



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 17, 2026 – 10:36 PM UTC

PDB ID : 3K70 / pdb_00003k70
Title : Crystal structure of the complete initiation complex of RecBCD
Authors : Saikrishnan, K.; Wigley, D.B.
Deposited on : 2009-10-11
Resolution : 3.59 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The 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:

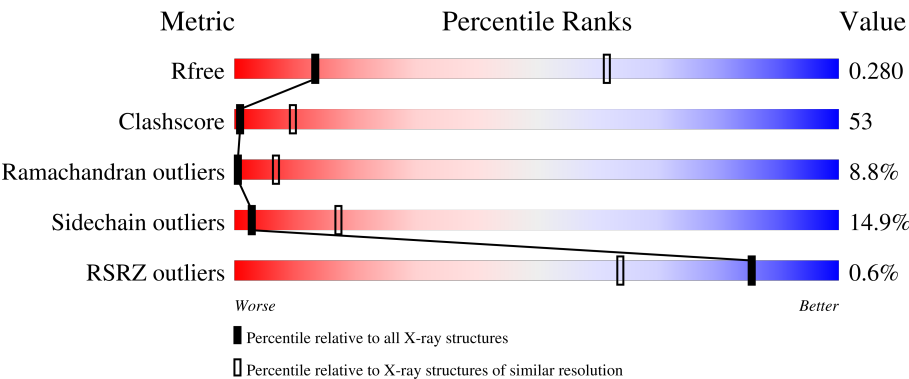
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.59 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1747 (3.70-3.50)
Clashscore	190562	1827 (3.70-3.50)
Ramachandran outliers	187476	1773 (3.70-3.50)
Sidechain outliers	187428	1772 (3.70-3.50)
RSRZ outliers	180081	1745 (3.70-3.50)

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

Mol	Chain	Length	Quality of chain
1	B	1180	30%50%15%...
1	E	1180	31%51%14%...
2	C	1122	34%48%16%.
2	F	1122	34%48%16%.
3	D	608	2% 24%46%17%.10%

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Mol	Chain	Length	Quality of chain
3	G	608	% 26% 43% 18% • 10%
4	X	51	4% 10% 67% 14% 10%
4	Y	51	12% 69% 10% 10%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	5IU	X	2	-	-	X	-
4	5IU	X	3	-	-	X	-
4	5IU	X	46	-	-	X	-
4	5IU	Y	2	-	-	X	-
4	5IU	Y	3	-	-	X	-
4	5IU	Y	46	-	-	X	-
4	5IU	Y	7	-	-	X	-
4	5IU	Y	9	-	-	X	-

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 46932 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Exodeoxyribonuclease V beta chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	B	1155	Total	C	N	O	S	0	0	0
			9236	5823	1638	1736	39			
1	E	1155	Total	C	N	O	S	0	0	0
			9236	5823	1638	1736	39			

- Molecule 2 is a protein called Exodeoxyribonuclease V gamma chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	1121	Total	C	N	O	S	0	0	0
			9078	5783	1568	1684	43			
2	F	1121	Total	C	N	O	S	0	0	0
			9078	5783	1568	1684	43			

- Molecule 3 is a protein called Exodeoxyribonuclease V alpha chain.

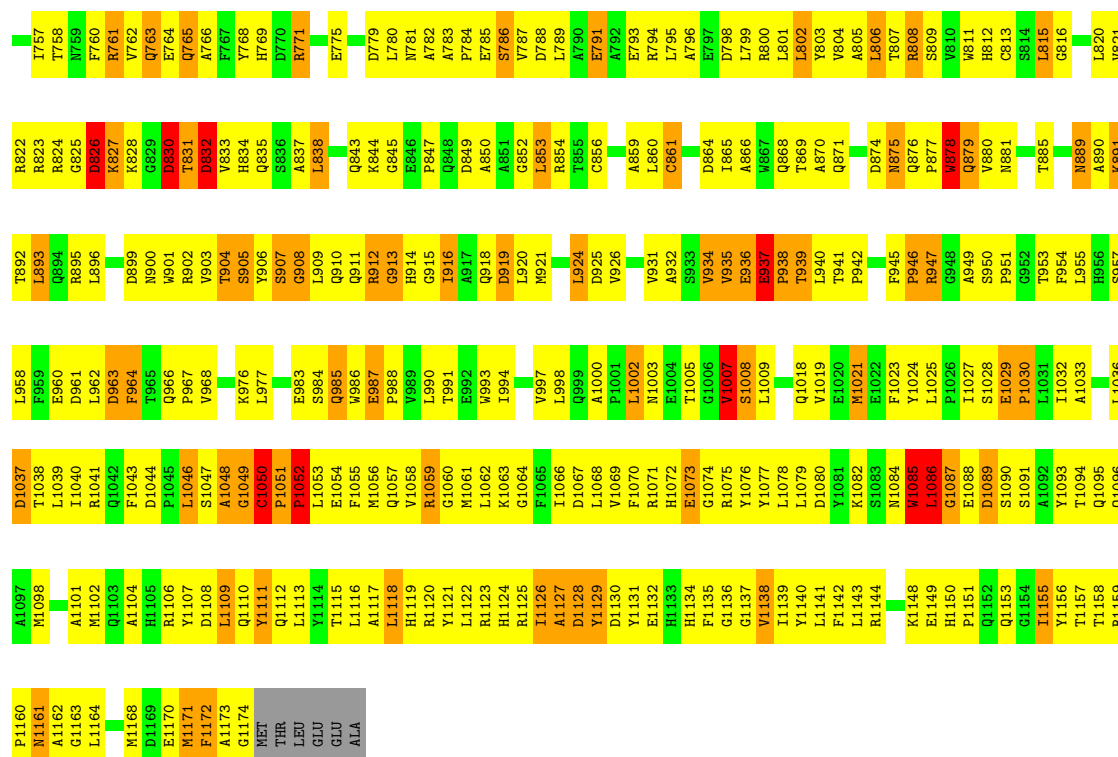
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	547	Total	C	N	O	S	0	0	0
			4216	2631	771	795	19			
3	G	547	Total	C	N	O	S	0	0	0
			4216	2631	771	795	19			

- Molecule 4 is a DNA chain called DNA (46-MER).

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
4	X	46	Total	C	I	N	O	P	0	0	0
			935	442	9	164	276	44			
4	Y	46	Total	C	I	N	O	P	0	0	0
			935	442	9	164	276	44			

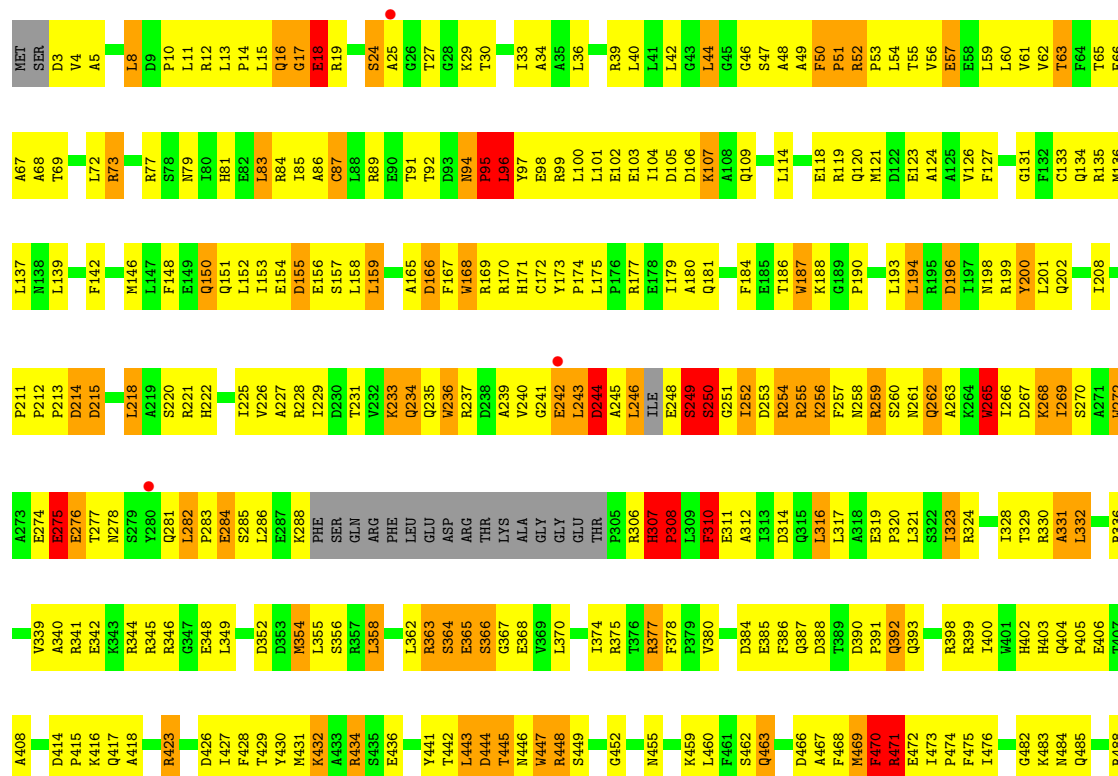
- Molecule 5 is CALCIUM ION (CCD ID: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	B	1	Total 1	Ca 1	0	0
5	E	1	Total 1	Ca 1	0	0



• Molecule 1: Exodeoxyribonuclease V beta chain

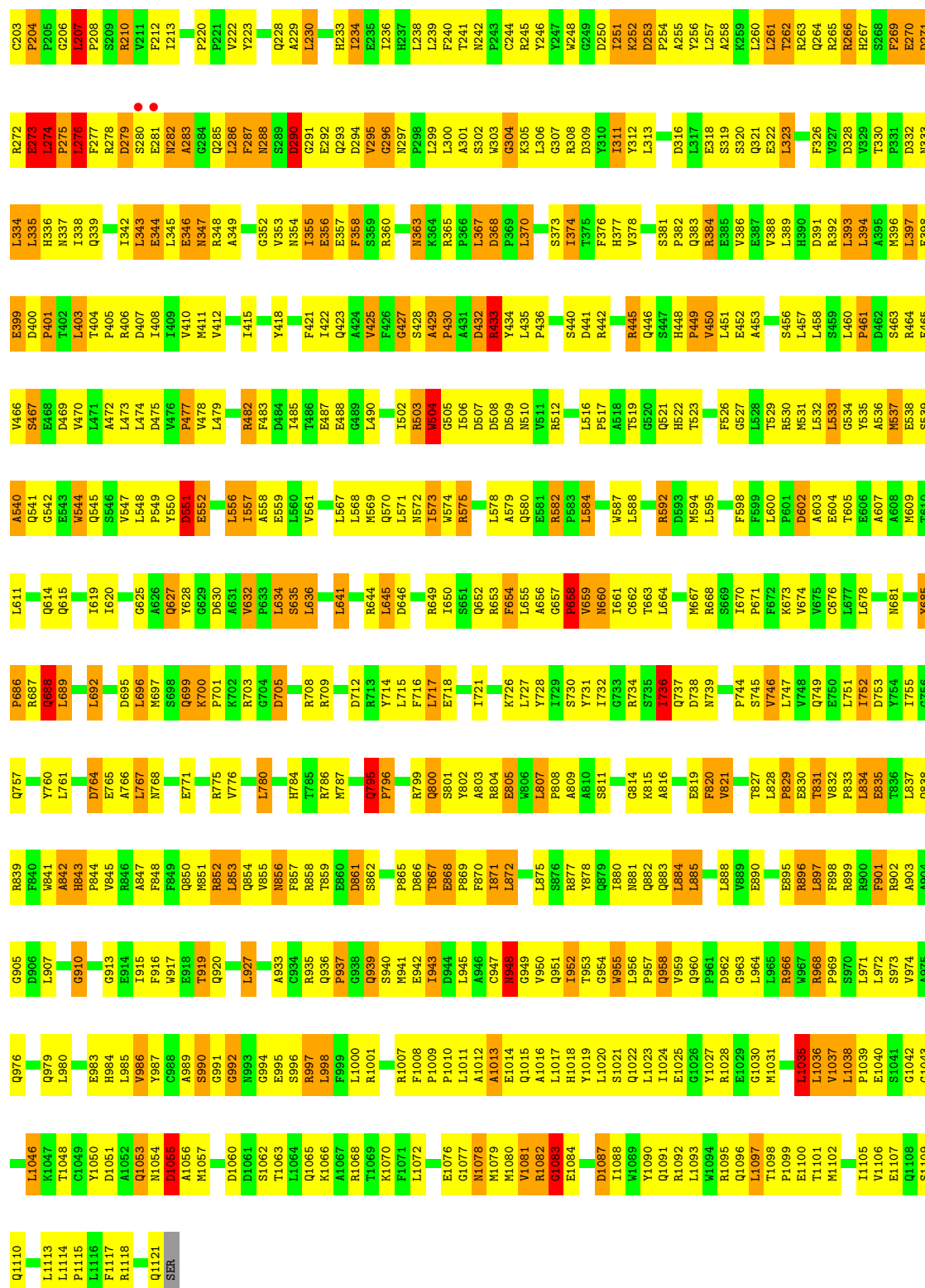
Chain E: 31% 51% 14% ..



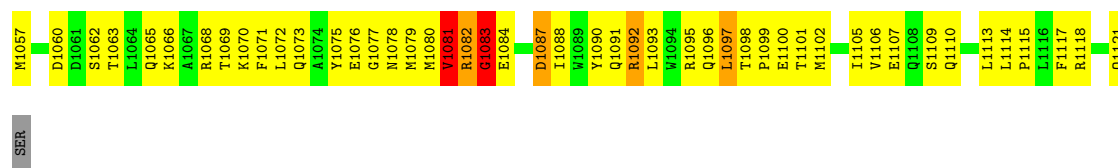


Chain C: 34% 48% 16%

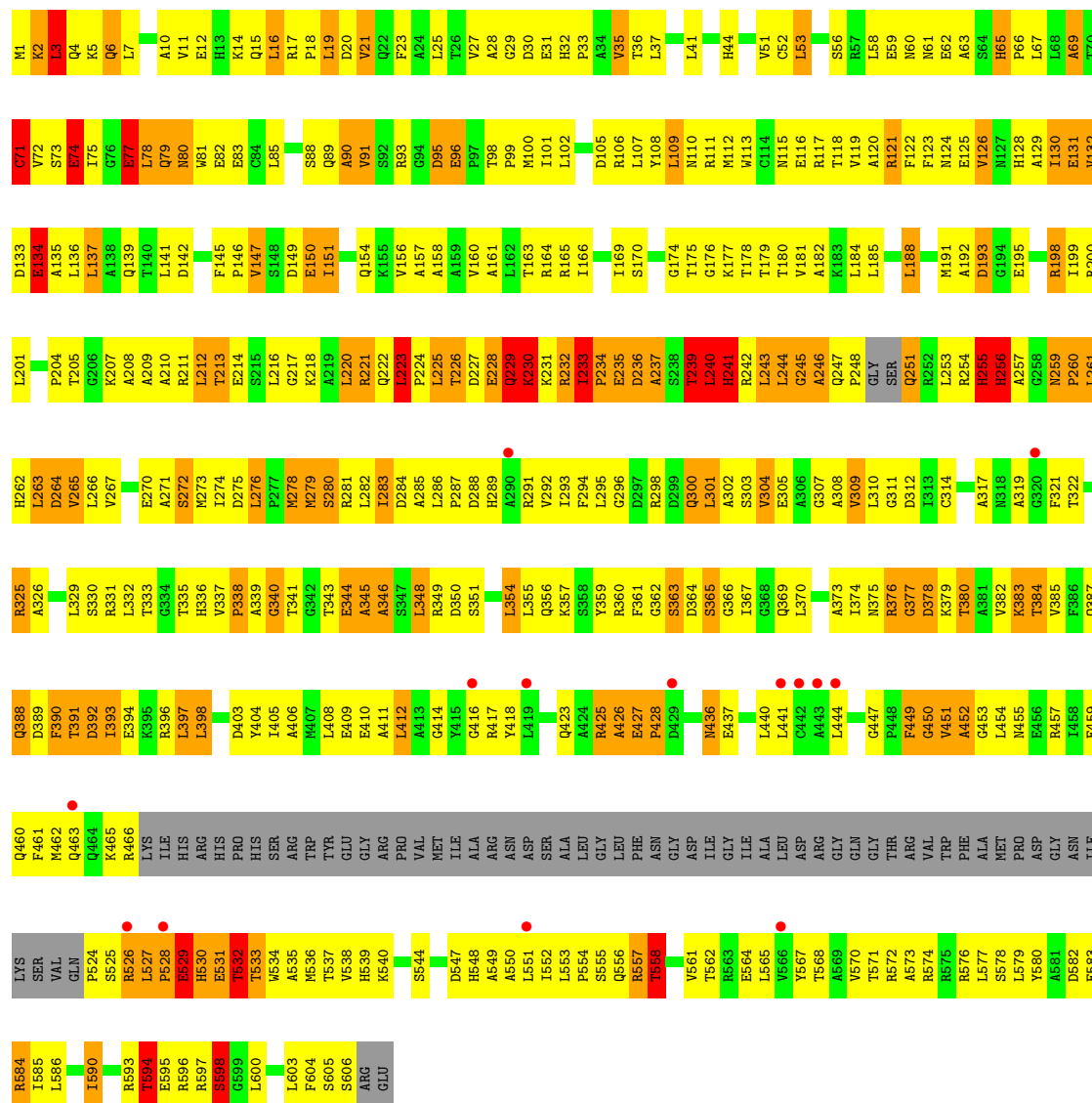




G992	G993	G994	E995	S996	S997	R998	F999	L1000	R1001	R1002	F1003	F1004	F1005	F1006	F1007	F1008	F1009	F1010	L1011	L1012	A1013	A1014	Q1015	Q1016	L1017	H1018	Y1019	T1020	S1021	Q1022	L1023	Q1024	E1025	Q1026	Y1027	R1028	E1029	G1030	M1031	S1032	A1033	F1034	L1035	S1036	V1037	L1038	P1039	E1040	S1041	G1042	G1043	L1044	L1045	L1046	L1047	C1048	Y1049	D1050	D1051	Q1052	Y1053	R1054	S990	L1055	A1056																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
L927	A933	C934	R935	R936	P937	G938	G939	S940	R941	E942	I943	D944	L945	A946	C947	R948	Q949	V950	L951	H952	T953	G954	R955	L956	Q957	P958	N959	Q960	P961	D962	G963	L964	L965	R966	R967	R968	P969	S970	L971	L972	R973	R974	G975	Y976	Y977	G978	L979	R980	E981	L982	R983	R984	R985	R986	R987	R988	R989	R990	R991	R992	R993	R994	R995	R996	R997	R998	R999	R1000	R1001	R1002	R1003	R1004	R1005	R1006	R1007	R1008	R1009	R1010	R1011	R1012	R1013	R1014	R1015	R1016	R1017	R1018	R1019	R1020	R1021	R1022	R1023	R1024	R1025	R1026	R1027	R1028	R1029	R1030	R1031	R1032	R1033	R1034	R1035	R1036	R1037	R1038	R1039	R1040	R1041	R1042	R1043	R1044	R1045	R1046	R1047	R1048	R1049	R1050	R1051	R1052	R1053	R1054	R1055	R1056	R1057	R1058	R1059	R1060	R1061	R1062	R1063	R1064	R1065	R1066	R1067	R1068	R1069	R1070	R1071	R1072	R1073	R1074	R1075	R1076	R1077	R1078	R1079	R1080	R1081	R1082	R1083	R1084	R1085	R1086	R1087	R1088	R1089	R1090	R1091	R1092	R1093	R1094	R1095	R1096	R1097	R1098	R1099	R1100	R1101	R1102	R1103	R1104	R1105	R1106	R1107	R1108	R1109	R1110	R1111	R1112	R1113	R1114	R1115	R1116	R1117	R1118	R1119	R1120	R1121	R1122	R1123	R1124	R1125	R1126	R1127	R1128	R1129	R1130	R1131	R1132	R1133	R1134	R1135	R1136	R1137	R1138	R1139	R1140	R1141	R1142	R1143	R1144	R1145	R1146	R1147	R1148	R1149	R1150	R1151	R1152	R1153	R1154	R1155	R1156	R1157	R1158	R1159	R1160	R1161	R1162	R1163	R1164	R1165	R1166	R1167	R1168	R1169	R1170	R1171	R1172	R1173	R1174	R1175	R1176	R1177	R1178	R1179	R1180	R1181	R1182	R1183	R1184	R1185	R1186	R1187	R1188	R1189	R1190	R1191	R1192	R1193	R1194	R1195	R1196	R1197	R1198	R1199	R1200	R1201	R1202	R1203	R1204	R1205	R1206	R1207	R1208	R1209	R1210	R1211	R1212	R1213	R1214	R1215	R1216	R1217	R1218	R1219	R1220	R1221	R1222	R1223	R1224	R1225	R1226	R1227	R1228	R1229	R1230	R1231	R1232	R1233	R1234	R1235	R1236	R1237	R1238	R1239	R1240	R1241	R1242	R1243	R1244	R1245	R1246	R1247	R1248	R1249	R1250	R1251	R1252	R1253	R1254	R1255	R1256	R1257	R1258	R1259	R1260	R1261	R1262	R1263	R1264	R1265	R1266	R1267	R1268	R1269	R1270	R1271	R1272	R1273	R1274	R1275	R1276	R1277	R1278	R1279	R1280	R1281	R1282	R1283	R1284	R1285	R1286	R1287	R1288	R1289	R1290	R1291	R1292	R1293	R1294	R1295	R1296	R1297	R1298	R1299	R1300	R1301	R1302	R1303	R1304	R1305	R1306	R1307	R1308	R1309	R1310	R1311	R1312	R1313	R1314	R1315	R1316	R1317	R1318	R1319	R1320	R1321	R1322	R1323	R1324	R1325	R1326	R1327	R1328	R1329	R1330	R1331	R1332	R1333	R1334	R1335	R1336	R1337	R1338	R1339	R1340	R1341	R1342	R1343	R1344	R1345	R1346	R1347	R1348	R1349	R1350	R1351	R1352	R1353	R1354	R1355	R1356	R1357	R1358	R1359	R1360	R1361	R1362	R1363	R1364	R1365	R1366	R1367	R1368	R1369	R1370	R1371	R1372	R1373	R1374	R1375	R1376	R1377	R1378	R1379	R1380	R1381	R1382	R1383	R1384	R1385	R1386	R1387	R1388	R1389	R1390	R1391	R1392	R1393	R1394	R1395	R1396	R1397	R1398	R1399	R1400	R1401	R1402	R1403	R1404	R1405	R1406	R1407	R1408	R1409	R1410	R1411	R1412	R1413	R1414	R1415	R1416	R1417	R1418	R1419	R1420	R1421	R1422	R1423	R1424	R1425	R1426	R1427	R1428	R1429	R1430	R1431	R1432	R1433	R1434	R1435	R1436	R1437	R1438	R1439	R1440	R1441	R1442	R1443	R1444	R1445	R1446	R1447	R1448	R1449	R1450	R1451	R1452	R1453	R1454	R1455	R1456	R1457	R1458	R1459	R1460	R1461	R1462	R1463	R1464	R1465	R1466	R1467	R1468	R1469	R1470	R1471	R1472	R1473	R1474	R1475	R1476	R1477	R1478	R1479	R1480	R1481	R1482	R1483	R1484	R1485	R1486	R1487	R1488	R1489	R1490	R1491	R1492	R1493	R1494	R1495	R1496	R1497	R1498	R1499	R1500	R1501	R1502	R1503	R1504	R1505	R1506	R1507	R1508	R1509	R1510	R1511	R1512	R1513	R1514	R1515	R1516	R1517	R1518	R1519	R1520	R1521	R1522	R1523	R1524	R1525	R1526	R1527	R1528	R1529	R1530	R1531	R1532	R1533	R1534	R1535	R1536	R1537	R1538	R1539	R1540	R1541	R1542	R1543	R1544	R1545	R1546	R1547	R1548	R1549	R1550	R1551	R1552	R1553	R1554	R1555	R1556	R1557	R1558	R1559	R1560	R1561	R1562	R1563	R1564	R1565	R1566	R1567	R1568	R1569	R1570	R1571	R1572	R1573	R1574	R1575	R1576	R1577	R1578	R1579	R1580	R1581	R1582	R1583	R1584	R1585	R1586	R1587	R1588	R1589	R1590	R1591	R1592	R1593	R1594	R1595	R1596	R1597	R1598	R1599	R1600	R1601	R1602	R1603	R1604	R1605	R1606	R1607	R1608	R1609	R1610	R1611	R1612	R1613	R1614	R1615	R1616	R1617	R1618	R1619	R1620	R1621	R1622	R1623	R1624	R1625	R1626	R1627	R1628	R1629	R1630	R1631	R1632	R1633	R1634	R1635	R1636	R1637	R1638	R1639	R1640	R1641	R1642	R1643	R1644	R1645	R1646	R1647	R1648	R1649	R1650	R1651	R1652	R1653	R1654	R1655	R1656	R1657	R1658	R1659	R1660	R1661	R1662	R1663	R1664	R1665	R1666	R1667	R1668	R1669	R1670	R1671	R1672	R1673	R1674	R1675	R1676	R1677	R1678	R1679	R1680	R1681	R1682	R1683	R1684	R1685	R1686	R1687	R1688	R1689	R1690	R1691	R1692	R1693	R1694	R1695	R1696	R1697	R1698	R1699	R1700	R1701	R1702	R1703	R1704	R1705	R1706	R1707	R1708	R1709	R1710	R1711	R1712	R1713	R1714	R1715	R1716	R1717	R1718	R1719	R1720	R1721	R1722	R1723	R1724	R1725	R1726	R1727	R1728	R1729	R1730	R1731	R1732	R1733	R1734	R1735	R1736	R1737	R1738	R1739	R1740	R1741	R1742	R1743	R1744	R1745	R1746	R1747	R1748	R1749	R1750	R1751	R1752	R1753	R1754	R1755	R1756	R1757	R1758	R1759	R1760	R1761	R1762	R1763	R1764	R1765	R1766	R1767	R1768	R1769	R1770	R1771	R1772	R1773	R1774	R1775	R1776	R1777	R1778	R1779	R1780	R1781	R1782	R1783	R1784	R1785	R1786	R1787	R1788	R1789	R1790	R1791	R1792	R1793	R1794	R1795	R1796	R1797	R1798	R1799	R1800	R1801	R1802	R1803	R1804	R1805	R1806	R1807	R1808	R1809	R1810	R1811	R1812	R1813	R1814	R1815	R1816	R1817	R1818	R1819	R1820	R1821	R1822	R1823	R1824	R1825	R1826	R1827	R1828	R1829	R1830	R1831	R1832	R1833	R1834	R1835	R1836	R1837	R1838	R1839	R1840	R1841	R1842	R1843	R1844	R1845	R1846	R1847	R1848	R1849	R1850	R1851	R1852	R1853	R1854	R1855	R1856	R1857	R1858	R1859	R1860	R1861	R1862	R1863	R1864	R1865	R1866	R1867	R1868	R1869	R1870	R1871	R1872	R1873	R1874	R1875	R1876	R1877	R1878	R1879	R1880	R1881	R1882	R1883	R1884	R1885	R1886	R1887	R1888	R1889	R1890	R1891	R1892	R1893	R1894	R1895	R1896	R1897	R1898	R1899	R1900	R1901	R1902	R1903	R1904	R1905	R1906	R1907	R1908	R1909	R1910	R1911	R1912	R1913	R1914	R1915	R1916	R1917	R1918	R1919	R1920	R1921	R1922	R1923	R1924	R1925	R1926	R1927	R1928	R1929	R1930	R1931	R1932	R1933	R1934	R1935	R1936	R1937	R1938	R1939	R1940	R1941	R1942	R1943	R1944	R1945	R1946	R1947	R1948	R1949	R1950	R1951	R1952	R1953	R1954	R1955	R1956	R1957	R1958	R1959	R1960	R1961	R1962	R1963	R1964	R1965	R1966	R1967	R1968	R1969	R1970	R1971	R1972	R1973	R1974	R1975	R1976	R1977	R1978	R1979	R1980	R1981	R1982	R1983	R1984	R1985	R1986	R1987	R1988	R1989	R1990	R1991	R1992	R1993	R1994	R1995	R1996	R1997	R1998	R1999	R2000	R2001	R2002	R2003	R2004	R2005	R2006	R2007	R2008	R2009	R2010	R2011	R2012	R2013	R2014	R2015	R2016	R2017	R2018	R2019	R2020	R2021	R2022	R2023	R2024	R2025	R2026	R2027	R2028	R2029	R2030	R2031	R2032	R2033	R2034	R2035	R2036	R2037	R2038	R2039	R2040	R2041	R2042	R2043	R2044	R2045	R2046	R2047	R2048	R2049	R2050	R2051	R2052	R2053	R2054	R2055	R2056	R2057	R2058	R2059	R2060	R2061	R2062	R2063	R2064	R2065	R2066	R2067	R2068	R2069	R2070	R2071	R2072	R2073	R2074	R2075	R2076	R2077	R2078	R2079	R2080	R2081	R2082	R2083	R2084	R2085	R2086	R2087	R2088	R2089	R2090	R2091	R2092	R2093	R2094	R2095	R2096	R2097	R2098	R2099	R2100	R2101	R2102	R2103	R2104	R2105	R2106	R2107	R2108	R2109	R2110	R2111	R2112	R2113	R2114	R2115	R2116	R2117	R2118	R2119	R2120	R2121	R2122	R2123	R2124	R2125	R2126	R2127	R2128	R2129	R2130	R2131	R2132	R2133	R2134	R2135	R2136	R2137	R2138	R2139	R2140	R2141	R2142	R2143	R2144	R2145	R2146	R2147	R2148	R2149	R2150	R2151	R2152	R2153	R2154	R2155	R2156	R2157	R2158	R2159	R2160	R2161	R2162	R2163	R2164	R2165	R2166	R2167	R2168	R2169	R2170	R2171	R2172	R2173	R2174	R2175	R2176	R2177	R2178	R2179	R2180	R2181	R2182	R2183	R2184	R2185	R2186	R2187	R2188	R2189	R2190	R2191	R2192	R2193	R2194	R2195	R2196	R2197	R2198	R2199	R2200	R2201	R2202	R2203	R2204	R2205	R2206	R2207	R2208	R2209	R2210	R2211	R2212	R2213	R2214	R2215	R2216	R2217	R2218	R2219	R2220	R2221	R2222	R2223	R2224	R2225	R2226	R2227	R2228	R2229	R2230	R2231	R2232	R2233

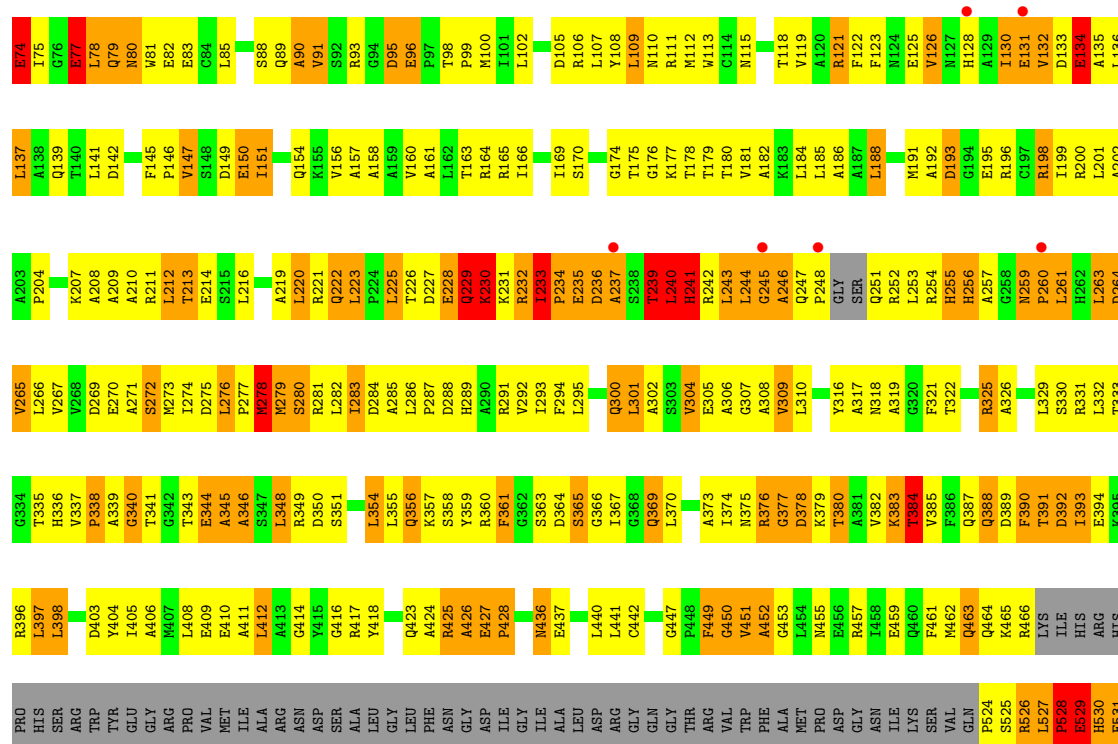


• Molecule 3: Exodeoxyribonuclease V alpha chain

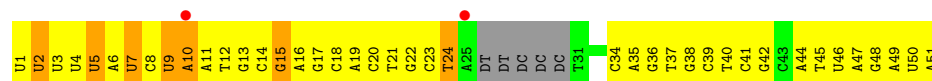
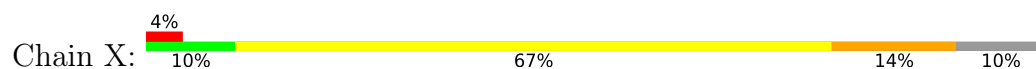


• Molecule 3: Exodeoxyribonuclease V alpha chain





• Molecule 4: DNA (46-MER)



• Molecule 4: DNA (46-MER)



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	133.80Å 192.90Å 334.80Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.00 – 3.59 30.00 – 3.60	Depositor EDS
% Data completeness (in resolution range)	96.5 (30.00-3.59) 96.2 (30.00-3.60)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	0.07	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.92 (at 3.56Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.248 , 0.296 0.237 , 0.280	Depositor DCC
R_{free} test set	4709 reflections (4.84%)	wwPDB-VP
Wilson B-factor (Å ²)	107.4	Xtriage
Anisotropy	0.193	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 96.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	46932	wwPDB-VP
Average B, all atoms (Å ²)	121.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.99% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: CA, 5IU

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	B	0.35	0/9432	1.08	68/12795 (0.5%)
1	E	0.35	0/9432	1.08	69/12795 (0.5%)
2	C	0.35	0/9305	1.03	72/12644 (0.6%)
2	F	0.35	0/9305	1.02	67/12644 (0.5%)
3	D	0.46	1/4281 (0.0%)	1.20	45/5796 (0.8%)
3	G	0.41	0/4281	1.17	44/5796 (0.8%)
4	X	0.33	0/847	0.79	4/1293 (0.3%)
4	Y	0.32	0/847	0.79	1/1293 (0.1%)
All	All	0.37	1/47730 (0.0%)	1.07	370/65056 (0.6%)

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
4	Y	0	1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	255	HIS	N-CA	5.18	1.52	1.46

All (370) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	878	TRP	N-CA-C	-16.04	93.03	112.59
3	D	531	GLU	N-CA-C	-14.61	96.06	112.57
3	G	531	GLU	N-CA-C	-14.40	96.30	112.57
1	B	913	GLY	N-CA-C	-13.52	99.11	113.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	307	HIS	CA-C-N	13.52	136.74	119.84
1	E	307	HIS	C-N-CA	13.52	136.74	119.84
1	E	913	GLY	N-CA-C	-13.47	99.17	113.58
3	D	231	LYS	N-CA-C	-13.34	97.49	112.57
3	G	231	LYS	N-CA-C	-13.34	97.49	112.57
1	B	307	HIS	CA-C-N	13.09	136.21	119.84
1	B	307	HIS	C-N-CA	13.09	136.21	119.84
2	F	504	TRP	N-CA-C	12.81	121.05	108.75
2	C	504	TRP	N-CA-C	12.65	120.90	108.75
3	D	239	THR	N-CA-C	-11.80	92.82	110.28
3	G	72	VAL	N-CA-C	-11.65	102.11	113.53
1	E	908	GLY	N-CA-C	-11.64	101.86	114.67
1	B	908	GLY	N-CA-C	-11.63	101.87	114.67
3	G	239	THR	N-CA-C	-11.56	93.18	110.28
1	E	245	ALA	N-CA-C	11.53	123.46	108.24
1	B	245	ALA	N-CA-C	11.50	123.42	108.24
3	D	72	VAL	N-CA-C	-11.20	102.55	113.53
2	C	508	ASP	N-CA-C	-10.92	99.79	113.55
1	B	1086	LEU	N-CA-C	-10.59	97.68	114.09
1	E	1086	LEU	N-CA-C	-10.47	97.86	114.09
1	B	254	ARG	N-CA-C	-10.45	101.89	112.97
1	E	254	ARG	N-CA-C	-10.41	101.94	112.97
2	F	508	ASP	N-CA-C	-10.38	100.47	113.55
2	C	1008	PHE	CA-C-N	10.29	127.07	119.66
2	C	1008	PHE	C-N-CA	10.29	127.07	119.66
1	E	878	TRP	N-CA-C	-10.23	99.11	112.41
3	D	256	HIS	N-CA-C	10.01	132.12	110.80
3	G	236	ASP	N-CA-C	9.76	125.17	107.99
3	D	236	ASP	N-CA-C	9.70	125.06	107.99
3	D	364	ASP	N-CA-C	-9.70	98.56	113.89
3	G	364	ASP	N-CA-C	-9.63	98.67	113.89
2	F	1008	PHE	CA-C-N	9.62	126.59	119.66
2	F	1008	PHE	C-N-CA	9.62	126.59	119.66
1	E	257	PHE	N-CA-C	-9.38	101.00	111.14
2	F	657	GLY	CA-C-N	9.29	131.46	119.84
2	F	657	GLY	C-N-CA	9.29	131.46	119.84
1	B	257	PHE	N-CA-C	-9.26	101.14	111.14
2	C	657	GLY	CA-C-N	9.24	131.39	119.84
2	C	657	GLY	C-N-CA	9.24	131.39	119.84
3	G	90	ALA	N-CA-C	-9.06	100.01	113.61
3	D	90	ALA	N-CA-C	-8.95	100.18	113.61
1	B	243	LEU	N-CA-C	-8.90	99.76	110.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1050	CYS	CA-C-N	-8.90	111.22	120.38
1	E	1050	CYS	C-N-CA	-8.90	111.22	120.38
1	E	243	LEU	N-CA-C	-8.78	99.90	110.44
3	G	240	LEU	N-CA-C	-8.73	102.39	112.87
2	C	434	TYR	N-CA-C	8.61	123.03	110.28
2	C	1082	ARG	N-CA-C	8.59	122.66	107.80
2	F	434	TYR	N-CA-C	8.57	122.96	110.28
1	B	1050	CYS	CA-C-N	-8.55	111.58	120.38
1	B	1050	CYS	C-N-CA	-8.55	111.58	120.38
2	F	1082	ARG	N-CA-C	8.54	122.57	107.80
1	E	319	GLU	CA-C-N	8.53	130.51	119.84
1	E	319	GLU	C-N-CA	8.53	130.51	119.84
3	D	240	LEU	N-CA-C	-8.51	102.66	112.87
1	B	319	GLU	CA-C-N	8.49	130.46	119.84
1	B	319	GLU	C-N-CA	8.49	130.46	119.84
2	F	162	GLN	N-CA-C	-8.43	102.04	111.82
2	F	551	ASP	N-CA-C	8.42	122.82	112.54
3	D	255	HIS	N-CA-C	8.36	128.60	110.80
2	C	162	GLN	N-CA-C	-8.34	102.15	111.82
3	D	109	LEU	N-CA-C	-8.34	95.62	109.46
1	E	907	SER	N-CA-C	-8.34	102.53	114.12
2	C	551	ASP	N-CA-C	8.31	122.68	112.54
3	G	63	ALA	N-CA-C	-8.25	103.20	113.18
1	E	275	GLU	N-CA-C	8.25	122.30	109.52
1	B	244	ASP	N-CA-C	8.23	128.32	110.80
3	G	463	GLN	N-CA-C	-8.22	102.19	112.72
1	E	244	ASP	N-CA-C	8.21	128.28	110.80
1	E	255	ARG	N-CA-C	-8.18	103.30	113.28
1	B	255	ARG	N-CA-C	-8.15	103.34	113.28
1	B	447	TRP	N-CA-C	-8.08	100.17	110.19
2	C	1079	MET	N-CA-C	-8.08	103.42	113.28
3	G	109	LEU	N-CA-C	-8.07	96.06	109.46
1	B	907	SER	N-CA-C	-8.06	102.92	114.12
1	B	275	GLU	N-CA-C	8.05	121.99	109.52
3	D	63	ALA	N-CA-C	-8.00	103.50	113.18
1	B	308	PRO	N-CA-C	7.97	128.88	112.47
1	B	233	LYS	N-CA-C	-7.97	102.82	112.54
3	G	244	LEU	N-CA-C	7.90	120.91	108.67
2	F	1079	MET	N-CA-C	-7.88	103.66	113.28
2	C	334	LEU	N-CA-C	-7.87	102.78	111.36
2	F	334	LEU	N-CA-C	-7.87	102.79	111.36
3	D	69	ALA	N-CA-C	-7.84	103.44	113.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	223	LEU	CA-C-N	7.77	129.55	119.84
3	D	223	LEU	C-N-CA	7.77	129.55	119.84
2	F	276	LEU	N-CA-C	7.68	122.22	111.92
2	F	358	PHE	N-CA-C	7.67	120.72	111.82
1	E	308	PRO	N-CA-C	7.67	128.27	112.47
2	C	276	LEU	N-CA-C	7.65	122.17	111.92
2	C	358	PHE	N-CA-C	7.65	120.69	111.82
1	E	233	LYS	N-CA-C	-7.64	103.21	112.54
3	G	69	ALA	N-CA-C	-7.63	103.70	113.16
3	D	527	LEU	CA-C-N	7.54	129.26	119.84
3	D	527	LEU	C-N-CA	7.54	129.26	119.84
1	E	447	TRP	N-CA-C	-7.53	100.86	110.19
1	B	625	ALA	N-CA-C	-7.51	102.45	111.69
1	E	47	SER	N-CA-C	-7.50	103.07	112.90
3	D	236	ASP	CA-C-O	7.45	128.67	120.92
3	G	236	ASP	CA-C-O	7.42	128.64	120.92
1	E	625	ALA	N-CA-C	-7.41	102.57	111.69
1	E	256	LYS	N-CA-C	-7.38	103.53	112.54
1	B	47	SER	N-CA-C	-7.33	103.00	112.23
2	C	654	PHE	N-CA-C	7.33	119.27	111.28
2	F	800	GLN	N-CA-C	-7.33	98.11	109.76
2	C	800	GLN	N-CA-C	-7.32	98.12	109.76
1	B	256	LYS	N-CA-C	-7.28	103.66	112.54
2	C	82	LYS	N-CA-C	-7.26	99.53	110.28
3	G	527	LEU	CA-C-N	7.21	128.86	119.84
3	G	527	LEU	C-N-CA	7.21	128.86	119.84
1	B	1050	CYS	N-CA-C	7.18	125.68	109.81
1	B	937	GLU	CA-C-N	7.15	128.78	119.84
1	B	937	GLU	C-N-CA	7.15	128.78	119.84
1	E	1051	PRO	CA-C-N	7.14	128.77	119.84
1	E	1051	PRO	C-N-CA	7.14	128.77	119.84
2	F	654	PHE	N-CA-C	7.13	119.05	111.28
1	B	722	ALA	N-CA-C	-7.12	104.19	113.17
1	E	1050	CYS	N-CA-C	7.12	125.55	109.81
1	B	1051	PRO	CA-C-N	7.10	128.71	119.84
1	B	1051	PRO	C-N-CA	7.10	128.71	119.84
3	G	71	CYS	N-CA-C	7.07	119.27	108.52
1	E	937	GLU	CA-C-N	7.07	128.67	119.84
1	E	937	GLU	C-N-CA	7.07	128.67	119.84
1	E	722	ALA	N-CA-C	-7.04	104.30	113.17
1	E	516	SER	N-CA-C	-7.03	103.55	111.07
3	G	237	ALA	CA-C-N	-7.02	112.75	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	237	ALA	C-N-CA	-7.02	112.75	122.93
1	B	323	ILE	N-CA-C	-7.01	106.39	113.47
2	F	82	LYS	N-CA-C	-7.01	100.06	110.23
2	F	393	LEU	N-CA-C	-6.98	103.76	111.36
3	D	237	ALA	CA-C-N	-6.95	112.86	122.93
3	D	237	ALA	C-N-CA	-6.95	112.86	122.93
3	D	71	CYS	N-CA-C	6.93	119.05	108.52
2	C	271	ASP	N-CA-C	6.87	125.44	110.80
1	B	200	TYR	N-CA-C	-6.86	101.68	110.19
1	E	200	TYR	N-CA-C	-6.85	101.69	110.19
2	F	271	ASP	N-CA-C	6.85	125.40	110.80
3	D	532	THR	N-CA-C	-6.84	102.76	111.92
2	F	861	ASP	N-CA-C	-6.75	96.42	110.80
2	C	1083	GLY	N-CA-C	6.74	129.15	113.18
1	E	236	TRP	N-CA-C	-6.74	106.94	114.62
2	F	1083	GLY	N-CA-C	6.74	129.14	113.18
3	G	532	THR	N-CA-C	-6.73	102.90	111.92
3	D	584	ARG	N-CA-C	-6.73	104.11	112.72
2	C	1016	ALA	N-CA-C	-6.73	103.87	111.07
2	C	842	ALA	N-CA-C	-6.71	103.65	112.24
1	E	312	ALA	N-CA-C	-6.71	104.35	112.54
1	B	516	SER	N-CA-C	-6.70	103.90	111.07
2	C	1081	VAL	N-CA-C	-6.70	100.89	109.80
3	D	529	GLU	N-CA-C	-6.69	96.55	110.80
2	C	861	ASP	N-CA-C	-6.67	96.59	110.80
2	F	1081	VAL	N-CA-C	-6.64	100.96	109.80
2	C	393	LEU	N-CA-C	-6.61	104.15	111.36
3	G	241	HIS	N-CA-C	6.58	120.00	112.57
2	F	604	GLU	N-CA-C	-6.56	103.82	110.97
1	E	323	ILE	N-CA-C	-6.55	106.85	113.47
1	B	449	SER	N-CA-C	6.47	119.55	109.52
1	E	935	VAL	N-CA-C	-6.45	105.04	111.88
1	B	312	ALA	N-CA-C	-6.44	104.68	112.54
2	F	58	ALA	N-CA-C	6.44	120.75	112.12
1	B	166	ASP	N-CA-C	-6.41	104.33	111.71
1	E	449	SER	N-CA-C	6.39	119.42	109.52
1	E	1085	TRP	N-CA-C	6.38	124.38	110.80
1	E	378	PHE	CA-C-N	6.35	125.92	119.19
1	E	378	PHE	C-N-CA	6.35	125.92	119.19
1	E	166	ASP	N-CA-C	-6.34	104.37	111.28
3	D	377	GLY	N-CA-C	6.33	123.09	113.02
1	B	935	VAL	N-CA-C	-6.32	105.19	111.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	635	GLU	N-CA-C	6.30	118.96	111.71
2	F	1016	ALA	N-CA-C	-6.30	104.33	111.07
3	G	528	PRO	N-CA-C	6.30	125.45	112.47
1	B	796	ALA	N-CA-C	-6.28	104.72	112.38
1	B	1085	TRP	N-CA-C	6.25	124.12	110.80
3	G	529	GLU	N-CA-C	-6.25	97.48	110.80
2	F	842	ALA	N-CA-C	-6.24	104.26	112.24
2	C	58	ALA	N-CA-C	6.24	120.48	112.12
4	Y	15	DG	C2'-C3'-O3'	6.22	120.82	111.50
2	C	270	GLU	N-CA-C	6.21	119.37	108.75
2	C	604	GLU	N-CA-C	-6.19	104.22	110.97
2	C	556	LEU	N-CA-C	-6.18	104.84	112.38
2	C	1023	LEU	N-CA-C	-6.16	104.64	111.36
2	C	275	PRO	N-CA-C	6.16	120.93	111.57
1	B	5	ALA	N-CA-C	6.15	118.71	110.35
2	F	33	GLU	N-CA-C	-6.14	101.33	110.23
2	F	14	GLU	N-CA-C	-6.13	104.71	111.82
1	E	1049	GLY	N-CA-C	-6.13	98.66	113.18
1	B	1049	GLY	N-CA-C	-6.12	98.66	113.18
2	F	270	GLU	N-CA-C	6.12	119.22	108.75
3	D	77	GLU	N-CA-C	-6.12	105.78	113.18
1	E	635	GLU	N-CA-C	6.10	118.72	111.71
3	D	246	ALA	N-CA-C	-6.10	100.26	109.95
3	G	77	GLU	N-CA-C	-6.09	105.70	113.01
3	G	449	PHE	N-CA-C	-6.09	97.83	110.80
2	F	397	LEU	N-CA-C	-6.09	103.98	112.45
1	B	265	TRP	N-CA-C	-6.08	105.62	113.16
1	E	1171	MET	N-CA-C	-6.08	104.72	111.71
1	E	250	SER	N-CA-C	6.06	123.71	110.80
1	B	250	SER	N-CA-C	6.03	123.65	110.80
2	C	579	ALA	N-CA-C	6.02	117.53	110.97
2	F	275	PRO	N-CA-C	6.02	120.72	111.57
2	F	204	PRO	CA-C-N	6.02	127.36	119.84
2	F	204	PRO	C-N-CA	6.02	127.36	119.84
1	E	265	TRP	N-CA-C	-6.01	105.70	113.16
2	C	870	PHE	N-CA-C	-6.01	106.08	113.41
2	C	504	TRP	CB-CA-C	-6.00	107.71	116.53
3	G	82	GLU	N-CA-C	-6.00	104.65	111.07
2	F	870	PHE	N-CA-C	-5.99	106.14	113.50
4	X	15	DG	C2'-C3'-O3'	5.96	120.43	111.50
2	C	14	GLU	N-CA-C	-5.94	104.88	111.36
1	E	5	ALA	N-CA-C	5.93	118.42	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	233	ILE	N-CA-C	-5.93	103.14	108.95
2	F	1066	LYS	N-CA-C	-5.93	104.90	111.36
2	C	962	ASP	N-CA-C	-5.92	104.77	112.23
2	C	397	LEU	N-CA-C	-5.92	104.23	112.45
2	C	266	ARG	N-CA-C	-5.91	102.17	110.50
2	F	556	LEU	N-CA-C	-5.90	105.19	112.38
1	E	444	ASP	N-CA-C	5.89	118.94	111.69
3	D	241	HIS	N-CA-C	5.89	119.22	112.57
3	D	213	THR	N-CA-C	5.88	117.78	111.36
3	D	412	LEU	N-CA-C	-5.88	105.36	112.54
2	C	573	ILE	N-CA-C	-5.88	104.19	110.36
3	D	82	GLU	N-CA-C	-5.88	104.78	111.07
2	F	266	ARG	N-CA-C	-5.88	102.22	110.50
3	G	412	LEU	N-CA-C	-5.87	105.38	112.54
2	F	579	ALA	N-CA-C	5.87	117.37	110.97
1	B	1089	ASP	N-CA-C	5.86	118.19	108.99
1	E	186	THR	N-CA-C	-5.86	105.80	113.12
2	C	890	GLU	N-CA-C	-5.85	106.00	113.02
2	F	504	TRP	CB-CA-C	-5.85	107.93	116.53
2	C	632	VAL	N-CA-C	5.84	114.56	107.61
2	C	939	GLN	N-CA-C	5.83	117.08	108.86
1	B	670	ILE	N-CA-C	5.82	115.89	110.42
2	C	795	GLN	CA-C-N	-5.81	112.58	119.84
2	C	795	GLN	C-N-CA	-5.81	112.58	119.84
1	E	796	ALA	N-CA-C	-5.80	105.30	112.38
2	C	204	PRO	CA-C-N	5.80	127.09	119.84
2	C	204	PRO	C-N-CA	5.80	127.09	119.84
3	G	233	ILE	N-CA-C	-5.79	103.27	108.95
2	C	33	GLU	N-CA-C	-5.79	101.72	110.28
2	C	1066	LYS	N-CA-C	-5.78	104.58	111.69
2	F	939	GLN	N-CA-C	5.77	116.99	108.86
3	D	384	THR	N-CA-C	-5.76	106.41	113.50
3	G	377	GLY	N-CA-C	5.74	122.81	112.54
2	C	655	LEU	N-CA-C	5.73	118.26	110.06
2	F	504	TRP	CA-C-O	5.73	121.94	118.33
1	E	670	ILE	N-CA-C	5.72	115.80	110.42
2	F	1023	LEU	N-CA-C	-5.72	105.12	111.36
1	E	1089	ASP	N-CA-C	5.72	117.97	108.99
3	G	213	THR	N-CA-C	5.71	117.58	111.36
1	E	877	PRO	N-CA-C	5.70	120.44	111.38
2	C	820	PHE	N-CA-C	5.69	118.21	111.33
1	E	654	LYS	N-CA-C	5.66	118.31	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	G	584	ARG	N-CA-C	-5.66	105.47	112.72
1	B	1171	MET	N-CA-C	-5.65	105.22	111.71
2	C	688	GLN	N-CA-C	5.62	118.05	109.95
1	B	50	PHE	CA-C-N	5.60	126.84	119.84
1	B	50	PHE	C-N-CA	5.60	126.84	119.84
2	F	820	PHE	N-CA-C	5.60	118.11	111.33
1	E	94	ASN	CA-C-N	5.60	126.84	119.84
1	E	94	ASN	C-N-CA	5.60	126.84	119.84
3	D	449	PHE	N-CA-C	-5.58	98.92	110.80
2	C	504	TRP	CA-C-O	5.57	121.84	118.33
1	E	968	VAL	N-CA-C	5.57	115.28	107.37
2	C	1035	LEU	N-CA-C	-5.57	100.74	109.25
3	D	12	GLU	N-CA-C	-5.55	104.25	111.02
2	F	962	ASP	N-CA-C	-5.54	105.25	112.23
2	F	890	GLU	N-CA-C	-5.53	106.38	113.02
2	F	297	ASN	CA-C-N	5.49	125.11	119.56
2	F	297	ASN	C-N-CA	5.49	125.11	119.56
3	G	384	THR	N-CA-C	-5.48	106.76	113.50
2	C	658	PRO	N-CA-C	5.48	123.76	112.47
3	G	404	TYR	N-CA-C	-5.48	105.39	111.36
3	D	383	LYS	N-CA-C	5.47	120.92	113.37
2	F	655	LEU	N-CA-C	5.46	117.87	110.06
1	B	736	VAL	N-CA-C	-5.46	102.14	109.30
3	D	230	LYS	N-CA-C	5.46	121.15	113.02
4	X	10	DA	OP1-P-O3'	5.41	124.22	108.00
3	G	230	LYS	N-CA-C	5.39	121.06	113.02
3	G	246	ALA	N-CA-C	-5.39	100.39	109.07
2	C	85	ALA	N-CA-C	-5.39	106.55	113.02
2	F	533	LEU	N-CA-C	-5.39	105.97	112.54
2	C	328	ASP	N-CA-C	5.39	117.04	110.41
2	F	464	ARG	N-CA-C	-5.38	106.72	113.28
3	D	558	THR	N-CA-C	5.38	121.70	109.81
2	C	381	SER	N-CA-C	5.37	112.96	108.13
1	E	914	HIS	N-CA-C	-5.36	106.77	113.15
3	G	558	THR	N-CA-C	5.36	121.65	109.81
2	F	1035	LEU	N-CA-C	-5.36	101.06	109.25
1	B	186	THR	N-CA-C	-5.34	106.44	113.12
1	B	1052	PRO	N-CA-C	5.34	123.47	112.47
2	C	852	ARG	N-CA-C	5.34	117.18	111.36
1	E	1052	PRO	N-CA-C	5.34	123.47	112.47
2	F	852	ARG	N-CA-C	5.34	117.10	111.28
1	E	808	ARG	N-CA-C	5.34	118.01	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	311	GLU	N-CA-C	-5.33	106.75	113.20
2	C	274	LEU	CA-C-N	5.33	125.54	120.31
2	C	274	LEU	C-N-CA	5.33	125.54	120.31
3	G	383	LYS	N-CA-C	5.33	120.72	113.37
2	F	573	ILE	N-CA-C	-5.32	104.70	110.23
2	F	186	ARG	N-CA-C	-5.32	107.45	114.31
1	E	50	PHE	CA-C-N	5.32	126.48	119.84
1	E	50	PHE	C-N-CA	5.32	126.48	119.84
2	C	170	LYS	N-CA-C	-5.31	105.49	111.28
1	E	241	GLY	N-CA-C	-5.31	100.59	113.18
3	D	362	GLY	N-CA-C	5.31	116.55	111.67
2	F	170	LYS	N-CA-C	-5.31	105.49	111.28
2	F	1056	ALA	N-CA-C	5.30	116.89	108.67
2	F	1055	ASP	N-CA-C	-5.29	104.11	111.52
3	G	283	ILE	N-CA-C	5.29	115.50	110.42
1	E	539	LEU	N-CA-C	5.29	118.07	109.24
2	F	427	GLY	N-CA-C	-5.29	100.65	113.18
2	F	795	GLN	CA-C-N	-5.28	113.23	119.84
2	F	795	GLN	C-N-CA	-5.28	113.23	119.84
3	G	202	ALA	N-CA-C	5.28	115.51	108.38
1	B	241	GLY	N-CA-C	-5.28	100.68	113.18
3	G	363	SER	N-CA-C	5.27	115.20	108.24
2	C	1055	ASP	N-CA-C	-5.26	104.13	111.39
1	B	654	LYS	N-CA-C	5.26	117.81	111.40
3	D	226	THR	N-CA-C	-5.26	106.77	114.39
1	B	539	LEU	N-CA-C	5.25	118.01	109.24
1	B	94	ASN	CA-C-N	5.25	126.40	119.84
1	B	94	ASN	C-N-CA	5.25	126.40	119.84
4	X	51	DA	C2'-C3'-O3'	5.25	119.37	111.50
3	D	283	ILE	N-CA-C	5.25	115.46	110.42
3	G	12	GLU	N-CA-C	-5.25	104.62	111.02
2	C	875	LEU	N-CA-C	5.24	117.67	111.33
2	C	297	ASN	CA-C-N	5.24	124.85	119.56
2	C	297	ASN	C-N-CA	5.24	124.85	119.56
1	B	914	HIS	N-CA-C	-5.23	106.93	113.15
2	F	433	ARG	N-CA-C	5.23	121.93	110.80
2	F	688	GLN	N-CA-C	5.23	117.47	109.95
3	D	404	TYR	N-CA-C	-5.22	105.67	111.36
2	C	186	ARG	N-CA-C	-5.21	107.59	114.31
1	B	443	LEU	N-CA-C	-5.21	100.25	108.73
1	B	1048	ALA	N-CA-C	-5.20	105.79	111.82
3	G	464	GLN	N-CA-C	-5.18	107.02	113.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	540	LEU	N-CA-C	-5.18	100.29	108.73
3	D	363	SER	N-CA-C	5.17	115.06	108.24
1	E	918	GLN	N-CA-C	-5.15	106.97	113.20
1	E	848	GLN	N-CA-C	5.14	116.61	108.96
1	B	808	ARG	N-CA-C	5.12	117.76	111.82
1	B	968	VAL	N-CA-C	5.12	114.65	107.37
4	X	24	DT	N1-C1'-C2'	5.12	121.18	113.50
2	F	274	LEU	CA-C-N	5.12	125.32	120.31
2	F	274	LEU	C-N-CA	5.12	125.32	120.31
2	F	381	SER	N-CA-C	5.12	112.73	108.13
1	B	468	PHE	N-CA-C	-5.11	107.06	113.15
2	C	433	ARG	N-CA-C	5.11	121.69	110.80
1	B	276	GLU	N-CA-C	5.11	121.69	110.80
2	C	700	LYS	CA-C-N	5.10	125.37	119.92
2	C	700	LYS	C-N-CA	5.10	125.37	119.92
2	F	85	ALA	N-CA-C	-5.10	106.91	113.02
1	E	8	LEU	N-CA-C	5.08	117.52	109.96
1	B	540	LEU	N-CA-C	-5.05	100.50	108.73
2	C	427	GLY	N-CA-C	-5.04	101.23	113.18
2	C	330	THR	CA-C-N	5.03	126.13	119.84
2	C	330	THR	C-N-CA	5.03	126.13	119.84
2	F	328	ASP	N-CA-C	5.03	116.60	110.41
2	C	463	SER	N-CA-C	5.03	117.18	110.35
1	B	918	GLN	N-CA-C	-5.02	107.12	113.20
3	G	145	PHE	CA-C-N	5.02	126.12	119.84
3	G	145	PHE	C-N-CA	5.02	126.12	119.84
3	D	145	PHE	CA-C-N	5.02	126.11	119.84
3	D	145	PHE	C-N-CA	5.02	126.11	119.84
1	E	1048	ALA	N-CA-C	-5.02	105.91	112.23
1	B	613	ARG	N-CA-C	-5.02	105.09	111.11

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	Y	10	DA	Sidechain

5.2 Too-close contacts

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	9236	0	9083	1020	0
1	E	9236	0	9083	969	0
2	C	9078	0	8877	891	0
2	F	9078	0	8877	859	0
3	D	4216	0	4261	614	0
3	G	4216	0	4261	599	0
4	X	935	0	498	114	0
4	Y	935	0	498	116	0
5	B	1	0	0	0	0
5	E	1	0	0	0	0
All	All	46932	0	45438	4933	0

