



Full wwPDB EM Validation Report ⓘ

Oct 28, 2024 – 05:39 PM EDT

PDB ID : 8UXH
EMDB ID : EMD-42764
Title : Structure of PKA phosphorylated human RyR2-R420W in the primed state
in the presence of calcium
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2023-11-09
Resolution : 3.52 Å(reported)
Based on initial model : 7UA5

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.39

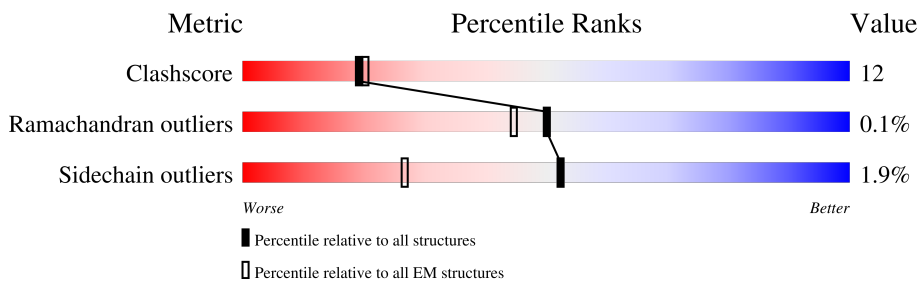
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.52 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)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	4967	
1	B	4967	
1	C	4967	
1	D	4967	
2	E	108	
2	F	108	
2	G	108	
2	H	108	

2 Entry composition i

There are 5 unique types of molecules in this entry. The entry contains 131656 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	4004	32032	20411	5451	5955	215	2	0
1	B	4004	32032	20411	5451	5955	215	2	0
1	C	4004	32032	20411	5451	5955	215	2	0
1	D	4004	32032	20411	5451	5955	215	2	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	420	TRP	ARG	variant	UNP Q92736
B	420	TRP	ARG	variant	UNP Q92736
C	420	TRP	ARG	variant	UNP Q92736
D	420	TRP	ARG	variant	UNP Q92736

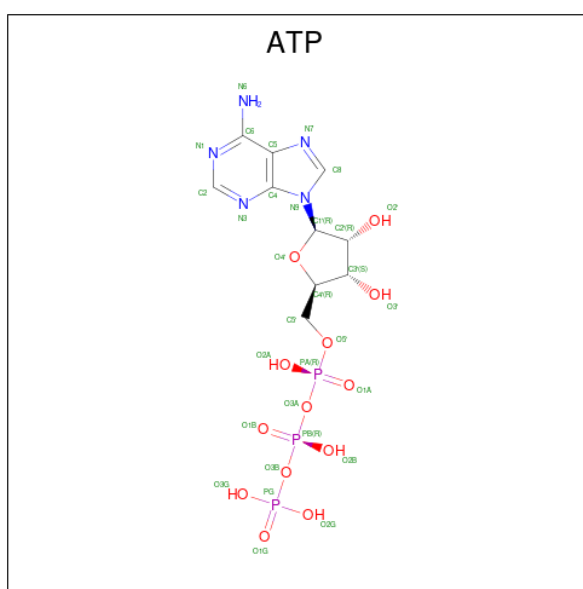
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	E	107	818	516	144	154	4	0	0
2	F	107	818	516	144	154	4	0	0
2	G	107	818	516	144	154	4	0	0
2	H	107	818	516	144	154	4	0	0

- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms	AltConf
3	A	1	Total Zn 1 1	0
3	B	1	Total Zn 1 1	0
3	C	1	Total Zn 1 1	0
3	D	1	Total Zn 1 1	0

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	AltConf
4	A	1	Total C N O P 31 10 5 13 3	0
4	A	1	Total C N O P 31 10 5 13 3	0
4	B	1	Total C N O P 31 10 5 13 3	0
4	B	1	Total C N O P 31 10 5 13 3	0
4	C	1	Total C N O P 31 10 5 13 3	0
4	C	1	Total C N O P 31 10 5 13 3	0
4	D	1	Total C N O P 31 10 5 13 3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
4	D	1	31	10	5	13	3	0

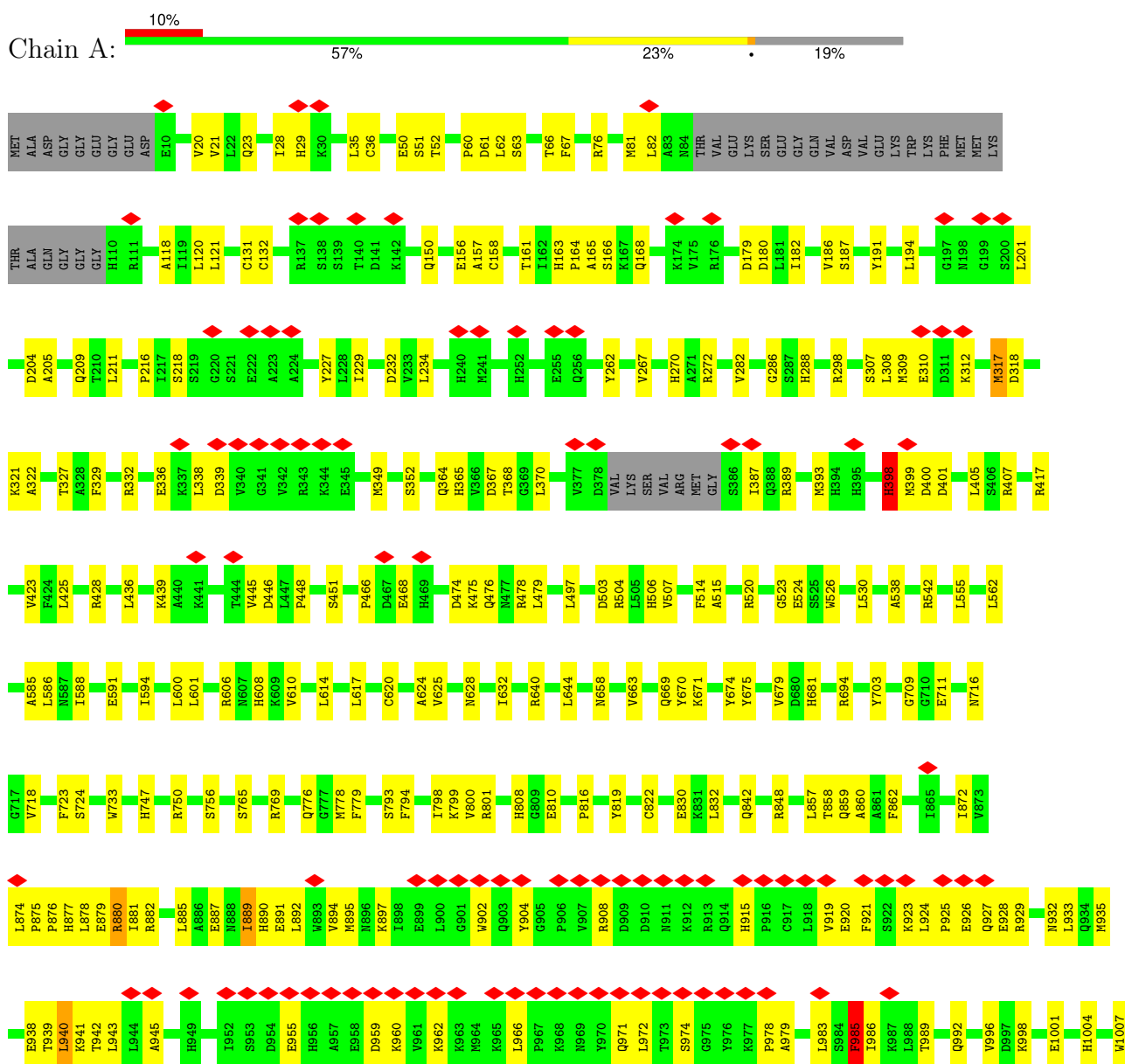
- Molecule 5 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

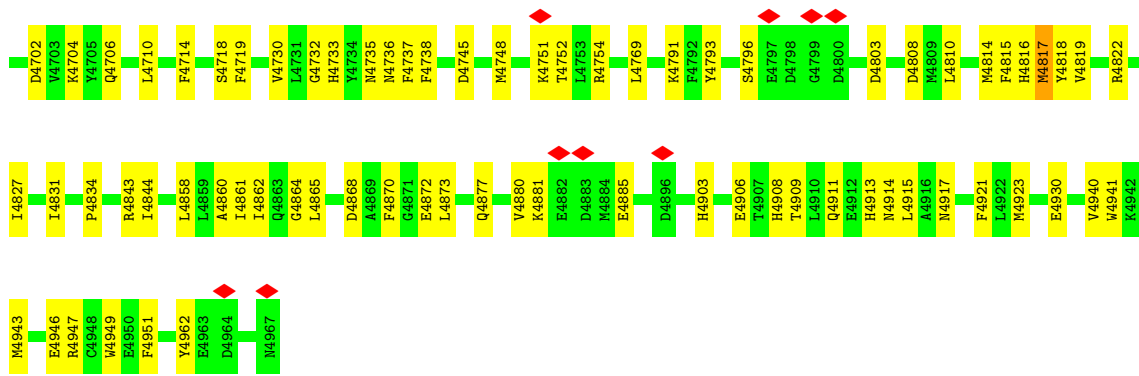
Mol	Chain	Residues	Atoms		AltConf
5	A	1	Total 1	Ca 1	0
5	B	1	Total 1	Ca 1	0
5	C	1	Total 1	Ca 1	0
5	D	1	Total 1	Ca 1	0

3 Residue-property plots [i](#)

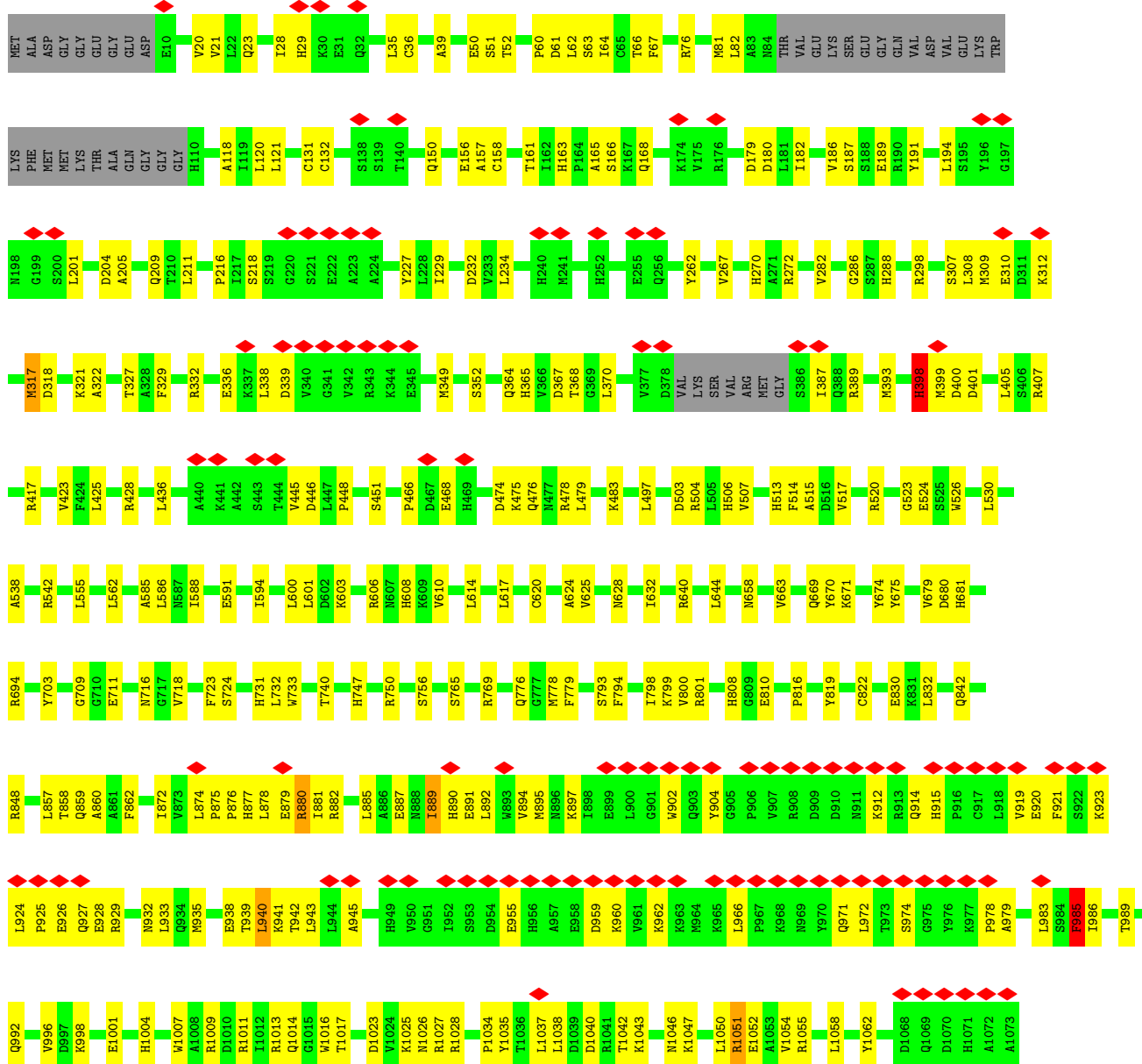
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

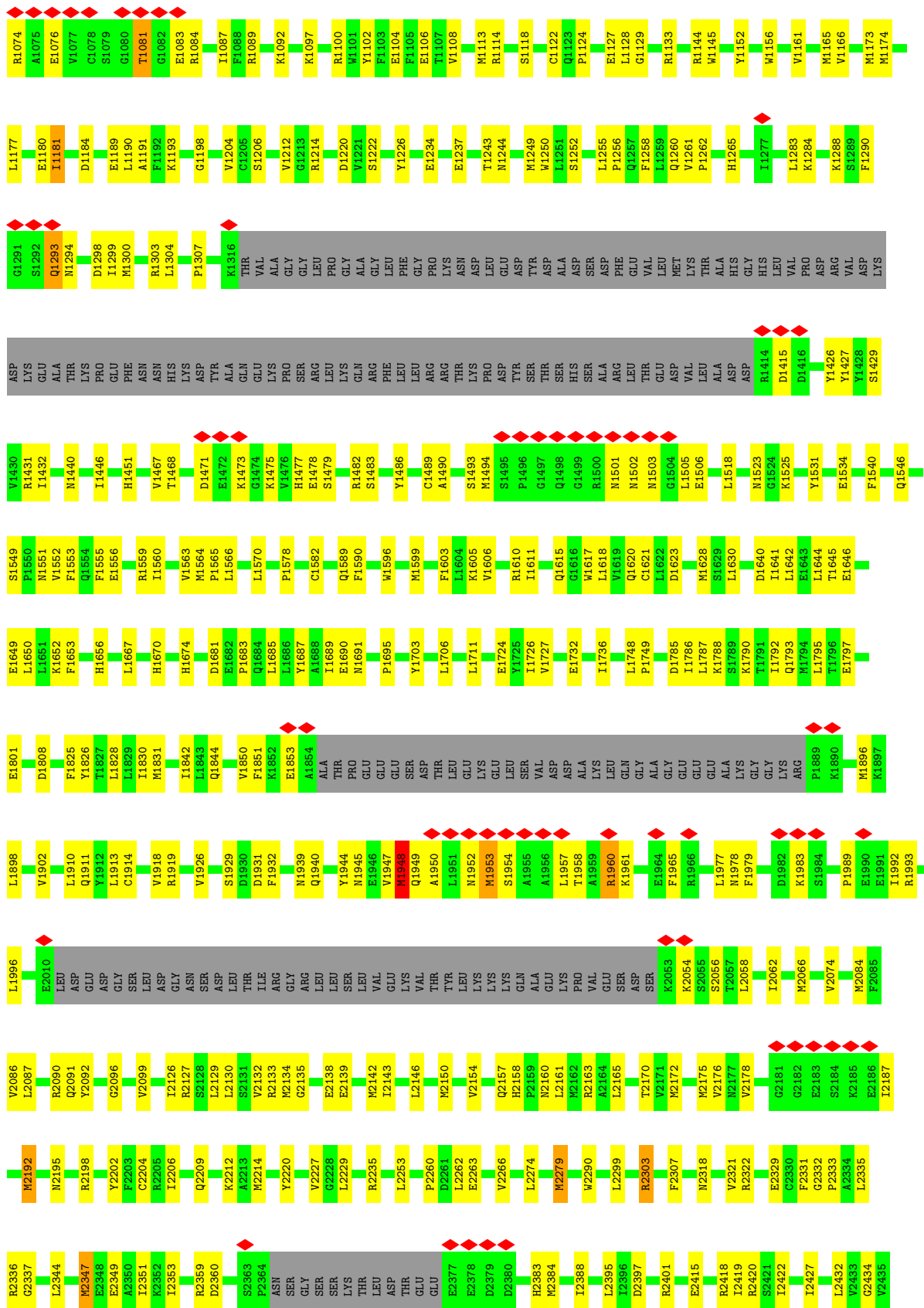
• Molecule 1: Ryanodine receptor 2

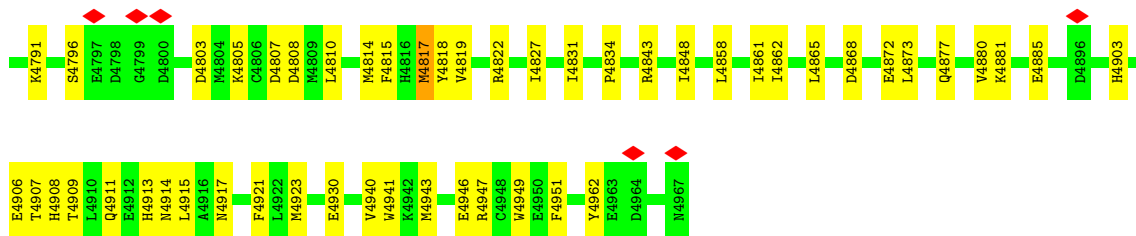




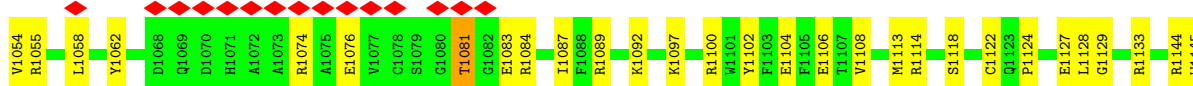
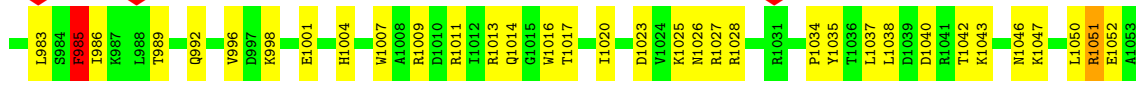
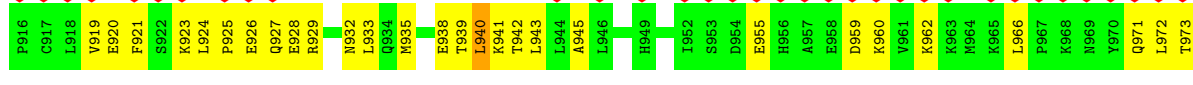
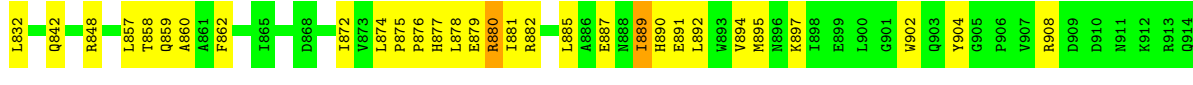
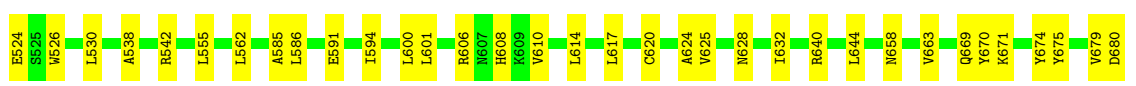
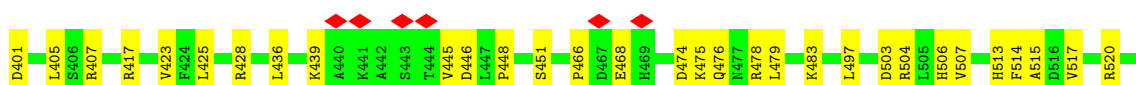
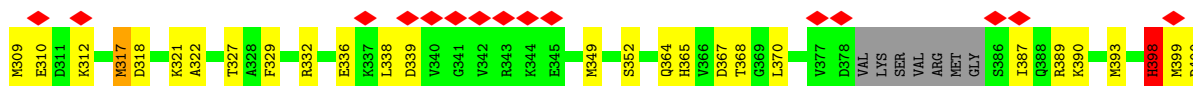
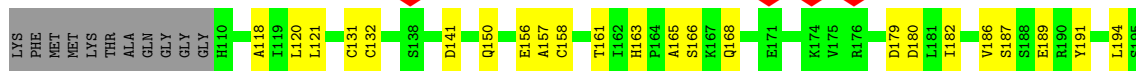
• Molecule 1: Ryanodine receptor 2





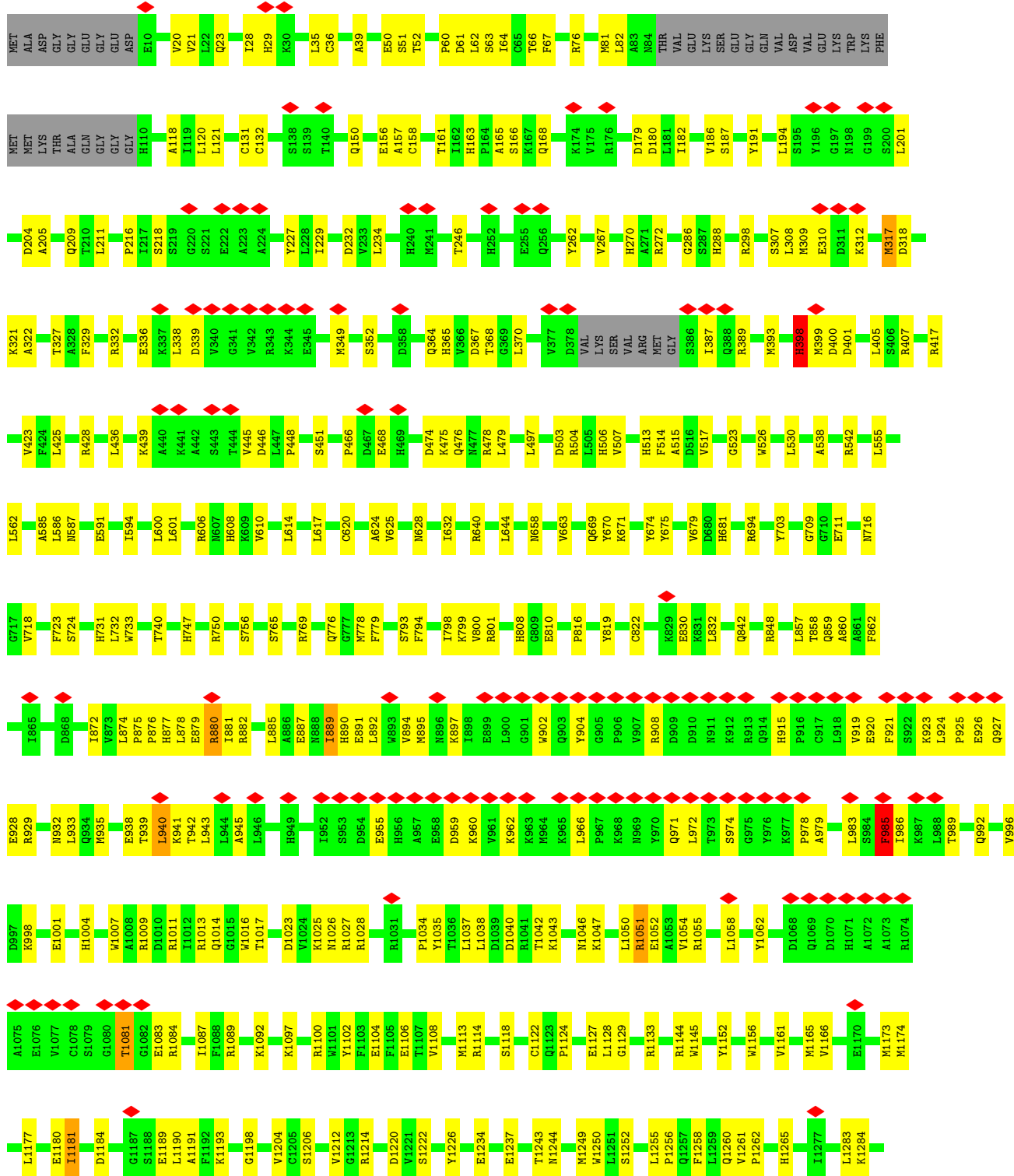


• Molecule 1: Ryanodine receptor 2

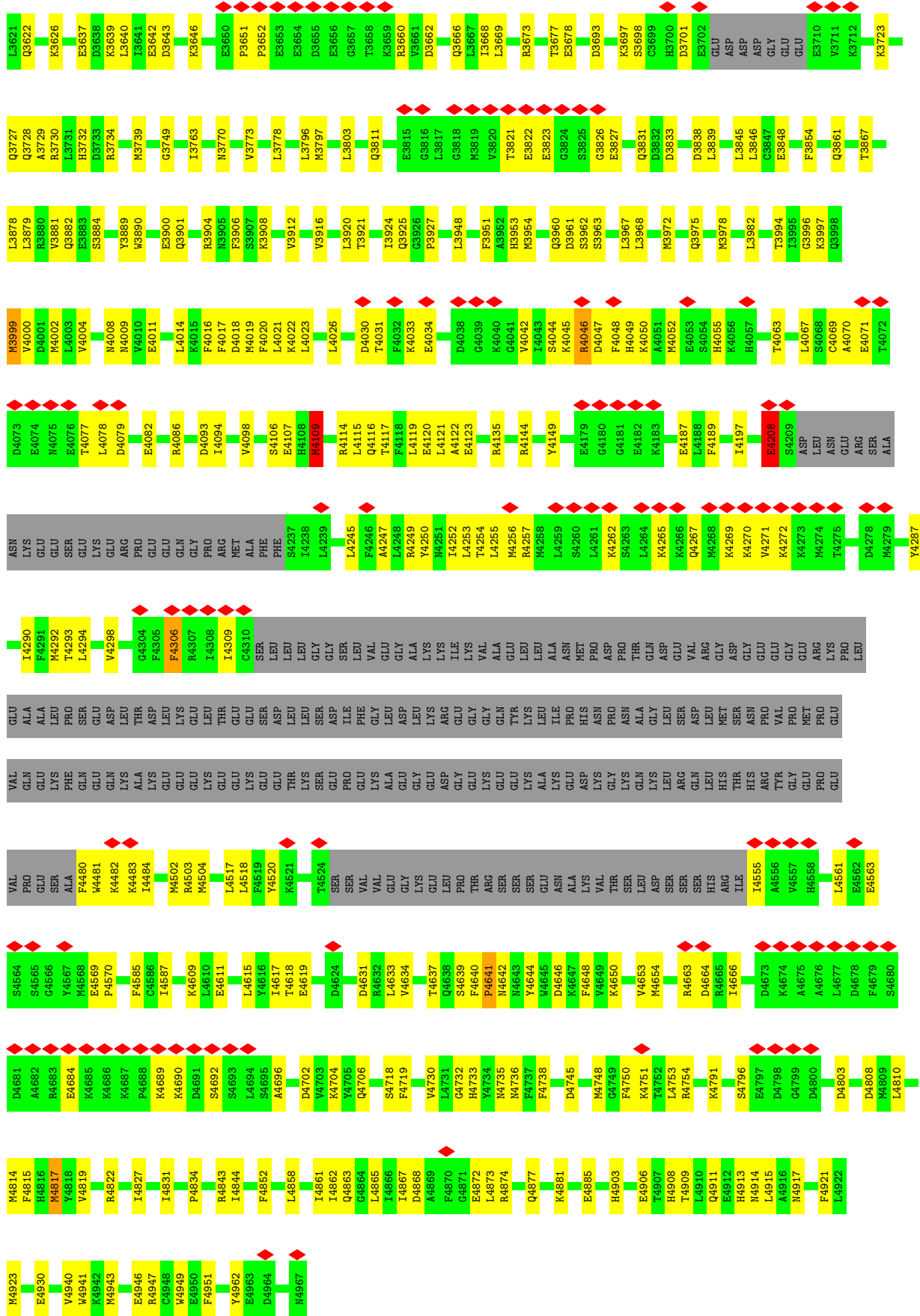


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L2555	L2432	R2322	E2183	S1984	K1788	S1629	S1524	ALA	LYS	P1262	HIS	S1629	S1524	ALA	ASP	P1262	HIS	GLY	HIS	P1262	HIS
K2556		E2329	S2184	P1989	S1789	L1630	K1525	GLY	GLY	H1265	HIS	L1630	K1525	GLY	ASP	H1265	HIS	ASP	HIS	H1265	HIS
S2560	I2436	C2330	K2185	E1990	I1791	D1640	Y1531	LYS	ARG	R1414	VAL	D1640	Y1531	LYS	PRO	I1277	VAL	PRO	VAL	I1277	VAL
D2567	F2440	F2331	E2186	I1991	Q1793	L1641	E1534	ARG	P1889	D1415	ASP	L1641	E1534	ARG	ASP	L1283	ASP	ASP	ASP	L1283	ASP
S2568	Q2441	G2332	I2187	I1992	H1794	E1643	F1540	K1890	K1890	D1416	ARG	E1643	F1540	ARG	K1284	K1283	ARG	ARG	K1283	K1284	
L2569	M2442	R2334	M2192	R1993	L1795	T1644	F1540	E1891	E1891	Y1426	ASP	T1644	F1540	ASP	Y1426	Y1427	VAL	VAL	Y1427	VAL	
E2570	D2448	L2335	M2195	L1996	T1796	E1645	Q1547	E1896	M1896	Y1428	ASP	E1645	Q1547	ASP	Y1428	K1288	LYS	LYS	K1288	LYS	
C2572	D2455	R2336	R2198	E2010	E1801	E1649	L1547	L1897	K1897	Y1429	ASP	E1649	L1547	ASP	S1289	F1290	ASP	ASP	S1289	F1290	
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I2576	G2459	E2349	F2204	ASP	F1825	L1651	S1549	V1902	V1902	R1431	GLY	L1651	S1549	GLY	S1292	S1292	GLY	ALA	S1292	S1292	
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P2582	F2471	L2353	R2206	LEU	Y1912	H1656	F1554	Y1912	Y1912	M1440	PRO	H1656	F1554	PRO	D1298	D1298	PRO	PRO	D1298	D1298	
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L2589	V2480	ASN	K2212	SER	C1914	H1670	E1556	C1914	C1914	H1451	ASN	H1670	E1556	ASN	M1300	M1300	ASN	ASN	M1300	M1300	
R2590	Q2481	SER	A2213	LEU	V1918	H1674	R1559	V1918	V1918	V1467	HIS	H1674	R1559	HIS	R1303	R1303	HIS	HIS	R1303	R1303	
R2591	D2482	GLY	M2214	LEU	V1919	D1681	I1560	V1919	V1919	T1468	ASP	D1681	I1560	ASP	P1307	P1307	ASP	TYR	P1307	P1307	
F2483	F2483	GLY	Y2220	THR	V1926	E1682	Y1563	V1926	V1926	D1471	TYR	E1682	Y1563	TYR	K1316	K1316	TYR	ALA	K1316	K1316	
L2488	L2488	SER	L2221	ILE	D1931	E1683	M1564	D1931	D1931	E1472	ALA	E1683	M1564	ALA	THR	THR	ALA	GLN	THR	THR	
F2492	F2492	THR	L2222	GLY	F1851	Q1684	L1566	F1851	F1851	E1472	GLY	Q1684	L1566	GLY	VAL	VAL	GLY	GLN	VAL	VAL	
L2610	P2494	ASP	L2223	ARG	E1853	L1685	L1570	E1853	E1853	K1474	LYS	L1685	L1570	LYS	GLY	GLY	LYS	LYS	GLY	GLY	
R2616	L2496	LEU	V2227	LEU	Q1940	L1686	L1578	Q1940	Q1940	K1475	PRO	L1686	L1578	PRO	GLY	GLY	PRO	PRO	GLY	GLY	
R2619	R2497	GLU	G2228	SER	Y1944	Y1687	P1578	Y1944	Y1944	H1477	ARG	Y1687	P1578	ARG	ALA	ALA	ARG	ARG	ALA	ALA	
L2623	L2502	GLU	G2228	LEU	E1946	I1689	Q1589	E1946	E1946	H1478	LYS	I1689	Q1589	LYS	GLY	GLY	LYS	LYS	GLY	GLY	
G2626	D2503	GLU	L2143	VAL	V1947	E1690	F1590	V1947	V1947	S1479	LYS	E1690	F1590	LYS	LEU	LEU	LYS	LYS	LEU	LEU	
W2627	T2504	GLU	L2146	VAL	R1948	M1691	F1596	R1948	R1948	R1482	ARG	M1691	F1596	ARG	GLY	GLY	ARG	ARG	GLY	GLY	
C2628	S2508	GLU	M2150	VAL	Q1949	P1695	W1596	Q1949	Q1949	S1483	PHE	P1695	W1596	PHE	LEU	LEU	PHE	PHE	LEU	LEU	
N2629	A2513	GLU	V2154	THR	A1950	Y1703	M1599	A1950	A1950	Y1486	ARG	Y1703	M1599	ARG	PHE	PHE	ARG	ARG	LEU	LEU	
F2630	L2516	GLU	Q2157	THR	L1951	L1706	F1603	L1951	L1951	C1489	ARG	L1706	F1603	ARG	ARG	ARG	ARG	ARG	ARG	ARG	
E2635	S2521	GLU	H2158	LEU	L1952	L1711	L1604	L1952	L1952	A1490	LYS	L1711	L1604	LYS	THR	THR	LYS	LYS	ASN	ASN	
E2636	C2521	GLU	P2159	LYS	M1953	L1711	L1606	M1953	M1953	S1493	PRO	L1711	L1606	PRO	ASP	ASP	ASP	ASP	ASN	ASN	
E2637	L2525	GLU	R2162	LYS	S1954	E1724	V1606	S1954	S1954	S1493	PRO	E1724	V1606	PRO	LEU	LEU	LEU	LEU	LEU	LEU	
L2644	L2525	GLU	A2164	ALA	A1955	Y1725	R1610	A1955	A1955	M1494	ASP	Y1725	R1610	ASP	TYR	TYR	ASP	ASP	ASP	ASP	
L2648	P2526	GLU	A1956	VAL	A1956	I1726	I1611	A1956	A1956	S1495	ASP	I1726	I1611	ASP	ASP	ASP	ASP	ASP	ASP	ASP	
A2651	T2529	GLU	V1957	VAL	T1958	V1727	Q1615	V1957	V1957	P1496	THR	V1727	Q1615	THR	TYR	TYR	TYR	TYR	TYR	TYR	
L2652	R2530	GLU	A1959	ALA	A1959	E1732	G1616	A1959	A1959	G1497	SER	E1732	G1616	SER	ALA	ALA	ALA	ALA	ALA	ALA	
L2652	E2539	GLU	K1961	LYS	K1961	I1736	L1618	K1961	K1961	Q1498	SER	I1736	L1618	SER	SER	SER	SER	SER	SER	SER	
R2655	V2552	GLU	E1984	GLY	E1984	L1748	Q1620	E1984	E1984	R1500	ARG	L1748	Q1620	ARG	ASP	ASP	ASP	ASP	ASP	ASP	
Y2553	Y2553	GLU	F1985	ALA	F1985	P1749	C1621	F1985	F1985	M1501	LEU	P1749	C1621	LEU	PHE	PHE	PHE	PHE	PHE	PHE	
		GLU	R1986	GLY	R1986	D1785	L1622	R1986	R1986	M1502	THR	D1785	L1622	THR	GLY	GLY	GLY	GLY	GLY	GLY	
		GLU	M1978	GLU	M1978	I1786	D1623	M1978	M1978	G1504	VAL	I1786	D1623	VAL	LEU	LEU	LEU	LEU	LEU	LEU	
		GLU	F1979	GLU	F1979			F1979	F1979	E1506	LYS			LYS	MET	MET	MET	MET	MET	MET	
		GLU	D1982	GLU	D1982			D1982	D1982	L1518	VAL			VAL	THR	THR	THR	THR	THR	THR	

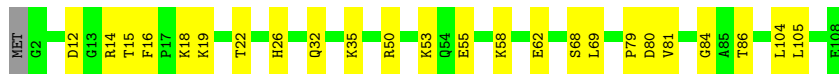
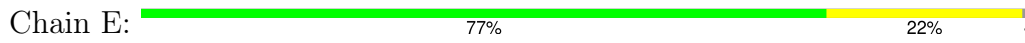
● Molecule 1: Ryanodine receptor 2



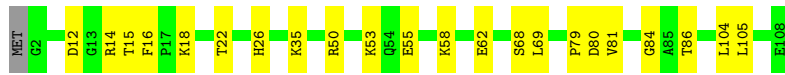
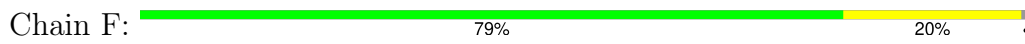
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Y1428	S1429	V1430	P1431	I1432	M1440	I1446	H1451	V1467	T1468	D1471	E1472	K1473	G1474	K1475	V1476	H1477	E1478	S1479	R1482	S1483	Y1486	A1490	S1493	M1494	S1495	P1496	G1497	Q1498	G1499	R1500	M1501	M1502	M1503	G1504	L1505	E1506	L1518	M1523	K1524	G1525	Y1531	E1534	F1540	Q1546									
A1547	T1548	P1550	N1551	F1553	Q1554	E1556	R1559	I1560	M1563	M1564	P1565	L1566	L1570	P1578	H1579	Q1589	F1590	V1594	L1595	W1596	M1599	F1603	L1604	K1605	V1606	R1610	I1611	Q1615	G1616	M1617	L1618	V1619	Q1620	C1621	L1622	D1623	M1628	S1629	L1630	D1640	I1641	L1642	E1643	L1644	T1645								
E1646	E1649	L1650	L1651	K1652	F1653	H1656	L1667	H1670	H1674	D1681	E1682	P1683	Q1684	L1685	L1686	Y1687	I1688	E1689	M1691	P1695	Y1703	L1706	L1711	E1724	Y1725	I1726	Y1727	E1732	I1736	L1748	P1749	Y1776	D1785	I1786	K1788	S1789	K1790	T1791	I1792	Q1793	M1794												
L1795	T1796	E1797	E1801	D1808	F1825	Y1826	T1827	L1828	L1829	I1830	M1831	I1842	L1843	Q1844	F1851	K1852	E1853	A1854	ALA	THR	PRO	GLU	GLU	SER	ASP	THR	THR	ASP	L1957	T1958	A1959	R1960	K1961	F1965	M1978	P1979	K1980	D1981	D1982	K1983	S1984	P1989	E1990	E1991	I1992								
E1893	M1896	K1897	L1898	V1902	L1910	Q1911	Y1912	L1913	C1914	V1918	R1919	V1926	S1929	D1930	D1931	F1932	M1939	Q1940	Y1944	N1945	E1946	V1947	M1948	Q1949	A1950	L1951	M1952	M1953	S1954	A1955	A1956	A1957	L1957	T1958	A1959	R1960	K1961	F1965	M1978	P1979	K1980	D1981	D1982	K1983	S1984	P1989	E1990	E1991	I1992				
R1993	L1996	E2010	LEU	ASP	GLU	ASP	GLY	SER	LEU	ASP	GLY	ASN	SER	ASP	LEU	THR	ARG	ARG	GLY	ARG	LEU	LEU	SER	VAL	VAL	GLY	VAL	THR	TVR	LEU	LYS	LYS	GLN	ALA	GLU	LYS	PRO	VAL	GLU	S2056	T2057	L2058	L2062	M2066	V2074								
M2084	R2090	Q2091	Y2092	G2096	V2099	R2127	S2128	L2129	L2130	S2131	R2132	R2133	M2134	G2135	E2138	E2139	M2142	I2143	L2146	M2150	L2261	E2263	V2266	L2274	M2279	W2290	L2299	R2303	F2307	M2318	V2321	R2322	F2329	G2330	F2331	G2332	P2333	A2334	M2442	L2335	R2336												
M2347	E2348	E2349	A2350	I2351	K2352	L2353	R2359	D2360	P2364	ASN	SER	GLY	SER	SER	LYS	THR	LEU	ASP	THR	D2378	D2379	D2380	H2383	M2384	I2388	L2395	L2396	D2397	R2401	E2415	R2418	I2419	R2420	S2421	I2422	I2427	L2432	I2436	F2440	Q2441	M2442	L2443	D2446										
D2455	A2458	G2459	F2460	K2465	F2471	V2475	V2480	G2481	F2483	L2488	F2492	L2493	P2494	D2495	L2496	R2497	L2502	D2503	T2504	S2508	A2513	L2516	M2517	R2518	C2521	T2522	L2525	P2526	T2529	R2530	E2539	V2552	Y2553	R2554	K2557	R2566	Q2567	S2568	L2569	E2570													
V2571	C2572	L2573	I2576	L2580	R2581	P2582	S2583	M2584	M2585	L2589	R2590	L2591	L2592	V2593	M2605	P2606	L2610	R2616	K2619	L2623	G2626	M2627	G2628	N2629	F2630	A2633	E2635	E2636	E2637	L2638	L2644	I2648	A2651	L2652	Q2654	K2655	Q2659	K2663	L2666	A2673													
ASP	LYS	ASP	LYS	GLU	ALA	THR	LYS	PRO	GLU	PHE	ASN	HIS	LYS	ASP	TYR	ALA	GLN	GLU	VAL	GLY	PRO	LYS	GLM	ARG	PHE	LEU	LEU	ARG	SER	THR	SER	HIS	ALA	ALA	ASP	ASP	THR	LEU	VAL	VAL	LEU	ALA	ASP	ASP	R1414	D1415	D1416	Y1426	Y1427				



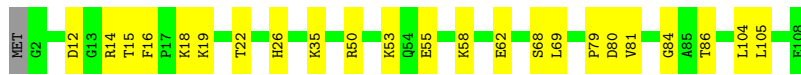
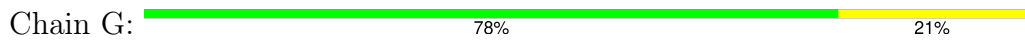
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



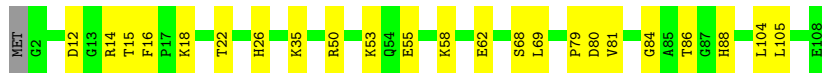
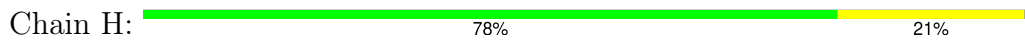
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	55886	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.564	Depositor
Minimum map value	-0.016	Depositor
Average map value	0.008	Depositor
Map value standard deviation	0.027	Depositor
Recommended contour level	0.12	Depositor
Map size (Å)	431.36, 431.36, 431.36	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.8425, 0.8425, 0.8425	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.27	1/32738 (0.0%)	0.55	17/44213 (0.0%)
1	B	0.27	1/32738 (0.0%)	0.55	17/44213 (0.0%)
1	C	0.27	1/32738 (0.0%)	0.54	17/44213 (0.0%)
1	D	0.27	1/32738 (0.0%)	0.55	17/44213 (0.0%)
2	E	0.27	0/834	0.53	0/1123
2	F	0.27	0/834	0.53	0/1123
2	G	0.27	0/834	0.53	0/1123
2	H	0.27	0/834	0.53	0/1123
All	All	0.27	4/134288 (0.0%)	0.54	68/181344 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	3
1	B	0	3
1	C	0	3
1	D	0	3
All	All	0	12

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	2787	TRP	CB-CG	-6.00	1.39	1.50
1	D	2787	TRP	CB-CG	-6.00	1.39	1.50
1	A	2787	TRP	CB-CG	-5.99	1.39	1.50
1	C	2787	TRP	CB-CG	-5.98	1.39	1.50

All (68) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2279	MET	CB-CG-SD	10.74	144.62	112.40
1	C	2279	MET	CB-CG-SD	10.74	144.61	112.40
1	B	2279	MET	CB-CG-SD	10.73	144.60	112.40
1	D	2279	MET	CB-CG-SD	10.73	144.58	112.40
1	D	2279	MET	CA-CB-CG	10.43	131.03	113.30
1	B	2279	MET	CA-CB-CG	10.42	131.02	113.30
1	C	2279	MET	CA-CB-CG	10.42	131.01	113.30
1	A	2279	MET	CA-CB-CG	10.41	131.00	113.30
1	D	4208	GLU	CA-CB-CG	7.96	130.91	113.40
1	C	4208	GLU	CA-CB-CG	7.95	130.89	113.40
1	A	4208	GLU	CA-CB-CG	7.94	130.87	113.40
1	B	4208	GLU	CA-CB-CG	7.93	130.86	113.40
1	C	2788	ARG	CB-CG-CD	7.83	131.96	111.60
1	B	2788	ARG	CB-CG-CD	7.82	131.92	111.60
1	A	2788	ARG	CB-CG-CD	7.80	131.89	111.60
1	D	2788	ARG	CB-CG-CD	7.79	131.87	111.60
1	C	2689	MET	CA-CB-CG	7.59	126.21	113.30
1	B	2689	MET	CA-CB-CG	7.59	126.20	113.30
1	D	2689	MET	CA-CB-CG	7.59	126.20	113.30
1	A	2689	MET	CA-CB-CG	7.57	126.17	113.30
1	D	4109	MET	CA-CB-CG	7.00	125.19	113.30
1	C	4109	MET	CA-CB-CG	6.97	125.15	113.30
1	B	4109	MET	CA-CB-CG	6.96	125.14	113.30
1	A	4109	MET	CA-CB-CG	6.96	125.14	113.30
1	D	940	LEU	CA-CB-CG	6.82	130.99	115.30
1	C	940	LEU	CA-CB-CG	6.82	130.97	115.30
1	A	940	LEU	CA-CB-CG	6.79	130.92	115.30
1	B	940	LEU	CA-CB-CG	6.79	130.92	115.30
1	D	2783	LEU	CA-CB-CG	6.45	130.14	115.30
1	A	2783	LEU	CA-CB-CG	6.45	130.14	115.30
1	C	2783	LEU	CA-CB-CG	6.45	130.14	115.30
1	B	2783	LEU	CA-CB-CG	6.42	130.06	115.30
1	C	1948	MET	CB-CG-SD	6.32	131.36	112.40
1	B	1948	MET	CB-CG-SD	6.31	131.33	112.40
1	D	1948	MET	CB-CG-SD	6.31	131.32	112.40
1	A	1948	MET	CB-CG-SD	6.30	131.31	112.40
1	D	2530	ARG	CB-CG-CD	6.28	127.93	111.60
1	B	2530	ARG	CB-CG-CD	6.28	127.93	111.60
1	C	2530	ARG	CB-CG-CD	6.28	127.92	111.60
1	A	2530	ARG	CB-CG-CD	6.26	127.88	111.60
1	B	1051	ARG	CB-CG-CD	-5.89	96.28	111.60
1	D	1051	ARG	CB-CG-CD	-5.88	96.32	111.60
1	C	1051	ARG	CB-CG-CD	-5.87	96.33	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1051	ARG	CB-CG-CD	-5.87	96.34	111.60
1	D	2788	ARG	CG-CD-NE	5.85	124.08	111.80
1	A	2788	ARG	CG-CD-NE	5.83	124.05	111.80
1	C	2788	ARG	CG-CD-NE	5.83	124.04	111.80
1	B	2788	ARG	CG-CD-NE	5.83	124.03	111.80
1	A	985	PHE	CB-CG-CD2	5.81	124.86	120.80
1	B	985	PHE	CB-CG-CD2	5.77	124.84	120.80
1	C	985	PHE	CB-CG-CD2	5.76	124.83	120.80
1	D	985	PHE	CB-CG-CD2	5.75	124.83	120.80
1	D	2788	ARG	CA-CB-CG	-5.54	101.21	113.40
1	A	2788	ARG	CA-CB-CG	-5.54	101.21	113.40
1	B	2788	ARG	CA-CB-CG	-5.53	101.24	113.40
1	C	2788	ARG	CA-CB-CG	-5.52	101.25	113.40
1	D	399	MET	CA-CB-CG	5.50	122.66	113.30
1	A	399	MET	CA-CB-CG	5.49	122.64	113.30
1	A	1960	ARG	CA-CB-CG	-5.49	101.32	113.40
1	D	1960	ARG	CA-CB-CG	-5.48	101.34	113.40
1	C	399	MET	CA-CB-CG	5.48	122.61	113.30
1	B	399	MET	CA-CB-CG	5.47	122.60	113.30
1	B	1960	ARG	CA-CB-CG	-5.47	101.36	113.40
1	C	1960	ARG	CA-CB-CG	-5.47	101.37	113.40
1	C	985	PHE	CB-CG-CD1	-5.30	117.09	120.80
1	D	985	PHE	CB-CG-CD1	-5.28	117.10	120.80
1	A	985	PHE	CB-CG-CD1	-5.25	117.12	120.80
1	B	985	PHE	CB-CG-CD1	-5.25	117.12	120.80

There are no chirality outliers.

All (12) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	2530	ARG	Sidechain
1	A	2788	ARG	Sidechain
1	A	398	HIS	Peptide
1	B	2530	ARG	Sidechain
1	B	2788	ARG	Sidechain
1	B	398	HIS	Peptide
1	C	2530	ARG	Sidechain
1	C	2788	ARG	Sidechain
1	C	398	HIS	Peptide
1	D	2530	ARG	Sidechain
1	D	2788	ARG	Sidechain
1	D	398	HIS	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	32032	0	31689	830	0
1	B	32032	0	31689	827	0
1	C	32032	0	31689	812	0
1	D	32032	0	31689	815	0
2	E	818	0	821	14	0
2	F	818	0	821	12	0
2	G	818	0	821	13	0
2	H	818	0	821	13	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	62	0	24	0	0
4	B	62	0	24	0	0
4	C	62	0	24	0	0
4	D	62	0	24	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
All	All	131656	0	130136	3262	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 12.

