



## Full wwPDB EM Validation Report ⓘ

Jul 14, 2024 – 06:27 pm BST

PDB ID : 8BHV  
EMDB ID : EMD-16070  
Title : DNA-PK XLF mediated dimer bound to PAXX  
Authors : Hardwick, S.W.; Chaplin, A.K.  
Deposited on : 2022-11-01  
Resolution : 4.51 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev92  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.37.1

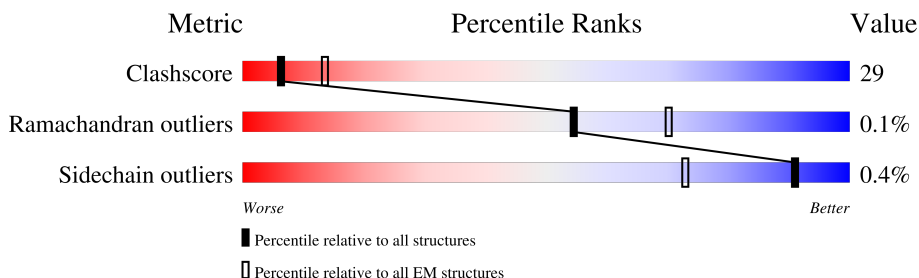
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.51 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	4128	41% 45% 14%
1	F	4128	41% 45% 14%
2	K	336	11% 28% 32% 40%
2	L	336	19% 28% 29% 42%
2	N	336	6% 29% 30% 40%
2	O	336	16% 23% 35% 42%
3	M	911	11% 17% 72%
3	P	911	13% 14% 73%

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Mol	Chain	Length	Quality of chain
4	Q	299	
4	R	299	
5	a	609	
5	h	609	
6	b	732	
6	j	732	
7	c	204	
7	i	204	
8	D	27	
9	E	28	
10	I	24	
11	J	24	

## 2 Entry composition

There are 11 unique types of molecules in this entry. The entry contains 91357 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-dependent protein kinase catalytic subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3549	Total	C	N	O	S	0	0
			28250	18146	4783	5134	187		
1	F	3543	Total	C	N	O	S	0	0
			28263	18162	4780	5132	189		

- Molecule 2 is a protein called DNA repair protein XRCC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	K	201	Total	C	N	O	S	0	0
			1628	1031	278	312	7		
2	L	195	Total	C	N	O	S	0	0
			1589	1009	271	302	7		
2	N	201	Total	C	N	O	S	0	0
			1625	1030	278	310	7		
2	O	194	Total	C	N	O	S	0	0
			1589	1009	271	302	7		

- Molecule 3 is a protein called DNA ligase 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	M	258	Total	C	N	O	S	0	0
			2085	1327	349	396	13		
3	P	246	Total	C	N	O	S	0	0
			1983	1261	339	371	12		

- Molecule 4 is a protein called Non-homologous end-joining factor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	Q	218	Total	C	N	O	S	0	0
			1745	1119	294	319	13		
4	R	225	Total	C	N	O	S	0	0
			1796	1150	301	330	15		

- Molecule 5 is a protein called X-ray repair cross-complementing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	a	505	Total	C	N	O	S	0	0
			4038	2583	691	747	17		
5	h	505	Total	C	N	O	S	0	0
			4026	2578	681	750	17		

- Molecule 6 is a protein called X-ray repair cross-complementing protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	b	650	Total	C	N	O	S	0	0
			5214	3328	876	985	25		
6	j	636	Total	C	N	O	S	0	0
			5082	3252	854	951	25		

- Molecule 7 is a protein called Protein PAXX.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	c	23	Total	C	N	O	S	0	0
			165	105	27	32	1		
7	i	23	Total	C	N	O	S	0	0
			162	102	27	32	1		

- Molecule 8 is a DNA chain called DNA (26-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
8	D	27	Total	C	N	O	P	0	0
			556	268	95	166	27		

- Molecule 9 is a DNA chain called DNA (27-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
9	E	28	Total	C	N	O	P	0	0
			576	277	107	164	28		

- Molecule 10 is a DNA chain called DNA (28-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
10	I	24	Total	C	N	O	P	0	0
			494	238	92	140	24		

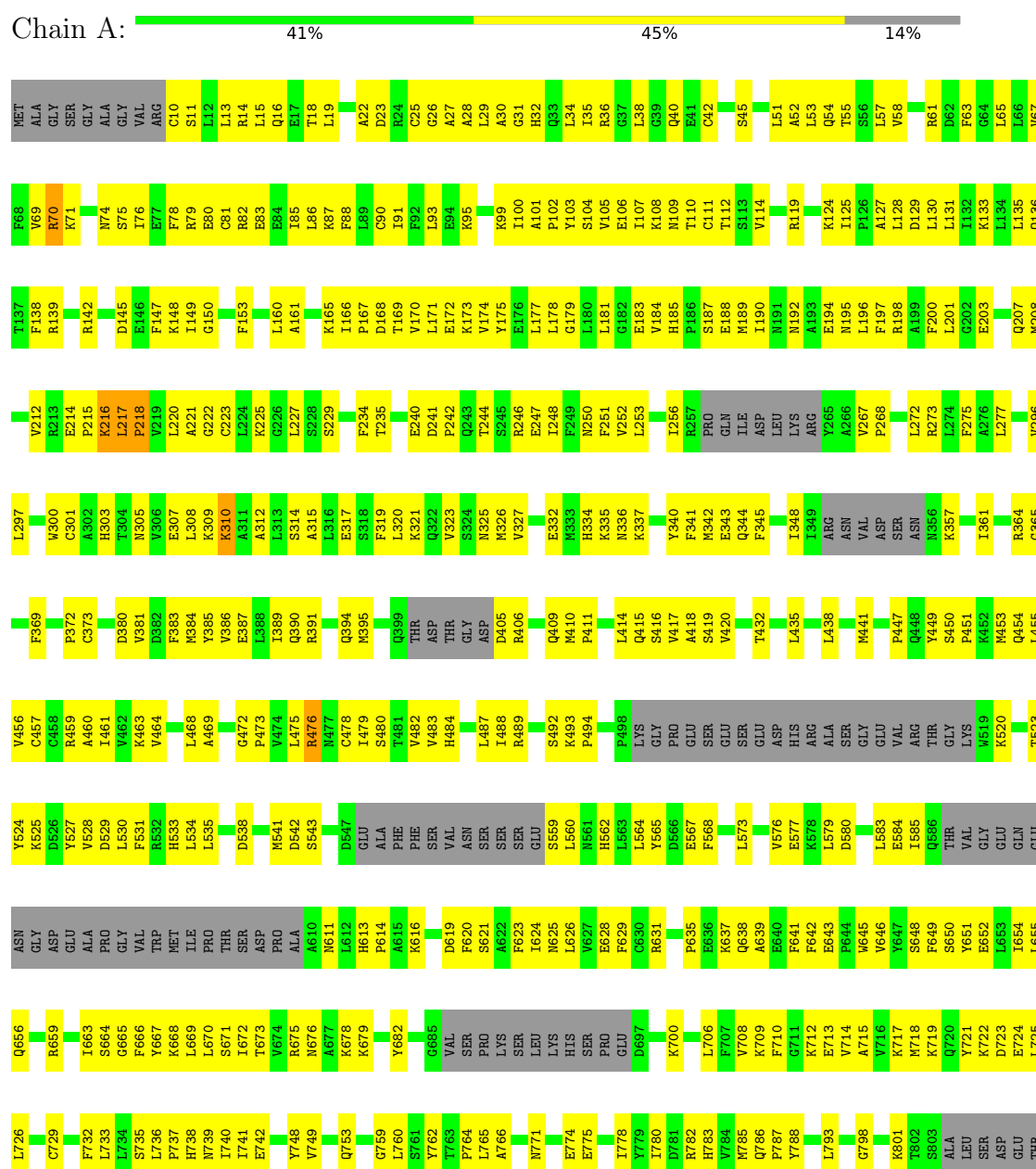
- Molecule 11 is a DNA chain called DNA (24-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
11	J	24	Total 491	C 239	N 79	O 149	P 24	0	0

### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: DNA-dependent protein kinase catalytic subunit



R1883	L1884	L1885	LYS	ASP	VAL	HIS	VAL	SER	ALA	ALA	GLN	GLY	F1882	F1883	F1884	F1885	F1886	F1887	F1888	F1889	F1890	F1891	F1892	F1893	F1894	F1895	F1896	F1897	F1898	F1899	F1900	F1901	F1902	F1903	F1904	F1905	F1906	F1907	F1908	F1909	F1910	F1911	F1912	F1913	F1914	F1915	F1916	F1917	F1918	F1919	F1920	F1921	F1922	F1923	F1924	F1925	F1926	F1927	F1928	F1929	F1930	F1931	F1932	F1933	F1934	F1935	F1936	F1937	F1938	F1939	F1940	F1941	F1942	F1943	F1944	F1945	F1946	F1947	F1948	F1949	F1950	F1951	F1952	F1953	F1954	F1955	F1956	F1957	F1958	F1959	F1960	F1961	F1962	F1963	F1964	F1965	F1966	F1967	F1968	F1969	F1970	F1971	F1972	F1973	F1974	F1975	F1976	F1977	F1978	F1979	F1980	F1981	F1982	F1983	F1984	F1985	F1986	F1987	F1988	F1989	F1990	F1991	F1992	F1993	F1994	F1995	F1996	F1997	F1998	F1999	F2000	F2001	F2002	F2003	F2004	F2005	F2006	F2007	F2008	F2009	F2010	F2011	F2012	F2013	F2014	F2015	F2016	F2017	F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028	F2029	F2030	F2031	F2032	F2033	F2034	F2035	F2036	F2037	F2038	F2039	F2040	F2041	F2042	F2043	F2044	F2045	F2046	F2047	F2048	F2049	F2050	F2051	F2052	F2053	F2054	F2055	F2056	F2057	F2058	F2059	F2060	F2061	F2062	F2063	F2064	F2065	F2066	F2067	F2068	F2069	F2070	F2071	F2072	F2073	F2074	F2075	F2076	F2077	F2078	F2079	F2080	F2081	F2082	F2083	F2084	F2085	F2086	F2087	F2088	F2089	F2090	F2091	F2092	F2093	F2094	F2095	F2096	F2097	F2098	F2099	F2100	F2101	F2102	F2103	F2104	F2105	F2106	F2107	F2108	F2109	F2110	F2111	F2112	F2113	F2114	F2115	F2116	F2117	F2118	F2119	F2120	F2121	F2122	F2123	F2124	F2125	F2126	F2127	F2128	F2129	F2130	F2131	F2132	F2133	F2134	F2135	F2136	F2137	F2138	F2139	F2140	F2141	F2142	F2143	F2144	F2145	F2146	F2147	F2148	F2149	F2150	F2151	F2152	F2153	F2154	F2155	F2156	F2157	F2158	F2159	F2160	F2161	F2162	F2163	F2164	F2165	F2166	F2167	F2168	F2169	F2170	F2171	F2172	F2173	F2174	F2175	F2176	F2177	F2178	F2179	F2180	F2181	F2182	F2183	F2184	F2185	F2186	F2187	F2188	F2189	F2190	F2191	F2192	F2193	F2194	F2195	F2196	F2197	F2198	F2199	F2200	F2201	F2202	F2203	F2204	F2205	F2206	F2207	F2208	F2209	F2210	F2211	F2212	F2213	F2214	F2215	F2216	F2217	F2218	F2219	F2220	F2221	F2222	F2223	F2224	F2225	F2226	F2227	F2228	F2229	F2230	F2231	F2232	F2233	F2234	F2235	F2236	F2237	F2238	F2239	F2240	F2241	F2242	F2243	F2244	F2245	F2246	F2247	F2248	F2249	F2250	F2251	F2252	F2253	F2254	F2255	F2256	F2257	F2258	F2259	F2260	F2261	F2262	F2263	F2264	F2265	F2266	F2267	F2268	F2269	F2270	F2271	F2272	F2273	F2274	F2275	F2276	F2277	F2278	F2279	F2280	F2281	F2282	F2283	F2284	F2285	F2286	F2287	F2288	F2289	F2290	F2291	F2292	F2293	F2294	F2295	F2296	F2297	F2298	F2299	F2300	F2301	F2302	F2303	F2304	F2305	F2306	F2307	F2308	F2309	F2310	F2311	F2312	F2313	F2314	F2315	F2316	F2317	F2318	F2319	F2320	F2321	F2322	F2323	F2324	F2325	F2326	F2327	F2328	F2329	F2330	F2331	F2332	F2333	F2334	F2335	F2336	F2337	F2338	F2339	F2340	F2341	F2342	F2343	F2344	F2345	F2346	F2347	F2348	F2349	F2350	F2351	F2352	F2353	F2354	F2355	F2356	F2357	F2358	F2359	F2360	F2361	F2362	F2363	F2364	F2365	F2366	F2367	F2368	F2369	F2370	F2371	F2372	F2373	F2374	F2375	F2376	F2377	F2378	F2379	F2380	F2381	F2382	F2383	F2384	F2385	F2386	F2387	F2388	F2389	F2390	F2391	F2392	F2393	F2394	F2395	F2396	F2397	F2398	F2399	F2400	F2401	F2402	F2403	F2404	F2405	F2406	F2407	F2408	F2409	F2410	F2411	F2412	F2413	F2414	F2415	F2416	F2417	F2418	F2419	F2420	F2421	F2422	F2423	F2424	F2425	F2426	F2427	F2428	F2429	F2430	F2431	F2432	F2433	F2434	F2435	F2436	F2437	F2438	F2439	F2440	F2441	F2442	F2443	F2444	F2445	F2446	F2447	F2448	F2449	F2450	F2451	F2452	F2453	F2454	F2455	F2456	F2457	F2458	F2459	F2460	F2461	F2462	F2463	F2464	F2465	F2466	F2467	F2468	F2469	F2470	F2471	F2472	F2473	F2474	F2475	F2476	F2477	F2478	F2479	F2480	F2481	F2482	F2483	F2484	F2485	F2486	F2487	F2488	F2489	F2490	F2491	F2492	F2493	F2494	F2495	F2496	F2497	F2498	F2499	F2500	F2501	F2502	F2503	F2504	F2505	F2506	F2507	F2508	F2509	F2510	F2511	F2512	F2513	F2514	F2515	F2516	F2517	F2518	F2519	F2520	F2521	F2522	F2523	F2524	F2525	F2526	F2527	F2528	F2529	F2530	F2531	F2532	F2533	F2534	F2535	F2536	F2537	F2538	F2539	F2540	F2541	F2542	F2543	F2544	F2545	F2546	F2547	F2548	F2549	F2550	F2551	F2552	F2553	F2554	F2555	F2556	F2557	F2558	F2559	F2560	F2561	F2562	F2563	F2564	F2565	F2566	F2567	F2568	F2569	F2570	F2571	F2572	F2573	F2574	F2575	F2576	F2577	F2578	F2579	F2580	F2581	F2582	F2583	F2584	F2585	F2586	F2587	F2588	F2589	F2590	F2591	F2592	F2593	F2594	F2595	F2596	F2597	F2598	F2599	F2600	F2601	F2602	F2603	F2604	F2605	F2606	F2607	F2608	F2609	F2610	F2611	F2612	F2613	F2614	F2615	F2616	F2617	F2618	F2619	F2620	F2621	F2622	F2623	F2624	F2625	F2626	F2627	F2628	F2629	F2630	F2631	F2632	F2633	F2634	F2635	F2636	F2637	F2638	F2639	F2640	F2641	F2642	F2643	F2644	F2645	F2646	F2647	F2648	F2649	F2650	F2651	F2652	F2653	F2654	F2655	F2656	F2657	F2658	F2659	F2660	F2661	F2662	F2663	F2664	F2665	F2666	F2667	F2668	F2669	F2670	F2671	F2672	F2673	F2674	F2675	F2676	F2677	F2678	F2679	F2680	F2681	F2682	F2683	F2684	F2685	F2686	F2687	F2688	F2689	F2690	F2691	F2692	F2693	F2694	F2695	F2696	F2697	F2698	F2699	F2700	F2701	F2702	F2703	F2704	F270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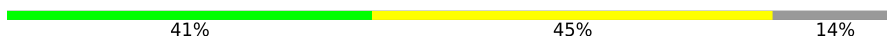


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E3022	V2855	PRO	S2774	S2774	PRO	GLN	F2577	GLN	Y2412	V2345	G2273	G2204	ALA	VAL
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LEU	Q2859	ASP	D2779	D2779	ASP	GLY	E2586	K2500	L2418	L2349	L2277	D2208	ARG	VAL
ASN	D2860	ASN	L2780	L2780	ASN	SER	F2586	D2504	K2418	K2350	G2278	E2209	ARG	MET
K3029	Q2864	LYS	P2781	P2781	LYS	SER	Q2587	D2504	V2421	Q2351	I2279	N2213	ARG	GLU
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K3048	L2885	ASP	Q2795	Q2795	ASP	ASP	H2527	E2528	Q2442	K2369	E2155	R2228	LEU	GLU
	R2891	HIS	A2796	A2796	HIS	GLN	L2529	E2528	L2446	Q2301	F2156	A2229	ALA	ALA
	R2891	THR	R2731	R2731	THR	ALA	T2529	T2529	F2371	Q2302	F2157	ASP	ASN	ASN
	R2891	SER	R2731	R2731	SER	SER	E2530	K2447	L2446	F2231	R2158	GLY	GLY	GLY
	R2891	PRO	R2731	R2731	PRO	GLN	L2531	P2448	P2373	R2232	F2159	LEU	ASP	ASP
	R2891	SER	R2731	R2731	SER	GLY	P2332	V2449	L2374	H2233	Y2160	ASN	SER	SER
	R2891	THR	R2731	R2731	THR	THR	S2533	E2450	A2375	N2234	W2164	R2090	ASP	ASP
	R2891	LEU	R2731	R2731	LEU	LEU	N2534	L2451	D2376	L2235		C2093	GLY	GLY
	R2891	SER	R2731	R2731	SER	SER				R2377	L2165		PRO	PRO



● Molecule 1: DNA-dependent protein kinase catalytic subunit

Chain F:



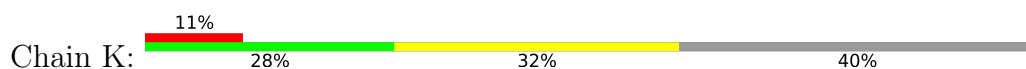
P986	E916	L848	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1848	E916	L1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GLU	L1939	L1872	E1803	P1730	K1651	L1572	CYS	K1422	V1356	L1282	L1212	K1061
ILE	Y1940	Y1873	M1804		L1652	K1573	LEU	I1423	W1356		K1213	R1062
ARG	F1805	Y1874	F1805	T1733	L1653	K1573	PRO	T1424	L1357	S1289	K1146	L1063
LYS	K1875	K1875	R1806		D1576	D1576	SER	A1425	L1358		E1215	Y1064
GLU	C1947	I1876	ASP	F1736	F1661	V1579	D1504	S1427	K1360	K1292	F1219	A1067
ALA	A1948	L1877	LYS	M1737	M1662	L1580	L1505	I1428	L1361	LEU	L1220	
ARG	I1949	D1878	ASP	W1738	T1663	E1581	S1506		D1362			P1070
GLU	S1960	Y1879	PRO	Y1739	S1664	L1582	C1507		H1367	T1223	T1223	N1071
ALA	V1951	M1880	ARG	V1740	H1665	M1583	S1506	L1431	M1368	F1296	F1224	F1072
ASN	I1952	Y1881	LEU	M1743	G1666	Q1584	C1507		E1299	F1297		K1074
ASN	C1953	S1882	SER	M1743	S1667	Q1584	Q1509		S1300		P1232	R1075
GLY	F1956	R1883	PHE	K1744	E1670	D1588	L1510	D1440				L1076
ASP	L1884	L1884	T1815	K1745		M1589	A1511	A1441				G1077
SER	P1885	P1885	R1816	F1746		M1589	S1512	Q1442				
ASP		LYS	Q1817	F1746	T1674	M1589	G1513	A1441	M1369		Q1231	
GLY	K1960	ASP	S1818	L1747	Y1675	L1590	L1514	D1444	L1372	L1163		A1081
PRO	F1961	ASP	F1819	D1748		K1591	L1514	R1444	L1370	C1164		F1082
Q1962	Y1962	ASP	F1820	A1749	L1678	M1592	L1515	S1446	L1374	L1165		
Q1963	GLY	VAL	W1820	L1750	L1678	V1593	E1516	R1447	Q1375	L1166		
TYR		HIS	D1821	E1751	L1679	S1594	L1517	L1448	L1376	L1167		N1083
MET	PHE	ALA	R1822	L1762		A1595	A1518		C1377	L1168		N1084
SER	L1815	LYS	S1823	S1753	K1683	V1596	A1518	V1452	E1378	V1169		I1085
LYS	R1816	LYS	L1824	Q1754	D1685	L1597	F1521	S1453	P1379	K1170		Y1086
GLU	Q1817	GLU	L1824	S1755	D1685	L1597		A1454	A1380	W1171		R1087
SER	S1818	SER	L1824	S1755	L1686	M1600	R1527	C1455		C1172		
LYS	Y1879	LYS	L1828	M1756	H1687	L1601	L1528	K1456	I1382	TYR		R1090
ASN	W1820	ASN	W1829	M1757	L1688	D1602	Y1529	Q1457	G1383	LEU		E1091
PRO	H1830	ASN	H1830	L1758	K1689	Q1603	S1530	Q1457	F1384	ARG		E1092
ALA	D1834	GLN	D1834	M1762	K1689	S1604	L1531	H1458	M1385	GLY		E1093
GLN	A1835	VAL	A1835		Q1691	F1605	L1531	H1459		ALA		S1094
ASN	L1836	PHE	L1836	L1766	A1692	F1605	M1534	A1461	D1388	ALA		L1095
HIS	R1837	GLY	R1837	C1767	V1693	R1608	M1534	A1461	V1389	ASN		V1096
GLY	E1838	SER	E1838	R1768	T1694	A1609	L1538	H1465	M1392	ARG		E1097
CYS	E1769	CYS	E1769	E1769		M1610	S1539	H1466		THR		Q1098
ILE	Q1770	ILE	Q1770	Q1771	F1697	Q1611	T1540	I1467		GLY		E1098
THR	H1772	THR	H1772	H1772	F1698	Q1611	ALA	L1468	L1395	PRO		F1099
GLU	V1773	GLU	V1773	F1699	F1699	Q1614	SER	L1468	D1396	ALA		V1100
GLY		GLY		THR	THR		LEU	Q1471	P1397	PHE		F1101
ASP		ASP		SER	SER	K1617	GLY	D1474	V1398			L1104
PRO	D1849	PRO	D1849		LEU		SER	L1475	C1399			M1108
ARG	V1850	ARG	V1850	E1775	THR	T1620	SER	H1476	V1400			L1111
LYS	L1851	LYS	L1851	E1776	THR		GLN	H1477	N1401			K1193
ALA	K1852	ALA	K1852	L1777	GLY	Q1624	GLY	H1477	L1402			F1194
SER	SER	SER	SER	F1778	GLY	H1625	SER	H1478	L1261			H1115
ARG	ARG	ARG	ARG	Q1779	GLY	W1626	V1550	V1479	A1263			H1115
PHE	PHE	PHE	PHE	S1780	SER	K1628	V1551	G1480	L1264			K1119
THR	THR	THR	THR	S1781	E1708	K1628	H1552	T1481	C1266			L1197
LYS	LYS	LYS	LYS	F1782	E1709	W1633	F1553	E1482	Y1267			I1124
ASN	ASN	ASN	ASN	R1783	L1710	A1634	H1553	L1483	T1268			Q1125
GLU	GLU	GLU	GLU	R1784	R1711	W1633	F1553	L1484	V1337			G1200
VAL	VAL	VAL	VAL	I1785	R1712	A1634		L1484	T1269			W1201
GLN	GLN	GLN	GLN	A1786	V1713	K1635	G1556		F1270			I1131
ARG	ARG	ARG	ARG	R1787	L1714		E1557	V1487	I1271			D1132
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THR	T1865	GLN	T1865		P1723		S1561	PRO	F1344			L1206
VAL	VAL	LEU	VAL	Q1794	M1724	K1642	L1562	GLY	T1345			W1207
ALA	ALA	ALA	ALA	V1795	S1726			ASP	V1276			L1208
GLY	GLY	GLY	GLY		R1727			GLU	G1277			L1203
ASP	ASP	ASP	ASP					ARG	A1278			W1142
PRO	PRO	PRO	PRO					GLN	V1281			V1143
THR	THR	THR	THR									S1144
VAL	VAL	VAL	VAL									
ILE	ILE	ILE	ILE									
GLU	L2100	G1872	E1803	P1730	K1651	L1572	CYS	K1422	V1356	L1282	L1212	K1061
LEU	V2101	Y1873	M1804		L1652	K1573	LEU	I1423	W1356		K1213	R1062
MET	F1941	Y1874	F1805	T1733	L1653	K1573	PRO	T1424	L1357	S1289	K1146	L1063
ASP	C1947	I1876	R1806		D1576	D1576	SER	A1425	L1358		E1215	Y1064
GLU	A1948	L1877	ASP	F1736	F1661	V1579	D1504	S1427	K1360	K1292	F1219	A1067
ARG	I1949	D1878	ASP	W1738	T1663	L1580	L1505	I1428	L1361	LEU	L1220	
ASN	S1960	Y1879	PRO	Y1739	S1664	E1581	S1506		D1362			P1070
P2090	V1951	M1880	ARG	V1740	H1665	L1582	C1507		H1367	T1223	T1223	N1071
ALA	I1952	Y1881	LEU	M1743	G1666	M1583	S1506	L1431	M1368	F1296	F1224	F1072
ASN	S1882	S1882	SER	M1743	S1667	Q1584	C1507		E1299	F1297		K1074
GLY	R1883	R1883	PHE	K1744	E1670	D1588	Q1509		S1300			R1075
ASP	L1884	L1884	T1815	K1745		M1589	L1510	D1440				L1076
SER	P1885	P1885	R1816	F1746		M1589	A1511	A1441				G1077
ASP		LYS	Q1817	F1746	T1674	M1589	S1512	Q1442				
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PRO	F1961	ASP	F1819	D1748		K1591	L1514	D1444	L1372	L1163		A1081
Q1962	Y1962	ASP	F1820	A1749	L1678	M1592	L1515	R1444	L1370	C1164		F1082
Q1963	GLY	VAL	W1820	L1750	L1678	V1593	E1516	S1446	L1374	L1165		
TYR		HIS	D1821	E1751	L1679	S1594	L1517	R1447	Q1375	L1166		
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SER	L1815	LYS	S1823	S1753	K1683	V1596	A1518		C1377	L1168		N1084
LYS	R1816	LYS	L1824	Q1754	D1685	L1597	F1521	V1452	E1378	V1169		I1085
GLU	Q1817	GLU	L1824	S1755	D1685	L1597		S1453	P1379	K1170		Y1086
SER	S1818	SER	L1824	S1755	L1686	M1600	R1527	A1454	A1380	W1171		R1087
LYS	Y1879	LYS	L1828	M1756	H1687	L1601	L1528	C1455		C1172		
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GLN	A1835	VAL	A1835		Q1691	F1605	L1531	H1459	M1385	ALA		S1094
GLY	L1836	PHE	L1836	L1766	A1692	F1605	M1534	A1461	D1388	ALA		L1095
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ARG	V1850	ARG	V1850	E1775	THR		SER	L1475	C1399			M1108
LYS	L1851	LYS	L1851	E1776	THR	T1620	SER	H1476	V1400			L1111
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THR	SER	SER	SER	F1778	GLY	H1625	SER	H1478	L1261			F1194
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VAL	VAL	VAL	VAL	I1785	R1712	A1634		L1484	T1269			W1201
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ARG	ARG	ARG	ARG	R1787	L1714		E1557	V1487	I1271			D1132
ASP	T1862	GLY	T1862	R1788	E1715	L1639	Y1558		G1272			S1203
PRO	F1863	GLU	F1863	G1789		E1640	F1559	I				

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PRO	S3124	L3049	L2897	F2809	L2728	VAL	GLU	E2528	R2452	R2378	V2304	E2236	P2169
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ARG	I3145	I3145	V2920	F2840	E2757	ARG	ALA	H2552	Y2474	L2325		L2255	E2180
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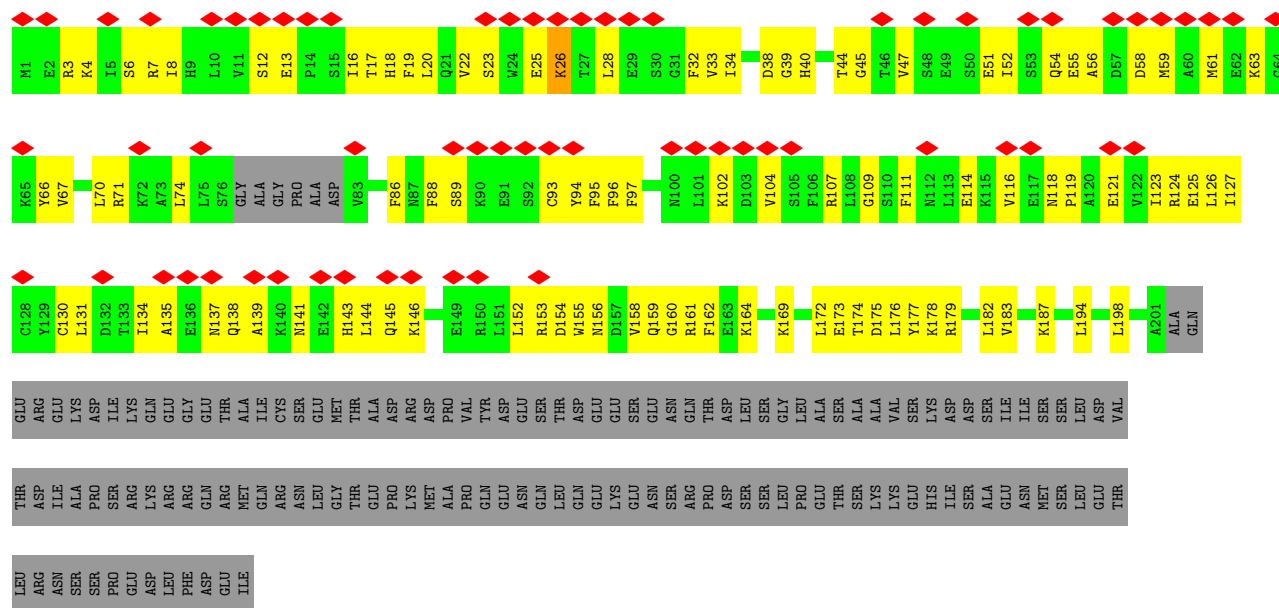
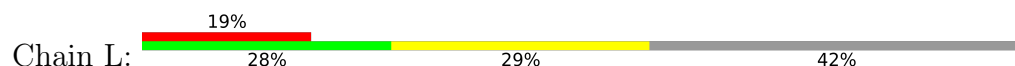
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● Molecule 2: DNA repair protein XRCC4

