:L:179:PHE:HB2	4:L:195:LEU:HD11	1.69	0.74
4:B:92:PRO:HA	4:B:146:ARG:NH1	2.01	0.74
5:C:1052:MET:SD	5:C:1056:LYS:HD2	2.28	0.74
6:D:1025:GLN:HE21	6:D:1025:GLN:HA	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:677:MET:HB3	5:M:987:ILE:HD13	1.68	0.74
4:A:57:TYR:HB3	4:A:141:GLU:HG2	1.69	0.74
5:C:998:TYR:HB3	12:C:1158:HOH:O	1.88	0.74
5:M:274:ARG:HH22	5:M:284:ARG:HG3	1.53	0.74
12:L:865:HOH:O	6:N:848:GLU:HB3	1.87	0.74
6:N:780:LYS:HD3	6:N:912:LYS:HE2	1.70	0.74
6:N:118:LEU:HB3	6:N:123:LEU:HD23	1.68	0.74
6:N:690:ALA:O	6:N:694:VAL:HG23	1.88	0.74
6:D:1153:VAL:CG1	6:N:561:GLY:HA3	2.16	0.74
6:N:1147:ARG:HB3	6:N:1188:VAL:HG21	1.67	0.74
6:N:729:HIS:HD1	6:N:731:LEU:H	1.32	0.74
7:E:28:GLN:O	7:E:32:ARG:HG3	1.88	0.74
5:M:575:GLN:HA	5:M:662:GLU:OE2	1.88	0.74
6:N:1426:LYS:HA	6:N:1429:LEU:HD22	1.69	0.74
5:M:611:ILE:HD11	5:M:641:PRO:HG3	1.70	0.73
6:N:699:VAL:H	6:N:756:GLN:HE22	1.35	0.73
2:Y:10:G:O2'	2:Y:11:C:H5'	1.88	0.73
5:C:141:HIS:HB3	5:C:418:LEU:CG	2.18	0.73
5:C:839:LEU:HB3	12:C:1441:HOH:O	1.87	0.73
6:D:1282:ARG:HH22	6:N:72:VAL:HG21	1.53	0.73
6:D:1283:ILE:N	6:N:75:ARG:HA	2.02	0.73
4:A:53:VAL:HG11	4:A:82:LEU:HD13	1.70	0.73
5:C:88:LEU:HB2	5:C:814:GLU:OE1	1.87	0.73
5:C:83:CYS:HA	5:C:88:LEU:HB3	1.69	0.73
6:D:808:THR:HB	6:D:809:PRO:HD3	1.71	0.73
2:H:9:G:H2'	2:H:10:G:H8	1.54	0.73
6:N:1077:ALA:HA	12:N:9042:HOH:O	1.88	0.73
6:N:483:HIS:HB2	6:N:484:PRO:HD3	1.68	0.73
6:N:619:LEU:HD12	6:N:621:LYS:HZ3	1.53	0.73
12:H:272:HOH:O	5:C:1012:PRO:HB3	1.87	0.73
6:D:477:LEU:HB3	6:D:496:LEU:HD12	1.70	0.73
3:I:5:DG:H1'	3:I:6:DC:H5'	1.69	0.73
4:K:67:THR:HG21	5:M:609:ASN:ND2	2.02	0.73
4:L:201:THR:HG22	4:L:203:GLY:H	1.53	0.73
5:C:683:ASN:HA	5:C:687:ALA:HB3	1.69	0.73
5:C:690:ILE:HD12	5:C:833:LEU:HD23	1.71	0.73
4:K:50:GLY:HA3	4:K:173:PRO:HG3	1.68	0.73
6:N:758:GLU:O	6:N:762:GLN:HG3	1.89	0.73
4:A:36:LEU:HD11	4:B:221:HIS:HB3	1.69	0.73
5:C:1005:MET:HB2	6:D:648:MET:HE3	1.68	0.73
2:H:10:G:H2'	2:H:11:C:C6	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:139:GLN:O	5:M:333:ILE:HA	1.87	0.73
6:N:1115:THR:HG21	6:N:1151:ARG:HH21	1.53	0.73
6:N:1363:LEU:H	6:N:1363:LEU:HD23	1.54	0.73
6:N:25:GLU:HG2	6:N:92:HIS:O	1.88	0.73
5:C:437:ARG:CZ	5:C:488:ALA:HA	2.16	0.73
6:D:1175:ILE:HD11	12:D:9440:HOH:O	1.89	0.73
6:D:133:ILE:HA	6:D:456:MET:HB2	1.69	0.73
4:K:87:VAL:HG21	4:K:144:VAL:HG11	1.71	0.73
6:N:133:ILE:HA	6:N:456:MET:CB	2.19	0.73
5:C:575:GLN:HB2	5:C:670:GLN:HG2	1.71	0.73
6:D:1342:GLU:H	6:D:1342:GLU:CD	1.92	0.73
6:D:704:ARG:HD2	6:D:705:ALA:H	1.54	0.73
5:M:1031:ARG:HA	6:N:621:LYS:O	1.89	0.73
5:M:833:LEU:HD11	5:M:839:LEU:HD21	1.68	0.73
6:N:1240:THR:HG23	6:N:1253:THR:HB	1.71	0.73
6:D:1298:GLY:N	6:N:47:GLU:HB2	2.03	0.73
6:N:610:LYS:O	6:N:615:ARG:HG2	1.88	0.73
6:D:703:ASN:HD21	6:D:707:THR:HG23	1.54	0.73
4:L:59:GLU:CB	4:L:137:ARG:HH12	2.01	0.73
5:M:325:ILE:HG22	5:M:331:ARG:NH1	2.04	0.73
4:B:99:LEU:HD22	4:B:144:VAL:HG21	1.71	0.72
6:D:141:ILE:HG12	6:D:448:GLU:O	1.88	0.72
6:D:551:ASN:HD21	6:D:555:LYS:HZ3	1.36	0.72
6:N:133:ILE:HG12	6:N:456:MET:HB3	1.70	0.72
6:N:171:LEU:HD11	6:N:393:ILE:HD11	1.71	0.72
6:N:703:ASN:HD22	6:N:704:ARG:N	1.87	0.72
5:C:492:ASP:HB3	5:C:518:LYS:HE2	1.71	0.72
5:C:861:LEU:HD23	5:C:863:ASP:H	1.53	0.72
5:C:579:VAL:HB	5:C:890:LEU:CD2	2.19	0.72
6:D:1114:THR:HB	6:D:1195:GLN:HE21	1.54	0.72
6:D:119:SER:H	6:D:123:LEU:HD22	1.54	0.72
6:D:30:GLU:OE2	6:D:40:GLU:HG2	1.89	0.72
6:D:917:GLN:O	6:D:921:ARG:HG2	1.88	0.72
4:L:210:ALA:HB2	12:L:1413:HOH:O	1.88	0.72
6:N:1416:ALA:HB1	12:N:9011:HOH:O	1.89	0.72
6:N:44:LEU:HD23	6:N:44:LEU:H	1.54	0.72
6:N:877:PRO:O	6:N:880:ILE:HG22	1.89	0.72
6:N:1166:LEU:HD23	6:N:1166:LEU:H	1.52	0.72
6:D:947:ILE:HG22	6:D:1019:PRO:HG3	1.70	0.72
6:D:143:ASN:HD21	6:D:145:VAL:HG12	1.54	0.72
2:H:12:G:O2'	2:H:13:C:H5'	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:710:ILE:HD12	5:M:790:LEU:HB2	1.70	0.72
6:N:708:LEU:HD22	6:N:1231:GLU:HA	1.69	0.72
6:N:163:TYR:HB2	6:N:166:GLN:HG3	1.70	0.72
6:N:1018:ASN:HB3	6:N:1021:TYR:HB3	1.70	0.72
1:X:18:DG:O3'	5:M:1001:VAL:HB	1.88	0.72
5:C:473:ARG:HD2	5:C:475:VAL:HG22	1.72	0.72
5:C:971:LYS:HA	5:C:988:VAL:HA	1.70	0.72
6:D:436:GLU:HB2	6:D:445:ARG:HH11	1.55	0.72
4:K:27:PRO:HB3	4:K:186:LEU:HD11	1.71	0.72
5:M:534:VAL:H	5:M:538:GLN:NE2	1.88	0.72
4:A:105:GLY:O	4:A:132:LEU:HB3	1.90	0.72
5:C:146:VAL:HG22	5:C:162:ILE:HG12	1.72	0.72
6:D:1465:ASN:HD21	6:D:1470:ARG:HB3	1.55	0.72
5:M:395:LYS:HE3	5:M:403:SER:HB2	1.70	0.72
6:N:796:ARG:NH1	6:N:861:GLN:HB2	2.04	0.72
5:M:754:ILE:HG12	5:M:791:ARG:HD3	1.69	0.72
5:M:896:PHE:O	5:M:924:VAL:HG11	1.90	0.72
6:N:18:ILE:HG23	6:N:518:PRO:HG3	1.69	0.72
4:K:41:ARG:HH21	4:K:45:LEU:HD21	1.54	0.72
5:M:683:ASN:HA	5:M:687:ALA:HB3	1.71	0.71
5:M:874:LEU:HA	6:N:1023:MET:SD	2.30	0.71
6:N:1098:LEU:HD12	6:N:1424:VAL:HG21	1.72	0.71
6:D:1293:PHE:HB2	6:N:75:ARG:O	1.89	0.71
6:N:799:LYS:HZ3	6:N:824:ASN:HA	1.53	0.71
6:D:202:VAL:HG21	6:D:400:VAL:HB	1.72	0.71
6:D:544:TYR:O	6:D:548:ILE:HG12	1.90	0.71
6:D:639:LEU:HD11	12:E:102:HOH:O	1.89	0.71
4:B:116:PRO:HA	12:B:336:HOH:O	1.90	0.71
6:D:1188:VAL:HB	12:D:9531:HOH:O	1.89	0.71
5:M:716:LYS:HE2	12:M:7334:HOH:O	1.91	0.71
5:M:762:LYS:HG3	5:M:784:ASP:O	1.90	0.71
6:N:1442:ASN:OD1	6:N:1444:THR:HB	1.89	0.71
4:A:212:ASN:O	4:A:216:GLU:HG2	1.89	0.71
1:X:18:DG:O4'	5:M:1002:GLU:HB3	1.89	0.71
5:M:962:GLN:HG2	12:M:7146:HOH:O	1.87	0.71
6:N:1291:SER:HB2	6:N:1293:PHE:HE1	1.56	0.71
5:C:1034:GLU:HG2	6:D:619:LEU:HD13	1.72	0.71
5:C:383:ARG:HH11	5:C:383:ARG:HB2	1.54	0.71
5:C:579:VAL:HG11	5:C:887:GLU:HG3	1.71	0.71
6:D:444:VAL:HG13	12:D:9150:HOH:O	1.89	0.71
5:M:502:PRO:HB2	5:M:509:ALA:HB3	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1106:VAL:HG11	6:N:1474:ALA:HB2	1.71	0.71
6:N:1399:ASP:O	6:N:1403:LEU:HB2	1.91	0.71
5:C:264:PRO:HA	12:C:1174:HOH:O	1.89	0.71
4:K:206:THR:HG22	4:K:209:GLU:H	1.56	0.71
6:N:615:ARG:HB2	6:N:615:ARG:HH11	1.56	0.71
6:N:1476:THR:HG23	7:O:21:VAL:HG22	1.71	0.71
5:C:84:ARG:NH2	5:C:128:ILE:HD11	2.06	0.71
6:D:517:VAL:HG21	6:D:547:LEU:HD21	1.73	0.71
6:D:618:LEU:HB3	6:D:619:LEU:HD23	1.73	0.71
5:M:36:PRO:HG2	5:M:70:GLU:HB3	1.70	0.71
5:M:580:MET:SD	5:M:584:GLU:HG3	2.30	0.71
5:M:78:PHE:HB2	5:M:88:LEU:HD21	1.73	0.71
5:C:137:VAL:O	5:C:391:LEU:HD21	1.91	0.71
6:D:1485:GLN:HE21	7:E:80:VAL:N	1.85	0.71
5:M:757:GLY:HA2	5:M:789:SER:HB3	1.72	0.71
5:M:685:GLU:HG2	6:N:739:ASP:HB3	1.73	0.71
4:B:92:PRO:HA	4:B:146:ARG:HH12	1.56	0.71
4:B:224:TYR:HA	12:B:408:HOH:O	1.91	0.71
5:C:976:ASP:HB2	5:C:979:THR:HG22	1.72	0.71
6:D:30:GLU:HB3	6:D:40:GLU:HB3	1.72	0.71
11:M:6999:APC:H5'1	11:M:6999:APC:H8	1.73	0.71
4:A:88:ARG:HB2	4:A:204:SER:HA	1.73	0.70
5:C:283:ILE:HB	12:C:1220:HOH:O	1.91	0.70
5:C:290:LEU:HB3	5:C:302:VAL:CG1	2.21	0.70
6:D:1148:VAL:HB	6:D:1203:LYS:O	1.91	0.70
6:D:788:GLY:O	6:D:792:ILE:HG22	1.91	0.70
3:I:6:DC:C5'	6:D:1266:ARG:HH22	2.03	0.70
5:M:1008:ARG:HG3	5:M:1028:GLY:H	1.53	0.70
5:M:1055:LEU:HD22	5:M:1066:ALA:HB2	1.72	0.70
5:M:768:THR:HB	5:M:771:GLU:HB3	1.73	0.70
5:C:1097:LEU:HD22	5:C:1097:LEU:H	1.53	0.70
5:C:470:PRO:HB2	5:C:534:VAL:HG21	1.73	0.70
6:D:414:ARG:HG2	6:D:451:ASP:N	2.06	0.70
6:D:775:GLY:HA3	6:D:1145:TYR:HE1	1.55	0.70
5:C:139:GLN:HE22	5:C:415:PRO:HD2	1.57	0.70
5:C:420:ARG:HA	12:C:1154:HOH:O	1.90	0.70
5:C:966:LEU:HD21	5:C:986:PRO:HG3	1.70	0.70
6:D:550:ARG:HE	6:D:553:ARG:NH1	1.89	0.70
6:D:54:LYS:HG2	6:D:57:GLU:HB3	1.74	0.70
11:D:5999:APC:H8	11:D:5999:APC:H5'1	1.73	0.70
4:K:179:PHE:HB2	4:K:195:LEU:HD11	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1425:THR:O	6:N:1429:LEU:HD13	1.91	0.70
6:N:633:VAL:HB	6:N:740:PHE:CE1	2.26	0.70
6:D:112:ILE:HG12	6:D:128:TYR:OH	1.90	0.70
5:M:241:LEU:HD21	12:M:7332:HOH:O	1.92	0.70
5:M:762:LYS:HG2	5:M:786:LYS:HG3	1.73	0.70
5:C:342:ASP:O	5:C:346:VAL:HG23	1.91	0.70
6:D:87:ARG:HG3	6:D:88:TYR:CD2	2.25	0.70
2:H:7:G:N1	5:C:1014:SER:HA	2.06	0.70
5:M:479:VAL:HG21	5:M:503:LEU:HD21	1.72	0.70
5:C:672:VAL:HG23	5:C:868:ASP:HB2	1.72	0.70
5:C:996:LYS:HG2	12:C:1441:HOH:O	1.91	0.70
2:H:6:U:H2'	2:H:7:G:N7	2.06	0.70
5:M:1054:THR:HG21	5:M:1079:PRO:HB3	1.71	0.70
5:M:1060:ILE:HD12	5:M:1063:ARG:HH12	1.55	0.70
5:M:428:ARG:HA	5:M:428:ARG:CZ	2.20	0.70
6:N:1047:LYS:HZ2	6:N:1053:PHE:HA	1.56	0.70
6:N:1273:VAL:HG22	6:N:1326:THR:OG1	1.91	0.70
6:N:491:LYS:HE2	6:N:495:ARG:NH1	2.05	0.70
6:N:860:LEU:H	6:N:860:LEU:HD12	1.55	0.70
6:D:125:GLN:NE2	6:D:587:ARG:HE	1.90	0.70
6:D:1465:ASN:ND2	6:D:1470:ARG:HB3	2.07	0.70
6:D:162:ARG:HA	12:D:9260:HOH:O	1.90	0.70
6:D:202:VAL:HG23	6:D:398:ALA:O	1.92	0.70
6:N:2:LYS:HB2	12:N:9093:HOH:O	1.90	0.70
6:N:618:LEU:HB3	6:N:619:LEU:HD23	1.72	0.70
5:C:449:ILE:O	5:C:451:LEU:HG	1.91	0.70
5:M:752:GLY:H	5:M:792:VAL:HB	1.55	0.70
6:D:657:LEU:HB2	6:D:691:LEU:HD13	1.72	0.70
5:M:410:ILE:HD11	5:M:455:LEU:HB3	1.73	0.70
6:N:781:PRO:HG2	6:N:911:LEU:HD23	1.72	0.70
6:D:1280:VAL:HG22	6:D:1318:TYR:N	2.07	0.70
6:D:547:LEU:HD23	6:D:581:LEU:HD21	1.73	0.70
2:H:7:G:H3'	12:H:1604:HOH:O	1.91	0.70
5:M:399:ASN:O	5:M:402:SER:HB3	1.92	0.70
6:N:165:LYS:HD3	12:N:9447:HOH:O	1.91	0.70
6:D:787:LEU:HD11	6:D:947:ILE:HG12	1.72	0.69
1:G:21:DC:H4'	5:C:134:ARG:NH2	2.02	0.69
4:A:161:ARG:HB2	4:A:161:ARG:NH1	2.06	0.69
4:B:63:HIS:HB3	12:B:395:HOH:O	1.91	0.69
5:C:626:ARG:HB2	5:C:639:GLN:NE2	2.03	0.69
6:D:1493:LYS:O	6:D:1497:GLU:HG2	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:988:ARG:HH11	6:D:992:ILE:HD11	1.57	0.69
7:E:23:VAL:HG12	7:E:61:VAL:CG1	2.20	0.69
5:M:1111:ILE:HG13	5:M:1112:PHE:H	1.57	0.69
2:Y:13:C:H5''	5:M:409:ARG:HH22	1.57	0.69
6:N:1176:LYS:HA	6:N:1179:GLU:OE1	1.92	0.69
6:N:1281:VAL:HG23	6:N:1319:VAL:HG21	1.73	0.69
5:C:421:GLU:HG2	12:C:1233:HOH:O	1.92	0.69
6:D:1018:ASN:HB3	6:D:1021:TYR:HB3	1.75	0.69
6:D:93:ILE:O	6:D:516:ALA:HA	1.92	0.69
6:N:1236:LEU:HB3	6:N:1359:GLN:CB	2.22	0.69
6:N:710:ARG:HH11	6:N:768:ASN:ND2	1.89	0.69
7:O:17:TYR:O	7:O:20:THR:HG22	1.92	0.69
7:O:23:VAL:CG1	7:O:61:VAL:CG1	2.70	0.69
5:C:1059:ASP:OD1	5:C:1080:SER:HB3	1.92	0.69
6:D:1087:ARG:HG2	6:D:1238:MET:HA	1.73	0.69
5:M:1032:PHE:O	5:M:1036:GLU:HB2	1.92	0.69
6:N:1144:LEU:HD11	6:N:1186:VAL:HG11	1.75	0.69
6:N:179:VAL:HG13	6:N:183:GLU:HB3	1.73	0.69
6:D:1153:VAL:HG13	6:N:561:GLY:CA	2.23	0.69
6:N:900:ILE:HD11	6:N:902:LEU:HD23	1.75	0.69
6:D:1281:VAL:HG11	6:D:1313:VAL:CG1	2.20	0.69
6:D:662:GLU:HG3	12:D:9068:HOH:O	1.92	0.69
6:D:850:LEU:HD12	6:D:850:LEU:H	1.57	0.69
5:M:922:PHE:HZ	5:M:963:LEU:HB3	1.58	0.69
7:O:23:VAL:HG12	7:O:61:VAL:CG1	2.19	0.69
2:Y:10:G:H2'	2:Y:11:C:C6	2.27	0.69
3:Z:5:DG:H1'	3:Z:6:DC:H5'	1.74	0.69
5:C:1016:ILE:HG21	6:D:526:PRO:HG3	1.73	0.69
5:C:129:ILE:HD13	5:C:134:ARG:HB2	1.73	0.69
5:C:195:LEU:HD21	5:C:238:LEU:HG	1.75	0.69
6:D:1281:VAL:HG23	6:D:1319:VAL:CG2	2.22	0.69
6:D:13:ALA:O	6:D:511:TRP:HB3	1.93	0.69
6:D:148:GLU:HG2	6:D:151:GLN:HE21	1.58	0.69
6:N:45:PHE:HD1	6:N:522:PRO:HB3	1.57	0.69
4:A:23:PHE:HE1	4:A:208:LEU:HD12	1.58	0.69
6:D:610:LYS:HA	6:D:615:ARG:NH2	2.08	0.69
7:E:40:LEU:HD21	7:E:67:GLU:HA	1.73	0.69
5:M:183:SER:HB2	5:M:190:LYS:HG2	1.75	0.69
6:N:421:LEU:HD12	6:N:427:VAL:HG12	1.74	0.69
4:B:44:LEU:HD23	4:B:48:ILE:HD11	1.73	0.69
4:B:97:VAL:HB	12:B:403:HOH:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:615:ARG:NH2	6:D:1096:ARG:HH12	1.91	0.69
6:D:817:GLU:O	6:D:821:VAL:HG23	1.93	0.69
4:L:16:GLN:HA	4:L:16:GLN:HE21	1.58	0.69
5:M:537:LYS:HB3	5:M:545:ASN:HD21	1.58	0.69
4:A:58:ILE:HG21	4:A:68:ILE:HD11	1.75	0.69
4:B:179:PHE:HB3	4:B:197:LEU:HD12	1.75	0.69
5:C:314:THR:HA	12:C:1396:HOH:O	1.92	0.69
6:D:63:TYR:CE1	6:D:73:CYS:HA	2.28	0.69
5:M:162:ILE:HD11	5:M:306:THR:HG21	1.75	0.69
5:M:142:ARG:NH2	5:M:325:ILE:HG12	2.07	0.69
5:C:162:ILE:O	5:C:164:PRO:HD3	1.93	0.69
5:C:99:GLN:HB3	5:C:109:LYS:HG3	1.75	0.69
6:D:614:PHE:CE2	6:D:1438:ALA:HB1	2.28	0.69
6:D:794:GLN:O	6:D:861:GLN:HB3	1.93	0.69
5:M:724:ARG:HB2	5:M:724:ARG:CZ	2.21	0.69
5:M:851:LYS:HG3	5:M:853:LEU:HD12	1.75	0.69
6:N:1272:ALA:HA	6:N:1326:THR:HB	1.74	0.69
6:N:1429:LEU:HG	6:N:1441:GLN:CG	2.21	0.69
4:B:52:ALA:HB2	4:B:170:VAL:O	1.93	0.69
5:C:84:ARG:HH21	5:C:128:ILE:HD11	1.57	0.69
6:D:877:PRO:O	6:D:880:ILE:HG22	1.92	0.69
5:M:1092:LEU:HA	5:M:1095:LEU:HD12	1.73	0.69
5:M:17:PRO:O	5:M:20:GLU:HB3	1.92	0.69
5:M:841:ASN:HD21	5:M:843:HIS:CD2	2.11	0.69
2:Y:6:U:H2'	2:Y:7:G:N7	2.07	0.69
6:D:639:LEU:HD12	6:D:640:HIS:H	1.56	0.68
5:M:878:SER:HB3	6:N:1029:ARG:HD2	1.75	0.68
6:D:139:GLY:O	6:D:147:VAL:HB	1.92	0.68
6:D:989:TYR:O	6:D:993:LEU:HG	1.93	0.68
6:N:796:ARG:HH11	6:N:861:GLN:HB2	1.58	0.68
5:C:139:GLN:OE1	5:C:414:GLY:HA3	1.93	0.68
5:C:198:ARG:HB3	5:C:198:ARG:NH1	2.08	0.68
5:C:511:GLU:O	5:C:526:PRO:HD3	1.94	0.68
6:D:105:VAL:HB	12:D:9087:HOH:O	1.94	0.68
6:D:1305:LEU:HD21	6:D:1326:THR:OG1	1.91	0.68
6:D:163:TYR:CD1	6:D:166:GLN:HB2	2.27	0.68
6:D:524:LEU:H	6:D:524:LEU:HD12	1.59	0.68
6:D:65:ARG:HG3	6:D:66:GLN:H	1.58	0.68
7:E:62:THR:HA	7:E:65:MET:HE2	1.76	0.68
4:K:20:TYR:HE2	4:K:198:ARG:HB3	1.59	0.68
5:M:190:LYS:HE3	12:M:7048:HOH:O	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1032:PHE:O	5:C:1036:GLU:HB2	1.93	0.68
5:C:562:SER:O	5:C:565:GLN:HG3	1.93	0.68
6:D:1345:GLU:O	6:D:1349:VAL:HG23	1.92	0.68
6:D:470:LEU:HD12	6:D:503:LEU:HD21	1.74	0.68
6:N:1109:GLU:OE2	6:N:1217:ILE:HD11	1.93	0.68
6:D:1019:PRO:O	6:D:1023:MET:HG3	1.94	0.68
6:D:396:VAL:O	6:D:398:ALA:N	2.27	0.68
5:M:274:ARG:HB2	5:M:285:LEU:HD13	1.73	0.68
6:N:444:VAL:HG21	12:N:9209:HOH:O	1.94	0.68
6:N:19:ARG:HH21	6:N:516:ALA:HB2	1.57	0.68
5:C:212:GLY:HA3	5:C:218:VAL:CG2	2.24	0.68
6:D:1048:PRO:HG3	6:D:1075:HIS:ND1	2.09	0.68
1:G:21:DC:H3'	12:G:1612:HOH:O	1.94	0.68
4:K:53:VAL:HG12	4:K:167:VAL:HG21	1.74	0.68
5:M:145:GLY:H	5:M:163:ILE:HG13	1.58	0.68
5:M:511:GLU:O	5:M:526:PRO:HD3	1.93	0.68
5:M:534:VAL:H	5:M:538:GLN:HE22	1.41	0.68
5:M:682:TYR:HB3	5:M:689:VAL:HG13	1.76	0.68
6:N:1047:LYS:NZ	6:N:1053:PHE:HA	2.08	0.68
6:N:133:ILE:O	6:N:152:LEU:HB2	1.93	0.68
6:N:522:PRO:HA	6:N:525:ARG:NH1	2.09	0.68
6:N:787:LEU:HD21	6:N:947:ILE:HD11	1.76	0.68
7:O:39:VAL:HB	12:O:2451:HOH:O	1.93	0.68
5:C:202:TYR:OH	5:C:304:LEU:HD22	1.94	0.68
5:C:964:LYS:O	5:C:968:LEU:HG	1.93	0.68
5:C:1096:ALA:O	6:D:13:ALA:HB2	1.93	0.68
6:D:530:VAL:HB	6:D:534:ARG:HB2	1.74	0.68
5:M:203:ASP:O	5:M:207:LEU:HB2	1.94	0.68
5:M:264:PRO:HB3	5:M:289:THR:CB	2.23	0.68
6:N:572:ARG:HB3	12:N:9115:HOH:O	1.92	0.68
6:N:642:CYS:SG	6:N:716:PHE:HB2	2.33	0.68
6:N:777:PRO:O	6:N:780:LYS:HG2	1.93	0.68
5:C:328:LEU:HD13	5:C:433:THR:HB	1.74	0.68
5:C:538:GLN:HB2	12:C:1361:HOH:O	1.94	0.68
6:D:98:PRO:O	6:D:458:ALA:HB3	1.93	0.68
6:D:562:ALA:HB1	6:D:567:ILE:HD11	1.74	0.68
6:D:584:ASN:OD1	6:D:590:PRO:HD2	1.94	0.68
6:D:62:LYS:HB2	6:D:73:CYS:SG	2.34	0.68
5:M:443:THR:O	5:M:559:LEU:HD21	1.93	0.68
6:N:165:LYS:HB2	6:N:397:LYS:CB	2.11	0.68
4:A:94:LEU:HG	4:A:97:VAL:HG22	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:798:GLY:H	5:C:827:VAL:CG1	2.07	0.68
6:D:477:LEU:HD22	6:D:492:ALA:HB1	1.76	0.68
1:G:22:DC:H4'	5:C:388:ARG:HG3	1.75	0.68
6:N:135:LEU:HD21	6:N:452:ILE:HG13	1.76	0.68
5:C:184:MET:HB2	5:C:193:LEU:HG	1.76	0.68
5:C:479:VAL:HG21	5:C:503:LEU:HD11	1.74	0.68
5:C:545:ASN:HD22	5:C:583:LEU:CD2	2.07	0.68
5:C:88:LEU:HD22	5:C:814:GLU:OE2	1.94	0.68
6:D:1256:LEU:O	6:D:1260:ILE:HG12	1.94	0.68
6:D:853:VAL:HG22	6:D:858:VAL:HG23	1.77	0.68
2:Y:12:G:O2'	2:Y:13:C:H5'	1.93	0.68
4:A:153:ALA:HA	4:A:156:HIS:NE2	2.09	0.67
5:C:472:ARG:HD3	12:C:1386:HOH:O	1.93	0.67
6:D:28:LYS:HG3	6:D:29:PRO:HD2	1.76	0.67
6:D:87:ARG:HG3	6:D:88:TYR:HD2	1.58	0.67
2:Y:9:G:H2'	2:Y:10:G:H8	1.57	0.67
4:B:144:VAL:HB	12:B:403:HOH:O	1.93	0.67
5:C:120:LEU:HD23	5:C:121:MET:H	1.58	0.67
5:C:516:ARG:NH1	5:C:521:PRO:HB3	2.08	0.67
5:C:18:LEU:HD21	5:C:542:VAL:HG21	1.75	0.67
5:C:983:ILE:HG21	5:C:987:ILE:HD11	1.74	0.67
6:D:703:ASN:HD21	6:D:707:THR:CG2	2.06	0.67
5:C:1036:GLU:HG3	6:D:707:THR:HG21	1.76	0.67
5:M:198:ARG:NH1	5:M:198:ARG:HB3	2.08	0.67
5:M:758:ARG:HB3	5:M:788:THR:O	1.95	0.67
6:N:761:ILE:HG22	12:N:9085:HOH:O	1.94	0.67
5:C:232:GLU:HA	5:C:235:LEU:HD12	1.76	0.67
5:C:462:ASP:HB3	5:C:468:ARG:HD2	1.76	0.67
5:C:758:ARG:NH2	5:C:788:THR:HB	2.09	0.67
5:C:851:LYS:HG2	5:C:853:LEU:HD12	1.77	0.67
5:C:874:LEU:HD21	6:D:1028:ALA:HB1	1.77	0.67
5:C:1016:ILE:CG2	6:D:526:PRO:HG3	2.25	0.67
6:D:602:SER:O	6:D:606:ILE:HG13	1.95	0.67
4:K:44:LEU:HD23	4:K:48:ILE:HD11	1.74	0.67
7:O:27:ALA:CB	7:O:61:VAL:HG22	2.23	0.67
5:C:569:VAL:HG11	5:C:996:LYS:NZ	2.09	0.67
5:C:768:THR:HB	5:C:771:GLU:HB3	1.75	0.67
5:C:432:ARG:HD3	6:D:1048:PRO:HG2	1.75	0.67
6:D:1042:ARG:O	6:D:1057:VAL:HB	1.94	0.67
4:K:100:LEU:HB2	4:K:115:LEU:HD11	1.75	0.67
5:C:195:LEU:HD11	5:C:238:LEU:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1237:THR:HG21	6:D:1256:LEU:HD22	1.76	0.67
5:M:12:VAL:HB	5:M:472:ARG:NH1	2.09	0.67
5:M:630:ARG:HH21	5:M:707:ARG:H	1.41	0.67
6:N:1281:VAL:HG11	6:N:1313:VAL:CG1	2.23	0.67
6:N:162:ARG:HH12	6:N:414:ARG:CZ	2.08	0.67
5:C:139:GLN:HG2	5:C:418:LEU:HD22	1.77	0.67
7:E:18:ARG:O	7:E:22:VAL:HG23	1.94	0.67
5:M:332:ARG:CZ	5:M:464:LEU:HD11	2.25	0.67
5:M:362:GLY:HA3	5:M:367:LEU:HD23	1.75	0.67
5:M:678:PRO:O	6:N:943:THR:HA	1.95	0.67
5:M:950:LEU:HD12	5:M:952:LEU:HD13	1.77	0.67
6:N:1209:LEU:HD23	6:N:1210:SER:N	2.10	0.67
6:N:1382:THR:HA	6:N:1389:LEU:CD1	2.24	0.67
6:N:1394:VAL:HB	6:N:1397:LYS:HD2	1.77	0.67
6:N:866:VAL:HG11	6:N:880:ILE:HD11	1.77	0.67
5:C:58:ASP:O	5:C:59:LYS:HG3	1.94	0.67
6:D:864:VAL:HG12	6:D:865:THR:H	1.60	0.67
2:H:13:C:H4'	5:C:409:ARG:HH22	1.58	0.67
5:M:610:ARG:HD3	5:M:622:GLU:OE1	1.94	0.67
5:M:986:PRO:HB3	12:M:7135:HOH:O	1.95	0.67
5:M:874:LEU:HG	6:N:1023:MET:SD	2.35	0.67
5:M:1046:ALA:HB3	6:N:1476:THR:HB	1.76	0.67
5:C:921:ALA:HB1	12:C:1371:HOH:O	1.95	0.67
6:D:1109:GLU:HA	12:D:9273:HOH:O	1.95	0.67
6:D:514:LEU:HB2	12:D:9387:HOH:O	1.94	0.67
6:D:87:ARG:HD3	6:D:524:LEU:CD1	2.18	0.67
5:M:264:PRO:HB3	5:M:289:THR:HB	1.75	0.67
6:N:119:SER:HB2	6:N:123:LEU:N	2.09	0.67
1:G:17:DC:H5"	5:C:1030:GLN:NE2	2.08	0.67
6:D:678:GLU:HB2	12:D:9364:HOH:O	1.95	0.67
6:N:1057:VAL:HG13	6:N:1069:GLU:HB3	1.77	0.67
5:C:19:THR:HG21	5:C:124:ASP:O	1.95	0.67
5:C:533:ASP:HB3	5:C:538:GLN:NE2	2.10	0.67
6:D:204:LEU:HG	6:D:394:LEU:O	1.95	0.67
6:D:639:LEU:HD13	6:D:766:ALA:HB2	1.77	0.67
6:N:676:MET:HE1	6:N:684:LYS:H	1.60	0.67
5:C:516:ARG:HH21	6:D:1068:LEU:HB3	1.60	0.66
6:D:639:LEU:HB2	12:D:9297:HOH:O	1.95	0.66
5:M:18:LEU:HD23	5:M:404:LEU:HD21	1.76	0.66
6:D:550:ARG:HD2	6:D:573:MET:HB3	1.77	0.66
12:C:1481:HOH:O	6:D:622:ARG:HD3	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:988:ARG:O	6:D:992:ILE:HG13	1.95	0.66
6:N:1262:LEU:HD23	6:N:1352:ILE:HG13	1.76	0.66
6:N:710:ARG:HG2	6:N:772:PRO:HG2	1.78	0.66
4:A:123:MET:HE3	4:A:204:SER:HA	1.78	0.66
5:C:732:ALA:HB1	5:C:735:ARG:NH2	2.10	0.66
6:D:1192:LEU:HD13	6:D:1345:GLU:HG2	1.77	0.66
6:D:941:PHE:HB3	12:D:9052:HOH:O	1.95	0.66
4:K:30:ARG:HB3	12:L:1657:HOH:O	1.93	0.66
7:O:51:LEU:HD21	12:O:1656:HOH:O	1.94	0.66
2:Y:8:C:H5'	12:Y:707:HOH:O	1.95	0.66
6:D:1160:LEU:HD22	6:D:1164:ARG:HH12	1.59	0.66
6:D:1146:GLY:HA3	6:D:1207:TYR:HB2	1.75	0.66
6:D:885:ILE:HB	12:D:9263:HOH:O	1.94	0.66
5:M:1097:LEU:HD22	5:M:1097:LEU:H	1.60	0.66
6:N:165:LYS:HG2	6:N:199:LEU:HD13	1.77	0.66
6:N:412:GLY:HA2	6:N:434:ARG:HD3	1.77	0.66
4:B:102:LYS:HD2	4:B:139:ASN:OD1	1.96	0.66
6:D:550:ARG:HB3	6:D:574:LEU:HD12	1.78	0.66
7:E:23:VAL:HG13	7:E:61:VAL:HG13	1.77	0.66
4:K:47:SER:HB2	4:K:217:ILE:HD13	1.78	0.66
4:A:133:GLU:HG2	4:A:134:GLU:N	2.11	0.66
4:A:23:PHE:HB2	4:A:197:LEU:HD23	1.78	0.66
5:C:573:ARG:HD2	5:C:698:ASP:O	1.95	0.66
5:C:732:ALA:HB1	5:C:735:ARG:HH22	1.60	0.66
6:D:1273:VAL:HG22	6:D:1326:THR:OG1	1.96	0.66
6:D:1335:LEU:HD23	6:D:1344:VAL:HG22	1.77	0.66
6:D:28:LYS:CB	6:D:41:ARG:HD2	2.26	0.66
6:D:202:VAL:CG2	6:D:400:VAL:HB	2.25	0.66
1:G:14:DT:C2'	1:G:15:DC:H5'	2.19	0.66
1:G:18:DG:H5''	6:D:628:ARG:NH1	2.10	0.66
5:M:189:ARG:HG3	12:M:7100:HOH:O	1.94	0.66
6:N:781:PRO:HB2	6:N:786:ILE:HD12	1.77	0.66
4:B:153:ALA:HB3	12:B:359:HOH:O	1.95	0.66
5:C:173:ASP:OD2	5:C:185:LYS:HB2	1.96	0.66
5:C:839:LEU:HD21	5:C:849:VAL:HG23	1.76	0.66
6:D:1264:GLU:O	6:D:1266:ARG:HG3	1.96	0.66
6:N:1221:VAL:O	6:N:1224:VAL:HG12	1.96	0.66
6:N:1293:PHE:CZ	6:N:1302:GLU:HG2	2.31	0.66
6:N:455:ARG:HB3	6:N:459:GLU:CG	2.26	0.66
7:O:75:PHE:HB3	12:O:1760:HOH:O	1.96	0.66
4:A:7:LYS:NZ	4:A:186:LEU:HD23	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:922:PHE:HB3	5:C:964:LYS:NZ	2.11	0.66
6:D:172:PRO:HG2	6:D:175:VAL:HG21	1.77	0.66
4:K:186:LEU:HD13	4:K:192:LEU:HD13	1.77	0.66
5:M:428:ARG:HD3	5:M:451:LEU:HD22	1.76	0.66
5:M:530:GLU:HG3	12:M:7124:HOH:O	1.94	0.66
5:M:625:LEU:HD11	5:M:641:PRO:HG3	1.76	0.66
5:M:854:PRO:HB3	12:M:7363:HOH:O	1.96	0.66
5:C:437:ARG:NH1	5:C:488:ALA:HA	2.11	0.66
6:D:1240:THR:HG22	6:D:1254:GLN:C	2.16	0.66
6:D:166:GLN:HG3	6:D:396:VAL:HG12	1.77	0.66
5:M:1015:LEU:HG	5:M:1016:ILE:HG23	1.77	0.66
6:N:1384:PRO:HB2	12:N:9117:HOH:O	1.96	0.66
6:N:478:LEU:CD2	6:N:1388:ARG:HE	2.02	0.66
6:N:1434:TRP:CZ3	6:N:1457:ASP:HB2	2.31	0.66
6:N:454:ALA:N	6:N:455:ARG:HE	1.94	0.66
7:O:51:LEU:HD11	12:O:1282:HOH:O	1.96	0.66
4:A:73:GLU:OE1	4:A:130:ALA:HA	1.95	0.66
4:A:44:LEU:HD23	4:A:48:ILE:HD11	1.77	0.66
6:D:906:GLN:HB3	6:D:911:LEU:CD1	2.26	0.66
5:C:889:HIS:CE1	6:D:951:ILE:H	2.04	0.66
6:D:970:LYS:HA	6:D:973:GLN:CD	2.15	0.66
6:D:1408:ILE:O	5:M:370:ALA:HB1	1.96	0.66
4:B:38:ASN:HB3	4:B:39:PRO:HD3	1.78	0.65
1:G:18:DG:H5"	6:D:628:ARG:HH12	1.61	0.65
4:B:80:LEU:HD21	6:D:867:ARG:HB2	1.77	0.65
7:E:45:ARG:HG2	7:E:46:PRO:CD	2.20	0.65
4:K:73:GLU:CD	4:K:73:GLU:H	1.98	0.65
4:L:92:PRO:HA	4:L:146:ARG:NH1	2.11	0.65
5:M:21:ILE:HD12	5:M:21:ILE:H	1.58	0.65
4:A:112:ARG:HH21	4:A:125:PRO:HB2	1.59	0.65
4:B:206:THR:HG22	4:B:209:GLU:HB2	1.78	0.65
5:C:487:THR:HB	5:C:490:GLU:HG3	1.78	0.65
5:C:703:ILE:HD12	5:C:703:ILE:H	1.60	0.65
6:D:1412:LYS:O	6:D:1414:PRO:HD3	1.96	0.65
6:D:166:GLN:CD	6:D:394:LEU:HD13	2.16	0.65
5:M:290:LEU:HD21	12:M:7062:HOH:O	1.96	0.65
5:M:937:ASP:HA	12:M:7238:HOH:O	1.96	0.65
6:N:715:ALA:HB3	6:N:764:LEU:HA	1.79	0.65
5:C:1101:THR:HG21	5:C:1111:ILE:HG23	1.78	0.65
5:C:263:ASP:HB2	5:C:264:PRO:HD3	1.76	0.65
5:C:15:LEU:N	5:C:586:ARG:NH2	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:844:GLY:HA3	12:C:1341:HOH:O	1.95	0.65
1:G:12:DG:H2'	1:G:13:DT:H71	1.77	0.65
6:N:1209:LEU:HD23	6:N:1211:MET:H	1.61	0.65
6:N:507:ASN:HA	12:N:9024:HOH:O	1.96	0.65
2:Y:13:C:H4'	5:M:409:ARG:HH22	1.61	0.65
5:C:264:PRO:HB3	5:C:289:THR:CB	2.27	0.65
5:C:775:ARG:NH2	5:C:782:ALA:HB1	2.08	0.65
5:C:889:HIS:HB2	12:C:1179:HOH:O	1.97	0.65
6:D:1109:GLU:HG2	6:D:1201:CYS:HA	1.77	0.65
6:D:96:ALA:HB3	6:D:554:LEU:HD23	1.77	0.65
4:K:58:ILE:HB	4:K:61:VAL:HB	1.78	0.65
5:M:186:VAL:HG23	5:M:187:ASN:H	1.59	0.65
5:M:775:ARG:HG3	12:M:7073:HOH:O	1.95	0.65
6:N:1275:SER:HB2	6:N:1294:VAL:HG11	1.77	0.65
6:N:808:THR:OG1	6:N:809:PRO:HD3	1.97	0.65
6:N:1209:LEU:HD21	7:O:16:LYS:HD3	1.78	0.65
4:A:132:LEU:HD13	4:A:138:LEU:HD23	1.79	0.65
4:A:219:ARG:HD2	12:B:358:HOH:O	1.95	0.65
12:I:1102:HOH:O	5:C:422:ARG:HD3	1.95	0.65
5:C:428:ARG:CZ	5:C:451:LEU:HD21	2.26	0.65
5:C:576:ALA:HB3	5:C:900:ARG:NH2	2.11	0.65
6:D:204:LEU:HB3	6:D:441:ARG:NH2	2.12	0.65
6:D:52:PRO:HD2	6:D:85:VAL:HG23	1.79	0.65
5:M:799:ILE:HB	12:M:7116:HOH:O	1.96	0.65
6:N:531:ASP:HA	12:N:9426:HOH:O	1.95	0.65
6:N:915:VAL:HG13	6:N:931:LEU:HD21	1.77	0.65
4:B:20:TYR:OH	4:B:22:GLU:HG3	1.97	0.65
5:C:537:LYS:HB3	5:C:545:ASN:HD21	1.62	0.65
5:C:561:GLY:O	5:C:564:MET:HG2	1.95	0.65
6:D:1281:VAL:HG22	12:D:9442:HOH:O	1.95	0.65
6:D:1429:LEU:HG	6:D:1441:GLN:HG3	1.76	0.65
7:E:62:THR:HA	7:E:65:MET:CE	2.26	0.65
2:H:1:G:C2'	2:H:2:A:H5''	2.27	0.65
6:N:127:LEU:HA	6:N:132:TYR:HD1	1.61	0.65
6:N:818:ARG:HD3	12:N:9061:HOH:O	1.97	0.65
1:X:14:DT:C2'	1:X:15:DC:H5'	2.22	0.65
5:C:1083:GLU:OE1	5:C:1083:GLU:HA	1.95	0.65
5:C:473:ARG:HH11	5:C:475:VAL:HG22	1.62	0.65
5:C:487:THR:HG22	5:C:489:THR:H	1.61	0.65
6:D:470:LEU:HD12	6:D:503:LEU:CD2	2.27	0.65
6:N:728:LEU:HD23	6:N:740:PHE:HE2	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:770:LEU:HG	6:N:919:PHE:CE1	2.32	0.65
6:N:774:SER:HB2	6:N:776:GLU:HG2	1.79	0.65
4:B:54:THR:HB	4:B:143:ARG:HD3	1.79	0.65
5:C:603:VAL:HG21	5:C:643:VAL:HG11	1.78	0.65
5:C:627:ARG:O	5:C:638:ASP:HB2	1.96	0.65
6:D:117:ASP:CG	6:D:495:ARG:HE	2.00	0.65
6:D:794:GLN:HB3	6:D:1017:PHE:CZ	2.31	0.65
6:D:1485:GLN:NE2	7:E:80:VAL:H	1.87	0.65
2:H:11:C:H2'	2:H:12:G:C8	2.32	0.65
5:M:130:ASN:HD21	5:M:383:ARG:NH2	1.95	0.65
6:N:615:ARG:HD2	6:N:619:LEU:HG	1.76	0.65
5:C:1016:ILE:HD13	5:C:1016:ILE:H	1.61	0.65
5:C:399:ASN:HB3	5:C:568:ALA:O	1.97	0.65
6:D:865:THR:HG22	6:D:874:GLU:HG2	1.78	0.65
6:D:957:PRO:HG2	6:D:1007:VAL:HA	1.78	0.65
5:M:342:ASP:O	5:M:346:VAL:HG23	1.96	0.65
5:M:573:ARG:HB3	5:M:670:GLN:OE1	1.97	0.65
2:Y:11:C:H2'	2:Y:12:G:C8	2.32	0.65
5:C:841:ASN:C	5:C:841:ASN:HD22	2.00	0.65
6:D:1284:GLU:OE1	6:D:1285:GLU:HG2	1.96	0.65
6:D:436:GLU:OE1	6:D:447:VAL:HG11	1.97	0.65
2:H:9:G:C8	2:H:9:G:H5'	2.32	0.65
4:K:20:TYR:CE2	4:K:198:ARG:HB3	2.31	0.65
4:L:79:ILE:HA	4:L:82:LEU:HD12	1.79	0.65
5:M:263:ASP:HB2	5:M:264:PRO:HD3	1.77	0.65
5:M:567:GLN:CB	5:M:997:LEU:HD22	2.27	0.65
6:N:32:ILE:HD12	6:N:527:MET:HG2	1.79	0.65
6:D:1296:SER:HB2	6:N:47:GLU:HG3	1.77	0.65
4:A:9:PRO:HB3	4:A:25:LEU:HG	1.78	0.64
5:C:896:PHE:O	5:C:924:VAL:HG11	1.97	0.64
7:E:27:ALA:CB	7:E:61:VAL:CG2	2.75	0.64
4:L:57:TYR:HB3	4:L:141:GLU:CG	2.24	0.64
5:M:292:ARG:NH1	5:M:299:LYS:HD3	2.11	0.64
6:N:1405:GLU:CD	6:N:1413:THR:HB	2.18	0.64
7:O:8:LYS:O	7:O:12:MET:HG3	1.95	0.64
5:C:675:ALA:HB2	5:C:867:VAL:HG11	1.79	0.64
6:D:1498:ALA:HB2	7:E:88:GLU:OE1	1.97	0.64
6:D:904:VAL:HG13	12:D:9113:HOH:O	1.97	0.64
6:D:1481:VAL:HG13	7:E:18:ARG:HE	1.62	0.64
4:L:201:THR:HG21	4:L:205:VAL:O	1.97	0.64
5:M:1033:GLY:O	5:M:1037:VAL:HG23	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:437:ARG:NH1	5:M:488:ALA:HA	2.12	0.64
5:M:861:LEU:HD23	5:M:863:ASP:H	1.62	0.64
6:N:591:VAL:HB	12:N:9357:HOH:O	1.96	0.64
4:A:224:TYR:HB3	4:B:9:PRO:HB2	1.77	0.64
5:C:328:LEU:HD11	5:C:434:HIS:HD2	1.63	0.64
5:C:831:ARG:HH12	5:C:1004:LYS:HE3	1.61	0.64
6:D:1109:GLU:OE1	6:D:1201:CYS:HB2	1.96	0.64
6:D:1434:TRP:CZ3	6:D:1457:ASP:HB2	2.33	0.64
4:K:14:ARG:HH22	4:K:24:VAL:CG2	2.10	0.64
6:N:136:ASP:OD2	6:N:463:GLN:HB3	1.97	0.64
6:N:134:VAL:HG22	6:N:460:ALA:HA	1.79	0.64
6:N:480:GLU:O	6:N:484:PRO:HD2	1.97	0.64
6:N:700:VAL:HG12	6:N:749:VAL:HG13	1.79	0.64
6:N:837:GLY:HA2	12:N:9212:HOH:O	1.97	0.64
5:C:154:ARG:HH12	5:C:177:GLU:HG3	1.61	0.64
5:C:492:ASP:OD1	5:C:518:LYS:HG3	1.97	0.64
5:C:943:VAL:HG23	5:C:985:GLY:H	1.63	0.64
6:D:1083:ASP:HB3	6:D:1242:HIS:HE1	1.62	0.64
6:D:806:PHE:CE1	6:D:813:LEU:HB3	2.33	0.64
3:I:6:DC:H3'	6:D:1266:ARG:NH2	2.12	0.64
4:K:25:LEU:HD22	4:L:225:PHE:CE2	2.33	0.64
5:M:837:ASP:HA	5:M:999:HIS:HE1	1.61	0.64
6:N:1149:LEU:HD12	6:N:1160:LEU:HD22	1.78	0.64
6:N:1199:GLY:HA3	12:N:9128:HOH:O	1.98	0.64
6:N:486:ARG:HA	6:N:489:ARG:HD3	1.78	0.64
5:C:198:ARG:HB3	5:C:198:ARG:HH11	1.63	0.64
5:C:367:LEU:O	5:C:372:LEU:HD13	1.97	0.64
6:D:1398:TRP:HA	6:D:1398:TRP:CE3	2.32	0.64
6:D:398:ALA:HB2	6:D:447:VAL:CA	2.22	0.64
6:D:115:LEU:CD1	6:D:499:VAL:HG22	2.26	0.64
5:C:1071:ILE:O	6:D:659:LYS:HG2	1.96	0.64
5:M:462:ASP:OD2	5:M:468:ARG:HD2	1.96	0.64
5:M:394:PHE:CE1	5:M:632:ASN:HB3	2.31	0.64
6:N:1236:LEU:HA	6:N:1359:GLN:NE2	2.13	0.64
6:N:1462:LEU:HD22	6:N:1472:ILE:HG23	1.78	0.64
6:N:164:GLY:CA	6:N:447:VAL:HB	2.27	0.64
6:N:181:ASP:HB3	6:N:441:ARG:HD3	1.80	0.64
6:N:456:MET:O	6:N:459:GLU:HB3	1.97	0.64
6:D:1299:PHE:C	6:N:59:ALA:HB1	2.18	0.64
5:M:684:PHE:HD1	6:N:784:ASP:HB2	1.63	0.64
5:C:166:PRO:HD3	5:C:265:ARG:HD2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:705:ILE:HD12	12:C:1463:HOH:O	1.98	0.64
6:D:1353:GLN:NE2	6:D:1357:ARG:HE	1.96	0.64
6:D:414:ARG:HG2	6:D:451:ASP:CA	2.28	0.64
6:D:952:ASP:HA	6:D:1062:ARG:HH21	1.63	0.64
1:G:23:DG:H2'	6:D:534:ARG:NH2	2.06	0.64
4:L:44:LEU:HD23	4:L:48:ILE:HD11	1.80	0.64
6:N:704:ARG:HD3	6:N:738:ALA:HB2	1.77	0.64
6:N:82:LYS:C	6:N:84:ILE:H	2.01	0.64
5:C:198:ARG:HH21	5:C:203:ASP:HA	1.63	0.64
5:C:979:THR:HG23	5:C:981:GLU:N	2.08	0.64
5:M:139:GLN:HG2	5:M:418:LEU:HD22	1.79	0.64
3:Z:3:DA:H2''	3:Z:4:DC:H5''	1.78	0.64
5:C:1009:SER:HB2	6:D:651:GLU:O	1.98	0.64
5:C:227:PHE:HA	5:C:230:ARG:NE	2.11	0.64
5:C:284:ARG:HG2	5:C:285:LEU:N	2.12	0.64
6:D:1090:ASP:HB3	6:D:1256:LEU:HD21	1.78	0.64
3:I:6:DC:C3'	6:D:1266:ARG:NH2	2.60	0.64
6:D:1205:TYR:O	6:D:1366:LYS:HE3	1.97	0.64
6:D:484:PRO:HB3	6:D:488:ARG:HE	1.63	0.64
5:M:200:LEU:HD13	5:M:300:ASP:CG	2.17	0.64
6:N:813:LEU:O	6:N:817:GLU:HB2	1.96	0.64
6:N:754:PHE:CZ	7:O:21:VAL:HA	2.33	0.64
5:C:113:VAL:O	5:C:115:LEU:HD23	1.97	0.64
5:C:460:ARG:HH21	5:C:485:TYR:HB2	1.63	0.64
6:D:489:ARG:HG3	6:D:490:ALA:N	2.12	0.64
12:D:9474:HOH:O	7:E:15:SER:HB2	1.96	0.64
5:M:545:ASN:HD22	5:M:583:LEU:CD2	2.10	0.64
6:N:689:ASP:HB3	12:N:9135:HOH:O	1.97	0.64
7:O:43:GLU:HG3	7:O:44:GLU:H	1.63	0.64
4:A:58:ILE:HB	4:A:61:VAL:HB	1.80	0.64
6:D:785:ILE:H	6:D:785:ILE:CD1	2.08	0.64
7:E:41:GLU:HB2	7:E:45:ARG:CZ	2.28	0.64
5:M:13:ILE:HB	12:M:7012:HOH:O	1.98	0.64
5:M:334:ARG:NH1	5:M:415:PRO:HG2	2.13	0.64
4:K:176:ARG:HD2	5:M:865:THR:N	2.13	0.64
6:N:1490:LYS:HE3	12:O:859:HOH:O	1.97	0.64
6:N:41:ARG:HD3	6:N:42:ASP:H	1.63	0.64
6:N:150:ARG:NH1	6:N:468:LEU:HD22	2.12	0.64
6:N:761:ILE:HG23	7:O:6:ILE:HD11	1.78	0.64
4:B:107:LYS:HD2	12:B:319:HOH:O	1.96	0.63
5:C:271:GLU:HA	5:C:271:GLU:OE1	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1232:PRO:HB3	6:D:1361:VAL:HG11	1.79	0.63
6:D:731:LEU:HD13	6:D:779:ALA:HB1	1.80	0.63
4:K:83:LYS:HD2	12:M:7286:HOH:O	1.98	0.63
5:M:478:VAL:HG22	5:M:506:ASN:HB3	1.78	0.63
5:M:668:LEU:O	5:M:995:MET:HG2	1.98	0.63
6:N:657:LEU:HD22	6:N:691:LEU:HD13	1.80	0.63
5:C:264:PRO:HB3	5:C:289:THR:HB	1.79	0.63
4:K:130:ALA:HB3	12:K:2221:HOH:O	1.97	0.63
5:M:937:ASP:O	5:M:941:VAL:HG23	1.98	0.63
6:N:415:VAL:HG13	6:N:419:ASP:HB2	1.80	0.63
6:D:1298:GLY:H	6:N:47:GLU:HB2	1.63	0.63
4:B:59:GLU:HG2	4:B:139:ASN:HD22	1.62	0.63
5:C:1008:ARG:NH1	5:C:1011:GLY:N	2.47	0.63
5:C:139:GLN:NE2	5:C:415:PRO:HD2	2.13	0.63
5:C:48:PHE:O	5:C:52:PHE:HB2	1.98	0.63
5:C:798:GLY:H	5:C:827:VAL:HG11	1.63	0.63
6:D:1153:VAL:HG22	6:N:561:GLY:HA3	1.81	0.63
4:K:226:SER:O	4:K:228:PRO:HD3	1.99	0.63
5:M:91:GLN:NE2	5:M:117:HIS:HB3	2.13	0.63
5:M:437:ARG:CZ	5:M:488:ALA:HA	2.28	0.63
6:N:703:ASN:HD22	6:N:704:ARG:H	1.46	0.63
5:C:545:ASN:HD22	5:C:583:LEU:HD22	1.62	0.63
6:D:134:VAL:HG22	6:D:455:ARG:O	1.99	0.63
5:M:18:LEU:HB2	5:M:590:ASP:HB3	1.80	0.63
6:N:160:GLU:O	6:N:164:GLY:O	2.16	0.63
6:N:205:TYR:HE1	12:N:9033:HOH:O	1.81	0.63
7:O:25:LYS:HA	7:O:28:GLN:NE2	2.13	0.63
5:C:194:VAL:HG21	5:C:221:LEU:O	1.99	0.63
5:C:54:ILE:HD11	5:C:356:ARG:HG2	1.80	0.63
5:C:470:PRO:HB3	5:C:485:TYR:CE2	2.33	0.63
6:D:1167:SER:O	6:D:1171:VAL:HG23	1.98	0.63
6:D:138:LYS:HB2	12:D:9456:HOH:O	1.98	0.63
6:D:996:TRP:CE2	6:D:1056:PRO:HG2	2.33	0.63
3:I:3:DA:H2"	3:I:4:DC:H5"	1.81	0.63
4:K:42:ARG:HH12	4:L:34:VAL:HB	1.63	0.63
4:K:9:PRO:HB3	4:K:25:LEU:HG	1.81	0.63
4:K:229:GLN:HB3	4:L:12:THR:HG22	1.80	0.63
5:M:576:ALA:HB1	5:M:580:MET:SD	2.38	0.63
6:N:996:TRP:O	6:N:1000:THR:HG22	1.99	0.63
6:N:136:ASP:CB	6:N:137:PRO:HD3	2.29	0.63
6:N:1465:ASN:ND2	6:N:1470:ARG:HD2	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:777:PRO:HG2	6:N:915:VAL:HB	1.80	0.63
5:C:437:ARG:HB3	5:C:467:ILE:HD12	1.79	0.63
6:D:1293:PHE:CE1	6:N:75:ARG:HD3	2.34	0.63
6:D:465:LEU:HD22	6:D:510:GLU:HA	1.81	0.63
6:D:508:ARG:HB3	6:D:510:GLU:OE2	1.97	0.63
6:D:524:LEU:N	6:D:524:LEU:HD12	2.14	0.63
6:D:677:LEU:HD21	6:D:687:VAL:HG11	1.80	0.63
2:H:2:A:C2'	2:H:3:G:O5'	2.46	0.63
4:K:30:ARG:NH1	4:K:191:ASP:HB2	2.13	0.63
4:L:91:ASN:OD1	4:L:93:SER:HB2	1.98	0.63
6:N:1412:LYS:O	6:N:1414:PRO:HD3	1.98	0.63
6:N:148:GLU:HB3	6:N:151:GLN:HB2	1.80	0.63
4:B:97:VAL:HG22	12:B:388:HOH:O	1.98	0.63
5:C:601:GLY:HA2	5:C:616:GLU:HG2	1.80	0.63
5:C:922:PHE:HZ	5:C:963:LEU:HB3	1.63	0.63
6:D:814:ALA:HB1	6:D:818:ARG:HE	1.63	0.63
4:K:25:LEU:HD22	4:L:225:PHE:HE2	1.64	0.63
5:M:217:LEU:HD12	5:M:311:PHE:HA	1.80	0.63
5:M:428:ARG:HA	5:M:428:ARG:NH1	2.14	0.63
5:M:672:VAL:HG23	5:M:868:ASP:HB2	1.81	0.63
6:N:1031:ASN:OD1	6:N:1034:GLN:HG3	1.98	0.63
6:N:1341:PRO:HD2	6:N:1342:GLU:OE2	1.99	0.63
4:B:123:MET:C	4:B:125:PRO:HD3	2.18	0.63
5:C:1050:GLN:CG	5:C:1079:PRO:HG2	2.29	0.63
5:C:227:PHE:HD2	5:C:230:ARG:HH21	1.45	0.63
7:E:25:LYS:HA	7:E:28:GLN:NE2	2.14	0.63
6:N:951:ILE:HD13	6:N:951:ILE:O	1.99	0.63
4:B:124:ASN:OD1	4:B:127:LEU:HB2	1.99	0.63
5:C:607:ASP:HB3	5:C:610:ARG:H	1.64	0.63
5:C:839:LEU:HD12	5:C:994:ILE:HG21	1.81	0.63
4:K:123:MET:C	4:K:125:PRO:HD3	2.19	0.63
5:M:428:ARG:HD3	5:M:451:LEU:CD2	2.28	0.63
6:N:1345:GLU:O	6:N:1349:VAL:HG23	1.99	0.63
5:C:1013:TYR:CE1	5:C:1020:PRO:HG3	2.33	0.62
6:D:501:ALA:CB	6:D:1453:ALA:HB2	2.23	0.62
6:D:97:THR:HB	6:D:571:LYS:HD3	1.81	0.62
6:D:660:LYS:HE2	6:D:694:VAL:HA	1.80	0.62
1:G:18:DG:H2''	1:G:19:DC:C5'	2.26	0.62
1:G:6:DT:H2''	1:G:7:DC:C6	2.34	0.62
2:H:8:C:H2'	2:H:9:G:C8	2.34	0.62
5:M:48:PHE:O	5:M:52:PHE:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:971:LYS:HB3	5:M:988:VAL:HG12	1.80	0.62
6:N:119:SER:HB2	6:N:123:LEU:HB2	1.80	0.62
6:N:1273:VAL:HB	6:N:1303:TYR:CD2	2.33	0.62
6:N:1312:LEU:HD23	12:N:9120:HOH:O	1.97	0.62
6:N:581:LEU:HD23	6:N:581:LEU:H	1.63	0.62
6:N:615:ARG:HG3	12:N:9306:HOH:O	1.98	0.62
6:N:981:GLY:HA2	12:N:9185:HOH:O	1.99	0.62
6:D:1083:ASP:HB3	6:D:1242:HIS:CE1	2.34	0.62
6:D:1354:LYS:HE3	6:D:1357:ARG:NH1	2.14	0.62
6:D:1481:VAL:HG12	7:E:21:VAL:HG21	1.81	0.62
6:D:93:ILE:HD11	6:D:519:VAL:HG22	1.81	0.62
5:M:313:LEU:HD13	5:M:321:GLU:HB2	1.80	0.62
5:M:444:PRO:HG2	5:M:452:ILE:HD11	1.81	0.62
6:N:432:TYR:HB3	6:N:450:TYR:CB	2.21	0.62
6:D:1295:GLU:CB	6:N:76:CYS:HB2	2.28	0.62
5:C:1111:ILE:HG13	5:C:1112:PHE:H	1.64	0.62
5:C:512:ARG:HD3	5:C:523:ILE:HD11	1.81	0.62
6:D:1239:ARG:HG3	6:D:1239:ARG:HH11	1.64	0.62
6:D:1263:PHE:O	6:D:1424:VAL:HG12	1.97	0.62
6:D:433:GLY:HA3	6:D:447:VAL:O	1.99	0.62
6:D:480:GLU:HG2	6:D:492:ALA:HB2	1.81	0.62
2:H:16:G:H4'	6:D:743:ASP:OD2	1.99	0.62
5:M:203:ASP:OD1	5:M:206:THR:HG22	1.99	0.62
5:M:134:ARG:NH2	5:M:393:GLN:HA	2.14	0.62
5:M:674:VAL:HG21	5:M:871:LEU:CD1	2.29	0.62
5:M:997:LEU:HG	12:M:7228:HOH:O	1.99	0.62
6:N:1372:VAL:O	6:N:1375:MET:HB2	1.99	0.62
6:N:202:VAL:HG21	6:N:400:VAL:HB	1.82	0.62
1:G:20:DG:H4'	5:C:394:PHE:CD2	2.34	0.62
5:C:726:ILE:HD13	5:C:734:LEU:HD11	1.82	0.62
4:K:222:LEU:HG	4:L:215:VAL:HB	1.81	0.62
5:M:30:LEU:HA	12:M:7092:HOH:O	2.00	0.62
5:M:437:ARG:HG2	5:M:467:ILE:O	1.98	0.62
6:N:566:ILE:O	6:N:570:GLU:HG2	1.99	0.62
3:Z:5:DG:H4'	8:N:8001:STD:O1	1.99	0.62
6:D:104:PHE:HB3	6:D:512:MET:HE2	1.81	0.62
6:D:546:ARG:HH21	6:D:550:ARG:HH22	1.46	0.62
4:K:64:GLU:HB2	4:K:165:ILE:HG21	1.82	0.62
4:L:58:ILE:HB	4:L:61:VAL:HB	1.81	0.62
5:M:427:VAL:HG12	5:M:428:ARG:HH21	1.62	0.62
5:M:905:ILE:N	5:M:905:ILE:HD12	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1240:THR:HG23	6:N:1253:THR:CB	2.29	0.62
5:C:302:VAL:C	5:C:305:PRO:HD2	2.20	0.62
5:C:326:ASP:OD1	5:C:427:VAL:HA	1.98	0.62
5:C:512:ARG:HB3	5:C:523:ILE:HD11	1.79	0.62
5:C:398:THR:O	5:C:635:THR:HG21	1.99	0.62
5:C:918:LEU:HD23	5:C:968:LEU:HA	1.80	0.62
5:C:971:LYS:HD2	5:C:986:PRO:HB2	1.82	0.62
6:D:89:ARG:O	6:D:521:PRO:HG3	2.00	0.62
4:K:136:GLY:HA3	12:K:1785:HOH:O	1.99	0.62
4:L:123:MET:C	4:L:125:PRO:HD3	2.18	0.62
5:M:92:ALA:HB2	5:M:120:LEU:HD21	1.82	0.62
6:N:96:ALA:HB3	6:N:554:LEU:HD23	1.81	0.62
4:B:2:LEU:HD12	4:B:3:ASP:N	2.14	0.62
5:C:564:MET:HE1	5:C:840:ALA:O	2.00	0.62
6:D:706:PRO:HG2	11:D:5999:APC:H2	1.81	0.62
4:K:18:ARG:HG2	12:K:1775:HOH:O	1.98	0.62
6:N:1272:ALA:CA	6:N:1326:THR:HB	2.29	0.62
4:B:62:LEU:HD12	4:B:62:LEU:H	1.64	0.62
5:C:52:PHE:CD2	5:C:68:PHE:HB2	2.35	0.62
5:M:775:ARG:HD2	5:M:782:ALA:CB	2.29	0.62
5:M:815:LEU:HD21	12:M:7270:HOH:O	1.99	0.62
6:D:1117:TYR:HE1	6:N:560:GLN:HE22	1.45	0.62
2:Y:13:C:H2'	2:Y:14:G:C8	2.34	0.62
4:A:59:GLU:HG3	4:A:139:ASN:HB3	1.82	0.62
5:C:548:PRO:HA	5:C:581:THR:HG22	1.80	0.62
5:C:587:VAL:CG1	5:C:666:LEU:HD22	2.29	0.62
5:C:941:VAL:HA	5:C:944:LEU:HD12	1.82	0.62
6:D:133:ILE:HD11	12:D:9302:HOH:O	2.00	0.62
6:D:133:ILE:O	6:D:153:LEU:N	2.32	0.62
6:D:1397:LYS:HZ3	6:D:1432:LYS:HG3	1.63	0.62
6:D:1498:ALA:HB1	7:E:84:ARG:NH2	2.15	0.62
6:D:400:VAL:HG22	6:D:443:VAL:CG2	2.30	0.62
6:D:48:ARG:HH11	6:D:48:ARG:HB3	1.63	0.62
6:D:631:ILE:HG12	6:D:743:ASP:O	1.99	0.62
6:N:1206:GLY:HA3	6:N:1366:LYS:HZ1	1.64	0.62
6:N:501:ALA:HB1	6:N:1453:ALA:HB2	1.82	0.62
6:N:409:VAL:HG23	6:N:421:LEU:HA	1.82	0.62
6:N:398:ALA:CB	6:N:447:VAL:HA	2.30	0.62
6:N:45:PHE:CD1	6:N:522:PRO:HB3	2.34	0.62
6:N:866:VAL:HG11	6:N:880:ILE:CD1	2.30	0.62
5:C:1063:ARG:HG2	5:C:1064:ASN:N	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:15:LEU:HD12	5:C:15:LEU:H	1.65	0.62
5:C:457:ALA:HB3	5:C:538:GLN:HA	1.82	0.62
5:C:768:THR:HG22	5:C:771:GLU:H	1.65	0.62
5:C:911:GLU:OE2	6:D:951:ILE:HD12	2.00	0.62
6:D:192:ALA:HB1	6:D:193:PRO:HD2	1.81	0.62
6:D:474:GLU:O	6:D:478:LEU:HG	2.00	0.62
6:D:524:LEU:O	6:D:526:PRO:HD3	2.00	0.62
6:D:551:ASN:HD21	6:D:555:LYS:NZ	1.98	0.62
6:D:639:LEU:HD12	6:D:640:HIS:N	2.14	0.62
5:M:194:VAL:HG21	5:M:221:LEU:O	2.00	0.62
5:M:679:PHE:C	6:N:943:THR:HG22	2.20	0.62
5:M:806:LEU:HG	5:M:822:VAL:HG23	1.81	0.62
6:N:678:GLU:HG3	6:N:679:ARG:HG3	1.82	0.62
6:D:1266:ARG:O	6:D:1268:PRO:HD3	2.00	0.61
6:D:50:PHE:O	6:D:86:ARG:HA	1.99	0.61
4:K:56:VAL:HG13	4:K:142:VAL:HG12	1.81	0.61
5:M:237:ARG:HH11	5:M:237:ARG:CB	2.13	0.61
6:N:1101:VAL:HG13	6:N:1428:ALA:N	2.15	0.61
3:Z:8:DA:H1'	3:Z:9:DG:H5'	1.82	0.61
5:C:704:HIS:O	5:C:828:ALA:HA	2.00	0.61
6:D:1262:LEU:HD23	6:D:1352:ILE:HG12	1.81	0.61
6:D:1397:LYS:NZ	6:D:1432:LYS:HZ1	1.99	0.61
6:D:567:ILE:HG22	6:D:571:LYS:HZ3	1.63	0.61
6:D:670:VAL:HG23	6:D:671:LYS:H	1.64	0.61
6:D:758:GLU:O	6:D:762:GLN:HG2	1.99	0.61
5:M:1118:LYS:HG3	5:M:1119:ARG:HG3	1.82	0.61
5:M:198:ARG:HH11	5:M:198:ARG:HB3	1.65	0.61
6:N:108:VAL:HB	6:N:109:PRO:HD3	1.82	0.61
6:N:447:VAL:HG23	12:N:9198:HOH:O	2.01	0.61
6:N:875:THR:HG21	6:N:902:LEU:HD13	1.82	0.61
4:A:27:PRO:CG	4:A:186:LEU:HD11	2.31	0.61
4:A:57:TYR:HB3	4:A:141:GLU:CG	2.30	0.61
5:C:290:LEU:HB3	5:C:302:VAL:HG11	1.81	0.61
5:C:752:GLY:H	5:C:792:VAL:HB	1.65	0.61
5:C:759:THR:HG21	5:C:783:ARG:NH1	2.15	0.61
6:D:133:ILE:N	6:D:133:ILE:HA	2.02	0.61
1:G:12:DG:OP1	6:D:1441:GLN:O	2.17	0.61
4:L:88:ARG:HD3	4:L:121:GLU:OE1	2.00	0.61
4:L:59:GLU:HG3	4:L:139:ASN:HD21	1.63	0.61
5:M:166:PRO:HD3	5:M:265:ARG:HD2	1.80	0.61
5:M:650:ARG:HG2	5:M:653:ASP:HB2	1.80	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:574:ALA:O	5:M:662:GLU:HG3	1.99	0.61
6:N:1232:PRO:HB3	6:N:1361:VAL:HG11	1.82	0.61
6:N:1281:VAL:HG23	6:N:1319:VAL:HG11	1.82	0.61
4:A:23:PHE:CE1	4:A:208:LEU:HD12	2.35	0.61
5:C:183:SER:HB2	5:C:190:LYS:CD	2.28	0.61
6:D:133:ILE:CG1	6:D:456:MET:HB3	2.30	0.61
7:E:36:LYS:HZ2	7:E:45:ARG:HH22	1.47	0.61
4:K:225:PHE:CE2	4:L:211:LEU:HD11	2.36	0.61
5:M:137:VAL:O	5:M:391:LEU:HD21	2.01	0.61
5:M:497:ALA:HA	5:M:515:ALA:HA	1.83	0.61
5:M:713:ARG:HB3	5:M:720:GLU:OE2	2.00	0.61
6:N:15:PRO:HB3	6:N:19:ARG:HH22	1.63	0.61
5:C:437:ARG:HG2	5:C:467:ILE:O	2.00	0.61
5:C:771:GLU:O	5:C:775:ARG:HG2	2.01	0.61
6:D:480:GLU:HB2	12:D:9200:HOH:O	2.01	0.61
6:D:845:ASN:HA	6:D:867:ARG:NH2	2.15	0.61
6:D:955:VAL:HG11	6:D:1015:TYR:HE2	1.65	0.61
6:D:977:ALA:HB3	6:D:983:LEU:HD11	1.81	0.61
6:N:1175:ILE:O	6:N:1179:GLU:HG3	2.00	0.61
6:N:15:PRO:O	6:N:19:ARG:HG2	2.00	0.61
6:N:756:GLN:HG3	6:N:760:ARG:HD2	1.81	0.61
6:N:820:GLU:HG3	6:N:836:VAL:HG11	1.82	0.61
4:A:112:ARG:HH21	4:A:126:ASP:N	1.98	0.61
4:A:56:VAL:HG13	4:A:142:VAL:HG12	1.81	0.61
5:C:464:LEU:HD21	12:C:1279:HOH:O	2.01	0.61
5:C:752:GLY:O	6:D:679:ARG:HG2	2.00	0.61
5:M:966:LEU:HA	5:M:969:GLN:HG3	1.81	0.61
6:N:841:TYR:HA	12:N:9409:HOH:O	2.00	0.61
4:A:189:ARG:HH22	4:B:155:LYS:HG2	1.65	0.61
6:D:1053:PHE:CE1	6:D:1072:ILE:HD12	2.36	0.61
6:D:97:THR:CG2	6:D:459:GLU:HB2	2.31	0.61
6:D:553:ARG:HD3	6:D:570:GLU:OE1	2.00	0.61
6:D:773:ALA:HA	6:D:1228:SER:CB	2.31	0.61
6:D:917:GLN:HE21	6:D:921:ARG:HE	1.49	0.61
4:K:219:ARG:HE	4:L:219:ARG:HD2	1.65	0.61
5:M:139:GLN:NE2	5:M:418:LEU:HD22	2.15	0.61
6:N:10:ILE:HD11	6:N:1434:TRP:CE2	2.36	0.61
4:B:36:LEU:O	4:B:40:LEU:HG	2.00	0.61
6:D:462:GLN:HA	6:D:513:ILE:HD13	1.83	0.61
6:D:52:PRO:HD2	6:D:85:VAL:CG2	2.30	0.61
6:D:882:PHE:HA	6:D:885:ILE:HD12	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:27:ALA:HB2	7:E:61:VAL:CG2	2.28	0.61
4:K:173:PRO:HB2	4:K:205:VAL:HG22	1.82	0.61
4:L:16:GLN:HE21	4:L:16:GLN:CA	2.13	0.61
5:M:1051:GLU:HG2	5:M:1056:LYS:HZ2	1.66	0.61
6:N:1277:ILE:O	6:N:1294:VAL:HG11	2.01	0.61
6:N:27:GLU:O	6:N:28:LYS:HD2	2.01	0.61
6:N:525:ARG:HG2	6:N:541:ASN:HD21	1.65	0.61
4:B:81:ASN:ND2	4:B:127:LEU:HD11	2.16	0.61
5:C:211:LEU:HD13	5:C:308:ARG:HG2	1.82	0.61
5:C:139:GLN:OE1	5:C:415:PRO:HD2	2.01	0.61
5:C:660:ALA:HB1	5:C:667:ALA:O	2.00	0.61
5:C:710:ILE:HG23	5:C:823:VAL:HG23	1.83	0.61
5:C:580:MET:O	5:C:902:ILE:HA	2.01	0.61
7:E:54:LEU:HG	7:E:58:PRO:HG2	1.83	0.61
5:M:19:THR:HG21	5:M:124:ASP:O	2.01	0.61
5:M:876:VAL:HG22	5:M:884:GLN:HE21	1.66	0.61
6:N:1240:THR:HG22	6:N:1254:GLN:C	2.21	0.61
6:N:1473:PRO:O	6:N:1478:SER:HA	2.00	0.61
6:N:786:ILE:HD11	6:N:908:LYS:HA	1.83	0.61
6:N:770:LEU:HG	6:N:919:PHE:CD1	2.36	0.61
1:X:17:DC:H2''	1:X:18:DG:C5'	2.28	0.61
2:Y:13:C:H2'	2:Y:14:G:H8	1.65	0.61
5:C:42:VAL:HG12	5:C:43:GLY:H	1.66	0.61
5:C:409:ARG:NH1	5:C:452:ILE:HD12	2.16	0.61
6:D:1425:THR:O	6:D:1429:LEU:HD13	2.01	0.61
6:D:522:PRO:HA	6:D:525:ARG:NH1	2.15	0.61
5:M:185:LYS:HB3	5:M:188:LYS:O	2.01	0.61
5:M:142:ARG:NE	5:M:325:ILE:HG23	2.16	0.61
5:M:93:PRO:HG3	5:M:117:HIS:HE1	1.65	0.61
6:N:153:LEU:HD21	12:N:9025:HOH:O	2.00	0.61
6:N:15:PRO:HB3	6:N:19:ARG:NH2	2.16	0.61
5:C:200:LEU:HD13	5:C:300:ASP:CG	2.21	0.60
5:C:835:VAL:HG21	12:D:9317:HOH:O	1.99	0.60
5:C:684:PHE:HE1	6:D:782:SER:HB3	1.66	0.60
4:L:226:SER:HA	12:L:1298:HOH:O	2.01	0.60
5:M:248:PRO:HG2	12:M:7185:HOH:O	1.99	0.60
5:M:922:PHE:CZ	5:M:963:LEU:HB3	2.36	0.60
6:N:31:THR:HG23	6:N:44:LEU:HD11	1.82	0.60
6:N:972:LEU:HD23	6:N:973:GLN:N	2.16	0.60
4:A:117:VAL:HB	4:A:120:VAL:CG1	2.28	0.60
4:B:62:LEU:HD13	4:B:63:HIS:HD2	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:366:SER:HB2	12:C:1203:HOH:O	2.01	0.60
5:C:534:VAL:N	5:C:538:GLN:HE22	2.00	0.60
5:C:740:GLU:H	5:C:740:GLU:CD	2.05	0.60
6:D:1114:THR:HB	6:D:1195:GLN:NE2	2.15	0.60
6:D:1198:TYR:HE2	6:D:1377:LYS:HZ1	1.48	0.60
6:D:1297:GLU:OE1	6:N:52:PRO:HD3	2.01	0.60
4:K:8:ALA:HB1	4:L:224:TYR:CE1	2.36	0.60
5:M:636:ALA:CB	5:M:703:ILE:HD13	2.27	0.60
6:N:131:LYS:HG3	6:N:568:ARG:HG2	1.82	0.60
4:L:80:LEU:HD21	6:N:867:ARG:HB2	1.82	0.60
4:A:176:ARG:HG3	4:A:200:TRP:CE3	2.37	0.60
4:A:179:PHE:HB2	4:A:195:LEU:HD11	1.83	0.60
5:C:141:HIS:CE1	5:C:332:ARG:HH11	2.17	0.60
6:D:799:LYS:HB3	6:D:826:PRO:CG	2.30	0.60
4:L:99:LEU:HD13	4:L:144:VAL:HG21	1.83	0.60
5:M:444:PRO:HG2	5:M:452:ILE:CD1	2.32	0.60
5:M:52:PHE:CD2	5:M:68:PHE:HB2	2.36	0.60
5:M:730:SER:O	5:M:734:LEU:HD13	2.01	0.60
5:M:839:LEU:HA	12:M:7228:HOH:O	2.00	0.60
6:N:1268:PRO:HB3	12:N:9094:HOH:O	2.01	0.60
6:N:1350:GLU:O	6:N:1354:LYS:HG2	2.01	0.60
6:N:792:ILE:HD11	6:N:878:GLY:O	2.00	0.60
6:N:972:LEU:HD23	6:N:973:GLN:HG3	1.83	0.60
4:A:224:TYR:CD1	4:B:9:PRO:HD2	2.37	0.60
6:D:85:VAL:O	6:D:89:ARG:HD2	2.01	0.60
6:D:881:LEU:O	6:D:885:ILE:HG13	2.01	0.60
4:K:7:LYS:NZ	4:K:186:LEU:HD23	2.16	0.60
4:L:152:PRO:HD2	4:L:155:LYS:HG3	1.83	0.60
11:M:6999:APC:H5'1	11:M:6999:APC:C8	2.31	0.60
6:N:1281:VAL:HG21	6:N:1313:VAL:HG11	1.81	0.60
5:M:1036:GLU:HA	6:N:707:THR:HG21	1.83	0.60
6:N:758:GLU:HB2	6:N:762:GLN:NE2	2.17	0.60
4:B:1:MET:O	4:B:6:LEU:HD22	2.00	0.60
5:C:102:HIS:HE1	12:C:1135:HOH:O	1.84	0.60
5:C:198:ARG:HD3	5:C:228:ALA:HA	1.81	0.60
5:C:203:ASP:O	5:C:207:LEU:HB2	2.01	0.60
5:C:69:LEU:HD12	5:C:97:ARG:HB3	1.84	0.60
6:D:1090:ASP:HB3	6:D:1256:LEU:CD2	2.30	0.60
6:D:62:LYS:HE2	12:D:9457:HOH:O	2.00	0.60
7:E:41:GLU:HG2	7:E:42:PRO:N	2.16	0.60
1:G:18:DG:H8	1:G:18:DG:H5'	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:13:C:H2'	2:H:14:G:C8	2.35	0.60
5:M:611:ILE:CD1	5:M:625:LEU:HD11	2.32	0.60
5:M:905:ILE:H	5:M:905:ILE:CD1	2.14	0.60
4:K:42:ARG:HD2	5:M:977:GLY:O	2.01	0.60
6:N:1191:PRO:HG3	6:N:1200:VAL:HG11	1.83	0.60
6:N:557:LEU:HB3	12:N:9268:HOH:O	2.01	0.60
6:N:804:LEU:HB2	6:N:830:ALA:O	2.01	0.60
6:N:868:TYR:HB3	12:N:9504:HOH:O	2.01	0.60
4:A:87:VAL:HG21	4:A:144:VAL:HG11	1.82	0.60
5:C:773:LEU:O	5:C:777:ILE:HG13	2.01	0.60
6:D:1138:ALA:HB1	6:D:1362:LYS:HE2	1.82	0.60
6:D:199:LEU:HD11	12:D:9219:HOH:O	2.02	0.60
6:D:603:LEU:HA	6:D:606:ILE:HD12	1.82	0.60
6:D:804:LEU:HB2	6:D:830:ALA:O	2.01	0.60
6:D:814:ALA:HB1	6:D:818:ARG:NH2	2.16	0.60
5:M:626:ARG:N	5:M:639:GLN:HE21	1.94	0.60
5:M:52:PHE:HE1	5:M:66:LEU:HG	1.65	0.60
6:N:1148:VAL:HG13	6:N:1163:GLY:O	2.00	0.60
6:N:1274:ILE:HD11	12:N:9314:HOH:O	2.00	0.60
6:N:784:ASP:HB3	6:N:939:PHE:HE2	1.67	0.60
6:N:787:LEU:HD21	6:N:947:ILE:CD1	2.30	0.60
6:N:799:LYS:NZ	6:N:824:ASN:HA	2.15	0.60
4:B:228:PRO:O	4:B:229:GLN:HG3	2.02	0.60
6:D:133:ILE:HA	6:D:456:MET:HB3	1.83	0.60
4:K:176:ARG:HD2	5:M:864:GLY:C	2.21	0.60
4:K:39:PRO:HG3	4:L:39:PRO:HG3	1.83	0.60
5:M:979:THR:HG23	5:M:981:GLU:N	2.10	0.60
6:N:154:THR:HG23	6:N:157:GLU:H	1.67	0.60
1:X:17:DC:H5"	5:M:1030:GLN:HE22	1.67	0.60
4:A:42:ARG:NH1	5:C:978:ARG:HA	2.16	0.60
4:B:206:THR:CG2	4:B:209:GLU:H	2.14	0.60
5:C:151:ASP:HB2	5:C:157:ARG:O	2.01	0.60
5:C:195:LEU:HG	5:C:238:LEU:HD12	1.84	0.60
6:D:133:ILE:CA	6:D:456:MET:HB3	2.31	0.60
6:D:97:THR:CB	6:D:571:LYS:HD3	2.32	0.60
6:D:679:ARG:HB2	6:D:682:ASP:OD1	2.01	0.60
6:D:820:GLU:HB2	6:D:836:VAL:HG11	1.82	0.60
6:D:95:LEU:HB3	12:D:9119:HOH:O	2.00	0.60
5:M:162:ILE:O	5:M:164:PRO:HD3	2.01	0.60
5:M:174:LEU:HB3	5:M:310:LEU:HD22	1.84	0.60
6:N:101:HIS:O	6:N:105:VAL:HG23	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1197:ARG:HB3	6:N:1396:GLU:HG3	1.82	0.60
6:N:456:MET:HA	6:N:460:ALA:HB2	1.83	0.60
1:X:6:DT:H2''	1:X:7:DC:C6	2.36	0.60
5:C:1032:PHE:O	5:C:1033:GLY:O	2.20	0.60
5:C:285:LEU:HD23	5:C:285:LEU:O	2.02	0.60
5:C:601:GLY:HA3	5:C:615:TYR:HA	1.83	0.60
6:D:505:SER:HB2	6:D:1454:GLY:N	2.16	0.60
6:D:623:VAL:HG21	6:D:748:HIS:NE2	2.15	0.60
6:D:793:THR:HG21	6:D:906:GLN:HG2	1.84	0.60
1:G:6:DT:H2'	12:G:84:HOH:O	2.00	0.60
5:M:305:PRO:HA	5:M:308:ARG:HB3	1.84	0.60
6:N:1216:SER:HB3	7:O:15:SER:OG	2.01	0.60
6:N:833:GLU:HB3	12:N:9227:HOH:O	2.01	0.60
5:C:192:PRO:HB2	5:C:195:LEU:HB3	1.84	0.60
6:D:163:TYR:CG	6:D:166:GLN:HB2	2.37	0.60
6:D:610:LYS:HA	6:D:615:ARG:CZ	2.32	0.60
5:C:1031:ARG:HG2	6:D:621:LYS:HB3	1.84	0.60
5:C:447:ALA:O	8:D:7001:STD:H291	2.01	0.60
12:C:1148:HOH:O	6:D:8:VAL:HG12	2.02	0.60
2:H:2:A:O2'	2:H:3:G:O5'	2.20	0.60
4:K:111:ALA:HB2	4:K:127:LEU:HG	1.84	0.60
4:K:117:VAL:HB	4:K:120:VAL:CG1	2.28	0.60
4:K:219:ARG:HH21	4:L:219:ARG:HD2	1.67	0.60
5:M:368:THR:HB	5:M:369:PRO:HD3	1.84	0.60
6:N:1240:THR:OG1	6:N:1359:GLN:HG3	2.02	0.60
7:O:19:LEU:O	7:O:23:VAL:HG23	2.02	0.60
4:A:143:ARG:HE	4:A:158:ILE:CG2	2.14	0.59
4:B:105:GLY:O	4:B:132:LEU:HB3	2.02	0.59
5:C:402:SER:HA	5:C:566:THR:HG23	1.83	0.59
5:C:516:ARG:NH2	6:D:1068:LEU:HD22	2.16	0.59
5:C:549:PHE:CD1	5:C:886:LEU:HD23	2.37	0.59
5:C:751:PRO:HB2	6:D:680:GLN:HG3	1.84	0.59
5:C:773:LEU:HD13	12:C:1288:HOH:O	2.01	0.59
5:C:881:ASN:O	5:C:884:GLN:HG3	2.02	0.59
2:H:11:C:H2'	2:H:12:G:H8	1.67	0.59
6:N:1044:LEU:HD21	6:N:1056:PRO:HG3	1.85	0.59
6:N:87:ARG:HD3	6:N:523:ASP:CB	2.30	0.59
5:C:301:GLU:O	5:C:305:PRO:HG2	2.02	0.59
5:C:50:GLU:HG3	5:C:266:ARG:HD2	1.83	0.59
5:C:881:ASN:HD22	5:C:881:ASN:N	2.00	0.59
6:D:1156:LEU:HD11	12:D:9058:HOH:O	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:6:DC:P	6:D:1266:ARG:HH12	2.25	0.59
6:D:455:ARG:HB3	6:D:459:GLU:CG	2.32	0.59
2:H:13:C:H2'	2:H:14:G:H8	1.66	0.59
5:M:625:LEU:HB3	5:M:639:GLN:HB2	1.84	0.59
5:M:708:TYR:HA	12:M:7161:HOH:O	2.02	0.59
6:N:955:VAL:HB	6:N:1011:PHE:HE1	1.67	0.59
6:N:50:PHE:O	6:N:86:ARG:HA	2.01	0.59
6:N:758:GLU:HB2	6:N:762:GLN:HE21	1.66	0.59
6:N:988:ARG:O	6:N:992:ILE:HG13	2.01	0.59
5:C:141:HIS:CD2	5:C:334:ARG:HD2	2.36	0.59
5:C:394:PHE:CE1	5:C:632:ASN:HB3	2.37	0.59
5:C:800:VAL:HB	12:C:1408:HOH:O	2.01	0.59
6:D:133:ILE:O	6:D:152:LEU:HB2	2.02	0.59
6:D:972:LEU:HD23	6:D:973:GLN:N	2.17	0.59
5:M:660:ALA:HB1	5:M:667:ALA:O	2.02	0.59
5:M:804:VAL:HB	5:M:824:ARG:HB2	1.83	0.59
6:N:700:VAL:HG22	6:N:718:PRO:HG3	1.85	0.59
6:N:817:GLU:O	6:N:821:VAL:HG23	2.02	0.59
5:C:52:PHE:HE1	5:C:66:LEU:HG	1.66	0.59
6:D:546:ARG:HH21	6:D:550:ARG:NH2	2.00	0.59
6:D:643:GLY:HA3	6:D:727:GLN:HB2	1.84	0.59
6:D:772:PRO:HB3	6:D:1224:VAL:HG13	1.84	0.59
4:L:102:LYS:HD2	4:L:139:ASN:HB2	1.85	0.59
5:M:217:LEU:HD13	12:M:7064:HOH:O	2.01	0.59
5:M:260:LEU:HA	5:M:291:ALA:CB	2.33	0.59
5:M:606:VAL:CG2	5:M:645:VAL:HG22	2.33	0.59
5:M:687:ALA:C	5:M:688:ILE:HD12	2.23	0.59
6:N:1109:GLU:HG2	6:N:1201:CYS:HA	1.83	0.59
6:N:1233:GLY:O	6:N:1237:THR:HB	2.02	0.59
6:N:1273:VAL:O	6:N:1325:LEU:HB2	2.02	0.59
6:N:162:ARG:HH12	6:N:414:ARG:NH1	2.00	0.59
6:D:1296:SER:O	6:N:59:ALA:HB2	2.02	0.59
4:A:9:PRO:HD2	4:B:224:TYR:CD1	2.37	0.59
4:B:143:ARG:HD2	4:B:158:ILE:HG21	1.84	0.59
5:C:516:ARG:CZ	6:D:1068:LEU:HD22	2.32	0.59
5:C:881:ASN:HD22	5:C:881:ASN:H	1.51	0.59
6:D:15:PRO:O	6:D:19:ARG:HG3	2.02	0.59
6:D:774:SER:HB3	6:D:1362:LYS:O	2.01	0.59
5:M:1032:PHE:O	5:M:1033:GLY:O	2.21	0.59
5:M:119:PRO:HB3	12:M:7068:HOH:O	2.02	0.59
5:M:880:MET:HE1	6:N:1034:GLN:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1147:ARG:HB3	6:N:1188:VAL:CG2	2.31	0.59
6:N:17:LYS:HG2	6:N:21:TRP:NE1	2.18	0.59
5:M:1004:LYS:HD3	6:N:724:GLN:NE2	2.17	0.59
7:O:48:MET:N	7:O:54:LEU:HB2	2.17	0.59
5:C:424:GLY:HA3	5:C:428:ARG:NH1	2.17	0.59
5:C:734:LEU:HD12	5:C:737:LEU:HD22	1.84	0.59
5:C:837:ASP:O	5:C:848:VAL:HG13	2.02	0.59
5:C:855:VAL:HG23	12:C:1209:HOH:O	2.01	0.59
6:D:175:VAL:HG13	12:D:9137:HOH:O	2.03	0.59
4:L:132:LEU:HD11	4:L:138:LEU:HD13	1.84	0.59
5:M:1007:ALA:HB2	6:N:648:MET:HG3	1.85	0.59
5:M:237:ARG:HH11	5:M:237:ARG:HB2	1.67	0.59
6:N:646:LYS:HE2	6:N:722:GLU:OE2	2.03	0.59
1:X:12:DG:H2'	1:X:13:DT:H71	1.83	0.59
5:C:167:LYS:HG2	12:C:1525:HOH:O	2.02	0.59
5:C:569:VAL:HG23	5:C:635:THR:HG22	1.85	0.59
6:D:1149:LEU:HD22	6:D:1151:ARG:O	2.03	0.59
6:D:1380:GLU:HB2	6:D:1420:LEU:HD11	1.83	0.59
6:D:1438:ALA:O	6:D:1443:THR:HG22	2.02	0.59
6:D:698:LYS:HE3	12:E:125:HOH:O	2.01	0.59
6:D:799:LYS:O	6:D:826:PRO:HD2	2.02	0.59
7:E:54:LEU:HD21	12:E:114:HOH:O	2.02	0.59
5:M:309:TYR:HE1	12:M:7321:HOH:O	1.85	0.59
5:M:374:ASN:ND2	5:M:377:PRO:HD3	2.17	0.59
6:N:598:ARG:HH11	6:N:598:ARG:CB	2.16	0.59
6:N:875:THR:HG22	6:N:879:ARG:HB2	1.85	0.59
1:X:18:DG:H5'	1:X:18:DG:H8	1.67	0.59
6:D:647:ARG:HE	6:D:723:GLY:H	1.51	0.59
2:H:9:G:O2'	2:H:10:G:H5'	2.03	0.59
4:K:145:ASP:O	4:K:171:PHE:HE1	1.86	0.59
5:M:775:ARG:HD2	5:M:782:ALA:HB3	1.85	0.59
6:N:1020:LEU:CD2	6:N:1035:ILE:HG23	2.32	0.59
6:N:63:TYR:HB3	6:N:68:PHE:CE1	2.38	0.59
5:C:831:ARG:NH1	5:C:1004:LYS:HE3	2.18	0.59
6:D:133:ILE:CA	6:D:456:MET:CB	2.81	0.59
5:M:577:PRO:HD2	5:M:580:MET:SD	2.43	0.59
5:M:726:ILE:HG12	5:M:754:ILE:CD1	2.33	0.59
5:M:862:PRO:HB2	5:M:929:ARG:HH12	1.67	0.59
6:N:1047:LYS:HE3	6:N:1053:PHE:CD2	2.38	0.59
6:N:1223:ILE:N	6:N:1223:ILE:HD12	2.18	0.59
3:Z:5:DG:H5''	12:Z:970:HOH:O	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:305:PRO:HA	5:C:308:ARG:HB2	1.85	0.59
5:C:603:VAL:HG21	5:C:643:VAL:CG1	2.33	0.59
4:A:42:ARG:HH11	5:C:978:ARG:HA	1.66	0.59
6:D:964:LEU:HD11	6:D:1041:LEU:HD13	1.83	0.59
6:D:1115:THR:CG2	6:D:1151:ARG:HH21	2.16	0.59
6:D:782:SER:H	6:D:785:ILE:HD13	1.67	0.59
6:D:843:PHE:CE1	6:D:864:VAL:HG11	2.37	0.59
7:E:47:LYS:HA	7:E:54:LEU:HB3	1.85	0.59
4:K:54:THR:CG2	4:K:158:ILE:HG13	2.32	0.59
4:L:110:LYS:HD2	4:L:112:ARG:HH11	1.67	0.59
6:N:1429:LEU:HG	6:N:1441:GLN:HG3	1.84	0.59
5:C:877:PRO:HB3	6:D:1020:LEU:CD1	2.33	0.58
5:C:911:GLU:O	5:C:915:LYS:HG2	2.03	0.58
6:D:5:VAL:HG21	6:D:1468:LEU:HD21	1.85	0.58
6:D:166:GLN:HA	6:D:395:VAL:O	2.03	0.58
6:D:475:LYS:HA	6:D:478:LEU:HG	1.84	0.58
6:D:660:LYS:CD	6:D:694:VAL:HG22	2.33	0.58
4:K:129:ILE:HG22	12:K:2221:HOH:O	2.01	0.58
4:L:186:LEU:HB2	4:L:192:LEU:CD1	2.31	0.58
5:M:141:HIS:HB3	5:M:418:LEU:HD23	1.85	0.58
5:M:196:LEU:HD12	5:M:238:LEU:HD11	1.83	0.58
5:M:428:ARG:HG3	5:M:428:ARG:HH11	1.67	0.58
6:N:628:ARG:NH1	6:N:744:GLN:HE22	2.01	0.58
6:N:708:LEU:HD22	6:N:1231:GLU:CA	2.33	0.58
6:N:813:LEU:HD11	12:N:9308:HOH:O	2.03	0.58
7:O:54:LEU:O	7:O:54:LEU:HD23	2.03	0.58
2:Y:8:C:H2'	2:Y:9:G:C8	2.38	0.58
4:A:82:LEU:HD11	4:A:142:VAL:HG11	1.85	0.58
5:C:1085:PHE:O	5:C:1089:VAL:HG23	2.03	0.58
5:C:116:GLY:HA3	5:C:378:LEU:HD23	1.84	0.58
5:C:116:GLY:HA2	5:C:379:GLU:OE1	2.03	0.58
5:C:77:PRO:HB2	5:C:78:PHE:CD1	2.38	0.58
6:D:1272:ALA:HA	6:D:1326:THR:HB	1.85	0.58
4:K:206:THR:CG2	4:K:209:GLU:H	2.14	0.58
5:M:141:HIS:O	5:M:331:ARG:HA	2.03	0.58
1:X:20:DG:H4'	5:M:394:PHE:CZ	2.38	0.58
5:M:754:ILE:HG12	5:M:791:ARG:CD	2.32	0.58
6:N:1106:VAL:HG12	6:N:1108:ARG:HD3	1.84	0.58
6:N:1441:GLN:NE2	6:N:1442:ASN:HB2	2.18	0.58
5:M:1101:THR:HB	6:N:5:VAL:HG13	1.84	0.58
5:C:197:LEU:HB3	5:C:202:TYR:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:247:PRO:HD2	5:C:250:ARG:NH1	2.18	0.58
5:C:570:PRO:HD2	5:C:635:THR:HB	1.85	0.58
5:C:692:GLU:HG2	5:C:696:LYS:HE2	1.84	0.58
5:C:94:LEU:HB3	12:C:1296:HOH:O	2.02	0.58
6:D:136:ASP:HB2	6:D:455:ARG:NH2	2.17	0.58
2:H:11:C:C2'	2:H:12:G:H5''	2.33	0.58
4:K:213:GLN:O	4:K:217:ILE:HG13	2.03	0.58
5:M:611:ILE:HD11	5:M:625:LEU:HD11	1.84	0.58
5:M:1046:ALA:HB1	6:N:1471:LEU:CD1	2.34	0.58
6:N:166:GLN:HG2	6:N:396:VAL:HG12	1.84	0.58
6:N:817:GLU:HG3	6:N:839:LEU:HD23	1.85	0.58
7:O:26:ARG:HH22	7:O:38:THR:HA	1.67	0.58
4:B:115:LEU:O	4:B:115:LEU:HD12	2.02	0.58
5:C:352:ALA:HA	5:C:355:VAL:HG12	1.85	0.58
5:C:580:MET:HB3	5:C:584:GLU:CD	2.24	0.58
5:C:922:PHE:CD2	5:C:964:LYS:HD2	2.38	0.58
6:D:1364:HIS:CE1	6:D:1366:LYS:HG3	2.37	0.58
6:D:496:LEU:O	6:D:500:ARG:HG2	2.04	0.58
7:E:35:PHE:HB2	12:E:133:HOH:O	2.03	0.58
5:M:1060:ILE:HA	5:M:1063:ARG:NH1	2.18	0.58
5:M:204:GLN:HA	12:M:7206:HOH:O	2.02	0.58
6:N:1144:LEU:HD11	6:N:1186:VAL:HG21	1.83	0.58
6:N:1280:VAL:HG13	6:N:1317:ASP:C	2.24	0.58
5:M:1007:ALA:HB2	6:N:648:MET:SD	2.43	0.58
4:A:169:ALA:HB1	4:A:171:PHE:CE2	2.39	0.58
4:B:56:VAL:HG11	12:B:379:HOH:O	2.03	0.58
5:C:1017:THR:OG1	5:C:1019:GLN:HG3	2.03	0.58
5:C:1078:GLU:HA	5:C:1078:GLU:OE1	2.03	0.58
5:C:712:ALA:O	5:C:820:ARG:HB3	2.03	0.58
6:D:116:LEU:O	6:D:118:LEU:HG	2.03	0.58
6:D:10:ILE:HD11	6:D:1434:TRP:NE1	2.18	0.58
6:D:104:PHE:CD2	6:D:1448:THR:HG23	2.38	0.58
6:D:23:TYR:CG	6:D:89:ARG:HG2	2.39	0.58
6:D:483:HIS:HB2	6:D:484:PRO:HD3	1.85	0.58
6:D:607:LEU:O	6:D:614:PHE:HB2	2.04	0.58
4:K:64:GLU:HA	4:K:165:ILE:HD13	1.84	0.58
5:M:1004:LYS:NZ	6:N:724:GLN:HE22	2.01	0.58
5:M:1074:GLU:HG2	5:M:1075:ASP:H	1.69	0.58
5:M:675:ALA:HB2	5:M:867:VAL:HG11	1.86	0.58
5:M:87:ASP:HA	12:M:7233:HOH:O	2.04	0.58
5:M:579:VAL:CG1	5:M:887:GLU:HG3	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:860:HIS:CE1	5:M:975:TYR:HB2	2.38	0.58
6:N:455:ARG:HB3	6:N:459:GLU:HG3	1.85	0.58
6:N:756:GLN:O	6:N:760:ARG:HG2	2.03	0.58
2:Y:8:C:HO2'	2:Y:9:G:H5'	1.68	0.58
4:A:206:THR:CG2	4:A:209:GLU:H	2.15	0.58
4:B:117:VAL:HG23	4:B:120:VAL:HB	1.86	0.58
5:C:232:GLU:O	5:C:235:LEU:HB2	2.02	0.58
5:C:260:LEU:HA	5:C:291:ALA:CB	2.34	0.58
6:D:1361:VAL:HG22	12:D:9062:HOH:O	2.03	0.58
6:D:9:ARG:HH21	6:D:507:ASN:ND2	2.00	0.58
6:N:1001:GLU:O	6:N:1004:THR:HB	2.04	0.58
6:N:970:LYS:HB2	12:N:9095:HOH:O	2.03	0.58
5:C:129:ILE:HG13	5:C:386:PHE:HB3	1.86	0.58
1:G:13:DT:H2"	5:C:422:ARG:NH2	2.17	0.58
5:C:859:PRO:O	5:C:867:VAL:HG22	2.03	0.58
6:D:1297:GLU:HB2	6:N:51:GLY:C	2.24	0.58
6:D:619:LEU:HD12	6:D:621:LYS:NZ	2.18	0.58
6:D:676:MET:CE	6:D:684:LYS:HG3	2.34	0.58
6:D:676:MET:HE3	6:D:684:LYS:HG3	1.85	0.58
1:G:22:DC:OP1	5:C:387:SER:HB2	2.03	0.58
4:L:33:GLY:O	4:L:195:LEU:HD22	2.04	0.58
5:M:285:LEU:O	5:M:285:LEU:HD23	2.02	0.58
5:M:752:GLY:N	5:M:792:VAL:HB	2.18	0.58
5:M:793:PRO:HB2	12:M:7015:HOH:O	2.04	0.58
6:N:141:ILE:HG21	6:N:449:SER:OG	2.04	0.58
6:N:403:PHE:CE2	6:N:444:VAL:HG23	2.39	0.58
7:O:41:GLU:O	7:O:45:ARG:HD2	2.02	0.58
7:O:54:LEU:CD2	7:O:63:TRP:HE1	2.17	0.58
5:C:497:ALA:HA	5:C:515:ALA:HA	1.85	0.58
5:C:758:ARG:HB3	5:C:788:THR:O	2.03	0.58
5:C:86:LYS:CG	5:C:813:VAL:HB	2.23	0.58
5:C:874:LEU:CD2	6:D:1028:ALA:HB1	2.34	0.58
6:D:1147:ARG:HB3	6:D:1188:VAL:CG2	2.34	0.58
6:D:644:LEU:HD12	6:D:645:PRO:HD2	1.86	0.58
1:G:14:DT:H5'	1:G:14:DT:H6	1.69	0.58
3:I:5:DG:H4'	8:D:7001:STD:O1	2.03	0.58
4:L:105:GLY:O	4:L:132:LEU:HB3	2.03	0.58
5:M:195:LEU:O	5:M:199:VAL:HG23	2.04	0.58
5:M:773:LEU:O	5:M:777:ILE:HG13	2.03	0.58
5:M:926:PHE:O	5:M:930:LYS:HG3	2.03	0.58
6:N:493:ARG:HD3	6:N:1390:LEU:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:127:LEU:HD12	4:A:128:HIS:N	2.18	0.58
4:A:221:HIS:HA	4:A:224:TYR:HD2	1.68	0.58
6:D:1472:ILE:HB	12:D:9209:HOH:O	2.03	0.58
6:D:804:LEU:HD13	6:D:830:ALA:O	2.04	0.58
2:Y:13:C:C5'	5:M:409:ARG:HH22	2.17	0.58
5:M:462:ASP:CG	5:M:468:ARG:HD2	2.24	0.58
5:M:681:GLY:HA3	6:N:939:PHE:CE1	2.39	0.58
6:N:133:ILE:HA	6:N:456:MET:CA	2.34	0.58
6:N:896:ALA:O	6:N:900:ILE:HG23	2.03	0.58
4:A:57:TYR:CD2	4:A:161:ARG:HD2	2.39	0.58
5:C:1095:LEU:HG	6:D:603:LEU:HD22	1.85	0.58
6:D:1084:THR:HG22	6:D:1238:MET:HG2	1.86	0.58
3:I:6:DC:H5''	6:D:1266:ARG:HH22	1.66	0.58
6:D:1440:PHE:CD2	6:D:1440:PHE:C	2.76	0.58
6:D:621:LYS:O	6:D:622:ARG:HG3	2.04	0.58
7:E:54:LEU:HA	7:E:58:PRO:HG2	1.85	0.58
4:K:195:LEU:HD12	4:K:196:THR:N	2.19	0.58
4:K:225:PHE:HE2	4:L:211:LEU:HD11	1.69	0.58
5:M:550:LEU:HG	6:N:1070:TYR:HE1	1.67	0.58
6:N:486:ARG:HA	6:N:489:ARG:CG	2.32	0.58
6:N:592:THR:HA	12:N:9040:HOH:O	2.04	0.58
3:Z:6:DC:P	6:N:1266:ARG:HH22	2.27	0.58
4:A:151:VAL:HB	4:A:169:ALA:HB3	1.85	0.57
4:A:14:ARG:NH2	4:A:22:GLU:HB3	2.19	0.57
6:D:615:ARG:O	6:D:619:LEU:HG	2.04	0.57
2:H:6:U:C2'	2:H:7:G:C8	2.85	0.57
4:K:44:LEU:HA	4:K:48:ILE:HD11	1.86	0.57
5:M:41:ASN:O	5:M:46:ALA:HB2	2.04	0.57
5:M:499:ALA:HA	5:M:532:MET:SD	2.43	0.57
5:M:744:ARG:NE	5:M:747:ALA:HB2	2.19	0.57
6:N:101:HIS:ND1	6:N:103:TRP:HB2	2.18	0.57
6:N:927:THR:O	6:N:931:LEU:HG	2.04	0.57
4:B:132:LEU:HG	4:B:136:GLY:HA3	1.86	0.57
5:C:292:ARG:NE	5:C:294:GLU:HG2	2.14	0.57
6:D:117:ASP:HB2	6:D:495:ARG:HH21	1.67	0.57
6:D:1149:LEU:HD23	6:D:1187:PRO:O	2.03	0.57
6:D:520:LEU:HD12	6:D:521:PRO:HD2	1.86	0.57
5:C:1006:HIS:O	6:D:627:GLY:HA2	2.04	0.57
6:D:1085:ALA:C	8:D:7001:STD:H32	2.24	0.57
6:D:875:THR:HG22	6:D:879:ARG:HB2	1.86	0.57
2:H:10:G:H2'	2:H:11:C:H6	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:106:PRO:HG3	4:K:134:GLU:OE1	2.03	0.57
4:K:11:PHE:HD1	4:K:25:LEU:HD13	1.68	0.57
5:M:601:GLY:HA3	5:M:615:TYR:HA	1.86	0.57