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

All (4933) 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)
3:D:205:THR:HA	4:X:3:5IU:OP1	1.39	1.21
1:B:442:THR:HG21	1:B:476:ILE:HD11	1.24	1.17
1:E:620:MET:HE3	1:E:687:ILE:HD13	1.27	1.16
4:X:22:DG:C2'	4:X:23:DC:H5''	1.75	1.16
3:D:65:HIS:HB3	3:D:66:PRO:HD2	1.20	1.15
1:E:442:THR:HG21	1:E:476:ILE:HD11	1.28	1.14
4:Y:22:DG:C2'	4:Y:23:DC:H5''	1.76	1.14
4:X:22:DG:H2''	4:X:23:DC:H5''	1.19	1.14
1:B:1051:PRO:N	1:B:1052:PRO:HD2	1.63	1.14
4:X:7:5IU:H3'	4:X:8:DC:H5'	1.26	1.13
3:G:118:THR:HG22	3:G:283:ILE:HD11	1.19	1.12
4:Y:7:5IU:H3'	4:Y:8:DC:H5'	1.27	1.12
3:D:259:ASN:HB3	3:D:260:PRO:HD2	1.17	1.12
3:G:65:HIS:HB3	3:G:66:PRO:HD2	1.19	1.11
3:D:243:LEU:HG	3:D:244:LEU:H	1.01	1.10
4:Y:22:DG:H2''	4:Y:23:DC:H5''	1.19	1.09
3:G:259:ASN:HB3	3:G:260:PRO:HD2	1.12	1.09
1:E:1051:PRO:N	1:E:1052:PRO:HD2	1.63	1.09
1:B:877:PRO:HB2	1:B:879:GLN:HG3	1.12	1.09
3:G:243:LEU:HG	3:G:244:LEU:H	1.11	1.09
3:D:217:GLY:O	3:D:221:ARG:HG3	1.51	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:620:MET:HE3	1:B:687:ILE:HD13	1.29	1.07
1:B:881:ASN:HD22	1:E:883:VAL:HG22	1.18	1.07
3:G:65:HIS:HB3	3:G:66:PRO:CD	1.82	1.07
3:D:65:HIS:HB3	3:D:66:PRO:CD	1.82	1.07
3:D:118:THR:HG22	3:D:283:ILE:HD11	1.07	1.07
4:X:11:DA:C2'	4:X:12:DT:H5''	1.86	1.06
2:C:1055:ASP:HB2	2:C:1118:ARG:HH22	1.12	1.05
4:X:46:5IU:H2''	4:X:47:DA:H5'	1.33	1.05
2:C:38:GLN:HE21	2:C:667:MET:HG3	1.17	1.05
4:Y:11:DA:C2'	4:Y:12:DT:H5''	1.86	1.05
4:Y:46:5IU:H2''	4:Y:47:DA:H5'	1.33	1.05
3:D:526:ARG:HH12	3:D:536:MET:HE3	1.22	1.05
1:E:877:PRO:HB2	1:E:879:GLN:HG3	1.35	1.05
1:B:564:ALA:HA	1:B:738:ILE:HD11	1.38	1.04
4:Y:46:5IU:H2''	4:Y:47:DA:C5'	1.88	1.04
4:Y:14:DC:H2''	4:Y:15:DG:H5''	1.41	1.03
1:B:159:LEU:HD12	1:B:339:VAL:HG13	1.39	1.03
3:D:216:LEU:O	3:D:220:LEU:HB2	1.59	1.03
3:D:240:LEU:HG	3:D:278:MET:SD	1.98	1.02
3:D:244:LEU:HD21	3:D:261:LEU:HG	1.38	1.02
3:D:243:LEU:HG	3:D:244:LEU:N	1.68	1.02
1:E:564:ALA:HA	1:E:738:ILE:HD11	1.38	1.02
1:B:527:ARG:HB3	1:B:576:ILE:HD11	1.42	1.02
1:E:159:LEU:HD12	1:E:339:VAL:HG13	1.42	1.02
3:G:243:LEU:CD1	3:G:261:LEU:HD21	1.90	1.02
2:C:504:TRP:HH2	2:C:516:LEU:HD13	1.21	1.02
3:G:216:LEU:O	3:G:220:LEU:HB2	1.59	1.02
3:D:243:LEU:HD11	3:D:244:LEU:HG	1.37	1.01
1:E:286:LEU:HD13	1:E:306:ARG:HD3	1.38	1.01
4:X:46:5IU:H2''	4:X:47:DA:C5'	1.89	1.01
2:F:363:ASN:HD22	2:F:363:ASN:N	1.55	1.01
3:G:526:ARG:HH12	3:G:536:MET:HE3	1.25	1.01
1:B:286:LEU:HD13	1:B:306:ARG:HD3	1.39	1.01
1:E:947:ARG:HG3	1:E:1086:LEU:HD11	1.39	1.00
4:X:14:DC:H2''	4:X:15:DG:H5''	1.39	1.00
3:D:243:LEU:CD1	3:D:261:LEU:HD21	1.91	1.00
2:F:38:GLN:HE21	2:F:667:MET:HG3	1.24	1.00
1:B:947:ARG:HG3	1:B:1086:LEU:HD11	1.38	1.00
2:C:1012:ALA:H	2:C:1015:GLN:HE21	1.08	0.99
3:G:248:PRO:HD3	4:Y:4:5IU:H1'	1.43	0.99
2:C:363:ASN:ND2	2:C:363:ASN:H	1.58	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:130:ILE:H	3:D:130:ILE:HD12	1.25	0.99
1:E:527:ARG:HB3	1:E:576:ILE:HD11	1.44	0.99
2:F:347:ASN:ND2	2:F:349:ALA:H	1.61	0.99
4:Y:11:DA:H2''	4:Y:12:DT:H5''	0.99	0.99
3:G:200:ARG:HB2	3:G:263:LEU:HD23	1.45	0.99
2:F:504:TRP:HH2	2:F:516:LEU:HD13	1.22	0.98
2:C:347:ASN:ND2	2:C:349:ALA:H	1.59	0.98
3:D:200:ARG:HB2	3:D:263:LEU:HD23	1.42	0.98
3:G:130:ILE:H	3:G:130:ILE:HD12	1.25	0.98
4:X:11:DA:H2''	4:X:12:DT:C5'	1.94	0.98
2:C:363:ASN:HD22	2:C:363:ASN:N	1.58	0.97
3:G:243:LEU:HG	3:G:244:LEU:N	1.69	0.97
2:F:363:ASN:H	2:F:363:ASN:ND2	1.55	0.97
4:Y:3:5IU:H2''	4:Y:4:5IU:H5''	1.43	0.96
2:F:104:GLU:H	2:F:112:ARG:HG3	1.31	0.96
3:G:259:ASN:HB3	3:G:260:PRO:CD	1.92	0.96
1:B:504:MET:HE1	1:B:514:TYR:HA	1.46	0.96
4:Y:11:DA:H2''	4:Y:12:DT:C5'	1.94	0.96
1:B:136:MET:HE2	1:B:374:ILE:HG12	1.47	0.95
1:B:531:GLN:HE21	1:B:879:GLN:HB2	1.31	0.95
4:X:11:DA:H2''	4:X:12:DT:H5''	1.00	0.95
2:C:584:LEU:HD12	2:C:620:ILE:HG23	1.47	0.95
2:F:1055:ASP:HB2	2:F:1118:ARG:HH22	1.30	0.95
1:B:286:LEU:HD22	1:B:306:ARG:HH11	1.30	0.95
4:Y:6:DA:H2'	4:Y:6:DA:N3	1.82	0.95
1:B:877:PRO:CB	1:B:879:GLN:HG3	1.97	0.94
1:E:286:LEU:HD11	1:E:306:ARG:HB3	1.48	0.94
2:F:1012:ALA:H	2:F:1015:GLN:HE21	1.15	0.94
4:X:3:5IU:H2''	4:X:4:5IU:H5''	1.47	0.94
3:D:243:LEU:CD1	3:D:244:LEU:HG	1.97	0.94
3:D:259:ASN:HB3	3:D:260:PRO:CD	1.97	0.94
2:C:77:LEU:HD22	2:C:192:ARG:HD2	1.47	0.94
2:F:971:LEU:HD23	4:Y:10:DA:H5'	1.49	0.94
2:F:850:GLN:HE22	4:Y:7:5IU:HN3	1.13	0.94
2:F:885:LEU:HD12	2:F:969:PRO:HG3	1.46	0.93
3:D:244:LEU:HD21	3:D:261:LEU:CG	1.99	0.93
3:D:460:GLN:HA	3:D:463:GLN:OE1	1.68	0.93
1:E:286:LEU:HD22	1:E:306:ARG:HH11	1.30	0.93
1:E:900:ASN:HD21	1:E:902:ARG:HH21	1.10	0.93
4:X:6:DA:H2'	4:X:6:DA:N3	1.82	0.93
2:C:104:GLU:H	2:C:112:ARG:HG3	1.30	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:367:ILE:N	3:D:393:ILE:HG21	1.82	0.93
1:E:504:MET:HE1	1:E:514:TYR:HA	1.48	0.93
1:B:597:LEU:HD12	1:B:715:ILE:HD12	1.50	0.93
1:B:362:LEU:HB3	1:B:399:ARG:HG2	1.47	0.93
3:D:239:THR:HG21	4:X:4:5IU:OP1	1.68	0.93
1:E:136:MET:HE2	1:E:374:ILE:HG12	1.48	0.93
4:Y:47:DA:H2''	4:Y:48:DG:O5'	1.69	0.93
1:E:752:VAL:HG13	1:E:809:SER:HB3	1.51	0.92
2:C:149:TRP:HE1	2:C:162:GLN:HE21	1.09	0.92
2:F:557:ILE:HD13	2:F:557:ILE:H	1.34	0.92
1:B:598:TRP:CZ2	2:C:857:PHE:HB3	2.04	0.92
2:C:105:ARG:O	2:C:106:GLU:HB3	1.67	0.92
3:G:255:HIS:ND1	3:G:256:HIS:N	2.16	0.92
1:B:900:ASN:HD21	1:B:902:ARG:HH21	1.10	0.92
3:D:115:ASN:HB3	3:D:276:LEU:HD22	1.50	0.92
1:B:1071:ARG:HH22	2:C:29:PRO:HB2	1.33	0.92
1:B:286:LEU:HD11	1:B:306:ARG:HB3	1.50	0.92
2:C:885:LEU:HD12	2:C:969:PRO:HG3	1.48	0.92
1:B:987:GLU:HG3	1:B:988:PRO:HD3	1.52	0.92
2:F:105:ARG:O	2:F:106:GLU:HB3	1.69	0.92
2:F:584:LEU:HD12	2:F:620:ILE:HG23	1.51	0.91
3:D:304:VAL:HG21	3:D:564:GLU:HG2	1.53	0.91
3:G:526:ARG:NH1	3:G:536:MET:HE3	1.87	0.90
1:B:925:ASP:H	1:B:953:THR:HG22	1.37	0.90
1:B:236:TRP:O	1:B:240:VAL:HG23	1.72	0.90
2:F:228:GLN:HE22	2:F:318:GLU:H	1.19	0.90
3:D:253:LEU:HB3	3:D:255:HIS:CD2	2.06	0.90
1:B:824:ARG:HB2	4:X:16:DA:OP2	1.71	0.90
3:D:526:ARG:NH1	3:D:536:MET:HE3	1.86	0.90
1:E:236:TRP:O	1:E:240:VAL:HG23	1.71	0.90
2:F:945:LEU:HB2	2:F:952:ILE:HD11	1.53	0.90
3:D:226:THR:O	3:D:228:GLU:N	2.04	0.90
3:D:255:HIS:HB3	3:D:260:PRO:HG2	1.53	0.90
2:F:149:TRP:HE1	2:F:162:GLN:HE21	1.14	0.90
3:G:62:GLU:HA	3:G:65:HIS:HB2	1.52	0.89
1:E:994:ILE:O	1:E:997:VAL:HG12	1.70	0.89
2:C:433:ARG:HH12	2:C:805:GLU:HG2	1.33	0.89
1:B:86:ALA:HB1	1:B:92:THR:OG1	1.72	0.89
1:B:994:ILE:O	1:B:997:VAL:HG12	1.72	0.89
3:D:51:VAL:HG21	3:D:276:LEU:HD12	1.54	0.89
3:D:62:GLU:HA	3:D:65:HIS:HB2	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:86:ALA:HB1	1:E:92:THR:OG1	1.73	0.89
4:X:12:DT:H2''	4:X:13:DG:H5'	1.55	0.89
1:E:459:LYS:HE2	1:E:860:LEU:HB2	1.53	0.89
2:C:228:GLN:HE22	2:C:318:GLU:H	1.18	0.89
1:B:966:GLN:HB3	1:B:967:PRO:HD2	1.55	0.88
2:F:1037:VAL:HA	2:F:1109:SER:HB3	1.55	0.88
3:G:226:THR:O	3:G:228:GLU:N	2.06	0.88
1:E:925:ASP:H	1:E:953:THR:HG22	1.37	0.88
1:B:823:ARG:HG2	1:B:825:GLY:H	1.38	0.88
1:E:823:ARG:HG2	1:E:825:GLY:H	1.35	0.88
4:X:6:DA:H2''	4:X:7:5IU:O5'	1.74	0.88
4:Y:12:DT:H2''	4:Y:13:DG:H5'	1.54	0.88
4:Y:47:DA:H2''	4:Y:48:DG:C5'	2.03	0.88
1:B:752:VAL:HG13	1:B:809:SER:HB3	1.53	0.88
4:X:47:DA:H2''	4:X:48:DG:O5'	1.71	0.88
3:D:17:ARG:HB2	3:D:18:PRO:HD2	1.55	0.88
2:C:482:ARG:O	2:C:482:ARG:HD3	1.74	0.88
1:E:920:LEU:HD11	2:F:448:HIS:CD2	2.09	0.88
2:C:828:LEU:HD13	2:C:1028:ARG:HG3	1.55	0.87
2:C:1055:ASP:HB2	2:C:1118:ARG:NH2	1.89	0.87
1:B:746:GLY:H	1:B:808:ARG:HH12	1.22	0.87
4:X:47:DA:H2''	4:X:48:DG:C5'	2.04	0.87
1:B:459:LYS:HE2	1:B:860:LEU:HB2	1.54	0.87
3:D:345:ALA:HB3	3:D:349:ARG:HG3	1.55	0.87
1:E:597:LEU:HD12	1:E:715:ILE:HD12	1.55	0.87
3:D:255:HIS:HA	3:D:259:ASN:HB3	1.57	0.87
1:E:987:GLU:HG3	1:E:988:PRO:HD3	1.56	0.87
3:G:51:VAL:HG21	3:G:276:LEU:HD12	1.54	0.87
1:E:175:LEU:HD13	1:E:179:ILE:HG22	1.57	0.87
3:G:207:LYS:NZ	3:G:544:SER:HA	1.89	0.87
1:B:307:HIS:CB	1:B:308:PRO:HD2	2.05	0.87
1:B:899:ASP:HB3	1:B:1059:ARG:HH12	1.39	0.87
2:C:945:LEU:HB2	2:C:952:ILE:HD11	1.54	0.87
2:C:1118:ARG:HH21	2:C:1118:ARG:HG2	1.39	0.87
3:D:255:HIS:HA	3:D:259:ASN:CB	2.05	0.86
1:B:175:LEU:HD13	1:B:179:ILE:HG22	1.57	0.86
1:E:11:LEU:HD13	1:E:99:ARG:HD2	1.55	0.86
3:D:253:LEU:HB3	3:D:255:HIS:NE2	1.90	0.86
2:F:28:ASP:H	2:F:29:PRO:CD	1.88	0.86
1:B:658:MET:HB3	1:B:659:PRO:HD3	1.57	0.86
1:B:673:ASN:OD1	2:C:815:LYS:HG2	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:966:GLN:HB3	1:E:967:PRO:HD2	1.57	0.86
1:E:899:ASP:HB3	1:E:1059:ARG:HH12	1.39	0.86
1:B:200:TYR:O	1:B:201:LEU:HB2	1.74	0.86
2:C:504:TRP:CH2	2:C:516:LEU:HD13	2.09	0.86
2:F:77:LEU:HD22	2:F:192:ARG:HD2	1.58	0.86
2:F:433:ARG:HH12	2:F:805:GLU:HG2	1.40	0.86
2:F:678:LEU:HD23	2:F:730:SER:HB3	1.57	0.86
1:E:794:ARG:NH2	1:E:795:LEU:HB3	1.90	0.85
2:F:397:LEU:HD23	2:F:403:LEU:HD13	1.57	0.85
3:G:17:ARG:HB2	3:G:18:PRO:HD2	1.55	0.85
3:G:244:LEU:HD22	3:G:255:HIS:HB3	1.56	0.85
2:C:557:ILE:HD13	2:C:557:ILE:H	1.40	0.85
1:E:746:GLY:H	1:E:808:ARG:HH12	1.24	0.85
3:D:91:VAL:HG13	3:D:100:MET:HE3	1.57	0.85
3:G:597:ARG:O	3:G:598:SER:HB3	1.74	0.85
2:C:28:ASP:H	2:C:29:PRO:CD	1.88	0.85
2:C:835:GLU:O	2:C:839:ARG:HG2	1.76	0.85
1:E:1071:ARG:HH22	2:F:29:PRO:HB2	1.42	0.85
1:B:900:ASN:HD21	1:B:902:ARG:NH2	1.74	0.85
2:C:1037:VAL:HA	2:C:1109:SER:HB3	1.58	0.85
1:E:947:ARG:HB3	1:E:1086:LEU:HD21	1.57	0.85
1:E:1071:ARG:HD3	1:E:1076:TYR:HE2	1.41	0.85
1:B:1071:ARG:HD3	1:B:1076:TYR:HE2	1.39	0.84
3:D:165:ARG:HD3	3:D:166:ILE:HD11	1.58	0.84
1:E:307:HIS:ND1	1:E:308:PRO:HD2	1.91	0.84
1:E:794:ARG:HH21	1:E:795:LEU:HB3	1.41	0.84
1:E:903:VAL:HG13	1:E:1061:MET:HB2	1.58	0.84
3:G:367:ILE:N	3:G:393:ILE:HG21	1.91	0.84
1:E:307:HIS:CB	1:E:308:PRO:HD2	2.05	0.84
1:E:722:ALA:HA	1:E:725:GLN:HG3	1.58	0.84
4:Y:22:DG:H2''	4:Y:23:DC:C5'	2.07	0.84
1:B:541:MET:HG2	1:B:546:ALA:HB2	1.60	0.84
1:B:562:GLN:NE2	4:X:46:5IU:I5	2.81	0.84
3:D:389:ASP:C	3:D:391:THR:H	1.84	0.84
1:E:518:MET:HE2	1:E:816:GLY:HA3	1.59	0.84
2:F:482:ARG:O	2:F:482:ARG:HD3	1.78	0.84
3:D:80:ASN:HB3	3:D:83:GLU:HB3	1.60	0.84
1:B:794:ARG:NH2	1:B:795:LEU:HB3	1.93	0.84
1:E:200:TYR:O	1:E:201:LEU:HB2	1.76	0.84
4:Y:46:5IU:C2'	4:Y:47:DA:H5'	2.08	0.84
1:E:861:CYS:SG	1:E:866:ALA:HA	2.18	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:389:ASP:C	3:G:391:THR:H	1.84	0.84
4:X:22:DG:H2''	4:X:23:DC:C5'	2.06	0.84
3:G:174:GLY:O	3:G:357:LYS:HD3	1.77	0.83
1:B:423:ARG:HG2	4:X:49:DA:C2	2.12	0.83
1:B:518:MET:HE2	1:B:816:GLY:HA3	1.60	0.83
3:D:367:ILE:H	3:D:393:ILE:HG21	1.42	0.83
3:D:597:ARG:O	3:D:598:SER:HB3	1.76	0.83
2:C:16:LEU:O	2:C:20:ILE:HG12	1.78	0.83
2:C:872:LEU:HD13	2:C:916:PHE:CE2	2.14	0.83
2:C:678:LEU:HD23	2:C:730:SER:HB3	1.57	0.83
1:B:722:ALA:HA	1:B:725:GLN:HG3	1.57	0.83
2:C:397:LEU:HD23	2:C:403:LEU:HD13	1.61	0.83
1:E:900:ASN:HD21	1:E:902:ARG:NH2	1.75	0.83
2:F:258:ALA:HA	2:F:261:LEU:HG	1.61	0.83
2:F:1118:ARG:HH21	2:F:1118:ARG:HG2	1.43	0.83
3:G:213:THR:HG22	3:G:235:GLU:HA	1.61	0.83
1:B:881:ASN:ND2	1:E:883:VAL:HG22	1.94	0.83
2:F:828:LEU:HD13	2:F:1028:ARG:HG3	1.58	0.83
3:G:244:LEU:HD22	3:G:255:HIS:CB	2.09	0.83
3:G:392:ASP:O	3:G:576:ARG:HG2	1.78	0.83
1:B:889:ASN:HD22	1:B:889:ASN:N	1.76	0.83
1:B:531:GLN:NE2	1:B:879:GLN:HB2	1.94	0.83
2:C:980:LEU:HD13	2:C:998:LEU:HB2	1.61	0.83
1:E:945:PHE:CE2	1:E:955:LEU:HD21	2.13	0.83
3:D:243:LEU:HD12	3:D:261:LEU:HD21	1.61	0.82
1:E:541:MET:HG2	1:E:546:ALA:HB2	1.61	0.82
2:F:72:MET:HE1	2:F:208:PRO:HD2	1.61	0.82
1:E:1050:CYS:C	1:E:1052:PRO:HD2	2.03	0.82
3:G:398:LEU:HD23	3:G:398:LEU:H	1.43	0.82
4:X:46:5IU:C2'	4:X:47:DA:H5'	2.09	0.82
2:C:38:GLN:NE2	2:C:667:MET:HG3	1.94	0.82
1:B:903:VAL:HG13	1:B:1061:MET:HB2	1.62	0.82
3:D:280:SER:O	3:D:283:ILE:HG12	1.79	0.82
2:F:872:LEU:HD13	2:F:916:PHE:CE2	2.14	0.82
3:G:165:ARG:HD3	3:G:166:ILE:HD11	1.59	0.82
4:Y:6:DA:H2''	4:Y:7:5IU:O5'	1.77	0.82
2:C:685:TYR:O	2:C:687:ARG:N	2.12	0.82
3:D:188:LEU:HD21	3:D:291:ARG:NH2	1.93	0.82
1:E:1138:VAL:HB	1:E:1158:THR:O	1.79	0.82
4:X:37:DT:H2''	4:X:38:DG:H5'	1.60	0.82
2:C:382:PRO:O	2:C:386:VAL:HG23	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:658:MET:HB3	1:E:659:PRO:HD3	1.61	0.82
2:F:118:ASP:O	2:F:119:SER:HB2	1.79	0.82
2:C:506:ILE:H	2:C:510:ASN:HD22	1.27	0.82
1:B:307:HIS:ND1	1:B:308:PRO:HD2	1.94	0.82
2:F:504:TRP:CH2	2:F:516:LEU:HD13	2.12	0.82
3:G:80:ASN:HB3	3:G:83:GLU:HB3	1.62	0.82
2:F:466:VAL:HB	2:F:469:ASP:OD2	1.79	0.82
1:B:1050:CYS:C	1:B:1052:PRO:HD2	2.04	0.82
2:F:7:SER:HB3	2:F:13:LEU:HG	1.62	0.82
2:F:980:LEU:HD13	2:F:998:LEU:HB2	1.61	0.82
3:G:65:HIS:CB	3:G:66:PRO:HD2	2.08	0.82
2:C:433:ARG:NH1	2:C:805:GLU:HG2	1.95	0.81
1:B:920:LEU:HD11	2:C:448:HIS:CD2	2.15	0.81
1:B:945:PHE:CE2	1:B:955:LEU:HD21	2.16	0.81
1:B:947:ARG:HB3	1:B:1086:LEU:HD21	1.60	0.81
2:C:192:ARG:O	2:C:196:THR:HG22	1.80	0.81
2:C:258:ALA:HA	2:C:261:LEU:HG	1.62	0.81
3:D:126:VAL:HG22	3:D:166:ILE:HD13	1.61	0.81
1:E:807:THR:CG2	1:E:808:ARG:HH21	1.92	0.81
2:F:835:GLU:O	2:F:839:ARG:HG2	1.79	0.81
2:C:104:GLU:HG3	2:C:104:GLU:O	1.80	0.81
3:D:174:GLY:O	3:D:357:LYS:HD3	1.80	0.81
2:F:519:THR:HG23	2:F:521:GLN:H	1.46	0.81
1:B:807:THR:CG2	1:B:808:ARG:HH21	1.93	0.81
1:B:624:ASN:O	1:B:628:ILE:HG12	1.81	0.81
2:F:16:LEU:O	2:F:20:ILE:HG12	1.79	0.81
2:C:466:VAL:HB	2:C:469:ASP:OD2	1.81	0.81
3:D:243:LEU:CG	3:D:244:LEU:N	2.43	0.81
3:D:270:GLU:HB3	3:D:273:MET:HE2	1.63	0.81
4:X:2:5IU:C2'	4:X:3:5IU:H5'	2.10	0.81
3:D:398:LEU:HD23	3:D:398:LEU:H	1.46	0.81
3:D:447:GLY:O	3:D:453:GLY:HA3	1.80	0.81
1:E:624:ASN:O	1:E:628:ILE:HG12	1.81	0.81
3:G:115:ASN:HB3	3:G:276:LEU:HD22	1.63	0.81
3:D:213:THR:HG22	3:D:235:GLU:HA	1.60	0.80
2:F:685:TYR:O	2:F:687:ARG:N	2.13	0.80
3:G:270:GLU:HB3	3:G:273:MET:HE2	1.63	0.80
1:B:101:LEU:HD23	1:B:104:ILE:HD12	1.63	0.80
1:E:977:LEU:HD21	1:E:990:LEU:HD22	1.63	0.80
3:G:374:ILE:HA	3:G:590:ILE:HD11	1.64	0.80
2:C:415:ILE:HB	2:C:663:THR:HG23	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:506:ILE:H	2:F:510:ASN:HD22	1.27	0.80
3:D:230:LYS:HA	3:D:232:ARG:HG3	1.64	0.80
3:D:247:GLN:HE22	4:X:6:DA:H5'	1.46	0.80
2:F:354:ASN:ND2	2:F:357:GLU:H	1.79	0.80
2:F:104:GLU:HG3	2:F:104:GLU:O	1.81	0.80
2:F:656:ALA:O	2:F:658:PRO:HD3	1.82	0.80
3:G:247:GLN:O	3:G:251:GLN:HG2	1.81	0.80
1:B:1138:VAL:HB	1:B:1158:THR:O	1.81	0.80
2:C:354:ASN:ND2	2:C:357:GLU:H	1.80	0.80
3:G:204:PRO:HG3	3:G:274:ILE:HD13	1.61	0.80
3:G:345:ALA:HB3	3:G:349:ARG:HG3	1.63	0.80
3:D:247:GLN:HG2	4:X:5:5IU:H5''	1.64	0.80
1:E:179:ILE:HG12	1:E:222:HIS:CD2	2.17	0.80
1:E:889:ASN:HD22	1:E:889:ASN:N	1.76	0.80
4:Y:2:5IU:C2'	4:Y:3:5IU:H5'	2.12	0.80
2:C:681:ASN:HD21	2:C:732:ILE:H	1.29	0.80
2:F:112:ARG:O	2:F:116:THR:HG23	1.81	0.80
2:C:112:ARG:O	2:C:116:THR:HG23	1.82	0.79
2:C:519:THR:HG23	2:C:521:GLN:H	1.44	0.79
3:D:204:PRO:HG3	3:D:274:ILE:HD13	1.64	0.79
2:F:406:ARG:N	2:F:658:PRO:HB3	1.96	0.79
4:Y:37:DT:H2''	4:Y:38:DG:H5'	1.62	0.79
2:F:347:ASN:C	2:F:347:ASN:HD22	1.90	0.79
3:G:230:LYS:HA	3:G:232:ARG:HG3	1.64	0.79
1:B:977:LEU:HD21	1:B:990:LEU:HD22	1.64	0.79
2:F:141:TYR:HB2	2:F:697:MET:SD	2.22	0.79
3:G:280:SER:O	3:G:283:ILE:HG12	1.83	0.79
1:B:900:ASN:ND2	1:B:902:ARG:HH21	1.81	0.79
2:C:363:ASN:H	2:C:363:ASN:HD22	0.82	0.79
2:C:656:ALA:O	2:C:658:PRO:HD3	1.82	0.79
2:F:257:LEU:HD12	2:F:258:ALA:N	1.98	0.79
3:G:169:ILE:HB	3:G:295:LEU:HD23	1.65	0.79
3:G:359:TYR:O	3:G:360:ARG:HG2	1.82	0.79
2:C:8:ASN:HD21	2:C:343:LEU:CG	1.96	0.79
2:C:118:ASP:O	2:C:119:SER:HB2	1.83	0.79
2:F:382:PRO:O	2:F:386:VAL:HG23	1.82	0.79
3:G:243:LEU:HD12	3:G:261:LEU:HD21	1.63	0.79
2:C:847:ALA:O	2:C:851:MET:HB2	1.83	0.79
2:F:1055:ASP:HB2	2:F:1118:ARG:NH2	1.97	0.79
3:G:367:ILE:H	3:G:393:ILE:HG21	1.45	0.79
3:G:165:ARG:HA	3:G:291:ARG:HG2	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:768:TYR:CE2	1:B:786:SER:HB3	2.18	0.78
2:C:7:SER:HB3	2:C:13:LEU:HG	1.63	0.78
2:C:204:PRO:HB3	2:C:233:HIS:HB3	1.64	0.78
2:C:257:LEU:HD12	2:C:258:ALA:N	1.97	0.78
1:E:24:SER:HA	1:E:414:ASP:OD2	1.82	0.78
3:D:169:ILE:HB	3:D:295:LEU:HD23	1.64	0.78
2:F:376:PHE:CZ	2:F:752:ILE:HG23	2.18	0.78
3:D:460:GLN:HA	3:D:463:GLN:CD	2.08	0.78
1:E:900:ASN:ND2	1:E:902:ARG:HH21	1.82	0.78
2:F:974:VAL:HG21	2:F:1043:GLY:HA3	1.66	0.78
1:B:1098:MET:O	1:B:1102:MET:HG2	1.84	0.78
1:E:673:ASN:OD1	2:F:815:LYS:HG2	1.83	0.78
3:G:91:VAL:HG13	3:G:100:MET:HE3	1.64	0.78
2:C:347:ASN:HD22	2:C:347:ASN:C	1.89	0.78
2:C:989:ALA:C	2:C:991:GLY:H	1.92	0.78
1:E:531:GLN:HE21	1:E:879:GLN:HB2	1.48	0.78
2:F:130:LYS:HD2	2:F:692:LEU:HD21	1.63	0.78
2:F:276:LEU:HD22	2:F:279:ASP:HB2	1.65	0.78
2:F:737:GLN:HG3	2:F:738:ASP:H	1.47	0.78
1:B:746:GLY:H	1:B:808:ARG:NH1	1.81	0.78
3:D:157:ALA:HB2	3:D:355:LEU:HD21	1.65	0.78
2:C:737:GLN:HG3	2:C:738:ASP:H	1.48	0.78
2:C:8:ASN:HD21	2:C:343:LEU:HG	1.49	0.78
1:E:746:GLY:H	1:E:808:ARG:NH1	1.82	0.78
2:F:192:ARG:O	2:F:196:THR:HG22	1.83	0.78
2:C:78:PRO:HD2	2:C:192:ARG:NH1	1.99	0.77
2:C:945:LEU:HD21	2:C:990:SER:OG	1.84	0.77
2:F:116:THR:O	2:F:118:ASP:N	2.17	0.77
1:B:104:ILE:HB	1:B:107:LYS:HE2	1.64	0.77
1:B:821:VAL:HA	1:B:832:ASP:OD1	1.84	0.77
1:E:107:LYS:H	1:E:107:LYS:HD2	1.49	0.77
1:B:11:LEU:HD13	1:B:99:ARG:HD2	1.64	0.77
3:D:158:ALA:HA	3:D:184:LEU:HD23	1.63	0.77
3:D:260:PRO:O	3:D:261:LEU:HB2	1.85	0.77
2:F:945:LEU:HD21	2:F:990:SER:OG	1.83	0.77
3:D:17:ARG:HG2	3:D:20:ASP:OD2	1.85	0.77
3:G:370:LEU:O	3:G:374:ILE:HG12	1.85	0.77
2:C:141:TYR:HB2	2:C:697:MET:SD	2.24	0.77
3:G:17:ARG:HG2	3:G:20:ASP:OD2	1.85	0.77
3:G:447:GLY:O	3:G:453:GLY:HA3	1.83	0.77
2:C:269:PHE:O	2:C:270:GLU:HG2	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:376:PHE:CZ	2:C:752:ILE:HG23	2.20	0.77
1:E:104:ILE:HB	1:E:107:LYS:HE2	1.64	0.77
3:G:367:ILE:HG13	3:G:393:ILE:HG23	1.67	0.77
2:F:709:ARG:HG2	2:F:709:ARG:HH21	1.48	0.77
3:G:255:HIS:HA	3:G:259:ASN:HB2	1.65	0.77
1:B:107:LYS:H	1:B:107:LYS:HD2	1.50	0.77
1:B:526:ILE:HG22	1:B:576:ILE:HD13	1.67	0.77
4:X:7:5IU:H3'	4:X:8:DC:C5'	2.12	0.77
1:B:1071:ARG:HH22	2:C:29:PRO:CB	1.98	0.76
1:E:101:LEU:HD23	1:E:104:ILE:HD12	1.66	0.76
2:F:104:GLU:HA	2:F:112:ARG:NH1	2.00	0.76
3:G:278:MET:HG3	3:G:279:MET:N	2.00	0.76
3:G:385:VAL:HG11	3:G:396:ARG:HD2	1.65	0.76
2:C:116:THR:O	2:C:118:ASP:N	2.18	0.76
1:E:237:ARG:HH21	1:E:266:ILE:HG23	1.50	0.76
2:F:8:ASN:HD21	2:F:343:LEU:CG	1.99	0.76
3:G:175:THR:HG21	3:G:355:LEU:HB2	1.67	0.76
1:B:564:ALA:CA	1:B:738:ILE:HD11	2.14	0.76
1:B:861:CYS:SG	1:B:866:ALA:HA	2.24	0.76
1:B:1033:ALA:HB1	1:B:1053:LEU:HA	1.66	0.76
3:G:398:LEU:H	3:G:398:LEU:CD2	1.99	0.76
2:F:253:ASP:C	2:F:255:ALA:H	1.93	0.76
3:G:158:ALA:HA	3:G:184:LEU:HD23	1.67	0.76
1:B:286:LEU:HD22	1:B:306:ARG:NH1	2.00	0.76
1:E:159:LEU:CD1	1:E:339:VAL:HG13	2.15	0.76
1:E:423:ARG:HG2	4:Y:49:DA:C2	2.21	0.76
2:F:415:ILE:HB	2:F:663:THR:HG23	1.67	0.76
2:F:559:GLU:HA	3:G:19:LEU:HD12	1.67	0.76
3:D:385:VAL:HG11	3:D:396:ARG:HD2	1.66	0.76
1:E:526:ILE:HG22	1:E:576:ILE:HD13	1.68	0.76
3:G:188:LEU:HD21	3:G:291:ARG:NH2	2.00	0.76
3:D:199:ILE:HG12	3:D:265:VAL:HG11	1.66	0.76
1:E:262:GLN:O	1:E:265:TRP:HB3	1.86	0.76
1:E:1075:ARG:HB3	1:E:1135:PHE:O	1.86	0.76
1:B:794:ARG:HH21	1:B:795:LEU:HB3	1.50	0.76
1:E:610:ASN:HD22	1:E:613:ARG:HH12	1.30	0.76
3:G:126:VAL:HG22	3:G:166:ILE:HD13	1.68	0.76
3:G:243:LEU:CG	3:G:244:LEU:N	2.47	0.76
1:B:119:ARG:HD3	2:C:302:SER:HB3	1.67	0.76
1:B:488:ARG:HH22	1:E:541:MET:HE1	1.51	0.76
3:D:228:GLU:OE1	3:D:228:GLU:HA	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:262:GLN:O	1:B:265:TRP:HB3	1.87	0.75
1:E:562:GLN:NE2	4:Y:46:5IU:I5	2.89	0.75
1:E:821:VAL:HA	1:E:832:ASP:OD1	1.86	0.75
1:E:286:LEU:HD22	1:E:306:ARG:NH1	2.00	0.75
1:E:307:HIS:CG	1:E:308:PRO:HD2	2.22	0.75
3:G:199:ILE:HG12	3:G:265:VAL:HG11	1.68	0.75
1:B:1075:ARG:HB3	1:B:1135:PHE:O	1.86	0.75
2:C:347:ASN:HD22	2:C:349:ALA:H	1.33	0.75
1:B:24:SER:HA	1:B:414:ASP:OD2	1.87	0.75
1:B:467:ALA:O	1:B:799:LEU:HD13	1.85	0.75
1:B:488:ARG:HH12	1:E:544:ASP:HA	1.52	0.75
2:F:269:PHE:O	2:F:270:GLU:HG2	1.87	0.75
1:B:881:ASN:HD21	1:E:883:VAL:HA	1.51	0.75
3:D:204:PRO:HB3	4:X:2:5IU:H6	1.69	0.75
1:E:362:LEU:HB3	1:E:399:ARG:HG2	1.68	0.75
1:E:1051:PRO:N	1:E:1052:PRO:CD	2.48	0.75
1:B:1132:GLU:HG3	1:B:1159:ARG:HH22	1.52	0.75
1:E:768:TYR:CE2	1:E:786:SER:HB3	2.22	0.75
2:F:347:ASN:HD22	2:F:349:ALA:H	1.34	0.75
2:F:752:ILE:HD12	2:F:753:ASP:N	2.01	0.75
1:B:179:ILE:HG12	1:B:222:HIS:CD2	2.22	0.75
1:B:652:TRP:NE1	1:B:657:VAL:HG22	2.01	0.75
3:D:261:LEU:HD13	3:D:286:LEU:HD23	1.68	0.75
3:D:526:ARG:HA	3:D:526:ARG:HE	1.51	0.75
2:F:989:ALA:C	2:F:991:GLY:H	1.94	0.75
3:G:157:ALA:HB2	3:G:355:LEU:HD21	1.68	0.75
3:G:241:HIS:CG	4:Y:3:5IU:H4'	2.22	0.75
1:B:1109:LEU:HD22	1:B:1113:LEU:HG	1.69	0.75
2:C:971:LEU:HD23	4:X:10:DA:H5'	1.68	0.75
3:D:247:GLN:NE2	4:X:6:DA:H5'	2.02	0.75
1:E:1109:LEU:HD22	1:E:1113:LEU:HG	1.68	0.75
3:D:175:THR:HG21	3:D:355:LEU:HB2	1.68	0.75
1:E:1098:MET:O	1:E:1102:MET:HG2	1.86	0.75
1:E:1098:MET:HE3	1:E:1142:PHE:HD1	1.52	0.75
3:G:228:GLU:HA	3:G:228:GLU:OE1	1.86	0.75
1:B:758:THR:HG22	1:B:820:LEU:HD12	1.69	0.74
2:C:752:ILE:HD12	2:C:753:ASP:N	2.02	0.74
3:D:370:LEU:O	3:D:374:ILE:HG12	1.87	0.74
3:D:536:MET:SD	3:D:540:LYS:HD2	2.27	0.74
4:X:46:5IU:H2''	4:X:47:DA:C4'	2.17	0.74
1:B:571:LEU:HD21	1:B:736:VAL:HG21	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:65:HIS:CB	3:D:66:PRO:HD2	2.08	0.74
3:D:366:GLY:HA3	3:D:393:ILE:CD1	2.17	0.74
3:G:253:LEU:HB3	3:G:255:HIS:NE2	2.01	0.74
3:G:261:LEU:HD13	3:G:286:LEU:HD23	1.69	0.74
1:B:1003:ASN:HD22	1:B:1157:THR:HG21	1.52	0.74
1:E:467:ALA:O	1:E:799:LEU:HD13	1.86	0.74
1:E:1039:LEU:H	1:E:1039:LEU:HD23	1.52	0.74
1:E:1052:PRO:C	1:E:1053:LEU:HD23	2.12	0.74
3:G:244:LEU:HD11	3:G:285:ALA:CB	2.17	0.74
1:E:306:ARG:O	1:E:307:HIS:HB2	1.85	0.74
1:E:482:GLY:HA2	1:E:485:GLN:HG2	1.68	0.74
2:F:433:ARG:NH1	2:F:805:GLU:HG2	2.01	0.74
2:F:506:ILE:N	2:F:510:ASN:HD22	1.86	0.74
4:Y:47:DA:H2''	4:Y:48:DG:H5''	1.69	0.74
1:B:488:ARG:NH1	1:E:544:ASP:HA	2.02	0.74
1:B:730:GLU:HB2	2:C:786:ARG:HD2	1.67	0.74
2:F:681:ASN:HD21	2:F:732:ILE:H	1.32	0.74
3:G:234:PRO:C	3:G:236:ASP:N	2.40	0.74
3:G:316:TYR:HE1	3:G:604:PHE:HB2	1.52	0.74
4:Y:46:5IU:H2''	4:Y:47:DA:C4'	2.17	0.74
2:C:1046:LEU:HD21	2:C:1110:GLN:HG3	1.69	0.74
4:X:22:DG:C3'	4:X:23:DC:H5''	2.18	0.74
1:B:159:LEU:CD1	1:B:339:VAL:HG13	2.18	0.74
1:B:799:LEU:HD23	1:B:837:ALA:HB1	1.69	0.74
1:B:925:ASP:H	1:B:953:THR:CG2	2.01	0.74
1:B:1052:PRO:C	1:B:1053:LEU:HD23	2.12	0.74
2:C:104:GLU:HA	2:C:112:ARG:NH1	2.02	0.74
3:D:528:PRO:O	3:D:529:GLU:HB2	1.87	0.74
1:E:1033:ALA:HB1	1:E:1053:LEU:HA	1.69	0.74
4:Y:8:DC:H2''	4:Y:9:5IU:H5''	1.68	0.74
2:C:335:LEU:HA	2:C:374:ILE:HD11	1.70	0.74
3:D:165:ARG:NH2	3:D:288:ASP:HA	2.02	0.74
1:E:1003:ASN:HD22	1:E:1157:THR:HG21	1.53	0.74
1:E:1132:GLU:HG3	1:E:1159:ARG:HH22	1.52	0.74
2:F:506:ILE:HG23	2:F:507:ASP:N	2.02	0.74
1:B:142:PHE:HB3	2:C:110:LEU:HD22	1.68	0.74
1:B:237:ARG:HH21	1:B:266:ILE:HG23	1.53	0.74
2:C:709:ARG:HG2	2:C:709:ARG:HH21	1.50	0.74
2:C:851:MET:HB3	2:C:1031:MET:HE1	1.69	0.74
2:F:968:ARG:NH2	4:Y:9:5IU:OP1	2.19	0.74
1:B:587:VAL:HG21	1:B:689:HIS:ND1	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:875:ASN:C	1:B:877:PRO:HD2	2.13	0.74
1:E:65:THR:HB	1:E:68:ALA:HB2	1.70	0.74
4:X:47:DA:H2"	4:X:48:DG:H5"	1.68	0.74
1:B:1098:MET:HE3	1:B:1142:PHE:HD1	1.52	0.73
2:C:834:LEU:HD12	2:C:838:GLN:NE2	2.02	0.73
1:E:758:THR:HG22	1:E:820:LEU:HD12	1.70	0.73
3:G:260:PRO:O	3:G:261:LEU:HB2	1.86	0.73
2:C:273:GLU:OE2	2:C:274:LEU:HD23	1.86	0.73
3:D:367:ILE:HG13	3:D:393:ILE:HG23	1.71	0.73
1:E:281:GLN:O	1:E:282:LEU:HB2	1.89	0.73
1:E:652:TRP:NE1	1:E:657:VAL:HG22	2.04	0.73
1:B:248:GLU:HG3	1:B:288:LYS:O	1.88	0.73
2:C:406:ARG:N	2:C:658:PRO:HB3	2.03	0.73
3:G:301:LEU:H	3:G:568:THR:CG2	2.01	0.73
1:B:761:ARG:HG3	1:B:822:ARG:HH22	1.52	0.73
2:C:276:LEU:HD22	2:C:279:ASP:HB2	1.70	0.73
3:D:234:PRO:C	3:D:236:ASP:N	2.40	0.73
2:C:714:TYR:O	2:C:718:GLU:HG3	1.88	0.73
3:D:370:LEU:HB2	3:D:394:GLU:OE2	1.89	0.73
3:D:562:THR:HB	3:D:594:THR:H	1.53	0.73
1:E:809:SER:OG	1:E:813:CYS:HB2	1.88	0.73
1:E:985:GLN:H	1:E:985:GLN:CD	1.95	0.73
1:B:685:THR:HG22	2:C:787:MET:HE2	1.69	0.73
1:B:892:THR:CG2	2:C:804:ARG:HE	2.01	0.73
1:E:875:ASN:C	1:E:877:PRO:HD2	2.13	0.73
2:F:321:GLN:O	2:F:323:LEU:HD23	1.88	0.73
1:E:233:LYS:NZ	1:E:269:ILE:HG12	2.04	0.73
1:E:471:ARG:N	1:E:471:ARG:HD2	2.02	0.73
1:E:564:ALA:CA	1:E:738:ILE:HD11	2.16	0.73
1:E:610:ASN:ND2	1:E:613:ARG:HH12	1.87	0.73
2:F:506:ILE:CG2	2:F:507:ASP:N	2.50	0.73
1:B:307:HIS:CG	1:B:308:PRO:HD2	2.23	0.73
1:B:985:GLN:H	1:B:985:GLN:CD	1.96	0.73
2:C:70:TRP:CH2	2:C:84:SER:HB2	2.24	0.73
2:C:142:ARG:HD3	2:C:142:ARG:N	2.02	0.73
3:D:234:PRO:C	3:D:236:ASP:H	1.94	0.73
1:B:281:GLN:HB3	1:B:283:PRO:HD2	1.69	0.73
1:B:471:ARG:N	1:B:471:ARG:HD2	2.04	0.73
2:C:951:GLN:O	2:C:952:ILE:HG23	1.87	0.73
1:B:488:ARG:HH22	1:E:541:MET:CE	2.01	0.72
1:B:561:ARG:HH22	1:B:584:ARG:H	1.35	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:72:MET:HE1	2:C:208:PRO:HD2	1.71	0.72
2:C:550:TYR:CE2	2:C:552:GLU:HB2	2.23	0.72
3:D:261:LEU:HD12	3:D:285:ALA:C	2.14	0.72
1:E:281:GLN:HB3	1:E:283:PRO:HD2	1.69	0.72
3:D:398:LEU:H	3:D:398:LEU:CD2	2.01	0.72
1:E:799:LEU:HD23	1:E:837:ALA:HB1	1.71	0.72
3:G:526:ARG:HA	3:G:526:ARG:HE	1.54	0.72
1:B:658:MET:HB2	1:B:695:GLN:HG2	1.71	0.72
2:C:974:VAL:HG21	2:C:1043:GLY:HA3	1.71	0.72
3:D:307:GLY:CA	3:D:597:ARG:HH21	2.00	0.72
4:X:39:DC:H2''	4:X:40:DT:OP2	1.88	0.72
3:D:121:ARG:CB	3:D:121:ARG:HH11	2.03	0.72
3:G:207:LYS:HZ1	3:G:544:SER:HA	1.53	0.72
3:G:241:HIS:HB3	4:Y:3:5IU:O3'	1.89	0.72
3:G:244:LEU:HD11	3:G:285:ALA:HB3	1.72	0.72
3:G:261:LEU:HD12	3:G:285:ALA:C	2.14	0.72
1:B:286:LEU:CD1	1:B:306:ARG:HB3	2.19	0.72
3:D:223:LEU:HB2	3:D:224:PRO:HD2	1.71	0.72
2:F:87:ASN:HD21	2:F:90:SER:H	1.37	0.72
2:F:851:MET:HB3	2:F:1031:MET:HE1	1.72	0.72
1:B:306:ARG:O	1:B:307:HIS:HB2	1.87	0.72
1:B:610:ASN:HD22	1:B:613:ARG:HH12	1.35	0.72
3:D:230:LYS:C	3:D:232:ARG:H	1.96	0.72
2:F:273:GLU:OE2	2:F:274:LEU:HD23	1.88	0.72
3:G:304:VAL:HG21	3:G:564:GLU:HG2	1.70	0.72
4:Y:22:DG:C3'	4:Y:23:DC:H5''	2.18	0.72
2:C:87:ASN:HD21	2:C:90:SER:H	1.37	0.72
2:C:251:ILE:HD13	2:C:252:LYS:H	1.55	0.72
2:C:506:ILE:HG23	2:C:507:ASP:N	2.03	0.72
2:C:548:LEU:HB2	2:C:903:ALA:CB	2.19	0.72
2:C:664:LEU:HD22	2:C:685:TYR:CE1	2.25	0.72
1:E:286:LEU:CD1	1:E:306:ARG:HB3	2.18	0.72
1:E:561:ARG:HH12	1:E:584:ARG:HB2	1.55	0.72
3:G:234:PRO:C	3:G:236:ASP:H	1.94	0.72
2:F:155:VAL:H	2:F:162:GLN:HE22	1.37	0.72
2:F:304:GLY:HA2	2:F:714:TYR:HD1	1.55	0.72
1:B:252:ILE:O	1:B:255:ARG:HB2	1.90	0.72
1:B:283:PRO:HD3	1:B:314:ASP:HB2	1.70	0.72
1:B:947:ARG:H	1:B:947:ARG:HD3	1.54	0.72
1:B:1051:PRO:N	1:B:1052:PRO:CD	2.48	0.72
2:C:253:ASP:C	2:C:255:ALA:H	1.94	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:347:ASN:HD21	2:C:349:ALA:HB3	1.55	0.72
2:C:506:ILE:CG2	2:C:507:ASP:N	2.52	0.72
2:C:550:TYR:CZ	2:C:552:GLU:HB2	2.24	0.72
2:F:169:TRP:O	2:F:173:VAL:HG23	1.90	0.72
3:G:121:ARG:CB	3:G:121:ARG:HH11	2.02	0.72
3:G:255:HIS:HA	3:G:259:ASN:CB	2.19	0.72
1:B:65:THR:HB	1:B:68:ALA:HB2	1.70	0.72
1:B:763:GLN:HE22	1:B:765:GLN:H	1.35	0.72
3:D:16:LEU:O	3:D:16:LEU:HD12	1.90	0.72
3:D:226:THR:HA	3:D:229:GLN:HB3	1.72	0.72
3:D:526:ARG:HH22	3:D:533:THR:CG2	2.03	0.72
2:F:834:LEU:HD12	2:F:838:GLN:NE2	2.04	0.72
1:B:34:ALA:HB1	1:B:79:ASN:HD22	1.53	0.71
1:B:233:LYS:NZ	1:B:269:ILE:HG12	2.04	0.71
1:B:281:GLN:O	1:B:282:LEU:HB2	1.89	0.71
1:E:925:ASP:H	1:E:953:THR:CG2	2.03	0.71
1:E:947:ARG:H	1:E:947:ARG:HD3	1.55	0.71
2:F:550:TYR:CE2	2:F:552:GLU:HB2	2.25	0.71
2:F:664:LEU:HD22	2:F:685:TYR:CE1	2.25	0.71
3:G:536:MET:SD	3:G:540:LYS:HD2	2.30	0.71
1:B:987:GLU:HG3	1:B:988:PRO:CD	2.20	0.71
2:C:169:TRP:O	2:C:173:VAL:HG23	1.90	0.71
2:C:539:SER:HB2	2:C:551:ASP:OD1	1.90	0.71
3:D:526:ARG:HH22	3:D:533:THR:HG22	1.53	0.71
4:X:37:DT:H2''	4:X:38:DG:C5'	2.19	0.71
1:B:251:GLY:HA3	1:B:255:ARG:CZ	2.19	0.71
1:B:889:ASN:HA	2:C:807:LEU:HD11	1.73	0.71
1:B:1043:PHE:HB3	1:B:1161:ASN:CG	2.15	0.71
1:E:587:VAL:HG21	1:E:689:HIS:ND1	2.05	0.71
1:E:1071:ARG:HH22	2:F:29:PRO:CB	2.03	0.71
2:F:550:TYR:CZ	2:F:552:GLU:HB2	2.24	0.71
3:G:165:ARG:NH2	3:G:288:ASP:HA	2.04	0.71
1:B:557:LEU:HD11	1:B:808:ARG:HG3	1.73	0.71
2:C:265:ARG:O	2:C:323:LEU:HB2	1.90	0.71
2:C:506:ILE:N	2:C:510:ASN:HD22	1.88	0.71
1:E:418:ALA:O	1:E:800:ARG:HD2	1.90	0.71
2:F:502:ILE:CG1	2:F:527:GLY:HA3	2.20	0.71
2:F:533:LEU:HD11	2:F:537:MET:HE3	1.72	0.71
2:F:551:ASP:HB3	3:G:111:ARG:NH2	2.06	0.71
2:C:304:GLY:HA2	2:C:714:TYR:HD1	1.56	0.71
2:C:736:ILE:H	2:C:736:ILE:HD12	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:506:ILE:CG2	2:F:507:ASP:H	2.03	0.71
4:X:14:DC:C2'	4:X:15:DG:H5''	2.18	0.71
4:Y:7:5IU:H3'	4:Y:8:DC:C5'	2.13	0.71
1:B:560:SER:HB3	4:X:47:DA:N3	2.05	0.71
3:D:75:ILE:HB	3:D:78:LEU:HD13	1.72	0.71
3:D:213:THR:CG2	3:D:235:GLU:HA	2.21	0.71
1:E:658:MET:HB2	1:E:695:GLN:CG	2.20	0.71
1:E:763:GLN:HE22	1:E:765:GLN:H	1.36	0.71
3:G:121:ARG:HH11	3:G:121:ARG:HB2	1.56	0.71
1:B:380:VAL:HG23	1:B:408:ALA:HB3	1.70	0.71
2:C:347:ASN:HD22	2:C:348:ARG:N	1.89	0.71
3:D:78:LEU:O	3:D:80:ASN:N	2.22	0.71
1:E:252:ILE:O	1:E:255:ARG:HB2	1.90	0.71
1:E:729:LEU:H	1:E:729:LEU:HD22	1.54	0.71
1:E:739:VAL:HG22	1:E:740:THR:N	2.06	0.71
2:F:70:TRP:CH2	2:F:84:SER:HB2	2.25	0.71
2:F:951:GLN:O	2:F:952:ILE:HG23	1.90	0.71
3:G:243:LEU:CD1	3:G:244:LEU:HG	2.20	0.71
1:B:891:LYS:HD2	2:C:802:TYR:CZ	2.25	0.71
2:C:321:GLN:O	2:C:323:LEU:HD23	1.90	0.71
3:D:199:ILE:HG12	3:D:265:VAL:CG1	2.21	0.71
1:E:283:PRO:HD3	1:E:314:ASP:HB2	1.71	0.71
2:F:265:ARG:O	2:F:323:LEU:HB2	1.90	0.71
3:G:226:THR:HA	3:G:229:GLN:HB3	1.72	0.71
2:C:80:ILE:HD12	2:C:189:LEU:HD21	1.73	0.71
1:E:1130:ASP:H	1:E:1134:HIS:HD2	1.38	0.71
3:G:16:LEU:O	3:G:16:LEU:HD12	1.90	0.71
3:G:230:LYS:C	3:G:232:ARG:H	1.96	0.71
4:Y:2:5IU:C3'	4:Y:3:5IU:H5'	2.21	0.71
4:Y:37:DT:H2''	4:Y:38:DG:C5'	2.20	0.71
1:B:1071:ARG:HB3	1:B:1076:TYR:CD2	2.26	0.70
2:F:386:VAL:HG12	2:F:425:VAL:HG21	1.72	0.70
3:G:213:THR:CG2	3:G:235:GLU:HA	2.21	0.70
4:Y:39:DC:H2''	4:Y:40:DT:OP2	1.89	0.70
1:B:658:MET:HB2	1:B:695:GLN:CG	2.21	0.70
1:B:1039:LEU:HD23	1:B:1039:LEU:H	1.53	0.70
1:E:483:LYS:HG3	1:E:484:ASN:ND2	2.05	0.70
1:B:809:SER:OG	1:B:813:CYS:HB2	1.91	0.70
1:B:1171:MET:O	1:B:1171:MET:HE3	1.91	0.70
2:C:828:LEU:HD22	2:C:1028:ARG:CD	2.22	0.70
1:E:685:THR:HG22	2:F:787:MET:HE2	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:269:PHE:C	2:F:270:GLU:HG2	2.17	0.70
3:G:135:ALA:O	3:G:139:GLN:HG3	1.90	0.70
1:B:676:ALA:O	2:C:816:ALA:HB2	1.91	0.70
2:C:269:PHE:C	2:C:270:GLU:HG2	2.16	0.70
3:D:58:LEU:HD13	3:D:81:TRP:CZ3	2.26	0.70
3:D:233:ILE:C	3:D:235:GLU:H	1.99	0.70
1:E:25:ALA:HB1	1:E:807:THR:CG2	2.21	0.70
1:E:249:SER:OG	1:E:250:SER:N	2.22	0.70
1:E:1071:ARG:HB3	1:E:1076:TYR:CD2	2.26	0.70
2:F:142:ARG:HD3	2:F:142:ARG:N	2.05	0.70
3:G:373:ALA:HB1	3:G:380:THR:HB	1.72	0.70
3:G:529:GLU:HA	3:G:529:GLU:OE2	1.91	0.70
1:B:497:PRO:O	1:B:812:HIS:HD2	1.75	0.70
2:C:269:PHE:HD2	2:C:269:PHE:N	1.90	0.70
2:C:506:ILE:CG2	2:C:507:ASP:H	2.04	0.70
1:E:936:GLU:O	1:E:936:GLU:HG2	1.89	0.70
1:E:1098:MET:HE3	1:E:1142:PHE:CD1	2.27	0.70
2:F:273:GLU:CD	2:F:274:LEU:HD23	2.17	0.70
3:G:78:LEU:O	3:G:80:ASN:N	2.23	0.70
1:B:892:THR:HG22	2:C:804:ARG:NE	2.06	0.70
2:C:1055:ASP:CB	2:C:1118:ARG:HH22	1.98	0.70
1:E:924:LEU:HD23	1:E:953:THR:HG21	1.72	0.70
1:E:925:ASP:N	1:E:953:THR:HG22	2.07	0.70
1:B:729:LEU:H	1:B:729:LEU:HD22	1.55	0.70
1:B:739:VAL:HG22	1:B:740:THR:N	2.07	0.70
1:E:920:LEU:HD21	2:F:448:HIS:CE1	2.27	0.70
1:E:949:ALA:O	1:E:953:THR:HG23	1.92	0.70
3:G:465:LYS:O	3:G:466:ARG:HB2	1.90	0.70
4:Y:8:DC:H2''	4:Y:9:5IU:C5'	2.22	0.70
1:E:380:VAL:HG23	1:E:408:ALA:HB3	1.73	0.70
1:E:761:ARG:HG3	1:E:822:ARG:HH22	1.56	0.70
2:F:752:ILE:HD12	2:F:753:ASP:H	1.55	0.70
1:B:1098:MET:HE3	1:B:1142:PHE:CD1	2.26	0.70
2:C:584:LEU:CD1	2:C:620:ILE:HG23	2.20	0.70
3:D:2:LYS:O	3:D:3:LEU:HB2	1.91	0.70
1:E:1043:PHE:HB3	1:E:1161:ASN:CG	2.17	0.70
4:X:8:DC:H2''	4:X:9:5IU:H5''	1.74	0.70
2:F:269:PHE:N	2:F:269:PHE:HD2	1.89	0.70
2:F:506:ILE:H	2:F:510:ASN:ND2	1.90	0.70
3:G:300:GLN:HG3	3:G:568:THR:HG22	1.74	0.70
3:D:130:ILE:O	3:D:132:VAL:N	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:201:LEU:HB3	3:D:212:LEU:HD13	1.74	0.69
2:F:1:MET:HG2	2:F:3:ARG:HE	1.57	0.69
1:B:936:GLU:O	1:B:936:GLU:HG2	1.90	0.69
2:C:386:VAL:HG12	2:C:425:VAL:HG21	1.72	0.69
2:C:828:LEU:HD22	2:C:1028:ARG:HD2	1.74	0.69
3:D:121:ARG:HH11	3:D:121:ARG:HB2	1.56	0.69
1:E:218:LEU:HD23	1:E:323:ILE:HD11	1.72	0.69
3:G:233:ILE:C	3:G:235:GLU:H	2.00	0.69
1:B:807:THR:HG22	1:B:808:ARG:HH21	1.58	0.69
1:B:924:LEU:HD23	1:B:953:THR:HG21	1.72	0.69
2:C:1:MET:HG2	2:C:3:ARG:HE	1.57	0.69
3:D:134:GLU:OE1	3:D:331:ARG:HD2	1.92	0.69
1:E:282:LEU:N	1:E:283:PRO:HD2	2.08	0.69
1:B:482:GLY:HA2	1:B:485:GLN:HG2	1.72	0.69
2:C:502:ILE:CG1	2:C:527:GLY:HA3	2.23	0.69
2:C:980:LEU:CD1	2:C:998:LEU:HB2	2.22	0.69
1:E:497:PRO:O	1:E:812:HIS:HD2	1.76	0.69
2:F:828:LEU:HD22	2:F:1028:ARG:CD	2.22	0.69
1:B:925:ASP:N	1:B:953:THR:HG22	2.06	0.69
2:C:559:GLU:HA	3:D:19:LEU:HD12	1.74	0.69
3:D:550:ALA:HA	3:D:578:SER:O	1.91	0.69
4:X:2:5IU:C3'	4:X:3:5IU:H5'	2.23	0.69
1:B:148:PHE:H	2:C:126:GLN:HE22	1.41	0.69
1:B:683:ARG:NE	2:C:1095:ARG:HH12	1.90	0.69
3:D:135:ALA:O	3:D:139:GLN:HG3	1.92	0.69
3:D:261:LEU:HD12	3:D:285:ALA:O	1.92	0.69
1:E:987:GLU:HG3	1:E:988:PRO:CD	2.22	0.69
3:G:259:ASN:CB	3:G:260:PRO:HD2	2.06	0.69
4:X:36:DG:H2''	4:X:37:DT:H71	1.73	0.69
3:D:465:LYS:O	3:D:466:ARG:HB2	1.91	0.69
3:D:530:HIS:C	3:D:532:THR:H	1.99	0.69
1:E:248:GLU:HG3	1:E:288:LYS:O	1.93	0.69
1:E:1171:MET:HE3	1:E:1171:MET:O	1.93	0.69
2:F:363:ASN:HD22	2:F:363:ASN:H	0.77	0.69
2:F:948:ASN:C	2:F:948:ASN:HD22	2.01	0.69
1:B:218:LEU:HD23	1:B:323:ILE:HD11	1.74	0.69
1:B:1071:ARG:HH12	2:C:29:PRO:HA	1.58	0.69
2:C:273:GLU:CD	2:C:274:LEU:HD23	2.17	0.69
2:C:548:LEU:HB2	2:C:903:ALA:HB3	1.73	0.69
1:E:107:LYS:HD2	1:E:107:LYS:N	2.08	0.69
1:E:1073:GLU:HA	1:E:1073:GLU:OE2	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:347:ASN:HD21	2:F:349:ALA:HB3	1.56	0.69
2:F:654:PHE:O	2:F:660:ASN:ND2	2.26	0.69
3:G:550:ALA:HA	3:G:578:SER:O	1.92	0.69
1:B:25:ALA:HB1	1:B:807:THR:CG2	2.23	0.69
1:B:527:ARG:CB	1:B:576:ILE:HD11	2.21	0.69
1:E:251:GLY:HA3	1:E:255:ARG:CZ	2.22	0.69
2:F:847:ALA:O	2:F:851:MET:HB2	1.92	0.69
3:G:256:HIS:CG	3:G:257:ALA:H	2.10	0.69
1:B:483:LYS:HG3	1:B:484:ASN:ND2	2.08	0.69
1:B:541:MET:HG2	1:B:546:ALA:CB	2.23	0.69
1:B:771:ARG:N	1:B:771:ARG:HD2	2.08	0.69
2:C:968:ARG:NH2	4:X:9:5IU:OP1	2.26	0.69
3:D:229:GLN:O	3:D:229:GLN:CG	2.41	0.69
2:F:588:LEU:HG	2:F:620:ILE:HG21	1.73	0.69
2:F:714:TYR:O	2:F:718:GLU:HG3	1.93	0.69
3:G:130:ILE:O	3:G:132:VAL:N	2.23	0.69
4:X:19:DA:H1'	4:X:20:DC:H5'	1.75	0.69
1:B:167:PHE:O	1:B:171:HIS:HB2	1.93	0.68
1:B:375:ARG:HD3	1:B:400:ILE:O	1.93	0.68
2:C:850:GLN:HE22	4:X:7:5IU:HN3	1.40	0.68
2:F:736:ILE:H	2:F:736:ILE:HD12	1.58	0.68
2:F:942:GLU:OE1	3:G:196:ARG:NH1	2.26	0.68
3:G:2:LYS:O	3:G:3:LEU:HB2	1.93	0.68
3:G:58:LEU:HD13	3:G:81:TRP:CZ3	2.27	0.68
3:G:229:GLN:O	3:G:229:GLN:CG	2.40	0.68
3:G:426:ALA:C	3:G:428:PRO:HD2	2.17	0.68
1:B:13:LEU:HD12	1:B:14:PRO:HD2	1.76	0.68
1:B:253:ASP:C	1:B:255:ARG:H	2.01	0.68
3:D:3:LEU:HD23	3:D:6:GLN:HG3	1.75	0.68
2:F:38:GLN:NE2	2:F:667:MET:HG3	2.03	0.68
3:G:201:LEU:HB3	3:G:212:LEU:HD13	1.76	0.68
1:B:42:LEU:HD21	1:B:114:LEU:HG	1.75	0.68
2:C:533:LEU:HD11	2:C:537:MET:HE3	1.75	0.68
3:D:98:THR:HG22	3:D:100:MET:H	1.58	0.68
3:D:374:ILE:HA	3:D:590:ILE:HD11	1.74	0.68
2:F:347:ASN:HD22	2:F:348:ARG:N	1.89	0.68
3:G:134:GLU:OE1	3:G:331:ARG:HD2	1.92	0.68
1:B:240:VAL:O	1:B:240:VAL:HG12	1.92	0.68
1:E:11:LEU:CD1	1:E:99:ARG:HD2	2.22	0.68
1:E:225:ILE:HG22	1:E:229:ILE:HD11	1.76	0.68
1:E:561:ARG:HH22	1:E:584:ARG:H	1.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:771:ARG:HD2	1:E:771:ARG:N	2.08	0.68
1:E:1136:GLY:HA2	1:E:1159:ARG:HD3	1.74	0.68
3:G:199:ILE:HG12	3:G:265:VAL:CG1	2.23	0.68
1:B:159:LEU:HD21	1:B:342:GLU:HG2	1.75	0.68
1:B:225:ILE:HG22	1:B:229:ILE:HD11	1.76	0.68
1:B:282:LEU:N	1:B:283:PRO:HD2	2.08	0.68
3:D:204:PRO:HB3	4:X:2:5IU:I5	2.63	0.68
3:D:254:ARG:O	3:D:260:PRO:CG	2.42	0.68
2:F:771:GLU:O	2:F:775:ARG:HG3	1.92	0.68
2:C:997:ARG:HG3	2:C:1007:ARG:HG3	1.76	0.68
1:E:947:ARG:CB	1:E:1086:LEU:HD21	2.23	0.68
2:F:1046:LEU:HD21	2:F:1110:GLN:HG3	1.73	0.68
1:B:249:SER:OG	1:B:250:SER:N	2.22	0.68
2:C:771:GLU:O	2:C:775:ARG:HG3	1.93	0.68
3:D:426:ALA:C	3:D:428:PRO:HD2	2.18	0.68
1:E:1089:ASP:O	1:E:1091:SER:N	2.27	0.68
2:F:273:GLU:OE2	2:F:274:LEU:N	2.27	0.68
2:F:457:LEU:HB3	2:F:594:MET:HE1	1.76	0.68
2:F:619:ILE:HD11	2:F:644:ARG:HD2	1.76	0.68
1:B:1130:ASP:H	1:B:1134:HIS:HD2	1.39	0.68
1:E:658:MET:HB2	1:E:695:GLN:HG2	1.75	0.68
2:F:335:LEU:HA	2:F:374:ILE:HD11	1.76	0.68
1:B:675:LEU:HD12	2:C:809:ALA:HB1	1.75	0.68
3:D:300:GLN:HG3	3:D:568:THR:HG22	1.75	0.68
1:E:541:MET:HG2	1:E:546:ALA:CB	2.23	0.68
1:B:1098:MET:HE2	1:B:1156:TYR:HB2	1.75	0.68
2:C:418:TYR:O	2:C:422:ILE:HG12	1.93	0.68
3:D:165:ARG:HA	3:D:291:ARG:HG2	1.73	0.68
2:F:251:ILE:HD13	2:F:252:LYS:H	1.58	0.68
2:F:418:TYR:O	2:F:422:ILE:HG12	1.94	0.68
2:F:997:ARG:HG3	2:F:1007:ARG:HG3	1.76	0.68
4:Y:19:DA:H1'	4:Y:20:DC:H5'	1.76	0.68
1:B:107:LYS:HD2	1:B:107:LYS:N	2.09	0.67
3:D:366:GLY:HA3	3:D:393:ILE:HG21	1.76	0.67
1:E:513:ASP:O	1:E:515:GLN:N	2.27	0.67
2:F:405:PRO:C	2:F:658:PRO:HB3	2.19	0.67
3:G:75:ILE:HB	3:G:78:LEU:HD13	1.75	0.67
3:G:261:LEU:HD12	3:G:285:ALA:O	1.94	0.67
1:B:1089:ASP:O	1:B:1091:SER:N	2.28	0.67
2:C:539:SER:HB2	2:C:551:ASP:CG	2.18	0.67
2:C:619:ILE:HD11	2:C:644:ARG:HD2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:253:ASP:C	1:E:255:ARG:H	2.02	0.67
1:E:823:ARG:HG2	1:E:825:GLY:N	2.09	0.67
2:F:7:SER:CB	2:F:13:LEU:HG	2.24	0.67
2:F:78:PRO:HD2	2:F:192:ARG:NH1	2.09	0.67
2:F:539:SER:HB2	2:F:551:ASP:CG	2.19	0.67
3:G:132:VAL:HG12	3:G:133:ASP:N	2.09	0.67
1:B:964:PHE:H	1:B:964:PHE:HD2	1.42	0.67
3:D:123:PHE:HB2	3:D:604:PHE:CE2	2.29	0.67
3:D:165:ARG:HB3	3:D:166:ILE:HD12	1.75	0.67
1:E:807:THR:HG22	1:E:808:ARG:HH21	1.58	0.67
2:F:8:ASN:HD21	2:F:343:LEU:HG	1.57	0.67
3:G:582:ASP:C	3:G:584:ARG:H	2.03	0.67
1:B:267:ASP:C	1:B:269:ILE:H	2.01	0.67
1:B:624:ASN:HB2	1:B:627:ASP:OD2	1.94	0.67
3:D:301:LEU:H	3:D:568:THR:CG2	2.06	0.67
2:F:405:PRO:HG2	2:F:658:PRO:CB	2.25	0.67
2:F:980:LEU:CD1	2:F:998:LEU:HB2	2.24	0.67
4:Y:2:5IU:H3'	4:Y:3:5IU:H5'	1.76	0.67
1:E:159:LEU:HD21	1:E:342:GLU:HG2	1.75	0.67
1:E:233:LYS:HZ2	1:E:269:ILE:HG12	1.56	0.67
4:Y:9:5IU:H2''	4:Y:10:DA:O5'	1.95	0.67
1:B:213:PRO:O	1:B:215:ASP:N	2.28	0.67
1:B:1136:GLY:HA2	1:B:1159:ARG:HD3	1.77	0.67
3:G:239:THR:C	3:G:241:HIS:H	2.01	0.67
1:B:1078:LEU:CD1	1:B:1118:LEU:HD12	2.25	0.67
2:C:948:ASN:C	2:C:948:ASN:HD22	2.02	0.67
3:G:440:LEU:O	3:G:441:LEU:HD23	1.95	0.67
1:B:243:LEU:HD22	1:B:259:ARG:NH1	2.10	0.67
1:B:426:ASP:O	1:B:429:THR:HG22	1.94	0.67
1:B:442:THR:CG2	1:B:476:ILE:HD11	2.15	0.67
2:C:506:ILE:H	2:C:510:ASN:ND2	1.92	0.67
1:E:240:VAL:O	1:E:240:VAL:HG12	1.93	0.67
1:E:426:ASP:O	1:E:429:THR:HG22	1.95	0.67
2:F:405:PRO:HB2	2:F:659:VAL:HG23	1.77	0.67
2:F:435:LEU:HD12	2:F:435:LEU:O	1.95	0.67
1:B:18:GLU:HG2	1:B:18:GLU:O	1.94	0.67
1:B:892:THR:HG22	2:C:804:ARG:HE	1.59	0.67
2:C:97:THR:HG23	2:C:628:TYR:CE1	2.29	0.67
2:C:1036:LEU:O	2:C:1037:VAL:HB	1.94	0.67
3:D:366:GLY:HA3	3:D:393:ILE:HD12	1.76	0.67
1:E:964:PHE:H	1:E:964:PHE:HD2	1.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:254:ARG:CG	3:G:259:ASN:ND2	2.58	0.67
3:G:274:ILE:HG23	3:G:278:MET:HG2	1.75	0.67
3:G:301:LEU:HD22	3:G:565:LEU:HA	1.76	0.67
2:C:502:ILE:HG13	2:C:527:GLY:HA3	1.76	0.67
3:D:529:GLU:HA	3:D:529:GLU:OE2	1.93	0.67
2:F:834:LEU:HD21	2:F:986:VAL:HG21	1.77	0.67
1:B:423:ARG:HG2	4:X:49:DA:H2	1.57	0.66
3:D:85:LEU:HD13	3:D:107:LEU:HD13	1.77	0.66
3:D:200:ARG:HB2	3:D:263:LEU:CD2	2.22	0.66
1:E:148:PHE:H	2:F:126:GLN:HE22	1.43	0.66
1:E:1078:LEU:CD1	1:E:1118:LEU:HD12	2.24	0.66
2:F:61:ASP:C	2:F:63:PRO:HD3	2.18	0.66
3:G:398:LEU:HD23	3:G:398:LEU:N	2.10	0.66
3:G:561:VAL:HG12	3:G:589:ALA:HB2	1.76	0.66
1:B:636:HIS:O	1:B:640:VAL:HG23	1.95	0.66
1:E:557:LEU:HD11	1:E:808:ARG:HG3	1.77	0.66
1:E:740:THR:OG1	4:Y:49:DA:OP1	2.13	0.66
1:E:893:LEU:HD13	1:E:893:LEU:O	1.96	0.66
1:E:1071:ARG:HH12	2:F:29:PRO:HA	1.60	0.66
2:C:28:ASP:H	2:C:29:PRO:HD2	1.60	0.66
1:E:81:HIS:HA	1:E:118:GLU:OE2	1.95	0.66
1:E:571:LEU:HD21	1:E:736:VAL:HG21	1.77	0.66
2:F:28:ASP:H	2:F:29:PRO:HD2	1.60	0.66
3:G:344:GLU:HG3	3:G:345:ALA:N	2.08	0.66
3:G:530:HIS:C	3:G:532:THR:H	2.01	0.66
1:B:920:LEU:HD11	2:C:448:HIS:NE2	2.11	0.66
2:C:664:LEU:HB3	2:C:715:LEU:HD13	1.77	0.66
3:D:239:THR:C	3:D:241:HIS:H	2.03	0.66
3:D:278:MET:SD	4:X:2:5IU:I5	3.24	0.66
3:D:307:GLY:C	3:D:597:ARG:HH21	2.03	0.66
1:E:267:ASP:C	1:E:269:ILE:H	2.03	0.66
2:F:539:SER:HB2	2:F:551:ASP:OD1	1.95	0.66
2:F:584:LEU:CD1	2:F:620:ILE:HG23	2.24	0.66
1:B:610:ASN:ND2	1:B:613:ARG:HH12	1.93	0.66
1:B:919:ASP:OD1	2:C:652:GLN:HB2	1.95	0.66
3:D:207:LYS:NZ	3:D:544:SER:HA	2.10	0.66
3:D:286:LEU:HD13	3:D:292:VAL:HG21	1.77	0.66
3:D:389:ASP:C	3:D:391:THR:N	2.53	0.66
1:E:1098:MET:HE2	1:E:1156:TYR:HB2	1.76	0.66
2:F:160:GLU:C	2:F:162:GLN:H	2.04	0.66
2:F:172:LEU:O	2:F:176:THR:HG22	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:179:THR:O	3:D:182:ALA:HB3	1.95	0.66
3:D:526:ARG:HE	3:D:526:ARG:CA	2.09	0.66
1:E:558:VAL:HG22	1:E:563:GLU:HB3	1.77	0.66
2:F:354:ASN:ND2	2:F:356:GLU:HB3	2.10	0.66
2:F:941:MET:HE3	2:F:959:VAL:HG11	1.78	0.66
2:F:1037:VAL:HG22	2:F:1109:SER:HA	1.77	0.66
1:B:495:THR:HG23	1:E:544:ASP:O	1.96	0.66
1:B:947:ARG:CB	1:B:1086:LEU:HD21	2.25	0.66
1:B:1073:GLU:OE2	1:B:1073:GLU:HA	1.93	0.66
1:B:1121:TYR:CD1	2:C:58:ALA:HB3	2.31	0.66
2:C:347:ASN:HD21	2:C:349:ALA:H	1.44	0.66
1:E:13:LEU:HD12	1:E:14:PRO:HD2	1.77	0.66
1:E:530:LEU:HB3	1:E:878:TRP:CZ3	2.31	0.66
1:E:741:ILE:HD12	1:E:805:ALA:HB2	1.78	0.66
3:G:179:THR:O	3:G:182:ALA:HB3	1.96	0.66
3:G:204:PRO:HG3	3:G:274:ILE:CD1	2.24	0.66
3:G:526:ARG:HH22	3:G:533:THR:CG2	2.08	0.66
4:X:8:DC:OP2	4:X:9:5IU:I5	2.84	0.66
1:B:513:ASP:O	1:B:515:GLN:N	2.27	0.66
1:B:530:LEU:HB3	1:B:878:TRP:CZ3	2.31	0.66
3:D:31:GLU:CD	3:D:88:SER:HB2	2.20	0.66
3:D:344:GLU:HG3	3:D:345:ALA:N	2.10	0.66
1:E:167:PHE:O	1:E:171:HIS:HB2	1.96	0.66
1:E:636:HIS:O	1:E:640:VAL:HG23	1.96	0.66
2:F:265:ARG:O	2:F:323:LEU:CB	2.43	0.66
3:G:207:LYS:HZ3	3:G:544:SER:HA	1.59	0.66
4:Y:36:DG:H2"	4:Y:37:DT:H71	1.78	0.66
1:B:34:ALA:HB1	1:B:79:ASN:ND2	2.11	0.66
1:B:562:GLN:CD	4:X:46:5IU:I5	3.09	0.66
3:D:229:GLN:O	3:D:229:GLN:HG3	1.96	0.66
3:D:233:ILE:O	3:D:235:GLU:N	2.28	0.66
2:C:752:ILE:HD12	2:C:753:ASP:H	1.59	0.66
2:C:941:MET:HE3	2:C:959:VAL:HG11	1.78	0.66
3:D:58:LEU:HD13	3:D:81:TRP:HZ3	1.60	0.66
3:D:244:LEU:HB3	3:D:255:HIS:CD2	2.31	0.66
3:D:300:GLN:NE2	3:D:568:THR:HG22	2.10	0.66
3:D:562:THR:HG21	3:D:594:THR:HG23	1.77	0.66
1:E:831:THR:C	1:E:833:VAL:H	2.03	0.66
2:F:112:ARG:HG3	2:F:112:ARG:HH11	1.62	0.66
2:F:269:PHE:N	2:F:269:PHE:CD2	2.62	0.66
3:G:425:ARG:O	3:G:427:GLU:N	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:139:LEU:CD2	1:B:377:ARG:HH12	2.09	0.65
2:C:111:LEU:HD13	2:C:127:LEU:HD21	1.78	0.65
2:C:172:LEU:O	2:C:176:THR:HG22	1.94	0.65
2:C:685:TYR:O	2:C:687:ARG:HG3	1.95	0.65
3:D:597:ARG:HD2	3:D:597:ARG:C	2.21	0.65
2:F:828:LEU:HD22	2:F:1028:ARG:HD2	1.77	0.65
2:F:972:LEU:HA	2:F:1000:LEU:HD13	1.78	0.65
1:B:746:GLY:N	1:B:808:ARG:HH12	1.93	0.65
2:C:354:ASN:ND2	2:C:356:GLU:HB3	2.11	0.65
3:D:597:ARG:HH11	3:D:598:SER:HB2	1.61	0.65
3:G:229:GLN:O	3:G:229:GLN:HG3	1.96	0.65
3:G:389:ASP:O	3:G:391:THR:N	2.30	0.65
1:B:221:ARG:O	1:B:225:ILE:HG12	1.97	0.65