All (3262) 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)
1:A:4279:MET:HE2	1:B:4487:TYR:HD1	1.30	0.93
1:D:2857:LYS:HE3	1:D:2871:LEU:HD23	1.52	0.92
1:A:2857:LYS:HE3	1:A:2871:LEU:HD23	1.52	0.92
1:C:2857:LYS:HE3	1:C:2871:LEU:HD23	1.52	0.91
1:B:2857:LYS:HE3	1:B:2871:LEU:HD23	1.52	0.90
1:A:4844:ILE:HD13	1:D:4814:MET:CE	2.04	0.86
1:D:4834:PRO:HB3	1:D:4843:ARG:HD3	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4834:PRO:HB3	1:A:4843:ARG:HD3	1.59	0.83
1:B:2130:LEU:HD11	1:B:2170:THR:HG23	1.61	0.83
1:B:986:ILE:HD11	1:B:1055:ARG:HD3	1.59	0.83
1:D:986:ILE:HD11	1:D:1055:ARG:HD3	1.59	0.83
1:C:4834:PRO:HB3	1:C:4843:ARG:HD3	1.59	0.83
1:B:4834:PRO:HB3	1:B:4843:ARG:HD3	1.59	0.82
1:A:875:PRO:HD2	1:A:878:LEU:HD13	1.62	0.82
1:B:875:PRO:HD2	1:B:878:LEU:HD13	1.62	0.82
1:A:2130:LEU:HD11	1:A:2170:THR:HG23	1.61	0.82
1:C:2130:LEU:HD11	1:C:2170:THR:HG23	1.61	0.82
1:C:4641:PRO:HB3	1:C:4644:TYR:HB3	1.61	0.82
1:A:986:ILE:HD11	1:A:1055:ARG:HD3	1.59	0.82
1:B:4641:PRO:HB3	1:B:4644:TYR:HB3	1.61	0.82
1:C:986:ILE:HD11	1:C:1055:ARG:HD3	1.59	0.82
1:D:875:PRO:HD2	1:D:878:LEU:HD13	1.62	0.81
1:D:2130:LEU:HD11	1:D:2170:THR:HG23	1.61	0.81
1:D:4641:PRO:HB3	1:D:4644:TYR:HB3	1.61	0.81
1:B:476:GLN:NE2	1:B:3678:GLU:OE1	2.14	0.81
1:C:875:PRO:HD2	1:C:878:LEU:HD13	1.61	0.81
1:D:476:GLN:NE2	1:D:3678:GLU:OE1	2.14	0.81
1:A:476:GLN:NE2	1:A:3678:GLU:OE1	2.14	0.81
1:B:2882:LYS:O	1:B:2886:ARG:HG3	1.81	0.81
1:C:476:GLN:NE2	1:C:3678:GLU:OE1	2.14	0.81
1:A:4641:PRO:HB3	1:A:4644:TYR:HB3	1.61	0.80
1:A:2882:LYS:O	1:A:2886:ARG:HG3	1.81	0.80
1:C:4814:MET:HE1	1:D:4844:ILE:HD13	1.62	0.80
1:B:3951:PHE:HB3	1:B:3975:GLN:HE21	1.46	0.80
1:C:3951:PHE:HB3	1:C:3975:GLN:HE21	1.46	0.80
1:D:2882:LYS:O	1:D:2886:ARG:HG3	1.81	0.80
1:C:2882:LYS:O	1:C:2886:ARG:HG3	1.81	0.79
1:A:4831:ILE:HG13	1:A:4843:ARG:HH21	1.47	0.79
1:B:4831:ILE:HG13	1:B:4843:ARG:HH21	1.47	0.79
1:A:3951:PHE:HB3	1:A:3975:GLN:HE21	1.46	0.78
1:D:3951:PHE:HB3	1:D:3975:GLN:HE21	1.46	0.78
1:A:4844:ILE:HD13	1:D:4814:MET:HE1	1.63	0.78
1:C:2465:LYS:NZ	1:C:2495:ASP:OD2	2.17	0.78
1:D:23:GLN:NE2	1:D:36:CYS:SG	2.57	0.78
1:A:23:GLN:NE2	1:A:36:CYS:SG	2.57	0.78
1:C:4044:SER:HA	1:C:4077:THR:HG22	1.66	0.78
1:B:23:GLN:NE2	1:B:36:CYS:SG	2.57	0.78
1:C:23:GLN:NE2	1:C:36:CYS:SG	2.57	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4831:ILE:HG13	1:D:4843:ARG:HH21	1.47	0.78
1:B:4044:SER:HA	1:B:4077:THR:HG22	1.66	0.77
1:C:4831:ILE:HG13	1:C:4843:ARG:HH21	1.48	0.77
1:C:2760:TYR:OH	1:C:2772:ARG:NH1	2.18	0.77
1:D:4044:SER:HA	1:D:4077:THR:HG22	1.66	0.77
1:B:2465:LYS:NZ	1:B:2495:ASP:OD2	2.17	0.77
1:D:4637:THR:HG22	1:D:4704:LYS:HG3	1.66	0.77
1:C:4637:THR:HG22	1:C:4704:LYS:HG3	1.66	0.77
1:A:4044:SER:HA	1:A:4077:THR:HG22	1.66	0.76
1:D:4640:PHE:CG	1:D:4641:PRO:HD2	2.20	0.76
1:D:996:VAL:HG21	1:D:1051:ARG:HB3	1.67	0.76
1:A:4637:THR:HG22	1:A:4704:LYS:HG3	1.66	0.76
1:A:4640:PHE:CG	1:A:4641:PRO:HD2	2.20	0.76
1:A:4737:PHE:HD2	1:B:4783:VAL:HG13	1.51	0.76
1:C:996:VAL:HG21	1:C:1051:ARG:HB3	1.68	0.76
1:A:3051:GLU:OE1	1:A:3051:GLU:N	2.14	0.76
1:D:2465:LYS:NZ	1:D:2495:ASP:OD2	2.17	0.76
1:C:4640:PHE:CG	1:C:4641:PRO:HD2	2.20	0.76
1:A:2465:LYS:NZ	1:A:2495:ASP:OD2	2.17	0.75
1:A:2832:THR:HG21	1:B:1290:PHE:HE2	1.50	0.75
1:B:4637:THR:HG22	1:B:4704:LYS:HG3	1.66	0.75
1:B:4640:PHE:CG	1:B:4641:PRO:HD2	2.20	0.75
1:A:4864:GLY:CA	1:D:4867:ILE:HG12	2.16	0.75
1:B:2760:TYR:OH	1:B:2772:ARG:NH1	2.18	0.75
1:C:2627:TRP:HB2	1:C:2630:PHE:HB2	1.69	0.75
1:D:2627:TRP:HB2	1:D:2630:PHE:HB2	1.69	0.75
1:D:3901:GLN:OE1	1:D:3904:ARG:NH2	2.20	0.75
1:A:2760:TYR:OH	1:A:2772:ARG:NH1	2.18	0.75
1:A:996:VAL:HG21	1:A:1051:ARG:HB3	1.67	0.74
1:D:2787:TRP:HD1	1:D:2906:GLY:H	1.34	0.74
1:A:3770:ASN:HB3	1:A:3773:VAL:HG12	1.69	0.74
1:B:996:VAL:HG21	1:B:1051:ARG:HB3	1.67	0.74
1:B:3770:ASN:HB3	1:B:3773:VAL:HG12	1.69	0.74
1:C:3770:ASN:HB3	1:C:3773:VAL:HG12	1.70	0.74
1:C:3901:GLN:OE1	1:C:3904:ARG:NH2	2.20	0.74
1:D:3770:ASN:HB3	1:D:3773:VAL:HG12	1.69	0.74
1:A:2627:TRP:HB2	1:A:2630:PHE:HB2	1.69	0.74
1:D:2760:TYR:OH	1:D:2772:ARG:NH1	2.18	0.74
1:C:2787:TRP:HD1	1:C:2906:GLY:H	1.34	0.74
1:A:1958:THR:HA	1:A:1961:LYS:HD2	1.70	0.74
1:B:2627:TRP:HB2	1:B:2630:PHE:HB2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2787:TRP:HD1	1:A:2906:GLY:H	1.34	0.73
1:D:1958:THR:HA	1:D:1961:LYS:HD2	1.70	0.73
1:A:3901:GLN:OE1	1:A:3904:ARG:NH2	2.20	0.73
1:B:3901:GLN:OE1	1:B:3904:ARG:NH2	2.20	0.73
1:A:2793:ARG:NH1	1:A:2793:ARG:HG2	2.04	0.73
1:B:3051:GLU:OE1	1:B:3051:GLU:N	2.14	0.73
1:C:586:LEU:HD11	1:C:617:LEU:HA	1.71	0.73
1:D:2793:ARG:NH1	1:D:2793:ARG:HG2	2.04	0.73
1:C:1958:THR:HA	1:C:1961:LYS:HD2	1.70	0.72
1:D:2730:ASP:O	1:D:2734:MET:HG2	1.90	0.72
1:A:2730:ASP:O	1:A:2734:MET:HG2	1.90	0.72
1:B:1958:THR:HA	1:B:1961:LYS:HD2	1.70	0.72
1:B:4079:ASP:HB3	1:B:4082:GLU:HG2	1.72	0.72
1:D:586:LEU:HD11	1:D:617:LEU:HA	1.70	0.72
1:A:2436:ILE:HA	1:A:2465:LYS:HE3	1.72	0.72
1:A:2824:ARG:HE	1:B:1502:ASN:HB2	1.55	0.72
1:B:2730:ASP:O	1:B:2734:MET:HG2	1.89	0.72
1:B:2787:TRP:HD1	1:B:2906:GLY:H	1.34	0.72
1:B:2436:ILE:HA	1:B:2465:LYS:HE3	1.71	0.72
1:C:2436:ILE:HA	1:C:2465:LYS:HE3	1.71	0.72
1:C:2730:ASP:O	1:C:2734:MET:HG2	1.90	0.72
1:C:2552:VAL:HG13	1:C:2569:ILE:HD11	1.72	0.72
1:D:2436:ILE:HA	1:D:2465:LYS:HE3	1.72	0.72
1:A:586:LEU:HD11	1:A:617:LEU:HA	1.71	0.72
1:A:4079:ASP:HB3	1:A:4082:GLU:HG2	1.72	0.72
1:D:1166:VAL:HG23	1:D:1173:MET:HG2	1.72	0.72
1:C:1122:CYS:HA	1:C:1133:ARG:HD3	1.71	0.72
1:D:2552:VAL:HG13	1:D:2569:ILE:HD11	1.72	0.72
1:D:4079:ASP:HB3	1:D:4082:GLU:HG2	1.72	0.72
1:C:3051:GLU:OE1	1:C:3051:GLU:N	2.14	0.72
1:A:2552:VAL:HG13	1:A:2569:ILE:HD11	1.72	0.72
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.72	0.72
1:B:1122:CYS:HA	1:B:1133:ARG:HD3	1.71	0.71
1:C:1166:VAL:HG23	1:C:1173:MET:HG2	1.72	0.71
1:B:2976:LYS:O	1:B:2979:ARG:NH1	2.24	0.71
1:C:4079:ASP:HB3	1:C:4082:GLU:HG2	1.72	0.71
1:B:586:LEU:HD11	1:B:617:LEU:HA	1.71	0.71
1:D:2976:LYS:O	1:D:2979:ARG:NH1	2.24	0.71
1:A:2830:ASN:OD1	1:B:1549:SER:HB2	1.91	0.71
1:D:2736:LYS:HB3	1:D:2741:TRP:CD1	2.26	0.71
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2824:ARG:NH2	1:B:1502:ASN:O	2.24	0.71
1:D:3051:GLU:OE1	1:D:3051:GLU:N	2.14	0.71
1:A:1166:VAL:HG23	1:A:1173:MET:HG2	1.72	0.71
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.72	0.71
1:B:2552:VAL:HG13	1:B:2569:ILE:HD11	1.72	0.70
1:C:2793:ARG:NH1	1:C:2793:ARG:HG2	2.04	0.70
1:A:2736:LYS:HB3	1:A:2741:TRP:CD1	2.26	0.70
1:A:4818:TYR:HD1	1:B:4848:ILE:HD11	1.56	0.70
1:D:1122:CYS:HA	1:D:1133:ARG:HD3	1.72	0.70
1:D:799:LYS:NZ	1:D:1620:GLN:OE1	2.24	0.70
1:A:799:LYS:NZ	1:A:1620:GLN:OE1	2.24	0.70
1:C:1711:LEU:HB3	1:C:1831:MET:HE3	1.72	0.70
1:C:4814:MET:CE	1:D:4844:ILE:HD13	2.22	0.70
1:D:878:LEU:HG	1:D:940:LEU:HD12	1.74	0.70
1:B:1166:VAL:HG23	1:B:1173:MET:HG2	1.72	0.70
1:B:1711:LEU:HB3	1:B:1831:MET:HE3	1.72	0.70
1:A:878:LEU:HG	1:A:940:LEU:HD12	1.74	0.70
1:A:1122:CYS:HA	1:A:1133:ARG:HD3	1.72	0.70
1:B:2793:ARG:HG2	1:B:2793:ARG:NH1	2.04	0.70
1:C:878:LEU:HG	1:C:940:LEU:HD12	1.74	0.70
1:C:2788:ARG:HD3	1:C:2905:ARG:O	1.92	0.70
1:C:2976:LYS:O	1:C:2979:ARG:NH1	2.24	0.70
1:D:2788:ARG:HD3	1:D:2905:ARG:O	1.92	0.70
1:B:2788:ARG:HD3	1:B:2905:ARG:O	1.92	0.70
1:D:1711:LEU:HB3	1:D:1831:MET:HE3	1.74	0.70
1:B:799:LYS:NZ	1:B:1620:GLN:OE1	2.24	0.69
1:B:878:LEU:HG	1:B:940:LEU:HD12	1.74	0.69
1:D:2690:GLU:HB2	1:D:2692:GLN:OE1	1.92	0.69
1:B:2736:LYS:HB3	1:B:2741:TRP:CD1	2.26	0.69
1:C:2690:GLU:HB2	1:C:2692:GLN:OE1	1.92	0.69
1:C:2736:LYS:HB3	1:C:2741:TRP:CD1	2.26	0.69
1:A:2788:ARG:HD3	1:A:2905:ARG:O	1.92	0.69
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.26	0.69
1:A:2976:LYS:O	1:A:2979:ARG:NH1	2.24	0.69
1:B:2690:GLU:HB2	1:B:2692:GLN:OE1	1.92	0.69
1:B:2832:THR:OG1	1:C:1548:THR:O	2.09	0.69
1:C:799:LYS:NZ	1:C:1620:GLN:OE1	2.24	0.69
1:A:4872:GLU:HG2	1:D:4874:ARG:CD	2.22	0.69
1:C:2832:THR:OG1	1:D:1548:THR:O	2.10	0.69
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.72	0.69
1:D:1947:VAL:HG23	1:D:1961:LYS:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2332:GLY:H	1:D:2336:ARG:HH21	1.40	0.69
1:A:2690:GLU:HB2	1:A:2692:GLN:OE1	1.92	0.69
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.26	0.69
1:A:1947:VAL:HG23	1:A:1961:LYS:HB3	1.75	0.68
1:A:2332:GLY:H	1:A:2336:ARG:HH21	1.40	0.68
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.26	0.68
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.26	0.68
1:B:1898:LEU:HD23	1:B:1902:VAL:HG12	1.76	0.68
1:C:2711:ILE:HG21	1:C:2783:LEU:HB2	1.76	0.68
1:B:2332:GLY:H	1:B:2336:ARG:HH21	1.40	0.68
1:A:4521:LYS:NZ	1:B:4807:ASP:HB3	2.08	0.68
1:B:1035:TYR:HA	1:B:1038:LEU:HD12	1.76	0.68
1:B:1947:VAL:HG23	1:B:1961:LYS:HB3	1.75	0.68
1:C:1035:TYR:HA	1:C:1038:LEU:HD12	1.76	0.68
1:B:2782:MET:HG2	1:B:2783:LEU:HD12	1.76	0.67
1:C:1947:VAL:HG23	1:C:1961:LYS:HB3	1.75	0.67
1:A:2882:LYS:HB3	1:A:2886:ARG:HD3	1.76	0.67
1:B:2882:LYS:HB3	1:B:2886:ARG:HD3	1.76	0.67
1:C:2332:GLY:H	1:C:2336:ARG:HH21	1.40	0.67
1:A:4860:ALA:HB2	1:D:4863:GLN:HG2	1.76	0.67
1:B:3001:LYS:HD3	1:B:3044:THR:HG21	1.76	0.67
1:D:2782:MET:HG2	1:D:2783:LEU:HD12	1.76	0.67
1:D:1035:TYR:HA	1:D:1038:LEU:HD12	1.76	0.67
1:B:2576:ILE:O	1:B:2580:LEU:HB2	1.95	0.67
1:C:2782:MET:HG2	1:C:2783:LEU:HD12	1.76	0.67
1:A:1035:TYR:HA	1:A:1038:LEU:HD12	1.76	0.67
1:D:2711:ILE:HG21	1:D:2783:LEU:HB2	1.76	0.67
1:B:476:GLN:NE2	1:B:3677:THR:HA	2.10	0.67
1:B:2711:ILE:HG21	1:B:2783:LEU:HB2	1.76	0.67
1:C:2502:LEU:HD21	1:C:2516:LEU:HD23	1.77	0.67
1:A:166:SER:OG	1:A:168:GLN:OE1	2.13	0.67
1:A:4011:GLU:HG2	1:A:4121:LEU:HD21	1.77	0.67
1:D:476:GLN:NE2	1:D:3677:THR:HA	2.10	0.67
1:D:1898:LEU:HD23	1:D:1902:VAL:HG12	1.76	0.67
1:A:476:GLN:NE2	1:A:3677:THR:HA	2.10	0.66
1:D:2576:ILE:O	1:D:2580:LEU:HB2	1.95	0.66
1:A:2576:ILE:O	1:A:2580:LEU:HB2	1.95	0.66
1:A:4810:LEU:HD13	1:D:4518:LEU:HD21	1.75	0.66
1:B:1844:GLN:NE2	1:B:1853:GLU:OE1	2.26	0.66
1:D:3001:LYS:HD3	1:D:3044:THR:HG21	1.76	0.66
1:A:2711:ILE:HG21	1:A:2783:LEU:HB2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2693:SER:OG	1:C:2704:GLN:NE2	2.28	0.66
1:D:2693:SER:OG	1:D:2704:GLN:NE2	2.28	0.66
1:D:4011:GLU:HG2	1:D:4121:LEU:HD21	1.77	0.66
1:B:4011:GLU:HG2	1:B:4121:LEU:HD21	1.77	0.66
1:A:2260:PRO:HA	1:A:2263:GLU:HG2	1.77	0.66
1:B:2756:LEU:HD13	1:B:2766:LYS:HE2	1.78	0.66
1:C:2576:ILE:O	1:C:2580:LEU:HB2	1.95	0.66
1:C:4011:GLU:HG2	1:C:4121:LEU:HD21	1.77	0.66
1:A:2693:SER:OG	1:A:2704:GLN:NE2	2.28	0.66
1:B:2693:SER:OG	1:B:2704:GLN:NE2	2.28	0.66
1:C:2756:LEU:HD13	1:C:2766:LYS:HE2	1.78	0.66
1:D:166:SER:OG	1:D:168:GLN:OE1	2.13	0.66
1:D:234:LEU:HD13	1:D:405:LEU:HD22	1.78	0.66
1:A:1898:LEU:HD23	1:A:1902:VAL:HG12	1.76	0.66
1:B:3900:GLU:OE2	1:B:3904:ARG:NH1	2.29	0.66
1:C:234:LEU:HD13	1:C:405:LEU:HD22	1.78	0.66
1:C:3900:GLU:OE2	1:C:3904:ARG:NH1	2.29	0.66
1:A:3001:LYS:HD3	1:A:3044:THR:HG21	1.76	0.66
1:A:3900:GLU:OE2	1:A:3904:ARG:NH1	2.29	0.66
1:C:2882:LYS:HB3	1:C:2886:ARG:HD3	1.76	0.66
1:D:2717:LEU:HD12	1:D:2779:LEU:HD13	1.77	0.66
1:C:166:SER:OG	1:C:168:GLN:OE1	2.13	0.66
1:C:1898:LEU:HD23	1:C:1902:VAL:HG12	1.76	0.66
1:C:2717:LEU:HD12	1:C:2779:LEU:HD13	1.77	0.66
1:C:2958:GLN:HA	1:C:2961:LYS:HE2	1.78	0.66
1:C:3001:LYS:HD3	1:C:3044:THR:HG21	1.76	0.66
1:D:887:GLU:HA	1:D:890:HIS:CD2	2.31	0.66
1:A:267:VAL:HA	1:A:270:HIS:HD2	1.61	0.66
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.79	0.66
1:A:2782:MET:HG2	1:A:2783:LEU:HD12	1.76	0.65
1:D:3900:GLU:OE2	1:D:3904:ARG:NH1	2.29	0.65
1:A:2648:ILE:O	1:A:2652:LEU:HB2	1.97	0.65
1:B:669:GLN:HE22	1:B:862:PHE:H	1.44	0.65
1:B:2648:ILE:O	1:B:2652:LEU:HB2	1.97	0.65
1:C:476:GLN:NE2	1:C:3677:THR:HA	2.10	0.65
1:C:669:GLN:HE22	1:C:862:PHE:H	1.44	0.65
1:C:1052:GLU:HA	1:C:1055:ARG:HG2	1.79	0.65
1:D:2582:PRO:HA	1:D:2585:MET:HG3	1.79	0.65
1:B:267:VAL:HA	1:B:270:HIS:HD2	1.61	0.65
1:C:2648:ILE:O	1:C:2652:LEU:HB2	1.97	0.65
1:A:996:VAL:HG11	1:A:1051:ARG:HD2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1052:GLU:HA	1:A:1055:ARG:HG2	1.79	0.65
1:A:2502:LEU:HD21	1:A:2516:LEU:HD23	1.77	0.65
1:B:166:SER:OG	1:B:168:GLN:OE1	2.13	0.65
1:B:2717:LEU:HD12	1:B:2779:LEU:HD13	1.77	0.65
1:C:887:GLU:HA	1:C:890:HIS:CD2	2.31	0.65
1:C:2582:PRO:HA	1:C:2585:MET:HG3	1.79	0.65
1:B:996:VAL:HG11	1:B:1051:ARG:HD2	1.79	0.65
1:B:2154:VAL:HG13	1:B:2158:HIS:HD2	1.62	0.65
1:C:2933:VAL:HA	1:C:2963:PHE:HZ	1.62	0.65
1:D:1052:GLU:HA	1:D:1055:ARG:HG2	1.78	0.65
1:D:2648:ILE:O	1:D:2652:LEU:HB2	1.97	0.65
1:A:2958:GLN:HA	1:A:2961:LYS:HE2	1.78	0.65
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.79	0.65
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.79	0.65
1:B:1052:GLU:HA	1:B:1055:ARG:HG2	1.79	0.65
1:B:2502:LEU:HD21	1:B:2516:LEU:HD23	1.77	0.65
1:D:2882:LYS:HB3	1:D:2886:ARG:HD3	1.76	0.65
1:A:2756:LEU:HD13	1:A:2766:LYS:HE2	1.78	0.65
1:B:2958:GLN:HA	1:B:2961:LYS:HE2	1.78	0.65
1:B:4255:LEU:HB2	1:B:4293:THR:HG21	1.78	0.65
1:C:2154:VAL:HG13	1:C:2158:HIS:HD2	1.62	0.65
1:A:2717:LEU:HD12	1:A:2779:LEU:HD13	1.77	0.65
1:B:298:ARG:HH12	1:B:417:ARG:HH12	1.45	0.65
1:B:2582:PRO:HA	1:B:2585:MET:HG3	1.79	0.65
1:C:2260:PRO:HA	1:C:2263:GLU:HG2	1.77	0.65
1:D:2502:LEU:HD21	1:D:2516:LEU:HD23	1.77	0.65
1:A:298:ARG:HH12	1:A:417:ARG:HH12	1.45	0.65
1:A:2154:VAL:HG13	1:A:2158:HIS:HD2	1.62	0.65
1:D:298:ARG:HH12	1:D:417:ARG:HH12	1.45	0.65
1:D:2933:VAL:HA	1:D:2963:PHE:HZ	1.62	0.65
1:D:2958:GLN:HA	1:D:2961:LYS:HE2	1.78	0.65
1:D:4255:LEU:HB2	1:D:4293:THR:HG21	1.78	0.65
1:A:234:LEU:HD13	1:A:405:LEU:HD22	1.78	0.64
1:A:887:GLU:HA	1:A:890:HIS:CD2	2.31	0.64
1:B:234:LEU:HD13	1:B:405:LEU:HD22	1.78	0.64
1:D:2756:LEU:HD13	1:D:2766:LYS:HE2	1.78	0.64
1:A:669:GLN:HE22	1:A:862:PHE:H	1.44	0.64
1:C:1502:ASN:OD1	1:C:1503:ASN:N	2.30	0.64
1:D:1502:ASN:OD1	1:D:1503:ASN:N	2.30	0.64
1:A:1502:ASN:OD1	1:A:1503:ASN:N	2.30	0.64
1:A:4031:THR:HA	1:A:4034:GLU:HG2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2593:VAL:HA	1:B:2644:LEU:HD13	1.78	0.64
1:C:4031:THR:HA	1:C:4034:GLU:HG2	1.80	0.64
1:D:2260:PRO:HA	1:D:2263:GLU:HG2	1.77	0.64
1:A:2933:VAL:HA	1:A:2963:PHE:HZ	1.62	0.64
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.79	0.64
1:C:298:ARG:HH12	1:C:417:ARG:HH12	1.45	0.64
1:D:2593:VAL:HA	1:D:2644:LEU:HD13	1.78	0.64
1:A:4255:LEU:HB2	1:A:4293:THR:HG21	1.78	0.64
1:B:2260:PRO:HA	1:B:2263:GLU:HG2	1.77	0.64
1:D:669:GLN:HE22	1:D:862:PHE:H	1.44	0.64
1:C:4049:HIS:HD2	1:C:4067:LEU:HD11	1.63	0.64
1:D:996:VAL:HG11	1:D:1051:ARG:HD2	1.78	0.64
1:B:887:GLU:HA	1:B:890:HIS:CD2	2.31	0.64
1:B:1502:ASN:OD1	1:B:1503:ASN:N	2.30	0.64
1:C:4255:LEU:HB2	1:C:4293:THR:HG21	1.78	0.64
1:D:267:VAL:HA	1:D:270:HIS:HD2	1.62	0.64
1:A:2582:PRO:HA	1:A:2585:MET:HG3	1.79	0.64
1:A:4618:THR:OG1	1:A:4619:GLU:OE1	2.15	0.64
1:D:4031:THR:HA	1:D:4034:GLU:HG2	1.80	0.64
1:B:4031:THR:HA	1:B:4034:GLU:HG2	1.80	0.64
1:C:2688:MET:HG2	1:C:2689:MET:HG3	1.80	0.64
1:D:1844:GLN:NE2	1:D:1853:GLU:OE1	2.26	0.64
1:D:2154:VAL:HG13	1:D:2158:HIS:HD2	1.62	0.64
1:A:2688:MET:HG2	1:A:2689:MET:HG3	1.80	0.64
1:B:2933:VAL:HA	1:B:2963:PHE:HZ	1.62	0.64
1:C:267:VAL:HA	1:C:270:HIS:HD2	1.61	0.64
1:A:2593:VAL:HA	1:A:2644:LEU:HD13	1.78	0.63
1:B:4049:HIS:HD2	1:B:4067:LEU:HD11	1.63	0.63
1:C:425:LEU:HD12	1:C:428:ARG:HD3	1.80	0.63
1:C:694:ARG:NH1	1:C:718:VAL:O	2.31	0.63
1:C:996:VAL:HG11	1:C:1051:ARG:HD2	1.78	0.63
1:C:2593:VAL:HA	1:C:2644:LEU:HD13	1.78	0.63
1:D:312:LYS:HG3	1:D:370:LEU:HD13	1.80	0.63
1:B:601:LEU:HB2	1:B:610:VAL:HG11	1.80	0.63
1:B:2793:ARG:HG2	1:B:2793:ARG:HH11	1.63	0.63
1:C:1989:PRO:HD2	1:C:1992:ILE:HD12	1.80	0.63
1:A:601:LEU:HB2	1:A:610:VAL:HG11	1.81	0.63
1:B:694:ARG:NH1	1:B:718:VAL:O	2.32	0.63
1:B:2688:MET:HG2	1:B:2689:MET:HG3	1.80	0.63
1:C:1844:GLN:NE2	1:C:1853:GLU:OE1	2.26	0.63
1:D:601:LEU:HB2	1:D:610:VAL:HG11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1989:PRO:HD2	1:A:1992:ILE:HD12	1.80	0.63
1:D:2688:MET:HG2	1:D:2689:MET:HG3	1.80	0.63
1:B:194:LEU:HD11	1:B:201:LEU:HB3	1.81	0.63
1:B:425:LEU:HD12	1:B:428:ARG:HD3	1.80	0.63
1:A:2129:LEU:HA	1:A:2132:VAL:HG22	1.81	0.63
1:B:466:PRO:HG2	1:B:479:LEU:HD12	1.81	0.63
1:B:218:SER:HB3	1:B:286:GLY:HA3	1.80	0.63
1:B:776:GLN:OE1	1:B:776:GLN:N	2.32	0.63
1:A:694:ARG:NH1	1:A:718:VAL:O	2.32	0.62
1:A:4049:HIS:HD2	1:A:4067:LEU:HD11	1.63	0.62
1:D:776:GLN:N	1:D:776:GLN:OE1	2.32	0.62
1:A:1844:GLN:NE2	1:A:1853:GLU:OE1	2.26	0.62
1:A:4864:GLY:HA3	1:D:4867:ILE:HG12	1.79	0.62
1:D:218:SER:HB3	1:D:286:GLY:HA3	1.80	0.62
1:A:312:LYS:HG3	1:A:370:LEU:HD13	1.80	0.62
1:B:1482:ARG:NH1	1:B:1534:GLU:OE2	2.33	0.62
1:D:425:LEU:HD12	1:D:428:ARG:HD3	1.80	0.62
1:A:218:SER:HB3	1:A:286:GLY:HA3	1.80	0.62
1:A:466:PRO:HG2	1:A:479:LEU:HD12	1.81	0.62
1:A:4245:LEU:HD11	1:B:4626:ILE:HG13	1.82	0.62
1:C:194:LEU:HD11	1:C:201:LEU:HB3	1.81	0.62
1:D:998:LYS:HA	1:D:1001:GLU:HG2	1.81	0.62
1:D:2711:ILE:HG23	1:D:2783:LEU:HD22	1.81	0.62
1:D:4049:HIS:HD2	1:D:4067:LEU:HD11	1.63	0.62
1:A:882:ARG:NH1	1:A:933:LEU:HD22	2.15	0.62
1:C:218:SER:HB3	1:C:286:GLY:HA3	1.80	0.62
1:A:1026:ASN:HB3	1:A:1028:ARG:HG2	1.82	0.62
1:C:1113:MET:HB2	1:C:1156:TRP:CZ2	2.35	0.62
1:C:2129:LEU:HA	1:C:2132:VAL:HG22	1.81	0.62
1:C:2711:ILE:HG23	1:C:2783:LEU:HD22	1.81	0.62
1:C:4618:THR:OG1	1:C:4619:GLU:OE1	2.15	0.62
1:D:882:ARG:NH1	1:D:933:LEU:HD22	2.15	0.62
1:D:4046:ARG:NE	1:D:4046:ARG:HA	2.15	0.62
1:A:1113:MET:HB2	1:A:1156:TRP:CZ2	2.35	0.62
1:B:1989:PRO:HD2	1:B:1992:ILE:HD12	1.80	0.62
1:B:2322:ARG:HH12	1:C:189:GLU:HG3	1.64	0.62
1:B:4618:THR:OG1	1:B:4619:GLU:OE1	2.15	0.62
1:C:466:PRO:HG2	1:C:479:LEU:HD12	1.81	0.62
1:D:4617:ILE:HG12	1:D:4666:ILE:HD11	1.82	0.62
1:A:972:LEU:HD23	1:A:974:SER:H	1.65	0.62
1:C:882:ARG:NH1	1:C:933:LEU:HD22	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2793:ARG:HG2	1:C:2793:ARG:HH11	1.64	0.62
1:D:1113:MET:HB2	1:D:1156:TRP:CZ2	2.35	0.62
1:D:1989:PRO:HD2	1:D:1992:ILE:HD12	1.80	0.62
1:A:1482:ARG:NH1	1:A:1534:GLU:OE2	2.33	0.62
1:A:4872:GLU:HG2	1:D:4874:ARG:HD2	1.80	0.62
1:B:882:ARG:NH1	1:B:933:LEU:HD22	2.15	0.62
1:B:1303:ARG:NH1	1:B:1589:GLN:OE1	2.32	0.62
1:C:312:LYS:HG3	1:C:370:LEU:HD13	1.80	0.62
1:C:601:LEU:HB2	1:C:610:VAL:HG11	1.81	0.62
1:C:1303:ARG:NH1	1:C:1589:GLN:OE1	2.32	0.62
1:D:194:LEU:HD11	1:D:201:LEU:HB3	1.81	0.62
1:D:1026:ASN:HB3	1:D:1028:ARG:HG2	1.82	0.62
1:A:2793:ARG:HG2	1:A:2793:ARG:HH11	1.64	0.62
1:A:4617:ILE:HG12	1:A:4666:ILE:HD11	1.82	0.62
1:B:312:LYS:HG3	1:B:370:LEU:HD13	1.80	0.62
1:B:940:LEU:HA	1:B:943:LEU:HD12	1.82	0.62
1:B:2898:ILE:HG23	1:C:1500:ARG:HH22	1.64	0.62
1:B:4046:ARG:NE	1:B:4046:ARG:HA	2.15	0.62
1:B:4617:ILE:HG12	1:B:4666:ILE:HD11	1.82	0.62
1:C:972:LEU:HD23	1:C:974:SER:H	1.65	0.62
1:D:1303:ARG:NH1	1:D:1589:GLN:OE1	2.32	0.62
1:D:4819:VAL:HG12	1:D:4822:ARG:HH21	1.65	0.62
1:A:1434:PRO:O	1:D:2830:ASN:ND2	2.33	0.61
1:D:2129:LEU:HA	1:D:2132:VAL:HG22	1.81	0.61
1:A:2797:SER:HB3	1:A:2801:TYR:CE2	2.35	0.61
1:B:2797:SER:HB3	1:B:2801:TYR:CE2	2.35	0.61
1:B:2956:TYR:O	1:B:2960:ILE:HG22	2.00	0.61
1:C:4046:ARG:HA	1:C:4046:ARG:NE	2.15	0.61
1:D:4004:VAL:HG11	1:D:4114:ARG:HD2	1.82	0.61
1:A:317:MET:HE2	1:A:321:LYS:HG3	1.81	0.61
1:A:902:TRP:HZ2	1:A:915:HIS:HB3	1.65	0.61
1:A:998:LYS:HA	1:A:1001:GLU:HG2	1.82	0.61
1:A:4004:VAL:HG11	1:A:4114:ARG:HD2	1.83	0.61
1:A:4046:ARG:NE	1:A:4046:ARG:HA	2.15	0.61
1:B:2711:ILE:HG23	1:B:2783:LEU:HD22	1.81	0.61
1:C:940:LEU:HA	1:C:943:LEU:HD12	1.82	0.61
1:D:1482:ARG:NH1	1:D:1534:GLU:OE2	2.33	0.61
1:D:3729:ALA:HA	1:D:3732:HIS:CE1	2.36	0.61
1:A:1303:ARG:NH1	1:A:1589:GLN:OE1	2.33	0.61
1:B:2129:LEU:HA	1:B:2132:VAL:HG22	1.81	0.61
1:C:2797:SER:HB3	1:C:2801:TYR:CE2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:694:ARG:NH1	1:D:718:VAL:O	2.31	0.61
1:A:425:LEU:HD12	1:A:428:ARG:HD3	1.80	0.61
1:B:4819:VAL:HG12	1:B:4822:ARG:HH21	1.65	0.61
1:C:776:GLN:OE1	1:C:776:GLN:N	2.32	0.61
1:C:902:TRP:HZ2	1:C:915:HIS:HB3	1.64	0.61
1:C:998:LYS:HA	1:C:1001:GLU:HG2	1.82	0.61
1:A:332:ARG:NH1	1:A:364:GLN:OE1	2.34	0.61
1:A:4814:MET:HA	1:A:4817:MET:HB2	1.83	0.61
1:B:3729:ALA:HA	1:B:3732:HIS:CE1	2.36	0.61
1:C:4819:VAL:HG12	1:C:4822:ARG:HH21	1.65	0.61
1:D:332:ARG:NH1	1:D:364:GLN:OE1	2.34	0.61
1:D:466:PRO:HG2	1:D:479:LEU:HD12	1.81	0.61
1:D:3034:HIS:O	1:D:3038:GLN:NE2	2.34	0.61
1:D:4618:THR:OG1	1:D:4619:GLU:OE1	2.15	0.61
1:A:194:LEU:HD11	1:A:201:LEU:HB3	1.81	0.61
1:A:4819:VAL:HG12	1:A:4822:ARG:HH21	1.65	0.61
1:B:972:LEU:HD23	1:B:974:SER:H	1.65	0.61
1:B:1113:MET:HB2	1:B:1156:TRP:CZ2	2.35	0.61
1:D:2779:LEU:O	1:D:2782:MET:HG2	2.01	0.61
1:B:4814:MET:HA	1:B:4817:MET:HB2	1.83	0.61
1:C:3034:HIS:O	1:C:3038:GLN:NE2	2.34	0.61
1:D:972:LEU:HD23	1:D:974:SER:H	1.65	0.61
1:A:2787:TRP:HD1	1:A:2906:GLY:N	1.99	0.61
1:B:902:TRP:HZ2	1:B:915:HIS:HB3	1.64	0.61
1:B:2779:LEU:O	1:B:2782:MET:HG2	2.01	0.61
1:A:776:GLN:N	1:A:776:GLN:OE1	2.32	0.61
1:A:842:GLN:HB2	1:A:1603:PHE:HB2	1.83	0.61
1:A:3034:HIS:O	1:A:3038:GLN:NE2	2.34	0.61
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.82	0.61
1:B:332:ARG:NH1	1:B:364:GLN:OE1	2.34	0.61
1:B:4004:VAL:HG11	1:B:4114:ARG:HD2	1.82	0.61
1:C:1026:ASN:HB3	1:C:1028:ARG:HG2	1.82	0.61
1:C:3729:ALA:HA	1:C:3732:HIS:CE1	2.36	0.61
1:C:4617:ILE:HG12	1:C:4666:ILE:HD11	1.82	0.61
1:D:2797:SER:HB3	1:D:2801:TYR:CE2	2.35	0.61
1:A:2779:LEU:O	1:A:2782:MET:HG2	2.01	0.60
1:B:3034:HIS:O	1:B:3038:GLN:NE2	2.34	0.60
1:C:1482:ARG:NH1	1:C:1534:GLU:OE2	2.33	0.60
1:D:2956:TYR:O	1:D:2960:ILE:HG22	2.00	0.60
1:A:2711:ILE:HG23	1:A:2783:LEU:HD22	1.81	0.60
1:B:1606:VAL:HG12	1:B:1621:CYS:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2956:TYR:O	1:C:2960:ILE:HG22	2.00	0.60
1:D:2793:ARG:HG2	1:D:2793:ARG:HH11	1.64	0.60
1:A:2956:TYR:O	1:A:2960:ILE:HG22	2.00	0.60
1:A:940:LEU:HA	1:A:943:LEU:HD12	1.82	0.60
1:A:2187:ILE:HG13	1:A:2227:VAL:HG13	1.83	0.60
1:A:3729:ALA:HA	1:A:3732:HIS:CE1	2.36	0.60
1:C:2187:ILE:HG13	1:C:2227:VAL:HG13	1.83	0.60
1:C:3890:TRP:O	1:D:76:ARG:NH2	2.34	0.60
1:C:4004:VAL:HG11	1:C:4114:ARG:HD2	1.82	0.60
1:D:902:TRP:HZ2	1:D:915:HIS:HB3	1.65	0.60
1:D:2187:ILE:HG13	1:D:2227:VAL:HG13	1.83	0.60
1:A:1606:VAL:HG12	1:A:1621:CYS:HB2	1.83	0.60
1:B:998:LYS:HA	1:B:1001:GLU:HG2	1.82	0.60
1:D:2787:TRP:HD1	1:D:2906:GLY:N	1.99	0.60
1:A:4737:PHE:CD2	1:B:4783:VAL:HG13	2.36	0.60
1:B:1026:ASN:HB3	1:B:1028:ARG:HG2	1.82	0.60
1:C:332:ARG:NH1	1:C:364:GLN:OE1	2.34	0.60
1:D:2318:ASN:O	1:D:2322:ARG:HG3	2.01	0.60
1:D:940:LEU:HA	1:D:943:LEU:HD12	1.82	0.60
1:D:4814:MET:HA	1:D:4817:MET:HB2	1.83	0.60
1:A:2318:ASN:O	1:A:2322:ARG:HG3	2.01	0.60
1:B:1265:HIS:O	1:B:1288:LYS:NZ	2.27	0.60
1:C:1606:VAL:HG12	1:C:1621:CYS:HB2	1.83	0.60
1:B:2857:LYS:CE	1:B:2871:LEU:HD23	2.30	0.60
1:D:842:GLN:HB2	1:D:1603:PHE:HB2	1.83	0.60
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.02	0.59
1:A:1711:LEU:HB3	1:A:1831:MET:HE3	1.84	0.59
2:H:69:LEU:HA	2:H:104:LEU:HD23	1.84	0.59
1:B:1113:MET:HB2	1:B:1156:TRP:HZ2	1.67	0.59
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.02	0.59
1:C:1113:MET:HB2	1:C:1156:TRP:HZ2	1.67	0.59
1:C:2779:LEU:O	1:C:2782:MET:HG2	2.01	0.59
1:C:810:GLU:OE1	1:C:810:GLU:N	2.35	0.59
1:C:2787:TRP:HD1	1:C:2906:GLY:N	1.99	0.59
1:C:4814:MET:HA	1:C:4817:MET:HB2	1.83	0.59
2:F:69:LEU:HA	2:F:104:LEU:HD23	1.85	0.59
1:B:842:GLN:HB2	1:B:1603:PHE:HB2	1.83	0.59
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.36	0.59
1:C:2318:ASN:O	1:C:2322:ARG:HG3	2.01	0.59
1:A:1113:MET:HB2	1:A:1156:TRP:HZ2	1.67	0.59
1:B:2318:ASN:O	1:B:2322:ARG:HG3	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1606:VAL:HG12	1:D:1621:CYS:HB2	1.83	0.59
1:C:2146:LEU:O	1:C:2150:MET:HG2	2.03	0.59
1:A:4844:ILE:HG21	1:D:4814:MET:CE	2.33	0.59
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	1.85	0.59
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.03	0.59
1:A:2441:GLN:NE2	1:A:2442:MET:O	2.36	0.59
2:G:69:LEU:HA	2:G:104:LEU:HD23	1.85	0.59
1:B:810:GLU:N	1:B:810:GLU:OE1	2.35	0.59
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.02	0.59
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	1.85	0.59
1:D:810:GLU:OE1	1:D:810:GLU:N	2.35	0.59
1:D:1113:MET:HB2	1:D:1156:TRP:HZ2	1.67	0.59
1:D:2146:LEU:O	1:D:2150:MET:HG2	2.03	0.59
1:D:2441:GLN:NE2	1:D:2442:MET:O	2.36	0.59
2:E:69:LEU:HA	2:E:104:LEU:HD23	1.84	0.59
1:C:310:GLU:OE2	1:C:310:GLU:N	2.34	0.59
1:D:1950:ALA:HB1	1:D:1961:LYS:NZ	2.18	0.59
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.36	0.59
1:B:2187:ILE:HG13	1:B:2227:VAL:HG13	1.83	0.59
1:C:842:GLN:HB2	1:C:1603:PHE:HB2	1.83	0.59
1:C:4187:GLU:OE1	1:C:4949:TRP:NE1	2.35	0.59
1:A:191:TYR:CD1	1:A:209:GLN:HG3	2.38	0.58
1:C:2441:GLN:NE2	1:C:2442:MET:O	2.36	0.58
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.02	0.58
1:A:810:GLU:OE1	1:A:810:GLU:N	2.35	0.58
1:B:885:LEU:O	1:B:889:ILE:HG12	2.03	0.58
1:B:1043:LYS:HA	1:B:1046:ASN:HD21	1.68	0.58
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.36	0.58
1:D:191:TYR:CD1	1:D:209:GLN:HG3	2.38	0.58
1:D:1265:HIS:O	1:D:1288:LYS:NZ	2.27	0.58
1:A:1265:HIS:O	1:A:1288:LYS:NZ	2.27	0.58
1:A:2146:LEU:O	1:A:2150:MET:HG2	2.03	0.58
1:C:562:LEU:HG	1:C:600:LEU:HD13	1.85	0.58
1:C:1043:LYS:HA	1:C:1046:ASN:HD21	1.68	0.58
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	1.85	0.58
1:A:1950:ALA:HB1	1:A:1961:LYS:NZ	2.18	0.58
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.03	0.58
1:D:2905:ARG:HH11	1:D:2906:GLY:H	1.52	0.58
1:B:1670:HIS:O	1:B:1674:HIS:ND1	2.32	0.58
1:B:1950:ALA:HB1	1:B:1961:LYS:NZ	2.18	0.58
1:B:2441:GLN:NE2	1:B:2442:MET:O	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4517:LEU:HD21	1:D:4736:ASN:HB3	1.86	0.58
1:C:4517:LEU:HD21	1:C:4736:ASN:HB3	1.86	0.58
1:A:4818:TYR:CD1	1:B:4848:ILE:HD11	2.37	0.58
1:B:2146:LEU:O	1:B:2150:MET:HG2	2.03	0.58
1:C:2905:ARG:HH11	1:C:2906:GLY:H	1.52	0.58
1:D:1102:TYR:N	1:D:1237:GLU:O	2.37	0.58
1:A:76:ARG:NH2	1:D:3890:TRP:O	2.36	0.58
1:A:885:LEU:O	1:A:889:ILE:HG12	2.03	0.58
1:A:1255:LEU:HD11	1:A:1451:HIS:HB3	1.86	0.58
1:D:317:MET:HE2	1:D:321:LYS:HG3	1.85	0.58
1:D:2834:SER:OG	1:D:2836:ASP:OD1	2.19	0.58
1:A:3845:LEU:HD23	1:A:3848:GLU:HG3	1.86	0.58
1:B:4517:LEU:HD21	1:B:4736:ASN:HB3	1.86	0.58
1:C:2307:PHE:HB2	1:C:2401:ARG:HB3	1.86	0.58
1:C:4016:PHE:HA	1:C:4019:MET:HE3	1.85	0.58
1:D:881:ILE:HG13	1:D:885:LEU:HG	1.86	0.58
1:A:4870:PHE:HD2	1:B:4868:ASP:OD2	1.87	0.58
1:B:191:TYR:CD1	1:B:209:GLN:HG3	2.38	0.58
1:B:310:GLU:OE2	1:B:310:GLU:N	2.34	0.58
1:C:191:TYR:CD1	1:C:209:GLN:HG3	2.38	0.58
1:C:1102:TYR:N	1:C:1237:GLU:O	2.37	0.58
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.03	0.58
1:C:2877:LEU:O	1:C:2882:LYS:NZ	2.37	0.58
1:C:4116:GLN:HA	1:C:4119:LEU:HD12	1.85	0.58
1:D:562:LEU:HG	1:D:600:LEU:HD13	1.85	0.58
1:A:1043:LYS:HA	1:A:1046:ASN:HD21	1.68	0.57
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	1.85	0.57
1:B:1255:LEU:HD11	1:B:1451:HIS:HB3	1.86	0.57
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.36	0.57
1:B:2787:TRP:HD1	1:B:2906:GLY:N	1.99	0.57
1:B:2832:THR:HG21	1:C:1550:PRO:HD3	1.86	0.57
1:B:2877:LEU:O	1:B:2882:LYS:NZ	2.36	0.57
1:B:2905:ARG:HH11	1:B:2906:GLY:H	1.52	0.57
1:C:1950:ALA:HB1	1:C:1961:LYS:NZ	2.18	0.57
1:D:885:LEU:O	1:D:889:ILE:HG12	2.03	0.57
1:A:2877:LEU:O	1:A:2882:LYS:NZ	2.36	0.57
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.03	0.57
1:C:885:LEU:O	1:C:889:ILE:HG12	2.03	0.57
1:D:4116:GLN:HA	1:D:4119:LEU:HD12	1.85	0.57
1:A:2905:ARG:HH11	1:A:2906:GLY:H	1.52	0.57
1:A:4914:ASN:HB3	1:A:4917:ASN:HB2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:562:LEU:HG	1:B:600:LEU:HD13	1.85	0.57
1:C:2894:LYS:O	1:C:2898:ILE:HG12	2.05	0.57
1:C:4144:ARG:NH2	1:C:4962:TYR:OH	2.34	0.57
1:D:1689:ILE:HA	1:D:1703:TYR:HE1	1.69	0.57
1:D:2790:GLU:N	1:D:2902:ALA:O	2.33	0.57
1:A:562:LEU:HG	1:A:600:LEU:HD13	1.85	0.57
1:A:4517:LEU:HD21	1:A:4736:ASN:HB3	1.86	0.57
1:C:3845:LEU:HD23	1:C:3848:GLU:HG3	1.86	0.57
1:D:4245:LEU:O	1:D:4249:ARG:HG3	2.04	0.57
1:A:881:ILE:HG13	1:A:885:LEU:HG	1.86	0.57
1:A:1689:ILE:HA	1:A:1703:TYR:HE1	1.69	0.57
1:B:891:GLU:O	1:B:895:MET:HG3	2.05	0.57
1:C:874:LEU:HD23	1:C:941:LYS:HD3	1.86	0.57
1:C:1255:LEU:HD11	1:C:1451:HIS:HB3	1.86	0.57
1:D:670:TYR:HD1	1:D:1017:THR:HG21	1.70	0.57
1:D:874:LEU:HD23	1:D:941:LYS:HD3	1.86	0.57
1:D:1043:LYS:HA	1:D:1046:ASN:HD21	1.68	0.57
1:D:4187:GLU:OE1	1:D:4949:TRP:NE1	2.35	0.57
1:A:4116:GLN:HA	1:A:4119:LEU:HD12	1.85	0.57
1:B:3778:LEU:HD13	1:B:3854:PHE:HD1	1.70	0.57
1:B:4116:GLN:HA	1:B:4119:LEU:HD12	1.85	0.57
1:B:4245:LEU:O	1:B:4249:ARG:HG3	2.04	0.57
1:C:881:ILE:HG13	1:C:885:LEU:HG	1.86	0.57
1:D:2877:LEU:O	1:D:2882:LYS:NZ	2.37	0.57
1:B:2307:PHE:HB2	1:B:2401:ARG:HB3	1.86	0.57
1:C:3778:LEU:HD13	1:C:3854:PHE:HD1	1.70	0.57
1:D:3845:LEU:HD23	1:D:3848:GLU:HG3	1.86	0.57
1:A:989:THR:OG1	1:A:992:GLN:HG3	2.05	0.57
1:A:2790:GLU:N	1:A:2902:ALA:O	2.33	0.57
1:B:262:TYR:HB2	1:B:389:ARG:HG3	1.86	0.57
1:B:317:MET:HE2	1:B:321:LYS:HG3	1.85	0.57
1:B:874:LEU:HD23	1:B:941:LYS:HD3	1.86	0.57
1:B:4914:ASN:HB3	1:B:4917:ASN:HB2	1.87	0.57
1:C:670:TYR:HD1	1:C:1017:THR:HG21	1.69	0.57
1:C:4245:LEU:O	1:C:4249:ARG:HG3	2.04	0.57
1:D:4197:ILE:HG23	1:D:4923:MET:HE2	1.87	0.57
1:D:4914:ASN:HB3	1:D:4917:ASN:HB2	1.87	0.57
1:A:2857:LYS:CE	1:A:2871:LEU:HD23	2.30	0.57
1:B:4481:TRP:CD1	1:B:4692:SER:HA	2.40	0.57
1:C:317:MET:HE2	1:C:321:LYS:HG3	1.86	0.57
1:D:2757:MET:O	1:D:2820:GLY:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:874:LEU:HD23	1:A:941:LYS:HD3	1.86	0.57
1:A:891:GLU:O	1:A:895:MET:HG3	2.05	0.57
1:A:2757:MET:O	1:A:2820:GLY:N	2.38	0.57
1:B:989:THR:OG1	1:B:992:GLN:HG3	2.05	0.57
1:C:891:GLU:O	1:C:895:MET:HG3	2.05	0.57
1:C:2757:MET:O	1:C:2820:GLY:N	2.38	0.57
1:C:4481:TRP:CD1	1:C:4692:SER:HA	2.40	0.57
1:D:891:GLU:HA	1:D:894:VAL:HG22	1.87	0.57
1:D:2307:PHE:HB2	1:D:2401:ARG:HB3	1.86	0.56
1:A:891:GLU:HA	1:A:894:VAL:HG22	1.87	0.56
1:B:1689:ILE:HA	1:B:1703:TYR:HE1	1.69	0.56
1:B:4026:LEU:HD13	1:B:4055:HIS:CG	2.40	0.56
1:C:204:ASP:OD1	1:C:205:ALA:N	2.38	0.56
1:C:1250:TRP:HE3	1:C:1596:TRP:HB3	1.70	0.56
1:D:989:THR:OG1	1:D:992:GLN:HG3	2.05	0.56
1:D:3022:PHE:HB2	1:D:3026:ALA:HB2	1.86	0.56
1:A:1250:TRP:HE3	1:A:1596:TRP:HB3	1.70	0.56
1:A:4026:LEU:HD13	1:A:4055:HIS:CG	2.40	0.56
1:A:4481:TRP:CD1	1:A:4692:SER:HA	2.40	0.56
1:A:4868:ASP:O	1:A:4872:GLU:HG3	2.05	0.56
1:B:204:ASP:OD1	1:B:205:ALA:N	2.38	0.56
1:B:2757:MET:O	1:B:2820:GLY:N	2.38	0.56
1:B:2855:LYS:HA	1:B:2858:MET:HG2	1.87	0.56
1:B:2894:LYS:O	1:B:2898:ILE:HG12	2.05	0.56
1:B:3022:PHE:HB2	1:B:3026:ALA:HB2	1.86	0.56
1:D:891:GLU:O	1:D:895:MET:HG3	2.05	0.56
1:D:1670:HIS:O	1:D:1674:HIS:ND1	2.32	0.56
1:D:2708:THR:O	1:D:2780:LYS:HD2	2.06	0.56
1:D:4026:LEU:HD13	1:D:4055:HIS:CG	2.40	0.56
1:D:4481:TRP:CD1	1:D:4692:SER:HA	2.40	0.56
1:A:204:ASP:OD1	1:A:205:ALA:N	2.38	0.56
1:A:262:TYR:HB2	1:A:389:ARG:HG3	1.86	0.56
1:A:4245:LEU:O	1:A:4249:ARG:HG3	2.04	0.56
1:B:881:ILE:HG13	1:B:885:LEU:HG	1.86	0.56
1:B:2440:PHE:HB3	1:B:2460:PHE:HD2	1.71	0.56
1:B:4868:ASP:O	1:B:4872:GLU:HG3	2.05	0.56
1:C:989:THR:OG1	1:C:992:GLN:HG3	2.05	0.56
1:C:1689:ILE:HA	1:C:1703:TYR:HE1	1.69	0.56
1:C:2440:PHE:HB3	1:C:2460:PHE:HD2	1.71	0.56
1:D:2855:LYS:HE3	1:D:2856:LYS:HZ2	1.70	0.56
1:D:2894:LYS:O	1:D:2898:ILE:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2307:PHE:HB2	1:A:2401:ARG:HB3	1.86	0.56
1:A:2440:PHE:HB3	1:A:2460:PHE:HD2	1.71	0.56
1:A:2855:LYS:HA	1:A:2858:MET:HG2	1.87	0.56
1:B:436:LEU:HG	1:B:445:VAL:HG11	1.88	0.56
1:B:670:TYR:HD1	1:B:1017:THR:HG21	1.69	0.56
1:B:3845:LEU:HD23	1:B:3848:GLU:HG3	1.86	0.56
1:C:985:PHE:H	1:C:985:PHE:HD2	1.53	0.56
1:C:3022:PHE:HB2	1:C:3026:ALA:HB2	1.86	0.56
1:C:4868:ASP:O	1:C:4872:GLU:HG3	2.05	0.56
1:D:1255:LEU:HD11	1:D:1451:HIS:HB3	1.86	0.56
2:H:88:HIS:NE2	1:D:1776:TYR:OH	2.30	0.56
1:B:1549:SER:OG	1:B:1551:ASN:O	2.24	0.56
1:C:4644:TYR:CE2	1:C:4646:ASP:HB3	2.41	0.56
1:D:4868:ASP:O	1:D:4872:GLU:HG3	2.05	0.56
1:B:1467:VAL:HG21	1:B:1482:ARG:HH21	1.71	0.56
1:C:398:HIS:HB3	1:C:400:ASP:H	1.70	0.56
1:C:436:LEU:HG	1:C:445:VAL:HG11	1.88	0.56
1:C:2708:THR:O	1:C:2780:LYS:HD2	2.06	0.56
1:C:2855:LYS:HA	1:C:2858:MET:HG2	1.86	0.56
1:C:4914:ASN:HB3	1:C:4917:ASN:HB2	1.87	0.56
1:D:204:ASP:OD1	1:D:205:ALA:N	2.38	0.56
1:A:398:HIS:HB3	1:A:400:ASP:H	1.70	0.56
1:A:670:TYR:HD1	1:A:1017:THR:HG21	1.70	0.56
1:A:1258:PHE:CG	1:A:1303:ARG:HD3	2.41	0.56
1:A:2480:VAL:HB	1:A:2483:PHE:HB3	1.88	0.56
1:A:3778:LEU:HD13	1:A:3854:PHE:HD1	1.69	0.56
1:B:4644:TYR:CE2	1:B:4646:ASP:HB3	2.41	0.56
1:C:262:TYR:HB2	1:C:389:ARG:HG3	1.86	0.56
1:D:1250:TRP:HE3	1:D:1596:TRP:HB3	1.71	0.56
1:D:2440:PHE:HB3	1:D:2460:PHE:HD2	1.71	0.56
1:A:3022:PHE:HB2	1:A:3026:ALA:HB2	1.86	0.56
1:B:1102:TYR:N	1:B:1237:GLU:O	2.37	0.56
1:B:2708:THR:O	1:B:2780:LYS:HD2	2.06	0.56
1:D:398:HIS:HB3	1:D:400:ASP:H	1.70	0.56
1:D:2855:LYS:HA	1:D:2858:MET:HG2	1.86	0.56
1:A:2195:ASN:HD22	1:A:2198:ARG:HH12	1.54	0.56
1:A:2894:LYS:O	1:A:2898:ILE:HG12	2.05	0.56
1:C:2195:ASN:HD22	1:C:2198:ARG:HH12	1.54	0.56
1:B:398:HIS:HB3	1:B:400:ASP:H	1.70	0.55
1:B:1258:PHE:CG	1:B:1303:ARG:HD3	2.41	0.55
1:C:1467:VAL:HG21	1:C:1482:ARG:HH21	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2635:GLU:HG2	1:C:2680:TYR:HE1	1.71	0.55
1:C:4026:LEU:HD13	1:C:4055:HIS:CG	2.40	0.55
1:D:436:LEU:HG	1:D:445:VAL:HG11	1.88	0.55
1:D:1467:VAL:HG21	1:D:1482:ARG:HH21	1.71	0.55
1:D:1929:SER:HG	1:D:3620:PHE:HD2	1.55	0.55
1:D:4016:PHE:HA	1:D:4019:MET:HE3	1.88	0.55
1:A:3962:SER:HB3	1:A:4071:GLU:HG2	1.88	0.55
1:A:4197:ILE:HG23	1:A:4923:MET:HE2	1.87	0.55
1:C:2659:GLN:OE1	1:C:2659:GLN:N	2.37	0.55
1:D:262:TYR:HB2	1:D:389:ARG:HG3	1.86	0.55
1:D:3778:LEU:HD13	1:D:3854:PHE:HD1	1.69	0.55
1:C:2480:VAL:HB	1:C:2483:PHE:HB3	1.88	0.55
1:A:2504:THR:O	1:A:2508:SER:N	2.40	0.55
1:A:4144:ARG:NH2	1:A:4962:TYR:OH	2.34	0.55
1:A:4521:LYS:HZ3	1:B:4807:ASP:HB3	1.70	0.55
1:B:3962:SER:HB3	1:B:4071:GLU:HG2	1.88	0.55
1:C:1724:GLU:HG2	1:C:2165:LEU:HD23	1.89	0.55
1:C:4197:ILE:HG23	1:C:4923:MET:HE2	1.88	0.55
1:D:756:SER:OG	1:D:769:ARG:O	2.25	0.55
1:D:3962:SER:HB3	1:D:4071:GLU:HG2	1.88	0.55
1:A:436:LEU:HG	1:A:445:VAL:HG11	1.88	0.55
1:A:985:PHE:H	1:A:985:PHE:HD2	1.53	0.55
1:A:1108:VAL:HB	1:A:1212:VAL:HG23	1.89	0.55
1:A:1724:GLU:HG2	1:A:2165:LEU:HD23	1.89	0.55
1:A:2635:GLU:HG2	1:A:2680:TYR:HE1	1.71	0.55
1:A:2708:THR:O	1:A:2780:LYS:HD2	2.06	0.55
1:A:4014:LEU:HD13	1:A:4122:ALA:HB2	1.88	0.55
1:B:857:LEU:HG	1:B:860:ALA:HB2	1.88	0.55
1:B:2195:ASN:HD22	1:B:2198:ARG:HH12	1.54	0.55
1:B:3622:GLN:O	1:B:3626:LYS:NZ	2.39	0.55
1:C:2619:LYS:HB2	1:C:2627:TRP:CH2	2.41	0.55
1:D:889:ILE:HA	1:D:892:LEU:HB2	1.88	0.55
1:D:1549:SER:OG	1:D:1551:ASN:O	2.24	0.55
1:B:2062:ILE:O	1:B:2066:MET:HG2	2.07	0.55
1:C:1258:PHE:CG	1:C:1303:ARG:HD3	2.41	0.55
1:D:894:VAL:HA	1:D:897:LYS:HG2	1.89	0.55
1:D:985:PHE:H	1:D:985:PHE:HD2	1.53	0.55
1:D:2195:ASN:HD22	1:D:2198:ARG:HH12	1.54	0.55
1:A:889:ILE:HA	1:A:892:LEU:HB2	1.88	0.55
1:A:1467:VAL:HG21	1:A:1482:ARG:HH21	1.71	0.55
1:C:2212:LYS:NZ	1:C:3822:GLU:OE1	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2521:CYS:HA	1:C:2525:LEU:HD12	1.89	0.55
1:D:1945:ASN:O	1:D:1949:GLN:HG2	2.07	0.55
1:D:2521:CYS:HA	1:D:2525:LEU:HD12	1.89	0.55
1:D:4093:ASP:OD1	1:D:4094:ILE:HD12	2.07	0.55
1:A:857:LEU:HG	1:A:860:ALA:HB2	1.88	0.55
1:B:1945:ASN:O	1:B:1949:GLN:HG2	2.07	0.55
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.21	0.55
1:C:1628:MET:HG3	1:C:1687:TYR:CD2	2.42	0.55
1:C:2062:ILE:O	1:C:2066:MET:HG2	2.07	0.55
1:C:2834:SER:OG	1:C:2836:ASP:OD1	2.20	0.55
1:D:625:VAL:HG12	1:D:628:ASN:H	1.72	0.55
1:D:919:VAL:HB	1:D:923:LYS:HG3	1.89	0.55
1:D:1258:PHE:CG	1:D:1303:ARG:HD3	2.41	0.55
1:D:2758:LYS:NZ	1:D:2762:LEU:O	2.40	0.55
1:D:4144:ARG:NH2	1:D:4962:TYR:OH	2.34	0.55
1:A:919:VAL:HB	1:A:923:LYS:HG3	1.89	0.55
1:A:1628:MET:HG3	1:A:1687:TYR:CD2	2.42	0.55
1:A:3622:GLN:O	1:A:3626:LYS:NZ	2.39	0.55
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.07	0.55
1:C:1610:ARG:HA	1:C:1617:TRP:HA	1.89	0.55
1:D:857:LEU:HG	1:D:860:ALA:HB2	1.88	0.55
1:D:1108:VAL:HB	1:D:1212:VAL:HG23	1.89	0.55
1:A:625:VAL:HG12	1:A:628:ASN:H	1.72	0.55
1:A:1102:TYR:N	1:A:1237:GLU:O	2.37	0.55
1:B:891:GLU:HA	1:B:894:VAL:HG22	1.87	0.55
1:B:1250:TRP:HE3	1:B:1596:TRP:HB3	1.70	0.55
1:B:1628:MET:HG3	1:B:1687:TYR:CD2	2.42	0.55
1:C:891:GLU:HA	1:C:894:VAL:HG22	1.87	0.55
1:D:2480:VAL:HB	1:D:2483:PHE:HB3	1.88	0.55
1:D:2619:LYS:HB2	1:D:2627:TRP:CH2	2.41	0.55
1:D:4014:LEU:HD13	1:D:4122:ALA:HB2	1.88	0.55
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	1.89	0.54
1:A:4644:TYR:CE2	1:A:4646:ASP:HB3	2.41	0.54
1:B:2619:LYS:HB2	1:B:2627:TRP:CH2	2.41	0.54
1:B:2635:GLU:HG2	1:B:2680:TYR:HE1	1.71	0.54
1:B:2659:GLN:OE1	1:B:2659:GLN:N	2.37	0.54
1:B:2777:GLU:O	1:B:2781:THR:OG1	2.19	0.54
1:B:2998:ASN:OD1	1:B:2999:LYS:N	2.40	0.54
1:C:1670:HIS:O	1:C:1674:HIS:ND1	2.32	0.54
1:C:2790:GLU:N	1:C:2902:ALA:O	2.33	0.54
1:D:2160:ASN:OD1	1:D:2163:ARG:NH2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	1.89	0.54
1:D:2635:GLU:HG2	1:D:2680:TYR:HE1	1.71	0.54
1:D:2998:ASN:OD1	1:D:2999:LYS:N	2.40	0.54
1:D:3846:LEU:HB3	1:D:3854:PHE:CE2	2.42	0.54
1:A:894:VAL:HA	1:A:897:LYS:HG2	1.89	0.54
1:A:2619:LYS:HB2	1:A:2627:TRP:CH2	2.41	0.54
1:A:2998:ASN:OD1	1:A:2999:LYS:N	2.40	0.54
1:A:4183:LYS:HE2	1:D:4906:GLU:OE2	2.08	0.54
1:B:2480:VAL:HB	1:B:2483:PHE:HB3	1.88	0.54
1:B:2930:ILE:HA	1:B:3010:LYS:HZ1	1.73	0.54
1:C:857:LEU:HG	1:C:860:ALA:HB2	1.88	0.54
1:D:2062:ILE:O	1:D:2066:MET:HG2	2.07	0.54
1:D:2719:TYR:OH	1:D:2799:ALA:HB2	2.07	0.54
1:D:2768:LYS:O	1:D:2772:ARG:HD3	2.07	0.54
1:D:3013:VAL:O	1:D:3018:ARG:NH2	2.40	0.54
1:D:4644:TYR:CE2	1:D:4646:ASP:HB3	2.41	0.54
1:A:756:SER:OG	1:A:769:ARG:O	2.25	0.54
1:A:1945:ASN:O	1:A:1949:GLN:HG2	2.07	0.54
1:A:2719:TYR:OH	1:A:2799:ALA:HB2	2.07	0.54
1:B:756:SER:OG	1:B:769:ARG:O	2.25	0.54
1:B:2504:THR:O	1:B:2508:SER:N	2.40	0.54
1:B:2758:LYS:NZ	1:B:2762:LEU:O	2.40	0.54
1:D:1628:MET:HG3	1:D:1687:TYR:CD2	2.42	0.54
1:D:2767:GLU:O	1:D:2771:TYR:N	2.40	0.54