6:N:1226:ALA:HA	6:N:1229:ILE:HD12	1.85	0.57
6:N:1236:LEU:HD21	6:N:1361:VAL:CB	2.34	0.57
5:M:685:GLU:CG	6:N:739:ASP:HB3	2.34	0.57
2:Y:11:C:C2'	2:Y:12:G:H5''	2.33	0.57
4:B:34:VAL:HG12	12:B:368:HOH:O	2.03	0.57
5:C:533:ASP:HB3	5:C:538:GLN:HE22	1.68	0.57
6:D:1278:ASP:HB3	6:D:1320:GLU:HA	1.86	0.57
6:D:1472:ILE:HG22	6:D:1474:ALA:H	1.69	0.57
6:D:63:TYR:HE1	6:D:73:CYS:HA	1.67	0.57
5:C:1051:GLU:OE2	6:D:751:LEU:HB2	2.03	0.57
4:K:23:PHE:CE1	4:K:208:LEU:HD13	2.39	0.57
5:M:1105:LYS:HG3	5:M:1107:ASN:HD22	1.69	0.57
5:M:252:LYS:HA	12:M:7260:HOH:O	2.02	0.57
5:M:329:GLY:HA3	5:M:489:THR:HG23	1.87	0.57
6:N:177:ALA:HB3	6:N:205:TYR:OH	2.04	0.57
6:N:181:ASP:OD1	6:N:205:TYR:HB2	2.05	0.57
6:N:977:ALA:CB	6:N:983:LEU:HD21	2.30	0.57
5:C:118:ILE:HG22	5:C:382:ILE:HD13	1.85	0.57
6:D:1491:THR:HA	12:D:9274:HOH:O	2.04	0.57
5:M:1115:LEU:HA	12:N:9264:HOH:O	2.03	0.57
5:M:142:ARG:O	5:M:163:ILE:HD11	2.04	0.57
5:M:175:GLU:HB3	5:M:183:SER:OG	2.04	0.57
5:M:861:LEU:HD21	5:M:925:TYR:HE2	1.69	0.57
6:N:438:ASP:HB2	6:N:445:ARG:NH1	2.12	0.57
2:Y:7:G:N3	2:Y:7:G:H2'	2.20	0.57
5:C:142:ARG:HD3	5:C:163:ILE:HG21	1.87	0.57
5:C:395:LYS:HE3	5:C:407:LYS:HE2	1.86	0.57
5:C:713:ARG:HB2	5:C:720:GLU:OE1	2.04	0.57
6:D:1282:ARG:HB3	6:N:76:CYS:N	2.20	0.57
6:D:789:LEU:CD1	6:D:934:LEU:HD22	2.34	0.57
5:M:464:LEU:O	5:M:466:PHE:N	2.37	0.57
5:M:8:ARG:HD2	5:M:10:ARG:HH21	1.68	0.57
6:N:1033:GLN:HE21	6:N:1036:ARG:NH1	2.03	0.57
6:N:992:ILE:HD12	6:N:1054:GLU:OE2	2.05	0.57
6:N:116:LEU:HD13	6:N:118:LEU:HD11	1.87	0.57
6:N:1320:GLU:O	6:N:1323:GLN:HB3	2.03	0.57
6:N:453:ASP:HA	6:N:455:ARG:HH21	1.69	0.57
6:N:574:LEU:HG	6:N:575:GLN:N	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:760:ARG:O	6:N:764:LEU:HD23	2.05	0.57
5:C:462:ASP:CG	5:C:463:GLU:H	2.07	0.57
6:D:119:SER:H	6:D:123:LEU:HB2	1.69	0.57
6:D:1106:VAL:HG11	6:D:1474:ALA:CB	2.33	0.57
6:D:502:PHE:CE1	6:D:509:PRO:HB3	2.39	0.57
6:D:542:ASP:O	6:D:546:ARG:HG3	2.04	0.57
6:D:917:GLN:HE21	6:D:921:ARG:NE	2.02	0.57
6:D:957:PRO:CG	6:D:1007:VAL:HA	2.35	0.57
5:M:352:ALA:HA	5:M:355:VAL:HG12	1.85	0.57
6:N:1213:ARG:HG3	6:N:1214:PRO:N	2.19	0.57
6:N:1253:THR:CG2	6:N:1358:ALA:HB1	2.34	0.57
6:N:127:LEU:HA	6:N:132:TYR:CD1	2.38	0.57
6:N:793:THR:O	6:N:879:ARG:HD3	2.05	0.57
6:N:80:VAL:HG12	6:N:81:THR:O	2.04	0.57
6:N:963:TYR:H	6:N:963:TYR:HD1	1.50	0.57
5:C:38:LYS:HG2	12:C:1187:HOH:O	2.05	0.57
5:C:6:PHE:CE1	5:C:901:TYR:HB3	2.40	0.57
6:D:1037:GLN:HG2	6:D:1042:ARG:HB3	1.86	0.57
6:D:1262:LEU:HD23	6:D:1352:ILE:CG1	2.35	0.57
2:H:16:G:C2	6:D:705:ALA:HB1	2.39	0.57
6:D:645:PRO:HD3	6:D:726:ILE:HG12	1.87	0.57
6:D:95:LEU:N	6:D:515:GLU:O	2.38	0.57
2:H:9:G:H5"	12:H:1047:HOH:O	2.05	0.57
4:L:4:SER:HA	4:L:7:LYS:NZ	2.19	0.57
5:M:1034:GLU:HB3	6:N:619:LEU:CD2	2.25	0.57
5:M:173:ASP:O	5:M:184:MET:HA	2.05	0.57
5:M:147:TYR:HB3	5:M:323:ASP:HB2	1.87	0.57
6:N:119:SER:CB	6:N:123:LEU:HB2	2.34	0.57
6:N:470:LEU:HD21	6:N:508:ARG:NH1	2.18	0.57
5:C:276:LYS:CA	5:C:280:LYS:HD3	2.33	0.57
5:C:517:ARG:HH12	5:C:524:VAL:HG23	1.70	0.57
5:C:695:LEU:HD22	5:C:832:LYS:HD3	1.86	0.57
5:C:817:PRO:O	6:D:532:GLY:HA2	2.04	0.57
6:D:1403:LEU:HD11	12:D:9065:HOH:O	2.04	0.57
5:M:22:GLN:HG2	12:M:7098:HOH:O	2.04	0.57
5:M:38:LYS:HA	5:M:38:LYS:HE2	1.87	0.57
5:M:971:LYS:HD3	5:M:986:PRO:HB2	1.86	0.57
6:N:165:LYS:CG	6:N:199:LEU:HD13	2.33	0.57
6:N:199:LEU:HD21	12:N:9407:HOH:O	2.05	0.57
6:N:799:LYS:O	6:N:829:VAL:HG13	2.05	0.57
6:N:875:THR:HG21	6:N:902:LEU:CD1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:947:ILE:HD12	6:N:947:ILE:O	2.04	0.57
4:A:25:LEU:HD11	4:B:224:TYR:O	2.05	0.57
5:C:136:ILE:HG21	5:C:336:VAL:HG13	1.86	0.57
5:C:88:LEU:HD12	5:C:89:THR:N	2.18	0.57
6:D:1082:ALA:O	8:D:7001:STD:H312	2.05	0.57
6:D:775:GLY:HA3	6:D:1145:TYR:CE1	2.39	0.57
5:M:474:VAL:HG11	5:M:529:VAL:HG12	1.86	0.57
5:M:572:ILE:HD11	5:M:701:THR:HB	1.87	0.57
6:N:36:THR:C	6:N:38:LYS:H	2.08	0.57
6:N:633:VAL:HG22	6:N:635:PRO:HD3	1.87	0.57
6:N:51:GLY:O	6:N:86:ARG:HD2	2.04	0.57
2:Y:9:G:C8	2:Y:9:G:H5'	2.39	0.57
4:A:112:ARG:NH2	4:A:125:PRO:HB2	2.19	0.57
5:C:1040:LEU:HD21	5:C:1048:THR:HG22	1.87	0.57
5:C:455:LEU:HD12	5:C:456:ALA:O	2.05	0.57
5:C:78:PHE:CD1	5:C:88:LEU:HD21	2.39	0.57
5:C:6:PHE:HE1	5:C:901:TYR:HB3	1.70	0.57
6:D:1312:LEU:HG	6:D:1327:ARG:NH1	2.20	0.57
7:E:40:LEU:HB3	7:E:72:ARG:NH1	2.20	0.57
1:G:17:DC:H2''	1:G:18:DG:C5'	2.35	0.57
3:I:8:DA:H1'	3:I:9:DG:H5'	1.85	0.57
5:M:147:TYR:HA	5:M:323:ASP:OD2	2.05	0.57
5:M:395:LYS:HE2	5:M:397:GLU:HG2	1.87	0.57
6:N:804:LEU:HD23	6:N:804:LEU:H	1.70	0.57
6:N:824:ASN:HB3	12:N:9083:HOH:O	2.04	0.57
4:L:74:ASP:HB3	6:N:872:ARG:HH22	1.70	0.57
4:A:206:THR:HG22	4:A:209:GLU:HG3	1.86	0.56
4:B:184:THR:O	4:B:192:LEU:HD12	2.05	0.56
4:B:221:HIS:HA	4:B:224:TYR:CD2	2.40	0.56
5:C:65:VAL:O	5:C:101:ILE:HG12	2.06	0.56
5:C:496:ILE:HA	5:C:531:PHE:O	2.05	0.56
5:C:394:PHE:CZ	5:C:632:ASN:HB3	2.40	0.56
5:C:710:ILE:O	5:C:823:VAL:HG23	2.05	0.56
6:D:1282:ARG:C	6:N:75:ARG:HA	2.25	0.56
6:D:1291:SER:HB3	6:D:1293:PHE:CE1	2.37	0.56
6:D:1403:LEU:O	6:D:1407:LEU:HB2	2.04	0.56
6:D:141:ILE:CD1	6:D:432:TYR:HB2	2.35	0.56
6:D:163:TYR:O	6:D:166:GLN:HG3	2.05	0.56
6:D:42:ASP:O	6:D:43:GLY:O	2.23	0.56
4:L:175:ARG:HB2	12:N:9429:HOH:O	2.05	0.56
5:M:19:THR:O	5:M:23:VAL:HG23	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:722:ILE:HG21	5:M:821:GLU:OE2	2.05	0.56
5:M:795:GLY:O	5:M:796:GLU:HG2	2.04	0.56
5:M:837:ASP:HA	5:M:999:HIS:CE1	2.40	0.56
5:M:500:ASN:HD21	6:N:1067:VAL:CG2	2.18	0.56
6:N:30:GLU:HB3	6:N:40:GLU:HB3	1.86	0.56
6:N:478:LEU:HD13	6:N:1388:ARG:NH2	2.13	0.56
6:N:771:SER:HB3	6:N:778:LEU:HD22	1.86	0.56
1:X:17:DC:H5''	5:M:1030:GLN:NE2	2.20	0.56
2:Y:9:G:O2'	2:Y:10:G:H5'	2.05	0.56
4:A:49:PRO:HB3	4:A:148:VAL:HG22	1.87	0.56
5:C:473:ARG:HD2	5:C:475:VAL:CG2	2.35	0.56
6:D:1441:GLN:NE2	6:D:1442:ASN:H	2.02	0.56
6:D:809:PRO:HB2	6:D:812:ALA:HB2	1.87	0.56
5:M:99:GLN:HB3	5:M:109:LYS:HG3	1.86	0.56
6:N:1100:ASP:HB3	6:N:1428:ALA:CB	2.32	0.56
6:N:1102:THR:HG21	6:N:1371:VAL:HG22	1.86	0.56
6:N:526:PRO:HD2	6:N:538:SER:HB2	1.86	0.56
6:N:1216:SER:CB	7:O:16:LYS:H	2.17	0.56
7:O:27:ALA:CB	7:O:61:VAL:CG2	2.83	0.56
4:A:143:ARG:NE	4:A:158:ILE:HG21	2.15	0.56
5:C:141:HIS:O	5:C:331:ARG:HA	2.04	0.56
5:C:132:ALA:HB1	5:C:394:PHE:CE1	2.41	0.56
5:C:767:PRO:HB3	12:C:1474:HOH:O	2.04	0.56
6:D:795:VAL:HG22	6:D:876:SER:OG	2.05	0.56
2:H:11:C:O2'	5:C:390:GLN:HG2	2.05	0.56
5:M:433:THR:HG21	5:M:488:ALA:HB1	1.87	0.56
5:M:54:ILE:HG22	5:M:66:LEU:HB3	1.86	0.56
5:M:9:ILE:HD12	5:M:9:ILE:H	1.71	0.56
6:N:1324:PRO:HG3	6:N:1330:ILE:HD11	1.87	0.56
6:N:114:THR:HG22	6:N:498:VAL:HG21	1.87	0.56
7:O:27:ALA:HB2	7:O:61:VAL:CG2	2.33	0.56
5:C:314:THR:HG22	12:C:1391:HOH:O	2.05	0.56
5:C:719:PRO:HD3	12:C:1333:HOH:O	2.05	0.56
5:C:758:ARG:HH21	5:C:788:THR:HB	1.69	0.56
6:D:1446:VAL:HG12	6:D:1447:LEU:HD12	1.87	0.56
6:D:4:GLU:HG2	6:D:1470:ARG:NH2	2.20	0.56
6:D:185:VAL:HG21	6:D:203:ALA:HB2	1.88	0.56
6:D:523:ASP:HB2	12:D:9338:HOH:O	2.03	0.56
5:M:182:VAL:HG23	12:M:7385:HOH:O	2.05	0.56
5:M:296:GLY:HA3	12:M:7298:HOH:O	2.04	0.56
5:M:691:SER:HB2	5:M:858:MET:SD	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:704:HIS:CD2	5:M:831:ARG:HH21	2.24	0.56
6:N:520:LEU:CD1	6:N:524:LEU:HD13	2.35	0.56
4:A:163:ASN:N	4:A:163:ASN:HD22	2.04	0.56
5:C:118:ILE:HG22	5:C:382:ILE:HG21	1.85	0.56
5:C:690:ILE:HD12	5:C:833:LEU:CD2	2.35	0.56
5:C:835:VAL:HA	5:C:849:VAL:HG12	1.87	0.56
6:D:1493:LYS:HG3	12:D:9421:HOH:O	2.04	0.56
6:D:160:GLU:O	6:D:164:GLY:O	2.23	0.56
6:D:182:GLY:O	6:D:400:VAL:HG11	2.04	0.56
6:D:414:ARG:HG2	6:D:451:ASP:HA	1.87	0.56
6:D:454:ALA:C	6:D:455:ARG:HE	2.08	0.56
6:D:136:ASP:CB	6:D:455:ARG:HH22	2.18	0.56
6:D:114:THR:HG22	6:D:495:ARG:HA	1.86	0.56
4:K:14:ARG:HH22	4:K:24:VAL:HG23	1.70	0.56
4:K:49:PRO:HB2	12:K:602:HOH:O	2.05	0.56
6:N:957:PRO:HG2	6:N:1007:VAL:HG22	1.86	0.56
6:N:1170:ASP:O	6:N:1174:LEU:HG	2.06	0.56
6:N:103:TRP:CD1	6:N:1444:THR:HG23	2.41	0.56
6:N:181:ASP:HA	6:N:205:TYR:CD1	2.41	0.56
6:N:23:TYR:O	6:N:49:ILE:HG23	2.04	0.56
6:N:639:LEU:HD13	6:N:766:ALA:HB2	1.87	0.56
6:N:880:ILE:HB	12:N:9106:HOH:O	2.05	0.56
4:A:201:THR:HG21	4:A:205:VAL:O	2.06	0.56
4:B:186:LEU:HB2	4:B:192:LEU:CD1	2.33	0.56
5:C:1088:LEU:HD23	5:C:1089:VAL:N	2.20	0.56
5:C:110:GLU:HG3	5:C:369:PRO:CG	2.33	0.56
5:C:430:VAL:HA	5:C:434:HIS:CE1	2.40	0.56
6:D:1015:TYR:HB3	12:D:9167:HOH:O	2.05	0.56
6:D:1083:ASP:CG	6:D:1241:PHE:HE2	2.09	0.56
6:D:111:LYS:HZ2	6:D:1448:THR:HG22	1.69	0.56
6:D:394:LEU:O	6:D:394:LEU:HD12	2.05	0.56
4:K:133:GLU:N	12:K:1785:HOH:O	2.39	0.56
4:L:88:ARG:O	4:L:121:GLU:HG2	2.05	0.56
5:M:1005:MET:SD	6:N:724:GLN:HG3	2.46	0.56
5:M:274:ARG:HD2	5:M:285:LEU:HD22	1.87	0.56
5:M:315:ALA:HB2	12:M:7326:HOH:O	2.06	0.56
5:M:135:VAL:CG1	5:M:407:LYS:HA	2.28	0.56
5:M:905:ILE:H	5:M:905:ILE:HD12	1.71	0.56
6:N:114:THR:O	6:N:495:ARG:HG3	2.05	0.56
6:N:721:VAL:HG11	6:N:727:GLN:OE1	2.05	0.56
6:N:894:LYS:O	6:N:898:GLU:HG3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:95:LEU:HD21	6:N:574:LEU:HD11	1.87	0.56
5:C:1037:VAL:O	5:C:1041:GLU:HG3	2.06	0.56
5:C:206:THR:HG23	5:C:207:LEU:N	2.21	0.56
5:C:52:PHE:HB3	5:C:53:PRO:HD3	1.88	0.56
5:C:572:ILE:HG23	5:C:703:ILE:HD11	1.88	0.56
5:C:886:LEU:CD1	6:D:951:ILE:HG13	2.35	0.56
6:D:101:HIS:O	6:D:105:VAL:HG23	2.04	0.56
6:D:1291:SER:O	6:N:75:ARG:HG2	2.06	0.56
6:D:165:LYS:HB2	6:D:397:LYS:CB	2.26	0.56
6:D:169:TYR:HD1	6:D:191:LEU:HD12	1.70	0.56
6:D:714:GLN:NE2	6:D:765:SER:HA	2.21	0.56
7:E:67:GLU:OE1	7:E:73:LEU:HD21	2.05	0.56
4:L:86:VAL:HG12	4:L:124:ASN:HB2	1.86	0.56
4:L:92:PRO:HA	4:L:146:ARG:CZ	2.35	0.56
5:M:537:LYS:HG3	5:M:905:ILE:CD1	2.35	0.56
6:N:1335:LEU:HD22	12:N:9123:HOH:O	2.05	0.56
6:N:436:GLU:OE2	6:N:445:ARG:HD2	2.06	0.56
6:N:591:VAL:HG11	6:N:597:ASP:HA	1.87	0.56
6:N:583:ASP:HB2	6:N:604:THR:OG1	2.05	0.56
6:N:615:ARG:HD2	6:N:619:LEU:CG	2.34	0.56
5:M:1034:GLU:H	6:N:619:LEU:HD13	1.70	0.56
2:Y:12:G:C5'	2:Y:12:G:H8	2.14	0.56
4:A:59:GLU:HG3	4:A:139:ASN:HD22	1.69	0.56
6:D:1189:ARG:CB	6:D:1204:CYS:HA	2.35	0.56
6:D:22:SER:HA	6:D:90:MET:O	2.05	0.56
6:D:456:MET:C	6:D:459:GLU:HB3	2.26	0.56
6:D:525:ARG:HG2	6:D:541:ASN:ND2	2.17	0.56
6:D:820:GLU:OE1	6:D:840:LYS:HD2	2.05	0.56
5:M:557:ARG:HE	5:M:879:ARG:HD3	1.71	0.56
6:N:582:LEU:HA	6:N:603:LEU:HD12	1.86	0.56
6:N:631:ILE:HG12	6:N:743:ASP:O	2.05	0.56
5:C:577:PRO:HA	5:C:671:ASN:HD21	1.70	0.56
5:C:697:ARG:O	5:C:699:PHE:N	2.39	0.56
5:C:862:PRO:HA	5:C:975:TYR:CE1	2.41	0.56
6:D:41:ARG:HD3	6:D:42:ASP:N	2.21	0.56
6:D:465:LEU:HD11	6:D:509:PRO:O	2.06	0.56
6:D:521:PRO:CB	6:D:524:LEU:HD13	2.26	0.56
6:D:52:PRO:HG2	6:D:80:VAL:HG12	1.87	0.56
6:D:659:LYS:C	6:D:659:LYS:HD3	2.27	0.56
4:K:174:VAL:HG22	4:K:201:THR:HG23	1.88	0.56
12:K:974:HOH:O	4:L:28:LEU:HD21	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:129:ILE:HG22	5:M:130:ASN:N	2.21	0.56
5:M:467:ILE:HD11	12:M:7162:HOH:O	2.06	0.56
6:N:179:VAL:HG13	6:N:183:GLU:CD	2.25	0.56
6:D:1296:SER:HB2	6:N:47:GLU:CG	2.36	0.56
6:D:1297:GLU:HB2	6:N:47:GLU:O	2.05	0.56
6:N:82:LYS:C	6:N:84:ILE:N	2.59	0.56
4:A:146:ARG:HG3	12:A:338:HOH:O	2.05	0.56
4:A:156:HIS:HD2	4:A:157:GLY:H	1.54	0.56
4:B:40:LEU:HD21	12:B:392:HOH:O	2.05	0.56
5:C:564:MET:HA	5:C:567:GLN:OE1	2.05	0.56
5:C:976:ASP:CB	5:C:979:THR:HG22	2.35	0.56
6:D:1476:THR:HB	12:D:9080:HOH:O	2.05	0.56
6:D:102:ILE:HG21	6:D:583:ASP:HB3	1.87	0.56
6:D:770:LEU:HB2	12:D:9443:HOH:O	2.05	0.56
4:K:90:LEU:HD12	4:K:119:ASP:O	2.05	0.56
5:M:697:ARG:O	5:M:699:PHE:N	2.39	0.56
1:X:13:DT:OP1	6:N:1096:ARG:NH2	2.38	0.56
5:M:1005:MET:CE	6:N:724:GLN:HA	2.36	0.56
4:A:123:MET:C	4:A:125:PRO:HD3	2.26	0.56
4:A:89:PHE:HD1	4:A:120:VAL:HG23	1.70	0.56
4:A:9:PRO:HB3	4:A:25:LEU:CG	2.36	0.56
6:D:1118:ILE:HG13	6:D:1192:LEU:HB2	1.87	0.56
6:D:773:ALA:CA	6:D:1228:SER:HB3	2.33	0.56
6:D:204:LEU:HD22	6:D:441:ARG:HH12	1.71	0.56
6:D:562:ALA:HB1	6:D:567:ILE:CD1	2.34	0.56
7:E:48:MET:N	7:E:54:LEU:HB2	2.21	0.56
3:I:3:DA:H5"	12:I:1827:HOH:O	2.05	0.56
4:K:50:GLY:O	4:K:146:ARG:HA	2.06	0.56
5:M:732:ALA:HA	5:M:735:ARG:NH1	2.21	0.56
5:M:767:PRO:HB2	12:M:7021:HOH:O	2.05	0.56
6:N:996:TRP:CE2	6:N:1056:PRO:HG2	2.41	0.56
6:N:735:ALA:HB2	12:N:9048:HOH:O	2.06	0.56
4:B:59:GLU:HG2	4:B:139:ASN:ND2	2.21	0.55
5:C:192:PRO:HD2	5:C:195:LEU:HD23	1.87	0.55
6:D:1147:ARG:HB3	6:D:1188:VAL:HG21	1.87	0.55
6:D:1292:VAL:O	6:D:1303:TYR:HB2	2.06	0.55
6:D:480:GLU:O	6:D:484:PRO:HD2	2.05	0.55
6:D:989:TYR:CE1	6:D:993:LEU:HD21	2.41	0.55
5:M:479:VAL:CG2	5:M:503:LEU:HD21	2.36	0.55
5:M:674:VAL:HG12	5:M:990:GLY:O	2.06	0.55
5:M:710:ILE:CB	5:M:790:LEU:HD22	2.34	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:80:GLN:HG3	12:M:7315:HOH:O	2.05	0.55
6:N:65:ARG:HG3	6:N:66:GLN:H	1.71	0.55
6:N:945:SER:OG	6:N:947:ILE:HG23	2.06	0.55
4:A:27:PRO:CB	4:A:186:LEU:HD11	2.35	0.55
5:C:35:PRO:HD2	12:C:1187:HOH:O	2.05	0.55
5:C:876:VAL:H	5:C:877:PRO:HD2	1.72	0.55
6:D:1093:TYR:CE1	6:D:1097:LYS:HE3	2.42	0.55
6:D:676:MET:CE	6:D:684:LYS:H	2.18	0.55
4:L:73:GLU:OE1	4:L:130:ALA:HA	2.06	0.55
1:X:22:DC:H4'	5:M:388:ARG:HD3	1.88	0.55
5:M:510:ALA:HB3	5:M:513:VAL:HG23	1.87	0.55
6:N:6:ARG:O	6:N:1459:LEU:HG	2.07	0.55
6:N:1471:LEU:HD12	6:N:1472:ILE:N	2.16	0.55
6:N:571:LYS:O	6:N:574:LEU:HD23	2.06	0.55
4:A:161:ARG:HB2	4:A:161:ARG:HH11	1.72	0.55
4:A:91:ASN:OD1	4:A:92:PRO:HD2	2.06	0.55
5:C:274:ARG:HB2	5:C:285:LEU:HD13	1.88	0.55
5:C:54:ILE:HG22	5:C:66:LEU:HB3	1.88	0.55
5:C:737:LEU:HD21	5:C:754:ILE:HG21	1.88	0.55
5:C:923:GLU:HA	5:C:923:GLU:OE1	2.06	0.55
6:D:1207:TYR:HB3	12:D:9158:HOH:O	2.07	0.55
3:I:6:DC:OP1	6:D:1266:ARG:NH1	2.37	0.55
6:D:550:ARG:HE	6:D:553:ARG:HH12	1.53	0.55
6:D:715:ALA:HB3	6:D:764:LEU:HA	1.86	0.55
7:E:54:LEU:HG	7:E:58:PRO:CG	2.35	0.55
2:H:8:C:H5'	12:H:1604:HOH:O	2.05	0.55
4:K:146:ARG:HG2	12:K:602:HOH:O	2.05	0.55
4:K:49:PRO:HD2	4:K:213:GLN:OE1	2.07	0.55
6:N:1267:ARG:HG2	12:N:9241:HOH:O	2.04	0.55
6:N:1425:THR:HG22	6:N:1429:LEU:HD21	1.87	0.55
6:N:405:ASP:HB2	6:N:423:ASP:OD1	2.06	0.55
7:O:31:LEU:HA	7:O:35:PHE:HD1	1.72	0.55
4:A:10:VAL:HG13	4:B:229:GLN:NE2	2.22	0.55
4:B:5:LYS:O	4:B:8:ALA:HB2	2.06	0.55
5:C:276:LYS:O	5:C:280:LYS:HB2	2.06	0.55
5:C:290:LEU:HB3	5:C:302:VAL:HG12	1.89	0.55
5:C:375:SER:HA	12:C:1459:HOH:O	2.05	0.55
5:C:958:THR:HG23	5:C:961:GLU:HB2	1.87	0.55
6:D:133:ILE:O	6:D:152:LEU:CA	2.55	0.55
1:G:23:DG:H5'	12:G:61:HOH:O	2.05	0.55
4:K:40:LEU:O	4:K:44:LEU:HD12	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1063:GLU:HG2	6:N:1064:GLY:N	2.21	0.55
6:N:1290:LEU:HD11	12:N:9339:HOH:O	2.06	0.55
6:N:617:ASN:HB3	6:N:1467:ILE:HG23	1.88	0.55
6:N:433:GLY:HA3	6:N:447:VAL:O	2.06	0.55
6:N:433:GLY:HA2	6:N:449:SER:O	2.07	0.55
6:N:574:LEU:O	6:N:578:VAL:HG23	2.06	0.55
6:N:847:ASP:O	6:N:851:LEU:HG	2.06	0.55
4:B:67:THR:HB	4:B:74:ASP:OD1	2.06	0.55
5:C:224:GLU:HB2	12:C:1133:HOH:O	2.05	0.55
5:C:440:PRO:HD3	12:C:1247:HOH:O	2.06	0.55
6:D:1152:GLU:HG2	6:D:1160:LEU:O	2.07	0.55
6:D:473:LEU:H	6:D:473:LEU:HD12	1.70	0.55
7:E:67:GLU:HB3	7:E:73:LEU:HD11	1.88	0.55
5:M:755:LEU:HD22	5:M:825:VAL:HG11	1.88	0.55
5:M:876:VAL:H	5:M:877:PRO:HD2	1.71	0.55
6:N:1240:THR:HB	6:N:1255:GLY:HA3	1.87	0.55
6:N:1464:GLU:HA	6:N:1467:ILE:HD12	1.87	0.55
6:N:481:MET:HE1	6:N:1389:LEU:HB3	1.87	0.55
6:N:799:LYS:O	6:N:826:PRO:HD2	2.06	0.55
6:N:792:ILE:HA	6:N:861:GLN:NE2	2.21	0.55
6:N:955:VAL:HG11	6:N:1015:TYR:HE2	1.71	0.55
4:B:169:ALA:HB2	12:B:322:HOH:O	2.05	0.55
5:C:302:VAL:O	5:C:305:PRO:HD2	2.07	0.55
5:C:41:ASN:O	5:C:46:ALA:HB2	2.06	0.55
6:D:1176:LYS:O	6:D:1176:LYS:HD3	2.05	0.55
6:D:455:ARG:HB3	6:D:459:GLU:CD	2.26	0.55
6:D:54:LYS:HE2	6:D:57:GLU:OE1	2.07	0.55
5:M:1013:TYR:CE1	5:M:1020:PRO:HG3	2.42	0.55
5:M:1104:GLU:H	5:M:1104:GLU:CD	2.10	0.55
5:M:516:ARG:CZ	5:M:521:PRO:HB3	2.37	0.55
5:M:537:LYS:HG3	5:M:905:ILE:HD13	1.88	0.55
6:N:1047:LYS:HD2	6:N:1051:GLU:OE2	2.07	0.55
6:N:31:THR:HA	6:N:44:LEU:HD11	1.88	0.55
6:N:421:LEU:HD21	6:N:429:SER:HB2	1.87	0.55
6:N:414:ARG:HG2	6:N:451:ASP:OD1	2.06	0.55
2:Y:11:C:O2'	2:Y:12:G:H5''	2.06	0.55
3:Z:10:DA:H2'	12:Z:759:HOH:O	2.07	0.55
4:B:29:GLU:HG3	12:B:324:HOH:O	2.07	0.55
4:B:99:LEU:HB3	4:B:114:PHE:CD2	2.41	0.55
5:C:796:GLU:HG3	5:C:1004:LYS:NZ	2.22	0.55
5:C:1007:ALA:HB2	6:D:648:MET:HG3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:118:ILE:O	5:C:118:ILE:HD12	2.06	0.55
5:C:850:ALA:HA	6:D:632:VAL:HG13	1.89	0.55
6:D:820:GLU:HA	6:D:825:ALA:O	2.07	0.55
2:H:7:G:H2'	2:H:7:G:N3	2.22	0.55
4:K:153:ALA:HA	4:K:156:HIS:NE2	2.22	0.55
4:L:105:GLY:HA3	12:L:1250:HOH:O	2.06	0.55
5:M:115:LEU:H	5:M:115:LEU:HD12	1.72	0.55
5:M:301:GLU:O	5:M:305:PRO:HG2	2.07	0.55
5:M:147:TYR:HB3	5:M:323:ASP:CB	2.37	0.55
5:M:601:GLY:O	5:M:648:ARG:HA	2.06	0.55
6:N:118:LEU:HD12	6:N:124:GLU:OE2	2.07	0.55
6:N:179:VAL:CG1	6:N:183:GLU:HB3	2.36	0.55
6:N:58:CYS:SG	6:N:59:ALA:N	2.80	0.55
5:M:681:GLY:O	6:N:633:VAL:HG11	2.07	0.55
6:N:97:THR:HG21	6:N:571:LYS:HD3	1.89	0.55
4:A:27:PRO:HB3	4:A:186:LEU:HD11	1.89	0.55
4:B:78:ILE:HD11	4:B:130:ALA:HB2	1.89	0.55
5:C:405:ARG:HD3	5:C:566:THR:OG1	2.07	0.55
5:C:728:HIS:O	5:C:729:LEU:HG	2.07	0.55
5:C:754:ILE:HD13	5:C:791:ARG:CD	2.36	0.55
6:D:206:ARG:HG3	6:D:206:ARG:HH11	1.71	0.55
6:D:537:THR:OG1	6:D:541:ASN:ND2	2.39	0.55
6:D:619:LEU:HD12	6:D:621:LYS:CE	2.36	0.55
5:M:269:LEU:HB2	5:M:288:ARG:NE	2.22	0.55
5:M:498:GLN:HG2	6:N:1068:LEU:HD12	1.88	0.55
6:N:1256:LEU:O	6:N:1260:ILE:HG12	2.07	0.55
6:N:820:GLU:HA	6:N:825:ALA:O	2.07	0.55
6:N:955:VAL:N	6:N:1039:CYS:SG	2.79	0.55
1:X:20:DG:H3'	12:X:665:HOH:O	2.06	0.55
5:C:171:TRP:HB2	12:C:1250:HOH:O	2.06	0.55
5:C:312:ALA:HB2	12:C:1388:HOH:O	2.07	0.55
2:H:14:G:P	5:C:409:ARG:HH12	2.30	0.55
5:C:688:ILE:CD1	5:C:847:GLY:HA3	2.37	0.55
6:D:119:SER:N	6:D:123:LEU:HB2	2.22	0.55
6:D:1295:GLU:CD	6:N:77:GLY:H	2.10	0.55
6:D:143:ASN:ND2	6:D:145:VAL:H	2.04	0.55
6:D:1481:VAL:CG1	7:E:21:VAL:HG21	2.36	0.55
6:D:400:VAL:HG22	6:D:443:VAL:HG21	1.88	0.55
6:D:675:ARG:HG3	6:D:678:GLU:OE2	2.07	0.55
4:K:9:PRO:HB3	4:K:25:LEU:CG	2.37	0.55
5:M:564:MET:HG3	5:M:565:GLN:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:971:LYS:CD	5:M:986:PRO:HB2	2.37	0.55
6:N:1340:GLY:O	6:N:1343:ALA:HB3	2.07	0.55
6:N:397:LYS:O	6:N:448:GLU:HB2	2.07	0.55
6:N:762:GLN:HB3	12:N:9085:HOH:O	2.06	0.55
6:N:782:SER:H	6:N:785:ILE:HD13	1.71	0.55
4:A:221:HIS:HA	4:A:224:TYR:CD2	2.41	0.55
6:D:829:VAL:H	6:D:835:SER:HB3	1.72	0.55
5:C:1102:LEU:HD11	6:D:9:ARG:HB3	1.89	0.55
7:E:48:MET:HB2	7:E:54:LEU:HD12	1.89	0.55
4:K:116:PRO:HA	12:K:2457:HOH:O	2.06	0.55
6:N:1003:VAL:O	6:N:1007:VAL:HG23	2.07	0.55
6:N:996:TRP:CD2	6:N:1056:PRO:HG2	2.42	0.55
6:N:1292:VAL:HG23	6:N:1305:LEU:HD12	1.89	0.55
5:M:1046:ALA:HB1	6:N:1471:LEU:HD11	1.87	0.55
5:M:1004:LYS:HD3	6:N:724:GLN:HE22	1.72	0.55
6:N:770:LEU:HD23	6:N:777:PRO:HA	1.89	0.55
1:X:19:DC:H4'	5:M:1000:MET:HE2	1.89	0.55
4:B:169:ALA:HB1	4:B:171:PHE:CE2	2.42	0.54
4:B:221:HIS:HA	4:B:224:TYR:HD2	1.71	0.54
5:C:102:HIS:HB2	5:C:106:GLY:O	2.06	0.54
5:C:205:GLU:HG3	5:C:206:THR:H	1.72	0.54
5:C:496:ILE:HD12	5:C:496:ILE:H	1.72	0.54
5:C:693:GLU:HG2	5:C:855:VAL:HB	1.89	0.54
6:D:1363:LEU:HD12	6:D:1363:LEU:O	2.08	0.54
6:D:659:LYS:HD3	6:D:659:LYS:O	2.07	0.54
7:E:51:LEU:HG	7:E:52:GLU:N	2.22	0.54
7:E:96:GLU:HA	12:E:120:HOH:O	2.07	0.54
5:M:126:SER:HB3	5:M:407:LYS:HZ3	1.72	0.54
5:M:190:LYS:HD2	12:M:7100:HOH:O	2.07	0.54
5:M:724:ARG:NH2	5:M:734:LEU:HB3	2.17	0.54
6:N:135:LEU:HA	6:N:453:ASP:O	2.07	0.54
6:N:1462:LEU:HD22	6:N:1472:ILE:CG2	2.37	0.54
6:N:619:LEU:HD23	6:N:619:LEU:N	2.21	0.54
6:N:693:GLU:HA	7:O:48:MET:HE1	1.89	0.54
6:N:754:PHE:O	6:N:758:GLU:HG2	2.07	0.54
6:N:800:LYS:HD2	6:N:804:LEU:HD22	1.89	0.54
4:A:162:ILE:HD12	4:A:163:ASN:HD21	1.71	0.54
5:C:290:LEU:H	5:C:290:LEU:HD23	1.73	0.54
5:C:358:ARG:HA	5:C:361:MET:HB2	1.89	0.54
5:C:334:ARG:HD2	5:C:418:LEU:HD21	1.89	0.54
5:C:412:ALA:HB1	5:C:419:THR:OG1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:636:ALA:CB	5:C:703:ILE:HD13	2.36	0.54
6:D:1114:THR:CG2	6:D:1195:GLN:HB3	2.37	0.54
6:D:522:PRO:HA	6:D:525:ARG:HH11	1.71	0.54
6:D:734:GLU:HB2	12:D:9253:HOH:O	2.07	0.54
7:E:26:ARG:O	7:E:30:LEU:HD12	2.07	0.54
4:K:186:LEU:HD11	4:K:192:LEU:HD22	1.88	0.54
4:L:159:LYS:H	4:L:159:LYS:HD3	1.71	0.54
5:M:1051:GLU:HG2	5:M:1056:LYS:NZ	2.22	0.54
5:M:1103:ASP:CG	5:M:1104:GLU:H	2.10	0.54
5:M:150:PRO:HA	5:M:158:TYR:HB3	1.90	0.54
5:M:537:LYS:HE2	5:M:905:ILE:HD13	1.87	0.54
5:M:952:LEU:HB3	5:M:966:LEU:CD1	2.37	0.54
6:N:1128:VAL:O	6:N:1129:THR:C	2.46	0.54
6:N:447:VAL:HG22	12:N:9019:HOH:O	2.06	0.54
6:N:510:GLU:O	6:N:513:ILE:HD12	2.07	0.54
6:N:584:ASN:OD1	6:N:590:PRO:HD2	2.07	0.54
7:O:54:LEU:HA	7:O:58:PRO:HG2	1.88	0.54
2:Y:11:C:H2'	2:Y:12:G:H8	1.70	0.54
2:Y:13:C:H4'	5:M:409:ARG:NH2	2.23	0.54
5:C:428:ARG:NH2	5:C:451:LEU:HD11	2.19	0.54
5:C:879:ARG:H	5:C:879:ARG:HD2	1.71	0.54
6:D:1106:VAL:HG11	6:D:1474:ALA:HB1	1.89	0.54
6:D:161:LEU:HD12	12:D:9475:HOH:O	2.07	0.54
6:D:181:ASP:CG	6:D:441:ARG:HG2	2.28	0.54
6:D:562:ALA:HB3	12:D:9040:HOH:O	2.06	0.54
6:D:649:ALA:CB	6:D:720:LEU:HD11	2.37	0.54
4:K:107:LYS:HE2	4:K:113:ASP:OD2	2.07	0.54
5:M:1057:SER:HB2	6:N:622:ARG:O	2.08	0.54
5:M:571:LEU:HD21	5:M:700:TYR:CD2	2.42	0.54
5:M:717:LEU:HD21	5:M:764:GLU:O	2.07	0.54
5:M:674:VAL:HG21	5:M:871:LEU:HD11	1.89	0.54
6:N:1280:VAL:HB	12:N:9324:HOH:O	2.06	0.54
6:N:1280:VAL:HG12	6:N:1281:VAL:N	2.22	0.54
6:N:1394:VAL:HG12	6:N:1397:LYS:H	1.72	0.54
6:N:1432:LYS:HE3	12:N:9166:HOH:O	2.07	0.54
6:N:1082:ALA:O	8:N:8001:STD:H312	2.06	0.54
6:N:814:ALA:O	6:N:818:ARG:HG3	2.07	0.54
3:Z:3:DA:H2''	3:Z:4:DC:C5'	2.38	0.54
4:A:206:THR:HG22	4:A:209:GLU:H	1.72	0.54
5:C:142:ARG:HA	5:C:330:ASN:O	2.07	0.54
5:C:598:GLU:HB2	5:C:615:TYR:HE1	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:573:ARG:HB3	5:C:670:GLN:OE1	2.07	0.54
6:D:1034:GLN:O	6:D:1038:LEU:HD12	2.08	0.54
6:D:1298:GLY:N	6:N:47:GLU:CB	2.70	0.54
6:D:1365:ASP:O	6:D:1369:GLU:HG3	2.08	0.54
6:D:1384:PRO:HG3	6:D:1389:LEU:HA	1.89	0.54
6:D:14:SER:OG	6:D:16:GLU:HG3	2.06	0.54
6:D:454:ALA:O	6:D:455:ARG:HG3	2.08	0.54
6:D:660:LYS:NZ	6:D:694:VAL:HG13	2.22	0.54
4:K:24:VAL:HG22	4:K:196:THR:CG2	2.38	0.54
5:M:141:HIS:HB3	5:M:418:LEU:CG	2.37	0.54
5:M:496:ILE:HD12	5:M:496:ILE:N	2.23	0.54
6:N:1053:PHE:CZ	6:N:1072:ILE:HD12	2.43	0.54
6:N:1284:GLU:CD	6:N:1285:GLU:H	2.11	0.54
6:N:481:MET:CE	6:N:1389:LEU:HB3	2.38	0.54
6:N:793:THR:HG21	6:N:906:GLN:HG2	1.89	0.54
6:N:844:ALA:HB3	6:N:848:GLU:OE2	2.08	0.54
2:Y:4:U:H2'	2:Y:5:C:C6	2.42	0.54
4:A:20:TYR:HE2	4:A:198:ARG:HB3	1.73	0.54
4:A:52:ALA:HB2	4:A:170:VAL:O	2.08	0.54
4:B:217:ILE:HG23	12:B:341:HOH:O	2.07	0.54
5:C:374:ASN:O	5:C:377:PRO:HD2	2.07	0.54
5:C:379:GLU:O	5:C:383:ARG:HB3	2.08	0.54
5:C:516:ARG:CD	5:C:521:PRO:HA	2.29	0.54
6:D:1129:THR:HG23	6:D:1130:ARG:H	1.72	0.54
6:D:1275:SER:HB2	6:D:1294:VAL:HG21	1.90	0.54
6:D:470:LEU:HB2	6:D:503:LEU:HD21	1.88	0.54
4:K:174:VAL:HG13	4:K:200:TRP:O	2.07	0.54
4:L:47:SER:HB3	4:L:217:ILE:HD13	1.90	0.54
4:K:32:PHE:HZ	4:L:47:SER:HG	1.55	0.54
5:M:600:ASP:OD1	5:M:651:LYS:N	2.40	0.54
5:M:672:VAL:CG2	5:M:868:ASP:HB2	2.38	0.54
6:N:455:ARG:HD3	6:N:463:GLN:NE2	2.22	0.54
6:N:486:ARG:HA	6:N:489:ARG:CD	2.37	0.54
6:N:49:ILE:HA	12:N:9497:HOH:O	2.05	0.54
6:N:800:LYS:HA	12:N:9502:HOH:O	2.06	0.54
6:N:996:TRP:HE3	12:N:9282:HOH:O	1.91	0.54
6:N:761:ILE:HD11	7:O:23:VAL:HG11	1.89	0.54
4:B:213:GLN:O	4:B:217:ILE:HG13	2.08	0.54
4:B:86:VAL:HG21	4:B:202:ASP:OD2	2.07	0.54
5:C:185:LYS:CE	5:C:190:LYS:HE2	2.38	0.54
5:C:804:VAL:HB	5:C:824:ARG:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:861:LEU:HD23	5:C:863:ASP:N	2.23	0.54
6:D:101:HIS:CE1	6:D:582:LEU:HD22	2.42	0.54
6:D:1147:ARG:O	6:D:1165:TYR:HA	2.08	0.54
6:D:161:LEU:HG	6:D:449:SER:OG	2.07	0.54
6:D:36:THR:C	6:D:38:LYS:H	2.09	0.54
6:D:409:VAL:HG23	6:D:421:LEU:HA	1.88	0.54
6:D:646:LYS:HA	6:D:720:LEU:HG	1.89	0.54
6:D:647:ARG:HE	6:D:723:GLY:N	2.05	0.54
6:D:652:LEU:HG	6:D:749:VAL:HG21	1.90	0.54
6:D:911:LEU:HD23	6:D:934:LEU:HD13	1.89	0.54
12:D:9274:HOH:O	7:E:92:LEU:HD12	2.07	0.54
4:L:4:SER:HA	4:L:7:LYS:HZ3	1.73	0.54
5:M:233:GLU:HG2	12:M:7193:HOH:O	2.08	0.54
6:N:1236:LEU:HD11	6:N:1361:VAL:HB	1.90	0.54
5:C:502:PRO:HB2	5:C:509:ALA:HB3	1.88	0.54
6:D:1042:ARG:NH1	6:D:1042:ARG:HB2	2.17	0.54
6:D:1440:PHE:O	6:D:1441:GLN:O	2.25	0.54
6:D:148:GLU:CG	6:D:151:GLN:HE21	2.21	0.54
6:D:185:VAL:HG21	12:D:9157:HOH:O	2.07	0.54
6:D:470:LEU:HB2	6:D:503:LEU:HD11	1.89	0.54
6:D:65:ARG:CG	6:D:66:GLN:H	2.20	0.54
6:D:895:VAL:O	6:D:899:LEU:HG	2.08	0.54
6:D:951:ILE:O	6:D:951:ILE:HD13	2.07	0.54
5:M:264:PRO:HB3	5:M:289:THR:HG21	1.90	0.54
5:M:802:ARG:CZ	5:M:802:ARG:HB3	2.38	0.54
5:M:861:LEU:HD21	5:M:925:TYR:CE2	2.42	0.54
6:N:1148:VAL:HG21	12:N:9462:HOH:O	2.07	0.54
6:N:1258:ARG:HG2	6:N:1262:LEU:HD13	1.90	0.54
6:N:1276:GLU:HB2	6:N:1301:LYS:HG2	1.89	0.54
6:N:1410:GLU:HG2	12:N:9214:HOH:O	2.08	0.54
6:N:959:GLU:H	6:N:959:GLU:CD	2.11	0.54
5:C:74:GLY:O	5:C:76:PRO:HD3	2.07	0.54
6:D:1041:LEU:HD12	6:D:1058:ARG:HA	1.89	0.54
6:D:1066:THR:HG23	6:D:1069:GLU:H	1.72	0.54
6:D:1197:ARG:HG3	6:D:1198:TYR:H	1.72	0.54
6:D:1240:THR:HB	6:D:1255:GLY:HA3	1.89	0.54
6:D:1378:TYR:OH	6:D:1431:THR:HA	2.08	0.54
6:D:524:LEU:CD1	6:D:524:LEU:H	2.21	0.54
6:D:96:ALA:CB	6:D:554:LEU:HD23	2.38	0.54
6:D:987:GLU:O	6:D:991:GLN:HB2	2.08	0.54
4:K:218:LEU:HD11	4:L:218:LEU:HD21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:751:PRO:HB2	6:N:680:GLN:HG3	1.88	0.54
5:M:831:ARG:HH12	5:M:1004:LYS:HE3	1.73	0.54
6:N:1237:THR:CG2	6:N:1256:LEU:HB2	2.38	0.54
6:N:204:LEU:HA	6:N:441:ARG:NH1	2.23	0.54
6:N:603:LEU:HA	6:N:606:ILE:HD12	1.90	0.54
6:N:631:ILE:HG21	6:N:745:MET:SD	2.47	0.54
6:N:656:PHE:HB3	6:N:694:VAL:HG11	1.90	0.54
1:X:14:DT:H5'	1:X:14:DT:H6	1.72	0.54
5:C:290:LEU:N	5:C:290:LEU:HD23	2.22	0.54
5:C:346:VAL:O	5:C:350:ARG:HG3	2.07	0.54
6:D:1128:VAL:O	6:D:1129:THR:C	2.46	0.54
6:D:1276:GLU:HB2	6:D:1301:LYS:HG2	1.89	0.54
6:D:502:PHE:CZ	6:D:1452:ILE:HG12	2.42	0.54
5:C:1049:LEU:HD23	6:D:1472:ILE:HD11	1.89	0.54
6:D:441:ARG:NH2	6:D:445:ARG:NH2	2.56	0.54
2:H:8:C:H2'	2:H:9:G:N7	2.22	0.54
5:M:106:GLY:O	5:M:107:LEU:HD23	2.07	0.54
5:M:139:GLN:CG	5:M:418:LEU:HD22	2.37	0.54
5:M:598:GLU:O	5:M:651:LYS:HG3	2.08	0.54
5:M:762:LYS:HG2	5:M:786:LYS:CG	2.37	0.54
6:N:1237:THR:HG23	6:N:1256:LEU:HB2	1.90	0.54
6:N:1236:LEU:CD2	6:N:1359:GLN:HB3	2.37	0.54
6:N:1103:HIS:HD2	6:N:1463:LYS:H	1.56	0.54
6:N:1485:GLN:HB3	12:N:9440:HOH:O	2.06	0.54
6:N:179:VAL:HG12	12:N:9033:HOH:O	2.08	0.54
6:N:778:LEU:HD12	6:N:780:LYS:HE3	1.90	0.54
6:N:788:GLY:HA3	6:N:938:GLY:O	2.08	0.54
1:X:18:DG:H2''	1:X:19:DC:C5'	2.35	0.54
2:Y:8:C:H2'	2:Y:9:G:N7	2.22	0.54
4:A:18:ARG:O	4:A:207:PRO:HD3	2.08	0.54
5:C:1018:GLN:HA	5:C:1018:GLN:OE1	2.06	0.54
5:C:140:ILE:O	5:C:418:LEU:HD23	2.08	0.54
5:C:462:ASP:CB	5:C:468:ARG:HD2	2.38	0.54
5:C:56:GLU:HB2	5:C:64:LEU:HD23	1.88	0.54
6:D:119:SER:CB	6:D:123:LEU:HB2	2.36	0.54
6:D:133:ILE:O	6:D:152:LEU:HA	2.08	0.54
6:D:1398:TRP:HA	6:D:1398:TRP:HE3	1.71	0.54
6:D:546:ARG:NH2	6:D:550:ARG:HH22	2.05	0.54
4:K:29:GLU:HB2	4:K:32:PHE:CE1	2.43	0.54
4:K:89:PHE:HB3	4:K:94:LEU:HD22	1.90	0.54
4:L:36:LEU:O	4:L:39:PRO:HD2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1047:HIS:NE2	6:N:1476:THR:HG21	2.22	0.54
5:M:198:ARG:HD3	5:M:228:ALA:HA	1.89	0.54
5:M:430:VAL:HG21	5:M:440:PRO:HB3	1.89	0.54
6:N:957:PRO:HG3	6:N:1007:VAL:HA	1.90	0.54
6:N:493:ARG:HD2	6:N:493:ARG:C	2.28	0.54
5:C:146:VAL:CG2	5:C:162:ILE:HG12	2.36	0.53
5:C:428:ARG:NE	5:C:451:LEU:HD21	2.23	0.53
5:C:642:ARG:HG3	5:C:657:ASP:OD2	2.08	0.53
6:D:1040:GLY:O	6:D:1060:SER:HB3	2.08	0.53
6:D:1116:ASN:O	6:D:1193:THR:HB	2.08	0.53
6:D:1440:PHE:C	6:D:1440:PHE:HD2	2.10	0.53
6:D:145:VAL:CG2	6:D:146:PRO:HD2	2.30	0.53
6:D:403:PHE:CE2	6:D:444:VAL:HG23	2.43	0.53
6:D:525:ARG:CB	6:D:538:SER:HB3	2.31	0.53
5:M:625:LEU:O	5:M:627:ARG:N	2.41	0.53
5:M:984:GLU:HG2	6:N:944:THR:O	2.08	0.53
6:N:520:LEU:HG	6:N:521:PRO:HD2	1.89	0.53
6:D:1148:VAL:HG13	6:D:1163:GLY:HA2	1.90	0.53
6:D:1194:CYS:HB3	6:D:1373:ARG:HH22	1.73	0.53
6:D:165:LYS:CB	6:D:397:LYS:H	2.21	0.53
6:D:191:LEU:HD11	12:D:9157:HOH:O	2.07	0.53
7:E:36:LYS:HZ3	7:E:45:ARG:HH22	1.55	0.53
4:K:109:VAL:HG23	4:K:132:LEU:HD13	1.89	0.53
5:M:190:LYS:H	5:M:190:LYS:CD	2.20	0.53
5:M:217:LEU:CD1	5:M:311:PHE:HA	2.38	0.53
6:N:1273:VAL:HG21	6:N:1303:TYR:HB3	1.89	0.53
6:N:1236:LEU:HD21	6:N:1361:VAL:HG23	1.90	0.53
6:N:28:LYS:O	6:N:43:GLY:HA2	2.09	0.53
6:N:133:ILE:CG1	6:N:456:MET:HB3	2.38	0.53
6:D:1153:VAL:CG2	6:N:561:GLY:HA3	2.38	0.53
5:M:889:HIS:CE1	6:N:951:ILE:H	2.20	0.53
4:A:206:THR:HG22	4:A:209:GLU:CG	2.38	0.53
5:C:1054:THR:CG2	5:C:1059:ASP:HB2	2.35	0.53
5:C:12:VAL:HG21	12:C:1386:HOH:O	2.08	0.53
5:C:403:SER:OG	5:C:404:LEU:N	2.42	0.53
5:C:927:GLY:HA2	5:C:930:LYS:CD	2.36	0.53
6:D:1237:THR:OG1	6:D:1256:LEU:HB2	2.07	0.53
6:D:1281:VAL:CG1	6:D:1282:ARG:N	2.72	0.53
6:D:1326:THR:HG22	6:D:1327:ARG:H	1.72	0.53
5:C:1053:LEU:HD11	6:D:1466:VAL:HG13	1.90	0.53
7:E:36:LYS:NZ	7:E:45:ARG:HH12	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:54:LEU:O	7:E:54:LEU:HD23	2.07	0.53
4:K:5:LYS:O	4:K:8:ALA:HB2	2.09	0.53
5:M:831:ARG:NH1	5:M:1004:LYS:HE3	2.24	0.53
5:M:274:ARG:NH1	5:M:285:LEU:H	2.06	0.53
5:M:341:THR:O	5:M:345:ARG:HG2	2.08	0.53
5:M:606:VAL:HG22	5:M:645:VAL:HG22	1.90	0.53
6:N:1114:THR:HG23	6:N:1114:THR:O	2.09	0.53
6:N:1145:TYR:HA	6:N:1171:VAL:HG21	1.88	0.53
6:N:10:ILE:O	6:N:1451:ALA:HA	2.09	0.53
6:N:699:VAL:HB	6:N:716:PHE:O	2.09	0.53
2:Y:10:G:H2'	2:Y:11:C:H6	1.71	0.53
2:Y:16:G:H21	6:N:705:ALA:HB1	1.73	0.53
2:Y:6:U:C2'	2:Y:7:G:C8	2.85	0.53
5:C:190:LYS:HB2	12:C:1145:HOH:O	2.07	0.53
5:C:274:ARG:NH1	5:C:285:LEU:HD22	2.23	0.53
5:C:436:GLY:HA2	5:C:538:GLN:O	2.08	0.53
6:D:1161:GLU:HG2	6:D:1164:ARG:HB2	1.90	0.53
6:D:1258:ARG:NE	6:D:1262:LEU:HD11	2.23	0.53
6:D:648:MET:SD	6:D:726:ILE:HD11	2.49	0.53
6:D:658:LEU:HD22	6:D:673:ALA:HB3	1.90	0.53
2:H:8:C:H6	2:H:8:C:O5'	1.91	0.53
3:I:3:DA:H2''	3:I:4:DC:C5'	2.38	0.53
4:L:137:ARG:HH11	4:L:139:ASN:HB3	1.72	0.53
5:M:524:VAL:HG22	5:M:528:GLU:OE2	2.08	0.53
6:N:1236:LEU:HD21	6:N:1361:VAL:HB	1.90	0.53
6:N:1406:ARG:HB2	12:N:9309:HOH:O	2.08	0.53
6:N:1405:GLU:OE2	6:N:1413:THR:HB	2.08	0.53
6:N:1496:GLU:HA	6:N:1499:ARG:HG3	1.90	0.53
6:N:477:LEU:HD13	6:N:492:ALA:O	2.08	0.53
6:N:809:PRO:HB2	6:N:812:ALA:HB2	1.89	0.53
5:C:1016:ILE:CD1	5:C:1016:ILE:H	2.22	0.53
5:C:395:LYS:CE	5:C:407:LYS:HE2	2.38	0.53
5:C:501:THR:HG22	5:C:513:VAL:HG22	1.90	0.53
5:C:676:ILE:O	5:C:676:ILE:CG2	2.57	0.53
6:D:1160:LEU:HD22	6:D:1164:ARG:NH1	2.23	0.53
6:D:1399:ASP:O	6:D:1403:LEU:HB2	2.09	0.53
6:D:400:VAL:HG12	12:D:9188:HOH:O	2.09	0.53
6:D:531:ASP:C	6:D:533:GLY:H	2.12	0.53
6:D:662:GLU:OE2	6:D:669:ASN:HA	2.08	0.53
6:D:864:VAL:HG13	12:D:9335:HOH:O	2.08	0.53
6:D:785:ILE:HG13	6:D:939:PHE:CE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:950:GLY:H	6:D:953:ASP:HB2	1.73	0.53
5:M:100:LEU:HD22	5:M:372:LEU:HD22	1.91	0.53
5:M:151:ASP:HB2	5:M:157:ARG:O	2.09	0.53
5:M:190:LYS:H	5:M:190:LYS:HD2	1.73	0.53
5:M:264:PRO:HB3	5:M:289:THR:CG2	2.38	0.53
5:M:47:ALA:O	5:M:50:GLU:HB3	2.08	0.53
6:N:454:ALA:O	6:N:455:ARG:HG3	2.07	0.53
6:N:475:LYS:CA	6:N:478:LEU:HG	2.35	0.53
12:D:9206:HOH:O	6:N:54:LYS:HB3	2.08	0.53
4:A:100:LEU:HD23	4:A:101:LEU:N	2.23	0.53
4:B:127:LEU:HD12	4:B:128:HIS:H	1.74	0.53
5:C:65:VAL:CG2	5:C:101:ILE:HB	2.34	0.53
5:C:108:ILE:HB	5:C:368:THR:OG1	2.08	0.53
5:C:726:ILE:HD13	5:C:734:LEU:CD1	2.38	0.53
6:D:122:GLU:HG3	12:D:9139:HOH:O	2.08	0.53
6:D:29:PRO:HA	12:D:9360:HOH:O	2.09	0.53
6:D:200:ASP:O	6:D:397:LYS:HA	2.09	0.53
6:D:204:LEU:HD13	6:D:441:ARG:NH2	2.19	0.53
6:D:450:TYR:CG	6:D:451:ASP:N	2.76	0.53
6:D:843:PHE:CZ	6:D:864:VAL:HG11	2.43	0.53
6:D:972:LEU:HD23	6:D:973:GLN:HG3	1.90	0.53
4:L:205:VAL:HG23	12:L:1413:HOH:O	2.07	0.53
4:L:218:LEU:O	4:L:222:LEU:HG	2.09	0.53
4:L:74:ASP:HB3	6:N:872:ARG:NH2	2.24	0.53
5:M:177:GLU:N	12:M:7250:HOH:O	2.40	0.53
5:M:535:SER:O	5:M:538:GLN:HG2	2.08	0.53
5:M:881:ASN:N	5:M:881:ASN:HD22	2.07	0.53
6:N:1103:HIS:CG	6:N:1104:GLU:N	2.77	0.53
6:N:1342:GLU:N	6:N:1342:GLU:CD	2.59	0.53
6:N:187:LYS:HD2	6:N:198:ARG:O	2.09	0.53
6:N:42:ASP:O	6:N:43:GLY:O	2.25	0.53
6:N:819:GLY:HA3	12:N:9083:HOH:O	2.08	0.53
6:N:868:TYR:HB2	6:N:873:LEU:HD12	1.89	0.53
6:N:51:GLY:CA	6:N:86:ARG:HA	2.29	0.53
5:C:1115:LEU:HD12	5:C:1115:LEU:N	2.23	0.53
5:C:444:PRO:HG2	5:C:452:ILE:CD1	2.39	0.53
5:C:647:GLN:OE1	5:C:649:VAL:HG13	2.09	0.53
5:C:966:LEU:HD11	5:C:986:PRO:CG	2.35	0.53
6:D:1118:ILE:HB	6:D:1190:SER:HB3	1.90	0.53
6:D:1487:VAL:HG21	7:E:79:LEU:HG	1.90	0.53
4:L:90:LEU:HD23	12:L:611:HOH:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1085:PHE:O	5:M:1089:VAL:HG23	2.08	0.53
5:M:274:ARG:NH2	5:M:284:ARG:HG3	2.20	0.53
5:M:442:GLU:HG2	5:M:454:SER:HB2	1.91	0.53
5:M:499:ALA:HA	5:M:532:MET:CE	2.39	0.53
5:M:518:LYS:NZ	5:M:518:LYS:HB3	2.23	0.53
6:N:1101:VAL:HG21	6:N:1424:VAL:CG2	2.37	0.53
6:N:165:LYS:CB	6:N:397:LYS:HB2	2.14	0.53
6:N:485:SER:HB2	12:N:9386:HOH:O	2.08	0.53
5:M:1016:ILE:HG21	6:N:524:LEU:O	2.09	0.53
1:X:11:DC:H5"	6:N:1442:ASN:ND2	2.24	0.53
4:A:132:LEU:CD1	4:A:138:LEU:HD23	2.39	0.53
4:B:156:HIS:HE1	4:B:166:PRO:HB3	1.72	0.53
4:B:32:PHE:O	4:B:36:LEU:HG	2.08	0.53
5:C:98:LEU:N	5:C:98:LEU:HD12	2.24	0.53
4:L:82:LEU:HB2	12:L:644:HOH:O	2.08	0.53
5:M:403:SER:OG	5:M:404:LEU:N	2.41	0.53
5:M:773:LEU:HD11	12:M:7309:HOH:O	2.07	0.53
6:N:1121:PRO:HG2	12:N:9073:HOH:O	2.09	0.53
6:N:1209:LEU:CD2	6:N:1211:MET:H	2.21	0.53
6:N:1219:GLU:HB2	7:O:17:TYR:HE2	1.74	0.53
6:N:1232:PRO:HB3	6:N:1361:VAL:CG2	2.32	0.53
6:N:471:GLU:O	6:N:475:LYS:HG3	2.08	0.53
6:N:784:ASP:HB3	6:N:939:PHE:CE2	2.44	0.53
7:O:40:LEU:HD21	7:O:67:GLU:HG2	1.91	0.53
5:C:244:PRO:CD	5:C:245:GLY:H	2.17	0.53
5:C:524:VAL:HG22	5:C:528:GLU:HB2	1.89	0.53
5:C:838:LYS:HB3	5:C:848:VAL:HG22	1.90	0.53
6:D:93:ILE:O	6:D:517:VAL:N	2.35	0.53
4:K:28:LEU:O	4:K:192:LEU:HD23	2.08	0.53
4:L:153:ALA:HA	4:L:156:HIS:NE2	2.23	0.53
5:M:626:ARG:HB3	5:M:629:TYR:HD1	1.74	0.53
5:M:851:LYS:CG	5:M:853:LEU:HD12	2.38	0.53
6:N:1314:LYS:HA	12:N:9270:HOH:O	2.08	0.53
6:N:24:GLY:HA3	6:N:49:ILE:CG1	2.31	0.53
6:N:652:LEU:HG	12:N:9431:HOH:O	2.08	0.53
6:N:975:GLU:HA	12:N:9081:HOH:O	2.09	0.53
5:C:1022:GLY:HA3	5:C:1026:GLN:O	2.09	0.53
5:C:401:LEU:CD2	5:C:565:GLN:HB2	2.39	0.53
5:C:580:MET:HB3	5:C:584:GLU:OE2	2.08	0.53
5:C:745:ILE:HD12	5:C:745:ILE:H	1.73	0.53
6:D:111:LYS:HZ2	6:D:1448:THR:CG2	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1277:ILE:HD12	6:D:1301:LYS:N	2.24	0.53
6:D:1350:GLU:O	6:D:1354:LYS:HG2	2.09	0.53
4:K:37:GLY:HA3	4:K:179:PHE:CD1	2.44	0.53
4:L:102:LYS:HG3	4:L:139:ASN:HB2	1.91	0.53
5:M:192:PRO:HB2	5:M:195:LEU:HB3	1.91	0.53
5:M:498:GLN:CG	6:N:1068:LEU:HD12	2.39	0.53
5:M:536:PRO:HA	12:M:7028:HOH:O	2.09	0.53
5:M:943:VAL:HG23	5:M:985:GLY:H	1.73	0.53
6:N:101:HIS:CE1	6:N:103:TRP:HB2	2.43	0.53
6:N:1045:MET:O	6:N:1053:PHE:HD1	1.92	0.53
6:N:1327:ARG:HH11	6:N:1327:ARG:HB3	1.73	0.53
6:N:1381:VAL:O	6:N:1389:LEU:HD12	2.08	0.53
5:M:1030:GLN:OE1	6:N:628:ARG:HD3	2.08	0.53
6:N:767:HIS:HE1	7:O:2:ALA:HB1	1.72	0.53
5:C:1093:GLN:NE2	5:C:1098:ASP:HA	2.25	0.52
5:C:684:PHE:O	5:C:872:ASN:ND2	2.42	0.52
5:C:837:ASP:HA	5:C:999:HIS:CE1	2.44	0.52
6:D:481:MET:HE1	6:D:1389:LEU:HD12	1.91	0.52
6:D:1470:ARG:HG2	6:D:1471:LEU:N	2.23	0.52
6:D:788:GLY:HA3	6:D:938:GLY:O	2.09	0.52
7:E:43:GLU:HG3	7:E:44:GLU:N	2.19	0.52
5:M:332:ARG:NH2	5:M:464:LEU:HD11	2.23	0.52
5:M:378:LEU:HB2	12:M:7272:HOH:O	2.08	0.52
5:M:438:ILE:CD1	5:M:467:ILE:HD12	2.39	0.52
5:M:499:ALA:HA	5:M:532:MET:HE1	1.91	0.52
5:M:564:MET:HE3	5:M:997:LEU:HD21	1.91	0.52
5:M:890:LEU:HA	5:M:914:ILE:CD1	2.36	0.52
6:N:1223:ILE:H	6:N:1223:ILE:CD1	2.21	0.52
6:N:1487:VAL:HB	7:O:74:VAL:HG23	1.89	0.52
6:N:165:LYS:H	6:N:397:LYS:H	1.57	0.52
6:N:703:ASN:ND2	6:N:704:ARG:N	2.57	0.52
6:N:887:ALA:HB1	6:N:893:GLU:HG3	1.91	0.52
6:N:638:LYS:HA	6:N:932:ASP:OD1	2.09	0.52
4:B:165:ILE:HB	12:B:376:HOH:O	2.09	0.52
5:C:113:VAL:HG11	5:C:373:VAL:HB	1.91	0.52
5:C:160:ALA:O	5:C:173:ASP:HA	2.09	0.52
5:C:598:GLU:HB2	5:C:615:TYR:CE1	2.44	0.52
5:C:710:ILE:HG23	5:C:823:VAL:CG2	2.39	0.52
6:D:1209:LEU:HD23	6:D:1210:SER:N	2.25	0.52
12:C:1176:HOH:O	6:D:520:LEU:HD11	2.08	0.52
2:H:4:U:O2'	2:H:5:C:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:228:PRO:O	4:L:229:GLN:HG3	2.09	0.52
12:K:974:HOH:O	4:L:25:LEU:HD11	2.09	0.52
5:M:191:PHE:HD2	5:M:195:LEU:HD23	1.74	0.52
5:M:36:PRO:HB2	5:M:70:GLU:OE2	2.08	0.52
5:M:69:LEU:HD21	12:M:7033:HOH:O	2.09	0.52
6:N:1003:VAL:O	6:N:1006:ALA:HB3	2.10	0.52
6:N:1101:VAL:CG2	6:N:1424:VAL:HG22	2.38	0.52
6:N:792:ILE:HD13	6:N:793:THR:HG22	1.90	0.52
6:N:1495:ILE:HG12	7:O:80:VAL:CG1	2.40	0.52
1:X:13:DT:H72	12:X:1946:HOH:O	2.09	0.52
4:B:156:HIS:CE1	4:B:166:PRO:HB3	2.45	0.52
4:B:12:THR:OG1	4:B:24:VAL:HB	2.09	0.52
4:B:43:ILE:HG21	4:B:214:ALA:HA	1.91	0.52
4:B:83:LYS:HE3	4:B:168:ASP:HB2	1.90	0.52
5:C:317:VAL:HG22	5:C:320:HIS:CE1	2.44	0.52
5:C:378:LEU:HG	5:C:382:ILE:CD1	2.40	0.52
5:C:328:LEU:HD11	5:C:434:HIS:CD2	2.43	0.52
5:C:836:GLY:HA3	6:D:724:GLN:HG2	1.91	0.52
6:D:1396:GLU:O	6:D:1400:VAL:HG23	2.09	0.52
6:D:510:GLU:O	6:D:513:ILE:HD12	2.09	0.52
6:D:568:ARG:HE	6:D:572:ARG:HG2	1.73	0.52
2:H:7:G:C5'	2:H:7:G:C8	2.92	0.52
4:K:177:VAL:HG22	4:K:199:ILE:HG23	1.92	0.52
5:M:1000:MET:HB3	5:M:1002:GLU:CG	2.39	0.52
5:M:440:PRO:C	6:N:1078:ARG:HH21	2.13	0.52
5:M:557:ARG:HA	5:M:560:MET:HG3	1.89	0.52
5:M:15:LEU:O	5:M:586:ARG:NH1	2.43	0.52
5:M:732:ALA:HB1	5:M:735:ARG:NH2	2.24	0.52
5:M:516:ARG:HG3	6:N:1068:LEU:HD13	1.91	0.52
6:N:1232:PRO:CB	6:N:1361:VAL:HG11	2.39	0.52
6:N:415:VAL:O	6:N:432:TYR:HA	2.10	0.52
12:M:7241:HOH:O	6:N:524:LEU:HD22	2.09	0.52
6:N:525:ARG:HB2	6:N:538:SER:CB	2.31	0.52
6:N:654:LYS:HB3	6:N:655:PRO:HD3	1.92	0.52
6:N:658:LEU:HD13	6:N:670:VAL:HG12	1.91	0.52
6:N:728:LEU:HD23	6:N:740:PHE:CE2	2.43	0.52
7:O:54:LEU:HG	7:O:58:PRO:HG2	1.91	0.52
7:O:65:MET:HB3	12:O:1688:HOH:O	2.10	0.52
7:O:72:ARG:HD3	12:O:2451:HOH:O	2.09	0.52
5:C:115:LEU:HD22	5:C:373:VAL:CG1	2.31	0.52
5:C:146:VAL:HG11	5:C:281:LEU:HD13	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:164:PRO:HD2	5:C:170:PRO:O	2.09	0.52
5:C:247:PRO:HD2	5:C:250:ARG:CZ	2.39	0.52
5:C:304:LEU:HG	5:C:308:ARG:HD3	1.91	0.52
5:C:516:ARG:HG3	6:D:1068:LEU:HD13	1.90	0.52
4:A:67:THR:HG23	5:C:627:ARG:NH2	2.24	0.52
5:C:675:ALA:HA	5:C:989:VAL:HG12	1.91	0.52
6:D:102:ILE:HA	12:D:9087:HOH:O	2.08	0.52
6:D:701:LEU:O	6:D:702:LEU:HD12	2.10	0.52
6:D:955:VAL:HA	12:D:9332:HOH:O	2.09	0.52
4:K:186:LEU:CD1	4:K:192:LEU:HD22	2.39	0.52
4:K:20:TYR:OH	4:K:198:ARG:HG2	2.09	0.52
6:N:1237:THR:HG21	6:N:1256:LEU:HD22	1.91	0.52
6:N:1398:TRP:HZ3	6:N:1401:GLU:HG3	1.75	0.52
6:N:1472:ILE:O	6:N:1477:GLY:HA3	2.09	0.52
6:N:115:LEU:HD22	6:N:502:PHE:HE1	1.74	0.52
6:N:771:SER:HB3	6:N:778:LEU:HD13	1.91	0.52
4:B:170:VAL:HG23	4:B:170:VAL:O	2.10	0.52
5:C:148:PHE:HB3	5:C:313:LEU:HD22	1.91	0.52
5:C:151:ASP:OD1	5:C:152:PRO:HD2	2.10	0.52
5:C:173:ASP:O	5:C:184:MET:HA	2.10	0.52
5:C:228:ALA:HA	12:C:1266:HOH:O	2.09	0.52
5:C:654:LEU:HD21	12:C:1240:HOH:O	2.09	0.52
5:C:820:ARG:HB2	12:C:1252:HOH:O	2.08	0.52
6:D:1380:GLU:OE2	6:D:1390:LEU:HD23	2.09	0.52
6:D:434:ARG:HB3	6:D:434:ARG:HH11	1.73	0.52
6:D:631:ILE:HG21	6:D:745:MET:SD	2.50	0.52
4:L:58:ILE:HG21	4:L:68:ILE:HD11	1.92	0.52
4:L:98:THR:HG21	12:L:596:HOH:O	2.09	0.52
5:M:333:ILE:HG21	12:M:7162:HOH:O	2.09	0.52
5:M:395:LYS:HE2	5:M:397:GLU:CG	2.39	0.52
5:M:126:SER:HB3	5:M:407:LYS:NZ	2.25	0.52
4:K:182:GLU:C	5:M:938:LYS:HZ2	2.11	0.52
4:A:189:ARG:NH2	4:B:155:LYS:HG2	2.24	0.52
4:B:212:ASN:HA	12:B:348:HOH:O	2.09	0.52
5:C:578:VAL:HG21	5:C:991:GLN:HB2	1.91	0.52
5:C:732:ALA:O	5:C:735:ARG:CZ	2.57	0.52
5:C:926:PHE:O	5:C:930:LYS:HG3	2.10	0.52
5:C:949:LYS:HZ2	6:D:828:LYS:HZ2	1.55	0.52
6:D:104:PHE:CE2	6:D:1448:THR:HG23	2.43	0.52
5:C:516:ARG:NE	6:D:1068:LEU:HD13	2.21	0.52
6:D:1382:THR:HG21	6:D:1418:LYS:CE	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:191:LEU:HD21	12:D:9157:HOH:O	2.09	0.52
1:G:13:DT:H2"	5:C:422:ARG:HH22	1.72	0.52
2:H:12:G:C5'	2:H:12:G:H8	2.16	0.52
5:M:15:LEU:HG	5:M:458:TYR:CZ	2.44	0.52
5:M:595:LEU:HG	5:M:655:LEU:HD12	1.92	0.52
6:N:1063:GLU:HG2	6:N:1064:GLY:H	1.74	0.52
6:N:1472:ILE:HG22	6:N:1474:ALA:N	2.15	0.52
6:N:696:HIS:HB2	7:O:48:MET:HE1	1.92	0.52
4:A:218:LEU:O	4:A:222:LEU:HD13	2.10	0.52
4:A:23:PHE:CE2	4:A:199:ILE:HD12	2.45	0.52
5:C:146:VAL:HG11	5:C:281:LEU:CD1	2.40	0.52
5:C:751:PRO:HA	5:C:792:VAL:HB	1.92	0.52
5:C:89:THR:HA	5:C:129:ILE:O	2.10	0.52
5:C:981:GLU:HA	5:C:981:GLU:OE1	2.09	0.52
6:D:1298:GLY:HA2	6:N:53:ILE:H	1.75	0.52
6:D:1194:CYS:HB3	6:D:1373:ARG:HH12	1.75	0.52
6:D:1480:PHE:HB2	12:D:9337:HOH:O	2.10	0.52
6:D:179:VAL:HG13	6:D:183:GLU:HB3	1.90	0.52
6:D:397:LYS:O	6:D:448:GLU:HB2	2.10	0.52
6:D:465:LEU:HD13	6:D:513:ILE:HD11	1.92	0.52
6:D:54:LYS:HG3	6:D:55:ASP:N	2.25	0.52
6:D:661:MET:HA	6:D:666:ILE:HD12	1.91	0.52
6:D:764:LEU:HD21	6:D:767:HIS:CE1	2.45	0.52
6:D:804:LEU:HD12	6:D:831:GLY:HA2	1.91	0.52
7:E:74:VAL:HB	7:E:79:LEU:HD21	1.91	0.52
5:M:280:LYS:HE2	12:M:7317:HOH:O	2.09	0.52
5:M:281:LEU:CD1	5:M:306:THR:HA	2.40	0.52
5:M:882:LEU:HD11	6:N:1038:LEU:HB3	1.91	0.52
6:N:1465:ASN:OD1	6:N:1473:PRO:HG3	2.09	0.52
6:N:204:LEU:HG	6:N:394:LEU:O	2.10	0.52
4:A:186:LEU:HG	12:A:364:HOH:O	2.10	0.52
4:A:20:TYR:CE2	4:A:198:ARG:HB3	2.45	0.52
5:C:169:GLY:HA2	5:C:263:ASP:HB3	1.91	0.52
5:C:724:ARG:O	5:C:734:LEU:HD11	2.10	0.52
6:D:1275:SER:HB2	6:D:1294:VAL:CG2	2.40	0.52
6:D:1318:TYR:OH	6:N:42:ASP:HB2	2.10	0.52
6:D:114:THR:O	6:D:495:ARG:HG3	2.10	0.52
11:D:5999:APC:C8	11:D:5999:APC:H5'1	2.37	0.52
6:D:800:LYS:HD2	6:D:804:LEU:HD22	1.91	0.52
4:L:197:LEU:HD23	4:L:197:LEU:O	2.10	0.52
5:M:2:GLU:O	5:M:3:ILE:HD13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:67:THR:HG21	5:M:609:ASN:HD21	1.73	0.52
5:M:976:ASP:CB	5:M:979:THR:HG22	2.40	0.52
6:N:1481:VAL:HG13	7:O:18:ARG:HE	1.74	0.52
6:N:1495:ILE:HG12	7:O:80:VAL:HG11	1.92	0.52
4:A:167:VAL:HA	12:A:333:HOH:O	2.08	0.52
4:B:83:LYS:CE	4:B:168:ASP:HB2	2.40	0.52
5:C:198:ARG:HD3	12:C:1266:HOH:O	2.10	0.52
5:C:444:PRO:HG2	5:C:452:ILE:HG13	1.92	0.52
6:D:204:LEU:HD21	6:D:445:ARG:HD3	1.90	0.52
1:X:19:DC:H4'	5:M:1000:MET:CE	2.39	0.52
5:M:165:LEU:HD12	5:M:166:PRO:C	2.29	0.52
5:M:25:SER:OG	5:M:335:THR:HB	2.10	0.52
5:M:325:ILE:HG22	5:M:331:ARG:HH11	1.74	0.52
5:M:367:LEU:HB3	5:M:371:LYS:HG2	1.92	0.52
5:M:473:ARG:HG3	5:M:474:VAL:N	2.24	0.52
5:M:580:MET:HB3	5:M:584:GLU:CD	2.30	0.52
6:N:1330:ILE:HG22	6:N:1331:ASP:N	2.25	0.52
6:N:1396:GLU:O	6:N:1400:VAL:HG23	2.09	0.52
6:N:1440:PHE:O	6:N:1441:GLN:O	2.28	0.52
5:M:1050:GLN:NE2	6:N:1471:LEU:N	2.57	0.52
6:N:591:VAL:CG1	6:N:597:ASP:HA	2.40	0.52
6:N:625:TYR:HB3	6:N:749:VAL:HG23	1.92	0.52
7:O:41:GLU:HG3	7:O:42:PRO:HD3	1.90	0.52
7:O:57:ASP:H	7:O:58:PRO:HD3	1.74	0.52
4:A:101:LEU:HD23	4:A:102:LYS:N	2.24	0.52
4:A:132:LEU:HG	4:A:136:GLY:HA3	1.92	0.52
5:C:279:GLU:HG3	5:C:280:LYS:CD	2.37	0.52
5:C:617:ASP:HB2	5:C:619:ARG:HD3	1.92	0.52
6:D:1240:THR:HG23	6:D:1253:THR:CB	2.30	0.52
6:D:438:ASP:HB3	6:D:445:ARG:HH22	1.74	0.52
6:D:470:LEU:CB	6:D:503:LEU:HD11	2.40	0.52
6:D:69:GLU:HB2	12:D:9407:HOH:O	2.09	0.52
6:D:766:ALA:HA	12:D:9297:HOH:O	2.10	0.52
7:E:17:TYR:O	7:E:21:VAL:HG23	2.10	0.52
4:K:176:ARG:NH1	5:M:865:THR:HB	2.24	0.52
5:M:163:ILE:HG13	5:M:163:ILE:O	2.10	0.52
5:M:310:LEU:O	5:M:314:THR:HG23	2.10	0.52
5:M:530:GLU:HB2	12:M:7105:HOH:O	2.09	0.52
6:D:1278:ASP:OD2	6:N:41:ARG:HA	2.10	0.52
6:N:491:LYS:HE2	6:N:495:ARG:HH12	1.72	0.52
4:A:71:VAL:HG22	4:A:132:LEU:CD1	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:50:GLY:HA3	4:B:171:PHE:O	2.10	0.51
5:C:278:GLU:HA	5:C:282:GLY:O	2.11	0.51
5:C:501:THR:HG22	5:C:513:VAL:CG2	2.40	0.51
6:D:1232:PRO:HB3	6:D:1361:VAL:CG2	2.36	0.51
6:D:185:VAL:HG13	6:D:189:GLN:NE2	2.25	0.51
6:D:660:LYS:HD3	6:D:694:VAL:HG22	1.91	0.51
6:D:897:TRP:HA	6:D:900:ILE:HG13	1.91	0.51
7:E:95:VAL:CG1	12:E:117:HOH:O	2.59	0.51
4:L:124:ASN:OD1	4:L:127:LEU:HB2	2.10	0.51
5:M:126:SER:CB	5:M:395:LYS:HZ2	2.22	0.51
5:M:160:ALA:O	5:M:173:ASP:HA	2.11	0.51
5:M:260:LEU:HA	5:M:291:ALA:HB2	1.92	0.51
5:M:52:PHE:O	5:M:54:ILE:N	2.43	0.51
5:M:83:CYS:HA	5:M:88:LEU:HD23	1.91	0.51
6:N:1087:ARG:HD2	6:N:1087:ARG:N	2.25	0.51
6:N:139:GLY:O	6:N:147:VAL:HB	2.10	0.51
6:N:152:LEU:HD21	12:N:9148:HOH:O	2.10	0.51
6:N:581:LEU:HD23	6:N:581:LEU:N	2.25	0.51
6:D:415:VAL:HG13	6:D:419:ASP:CB	2.38	0.51
1:G:22:DC:H4'	5:C:388:ARG:HD2	1.92	0.51
4:L:159:LYS:N	4:L:159:LYS:HD3	2.25	0.51
5:M:164:PRO:HD2	5:M:170:PRO:O	2.10	0.51
5:M:194:VAL:HG21	5:M:221:LEU:HA	1.92	0.51
5:M:139:GLN:CD	5:M:418:LEU:HD22	2.30	0.51
5:M:751:PRO:HA	5:M:792:VAL:CG1	2.40	0.51
5:M:798:GLY:H	5:M:827:VAL:HG11	1.76	0.51
5:M:863:ASP:O	5:M:865:THR:N	2.43	0.51
5:M:905:ILE:N	5:M:905:ILE:CD1	2.74	0.51
7:O:94:PRO:CG	12:O:1341:HOH:O	2.57	0.51
4:A:209:GLU:O	4:A:213:GLN:HG3	2.10	0.51
4:A:38:ASN:HB3	4:A:39:PRO:HD3	1.93	0.51
5:C:118:ILE:CG2	5:C:382:ILE:HD13	2.39	0.51
5:C:54:ILE:HG23	5:C:54:ILE:O	2.10	0.51
5:C:810:ASP:CB	5:C:813:VAL:HG13	2.39	0.51
6:D:1414:PRO:HA	12:D:9161:HOH:O	2.08	0.51
6:D:470:LEU:HD13	12:D:9127:HOH:O	2.10	0.51
6:D:606:ILE:O	6:D:613:ARG:N	2.40	0.51
6:D:860:LEU:HB2	6:D:861:GLN:NE2	2.25	0.51
6:D:902:LEU:HB3	12:D:9499:HOH:O	2.10	0.51
4:L:94:LEU:HD21	4:L:119:ASP:OD1	2.11	0.51
6:N:1011:PHE:HB3	6:N:1021:TYR:CD1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1106:VAL:HB	6:N:1108:ARG:NE	2.24	0.51
6:N:1114:THR:CG2	6:N:1195:GLN:HB2	2.41	0.51
6:N:1094:LEU:HD13	6:N:1260:ILE:HD13	1.91	0.51
6:N:607:LEU:HA	6:N:613:ARG:HB3	1.92	0.51
6:N:843:PHE:CE1	6:N:864:VAL:HG11	2.46	0.51
5:C:1092:LEU:HD21	6:D:607:LEU:HD21	1.91	0.51
5:C:129:ILE:HG12	5:C:386:PHE:O	2.09	0.51
5:C:517:ARG:HB3	12:C:1211:HOH:O	2.09	0.51
5:C:73:LEU:O	5:C:73:LEU:HD12	2.10	0.51
5:C:80:GLN:O	5:C:83:CYS:HB2	2.11	0.51
5:C:906:PHE:CD1	6:D:1067:VAL:HG22	2.46	0.51
5:C:960:GLU:HA	12:C:1124:HOH:O	2.09	0.51
6:D:1145:TYR:CD2	6:D:1168:MET:SD	3.03	0.51
6:D:1300:SER:N	6:N:59:ALA:HB1	2.25	0.51
6:D:396:VAL:CB	6:D:447:VAL:HG12	2.38	0.51
6:D:619:LEU:N	6:D:619:LEU:HD23	2.26	0.51
6:D:929:ARG:HG2	12:D:9142:HOH:O	2.10	0.51
7:E:48:MET:CB	7:E:54:LEU:HB2	2.39	0.51
2:H:11:C:O2'	2:H:12:G:H5''	2.10	0.51
4:L:18:ARG:HD2	12:L:889:HOH:O	2.09	0.51
4:L:5:LYS:O	4:L:8:ALA:HB2	2.10	0.51
5:M:395:LYS:CE	5:M:403:SER:HB2	2.38	0.51
5:M:684:PHE:CE2	5:M:685:GLU:HB2	2.46	0.51
6:N:1262:LEU:HD21	6:N:1351:GLU:HG3	1.91	0.51
6:N:161:LEU:O	6:N:449:SER:HB2	2.10	0.51
6:N:843:PHE:CD1	6:N:849:ALA:HA	2.45	0.51
5:C:267:TYR:HB2	5:C:272:ALA:HB1	1.93	0.51
5:C:753:ASP:HA	6:D:679:ARG:NH1	2.26	0.51
6:D:1463:LYS:O	6:D:1467:ILE:HD12	2.10	0.51
6:D:1468:LEU:HD23	6:D:1468:LEU:O	2.10	0.51
6:D:805:GLU:HB2	12:D:9063:HOH:O	2.10	0.51
6:D:792:ILE:HD12	6:D:941:PHE:CE1	2.45	0.51
4:K:222:LEU:HD21	4:L:215:VAL:O	2.10	0.51
4:L:101:LEU:HB2	4:L:114:PHE:CD2	2.46	0.51
5:M:1059:ASP:HA	12:M:7288:HOH:O	2.10	0.51
5:M:146:VAL:HG22	5:M:162:ILE:HA	1.91	0.51
5:M:690:ILE:HG13	5:M:694:LEU:CD1	2.34	0.51
5:M:987:ILE:HD11	6:N:946:GLY:HA2	1.93	0.51
6:N:1276:GLU:OE2	6:N:1301:LYS:HE2	2.10	0.51
6:N:130:SER:HB3	6:N:132:TYR:HE1	1.75	0.51
6:N:50:PHE:O	6:N:89:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:900:ILE:HG22	6:N:914:LEU:HD11	1.92	0.51
5:C:198:ARG:HH21	5:C:203:ASP:HB3	1.76	0.51
5:C:31:GLN:NE2	5:C:71:TYR:OH	2.44	0.51
5:C:52:PHE:CE1	5:C:66:LEU:HG	2.45	0.51
6:D:415:VAL:O	6:D:432:TYR:HA	2.11	0.51
6:D:502:PHE:CD2	6:D:509:PRO:HD3	2.46	0.51
4:K:48:ILE:HD13	4:K:210:ALA:HB1	1.92	0.51
4:K:224:TYR:CD1	4:L:9:PRO:HD2	2.46	0.51
4:L:176:ARG:HH11	6:N:884:ARG:NH1	2.07	0.51
5:M:292:ARG:NH2	5:M:299:LYS:HZ3	2.08	0.51
5:M:964:LYS:O	5:M:968:LEU:HG	2.11	0.51
6:N:1236:LEU:HD13	6:N:1356:TYR:HA	1.93	0.51
6:N:796:ARG:HG3	6:N:828:LYS:HD2	1.93	0.51
1:X:10:DG:H3'	6:N:586:ARG:HH21	1.76	0.51
4:A:33:GLY:O	4:A:195:LEU:HD22	2.10	0.51
5:C:243:ARG:HG3	12:C:1426:HOH:O	2.11	0.51
5:C:630:ARG:HE	5:C:705:ILE:HG22	1.76	0.51
5:C:759:THR:HB	5:C:785:VAL:CG1	2.41	0.51
5:C:944:LEU:HD22	5:C:962:GLN:OE1	2.11	0.51
6:D:1037:GLN:CG	6:D:1042:ARG:HB3	2.40	0.51
6:D:729:HIS:CE1	6:D:731:LEU:HB2	2.46	0.51
5:C:949:LYS:HZ2	6:D:828:LYS:NZ	2.09	0.51
6:D:926:LYS:HA	6:D:929:ARG:HG3	1.93	0.51
6:D:956:ILE:HG12	6:D:1039:CYS:HA	1.93	0.51
6:D:767:HIS:CD2	7:E:6:ILE:HG12	2.45	0.51
4:K:173:PRO:O	4:K:201:THR:HG22	2.10	0.51
4:K:19:GLU:HB3	12:K:909:HOH:O	2.11	0.51
5:M:1094:ALA:O	6:N:518:PRO:HB2	2.11	0.51
5:M:29:ALA:O	5:M:44:ILE:HG12	2.11	0.51
5:M:496:ILE:HD12	5:M:496:ILE:H	1.76	0.51
5:M:545:ASN:HB3	5:M:583:LEU:HD22	1.93	0.51
5:M:552:HIS:HB3	6:N:1061:PHE:O	2.10	0.51
5:M:881:ASN:H	5:M:881:ASN:HD22	1.59	0.51
6:N:1235:GLN:HG3	6:N:1236:LEU:N	2.24	0.51
6:N:1283:ILE:HG12	6:N:1311:LEU:CD1	2.41	0.51
1:X:19:DC:H5''	5:M:1001:VAL:HG23	1.93	0.51
2:Y:16:G:H5'	12:Y:777:HOH:O	2.10	0.51
5:C:300:ASP:OD2	5:C:303:PHE:HB2	2.10	0.51
5:C:433:THR:HG21	5:C:488:ALA:HB1	1.92	0.51
5:C:753:ASP:HA	6:D:679:ARG:CZ	2.41	0.51
6:D:1117:TYR:CD1	6:D:1187:PRO:HA	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1280:VAL:HA	6:D:1318:TYR:HA	1.92	0.51
6:D:1281:VAL:HB	6:D:1313:VAL:HG22	1.91	0.51
6:D:1313:VAL:HG21	6:D:1319:VAL:HG11	1.92	0.51
6:D:1366:LYS:O	6:D:1370:ILE:HG12	2.11	0.51
6:D:133:ILE:CB	6:D:456:MET:HB3	2.41	0.51
6:D:637:LEU:HD11	6:D:642:CYS:CA	2.41	0.51
2:H:10:G:HI'	12:H:505:HOH:O	2.10	0.51
4:K:154:GLU:HB3	12:K:1920:HOH:O	2.10	0.51
5:M:290:LEU:HD13	12:M:7044:HOH:O	2.09	0.51
5:M:427:VAL:HB	5:M:428:ARG:HE	1.75	0.51
6:N:1209:LEU:HD22	6:N:1211:MET:HB2	1.91	0.51
6:N:1236:LEU:HD22	6:N:1359:GLN:HB3	1.93	0.51
6:N:1425:THR:HG22	6:N:1429:LEU:CD2	2.39	0.51
6:N:450:TYR:CG	6:N:451:ASP:N	2.79	0.51
6:N:460:ALA:O	6:N:464:LEU:HG	2.11	0.51
6:N:482:LYS:HD2	12:N:9158:HOH:O	2.10	0.51
5:M:1020:PRO:HD2	6:N:622:ARG:O	2.11	0.51
6:N:686:GLU:HA	6:N:689:ASP:OD2	2.11	0.51
6:N:780:LYS:CD	6:N:912:LYS:HE2	2.41	0.51
4:A:56:VAL:HG21	4:A:82:LEU:HD12	1.92	0.51
4:B:211:LEU:O	4:B:215:VAL:HG13	2.10	0.51
5:C:1050:GLN:HG2	12:C:1306:HOH:O	2.11	0.51
5:C:95:TYR:CD2	5:C:114:PHE:HB3	2.45	0.51
5:C:254:VAL:HG13	12:C:1450:HOH:O	2.09	0.51
5:C:418:LEU:N	5:C:418:LEU:HD12	2.26	0.51
6:D:409:VAL:HG11	6:D:435:VAL:HG21	1.93	0.51
6:D:647:ARG:HH21	6:D:723:GLY:H	1.58	0.51
6:D:922:LEU:HD23	12:D:9115:HOH:O	2.10	0.51
7:E:36:LYS:NZ	7:E:45:ARG:NH2	2.58	0.51
4:K:111:ALA:N	12:K:661:HOH:O	2.43	0.51
4:L:111:ALA:O	4:L:114:PHE:HD1	1.93	0.51
4:L:2:LEU:HD12	4:L:3:ASP:N	2.26	0.51
5:M:1111:ILE:HG13	5:M:1112:PHE:N	2.25	0.51
5:M:276:LYS:O	5:M:280:LYS:HB2	2.09	0.51
5:M:100:LEU:HD22	5:M:372:LEU:CD2	2.40	0.51
5:M:772:ARG:HA	12:M:7352:HOH:O	2.11	0.51
6:N:1156:LEU:HD13	12:N:9239:HOH:O	2.11	0.51
6:N:1280:VAL:HG13	6:N:1317:ASP:O	2.11	0.51
6:N:1281:VAL:CG2	6:N:1319:VAL:HG11	2.39	0.51
6:N:139:GLY:HA2	6:N:451:ASP:O	2.11	0.51
6:N:57:GLU:HG2	6:N:58:CYS:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:610:LYS:HA	6:N:615:ARG:NH2	2.26	0.51
6:N:911:LEU:O	6:N:915:VAL:HG23	2.11	0.51
1:X:14:DT:H5'	1:X:14:DT:C6	2.45	0.51
2:Y:5:C:H6	2:Y:5:C:O5'	1.94	0.51
4:A:10:VAL:HG13	4:B:229:GLN:CD	2.32	0.51
5:C:328:LEU:N	5:C:328:LEU:HD12	2.25	0.51
5:C:611:ILE:HG13	5:C:625:LEU:HD21	1.92	0.51
6:D:1001:GLU:O	6:D:1004:THR:HB	2.09	0.51
5:C:1008:ARG:O	6:D:625:TYR:HA	2.11	0.51
5:C:835:VAL:HG13	6:D:725:SER:OG	2.11	0.51
5:M:1035:MET:HB3	6:N:707:THR:HB	1.92	0.51
5:M:427:VAL:CG1	5:M:428:ARG:HH21	2.23	0.51
6:N:1012:GLU:OE1	6:N:1013:GLU:HG3	2.11	0.51
6:N:1357:ARG:HG2	12:N:9071:HOH:O	2.10	0.51
6:N:1409:ALA:HB1	12:N:9113:HOH:O	2.10	0.51
6:N:18:ILE:HD13	6:N:21:TRP:CH2	2.46	0.51
6:N:36:THR:HB	6:N:38:LYS:HD3	1.92	0.51
6:N:90:MET:HE2	6:N:521:PRO:HD3	1.92	0.51
6:N:710:ARG:CD	6:N:768:ASN:HD21	2.20	0.51
6:N:899:LEU:HD12	6:N:900:ILE:HG23	1.92	0.51
5:C:211:LEU:O	5:C:211:LEU:HD12	2.11	0.50
5:C:302:VAL:O	5:C:306:THR:HG23	2.12	0.50
5:C:135:VAL:O	5:C:392:SER:HA	2.10	0.50
5:C:760:SER:O	5:C:785:VAL:HG22	2.11	0.50
5:C:922:PHE:CZ	5:C:963:LEU:HB3	2.43	0.50
6:D:1180:ALA:HB2	12:D:9058:HOH:O	2.12	0.50
6:D:1232:PRO:CB	6:D:1361:VAL:HG11	2.41	0.50
6:D:1318:TYR:HE2	6:N:42:ASP:OD1	1.94	0.50
6:D:1496:GLU:CD	6:D:1500:LYS:HE3	2.31	0.50
6:D:165:LYS:HD3	6:D:199:LEU:HD22	1.93	0.50
6:D:21:TRP:HA	12:D:9333:HOH:O	2.10	0.50
4:B:170:VAL:HG11	6:D:848:GLU:CD	2.32	0.50
6:D:988:ARG:HD3	6:D:992:ILE:HD11	1.93	0.50
5:M:193:LEU:O	5:M:197:LEU:HG	2.11	0.50
5:M:690:ILE:HG23	5:M:852:ILE:HA	1.92	0.50
5:M:961:GLU:HA	5:M:961:GLU:OE2	2.10	0.50
5:M:1043:TYR:CZ	6:N:710:ARG:HD3	2.47	0.50
6:N:927:THR:O	6:N:930:LEU:HB3	2.11	0.50
6:N:994:GLN:HA	6:N:994:GLN:NE2	2.25	0.50
7:O:33:HIS:HB2	7:O:37:ASN:ND2	2.26	0.50
6:N:924:MET:HB3	7:O:7:ASP:OD1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:103:ALA:O	4:B:138:LEU:HD23	2.10	0.50
4:B:143:ARG:CD	4:B:158:ILE:HG21	2.42	0.50
4:B:92:PRO:HG3	12:B:332:HOH:O	2.11	0.50
5:C:80:GLN:OE1	5:C:128:ILE:HD12	2.10	0.50
5:C:260:LEU:HA	5:C:291:ALA:HB2	1.92	0.50
5:C:356:ARG:HA	12:C:1263:HOH:O	2.11	0.50
5:C:464:LEU:O	5:C:466:PHE:N	2.44	0.50
5:C:996:LYS:HA	12:C:1441:HOH:O	2.12	0.50
6:D:119:SER:HB2	6:D:123:LEU:CB	2.35	0.50
6:D:1307:LYS:HG3	12:D:9301:HOH:O	2.12	0.50
6:D:1347:TYR:HD2	6:D:1348:LEU:HD22	1.75	0.50
6:D:1481:VAL:HG12	6:D:1481:VAL:O	2.11	0.50
6:D:477:LEU:O	6:D:481:MET:HB2	2.10	0.50
5:C:1034:GLU:CB	6:D:619:LEU:HD22	2.30	0.50
5:C:1056:LYS:O	6:D:624:ASP:HB2	2.11	0.50
3:I:4:DC:H2"	3:I:5:DG:O5'	2.10	0.50
5:M:437:ARG:HE	5:M:469:THR:HG22	1.76	0.50
6:N:1090:ASP:HB3	6:N:1256:LEU:CD2	2.40	0.50
6:N:1106:VAL:HG21	6:N:1462:LEU:HD21	1.93	0.50
6:N:1207:TYR:H	6:N:1366:LYS:HZ1	1.59	0.50
6:N:1358:ALA:HB1	12:N:9142:HOH:O	2.12	0.50
6:N:1368:ILE:O	6:N:1372:VAL:HG12	2.10	0.50
6:N:478:LEU:CD1	6:N:1388:ARG:HH21	2.19	0.50
6:N:409:VAL:CG2	6:N:421:LEU:HA	2.41	0.50
6:N:181:ASP:CB	6:N:441:ARG:HD3	2.41	0.50
6:N:581:LEU:O	6:N:603:LEU:HG	2.11	0.50
6:N:67:ARG:HB2	12:N:9177:HOH:O	2.10	0.50
2:Y:16:G:H4'	6:N:743:ASP:OD2	2.11	0.50
6:D:1297:GLU:HA	6:N:78:VAL:HG22	1.92	0.50
4:B:104:GLU:HA	4:B:136:GLY:O	2.11	0.50
5:C:120:LEU:CD2	5:C:121:MET:H	2.24	0.50
5:C:21:ILE:HG22	5:C:335:THR:HG22	1.92	0.50
5:C:603:VAL:HG23	5:C:647:GLN:O	2.11	0.50
6:D:107:ASP:O	6:D:108:VAL:C	2.50	0.50
6:D:1147:ARG:HH12	6:D:1190:SER:HB2	1.76	0.50
6:D:1346:ARG:HA	6:D:1346:ARG:HH11	1.76	0.50
6:D:657:LEU:HB2	6:D:691:LEU:CD1	2.41	0.50
6:D:23:TYR:CD1	6:D:89:ARG:HG2	2.46	0.50
6:D:789:LEU:HD13	6:D:911:LEU:HD21	1.94	0.50
4:K:10:VAL:HG12	4:K:12:THR:HG23	1.92	0.50
4:L:19:GLU:O	4:L:200:TRP:HA	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1005:MET:HB2	6:N:648:MET:HE1	1.94	0.50
5:M:1:MET:SD	5:M:900:ARG:NH1	2.84	0.50
5:M:32:ALA:HA	12:M:7240:HOH:O	2.10	0.50
6:N:1353:GLN:HB3	6:N:1357:ARG:NE	2.26	0.50
6:N:143:ASN:HA	12:N:9476:HOH:O	2.10	0.50
6:N:402:PRO:HA	6:N:443:VAL:HG23	1.93	0.50
6:N:524:LEU:O	6:N:526:PRO:HD3	2.11	0.50
6:N:693:GLU:HA	7:O:48:MET:CE	2.41	0.50
6:N:771:SER:CB	6:N:778:LEU:HD13	2.41	0.50
8:N:8001:STD:H2O	12:N:9065:HOH:O	2.11	0.50
6:N:809:PRO:O	6:N:812:ALA:HB3	2.11	0.50
4:B:47:SER:CB	4:B:217:ILE:HD13	2.38	0.50
4:B:86:VAL:HG12	4:B:124:ASN:HB2	1.93	0.50
6:D:993:LEU:HD22	6:D:1052:THR:HG23	1.94	0.50
6:D:1062:ARG:HG3	6:D:1062:ARG:NH1	2.26	0.50
6:D:1128:VAL:HG23	12:D:9178:HOH:O	2.11	0.50
6:D:1372:VAL:HA	6:D:1375:MET:HG3	1.93	0.50
6:D:165:LYS:HG2	6:D:199:LEU:HD22	1.94	0.50
6:D:403:PHE:CE1	6:D:407:VAL:HG22	2.46	0.50
6:D:662:GLU:CD	6:D:669:ASN:HA	2.31	0.50
6:D:705:ALA:CB	6:D:706:PRO:HD3	2.41	0.50
6:D:761:ILE:HD11	7:E:23:VAL:HG11	1.92	0.50
5:M:278:GLU:HA	5:M:282:GLY:O	2.12	0.50
5:M:136:ILE:HG21	5:M:336:VAL:HG13	1.93	0.50
5:M:918:LEU:HD23	5:M:967:PHE:O	2.11	0.50
6:N:1047:LYS:HG2	6:N:1053:PHE:CZ	2.46	0.50
6:N:1363:LEU:H	6:N:1363:LEU:CD2	2.23	0.50
5:M:1041:GLU:OE1	6:N:1462:LEU:HB2	2.11	0.50
6:N:163:TYR:O	6:N:166:GLN:HG3	2.12	0.50
6:N:520:LEU:HD22	6:N:540:LEU:CD2	2.41	0.50
6:N:106:LYS:HB3	6:N:586:ARG:HD2	1.94	0.50
6:N:705:ALA:CB	6:N:706:PRO:HD3	2.41	0.50
6:N:962:GLN:HB3	6:N:966:GLU:OE1	2.11	0.50
5:C:52:PHE:O	5:C:54:ILE:N	2.45	0.50
5:C:674:VAL:HG12	5:C:990:GLY:O	2.11	0.50
5:C:95:TYR:HD2	5:C:114:PHE:HB3	1.77	0.50
6:D:1062:ARG:HG3	6:D:1062:ARG:HH11	1.75	0.50
6:D:1087:ARG:HG3	6:D:1237:THR:HG23	1.93	0.50
6:D:112:ILE:HG13	6:D:124:GLU:OE2	2.10	0.50
6:D:112:ILE:O	6:D:116:LEU:HB2	2.12	0.50
6:D:1145:TYR:HA	6:D:1171:VAL:HG21	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:477:LEU:HD11	6:D:495:ARG:HG2	1.93	0.50
6:D:96:ALA:HB2	6:D:555:LYS:HD2	1.94	0.50
7:E:13:VAL:HA	12:E:116:HOH:O	2.12	0.50
4:K:15:THR:HG22	12:K:829:HOH:O	2.11	0.50
4:K:179:PHE:HB2	4:K:195:LEU:CD1	2.42	0.50
5:M:343:GLN:HG2	5:M:385:PHE:HB2	1.93	0.50
5:M:496:ILE:HA	5:M:531:PHE:O	2.11	0.50
5:M:744:ARG:N	12:M:7095:HOH:O	2.45	0.50
6:N:1236:LEU:HD21	6:N:1361:VAL:H	1.75	0.50
6:N:133:ILE:HB	6:N:153:LEU:O	2.11	0.50
6:D:1297:GLU:C	6:N:52:PRO:HA	2.31	0.50
6:N:531:ASP:C	6:N:533:GLY:H	2.14	0.50
6:N:771:SER:OG	6:N:778:LEU:HD13	2.11	0.50
6:N:87:ARG:HB2	6:N:523:ASP:OD2	2.12	0.50
4:A:171:PHE:O	4:A:173:PRO:HD3	2.11	0.50
4:B:92:PRO:HA	4:B:146:ARG:CZ	2.41	0.50
5:C:216:GLU:OE1	5:C:217:LEU:HG	2.12	0.50
5:C:350:ARG:HH11	5:C:350:ARG:HG2	1.77	0.50
5:C:435:TYR:CE1	5:C:539:VAL:HG22	2.46	0.50
5:C:687:ALA:C	5:C:688:ILE:HD12	2.31	0.50
6:D:1205:TYR:CZ	6:D:1366:LYS:HD3	2.47	0.50
6:D:1440:PHE:CD2	6:D:1441:GLN:N	2.80	0.50
6:D:1442:ASN:OD1	6:D:1444:THR:HB	2.12	0.50
6:D:706:PRO:HG2	11:D:5999:APC:C2	2.41	0.50
5:C:1030:GLN:HB2	6:D:626:SER:HB2	1.93	0.50
6:D:664:LYS:HG2	12:D:9090:HOH:O	2.11	0.50
6:D:860:LEU:HA	6:D:877:PRO:HB2	1.94	0.50
6:D:912:LYS:HD2	6:D:913:ASP:OD2	2.12	0.50
7:E:25:LYS:O	7:E:28:GLN:HB2	2.10	0.50
4:K:48:ILE:HG23	4:K:213:GLN:OE1	2.11	0.50
4:L:104:GLU:HA	4:L:136:GLY:O	2.11	0.50
4:L:162:ILE:HG13	4:L:163:ASN:N	2.25	0.50
4:L:18:ARG:O	4:L:207:PRO:HD3	2.12	0.50
5:M:1018:GLN:HA	5:M:1018:GLN:OE1	2.11	0.50
5:M:218:VAL:HA	5:M:221:LEU:HD23	1.93	0.50
5:M:751:PRO:HG3	5:M:796:GLU:HA	1.93	0.50
5:M:971:LYS:HB3	5:M:988:VAL:CG1	2.42	0.50
6:N:1127:GLU:HB3	6:N:1133:ARG:CZ	2.41	0.50
6:N:493:ARG:CD	6:N:1390:LEU:HB2	2.41	0.50
5:M:1005:MET:SD	6:N:724:GLN:HA	2.52	0.50
1:X:18:DG:H5"	6:N:628:ARG:NH2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:155:LYS:HA	4:A:155:LYS:HE3	1.92	0.50
4:A:82:LEU:HD11	4:A:142:VAL:CG1	2.41	0.50
5:C:176:VAL:HG23	12:C:1232:HOH:O	2.12	0.50
5:C:290:LEU:HD21	12:C:1356:HOH:O	2.12	0.50
5:C:342:ASP:HA	5:C:345:ARG:CZ	2.41	0.50
5:C:119:PRO:HG2	5:C:386:PHE:CD2	2.47	0.50
5:C:47:ALA:O	5:C:50:GLU:HB3	2.11	0.50
5:C:639:GLN:HE21	5:C:639:GLN:N	2.10	0.50
5:C:690:ILE:HG23	5:C:852:ILE:HA	1.93	0.50
5:C:910:LYS:H	5:C:913:GLU:HG3	1.77	0.50
6:D:1465:ASN:HD21	6:D:1470:ARG:HD3	1.77	0.50
6:D:6:ARG:HA	6:D:1470:ARG:NH1	2.26	0.50
6:D:481:MET:SD	6:D:493:ARG:HB2	2.52	0.50
1:G:18:DG:H5'	1:G:18:DG:C8	2.46	0.50
4:L:143:ARG:NH2	4:L:158:ILE:HD12	2.26	0.50