2:C:834:LEU:HD21	2:C:986:VAL:HG21	1.78	0.65
1:E:1079:LEU:HD11	1:E:1141:LEU:HG	1.78	0.65
3:G:366:GLY:HA3	3:G:393:ILE:CD1	2.26	0.65
4:X:41:DC:H2''	4:X:42:DG:OP2	1.97	0.65
4:Y:14:DC:C2'	4:Y:15:DG:H5''	2.20	0.65
1:B:119:ARG:HD3	2:C:302:SER:CB	2.25	0.65
3:D:201:LEU:HB3	3:D:212:LEU:CD1	2.25	0.65
3:D:378:ASP:O	3:D:382:VAL:HG23	1.96	0.65
1:E:423:ARG:HG2	4:Y:49:DA:H2	1.60	0.65
1:E:550:ARG:HG2	1:E:550:ARG:HH11	1.61	0.65
2:F:776:VAL:O	2:F:780:LEU:HD22	1.96	0.65
2:F:1036:LEU:O	2:F:1037:VAL:HB	1.95	0.65
1:B:893:LEU:HD13	1:B:893:LEU:O	1.97	0.65
1:B:924:LEU:HD11	2:C:607:ALA:HA	1.79	0.65
2:C:545:GLN:O	2:C:547:VAL:HG23	1.97	0.65
2:C:588:LEU:HG	2:C:620:ILE:HG21	1.78	0.65
1:E:947:ARG:H	1:E:947:ARG:CD	2.09	0.65
2:F:502:ILE:HG13	2:F:527:GLY:HA3	1.77	0.65
3:G:177:LYS:O	3:G:181:VAL:HG23	1.97	0.65
3:G:244:LEU:HD21	3:G:261:LEU:HG	1.77	0.65
1:B:226:VAL:HA	1:B:229:ILE:HD12	1.78	0.65
1:B:1003:ASN:ND2	1:B:1157:THR:HG21	2.12	0.65
3:D:51:VAL:CG2	3:D:276:LEU:HD12	2.25	0.65
1:E:243:LEU:HD22	1:E:259:ARG:NH1	2.11	0.65
1:E:649:ARG:HG3	1:E:650:GLN:N	2.12	0.65
2:F:442:ARG:HG3	2:F:442:ARG:HH11	1.61	0.65
3:G:233:ILE:O	3:G:235:GLU:N	2.29	0.65
3:G:278:MET:O	3:G:279:MET:C	2.39	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:823:ARG:HG2	1:B:825:GLY:N	2.10	0.65
2:C:160:GLU:C	2:C:162:GLN:H	2.05	0.65
2:C:273:GLU:OE2	2:C:274:LEU:N	2.27	0.65
3:D:255:HIS:HA	3:D:259:ASN:HB2	1.77	0.65
1:E:390:ASP:HB2	1:E:391:PRO:HD2	1.79	0.65
2:F:161:ALA:HA	2:F:164:TRP:CD1	2.32	0.65
4:X:8:DC:H2''	4:X:9:5IU:C5'	2.27	0.65
4:Y:41:DC:H2''	4:Y:42:DG:OP2	1.96	0.65
1:B:541:MET:O	1:B:811:TRP:HZ3	1.80	0.65
1:E:891:LYS:HD2	2:F:802:TYR:CZ	2.31	0.65
2:F:753:ASP:O	2:F:757:GLN:HG3	1.96	0.65
3:G:28:ALA:O	3:G:30:ASP:N	2.30	0.65
4:Y:36:DG:H2''	4:Y:37:DT:OP2	1.97	0.65
1:B:889:ASN:N	1:B:889:ASN:ND2	2.45	0.65
1:B:903:VAL:HG23	2:C:656:ALA:HA	1.79	0.65
2:C:265:ARG:O	2:C:323:LEU:CB	2.45	0.65
2:C:776:VAL:O	2:C:780:LEU:HD22	1.97	0.65
1:E:649:ARG:HB2	1:E:649:ARG:HH11	1.62	0.65
3:G:98:THR:HG22	3:G:100:MET:H	1.61	0.65
1:B:645:PHE:HA	1:B:648:TYR:CD2	2.33	0.64
2:C:61:ASP:C	2:C:63:PRO:HD3	2.22	0.64
2:C:435:LEU:HD12	2:C:435:LEU:O	1.97	0.64
2:C:569:MET:O	2:C:573:ILE:HG13	1.95	0.64
2:C:753:ASP:O	2:C:757:GLN:HG3	1.97	0.64
3:D:254:ARG:O	3:D:260:PRO:HG3	1.96	0.64
3:G:85:LEU:HD13	3:G:107:LEU:HD13	1.79	0.64
3:G:370:LEU:HB2	3:G:394:GLU:OE2	1.97	0.64
1:B:1033:ALA:HB1	1:B:1053:LEU:CA	2.27	0.64
2:F:166:ALA:HB3	2:F:167:PRO:HD3	1.77	0.64
3:G:165:ARG:HB3	3:G:166:ILE:HD12	1.79	0.64
3:G:243:LEU:HD11	3:G:244:LEU:HG	1.77	0.64
3:G:254:ARG:HG3	3:G:259:ASN:ND2	2.13	0.64
1:B:747:LEU:HD23	1:B:749:TYR:OH	1.97	0.64
3:D:398:LEU:HD23	3:D:398:LEU:N	2.12	0.64
2:C:28:ASP:N	2:C:29:PRO:CD	2.60	0.64
2:C:834:LEU:HD12	2:C:838:GLN:CD	2.23	0.64
3:D:165:ARG:HD3	3:D:166:ILE:CD1	2.27	0.64
3:D:389:ASP:O	3:D:391:THR:N	2.30	0.64
2:F:584:LEU:CD2	2:F:632:VAL:HG21	2.27	0.64
3:G:412:LEU:HD13	3:G:462:MET:HG2	1.80	0.64
2:C:405:PRO:HB2	2:C:659:VAL:HG23	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:561:ARG:NH2	1:E:584:ARG:H	1.95	0.64
1:E:1033:ALA:HB1	1:E:1053:LEU:CA	2.28	0.64
2:F:832:VAL:HG23	2:F:832:VAL:O	1.96	0.64
3:G:423:GLN:C	3:G:425:ARG:H	2.06	0.64
4:Y:8:DC:OP2	4:Y:9:5IU:I5	2.85	0.64
1:B:282:LEU:HD21	1:B:307:HIS:HB2	1.80	0.64
1:B:390:ASP:HB2	1:B:391:PRO:HD2	1.79	0.64
1:B:649:ARG:HG3	1:B:650:GLN:N	2.12	0.64
2:C:166:ALA:HB3	2:C:167:PRO:HD3	1.79	0.64
3:D:56:SER:C	3:D:58:LEU:H	2.04	0.64
3:D:244:LEU:HD11	3:D:285:ALA:HB3	1.80	0.64
2:F:80:ILE:HD12	2:F:189:LEU:HD21	1.79	0.64
2:F:540:ALA:C	2:F:542:GLY:H	2.05	0.64
3:G:165:ARG:HD3	3:G:166:ILE:CD1	2.27	0.64
4:X:36:DG:C2'	4:X:37:DT:H71	2.28	0.64
1:B:746:GLY:N	1:B:808:ARG:NH1	2.46	0.64
1:B:831:THR:C	1:B:833:VAL:H	2.05	0.64
2:C:112:ARG:HG3	2:C:112:ARG:HH11	1.62	0.64
2:C:207:LEU:HB3	2:C:208:PRO:HD2	1.79	0.64
2:C:819:GLU:CD	2:C:821:VAL:HG13	2.22	0.64
1:E:747:LEU:HD23	1:E:749:TYR:OH	1.98	0.64
3:G:31:GLU:CD	3:G:88:SER:HB2	2.23	0.64
1:B:81:HIS:HA	1:B:118:GLU:OE2	1.97	0.64
2:C:7:SER:CB	2:C:13:LEU:HG	2.26	0.64
2:C:1037:VAL:HG22	2:C:1109:SER:HA	1.79	0.64
3:D:28:ALA:O	3:D:30:ASP:N	2.28	0.64
3:D:201:LEU:HD21	3:D:233:ILE:HG21	1.79	0.64
1:E:213:PRO:O	1:E:215:ASP:N	2.28	0.64
1:E:226:VAL:HA	1:E:229:ILE:HD12	1.80	0.64
2:F:207:LEU:HD12	2:F:234:ILE:HD13	1.78	0.64
3:G:56:SER:C	3:G:58:LEU:H	2.05	0.64
3:G:200:ARG:HB2	3:G:263:LEU:CD2	2.24	0.64
1:B:222:HIS:HE1	1:B:226:VAL:HG21	1.63	0.64
1:B:248:GLU:HG3	1:B:288:LYS:C	2.23	0.64
1:B:779:ASP:C	1:B:781:ASN:H	2.05	0.64
2:C:253:ASP:C	2:C:255:ALA:N	2.56	0.64
2:C:832:VAL:O	2:C:832:VAL:HG23	1.96	0.64
3:D:132:VAL:HG12	3:D:133:ASP:N	2.11	0.64
3:D:177:LYS:O	3:D:181:VAL:HG23	1.97	0.64
1:E:1130:ASP:H	1:E:1134:HIS:CD2	2.15	0.64
1:B:881:ASN:ND2	1:E:882:ASP:O	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:269:PHE:N	2:C:269:PHE:CD2	2.62	0.64
2:F:602:ASP:OD1	2:F:603:ALA:N	2.31	0.64
3:G:366:GLY:HA3	3:G:393:ILE:HG21	1.79	0.64
4:Y:2:5IU:C2'	4:Y:3:5IU:C5'	2.76	0.64
1:B:25:ALA:HB1	1:B:807:THR:HG23	1.79	0.63
1:B:1018:GLN:OE1	1:B:1018:GLN:HA	1.96	0.63
1:B:1079:LEU:HD11	1:B:1141:LEU:HG	1.79	0.63
2:C:109:THR:HG23	2:C:112:ARG:NH2	2.14	0.63
2:C:935:ARG:O	2:C:937:PRO:HD3	1.98	0.63
3:D:423:GLN:C	3:D:425:ARG:H	2.06	0.63
1:E:18:GLU:HG2	1:E:18:GLU:O	1.98	0.63
1:E:709:ARG:NH1	2:F:475:ASP:OD1	2.32	0.63
1:E:889:ASN:N	1:E:889:ASN:ND2	2.45	0.63
2:F:954:GLY:O	2:F:955:TRP:HE3	1.81	0.63
4:X:2:5IU:H3'	4:X:3:5IU:H5'	1.80	0.63
1:B:1102:MET:HE3	1:B:1107:TYR:HB2	1.78	0.63
2:C:676:CYS:HA	2:C:728:TYR:HB3	1.80	0.63
2:C:945:LEU:CB	2:C:952:ILE:HD11	2.27	0.63
3:D:58:LEU:HD22	3:D:81:TRP:CH2	2.33	0.63
3:D:300:GLN:CG	3:D:568:THR:HG22	2.28	0.63
2:F:834:LEU:HD12	2:F:838:GLN:CD	2.23	0.63
2:C:155:VAL:H	2:C:162:GLN:HE22	1.44	0.63
2:C:954:GLY:O	2:C:955:TRP:HE3	1.80	0.63
1:E:1018:GLN:OE1	1:E:1018:GLN:HA	1.97	0.63
2:F:253:ASP:C	2:F:255:ALA:N	2.55	0.63
3:G:51:VAL:HG11	3:G:276:LEU:CD1	2.29	0.63
3:G:526:ARG:HE	3:G:526:ARG:CA	2.10	0.63
4:X:2:5IU:C2'	4:X:3:5IU:C5'	2.76	0.63
1:B:98:GLU:O	1:B:102:GLU:HG3	1.98	0.63
1:B:208:ILE:O	1:B:211:PRO:HD3	1.97	0.63
1:B:1071:ARG:HD3	1:B:1076:TYR:CE2	2.30	0.63
2:C:540:ALA:C	2:C:542:GLY:H	2.05	0.63
3:D:91:VAL:HA	3:D:100:MET:O	1.99	0.63
3:D:254:ARG:O	3:D:255:HIS:HB3	1.99	0.63
3:G:597:ARG:HH11	3:G:598:SER:HB2	1.63	0.63
2:C:228:GLN:NE2	2:C:318:GLU:H	1.93	0.63
1:E:500:LYS:HA	1:E:866:ALA:O	1.99	0.63
1:E:945:PHE:HE2	1:E:955:LEU:HD21	1.60	0.63
3:G:89:GLN:OE1	3:G:89:GLN:HA	1.98	0.63
1:B:771:ARG:HG2	1:B:771:ARG:HH11	1.64	0.63
1:B:878:TRP:O	1:B:880:VAL:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1078:LEU:HD22	1:B:1115:THR:HG22	1.80	0.63
1:E:65:THR:HG22	1:E:66:GLU:N	2.12	0.63
1:E:221:ARG:O	1:E:225:ILE:HG12	1.99	0.63
1:E:248:GLU:HG3	1:E:288:LYS:C	2.24	0.63
1:E:550:ARG:HG2	1:E:550:ARG:NH1	2.13	0.63
2:F:137:GLN:HG2	2:F:697:MET:HE1	1.79	0.63
2:F:207:LEU:HB3	2:F:208:PRO:HD2	1.79	0.63
2:F:228:GLN:NE2	2:F:318:GLU:H	1.94	0.63
2:F:347:ASN:HD21	2:F:349:ALA:CB	2.12	0.63
2:C:161:ALA:HA	2:C:164:TRP:CD1	2.34	0.63
3:G:366:GLY:HA3	3:G:393:ILE:HD12	1.81	0.63
3:G:385:VAL:HG21	3:G:396:ARG:CZ	2.28	0.63
1:B:148:PHE:N	2:C:126:GLN:HE22	1.95	0.63
2:C:533:LEU:CD1	2:C:537:MET:HE3	2.28	0.63
3:D:461:PHE:C	3:D:463:GLN:H	2.07	0.63
1:E:807:THR:HG21	1:E:808:ARG:HH21	1.64	0.63
3:G:58:LEU:HD22	3:G:81:TRP:CH2	2.34	0.63
3:G:201:LEU:HD21	3:G:233:ILE:HG21	1.80	0.63
3:G:271:ALA:C	3:G:273:MET:H	2.07	0.63
4:X:36:DG:H2''	4:X:37:DT:OP2	1.98	0.63
1:B:741:ILE:HD12	1:B:805:ALA:HB2	1.80	0.63
1:E:173:TYR:O	2:F:909:TYR:HE2	1.81	0.63
2:F:895:GLU:HG3	2:F:899:ARG:NH2	2.14	0.63
4:X:2:5IU:H2'	4:X:3:5IU:H5'	1.80	0.63
1:B:597:LEU:O	1:B:601:GLN:HG3	1.99	0.62
1:B:1130:ASP:H	1:B:1134:HIS:CD2	2.17	0.62
3:D:225:LEU:HD23	3:D:225:LEU:C	2.23	0.62
3:D:243:LEU:HD12	3:D:244:LEU:CD2	2.29	0.62
3:D:440:LEU:O	3:D:441:LEU:HD23	1.99	0.62
3:D:562:THR:OG1	3:D:594:THR:HG23	1.99	0.62
1:E:892:THR:HG22	2:F:804:ARG:HE	1.64	0.62
1:E:1003:ASN:ND2	1:E:1157:THR:HG21	2.13	0.62
1:E:1115:THR:HG21	1:E:1160:PRO:HG2	1.81	0.62
3:G:201:LEU:HB3	3:G:212:LEU:CD1	2.29	0.62
3:G:326:ALA:O	3:G:337:VAL:HB	1.99	0.62
1:B:50:PHE:CD1	1:B:51:PRO:HD2	2.34	0.62
1:B:469:MET:SD	1:B:795:LEU:CD1	2.87	0.62
1:B:921:MET:HE1	2:C:614:GLN:OE1	1.98	0.62
2:C:347:ASN:HD21	2:C:349:ALA:CB	2.11	0.62
2:C:602:ASP:OD1	2:C:603:ALA:N	2.32	0.62
2:C:853:LEU:O	2:C:855:VAL:HG23	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:943:ILE:HD12	2:C:956:LEU:HG	1.81	0.62
1:E:856:CYS:O	1:E:859:ALA:HB3	2.00	0.62
2:F:685:TYR:O	2:F:687:ARG:HG3	1.98	0.62
3:G:58:LEU:HD13	3:G:81:TRP:HZ3	1.62	0.62
3:G:255:HIS:CG	3:G:256:HIS:H	2.18	0.62
3:G:597:ARG:HD2	3:G:597:ARG:C	2.23	0.62
4:Y:44:DA:H2''	4:Y:45:DT:OP2	1.98	0.62
1:B:501:MET:HG3	1:B:815:LEU:HD21	1.82	0.62
3:D:562:THR:CG2	3:D:594:THR:HG23	2.29	0.62
1:E:779:ASP:C	1:E:781:ASN:H	2.07	0.62
1:E:1102:MET:HE3	1:E:1107:TYR:HB2	1.81	0.62
2:F:384:ARG:HD3	2:F:786:ARG:O	2.00	0.62
2:F:935:ARG:O	2:F:937:PRO:HD3	1.99	0.62
3:G:246:ALA:HB1	3:G:251:GLN:NE2	2.14	0.62
1:B:234:GLN:C	1:B:236:TRP:H	2.08	0.62
1:B:856:CYS:O	1:B:859:ALA:HB3	2.00	0.62
1:B:1102:MET:CE	1:B:1107:TYR:HB2	2.30	0.62
1:B:1127:ALA:HB2	2:C:25:ARG:HD2	1.82	0.62
3:D:425:ARG:O	3:D:427:GLU:N	2.32	0.62
3:D:531:GLU:H	3:D:533:THR:HG23	1.65	0.62
1:E:98:GLU:O	1:E:102:GLU:HG3	2.00	0.62
1:E:282:LEU:HD21	1:E:307:HIS:HB2	1.81	0.62
1:E:1078:LEU:HD22	1:E:1115:THR:HG22	1.80	0.62
2:F:819:GLU:CD	2:F:821:VAL:HG13	2.24	0.62
3:G:239:THR:HG23	3:G:242:ARG:HB2	1.81	0.62
3:G:301:LEU:H	3:G:568:THR:HG23	1.64	0.62
4:X:2:5IU:H2''	4:X:3:5IU:O5'	2.00	0.62
1:B:139:LEU:HD21	1:B:377:ARG:HH12	1.65	0.62
1:B:949:ALA:O	1:B:953:THR:HG23	1.99	0.62
2:C:382:PRO:HB2	2:C:421:PHE:CE1	2.35	0.62
2:C:384:ARG:HD3	2:C:786:ARG:O	1.99	0.62
3:D:79:GLN:C	3:D:81:TRP:H	2.08	0.62
3:D:89:GLN:OE1	3:D:89:GLN:HA	2.00	0.62
2:F:569:MET:O	2:F:573:ILE:HG13	2.00	0.62
2:F:853:LEU:O	2:F:855:VAL:HG23	1.99	0.62
2:F:1099:PRO:HG2	2:F:1100:GLU:OE1	1.99	0.62
3:G:234:PRO:O	3:G:236:ASP:N	2.33	0.62
3:G:239:THR:C	3:G:241:HIS:N	2.53	0.62
2:C:207:LEU:HD12	2:C:234:ILE:HD13	1.82	0.62
3:D:205:THR:CA	4:X:3:5IU:OP1	2.32	0.62
1:E:234:GLN:C	1:E:236:TRP:H	2.06	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:577:PRO:HB2	1:E:735:LEU:HD22	1.82	0.62
1:E:893:LEU:HB3	2:F:802:TYR:CE2	2.35	0.62
2:F:1055:ASP:O	2:F:1055:ASP:CG	2.42	0.62
3:G:389:ASP:C	3:G:391:THR:N	2.52	0.62
3:G:562:THR:HB	3:G:594:THR:H	1.63	0.62
1:B:1040:ILE:HD11	1:B:1168:MET:CE	2.29	0.62
3:D:177:LYS:O	3:D:180:THR:HG22	2.00	0.62
3:D:308:ALA:O	3:D:597:ARG:NH2	2.33	0.62
3:D:397:LEU:HD13	3:D:580:TYR:HE2	1.65	0.62
1:E:746:GLY:N	1:E:808:ARG:NH1	2.46	0.62
2:F:533:LEU:CD1	2:F:537:MET:HE3	2.29	0.62
2:F:678:LEU:CD2	2:F:730:SER:HB3	2.28	0.62
2:F:952:ILE:HD13	2:F:952:ILE:N	2.14	0.62
3:G:330:SER:HB3	3:G:337:VAL:HG23	1.80	0.62
1:B:246:LEU:HD23	1:B:307:HIS:HE2	1.65	0.62
2:C:442:ARG:HG3	2:C:442:ARG:HH11	1.65	0.62
3:D:106:ARG:HB3	3:D:108:TYR:CE1	2.35	0.62
3:D:239:THR:C	3:D:241:HIS:N	2.55	0.62
3:D:244:LEU:HD11	3:D:285:ALA:CB	2.30	0.62
1:E:676:ALA:O	2:F:816:ALA:HB2	1.98	0.62
1:E:802:LEU:HD22	1:E:806:LEU:HD22	1.81	0.62
1:E:1102:MET:CE	1:E:1107:TYR:HB2	2.30	0.62
3:G:271:ALA:O	3:G:274:ILE:HG12	1.99	0.62
4:Y:15:DG:H1'	4:Y:16:DA:OP1	1.99	0.62
1:B:8:LEU:HD13	1:B:10:PRO:HD3	1.82	0.62
1:B:558:VAL:HG22	1:B:563:GLU:HB3	1.82	0.62
1:B:644:GLU:HG2	1:B:648:TYR:CE2	2.35	0.62
2:C:26:LEU:HD22	2:C:210:ARG:HH12	1.65	0.62
2:C:60:ILE:N	2:C:60:ILE:HD12	2.15	0.62
3:D:204:PRO:HG3	3:D:274:ILE:CD1	2.28	0.62
3:D:366:GLY:CA	3:D:393:ILE:HG21	2.30	0.62
1:E:25:ALA:HB1	1:E:807:THR:HG21	1.82	0.62
1:E:920:LEU:HD11	2:F:448:HIS:NE2	2.15	0.62
1:E:1121:TYR:CD1	2:F:58:ALA:HB3	2.35	0.62
4:X:44:DA:H2''	4:X:45:DT:OP2	1.99	0.62
1:B:947:ARG:H	1:B:947:ARG:CD	2.08	0.62
3:D:275:ASP:OD1	4:X:2:5IU:O4	2.18	0.62
1:E:527:ARG:CB	1:E:576:ILE:HD11	2.23	0.62
1:E:893:LEU:HB3	2:F:802:TYR:HE2	1.65	0.62
2:F:347:ASN:HD21	2:F:349:ALA:H	1.46	0.62
2:F:464:ARG:O	2:F:505:GLY:HA2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:562:GLN:OE1	4:X:46:5IU:I5	2.88	0.61
1:B:924:LEU:CD2	1:B:949:ALA:HB1	2.30	0.61
2:C:1055:ASP:CB	2:C:1118:ARG:NH2	2.60	0.61
3:D:234:PRO:O	3:D:236:ASP:N	2.32	0.61
3:D:462:MET:HE1	3:D:534:TRP:NE1	2.15	0.61
1:E:771:ARG:HG2	1:E:771:ARG:HH11	1.64	0.61
1:E:1062:LEU:HD21	1:E:1113:LEU:HD22	1.82	0.61
2:F:676:CYS:HA	2:F:728:TYR:HB3	1.82	0.61
3:G:531:GLU:H	3:G:533:THR:HG23	1.64	0.61
1:B:11:LEU:CD1	1:B:99:ARG:HD2	2.29	0.61
1:B:56:VAL:CG1	1:B:124:ALA:HA	2.30	0.61
1:B:233:LYS:O	1:B:237:ARG:HG3	1.99	0.61
1:B:649:ARG:HB2	1:B:649:ARG:HH11	1.65	0.61
1:B:916:ILE:HG21	2:C:448:HIS:NE2	2.15	0.61
2:C:250:ASP:OD1	2:C:291:GLY:HA3	2.00	0.61
2:F:382:PRO:HB2	2:F:421:PHE:CE1	2.35	0.61
4:Y:2:5IU:H2''	4:Y:3:5IU:O5'	1.99	0.61
1:B:947:ARG:CG	1:B:1086:LEU:HD21	2.29	0.61
1:B:1071:ARG:HB3	1:B:1076:TYR:HD2	1.65	0.61
2:C:681:ASN:ND2	2:C:732:ILE:H	1.97	0.61
1:E:795:LEU:HA	1:E:798:ASP:HB2	1.82	0.61
3:G:79:GLN:C	3:G:81:TRP:H	2.09	0.61
3:G:255:HIS:CA	3:G:259:ASN:HB2	2.28	0.61
3:G:365:SER:HB3	3:G:390:PHE:CE2	2.35	0.61
1:B:795:LEU:HA	1:B:798:ASP:HB2	1.82	0.61
1:B:1132:GLU:HG3	1:B:1159:ARG:NH2	2.16	0.61
2:C:401:PRO:C	2:C:403:LEU:H	2.08	0.61
2:C:678:LEU:CD2	2:C:730:SER:HB3	2.29	0.61
2:C:952:ILE:HD13	2:C:952:ILE:N	2.16	0.61
3:D:247:GLN:HE22	4:X:6:DA:C5'	2.14	0.61
3:D:256:HIS:CG	3:D:257:ALA:H	2.19	0.61
1:B:61:VAL:HB	1:B:126:VAL:HG13	1.81	0.61
1:B:275:GLU:OE1	1:B:276:GLU:HG2	2.00	0.61
1:B:807:THR:HG21	1:B:808:ARG:HH21	1.66	0.61
1:B:924:LEU:HD23	1:B:953:THR:CG2	2.30	0.61
1:B:1056:MET:O	1:B:1058:VAL:HG23	2.00	0.61
2:C:895:GLU:HG3	2:C:899:ARG:NH2	2.15	0.61
3:D:366:GLY:C	3:D:393:ILE:HG21	2.26	0.61
1:E:604:MET:SD	1:E:704:GLU:HB2	2.41	0.61
2:F:60:ILE:N	2:F:60:ILE:HD12	2.15	0.61
2:F:146:LEU:HB3	2:F:169:TRP:NE1	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:199:SER:O	2:F:200:ALA:C	2.43	0.61
3:G:278:MET:HG2	4:Y:2:5IU:I5	2.71	0.61
2:C:1055:ASP:CG	2:C:1055:ASP:O	2.42	0.61
3:D:223:LEU:CB	3:D:224:PRO:HD2	2.31	0.61
3:D:392:ASP:O	3:D:576:ARG:HG2	2.00	0.61
1:E:834:HIS:CE1	1:E:847:PRO:HB3	2.35	0.61
1:E:924:LEU:HD23	1:E:953:THR:CG2	2.30	0.61
2:F:25:ARG:HG3	2:F:25:ARG:HH11	1.65	0.61
2:F:545:GLN:O	2:F:547:VAL:HG23	2.00	0.61
3:G:528:PRO:O	3:G:529:GLU:HB2	1.99	0.61
1:B:1062:LEU:HD21	1:B:1113:LEU:HD22	1.83	0.61
2:C:286:LEU:H	2:C:292:GLU:HA	1.66	0.61
3:D:115:ASN:O	3:D:119:VAL:HG23	2.01	0.61
1:E:275:GLU:HG3	1:E:276:GLU:N	2.15	0.61
1:E:598:TRP:CZ2	2:F:857:PHE:HB3	2.35	0.61
1:E:624:ASN:HB2	1:E:627:ASP:OD2	2.01	0.61
1:E:947:ARG:CG	1:E:1086:LEU:HD21	2.30	0.61
2:F:25:ARG:HH11	2:F:25:ARG:CG	2.14	0.61
2:F:250:ASP:OD1	2:F:291:GLY:HA3	1.99	0.61
2:F:519:THR:HG23	2:F:521:GLN:N	2.16	0.61
3:G:62:GLU:HB2	3:G:66:PRO:HG2	1.83	0.61
3:G:253:LEU:HD22	3:G:255:HIS:HE2	1.66	0.61
3:G:259:ASN:O	3:G:260:PRO:O	2.18	0.61
3:G:286:LEU:HD13	3:G:292:VAL:HG21	1.83	0.61
1:B:908:GLY:O	1:B:1055:PHE:HB3	2.01	0.61
2:C:584:LEU:CD2	2:C:632:VAL:HG21	2.31	0.61
2:C:1082:ARG:NH1	2:C:1082:ARG:HB2	2.16	0.61
3:D:112:MET:HE2	3:D:112:MET:HA	1.81	0.61
3:D:326:ALA:O	3:D:337:VAL:HB	2.00	0.61
1:E:265:TRP:O	1:E:265:TRP:CD1	2.53	0.61
2:F:433:ARG:NH1	2:F:803:ALA:HA	2.15	0.61
1:B:42:LEU:HB2	1:B:44:LEU:HD13	1.82	0.61
1:B:634:ASP:OD1	1:B:636:HIS:ND1	2.34	0.61
2:C:654:PHE:O	2:C:660:ASN:ND2	2.33	0.61
1:E:52:ARG:HB2	1:E:53:PRO:HD2	1.83	0.61
1:E:275:GLU:O	1:E:277:THR:HG23	2.01	0.61
1:E:306:ARG:O	1:E:307:HIS:CB	2.48	0.61
1:E:597:LEU:O	1:E:601:GLN:HG3	2.01	0.61
2:F:62:PHE:N	2:F:63:PRO:HD3	2.16	0.61
3:G:462:MET:HE1	3:G:534:TRP:NE1	2.16	0.61
1:B:1061:MET:HG3	2:C:48:MET:HE3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:25:ARG:HG3	2:C:25:ARG:HH11	1.66	0.61
3:D:91:VAL:HG12	3:D:100:MET:CB	2.30	0.61
1:E:405:PRO:O	1:E:406:GLU:HB2	2.01	0.61
1:E:641:VAL:O	1:E:644:GLU:HB3	2.01	0.61
1:E:645:PHE:HA	1:E:648:TYR:CD2	2.35	0.61
1:E:1040:ILE:HD11	1:E:1168:MET:CE	2.30	0.61
2:F:37:VAL:HG21	2:F:42:MET:HB3	1.83	0.61
2:F:161:ALA:HA	2:F:164:TRP:NE1	2.16	0.61
3:G:51:VAL:CG2	3:G:276:LEU:HD12	2.30	0.61
3:G:106:ARG:HB3	3:G:108:TYR:CE1	2.36	0.61
2:C:62:PHE:N	2:C:63:PRO:HD3	2.16	0.60
2:C:146:LEU:HB3	2:C:169:TRP:NE1	2.15	0.60
3:D:134:GLU:HB3	3:D:332:LEU:CD2	2.31	0.60
1:E:56:VAL:CG1	1:E:124:ALA:HA	2.30	0.60
1:E:233:LYS:O	1:E:237:ARG:HG3	2.01	0.60
1:E:924:LEU:CD2	1:E:949:ALA:HB1	2.30	0.60
1:E:1071:ARG:HD3	1:E:1076:TYR:CE2	2.31	0.60
3:G:177:LYS:O	3:G:180:THR:HG22	2.01	0.60
4:X:15:DG:H1'	4:X:16:DA:OP1	2.00	0.60
1:B:52:ARG:HB2	1:B:53:PRO:HD2	1.83	0.60
3:D:271:ALA:C	3:D:273:MET:H	2.09	0.60
1:E:65:THR:HG22	1:E:67:ALA:H	1.65	0.60
1:E:908:GLY:O	1:E:1055:PHE:HB3	2.01	0.60
2:C:989:ALA:O	2:C:991:GLY:N	2.35	0.60
1:E:8:LEU:HD13	1:E:10:PRO:HD3	1.82	0.60
2:F:664:LEU:HB3	2:F:715:LEU:HD13	1.83	0.60
3:G:524:PRO:HD2	3:G:527:LEU:HD12	1.84	0.60
1:B:306:ARG:O	1:B:307:HIS:CB	2.48	0.60
1:B:641:VAL:O	1:B:644:GLU:HB3	2.01	0.60
2:C:251:ILE:HD13	2:C:252:LYS:N	2.17	0.60
2:C:376:PHE:CE2	2:C:752:ILE:HG23	2.37	0.60
2:C:503:ARG:HD3	2:C:867:THR:O	2.01	0.60
3:D:95:ASP:OD2	3:D:96:GLU:HG3	2.01	0.60
3:D:385:VAL:HG21	3:D:396:ARG:CZ	2.30	0.60
1:E:42:LEU:HB2	1:E:44:LEU:HD13	1.82	0.60
1:E:860:LEU:O	1:E:861:CYS:HB2	2.01	0.60
2:F:87:ASN:HD22	2:F:87:ASN:C	2.10	0.60
4:Y:46:5IU:H4'	4:Y:46:5IU:OP1	2.00	0.60
1:B:936:GLU:O	1:B:937:GLU:C	2.45	0.60
2:C:87:ASN:HD22	2:C:87:ASN:C	2.08	0.60
3:D:62:GLU:HB2	3:D:66:PRO:HG2	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:163:THR:OG1	3:D:325:ARG:NH2	2.35	0.60
3:D:253:LEU:CB	3:D:255:HIS:NE2	2.63	0.60
3:D:562:THR:HG21	3:D:594:THR:HA	1.83	0.60
1:E:469:MET:SD	1:E:795:LEU:CD1	2.89	0.60
1:E:892:THR:CG2	2:F:804:ARG:HE	2.14	0.60
2:F:347:ASN:ND2	2:F:349:ALA:N	2.43	0.60
2:F:396:MET:HE2	2:F:674:VAL:CG2	2.32	0.60
3:G:405:ILE:H	3:G:405:ILE:HD12	1.66	0.60
4:X:46:5IU:OP1	4:X:46:5IU:H4'	2.00	0.60
1:B:265:TRP:O	1:B:265:TRP:CD1	2.54	0.60
2:C:207:LEU:CB	2:C:208:PRO:HD2	2.32	0.60
2:C:389:LEU:HD22	2:C:678:LEU:HD11	1.83	0.60
2:C:971:LEU:HD23	4:X:10:DA:C5'	2.30	0.60
2:C:1118:ARG:NH2	2:C:1118:ARG:HG2	2.10	0.60
3:D:130:ILE:HD12	3:D:130:ILE:N	2.08	0.60
1:E:275:GLU:OE1	1:E:276:GLU:HG2	2.02	0.60
1:E:821:VAL:HG22	1:E:831:THR:HA	1.83	0.60
1:E:1127:ALA:HB2	2:F:25:ARG:HD2	1.83	0.60
2:F:309:ASP:O	2:F:313:LEU:HG	2.01	0.60
2:F:440:SER:O	2:F:441:ASP:HB2	2.01	0.60
3:G:77:GLU:C	3:G:79:GLN:H	2.10	0.60
1:B:121:MET:C	1:B:123:GLU:H	2.08	0.60
2:C:972:LEU:HA	2:C:1000:LEU:HD13	1.82	0.60
2:C:997:ARG:HG2	2:C:997:ARG:HH11	1.66	0.60
3:D:225:LEU:O	3:D:229:GLN:HB2	2.01	0.60
1:E:1056:MET:O	1:E:1058:VAL:HG23	2.01	0.60
2:F:8:ASN:HD21	2:F:343:LEU:CD1	2.14	0.60
2:F:197:LEU:HD13	2:F:230:LEU:HA	1.82	0.60
2:F:228:GLN:HG3	2:F:319:SER:HB3	1.83	0.60
2:F:1009:PRO:O	2:F:1011:LEU:HD22	2.02	0.60
3:G:112:MET:HE2	3:G:112:MET:HA	1.83	0.60
3:G:163:THR:OG1	3:G:325:ARG:NH2	2.35	0.60
1:B:282:LEU:HD21	1:B:307:HIS:CB	2.31	0.60
1:B:307:HIS:HB3	1:B:308:PRO:HD2	1.83	0.60
2:C:130:LYS:HD2	2:C:692:LEU:HD21	1.84	0.60
2:C:989:ALA:C	2:C:991:GLY:N	2.57	0.60
3:D:300:GLN:CD	3:D:568:THR:HG22	2.27	0.60
1:E:702:GLU:HB2	2:F:449:PRO:CG	2.32	0.60
1:E:705:HIS:CD2	2:F:487:GLU:HG3	2.36	0.60
3:G:156:VAL:O	3:G:160:VAL:HG23	2.01	0.60
2:C:161:ALA:HA	2:C:164:TRP:NE1	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:440:SER:O	2:C:441:ASP:HB2	2.01	0.60
2:C:1099:PRO:HG2	2:C:1100:GLU:OE1	2.01	0.60
3:D:201:LEU:HD13	3:D:216:LEU:HD12	1.84	0.60
1:E:931:VAL:HG12	1:E:932:ALA:H	1.65	0.60
1:E:1071:ARG:HB3	1:E:1076:TYR:HD2	1.67	0.60
1:B:459:LYS:CE	1:B:860:LEU:HB2	2.29	0.60
1:B:821:VAL:HG22	1:B:831:THR:HA	1.84	0.60
1:B:879:GLN:HB3	1:E:883:VAL:HG11	1.84	0.60
2:C:519:THR:HG23	2:C:521:GLN:N	2.15	0.60
3:D:188:LEU:HD21	3:D:291:ARG:HH22	1.67	0.60
1:E:634:ASP:OD1	1:E:636:HIS:ND1	2.35	0.60
2:F:401:PRO:C	2:F:403:LEU:H	2.09	0.60
2:F:943:ILE:HD12	2:F:956:LEU:HG	1.83	0.60
3:G:3:LEU:HD23	3:G:6:GLN:HG3	1.84	0.60
3:G:246:ALA:HA	3:G:253:LEU:HD23	1.84	0.60
4:Y:2:5IU:H2'	4:Y:3:5IU:H5'	1.84	0.60
1:B:227:ALA:O	1:B:231:THR:HG23	2.01	0.59
1:B:802:LEU:HD22	1:B:806:LEU:HD22	1.82	0.59
1:B:881:ASN:ND2	1:E:883:VAL:HA	2.17	0.59
1:B:931:VAL:HG12	1:B:932:ALA:H	1.67	0.59
2:C:164:TRP:C	2:C:167:PRO:HD2	2.27	0.59
2:C:943:ILE:HG12	2:C:954:GLY:N	2.17	0.59
2:C:1009:PRO:O	2:C:1011:LEU:HD22	2.02	0.59
2:F:1082:ARG:NH1	2:F:1082:ARG:HB2	2.17	0.59
1:B:275:GLU:O	1:B:277:THR:HG23	2.02	0.59
1:B:761:ARG:HG3	1:B:822:ARG:NH2	2.18	0.59
2:C:199:SER:O	2:C:200:ALA:C	2.45	0.59
1:E:50:PHE:CD1	1:E:51:PRO:HD2	2.37	0.59
1:E:282:LEU:HD21	1:E:307:HIS:CB	2.33	0.59
3:G:31:GLU:O	3:G:32:HIS:C	2.45	0.59
3:G:243:LEU:HD13	3:G:261:LEU:HD21	1.82	0.59
4:X:16:DA:H2''	4:X:17:DG:O5'	2.02	0.59
1:B:901:TRP:CZ3	1:B:1060:GLY:HA2	2.37	0.59
2:C:78:PRO:HD2	2:C:192:ARG:HH11	1.64	0.59
2:C:1072:LEU:O	2:C:1076:GLU:HG2	2.02	0.59
3:D:71:CYS:HB3	3:D:74:GLU:HB3	1.85	0.59
3:D:444:LEU:HD21	3:D:558:THR:HG21	1.83	0.59
1:E:225:ILE:O	1:E:229:ILE:HG13	2.02	0.59
1:E:246:LEU:HD23	1:E:307:HIS:HE2	1.68	0.59
1:E:702:GLU:HB2	2:F:449:PRO:HG2	1.83	0.59
2:F:294:ASP:O	2:F:296:GLY:N	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:75:ILE:O	3:G:78:LEU:HD13	2.02	0.59
1:B:65:THR:HG22	1:B:66:GLU:N	2.16	0.59
1:B:153:ILE:HG22	1:B:349:LEU:C	2.27	0.59
3:D:62:GLU:O	3:D:69:ALA:HB2	2.03	0.59
3:D:239:THR:HG23	3:D:242:ARG:HB2	1.83	0.59
3:D:267:VAL:HG22	3:D:293:ILE:HB	1.83	0.59
1:E:448:ARG:HG3	1:E:748:GLU:OE1	2.01	0.59
2:F:77:LEU:CD2	2:F:192:ARG:HD2	2.31	0.59
3:G:178:THR:HG23	3:G:179:THR:HG23	1.84	0.59
3:G:225:LEU:HD23	3:G:225:LEU:C	2.28	0.59
1:B:831:THR:OG1	1:B:831:THR:O	2.21	0.59
2:C:8:ASN:HD21	2:C:343:LEU:CD1	2.16	0.59
3:D:243:LEU:HD12	3:D:244:LEU:HD23	1.84	0.59
3:D:259:ASN:O	3:D:260:PRO:O	2.20	0.59
1:E:222:HIS:HE1	1:E:226:VAL:HG21	1.67	0.59
2:F:850:GLN:NE2	4:Y:7:5IU:HN3	1.92	0.59
1:B:175:LEU:HD13	1:B:179:ILE:CG2	2.31	0.59
1:B:645:PHE:HA	1:B:648:TYR:HD2	1.68	0.59
1:B:1115:THR:HG21	1:B:1160:PRO:HG2	1.83	0.59
1:B:1132:GLU:HA	1:B:1159:ARG:NH2	2.18	0.59
1:E:121:MET:C	1:E:123:GLU:H	2.10	0.59
2:F:266:ARG:NH1	2:F:269:PHE:CD1	2.70	0.59
3:G:316:TYR:HE1	3:G:604:PHE:CB	2.14	0.59
1:B:248:GLU:CG	1:B:288:LYS:O	2.50	0.59
1:B:568:ARG:O	1:B:572:THR:HB	2.03	0.59
1:B:879:GLN:O	1:E:883:VAL:HG21	2.02	0.59
1:B:893:LEU:HB3	2:C:802:TYR:CE2	2.38	0.59
2:C:37:VAL:HG21	2:C:42:MET:HB3	1.84	0.59
2:C:228:GLN:HG3	2:C:319:SER:HB3	1.84	0.59
2:C:764:ASP:HB2	2:C:767:LEU:HD21	1.85	0.59
3:D:271:ALA:O	3:D:274:ILE:HG12	2.03	0.59
1:E:560:SER:HB2	4:Y:48:DG:OP1	2.03	0.59
2:F:376:PHE:CE2	2:F:752:ILE:HG23	2.37	0.59
2:F:764:ASP:HB2	2:F:767:LEU:HD21	1.84	0.59
2:F:1114:LEU:N	2:F:1115:PRO:HD2	2.18	0.59
3:G:115:ASN:O	3:G:119:VAL:HG23	2.02	0.59
3:G:134:GLU:HB3	3:G:332:LEU:CD2	2.33	0.59
4:Y:16:DA:H2''	4:Y:17:DG:O5'	2.02	0.59
4:Y:36:DG:C2'	4:Y:37:DT:H71	2.32	0.59
1:B:365:GLU:C	1:B:367:GLY:H	2.11	0.59
1:B:500:LYS:HA	1:B:866:ALA:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:309:ASP:O	2:C:313:LEU:HG	2.03	0.59
2:C:943:ILE:HD13	2:C:943:ILE:N	2.18	0.59
3:D:52:CYS:HB3	3:D:108:TYR:CD2	2.38	0.59
3:D:405:ILE:H	3:D:405:ILE:HD12	1.68	0.59
1:E:1109:LEU:CD2	1:E:1113:LEU:HG	2.32	0.59
2:F:367:LEU:O	2:F:368:ASP:CB	2.51	0.59
2:F:1068:ARG:HG3	2:F:1102:MET:HE1	1.84	0.59
3:G:256:HIS:CD2	3:G:257:ALA:H	2.21	0.59
3:G:361:PHE:CD1	3:G:361:PHE:C	2.80	0.59
1:B:550:ARG:HG2	1:B:550:ARG:HH11	1.67	0.59
2:C:25:ARG:HH11	2:C:25:ARG:CG	2.16	0.59
2:C:736:ILE:H	2:C:736:ILE:CD1	2.13	0.59
3:D:130:ILE:H	3:D:130:ILE:CD1	2.00	0.59
3:D:307:GLY:C	3:D:597:ARG:NH2	2.61	0.59
1:E:501:MET:HG3	1:E:815:LEU:HD21	1.83	0.59
1:B:418:ALA:O	1:B:800:ARG:HD2	2.03	0.59
1:B:966:GLN:HB3	1:B:967:PRO:CD	2.32	0.59
1:B:1023:PHE:CZ	1:B:1064:GLY:HA3	2.38	0.59
1:B:1148:LYS:H	1:B:1148:LYS:HD2	1.67	0.59
3:D:526:ARG:HH12	3:D:536:MET:CE	2.07	0.59
3:D:526:ARG:HA	3:D:526:ARG:NE	2.17	0.59
1:E:762:VAL:HG13	1:E:791:GLU:CG	2.33	0.59
1:E:984:SER:HB2	1:E:985:GLN:NE2	2.17	0.59
2:F:945:LEU:CB	2:F:952:ILE:HD11	2.28	0.59
4:Y:47:DA:C2'	4:Y:48:DG:O5'	2.48	0.59
1:B:63:THR:OG1	1:B:69:THR:HG22	2.03	0.58
1:B:405:PRO:O	1:B:406:GLU:HB2	2.03	0.58
1:B:945:PHE:HE2	1:B:955:LEU:HD21	1.66	0.58
2:C:433:ARG:NH1	2:C:803:ALA:HA	2.18	0.58
3:D:213:THR:HG21	3:D:235:GLU:C	2.28	0.58
3:D:301:LEU:H	3:D:568:THR:HG23	1.68	0.58
1:E:56:VAL:HG12	1:E:124:ALA:HA	1.84	0.58
1:E:227:ALA:O	1:E:231:THR:HG23	2.03	0.58
1:E:541:MET:O	1:E:811:TRP:HZ3	1.86	0.58
3:G:91:VAL:HA	3:G:100:MET:O	2.03	0.58
1:B:275:GLU:HG3	1:B:276:GLU:N	2.15	0.58
2:C:137:GLN:HG2	2:C:697:MET:HE1	1.83	0.58
2:C:828:LEU:HD13	2:C:1028:ARG:CG	2.30	0.58
2:C:994:GLY:O	2:C:1010:PRO:HB3	2.03	0.58
1:E:675:LEU:HD12	2:F:809:ALA:HB1	1.83	0.58
1:E:704:GLU:H	1:E:704:GLU:CD	2.10	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:746:GLY:N	1:E:808:ARG:HH12	1.95	0.58
2:F:26:LEU:HD22	2:F:210:ARG:HH12	1.68	0.58
2:F:257:LEU:HD13	2:F:281:GLU:OE1	2.03	0.58
2:F:717:LEU:O	2:F:717:LEU:HD22	2.03	0.58
3:G:201:LEU:HD13	3:G:216:LEU:HD12	1.84	0.58
3:G:367:ILE:HG13	3:G:393:ILE:CG2	2.32	0.58
2:C:52:GLN:C	2:C:54:PHE:H	2.12	0.58
2:C:292:GLU:O	2:C:295:VAL:HG23	2.02	0.58
3:D:417:ARG:NH2	3:D:576:ARG:NH2	2.51	0.58
1:E:265:TRP:O	1:E:265:TRP:HD1	1.86	0.58
1:E:909:LEU:HD22	1:E:1054:GLU:CD	2.27	0.58
2:F:292:GLU:O	2:F:295:VAL:HG23	2.03	0.58
2:F:1080:MET:HG3	4:Y:11:DA:C4	2.39	0.58
1:B:65:THR:HG22	1:B:67:ALA:H	1.67	0.58
1:B:375:ARG:HD2	1:B:404:GLN:HG2	1.85	0.58
1:E:175:LEU:HD13	1:E:179:ILE:CG2	2.31	0.58
1:E:644:GLU:HG2	1:E:648:TYR:CE2	2.38	0.58
2:F:681:ASN:ND2	2:F:732:ILE:H	2.01	0.58
2:C:77:LEU:CD2	2:C:192:ARG:HD2	2.27	0.58
2:C:393:LEU:HD22	2:C:408:ILE:HD13	1.84	0.58
2:C:767:LEU:O	2:C:768:ASN:HB2	2.03	0.58
1:E:281:GLN:OE1	1:E:317:LEU:HD12	2.03	0.58
1:E:831:THR:O	1:E:831:THR:OG1	2.20	0.58
1:E:1148:LYS:H	1:E:1148:LYS:HD2	1.68	0.58
2:F:972:LEU:HD23	2:F:973:SER:N	2.19	0.58
2:F:1051:ASP:HB3	2:F:1056:ALA:HB3	1.86	0.58
3:G:213:THR:HG21	3:G:235:GLU:C	2.27	0.58
1:B:233:LYS:HZ1	1:B:269:ILE:HG12	1.67	0.58
1:B:550:ARG:HG2	1:B:550:ARG:NH1	2.18	0.58
1:B:964:PHE:HD2	1:B:964:PHE:N	2.00	0.58
2:C:951:GLN:C	2:C:952:ILE:HD13	2.29	0.58
2:C:974:VAL:HB	2:C:1039:PRO:O	2.03	0.58
2:C:1046:LEU:HD12	2:C:1117:PHE:CD2	2.39	0.58
1:E:936:GLU:O	1:E:937:GLU:C	2.45	0.58
2:F:506:ILE:HG22	2:F:507:ASP:H	1.68	0.58
2:F:536:ALA:O	2:F:537:MET:C	2.46	0.58
2:F:838:GLN:HB3	2:F:979:GLN:NE2	2.19	0.58
4:Y:20:DC:H2"	4:Y:21:DT:OP2	2.03	0.58
1:B:286:LEU:HD21	1:B:306:ARG:O	2.03	0.58
1:B:683:ARG:NE	2:C:1095:ARG:NH1	2.51	0.58
1:B:1082:LYS:HE2	1:B:1107:TYR:CZ	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:717:LEU:O	2:C:717:LEU:HD22	2.03	0.58
2:C:1109:SER:O	2:C:1113:LEU:HB2	2.04	0.58
3:D:253:LEU:HD13	3:D:255:HIS:NE2	2.18	0.58
1:E:365:GLU:C	1:E:367:GLY:H	2.11	0.58
1:E:591:LEU:O	1:E:595:GLU:HG3	2.04	0.58
1:E:730:GLU:HB2	2:F:786:ARG:HD2	1.86	0.58
2:F:207:LEU:CB	2:F:208:PRO:HD2	2.33	0.58
2:F:312:TYR:HD1	2:F:313:LEU:HD23	1.66	0.58
2:F:1109:SER:O	2:F:1113:LEU:HB2	2.03	0.58
2:F:1118:ARG:HG2	2:F:1118:ARG:NH2	2.14	0.58
3:G:225:LEU:O	3:G:229:GLN:HB2	2.04	0.58
4:X:1:5IU:O2	4:X:1:5IU:O4'	2.20	0.58
1:B:596:MET:HE1	1:B:661:LEU:HD13	1.84	0.58
1:B:860:LEU:O	1:B:861:CYS:HB2	2.04	0.58
2:C:342:ILE:HG21	2:C:721:ILE:HD11	1.84	0.58
3:D:75:ILE:O	3:D:78:LEU:HD13	2.03	0.58
3:D:77:GLU:C	3:D:79:GLN:H	2.10	0.58
3:D:417:ARG:HH11	3:D:437:GLU:HB3	1.68	0.58
1:E:42:LEU:HD21	1:E:114:LEU:HG	1.86	0.58
1:E:823:ARG:HH22	1:E:828:LYS:NZ	2.02	0.58
1:E:964:PHE:HD2	1:E:964:PHE:N	2.01	0.58
1:E:1082:LYS:HE2	1:E:1107:TYR:CZ	2.39	0.58
2:F:943:ILE:HG12	2:F:954:GLY:N	2.19	0.58
2:F:966:ARG:HH11	2:F:983:GLU:CD	2.11	0.58
1:B:823:ARG:HH22	1:B:828:LYS:NZ	2.00	0.58
1:B:924:LEU:HD21	1:B:949:ALA:HB1	1.86	0.58
1:E:568:ARG:O	1:E:572:THR:HB	2.04	0.58
1:E:631:LEU:O	1:E:631:LEU:HD23	2.04	0.58
1:E:683:ARG:NE	2:F:1095:ARG:HH12	2.01	0.58
1:E:892:THR:HG22	2:F:804:ARG:NE	2.18	0.58
2:F:185:HIS:H	2:F:188:ASN:HD21	1.51	0.58
2:F:306:LEU:HD23	2:F:306:LEU:C	2.28	0.58
2:F:373:SER:HA	2:F:726:LYS:HD3	1.86	0.58
1:B:984:SER:HB2	1:B:985:GLN:NE2	2.19	0.58
1:E:689:HIS:CG	1:E:727:MET:HE2	2.39	0.58
1:E:1132:GLU:HA	1:E:1159:ARG:NH2	2.18	0.58
2:F:712:ASP:O	2:F:715:LEU:HB2	2.03	0.58
3:G:201:LEU:CG	3:G:233:ILE:HG21	2.34	0.58
3:G:253:LEU:CD1	3:G:281:ARG:HG2	2.34	0.58
1:B:222:HIS:CE1	1:B:226:VAL:HG21	2.38	0.57
1:B:652:TRP:HA	1:B:656:GLY:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:294:ASP:O	2:C:296:GLY:N	2.36	0.57
2:C:689:LEU:HD22	2:C:708:ARG:HD2	1.86	0.57
3:D:255:HIS:CB	3:D:260:PRO:HG2	2.31	0.57
1:E:657:VAL:HG21	1:E:707:LEU:CD1	2.34	0.57
1:E:924:LEU:HD21	1:E:949:ALA:HB1	1.86	0.57
2:F:72:MET:HE1	2:F:208:PRO:CD	2.32	0.57
2:F:736:ILE:H	2:F:736:ILE:CD1	2.15	0.57
1:B:131:GLY:O	1:B:135:ARG:HB2	2.03	0.57
2:C:312:TYR:HD1	2:C:313:LEU:HD23	1.69	0.57
2:C:551:ASP:HB3	3:D:111:ARG:NH2	2.19	0.57
2:C:966:ARG:HH11	2:C:983:GLU:CD	2.11	0.57
3:D:134:GLU:HB3	3:D:332:LEU:HD23	1.84	0.57
3:D:201:LEU:CG	3:D:233:ILE:HG21	2.34	0.57
1:E:131:GLY:O	1:E:135:ARG:HB2	2.04	0.57
1:E:139:LEU:CD2	1:E:377:ARG:HH12	2.16	0.57
1:E:281:GLN:CB	1:E:283:PRO:HD2	2.34	0.57
1:E:459:LYS:CE	1:E:860:LEU:HB2	2.28	0.57
1:E:771:ARG:HD2	1:E:771:ARG:H	1.65	0.57
1:E:1132:GLU:HG3	1:E:1159:ARG:NH2	2.17	0.57
2:F:251:ILE:HD13	2:F:256:TYR:HD2	1.69	0.57
2:F:397:LEU:CD2	2:F:403:LEU:HD13	2.33	0.57
1:B:225:ILE:O	1:B:229:ILE:HG13	2.04	0.57
1:B:762:VAL:HG13	1:B:791:GLU:CG	2.34	0.57
1:B:964:PHE:N	1:B:964:PHE:CD2	2.69	0.57
1:B:1033:ALA:HA	1:B:1055:PHE:CZ	2.40	0.57
2:C:347:ASN:ND2	2:C:349:ALA:N	2.41	0.57
2:C:464:ARG:O	2:C:505:GLY:HA2	2.03	0.57
2:F:109:THR:HG23	2:F:112:ARG:NH2	2.19	0.57
3:G:109:LEU:O	3:G:110:ASN:C	2.47	0.57
3:G:278:MET:CG	4:Y:2:5IU:I5	3.22	0.57
1:B:494:GLU:HB3	1:E:545:ASP:OD1	2.04	0.57
1:B:631:LEU:O	1:B:631:LEU:HD23	2.04	0.57
2:C:251:ILE:HB	2:C:286:LEU:HD13	1.87	0.57
2:C:338:ILE:HD11	2:C:755:ILE:HD13	1.85	0.57
2:C:536:ALA:O	2:C:537:MET:C	2.47	0.57
3:D:418:TYR:OH	3:D:530:HIS:HE1	1.87	0.57
1:E:253:ASP:O	1:E:256:LYS:HD2	2.04	0.57
1:E:307:HIS:HB3	1:E:308:PRO:HD2	1.85	0.57
1:E:365:GLU:HG3	1:E:366:SER:N	2.19	0.57
1:E:652:TRP:HA	1:E:656:GLY:O	2.04	0.57
1:E:739:VAL:HG22	1:E:740:THR:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:593:ARG:O	3:G:594:THR:C	2.48	0.57
1:B:253:ASP:O	1:B:256:LYS:HD2	2.05	0.57
1:B:265:TRP:O	1:B:265:TRP:HD1	1.88	0.57
1:B:341:ARG:HA	1:B:344:ARG:HD2	1.87	0.57
2:C:141:TYR:O	2:C:142:ARG:HG2	2.04	0.57
3:D:330:SER:HB3	3:D:337:VAL:HG23	1.85	0.57
1:E:255:ARG:O	1:E:258:ASN:HB2	2.05	0.57
1:E:476:ILE:HG13	1:E:476:ILE:O	2.03	0.57
1:E:752:VAL:HG13	1:E:809:SER:CB	2.31	0.57
2:F:286:LEU:H	2:F:292:GLU:HA	1.67	0.57
2:F:767:LEU:HD23	2:F:767:LEU:N	2.20	0.57
3:G:301:LEU:H	3:G:568:THR:HG21	1.68	0.57
3:G:526:ARG:HA	3:G:526:ARG:NE	2.18	0.57
1:B:501:MET:HG3	1:B:815:LEU:CD2	2.33	0.57
1:B:689:HIS:CG	1:B:727:MET:HE2	2.40	0.57
2:C:306:LEU:HD23	2:C:306:LEU:C	2.30	0.57
2:C:963:GLY:HA2	2:C:987:TYR:OH	2.04	0.57
3:D:253:LEU:HD13	3:D:255:HIS:CE1	2.39	0.57
1:E:278:ASN:O	1:E:284:GLU:HG2	2.05	0.57
1:E:558:VAL:CG2	1:E:563:GLU:HB3	2.35	0.57
2:F:104:GLU:HA	2:F:112:ARG:HH11	1.68	0.57
2:F:422:ILE:HD12	2:F:661:ILE:HG21	1.86	0.57
3:G:267:VAL:HG22	3:G:293:ILE:HB	1.87	0.57
1:B:281:GLN:OE1	1:B:317:LEU:HD12	2.04	0.57
1:B:771:ARG:HD2	1:B:771:ARG:H	1.69	0.57
1:B:985:GLN:CD	1:B:985:GLN:N	2.63	0.57
1:B:1172:PHE:CG	1:B:1173:ALA:N	2.73	0.57
2:C:266:ARG:NH1	2:C:269:PHE:CD1	2.72	0.57
2:C:367:LEU:O	2:C:368:ASP:CB	2.53	0.57
2:C:1080:MET:HG3	4:X:11:DA:C4	2.40	0.57
3:D:226:THR:C	3:D:228:GLU:N	2.61	0.57
3:D:259:ASN:CB	3:D:260:PRO:HD2	2.11	0.57
1:E:25:ALA:HB1	1:E:807:THR:HG23	1.85	0.57
1:E:365:GLU:HG3	1:E:366:SER:H	1.70	0.57
1:E:763:GLN:HA	1:E:763:GLN:HE21	1.69	0.57
1:E:1033:ALA:HA	1:E:1055:PHE:CZ	2.40	0.57
2:F:251:ILE:HD13	2:F:252:LYS:N	2.19	0.57
2:F:994:GLY:O	2:F:1010:PRO:HB3	2.04	0.57
1:B:488:ARG:NH2	1:E:541:MET:HE1	2.20	0.57
2:C:5:TYR:HE2	2:C:267:HIS:HD2	1.52	0.57
2:C:263:ARG:HA	2:C:273:GLU:HG2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:506:ILE:HG22	2:C:507:ASP:H	1.70	0.57
2:C:699:GLN:C	2:C:701:PRO:HD3	2.30	0.57
3:D:41:LEU:O	3:D:44:HIS:HB3	2.05	0.57
3:D:199:ILE:HA	3:D:265:VAL:HG13	1.85	0.57
1:E:341:ARG:HA	1:E:344:ARG:HD2	1.87	0.57
1:E:501:MET:HG3	1:E:815:LEU:CD2	2.35	0.57
2:F:1046:LEU:HD12	2:F:1117:PHE:CD2	2.39	0.57
3:G:62:GLU:O	3:G:69:ALA:HB2	2.04	0.57
3:G:175:THR:HG22	3:G:176:GLY:N	2.20	0.57
4:Y:2:5IU:C3'	4:Y:3:5IU:C5'	2.82	0.57
1:B:278:ASN:O	1:B:284:GLU:HG2	2.05	0.57
2:C:246:TYR:CE2	2:C:275:PRO:HD3	2.40	0.57
3:D:243:LEU:HD12	3:D:261:LEU:CD2	2.33	0.57
1:E:83:LEU:HD13	1:E:114:LEU:HD11	1.85	0.57
1:E:286:LEU:HD21	1:E:306:ARG:O	2.04	0.57
1:E:761:ARG:HG3	1:E:822:ARG:NH2	2.20	0.57
2:F:28:ASP:N	2:F:29:PRO:CD	2.60	0.57
2:F:185:HIS:H	2:F:188:ASN:ND2	2.03	0.57
3:G:455:ASN:ND2	3:G:532:THR:O	2.37	0.57
1:B:657:VAL:HG21	1:B:707:LEU:CD1	2.35	0.57
3:D:109:LEU:O	3:D:110:ASN:C	2.47	0.57
3:D:243:LEU:CD1	3:D:244:LEU:CG	2.79	0.57
1:E:1027:ILE:HA	1:E:1172:PHE:CD1	2.40	0.57
2:F:52:GLN:C	2:F:54:PHE:H	2.13	0.57
2:F:767:LEU:O	2:F:768:ASN:HB2	2.04	0.57
2:F:939:GLN:HE21	2:F:940:SER:H	1.52	0.57
2:F:1012:ALA:O	2:F:1014:GLU:N	2.38	0.57
3:G:366:GLY:CA	3:G:393:ILE:HG21	2.35	0.57
1:B:604:MET:SD	1:B:704:GLU:HB2	2.45	0.56
1:B:739:VAL:HG22	1:B:740:THR:H	1.70	0.56
2:C:160:GLU:O	2:C:162:GLN:N	2.35	0.56
2:C:185:HIS:H	2:C:188:ASN:HD21	1.53	0.56
2:C:260:LEU:C	2:C:262:THR:H	2.13	0.56
2:C:1012:ALA:O	2:C:1014:GLU:N	2.38	0.56
3:D:243:LEU:HD13	3:D:261:LEU:HD21	1.83	0.56
1:E:15:LEU:HD13	1:E:40:LEU:CD2	2.34	0.56
1:E:248:GLU:CG	1:E:288:LYS:O	2.52	0.56
1:E:901:TRP:CZ3	1:E:1060:GLY:HA2	2.40	0.56
1:E:977:LEU:HD21	1:E:990:LEU:CD2	2.33	0.56
1:E:985:GLN:CD	1:E:985:GLN:N	2.63	0.56
3:G:77:GLU:HG2	3:G:79:GLN:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:763:GLN:HA	1:B:763:GLN:HE21	1.70	0.56
2:C:251:ILE:HD13	2:C:256:TYR:HD2	1.69	0.56
2:C:367:LEU:HB3	2:C:761:LEU:HD23	1.85	0.56
3:D:201:LEU:HG	3:D:233:ILE:CG2	2.35	0.56
3:D:582:ASP:C	3:D:584:ARG:H	2.14	0.56
1:E:107:LYS:H	1:E:107:LYS:CD	2.17	0.56
1:E:148:PHE:N	2:F:126:GLN:HE22	2.03	0.56
1:E:184:PHE:CE1	1:E:188:LYS:HG2	2.40	0.56
1:E:208:ILE:O	1:E:211:PRO:HD3	2.06	0.56
1:E:626:LEU:HD13	1:E:626:LEU:C	2.30	0.56
2:F:367:LEU:HB3	2:F:761:LEU:HD23	1.87	0.56
3:G:226:THR:C	3:G:228:GLU:N	2.61	0.56
3:G:397:LEU:HD13	3:G:580:TYR:HE2	1.70	0.56
1:B:83:LEU:HD13	1:B:114:LEU:HD11	1.86	0.56
1:B:732:ASP:C	1:B:734:HIS:H	2.14	0.56
1:B:762:VAL:HG13	1:B:791:GLU:CD	2.30	0.56
2:C:25:ARG:O	2:C:26:LEU:HB3	2.05	0.56
2:C:104:GLU:HA	2:C:112:ARG:HH11	1.70	0.56
2:C:405:PRO:HG2	2:C:658:PRO:CB	2.35	0.56
2:C:410:VAL:HG13	2:C:676:CYS:HB2	1.86	0.56
3:D:274:ILE:HA	4:X:2:5IU:I5	2.75	0.56
3:D:530:HIS:CE1	3:D:534:TRP:HZ3	2.23	0.56
1:E:153:ILE:HB	1:E:348:GLU:HB3	1.87	0.56
1:E:269:ILE:O	1:E:270:SER:HB2	2.06	0.56
1:E:604:MET:HG3	1:E:705:HIS:CE1	2.40	0.56
1:E:823:ARG:C	1:E:825:GLY:H	2.14	0.56
1:E:1023:PHE:CZ	1:E:1064:GLY:HA3	2.40	0.56
2:F:12:VAL:O	2:F:15:ALA:HB3	2.05	0.56
2:F:141:TYR:O	2:F:142:ARG:HG2	2.04	0.56
2:F:338:ILE:HD11	2:F:755:ILE:HD13	1.86	0.56
2:F:895:GLU:HG3	2:F:899:ARG:HH22	1.70	0.56
2:F:974:VAL:HB	2:F:1039:PRO:O	2.05	0.56
2:F:1072:LEU:O	2:F:1076:GLU:HG2	2.05	0.56
3:G:71:CYS:HB3	3:G:74:GLU:HB3	1.87	0.56
3:G:95:ASP:OD2	3:G:96:GLU:HG3	2.04	0.56
3:G:387:GLN:O	3:G:389:ASP:N	2.38	0.56
4:X:2:5IU:C3'	4:X:3:5IU:C5'	2.84	0.56
4:Y:1:5IU:O2	4:Y:1:5IU:O4'	2.24	0.56
1:B:213:PRO:C	1:B:215:ASP:H	2.12	0.56
1:B:834:HIS:CE1	1:B:847:PRO:HB3	2.41	0.56
1:B:1068:LEU:HD23	1:B:1079:LEU:HD23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:257:LEU:HD13	2:C:281:GLU:OE1	2.05	0.56
2:C:373:SER:HA	2:C:726:LYS:HD3	1.87	0.56
2:C:751:LEU:O	2:C:755:ILE:HG12	2.05	0.56
2:C:1051:ASP:HB3	2:C:1056:ALA:HB3	1.88	0.56
3:D:462:MET:HE1	3:D:534:TRP:HE1	1.71	0.56
3:D:555:SER:O	3:D:585:ILE:HG13	2.06	0.56
3:D:593:ARG:O	3:D:594:THR:C	2.48	0.56
1:E:375:ARG:HD2	1:E:404:GLN:HG2	1.88	0.56
2:F:342:ILE:HG21	2:F:721:ILE:HD11	1.87	0.56
1:B:448:ARG:HG3	1:B:748:GLU:OE1	2.03	0.56
3:D:365:SER:HB3	3:D:390:PHE:CE2	2.40	0.56
1:E:507:GLU:HA	1:E:850:ALA:CB	2.35	0.56
2:F:98:LEU:HD21	2:F:175:TYR:CG	2.40	0.56
2:F:155:VAL:H	2:F:162:GLN:NE2	2.02	0.56
2:F:943:ILE:CD1	2:F:956:LEU:HG	2.35	0.56
3:G:213:THR:HG21	3:G:235:GLU:O	2.06	0.56
1:B:739:VAL:CG2	1:B:740:THR:N	2.69	0.56
2:C:1101:THR:O	2:C:1105:ILE:HG13	2.05	0.56
3:D:390:PHE:O	3:D:392:ASP:N	2.39	0.56
1:E:577:PRO:HB2	1:E:735:LEU:CD2	2.35	0.56
1:E:826:ASP:O	1:E:828:LYS:HG3	2.06	0.56
2:F:389:LEU:HD22	2:F:678:LEU:HD11	1.86	0.56
2:F:751:LEU:O	2:F:755:ILE:HG12	2.05	0.56
2:F:963:GLY:HA2	2:F:987:TYR:OH	2.05	0.56
2:F:997:ARG:HG2	2:F:997:ARG:HH11	1.70	0.56
1:B:823:ARG:C	1:B:825:GLY:H	2.14	0.56
1:B:920:LEU:HD23	2:C:650:ILE:CD1	2.36	0.56
2:C:856:ASN:O	2:C:858:ARG:N	2.38	0.56
3:D:184:LEU:HD11	3:D:293:ILE:HD13	1.86	0.56
3:D:286:LEU:CD1	3:D:292:VAL:HG21	2.35	0.56
1:E:34:ALA:HB1	1:E:79:ASN:HD22	1.71	0.56
1:E:1024:TYR:O	2:F:51:SER:HB2	2.06	0.56
2:F:213:ILE:HB	2:F:238:LEU:HA	1.87	0.56
2:F:263:ARG:HA	2:F:273:GLU:HG2	1.87	0.56
2:F:951:GLN:C	2:F:952:ILE:HD13	2.31	0.56
3:G:245:GLY:O	3:G:253:LEU:HA	2.05	0.56
1:B:95:PRO:O	1:B:96:LEU:C	2.49	0.56
1:B:507:GLU:HA	1:B:850:ALA:CB	2.36	0.56
1:B:699:THR:HG21	2:C:423:GLN:HE22	1.70	0.56
1:B:935:VAL:O	1:B:935:VAL:HG12	2.06	0.56
2:C:77:LEU:CD1	2:C:189:LEU:HG	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:266:LEU:HD12	3:D:267:VAL:H	1.71	0.56
3:D:304:VAL:CG2	3:D:564:GLU:HG2	2.33	0.56
3:D:367:ILE:N	3:D:393:ILE:CG2	2.62	0.56
1:E:146:MET:HE1	1:E:150:GLN:HG3	1.88	0.56
1:E:667:ALA:C	1:E:669:ASN:H	2.13	0.56
2:F:160:GLU:O	2:F:162:GLN:N	2.34	0.56
2:F:587:TRP:CH2	2:F:634:LEU:HG	2.39	0.56
2:F:656:ALA:O	2:F:658:PRO:CD	2.53	0.56
2:F:795:GLN:HB3	2:F:796:PRO:HD2	1.85	0.56
1:B:488:ARG:NH1	1:E:544:ASP:CA	2.68	0.56
1:B:854:ARG:HG2	1:B:854:ARG:HH11	1.71	0.56
1:B:909:LEU:HD22	1:B:1054:GLU:CD	2.29	0.56
3:D:228:GLU:C	3:D:230:LYS:H	2.14	0.56
3:D:242:ARG:O	3:D:243:LEU:C	2.49	0.56
1:E:471:ARG:HH11	1:E:472:GLU:CD	2.14	0.56
1:E:1072:HIS:O	1:E:1073:GLU:C	2.48	0.56
2:F:689:LEU:HD22	2:F:708:ARG:HD2	1.86	0.56
2:F:856:ASN:O	2:F:858:ARG:N	2.35	0.56
2:F:895:GLU:OE1	2:F:895:GLU:HA	2.05	0.56
2:F:943:ILE:HD13	2:F:943:ILE:N	2.21	0.56
3:G:530:HIS:CE1	3:G:534:TRP:HZ3	2.23	0.56
4:X:20:DC:H2''	4:X:21:DT:OP2	2.05	0.56
4:Y:40:DT:H1'	4:Y:41:DC:H5'	1.88	0.56
1:B:544:ASP:OD1	1:E:488:ARG:NH1	2.39	0.56
2:C:838:GLN:HB3	2:C:979:GLN:NE2	2.20	0.56
2:C:865:PRO:C	2:C:867:THR:H	2.13	0.56
3:D:156:VAL:O	3:D:160:VAL:HG23	2.05	0.56
1:E:29:LYS:HD3	1:E:33:ILE:HD11	1.88	0.56
1:E:95:PRO:O	1:E:96:LEU:C	2.49	0.56
2:F:5:TYR:HE2	2:F:267:HIS:HD2	1.53	0.56
2:F:164:TRP:C	2:F:167:PRO:HD2	2.31	0.56
3:G:440:LEU:HB2	3:G:535:ALA:HA	1.88	0.56
1:B:46:GLY:N	1:B:49:ALA:HB2	2.21	0.55
1:B:269:ILE:O	1:B:270:SER:HB2	2.07	0.55
1:B:476:ILE:HG13	1:B:476:ILE:O	2.04	0.55
1:B:709:ARG:NH2	2:C:487:GLU:OE2	2.40	0.55
1:B:947:ARG:CD	1:B:947:ARG:N	2.69	0.55
1:B:1021:MET:CE	1:B:1069:VAL:HG21	2.35	0.55
2:C:334:LEU:HD11	2:C:755:ILE:HG23	1.88	0.55
2:C:335:LEU:HA	2:C:374:ILE:CD1	2.36	0.55
2:C:712:ASP:O	2:C:715:LEU:HB2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:795:GLN:HB3	2:C:796:PRO:HD2	1.87	0.55
1:E:596:MET:HE1	1:E:661:LEU:HD13	1.86	0.55
3:G:201:LEU:HG	3:G:233:ILE:CG2	2.36	0.55
2:C:213:ILE:HB	2:C:238:LEU:HA	1.87	0.55
2:C:767:LEU:HD23	2:C:767:LEU:N	2.22	0.55
2:C:1037:VAL:C	2:C:1038:LEU:HD23	2.31	0.55
3:D:247:GLN:HG2	4:X:5:5IU:C5'	2.34	0.55
3:D:345:ALA:HB3	3:D:349:ARG:CG	2.32	0.55
3:D:367:ILE:HG13	3:D:393:ILE:CG2	2.36	0.55
3:D:417:ARG:HH21	3:D:576:ARG:NH2	2.03	0.55
1:E:119:ARG:HD3	2:F:302:SER:HB3	1.89	0.55
1:E:739:VAL:CG2	1:E:740:THR:N	2.68	0.55
2:F:539:SER:HA	2:F:549:PRO:HG2	1.88	0.55
3:G:134:GLU:HB3	3:G:332:LEU:HD23	1.86	0.55
1:B:40:LEU:HD13	1:B:59:LEU:HD22	1.88	0.55
1:B:148:PHE:H	2:C:126:GLN:NE2	2.04	0.55
1:B:1040:ILE:HD11	1:B:1168:MET:HE1	1.87	0.55
2:C:12:VAL:O	2:C:15:ALA:HB3	2.06	0.55
2:C:830:GLU:O	2:C:831:THR:OG1	2.20	0.55
1:E:514:TYR:CG	1:E:514:TYR:O	2.59	0.55
1:E:647:GLY:O	1:E:651:ILE:HG12	2.06	0.55
2:F:428:SER:O	2:F:429:ALA:C	2.50	0.55
2:F:989:ALA:O	2:F:991:GLY:N	2.39	0.55
3:G:243:LEU:HD12	3:G:261:LEU:CD2	2.34	0.55
3:G:255:HIS:HB2	3:G:285:ALA:HB1	1.87	0.55
3:G:463:GLN:C	3:G:465:LYS:H	2.14	0.55
1:B:685:THR:HG21	1:B:729:LEU:HD12	1.89	0.55
1:B:1172:PHE:C	1:B:1172:PHE:CD1	2.84	0.55
2:C:895:GLU:HG3	2:C:899:ARG:HH22	1.71	0.55
3:D:19:LEU:HD23	3:D:19:LEU:O	2.06	0.55
1:E:1131:TYR:OH	1:E:1160:PRO:HB2	2.06	0.55
2:F:26:LEU:HB2	2:F:210:ARG:HH22	1.70	0.55
2:F:104:GLU:N	2:F:112:ARG:HG3	2.13	0.55
2:F:442:ARG:HG3	2:F:442:ARG:NH1	2.21	0.55
3:G:151:ILE:HG23	3:G:151:ILE:O	2.05	0.55
4:X:47:DA:C2'	4:X:48:DG:O5'	2.50	0.55
1:B:107:LYS:H	1:B:107:LYS:CD	2.18	0.55
1:B:920:LEU:HD21	2:C:448:HIS:CE1	2.42	0.55
2:C:1114:LEU:N	2:C:1115:PRO:HD2	2.21	0.55
3:D:213:THR:HG21	3:D:235:GLU:O	2.07	0.55
3:D:256:HIS:CD2	3:D:257:ALA:H	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:301:LEU:H	3:D:568:THR:HG21	1.72	0.55
3:D:455:ASN:ND2	3:D:532:THR:O	2.40	0.55
1:E:377:ARG:HH11	1:E:377:ARG:HG3	1.71	0.55
2:F:204:PRO:HB3	2:F:233:HIS:HB3	1.89	0.55
2:F:838:GLN:HB3	2:F:979:GLN:HE22	1.69	0.55
3:G:316:TYR:CE1	3:G:604:PHE:CB	2.90	0.55
4:X:18:DC:H4'	4:X:19:DA:OP1	2.07	0.55
1:B:561:ARG:NH2	1:B:584:ARG:H	2.01	0.55
1:B:626:LEU:HD13	1:B:626:LEU:C	2.31	0.55
1:B:752:VAL:HG13	1:B:809:SER:CB	2.32	0.55
1:B:826:ASP:O	1:B:828:LYS:HG3	2.07	0.55
2:C:522:HIS:HE1	2:C:905:GLY:O	1.90	0.55
3:D:31:GLU:O	3:D:32:HIS:C	2.49	0.55
3:D:207:LYS:HZ3	3:D:544:SER:HA	1.68	0.55
1:E:34:ALA:HB1	1:E:79:ASN:ND2	2.20	0.55
1:E:558:VAL:HG22	1:E:563:GLU:CB	2.35	0.55
1:E:645:PHE:HA	1:E:648:TYR:HD2	1.71	0.55
2:F:465:PHE:CE1	2:F:575:ARG:HD2	2.42	0.55
2:F:699:GLN:C	2:F:701:PRO:HD3	2.31	0.55
3:G:199:ILE:HA	3:G:265:VAL:HG13	1.88	0.55
3:G:533:THR:C	3:G:535:ALA:H	2.14	0.55
1:B:184:PHE:CE1	1:B:188:LYS:HG2	2.42	0.55
1:B:200:TYR:C	1:B:202:GLN:H	2.15	0.55
1:B:284:GLU:HG3	1:B:285:SER:N	2.22	0.55
1:B:1109:LEU:CD2	1:B:1113:LEU:HG	2.35	0.55
2:C:572:ASN:HD22	2:C:575:ARG:HG2	1.71	0.55
2:C:664:LEU:N	2:C:664:LEU:HD12	2.22	0.55
3:D:151:ILE:HG23	3:D:151:ILE:O	2.05	0.55
3:D:312:ASP:OD1	3:D:596:ARG:HD3	2.06	0.55
3:D:414:GLY:C	3:D:416:GLY:H	2.14	0.55
1:E:222:HIS:CD2	1:E:272:TRP:HH2	2.23	0.55
1:E:732:ASP:C	1:E:734:HIS:H	2.13	0.55
1:E:1172:PHE:CG	1:E:1173:ALA:N	2.74	0.55
2:F:584:LEU:HD22	2:F:632:VAL:HG21	1.88	0.55
3:G:91:VAL:HG12	3:G:100:MET:CB	2.36	0.55
3:G:390:PHE:O	3:G:392:ASP:N	2.39	0.55
1:B:444:ASP:OD2	1:B:445:THR:HG22	2.07	0.55
1:B:555:SER:HB2	1:B:749:TYR:CD2	2.42	0.55
1:B:649:ARG:HG3	1:B:650:GLN:H	1.70	0.55
1:B:1032:ILE:N	1:B:1032:ILE:HD12	2.21	0.55
2:C:641:LEU:HD22	2:C:645:LEU:HD22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:166:ILE:HD12	3:D:166:ILE:N	2.21	0.55
3:D:524:PRO:HD2	3:D:527:LEU:HD12	1.89	0.55
1:E:200:TYR:C	1:E:202:GLN:H	2.15	0.55
1:E:561:ARG:O	1:E:564:ALA:HB3	2.07	0.55
2:F:8:ASN:HD21	2:F:343:LEU:HD11	1.72	0.55
2:F:539:SER:HB2	2:F:551:ASP:OD2	2.06	0.55
2:F:972:LEU:HA	2:F:1000:LEU:CD1	2.37	0.55
1:B:704:GLU:H	1:B:704:GLU:CD	2.12	0.55
1:B:1131:TYR:CZ	1:B:1135:PHE:HD1	2.24	0.55
2:C:396:MET:HE2	2:C:674:VAL:CG2	2.37	0.55
3:D:91:VAL:CA	3:D:98:THR:HG21	2.37	0.55
3:D:157:ALA:CB	3:D:355:LEU:HD21	2.37	0.55
3:D:164:ARG:HG3	3:D:351:SER:HB3	1.88	0.55
3:D:271:ALA:C	3:D:273:MET:N	2.65	0.55
3:D:279:MET:O	3:D:282:LEU:N	2.40	0.55
3:D:387:GLN:O	3:D:389:ASP:N	2.39	0.55
1:E:966:GLN:HB3	1:E:967:PRO:CD	2.34	0.55