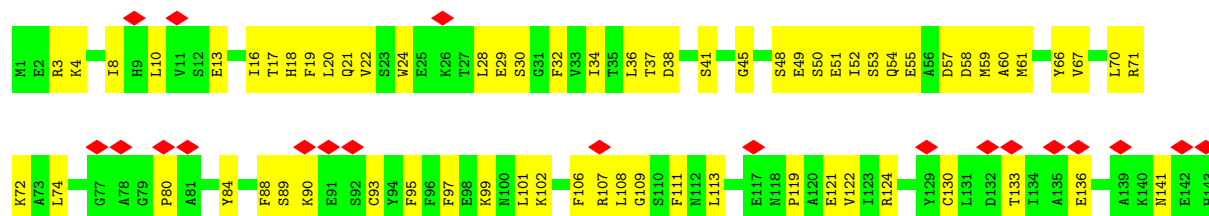
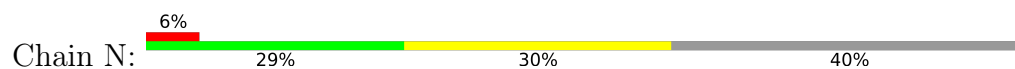


M1	E2	K3	R4	R7	I8	V11	P14	S15	I16	H18	F19	L20	Q21	V22	S23	W24	E25	K26	T27	L28	E29	S30	G31	F32	V33	I34	T35	H40	S41	A42	V43	T44	G45	T46	V47	S48	E49	S50	I51	I52	S53	Q54	E55	A56	M59	A60	P61	E62	K63	G64	R71	K72
----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

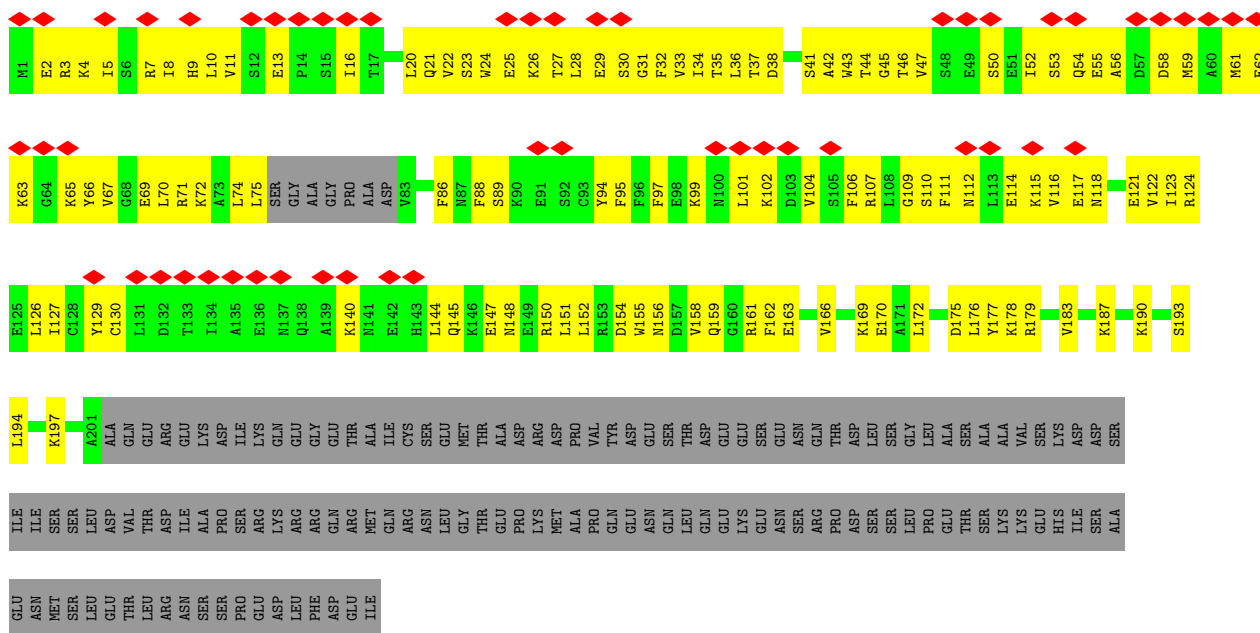
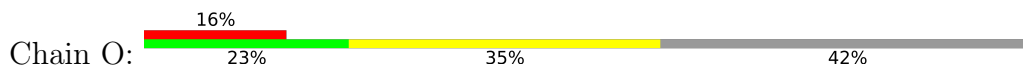
- Molecule 2: DNA repair protein XRCC4



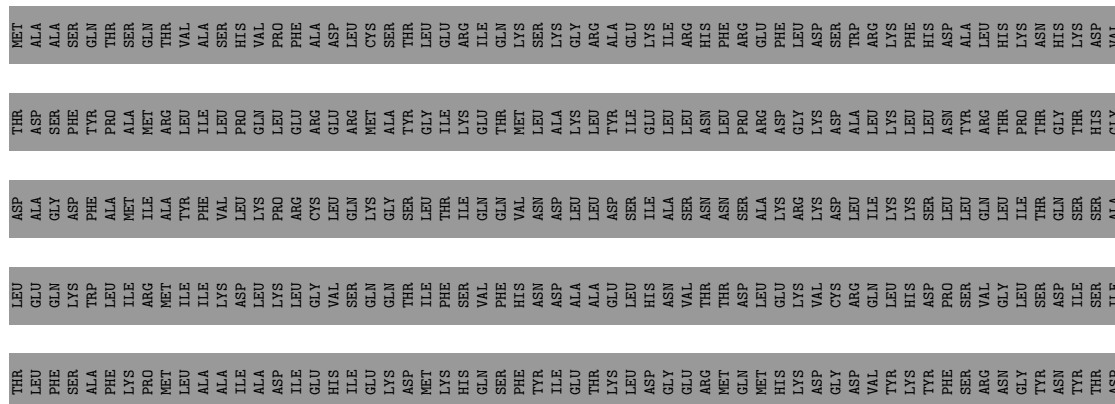
- Molecule 2: DNA repair protein XRCC4



- Molecule 2: DNA repair protein XRCC4



- Molecule 3: DNA ligase 4



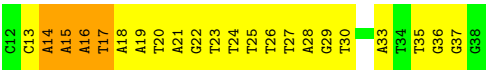


[illegible]

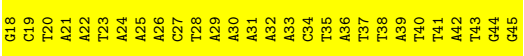
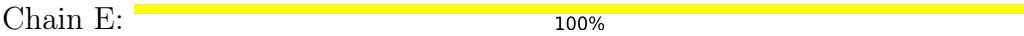




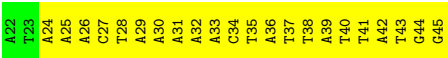
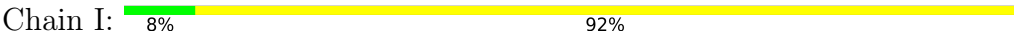




• Molecule 9: DNA (27-MER)



• Molecule 10: DNA (28-MER)



• Molecule 11: DNA (24-MER)



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	11019	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	48.03	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	130000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.720	Depositor
Minimum map value	-0.164	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.026	Depositor
Recommended contour level	0.168	Depositor
Map size (Å)	678.08, 678.08, 678.08	wwPDB
Map dimensions	520, 520, 520	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.304, 1.304, 1.304	Depositor

## 5 Model quality

### 5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.30	0/28804	0.50	0/38906
1	F	0.30	0/28820	0.50	1/38928 (0.0%)
2	K	0.26	0/1657	0.48	0/2228
2	L	0.26	0/1616	0.50	0/2170
2	N	0.27	0/1654	0.50	0/2224
2	O	0.27	0/1616	0.50	0/2170
3	M	0.28	0/2134	0.48	0/2884
3	P	0.28	0/2028	0.51	0/2737
4	Q	0.28	0/1778	0.55	0/2403
4	R	0.27	0/1831	0.56	0/2476
5	a	0.29	0/4116	0.51	0/5549
5	h	0.29	0/4105	0.50	0/5538
6	b	0.27	0/5313	0.48	0/7159
6	j	0.28	0/5178	0.49	1/6979 (0.0%)
7	c	0.29	0/169	0.38	0/226
7	i	0.28	0/166	0.38	0/222
8	D	0.70	0/622	1.16	4/959 (0.4%)
9	E	0.70	0/647	0.96	0/996
10	I	0.72	0/555	1.00	0/854
11	J	0.80	0/548	1.15	1/844 (0.1%)
All	All	0.31	0/93357	0.53	7/126452 (0.0%)

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	D	14	DA	P-O3'-C3'	-8.45	109.56	119.70
8	D	17	DT	P-O3'-C3'	-8.05	110.04	119.70
8	D	16	DA	P-O3'-C3'	-7.49	110.71	119.70
1	F	956	PRO	N-CA-CB	6.07	110.58	103.30
11	J	31	DT	O4'-C4'-C3'	-5.70	102.22	104.50
8	D	15	DA	P-O3'-C3'	-5.67	112.90	119.70
6	j	389	MET	CB-CG-SD	-5.13	97.00	112.40

There are no chirality outliers.

There are no planarity outliers.

## 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	A	28250	0	28465	1559	0
1	F	28263	0	28500	1573	0
2	K	1628	0	1620	123	0
2	L	1589	0	1581	99	0
2	N	1625	0	1612	120	0
2	O	1589	0	1587	120	0
3	M	2085	0	2024	144	0
3	P	1983	0	1924	130	0
4	Q	1745	0	1754	132	0
4	R	1796	0	1814	143	0
5	a	4038	0	4092	0	0
5	h	4026	0	4069	0	0
6	b	5214	0	5231	0	0
6	j	5082	0	5069	0	0
7	c	165	0	160	0	0
7	i	162	0	151	0	0
8	D	556	0	310	58	0
9	E	576	0	318	53	0
10	I	494	0	273	44	0
11	J	491	0	278	45	0
All	All	91357	0	90832	4131	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 29.