4:L:80:LEU:HD12	4:L:83:LYS:NZ	2.27	0.50
5:M:328:LEU:HD22	5:M:433:THR:O	2.12	0.50
5:M:597:ALA:HB2	5:M:655:LEU:HD21	1.92	0.50
6:N:1281:VAL:HA	6:N:1293:PHE:O	2.12	0.50
6:N:1236:LEU:HD21	6:N:1361:VAL:CG2	2.42	0.50
7:O:51:LEU:HG	7:O:53:GLY:H	1.76	0.50
4:A:24:VAL:HG22	4:A:196:THR:CG2	2.41	0.50
5:C:601:GLY:O	5:C:648:ARG:HA	2.12	0.50
6:D:1102:THR:HG22	6:D:1222:GLY:CA	2.42	0.50
6:D:1369:GLU:HA	6:D:1372:VAL:HG12	1.93	0.50
6:D:1101:VAL:HG21	6:D:1424:VAL:HG23	1.94	0.50
6:D:762:GLN:NE2	7:E:20:THR:HG21	2.26	0.50
6:D:18:ILE:HG22	6:D:92:HIS:HB3	1.94	0.50
6:D:989:TYR:HA	6:D:992:ILE:HD12	1.92	0.50
1:G:14:DT:H5'	1:G:14:DT:C6	2.46	0.50
5:M:274:ARG:CB	5:M:285:LEU:HD13	2.41	0.50
5:M:428:ARG:NH1	5:M:450:GLY:C	2.65	0.50
5:M:474:VAL:HG23	5:M:478:VAL:O	2.12	0.50
5:M:703:ILE:CD1	5:M:703:ILE:H	2.15	0.50
5:M:756:VAL:HG23	5:M:825:VAL:HG21	1.93	0.50
6:N:820:GLU:HG3	6:N:836:VAL:CG1	2.40	0.50
4:B:201:THR:HG21	4:B:205:VAL:HG23	1.94	0.50
4:B:30:ARG:NH1	4:B:30:ARG:HG2	2.27	0.50
5:C:524:VAL:HG22	5:C:525:SER:H	1.77	0.50
6:D:1255:GLY:O	6:D:1258:ARG:N	2.44	0.50
6:D:1397:LYS:CE	6:D:1432:LYS:HZ1	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1435:LEU:HG	6:D:1467:ILE:HD13	1.94	0.50
6:D:510:GLU:OE2	6:D:510:GLU:N	2.44	0.50
6:D:562:ALA:C	6:D:567:ILE:HD11	2.32	0.50
5:M:118:ILE:HD12	5:M:118:ILE:O	2.12	0.50
5:M:21:ILE:O	5:M:25:SER:HB2	2.12	0.50
5:M:242:LEU:HD23	5:M:243:ARG:H	1.75	0.50
5:M:728:HIS:NE2	5:M:775:ARG:NH2	2.60	0.50
4:K:46:SER:HB3	5:M:856:GLU:CD	2.32	0.50
6:N:1115:THR:CG2	6:N:1151:ARG:HH21	2.23	0.50
6:N:1402:ALA:HB2	6:N:1415:VAL:CG2	2.41	0.50
6:N:1497:GLU:HB3	12:N:9257:HOH:O	2.11	0.50
6:N:31:THR:N	6:N:44:LEU:HD21	2.27	0.50
6:N:858:VAL:HG12	6:N:859:ASP:O	2.11	0.50
4:A:74:ASP:OD1	4:A:76:VAL:HB	2.12	0.49
5:C:185:LYS:HD3	5:C:190:LYS:HG2	1.94	0.49
5:C:678:PRO:O	6:D:943:THR:HA	2.12	0.49
5:C:890:LEU:HD21	5:C:901:TYR:CD1	2.47	0.49
5:C:913:GLU:O	5:C:916:GLU:HB3	2.12	0.49
5:C:950:LEU:HB3	5:C:952:LEU:HD22	1.94	0.49
6:D:1146:GLY:CA	6:D:1207:TYR:HB2	2.42	0.49
6:D:91:GLY:O	6:D:518:PRO:HA	2.12	0.49
2:H:13:C:OP1	5:C:452:ILE:HD13	2.11	0.49
4:K:197:LEU:CD2	4:K:199:ILE:HD11	2.42	0.49
4:L:57:TYR:CZ	4:L:161:ARG:HG2	2.46	0.49
5:M:285:LEU:HD12	12:M:7143:HOH:O	2.12	0.49
5:M:338:GLU:HA	5:M:341:THR:HG22	1.94	0.49
5:M:139:GLN:OE1	5:M:415:PRO:HD2	2.12	0.49
5:M:468:ARG:HE	5:M:487:THR:N	2.10	0.49
5:M:714:ASP:HB2	12:M:7055:HOH:O	2.12	0.49
6:N:957:PRO:CG	6:N:1007:VAL:HG22	2.42	0.49
6:N:1147:ARG:O	6:N:1165:TYR:HA	2.12	0.49
6:N:1346:ARG:HB2	6:N:1346:ARG:HH11	1.77	0.49
6:N:192:ALA:HB1	6:N:193:PRO:HD2	1.94	0.49
6:N:789:LEU:HD13	6:N:934:LEU:HD22	1.94	0.49
6:N:999:THR:HG22	12:N:9282:HOH:O	2.11	0.49
2:Y:15:C:O2'	2:Y:16:G:H5'	2.11	0.49
3:Z:9:DG:H2''	3:Z:10:DA:C8	2.47	0.49
4:A:41:ARG:HG3	4:A:41:ARG:HH11	1.76	0.49
4:B:109:VAL:HG12	4:B:129:ILE:HB	1.93	0.49
5:C:201:GLY:HA2	12:C:1283:HOH:O	2.11	0.49
5:C:617:ASP:CG	5:C:619:ARG:HE	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:904:PRO:CD	5:C:908:GLY:HA2	2.41	0.49
6:D:1184:GLN:HG2	12:D:9250:HOH:O	2.12	0.49
6:D:163:TYR:HB3	6:D:434:ARG:NH2	2.28	0.49
6:D:551:ASN:ND2	6:D:555:LYS:NZ	2.60	0.49
6:D:610:LYS:O	6:D:615:ARG:HG2	2.12	0.49
6:D:781:PRO:O	6:D:786:ILE:HD11	2.13	0.49
6:D:958:GLU:O	6:D:961:LYS:HG2	2.12	0.49
4:L:57:TYR:CE2	4:L:161:ARG:HG2	2.47	0.49
5:M:1088:LEU:CD2	5:M:1092:LEU:HD12	2.42	0.49
3:Z:6:DC:C3'	6:N:1266:ARG:NH2	2.68	0.49
6:N:598:ARG:HB3	6:N:598:ARG:HH11	1.76	0.49
5:M:1044:GLY:HA3	7:O:17:TYR:CD1	2.47	0.49
1:G:15:DC:H5''	5:C:1035:MET:SD	2.53	0.49
5:C:167:LYS:N	12:C:1362:HOH:O	2.46	0.49
5:C:861:LEU:HD13	5:C:865:THR:OG1	2.12	0.49
6:D:1312:LEU:HG	6:D:1327:ARG:CZ	2.41	0.49
6:D:1310:ARG:HG3	6:D:1327:ARG:HD3	1.94	0.49
6:D:1397:LYS:NZ	6:D:1432:LYS:NZ	2.59	0.49
6:D:1472:ILE:O	6:D:1477:GLY:HA3	2.13	0.49
6:D:14:SER:OG	6:D:17:LYS:HB2	2.12	0.49
6:D:190:GLU:HG2	6:D:196:VAL:HG22	1.94	0.49
6:D:54:LYS:CG	6:D:57:GLU:HB3	2.42	0.49
6:D:615:ARG:HG3	6:D:619:LEU:HG	1.94	0.49
7:E:54:LEU:HA	7:E:58:PRO:CG	2.43	0.49
4:K:111:ALA:O	4:K:114:PHE:HD1	1.96	0.49
4:K:39:PRO:O	4:K:43:ILE:HG12	2.12	0.49
4:L:20:TYR:OH	4:L:198:ARG:HD3	2.12	0.49
4:L:99:LEU:HD13	4:L:144:VAL:CG2	2.42	0.49
5:M:195:LEU:HD21	5:M:238:LEU:HG	1.93	0.49
5:M:374:ASN:O	5:M:377:PRO:HD2	2.11	0.49
6:N:107:ASP:O	6:N:108:VAL:C	2.50	0.49
6:N:1353:GLN:HE21	6:N:1353:GLN:HA	1.77	0.49
6:N:1103:HIS:CD2	6:N:1463:LYS:H	2.29	0.49
6:N:777:PRO:O	6:N:780:LYS:HE3	2.12	0.49
6:N:900:ILE:HG21	12:N:9373:HOH:O	2.12	0.49
6:N:959:GLU:HA	6:N:962:GLN:OE1	2.12	0.49
2:Y:7:G:C8	2:Y:7:G:C5'	2.95	0.49
5:C:1023:GLY:HA2	12:C:1137:HOH:O	2.11	0.49
5:C:1066:ALA:O	5:C:1070:ILE:HG13	2.11	0.49
5:C:572:ILE:HG13	5:C:573:ARG:N	2.27	0.49
6:D:1093:TYR:CZ	6:D:1097:LYS:HE3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:403:PHE:CD2	6:D:444:VAL:HG23	2.48	0.49
6:D:5:VAL:CG2	6:D:1468:LEU:HD21	2.42	0.49
6:D:6:ARG:C	6:D:1459:LEU:HD12	2.32	0.49
6:D:764:LEU:HD12	6:D:766:ALA:N	2.28	0.49
7:E:34:GLY:HA2	12:E:117:HOH:O	2.13	0.49
7:E:4:PRO:HA	12:E:128:HOH:O	2.12	0.49
5:M:139:GLN:HE21	5:M:334:ARG:CD	2.26	0.49
5:M:218:VAL:HG22	5:M:221:LEU:CD2	2.43	0.49
5:M:35:PRO:HB2	5:M:37:GLU:HG3	1.94	0.49
5:M:414:GLY:O	5:M:416:GLY:N	2.45	0.49
6:N:1129:THR:HG23	6:N:1130:ARG:N	2.25	0.49
6:N:133:ILE:HA	6:N:456:MET:HA	1.95	0.49
6:N:10:ILE:HD12	6:N:1450:ALA:HB3	1.95	0.49
6:N:190:GLU:HG2	6:N:196:VAL:HG22	1.94	0.49
6:N:23:TYR:HB3	12:N:9497:HOH:O	2.13	0.49
6:N:470:LEU:HG	12:N:9059:HOH:O	2.12	0.49
6:N:694:VAL:HG22	12:N:9248:HOH:O	2.12	0.49
4:B:159:LYS:NZ	4:B:159:LYS:H	2.10	0.49
5:C:442:GLU:HG2	5:C:454:SER:OG	2.12	0.49
5:C:632:ASN:HB2	5:C:633:GLN:HE21	1.77	0.49
5:C:666:LEU:HG	5:C:668:LEU:HD11	1.94	0.49
6:D:1080:GLY:O	6:D:1084:THR:HG23	2.11	0.49
6:D:115:LEU:O	6:D:115:LEU:HD12	2.12	0.49
6:D:919:PHE:HE2	6:D:1212:ALA:HB2	1.78	0.49
6:D:1097:LYS:HG2	6:D:1440:PHE:HE1	1.77	0.49
4:K:1:MET:O	4:K:6:LEU:HD22	2.11	0.49
4:L:75:VAL:O	4:L:79:ILE:HG23	2.12	0.49
5:M:1110:ASP:HB2	12:M:7031:HOH:O	2.11	0.49
5:M:217:LEU:HD11	5:M:314:THR:OG1	2.12	0.49
5:M:392:SER:C	5:M:393:GLN:HG3	2.33	0.49
5:M:689:VAL:HG23	5:M:870:ILE:O	2.13	0.49
5:M:853:LEU:HD22	5:M:858:MET:HB3	1.94	0.49
6:N:133:ILE:O	6:N:152:LEU:CA	2.61	0.49
6:N:702:LEU:HD23	6:N:745:MET:HE1	1.93	0.49
6:N:827:ILE:O	6:N:837:GLY:HA3	2.12	0.49
6:N:1213:ARG:NH2	7:O:10:PHE:HB3	2.19	0.49
4:B:206:THR:HG23	4:B:209:GLU:H	1.77	0.49
5:C:1005:MET:SD	6:D:724:GLN:HA	2.52	0.49
5:C:185:LYS:CD	5:C:190:LYS:HG2	2.42	0.49
5:C:254:VAL:HA	5:C:257:VAL:HG23	1.94	0.49
5:C:260:LEU:HD12	5:C:260:LEU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:139:GLN:O	5:C:333:ILE:HA	2.13	0.49
5:C:517:ARG:HH22	5:C:528:GLU:CD	2.16	0.49
5:C:597:ALA:CB	5:C:655:LEU:HD21	2.38	0.49
5:C:713:ARG:O	5:C:720:GLU:HG3	2.13	0.49
5:C:860:HIS:CD2	5:C:975:TYR:HB2	2.48	0.49
6:D:1275:SER:HB2	6:D:1294:VAL:HG11	1.95	0.49
6:D:165:LYS:HG2	6:D:199:LEU:CB	2.43	0.49
6:D:37:LEU:HD22	6:D:535:PHE:CZ	2.46	0.49
5:C:1008:ARG:NH1	6:D:624:ASP:OD2	2.45	0.49
6:D:868:TYR:CG	6:D:869:MET:N	2.80	0.49
6:D:970:LYS:HA	6:D:973:GLN:NE2	2.26	0.49
4:K:42:ARG:HH12	4:L:34:VAL:CG1	2.26	0.49
5:M:1008:ARG:HG3	5:M:1028:GLY:N	2.24	0.49
5:M:1092:LEU:HA	5:M:1095:LEU:CD1	2.42	0.49
5:M:1108:PRO:HG3	12:M:7061:HOH:O	2.12	0.49
5:M:626:ARG:H	5:M:639:GLN:NE2	1.95	0.49
5:M:798:GLY:H	5:M:827:VAL:CG1	2.25	0.49
6:N:1364:HIS:CE1	6:N:1366:LYS:HG3	2.48	0.49
6:N:136:ASP:HB3	6:N:137:PRO:CD	2.38	0.49
6:N:415:VAL:HG13	6:N:419:ASP:CB	2.43	0.49
6:N:598:ARG:HB3	6:N:598:ARG:NH1	2.28	0.49
6:N:829:VAL:O	6:N:835:SER:HB2	2.11	0.49
4:A:58:ILE:HG21	4:A:68:ILE:CD1	2.40	0.49
5:C:244:PRO:HD2	5:C:245:GLY:N	2.19	0.49
5:C:517:ARG:HH11	5:C:522:VAL:HG11	1.77	0.49
6:D:185:VAL:HG22	6:D:189:GLN:NE2	2.27	0.49
6:D:737:ASN:ND2	11:D:5999:APC:O3'	2.46	0.49
6:D:660:LYS:CG	6:D:694:VAL:HG22	2.42	0.49
6:D:875:THR:HG23	6:D:879:ARG:HE	1.78	0.49
4:K:42:ARG:HH12	4:L:34:VAL:CB	2.25	0.49
5:M:205:GLU:HA	5:M:209:ARG:NH2	2.27	0.49
5:M:546:LEU:C	5:M:581:THR:HG21	2.33	0.49
5:M:551:GLU:HG2	5:M:906:PHE:HA	1.94	0.49
5:M:516:ARG:CD	6:N:1068:LEU:HD13	2.43	0.49
6:N:162:ARG:HH22	6:N:414:ARG:CZ	2.25	0.49
6:N:201:GLY:HA3	6:N:396:VAL:O	2.13	0.49
6:N:433:GLY:HA2	6:N:449:SER:C	2.33	0.49
6:N:90:MET:CE	6:N:521:PRO:HD3	2.42	0.49
6:N:52:PRO:HG2	6:N:80:VAL:HG13	1.94	0.49
6:N:525:ARG:HG2	6:N:541:ASN:ND2	2.26	0.49
6:N:575:GLN:HE21	6:N:575:GLN:CA	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:619:LEU:HB2	6:N:621:LYS:HD3	1.94	0.49
6:N:814:ALA:HB2	12:N:9131:HOH:O	2.13	0.49
4:A:156:HIS:CD2	4:A:157:GLY:H	2.30	0.49
6:D:169:TYR:CE1	6:D:197:SER:HA	2.47	0.49
6:D:591:VAL:HB	12:D:9428:HOH:O	2.11	0.49
6:D:700:VAL:HG22	6:D:718:PRO:HG3	1.94	0.49
6:D:764:LEU:CD1	6:D:766:ALA:HB3	2.43	0.49
6:D:781:PRO:HG2	6:D:911:LEU:HD23	1.95	0.49
5:M:474:VAL:HG23	5:M:478:VAL:C	2.32	0.49
5:M:59:LYS:HG3	12:M:7296:HOH:O	2.13	0.49
5:M:676:ILE:CG2	5:M:676:ILE:O	2.60	0.49
5:M:838:LYS:HD2	5:M:838:LYS:H	1.78	0.49
6:N:1109:GLU:HG2	6:N:1202:GLN:H	1.77	0.49
6:N:1114:THR:HG21	6:N:1195:GLN:HB2	1.94	0.49
6:N:119:SER:H	6:N:123:LEU:HB2	1.77	0.49
6:N:1253:THR:HG22	6:N:1358:ALA:HB1	1.95	0.49
6:N:864:VAL:HG12	6:N:865:THR:H	1.77	0.49
4:A:88:ARG:HB2	4:A:123:MET:HE3	1.95	0.49
4:B:99:LEU:HD22	4:B:144:VAL:CG2	2.40	0.49
5:C:100:LEU:HD12	5:C:101:ILE:N	2.28	0.49
5:C:174:LEU:HG	5:C:184:MET:SD	2.53	0.49
5:C:335:THR:O	5:C:339:LEU:HD12	2.13	0.49
5:C:89:THR:O	5:C:91:GLN:HG3	2.13	0.49
6:D:1086:LEU:HB3	6:D:1087:ARG:NH1	2.28	0.49
6:D:396:VAL:HG23	6:D:398:ALA:HB3	1.95	0.49
6:D:181:ASP:O	6:D:441:ARG:HD3	2.13	0.49
4:K:44:LEU:HA	4:K:48:ILE:CD1	2.43	0.49
4:L:72:LYS:HB2	12:L:1676:HOH:O	2.12	0.49
5:M:328:LEU:HD21	5:M:434:HIS:HA	1.94	0.49
5:M:549:PHE:HB3	5:M:552:HIS:CD2	2.48	0.49
5:M:440:PRO:HA	6:N:1078:ARG:NH2	2.28	0.49
6:N:129:PHE:HZ	12:N:9171:HOH:O	1.95	0.49
6:N:704:ARG:HB2	6:N:736:PHE:HD2	1.77	0.49
6:N:845:ASN:HB3	6:N:848:GLU:HG3	1.93	0.49
7:O:54:LEU:HD21	12:O:1249:HOH:O	2.12	0.49
4:A:43:ILE:HG21	4:A:214:ALA:HA	1.95	0.49
4:B:23:PHE:O	4:B:196:THR:HA	2.12	0.49
5:C:718:GLY:HA2	12:C:1333:HOH:O	2.12	0.49
5:C:732:ALA:HA	5:C:735:ARG:NH1	2.28	0.49
5:C:886:LEU:HD13	6:D:951:ILE:HG13	1.95	0.49
6:D:1111:ASP:CB	6:D:1203:LYS:HE3	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:19:ARG:O	6:D:22:SER:HB3	2.13	0.49
6:D:465:LEU:HD21	6:D:509:PRO:O	2.12	0.49
6:D:47:GLU:OE2	6:D:53:ILE:HB	2.13	0.49
1:G:16:DG:OP1	6:D:621:LYS:HE2	2.13	0.49
7:E:95:VAL:HG11	12:E:117:HOH:O	2.13	0.49
2:H:2:A:H2'	2:H:3:G:O5'	2.13	0.49
2:H:7:G:H5''	2:H:7:G:C8	2.47	0.49
4:L:173:PRO:HA	4:L:202:ASP:OD2	2.13	0.49
5:M:103:LYS:HB2	12:M:7017:HOH:O	2.12	0.49
5:M:143:SER:O	5:M:145:GLY:N	2.46	0.49
5:M:244:PRO:HD2	5:M:245:GLY:H	1.77	0.49
5:M:272:ALA:HB1	12:M:7209:HOH:O	2.13	0.49
5:M:517:ARG:CZ	5:M:522:VAL:HG11	2.43	0.49
5:M:744:ARG:HG3	5:M:747:ALA:HB2	1.94	0.49
5:M:750:LYS:HB2	6:N:681:ARG:HD3	1.95	0.49
5:M:780:GLU:HG3	5:M:781:LYS:N	2.26	0.49
5:M:877:PRO:HG2	5:M:878:SER:H	1.77	0.49
6:N:1231:GLU:OE1	6:N:1232:PRO:HD3	2.13	0.49
6:N:1389:LEU:CG	6:N:1390:LEU:HD23	2.40	0.49
6:N:19:ARG:HA	6:N:92:HIS:ND1	2.28	0.49
6:N:26:VAL:N	12:N:9328:HOH:O	2.46	0.49
5:M:1071:ILE:O	6:N:659:LYS:HB2	2.13	0.49
6:N:860:LEU:HA	6:N:877:PRO:HB2	1.95	0.49
5:C:433:THR:CG2	5:C:488:ALA:HB1	2.43	0.48
5:C:598:GLU:O	5:C:651:LYS:HG3	2.13	0.48
5:C:954:THR:HG22	12:C:1155:HOH:O	2.12	0.48
5:C:971:LYS:HB3	5:C:988:VAL:HG12	1.94	0.48
5:C:569:VAL:HG11	5:C:996:LYS:HZ1	1.76	0.48
6:D:1171:VAL:O	6:D:1175:ILE:HG13	2.13	0.48
6:D:41:ARG:HD3	6:D:43:GLY:H	1.78	0.48
6:D:181:ASP:OD2	6:D:441:ARG:HG2	2.13	0.48
6:D:654:LYS:HB3	6:D:655:PRO:HD3	1.95	0.48
6:D:74:GLU:HG3	12:D:9216:HOH:O	2.13	0.48
6:D:787:LEU:HD12	6:D:787:LEU:O	2.13	0.48
5:M:196:LEU:O	5:M:199:VAL:HB	2.13	0.48
5:M:749:VAL:HG23	5:M:749:VAL:O	2.13	0.48
5:M:432:ARG:CZ	6:N:1048:PRO:HD2	2.43	0.48
6:N:618:LEU:HD21	6:N:1439:SER:OG	2.13	0.48
5:M:817:PRO:O	6:N:532:GLY:HA2	2.13	0.48
6:N:57:GLU:HG3	6:N:64:LYS:CG	2.42	0.48
6:N:758:GLU:HA	7:O:20:THR:OG1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:191:PHE:CZ	5:C:196:LEU:HD12	2.48	0.48
5:C:21:ILE:HG22	5:C:335:THR:CG2	2.43	0.48
5:C:602:GLU:OE1	5:C:648:ARG:HB3	2.12	0.48
5:C:610:ARG:NH2	12:C:1504:HOH:O	2.44	0.48
5:C:599:GLU:HG3	5:C:651:LYS:HE3	1.95	0.48
5:C:776:SER:HA	5:C:780:GLU:HB3	1.94	0.48
5:C:909:ALA:HA	5:C:913:GLU:OE1	2.13	0.48
6:D:1011:PHE:CD2	6:D:1021:TYR:HB2	2.48	0.48
6:D:1176:LYS:O	6:D:1179:GLU:HB3	2.12	0.48
6:D:1237:THR:CG2	6:D:1256:LEU:HD22	2.43	0.48
6:D:1281:VAL:O	6:D:1282:ARG:HD3	2.13	0.48
6:D:1277:ILE:HG13	6:D:1301:LYS:HB2	1.94	0.48
6:D:1197:ARG:HB3	6:D:1396:GLU:HG3	1.95	0.48
6:D:1498:ALA:HB1	7:E:84:ARG:HH21	1.76	0.48
6:D:432:TYR:HB3	6:D:450:TYR:CB	2.37	0.48
6:D:125:GLN:NE2	6:D:587:ARG:NE	2.57	0.48
6:D:656:PHE:HB3	6:D:694:VAL:HG11	1.95	0.48
6:D:704:ARG:CD	6:D:705:ALA:H	2.26	0.48
6:D:51:GLY:N	6:D:86:ARG:HG3	2.28	0.48
4:K:13:VAL:HG22	4:K:23:PHE:CD1	2.48	0.48
4:L:101:LEU:HD11	4:L:113:ASP:HB2	1.94	0.48
4:L:124:ASN:N	4:L:125:PRO:HD3	2.28	0.48
5:M:1096:ALA:C	6:N:13:ALA:HB2	2.32	0.48
5:M:302:VAL:C	5:M:305:PRO:HD2	2.34	0.48
6:N:1166:LEU:HD23	6:N:1166:LEU:N	2.24	0.48
6:N:1206:GLY:HA3	6:N:1366:LYS:NZ	2.28	0.48
6:N:1275:SER:HA	6:N:1294:VAL:HG21	1.94	0.48
6:N:1314:LYS:HE3	12:N:9483:HOH:O	2.12	0.48
6:N:1429:LEU:HG	6:N:1441:GLN:HG2	1.94	0.48
6:D:1297:GLU:HB3	6:N:52:PRO:N	2.28	0.48
6:N:699:VAL:HG22	6:N:756:GLN:NE2	2.28	0.48
6:N:764:LEU:HD21	6:N:767:HIS:CE1	2.48	0.48
6:N:963:TYR:N	6:N:963:TYR:CD1	2.81	0.48
5:C:1093:GLN:HE22	5:C:1098:ASP:HA	1.78	0.48
5:C:1105:LYS:O	5:C:1107:ASN:N	2.46	0.48
5:C:874:LEU:HA	6:D:1023:MET:SD	2.53	0.48
6:D:1292:VAL:CG2	6:D:1325:LEU:HD23	2.44	0.48
6:D:1205:TYR:CE1	6:D:1366:LYS:HD3	2.48	0.48
6:D:701:LEU:C	6:D:702:LEU:HD12	2.33	0.48
6:D:783:ARG:HA	6:D:1028:ALA:CA	2.41	0.48
5:M:146:VAL:HG13	5:M:161:SER:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:324:ASP:OD2	5:M:431:HIS:HE1	1.96	0.48
5:M:517:ARG:HD3	5:M:522:VAL:HG21	1.96	0.48
5:M:747:ALA:C	5:M:799:ILE:HG22	2.32	0.48
5:M:861:LEU:HD23	5:M:862:PRO:N	2.28	0.48
6:N:1256:LEU:HB3	6:N:1257:PRO:HD3	1.96	0.48
6:N:1292:VAL:O	6:N:1303:TYR:HB2	2.13	0.48
6:N:493:ARG:HD3	6:N:1390:LEU:HB2	1.95	0.48
6:D:1300:SER:OG	6:N:59:ALA:HB3	2.12	0.48
6:N:662:GLU:OE1	6:N:670:VAL:HG22	2.14	0.48
6:N:630:VAL:HA	6:N:744:GLN:HG2	1.93	0.48
6:N:767:HIS:CE1	7:O:2:ALA:HB1	2.47	0.48
6:N:639:LEU:HD21	6:N:928:ALA:HB1	1.94	0.48
1:X:23:DG:OP1	5:M:388:ARG:NH1	2.47	0.48
4:A:162:ILE:HD12	4:A:163:ASN:ND2	2.28	0.48
5:C:1003:ASP:CG	5:C:1004:LYS:N	2.66	0.48
5:C:112:GLU:OE1	5:C:112:GLU:HA	2.12	0.48
5:C:19:THR:O	5:C:23:VAL:HG23	2.13	0.48
5:C:57:GLU:O	5:C:62:GLY:HA3	2.13	0.48
5:C:432:ARG:HH22	6:D:1047:LYS:HD3	1.78	0.48
6:D:1197:ARG:HD3	6:D:1396:GLU:OE1	2.13	0.48
5:C:1046:ALA:HB1	6:D:1471:LEU:HD11	1.96	0.48
6:D:165:LYS:CG	6:D:199:LEU:HD22	2.43	0.48
5:M:1019:GLN:HE22	6:N:616:GLN:HG3	1.78	0.48
5:M:42:VAL:HG12	5:M:43:GLY:H	1.78	0.48
5:M:612:VAL:HG22	5:M:622:GLU:HA	1.93	0.48
6:N:1085:ALA:C	8:N:8001:STD:H32	2.33	0.48
6:N:28:LYS:HD3	6:N:41:ARG:NH1	2.28	0.48
6:N:453:ASP:N	6:N:453:ASP:OD2	2.45	0.48
6:N:486:ARG:CA	6:N:489:ARG:HG2	2.42	0.48
6:N:584:ASN:CG	6:N:590:PRO:HD2	2.34	0.48
7:O:9:LEU:HD13	7:O:19:LEU:HD11	1.95	0.48
1:X:18:DG:H5'	1:X:18:DG:C8	2.48	0.48
5:C:217:LEU:CD1	5:C:311:PHE:HA	2.43	0.48
5:C:545:ASN:HD22	5:C:583:LEU:HD21	1.78	0.48
6:D:1277:ILE:O	6:D:1294:VAL:HG11	2.14	0.48
6:D:1194:CYS:HB3	6:D:1373:ARG:NH2	2.28	0.48
6:D:737:ASN:ND2	6:D:737:ASN:O	2.46	0.48
6:D:792:ILE:O	6:D:878:GLY:HA3	2.13	0.48
7:E:70:THR:CB	7:E:72:ARG:HE	2.26	0.48
4:K:86:VAL:HG12	4:K:124:ASN:HB2	1.95	0.48
5:M:303:PHE:HA	12:M:7156:HOH:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:127:PHE:HE1	5:M:386:PHE:HE2	1.61	0.48
5:M:492:ASP:HB3	5:M:518:LYS:HG3	1.95	0.48
5:M:668:LEU:H	5:M:668:LEU:HD12	1.78	0.48
5:M:876:VAL:N	5:M:877:PRO:HD2	2.29	0.48
6:N:721:VAL:HB	12:N:9034:HOH:O	2.14	0.48
7:O:39:VAL:HG22	7:O:67:GLU:OE2	2.13	0.48
4:A:141:GLU:HG3	4:A:161:ARG:NH1	2.29	0.48
5:C:1030:GLN:HE22	6:D:628:ARG:HD3	1.78	0.48
5:C:26:TYR:HE1	5:C:340:MET:HG3	1.79	0.48
5:C:334:ARG:NH1	5:C:418:LEU:HD11	2.29	0.48
5:C:892:LEU:HD11	5:C:967:PHE:CZ	2.48	0.48
6:D:1105:ILE:HD11	6:D:1374:GLN:NE2	2.28	0.48
6:D:1492:LEU:HD13	6:D:1492:LEU:O	2.14	0.48
6:D:477:LEU:HD11	6:D:495:ARG:HD3	1.96	0.48
6:D:117:ASP:CB	6:D:495:ARG:HH21	2.27	0.48
6:D:23:TYR:O	6:D:49:ILE:HG23	2.14	0.48
6:D:867:ARG:HD2	6:D:867:ARG:C	2.33	0.48
5:M:380:ALA:O	5:M:384:GLU:HB2	2.13	0.48
5:M:516:ARG:HG3	6:N:1068:LEU:CD1	2.43	0.48
6:N:1090:ASP:HB3	6:N:1256:LEU:HD23	1.94	0.48
6:N:112:ILE:HG12	6:N:128:TYR:OH	2.14	0.48
6:N:137:PRO:HD2	6:N:453:ASP:OD1	2.14	0.48
6:N:782:SER:HA	12:N:9058:HOH:O	2.13	0.48
6:N:1216:SER:HB3	7:O:16:LYS:H	1.77	0.48
4:B:158:ILE:HG22	12:B:343:HOH:O	2.13	0.48
5:C:115:LEU:HB2	12:C:1459:HOH:O	2.12	0.48
5:C:175:GLU:O	5:C:183:SER:N	2.42	0.48
5:C:405:ARG:HD2	5:C:543:ASN:ND2	2.29	0.48
5:C:562:SER:HA	5:C:565:GLN:OE1	2.13	0.48
6:D:955:VAL:N	6:D:1039:CYS:SG	2.87	0.48
6:D:1047:LYS:HG2	6:D:1053:PHE:CE1	2.49	0.48
6:D:1094:LEU:HG	6:D:1098:LEU:HD13	1.95	0.48
6:D:1183:ILE:O	6:D:1183:ILE:HD12	2.13	0.48
6:D:567:ILE:HG22	6:D:571:LYS:HZ1	1.75	0.48
6:D:917:GLN:NE2	6:D:921:ARG:HE	2.10	0.48
4:K:177:VAL:O	5:M:864:GLY:HA3	2.12	0.48
4:L:182:GLU:OE1	4:L:194:LYS:HD3	2.13	0.48
12:K:2157:HOH:O	4:L:215:VAL:HG21	2.14	0.48
4:L:87:VAL:HG21	4:L:144:VAL:CG1	2.38	0.48
5:M:1101:THR:OG1	5:M:1109:VAL:HG13	2.14	0.48
5:M:130:ASN:HD21	5:M:383:ARG:HH22	1.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:219:GLN:HG2	12:M:7197:HOH:O	2.13	0.48
5:M:244:PRO:HG2	5:M:246:ASP:OD2	2.14	0.48
6:N:1281:VAL:HB	6:N:1313:VAL:CG2	2.44	0.48
4:A:24:VAL:HG13	4:A:196:THR:HG22	1.95	0.48
5:C:139:GLN:HE22	5:C:415:PRO:CD	2.25	0.48
5:C:150:PRO:HA	5:C:158:TYR:HB3	1.94	0.48
5:C:18:LEU:HD22	5:C:404:LEU:HD21	1.94	0.48
5:C:327:HIS:HA	5:C:431:HIS:CD2	2.49	0.48
5:C:110:GLU:N	5:C:368:THR:HG21	2.23	0.48
5:C:564:MET:HE3	5:C:840:ALA:HB3	1.96	0.48
6:D:1003:VAL:O	6:D:1006:ALA:HB3	2.13	0.48
6:D:135:LEU:HD13	6:D:148:GLU:HB2	1.94	0.48
6:D:36:THR:O	6:D:38:LYS:N	2.46	0.48
6:D:62:LYS:HG3	12:D:9344:HOH:O	2.14	0.48
2:H:6:U:O5'	2:H:6:U:H6	1.96	0.48
4:K:53:VAL:HG21	4:K:82:LEU:HB3	1.96	0.48
4:L:25:LEU:O	4:L:25:LEU:HD23	2.14	0.48
5:M:523:ILE:HG23	5:M:523:ILE:O	2.14	0.48
5:M:550:LEU:HG	6:N:1070:TYR:CE1	2.48	0.48
5:M:553:ASP:HA	5:M:881:ASN:HA	1.95	0.48
6:N:1135:ARG:HB3	6:N:1140:ILE:HD11	1.94	0.48
6:N:400:VAL:HG22	6:N:443:VAL:CG2	2.44	0.48
6:N:699:VAL:HG22	6:N:756:GLN:HE22	1.77	0.48
6:N:983:LEU:HA	6:N:987:GLU:OE2	2.13	0.48
5:C:191:PHE:CE2	5:C:196:LEU:HB2	2.49	0.48
5:C:56:GLU:HA	12:C:1329:HOH:O	2.12	0.48
5:C:745:ILE:N	5:C:745:ILE:HD12	2.29	0.48
5:C:881:ASN:N	5:C:881:ASN:ND2	2.60	0.48
6:D:1209:LEU:HD23	6:D:1211:MET:N	2.23	0.48
6:D:1284:GLU:HG3	6:N:62:LYS:HE2	1.96	0.48
6:D:131:LYS:O	6:D:132:TYR:CG	2.67	0.48
6:D:551:ASN:HA	6:D:574:LEU:HD11	1.95	0.48
6:D:682:ASP:OD1	6:D:682:ASP:N	2.45	0.48
4:K:97:VAL:O	4:K:144:VAL:HG23	2.13	0.48
4:K:14:ARG:HH22	4:K:24:VAL:HG21	1.76	0.48
1:X:16:DG:H3'	5:M:1031:ARG:HD2	1.94	0.48
5:M:274:ARG:HD2	5:M:285:LEU:HB3	1.96	0.48
5:M:142:ARG:CD	5:M:325:ILE:HG23	2.44	0.48
5:M:442:GLU:HG2	5:M:454:SER:CB	2.43	0.48
5:M:475:VAL:HB	12:M:7304:HOH:O	2.13	0.48
5:M:578:VAL:HG23	5:M:579:VAL:HG12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:859:PRO:O	5:M:867:VAL:HG22	2.14	0.48
6:N:1403:LEU:O	6:N:1407:LEU:HB2	2.14	0.48
6:N:1499:ARG:HB3	12:N:9215:HOH:O	2.13	0.48
6:N:880:ILE:HD13	12:N:9216:HOH:O	2.14	0.48
6:N:91:GLY:HA3	12:N:9328:HOH:O	2.13	0.48
6:N:971:LEU:HD12	6:N:971:LEU:O	2.14	0.48
4:A:23:PHE:HE2	4:A:199:ILE:HD12	1.78	0.48
5:C:139:GLN:CD	5:C:415:PRO:HD2	2.34	0.48
5:C:328:LEU:HD13	5:C:433:THR:CB	2.42	0.48
5:C:137:VAL:HG13	5:C:393:GLN:HE22	1.78	0.48
5:C:39:ARG:HA	12:C:1121:HOH:O	2.14	0.48
5:C:408:ARG:CZ	5:C:455:LEU:HG	2.43	0.48
5:C:42:VAL:HG12	5:C:43:GLY:N	2.28	0.48
5:C:575:GLN:HB2	5:C:670:GLN:CG	2.43	0.48
5:C:577:PRO:HD2	5:C:580:MET:HG2	1.96	0.48
5:C:861:LEU:HG	5:C:862:PRO:HD2	1.95	0.48
5:C:5:ARG:NH1	5:C:902:ILE:HD13	2.29	0.48
6:D:1102:THR:HG22	6:D:1102:THR:O	2.14	0.48
6:D:1122:LEU:HD13	6:D:1178:ALA:HB2	1.96	0.48
6:D:481:MET:O	6:D:489:ARG:HB2	2.14	0.48
6:D:814:ALA:HB1	6:D:818:ARG:NE	2.29	0.48
4:K:112:ARG:HE	4:K:125:PRO:CB	2.26	0.48
4:K:44:LEU:HD23	4:K:48:ILE:CD1	2.42	0.48
5:M:1000:MET:HB3	5:M:1002:GLU:HG2	1.95	0.48
5:M:1054:THR:HG22	5:M:1059:ASP:CB	2.33	0.48
2:Y:12:G:H1'	5:M:393:GLN:HG2	1.96	0.48
6:N:1106:VAL:HG11	6:N:1474:ALA:CB	2.42	0.48
6:N:1253:THR:HG21	6:N:1358:ALA:HB1	1.95	0.48
6:N:1191:PRO:O	6:N:1373:ARG:HD2	2.14	0.48
6:N:454:ALA:HB2	12:N:9025:HOH:O	2.14	0.48
6:D:1299:PHE:HA	6:N:59:ALA:HA	1.96	0.48
4:A:11:PHE:O	4:B:228:PRO:HA	2.14	0.47
4:A:99:LEU:HD21	4:A:122:ILE:HD11	1.96	0.47
4:A:191:ASP:O	4:A:192:LEU:HG	2.14	0.47
4:A:24:VAL:HG22	4:A:196:THR:HG22	1.95	0.47
4:A:5:LYS:O	4:A:8:ALA:HB2	2.14	0.47
4:B:170:VAL:HG11	6:D:848:GLU:OE2	2.14	0.47
5:C:21:ILE:O	5:C:25:SER:HB2	2.13	0.47
5:C:697:ARG:HD2	5:C:699:PHE:CE1	2.49	0.47
5:C:683:ASN:HB2	5:C:872:ASN:HB2	1.95	0.47
5:C:886:LEU:HA	12:C:1179:HOH:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:579:VAL:CG1	5:C:887:GLU:HG3	2.41	0.47
6:D:101:HIS:HB3	6:D:104:PHE:HD1	1.79	0.47
6:D:1061:PHE:CE1	6:D:1065:LEU:HD22	2.49	0.47
6:D:119:SER:N	6:D:123:LEU:HD22	2.27	0.47
6:D:1238:MET:O	6:D:1242:HIS:ND1	2.47	0.47
6:D:134:VAL:HG21	6:D:463:GLN:HB2	1.96	0.47
6:D:28:LYS:O	6:D:43:GLY:HA2	2.14	0.47
6:D:834:THR:HG22	6:D:874:GLU:OE1	2.14	0.47
5:M:351:LEU:HD22	12:M:7272:HOH:O	2.13	0.47
5:M:879:ARG:HD3	12:M:7263:HOH:O	2.13	0.47
6:N:1031:ASN:HD22	6:N:1032:PRO:HD2	1.79	0.47
6:N:1332:PRO:HB2	6:N:1421:LEU:HD21	1.96	0.47
6:N:54:LYS:HG2	6:N:57:GLU:OE1	2.13	0.47
7:O:29:GLN:HB2	7:O:33:HIS:CD2	2.48	0.47
2:Y:12:G:C5'	2:Y:12:G:C8	2.91	0.47
4:A:103:ALA:HB2	12:A:344:HOH:O	2.14	0.47
5:C:194:VAL:HG11	5:C:204:GLN:NE2	2.29	0.47
5:C:211:LEU:HD13	5:C:308:ARG:CG	2.44	0.47
6:D:956:ILE:HG12	6:D:1039:CYS:O	2.14	0.47
6:D:1353:GLN:HB3	6:D:1357:ARG:NE	2.29	0.47
6:D:702:LEU:HD12	6:D:747:VAL:HG23	1.96	0.47
6:D:882:PHE:O	6:D:886:VAL:HG23	2.15	0.47
4:K:109:VAL:CG2	4:K:132:LEU:HD13	2.44	0.47
5:M:89:THR:HA	5:M:129:ILE:O	2.14	0.47
5:M:142:ARG:HD3	5:M:325:ILE:HG23	1.95	0.47
5:M:405:ARG:HD2	5:M:442:GLU:OE1	2.13	0.47
5:M:64:LEU:HD12	5:M:65:VAL:N	2.29	0.47
5:M:577:PRO:HA	5:M:671:ASN:HD21	1.80	0.47
6:N:1273:VAL:HG22	6:N:1326:THR:HG1	1.80	0.47
6:N:1232:PRO:CB	6:N:1361:VAL:HG21	2.35	0.47
6:N:10:ILE:HD11	6:N:1434:TRP:NE1	2.29	0.47
6:N:459:GLU:O	6:N:463:GLN:HG2	2.13	0.47
6:N:483:HIS:ND1	6:N:483:HIS:N	2.62	0.47
1:X:17:DC:O3'	6:N:628:ARG:NH2	2.47	0.47
6:N:793:THR:HB	6:N:879:ARG:HD3	1.96	0.47
6:N:893:GLU:O	6:N:896:ALA:HB3	2.14	0.47
3:Z:4:DC:H2"	3:Z:5:DG:O5'	2.14	0.47
4:A:47:SER:CB	4:A:217:ILE:HD13	2.44	0.47
4:A:226:SER:O	4:A:228:PRO:HD3	2.14	0.47
5:C:1044:GLY:HA3	7:E:17:TYR:CD1	2.49	0.47
5:C:154:ARG:NH1	5:C:177:GLU:HG3	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:362:GLY:HA3	5:C:367:LEU:CD2	2.39	0.47
5:C:45:GLN:HB2	5:C:71:TYR:CZ	2.49	0.47
5:C:480:THR:HG22	5:C:481:ASP:N	2.29	0.47
5:C:940:GLU:O	5:C:944:LEU:HG	2.14	0.47
5:C:981:GLU:HB3	12:C:1406:HOH:O	2.13	0.47
6:D:1138:ALA:CB	6:D:1362:LYS:HE2	2.43	0.47
6:D:122:GLU:O	6:D:126:VAL:HG23	2.14	0.47
6:D:571:LYS:HB2	6:D:571:LYS:NZ	2.29	0.47
5:C:946:ARG:HH12	6:D:861:GLN:HE22	1.62	0.47
6:D:876:SER:HB2	6:D:879:ARG:HG3	1.97	0.47
6:D:911:LEU:O	6:D:915:VAL:HG23	2.14	0.47
7:E:31:LEU:HD23	7:E:35:PHE:HD1	1.79	0.47
4:L:23:PHE:O	4:L:196:THR:HA	2.13	0.47
5:M:195:LEU:HG	5:M:238:LEU:HD12	1.96	0.47
5:M:31:GLN:HB3	5:M:71:TYR:OH	2.15	0.47
5:M:436:GLY:HA2	5:M:538:GLN:O	2.14	0.47
5:M:1:MET:CE	5:M:900:ARG:HH12	2.27	0.47
6:N:1437:ALA:O	6:N:1446:VAL:HG21	2.14	0.47
6:N:115:LEU:CD1	6:N:499:VAL:HG22	2.44	0.47
6:N:799:LYS:HZ3	6:N:824:ASN:CA	2.22	0.47
6:N:82:LYS:HB2	6:N:84:ILE:HG23	1.95	0.47
4:B:159:LYS:N	4:B:159:LYS:HD3	2.29	0.47
5:C:260:LEU:HD13	5:C:291:ALA:HB1	1.96	0.47
6:D:1231:GLU:HB3	6:D:1232:PRO:HD3	1.96	0.47
6:D:1325:LEU:HD21	12:D:9442:HOH:O	2.15	0.47
6:D:206:ARG:NH2	6:D:394:LEU:HD22	2.30	0.47
7:E:33:HIS:HB2	7:E:37:ASN:ND2	2.29	0.47
5:M:131:GLY:HA2	12:M:7233:HOH:O	2.12	0.47
5:M:19:THR:HG21	5:M:125:GLY:HA3	1.96	0.47
5:M:906:PHE:CZ	6:N:1067:VAL:HA	2.49	0.47
6:N:1101:VAL:HG11	6:N:1427:SER:HB3	1.96	0.47
6:N:1101:VAL:HG13	6:N:1428:ALA:CA	2.43	0.47
6:N:756:GLN:HE21	6:N:760:ARG:HD2	1.79	0.47
6:N:78:VAL:HG12	6:N:80:VAL:HG22	1.96	0.47
4:B:117:VAL:CG2	4:B:120:VAL:HB	2.44	0.47
5:C:286:SER:HB2	5:C:299:LYS:HE2	1.95	0.47
5:C:110:GLU:HB2	5:C:368:THR:HB	1.96	0.47
5:C:804:VAL:HG23	5:C:826:TYR:HE1	1.78	0.47
6:D:119:SER:HB2	6:D:123:LEU:H	1.79	0.47
6:D:1377:LYS:HA	6:D:1395:LEU:HD23	1.95	0.47
6:D:400:VAL:HG22	6:D:443:VAL:HG22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:577:ALA:O	6:D:580:ALA:HB3	2.15	0.47
7:E:70:THR:HG21	7:E:72:ARG:NE	2.29	0.47
1:G:12:DG:H2''	1:G:13:DT:O5'	2.14	0.47
1:G:14:DT:OP2	6:D:1089:ALA:HB1	2.14	0.47
1:G:20:DG:H4'	5:C:394:PHE:CE2	2.50	0.47
2:H:4:U:H2'	2:H:5:C:C6	2.50	0.47
4:K:89:PHE:CD1	4:K:120:VAL:HG23	2.40	0.47
4:K:181:VAL:O	5:M:938:LYS:HD3	2.15	0.47
5:M:1007:ALA:HB2	6:N:648:MET:CG	2.44	0.47
5:M:208:ALA:O	5:M:218:VAL:HG21	2.15	0.47
5:M:238:LEU:O	5:M:241:LEU:HB3	2.13	0.47
5:M:334:ARG:HD2	5:M:418:LEU:CD2	2.29	0.47
5:M:937:ASP:HB3	5:M:939:ARG:HG2	1.96	0.47
6:N:1305:LEU:HD21	6:N:1326:THR:OG1	2.14	0.47
6:N:1336:LEU:HB2	6:N:1344:VAL:HG21	1.96	0.47
7:O:70:THR:HG22	7:O:71:GLY:H	1.78	0.47
7:O:95:VAL:CG1	12:O:884:HOH:O	2.61	0.47
2:Y:10:G:C2'	2:Y:11:C:H5'	2.44	0.47
4:A:28:LEU:HB2	4:A:193:ASP:HB2	1.97	0.47
5:C:211:LEU:HD11	5:C:308:ARG:HA	1.96	0.47
5:C:304:LEU:CD2	5:C:305:PRO:HD3	2.40	0.47
5:C:68:PHE:HZ	5:C:71:TYR:HD2	1.62	0.47
6:D:441:ARG:HH22	6:D:445:ARG:CZ	2.28	0.47
6:D:899:LEU:HD12	6:D:900:ILE:HG23	1.96	0.47
4:L:41:ARG:HG2	4:L:42:ARG:N	2.29	0.47
5:M:1034:GLU:OE1	6:N:619:LEU:HD21	2.15	0.47
5:M:289:THR:O	5:M:291:ALA:N	2.48	0.47
5:M:315:ALA:HB3	12:M:7160:HOH:O	2.13	0.47
5:M:326:ASP:HA	5:M:331:ARG:CZ	2.45	0.47
5:M:347:GLY:HA2	5:M:350:ARG:HD2	1.95	0.47
5:M:438:ILE:HD11	5:M:467:ILE:HD12	1.96	0.47
5:M:571:LEU:HD23	5:M:699:PHE:O	2.14	0.47
5:M:676:ILE:HG22	5:M:988:VAL:HG22	1.94	0.47
5:M:83:CYS:SG	5:M:90:TYR:HB2	2.54	0.47
6:N:1240:THR:HA	6:N:1253:THR:OG1	2.14	0.47
6:N:477:LEU:HD21	6:N:495:ARG:NH2	2.30	0.47
6:N:507:ASN:HD22	6:N:507:ASN:H	1.61	0.47
6:N:543:LEU:O	6:N:546:ARG:HB2	2.14	0.47
6:N:625:TYR:CE1	6:N:751:LEU:HD11	2.50	0.47
6:N:863:VAL:HG21	12:N:9437:HOH:O	2.14	0.47
6:N:969:ARG:O	6:N:972:LEU:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:1:G:HO2'	2:Y:2:A:H5''	1.77	0.47
4:B:127:LEU:HD12	4:B:128:HIS:N	2.30	0.47
5:C:769:PRO:HG2	12:D:9120:HOH:O	2.14	0.47
6:D:1047:LYS:HB3	6:D:1048:PRO:HD2	1.97	0.47
6:D:93:ILE:N	6:D:517:VAL:O	2.46	0.47
6:D:772:PRO:O	6:D:1367:HIS:NE2	2.47	0.47
6:D:853:VAL:HG13	6:D:858:VAL:O	2.15	0.47
6:D:896:ALA:O	6:D:900:ILE:HG23	2.14	0.47
4:K:36:LEU:O	4:K:39:PRO:HD2	2.14	0.47
4:K:9:PRO:HD2	4:L:224:TYR:CE1	2.49	0.47
5:M:144:PRO:HA	5:M:163:ILE:CD1	2.44	0.47
5:M:191:PHE:CZ	5:M:196:LEU:HB2	2.50	0.47
5:M:820:ARG:HA	12:M:7091:HOH:O	2.15	0.47
5:M:92:ALA:CB	5:M:120:LEU:HD21	2.45	0.47
6:N:399:ARG:HB2	6:N:401:TYR:CE1	2.50	0.47
6:N:42:ASP:OD1	6:N:49:ILE:HD11	2.14	0.47
7:O:83:ASP:O	7:O:86:GLN:HG2	2.14	0.47
7:O:84:ARG:HB2	12:O:907:HOH:O	2.14	0.47
2:Y:6:U:O5'	2:Y:6:U:H6	1.98	0.47
4:A:85:LEU:HD11	4:A:87:VAL:HG13	1.97	0.47
4:B:102:LYS:CE	4:B:139:ASN:HB2	2.39	0.47
4:B:58:ILE:HB	4:B:61:VAL:HB	1.96	0.47
5:C:625:LEU:O	5:C:627:ARG:N	2.48	0.47
5:C:761:PHE:N	5:C:761:PHE:CD1	2.83	0.47
5:C:841:ASN:C	5:C:841:ASN:ND2	2.67	0.47
5:C:892:LEU:HG	5:C:918:LEU:HD11	1.96	0.47
6:D:1372:VAL:O	6:D:1375:MET:HB2	2.15	0.47
6:D:632:VAL:O	6:D:727:GLN:HA	2.15	0.47
6:D:864:VAL:HG12	6:D:865:THR:N	2.27	0.47
4:L:101:LEU:HD22	4:L:140:MET:CE	2.45	0.47
5:M:1010:THR:HG22	5:M:1011:GLY:N	2.30	0.47
5:M:1090:LYS:HA	5:M:1090:LYS:HD3	1.70	0.47
5:M:1103:ASP:HA	12:N:9050:HOH:O	2.15	0.47
5:M:97:ARG:HA	5:M:111:ASP:O	2.15	0.47
5:M:395:LYS:HG2	5:M:397:GLU:HG3	1.97	0.47
5:M:54:ILE:HD13	5:M:64:LEU:HD21	1.96	0.47
5:M:54:ILE:HG23	5:M:54:ILE:O	2.14	0.47
5:M:594:ALA:HB3	5:M:596:TYR:HE1	1.79	0.47
6:N:1031:ASN:ND2	6:N:1032:PRO:HD2	2.30	0.47
6:N:115:LEU:HD22	6:N:502:PHE:CE1	2.49	0.47
6:N:1148:VAL:O	6:N:1188:VAL:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:41:ARG:HD3	6:N:42:ASP:N	2.28	0.47
6:N:480:GLU:OE2	6:N:484:PRO:HG2	2.15	0.47
6:N:584:ASN:HB2	6:N:602:SER:HB3	1.96	0.47
6:N:56:TYR:HE2	6:N:69:GLU:HB3	1.79	0.47
6:N:701:LEU:HD21	6:N:763:MET:CE	2.45	0.47
6:N:754:PHE:CG	7:O:24:ALA:HB1	2.48	0.47
7:O:80:VAL:HG22	12:O:1400:HOH:O	2.14	0.47
4:A:27:PRO:HG2	12:A:364:HOH:O	2.14	0.47
5:C:1096:ALA:N	12:C:1246:HOH:O	2.48	0.47
5:C:141:HIS:HB3	5:C:418:LEU:CD2	2.45	0.47
5:C:36:PRO:CG	5:C:70:GLU:HB3	2.40	0.47
5:C:728:HIS:CE1	5:C:775:ARG:HH12	2.32	0.47
6:D:1402:ALA:HB2	6:D:1415:VAL:CG2	2.45	0.47
6:D:179:VAL:HG21	6:D:191:LEU:HD23	1.97	0.47
6:D:2:LYS:HG2	12:D:9286:HOH:O	2.15	0.47
6:D:37:LEU:HD22	6:D:535:PHE:HZ	1.80	0.47
6:D:785:ILE:HG22	6:D:789:LEU:CD1	2.43	0.47
6:D:908:LYS:HB3	6:D:1027:GLY:CA	2.29	0.47
5:C:1090:LYS:HZ3	6:D:90:MET:HG3	1.78	0.47
2:H:9:G:C5'	2:H:9:G:C8	2.98	0.47
4:K:24:VAL:HG22	4:K:196:THR:HG22	1.97	0.47
5:M:1118:LYS:HB3	5:M:1118:LYS:NZ	2.30	0.47
1:X:20:DG:H4'	5:M:394:PHE:CE2	2.50	0.47
5:M:606:VAL:HG23	5:M:606:VAL:O	2.14	0.47
5:M:665:PHE:CE1	5:M:900:ARG:NH2	2.83	0.47
6:N:1149:LEU:CD1	6:N:1160:LEU:HD22	2.44	0.47
6:N:1307:LYS:H	6:N:1307:LYS:HD2	1.80	0.47
6:N:1335:LEU:HD12	6:N:1339:LYS:HB2	1.97	0.47
6:N:974:ILE:O	6:N:983:LEU:HD11	2.15	0.47
6:N:984:THR:HG22	6:N:986:ARG:H	1.80	0.47
6:N:984:THR:HB	6:N:987:GLU:HG3	1.97	0.47
4:B:106:PRO:HG3	4:B:134:GLU:CD	2.34	0.47
4:B:75:VAL:O	4:B:79:ILE:HG23	2.14	0.47
5:C:378:LEU:HG	5:C:382:ILE:HD11	1.97	0.47
5:C:496:ILE:HD12	5:C:496:ILE:N	2.29	0.47
5:C:479:VAL:HG21	5:C:532:MET:HE2	1.97	0.47
5:C:632:ASN:OD1	5:C:632:ASN:N	2.48	0.47
5:C:774:LEU:HD23	12:C:1328:HOH:O	2.14	0.47
5:C:672:VAL:CG2	5:C:868:ASP:HB2	2.43	0.47
6:D:1313:VAL:HG21	6:D:1319:VAL:CG1	2.45	0.47
6:D:1197:ARG:HB3	6:D:1396:GLU:CG	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1263:PHE:HB3	6:D:1424:VAL:HG11	1.96	0.47
6:D:141:ILE:CG1	6:D:448:GLU:O	2.61	0.47
6:D:455:ARG:HB3	6:D:459:GLU:HG2	1.96	0.47
6:D:704:ARG:HD3	6:D:738:ALA:HB2	1.96	0.47
6:D:895:VAL:CG1	6:D:922:LEU:HD21	2.43	0.47
2:H:12:G:C5'	2:H:12:G:C8	2.92	0.47
2:H:8:C:C2'	2:H:9:G:C8	2.98	0.47
4:L:34:VAL:HG22	4:L:181:VAL:HG21	1.97	0.47
5:M:1008:ARG:NH1	5:M:1011:GLY:N	2.63	0.47
5:M:206:THR:HG23	5:M:207:LEU:N	2.30	0.47
5:M:364:GLU:O	5:M:367:LEU:HG	2.15	0.47
5:M:622:GLU:O	5:M:624:PRO:HD3	2.15	0.47
5:M:714:ASP:HB3	5:M:818:GLY:O	2.15	0.47
5:M:80:GLN:O	5:M:83:CYS:HB2	2.15	0.47
4:K:46:SER:HB3	5:M:856:GLU:HG2	1.97	0.47
6:N:1047:LYS:HG2	6:N:1053:PHE:CE2	2.50	0.47
6:N:1440:PHE:C	6:N:1440:PHE:CD2	2.87	0.47
7:O:94:PRO:HG2	12:O:820:HOH:O	2.14	0.47
4:A:121:GLU:HG3	4:A:123:MET:SD	2.55	0.47
4:B:18:ARG:O	4:B:207:PRO:HD3	2.16	0.47
4:B:29:GLU:HB2	4:B:32:PHE:CE1	2.50	0.47
5:C:334:ARG:CD	5:C:418:LEU:HD21	2.45	0.47
5:C:364:GLU:O	5:C:367:LEU:HG	2.15	0.47
5:C:64:LEU:HB2	5:C:359:MET:SD	2.55	0.47
5:C:660:ALA:O	5:C:667:ALA:HB3	2.15	0.47
5:C:877:PRO:HB3	6:D:1020:LEU:HD11	1.97	0.47
6:D:1118:ILE:O	6:D:1188:VAL:HG12	2.15	0.47
6:D:1326:THR:HG22	6:D:1327:ARG:N	2.29	0.47
6:D:462:GLN:HA	6:D:513:ILE:CD1	2.44	0.47
6:D:574:LEU:O	6:D:578:VAL:HG23	2.15	0.47
6:D:50:PHE:C	6:D:86:ARG:HA	2.36	0.47
6:D:938:GLY:O	6:D:942:SER:HB3	2.15	0.47
2:H:7:G:C5'	2:H:7:G:H8	2.28	0.47
2:H:9:G:C5'	2:H:9:G:H8	2.28	0.47
4:K:88:ARG:HB2	4:K:204:SER:HA	1.97	0.47
5:M:1036:GLU:OE1	6:N:707:THR:HB	2.15	0.47
5:M:1032:PHE:HZ	5:M:1040:LEU:HD13	1.80	0.47
5:M:260:LEU:HB2	5:M:291:ALA:HB1	1.97	0.47
5:M:470:PRO:HD3	5:M:485:TYR:CE2	2.50	0.47
5:M:520:GLU:O	5:M:522:VAL:HG23	2.14	0.47
5:M:874:LEU:HD11	6:N:787:LEU:CD2	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:881:ASN:O	5:M:884:GLN:HG2	2.13	0.47
5:M:958:THR:HG23	5:M:961:GLU:H	1.79	0.47
6:N:1071:PHE:O	6:N:1071:PHE:HD1	1.97	0.47
6:N:161:LEU:HD23	6:N:162:ARG:H	1.80	0.47
6:N:202:VAL:HG12	6:N:204:LEU:HD23	1.96	0.47
6:N:470:LEU:HD11	6:N:508:ARG:CZ	2.46	0.47
2:Y:8:C:H5''	12:Y:578:HOH:O	2.14	0.47
4:B:165:ILE:O	4:B:165:ILE:HG13	2.16	0.46
5:C:127:PHE:O	5:C:133:ASP:HA	2.15	0.46
5:C:139:GLN:CG	5:C:418:LEU:HD22	2.43	0.46
5:C:342:ASP:HA	5:C:345:ARG:HG2	1.97	0.46
5:C:420:ARG:HG3	12:C:1136:HOH:O	2.15	0.46
5:C:473:ARG:HH11	5:C:475:VAL:CG2	2.27	0.46
6:D:1191:PRO:O	6:D:1373:ARG:HD2	2.15	0.46
6:D:57:GLU:HB2	6:D:64:LYS:HG3	1.96	0.46
6:D:591:VAL:HG12	6:D:592:THR:O	2.15	0.46
6:D:893:GLU:O	6:D:896:ALA:HB3	2.15	0.46
2:H:5:C:O5'	2:H:5:C:H6	1.98	0.46
5:M:243:ARG:HH11	5:M:243:ARG:HG2	1.79	0.46
5:M:694:LEU:O	5:M:699:PHE:HB2	2.15	0.46
5:M:688:ILE:HD13	5:M:847:GLY:HA3	1.96	0.46
5:M:835:VAL:HA	5:M:849:VAL:HG12	1.98	0.46
6:N:1236:LEU:CD2	6:N:1361:VAL:H	2.27	0.46
6:N:704:ARG:NH1	6:N:705:ALA:CB	2.78	0.46
6:N:736:PHE:O	6:N:738:ALA:N	2.48	0.46
1:X:6:DT:H2'	12:X:1642:HOH:O	2.15	0.46
4:A:191:ASP:C	4:A:192:LEU:HG	2.36	0.46
4:B:182:GLU:O	4:B:194:LYS:HB3	2.16	0.46
4:B:97:VAL:HG12	4:B:99:LEU:HD13	1.98	0.46
5:C:147:TYR:HB3	5:C:323:ASP:HB2	1.96	0.46
5:C:185:LYS:NZ	5:C:190:LYS:HE2	2.29	0.46
5:C:253:ALA:O	5:C:256:TYR:HB2	2.14	0.46
5:C:274:ARG:HB2	12:C:1392:HOH:O	2.16	0.46
5:C:18:LEU:CD2	5:C:404:LEU:HD21	2.45	0.46
5:C:910:LYS:HB3	5:C:912:PRO:HD2	1.97	0.46
6:D:1453:ALA:O	6:D:1455:LYS:N	2.47	0.46
6:D:9:ARG:HA	6:D:1455:LYS:O	2.14	0.46
6:D:412:GLY:HA2	6:D:434:ARG:HD3	1.96	0.46
6:D:457:GLY:O	6:D:460:ALA:HB3	2.14	0.46
6:D:564:GLU:HA	6:D:567:ILE:HD12	1.97	0.46
6:D:646:LYS:HG3	6:D:647:ARG:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:67:GLU:CB	7:E:73:LEU:HD11	2.45	0.46
2:H:10:G:C2'	2:H:11:C:H5'	2.44	0.46
4:K:9:PRO:HD2	4:L:224:TYR:CD1	2.51	0.46
4:K:43:ILE:HD11	4:L:35:THR:HG21	1.96	0.46
5:M:100:LEU:HD23	5:M:368:THR:HA	1.96	0.46
5:M:408:ARG:NH1	5:M:542:VAL:HG23	2.30	0.46
5:M:534:VAL:N	5:M:538:GLN:NE2	2.61	0.46
6:N:1094:LEU:HD13	6:N:1260:ILE:CD1	2.45	0.46
6:N:397:LYS:NZ	6:N:448:GLU:OE2	2.48	0.46
6:N:660:LYS:HD2	12:N:9393:HOH:O	2.15	0.46
4:B:165:ILE:HD11	12:B:321:HOH:O	2.15	0.46
4:B:25:LEU:HA	12:B:411:HOH:O	2.14	0.46
5:C:122:THR:HB	5:C:124:ASP:OD1	2.15	0.46
5:C:166:PRO:HG2	12:C:1363:HOH:O	2.15	0.46
5:C:47:ALA:HA	5:C:50:GLU:OE2	2.15	0.46
5:C:654:LEU:HD13	5:C:664:GLY:N	2.30	0.46
5:C:710:ILE:HB	5:C:790:LEU:HD22	1.97	0.46
5:C:550:LEU:HG	6:D:1070:TYR:HE1	1.79	0.46
6:D:148:GLU:HG2	6:D:151:GLN:NE2	2.26	0.46
6:D:399:ARG:HB2	6:D:401:TYR:OH	2.15	0.46
6:D:613:ARG:HH11	6:D:616:GLN:HG2	1.79	0.46
6:D:728:LEU:HG	6:D:729:HIS:N	2.30	0.46
6:D:1494:ALA:HB1	7:E:88:GLU:OE2	2.16	0.46
4:K:76:VAL:O	4:K:79:ILE:HG13	2.15	0.46
4:L:40:LEU:O	4:L:44:LEU:HG	2.14	0.46
5:M:1045:ALA:HB1	5:M:1048:THR:HB	1.97	0.46
5:M:1069:ALA:O	5:M:1072:LYS:HB3	2.15	0.46
5:M:22:GLN:O	5:M:121:MET:HE1	2.16	0.46
5:M:414:GLY:C	5:M:416:GLY:N	2.69	0.46
5:M:706:GLU:HG2	5:M:708:TYR:CE2	2.50	0.46
6:N:398:ALA:HB2	6:N:447:VAL:HG12	1.98	0.46
6:N:637:LEU:HD11	6:N:642:CYS:N	2.31	0.46
4:A:143:ARG:NH1	4:A:145:ASP:OD1	2.49	0.46
5:C:1055:LEU:HD11	12:C:1200:HOH:O	2.15	0.46
5:C:1103:ASP:N	5:C:1107:ASN:O	2.48	0.46
5:C:551:GLU:O	6:D:1065:LEU:HB3	2.14	0.46
5:C:85:GLU:OE1	5:C:804:VAL:HG21	2.16	0.46
6:D:1061:PHE:HE1	6:D:1065:LEU:HD22	1.80	0.46
6:D:458:ALA:HA	6:D:461:ILE:HG12	1.98	0.46
7:E:2:ALA:HB2	12:E:102:HOH:O	2.14	0.46
3:I:10:DA:H5''	6:D:121:THR:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:221:HIS:HA	4:K:224:TYR:CD2	2.50	0.46
5:M:1084:SER:O	5:M:1087:VAL:HG12	2.15	0.46
5:M:176:VAL:C	5:M:178:PRO:HD3	2.35	0.46
5:M:260:LEU:CB	5:M:291:ALA:HB1	2.46	0.46
5:M:309:TYR:HA	5:M:312:ALA:HB3	1.97	0.46
5:M:557:ARG:NE	5:M:879:ARG:HG2	2.31	0.46
5:M:911:GLU:HB3	5:M:912:PRO:HD3	1.98	0.46
6:N:133:ILE:CA	6:N:456:MET:HB3	2.46	0.46
6:N:1489:GLN:O	6:N:1493:LYS:HG2	2.15	0.46
6:D:1297:GLU:N	6:N:47:GLU:HB2	2.30	0.46
6:N:731:LEU:HD23	6:N:731:LEU:HA	1.77	0.46
5:M:1030:GLN:HG2	6:N:746:ALA:HB1	1.98	0.46
6:N:828:LYS:HA	12:N:9437:HOH:O	2.14	0.46
4:A:79:ILE:HD12	4:A:80:LEU:N	2.31	0.46
4:B:124:ASN:N	4:B:125:PRO:HD3	2.30	0.46
4:B:138:LEU:HG	12:B:334:HOH:O	2.14	0.46
4:B:83:LYS:NZ	4:B:168:ASP:H	2.13	0.46
5:C:185:LYS:CG	5:C:190:LYS:HG2	2.46	0.46
5:C:906:PHE:CE1	6:D:1067:VAL:HA	2.50	0.46
5:C:69:LEU:HB2	5:C:97:ARG:HB2	1.98	0.46
6:D:1236:LEU:CD2	6:D:1361:VAL:HB	2.46	0.46
6:D:679:ARG:HB2	6:D:682:ASP:CG	2.36	0.46
6:D:705:ALA:HB1	6:D:706:PRO:HD3	1.97	0.46
6:D:76:CYS:SG	6:D:78:VAL:HG23	2.55	0.46
6:D:72:VAL:CG2	6:D:77:GLY:HA2	2.46	0.46
5:C:949:LYS:NZ	6:D:828:LYS:NZ	2.64	0.46
6:D:919:PHE:HE1	6:D:924:MET:HG3	1.81	0.46
4:K:182:GLU:HG2	4:K:194:LYS:HD3	1.98	0.46
4:K:23:PHE:O	4:K:196:THR:HA	2.16	0.46
5:M:1038:TRP:HA	5:M:1041:GLU:HG3	1.96	0.46
5:M:185:LYS:HD3	12:M:7048:HOH:O	2.15	0.46
5:M:337:GLY:O	5:M:341:THR:HG22	2.16	0.46
5:M:557:ARG:CG	5:M:879:ARG:HB3	2.41	0.46
6:N:512:MET:SD	6:N:1452:ILE:HD11	2.56	0.46
6:N:145:VAL:HB	12:N:9320:HOH:O	2.14	0.46
6:N:134:VAL:HG12	6:N:152:LEU:HB3	1.96	0.46
6:N:478:LEU:HD22	6:N:1388:ARG:CD	2.46	0.46
6:D:1284:GLU:HG2	6:N:74:GLU:HB2	1.97	0.46
4:A:23:PHE:O	4:A:196:THR:HA	2.16	0.46
4:B:107:LYS:HD3	12:B:382:HOH:O	2.14	0.46
5:C:1045:ALA:HB1	5:C:1048:THR:HB	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:191:PHE:HZ	5:C:196:LEU:HD12	1.80	0.46
5:C:129:ILE:CG1	5:C:386:PHE:HB3	2.45	0.46
5:C:139:GLN:NE2	5:C:418:LEU:HD22	2.31	0.46
6:D:1083:ASP:O	6:D:1087:ARG:HD2	2.16	0.46
6:D:1194:CYS:HB3	6:D:1373:ARG:NH1	2.30	0.46
6:D:1281:VAL:HG12	6:D:1282:ARG:N	2.30	0.46
5:C:1106:ASP:CG	6:D:1456:LYS:HD3	2.36	0.46
6:D:1487:VAL:HG12	6:D:1488:ASP:N	2.30	0.46
5:C:1005:MET:HB3	6:D:629:SER:OG	2.16	0.46
3:I:9:DG:H2"	3:I:10:DA:C8	2.50	0.46
4:L:159:LYS:O	4:L:159:LYS:HG2	2.15	0.46
5:M:114:PHE:CG	5:M:114:PHE:O	2.68	0.46
5:M:279:GLU:HG2	12:M:7102:HOH:O	2.15	0.46
5:M:280:LYS:HE3	12:M:7102:HOH:O	2.15	0.46
5:M:142:ARG:CZ	5:M:325:ILE:HG23	2.45	0.46
5:M:442:GLU:HG2	5:M:454:SER:H	1.81	0.46
5:M:410:ILE:CD1	5:M:455:LEU:HB3	2.43	0.46
5:M:611:ILE:N	5:M:611:ILE:HD12	2.30	0.46
5:M:65:VAL:HB	5:M:101:ILE:HB	1.97	0.46
6:N:470:LEU:HD12	6:N:503:LEU:HG	1.96	0.46
6:N:838:ARG:NE	6:N:863:VAL:HB	2.31	0.46
4:B:146:ARG:HG3	4:B:146:ARG:O	2.16	0.46
4:B:87:VAL:HG21	4:B:144:VAL:CG1	2.37	0.46
5:C:1030:GLN:OE1	6:D:628:ARG:HG2	2.16	0.46
5:C:966:LEU:O	5:C:969:GLN:HB2	2.14	0.46
5:C:96:ALA:HB2	12:C:1219:HOH:O	2.14	0.46
6:D:1017:PHE:C	12:D:9167:HOH:O	2.54	0.46
6:D:1122:LEU:O	6:D:1122:LEU:HD23	2.15	0.46
6:D:1161:GLU:CG	6:D:1164:ARG:HB2	2.46	0.46
6:D:1191:PRO:HG2	6:D:1370:ILE:HD13	1.98	0.46
6:D:1083:ASP:OD1	6:D:1241:PHE:HE2	1.98	0.46
6:D:1256:LEU:N	12:D:9193:HOH:O	2.49	0.46
6:D:1275:SER:HB2	6:D:1294:VAL:CG1	2.46	0.46
6:D:1487:VAL:HG11	6:D:1492:LEU:HD23	1.98	0.46
6:D:531:ASP:O	6:D:534:ARG:HG3	2.15	0.46
6:D:551:ASN:ND2	6:D:555:LYS:HZ3	2.11	0.46
5:C:751:PRO:HD2	6:D:680:GLN:OE1	2.16	0.46
6:D:955:VAL:HG11	6:D:1015:TYR:CE2	2.49	0.46
6:D:1480:PHE:O	7:E:18:ARG:NH2	2.49	0.46
4:K:23:PHE:HB2	4:K:197:LEU:HD23	1.97	0.46
5:M:1022:GLY:HA3	5:M:1026:GLN:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:140:ILE:HB	5:M:331:ARG:HG2	1.97	0.46
5:M:250:ARG:NH1	12:M:7148:HOH:O	2.49	0.46
5:M:141:HIS:HB3	5:M:418:LEU:CD2	2.44	0.46
5:M:418:LEU:HD12	5:M:418:LEU:N	2.30	0.46
5:M:437:ARG:HA	5:M:467:ILE:HG21	1.97	0.46
5:M:500:ASN:HD21	6:N:1067:VAL:HG23	1.81	0.46
5:M:524:VAL:HG13	5:M:525:SER:N	2.30	0.46
5:M:57:GLU:O	5:M:62:GLY:HA3	2.16	0.46
5:M:684:PHE:CD1	6:N:784:ASP:HB2	2.46	0.46
7:O:34:GLY:HA2	12:O:884:HOH:O	2.14	0.46
4:A:76:VAL:O	4:A:79:ILE:HG13	2.15	0.46
5:C:191:PHE:O	5:C:193:LEU:HD12	2.15	0.46
5:C:402:SER:HB2	5:C:566:THR:O	2.15	0.46
5:C:966:LEU:HD21	5:C:986:PRO:CG	2.42	0.46
5:C:996:LYS:NZ	12:C:1442:HOH:O	2.49	0.46
6:D:116:LEU:HD21	6:D:468:LEU:HD11	1.98	0.46
6:D:1187:PRO:HB3	6:N:560:GLN:OE1	2.16	0.46
6:D:1481:VAL:HG11	7:E:18:ARG:CA	2.34	0.46
6:D:584:ASN:CG	6:D:590:PRO:HD2	2.36	0.46
4:K:11:PHE:CD1	4:L:225:PHE:HA	2.51	0.46
4:L:72:LYS:HB3	4:L:73:GLU:OE2	2.16	0.46
4:L:86:VAL:CG1	4:L:124:ASN:HB2	2.45	0.46
5:M:1060:ILE:HG23	5:M:1061:GLU:N	2.31	0.46
5:M:1087:VAL:HG22	5:M:1091:GLU:OE2	2.16	0.46
5:M:142:ARG:HA	5:M:330:ASN:O	2.16	0.46
5:M:207:LEU:HD13	12:M:7206:HOH:O	2.15	0.46
5:M:515:ALA:C	5:M:516:ARG:HG2	2.34	0.46
5:M:707:ARG:HG3	5:M:826:TYR:CZ	2.51	0.46
5:M:552:HIS:CD2	5:M:886:LEU:HD13	2.51	0.46
5:M:904:PRO:CD	5:M:908:GLY:HA2	2.43	0.46
6:N:1018:ASN:HB3	6:N:1021:TYR:CB	2.41	0.46
6:N:126:VAL:O	6:N:132:TYR:HE1	1.98	0.46
6:N:1283:ILE:HG21	6:N:1311:LEU:HD11	1.98	0.46
6:N:133:ILE:CA	6:N:456:MET:CB	2.90	0.46
6:N:157:GLU:HA	6:N:160:GLU:OE1	2.15	0.46
6:N:141:ILE:CG2	6:N:161:LEU:HD12	2.46	0.46
6:N:463:GLN:O	6:N:467:GLU:HG3	2.16	0.46
6:N:619:LEU:HB2	6:N:621:LYS:HE2	1.97	0.46
7:O:17:TYR:O	7:O:21:VAL:HG23	2.16	0.46
7:O:26:ARG:NH1	7:O:29:GLN:HE21	2.14	0.46
4:A:116:PRO:HA	12:A:378:HOH:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:76:VAL:O	4:B:79:ILE:HG13	2.16	0.46
5:C:1059:ASP:CG	5:C:1080:SER:HB3	2.35	0.46
5:C:191:PHE:HE2	5:C:196:LEU:HB2	1.81	0.46
5:C:274:ARG:CB	5:C:285:LEU:HD13	2.45	0.46
6:D:1011:PHE:HD1	6:D:1015:TYR:HB2	1.81	0.46
6:D:774:SER:C	6:D:776:GLU:H	2.19	0.46
6:D:963:TYR:CE2	6:D:1002:LYS:HE2	2.50	0.46
2:H:7:G:H2'	2:H:8:C:OP1	2.16	0.46
4:K:104:GLU:HA	4:K:136:GLY:O	2.16	0.46
4:K:181:VAL:HA	4:K:194:LYS:O	2.15	0.46
4:L:173:PRO:HB2	4:L:205:VAL:HG22	1.97	0.46
5:M:1103:ASP:N	5:M:1107:ASN:O	2.49	0.46
5:M:769:PRO:HB3	12:M:7112:HOH:O	2.16	0.46
5:M:89:THR:O	5:M:91:GLN:HG3	2.16	0.46
6:N:1398:TRP:CZ3	6:N:1401:GLU:HG3	2.50	0.46
6:N:1401:GLU:OE2	6:N:1405:GLU:HB2	2.16	0.46
6:N:19:ARG:O	6:N:22:SER:HB3	2.16	0.46
6:N:36:THR:O	6:N:38:LYS:N	2.48	0.46
6:N:421:LEU:HD21	6:N:429:SER:CB	2.46	0.46
6:N:678:GLU:HG3	6:N:679:ARG:CG	2.46	0.46
4:A:19:GLU:O	4:A:200:TRP:HA	2.15	0.46
4:B:125:PRO:HA	12:B:399:HOH:O	2.15	0.46
5:C:1030:GLN:O	6:D:622:ARG:HA	2.16	0.46
5:C:405:ARG:HA	12:C:1122:HOH:O	2.16	0.46
5:C:943:VAL:HG22	12:C:1225:HOH:O	2.16	0.46
6:D:1114:THR:O	6:D:1114:THR:HG23	2.16	0.46
6:D:1336:LEU:HB2	6:D:1344:VAL:HG21	1.97	0.46
6:D:136:ASP:HB3	6:D:137:PRO:CD	2.30	0.46
6:D:433:GLY:HA2	6:D:450:TYR:N	2.30	0.46
6:D:666:ILE:HD11	12:D:9408:HOH:O	2.16	0.46
6:D:714:GLN:CD	6:D:765:SER:HA	2.36	0.46
6:D:926:LYS:HZ1	6:D:929:ARG:NH2	2.13	0.46
4:K:198:ARG:NH1	12:K:762:HOH:O	2.49	0.46
4:K:41:ARG:O	4:K:45:LEU:HD13	2.16	0.46
4:L:124:ASN:HD21	4:L:127:LEU:HD13	1.81	0.46
5:M:430:VAL:HG13	5:M:430:VAL:O	2.16	0.46
5:M:474:VAL:HA	5:M:478:VAL:O	2.16	0.46
5:M:557:ARG:O	5:M:560:MET:HG3	2.16	0.46
5:M:598:GLU:HG3	5:M:623:TYR:OH	2.16	0.46
6:N:1117:TYR:CD2	6:N:1117:TYR:N	2.84	0.46
6:N:1280:VAL:O	6:N:1294:VAL:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:400:VAL:HG22	6:N:443:VAL:HG21	1.97	0.46
6:N:52:PRO:CG	6:N:80:VAL:HG13	2.46	0.46
3:Z:3:DA:H1'	5:M:423:ALA:HA	1.98	0.46
5:C:202:TYR:HB3	5:C:207:LEU:HD12	1.97	0.45
5:C:449:ILE:C	5:C:451:LEU:H	2.20	0.45
5:C:408:ARG:NH1	5:C:456:ALA:O	2.47	0.45
5:C:734:LEU:HA	5:C:737:LEU:HD13	1.98	0.45
6:D:1047:LYS:HG2	6:D:1053:PHE:CD1	2.51	0.45
5:C:906:PHE:CZ	6:D:1067:VAL:HA	2.51	0.45
6:D:1189:ARG:CZ	6:D:1203:LYS:HD2	2.46	0.45
6:D:1241:PHE:HD1	6:D:1257:PRO:HG2	1.80	0.45
6:D:1475:GLY:O	6:D:1478:SER:HB3	2.16	0.45
6:D:1496:GLU:HA	6:D:1499:ARG:HG3	1.97	0.45
6:D:184:GLU:HB2	12:D:9238:HOH:O	2.15	0.45
6:D:514:LEU:CD2	6:D:517:VAL:HG22	2.46	0.45
5:C:850:ALA:HA	6:D:632:VAL:CG1	2.45	0.45
5:M:198:ARG:HE	5:M:203:ASP:HA	1.80	0.45
5:M:218:VAL:HG22	5:M:221:LEU:HD23	1.97	0.45
5:M:302:VAL:O	5:M:306:THR:HG23	2.16	0.45
5:M:367:LEU:HA	5:M:371:LYS:HE2	1.98	0.45
5:M:58:ASP:C	5:M:59:LYS:HG2	2.36	0.45
5:M:707:ARG:HD2	5:M:826:TYR:OH	2.16	0.45
6:N:1154:GLU:HG2	6:N:1159:ARG:HG3	1.98	0.45
3:Z:6:DC:H3'	6:N:1266:ARG:CZ	2.44	0.45
6:N:1291:SER:HB2	6:N:1293:PHE:CE1	2.45	0.45
6:N:452:ILE:HD11	12:N:9025:HOH:O	2.17	0.45
6:N:614:PHE:O	6:N:618:LEU:HD13	2.16	0.45
6:N:705:ALA:HB3	6:N:706:PRO:HD3	1.97	0.45
6:N:978:TYR:HB2	6:N:983:LEU:HD12	1.98	0.45
7:O:9:LEU:HD22	7:O:19:LEU:CD1	2.46	0.45
5:C:176:VAL:CG1	5:C:182:VAL:HG13	2.42	0.45
5:C:242:LEU:HD12	12:C:1489:HOH:O	2.16	0.45
5:C:292:ARG:HD2	5:C:299:LYS:HD2	1.97	0.45
5:C:3:ILE:CD1	5:C:900:ARG:HB2	2.46	0.45
5:C:474:VAL:HG23	5:C:478:VAL:C	2.36	0.45
5:C:688:ILE:HD13	5:C:847:GLY:HA3	1.99	0.45
5:C:906:PHE:CG	6:D:1067:VAL:HG22	2.52	0.45
6:D:786:ILE:HG21	6:D:1027:GLY:N	2.31	0.45
6:D:1239:ARG:NH1	6:D:1239:ARG:HG3	2.29	0.45
6:D:9:ARG:HB2	6:D:1456:LYS:HA	1.98	0.45
6:D:177:ALA:HB3	6:D:205:TYR:OH	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:550:ARG:CZ	6:D:573:MET:HG2	2.45	0.45
6:D:987:GLU:HG3	12:D:9282:HOH:O	2.16	0.45
3:I:3:DA:N6	12:I:1102:HOH:O	2.49	0.45
4:K:149:GLY:O	4:K:171:PHE:HB2	2.16	0.45
4:K:222:LEU:CD1	4:L:218:LEU:HD23	2.46	0.45
5:M:267:TYR:HB2	5:M:272:ALA:HB1	1.97	0.45
5:M:287:GLY:O	5:M:288:ARG:C	2.54	0.45
5:M:47:ALA:HA	5:M:50:GLU:OE2	2.15	0.45
5:M:549:PHE:HE2	5:M:887:GLU:HA	1.81	0.45
5:M:966:LEU:O	5:M:969:GLN:HB2	2.16	0.45
6:N:1137:ARG:HG2	6:N:1141:GLU:OE1	2.15	0.45
6:N:602:SER:O	6:N:606:ILE:HG13	2.16	0.45
6:N:699:VAL:N	6:N:756:GLN:HE22	2.10	0.45
6:N:773:ALA:HA	6:N:1228:SER:HB2	1.98	0.45
6:N:799:LYS:HD3	6:N:826:PRO:HD3	1.99	0.45
6:N:954:ALA:HB1	6:N:1039:CYS:SG	2.56	0.45
4:A:32:PHE:HE2	4:B:43:ILE:HD13	1.82	0.45
5:C:184:MET:CB	5:C:193:LEU:HG	2.46	0.45
5:C:442:GLU:OE2	5:C:543:ASN:HB3	2.16	0.45
5:C:647:GLN:NE2	5:C:648:ARG:O	2.49	0.45
2:H:1:G:O6	5:C:773:LEU:HD23	2.15	0.45
5:C:922:PHE:HE1	5:C:963:LEU:HD22	1.82	0.45
5:C:669:GLY:HA3	5:C:995:MET:HA	1.99	0.45
6:D:957:PRO:CD	6:D:1007:VAL:HG22	2.47	0.45
6:D:1189:ARG:NH1	6:D:1203:LYS:HD2	2.32	0.45
6:D:1236:LEU:CD2	6:D:1356:TYR:HA	2.47	0.45
6:D:1415:VAL:HG23	6:D:1415:VAL:O	2.16	0.45
6:D:794:GLN:NE2	6:D:905:PRO:HG2	2.32	0.45
6:D:99:ALA:HB1	6:D:575:GLN:OE1	2.16	0.45
1:G:23:DG:H1'	12:G:1601:HOH:O	2.17	0.45
5:M:1103:ASP:CG	6:N:3:LYS:HZ1	2.19	0.45
5:M:1109:VAL:HG23	6:N:3:LYS:HG3	1.99	0.45
5:M:91:GLN:HB3	5:M:118:ILE:C	2.37	0.45
5:M:191:PHE:CD2	5:M:195:LEU:HD23	2.50	0.45
5:M:50:GLU:CD	5:M:345:ARG:HH11	2.19	0.45
5:M:603:VAL:HG22	5:M:613:VAL:HG12	1.97	0.45
6:N:1273:VAL:O	6:N:1273:VAL:HG23	2.15	0.45
6:N:1281:VAL:HG23	6:N:1319:VAL:CG2	2.44	0.45
6:N:1331:ASP:OD2	6:N:1332:PRO:N	2.50	0.45
6:N:1464:GLU:H	6:N:1464:GLU:HG2	1.45	0.45
6:N:162:ARG:HH22	6:N:414:ARG:HD2	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1030:GLN:HE22	6:N:628:ARG:HD3	1.82	0.45
6:N:788:GLY:O	6:N:792:ILE:HG22	2.16	0.45
1:X:2:DC:H2''	1:X:3:DC:C6	2.51	0.45
4:B:57:TYR:CZ	4:B:161:ARG:HG2	2.51	0.45
4:B:83:LYS:HZ1	4:B:168:ASP:CG	2.19	0.45
5:C:289:THR:O	5:C:291:ALA:N	2.49	0.45
5:C:414:GLY:O	5:C:416:GLY:N	2.49	0.45
5:C:45:GLN:HB2	5:C:71:TYR:CE2	2.52	0.45
5:C:874:LEU:CD2	6:D:1029:ARG:HB2	2.47	0.45
6:D:1105:ILE:HG23	6:D:1200:VAL:HG23	1.97	0.45
6:D:204:LEU:HD11	6:D:445:ARG:CD	2.46	0.45
6:D:98:PRO:C	6:D:458:ALA:HB3	2.37	0.45
6:D:9:ARG:HG3	6:D:1455:LYS:O	2.16	0.45
4:K:105:GLY:O	4:K:132:LEU:HB3	2.16	0.45
4:K:183:ASP:HA	5:M:938:LYS:HZ1	1.82	0.45
5:M:1039:ALA:HA	6:N:1227:GLN:HE22	1.81	0.45
5:M:95:TYR:HD2	5:M:114:PHE:HB2	1.80	0.45
5:M:432:ARG:HG2	5:M:432:ARG:H	1.41	0.45
5:M:433:THR:CG2	5:M:488:ALA:HB1	2.46	0.45
5:M:410:ILE:HB	5:M:453:THR:O	2.16	0.45
5:M:861:LEU:CD2	5:M:863:ASP:H	2.28	0.45
6:N:1197:ARG:HG3	6:N:1198:TYR:H	1.81	0.45
6:N:1258:ARG:HG3	6:N:1258:ARG:NH1	2.31	0.45
6:N:1401:GLU:HA	12:N:9382:HOH:O	2.17	0.45
6:N:137:PRO:HD2	6:N:453:ASP:CG	2.37	0.45
6:N:906:GLN:HB3	6:N:911:LEU:CD1	2.46	0.45
2:Y:4:U:O2'	2:Y:5:C:H5'	2.17	0.45
4:A:181:VAL:HA	4:A:194:LYS:O	2.16	0.45
4:B:86:VAL:O	4:B:86:VAL:HG13	2.17	0.45
5:C:172:ILE:HD12	5:C:172:ILE:N	2.32	0.45
5:C:238:LEU:O	5:C:238:LEU:HD23	2.17	0.45
5:C:309:TYR:HA	5:C:312:ALA:HB3	1.97	0.45
5:C:64:LEU:HD13	5:C:359:MET:CG	2.46	0.45
5:C:401:LEU:HD21	5:C:565:GLN:HB2	1.98	0.45
5:C:333:ILE:N	5:C:465:GLY:O	2.44	0.45
5:C:498:GLN:OE1	6:D:1068:LEU:HB2	2.16	0.45
5:C:863:ASP:O	5:C:865:THR:N	2.49	0.45
5:C:94:LEU:HG	5:C:116:GLY:O	2.17	0.45
6:D:1031:ASN:HB3	6:D:1034:GLN:HG3	1.98	0.45
6:D:1153:VAL:HG22	6:N:561:GLY:CA	2.45	0.45
6:D:1462:LEU:N	6:D:1462:LEU:HD23	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1486:VAL:HG22	7:E:22:VAL:HG13	1.98	0.45
6:D:162:ARG:HE	6:D:434:ARG:HE	1.63	0.45
6:D:165:LYS:CA	6:D:397:LYS:H	2.29	0.45
6:D:414:ARG:HB3	6:D:450:TYR:CD1	2.52	0.45
6:D:45:PHE:HB3	6:D:86:ARG:NH2	2.31	0.45
4:K:31:GLY:N	4:K:193:ASP:OD1	2.48	0.45
4:L:62:LEU:HA	4:L:163:ASN:CG	2.36	0.45
5:M:224:GLU:H	5:M:224:GLU:HG2	1.50	0.45
6:N:1115:THR:CG2	6:N:1151:ARG:NH2	2.80	0.45
6:N:1171:VAL:O	6:N:1175:ILE:HG13	2.17	0.45
6:N:710:ARG:HD2	6:N:768:ASN:ND2	2.24	0.45
2:Y:7:G:C8	2:Y:7:G:H5"	2.51	0.45
3:Z:6:DC:OP1	6:N:1266:ARG:NH2	2.49	0.45
4:A:14:ARG:HH21	4:A:22:GLU:HB3	1.82	0.45
5:C:754:ILE:HD13	5:C:791:ARG:NE	2.31	0.45
6:D:10:ILE:CD1	6:D:1447:LEU:HG	2.47	0.45
6:D:471:GLU:O	6:D:474:GLU:HB3	2.17	0.45
5:C:1095:LEU:HG	6:D:603:LEU:HD13	1.99	0.45
6:D:672:ALA:HB2	12:D:9135:HOH:O	2.17	0.45
6:D:974:ILE:HD11	6:D:995:LEU:HD13	1.99	0.45
7:E:41:GLU:HG2	7:E:42:PRO:CD	2.46	0.45
7:E:57:ASP:H	7:E:58:PRO:HD3	1.82	0.45
4:K:194:LYS:HE2	4:K:196:THR:CG2	2.46	0.45
4:K:44:LEU:HD22	4:K:199:ILE:HG21	1.99	0.45
5:M:1096:ALA:HB1	6:N:13:ALA:HB3	1.99	0.45
6:N:146:PRO:HG3	12:N:9111:HOH:O	2.16	0.45
6:N:477:LEU:HB3	6:N:496:LEU:HD22	1.99	0.45
6:N:965:GLU:HA	6:N:968:ASP:OD2	2.17	0.45
1:X:12:DG:H2"	1:X:13:DT:O5'	2.15	0.45
4:A:1:MET:O	4:A:6:LEU:HB2	2.17	0.45
5:C:64:LEU:CD2	5:C:359:MET:HG3	2.37	0.45
5:C:890:LEU:C	5:C:890:LEU:HD23	2.37	0.45
6:D:783:ARG:NH2	6:D:1029:ARG:CZ	2.80	0.45
6:D:1263:PHE:HA	6:D:1375:MET:CE	2.47	0.45
6:D:136:ASP:CB	6:D:137:PRO:HD3	2.30	0.45
6:D:1407:LEU:HA	12:D:9390:HOH:O	2.16	0.45
6:D:1442:ASN:CG	6:D:1444:THR:HB	2.37	0.45
6:D:150:ARG:HH12	6:D:468:LEU:CD2	2.30	0.45
6:D:546:ARG:HB2	12:D:9041:HOH:O	2.15	0.45
6:D:660:LYS:CE	6:D:694:VAL:HA	2.47	0.45
6:D:932:ASP:OD1	6:D:932:ASP:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:957:PRO:O	6:D:960:LYS:HB3	2.17	0.45
7:E:90:GLU:HA	12:E:115:HOH:O	2.16	0.45
4:K:124:ASN:N	4:K:125:PRO:HD3	2.31	0.45
5:M:1065:ALA:HB1	5:M:1077:PRO:HG2	1.98	0.45
5:M:119:PRO:HG2	5:M:386:PHE:CD2	2.52	0.45
5:M:437:ARG:HA	5:M:467:ILE:CG2	2.47	0.45
5:M:86:LYS:NZ	5:M:813:VAL:HG12	2.32	0.45
6:N:1047:LYS:HB3	6:N:1048:PRO:HD2	1.99	0.45
6:N:1047:LYS:HA	6:N:1053:PHE:CE1	2.52	0.45
5:M:551:GLU:O	6:N:1065:LEU:HB3	2.17	0.45
6:N:1174:LEU:O	6:N:1183:ILE:HD11	2.16	0.45
6:N:1197:ARG:HB3	6:N:1396:GLU:CG	2.47	0.45
6:N:1237:THR:OG1	6:N:1256:LEU:HB2	2.16	0.45
6:N:133:ILE:O	6:N:152:LEU:HA	2.17	0.45
6:N:82:LYS:O	6:N:84:ILE:N	2.50	0.45
7:O:54:LEU:HG	7:O:58:PRO:CG	2.47	0.45
5:C:1054:THR:HG21	5:C:1079:PRO:CB	2.40	0.45
5:C:137:VAL:HG22	5:C:391:LEU:HG	1.99	0.45
5:C:630:ARG:NH2	5:C:706:GLU:HA	2.25	0.45
5:C:843:HIS:CD2	5:C:884:GLN:HA	2.51	0.45
5:C:85:GLU:OE2	5:C:85:GLU:HA	2.17	0.45
5:C:914:ILE:HA	5:C:917:LEU:HD12	1.99	0.45
5:C:874:LEU:HD23	6:D:1029:ARG:HB2	1.98	0.45
6:D:1109:GLU:HG2	6:D:1202:GLN:H	1.81	0.45
6:D:1209:LEU:CD2	6:D:1211:MET:H	2.21	0.45
6:D:1311:LEU:O	6:D:1311:LEU:HD12	2.16	0.45
6:D:1346:ARG:HG3	12:D:9099:HOH:O	2.16	0.45
6:D:195:VAL:HG23	12:D:9368:HOH:O	2.17	0.45
6:D:447:VAL:O	6:D:449:SER:N	2.49	0.45
12:C:1190:HOH:O	6:D:651:GLU:HG3	2.16	0.45
6:D:826:PRO:HD2	6:D:829:VAL:HG22	1.99	0.45
6:D:844:ALA:O	6:D:867:ARG:HB3	2.17	0.45
6:D:969:ARG:O	6:D:972:LEU:HB3	2.17	0.45
5:M:1008:ARG:CZ	5:M:1011:GLY:HA3	2.47	0.45
5:M:226:VAL:HG13	5:M:227:PHE:CD1	2.51	0.45
5:M:352:ALA:HA	5:M:355:VAL:CG1	2.47	0.45
5:M:365:ASP:O	5:M:367:LEU:N	2.50	0.45
5:M:367:LEU:HD23	5:M:371:LYS:HE3	1.99	0.45
5:M:676:ILE:O	5:M:676:ILE:HG23	2.17	0.45
5:M:710:ILE:HG23	5:M:823:VAL:HB	1.98	0.45
6:N:1196:THR:HG21	12:N:9128:HOH:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1273:VAL:HG22	6:N:1305:LEU:HD21	1.98	0.45
6:N:131:LYS:HG3	6:N:568:ARG:CG	2.47	0.45
6:N:399:ARG:HB2	6:N:401:TYR:HE1	1.82	0.45
6:N:455:ARG:HB3	6:N:459:GLU:CD	2.37	0.45
6:N:895:VAL:O	6:N:899:LEU:HG	2.16	0.45
2:Y:7:G:H2'	2:Y:8:C:OP1	2.17	0.45
4:A:59:GLU:HG3	4:A:139:ASN:ND2	2.32	0.45
5:C:1096:ALA:O	6:D:21:TRP:HH2	2.00	0.45
5:C:119:PRO:HG2	5:C:386:PHE:CG	2.52	0.45
5:C:39:ARG:O	5:C:41:ASN:N	2.50	0.45
5:C:486:MET:HE3	5:C:490:GLU:HB2	1.99	0.45
5:C:572:ILE:HG13	5:C:573:ARG:H	1.82	0.45
5:C:670:GLN:HE22	5:C:699:PHE:HA	1.82	0.45
5:C:922:PHE:HB3	5:C:964:LYS:HZ1	1.81	0.45
5:C:95:TYR:HE1	12:C:1214:HOH:O	2.00	0.45
5:C:578:VAL:HG11	5:C:991:GLN:CD	2.36	0.45
6:D:1021:TYR:CE2	6:D:1025:GLN:HG3	2.52	0.45
6:D:107:ASP:OD1	6:D:109:PRO:HD2	2.17	0.45
6:D:1098:LEU:HD21	6:D:1229:ILE:CG2	2.47	0.45
6:D:1098:LEU:HD21	6:D:1229:ILE:HG21	1.99	0.45
6:D:1384:PRO:HG3	6:D:1389:LEU:CA	2.47	0.45
6:D:8:VAL:C	6:D:1434:TRP:HH2	2.21	0.45
6:D:14:SER:O	6:D:17:LYS:N	2.50	0.45
6:D:439:LEU:HD12	6:D:439:LEU:H	1.81	0.45
6:D:879:ARG:NH2	6:D:903:ASP:HA	2.31	0.45
6:D:947:ILE:HD12	6:D:947:ILE:H	1.82	0.45
7:E:41:GLU:HB2	7:E:45:ARG:NE	2.31	0.45
4:K:33:GLY:O	4:K:195:LEU:HD22	2.16	0.45
4:K:58:ILE:HG21	4:K:68:ILE:HD11	1.97	0.45
4:K:42:ARG:NH1	4:L:34:VAL:HB	2.29	0.45
4:L:42:ARG:HH11	4:L:42:ARG:HG2	1.82	0.45
5:M:101:ILE:HG22	5:M:102:HIS:N	2.32	0.45
5:M:44:ILE:HD13	5:M:340:MET:HE1	1.99	0.45
5:M:820:ARG:HB2	12:M:7055:HOH:O	2.17	0.45
6:N:28:LYS:CB	6:N:41:ARG:HD2	2.40	0.45
6:N:141:ILE:HD11	6:N:448:GLU:CD	2.37	0.45
6:N:56:TYR:CE2	6:N:66:GLN:HA	2.52	0.45
6:N:704:ARG:HB2	6:N:736:PHE:CD2	2.52	0.45
1:X:11:DC:H5'	12:X:877:HOH:O	2.17	0.45
5:C:136:ILE:CD1	5:C:392:SER:HB3	2.42	0.45
5:C:455:LEU:HD11	12:C:1429:HOH:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:580:MET:SD	5:C:584:GLU:HG3	2.57	0.45
5:C:725:ASP:O	5:C:727:PRO:HD3	2.17	0.45
5:C:858:MET:SD	5:C:867:VAL:HG23	2.56	0.45
5:C:962:GLN:NE2	12:C:1264:HOH:O	2.50	0.45
6:D:956:ILE:HA	6:D:1039:CYS:HB3	1.98	0.45
6:D:131:LYS:HG3	6:D:456:MET:HE1	1.99	0.45
6:D:1272:ALA:CA	6:D:1326:THR:HB	2.46	0.45
6:D:161:LEU:CD2	6:D:452:ILE:HG21	2.47	0.45
6:D:48:ARG:NH1	6:D:48:ARG:HB3	2.32	0.45
6:D:97:THR:HG21	6:D:571:LYS:HD3	1.99	0.45
6:D:770:LEU:HD11	6:D:919:PHE:CE2	2.52	0.45
6:D:928:ALA:HB1	12:E:102:HOH:O	2.17	0.45
7:E:48:MET:HG2	7:E:49:GLN:N	2.31	0.45
4:L:142:VAL:HG23	4:L:142:VAL:O	2.17	0.45
5:M:141:HIS:HD2	5:M:332:ARG:O	2.00	0.45
5:M:578:VAL:HG11	5:M:991:GLN:CB	2.42	0.45
6:N:423:ASP:HB3	6:N:426:LYS:HB3	1.99	0.45
5:C:1008:ARG:HA	6:D:651:GLU:OE2	2.17	0.44
5:C:1084:SER:HA	5:C:1087:VAL:HG12	1.99	0.44
5:C:220:GLY:HA2	5:C:223:ASP:OD1	2.16	0.44
5:C:267:TYR:O	5:C:267:TYR:HD2	2.00	0.44
5:C:275:TYR:CD2	5:C:276:LYS:HG3	2.53	0.44
5:C:334:ARG:O	5:C:339:LEU:HD11	2.16	0.44
5:C:399:ASN:ND2	5:C:402:SER:HB3	2.32	0.44
5:C:422:ARG:O	8:D:7001:STD:H143	2.18	0.44
5:C:492:ASP:CB	5:C:518:LYS:HE2	2.42	0.44
5:C:744:ARG:O	5:C:800:VAL:HG21	2.17	0.44
6:D:1161:GLU:CD	6:D:1164:ARG:HB2	2.37	0.44
6:D:1118:ILE:HG13	6:D:1190:SER:OG	2.17	0.44
6:D:397:LYS:O	6:D:448:GLU:N	2.40	0.44
6:D:409:VAL:CG2	6:D:421:LEU:HA	2.47	0.44
4:L:64:GLU:HA	4:L:165:ILE:HD13	1.99	0.44
5:M:1001:VAL:HG12	5:M:1001:VAL:O	2.17	0.44
5:M:139:GLN:HE21	5:M:334:ARG:HD3	1.81	0.44
5:M:270:GLY:O	5:M:274:ARG:HB3	2.17	0.44
5:M:428:ARG:NH1	5:M:450:GLY:O	2.49	0.44
5:M:93:PRO:HG3	5:M:117:HIS:CE1	2.49	0.44
5:M:862:PRO:HD3	5:M:973:VAL:O	2.17	0.44
6:N:1044:LEU:HB2	12:N:9330:HOH:O	2.16	0.44
6:N:1148:VAL:HG12	6:N:1163:GLY:HA2	1.98	0.44
6:N:398:ALA:HB2	6:N:447:VAL:CA	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:519:VAL:HG22	6:N:544:TYR:CE1	2.52	0.44
6:N:704:ARG:NH1	6:N:705:ALA:HB2	2.33	0.44
6:N:710:ARG:HH11	6:N:768:ASN:HD21	1.58	0.44
6:N:996:TRP:HB3	12:N:9282:HOH:O	2.16	0.44
4:A:62:LEU:HD13	4:A:63:HIS:ND1	2.32	0.44
5:C:796:GLU:HG3	5:C:1004:LYS:HZ1	1.81	0.44
5:C:1018:GLN:HG3	5:C:1060:ILE:CD1	2.39	0.44
5:C:839:LEU:N	5:C:839:LEU:HD23	2.31	0.44
5:C:682:TYR:CE1	5:C:851:LYS:HD2	2.52	0.44
5:C:93:PRO:HB3	5:C:117:HIS:HE1	1.81	0.44
5:C:988:VAL:HG11	6:D:950:GLY:HA2	1.99	0.44
6:D:28:LYS:CG	6:D:29:PRO:HD2	2.45	0.44
6:D:506:GLY:O	6:D:507:ASN:C	2.55	0.44
6:D:809:PRO:O	6:D:812:ALA:HB3	2.16	0.44
7:E:41:GLU:N	7:E:42:PRO:CD	2.79	0.44
4:L:52:ALA:HB2	4:L:170:VAL:O	2.17	0.44
4:L:94:LEU:HD23	4:L:97:VAL:CG2	2.37	0.44
5:M:1103:ASP:CG	5:M:1104:GLU:N	2.70	0.44
5:M:195:LEU:HD12	5:M:195:LEU:O	2.17	0.44
5:M:411:SER:HA	5:M:452:ILE:HG22	1.99	0.44
5:M:332:ARG:NE	5:M:464:LEU:HD11	2.31	0.44
5:M:499:ALA:HB3	5:M:536:PRO:HD3	1.98	0.44
6:N:104:PHE:HB3	6:N:512:MET:CE	2.47	0.44
5:M:906:PHE:CE2	6:N:1067:VAL:HA	2.53	0.44
6:N:1105:ILE:HG21	6:N:1370:ILE:HG23	2.00	0.44
6:N:1259:VAL:HG22	6:N:1355:VAL:HG21	1.99	0.44
6:N:1301:LYS:HD2	6:N:1301:LYS:HA	1.75	0.44
6:N:157:GLU:HG2	12:N:9472:HOH:O	2.16	0.44
6:N:506:GLY:O	6:N:507:ASN:C	2.56	0.44
6:N:616:GLN:HA	12:N:9306:HOH:O	2.17	0.44
6:N:643:GLY:HA3	6:N:727:GLN:HB2	2.00	0.44
5:M:1005:MET:HB2	6:N:648:MET:CE	2.47	0.44
6:N:6:ARG:NH1	6:N:6:ARG:HB3	2.31	0.44
6:N:728:LEU:HD21	6:N:733:CYS:SG	2.57	0.44
6:N:774:SER:C	6:N:776:GLU:H	2.21	0.44
6:N:72:VAL:CG2	6:N:77:GLY:HA2	2.47	0.44
6:N:799:LYS:HB3	6:N:826:PRO:CG	2.37	0.44
4:L:176:ARG:NH1	6:N:884:ARG:HD3	2.32	0.44
2:Y:8:C:H6	2:Y:8:C:O5'	2.00	0.44
4:A:50:GLY:O	4:A:146:ARG:HA	2.17	0.44
4:A:186:LEU:HD22	4:A:192:LEU:CD1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:22:GLU:N	12:B:393:HOH:O	2.48	0.44
4:B:80:LEU:HG	6:D:844:ALA:HA	1.97	0.44
5:C:15:LEU:N	5:C:586:ARG:HH22	2.13	0.44
5:C:198:ARG:NH2	5:C:203:ASP:HA	2.30	0.44
5:C:393:GLN:H	5:C:393:GLN:HE21	1.63	0.44
5:C:553:ASP:OD1	5:C:843:HIS:ND1	2.50	0.44
5:C:860:HIS:H	5:C:860:HIS:CD2	2.35	0.44
5:C:578:VAL:HG11	5:C:991:GLN:HB3	1.99	0.44
6:D:1085:ALA:O	6:D:1088:THR:HG22	2.17	0.44
6:D:1274:ILE:HB	6:D:1322:GLY:HA2	1.99	0.44
6:D:1383:ASP:HB3	6:D:1416:ALA:HB3	1.98	0.44
6:D:206:ARG:HG3	6:D:206:ARG:NH1	2.32	0.44
6:D:141:ILE:HD13	6:D:432:TYR:HB2	1.97	0.44
6:D:434:ARG:O	6:D:447:VAL:HG22	2.17	0.44
6:D:134:VAL:HG21	6:D:463:GLN:CB	2.47	0.44
6:D:619:LEU:O	6:D:620:GLY:O	2.35	0.44
6:D:701:LEU:HD21	6:D:763:MET:CE	2.47	0.44
6:D:963:TYR:CD2	6:D:1002:LYS:HB3	2.53	0.44
6:D:975:GLU:O	6:D:979:GLU:HG3	2.17	0.44
7:E:59:ASN:HB3	7:E:62:THR:OG1	2.17	0.44
7:E:87:LYS:O	7:E:91:ARG:HG3	2.17	0.44
4:K:206:THR:HG22	4:K:209:GLU:HG3	1.98	0.44
4:K:61:VAL:HG22	12:K:1349:HOH:O	2.16	0.44
4:K:64:GLU:HG2	4:K:64:GLU:O	2.18	0.44
5:M:1032:PHE:HZ	5:M:1040:LEU:CD1	2.30	0.44
5:M:1070:ILE:HG23	6:N:656:PHE:CE2	2.52	0.44
5:M:1090:LYS:HE2	5:M:1112:PHE:CE1	2.52	0.44
5:M:1105:LYS:O	5:M:1107:ASN:N	2.49	0.44
5:M:258:TYR:N	5:M:258:TYR:CD1	2.85	0.44
5:M:502:PRO:O	5:M:503:LEU:HD12	2.16	0.44