1:A:310:GLU:OE2	1:A:310:GLU:N	2.34	0.54
1:A:801:ARG:NH1	1:A:1615:GLN:O	2.40	0.54
1:A:1670:HIS:O	1:A:1674:HIS:ND1	2.32	0.54
1:A:2521:CYS:HA	1:A:2525:LEU:HD12	1.89	0.54
1:B:625:VAL:HG12	1:B:628:ASN:H	1.72	0.54
1:B:3013:VAL:O	1:B:3018:ARG:NH2	2.40	0.54
1:C:889:ILE:HA	1:C:892:LEU:HB2	1.88	0.54
1:C:1265:HIS:O	1:C:1288:LYS:NZ	2.27	0.54
1:C:1471:ASP:OD2	1:C:1473:LYS:NZ	2.40	0.54
1:C:2998:ASN:OD1	1:C:2999:LYS:N	2.40	0.54
1:D:1610:ARG:HA	1:D:1617:TRP:HA	1.89	0.54
1:A:2930:ILE:HA	1:A:3010:LYS:HZ1	1.73	0.54
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.07	0.54
2:H:80:ASP:OD1	2:H:81:VAL:N	2.41	0.54
1:B:2834:SER:OG	1:B:2836:ASP:OD1	2.20	0.54
1:C:801:ARG:NH1	1:C:1615:GLN:O	2.40	0.54
1:C:877:HIS:HA	1:C:880:ARG:CD	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:919:VAL:HB	1:C:923:LYS:HG3	1.89	0.54
1:C:2797:SER:HB3	1:C:2801:TYR:HE2	1.72	0.54
1:D:28:ILE:HG22	1:D:29:HIS:CD2	2.43	0.54
2:F:80:ASP:OD1	2:F:81:VAL:N	2.41	0.54
1:B:985:PHE:H	1:B:985:PHE:HD2	1.53	0.54
1:B:3846:LEU:HB3	1:B:3854:PHE:CE2	2.42	0.54
1:B:4014:LEU:HD13	1:B:4122:ALA:HB2	1.88	0.54
1:C:625:VAL:HG12	1:C:628:ASN:H	1.72	0.54
1:C:1440:ASN:HB3	1:C:1546:GLN:HB3	1.90	0.54
1:C:1896:MET:HB3	1:C:1898:LEU:HD11	1.90	0.54
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	1.90	0.54
1:C:4093:ASP:OD1	1:C:4094:ILE:HD12	2.07	0.54
1:A:3846:LEU:HB3	1:A:3854:PHE:CE2	2.42	0.54
1:A:4093:ASP:OD1	1:A:4094:ILE:HD12	2.07	0.54
1:A:4520:TYR:CD1	1:A:4561:LEU:HD13	2.43	0.54
1:B:2160:ASN:OD1	1:B:2163:ARG:NH2	2.40	0.54
1:B:2719:TYR:OH	1:B:2799:ALA:HB2	2.07	0.54
1:C:28:ILE:HG22	1:C:29:HIS:CD2	2.43	0.54
1:C:28:ILE:HG22	1:C:29:HIS:HD2	1.73	0.54
1:C:1989:PRO:O	1:C:1993:ARG:HG3	2.08	0.54
1:C:3846:LEU:HB3	1:C:3854:PHE:CE2	2.42	0.54
1:C:3962:SER:HB3	1:C:4071:GLU:HG2	1.88	0.54
1:D:679:VAL:HA	1:D:800:VAL:HG12	1.90	0.54
1:D:1896:MET:HB3	1:D:1898:LEU:HD11	1.90	0.54
1:A:2855:LYS:HE3	1:A:2856:LYS:HZ2	1.73	0.54
2:F:16:PHE:O	2:F:18:LYS:NZ	2.37	0.54
1:B:1610:ARG:HA	1:B:1617:TRP:HA	1.89	0.54
1:B:1989:PRO:O	1:B:1993:ARG:HG3	2.08	0.54
1:B:2521:CYS:HA	1:B:2525:LEU:HD12	1.89	0.54
1:B:2832:THR:HG21	1:C:1290:PHE:HE2	1.73	0.54
1:C:20:VAL:HG12	1:C:216:PRO:HA	1.90	0.54
1:C:2768:LYS:O	1:C:2772:ARG:HD3	2.07	0.54
1:D:877:HIS:HA	1:D:880:ARG:CD	2.38	0.54
1:D:1440:ASN:HB3	1:D:1546:GLN:HB3	1.90	0.54
1:D:2092:TYR:CD2	1:D:3640:LEU:HD13	2.43	0.54
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.07	0.54
1:A:1303:ARG:HD2	1:A:1446:ILE:HD11	1.90	0.54
1:B:887:GLU:HB2	1:B:921:PHE:HZ	1.73	0.54
1:B:919:VAL:HB	1:B:923:LYS:HG3	1.89	0.54
1:C:3921:THR:O	1:C:3925:GLN:HG2	2.08	0.54
1:C:4520:TYR:CD1	1:C:4561:LEU:HD13	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:28:ILE:HG22	1:A:29:HIS:CD2	2.43	0.54
1:B:28:ILE:HG22	1:B:29:HIS:CD2	2.43	0.54
1:B:227:TYR:CG	1:B:352:SER:HB2	2.43	0.54
1:B:801:ARG:NH1	1:B:1615:GLN:O	2.40	0.54
1:B:1011:ARG:HH21	1:B:1014:GLN:NE2	2.06	0.54
1:B:1645:THR:HG22	1:B:1695:PRO:HG3	1.90	0.54
1:B:1896:MET:HB3	1:B:1898:LEU:HD11	1.90	0.54
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	1.90	0.54
1:C:227:TYR:CG	1:C:352:SER:HB2	2.43	0.54
1:C:2526:PRO:HB3	1:C:2530:ARG:NH1	2.23	0.54
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.07	0.54
1:D:1724:GLU:HG2	1:D:2165:LEU:HD23	1.89	0.54
1:D:1989:PRO:O	1:D:1993:ARG:HG3	2.08	0.54
1:D:3622:GLN:O	1:D:3626:LYS:NZ	2.39	0.54
1:A:28:ILE:HG22	1:A:29:HIS:HD2	1.73	0.53
1:A:1429:SER:HB2	1:A:1556:GLU:HB2	1.90	0.53
1:A:3879:LEU:O	1:A:3882:GLN:HG3	2.08	0.53
1:B:966:LEU:HD12	1:B:979:ALA:HB2	1.90	0.53
1:B:1724:GLU:HG2	1:B:2165:LEU:HD23	1.89	0.53
1:B:2337:GLY:O	1:C:141:ASP:HA	2.08	0.53
1:B:2797:SER:HB3	1:B:2801:TYR:HE2	1.72	0.53
1:B:3879:LEU:O	1:B:3882:GLN:HG3	2.08	0.53
1:B:4881:LYS:O	1:B:4885:GLU:HG2	2.08	0.53
1:C:1023:ASP:HB2	1:C:1028:ARG:HB2	1.90	0.53
1:C:2092:TYR:CD2	1:C:3640:LEU:HD13	2.43	0.53
1:C:2719:TYR:OH	1:C:2799:ALA:HB2	2.08	0.53
1:D:2782:MET:CG	1:D:2783:LEU:HD12	2.38	0.53
1:A:679:VAL:HA	1:A:800:VAL:HG12	1.90	0.53
1:A:1014:GLN:O	1:A:1027:ARG:NH1	2.42	0.53
1:A:1896:MET:HB3	1:A:1898:LEU:HD11	1.90	0.53
1:A:2062:ILE:O	1:A:2066:MET:HG2	2.07	0.53
1:A:3013:VAL:O	1:A:3018:ARG:NH2	2.40	0.53
2:G:58:LYS:O	2:G:62:GLU:HG3	2.08	0.53
2:G:80:ASP:OD1	2:G:81:VAL:N	2.41	0.53
1:B:679:VAL:HA	1:B:800:VAL:HG12	1.90	0.53
1:B:894:VAL:HA	1:B:897:LYS:HG2	1.89	0.53
1:B:1303:ARG:HD2	1:B:1446:ILE:HD11	1.90	0.53
1:B:2729:HIS:NE2	1:B:2763:LEU:HD22	2.24	0.53
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.42	0.53
1:C:2782:MET:CG	1:C:2783:LEU:HD12	2.38	0.53
1:C:2857:LYS:CE	1:C:2871:LEU:HD23	2.30	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2930:ILE:HG23	1:C:3010:LYS:HZ3	1.73	0.53
1:C:4014:LEU:HD13	1:C:4122:ALA:HB2	1.88	0.53
1:D:1689:ILE:HA	1:D:1703:TYR:CE1	2.44	0.53
1:A:877:HIS:HA	1:A:880:ARG:CD	2.38	0.53
1:A:1477:HIS:CE1	1:A:1478:GLU:HG3	2.43	0.53
1:A:2782:MET:CG	1:A:2783:LEU:HD12	2.38	0.53
1:B:1023:ASP:HB2	1:B:1028:ARG:HB2	1.90	0.53
1:B:1108:VAL:HB	1:B:1212:VAL:HG23	1.89	0.53
1:B:1477:HIS:CE1	1:B:1478:GLU:HG3	2.43	0.53
1:C:1011:ARG:HH21	1:C:1014:GLN:NE2	2.06	0.53
1:C:1108:VAL:HB	1:C:1212:VAL:HG23	1.89	0.53
1:C:1945:ASN:O	1:C:1949:GLN:HG2	2.07	0.53
1:C:2832:THR:HG21	1:D:1550:PRO:HD3	1.90	0.53
1:D:310:GLU:OE2	1:D:310:GLU:N	2.34	0.53
1:D:2397:ASP:O	1:D:2401:ARG:HG2	2.09	0.53
1:D:2659:GLN:O	1:D:2965:LYS:NZ	2.41	0.53
1:D:2797:SER:HB3	1:D:2801:TYR:HE2	1.72	0.53
1:D:2857:LYS:CE	1:D:2871:LEU:HD23	2.30	0.53
1:D:4520:TYR:CD1	1:D:4561:LEU:HD13	2.43	0.53
1:A:1023:ASP:HB2	1:A:1028:ARG:HB2	1.90	0.53
1:A:2659:GLN:O	1:A:2965:LYS:NZ	2.41	0.53
1:A:2768:LYS:O	1:A:2772:ARG:HD3	2.07	0.53
2:G:16:PHE:O	2:G:18:LYS:NZ	2.37	0.53
1:B:1429:SER:HB2	1:B:1556:GLU:HB2	1.90	0.53
1:C:966:LEU:HD12	1:C:979:ALA:HB2	1.91	0.53
1:C:2127:ARG:NH2	1:C:2165:LEU:O	2.42	0.53
1:D:227:TYR:CG	1:D:352:SER:HB2	2.43	0.53
1:D:887:GLU:HB2	1:D:921:PHE:HZ	1.73	0.53
1:D:1014:GLN:O	1:D:1027:ARG:NH1	2.42	0.53
1:D:2729:HIS:NE2	1:D:2763:LEU:HD22	2.24	0.53
1:A:20:VAL:HG12	1:A:216:PRO:HA	1.90	0.53
1:A:966:LEU:HD12	1:A:979:ALA:HB2	1.90	0.53
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.42	0.53
1:A:2526:PRO:HB3	1:A:2530:ARG:NH1	2.23	0.53
1:B:877:HIS:HA	1:B:880:ARG:CD	2.38	0.53
1:B:889:ILE:HA	1:B:892:LEU:HB2	1.88	0.53
1:B:4520:TYR:CD1	1:B:4561:LEU:HD13	2.43	0.53
1:C:1477:HIS:CE1	1:C:1478:GLU:HG3	2.43	0.53
1:C:2729:HIS:NE2	1:C:2763:LEU:HD22	2.24	0.53
1:C:4265:LYS:O	1:C:4269:LYS:HG2	2.09	0.53
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4881:LYS:O	1:C:4885:GLU:HG2	2.08	0.53
1:D:966:LEU:HD12	1:D:979:ALA:HB2	1.90	0.53
1:D:1011:ARG:HH21	1:D:1014:GLN:NE2	2.06	0.53
1:D:1023:ASP:HB2	1:D:1028:ARG:HB2	1.90	0.53
1:D:1429:SER:HB2	1:D:1556:GLU:HB2	1.90	0.53
1:D:2127:ARG:NH2	1:D:2165:LEU:O	2.42	0.53
1:D:2868:HIS:CD2	1:D:2870:LEU:HB2	2.44	0.53
1:D:3668:ILE:HD12	1:D:3734:ARG:HB2	1.91	0.53
1:A:2729:HIS:NE2	1:A:2763:LEU:HD22	2.24	0.53
2:E:80:ASP:OD1	2:E:81:VAL:N	2.41	0.53
2:H:16:PHE:O	2:H:18:LYS:NZ	2.37	0.53
2:H:58:LYS:O	2:H:62:GLU:HG3	2.08	0.53
1:C:874:LEU:HB2	1:C:878:LEU:HD22	1.91	0.53
1:D:20:VAL:HG12	1:D:216:PRO:HA	1.90	0.53
1:D:28:ILE:HG22	1:D:29:HIS:HD2	1.73	0.53
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.42	0.53
1:A:1610:ARG:HA	1:A:1617:TRP:HA	1.89	0.53
1:A:1645:THR:HG22	1:A:1695:PRO:HG3	1.90	0.53
1:A:2832:THR:HG21	1:B:1290:PHE:CE2	2.39	0.53
2:E:58:LYS:O	2:E:62:GLU:HG3	2.08	0.53
1:B:874:LEU:HB2	1:B:878:LEU:HD22	1.91	0.53
1:B:2526:PRO:HB3	1:B:2530:ARG:NH1	2.23	0.53
1:C:679:VAL:HA	1:C:800:VAL:HG12	1.90	0.53
1:D:229:ILE:HG22	1:D:288:HIS:HD2	1.74	0.53
1:D:3921:THR:O	1:D:3925:GLN:HG2	2.08	0.53
1:D:4881:LYS:O	1:D:4885:GLU:HG2	2.08	0.53
1:A:887:GLU:HB2	1:A:921:PHE:HZ	1.73	0.53
1:A:2659:GLN:OE1	1:A:2659:GLN:N	2.37	0.53
1:A:4279:MET:HE2	1:B:4487:TYR:CD1	2.23	0.53
2:F:58:LYS:O	2:F:62:GLU:HG3	2.08	0.53
1:B:20:VAL:HG12	1:B:216:PRO:HA	1.90	0.53
1:B:1440:ASN:HB3	1:B:1546:GLN:HB3	1.90	0.53
1:B:2767:GLU:O	1:B:2771:TYR:N	2.40	0.53
1:B:2790:GLU:N	1:B:2902:ALA:O	2.33	0.53
1:C:894:VAL:HA	1:C:897:LYS:HG2	1.89	0.53
1:C:4287:TYR:HA	1:C:4290:ILE:HD12	1.91	0.53
1:D:4265:LYS:O	1:D:4269:LYS:HG2	2.09	0.53
1:A:1011:ARG:HH21	1:A:1014:GLN:NE2	2.06	0.53
1:A:3668:ILE:HD12	1:A:3734:ARG:HB2	1.91	0.53
1:B:1004:HIS:CE1	1:B:1038:LEU:HD21	2.44	0.53
1:B:2768:LYS:O	1:B:2772:ARG:HD3	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4093:ASP:OD1	1:B:4094:ILE:HD12	2.07	0.53
1:B:4187:GLU:OE1	1:B:4949:TRP:NE1	2.35	0.53
1:B:4287:TYR:HA	1:B:4290:ILE:HD12	1.91	0.53
1:C:1303:ARG:HD2	1:C:1446:ILE:HD11	1.90	0.53
1:C:1689:ILE:HA	1:C:1703:TYR:CE1	2.44	0.53
1:A:663:VAL:HG23	1:A:671:LYS:HE3	1.91	0.53
1:A:1689:ILE:HA	1:A:1703:TYR:CE1	2.44	0.53
1:A:1989:PRO:O	1:A:1993:ARG:HG3	2.08	0.53
1:A:2092:TYR:CD2	1:A:3640:LEU:HD13	2.43	0.53
1:A:2212:LYS:NZ	1:A:3822:GLU:OE1	2.32	0.53
1:A:4872:GLU:HG2	1:D:4874:ARG:HD3	1.91	0.53
2:G:12:ASP:OD1	2:G:68:SER:OG	2.27	0.53
1:B:2092:TYR:CD2	1:B:3640:LEU:HD13	2.43	0.53
1:B:2127:ARG:NH2	1:B:2165:LEU:O	2.42	0.53
1:B:2397:ASP:O	1:B:2401:ARG:HG2	2.09	0.53
1:B:3803:LEU:HB2	1:B:3884:SER:HB2	1.92	0.53
1:B:3921:THR:O	1:B:3925:GLN:HG2	2.08	0.53
1:B:4114:ARG:O	1:B:4117:THR:OG1	2.22	0.53
1:C:1014:GLN:O	1:C:1027:ARG:NH1	2.42	0.53
1:C:2504:THR:O	1:C:2508:SER:N	2.40	0.53
1:D:1181:ILE:HG22	1:D:1189:GLU:OE2	2.09	0.53
1:D:1477:HIS:CE1	1:D:1478:GLU:HG3	2.43	0.53
1:D:2526:PRO:HB3	1:D:2530:ARG:NH1	2.23	0.53
1:A:2724:TYR:HD1	1:A:2895:PHE:CD2	2.27	0.52
2:E:16:PHE:O	2:E:18:LYS:NZ	2.37	0.52
1:B:229:ILE:HG22	1:B:288:HIS:HD2	1.74	0.52
1:B:663:VAL:HG23	1:B:671:LYS:HE3	1.91	0.52
1:B:1087:ILE:HD11	1:B:1204:VAL:HG22	1.91	0.52
1:B:1689:ILE:HA	1:B:1703:TYR:CE1	2.44	0.52
1:B:2333:PRO:HA	1:B:2336:ARG:HG2	1.92	0.52
1:B:4016:PHE:HA	1:B:4019:MET:HE3	1.90	0.52
1:C:1181:ILE:HG22	1:C:1189:GLU:OE2	2.09	0.52
1:C:1429:SER:HB2	1:C:1556:GLU:HB2	1.90	0.52
1:C:2703:PRO:HB2	1:C:2854:LYS:HB2	1.91	0.52
1:D:3669:LEU:HB3	1:D:3673:ARG:HH21	1.74	0.52
1:A:229:ILE:HG22	1:A:288:HIS:HD2	1.74	0.52
1:A:1181:ILE:HG22	1:A:1189:GLU:OE2	2.09	0.52
1:A:1471:ASP:OD2	1:A:1473:LYS:NZ	2.40	0.52
1:A:2127:ARG:NH2	1:A:2165:LEU:O	2.42	0.52
1:A:2703:PRO:HB2	1:A:2854:LYS:HB2	1.91	0.52
1:B:1014:GLN:O	1:B:1027:ARG:NH1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4265:LYS:O	1:B:4269:LYS:HG2	2.09	0.52
1:C:1645:THR:HG22	1:C:1695:PRO:HG3	1.90	0.52
1:C:3803:LEU:HB2	1:C:3884:SER:HB2	1.92	0.52
1:D:663:VAL:HG23	1:D:671:LYS:HE3	1.91	0.52
1:D:1004:HIS:CE1	1:D:1038:LEU:HD21	2.44	0.52
1:D:1431:ARG:NE	1:D:1506:GLU:OE1	2.30	0.52
1:D:2333:PRO:HA	1:D:2336:ARG:HG2	1.92	0.52
1:A:1440:ASN:HB3	1:A:1546:GLN:HB3	1.90	0.52
1:A:2333:PRO:HA	1:A:2336:ARG:HG2	1.92	0.52
1:A:2729:HIS:CD2	1:A:2763:LEU:HD22	2.44	0.52
1:A:2868:HIS:CD2	1:A:2870:LEU:HB2	2.44	0.52
2:F:12:ASP:OD1	2:F:68:SER:OG	2.27	0.52
1:B:28:ILE:HG22	1:B:29:HIS:HD2	1.73	0.52
1:B:2729:HIS:CD2	1:B:2763:LEU:HD22	2.44	0.52
1:B:4144:ARG:NH2	1:B:4962:TYR:OH	2.34	0.52
1:C:663:VAL:HG23	1:C:671:LYS:HE3	1.91	0.52
1:C:887:GLU:HB2	1:C:921:PHE:HZ	1.73	0.52
1:D:1303:ARG:HD2	1:D:1446:ILE:HD11	1.90	0.52
1:D:1645:THR:HG22	1:D:1695:PRO:HG3	1.90	0.52
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.21	0.52
1:A:1549:SER:OG	1:A:1551:ASN:O	2.24	0.52
1:A:4640:PHE:HB3	1:A:4650:LYS:HE2	1.92	0.52
1:A:4881:LYS:O	1:A:4885:GLU:HG2	2.08	0.52
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.42	0.52
1:C:1549:SER:OG	1:C:1551:ASN:O	2.23	0.52
1:C:2397:ASP:O	1:C:2401:ARG:HG2	2.09	0.52
1:C:2729:HIS:CD2	1:C:2763:LEU:HD22	2.44	0.52
1:C:2868:HIS:CD2	1:C:2870:LEU:HB2	2.44	0.52
1:A:227:TYR:CG	1:A:352:SER:HB2	2.43	0.52
1:A:428:ARG:NH2	1:A:446:ASP:OD2	2.42	0.52
1:A:3921:THR:O	1:A:3925:GLN:HG2	2.08	0.52
1:B:428:ARG:NH2	1:B:446:ASP:OD2	2.43	0.52
1:C:367:ASP:OD1	1:C:368:THR:N	2.43	0.52
1:C:756:SER:OG	1:C:769:ARG:O	2.25	0.52
1:C:2333:PRO:HA	1:C:2336:ARG:HG2	1.92	0.52
1:C:3669:LEU:HB3	1:C:3673:ARG:HH21	1.74	0.52
1:D:332:ARG:NH1	1:D:339:ASP:OD1	2.43	0.52
1:D:2930:ILE:HA	1:D:3010:LYS:HZ1	1.75	0.52
1:A:1092:LYS:NZ	1:A:1646:GLU:OE1	2.39	0.52
1:A:2054:LYS:HE2	1:A:2056:SER:HA	1.92	0.52
1:B:332:ARG:NH1	1:B:339:ASP:OD1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4197:ILE:HG23	1:B:4923:MET:HE2	1.90	0.52
1:C:4106:SER:HA	1:C:4115:LEU:HD21	1.92	0.52
1:C:4943:MET:HA	1:C:4946:GLU:HG2	1.91	0.52
1:A:4287:TYR:HA	1:A:4290:ILE:HD12	1.91	0.52
1:B:2054:LYS:HE2	1:B:2056:SER:HA	1.92	0.52
1:B:2868:HIS:CD2	1:B:2870:LEU:HB2	2.44	0.52
1:B:4702:ASP:O	1:B:4706:GLN:HG2	2.10	0.52
1:C:1087:ILE:HD11	1:C:1204:VAL:HG22	1.91	0.52
1:C:2659:GLN:O	1:C:2965:LYS:NZ	2.41	0.52
1:C:2724:TYR:HD1	1:C:2895:PHE:CD2	2.27	0.52
1:D:986:ILE:CD1	1:D:1055:ARG:HA	2.40	0.52
1:D:1471:ASP:OD2	1:D:1473:LYS:NZ	2.40	0.52
1:D:2724:TYR:HD1	1:D:2895:PHE:CD2	2.27	0.52
1:D:3803:LEU:HB2	1:D:3884:SER:HB2	1.92	0.52
1:D:4287:TYR:HA	1:D:4290:ILE:HD12	1.91	0.52
1:D:4664:ASP:N	1:D:4664:ASP:OD1	2.42	0.52
1:D:4702:ASP:O	1:D:4706:GLN:HG2	2.10	0.52
1:A:927:GLN:NE2	1:A:928:GLU:HG3	2.25	0.52
1:A:2397:ASP:O	1:A:2401:ARG:HG2	2.09	0.52
1:B:927:GLN:NE2	1:B:928:GLU:HG3	2.25	0.52
1:B:2782:MET:CG	1:B:2783:LEU:HD12	2.38	0.52
1:B:4664:ASP:OD1	1:B:4664:ASP:N	2.42	0.52
1:C:229:ILE:HG22	1:C:288:HIS:HD2	1.74	0.52
1:C:428:ARG:NH2	1:C:446:ASP:OD2	2.43	0.52
1:C:1004:HIS:CE1	1:C:1038:LEU:HD21	2.44	0.52
1:C:3823:GLU:HG3	1:C:3826:GLY:HA2	1.92	0.52
1:D:1087:ILE:HD11	1:D:1204:VAL:HG22	1.91	0.52
1:D:3879:LEU:O	1:D:3882:GLN:HG3	2.08	0.52
1:A:1087:ILE:HD11	1:A:1204:VAL:HG22	1.91	0.52
1:A:2160:ASN:OD1	1:A:2163:ARG:NH2	2.40	0.52
1:A:2767:GLU:O	1:A:2771:TYR:N	2.40	0.52
1:A:4943:MET:HA	1:A:4946:GLU:HG2	1.91	0.52
1:B:986:ILE:CD1	1:B:1055:ARG:HA	2.40	0.52
1:B:4640:PHE:HB3	1:B:4650:LYS:HE2	1.92	0.52
1:C:996:VAL:HG13	1:C:1047:LYS:HE2	1.91	0.52
1:C:3879:LEU:O	1:C:3882:GLN:HG3	2.08	0.52
1:D:428:ARG:NH2	1:D:446:ASP:OD2	2.42	0.52
1:D:2054:LYS:HE2	1:D:2056:SER:HA	1.92	0.52
1:D:4943:MET:HA	1:D:4946:GLU:HG2	1.91	0.52
1:A:902:TRP:HZ2	1:A:915:HIS:CB	2.23	0.52
1:A:1501:ASN:OD1	1:A:1502:ASN:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2581:ARG:HB3	1:A:2584:MET:HG2	1.92	0.52
2:E:12:ASP:OD1	2:E:68:SER:OG	2.27	0.52
1:B:902:TRP:HZ2	1:B:915:HIS:CB	2.23	0.52
1:B:2703:PRO:HB2	1:B:2854:LYS:HB2	1.91	0.52
1:B:4520:TYR:HD1	1:B:4561:LEU:HD13	1.75	0.52
1:C:986:ILE:CD1	1:C:1055:ARG:HA	2.40	0.52
1:C:3668:ILE:HD12	1:C:3734:ARG:HB2	1.91	0.52
1:A:1711:LEU:HB3	1:A:1831:MET:CE	2.40	0.51
1:A:4265:LYS:O	1:A:4269:LYS:HG2	2.09	0.51
1:A:4520:TYR:HD1	1:A:4561:LEU:HD13	1.75	0.51
1:B:848:ARG:NH1	1:B:1599:MET:SD	2.84	0.51
1:B:1181:ILE:HG22	1:B:1189:GLU:OE2	2.09	0.51
1:B:2581:ARG:HB3	1:B:2584:MET:HG2	1.92	0.51
1:D:801:ARG:NH1	1:D:1615:GLN:O	2.40	0.51
1:A:1004:HIS:CE1	1:A:1038:LEU:HD21	2.44	0.51
1:A:2758:LYS:NZ	1:A:2762:LEU:O	2.40	0.51
1:A:3823:GLU:HG3	1:A:3826:GLY:HA2	1.92	0.51
1:B:996:VAL:HG13	1:B:1047:LYS:HE2	1.91	0.51
1:B:2724:TYR:HD1	1:B:2895:PHE:CD2	2.27	0.51
1:B:2833:LEU:HB3	1:B:2838[A]:HIS:NE2	2.25	0.51
1:B:4943:MET:HA	1:B:4946:GLU:HG2	1.91	0.51
1:C:332:ARG:NH1	1:C:339:ASP:OD1	2.43	0.51
1:C:848:ARG:NH1	1:C:1599:MET:SD	2.83	0.51
1:C:2160:ASN:OD1	1:C:2163:ARG:NH2	2.40	0.51
1:C:2420:ARG:NH2	1:C:2475:VAL:O	2.44	0.51
1:D:874:LEU:HB2	1:D:878:LEU:HD22	1.91	0.51
1:D:2729:HIS:CD2	1:D:2763:LEU:HD22	2.44	0.51
1:A:2349:GLU:OE2	1:A:2359:ARG:NH2	2.42	0.51
1:A:4702:ASP:O	1:A:4706:GLN:HG2	2.10	0.51
1:C:2758:LYS:NZ	1:C:2762:LEU:O	2.40	0.51
1:C:2767:GLU:O	1:C:2771:TYR:N	2.40	0.51
1:C:3013:VAL:O	1:C:3018:ARG:NH2	2.40	0.51
1:C:4702:ASP:O	1:C:4706:GLN:HG2	2.10	0.51
1:D:927:GLN:NE2	1:D:928:GLU:HG3	2.25	0.51
1:D:2420:ARG:NH2	1:D:2475:VAL:O	2.44	0.51
1:D:4640:PHE:HB3	1:D:4650:LYS:HE2	1.92	0.51
1:A:2290:TRP:CZ2	1:A:2388:ILE:HG12	2.46	0.51
1:A:3803:LEU:HB2	1:A:3884:SER:HB2	1.92	0.51
1:B:367:ASP:OD1	1:B:368:THR:N	2.43	0.51
1:B:1501:ASN:OD1	1:B:1502:ASN:N	2.43	0.51
1:B:2349:GLU:OE2	1:B:2359:ARG:NH2	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3823:GLU:HG3	1:B:3826:GLY:HA2	1.92	0.51
1:C:2054:LYS:HE2	1:C:2056:SER:HA	1.92	0.51
1:D:848:ARG:NH1	1:D:1599:MET:SD	2.84	0.51
1:D:2503:ASP:HB3	1:D:2554:ARG:NH2	2.25	0.51
1:A:118:ALA:HA	1:A:161:THR:HA	1.93	0.51
1:A:874:LEU:HB2	1:A:878:LEU:HD22	1.91	0.51
1:A:996:VAL:HG13	1:A:1047:LYS:HE2	1.91	0.51
1:B:3668:ILE:HD12	1:B:3734:ARG:HB2	1.91	0.51
1:D:2290:TRP:CZ2	1:D:2388:ILE:HG12	2.46	0.51
1:A:332:ARG:NH1	1:A:339:ASP:OD1	2.43	0.51
1:A:848:ARG:NH1	1:A:1599:MET:SD	2.83	0.51
1:A:939:THR:O	1:A:943:LEU:HG	2.11	0.51
1:A:2420:ARG:NH2	1:A:2475:VAL:O	2.44	0.51
1:A:4664:ASP:N	1:A:4664:ASP:OD1	2.42	0.51
1:B:3669:LEU:HB3	1:B:3673:ARG:HH21	1.74	0.51
1:B:4106:SER:HA	1:B:4115:LEU:HD21	1.92	0.51
1:C:118:ALA:HA	1:C:161:THR:HA	1.93	0.51
1:C:902:TRP:HZ2	1:C:915:HIS:CB	2.23	0.51
1:C:2349:GLU:OE2	1:C:2359:ARG:NH2	2.42	0.51
1:C:2503:ASP:HB3	1:C:2554:ARG:NH2	2.25	0.51
1:D:538:ALA:O	1:D:542:ARG:HG3	2.11	0.51
1:D:1711:LEU:HB3	1:D:1831:MET:CE	2.40	0.51
1:D:3823:GLU:HG3	1:D:3826:GLY:HA2	1.92	0.51
1:D:4106:SER:HA	1:D:4115:LEU:HD21	1.92	0.51
1:A:2503:ASP:HB3	1:A:2554:ARG:NH2	2.25	0.51
1:A:3669:LEU:HB3	1:A:3673:ARG:HH21	1.74	0.51
1:B:2833:LEU:HB3	1:B:2838[B]:HIS:NE2	2.24	0.51
1:C:890:HIS:CE1	1:C:891:GLU:HG2	2.46	0.51
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.92	0.51
1:C:4943:MET:SD	1:C:4951:PHE:HB3	2.51	0.51
1:D:35:LEU:HD23	1:D:51:SER:HA	1.93	0.51
1:D:902:TRP:HZ2	1:D:915:HIS:CB	2.23	0.51
1:D:2504:THR:O	1:D:2508:SER:N	2.40	0.51
1:D:4520:TYR:HD1	1:D:4561:LEU:HD13	1.76	0.51
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.92	0.51
1:C:939:THR:O	1:C:943:LEU:HG	2.11	0.51
1:C:1431:ARG:NE	1:C:1506:GLU:OE1	2.30	0.51
1:C:2798:MET:SD	1:C:2799:ALA:N	2.84	0.51
1:C:4520:TYR:HD1	1:C:4561:LEU:HD13	1.76	0.51
1:C:4862:ILE:HD13	1:D:4852:PHE:HE1	1.75	0.51
1:D:890:HIS:CE1	1:D:891:GLU:HG2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1501:ASN:OD1	1:D:1502:ASN:N	2.43	0.51
1:D:2703:PRO:HB2	1:D:2854:LYS:HB2	1.91	0.51
1:D:2798:MET:SD	1:D:2799:ALA:N	2.84	0.51
1:D:4943:MET:SD	1:D:4951:PHE:HB3	2.51	0.51
1:B:1016:TRP:HA	1:B:1027:ARG:HB3	1.93	0.51
1:C:927:GLN:NE2	1:C:928:GLU:HG3	2.25	0.51
1:C:1501:ASN:OD1	1:C:1502:ASN:N	2.43	0.51
1:C:4631:ASP:O	1:C:4634:VAL:HG12	2.11	0.51
1:C:4640:PHE:CD2	1:C:4641:PRO:HD2	2.46	0.51
1:D:4631:ASP:O	1:D:4634:VAL:HG12	2.11	0.51
1:A:538:ALA:O	1:A:542:ARG:HG3	2.11	0.51
1:A:986:ILE:CD1	1:A:1055:ARG:HA	2.40	0.51
1:A:2797:SER:HB3	1:A:2801:TYR:HE2	1.72	0.51
1:A:4114:ARG:O	1:A:4117:THR:OG1	2.22	0.51
1:A:4187:GLU:OE1	1:A:4949:TRP:NE1	2.35	0.51
2:H:12:ASP:OD1	2:H:68:SER:OG	2.27	0.51
1:B:1432:ILE:HB	1:B:1505:LEU:HB3	1.94	0.51
1:B:1851:PHE:HZ	1:B:2058:LEU:HD13	1.76	0.51
1:C:35:LEU:HD23	1:C:51:SER:HA	1.93	0.51
1:C:1016:TRP:HA	1:C:1027:ARG:HB3	1.93	0.51
1:C:1432:ILE:HB	1:C:1505:LEU:HB3	1.94	0.51
1:C:2290:TRP:CZ2	1:C:2388:ILE:HG12	2.46	0.51
1:C:2794:GLU:O	1:C:2797:SER:HB2	2.11	0.51
1:D:1851:PHE:HZ	1:D:2058:LEU:HD13	1.76	0.51
1:D:2794:GLU:O	1:D:2797:SER:HB2	2.11	0.51
1:A:367:ASP:OD1	1:A:368:THR:N	2.43	0.50
1:A:890:HIS:CE1	1:A:891:GLU:HG2	2.46	0.50
1:A:1851:PHE:HZ	1:A:2058:LEU:HD13	1.76	0.50
1:A:1950:ALA:HB1	1:A:1961:LYS:HZ3	1.75	0.50
1:A:2839:ALA:O	1:A:2843:MET:HE3	2.11	0.50
1:A:4943:MET:SD	1:A:4951:PHE:HB3	2.51	0.50
1:B:538:ALA:O	1:B:542:ARG:HG3	2.11	0.50
1:B:2212:LYS:NZ	1:B:3822:GLU:OE1	2.32	0.50
1:C:2782:MET:HE1	1:C:2789:ILE:HB	1.94	0.50
1:C:4640:PHE:HB3	1:C:4650:LYS:HE2	1.92	0.50
1:A:2488:LEU:HD12	1:A:2492:PHE:HB2	1.93	0.50
1:A:2794:GLU:O	1:A:2797:SER:HB2	2.11	0.50
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.92	0.50
1:A:4631:ASP:O	1:A:4634:VAL:HG12	2.11	0.50
1:B:890:HIS:CE1	1:B:891:GLU:HG2	2.46	0.50
1:B:1243:THR:HG22	1:B:1808:ASP:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2290:TRP:CZ2	1:B:2388:ILE:HG12	2.46	0.50
1:B:2488:LEU:HD12	1:B:2492:PHE:HB2	1.93	0.50
1:B:2794:GLU:O	1:B:2797:SER:HB2	2.11	0.50
1:B:3097:THR:HA	1:B:3101:LEU:HD23	1.94	0.50
1:C:1685:LEU:HD22	1:C:1706:LEU:HB2	1.93	0.50
1:C:3996:GLY:O	1:C:4000:VAL:HG23	2.12	0.50
1:D:996:VAL:HG13	1:D:1047:LYS:HE2	1.91	0.50
1:D:2659:GLN:OE1	1:D:2659:GLN:N	2.37	0.50
1:D:2839:ALA:O	1:D:2843:MET:HE3	2.11	0.50
1:A:842:GLN:OE1	1:A:1603:PHE:N	2.43	0.50
1:A:1220:ASP:OD2	1:A:1222:SER:OG	2.30	0.50
1:A:1826:TYR:O	1:A:1830:ILE:HG12	2.12	0.50
1:A:2418:ARG:O	1:A:2422:ILE:HG12	2.12	0.50
1:A:4769:LEU:HB3	1:D:4753:LEU:CD2	2.41	0.50
1:B:67:PHE:HB3	1:B:121:LEU:HD22	1.93	0.50
1:B:1559:ARG:HD3	1:B:1565:PRO:HD3	1.93	0.50
1:B:1685:LEU:HD22	1:B:1706:LEU:HB2	1.93	0.50
1:B:4631:ASP:O	1:B:4634:VAL:HG12	2.11	0.50
1:C:929:ARG:HH22	1:C:933:LEU:HD21	1.75	0.50
1:C:2172:MET:O	1:C:2176:VAL:HG23	2.11	0.50
1:A:35:LEU:HD23	1:A:51:SER:HA	1.93	0.50
1:A:2933:VAL:HA	1:A:2963:PHE:CZ	2.46	0.50
1:A:4106:SER:HA	1:A:4115:LEU:HD21	1.92	0.50
1:B:2839:ALA:O	1:B:2843:MET:HE3	2.11	0.50
1:B:2856:LYS:O	1:B:2860:LEU:HD23	2.12	0.50
1:C:538:ALA:O	1:C:542:ARG:HG3	2.11	0.50
1:C:1559:ARG:HD3	1:C:1565:PRO:HD3	1.93	0.50
1:A:1947:VAL:HG11	1:A:1965:PHE:CE2	2.46	0.50
1:A:2129:LEU:HD23	1:A:2132:VAL:HG21	1.94	0.50
1:A:2172:MET:O	1:A:2176:VAL:HG23	2.11	0.50
1:B:1220:ASP:OD2	1:B:1222:SER:OG	2.30	0.50
1:B:2420:ARG:NH2	1:B:2475:VAL:O	2.44	0.50
1:B:4903:HIS:HB3	1:B:4906:GLU:OE2	2.12	0.50
1:C:1152:TYR:HD1	1:C:1184:ASP:HB3	1.76	0.50
1:C:1851:PHE:HZ	1:C:2058:LEU:HD13	1.76	0.50
1:C:1947:VAL:CG2	1:C:1961:LYS:HB3	2.42	0.50
1:C:2856:LYS:O	1:C:2860:LEU:HD23	2.12	0.50
1:D:398:HIS:HB3	1:D:400:ASP:N	2.26	0.50
1:D:939:THR:O	1:D:943:LEU:HG	2.11	0.50
1:D:1947:VAL:HG11	1:D:1965:PHE:CE2	2.46	0.50
1:D:2172:MET:O	1:D:2176:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2798:MET:SD	1:A:2799:ALA:N	2.84	0.50
1:A:4245:LEU:CD1	1:B:4626:ILE:HG13	2.40	0.50
1:A:4844:ILE:HG21	1:D:4814:MET:HE2	1.93	0.50
1:B:118:ALA:HA	1:B:161:THR:HA	1.93	0.50
1:B:2798:MET:SD	1:B:2799:ALA:N	2.84	0.50
1:B:2933:VAL:HA	1:B:2963:PHE:CZ	2.46	0.50
1:B:3891:TYR:HA	1:C:76:ARG:NH2	2.25	0.50
1:C:1711:LEU:HB3	1:C:1831:MET:CE	2.40	0.50
1:C:2488:LEU:HD12	1:C:2492:PHE:HB2	1.93	0.50
1:D:1685:LEU:HD22	1:D:1706:LEU:HB2	1.93	0.50
1:D:2129:LEU:HD23	1:D:2132:VAL:HG21	1.94	0.50
1:A:4640:PHE:CD2	1:A:4641:PRO:HD2	2.46	0.50
1:B:132:CYS:H	1:B:157:ALA:HB1	1.77	0.50
1:B:939:THR:O	1:B:943:LEU:HG	2.11	0.50
1:B:1947:VAL:HG11	1:B:1965:PHE:CE2	2.46	0.50
1:B:2331:PHE:HB3	1:B:2335:LEU:HB2	1.94	0.50
1:B:2503:ASP:HB3	1:B:2554:ARG:NH2	2.25	0.50
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.92	0.50
1:C:1293:GLN:OE1	1:C:1294:ASN:N	2.45	0.50
1:C:2418:ARG:O	1:C:2422:ILE:HG12	2.12	0.50
1:C:2852:TRP:CZ2	1:C:2856:LYS:HE2	2.47	0.50
1:C:3622:GLN:O	1:C:3626:LYS:NZ	2.39	0.50
1:C:3944:VAL:HG11	1:C:4002:MET:HE1	1.94	0.50
1:D:118:ALA:HA	1:D:161:THR:HA	1.93	0.50
1:D:929:ARG:HH22	1:D:933:LEU:HD21	1.75	0.50
1:D:1826:TYR:O	1:D:1830:ILE:HG12	2.12	0.50
1:D:3912:VAL:O	1:D:3916:VAL:HG23	2.12	0.50
1:D:4903:HIS:HB3	1:D:4906:GLU:OE2	2.12	0.50
1:A:1293:GLN:OE1	1:A:1294:ASN:N	2.45	0.50
1:A:2777:GLU:O	1:A:2781:THR:OG1	2.19	0.50
1:B:929:ARG:HH22	1:B:933:LEU:HD21	1.75	0.50
1:B:2988:ARG:HB2	1:B:2989:PRO:HD3	1.94	0.50
1:C:398:HIS:HB3	1:C:400:ASP:N	2.26	0.50
1:C:625:VAL:HG22	1:C:2133:ARG:HD2	1.94	0.50
1:C:2129:LEU:HD23	1:C:2132:VAL:HG21	1.94	0.50
1:C:3097:THR:HA	1:C:3101:LEU:HD23	1.94	0.50
1:D:1559:ARG:HD3	1:D:1565:PRO:HD3	1.93	0.50
1:D:2856:LYS:O	1:D:2860:LEU:HD23	2.12	0.50
1:A:398:HIS:HB3	1:A:400:ASP:N	2.27	0.50
1:A:1432:ILE:HB	1:A:1505:LEU:HB3	1.93	0.50
1:A:1559:ARG:HD3	1:A:1565:PRO:HD3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1685:LEU:HD22	1:A:1706:LEU:HB2	1.93	0.50
1:A:2331:PHE:HB3	1:A:2335:LEU:HB2	1.94	0.50
1:A:2526:PRO:O	1:A:2529:THR:N	2.45	0.50
1:A:2833:LEU:HB3	1:A:2838[A]:HIS:CE1	2.47	0.50
1:A:3811:GLN:NE2	1:A:3823:GLU:OE2	2.45	0.50
1:B:1947:VAL:CG2	1:B:1961:LYS:HB3	2.42	0.50
1:B:2990:LEU:HB3	1:B:2993:GLY:O	2.12	0.50
1:B:4943:MET:SD	1:B:4951:PHE:HB3	2.51	0.50
1:C:2581:ARG:HB3	1:C:2584:MET:HG2	1.92	0.50
1:C:2839:ALA:O	1:C:2843:MET:HE3	2.11	0.50
1:C:3043:ARG:HB3	1:C:3047:LYS:NZ	2.27	0.50
1:D:1293:GLN:OE1	1:D:1294:ASN:N	2.45	0.50
1:D:1432:ILE:HB	1:D:1505:LEU:HB3	1.93	0.50
1:D:2888:LYS:HA	1:D:2891:ASP:OD2	2.12	0.50
1:D:3043:ARG:HB3	1:D:3047:LYS:NZ	2.27	0.50
1:A:929:ARG:HH22	1:A:933:LEU:HD21	1.75	0.49
1:A:2593:VAL:HG12	1:A:2644:LEU:HD22	1.94	0.49
1:A:3890:TRP:O	1:B:76:ARG:NH2	2.45	0.49
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.21	0.49
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.77	0.49
1:B:3996:GLY:O	1:B:4000:VAL:HG23	2.12	0.49
1:B:4930:GLU:OE2	1:B:4941:TRP:NE1	2.45	0.49
1:C:4903:HIS:HB3	1:C:4906:GLU:OE2	2.12	0.49
1:D:132:CYS:H	1:D:157:ALA:HB1	1.77	0.49
1:D:503:ASP:O	1:D:507:VAL:HG13	2.12	0.49
1:D:625:VAL:HG22	1:D:2133:ARG:HD2	1.94	0.49
1:D:1016:TRP:HA	1:D:1027:ARG:HB3	1.93	0.49
1:D:2581:ARG:HB3	1:D:2584:MET:HG2	1.92	0.49
1:D:2852:TRP:CZ2	1:D:2856:LYS:HE2	2.47	0.49
1:D:3996:GLY:O	1:D:4000:VAL:HG23	2.12	0.49
1:D:4267:GLN:O	1:D:4271:VAL:HG12	2.12	0.49
1:A:1016:TRP:HA	1:A:1027:ARG:HB3	1.93	0.49
1:A:2856:LYS:O	1:A:2860:LEU:HD23	2.12	0.49
1:A:2988:ARG:HB2	1:A:2989:PRO:HD3	1.94	0.49
1:A:3912:VAL:O	1:A:3916:VAL:HG23	2.12	0.49
1:A:4047:ASP:HA	1:A:4050:LYS:HG2	1.93	0.49
1:B:4267:GLN:O	1:B:4271:VAL:HG12	2.12	0.49
1:C:1243:THR:HG22	1:C:1808:ASP:HB2	1.93	0.49
1:C:4114:ARG:O	1:C:4117:THR:OG1	2.22	0.49
1:C:4664:ASP:N	1:C:4664:ASP:OD1	2.42	0.49
1:D:161:THR:HG23	1:D:186:VAL:HG22	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2933:VAL:HA	1:D:2963:PHE:CZ	2.46	0.49
1:D:4047:ASP:HA	1:D:4050:LYS:HG2	1.93	0.49
1:D:4640:PHE:CD2	1:D:4641:PRO:HD2	2.46	0.49
1:A:161:THR:HG23	1:A:186:VAL:HG22	1.94	0.49
1:A:503:ASP:O	1:A:507:VAL:HG13	2.13	0.49
1:A:1152:TYR:HD1	1:A:1184:ASP:HB3	1.76	0.49
1:A:4903:HIS:HB3	1:A:4906:GLU:OE2	2.12	0.49
1:B:1293:GLN:OE1	1:B:1294:ASN:N	2.45	0.49
1:B:1298:ASP:OD1	1:B:1299:ILE:N	2.46	0.49
1:B:2885:ASP:O	1:B:2888:LYS:HG3	2.13	0.49
1:C:132:CYS:H	1:C:157:ALA:HB1	1.77	0.49
1:C:1042:THR:O	1:C:1046:ASN:ND2	2.46	0.49
1:C:3912:VAL:O	1:C:3916:VAL:HG23	2.12	0.49
1:C:4267:GLN:O	1:C:4271:VAL:HG12	2.12	0.49
1:D:67:PHE:HB3	1:D:121:LEU:HD22	1.93	0.49
1:D:1152:TYR:HD1	1:D:1184:ASP:HB3	1.76	0.49
1:D:1690:GLU:OE1	1:D:1790:LYS:NZ	2.42	0.49
1:D:4633:LEU:O	1:D:4637:THR:HG23	2.13	0.49
1:A:67:PHE:HB3	1:A:121:LEU:HD22	1.93	0.49
1:A:1042:THR:O	1:A:1046:ASN:ND2	2.46	0.49
1:A:1283:LEU:HB2	1:A:1555:PHE:HB2	1.94	0.49
1:A:1468:THR:HG22	1:A:1479:SER:HB2	1.95	0.49
1:A:3043:ARG:HB3	1:A:3047:LYS:NZ	2.27	0.49
1:A:3996:GLY:O	1:A:4000:VAL:HG23	2.12	0.49
1:A:4267:GLN:O	1:A:4271:VAL:HG12	2.12	0.49
1:B:35:LEU:HD23	1:B:51:SER:HA	1.93	0.49
1:B:971:GLN:HG3	1:B:978:PRO:HG2	1.94	0.49
1:B:2172:MET:O	1:B:2176:VAL:HG23	2.11	0.49
1:B:2418:ARG:O	1:B:2422:ILE:HG12	2.12	0.49
1:B:3042:ALA:HB3	1:B:3117:PHE:CE2	2.48	0.49
1:B:3074:ASN:OD1	1:B:3075:LEU:N	2.46	0.49
1:B:4633:LEU:HD22	1:B:4704:LYS:HE3	1.95	0.49
1:C:971:GLN:HG3	1:C:978:PRO:HG2	1.94	0.49
1:C:1102:TYR:HD2	1:C:1165:MET:HG2	1.77	0.49
1:C:2593:VAL:HG12	1:C:2644:LEU:HD22	1.94	0.49
1:C:4640:PHE:CD1	1:C:4641:PRO:HD2	2.47	0.49
1:D:1243:THR:HG22	1:D:1808:ASP:HB2	1.93	0.49
1:A:1243:THR:HG22	1:A:1808:ASP:HB2	1.93	0.49
1:A:2885:ASP:O	1:A:2888:LYS:HG3	2.13	0.49
1:A:4633:LEU:HD22	1:A:4704:LYS:HE3	1.95	0.49
1:B:842:GLN:OE1	1:B:1603:PHE:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1102:TYR:HD2	1:B:1165:MET:HG2	1.77	0.49
1:B:2129:LEU:HD23	1:B:2132:VAL:HG21	1.94	0.49
1:B:3811:GLN:NE2	1:B:3823:GLU:OE2	2.45	0.49
1:B:4640:PHE:CD1	1:B:4641:PRO:HD2	2.47	0.49
1:B:4640:PHE:CD2	1:B:4641:PRO:HD2	2.46	0.49
1:C:67:PHE:HB3	1:C:121:LEU:HD22	1.93	0.49
1:C:1826:TYR:O	1:C:1830:ILE:HG12	2.12	0.49
1:C:2930:ILE:HA	1:C:3010:LYS:HZ1	1.77	0.49
1:D:367:ASP:OD1	1:D:368:THR:N	2.43	0.49
1:D:1468:THR:HG22	1:D:1479:SER:HB2	1.95	0.49
1:D:2418:ARG:O	1:D:2422:ILE:HG12	2.12	0.49
1:D:2526:PRO:O	1:D:2529:THR:N	2.45	0.49
1:D:2990:LEU:HB3	1:D:2993:GLY:O	2.12	0.49
1:A:625:VAL:HG22	1:A:2133:ARG:HD2	1.94	0.49
1:A:1102:TYR:HD2	1:A:1165:MET:HG2	1.77	0.49
1:A:1298:ASP:OD1	1:A:1299:ILE:N	2.46	0.49
1:A:2852:TRP:CZ2	1:A:2856:LYS:HE2	2.47	0.49
1:A:3074:ASN:OD1	1:A:3075:LEU:N	2.46	0.49
1:A:3097:THR:HA	1:A:3101:LEU:HD23	1.94	0.49
1:B:161:THR:HG23	1:B:186:VAL:HG22	1.94	0.49
1:B:398:HIS:HB3	1:B:400:ASP:N	2.26	0.49
1:B:625:VAL:HG22	1:B:2133:ARG:HD2	1.94	0.49
1:B:1711:LEU:HB3	1:B:1831:MET:CE	2.40	0.49
1:B:2888:LYS:HA	1:B:2891:ASP:OD2	2.12	0.49
1:C:1947:VAL:HG11	1:C:1965:PHE:CE2	2.46	0.49
1:C:2933:VAL:HA	1:C:2963:PHE:CZ	2.46	0.49
1:C:3074:ASN:OD1	1:C:3075:LEU:N	2.46	0.49
1:C:3920:LEU:O	1:C:3924:ILE:HG12	2.13	0.49
1:C:4633:LEU:HD22	1:C:4704:LYS:HE3	1.95	0.49
1:D:926:GLU:O	1:D:929:ARG:HB3	2.13	0.49
1:D:1298:ASP:OD1	1:D:1299:ILE:N	2.46	0.49
1:D:3074:ASN:OD1	1:D:3075:LEU:N	2.46	0.49
1:D:4633:LEU:HD22	1:D:4704:LYS:HE3	1.95	0.49
1:D:4930:GLU:OE2	1:D:4941:TRP:NE1	2.45	0.49
2:H:35:LYS:NZ	1:D:640:ARG:O	2.46	0.49
1:B:503:ASP:O	1:B:507:VAL:HG13	2.12	0.49
1:B:1042:THR:O	1:B:1046:ASN:ND2	2.46	0.49
1:B:2593:VAL:HG12	1:B:2644:LEU:HD22	1.94	0.49
1:B:2659:GLN:O	1:B:2965:LYS:NZ	2.41	0.49
1:B:2929:LEU:O	1:B:2933:VAL:HG23	2.13	0.49
1:B:3912:VAL:O	1:B:3916:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:971:GLN:HG3	1:D:978:PRO:HG2	1.94	0.49
1:D:2229:LEU:O	1:D:2235:ARG:NH1	2.46	0.49
1:D:2711:ILE:CG2	1:D:2783:LEU:HD22	2.43	0.49
1:D:2988:ARG:HB2	1:D:2989:PRO:HD3	1.94	0.49
1:D:3811:GLN:NE2	1:D:3823:GLU:OE2	2.45	0.49
1:A:1564:MET:CE	1:A:1565:PRO:HD2	2.43	0.49
1:A:1788:LYS:O	1:A:1792:ILE:HG13	2.13	0.49
1:A:2868:HIS:CD2	1:A:2870:LEU:H	2.31	0.49
1:A:2888:LYS:HA	1:A:2891:ASP:OD2	2.12	0.49
1:B:2229:LEU:O	1:B:2235:ARG:NH1	2.46	0.49
1:C:1564:MET:CE	1:C:1565:PRO:HD2	2.43	0.49
1:C:2990:LEU:HB3	1:C:2993:GLY:O	2.12	0.49
1:C:3042:ALA:HB3	1:C:3117:PHE:CE2	2.48	0.49
1:D:1564:MET:CE	1:D:1565:PRO:HD2	2.43	0.49
1:D:1950:ALA:HB1	1:D:1961:LYS:HZ3	1.77	0.49
1:D:2331:PHE:HB3	1:D:2335:LEU:HB2	1.94	0.49
1:A:2711:ILE:CG2	1:A:2783:LEU:HD22	2.43	0.49
1:A:3763:ILE:HD11	1:A:3838:ASP:O	2.13	0.49
1:A:4633:LEU:O	1:A:4637:THR:HG23	2.13	0.49
1:A:4634:VAL:O	1:A:4637:THR:OG1	2.26	0.49
1:B:681:HIS:O	1:B:799:LYS:N	2.46	0.49
1:B:1089:ARG:HB3	1:B:1204:VAL:HG23	1.94	0.49
1:B:2982:PHE:O	1:B:3001:LYS:NZ	2.44	0.49
1:B:3043:ARG:HB3	1:B:3047:LYS:NZ	2.27	0.49
1:C:555:LEU:HD11	1:C:585:ALA:HB1	1.95	0.49
1:C:2526:PRO:O	1:C:2529:THR:N	2.45	0.49
1:C:3001:LYS:O	1:C:3005:THR:HG23	2.13	0.49
1:C:4047:ASP:HA	1:C:4050:LYS:HG2	1.93	0.49
1:D:2593:VAL:HG12	1:D:2644:LEU:HD22	1.94	0.49
1:D:3042:ALA:HB3	1:D:3117:PHE:CE2	2.48	0.49
1:D:4640:PHE:CD1	1:D:4641:PRO:HD2	2.47	0.49
1:A:681:HIS:O	1:A:799:LYS:N	2.46	0.49
1:A:1051:ARG:O	1:A:1055:ARG:HG2	2.13	0.49
1:A:3042:ALA:HB3	1:A:3117:PHE:CE2	2.48	0.49
1:A:3920:LEU:O	1:A:3924:ILE:HG12	2.13	0.49
1:A:4714:PHE:CD1	1:D:4294:LEU:HD12	2.48	0.49
1:B:1468:THR:HG22	1:B:1479:SER:HB2	1.95	0.49
1:B:2526:PRO:O	1:B:2529:THR:N	2.45	0.49
1:B:2553:TYR:HD2	1:B:2591:ARG:HH21	1.61	0.49
1:B:2826:ILE:HG22	1:C:1502:ASN:HA	1.94	0.49
1:B:3920:LEU:O	1:B:3924:ILE:HG12	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:681:HIS:O	1:C:799:LYS:N	2.46	0.49
1:C:926:GLU:O	1:C:929:ARG:HB3	2.13	0.49
1:C:1298:ASP:OD1	1:C:1299:ILE:N	2.46	0.49
1:C:2331:PHE:HB3	1:C:2335:LEU:HB2	1.94	0.49
1:C:2347:MET:O	1:C:2351:ILE:HG12	2.13	0.49
1:C:2868:HIS:CD2	1:C:2870:LEU:H	2.31	0.49
1:D:2349:GLU:OE2	1:D:2359:ARG:NH2	2.42	0.49
1:D:3920:LEU:O	1:D:3924:ILE:HG12	2.13	0.49
1:A:3001:LYS:O	1:A:3005:THR:HG23	2.13	0.48
1:A:4587:ILE:HG23	1:A:4719:PHE:HE1	1.78	0.48
1:A:4860:ALA:CB	1:D:4863:GLN:HG2	2.41	0.48
1:B:1152:TYR:HD1	1:B:1184:ASP:HB3	1.76	0.48
1:B:1471:ASP:OD2	1:B:1473:LYS:NZ	2.40	0.48
1:B:1826:TYR:O	1:B:1830:ILE:HG12	2.12	0.48
1:B:2852:TRP:CZ2	1:B:2856:LYS:HE2	2.47	0.48
1:B:3001:LYS:O	1:B:3005:THR:HG23	2.13	0.48
1:C:2885:ASP:O	1:C:2888:LYS:HG3	2.13	0.48
1:C:2888:LYS:HA	1:C:2891:ASP:OD2	2.12	0.48
1:C:3763:ILE:HD11	1:C:3838:ASP:O	2.13	0.48
1:C:4633:LEU:O	1:C:4637:THR:HG23	2.13	0.48
1:D:1089:ARG:HB3	1:D:1204:VAL:HG23	1.94	0.48
1:D:2488:LEU:HD12	1:D:2492:PHE:HB2	1.93	0.48
1:D:3097:THR:HA	1:D:3101:LEU:HD23	1.94	0.48
1:A:336:GLU:OE2	1:A:338:LEU:HB3	2.14	0.48
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.77	0.48
1:A:926:GLU:O	1:A:929:ARG:HB3	2.13	0.48
1:A:4640:PHE:CD1	1:A:4641:PRO:HD2	2.47	0.48
1:B:1051:ARG:O	1:B:1055:ARG:HG2	2.13	0.48
1:B:1564:MET:CE	1:B:1565:PRO:HD2	2.43	0.48
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.77	0.48
1:C:3811:GLN:NE2	1:C:3823:GLU:OE2	2.45	0.48
1:D:1042:THR:O	1:D:1046:ASN:ND2	2.46	0.48
1:D:1283:LEU:HB2	1:D:1555:PHE:HB2	1.94	0.48
1:D:2553:TYR:HD2	1:D:2591:ARG:HH21	1.61	0.48
1:A:132:CYS:H	1:A:157:ALA:HB1	1.77	0.48
1:A:555:LEU:HD11	1:A:585:ALA:HB1	1.95	0.48
1:A:1089:ARG:HB3	1:A:1204:VAL:HG23	1.94	0.48
1:B:1244:ASN:HD22	1:B:1801:GLU:HG2	1.78	0.48
1:B:2868:HIS:CD2	1:B:2870:LEU:H	2.31	0.48
1:B:2917:ILE:HD12	1:B:2920:ARG:HD2	1.95	0.48
1:B:3890:TRP:O	1:C:76:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4587:ILE:HG23	1:B:4719:PHE:HE1	1.78	0.48
1:C:1051:ARG:O	1:C:1055:ARG:HG2	2.13	0.48
1:C:4930:GLU:OE2	1:C:4941:TRP:NE1	2.45	0.48
1:D:1051:ARG:O	1:D:1055:ARG:HG2	2.13	0.48
1:D:1102:TYR:HD2	1:D:1165:MET:HG2	1.77	0.48
1:D:1244:ASN:HD22	1:D:1801:GLU:HG2	1.78	0.48
1:D:1788:LYS:O	1:D:1792:ILE:HG13	2.13	0.48
1:D:2885:ASP:O	1:D:2888:LYS:HG3	2.13	0.48
1:A:1052:GLU:HA	1:A:1055:ARG:CG	2.44	0.48
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.39	0.48
1:A:1260:GLN:NE2	1:A:1261:VAL:O	2.47	0.48
1:B:555:LEU:HD11	1:B:585:ALA:HB1	1.95	0.48
1:B:1260:GLN:NE2	1:B:1261:VAL:O	2.47	0.48
1:B:1283:LEU:HB2	1:B:1555:PHE:HB2	1.94	0.48
1:B:2157:GLN:O	1:B:3615:ARG:NH2	2.44	0.48
1:B:2455:ASP:HB3	1:B:2458:ALA:HB3	1.95	0.48
1:B:3763:ILE:HD11	1:B:3838:ASP:O	2.13	0.48
1:B:4047:ASP:HA	1:B:4050:LYS:HG2	1.93	0.48
1:C:2455:ASP:HB3	1:C:2458:ALA:HB3	1.95	0.48
1:D:336:GLU:OE2	1:D:338:LEU:HB3	2.14	0.48
1:D:681:HIS:O	1:D:799:LYS:N	2.46	0.48
1:D:1052:GLU:HA	1:D:1055:ARG:CG	2.44	0.48
1:D:1518:LEU:HB2	1:D:1531:TYR:HB2	1.96	0.48
1:D:1947:VAL:CG2	1:D:1961:LYS:HB3	2.42	0.48
1:D:4109:MET:HB2	1:D:4115:LEU:HD22	1.96	0.48
1:C:1260:GLN:NE2	1:C:1261:VAL:O	2.47	0.48
1:C:1518:LEU:HB2	1:C:1531:TYR:HB2	1.96	0.48
1:C:2092:TYR:HD2	1:C:3640:LEU:HD13	1.78	0.48
1:C:2229:LEU:O	1:C:2235:ARG:NH1	2.46	0.48
1:C:2918:GLU:HA	1:C:2923:TYR:CD2	2.49	0.48
1:C:2929:LEU:O	1:C:2933:VAL:HG23	2.13	0.48
1:D:555:LEU:HD11	1:D:585:ALA:HB1	1.95	0.48
1:D:1092:LYS:NZ	1:D:1646:GLU:OE1	2.39	0.48
1:D:3763:ILE:HD11	1:D:3838:ASP:O	2.13	0.48
1:A:983:LEU:HD12	1:A:1055:ARG:HG3	1.96	0.48
1:A:2229:LEU:O	1:A:2235:ARG:NH1	2.46	0.48
1:A:2990:LEU:HB3	1:A:2993:GLY:O	2.12	0.48
1:A:3730:ARG:O	1:A:3734:ARG:NH1	2.47	0.48
2:F:12:ASP:OD2	2:F:15:THR:HG22	2.13	0.48
1:B:1788:LYS:O	1:B:1792:ILE:HG13	2.13	0.48
1:B:2711:ILE:CG2	1:B:2783:LEU:HD22	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3889:TYR:CD1	1:B:3954:MET:SD	3.07	0.48
1:C:2553:TYR:HD2	1:C:2591:ARG:HH21	1.61	0.48
1:C:2841:ALA:HB2	1:C:2893:LEU:HD21	1.96	0.48
1:C:2988:ARG:HB2	1:C:2989:PRO:HD3	1.94	0.48
1:C:2998:ASN:O	1:C:3002:GLU:HG2	2.13	0.48
1:A:1690:GLU:OE1	1:A:1790:LYS:NZ	2.42	0.48
1:A:2918:GLU:HA	1:A:2923:TYR:CD2	2.49	0.48
1:A:4930:GLU:OE2	1:A:4941:TRP:NE1	2.45	0.48
1:C:161:THR:HG23	1:C:186:VAL:HG22	1.94	0.48
1:C:1089:ARG:HB3	1:C:1204:VAL:HG23	1.94	0.48
1:C:2917:ILE:HD12	1:C:2920:ARG:HD2	1.95	0.48
1:C:3770:ASN:HB3	1:C:3773:VAL:CG1	2.42	0.48
1:C:4267:GLN:HA	1:C:4270:LYS:HE2	1.96	0.48
1:C:4587:ILE:HG23	1:C:4719:PHE:HE1	1.78	0.48
1:D:1220:ASP:OD2	1:D:1222:SER:OG	2.30	0.48
1:D:2868:HIS:CD2	1:D:2870:LEU:H	2.31	0.48
1:A:1947:VAL:CG2	1:A:1961:LYS:HB3	2.42	0.48
1:A:2497:ARG:HH22	1:A:2878:THR:N	2.12	0.48
1:A:4048:PHE:O	1:A:4052:MET:HG2	2.14	0.48
2:E:12:ASP:OD2	2:E:15:THR:HG22	2.13	0.48
1:B:614:LEU:HA	1:B:617:LEU:HD12	1.96	0.48
1:B:926:GLU:O	1:B:929:ARG:HB3	2.13	0.48
1:B:1518:LEU:HB2	1:B:1531:TYR:HB2	1.96	0.48
1:B:2347:MET:O	1:B:2351:ILE:HG12	2.13	0.48
1:C:336:GLU:OE2	1:C:338:LEU:HB3	2.13	0.48
1:C:718:VAL:HG23	1:C:793:SER:HB3	1.96	0.48
1:C:1468:THR:HG22	1:C:1479:SER:HB2	1.95	0.48
1:C:2432:LEU:O	1:C:2436:ILE:HG13	2.14	0.48
1:C:2855:LYS:HE3	1:C:2856:LYS:HZ2	1.78	0.48
1:C:4109:MET:HB2	1:C:4115:LEU:HD22	1.96	0.48
1:D:932:ASN:HA	1:D:935:MET:HG3	1.96	0.48
1:D:4048:PHE:O	1:D:4052:MET:HG2	2.14	0.48
1:A:971:GLN:HG3	1:A:978:PRO:HG2	1.94	0.48
1:A:1518:LEU:HB2	1:A:1531:TYR:HB2	1.96	0.48
1:A:2763:LEU:HG	1:A:2764:SER:N	2.29	0.48
1:A:4107:GLU:OE1	1:A:4149:TYR:OH	2.22	0.48
1:A:4109:MET:HB2	1:A:4115:LEU:HD22	1.96	0.48
2:G:50:ARG:N	2:G:55:GLU:OE2	2.37	0.48
1:B:932:ASN:HA	1:B:935:MET:HG3	1.96	0.48
1:B:2497:ARG:HH22	1:B:2878:THR:N	2.12	0.48
1:B:2855:LYS:HE3	1:B:2856:LYS:HZ2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4048:PHE:O	1:B:4052:MET:HG2	2.14	0.48
1:B:4633:LEU:O	1:B:4637:THR:HG23	2.13	0.48
1:C:1787:LEU:HD23	1:C:1828:LEU:HD21	1.96	0.48
1:C:2763:LEU:HG	1:C:2764:SER:N	2.29	0.48
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.77	0.48
1:D:2929:LEU:O	1:D:2933:VAL:HG23	2.13	0.48
1:D:2930:ILE:HG23	1:D:3010:LYS:HZ3	1.79	0.48
1:D:4587:ILE:HG23	1:D:4719:PHE:HE1	1.78	0.48
1:D:4873:LEU:O	1:D:4877:GLN:HG2	2.14	0.48
1:A:2157:GLN:O	1:A:3615:ARG:NH2	2.44	0.48
1:A:2929:LEU:O	1:A:2933:VAL:HG23	2.13	0.48
1:A:4518:LEU:HD21	1:B:4810:LEU:HD13	1.96	0.48
2:G:12:ASP:OD2	2:G:15:THR:HG22	2.13	0.48
2:H:12:ASP:OD2	2:H:15:THR:HG22	2.13	0.48
1:B:2432:LEU:O	1:B:2436:ILE:HG13	2.14	0.48
1:B:4267:GLN:HA	1:B:4270:LYS:HE2	1.96	0.48
1:C:503:ASP:O	1:C:507:VAL:HG13	2.12	0.48
1:C:1911:GLN:OE1	1:C:2090:ARG:NH1	2.47	0.48
1:C:2791:ARG:HH21	1:C:2795:GLY:C	2.17	0.48
1:C:3889:TYR:CD1	1:C:3954:MET:SD	3.07	0.48
1:C:4008:ASN:OD1	1:C:4009:ASN:N	2.47	0.48
1:C:4730:VAL:HA	1:C:4733:HIS:HD2	1.78	0.48
1:C:4873:LEU:O	1:C:4877:GLN:HG2	2.14	0.48
1:D:448:PRO:HB2	1:D:451:SER:OG	2.14	0.48
1:D:614:LEU:HA	1:D:617:LEU:HD12	1.96	0.48
1:A:2834:SER:OG	1:A:2836:ASP:OD1	2.20	0.47