All (4131) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2440:TYR:HA	1:F:2443:MET:HE3	1.39	1.01
1:F:1269:THR:O	1:F:1273:GLU:HB2	1.66	0.95
1:F:1268:ASN:HD21	1:F:1344:PHE:HA	1.34	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2225:HIS:HB2	1:F:2231:PHE:HB2	1.51	0.91
4:Q:131:VAL:HG12	4:R:44:VAL:HG22	1.50	0.91
2:O:3:ARG:HE	2:O:23:SER:HB3	1.34	0.90
1:F:1878:ASP:HB3	1:F:1947:CYS:HA	1.54	0.89
1:F:139:ARG:HA	1:F:142:ARG:HH21	1.36	0.88
1:A:3301:LEU:HG	1:A:3305:SER:H	1.37	0.87
1:F:2126:MET:O	1:F:2130:HIS:HB2	1.74	0.87
1:A:1300:SER:HA	1:A:1304:HIS:HB2	1.57	0.87
1:A:1071:ASN:HD21	1:A:1073:PHE:HB2	1.38	0.86
2:O:94:TYR:HE1	2:O:111:PHE:HB2	1.38	0.86
1:A:2925:GLU:HA	1:A:2928:LYS:HE3	1.58	0.86
1:A:2225:HIS:HB2	1:A:2231:PHE:HB2	1.57	0.85
1:F:1452:VAL:HG22	1:F:1517:LEU:HD11	1.58	0.85
1:A:1206:LEU:HA	1:A:1209:LYS:HD3	1.59	0.84
1:A:3029:LYS:N	1:A:3032:SER:HG	1.76	0.84
1:A:3796:MET:H	1:A:3801:GLY:HA2	1.42	0.84
1:F:3011:LEU:HB3	1:F:3047:SER:HB2	1.60	0.84
2:K:8:ILE:HG21	2:K:20:LEU:HB2	1.60	0.83
3:P:814:ARG:H	3:P:850:ALA:N	1.77	0.83
1:F:1583:MET:HG3	1:F:1625:HIS:HB3	1.60	0.82
1:A:3835:PRO:HA	1:A:3839:TYR:HB2	1.59	0.82
4:Q:130:LEU:HA	4:R:42:GLN:HA	1.60	0.82
1:F:3422:GLN:HE22	1:F:3423:GLN:HE21	1.24	0.81
1:A:1071:ASN:HD22	1:A:1074:LYS:HG3	1.43	0.81
2:O:50:SER:H	2:O:54:GLN:HE21	1.29	0.81
1:F:1871:MET:HE1	1:F:1940:TYR:HA	1.60	0.80
4:Q:132:SER:HA	4:R:40:ASP:H	1.46	0.80
1:F:334:HIS:HA	1:F:337:LYS:HE3	1.64	0.80
1:F:168:ASP:H	1:F:171:LEU:HD12	1.46	0.80
1:F:361:ILE:HD13	1:F:364:ARG:HH21	1.45	0.80
2:N:95:PHE:HB3	2:N:111:PHE:HB2	1.62	0.79
1:F:901:MET:HG2	1:F:903:PRO:HD3	1.63	0.79
1:A:2891:ARG:HG2	1:A:3894:PRO:HB3	1.63	0.79
1:F:2806:LYS:HE2	1:F:2857:CYS:HB2	1.64	0.79
4:R:24:LEU:HB2	4:R:38:VAL:HG13	1.63	0.79
1:F:414:LEU:HB2	1:F:460:ALA:HB1	1.64	0.78
1:A:2174:SER:HB3	1:A:2214:ARG:HH12	1.46	0.78
1:F:1115:HIS:HE1	1:F:1183:CYS:H	1.27	0.78
9:E:30:DA:OP1	9:E:31:DA:N6	2.17	0.78
1:F:2551:GLU:HA	1:F:2554:PHE:HB2	1.65	0.78
2:N:173:GLU:HB2	2:O:172:LEU:HD21	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2433:LYS:HG3	1:A:2472:GLN:HE22	1.46	0.78
1:A:2965:TYR:HB3	1:A:3001:CYS:HB2	1.63	0.78
1:A:67:VAL:HA	1:A:71:LYS:HZ1	1.49	0.78
1:A:864:GLY:H	1:A:3169:PRO:HA	1.48	0.78
1:A:1201:ASN:HB2	1:A:1207:TRP:HB2	1.65	0.78
1:F:3301:LEU:HB3	1:F:3304:VAL:HA	1.66	0.78
2:O:28:LEU:HD11	2:O:71:ARG:HA	1.63	0.77
1:A:1172:LEU:HD11	1:A:1187:SER:HB2	1.65	0.77
2:N:124:ARG:HD3	2:O:16:ILE:HG21	1.67	0.77
4:R:16:LEU:HD13	4:R:106:LEU:HD11	1.67	0.77
1:A:3750:PHE:HB3	1:A:3802:LEU:HD11	1.65	0.77
1:A:167:PRO:HA	1:A:171:LEU:HD12	1.66	0.77
10:I:40:DT:H3	11:J:18:DA:H8	1.29	0.77
1:F:1070:PRO:HG2	1:F:3715:TYR:HB3	1.65	0.77
2:O:28:LEU:HD22	2:O:74:LEU:HB2	1.67	0.77
1:A:2948:GLY:HA3	1:A:2954:GLN:HE21	1.50	0.77
1:F:3162:ASN:ND2	1:F:3234:CYS:SG	2.59	0.76
1:F:3512:VAL:HA	1:F:3515:GLN:HE21	1.49	0.76
1:A:3958:LEU:HG	1:A:4060:THR:HG21	1.68	0.76
2:O:99:LYS:HE3	2:O:101:LEU:HB2	1.68	0.76
4:Q:129:SER:HA	4:R:44:VAL:HB	1.68	0.76
1:F:2572:TYR:HE1	1:F:2791:ILE:HD11	1.50	0.76
1:A:3639:GLU:HA	1:A:3642:LYS:HE3	1.68	0.76
1:A:2791:ILE:HA	1:A:2794:LEU:HD12	1.67	0.75
2:O:22:VAL:HG23	2:O:35:THR:H	1.50	0.75
1:A:1685:ASP:HB3	1:A:1688:LEU:HG	1.68	0.75
1:F:3574:ALA:HB1	1:F:3681:LYS:HE2	1.68	0.75
8:D:27:DT:H2"	8:D:28:DA:C5	2.21	0.75
1:A:3359:ILE:HA	1:A:3362:LEU:HB3	1.69	0.75
1:F:1934:LEU:HD13	1:F:1937:ARG:HE	1.51	0.75
1:A:90:CYS:SG	1:A:133:LYS:NZ	2.60	0.74
2:K:24:TRP:HA	2:K:33:VAL:H	1.52	0.74
3:P:800:GLU:HA	3:P:805:TRP:HB2	1.69	0.74
1:A:105:VAL:O	1:A:108:LYS:HB3	1.88	0.74
2:L:96:PHE:HA	2:L:109:GLY:HA3	1.68	0.74
1:F:2526:SER:HA	1:F:2531:LEU:HD12	1.67	0.74
1:A:3084:GLN:HE22	1:A:3134:ALA:HB1	1.53	0.74
1:A:3638:LYS:HZ3	1:A:3642:LYS:HE2	1.53	0.74
3:M:719:ASP:HA	3:M:746:MET:HA	1.69	0.74
1:A:197:PHE:O	1:A:246:ARG:NH2	2.21	0.74
1:F:2981:TRP:HD1	1:F:2985:GLU:HG2	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:45:GLY:HA3	2:K:113:LEU:HD13	1.70	0.74
1:F:1296:PHE:HA	1:F:1299:GLU:HG2	1.68	0.74
1:F:919:LEU:HG	1:F:920:THR:HG23	1.68	0.74
1:A:3559:LYS:HA	1:A:3562:LEU:HG	1.70	0.74
3:P:902:GLU:OE1	3:P:904:GLN:NE2	2.20	0.74
1:A:1590:THR:HG21	1:A:1641:THR:HG23	1.70	0.73
1:F:72:SER:H	1:F:82:ARG:NH2	1.85	0.73
1:A:1686:LEU:HA	1:A:1689:LYS:HD2	1.70	0.73
1:A:2367:VAL:O	1:A:2371:PHE:N	2.21	0.73
1:A:1805:PHE:HZ	1:A:1869:LYS:HA	1.52	0.73
9:E:44:DG:H2''	9:E:45:DG:H3'	1.70	0.73
1:A:1766:LEU:HD11	1:A:1775:GLU:HG2	1.71	0.73
1:F:785:MET:HA	1:F:788:TYR:CZ	2.23	0.73
1:F:3269:ARG:HB2	1:F:3272:TRP:HB3	1.69	0.73
3:M:797:ALA:HB2	3:M:814:ARG:HB3	1.70	0.73
1:F:2940:ARG:NH2	1:F:3978:GLY:O	2.21	0.73
2:K:97:PHE:H	2:K:109:GLY:HA3	1.51	0.73
1:A:2893:LEU:HD23	1:A:2926:LEU:HG	1.70	0.73
2:O:163:GLU:HA	3:P:846:ARG:HH22	1.53	0.73
1:A:3831:ASP:HB3	1:A:3832:PRO:HD3	1.71	0.73
1:A:2138:VAL:O	1:A:2143:ARG:NH2	2.22	0.73
1:F:675:ARG:HA	1:F:678:LYS:HE2	1.70	0.73
1:F:3048:LYS:HA	1:F:3051:LEU:HD12	1.71	0.73
3:P:814:ARG:H	3:P:850:ALA:H	1.37	0.73
1:A:3301:LEU:HB3	1:A:3304:VAL:HA	1.71	0.72
1:F:1420:ARG:NH2	1:F:1465:HIS:O	2.21	0.72
2:K:17:THR:H	2:L:124:ARG:HE	1.35	0.72
4:Q:185:GLU:HG3	4:Q:188:SER:HB3	1.71	0.72
1:A:3354:ASP:O	1:A:3358:ARG:NH1	2.22	0.72
1:A:3898:LEU:HD22	1:A:3901:ARG:HH21	1.52	0.72
2:K:1:MET:HG2	2:K:23:SER:HB2	1.72	0.72
2:O:31:GLY:H	2:O:52:ILE:HG21	1.54	0.72
1:F:3982:SER:O	1:F:3986:HIS:ND1	2.22	0.72
4:Q:136:ILE:HG23	4:Q:139:LEU:HD23	1.71	0.72
1:F:1751:GLU:O	1:F:1788:ARG:NH1	2.22	0.72
1:A:901:MET:HG2	1:A:903:PRO:HD3	1.72	0.72
1:A:2133:LEU:HD11	1:A:2171:LEU:HD22	1.71	0.72
1:F:3380:ARG:O	1:F:3384:HIS:ND1	2.23	0.72
1:A:128:LEU:HD21	1:A:170:VAL:HB	1.72	0.72
1:A:4055:ASN:HB2	1:A:4095:GLU:HA	1.70	0.72
1:F:3713:PRO:O	1:F:3716:HIS:NE2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:210:PHE:HA	4:R:214:LEU:HD12	1.72	0.72
1:F:988:VAL:HA	1:F:991:LEU:HD12	1.70	0.72
1:F:2967:GLU:O	1:F:2971:GLN:NE2	2.21	0.72
1:F:3278:GLN:HB3	1:F:3282:ARG:HH12	1.54	0.72
1:A:415:GLN:O	1:A:463:LYS:NZ	2.22	0.72
1:F:899:ARG:HH22	1:F:2566:THR:HA	1.55	0.72
1:F:415:GLN:O	1:F:463:LYS:NZ	2.23	0.71
2:K:29:GLU:HA	2:K:52:ILE:HG21	1.72	0.71
1:F:958:MET:HB3	1:F:961:LEU:HB3	1.71	0.71
4:R:131:VAL:HG13	4:R:135:LEU:HD22	1.71	0.71
4:R:142:MET:HA	4:R:221:VAL:HG22	1.71	0.71
1:A:1169:VAL:HG11	1:A:1198:LEU:HD11	1.70	0.71
1:F:1821:ASP:OD1	1:F:1875:LYS:NZ	2.23	0.71
3:M:887:LYS:HG2	3:M:911:ILE:HG23	1.72	0.71
1:A:3718:ARG:H	1:A:3743:HIS:CE1	2.08	0.71
3:M:809:PRO:O	3:M:848:HIS:ND1	2.23	0.71
2:N:10:LEU:HD21	2:N:18:HIS:HD2	1.55	0.71
1:A:793:LEU:HD12	1:A:869:ASN:HB2	1.71	0.71
1:F:847:SER:N	1:F:850:GLU:OE2	2.23	0.71
1:F:1210:ASP:HA	1:F:1213:LYS:HD2	1.72	0.71
3:P:841:LYS:HD3	3:P:867:GLU:H	1.54	0.71
1:A:2577:PHE:O	1:A:2784:GLN:NE2	2.24	0.71
1:F:933:LEU:HB2	1:F:2793:PRO:HB2	1.72	0.71
1:F:2298:GLU:HG2	1:F:2301:GLN:HB3	1.72	0.71
4:Q:156:LEU:HG	4:Q:160:LYS:HD2	1.73	0.71
1:F:3090:TYR:HB3	1:F:3095:ASP:HB3	1.73	0.71
1:A:3811:THR:HG23	1:A:3814:ASP:H	1.55	0.71
1:F:469:ALA:HA	1:F:475:LEU:HD13	1.73	0.71
1:F:1045:THR:HB	1:F:1048:GLN:HG2	1.72	0.71
1:A:1028:PHE:HA	1:A:1031:ARG:HE	1.55	0.70
1:F:2380:ASN:OD1	1:F:2381:ALA:N	2.23	0.70
2:N:102:LYS:HZ2	4:Q:79:LEU:HD13	1.56	0.70
1:A:449:TYR:O	1:A:454:GLN:NE2	2.24	0.70
1:A:455:LEU:HB2	1:A:459:ARG:HH21	1.55	0.70
1:A:1611:GLN:NE2	1:A:1614:GLN:OE1	2.24	0.70
2:O:10:LEU:HB3	2:O:13:GLU:H	1.56	0.70
1:A:527:TYR:O	1:A:530:LEU:HB3	1.91	0.70
1:A:1766:LEU:O	1:A:1822:ARG:NH1	2.24	0.70
2:L:158:VAL:HA	2:L:161:ARG:HG2	1.72	0.70
2:N:192:ARG:NH2	3:P:768:ASP:OD1	2.25	0.70
4:Q:130:LEU:CA	4:R:42:GLN:HA	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:718:MET:HB2	1:A:726:LEU:HD11	1.74	0.70
1:A:4115:ASN:OD1	1:A:4116:ILE:N	2.23	0.70
4:Q:132:SER:HA	4:R:40:ASP:N	2.05	0.70
1:F:89:LEU:HB3	1:F:133:LYS:HE2	1.74	0.70
1:F:1307:ILE:HG23	1:F:1309:ALA:H	1.55	0.70
1:F:1934:LEU:HD22	1:F:1937:ARG:HH21	1.56	0.70
4:R:36:LEU:O	4:R:46:HIS:NE2	2.25	0.70
1:A:908:ASP:HA	1:A:911:LEU:HD23	1.73	0.70
1:A:1117:ASP:O	1:A:1119:LYS:NZ	2.21	0.70
1:A:3581:PRO:HB2	1:A:3617:LEU:HD11	1.74	0.70
1:F:1047:GLN:HG3	1:F:1051:LYS:HZ1	1.57	0.70
1:F:1071:ASN:HD21	1:F:1073:PHE:HB2	1.55	0.70
3:P:671:ASP:HB3	3:P:723:PRO:HG3	1.74	0.70
1:A:1867:ILE:HA	1:A:1870:LYS:HD2	1.74	0.70
1:F:2157:PHE:HB2	1:F:2160:TYR:HB3	1.74	0.70
1:F:2891:ARG:HD3	1:F:3898:LEU:HD11	1.73	0.70
1:F:3681:LYS:HD3	1:F:3687:MET:HG3	1.73	0.70
1:A:2514:ASN:HD22	1:A:2517:LEU:HG	1.56	0.70
1:F:2327:LEU:O	1:F:2333:ARG:NH2	2.24	0.70
2:K:128:CYS:HA	2:L:7:ARG:HH12	1.56	0.70
10:I:36:DA:H2	11:J:22:DG:H1	1.37	0.70
1:A:2127:LYS:NZ	1:A:2160:TYR:OH	2.24	0.69
1:F:449:TYR:O	1:F:454:GLN:NE2	2.24	0.69
1:A:142:ARG:NH2	1:A:181:LEU:O	2.25	0.69
1:A:2526:SER:O	1:A:2538:ARG:NH2	2.26	0.69
1:A:3608:LYS:HG3	1:A:3612:ARG:HE	1.57	0.69
1:F:1568:ASN:HD22	1:F:1603:GLN:HB2	1.57	0.69
1:F:1766:LEU:HD11	1:F:1775:GLU:HG2	1.73	0.69
2:K:96:PHE:HA	2:K:110:SER:H	1.57	0.69
1:A:3465:PHE:HA	1:A:3468:LEU:HD12	1.72	0.69
1:F:2260:PHE:O	1:F:2270:ASN:ND2	2.24	0.69
2:N:3:ARG:HH22	2:N:122:VAL:HG23	1.57	0.69
1:A:1803:GLU:HA	1:A:1806:ARG:HH21	1.56	0.69
1:A:2967:GLU:HA	1:A:2970:LYS:HE2	1.74	0.69
1:F:3266:SER:HB3	1:F:3273:LEU:HA	1.72	0.69
1:F:3928:PHE:HE1	1:F:3962:ARG:HG3	1.57	0.69
3:M:809:PRO:HA	3:M:812:MET:HE3	1.73	0.69
9:E:26:DA:C2	9:E:27:DC:H2'	2.28	0.69
10:I:40:DT:N3	11:J:18:DA:H8	1.91	0.69
1:A:93:LEU:HD22	1:A:136:GLN:HB3	1.75	0.69
1:F:2274:ILE:HA	1:F:2277:LEU:HD12	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:715:ALA:O	1:A:719:LYS:NZ	2.24	0.69
1:A:1139:GLU:HA	1:A:1197:LEU:HD11	1.75	0.69
1:F:2168:LEU:O	1:F:2172:ALA:N	2.24	0.69
1:F:3114:TYR:HA	1:F:3117:ILE:HD12	1.73	0.69
1:F:3740:ILE:O	1:F:3748:HIS:N	2.22	0.69
1:F:3811:THR:HG23	1:F:3814:ASP:H	1.58	0.69
2:N:22:VAL:HG11	2:N:71:ARG:HH12	1.57	0.69
4:Q:136:ILE:HA	4:Q:139:LEU:HB3	1.74	0.69
1:A:4008:GLU:HG3	1:A:4011:PHE:HB2	1.72	0.69
1:F:105:VAL:O	1:F:109:ASN:ND2	2.25	0.69
1:F:3554:PHE:HA	1:F:3557:ARG:HE	1.58	0.69
1:F:3796:MET:H	1:F:3801:GLY:HA2	1.58	0.69
1:A:3123:GLN:OE1	1:A:3123:GLN:N	2.24	0.69
1:F:802:THR:O	1:F:852:ARG:NH1	2.25	0.69
1:F:1379:PRO:O	1:F:1382:ILE:HG12	1.92	0.69
3:P:681:ARG:HH21	3:P:730:PHE:HB3	1.57	0.69
1:F:1156:GLY:O	1:F:1171:TRP:NE1	2.25	0.68
1:F:3609:MET:HA	1:F:3612:ARG:HE	1.56	0.68
1:F:3913:ILE:HD12	1:F:3984:MET:HB2	1.74	0.68
1:A:1829:TRP:O	1:A:1883:ARG:NH2	2.26	0.68
2:K:187:LYS:HA	2:K:190:LYS:HD2	1.75	0.68
2:N:174:THR:HG22	2:N:178:LYS:HZ2	1.57	0.68
4:Q:144:LEU:HG	4:R:214:LEU:HD11	1.75	0.68
1:A:2510:LEU:O	1:A:2518:GLN:NE2	2.26	0.68
1:A:3311:ASN:HB2	1:A:3314:SER:HA	1.75	0.68
1:F:2928:LYS:O	1:F:2932:SER:N	2.25	0.68
4:R:136:ILE:HG23	4:R:139:LEU:HD12	1.76	0.68
1:F:753:GLN:HE22	1:F:792:ILE:HA	1.56	0.68
1:F:1196:PRO:HG3	1:F:1203:SER:HB2	1.74	0.68
1:F:1415:LEU:O	1:F:1419:LEU:N	2.22	0.68
3:M:819:TYR:HB3	3:M:863:VAL:HG22	1.76	0.68
10:I:29:DA:H1'	10:I:30:DA:C8	2.28	0.68
1:A:1397:ASP:OD1	1:A:1398:VAL:N	2.26	0.68
1:A:2437:ASP:OD1	1:A:2472:GLN:NE2	2.26	0.68
1:A:3110:PHE:HE1	1:A:3128:LYS:HG3	1.59	0.68
1:F:1528:LEU:HD23	1:F:1531:LEU:HD12	1.74	0.68
1:F:1851:LEU:O	1:F:1870:LYS:NZ	2.26	0.68
1:F:3755:GLY:HA2	1:F:3799:ARG:HA	1.76	0.68
1:F:3929:MET:O	1:F:3938:ILE:N	2.23	0.68
1:A:2151:ILE:HG12	1:A:2192:THR:HG21	1.76	0.68
1:A:2746:LYS:HD2	8:D:14:DA:N7	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2479:TRP:O	1:F:2483:ASN:ND2	2.21	0.68
2:O:10:LEU:HD21	2:O:38:ASP:HA	1.75	0.68
3:P:889:LEU:HD12	3:P:903:LEU:HG	1.75	0.68
1:A:2507:ILE:HA	1:A:2510:LEU:HD23	1.75	0.68
2:N:29:GLU:HB3	2:N:52:ILE:HD11	1.76	0.68
3:P:758:TYR:HA	3:P:764:SER:HA	1.75	0.68
1:A:2988:GLU:HA	1:A:2991:LYS:HE2	1.76	0.68
1:F:2986:PRO:O	1:F:2991:LYS:NZ	2.27	0.68
1:F:3897:PHE:HD2	1:F:3898:LEU:HD12	1.57	0.68
1:A:1415:LEU:O	1:A:1419:LEU:N	2.25	0.68
1:A:3677:PRO:HG2	1:A:3682:GLU:H	1.59	0.68
1:F:1071:ASN:HD22	1:F:1074:LYS:HG3	1.57	0.68
1:F:1505:LEU:HA	1:F:1508:LYS:HD2	1.76	0.68
4:Q:136:ILE:HB	4:R:40:ASP:HA	1.76	0.68
4:R:8:LEU:HG	4:R:37:LEU:HD12	1.76	0.68
1:F:1685:ASP:HB3	1:F:1688:LEU:HG	1.75	0.68
4:R:9:LEU:HD13	4:R:134:HIS:HB3	1.76	0.68
1:A:2232:ARG:HD2	1:A:2235:LEU:HD12	1.76	0.67
1:A:3686:TRP:HA	1:A:3689:ASP:HB3	1.76	0.67
1:F:61:ARG:NH1	1:F:62:ASP:OD1	2.26	0.67
1:F:207:GLN:NE2	1:F:215:PRO:O	2.27	0.67
2:L:174:THR:HG23	3:M:792:MET:HG2	1.76	0.67
3:M:818:VAL:HG21	3:M:845:LEU:HD22	1.76	0.67
4:Q:184:PHE:HB2	4:R:160:LYS:HD2	1.76	0.67
1:F:3954:PRO:O	1:F:4068:HIS:NE2	2.25	0.67
4:R:107:ARG:HH21	4:R:121:PHE:H	1.41	0.67
1:A:1151:ARG:HB2	1:A:1163:LEU:HD12	1.76	0.67
1:F:865:GLN:N	1:F:3170:ASP:OD1	2.27	0.67
1:F:1685:ASP:OD1	1:F:1738:ASN:ND2	2.26	0.67
4:Q:77:ASP:O	4:Q:81:ARG:NH1	2.27	0.67
1:A:3085:GLU:OE1	1:A:3085:GLU:N	2.27	0.67
1:F:3727:THR:O	1:F:3737:ARG:N	2.28	0.67
1:A:3321:LEU:HD13	1:A:3324:ARG:HH12	1.59	0.67
1:F:1067:ALA:HA	1:F:1075:ARG:HA	1.76	0.67
1:F:1771:GLN:HA	1:F:1775:GLU:HG3	1.77	0.67
1:F:3878:VAL:O	1:F:3965:ARG:NH1	2.26	0.67
1:F:378:ALA:O	1:F:381:VAL:HB	1.93	0.67
3:M:728:GLU:OE2	3:M:739:GLN:NE2	2.27	0.67
3:P:813:PHE:HB2	3:P:848:HIS:HD2	1.58	0.67
1:A:3675:LYS:NZ	1:A:3676:PRO:O	2.27	0.67
3:P:654:LYS:N	3:P:660:GLU:OE2	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:208:MET:HE3	1:A:252:VAL:HG12	1.77	0.67
1:A:2274:ILE:HD13	1:A:2319:ALA:HB2	1.77	0.67
1:A:3312:VAL:O	1:A:3316:LEU:N	2.25	0.67
1:F:66:LEU:O	1:F:70:ARG:N	2.25	0.67
1:F:530:LEU:O	1:F:534:LEU:N	2.26	0.67
1:F:2372:PRO:O	1:F:2404:ARG:NH1	2.28	0.67
4:R:175:ILE:HG12	4:R:179:LEU:HD11	1.77	0.67
1:A:652:GLU:HA	1:A:655:LEU:HD12	1.77	0.67
1:F:1766:LEU:O	1:F:1822:ARG:NH1	2.27	0.67
1:A:3924:HIS:O	1:A:3927:ASN:ND2	2.28	0.67
1:F:1013:ILE:HA	1:F:1017:ILE:HD12	1.76	0.67
1:F:2311:ARG:NH1	1:F:2311:ARG:O	2.27	0.67
1:F:3763:ARG:NH1	1:F:4002:MET:O	2.28	0.67
1:F:3835:PRO:HA	1:F:3839:TYR:HB2	1.77	0.67
1:F:3873:LYS:O	1:F:3877:LYS:HB2	1.94	0.67
2:K:33:VAL:HG13	2:K:46:THR:HG22	1.77	0.67
3:M:843:LEU:O	3:M:847:PHE:HB3	1.95	0.67
1:A:1740:VAL:HA	1:A:1743:MET:SD	2.34	0.66
1:A:3806:LEU:HD22	1:A:3809:THR:HB	1.76	0.66
1:F:884:VAL:HG21	1:F:3933:GLU:HA	1.77	0.66
1:F:1424:THR:O	1:F:1426:GLN:NE2	2.27	0.66
1:F:2229:ALA:O	1:F:2233:HIS:N	2.24	0.66
3:P:814:ARG:N	3:P:850:ALA:H	1.91	0.66
2:N:159:GLN:OE1	2:O:161:ARG:NH2	2.28	0.66
1:A:1782:PHE:HD1	1:A:1827:LEU:HD21	1.60	0.66
1:A:3254:LEU:N	1:A:3256:MET:SD	2.68	0.66
1:F:2234:ASN:HA	1:F:2237:ILE:HD12	1.76	0.66
1:F:3992:ARG:NH1	1:F:4051:LEU:O	2.29	0.66
3:M:701:ILE:HD12	3:M:726:LEU:HD21	1.77	0.66
1:A:418:ALA:HB2	1:A:464:VAL:HG12	1.76	0.66
3:M:811:SER:HB2	3:M:814:ARG:HH21	1.60	0.66
11:J:20:DT:H2'	11:J:21:DA:C8	2.29	0.66
1:F:71:LYS:HB2	1:F:82:ARG:NH2	2.11	0.66
1:F:3722:PHE:HA	1:F:3741:ARG:HB3	1.77	0.66
1:A:86:LEU:O	1:A:133:LYS:NZ	2.27	0.66
1:A:675:ARG:HA	1:A:678:LYS:HE2	1.77	0.66
1:F:2584:CYS:SG	1:F:2585:GLU:N	2.68	0.66
1:F:2891:ARG:HG2	1:F:3894:PRO:HB3	1.78	0.66
1:F:3970:LEU:HG	1:F:3971:MET:SD	2.36	0.66
3:P:890:LYS:N	3:P:904:GLN:O	2.26	0.66
1:F:2791:ILE:HA	1:F:2794:LEU:HD12	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3126:LEU:O	1:F:3130:GLN:NE2	2.24	0.66
10:I:42:DA:N6	11:J:19:DA:OP2	2.28	0.66
1:F:803:SER:HA	1:F:852:ARG:HH12	1.61	0.66
1:F:1231:GLN:HA	1:F:1289:SER:HB2	1.76	0.66
1:F:2931:ARG:HH22	1:F:3000:ASP:HB3	1.61	0.66
1:F:1871:MET:CE	1:F:1940:TYR:HA	2.26	0.66
3:M:741:ARG:NH2	3:M:762:GLY:O	2.29	0.66
1:A:738:HIS:O	1:A:742:GLU:HG3	1.95	0.65
1:F:145:ASP:O	1:F:148:LYS:NZ	2.26	0.65
1:F:538:ASP:HA	1:F:541:MET:HG3	1.76	0.65
2:K:164:LYS:NZ	3:M:897:SER:O	2.29	0.65
4:R:49:VAL:HG11	4:R:57:ARG:HH21	1.62	0.65
1:A:82:ARG:HA	1:A:85:ILE:HD12	1.78	0.65
1:A:1416:GLU:HA	1:A:1419:LEU:HB3	1.78	0.65
1:A:2986:PRO:O	1:A:2991:LYS:NZ	2.29	0.65
1:A:3588:TRP:HE1	1:A:3609:MET:CG	2.09	0.65
1:A:3680:LEU:HA	1:A:3724:GLU:HB3	1.76	0.65
1:F:2254:ARG:NH2	1:F:2292:CYS:SG	2.69	0.65
4:R:161:ASP:HB3	4:R:183:PRO:HA	1.78	0.65
1:A:531:PHE:HA	1:A:534:LEU:HB2	1.78	0.65
1:A:1071:ASN:ND2	1:A:1073:PHE:HB2	2.11	0.65
1:A:2404:ARG:NH2	1:A:2406:GLU:OE2	2.29	0.65
1:A:3192:LYS:HD2	1:A:3196:LYS:HZ1	1.61	0.65
1:F:1444:ASP:HA	1:F:1447:ARG:HH21	1.61	0.65
1:F:3157:LEU:O	1:F:3161:LEU:N	2.29	0.65
1:F:3758:LEU:HB2	1:F:3795:PRO:HB3	1.78	0.65
1:F:3924:HIS:O	1:F:3927:ASN:ND2	2.28	0.65
8:D:25:DT:N3	9:E:33:DA:OP1	2.25	0.65
1:F:2532:PRO:HD2	1:F:2538:ARG:HA	1.78	0.65
2:N:168:ALA:HB1	3:P:810:LEU:HD21	1.78	0.65
2:O:20:LEU:HD22	2:O:37:THR:HG22	1.78	0.65
3:P:746:MET:O	3:P:751:LYS:NZ	2.30	0.65
4:R:207:GLY:HA2	4:R:210:PHE:HB3	1.78	0.65
1:F:2437:ASP:OD1	1:F:2472:GLN:NE2	2.30	0.65
1:F:3828:TYR:CE1	1:F:3879:PRO:HD3	2.31	0.65
1:F:3994:ASP:HB3	1:F:3998:LEU:HG	1.77	0.65
4:Q:57:ARG:HD2	4:Q:121:PHE:HA	1.79	0.65
10:I:28:DT:H2''	10:I:29:DA:C4	2.31	0.65
11:J:31:DT:H1'	11:J:32:DT:H5'	1.79	0.65
1:A:759:GLY:HA3	1:A:766:ALA:HB2	1.79	0.65
1:A:902:LYS:HE3	1:F:2570:PRO:HG2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:98:GLN:HE21	1:F:101:ALA:HB2	1.61	0.65
1:F:326:MET:O	1:F:330:ASN:ND2	2.29	0.65
1:F:3348:LEU:O	1:F:3352:GLU:N	2.30	0.65
1:F:3581:PRO:HA	1:F:3584:LEU:HD13	1.77	0.65
2:L:178:LYS:HG3	3:M:792:MET:HE3	1.78	0.65
3:M:812:MET:HG3	3:M:903:LEU:HA	1.77	0.65
1:A:1630:ASP:HA	1:A:1633:TRP:HE1	1.62	0.65
1:A:1878:ASP:OD1	1:A:1879:VAL:N	2.30	0.65
1:A:2967:GLU:OE1	1:A:2967:GLU:N	2.30	0.65
1:F:2218:PHE:O	1:F:2222:HIS:ND1	2.30	0.65
1:F:3628:PHE:HA	1:F:3631:LYS:HE3	1.78	0.65