5:M:92:ALA:HB2	5:M:120:LEU:HD11	2.00	0.44
6:N:1144:LEU:HD11	6:N:1186:VAL:CG1	2.46	0.44
6:N:1191:PRO:HD3	6:N:1204:CYS:O	2.16	0.44
6:N:1236:LEU:HD23	6:N:1359:GLN:O	2.18	0.44
6:N:1295:GLU:CB	6:N:1300:SER:HB3	2.48	0.44
6:N:1281:VAL:HB	6:N:1313:VAL:HG22	1.99	0.44
6:N:163:TYR:HB2	6:N:166:GLN:CG	2.44	0.44
6:N:179:VAL:HA	6:N:183:GLU:OE1	2.18	0.44
6:N:728:LEU:HD11	6:N:732:VAL:HG23	1.98	0.44
1:X:17:DC:P	5:M:1031:ARG:HG3	2.57	0.44
4:A:71:VAL:HG22	4:A:132:LEU:HD11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:32:PHE:CE2	4:B:43:ILE:HD13	2.52	0.44
4:A:48:ILE:HD12	4:A:174:VAL:HG21	1.99	0.44
5:C:260:LEU:CB	5:C:291:ALA:HB1	2.47	0.44
5:C:141:HIS:HE1	5:C:332:ARG:HH11	1.63	0.44
5:C:469:THR:OG1	5:C:470:PRO:HD2	2.18	0.44
5:C:53:PRO:HG3	12:C:1281:HOH:O	2.17	0.44
5:C:747:ALA:O	5:C:800:VAL:HG22	2.17	0.44
6:D:1078:ARG:HG2	6:D:1078:ARG:HH11	1.81	0.44
6:D:1310:ARG:HG2	6:D:1310:ARG:HH11	1.83	0.44
6:D:1383:ASP:HA	12:D:9485:HOH:O	2.16	0.44
6:D:137:PRO:HD2	6:D:453:ASP:CG	2.38	0.44
6:D:529:GLN:HG3	6:D:535:PHE:CE1	2.52	0.44
6:D:646:LYS:CA	6:D:720:LEU:HG	2.47	0.44
6:D:704:ARG:HH21	6:D:737:ASN:HD22	1.65	0.44
6:D:794:GLN:HB3	6:D:1017:PHE:HZ	1.81	0.44
4:K:59:GLU:HG3	4:K:139:ASN:O	2.18	0.44
4:K:74:ASP:O	4:K:78:ILE:HG13	2.18	0.44
4:L:194:LYS:HE2	12:L:689:HOH:O	2.18	0.44
5:M:1032:PHE:HE2	5:M:1037:VAL:HA	1.82	0.44
5:M:1082:PRO:HD3	12:M:7137:HOH:O	2.16	0.44
5:M:143:SER:O	5:M:144:PRO:C	2.55	0.44
5:M:175:GLU:O	5:M:183:SER:N	2.47	0.44
5:M:290:LEU:HB3	5:M:302:VAL:CG1	2.48	0.44
5:M:51:THR:HB	5:M:348:LEU:HG	1.99	0.44
5:M:625:LEU:CD1	5:M:641:PRO:HG3	2.44	0.44
5:M:660:ALA:O	5:M:667:ALA:O	2.35	0.44
5:M:668:LEU:HB2	5:M:995:MET:SD	2.57	0.44
5:M:725:ASP:O	5:M:727:PRO:HD3	2.16	0.44
5:M:838:LYS:HD2	5:M:838:LYS:N	2.33	0.44
6:N:1093:TYR:CE1	6:N:1097:LYS:HE3	2.53	0.44
6:N:130:SER:O	6:N:568:ARG:NH2	2.47	0.44
6:N:720:LEU:H	6:N:720:LEU:CD1	2.24	0.44
6:N:860:LEU:HB2	6:N:861:GLN:NE2	2.33	0.44
6:N:928:ALA:HA	6:N:931:LEU:HD12	1.99	0.44
12:M:7189:HOH:O	6:N:940:THR:HG23	2.16	0.44
6:N:995:LEU:O	6:N:999:THR:HB	2.17	0.44
7:O:67:GLU:OE1	7:O:73:LEU:HD11	2.17	0.44
2:Y:15:C:H2'	2:Y:16:G:C8	2.52	0.44
4:A:26:GLU:HB3	4:A:194:LYS:HG3	2.00	0.44
5:C:630:ARG:HH21	5:C:706:GLU:CA	2.25	0.44
5:C:744:ARG:HD2	5:C:747:ALA:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:757:GLY:HA2	5:C:789:SER:HB3	2.00	0.44
5:C:923:GLU:O	5:C:927:GLY:HA3	2.18	0.44
6:D:1258:ARG:NH2	12:D:9088:HOH:O	2.50	0.44
6:D:1281:VAL:CG2	6:D:1319:VAL:HG11	2.48	0.44
6:D:1321:ALA:O	6:D:1339:LYS:HD2	2.17	0.44
6:D:660:LYS:HZ3	6:D:694:VAL:HA	1.82	0.44
6:D:7:LYS:HA	6:D:1457:ASP:O	2.18	0.44
7:E:54:LEU:O	7:E:63:TRP:HZ2	1.99	0.44
4:L:59:GLU:HB3	4:L:137:ARG:HH12	1.78	0.44
4:L:52:ALA:CB	4:L:170:VAL:H	2.31	0.44
4:L:173:PRO:CB	4:L:205:VAL:HG22	2.48	0.44
4:L:48:ILE:HA	4:L:49:PRO:HD3	1.89	0.44
5:M:629:TYR:CB	5:M:637:LEU:HD12	2.47	0.44
6:N:1141:GLU:HB3	6:N:1168:MET:HE1	1.98	0.44
6:N:161:LEU:CD2	6:N:452:ILE:HD13	2.48	0.44
6:N:844:ALA:O	6:N:867:ARG:HB3	2.18	0.44
7:O:48:MET:CB	7:O:54:LEU:HB2	2.48	0.44
4:A:88:ARG:HB3	4:A:123:MET:SD	2.58	0.44
4:B:111:ALA:HB3	4:B:124:ASN:O	2.17	0.44
4:B:61:VAL:HG11	4:B:75:VAL:HG21	1.98	0.44
5:C:175:GLU:HB3	5:C:183:SER:OG	2.17	0.44
5:C:187:ASN:O	5:C:188:LYS:HG3	2.17	0.44
5:C:174:LEU:HB3	5:C:310:LEU:HD22	1.99	0.44
5:C:470:PRO:HD2	12:C:1361:HOH:O	2.17	0.44
2:H:16:G:OP1	5:C:846:LYS:HD3	2.17	0.44
5:C:859:PRO:HD2	5:C:870:ILE:HD11	2.00	0.44
6:D:4:GLU:HG2	6:D:1470:ARG:HH21	1.82	0.44
6:D:441:ARG:CZ	6:D:445:ARG:NH2	2.80	0.44
6:D:204:LEU:HD11	6:D:445:ARG:HD2	2.00	0.44
6:D:525:ARG:HG2	6:D:525:ARG:O	2.18	0.44
6:D:547:LEU:CD2	6:D:581:LEU:HD21	2.42	0.44
12:C:1387:HOH:O	6:D:5:VAL:HG12	2.16	0.44
6:D:611:GLN:HE21	6:D:611:GLN:HB2	1.68	0.44
6:D:704:ARG:HB2	6:D:736:PHE:HB3	1.98	0.44
6:D:704:ARG:CZ	6:D:737:ASN:O	2.66	0.44
1:G:22:DC:H4'	5:C:388:ARG:CG	2.44	0.44
3:I:13:DG:H2''	3:I:14:DG:C8	2.52	0.44
4:K:7:LYS:HZ3	4:K:186:LEU:HD23	1.82	0.44
4:K:41:ARG:HG2	4:K:177:VAL:CG1	2.47	0.44
5:M:21:ILE:HA	12:M:7145:HOH:O	2.16	0.44
5:M:261:ILE:N	5:M:261:ILE:HD12	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:408:ARG:NH1	5:M:455:LEU:HD12	2.33	0.44
5:M:329:GLY:HA3	5:M:489:THR:CG2	2.48	0.44
5:M:691:SER:HB3	5:M:868:ASP:HA	2.00	0.44
5:M:876:VAL:HG22	5:M:884:GLN:NE2	2.31	0.44
6:N:954:ALA:C	6:N:1039:CYS:SG	2.96	0.44
6:N:1086:LEU:HB3	6:N:1087:ARG:HH11	1.83	0.44
6:N:1397:LYS:NZ	6:N:1432:LYS:HD2	2.32	0.44
6:N:1429:LEU:HD11	6:N:1440:PHE:CE1	2.53	0.44
6:N:162:ARG:HH22	6:N:414:ARG:NE	2.16	0.44
6:N:396:VAL:O	6:N:398:ALA:N	2.44	0.44
6:N:50:PHE:CB	6:N:522:PRO:HG2	2.47	0.44
6:N:557:LEU:HD23	6:N:557:LEU:O	2.18	0.44
6:N:577:ALA:HB3	12:N:9173:HOH:O	2.16	0.44
6:N:647:ARG:NH1	12:N:9284:HOH:O	2.48	0.44
6:N:57:GLU:HG3	6:N:64:LYS:HG3	1.99	0.44
5:M:1004:LYS:HZ3	6:N:724:GLN:HE22	1.65	0.44
6:N:756:GLN:HG3	6:N:760:ARG:CD	2.48	0.44
4:A:144:VAL:HG11	12:A:360:HOH:O	2.17	0.44
5:C:1047:HIS:CD2	12:D:9080:HOH:O	2.71	0.44
5:C:544:THR:HG22	5:C:550:LEU:HD22	1.99	0.44
5:C:862:PRO:HA	5:C:975:TYR:HE1	1.83	0.44
6:D:1152:GLU:CD	6:D:1159:ARG:HE	2.21	0.44
6:D:1174:LEU:O	6:D:1183:ILE:HD11	2.18	0.44
6:D:1258:ARG:O	6:D:1262:LEU:HD13	2.18	0.44
6:D:1422:MET:CE	6:D:1426:LYS:HD3	2.48	0.44
6:D:1448:THR:HG22	6:D:1449:GLU:N	2.33	0.44
6:D:477:LEU:CD2	6:D:495:ARG:HD3	2.37	0.44
6:D:502:PHE:CZ	6:D:509:PRO:HB3	2.53	0.44
6:D:553:ARG:O	6:D:557:LEU:HG	2.17	0.44
6:D:616:GLN:HA	12:D:9218:HOH:O	2.18	0.44
6:D:795:VAL:HG11	6:D:863:VAL:HG13	1.99	0.44
6:D:799:LYS:HZ3	6:D:824:ASN:HA	1.82	0.44
6:D:861:GLN:H	6:D:861:GLN:CD	2.21	0.44
2:H:8:C:C2'	2:H:9:G:H5'	2.47	0.44
4:K:101:LEU:HD23	4:K:101:LEU:O	2.17	0.44
4:K:100:LEU:O	4:K:115:LEU:HG	2.18	0.44
4:K:112:ARG:HE	4:K:125:PRO:HB3	1.83	0.44
4:K:79:ILE:HD12	4:K:80:LEU:N	2.32	0.44
4:L:107:LYS:HG2	4:L:108:GLU:N	2.32	0.44
5:M:1092:LEU:CA	5:M:1095:LEU:HD12	2.47	0.44
5:M:1104:GLU:CD	5:M:1104:GLU:N	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:61:LYS:HG2	12:M:7213:HOH:O	2.17	0.44
5:M:654:LEU:HD13	5:M:664:GLY:N	2.32	0.44
5:M:733:ALA:HB1	6:N:679:ARG:HH12	1.82	0.44
5:M:798:GLY:HA3	5:M:828:ALA:O	2.18	0.44
6:N:1183:ILE:HD12	6:N:1183:ILE:O	2.18	0.44
6:N:1283:ILE:HD12	6:N:1283:ILE:N	2.33	0.44
6:N:1101:VAL:HG13	6:N:1428:ALA:HB2	1.98	0.44
6:N:1453:ALA:O	6:N:1455:LYS:N	2.50	0.44
6:D:1176:LYS:NZ	6:N:411:THR:HG22	2.33	0.44
6:N:569:ASN:O	6:N:572:ARG:HB2	2.18	0.44
6:N:619:LEU:O	6:N:620:GLY:O	2.34	0.44
5:M:729:LEU:CD2	6:N:675:ARG:HD2	2.38	0.44
6:N:22:SER:CB	6:N:92:HIS:ND1	2.80	0.44
4:B:162:ILE:HG13	4:B:163:ASN:N	2.33	0.44
4:A:9:PRO:CB	4:B:224:TYR:HB3	2.40	0.44
5:C:101:ILE:HG22	5:C:102:HIS:N	2.32	0.44
5:C:262:ALA:O	5:C:264:PRO:O	2.35	0.44
5:C:368:THR:N	5:C:369:PRO:CD	2.81	0.44
5:C:403:SER:O	5:C:407:LYS:HG3	2.18	0.44
5:C:416:GLY:HA2	12:C:1136:HOH:O	2.17	0.44
5:C:728:HIS:HB3	5:C:729:LEU:HD12	2.00	0.44
5:C:742:VAL:HG23	5:C:805:ARG:NH2	2.33	0.44
6:D:1110:ALA:O	6:D:1111:ASP:C	2.56	0.44
6:D:1216:SER:HB3	12:D:9474:HOH:O	2.17	0.44
6:D:1394:VAL:HG12	6:D:1397:LYS:H	1.82	0.44
6:D:168:THR:HG23	6:D:206:ARG:NH1	2.33	0.44
1:G:5:DG:C2'	1:G:6:DT:H71	2.48	0.44
4:K:63:HIS:N	4:K:63:HIS:ND1	2.65	0.44
4:L:176:ARG:HG3	4:L:200:TRP:CE3	2.53	0.44
5:M:193:LEU:HD23	5:M:307:LEU:HD13	2.00	0.44
5:M:313:LEU:HD13	5:M:321:GLU:CB	2.48	0.44
5:M:421:GLU:HG2	12:M:7290:HOH:O	2.17	0.44
5:M:733:ALA:HB1	6:N:679:ARG:NH1	2.33	0.44
5:M:732:ALA:HB1	5:M:735:ARG:HH22	1.83	0.44
5:M:78:PHE:CB	5:M:88:LEU:HD21	2.46	0.44
6:N:1194:CYS:SG	6:N:1200:VAL:HG13	2.58	0.44
6:N:1274:ILE:HG21	6:N:1330:ILE:HG23	2.00	0.44
6:N:1296:SER:C	6:N:1298:GLY:H	2.21	0.44
6:N:1311:LEU:HD11	12:N:9292:HOH:O	2.18	0.44
6:N:1279:GLY:O	6:N:1318:TYR:HA	2.16	0.44
6:N:1327:ARG:HH11	6:N:1327:ARG:CB	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1353:GLN:HE22	6:N:1363:LEU:CD2	2.31	0.44
6:N:1438:ALA:N	6:N:1446:VAL:HG11	2.33	0.44
6:N:47:GLU:H	6:N:47:GLU:HG2	1.35	0.44
6:N:502:PHE:CZ	6:N:509:PRO:HB3	2.53	0.44
6:N:613:ARG:NH1	6:N:616:GLN:HG2	2.32	0.44
6:N:639:LEU:HD13	6:N:766:ALA:CB	2.48	0.44
6:N:711:LEU:HB3	6:N:714:GLN:HE21	1.82	0.44
6:N:764:LEU:HD12	6:N:767:HIS:H	1.82	0.44
6:N:939:PHE:O	6:N:943:THR:HG23	2.18	0.44
5:C:1047:HIS:HD2	12:D:9080:HOH:O	2.01	0.44
5:C:21:ILE:HD12	5:C:22:GLN:H	1.83	0.44
5:C:292:ARG:NH2	5:C:294:GLU:OE1	2.50	0.44
5:C:147:TYR:HB3	5:C:323:ASP:CB	2.47	0.44
1:G:22:DC:H4'	5:C:388:ARG:CD	2.47	0.44
5:C:805:ARG:HG3	5:C:823:VAL:HG13	1.99	0.44
5:C:889:HIS:O	5:C:892:LEU:HB3	2.18	0.44
5:C:902:ILE:O	5:C:904:PRO:HD3	2.17	0.44
6:D:786:ILE:HG21	6:D:1027:GLY:H	1.83	0.44
6:D:1120:VAL:HG23	6:D:1188:VAL:HG11	2.00	0.44
6:D:1258:ARG:HE	6:D:1262:LEU:HD11	1.83	0.44
6:D:1275:SER:HB3	6:D:1325:LEU:HD13	2.00	0.44
6:D:148:GLU:CB	6:D:151:GLN:HB2	2.33	0.44
6:D:97:THR:CG2	6:D:571:LYS:HD3	2.48	0.44
6:D:642:CYS:SG	6:D:716:PHE:HB2	2.57	0.44
6:D:661:MET:HA	6:D:666:ILE:CD1	2.48	0.44
6:D:937:TYR:HA	6:D:940:THR:OG1	2.17	0.44
5:C:676:ILE:O	6:D:948:THR:HG22	2.18	0.44
7:E:25:LYS:O	7:E:29:GLN:HG2	2.18	0.44
12:C:1357:HOH:O	7:E:31:LEU:HD13	2.17	0.44
1:G:2:DC:H2''	1:G:3:DC:C6	2.53	0.44
4:K:199:ILE:HD12	4:K:199:ILE:N	2.31	0.44
5:M:1059:ASP:O	5:M:1063:ARG:HG2	2.17	0.44
5:M:212:GLY:HA3	5:M:218:VAL:HG21	2.00	0.44
5:M:524:VAL:HG13	5:M:525:SER:O	2.18	0.44
5:M:604:ALA:HB3	5:M:612:VAL:O	2.17	0.44
5:M:897:LEU:HD11	5:M:920:GLN:NE2	2.32	0.44
5:M:969:GLN:HB3	5:M:969:GLN:HE21	1.53	0.44
6:N:1145:TYR:CD2	6:N:1168:MET:SD	3.11	0.44
6:N:1435:LEU:HD13	6:N:1457:ASP:CG	2.38	0.44
6:N:457:GLY:C	6:N:459:GLU:N	2.71	0.44
6:N:800:LYS:HD2	6:N:804:LEU:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:900:ILE:HG22	6:N:914:LEU:CD1	2.47	0.44
6:N:975:GLU:O	6:N:979:GLU:HG3	2.18	0.44
4:A:105:GLY:HA3	12:A:356:HOH:O	2.17	0.43
4:A:152:PRO:HB3	4:A:154:GLU:OE1	2.18	0.43
5:C:1078:GLU:HA	5:C:1079:PRO:HD3	1.78	0.43
5:C:480:THR:HG22	5:C:481:ASP:H	1.83	0.43
5:C:745:ILE:HA	12:C:1408:HOH:O	2.17	0.43
6:D:908:LYS:CB	6:D:1027:GLY:HA3	2.30	0.43
6:D:10:ILE:O	6:D:1451:ALA:HA	2.18	0.43
6:D:1109:GLU:HG2	6:D:1201:CYS:CA	2.46	0.43
6:D:1277:ILE:CD1	6:D:1301:LYS:HB2	2.48	0.43
6:D:153:LEU:HD11	6:D:158:TYR:N	2.33	0.43
6:D:396:VAL:HG23	6:D:396:VAL:O	2.18	0.43
6:D:41:ARG:CD	6:D:42:ASP:H	2.31	0.43
6:D:41:ARG:CD	6:D:42:ASP:N	2.81	0.43
6:D:524:LEU:N	6:D:524:LEU:CD1	2.81	0.43
6:D:801:GLY:HA3	12:D:9235:HOH:O	2.17	0.43
6:D:93:ILE:HD12	6:D:517:VAL:HB	2.00	0.43
6:D:996:TRP:CE3	6:D:996:TRP:HA	2.53	0.43
1:G:18:DG:H2'	1:G:19:DC:C6	2.51	0.43
4:K:86:VAL:CG1	4:K:124:ASN:HB2	2.49	0.43
4:L:103:ALA:H	4:L:138:LEU:HD23	1.82	0.43
5:M:127:PHE:O	5:M:133:ASP:HA	2.18	0.43
5:M:181:VAL:HG12	5:M:182:VAL:N	2.33	0.43
5:M:18:LEU:CD2	5:M:404:LEU:HD21	2.45	0.43
5:M:585:GLU:HG2	5:M:665:PHE:CD2	2.52	0.43
5:M:874:LEU:HD21	6:N:1028:ALA:HB1	1.99	0.43
5:M:565:GLN:HE21	5:M:995:MET:CE	2.30	0.43
6:N:1205:TYR:HE2	6:N:1208:ASP:O	2.00	0.43
6:N:1240:THR:HB	6:N:1255:GLY:CA	2.48	0.43
6:N:1319:VAL:HG12	6:N:1323:GLN:CD	2.39	0.43
6:N:1498:ALA:HB2	7:O:88:GLU:OE1	2.18	0.43
6:N:500:ARG:NH2	6:N:1387:SER:HA	2.33	0.43
6:N:51:GLY:C	6:N:86:ARG:HB2	2.38	0.43
6:N:520:LEU:HG	6:N:521:PRO:CD	2.47	0.43
6:N:525:ARG:HG2	6:N:525:ARG:O	2.18	0.43
6:N:583:ASP:OD1	6:N:586:ARG:HB2	2.17	0.43
4:A:227:ASN:HB2	12:A:326:HOH:O	2.18	0.43
4:B:69:PRO:O	4:B:71:VAL:HG23	2.18	0.43
5:C:1085:PHE:O	5:C:1088:LEU:HB3	2.18	0.43
5:C:435:TYR:C	5:C:437:ARG:H	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:474:VAL:HA	5:C:478:VAL:O	2.18	0.43
6:D:1026:SER:C	6:D:1028:ALA:H	2.22	0.43
6:D:1102:THR:HG22	6:D:1222:GLY:HA2	1.99	0.43
6:D:1424:VAL:HG13	6:D:1425:THR:N	2.33	0.43
6:D:165:LYS:CD	6:D:199:LEU:HD22	2.48	0.43
6:D:591:VAL:CG1	6:D:597:ASP:HA	2.47	0.43
6:D:731:LEU:HA	6:D:731:LEU:HD23	1.78	0.43
6:D:767:HIS:NE2	7:E:6:ILE:HG12	2.34	0.43
7:E:54:LEU:HG	7:E:58:PRO:HB2	2.00	0.43
4:K:133:GLU:HG2	4:K:134:GLU:N	2.33	0.43
4:L:38:ASN:HB3	4:L:39:PRO:HD3	2.00	0.43
5:M:292:ARG:CZ	5:M:299:LYS:HD3	2.48	0.43
2:Y:13:C:C4'	5:M:409:ARG:HH22	2.30	0.43
5:M:476:GLY:C	5:M:478:VAL:H	2.21	0.43
5:M:579:VAL:HB	5:M:890:LEU:CD2	2.42	0.43
5:M:665:PHE:HA	12:M:7223:HOH:O	2.18	0.43
5:M:674:VAL:HG23	5:M:869:VAL:HG13	1.99	0.43
5:M:684:PHE:CE1	6:N:782:SER:HB3	2.53	0.43
6:N:1048:PRO:HG3	6:N:1075:HIS:CE1	2.53	0.43
6:N:119:SER:HA	12:N:9418:HOH:O	2.18	0.43
6:N:1371:VAL:HG13	6:N:1424:VAL:HG23	1.99	0.43
6:N:206:ARG:NE	6:N:394:LEU:HD23	2.33	0.43
5:M:1117:SER:O	6:N:23:TYR:OH	2.37	0.43
5:M:1036:GLU:HG3	6:N:707:THR:OG1	2.18	0.43
6:N:911:LEU:HD21	6:N:934:LEU:HD22	2.00	0.43
7:O:57:ASP:N	7:O:58:PRO:HD3	2.33	0.43
4:B:99:LEU:CD2	4:B:144:VAL:HG21	2.46	0.43
5:C:1050:GLN:HB3	12:C:1306:HOH:O	2.18	0.43
5:C:150:PRO:HG3	5:C:158:TYR:HD2	1.83	0.43
5:C:265:ARG:HD3	5:C:267:TYR:CD1	2.52	0.43
5:C:200:LEU:HD22	5:C:300:ASP:OD1	2.18	0.43
5:C:343:GLN:OE1	5:C:346:VAL:HG21	2.18	0.43
5:C:352:ALA:HA	5:C:355:VAL:CG1	2.48	0.43
5:C:435:TYR:O	5:C:437:ARG:HD2	2.18	0.43
5:C:577:PRO:HB3	5:C:842:ARG:NH2	2.33	0.43
5:C:716:LYS:HD2	12:D:9254:HOH:O	2.18	0.43
5:C:536:PRO:HB3	5:C:906:PHE:HD1	1.83	0.43
5:C:946:ARG:HG3	12:C:1210:HOH:O	2.18	0.43
5:C:861:LEU:HA	5:C:974:LEU:HD12	2.00	0.43
6:D:1233:GLY:C	6:D:1237:THR:HB	2.38	0.43
6:D:1301:LYS:HD2	6:D:1301:LYS:HA	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1279:GLY:O	6:D:1318:TYR:HA	2.18	0.43
6:D:1496:GLU:HA	6:D:1499:ARG:NE	2.33	0.43
5:C:729:LEU:HD13	6:D:675:ARG:NE	2.31	0.43
6:D:926:LYS:NZ	6:D:929:ARG:CZ	2.81	0.43
4:K:131:THR:HG21	12:K:1287:HOH:O	2.17	0.43
4:L:36:LEU:C	4:L:39:PRO:HD2	2.38	0.43
5:M:437:ARG:HH22	5:M:491:GLU:HB2	1.83	0.43
5:M:607:ASP:HB3	5:M:609:ASN:H	1.83	0.43
5:M:73:LEU:O	5:M:73:LEU:HD12	2.18	0.43
6:N:1031:ASN:O	6:N:1035:ILE:HG12	2.17	0.43
6:N:1048:PRO:HG3	6:N:1075:HIS:ND1	2.33	0.43
6:N:134:VAL:HA	6:N:152:LEU:HA	2.00	0.43
6:N:1428:ALA:O	6:N:1431:THR:HG22	2.19	0.43
6:N:453:ASP:CA	6:N:455:ARG:HH21	2.31	0.43
6:N:541:ASN:O	6:N:545:ARG:HG3	2.18	0.43
6:N:684:LYS:O	6:N:687:VAL:HG23	2.18	0.43
5:M:684:PHE:HD2	6:N:740:PHE:CE1	2.36	0.43
6:N:781:PRO:HB2	6:N:786:ILE:CD1	2.47	0.43
4:A:99:LEU:CD2	4:A:122:ILE:HD11	2.48	0.43
4:B:97:VAL:HG11	4:B:120:VAL:HG21	2.00	0.43
5:C:1029:GLY:HA3	6:D:623:VAL:O	2.18	0.43
5:C:166:PRO:HB3	12:C:1362:HOH:O	2.19	0.43
5:C:408:ARG:NH1	5:C:542:VAL:HG23	2.33	0.43
5:C:759:THR:HB	5:C:785:VAL:CG2	2.48	0.43
6:D:1124:GLN:HA	6:D:1125:PRO:HD3	1.54	0.43
6:D:1403:LEU:HD23	6:D:1407:LEU:HD22	2.00	0.43
6:D:141:ILE:HG21	6:D:448:GLU:O	2.18	0.43
6:D:1460:ILE:HG13	6:D:1460:ILE:O	2.16	0.43
7:E:24:ALA:O	7:E:28:GLN:HG3	2.18	0.43
4:K:19:GLU:O	4:K:200:TRP:HA	2.18	0.43
4:L:174:VAL:HG13	4:L:200:TRP:O	2.19	0.43
4:L:48:ILE:HD13	4:L:210:ALA:HB1	1.98	0.43
5:M:243:ARG:HD2	5:M:243:ARG:O	2.19	0.43
5:M:56:GLU:HB2	5:M:359:MET:HE3	2.00	0.43
5:M:424:GLY:O	5:M:425:PHE:C	2.56	0.43
5:M:409:ARG:HB3	5:M:454:SER:OG	2.18	0.43
5:M:20:GLU:OE2	5:M:460:ARG:HB2	2.18	0.43
5:M:573:ARG:HD3	5:M:699:PHE:CE1	2.53	0.43
5:M:718:GLY:HA3	5:M:761:PHE:CE1	2.53	0.43
5:M:789:SER:O	5:M:791:ARG:HG2	2.18	0.43
6:N:1093:TYR:HD2	6:N:1093:TYR:HA	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1262:LEU:HD23	6:N:1352:ILE:CG1	2.46	0.43
6:N:806:PHE:CG	6:N:806:PHE:O	2.70	0.43
3:Z:12:DA:H3'	12:Z:1652:HOH:O	2.19	0.43
4:A:14:ARG:CZ	4:A:22:GLU:HB3	2.49	0.43
4:B:14:ARG:HH11	4:B:14:ARG:HG3	1.82	0.43
5:C:1086:ARG:HD3	5:C:1112:PHE:HD2	1.84	0.43
5:C:185:LYS:HE2	5:C:190:LYS:HE2	2.00	0.43
5:C:414:GLY:C	5:C:416:GLY:N	2.71	0.43
5:C:564:MET:CE	5:C:840:ALA:HB3	2.48	0.43
5:C:571:LEU:HD21	5:C:700:TYR:HD2	1.83	0.43
5:C:617:ASP:HB2	5:C:619:ARG:CD	2.48	0.43
6:D:1005:GLN:HG2	12:D:9051:HOH:O	2.17	0.43
6:D:1146:GLY:O	6:D:1207:TYR:N	2.51	0.43
6:D:130:SER:HA	6:D:572:ARG:NE	2.34	0.43
6:D:814:ALA:O	6:D:818:ARG:HG3	2.19	0.43
6:D:880:ILE:HD13	6:D:880:ILE:O	2.19	0.43
6:D:793:THR:OG1	6:D:905:PRO:HA	2.18	0.43
6:D:911:LEU:HD23	6:D:934:LEU:CD1	2.48	0.43
4:K:62:LEU:HG	4:K:163:ASN:OD1	2.18	0.43
5:M:168:ARG:NH2	12:M:7365:HOH:O	2.51	0.43
5:M:325:ILE:HG22	5:M:331:ARG:HH12	1.83	0.43
5:M:749:VAL:HG22	5:M:798:GLY:O	2.18	0.43
5:M:958:THR:CG2	5:M:961:GLU:HG2	2.48	0.43
6:N:1305:LEU:HD12	12:N:9055:HOH:O	2.17	0.43
6:N:1481:VAL:HG11	7:O:18:ARG:CA	2.41	0.43
6:N:525:ARG:HA	6:N:526:PRO:HD3	1.62	0.43
2:Y:8:C:C2'	2:Y:9:G:C8	3.01	0.43
4:A:73:GLU:H	4:A:73:GLU:HG2	1.52	0.43
4:B:50:GLY:O	4:B:146:ARG:HA	2.19	0.43
5:C:524:VAL:CG2	5:C:528:GLU:HB2	2.49	0.43
5:C:398:THR:O	5:C:570:PRO:HD3	2.18	0.43
5:C:754:ILE:H	6:D:679:ARG:HH22	1.64	0.43
5:C:877:PRO:HG3	6:D:1023:MET:HE3	2.00	0.43
6:D:1107:VAL:HG12	6:D:1217:ILE:HG23	2.01	0.43
6:D:1310:ARG:NH1	6:D:1310:ARG:HG2	2.33	0.43
6:D:505:SER:CB	6:D:1454:GLY:N	2.81	0.43
12:C:1246:HOH:O	6:D:518:PRO:HD2	2.18	0.43
6:D:551:ASN:CG	6:D:555:LYS:HZ2	2.21	0.43
6:D:827:ILE:O	6:D:837:GLY:HA3	2.17	0.43
6:D:861:GLN:N	6:D:861:GLN:CD	2.71	0.43
7:E:8:LYS:O	7:E:12:MET:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1488:ASP:OD1	7:E:26:ARG:CZ	2.66	0.43
4:K:12:THR:OG1	4:K:24:VAL:HB	2.19	0.43
4:K:50:GLY:CA	4:K:173:PRO:HG3	2.44	0.43
5:M:1045:ALA:N	6:N:762:GLN:HE22	2.17	0.43
5:M:478:VAL:HG22	5:M:506:ASN:CB	2.48	0.43
5:M:649:VAL:HA	12:M:7333:HOH:O	2.18	0.43
5:M:710:ILE:CD1	5:M:790:LEU:HB2	2.43	0.43
5:M:674:VAL:O	5:M:989:VAL:HA	2.19	0.43
6:N:1040:GLY:O	6:N:1060:SER:HB3	2.18	0.43
6:N:1292:VAL:HG11	6:N:1325:LEU:HG	2.01	0.43
6:N:1400:VAL:HG21	12:N:9363:HOH:O	2.17	0.43
6:N:1435:LEU:HD13	6:N:1457:ASP:OD2	2.17	0.43
6:N:1485:GLN:O	7:O:75:PHE:HA	2.18	0.43
6:N:954:ALA:O	6:N:1062:ARG:NH2	2.51	0.43
4:A:111:ALA:HB3	4:A:124:ASN:O	2.18	0.43
4:B:132:LEU:HD21	4:B:136:GLY:O	2.18	0.43
4:B:155:LYS:HA	12:B:401:HOH:O	2.18	0.43
4:B:178:ALA:O	4:B:198:ARG:N	2.45	0.43
4:B:7:LYS:HD3	12:B:317:HOH:O	2.19	0.43
5:C:140:ILE:HA	5:C:332:ARG:O	2.18	0.43
5:C:515:ALA:O	5:C:516:ARG:HD3	2.18	0.43
5:C:680:ASP:HB2	5:C:682:TYR:CD2	2.53	0.43
5:C:838:LYS:HG3	5:C:997:LEU:HB2	2.01	0.43
6:D:1020:LEU:HA	6:D:1023:MET:CE	2.49	0.43
6:D:1236:LEU:HB2	6:D:1359:GLN:HG3	2.00	0.43
6:D:204:LEU:CD1	6:D:394:LEU:HD11	2.48	0.43
6:D:521:PRO:O	6:D:525:ARG:HD2	2.19	0.43
6:D:52:PRO:CG	6:D:80:VAL:HG12	2.49	0.43
6:D:87:ARG:HG3	6:D:88:TYR:CE2	2.54	0.43
7:E:70:THR:HG21	7:E:72:ARG:HE	1.83	0.43
4:K:65:PHE:HE1	12:M:7116:HOH:O	2.01	0.43
5:M:12:VAL:HB	5:M:472:ARG:HH12	1.83	0.43
5:M:352:ALA:O	5:M:355:VAL:HG12	2.19	0.43
5:M:134:ARG:HH21	5:M:393:GLN:HA	1.84	0.43
5:M:401:LEU:HD12	5:M:401:LEU:O	2.18	0.43
5:M:713:ARG:HB3	5:M:720:GLU:CD	2.38	0.43
6:N:1281:VAL:HG13	6:N:1292:VAL:HG13	2.00	0.43
6:N:133:ILE:O	6:N:153:LEU:N	2.51	0.43
6:N:1353:GLN:OE1	6:N:1368:ILE:HD12	2.19	0.43
5:M:1047:HIS:CD2	6:N:1476:THR:HG21	2.54	0.43
6:N:719:VAL:HG22	12:N:9124:HOH:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1257:PRO:HG3	8:N:8001:STD:O6	2.19	0.43
6:N:932:ASP:HA	6:N:935:LYS:HE2	2.00	0.43
7:O:41:GLU:CG	7:O:42:PRO:HD3	2.49	0.43
7:O:54:LEU:HA	7:O:58:PRO:CG	2.48	0.43
7:O:54:LEU:HG	7:O:58:PRO:HB2	2.01	0.43
2:Y:9:G:C8	2:Y:9:G:C5'	3.02	0.43
5:C:13:ILE:HG13	5:C:458:TYR:HE2	1.84	0.43
5:C:165:LEU:HD12	5:C:166:PRO:C	2.39	0.43
5:C:26:TYR:CE1	5:C:340:MET:HG3	2.54	0.43
5:C:405:ARG:NH1	5:C:563:ASN:HA	2.34	0.43
5:C:476:GLY:C	5:C:478:VAL:H	2.22	0.43
5:C:626:ARG:O	5:C:638:ASP:HA	2.18	0.43
5:C:727:PRO:HG3	5:C:783:ARG:HD3	2.00	0.43
6:D:1282:ARG:HA	6:D:1315:ASP:HA	2.00	0.43
6:D:1300:SER:HB2	6:N:60:CYS:CB	2.31	0.43
6:D:1344:VAL:HG12	6:D:1348:LEU:HD23	2.01	0.43
6:D:1106:VAL:HG11	6:D:1474:ALA:HB2	2.01	0.43
6:D:1495:ILE:HG12	7:E:80:VAL:CG1	2.49	0.43
6:D:403:PHE:HD1	6:D:405:ASP:O	2.02	0.43
6:D:477:LEU:HD21	6:D:495:ARG:CD	2.39	0.43
6:D:477:LEU:HD13	6:D:492:ALA:O	2.18	0.43
5:C:684:PHE:CE1	6:D:782:SER:HB3	2.49	0.43
6:D:87:ARG:HA	12:D:9338:HOH:O	2.19	0.43
7:E:62:THR:HA	7:E:65:MET:HE1	2.01	0.43
4:K:206:THR:HG23	4:K:208:LEU:N	2.33	0.43
4:L:111:ALA:HB3	4:L:124:ASN:O	2.18	0.43
5:M:1006:HIS:O	6:N:627:GLY:HA2	2.18	0.43
5:M:1051:GLU:HB3	5:M:1056:LYS:HZ3	1.84	0.43
5:M:262:ALA:O	5:M:264:PRO:O	2.37	0.43
5:M:435:TYR:C	5:M:437:ARG:H	2.22	0.43
5:M:437:ARG:C	5:M:438:ILE:HD12	2.38	0.43
5:M:516:ARG:CD	5:M:521:PRO:HA	2.40	0.43
5:M:597:ALA:CA	5:M:655:LEU:HD21	2.49	0.43
6:N:1124:GLN:HE21	6:N:1135:ARG:HG3	1.83	0.43
6:N:122:GLU:O	6:N:126:VAL:HG23	2.19	0.43
6:N:1282:ARG:NH2	12:N:9013:HOH:O	2.51	0.43
6:N:17:LYS:HA	6:N:20:SER:HB3	2.00	0.43
6:N:729:HIS:HD1	6:N:731:LEU:N	2.10	0.43
6:N:754:PHE:CE2	7:O:21:VAL:HA	2.53	0.43
5:C:580:MET:O	5:C:903:SER:N	2.51	0.43
5:C:680:ASP:HB2	5:C:682:TYR:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:747:ALA:H	5:C:800:VAL:CG2	2.32	0.43
6:D:1047:LYS:HB3	6:D:1048:PRO:CD	2.48	0.43
6:D:28:LYS:HB2	6:D:41:ARG:HH11	1.84	0.43
6:D:421:LEU:HD11	6:D:446:VAL:HG21	2.01	0.43
6:D:102:ILE:HD12	6:D:579:ASP:HB3	2.01	0.43
6:D:601:ARG:NH2	6:D:611:GLN:O	2.52	0.43
4:K:218:LEU:HG	4:L:222:LEU:HD11	2.01	0.43
5:M:346:VAL:O	5:M:350:ARG:HD2	2.19	0.43
5:M:602:GLU:HA	5:M:647:GLN:O	2.19	0.43
5:M:724:ARG:O	5:M:726:ILE:HD12	2.19	0.43
5:M:862:PRO:HG2	5:M:925:TYR:OH	2.18	0.43
5:M:52:PHE:CZ	5:M:98:LEU:HD23	2.53	0.43
6:N:13:ALA:HB1	6:N:18:ILE:HD11	2.01	0.43
6:N:528:VAL:HG12	6:N:529:GLN:N	2.34	0.43
6:N:645:PRO:HB2	6:N:648:MET:HB2	2.01	0.43
6:N:683:ILE:HD12	6:N:683:ILE:N	2.33	0.43
7:O:26:ARG:NH2	7:O:38:THR:HA	2.33	0.43
4:B:227:ASN:HA	4:B:228:PRO:HD3	1.91	0.43
5:C:97:ARG:HA	5:C:111:ASP:O	2.19	0.43
5:C:38:LYS:HA	5:C:38:LYS:HD3	1.82	0.43
5:C:456:ALA:HA	5:C:541:SER:HA	2.00	0.43
5:C:762:LYS:NZ	5:C:771:GLU:OE1	2.51	0.43
6:D:1058:ARG:HB3	12:D:9528:HOH:O	2.19	0.43
6:D:1295:GLU:HB2	6:D:1300:SER:OG	2.19	0.43
6:D:1302:GLU:OE2	6:D:1304:LYS:HE3	2.19	0.43
6:D:1353:GLN:HE21	6:D:1357:ARG:CZ	2.32	0.43
6:D:206:ARG:HB2	6:D:392:SER:O	2.18	0.43
6:D:875:THR:CG2	6:D:879:ARG:HB2	2.49	0.43
5:C:679:PHE:HA	6:D:943:THR:HG22	2.01	0.43
7:E:31:LEU:HD23	7:E:35:PHE:CD1	2.54	0.43
7:E:39:VAL:O	7:E:72:ARG:NH1	2.52	0.43
4:K:224:TYR:CD2	4:L:9:PRO:HG2	2.53	0.43
4:L:123:MET:CE	4:L:204:SER:HA	2.48	0.43
4:K:225:PHE:CE2	4:L:211:LEU:HD21	2.54	0.43
5:M:260:LEU:O	5:M:260:LEU:HD12	2.19	0.43
1:X:20:DG:O3'	5:M:394:PHE:CE2	2.72	0.43
5:M:73:LEU:HB2	5:M:93:PRO:O	2.19	0.43
5:M:435:TYR:HA	6:N:1071:PHE:HE2	1.83	0.43
6:N:1120:VAL:HA	6:N:1121:PRO:HD3	1.80	0.43
6:N:1440:PHE:CG	6:N:1441:GLN:N	2.87	0.43
6:N:99:ALA:O	6:N:514:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:39:VAL:HG23	7:O:72:ARG:HD2	2.00	0.43
5:C:113:VAL:HG11	5:C:373:VAL:CG1	2.49	0.42
5:C:143:SER:O	5:C:144:PRO:C	2.56	0.42
5:C:265:ARG:HB3	5:C:267:TYR:CD1	2.54	0.42
5:C:305:PRO:O	5:C:308:ARG:HB2	2.19	0.42
5:C:829:GLN:HB2	12:C:1461:HOH:O	2.19	0.42
5:C:863:ASP:OD1	5:C:865:THR:HG23	2.18	0.42
5:C:95:TYR:HB2	5:C:112:GLU:OE1	2.19	0.42
1:G:13:DT:H5'	6:D:1093:TYR:CE1	2.54	0.42
6:D:1219:GLU:O	6:D:1221:VAL:HG23	2.19	0.42
6:D:1437:ALA:O	6:D:1446:VAL:HG21	2.19	0.42
6:D:1441:GLN:CD	6:D:1442:ASN:H	2.21	0.42
6:D:139:GLY:H	6:D:147:VAL:HG21	1.84	0.42
6:D:699:VAL:HA	6:D:718:PRO:HD3	2.00	0.42
6:D:1257:PRO:HG3	8:D:7001:STD:O6	2.19	0.42
6:D:806:PHE:O	6:D:806:PHE:CG	2.72	0.42
4:K:191:ASP:O	4:K:191:ASP:OD1	2.37	0.42
5:M:1014:SER:HB3	5:M:1017:THR:O	2.19	0.42
5:M:1017:THR:OG1	5:M:1019:GLN:HG3	2.19	0.42
5:M:251:ASP:HB3	5:M:252:LYS:HG3	2.00	0.42
5:M:264:PRO:CB	5:M:289:THR:HB	2.45	0.42
5:M:30:LEU:HD12	5:M:30:LEU:O	2.18	0.42
5:M:397:GLU:O	5:M:398:THR:C	2.58	0.42
5:M:498:GLN:O	5:M:501:THR:HG23	2.19	0.42
5:M:603:VAL:HG21	5:M:643:VAL:HG11	1.99	0.42
5:M:660:ALA:O	5:M:667:ALA:HB3	2.19	0.42
5:M:946:ARG:HD3	5:M:984:GLU:HB2	2.01	0.42
6:N:1037:GLN:HB3	6:N:1061:PHE:CE2	2.54	0.42
6:N:125:GLN:NE2	6:N:129:PHE:HD1	2.17	0.42
6:N:1462:LEU:N	6:N:1462:LEU:HD23	2.34	0.42
6:N:1481:VAL:O	6:N:1481:VAL:HG12	2.18	0.42
6:N:403:PHE:CD2	6:N:444:VAL:HG23	2.54	0.42
6:N:616:GLN:NE2	12:N:9306:HOH:O	2.51	0.42
6:N:970:LYS:O	6:N:974:ILE:HG13	2.19	0.42
4:A:39:PRO:HG3	4:B:39:PRO:CG	2.48	0.42
4:A:71:VAL:HG22	4:A:132:LEU:HD12	2.01	0.42
4:B:41:ARG:HG3	4:B:177:VAL:CG2	2.49	0.42
5:C:1046:ALA:HB2	12:D:9209:HOH:O	2.18	0.42
5:C:1111:ILE:H	5:C:1111:ILE:HG12	1.51	0.42
5:C:1115:LEU:CD1	5:C:1115:LEU:N	2.82	0.42
5:C:172:ILE:HA	5:C:185:LYS:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:194:VAL:HG11	5:C:204:GLN:HE21	1.84	0.42
5:C:290:LEU:H	5:C:290:LEU:CD2	2.32	0.42
5:C:552:HIS:CD2	5:C:886:LEU:HD22	2.54	0.42
5:C:693:GLU:OE1	5:C:855:VAL:HB	2.19	0.42
6:D:1057:VAL:HG13	6:D:1069:GLU:HB3	2.01	0.42
6:D:110:SER:OG	6:D:112:ILE:HG23	2.19	0.42
6:D:1145:TYR:HB2	6:D:1168:MET:CE	2.48	0.42
6:D:1255:GLY:O	6:D:1259:VAL:HG23	2.19	0.42
6:D:1291:SER:HB2	6:N:75:ARG:CZ	2.48	0.42
6:D:133:ILE:HG23	6:D:455:ARG:C	2.39	0.42
6:D:133:ILE:HG23	6:D:456:MET:N	2.34	0.42
6:D:202:VAL:HG21	6:D:400:VAL:N	2.35	0.42
5:C:1095:LEU:HD21	6:D:603:LEU:HB3	2.01	0.42
6:D:583:ASP:HB2	6:D:604:THR:OG1	2.19	0.42
6:D:619:LEU:HD12	6:D:621:LYS:HE3	2.00	0.42
6:D:800:LYS:NZ	6:D:804:LEU:HD22	2.33	0.42
6:D:796:ARG:HB2	6:D:828:LYS:HD2	2.01	0.42
7:E:59:ASN:ND2	12:E:125:HOH:O	2.52	0.42
2:H:9:G:H8	2:H:9:G:H5'	1.79	0.42
4:K:152:PRO:HG2	12:K:1303:HOH:O	2.19	0.42
4:K:27:PRO:CB	4:K:186:LEU:HD11	2.44	0.42
5:M:1063:ARG:HG3	5:M:1064:ASN:N	2.33	0.42
5:M:39:ARG:O	5:M:41:ASN:N	2.52	0.42
5:M:460:ARG:NH1	5:M:462:ASP:HA	2.34	0.42
5:M:758:ARG:HG2	5:M:758:ARG:HH11	1.84	0.42
6:N:1127:GLU:HB3	6:N:1133:ARG:NH2	2.34	0.42
6:N:1209:LEU:HD23	6:N:1210:SER:H	1.82	0.42
7:O:41:GLU:N	7:O:42:PRO:CD	2.82	0.42
7:O:81:PRO:HB2	12:O:907:HOH:O	2.18	0.42
2:Y:7:G:H22	5:M:1014:SER:HA	1.83	0.42
4:B:176:ARG:HG3	4:B:200:TRP:HB2	2.01	0.42
4:A:42:ARG:CZ	4:B:34:VAL:HB	2.49	0.42
4:B:83:LYS:HZ2	4:B:168:ASP:N	2.17	0.42
5:C:113:VAL:HG11	5:C:373:VAL:CB	2.49	0.42
5:C:118:ILE:H	5:C:118:ILE:HG13	1.72	0.42
5:C:242:LEU:HA	12:C:1134:HOH:O	2.19	0.42
5:C:332:ARG:HA	5:C:465:GLY:O	2.18	0.42
5:C:733:ALA:HB1	6:D:679:ARG:NH2	2.34	0.42
6:D:1209:LEU:HD22	6:D:1211:MET:HB3	2.02	0.42
6:D:1275:SER:CB	6:D:1294:VAL:HG11	2.49	0.42
6:D:133:ILE:HG22	6:D:134:VAL:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:161:LEU:HD23	6:D:449:SER:HB3	2.01	0.42
6:D:465:LEU:O	6:D:465:LEU:HD23	2.19	0.42
6:D:475:LYS:HA	6:D:478:LEU:CG	2.50	0.42
6:D:817:GLU:HA	6:D:836:VAL:HG21	2.00	0.42
4:L:123:MET:H	4:L:123:MET:HG2	1.64	0.42
5:M:141:HIS:CE1	5:M:165:LEU:HD23	2.54	0.42
5:M:173:ASP:OD1	5:M:185:LYS:HB2	2.19	0.42
5:M:265:ARG:HB3	5:M:267:TYR:CD2	2.53	0.42
6:N:1295:GLU:HB2	6:N:1300:SER:HB3	2.02	0.42
6:N:1397:LYS:HZ1	6:N:1432:LYS:HB2	1.84	0.42
6:N:478:LEU:HB3	6:N:1388:ARG:NH2	2.34	0.42
6:N:481:MET:O	6:N:489:ARG:HB2	2.18	0.42
6:N:704:ARG:HD2	6:N:705:ALA:H	1.84	0.42
6:N:645:PRO:HG3	6:N:725:SER:O	2.19	0.42
6:N:958:GLU:O	6:N:962:GLN:OE1	2.37	0.42
6:N:970:LYS:O	6:N:970:LYS:HG3	2.20	0.42
1:X:16:DG:H4'	12:X:729:HOH:O	2.19	0.42
4:B:71:VAL:HG22	4:B:132:LEU:CD1	2.49	0.42
4:B:48:ILE:HD12	4:B:174:VAL:HG21	2.01	0.42
5:C:175:GLU:HB3	5:C:183:SER:HG	1.85	0.42
5:C:267:TYR:HB2	5:C:272:ALA:CB	2.49	0.42
5:C:901:TYR:O	5:C:902:ILE:HG13	2.19	0.42
5:C:909:ALA:HB1	5:C:914:ILE:HD13	2.01	0.42
6:D:1453:ALA:HB1	12:D:9151:HOH:O	2.19	0.42
6:D:1476:THR:C	6:D:1478:SER:N	2.71	0.42
6:D:19:ARG:HA	6:D:22:SER:HB3	2.01	0.42
6:D:436:GLU:HB2	6:D:445:ARG:NH1	2.30	0.42
6:D:48:ARG:CB	6:D:48:ARG:HH11	2.30	0.42
6:D:502:PHE:CG	6:D:509:PRO:HD3	2.55	0.42
4:L:92:PRO:HA	4:L:146:ARG:NH2	2.34	0.42
5:M:1004:LYS:HA	5:M:1004:LYS:HD3	1.81	0.42
5:M:1109:VAL:HB	6:N:3:LYS:HD3	2.01	0.42
5:M:300:ASP:OD2	5:M:303:PHE:HB2	2.19	0.42
5:M:770:GLU:H	5:M:770:GLU:HG2	1.44	0.42
6:N:1236:LEU:HD21	6:N:1361:VAL:N	2.34	0.42
6:N:1294:VAL:HG22	6:N:1325:LEU:CD2	2.40	0.42
6:N:1480:PHE:HB2	12:N:9424:HOH:O	2.19	0.42
6:N:521:PRO:HA	6:N:522:PRO:HD3	1.92	0.42
6:N:549:ASN:HD22	6:N:549:ASN:HA	1.61	0.42
6:N:629:SER:HB3	6:N:726:ILE:HG13	2.02	0.42
6:N:701:LEU:HD21	6:N:763:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1295:GLU:HG3	6:N:76:CYS:SG	2.59	0.42
1:X:16:DG:H5''	5:M:1031:ARG:HB2	2.01	0.42
5:C:332:ARG:HH22	5:C:338:GLU:CD	2.22	0.42
5:C:474:VAL:HG23	5:C:478:VAL:O	2.19	0.42
5:C:631:SER:HB3	5:C:635:THR:O	2.19	0.42
5:C:690:ILE:HG12	5:C:691:SER:N	2.34	0.42
5:C:752:GLY:N	5:C:792:VAL:HB	2.33	0.42
5:C:87:ASP:O	5:C:814:GLU:HG3	2.19	0.42
6:D:1148:VAL:CG1	6:D:1163:GLY:HA2	2.48	0.42
6:D:127:LEU:CD1	6:D:461:ILE:HD11	2.41	0.42
6:D:517:VAL:HG11	6:D:547:LEU:HD21	2.00	0.42
5:C:1008:ARG:HD2	6:D:624:ASP:O	2.19	0.42
6:D:701:LEU:HD21	6:D:763:MET:HE3	2.00	0.42
6:D:8:VAL:O	6:D:1457:ASP:N	2.42	0.42
6:D:791:TYR:CD2	6:D:945:SER:HB2	2.55	0.42
6:D:977:ALA:CB	6:D:983:LEU:HD11	2.49	0.42
1:G:1:DC:H2'	12:G:1552:HOH:O	2.20	0.42
4:K:83:LYS:HE2	4:K:168:ASP:OD2	2.19	0.42
5:M:1003:ASP:O	5:M:1005:MET:N	2.53	0.42
5:M:520:GLU:OE1	6:N:1047:LYS:HE2	2.19	0.42
5:M:743:VAL:HG13	5:M:800:VAL:HG11	2.01	0.42
5:M:804:VAL:HG12	5:M:806:LEU:HD21	2.02	0.42
5:M:976:ASP:HB3	5:M:979:THR:HG22	2.02	0.42
5:M:516:ARG:CG	6:N:1068:LEU:HD13	2.49	0.42
6:N:1225:ALA:O	6:N:1229:ILE:HG13	2.19	0.42
6:N:141:ILE:HA	6:N:141:ILE:HD12	1.77	0.42
6:N:1465:ASN:HA	6:N:1465:ASN:HD22	1.55	0.42
6:N:1491:THR:O	6:N:1495:ILE:HD13	2.19	0.42
6:N:162:ARG:HH12	6:N:414:ARG:NH2	2.16	0.42
6:N:891:GLU:HG2	12:N:9132:HOH:O	2.18	0.42
6:N:960:LYS:O	6:N:964:LEU:HB2	2.19	0.42
2:Y:7:G:H8	2:Y:7:G:C5'	2.32	0.42
5:C:1038:TRP:O	5:C:1041:GLU:HB2	2.19	0.42
5:C:479:VAL:CG2	5:C:532:MET:HE2	2.50	0.42
5:C:801:VAL:HG23	5:C:802:ARG:N	2.34	0.42
5:C:862:PRO:HD3	5:C:973:VAL:O	2.19	0.42
6:D:1191:PRO:HG2	6:D:1370:ILE:CD1	2.50	0.42
6:D:1280:VAL:HG22	6:D:1317:ASP:C	2.40	0.42
6:D:169:TYR:CD1	6:D:191:LEU:HD12	2.52	0.42
6:D:202:VAL:HG12	6:D:204:LEU:CD2	2.50	0.42
6:D:202:VAL:HG11	6:D:400:VAL:CG2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:592:THR:OG1	6:D:600:LEU:HD21	2.19	0.42
6:D:656:PHE:HB3	6:D:694:VAL:CG1	2.50	0.42
6:D:847:ASP:O	6:D:851:LEU:HG	2.20	0.42
6:D:939:PHE:O	6:D:943:THR:HG23	2.19	0.42
4:K:161:ARG:HH11	4:K:161:ARG:HB2	1.83	0.42
4:K:174:VAL:HG22	4:K:201:THR:CG2	2.49	0.42
4:K:58:ILE:HG21	4:K:68:ILE:CD1	2.49	0.42
4:L:72:LYS:HD3	4:L:73:GLU:N	2.35	0.42
5:M:369:PRO:HB2	5:M:370:ALA:H	1.52	0.42
5:M:650:ARG:HB2	12:M:7040:HOH:O	2.19	0.42
5:M:685:GLU:OE1	6:N:783:ARG:NH2	2.48	0.42
5:M:6:PHE:HE1	5:M:901:TYR:HB3	1.84	0.42
5:M:850:ALA:HA	6:N:632:VAL:HG13	2.02	0.42
5:M:874:LEU:HD12	5:M:874:LEU:H	1.83	0.42
5:M:72:ARG:HD2	5:M:95:TYR:CE1	2.54	0.42
5:M:997:LEU:N	12:M:7228:HOH:O	2.52	0.42
5:M:1038:TRP:CH2	6:N:1099:VAL:HG21	2.55	0.42
6:N:431:VAL:HG12	6:N:432:TYR:N	2.34	0.42
6:N:55:ASP:HB3	6:N:56:TYR:H	1.69	0.42
6:N:632:VAL:O	6:N:727:GLN:HA	2.19	0.42
2:Y:16:G:N2	6:N:705:ALA:HB1	2.35	0.42
6:N:704:ARG:NE	6:N:737:ASN:O	2.51	0.42
6:N:710:ARG:NH1	6:N:768:ASN:ND2	2.63	0.42
6:N:796:ARG:NH2	12:N:9311:HOH:O	2.53	0.42
7:O:29:GLN:HB2	7:O:33:HIS:HD2	1.83	0.42
1:X:3:DC:H2'	1:X:4:DT:H72	2.01	0.42
4:A:142:VAL:HG23	4:A:142:VAL:O	2.19	0.42
4:B:84:GLU:HB3	4:B:127:LEU:HD21	2.00	0.42
4:B:206:THR:HG22	4:B:209:GLU:H	1.83	0.42
4:A:46:SER:HB3	5:C:856:GLU:HG2	2.02	0.42
6:D:108:VAL:HB	6:D:109:PRO:HD3	2.01	0.42
6:D:1281:VAL:HB	6:D:1313:VAL:CG2	2.49	0.42
6:D:401:TYR:HE1	6:D:446:VAL:HB	1.85	0.42
6:D:519:VAL:HG12	6:D:525:ARG:HH21	1.85	0.42
6:D:581:LEU:C	6:D:603:LEU:HD12	2.39	0.42
6:D:676:MET:HE1	6:D:684:LYS:H	1.85	0.42
6:D:703:ASN:ND2	6:D:707:THR:HG23	2.26	0.42
7:E:41:GLU:HA	7:E:45:ARG:CG	2.39	0.42
4:K:228:PRO:HB3	4:L:13:VAL:CG2	2.49	0.42
5:M:437:ARG:O	5:M:438:ILE:HD12	2.20	0.42
5:M:611:ILE:HD11	5:M:641:PRO:CG	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:690:ILE:CG2	5:M:852:ILE:HG12	2.49	0.42
5:M:863:ASP:OD1	5:M:865:THR:HG22	2.20	0.42
5:M:865:THR:HA	5:M:866:PRO:HD3	1.90	0.42
5:M:928:LYS:HG3	12:M:7107:HOH:O	2.19	0.42
6:N:1213:ARG:HG3	6:N:1214:PRO:CD	2.50	0.42
6:N:1213:ARG:NH1	12:N:9283:HOH:O	2.53	0.42
6:N:1341:PRO:O	6:N:1344:VAL:HG23	2.19	0.42
6:N:1498:ALA:HA	6:N:1501:GLU:OE2	2.20	0.42
4:A:156:HIS:HA	12:A:365:HOH:O	2.19	0.42
4:A:82:LEU:O	4:A:85:LEU:HB3	2.20	0.42
4:B:178:ALA:O	4:B:197:LEU:HA	2.20	0.42
5:C:1054:THR:HG22	5:C:1059:ASP:CB	2.39	0.42
5:C:1084:SER:O	5:C:1087:VAL:HG12	2.19	0.42
5:C:50:GLU:HA	5:C:266:ARG:HE	1.85	0.42
5:C:108:ILE:HD11	5:C:365:ASP:OD2	2.19	0.42
5:C:129:ILE:HG21	5:C:387:SER:HB3	2.02	0.42
5:C:585:GLU:HG3	5:C:585:GLU:H	1.60	0.42
5:C:841:ASN:ND2	5:C:844:GLY:H	2.18	0.42
5:C:907:ASP:O	5:C:908:GLY:O	2.37	0.42
6:D:15:PRO:HA	6:D:18:ILE:CG1	2.50	0.42
6:D:477:LEU:HD11	6:D:495:ARG:CG	2.49	0.42
4:K:206:THR:HG23	4:K:208:LEU:H	1.84	0.42
4:K:45:LEU:HD23	5:M:855:VAL:HG22	2.02	0.42
5:M:396:ASP:C	5:M:396:ASP:OD2	2.58	0.42
5:M:487:THR:HG22	5:M:489:THR:H	1.84	0.42
5:M:676:ILE:O	6:N:948:THR:HG22	2.19	0.42
6:N:10:ILE:HD11	6:N:1434:TRP:CD1	2.54	0.42
6:N:1165:TYR:HB3	6:N:1207:TYR:CE2	2.55	0.42
6:N:1119:SER:HB2	6:N:1185:GLU:OE1	2.20	0.42
6:N:1147:ARG:CB	6:N:1188:VAL:HG21	2.44	0.42
6:N:1235:GLN:HG3	6:N:1236:LEU:HG	2.01	0.42
6:N:1281:VAL:CG1	6:N:1282:ARG:N	2.82	0.42
6:N:409:VAL:HG11	6:N:435:VAL:HG21	2.01	0.42
6:N:584:ASN:HB2	6:N:602:SER:CB	2.49	0.42
6:N:760:ARG:HH11	6:N:760:ARG:HG3	1.84	0.42
6:N:992:ILE:O	6:N:995:LEU:HB3	2.19	0.42
4:A:154:GLU:H	4:A:154:GLU:CD	2.22	0.42
5:C:21:ILE:CD1	5:C:22:GLN:H	2.33	0.42
5:C:395:LYS:NZ	5:C:407:LYS:HE2	2.35	0.42
5:C:492:ASP:CG	5:C:518:LYS:HG3	2.39	0.42
6:D:1144:LEU:HD13	6:D:1174:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:1379:VAL:HA	6:D:1420:LEU:HB2	2.02	0.42
6:D:394:LEU:C	6:D:394:LEU:HD12	2.40	0.42
6:D:436:GLU:OE2	6:D:445:ARG:HD2	2.20	0.42
6:D:521:PRO:HA	6:D:522:PRO:HD3	1.77	0.42
6:D:531:ASP:C	6:D:533:GLY:N	2.73	0.42
6:D:664:LYS:HD2	12:D:9408:HOH:O	2.18	0.42
6:D:978:TYR:HA	12:D:9391:HOH:O	2.19	0.42
6:D:1485:GLN:O	7:E:75:PHE:HA	2.20	0.42
4:K:86:VAL:HG12	4:K:124:ASN:HD22	1.85	0.42
4:K:18:ARG:NH2	4:K:88:ARG:HH21	2.18	0.42
4:L:84:GLU:HB3	4:L:127:LEU:HD21	2.02	0.42
4:L:181:VAL:HA	4:L:194:LYS:O	2.20	0.42
5:M:684:PHE:HB3	6:N:740:PHE:HE1	1.83	0.42
6:N:1041:LEU:HD13	6:N:1058:ARG:O	2.19	0.42
1:X:13:DT:OP1	6:N:1093:TYR:CE2	2.73	0.42
6:N:1231:GLU:HG2	6:N:1232:PRO:N	2.34	0.42
6:N:126:VAL:O	6:N:130:SER:HB3	2.19	0.42
6:N:1282:ARG:HB2	6:N:1295:GLU:OE2	2.19	0.42
6:N:1301:LYS:HD3	12:N:9369:HOH:O	2.19	0.42
6:N:17:LYS:HD3	6:N:21:TRP:HE1	1.84	0.42
6:N:18:ILE:HA	6:N:21:TRP:CZ3	2.54	0.42
6:N:766:ALA:HA	6:N:769:LEU:HD21	2.02	0.42
6:N:794:GLN:O	6:N:861:GLN:HB3	2.20	0.42
5:C:1040:LEU:HD21	5:C:1048:THR:CG2	2.49	0.42
5:C:140:ILE:C	5:C:418:LEU:HD23	2.41	0.42
5:C:196:LEU:O	5:C:199:VAL:HB	2.20	0.42
5:C:276:LYS:HA	5:C:280:LYS:CD	2.39	0.42
5:C:535:SER:N	5:C:538:GLN:NE2	2.58	0.42
5:C:698:ASP:N	5:C:698:ASP:OD2	2.48	0.42
6:D:1101:VAL:CG2	6:D:1424:VAL:HG23	2.50	0.42
6:D:1232:PRO:HB3	6:D:1361:VAL:CG1	2.49	0.42
6:D:1275:SER:HA	6:D:1294:VAL:HG21	2.02	0.42
6:D:1353:GLN:HG2	6:D:1368:ILE:HD11	2.02	0.42
6:D:181:ASP:C	6:D:441:ARG:HD3	2.40	0.42
6:D:619:LEU:HB2	6:D:621:LYS:HE3	2.01	0.42
6:D:704:ARG:HD2	6:D:705:ALA:N	2.29	0.42
6:D:838:ARG:HH21	6:D:863:VAL:CG1	2.27	0.42
6:D:849:ALA:O	6:D:853:VAL:HG23	2.19	0.42
4:K:146:ARG:HD3	12:K:712:HOH:O	2.19	0.42
4:L:101:LEU:HD23	4:L:101:LEU:C	2.41	0.42
4:L:23:PHE:HD2	4:L:197:LEU:HD23	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:14:PRO:HD2	12:M:7012:HOH:O	2.19	0.42
5:M:23:VAL:HA	5:M:121:MET:SD	2.60	0.42
5:M:267:TYR:HD1	12:M:7209:HOH:O	2.02	0.42
5:M:355:VAL:HG13	5:M:356:ARG:N	2.35	0.42
5:M:59:LYS:HB2	12:M:7296:HOH:O	2.19	0.42
5:M:798:GLY:HA3	5:M:829:GLN:HB2	2.02	0.42
6:N:162:ARG:HH22	6:N:414:ARG:CD	2.32	0.42
6:N:616:GLN:HA	6:N:616:GLN:NE2	2.35	0.42
6:N:702:LEU:HD23	6:N:745:MET:CE	2.49	0.42
4:A:7:LYS:HZ1	4:A:186:LEU:HD23	1.85	0.41
4:B:142:VAL:HG23	4:B:142:VAL:O	2.20	0.41
4:B:181:VAL:HA	4:B:194:LYS:O	2.19	0.41
4:B:30:ARG:HH11	4:B:30:ARG:HG2	1.83	0.41
5:C:172:ILE:CG2	5:C:173:ASP:N	2.83	0.41
5:C:275:TYR:HD2	5:C:276:LYS:HG3	1.84	0.41
5:C:278:GLU:N	12:C:1120:HOH:O	2.53	0.41
5:C:77:PRO:HD3	5:C:91:GLN:O	2.19	0.41
6:D:957:PRO:HG2	6:D:1007:VAL:HG22	2.00	0.41
6:D:10:ILE:HG13	6:D:1434:TRP:CZ2	2.55	0.41
6:D:1152:GLU:HG3	6:D:1161:GLU:HA	2.02	0.41
6:D:1482:ARG:HB2	6:D:1483:PHE:HD1	1.85	0.41
6:D:179:VAL:CG1	6:D:183:GLU:HB3	2.50	0.41
6:D:700:VAL:HB	6:D:748:HIS:O	2.19	0.41
6:D:917:GLN:HE21	6:D:921:ARG:CD	2.33	0.41
4:K:138:LEU:HD22	12:K:2221:HOH:O	2.19	0.41
5:M:1039:ALA:O	5:M:1043:TYR:HD1	2.03	0.41
5:M:1072:LYS:HD3	5:M:1074:GLU:HB2	2.01	0.41
5:M:172:ILE:HA	5:M:185:LYS:O	2.19	0.41
5:M:243:ARG:N	5:M:244:PRO:HD3	2.30	0.41
5:M:443:THR:HG23	5:M:449:ILE:HG13	2.01	0.41
5:M:551:GLU:HB2	5:M:552:HIS:CE1	2.55	0.41
5:M:668:LEU:HD12	5:M:668:LEU:N	2.35	0.41
5:M:571:LEU:HD22	5:M:669:GLY:HA2	2.02	0.41
6:N:1219:GLU:O	6:N:1221:VAL:N	2.53	0.41
6:N:1207:TYR:N	6:N:1366:LYS:HZ1	2.18	0.41
6:N:633:VAL:HG22	6:N:635:PRO:CD	2.49	0.41
6:N:702:LEU:O	6:N:713:ILE:HA	2.20	0.41
6:N:62:LYS:HB2	6:N:73:CYS:SG	2.60	0.41
3:Z:5:DG:H4'	8:N:8001:STD:C3	2.50	0.41
4:B:175:ARG:HE	4:B:202:ASP:HB3	1.84	0.41
5:C:238:LEU:HD12	12:C:1255:HOH:O	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:310:LEU:O	5:C:314:THR:HG23	2.20	0.41
5:C:433:THR:C	5:C:435:TYR:H	2.22	0.41
5:C:455:LEU:CD1	5:C:459:ALA:HB3	2.50	0.41
6:D:1095:THR:O	6:D:1099:VAL:HG23	2.19	0.41
6:D:1110:ALA:O	6:D:1112:CYS:N	2.54	0.41
6:D:1149:LEU:CD2	6:D:1187:PRO:HG2	2.49	0.41
6:D:1269:LYS:N	12:D:9341:HOH:O	2.53	0.41
6:D:685:ASP:HA	6:D:688:TRP:CD1	2.55	0.41
6:D:691:LEU:HA	6:D:691:LEU:HD12	1.93	0.41
6:D:704:ARG:HH21	6:D:737:ASN:ND2	2.18	0.41
6:D:815:ALA:HA	6:D:818:ARG:HD2	2.02	0.41
6:D:841:TYR:HB3	6:D:843:PHE:CE2	2.55	0.41
6:D:945:SER:OG	6:D:947:ILE:HG13	2.20	0.41
4:K:134:GLU:OE2	4:K:134:GLU:HA	2.19	0.41
4:K:219:ARG:O	4:K:223:THR:HG23	2.19	0.41
4:K:14:ARG:NH2	4:K:24:VAL:HG23	2.34	0.41
4:L:91:ASN:C	4:L:146:ARG:HH22	2.23	0.41
5:M:1054:THR:HG23	5:M:1082:PRO:HG3	2.02	0.41
5:M:118:ILE:H	5:M:118:ILE:HG13	1.77	0.41
5:M:569:VAL:HA	5:M:570:PRO:HD3	1.92	0.41
5:M:676:ILE:CG2	5:M:988:VAL:HG22	2.50	0.41
5:M:86:LYS:HE2	5:M:813:VAL:HG12	2.03	0.41
6:N:102:ILE:HG13	12:N:9171:HOH:O	2.19	0.41
6:N:1158:VAL:HG12	6:N:1159:ARG:N	2.35	0.41
6:N:1258:ARG:HG3	6:N:1258:ARG:HH11	1.84	0.41
6:N:1364:HIS:ND1	6:N:1365:ASP:N	2.67	0.41
6:N:402:PRO:CA	6:N:443:VAL:HG23	2.50	0.41
6:D:1298:GLY:HA3	6:N:47:GLU:CG	2.51	0.41
6:N:625:TYR:OH	6:N:655:PRO:HG2	2.20	0.41
6:N:639:LEU:HD12	6:N:640:HIS:H	1.84	0.41
6:N:710:ARG:HG3	6:N:711:LEU:N	2.36	0.41
4:A:133:GLU:CG	4:A:134:GLU:N	2.77	0.41
4:A:156:HIS:H	4:A:156:HIS:CD2	2.39	0.41
4:A:188:GLN:HG3	4:A:189:ARG:H	1.84	0.41
4:A:6:LEU:O	4:A:6:LEU:HG	2.19	0.41
4:B:214:ALA:HA	4:B:217:ILE:HD12	2.02	0.41
5:C:1016:ILE:HG12	5:C:1017:THR:N	2.36	0.41
5:C:1093:GLN:HB3	6:D:90:MET:SD	2.60	0.41
5:C:1116:ALA:O	6:D:23:TYR:OH	2.38	0.41
5:C:155:PRO:HA	12:C:1141:HOH:O	2.19	0.41
5:C:277:ALA:HB1	12:C:1120:HOH:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:358:ARG:HB3	5:C:371:LYS:O	2.19	0.41
5:C:901:TYR:C	5:C:902:ILE:HG13	2.40	0.41
1:G:13:DT:OP1	6:D:1093:TYR:CE2	2.73	0.41
6:D:1118:ILE:CG1	6:D:1192:LEU:HB2	2.51	0.41
6:D:129:PHE:CD2	6:D:587:ARG:NH1	2.88	0.41
6:D:23:TYR:CD2	6:D:89:ARG:HG2	2.55	0.41
4:L:143:ARG:HH11	4:L:160:ASP:CG	2.23	0.41
4:L:189:ARG:NH2	4:L:191:ASP:O	2.54	0.41
4:L:73:GLU:CD	4:L:130:ALA:HA	2.40	0.41
1:X:19:DC:P	5:M:1001:VAL:HB	2.60	0.41
5:M:1073:GLY:HA3	12:M:7025:HOH:O	2.20	0.41
5:M:52:PHE:HZ	5:M:98:LEU:HD23	1.85	0.41
5:M:68:PHE:CZ	5:M:71:TYR:HB3	2.55	0.41
5:M:890:LEU:HD21	5:M:901:TYR:CD1	2.56	0.41
5:M:941:VAL:O	5:M:944:LEU:HB2	2.20	0.41
6:N:1135:ARG:HD3	6:N:1139:ASP:HB3	2.02	0.41
6:N:1255:GLY:O	6:N:1258:ARG:N	2.47	0.41
6:N:1484:THR:O	7:O:25:LYS:HD2	2.20	0.41
6:N:187:LYS:HE2	12:N:9087:HOH:O	2.19	0.41
6:N:457:GLY:O	6:N:460:ALA:N	2.53	0.41
6:N:646:LYS:HD2	6:N:688:TRP:CE3	2.55	0.41
6:N:977:ALA:HB3	6:N:983:LEU:HD11	2.02	0.41
4:A:219:ARG:HG2	4:B:222:LEU:HD12	2.02	0.41
4:A:43:ILE:HG23	4:A:47:SER:OG	2.20	0.41
4:B:123:MET:HG3	12:B:404:HOH:O	2.20	0.41
4:B:23:PHE:HE2	4:B:199:ILE:HD12	1.84	0.41
5:C:1019:GLN:NE2	5:C:1058:ASP:OD1	2.53	0.41
5:C:1094:ALA:HB2	6:D:520:LEU:HD13	2.02	0.41
5:C:365:ASP:O	5:C:367:LEU:N	2.53	0.41
5:C:380:ALA:O	5:C:384:GLU:HB2	2.21	0.41
5:C:384:GLU:O	5:C:388:ARG:HB2	2.20	0.41
5:C:486:MET:HE2	5:C:486:MET:HB3	1.80	0.41
5:C:837:ASP:HA	5:C:999:HIS:HE1	1.82	0.41
5:C:871:LEU:HA	5:C:871:LEU:HD23	1.86	0.41
6:D:1292:VAL:HB	6:D:1325:LEU:CD2	2.50	0.41
6:D:1462:LEU:HD22	6:D:1472:ILE:CG2	2.50	0.41
6:D:44:LEU:HD22	6:D:525:ARG:NH2	2.35	0.41
6:D:483:HIS:CB	6:D:484:PRO:HD3	2.50	0.41
6:D:489:ARG:CG	6:D:490:ALA:N	2.81	0.41
6:D:660:LYS:HZ3	6:D:694:VAL:HG13	1.85	0.41
2:H:16:G:H5"	6:D:741:ASP:OD1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:800:LYS:HD2	6:D:804:LEU:CD2	2.51	0.41
7:E:36:LYS:HD3	7:E:36:LYS:HA	1.71	0.41
1:G:17:DC:H2"	1:G:18:DG:H8	1.85	0.41
5:M:198:ARG:HG3	12:M:7010:HOH:O	2.20	0.41
5:M:557:ARG:HA	5:M:560:MET:CG	2.51	0.41
5:M:568:ALA:HB1	5:M:668:LEU:HB3	2.02	0.41
5:M:679:PHE:HE2	5:M:853:LEU:HD21	1.85	0.41
5:M:923:GLU:O	5:M:927:GLY:HA3	2.20	0.41
5:M:983:ILE:HG21	5:M:987:ILE:HD11	2.03	0.41
6:N:1079:LYS:O	6:N:1083:ASP:N	2.53	0.41
6:N:1110:ALA:O	6:N:1111:ASP:C	2.57	0.41
6:N:126:VAL:O	6:N:132:TYR:CE1	2.73	0.41
6:D:1318:TYR:CE2	6:N:42:ASP:OD1	2.72	0.41
6:N:65:ARG:CG	6:N:66:GLN:H	2.31	0.41
6:N:704:ARG:HB2	6:N:736:PHE:HB3	2.02	0.41
6:N:813:LEU:HD12	6:N:814:ALA:N	2.35	0.41
6:N:965:GLU:O	6:N:969:ARG:HG2	2.21	0.41
1:X:17:DC:H2"	1:X:18:DG:H8	1.85	0.41
1:X:18:DG:H2'	1:X:19:DC:C6	2.56	0.41
5:C:162:ILE:HB	5:C:172:ILE:HB	2.02	0.41
5:C:174:LEU:HD23	5:C:307:LEU:HD13	2.02	0.41
5:C:113:VAL:HG11	5:C:373:VAL:HG11	2.03	0.41
5:C:394:PHE:CE1	5:C:632:ASN:ND2	2.87	0.41
5:C:775:ARG:HH21	5:C:782:ALA:CB	2.15	0.41
5:C:789:SER:O	5:C:791:ARG:HG2	2.20	0.41
5:C:548:PRO:HD3	5:C:842:ARG:NH1	2.36	0.41
6:D:1094:LEU:O	6:D:1098:LEU:HD13	2.20	0.41
6:D:1176:LYS:HZ3	6:N:411:THR:HG22	1.85	0.41
6:D:166:GLN:CG	6:D:394:LEU:HD13	2.51	0.41
6:D:409:VAL:HG21	6:D:421:LEU:CD2	2.34	0.41
6:D:30:GLU:HB2	6:D:41:ARG:HG3	2.02	0.41
6:D:162:ARG:NE	6:D:434:ARG:HE	2.19	0.41
6:D:65:ARG:NH1	12:D:9479:HOH:O	2.53	0.41
6:D:786:ILE:HD13	6:D:908:LYS:CB	2.50	0.41
5:C:1090:LYS:NZ	6:D:90:MET:HG3	2.34	0.41
2:H:5:C:H2'	2:H:6:U:C5	2.55	0.41
4:K:38:ASN:O	4:K:42:ARG:HG3	2.20	0.41
4:L:94:LEU:HD11	4:L:119:ASP:CG	2.41	0.41
5:M:183:SER:HB2	5:M:190:LYS:CG	2.47	0.41
5:M:281:LEU:HD23	5:M:281:LEU:O	2.21	0.41
5:M:281:LEU:HD11	5:M:306:THR:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:1020:LEU:HG	6:N:1035:ILE:HD12	2.02	0.41
6:N:1237:THR:OG1	6:N:1256:LEU:HD13	2.21	0.41
6:N:141:ILE:HG21	6:N:449:SER:CB	2.51	0.41
6:N:1426:LYS:HA	6:N:1429:LEU:CD2	2.46	0.41
6:N:656:PHE:HB3	6:N:694:VAL:CG1	2.50	0.41
5:M:1115:LEU:HD22	6:N:88:TYR:CD1	2.56	0.41
4:A:116:PRO:HG3	12:A:392:HOH:O	2.20	0.41
4:A:162:ILE:HG21	12:A:376:HOH:O	2.20	0.41
4:B:73:GLU:OE1	4:B:130:ALA:HA	2.20	0.41
5:C:1105:LYS:CG	5:C:1107:ASN:HD22	2.27	0.41
5:C:58:ASP:HB3	12:C:1238:HOH:O	2.19	0.41
6:D:166:GLN:HG2	6:D:394:LEU:HD13	2.02	0.41
6:D:470:LEU:N	6:D:470:LEU:HD23	2.35	0.41
6:D:505:SER:HB2	6:D:1454:GLY:H	1.82	0.41
6:D:65:ARG:HA	6:D:65:ARG:HD2	1.80	0.41
7:E:28:GLN:OE1	7:E:32:ARG:NH1	2.53	0.41
7:E:26:ARG:C	7:E:30:LEU:HD12	2.41	0.41
7:E:48:MET:HB3	7:E:54:LEU:HB2	2.01	0.41
4:L:6:LEU:O	4:L:8:ALA:N	2.52	0.41
5:M:157:ARG:HG2	5:M:158:TYR:N	2.35	0.41
5:M:21:ILE:HG13	12:M:7145:HOH:O	2.19	0.41
5:M:487:THR:HG22	5:M:488:ALA:N	2.36	0.41
5:M:627:ARG:O	5:M:638:ASP:HB3	2.21	0.41
5:M:805:ARG:NH1	12:M:7047:HOH:O	2.53	0.41
6:N:1046:GLN:HG3	6:N:1052:THR:HB	2.02	0.41
6:N:1107:VAL:O	6:N:1218:GLY:N	2.47	0.41
6:N:1189:ARG:HB3	6:N:1204:CYS:HA	2.01	0.41
6:N:130:SER:O	6:N:568:ARG:NE	2.52	0.41
6:N:1341:PRO:C	6:N:1343:ALA:N	2.74	0.41
6:D:1297:GLU:H	6:N:47:GLU:C	2.23	0.41
6:N:529:GLN:O	6:N:529:GLN:HG3	2.20	0.41
6:N:637:LEU:O	6:N:935:LYS:NZ	2.54	0.41
6:N:95:LEU:HD21	6:N:574:LEU:CD1	2.49	0.41
7:O:33:HIS:HB2	7:O:37:ASN:HD21	1.84	0.41
4:A:123:MET:N	4:A:123:MET:SD	2.94	0.41
4:A:69:PRO:O	4:A:71:VAL:HG23	2.19	0.41
5:C:1008:ARG:NH2	5:C:1020:PRO:HB3	2.36	0.41
5:C:129:ILE:HG22	5:C:130:ASN:N	2.35	0.41
5:C:279:GLU:HG3	5:C:280:LYS:N	2.36	0.41
5:C:569:VAL:HG23	5:C:635:THR:CG2	2.51	0.41
5:C:639:GLN:NE2	5:C:639:GLN:N	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:69:LEU:HD12	5:C:97:ARG:CB	2.49	0.41
5:C:945:ARG:O	5:C:949:LYS:HG3	2.20	0.41
5:C:957:LYS:HG2	12:C:1339:HOH:O	2.20	0.41
6:D:126:VAL:O	6:D:130:SER:HB3	2.21	0.41
6:D:1323:GLN:HE21	6:D:1323:GLN:HB2	1.66	0.41
2:H:15:C:O2'	2:H:16:G:H5'	2.21	0.41
4:K:2:LEU:HA	4:K:6:LEU:HD22	2.01	0.41
5:M:194:VAL:CG2	5:M:221:LEU:HA	2.50	0.41
5:M:567:GLN:OE1	5:M:997:LEU:HD13	2.20	0.41
5:M:630:ARG:HH21	5:M:707:ARG:N	2.14	0.41
5:M:688:ILE:CD1	5:M:847:GLY:HA3	2.51	0.41
5:M:572:ILE:CD1	5:M:701:THR:HB	2.50	0.41
5:M:881:ASN:N	5:M:881:ASN:ND2	2.69	0.41
6:N:1047:LYS:HG2	6:N:1053:PHE:CE1	2.56	0.41
3:Z:9:DG:H5''	6:N:108:VAL:HG11	2.03	0.41
6:N:1148:VAL:CG1	6:N:1163:GLY:HA2	2.50	0.41
6:N:1263:PHE:CE1	6:N:1352:ILE:HG12	2.56	0.41
6:N:1378:TYR:O	6:N:1379:VAL:HG13	2.20	0.41
6:N:179:VAL:CG2	6:N:189:GLN:HE22	2.34	0.41
6:N:34:TYR:CD2	6:N:35:ARG:N	2.87	0.41
6:N:436:GLU:OE1	6:N:447:VAL:HG11	2.20	0.41
6:N:131:LYS:CG	6:N:568:ARG:HG2	2.51	0.41
1:X:10:DG:C3'	6:N:586:ARG:HH21	2.33	0.41
6:D:1283:ILE:O	6:N:74:GLU:HB3	2.21	0.41
6:N:785:ILE:H	6:N:785:ILE:CD1	2.17	0.41
5:M:984:GLU:HG3	6:N:791:TYR:OH	2.21	0.41
6:N:827:ILE:HB	6:N:828:LYS:CE	2.45	0.41
7:O:13:VAL:HG12	7:O:75:PHE:CE1	2.56	0.41
7:O:54:LEU:O	7:O:58:PRO:HD2	2.21	0.41
4:A:48:ILE:HD13	4:A:210:ALA:HB1	2.00	0.41
4:A:66:SER:O	4:A:75:VAL:HG23	2.21	0.41
4:B:83:LYS:HZ2	4:B:168:ASP:H	1.69	0.41
4:B:6:LEU:O	4:B:8:ALA:N	2.53	0.41
5:C:343:GLN:HG2	5:C:385:PHE:HB2	2.03	0.41
5:C:141:HIS:HB3	5:C:418:LEU:HD23	2.02	0.41
5:C:537:LYS:HB3	5:C:545:ASN:ND2	2.33	0.41
5:C:14:PRO:HB3	5:C:586:ARG:NH2	2.36	0.41
5:C:663:ASN:C	5:C:665:PHE:H	2.24	0.41
5:C:751:PRO:HB2	6:D:680:GLN:CG	2.48	0.41
5:C:910:LYS:O	5:C:913:GLU:HG3	2.21	0.41
5:C:916:GLU:O	5:C:919:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:877:PRO:HG3	6:D:1023:MET:CE	2.50	0.41
6:D:1170:ASP:O	6:D:1173:LEU:HB3	2.21	0.41
6:D:117:ASP:CG	6:D:495:ARG:NE	2.72	0.41
6:D:1263:PHE:N	6:D:1263:PHE:CD1	2.88	0.41
6:D:1487:VAL:O	7:E:73:LEU:HA	2.21	0.41
6:D:153:LEU:HB3	12:D:9243:HOH:O	2.19	0.41
6:D:695:ILE:CD1	6:D:718:PRO:HB2	2.51	0.41
6:D:806:PHE:O	6:D:806:PHE:CD1	2.74	0.41
7:E:45:ARG:HG2	12:E:104:HOH:O	2.20	0.41
7:E:57:ASP:N	7:E:58:PRO:HD3	2.36	0.41
7:E:70:THR:HG21	7:E:72:ARG:NH2	2.35	0.41
4:K:49:PRO:HA	4:K:148:VAL:HG22	2.03	0.41
4:L:178:ALA:O	4:L:197:LEU:HA	2.20	0.41
5:M:202:TYR:HB3	5:M:207:LEU:HG	2.03	0.41
5:M:243:ARG:NH1	5:M:243:ARG:HG2	2.35	0.41
5:M:265:ARG:CZ	5:M:267:TYR:HB3	2.51	0.41
5:M:334:ARG:HH11	5:M:415:PRO:HG2	1.81	0.41
5:M:433:THR:HG22	5:M:437:ARG:HH11	1.85	0.41
5:M:684:PHE:CG	5:M:685:GLU:N	2.88	0.41
5:M:841:ASN:HD21	5:M:843:HIS:H	1.63	0.41
5:M:916:GLU:O	5:M:919:ALA:HB3	2.21	0.41
6:N:1109:GLU:HG2	6:N:1202:GLN:N	2.35	0.41
6:N:1361:VAL:HG12	6:N:1363:LEU:HD22	2.02	0.41
6:N:103:TRP:NE1	6:N:1444:THR:HA	2.36	0.41
6:N:1104:GLU:HA	6:N:1461:GLY:HA2	2.02	0.41
6:N:396:VAL:C	6:N:398:ALA:N	2.74	0.41
6:N:496:LEU:O	6:N:500:ARG:HG2	2.20	0.41
6:N:564:GLU:HA	6:N:567:ILE:HD12	2.01	0.41
6:N:676:MET:HE1	6:N:683:ILE:HA	2.03	0.41
6:N:711:LEU:HB3	6:N:714:GLN:NE2	2.36	0.41
7:O:40:LEU:HD11	7:O:67:GLU:HG2	2.03	0.41
7:O:95:VAL:HG11	12:O:884:HOH:O	2.19	0.41
4:A:163:ASN:N	4:A:163:ASN:ND2	2.68	0.41
4:A:56:VAL:CG2	4:A:82:LEU:HD12	2.51	0.41
5:C:139:GLN:HB3	5:C:334:ARG:HD3	2.03	0.41
5:C:174:LEU:CB	5:C:310:LEU:HD22	2.51	0.41
5:C:79:PRO:CG	5:C:82:GLU:HB2	2.41	0.41
5:C:877:PRO:HB3	6:D:1020:LEU:HD12	2.02	0.41
5:C:860:HIS:HD2	5:C:975:TYR:O	2.04	0.41
6:D:1297:GLU:OE1	6:N:51:GLY:HA2	2.21	0.41
6:D:18:ILE:HG23	6:D:518:PRO:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:33:ASN:HB3	6:D:35:ARG:NH1	2.35	0.41
6:D:35:ARG:HA	12:D:9285:HOH:O	2.21	0.41
6:D:197:SER:OG	6:D:395:VAL:HG21	2.21	0.41
6:D:514:LEU:HD13	6:D:578:VAL:CG1	2.51	0.41
5:C:1095:LEU:CD1	6:D:603:LEU:HD22	2.51	0.41
6:D:736:PHE:O	6:D:738:ALA:N	2.53	0.41
5:C:874:LEU:HD11	6:D:784:ASP:HA	2.03	0.41
6:D:887:ALA:HB1	6:D:893:GLU:HG3	2.02	0.41
2:H:12:G:H4'	12:H:110:HOH:O	2.21	0.41
2:H:3:G:O2'	2:H:4:U:O4'	2.35	0.41
4:K:173:PRO:HB3	4:K:204:SER:HB3	2.03	0.41
4:L:88:ARG:HB2	4:L:123:MET:SD	2.60	0.41
4:L:80:LEU:HG	6:N:844:ALA:CA	2.43	0.41
5:M:21:ILE:HG12	5:M:455:LEU:HD21	2.02	0.41
5:M:142:ARG:CZ	5:M:325:ILE:HG12	2.51	0.41
5:M:424:GLY:O	5:M:427:VAL:N	2.54	0.41
5:M:554:ASP:CB	5:M:880:MET:HB2	2.24	0.41
6:N:133:ILE:O	6:N:152:LEU:CB	2.66	0.41
6:N:540:LEU:HD13	6:N:606:ILE:HD11	2.02	0.41
6:N:520:LEU:HD22	6:N:540:LEU:HD23	2.02	0.41
6:N:953:ASP:O	6:N:955:VAL:HG23	2.21	0.41
4:B:143:ARG:HG3	4:B:143:ARG:NH1	2.36	0.41
5:C:1086:ARG:HD3	5:C:1112:PHE:CD2	2.56	0.41
5:C:410:ILE:HG13	5:C:410:ILE:H	1.77	0.41
6:D:1369:GLU:O	6:D:1372:VAL:HG12	2.21	0.41
6:D:1393:GLN:OE1	6:D:1394:VAL:HB	2.21	0.41
6:D:1489:GLN:O	6:D:1493:LYS:HG2	2.21	0.41
6:D:764:LEU:HD11	6:D:766:ALA:HB3	2.02	0.41
6:D:885:ILE:H	6:D:885:ILE:HG13	1.62	0.41
7:E:54:LEU:HG	7:E:58:PRO:CB	2.51	0.41
4:K:224:TYR:HB3	4:L:9:PRO:CB	2.36	0.41
5:M:176:VAL:HG12	5:M:182:VAL:HG13	2.03	0.41
5:M:184:MET:SD	5:M:191:PHE:HE1	2.44	0.41
5:M:435:TYR:HD2	5:M:471:TYR:HH	1.66	0.41
5:M:637:LEU:HA	5:M:659:PRO:HG3	2.03	0.41
5:M:654:LEU:CD2	5:M:654:LEU:H	2.17	0.41
5:M:666:LEU:HD21	5:M:668:LEU:HD11	2.03	0.41
5:M:811:PRO:HD2	5:M:813:VAL:CG1	2.51	0.41
5:M:912:PRO:O	5:M:915:LYS:HB2	2.20	0.41
6:N:26:VAL:HG13	6:N:43:GLY:C	2.42	0.41
6:N:613:ARG:O	6:N:613:ARG:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:792:ILE:O	6:N:878:GLY:HA3	2.21	0.41
6:N:917:GLN:HE21	6:N:921:ARG:NH1	2.19	0.41
6:N:959:GLU:N	6:N:959:GLU:CD	2.75	0.41
4:A:54:THR:HG22	4:A:158:ILE:HG13	2.02	0.41
4:B:109:VAL:O	4:B:129:ILE:HB	2.21	0.41
5:C:148:PHE:CB	5:C:313:LEU:HD22	2.51	0.41
5:C:549:PHE:HB3	5:C:552:HIS:HD2	1.86	0.41
5:C:72:ARG:HD2	12:C:1214:HOH:O	2.21	0.41
6:D:102:ILE:HD12	6:D:579:ASP:OD1	2.20	0.41
6:D:1135:ARG:HB3	6:D:1140:ILE:CG1	2.51	0.41
6:D:1219:GLU:O	6:D:1221:VAL:N	2.54	0.41
6:D:1297:GLU:HA	6:N:78:VAL:CG2	2.51	0.41
6:D:201:GLY:HA3	6:D:396:VAL:O	2.21	0.41
6:D:496:LEU:HD23	6:D:500:ARG:HG2	2.03	0.41
6:D:838:ARG:HD3	6:D:874:GLU:OE1	2.20	0.41
5:M:1018:GLN:HG3	5:M:1083:GLU:HG3	2.03	0.41
5:M:351:LEU:HD13	5:M:374:ASN:O	2.21	0.41
5:M:18:LEU:HG	5:M:408:ARG:NH2	2.36	0.41
5:M:398:THR:O	5:M:635:THR:HG21	2.21	0.41
6:N:133:ILE:HG23	6:N:456:MET:N	2.36	0.41
6:N:1480:PHE:O	7:O:18:ARG:NH2	2.54	0.41
6:N:811:GLU:HG3	6:N:811:GLU:O	2.20	0.41
6:N:885:ILE:HD13	6:N:937:TYR:CG	2.56	0.41
4:B:132:LEU:HD22	4:B:138:LEU:HD22	2.02	0.40
5:C:1095:LEU:O	5:C:1096:ALA:C	2.60	0.40
5:C:473:ARG:HA	5:C:531:PHE:CD1	2.56	0.40
5:C:437:ARG:NH1	5:C:491:GLU:OE2	2.54	0.40
5:C:698:ASP:HB3	5:C:701:THR:OG1	2.21	0.40
5:C:745:ILE:HG13	12:C:1408:HOH:O	2.22	0.40
5:C:840:ALA:HB2	5:C:846:LYS:HA	2.03	0.40
6:D:1161:GLU:OE1	6:D:1164:ARG:HB2	2.21	0.40
6:D:1147:ARG:HH12	6:D:1190:SER:HA	1.86	0.40
6:D:1273:VAL:O	6:D:1273:VAL:HG23	2.20	0.40
6:D:414:ARG:HB3	6:D:450:TYR:CE1	2.56	0.40
6:D:42:ASP:OD2	6:D:49:ILE:HD11	2.21	0.40
6:D:760:ARG:O	6:D:760:ARG:HG3	2.20	0.40
6:D:85:VAL:HB	6:D:89:ARG:NH1	2.37	0.40
6:D:995:LEU:HA	6:D:998:GLU:OE1	2.21	0.40
7:E:95:VAL:H	7:E:95:VAL:HG23	1.60	0.40
1:G:17:DC:H4'	6:D:628:ARG:HD3	2.03	0.40
4:L:163:ASN:HD22	4:L:163:ASN:HA	1.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:1049:LEU:HD23	6:N:1472:ILE:CG1	2.51	0.40
5:M:17:PRO:O	5:M:18:LEU:C	2.57	0.40
5:M:227:PHE:HB3	12:M:7046:HOH:O	2.21	0.40
5:M:157:ARG:HE	5:M:314:THR:HB	1.86	0.40
5:M:140:ILE:HA	5:M:332:ARG:O	2.20	0.40
5:M:577:PRO:HG3	5:M:993:PHE:CE2	2.57	0.40
5:M:937:ASP:HB2	5:M:940:GLU:HG3	2.02	0.40
6:N:1026:SER:C	6:N:1028:ALA:H	2.24	0.40
6:N:493:ARG:CG	6:N:1390:LEU:HD12	2.42	0.40
6:N:409:VAL:HG12	6:N:410:SER:N	2.35	0.40
6:N:792:ILE:HG13	6:N:941:PHE:CE1	2.56	0.40
4:L:77:GLU:CB	6:N:872:ARG:HH21	2.33	0.40
4:A:143:ARG:HH21	4:A:158:ILE:HD12	1.85	0.40
5:C:305:PRO:HA	5:C:308:ARG:HD3	2.03	0.40
5:C:569:VAL:HA	5:C:570:PRO:HD3	1.82	0.40
5:C:71:TYR:H	5:C:71:TYR:HD2	1.67	0.40
5:C:835:VAL:HG23	5:C:849:VAL:O	2.21	0.40
6:D:1176:LYS:HE2	12:D:9058:HOH:O	2.22	0.40
6:D:1260:ILE:O	6:D:1264:GLU:HB2	2.21	0.40
6:D:1297:GLU:CD	6:N:89:ARG:HH11	2.25	0.40
6:D:434:ARG:N	6:D:449:SER:O	2.54	0.40
6:D:520:LEU:CD1	6:D:521:PRO:HD2	2.50	0.40
7:E:41:GLU:HG2	7:E:42:PRO:HD3	2.02	0.40
7:E:54:LEU:O	7:E:58:PRO:HD2	2.21	0.40
7:E:61:VAL:O	7:E:65:MET:HG3	2.21	0.40
4:L:102:LYS:CD	4:L:139:ASN:HB2	2.50	0.40
5:M:358:ARG:HG2	5:M:371:LYS:O	2.21	0.40
5:M:461:VAL:CG2	12:M:7145:HOH:O	2.69	0.40
5:M:504:GLU:HG3	5:M:507:ARG:HB3	2.03	0.40
5:M:683:ASN:HB2	5:M:872:ASN:HB2	2.02	0.40
5:M:896:PHE:HB3	5:M:924:VAL:HB	2.03	0.40
5:M:928:LYS:HG2	5:M:932:GLU:HG3	2.04	0.40
6:N:1280:VAL:HA	6:N:1318:TYR:HA	2.02	0.40
6:N:1292:VAL:CG1	6:N:1325:LEU:HG	2.51	0.40
6:N:133:ILE:HG23	6:N:455:ARG:C	2.42	0.40
6:N:1351:GLU:OE1	6:N:1354:LYS:HG3	2.20	0.40
6:N:1381:VAL:HG23	6:N:1391:GLU:O	2.22	0.40
6:N:1442:ASN:O	6:N:1446:VAL:HG23	2.21	0.40
5:M:1053:LEU:CD1	6:N:1466:VAL:HG13	2.51	0.40
6:N:394:LEU:HD12	6:N:396:VAL:HG13	2.03	0.40
6:N:493:ARG:CG	6:N:1390:LEU:HB2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:641:GLN:HB3	6:N:717:GLN:O	2.21	0.40
6:N:783:ARG:HG2	6:N:783:ARG:H	1.59	0.40
6:N:789:LEU:HD13	6:N:934:LEU:CD2	2.51	0.40
6:N:846:PRO:HG2	12:N:9070:HOH:O	2.20	0.40
6:N:970:LYS:HA	6:N:973:GLN:NE2	2.35	0.40
7:O:13:VAL:HG21	7:O:19:LEU:HB2	2.03	0.40
4:A:133:GLU:CG	4:A:134:GLU:H	2.34	0.40
4:A:47:SER:HB2	4:A:217:ILE:HD13	2.02	0.40
4:B:79:ILE:HA	4:B:82:LEU:HD12	2.04	0.40
5:C:663:ASN:O	5:C:665:PHE:N	2.54	0.40
5:C:693:GLU:CD	5:C:855:VAL:HB	2.41	0.40
5:C:700:TYR:CD1	5:C:833:LEU:HD22	2.57	0.40
5:C:630:ARG:HH21	5:C:707:ARG:N	2.18	0.40
5:C:976:ASP:OD2	5:C:983:ILE:HG12	2.20	0.40
6:D:1233:GLY:O	6:D:1237:THR:N	2.38	0.40
6:D:1281:VAL:HG23	6:D:1319:VAL:HG11	2.02	0.40
6:D:133:ILE:C	6:D:152:LEU:HB2	2.41	0.40
6:D:1192:LEU:HD22	6:D:1345:GLU:CG	2.52	0.40
6:D:1451:ALA:O	6:D:1452:ILE:C	2.59	0.40
6:D:179:VAL:HG22	6:D:183:GLU:OE2	2.21	0.40
6:D:204:LEU:HB2	6:D:394:LEU:HG	2.03	0.40
6:D:494:LYS:NZ	12:D:9006:HOH:O	2.49	0.40
6:D:829:VAL:O	6:D:831:GLY:N	2.54	0.40
6:D:950:GLY:O	6:D:953:ASP:N	2.54	0.40
5:M:191:PHE:HZ	5:M:196:LEU:HB2	1.86	0.40
5:M:229:MET:HA	12:M:7258:HOH:O	2.22	0.40
5:M:510:ALA:HB3	5:M:513:VAL:CG2	2.50	0.40
5:M:631:SER:HB3	5:M:635:THR:O	2.21	0.40
5:M:648:ARG:H	5:M:648:ARG:HG2	1.43	0.40
6:N:960:LYS:HE2	6:N:1041:LEU:HD22	2.02	0.40
6:N:1108:ARG:HG2	12:N:9128:HOH:O	2.20	0.40
6:N:1256:LEU:HA	6:N:1259:VAL:HG23	2.03	0.40
6:N:1397:LYS:HG2	12:N:9363:HOH:O	2.21	0.40
6:N:754:PHE:CE2	6:N:1476:THR:HG21	2.56	0.40
6:N:603:LEU:HD23	6:N:606:ILE:HD12	2.04	0.40
6:N:792:ILE:H	6:N:792:ILE:HG22	1.69	0.40
6:N:829:VAL:O	6:N:831:GLY:N	2.53	0.40
7:O:70:THR:HG22	7:O:71:GLY:N	2.36	0.40
4:A:104:GLU:HA	4:A:136:GLY:O	2.22	0.40
4:B:100:LEU:O	4:B:115:LEU:HG	2.20	0.40
4:B:156:HIS:ND1	4:B:157:GLY:N	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:1016:ILE:HD13	5:C:1016:ILE:N	2.34	0.40
5:C:129:ILE:N	5:C:129:ILE:HD12	2.37	0.40
5:C:15:LEU:N	5:C:15:LEU:HD12	2.35	0.40
5:C:287:GLY:O	5:C:288:ARG:C	2.59	0.40
5:C:448:ASN:HA	5:C:451:LEU:HD12	2.03	0.40
5:C:437:ARG:CG	5:C:467:ILE:HB	2.44	0.40
5:C:470:PRO:CB	5:C:534:VAL:HG21	2.48	0.40
5:C:751:PRO:HB2	6:D:680:GLN:CD	2.42	0.40
5:C:941:VAL:O	5:C:944:LEU:HB2	2.22	0.40
6:D:1084:THR:HA	6:D:1238:MET:CG	2.51	0.40
6:D:1344:VAL:O	6:D:1348:LEU:HD23	2.20	0.40
6:D:1443:THR:O	6:D:1447:LEU:HD13	2.22	0.40
6:D:202:VAL:HG21	6:D:400:VAL:CB	2.48	0.40
5:C:1118:LYS:HD3	6:D:20:SER:O	2.22	0.40
6:D:37:LEU:HD11	6:D:529:GLN:OE1	2.22	0.40
6:D:636:GLN:H	6:D:636:GLN:HG2	1.78	0.40
6:D:87:ARG:NH1	6:D:88:TYR:CE2	2.89	0.40
6:D:897:TRP:HA	6:D:900:ILE:CG1	2.50	0.40
7:E:47:LYS:C	7:E:54:LEU:HD13	2.42	0.40
4:K:27:PRO:O	4:K:28:LEU:HD23	2.21	0.40
5:M:1011:GLY:HA3	5:M:1026:GLN:HG2	2.03	0.40
5:M:118:ILE:HA	5:M:119:PRO:HD3	1.93	0.40
5:M:218:VAL:O	5:M:221:LEU:HG	2.22	0.40
5:M:313:LEU:HD13	5:M:321:GLU:O	2.21	0.40
5:M:140:ILE:HG22	5:M:333:ILE:HG13	2.03	0.40
5:M:352:ALA:CA	5:M:355:VAL:HG12	2.50	0.40
5:M:762:LYS:HE3	5:M:784:ASP:O	2.20	0.40
5:M:76:PRO:HA	5:M:77:PRO:HD3	1.82	0.40
6:N:1155:VAL:CG1	6:N:1177:ALA:HB1	2.52	0.40
6:N:1213:ARG:HG3	6:N:1214:PRO:HD2	2.04	0.40
6:N:1280:VAL:CG1	6:N:1281:VAL:N	2.84	0.40
6:N:18:ILE:HD13	6:N:21:TRP:CZ3	2.57	0.40
6:N:557:LEU:HD11	6:N:566:ILE:CG2	2.43	0.40
6:N:615:ARG:HD2	6:N:619:LEU:CD1	2.51	0.40
6:N:806:PHE:O	6:N:806:PHE:CD1	2.74	0.40
6:N:949:ILE:HD11	6:N:1023:MET:HE1	2.02	0.40
2:Y:9:G:C5'	2:Y:9:G:H8	2.33	0.40
5:C:1108:PRO:HG3	12:C:1227:HOH:O	2.20	0.40
5:C:464:LEU:HD11	12:C:1524:HOH:O	2.20	0.40
5:C:626:ARG:O	5:C:639:GLN:NE2	2.54	0.40
5:C:674:VAL:HG23	5:C:869:VAL:HG13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:794:PRO:HG3	12:C:1273:HOH:O	2.22	0.40
6:D:1236:LEU:HB2	6:D:1359:GLN:HB3	2.02	0.40
6:D:1281:VAL:HG21	6:D:1313:VAL:HG11	2.03	0.40
6:D:481:MET:CE	6:D:1389:LEU:HD12	2.51	0.40
6:D:1434:TRP:CG	6:D:1435:LEU:N	2.90	0.40
6:D:1484:THR:O	7:E:25:LYS:HD2	2.21	0.40
6:D:593:ASN:HB3	6:D:594:PRO:HD2	2.04	0.40
6:D:658:LEU:HD22	6:D:673:ALA:CB	2.51	0.40
4:K:11:PHE:CD1	4:K:25:LEU:HD13	2.53	0.40
4:K:94:LEU:HD23	4:K:97:VAL:HG21	2.03	0.40
4:L:103:ALA:HB3	4:L:138:LEU:CD2	2.51	0.40
5:M:1043:TYR:HE1	6:N:710:ARG:O	2.04	0.40
5:M:1054:THR:CG2	5:M:1059:ASP:HB2	2.35	0.40
5:M:332:ARG:NH1	12:M:7209:HOH:O	2.52	0.40
5:M:362:GLY:HA3	5:M:367:LEU:CD2	2.46	0.40
5:M:433:THR:O	5:M:437:ARG:HD2	2.21	0.40
5:M:42:VAL:HG12	5:M:43:GLY:N	2.37	0.40
5:M:491:GLU:HG3	5:M:491:GLU:O	2.21	0.40
5:M:545:ASN:CB	5:M:583:LEU:HD22	2.52	0.40
5:M:585:GLU:N	12:M:7223:HOH:O	2.53	0.40
5:M:671:ASN:HD22	5:M:671:ASN:N	2.19	0.40
5:M:676:ILE:HD13	5:M:885:ILE:CD1	2.51	0.40
6:N:1072:ILE:HA	6:N:1072:ILE:HD13	1.90	0.40
6:N:1209:LEU:HD12	6:N:1216:SER:H	1.86	0.40
6:N:1294:VAL:HG13	6:N:1319:VAL:HG21	2.04	0.40
6:N:1312:LEU:O	6:N:1312:LEU:HG	2.21	0.40
6:N:142:LEU:HD23	12:N:9079:HOH:O	2.20	0.40
6:N:1481:VAL:HG12	7:O:21:VAL:HG21	2.04	0.40
6:N:179:VAL:HG22	6:N:189:GLN:HE22	1.87	0.40
6:N:614:PHE:N	12:N:9399:HOH:O	2.54	0.40
7:O:54:LEU:HD21	7:O:63:TRP:HE1	1.86	0.40
6:N:767:HIS:CD2	7:O:6:ILE:HG12	2.57	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%)	208 (92%)	16 (7%)	3 (1%)	12	45
4	B	227/315 (72%)	208 (92%)	15 (7%)	4 (2%)	8	37
4	K	227/315 (72%)	208 (92%)	16 (7%)	3 (1%)	12	45
4	L	227/315 (72%)	206 (91%)	18 (8%)	3 (1%)	12	45
5	C	1117/1119 (100%)	922 (82%)	136 (12%)	59 (5%)	2	11
5	M	1117/1119 (100%)	919 (82%)	137 (12%)	61 (6%)	2	10
6	D	1308/1524 (86%)	1104 (84%)	145 (11%)	59 (4%)	2	14
6	N	1308/1524 (86%)	1099 (84%)	158 (12%)	51 (4%)	3	17
7	E	93/99 (94%)	73 (78%)	13 (14%)	7 (8%)	1	5
7	O	93/99 (94%)	73 (78%)	12 (13%)	8 (9%)	1	3
All	All	5944/6744 (88%)	5020 (84%)	666 (11%)	258 (4%)	2	15