1:B:1027:ILE:HA	1:B:1172:PHE:CD1	2.42	0.55
1:B:1072:HIS:O	1:B:1073:GLU:C	2.50	0.55
2:C:465:PHE:CE1	2:C:575:ARG:HD2	2.42	0.55
3:D:27:VAL:CG1	3:D:90:ALA:HB1	2.37	0.55
3:D:123:PHE:HB2	3:D:604:PHE:HE2	1.72	0.55
3:D:244:LEU:HD21	3:D:261:LEU:CD2	2.37	0.55
1:E:1131:TYR:CZ	1:E:1135:PHE:HD1	2.24	0.55
2:F:989:ALA:C	2:F:991:GLY:N	2.60	0.55
3:G:164:ARG:HG3	3:G:351:SER:HB3	1.87	0.55
3:G:417:ARG:HH11	3:G:437:GLU:HB3	1.72	0.55
1:B:153:ILE:HB	1:B:348:GLU:HB3	1.88	0.54
1:B:222:HIS:CD2	1:B:272:TRP:HH2	2.24	0.54
2:C:52:GLN:O	2:C:54:PHE:N	2.36	0.54
2:C:1027:TYR:O	2:C:1031:MET:HG2	2.07	0.54
3:D:526:ARG:HH11	3:D:536:MET:HG2	1.71	0.54
2:F:8:ASN:ND2	2:F:343:LEU:HD11	2.23	0.54
4:Y:6:DA:N3	4:Y:6:DA:C2'	2.65	0.54
1:B:426:ASP:OD1	1:B:428:PHE:HB2	2.07	0.54
1:B:799:LEU:HA	1:B:837:ALA:HB1	1.89	0.54
1:B:954:PHE:O	1:B:957:SER:HB3	2.08	0.54
3:D:201:LEU:CD2	3:D:233:ILE:HG21	2.37	0.54
1:E:500:LYS:NZ	1:E:868:GLN:HG3	2.22	0.54
1:E:1172:PHE:CD1	1:E:1172:PHE:C	2.85	0.54
2:F:393:LEU:HD22	2:F:408:ILE:HD13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:1:MET:HE3	3:G:5:LYS:HB2	1.88	0.54
3:G:41:LEU:O	3:G:44:HIS:HB3	2.07	0.54
3:G:93:ARG:HG2	3:G:93:ARG:HH11	1.71	0.54
3:G:184:LEU:HD11	3:G:293:ILE:HD13	1.87	0.54
1:B:170:ARG:HA	2:C:517:PRO:HG2	1.89	0.54
1:B:332:LEU:O	1:B:336:ARG:HG3	2.07	0.54
1:B:365:GLU:HG3	1:B:366:SER:N	2.21	0.54
1:B:916:ILE:CG2	2:C:448:HIS:NE2	2.70	0.54
3:D:118:THR:HG22	3:D:283:ILE:CD1	2.04	0.54
3:D:178:THR:HG23	3:D:179:THR:HG23	1.88	0.54
1:E:150:GLN:HA	1:E:150:GLN:HE21	1.72	0.54
1:E:222:HIS:CE1	1:E:226:VAL:HG21	2.42	0.54
1:E:711:LEU:O	1:E:712:SER:C	2.50	0.54
1:E:869:THR:O	1:E:871:GLN:N	2.41	0.54
1:E:947:ARG:CD	1:E:947:ARG:N	2.69	0.54
2:F:382:PRO:HB2	2:F:421:PHE:CD1	2.41	0.54
2:F:611:LEU:HD23	2:F:611:LEU:O	2.07	0.54
2:F:971:LEU:HD23	4:Y:10:DA:C5'	2.33	0.54
3:G:525:SER:C	3:G:527:LEU:H	2.14	0.54
1:B:924:LEU:CD1	2:C:607:ALA:HA	2.37	0.54
2:C:55:GLY:O	2:C:56:ILE:HB	2.06	0.54
2:C:457:LEU:HB3	2:C:594:MET:HE1	1.89	0.54
2:C:530:ARG:NE	2:C:548:LEU:O	2.35	0.54
3:D:75:ILE:HB	3:D:78:LEU:CD1	2.37	0.54
1:E:799:LEU:HA	1:E:837:ALA:HB1	1.89	0.54
1:E:854:ARG:HH11	1:E:854:ARG:HG2	1.72	0.54
1:E:1040:ILE:HD11	1:E:1168:MET:HE1	1.89	0.54
2:F:277:PHE:CE1	2:F:278:ARG:HG3	2.42	0.54
2:F:910:GLY:O	2:F:913:GLY:N	2.40	0.54
2:F:1077:GLY:H	2:F:1083:GLY:H	1.55	0.54
3:G:228:GLU:C	3:G:230:LYS:H	2.14	0.54
4:X:6:DA:N3	4:X:6:DA:C2'	2.64	0.54
4:X:13:DG:H2''	4:X:14:DC:OP2	2.07	0.54
4:X:40:DT:H1'	4:X:41:DC:H5'	1.88	0.54
1:B:159:LEU:HD21	1:B:342:GLU:CG	2.37	0.54
1:B:187:TRP:HZ3	1:B:196:ASP:OD2	1.91	0.54
1:B:459:LYS:HD3	1:B:865:ILE:HD12	1.90	0.54
3:D:533:THR:O	3:D:535:ALA:N	2.34	0.54
2:F:4:VAL:O	2:F:322:GLU:HA	2.07	0.54
2:F:194:ILE:HG23	2:F:229:ALA:HB2	1.89	0.54
2:F:537:MET:HA	3:G:110:ASN:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:208:ALA:HB2	3:G:270:GLU:HG3	1.88	0.54
3:G:300:GLN:CG	3:G:568:THR:HG22	2.37	0.54
3:G:370:LEU:HD22	3:G:394:GLU:OE2	2.07	0.54
4:X:46:5IU:H2''	4:X:47:DA:O4'	2.07	0.54
1:B:29:LYS:O	1:B:33:ILE:HG13	2.08	0.54
1:B:423:ARG:O	1:B:423:ARG:CD	2.56	0.54
2:C:832:VAL:O	2:C:833:PRO:C	2.51	0.54
2:C:943:ILE:CD1	2:C:956:LEU:HG	2.36	0.54
3:D:56:SER:C	3:D:58:LEU:N	2.65	0.54
3:D:247:GLN:O	3:D:251:GLN:HG2	2.07	0.54
1:E:762:VAL:HG13	1:E:791:GLU:CD	2.32	0.54
2:F:25:ARG:O	2:F:26:LEU:HB3	2.07	0.54
2:F:948:ASN:C	2:F:948:ASN:ND2	2.65	0.54
3:G:462:MET:HE1	3:G:534:TRP:HE1	1.72	0.54
4:Y:13:DG:H2''	4:Y:14:DC:OP2	2.07	0.54
1:B:281:GLN:CB	1:B:283:PRO:HD2	2.35	0.54
1:B:488:ARG:HH12	1:E:544:ASP:CA	2.20	0.54
1:B:675:LEU:CD1	2:C:809:ALA:HB1	2.37	0.54
1:B:1044:ASP:HB3	1:B:1047:SER:OG	2.06	0.54
2:C:405:PRO:C	2:C:658:PRO:HB3	2.32	0.54
2:C:469:ASP:O	2:C:472:ALA:HB3	2.07	0.54
2:C:828:LEU:HD22	2:C:1028:ARG:HD3	1.90	0.54
2:C:1040:GLU:HB2	2:C:1084:GLU:OE1	2.06	0.54
3:D:65:HIS:O	3:D:66:PRO:C	2.51	0.54
3:D:554:PRO:HD2	3:D:561:VAL:HG21	1.88	0.54
1:E:213:PRO:C	1:E:215:ASP:H	2.14	0.54
1:E:259:ARG:O	1:E:262:GLN:NE2	2.40	0.54
1:E:763:GLN:NE2	1:E:765:GLN:H	2.03	0.54
2:F:28:ASP:N	2:F:29:PRO:HD2	2.22	0.54
2:F:199:SER:O	2:F:201:THR:N	2.41	0.54
2:F:304:GLY:HA2	2:F:714:TYR:CD1	2.40	0.54
2:F:795:GLN:HB3	2:F:796:PRO:CD	2.38	0.54
2:F:830:GLU:O	2:F:831:THR:OG1	2.20	0.54
1:B:647:GLY:O	1:B:651:ILE:HG12	2.08	0.54
1:B:763:GLN:NE2	1:B:765:GLN:H	2.02	0.54
1:B:869:THR:O	1:B:871:GLN:N	2.40	0.54
1:B:1018:GLN:NE2	2:C:30:PHE:O	2.40	0.54
1:B:1046:LEU:C	1:B:1048:ALA:H	2.16	0.54
2:C:17:MET:HG3	2:C:212:PHE:CE2	2.43	0.54
2:C:155:VAL:H	2:C:162:GLN:NE2	2.06	0.54
1:E:935:VAL:HG12	1:E:935:VAL:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:258:ALA:HA	2:F:261:LEU:CG	2.36	0.54
2:F:828:LEU:HD22	2:F:1028:ARG:HD3	1.87	0.54
2:F:832:VAL:O	2:F:833:PRO:C	2.51	0.54
2:F:1013:ALA:O	2:F:1017:LEU:HD23	2.07	0.54
2:F:1055:ASP:CB	2:F:1118:ARG:NH2	2.69	0.54
3:G:561:VAL:HG12	3:G:589:ALA:CB	2.37	0.54
1:B:365:GLU:HG3	1:B:366:SER:H	1.72	0.54
2:C:59:ASN:O	2:C:60:ILE:O	2.26	0.54
2:C:94:LYS:O	2:C:98:LEU:HG	2.08	0.54
2:C:104:GLU:CA	2:C:112:ARG:NH1	2.70	0.54
2:C:428:SER:O	2:C:429:ALA:C	2.50	0.54
2:C:1055:ASP:CG	2:C:1118:ARG:NH2	2.65	0.54
2:C:1068:ARG:HG3	2:C:1102:MET:HE1	1.89	0.54
3:D:462:MET:CE	3:D:534:TRP:HE1	2.20	0.54
1:E:398:ARG:HB2	1:E:402:HIS:HB2	1.90	0.54
1:E:459:LYS:HD3	1:E:865:ILE:HD12	1.89	0.54
2:F:246:TYR:CE2	2:F:275:PRO:HD3	2.43	0.54
2:F:260:LEU:C	2:F:262:THR:H	2.16	0.54
2:F:865:PRO:C	2:F:867:THR:H	2.16	0.54
2:F:1037:VAL:C	2:F:1038:LEU:HD23	2.33	0.54
3:G:271:ALA:C	3:G:273:MET:N	2.64	0.54
1:B:577:PRO:HB2	1:B:735:LEU:CD2	2.39	0.54
1:B:763:GLN:NE2	1:B:764:GLU:N	2.56	0.54
2:C:17:MET:HG3	2:C:212:PHE:CD2	2.43	0.54
2:C:895:GLU:OE1	2:C:895:GLU:HA	2.06	0.54
2:C:1039:PRO:HA	2:C:1113:LEU:HD11	1.90	0.54
3:D:1:MET:HE3	3:D:5:LYS:HB2	1.89	0.54
3:D:175:THR:HG22	3:D:176:GLY:N	2.22	0.54
3:D:246:ALA:HA	3:D:253:LEU:HD23	1.90	0.54
1:E:139:LEU:HD21	1:E:377:ARG:HH12	1.72	0.54
1:E:1044:ASP:HB3	1:E:1047:SER:OG	2.07	0.54
2:F:155:VAL:N	2:F:162:GLN:HE22	2.06	0.54
2:F:881:ASN:O	2:F:885:LEU:HB2	2.08	0.54
3:G:220:LEU:HA	3:G:223:LEU:HD21	1.90	0.54
3:G:414:GLY:C	3:G:416:GLY:H	2.15	0.54
3:G:526:ARG:HH22	3:G:533:THR:HG21	1.71	0.54
1:B:150:GLN:HE21	1:B:150:GLN:HA	1.71	0.53
1:B:236:TRP:O	1:B:240:VAL:CG2	2.53	0.53
2:C:422:ILE:HD12	2:C:661:ILE:HG21	1.90	0.53
2:C:989:ALA:HB1	2:C:1017:LEU:HD22	1.90	0.53
3:D:208:ALA:HB2	3:D:270:GLU:HG3	1.88	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:410:VAL:HG13	2:F:676:CYS:HB2	1.90	0.53
2:F:699:GLN:O	2:F:701:PRO:HD3	2.08	0.53
3:G:188:LEU:HD21	3:G:291:ARG:HH22	1.73	0.53
3:G:554:PRO:CD	3:G:561:VAL:HG21	2.38	0.53
3:G:562:THR:HG21	3:G:594:THR:HA	1.90	0.53
1:B:56:VAL:HG12	1:B:124:ALA:HA	1.90	0.53
1:B:390:ASP:HA	1:B:429:THR:HG21	1.90	0.53
2:C:33:GLU:O	2:C:60:ILE:HA	2.08	0.53
2:C:335:LEU:HD22	2:C:339:GLN:OE1	2.08	0.53
2:C:795:GLN:HB3	2:C:796:PRO:CD	2.37	0.53
2:C:796:PRO:HA	2:C:800:GLN:NE2	2.22	0.53
2:C:1077:GLY:H	2:C:1083:GLY:H	1.55	0.53
1:E:29:LYS:O	1:E:33:ILE:HG13	2.07	0.53
1:E:40:LEU:HD13	1:E:59:LEU:HD22	1.91	0.53
2:F:250:ASP:CG	2:F:291:GLY:HA3	2.34	0.53
2:F:971:LEU:CD2	4:Y:10:DA:H5'	2.31	0.53
2:F:1055:ASP:CB	2:F:1118:ARG:HH22	2.13	0.53
3:G:50:HIS:CE1	3:G:306:ALA:HB2	2.43	0.53
3:G:150:GLU:O	3:G:151:ILE:C	2.51	0.53
1:B:16:GLN:HG3	1:B:16:GLN:O	2.09	0.53
1:B:233:LYS:HZ2	1:B:269:ILE:HG12	1.71	0.53
1:B:377:ARG:HH11	1:B:377:ARG:HG3	1.71	0.53
1:B:558:VAL:O	1:B:740:THR:HA	2.08	0.53
1:B:957:SER:O	1:B:960:GLU:HB2	2.08	0.53
3:D:256:HIS:O	3:D:285:ALA:HA	2.09	0.53
1:E:700:GLN:O	1:E:701:LEU:HD23	2.08	0.53
1:E:1021:MET:CE	1:E:1069:VAL:HG21	2.38	0.53
1:E:1050:CYS:C	1:E:1052:PRO:CD	2.80	0.53
2:F:1101:THR:O	2:F:1105:ILE:HG13	2.09	0.53
1:B:363:ARG:HG3	1:B:364:SER:N	2.24	0.53
1:B:1061:MET:HG3	2:C:48:MET:CE	2.39	0.53
2:C:251:ILE:HD13	2:C:256:TYR:CD2	2.43	0.53
2:C:939:GLN:HE21	2:C:940:SER:H	1.57	0.53
3:D:181:VAL:HG21	3:D:295:LEU:HD13	1.90	0.53
1:E:423:ARG:O	1:E:423:ARG:CD	2.56	0.53
2:F:77:LEU:CD2	2:F:196:THR:HG21	2.37	0.53
2:F:200:ALA:O	2:F:202:THR:N	2.42	0.53
2:F:572:ASN:HD22	2:F:575:ARG:HG2	1.73	0.53
3:G:52:CYS:HB3	3:G:108:TYR:CD2	2.43	0.53
3:G:255:HIS:HB3	3:G:260:PRO:HG2	1.89	0.53
4:Y:46:5IU:H2''	4:Y:47:DA:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1172:PHE:CZ	1:B:1173:ALA:HB2	2.43	0.53
2:C:28:ASP:H	2:C:29:PRO:HD3	1.71	0.53
2:C:584:LEU:HD22	2:C:632:VAL:HG21	1.91	0.53
2:C:685:TYR:O	2:C:686:PRO:C	2.51	0.53
2:C:1060:ASP:OD2	2:C:1062:SER:OG	2.25	0.53
3:D:321:PHE:CE2	3:D:329:LEU:HD11	2.43	0.53
1:E:61:VAL:HB	1:E:126:VAL:HG13	1.90	0.53
1:E:1161:ASN:C	1:E:1163:GLY:H	2.17	0.53
1:E:1168:MET:O	1:E:1171:MET:HB3	2.08	0.53
2:F:86:PHE:CZ	2:F:176:THR:HG21	2.44	0.53
3:G:91:VAL:CA	3:G:98:THR:HG21	2.38	0.53
3:G:354:LEU:H	3:G:354:LEU:HD12	1.74	0.53
3:G:462:MET:O	3:G:466:ARG:HA	2.09	0.53
1:B:527:ARG:HG2	1:B:527:ARG:HH11	1.73	0.53
1:B:876:GLN:N	1:B:877:PRO:HD2	2.24	0.53
2:C:947:CYS:SG	2:C:1021:SER:OG	2.67	0.53
2:C:972:LEU:HD23	2:C:973:SER:N	2.23	0.53
3:D:211:ARG:O	3:D:212:LEU:C	2.52	0.53
3:D:243:LEU:CD1	3:D:261:LEU:CD2	2.79	0.53
3:D:554:PRO:CD	3:D:561:VAL:HG21	2.38	0.53
1:E:153:ILE:HG22	1:E:349:LEU:C	2.33	0.53
1:E:190:PRO:HG3	2:F:870:PHE:CE1	2.43	0.53
1:E:658:MET:HB2	1:E:695:GLN:HG3	1.90	0.53
1:E:781:ASN:O	1:E:783:ALA:N	2.39	0.53
2:F:251:ILE:HD13	2:F:256:TYR:CD2	2.43	0.53
2:F:265:ARG:HG2	2:F:266:ARG:O	2.08	0.53
3:G:77:GLU:O	3:G:79:GLN:N	2.42	0.53
3:G:271:ALA:O	3:G:273:MET:N	2.42	0.53
3:G:554:PRO:HD2	3:G:561:VAL:HG21	1.91	0.53
1:B:471:ARG:HH11	1:B:472:GLU:CD	2.17	0.53
1:B:591:LEU:O	1:B:595:GLU:HG3	2.08	0.53
2:C:250:ASP:CG	2:C:291:GLY:HA3	2.34	0.53
2:C:278:ARG:O	2:C:280:SER:N	2.41	0.53
2:C:948:ASN:C	2:C:948:ASN:ND2	2.66	0.53
3:D:77:GLU:HG2	3:D:79:GLN:H	1.72	0.53
3:D:91:VAL:HG12	3:D:100:MET:HB3	1.90	0.53
3:D:242:ARG:O	3:D:245:GLY:N	2.42	0.53
3:D:412:LEU:CD1	3:D:461:PHE:HD2	2.21	0.53
1:E:50:PHE:HE2	1:E:52:ARG:HD3	1.73	0.53
1:E:159:LEU:HD21	1:E:342:GLU:CG	2.39	0.53
1:E:739:VAL:CG2	1:E:740:THR:H	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1027:TYR:O	2:F:1031:MET:HG2	2.09	0.53
3:G:201:LEU:CD2	3:G:233:ILE:HG21	2.39	0.53
3:G:562:THR:OG1	3:G:594:THR:HG23	2.08	0.53
1:B:15:LEU:HD13	1:B:40:LEU:CD2	2.39	0.53
1:B:310:PHE:C	1:B:310:PHE:CD2	2.87	0.53
1:B:732:ASP:OD1	1:B:735:LEU:HD12	2.08	0.53
1:B:739:VAL:CG2	1:B:740:THR:H	2.21	0.53
1:B:1049:GLY:C	1:B:1051:PRO:HD3	2.34	0.53
2:C:239:LEU:HD12	2:C:239:LEU:N	2.23	0.53
3:D:181:VAL:HG21	3:D:295:LEU:CD1	2.38	0.53
3:D:526:ARG:NH1	3:D:536:MET:HG2	2.24	0.53
1:E:46:GLY:N	1:E:49:ALA:HB2	2.24	0.53
1:E:602:ALA:HB2	1:E:615:ALA:HB2	1.91	0.53
1:E:1076:TYR:HD1	1:E:1122:LEU:HD13	1.74	0.53
2:F:17:MET:HG3	2:F:212:PHE:CD2	2.44	0.53
2:F:17:MET:HG3	2:F:212:PHE:CE2	2.44	0.53
3:G:240:LEU:HD21	3:G:274:ILE:HD12	1.90	0.53
3:G:321:PHE:CE2	3:G:329:LEU:HD11	2.44	0.53
3:G:330:SER:HB3	3:G:337:VAL:N	2.24	0.53
4:X:7:5IU:C3'	4:X:8:DC:H5'	2.18	0.53
1:B:25:ALA:HB1	1:B:807:THR:HG21	1.90	0.53
1:B:558:VAL:HG22	1:B:563:GLU:CB	2.38	0.53
1:B:711:LEU:O	1:B:712:SER:C	2.51	0.53
1:B:807:THR:HG22	1:B:808:ARG:NH2	2.23	0.53
2:C:81:PRO:HG3	2:C:182:PRO:CB	2.38	0.53
3:D:93:ARG:HG2	3:D:93:ARG:HH11	1.72	0.53
1:E:16:GLN:O	1:E:16:GLN:HG3	2.09	0.53
1:E:423:ARG:O	1:E:423:ARG:HD2	2.09	0.53
1:E:491:PHE:O	1:E:493:GLY:N	2.42	0.53
1:E:987:GLU:O	1:E:991:THR:HG22	2.08	0.53
1:E:1032:ILE:N	1:E:1032:ILE:HD12	2.23	0.53
2:F:245:ARG:HD3	2:F:344:GLU:OE2	2.08	0.53
2:F:483:PHE:CE2	2:F:567:LEU:HA	2.43	0.53
1:B:342:GLU:HA	1:B:342:GLU:OE2	2.09	0.53
1:B:442:THR:HG22	1:B:443:LEU:N	2.23	0.53
1:B:494:GLU:CB	1:E:545:ASP:OD1	2.57	0.53
1:B:1168:MET:O	1:B:1171:MET:HB3	2.09	0.53
2:C:199:SER:OG	2:C:200:ALA:N	2.42	0.53
2:C:294:ASP:C	2:C:296:GLY:N	2.67	0.53
2:C:580:GLN:O	2:C:582:ARG:HD2	2.09	0.53
2:C:881:ASN:O	2:C:885:LEU:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:964:LEU:O	2:C:996:SER:HA	2.09	0.53
3:D:264:ASP:O	3:D:291:ARG:N	2.41	0.53
1:E:823:ARG:HH22	1:E:828:LYS:HZ3	1.55	0.53
1:B:198:ASN:O	1:B:200:TYR:O	2.26	0.52
1:B:490:VAL:HG12	1:B:495:THR:CG2	2.38	0.52
1:B:893:LEU:HB3	2:C:802:TYR:HE2	1.73	0.52
1:B:1109:LEU:HA	1:B:1112:GLN:OE1	2.08	0.52
2:C:97:THR:HG23	2:C:628:TYR:CD1	2.44	0.52
2:C:294:ASP:O	2:C:295:VAL:C	2.52	0.52
3:D:17:ARG:HB2	3:D:18:PRO:CD	2.35	0.52
3:D:207:LYS:HE2	3:D:211:ARG:NH2	2.24	0.52
3:D:266:LEU:HD12	3:D:267:VAL:N	2.24	0.52
1:E:65:THR:HG22	1:E:67:ALA:N	2.24	0.52
1:E:555:SER:HB2	1:E:749:TYR:CD2	2.44	0.52
1:E:1046:LEU:C	1:E:1048:ALA:H	2.18	0.52
2:F:97:THR:HG23	2:F:628:TYR:CE1	2.44	0.52
2:F:278:ARG:O	2:F:280:SER:N	2.42	0.52
2:F:294:ASP:C	2:F:296:GLY:N	2.65	0.52
1:B:667:ALA:C	1:B:669:ASN:H	2.16	0.52
1:B:730:GLU:HB2	2:C:786:ARG:CD	2.37	0.52
1:B:815:LEU:HD13	1:B:815:LEU:H	1.74	0.52
1:B:877:PRO:C	1:B:879:GLN:H	2.15	0.52
2:C:244:CYS:SG	2:C:345:LEU:HB2	2.49	0.52
2:C:292:GLU:HB3	2:C:295:VAL:HG22	1.90	0.52
3:D:91:VAL:CG1	3:D:100:MET:HB2	2.39	0.52
3:D:274:ILE:HG21	3:D:279:MET:HG2	1.91	0.52
1:E:470:PHE:O	1:E:472:GLU:N	2.42	0.52
1:E:558:VAL:O	1:E:740:THR:HA	2.09	0.52
1:E:677:THR:O	1:E:678:ALA:O	2.27	0.52
1:E:763:GLN:NE2	1:E:764:GLU:N	2.57	0.52
1:E:815:LEU:H	1:E:815:LEU:HD13	1.74	0.52
1:E:905:SER:O	1:E:906:TYR:C	2.52	0.52
2:F:38:GLN:OE1	2:F:65:PRO:HG2	2.08	0.52
2:F:104:GLU:CA	2:F:112:ARG:NH1	2.70	0.52
2:F:160:GLU:C	2:F:162:GLN:N	2.67	0.52
2:F:294:ASP:O	2:F:295:VAL:C	2.52	0.52
2:F:344:GLU:HB3	2:F:346:GLU:HG2	1.92	0.52
2:F:557:ILE:HG23	4:Y:1:5IU:I5	2.79	0.52
2:F:580:GLN:O	2:F:582:ARG:HD2	2.09	0.52
2:F:664:LEU:N	2:F:664:LEU:HD12	2.24	0.52
2:F:839:ARG:HB3	4:Y:7:5IU:I5	2.79	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:56:SER:C	3:G:58:LEU:N	2.67	0.52
3:G:254:ARG:HG2	3:G:259:ASN:ND2	2.24	0.52
1:B:46:GLY:H	1:B:49:ALA:HB2	1.74	0.52
1:B:281:GLN:HE21	1:B:283:PRO:HG2	1.75	0.52
1:B:398:ARG:HB2	1:B:402:HIS:HB2	1.91	0.52
1:B:799:LEU:HD23	1:B:837:ALA:CB	2.39	0.52
1:B:1076:TYR:HD1	1:B:1122:LEU:HD13	1.73	0.52
1:B:1131:TYR:OH	1:B:1160:PRO:HB2	2.08	0.52
2:C:185:HIS:H	2:C:188:ASN:ND2	2.06	0.52
2:C:768:ASN:HB3	2:C:771:GLU:HB2	1.91	0.52
3:D:150:GLU:O	3:D:151:ILE:C	2.52	0.52
1:E:39:ARG:HH11	1:E:39:ARG:HG3	1.73	0.52
1:E:342:GLU:HA	1:E:342:GLU:OE2	2.09	0.52
1:E:649:ARG:HG3	1:E:650:GLN:H	1.73	0.52
1:E:804:VAL:O	1:E:808:ARG:HG2	2.09	0.52
1:E:878:TRP:CE3	1:E:878:TRP:O	2.62	0.52
2:F:254:PRO:HA	2:F:257:LEU:HD23	1.90	0.52
2:F:347:ASN:ND2	2:F:347:ASN:C	2.59	0.52
2:F:469:ASP:O	2:F:472:ALA:HB3	2.08	0.52
2:F:505:GLY:O	2:F:523:THR:HB	2.10	0.52
2:F:685:TYR:O	2:F:686:PRO:C	2.51	0.52
3:G:211:ARG:O	3:G:212:LEU:C	2.52	0.52
3:G:385:VAL:CG2	3:G:396:ARG:CZ	2.86	0.52
1:B:153:ILE:HD12	1:B:154:GLU:OE2	2.09	0.52
1:B:255:ARG:O	1:B:258:ASN:HB2	2.09	0.52
1:B:600:LEU:O	1:B:604:MET:HB2	2.09	0.52
1:B:977:LEU:HD21	1:B:990:LEU:CD2	2.36	0.52
2:C:551:ASP:OD2	2:C:551:ASP:N	2.33	0.52
2:C:838:GLN:HB3	2:C:979:GLN:HE22	1.75	0.52
2:C:989:ALA:CB	2:C:1017:LEU:HD22	2.39	0.52
3:D:286:LEU:HD13	3:D:292:VAL:CG2	2.39	0.52
3:D:525:SER:C	3:D:527:LEU:H	2.18	0.52
1:E:236:TRP:O	1:E:240:VAL:CG2	2.52	0.52
1:E:281:GLN:HE21	1:E:283:PRO:HG2	1.75	0.52
1:E:524:ALA:O	1:E:527:ARG:HG3	2.09	0.52
1:E:527:ARG:HG2	1:E:527:ARG:HH11	1.73	0.52
1:E:1074:GLY:C	1:E:1075:ARG:HG2	2.34	0.52
2:F:104:GLU:CA	2:F:112:ARG:HH11	2.22	0.52
2:F:335:LEU:HD22	2:F:339:GLN:OE1	2.09	0.52
2:F:482:ARG:HG2	2:F:482:ARG:HH11	1.74	0.52
2:F:1060:ASP:OD2	2:F:1062:SER:OG	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:301:LEU:N	3:G:568:THR:HG21	2.24	0.52
3:G:385:VAL:HG11	3:G:396:ARG:CD	2.39	0.52
4:Y:15:DG:C1'	4:Y:16:DA:OP1	2.56	0.52
1:B:65:THR:HB	1:B:68:ALA:CB	2.38	0.52
2:C:28:ASP:N	2:C:29:PRO:HD2	2.22	0.52
2:C:265:ARG:HG2	2:C:266:ARG:O	2.09	0.52
3:D:91:VAL:HG12	3:D:100:MET:HB2	1.91	0.52
3:D:147:VAL:O	3:D:147:VAL:HG12	2.10	0.52
3:D:157:ALA:HB1	3:D:169:ILE:HD12	1.92	0.52
3:D:568:THR:O	3:D:572:ARG:HG2	2.09	0.52
1:E:18:GLU:O	1:E:19:ARG:HD3	2.09	0.52
1:E:426:ASP:OD1	1:E:428:PHE:HB2	2.10	0.52
1:E:581:LEU:HD11	1:E:737:GLN:OE1	2.10	0.52
3:G:19:LEU:HD23	3:G:19:LEU:O	2.10	0.52
3:G:207:LYS:O	3:G:210:ALA:HB3	2.10	0.52
3:G:582:ASP:O	3:G:584:ARG:N	2.43	0.52
1:B:754:LEU:HB2	1:B:815:LEU:HB3	1.92	0.52
1:B:1074:GLY:C	1:B:1075:ARG:HG2	2.33	0.52
2:C:252:LYS:HB2	2:C:256:TYR:CD2	2.45	0.52
2:C:360:ARG:CZ	2:C:766:ALA:HB2	2.39	0.52
2:C:382:PRO:HB2	2:C:421:PHE:CD1	2.44	0.52
2:C:539:SER:HB2	2:C:551:ASP:OD2	2.10	0.52
3:D:77:GLU:O	3:D:79:GLN:N	2.42	0.52
1:E:490:VAL:HG12	1:E:495:THR:CG2	2.39	0.52
1:E:496:GLN:N	1:E:496:GLN:NE2	2.57	0.52
2:F:55:GLY:O	2:F:56:ILE:HB	2.09	0.52
2:F:736:ILE:HD12	2:F:736:ILE:N	2.24	0.52
2:F:989:ALA:HB1	2:F:1017:LEU:HD22	1.91	0.52
2:F:1035:LEU:O	2:F:1036:LEU:O	2.28	0.52
3:G:126:VAL:HA	3:G:166:ILE:HD13	1.91	0.52
1:B:60:LEU:HB2	1:B:378:PHE:HB3	1.91	0.52
1:B:237:ARG:HE	1:B:266:ILE:CG2	2.22	0.52
1:B:358:LEU:HD13	1:B:396:ILE:HD13	1.91	0.52
1:B:771:ARG:HH21	1:B:793:GLU:HG3	1.75	0.52
2:C:355:ILE:N	2:C:355:ILE:HD12	2.25	0.52
2:C:699:GLN:O	2:C:701:PRO:HD3	2.10	0.52
2:C:850:GLN:HG2	2:C:856:ASN:OD1	2.10	0.52
2:C:964:LEU:HB2	2:C:996:SER:CB	2.40	0.52
3:D:118:THR:HA	3:D:121:ARG:NH1	2.25	0.52
3:D:230:LYS:C	3:D:232:ARG:N	2.66	0.52
3:D:260:PRO:O	3:D:261:LEU:CB	2.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:533:THR:C	3:D:535:ALA:H	2.17	0.52
1:E:142:PHE:HB3	2:F:110:LEU:HD22	1.92	0.52
1:E:307:HIS:ND1	1:E:308:PRO:CD	2.70	0.52
1:E:363:ARG:HG3	1:E:364:SER:N	2.23	0.52
1:E:957:SER:O	1:E:960:GLU:HB2	2.09	0.52
3:G:130:ILE:HD12	3:G:130:ILE:N	2.08	0.52
3:G:157:ALA:HB1	3:G:169:ILE:HD12	1.91	0.52
3:G:242:ARG:C	3:G:242:ARG:HD3	2.32	0.52
1:B:602:ALA:HB2	1:B:615:ALA:HB2	1.92	0.52
2:C:77:LEU:CD2	2:C:196:THR:HG21	2.40	0.52
2:C:86:PHE:CZ	2:C:176:THR:HG21	2.45	0.52
2:C:87:ASN:C	2:C:87:ASN:ND2	2.67	0.52
2:C:277:PHE:CE1	2:C:278:ARG:HG3	2.45	0.52
2:C:347:ASN:ND2	2:C:347:ASN:C	2.58	0.52
2:C:570:GLN:HA	2:C:573:ILE:HD12	1.92	0.52
2:C:955:TRP:O	2:C:957:PRO:HD3	2.10	0.52
3:D:207:LYS:O	3:D:210:ALA:HB3	2.09	0.52
1:E:198:ASN:O	1:E:200:TYR:O	2.28	0.52
1:E:807:THR:HG22	1:E:808:ARG:NH2	2.23	0.52
2:F:99:LEU:N	2:F:100:PRO:HD2	2.24	0.52
2:F:252:LYS:HB2	2:F:256:TYR:CD2	2.45	0.52
2:F:964:LEU:O	2:F:996:SER:HA	2.09	0.52
2:F:1040:GLU:HB2	2:F:1084:GLU:OE1	2.10	0.52
3:G:132:VAL:HG12	3:G:133:ASP:H	1.74	0.52
3:G:378:ASP:O	3:G:382:VAL:HG23	2.09	0.52
3:G:556:GLN:O	3:G:557:ARG:CB	2.58	0.52
3:G:568:THR:O	3:G:572:ARG:HG2	2.09	0.52
1:B:359:ASP:OD1	1:B:395:ARG:HD2	2.09	0.52
2:C:442:ARG:HG3	2:C:442:ARG:NH1	2.24	0.52
2:C:509:ASP:HA	2:C:512:ARG:NH1	2.25	0.52
2:C:880:ILE:HG23	2:C:901:PHE:CE1	2.45	0.52
2:C:1080:MET:HG3	4:X:11:DA:N3	2.24	0.52
3:D:383:LYS:O	3:D:387:GLN:HB2	2.10	0.52
3:D:440:LEU:HD22	3:D:552:ILE:CD1	2.40	0.52
1:E:375:ARG:HD3	1:E:400:ILE:O	2.10	0.52
1:E:416:LYS:HE2	1:E:803:TYR:CE2	2.45	0.52
1:E:754:LEU:HB2	1:E:815:LEU:HB3	1.91	0.52
1:E:861:CYS:HA	1:E:865:ILE:HB	1.91	0.52
1:E:874:ASP:O	1:E:875:ASN:HB2	2.10	0.52
1:E:1002:LEU:HD22	1:E:1007:VAL:HG12	1.91	0.52
2:F:59:ASN:O	2:F:60:ILE:O	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:203:CYS:HB2	2:F:204:PRO:HD2	1.91	0.52
2:F:335:LEU:HA	2:F:374:ILE:CD1	2.40	0.52
3:G:27:VAL:CG1	3:G:90:ALA:HB1	2.40	0.52
3:G:126:VAL:HG13	3:G:166:ILE:H	1.73	0.52
3:G:181:VAL:HG21	3:G:295:LEU:CD1	2.40	0.52
4:X:15:DG:C1'	4:X:16:DA:OP1	2.57	0.52
1:B:629:GLU:CD	2:C:852:ARG:HH12	2.18	0.52
1:B:826:ASP:O	1:B:827:LYS:C	2.52	0.52
1:B:838:LEU:O	1:B:838:LEU:HD22	2.09	0.52
1:B:907:SER:C	1:B:909:LEU:N	2.68	0.52
1:B:947:ARG:CD	1:B:1086:LEU:HD21	2.40	0.52
2:C:77:LEU:HD23	2:C:196:THR:HG21	1.92	0.52
2:C:254:PRO:HA	2:C:257:LEU:HD23	1.92	0.52
3:D:52:CYS:HB3	3:D:108:TYR:CE2	2.45	0.52
3:D:248:PRO:HD3	4:X:4:5IU:H1'	1.90	0.52
3:D:556:GLN:O	3:D:557:ARG:HG3	2.10	0.52
1:E:52:ARG:HH21	1:E:52:ARG:CG	2.23	0.52
1:E:256:LYS:HA	1:E:259:ARG:HD2	1.92	0.52
1:E:444:ASP:OD2	1:E:445:THR:HG22	2.10	0.52
2:F:26:LEU:HD22	2:F:33:GLU:OE1	2.10	0.52
2:F:87:ASN:C	2:F:87:ASN:ND2	2.68	0.52
2:F:239:LEU:HD12	2:F:239:LEU:N	2.25	0.52
2:F:548:LEU:HD22	2:F:549:PRO:HD2	1.92	0.52
4:Y:18:DC:H4'	4:Y:19:DA:OP1	2.08	0.52
1:B:243:LEU:HD22	1:B:259:ARG:HH12	1.74	0.51
1:B:561:ARG:O	1:B:564:ALA:HB3	2.10	0.51
1:B:815:LEU:HD13	1:B:815:LEU:N	2.25	0.51
2:C:545:GLN:C	2:C:547:VAL:H	2.17	0.51
2:C:910:GLY:O	2:C:913:GLY:N	2.42	0.51
3:D:52:CYS:SG	3:D:106:ARG:HG2	2.49	0.51
3:D:437:GLU:O	3:D:548:HIS:N	2.34	0.51
1:E:771:ARG:HH21	1:E:793:GLU:HG3	1.75	0.51
1:E:1098:MET:CE	1:E:1156:TYR:HB2	2.40	0.51
2:F:228:GLN:NE2	2:F:319:SER:H	2.07	0.51
2:F:592:ARG:HH11	2:F:592:ARG:HB2	1.74	0.51
3:G:175:THR:HG21	3:G:355:LEU:CB	2.40	0.51
3:G:256:HIS:CG	3:G:257:ALA:N	2.78	0.51
3:G:266:LEU:HD12	3:G:267:VAL:H	1.73	0.51
3:G:367:ILE:N	3:G:393:ILE:CG2	2.68	0.51
3:G:462:MET:CE	3:G:534:TRP:HE1	2.23	0.51
1:B:65:THR:HG22	1:B:67:ALA:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:558:VAL:CG2	1:B:563:GLU:HB3	2.40	0.51
1:B:754:LEU:HB3	1:B:757:ILE:HB	1.91	0.51
1:B:769:HIS:HA	1:B:775:GLU:O	2.10	0.51
1:B:769:HIS:HD2	1:B:793:GLU:OE1	1.93	0.51
1:B:781:ASN:O	1:B:783:ALA:N	2.39	0.51
1:B:823:ARG:HH22	1:B:828:LYS:HZ3	1.57	0.51
2:C:199:SER:O	2:C:201:THR:N	2.43	0.51
2:C:344:GLU:HB3	2:C:346:GLU:HG2	1.92	0.51
2:C:997:ARG:HG2	2:C:997:ARG:NH1	2.24	0.51
3:D:242:ARG:HD3	3:D:242:ARG:C	2.34	0.51
3:D:385:VAL:CG2	3:D:396:ARG:CZ	2.88	0.51
1:E:584:ARG:HG2	1:E:584:ARG:HH11	1.75	0.51
1:E:1040:ILE:HG23	1:E:1112:GLN:NE2	2.26	0.51
1:E:1068:LEU:HD23	1:E:1079:LEU:HD23	1.90	0.51
1:E:1172:PHE:CZ	1:E:1173:ALA:HB2	2.44	0.51
2:F:74:VAL:HA	2:F:80:ILE:HB	1.92	0.51
2:F:348:ARG:HG3	2:F:365:ARG:NH1	2.25	0.51
2:F:360:ARG:CZ	2:F:766:ALA:HB2	2.40	0.51
2:F:545:GLN:C	2:F:547:VAL:H	2.17	0.51
2:F:842:ALA:O	2:F:843:HIS:HB2	2.10	0.51
3:G:286:LEU:HD13	3:G:292:VAL:CG2	2.39	0.51
1:B:514:TYR:O	1:B:514:TYR:CG	2.60	0.51
1:B:1050:CYS:C	1:B:1052:PRO:CD	2.81	0.51
2:C:842:ALA:O	2:C:843:HIS:CB	2.59	0.51
2:C:1038:LEU:HD23	2:C:1038:LEU:N	2.25	0.51
3:D:279:MET:O	3:D:281:ARG:N	2.44	0.51
3:D:373:ALA:HB1	3:D:380:THR:HB	1.91	0.51
1:E:815:LEU:HD13	1:E:815:LEU:N	2.25	0.51
1:E:826:ASP:O	1:E:827:LYS:C	2.52	0.51
1:E:889:ASN:HA	2:F:807:LEU:HD11	1.91	0.51
2:F:28:ASP:H	2:F:29:PRO:HD3	1.69	0.51
2:F:334:LEU:HD11	2:F:755:ILE:HG23	1.93	0.51
2:F:551:ASP:HB3	3:G:111:ARG:HH22	1.75	0.51
2:F:867:THR:OG1	2:F:868:GLU:N	2.44	0.51
1:B:514:TYR:O	1:B:515:GLN:CG	2.59	0.51
1:B:604:MET:HE3	1:B:649:ARG:HH12	1.76	0.51
1:B:905:SER:O	1:B:906:TYR:C	2.52	0.51
1:B:1111:TYR:H	1:B:1111:TYR:HD1	1.59	0.51
2:C:104:GLU:CA	2:C:112:ARG:HH11	2.22	0.51
2:C:478:VAL:HG21	2:C:605:THR:HG21	1.92	0.51
2:C:736:ILE:HD12	2:C:736:ILE:N	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:184:LEU:C	3:D:184:LEU:HD13	2.35	0.51
3:D:240:LEU:HD21	3:D:274:ILE:HD12	1.92	0.51
3:D:409:GLU:C	3:D:411:ALA:H	2.17	0.51
1:E:133:CYS:HA	1:E:358:LEU:HD12	1.92	0.51
1:E:282:LEU:N	1:E:283:PRO:CD	2.73	0.51
1:E:610:ASN:HD22	1:E:613:ARG:NH1	2.04	0.51
1:E:824:ARG:HB2	4:Y:16:DA:OP2	2.11	0.51
1:E:1109:LEU:HA	1:E:1112:GLN:OE1	2.10	0.51
2:F:292:GLU:HB3	2:F:295:VAL:HG22	1.92	0.51
2:F:406:ARG:HB3	2:F:658:PRO:HG3	1.93	0.51
2:F:460:LEU:N	2:F:461:PRO:HD2	2.25	0.51
2:F:530:ARG:NE	2:F:548:LEU:O	2.37	0.51
3:G:255:HIS:ND1	3:G:285:ALA:HB2	2.26	0.51
1:B:362:LEU:HD23	1:B:370:LEU:HD23	1.91	0.51
1:B:1051:PRO:CD	1:B:1052:PRO:HD2	2.38	0.51
2:C:33:GLU:OE2	2:C:210:ARG:NH1	2.43	0.51
2:C:457:LEU:O	2:C:460:LEU:HG	2.11	0.51
2:C:571:LEU:HD23	2:C:598:PHE:CE2	2.46	0.51
3:D:354:LEU:H	3:D:354:LEU:HD12	1.75	0.51
1:E:153:ILE:HD12	1:E:154:GLU:OE2	2.10	0.51
2:F:295:VAL:O	2:F:295:VAL:HG12	2.11	0.51
2:F:354:ASN:HD22	2:F:356:GLU:HB3	1.74	0.51
2:F:611:LEU:HD22	2:F:645:LEU:HD11	1.93	0.51
1:B:470:PHE:O	1:B:472:GLU:N	2.44	0.51
1:B:471:ARG:HD2	1:B:471:ARG:H	1.75	0.51
1:B:591:LEU:HB3	2:C:1095:ARG:HH21	1.74	0.51
1:B:672:GLU:HG2	2:C:808:PRO:HG2	1.93	0.51
2:C:74:VAL:HA	2:C:80:ILE:HB	1.92	0.51
2:C:81:PRO:HG3	2:C:182:PRO:HB2	1.93	0.51
2:C:228:GLN:NE2	2:C:319:SER:H	2.09	0.51
2:C:394:LEU:HD23	2:C:802:TYR:CB	2.41	0.51
3:D:417:ARG:NH1	3:D:437:GLU:HB3	2.24	0.51
1:E:265:TRP:CD1	1:E:265:TRP:C	2.89	0.51
1:E:658:MET:HE3	2:F:383:GLN:OE1	2.10	0.51
3:G:383:LYS:O	3:G:387:GLN:HB2	2.10	0.51
4:Y:16:DA:C2'	4:Y:17:DG:C8	2.94	0.51
1:B:496:GLN:N	1:B:496:GLN:NE2	2.58	0.51
1:B:584:ARG:HG2	1:B:584:ARG:HH11	1.75	0.51
1:B:951:PRO:O	1:B:954:PHE:HB3	2.11	0.51
1:B:1164:LEU:HD21	1:B:1168:MET:HE3	1.92	0.51
2:C:295:VAL:O	2:C:295:VAL:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:611:LEU:O	2:C:611:LEU:HD23	2.11	0.51
3:D:244:LEU:HD13	3:D:255:HIS:ND1	2.25	0.51
1:E:283:PRO:HB3	1:E:314:ASP:OD1	2.10	0.51
1:E:442:THR:HG22	1:E:443:LEU:N	2.26	0.51
1:E:604:MET:HE3	1:E:649:ARG:HH12	1.75	0.51
1:E:732:ASP:OD1	1:E:735:LEU:HD12	2.11	0.51
1:E:951:PRO:O	1:E:954:PHE:HB3	2.11	0.51
2:F:26:LEU:HB2	2:F:210:ARG:NH2	2.25	0.51
2:F:687:ARG:O	2:F:708:ARG:HG2	2.10	0.51
2:F:884:LEU:HG	2:F:917:TRP:CH2	2.46	0.51
2:F:1039:PRO:HA	2:F:1113:LEU:HD11	1.92	0.51
3:G:65:HIS:O	3:G:66:PRO:C	2.51	0.51
3:G:130:ILE:H	3:G:130:ILE:CD1	2.00	0.51
3:G:229:GLN:HG2	3:G:230:LYS:HD2	1.92	0.51
3:G:233:ILE:HD13	3:G:233:ILE:N	2.25	0.51
3:G:286:LEU:CD1	3:G:292:VAL:HG21	2.41	0.51
3:G:317:ALA:C	3:G:319:ALA:H	2.19	0.51
3:G:344:GLU:HG3	3:G:345:ALA:H	1.75	0.51
3:G:409:GLU:C	3:G:411:ALA:H	2.18	0.51
3:G:562:THR:CB	3:G:594:THR:H	2.22	0.51
1:B:604:MET:HE3	1:B:604:MET:HA	1.92	0.51
1:B:629:GLU:CD	2:C:852:ARG:NH1	2.69	0.51
2:C:578:LEU:HB3	2:C:634:LEU:HD12	1.93	0.51
2:C:717:LEU:HD22	2:C:721:ILE:HG12	1.92	0.51
2:C:842:ALA:O	2:C:843:HIS:HB2	2.09	0.51
3:D:185:LEU:HD13	3:D:199:ILE:HG21	1.93	0.51
3:D:278:MET:O	3:D:279:MET:C	2.54	0.51
3:D:279:MET:O	3:D:280:SER:C	2.52	0.51
3:D:298:ARG:HD3	3:D:314:CYS:HB3	1.93	0.51
3:D:570:VAL:HG13	3:D:577:LEU:HD22	1.93	0.51
1:E:177:ARG:HE	1:E:181:GLN:HE21	1.58	0.51
1:E:490:VAL:HG12	1:E:495:THR:HG22	1.93	0.51
1:E:507:GLU:HB3	1:E:827:LYS:HE3	1.92	0.51
1:E:514:TYR:O	1:E:515:GLN:CG	2.59	0.51
2:F:33:GLU:O	2:F:60:ILE:HA	2.11	0.51
2:F:957:PRO:O	2:F:958:GLN:C	2.54	0.51
2:F:989:ALA:CB	2:F:1017:LEU:HD22	2.40	0.51
3:G:75:ILE:HB	3:G:78:LEU:CD1	2.39	0.51
4:Y:2:5IU:H3'	4:Y:3:5IU:C5'	2.40	0.51
1:B:39:ARG:HH11	1:B:39:ARG:HG3	1.76	0.51
1:B:222:HIS:CE1	1:B:272:TRP:HH2	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1161:ASN:C	1:B:1163:GLY:H	2.19	0.51
2:C:26:LEU:HD22	2:C:33:GLU:OE1	2.11	0.51
2:C:445:ARG:NH1	2:C:452:GLU:OE1	2.44	0.51
2:C:957:PRO:O	2:C:958:GLN:C	2.53	0.51
2:C:1035:LEU:O	2:C:1036:LEU:O	2.29	0.51
3:D:271:ALA:O	3:D:273:MET:N	2.44	0.51
1:E:254:ARG:NH2	4:Y:22:DG:OP1	2.44	0.51
1:E:284:GLU:HG3	1:E:285:SER:N	2.23	0.51
2:F:103:LEU:HD22	2:F:112:ARG:HA	1.92	0.51
2:F:251:ILE:HB	2:F:286:LEU:HD13	1.92	0.51
3:G:178:THR:HG23	3:G:179:THR:N	2.25	0.51
3:G:207:LYS:HE2	3:G:211:ARG:NH2	2.25	0.51
3:G:216:LEU:O	3:G:220:LEU:CB	2.46	0.51
1:B:262:GLN:C	1:B:265:TRP:HB3	2.36	0.51
1:B:265:TRP:CD1	1:B:265:TRP:C	2.89	0.51
1:B:987:GLU:O	1:B:991:THR:HG22	2.10	0.51
2:C:8:ASN:ND2	2:C:343:LEU:HD11	2.26	0.51
2:C:344:GLU:HB3	2:C:346:GLU:OE2	2.11	0.51
2:C:611:LEU:HD22	2:C:645:LEU:HD11	1.93	0.51
3:D:79:GLN:O	3:D:81:TRP:N	2.43	0.51
3:D:233:ILE:HD13	3:D:233:ILE:N	2.26	0.51
1:E:92:THR:HG21	1:E:97:TYR:HB2	1.93	0.51
1:E:119:ARG:HD3	2:F:302:SER:CB	2.41	0.51
1:E:604:MET:HE3	1:E:604:MET:HA	1.93	0.51
1:E:685:THR:HG21	1:E:729:LEU:HD12	1.93	0.51
1:E:921:MET:HE1	2:F:614:GLN:OE1	2.11	0.51
1:E:1142:PHE:O	1:E:1144:ARG:O	2.29	0.51
2:F:87:ASN:ND2	2:F:87:ASN:O	2.43	0.51
3:G:255:HIS:CG	3:G:256:HIS:N	2.75	0.51
1:B:415:PRO:HB3	1:B:430:TYR:CE2	2.47	0.50
1:B:861:CYS:HA	1:B:865:ILE:HB	1.93	0.50
2:C:995:GLU:HG2	2:C:996:SER:H	1.76	0.50
2:C:1078:ASN:OD1	4:X:11:DA:N7	2.45	0.50
2:C:1087:ASP:O	2:C:1091:GLN:HG2	2.11	0.50
1:E:1049:GLY:C	1:E:1051:PRO:HD3	2.35	0.50
2:F:578:LEU:HB3	2:F:634:LEU:HD12	1.93	0.50
2:F:1038:LEU:HD23	2:F:1038:LEU:N	2.25	0.50
1:B:92:THR:HG21	1:B:97:TYR:HB2	1.92	0.50
1:B:385:GLU:HG3	1:B:387:GLN:HE22	1.76	0.50
1:B:875:ASN:C	1:B:877:PRO:CD	2.84	0.50
2:C:688:GLN:O	2:C:689:LEU:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:749:GLN:OE1	2:C:752:ILE:HD11	2.11	0.50
3:D:229:GLN:HG2	3:D:230:LYS:HD2	1.92	0.50
1:E:172:CYS:HA	1:E:175:LEU:HG	1.93	0.50
1:E:496:GLN:N	1:E:496:GLN:HE21	2.08	0.50
1:E:763:GLN:HE21	1:E:763:GLN:CA	2.24	0.50
1:E:899:ASP:CB	1:E:1059:ARG:HH12	2.17	0.50
2:F:33:GLU:OE2	2:F:210:ARG:NH1	2.44	0.50
2:F:509:ASP:HA	2:F:512:ARG:NH1	2.26	0.50
2:F:1027:TYR:CD1	2:F:1027:TYR:C	2.88	0.50
3:G:279:MET:O	3:G:280:SER:C	2.53	0.50
3:G:455:ASN:HD21	3:G:532:THR:C	2.20	0.50
1:B:52:ARG:HH21	1:B:52:ARG:CG	2.24	0.50
1:B:804:VAL:O	1:B:808:ARG:HG2	2.11	0.50
1:B:920:LEU:HD23	2:C:650:ILE:HG13	1.92	0.50
2:C:867:THR:OG1	2:C:868:GLU:N	2.44	0.50
2:C:971:LEU:CD2	4:X:10:DA:H5'	2.39	0.50
2:C:972:LEU:HA	2:C:1000:LEU:CD1	2.41	0.50
2:C:1027:TYR:CD1	2:C:1027:TYR:C	2.88	0.50
3:D:397:LEU:HD13	3:D:580:TYR:CE2	2.45	0.50
3:D:550:ALA:CB	3:D:578:SER:HB2	2.42	0.50
3:D:556:GLN:O	3:D:557:ARG:CB	2.59	0.50
3:D:562:THR:HG21	3:D:594:THR:CG2	2.39	0.50
1:E:531:GLN:NE2	1:E:879:GLN:HB2	2.23	0.50
1:E:600:LEU:O	1:E:604:MET:HB2	2.11	0.50
2:F:2:LEU:HD23	2:F:236:ILE:CG2	2.41	0.50
2:F:828:LEU:HD13	2:F:1028:ARG:CG	2.35	0.50
2:F:885:LEU:HD12	2:F:969:PRO:CG	2.32	0.50
2:F:971:LEU:HD21	2:F:1001:ARG:NH2	2.27	0.50
2:F:1077:GLY:H	2:F:1083:GLY:CA	2.24	0.50
3:G:106:ARG:NH2	3:G:598:SER:O	2.44	0.50
3:G:260:PRO:O	3:G:261:LEU:CB	2.57	0.50
3:G:277:PRO:O	3:G:280:SER:OG	2.30	0.50
1:B:199:ARG:HH11	1:B:199:ARG:HG3	1.76	0.50
1:B:355:LEU:HD11	1:B:392:GLN:NE2	2.27	0.50
1:B:375:ARG:CZ	1:B:404:GLN:NE2	2.73	0.50
1:B:524:ALA:O	1:B:527:ARG:HG3	2.12	0.50
2:C:505:GLY:O	2:C:523:THR:HB	2.11	0.50
3:D:330:SER:HB3	3:D:337:VAL:N	2.26	0.50
3:D:361:PHE:CD1	3:D:361:PHE:C	2.89	0.50
1:E:42:LEU:CB	1:E:44:LEU:HD13	2.42	0.50
1:E:199:ARG:HH11	1:E:199:ARG:HG3	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:390:ASP:HA	1:E:429:THR:HG21	1.92	0.50
1:E:900:ASN:ND2	1:E:902:ARG:HG3	2.26	0.50
1:E:1102:MET:HE3	1:E:1102:MET:HA	1.94	0.50
2:F:98:LEU:HD21	2:F:175:TYR:CD2	2.46	0.50
2:F:102:LEU:HD11	2:F:171:ALA:CB	2.41	0.50
2:F:103:LEU:HD11	2:F:115:LEU:CD1	2.41	0.50
2:F:556:LEU:HB3	4:Y:1:5IU:I5	2.82	0.50
2:F:872:LEU:HD22	2:F:880:ILE:HD12	1.92	0.50
3:G:186:ALA:HB2	3:G:223:LEU:HD11	1.93	0.50
3:G:226:THR:O	3:G:226:THR:HG22	2.11	0.50
3:G:366:GLY:C	3:G:393:ILE:HG21	2.35	0.50
3:G:556:GLN:HA	3:G:585:ILE:HD12	1.94	0.50
4:X:45:DT:H2''	4:X:46:5IU:H5'	1.94	0.50
1:B:212:PRO:O	1:B:213:PRO:C	2.54	0.50
1:B:467:ALA:C	1:B:469:MET:H	2.20	0.50
1:B:1118:LEU:O	1:B:1122:LEU:HG	2.12	0.50
2:C:258:ALA:HA	2:C:261:LEU:CG	2.37	0.50
2:C:470:VAL:O	2:C:473:LEU:HB2	2.10	0.50
2:C:482:ARG:HG2	2:C:482:ARG:HH11	1.75	0.50
1:E:469:MET:O	1:E:470:PHE:CD2	2.65	0.50
1:E:838:LEU:O	1:E:838:LEU:HD22	2.12	0.50
1:E:931:VAL:HG12	1:E:932:ALA:N	2.27	0.50
1:E:942:PRO:HB3	1:E:993:TRP:CE2	2.47	0.50
2:F:717:LEU:HD22	2:F:721:ILE:HG12	1.94	0.50
2:F:850:GLN:HG2	2:F:856:ASN:OD1	2.11	0.50
2:F:955:TRP:O	2:F:957:PRO:HD3	2.11	0.50
3:G:417:ARG:NH1	3:G:437:GLU:HB3	2.27	0.50
1:B:170:ARG:HA	2:C:517:PRO:CG	2.42	0.50
1:B:256:LYS:HA	1:B:259:ARG:HD2	1.92	0.50
1:B:259:ARG:O	1:B:262:GLN:NE2	2.44	0.50
1:B:362:LEU:O	1:B:399:ARG:HD3	2.12	0.50
1:B:1043:PHE:HD2	1:B:1161:ASN:CB	2.25	0.50
1:B:1102:MET:HE3	1:B:1102:MET:HA	1.94	0.50
2:C:138:TYR:HE1	2:C:165:GLN:NE2	2.10	0.50
2:C:920:GLN:OE1	2:C:920:GLN:HA	2.12	0.50
2:C:991:GLY:O	2:C:992:GLY:C	2.55	0.50
2:C:1013:ALA:O	2:C:1017:LEU:HD23	2.12	0.50
3:D:218:LYS:HA	3:D:221:ARG:HD2	1.93	0.50
1:E:65:THR:HB	1:E:68:ALA:CB	2.40	0.50
1:E:417:GLN:HG2	1:E:804:VAL:HG22	1.94	0.50
1:E:471:ARG:CD	1:E:471:ARG:H	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:497:PRO:HG3	1:E:866:ALA:HB3	1.93	0.50
1:E:769:HIS:HD2	1:E:793:GLU:OE1	1.94	0.50
2:F:29:PRO:O	2:F:30:PHE:HB2	2.12	0.50
2:F:108:PHE:N	2:F:108:PHE:CD1	2.80	0.50
2:F:970:SER:HB2	4:Y:10:DA:OP2	2.12	0.50
3:G:106:ARG:CZ	3:G:598:SER:O	2.60	0.50
3:G:243:LEU:CD1	3:G:261:LEU:CD2	2.77	0.50
1:B:177:ARG:HE	1:B:181:GLN:HE21	1.58	0.50
1:B:283:PRO:HB3	1:B:314:ASP:OD1	2.12	0.50
1:B:577:PRO:HB2	1:B:735:LEU:HD22	1.94	0.50
1:B:1101:ALA:HA	1:B:1104:ALA:HB3	1.94	0.50
2:C:108:PHE:N	2:C:108:PHE:CD1	2.80	0.50
2:C:460:LEU:N	2:C:461:PRO:HD2	2.26	0.50
3:D:274:ILE:CG2	3:D:279:MET:HG2	2.42	0.50
1:E:222:HIS:CE1	1:E:272:TRP:HH2	2.30	0.50
1:E:375:ARG:CZ	1:E:404:GLN:NE2	2.75	0.50
1:E:626:LEU:O	1:E:630:THR:HG23	2.12	0.50
1:E:878:TRP:O	1:E:880:VAL:N	2.45	0.50
2:F:25:ARG:CG	2:F:25:ARG:NH1	2.73	0.50
2:F:834:LEU:CD2	2:F:986:VAL:HG21	2.41	0.50
2:F:997:ARG:HG2	2:F:997:ARG:NH1	2.27	0.50
3:G:243:LEU:HD12	3:G:244:LEU:HG	1.92	0.50
2:C:87:ASN:ND2	2:C:90:SER:H	2.08	0.50
2:C:200:ALA:O	2:C:202:THR:N	2.43	0.50
2:C:406:ARG:HB3	2:C:658:PRO:HG3	1.94	0.50
2:C:687:ARG:O	2:C:708:ARG:HG2	2.12	0.50
1:E:187:TRP:HZ3	1:E:196:ASP:OD2	1.94	0.50
1:E:876:GLN:N	1:E:877:PRO:HD2	2.27	0.50
1:E:1043:PHE:O	1:E:1161:ASN:ND2	2.43	0.50
2:F:52:GLN:O	2:F:54:PHE:N	2.41	0.50
2:F:995:GLU:HG2	2:F:996:SER:H	1.76	0.50
3:G:184:LEU:C	3:G:184:LEU:HD13	2.36	0.50
1:B:282:LEU:N	1:B:283:PRO:CD	2.74	0.50
2:C:529:THR:O	2:C:533:LEU:HB2	2.12	0.50
2:C:1082:ARG:HB2	2:C:1082:ARG:HH11	1.76	0.50
3:D:175:THR:HG21	3:D:355:LEU:CB	2.39	0.50
3:D:192:ALA:O	3:D:193:ASP:C	2.55	0.50
1:E:180:ALA:HB3	2:F:911:ALA:HB1	1.93	0.50
1:E:332:LEU:O	1:E:336:ARG:HG3	2.12	0.50
1:E:473:ILE:O	1:E:473:ILE:HG22	2.11	0.50
2:F:457:LEU:O	2:F:460:LEU:HG	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:157:ALA:HB2	3:G:355:LEU:CD2	2.38	0.50
3:G:157:ALA:CB	3:G:355:LEU:HD21	2.39	0.50
3:G:181:VAL:HG21	3:G:295:LEU:HD13	1.93	0.50
3:G:192:ALA:O	3:G:193:ASP:C	2.55	0.50
3:G:266:LEU:HD12	3:G:267:VAL:N	2.27	0.50
3:G:533:THR:O	3:G:535:ALA:N	2.34	0.50
1:B:8:LEU:HB2	1:B:441:TYR:HB3	1.92	0.49
1:B:681:GLU:O	1:B:685:THR:HG23	2.10	0.49
1:B:700:GLN:O	1:B:701:LEU:HD23	2.12	0.49
1:B:791:GLU:OE2	1:B:794:ARG:HD3	2.11	0.49
2:C:72:MET:HE1	2:C:208:PRO:CD	2.40	0.49
2:C:107:ASP:HB3	2:C:108:PHE:CD1	2.47	0.49
3:D:71:CYS:CB	3:D:74:GLU:HB3	2.41	0.49
3:D:304:VAL:HG21	3:D:564:GLU:CG	2.34	0.49
1:E:237:ARG:HE	1:E:266:ILE:CG2	2.24	0.49
2:F:358:PHE:CZ	2:F:768:ASN:OD1	2.65	0.49
2:F:540:ALA:C	2:F:542:GLY:N	2.67	0.49
2:F:709:ARG:HG2	2:F:709:ARG:NH2	2.21	0.49
2:F:842:ALA:O	2:F:843:HIS:CB	2.60	0.49
1:B:362:LEU:CD1	1:B:396:ILE:HG23	2.41	0.49
1:B:423:ARG:O	1:B:423:ARG:HD2	2.10	0.49
1:B:497:PRO:HG3	1:B:866:ALA:HB3	1.93	0.49
1:B:900:ASN:O	1:B:900:ASN:CG	2.54	0.49
1:B:931:VAL:HG12	1:B:932:ALA:N	2.27	0.49
1:B:1068:LEU:HD12	1:B:1069:VAL:H	1.77	0.49
2:C:595:LEU:HB3	2:C:609:MET:HE3	1.94	0.49
3:D:178:THR:HG23	3:D:179:THR:N	2.27	0.49
1:E:385:GLU:HG3	1:E:387:GLN:HE22	1.76	0.49
1:E:947:ARG:CD	1:E:1086:LEU:HD21	2.42	0.49
1:E:1111:TYR:H	1:E:1111:TYR:HD1	1.60	0.49
2:F:78:PRO:HD2	2:F:192:ARG:HH11	1.77	0.49
2:F:262:THR:O	2:F:273:GLU:HG3	2.13	0.49
2:F:344:GLU:HB3	2:F:346:GLU:OE2	2.12	0.49
2:F:405:PRO:HG2	2:F:658:PRO:HB2	1.93	0.49
2:F:519:THR:CG2	2:F:521:GLN:H	2.21	0.49
3:G:51:VAL:HG13	3:G:112:MET:SD	2.52	0.49
1:B:133:CYS:HA	1:B:358:LEU:HD12	1.93	0.49
1:B:900:ASN:ND2	1:B:902:ARG:HG3	2.27	0.49
1:B:1161:ASN:O	1:B:1162:ALA:HB3	2.11	0.49
2:C:112:ARG:HH11	2:C:112:ARG:CG	2.26	0.49
2:C:185:HIS:CE1	2:C:188:ASN:HD22	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:397:LEU:CD2	2:C:403:LEU:HD13	2.37	0.49
2:C:545:GLN:C	2:C:547:VAL:N	2.69	0.49
1:E:54:LEU:HD13	1:E:380:VAL:CG1	2.43	0.49
1:E:262:GLN:C	1:E:265:TRP:HB3	2.37	0.49
1:E:907:SER:C	1:E:909:LEU:N	2.69	0.49
1:E:1131:TYR:CE2	1:E:1162:ALA:HB2	2.48	0.49
2:F:81:PRO:HG3	2:F:182:PRO:CB	2.42	0.49
2:F:161:ALA:O	2:F:165:GLN:HG3	2.13	0.49
3:G:71:CYS:CB	3:G:74:GLU:HB3	2.42	0.49
3:G:397:LEU:HD13	3:G:580:TYR:CE2	2.48	0.49
1:B:628:ILE:O	1:B:632:ASN:ND2	2.46	0.49
1:B:905:SER:HB3	1:B:1063:LYS:HB2	1.94	0.49
2:C:203:CYS:HB2	2:C:204:PRO:HD2	1.94	0.49
2:C:971:LEU:HD21	2:C:1001:ARG:NH2	2.28	0.49
3:D:216:LEU:O	3:D:220:LEU:CB	2.48	0.49
3:D:326:ALA:HB1	3:D:337:VAL:O	2.12	0.49
3:D:550:ALA:HB2	3:D:578:SER:HB2	1.94	0.49
3:D:562:THR:CB	3:D:594:THR:H	2.23	0.49
1:E:243:LEU:HD22	1:E:259:ARG:HH12	1.76	0.49
1:E:675:LEU:CD1	2:F:809:ALA:HB1	2.43	0.49
3:G:15:GLN:O	3:G:16:LEU:HB3	2.11	0.49
3:G:147:VAL:O	3:G:147:VAL:HG12	2.12	0.49
3:G:166:ILE:HD12	3:G:166:ILE:N	2.27	0.49
1:B:89:ARG:C	1:B:91:THR:N	2.70	0.49
1:B:165:ALA:O	1:B:169:ARG:HG3	2.12	0.49
1:B:172:CYS:HA	1:B:175:LEU:HG	1.94	0.49
1:B:527:ARG:HD2	1:B:527:ARG:C	2.36	0.49
1:B:1024:TYR:O	2:C:51:SER:HB2	2.13	0.49
2:C:278:ARG:O	2:C:279:ASP:C	2.56	0.49
2:C:587:TRP:CH2	2:C:634:LEU:HG	2.47	0.49
2:C:1077:GLY:H	2:C:1083:GLY:CA	2.26	0.49
3:D:244:LEU:HD13	3:D:255:HIS:CG	2.48	0.49
3:D:597:ARG:C	3:D:597:ARG:CD	2.85	0.49
1:E:954:PHE:O	1:E:957:SER:HB3	2.12	0.49
2:F:130:LYS:CD	2:F:692:LEU:HD21	2.38	0.49
2:F:412:VAL:O	2:F:663:THR:HG22	2.12	0.49
2:F:571:LEU:HD23	2:F:598:PHE:CE2	2.48	0.49
2:F:716:PHE:CB	2:F:747:LEU:HD13	2.43	0.49
3:G:178:THR:HG23	3:G:179:THR:H	1.76	0.49
3:G:185:LEU:HD13	3:G:199:ILE:HG21	1.95	0.49
1:B:146:MET:HE1	1:B:150:GLN:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:386:PHE:C	1:B:388:ASP:H	2.21	0.49
1:B:507:GLU:HA	1:B:850:ALA:HB1	1.95	0.49
1:B:581:LEU:HD11	1:B:737:GLN:OE1	2.12	0.49
2:C:412:VAL:O	2:C:663:THR:HG22	2.11	0.49
3:D:317:ALA:C	3:D:319:ALA:H	2.20	0.49
1:E:134:GLN:HB3	1:E:354:MET:SD	2.53	0.49
1:E:964:PHE:N	1:E:964:PHE:CD2	2.69	0.49
2:F:277:PHE:CD1	2:F:278:ARG:HG3	2.47	0.49
2:F:749:GLN:OE1	2:F:752:ILE:HD11	2.12	0.49
2:F:768:ASN:HB3	2:F:771:GLU:HB2	1.95	0.49
2:F:832:VAL:O	2:F:832:VAL:CG2	2.61	0.49
2:F:1077:GLY:H	2:F:1083:GLY:N	2.09	0.49
3:G:253:LEU:HB3	3:G:255:HIS:CD2	2.47	0.49
3:G:525:SER:O	3:G:527:LEU:N	2.45	0.49
3:G:553:LEU:HB3	3:G:554:PRO:HD2	1.94	0.49
1:B:29:LYS:HD3	1:B:33:ILE:HD11	1.95	0.49
1:B:173:TYR:N	1:B:174:PRO:HD2	2.28	0.49
1:B:610:ASN:HD22	1:B:613:ARG:NH1	2.07	0.49
1:B:646:ASP:O	1:B:649:ARG:CG	2.61	0.49
1:B:1132:GLU:HA	1:B:1159:ARG:HH22	1.78	0.49
2:C:103:LEU:HD22	2:C:112:ARG:HA	1.94	0.49
2:C:884:LEU:O	2:C:888:LEU:HG	2.13	0.49
3:D:333:THR:C	3:D:335:THR:H	2.21	0.49
3:D:349:ARG:CB	3:D:349:ARG:HH11	2.26	0.49
3:D:597:ARG:O	3:D:598:SER:CB	2.52	0.49
1:E:467:ALA:C	1:E:469:MET:H	2.20	0.49
1:E:1118:LEU:O	1:E:1122:LEU:HG	2.12	0.49
1:E:1164:LEU:HD21	1:E:1168:MET:HE3	1.94	0.49
2:F:190:TYR:CD1	2:F:190:TYR:C	2.91	0.49
2:F:391:ASP:OD2	2:F:801:SER:HA	2.12	0.49
3:G:244:LEU:CD1	3:G:285:ALA:CB	2.88	0.49
1:B:471:ARG:H	1:B:471:ARG:CD	2.25	0.49
1:B:763:GLN:HE21	1:B:763:GLN:CA	2.25	0.49
2:C:160:GLU:C	2:C:162:GLN:N	2.68	0.49
2:C:941:MET:HG2	2:C:942:GLU:N	2.27	0.49
3:D:157:ALA:HB2	3:D:355:LEU:CD2	2.39	0.49
1:E:173:TYR:N	1:E:174:PRO:HD2	2.27	0.49
1:E:672:GLU:HG2	2:F:808:PRO:HG2	1.95	0.49
1:E:831:THR:C	1:E:833:VAL:N	2.70	0.49
1:E:900:ASN:O	1:E:900:ASN:CG	2.55	0.49
2:F:355:ILE:N	2:F:355:ILE:HD12	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:411:MET:HB3	2:F:664:LEU:HD12	1.93	0.49
2:F:947:CYS:O	2:F:948:ASN:ND2	2.45	0.49
2:F:1048:THR:OG1	2:F:1070:LYS:HG3	2.13	0.49
3:G:333:THR:C	3:G:335:THR:H	2.20	0.49
3:G:597:ARG:O	3:G:598:SER:CB	2.52	0.49
4:Y:45:DT:H2''	4:Y:46:5IU:H5'	1.95	0.49
1:B:237:ARG:HH21	1:B:266:ILE:CG2	2.25	0.49
1:B:491:PHE:O	1:B:493:GLY:N	2.46	0.49
2:C:99:LEU:N	2:C:100:PRO:HD2	2.28	0.49
2:C:445:ARG:HH11	2:C:452:GLU:CD	2.20	0.49
2:C:483:PHE:CE2	2:C:567:LEU:HA	2.47	0.49
2:C:858:ARG:CZ	2:C:858:ARG:HB2	2.42	0.49
3:D:91:VAL:HA	3:D:98:THR:HG21	1.93	0.49
3:D:204:PRO:CB	4:X:2:5IU:H6	2.42	0.49
1:E:268:LYS:HE3	1:E:268:LYS:C	2.38	0.49
1:E:310:PHE:C	1:E:310:PHE:CD2	2.89	0.49
1:E:365:GLU:CG	1:E:366:SER:N	2.76	0.49
1:E:527:ARG:HD2	1:E:527:ARG:C	2.38	0.49
1:E:692:GLU:HG2	2:F:383:GLN:HG3	1.95	0.49
2:F:482:ARG:HG2	2:F:482:ARG:NH1	2.27	0.49
3:G:185:LEU:HD23	3:G:188:LEU:HD12	1.95	0.49
3:G:185:LEU:HA	3:G:188:LEU:HB2	1.95	0.49
3:G:211:ARG:HA	3:G:214:GLU:CG	2.43	0.49
1:B:221:ARG:HG2	1:B:221:ARG:HH11	1.77	0.49
1:B:604:MET:HG3	1:B:705:HIS:CE1	2.48	0.49
1:B:771:ARG:HD3	1:B:789:LEU:HD22	1.94	0.49
2:C:239:LEU:N	2:C:239:LEU:CD1	2.76	0.49
3:D:117:ARG:HA	3:D:603:LEU:HD13	1.95	0.49
3:D:226:THR:O	3:D:226:THR:HG22	2.13	0.49
3:D:359:TYR:O	3:D:360:ARG:HG2	2.13	0.49
1:E:148:PHE:H	2:F:126:GLN:NE2	2.09	0.49
1:E:672:GLU:O	2:F:814:GLY:HA3	2.13	0.49
1:E:1139:ILE:HD13	1:E:1157:THR:HG23	1.95	0.49
2:F:5:TYR:CD2	2:F:323:LEU:HD11	2.48	0.49
2:F:87:ASN:ND2	2:F:90:SER:H	2.08	0.49
2:F:388:VAL:HG22	2:F:799:ARG:NH1	2.28	0.49
2:F:531:MET:HE2	2:F:561:VAL:HG13	1.95	0.49
2:F:539:SER:CB	2:F:551:ASP:OD1	2.61	0.49
2:F:595:LEU:HB3	2:F:609:MET:HE3	1.95	0.49
3:G:79:GLN:O	3:G:81:TRP:N	2.45	0.49
3:G:349:ARG:CB	3:G:349:ARG:HH11	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:598:TRP:CH2	2:C:857:PHE:HB3	2.46	0.48
2:C:80:ILE:CD1	2:C:189:LEU:HD21	2.41	0.48
2:C:103:LEU:HD11	2:C:115:LEU:CD1	2.43	0.48
2:C:973:SER:OG	2:C:976:GLN:HB2	2.13	0.48
3:D:212:LEU:HD22	3:D:216:LEU:CD1	2.43	0.48
3:D:300:GLN:NE2	3:D:568:THR:HA	2.28	0.48
1:E:754:LEU:HB3	1:E:757:ILE:HB	1.93	0.48
1:E:799:LEU:HD23	1:E:837:ALA:CB	2.41	0.48
1:E:1066:ILE:HG21	1:E:1069:VAL:CG2	2.42	0.48
2:F:77:LEU:HD23	2:F:196:THR:HG21	1.95	0.48
2:F:254:PRO:O	2:F:257:LEU:HG	2.13	0.48
2:F:408:ILE:HG23	2:F:674:VAL:CG1	2.43	0.48
3:G:123:PHE:HZ	3:G:279:MET:HE1	1.77	0.48
3:G:556:GLN:O	3:G:557:ARG:HG3	2.13	0.48
3:G:570:VAL:HG13	3:G:577:LEU:HD22	1.95	0.48
1:B:268:LYS:HA	1:B:268:LYS:CE	2.43	0.48
1:B:447:TRP:O	1:B:448:ARG:HB2	2.13	0.48
1:B:500:LYS:NZ	1:B:868:GLN:HG3	2.28	0.48
1:B:552:SER:HB3	1:B:733:LYS:O	2.13	0.48
1:B:874:ASP:O	1:B:875:ASN:HB2	2.11	0.48
1:B:1066:ILE:HG21	1:B:1069:VAL:CG2	2.43	0.48
3:D:28:ALA:HB1	3:D:35:VAL:HG23	1.95	0.48
1:E:253:ASP:C	1:E:255:ARG:N	2.71	0.48
1:E:791:GLU:OE2	1:E:794:ARG:HD3	2.14	0.48
2:F:61:ASP:HB3	2:F:63:PRO:HD3	1.94	0.48
2:F:137:GLN:CG	2:F:697:MET:HE1	2.43	0.48
3:G:91:VAL:CG1	3:G:100:MET:HB2	2.42	0.48
3:G:278:MET:CG	3:G:279:MET:N	2.73	0.48
4:X:34:DC:H1'	4:X:35:DA:C5'	2.43	0.48
4:Y:15:DG:H2''	4:Y:16:DA:C8	2.48	0.48
4:Y:47:DA:C2'	4:Y:48:DG:H5''	2.42	0.48
1:B:268:LYS:HE3	1:B:268:LYS:C	2.38	0.48
1:B:1085:TRP:HD1	1:B:1087:GLY:HA3	1.78	0.48
1:B:1139:ILE:HD13	1:B:1157:THR:HG23	1.96	0.48
2:C:61:ASP:HB3	2:C:63:PRO:HD3	1.94	0.48
2:C:304:GLY:HA2	2:C:714:TYR:CD1	2.41	0.48
2:C:535:TYR:HD1	2:C:558:ALA:HB1	1.78	0.48
2:C:670:ILE:CG2	2:C:671:PRO:HD2	2.43	0.48
3:D:562:THR:HG21	3:D:594:THR:CA	2.43	0.48
1:E:89:ARG:C	1:E:91:THR:N	2.70	0.48
1:E:231:THR:O	1:E:234:GLN:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:769:HIS:HA	1:E:775:GLU:O	2.12	0.48
2:F:2:LEU:HD23	2:F:236:ILE:HB	1.94	0.48
2:F:529:THR:O	2:F:533:LEU:HB2	2.13	0.48
3:G:246:ALA:HB1	3:G:251:GLN:HE22	1.79	0.48
3:G:449:PHE:O	3:G:450:GLY:O	2.30	0.48
1:B:281:GLN:NE2	1:B:283:PRO:HG2	2.29	0.48
1:B:752:VAL:CG1	1:B:809:SER:HB3	2.34	0.48
1:B:1052:PRO:HD3	1:B:1106:ARG:NH1	2.28	0.48
1:B:1071:ARG:NH1	2:C:29:PRO:HA	2.26	0.48
2:C:29:PRO:O	2:C:30:PHE:HB2	2.12	0.48
2:C:142:ARG:HH21	2:C:705:ASP:CG	2.20	0.48
2:C:304:GLY:O	2:C:307:GLY:N	2.47	0.48
2:C:709:ARG:HG2	2:C:709:ARG:NH2	2.22	0.48
2:C:1063:THR:C	2:C:1065:GLN:N	2.69	0.48
3:D:137:LEU:HD22	3:D:141:LEU:CD1	2.43	0.48
3:D:279:MET:HE1	3:D:294:PHE:CZ	2.49	0.48
3:D:412:LEU:HD13	3:D:462:MET:HG2	1.95	0.48
3:D:440:LEU:HD22	3:D:552:ILE:HD11	1.94	0.48
1:E:8:LEU:HB2	1:E:441:TYR:HB3	1.95	0.48
1:E:1119:HIS:ND1	1:E:1129:TYR:OH	2.46	0.48
2:F:318:GLU:OE1	2:F:318:GLU:N	2.46	0.48
2:F:796:PRO:HA	2:F:800:GLN:NE2	2.28	0.48
3:G:279:MET:O	3:G:282:LEU:N	2.46	0.48