1:A:4114:PRO:HA	1:A:4117:LEU:HD12	1.79	0.65
1:F:3720:ALA:HB3	1:F:3743:HIS:HB3	1.79	0.65
3:P:820:LEU:HD21	3:P:841:LYS:HD2	1.77	0.65
9:E:39:DA:N6	9:E:40:DT:O4	2.29	0.65
1:A:31:GLY:HA2	1:A:34:LEU:HD12	1.78	0.65
1:A:1603:GLN:HA	1:A:1606:ARG:HE	1.62	0.65
1:F:2894:GLU:HG3	1:F:3973:PRO:HG3	1.78	0.65
2:K:19:PHE:CZ	2:L:127:ILE:HG23	2.32	0.65
1:A:87:LYS:NZ	1:A:829:VAL:O	2.30	0.65
1:A:1307:ILE:HG23	1:A:1309:ALA:H	1.60	0.65
1:A:1848:ILE:HG12	1:A:1915:LEU:HD21	1.78	0.65
1:A:2252:PRO:O	1:A:2291:GLN:NE2	2.30	0.65
1:A:2271:SER:O	1:A:2275:GLN:NE2	2.22	0.65
1:A:3948:SER:O	1:A:3952:PHE:N	2.30	0.65
1:F:2430:GLU:OE1	1:F:2430:GLU:N	2.19	0.65
1:F:3085:GLU:HA	1:F:3088:LEU:HD12	1.79	0.65
2:K:158:VAL:HG12	3:M:840:ILE:HG13	1.79	0.65
1:F:2569:SER:HB2	1:F:2572:TYR:HB2	1.79	0.64
2:L:51:GLU:O	2:L:54:GLN:NE2	2.31	0.64
3:P:814:ARG:N	3:P:850:ALA:O	2.30	0.64
4:Q:5:GLU:OE2	4:Q:48:GLN:NE2	2.29	0.64
1:A:79:ARG:HE	1:A:82:ARG:HE	1.43	0.64
1:A:724:GLU:HB3	1:A:2600:THR:H	1.62	0.64
1:A:785:MET:HA	1:A:788:TYR:CZ	2.32	0.64
1:A:935:HIS:HD2	1:A:2773:ARG:HH12	1.42	0.64
1:F:1815:THR:N	1:F:1818:SER:HG	1.95	0.64
1:F:3385:LEU:HB3	1:F:3416:LEU:HD12	1.79	0.64
2:K:99:LYS:HB3	2:K:108:LEU:HD22	1.80	0.64
2:O:36:LEU:HB2	2:O:43:TRP:HB2	1.79	0.64
1:A:2120:ARG:HH21	1:A:2159:PRO:HG2	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:643:GLU:HA	1:F:646:VAL:HG13	1.78	0.64
1:F:1254:LEU:HA	1:F:1257:LEU:HD12	1.80	0.64
1:F:2576:MET:SD	1:F:2576:MET:N	2.70	0.64
1:F:2937:ASP:HB3	1:F:3979:LEU:HA	1.79	0.64
1:A:2851:PHE:HB3	1:A:2854:PHE:HB3	1.78	0.64
1:F:2570:PRO:O	1:F:2574:ASN:ND2	2.30	0.64
1:F:3512:VAL:HA	1:F:3515:GLN:NE2	2.11	0.64
2:N:152:LEU:HB2	2:O:151:LEU:HD13	1.80	0.64
1:F:2376:ASP:HA	1:F:2379:MET:HG2	1.79	0.64
1:F:2866:ALA:HA	1:F:2869:LEU:HG	1.79	0.64
1:A:1448:LEU:HD23	1:A:1510:LEU:HD22	1.78	0.64
1:A:2825:THR:HG23	1:A:2828:GLU:H	1.61	0.64
1:A:3459:ASN:HA	1:A:3462:ARG:HD3	1.79	0.64
1:F:67:VAL:HA	1:F:71:LYS:HG2	1.79	0.64
1:F:3680:LEU:HD11	1:F:3688:SER:HA	1.80	0.64
2:O:43:TRP:HB3	2:O:115:LYS:HA	1.79	0.64
8:D:18:DA:H2"	8:D:19:DA:C8	2.32	0.64
1:A:217:LEU:N	1:A:218:PRO:HD2	2.13	0.64
1:A:997:ASN:HB3	1:A:1000:LYS:HG2	1.79	0.64
1:F:2824:LYS:O	1:F:2829:LYS:NZ	2.30	0.64
4:R:27:VAL:HG12	4:R:82:PRO:HA	1.80	0.64
4:R:36:LEU:HD13	4:R:106:LEU:HD22	1.80	0.64
1:A:1171:TRP:O	1:A:1175:HIS:ND1	2.30	0.64
1:A:2353:GLN:HB3	1:A:2360:PHE:HB2	1.80	0.64
1:A:3255:ALA:HB1	1:A:3258:LEU:HB3	1.80	0.64
1:F:584:GLU:N	1:F:613:HIS:O	2.31	0.64
1:F:3007:GLU:O	1:F:3011:LEU:HG	1.98	0.64
1:F:3787:GLN:NE2	1:F:3788:LEU:O	2.31	0.64
3:M:862:HIS:HA	3:M:886:PHE:HB2	1.80	0.64
2:O:37:THR:HA	2:O:42:ALA:HA	1.80	0.64
1:A:2257:PHE:HA	1:A:2260:PHE:CE2	2.33	0.64
1:A:3110:PHE:CE1	1:A:3128:LYS:HG3	2.32	0.64
1:F:380:ASP:O	1:F:383:PHE:HB3	1.96	0.64
1:F:2263:LYS:HE3	1:F:2265:PRO:HA	1.78	0.64
11:J:17:DT:H2"	11:J:18:DA:C8	2.32	0.64
1:A:1322:THR:O	1:A:1326:GLU:N	2.31	0.64
1:A:1339:VAL:O	1:A:1343:GLU:HG2	1.97	0.64
1:A:1727:ARG:HH22	1:A:1731:PRO:HD3	1.62	0.64
1:A:3097:ASP:OD1	1:A:3098:ARG:N	2.31	0.64
1:F:3383:GLN:O	1:F:3387:GLU:HG3	1.97	0.64
3:M:746:MET:O	3:M:751:LYS:NZ	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:58:ALA:HB1	4:Q:67:ALA:HB3	1.79	0.64
1:A:736:LEU:HD12	1:A:740:ILE:HG21	1.80	0.63
1:A:2295:GLN:HG3	1:A:2298:GLU:HB3	1.80	0.63
1:A:225:LYS:NZ	1:A:267:VAL:O	2.30	0.63
1:A:1298:LEU:HG	1:A:1367:HIS:CE1	2.34	0.63
1:F:18:THR:O	1:F:22:ALA:N	2.28	0.63
1:F:584:GLU:HB2	1:F:613:HIS:HB3	1.79	0.63
1:F:1960:LYS:HD3	1:F:2125:TRP:HE1	1.63	0.63
1:F:3878:VAL:HG13	1:F:3965:ARG:HH11	1.63	0.63
2:K:34:ILE:O	2:K:45:GLY:N	2.31	0.63
2:N:59:MET:HG2	2:N:101:LEU:HB3	1.78	0.63
2:N:72:LYS:HD2	2:N:80:PRO:HD2	1.78	0.63
3:P:739:GLN:H	3:P:742:PHE:HE1	1.46	0.63
4:R:131:VAL:HA	4:R:135:LEU:HD13	1.79	0.63
1:A:1095:LEU:O	1:A:1099:PHE:N	2.30	0.63
1:F:332:GLU:HB2	1:F:335:LYS:HD2	1.79	0.63
1:F:382:ASP:O	1:F:385:TYR:HB3	1.99	0.63
1:F:1234:GLY:HA3	1:F:1292:LYS:NZ	2.13	0.63
1:F:2810:SER:HA	1:F:2861:ILE:HD11	1.80	0.63
1:F:3423:GLN:O	1:F:3427:GLU:N	2.30	0.63
2:N:194:LEU:HB3	2:O:194:LEU:HB3	1.80	0.63
3:P:814:ARG:HB2	3:P:847:PHE:N	2.14	0.63
1:F:3626:GLY:HA2	1:F:3677:PRO:HB3	1.80	0.63
3:M:827:ASN:HA	3:M:855:CYS:HA	1.81	0.63
2:N:151:LEU:HD22	2:O:152:LEU:HA	1.79	0.63
4:Q:158:HIS:CD2	4:Q:186:GLU:HG3	2.34	0.63
8:D:16:DA:H1'	9:E:42:DA:H61	1.62	0.63
1:A:585:ILE:O	1:A:611:ASN:ND2	2.31	0.63
1:A:1389:VAL:HG23	1:A:1391:VAL:HG22	1.80	0.63
1:A:3190:LEU:HD13	1:A:3231:ILE:HB	1.81	0.63
1:F:1448:LEU:HD11	1:F:1514:LEU:HD21	1.79	0.63
1:A:169:THR:HA	1:A:172:GLU:HG2	1.80	0.63
1:A:469:ALA:HA	1:A:475:LEU:HD22	1.81	0.63
1:F:1184:ARG:NH2	1:F:1265:GLU:OE1	2.31	0.63
1:F:1322:THR:O	1:F:1326:GLU:N	2.31	0.63
1:F:1512:SER:HA	1:F:1515:LEU:HD12	1.81	0.63
1:F:1711:ARG:O	1:F:1715:GLU:HG2	1.98	0.63
1:F:1936:ARG:HD3	1:F:1939:LEU:HD12	1.81	0.63
2:K:197:LYS:HE3	2:L:198:LEU:HD21	1.80	0.63
3:P:746:MET:HB2	3:P:750:THR:HB	1.81	0.63
1:A:1115:HIS:CE1	1:A:1183:CYS:H	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2415:LEU:HB2	1:F:2420:PHE:HB2	1.81	0.63
1:F:3962:ARG:HA	1:F:4124:TRP:HZ2	1.63	0.63
3:M:761:TYR:HB2	3:M:777:VAL:HG13	1.81	0.63
1:F:1115:HIS:CE1	1:F:1183:CYS:H	2.14	0.63
2:K:3:ARG:HH12	2:K:35:THR:HG21	1.64	0.63
3:M:871:ARG:O	3:M:875:PHE:N	2.29	0.63
1:A:1251:GLN:HA	1:A:1254:LEU:HD12	1.81	0.63
1:A:1788:ARG:O	1:A:1794:GLN:NE2	2.32	0.63
1:A:2227:LYS:HB2	1:A:2230:VAL:HG22	1.80	0.63
1:A:3657:SER:N	1:A:3660:ASN:OD1	2.31	0.63
1:A:4050:LYS:HD3	1:A:4059:ILE:HG21	1.79	0.63
1:F:1771:GLN:HG3	1:F:1775:GLU:H	1.64	0.63
1:F:3757:ASP:OD1	1:F:3759:ARG:N	2.31	0.63
2:L:95:PHE:HB3	2:L:111:PHE:HB2	1.80	0.63
3:P:813:PHE:HB2	3:P:848:HIS:CD2	2.34	0.63
10:I:44:DG:H2'	10:I:45:DG:H2'	1.81	0.63
1:A:2723:THR:HA	1:A:2726:LEU:HD13	1.80	0.62
1:A:2943:PHE:O	1:A:2954:GLN:NE2	2.32	0.62
1:F:1060:PHE:HA	1:F:1063:LEU:HD12	1.81	0.62
1:F:1747:LEU:HD22	1:F:1777:LEU:HB3	1.81	0.62
2:L:175:ASP:HA	2:L:178:LYS:HD2	1.80	0.62
8:D:18:DA:H2'	8:D:18:DA:N3	2.13	0.62
1:A:3142:ILE:HA	1:A:3145:ILE:HG12	1.81	0.62
1:A:3158:LYS:NZ	1:A:3162:ASN:HB3	2.14	0.62
1:F:908:ASP:HA	1:F:911:LEU:HD13	1.82	0.62
3:P:707:ILE:HA	3:P:710:LYS:HE2	1.80	0.62
1:A:25:CYS:SG	1:A:26:GLY:N	2.72	0.62
1:A:1751:GLU:O	1:A:1788:ARG:NH1	2.33	0.62
1:A:2940:ARG:HH22	1:A:3982:SER:HB3	1.64	0.62
1:F:2578:GLU:OE1	1:F:2578:GLU:N	2.29	0.62
10:I:24:DA:H5''	10:I:25:DA:C5	2.34	0.62
1:F:880:MET:O	1:F:881:LYS:HG2	1.99	0.62
1:F:1101:PHE:HA	1:F:1104:LEU:HD12	1.81	0.62
1:F:3940:ILE:HG22	1:F:3941:ASP:H	1.64	0.62
3:P:813:PHE:N	3:P:850:ALA:H	1.97	0.62
1:A:2746:LYS:HD2	8:D:14:DA:C5	2.35	0.62
1:A:3094:ASP:OD1	1:A:3192:LYS:NZ	2.32	0.62
1:F:1019:ASP:O	1:F:1026:ARG:NH2	2.32	0.62
1:F:1184:ARG:NH2	1:F:1262:ALA:HA	2.13	0.62
1:F:3738:ILE:HD11	1:F:3750:PHE:HB2	1.81	0.62
2:O:45:GLY:HA3	2:O:114:GLU:HG2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:40:ASP:OD1	4:Q:43:GLN:N	2.32	0.62
9:E:33:DA:N3	9:E:34:DC:N4	2.48	0.62
1:A:3735:PRO:HB2	1:A:3751:LEU:HD11	1.80	0.62
1:F:3187:CYS:HA	1:F:3190:LEU:HD12	1.81	0.62
2:N:54:GLN:HB2	4:Q:65:LEU:HB2	1.81	0.62
3:P:660:GLU:HG2	3:P:686:GLY:HA3	1.81	0.62
1:A:1795:VAL:HG21	1:A:1838:GLU:HB2	1.80	0.62
1:A:3701:ILE:HD12	1:A:3717:VAL:HG13	1.81	0.62
1:F:3860:LYS:HB2	1:F:4073:ALA:HB2	1.81	0.62
3:P:889:LEU:HA	3:P:905:GLU:HB2	1.79	0.62
8:D:23:DT:H72	9:E:33:DA:N6	2.15	0.62
1:A:3963:LEU:HD23	1:A:4112:THR:HG21	1.80	0.62
1:F:1039:TRP:NE1	1:F:1043:GLN:OE1	2.33	0.62
1:F:1300:SER:HA	1:F:1304:HIS:HB3	1.82	0.62
1:F:3625:LEU:HD23	1:F:3682:GLU:HB3	1.82	0.62
4:Q:8:LEU:HG	4:Q:26:LYS:HB3	1.82	0.62
1:A:124:LYS:HG2	1:A:125:ILE:H	1.64	0.62
1:A:3034:PRO:HB2	1:A:3037:GLN:HG2	1.81	0.62
10:I:37:DT:H2'	10:I:38:DT:H71	1.81	0.62
1:A:38:LEU:HD21	1:A:85:ILE:HG13	1.82	0.62
1:A:1021:VAL:O	1:A:1026:ARG:NH1	2.33	0.62
1:A:2120:ARG:HH22	1:A:2157:PHE:HA	1.65	0.62
1:A:2205:VAL:HG22	1:A:2207:LYS:H	1.65	0.62
1:A:2745:ARG:HH21	9:E:45:DG:H2'	1.65	0.62
1:A:3354:ASP:H	1:A:3357:ARG:HG2	1.65	0.62
1:F:628:GLU:OE1	1:F:631:ARG:NH2	2.27	0.62
1:F:1358:LEU:HA	1:F:1361:LYS:HE2	1.81	0.62
1:F:3444:ALA:HA	1:F:3482:LEU:HD11	1.81	0.62
4:Q:22:SER:HB2	4:Q:208:LYS:HD2	1.81	0.62
1:A:2976:LEU:O	1:A:2979:GLN:NE2	2.33	0.61
1:A:3781:CYS:O	1:A:3785:ALA:N	2.32	0.61
1:F:2133:LEU:HD11	1:F:2171:LEU:HD22	1.81	0.61
1:F:3262:LEU:O	1:F:3266:SER:N	2.33	0.61
2:K:179:ARG:HB3	3:M:805:TRP:CZ2	2.35	0.61
4:R:138:PRO:O	4:R:142:MET:HB3	2.00	0.61
8:D:16:DA:H1'	9:E:42:DA:N6	2.14	0.61
1:A:879:MET:HG3	1:A:881:LYS:H	1.65	0.61
1:A:3547:THR:HG23	1:A:3550:LYS:HD2	1.80	0.61
1:A:3733:ARG:NH2	1:A:3755:GLY:H	1.98	0.61
1:F:1385:ASN:ND2	1:F:1388:ASP:OD1	2.33	0.61
1:F:2308:SER:HB3	1:F:2348:GLN:HE22	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2573:PRO:HA	1:F:2786:LYS:HD3	1.81	0.61
1:F:2723:THR:HA	1:F:2726:LEU:HD13	1.82	0.61
1:F:2920:VAL:HA	1:F:2923:TRP:HB2	1.82	0.61
1:F:3496:ILE:HG21	1:F:3705:TYR:HB3	1.82	0.61
1:F:3928:PHE:CE1	1:F:3962:ARG:HG3	2.35	0.61
1:A:334:HIS:HA	1:A:337:LYS:HE3	1.81	0.61
1:F:3313:SER:HB2	1:F:3323:PHE:HB2	1.81	0.61
3:M:896:ASP:HB3	3:M:900:LYS:HD3	1.82	0.61
4:R:34:TYR:OH	4:R:57:ARG:NH2	2.33	0.61
1:A:1420:ARG:NH2	1:A:1465:HIS:O	2.33	0.61
1:A:2278:GLY:O	1:A:2282:ALA:N	2.33	0.61
1:A:3183:ILE:HD12	1:A:3238:MET:HB2	1.82	0.61
3:P:813:PHE:O	3:P:847:PHE:N	2.33	0.61
3:P:865:ILE:H	3:P:889:LEU:HD11	1.65	0.61
10:I:27:DC:H2''	11:J:31:DT:C5	2.34	0.61
1:A:2920:VAL:HA	1:A:2923:TRP:HB2	1.81	0.61
1:A:3072:GLU:HA	1:A:3075:LYS:HE2	1.81	0.61
1:F:1397:ASP:OD1	1:F:1398:VAL:N	2.33	0.61
1:F:1441:ALA:O	1:F:1445:ARG:NH1	2.33	0.61
1:F:1514:LEU:HA	1:F:1517:LEU:HD12	1.82	0.61
1:F:2737:GLU:HB2	1:F:2740:SER:HB2	1.82	0.61
3:P:839:ALA:O	3:P:843:LEU:HG	1.99	0.61
1:A:1484:LEU:HD11	1:A:1531:LEU:HD13	1.83	0.61
1:A:2938:VAL:O	1:A:2942:ILE:HG12	2.01	0.61
1:F:3771:MET:HA	1:F:3774:ILE:HD12	1.83	0.61
4:Q:61:LEU:HD22	4:Q:118:TYR:O	2.00	0.61
11:J:21:DA:H2'	11:J:22:DG:C8	2.36	0.61
1:A:124:LYS:HD2	8:D:22:DG:H21	1.65	0.61
1:F:759:GLY:HA3	1:F:766:ALA:HB2	1.81	0.61
1:F:1268:ASN:ND2	1:F:1344:PHE:HA	2.10	0.61
1:F:1440:ASP:OD1	1:F:1445:ARG:NH1	2.33	0.61
1:F:2988:GLU:HA	1:F:2991:LYS:HE2	1.82	0.61
1:F:3617:LEU:HD23	1:F:3633:ILE:HG22	1.83	0.61
2:K:181:ILE:HG13	3:M:774:LEU:HD22	1.82	0.61
8:D:37:DG:OP1	9:E:21:DA:N6	2.34	0.61
1:A:723:ASP:C	1:A:725:LEU:H	2.03	0.61
1:A:2410:GLU:O	1:A:2414:GLN:NE2	2.31	0.61
1:A:3731:SER:HB2	1:A:3735:PRO:HD3	1.83	0.61
1:F:16:GLN:NE2	1:F:62:ASP:OD2	2.30	0.61
1:F:531:PHE:HA	1:F:534:LEU:HD12	1.81	0.61
1:F:665:GLY:O	1:F:669:LEU:HG	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1818:SER:HB2	1:F:1822:ARG:HH21	1.66	0.61
1:F:3247:ARG:HH22	1:F:3248:LYS:HG3	1.65	0.61
1:F:3479:THR:HA	1:F:3482:LEU:HD12	1.82	0.61
1:A:61:ARG:HB2	1:A:103:TYR:HE2	1.64	0.61
1:A:2967:GLU:O	1:A:2971:GLN:HG2	2.01	0.61
1:F:397:LEU:HD23	1:F:399:GLN:HE22	1.66	0.61
1:F:1082:PHE:HA	1:F:1085:ILE:HG12	1.81	0.61
1:F:2295:GLN:NE2	1:F:2298:GLU:OE1	2.34	0.61
1:F:2346:ALA:HB2	1:F:2377:ARG:HH11	1.65	0.61
3:M:710:LYS:HA	3:M:713:ILE:HD12	1.82	0.61
3:M:857:ALA:HB3	3:M:860:VAL:HG23	1.81	0.61
4:Q:7:GLY:O	4:Q:11:GLN:N	2.34	0.61
1:F:1151:ARG:NH1	1:F:1163:LEU:O	2.30	0.61
1:F:1180:GLN:HB3	1:F:1183:CYS:HB3	1.82	0.61
2:K:40:HIS:NE2	2:L:40:HIS:O	2.34	0.61
2:N:179:ARG:NH2	3:P:807:CYS:SG	2.74	0.60
3:P:844:GLU:OE2	3:P:848:HIS:NE2	2.25	0.60
4:Q:14:ALA:HB1	4:Q:84:LEU:HD22	1.83	0.60
1:F:111:CYS:O	1:F:130:LEU:HD11	2.01	0.60
3:M:728:GLU:HG2	3:M:736:VAL:HG21	1.83	0.60
2:O:25:GLU:HG2	2:O:26:LYS:H	1.66	0.60
1:A:1018:VAL:HG22	1:A:1074:LYS:HA	1.83	0.60
1:A:2132:LYS:O	1:A:2135:ASN:ND2	2.33	0.60
1:A:3263:HIS:HB2	1:A:3276:TRP:CZ2	2.37	0.60
1:F:1095:LEU:O	1:F:1099:PHE:N	2.34	0.60
1:F:1372:LEU:O	1:F:1376:LEU:N	2.27	0.60
1:F:2149:LEU:O	1:F:2153:THR:HG23	2.01	0.60
1:F:2920:VAL:HG12	1:F:2947:ILE:HG23	1.83	0.60
1:F:3228:SER:OG	1:F:3232:ARG:NH2	2.27	0.60
1:F:3810:VAL:HG21	1:F:3815:LEU:HD13	1.84	0.60
2:K:47:VAL:HG13	2:K:51:GLU:HB2	1.83	0.60
3:P:845:LEU:HB3	3:P:852:VAL:HG22	1.84	0.60
4:R:46:HIS:CE1	4:R:48:GLN:HB2	2.36	0.60
1:A:1369:MET:HE3	1:A:1415:LEU:HA	1.83	0.60
1:F:3483:MET:HE3	1:F:3513:ALA:H	1.64	0.60
1:A:2218:PHE:O	1:A:2222:HIS:ND1	2.34	0.60
1:F:1423:ILE:HG13	1:F:1425:ALA:H	1.65	0.60
1:F:2586:PHE:HD1	1:F:2778:GLY:HA3	1.67	0.60
2:K:88:PHE:HA	2:K:95:PHE:HA	1.83	0.60
2:O:50:SER:H	2:O:54:GLN:NE2	1.98	0.60
1:A:843:ASN:O	1:A:2764:LYS:NZ	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1742:CYS:O	1:A:1746:PHE:HD1	1.85	0.60
1:A:2097:LEU:HB2	1:A:2149:LEU:HD11	1.83	0.60
1:A:2430:GLU:OE1	1:A:2430:GLU:N	2.33	0.60
1:A:2937:ASP:HB2	1:A:3979:LEU:HD23	1.84	0.60
1:A:3986:HIS:HA	1:A:3989:ARG:HH21	1.65	0.60
1:F:3725:ARG:HB3	1:F:3739:ILE:HD12	1.82	0.60
2:K:22:VAL:HG12	2:K:24:TRP:HB3	1.83	0.60
3:M:654:LYS:N	3:M:660:GLU:OE2	2.35	0.60
3:M:758:TYR:HA	3:M:764:SER:HA	1.84	0.60
3:M:800:GLU:HB3	3:M:806:ASP:HB2	1.84	0.60
3:M:864:ILE:HG21	3:M:894:VAL:HB	1.82	0.60
4:Q:21:ASN:HB2	4:Q:99:CYS:HA	1.84	0.60
1:A:1445:ARG:NH1	1:A:1507:CYS:SG	2.75	0.60
1:A:2205:VAL:HG13	1:A:2208:ASP:H	1.65	0.60
1:F:196:LEU:HB3	1:F:200:PHE:CZ	2.37	0.60
4:R:17:GLN:HB2	4:R:84:LEU:HB3	1.83	0.60
8:D:18:DA:H2"	8:D:19:DA:C5	2.36	0.60
1:A:247:GLU:HG2	1:A:251:PHE:CZ	2.36	0.60
1:A:652:GLU:O	1:A:656:GLN:NE2	2.27	0.60
1:A:1665:HIS:H	1:A:1668:PHE:HB3	1.66	0.60
1:F:3945:ALA:N	1:F:3948:SER:OG	2.33	0.60
2:L:179:ARG:HD3	3:M:778:PHE:HB3	1.82	0.60
3:P:857:ALA:O	3:P:884:ARG:NH1	2.30	0.60
4:R:15:TRP:H	4:R:211:VAL:HG11	1.66	0.60
3:M:829:LEU:HD13	3:M:854:SER:HB3	1.84	0.60
2:N:188:LYS:HG3	2:O:187:LYS:HZ1	1.67	0.60
4:Q:108:VAL:HG11	4:Q:119:TRP:HB2	1.82	0.60
4:Q:209:PRO:O	4:Q:213:ASN:HB2	2.01	0.60
1:A:196:LEU:HB3	1:A:200:PHE:CZ	2.37	0.60
1:A:2587:GLN:O	1:A:2777:HIS:N	2.35	0.60
1:A:2833:THR:HG21	1:A:2867:ALA:HB1	1.82	0.60
1:A:3072:GLU:O	1:A:3076:ALA:N	2.23	0.60
1:A:3574:ALA:HB1	1:A:3684:SER:HA	1.83	0.60
1:F:1151:ARG:HB2	1:F:1163:LEU:HD12	1.84	0.60
1:F:3094:ASP:OD1	1:F:3192:LYS:NZ	2.30	0.60
1:F:3193:ILE:HD13	1:F:3196:LYS:HE3	1.83	0.60
2:K:7:ARG:NH2	2:L:131:LEU:O	2.34	0.60
3:M:853:VAL:HG22	3:M:855:CYS:H	1.66	0.60
8:D:26:DT:H2"	8:D:27:DT:C5	2.37	0.60
1:A:3443:PRO:HB3	1:A:3471:ILE:HD11	1.83	0.59
1:A:3970:LEU:HG	1:A:3971:MET:SD	2.41	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:188:GLU:OE2	1:F:192:ASN:ND2	2.35	0.59
1:F:3577:GLN:HA	1:F:3629:ARG:HE	1.66	0.59
4:R:46:HIS:HE1	4:R:48:GLN:HB2	1.65	0.59
9:E:44:DG:O3'	9:E:45:DG:N2	2.34	0.59
10:I:43:DT:H2'	10:I:44:DG:C2	2.36	0.59
1:A:1766:LEU:HD13	1:A:1778:PHE:CG	2.36	0.59
1:F:1392:MET:HA	1:F:1395:LEU:HG	1.84	0.59
1:F:1639:LEU:HA	1:F:1642:LYS:HE2	1.85	0.59
1:F:1795:VAL:HG23	1:F:1835:ALA:HB1	1.83	0.59
1:F:3778:ASP:OD1	1:F:3779:SER:N	2.35	0.59
3:M:697:THR:HB	3:M:718:HIS:CE1	2.37	0.59
3:M:800:GLU:HG2	3:M:805:TRP:HB2	1.84	0.59
2:O:21:GLN:HE22	2:O:129:TYR:HB2	1.67	0.59
4:R:48:GLN:HG2	4:R:130:LEU:HD12	1.83	0.59
1:A:1071:ASN:ND2	1:A:1074:LYS:HG3	2.16	0.59
1:A:1357:LYS:O	1:A:1361:LYS:N	2.30	0.59
1:A:2209:GLU:HA	1:A:2248:CYS:HB2	1.83	0.59
1:A:2306:ASN:HA	1:A:2309:PHE:CD2	2.37	0.59
1:F:2254:ARG:HH21	1:F:2291:GLN:HE22	1.48	0.59
1:A:145:ASP:O	1:A:148:LYS:NZ	2.30	0.59
1:A:1149:LYS:N	1:A:1163:LEU:O	2.35	0.59
1:A:3958:LEU:HD22	1:A:4115:ASN:HB3	1.84	0.59
1:F:131:LEU:HB3	1:F:177:LEU:HD21	1.83	0.59
1:F:2235:LEU:HA	1:F:2238:ILE:HD12	1.83	0.59
1:F:2806:LYS:NZ	1:F:2807:GLN:OE1	2.24	0.59
3:M:818:VAL:N	3:M:851:LYS:O	2.36	0.59
1:A:305:ASN:O	1:A:308:LEU:N	2.31	0.59
1:A:913:ARG:NH2	1:A:2801:ASP:OD1	2.34	0.59
1:A:1363:LEU:HD11	1:A:1368:LEU:HD13	1.84	0.59
1:F:2518:GLN:HG3	1:F:2522:ARG:HH12	1.68	0.59
1:F:2776:ARG:HH22	1:F:2784:GLN:HB2	1.68	0.59
1:F:3118:ASP:OD1	1:F:3119:VAL:N	2.34	0.59
1:F:3945:ALA:H	1:F:3948:SER:HG	1.50	0.59
8:D:26:DT:H2''	8:D:27:DT:C6	2.37	0.59
1:A:708:VAL:HG22	1:A:740:ILE:HG13	1.83	0.59
1:A:1407:LYS:O	1:A:1412:LYS:HD2	2.03	0.59
1:A:3588:TRP:NE1	1:A:3609:MET:SD	2.74	0.59
1:F:135:LEU:O	1:F:139:ARG:HD3	2.02	0.59
1:F:164:LYS:HB3	1:F:166:ILE:HG12	1.83	0.59
1:F:1111:LEU:HB3	1:F:1183:CYS:HB2	1.84	0.59
1:F:2104:MET:O	1:F:2108:LEU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3581:PRO:HB2	1:F:3617:LEU:HD21	1.83	0.59
2:N:181:ILE:HG13	3:P:774:LEU:HD22	1.83	0.59
1:A:1062:ARG:NH1	1:A:3745:GLU:HB2	2.18	0.59
1:A:1067:ALA:HB1	1:A:1110:SER:HB3	1.85	0.59
1:A:2891:ARG:HB2	1:A:3898:LEU:HD21	1.85	0.59
1:A:3112:GLN:NE2	1:A:3113:ASN:OD1	2.36	0.59
1:F:3820:MET:SD	1:F:3825:LYS:HB2	2.43	0.59
1:F:3856:MET:HA	1:F:3859:TYR:CD2	2.38	0.59
4:R:18:LEU:HG	4:R:104:LEU:HD11	1.85	0.59
1:A:1261:LEU:HD11	1:A:1337:VAL:HG22	1.83	0.59
1:A:1603:GLN:HE21	1:A:1607:GLU:HB2	1.68	0.59
1:A:2324:GLY:HA3	1:A:2370:SER:OG	2.03	0.59
1:A:2930:TYR:HB2	1:A:2939:LEU:HD21	1.84	0.59
1:A:2973:ASP:O	1:A:2977:ASN:ND2	2.36	0.59
1:A:3173:MET:O	1:A:3249:GLN:NE2	2.36	0.59
1:A:3730:ALA:HA	1:A:3734:ARG:HG3	1.84	0.59
1:F:1115:HIS:HA	1:F:1119:LYS:HE3	1.85	0.59
1:F:3585:PHE:HB3	1:F:3586:LYS:HZ2	1.68	0.59
1:F:3681:LYS:O	1:F:3688:SER:OG	2.20	0.59
2:K:89:SER:HB3	2:K:96:PHE:HE1	1.67	0.59
2:L:22:VAL:HG22	2:L:34:ILE:HA	1.84	0.59
2:N:180:PHE:HE2	2:O:176:LEU:HB3	1.67	0.59
1:A:472:GLY:O	1:A:476:ARG:NE	2.32	0.59
1:A:1109:GLU:O	1:A:1113:LEU:HG	2.03	0.59
1:A:2254:ARG:HH22	1:A:2292:CYS:HB3	1.68	0.59
1:A:2411:LEU:HD21	1:A:2442:MET:HG3	1.85	0.59
1:A:3728:VAL:HG22	1:A:3736:LYS:HG3	1.84	0.59
1:F:82:ARG:HA	1:F:85:ILE:HD12	1.83	0.59