All (258) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	A	29	GLU
4	B	29	GLU
4	B	187	GLY
5	C	152	PRO
5	C	156	GLY
5	C	170	PRO
5	C	223	ASP
5	C	231	PRO
5	C	244	PRO
5	C	288	ARG
5	C	290	LEU
5	C	369	PRO
5	C	465	GLY
5	C	680	ASP
5	C	698	ASP
5	C	727	PRO
5	C	908	GLY
5	C	1005	MET
5	C	1033	GLY
6	D	40	GLU

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Mol	Chain	Res	Type
6	D	43	GLY
6	D	55	ASP
6	D	96	ALA
6	D	137	PRO
6	D	448	GLU
6	D	610	LYS
6	D	705	ALA
6	D	832	ARG
6	D	844	ALA
6	D	1028	ALA
6	D	1129	THR
6	D	1252	ILE
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	59	LYS
5	M	152	PRO
5	M	156	GLY
5	M	170	PRO
5	M	231	PRO
5	M	244	PRO
5	M	288	ARG
5	M	290	LEU
5	M	369	PRO
5	M	465	GLY
5	M	627	ARG
5	M	680	ASP
5	M	698	ASP
5	M	727	PRO
5	M	908	GLY
5	M	1005	MET
5	M	1033	GLY
6	N	40	GLU
6	N	43	GLY
6	N	55	ASP
6	N	137	PRO
6	N	705	ALA
6	N	803	GLY