3:G:549:ALA:O	3:G:577:LEU:HA	2.14	0.48
3:G:565:LEU:C	3:G:565:LEU:HD23	2.39	0.48
4:X:16:DA:C2'	4:X:17:DG:C8	2.96	0.48
1:B:507:GLU:HB3	1:B:827:LYS:HE3	1.96	0.48
1:B:892:THR:HG21	2:C:804:ARG:HE	1.76	0.48
1:B:920:LEU:HD23	2:C:650:ILE:HD11	1.96	0.48
1:B:947:ARG:HG3	1:B:1086:LEU:CD1	2.27	0.48
2:C:25:ARG:CG	2:C:25:ARG:NH1	2.75	0.48
2:C:277:PHE:CD1	2:C:278:ARG:HG3	2.49	0.48
2:C:441:ASP:O	2:C:649:ARG:NH1	2.46	0.48
2:C:539:SER:CB	2:C:551:ASP:OD1	2.60	0.48
3:D:261:LEU:CB	3:D:287:PRO:HD3	2.44	0.48
1:E:507:GLU:HA	1:E:850:ALA:HB1	1.95	0.48
1:E:919:ASP:OD1	2:F:652:GLN:HB2	2.14	0.48
1:E:947:ARG:HG3	1:E:1086:LEU:CD1	2.27	0.48
1:E:1043:PHE:HD2	1:E:1161:ASN:CB	2.26	0.48
2:F:245:ARG:HA	2:F:326:PHE:CZ	2.48	0.48
2:F:556:LEU:O	2:F:559:GLU:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:634:LEU:O	2:F:635:SER:C	2.56	0.48
2:F:688:GLN:O	2:F:689:LEU:HB3	2.13	0.48
3:G:567:TYR:O	3:G:571:THR:HG23	2.13	0.48
1:B:1043:PHE:O	1:B:1161:ASN:ND2	2.44	0.48
1:B:1131:TYR:CE2	1:B:1162:ALA:HB2	2.48	0.48
2:C:261:LEU:HD11	2:C:281:GLU:OE1	2.13	0.48
2:C:318:GLU:OE1	2:C:318:GLU:N	2.46	0.48
2:C:966:ARG:O	2:C:998:LEU:HA	2.13	0.48
3:D:423:GLN:C	3:D:425:ARG:N	2.70	0.48
1:E:14:PRO:HA	1:E:48:ALA:HB1	1.96	0.48
1:E:683:ARG:O	1:E:687:ILE:HG13	2.13	0.48
1:E:771:ARG:HD3	1:E:789:LEU:HD22	1.94	0.48
2:F:278:ARG:O	2:F:279:ASP:C	2.56	0.48
2:F:1063:THR:C	2:F:1065:GLN:N	2.71	0.48
3:G:91:VAL:HG12	3:G:100:MET:HB2	1.94	0.48
3:G:375:ASN:O	3:G:376:ARG:HG2	2.14	0.48
3:G:418:TYR:OH	3:G:530:HIS:HE1	1.95	0.48
1:B:84:ARG:O	1:B:87:CYS:HB2	2.14	0.48
1:B:237:ARG:NH2	1:B:266:ILE:HG23	2.25	0.48
1:B:490:VAL:HG12	1:B:495:THR:HG22	1.95	0.48
1:B:496:GLN:N	1:B:496:GLN:HE21	2.12	0.48
1:B:669:ASN:HB3	1:B:672:GLU:OE2	2.14	0.48
1:B:901:TRP:CE3	1:B:1060:GLY:HA2	2.49	0.48
2:C:2:LEU:HD23	2:C:236:ILE:CG2	2.43	0.48
2:C:25:ARG:C	2:C:26:LEU:O	2.55	0.48
2:C:155:VAL:N	2:C:162:GLN:HE22	2.12	0.48
2:C:539:SER:HA	2:C:549:PRO:HG2	1.96	0.48
3:D:556:GLN:HA	3:D:585:ILE:HD12	1.95	0.48
3:D:567:TYR:O	3:D:571:THR:HG23	2.13	0.48
1:E:328:ILE:O	1:E:332:LEU:CD2	2.62	0.48
1:E:760:PHE:CZ	1:E:822:ARG:HG3	2.49	0.48
1:E:905:SER:HB3	1:E:1063:LYS:HB2	1.95	0.48
2:F:77:LEU:HB3	2:F:78:PRO:HD2	1.96	0.48
2:F:138:TYR:HE1	2:F:165:GLN:NE2	2.12	0.48
2:F:664:LEU:HD22	2:F:685:TYR:CZ	2.49	0.48
2:F:976:GLN:HG3	2:F:998:LEU:HD11	1.95	0.48
2:F:991:GLY:O	2:F:992:GLY:C	2.55	0.48
1:B:155:ASP:O	1:B:157:SER:N	2.45	0.48
1:B:281:GLN:O	1:B:282:LEU:CB	2.61	0.48
1:B:763:GLN:HE21	1:B:764:GLU:N	2.12	0.48
1:B:1068:LEU:HD12	1:B:1069:VAL:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:334:LEU:HD11	2:C:755:ILE:HD12	1.94	0.48
2:C:834:LEU:CD2	2:C:986:VAL:HG21	2.42	0.48
1:E:281:GLN:O	1:E:282:LEU:CB	2.60	0.48
1:E:282:LEU:C	1:E:284:GLU:H	2.22	0.48
2:F:545:GLN:C	2:F:547:VAL:N	2.70	0.48
2:F:1106:VAL:O	2:F:1107:GLU:C	2.57	0.48
3:G:130:ILE:O	3:G:132:VAL:HG23	2.14	0.48
3:G:326:ALA:HB1	3:G:337:VAL:O	2.13	0.48
3:G:550:ALA:CB	3:G:578:SER:HB2	2.44	0.48
1:B:24:SER:HB2	1:B:27:THR:HG21	1.95	0.48
1:B:283:PRO:HB3	1:B:314:ASP:CG	2.39	0.48
2:C:441:ASP:OD2	2:C:662:CYS:HB2	2.14	0.48
2:C:695:ASP:O	2:C:696:LEU:C	2.56	0.48
2:C:986:VAL:HG12	2:C:987:TYR:N	2.29	0.48
3:D:6:GLN:HE21	3:D:6:GLN:HB3	1.55	0.48
3:D:385:VAL:HG11	3:D:396:ARG:CD	2.41	0.48
1:E:46:GLY:H	1:E:49:ALA:HB2	1.78	0.48
1:E:234:GLN:C	1:E:236:TRP:N	2.72	0.48
1:E:267:ASP:C	1:E:269:ILE:N	2.71	0.48
1:E:895:ARG:HG2	1:E:896:LEU:H	1.79	0.48
1:E:954:PHE:CZ	1:E:977:LEU:HD23	2.49	0.48
2:F:107:ASP:HB3	2:F:108:PHE:CD1	2.49	0.48
2:F:394:LEU:HD23	2:F:802:TYR:CB	2.44	0.48
2:F:695:ASP:O	2:F:696:LEU:C	2.57	0.48
3:G:242:ARG:O	3:G:243:LEU:C	2.56	0.48
3:G:317:ALA:C	3:G:319:ALA:N	2.72	0.48
4:X:15:DG:H2''	4:X:16:DA:C8	2.49	0.48
4:Y:34:DC:H1'	4:Y:35:DA:C5'	2.43	0.48
1:B:18:GLU:O	1:B:19:ARG:HD3	2.14	0.48
1:B:253:ASP:C	1:B:255:ARG:N	2.71	0.48
1:B:368:GLU:OE1	1:B:399:ARG:NH1	2.45	0.48
1:B:387:GLN:HG3	1:B:414:ASP:O	2.14	0.48
1:B:677:THR:O	1:B:678:ALA:O	2.31	0.48
1:B:901:TRP:CH2	1:B:1060:GLY:HA2	2.49	0.48
1:B:1077:TYR:CD2	1:B:1137:GLY:HA2	2.49	0.48
1:B:1136:GLY:HA2	1:B:1159:ARG:NH1	2.28	0.48
2:C:872:LEU:HD13	2:C:916:PHE:CZ	2.47	0.48
2:C:884:LEU:HG	2:C:917:TRP:CH2	2.49	0.48
3:D:274:ILE:HG23	3:D:278:MET:HG2	1.96	0.48
3:D:565:LEU:HD23	3:D:565:LEU:C	2.39	0.48
1:E:65:THR:CG2	1:E:66:GLU:N	2.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:984:SER:C	1:E:986:TRP:H	2.22	0.48
1:E:1077:TYR:CD2	1:E:1137:GLY:HA2	2.49	0.48
1:E:1136:GLY:HA2	1:E:1159:ARG:NH1	2.28	0.48
2:F:185:HIS:CE1	2:F:188:ASN:HD22	2.32	0.48
2:F:248:TRP:CD1	2:F:248:TRP:H	2.31	0.48
2:F:1082:ARG:HB2	2:F:1082:ARG:HH11	1.79	0.48
3:G:387:GLN:C	3:G:389:ASP:H	2.22	0.48
1:B:365:GLU:CG	1:B:366:SER:N	2.77	0.47
1:B:899:ASP:CB	1:B:1059:ARG:HH12	2.18	0.47
1:B:984:SER:C	1:B:986:TRP:H	2.21	0.47
1:B:1040:ILE:HG23	1:B:1112:GLN:NE2	2.28	0.47
1:B:1084:ASN:O	1:B:1085:TRP:O	2.31	0.47
2:C:262:THR:O	2:C:273:GLU:HG3	2.13	0.47
2:C:354:ASN:HD22	2:C:356:GLU:HB3	1.75	0.47
2:C:571:LEU:O	2:C:575:ARG:HB3	2.15	0.47
2:C:731:TYR:CZ	2:C:744:PRO:HB3	2.49	0.47
2:C:1042:GLY:O	2:C:1046:LEU:HB2	2.13	0.47
3:D:65:HIS:CB	3:D:66:PRO:CD	2.72	0.47
3:D:132:VAL:HG12	3:D:133:ASP:H	1.79	0.47
3:D:178:THR:HG23	3:D:179:THR:H	1.78	0.47
3:D:387:GLN:C	3:D:389:ASP:H	2.21	0.47
3:D:461:PHE:CZ	3:D:465:LYS:HE3	2.49	0.47
3:D:597:ARG:HH11	3:D:598:SER:CB	2.27	0.47
1:E:84:ARG:O	1:E:87:CYS:HB2	2.14	0.47
1:E:268:LYS:CE	1:E:268:LYS:HA	2.44	0.47
1:E:269:ILE:HG22	1:E:270:SER:N	2.29	0.47
1:E:283:PRO:HB3	1:E:314:ASP:CG	2.39	0.47
1:E:452:GLY:HA2	1:E:864:ASP:OD1	2.15	0.47
1:E:522:CYS:O	1:E:526:ILE:HD13	2.14	0.47
1:E:1132:GLU:HA	1:E:1159:ARG:HH22	1.79	0.47
1:B:328:ILE:O	1:B:332:LEU:CD2	2.62	0.47
1:B:434:ARG:HH21	1:B:474:PRO:HD2	1.79	0.47
1:B:469:MET:SD	1:B:795:LEU:HD11	2.54	0.47
2:C:348:ARG:HG3	2:C:365:ARG:NH1	2.29	0.47
2:C:848:PHE:O	2:C:852:ARG:HB3	2.14	0.47
2:C:1077:GLY:H	2:C:1083:GLY:N	2.11	0.47
3:D:403:ASP:O	3:D:406:ALA:HB3	2.14	0.47
1:E:646:ASP:O	1:E:649:ARG:CG	2.62	0.47
1:E:1126:ILE:HD12	1:E:1126:ILE:N	2.29	0.47
2:F:120:ASP:O	2:F:121:LYS:HB2	2.14	0.47
2:F:233:HIS:O	2:F:234:ILE:HD12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:920:GLN:OE1	2:F:920:GLN:HA	2.13	0.47
3:G:62:GLU:H	3:G:62:GLU:CD	2.22	0.47
3:G:118:THR:HA	3:G:121:ARG:NH1	2.29	0.47
3:G:403:ASP:O	3:G:406:ALA:HB3	2.13	0.47
1:B:50:PHE:HE2	1:B:52:ARG:HD3	1.77	0.47
1:B:416:LYS:HE2	1:B:803:TYR:CE2	2.49	0.47
1:B:469:MET:O	1:B:470:PHE:CD2	2.66	0.47
1:B:747:LEU:HB3	1:B:749:TYR:CE1	2.49	0.47
1:B:802:LEU:HD22	1:B:806:LEU:CD2	2.45	0.47
1:B:809:SER:HG	1:B:813:CYS:HB2	1.77	0.47
1:B:961:ASP:O	1:B:961:ASP:CG	2.57	0.47
2:C:45:TRP:HB2	2:C:670:ILE:HD13	1.96	0.47
2:C:104:GLU:N	2:C:112:ARG:HH11	2.12	0.47
3:D:98:THR:HG23	3:D:99:PRO:HD2	1.96	0.47
3:D:317:ALA:C	3:D:319:ALA:N	2.73	0.47
3:D:375:ASN:O	3:D:376:ARG:HG2	2.14	0.47
1:E:434:ARG:HH21	1:E:474:PRO:HD2	1.79	0.47
1:E:550:ARG:O	1:E:551:ALA:C	2.57	0.47
1:E:1070:PHE:CE1	1:E:1077:TYR:HB2	2.49	0.47
1:E:1084:ASN:O	1:E:1085:TRP:O	2.32	0.47
2:F:14:GLU:HG3	2:F:49:THR:HG21	1.95	0.47
2:F:277:PHE:CD1	2:F:278:ARG:N	2.82	0.47
3:G:199:ILE:HG23	3:G:265:VAL:HG22	1.96	0.47
3:G:208:ALA:O	3:G:209:ALA:C	2.57	0.47
3:G:261:LEU:HA	3:G:261:LEU:HD23	1.35	0.47
3:G:300:GLN:NE2	3:G:568:THR:HG22	2.29	0.47
3:G:397:LEU:HB2	3:G:580:TYR:CE2	2.49	0.47
4:Y:16:DA:C2'	4:Y:17:DG:H8	2.27	0.47
1:B:268:LYS:HE3	1:B:268:LYS:CA	2.45	0.47
1:B:1007:VAL:HG22	1:B:1072:HIS:CD2	2.49	0.47
2:C:8:ASN:HD21	2:C:343:LEU:HD11	1.79	0.47
2:C:394:LEU:HD23	2:C:802:TYR:HB2	1.96	0.47
2:C:482:ARG:HG2	2:C:482:ARG:NH1	2.28	0.47
2:C:615:GLN:OE1	2:C:644:ARG:HD3	2.14	0.47
2:C:716:PHE:CB	2:C:747:LEU:HD13	2.44	0.47
3:D:208:ALA:O	3:D:209:ALA:C	2.57	0.47
3:D:211:ARG:HA	3:D:214:GLU:CG	2.44	0.47
3:D:344:GLU:C	3:D:349:ARG:HD2	2.39	0.47
3:D:553:LEU:HB3	3:D:554:PRO:HD2	1.97	0.47
1:E:286:LEU:CD1	1:E:306:ARG:HD3	2.28	0.47
1:E:374:ILE:HG21	1:E:400:ILE:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:313:LEU:HD21	2:F:703:ARG:HB3	1.97	0.47
3:G:11:VAL:HG21	3:G:21:VAL:HG11	1.96	0.47
3:G:343:THR:O	3:G:344:GLU:HB2	2.14	0.47
3:G:597:ARG:C	3:G:597:ARG:CD	2.86	0.47
4:X:47:DA:C2'	4:X:48:DG:H5''	2.42	0.47
4:Y:5:5IU:H6	4:Y:5:5IU:H2'	1.47	0.47
1:B:267:ASP:C	1:B:269:ILE:N	2.69	0.47
1:B:414:ASP:OD1	1:B:416:LYS:N	2.46	0.47
1:B:689:HIS:HE1	1:B:725:GLN:O	1.97	0.47
1:B:760:PHE:CZ	1:B:822:ARG:HG3	2.50	0.47
1:B:1119:HIS:ND1	1:B:1129:TYR:OH	2.48	0.47
1:B:1142:PHE:O	1:B:1144:ARG:O	2.31	0.47
2:C:378:VAL:HG22	2:C:731:TYR:CZ	2.50	0.47
2:C:388:VAL:HG22	2:C:799:ARG:NH1	2.28	0.47
2:C:411:MET:HB3	2:C:664:LEU:HD12	1.95	0.47
2:C:556:LEU:O	2:C:559:GLU:HB2	2.15	0.47
2:C:915:ILE:O	2:C:919:THR:CG2	2.63	0.47
1:E:136:MET:HA	1:E:136:MET:HE3	1.96	0.47
1:E:355:LEU:HD11	1:E:392:GLN:NE2	2.30	0.47
1:E:861:CYS:SG	1:E:866:ALA:CA	3.00	0.47
2:F:142:ARG:O	2:F:145:TRP:HB2	2.14	0.47
2:F:199:SER:OG	2:F:200:ALA:N	2.43	0.47
3:G:184:LEU:HD11	3:G:293:ILE:CD1	2.45	0.47
3:G:212:LEU:HD22	3:G:216:LEU:CD1	2.44	0.47
3:G:253:LEU:HD13	3:G:255:HIS:HE2	1.79	0.47
1:B:417:GLN:HG2	1:B:804:VAL:HG22	1.96	0.47
1:B:455:ASN:HD22	1:B:455:ASN:N	2.11	0.47
1:B:658:MET:HB2	1:B:695:GLN:HG3	1.95	0.47
1:B:902:ARG:HH21	1:B:902:ARG:HG3	1.80	0.47
2:C:142:ARG:O	2:C:145:TRP:HB2	2.15	0.47
2:C:308:ARG:O	2:C:311:ILE:HG22	2.14	0.47
2:C:989:ALA:HB1	2:C:1017:LEU:CD2	2.45	0.47
3:D:51:VAL:HG13	3:D:112:MET:SD	2.54	0.47
3:D:256:HIS:CG	3:D:257:ALA:N	2.82	0.47
3:D:412:LEU:HD11	3:D:461:PHE:HD2	1.80	0.47
3:D:440:LEU:HB2	3:D:535:ALA:HA	1.96	0.47
3:D:455:ASN:HD21	3:D:532:THR:C	2.22	0.47
1:E:106:ASP:OD2	1:E:109:GLN:HB2	2.15	0.47
1:E:177:ARG:HE	1:E:181:GLN:NE2	2.12	0.47
1:E:362:LEU:HD23	1:E:370:LEU:HD23	1.96	0.47
1:E:1068:LEU:HD12	1:E:1069:VAL:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:25:ARG:C	2:F:26:LEU:O	2.55	0.47
2:F:312:TYR:CD1	2:F:313:LEU:HD23	2.49	0.47
3:G:308:ALA:O	3:G:597:ARG:NH2	2.48	0.47
4:X:2:5IU:H3'	4:X:3:5IU:C5'	2.43	0.47
1:B:246:LEU:HD23	1:B:307:HIS:NE2	2.30	0.47
1:B:416:LYS:HE2	1:B:803:TYR:CZ	2.50	0.47
1:B:646:ASP:O	1:B:649:ARG:HG3	2.14	0.47
1:B:735:LEU:O	1:B:736:VAL:C	2.55	0.47
2:C:4:VAL:O	2:C:322:GLU:HA	2.14	0.47
2:C:30:PHE:O	2:C:32:PRO:HD3	2.15	0.47
2:C:190:TYR:CD1	2:C:190:TYR:C	2.92	0.47
2:C:254:PRO:O	2:C:257:LEU:HG	2.15	0.47
2:C:592:ARG:HH11	2:C:592:ARG:HB2	1.80	0.47
2:C:625:GLY:C	2:C:627:GLN:H	2.22	0.47
2:C:634:LEU:O	2:C:635:SER:C	2.56	0.47
2:C:832:VAL:O	2:C:832:VAL:CG2	2.59	0.47
2:C:882:GLN:HA	2:C:969:PRO:HG2	1.97	0.47
2:C:947:CYS:O	2:C:948:ASN:ND2	2.45	0.47
2:C:1019:TYR:C	2:C:1021:SER:N	2.70	0.47
3:D:120:ALA:HA	3:D:604:PHE:CE2	2.50	0.47
3:D:185:LEU:HD23	3:D:188:LEU:HD12	1.97	0.47
3:D:242:ARG:O	3:D:242:ARG:HD3	2.15	0.47
3:D:244:LEU:CD1	3:D:285:ALA:CB	2.93	0.47
1:E:181:GLN:HB2	2:F:915:ILE:HD11	1.97	0.47
1:E:199:ARG:HG3	1:E:199:ARG:NH1	2.29	0.47
1:E:415:PRO:HB3	1:E:430:TYR:CE2	2.50	0.47
1:E:610:ASN:ND2	1:E:613:ARG:NH1	2.59	0.47
1:E:947:ARG:HD3	1:E:947:ARG:N	2.28	0.47
1:E:1052:PRO:HD3	1:E:1106:ARG:NH1	2.30	0.47
1:E:1101:ALA:HA	1:E:1104:ALA:HB3	1.95	0.47
2:F:239:LEU:N	2:F:239:LEU:CD1	2.78	0.47
2:F:393:LEU:HD22	2:F:408:ILE:HG21	1.96	0.47
2:F:470:VAL:O	2:F:473:LEU:HB2	2.14	0.47
2:F:478:VAL:HG13	2:F:600:LEU:O	2.14	0.47
2:F:749:GLN:HA	2:F:752:ILE:HD11	1.97	0.47
2:F:880:ILE:HG23	2:F:901:PHE:CE1	2.50	0.47
2:F:1030:GLY:HA2	2:F:1035:LEU:HB2	1.97	0.47
3:G:52:CYS:SG	3:G:106:ARG:HG2	2.54	0.47
3:G:91:VAL:HA	3:G:98:THR:HG21	1.95	0.47
3:G:108:TYR:HB2	3:G:113:TRP:HB2	1.96	0.47
3:G:137:LEU:HD22	3:G:141:LEU:CD1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:254:ARG:HG3	3:G:259:ASN:HD21	1.77	0.47
3:G:533:THR:C	3:G:535:ALA:N	2.73	0.47
3:G:547:ASP:HA	3:G:574:ARG:HB2	1.97	0.47
4:X:37:DT:H1'	4:X:38:DG:H5''	1.97	0.47
1:B:57:GLU:H	1:B:57:GLU:HG3	1.36	0.47
1:B:66:GLU:OE1	1:B:66:GLU:HA	2.14	0.47
1:B:262:GLN:HA	1:B:265:TRP:HB3	1.95	0.47
1:B:1101:ALA:O	1:B:1104:ALA:HB3	2.15	0.47
2:C:87:ASN:ND2	2:C:87:ASN:O	2.47	0.47
1:E:268:LYS:HE3	1:E:268:LYS:CA	2.45	0.47
1:E:281:GLN:NE2	1:E:283:PRO:HG2	2.29	0.47
1:E:568:ARG:HH11	1:E:568:ARG:HG3	1.80	0.47
1:E:1093:TYR:CE2	1:E:1144:ARG:HB2	2.50	0.47
2:F:360:ARG:NH1	2:F:766:ALA:HB2	2.29	0.47
2:F:941:MET:HG2	2:F:942:GLU:N	2.29	0.47
3:G:161:ALA:HB3	3:G:184:LEU:HD21	1.96	0.47
4:Y:7:5IU:C3'	4:Y:8:DC:H5'	2.20	0.47
1:B:522:CYS:O	1:B:526:ILE:HD13	2.15	0.47
2:C:197:LEU:HD13	2:C:230:LEU:HA	1.97	0.47
2:C:519:THR:CG2	2:C:521:GLN:H	2.21	0.47
2:C:1076:GLU:HG3	2:C:1076:GLU:O	2.14	0.47
3:D:201:LEU:HG	3:D:233:ILE:HG21	1.96	0.47
3:D:455:ASN:O	3:D:459:GLU:HG3	2.14	0.47
3:D:459:GLU:O	3:D:463:GLN:HG3	2.15	0.47
1:E:531:GLN:O	1:E:535:ARG:HD3	2.15	0.47
1:E:875:ASN:C	1:E:877:PRO:CD	2.85	0.47
1:E:998:LEU:C	1:E:1000:ALA:H	2.22	0.47
1:E:1085:TRP:HD1	1:E:1087:GLY:HA3	1.79	0.47
2:F:104:GLU:N	2:F:112:ARG:HH11	2.13	0.47
2:F:159:GLY:O	2:F:160:GLU:O	2.33	0.47
2:F:199:SER:C	2:F:201:THR:N	2.73	0.47
2:F:737:GLN:HG3	2:F:738:ASP:N	2.25	0.47
2:F:858:ARG:CZ	2:F:858:ARG:HB2	2.43	0.47
3:G:219:ALA:O	3:G:223:LEU:HD22	2.14	0.47
3:G:259:ASN:CB	3:G:260:PRO:CD	2.78	0.47
3:G:287:PRO:C	3:G:289:HIS:N	2.73	0.47
3:G:344:GLU:C	3:G:349:ARG:HD2	2.40	0.47
1:B:89:ARG:C	1:B:91:THR:H	2.22	0.47
1:B:236:TRP:CZ2	1:B:262:GLN:NE2	2.82	0.47
1:B:282:LEU:HD23	1:B:310:PHE:HE2	1.80	0.47
1:B:473:ILE:O	1:B:473:ILE:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:785:GLU:OE1	1:B:785:GLU:N	2.45	0.47
1:B:1036:LEU:O	1:B:1040:ILE:HG12	2.15	0.47
2:C:26:LEU:HB2	2:C:210:ARG:HH22	1.80	0.47
2:C:984:HIS:O	2:C:987:TYR:HB3	2.14	0.47
3:D:51:VAL:HG11	3:D:276:LEU:CD1	2.45	0.47
3:D:261:LEU:HB3	3:D:287:PRO:HD3	1.97	0.47
1:E:89:ARG:C	1:E:91:THR:H	2.22	0.47
1:E:262:GLN:HA	1:E:265:TRP:HB3	1.96	0.47
1:E:729:LEU:HD22	1:E:729:LEU:N	2.26	0.47
1:E:902:ARG:HH21	1:E:902:ARG:HG3	1.80	0.47
2:F:308:ARG:O	2:F:311:ILE:HG22	2.14	0.47
2:F:570:GLN:HA	2:F:573:ILE:HD12	1.97	0.47
2:F:872:LEU:HD13	2:F:916:PHE:CZ	2.49	0.47
3:G:51:VAL:HG11	3:G:276:LEU:HD12	1.96	0.47
3:G:240:LEU:CD2	3:G:274:ILE:HD12	2.45	0.47
3:G:246:ALA:CA	3:G:253:LEU:HD23	2.44	0.47
3:G:261:LEU:HB3	3:G:287:PRO:HD3	1.96	0.47
3:G:343:THR:OG1	3:G:344:GLU:N	2.48	0.47
1:B:199:ARG:HG3	1:B:199:ARG:NH1	2.29	0.46
1:B:221:ARG:HG2	1:B:221:ARG:NH1	2.31	0.46
1:B:252:ILE:HG12	1:B:254:ARG:HG2	1.97	0.46
1:B:904:THR:OG1	1:B:1058:VAL:HG11	2.15	0.46
2:C:393:LEU:CD2	2:C:408:ILE:HG21	2.45	0.46
2:C:398:GLU:O	2:C:399:GLU:C	2.58	0.46
2:C:971:LEU:HD22	2:C:971:LEU:N	2.30	0.46
3:D:244:LEU:O	3:D:253:LEU:HD22	2.15	0.46
3:D:549:ALA:O	3:D:577:LEU:HA	2.15	0.46
1:E:237:ARG:NH2	1:E:266:ILE:HG23	2.24	0.46
1:E:779:ASP:C	1:E:781:ASN:N	2.73	0.46
2:F:175:TYR:CZ	2:F:179:LEU:HD11	2.50	0.46
2:F:358:PHE:HA	2:F:769:CYS:SG	2.55	0.46
2:F:557:ILE:HD13	2:F:557:ILE:N	2.17	0.46
2:F:973:SER:OG	2:F:976:GLN:HB2	2.15	0.46
3:G:52:CYS:HB3	3:G:108:TYR:CE2	2.50	0.46
3:G:550:ALA:HB2	3:G:578:SER:HB2	1.98	0.46
4:X:22:DG:C3'	4:X:23:DC:C5'	2.91	0.46
1:B:17:GLY:HA2	1:B:408:ALA:HA	1.97	0.46
1:B:1123:ARG:HA	1:B:1129:TYR:CD1	2.50	0.46
1:B:1126:ILE:HD12	1:B:1126:ILE:N	2.30	0.46
2:C:233:HIS:O	2:C:234:ILE:HD12	2.14	0.46
2:C:282:ASN:HB3	2:C:283:ALA:H	1.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:415:ILE:CB	2:C:663:THR:HG23	2.42	0.46
3:D:79:GLN:C	3:D:81:TRP:N	2.72	0.46
3:D:264:ASP:OD1	3:D:289:HIS:NE2	2.47	0.46
3:D:272:SER:HB3	3:D:310:LEU:HD23	1.96	0.46
3:D:366:GLY:HA3	3:D:393:ILE:HD13	1.97	0.46
3:D:449:PHE:HZ	3:D:555:SER:HB2	1.80	0.46
1:E:212:PRO:O	1:E:213:PRO:C	2.57	0.46
1:E:471:ARG:HD2	1:E:471:ARG:H	1.74	0.46
2:F:689:LEU:CD2	2:F:708:ARG:HD2	2.45	0.46
2:F:731:TYR:CE2	2:F:744:PRO:HB3	2.51	0.46
2:F:731:TYR:CZ	2:F:744:PRO:HB3	2.50	0.46
2:F:966:ARG:O	2:F:998:LEU:HA	2.16	0.46
2:F:1087:ASP:O	2:F:1091:GLN:HG2	2.15	0.46
3:G:17:ARG:HB2	3:G:18:PRO:CD	2.36	0.46
3:G:272:SER:HB3	3:G:310:LEU:HD23	1.96	0.46
3:G:423:GLN:C	3:G:425:ARG:N	2.69	0.46
3:G:556:GLN:O	3:G:557:ARG:HB2	2.15	0.46
1:B:65:THR:CG2	1:B:66:GLU:N	2.79	0.46
1:B:104:ILE:HB	1:B:107:LYS:CE	2.42	0.46
1:B:153:ILE:HG13	1:B:154:GLU:N	2.29	0.46
1:B:177:ARG:HE	1:B:181:GLN:NE2	2.14	0.46
1:B:683:ARG:O	1:B:687:ILE:HG13	2.14	0.46
1:B:998:LEU:C	1:B:1000:ALA:H	2.23	0.46
2:C:18:GLU:OE2	2:C:53:LYS:HB2	2.16	0.46
2:C:164:TRP:O	2:C:167:PRO:HD2	2.15	0.46
2:C:388:VAL:HA	2:C:799:ARG:NH1	2.30	0.46
2:C:408:ILE:HG23	2:C:674:VAL:CG1	2.45	0.46
2:C:807:LEU:N	2:C:808:PRO:HD2	2.30	0.46
2:C:998:LEU:HD22	2:C:1000:LEU:CD2	2.45	0.46
2:C:1021:SER:O	2:C:1025:GLU:N	2.47	0.46
3:D:282:LEU:O	3:D:286:LEU:HG	2.15	0.46
1:E:386:PHE:C	1:E:388:ASP:H	2.21	0.46
1:E:600:LEU:HD12	1:E:711:LEU:HD12	1.97	0.46
1:E:747:LEU:HB3	1:E:749:TYR:CE1	2.50	0.46
1:E:763:GLN:HE21	1:E:764:GLU:N	2.13	0.46
2:F:478:VAL:HG21	2:F:605:THR:HG21	1.97	0.46
4:Y:37:DT:H1'	4:Y:38:DG:H5''	1.97	0.46
1:B:14:PRO:HA	1:B:48:ALA:HB1	1.98	0.46
1:B:194:LEU:C	1:B:196:ASP:N	2.74	0.46
1:B:469:MET:O	1:B:469:MET:HG3	2.16	0.46
1:B:637:ALA:O	1:B:640:VAL:HB	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1093:TYR:CE2	1:B:1144:ARG:HB2	2.51	0.46
2:C:282:ASN:O	2:C:283:ALA:C	2.58	0.46
2:C:360:ARG:NH1	2:C:766:ALA:HB2	2.30	0.46
2:C:393:LEU:HD22	2:C:408:ILE:HG21	1.96	0.46
3:D:93:ARG:HG2	3:D:93:ARG:NH1	2.31	0.46
3:D:287:PRO:C	3:D:289:HIS:N	2.71	0.46
3:D:301:LEU:N	3:D:568:THR:HG21	2.29	0.46
3:D:531:GLU:HG3	3:D:531:GLU:O	2.15	0.46
1:E:63:THR:OG1	1:E:69:THR:HG22	2.15	0.46
1:E:469:MET:SD	1:E:795:LEU:HD12	2.55	0.46
1:E:646:ASP:HA	1:E:649:ARG:HG2	1.97	0.46
1:E:688:LEU:O	1:E:691:SER:HB2	2.16	0.46
1:E:920:LEU:HD13	2:F:608:ALA:HA	1.97	0.46
1:E:1123:ARG:HA	1:E:1129:TYR:CD1	2.49	0.46
2:F:398:GLU:O	2:F:399:GLU:C	2.58	0.46
2:F:615:GLN:OE1	2:F:644:ARG:HD3	2.16	0.46
2:F:846:ARG:HH12	4:Y:7:5IU:H2'	1.79	0.46
2:F:971:LEU:HD22	2:F:971:LEU:N	2.31	0.46
3:G:316:TYR:CE1	3:G:604:PHE:HB2	2.41	0.46
3:G:449:PHE:HZ	3:G:555:SER:HB2	1.81	0.46
1:B:222:HIS:CE1	1:B:226:VAL:CG2	2.98	0.46
1:B:469:MET:SD	1:B:795:LEU:HD12	2.56	0.46
1:B:831:THR:C	1:B:833:VAL:N	2.71	0.46
1:B:937:GLU:HA	1:B:938:PRO:HD2	1.69	0.46
1:B:1129:TYR:CD1	1:B:1129:TYR:C	2.93	0.46
2:C:72:MET:HG3	2:C:230:LEU:HD11	1.97	0.46
2:C:287:PHE:O	2:C:288:ASN:C	2.58	0.46
2:C:582:ARG:HD3	2:C:587:TRP:CZ2	2.51	0.46
2:C:943:ILE:O	2:C:953:THR:HA	2.14	0.46
2:C:976:GLN:HG3	2:C:998:LEU:HD11	1.97	0.46
2:C:1055:ASP:OD1	2:C:1118:ARG:NH2	2.49	0.46
3:D:449:PHE:O	3:D:450:GLY:O	2.33	0.46
1:E:390:ASP:OD1	1:E:393:GLN:HG3	2.16	0.46
1:E:637:ALA:O	1:E:640:VAL:HB	2.15	0.46
1:E:705:HIS:CG	2:F:487:GLU:HG3	2.51	0.46
1:E:871:GLN:OE1	1:E:871:GLN:HA	2.15	0.46
1:E:904:THR:OG1	1:E:1058:VAL:HG11	2.16	0.46
1:E:983:GLU:HB3	1:E:985:GLN:OE1	2.15	0.46
2:F:228:GLN:HE22	2:F:318:GLU:N	2.00	0.46
2:F:287:PHE:O	2:F:288:ASN:C	2.59	0.46
2:F:625:GLY:C	2:F:627:GLN:H	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:670:ILE:CG2	2:F:671:PRO:HD2	2.46	0.46
2:F:767:LEU:HD23	2:F:767:LEU:H	1.79	0.46
3:G:73:SER:O	3:G:75:ILE:HG13	2.16	0.46
3:G:436:ASN:O	3:G:436:ASN:CG	2.58	0.46
1:B:42:LEU:CB	1:B:44:LEU:HD13	2.44	0.46
1:B:166:ASP:O	1:B:170:ARG:HG2	2.15	0.46
1:B:307:HIS:ND1	1:B:308:PRO:CD	2.73	0.46
1:B:573:LEU:HD23	1:B:573:LEU:O	2.16	0.46
1:B:740:THR:O	1:B:741:ILE:C	2.59	0.46
2:C:34:MET:HE2	2:C:63:PRO:HG2	1.98	0.46
2:C:220:PRO:HD2	2:C:223:TYR:CD1	2.51	0.46
2:C:708:ARG:O	2:C:709:ARG:C	2.58	0.46
2:C:731:TYR:CE2	2:C:744:PRO:HB3	2.51	0.46
3:D:240:LEU:CD2	3:D:274:ILE:CD1	2.93	0.46
3:D:539:HIS:ND1	3:D:539:HIS:C	2.74	0.46
1:E:237:ARG:HH21	1:E:266:ILE:CG2	2.25	0.46
1:E:252:ILE:HG12	1:E:254:ARG:HG2	1.97	0.46
1:E:387:GLN:HG3	1:E:414:ASP:O	2.15	0.46
1:E:606:PRO:HB2	1:E:642:VAL:HG13	1.98	0.46
1:E:648:TYR:CE2	1:E:664:LEU:HD13	2.51	0.46
1:E:802:LEU:HD22	1:E:806:LEU:CD2	2.45	0.46
1:E:937:GLU:O	1:E:939:THR:N	2.44	0.46
1:E:1007:VAL:HG22	1:E:1072:HIS:CD2	2.50	0.46
1:E:1137:GLY:O	1:E:1138:VAL:HB	2.15	0.46
2:F:386:VAL:HG12	2:F:425:VAL:CG2	2.44	0.46
2:F:396:MET:HE3	2:F:726:LYS:HG3	1.97	0.46
2:F:551:ASP:OD2	2:F:551:ASP:N	2.35	0.46
2:F:831:THR:HG22	2:F:951:GLN:HB2	1.97	0.46
3:G:240:LEU:CD2	3:G:274:ILE:CD1	2.94	0.46
3:G:562:THR:HG21	3:G:594:THR:HG23	1.97	0.46
1:B:148:PHE:HD1	2:C:126:GLN:HE21	1.64	0.46
1:B:319:GLU:HA	1:B:320:PRO:HD2	1.61	0.46
1:B:771:ARG:HH11	1:B:771:ARG:CG	2.28	0.46
2:C:190:TYR:CE1	2:C:191:GLN:HG3	2.51	0.46
2:C:377:HIS:NE2	2:C:728:TYR:CE1	2.84	0.46
2:C:540:ALA:C	2:C:542:GLY:N	2.68	0.46
3:D:123:PHE:HB3	3:D:348:LEU:HG	1.96	0.46
3:D:343:THR:O	3:D:344:GLU:HB2	2.15	0.46
3:D:526:ARG:CA	3:D:526:ARG:NE	2.77	0.46
1:E:15:LEU:HD13	1:E:40:LEU:HD23	1.96	0.46
1:E:945:PHE:CD1	1:E:946:PRO:HD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1161:ASN:O	1:E:1162:ALA:HB3	2.15	0.46
2:F:94:LYS:O	2:F:98:LEU:HG	2.16	0.46
2:F:708:ARG:O	2:F:709:ARG:C	2.59	0.46
3:G:93:ARG:HG2	3:G:93:ARG:NH1	2.30	0.46
3:G:201:LEU:HG	3:G:233:ILE:HG22	1.97	0.46
3:G:292:VAL:HG11	3:G:294:PHE:CZ	2.51	0.46
3:G:316:TYR:CE1	3:G:604:PHE:HB3	2.51	0.46
3:G:463:GLN:C	3:G:465:LYS:N	2.74	0.46
1:B:121:MET:C	1:B:123:GLU:N	2.74	0.46
1:B:380:VAL:CG2	1:B:408:ALA:HB3	2.42	0.46
1:B:945:PHE:CD1	1:B:946:PRO:HD2	2.51	0.46
1:B:1027:ILE:O	1:B:1027:ILE:HG13	2.16	0.46
2:C:450:VAL:O	2:C:453:ALA:HB3	2.15	0.46
2:C:844:PRO:O	2:C:847:ALA:HB3	2.16	0.46
2:C:885:LEU:HD11	2:C:927:LEU:HD13	1.98	0.46
3:D:7:LEU:O	3:D:10:ALA:HB3	2.15	0.46
3:D:15:GLN:O	3:D:16:LEU:HB3	2.15	0.46
1:E:39:ARG:HG3	1:E:39:ARG:NH1	2.30	0.46
1:E:194:LEU:C	1:E:196:ASP:N	2.74	0.46
1:E:282:LEU:HD23	1:E:310:PHE:HE2	1.81	0.46
1:E:582:SER:OG	1:E:743:LYS:HG3	2.16	0.46
1:E:1129:TYR:CD1	1:E:1129:TYR:C	2.93	0.46
2:F:14:GLU:OE2	2:F:14:GLU:C	2.59	0.46
2:F:245:ARG:HA	2:F:326:PHE:CE1	2.51	0.46
2:F:334:LEU:HD11	2:F:755:ILE:HD12	1.97	0.46
2:F:352:GLY:HA3	2:F:358:PHE:HB2	1.98	0.46
2:F:1021:SER:O	2:F:1025:GLU:N	2.47	0.46
3:G:118:THR:O	3:G:283:ILE:CD1	2.64	0.46
3:G:122:PHE:HB2	3:G:283:ILE:HD12	1.97	0.46
3:G:242:ARG:HD3	3:G:242:ARG:O	2.15	0.46
3:G:274:ILE:CG2	3:G:279:MET:HG2	2.45	0.46
3:G:282:LEU:O	3:G:286:LEU:HG	2.16	0.46
3:G:393:ILE:O	3:G:577:LEU:N	2.44	0.46
1:B:83:LEU:O	1:B:83:LEU:HD22	2.15	0.46
1:B:86:ALA:HB1	1:B:92:THR:HG1	1.76	0.46
1:B:252:ILE:HG12	1:B:254:ARG:H	1.81	0.46
1:B:263:ALA:O	1:B:266:ILE:HG12	2.16	0.46
1:B:1038:THR:O	1:B:1041:ARG:HB3	2.16	0.46
1:B:1070:PHE:CE1	1:B:1077:TYR:HB2	2.51	0.46
2:C:246:TYR:CD2	2:C:275:PRO:HD3	2.51	0.46
2:C:429:ALA:HA	2:C:430:PRO:HD2	1.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:474:LEU:HD21	2:C:485:ILE:HD12	1.98	0.46
2:C:985:LEU:HB2	2:C:1020:LEU:HD13	1.97	0.46
3:D:263:LEU:HD12	3:D:263:LEU:O	2.16	0.46
1:E:155:ASP:O	1:E:157:SER:N	2.48	0.46
1:E:165:ALA:O	1:E:169:ARG:HG3	2.16	0.46
1:E:166:ASP:O	1:E:170:ARG:HG2	2.16	0.46
1:E:169:ARG:O	1:E:173:TYR:HB2	2.16	0.46
1:E:190:PRO:HG3	2:F:870:PHE:CZ	2.51	0.46
1:E:587:VAL:CG1	1:E:690:ILE:HG13	2.46	0.46
1:E:906:TYR:O	1:E:906:TYR:CG	2.69	0.46
1:E:932:ALA:HB2	1:E:947:ARG:CG	2.46	0.46
1:E:961:ASP:O	1:E:961:ASP:CG	2.58	0.46
2:F:18:GLU:OE2	2:F:53:LYS:HB2	2.15	0.46
2:F:393:LEU:CD2	2:F:408:ILE:HG21	2.46	0.46
2:F:571:LEU:O	2:F:575:ARG:HB3	2.15	0.46
2:F:884:LEU:O	2:F:888:LEU:HG	2.15	0.46
3:G:79:GLN:C	3:G:81:TRP:N	2.73	0.46
3:G:279:MET:O	3:G:281:ARG:N	2.48	0.46
3:G:526:ARG:HE	3:G:526:ARG:C	2.24	0.46
1:B:226:VAL:HG13	1:B:269:ILE:HD13	1.98	0.46
1:B:386:PHE:C	1:B:388:ASP:N	2.74	0.46
1:B:544:ASP:OD2	1:E:495:THR:HG23	2.15	0.46
1:B:597:LEU:O	1:B:597:LEU:HD23	2.16	0.46
1:B:646:ASP:HA	1:B:649:ARG:HG2	1.98	0.46
1:B:895:ARG:HG2	1:B:896:LEU:H	1.81	0.46
2:C:159:GLY:O	2:C:160:GLU:O	2.34	0.46
2:C:850:GLN:NE2	4:X:7:5IU:HN3	2.10	0.46
2:C:871:ILE:HD13	2:C:871:ILE:HA	1.79	0.46
3:D:185:LEU:HA	3:D:188:LEU:HB2	1.98	0.46
3:D:533:THR:C	3:D:535:ALA:N	2.74	0.46
1:E:283:PRO:CD	1:E:314:ASP:HB2	2.44	0.46
1:E:683:ARG:NE	2:F:1095:ARG:NH1	2.64	0.46
1:E:728:ARG:CB	1:E:728:ARG:HH21	2.29	0.46
1:E:907:SER:C	1:E:909:LEU:H	2.22	0.46
2:F:396:MET:HE2	2:F:674:VAL:HG22	1.96	0.46
3:G:7:LEU:O	3:G:10:ALA:HB3	2.16	0.46
3:G:261:LEU:HD12	3:G:286:LEU:HA	1.98	0.46
3:G:264:ASP:O	3:G:291:ARG:N	2.47	0.46
1:B:707:LEU:O	1:B:710:TRP:HB3	2.16	0.45
2:C:102:LEU:HD13	2:C:108:PHE:CZ	2.51	0.45
2:C:901:PHE:HD1	2:C:917:TRP:CZ3	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1106:VAL:O	2:C:1107:GLU:C	2.59	0.45
3:D:184:LEU:HD11	3:D:293:ILE:CD1	2.46	0.45
3:D:344:GLU:HG3	3:D:345:ALA:H	1.77	0.45
3:D:436:ASN:CG	3:D:436:ASN:O	2.58	0.45
3:D:537:THR:OG1	3:D:540:LYS:HG3	2.16	0.45
1:E:236:TRP:CZ2	1:E:262:GLN:NE2	2.84	0.45
1:E:380:VAL:CG2	1:E:408:ALA:HB3	2.43	0.45
1:E:416:LYS:HD2	1:E:468:PHE:CZ	2.51	0.45
1:E:600:LEU:HD11	1:E:694:LEU:HD21	1.98	0.45
1:E:728:ARG:HE	2:F:739:ASN:HB2	1.81	0.45
1:E:1061:MET:HG3	2:F:48:MET:HE3	1.97	0.45
1:E:1071:ARG:NH1	2:F:29:PRO:HA	2.30	0.45
1:E:1082:LYS:HD2	1:E:1140:TYR:CE1	2.50	0.45
1:E:1124:HIS:HE1	2:F:54:PHE:CD1	2.34	0.45
1:E:1148:LYS:HD2	1:E:1148:LYS:N	2.30	0.45
2:F:282:ASN:O	2:F:283:ALA:C	2.59	0.45
2:F:388:VAL:HA	2:F:799:ARG:NH1	2.31	0.45
2:F:404:THR:HB	2:F:405:PRO:HD2	1.97	0.45
2:F:645:LEU:HD12	2:F:645:LEU:HA	1.79	0.45
2:F:821:VAL:O	2:F:821:VAL:HG22	2.15	0.45
2:F:828:LEU:HB2	2:F:1028:ARG:HD2	1.98	0.45
2:F:989:ALA:HB1	2:F:1017:LEU:CD2	2.45	0.45
3:G:91:VAL:HG12	3:G:100:MET:HB3	1.98	0.45
3:G:115:ASN:OD1	3:G:277:PRO:HA	2.16	0.45
3:G:201:LEU:HG	3:G:233:ILE:HG21	1.97	0.45
1:B:194:LEU:C	1:B:196:ASP:H	2.23	0.45
1:B:582:SER:OG	1:B:743:LYS:HG3	2.16	0.45
1:B:942:PRO:HB3	1:B:993:TRP:CE2	2.51	0.45
1:B:983:GLU:HB3	1:B:985:GLN:OE1	2.16	0.45
1:B:1051:PRO:O	1:B:1052:PRO:O	2.34	0.45
1:B:1148:LYS:HD2	1:B:1148:LYS:N	2.30	0.45
2:C:24:GLU:O	2:C:210:ARG:NH2	2.50	0.45
2:C:26:LEU:HB2	2:C:210:ARG:NH2	2.31	0.45
2:C:334:LEU:O	2:C:338:ILE:HG12	2.16	0.45
2:C:968:ARG:HA	2:C:969:PRO:HD3	1.82	0.45
2:C:1063:THR:C	2:C:1065:GLN:H	2.24	0.45
3:D:108:TYR:HB2	3:D:113:TRP:HB2	1.97	0.45
1:E:55:THR:HG21	1:E:57:GLU:OE2	2.15	0.45
1:E:221:ARG:HG2	1:E:221:ARG:HH11	1.81	0.45
1:E:345:ARG:NH1	1:E:346:ARG:HG2	2.31	0.45
1:E:586:SER:O	1:E:589:GLU:OE1	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:36:LEU:HD21	2:F:68:PHE:CD1	2.50	0.45
2:F:207:LEU:CB	2:F:208:PRO:CD	2.93	0.45
2:F:228:GLN:HE21	2:F:319:SER:H	1.63	0.45
2:F:885:LEU:HD11	2:F:927:LEU:HD13	1.98	0.45
2:F:984:HIS:O	2:F:987:TYR:HB3	2.16	0.45
2:F:998:LEU:HD22	2:F:1000:LEU:CD2	2.46	0.45
3:G:244:LEU:HD22	3:G:255:HIS:CG	2.50	0.45
3:G:455:ASN:ND2	3:G:532:THR:C	2.74	0.45
1:B:234:GLN:C	1:B:236:TRP:N	2.73	0.45
1:B:269:ILE:HG22	1:B:270:SER:N	2.31	0.45
1:B:374:ILE:HG21	1:B:400:ILE:HD13	1.96	0.45
1:B:1018:GLN:NE2	2:C:32:PRO:HG3	2.31	0.45
2:C:552:GLU:OE2	3:D:251:GLN:N	2.49	0.45
2:C:775:ARG:HB3	2:C:775:ARG:HH11	1.82	0.45
2:C:943:ILE:CG2	2:C:986:VAL:HG13	2.45	0.45
2:C:945:LEU:HD11	2:C:989:ALA:C	2.41	0.45
2:C:1036:LEU:O	2:C:1037:VAL:CB	2.60	0.45
3:D:62:GLU:H	3:D:62:GLU:CD	2.24	0.45
1:E:246:LEU:HD23	1:E:307:HIS:NE2	2.32	0.45
1:E:469:MET:O	1:E:469:MET:HG3	2.16	0.45
1:E:513:ASP:O	1:E:517:THR:HG22	2.17	0.45
1:E:901:TRP:CE3	1:E:1060:GLY:HA2	2.52	0.45
1:E:1068:LEU:HD12	1:E:1069:VAL:N	2.31	0.45
1:E:1108:ASP:O	1:E:1111:TYR:HB2	2.16	0.45
2:F:968:ARG:HA	2:F:969:PRO:HD3	1.81	0.45
2:F:1118:ARG:NH2	2:F:1118:ARG:CG	2.79	0.45
3:G:278:MET:SD	4:Y:2:5IU:I5	3.44	0.45
3:G:526:ARG:HH22	3:G:533:THR:HG22	1.81	0.45
1:B:225:ILE:HG23	1:B:321:LEU:HD23	1.97	0.45
1:B:709:ARG:O	1:B:713:GLN:NE2	2.50	0.45
1:B:732:ASP:C	1:B:734:HIS:N	2.74	0.45
1:B:954:PHE:CZ	1:B:977:LEU:HD23	2.52	0.45
1:B:1002:LEU:HD22	1:B:1007:VAL:HG12	1.97	0.45
1:B:1108:ASP:O	1:B:1111:TYR:HB2	2.16	0.45
2:C:59:ASN:C	2:C:60:ILE:HD12	2.41	0.45
2:C:208:PRO:O	2:C:234:ILE:HG13	2.16	0.45
2:C:531:MET:HE2	2:C:561:VAL:HG13	1.98	0.45
2:C:548:LEU:HD22	2:C:549:PRO:HD2	1.98	0.45
2:C:557:ILE:C	2:C:559:GLU:N	2.74	0.45
3:D:80:ASN:O	3:D:83:GLU:N	2.49	0.45
3:D:233:ILE:C	3:D:235:GLU:N	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:343:THR:OG1	3:D:344:GLU:N	2.49	0.45
3:D:582:ASP:HB2	3:D:585:ILE:HG12	1.98	0.45
1:E:73:ARG:HB3	1:E:73:ARG:HH11	1.81	0.45
1:E:1018:GLN:NE2	2:F:30:PHE:O	2.49	0.45
1:E:1027:ILE:HA	1:E:1172:PHE:HD1	1.82	0.45
2:F:30:PHE:O	2:F:32:PRO:HD3	2.17	0.45
2:F:117:ASP:O	2:F:118:ASP:HB3	2.17	0.45
2:F:141:TYR:C	2:F:142:ARG:CG	2.90	0.45
2:F:304:GLY:O	2:F:307:GLY:N	2.49	0.45
2:F:848:PHE:O	2:F:852:ARG:HB3	2.17	0.45
3:G:1:MET:HB3	3:G:2:LYS:H	1.65	0.45
4:X:16:DA:C2'	4:X:17:DG:H8	2.30	0.45
1:B:97:TYR:O	1:B:100:LEU:HB2	2.17	0.45
1:B:106:ASP:OD2	1:B:109:GLN:HB2	2.16	0.45
1:B:252:ILE:CG2	1:B:254:ARG:HB2	2.46	0.45
1:B:568:ARG:HH11	1:B:568:ARG:HG3	1.80	0.45
1:B:901:TRP:CD1	1:B:901:TRP:C	2.94	0.45
1:B:924:LEU:O	1:B:926:VAL:N	2.48	0.45
1:B:947:ARG:HD2	1:B:1086:LEU:HD21	1.99	0.45
1:B:988:PRO:O	1:B:991:THR:HG22	2.16	0.45
1:B:1061:MET:HE3	2:C:48:MET:HA	1.98	0.45
1:B:1170:GLU:O	1:B:1174:GLY:N	2.48	0.45
2:C:831:THR:HG22	2:C:951:GLN:HB2	1.98	0.45
3:D:31:GLU:OE2	3:D:88:SER:HB2	2.16	0.45
3:D:126:VAL:HG13	3:D:166:ILE:H	1.82	0.45
3:D:126:VAL:HG13	3:D:166:ILE:CD1	2.46	0.45
3:D:224:PRO:O	3:D:225:LEU:HB2	2.17	0.45
3:D:427:GLU:N	3:D:428:PRO:CD	2.80	0.45
1:E:24:SER:HB2	1:E:27:THR:HG21	1.97	0.45
1:E:252:ILE:HG12	1:E:254:ARG:H	1.81	0.45
1:E:704:GLU:CD	1:E:704:GLU:N	2.74	0.45
1:E:812:HIS:CG	1:E:813:CYS:N	2.85	0.45
1:E:901:TRP:CD1	1:E:901:TRP:C	2.93	0.45
1:E:901:TRP:CH2	1:E:1060:GLY:HA2	2.52	0.45
2:F:878:TYR:CG	4:Y:9:5IU:H4'	2.51	0.45
2:F:947:CYS:SG	2:F:1021:SER:OG	2.68	0.45
2:F:1019:TYR:C	2:F:1021:SER:N	2.71	0.45
3:G:261:LEU:CB	3:G:287:PRO:HD3	2.47	0.45
3:G:441:LEU:HA	3:G:536:MET:O	2.16	0.45
1:B:169:ARG:O	1:B:173:TYR:HB2	2.17	0.45
1:B:427:ILE:O	1:B:430:TYR:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:907:SER:C	1:B:909:LEU:H	2.21	0.45
1:B:1062:LEU:CD2	1:B:1113:LEU:HD22	2.46	0.45
2:C:199:SER:C	2:C:201:THR:N	2.74	0.45
2:C:207:LEU:HB2	2:C:234:ILE:HD11	1.98	0.45
2:C:240:PHE:HE2	2:C:242:ASN:ND2	2.15	0.45
2:C:333:ASN:HD22	2:C:336:HIS:CD2	2.35	0.45
3:D:79:GLN:HG3	3:D:80:ASN:N	2.32	0.45
3:D:161:ALA:HB3	3:D:184:LEU:HD21	1.97	0.45
3:D:405:ILE:O	3:D:409:GLU:HG3	2.16	0.45
3:D:525:SER:O	3:D:527:LEU:N	2.49	0.45
2:F:535:TYR:HD1	2:F:558:ALA:HB1	1.81	0.45
3:G:301:LEU:O	3:G:305:GLU:HG2	2.16	0.45
3:G:322:THR:HG23	3:G:350:ASP:OD1	2.16	0.45
3:G:375:ASN:ND2	3:G:567:TYR:CE1	2.85	0.45
3:G:412:LEU:HD22	3:G:462:MET:CG	2.47	0.45
3:G:455:ASN:ND2	3:G:533:THR:O	2.49	0.45
3:G:462:MET:HE1	3:G:534:TRP:CE2	2.51	0.45
4:Y:22:DG:C3'	4:Y:23:DC:C5'	2.92	0.45
4:Y:45:DT:C2'	4:Y:46:5IU:H5'	2.46	0.45
1:B:434:ARG:HH11	1:B:434:ARG:CG	2.30	0.45
1:B:513:ASP:O	1:B:517:THR:CG2	2.65	0.45
1:B:514:TYR:O	1:B:514:TYR:CD1	2.70	0.45
1:B:784:PRO:O	1:B:788:ASP:OD1	2.35	0.45
1:B:892:THR:HG22	2:C:804:ARG:CZ	2.46	0.45
2:C:142:ARG:NH2	2:C:705:ASP:OD1	2.49	0.45
2:C:159:GLY:C	2:C:160:GLU:O	2.59	0.45
2:C:392:ARG:O	2:C:396:MET:HG2	2.16	0.45
2:C:955:TRP:CD1	3:D:262:HIS:NE2	2.85	0.45
3:D:73:SER:O	3:D:75:ILE:HG13	2.17	0.45
3:D:80:ASN:HB3	3:D:83:GLU:CB	2.39	0.45
3:D:302:ALA:HA	3:D:305:GLU:HG2	1.99	0.45
2:F:244:CYS:SG	2:F:345:LEU:HB2	2.57	0.45
2:F:273:GLU:OE2	2:F:273:GLU:CA	2.64	0.45
2:F:450:VAL:O	2:F:453:ALA:HB3	2.16	0.45
2:F:611:LEU:HD23	2:F:611:LEU:C	2.42	0.45
2:F:1100:GLU:OE1	2:F:1100:GLU:N	2.50	0.45
3:G:223:LEU:N	3:G:223:LEU:HD23	2.30	0.45
1:B:345:ARG:NH1	1:B:346:ARG:HG2	2.32	0.45
1:B:586:SER:O	1:B:589:GLU:OE1	2.35	0.45
1:B:595:GLU:HA	1:B:598:TRP:HE3	1.82	0.45
1:B:860:LEU:HD23	1:B:860:LEU:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1082:LYS:O	1:B:1142:PHE:HA	2.16	0.45
2:C:277:PHE:CD1	2:C:278:ARG:N	2.84	0.45
2:C:440:SER:O	2:C:441:ASP:CB	2.65	0.45
3:D:131:GLU:HG2	3:D:131:GLU:O	2.17	0.45
3:D:247:GLN:O	3:D:251:GLN:HA	2.17	0.45
3:D:414:GLY:C	3:D:416:GLY:N	2.75	0.45
3:D:455:ASN:ND2	3:D:533:THR:O	2.49	0.45
3:D:462:MET:HE1	3:D:534:TRP:CE2	2.51	0.45
1:E:83:LEU:O	1:E:83:LEU:HD22	2.16	0.45
1:E:282:LEU:C	1:E:282:LEU:HD13	2.42	0.45
1:E:427:ILE:O	1:E:430:TYR:HB3	2.17	0.45
1:E:557:LEU:HB2	1:E:754:LEU:HD12	1.99	0.45
1:E:681:GLU:O	1:E:685:THR:HG23	2.17	0.45
1:E:919:ASP:OD2	2:F:653:ARG:NH1	2.50	0.45
2:F:220:PRO:HD2	2:F:223:TYR:CD1	2.51	0.45
2:F:377:HIS:NE2	2:F:728:TYR:CE1	2.84	0.45
2:F:557:ILE:C	2:F:559:GLU:H	2.25	0.45
2:F:841:TRP:O	2:F:842:ALA:HB3	2.16	0.45
3:G:126:VAL:HG13	3:G:166:ILE:CD1	2.47	0.45
3:G:307:GLY:CA	3:G:597:ARG:HH21	2.30	0.45
4:X:34:DC:H1'	4:X:35:DA:H5'	1.98	0.45
4:X:45:DT:C2'	4:X:46:5IU:H5'	2.45	0.45
1:B:154:GLU:HG2	1:B:155:ASP:N	2.32	0.45
1:B:193:LEU:HD23	1:B:193:LEU:O	2.17	0.45
1:B:252:ILE:HG23	1:B:254:ARG:H	1.82	0.45
1:B:728:ARG:CB	1:B:728:ARG:HH21	2.30	0.45
1:B:741:ILE:HG21	1:B:801:LEU:HD22	1.99	0.45
2:C:104:GLU:N	2:C:112:ARG:HG3	2.13	0.45
2:C:105:ARG:C	2:C:107:ASP:H	2.25	0.45
2:C:272:ARG:O	2:C:273:GLU:HB2	2.17	0.45
2:C:611:LEU:HD23	2:C:611:LEU:C	2.42	0.45
3:D:116:GLU:HG2	3:D:603:LEU:HD12	1.99	0.45
3:D:126:VAL:HA	3:D:166:ILE:HD13	1.98	0.45
3:D:301:LEU:HD22	3:D:565:LEU:HA	1.99	0.45
1:E:12:ARG:HG3	1:E:12:ARG:O	2.17	0.45
1:E:146:MET:CE	1:E:150:GLN:HG3	2.46	0.45
1:E:689:HIS:HE1	1:E:725:GLN:O	1.99	0.45
1:E:1008:SER:O	1:E:1009:LEU:C	2.60	0.45
1:E:1029:GLU:O	1:E:1030:PRO:C	2.60	0.45
2:F:34:MET:HE2	2:F:63:PRO:HG2	1.98	0.45
2:F:557:ILE:C	2:F:559:GLU:N	2.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:79:GLN:HG3	3:G:80:ASN:N	2.32	0.45
3:G:539:HIS:C	3:G:539:HIS:ND1	2.74	0.45
4:Y:34:DC:H2''	4:Y:35:DA:H5'	1.99	0.45
1:B:282:LEU:C	1:B:282:LEU:HD13	2.42	0.45
1:B:550:ARG:O	1:B:551:ALA:C	2.60	0.45
1:B:561:ARG:HH12	1:B:584:ARG:HB2	1.81	0.45
1:B:648:TYR:CE2	1:B:664:LEU:HD13	2.51	0.45
1:B:871:GLN:OE1	1:B:871:GLN:HA	2.16	0.45
2:C:138:TYR:HE1	2:C:165:GLN:HE22	1.64	0.45
2:C:248:TRP:H	2:C:248:TRP:CD1	2.35	0.45
2:C:445:ARG:NH1	2:C:452:GLU:CD	2.75	0.45
2:C:538:GLU:HB3	3:D:111:ARG:NH1	2.32	0.45
2:C:821:VAL:O	2:C:821:VAL:HG22	2.15	0.45
2:C:1030:GLY:HA2	2:C:1035:LEU:HB2	1.98	0.45
3:D:330:SER:HA	3:D:335:THR:O	2.17	0.45
3:D:427:GLU:N	3:D:428:PRO:HD2	2.32	0.45
1:E:513:ASP:O	1:E:517:THR:CG2	2.65	0.45
1:E:629:GLU:CD	2:F:852:ARG:NH1	2.75	0.45
1:E:709:ARG:O	1:E:713:GLN:NE2	2.50	0.45
1:E:988:PRO:O	1:E:991:THR:HG22	2.16	0.45
1:B:73:ARG:HB3	1:B:73:ARG:HH11	1.82	0.44
1:B:812:HIS:CG	1:B:813:CYS:N	2.84	0.44
1:B:854:ARG:HG2	1:B:854:ARG:NH1	2.32	0.44
1:B:1098:MET:CE	1:B:1156:TYR:HB2	2.43	0.44
2:C:177:HIS:O	2:C:180:GLY:N	2.47	0.44
2:C:185:HIS:HB2	2:C:186:ARG:H	1.30	0.44
2:C:245:ARG:HA	2:C:326:PHE:CZ	2.53	0.44
2:C:313:LEU:HD21	2:C:703:ARG:HB3	1.99	0.44
2:C:358:PHE:CZ	2:C:768:ASN:OD1	2.70	0.44
3:D:547:ASP:HA	3:D:574:ARG:HB2	1.99	0.44
1:E:52:ARG:HH21	1:E:52:ARG:HG2	1.82	0.44
1:E:752:VAL:CG1	1:E:809:SER:HB3	2.33	0.44
1:E:1036:LEU:O	1:E:1040:ILE:HG12	2.17	0.44
1:E:1137:GLY:O	1:E:1158:THR:O	2.35	0.44
2:F:261:LEU:HD11	2:F:281:GLU:OE1	2.17	0.44
2:F:273:GLU:OE2	2:F:273:GLU:HA	2.17	0.44
2:F:403:LEU:HD22	2:F:404:THR:O	2.17	0.44
2:F:915:ILE:O	2:F:919:THR:CG2	2.65	0.44
2:F:951:GLN:O	2:F:952:ILE:CG2	2.64	0.44
3:G:131:GLU:O	3:G:131:GLU:HG2	2.16	0.44
3:G:282:LEU:HD23	3:G:286:LEU:HG	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:385:VAL:HG21	3:G:396:ARG:NH1	2.32	0.44
4:X:12:DT:C2'	4:X:13:DG:H5'	2.35	0.44
1:B:328:ILE:O	1:B:331:ALA:N	2.50	0.44
1:B:600:LEU:HD12	1:B:711:LEU:HD12	1.99	0.44
2:C:656:ALA:O	2:C:658:PRO:CD	2.59	0.44
3:D:15:GLN:O	3:D:16:LEU:CB	2.64	0.44
3:D:118:THR:O	3:D:283:ILE:CD1	2.65	0.44
3:D:225:LEU:C	3:D:225:LEU:CD2	2.90	0.44
3:D:303:SER:O	3:D:311:GLY:HA3	2.16	0.44
1:E:252:ILE:CG2	1:E:254:ARG:HB2	2.46	0.44
1:E:328:ILE:O	1:E:331:ALA:N	2.50	0.44
1:E:431:MET:O	1:E:434:ARG:HB3	2.17	0.44
1:E:573:LEU:HD23	1:E:573:LEU:O	2.17	0.44
1:E:595:GLU:HA	1:E:598:TRP:HE3	1.82	0.44
1:E:612:LEU:O	1:E:613:ARG:C	2.60	0.44
1:E:950:SER:N	1:E:951:PRO:HD2	2.32	0.44
2:F:374:ILE:HG12	2:F:727:LEU:HB3	2.00	0.44
2:F:582:ARG:HD3	2:F:587:TRP:CZ2	2.52	0.44
2:F:641:LEU:HD22	2:F:645:LEU:HD22	1.99	0.44
2:F:945:LEU:HD11	2:F:989:ALA:C	2.43	0.44
3:G:241:HIS:CB	4:Y:3:5IU:H4'	2.46	0.44
3:G:425:ARG:O	3:G:425:ARG:HG3	2.16	0.44
1:B:282:LEU:C	1:B:284:GLU:H	2.24	0.44
2:C:125:PHE:HB2	2:C:636:LEU:HD21	1.98	0.44
2:C:161:ALA:O	2:C:165:GLN:HG3	2.18	0.44
2:C:172:LEU:O	2:C:172:LEU:HD23	2.17	0.44
2:C:872:LEU:HD22	2:C:880:ILE:HD12	1.99	0.44
3:D:102:LEU:HD12	3:D:106:ARG:O	2.18	0.44
3:D:201:LEU:HG	3:D:233:ILE:HG22	1.97	0.44
3:D:261:LEU:HD12	3:D:286:LEU:HA	1.99	0.44
3:D:425:ARG:O	3:D:425:ARG:HG3	2.17	0.44
1:E:39:ARG:HD2	1:E:44:LEU:HB3	1.98	0.44
1:E:83:LEU:CD1	1:E:114:LEU:HD11	2.47	0.44
1:E:154:GLU:HG2	1:E:155:ASP:H	1.82	0.44
1:E:170:ARG:HA	2:F:517:PRO:CG	2.47	0.44
1:E:194:LEU:HD22	1:E:198:ASN:HB2	2.00	0.44
1:E:416:LYS:HE2	1:E:803:TYR:CZ	2.52	0.44
1:E:586:SER:HB2	1:E:724:SER:O	2.17	0.44
1:E:732:ASP:C	1:E:734:HIS:N	2.74	0.44
1:E:1158:THR:HG22	1:E:1159:ARG:N	2.32	0.44
2:F:333:ASN:O	2:F:337:ASN:ND2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:234:PRO:O	3:G:235:GLU:C	2.60	0.44
3:G:451:VAL:O	3:G:452:ALA:C	2.61	0.44
4:Y:8:DC:H2''	4:Y:9:5IU:O5'	2.17	0.44
4:Y:12:DT:C2'	4:Y:13:DG:H5'	2.35	0.44
1:B:612:LEU:O	1:B:613:ARG:C	2.61	0.44
2:C:303:TRP:C	2:C:305:LYS:H	2.26	0.44
2:C:311:ILE:O	2:C:311:ILE:HD13	2.18	0.44
2:C:749:GLN:HA	2:C:752:ILE:HD11	1.99	0.44
3:D:551:LEU:N	3:D:578:SER:O	2.43	0.44
1:E:63:THR:HG22	1:E:384:ASP:OD1	2.17	0.44
1:E:222:HIS:CE1	1:E:226:VAL:CG2	3.01	0.44
1:E:470:PHE:C	1:E:472:GLU:N	2.75	0.44
1:E:581:LEU:HD21	1:E:728:ARG:HH12	1.82	0.44
1:E:937:GLU:HA	1:E:938:PRO:HD2	1.68	0.44
2:F:112:ARG:HH11	2:F:112:ARG:CG	2.26	0.44
2:F:139:LEU:HD23	2:F:146:LEU:HD12	1.99	0.44
2:F:374:ILE:HA	2:F:727:LEU:O	2.17	0.44
2:F:388:VAL:HG22	2:F:799:ARG:HH12	1.82	0.44
3:G:15:GLN:O	3:G:16:LEU:CB	2.64	0.44
3:G:80:ASN:HB3	3:G:83:GLU:CB	2.41	0.44
3:G:359:TYR:CD1	3:G:360:ARG:N	2.85	0.44
4:X:34:DC:H2''	4:X:35:DA:H5'	1.99	0.44
1:B:233:LYS:O	1:B:237:ARG:CG	2.66	0.44
1:B:402:HIS:NE2	1:B:403:HIS:CD2	2.86	0.44
1:B:486:ALA:HB3	1:B:542:ASN:OD1	2.17	0.44
1:B:626:LEU:O	1:B:630:THR:HG23	2.18	0.44
1:B:876:GLN:N	1:B:877:PRO:CD	2.81	0.44
1:B:890:ALA:O	1:B:891:LYS:C	2.60	0.44
1:B:1118:LEU:HD22	1:B:1122:LEU:HG	1.99	0.44
2:C:312:TYR:CD1	2:C:313:LEU:HD23	2.52	0.44
2:C:377:HIS:CD2	2:C:728:TYR:CE1	3.06	0.44
2:C:582:ARG:HD3	2:C:587:TRP:CE2	2.53	0.44
2:C:951:GLN:O	2:C:952:ILE:CG2	2.62	0.44
3:D:132:VAL:CG1	3:D:134:GLU:HG2	2.47	0.44
3:D:133:ASP:O	3:D:135:ALA:N	2.50	0.44
3:D:177:LYS:C	3:D:180:THR:HG22	2.42	0.44
3:D:199:ILE:HG23	3:D:265:VAL:HG22	1.98	0.44
1:E:154:GLU:HG2	1:E:155:ASP:N	2.32	0.44
1:E:236:TRP:CZ3	1:E:240:VAL:HG21	2.53	0.44
1:E:414:ASP:C	1:E:414:ASP:OD1	2.61	0.44
2:F:59:ASN:C	2:F:60:ILE:HD12	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:129:SER:C	2:F:131:ALA:N	2.74	0.44
2:F:159:GLY:C	2:F:160:GLU:O	2.59	0.44
2:F:172:LEU:O	2:F:172:LEU:HD23	2.18	0.44
2:F:964:LEU:HB2	2:F:996:SER:CB	2.47	0.44
3:G:562:THR:CG2	3:G:594:THR:HG23	2.48	0.44
4:Y:16:DA:H2'	4:Y:17:DG:C8	2.52	0.44
1:B:5:ALA:HB1	1:B:441:TYR:HA	1.99	0.44
1:B:286:LEU:CD1	1:B:306:ARG:HD3	2.29	0.44
1:B:362:LEU:HD11	1:B:396:ILE:HG23	1.98	0.44
1:B:568:ARG:HH12	1:B:578:SER:C	2.25	0.44
1:B:672:GLU:O	2:C:814:GLY:HA3	2.17	0.44
1:B:704:GLU:CD	1:B:704:GLU:N	2.76	0.44
1:B:763:GLN:HE21	1:B:764:GLU:H	1.65	0.44
2:C:75:ARG:NH1	2:C:208:PRO:HD3	2.33	0.44
2:C:91:MET:HB2	2:C:132:ALA:HB1	2.00	0.44
2:C:117:ASP:O	2:C:118:ASP:HB3	2.18	0.44
2:C:287:PHE:HB2	2:C:293:GLN:HB3	2.00	0.44
2:C:478:VAL:HG13	2:C:600:LEU:O	2.17	0.44
3:D:53:LEU:CD1	3:D:58:LEU:HD12	2.47	0.44
3:D:255:HIS:HA	3:D:260:PRO:HD2	2.00	0.44
1:E:86:ALA:HB1	1:E:92:THR:HG1	1.79	0.44
1:E:120:GLN:OE1	1:E:120:GLN:HA	2.18	0.44
1:E:168:TRP:O	1:E:172:CYS:HB2	2.18	0.44
1:E:225:ILE:HG23	1:E:321:LEU:HD23	1.99	0.44
1:E:550:ARG:O	1:E:553:ASP:N	2.40	0.44
1:E:669:ASN:HB3	1:E:672:GLU:OE2	2.16	0.44
1:E:854:ARG:HG2	1:E:854:ARG:NH1	2.33	0.44
1:E:1027:ILE:O	1:E:1027:ILE:HG13	2.17	0.44
1:E:1082:LYS:O	1:E:1142:PHE:HA	2.18	0.44
2:F:24:GLU:O	2:F:210:ARG:NH2	2.50	0.44
2:F:45:TRP:HB2	2:F:670:ILE:HD13	1.99	0.44
2:F:396:MET:HE2	2:F:674:VAL:HG21	1.98	0.44
2:F:530:ARG:HG2	2:F:547:VAL:CG1	2.48	0.44
2:F:540:ALA:O	2:F:541:GLN:HB2	2.18	0.44
2:F:845:VAL:HG13	2:F:1093:LEU:HD11	1.99	0.44
2:F:1012:ALA:C	2:F:1014:GLU:N	2.76	0.44
3:G:137:LEU:HD22	3:G:141:LEU:HD11	2.00	0.44
3:G:551:LEU:N	3:G:578:SER:O	2.44	0.44
1:B:236:TRP:CZ3	1:B:240:VAL:HG21	2.53	0.44
1:B:414:ASP:OD1	1:B:414:ASP:C	2.61	0.44
1:B:416:LYS:HD2	1:B:468:PHE:CZ	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:761:ARG:CG	1:B:822:ARG:HH22	2.26	0.44
1:B:906:TYR:O	1:B:906:TYR:CG	2.69	0.44
1:B:934:VAL:HG12	1:B:934:VAL:O	2.17	0.44
1:B:1158:THR:HG22	1:B:1159:ARG:N	2.33	0.44
2:C:14:GLU:HG3	2:C:49:THR:HG21	1.98	0.44
2:C:207:LEU:CB	2:C:208:PRO:CD	2.92	0.44
2:C:352:GLY:HA3	2:C:358:PHE:HB2	1.99	0.44
2:C:425:VAL:C	2:C:427:GLY:H	2.24	0.44
3:D:154:GLN:HA	3:D:355:LEU:HD22	2.00	0.44
1:E:62:VAL:O	1:E:62:VAL:HG23	2.17	0.44
1:E:514:TYR:O	1:E:514:TYR:CD1	2.70	0.44
1:E:771:ARG:HH11	1:E:771:ARG:CG	2.28	0.44
1:E:1036:LEU:HA	1:E:1039:LEU:HD21	2.00	0.44
1:E:1051:PRO:O	1:E:1052:PRO:O	2.35	0.44
2:F:177:HIS:O	2:F:180:GLY:N	2.45	0.44
2:F:392:ARG:HA	2:F:392:ARG:HD3	1.86	0.44
2:F:425:VAL:C	2:F:427:GLY:H	2.25	0.44
2:F:985:LEU:HB2	2:F:1020:LEU:HD13	2.00	0.44
2:F:1050:TYR:OH	2:F:1118:ARG:HA	2.18	0.44
3:G:133:ASP:OD2	3:G:136:LEU:HB3	2.18	0.44
4:Y:23:DC:H2"	4:Y:24:DT:C6	2.52	0.44
1:B:15:LEU:HD13	1:B:40:LEU:HD23	2.00	0.44
1:B:62:VAL:HA	1:B:127:PHE:O	2.18	0.44
1:B:182:VAL:HG21	1:B:272:TRP:CH2	2.53	0.44
1:B:283:PRO:CD	1:B:314:ASP:HB2	2.42	0.44
1:B:610:ASN:ND2	1:B:613:ARG:NH1	2.64	0.44
1:B:660:MET:HE1	1:B:661:LEU:HD23	2.00	0.44
1:B:728:ARG:H	1:B:728:ARG:HG3	1.57	0.44
1:B:823:ARG:NH2	1:B:828:LYS:NZ	2.65	0.44
1:B:1148:LYS:H	1:B:1148:LYS:CD	2.31	0.44
2:C:14:GLU:OE2	2:C:14:GLU:C	2.61	0.44
2:C:117:ASP:OD2	2:C:117:ASP:N	2.51	0.44
2:C:141:TYR:C	2:C:142:ARG:CG	2.89	0.44
2:C:173:VAL:O	2:C:176:THR:HG23	2.18	0.44
2:C:333:ASN:O	2:C:337:ASN:ND2	2.51	0.44
2:C:415:ILE:H	2:C:663:THR:CG2	2.31	0.44
2:C:534:GLY:O	2:C:536:ALA:O	2.36	0.44
2:C:1100:GLU:OE1	2:C:1100:GLU:N	2.51	0.44
3:D:405:ILE:HA	3:D:408:LEU:HD12	1.99	0.44
1:E:193:LEU:HD23	1:E:193:LEU:O	2.17	0.44
1:E:252:ILE:HG23	1:E:254:ARG:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:402:HIS:NE2	1:E:403:HIS:CD2	2.86	0.44
1:E:490:VAL:CG1	1:E:495:THR:HG22	2.48	0.44
1:E:514:TYR:CE2	1:E:518:MET:HG3	2.53	0.44
1:E:552:SER:HB3	1:E:733:LYS:O	2.18	0.44
1:E:563:GLU:O	1:E:567:VAL:HG23	2.17	0.44
1:E:613:ARG:HD2	2:F:854:GLN:O	2.18	0.44
1:E:1038:THR:O	1:E:1041:ARG:HB3	2.18	0.44
2:F:104:GLU:H	2:F:112:ARG:HH11	1.65	0.44
2:F:295:VAL:O	2:F:296:GLY:C	2.61	0.44
2:F:1019:TYR:C	2:F:1021:SER:H	2.26	0.44
3:G:200:ARG:CB	3:G:263:LEU:HD23	2.32	0.44
3:G:233:ILE:C	3:G:235:GLU:N	2.65	0.44
3:G:252:ARG:O	3:G:253:LEU:HG	2.17	0.44
3:G:330:SER:HA	3:G:335:THR:O	2.18	0.44
3:G:414:GLY:C	3:G:416:GLY:N	2.76	0.44
3:G:529:GLU:O	3:G:530:HIS:C	2.61	0.44
1:B:222:HIS:CG	1:B:272:TRP:HH2	2.36	0.44
1:B:513:ASP:O	1:B:517:THR:HG22	2.17	0.44
1:B:563:GLU:O	1:B:567:VAL:HG23	2.17	0.44
2:C:194:ILE:HG23	2:C:229:ALA:HB2	1.99	0.44
2:C:557:ILE:C	2:C:559:GLU:H	2.26	0.44
2:C:885:LEU:HD12	2:C:969:PRO:CG	2.34	0.44
2:C:941:MET:HE1	2:C:987:TYR:CD1	2.53	0.44
2:C:1038:LEU:HD22	2:C:1090:TYR:CE1	2.53	0.44
3:D:126:VAL:CG2	3:D:166:ILE:HD13	2.40	0.44
3:D:137:LEU:HD22	3:D:141:LEU:HD11	1.99	0.44
3:D:170:SER:HA	3:D:296:GLY:O	2.17	0.44
3:D:385:VAL:HG21	3:D:396:ARG:NH1	2.33	0.44
3:D:526:ARG:HE	3:D:526:ARG:C	2.26	0.44
1:E:153:ILE:HG13	1:E:154:GLU:N	2.31	0.44
1:E:194:LEU:C	1:E:196:ASP:H	2.24	0.44
1:E:200:TYR:O	1:E:201:LEU:CB	2.54	0.44