1:F:2312:TYR:OH	11:J:17:DT:OP1	2.20	0.59
1:F:3728:VAL:HG22	1:F:3736:LYS:HG3	1.85	0.59
2:L:138:GLN:HA	2:L:141:ASN:HD22	1.68	0.59
1:A:1759:LEU:HD22	1:A:1797:LEU:HD23	1.85	0.59
1:F:2468:THR:O	1:F:2471:GLU:HG2	2.03	0.59
1:F:2526:SER:O	1:F:2538:ARG:NH2	2.30	0.59
1:F:3502:MET:HA	1:F:3505:LEU:HB3	1.85	0.59
4:Q:68:PRO:O	4:Q:72:PHE:N	2.32	0.59
4:Q:131:VAL:HG12	4:R:44:VAL:CG2	2.30	0.59
4:R:65:LEU:HD21	4:R:119:TRP:HE3	1.68	0.59
1:A:2532:PRO:HD2	1:A:2538:ARG:HA	1.84	0.58
1:A:2555:LEU:HD11	1:A:2854:PHE:HA	1.85	0.58
1:A:2860:ASP:O	1:A:2864:GLN:HG2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:89:LEU:O	1:F:133:LYS:NZ	2.36	0.58
1:F:1278:ALA:O	1:F:1282:LEU:N	2.34	0.58
1:F:1871:MET:HE2	1:F:1871:MET:HA	1.85	0.58
3:M:868:ASP:OD2	3:M:871:ARG:NH2	2.36	0.58
1:F:409:GLN:OE1	1:F:409:GLN:N	2.35	0.58
1:F:645:TRP:O	1:F:649:PHE:HB3	2.02	0.58
1:F:1815:THR:O	1:F:1818:SER:OG	2.22	0.58
2:N:10:LEU:HG	2:N:17:THR:HA	1.85	0.58
2:N:157:ASP:OD2	3:P:837:ARG:NH1	2.35	0.58
4:R:62:ASN:HD21	4:R:120:ASN:H	1.50	0.58
10:I:31:DA:OP2	10:I:32:DA:N6	2.36	0.58
1:A:1047:GLN:O	1:A:1050:GLU:HG2	2.03	0.58
1:A:3118:ASP:OD1	1:A:3119:VAL:N	2.36	0.58
1:F:1803:GLU:HA	1:F:1806:ARG:HH21	1.68	0.58
1:F:1948:ALA:O	1:F:1952:ILE:HG12	2.03	0.58
2:N:155:TRP:HE1	2:O:158:VAL:HG21	1.68	0.58
10:I:40:DT:H2''	10:I:41:DT:O4'	2.03	0.58
1:A:337:LYS:HB2	1:A:369:PHE:HE1	1.69	0.58
1:A:468:LEU:HG	1:A:475:LEU:HA	1.86	0.58
1:A:527:TYR:HB3	1:A:531:PHE:HE1	1.69	0.58
1:F:895:ALA:HB1	1:F:902:LYS:HB3	1.85	0.58
2:L:17:THR:OG1	2:L:38:ASP:O	2.21	0.58
3:P:843:LEU:HA	3:P:846:ARG:HE	1.69	0.58
1:A:95:LYS:HE2	1:A:95:LYS:HA	1.86	0.58
1:A:1643:MET:HA	1:A:1646:LEU:HD12	1.84	0.58
1:A:2414:GLN:OE1	1:A:2414:GLN:N	2.34	0.58
1:A:3963:LEU:HA	1:A:3967:PHE:HD2	1.68	0.58
1:F:1878:ASP:OD1	1:F:1879:VAL:N	2.36	0.58
1:F:3666:LEU:HA	1:F:3669:LYS:HZ1	1.67	0.58
3:P:663:GLU:HB3	3:P:697:THR:HA	1.86	0.58
1:A:663:ILE:HG22	1:A:666:PHE:H	1.68	0.58
1:A:718:MET:SD	1:A:719:LYS:HD3	2.44	0.58
1:A:771:ASN:HA	1:A:774:GLU:OE1	2.02	0.58
1:A:2559:THR:O	1:A:2563:LEU:HG	2.04	0.58
1:F:61:ARG:HB2	1:F:103:TYR:HE2	1.68	0.58
1:F:1779:GLN:O	1:F:1783:ARG:HG2	2.04	0.58
1:F:2353:GLN:HB3	1:F:2360:PHE:HB2	1.84	0.58
1:F:3428:GLU:HB3	1:F:3474:ARG:HH22	1.69	0.58
2:L:139:ALA:O	2:L:143:HIS:ND1	2.27	0.58
2:N:121:GLU:HA	2:N:124:ARG:HD2	1.85	0.58
1:A:320:LEU:HD21	1:A:365:GLY:HA2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:409:GLN:N	1:A:409:GLN:OE1	2.37	0.58
1:A:1867:ILE:O	1:A:1871:MET:HG2	2.03	0.58
1:A:3048:LYS:HE3	1:A:3061:LEU:HD13	1.86	0.58
1:F:1357:LYS:HE2	1:F:1410:PRO:HG2	1.86	0.58
1:F:1755:SER:HB3	1:F:1758:LEU:HD13	1.84	0.58
1:F:3472:ILE:HG12	1:F:3479:THR:HB	1.85	0.58
1:F:3764:VAL:HA	1:F:3767:LEU:HD12	1.86	0.58
4:R:18:LEU:HD12	4:R:97:CYS:HB2	1.86	0.58
10:I:34:DC:C6	10:I:35:DT:H72	2.39	0.58
1:A:67:VAL:HA	1:A:71:LYS:NZ	2.18	0.58
1:A:523:THR:HG23	1:A:525:LYS:H	1.68	0.58
1:A:1671:VAL:O	1:A:1674:THR:HB	2.04	0.58
1:A:2298:GLU:HA	1:A:2301:GLN:HB3	1.86	0.58
1:A:3148:GLN:HE21	1:A:3150:ASN:HA	1.69	0.58
1:F:745:VAL:HA	1:F:748:TYR:HD2	1.67	0.58
1:F:2491:THR:OG1	1:F:2492:ASP:N	2.36	0.58
2:O:4:LYS:HG2	2:O:75:LEU:HA	1.85	0.58
4:Q:130:LEU:C	4:R:42:GLN:HA	2.24	0.58
1:A:203:GLU:O	1:A:207:GLN:HG2	2.04	0.58
1:A:656:GLN:O	1:A:659:ARG:HB3	2.04	0.58
1:A:1476:HIS:H	1:A:1524:LEU:HD21	1.68	0.58
1:A:1722:PHE:CE2	1:A:1765:VAL:HG13	2.39	0.58
1:A:2346:ALA:HB2	1:A:2377:ARG:HH11	1.68	0.58
1:A:2817:LEU:HD22	1:A:2865:HIS:CE1	2.38	0.58
1:A:3981:TYR:OH	1:A:4101:GLU:OE1	2.22	0.58
1:A:3991:PHE:HB3	1:A:4051:LEU:HD11	1.86	0.58
1:F:1605:PHE:O	1:F:1608:ARG:NH2	2.23	0.58
1:F:3590:ASN:HA	1:F:3593:ARG:HD2	1.86	0.58
2:K:188:LYS:NZ	3:M:764:SER:O	2.34	0.58
2:N:59:MET:HA	2:N:102:LYS:HD3	1.84	0.58
2:O:36:LEU:HD11	2:O:95:PHE:HB2	1.86	0.58
3:P:670:THR:HG23	3:P:674:PRO:HA	1.85	0.58
1:A:268:PRO:O	1:A:272:LEU:HG	2.04	0.58
1:A:919:LEU:HG	1:A:920:THR:HG23	1.84	0.58
1:A:3479:THR:O	1:A:3483:MET:N	2.28	0.58
1:A:3787:GLN:NE2	1:A:3788:LEU:O	2.37	0.58
1:A:4054:ALA:HB1	1:A:4059:ILE:HD11	1.86	0.58
1:A:4086:ASP:HA	1:A:4089:ILE:HG12	1.86	0.58
1:F:1866:GLN:OE1	1:F:1866:GLN:N	2.30	0.58
2:O:94:TYR:OH	2:O:107:ARG:NH2	2.37	0.58
3:P:716:ASN:HA	3:P:745:HIS:NE2	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:J:20:DT:H2'	11:J:21:DA:H8	1.69	0.58
1:A:19:LEU:HD22	1:A:34:LEU:HD23	1.85	0.57
1:A:738:HIS:HA	1:A:741:ILE:HG12	1.86	0.57
1:A:1082:PHE:HA	1:A:1085:ILE:HG12	1.86	0.57
1:A:2429:ASP:OD1	1:A:2430:GLU:N	2.37	0.57
1:A:3736:LYS:HB2	1:A:3752:VAL:HB	1.85	0.57
1:F:1418:HIS:HA	1:F:1421:GLU:HG2	1.85	0.57
1:F:2797:VAL:O	1:F:2801:ASP:N	2.32	0.57
1:F:2974:GLU:HG3	1:F:2978:LYS:NZ	2.19	0.57
1:F:3831:ASP:HB3	1:F:3832:PRO:HD3	1.86	0.57
2:L:118:ASN:HB2	2:L:121:GLU:HB2	1.86	0.57
3:P:814:ARG:HB3	3:P:849:GLY:N	2.19	0.57
1:A:3164:TRP:HA	1:A:3241:LYS:NZ	2.19	0.57
2:K:2:GLU:OE1	2:K:4:LYS:NZ	2.36	0.57
2:K:22:VAL:HG11	2:K:71:ARG:HH22	1.67	0.57
2:L:32:PHE:HD2	2:L:34:ILE:HG13	1.68	0.57
2:L:178:LYS:HG3	3:M:792:MET:CE	2.33	0.57
4:R:56:GLN:O	4:R:60:GLU:HG2	2.04	0.57
1:A:771:ASN:OD1	1:A:854:ARG:NH2	2.32	0.57
1:A:1423:ILE:HG23	1:A:1467:ILE:HD11	1.87	0.57
1:A:2448:PRO:HA	1:A:2451:LEU:HB2	1.85	0.57
1:A:4055:ASN:HD22	1:A:4058:VAL:HG23	1.68	0.57
1:F:1371:VAL:O	1:F:1374:GLN:HB2	2.05	0.57
1:F:1568:ASN:HA	1:F:1600:MET:HE1	1.86	0.57
1:F:1785:ILE:HA	1:F:1788:ARG:HB2	1.86	0.57
1:F:3192:LYS:O	1:F:3196:LYS:HG2	2.03	0.57
2:O:56:ALA:HB1	2:O:63:LYS:HA	1.86	0.57
1:A:207:GLN:NE2	1:A:215:PRO:O	2.38	0.57
1:A:221:ALA:O	1:A:225:LYS:HG3	2.05	0.57
1:A:1603:GLN:O	1:A:1607:GLU:N	2.37	0.57
1:A:1669:PRO:HA	1:A:1672:PHE:HB3	1.84	0.57
1:A:2313:LYS:HA	1:A:2316:TYR:CZ	2.39	0.57
1:A:2532:PRO:O	1:A:2538:ARG:NH1	2.38	0.57
1:A:3357:ARG:HB2	1:A:3358:ARG:HH11	1.68	0.57
1:F:1849:ASP:OD1	1:F:1850:VAL:N	2.37	0.57
1:F:2257:PHE:HA	1:F:2260:PHE:CE2	2.40	0.57
1:F:2310:VAL:HG11	1:F:2359:LYS:HE3	1.85	0.57
1:F:2571:ASP:HA	1:F:2574:ASN:HD22	1.68	0.57
1:F:2897:LEU:HD23	1:F:3973:PRO:HB3	1.87	0.57
2:K:56:ALA:HB1	2:K:62:GLU:HA	1.86	0.57
3:P:720:VAL:HG11	3:P:744:ILE:HB	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:72:PHE:HA	4:Q:75:HIS:CE1	2.39	0.57
8:D:15:DA:H2''	8:D:16:DA:C8	2.38	0.57
1:A:890:LYS:HG2	1:A:3889:ARG:HH22	1.69	0.57
1:A:3294:SER:O	1:A:3298:LEU:HG	2.05	0.57
1:F:172:GLU:HB2	1:F:219:VAL:HG12	1.86	0.57
1:F:2295:GLN:HE21	1:F:2299:TYR:N	2.02	0.57
2:N:102:LYS:HE2	4:Q:75:HIS:HB2	1.86	0.57
8:D:37:DG:N3	9:E:21:DA:H8	2.02	0.57
1:A:2571:ASP:HA	1:A:2574:ASN:HD22	1.70	0.57
1:F:299:LYS:O	1:F:303:HIS:ND1	2.34	0.57
1:F:1022:ASP:OD1	1:F:1025:LEU:N	2.35	0.57
1:F:2965:TYR:HB3	1:F:3001:CYS:HB2	1.86	0.57
1:F:3109:SER:O	1:F:3113:ASN:ND2	2.37	0.57
1:F:3792:SER:N	1:F:3804:GLU:OE1	2.37	0.57
1:F:3927:ASN:O	1:F:3940:ILE:N	2.29	0.57
1:F:4120:THR:OG1	1:F:4126:PRO:HB3	2.04	0.57
2:N:3:ARG:HA	2:N:21:GLN:HA	1.85	0.57
2:N:152:LEU:HA	2:O:151:LEU:HD22	1.87	0.57
3:P:721:VAL:HG22	3:P:742:PHE:HE2	1.69	0.57
4:R:129:SER:O	4:R:133:GLN:NE2	2.35	0.57
8:D:23:DT:H2'	8:D:24:DT:N3	2.19	0.57
1:A:75:SER:O	1:A:79:ARG:NH1	2.37	0.57
1:A:1921:ASP:OD1	1:A:1922:ALA:N	2.38	0.57
1:F:1389:VAL:O	1:F:1392:MET:HG3	2.03	0.57
1:F:2507:ILE:HA	1:F:2510:LEU:HD12	1.87	0.57
1:F:2527:HIS:CD2	1:F:2529:THR:H	2.22	0.57
1:F:3048:LYS:HD2	1:F:3061:LEU:HB2	1.86	0.57
4:R:30:THR:OG1	4:R:33:GLY:O	2.21	0.57
1:A:489:ARG:O	1:A:492:SER:OG	2.22	0.57
1:A:724:GLU:CB	1:A:2600:THR:H	2.16	0.57
1:F:79:ARG:HH21	1:F:82:ARG:HD2	1.68	0.57
1:F:466:LEU:HD21	1:F:560:LEU:HD22	1.85	0.57
1:F:2497:GLU:HA	1:F:2500:LYS:HE2	1.86	0.57
1:F:3494:GLN:HG2	1:F:3495:PHE:CD2	2.39	0.57
1:F:3530:VAL:O	1:F:3534:ILE:HG12	2.04	0.57
1:F:4010:SER:HA	1:F:4038:TRP:HE1	1.70	0.57
3:M:816:HIS:O	3:M:851:LYS:N	2.35	0.57
4:Q:198:LEU:HD11	4:R:220:ALA:HB1	1.86	0.57
1:A:3109:SER:O	1:A:3112:GLN:NE2	2.37	0.57
1:A:3898:LEU:HA	1:A:3901:ARG:HE	1.68	0.57
1:F:717:LYS:HB3	1:F:721:TYR:CZ	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2361:ILE:HD12	1:F:2364:LEU:HD23	1.86	0.57
1:F:3044:MET:HB3	1:F:3048:LYS:HZ1	1.69	0.57
1:F:3730:ALA:HA	1:F:3734:ARG:HA	1.87	0.57
11:J:32:DT:H2''	11:J:33:DA:C8	2.40	0.57
1:A:3169:PRO:HD2	1:A:3179:TRP:CZ3	2.40	0.57
1:F:1034:ARG:HD3	1:F:1084:ASN:HB3	1.85	0.57
1:F:2724:ASP:OD1	1:F:2725:LEU:N	2.38	0.57
2:L:89:SER:O	2:L:93:CYS:N	2.38	0.57
2:O:32:PHE:HZ	2:O:109:GLY:HA3	1.69	0.57
1:A:71:LYS:HD2	1:A:78:PHE:HB3	1.87	0.56
1:F:1058:SER:HA	1:F:1061:LYS:HE2	1.87	0.56
1:F:2991:LYS:O	1:F:2995:GLU:HG2	2.03	0.56
1:A:166:ILE:HG13	1:A:167:PRO:HD3	1.86	0.56
1:A:1294:VAL:HA	1:A:1297:PHE:CD2	2.41	0.56
1:F:864:GLY:HA2	1:F:867:ASN:HB2	1.87	0.56
1:F:1205:ASN:HD22	1:F:1275:THR:HA	1.70	0.56
1:F:1370:ARG:O	1:F:1374:GLN:NE2	2.38	0.56
1:F:3117:ILE:O	1:F:3125:ARG:NH2	2.38	0.56
1:F:3663:THR:HA	1:F:3666:LEU:HD12	1.87	0.56
1:F:3733:ARG:NH2	1:F:3755:GLY:H	2.03	0.56
1:F:3980:MET:N	1:F:3980:MET:SD	2.79	0.56
2:K:188:LYS:HD3	3:M:768:ASP:HA	1.86	0.56
4:R:162:LEU:HA	4:R:165:GLN:HG2	1.87	0.56
10:I:28:DT:H5'	11:J:30:DT:H1'	1.86	0.56
1:A:153:PHE:HZ	1:A:196:LEU:HD11	1.69	0.56
1:A:165:LYS:O	1:A:165:LYS:HD3	2.05	0.56
1:A:665:GLY:O	1:A:669:LEU:HG	2.06	0.56
1:A:676:ASN:HA	1:A:679:LYS:HE2	1.88	0.56
1:A:935:HIS:HD2	1:A:2773:ARG:NH1	2.03	0.56
1:A:949:PRO:HB3	1:F:2582:SER:HA	1.87	0.56
1:A:1201:ASN:ND2	1:A:1210:ASP:OD2	2.39	0.56
1:A:1420:ARG:NE	1:A:1466:ASN:O	2.38	0.56
1:A:2263:LYS:HE3	1:A:2265:PRO:HB3	1.87	0.56
1:F:891:ARG:NH1	1:F:957:PRO:O	2.39	0.56
1:F:2292:CYS:SG	1:F:2293:GLY:N	2.77	0.56
1:F:3084:GLN:OE1	1:F:3084:GLN:N	2.30	0.56
4:R:62:ASN:ND2	4:R:120:ASN:H	2.03	0.56
4:R:198:LEU:O	4:R:202:CYS:N	2.38	0.56
10:I:29:DA:H1'	10:I:30:DA:N7	2.20	0.56
1:A:27:ALA:O	1:A:30:ALA:N	2.27	0.56
1:A:1867:ILE:HD13	1:A:1936:ARG:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2157:PHE:HB2	1:A:2160:TYR:HB3	1.86	0.56
1:A:2383:PHE:O	1:A:2418:LYS:NZ	2.38	0.56
1:A:3292:GLY:O	1:A:3296:GLN:HB3	2.04	0.56
1:A:3834:ALA:O	1:A:3839:TYR:N	2.37	0.56
1:F:898:PHE:HB2	1:F:901:MET:O	2.05	0.56
3:P:865:ILE:N	3:P:889:LEU:HD11	2.20	0.56
4:Q:55:SER:HB3	4:Q:69:PRO:HB3	1.85	0.56
4:R:157:LEU:HD21	4:R:184:PHE:HD2	1.71	0.56
8:D:29:DG:H21	9:E:29:DA:H1'	1.70	0.56
1:A:1296:PHE:HA	1:A:1299:GLU:HB3	1.87	0.56
1:A:3131:SER:O	1:A:3135:LEU:HG	2.05	0.56
1:F:915:THR:O	1:F:919:LEU:N	2.37	0.56
1:F:1172:LEU:O	1:F:1176:CYS:N	2.39	0.56
1:F:1534:ASN:HB2	1:F:1556:GLY:H	1.71	0.56
1:F:1727:ARG:NE	1:F:1772:HIS:HA	2.21	0.56
1:F:2219:LEU:HD13	1:F:2238:ILE:HG12	1.87	0.56
1:F:2279:ILE:O	1:F:2283:ASN:ND2	2.37	0.56
3:M:670:THR:HG23	3:M:674:PRO:HA	1.87	0.56
2:O:44:THR:H	2:O:116:VAL:HG13	1.70	0.56
1:A:79:ARG:HA	1:A:82:ARG:HG2	1.86	0.56
1:A:2301:GLN:HA	1:A:2304:VAL:HG22	1.87	0.56
1:A:2366:LYS:HA	1:A:2369:LYS:HE2	1.88	0.56
1:A:3659:PHE:HA	1:A:3662:ILE:HD12	1.87	0.56
1:F:175:TYR:O	1:F:227:LEU:HD12	2.06	0.56
1:F:271:GLY:HA2	1:F:274:LEU:HD13	1.88	0.56
1:F:2391:GLY:O	1:F:2431:ARG:NH2	2.36	0.56
1:F:3478:GLU:OE1	1:F:3478:GLU:N	2.38	0.56
3:M:720:VAL:HB	3:M:745:HIS:H	1.70	0.56
2:N:151:LEU:HD13	2:O:152:LEU:HB2	1.88	0.56
3:P:772:ASN:O	3:P:776:GLU:HG2	2.05	0.56
1:A:530:LEU:O	1:A:534:LEU:N	2.35	0.56
1:A:1791:CYS:SG	1:A:1832:SER:OG	2.59	0.56
1:F:43:VAL:O	1:F:46:SER:OG	2.22	0.56
1:F:2357:GLU:HA	1:F:2360:PHE:HB3	1.88	0.56
3:M:738:TRP:HB2	3:M:753:HIS:CE1	2.41	0.56
1:A:3676:PRO:HB2	1:A:3681:LYS:HB2	1.87	0.56
1:F:863:GLY:HA3	1:F:3168:TYR:HB2	1.86	0.56
8:D:15:DA:H2	9:E:44:DG:C6	2.23	0.56
1:A:1693:VAL:HG21	1:A:1746:PHE:CZ	2.41	0.56
1:A:2477:LEU:HA	1:A:2480:ILE:HD12	1.88	0.56
1:A:3301:LEU:CG	1:A:3305:SER:H	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:200:PHE:CE2	1:F:227:LEU:HD22	2.41	0.56
1:F:2245:TRP:HB2	1:F:2249:LEU:HD11	1.86	0.56
1:F:3496:ILE:HD12	1:F:3707:GLY:H	1.69	0.56
1:F:4100:GLU:OE1	1:F:4100:GLU:N	2.32	0.56
4:Q:34:TYR:HD1	4:Q:54:VAL:HG22	1.71	0.56
4:R:73:LEU:O	4:R:77:ASP:HB2	2.06	0.56
1:A:1190:LEU:HD23	1:A:1193:LYS:HD3	1.87	0.56
1:F:639:ALA:HB2	1:F:676:ASN:HB3	1.88	0.56
1:F:1149:LYS:O	1:F:1151:ARG:NH1	2.39	0.56
1:F:2252:PRO:HD2	1:F:2256:ILE:HD11	1.88	0.56
4:Q:45:TRP:HA	4:Q:124:MET:SD	2.45	0.56
9:E:28:DT:H1'	9:E:29:DA:H5''	1.86	0.56
1:A:1639:LEU:HA	1:A:1642:LYS:HE3	1.87	0.55
1:A:2737:GLU:O	1:A:2741:LEU:N	2.35	0.55
1:F:122:LYS:HG3	1:F:124:LYS:HD3	1.88	0.55
1:F:301:CYS:HA	1:F:309:LYS:HA	1.88	0.55
1:F:1050:GLU:OE1	1:F:1057:LYS:NZ	2.38	0.55
4:R:34:TYR:HH	4:R:119:TRP:HZ2	1.51	0.55
4:R:55:SER:OG	4:R:69:PRO:HB3	2.06	0.55
1:A:273:ARG:O	1:A:277:LEU:HG	2.06	0.55
1:A:2548:PRO:HB3	1:A:2847:THR:HA	1.89	0.55
1:A:3445:LEU:O	1:A:3448:GLU:HG2	2.06	0.55
1:A:3500:SER:HA	1:A:3503:VAL:HG12	1.89	0.55
1:A:3738:ILE:O	1:A:3749:PRO:HA	2.06	0.55
1:A:3771:MET:HA	1:A:3774:ILE:HD12	1.89	0.55
1:F:639:ALA:O	1:F:643:GLU:N	2.39	0.55
1:F:923:ASP:O	1:F:926:THR:N	2.39	0.55
1:F:2321:GLU:O	1:F:2325:LEU:HG	2.06	0.55
1:F:2548:PRO:HB3	1:F:2847:THR:HA	1.89	0.55
1:F:3239:LYS:HB3	1:F:3258:LEU:HD21	1.87	0.55
2:L:6:SER:HB3	2:L:20:LEU:HD12	1.89	0.55
2:L:56:ALA:HB3	2:L:63:LYS:HE3	1.86	0.55
2:N:32:PHE:HZ	2:N:70:LEU:HD12	1.71	0.55
4:Q:139:LEU:HA	4:Q:142:MET:HE2	1.87	0.55
8:D:25:DT:H3'	8:D:26:DT:H72	1.87	0.55
1:A:61:ARG:HH11	1:A:65:LEU:HD12	1.72	0.55
1:A:1086:TYR:CE1	1:A:1133:HIS:HB3	2.41	0.55
1:A:2225:HIS:CE1	1:A:2234:ASN:HD21	2.24	0.55
1:A:2481:HIS:HE2	1:A:2530:ARG:HG3	1.72	0.55
1:A:2806:LYS:HB2	1:A:2857:CYS:HB2	1.89	0.55
1:A:3444:ALA:HA	1:A:3482:LEU:HD11	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:323:VAL:HA	1:F:326:MET:HG2	1.87	0.55
1:F:1468:LEU:HD22	1:F:1521:PHE:CZ	2.41	0.55
1:F:2348:GLN:O	1:F:2353:GLN:NE2	2.39	0.55
1:F:3495:PHE:O	1:F:3499:ILE:N	2.39	0.55
1:F:3502:MET:HG3	1:F:3518:VAL:HG11	1.87	0.55
1:F:3962:ARG:HD2	1:F:4124:TRP:NE1	2.21	0.55
2:O:21:GLN:HE21	2:O:126:LEU:HA	1.71	0.55
1:A:2801:ASP:OD2	1:A:2804:ILE:N	2.29	0.55
1:A:3459:ASN:O	1:A:3463:LEU:HG	2.07	0.55
1:F:306:VAL:HA	1:F:309:LYS:HD3	1.87	0.55
1:F:1038:LYS:HA	1:F:1041:ILE:HD12	1.87	0.55
2:N:155:TRP:CE2	2:O:154:ASP:HB3	2.42	0.55
3:P:817:THR:HG1	3:P:861:SER:HG	1.51	0.55
1:A:303:HIS:O	1:A:309:LYS:NZ	2.22	0.55
1:A:851:ILE:O	1:A:855:VAL:HG23	2.07	0.55
1:A:2446:LEU:HD23	1:A:2451:LEU:HD23	1.88	0.55
1:A:3357:ARG:O	1:A:3360:LEU:HB3	2.07	0.55
1:F:1015:ASP:OD1	1:F:1015:ASP:N	2.37	0.55
1:F:1626:TRP:HZ2	1:F:1674:THR:HG21	1.70	0.55
2:N:16:ILE:HG12	2:N:38:ASP:HB2	1.88	0.55
1:A:1676:ILE:O	1:A:1680:ALA:N	2.35	0.55
1:A:2514:ASN:ND2	1:A:2517:LEU:HG	2.21	0.55
1:A:3293:CYS:SG	1:A:3340:ALA:HB1	2.46	0.55
1:A:4008:GLU:OE2	1:A:4014:LYS:NZ	2.37	0.55
1:F:2097:LEU:O	1:F:2101:VAL:HG23	2.06	0.55
1:F:2987:THR:HG22	1:F:2990:GLU:HG3	1.89	0.55
1:F:3554:PHE:HA	1:F:3557:ARG:NE	2.22	0.55
1:F:3741:ARG:HA	1:F:3747:GLU:HA	1.87	0.55
1:A:1821:ASP:OD1	1:A:1875:LYS:NZ	2.24	0.55
1:F:1582:LEU:HD11	1:F:1597:LEU:HD21	1.88	0.55
2:K:188:LYS:HE3	3:M:769:THR:HG23	1.89	0.55
2:N:55:GLU:HA	2:N:58:ASP:HB2	1.88	0.55
3:P:668:SER:OG	3:P:704:SER:N	2.38	0.55
4:R:16:LEU:HA	4:R:83:LEU:HA	1.88	0.55
1:A:894:PHE:O	1:A:905:ILE:N	2.37	0.55
1:A:1675:TYR:HA	1:A:1678:LEU:HD12	1.88	0.55
1:A:3593:ARG:NH2	1:A:3657:SER:O	2.37	0.55
1:F:1627:LYS:HE2	1:F:1674:THR:OG1	2.07	0.55
1:F:1709:GLU:OE1	1:F:1709:GLU:N	2.33	0.55
3:M:800:GLU:HA	3:M:805:TRP:HB2	1.87	0.55
2:O:55:GLU:OE1	2:O:66:TYR:OH	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:820:LEU:HD21	3:P:841:LYS:HB3	1.87	0.55
1:A:111:CYS:HB2	1:A:130:LEU:HD22	1.87	0.55
1:A:865:GLN:OE1	1:A:3171:ALA:N	2.39	0.55
1:A:2197:THR:O	1:A:2201:THR:OG1	2.24	0.55
1:A:3472:ILE:HA	1:A:3479:THR:HG21	1.89	0.55
1:F:103:TYR:O	1:F:106:GLU:HB2	2.06	0.55
1:F:2335:ASN:OD1	1:F:2336:ILE:N	2.39	0.55
1:F:2507:ILE:HG22	1:F:2550:ILE:HG13	1.87	0.55
3:M:753:HIS:NE2	3:M:757:GLU:OE2	2.40	0.55
2:O:33:VAL:HG22	2:O:47:VAL:HG13	1.89	0.55
1:A:18:THR:O	1:A:22:ALA:N	2.39	0.55
1:A:3251:ASN:O	1:A:3254:LEU:HD22	2.06	0.55
1:A:3622:ALA:O	1:A:3630:ARG:NE	2.40	0.55
1:A:3699:LEU:O	1:A:3719:ILE:N	2.40	0.55
1:F:2348:GLN:O	1:F:2352:HIS:NE2	2.40	0.55
1:F:3081:HIS:HB2	1:F:3082:TYR:CE2	2.42	0.55
1:F:3424:LEU:HD21	1:F:3443:PRO:HG3	1.89	0.55
1:F:3974:MET:HE2	1:F:3977:THR:H	1.72	0.55
1:F:3995:PRO:HD3	1:F:4051:LEU:HD22	1.88	0.55
2:K:153:ARG:HD2	2:K:154:ASP:N	2.22	0.55
3:M:875:PHE:HD2	3:M:888:ILE:HG23	1.71	0.55
2:N:145:GLN:HB2	2:O:144:LEU:HD13	1.89	0.55
1:A:138:PHE:O	1:A:142:ARG:HD2	2.07	0.54
1:A:895:ALA:HA	1:A:904:VAL:HA	1.90	0.54
1:A:1071:ASN:O	1:A:1075:ARG:NE	2.38	0.54
1:A:1504:ASP:H	1:A:1507:CYS:HB2	1.72	0.54
1:A:2394:LYS:O	1:A:2398:LEU:HG	2.06	0.54
1:A:3062:LEU:HD13	1:A:3089:LEU:HD11	1.89	0.54
1:A:3151:LEU:HB3	1:A:3197:LEU:HA	1.88	0.54
1:A:3639:GLU:HG2	1:A:3667:LEU:HD11	1.88	0.54
1:F:913:ARG:NH2	1:F:2801:ASP:OD1	2.34	0.54
1:F:3061:LEU:O	1:F:3065:ILE:HG12	2.07	0.54
1:F:3825:LYS:HA	1:F:3829:LEU:HD13	1.88	0.54
1:F:3881:ASP:HB3	1:F:3885:ARG:HH22	1.72	0.54
3:M:812:MET:SD	3:M:848:HIS:HB3	2.47	0.54
4:Q:31:LYS:HG3	4:Q:32:GLN:HG2	1.89	0.54
4:R:41:LEU:HD21	4:R:139:LEU:HD11	1.88	0.54
8:D:29:DG:N2	9:E:29:DA:H1'	2.22	0.54
1:A:418:ALA:HB3	1:A:463:LYS:HD3	1.89	0.54
1:A:1416:GLU:O	1:A:1420:ARG:N	2.27	0.54
1:A:2869:LEU:HD13	1:A:2896:ALA:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1164:CYS:SG	1:F:1165:LEU:N	2.80	0.54
1:F:1949:ILE:HG12	1:F:2100:LEU:HD21	1.88	0.54
3:M:869:HIS:CE1	3:M:890:LYS:HA	2.42	0.54
2:O:38:ASP:OD1	2:O:41:SER:N	2.33	0.54
4:Q:17:GLN:HB2	4:Q:83:LEU:HD12	1.89	0.54