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Mol	Chain	Res	Type
6	N	832	ARG
6	N	844	ALA
6	N	1028	ALA
6	N	1129	THR
6	N	1252	ILE
6	N	1441	GLN
7	O	42	PRO
4	A	187	GLY
5	C	40	GLU
5	C	59	LYS
5	C	144	PRO
5	C	164	PRO
5	C	251	ASP
5	C	363	SER
5	C	442	GLU
5	C	457	ALA
5	C	529	VAL
5	C	548	PRO
5	C	626	ARG
5	C	627	ARG
5	C	808	ARG
5	C	864	GLY
5	C	1097	LEU
6	D	31	THR
6	D	37	LEU
6	D	82	LYS
6	D	397	LYS
6	D	451	ASP
6	D	594	PRO
6	D	620	GLY
6	D	766	ALA
6	D	803	GLY
6	D	822	ALA
6	D	869	MET
6	D	1208	ASP
6	D	1287	GLU
6	D	1288	GLU
6	D	1315	ASP
6	D	1385	GLY
6	D	1454	GLY
7	E	5	GLY
7	E	53	GLY

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Mol	Chain	Res	Type
7	E	58	PRO
5	M	40	GLU
5	M	144	PRO
5	M	164	PRO
5	M	178	PRO
5	M	223	ASP
5	M	251	ASP
5	M	363	SER
5	M	424	GLY
5	M	457	ALA
5	M	548	PRO
5	M	626	ARG
5	M	808	ARG
5	M	864	GLY
5	M	1106	ASP
6	N	31	THR
6	N	37	LEU
6	N	96	ALA
6	N	594	PRO
6	N	620	GLY
6	N	822	ALA
6	N	1269	LYS
6	N	1287	GLU
6	N	1288	GLU
6	N	1385	GLY
6	N	1389	LEU
6	N	1454	GLY
7	O	5	GLY
7	O	53	GLY
7	O	58	PRO
5	C	74	GLY
5	C	178	PRO
5	C	262	ALA
5	C	462	ASP
5	C	517	ARG
5	C	1106	ASP
6	D	98	PRO
6	D	120	ALA
6	D	136	ASP
6	D	140	ALA
6	D	507	ASN
6	D	1125	PRO