1:E:375:ARG:HD2	1:E:404:GLN:NE2	2.33	0.44
1:E:447:TRP:O	1:E:448:ARG:HB2	2.17	0.44
1:E:462:SER:O	1:E:463:GLN:C	2.61	0.44
1:E:837:ALA:O	1:E:841:LEU:HG	2.18	0.44
1:E:934:VAL:HG12	1:E:934:VAL:O	2.18	0.44
2:F:103:LEU:HD11	2:F:115:LEU:HD13	1.98	0.44
2:F:333:ASN:HB2	2:F:336:HIS:H	1.83	0.44
2:F:363:ASN:N	2:F:363:ASN:ND2	2.30	0.44
2:F:537:MET:CA	3:G:110:ASN:HB3	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:709:ARG:NH2	2:F:709:ARG:CG	2.80	0.44
2:F:716:PHE:CG	2:F:747:LEU:HD13	2.53	0.44
2:F:745:SER:O	2:F:746:VAL:C	2.61	0.44
2:F:1042:GLY:O	2:F:1046:LEU:HB2	2.18	0.44
3:G:213:THR:CG2	3:G:235:GLU:CA	2.92	0.44
3:G:266:LEU:HD23	3:G:286:LEU:HD21	1.99	0.44
3:G:275:ASP:OD1	4:Y:2:5IU:O4	2.35	0.44
3:G:397:LEU:HB2	3:G:580:TYR:CD2	2.53	0.44
3:G:531:GLU:HG3	3:G:531:GLU:O	2.18	0.44
3:G:541:SER:O	3:G:544:SER:HB2	2.18	0.44
4:X:23:DC:H2''	4:X:24:DT:C6	2.53	0.44
1:B:328:ILE:O	1:B:329:THR:C	2.61	0.43
1:B:447:TRP:O	1:B:448:ARG:CB	2.66	0.43
1:B:460:LEU:O	1:B:463:GLN:HG2	2.17	0.43
1:B:604:MET:C	1:B:605:THR:HG22	2.43	0.43
1:B:766:ALA:HB2	1:B:787:VAL:HG22	1.99	0.43
1:B:1008:SER:O	1:B:1009:LEU:C	2.61	0.43
2:C:1:MET:CG	2:C:3:ARG:HE	2.28	0.43
2:C:388:VAL:HG22	2:C:799:ARG:HH12	1.83	0.43
2:C:760:TYR:HE1	2:C:765:GLU:HG3	1.82	0.43
2:C:998:LEU:HD22	2:C:1000:LEU:HD21	2.00	0.43
3:D:19:LEU:HD23	3:D:19:LEU:C	2.43	0.43
3:D:119:VAL:CG1	3:D:600:LEU:HD21	2.48	0.43
3:D:244:LEU:HB3	3:D:255:HIS:NE2	2.32	0.43
3:D:376:ARG:HB3	3:D:377:GLY:H	1.63	0.43
1:E:66:GLU:OE1	1:E:66:GLU:HA	2.18	0.43
1:E:121:MET:C	1:E:123:GLU:N	2.75	0.43
1:E:228:ARG:HD2	1:E:316:LEU:HD21	2.00	0.43
1:E:584:ARG:HG2	1:E:584:ARG:NH1	2.33	0.43
1:E:1108:ASP:O	1:E:1112:GLN:OE1	2.36	0.43
2:F:37:VAL:HG21	2:F:42:MET:CB	2.47	0.43
2:F:287:PHE:HB2	2:F:293:GLN:HB3	1.99	0.43
2:F:1080:MET:HG3	4:Y:11:DA:N3	2.33	0.43
3:G:33:PRO:HG3	3:G:73:SER:HB3	2.00	0.43
3:G:133:ASP:C	3:G:135:ALA:N	2.76	0.43
3:G:212:LEU:HD23	3:G:212:LEU:HA	1.85	0.43
3:G:555:SER:O	3:G:556:GLN:HG2	2.18	0.43
4:Y:46:5IU:C2'	4:Y:47:DA:C5'	2.77	0.43
1:B:237:ARG:HE	1:B:266:ILE:HG21	1.83	0.43
1:B:488:ARG:HH22	1:E:541:MET:HE3	1.82	0.43
1:B:600:LEU:HD22	1:B:652:TRP:CH2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:729:LEU:HD22	1:B:729:LEU:N	2.26	0.43
2:C:1:MET:HE3	2:C:321:GLN:HB2	2.01	0.43
2:C:3:ARG:HG3	2:C:3:ARG:HH21	1.82	0.43
2:C:52:GLN:C	2:C:54:PHE:N	2.76	0.43
2:C:104:GLU:H	2:C:112:ARG:HH11	1.64	0.43
2:C:245:ARG:HA	2:C:326:PHE:CE1	2.53	0.43
2:C:273:GLU:OE2	2:C:273:GLU:CA	2.65	0.43
3:D:176:GLY:O	3:D:180:THR:HB	2.18	0.43
3:D:213:THR:HG21	3:D:235:GLU:CA	2.48	0.43
3:D:538:VAL:HG21	3:D:565:LEU:CD2	2.48	0.43
1:E:62:VAL:HA	1:E:127:PHE:O	2.18	0.43
1:E:568:ARG:HH12	1:E:578:SER:C	2.26	0.43
1:E:646:ASP:O	1:E:649:ARG:HG3	2.17	0.43
1:E:823:ARG:NH2	1:E:828:LYS:NZ	2.66	0.43
1:E:905:SER:C	1:E:907:SER:N	2.74	0.43
1:E:963:ASP:O	1:E:964:PHE:C	2.61	0.43
1:E:1062:LEU:CD2	1:E:1113:LEU:HD22	2.46	0.43
2:F:7:SER:HB3	2:F:13:LEU:CG	2.42	0.43
2:F:303:TRP:C	2:F:305:LYS:H	2.27	0.43
2:F:404:THR:OG1	2:F:406:ARG:HG3	2.18	0.43
2:F:445:ARG:NH1	2:F:452:GLU:OE1	2.51	0.43
2:F:525:ARG:HG2	2:F:525:ARG:HH11	1.83	0.43
2:F:1015:GLN:O	2:F:1018:HIS:HB3	2.18	0.43
2:F:1076:GLU:HG3	2:F:1076:GLU:O	2.17	0.43
3:G:212:LEU:O	3:G:216:LEU:HB2	2.18	0.43
3:G:225:LEU:CD2	3:G:229:GLN:HA	2.49	0.43
3:G:263:LEU:HD12	3:G:263:LEU:O	2.19	0.43
4:X:16:DA:H2'	4:X:17:DG:C8	2.53	0.43
1:B:100:LEU:O	1:B:104:ILE:HG13	2.19	0.43
1:B:120:GLN:HA	1:B:120:GLN:OE1	2.17	0.43
1:B:355:LEU:C	1:B:355:LEU:HD12	2.43	0.43
1:B:446:ASN:C	1:B:447:TRP:O	2.58	0.43
1:B:462:SER:O	1:B:463:GLN:C	2.61	0.43
1:B:470:PHE:C	1:B:472:GLU:N	2.76	0.43
1:B:638:TRP:O	1:B:642:VAL:HG23	2.17	0.43
1:B:698:GLY:C	1:B:700:GLN:H	2.26	0.43
1:B:915:GLY:C	1:B:916:ILE:HG13	2.43	0.43
1:B:1032:ILE:HD12	1:B:1032:ILE:H	1.82	0.43
1:B:1093:TYR:CZ	1:B:1144:ARG:HB2	2.53	0.43
1:B:1137:GLY:O	1:B:1138:VAL:HB	2.18	0.43
2:C:103:LEU:HD11	2:C:115:LEU:HD13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:392:ARG:HG2	2:C:392:ARG:NH1	2.33	0.43
3:D:11:VAL:HG21	3:D:21:VAL:HG11	2.01	0.43
3:D:340:GLY:O	3:D:341:THR:OG1	2.32	0.43
1:E:13:LEU:HD11	1:E:441:TYR:CE2	2.53	0.43
1:E:1032:ILE:HD12	1:E:1032:ILE:H	1.84	0.43
2:F:334:LEU:O	2:F:338:ILE:HG12	2.17	0.43
2:F:367:LEU:O	2:F:368:ASP:HB3	2.18	0.43
2:F:522:HIS:HE1	2:F:905:GLY:O	2.00	0.43
3:G:28:ALA:HB1	3:G:35:VAL:HG23	2.00	0.43
3:G:133:ASP:O	3:G:135:ALA:N	2.51	0.43
3:G:309:VAL:O	3:G:310:LEU:C	2.61	0.43
1:B:52:ARG:HH21	1:B:52:ARG:HG2	1.84	0.43
1:B:54:LEU:HD13	1:B:380:VAL:CG1	2.48	0.43
1:B:860:LEU:O	1:B:860:LEU:HG	2.17	0.43
1:B:939:THR:O	1:B:941:THR:HG23	2.18	0.43
2:C:5:TYR:CD2	2:C:323:LEU:HD11	2.53	0.43
2:C:36:LEU:HD13	2:C:65:PRO:HA	2.00	0.43
2:C:238:LEU:HD23	2:C:238:LEU:C	2.43	0.43
2:C:245:ARG:HD3	2:C:344:GLU:OE2	2.18	0.43
2:C:435:LEU:HA	2:C:436:PRO:HD3	1.87	0.43
2:C:544:TRP:CE2	2:C:545:GLN:HG2	2.54	0.43
2:C:569:MET:HE1	3:D:25:LEU:HD13	2.01	0.43
2:C:915:ILE:O	2:C:919:THR:HG22	2.18	0.43
3:D:122:PHE:CE1	3:D:166:ILE:HG12	2.54	0.43
3:D:527:LEU:HA	3:D:528:PRO:HD3	1.73	0.43
1:E:50:PHE:CE2	1:E:52:ARG:HD3	2.52	0.43
1:E:154:GLU:N	1:E:154:GLU:CD	2.77	0.43
1:E:611:THR:HG22	2:F:858:ARG:NH2	2.33	0.43
1:E:620:MET:CE	1:E:687:ILE:HD13	2.21	0.43
1:E:667:ALA:C	1:E:669:ASN:N	2.74	0.43
1:E:835:GLN:HE21	1:E:835:GLN:HB3	1.70	0.43
1:E:860:LEU:O	1:E:860:LEU:HG	2.19	0.43
2:F:440:SER:O	2:F:441:ASP:CB	2.65	0.43
2:F:884:LEU:HG	2:F:917:TRP:CZ2	2.53	0.43
2:F:943:ILE:CG2	2:F:986:VAL:HG13	2.49	0.43
3:G:220:LEU:HA	3:G:223:LEU:CD2	2.48	0.43
3:G:221:ARG:O	3:G:221:ARG:HG2	2.19	0.43
3:G:556:GLN:HA	3:G:585:ILE:CD1	2.48	0.43
4:X:23:DC:C2'	4:X:24:DT:C6	3.01	0.43
1:B:242:GLU:O	1:B:242:GLU:CD	2.62	0.43
1:B:490:VAL:CG1	1:B:495:THR:HG22	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:584:ARG:HG2	1:B:584:ARG:NH1	2.33	0.43
1:B:761:ARG:HD2	4:X:45:DT:OP1	2.18	0.43
1:B:905:SER:C	1:B:907:SER:N	2.75	0.43
1:B:1085:TRP:O	1:B:1086:LEU:HD23	2.19	0.43
1:B:1108:ASP:O	1:B:1112:GLN:OE1	2.36	0.43
1:B:1120:ARG:HB2	2:C:56:ILE:HD12	2.00	0.43
1:B:1127:ALA:O	1:B:1128:ASP:HB3	2.18	0.43
2:C:70:TRP:CZ3	2:C:84:SER:HB2	2.53	0.43
2:C:77:LEU:HB3	2:C:78:PRO:HD2	2.00	0.43
2:C:175:TYR:CZ	2:C:179:LEU:HD11	2.53	0.43
2:C:273:GLU:OE2	2:C:273:GLU:HA	2.19	0.43
2:C:388:VAL:HG13	2:C:799:ARG:HH11	1.82	0.43
2:C:540:ALA:O	2:C:541:GLN:HB2	2.18	0.43
2:C:602:ASP:HB3	2:C:605:THR:OG1	2.19	0.43
2:C:878:TYR:CG	4:X:9:5IU:H4'	2.53	0.43
2:C:1019:TYR:C	2:C:1021:SER:H	2.26	0.43
2:C:1048:THR:OG1	2:C:1070:LYS:HG3	2.19	0.43
2:C:1097:LEU:HD23	2:C:1097:LEU:HA	1.81	0.43
3:D:207:LYS:HZ1	3:D:544:SER:HA	1.82	0.43
3:D:212:LEU:O	3:D:216:LEU:HB2	2.17	0.43
3:D:228:GLU:C	3:D:230:LYS:N	2.77	0.43
3:D:370:LEU:HD23	3:D:577:LEU:HD23	2.00	0.43
3:D:451:VAL:O	3:D:452:ALA:C	2.61	0.43
1:E:471:ARG:HD2	1:E:472:GLU:OE1	2.17	0.43
1:E:732:ASP:HA	1:E:735:LEU:HD12	2.00	0.43
1:E:947:ARG:HD2	1:E:1086:LEU:HD21	2.01	0.43
1:E:1112:GLN:HB3	1:E:1168:MET:SD	2.59	0.43
1:E:1170:GLU:O	1:E:1174:GLY:N	2.50	0.43
2:F:286:LEU:HA	2:F:291:GLY:O	2.19	0.43
2:F:311:ILE:O	2:F:311:ILE:HD13	2.18	0.43
3:G:222:GLN:O	3:G:223:LEU:C	2.60	0.43
3:G:405:ILE:HA	3:G:408:LEU:HD12	1.99	0.43
1:B:62:VAL:HG23	1:B:62:VAL:O	2.18	0.43
1:B:451:PRO:HG2	1:B:452:GLY:H	1.84	0.43
1:B:567:VAL:HB	1:B:738:ILE:HD12	2.00	0.43
2:C:106:GLU:HA	2:C:109:THR:OG1	2.19	0.43
2:C:146:LEU:C	2:C:148:GLN:N	2.76	0.43
2:C:295:VAL:O	2:C:296:GLY:C	2.62	0.43
2:C:574:TRP:HE3	2:C:578:LEU:CD1	2.32	0.43
2:C:701:PRO:HA	2:C:705:ASP:OD1	2.18	0.43
3:D:120:ALA:CB	3:D:603:LEU:HB3	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:234:PRO:HB2	3:D:236:ASP:HB2	2.00	0.43
1:E:269:ILE:HG22	1:E:270:SER:H	1.83	0.43
1:E:446:ASN:OD1	1:E:446:ASN:O	2.37	0.43
1:E:466:ASP:OD2	1:E:471:ARG:HA	2.19	0.43
1:E:707:LEU:O	1:E:708:VAL:C	2.61	0.43
1:E:1085:TRP:O	1:E:1086:LEU:HD23	2.19	0.43
2:F:333:ASN:H	2:F:336:HIS:HB2	1.83	0.43
2:F:367:LEU:CB	2:F:761:LEU:HD23	2.48	0.43
3:G:132:VAL:CG1	3:G:134:GLU:HG2	2.48	0.43
3:G:275:ASP:OD1	4:Y:2:5IU:C4	2.67	0.43
4:X:8:DC:H2''	4:X:9:5IU:O5'	2.19	0.43
2:C:141:TYR:O	2:C:142:ARG:CG	2.67	0.43
2:C:475:ASP:O	2:C:477:PRO:HD3	2.18	0.43
2:C:536:ALA:O	2:C:537:MET:O	2.37	0.43
2:C:828:LEU:HB2	2:C:1028:ARG:HD2	2.01	0.43
2:C:1012:ALA:C	2:C:1014:GLU:N	2.77	0.43
2:C:1046:LEU:CD2	2:C:1110:GLN:HG3	2.44	0.43
1:E:504:MET:CE	1:E:518:MET:HG2	2.49	0.43
1:E:1061:MET:HG3	2:F:48:MET:CE	2.49	0.43
1:E:1107:TYR:O	1:E:1110:GLN:N	2.52	0.43
2:F:70:TRP:CZ3	2:F:84:SER:HB2	2.54	0.43
2:F:441:ASP:OD2	2:F:662:CYS:HB2	2.19	0.43
2:F:845:VAL:CG1	2:F:1093:LEU:HD11	2.49	0.43
2:F:878:TYR:CD1	4:Y:9:5IU:H4'	2.53	0.43
3:G:427:GLU:N	3:G:428:PRO:CD	2.81	0.43
3:G:427:GLU:N	3:G:428:PRO:HD2	2.34	0.43
1:B:150:GLN:HE21	1:B:150:GLN:CA	2.31	0.43
1:B:534:GLN:OE1	1:B:880:VAL:HG23	2.18	0.43
1:B:555:SER:HA	1:B:737:GLN:O	2.19	0.43
1:B:667:ALA:C	1:B:669:ASN:N	2.77	0.43
1:B:937:GLU:O	1:B:939:THR:N	2.46	0.43
1:B:1112:GLN:HB3	1:B:1168:MET:SD	2.59	0.43
2:C:50:LEU:O	2:C:54:PHE:HB2	2.19	0.43
2:C:228:GLN:HE21	2:C:319:SER:H	1.66	0.43
2:C:363:ASN:ND2	2:C:363:ASN:N	2.32	0.43
2:C:837:LEU:HD23	2:C:837:LEU:HA	1.89	0.43
2:C:966:ARG:NH1	2:C:983:GLU:OE1	2.44	0.43
3:D:213:THR:CG2	3:D:235:GLU:CA	2.92	0.43
3:D:234:PRO:O	3:D:235:GLU:C	2.60	0.43
3:D:309:VAL:O	3:D:310:LEU:C	2.60	0.43
3:D:526:ARG:HH22	3:D:533:THR:HG21	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:170:ARG:HA	2:F:517:PRO:HG2	2.00	0.43
1:E:218:LEU:HD21	1:E:323:ILE:HG12	2.01	0.43
1:E:345:ARG:HH12	1:E:346:ARG:HG2	1.83	0.43
1:E:355:LEU:C	1:E:355:LEU:HD12	2.43	0.43
1:E:446:ASN:C	1:E:447:TRP:O	2.57	0.43
1:E:939:THR:O	1:E:941:THR:HG23	2.19	0.43
2:F:190:TYR:CE1	2:F:191:GLN:HG3	2.54	0.43
2:F:248:TRP:CD1	2:F:248:TRP:N	2.87	0.43
2:F:272:ARG:O	2:F:273:GLU:HB2	2.19	0.43
2:F:290:ASP:HB2	2:F:291:GLY:H	1.51	0.43
2:F:388:VAL:HG13	2:F:799:ARG:HH11	1.84	0.43
2:F:421:PHE:O	2:F:422:ILE:C	2.62	0.43
2:F:882:GLN:HA	2:F:969:PRO:HG2	2.00	0.43
3:G:175:THR:CG2	3:G:176:GLY:N	2.80	0.43
3:G:213:THR:HG21	3:G:235:GLU:CA	2.48	0.43
3:G:356:GLN:HE21	3:G:356:GLN:HB2	1.62	0.43
3:G:561:VAL:CG1	3:G:589:ALA:HB2	2.48	0.43
4:Y:23:DC:C2'	4:Y:24:DT:C6	3.02	0.43
1:B:12:ARG:HG3	1:B:12:ARG:O	2.18	0.43
1:B:310:PHE:C	1:B:310:PHE:HD2	2.26	0.43
1:B:340:ALA:O	1:B:341:ARG:C	2.62	0.43
1:B:452:GLY:HA2	1:B:864:ASP:OD1	2.19	0.43
1:B:591:LEU:HB3	2:C:1095:ARG:NH2	2.33	0.43
1:B:1025:LEU:HD11	1:B:1117:ALA:HA	2.00	0.43
1:B:1125:ARG:HB3	2:C:28:ASP:CB	2.49	0.43
2:C:318:GLU:C	2:C:320:SER:H	2.27	0.43
2:C:544:TRP:CD2	2:C:545:GLN:HG2	2.54	0.43
2:C:858:ARG:HH11	2:C:858:ARG:HG3	1.84	0.43
2:C:868:GLU:HB2	2:C:869:PRO:HD2	2.01	0.43
2:C:949:GLY:C	2:C:950:VAL:HG23	2.44	0.43
3:D:229:GLN:O	3:D:232:ARG:CG	2.67	0.43
1:E:242:GLU:O	1:E:242:GLU:CD	2.61	0.43
1:E:434:ARG:HH11	1:E:434:ARG:CG	2.31	0.43
1:E:860:LEU:H	1:E:860:LEU:HD23	1.83	0.43
2:F:3:ARG:HH21	2:F:3:ARG:HG3	1.83	0.43
2:F:75:ARG:NH1	2:F:208:PRO:HD3	2.34	0.43
2:F:238:LEU:C	2:F:238:LEU:HD23	2.44	0.43
2:F:377:HIS:CD2	2:F:728:TYR:CE1	3.06	0.43
2:F:392:ARG:HG2	2:F:392:ARG:NH1	2.33	0.43
2:F:1063:THR:C	2:F:1065:GLN:H	2.25	0.43
3:G:98:THR:HG23	3:G:99:PRO:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:154:GLN:HA	3:G:355:LEU:HD22	2.00	0.43
3:G:177:LYS:C	3:G:180:THR:HG22	2.44	0.43
3:G:379:LYS:H	3:G:379:LYS:HG3	1.60	0.43
1:B:5:ALA:HB1	1:B:441:TYR:CA	2.48	0.43
1:B:39:ARG:HG3	1:B:39:ARG:NH1	2.33	0.43
1:B:218:LEU:HD21	1:B:323:ILE:HG12	2.01	0.43
1:B:390:ASP:OD2	1:B:392:GLN:HB2	2.19	0.43
1:B:587:VAL:CG1	1:B:690:ILE:HG13	2.48	0.43
1:B:824:ARG:CB	4:X:16:DA:OP2	2.54	0.43
1:B:912:ARG:HD3	1:B:912:ARG:HA	1.71	0.43
2:C:367:LEU:O	2:C:368:ASP:HB3	2.19	0.43
2:C:530:ARG:HG2	2:C:547:VAL:CG1	2.49	0.43
2:C:819:GLU:OE1	2:C:820:PHE:N	2.52	0.43
2:C:845:VAL:CG1	2:C:1093:LEU:HD11	2.48	0.43
2:C:1012:ALA:H	2:C:1015:GLN:NE2	1.93	0.43
2:C:1015:GLN:O	2:C:1018:HIS:HB3	2.18	0.43
3:D:53:LEU:HD11	3:D:58:LEU:CD1	2.49	0.43
1:E:12:ARG:O	1:E:12:ARG:CG	2.67	0.43
1:E:386:PHE:C	1:E:388:ASP:N	2.75	0.43
1:E:555:SER:HA	1:E:737:GLN:O	2.19	0.43
1:E:581:LEU:HD11	1:E:737:GLN:CD	2.44	0.43
1:E:597:LEU:O	1:E:597:LEU:HD23	2.19	0.43
1:E:638:TRP:O	1:E:642:VAL:HG23	2.19	0.43
1:E:924:LEU:HD22	1:E:949:ALA:HB1	2.00	0.43
1:E:1101:ALA:O	1:E:1104:ALA:HB3	2.19	0.43
2:F:50:LEU:O	2:F:54:PHE:HB2	2.19	0.43
2:F:445:ARG:HD3	2:F:455:ILE:HD12	2.01	0.43
2:F:764:ASP:HB3	2:F:767:LEU:CD1	2.49	0.43
3:G:326:ALA:HB1	3:G:338:PRO:O	2.18	0.43
3:G:376:ARG:HB3	3:G:377:GLY:H	1.64	0.43
3:G:537:THR:OG1	3:G:540:LYS:HG3	2.18	0.43
4:X:4:5IU:H6	4:X:4:5IU:H2'	1.72	0.43
4:Y:3:5IU:H2''	4:Y:4:5IU:C5'	2.32	0.43
1:B:12:ARG:O	1:B:12:ARG:CG	2.67	0.42
1:B:39:ARG:HD2	1:B:44:LEU:HB3	2.00	0.42
1:B:600:LEU:HD11	1:B:694:LEU:HD21	2.01	0.42
1:B:932:ALA:HB2	1:B:947:ARG:CG	2.49	0.42
1:B:947:ARG:HD3	1:B:947:ARG:N	2.27	0.42
1:B:1029:GLU:HA	1:B:1030:PRO:HD2	1.86	0.42
1:B:1127:ALA:O	1:B:1128:ASP:CB	2.67	0.42
2:C:120:ASP:O	2:C:121:LYS:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:240:PHE:CE2	2:C:242:ASN:ND2	2.87	0.42
2:C:272:ARG:O	2:C:273:GLU:CB	2.67	0.42
3:D:52:CYS:SG	3:D:106:ARG:CG	3.07	0.42
1:E:222:HIS:NE2	1:E:272:TRP:HH2	2.17	0.42
1:E:365:GLU:C	1:E:367:GLY:N	2.76	0.42
1:E:868:GLN:HE21	1:E:868:GLN:HB3	1.62	0.42
1:E:1051:PRO:CD	1:E:1052:PRO:HD2	2.41	0.42
1:E:1102:MET:HE3	1:E:1102:MET:CA	2.49	0.42
1:E:1151:PRO:C	1:E:1153:GLN:H	2.27	0.42
2:F:246:TYR:CD2	2:F:275:PRO:HD3	2.54	0.42
2:F:475:ASP:O	2:F:477:PRO:HD3	2.18	0.42
2:F:998:LEU:HD22	2:F:1000:LEU:HD21	2.01	0.42
2:F:1038:LEU:HD22	2:F:1090:TYR:CE1	2.54	0.42
3:G:369:GLN:HB3	3:G:384:THR:HG21	2.01	0.42
4:X:2:5IU:H2''	4:X:3:5IU:C5'	2.49	0.42
1:B:85:ILE:C	1:B:87:CYS:H	2.27	0.42
1:B:154:GLU:HG2	1:B:155:ASP:H	1.84	0.42
1:B:637:ALA:HA	1:B:640:VAL:CG2	2.49	0.42
1:B:669:ASN:O	1:B:673:ASN:ND2	2.52	0.42
1:B:893:LEU:HD11	2:C:432:ASP:HB2	2.01	0.42
1:B:1075:ARG:NH1	1:B:1132:GLU:O	2.53	0.42
1:B:1082:LYS:HD2	1:B:1140:TYR:CE1	2.54	0.42
1:B:1107:TYR:O	1:B:1111:TYR:HD1	2.02	0.42
2:C:374:ILE:HA	2:C:727:LEU:O	2.19	0.42
2:C:411:MET:HA	2:C:662:CYS:O	2.19	0.42
3:D:225:LEU:CD2	3:D:229:GLN:HA	2.49	0.42
3:D:244:LEU:HD22	3:D:255:HIS:CB	2.48	0.42
3:D:266:LEU:HD23	3:D:286:LEU:HD21	2.01	0.42
3:D:300:GLN:HA	3:D:568:THR:CG2	2.48	0.42
3:D:455:ASN:ND2	3:D:532:THR:C	2.76	0.42
1:E:221:ARG:HG2	1:E:221:ARG:NH1	2.33	0.42
1:E:233:LYS:HZ1	1:E:269:ILE:HG12	1.82	0.42
1:E:352:ASP:O	1:E:356:SER:HB2	2.19	0.42
1:E:730:GLU:OE1	1:E:730:GLU:HA	2.19	0.42
1:E:831:THR:O	1:E:833:VAL:N	2.48	0.42
1:E:890:ALA:O	1:E:891:LYS:C	2.61	0.42
1:E:992:GLU:OE2	1:E:1148:LYS:NZ	2.52	0.42
1:E:1135:PHE:CG	1:E:1136:GLY:N	2.87	0.42
2:F:5:TYR:CE2	2:F:323:LEU:HD11	2.54	0.42
2:F:141:TYR:O	2:F:142:ARG:CG	2.67	0.42
2:F:240:PHE:HE2	2:F:242:ASN:ND2	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:266:ARG:HH21	2:F:272:ARG:HE	1.68	0.42
2:F:341:ASP:OD2	2:F:365:ARG:NH1	2.52	0.42
2:F:396:MET:HE1	2:F:726:LYS:HB2	2.00	0.42
2:F:574:TRP:HE3	2:F:578:LEU:CD1	2.32	0.42
2:F:807:LEU:N	2:F:808:PRO:HD2	2.34	0.42
2:F:986:VAL:HG12	2:F:987:TYR:N	2.34	0.42
2:F:1022:GLN:O	2:F:1025:GLU:HB3	2.19	0.42
3:G:557:ARG:HB3	3:G:558:THR:H	1.27	0.42
1:B:168:TRP:O	1:B:172:CYS:HB2	2.18	0.42
1:B:426:ASP:O	1:B:429:THR:CG2	2.63	0.42
1:B:658:MET:HB3	1:B:659:PRO:CD	2.39	0.42
1:B:807:THR:HG22	1:B:807:THR:O	2.19	0.42
1:B:835:GLN:HE21	1:B:835:GLN:HB3	1.72	0.42
1:B:899:ASP:HB3	1:B:1059:ARG:NH1	2.20	0.42
2:C:368:ASP:OD1	2:C:370:LEU:HB2	2.19	0.42
2:C:448:HIS:HA	2:C:449:PRO:HD3	1.89	0.42
2:C:699:GLN:H	2:C:699:GLN:HG2	1.63	0.42
2:C:767:LEU:HD23	2:C:767:LEU:H	1.83	0.42
1:E:233:LYS:O	1:E:237:ARG:CG	2.68	0.42
1:E:426:ASP:O	1:E:429:THR:CG2	2.64	0.42
1:E:703:SER:O	1:E:706:ALA:HB3	2.19	0.42
1:E:1169:ASP:O	1:E:1172:PHE:HB3	2.19	0.42
3:G:102:LEU:HD12	3:G:106:ARG:O	2.19	0.42
3:G:233:ILE:N	3:G:233:ILE:CD1	2.83	0.42
3:G:525:SER:C	3:G:527:LEU:N	2.75	0.42
1:B:345:ARG:HH12	1:B:346:ARG:HG2	1.84	0.42
1:B:531:GLN:O	1:B:535:ARG:HD3	2.19	0.42
1:B:711:LEU:HD22	1:B:715:ILE:HD11	2.01	0.42
2:C:160:GLU:O	2:C:161:ALA:HB3	2.19	0.42
2:C:257:LEU:HD12	2:C:257:LEU:C	2.45	0.42
2:C:333:ASN:HB2	2:C:336:HIS:H	1.84	0.42
2:C:775:ARG:HB3	2:C:775:ARG:NH1	2.34	0.42
3:D:130:ILE:O	3:D:132:VAL:HG23	2.20	0.42
3:D:240:LEU:CD2	3:D:274:ILE:HD12	2.49	0.42
3:D:254:ARG:O	3:D:255:HIS:CB	2.66	0.42
3:D:300:GLN:OE1	3:D:567:TYR:HE2	2.01	0.42
1:E:97:TYR:O	1:E:100:LEU:HB2	2.19	0.42
1:E:491:PHE:O	1:E:492:LYS:C	2.62	0.42
1:E:504:MET:SD	1:E:517:THR:HG21	2.59	0.42
1:E:915:GLY:C	1:E:916:ILE:HG13	2.44	0.42
2:F:1:MET:CG	2:F:3:ARG:HE	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:253:ASP:O	2:F:255:ALA:N	2.52	0.42
2:F:445:ARG:HH11	2:F:452:GLU:CD	2.27	0.42
2:F:449:PRO:HB2	2:F:450:VAL:H	1.70	0.42
2:F:1036:LEU:O	2:F:1037:VAL:CB	2.62	0.42
2:F:1038:LEU:HA	2:F:1039:PRO:HD2	1.81	0.42
3:G:229:GLN:O	3:G:230:LYS:HD2	2.19	0.42
3:G:229:GLN:O	3:G:232:ARG:CG	2.67	0.42
3:G:409:GLU:C	3:G:411:ALA:N	2.77	0.42
4:X:10:DA:H4'	4:X:11:DA:OP1	2.19	0.42
1:B:380:VAL:O	1:B:380:VAL:HG13	2.19	0.42
1:B:606:PRO:HB2	1:B:642:VAL:HG13	2.01	0.42
1:B:924:LEU:HD22	1:B:949:ALA:HB1	2.00	0.42
1:B:1002:LEU:HD13	1:B:1008:SER:HA	2.01	0.42
2:C:290:ASP:HB2	2:C:291:GLY:H	1.51	0.42
2:C:521:GLN:HG2	2:C:526:PHE:CE1	2.54	0.42
2:C:664:LEU:HD22	2:C:685:TYR:CZ	2.52	0.42
2:C:699:GLN:HE21	2:C:699:GLN:HB3	1.59	0.42
3:D:301:LEU:N	3:D:568:THR:CG2	2.80	0.42
1:E:52:ARG:CG	1:E:52:ARG:NH2	2.80	0.42
1:E:455:ASN:N	1:E:455:ASN:HD22	2.16	0.42
1:E:482:GLY:C	1:E:484:ASN:N	2.77	0.42
1:E:567:VAL:HB	1:E:738:ILE:HD12	2.01	0.42
1:E:740:THR:O	1:E:741:ILE:C	2.60	0.42
1:E:785:GLU:OE1	1:E:785:GLU:N	2.47	0.42
1:E:827:LYS:HE2	1:E:831:THR:HG22	2.00	0.42
1:E:912:ARG:HD3	1:E:912:ARG:HA	1.70	0.42
1:E:940:LEU:HD22	1:E:986:TRP:CH2	2.54	0.42
1:E:1025:LEU:HD11	1:E:1117:ALA:HA	2.01	0.42
2:F:431:ALA:O	2:F:432:ASP:C	2.62	0.42
2:F:767:LEU:N	2:F:767:LEU:CD2	2.82	0.42
2:F:775:ARG:HB3	2:F:775:ARG:HH11	1.83	0.42
3:G:228:GLU:O	3:G:230:LYS:N	2.50	0.42
3:G:242:ARG:C	3:G:242:ARG:CD	2.93	0.42
3:G:253:LEU:HD13	3:G:255:HIS:NE2	2.34	0.42
1:B:703:SER:O	1:B:706:ALA:HB3	2.19	0.42
1:B:1049:GLY:O	1:B:1051:PRO:CD	2.68	0.42
2:C:27:ASP:HB3	2:C:29:PRO:HD2	2.01	0.42
2:C:62:PHE:N	2:C:63:PRO:CD	2.82	0.42
2:C:552:GLU:OE1	2:C:552:GLU:HA	2.20	0.42
2:C:1050:TYR:OH	2:C:1118:ARG:HA	2.19	0.42
3:D:307:GLY:N	3:D:597:ARG:HH21	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:463:GLN:C	3:D:465:LYS:H	2.27	0.42
1:E:85:ILE:C	1:E:87:CYS:H	2.27	0.42
1:E:468:PHE:CE1	1:E:475:PHE:HB2	2.54	0.42
1:E:698:GLY:C	1:E:700:GLN:H	2.27	0.42
1:E:763:GLN:HE21	1:E:764:GLU:H	1.66	0.42
2:F:394:LEU:HD12	2:F:394:LEU:HA	1.89	0.42
2:F:582:ARG:HD3	2:F:587:TRP:CE2	2.55	0.42
2:F:701:PRO:HA	2:F:705:ASP:OD1	2.19	0.42
2:F:830:GLU:C	2:F:831:THR:HG23	2.45	0.42
2:F:936:GLN:O	2:F:960:GLN:HG2	2.18	0.42
2:F:943:ILE:O	2:F:953:THR:HA	2.19	0.42
3:G:370:LEU:HD23	3:G:577:LEU:HD23	2.00	0.42
4:Y:34:DC:H1'	4:Y:35:DA:H5''	2.02	0.42
1:B:63:THR:HG22	1:B:384:ASP:OD1	2.19	0.42
1:B:316:LEU:HD23	1:B:316:LEU:HA	1.67	0.42
1:B:414:ASP:HA	1:B:415:PRO:HD2	1.96	0.42
1:B:482:GLY:C	1:B:484:ASN:H	2.28	0.42
1:B:878:TRP:O	1:B:879:GLN:C	2.63	0.42
1:B:911:GLN:NE2	1:B:911:GLN:HA	2.35	0.42
2:C:43:ALA:O	2:C:47:GLN:HG3	2.19	0.42
2:C:78:PRO:CD	2:C:192:ARG:NH1	2.77	0.42
2:C:333:ASN:H	2:C:336:HIS:HB2	1.84	0.42
2:C:421:PHE:O	2:C:422:ILE:C	2.61	0.42
2:C:441:ASP:O	2:C:649:ARG:HD3	2.19	0.42
2:C:689:LEU:CD2	2:C:708:ARG:HD2	2.49	0.42
2:C:830:GLU:C	2:C:831:THR:HG23	2.45	0.42
2:C:833:PRO:O	2:C:834:LEU:C	2.61	0.42
3:D:198:ARG:HB2	3:D:263:LEU:HA	2.01	0.42
1:E:414:ASP:OD1	1:E:416:LYS:N	2.48	0.42
1:E:628:ILE:O	1:E:632:ASN:ND2	2.52	0.42
1:E:707:LEU:O	1:E:710:TRP:HB3	2.19	0.42
1:E:843:GLN:OE1	1:E:853:LEU:HG	2.20	0.42
2:F:81:PRO:HG3	2:F:182:PRO:HB2	2.01	0.42
2:F:173:VAL:O	2:F:176:THR:HG23	2.19	0.42
2:F:901:PHE:HD1	2:F:917:TRP:CZ3	2.36	0.42
3:G:133:ASP:O	3:G:134:GLU:C	2.63	0.42
3:G:278:MET:HE3	4:Y:2:5IU:I5	2.89	0.42
3:G:424:ALA:C	3:G:426:ALA:H	2.27	0.42
3:G:459:GLU:O	3:G:463:GLN:HG3	2.20	0.42
3:G:555:SER:O	3:G:585:ILE:HG13	2.18	0.42
1:B:134:GLN:HB3	1:B:354:MET:SD	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:355:LEU:HD11	1:B:392:GLN:HE21	1.83	0.42
1:B:431:MET:O	1:B:434:ARG:HB3	2.19	0.42
1:B:610:ASN:O	1:B:612:LEU:N	2.53	0.42
1:B:672:GLU:H	1:B:672:GLU:HG3	1.61	0.42
1:B:699:THR:CG2	2:C:423:GLN:HE22	2.33	0.42
1:B:1149:GLU:C	1:B:1150:HIS:ND1	2.77	0.42
2:C:401:PRO:O	2:C:403:LEU:N	2.52	0.42
2:C:943:ILE:N	2:C:943:ILE:CD1	2.82	0.42
3:D:177:LYS:HA	3:D:180:THR:HG22	2.01	0.42
3:D:300:GLN:C	3:D:302:ALA:N	2.78	0.42
3:D:378:ASP:O	3:D:379:LYS:C	2.63	0.42
1:E:237:ARG:HE	1:E:266:ILE:HG21	1.84	0.42
1:E:562:GLN:CD	4:Y:46:5IU:I5	3.32	0.42
1:E:604:MET:C	1:E:605:THR:HG22	2.45	0.42
1:E:637:ALA:HA	1:E:640:VAL:CG2	2.49	0.42
1:E:896:LEU:HD12	1:E:896:LEU:C	2.44	0.42
2:F:405:PRO:CG	2:F:658:PRO:HB2	2.49	0.42
2:F:896:ARG:HG2	2:F:896:ARG:HH11	1.85	0.42
3:G:255:HIS:O	3:G:256:HIS:C	2.61	0.42
4:Y:4:5IU:H2'	4:Y:4:5IU:H6	1.66	0.42
1:B:443:LEU:N	1:B:443:LEU:HD23	2.33	0.42
1:B:843:GLN:OE1	1:B:853:LEU:HG	2.19	0.42
1:B:861:CYS:SG	1:B:866:ALA:CA	3.04	0.42
1:B:1061:MET:HE1	2:C:51:SER:OG	2.20	0.42
2:C:37:VAL:HG21	2:C:42:MET:CB	2.48	0.42
2:C:300:LEU:O	2:C:300:LEU:HG	2.20	0.42
2:C:367:LEU:CB	2:C:761:LEU:HD23	2.49	0.42
2:C:396:MET:HE3	2:C:726:LYS:HG3	2.01	0.42
2:C:1022:GLN:O	2:C:1025:GLU:HB3	2.19	0.42
2:C:1068:ARG:HG2	2:C:1068:ARG:HH21	1.85	0.42
3:D:228:GLU:O	3:D:230:LYS:N	2.49	0.42
3:D:538:VAL:HG21	3:D:565:LEU:HD21	2.01	0.42
1:E:423:ARG:HA	1:E:423:ARG:HD3	1.83	0.42
1:E:1039:LEU:H	1:E:1039:LEU:CD2	2.28	0.42
1:E:1127:ALA:O	1:E:1128:ASP:HB3	2.20	0.42
2:F:117:ASP:OD2	2:F:117:ASP:N	2.52	0.42
2:F:544:TRP:CE2	2:F:545:GLN:HG2	2.55	0.42
2:F:602:ASP:HB3	2:F:605:THR:OG1	2.20	0.42
2:F:941:MET:HE1	2:F:987:TYR:CD1	2.54	0.42
2:F:997:ARG:CG	2:F:1007:ARG:HG3	2.48	0.42
3:G:4:GLN:HE21	3:G:4:GLN:HB2	1.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:244:LEU:HD13	3:G:255:HIS:CD2	2.54	0.42
3:G:255:HIS:HA	3:G:259:ASN:HB3	2.00	0.42
3:G:442:CYS:O	3:G:537:THR:HA	2.20	0.42
3:G:527:LEU:HA	3:G:528:PRO:HD3	1.78	0.42
3:G:549:ALA:HB3	3:G:573:ALA:HB2	2.02	0.42
4:X:5:5IU:H6	4:X:5:5IU:H2'	1.80	0.42
4:Y:39:DC:C2'	4:Y:40:DT:OP2	2.64	0.42
1:B:3:ASP:OD2	1:B:3:ASP:N	2.53	0.42
1:B:142:PHE:CB	2:C:110:LEU:HD22	2.44	0.42
1:B:152:LEU:HD11	1:B:351:PHE:CE1	2.55	0.42
1:B:248:GLU:HB3	1:B:249:SER:H	1.69	0.42
1:B:398:ARG:NH2	1:B:402:HIS:CE1	2.87	0.42
1:B:468:PHE:CE1	1:B:475:PHE:HB2	2.55	0.42
1:B:471:ARG:HD2	1:B:472:GLU:OE1	2.19	0.42
1:B:597:LEU:HD12	1:B:715:ILE:CD1	2.35	0.42
1:B:710:TRP:O	1:B:714:HIS:HD2	2.02	0.42
1:B:831:THR:O	1:B:833:VAL:N	2.50	0.42
1:B:963:ASP:O	1:B:964:PHE:C	2.61	0.42
2:C:26:LEU:C	2:C:27:ASP:O	2.63	0.42
2:C:116:THR:C	2:C:118:ASP:N	2.77	0.42
2:C:392:ARG:HA	2:C:392:ARG:HD3	1.84	0.42
3:D:169:ILE:HB	3:D:295:LEU:CD2	2.43	0.42
1:E:156:GLU:HA	1:E:159:LEU:HB3	2.01	0.42
1:E:380:VAL:O	1:E:380:VAL:HG13	2.19	0.42
1:E:491:PHE:HE1	1:E:532:ALA:HB3	1.85	0.42
1:E:955:LEU:N	1:E:955:LEU:HD23	2.35	0.42
1:E:1149:GLU:C	1:E:1150:HIS:ND1	2.78	0.42
2:F:474:LEU:HD21	2:F:485:ILE:HD12	2.01	0.42
2:F:775:ARG:HB3	2:F:775:ARG:NH1	2.35	0.42
3:G:198:ARG:HB2	3:G:263:LEU:HA	2.01	0.42
3:G:234:PRO:HB2	3:G:236:ASP:HB2	2.00	0.42
3:G:269:ASP:O	3:G:270:GLU:HB2	2.20	0.42
3:G:330:SER:HB2	3:G:336:HIS:HA	2.01	0.42
4:X:37:DT:C2'	4:X:38:DG:C5'	2.96	0.42
1:B:282:LEU:HA	1:B:285:SER:OG	2.21	0.41
1:B:491:PHE:O	1:B:492:LYS:C	2.63	0.41
1:B:610:ASN:O	1:B:611:THR:C	2.63	0.41
1:B:779:ASP:O	1:B:781:ASN:N	2.53	0.41
1:B:896:LEU:HD12	1:B:896:LEU:C	2.45	0.41
1:B:987:GLU:C	1:B:987:GLU:CD	2.88	0.41
2:C:304:GLY:O	2:C:305:LYS:C	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:405:PRO:HG2	2:C:658:PRO:HB2	2.01	0.41
2:C:407:ASP:HB3	2:C:673:LYS:HB2	2.02	0.41
2:C:829:PRO:O	2:C:830:GLU:HG3	2.20	0.41
2:C:843:HIS:HE1	2:C:1087:ASP:OD2	2.03	0.41
2:C:936:GLN:O	2:C:960:GLN:HG2	2.20	0.41
2:C:980:LEU:HD23	2:C:980:LEU:C	2.45	0.41
3:D:123:PHE:O	3:D:124:ASN:OD1	2.38	0.41
3:D:175:THR:CG2	3:D:176:GLY:N	2.83	0.41
3:D:322:THR:HG23	3:D:350:ASP:OD1	2.19	0.41
3:D:326:ALA:HB1	3:D:338:PRO:O	2.19	0.41
1:E:150:GLN:HE21	1:E:150:GLN:CA	2.30	0.41
1:E:222:HIS:CD2	1:E:272:TRP:CH2	3.06	0.41
1:E:416:LYS:HD2	1:E:468:PHE:CE1	2.55	0.41
2:F:77:LEU:CD1	2:F:189:LEU:HG	2.50	0.41
2:F:102:LEU:HD13	2:F:108:PHE:CZ	2.55	0.41
2:F:111:LEU:HD13	2:F:127:LEU:HD21	2.01	0.41
2:F:142:ARG:N	2:F:143:PRO:CD	2.83	0.41
2:F:333:ASN:HD22	2:F:336:HIS:CD2	2.37	0.41
2:F:378:VAL:HG22	2:F:731:TYR:CZ	2.54	0.41
2:F:479:LEU:HA	2:F:598:PHE:O	2.20	0.41
2:F:670:ILE:HG23	2:F:671:PRO:HD2	2.02	0.41
2:F:839:ARG:CB	4:Y:7:5IU:I5	3.38	0.41
3:G:27:VAL:HG12	3:G:90:ALA:HB1	2.02	0.41
3:G:170:SER:O	3:G:354:LEU:HA	2.20	0.41
3:G:247:GLN:HE21	3:G:247:GLN:HB2	1.60	0.41
3:G:302:ALA:HA	3:G:305:GLU:HG2	2.00	0.41
4:Y:16:DA:H2"	4:Y:17:DG:C8	2.55	0.41
1:B:390:ASP:OD1	1:B:393:GLN:HG3	2.20	0.41
1:B:482:GLY:C	1:B:484:ASN:N	2.76	0.41
1:B:707:LEU:O	1:B:708:VAL:C	2.62	0.41
1:B:749:TYR:HB2	1:B:752:VAL:HG12	2.03	0.41
1:B:920:LEU:HD23	2:C:650:ILE:CG1	2.50	0.41
1:B:1036:LEU:HA	1:B:1039:LEU:HD21	2.03	0.41
1:B:1094:THR:O	1:B:1096:GLN:N	2.53	0.41
1:B:1124:HIS:HE1	2:C:54:PHE:CD1	2.38	0.41
2:C:39:SER:OG	2:C:668:ARG:HB2	2.19	0.41
2:C:391:ASP:OD2	2:C:801:SER:HA	2.19	0.41
2:C:536:ALA:O	3:D:111:ARG:NE	2.53	0.41
2:C:716:PHE:CG	2:C:747:LEU:HD13	2.55	0.41
2:C:745:SER:O	2:C:746:VAL:C	2.61	0.41
2:C:760:TYR:CE1	2:C:765:GLU:HG3	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:902:ARG:HB2	2:C:907:LEU:HD12	2.02	0.41
3:D:133:ASP:O	3:D:134:GLU:C	2.63	0.41
3:D:570:VAL:HG13	3:D:577:LEU:CD2	2.50	0.41
1:E:211:PRO:HA	1:E:212:PRO:HD3	1.95	0.41
1:E:222:HIS:CG	1:E:272:TRP:HH2	2.38	0.41
1:E:823:ARG:NE	1:E:825:GLY:HA3	2.35	0.41
1:E:1130:ASP:N	1:E:1134:HIS:HD2	2.13	0.41
2:F:240:PHE:CE2	2:F:242:ASN:ND2	2.88	0.41
2:F:411:MET:HA	2:F:662:CYS:O	2.20	0.41
2:F:525:ARG:HG2	2:F:525:ARG:NH1	2.35	0.41
2:F:949:GLY:C	2:F:950:VAL:HG23	2.45	0.41
3:G:59:GLU:C	3:G:61:ASN:H	2.28	0.41
3:G:254:ARG:O	3:G:260:PRO:CG	2.68	0.41
3:G:301:LEU:N	3:G:568:THR:CG2	2.76	0.41
3:G:345:ALA:HB3	3:G:349:ARG:CG	2.41	0.41
3:G:405:ILE:O	3:G:409:GLU:HG3	2.20	0.41
3:G:600:LEU:HD22	3:G:604:PHE:CE1	2.55	0.41
1:B:200:TYR:C	1:B:202:GLN:N	2.79	0.41
1:B:386:PHE:CE1	1:B:389:THR:HG21	2.55	0.41
1:B:527:ARG:HG2	1:B:527:ARG:NH1	2.34	0.41
1:B:557:LEU:HB2	1:B:754:LEU:HD12	2.01	0.41
1:B:1137:GLY:O	1:B:1158:THR:O	2.38	0.41
2:C:87:ASN:HD22	2:C:89:GLN:N	2.18	0.41
2:C:98:LEU:O	2:C:99:LEU:C	2.63	0.41
2:C:234:ILE:HG22	2:C:236:ILE:HG13	2.02	0.41
2:C:479:LEU:HA	2:C:598:PHE:O	2.19	0.41
2:C:537:MET:HE1	2:C:544:TRP:HB2	2.02	0.41
2:C:819:GLU:OE2	2:C:821:VAL:HG13	2.20	0.41
2:C:845:VAL:HG13	2:C:1093:LEU:HD11	2.01	0.41
2:C:897:LEU:O	2:C:898:PHE:C	2.63	0.41
2:C:997:ARG:CG	2:C:1007:ARG:HG3	2.49	0.41
3:D:35:VAL:CG2	3:D:36:THR:N	2.83	0.41
3:D:73:SER:O	3:D:75:ILE:N	2.53	0.41
3:D:133:ASP:C	3:D:135:ALA:N	2.76	0.41
3:D:170:SER:O	3:D:354:LEU:HA	2.19	0.41
3:D:388:GLN:O	3:D:389:ASP:O	2.38	0.41
1:E:416:LYS:O	1:E:800:ARG:HG2	2.20	0.41
1:E:763:GLN:NE2	1:E:764:GLU:H	2.18	0.41
1:E:827:LYS:NZ	1:E:829:GLY:HA2	2.36	0.41
1:E:924:LEU:CD1	2:F:607:ALA:HA	2.51	0.41
2:F:105:ARG:C	2:F:107:ASP:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:106:GLU:HA	2:F:109:THR:OG1	2.20	0.41
2:F:760:TYR:CE1	2:F:765:GLU:HG3	2.56	0.41
2:F:833:PRO:O	2:F:834:LEU:C	2.63	0.41
3:G:274:ILE:CG2	3:G:278:MET:HG2	2.46	0.41
3:G:340:GLY:O	3:G:341:THR:OG1	2.33	0.41
1:B:579:VAL:HG11	1:B:732:ASP:HB3	2.00	0.41
1:B:652:TRP:HE1	1:B:657:VAL:HG22	1.82	0.41
1:B:711:LEU:HD22	1:B:715:ILE:CD1	2.51	0.41
1:B:730:GLU:OE1	1:B:730:GLU:HA	2.21	0.41
1:B:771:ARG:HH21	1:B:793:GLU:CG	2.32	0.41
1:B:823:ARG:C	1:B:825:GLY:N	2.77	0.41
1:B:823:ARG:NE	1:B:825:GLY:HA3	2.35	0.41
2:C:13:LEU:O	2:C:239:LEU:HD23	2.20	0.41
2:C:1037:VAL:HA	2:C:1109:SER:CB	2.40	0.41
2:C:1118:ARG:NH2	2:C:1118:ARG:CG	2.76	0.41
3:D:278:MET:HE3	3:D:278:MET:HB2	1.88	0.41
3:D:525:SER:C	3:D:527:LEU:N	2.77	0.41
1:E:17:GLY:HA2	1:E:408:ALA:HA	2.02	0.41
1:E:57:GLU:H	1:E:57:GLU:HG3	1.35	0.41
1:E:156:GLU:C	1:E:158:LEU:N	2.77	0.41
1:E:390:ASP:OD2	1:E:392:GLN:HB2	2.20	0.41
1:E:527:ARG:HG2	1:E:527:ARG:NH1	2.35	0.41
1:E:725:GLN:HE21	1:E:725:GLN:HB3	1.62	0.41
1:E:920:LEU:CD1	2:F:608:ALA:HB2	2.51	0.41
1:E:1093:TYR:CZ	1:E:1144:ARG:HB2	2.56	0.41
2:F:336:HIS:HE1	2:F:724:GLN:O	2.03	0.41
2:F:552:GLU:OE1	2:F:552:GLU:HA	2.20	0.41
2:F:760:TYR:HE1	2:F:765:GLU:HG3	1.84	0.41
3:G:244:LEU:CD2	3:G:255:HIS:CB	2.91	0.41
3:G:264:ASP:OD1	3:G:289:HIS:NE2	2.51	0.41
1:B:228:ARG:HD2	1:B:316:LEU:HD21	2.02	0.41
1:B:514:TYR:O	1:B:515:GLN:HG2	2.19	0.41
1:B:721:ASN:N	1:B:721:ASN:HD22	2.17	0.41
1:B:1027:ILE:HA	1:B:1172:PHE:HD1	1.85	0.41
1:B:1061:MET:HE3	2:C:48:MET:HB3	2.03	0.41
2:C:404:THR:HB	2:C:405:PRO:HD2	2.02	0.41
2:C:1087:ASP:C	2:C:1087:ASP:OD1	2.63	0.41
3:D:27:VAL:HG12	3:D:90:ALA:HB1	2.02	0.41
3:D:115:ASN:HB3	3:D:276:LEU:CD2	2.35	0.41
3:D:220:LEU:HD11	3:D:233:ILE:HD11	2.02	0.41
3:D:242:ARG:C	3:D:242:ARG:CD	2.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:346:ALA:C	3:D:348:LEU:N	2.78	0.41
3:D:363:SER:HB3	3:D:365:SER:H	1.86	0.41
3:D:388:GLN:O	3:D:389:ASP:C	2.63	0.41
3:D:410:GLU:H	3:D:410:GLU:HG2	1.69	0.41
1:E:8:LEU:HD13	1:E:10:PRO:CD	2.47	0.41
1:E:316:LEU:HA	1:E:316:LEU:HD23	1.69	0.41
1:E:610:ASN:O	1:E:611:THR:C	2.64	0.41
1:E:658:MET:HB3	1:E:659:PRO:CD	2.43	0.41
1:E:761:ARG:CG	1:E:822:ARG:HH22	2.28	0.41
1:E:911:GLN:NE2	1:E:911:GLN:HA	2.34	0.41
2:F:127:LEU:C	2:F:129:SER:N	2.78	0.41
2:F:858:ARG:HG3	2:F:858:ARG:HH11	1.84	0.41
2:F:966:ARG:NH1	2:F:983:GLU:OE1	2.45	0.41
4:Y:34:DC:H1'	4:Y:35:DA:H5'	2.02	0.41
1:B:39:ARG:HD2	1:B:44:LEU:CB	2.50	0.41
1:B:154:GLU:N	1:B:154:GLU:CD	2.79	0.41
1:B:377:ARG:HG3	1:B:377:ARG:NH1	2.35	0.41
1:B:950:SER:N	1:B:951:PRO:HD2	2.36	0.41
1:B:1151:PRO:C	1:B:1153:GLN:H	2.28	0.41
2:C:896:ARG:HH11	2:C:896:ARG:HG2	1.86	0.41
2:C:998:LEU:CD2	2:C:1000:LEU:HD21	2.51	0.41
3:D:19:LEU:C	3:D:19:LEU:CD2	2.93	0.41
3:D:136:LEU:HG	3:D:191:MET:HE3	2.03	0.41
3:D:229:GLN:O	3:D:230:LYS:HD2	2.19	0.41
3:D:241:HIS:ND1	3:D:278:MET:HE1	2.36	0.41
3:D:244:LEU:O	3:D:245:GLY:C	2.63	0.41
1:E:282:LEU:C	1:E:284:GLU:N	2.78	0.41
1:E:721:ASN:N	1:E:721:ASN:HD22	2.19	0.41
1:E:895:ARG:HG2	1:E:896:LEU:N	2.35	0.41
1:E:909:LEU:HD21	1:E:1106:ARG:CB	2.51	0.41
1:E:1049:GLY:O	1:E:1051:PRO:CD	2.69	0.41
1:E:1118:LEU:HD22	1:E:1122:LEU:HG	2.02	0.41
1:E:1124:HIS:CE1	2:F:54:PHE:CD1	3.09	0.41
2:F:272:ARG:O	2:F:273:GLU:CB	2.68	0.41
2:F:285:GLN:O	2:F:286:LEU:HB2	2.21	0.41
2:F:405:PRO:HG2	2:F:658:PRO:CG	2.51	0.41
2:F:407:ASP:HB3	2:F:673:LYS:HB2	2.02	0.41
2:F:795:GLN:O	2:F:800:GLN:HG2	2.20	0.41
2:F:856:ASN:O	2:F:858:ARG:HG3	2.21	0.41
3:G:137:LEU:O	3:G:141:LEU:HG	2.20	0.41
3:G:455:ASN:O	3:G:459:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:50:PHE:CE2	1:B:52:ARG:HD3	2.55	0.41
1:B:156:GLU:C	1:B:158:LEU:N	2.76	0.41
1:B:581:LEU:HD11	1:B:737:GLN:CD	2.46	0.41
1:B:728:ARG:HE	2:C:739:ASN:HB2	1.86	0.41
1:B:1040:ILE:HD12	1:B:1112:GLN:NE2	2.34	0.41
2:C:293:GLN:O	2:C:293:GLN:HG3	2.20	0.41
2:C:532:LEU:O	2:C:535:TYR:HB3	2.20	0.41
2:C:653:ARG:HG2	2:C:653:ARG:HH11	1.86	0.41
2:C:1054:ASN:O	2:C:1055:ASP:C	2.64	0.41
3:D:370:LEU:HD22	3:D:394:GLU:OE2	2.21	0.41
3:D:556:GLN:O	3:D:557:ARG:HB2	2.20	0.41
1:E:263:ALA:O	1:E:266:ILE:HG12	2.21	0.41
1:E:432:LYS:HB2	1:E:774:PHE:HD1	1.86	0.41
1:E:469:MET:SD	1:E:795:LEU:HD11	2.60	0.41
1:E:562:GLN:O	1:E:563:GLU:C	2.64	0.41
1:E:617:ALA:O	2:F:1092:ARG:HD2	2.21	0.41
1:E:689:HIS:O	1:E:690:ILE:C	2.62	0.41
1:E:728:ARG:H	1:E:728:ARG:HG3	1.56	0.41
1:E:771:ARG:HH21	1:E:793:GLU:CG	2.33	0.41
1:E:784:PRO:O	1:E:788:ASP:OD1	2.37	0.41
1:E:896:LEU:HD12	1:E:898:GLY:N	2.36	0.41
1:E:924:LEU:O	1:E:926:VAL:N	2.49	0.41
1:E:932:ALA:CB	1:E:947:ARG:NE	2.84	0.41
1:E:1148:LYS:H	1:E:1148:LYS:CD	2.32	0.41
2:F:26:LEU:C	2:F:27:ASP:O	2.63	0.41
2:F:415:ILE:CB	2:F:663:THR:HG23	2.44	0.41
2:F:699:GLN:H	2:F:699:GLN:HG2	1.64	0.41
3:G:31:GLU:OE2	3:G:88:SER:HB2	2.21	0.41
3:G:255:HIS:CE1	3:G:281:ARG:HB3	2.55	0.41
3:G:537:THR:O	3:G:538:VAL:C	2.64	0.41
3:G:538:VAL:HG21	3:G:565:LEU:CD2	2.51	0.41
1:B:38:LEU:O	1:B:39:ARG:C	2.62	0.41
1:B:199:ARG:HG3	1:B:199:ARG:H	1.73	0.41
1:B:262:GLN:CA	1:B:265:TRP:HB3	2.50	0.41
1:B:346:ARG:NE	1:B:348:GLU:OE1	2.52	0.41
1:B:652:TRP:CE2	1:B:657:VAL:HG22	2.56	0.41
1:B:1029:GLU:O	1:B:1030:PRO:C	2.63	0.41
1:B:1063:LYS:HE2	1:B:1063:LYS:HB3	1.89	0.41
1:B:1082:LYS:HE2	1:B:1107:TYR:CE1	2.56	0.41
2:C:5:TYR:CE2	2:C:323:LEU:HD11	2.55	0.41
2:C:299:LEU:C	2:C:301:ALA:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:367:LEU:C	2:C:367:LEU:CD1	2.94	0.41
2:C:403:LEU:HD22	2:C:404:THR:O	2.20	0.41
2:C:670:ILE:HG23	2:C:671:PRO:HD2	2.02	0.41
3:D:17:ARG:NH1	3:D:20:ASP:OD1	2.53	0.41
3:D:115:ASN:HD22	3:D:115:ASN:HA	1.66	0.41
3:D:133:ASP:OD2	3:D:136:LEU:HB3	2.21	0.41
3:D:165:ARG:HH21	3:D:288:ASP:HA	1.82	0.41
3:D:248:PRO:HD3	4:X:4:5IU:O2	2.21	0.41
3:D:300:GLN:O	3:D:302:ALA:N	2.54	0.41
3:D:549:ALA:HB3	3:D:573:ALA:HB2	2.03	0.41
3:D:570:VAL:HG22	3:D:577:LEU:HD21	2.02	0.41
3:D:605:SER:O	3:D:606:SER:C	2.64	0.41
1:E:913:GLY:C	1:E:915:GLY:H	2.29	0.41
1:E:987:GLU:CD	1:E:987:GLU:C	2.88	0.41
2:F:221:PRO:O	2:F:225:GLN:HG3	2.21	0.41
2:F:318:GLU:C	2:F:320:SER:H	2.28	0.41
2:F:321:GLN:O	2:F:323:LEU:CD2	2.63	0.41
2:F:405:PRO:HG2	2:F:658:PRO:HG2	2.02	0.41
3:G:73:SER:O	3:G:75:ILE:N	2.53	0.41
3:G:136:LEU:HG	3:G:191:MET:HE3	2.02	0.41
3:G:412:LEU:CD1	3:G:461:PHE:HD2	2.34	0.41
3:G:533:THR:OG1	3:G:534:TRP:N	2.53	0.41
3:G:586:LEU:C	3:G:586:LEU:CD2	2.93	0.41
1:B:222:HIS:NE2	1:B:272:TRP:HH2	2.19	0.41
1:B:393:GLN:O	1:B:394:TYR:C	2.63	0.41
1:B:466:ASP:OD2	1:B:471:ARG:HA	2.21	0.41
1:B:514:TYR:CE2	1:B:518:MET:HG3	2.56	0.41
1:B:612:LEU:C	1:B:612:LEU:HD23	2.46	0.41
1:B:771:ARG:CG	1:B:771:ARG:NH1	2.84	0.41
1:B:827:LYS:HE2	1:B:831:THR:HG22	2.02	0.41
1:B:849:ASP:HB3	1:B:852:GLY:H	1.85	0.41
1:B:895:ARG:HG2	1:B:896:LEU:N	2.35	0.41
1:B:913:GLY:C	1:B:915:GLY:H	2.29	0.41
1:B:1067:ASP:HB2	1:B:1080:ASP:HA	2.02	0.41
2:C:59:ASN:N	2:C:60:ILE:HD12	2.36	0.41
2:C:139:LEU:HD23	2:C:146:LEU:HD12	2.03	0.41
2:C:191:GLN:HE21	2:C:191:GLN:HB2	1.52	0.41
2:C:266:ARG:HH21	2:C:272:ARG:HE	1.68	0.41
2:C:374:ILE:HG12	2:C:727:LEU:HB3	2.01	0.41
2:C:396:MET:HE2	2:C:674:VAL:HG21	2.03	0.41
2:C:401:PRO:C	2:C:403:LEU:N	2.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:479:LEU:C	2:C:479:LEU:HD23	2.46	0.41
2:C:709:ARG:NH2	2:C:709:ARG:CG	2.82	0.41
2:C:749:GLN:O	2:C:752:ILE:HD12	2.20	0.41
2:C:841:TRP:O	2:C:842:ALA:HB3	2.20	0.41
2:C:884:LEU:HG	2:C:917:TRP:CZ2	2.56	0.41
2:C:1068:ARG:HG2	2:C:1068:ARG:NH2	2.34	0.41
3:D:101:ILE:HD11	3:D:110:ASN:OD1	2.21	0.41
3:D:255:HIS:HD1	3:D:256:HIS:N	2.18	0.41
3:D:282:LEU:HD23	3:D:286:LEU:HG	2.02	0.41
3:D:287:PRO:C	3:D:289:HIS:H	2.28	0.41
3:D:330:SER:HB2	3:D:336:HIS:HA	2.02	0.41
3:D:526:ARG:NH1	3:D:536:MET:CE	2.72	0.41
1:E:39:ARG:HD2	1:E:44:LEU:CB	2.51	0.41
1:E:226:VAL:HG13	1:E:269:ILE:HD13	2.03	0.41
1:E:328:ILE:O	1:E:329:THR:C	2.62	0.41
1:E:414:ASP:OD2	1:E:416:LYS:NZ	2.49	0.41
1:E:460:LEU:O	1:E:463:GLN:HG2	2.20	0.41
1:E:672:GLU:H	1:E:672:GLU:HG3	1.64	0.41
1:E:945:PHE:HA	1:E:946:PRO:HD2	1.84	0.41
1:E:1006:GLY:O	1:E:1007:VAL:C	2.64	0.41
1:E:1067:ASP:HB2	1:E:1080:ASP:HA	2.02	0.41
1:E:1107:TYR:O	1:E:1111:TYR:HD1	2.03	0.41
1:E:1172:PHE:CE2	1:E:1173:ALA:HB2	2.55	0.41
2:F:24:GLU:O	2:F:26:LEU:N	2.53	0.41
2:F:104:GLU:O	2:F:104:GLU:CG	2.58	0.41
2:F:175:TYR:CE2	2:F:179:LEU:HD11	2.56	0.41
2:F:347:ASN:HD21	2:F:349:ALA:N	2.14	0.41
2:F:372:SER:OG	2:F:726:LYS:HE2	2.20	0.41
2:F:373:SER:O	2:F:374:ILE:HB	2.21	0.41
2:F:837:LEU:O	2:F:841:TRP:HD1	2.03	0.41
2:F:915:ILE:O	2:F:919:THR:HG22	2.20	0.41
2:F:1008:PHE:HA	2:F:1009:PRO:HD3	1.70	0.41
2:F:1071:PHE:HD2	2:F:1072:LEU:HD23	1.86	0.41
2:F:1081:VAL:O	2:F:1082:ARG:HG3	2.21	0.41
3:G:19:LEU:HD23	3:G:19:LEU:C	2.46	0.41
3:G:228:GLU:C	3:G:230:LYS:N	2.77	0.41
3:G:300:GLN:OE1	3:G:567:TYR:HE2	2.04	0.41
3:G:337:VAL:HA	3:G:338:PRO:HD2	1.94	0.41
3:G:597:ARG:HH11	3:G:598:SER:CB	2.31	0.41
1:B:8:LEU:HD13	1:B:10:PRO:CD	2.49	0.41
1:B:282:LEU:C	1:B:284:GLU:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:310:PHE:C	1:B:312:ALA:H	2.28	0.41
1:B:311:GLU:O	1:B:314:ASP:HB3	2.21	0.41
1:B:455:ASN:N	1:B:455:ASN:ND2	2.69	0.41
1:B:672:GLU:OE1	2:C:808:PRO:HG3	2.21	0.41
1:B:739:VAL:CG2	1:B:743:LYS:HB2	2.51	0.41
1:B:830:ASP:O	1:B:831:THR:C	2.63	0.41
2:C:142:ARG:CZ	2:C:697:MET:HG3	2.51	0.41
2:C:557:ILE:H	2:C:557:ILE:CD1	2.14	0.41
2:C:832:VAL:HG22	2:C:952:ILE:HG22	2.03	0.41
2:C:837:LEU:O	2:C:841:TRP:HD1	2.03	0.41
2:C:1001:ARG:NH2	4:X:10:DA:OP1	2.54	0.41
2:C:1038:LEU:HA	2:C:1039:PRO:HD2	1.82	0.41
3:D:139:GLN:C	3:D:141:LEU:N	2.78	0.41
3:D:409:GLU:C	3:D:411:ALA:N	2.76	0.41
3:D:582:ASP:C	3:D:584:ARG:N	2.79	0.41
1:E:199:ARG:HG3	1:E:199:ARG:H	1.76	0.41
1:E:699:THR:C	1:E:700:GLN:HG2	2.46	0.41
1:E:749:TYR:HB2	1:E:752:VAL:HG12	2.03	0.41
2:F:27:ASP:HB3	2:F:29:PRO:HD2	2.02	0.41
2:F:116:THR:C	2:F:118:ASP:N	2.77	0.41
2:F:392:ARG:O	2:F:396:MET:HG2	2.21	0.41
2:F:834:LEU:O	2:F:838:GLN:HG3	2.21	0.41
2:F:834:LEU:HD22	2:F:834:LEU:HA	1.95	0.41
2:F:1001:ARG:NH2	4:Y:10:DA:OP1	2.54	0.41
2:F:1069:THR:O	2:F:1073:GLN:HB2	2.21	0.41
3:G:151:ILE:HA	3:G:335:THR:HG21	2.02	0.41
3:G:263:LEU:HD12	3:G:263:LEU:C	2.46	0.41
3:G:346:ALA:C	3:G:348:LEU:N	2.79	0.41
1:B:34:ALA:CB	1:B:79:ASN:ND2	2.82	0.40
1:B:262:GLN:HE21	1:B:262:GLN:HB2	1.53	0.40
1:B:488:ARG:HH12	1:E:544:ASP:C	2.29	0.40
1:B:1102:MET:HE3	1:B:1102:MET:CA	2.50	0.40
2:C:146:LEU:HD13	2:C:169:TRP:CZ2	2.56	0.40
2:C:285:GLN:O	2:C:286:LEU:HB2	2.21	0.40
2:C:333:ASN:ND2	2:C:336:HIS:CD2	2.89	0.40
2:C:574:TRP:HE3	2:C:578:LEU:HD13	1.86	0.40
2:C:767:LEU:N	2:C:767:LEU:CD2	2.84	0.40
3:D:59:GLU:C	3:D:61:ASN:H	2.29	0.40
3:D:557:ARG:HB3	3:D:558:THR:H	1.27	0.40
1:E:571:LEU:HD12	1:E:571:LEU:HA	1.94	0.40
1:E:713:GLN:HE21	1:E:713:GLN:HB2	1.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:719:ASP:O	1:E:720:SER:O	2.39	0.40
1:E:849:ASP:HB3	1:E:852:GLY:H	1.86	0.40
1:E:1094:THR:O	1:E:1096:GLN:N	2.55	0.40
2:F:295:VAL:C	2:F:345:LEU:HD11	2.46	0.40
2:F:844:PRO:O	2:F:845:VAL:C	2.64	0.40
3:G:80:ASN:O	3:G:83:GLU:N	2.54	0.40
3:G:204:PRO:CG	3:G:274:ILE:HD13	2.41	0.40
3:G:282:LEU:O	3:G:282:LEU:HD23	2.21	0.40
3:G:358:SER:HB2	3:G:359:TYR:H	1.75	0.40
3:G:397:LEU:HD13	3:G:410:GLU:OE1	2.21	0.40
3:G:582:ASP:C	3:G:584:ARG:N	2.70	0.40
4:X:49:DA:C2	4:X:50:5IU:C4	3.04	0.40
1:B:136:MET:HA	1:B:136:MET:HE3	2.04	0.40
1:B:550:ARG:O	1:B:553:ASP:N	2.42	0.40
1:B:843:GLN:O	1:B:845:GLY:N	2.53	0.40
1:B:909:LEU:O	1:B:910:GLN:C	2.63	0.40
1:B:940:LEU:HD22	1:B:986:TRP:CH2	2.56	0.40
1:B:1028:SER:O	1:B:1029:GLU:O	2.39	0.40
1:B:1102:MET:CE	1:B:1111:TYR:OH	2.70	0.40
1:B:1107:TYR:O	1:B:1110:GLN:N	2.54	0.40
2:C:141:TYR:O	2:C:142:ARG:CB	2.68	0.40
2:C:142:ARG:N	2:C:143:PRO:CD	2.84	0.40
2:C:248:TRP:CD1	2:C:248:TRP:N	2.89	0.40
2:C:286:LEU:HA	2:C:291:GLY:O	2.22	0.40
2:C:532:LEU:HD13	3:D:23:PHE:HA	2.02	0.40
2:F:304:GLY:O	2:F:305:LYS:C	2.64	0.40
2:F:735:SER:C	2:F:737:GLN:H	2.29	0.40
2:F:819:GLU:OE1	2:F:820:PHE:N	2.54	0.40
2:F:848:PHE:CE1	2:F:1033:ALA:HA	2.56	0.40
2:F:1081:VAL:HG12	4:Y:10:DA:H2"	2.03	0.40
2:F:1082:ARG:HH11	2:F:1082:ARG:CB	2.34	0.40
3:G:12:GLU:C	3:G:14:LYS:H	2.29	0.40
3:G:19:LEU:C	3:G:19:LEU:CD2	2.94	0.40
3:G:225:LEU:C	3:G:225:LEU:CD2	2.93	0.40
3:G:287:PRO:C	3:G:289:HIS:H	2.29	0.40
3:G:300:GLN:O	3:G:302:ALA:N	2.55	0.40
3:G:317:ALA:O	3:G:319:ALA:N	2.53	0.40
3:G:561:VAL:HG12	3:G:561:VAL:O	2.21	0.40
3:G:586:LEU:C	3:G:586:LEU:HD23	2.46	0.40
4:Y:33:DG:H2"	4:Y:34:DC:OP2	2.21	0.40
1:B:11:LEU:HD21	1:B:100:LEU:HD23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:195:ARG:O	1:B:195:ARG:HG2	2.21	0.40
1:B:268:LYS:HA	1:B:268:LYS:HE3	2.03	0.40
1:B:326:LEU:C	1:B:326:LEU:HD13	2.46	0.40
1:B:660:MET:SD	1:B:660:MET:C	3.05	0.40
1:B:879:GLN:CB	1:E:883:VAL:HG11	2.49	0.40
1:B:1061:MET:HE3	2:C:48:MET:CA	2.51	0.40
1:B:1098:MET:HE1	1:B:1155:ILE:C	2.46	0.40
2:C:388:VAL:HG11	2:C:784:HIS:NE2	2.36	0.40
3:D:244:LEU:HD13	3:D:255:HIS:CE1	2.56	0.40
3:D:271:ALA:HA	3:D:274:ILE:HG12	2.03	0.40
3:D:281:ARG:O	3:D:282:LEU:C	2.64	0.40
3:D:450:GLY:O	3:D:454:LEU:HB2	2.22	0.40
3:D:555:SER:O	3:D:556:GLN:HG2	2.21	0.40
1:E:876:GLN:N	1:E:877:PRO:CD	2.84	0.40
2:F:188:ASN:C	2:F:188:ASN:OD1	2.64	0.40
2:F:536:ALA:O	2:F:537:MET:O	2.39	0.40
2:F:537:MET:HE1	2:F:544:TRP:HB2	2.02	0.40
2:F:572:ASN:O	2:F:573:ILE:C	2.65	0.40
2:F:868:GLU:HB2	2:F:869:PRO:HD2	2.04	0.40
1:B:231:THR:O	1:B:234:GLN:HB2	2.22	0.40
1:B:446:ASN:OD1	1:B:446:ASN:O	2.40	0.40
1:B:595:GLU:HA	1:B:598:TRP:CE3	2.57	0.40
1:B:688:LEU:O	1:B:691:SER:HB2	2.20	0.40
1:B:689:HIS:O	1:B:690:ILE:C	2.64	0.40
1:B:694:LEU:HD12	1:B:694:LEU:HA	1.84	0.40
1:B:1094:THR:C	1:B:1096:GLN:N	2.80	0.40
2:C:78:PRO:HD2	2:C:192:ARG:HH12	1.85	0.40
2:C:253:ASP:O	2:C:255:ALA:N	2.53	0.40
2:C:266:ARG:HD2	2:C:269:PHE:CG	2.56	0.40
2:C:551:ASP:O	2:C:552:GLU:C	2.65	0.40
2:C:943:ILE:HG22	2:C:945:LEU:HD23	2.03	0.40
2:C:964:LEU:HB2	2:C:996:SER:HB3	2.03	0.40
1:E:340:ALA:O	1:E:341:ARG:C	2.65	0.40
2:F:234:ILE:HG22	2:F:236:ILE:HG13	2.02	0.40
2:F:257:LEU:HD12	2:F:257:LEU:C	2.45	0.40
2:F:297:ASN:HD22	2:F:341:ASP:HB3	1.86	0.40
2:F:394:LEU:HD23	2:F:802:TYR:HB2	2.03	0.40
2:F:524:TRP:HE3	2:F:528:LEU:HD21	1.87	0.40
2:F:604:GLU:O	2:F:607:ALA:HB3	2.20	0.40
2:F:749:GLN:O	2:F:752:ILE:HD12	2.22	0.40
3:G:53:LEU:CD1	3:G:58:LEU:HD12	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:77:GLU:C	3:G:79:GLN:N	2.77	0.40
3:G:199:ILE:HG12	3:G:265:VAL:HG13	2.03	0.40
3:G:373:ALA:CB	3:G:380:THR:HB	2.46	0.40
3:G:388:GLN:O	3:G:389:ASP:C	2.64	0.40
3:G:586:LEU:HD23	3:G:586:LEU:O	2.22	0.40
1:B:220:SER:O	1:B:221:ARG:C	2.65	0.40
1:B:226:VAL:HG13	1:B:269:ILE:CD1	2.51	0.40
1:B:629:GLU:O	1:B:630:THR:C	2.65	0.40
1:B:868:GLN:HE21	1:B:868:GLN:HB3	1.61	0.40
1:B:919:ASP:HA	2:C:652:GLN:HG3	2.02	0.40
1:B:932:ALA:HB2	1:B:947:ARG:HG2	2.04	0.40
1:B:990:LEU:O	1:B:994:ILE:HG13	2.20	0.40
1:B:1037:ASP:OD1	1:B:1037:ASP:C	2.64	0.40
2:C:24:GLU:O	2:C:26:LEU:N	2.54	0.40
2:C:506:ILE:HG13	2:C:568:LEU:HD12	2.03	0.40
2:C:955:TRP:CD1	3:D:262:HIS:HE2	2.40	0.40
2:C:1053:GLN:OE1	2:C:1053:GLN:N	2.54	0.40
2:C:1082:ARG:HH11	2:C:1082:ARG:CB	2.32	0.40
3:D:33:PRO:HG3	3:D:73:SER:HB3	2.04	0.40
3:D:129:ALA:C	3:D:131:GLU:N	2.79	0.40
3:D:239:THR:CG2	4:X:4:5IU:OP1	2.53	0.40
1:E:262:GLN:CA	1:E:265:TRP:HB3	2.51	0.40
1:E:311:GLU:O	1:E:314:ASP:HB3	2.22	0.40
1:E:623:LEU:HD23	1:E:623:LEU:HA	1.93	0.40
1:E:807:THR:HG22	1:E:807:THR:O	2.21	0.40
1:E:1084:ASN:HB3	1:E:1085:TRP:H	1.60	0.40
2:F:141:TYR:O	2:F:142:ARG:CB	2.69	0.40
2:F:367:LEU:C	2:F:367:LEU:CD1	2.94	0.40
2:F:733:GLY:C	2:F:734:ARG:HG2	2.46	0.40
2:F:897:LEU:O	2:F:898:PHE:C	2.64	0.40
2:F:1075:TYR:CZ	2:F:1097:LEU:HG	2.57	0.40
2:F:1077:GLY:H	2:F:1083:GLY:HA3	1.84	0.40
3:G:425:ARG:HD3	3:G:425:ARG:HA	1.91	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	1149/1180 (97%)	883 (77%)	173 (15%)	93 (8%)	1	8
1	E	1149/1180 (97%)	885 (77%)	173 (15%)	91 (8%)	1	8
2	C	1119/1122 (100%)	870 (78%)	164 (15%)	85 (8%)	1	9
2	F	1119/1122 (100%)	870 (78%)	162 (14%)	87 (8%)	1	8
3	D	541/608 (89%)	374 (69%)	97 (18%)	70 (13%)	0	3
3	G	541/608 (89%)	375 (69%)	95 (18%)	71 (13%)	0	3
All	All	5618/5820 (96%)	4257 (76%)	864 (15%)	497 (9%)	0	7