4:Q:54:VAL:HG12	4:Q:72:PHE:HB3	1.89	0.54
11:J:16:DA:H2'	11:J:17:DT:C4	2.42	0.54
1:A:1072:ALA:HA	1:A:1075:ARG:HH21	1.71	0.54
1:A:1142:HIS:HA	1:A:1145:LEU:HD13	1.89	0.54
1:A:1386:ILE:HG13	1:A:1387:GLY:H	1.71	0.54
1:A:3419:PHE:O	1:A:3423:GLN:HG2	2.08	0.54
1:A:3856:MET:O	1:A:3860:LYS:HB2	2.07	0.54
1:A:3986:HIS:HA	1:A:3989:ARG:HE	1.73	0.54
1:F:928:VAL:HB	1:F:2769:VAL:HG11	1.89	0.54
1:F:2851:PHE:HB3	1:F:2854:PHE:HB3	1.88	0.54
8:D:28:DA:H2''	8:D:29:DG:N7	2.22	0.54
1:A:419:SER:HB3	1:A:463:LYS:HZ1	1.71	0.54
1:A:667:TYR:HA	1:A:670:LEU:HD12	1.89	0.54
1:A:935:HIS:CD2	1:A:2773:ARG:HH12	2.25	0.54
1:A:3512:VAL:HA	1:A:3515:GLN:OE1	2.07	0.54
1:F:1419:LEU:HG	1:F:1467:ILE:HD13	1.90	0.54
1:F:1510:LEU:O	1:F:1514:LEU:HG	2.07	0.54
1:F:2376:ASP:HB3	1:F:2404:ARG:NH2	2.22	0.54
1:F:3582:GLU:O	1:F:3586:LYS:HG2	2.07	0.54
2:O:5:ILE:HA	2:O:21:GLN:HA	1.90	0.54
1:A:1005:ASP:OD1	1:A:1005:ASP:N	2.41	0.54
1:A:1086:TYR:CD1	1:A:1133:HIS:HB3	2.42	0.54
1:A:1190:LEU:O	1:A:1193:LYS:HG2	2.07	0.54
1:A:2411:LEU:O	1:A:2415:LEU:HG	2.07	0.54
1:A:2771:LEU:HD23	1:A:2771:LEU:H	1.72	0.54
1:A:3159:ARG:HA	1:A:3162:ASN:ND2	2.23	0.54
1:A:3959:MET:N	1:A:3959:MET:SD	2.81	0.54
1:F:218:PRO:HG3	11:J:21:DA:OP2	2.07	0.54
1:F:456:VAL:HA	1:F:459:ARG:HD2	1.89	0.54
1:F:1270:PHE:HB3	1:F:1276:VAL:HG12	1.88	0.54
1:F:2415:LEU:HA	1:F:2418:LYS:HB2	1.90	0.54
1:F:2466:SER:C	1:F:2470:ARG:HH21	2.11	0.54
1:F:3449:LYS:HA	1:F:3452:LYS:HD3	1.90	0.54
2:K:94:TYR:HE1	2:K:96:PHE:HB3	1.72	0.54
8:D:24:DT:H3	9:E:33:DA:H2	1.54	0.54
1:A:103:TYR:HA	1:A:106:GLU:OE2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2869:LEU:HB2	1:A:2899:ARG:HH21	1.72	0.54
1:F:582:THR:HB	1:F:615:ALA:HB2	1.89	0.54
1:F:710:PHE:O	1:F:713:GLU:HG2	2.08	0.54
1:F:1250:LEU:O	1:F:1254:LEU:HG	2.08	0.54
1:F:2773:ARG:HH21	1:F:2775:TYR:HE1	1.55	0.54
1:F:3383:GLN:O	1:F:3386:SER:OG	2.20	0.54
2:N:4:LYS:HB3	2:N:20:LEU:HB3	1.89	0.54
2:N:190:LYS:HE2	2:N:194:LEU:HD11	1.90	0.54
1:A:1164:CYS:SG	1:A:1165:LEU:N	2.80	0.54
1:A:2974:GLU:O	1:A:2978:LYS:N	2.41	0.54
1:A:3149:GLY:O	1:A:3152:SER:OG	2.25	0.54
1:A:3841:ASP:OD1	1:A:3866:GLU:HG3	2.06	0.54
1:F:1115:HIS:O	1:F:1119:LYS:NZ	2.34	0.54
1:F:1407:LYS:HA	1:F:1412:LYS:HB3	1.90	0.54
1:F:1697:PRO:HA	1:F:1753:SER:HB2	1.90	0.54
1:F:2196:TRP:HE1	1:F:2200:ALA:HB3	1.71	0.54
1:F:3100:LYS:HA	1:F:3103:ILE:HG22	1.90	0.54
1:F:3373:VAL:O	1:F:3377:LEU:HG	2.07	0.54
1:F:4008:GLU:HG3	1:F:4011:PHE:HB2	1.89	0.54
1:A:275:PHE:HZ	1:A:319:PHE:HB2	1.73	0.54
1:A:976:VAL:HG22	1:A:977:ASP:H	1.72	0.54
1:A:1423:ILE:HG13	1:A:1425:ALA:H	1.73	0.54
1:A:3085:GLU:HA	1:A:3088:LEU:HD12	1.89	0.54
1:A:3279:SER:HA	1:A:3282:ARG:HH21	1.73	0.54
1:F:1418:HIS:O	1:F:1421:GLU:HG2	2.08	0.54
1:F:1691:GLN:O	1:F:1694:THR:OG1	2.24	0.54
1:F:3158:LYS:HE2	1:F:3186:ARG:HH12	1.72	0.54
1:F:3335:ARG:HG2	1:F:3339:ASN:HD21	1.71	0.54
4:Q:131:VAL:N	4:R:42:GLN:H	2.06	0.54
1:A:40:GLN:HE21	1:A:2426:HIS:CE1	2.26	0.54
1:A:380:ASP:HA	1:A:383:PHE:HB3	1.90	0.54
1:A:635:PRO:O	1:A:679:LYS:NZ	2.37	0.54
1:A:2578:GLU:OE1	1:A:2578:GLU:N	2.31	0.54
1:A:3156:PRO:HA	1:A:3159:ARG:CZ	2.38	0.54
1:F:1921:ASP:OD1	1:F:1922:ALA:N	2.41	0.54
1:F:3048:LYS:O	1:F:3052:LEU:HG	2.08	0.54
1:F:4057:ALA:HB1	1:F:4082:ARG:HA	1.90	0.54
2:K:42:ALA:HB3	2:K:116:VAL:HG11	1.89	0.54
3:M:871:ARG:HD2	3:M:874:ASP:OD2	2.08	0.54
4:R:187:ASN:OD1	4:R:188:SER:N	2.38	0.54
1:A:645:TRP:O	1:A:649:PHE:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2837:LEU:O	1:A:2841:ASN:ND2	2.40	0.54
1:A:3077:ILE:HA	1:A:3080:LEU:HB2	1.90	0.54
1:A:3447:VAL:HA	1:A:3450:MET:HG2	1.90	0.54
1:F:3659:PHE:HA	1:F:3662:ILE:HD12	1.89	0.54
2:K:20:LEU:HG	2:K:34:ILE:HD11	1.89	0.54
8:D:27:DT:O4	9:E:29:DA:N6	2.41	0.54
1:A:174:VAL:O	1:A:178:LEU:N	2.32	0.53
1:A:3571:PHE:O	1:A:3575:LEU:HG	2.09	0.53
1:F:828:LYS:HB2	1:F:830:VAL:HG22	1.90	0.53
1:F:1151:ARG:HH11	1:F:1163:LEU:HB2	1.72	0.53
1:F:2187:VAL:HG23	1:F:2728:LEU:HD21	1.89	0.53
1:F:2257:PHE:HA	1:F:2260:PHE:CZ	2.42	0.53
1:F:2414:GLN:O	1:F:2418:LYS:N	2.32	0.53
1:F:2464:HIS:CD2	1:F:2466:SER:HB3	2.42	0.53
1:F:3120:LEU:HD23	1:F:3120:LEU:H	1.73	0.53
2:K:92:SER:HB3	2:K:94:TYR:HD2	1.74	0.53
3:M:845:LEU:O	3:M:850:ALA:N	2.41	0.53
2:N:148:ASN:OD1	2:O:151:LEU:HD12	2.07	0.53
2:O:163:GLU:HA	3:P:846:ARG:NH2	2.21	0.53
4:Q:221:VAL:HG13	4:R:198:LEU:HD11	1.90	0.53
1:A:3159:ARG:HA	1:A:3162:ASN:HD21	1.72	0.53
1:A:3167:ARG:O	1:A:3168:TYR:C	2.47	0.53
1:A:3521:ILE:O	1:A:3525:TYR:N	2.32	0.53
1:A:3988:LEU:HD23	1:A:4100:GLU:HA	1.90	0.53
1:F:406:ARG:O	1:F:409:GLN:NE2	2.40	0.53
1:F:1588:ASP:OD1	1:F:1589:ASN:N	2.40	0.53
1:F:2228:ARG:HH22	1:F:2738:LYS:HD3	1.73	0.53
1:F:2253:TYR:H	1:F:2256:ILE:HD12	1.72	0.53
1:F:2575:PRO:HA	1:F:2786:LYS:HA	1.89	0.53
2:K:72:LYS:HZ2	2:K:86:PHE:HE2	1.55	0.53
3:M:876:LYS:O	3:M:880:ARG:HG2	2.08	0.53
2:O:9:HIS:NE2	2:O:86:PHE:O	2.41	0.53
4:Q:51:THR:OG1	4:Q:69:PRO:HB2	2.09	0.53
1:A:2391:GLY:O	1:A:2431:ARG:NH2	2.38	0.53
1:A:2948:GLY:O	1:A:2951:GLN:NE2	2.41	0.53
1:A:3228:SER:OG	1:A:3232:ARG:NH2	2.41	0.53
1:F:62:ASP:O	1:F:66:LEU:HG	2.08	0.53
1:F:246:ARG:HA	1:F:249:PHE:CD2	2.43	0.53
1:F:901:MET:HB2	1:F:2819:GLU:HG2	1.89	0.53
1:F:1343:GLU:O	1:F:1346:THR:OG1	2.22	0.53
1:F:2404:ARG:NH1	1:F:2406:GLU:OE2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2749:ALA:O	1:F:2753:ARG:HG2	2.08	0.53
1:F:3691:LYS:NZ	1:F:3693:GLU:OE2	2.41	0.53
2:K:71:ARG:HD3	2:K:75:LEU:HD12	1.90	0.53
3:M:661:ASP:H	3:M:688:TYR:HE1	1.56	0.53
3:M:720:VAL:N	3:M:745:HIS:O	2.29	0.53
3:P:836:THR:HG23	3:P:838:LEU:HG	1.90	0.53
1:A:1413:ASP:OD1	1:A:1414:ILE:N	2.41	0.53
1:A:1419:LEU:HD11	1:A:1467:ILE:HD13	1.90	0.53
1:A:3422:GLN:N	1:A:3425:ARG:HH21	2.06	0.53
1:F:94:GLU:OE1	1:F:837:THR:OG1	2.25	0.53
1:F:183:GLU:HG2	1:F:184:VAL:N	2.24	0.53
1:F:2350:LYS:HA	1:F:2354:ASN:OD1	2.09	0.53
1:F:4113:ASP:O	1:F:4117:LEU:HG	2.09	0.53
2:K:95:PHE:HB2	2:K:113:LEU:HD11	1.90	0.53
3:M:654:LYS:HB2	3:M:684:GLU:O	2.08	0.53
2:O:22:VAL:HG21	2:O:74:LEU:HD22	1.89	0.53
1:A:2213:ASN:ND2	1:A:2248:CYS:O	2.42	0.53
1:A:2213:ASN:OD1	1:A:2250:SER:N	2.41	0.53
1:F:531:PHE:O	1:F:534:LEU:HB2	2.07	0.53
1:F:941:MET:SD	1:F:942:LEU:N	2.82	0.53
1:F:994:TRP:CZ2	1:F:1000:LYS:HE3	2.43	0.53
1:F:1268:ASN:ND2	1:F:1347:THR:OG1	2.42	0.53
1:F:1455:CYS:HA	1:F:1458:LEU:HD12	1.90	0.53
1:F:1639:LEU:HD11	1:F:1688:LEU:HD13	1.91	0.53
1:F:2253:TYR:CE1	1:F:2288:TYR:HA	2.43	0.53
1:F:3424:LEU:HA	1:F:3427:GLU:HB2	1.91	0.53
4:Q:133:GLN:HB2	4:R:43:GLN:N	2.23	0.53
1:A:538:ASP:OD1	1:A:538:ASP:N	2.42	0.53
1:A:1331:ASN:HD21	1:A:1384:PHE:N	2.06	0.53
1:A:1333:SER:O	1:A:1337:VAL:HG23	2.08	0.53
1:A:1342:MET:HE3	1:A:1398:VAL:HG13	1.91	0.53
1:A:3114:TYR:HE1	1:A:3125:ARG:HB3	1.74	0.53
1:A:3915:HIS:HB2	1:A:3920:ILE:HB	1.91	0.53
1:F:363:ILE:O	1:F:416:SER:OG	2.24	0.53
1:F:967:PRO:HB2	1:F:971:ARG:NH2	2.23	0.53
1:F:996:THR:HG23	1:F:1043:GLN:NE2	2.23	0.53
1:F:1142:HIS:O	1:F:1146:ASN:N	2.37	0.53
1:F:1769:GLU:O	1:F:1822:ARG:NH1	2.41	0.53
1:F:2534:ASN:HB3	1:F:2537:ASP:HB2	1.90	0.53
1:F:3169:PRO:O	1:F:3179:TRP:NE1	2.42	0.53
1:F:3771:MET:O	1:F:3775:LEU:HG	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3874:ARG:NH2	1:F:4116:ILE:O	2.35	0.53
2:K:19:PHE:CE2	2:K:126:LEU:HD21	2.43	0.53
2:K:35:THR:HG22	2:K:44:THR:HG22	1.90	0.53
3:P:753:HIS:NE2	3:P:757:GLU:OE1	2.42	0.53
8:D:37:DG:N1	9:E:22:DA:N1	2.46	0.53
1:A:538:ASP:HA	1:A:541:MET:HG3	1.90	0.53
1:A:933:LEU:HD23	1:A:937:MET:HE2	1.91	0.53
1:A:997:ASN:OD1	1:A:1043:GLN:NE2	2.41	0.53
1:A:1098:GLN:OE1	1:A:1152:ARG:N	2.42	0.53
1:A:1279:LEU:H	1:A:1356:TRP:HE1	1.56	0.53
1:A:1849:ASP:OD1	1:A:1850:VAL:N	2.42	0.53
1:A:3283:LEU:O	1:A:3287:ARG:N	2.34	0.53
1:F:1278:ALA:HA	1:F:1281:VAL:HG22	1.91	0.53
1:F:1404:LYS:NZ	1:F:1460:ARG:O	2.37	0.53
1:F:2225:HIS:CE1	1:F:2234:ASN:HD21	2.27	0.53
1:F:3339:ASN:OD1	1:F:3378:TYR:OH	2.27	0.53
2:K:173:GLU:HG2	2:L:172:LEU:HD21	1.91	0.53
2:N:19:PHE:HE2	2:N:37:THR:HG1	1.56	0.53
2:N:191:ILE:HG23	2:O:194:LEU:HD11	1.91	0.53
2:O:53:SER:O	2:O:63:LYS:NZ	2.42	0.53
1:A:332:GLU:OE1	1:A:332:GLU:N	2.38	0.53
1:A:1504:ASP:O	1:A:1508:LYS:N	2.40	0.53
1:A:1729:PHE:HB3	1:A:1736:PHE:HB2	1.91	0.53
1:A:1766:LEU:HD13	1:A:1778:PHE:CD1	2.44	0.53
1:A:3321:LEU:HA	1:A:3324:ARG:NH1	2.24	0.53
1:A:3530:VAL:HG12	1:A:3562:LEU:HD22	1.89	0.53
1:A:3867:THR:HG23	1:A:4117:LEU:C	2.29	0.53
1:F:417:VAL:HA	1:F:420:VAL:HG12	1.90	0.53
1:F:2582:SER:OG	1:F:2583:GLU:N	2.42	0.53
1:F:2808:LEU:HD23	1:F:2812:LEU:HD23	1.91	0.53
1:F:4041:ARG:HA	1:F:4044:ILE:HG12	1.91	0.53
2:K:89:SER:HB3	2:K:96:PHE:CE1	2.43	0.53
11:J:21:DA:H2'	11:J:22:DG:N7	2.23	0.53
1:A:65:LEU:O	1:A:69:VAL:HG22	2.09	0.53
1:A:648:SER:O	1:A:651:TYR:HB3	2.09	0.53
1:A:1304:HIS:HB3	1:A:1307:ILE:O	2.09	0.53
1:A:3929:MET:O	1:A:3938:ILE:N	2.36	0.53
1:F:61:ARG:HB2	1:F:103:TYR:CE2	2.44	0.53
1:F:125:ILE:HD12	1:F:125:ILE:H	1.73	0.53
1:F:195:ASN:O	1:F:198:ARG:HG3	2.09	0.53
1:F:357:LYS:O	1:F:361:ILE:HG12	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1323:SER:N	1:F:1328:GLU:OE2	2.42	0.53
1:F:2485:ARG:NH2	1:F:2529:THR:O	2.42	0.53
1:F:3036:TYR:O	1:F:3039:THR:OG1	2.20	0.53
1:F:3981:TYR:HA	1:F:3984:MET:SD	2.49	0.53
3:P:722:LYS:H	3:P:742:PHE:HD2	1.56	0.53
4:Q:131:VAL:CA	4:R:42:GLN:H	2.22	0.53
1:F:71:LYS:HB2	1:F:82:ARG:HH21	1.73	0.53
1:F:162:LEU:HD11	1:F:164:LYS:HD3	1.90	0.53
1:F:1484:LEU:HD22	1:F:1531:LEU:HD13	1.91	0.53
1:F:2220:MET:HA	1:F:2223:VAL:HG12	1.91	0.53
1:F:2958:LEU:O	1:F:2962:ARG:HG2	2.09	0.53
4:Q:132:SER:HA	4:R:40:ASP:CA	2.39	0.53
10:I:35:DT:H2''	10:I:36:DA:C8	2.45	0.53
1:A:1604:SER:HA	1:A:1607:GLU:HB3	1.90	0.52
1:A:1759:LEU:HD11	1:A:1782:PHE:HE1	1.73	0.52
1:A:2295:GLN:HG3	1:A:2298:GLU:H	1.72	0.52
1:A:3810:VAL:HG11	1:A:3815:LEU:HD13	1.92	0.52
1:F:933:LEU:HD21	1:F:2794:LEU:HD23	1.91	0.52
1:F:1086:TYR:CE1	1:F:1133:HIS:HB3	2.43	0.52
1:F:1388:ASP:HA	1:F:1392:MET:HG2	1.91	0.52
1:F:3996:GLY:O	1:F:4000:ASN:ND2	2.42	0.52
2:O:86:PHE:HB2	2:O:95:PHE:HZ	1.74	0.52
1:A:240:GLU:HG2	1:A:241:ASP:H	4.86	0.52
1:A:468:LEU:HD21	1:A:478:CYS:HB2	1.91	0.52
1:A:1736:PHE:HA	1:A:1739:TYR:HD2	1.74	0.52
1:A:2586:PHE:CG	1:A:2782:ASP:HB3	2.44	0.52
1:F:790:LYS:HA	1:F:869:ASN:HB3	1.92	0.52
1:F:1635:LYS:HE3	1:F:1683:LYS:HG2	1.90	0.52
2:N:18:HIS:HB3	2:N:34:ILE:HD11	1.90	0.52
4:Q:24:LEU:HD13	4:Q:211:VAL:HG12	1.90	0.52
4:Q:61:LEU:HD11	4:Q:120:ASN:H	1.75	0.52
4:R:110:SER:HB2	4:R:117:PHE:HB3	1.91	0.52
10:I:45:DG:C8	10:I:45:DG:H5'	2.44	0.52
1:A:58:VAL:HG21	1:A:3098:ARG:HD2	1.90	0.52
1:A:99:LYS:O	1:A:102:PRO:HD2	2.10	0.52
1:A:406:ARG:O	1:A:409:GLN:NE2	2.42	0.52
1:A:1081:ALA:O	1:A:1085:ILE:HG23	2.09	0.52
1:A:1169:VAL:HG21	1:A:1198:LEU:HD21	1.91	0.52
1:A:1840:PHE:CZ	1:A:1844:VAL:HG22	2.44	0.52
1:A:2571:ASP:HA	1:A:2574:ASN:ND2	2.23	0.52
1:A:3515:GLN:HA	1:A:3518:VAL:HG12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1238:GLN:HG3	1:F:1296:PHE:HZ	1.73	0.52
1:F:1576:ASP:HA	1:F:1579:VAL:HB	1.91	0.52
1:F:1674:THR:O	1:F:1678:LEU:HG	2.09	0.52
1:F:2304:VAL:O	1:F:2307:MET:HB3	2.09	0.52
1:F:2405:VAL:HA	1:F:2408:MET:HE1	1.92	0.52
1:F:2755:LYS:HA	1:F:2758:LYS:HE2	1.91	0.52
2:N:99:LYS:HB2	2:N:108:LEU:HD22	1.91	0.52
2:N:161:ARG:HB3	2:O:162:PHE:CE2	2.44	0.52
3:P:722:LYS:HG2	3:P:742:PHE:O	2.09	0.52
1:A:1111:LEU:HD12	1:A:1127:CYS:HB2	1.92	0.52
1:A:1164:CYS:N	1:A:1167:ASP:OD2	2.41	0.52
1:A:2931:ARG:HH12	1:A:2997:ALA:HA	1.74	0.52
1:A:3047:SER:O	1:A:3051:LEU:HG	2.09	0.52
1:A:3479:THR:HA	1:A:3482:LEU:HD12	1.90	0.52
1:F:440:VAL:HG21	1:F:485:GLN:HG3	1.92	0.52
1:F:1781:SER:HA	1:F:1784:ARG:HD3	1.91	0.52
1:F:3046:ARG:HH22	1:F:3177:ASN:HB3	1.74	0.52
1:F:3097:ASP:HA	1:F:3100:LYS:HE2	1.90	0.52
1:F:3585:PHE:HB3	1:F:3586:LYS:NZ	2.24	0.52
2:L:25:GLU:HG2	2:L:26:LYS:H	1.74	0.52
2:L:45:GLY:HA3	2:L:114:GLU:H	1.72	0.52
2:N:52:ILE:HG13	2:N:66:TYR:CG	2.44	0.52
4:R:57:ARG:HD2	4:R:61:LEU:HD22	1.91	0.52
4:R:119:TRP:CE2	4:R:121:PHE:HE1	2.28	0.52
1:A:215:PRO:O	1:A:217:LEU:N	2.42	0.52
1:A:345:PHE:HA	1:A:348:ILE:HG12	1.91	0.52
1:A:364:ARG:NH1	1:A:415:GLN:HB3	2.25	0.52
1:A:405:ASP:OD1	1:A:406:ARG:N	2.41	0.52
1:A:414:LEU:HB2	1:A:460:ALA:HB1	1.91	0.52
1:A:1145:LEU:HB3	1:A:1165:LEU:HB2	1.91	0.52
1:A:1697:PRO:HD3	1:A:1749:ALA:HB1	1.91	0.52
1:A:3643:HIS:HB3	1:A:3659:PHE:CZ	2.45	0.52
1:F:571:SER:HA	1:F:574:LYS:HE2	1.91	0.52
1:F:1474:ASP:OD1	1:F:1474:ASP:N	2.43	0.52
1:F:1603:GLN:O	1:F:1603:GLN:NE2	2.42	0.52
1:F:1649:LEU:HA	1:F:1652:ILE:HD12	1.91	0.52
2:K:145:GLN:N	2:L:144:LEU:HD21	2.24	0.52
4:Q:153:LEU:O	4:Q:157:LEU:HG	2.09	0.52
1:A:1331:ASN:ND2	1:A:1384:PHE:H	2.07	0.52
1:A:1754:GLN:NE2	1:A:1785:ILE:O	2.43	0.52
1:F:22:ALA:HA	1:F:24:ARG:HH11	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:637:LYS:O	1:F:679:LYS:NZ	2.41	0.52
1:F:3516:HIS:O	1:F:3519:GLU:HB3	2.10	0.52
3:M:869:HIS:HE2	3:M:890:LYS:HG2	1.74	0.52
2:N:193:SER:O	2:N:197:LYS:HG3	2.09	0.52
3:P:847:PHE:HD2	3:P:848:HIS:CE1	2.27	0.52
10:I:40:DT:O2	11:J:18:DA:H1'	2.09	0.52
1:A:79:ARG:HH21	1:A:82:ARG:HE	1.57	0.52
1:A:3269:ARG:HG3	1:A:3272:TRP:HB3	1.92	0.52
1:F:1232:PRO:HA	1:F:1235:ILE:HD12	1.91	0.52
1:F:1412:LYS:O	1:F:1415:LEU:HB2	2.10	0.52
1:F:1491:ILE:HG21	1:F:1558:TYR:HE2	1.74	0.52
1:F:1661:PHE:H	1:F:1665:HIS:CG	2.26	0.52
1:F:2124:SER:H	1:F:2126:MET:CE	2.22	0.52
2:K:198:LEU:HD13	2:L:198:LEU:HA	1.92	0.52
1:A:1009:LEU:O	1:A:1013:ILE:HG12	2.10	0.52
1:A:3350:GLU:HA	1:A:3357:ARG:CZ	2.40	0.52
1:A:3512:VAL:O	1:A:3516:HIS:ND1	2.43	0.52
1:A:3752:VAL:HG22	1:A:3802:LEU:HD13	1.90	0.52
1:F:738:HIS:HA	1:F:741:ILE:HG12	1.92	0.52
1:F:2571:ASP:O	1:F:2787:HIS:ND1	2.42	0.52
1:F:3419:PHE:O	1:F:3422:GLN:NE2	2.43	0.52
1:F:3628:PHE:CD1	1:F:3675:LYS:HB3	2.45	0.52
1:F:3662:ILE:O	1:F:3665:MET:HG2	2.10	0.52
2:L:3:ARG:NH2	2:L:125:GLU:OE1	2.42	0.52
2:O:69:GLU:HA	2:O:72:LYS:HG2	1.92	0.52
3:P:741:ARG:NH1	3:P:742:PHE:HB3	2.25	0.52
11:J:30:DT:C6	11:J:31:DT:H72	2.45	0.52
1:A:982:GLN:HG3	1:A:2591:ILE:HD12	1.92	0.52
1:A:1414:ILE:O	1:A:1417:THR:OG1	2.21	0.52
1:F:671:SER:HB3	1:F:732:PHE:HA	1.92	0.52
1:F:1789:GLY:O	1:F:1794:GLN:NE2	2.42	0.52
3:P:752:GLU:HG3	3:P:756:ARG:NH2	2.24	0.52
4:R:109:ARG:HA	4:R:119:TRP:HD1	1.75	0.52
1:A:483:VAL:HG21	1:A:567:GLU:HG3	1.92	0.52
1:A:560:LEU:O	1:A:564:LEU:HG	2.09	0.52
1:A:1743:MET:HA	1:A:1746:PHE:CD1	2.44	0.52
1:A:2196:TRP:HB2	1:A:2199:LEU:HB2	1.91	0.52
1:A:2746:LYS:NZ	9:E:44:DG:O6	2.36	0.52
1:A:3738:ILE:HD12	1:A:3740:ILE:HD11	1.91	0.52
1:F:13:LEU:HD23	1:F:3075:LYS:NZ	2.25	0.52
1:F:2126:MET:HG3	1:F:2160:TYR:HE2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2395:THR:HA	1:F:2398:LEU:HD12	1.91	0.52
1:F:2940:ARG:HH21	1:F:3981:TYR:HB3	1.75	0.52
1:F:3104:GLN:OE1	1:F:3108:GLN:NE2	2.42	0.52
1:F:3962:ARG:HD2	1:F:4124:TRP:CE2	2.44	0.52
2:K:127:ILE:HG13	2:L:126:LEU:HD22	1.92	0.52
2:K:172:LEU:HD11	2:L:173:GLU:HB2	1.92	0.52
2:N:13:GLU:HG3	2:N:16:ILE:HD12	1.92	0.52
8:D:19:DA:H2	9:E:39:DA:C2	2.28	0.52
1:A:241:ASP:HA	1:A:244:THR:HG22	1.92	0.51
1:A:1307:ILE:HG12	1:A:1308:ALA:H	1.75	0.51
1:A:2165:LEU:HD11	1:A:2200:ALA:HB1	1.91	0.51
1:A:2246:LYS:H	1:A:2249:LEU:HG	1.74	0.51
1:A:2253:TYR:CE2	1:A:2289:ASP:HB3	2.44	0.51
1:A:3051:LEU:O	1:A:3054:GLN:HG2	2.11	0.51
1:A:3232:ARG:HA	1:A:3235:LYS:HD3	1.92	0.51
1:A:3295:GLU:HA	1:A:3298:LEU:HD12	1.92	0.51
1:F:3097:ASP:N	1:F:3097:ASP:OD1	2.42	0.51
1:F:3781:CYS:O	1:F:3785:ALA:N	2.43	0.51
1:F:3945:ALA:N	1:F:3948:SER:HG	2.07	0.51
2:K:155:TRP:HA	2:L:155:TRP:HD1	1.74	0.51
3:M:739:GLN:HB3	3:M:741:ARG:NH1	2.25	0.51
1:A:1278:ALA:HB3	1:A:1356:TRP:CD1	2.46	0.51
1:A:1867:ILE:HD11	1:A:1940:TYR:HB2	1.91	0.51
1:A:2740:SER:HA	1:A:2743:TYR:CD2	2.45	0.51
1:A:3912:CYS:HA	1:A:3915:HIS:CD2	2.45	0.51
1:F:714:VAL:HG12	1:F:733:LEU:HD11	1.92	0.51
1:F:886:TRP:O	1:F:888:ARG:NH1	2.34	0.51
1:F:939:MET:SD	1:F:2783:ILE:HD13	2.49	0.51
1:F:1071:ASN:ND2	1:F:1073:PHE:HB2	2.25	0.51
1:F:1412:LYS:HA	1:F:1415:LEU:HD13	1.92	0.51
1:F:2162:LYS:O	1:F:2165:LEU:HB3	2.11	0.51
2:L:141:ASN:O	2:L:145:GLN:HG3	2.10	0.51
3:P:669:GLY:H	3:P:675:LYS:HB2	1.75	0.51
1:A:1724:MET:O	1:A:1768:ARG:NE	2.44	0.51
1:F:289:ASN:O	1:F:292:SER:OG	2.22	0.51
1:F:977:ASP:OD1	1:F:978:GLN:N	2.42	0.51
1:F:1029:CYS:O	1:F:1033:ILE:HG12	2.11	0.51
1:F:1356:TRP:HD1	1:F:1359:LEU:HD11	1.75	0.51
1:F:1527:ARG:O	1:F:1531:LEU:HG	2.09	0.51
1:F:3466:PRO:HG3	1:F:3498:TRP:HE1	1.75	0.51
1:F:3871:PHE:HA	1:F:3874:ARG:HE	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:20:LEU:HD11	2:N:22:VAL:HB	1.92	0.51
3:P:814:ARG:N	3:P:849:GLY:H	2.08	0.51
4:R:14:ALA:HB1	4:R:83:LEU:HD21	1.92	0.51
9:E:23:DT:H1'	9:E:24:DA:N7	2.25	0.51
1:A:628:GLU:OE1	1:A:631:ARG:NH2	2.43	0.51
1:A:645:TRP:HB3	1:A:649:PHE:HB2	1.92	0.51
1:A:721:TYR:O	1:A:1023:SER:OG	2.27	0.51
1:A:1000:LYS:HA	1:A:1004:GLN:HE21	1.75	0.51
1:A:1851:LEU:HD23	1:A:1918:LEU:HD13	1.91	0.51
1:A:2230:VAL:HG12	1:A:2731:ARG:HB3	1.92	0.51
1:A:3320:ILE:HA	1:A:3323:PHE:HB3	1.91	0.51
1:F:153:PHE:HE2	1:F:192:ASN:HD22	1.57	0.51
1:F:189:MET:HA	1:F:192:ASN:HD22	1.74	0.51
1:F:359:LEU:O	1:F:363:ILE:HG12	2.09	0.51
1:F:450:SER:N	1:F:453:MET:SD	2.84	0.51
1:F:880:MET:HG2	1:F:3934:THR:HB	1.92	0.51
1:F:1096:VAL:O	1:F:1100:VAL:HG13	2.09	0.51
1:F:1686:LEU:HB3	1:F:1738:ASN:HB3	1.92	0.51
1:F:2158:ARG:C	1:F:2160:TYR:H	2.14	0.51
1:F:2251:ILE:HB	1:F:2253:TYR:CZ	2.46	0.51
1:F:2553:HIS:O	1:F:2556:SER:OG	2.21	0.51
1:F:3131:SER:O	1:F:3135:LEU:HG	2.10	0.51