1:A:2841:ALA:HB2	1:A:2893:LEU:HD21	1.96	0.47
1:A:4008:ASN:OD1	1:A:4009:ASN:N	2.47	0.47
1:B:336:GLU:OE2	1:B:338:LEU:HB3	2.13	0.47
1:B:2685:TYR:CE1	1:B:2909:ASP:HB2	2.49	0.47
1:B:2763:LEU:HG	1:B:2764:SER:N	2.28	0.47
1:B:2791:ARG:HH21	1:B:2795:GLY:C	2.17	0.47
1:B:2905:ARG:HH11	1:B:2906:GLY:N	2.12	0.47
1:B:2998:ASN:O	1:B:3002:GLU:HG2	2.13	0.47
1:C:718:VAL:HG13	1:C:724:SER:HB2	1.96	0.47
1:C:932:ASN:HA	1:C:935:MET:HG3	1.96	0.47
1:C:1052:GLU:HA	1:C:1055:ARG:CG	2.44	0.47
1:C:1283:LEU:HB2	1:C:1555:PHE:HB2	1.94	0.47
1:D:718:VAL:HG23	1:D:793:SER:HB3	1.96	0.47
1:D:2982:PHE:O	1:D:3001:LYS:NZ	2.44	0.47
1:D:2998:ASN:O	1:D:3002:GLU:HG2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3662:ASP:O	1:D:3666:GLN:HG3	2.14	0.47
1:A:908:ARG:NH1	1:A:928:GLU:OE2	2.35	0.47
1:A:2526:PRO:HB3	1:A:2530:ARG:HH11	1.80	0.47
1:A:3004:VAL:O	1:A:3007:LEU:HG	2.15	0.47
1:A:4730:VAL:HA	1:A:4733:HIS:HD2	1.79	0.47
1:B:718:VAL:HG13	1:B:724:SER:HB2	1.96	0.47
1:B:1009:ARG:O	1:B:1013:ARG:HG2	2.15	0.47
1:B:1911:GLN:OE1	1:B:2090:ARG:NH1	2.47	0.47
1:B:2791:ARG:HH21	1:B:2796:ASP:N	2.12	0.47
1:C:1244:ASN:HD22	1:C:1801:GLU:HG2	1.78	0.47
1:C:2497:ARG:HH22	1:C:2878:THR:N	2.12	0.47
1:D:2497:ARG:HH22	1:D:2878:THR:N	2.12	0.47
1:D:2763:LEU:HG	1:D:2764:SER:N	2.29	0.47
1:D:2791:ARG:HH21	1:D:2795:GLY:C	2.17	0.47
1:D:2917:ILE:HD12	1:D:2920:ARG:HD2	1.95	0.47
1:A:2553:TYR:HD2	1:A:2591:ARG:HH21	1.61	0.47
1:B:983:LEU:HD12	1:B:1055:ARG:HG3	1.96	0.47
1:B:1007:TRP:O	1:B:1011:ARG:HG2	2.14	0.47
1:B:2092:TYR:HD2	1:B:3640:LEU:HD13	1.79	0.47
1:C:889:ILE:HA	1:C:892:LEU:HD12	1.97	0.47
1:C:1788:LYS:O	1:C:1792:ILE:HG13	2.13	0.47
1:C:4048:PHE:O	1:C:4052:MET:HG2	2.14	0.47
1:C:4120:GLU:HA	1:C:4123:GLU:HG2	1.97	0.47
1:D:983:LEU:HD12	1:D:1055:ARG:HG3	1.96	0.47
1:D:1260:GLN:NE2	1:D:1261:VAL:O	2.47	0.47
1:D:2212:LYS:NZ	1:D:3822:GLU:OE1	2.32	0.47
1:D:2775:ILE:O	1:D:2779:LEU:HG	2.14	0.47
1:D:3770:ASN:HB3	1:D:3773:VAL:CG1	2.42	0.47
1:D:4114:ARG:O	1:D:4117:THR:OG1	2.22	0.47
1:A:718:VAL:HG13	1:A:724:SER:HB2	1.96	0.47
1:A:1007:TRP:O	1:A:1011:ARG:HG2	2.14	0.47
1:A:1009:ARG:O	1:A:1013:ARG:HG2	2.14	0.47
1:A:2943:PHE:CE2	1:A:2947:SER:HB3	2.50	0.47
1:B:1954:SER:O	1:B:1958:THR:OG1	2.33	0.47
1:B:2775:ILE:O	1:B:2779:LEU:HG	2.14	0.47
1:B:4730:VAL:HA	1:B:4733:HIS:HD2	1.78	0.47
1:C:2791:ARG:HH21	1:C:2796:ASP:N	2.12	0.47
1:C:3701:ASP:OD2	1:C:3727:GLN:NE2	2.48	0.47
1:D:1911:GLN:OE1	1:D:2090:ARG:NH1	2.47	0.47
1:D:2526:PRO:HB3	1:D:2530:ARG:HH11	1.79	0.47
1:D:2918:GLU:HA	1:D:2923:TYR:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3001:LYS:O	1:D:3005:THR:HG23	2.13	0.47
1:D:3016:ARG:O	1:D:3018:ARG:NH1	2.48	0.47
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.55	0.47
1:A:920:GLU:O	1:A:924:LEU:N	2.48	0.47
1:A:1087:ILE:HG22	1:A:1252:SER:OG	2.15	0.47
1:A:1244:ASN:HD22	1:A:1801:GLU:HG2	1.78	0.47
1:A:3889:TYR:CD1	1:A:3954:MET:SD	3.07	0.47
1:B:232:ASP:OD2	1:B:407:ARG:NH1	2.48	0.47
1:B:1787:LEU:HD23	1:B:1828:LEU:HD21	1.95	0.47
1:B:2918:GLU:HA	1:B:2923:TYR:CD2	2.49	0.47
1:B:3016:ARG:O	1:B:3018:ARG:NH1	2.48	0.47
1:B:3730:ARG:O	1:B:3734:ARG:NH1	2.47	0.47
1:C:448:PRO:HB2	1:C:451:SER:OG	2.14	0.47
1:C:1954:SER:O	1:C:1958:THR:OG1	2.33	0.47
1:C:2711:ILE:CG2	1:C:2783:LEU:HD22	2.43	0.47
1:C:2886:ARG:O	1:C:2890:GLN:OE1	2.33	0.47
1:C:3004:VAL:O	1:C:3007:LEU:HG	2.15	0.47
1:C:3016:ARG:O	1:C:3018:ARG:NH1	2.48	0.47
1:D:718:VAL:HG13	1:D:724:SER:HB2	1.97	0.47
1:D:1787:LEU:HD23	1:D:1828:LEU:HD21	1.95	0.47
1:D:2347:MET:O	1:D:2351:ILE:HG12	2.13	0.47
1:D:2943:PHE:CE2	1:D:2947:SER:HB3	2.50	0.47
1:D:4730:VAL:HA	1:D:4733:HIS:HD2	1.78	0.47
1:A:889:ILE:HA	1:A:892:LEU:HD12	1.97	0.47
1:A:2791:ARG:HH21	1:A:2796:ASP:N	2.12	0.47
1:A:4873:LEU:O	1:A:4877:GLN:HG2	2.14	0.47
1:B:889:ILE:HA	1:B:892:LEU:HD12	1.97	0.47
1:B:1092:LYS:NZ	1:B:1646:GLU:OE1	2.39	0.47
1:B:2526:PRO:HB3	1:B:2530:ARG:HH11	1.80	0.47
1:B:2898:ILE:HG23	1:C:1500:ARG:NH2	2.27	0.47
1:B:3108:LEU:O	1:B:3112:ILE:HG12	2.15	0.47
1:C:4049:HIS:CD2	1:C:4067:LEU:HD11	2.47	0.47
1:D:1114:ARG:NH1	1:D:1128:LEU:O	2.39	0.47
1:D:1177:LEU:O	1:D:1180:GLU:HG3	2.15	0.47
1:D:2685:TYR:CE1	1:D:2909:ASP:HB2	2.49	0.47
1:D:2791:ARG:HH21	1:D:2796:ASP:N	2.12	0.47
1:D:2886:ARG:O	1:D:2890:GLN:OE1	2.33	0.47
1:D:3730:ARG:O	1:D:3734:ARG:NH1	2.47	0.47
1:A:232:ASP:OD2	1:A:407:ARG:NH1	2.48	0.47
1:A:932:ASN:HA	1:A:935:MET:HG3	1.96	0.47
1:A:1954:SER:O	1:A:1958:THR:OG1	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2775:ILE:O	1:A:2779:LEU:HG	2.14	0.47
1:A:2917:ILE:HD12	1:A:2920:ARG:HD2	1.95	0.47
1:A:2998:ASN:O	1:A:3002:GLU:HG2	2.13	0.47
1:A:3077:GLN:HG2	1:A:3078:GLY:N	2.30	0.47
1:A:4684:GLU:N	1:A:4684:GLU:OE2	2.48	0.47
1:B:2841:ALA:HB2	1:B:2893:LEU:HD21	1.96	0.47
1:B:2943:PHE:CE2	1:B:2947:SER:HB3	2.50	0.47
1:B:3701:ASP:OD2	1:B:3727:GLN:NE2	2.48	0.47
1:B:4109:MET:HB2	1:B:4115:LEU:HD22	1.96	0.47
1:B:4120:GLU:HA	1:B:4123:GLU:HG2	1.97	0.47
1:B:4873:LEU:O	1:B:4877:GLN:HG2	2.14	0.47
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.55	0.47
1:C:1007:TRP:O	1:C:1011:ARG:HG2	2.14	0.47
1:C:1009:ARG:O	1:C:1013:ARG:HG2	2.14	0.47
1:C:1087:ILE:HG22	1:C:1252:SER:OG	2.15	0.47
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.39	0.47
1:C:3730:ARG:O	1:C:3734:ARG:NH1	2.47	0.47
1:D:474:ASP:O	1:D:478:ARG:HG2	2.15	0.47
1:D:1007:TRP:O	1:D:1011:ARG:HG2	2.14	0.47
1:D:1284:LYS:HZ1	1:D:1551:ASN:HB3	1.80	0.47
1:D:2432:LEU:O	1:D:2436:ILE:HG13	2.14	0.47
1:D:2841:ALA:HB2	1:D:2893:LEU:HD21	1.96	0.47
1:D:3889:TYR:CD1	1:D:3954:MET:SD	3.07	0.47
1:D:4120:GLU:HA	1:D:4123:GLU:HG2	1.97	0.47
1:A:1177:LEU:O	1:A:1180:GLU:HG3	2.15	0.47
1:A:1787:LEU:HD23	1:A:1828:LEU:HD21	1.96	0.47
1:B:1929:SER:HG	1:B:3620:PHE:HD2	1.63	0.47
1:B:3077:GLN:HG2	1:B:3078:GLY:N	2.30	0.47
1:C:423:VAL:HG23	1:C:497:LEU:HD22	1.97	0.47
1:C:874:LEU:HD13	1:C:878:LEU:HB3	1.96	0.47
1:C:1220:ASP:OD2	1:C:1222:SER:OG	2.30	0.47
1:C:2526:PRO:HB3	1:C:2530:ARG:HH11	1.79	0.47
1:C:2775:ILE:O	1:C:2779:LEU:HG	2.14	0.47
1:C:2789:ILE:HD12	1:C:2903:VAL:HA	1.96	0.47
1:D:889:ILE:HA	1:D:892:LEU:HD12	1.97	0.47
1:D:2092:TYR:HD2	1:D:3640:LEU:HD13	1.78	0.47
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.48	0.47
1:A:448:PRO:HB2	1:A:451:SER:OG	2.14	0.47
1:A:614:LEU:HA	1:A:617:LEU:HD12	1.96	0.47
1:A:1911:GLN:OE1	1:A:2090:ARG:NH1	2.47	0.47
1:A:2979:ARG:H	1:A:2979:ARG:HD3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3662:ASP:O	1:A:3666:GLN:HG3	2.14	0.47
1:A:3770:ASN:HB3	1:A:3773:VAL:CG1	2.42	0.47
1:A:4049:HIS:CD2	1:A:4067:LEU:HD11	2.47	0.47
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.41	0.47
1:B:448:PRO:HB2	1:B:451:SER:OG	2.14	0.47
1:B:874:LEU:HD13	1:B:878:LEU:HB3	1.96	0.47
1:B:1611:ILE:HB	1:B:1615:GLN:HB2	1.97	0.47
1:B:2886:ARG:O	1:B:2890:GLN:OE1	2.33	0.47
1:B:3662:ASP:O	1:B:3666:GLN:HG3	2.14	0.47
1:B:3978:MET:HE3	1:B:3982:LEU:HD11	1.97	0.47
1:B:4502:MET:HE1	1:B:4585:PHE:HD2	1.80	0.47
1:C:983:LEU:HD12	1:C:1055:ARG:HG3	1.96	0.47
1:C:1611:ILE:HB	1:C:1615:GLN:HB2	1.97	0.47
1:D:874:LEU:HD13	1:D:878:LEU:HB3	1.96	0.47
1:D:2518:ARG:O	1:D:2522:THR:OG1	2.23	0.47
1:D:4269:LYS:HA	1:D:4272:LYS:HE3	1.96	0.47
1:A:2204:CYS:SG	1:A:2214:MET:HG2	2.55	0.47
1:A:2455:ASP:HB3	1:A:2458:ALA:HB3	1.95	0.47
1:A:4267:GLN:HA	1:A:4270:LYS:HE2	1.96	0.47
1:B:1431:ARG:NE	1:B:1506:GLU:OE1	2.30	0.47
1:B:2782:MET:O	1:B:2786:GLY:N	2.48	0.47
1:B:3728:GLN:O	1:B:3732:HIS:ND1	2.46	0.47
1:C:1177:LEU:O	1:C:1180:GLU:HG3	2.15	0.47
1:C:1940:GLN:OE1	1:C:3608:LEU:HB2	2.15	0.47
1:C:2943:PHE:CE2	1:C:2947:SER:HB3	2.50	0.47
1:C:4269:LYS:HA	1:C:4272:LYS:HE3	1.96	0.47
1:C:4639:SER:OG	1:C:4642:ASN:HB2	2.15	0.47
1:D:232:ASP:OD2	1:D:407:ARG:NH1	2.48	0.47
1:D:920:GLU:O	1:D:924:LEU:N	2.48	0.47
1:D:1009:ARG:O	1:D:1013:ARG:HG2	2.15	0.47
1:D:2204:CYS:SG	1:D:2214:MET:HG2	2.55	0.47
1:D:2526:PRO:O	1:D:2530:ARG:HG3	2.15	0.47
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	1.97	0.47
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.48	0.46
1:A:2791:ARG:HH21	1:A:2795:GLY:C	2.18	0.46
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.55	0.46
1:B:1523:ASN:HB2	1:B:1525:LYS:NZ	2.30	0.46
1:B:2694:SER:O	1:B:2701:PHE:HA	2.15	0.46
1:C:920:GLU:O	1:C:924:LEU:N	2.48	0.46
1:C:2685:TYR:CE1	1:C:2909:ASP:HB2	2.49	0.46
1:C:3662:ASP:O	1:C:3666:GLN:HG3	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4502:MET:HE1	1:C:4585:PHE:HD2	1.80	0.46
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.55	0.46
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.97	0.46
1:A:1523:ASN:HB2	1:A:1525:LYS:NZ	2.30	0.46
1:A:1929:SER:HG	1:A:3620:PHE:HD2	1.63	0.46
1:A:1940:GLN:OE1	1:A:3608:LEU:HB2	2.15	0.46
1:A:2347:MET:O	1:A:2351:ILE:HG12	2.13	0.46
1:B:920:GLU:O	1:B:924:LEU:N	2.48	0.46
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.48	0.46
1:D:61:ASP:OD1	1:D:63:SER:OG	2.32	0.46
1:D:842:GLN:OE1	1:D:1603:PHE:N	2.43	0.46
1:D:1940:GLN:OE1	1:D:3608:LEU:HB2	2.15	0.46
1:D:1954:SER:O	1:D:1958:THR:OG1	2.33	0.46
1:D:3701:ASP:OD2	1:D:3727:GLN:NE2	2.48	0.46
1:D:4267:GLN:HA	1:D:4270:LYS:HE2	1.96	0.46
1:D:4796:SER:HB3	1:D:4803:ASP:HB3	1.97	0.46
1:B:61:ASP:OD1	1:B:63:SER:OG	2.32	0.46
1:B:718:VAL:HG23	1:B:793:SER:HB3	1.96	0.46
1:B:1052:GLU:HA	1:B:1055:ARG:CG	2.44	0.46
1:B:4008:ASN:OD1	1:B:4009:ASN:N	2.47	0.46
1:B:4684:GLU:N	1:B:4684:GLU:OE2	2.48	0.46
1:B:4796:SER:HB3	1:B:4803:ASP:HB3	1.98	0.46
1:C:2905:ARG:HH11	1:C:2906:GLY:N	2.12	0.46
1:C:3077:GLN:HG2	1:C:3078:GLY:N	2.30	0.46
1:D:1490:ALA:HA	1:D:1493:SER:HB2	1.98	0.46
1:D:2455:ASP:HB3	1:D:2458:ALA:HB3	1.95	0.46
1:D:2782:MET:O	1:D:2786:GLY:N	2.48	0.46
1:D:2905:ARG:HH11	1:D:2906:GLY:N	2.12	0.46
1:A:2303:ARG:NH1	1:A:2307:PHE:HB3	2.31	0.46
1:A:2526:PRO:O	1:A:2530:ARG:HG3	2.15	0.46
1:A:2666:LEU:HD13	1:A:2966:VAL:HA	1.97	0.46
1:A:2685:TYR:CE1	1:A:2909:ASP:HB2	2.49	0.46
1:A:4017:PHE:O	1:A:4021:LEU:HG	2.16	0.46
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.97	0.46
1:B:1262:PRO:HD3	1:B:1590:PHE:HE1	1.81	0.46
1:B:3004:VAL:O	1:B:3007:LEU:HG	2.15	0.46
1:B:4017:PHE:O	1:B:4021:LEU:HG	2.16	0.46
1:B:4639:SER:OG	1:B:4642:ASN:HB2	2.15	0.46
1:C:1262:PRO:HD3	1:C:1590:PHE:HE1	1.81	0.46
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.48	0.46
1:C:2789:ILE:HD12	1:C:2903:VAL:CA	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4796:SER:HB3	1:C:4803:ASP:HB3	1.97	0.46
1:D:1087:ILE:HG22	1:D:1252:SER:OG	2.15	0.46
1:D:2789:ILE:HD12	1:D:2903:VAL:HA	1.96	0.46
1:D:3004:VAL:O	1:D:3007:LEU:HG	2.14	0.46
1:D:3108:LEU:O	1:D:3112:ILE:HG12	2.15	0.46
1:D:4008:ASN:OD1	1:D:4009:ASN:N	2.47	0.46
1:A:2092:TYR:HD2	1:A:3640:LEU:HD13	1.78	0.46
1:A:2905:ARG:HH11	1:A:2906:GLY:N	2.12	0.46
1:B:1494:MET:CE	1:B:1505:LEU:HD22	2.46	0.46
1:B:1523:ASN:HB2	1:B:1525:LYS:HZ1	1.81	0.46
1:B:2303:ARG:NH1	1:B:2307:PHE:HB3	2.31	0.46
1:B:2980:LEU:HD23	1:B:2990:LEU:HG	1.98	0.46
1:B:4815:PHE:O	1:B:4819:VAL:HG22	2.16	0.46
1:C:474:ASP:O	1:C:478:ARG:HG2	2.15	0.46
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.97	0.46
1:C:2855:LYS:HE3	1:C:2856:LYS:NZ	2.31	0.46
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.41	0.46
1:D:1262:PRO:HD3	1:D:1590:PHE:HE1	1.81	0.46
1:D:2303:ARG:NH1	1:D:2307:PHE:HB3	2.31	0.46
1:D:2782:MET:HE1	1:D:2789:ILE:HB	1.97	0.46
1:D:3077:GLN:HG2	1:D:3078:GLY:N	2.30	0.46
1:D:4049:HIS:CD2	1:D:4067:LEU:HD11	2.47	0.46
1:D:4815:PHE:O	1:D:4819:VAL:HG22	2.16	0.46
1:A:474:ASP:O	1:A:478:ARG:HG2	2.15	0.46
1:A:1431:ARG:NE	1:A:1506:GLU:OE1	2.30	0.46
1:A:1490:ALA:HA	1:A:1493:SER:HB2	1.98	0.46
1:A:2432:LEU:O	1:A:2436:ILE:HG13	2.14	0.46
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	1.97	0.46
1:A:2782:MET:O	1:A:2786:GLY:N	2.48	0.46
1:A:2980:LEU:HD23	1:A:2990:LEU:HG	1.98	0.46
1:A:3016:ARG:O	1:A:3018:ARG:NH1	2.48	0.46
1:A:3108:LEU:O	1:A:3112:ILE:HG12	2.15	0.46
1:B:423:VAL:HG23	1:B:497:LEU:HD22	1.97	0.46
1:B:474:ASP:O	1:B:478:ARG:HG2	2.15	0.46
1:B:1114:ARG:NH1	1:B:1128:LEU:O	2.39	0.46
1:B:1953:MET:N	1:B:1953:MET:SD	2.89	0.46
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	1.97	0.46
1:B:2666:LEU:HD13	1:B:2966:VAL:HA	1.97	0.46
1:B:2979:ARG:HD3	1:B:2979:ARG:H	1.80	0.46
1:C:232:ASP:OD2	1:C:407:ARG:NH1	2.48	0.46
1:C:2526:PRO:O	1:C:2530:ARG:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2666:LEU:HD13	1:C:2966:VAL:HA	1.97	0.46
1:C:2782:MET:O	1:C:2786:GLY:N	2.48	0.46
1:C:3749:GLY:HA2	1:C:3796:LEU:HG	1.97	0.46
1:C:3961:ASP:OD2	1:C:3963:SER:OG	2.34	0.46
1:D:4017:PHE:O	1:D:4021:LEU:HG	2.16	0.46
1:A:1427:TYR:HB2	1:A:1563:VAL:HG11	1.98	0.46
1:A:2886:ARG:O	1:A:2890:GLN:OE1	2.33	0.46
1:A:4269:LYS:HA	1:A:4272:LYS:HE3	1.96	0.46
1:A:4796:SER:HB3	1:A:4803:ASP:HB3	1.98	0.46
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.97	0.46
1:B:2789:ILE:HD12	1:B:2903:VAL:HA	1.96	0.46
1:B:4049:HIS:CD2	1:B:4067:LEU:HD11	2.47	0.46
1:B:4269:LYS:HA	1:B:4272:LYS:HE3	1.96	0.46
1:B:4751:LYS:HG3	1:B:4754:ARG:NH1	2.31	0.46
1:C:2979:ARG:H	1:C:2979:ARG:HD3	1.80	0.46
1:C:4684:GLU:N	1:C:4684:GLU:OE2	2.48	0.46
1:C:4815:PHE:O	1:C:4819:VAL:HG22	2.16	0.46
1:A:2772:ARG:O	1:A:2776:LYS:HG2	2.16	0.46
1:A:4120:GLU:HA	1:A:4123:GLU:HG2	1.97	0.46
1:B:504:ARG:O	1:B:507:VAL:HG22	2.16	0.46
1:B:1087:ILE:HG22	1:B:1252:SER:OG	2.15	0.46
1:B:1177:LEU:O	1:B:1180:GLU:HG3	2.15	0.46
1:B:3613:ARG:O	1:B:3617:VAL:HG23	2.16	0.46
1:C:61:ASP:OD1	1:C:63:SER:OG	2.32	0.46
1:C:614:LEU:HA	1:C:617:LEU:HD12	1.96	0.46
1:C:2204:CYS:SG	1:C:2214:MET:HG2	2.55	0.46
1:C:3108:LEU:O	1:C:3112:ILE:HG12	2.15	0.46
1:D:1523:ASN:HB2	1:D:1525:LYS:NZ	2.31	0.46
1:D:2979:ARG:H	1:D:2979:ARG:HD3	1.80	0.46
1:D:3693:ASP:O	1:D:3697:LYS:HG2	2.16	0.46
1:D:4684:GLU:N	1:D:4684:GLU:OE2	2.48	0.46
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.97	0.46
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.16	0.46
1:A:2855:LYS:HE3	1:A:2856:LYS:NZ	2.31	0.46
1:A:3994:THR:HA	1:A:3997:LYS:HD2	1.98	0.46
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.16	0.46
1:B:2772:ARG:O	1:B:2776:LYS:HG2	2.16	0.46
1:C:1427:TYR:HB2	1:C:1563:VAL:HG11	1.98	0.46
1:C:2303:ARG:NH1	1:C:2307:PHE:HB3	2.31	0.46
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.97	0.46
1:D:4639:SER:OG	1:D:4642:ASN:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:423:VAL:HG23	1:A:497:LEU:HD22	1.97	0.46
1:A:718:VAL:HG23	1:A:793:SER:HB3	1.96	0.46
1:A:2789:ILE:HD12	1:A:2903:VAL:HA	1.97	0.46
1:A:3728:GLN:O	1:A:3732:HIS:ND1	2.46	0.46
1:A:3891:TYR:HA	1:B:76:ARG:NH2	2.31	0.46
1:B:1284:LYS:HZ1	1:B:1551:ASN:HB3	1.81	0.46
1:B:1429:SER:HB3	1:B:1506:GLU:OE2	2.16	0.46
1:C:2157:GLN:O	1:C:3615:ARG:NH2	2.44	0.46
1:C:3613:ARG:O	1:C:3617:VAL:HG23	2.16	0.46
1:C:3693:ASP:O	1:C:3697:LYS:HG2	2.16	0.46
1:C:4862:ILE:HA	1:C:4865:LEU:HD12	1.98	0.46
1:D:423:VAL:HG23	1:D:497:LEU:HD22	1.97	0.46
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.97	0.46
1:D:1611:ILE:HB	1:D:1615:GLN:HB2	1.97	0.46
1:D:2694:SER:O	1:D:2701:PHE:HA	2.15	0.46
1:D:3961:ASP:OD2	1:D:3963:SER:OG	2.34	0.46
1:D:4819:VAL:HG12	1:D:4822:ARG:NH2	2.31	0.46
1:D:4862:ILE:HA	1:D:4865:LEU:HD12	1.98	0.46
1:A:874:LEU:HD13	1:A:878:LEU:HB3	1.96	0.45
1:A:1960:ARG:H	1:A:1960:ARG:HG3	0.96	0.45
1:A:2789:ILE:HD12	1:A:2903:VAL:CA	2.46	0.45
1:A:3693:ASP:O	1:A:3697:LYS:HG2	2.16	0.45
1:A:4815:PHE:O	1:A:4819:VAL:HG22	2.16	0.45
1:B:1040:ASP:HA	1:B:1043:LYS:HG2	1.98	0.45
1:B:2526:PRO:O	1:B:2530:ARG:HG3	2.15	0.45
1:B:2789:ILE:HD12	1:B:2903:VAL:CA	2.46	0.45
1:C:942:THR:HA	1:C:945:ALA:HB3	1.98	0.45
1:C:2980:LEU:HD23	1:C:2990:LEU:HG	1.98	0.45
1:D:1106:GLU:HB3	1:D:1214:ARG:HB2	1.98	0.45
1:D:1953:MET:N	1:D:1953:MET:SD	2.89	0.45
1:D:2666:LEU:HD13	1:D:2966:VAL:HA	1.97	0.45
1:D:2980:LEU:HD23	1:D:2990:LEU:HG	1.98	0.45
1:D:3009:CYS:O	1:D:3013:VAL:HG23	2.17	0.45
1:D:3749:GLY:HA2	1:D:3796:LEU:HG	1.97	0.45
1:A:3613:ARG:O	1:A:3617:VAL:HG23	2.16	0.45
1:A:3701:ASP:OD2	1:A:3727:GLN:NE2	2.48	0.45
1:A:4016:PHE:HA	1:A:4019:MET:HE3	1.97	0.45
1:A:4862:ILE:HA	1:A:4865:LEU:HD12	1.98	0.45
1:B:1940:GLN:OE1	1:B:3608:LEU:HB2	2.15	0.45
1:B:2855:LYS:HE3	1:B:2856:LYS:NZ	2.31	0.45
1:B:2968:LEU:HD22	1:B:3029:ILE:HG23	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3009:CYS:O	1:B:3013:VAL:HG23	2.17	0.45
1:B:3994:THR:HA	1:B:3997:LYS:HD2	1.98	0.45
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.97	0.45
1:C:2973:GLN:O	1:C:2976:LYS:HG3	2.17	0.45
1:D:942:THR:HA	1:D:945:ALA:HB3	1.98	0.45
1:D:1427:TYR:HB2	1:D:1563:VAL:HG11	1.98	0.45
1:D:2973:GLN:O	1:D:2976:LYS:HG3	2.17	0.45
1:A:1052:GLU:O	1:A:1055:ARG:HB2	2.16	0.45
1:A:1262:PRO:HD3	1:A:1590:PHE:HE1	1.81	0.45
1:B:322:ALA:HB1	1:B:327:THR:HG21	1.99	0.45
1:B:942:THR:HA	1:B:945:ALA:HB3	1.98	0.45
1:B:4189:PHE:CE1	1:B:4915:LEU:HG	2.52	0.45
1:B:4249:ARG:O	1:B:4253:LEU:HD23	2.17	0.45
1:C:1523:ASN:HB2	1:C:1525:LYS:NZ	2.30	0.45
1:C:3019:ILE:HD12	1:C:3026:ALA:HB1	1.99	0.45
1:C:4751:LYS:HG3	1:C:4754:ARG:NH1	2.31	0.45
1:D:2154:VAL:HG13	1:D:2158:HIS:CD2	2.48	0.45
1:D:2192:MET:O	1:D:2192:MET:HG2	2.17	0.45
1:D:3019:ILE:HD12	1:D:3026:ALA:HB1	1.99	0.45
1:D:3797:MET:HG3	1:D:3839:LEU:HD21	1.98	0.45
1:A:1429:SER:HB3	1:A:1506:GLU:OE2	2.16	0.45
1:A:1494:MET:CE	1:A:1505:LEU:HD22	2.46	0.45
1:A:3009:CYS:O	1:A:3013:VAL:HG23	2.16	0.45
1:A:3878:LEU:HA	1:A:3881:VAL:HG12	1.99	0.45
1:A:4639:SER:OG	1:A:4642:ASN:HB2	2.15	0.45
1:B:468:GLU:HA	1:B:475:LYS:NZ	2.32	0.45
1:B:1490:ALA:HA	1:B:1493:SER:HB2	1.98	0.45
1:B:4862:ILE:HA	1:B:4865:LEU:HD12	1.98	0.45
1:C:1953:MET:SD	1:C:1953:MET:N	2.89	0.45
1:C:2694:SER:O	1:C:2701:PHE:HA	2.15	0.45
1:D:504:ARG:O	1:D:507:VAL:HG22	2.16	0.45
1:D:1307:PRO:HB3	1:D:1540:PHE:CE2	2.52	0.45
1:D:1415:ASP:OD2	1:D:1559:ARG:NH2	2.49	0.45
1:D:2157:GLN:O	1:D:3615:ARG:NH2	2.44	0.45
1:D:2789:ILE:HD12	1:D:2903:VAL:CA	2.46	0.45
1:D:2855:LYS:HE3	1:D:2856:LYS:NZ	2.31	0.45
1:A:322:ALA:HB1	1:A:327:THR:HG21	1.99	0.45
1:A:504:ARG:O	1:A:507:VAL:HG22	2.16	0.45
1:A:1611:ILE:HB	1:A:1615:GLN:HB2	1.97	0.45
1:A:1953:MET:N	1:A:1953:MET:SD	2.89	0.45
1:A:4249:ARG:O	1:A:4253:LEU:HD23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4751:LYS:HG3	1:A:4754:ARG:NH1	2.31	0.45
1:B:1052:GLU:O	1:B:1055:ARG:HB2	2.16	0.45
1:B:2204:CYS:SG	1:B:2214:MET:HG2	2.55	0.45
1:B:3749:GLY:HA2	1:B:3796:LEU:HG	1.97	0.45
1:B:3878:LEU:HA	1:B:3881:VAL:HG12	1.99	0.45
1:C:908:ARG:NH1	1:C:928:GLU:OE2	2.35	0.45
1:C:1052:GLU:O	1:C:1055:ARG:HB2	2.16	0.45
1:C:1092:LYS:NZ	1:C:1646:GLU:OE1	2.39	0.45
1:C:1284:LYS:HZ1	1:C:1551:ASN:HB3	1.82	0.45
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.16	0.45
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	1.97	0.45
1:C:2772:ARG:O	1:C:2776:LYS:HG2	2.16	0.45
1:C:3889:TYR:OH	1:C:3953:HIS:HB3	2.17	0.45
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.82	0.45
1:D:1040:ASP:HA	1:D:1043:LYS:HG2	1.98	0.45
1:D:3878:LEU:HA	1:D:3881:VAL:HG12	1.99	0.45
1:D:4751:LYS:HG3	1:D:4754:ARG:NH1	2.31	0.45
1:A:468:GLU:HA	1:A:475:LYS:NZ	2.32	0.45
1:A:2933:VAL:HB	1:A:3010:LYS:NZ	2.32	0.45
1:A:4819:VAL:HG12	1:A:4822:ARG:NH2	2.31	0.45
1:B:1727:VAL:HG11	1:B:1926:VAL:HG21	1.99	0.45
1:B:2973:GLN:O	1:B:2976:LYS:HG3	2.17	0.45
1:C:504:ARG:O	1:C:507:VAL:HG22	2.16	0.45
1:C:1494:MET:CE	1:C:1505:LEU:HD22	2.46	0.45
1:C:2192:MET:O	1:C:2192:MET:HG2	2.17	0.45
1:C:3009:CYS:O	1:C:3013:VAL:HG23	2.17	0.45
1:C:3878:LEU:HA	1:C:3881:VAL:HG12	1.99	0.45
1:C:3994:THR:HA	1:C:3997:LYS:HD2	1.98	0.45
1:C:4017:PHE:O	1:C:4021:LEU:HG	2.16	0.45
1:C:4249:ARG:O	1:C:4253:LEU:HD23	2.17	0.45
1:C:4819:VAL:HG12	1:C:4822:ARG:NH2	2.31	0.45
1:D:322:ALA:HB1	1:D:327:THR:HG21	1.99	0.45
1:D:2933:VAL:HB	1:D:3010:LYS:NZ	2.32	0.45
1:D:4249:ARG:O	1:D:4253:LEU:HD23	2.17	0.45
1:A:765:SER:HA	1:A:779:PHE:O	2.16	0.45
1:A:2694:SER:O	1:A:2701:PHE:HA	2.15	0.45
1:A:4262:LYS:HD2	1:A:4265:LYS:HD3	1.99	0.45
2:F:58:LYS:HB3	2:F:81:VAL:O	2.17	0.45
1:B:765:SER:HA	1:B:779:PHE:O	2.16	0.45
1:B:902:TRP:CZ2	1:B:915:HIS:HB3	2.50	0.45
1:B:3693:ASP:O	1:B:3697:LYS:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1307:PRO:HB3	1:C:1540:PHE:CE2	2.52	0.45
1:C:1490:ALA:HA	1:C:1493:SER:HB2	1.98	0.45
1:C:2968:LEU:HD22	1:C:3029:ILE:HG23	1.98	0.45
1:D:3994:THR:HA	1:D:3997:LYS:HD2	1.98	0.45
1:D:4262:LYS:HD2	1:D:4265:LYS:HD3	1.99	0.45
1:A:1106:GLU:HB3	1:A:1214:ARG:HB2	1.98	0.45
1:A:1825:PHE:CE1	1:A:1842:ILE:HD13	2.52	0.45
1:A:2332:GLY:N	1:A:2336:ARG:HH21	2.12	0.45
1:A:2973:GLN:O	1:A:2976:LYS:HG3	2.17	0.45
1:B:1307:PRO:HB3	1:B:1540:PHE:CE2	2.52	0.45
1:B:1427:TYR:HB2	1:B:1563:VAL:HG11	1.98	0.45
1:C:468:GLU:HA	1:C:475:LYS:NZ	2.32	0.45
1:D:468:GLU:HA	1:D:475:LYS:NZ	2.32	0.45
1:D:1052:GLU:O	1:D:1055:ARG:HB2	2.16	0.45
1:D:2176:VAL:HG22	1:D:2220:TYR:CE2	2.52	0.45
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.16	0.45
1:D:2772:ARG:O	1:D:2776:LYS:HG2	2.16	0.45
1:D:2968:LEU:HD22	1:D:3029:ILE:HG23	1.98	0.45
1:D:4189:PHE:CE1	1:D:4915:LEU:HG	2.52	0.45
1:D:4906:GLU:HA	1:D:4909:THR:OG1	2.16	0.45
1:A:2886:ARG:O	1:A:2889:ALA:HB3	2.17	0.45
1:A:3019:ILE:HD12	1:A:3026:ALA:HB1	1.99	0.45
1:A:4689:LYS:HD2	1:A:4696:ALA:HB2	1.99	0.45
1:A:4710:LEU:HD23	1:A:4710:LEU:HA	1.86	0.45
2:H:58:LYS:HB3	2:H:81:VAL:O	2.16	0.45
1:B:318:ASP:O	1:B:322:ALA:HB2	2.17	0.45
1:B:3961:ASP:OD2	1:B:3963:SER:OG	2.34	0.45
1:C:1106:GLU:HB3	1:C:1214:ARG:HB2	1.98	0.45
1:C:1429:SER:HB3	1:C:1506:GLU:OE2	2.16	0.45
1:C:2332:GLY:N	1:C:2336:ARG:HH21	2.13	0.45
1:D:2855:LYS:O	1:D:2858:MET:HG2	2.17	0.45
1:D:3889:TYR:OH	1:D:3953:HIS:HB3	2.17	0.45
1:A:317:MET:HB2	1:A:321:LYS:HZ2	1.82	0.45
1:A:942:THR:HA	1:A:945:ALA:HB3	1.98	0.45
1:A:1114:ARG:HB2	1:A:1206:SER:OG	2.18	0.45
1:A:2322:ARG:HH12	1:B:189:GLU:HG3	1.82	0.45
1:A:2581:ARG:HG3	1:A:2583:SER:H	1.82	0.45
1:A:3797:MET:HG3	1:A:3839:LEU:HD21	1.98	0.45
1:A:4071:GLU:HB2	1:A:4086:ARG:HH12	1.82	0.45
1:A:4189:PHE:CE1	1:A:4915:LEU:HG	2.52	0.45
1:B:816:PRO:HB2	1:B:819:TYR:CD1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2427:ILE:HD13	1:B:2471:PHE:CZ	2.52	0.45
1:B:3019:ILE:HD12	1:B:3026:ALA:HB1	1.99	0.45
1:B:3797:MET:HG3	1:B:3839:LEU:HD21	1.98	0.45
1:B:3889:TYR:OH	1:B:3953:HIS:HB3	2.17	0.45
1:B:4906:GLU:HA	1:B:4909:THR:OG1	2.16	0.45
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.82	0.45
1:C:765:SER:HA	1:C:779:PHE:O	2.16	0.45
1:C:1040:ASP:HA	1:C:1043:LYS:HG2	1.98	0.45
1:C:1100:ARG:NH2	1:C:1234:GLU:O	2.50	0.45
1:C:1415:ASP:OD2	1:C:1559:ARG:NH2	2.49	0.45
1:C:1523:ASN:HB2	1:C:1525:LYS:HZ1	1.81	0.45
1:C:1724:GLU:O	1:C:1919:ARG:NH2	2.50	0.45
1:C:1825:PHE:CE1	1:C:1842:ILE:HD13	2.52	0.45
1:C:2222:LEU:HD23	1:C:2222:LEU:HA	1.80	0.45
1:C:2855:LYS:O	1:C:2858:MET:HG2	2.17	0.45
1:C:2898:ILE:HG23	1:D:1500:ARG:HH22	1.81	0.45
1:C:3797:MET:HG3	1:C:3839:LEU:HD21	1.98	0.45
1:C:4071:GLU:OE1	1:C:4086:ARG:NH1	2.50	0.45
1:D:874:LEU:HA	1:D:875:PRO:HD3	1.82	0.45
1:D:1429:SER:HB3	1:D:1506:GLU:OE2	2.16	0.45
1:D:1494:MET:CE	1:D:1505:LEU:HD22	2.46	0.45
1:D:1564:MET:HE1	1:D:1578:PRO:HA	1.99	0.45
1:D:1727:VAL:HG11	1:D:1926:VAL:HG21	1.99	0.45
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.82	0.45
1:A:179:ASP:OD1	1:A:180:ASP:N	2.51	0.44
1:A:1040:ASP:HA	1:A:1043:LYS:HG2	1.98	0.44
1:A:1727:VAL:HG11	1:A:1926:VAL:HG21	1.99	0.44
1:A:2176:VAL:HG22	1:A:2220:TYR:CE2	2.52	0.44
1:A:3749:GLY:HA2	1:A:3796:LEU:HG	1.97	0.44
1:A:4071:GLU:OE1	1:A:4086:ARG:NH1	2.50	0.44
1:A:4906:GLU:HA	1:A:4909:THR:OG1	2.16	0.44
1:B:317:MET:HB2	1:B:321:LYS:HZ2	1.82	0.44
1:B:801:ARG:HG3	1:B:1618:LEU:HD13	2.00	0.44
1:B:4071:GLU:HB2	1:B:4086:ARG:HH12	1.82	0.44
1:B:4262:LYS:HD2	1:B:4265:LYS:HD3	1.99	0.44
1:B:4710:LEU:HD23	1:B:4710:LEU:HA	1.86	0.44
1:C:317:MET:HB2	1:C:321:LYS:HZ2	1.82	0.44
1:C:318:ASP:O	1:C:322:ALA:HB2	2.17	0.44
1:C:322:ALA:HB1	1:C:327:THR:HG21	1.99	0.44
1:C:816:PRO:HB2	1:C:819:TYR:CD1	2.52	0.44
1:C:4262:LYS:HD2	1:C:4265:LYS:HD3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:904:TYR:HB3	1:D:972:LEU:CD1	2.47	0.44
1:D:1724:GLU:O	1:D:1919:ARG:NH2	2.51	0.44
1:D:1825:PHE:CE1	1:D:1842:ILE:HD13	2.52	0.44
1:D:2581:ARG:HG3	1:D:2583:SER:H	1.82	0.44
1:D:2651:ALA:O	1:D:2655:LYS:HG2	2.17	0.44
1:D:3613:ARG:O	1:D:3617:VAL:HG23	2.16	0.44
1:D:3978:MET:HE3	1:D:3982:LEU:HD11	1.99	0.44
1:B:1106:GLU:HB3	1:B:1214:ARG:HB2	1.98	0.44
1:B:1114:ARG:HB2	1:B:1206:SER:OG	2.18	0.44
1:B:1255:LEU:HD12	1:B:1256:PRO:HD2	1.99	0.44
1:B:1724:GLU:O	1:B:1919:ARG:NH2	2.50	0.44
1:B:3968:LEU:O	1:B:3972:MET:HG2	2.18	0.44
1:C:904:TYR:HB3	1:C:972:LEU:CD1	2.47	0.44
1:C:1255:LEU:HD12	1:C:1256:PRO:HD2	1.99	0.44
1:C:3968:LEU:O	1:C:3972:MET:HG2	2.17	0.44
1:C:3978:MET:HE3	1:C:3982:LEU:HD11	1.99	0.44
1:C:4189:PHE:CE1	1:C:4915:LEU:HG	2.52	0.44
1:D:318:ASP:O	1:D:322:ALA:HB2	2.17	0.44
1:D:765:SER:HA	1:D:779:PHE:O	2.16	0.44
1:D:875:PRO:HB2	1:D:877:HIS:CE1	2.53	0.44
1:D:2383:HIS:CG	1:D:2458:ALA:HB2	2.53	0.44
1:D:3968:LEU:O	1:D:3972:MET:HG2	2.17	0.44
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.41	0.44
1:A:120:LEU:HD12	1:A:120:LEU:HA	1.87	0.44
1:A:1523:ASN:HB2	1:A:1525:LYS:HZ1	1.82	0.44
1:A:2415:GLU:O	1:A:2419:ILE:HG12	2.18	0.44
1:A:2855:LYS:O	1:A:2858:MET:HG2	2.17	0.44
1:A:2968:LEU:HD22	1:A:3029:ILE:HG23	1.98	0.44
1:A:2985:ALA:HB2	1:A:3001:LYS:HE2	2.00	0.44
1:A:3889:TYR:OH	1:A:3953:HIS:HB3	2.17	0.44
1:A:4252:ILE:O	1:A:4256:MET:HG2	2.18	0.44
1:A:4521:LYS:HZ2	1:B:4807:ASP:HB3	1.80	0.44
1:B:120:LEU:HD12	1:B:120:LEU:HA	1.87	0.44
1:B:1853:GLU:OE1	1:B:1853:GLU:N	2.49	0.44
1:B:3077:GLN:HG2	1:B:3078:GLY:H	1.82	0.44
1:C:842:GLN:OE1	1:C:1603:PHE:N	2.43	0.44
1:C:1087:ILE:HG21	1:C:1124:PRO:HA	2.00	0.44
1:C:2581:ARG:HG3	1:C:2583:SER:H	1.82	0.44
1:C:3077:GLN:HG2	1:C:3078:GLY:H	1.83	0.44
1:C:4071:GLU:HB2	1:C:4086:ARG:HH12	1.82	0.44
1:C:4732:GLY:HA2	1:C:4738:PHE:HB2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:801:ARG:HG3	1:D:1618:LEU:HD13	2.00	0.44
1:D:1087:ILE:HG21	1:D:1124:PRO:HA	2.00	0.44
1:D:2440:PHE:HB3	1:D:2460:PHE:CD2	2.51	0.44
1:D:4018:ASP:OD2	1:D:4022:LYS:NZ	2.38	0.44
1:A:703:TYR:HD2	1:A:858:THR:HG23	1.83	0.44
1:A:2440:PHE:HB3	1:A:2460:PHE:CD2	2.51	0.44
1:A:4047:ASP:HA	1:A:4050:LYS:HE3	2.00	0.44
1:A:4732:GLY:HA2	1:A:4738:PHE:HB2	1.98	0.44
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.82	0.44
1:B:921:PHE:HD1	1:B:929:ARG:NE	2.16	0.44
1:B:2195:ASN:ND2	1:B:2198:ARG:HH12	2.15	0.44
1:B:2554:ARG:HA	1:B:2554:ARG:HD2	1.85	0.44
1:B:2855:LYS:O	1:B:2858:MET:HG2	2.17	0.44
1:B:2886:ARG:O	1:B:2889:ALA:HB3	2.17	0.44
1:C:935:MET:HA	1:C:938:GLU:HG3	2.00	0.44
1:C:2176:VAL:HG22	1:C:2220:TYR:CE2	2.52	0.44
1:C:2383:HIS:CG	1:C:2458:ALA:HB2	2.53	0.44
1:C:2415:GLU:O	1:C:2419:ILE:HG12	2.18	0.44
1:C:2777:GLU:O	1:C:2781:THR:OG1	2.19	0.44
1:C:2789:ILE:HD11	1:C:2896:LEU:HD21	2.00	0.44
1:D:2222:LEU:HD23	1:D:2222:LEU:HA	1.80	0.44
1:D:2332:GLY:N	1:D:2336:ARG:HH21	2.13	0.44
1:D:3008:PHE:CD1	1:D:3040:LEU:HD11	2.53	0.44
1:D:4071:GLU:HB2	1:D:4086:ARG:HH12	1.82	0.44
1:A:904:TYR:HB3	1:A:972:LEU:CD1	2.48	0.44
1:A:2096:GLY:HA2	1:A:2099:VAL:HG22	1.99	0.44
1:A:2321:VAL:HG11	1:A:2419:ILE:HD12	2.00	0.44
1:A:3978:MET:HE3	1:A:3982:LEU:HD11	2.00	0.44
1:A:4769:LEU:HB3	1:D:4753:LEU:HD23	1.99	0.44
2:E:58:LYS:HB3	2:E:81:VAL:O	2.17	0.44
2:G:58:LYS:HB3	2:G:81:VAL:O	2.16	0.44
1:B:703:TYR:HD2	1:B:858:THR:HG23	1.83	0.44
1:B:875:PRO:HB2	1:B:877:HIS:CE1	2.53	0.44
1:B:1087:ILE:HG21	1:B:1124:PRO:HA	2.00	0.44
1:B:1100:ARG:NH2	1:B:1234:GLU:O	2.51	0.44
1:B:2581:ARG:HG3	1:B:2583:SER:H	1.82	0.44
1:B:2789:ILE:HD11	1:B:2896:LEU:HD21	2.00	0.44
1:B:3050:LEU:HD12	1:B:3051:GLU:OE1	2.18	0.44
1:B:3770:ASN:HB3	1:B:3773:VAL:CG1	2.42	0.44
1:B:4047:ASP:HA	1:B:4050:LYS:HE3	1.99	0.44
1:B:4071:GLU:OE1	1:B:4086:ARG:NH1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4689:LYS:HD2	1:B:4696:ALA:HB2	1.99	0.44
1:C:267:VAL:HG23	1:C:272:ARG:NH1	2.33	0.44
1:C:594:ILE:HD11	1:C:632:ILE:HG13	2.00	0.44
1:C:2933:VAL:HB	1:C:3010:LYS:NZ	2.32	0.44
1:C:3008:PHE:CD1	1:C:3040:LEU:HD11	2.53	0.44
1:C:4906:GLU:HA	1:C:4909:THR:OG1	2.16	0.44
1:D:1853:GLU:OE1	1:D:1853:GLU:N	2.49	0.44
1:D:2321:VAL:HG11	1:D:2419:ILE:HD12	2.00	0.44
1:D:4732:GLY:HA2	1:D:4738:PHE:HB2	1.98	0.44
1:A:61:ASP:OD1	1:A:63:SER:OG	2.32	0.44
1:A:640:ARG:O	2:E:35:LYS:NZ	2.49	0.44
1:A:711:GLU:OE1	1:A:716:ASN:HB2	2.18	0.44
1:A:1564:MET:HE1	1:A:1578:PRO:HA	2.00	0.44
1:A:4481:TRP:HA	1:A:4484:ILE:HG12	2.00	0.44
1:B:2176:VAL:HG22	1:B:2220:TYR:CE2	2.52	0.44
1:B:2933:VAL:HB	1:B:3010:LYS:NZ	2.32	0.44
1:B:4252:ILE:O	1:B:4256:MET:HG2	2.18	0.44
1:C:120:LEU:HD12	1:C:120:LEU:HA	1.87	0.44
1:C:515:ALA:HB2	1:C:523:GLY:HA3	2.00	0.44
1:C:703:TYR:HD2	1:C:858:THR:HG23	1.83	0.44
1:C:2427:ILE:HD13	1:C:2471:PHE:CZ	2.53	0.44
1:C:4689:LYS:HD2	1:C:4696:ALA:HB2	1.99	0.44
1:A:387:ILE:HD11	1:A:389:ARG:HH21	1.83	0.44
1:A:1307:PRO:HB3	1:A:1540:PHE:CE2	2.52	0.44
1:A:4752:THR:OG1	1:B:4766:GLN:OE1	2.36	0.44
1:B:1825:PHE:CE1	1:B:1842:ILE:HD13	2.52	0.44
1:B:2321:VAL:HG11	1:B:2419:ILE:HD12	2.00	0.44
1:B:3008:PHE:CD1	1:B:3040:LEU:HD11	2.53	0.44
1:B:4481:TRP:HA	1:B:4484:ILE:HG12	2.00	0.44
1:B:4819:VAL:HG12	1:B:4822:ARG:NH2	2.31	0.44
1:C:2886:ARG:O	1:C:2889:ALA:HB3	2.17	0.44
1:D:703:TYR:HD2	1:D:858:THR:HG23	1.83	0.44
1:D:1523:ASN:HB2	1:D:1525:LYS:HZ1	1.83	0.44
1:D:4071:GLU:OE1	1:D:4086:ARG:NH1	2.50	0.44
1:D:4481:TRP:HA	1:D:4484:ILE:HG12	2.00	0.44
1:A:21:VAL:HG12	1:A:66:THR:HA	2.00	0.44
1:A:2518:ARG:O	1:A:2522:THR:OG1	2.23	0.44
1:A:2651:ALA:O	1:A:2655:LYS:HG2	2.17	0.44
1:A:2877:LEU:HG	1:A:2882:LYS:HG3	2.00	0.44
1:A:3008:PHE:CD1	1:A:3040:LEU:HD11	2.53	0.44
1:B:308:LEU:HD13	1:B:393:MET:HG3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:694:ARG:HD3	1:B:733:TRP:CD1	2.53	0.44
1:B:935:MET:HA	1:B:938:GLU:HG3	1.99	0.44
1:B:1642:LEU:HD21	1:B:1691:ASN:ND2	2.33	0.44
1:B:1910:LEU:HD13	1:B:2062:ILE:HG12	1.99	0.44
1:B:2096:GLY:HA2	1:B:2099:VAL:HG22	1.99	0.44
1:B:2440:PHE:HB3	1:B:2460:PHE:CD2	2.51	0.44
1:B:2789:ILE:CD1	1:B:2903:VAL:HB	2.48	0.44
1:B:2887:GLU:HA	1:B:2890:GLN:OE1	2.18	0.44
1:B:2985:ALA:HB2	1:B:3001:LYS:HE2	2.00	0.44
1:B:3999:MET:HG3	1:B:4002:MET:HE3	2.00	0.44
1:B:4052:MET:HG3	1:B:4063:THR:HG23	2.00	0.44
1:B:4732:GLY:HA2	1:B:4738:PHE:HB2	1.98	0.44
1:C:921:PHE:HD1	1:C:929:ARG:NE	2.16	0.44
1:C:1114:ARG:HB2	1:C:1206:SER:OG	2.18	0.44
1:C:2760:TYR:HH	1:C:2772:ARG:HH12	1.59	0.44
1:C:3050:LEU:HD12	1:C:3051:GLU:OE1	2.18	0.44
1:D:1427:TYR:CE2	1:D:1560:ILE:HG23	2.53	0.44
1:D:1932:PHE:CE2	1:D:1996:LEU:HD22	2.53	0.44
1:D:2415:GLU:O	1:D:2419:ILE:HG12	2.18	0.44
1:A:308:LEU:HD13	1:A:393:MET:HG3	2.00	0.44
1:A:1415:ASP:OD2	1:A:1559:ARG:NH2	2.49	0.44
1:A:1566:LEU:O	1:A:1570:LEU:HG	2.18	0.44
1:A:2982:PHE:O	1:A:3001:LYS:NZ	2.44	0.44
1:A:3642:GLU:O	1:A:3646:LYS:HG3	2.18	0.44
1:A:4052:MET:HG3	1:A:4063:THR:HG23	2.00	0.44
1:A:4094:ILE:O	1:A:4098:VAL:HG23	2.18	0.44
2:E:50:ARG:N	2:E:55:GLU:OE2	2.37	0.44
2:H:26:HIS:CD2	2:H:105:LEU:HD11	2.53	0.44
1:B:794:PHE:CG	1:B:798:ILE:HD13	2.53	0.44
1:B:2877:LEU:HG	1:B:2882:LYS:HG3	2.00	0.44
1:B:2917:ILE:HG12	1:B:2999:LYS:HD3	2.00	0.44
1:C:1727:VAL:HG11	1:C:1926:VAL:HG21	1.99	0.44
1:C:2154:VAL:HG13	1:C:2158:HIS:CD2	2.48	0.44
1:C:4481:TRP:HA	1:C:4484:ILE:HG12	2.00	0.44
1:D:179:ASP:OD1	1:D:180:ASP:N	2.51	0.44
1:D:711:GLU:OE1	1:D:716:ASN:HB2	2.18	0.44
1:D:1566:LEU:O	1:D:1570:LEU:HG	2.18	0.44
1:D:2427:ILE:HD13	1:D:2471:PHE:CZ	2.52	0.44
1:D:3999:MET:HG3	1:D:4002:MET:HE3	2.00	0.44
1:D:4247:ALA:HA	1:D:4250:TYR:CE1	2.53	0.44
1:A:1724:GLU:O	1:A:1919:ARG:NH2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1932:PHE:CE2	1:A:1996:LEU:HD22	2.53	0.43
1:A:2383:HIS:CG	1:A:2458:ALA:HB2	2.53	0.43
1:A:2427:ILE:HD13	1:A:2471:PHE:CZ	2.52	0.43
1:A:3961:ASP:OD2	1:A:3963:SER:OG	2.34	0.43
1:A:3968:LEU:O	1:A:3972:MET:HG2	2.17	0.43
1:A:4016:PHE:HA	1:A:4019:MET:CE	2.48	0.43
1:A:4611:GLU:HA	1:A:4653:VAL:HG22	2.00	0.43
2:E:26:HIS:CD2	2:E:105:LEU:HD11	2.53	0.43
1:B:594:ILE:HD11	1:B:632:ILE:HG13	2.00	0.43
1:B:1050:LEU:HD12	1:B:1050:LEU:HA	1.81	0.43
1:B:1947:VAL:HG11	1:B:1965:PHE:HE2	1.83	0.43
1:B:4634:VAL:O	1:B:4637:THR:OG1	2.26	0.43
1:C:308:LEU:HD13	1:C:393:MET:HG3	2.00	0.43
1:C:875:PRO:HB2	1:C:877:HIS:CE1	2.53	0.43
1:C:1642:LEU:HD21	1:C:1691:ASN:ND2	2.33	0.43
1:C:1749:PRO:HB2	1:C:1913:LEU:HD22	2.00	0.43
1:C:2887:GLU:HA	1:C:2890:GLN:OE1	2.18	0.43
1:C:4252:ILE:O	1:C:4256:MET:HG2	2.18	0.43
1:D:794:PHE:CG	1:D:798:ILE:HD13	2.53	0.43
1:D:816:PRO:HB2	1:D:819:TYR:CD1	2.52	0.43
1:D:1100:ARG:NH2	1:D:1234:GLU:O	2.51	0.43
1:D:1642:LEU:HD21	1:D:1691:ASN:ND2	2.33	0.43
1:D:1749:PRO:HB2	1:D:1913:LEU:HD22	2.00	0.43
1:D:2758:LYS:HE3	1:D:2763:LEU:HA	2.00	0.43
1:D:3077:GLN:HG2	1:D:3078:GLY:H	1.83	0.43
1:D:4052:MET:HG3	1:D:4063:THR:HG23	2.00	0.43
1:D:4689:LYS:HD2	1:D:4696:ALA:HB2	1.99	0.43
1:A:307:SER:OG	1:A:317:MET:HG2	2.19	0.43
1:A:935:MET:HA	1:A:938:GLU:HG3	1.99	0.43
1:A:1038:LEU:HB2	1:A:1043:LYS:HE2	2.00	0.43
1:A:1284:LYS:HZ1	1:A:1551:ASN:HB3	1.83	0.43
1:A:4748:MET:N	1:A:4748:MET:SD	2.92	0.43
1:A:4815:PHE:CZ	1:A:4819:VAL:HG21	2.53	0.43
1:B:387:ILE:HD11	1:B:389:ARG:HH21	1.83	0.43
1:B:658:ASN:HB2	1:B:832:LEU:HD12	2.00	0.43
1:B:1084:ARG:NH1	1:B:1127:GLU:OE1	2.50	0.43
1:B:4016:PHE:HA	1:B:4019:MET:CE	2.48	0.43
1:B:4748:MET:N	1:B:4748:MET:SD	2.92	0.43
1:C:658:ASN:HB2	1:C:832:LEU:HD12	2.00	0.43
1:C:1427:TYR:CE2	1:C:1560:ILE:HG23	2.53	0.43
1:C:4052:MET:HG3	1:C:4063:THR:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:317:MET:HB2	1:D:321:LYS:HZ2	1.83	0.43
1:D:515:ALA:HB2	1:D:523:GLY:HA3	2.00	0.43
1:D:594:ILE:HD11	1:D:632:ILE:HG13	2.00	0.43
1:D:1038:LEU:HB2	1:D:1043:LYS:HE2	2.00	0.43
1:D:1114:ARG:HB2	1:D:1206:SER:OG	2.18	0.43
1:D:1910:LEU:HD13	1:D:2062:ILE:HG12	1.99	0.43
1:D:2074:VAL:HG23	1:D:3660:ARG:HB2	2.01	0.43
1:D:4561:LEU:HD11	1:D:4563:GLU:OE2	2.19	0.43
1:D:4815:PHE:CZ	1:D:4819:VAL:HG21	2.53	0.43
1:A:658:ASN:HB2	1:A:832:LEU:HD12	2.00	0.43
1:A:794:PHE:CG	1:A:798:ILE:HD13	2.53	0.43
1:A:875:PRO:HB2	1:A:877:HIS:CE1	2.52	0.43
1:A:1034:PRO:HD2	1:A:1037:LEU:HD12	2.00	0.43
1:A:1087:ILE:HG21	1:A:1124:PRO:HA	2.00	0.43
1:A:1749:PRO:HB2	1:A:1913:LEU:HD22	2.00	0.43
1:A:2143:ILE:HG12	1:A:2195:ASN:OD1	2.18	0.43
1:A:2758:LYS:HE3	1:A:2763:LEU:HA	2.00	0.43
2:F:35:LYS:NZ	1:B:640:ARG:O	2.51	0.43
2:G:26:HIS:CD2	2:G:105:LEU:HD11	2.53	0.43
1:B:2383:HIS:CG	1:B:2458:ALA:HB2	2.53	0.43
1:B:3642:GLU:O	1:B:3646:LYS:HG3	2.18	0.43
1:C:179:ASP:OD1	1:C:180:ASP:N	2.51	0.43
1:C:711:GLU:OE1	1:C:716:ASN:HB2	2.18	0.43
1:C:1034:PRO:HD2	1:C:1037:LEU:HD12	2.00	0.43
1:C:1947:VAL:HG11	1:C:1965:PHE:HE2	1.83	0.43
1:C:2074:VAL:HG23	1:C:3660:ARG:HB2	2.00	0.43
1:C:2321:VAL:HG11	1:C:2419:ILE:HD12	2.00	0.43
1:C:4016:PHE:HA	1:C:4019:MET:CE	2.48	0.43
1:C:4561:LEU:HD11	1:C:4563:GLU:OE2	2.19	0.43
1:D:267:VAL:HG23	1:D:272:ARG:NH1	2.33	0.43
1:D:1641:ILE:HA	1:D:1644:LEU:HD13	2.00	0.43
1:D:2886:ARG:O	1:D:2889:ALA:HB3	2.17	0.43
1:D:4047:ASP:HA	1:D:4050:LYS:HE3	2.00	0.43
1:D:4611:GLU:HA	1:D:4653:VAL:HG22	2.00	0.43
1:A:52:THR:HG22	1:A:60:PRO:HB3	2.00	0.43
1:A:267:VAL:HG23	1:A:272:ARG:NH1	2.33	0.43
1:A:902:TRP:CZ2	1:A:915:HIS:HB3	2.50	0.43
1:A:1642:LEU:HD21	1:A:1691:ASN:ND2	2.33	0.43
1:A:1795:LEU:HD23	1:A:1842:ILE:HD11	2.01	0.43
1:A:2074:VAL:HG23	1:A:3660:ARG:HB2	2.00	0.43
1:A:4070:ALA:HB1	1:A:4078:LEU:HD22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:307:SER:OG	1:B:317:MET:HG2	2.19	0.43
1:B:1749:PRO:HB2	1:B:1913:LEU:HD22	2.00	0.43
1:B:1795:LEU:HD23	1:B:1842:ILE:HD11	2.01	0.43
1:B:4070:ALA:HB1	1:B:4078:LEU:HD22	2.01	0.43
1:B:4094:ILE:O	1:B:4098:VAL:HG23	2.18	0.43
1:B:4903:HIS:O	1:B:4907:THR:OG1	2.27	0.43
1:C:794:PHE:CG	1:C:798:ILE:HD13	2.53	0.43
1:C:1038:LEU:HB2	1:C:1043:LYS:HE2	2.00	0.43
1:C:1795:LEU:HD23	1:C:1842:ILE:HD11	2.01	0.43
1:C:4480:PHE:N	1:C:4482:LYS:HZ3	2.17	0.43
1:D:880:ARG:NH1	1:D:1062:TYR:OH	2.52	0.43
1:D:921:PHE:HD1	1:D:929:ARG:NE	2.16	0.43
1:D:2789:ILE:HD11	1:D:2896:LEU:HD21	2.00	0.43
1:D:4020:PHE:HA	1:D:4023:LEU:HB3	2.00	0.43
1:D:4252:ILE:O	1:D:4256:MET:HG2	2.18	0.43
1:D:4294:LEU:O	1:D:4298:VAL:HG23	2.19	0.43
1:A:816:PRO:HB2	1:A:819:TYR:CD1	2.52	0.43
1:A:1100:ARG:NH2	1:A:1234:GLU:O	2.51	0.43
1:A:1427:TYR:CE2	1:A:1560:ILE:HG23	2.53	0.43
1:A:1641:ILE:HA	1:A:1644:LEU:HD13	2.00	0.43
1:A:1947:VAL:HG11	1:A:1965:PHE:HE2	1.83	0.43
1:A:2789:ILE:HD11	1:A:2896:LEU:HD21	2.00	0.43
1:A:2833:LEU:HB3	1:A:2838[B]:HIS:CE1	2.53	0.43
1:A:4247:ALA:HA	1:A:4250:TYR:CE1	2.53	0.43
1:B:179:ASP:OD1	1:B:180:ASP:N	2.51	0.43
1:B:1415:ASP:OD2	1:B:1559:ARG:NH2	2.49	0.43
1:B:3060:PHE:HE2	1:B:3108:LEU:HD13	1.84	0.43
1:B:4247:ALA:HA	1:B:4250:TYR:CE1	2.53	0.43
1:C:21:VAL:HG12	1:C:66:THR:HA	2.00	0.43
1:C:747:HIS:HD2	1:C:750:ARG:HG3	1.84	0.43
1:C:880:ARG:NH1	1:C:1062:TYR:OH	2.52	0.43
1:C:2651:ALA:O	1:C:2655:LYS:HG2	2.17	0.43
1:C:2966:VAL:O	1:C:2970:LEU:N	2.46	0.43
1:C:4294:LEU:O	1:C:4298:VAL:HG23	2.19	0.43
1:C:4748:MET:N	1:C:4748:MET:SD	2.92	0.43
1:C:4815:PHE:CZ	1:C:4819:VAL:HG21	2.53	0.43
1:D:2887:GLU:HA	1:D:2890:GLN:OE1	2.18	0.43
1:D:3050:LEU:HD12	1:D:3051:GLU:OE1	2.18	0.43
1:D:3642:GLU:O	1:D:3646:LYS:HG3	2.18	0.43
1:D:4748:MET:N	1:D:4748:MET:SD	2.92	0.43
1:A:808:HIS:HA	1:A:1610:ARG:HH21	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:921:PHE:HD1	1:A:929:ARG:NE	2.16	0.43
1:A:1910:LEU:HD13	1:A:2062:ILE:HG12	1.99	0.43
1:A:3077:GLN:HG2	1:A:3078:GLY:H	1.83	0.43
1:A:4480:PHE:N	1:A:4482:LYS:HZ3	2.17	0.43
2:H:79:PRO:O	2:H:84:GLY:HA2	2.19	0.43
1:B:877:HIS:HA	1:B:880:ARG:NE	2.34	0.43
1:B:2074:VAL:HG23	1:B:3660:ARG:HB2	2.01	0.43
1:B:2192:MET:O	1:B:2192:MET:HG2	2.17	0.43
1:B:2651:ALA:O	1:B:2655:LYS:HG2	2.17	0.43
1:C:307:SER:OG	1:C:317:MET:HG2	2.18	0.43
1:C:694:ARG:HD3	1:C:733:TRP:CD1	2.53	0.43
1:C:877:HIS:HA	1:C:880:ARG:NE	2.34	0.43
1:C:1028:ARG:HA	1:C:1028:ARG:HD2	1.83	0.43
1:C:1050:LEU:HD12	1:C:1050:LEU:HA	1.81	0.43
1:C:1489:CYS:O	1:C:1493:SER:OG	2.27	0.43
1:C:1564:MET:HE1	1:C:1578:PRO:HA	1.99	0.43
1:C:1853:GLU:OE1	1:C:1853:GLU:N	2.49	0.43
1:C:1932:PHE:CE2	1:C:1996:LEU:HD22	2.53	0.43
1:C:2917:ILE:HG12	1:C:2999:LYS:HD3	2.00	0.43
1:C:3102:LEU:HA	1:C:3105:LEU:HG	2.00	0.43