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Mol	Chain	Res	Type
6	D	1220	ALA
6	D	1269	LYS
5	M	262	ALA
5	M	292	ARG
5	M	390	GLN
5	M	462	ASP
5	M	517	ARG
5	M	1004	LYS
5	M	1059	ASP
6	N	98	PRO
6	N	120	ALA
6	N	507	ASN
6	N	737	ASN
6	N	869	MET
6	N	1125	PRO
6	N	1208	ASP
6	N	1342	GLU
7	O	43	GLU
5	C	180	GLY
5	C	188	LYS
5	C	292	ARG
5	C	424	GLY
5	C	1059	ASP
6	D	601	ARG
6	D	737	ASN
6	D	1004	THR
6	D	1111	ASP
7	E	32	ARG
5	M	74	GLY
5	M	180	GLY
5	M	188	LYS
5	M	272	ALA
5	M	282	GLY
5	M	366	SER
5	M	447	ALA
5	M	529	VAL
5	M	783	ARG
5	M	1024	LYS
6	N	83	SER
6	N	696	HIS
6	N	830	ALA
6	N	1446	VAL

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Mol	Chain	Res	Type
4	B	133	GLU
5	C	44	ILE
5	C	80	GLN
5	C	268	ASP
5	C	272	ALA
5	C	740	GLU
5	C	1024	LYS
6	D	500	ARG
6	D	808	THR
6	D	830	ALA
6	D	1066	THR
6	D	1349	VAL
5	M	10	ARG
5	M	53	PRO
5	M	277	ALA
5	M	767	PRO
5	M	1097	LEU
6	N	136	ASP
6	N	448	GLU
6	N	451	ASP
6	N	500	ARG
6	N	808	THR
6	N	1004	THR
6	N	1306	PRO
6	N	1349	VAL
7	O	32	ARG
7	O	37	ASN
7	O	81	PRO
5	C	11	GLU
5	C	282	GLY
5	C	767	PRO
6	D	525	ARG
6	D	530	VAL
6	D	1027	GLY
6	D	1446	VAL
7	E	43	GLU
5	M	268	ASP
6	N	530	VAL
6	N	601	ARG
5	C	53	PRO
5	C	561	GLY
6	D	595	GLY

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Mol	Chain	Res	Type
6	D	1306	PRO
7	E	81	PRO
4	L	125	PRO
6	N	595	GLY
5	C	129	ILE
5	C	415	PRO
5	C	1114	GLY
5	M	35	PRO
5	M	44	ILE
5	M	561	GLY
5	M	1114	GLY
6	N	521	PRO
6	N	1027	GLY
4	A	125	PRO
5	C	779	GLY
5	C	844	GLY
5	M	415	PRO
5	M	844	GLY
4	B	125	PRO
5	C	16	PRO
6	D	1050	GLY
6	D	1155	VAL
4	K	125	PRO
5	M	779	GLY
6	N	1050	GLY
6	D	521	PRO
6	D	1452	ILE
6	N	1155	VAL

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	A	202/273 (74%)	159 (79%)	43 (21%)	1	5
4	B	202/273 (74%)	162 (80%)	40 (20%)	1	7
4	K	202/273 (74%)	155 (77%)	47 (23%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	L	202/273 (74%)	153 (76%)	49 (24%)	0	3
5	C	941/941 (100%)	723 (77%)	218 (23%)	1	4
5	M	941/941 (100%)	714 (76%)	227 (24%)	0	3
6	D	1111/1279 (87%)	875 (79%)	236 (21%)	1	5
6	N	1111/1279 (87%)	863 (78%)	248 (22%)	1	4
7	E	84/88 (96%)	66 (79%)	18 (21%)	1	5
7	O	84/88 (96%)	67 (80%)	17 (20%)	1	6
All	All	5080/5708 (89%)	3937 (78%)	1143 (22%)	1	4