2:L:143:HIS:HA	2:L:146:LYS:HE2	1.93	0.51
2:N:169:LYS:HB3	2:O:169:LYS:HB2	1.92	0.51
3:P:675:LYS:O	3:P:679:GLU:HG3	2.11	0.51
3:P:763:ASP:HB2	3:P:777:VAL:HG21	1.92	0.51
4:Q:146:LEU:HB3	4:R:150:VAL:HG21	1.91	0.51
1:A:103:TYR:O	1:A:107:ILE:HG12	2.11	0.51
1:A:1630:ASP:HA	1:A:1633:TRP:NE1	2.26	0.51
1:A:2313:LYS:HA	1:A:2316:TYR:CE2	2.45	0.51
1:A:3321:LEU:HD13	1:A:3324:ARG:NH1	2.25	0.51
1:F:716:VAL:HA	1:F:719:LYS:HZ1	1.75	0.51
1:F:1293:ALA:HA	1:F:1296:PHE:HB2	1.91	0.51
1:F:3736:LYS:HB2	1:F:3752:VAL:HB	1.91	0.51
2:K:32:PHE:H	2:K:47:VAL:HB	1.75	0.51
2:L:124:ARG:HA	2:L:127:ILE:HD12	1.93	0.51
2:L:160:GLY:O	2:L:164:LYS:HD3	2.11	0.51
2:O:62:GLU:HB2	2:O:65:LYS:HG2	1.93	0.51
4:Q:43:GLN:HE22	4:Q:124:MET:HG2	1.75	0.51
4:R:138:PRO:O	4:R:142:MET:CB	2.58	0.51
10:I:27:DC:H2''	11:J:31:DT:C4	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:36:ARG:HD3	1:A:2426:HIS:HB2	1.92	0.51
1:A:207:GLN:CD	1:A:220:LEU:HD23	2.31	0.51
1:A:718:MET:HA	1:A:721:TYR:CD2	2.45	0.51
1:A:1354:GLU:HB3	1:A:1357:LYS:HD2	1.92	0.51
1:A:1428:ILE:HA	1:A:1431:LEU:HB2	1.93	0.51
1:A:1761:LEU:O	1:A:1765:VAL:HG23	2.11	0.51
1:A:1913:LYS:HA	1:A:1916:ILE:HD12	1.93	0.51
1:A:3335:ARG:HG2	1:A:3339:ASN:HD21	1.76	0.51
1:F:461:ILE:O	1:F:464:VAL:HG22	2.11	0.51
1:F:1527:ARG:O	1:F:1530:SER:OG	2.23	0.51
1:F:1675:TYR:O	1:F:1679:LEU:HG	2.11	0.51
1:F:1725:GLN:HG3	1:F:1728:GLU:H	1.75	0.51
1:F:1935:GLU:O	1:F:1939:LEU:HG	2.10	0.51
1:F:3236:PHE:HB3	1:F:3272:TRP:CZ3	2.45	0.51
1:F:3968:ILE:HD13	1:F:3976:GLU:HG3	1.91	0.51
2:N:20:LEU:HD13	2:N:74:LEU:HB3	1.92	0.51
1:A:168:ASP:HB2	1:A:170:VAL:HG22	1.93	0.51
1:A:864:GLY:O	1:A:868:LYS:HG2	2.10	0.51
1:A:1071:ASN:HB3	1:A:1074:LYS:HD2	1.93	0.51
1:A:1454:ALA:O	1:A:1458:LEU:HG	2.11	0.51
1:A:1697:PRO:HG3	1:A:1749:ALA:O	2.11	0.51
1:A:3122:HIS:O	1:A:3126:LEU:HG	2.11	0.51
1:F:103:TYR:HA	1:F:106:GLU:CD	2.30	0.51
1:F:411:PRO:O	1:F:415:GLN:HG3	2.10	0.51
1:F:489:ARG:O	1:F:492:SER:OG	2.27	0.51
1:F:1538:LEU:HD13	1:F:1553:PHE:CZ	2.44	0.51
1:F:2120:ARG:HH12	1:F:2160:TYR:HB2	1.75	0.51
1:F:2233:HIS:CE1	1:F:2237:ILE:HD11	2.46	0.51
4:Q:77:ASP:OD1	4:Q:81:ARG:NH1	2.44	0.51
1:A:949:PRO:HG3	1:F:2580:PRO:HG2	1.92	0.51
1:A:1411:TYR:O	1:A:1414:ILE:HB	2.11	0.51
1:A:1844:VAL:O	1:A:1848:ILE:HG13	2.10	0.51
1:A:3967:PHE:O	1:A:3970:LEU:HD22	2.11	0.51
1:A:4102:THR:HA	1:A:4105:LYS:HE3	1.92	0.51
1:F:785:MET:HB3	1:F:789:TYR:CE1	2.46	0.51
1:F:1751:GLU:HG3	1:F:1784:ARG:CZ	2.41	0.51
1:F:2553:HIS:O	1:F:2557:LEU:HG	2.11	0.51
1:F:3483:MET:HA	1:F:3486:GLU:HB2	1.93	0.51
1:F:4014:LYS:NZ	1:F:4015:ASN:OD1	2.31	0.51
2:K:175:ASP:OD1	2:K:176:LEU:N	2.44	0.51
2:L:177:TYR:CG	3:M:796:ILE:HG12	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:675:LYS:HA	3:M:678:LEU:HD12	1.91	0.51
3:M:721:VAL:HG22	3:M:743:MET:HG3	1.92	0.51
3:M:821:ASP:OD2	3:M:871:ARG:NH1	2.44	0.51
2:N:150:ARG:O	2:N:153:ARG:HG3	2.10	0.51
1:A:63:PHE:CE2	1:A:85:ILE:HG12	2.46	0.51
1:A:63:PHE:HE2	1:A:85:ILE:HG12	1.76	0.51
1:A:998:ASN:OD1	1:A:999:LYS:N	2.44	0.51
1:A:2133:LEU:HD23	1:A:2164:TRP:CZ3	2.46	0.51
1:A:2392:VAL:O	1:A:2396:LEU:HG	2.11	0.51
1:A:3348:LEU:O	1:A:3352:GLU:N	2.39	0.51
1:F:432:THR:OG1	1:F:433:PRO:HD3	2.10	0.51
1:F:774:GLU:O	1:F:778:ILE:HG12	2.11	0.51
1:F:1131:ILE:HA	1:F:1134:LEU:HD12	1.93	0.51
1:F:1264:LEU:HD23	1:F:1340:ARG:HG3	1.93	0.51
1:F:2097:LEU:HA	1:F:2100:LEU:HD12	1.91	0.51
4:Q:33:GLY:HA2	4:Q:73:LEU:HD22	1.92	0.51
4:R:4:LEU:HD23	4:R:30:THR:HG21	1.92	0.51
8:D:13:DC:O3'	8:D:14:DA:H2'	2.11	0.51
1:A:341:PHE:HD2	1:A:369:PHE:HD1	1.57	0.51
1:A:1580:LEU:HD13	1:A:1625:HIS:CG	2.45	0.51
1:A:1913:LYS:O	1:A:1917:LYS:HG2	2.11	0.51
1:A:2412:TYR:CZ	1:A:2450:GLU:HB3	2.46	0.51
1:A:3227:ILE:HA	1:A:3230:LEU:HD12	1.93	0.51
1:A:3894:PRO:O	1:A:3898:LEU:HG	2.11	0.51
1:A:4041:ARG:HA	1:A:4044:ILE:HG12	1.93	0.51
1:F:1200:GLY:O	1:F:1202:ARG:NH1	2.44	0.51
1:F:2158:ARG:HE	1:F:2199:LEU:HG	1.76	0.51
1:F:2749:ALA:HB1	1:F:2753:ARG:HH12	1.75	0.51
1:F:2797:VAL:HA	1:F:2800:ARG:HB3	1.93	0.51
1:F:3413:TYR:HD2	1:F:3453:ALA:HB2	1.76	0.51
1:F:3548:GLY:O	1:F:3552:LYS:NZ	2.39	0.51
3:M:875:PHE:CD2	3:M:888:ILE:HG23	2.46	0.51
2:O:32:PHE:CE1	2:O:70:LEU:HD11	2.46	0.51
8:D:18:DA:H2''	8:D:19:DA:N7	2.25	0.51
1:A:479:ILE:HA	1:A:482:VAL:HG22	1.94	0.50
1:A:1689:LYS:O	1:A:1693:VAL:HG23	2.11	0.50
1:A:3073:LEU:HD12	1:A:3074:GLN:N	2.25	0.50
1:A:3947:GLY:O	1:A:3950:THR:OG1	2.24	0.50
1:A:4086:ASP:N	1:A:4086:ASP:OD1	2.44	0.50
1:F:1327:GLY:HA2	1:F:1330:TYR:HB3	1.92	0.50
1:F:2510:LEU:HD21	1:F:2525:TRP:CD1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2954:GLN:NE2	1:F:2954:GLN:O	2.44	0.50
1:F:3962:ARG:NH1	1:F:4124:TRP:O	2.37	0.50
2:L:8:ILE:HD13	2:L:86:PHE:CD2	2.46	0.50
3:P:819:TYR:HB2	3:P:860:VAL:HG11	1.92	0.50
8:D:21:DA:N6	9:E:36:DA:H61	2.08	0.50
1:A:181:LEU:HD13	1:A:234:PHE:CE2	2.45	0.50
1:A:573:LEU:HD22	1:A:649:PHE:HD1	1.76	0.50
1:A:1199:PRO:HA	1:A:1202:ARG:HH11	1.76	0.50
1:A:1610:ASN:OD1	1:A:1611:GLN:N	2.38	0.50
1:A:2234:ASN:HA	1:A:2237:ILE:HD12	1.93	0.50
1:A:2825:THR:O	1:A:2829:LYS:HG3	2.10	0.50
1:A:4012:ASP:HB2	1:A:4038:TRP:CH2	2.46	0.50
1:F:67:VAL:O	1:F:82:ARG:NH2	2.44	0.50
1:F:2231:PHE:O	1:F:2235:LEU:HG	2.11	0.50
1:F:2356:MET:HG2	1:F:2358:ASP:H	1.77	0.50
1:F:3266:SER:HA	1:F:3272:TRP:CD1	2.47	0.50
1:F:3348:LEU:HA	1:F:3351:ILE:HD12	1.93	0.50
1:F:3443:PRO:HA	1:F:3446:VAL:HG22	1.93	0.50
2:N:95:PHE:HB2	2:N:113:LEU:HD11	1.92	0.50
4:Q:1:MET:HE3	4:Q:3:GLU:HG3	1.93	0.50
4:Q:36:LEU:O	4:Q:47:GLU:HB3	2.10	0.50
1:A:106:GLU:O	1:A:110:THR:HG23	2.11	0.50
1:A:2347:LYS:O	1:A:2351:GLN:N	2.26	0.50
1:A:2427:ARG:HE	1:A:2432:GLN:HG3	1.76	0.50
1:F:1750:LEU:HD22	1:F:1762:MET:HG3	1.94	0.50
1:F:2973:ASP:OD1	1:F:2977:ASN:ND2	2.43	0.50
2:K:130:CYS:HB2	2:L:130:CYS:HB2	1.93	0.50
2:N:45:GLY:HA3	2:N:113:LEU:HD23	1.94	0.50
2:N:130:CYS:HB3	2:O:130:CYS:HB3	1.93	0.50
3:P:813:PHE:H	3:P:849:GLY:N	2.09	0.50
4:Q:294:PRO:HA	4:Q:298:PHE:HB2	1.94	0.50
1:A:82:ARG:O	1:A:86:LEU:HG	2.11	0.50
1:A:860:GLY:HA3	1:A:3136:THR:OG1	2.12	0.50
1:A:1047:GLN:O	1:A:1051:LYS:HG2	2.10	0.50
1:A:1603:GLN:OE1	1:A:1606:ARG:NH2	2.44	0.50
1:A:2866:ALA:HA	1:A:2869:LEU:HG	1.92	0.50
1:F:23:ASP:N	1:F:23:ASP:OD1	2.44	0.50
1:F:65:LEU:O	1:F:69:VAL:HG22	2.12	0.50
1:F:484:HIS:O	1:F:488:ILE:HG12	2.11	0.50
1:F:1767:CYS:HB3	1:F:1819:PHE:HA	1.92	0.50
1:F:3046:ARG:O	1:F:3050:LYS:HG2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3259:LEU:O	1:F:3276:TRP:NE1	2.35	0.50
1:F:3389:VAL:HG13	1:F:3413:TYR:HE1	1.76	0.50
1:F:3462:ARG:HB3	1:F:3498:TRP:CH2	2.47	0.50
1:F:3580:ASN:HB3	1:F:3582:GLU:OE1	2.12	0.50
2:K:89:SER:HB2	2:K:91:GLU:HG2	1.93	0.50
2:L:137:ASN:O	2:L:141:ASN:ND2	2.44	0.50
2:N:8:ILE:HD11	2:N:18:HIS:HB2	1.92	0.50
2:O:66:TYR:OH	2:O:109:GLY:HA2	2.11	0.50
3:P:858:GLU:HG3	3:P:883:LYS:HD3	1.92	0.50
4:Q:25:ALA:HA	4:Q:38:VAL:HA	1.92	0.50
1:A:29:LEU:HA	1:A:32:HIS:HD1	1.77	0.50
1:A:2824:LYS:O	1:A:2829:LYS:NZ	2.30	0.50
1:A:3192:LYS:HB3	1:A:3196:LYS:HZ2	1.76	0.50
1:A:3981:TYR:OH	1:A:4101:GLU:HB2	2.11	0.50
1:F:1783:ARG:HE	1:F:1830:HIS:HB2	1.76	0.50
1:F:3156:PRO:O	1:F:3160:LEU:N	2.45	0.50
3:M:739:GLN:HB3	3:M:741:ARG:HH11	1.77	0.50
3:M:791:GLU:O	3:M:794:SER:OG	2.21	0.50
3:M:889:LEU:HD13	3:M:893:TRP:CE2	2.47	0.50
2:N:18:HIS:NE2	2:N:36:LEU:HD13	2.27	0.50
2:O:11:VAL:N	2:O:88:PHE:O	2.44	0.50
1:A:535:LEU:O	1:A:637:LYS:NZ	2.39	0.50
1:A:639:ALA:HA	1:A:642:PHE:HB3	1.93	0.50
1:A:923:ASP:O	1:A:926:THR:N	2.45	0.50
1:A:1184:ARG:NH2	1:A:1265:GLU:OE1	2.41	0.50
1:A:1289:SER:HA	1:A:1292:LYS:HE3	1.93	0.50
1:A:1708:GLU:OE2	1:A:1712:ARG:NE	2.43	0.50
1:A:2153:THR:O	1:A:2156:VAL:HG12	2.11	0.50
1:A:3581:PRO:HB3	1:A:3629:ARG:HE	1.77	0.50
1:F:895:ALA:HA	1:F:904:VAL:HA	1.94	0.50
1:F:1829:TRP:HA	1:F:1883:ARG:HH22	1.76	0.50
1:F:2518:GLN:HG3	1:F:2522:ARG:NH1	2.26	0.50
1:F:3722:PHE:HB3	1:F:3724:GLU:OE2	2.12	0.50
1:F:3924:HIS:H	1:F:3927:ASN:ND2	2.10	0.50
2:K:161:ARG:HH11	2:K:164:LYS:HE2	1.77	0.50
2:N:188:LYS:HG3	2:O:187:LYS:NZ	2.27	0.50
2:O:104:VAL:HG13	2:O:106:PHE:CE2	2.45	0.50
3:P:813:PHE:HA	3:P:850:ALA:HB3	1.94	0.50
3:P:843:LEU:HD22	3:P:846:ARG:NH2	2.27	0.50
4:Q:102:ASP:HA	4:Q:126:ALA:HB2	1.94	0.50
1:A:13:LEU:O	1:A:16:GLN:HG3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:451:PRO:O	1:A:455:LEU:HG	2.12	0.50
1:A:460:ALA:O	1:A:464:VAL:HG13	2.12	0.50
1:A:524:TYR:HD2	1:A:629:PHE:HD2	1.59	0.50
1:A:1249:SER:OG	1:A:1250:LEU:N	2.44	0.50
1:A:1791:CYS:SG	1:A:1834:ASP:HB3	2.52	0.50
1:A:2197:THR:HG21	1:A:2244:CYS:HB2	1.93	0.50
1:A:2382:VAL:O	1:A:2386:LEU:HG	2.12	0.50
1:A:3467:ARG:HD2	1:A:4000:ASN:HD21	1.76	0.50
1:F:655:LEU:HB3	1:F:659:ARG:NH1	2.26	0.50
1:F:655:LEU:O	1:F:658:THR:OG1	2.27	0.50
1:F:1504:ASP:O	1:F:1508:LYS:N	2.43	0.50
1:F:1834:ASP:O	1:F:1838:GLU:HG3	2.11	0.50
1:F:2392:VAL:O	1:F:2396:LEU:HG	2.12	0.50
1:F:3717:VAL:HG23	1:F:3744:ASP:H	1.77	0.50
1:F:3775:LEU:O	1:F:3782:SER:OG	2.29	0.50
2:K:55:GLU:HG2	2:K:111:PHE:CD2	2.46	0.50
4:R:194:MET:HA	4:R:198:LEU:HB2	1.94	0.50
1:A:28:ALA:O	1:A:32:HIS:ND1	2.43	0.50
1:A:240:GLU:OE1	1:A:240:GLU:N	2.80	0.50
1:A:542:ASP:OD1	1:A:543:SER:N	2.44	0.50
1:A:965:THR:O	1:A:969:LEU:HG	2.11	0.50
1:A:1300:SER:O	1:A:1334:LYS:NZ	2.45	0.50
1:A:1626:TRP:CD1	1:A:1627:LYS:HE3	2.46	0.50
1:A:2372:PRO:O	1:A:2374:LEU:N	2.39	0.50
1:A:3289:ARG:HG3	1:A:3290:SER:H	1.77	0.50
1:A:3578:LEU:HD21	1:A:3681:LYS:HD2	1.92	0.50
1:F:286:LEU:HD12	1:F:319:PHE:CE1	2.47	0.50
1:F:409:GLN:NE2	1:F:410:MET:SD	2.85	0.50
1:F:1048:GLN:OE1	1:F:1051:LYS:NZ	2.40	0.50
1:F:1081:ALA:O	1:F:1085:ILE:HG23	2.12	0.50
1:F:3226:ASP:O	1:F:3230:LEU:HG	2.12	0.50
1:F:3326:GLN:NE2	1:F:3326:GLN:O	2.45	0.50
1:F:3472:ILE:HA	1:F:3479:THR:HG21	1.93	0.50
1:F:3814:ASP:O	1:F:3818:ASN:N	2.35	0.50
1:F:3869:THR:O	1:F:3873:LYS:HG3	2.12	0.50
2:K:151:LEU:HD12	2:L:152:LEU:HA	1.93	0.50
4:R:208:LYS:HB2	4:R:209:PRO:HD3	1.94	0.50
8:D:15:DA:H2	9:E:44:DG:N1	2.09	0.50
10:I:27:DC:H2'	11:J:30:DT:C6	2.47	0.50
1:A:1102:GLU:H	1:A:1102:GLU:CD	2.15	0.50
1:A:1145:LEU:O	1:A:1165:LEU:N	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2796:ALA:O	1:A:2800:ARG:HG2	2.12	0.50
1:A:3296:GLN:HG3	1:A:3337:ILE:HD11	1.92	0.50
1:F:539:GLN:N	1:F:539:GLN:OE1	2.45	0.50
1:F:968:VAL:N	1:F:971:ARG:HH21	2.10	0.50
1:F:1373:VAL:O	1:F:1377:CYS:N	2.32	0.50
1:F:1558:TYR:O	1:F:1561:SER:OG	2.21	0.50
1:F:1626:TRP:CZ2	1:F:1633:TRP:HB3	2.47	0.50
1:F:1733:THR:HG23	1:F:1736:PHE:H	1.77	0.50
1:F:2406:GLU:OE1	1:F:2406:GLU:N	2.31	0.50
1:A:125:ILE:HA	1:A:128:LEU:HD13	1.93	0.49
1:A:635:PRO:HB3	1:A:672:ILE:HD11	1.94	0.49
1:A:1400:VAL:HG13	1:A:1461:ALA:HB2	1.94	0.49
1:A:1775:GLU:O	1:A:1778:PHE:HB3	2.12	0.49
1:A:2405:VAL:HA	1:A:2408:MET:CE	2.42	0.49
1:A:2760:GLU:O	1:A:2764:LYS:HG3	2.12	0.49
1:A:3287:ARG:CZ	1:A:3289:ARG:HH22	2.24	0.49
1:A:3492:CYS:SG	1:A:3494:GLN:NE2	2.85	0.49
1:F:53:LEU:O	1:F:57:LEU:HG	2.12	0.49
1:F:3007:GLU:O	1:F:3010:SER:HB3	2.12	0.49
1:F:3123:GLN:HG2	1:F:3124:SER:N	2.27	0.49
1:F:3470:GLN:O	1:F:3474:ARG:HG2	2.11	0.49
2:K:195:HIS:HB2	2:L:194:LEU:HD21	1.94	0.49
3:M:660:GLU:HG2	3:M:686:GLY:HA3	1.92	0.49
3:M:892:SER:HA	3:M:895:THR:OG1	2.12	0.49
2:N:29:GLU:HG2	2:N:66:TYR:HD2	1.76	0.49
4:R:45:TRP:HB3	4:R:103:ALA:HA	1.93	0.49
9:E:32:DA:N3	9:E:33:DA:H3'	2.27	0.49
1:A:864:GLY:N	1:A:3169:PRO:HA	2.21	0.49
1:A:924:ARG:HH21	1:A:2768:GLN:HA	1.76	0.49
1:A:1228:GLY:HA2	1:A:1233:SER:HB2	1.94	0.49
1:A:2824:LYS:HD2	1:A:2828:GLU:HG2	1.95	0.49
1:A:3416:LEU:HD23	1:A:3449:LYS:HD2	1.94	0.49
1:A:4100:GLU:O	1:A:4104:VAL:HG13	2.12	0.49
1:F:1477:HIS:HB3	1:F:1481:THR:HG23	1.94	0.49
1:F:2452:ARG:HE	1:F:2497:GLU:CD	2.14	0.49
2:L:22:VAL:HG11	2:L:74:LEU:HD13	1.93	0.49
2:N:141:ASN:HD21	2:O:140:LYS:HD3	1.78	0.49
2:N:161:ARG:HA	2:N:164:LYS:HD2	1.94	0.49
4:Q:193:PHE:HD1	4:Q:197:LYS:HE2	1.77	0.49
8:D:23:DT:H2'	8:D:24:DT:C2	2.47	0.49
1:A:1099:PHE:CE1	1:A:1152:ARG:HG3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1674:THR:O	1:A:1678:LEU:HG	2.12	0.49
1:A:1948:ALA:O	1:A:1952:ILE:HG12	2.12	0.49
1:A:2478:MET:HG2	1:A:2524:PHE:CE1	2.47	0.49
1:A:2742:MET:O	1:A:2746:LYS:HG2	2.12	0.49
1:F:230:LEU:HA	1:F:233:ASN:OD1	2.13	0.49
1:F:406:ARG:NH2	1:F:408:TYR:HB2	2.27	0.49
1:F:1558:TYR:O	1:F:1562:LEU:HG	2.12	0.49
1:F:2153:THR:O	1:F:2156:VAL:HG12	2.12	0.49
1:F:3051:LEU:HA	1:F:3054:GLN:NE2	2.26	0.49
1:F:3335:ARG:O	1:F:3339:ASN:ND2	2.46	0.49
1:F:3449:LYS:HG2	1:F:3452:LYS:NZ	2.27	0.49
2:K:99:LYS:HD3	4:R:115:LEU:HD21	1.93	0.49
2:L:86:PHE:HA	2:L:97:PHE:HB3	1.93	0.49
3:M:754:PHE:HA	3:M:758:TYR:HD2	1.78	0.49
2:N:24:TRP:HA	2:N:32:PHE:HB3	1.94	0.49
9:E:41:DT:H2''	9:E:42:DA:H5'	1.94	0.49
1:A:738:HIS:NE2	1:A:739:ASN:OD1	2.46	0.49
1:A:1182:GLU:OE2	1:A:1185:HIS:ND1	2.46	0.49
1:A:1484:LEU:HD22	1:A:1527:ARG:HH21	1.76	0.49
1:F:1164:CYS:N	1:F:1167:ASP:OD2	2.43	0.49
1:F:1843:ILE:HB	1:F:1846:ASP:HB3	1.93	0.49
1:F:2589:TYR:HB2	1:F:2777:HIS:HB2	1.93	0.49
1:F:3666:LEU:HA	1:F:3669:LYS:NZ	2.27	0.49
1:F:3925:LEU:HD13	1:F:3962:ARG:HH21	1.76	0.49
1:F:3964:THR:H	1:F:3967:PHE:HD2	1.61	0.49
2:K:22:VAL:HA	2:K:34:ILE:HA	1.93	0.49
2:K:59:MET:HE1	2:K:97:PHE:HE2	1.78	0.49
3:M:716:ASN:HA	3:M:745:HIS:NE2	2.27	0.49
8:D:35:DT:H2'	8:D:36:DG:C8	2.47	0.49
11:J:20:DT:C2	11:J:21:DA:C8	3.00	0.49
1:A:192:ASN:O	1:A:196:LEU:HG	2.12	0.49
1:A:1070:PRO:HG2	1:A:3715:TYR:HD2	1.76	0.49
1:A:2310:VAL:HG13	1:A:2316:TYR:HE2	1.77	0.49
1:A:2925:GLU:O	1:A:2928:LYS:HG2	2.13	0.49
1:A:3918:LEU:HB2	1:A:3920:ILE:HG12	1.94	0.49
1:F:460:ALA:O	1:F:464:VAL:HG13	2.13	0.49
1:F:719:LYS:O	1:F:1023:SER:HB3	2.12	0.49
1:F:1086:TYR:CZ	1:F:1133:HIS:HB3	2.48	0.49
1:F:1359:LEU:O	1:F:1362:ASP:HB2	2.13	0.49
1:F:1590:THR:HG21	1:F:1641:THR:HG23	1.94	0.49
1:F:1620:THR:HG22	1:F:1624:GLN:NE2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2150:VAL:HA	1:F:2153:THR:OG1	2.11	0.49
1:F:2970:LYS:NZ	1:F:2971:GLN:HE22	2.09	0.49
1:F:3254:LEU:HG	1:F:3283:LEU:HD11	1.93	0.49
1:F:3454:LEU:HG	1:F:3490:VAL:HG21	1.93	0.49
1:F:3767:LEU:HA	1:F:3770:VAL:HG22	1.94	0.49
2:N:179:ARG:HB3	3:P:805:TRP:CE2	2.47	0.49
2:O:156:ASN:O	2:O:159:GLN:HG2	2.11	0.49
3:P:818:VAL:HA	3:P:862:HIS:HB2	1.95	0.49
3:P:843:LEU:HD22	3:P:846:ARG:HH21	1.77	0.49
1:A:78:PHE:HB2	1:A:79:ARG:NH1	2.27	0.49
1:A:342:MET:HE2	1:A:345:PHE:HD2	1.78	0.49
1:A:583:LEU:HA	1:A:614:PRO:HA	1.94	0.49
1:A:710:PHE:O	1:A:714:VAL:HG23	2.13	0.49
1:A:899:ARG:CZ	1:A:2568:MET:HB2	2.43	0.49
1:A:1297:PHE:HD1	1:A:1301:ILE:HG13	1.78	0.49
1:A:2138:VAL:HG13	1:A:2143:ARG:HB3	1.94	0.49
1:A:2562:LEU:O	1:A:2566:THR:OG1	2.30	0.49
1:A:3264:LYS:O	1:A:3267:LYS:NZ	2.28	0.49
1:A:3334:TYR:CE2	1:A:3384:HIS:HE1	2.29	0.49
1:A:3643:HIS:HB3	1:A:3659:PHE:HZ	1.78	0.49
1:A:3820:MET:SD	1:A:3825:LYS:HB2	2.52	0.49
1:F:288:ASP:N	1:F:288:ASP:OD1	2.46	0.49
1:F:3382:PHE:HB2	1:F:3419:PHE:CE2	2.47	0.49
1:F:3492:CYS:HB3	1:F:3709:GLY:O	2.12	0.49
1:F:3880:ALA:HB1	1:F:3969:ASN:HD21	1.77	0.49
2:L:119:PRO:O	2:L:123:ILE:HG12	2.13	0.49
3:M:827:ASN:HD21	3:M:856:LEU:HB2	1.77	0.49
2:N:66:TYR:OH	2:N:109:GLY:HA3	2.13	0.49
2:N:88:PHE:CD2	2:N:90:LYS:HG2	2.48	0.49
2:O:190:LYS:HE3	2:O:194:LEU:HD11	1.95	0.49
4:Q:13:TRP:CE3	4:Q:24:LEU:HG	2.48	0.49
9:E:33:DA:H5'	9:E:34:DC:N3	2.27	0.49
10:I:36:DA:H2	11:J:22:DG:N1	2.07	0.49
10:I:45:DG:N2	11:J:14:DT:H1'	2.27	0.49
1:A:194:GLU:O	1:A:198:ARG:HG3	2.13	0.49
1:A:1871:MET:CE	1:A:1940:TYR:HA	2.43	0.49
1:A:2528:GLU:OE1	1:A:2528:GLU:N	2.41	0.49
1:A:2833:THR:O	1:A:2837:LEU:HD23	2.12	0.49
1:F:1570:GLU:HG3	1:F:1571:LEU:HD22	1.95	0.49
1:F:1773:VAL:O	1:F:1773:VAL:HG12	2.12	0.49
1:F:2228:ARG:HH21	10:I:45:DG:H4'	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2825:THR:HG22	1:F:2828:GLU:CD	2.32	0.49
1:F:3120:LEU:O	1:F:3122:HIS:ND1	2.46	0.49
2:K:127:ILE:HG23	2:L:19:PHE:HE2	1.76	0.49
3:M:770:ASP:H	3:M:773:GLN:HB2	1.77	0.49
3:P:813:PHE:N	3:P:850:ALA:N	2.61	0.49
1:A:188:GLU:HG2	1:A:189:MET:H	1.78	0.49
1:A:450:SER:O	1:A:454:GLN:HG3	2.12	0.49
1:A:1251:GLN:CD	1:A:1251:GLN:H	2.16	0.49
1:A:1452:VAL:HG13	1:A:1517:LEU:HD11	1.95	0.49
1:A:1506:SER:O	1:A:1509:GLN:NE2	2.46	0.49
1:A:2880:CYS:O	1:A:2885:GLN:N	2.44	0.49
1:A:3909:ALA:HB2	1:A:3980:MET:SD	2.53	0.49
1:A:3911:ILE:HD12	1:A:3937:VAL:HG13	1.95	0.49
1:A:3928:PHE:HD1	1:A:3939:GLY:HA2	1.76	0.49
1:F:888:ARG:HB3	1:F:3889:ARG:HE	1.77	0.49
1:F:1413:ASP:OD1	1:F:1414:ILE:N	2.46	0.49
1:F:2801:ASP:OD2	1:F:2804:ILE:N	2.24	0.49
1:F:2981:TRP:CD1	1:F:2985:GLU:HG2	2.40	0.49
1:F:3029:LYS:NZ	1:F:3067:LYS:O	2.40	0.49
1:F:3179:TRP:HB3	1:F:3242:MET:SD	2.52	0.49
1:F:3444:ALA:HB1	1:F:3482:LEU:HD21	1.95	0.49
1:F:3476:PRO:HA	1:F:3479:THR:OG1	2.13	0.49
1:F:3870:SER:HA	1:F:3873:LYS:HE2	1.95	0.49
2:L:6:SER:HB2	2:L:8:ILE:HG23	1.95	0.49
2:O:28:LEU:O	2:O:32:PHE:HB3	2.12	0.49
2:O:94:TYR:CE1	2:O:111:PHE:HB2	2.30	0.49
3:P:787:GLN:HE21	3:P:792:MET:HB3	1.77	0.49
1:A:135:LEU:HD21	1:A:177:LEU:HA	1.95	0.49
1:A:240:GLU:H	1:A:240:GLU:CD	3.54	0.49
1:A:1225:GLU:O	1:A:1230:GLY:N	2.45	0.49
1:A:1397:ASP:HA	1:A:1460:ARG:HH22	1.78	0.49
1:A:1762:MET:HG3	1:A:1778:PHE:HE1	1.78	0.49
1:A:1922:ALA:HB1	1:A:1940:TYR:CE1	2.47	0.49
1:A:2386:LEU:HD12	1:A:2418:LYS:HG3	1.94	0.49
1:F:1407:LYS:NZ	1:F:1461:ALA:O	2.27	0.49
1:F:2348:GLN:OE1	1:F:2353:GLN:NE2	2.45	0.49
1:F:3463:LEU:O	1:F:3466:PRO:HD2	2.13	0.49
2:K:88:PHE:CD1	2:K:113:LEU:HD12	2.47	0.49
2:L:3:ARG:HH12	2:L:125:GLU:HB3	1.77	0.49
3:M:682:ILE:HG12	3:M:687:GLY:HA3	1.95	0.49