1:D:387:ILE:HD11	1:D:389:ARG:HH21	1.83	0.43
1:D:747:HIS:HD2	1:D:750:ARG:HG3	1.84	0.43
1:D:1255:LEU:HD12	1:D:1256:PRO:HD2	1.99	0.43
1:D:2096:GLY:HA2	1:D:2099:VAL:HG22	1.99	0.43
1:D:2554:ARG:HA	1:D:2554:ARG:HD2	1.85	0.43
1:D:2789:ILE:CD1	1:D:2903:VAL:HB	2.48	0.43
1:D:2877:LEU:HG	1:D:2882:LYS:HG3	2.00	0.43
1:D:2985:ALA:HB2	1:D:3001:LYS:HE2	2.00	0.43
1:D:4016:PHE:HA	1:D:4019:MET:CE	2.48	0.43
1:D:4254:THR:HA	1:D:4257:ARG:HE	1.84	0.43
1:A:318:ASP:O	1:A:322:ALA:HB2	2.17	0.43
1:A:4561:LEU:HD11	1:A:4563:GLU:OE2	2.19	0.43
1:A:4690:LYS:HD3	1:A:4692:SER:OG	2.19	0.43
2:G:35:LYS:NZ	1:C:640:ARG:O	2.51	0.43
1:B:711:GLU:OE1	1:B:716:ASN:HB2	2.18	0.43
1:B:747:HIS:HD2	1:B:750:ARG:HG3	1.84	0.43
1:B:2691:LYS:O	1:B:2695:MET:HG3	2.19	0.43
1:B:2836:ASP:OD1	1:B:2836:ASP:N	2.52	0.43
1:B:4245:LEU:HD11	1:C:4626:ILE:HG13	2.00	0.43
1:B:4815:PHE:CZ	1:B:4819:VAL:HG21	2.53	0.43
1:C:52:THR:HG22	1:C:60:PRO:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:674:TYR:HE1	1:C:756:SER:HB2	1.84	0.43
1:C:986:ILE:HD11	1:C:1055:ARG:HA	2.01	0.43
1:C:2096:GLY:HA2	1:C:2099:VAL:HG22	1.99	0.43
1:D:52:THR:HG22	1:D:60:PRO:HB3	1.99	0.43
1:D:308:LEU:HD13	1:D:393:MET:HG3	2.00	0.43
1:D:608:HIS:HB2	1:D:1656:HIS:ND1	2.34	0.43
1:D:694:ARG:HD3	1:D:733:TRP:CD1	2.53	0.43
1:D:2691:LYS:O	1:D:2695:MET:HG3	2.19	0.43
1:D:2836:ASP:OD1	1:D:2836:ASP:N	2.52	0.43
1:A:50:GLU:CD	1:A:61:ASP:H	2.21	0.43
1:A:1190:LEU:HD11	1:A:1193:LYS:HA	2.01	0.43
1:A:1255:LEU:HD12	1:A:1256:PRO:HD2	1.99	0.43
1:A:2135:GLY:H	1:A:2138:GLU:HB2	1.84	0.43
1:A:2789:ILE:CD1	1:A:2903:VAL:HB	2.48	0.43
1:A:2917:ILE:HG12	1:A:2999:LYS:HD3	2.00	0.43
1:A:3050:LEU:HD12	1:A:3051:GLU:OE1	2.18	0.43
2:F:26:HIS:CD2	2:F:105:LEU:HD11	2.53	0.43
1:B:515:ALA:HB2	1:B:523:GLY:HA3	2.00	0.43
1:B:904:TYR:HB3	1:B:972:LEU:CD1	2.48	0.43
1:B:1690:GLU:OE1	1:B:1790:LYS:NZ	2.42	0.43
1:C:120:LEU:HD11	1:C:158:CYS:HB3	2.01	0.43
1:C:1566:LEU:O	1:C:1570:LEU:HG	2.18	0.43
1:C:1726:ILE:HD11	1:C:2161:LEU:HD11	2.01	0.43
1:C:2691:LYS:O	1:C:2695:MET:HG3	2.19	0.43
1:C:2763:LEU:HD23	1:C:2767:GLU:CD	2.39	0.43
1:C:3642:GLU:O	1:C:3646:LYS:HG3	2.18	0.43
1:D:21:VAL:HG12	1:D:66:THR:HA	2.00	0.43
1:D:658:ASN:HB2	1:D:832:LEU:HD12	2.00	0.43
1:D:674:TYR:HE1	1:D:756:SER:HB2	1.84	0.43
1:D:908:ARG:NH1	1:D:928:GLU:OE2	2.35	0.43
1:D:4094:ILE:O	1:D:4098:VAL:HG23	2.18	0.43
1:A:515:ALA:HB2	1:A:523:GLY:HA3	2.00	0.43
1:A:801:ARG:HG3	1:A:1618:LEU:HD13	2.00	0.43
1:A:1605:LYS:HE2	1:A:1623:ASP:OD2	2.19	0.43
1:A:2154:VAL:HG13	1:A:2158:HIS:CD2	2.48	0.43
1:A:2836:ASP:OD1	1:A:2836:ASP:N	2.52	0.43
1:A:3906:PHE:HB3	1:A:3967:LEU:HD11	2.01	0.43
1:A:4245:LEU:HD21	1:B:4629:GLN:HB3	2.01	0.43
1:B:267:VAL:HG23	1:B:272:ARG:NH1	2.33	0.43
1:B:591:GLU:O	1:B:594:ILE:HG22	2.19	0.43
1:B:732:LEU:HD23	1:B:732:LEU:HA	1.89	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1427:TYR:CE2	1:B:1560:ILE:HG23	2.53	0.43
1:B:2415:GLU:O	1:B:2419:ILE:HG12	2.18	0.43
1:B:4654:MET:HE3	1:B:4663:ARG:HH21	1.84	0.43
1:C:439:LYS:HD3	1:C:439:LYS:HA	1.73	0.43
1:C:801:ARG:HG3	1:C:1618:LEU:HD13	2.00	0.43
1:C:2758:LYS:HE3	1:C:2763:LEU:HA	2.00	0.43
1:C:4247:ALA:HA	1:C:4250:TYR:CE1	2.53	0.43
1:D:307:SER:OG	1:D:317:MET:HG2	2.18	0.43
1:D:732:LEU:HD23	1:D:732:LEU:HA	1.89	0.43
1:D:1034:PRO:HD2	1:D:1037:LEU:HD12	2.00	0.43
1:D:1726:ILE:HD11	1:D:2161:LEU:HD11	2.01	0.43
1:D:4480:PHE:N	1:D:4482:LYS:HZ3	2.16	0.43
1:A:2887:GLU:HA	1:A:2890:GLN:OE1	2.18	0.43
1:B:156:GLU:HB2	1:B:187:SER:HB3	2.01	0.43
1:B:675:TYR:HB3	1:B:822:CYS:SG	2.59	0.43
1:B:808:HIS:HA	1:B:1610:ARG:HH21	1.84	0.43
1:B:1566:LEU:O	1:B:1570:LEU:HG	2.18	0.43
1:B:1932:PHE:CE2	1:B:1996:LEU:HD22	2.53	0.43
1:B:2135:GLY:H	1:B:2138:GLU:HB2	1.84	0.43
1:B:4690:LYS:HD3	1:B:4692:SER:OG	2.19	0.43
1:C:675:TYR:HB3	1:C:822:CYS:SG	2.59	0.43
1:C:830:GLU:OE1	1:C:830:GLU:N	2.52	0.43
1:C:1426:TYR:HA	1:C:1564:MET:O	2.19	0.43
1:C:1960:ARG:H	1:C:1960:ARG:HG3	0.96	0.43
1:C:2440:PHE:HB3	1:C:2460:PHE:CD2	2.51	0.43
1:C:2937:HIS:O	1:C:2940:ILE:HG22	2.19	0.43
1:C:4047:ASP:HA	1:C:4050:LYS:HE3	2.00	0.43
1:D:156:GLU:HB2	1:D:187:SER:HB3	2.01	0.43
1:D:935:MET:HA	1:D:938:GLU:HG3	2.00	0.43
1:D:3960:GLN:HA	1:D:4069:CYS:HA	2.00	0.43
1:A:439:LYS:HA	1:A:439:LYS:HD3	1.73	0.42
1:A:694:ARG:HD3	1:A:733:TRP:CD1	2.53	0.42
1:A:830:GLU:OE1	1:A:830:GLU:N	2.52	0.42
1:A:874:LEU:HA	1:A:875:PRO:HD3	1.82	0.42
1:A:880:ARG:NH1	1:A:1062:TYR:OH	2.52	0.42
1:A:2066:MET:CE	1:A:2084:MET:HA	2.49	0.42
1:A:2704:GLN:O	1:A:2704:GLN:HG2	2.19	0.42
1:A:3999:MET:HG3	1:A:4002:MET:HE3	2.01	0.42
1:A:4654:MET:HE3	1:A:4663:ARG:HH21	1.84	0.42
2:G:19:LYS:HB2	2:G:19:LYS:HE3	1.83	0.42
1:B:1038:LEU:HB2	1:B:1043:LYS:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1051:ARG:HA	1:B:1054:VAL:HG23	2.01	0.42
1:B:1564:MET:HE1	1:B:1578:PRO:HA	2.00	0.42
1:B:1605:LYS:HE2	1:B:1623:ASP:OD2	2.19	0.42
1:B:1732:GLU:O	1:B:1736:ILE:HG12	2.19	0.42
1:B:2763:LEU:HD23	1:B:2767:GLU:CD	2.39	0.42
1:B:3102:LEU:HA	1:B:3105:LEU:HG	2.00	0.42
1:B:4561:LEU:HD11	1:B:4563:GLU:OE2	2.19	0.42
1:C:165:ALA:HB2	1:C:182:ILE:HG23	2.01	0.42
1:C:1605:LYS:HE2	1:C:1623:ASP:OD2	2.19	0.42
1:C:2143:ILE:HG12	1:C:2195:ASN:OD1	2.18	0.42
1:C:2877:LEU:HG	1:C:2882:LYS:HG3	2.00	0.42
1:C:2985:ALA:HB2	1:C:3001:LYS:HE2	2.00	0.42
1:C:3036:LEU:O	1:C:3040:LEU:HG	2.19	0.42
1:C:4094:ILE:O	1:C:4098:VAL:HG23	2.18	0.42
1:D:82:LEU:HD13	1:D:156:GLU:HG2	2.01	0.42
1:D:120:LEU:HD11	1:D:158:CYS:HB3	2.01	0.42
1:D:308:LEU:HG	1:D:309:MET:O	2.19	0.42
1:D:2195:ASN:ND2	1:D:2198:ARG:HH12	2.15	0.42
1:D:2636:GLU:HG2	1:D:2637:GLU:N	2.34	0.42
1:D:2704:GLN:O	1:D:2704:GLN:HG2	2.19	0.42
1:D:3060:PHE:HE2	1:D:3108:LEU:HD13	1.84	0.42
1:A:608:HIS:HB2	1:A:1656:HIS:ND1	2.34	0.42
1:A:872:ILE:HG13	1:A:941:LYS:HE3	2.01	0.42
1:A:877:HIS:HA	1:A:880:ARG:NE	2.34	0.42
1:A:1426:TYR:HA	1:A:1564:MET:O	2.19	0.42
1:A:4055:HIS:O	1:B:4660:PHE:HE1	2.02	0.42
2:F:79:PRO:O	2:F:84:GLY:HA2	2.19	0.42
2:G:79:PRO:O	2:G:84:GLY:HA2	2.19	0.42
1:B:165:ALA:HB2	1:B:182:ILE:HG23	2.01	0.42
1:B:996:VAL:HG11	1:B:1051:ARG:CD	2.46	0.42
1:B:1034:PRO:HD2	1:B:1037:LEU:HD12	2.00	0.42
1:B:2143:ILE:HG12	1:B:2195:ASN:OD1	2.18	0.42
1:B:2937:HIS:O	1:B:2940:ILE:HG22	2.19	0.42
1:C:606:ARG:HB2	1:C:1653:PHE:CE1	2.55	0.42
1:C:1051:ARG:HA	1:C:1054:VAL:HG23	2.01	0.42
1:C:1732:GLU:O	1:C:1736:ILE:HG12	2.19	0.42
1:C:2636:GLU:HG2	1:C:2637:GLU:N	2.34	0.42
1:C:4611:GLU:HA	1:C:4653:VAL:HG22	2.00	0.42
1:D:872:ILE:HG13	1:D:941:LYS:HE3	2.01	0.42
1:D:877:HIS:HA	1:D:880:ARG:NE	2.34	0.42
1:D:1426:TYR:HA	1:D:1564:MET:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2143:ILE:HG12	1:D:2195:ASN:OD1	2.18	0.42
1:D:3102:LEU:HA	1:D:3105:LEU:HG	2.00	0.42
1:D:3728:GLN:O	1:D:3732:HIS:ND1	2.46	0.42
1:D:4208:GLU:OE1	1:D:4208:GLU:O	2.37	0.42
1:A:329:PHE:CE1	1:A:365:HIS:HD2	2.37	0.42
1:A:675:TYR:HB3	1:A:822:CYS:SG	2.59	0.42
1:A:3036:LEU:O	1:A:3040:LEU:HG	2.19	0.42
1:A:4020:PHE:HA	1:A:4023:LEU:HB3	2.00	0.42
1:A:4030:ASP:HA	1:A:4033:LYS:HE2	2.01	0.42
1:A:4732:GLY:HA2	1:A:4735:ASN:O	2.19	0.42
1:B:50:GLU:CD	1:B:61:ASP:H	2.21	0.42
1:B:880:ARG:NH1	1:B:1062:TYR:OH	2.52	0.42
1:B:1011:ARG:HB3	1:B:1016:TRP:HB2	2.00	0.42
1:B:1652:LYS:NZ	1:B:1656:HIS:HE1	2.17	0.42
1:C:308:LEU:HG	1:C:309:MET:O	2.19	0.42
1:C:3960:GLN:HA	1:C:4069:CYS:HA	2.00	0.42
1:C:4208:GLU:OE1	1:C:4208:GLU:O	2.37	0.42
1:C:4654:MET:HE3	1:C:4663:ARG:HH21	1.84	0.42
1:C:4862:ILE:HD13	1:D:4852:PHE:CE1	2.54	0.42
1:D:165:ALA:HB2	1:D:182:ILE:HG23	2.01	0.42
1:D:830:GLU:N	1:D:830:GLU:OE1	2.52	0.42
1:D:985:PHE:CD2	1:D:985:PHE:N	2.88	0.42
1:A:594:ILE:HD11	1:A:632:ILE:HG13	2.00	0.42
1:A:747:HIS:CD2	1:A:750:ARG:HG3	2.54	0.42
1:A:747:HIS:HD2	1:A:750:ARG:HG3	1.84	0.42
1:A:986:ILE:HD11	1:A:1055:ARG:HA	2.01	0.42
1:A:1011:ARG:HB3	1:A:1016:TRP:HB2	2.00	0.42
1:A:1652:LYS:NZ	1:A:1656:HIS:HE1	2.18	0.42
1:A:2678:PRO:HA	1:A:2921:PHE:HD2	1.84	0.42
1:A:2714:PRO:O	1:A:2718:GLU:HG2	2.20	0.42
1:A:2937:HIS:O	1:A:2940:ILE:HG22	2.19	0.42
1:A:3060:PHE:HE2	1:A:3108:LEU:HD13	1.84	0.42
1:A:4254:THR:HA	1:A:4257:ARG:HE	1.84	0.42
1:B:747:HIS:CD2	1:B:750:ARG:HG3	2.54	0.42
1:B:830:GLU:N	1:B:830:GLU:OE1	2.52	0.42
1:B:872:ILE:HG13	1:B:941:LYS:HE3	2.01	0.42
1:B:889:ILE:HG12	1:B:889:ILE:H	1.75	0.42
1:B:2678:PRO:HA	1:B:2921:PHE:HD2	1.84	0.42
1:B:3637:GLU:HG2	1:B:3697:LYS:HB2	2.02	0.42
1:B:4208:GLU:OE1	1:B:4208:GLU:O	2.37	0.42
1:B:4480:PHE:N	1:B:4482:LYS:HZ3	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:387:ILE:HD11	1:C:389:ARG:HH21	1.83	0.42
1:C:398:HIS:HB2	1:C:401:ASP:OD1	2.19	0.42
1:C:808:HIS:HA	1:C:1610:ARG:HH21	1.84	0.42
1:C:872:ILE:HG13	1:C:941:LYS:HE3	2.01	0.42
1:C:996:VAL:HG11	1:C:1051:ARG:CD	2.46	0.42
1:C:1011:ARG:HB3	1:C:1016:TRP:HB2	2.00	0.42
1:C:1690:GLU:OE1	1:C:1790:LYS:NZ	2.42	0.42
1:C:4254:THR:HA	1:C:4257:ARG:HE	1.84	0.42
1:D:808:HIS:HA	1:D:1610:ARG:HH21	1.84	0.42
1:D:1166:VAL:HG23	1:D:1173:MET:CG	2.46	0.42
1:D:2714:PRO:O	1:D:2718:GLU:HG2	2.20	0.42
1:D:4030:ASP:HA	1:D:4033:LYS:HE2	2.02	0.42
1:D:4502:MET:HE1	1:D:4585:PHE:HD2	1.85	0.42
1:D:4732:GLY:HA2	1:D:4735:ASN:O	2.20	0.42
1:A:120:LEU:HD11	1:A:158:CYS:HB3	2.01	0.42
1:A:165:ALA:HB2	1:A:182:ILE:HG23	2.01	0.42
1:A:674:TYR:HE1	1:A:756:SER:HB2	1.84	0.42
1:A:1952:ASN:HB2	1:A:1953:MET:HE1	2.01	0.42
1:A:2691:LYS:O	1:A:2695:MET:HG3	2.19	0.42
1:A:3960:GLN:HA	1:A:4069:CYS:HA	2.00	0.42
1:A:4503:ARG:NH2	1:A:4745:ASP:OD2	2.53	0.42
2:E:79:PRO:O	2:E:84:GLY:HA2	2.19	0.42
1:B:52:THR:HG22	1:B:60:PRO:HB3	2.00	0.42
1:B:163:HIS:HB2	1:B:182:ILE:HG13	2.02	0.42
1:B:882:ARG:HH11	1:B:933:LEU:HD22	1.85	0.42
1:B:2567:ASP:O	1:B:2571:VAL:HG23	2.20	0.42
1:B:3827:GLU:O	1:B:3831:GLN:HA	2.19	0.42
1:B:4030:ASP:HA	1:B:4033:LYS:HE2	2.02	0.42
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.41	0.42
1:B:4503:ARG:NH2	1:B:4745:ASP:OD2	2.53	0.42
1:C:591:GLU:O	1:C:594:ILE:HG22	2.19	0.42
1:C:1652:LYS:NZ	1:C:1656:HIS:HE1	2.18	0.42
1:C:1910:LEU:HD13	1:C:2062:ILE:HG12	1.99	0.42
1:C:2195:ASN:ND2	1:C:2198:ARG:HH12	2.15	0.42
1:C:2274:LEU:HD21	1:C:2329:GLU:HB2	2.01	0.42
1:C:2898:ILE:HD12	1:D:1500:ARG:HH22	1.84	0.42
1:C:4070:ALA:HB1	1:C:4078:LEU:HD22	2.01	0.42
1:C:4690:LYS:HD3	1:C:4692:SER:OG	2.19	0.42
1:D:606:ARG:HB2	1:D:1653:PHE:CE1	2.55	0.42
1:D:1050:LEU:HD12	1:D:1050:LEU:HA	1.81	0.42
1:D:1795:LEU:HD23	1:D:1842:ILE:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2917:ILE:HG12	1:D:2999:LYS:HD3	2.00	0.42
1:D:3637:GLU:HG2	1:D:3697:LYS:HB2	2.02	0.42
1:D:4070:ALA:HB1	1:D:4078:LEU:HD22	2.01	0.42
1:D:4135:ARG:HD2	1:D:4911:GLN:HB3	2.02	0.42
1:A:986:ILE:HD12	1:A:1058:LEU:HD12	2.01	0.42
1:A:1084:ARG:NH1	1:A:1127:GLU:OE1	2.50	0.42
1:A:1595:LEU:HD23	1:A:1595:LEU:HA	1.89	0.42
1:A:1611:ILE:HD11	1:A:1618:LEU:HD23	2.02	0.42
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.35	0.42
1:B:21:VAL:HG12	1:B:66:THR:HA	2.00	0.42
1:B:1190:LEU:HD11	1:B:1193:LYS:HA	2.01	0.42
1:B:1641:ILE:HA	1:B:1644:LEU:HD13	2.00	0.42
1:B:2636:GLU:HG2	1:B:2637:GLU:N	2.34	0.42
1:B:2701:PHE:CE2	1:B:2703:PRO:HG3	2.55	0.42
1:B:3698:SER:O	1:B:3727:GLN:NE2	2.49	0.42
1:B:4294:LEU:O	1:B:4298:VAL:HG23	2.18	0.42
1:C:329:PHE:CE1	1:C:365:HIS:HD2	2.37	0.42
1:C:2066:MET:CE	1:C:2084:MET:HA	2.49	0.42
1:C:2135:GLY:H	1:C:2138:GLU:HB2	1.84	0.42
1:C:2789:ILE:CD1	1:C:2903:VAL:HB	2.48	0.42
1:C:3637:GLU:HG2	1:C:3697:LYS:HB2	2.02	0.42
1:D:877:HIS:ND1	1:D:878:LEU:HD12	2.35	0.42
1:D:902:TRP:CZ2	1:D:915:HIS:HB3	2.50	0.42
1:D:1190:LEU:HD11	1:D:1193:LYS:HA	2.01	0.42
1:D:1552:VAL:HG12	1:D:1553:PHE:HD1	1.85	0.42
1:D:1649:GLU:HG2	1:D:1650:LEU:N	2.35	0.42
1:D:2937:HIS:O	1:D:2940:ILE:HG22	2.19	0.42
1:A:2129:LEU:HB2	1:A:2142:MET:HE1	2.01	0.42
1:A:3102:LEU:HA	1:A:3105:LEU:HG	2.00	0.42
1:A:4135:ARG:HD2	1:A:4911:GLN:HB3	2.02	0.42
1:A:4208:GLU:OE1	1:A:4208:GLU:O	2.37	0.42
1:B:506:HIS:CE1	1:B:530:LEU:HD21	2.55	0.42
1:B:2066:MET:CE	1:B:2084:MET:HA	2.49	0.42
1:B:2758:LYS:HE3	1:B:2763:LEU:HA	2.00	0.42
1:B:3821:THR:HG22	1:B:3823:GLU:H	1.85	0.42
1:B:4020:PHE:HA	1:B:4023:LEU:HB3	2.00	0.42
1:B:4611:GLU:HA	1:B:4653:VAL:HG22	2.00	0.42
1:C:874:LEU:HA	1:C:875:PRO:HD3	1.82	0.42
1:C:986:ILE:HD12	1:C:1058:LEU:HD12	2.01	0.42
1:C:1944:TYR:HA	1:C:1947:VAL:HG12	2.02	0.42
1:C:2701:PHE:CE2	1:C:2703:PRO:HG3	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2714:PRO:O	1:C:2718:GLU:HG2	2.20	0.42
1:C:2836:ASP:OD1	1:C:2836:ASP:N	2.52	0.42
1:C:3060:PHE:HE2	1:C:3108:LEU:HD13	1.84	0.42
1:C:3821:THR:HG22	1:C:3823:GLU:H	1.85	0.42
1:C:4634:VAL:O	1:C:4637:THR:OG1	2.26	0.42
1:C:4732:GLY:HA2	1:C:4735:ASN:O	2.20	0.42
1:D:398:HIS:HB2	1:D:401:ASP:OD1	2.19	0.42
1:D:1732:GLU:O	1:D:1736:ILE:HG12	2.19	0.42
1:D:2274:LEU:HD21	1:D:2329:GLU:HB2	2.01	0.42
1:D:2567:ASP:O	1:D:2571:VAL:HG23	2.20	0.42
1:D:2857:LYS:O	1:D:2861:GLU:OE1	2.38	0.42
1:A:591:GLU:O	1:A:594:ILE:HG22	2.19	0.42
1:A:882:ARG:HH11	1:A:933:LEU:HD22	1.85	0.42
1:A:996:VAL:HG11	1:A:1051:ARG:CD	2.46	0.42
1:A:3642:GLU:HB3	1:A:3646:LYS:NZ	2.35	0.42
1:A:3827:GLU:O	1:A:3831:GLN:HA	2.20	0.42
1:B:120:LEU:HD11	1:B:158:CYS:HB3	2.01	0.42
1:B:398:HIS:HB2	1:B:401:ASP:OD1	2.19	0.42
1:B:608:HIS:HB2	1:B:1656:HIS:ND1	2.34	0.42
1:B:674:TYR:HE1	1:B:756:SER:HB2	1.84	0.42
1:B:955:GLU:HG3	1:B:959:ASP:OD2	2.20	0.42
1:B:1081:THR:HG23	1:B:1083:GLU:H	1.85	0.42
1:B:1426:TYR:HA	1:B:1564:MET:O	2.19	0.42
1:B:1726:ILE:HD11	1:B:2161:LEU:HD11	2.01	0.42
1:B:2154:VAL:HG13	1:B:2158:HIS:CD2	2.48	0.42
1:B:2714:PRO:O	1:B:2718:GLU:HG2	2.20	0.42
1:B:2782:MET:HB2	1:B:2782:MET:HE2	2.01	0.42
1:B:2857:LYS:O	1:B:2861:GLU:OE1	2.38	0.42
1:B:3906:PHE:HB3	1:B:3967:LEU:HD11	2.01	0.42
1:B:4018:ASP:OD2	1:B:4022:LYS:NZ	2.38	0.42
1:C:747:HIS:CD2	1:C:750:ARG:HG3	2.54	0.42
1:C:1552:VAL:HG12	1:C:1553:PHE:HD1	1.85	0.42
1:C:2129:LEU:HB2	1:C:2142:MET:HE1	2.02	0.42
1:D:675:TYR:HB3	1:D:822:CYS:SG	2.59	0.42
1:D:1944:TYR:HA	1:D:1947:VAL:HG12	2.02	0.42
1:D:2163:ARG:NH1	1:D:2209:GLN:HB3	2.35	0.42
1:D:2678:PRO:HA	1:D:2921:PHE:HD2	1.84	0.42
1:D:2763:LEU:HD23	1:D:2767:GLU:CD	2.39	0.42
1:A:191:TYR:CE1	1:A:209:GLN:HG3	2.55	0.42
1:A:985:PHE:CD2	1:A:985:PHE:N	2.88	0.42
1:A:1726:ILE:HD11	1:A:2161:LEU:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1914:CYS:O	1:A:1918:VAL:HG23	2.20	0.42
1:A:1931:ASP:OD1	1:A:1932:PHE:N	2.53	0.42
1:A:2659:GLN:C	1:A:2663:LYS:HZ2	2.23	0.42
1:A:2763:LEU:HD23	1:A:2767:GLU:CD	2.39	0.42
1:B:874:LEU:HA	1:B:875:PRO:HD3	1.82	0.42
1:B:986:ILE:HD11	1:B:1055:ARG:HA	2.01	0.42
1:B:986:ILE:HD13	1:B:1055:ARG:HA	2.02	0.42
1:B:1004:HIS:HE1	1:B:1038:LEU:HD21	1.84	0.42
1:B:1931:ASP:OD1	1:B:1932:PHE:N	2.53	0.42
1:B:1944:TYR:HA	1:B:1947:VAL:HG12	2.02	0.42
1:B:2163:ARG:NH1	1:B:2209:GLN:HB3	2.35	0.42
1:B:2704:GLN:O	1:B:2704:GLN:HG2	2.19	0.42
1:B:3960:GLN:HA	1:B:4069:CYS:HA	2.00	0.42
1:B:4254:THR:HA	1:B:4257:ARG:HE	1.84	0.42
1:C:483:LYS:HB2	1:C:483:LYS:HE3	1.84	0.42
1:C:506:HIS:CE1	1:C:530:LEU:HD21	2.55	0.42
1:C:955:GLU:HG3	1:C:959:ASP:OD2	2.20	0.42
1:C:2299:LEU:HD22	1:C:2395:LEU:HA	2.01	0.42
1:C:2552:VAL:HG11	1:C:2573:LEU:HD13	2.01	0.42
1:C:2678:PRO:HA	1:C:2921:PHE:HD2	1.84	0.42
1:C:2737:LEU:HD23	1:C:2737:LEU:HA	1.93	0.42
1:C:2857:LYS:O	1:C:2861:GLU:OE1	2.38	0.42
1:C:2982:PHE:O	1:C:3001:LYS:NZ	2.44	0.42
1:C:3827:GLU:O	1:C:3831:GLN:HA	2.19	0.42
1:C:4020:PHE:HA	1:C:4023:LEU:HB3	2.01	0.42
1:D:747:HIS:CD2	1:D:750:ARG:HG3	2.54	0.42
1:D:1475:LYS:HE3	1:D:1475:LYS:HB3	1.90	0.42
1:D:1605:LYS:HE2	1:D:1623:ASP:OD2	2.19	0.42
1:D:2066:MET:CE	1:D:2084:MET:HA	2.49	0.42
1:D:2765:GLU:HA	1:D:2768:LYS:HZ1	1.84	0.42
1:D:2777:GLU:O	1:D:2781:THR:OG1	2.19	0.42
1:D:3827:GLU:O	1:D:3831:GLN:HA	2.19	0.42
1:D:4654:MET:HE3	1:D:4663:ARG:HH21	1.84	0.42
1:A:606:ARG:HB2	1:A:1653:PHE:CE1	2.55	0.42
1:A:644:LEU:HD22	1:A:1630:LEU:HD21	2.02	0.42
1:A:1028:ARG:HA	1:A:1028:ARG:HD2	1.83	0.42
1:A:1502:ASN:O	1:D:2824:ARG:NH2	2.53	0.42
1:A:1944:TYR:HA	1:A:1947:VAL:HG12	2.02	0.42
1:B:82:LEU:HD13	1:B:156:GLU:HG2	2.01	0.42
1:B:1174:MET:HG3	1:B:1190:LEU:HA	2.02	0.42
1:B:1611:ILE:HD11	1:B:1618:LEU:HD23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1952:ASN:HB2	1:B:1953:MET:HE1	2.01	0.42
1:B:3036:LEU:O	1:B:3040:LEU:HG	2.19	0.42
1:B:4135:ARG:HD2	1:B:4911:GLN:HB3	2.02	0.42
1:C:163:HIS:HB2	1:C:182:ILE:HG13	2.02	0.42
1:C:608:HIS:HB2	1:C:1656:HIS:ND1	2.34	0.42
1:C:985:PHE:CD2	1:C:985:PHE:N	2.88	0.42
1:C:986:ILE:HD13	1:C:1055:ARG:HA	2.02	0.42
1:C:1190:LEU:HD11	1:C:1193:LYS:HA	2.01	0.42
1:C:1641:ILE:HA	1:C:1644:LEU:HD13	2.00	0.42
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.35	0.42
1:C:1952:ASN:HB2	1:C:1953:MET:HE1	2.01	0.42
1:C:2353:ILE:O	1:C:2360:ASP:HB2	2.20	0.42
1:C:2567:ASP:O	1:C:2571:VAL:HG23	2.20	0.42
1:C:4030:ASP:HA	1:C:4033:LYS:HE2	2.02	0.42
1:C:4814:MET:HE2	1:D:4844:ILE:HG21	2.02	0.42
1:D:191:TYR:CE1	1:D:209:GLN:HG3	2.55	0.42
1:D:591:GLU:O	1:D:594:ILE:HG22	2.19	0.42
1:D:644:LEU:HD22	1:D:1630:LEU:HD21	2.02	0.42
1:D:986:ILE:HD11	1:D:1055:ARG:HA	2.01	0.42
1:D:2353:ILE:O	1:D:2360:ASP:HB2	2.20	0.42
1:D:2552:VAL:HG11	1:D:2573:LEU:HD13	2.01	0.42
1:D:2659:GLN:C	1:D:2663:LYS:HZ2	2.23	0.42
1:D:2702:ASN:HA	1:D:2703:PRO:HD3	1.84	0.42
1:D:2841:ALA:HA	1:D:2844:MET:HG3	2.02	0.42
1:D:4690:LYS:HD3	1:D:4692:SER:OG	2.19	0.42
1:A:398:HIS:HB2	1:A:401:ASP:OD1	2.19	0.41
1:A:2636:GLU:HG2	1:A:2637:GLU:N	2.34	0.41
1:A:3948:LEU:HG	1:A:3978:MET:HE1	2.03	0.41
1:B:308:LEU:HG	1:B:309:MET:O	2.19	0.41
1:B:606:ARG:HB2	1:B:1653:PHE:CE1	2.55	0.41
1:B:2623:LEU:HB3	1:B:2626:GLY:HA2	2.02	0.41
1:B:4947:ARG:HA	1:B:4947:ARG:HD2	1.92	0.41
1:C:156:GLU:HB2	1:C:187:SER:HB3	2.01	0.41
1:C:2175:MET:HA	1:C:2178:VAL:HG12	2.02	0.41
1:C:2704:GLN:HG2	1:C:2704:GLN:O	2.19	0.41
1:C:3018:ARG:HG3	1:C:3021:LEU:HD22	2.02	0.41
1:C:3723:LYS:NZ	1:C:3727:GLN:OE1	2.52	0.41
1:C:4135:ARG:HD2	1:C:4911:GLN:HB3	2.02	0.41
1:D:50:GLU:CD	1:D:61:ASP:H	2.21	0.41
1:D:1483:SER:HB3	1:D:1486:TYR:CE1	2.55	0.41
1:D:2134:MET:HE3	1:D:2139:GLU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2262:LEU:O	1:D:2266:VAL:HG23	2.20	0.41
1:D:3018:ARG:HG3	1:D:3021:LEU:HD22	2.02	0.41
1:D:3723:LYS:NZ	1:D:3727:GLN:OE1	2.52	0.41
1:A:506:HIS:CE1	1:A:530:LEU:HD21	2.55	0.41
1:A:586:LEU:HD22	1:A:620:CYS:HB2	2.02	0.41
1:A:921:PHE:HD1	1:A:929:ARG:CZ	2.34	0.41
1:A:1732:GLU:O	1:A:1736:ILE:HG12	2.19	0.41
1:A:2274:LEU:HD21	1:A:2329:GLU:HB2	2.01	0.41
1:A:2857:LYS:O	1:A:2861:GLU:OE1	2.38	0.41
1:A:3637:GLU:HG2	1:A:3697:LYS:HB2	2.02	0.41
1:A:4294:LEU:O	1:A:4298:VAL:HG23	2.18	0.41
1:B:165:ALA:HB1	1:B:211:LEU:HD22	2.03	0.41
1:B:329:PHE:CE1	1:B:365:HIS:HD2	2.37	0.41
1:B:1564:MET:HE3	1:B:1565:PRO:HD2	2.01	0.41
1:B:2175:MET:HA	1:B:2178:VAL:HG12	2.02	0.41
1:B:2353:ILE:O	1:B:2360:ASP:HB2	2.20	0.41
1:B:3065:ALA:O	1:B:3069:GLU:HG2	2.20	0.41
1:B:3677:THR:HB	1:B:3679:LYS:NZ	2.35	0.41
1:B:4038:ASP:OD2	1:B:4040:LYS:NZ	2.36	0.41
1:C:50:GLU:CD	1:C:61:ASP:H	2.21	0.41
1:C:1081:THR:HG23	1:C:1083:GLU:H	1.85	0.41
1:C:2163:ARG:NH1	1:C:2209:GLN:HB3	2.35	0.41
1:C:2623:LEU:HB3	1:C:2626:GLY:HA2	2.02	0.41
1:C:4710:LEU:HD23	1:C:4710:LEU:HA	1.86	0.41
1:D:1914:CYS:O	1:D:1918:VAL:HG23	2.20	0.41
1:D:1947:VAL:HG11	1:D:1965:PHE:HE2	1.83	0.41
1:D:2833:LEU:HB3	1:D:2838[B]:HIS:NE2	2.35	0.41
1:D:3036:LEU:O	1:D:3040:LEU:HG	2.19	0.41
1:D:3906:PHE:HB3	1:D:3967:LEU:HD11	2.01	0.41
1:D:4306:PHE:HA	1:D:4309:ILE:HG12	2.01	0.41
1:A:308:LEU:HG	1:A:309:MET:O	2.19	0.41
1:A:955:GLU:HG3	1:A:959:ASP:OD2	2.19	0.41
1:A:1161:VAL:HB	1:A:1226:TYR:HE2	1.85	0.41
1:A:1552:VAL:HG12	1:A:1553:PHE:HD1	1.85	0.41
1:A:2175:MET:HA	1:A:2178:VAL:HG12	2.02	0.41
1:A:2737:LEU:HD23	1:A:2737:LEU:HA	1.93	0.41
1:B:2552:VAL:HG11	1:B:2573:LEU:HD13	2.01	0.41
1:B:4818:TYR:HD1	1:C:4848:ILE:HD11	1.85	0.41
1:C:260:VAL:O	1:C:390:LYS:NZ	2.37	0.41
1:C:1931:ASP:OD1	1:C:1932:PHE:N	2.53	0.41
1:C:2837:LEU:HA	1:C:2840:MET:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2943:PHE:CE1	1:C:2952:GLU:HG2	2.55	0.41
1:C:2953:HIS:O	1:C:2953:HIS:CG	2.73	0.41
1:C:4568:MET:HA	1:C:4571:THR:HB	2.02	0.41
1:D:996:VAL:HG11	1:D:1051:ARG:CD	2.46	0.41
1:D:1011:ARG:HB3	1:D:1016:TRP:HB2	2.00	0.41
1:D:2135:GLY:H	1:D:2138:GLU:HB2	1.84	0.41
1:D:2943:PHE:CE2	1:D:3021:LEU:HD23	2.55	0.41
1:D:3642:GLU:HB3	1:D:3646:LYS:NZ	2.35	0.41
1:D:4107:GLU:OE1	1:D:4149:TYR:OH	2.22	0.41
1:D:4503:ARG:NH2	1:D:4745:ASP:OD2	2.53	0.41
1:A:82:LEU:HD13	1:A:156:GLU:HG2	2.01	0.41
1:A:163:HIS:HB2	1:A:182:ILE:HG13	2.02	0.41
1:A:1051:ARG:HA	1:A:1054:VAL:HG23	2.02	0.41
1:A:1312:GLU:OE1	2:E:32:GLN:HG2	2.20	0.41
1:A:2567:ASP:O	1:A:2571:VAL:HG23	2.20	0.41
1:A:2841:ALA:HA	1:A:2844:MET:HG3	2.02	0.41
1:A:4793:TYR:HH	1:A:4816:HIS:CE1	2.32	0.41
2:E:19:LYS:HE3	2:E:19:LYS:HB2	1.83	0.41
1:B:483:LYS:HB2	1:B:483:LYS:HE3	1.84	0.41
1:B:877:HIS:ND1	1:B:878:LEU:HD12	2.35	0.41
1:B:924:LEU:HD12	1:B:925:PRO:O	2.21	0.41
1:B:1190:LEU:HD11	1:B:1193:LYS:HD3	2.03	0.41
1:B:1234:GLU:H	1:B:1234:GLU:CD	2.23	0.41
1:B:1483:SER:HB3	1:B:1486:TYR:CE1	2.55	0.41
1:B:2943:PHE:CE2	1:B:3021:LEU:HD23	2.55	0.41
1:C:1084:ARG:NH1	1:C:1127:GLU:OE1	2.50	0.41
1:C:2238:THR:OG1	1:C:2241:ASP:OD2	2.24	0.41
1:C:3728:GLN:O	1:C:3732:HIS:ND1	2.46	0.41
1:D:955:GLU:HG3	1:D:959:ASP:OD2	2.20	0.41
1:D:2701:PHE:CE2	1:D:2703:PRO:HG3	2.55	0.41
1:D:2953:HIS:CG	1:D:2953:HIS:O	2.73	0.41
1:D:3821:THR:HG22	1:D:3823:GLU:H	1.85	0.41
1:A:156:GLU:HB2	1:A:187:SER:HB3	2.01	0.41
1:A:877:HIS:ND1	1:A:878:LEU:HD12	2.35	0.41
1:A:1004:HIS:HE1	1:A:1038:LEU:HD21	1.84	0.41
1:A:2195:ASN:ND2	1:A:2198:ARG:HH12	2.15	0.41
1:A:2460:PHE:CE2	1:A:2465:LYS:HD2	2.56	0.41
1:A:2701:PHE:CE2	1:A:2703:PRO:HG3	2.55	0.41
1:A:2857:LYS:HE3	1:A:2871:LEU:CD2	2.37	0.41
1:A:4306:PHE:HA	1:A:4309:ILE:HG12	2.02	0.41
1:A:4502:MET:HE1	1:A:4585:PHE:HD2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4858:LEU:HD23	1:A:4861:ILE:HD12	2.03	0.41
1:B:62:LEU:HD11	1:B:282:VAL:HG13	2.03	0.41
1:B:921:PHE:HD1	1:B:929:ARG:CZ	2.33	0.41
1:B:985:PHE:N	1:B:985:PHE:CD2	2.88	0.41
1:B:986:ILE:HD12	1:B:1058:LEU:HD12	2.01	0.41
1:B:1028:ARG:HA	1:B:1028:ARG:HD2	1.83	0.41
1:B:1304:LEU:HD23	1:B:1304:LEU:HA	1.95	0.41
1:B:1489:CYS:O	1:B:1493:SER:OG	2.27	0.41
1:B:2274:LEU:HD21	1:B:2329:GLU:HB2	2.01	0.41
1:B:2841:ALA:HA	1:B:2844:MET:HG3	2.02	0.41
1:B:2943:PHE:CE1	1:B:2952:GLU:HG2	2.56	0.41
1:B:4045:LYS:HE3	1:B:4067:LEU:HD22	2.03	0.41
1:B:4805:LYS:HA	1:B:4805:LYS:HD2	1.82	0.41
1:C:62:LEU:HD11	1:C:282:VAL:HG13	2.03	0.41
1:C:165:ALA:HB1	1:C:211:LEU:HD22	2.03	0.41
1:C:586:LEU:HD22	1:C:620:CYS:HB2	2.02	0.41
1:C:1074:ARG:NH1	1:C:1076:GLU:HA	2.36	0.41
1:C:1475:LYS:HE3	1:C:1475:LYS:HB3	1.90	0.41
1:C:2943:PHE:CE2	1:C:3021:LEU:HD23	2.56	0.41
1:C:3891:TYR:HA	1:D:76:ARG:NH2	2.36	0.41
1:D:329:PHE:CE1	1:D:365:HIS:HD2	2.37	0.41
1:D:506:HIS:CE1	1:D:530:LEU:HD21	2.55	0.41
1:D:1051:ARG:HA	1:D:1054:VAL:HG23	2.01	0.41
1:D:1174:MET:HG3	1:D:1190:LEU:HA	2.02	0.41
1:D:2966:VAL:O	1:D:2970:LEU:N	2.46	0.41
1:D:4045:LYS:HE3	1:D:4067:LEU:HD22	2.03	0.41
1:D:4908:HIS:CE1	1:D:4913:HIS:ND1	2.89	0.41
1:A:2192:MET:O	1:A:2192:MET:HG2	2.16	0.41
1:A:2262:LEU:O	1:A:2266:VAL:HG23	2.20	0.41
1:A:2552:VAL:HG11	1:A:2573:LEU:HD13	2.01	0.41
1:A:3065:ALA:O	1:A:3069:GLU:HG2	2.20	0.41
1:B:201:LEU:H	1:B:201:LEU:HD12	1.85	0.41
1:B:1074:ARG:NH1	1:B:1076:GLU:HA	2.36	0.41
1:B:1468:THR:HG22	1:B:1479:SER:CB	2.51	0.41
1:B:1950:ALA:HB1	1:B:1961:LYS:HZ3	1.85	0.41
1:B:2262:LEU:O	1:B:2266:VAL:HG23	2.20	0.41
1:B:2299:LEU:HD22	1:B:2395:LEU:HA	2.01	0.41
1:B:2460:PHE:CE2	1:B:2465:LYS:HD2	2.56	0.41
1:B:4306:PHE:HA	1:B:4309:ILE:HG12	2.01	0.41
1:B:4908:HIS:CE1	1:B:4913:HIS:ND1	2.89	0.41
1:C:39:ALA:O	1:C:64:ILE:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:82:LEU:HD13	1:C:156:GLU:HG2	2.02	0.41
1:C:201:LEU:H	1:C:201:LEU:HD12	1.85	0.41
1:C:857:LEU:HD12	1:C:859:GLN:NE2	2.36	0.41
1:C:876:PRO:HA	1:C:879:GLU:OE1	2.21	0.41
1:C:1004:HIS:HE1	1:C:1038:LEU:HD21	1.84	0.41
1:C:1161:VAL:HB	1:C:1226:TYR:HE2	1.85	0.41
1:C:1174:MET:HG3	1:C:1190:LEU:HA	2.02	0.41
1:C:1483:SER:HB3	1:C:1486:TYR:CE1	2.55	0.41
1:C:1681:ASP:HB3	1:C:1683:PRO:HD2	2.03	0.41
1:C:2460:PHE:CE2	1:C:2465:LYS:HD2	2.56	0.41
1:C:2841:ALA:HA	1:C:2844:MET:HG3	2.02	0.41
1:C:3642:GLU:HB3	1:C:3646:LYS:NZ	2.35	0.41
1:C:3833:ASP:OD2	1:C:3908:LYS:HD2	2.21	0.41
1:D:439:LYS:HA	1:D:439:LYS:HD3	1.73	0.41
1:D:857:LEU:HD12	1:D:859:GLN:NE2	2.36	0.41
1:D:924:LEU:HD12	1:D:925:PRO:O	2.21	0.41
1:D:1004:HIS:HE1	1:D:1038:LEU:HD21	1.85	0.41
1:D:1652:LYS:NZ	1:D:1656:HIS:HE1	2.18	0.41
1:D:1948:MET:HA	1:D:1948:MET:CE	2.51	0.41
1:D:1979:PHE:CD1	1:D:1993:ARG:HG2	2.56	0.41
1:D:2299:LEU:HD22	1:D:2395:LEU:HA	2.01	0.41
1:D:2837:LEU:HA	1:D:2840:MET:HB2	2.02	0.41
1:D:4503:ARG:HD2	1:D:4503:ARG:HA	1.93	0.41
1:A:1564:MET:HE3	1:A:1565:PRO:HD2	2.03	0.41
1:A:1640:ASP:OD2	1:A:1641:ILE:N	2.54	0.41
1:A:1853:GLU:OE1	1:A:1853:GLU:N	2.49	0.41
1:A:1979:PHE:CD1	1:A:1993:ARG:HG2	2.56	0.41
1:A:2554:ARG:HH11	1:A:2557:LYS:HB2	1.86	0.41
1:A:2837:LEU:HA	1:A:2840:MET:HB2	2.02	0.41
1:A:2943:PHE:CE1	1:A:2952:GLU:HG2	2.56	0.41
1:A:2953:HIS:O	1:A:2953:HIS:CG	2.73	0.41
1:B:191:TYR:CE1	1:B:209:GLN:HG3	2.55	0.41
1:B:876:PRO:HA	1:B:879:GLU:OE1	2.21	0.41
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.35	0.41
1:B:1948:MET:CE	1:B:1948:MET:HA	2.51	0.41
1:B:2502:LEU:HD13	1:B:2513:ALA:HB1	2.03	0.41
1:B:2953:HIS:CG	1:B:2953:HIS:O	2.73	0.41
1:B:4061:SER:O	1:B:4064:GLU:HG3	2.21	0.41
1:B:4732:GLY:HA2	1:B:4735:ASN:O	2.20	0.41
1:B:4858:LEU:HD23	1:B:4861:ILE:HD12	2.03	0.41
1:C:709:GLY:HA3	1:C:723:PHE:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1152:TYR:CD1	1:C:1184:ASP:HB3	2.56	0.41
1:C:1234:GLU:H	1:C:1234:GLU:CD	2.23	0.41
1:C:4908:HIS:CE1	1:C:4913:HIS:ND1	2.89	0.41
1:D:3861:GLN:H	1:D:3867:THR:HG23	1.86	0.41
1:A:876:PRO:HA	1:A:879:GLU:OE1	2.21	0.41
1:A:986:ILE:HD13	1:A:1055:ARG:HA	2.02	0.41
1:A:1081:THR:HG23	1:A:1083:GLU:H	1.85	0.41
1:A:2782:MET:HB2	1:A:2782:MET:HE2	2.01	0.41
1:A:2943:PHE:CE2	1:A:3021:LEU:HD23	2.55	0.41
1:A:3833:ASP:OD2	1:A:3908:LYS:HD2	2.21	0.41
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	2.03	0.41
1:B:585:ALA:O	1:B:588:ILE:HG22	2.21	0.41
1:B:603:LYS:HE3	1:B:603:LYS:HB3	1.94	0.41
1:C:62:LEU:O	1:C:66:THR:HG23	2.21	0.41
1:C:520:ARG:O	1:C:524:GLU:HG2	2.21	0.41
1:C:3065:ALA:O	1:C:3069:GLU:HG2	2.20	0.41
1:C:3861:GLN:H	1:C:3867:THR:HG23	1.86	0.41
1:D:1124:PRO:HD2	1:D:1594:VAL:HG23	2.03	0.41
1:D:1611:ILE:HD11	1:D:1618:LEU:HD23	2.02	0.41
1:D:1952:ASN:HB2	1:D:1953:MET:HE1	2.02	0.41
1:D:4480:PHE:N	1:D:4483:LYS:HZ3	2.18	0.41
1:A:165:ALA:HB1	1:A:211:LEU:HD22	2.02	0.41
1:A:201:LEU:HD12	1:A:201:LEU:H	1.85	0.41
1:A:1043:LYS:HA	1:A:1046:ASN:ND2	2.35	0.41
1:A:1050:LEU:HD12	1:A:1050:LEU:HA	1.81	0.41
1:A:1489:CYS:O	1:A:1493:SER:OG	2.27	0.41
1:A:1793:GLN:NE2	1:A:1797:GLU:OE2	2.54	0.41
1:A:2353:ILE:O	1:A:2360:ASP:HB2	2.20	0.41
1:A:2502:LEU:HD13	1:A:2513:ALA:HB1	2.03	0.41
1:A:2678:PRO:HB2	1:A:2981:TYR:CE1	2.56	0.41
1:A:2733:SER:HB3	1:A:2821:TYR:CZ	2.56	0.41
1:A:3107:SER:O	1:A:3110:GLU:HG3	2.21	0.41
1:A:3821:THR:HG22	1:A:3823:GLU:H	1.85	0.41
1:A:3861:GLN:H	1:A:3867:THR:HG23	1.86	0.41
1:A:4568:MET:HA	1:A:4571:THR:HB	2.02	0.41
1:A:4908:HIS:CE1	1:A:4913:HIS:ND1	2.89	0.41
1:B:513:HIS:O	1:B:517:VAL:HG23	2.21	0.41
1:B:680:ASP:N	1:B:799:LYS:O	2.54	0.41
1:B:1552:VAL:HG12	1:B:1553:PHE:HD1	1.85	0.41
1:B:1914:CYS:O	1:B:1918:VAL:HG23	2.20	0.41
1:B:1978:ASN:HB3	1:B:1983:LYS:HE2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1979:PHE:CD1	1:B:1993:ARG:HG2	2.56	0.41
1:B:2554:ARG:HH11	1:B:2557:LYS:HB2	1.86	0.41
1:B:2801:TYR:CE2	1:C:1496:PRO:O	2.74	0.41
1:B:3833:ASP:OD2	1:B:3908:LYS:HD2	2.21	0.41
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	2.03	0.41
1:C:191:TYR:CE1	1:C:209:GLN:HG3	2.55	0.41
1:C:298:ARG:NH1	1:C:417:ARG:HH12	2.15	0.41
1:C:877:HIS:ND1	1:C:878:LEU:HD12	2.35	0.41
1:C:1166:VAL:HG23	1:C:1173:MET:CG	2.46	0.41
1:C:1630:LEU:HD13	1:C:1644:LEU:HD21	2.03	0.41
1:C:1793:GLN:NE2	1:C:1797:GLU:OE2	2.54	0.41
1:C:1914:CYS:O	1:C:1918:VAL:HG23	2.20	0.41
1:C:1979:PHE:CD1	1:C:1993:ARG:HG2	2.55	0.41
1:C:2087:LEU:O	1:C:2091:GLN:HG2	2.21	0.41
1:C:2555:LEU:HD12	1:C:2555:LEU:HA	1.97	0.41
1:C:2678:PRO:HB2	1:C:2981:TYR:CE1	2.56	0.41
1:C:3906:PHE:HB3	1:C:3967:LEU:HD11	2.01	0.41
1:C:4503:ARG:HD2	1:C:4503:ARG:HA	1.93	0.41
1:C:4503:ARG:NH2	1:C:4745:ASP:OD2	2.53	0.41
1:D:39:ALA:O	1:D:64:ILE:HB	2.21	0.41
1:D:163:HIS:HB2	1:D:182:ILE:HG13	2.02	0.41
1:D:513:HIS:O	1:D:517:VAL:HG23	2.21	0.41
1:D:709:GLY:HA3	1:D:723:PHE:CD2	2.55	0.41
1:D:986:ILE:HD12	1:D:1058:LEU:HD12	2.01	0.41
1:D:1102:TYR:CE1	1:D:1104:GLU:HG3	2.56	0.41
1:D:1161:VAL:HB	1:D:1226:TYR:HE2	1.85	0.41
1:D:1468:THR:HG22	1:D:1479:SER:CB	2.51	0.41
1:D:1681:ASP:HB3	1:D:1683:PRO:HD2	2.03	0.41
1:D:1793:GLN:NE2	1:D:1797:GLU:OE2	2.54	0.41
1:D:1931:ASP:OD1	1:D:1932:PHE:N	2.53	0.41
1:D:2175:MET:HA	1:D:2178:VAL:HG12	2.02	0.41
1:D:2678:PRO:HB2	1:D:2981:TYR:CE1	2.56	0.41
1:D:2721:ILE:HG21	1:D:2772:ARG:HG3	2.03	0.41
1:D:3065:ALA:O	1:D:3069:GLU:HG2	2.20	0.41
1:D:3698:SER:O	1:D:3727:GLN:NE2	2.50	0.41
1:D:3833:ASP:OD2	1:D:3908:LYS:HD2	2.21	0.41
1:D:4750:PHE:HD2	1:D:4753:LEU:HD12	1.86	0.41
1:A:924:LEU:HD12	1:A:925:PRO:O	2.21	0.41
1:A:1190:LEU:HD11	1:A:1193:LYS:HD3	2.03	0.41
1:A:1494:MET:HE3	1:A:1505:LEU:HD22	2.03	0.41
1:A:2163:ARG:NH1	1:A:2209:GLN:HB3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3018:ARG:HG3	1:A:3021:LEU:HD22	2.02	0.41
1:A:3639:LYS:NZ	1:A:3643:ASP:OD2	2.54	0.41
1:A:3677:THR:HB	1:A:3679:LYS:NZ	2.36	0.41
2:F:50:ARG:N	2:F:55:GLU:OE2	2.37	0.41
2:H:50:ARG:N	2:H:55:GLU:OE2	2.37	0.41
1:B:39:ALA:O	1:B:64:ILE:HB	2.21	0.41
1:B:709:GLY:HA3	1:B:723:PHE:CD2	2.56	0.41
1:B:1475:LYS:HB3	1:B:1475:LYS:HE3	1.90	0.41
1:B:2253:LEU:HD23	1:B:2253:LEU:HA	1.93	0.41
1:B:2344:LEU:HD22	1:B:2434:GLY:HA3	2.03	0.41
1:B:2733:SER:HB3	1:B:2821:TYR:CZ	2.56	0.41
1:B:3642:GLU:HB3	1:B:3646:LYS:NZ	2.35	0.41
1:B:3687:LEU:HD12	1:B:3687:LEU:HA	1.94	0.41
1:C:680:ASP:N	1:C:799:LYS:O	2.54	0.41
1:C:1640:ASP:OD2	1:C:1641:ILE:N	2.54	0.41
1:C:2262:LEU:O	1:C:2266:VAL:HG23	2.20	0.41
1:C:2765:GLU:HG2	1:C:2768:LYS:HZ2	1.86	0.41
1:C:4045:LYS:HE3	1:C:4067:LEU:HD22	2.03	0.41
1:C:4061:SER:O	1:C:4064:GLU:HG3	2.21	0.41
1:C:4306:PHE:HA	1:C:4309:ILE:HG12	2.02	0.41
1:D:876:PRO:HA	1:D:879:GLU:OE1	2.21	0.41
1:D:921:PHE:HD1	1:D:929:ARG:CZ	2.34	0.41
1:D:929:ARG:NH2	1:D:933:LEU:HD21	2.36	0.41
1:D:1152:TYR:CD1	1:D:1184:ASP:HB3	2.56	0.41
1:D:2943:PHE:CE1	1:D:2952:GLU:HG2	2.56	0.41
1:A:62:LEU:O	1:A:66:THR:HG23	2.21	0.40
1:A:520:ARG:O	1:A:524:GLU:HG2	2.21	0.40
1:A:585:ALA:O	1:A:588:ILE:HG22	2.21	0.40
1:A:709:GLY:HA3	1:A:723:PHE:CD2	2.55	0.40
1:A:1174:MET:HG3	1:A:1190:LEU:HA	2.02	0.40
1:A:1234:GLU:H	1:A:1234:GLU:CD	2.23	0.40
1:A:1483:SER:HB3	1:A:1486:TYR:CE1	2.55	0.40
1:A:2134:MET:HE3	1:A:2139:GLU:HB2	2.02	0.40
1:A:2299:LEU:HD22	1:A:2395:LEU:HA	2.01	0.40
1:A:2966:VAL:O	1:A:2970:LEU:N	2.46	0.40
1:A:4609:LYS:HD3	1:A:4615:LEU:HD13	2.03	0.40
1:B:644:LEU:HD22	1:B:1630:LEU:HD21	2.02	0.40
1:B:1161:VAL:HB	1:B:1226:TYR:HE2	1.85	0.40
1:B:1630:LEU:HD13	1:B:1644:LEU:HD21	2.03	0.40
1:B:1977:LEU:HD23	1:B:1977:LEU:HA	1.88	0.40
1:B:2087:LEU:O	1:B:2091:GLN:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2837:LEU:HA	1:B:2840:MET:HB2	2.02	0.40
1:B:3882:GLN:HB3	1:B:3947:PHE:CE2	2.56	0.40
1:B:4609:LYS:HD3	1:B:4615:LEU:HD13	2.03	0.40
1:C:731:HIS:CE1	1:C:740:THR:HG22	2.57	0.40
1:C:892:LEU:HD13	1:C:1052:GLU:OE1	2.21	0.40
1:C:1102:TYR:CE1	1:C:1104:GLU:HG3	2.56	0.40
1:C:1611:ILE:HD11	1:C:1618:LEU:HD23	2.02	0.40
1:C:1948:MET:HA	1:C:1948:MET:CE	2.51	0.40
1:C:2502:LEU:HD13	1:C:2513:ALA:HB1	2.03	0.40
1:C:2721:ILE:HG21	1:C:2772:ARG:HG3	2.03	0.40
1:C:2733:SER:HB3	1:C:2821:TYR:CZ	2.56	0.40
1:C:3948:LEU:HG	1:C:3978:MET:HE1	2.03	0.40
1:C:4750:PHE:HD2	1:C:4753:LEU:HD12	1.86	0.40
1:D:165:ALA:HB1	1:D:211:LEU:HD22	2.02	0.40
1:D:586:LEU:HD22	1:D:620:CYS:HB2	2.02	0.40
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.56	0.40
1:D:2146:LEU:HD23	1:D:2146:LEU:HA	1.94	0.40
1:D:2554:ARG:HH11	1:D:2557:LYS:HB2	1.86	0.40
1:D:2635:GLU:HG2	1:D:2680:TYR:CE1	2.55	0.40
1:D:3948:LEU:HG	1:D:3978:MET:HE1	2.03	0.40
1:D:4609:LYS:HD3	1:D:4615:LEU:HD13	2.03	0.40
1:A:2721:ILE:HG21	1:A:2772:ARG:HG3	2.03	0.40
1:A:2782:MET:HE1	1:A:2789:ILE:HB	2.02	0.40
1:A:3651:PRO:HB2	1:A:3652:PRO:HD3	2.04	0.40
1:A:4018:ASP:OD2	1:A:4022:LYS:NZ	2.38	0.40
1:A:4061:SER:O	1:A:4064:GLU:HG3	2.21	0.40
1:A:4172:PHE:CZ	1:A:4189:PHE:HA	2.57	0.40
1:A:4808:ASP:OD2	1:A:4810:LEU:HB3	2.22	0.40
1:B:731:HIS:CE1	1:B:740:THR:HG22	2.56	0.40
1:B:912:LYS:NZ	1:B:914:GLN:HG3	2.37	0.40
1:B:1640:ASP:OD2	1:B:1641:ILE:N	2.54	0.40
1:B:1681:ASP:HB3	1:B:1683:PRO:HD2	2.03	0.40
1:B:1793:GLN:NE2	1:B:1797:GLU:OE2	2.54	0.40
1:B:2659:GLN:C	1:B:2663:LYS:HZ2	2.23	0.40
1:B:4113:THR:O	1:B:4117:THR:HG23	2.21	0.40
1:C:824:GLU:OE2	1:C:1020:ILE:N	2.55	0.40
1:C:972:LEU:HG	1:C:973:THR:H	1.86	0.40
1:C:3651:PRO:HB2	1:C:3652:PRO:HD3	2.03	0.40
1:C:3872:ILE:O	1:C:3875:VAL:HG12	2.22	0.40
1:D:246:THR:HG21	1:D:267:VAL:HG21	2.03	0.40
1:D:288:HIS:CE1	1:D:352:SER:HB3	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:298:ARG:NH1	1:D:417:ARG:HH12	2.15	0.40
1:D:1084:ARG:NH1	1:D:1127:GLU:OE1	2.50	0.40
1:D:1978:ASN:HB3	1:D:1983:LYS:HE2	2.03	0.40
1:D:2129:LEU:HB2	1:D:2142:MET:HE1	2.04	0.40
1:D:2502:LEU:HD13	1:D:2513:ALA:HB1	2.03	0.40
1:D:2733:SER:HB3	1:D:2821:TYR:CZ	2.56	0.40
1:D:2793:ARG:HH11	1:D:2793:ARG:CG	2.31	0.40
1:D:3107:SER:O	1:D:3110:GLU:HG3	2.21	0.40
1:D:3639:LYS:NZ	1:D:3643:ASP:OD2	2.54	0.40
1:D:4858:LEU:HD23	1:D:4861:ILE:HD12	2.03	0.40
1:A:163:HIS:HA	1:A:164:PRO:HD3	1.95	0.40
1:A:929:ARG:NH2	1:A:933:LEU:HD21	2.36	0.40
1:A:1166:VAL:HG23	1:A:1173:MET:CG	2.46	0.40
1:A:1948:MET:HA	1:A:1948:MET:CE	2.51	0.40
1:A:2623:LEU:HB3	1:A:2626:GLY:HA2	2.02	0.40
1:A:3882:GLN:HB3	1:A:3947:PHE:CE2	2.57	0.40
1:A:4045:LYS:HE3	1:A:4067:LEU:HD22	2.03	0.40
1:B:62:LEU:O	1:B:66:THR:HG23	2.21	0.40
1:B:857:LEU:HD12	1:B:859:GLN:NE2	2.36	0.40
1:B:880:ARG:NH1	1:B:881:ILE:HB	2.37	0.40
1:B:929:ARG:NH2	1:B:933:LEU:HD21	2.36	0.40
1:B:1786:ILE:O	1:B:1790:LYS:HG2	2.22	0.40
1:B:2678:PRO:HB2	1:B:2981:TYR:CE1	2.56	0.40
1:B:2966:VAL:O	1:B:2970:LEU:N	2.46	0.40
1:B:3018:ARG:HG3	1:B:3021:LEU:HD22	2.02	0.40
1:B:4568:MET:HA	1:B:4571:THR:HB	2.02	0.40
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.56	0.40
1:C:902:TRP:CZ2	1:C:915:HIS:HB3	2.50	0.40
1:C:921:PHE:HD1	1:C:929:ARG:CZ	2.34	0.40
1:C:1978:ASN:HB3	1:C:1983:LYS:HE2	2.03	0.40
1:C:2508:SER:HB3	1:C:2560:SER:OG	2.22	0.40
1:C:2659:GLN:C	1:C:2663:LYS:HZ2	2.24	0.40
1:C:3107:SER:O	1:C:3110:GLU:HG3	2.21	0.40
1:C:3677:THR:HB	1:C:3679:LYS:NZ	2.35	0.40
1:C:3882:GLN:HB3	1:C:3947:PHE:CE2	2.57	0.40
1:C:4858:LEU:HD23	1:C:4861:ILE:HD12	2.03	0.40
1:D:731:HIS:CE1	1:D:740:THR:HG22	2.56	0.40
1:D:1190:LEU:HD11	1:D:1193:LYS:HD3	2.03	0.40
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.95	0.40
1:D:3651:PRO:HB2	1:D:3652:PRO:HD3	2.04	0.40
1:D:4042:VAL:HG12	1:D:4077:THR:HB	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4808:ASP:OD2	1:D:4810:LEU:HB3	2.21	0.40
1:A:880:ARG:NH1	1:A:881:ILE:HB	2.37	0.40
1:A:1468:THR:HG22	1:A:1479:SER:CB	2.51	0.40
1:A:1757:LEU:HD23	1:A:1757:LEU:HA	1.87	0.40
1:A:3043:ARG:HB3	1:A:3047:LYS:HZ1	1.86	0.40
1:A:3073:GLU:O	1:A:3077:GLN:OE1	2.40	0.40
1:A:4585:PHE:HA	1:A:4588:ILE:HD12	2.04	0.40
1:B:520:ARG:O	1:B:524:GLU:HG2	2.21	0.40
1:B:1102:TYR:CE1	1:B:1104:GLU:HG3	2.56	0.40
1:B:2086:VAL:HG22	1:B:3687:LEU:HD13	2.04	0.40
1:B:2721:ILE:HG21	1:B:2772:ARG:HG3	2.03	0.40
1:B:3639:LYS:NZ	1:B:3643:ASP:OD2	2.54	0.40
1:C:644:LEU:HD22	1:C:1630:LEU:HD21	2.02	0.40
1:C:924:LEU:HD12	1:C:925:PRO:O	2.21	0.40
1:C:2554:ARG:HH11	1:C:2557:LYS:HB2	1.86	0.40
1:C:2843:MET:O	1:C:2846:GLU:HG2	2.22	0.40
1:C:2844:MET:CE	1:C:2848:TYR:HE2	2.35	0.40
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	2.03	0.40
1:C:4609:LYS:HD3	1:C:4615:LEU:HD13	2.03	0.40
1:D:587:ASN:OD1	1:D:2133:ARG:NH1	2.53	0.40
1:D:986:ILE:HD13	1:D:1055:ARG:HA	2.02	0.40
1:D:1234:GLU:H	1:D:1234:GLU:CD	2.23	0.40
1:D:1494:MET:HE3	1:D:1505:LEU:HD22	2.04	0.40
1:D:1640:ASP:OD2	1:D:1641:ILE:N	2.54	0.40
1:D:1960:ARG:H	1:D:1960:ARG:HG3	0.96	0.40
1:D:2460:PHE:CE2	1:D:2465:LYS:HD2	2.56	0.40
1:D:2844:MET:CE	1:D:2848:TYR:HE2	2.35	0.40
1:A:62:LEU:HD11	1:A:282:VAL:HG13	2.03	0.40
1:A:857:LEU:HD12	1:A:859:GLN:NE2	2.36	0.40
1:A:1786:ILE:O	1:A:1790:LYS:HG2	2.22	0.40
1:A:1977:LEU:HD23	1:A:1977:LEU:HA	1.88	0.40
1:A:2721:ILE:HG12	1:A:2775:ILE:CG2	2.52	0.40
1:A:3043:ARG:O	1:A:3047:LYS:HE2	2.22	0.40
1:A:3642:GLU:OE2	1:A:3730:ARG:NH1	2.55	0.40
1:B:586:LEU:HD22	1:B:620:CYS:HB2	2.02	0.40
1:B:1283:LEU:HD11	1:B:1582:CYS:SG	2.62	0.40
1:B:1850:VAL:HA	1:B:2054:LYS:HE3	2.03	0.40
1:B:2126:ILE:HA	1:B:2142:MET:HE1	2.04	0.40
1:B:2134:MET:HE3	1:B:2139:GLU:HB2	2.03	0.40
1:B:2721:ILE:HG12	1:B:2775:ILE:CG2	2.52	0.40
1:B:3642:GLU:OE2	1:B:3730:ARG:NH1	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4808:ASP:OD2	1:B:4810:LEU:HB3	2.21	0.40
1:C:513:HIS:O	1:C:517:VAL:HG23	2.21	0.40
1:C:929:ARG:NH2	1:C:933:LEU:HD21	2.36	0.40
1:C:1433:PHE:HE1	1:C:1554:GLN:HB2	1.87	0.40
1:C:1642:LEU:HD21	1:C:1691:ASN:HD21	1.87	0.40
1:C:1786:ILE:O	1:C:1790:LYS:HG2	2.22	0.40
1:C:2554:ARG:HA	1:C:2554:ARG:HD2	1.85	0.40
1:D:62:LEU:O	1:D:66:THR:HG23	2.21	0.40
1:D:201:LEU:HD12	1:D:201:LEU:H	1.85	0.40
1:D:1081:THR:HG23	1:D:1083:GLU:H	1.85	0.40
1:D:2623:LEU:HB3	1:D:2626:GLY:HA2	2.02	0.40
1:D:2635:GLU:HA	1:D:2638:LEU:HD12	2.03	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3978/4967 (80%)	3861 (97%)	113 (3%)	4 (0%)	48	79
1	B	3978/4967 (80%)	3862 (97%)	112 (3%)	4 (0%)	48	79
1	C	3978/4967 (80%)	3861 (97%)	113 (3%)	4 (0%)	48	79
1	D	3978/4967 (80%)	3862 (97%)	112 (3%)	4 (0%)	48	79
2	E	105/108 (97%)	101 (96%)	4 (4%)	0	100	100
2	F	105/108 (97%)	101 (96%)	4 (4%)	0	100	100
2	G	105/108 (97%)	101 (96%)	4 (4%)	0	100	100
2	H	105/108 (97%)	101 (96%)	4 (4%)	0	100	100
All	All	16332/20300 (80%)	15850 (97%)	466 (3%)	16 (0%)	50	79