All (497) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	17	GLY
1	B	18	GLU
1	B	95	PRO
1	B	96	LEU
1	B	155	ASP
1	B	214	ASP
1	B	244	ASP
1	B	259	ARG
1	B	276	GLU
1	B	282	LEU
1	B	307	HIS
1	B	308	PRO
1	B	320	PRO
1	B	463	GLN
1	B	492	LYS
1	B	514	TYR
1	B	678	ALA
1	B	720	SER
1	B	782	ALA
1	B	844	LYS

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Mol	Chain	Res	Type
1	B	870	ALA
1	B	875	ASN
1	B	879	GLN
1	B	912	ARG
1	B	916	ILE
1	B	938	PRO
1	B	1002	LEU
1	B	1007	VAL
1	B	1050	CYS
1	B	1052	PRO
1	B	1085	TRP
1	B	1090	SER
1	B	1143	LEU
2	C	23	ARG
2	C	28	ASP
2	C	60	ILE
2	C	117	ASP
2	C	119	SER
2	C	160	GLU
2	C	271	ASP
2	C	279	ASP
2	C	282	ASN
2	C	290	ASP
2	C	368	ASP
2	C	399	GLU
2	C	658	PRO
2	C	689	LEU
2	C	736	ILE
2	C	829	PRO
2	C	843	HIS
2	C	862	SER
2	C	948	ASN
2	C	958	GLN
2	C	992	GLY
2	C	1013	ALA
2	C	1036	LEU
2	C	1083	GLY
3	D	16	LEU
3	D	65	HIS
3	D	78	LEU
3	D	79	GLN
3	D	95	ASP