All (1143) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	A	2	LEU
4	A	3	ASP
4	A	4	SER
4	A	5	LYS
4	A	9	PRO
4	A	12	THR
4	A	18	ARG
4	A	20	TYR
4	A	26	GLU
4	A	29	GLU
4	A	30	ARG
4	A	35	THR
4	A	41	ARG
4	A	47	SER
4	A	60	ASP
4	A	62	LEU
4	A	66	SER
4	A	67	THR
4	A	73	GLU
4	A	84	GLU
4	A	87	VAL
4	A	89	PHE
4	A	92	PRO
4	A	97	VAL
4	A	115	LEU
4	A	126	ASP
4	A	127	LEU
4	A	138	LEU

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Mol	Chain	Res	Type
4	A	143	ARG
4	A	145	ASP
4	A	155	LYS
4	A	156	HIS
4	A	161	ARG
4	A	175	ARG
4	A	180	GLN
4	A	183	ASP
4	A	184	THR
4	A	185	ARG
4	A	190	THR
4	A	193	ASP
4	A	197	LEU
4	A	208	LEU
4	A	227	ASN
4	B	4	SER
4	B	7	LYS
4	B	9	PRO
4	B	11	PHE
4	B	25	LEU
4	B	26	GLU
4	B	30	ARG
4	B	35	THR
4	B	62	LEU
4	B	64	GLU
4	B	73	GLU
4	B	81	ASN
4	B	89	PHE
4	B	95	GLN
4	B	99	LEU
4	B	104	GLU
4	B	107	LYS
4	B	117	VAL
4	B	119	ASP
4	B	123	MET
4	B	128	HIS
4	B	138	LEU
4	B	143	ARG
4	B	145	ASP
4	B	152	PRO
4	B	154	GLU
4	B	159	LYS

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Mol	Chain	Res	Type
4	B	162	ILE
4	B	163	ASN
4	B	167	VAL
4	B	172	SER
4	B	176	ARG
4	B	177	VAL
4	B	186	LEU
4	B	193	ASP
4	B	194	LYS
4	B	197	LEU
4	B	201	THR
4	B	209	GLU
4	B	213	GLN
5	C	8	ARG
5	C	9	ILE
5	C	18	LEU
5	C	19	THR
5	C	21	ILE
5	C	22	GLN
5	C	26	TYR
5	C	27	ARG
5	C	30	LEU
5	C	31	GLN
5	C	34	VAL
5	C	35	PRO
5	C	48	PHE
5	C	51	THR
5	C	56	GLU
5	C	65	VAL
5	C	75	GLU
5	C	88	LEU
5	C	95	TYR
5	C	98	LEU
5	C	103	LYS
5	C	104	ASP
5	C	107	LEU
5	C	110	GLU
5	C	114	PHE
5	C	115	LEU
5	C	120	LEU
5	C	133	ASP
5	C	148	PHE

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Mol	Chain	Res	Type
5	C	149	THR
5	C	150	PRO
5	C	152	PRO
5	C	158	TYR
5	C	161	SER
5	C	163	ILE
5	C	170	PRO
5	C	177	GLU
5	C	178	PRO
5	C	183	SER
5	C	184	MET
5	C	186	VAL
5	C	189	ARG
5	C	195	LEU
5	C	196	LEU
5	C	198	ARG
5	C	200	LEU
5	C	203	ASP
5	C	205	GLU
5	C	216	GLU
5	C	217	LEU
5	C	221	LEU
5	C	230	ARG
5	C	233	GLU
5	C	237	ARG
5	C	239	PHE
5	C	243	ARG
5	C	251	ASP
5	C	260	LEU
5	C	261	ILE
5	C	264	PRO
5	C	267	TYR
5	C	268	ASP
5	C	271	GLU
5	C	274	ARG
5	C	275	TYR
5	C	279	GLU
5	C	280	LYS
5	C	285	LEU
5	C	289	THR
5	C	290	LEU
5	C	293	PHE

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Mol	Chain	Res	Type
5	C	297	GLU
5	C	303	PHE
5	C	304	LEU
5	C	309	TYR
5	C	322	VAL
5	C	324	ASP
5	C	339	LEU
5	C	358	ARG
5	C	359	MET
5	C	360	LEU
5	C	365	ASP
5	C	367	LEU
5	C	379	GLU
5	C	383	ARG
5	C	388	ARG
5	C	393	GLN
5	C	394	PHE
5	C	396	ASP
5	C	399	ASN
5	C	400	PRO
5	C	415	PRO
5	C	432	ARG
5	C	433	THR
5	C	442	GLU
5	C	443	THR
5	C	445	GLU
5	C	452	ILE
5	C	453	THR
5	C	463	GLU
5	C	467	ILE
5	C	469	THR
5	C	472	ARG
5	C	483	VAL
5	C	484	VAL
5	C	500	ASN
5	C	502	PRO
5	C	503	LEU
5	C	507	ARG
5	C	511	GLU
5	C	513	VAL
5	C	517	ARG
5	C	527	GLU

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Mol	Chain	Res	Type
5	C	548	PRO
5	C	565	GLN
5	C	567	GLN
5	C	585	GLU
5	C	586	ARG
5	C	595	LEU
5	C	599	GLU
5	C	602	GLU
5	C	607	ASP
5	C	609	ASN
5	C	617	ASP
5	C	620	LEU
5	C	625	LEU
5	C	632	ASN
5	C	637	LEU
5	C	638	ASP
5	C	639	GLN
5	C	644	VAL
5	C	645	VAL
5	C	648	ARG
5	C	649	VAL
5	C	650	ARG
5	C	654	LEU
5	C	668	LEU
5	C	670	GLN
5	C	672	VAL
5	C	673	LEU
5	C	676	ILE
5	C	679	PHE
5	C	685	GLU
5	C	690	ILE
5	C	693	GLU
5	C	698	ASP
5	C	699	PHE
5	C	701	THR
5	C	703	ILE
5	C	704	HIS
5	C	709	GLU
5	C	713	ARG
5	C	722	ILE
5	C	725	ASP
5	C	727	PRO

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Mol	Chain	Res	Type
5	C	729	LEU
5	C	744	ARG
5	C	774	LEU
5	C	780	GLU
5	C	784	ASP
5	C	785	VAL
5	C	799	ILE
5	C	805	ARG
5	C	807	ARG
5	C	813	VAL
5	C	814	GLU
5	C	823	VAL
5	C	834	GLN
5	C	839	LEU
5	C	841	ASN
5	C	845	ASN
5	C	852	ILE
5	C	853	LEU
5	C	858	MET
5	C	859	PRO
5	C	860	HIS
5	C	862	PRO
5	C	881	ASN
5	C	884	GLN
5	C	904	PRO
5	C	907	ASP
5	C	913	GLU
5	C	920	GLN
5	C	923	GLU
5	C	938	LYS
5	C	950	LEU
5	C	952	LEU
5	C	953	VAL
5	C	958	THR
5	C	962	GLN
5	C	963	LEU
5	C	964	LYS
5	C	965	GLU
5	C	978	ARG
5	C	981	GLU
5	C	995	MET
5	C	999	HIS

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Mol	Chain	Res	Type
5	C	1000	MET
5	C	1003	ASP
5	C	1005	MET
5	C	1006	HIS
5	C	1008	ARG
5	C	1010	THR
5	C	1016	ILE
5	C	1017	THR
5	C	1018	GLN
5	C	1035	MET
5	C	1052	MET
5	C	1063	ARG
5	C	1074	GLU
5	C	1084	SER
5	C	1088	LEU
5	C	1097	LEU
5	C	1098	ASP
5	C	1101	THR
5	C	1108	PRO
5	C	1113	GLU
5	C	1117	SER
6	D	3	LYS
6	D	4	GLU
6	D	5	VAL
6	D	12	LEU
6	D	15	PRO
6	D	16	GLU
6	D	21	TRP
6	D	25	GLU
6	D	31	THR
6	D	34	TYR
6	D	35	ARG
6	D	36	THR
6	D	41	ARG
6	D	42	ASP
6	D	48	ARG
6	D	56	TYR
6	D	66	GLN
6	D	68	PHE
6	D	69	GLU
6	D	76	CYS
6	D	80	VAL

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Mol	Chain	Res	Type
6	D	82	LYS
6	D	85	VAL
6	D	87	ARG
6	D	90	MET
6	D	101	HIS
6	D	111	LYS
6	D	112	ILE
6	D	116	LEU
6	D	118	LEU
6	D	123	LEU
6	D	125	GLN
6	D	127	LEU
6	D	141	ILE
6	D	142	LEU
6	D	143	ASN
6	D	145	VAL
6	D	152	LEU
6	D	153	LEU
6	D	157	GLU
6	D	161	LEU
6	D	162	ARG
6	D	163	TYR
6	D	181	ASP
6	D	197	SER
6	D	199	LEU
6	D	200	ASP
6	D	204	LEU
6	D	207	PHE
6	D	395	VAL
6	D	404	GLU
6	D	407	VAL
6	D	419	ASP
6	D	423	ASP
6	D	434	ARG
6	D	439	LEU
6	D	445	ARG
6	D	451	ASP
6	D	453	ASP
6	D	456	MET
6	D	481	MET
6	D	493	ARG
6	D	505	SER

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Mol	Chain	Res	Type
6	D	513	ILE
6	D	517	VAL
6	D	521	PRO
6	D	525	ARG
6	D	529	GLN
6	D	531	ASP
6	D	549	ASN
6	D	552	ASN
6	D	553	ARG
6	D	565	ILE
6	D	566	ILE
6	D	569	ASN
6	D	571	LYS
6	D	573	MET
6	D	574	LEU
6	D	576	GLU
6	D	581	LEU
6	D	590	PRO
6	D	594	PRO
6	D	597	ASP
6	D	598	ARG
6	D	605	ASP
6	D	607	LEU
6	D	608	SER
6	D	611	GLN
6	D	614	PHE
6	D	615	ARG
6	D	618	LEU
6	D	619	LEU
6	D	624	ASP
6	D	628	ARG
6	D	636	GLN
6	D	639	LEU
6	D	641	GLN
6	D	647	ARG
6	D	659	LYS
6	D	666	ILE
6	D	670	VAL
6	D	676	MET
6	D	678	GLU
6	D	682	ASP
6	D	703	ASN

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Mol	Chain	Res	Type
6	D	707	THR
6	D	709	HIS
6	D	711	LEU
6	D	724	GLN
6	D	725	SER
6	D	727	GLN
6	D	731	LEU
6	D	734	GLU
6	D	739	ASP
6	D	743	ASP
6	D	752	SER
6	D	754	PHE
6	D	760	ARG
6	D	767	HIS
6	D	784	ASP
6	D	792	ILE
6	D	804	LEU
6	D	813	LEU
6	D	824	ASN
6	D	833	GLU
6	D	835	SER
6	D	851	LEU
6	D	860	LEU
6	D	863	VAL
6	D	872	ARG
6	D	879	ARG
6	D	880	ILE
6	D	910	SER
6	D	914	LEU
6	D	920	LEU
6	D	921	ARG
6	D	925	GLU
6	D	930	LEU
6	D	932	ASP
6	D	940	THR
6	D	947	ILE
6	D	951	ILE
6	D	952	ASP
6	D	959	GLU
6	D	960	LYS
6	D	965	GLU
6	D	966	GLU

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Mol	Chain	Res	Type
6	D	971	LEU
6	D	972	LEU
6	D	975	GLU
6	D	983	LEU
6	D	985	ASP
6	D	988	ARG
6	D	990	ASP
6	D	991	GLN
6	D	995	LEU
6	D	1010	ASN
6	D	1012	GLU
6	D	1019	PRO
6	D	1025	GLN
6	D	1032	PRO
6	D	1042	ARG
6	D	1062	ARG
6	D	1068	LEU
6	D	1070	TYR
6	D	1086	LEU
6	D	1087	ARG
6	D	1088	THR
6	D	1090	ASP
6	D	1100	ASP
6	D	1109	GLU
6	D	1111	ASP
6	D	1114	THR
6	D	1124	GLN
6	D	1127	GLU
6	D	1134	LEU
6	D	1151	ARG
6	D	1155	VAL
6	D	1156	LEU
6	D	1159	ARG
6	D	1164	ARG
6	D	1174	LEU
6	D	1176	LYS
6	D	1182	GLU
6	D	1190	SER
6	D	1195	GLN
6	D	1207	TYR
6	D	1210	SER
6	D	1217	ILE

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Mol	Chain	Res	Type
6	D	1228	SER
6	D	1231	GLU
6	D	1237	THR
6	D	1238	MET
6	D	1239	ARG
6	D	1242	HIS
6	D	1251	ASP
6	D	1252	ILE
6	D	1253	THR
6	D	1264	GLU
6	D	1266	ARG
6	D	1275	SER
6	D	1278	ASP
6	D	1282	ARG
6	D	1283	ILE
6	D	1284	GLU
6	D	1292	VAL
6	D	1294	VAL
6	D	1299	PHE
6	D	1306	PRO
6	D	1311	LEU
6	D	1312	LEU
6	D	1315	ASP
6	D	1319	VAL
6	D	1323	GLN
6	D	1325	LEU
6	D	1335	LEU
6	D	1345	GLU
6	D	1346	ARG
6	D	1353	GLN
6	D	1359	GLN
6	D	1388	ARG
6	D	1389	LEU
6	D	1391	GLU
6	D	1393	GLN
6	D	1399	ASP
6	D	1401	GLU
6	D	1440	PHE
6	D	1441	GLN
6	D	1448	THR
6	D	1449	GLU
6	D	1462	LEU

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Mol	Chain	Res	Type
6	D	1465	ASN
6	D	1476	THR
6	D	1485	GLN
6	D	1488	ASP
6	D	1496	GLU
7	E	29	GLN
7	E	30	LEU
7	E	40	LEU
7	E	41	GLU
7	E	42	PRO
7	E	46	PRO
7	E	51	LEU
7	E	57	ASP
7	E	58	PRO
7	E	59	ASN
7	E	68	LEU
7	E	69	LEU
7	E	70	THR
7	E	74	VAL
7	E	81	PRO
7	E	83	ASP
7	E	85	LEU
7	E	94	PRO
4	K	1	MET
4	K	4	SER
4	K	9	PRO
4	K	19	GLU
4	K	26	GLU
4	K	30	ARG
4	K	41	ARG
4	K	44	LEU
4	K	47	SER
4	K	62	LEU
4	K	63	HIS
4	K	65	PHE
4	K	74	ASP
4	K	77	GLU
4	K	84	GLU
4	K	88	ARG
4	K	89	PHE
4	K	92	PRO
4	K	96	THR

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Mol	Chain	Res	Type
4	K	101	LEU
4	K	104	GLU
4	K	113	ASP
4	K	115	LEU
4	K	119	ASP
4	K	127	LEU
4	K	143	ARG
4	K	144	VAL
4	K	146	ARG
4	K	161	ARG
4	K	163	ASN
4	K	165	ILE
4	K	167	VAL
4	K	180	GLN
4	K	188	GLN
4	K	189	ARG
4	K	192	LEU
4	K	197	LEU
4	K	198	ARG
4	K	200	TRP
4	K	201	THR
4	K	206	THR
4	K	208	LEU
4	K	212	ASN
4	K	215	VAL
4	K	216	GLU
4	K	219	ARG
4	K	227	ASN
4	L	1	MET
4	L	5	LYS
4	L	7	LYS
4	L	12	THR
4	L	16	GLN
4	L	24	VAL
4	L	25	LEU
4	L	26	GLU
4	L	29	GLU
4	L	41	ARG
4	L	45	LEU
4	L	59	GLU
4	L	62	LEU
4	L	66	SER

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Mol	Chain	Res	Type
4	L	72	LYS
4	L	81	ASN
4	L	89	PHE
4	L	92	PRO
4	L	95	GLN
4	L	96	THR
4	L	107	LYS
4	L	112	ARG
4	L	115	LEU
4	L	119	ASP
4	L	122	ILE
4	L	126	ASP
4	L	128	HIS
4	L	133	GLU
4	L	134	GLU
4	L	137	ARG
4	L	138	LEU
4	L	140	MET
4	L	159	LYS
4	L	162	ILE
4	L	163	ASN
4	L	175	ARG
4	L	177	VAL
4	L	181	VAL
4	L	184	THR
4	L	188	GLN
4	L	191	ASP
4	L	196	THR
4	L	197	LEU
4	L	202	ASP
4	L	206	THR
4	L	209	GLU
4	L	213	GLN
4	L	223	THR
4	L	226	SER
5	M	5	ARG
5	M	9	ILE
5	M	10	ARG
5	M	13	ILE
5	M	20	GLU
5	M	22	GLN
5	M	26	TYR

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Mol	Chain	Res	Type
5	M	31	GLN
5	M	41	ASN
5	M	48	PHE
5	M	49	ARG
5	M	51	THR
5	M	59	LYS
5	M	65	VAL
5	M	69	LEU
5	M	89	THR
5	M	91	GLN
5	M	94	LEU
5	M	95	TYR
5	M	98	LEU
5	M	100	LEU
5	M	104	ASP
5	M	105	THR
5	M	108	ILE
5	M	110	GLU
5	M	114	PHE
5	M	115	LEU
5	M	117	HIS
5	M	124	ASP
5	M	133	ASP
5	M	141	HIS
5	M	144	PRO
5	M	148	PHE
5	M	152	PRO
5	M	158	TYR
5	M	163	ILE
5	M	168	ARG
5	M	171	TRP
5	M	173	ASP
5	M	176	VAL
5	M	178	PRO
5	M	187	ASN
5	M	189	ARG
5	M	190	LYS
5	M	191	PHE
5	M	195	LEU
5	M	196	LEU
5	M	198	ARG
5	M	205	GLU

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Mol	Chain	Res	Type
5	M	207	LEU
5	M	211	LEU
5	M	218	VAL
5	M	221	LEU
5	M	222	MET
5	M	223	ASP
5	M	224	GLU
5	M	225	SER
5	M	230	ARG
5	M	233	GLU
5	M	235	LEU
5	M	237	ARG
5	M	242	LEU
5	M	243	ARG
5	M	251	ASP
5	M	252	LYS
5	M	263	ASP
5	M	267	TYR
5	M	271	GLU
5	M	275	TYR
5	M	278	GLU
5	M	279	GLU
5	M	281	LEU
5	M	285	LEU
5	M	290	LEU
5	M	293	PHE
5	M	303	PHE
5	M	308	ARG
5	M	309	TYR
5	M	321	GLU
5	M	327	HIS
5	M	331	ARG
5	M	335	THR
5	M	342	ASP
5	M	343	GLN
5	M	359	MET
5	M	365	ASP
5	M	367	LEU
5	M	374	ASN
5	M	376	ARG
5	M	379	GLU
5	M	383	ARG

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Mol	Chain	Res	Type
5	M	388	ARG
5	M	391	LEU
5	M	392	SER
5	M	393	GLN
5	M	394	PHE
5	M	400	PRO
5	M	407	LYS
5	M	409	ARG
5	M	413	LEU
5	M	425	PHE
5	M	426	ASP
5	M	428	ARG
5	M	429	ASP
5	M	432	ARG
5	M	433	THR
5	M	438	ILE
5	M	443	THR
5	M	452	ILE
5	M	453	THR
5	M	461	VAL
5	M	469	THR
5	M	480	THR
5	M	482	GLU
5	M	491	GLU
5	M	500	ASN
5	M	503	LEU
5	M	504	GLU
5	M	517	ARG
5	M	518	LYS
5	M	524	VAL
5	M	525	SER
5	M	532	MET
5	M	533	ASP
5	M	535	SER
5	M	537	LYS
5	M	548	PRO
5	M	560	MET
5	M	562	SER
5	M	564	MET
5	M	572	ILE
5	M	584	GLU
5	M	586	ARG

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Mol	Chain	Res	Type
5	M	607	ASP
5	M	623	TYR
5	M	627	ARG
5	M	637	LEU
5	M	640	ARG
5	M	642	ARG
5	M	644	VAL
5	M	645	VAL
5	M	648	ARG
5	M	654	LEU
5	M	655	LEU
5	M	666	LEU
5	M	668	LEU
5	M	672	VAL
5	M	673	LEU
5	M	676	ILE
5	M	679	PHE
5	M	680	ASP
5	M	689	VAL
5	M	691	SER
5	M	693	GLU
5	M	699	PHE
5	M	701	THR
5	M	703	ILE
5	M	705	ILE
5	M	715	THR
5	M	722	ILE
5	M	724	ARG
5	M	725	ASP
5	M	727	PRO
5	M	737	LEU
5	M	739	GLU
5	M	740	GLU
5	M	744	ARG
5	M	750	LYS
5	M	753	ASP
5	M	766	GLU
5	M	770	GLU
5	M	773	LEU
5	M	780	GLU
5	M	783	ARG
5	M	785	VAL

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Mol	Chain	Res	Type
5	M	799	ILE
5	M	806	LEU
5	M	807	ARG
5	M	814	GLU
5	M	821	GLU
5	M	838	LYS
5	M	839	LEU
5	M	841	ASN
5	M	853	LEU
5	M	857	ASP
5	M	858	MET
5	M	862	PRO
5	M	865	THR
5	M	868	ASP
5	M	870	ILE
5	M	881	ASN
5	M	886	LEU
5	M	888	THR
5	M	899	GLN
5	M	904	PRO
5	M	907	ASP
5	M	926	PHE
5	M	937	ASP
5	M	938	LYS
5	M	950	LEU
5	M	953	VAL
5	M	959	PRO
5	M	960	GLU
5	M	963	LEU
5	M	969	GLN
5	M	976	ASP
5	M	981	GLU
5	M	999	HIS
5	M	1002	GLU
5	M	1003	ASP
5	M	1008	ARG
5	M	1009	SER
5	M	1015	LEU
5	M	1017	THR
5	M	1026	GLN
5	M	1035	MET
5	M	1051	GLU

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Mol	Chain	Res	Type
5	M	1056	LYS
5	M	1057	SER
5	M	1060	ILE
5	M	1075	ASP
5	M	1085	PHE
5	M	1092	LEU
5	M	1095	LEU
5	M	1099	VAL
5	M	1115	LEU
5	M	1118	LYS
6	N	3	LYS
6	N	9	ARG
6	N	10	ILE
6	N	14	SER
6	N	19	ARG
6	N	21	TRP
6	N	25	GLU
6	N	34	TYR
6	N	35	ARG
6	N	41	ARG
6	N	44	LEU
6	N	47	GLU
6	N	55	ASP
6	N	56	TYR
6	N	62	LYS
6	N	71	LYS
6	N	73	CYS
6	N	76	CYS
6	N	79	GLU
6	N	80	VAL
6	N	85	VAL
6	N	86	ARG
6	N	95	LEU
6	N	97	THR
6	N	103	TRP
6	N	106	LYS
6	N	111	LYS
6	N	112	ILE
6	N	116	LEU
6	N	117	ASP
6	N	121	THR
6	N	131	LYS

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Mol	Chain	Res	Type
6	N	132	TYR
6	N	135	LEU
6	N	142	LEU
6	N	145	VAL
6	N	149	LYS
6	N	151	GLN
6	N	152	LEU
6	N	153	LEU
6	N	160	GLU
6	N	161	LEU
6	N	163	TYR
6	N	166	GLN
6	N	167	GLU
6	N	181	ASP
6	N	186	VAL
6	N	200	ASP
6	N	394	LEU
6	N	399	ARG
6	N	413	ASP
6	N	419	ASP
6	N	423	ASP
6	N	430	ASP
6	N	453	ASP
6	N	455	ARG
6	N	459	GLU
6	N	465	LEU
6	N	470	LEU
6	N	481	MET
6	N	483	HIS
6	N	488	ARG
6	N	489	ARG
6	N	491	LYS
6	N	493	ARG
6	N	498	VAL
6	N	503	LEU
6	N	520	LEU
6	N	524	LEU
6	N	525	ARG
6	N	529	GLN
6	N	537	THR
6	N	539	ASP
6	N	542	ASP

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Mol	Chain	Res	Type
6	N	547	LEU
6	N	549	ASN
6	N	574	LEU
6	N	575	GLN
6	N	576	GLU
6	N	581	LEU
6	N	586	ARG
6	N	593	ASN
6	N	594	PRO
6	N	596	SER
6	N	597	ASP
6	N	600	LEU
6	N	614	PHE
6	N	615	ARG
6	N	616	GLN
6	N	618	LEU
6	N	619	LEU
6	N	639	LEU
6	N	641	GLN
6	N	644	LEU
6	N	650	LEU
6	N	652	LEU
6	N	660	LYS
6	N	666	ILE
6	N	671	LYS
6	N	676	MET
6	N	678	GLU
6	N	698	LYS
6	N	703	ASN
6	N	709	HIS
6	N	710	ARG
6	N	728	LEU
6	N	732	VAL
6	N	736	PHE
6	N	737	ASN
6	N	739	ASP
6	N	749	VAL
6	N	754	PHE
6	N	760	ARG
6	N	762	GLN
6	N	765	SER
6	N	780	LYS

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Mol	Chain	Res	Type
6	N	782	SER
6	N	786	ILE
6	N	792	ILE
6	N	796	ARG
6	N	805	GLU
6	N	808	THR
6	N	810	GLU
6	N	811	GLU
6	N	820	GLU
6	N	823	LEU
6	N	824	ASN
6	N	826	PRO
6	N	828	LYS
6	N	832	ARG
6	N	833	GLU
6	N	834	THR
6	N	846	PRO
6	N	847	ASP
6	N	863	VAL
6	N	867	ARG
6	N	897	TRP
6	N	899	LEU
6	N	903	ASP
6	N	913	ASP
6	N	919	PHE
6	N	921	ARG
6	N	929	ARG
6	N	935	LYS
6	N	951	ILE
6	N	952	ASP
6	N	964	LEU
6	N	972	LEU
6	N	983	LEU
6	N	986	ARG
6	N	990	ASP
6	N	999	THR
6	N	1012	GLU
6	N	1031	ASN
6	N	1033	GLN
6	N	1038	LEU
6	N	1041	LEU
6	N	1052	THR

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Mol	Chain	Res	Type
6	N	1054	GLU
6	N	1062	ARG
6	N	1068	LEU
6	N	1070	TYR
6	N	1071	PHE
6	N	1086	LEU
6	N	1087	ARG
6	N	1093	TYR
6	N	1098	LEU
6	N	1101	VAL
6	N	1108	ARG
6	N	1109	GLU
6	N	1112	CYS
6	N	1116	ASN
6	N	1122	LEU
6	N	1125	PRO
6	N	1127	GLU
6	N	1130	ARG
6	N	1131	SER
6	N	1151	ARG
6	N	1156	LEU
6	N	1160	LEU
6	N	1161	GLU
6	N	1166	LEU
6	N	1167	SER
6	N	1170	ASP
6	N	1191	PRO
6	N	1195	GLN
6	N	1207	TYR
6	N	1210	SER
6	N	1211	MET
6	N	1213	ARG
6	N	1214	PRO
6	N	1224	VAL
6	N	1228	SER
6	N	1231	GLU
6	N	1234	THR
6	N	1235	GLN
6	N	1236	LEU
6	N	1237	THR
6	N	1238	MET
6	N	1241	PHE

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Mol	Chain	Res	Type
6	N	1257	PRO
6	N	1264	GLU
6	N	1266	ARG
6	N	1275	SER
6	N	1282	ARG
6	N	1284	GLU
6	N	1285	GLU
6	N	1286	THR
6	N	1294	VAL
6	N	1296	SER
6	N	1297	GLU
6	N	1299	PHE
6	N	1307	LYS
6	N	1310	ARG
6	N	1311	LEU
6	N	1312	LEU
6	N	1315	ASP
6	N	1317	ASP
6	N	1320	GLU
6	N	1323	GLN
6	N	1327	ARG
6	N	1337	GLU
6	N	1342	GLU
6	N	1344	VAL
6	N	1346	ARG
6	N	1350	GLU
6	N	1359	GLN
6	N	1369	GLU
6	N	1383	ASP
6	N	1387	SER
6	N	1388	ARG
6	N	1389	LEU
6	N	1390	LEU
6	N	1407	LEU
6	N	1429	LEU
6	N	1431	THR
6	N	1441	GLN
6	N	1462	LEU
6	N	1464	GLU
6	N	1465	ASN
6	N	1468	LEU
6	N	1483	PHE

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Mol	Chain	Res	Type
6	N	1488	ASP
6	N	1490	LYS
6	N	1491	THR
6	N	1496	GLU
6	N	1499	ARG
6	N	1501	GLU
7	O	14	ASP
7	O	20	THR
7	O	28	GLN
7	O	30	LEU
7	O	40	LEU
7	O	42	PRO
7	O	46	PRO
7	O	51	LEU
7	O	57	ASP
7	O	58	PRO
7	O	59	ASN
7	O	74	VAL
7	O	78	ASN
7	O	81	PRO
7	O	83	ASP
7	O	85	LEU
7	O	94	PRO

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (151) such sidechains are listed below:

Mol	Chain	Res	Type
4	A	81	ASN
4	A	124	ASN
4	A	128	HIS
4	A	139	ASN
4	A	156	HIS
4	A	163	ASN
4	A	180	GLN
4	A	188	GLN
4	A	227	ASN
4	A	229	GLN
4	B	16	GLN
4	B	63	HIS
4	B	81	ASN
4	B	95	GLN
4	B	212	ASN

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Mol	Chain	Res	Type
4	B	213	GLN
4	B	227	ASN
5	C	22	GLN
5	C	31	GLN
5	C	91	GLN
5	C	102	HIS
5	C	141	HIS
5	C	320	HIS
5	C	390	GLN
5	C	393	GLN
5	C	431	HIS
5	C	538	GLN
5	C	545	ASN
5	C	552	HIS
5	C	609	ASN
5	C	633	GLN
5	C	670	GLN
5	C	671	ASN
5	C	834	GLN
5	C	841	ASN
5	C	845	ASN
5	C	881	ASN
5	C	889	HIS
5	C	969	GLN
5	C	1093	GLN
5	C	1100	GLN
5	C	1107	ASN
6	D	125	GLN
6	D	143	ASN
6	D	151	GLN
6	D	189	GLN
6	D	507	ASN
6	D	541	ASN
6	D	549	ASN
6	D	569	ASN
6	D	611	GLN
6	D	703	ASN
6	D	714	GLN
6	D	724	GLN
6	D	737	ASN
6	D	762	GLN
6	D	824	ASN

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Mol	Chain	Res	Type
6	D	917	GLN
6	D	991	GLN
6	D	994	GLN
6	D	1025	GLN
6	D	1116	ASN
6	D	1195	GLN
6	D	1202	GLN
6	D	1235	GLN
6	D	1333	HIS
6	D	1353	GLN
6	D	1359	GLN
6	D	1441	GLN
6	D	1485	GLN
7	E	29	GLN
7	E	59	ASN
4	K	128	HIS
4	K	180	GLN
4	K	212	ASN
4	K	227	ASN
4	L	16	GLN
4	L	38	ASN
4	L	95	GLN
4	L	139	ASN
4	L	188	GLN
4	L	212	ASN
4	L	213	GLN
5	M	31	GLN
5	M	91	GLN
5	M	117	HIS
5	M	130	ASN
5	M	179	ASN
5	M	204	GLN
5	M	343	GLN
5	M	399	ASN
5	M	431	HIS
5	M	538	GLN
5	M	545	ASN
5	M	552	HIS
5	M	565	GLN
5	M	567	GLN
5	M	609	ASN
5	M	639	GLN

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Mol	Chain	Res	Type
5	M	671	ASN
5	M	704	HIS
5	M	834	GLN
5	M	841	ASN
5	M	881	ASN
5	M	889	HIS
5	M	969	GLN
5	M	1026	GLN
5	M	1050	GLN
5	M	1093	GLN
5	M	1100	GLN
5	M	1107	ASN
6	N	33	ASN
6	N	125	GLN
6	N	143	ASN
6	N	151	GLN
6	N	166	GLN
6	N	507	ASN
6	N	529	GLN
6	N	549	ASN
6	N	616	GLN
6	N	703	ASN
6	N	724	GLN
6	N	737	ASN
6	N	744	GLN
6	N	756	GLN
6	N	767	HIS
6	N	768	ASN
6	N	816	HIS
6	N	824	ASN
6	N	855	HIS
6	N	861	GLN
6	N	917	GLN
6	N	973	GLN
6	N	994	GLN
6	N	1005	GLN
6	N	1033	GLN
6	N	1046	GLN
6	N	1103	HIS
6	N	1116	ASN
6	N	1124	GLN
6	N	1323	GLN

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Mol	Chain	Res	Type
6	N	1334	GLN
6	N	1353	GLN
6	N	1441	GLN
7	O	28	GLN
7	O	29	GLN
7	O	33	HIS
7	O	37	ASN
7	O	59	ASN
7	O	78	ASN
7	O	86	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	H	16/16 (100%)	11 (68%)	6 (37%)
2	Y	16/16 (100%)	11 (68%)	7 (43%)
All	All	32/32 (100%)	22 (68%)	13 (40%)

All (22) 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	11	C
2	H	12	G
2	H	13	C
2	H	15	C
2	Y	2	A
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	11	C
2	Y	12	G

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Mol	Chain	Res	Type
2	Y	13	C
2	Y	15	C

All (13) 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	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

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 12 ligands modelled in this entry, 8 are monoatomic - leaving 4 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
8	STD	N	8001	-	42,47,47	6.88	26 (61%)	47,73,73	2.32	11 (23%)
8	STD	D	7001	-	42,47,47	7.04	27 (64%)	47,73,73	2.30	13 (27%)
11	APC	M	6999	10	27,33,33	1.28	4 (14%)	31,52,52	1.67	6 (19%)
11	APC	D	5999	10	27,33,33	1.41	4 (14%)	31,52,52	1.68	6 (19%)

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
8	STD	N	8001	-	-	12/31/101/101	0/5/5/5
8	STD	D	7001	-	-	12/31/101/101	0/5/5/5
11	APC	M	6999	10	-	4/15/38/38	0/3/3/3
11	APC	D	5999	10	-	4/15/38/38	0/3/3/3

All (61) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	D	7001	STD	O5-C19	-27.18	1.19	1.43
8	N	8001	STD	O5-C19	-26.52	1.19	1.43
8	D	7001	STD	C23-C21	-16.00	1.18	1.53
8	N	8001	STD	C23-C21	-15.34	1.20	1.53
8	N	8001	STD	C18-C16	-13.28	1.25	1.53
8	D	7001	STD	C18-C16	-13.07	1.26	1.53
8	N	8001	STD	C15-C12	-13.06	1.20	1.52
8	D	7001	STD	C15-C12	-12.82	1.21	1.52
8	N	8001	STD	O5-C13	10.66	1.60	1.44
8	D	7001	STD	O5-C13	9.92	1.59	1.44
8	D	7001	STD	C17-C30	9.65	1.65	1.49
8	D	7001	STD	O8-C19	9.41	1.51	1.43
8	N	8001	STD	C17-C30	9.18	1.64	1.49
8	N	8001	STD	O8-C19	8.53	1.50	1.43
8	D	7001	STD	C22-N2	8.30	1.44	1.33
8	D	7001	STD	C16-C13	7.96	1.70	1.53
8	N	8001	STD	C22-N2	7.46	1.43	1.33
8	N	8001	STD	C16-C13	7.32	1.68	1.53
8	D	7001	STD	O8-C17	6.84	1.52	1.44
8	N	8001	STD	C15-C26	6.78	1.62	1.52
8	D	7001	STD	C15-C26	6.76	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	N	8001	STD	O8-C17	6.56	1.51	1.44
8	D	7001	STD	C21-C22	6.32	1.62	1.52
8	D	7001	STD	C26-C25	5.59	1.62	1.52
8	D	7001	STD	C20-C3	5.46	1.60	1.53
8	N	8001	STD	C20-C3	5.23	1.59	1.53
8	N	8001	STD	C6-C5	-5.00	1.37	1.45
8	N	8001	STD	C26-C25	4.70	1.60	1.52
8	N	8001	STD	O4-C4	4.42	1.47	1.42
8	N	8001	STD	C30-C32	4.42	1.39	1.32
8	D	7001	STD	C6-C5	-4.37	1.38	1.45
11	D	5999	APC	PB-O3B	4.36	1.63	1.58
8	D	7001	STD	C4-N1	4.32	1.51	1.45
8	D	7001	STD	C30-C32	4.17	1.38	1.32
8	N	8001	STD	C4-N1	4.12	1.51	1.45
8	N	8001	STD	C21-C22	4.10	1.59	1.52
8	D	7001	STD	C7-C8	-3.86	1.37	1.45
8	N	8001	STD	C7-C8	-3.74	1.37	1.45
11	M	6999	APC	PB-O3B	3.62	1.62	1.58
8	D	7001	STD	O4-C4	3.40	1.46	1.42
8	D	7001	STD	C12-C4	3.27	1.63	1.50
8	D	7001	STD	O9-C31	3.16	1.52	1.44
11	M	6999	APC	PA-O2A	-3.13	1.49	1.56
8	N	8001	STD	O9-C31	3.12	1.52	1.44
8	N	8001	STD	C29-C19	3.04	1.56	1.51
8	N	8001	STD	C12-C4	2.90	1.62	1.50
11	D	5999	APC	PA-O2A	-2.76	1.49	1.56
11	D	5999	APC	PB-O2B	-2.74	1.49	1.56
8	N	8001	STD	C28-C32	2.71	1.54	1.50
11	M	6999	APC	PB-O2B	-2.68	1.50	1.56
8	N	8001	STD	C1-C2	-2.61	1.38	1.46
8	D	7001	STD	C11-C8	2.42	1.55	1.50
11	D	5999	APC	PA-O5'	2.16	1.60	1.57
8	N	8001	STD	C11-C8	2.15	1.55	1.50
8	D	7001	STD	C1-C2	-2.14	1.40	1.46
11	M	6999	APC	PA-O5'	2.09	1.60	1.57
8	N	8001	STD	O4-C25	2.08	1.49	1.44
8	D	7001	STD	O7-C26	2.06	1.47	1.43
8	D	7001	STD	O4-C25	2.02	1.49	1.44
8	D	7001	STD	C29-C19	2.01	1.54	1.51
8	D	7001	STD	O3-C5	2.00	1.39	1.34

All (36) bond angle outliers are listed below:



Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	D	7001	STD	C19-O5-C13	9.00	122.53	112.80
8	N	8001	STD	C19-O5-C13	8.66	122.15	112.80
8	N	8001	STD	C2-C1-C3	-5.91	101.57	107.80
8	N	8001	STD	O8-C17-C30	-5.82	105.96	111.68
8	D	7001	STD	O8-C17-C30	-5.63	106.15	111.68
8	D	7001	STD	C2-C1-C3	-4.78	102.76	107.80
11	M	6999	APC	C1'-N9-C4	-4.34	119.01	126.64
11	D	5999	APC	C1'-N9-C4	-4.21	119.24	126.64
11	M	6999	APC	PG-O3B-PB	-4.10	118.17	132.62
11	D	5999	APC	PG-O3B-PB	-3.99	118.56	132.62
8	N	8001	STD	O4-C4-N1	3.72	109.97	105.92
8	D	7001	STD	O2-C2-C1	-3.55	121.78	130.61
8	N	8001	STD	O2-C2-N1	-3.52	118.73	126.47
8	D	7001	STD	O2-C2-N1	-3.47	118.83	126.47
8	N	8001	STD	C7-C6-C5	3.46	128.23	122.45
8	D	7001	STD	C10-C13-C16	3.43	121.19	115.55
8	D	7001	STD	C11-C8-C7	3.31	123.29	118.08
11	M	6999	APC	C5-C6-N6	3.29	125.35	120.35
8	N	8001	STD	O2-C2-C1	-3.28	122.45	130.61
11	D	5999	APC	C5-C6-N6	3.25	125.30	120.35
8	N	8001	STD	C10-C13-C16	3.13	120.69	115.55
11	D	5999	APC	O2B-PB-O1B	3.10	120.41	110.07
8	D	7001	STD	O4-C4-N1	3.05	109.24	105.92
11	M	6999	APC	O2B-PB-O1B	2.97	119.97	110.07
8	N	8001	STD	C11-C8-C7	2.96	122.74	118.08
11	D	5999	APC	O2A-PA-O1A	2.95	119.92	110.07
8	N	8001	STD	C12-C15-C26	2.85	115.93	111.76
8	D	7001	STD	C12-C15-C26	2.79	115.84	111.76
11	M	6999	APC	O2A-PA-O1A	2.77	119.33	110.07
8	D	7001	STD	C21-C22-N2	2.76	120.42	116.33
11	D	5999	APC	C2'-C3'-C4'	2.47	107.44	102.64
8	D	7001	STD	O3-C5-C6	2.37	119.06	115.75
8	D	7001	STD	C7-C6-C5	2.22	126.16	122.45
11	M	6999	APC	C2'-C3'-C4'	2.20	106.91	102.64
8	N	8001	STD	C21-C22-N2	2.16	119.54	116.33
8	D	7001	STD	O1-C3-C20	-2.11	122.52	124.60

There are no chirality outliers.

All (32) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	N	8001	STD	O4-C4-N1-C20
8	N	8001	STD	C6-C7-C8-C9

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Mol	Chain	Res	Type	Atoms
8	N	8001	STD	C6-C7-C8-C11
8	N	8001	STD	C3-C20-C21-C22
8	N	8001	STD	C21-C22-N2-C24
8	N	8001	STD	O6-C22-N2-C24
8	D	7001	STD	O4-C4-N1-C20
8	D	7001	STD	C6-C7-C8-C9
8	D	7001	STD	C6-C7-C8-C11
8	D	7001	STD	C9-C10-C13-O5
8	D	7001	STD	N1-C20-C21-C23
8	D	7001	STD	C3-C20-C21-C22
8	D	7001	STD	C3-C20-C21-C23
8	D	7001	STD	C21-C22-N2-C24
8	D	7001	STD	O6-C22-N2-C24
11	M	6999	APC	PA-C3A-PB-O1B
11	M	6999	APC	C5'-O5'-PA-O2A
11	D	5999	APC	C5'-O5'-PA-O2A
11	M	6999	APC	O4'-C4'-C5'-O5'
11	D	5999	APC	O4'-C4'-C5'-O5'
8	N	8001	STD	N1-C20-C21-C23
8	N	8001	STD	C3-C20-C21-C23
11	D	5999	APC	C4'-C5'-O5'-PA
11	M	6999	APC	C4'-C5'-O5'-PA
8	D	7001	STD	C9-C10-C13-C16
8	D	7001	STD	C14-C10-C13-O5
11	D	5999	APC	PA-C3A-PB-O1B
8	N	8001	STD	C23-C21-C22-O6
8	N	8001	STD	C12-C4-N1-C20
8	N	8001	STD	O4-C4-N1-C2
8	D	7001	STD	O4-C4-N1-C2
8	N	8001	STD	C9-C10-C13-C16

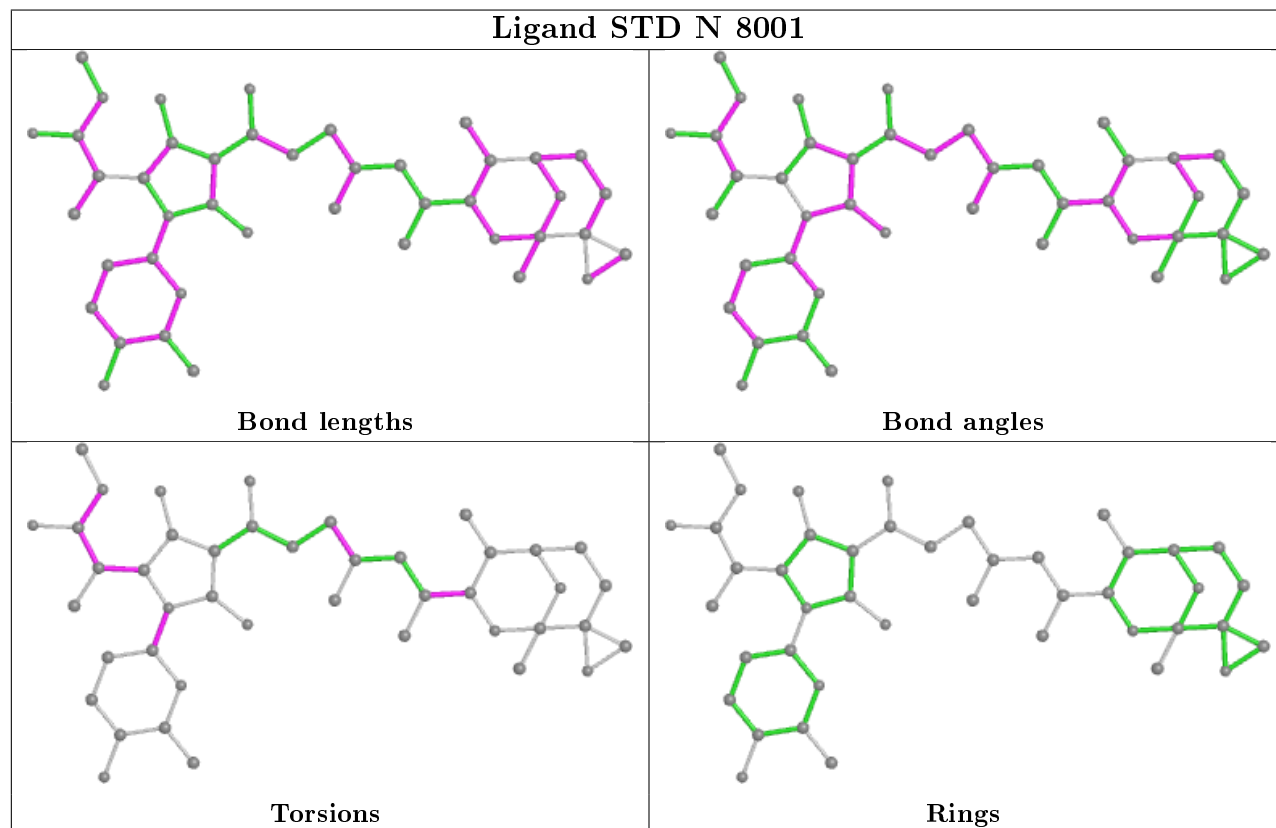
There are no ring outliers.

4 monomers are involved in 19 short contacts:

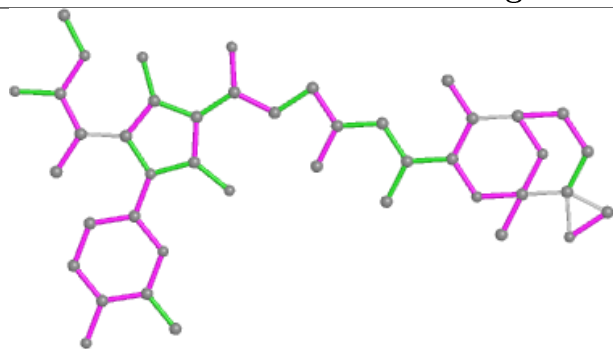
Mol	Chain	Res	Type	Clashes	Symm-Clashes
8	N	8001	STD	6	0
8	D	7001	STD	6	0
11	M	6999	APC	2	0
11	D	5999	APC	5	0

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

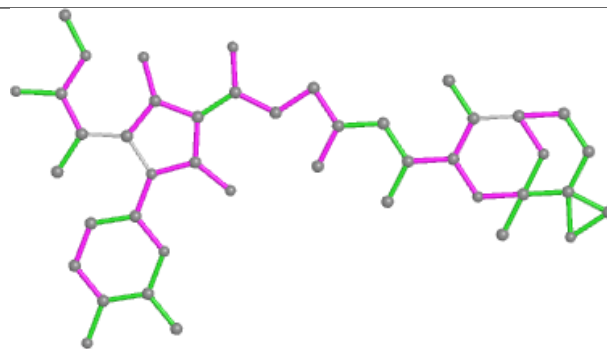
addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. 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.



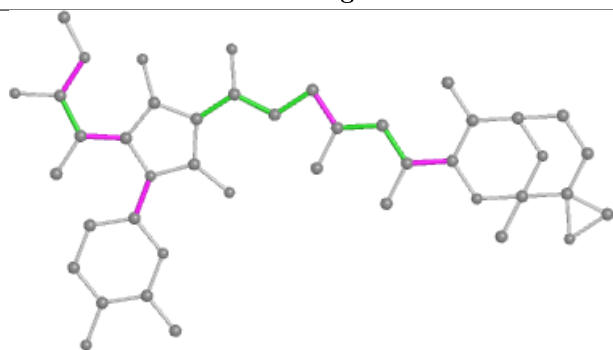
## Ligand STD D 7001



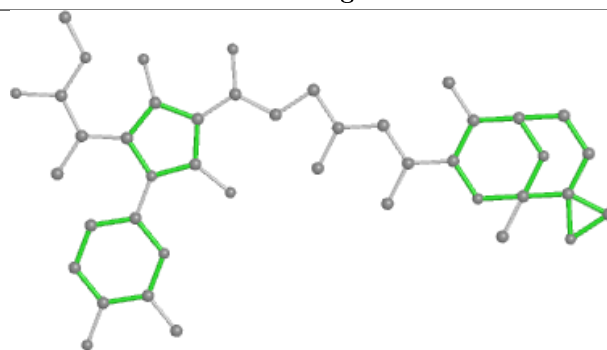
Bond lengths



Bond angles

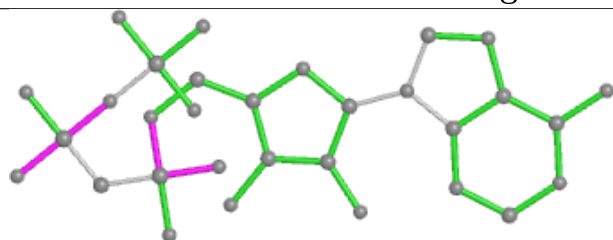


Torsions

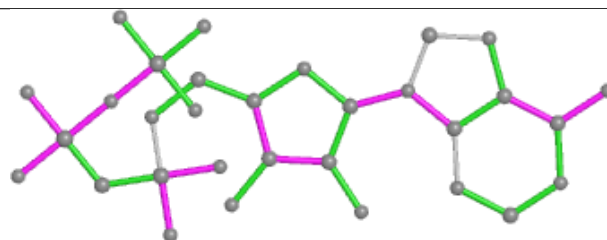


Rings

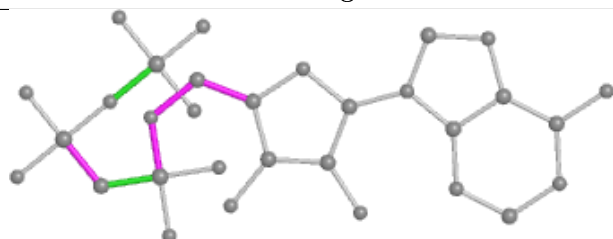
## Ligand APC M 6999



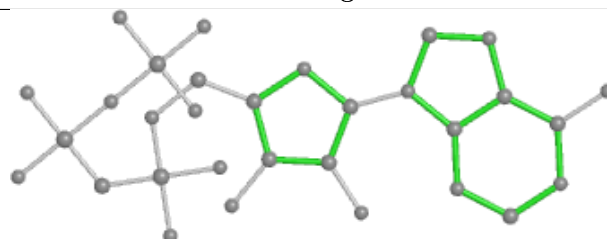
Bond lengths



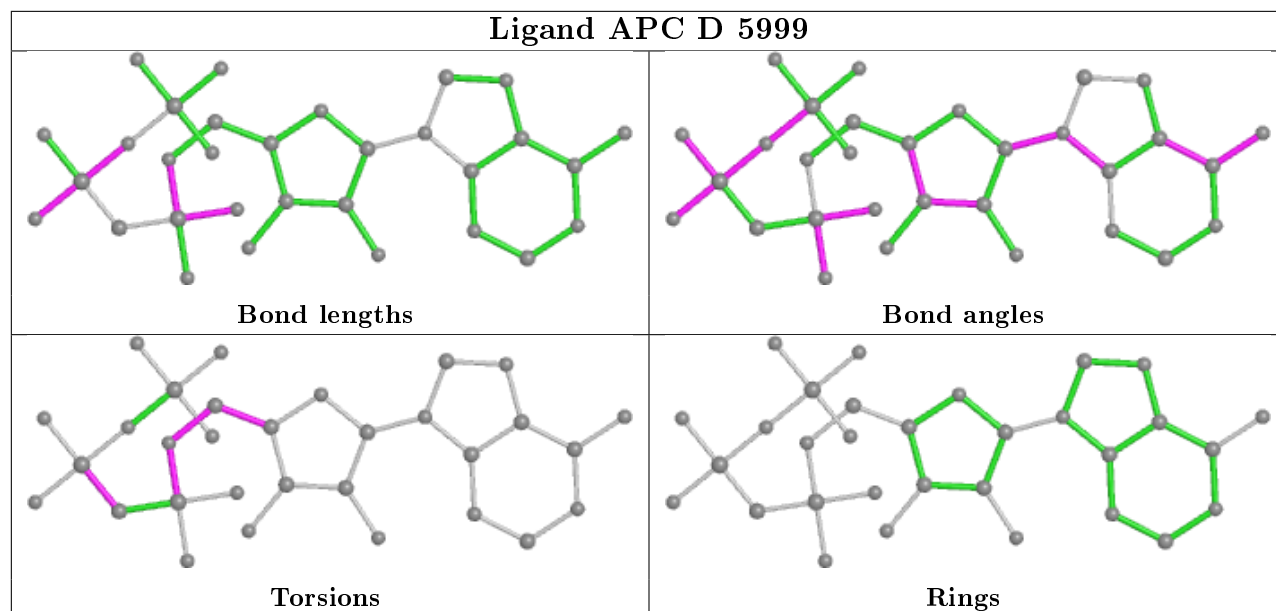
Bond angles



Torsions



Rings



## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	G	23/23 (100%)	-0.74	0 100 100	23, 43, 66, 69	0
1	X	23/23 (100%)	-0.73	0 100 100	9, 37, 77, 92	0
2	H	16/16 (100%)	-0.49	0 100 100	24, 52, 92, 93	0
2	Y	16/16 (100%)	-0.49	0 100 100	25, 43, 96, 99	0
3	I	13/14 (92%)	-0.79	0 100 100	39, 55, 76, 77	0
3	Z	13/14 (92%)	-0.87	0 100 100	50, 61, 75, 79	0
4	A	229/315 (72%)	-0.57	0 100 100	31, 58, 73, 77	0
4	B	229/315 (72%)	-0.57	1 (0%) 92 79	34, 62, 75, 83	0
4	K	229/315 (72%)	-0.57	0 100 100	30, 57, 71, 76	0
4	L	229/315 (72%)	-0.49	0 100 100	37, 62, 76, 87	0
5	C	1119/1119 (100%)	-0.62	1 (0%) 95 89	7, 54, 77, 90	0
5	M	1119/1119 (100%)	-0.61	2 (0%) 95 87	18, 54, 76, 90	0
6	D	1314/1524 (86%)	-0.56	5 (0%) 92 79	11, 56, 79, 89	0
6	N	1314/1524 (86%)	-0.57	3 (0%) 95 87	8, 56, 76, 91	0
7	E	95/99 (95%)	-0.68	0 100 100	42, 58, 67, 71	0
7	O	95/99 (95%)	-0.59	0 100 100	33, 59, 75, 80	0
All	All	6076/6850 (88%)	-0.58	12 (0%) 95 87	7, 56, 77, 99	0

All (12) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
6	N	416	ALA	4.2
5	C	1025	ALA	3.8
6	D	188	GLY	3.1
6	N	429	SER	2.9
6	D	391	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
5	M	419	THR	2.6
5	M	174	LEU	2.3
6	N	174	GLY	2.2
6	D	134	VAL	2.1
4	B	164	ALA	2.0
6	D	1278	ASP	2.0
6	D	429	SER	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

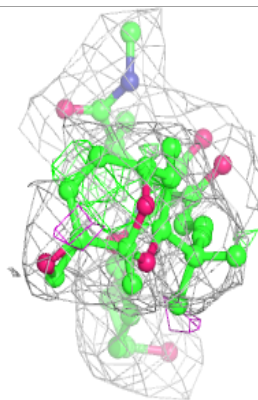
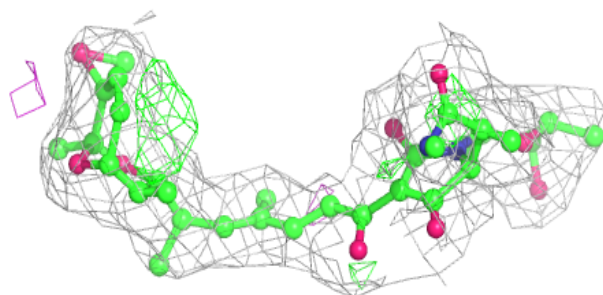
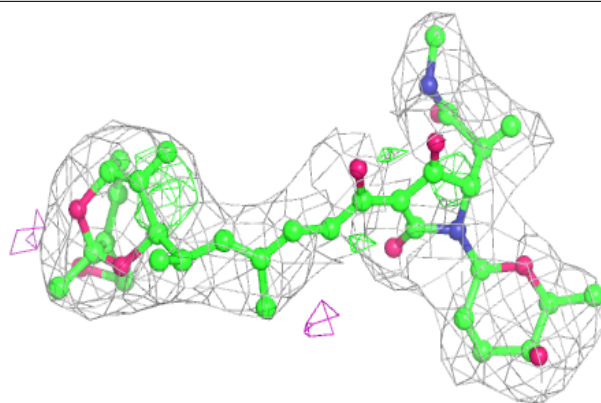
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
8	STD	N	8001	43/43	0.96	0.17	14,32,53,55	0
8	STD	D	7001	43/43	0.96	0.17	11,24,27,28	0
9	ZN	D	7058	1/1	0.97	0.08	87,87,87,87	0
9	ZN	N	7158	1/1	0.97	0.06	70,70,70,70	0
11	APC	D	5999	31/31	0.97	0.15	30,38,64,65	0
10	MG	D	9001	1/1	0.98	0.08	22,22,22,22	0
11	APC	M	6999	31/31	0.98	0.14	35,45,57,58	0
10	MG	N	9004	1/1	0.99	0.09	27,27,27,27	0
9	ZN	N	8212	1/1	0.99	0.10	54,54,54,54	0
9	ZN	D	8112	1/1	0.99	0.07	58,58,58,58	0
10	MG	D	9002	1/1	0.99	0.16	25,25,25,25	0
10	MG	N	9003	1/1	0.99	0.09	21,21,21,21	0

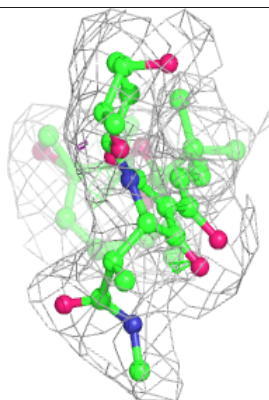
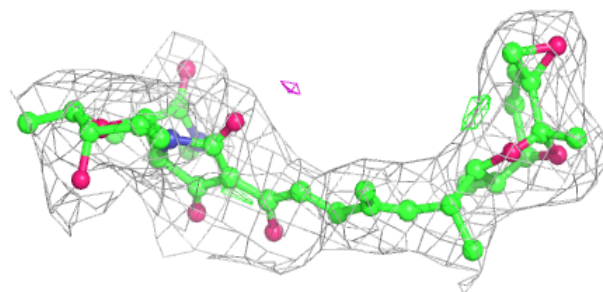
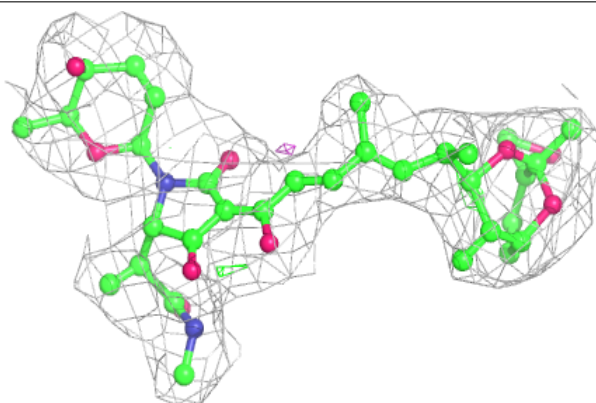
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

**Electron density around STD N 8001:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around STD D 7001:**

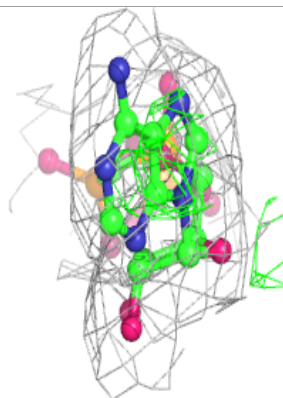
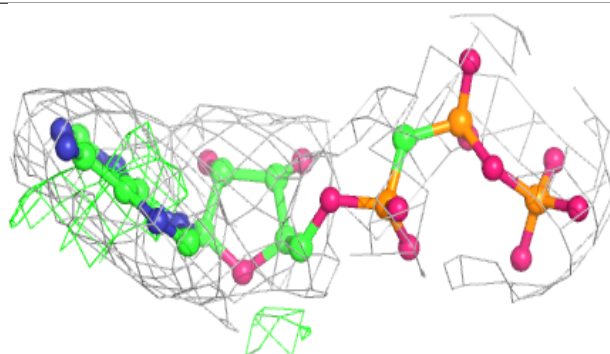
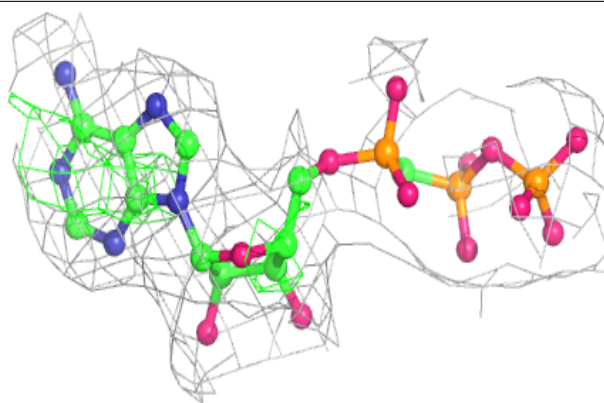
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



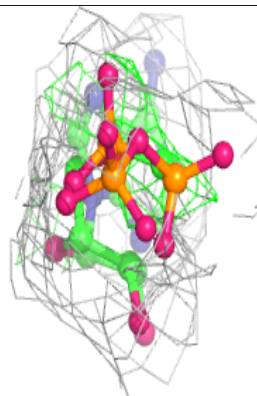
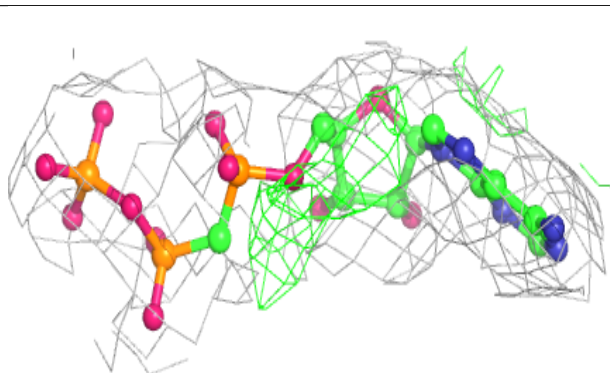
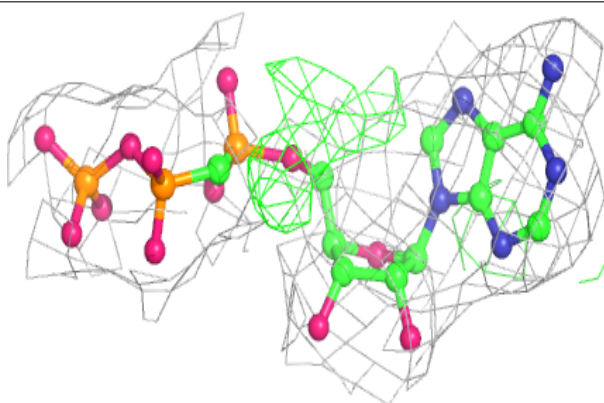


**Electron density around APC D 5999:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around APC M 6999:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



## 6.5 Other polymers

There are no such residues in this entry.