All (16) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2988	ARG
1	A	3927	PRO
1	A	4641	PRO
1	B	2988	ARG
1	B	3927	PRO
1	B	4641	PRO
1	C	2988	ARG
1	C	3927	PRO
1	C	4641	PRO
1	D	2988	ARG
1	D	3927	PRO
1	D	4641	PRO
1	A	1081	THR
1	B	1081	THR
1	C	1081	THR
1	D	1081	THR

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3513/4358 (81%)	3447 (98%)	66 (2%)	52	73
1	B	3513/4358 (81%)	3447 (98%)	66 (2%)	52	73
1	C	3513/4358 (81%)	3447 (98%)	66 (2%)	52	73
1	D	3513/4358 (81%)	3447 (98%)	66 (2%)	52	73
2	E	88/89 (99%)	85 (97%)	3 (3%)	32	60
2	F	88/89 (99%)	85 (97%)	3 (3%)	32	60
2	G	88/89 (99%)	85 (97%)	3 (3%)	32	60
2	H	88/89 (99%)	85 (97%)	3 (3%)	32	60
All	All	14404/17788 (81%)	14128 (98%)	276 (2%)	52	73

All (276) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	81	MET
1	A	317	MET
1	A	349	MET
1	A	398	HIS
1	A	778	MET
1	A	880	ARG
1	A	889	ILE
1	A	960	LYS
1	A	962	LYS
1	A	985	PHE
1	A	1025	LYS
1	A	1181	ILE
1	A	1249	MET
1	A	1293	GLN
1	A	1300	MET
1	A	1748	LEU
1	A	1939	ASN
1	A	1948	MET
1	A	1953	MET
1	A	1957	LEU
1	A	1960	ARG
1	A	2192	MET
1	A	2279	MET
1	A	2303	ARG
1	A	2347	MET
1	A	2384	MET
1	A	2482	ASP
1	A	2493	LEU
1	A	2530	ARG
1	A	2580	LEU
1	A	2689	MET
1	A	2695	MET
1	A	2730	ASP
1	A	2734	MET
1	A	2788	ARG
1	A	2793	ARG
1	A	2798	MET
1	A	2824	ARG
1	A	2828	MET
1	A	2843	MET
1	A	2855	LYS
1	A	2870	LEU
1	A	2880	LYS