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Mol	Chain	Res	Type
3	D	131	GLU
3	D	132	VAL
3	D	151	ILE
3	D	193	ASP
3	D	222	GLN
3	D	227	ASP
3	D	237	ALA
3	D	256	HIS
3	D	259	ASN
3	D	260	PRO
3	D	279	MET
3	D	280	SER
3	D	345	ALA
3	D	346	ALA
3	D	365	SER
3	D	388	GLN
3	D	391	THR
3	D	529	GLU
3	D	557	ARG
3	D	558	THR
1	E	17	GLY
1	E	18	GLU
1	E	95	PRO
1	E	96	LEU
1	E	155	ASP
1	E	214	ASP
1	E	244	ASP
1	E	259	ARG
1	E	276	GLU
1	E	282	LEU
1	E	307	HIS
1	E	308	PRO
1	E	463	GLN
1	E	492	LYS
1	E	514	TYR
1	E	678	ALA
1	E	720	SER
1	E	782	ALA
1	E	844	LYS
1	E	875	ASN
1	E	879	GLN
1	E	912	ARG

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Mol	Chain	Res	Type
1	E	916	ILE
1	E	938	PRO
1	E	1002	LEU
1	E	1007	VAL
1	E	1050	CYS
1	E	1052	PRO
1	E	1085	TRP
1	E	1090	SER
1	E	1143	LEU
2	F	23	ARG
2	F	28	ASP
2	F	60	ILE
2	F	117	ASP
2	F	119	SER
2	F	160	GLU
2	F	271	ASP
2	F	279	ASP
2	F	282	ASN
2	F	290	ASP
2	F	368	ASP
2	F	399	GLU
2	F	658	PRO
2	F	689	LEU
2	F	829	PRO
2	F	843	HIS
2	F	862	SER
2	F	948	ASN
2	F	958	GLN
2	F	992	GLY
2	F	1013	ALA
2	F	1036	LEU
2	F	1083	GLY
3	G	16	LEU
3	G	65	HIS
3	G	79	GLN
3	G	95	ASP
3	G	131	GLU
3	G	132	VAL
3	G	151	ILE
3	G	193	ASP
3	G	222	GLN
3	G	227	ASP

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Mol	Chain	Res	Type
3	G	237	ALA
3	G	245	GLY
3	G	256	HIS
3	G	259	ASN
3	G	260	PRO
3	G	280	SER
3	G	345	ALA
3	G	346	ALA
3	G	365	SER
3	G	388	GLN
3	G	391	THR
3	G	451	VAL
3	G	526	ARG
3	G	529	GLU
3	G	557	ARG
3	G	558	THR
1	B	24	SER
1	B	239	ALA
1	B	250	SER
1	B	252	ILE
1	B	261	ASN
1	B	470	PHE
1	B	471	ARG
1	B	731	SER
1	B	827	LYS
1	B	861	CYS
1	B	1073	GLU
1	B	1088	GLU
2	C	25	ARG
2	C	27	ASP
2	C	53	LYS
2	C	56	ILE
2	C	106	GLU
2	C	120	ASP
2	C	200	ALA
2	C	288	ASN
2	C	304	GLY
2	C	432	ASP
2	C	449	PRO
2	C	503	ARG
2	C	537	MET
2	C	540	ALA

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Mol	Chain	Res	Type
2	C	630	ASP
2	C	692	LEU
2	C	861	ASP
2	C	910	GLY
2	C	990	SER
2	C	1078	ASN
3	D	2	LYS
3	D	3	LEU
3	D	14	LYS
3	D	29	GLY
3	D	67	LEU
3	D	74	GLU
3	D	80	ASN
3	D	225	LEU
3	D	229	GLN
3	D	232	ARG
3	D	245	GLY
3	D	255	HIS
3	D	261	LEU
3	D	338	PRO
3	D	340	GLY
3	D	376	ARG
3	D	390	PHE
3	D	426	ALA
3	D	450	GLY
3	D	451	VAL
3	D	526	ARG
3	D	530	HIS
3	D	533	THR
3	D	583	GLU
3	D	594	THR
1	E	24	SER
1	E	239	ALA
1	E	250	SER
1	E	252	ILE
1	E	261	ASN
1	E	320	PRO
1	E	364	SER
1	E	470	PHE
1	E	471	ARG
1	E	731	SER
1	E	827	LYS

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Mol	Chain	Res	Type
1	E	861	CYS
1	E	870	ALA
1	E	1073	GLU
1	E	1088	GLU
2	F	25	ARG
2	F	27	ASP
2	F	53	LYS
2	F	200	ALA
2	F	262	THR
2	F	288	ASN
2	F	304	GLY
2	F	432	ASP
2	F	449	PRO
2	F	537	MET
2	F	540	ALA
2	F	630	ASP
2	F	692	LEU
2	F	736	ILE
2	F	861	ASP
2	F	910	GLY
2	F	990	SER
2	F	1078	ASN
3	G	2	LYS
3	G	3	LEU
3	G	14	LYS
3	G	29	GLY
3	G	67	LEU
3	G	74	GLU
3	G	78	LEU
3	G	80	ASN
3	G	229	GLN
3	G	232	ARG
3	G	255	HIS
3	G	261	LEU
3	G	279	MET
3	G	338	PRO
3	G	340	GLY
3	G	376	ARG
3	G	390	PHE
3	G	426	ALA
3	G	450	GLY
3	G	530	HIS

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Mol	Chain	Res	Type
3	G	533	THR
3	G	583	GLU
3	G	594	THR
1	B	44	LEU
1	B	107	LYS
1	B	235	GLN
1	B	260	SER
1	B	324	ARG
1	B	331	ALA
1	B	364	SER
1	B	515	GLN
1	B	609	GLU
1	B	611	THR
1	B	629	GLU
1	B	718	PRO
1	B	761	ARG
1	B	780	LEU
1	B	826	ASP
1	B	937	GLU
1	B	985	GLN
1	B	1057	GLN
1	B	1087	GLY
1	B	1095	GLN
2	C	142	ARG
2	C	262	THR
2	C	273	GLU
2	C	283	ALA
2	C	602	ASP
2	C	705	ASP
2	C	795	GLN
2	C	831	THR
2	C	854	GLN
2	C	866	ASP
3	D	134	GLU
3	D	234	PRO
3	D	235	GLU
3	D	272	SER
3	D	301	LEU
3	D	598	SER
1	E	44	LEU
1	E	107	LYS
1	E	220	SER

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Mol	Chain	Res	Type
1	E	235	GLN
1	E	260	SER
1	E	310	PHE
1	E	324	ARG
1	E	331	ALA
1	E	515	GLN
1	E	609	GLU
1	E	629	GLU
1	E	761	ARG
1	E	780	LEU
1	E	826	ASP
1	E	832	ASP
1	E	937	GLU
1	E	985	GLN
1	E	1057	GLN
1	E	1087	GLY
1	E	1095	GLN
2	F	56	ILE
2	F	106	GLU
2	F	120	ASP
2	F	142	ARG
2	F	273	GLU
2	F	283	ALA
2	F	433	ARG
2	F	446	GLN
2	F	503	ARG
2	F	602	ASP
2	F	705	ASP
2	F	795	GLN
2	F	831	THR
2	F	854	GLN
3	G	60	ASN
3	G	134	GLU
3	G	225	LEU
3	G	234	PRO
3	G	235	GLU
3	G	272	SER
3	G	301	LEU
3	G	452	ALA
3	G	598	SER
1	B	220	SER
1	B	269	ILE

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Mol	Chain	Res	Type
1	B	310	PHE
1	B	366	SER
1	B	469	MET
1	B	712	SER
1	B	830	ASP
1	B	832	ASP
1	B	905	SER
1	B	1111	TYR
1	B	1128	ASP
1	B	1161	ASN
2	C	54	PHE
2	C	182	PRO
2	C	261	LEU
2	C	429	ALA
2	C	433	ARG
2	C	446	GLN
2	C	451	LEU
2	C	686	PRO
2	C	937	PRO
3	D	60	ASN
3	D	126	VAL
3	D	339	ALA
3	D	425	ARG
3	D	428	PRO
3	D	452	ALA
1	E	269	ILE
1	E	366	SER
1	E	469	MET
1	E	718	PRO
1	E	759	ASN
1	E	766	ALA
1	E	830	ASP
1	E	905	SER
1	E	1005	THR
1	E	1009	LEU
1	E	1030	PRO
1	E	1111	TYR
1	E	1128	ASP
1	E	1161	ASN
2	F	54	PHE
2	F	83	GLU
2	F	201	THR

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Mol	Chain	Res	Type
2	F	429	ALA
2	F	431	ALA
2	F	451	LEU
2	F	686	PRO
2	F	866	ASP
2	F	933	ALA
2	F	937	PRO
3	G	339	ALA
3	G	425	ARG
3	G	428	PRO
1	B	4	VAL
1	B	249	SER
1	B	934	VAL
1	B	1005	THR
1	B	1029	GLU
1	B	1127	ALA
1	B	1138	VAL
2	C	76	VAL
2	C	83	GLU
2	C	201	THR
2	C	252	LYS
2	C	401	PRO
2	C	467	SER
2	C	544	TRP
2	C	659	VAL
2	C	1037	VAL
3	D	146	PRO
3	D	147	VAL
3	D	221	ARG
3	D	223	LEU
3	D	427	GLU
1	E	4	VAL
1	E	249	SER
1	E	712	SER
1	E	1029	GLU
1	E	1127	ALA
1	E	1138	VAL
2	F	76	VAL
2	F	182	PRO
2	F	252	LYS
2	F	261	LEU
2	F	367	LEU

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Mol	Chain	Res	Type
2	F	401	PRO
2	F	467	SER
2	F	477	PRO
2	F	659	VAL
2	F	734	ARG
2	F	1037	VAL
3	G	146	PRO
3	G	223	LEU
3	G	278	MET
3	G	427	GLU
1	B	51	PRO
1	B	156	GLU
1	B	699	THR
1	B	1030	PRO
1	B	1126	ILE
2	C	286	LEU
2	C	374	ILE
2	C	477	PRO
2	C	933	ALA
3	D	393	ILE
1	E	934	VAL
1	E	1126	ILE
2	F	286	LEU
2	F	374	ILE
3	G	147	VAL
3	G	309	VAL
3	G	318	ASN
3	G	393	ILE
1	B	605	THR
2	C	206	GLY
2	C	295	VAL
2	C	430	PRO
3	D	309	VAL
1	E	51	PRO
2	F	206	GLY
2	F	295	VAL
2	F	296	GLY
2	F	430	PRO
3	G	126	VAL
3	G	528	PRO
1	B	477	PRO
2	C	207	LEU

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Mol	Chain	Res	Type
2	C	296	GLY
2	C	450	VAL
3	D	528	PRO
2	F	207	LEU
2	F	450	VAL
2	C	461	PRO
2	C	796	PRO
1	E	605	THR
1	B	328	ILE
1	B	946	PRO
2	C	685	TYR
2	F	461	PRO
2	F	796	PRO
1	E	876	GLN
2	F	844	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	978/999 (98%)	838 (86%)	140 (14%)	3	19
1	E	978/999 (98%)	839 (86%)	139 (14%)	3	19
2	C	976/977 (100%)	828 (85%)	148 (15%)	3	17
2	F	976/977 (100%)	825 (84%)	151 (16%)	2	16
3	D	443/492 (90%)	374 (84%)	69 (16%)	2	16
3	G	443/492 (90%)	377 (85%)	66 (15%)	3	17
All	All	4794/4936 (97%)	4081 (85%)	713 (15%)	3	17

All (713) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	3	ASP
1	B	16	GLN
1	B	18	GLU

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Mol	Chain	Res	Type
1	B	30	THR
1	B	36	LEU
1	B	52	ARG
1	B	57	GLU
1	B	60	LEU
1	B	63	THR
1	B	72	LEU
1	B	73	ARG
1	B	77	ARG
1	B	83	LEU
1	B	87	CYS
1	B	94	ASN
1	B	95	PRO
1	B	96	LEU
1	B	103	GLU
1	B	105	ASP
1	B	135	ARG
1	B	137	LEU
1	B	150	GLN
1	B	151	GLN
1	B	152	LEU
1	B	159	LEU
1	B	168	TRP
1	B	187	TRP
1	B	194	LEU
1	B	196	ASP
1	B	214	ASP
1	B	215	ASP
1	B	218	LEU
1	B	234	GLN
1	B	242	GLU
1	B	244	ASP
1	B	246	LEU
1	B	249	SER
1	B	262	GLN
1	B	265	TRP
1	B	268	LYS
1	B	272	TRP
1	B	274	GLU
1	B	275	GLU
1	B	284	GLU
1	B	310	PHE

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Mol	Chain	Res	Type
1	B	316	LEU
1	B	330	ARG
1	B	332	LEU
1	B	354	MET
1	B	358	LEU
1	B	363	ARG
1	B	365	GLU
1	B	368	GLU
1	B	377	ARG
1	B	392	GLN
1	B	423	ARG
1	B	432	LYS
1	B	434	ARG
1	B	436	GLU
1	B	443	LEU
1	B	445	THR
1	B	448	ARG
1	B	470	PHE
1	B	471	ARG
1	B	496	GLN
1	B	501	MET
1	B	517	THR
1	B	527	ARG
1	B	558	VAL
1	B	559	ARG
1	B	566	GLN
1	B	572	THR
1	B	573	LEU
1	B	591	LEU
1	B	605	THR
1	B	610	ASN
1	B	612	LEU
1	B	643	GLU
1	B	649	ARG
1	B	650	GLN
1	B	688	LEU
1	B	694	LEU
1	B	695	GLN
1	B	704	GLU
1	B	707	LEU
1	B	711	LEU
1	B	713	GLN

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Mol	Chain	Res	Type
1	B	720	SER
1	B	728	ARG
1	B	729	LEU
1	B	736	VAL
1	B	738	ILE
1	B	752	VAL
1	B	753	TRP
1	B	754	LEU
1	B	763	GLN
1	B	765	GLN
1	B	771	ARG
1	B	786	SER
1	B	791	GLU
1	B	802	LEU
1	B	806	LEU
1	B	815	LEU
1	B	826	ASP
1	B	830	ASP
1	B	831	THR
1	B	832	ASP
1	B	838	LEU
1	B	853	LEU
1	B	878	TRP
1	B	885	THR
1	B	889	ASN
1	B	891	LYS
1	B	893	LEU
1	B	904	THR
1	B	919	ASP
1	B	924	LEU
1	B	936	GLU
1	B	939	THR
1	B	947	ARG
1	B	958	LEU
1	B	962	LEU
1	B	963	ASP
1	B	964	PHE
1	B	976	LYS
1	B	987	GLU
1	B	1007	VAL
1	B	1008	SER
1	B	1019	VAL

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Mol	Chain	Res	Type
1	B	1021	MET
1	B	1037	ASP
1	B	1046	LEU
1	B	1059	ARG
1	B	1086	LEU
1	B	1109	LEU
1	B	1116	LEU
1	B	1118	LEU
1	B	1129	TYR
1	B	1155	ILE
1	B	1172	PHE
2	C	2	LEU
2	C	9	ARG
2	C	25	ARG
2	C	27	ASP
2	C	37	VAL
2	C	38	GLN
2	C	53	LYS
2	C	59	ASN
2	C	60	ILE
2	C	83	GLU
2	C	87	ASN
2	C	91	MET
2	C	97	THR
2	C	105	ARG
2	C	106	GLU
2	C	107	ASP
2	C	108	PHE
2	C	110	LEU
2	C	112	ARG
2	C	119	SER
2	C	144	ASP
2	C	168	LEU
2	C	176	THR
2	C	182	PRO
2	C	185	HIS
2	C	189	LEU
2	C	191	GLN
2	C	196	THR
2	C	207	LEU
2	C	210	ARG
2	C	222	VAL

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Mol	Chain	Res	Type
2	C	230	LEU
2	C	234	ILE
2	C	241	THR
2	C	251	ILE
2	C	253	ASP
2	C	264	GLN
2	C	269	PHE
2	C	273	GLU
2	C	274	LEU
2	C	276	LEU
2	C	287	PHE
2	C	290	ASP
2	C	311	ILE
2	C	316	ASP
2	C	323	LEU
2	C	332	ASP
2	C	335	LEU
2	C	343	LEU
2	C	344	GLU
2	C	346	GLU
2	C	347	ASN
2	C	353	VAL
2	C	355	ILE
2	C	356	GLU
2	C	363	ASN
2	C	367	LEU
2	C	370	LEU
2	C	383	GLN
2	C	384	ARG
2	C	394	LEU
2	C	400	ASP
2	C	403	LEU
2	C	425	VAL
2	C	445	ARG
2	C	456	SER
2	C	458	LEU
2	C	467	SER
2	C	482	ARG
2	C	488	GLU
2	C	490	LEU
2	C	504	TRP
2	C	533	LEU

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Mol	Chain	Res	Type
2	C	551	ASP
2	C	552	GLU
2	C	557	ILE
2	C	575	ARG
2	C	582	ARG
2	C	584	LEU
2	C	592	ARG
2	C	627	GLN
2	C	634	LEU
2	C	635	SER
2	C	636	LEU
2	C	641	LEU
2	C	645	LEU
2	C	646	ASP
2	C	658	PRO
2	C	660	ASN
2	C	688	GLN
2	C	696	LEU
2	C	699	GLN
2	C	700	LYS
2	C	717	LEU
2	C	734	ARG
2	C	736	ILE
2	C	746	VAL
2	C	752	ILE
2	C	764	ASP
2	C	767	LEU
2	C	780	LEU
2	C	805	GLU
2	C	807	LEU
2	C	811	SER
2	C	821	VAL
2	C	827	THR
2	C	834	LEU
2	C	835	GLU
2	C	853	LEU
2	C	856	ASN
2	C	859	THR
2	C	867	THR
2	C	868	GLU
2	C	871	ILE
2	C	872	LEU

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Mol	Chain	Res	Type
2	C	877	ARG
2	C	883	GLN
2	C	884	LEU
2	C	885	LEU
2	C	896	ARG
2	C	897	LEU
2	C	901	PHE
2	C	919	THR
2	C	927	LEU
2	C	943	ILE
2	C	948	ASN
2	C	952	ILE
2	C	955	TRP
2	C	966	ARG
2	C	968	ARG
2	C	986	VAL
2	C	997	ARG
2	C	998	LEU
2	C	1024	ILE
2	C	1035	LEU
2	C	1038	LEU
2	C	1046	LEU
2	C	1053	GLN
2	C	1055	ASP
2	C	1057	MET
2	C	1081	VAL
2	C	1087	ASP
2	C	1088	ILE
2	C	1092	ARG
2	C	1096	GLN
2	C	1097	LEU
2	C	1098	THR
2	C	1121	GLN
3	D	3	LEU
3	D	4	GLN
3	D	6	GLN
3	D	19	LEU
3	D	21	VAL
3	D	35	VAL
3	D	37	LEU
3	D	53	LEU
3	D	71	CYS

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Mol	Chain	Res	Type
3	D	74	GLU
3	D	77	GLU
3	D	91	VAL
3	D	96	GLU
3	D	105	ASP
3	D	121	ARG
3	D	125	GLU
3	D	128	HIS
3	D	130	ILE
3	D	134	GLU
3	D	137	LEU
3	D	142	ASP
3	D	149	ASP
3	D	150	GLU
3	D	188	LEU
3	D	195	GLU
3	D	198	ARG
3	D	212	LEU
3	D	220	LEU
3	D	223	LEU
3	D	228	GLU
3	D	229	GLN
3	D	230	LYS
3	D	233	ILE
3	D	239	THR
3	D	240	LEU
3	D	241	HIS
3	D	243	LEU
3	D	244	LEU
3	D	251	GLN
3	D	263	LEU
3	D	264	ASP
3	D	265	VAL
3	D	276	LEU
3	D	278	MET
3	D	284	ASP
3	D	300	GLN
3	D	304	VAL
3	D	325	ARG
3	D	344	GLU
3	D	348	LEU
3	D	354	LEU

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Mol	Chain	Res	Type
3	D	356	GLN
3	D	369	GLN
3	D	378	ASP
3	D	380	THR
3	D	384	THR
3	D	392	ASP
3	D	397	LEU
3	D	398	LEU
3	D	436	ASN
3	D	457	ARG
3	D	529	GLU
3	D	532	THR
3	D	579	LEU
3	D	586	LEU
3	D	590	ILE
3	D	594	THR
3	D	595	GLU
3	D	598	SER
1	E	3	ASP
1	E	16	GLN
1	E	18	GLU
1	E	30	THR
1	E	36	LEU
1	E	52	ARG
1	E	57	GLU
1	E	60	LEU
1	E	63	THR
1	E	72	LEU
1	E	73	ARG
1	E	77	ARG
1	E	83	LEU
1	E	87	CYS
1	E	94	ASN
1	E	95	PRO
1	E	96	LEU
1	E	103	GLU
1	E	105	ASP
1	E	137	LEU
1	E	150	GLN
1	E	151	GLN
1	E	152	LEU
1	E	159	LEU

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Mol	Chain	Res	Type
1	E	168	TRP
1	E	187	TRP
1	E	194	LEU
1	E	196	ASP
1	E	214	ASP
1	E	215	ASP
1	E	218	LEU
1	E	234	GLN
1	E	242	GLU
1	E	244	ASP
1	E	246	LEU
1	E	249	SER
1	E	262	GLN
1	E	265	TRP
1	E	268	LYS
1	E	272	TRP
1	E	274	GLU
1	E	275	GLU
1	E	284	GLU
1	E	310	PHE
1	E	316	LEU
1	E	330	ARG
1	E	332	LEU
1	E	354	MET
1	E	358	LEU
1	E	363	ARG
1	E	365	GLU
1	E	368	GLU
1	E	377	ARG
1	E	392	GLN
1	E	423	ARG
1	E	432	LYS
1	E	434	ARG
1	E	436	GLU
1	E	443	LEU
1	E	445	THR
1	E	448	ARG
1	E	470	PHE
1	E	471	ARG
1	E	496	GLN
1	E	501	MET
1	E	517	THR

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Mol	Chain	Res	Type
1	E	527	ARG
1	E	558	VAL
1	E	559	ARG
1	E	566	GLN
1	E	572	THR
1	E	573	LEU
1	E	591	LEU
1	E	605	THR
1	E	610	ASN
1	E	643	GLU
1	E	649	ARG
1	E	650	GLN
1	E	677	THR
1	E	688	LEU
1	E	694	LEU
1	E	695	GLN
1	E	704	GLU
1	E	707	LEU
1	E	711	LEU
1	E	713	GLN
1	E	720	SER
1	E	728	ARG
1	E	729	LEU
1	E	736	VAL
1	E	738	ILE
1	E	752	VAL
1	E	753	TRP
1	E	754	LEU
1	E	763	GLN
1	E	765	GLN
1	E	771	ARG
1	E	786	SER
1	E	791	GLU
1	E	802	LEU
1	E	806	LEU
1	E	815	LEU
1	E	826	ASP
1	E	830	ASP
1	E	831	THR
1	E	832	ASP
1	E	838	LEU
1	E	853	LEU

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Mol	Chain	Res	Type
1	E	878	TRP
1	E	885	THR
1	E	889	ASN
1	E	891	LYS
1	E	893	LEU
1	E	904	THR
1	E	919	ASP
1	E	924	LEU
1	E	936	GLU
1	E	939	THR
1	E	947	ARG
1	E	958	LEU
1	E	962	LEU
1	E	963	ASP
1	E	964	PHE
1	E	976	LYS
1	E	987	GLU
1	E	1007	VAL
1	E	1008	SER
1	E	1019	VAL
1	E	1021	MET
1	E	1037	ASP
1	E	1046	LEU
1	E	1059	ARG
1	E	1086	LEU
1	E	1109	LEU
1	E	1116	LEU
1	E	1118	LEU
1	E	1129	TYR
1	E	1155	ILE
1	E	1172	PHE
2	F	2	LEU
2	F	9	ARG
2	F	25	ARG
2	F	27	ASP
2	F	37	VAL
2	F	38	GLN
2	F	53	LYS
2	F	59	ASN
2	F	60	ILE
2	F	83	GLU
2	F	87	ASN

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Mol	Chain	Res	Type
2	F	91	MET
2	F	97	THR
2	F	105	ARG
2	F	106	GLU
2	F	107	ASP
2	F	108	PHE
2	F	110	LEU
2	F	112	ARG
2	F	119	SER
2	F	144	ASP
2	F	168	LEU
2	F	176	THR
2	F	182	PRO
2	F	183	ARG
2	F	185	HIS
2	F	189	LEU
2	F	191	GLN
2	F	196	THR
2	F	207	LEU
2	F	210	ARG
2	F	222	VAL
2	F	230	LEU
2	F	234	ILE
2	F	241	THR
2	F	251	ILE
2	F	253	ASP
2	F	264	GLN
2	F	269	PHE
2	F	273	GLU
2	F	274	LEU
2	F	276	LEU
2	F	287	PHE
2	F	290	ASP
2	F	311	ILE
2	F	316	ASP
2	F	323	LEU
2	F	332	ASP
2	F	335	LEU
2	F	343	LEU
2	F	344	GLU
2	F	346	GLU
2	F	347	ASN

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Mol	Chain	Res	Type
2	F	353	VAL
2	F	355	ILE
2	F	356	GLU
2	F	363	ASN
2	F	367	LEU
2	F	370	LEU
2	F	383	GLN
2	F	384	ARG
2	F	394	LEU
2	F	400	ASP
2	F	403	LEU
2	F	425	VAL
2	F	442	ARG
2	F	445	ARG
2	F	456	SER
2	F	458	LEU
2	F	467	SER
2	F	482	ARG
2	F	488	GLU
2	F	490	LEU
2	F	504	TRP
2	F	533	LEU
2	F	551	ASP
2	F	552	GLU
2	F	557	ILE
2	F	572	ASN
2	F	575	ARG
2	F	582	ARG
2	F	584	LEU
2	F	592	ARG
2	F	627	GLN
2	F	634	LEU
2	F	635	SER
2	F	636	LEU
2	F	641	LEU
2	F	645	LEU
2	F	646	ASP
2	F	658	PRO
2	F	660	ASN
2	F	688	GLN
2	F	696	LEU
2	F	699	GLN

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Mol	Chain	Res	Type
2	F	700	LYS
2	F	717	LEU
2	F	734	ARG
2	F	736	ILE
2	F	746	VAL
2	F	752	ILE
2	F	764	ASP
2	F	767	LEU
2	F	780	LEU
2	F	805	GLU
2	F	807	LEU
2	F	821	VAL
2	F	827	THR
2	F	834	LEU
2	F	835	GLU
2	F	853	LEU
2	F	856	ASN
2	F	859	THR
2	F	867	THR
2	F	868	GLU
2	F	871	ILE
2	F	872	LEU
2	F	877	ARG
2	F	883	GLN
2	F	884	LEU
2	F	885	LEU
2	F	896	ARG
2	F	897	LEU
2	F	901	PHE
2	F	919	THR
2	F	927	LEU
2	F	943	ILE
2	F	948	ASN
2	F	952	ILE
2	F	955	TRP
2	F	966	ARG
2	F	968	ARG
2	F	980	LEU
2	F	986	VAL
2	F	997	ARG
2	F	998	LEU
2	F	1024	ILE

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Mol	Chain	Res	Type
2	F	1035	LEU
2	F	1038	LEU
2	F	1046	LEU
2	F	1053	GLN
2	F	1055	ASP
2	F	1057	MET
2	F	1081	VAL
2	F	1087	ASP
2	F	1088	ILE
2	F	1092	ARG
2	F	1096	GLN
2	F	1097	LEU
2	F	1098	THR
2	F	1121	GLN
3	G	3	LEU
3	G	4	GLN
3	G	6	GLN
3	G	19	LEU
3	G	21	VAL
3	G	35	VAL
3	G	37	LEU
3	G	53	LEU
3	G	74	GLU
3	G	77	GLU
3	G	91	VAL
3	G	96	GLU
3	G	105	ASP
3	G	121	ARG
3	G	125	GLU
3	G	128	HIS
3	G	130	ILE
3	G	134	GLU
3	G	137	LEU
3	G	142	ASP
3	G	149	ASP
3	G	150	GLU
3	G	188	LEU
3	G	195	GLU
3	G	198	ARG
3	G	212	LEU
3	G	220	LEU
3	G	228	GLU

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Mol	Chain	Res	Type
3	G	229	GLN
3	G	230	LYS
3	G	233	ILE
3	G	239	THR
3	G	240	LEU
3	G	241	HIS
3	G	243	LEU
3	G	263	LEU
3	G	264	ASP
3	G	265	VAL
3	G	276	LEU
3	G	278	MET
3	G	284	ASP
3	G	300	GLN
3	G	304	VAL
3	G	325	ARG
3	G	344	GLU
3	G	348	LEU
3	G	354	LEU
3	G	356	GLN
3	G	361	PHE
3	G	369	GLN
3	G	378	ASP
3	G	380	THR
3	G	384	THR
3	G	392	ASP
3	G	397	LEU
3	G	398	LEU
3	G	436	ASN
3	G	457	ARG
3	G	529	GLU
3	G	532	THR
3	G	579	LEU
3	G	586	LEU
3	G	590	ILE
3	G	594	THR
3	G	595	GLU
3	G	598	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (278) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	16	GLN
1	B	94	ASN
1	B	109	GLN
1	B	130	HIS
1	B	150	GLN
1	B	151	GLN
1	B	181	GLN
1	B	191	GLN
1	B	202	GLN
1	B	222	HIS
1	B	224	GLN
1	B	234	GLN
1	B	262	GLN
1	B	315	GLN
1	B	392	GLN
1	B	403	HIS
1	B	404	GLN
1	B	455	ASN
1	B	484	ASN
1	B	485	GLN
1	B	496	GLN
1	B	531	GLN
1	B	566	GLN
1	B	610	ASN
1	B	624	ASN
1	B	695	GLN
1	B	705	HIS
1	B	713	GLN
1	B	721	ASN
1	B	725	GLN
1	B	726	GLN
1	B	763	GLN
1	B	765	GLN
1	B	769	HIS
1	B	812	HIS
1	B	834	HIS
1	B	835	GLN
1	B	848	GLN
1	B	868	GLN
1	B	876	GLN
1	B	881	ASN
1	B	889	ASN
1	B	900	ASN

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Mol	Chain	Res	Type
1	B	911	GLN
1	B	943	HIS
1	B	944	GLN
1	B	966	GLN
1	B	999	GLN
1	B	1011	GLN
1	B	1042	GLN
1	B	1057	GLN
1	B	1072	HIS
1	B	1095	GLN
1	B	1110	GLN
1	B	1124	HIS
1	B	1134	HIS
1	B	1152	GLN
2	C	6	HIS
2	C	8	ASN
2	C	38	GLN
2	C	44	GLN
2	C	52	GLN
2	C	87	ASN
2	C	126	GLN
2	C	162	GLN
2	C	165	GLN
2	C	177	HIS
2	C	178	GLN
2	C	185	HIS
2	C	188	ASN
2	C	191	GLN
2	C	228	GLN
2	C	233	HIS
2	C	264	GLN
2	C	267	HIS
2	C	333	ASN
2	C	336	HIS
2	C	347	ASN
2	C	354	ASN
2	C	363	ASN
2	C	383	GLN
2	C	423	GLN
2	C	446	GLN
2	C	510	ASN
2	C	521	GLN

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Mol	Chain	Res	Type
2	C	522	HIS
2	C	563	HIS
2	C	572	ASN
2	C	580	GLN
2	C	647	GLN
2	C	681	ASN
2	C	699	GLN
2	C	737	GLN
2	C	768	ASN
2	C	792	GLN
2	C	793	ASN
2	C	795	GLN
2	C	800	GLN
2	C	812	GLN
2	C	822	GLN
2	C	850	GLN
2	C	879	GLN
2	C	886	ASN
2	C	925	GLN
2	C	936	GLN
2	C	939	GLN
2	C	948	ASN
2	C	960	GLN
2	C	976	GLN
2	C	979	GLN
2	C	984	HIS
2	C	1015	GLN
2	C	1022	GLN
2	C	1065	GLN
2	C	1091	GLN
2	C	1110	GLN
2	C	1121	GLN
3	D	4	GLN
3	D	6	GLN
3	D	15	GLN
3	D	79	GLN
3	D	115	ASN
3	D	139	GLN
3	D	247	GLN
3	D	251	GLN
3	D	256	HIS
3	D	328	GLN

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Mol	Chain	Res	Type
3	D	356	GLN
3	D	369	GLN
3	D	388	GLN
3	D	423	GLN
3	D	433	GLN
3	D	439	GLN
3	D	460	GLN
3	D	464	GLN
3	D	530	HIS
3	D	542	GLN
1	E	16	GLN
1	E	109	GLN
1	E	130	HIS
1	E	150	GLN
1	E	151	GLN
1	E	181	GLN
1	E	222	HIS
1	E	224	GLN
1	E	234	GLN
1	E	262	GLN
1	E	315	GLN
1	E	392	GLN
1	E	403	HIS
1	E	404	GLN
1	E	417	GLN
1	E	455	ASN
1	E	484	ASN
1	E	485	GLN
1	E	496	GLN
1	E	531	GLN
1	E	566	GLN
1	E	610	ASN
1	E	695	GLN
1	E	705	HIS
1	E	713	GLN
1	E	721	ASN
1	E	725	GLN
1	E	726	GLN
1	E	763	GLN
1	E	765	GLN
1	E	769	HIS
1	E	812	HIS

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Mol	Chain	Res	Type
1	E	834	HIS
1	E	835	GLN
1	E	848	GLN
1	E	868	GLN
1	E	875	ASN
1	E	876	GLN
1	E	879	GLN
1	E	881	ASN
1	E	889	ASN
1	E	900	ASN
1	E	911	GLN
1	E	943	HIS
1	E	944	GLN
1	E	966	GLN
1	E	985	GLN
1	E	999	GLN
1	E	1011	GLN
1	E	1042	GLN
1	E	1057	GLN
1	E	1072	HIS
1	E	1084	ASN
1	E	1095	GLN
1	E	1103	GLN
1	E	1110	GLN
1	E	1124	HIS
1	E	1134	HIS
1	E	1152	GLN
2	F	6	HIS
2	F	8	ASN
2	F	38	GLN
2	F	52	GLN
2	F	87	ASN
2	F	126	GLN
2	F	162	GLN
2	F	165	GLN
2	F	177	HIS
2	F	178	GLN
2	F	185	HIS
2	F	188	ASN
2	F	191	GLN
2	F	228	GLN
2	F	264	GLN

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Mol	Chain	Res	Type
2	F	267	HIS
2	F	285	GLN
2	F	333	ASN
2	F	336	HIS
2	F	347	ASN
2	F	354	ASN
2	F	363	ASN
2	F	383	GLN
2	F	423	GLN
2	F	446	GLN
2	F	510	ASN
2	F	521	GLN
2	F	522	HIS
2	F	563	HIS
2	F	572	ASN
2	F	580	GLN
2	F	614	GLN
2	F	617	GLN
2	F	643	GLN
2	F	647	GLN
2	F	699	GLN
2	F	737	GLN
2	F	768	ASN
2	F	792	GLN
2	F	793	ASN
2	F	795	GLN
2	F	800	GLN
2	F	812	GLN
2	F	822	GLN
2	F	850	GLN
2	F	879	GLN
2	F	882	GLN
2	F	886	ASN
2	F	936	GLN
2	F	939	GLN
2	F	948	ASN
2	F	960	GLN
2	F	976	GLN
2	F	979	GLN
2	F	1015	GLN
2	F	1022	GLN
2	F	1065	GLN

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Mol	Chain	Res	Type
2	F	1078	ASN
2	F	1091	GLN
2	F	1110	GLN
2	F	1121	GLN
3	G	4	GLN
3	G	6	GLN
3	G	15	GLN
3	G	22	GLN
3	G	79	GLN
3	G	139	GLN
3	G	247	GLN
3	G	259	ASN
3	G	318	ASN
3	G	328	GLN
3	G	356	GLN
3	G	369	GLN
3	G	388	GLN
3	G	423	GLN
3	G	433	GLN
3	G	436	ASN
3	G	439	GLN
3	G	460	GLN
3	G	464	GLN
3	G	530	HIS
3	G	542	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

18 non-standard protein/DNA/RNA residues are modelled in this entry.

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	5IU	X	7	4	18,21,22	0.50	0	25,30,33	0.89	1 (4%)
4	5IU	X	50	4	18,21,22	0.51	0	25,30,33	0.47	0
4	5IU	Y	4	4	18,21,22	0.40	0	25,30,33	0.46	0
4	5IU	X	3	4	18,21,22	0.48	0	25,30,33	0.74	0
4	5IU	Y	7	4	18,21,22	0.52	0	25,30,33	0.93	1 (4%)
4	5IU	Y	1	4	18,18,22	0.52	0	26,26,33	0.35	0
4	5IU	X	9	4	18,21,22	0.69	1 (5%)	25,30,33	0.42	0
4	5IU	X	5	4	18,21,22	1.76	4 (22%)	25,30,33	0.77	0
4	5IU	Y	2	4	18,21,22	0.56	0	25,30,33	0.75	1 (4%)
4	5IU	X	2	4	18,21,22	0.51	0	25,30,33	0.66	1 (4%)
4	5IU	Y	46	4	18,21,22	0.46	0	25,30,33	0.59	0
4	5IU	X	1	4	18,18,22	0.54	0	26,26,33	0.34	0
4	5IU	X	46	4	18,21,22	0.52	0	25,30,33	0.71	0
4	5IU	Y	3	4	18,21,22	0.41	0	25,30,33	0.76	0
4	5IU	Y	5	4	18,21,22	0.60	0	25,30,33	0.94	1 (4%)
4	5IU	X	4	4	18,21,22	0.48	0	25,30,33	0.44	0
4	5IU	Y	9	4	18,21,22	0.63	0	25,30,33	0.42	0
4	5IU	Y	50	4	18,21,22	0.45	0	25,30,33	0.47	0

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	5IU	X	7	4	-	0/7/21/22	0/2/2/2
4	5IU	X	50	4	-	5/7/21/22	0/2/2/2
4	5IU	Y	4	4	-	6/7/21/22	0/2/2/2
4	5IU	X	3	4	-	2/7/21/22	0/2/2/2
4	5IU	Y	7	4	-	0/7/21/22	0/2/2/2
4	5IU	Y	1	4	-	2/6/18/22	0/2/2/2
4	5IU	X	9	4	-	0/7/21/22	0/2/2/2
4	5IU	X	5	4	-	6/7/21/22	0/2/2/2
4	5IU	Y	2	4	-	2/7/21/22	0/2/2/2
4	5IU	X	2	4	-	2/7/21/22	0/2/2/2
4	5IU	Y	46	4	-	3/7/21/22	0/2/2/2
4	5IU	X	1	4	-	2/6/18/22	0/2/2/2
4	5IU	X	46	4	-	3/7/21/22	0/2/2/2
4	5IU	Y	3	4	-	2/7/21/22	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	5IU	Y	5	4	-	6/7/21/22	0/2/2/2
4	5IU	X	4	4	-	6/7/21/22	0/2/2/2
4	5IU	Y	9	4	-	0/7/21/22	0/2/2/2
4	5IU	Y	50	4	-	6/7/21/22	0/2/2/2

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	X	5	5IU	O2-C2	5.38	1.32	1.23
4	X	5	5IU	C6-N1	3.65	1.44	1.38
4	X	5	5IU	C2-N1	2.23	1.42	1.38
4	X	5	5IU	O4-C4	2.04	1.27	1.23
4	X	9	5IU	C5-I5	-2.02	2.02	2.08

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	Y	7	5IU	C2'-C1'-N1	-2.90	106.57	113.81
4	Y	5	5IU	C2'-C1'-N1	-2.85	106.67	113.81
4	X	7	5IU	C2'-C1'-N1	-2.81	106.80	113.81
4	Y	2	5IU	C2'-C1'-N1	-2.22	108.27	113.81
4	X	2	5IU	C2'-C1'-N1	-2.21	108.30	113.81

There are no chirality outliers.

All (53) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	X	1	5IU	O4'-C1'-N1-C2
4	X	1	5IU	O4'-C1'-N1-C6
4	X	2	5IU	O4'-C1'-N1-C2
4	X	2	5IU	O4'-C1'-N1-C6
4	X	5	5IU	O4'-C4'-C5'-O5'
4	X	46	5IU	C4'-C5'-O5'-P
4	Y	1	5IU	O4'-C1'-N1-C2
4	Y	1	5IU	O4'-C1'-N1-C6
4	Y	2	5IU	O4'-C1'-N1-C2
4	Y	2	5IU	O4'-C1'-N1-C6
4	Y	5	5IU	C3'-C4'-C5'-O5'
4	Y	5	5IU	O4'-C4'-C5'-O5'
4	Y	46	5IU	C4'-C5'-O5'-P

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Mol	Chain	Res	Type	Atoms
4	X	5	5IU	C3'-C4'-C5'-O5'
4	X	4	5IU	O4'-C4'-C5'-O5'
4	Y	3	5IU	O4'-C4'-C5'-O5'
4	X	3	5IU	C3'-C4'-C5'-O5'
4	Y	3	5IU	C3'-C4'-C5'-O5'
4	Y	4	5IU	O4'-C4'-C5'-O5'
4	Y	4	5IU	C2'-C1'-N1-C6
4	X	3	5IU	O4'-C4'-C5'-O5'
4	X	46	5IU	O4'-C4'-C5'-O5'
4	Y	46	5IU	O4'-C4'-C5'-O5'
4	X	5	5IU	C2'-C1'-N1-C6
4	X	46	5IU	C3'-C4'-C5'-O5'
4	Y	46	5IU	C3'-C4'-C5'-O5'
4	X	50	5IU	C3'-C4'-C5'-O5'
4	X	50	5IU	O4'-C4'-C5'-O5'
4	Y	50	5IU	C3'-C4'-C5'-O5'
4	Y	50	5IU	O4'-C4'-C5'-O5'
4	X	5	5IU	O4'-C1'-N1-C6
4	X	5	5IU	C2'-C1'-N1-C2
4	X	4	5IU	C2'-C1'-N1-C6
4	Y	5	5IU	C2'-C1'-N1-C6
4	Y	4	5IU	C2'-C1'-N1-C2
4	Y	4	5IU	O4'-C1'-N1-C6
4	X	4	5IU	C3'-C4'-C5'-O5'
4	Y	4	5IU	C3'-C4'-C5'-O5'
4	X	4	5IU	O4'-C1'-N1-C6
4	X	5	5IU	O4'-C1'-N1-C2
4	X	4	5IU	C2'-C1'-N1-C2
4	Y	4	5IU	O4'-C1'-N1-C2
4	Y	50	5IU	C2'-C1'-N1-C6
4	X	50	5IU	C2'-C1'-N1-C6
4	Y	5	5IU	C2'-C1'-N1-C2
4	Y	5	5IU	O4'-C1'-N1-C6
4	Y	50	5IU	O4'-C1'-N1-C6
4	X	50	5IU	O4'-C1'-N1-C6
4	X	4	5IU	O4'-C1'-N1-C2
4	Y	5	5IU	O4'-C1'-N1-C2
4	Y	50	5IU	C2'-C1'-N1-C2
4	X	50	5IU	O4'-C1'-N1-C2
4	Y	50	5IU	O4'-C1'-N1-C2

There are no ring outliers.

17 monomers are involved in 104 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	X	7	5IU	6	0
4	X	50	5IU	1	0
4	Y	4	5IU	4	0
4	X	3	5IU	12	0
4	Y	7	5IU	9	0
4	Y	1	5IU	3	0
4	X	9	5IU	6	0
4	X	5	5IU	3	0
4	Y	2	5IU	14	0
4	X	2	5IU	15	0
4	Y	46	5IU	11	0
4	X	1	5IU	1	0
4	X	46	5IU	11	0
4	Y	3	5IU	13	0
4	Y	5	5IU	1	0
4	X	4	5IU	6	0
4	Y	9	5IU	8	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2 ligands modelled in this entry, 2 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	B	1155/1180 (97%)	-0.26	4 (0%) 90 75	54, 111, 179, 259	0
1	E	1155/1180 (97%)	-0.23	4 (0%) 90 75	59, 121, 179, 215	0
2	C	1121/1122 (99%)	-0.32	2 (0%) 91 80	42, 90, 155, 226	0
2	F	1121/1122 (99%)	-0.27	3 (0%) 90 75	54, 107, 172, 222	0
3	D	547/608 (89%)	0.23	14 (2%) 57 33	71, 165, 222, 251	0
3	G	547/608 (89%)	-0.09	6 (1%) 78 52	55, 114, 188, 243	0
4	X	37/51 (72%)	0.52	2 (5%) 31 18	82, 168, 227, 236	0
4	Y	37/51 (72%)	0.29	0 100 100	106, 168, 222, 247	0
All	All	5720/5922 (96%)	-0.20	35 (0%) 85 64	42, 112, 190, 259	0

All (35) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	245	ALA	3.5
1	E	1111	TYR	3.4
4	X	10	DA	3.2
1	B	285	SER	3.0
1	E	280	TYR	3.0
1	B	280	TYR	2.9
2	C	281	GLU	2.9
3	D	444	LEU	2.8
2	F	799	ARG	2.8
3	D	419	LEU	2.7
3	D	528	PRO	2.7
2	C	280	SER	2.7
1	E	25	ALA	2.6
2	F	267	HIS	2.5
3	D	429	ASP	2.5
1	B	261	ASN	2.4

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Mol	Chain	Res	Type	RSRZ
3	D	443	ALA	2.4
3	D	441	LEU	2.4
3	D	566	VAL	2.4
3	G	248	PRO	2.3
3	D	526	ARG	2.3
3	G	237	ALA	2.2
1	E	242	GLU	2.2
4	X	25	DA	2.1
2	F	280	SER	2.1
3	D	442	CYS	2.1
3	D	551	LEU	2.1
3	G	131	GLU	2.1
3	D	290	ALA	2.1
3	D	416	GLY	2.1
3	G	245	GLY	2.1
3	G	260	PRO	2.1
3	D	320	GLY	2.0
3	D	463	GLN	2.0
3	G	128	HIS	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
4	5IU	Y	1	17/21	0.21	0.18	234,234,300,300	0
4	5IU	X	1	17/21	0.46	0.13	200,200,300,300	0
4	5IU	X	2	20/21	0.53	0.19	108,164,275,275	0
4	5IU	X	5	20/21	0.57	0.15	108,156,300,300	0
4	5IU	Y	5	20/21	0.66	0.15	108,300,300,300	0
4	5IU	Y	7	20/21	0.66	0.14	108,181,300,300	0
4	5IU	Y	4	20/21	0.68	0.14	108,300,300,300	0
4	5IU	Y	50	20/21	0.69	0.12	108,170,300,300	0
4	5IU	Y	2	20/21	0.71	0.15	108,300,300,300	0
4	5IU	X	3	20/21	0.74	0.13	108,179,254,254	0
4	5IU	X	50	20/21	0.74	0.15	108,155,260,260	0
4	5IU	X	7	20/21	0.76	0.13	108,158,216,216	0
4	5IU	Y	46	20/21	0.81	0.12	108,158,252,252	0
4	5IU	X	46	20/21	0.82	0.13	108,165,189,189	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
4	5IU	X	4	20/21	0.84	0.10	108,140,235,235	0
4	5IU	Y	3	20/21	0.86	0.13	108,300,300,300	0
4	5IU	Y	9	20/21	0.90	0.10	102,108,148,148	0
4	5IU	X	9	20/21	0.96	0.10	58,108,124,124	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
5	CA	B	4000	1/1	0.95	0.07	108,108,108,108	0
5	CA	E	4000	1/1	0.98	0.04	108,108,108,108	0

6.5 Other polymers [i](#)

There are no such residues in this entry.