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Mol	Chain	Res	Type
1	A	2884	LYS
1	A	2888	LYS
1	A	2897	GLN
1	A	2953	HIS
1	A	2963	PHE
1	A	2968	LEU
1	A	2976	LYS
1	A	3051	GLU
1	A	3105	LEU
1	A	3611	LEU
1	A	3739	MET
1	A	3999	MET
1	A	4046	ARG
1	A	4109	MET
1	A	4208	GLU
1	A	4292	MET
1	A	4306	PHE
1	A	4504	MET
1	A	4555	ILE
1	A	4648	PHE
1	A	4718	SER
1	A	4791	LYS
1	A	4817	MET
2	E	14	ARG
2	E	53	LYS
2	E	86	THR
2	F	14	ARG
2	F	53	LYS
2	F	86	THR
2	G	14	ARG
2	G	53	LYS
2	G	86	THR
2	H	14	ARG
2	H	53	LYS
2	H	86	THR
1	B	81	MET
1	B	317	MET
1	B	349	MET
1	B	398	HIS
1	B	778	MET
1	B	880	ARG
1	B	889	ILE

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Mol	Chain	Res	Type
1	B	960	LYS
1	B	962	LYS
1	B	985	PHE
1	B	1025	LYS
1	B	1181	ILE
1	B	1249	MET
1	B	1293	GLN
1	B	1300	MET
1	B	1748	LEU
1	B	1939	ASN
1	B	1948	MET
1	B	1953	MET
1	B	1957	LEU
1	B	1960	ARG
1	B	2192	MET
1	B	2279	MET
1	B	2303	ARG
1	B	2347	MET
1	B	2384	MET
1	B	2482	ASP
1	B	2493	LEU
1	B	2530	ARG
1	B	2580	LEU
1	B	2689	MET
1	B	2695	MET
1	B	2730	ASP
1	B	2734	MET
1	B	2788	ARG
1	B	2793	ARG
1	B	2798	MET
1	B	2824	ARG
1	B	2828	MET
1	B	2843	MET
1	B	2855	LYS
1	B	2870	LEU
1	B	2880	LYS
1	B	2884	LYS
1	B	2888	LYS
1	B	2897	GLN
1	B	2953	HIS
1	B	2963	PHE
1	B	2968	LEU

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Mol	Chain	Res	Type
1	B	2976	LYS
1	B	3051	GLU
1	B	3105	LEU
1	B	3611	LEU
1	B	3739	MET
1	B	3999	MET
1	B	4046	ARG
1	B	4109	MET
1	B	4208	GLU
1	B	4292	MET
1	B	4306	PHE
1	B	4504	MET
1	B	4555	ILE
1	B	4648	PHE
1	B	4718	SER
1	B	4791	LYS
1	B	4817	MET
1	C	81	MET
1	C	317	MET
1	C	349	MET
1	C	398	HIS
1	C	778	MET
1	C	880	ARG
1	C	889	ILE
1	C	960	LYS
1	C	962	LYS
1	C	985	PHE
1	C	1025	LYS
1	C	1181	ILE
1	C	1249	MET
1	C	1293	GLN
1	C	1300	MET
1	C	1748	LEU
1	C	1939	ASN
1	C	1948	MET
1	C	1953	MET
1	C	1957	LEU
1	C	1960	ARG
1	C	2192	MET
1	C	2279	MET
1	C	2303	ARG
1	C	2347	MET

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Mol	Chain	Res	Type
1	C	2384	MET
1	C	2482	ASP
1	C	2493	LEU
1	C	2530	ARG
1	C	2580	LEU
1	C	2689	MET
1	C	2695	MET
1	C	2730	ASP
1	C	2734	MET
1	C	2788	ARG
1	C	2793	ARG
1	C	2798	MET
1	C	2824	ARG
1	C	2828	MET
1	C	2843	MET
1	C	2855	LYS
1	C	2870	LEU
1	C	2880	LYS
1	C	2884	LYS
1	C	2888	LYS
1	C	2897	GLN
1	C	2953	HIS
1	C	2963	PHE
1	C	2968	LEU
1	C	2976	LYS
1	C	3051	GLU
1	C	3105	LEU
1	C	3611	LEU
1	C	3739	MET
1	C	3999	MET
1	C	4046	ARG
1	C	4109	MET
1	C	4208	GLU
1	C	4292	MET
1	C	4306	PHE
1	C	4504	MET
1	C	4555	ILE
1	C	4648	PHE
1	C	4718	SER
1	C	4791	LYS
1	C	4817	MET
1	D	81	MET

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Mol	Chain	Res	Type
1	D	317	MET
1	D	349	MET
1	D	398	HIS
1	D	778	MET
1	D	880	ARG
1	D	889	ILE
1	D	960	LYS
1	D	962	LYS
1	D	985	PHE
1	D	1025	LYS
1	D	1181	ILE
1	D	1249	MET
1	D	1293	GLN
1	D	1300	MET
1	D	1748	LEU
1	D	1939	ASN
1	D	1948	MET
1	D	1953	MET
1	D	1957	LEU
1	D	1960	ARG
1	D	2192	MET
1	D	2279	MET
1	D	2303	ARG
1	D	2347	MET
1	D	2384	MET
1	D	2482	ASP
1	D	2493	LEU
1	D	2530	ARG
1	D	2580	LEU
1	D	2689	MET
1	D	2695	MET
1	D	2730	ASP
1	D	2734	MET
1	D	2788	ARG
1	D	2793	ARG
1	D	2798	MET
1	D	2824	ARG
1	D	2828	MET
1	D	2843	MET
1	D	2855	LYS
1	D	2870	LEU
1	D	2880	LYS

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Mol	Chain	Res	Type
1	D	2884	LYS
1	D	2888	LYS
1	D	2897	GLN
1	D	2953	HIS
1	D	2963	PHE
1	D	2968	LEU
1	D	2976	LYS
1	D	3051	GLU
1	D	3105	LEU
1	D	3611	LEU
1	D	3739	MET
1	D	3999	MET
1	D	4046	ARG
1	D	4109	MET
1	D	4208	GLU
1	D	4292	MET
1	D	4306	PHE
1	D	4504	MET
1	D	4555	ILE
1	D	4648	PHE
1	D	4718	SER
1	D	4791	LYS
1	D	4817	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (60) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	270	HIS
1	A	288	HIS
1	A	476	GLN
1	A	1004	HIS
1	A	1046	ASN
1	A	1656	HIS
1	A	2158	HIS
1	A	2702	ASN
1	A	2704	GLN
1	A	2868	HIS
1	A	2927	GLN
1	A	3038	GLN
1	A	3975	GLN
1	A	4049	HIS

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Mol	Chain	Res	Type
1	B	23	GLN
1	B	270	HIS
1	B	288	HIS
1	B	476	GLN
1	B	1004	HIS
1	B	1046	ASN
1	B	1656	HIS
1	B	2158	HIS
1	B	2702	ASN
1	B	2704	GLN
1	B	2868	HIS
1	B	2927	GLN
1	B	3038	GLN
1	B	3975	GLN
1	B	4049	HIS
1	C	23	GLN
1	C	270	HIS
1	C	288	HIS
1	C	476	GLN
1	C	1004	HIS
1	C	1046	ASN
1	C	1656	HIS
1	C	2158	HIS
1	C	2702	ASN
1	C	2704	GLN
1	C	2868	HIS
1	C	2927	GLN
1	C	3038	GLN
1	C	3975	GLN
1	C	4049	HIS
1	D	23	GLN
1	D	270	HIS
1	D	288	HIS
1	D	476	GLN
1	D	1004	HIS
1	D	1046	ASN
1	D	1656	HIS
1	D	2158	HIS
1	D	2702	ASN
1	D	2704	GLN
1	D	2868	HIS
1	D	2927	GLN

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Mol	Chain	Res	Type
1	D	3038	GLN
1	D	3975	GLN
1	D	4049	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 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
4	ATP	D	5002	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	C	5004	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	C	5002	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	B	5002	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	A	5004	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	D	5004	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	A	5002	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)
4	ATP	B	5004	-	28,33,33	0.63	0	34,52,52	0.59	1 (2%)

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
4	ATP	D	5002	-	-	9/18/38/38	0/3/3/3
4	ATP	C	5004	-	-	9/18/38/38	0/3/3/3
4	ATP	C	5002	-	-	9/18/38/38	0/3/3/3
4	ATP	B	5002	-	-	9/18/38/38	0/3/3/3
4	ATP	A	5004	-	-	9/18/38/38	0/3/3/3
4	ATP	D	5004	-	-	9/18/38/38	0/3/3/3
4	ATP	A	5002	-	-	9/18/38/38	0/3/3/3
4	ATP	B	5004	-	-	9/18/38/38	0/3/3/3

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	C	5002	ATP	C5-C6-N6	2.33	123.86	120.31
4	A	5004	ATP	C5-C6-N6	2.33	123.85	120.31
4	B	5004	ATP	C5-C6-N6	2.32	123.85	120.31
4	A	5002	ATP	C5-C6-N6	2.32	123.85	120.31
4	C	5004	ATP	C5-C6-N6	2.32	123.85	120.31
4	D	5002	ATP	C5-C6-N6	2.32	123.85	120.31
4	D	5004	ATP	C5-C6-N6	2.30	123.82	120.31
4	B	5002	ATP	C5-C6-N6	2.29	123.79	120.31

There are no chirality outliers.

All (72) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	PB-O3B-PG-O3G
4	A	5002	ATP	C5'-O5'-PA-O1A
4	A	5002	ATP	C5'-O5'-PA-O2A
4	A	5002	ATP	C5'-O5'-PA-O3A
4	A	5004	ATP	C5'-O5'-PA-O2A
4	A	5004	ATP	C5'-O5'-PA-O3A
4	B	5002	ATP	PB-O3B-PG-O3G
4	B	5002	ATP	C5'-O5'-PA-O1A
4	B	5002	ATP	C5'-O5'-PA-O2A
4	B	5002	ATP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
4	B	5002	ATP	C4'-C5'-O5'-PA
4	B	5004	ATP	C5'-O5'-PA-O2A
4	B	5004	ATP	C5'-O5'-PA-O3A
4	C	5002	ATP	PB-O3B-PG-O3G
4	C	5002	ATP	C5'-O5'-PA-O1A
4	C	5002	ATP	C5'-O5'-PA-O2A
4	C	5002	ATP	C5'-O5'-PA-O3A
4	C	5002	ATP	C4'-C5'-O5'-PA
4	C	5004	ATP	C5'-O5'-PA-O2A
4	C	5004	ATP	C5'-O5'-PA-O3A
4	D	5002	ATP	PB-O3B-PG-O3G
4	D	5002	ATP	C5'-O5'-PA-O1A
4	D	5002	ATP	C5'-O5'-PA-O2A
4	D	5002	ATP	C5'-O5'-PA-O3A
4	D	5004	ATP	C5'-O5'-PA-O2A
4	D	5004	ATP	C5'-O5'-PA-O3A
4	A	5002	ATP	C4'-C5'-O5'-PA
4	D	5002	ATP	C4'-C5'-O5'-PA
4	A	5004	ATP	O4'-C4'-C5'-O5'
4	B	5004	ATP	O4'-C4'-C5'-O5'
4	C	5004	ATP	O4'-C4'-C5'-O5'
4	D	5004	ATP	O4'-C4'-C5'-O5'
4	A	5004	ATP	PB-O3A-PA-O5'
4	B	5004	ATP	PB-O3A-PA-O5'
4	C	5004	ATP	PB-O3A-PA-O5'
4	D	5004	ATP	PB-O3A-PA-O5'
4	A	5002	ATP	PA-O3A-PB-O3B
4	B	5002	ATP	PA-O3A-PB-O3B
4	C	5002	ATP	PA-O3A-PB-O3B
4	D	5002	ATP	PA-O3A-PB-O3B
4	A	5004	ATP	PG-O3B-PB-O2B
4	B	5004	ATP	PG-O3B-PB-O2B
4	C	5004	ATP	PG-O3B-PB-O2B
4	D	5004	ATP	PG-O3B-PB-O2B
4	A	5004	ATP	C5'-O5'-PA-O1A
4	B	5004	ATP	C5'-O5'-PA-O1A
4	C	5004	ATP	C5'-O5'-PA-O1A
4	D	5004	ATP	C5'-O5'-PA-O1A
4	A	5002	ATP	PB-O3B-PG-O1G
4	B	5002	ATP	PB-O3B-PG-O1G
4	C	5002	ATP	PB-O3B-PG-O1G
4	D	5002	ATP	PB-O3B-PG-O1G

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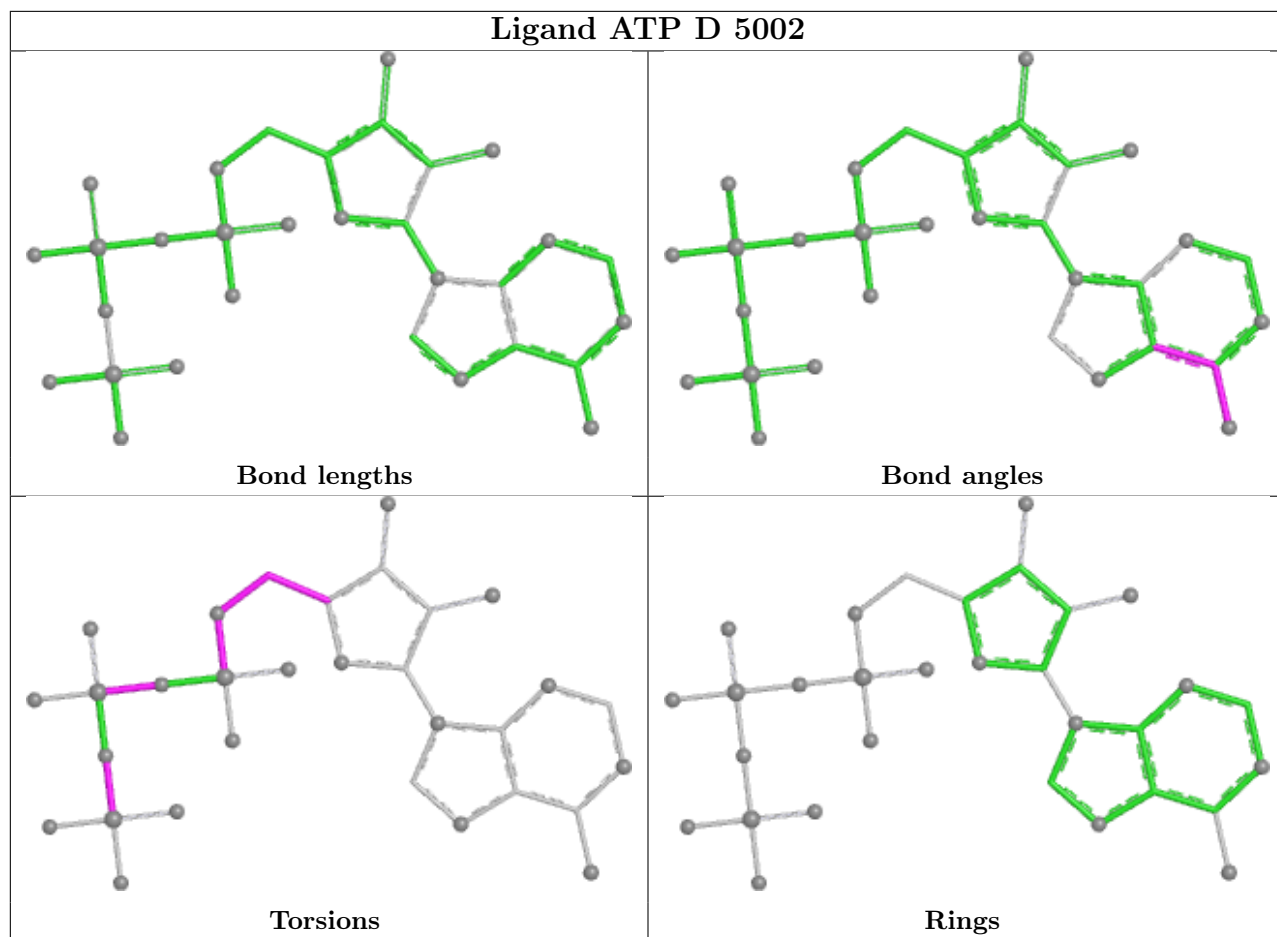
Continued from previous page...

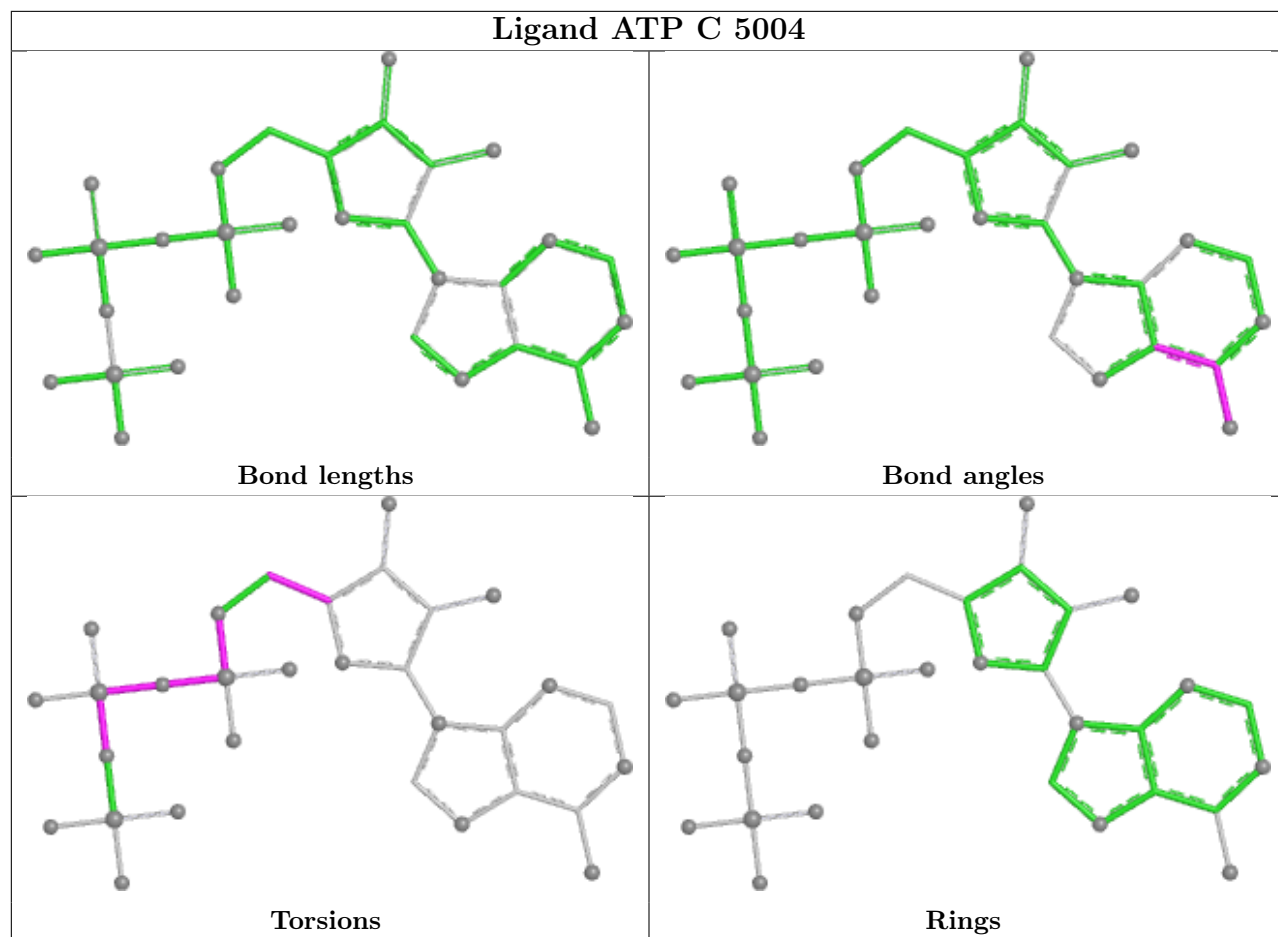
Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	PA-O3A-PB-O1B
4	A	5004	ATP	PG-O3B-PB-O1B
4	A	5004	ATP	PB-O3A-PA-O1A
4	B	5002	ATP	PA-O3A-PB-O1B
4	B	5004	ATP	PG-O3B-PB-O1B
4	B	5004	ATP	PB-O3A-PA-O1A
4	C	5002	ATP	PA-O3A-PB-O1B
4	C	5004	ATP	PG-O3B-PB-O1B
4	C	5004	ATP	PB-O3A-PA-O1A
4	D	5002	ATP	PA-O3A-PB-O1B
4	D	5004	ATP	PG-O3B-PB-O1B
4	D	5004	ATP	PB-O3A-PA-O1A
4	A	5004	ATP	PA-O3A-PB-O2B
4	B	5004	ATP	PA-O3A-PB-O2B
4	C	5004	ATP	PA-O3A-PB-O2B
4	D	5004	ATP	PA-O3A-PB-O2B
4	A	5002	ATP	O4'-C4'-C5'-O5'
4	B	5002	ATP	O4'-C4'-C5'-O5'
4	C	5002	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	O4'-C4'-C5'-O5'

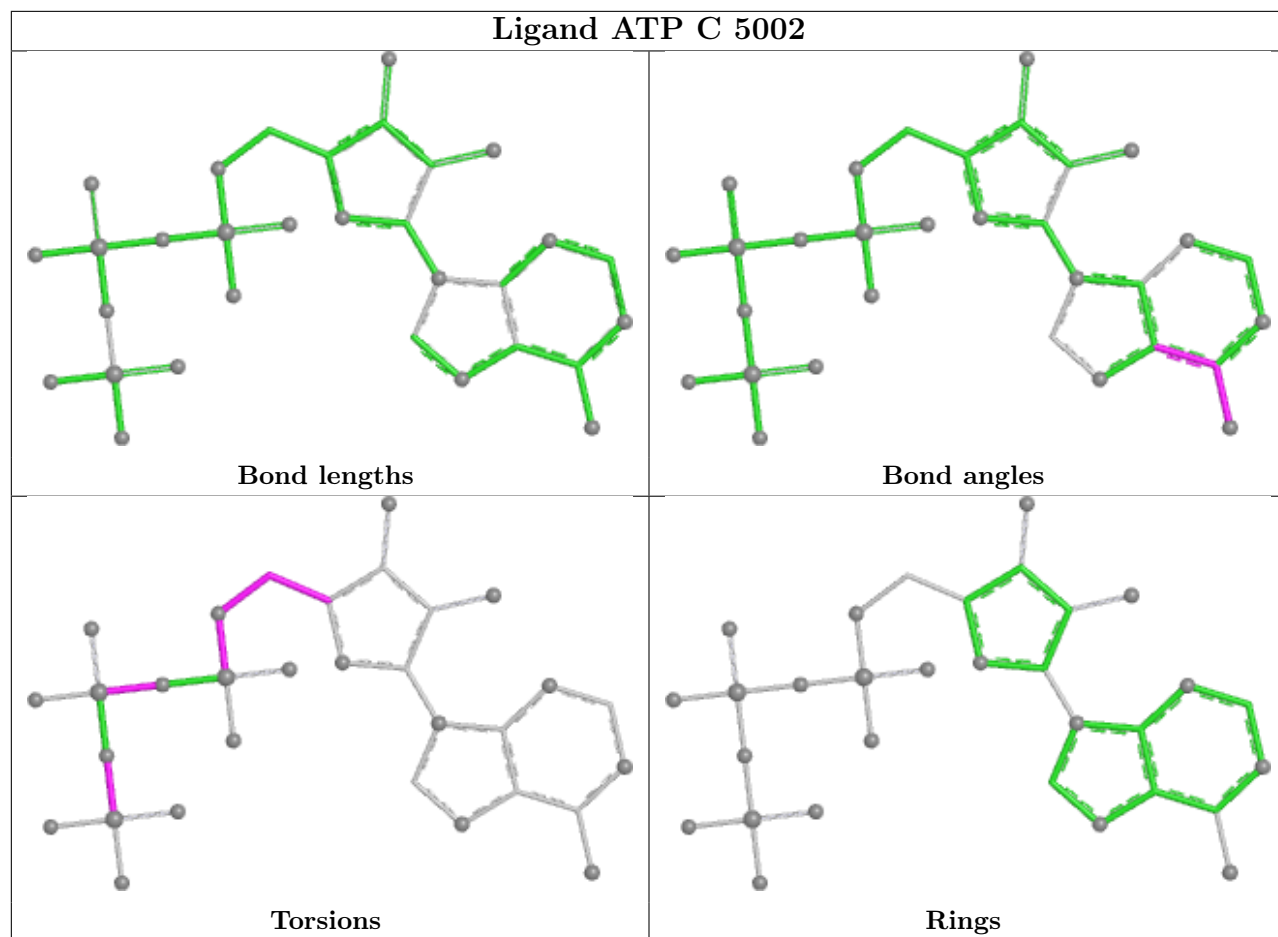
There are no ring outliers.

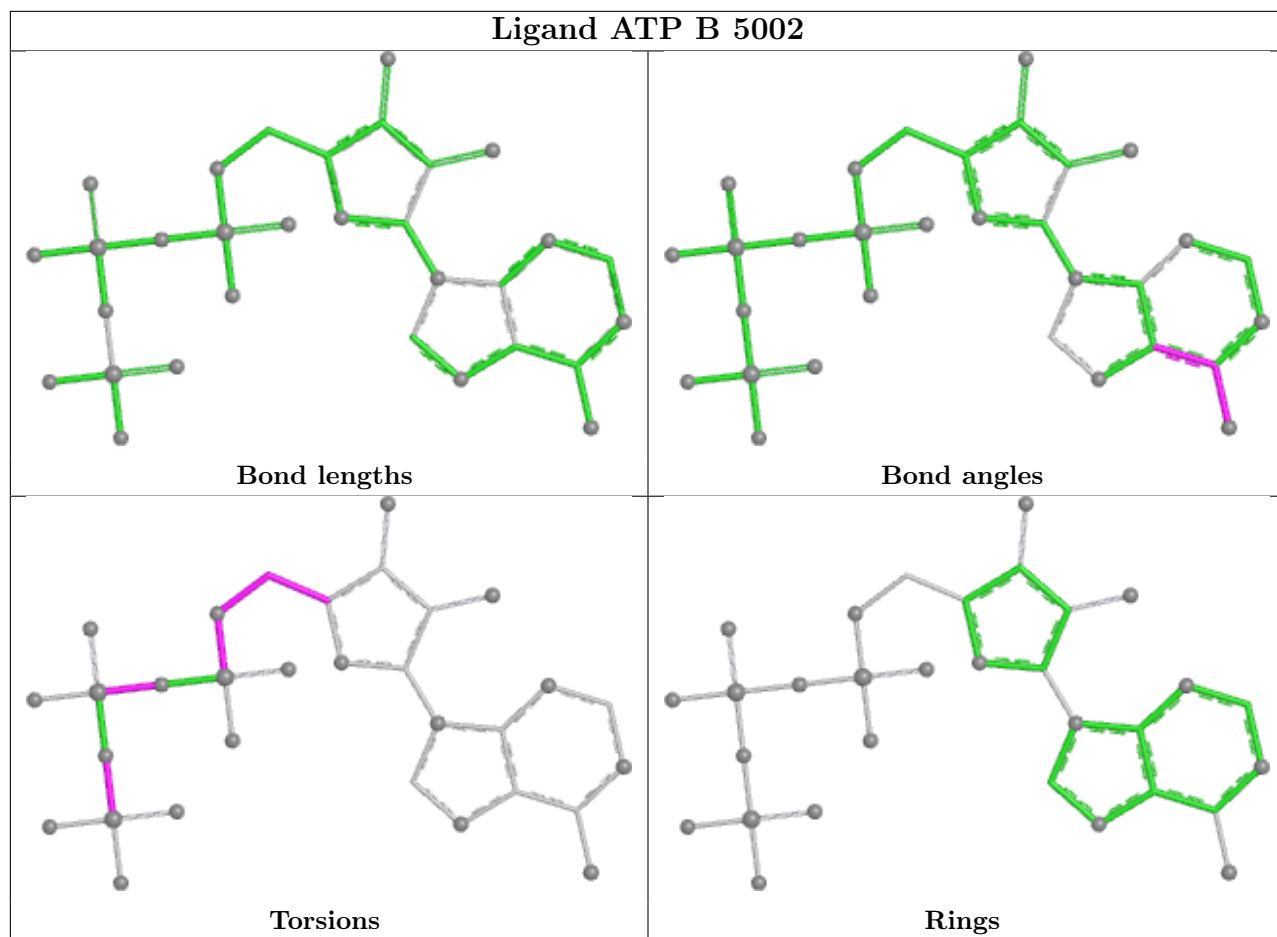
No monomer is involved in short contacts.

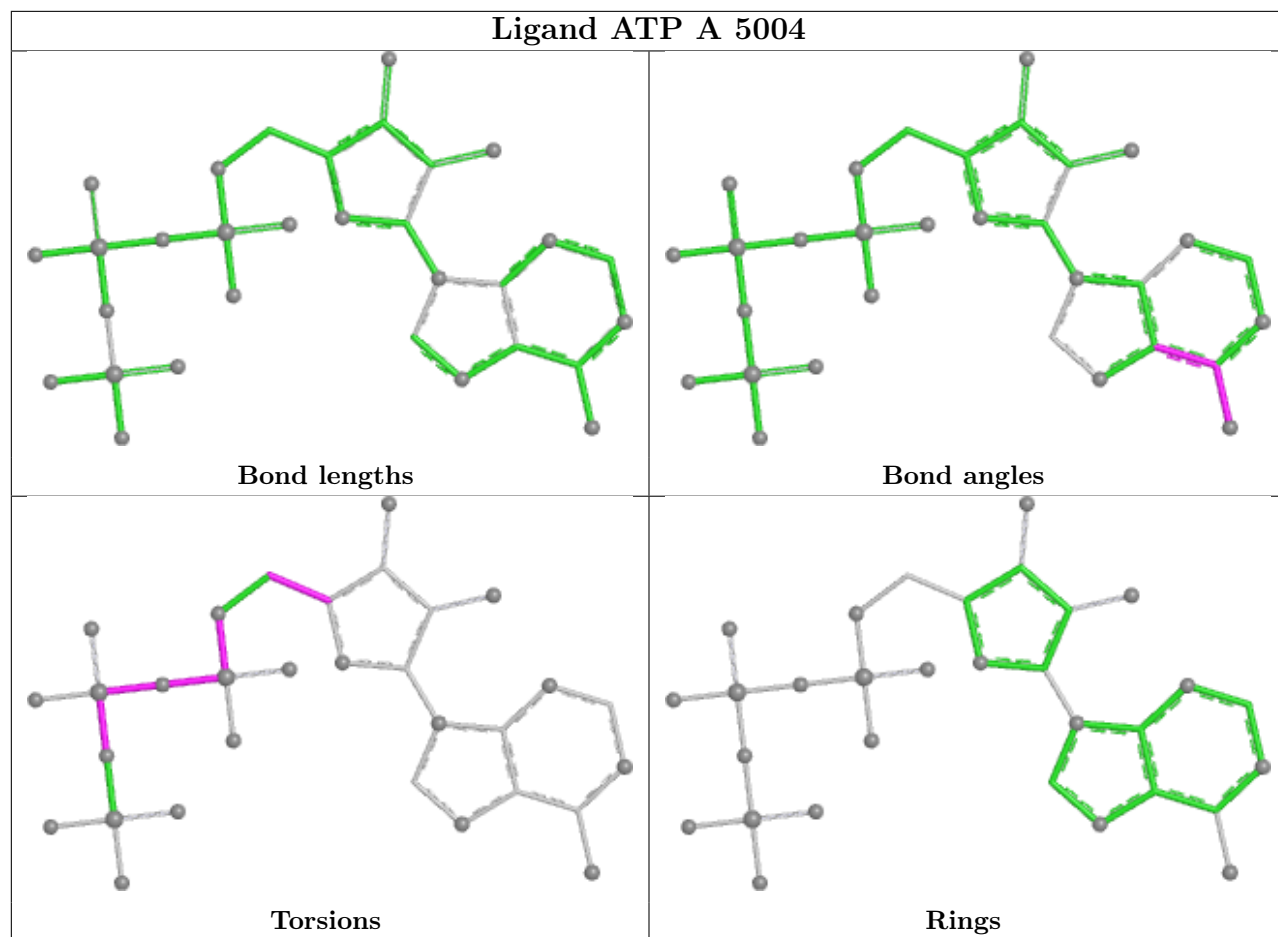
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

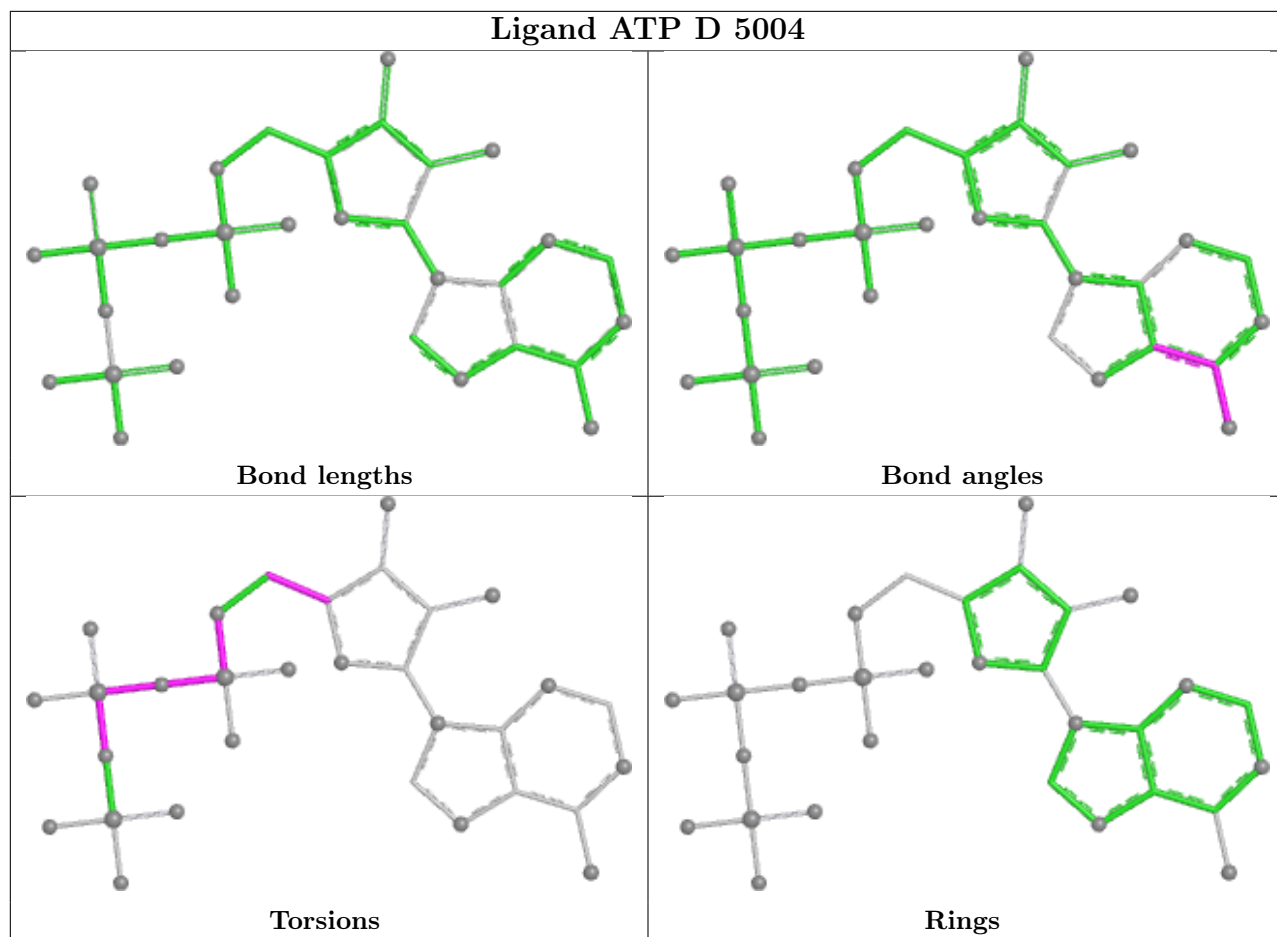


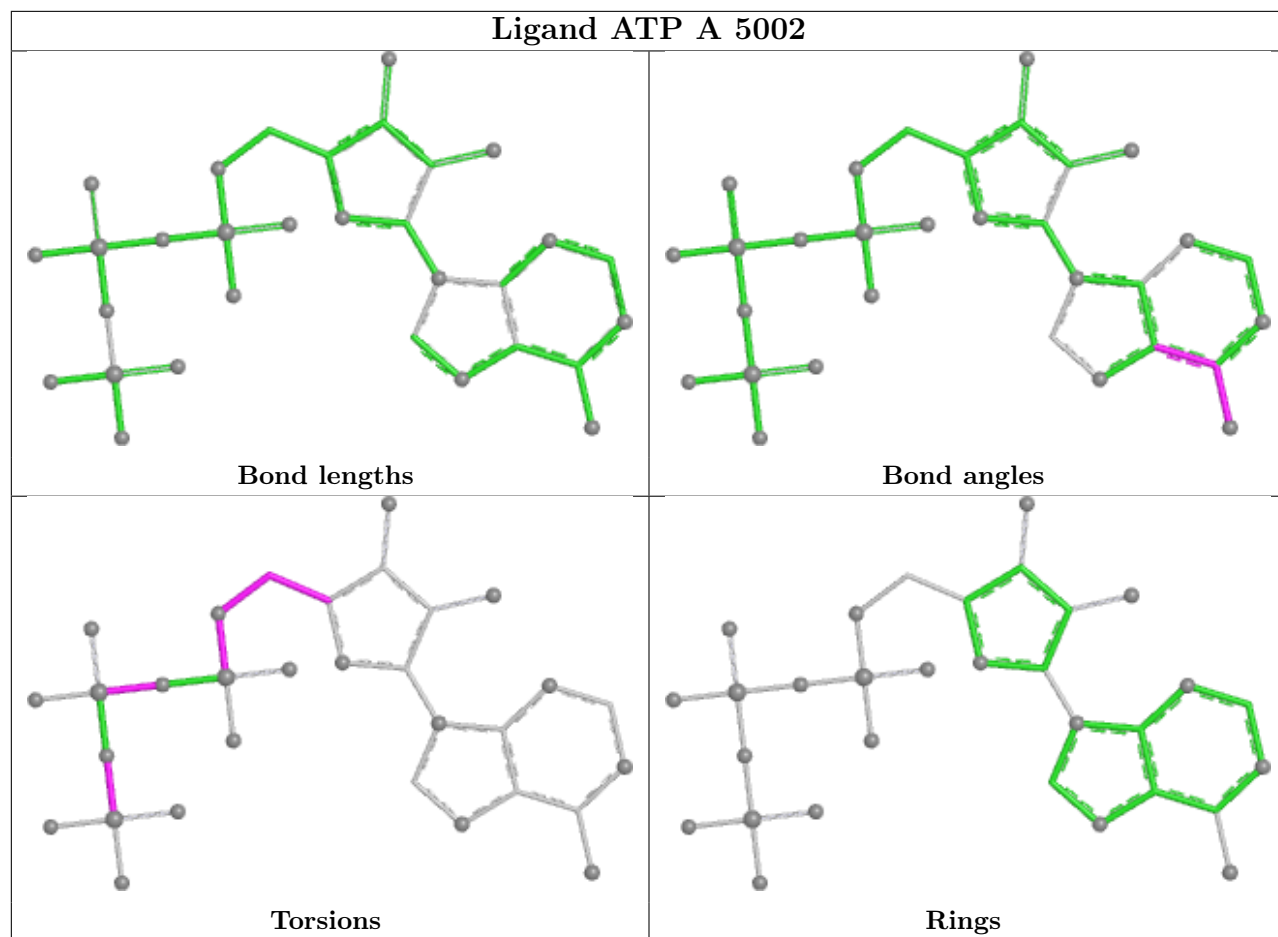


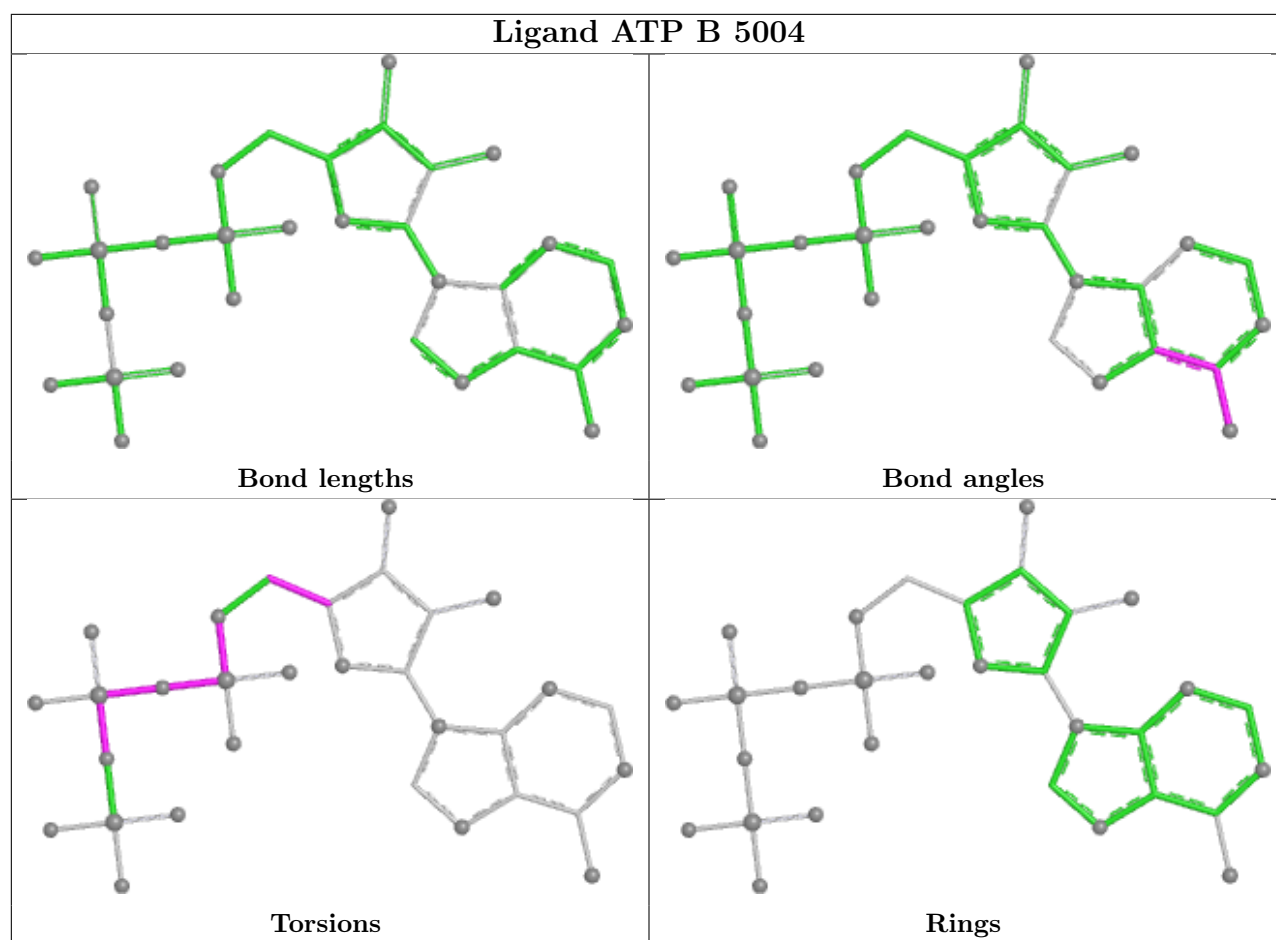












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

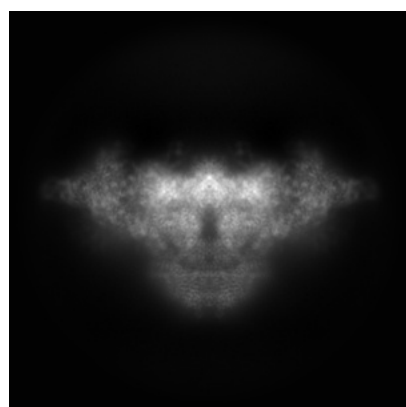
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-42764. These allow visual inspection of the internal detail of the map and identification of artifacts.

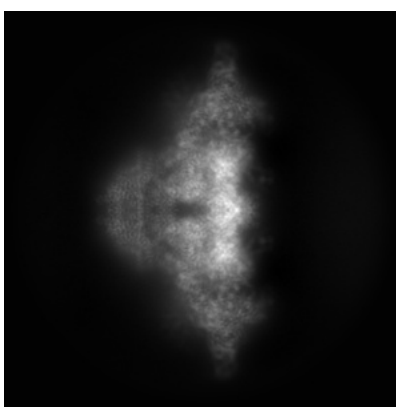
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

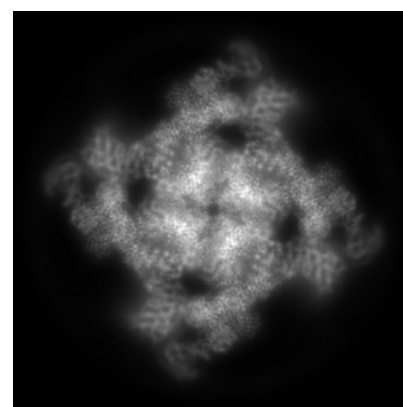
6.1.1 Primary map



X



Y

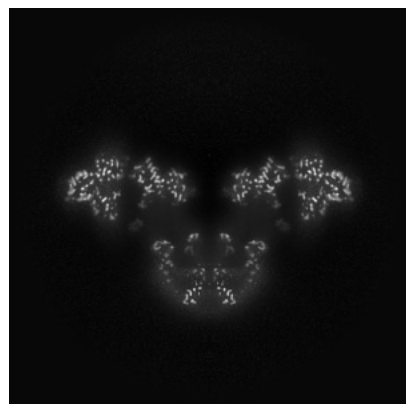


Z

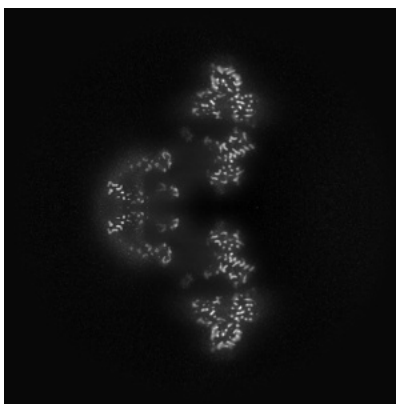
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

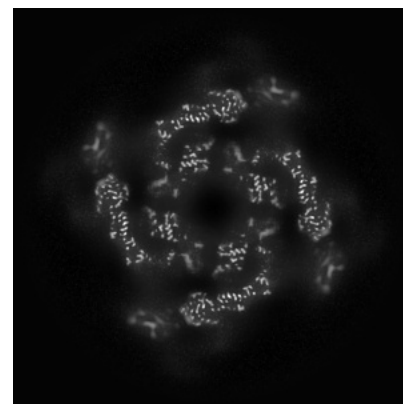
6.2.1 Primary map



X Index: 256



Y Index: 256

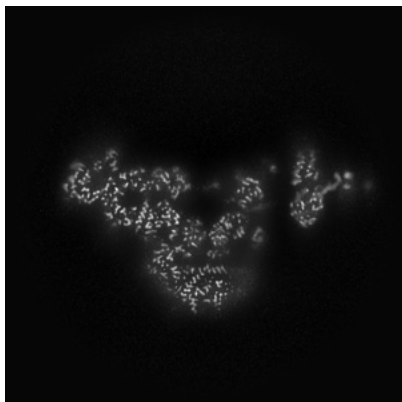


Z Index: 256

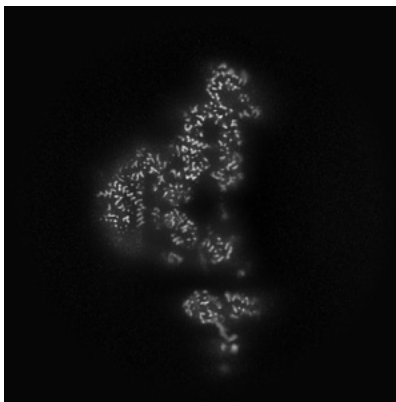
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

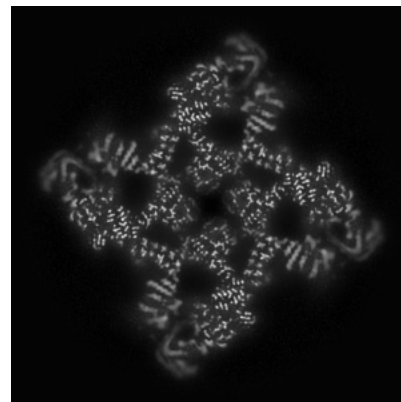
6.3.1 Primary map



X Index: 274



Y Index: 274



Z Index: 277

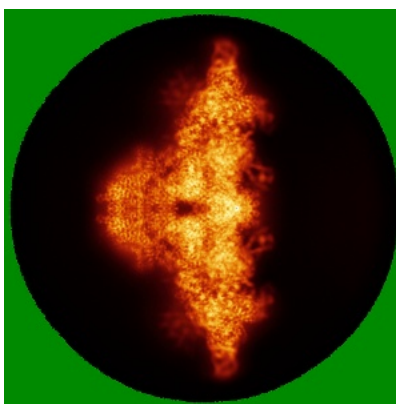
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

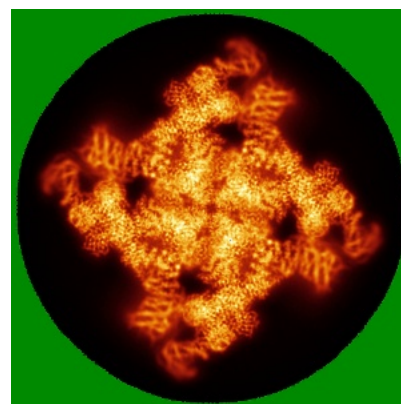
6.4.1 Primary map



X



Y

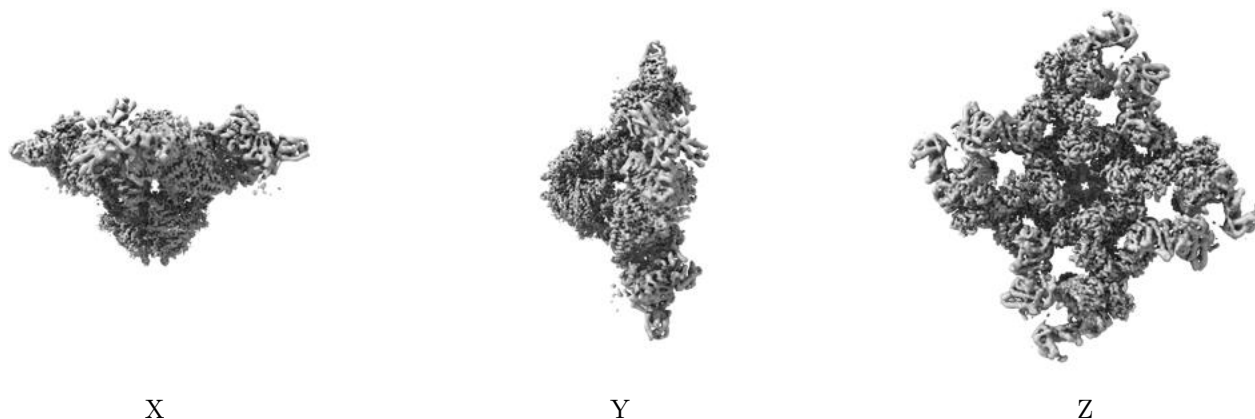


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.12. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

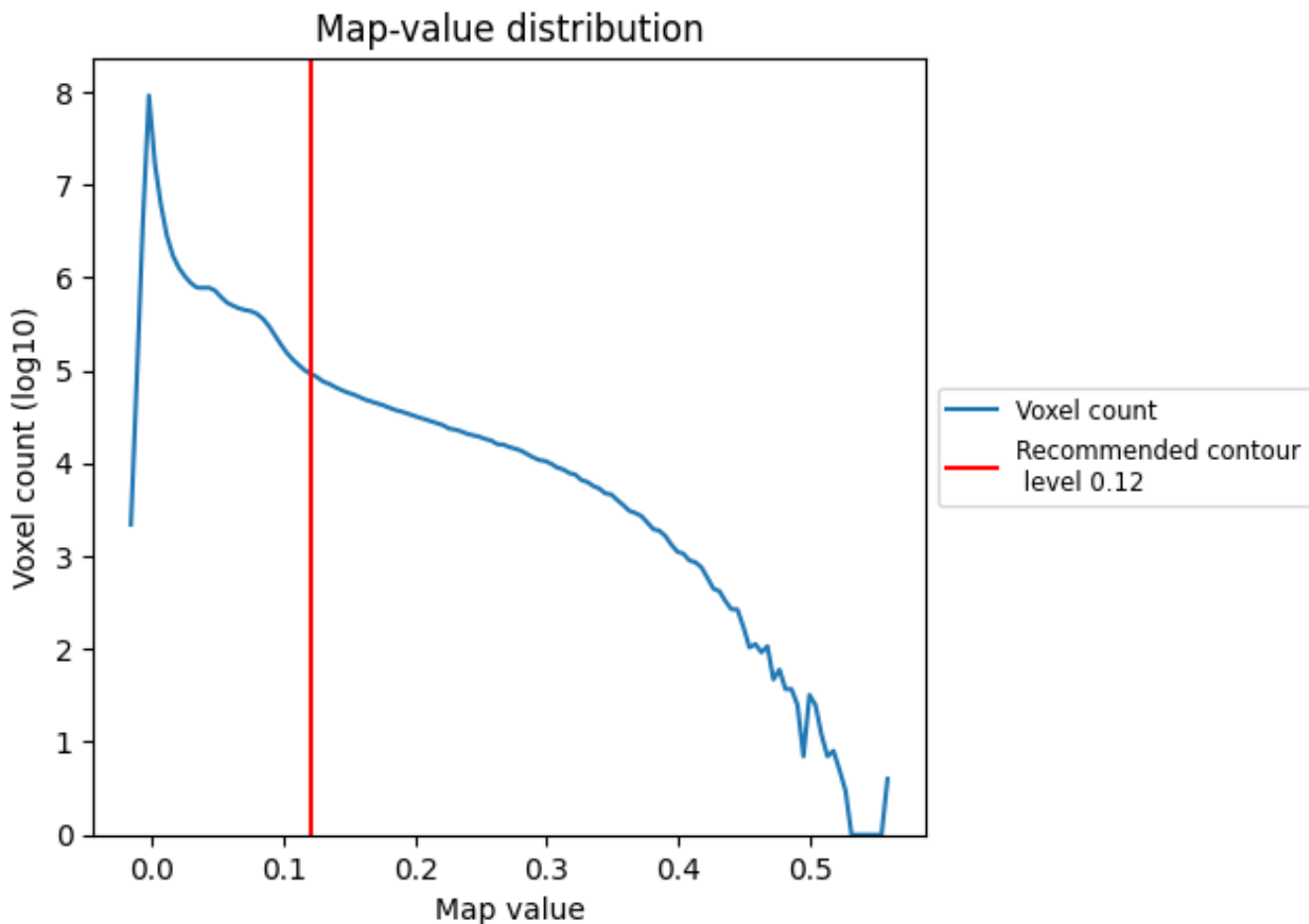
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

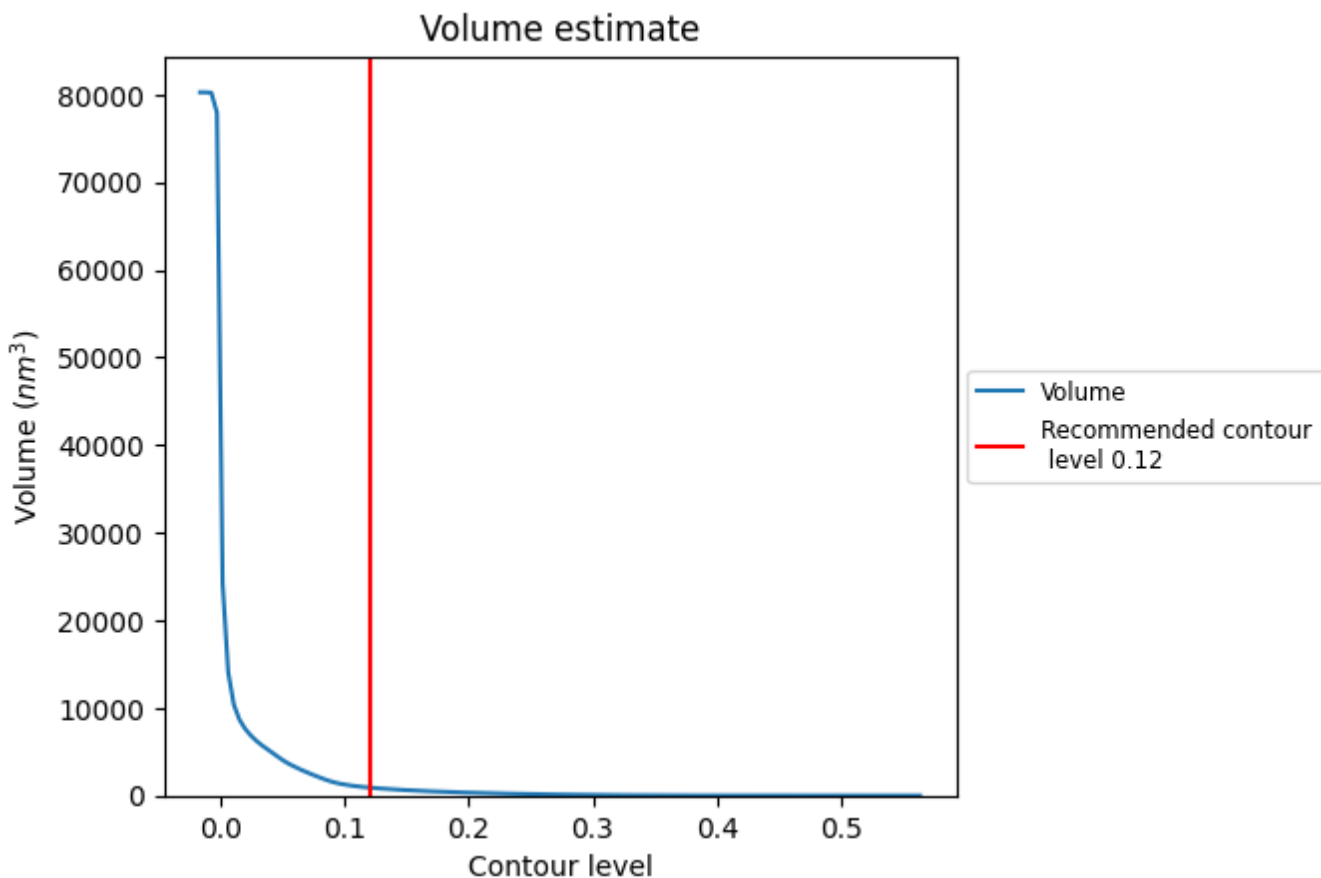
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

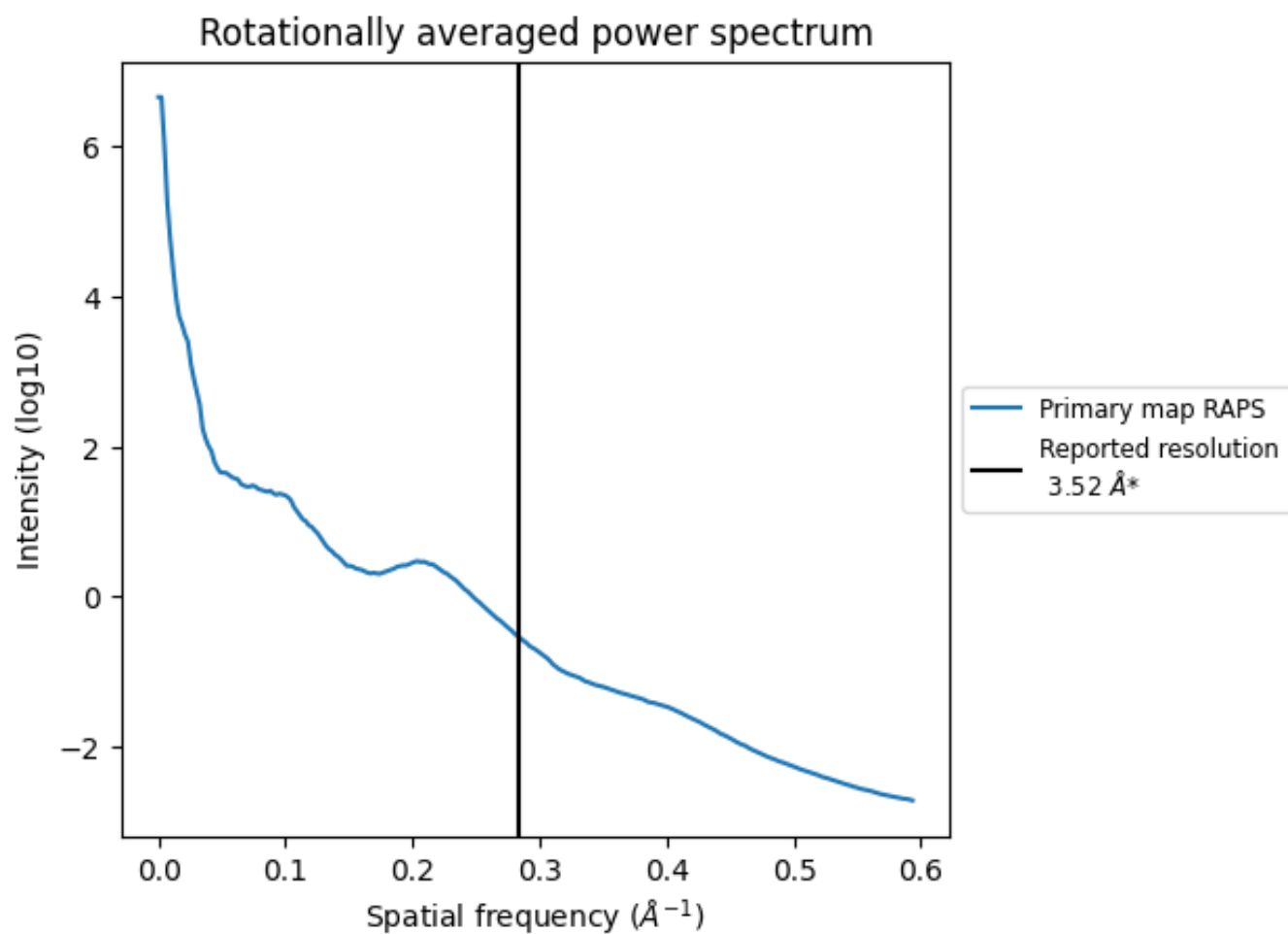
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 911 nm³; this corresponds to an approximate mass of 823 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [\(i\)](#)



*Reported resolution corresponds to spatial frequency of 0.284 Å⁻¹

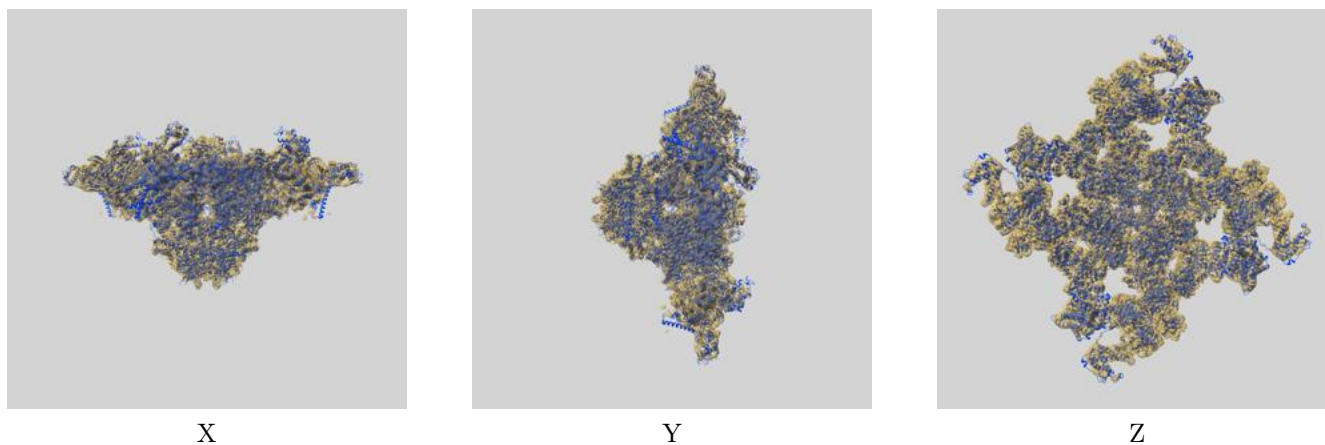
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

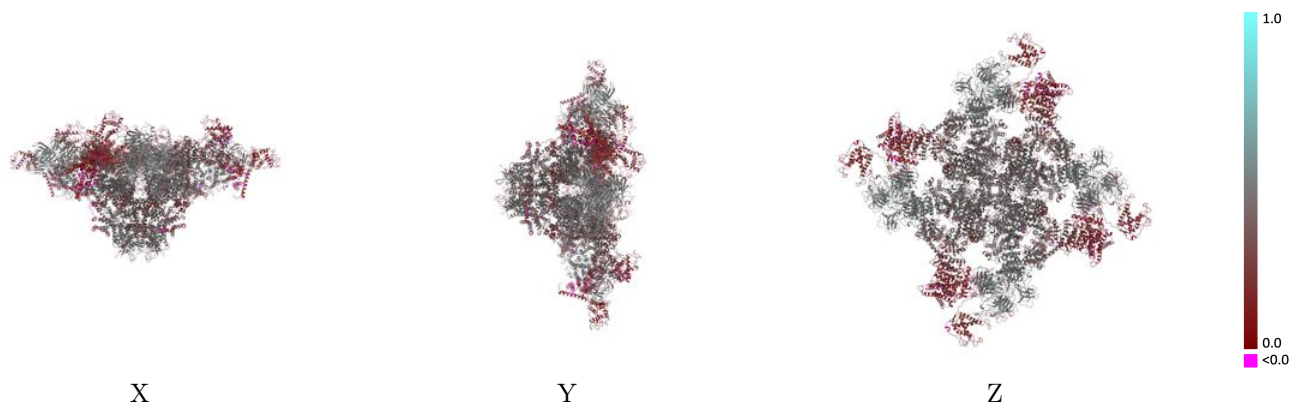
This section contains information regarding the fit between EMDB map EMD-42764 and PDB model 8UXH. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlay [i](#)



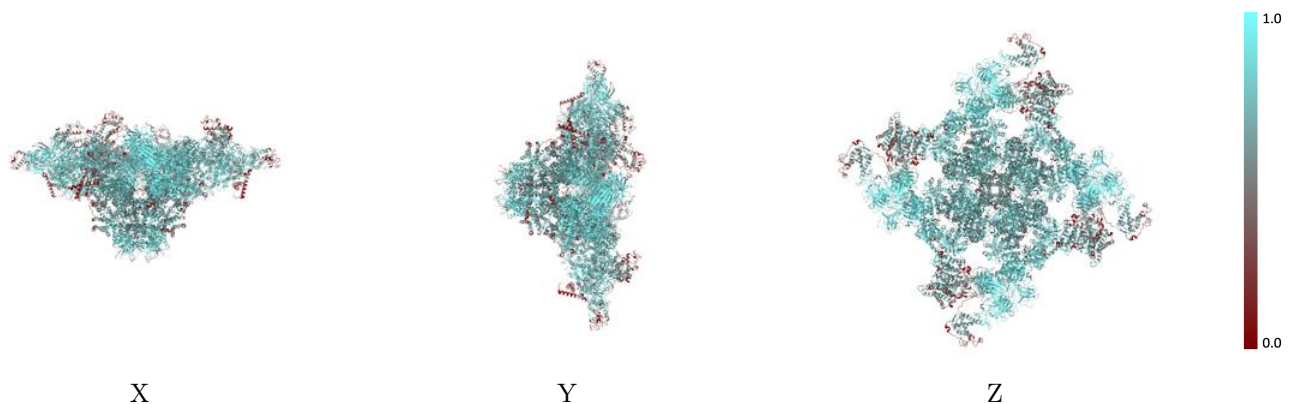
The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



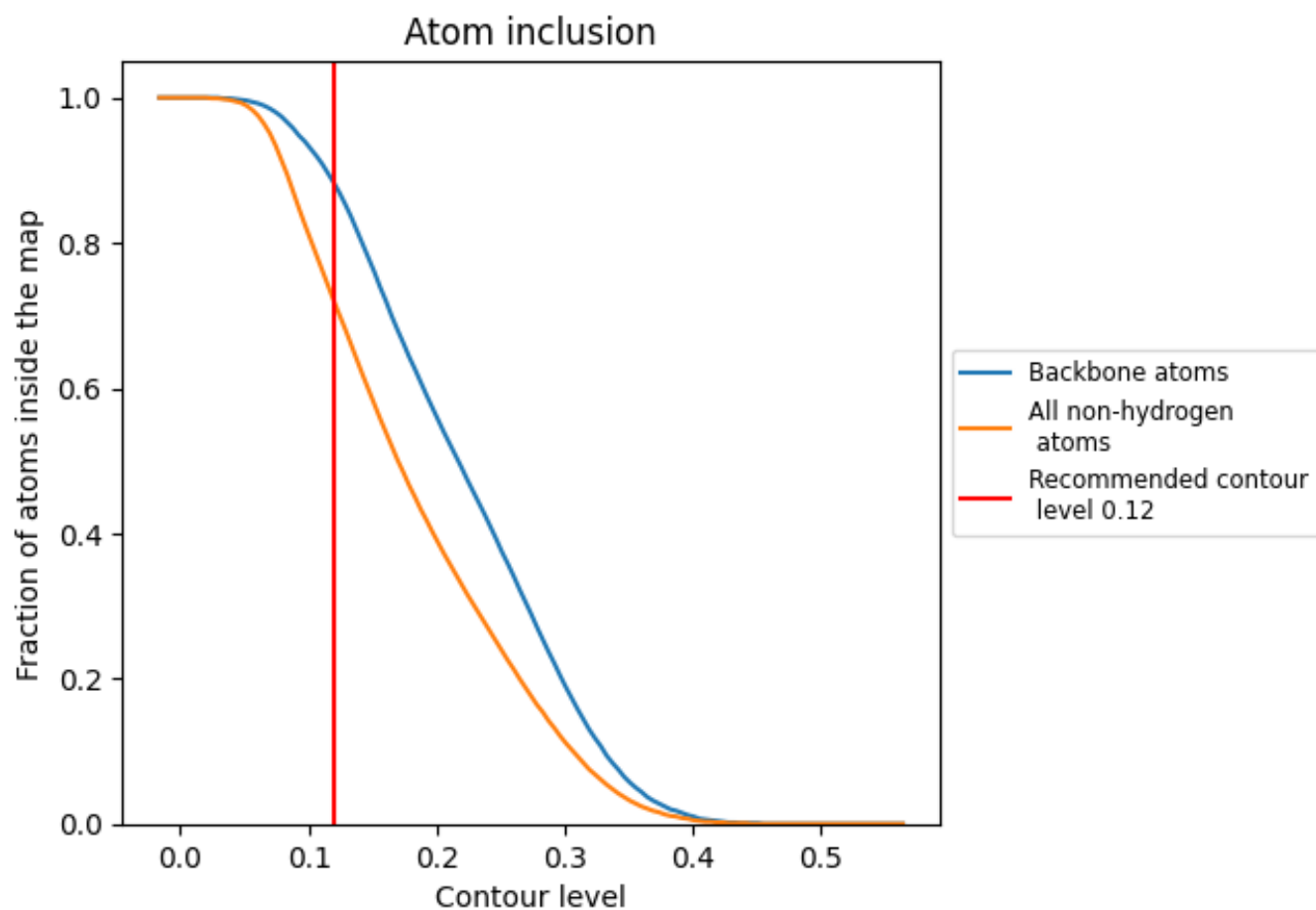
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.12).



















9.4 Atom inclusion [i](#)



At the recommended contour level, 88% of all backbone atoms, 72% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.12) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7190	 0.3660
A	 0.7170	 0.3650
B	 0.7160	 0.3640
C	 0.7180	 0.3660
D	 0.7120	 0.3560
E	 0.8560	 0.5050
F	 0.8510	 0.5030
G	 0.8590	 0.5060
H	 0.8570	 0.5040