3:M:879:ARG:HG2	3:M:885:LYS:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:43:TRP:HA	2:O:116:VAL:HG22	1.95	0.49
2:O:97:PHE:H	2:O:107:ARG:NH1	2.10	0.49
3:P:813:PHE:CA	3:P:850:ALA:H	2.25	0.49
8:D:27:DT:H2''	8:D:28:DA:N7	2.27	0.49
10:I:26:DA:H1'	10:I:27:DC:N1	2.28	0.49
1:A:135:LEU:O	1:A:139:ARG:HG2	2.12	0.49
1:A:217:LEU:O	1:A:218:PRO:C	2.51	0.49
1:A:248:ILE:O	1:A:252:VAL:HG23	2.12	0.49
1:A:1502:SER:OG	1:A:1503:LEU:N	2.45	0.49
1:A:1603:GLN:O	1:A:1603:GLN:NE2	2.46	0.49
1:A:1667:SER:OG	1:A:1670:GLU:OE1	2.28	0.49
1:A:2504:ASP:O	1:A:2508:GLN:HG2	2.12	0.49
1:A:2855:VAL:HG23	1:A:2885:GLN:HG3	1.94	0.49
1:A:3449:LYS:HA	1:A:3452:LYS:HD3	1.94	0.49
1:F:105:VAL:HA	1:F:108:LYS:HB3	1.95	0.49
1:F:865:GLN:HB3	1:F:3168:TYR:CD2	2.48	0.49
1:F:979:VAL:HA	1:F:982:GLN:HG2	1.95	0.49
1:F:1071:ASN:ND2	1:F:1074:LYS:HG3	2.26	0.49
1:F:1864:ASP:OD1	1:F:1864:ASP:N	2.44	0.49
1:F:2964:ASP:OD1	1:F:2965:TYR:N	2.45	0.49
1:F:3958:LEU:HD23	1:F:4081:ALA:HB2	1.95	0.49
1:F:4012:ASP:HB2	1:F:4038:TRP:CD2	2.48	0.49
3:M:786:GLU:OE1	3:M:786:GLU:N	2.46	0.49
4:Q:132:SER:HB3	4:R:44:VAL:HA	1.94	0.49
1:A:40:GLN:NE2	1:A:2427:ARG:O	2.45	0.48
1:A:70:ARG:HB3	1:A:71:LYS:NZ	2.28	0.48
1:A:335:LYS:HG3	1:A:336:ASN:H	1.78	0.48
1:A:718:MET:HA	1:A:721:TYR:CE2	2.49	0.48
1:A:762:TYR:CD2	1:A:764:PRO:HD2	2.48	0.48
1:A:1175:HIS:HA	1:A:1178:ARG:NE	2.28	0.48
1:A:1564:SER:O	1:A:1568:ASN:ND2	2.46	0.48
1:A:2386:LEU:HB2	1:A:2387:PRO:HD3	1.95	0.48
1:A:3452:LYS:O	1:A:3455:LYS:HB3	2.13	0.48
1:A:3953:LEU:HB3	1:A:3955:VAL:HG22	1.95	0.48
1:F:67:VAL:HG11	1:F:85:ILE:HD13	1.94	0.48
1:F:271:GLY:O	1:F:274:LEU:HB2	2.13	0.48
1:F:2167:PRO:O	1:F:2170:GLN:HG3	2.12	0.48
1:F:3007:GLU:HG2	1:F:3010:SER:H	1.79	0.48
1:F:3502:MET:O	1:F:3506:LEU:N	2.46	0.48
1:F:3614:TYR:CD1	1:F:3618:GLY:HA3	2.48	0.48
1:F:3730:ALA:HB2	1:F:3734:ARG:CZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3992:ARG:HH12	1:F:4053:GLY:N	2.11	0.48
1:F:3995:PRO:HG3	1:F:4051:LEU:HB3	1.95	0.48
2:K:172:LEU:HB2	3:M:810:LEU:HG	1.94	0.48
2:L:102:LYS:O	2:L:104:VAL:HG23	2.13	0.48
3:M:772:ASN:O	3:M:776:GLU:HG2	2.12	0.48
4:Q:35:ALA:HA	4:Q:48:GLN:HA	1.95	0.48
4:Q:161:ASP:OD1	4:Q:184:PHE:N	2.36	0.48
4:R:81:ARG:HH11	4:R:84:LEU:HA	1.78	0.48
4:R:166:ASP:HA	4:R:169:GLU:HG3	1.95	0.48
9:E:28:DT:C6	9:E:28:DT:H5''	2.48	0.48
10:I:27:DC:H1'	11:J:31:DT:C4	2.47	0.48
1:A:2154:GLU:HA	1:A:2157:PHE:CE1	2.48	0.48
1:A:2268:LYS:O	1:A:2271:SER:OG	2.20	0.48
1:A:3064:PHE:HA	1:A:3067:LYS:HE3	1.95	0.48
1:A:3581:PRO:HA	1:A:3584:LEU:HD13	1.95	0.48
1:F:385:TYR:O	1:F:389:ILE:HG12	2.13	0.48
1:F:1190:LEU:HA	1:F:1193:LYS:HG2	1.94	0.48
1:F:1264:LEU:HD11	1:F:1344:PHE:CG	2.48	0.48
1:F:2161:ALA:O	1:F:2165:LEU:N	2.46	0.48
1:F:2184:TYR:CZ	1:F:2734:ARG:HD2	2.48	0.48
1:F:3413:TYR:CD2	1:F:3453:ALA:HB2	2.48	0.48
2:L:4:LYS:HG2	2:L:22:VAL:HB	1.95	0.48
2:N:58:ASP:OD1	4:Q:62:ASN:ND2	2.45	0.48
2:N:84:TYR:CD1	2:N:97:PHE:HB2	2.48	0.48
4:Q:100:VAL:HG12	4:Q:102:ASP:H	1.77	0.48
1:A:394:GLN:NE2	1:A:1738:ASN:OD1	2.43	0.48
1:A:847:SER:O	1:A:851:ILE:HG12	2.13	0.48
1:A:953:GLN:H	1:A:956:PRO:HG3	1.78	0.48
1:A:1039:TRP:HA	1:A:1042:LYS:HD3	1.94	0.48
1:A:1136:ARG:O	1:A:1139:GLU:HG2	2.13	0.48
1:A:1805:PHE:CZ	1:A:1869:LYS:HA	2.40	0.48
1:A:3103:ILE:HD11	1:A:3135:LEU:HB3	1.95	0.48
1:A:3156:PRO:HA	1:A:3159:ARG:NE	2.28	0.48
1:F:114:VAL:HA	1:F:119:ARG:HH21	1.77	0.48
1:F:395:MET:HE2	1:F:410:MET:HG3	1.95	0.48
1:F:899:ARG:NH2	1:F:2566:THR:HA	2.26	0.48
1:F:2181:GLY:O	1:F:2184:TYR:HB2	2.13	0.48
1:F:2254:ARG:NE	1:F:2293:GLY:HA2	2.28	0.48
3:M:843:LEU:O	3:M:847:PHE:CB	2.61	0.48
3:M:865:ILE:HG13	3:M:871:ARG:HB2	1.95	0.48
3:P:826:ILE:O	3:P:827:ASN:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:17:GLN:H	4:Q:83:LEU:HG	1.77	0.48
1:A:79:ARG:HH21	1:A:82:ARG:NE	2.11	0.48
1:A:671:SER:HB3	1:A:732:PHE:HA	1.95	0.48
1:A:1087:ARG:HA	1:A:1090:ARG:CZ	2.44	0.48
1:A:1340:ARG:HH21	1:A:1343:GLU:HG3	1.78	0.48
1:A:3751:LEU:HD23	1:A:3803:ILE:HD11	1.96	0.48
1:A:3880:ALA:HB2	1:A:3965:ARG:NH2	2.29	0.48
1:F:68:PHE:HD2	1:F:69:VAL:HG13	1.78	0.48
1:F:134:LEU:O	1:F:137:THR:OG1	2.27	0.48
1:F:745:VAL:HG23	1:F:746:ARG:HD2	1.95	0.48
1:F:1015:ASP:O	1:F:1019:ASP:HB3	2.12	0.48
1:F:2123:PRO:HA	1:F:2126:MET:SD	2.54	0.48
1:F:2452:ARG:HB2	1:F:2498:ILE:HD11	1.95	0.48
1:F:3090:TYR:O	1:F:3095:ASP:N	2.42	0.48
1:F:3727:THR:HB	1:F:3737:ARG:HB3	1.95	0.48
2:K:154:ASP:O	2:K:158:VAL:HG13	2.13	0.48
2:L:52:ILE:HD11	2:L:67:VAL:HA	1.94	0.48
2:O:8:ILE:HB	2:O:95:PHE:HE2	1.79	0.48
2:O:22:VAL:HG13	2:O:24:TRP:HZ3	1.78	0.48
4:Q:4:LEU:O	4:Q:8:LEU:HB2	2.14	0.48
4:R:26:LYS:HE3	4:R:37:LEU:HB3	1.95	0.48
1:A:678:LYS:NZ	1:A:735:SER:O	2.36	0.48
1:A:924:ARG:NH2	1:A:2767:ALA:O	2.46	0.48
1:A:1096:VAL:O	1:A:1100:VAL:HG13	2.14	0.48
1:A:1657:SER:OG	1:A:1660:SER:OG	2.25	0.48
1:A:1816:ARG:HA	1:A:1819:PHE:CE2	2.49	0.48
1:A:3151:LEU:HD13	1:A:3196:LYS:O	2.13	0.48
1:A:4101:GLU:HA	1:A:4104:VAL:HG22	1.96	0.48
1:F:712:LYS:NZ	1:F:744:ASP:HB3	2.28	0.48
1:F:793:LEU:HB3	1:F:870:LEU:HA	1.95	0.48
1:F:1019:ASP:OD1	1:F:1026:ARG:NE	2.47	0.48
1:F:1730:PRO:O	1:F:1733:THR:HG22	2.14	0.48
1:F:2971:GLN:O	1:F:2974:GLU:HG2	2.14	0.48
1:F:2974:GLU:O	1:F:2978:LYS:N	2.46	0.48
2:K:137:ASN:HA	2:K:140:LYS:HG2	1.94	0.48
2:L:179:ARG:HD3	3:M:778:PHE:CB	2.43	0.48
3:M:706:ASN:OD1	3:M:709:VAL:N	2.29	0.48
2:N:32:PHE:CZ	2:N:70:LEU:HD12	2.48	0.48
2:N:89:SER:O	2:N:93:CYS:N	2.46	0.48
4:Q:55:SER:O	4:Q:59:LYS:HD3	2.13	0.48
1:A:1058:SER:O	1:A:1062:ARG:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2339:GLU:O	1:A:2343:GLU:HG2	2.14	0.48
1:A:2384:PHE:CE2	1:A:2388:LYS:HE3	2.48	0.48
1:A:2571:ASP:O	1:A:2787:HIS:ND1	2.46	0.48
1:A:3120:LEU:HD11	1:A:3895:GLU:HG2	1.94	0.48
1:A:3563:ASP:OD1	1:A:3563:ASP:N	2.46	0.48
1:A:3797:THR:N	1:A:3800:LEU:O	2.39	0.48
1:A:3869:THR:HG22	1:A:3873:LYS:HZ3	1.79	0.48
1:F:40:GLN:CD	1:F:2427:ARG:HB2	2.34	0.48
1:F:535:LEU:O	1:F:637:LYS:NZ	2.29	0.48
1:F:913:ARG:O	1:F:916:GLU:HG2	2.12	0.48
1:F:1047:GLN:HG3	1:F:1051:LYS:NZ	2.28	0.48
1:F:1332:TYR:O	1:F:1336:THR:OG1	2.27	0.48
1:F:1614:GLN:HA	1:F:1617:LYS:HE2	1.95	0.48
1:F:1711:ARG:CZ	1:F:1757:MET:HG2	2.43	0.48
1:F:2404:ARG:HB3	1:F:2407:GLY:HA3	1.95	0.48
1:F:2432:GLN:O	1:F:2436:LEU:HG	2.13	0.48
1:F:3034:PRO:HB2	1:F:3037:GLN:HG3	1.96	0.48
1:F:3448:GLU:HB2	1:F:3482:LEU:HD22	1.95	0.48
1:F:3530:VAL:HG23	1:F:3531:TYR:H	1.78	0.48
1:F:3763:ARG:HH12	1:F:4003:ASP:HA	1.78	0.48
2:K:87:ASN:HB2	2:K:96:PHE:CZ	2.48	0.48
2:N:58:ASP:HB3	2:N:106:PHE:CD2	2.48	0.48
2:O:31:GLY:N	2:O:52:ILE:HG21	2.27	0.48
8:D:20:DT:C6	8:D:20:DT:H5"	2.49	0.48
1:A:23:ASP:O	1:A:70:ARG:NH2	2.39	0.48
1:A:935:HIS:CD2	1:A:2773:ARG:HH22	2.32	0.48
1:A:1115:HIS:O	1:A:1119:LYS:NZ	2.31	0.48
1:A:1575:LEU:HD21	1:A:1617:LYS:HB3	1.96	0.48
1:A:3061:LEU:O	1:A:3065:ILE:HG12	2.14	0.48
1:A:3156:PRO:O	1:A:3160:LEU:HG	2.14	0.48
1:A:3354:ASP:N	1:A:3354:ASP:OD1	2.46	0.48
1:F:1558:TYR:CE2	1:F:1562:LEU:HD11	2.48	0.48
1:F:2968:ALA:HA	1:F:2971:GLN:HG2	1.96	0.48
1:F:3254:LEU:HB2	1:F:3256:MET:SD	2.53	0.48
1:F:3665:MET:HA	1:F:3668:LEU:HG	1.96	0.48
2:K:32:PHE:CZ	2:K:47:VAL:HG21	2.48	0.48
10:I:30:DA:C8	11:J:29:DG:N2	2.81	0.48
1:A:484:HIS:O	1:A:488:ILE:HG12	2.14	0.48
1:A:706:LEU:HD12	1:A:1388:ASP:HB2	1.96	0.48
1:A:3089:LEU:HD12	1:A:3093:GLN:HE22	1.78	0.48
1:A:3237:SER:O	1:A:3240:MET:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:664:SER:O	1:F:668:LYS:HG3	2.14	0.48
1:F:762:TYR:CD2	1:F:765:LEU:HG	2.48	0.48
1:F:913:ARG:NE	1:F:917:LEU:HD11	2.28	0.48
1:F:1149:LYS:HB3	1:F:1151:ARG:CZ	2.44	0.48
1:F:2238:ILE:O	1:F:2241:LEU:HG	2.14	0.48
1:F:2313:LYS:HA	1:F:2316:TYR:CZ	2.49	0.48
1:F:2477:LEU:HA	1:F:2480:ILE:HD12	1.95	0.48
1:F:2746:LYS:O	1:F:2750:GLU:HG2	2.13	0.48
1:F:3781:CYS:HB2	1:F:3786:LEU:HB2	1.95	0.48
1:F:4054:ALA:H	1:F:4103:GLN:NE2	2.12	0.48
3:M:837:ARG:HB2	3:M:840:ILE:HB	1.96	0.48
2:N:3:ARG:CZ	2:N:21:GLN:HG2	2.44	0.48
2:N:70:LEU:O	2:N:74:LEU:HG	2.14	0.48
2:O:58:ASP:OD1	2:O:58:ASP:N	2.44	0.48
3:P:665:CYS:HB2	3:P:697:THR:HG21	1.96	0.48
3:P:670:THR:HA	3:P:673:GLN:O	2.14	0.48
11:J:19:DA:H2"	11:J:20:DT:H5"	1.96	0.48
1:A:188:GLU:HG2	1:A:189:MET:N	2.28	0.48
1:A:1004:GLN:HG2	1:A:1005:ASP:N	2.29	0.48
1:A:1353:PRO:HD2	1:A:1356:TRP:CZ3	2.49	0.48
1:A:2317:ALA:O	1:A:2366:LYS:NZ	2.47	0.48
1:A:2409:THR:OG1	1:A:2410:GLU:N	2.46	0.48
1:A:2865:HIS:HB2	1:A:2868:LEU:HD23	1.95	0.48
1:A:2991:LYS:HA	1:A:2994:TRP:CE3	2.49	0.48
1:A:3087:SER:O	1:A:3091:LEU:HG	2.13	0.48
1:A:4011:PHE:O	1:A:4015:ASN:ND2	2.29	0.48
1:F:35:ILE:HG23	1:F:36:ARG:HE	1.79	0.48
1:F:76:ILE:HA	1:F:79:ARG:CG	2.43	0.48
1:F:243:GLN:HA	1:F:246:ARG:NE	2.29	0.48
1:F:712:LYS:O	1:F:716:VAL:HG23	2.14	0.48
1:F:978:GLN:H	1:F:978:GLN:CD	2.17	0.48
1:F:1052:SER:OG	1:F:1054:VAL:O	2.31	0.48
1:F:1445:ARG:HB3	1:F:1510:LEU:HD11	1.95	0.48
1:F:1504:ASP:HB3	1:F:1507:CYS:HB2	1.95	0.48
1:F:1736:PHE:HA	1:F:1739:TYR:CD2	2.48	0.48
1:F:1787:ARG:HB3	1:F:1830:HIS:CE1	2.49	0.48
1:F:2230:VAL:HA	1:F:2233:HIS:HB3	1.96	0.48
1:F:2317:ALA:O	1:F:2366:LYS:NZ	2.47	0.48
1:F:3232:ARG:HA	1:F:3235:LYS:HD3	1.94	0.48
1:F:3525:TYR:OH	1:F:3712:LEU:N	2.47	0.48
1:F:3924:HIS:CD2	1:F:3926:ASN:H	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3958:LEU:HB2	1:F:4115:ASN:HD22	1.79	0.48
2:L:94:TYR:CE2	2:L:96:PHE:HB3	2.49	0.48
3:M:887:LYS:HD3	3:M:911:ILE:HG12	1.96	0.48
4:Q:29:ILE:HG23	4:Q:34:TYR:HA	1.95	0.48
4:R:49:VAL:HB	4:R:53:VAL:HG13	1.96	0.48
1:A:314:SER:O	1:A:317:GLU:HG2	2.14	0.48
1:A:343:GLU:OE1	1:A:344:GLN:HG3	2.14	0.48
1:A:672:ILE:N	1:A:675:ARG:HH21	2.12	0.48
1:A:990:GLN:HB3	1:A:2781:PRO:HD3	1.95	0.48
1:A:1220:LEU:HA	1:A:1224:PHE:HD2	1.79	0.48
1:A:1418:HIS:O	1:A:1422:LYS:HG2	2.13	0.48
1:A:1597:LEU:HD22	1:A:1648:LEU:HD22	1.96	0.48
1:A:2133:LEU:O	1:A:2170:GLN:NE2	2.47	0.48
1:A:2232:ARG:O	1:A:2236:GLU:HG2	2.12	0.48
1:F:834:LEU:HD12	1:F:837:THR:HG23	1.96	0.48
1:F:962:TYR:HA	1:F:965:THR:HG22	1.95	0.48
1:F:1034:ARG:O	1:F:1038:LYS:HE3	2.13	0.48
1:F:1200:GLY:N	1:F:1202:ARG:HH12	2.12	0.48
1:F:1801:VAL:HA	1:F:1804:MET:HG3	1.95	0.48
1:F:2974:GLU:HG3	1:F:2978:LYS:HZ2	1.77	0.48
2:L:178:LYS:HG2	3:M:786:GLU:HB2	1.96	0.48
3:M:658:ILE:HG21	3:M:734:SER:HA	1.96	0.48
4:Q:1:MET:HE1	4:Q:3:GLU:H	1.79	0.48
4:Q:130:LEU:HA	4:R:42:GLN:CA	2.38	0.48
8:D:35:DT:H2'	8:D:36:DG:H8	1.79	0.48
10:I:35:DT:C4	10:I:36:DA:C6	3.02	0.48
1:A:307:GLU:O	1:A:310:LYS:HG3	2.14	0.47
1:A:406:ARG:HE	1:A:409:GLN:NE2	2.12	0.47
1:A:479:ILE:HG13	1:A:480:SER:N	2.28	0.47
1:A:664:SER:OG	1:A:725:LEU:HA	2.14	0.47
1:A:721:TYR:HD2	1:A:726:LEU:HD13	1.79	0.47
1:A:1156:GLY:O	1:A:1171:TRP:NE1	2.47	0.47
1:A:1532:LEU:HA	1:A:1556:GLY:HA3	1.96	0.47
1:A:2228:ARG:HH21	1:A:2738:LYS:NZ	2.12	0.47
1:A:2231:PHE:O	1:A:2235:LEU:HG	2.14	0.47
1:A:2279:ILE:O	1:A:2282:ALA:HB3	2.14	0.47
1:A:3236:PHE:HD2	1:A:3269:ARG:HH22	1.62	0.47
1:A:3447:VAL:HG11	1:A:3471:ILE:HG21	1.95	0.47
1:F:200:PHE:HB3	1:F:224:LEU:HD21	1.96	0.47
1:F:273:ARG:O	1:F:277:LEU:N	2.41	0.47
1:F:938:VAL:HA	1:F:941:MET:HG3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2417:SER:OG	1:F:2418:LYS:NZ	2.46	0.47
1:F:2427:ARG:HG2	1:F:2432:GLN:HE22	1.78	0.47
1:F:3103:ILE:HD13	1:F:3138:ILE:HD11	1.96	0.47
1:F:3390:GLN:HA	1:F:3393:GLU:OE1	2.14	0.47
2:K:22:VAL:HG21	2:K:74:LEU:HB3	1.96	0.47
10:I:39:DA:N1	11:J:18:DA:C8	2.82	0.47
1:A:23:ASP:HB2	1:A:70:ARG:NE	2.29	0.47
1:A:32:HIS:O	1:A:35:ILE:HG22	2.14	0.47
1:A:741:ILE:HG22	1:A:748:TYR:CZ	2.49	0.47
1:A:1070:PRO:HG3	1:A:3715:TYR:HB2	1.96	0.47
1:A:1736:PHE:O	1:A:1740:VAL:HG13	2.14	0.47
1:A:3493:TRP:HE3	1:A:3521:ILE:HG12	1.78	0.47
1:A:3901:ARG:HH11	1:A:3971:MET:HE2	1.79	0.47
1:F:179:GLY:C	1:F:230:LEU:HD23	2.34	0.47
1:F:297:LEU:HD23	1:F:316:LEU:HA	1.96	0.47
1:F:712:LYS:NZ	1:F:743:LEU:O	2.37	0.47
1:F:1023:SER:HA	1:F:1026:ARG:HG3	1.97	0.47
1:F:1610:ASN:OD1	1:F:1611:GLN:N	2.47	0.47
1:F:1723:PRO:O	1:F:1768:ARG:NH1	2.46	0.47
1:F:2485:ARG:HH12	1:F:2530:ARG:HG2	1.78	0.47
2:N:187:LYS:HB2	2:O:187:LYS:HZ3	1.78	0.47
1:A:10:CYS:SG	1:A:11:SER:N	2.83	0.47
1:A:145:ASP:HA	1:A:147:PHE:CE2	2.49	0.47
1:A:384:MET:HA	1:A:387:GLU:HG3	1.95	0.47
1:A:682:TYR:CZ	1:A:700:LYS:HD3	2.49	0.47
1:A:1737:ASN:O	1:A:1740:VAL:HG22	2.14	0.47
1:A:2241:LEU:O	1:A:2245:TRP:HB2	2.15	0.47
1:A:2277:LEU:O	1:A:2281:MET:N	2.36	0.47
1:A:3009:LYS:HE3	1:A:3013:TYR:CE1	2.49	0.47
1:A:3557:ARG:O	1:A:3560:SER:OG	2.28	0.47
1:F:51:LEU:HD23	1:F:51:LEU:H	1.78	0.47
1:F:406:ARG:HH21	1:F:408:TYR:HB2	1.77	0.47
1:F:410:MET:O	1:F:414:LEU:HG	2.14	0.47
1:F:879:MET:HG3	1:F:881:LYS:H	1.79	0.47
1:F:1406:LEU:HD13	1:F:1415:LEU:HD21	1.94	0.47
1:F:1576:ASP:O	1:F:1580:LEU:N	2.39	0.47
1:F:2166:SER:OG	1:F:2167:PRO:HD3	2.14	0.47
1:F:3281:CYS:SG	1:F:3329:LEU:HB3	2.54	0.47
2:K:94:TYR:CE1	2:K:110:SER:HA	2.50	0.47
3:M:655:ILE:HD12	3:M:684:GLU:HB3	1.96	0.47
2:N:19:PHE:HB2	2:N:21:GLN:HE22	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:25:ALA:HB2	4:Q:38:VAL:HG13	1.95	0.47
4:Q:47:GLU:HG3	4:Q:122:HIS:NE2	2.30	0.47
4:Q:57:ARG:HH12	4:Q:76:LEU:HD11	1.79	0.47
4:Q:139:LEU:HA	4:Q:142:MET:CE	2.44	0.47
4:Q:147:GLN:O	4:Q:151:ARG:HG2	2.14	0.47
1:A:1167:ASP:HA	1:A:1170:LYS:NZ	2.30	0.47
1:A:2294:ILE:HD12	1:A:2299:TYR:HD1	1.80	0.47
1:A:2402:LEU:HD11	1:A:2437:ASP:HB2	1.97	0.47
1:F:1019:ASP:OD1	1:F:1019:ASP:N	2.46	0.47
1:F:1234:GLY:HA3	1:F:1292:LYS:HZ1	1.76	0.47
1:F:1601:LEU:HD13	1:F:1651:LYS:HB3	1.96	0.47
1:F:2275:GLN:O	1:F:2279:ILE:HG12	2.14	0.47
1:F:4055:ASN:HB3	1:F:4058:VAL:HG23	1.96	0.47
2:L:55:GLU:HB3	2:L:66:TYR:CD2	2.49	0.47
2:O:54:GLN:OE1	2:O:54:GLN:N	2.44	0.47
3:P:848:HIS:CE1	3:P:899:ASP:HA	2.49	0.47
8:D:14:DA:H1'	8:D:15:DA:C2	2.50	0.47
10:I:26:DA:H1'	10:I:27:DC:C2	2.48	0.47
1:A:109:ASN:O	1:A:112:THR:OG1	2.21	0.47
1:A:323:VAL:HA	1:A:326:MET:HG2	1.95	0.47
1:A:1444:ASP:N	1:A:1444:ASP:OD1	2.46	0.47
1:A:2385:LEU:HD13	1:A:2389:PHE:HE2	1.79	0.47
1:A:3046:ARG:NH2	1:A:3181:ASP:OD1	2.47	0.47
1:A:3369:ASP:O	1:A:3373:VAL:N	2.33	0.47
1:A:3466:PRO:O	1:A:3470:GLN:HG2	2.14	0.47
1:A:3595:GLU:HB2	1:A:3606:ILE:HD11	1.96	0.47
1:A:3702:PRO:HD3	1:A:3719:ILE:HD11	1.97	0.47
1:A:3748:HIS:HB3	1:A:3750:PHE:HE1	1.79	0.47
1:F:1367:HIS:HB2	1:F:1370:ARG:NH2	2.29	0.47
1:F:1747:LEU:HD11	1:F:1781:SER:OG	2.13	0.47
1:F:3156:PRO:HA	1:F:3159:ARG:HB2	1.95	0.47
2:K:124:ARG:NH1	2:L:38:ASP:O	2.47	0.47
2:N:102:LYS:NZ	4:Q:75:HIS:HD2	2.13	0.47
4:Q:192:GLN:O	4:Q:197:LYS:HG2	2.14	0.47
4:R:1:MET:N	4:R:5:GLU:OE2	2.46	0.47
8:D:29:DG:C5	8:D:30:DT:C4	3.03	0.47
1:A:908:ASP:OD1	1:A:908:ASP:N	2.47	0.47
1:A:1101:PHE:HB3	1:A:1168:LEU:HG	1.95	0.47
1:A:1580:LEU:HG	1:A:1584:GLN:NE2	2.29	0.47
1:A:3319:ASN:CG	1:A:3321:LEU:HB2	2.35	0.47
1:A:3423:GLN:HA	1:A:3426:LYS:HE3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3493:TRP:H	1:A:3711:PRO:HG3	1.80	0.47
1:A:3601:VAL:HA	1:A:3604:LYS:HE3	1.96	0.47
1:A:3772:ASN:HD21	1:A:3788:LEU:HB2	1.79	0.47
1:F:54:GLN:HA	1:F:57:LEU:HG	1.95	0.47
1:F:168:ASP:OD2	11:J:22:DG:H5''	2.15	0.47
1:F:538:ASP:OD1	1:F:538:ASP:N	2.46	0.47
1:F:1045:THR:O	1:F:1049:GLN:HG3	2.15	0.47
1:F:1400:VAL:HG12	1:F:1404:LYS:HE2	1.97	0.47
1:F:1685:ASP:OD1	1:F:1686:LEU:N	2.48	0.47
1:F:1727:ARG:CZ	1:F:1772:HIS:HA	2.44	0.47
1:F:1871:MET:CE	1:F:1871:MET:HA	2.44	0.47
1:F:2231:PHE:CZ	1:F:2272:VAL:HG12	2.50	0.47
1:F:2461:PHE:HB2	1:F:2473:MET:SD	2.55	0.47
1:F:2930:TYR:O	1:F:2935:GLU:N	2.44	0.47
1:F:3979:LEU:O	1:F:3983:ILE:HG12	2.14	0.47
2:L:28:LEU:HD21	2:L:70:LEU:HB3	1.97	0.47
2:O:107:ARG:HH21	2:O:110:SER:HA	1.79	0.47
2:O:166:VAL:HG13	3:P:847:PHE:HD1	1.80	0.47
3:P:856:LEU:HD11	3:P:878:PHE:CD1	2.50	0.47
4:R:174:LEU:HD22	4:R:180:LYS:HG3	1.96	0.47
11:J:26:DT:H1'	11:J:27:DT:H3	1.79	0.47
1:A:493:LYS:O	1:A:625:ASN:ND2	2.48	0.47
1:A:710:PHE:HA	1:A:713:GLU:OE1	2.14	0.47
1:A:783:HIS:HA	1:A:786:GLN:HG2	1.96	0.47
1:A:828:LYS:HB2	1:A:830:VAL:HG22	1.96	0.47
1:A:859:LEU:O	1:A:867:ASN:ND2	2.45	0.47
1:A:1072:ALA:CA	1:A:1075:ARG:HH21	2.27	0.47
1:A:3113:ASN:O	1:A:3117:ILE:HG12	2.15	0.47
1:A:3505:LEU:HG	1:A:3515:GLN:NE2	2.29	0.47
1:A:3689:ASP:OD1	1:A:3690:PHE:N	2.48	0.47
1:A:3771:MET:O	1:A:3775:LEU:HG	2.15	0.47
1:A:3859:TYR:HB2	1:A:4077:TYR:HE1	1.78	0.47
1:A:4055:ASN:O	1:A:4059:ILE:HG12	2.14	0.47
1:F:61:ARG:HD3	1:F:62:ASP:N	2.30	0.47
1:F:529:ASP:N	1:F:529:ASP:OD1	2.47	0.47
1:F:585:ILE:HG13	1:F:611:ASN:H	1.79	0.47
1:F:703:CYS:HB3	1:F:707:PHE:CE2	2.50	0.47
1:F:723:ASP:C	1:F:725:LEU:H	2.18	0.47
1:F:1184:ARG:HH21	1:F:1262:ALA:HA	1.80	0.47
1:F:1871:MET:HE2	1:F:1874:TYR:HD2	1.80	0.47
1:F:1877:LEU:HA	1:F:1880:MET:HG2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2228:ARG:HD3	10:I:44:DG:P	2.54	0.47
1:F:3278:GLN:HB3	1:F:3282:ARG:NH1	2.27	0.47
1:F:3314:SER:OG	1:F:3317:SER:HB2	2.15	0.47
1:F:3387:GLU:HA	1:F:3390:GLN:HE21	1.78	0.47
1:F:3530:VAL:HG23	1:F:3531:TYR:N	2.30	0.47
2:L:162:PHE:CD2	3:M:843:LEU:HD13	2.50	0.47
2:L:182:LEU:HD12	3:M:781:ILE:HG23	1.96	0.47
2:N:45:GLY:CA	2:N:113:LEU:HA	2.45	0.47
2:N:88:PHE:CE1	2:N:93:CYS:HA	2.50	0.47
2:N:188:LYS:HE3	3:P:769:THR:HG23	1.97	0.47
4:Q:106:LEU:HD22	4:Q:121:PHE:H	1.79	0.47
4:Q:135:LEU:HB2	4:R:41:LEU:CD1	2.45	0.47
4:Q:161:ASP:HB2	4:Q:184:PHE:HB3	1.96	0.47
4:Q:165:GLN:HA	4:Q:168:GLN:HG2	1.95	0.47
4:R:109:ARG:NH1	4:R:119:TRP:H	2.13	0.47
4:R:137:ARG:HA	4:R:140:MET:SD	2.54	0.47
4:R:195:ILE:HG13	4:R:196:GLU:HG3	1.96	0.47
8:D:15:DA:N7	8:D:16:DA:N6	2.62	0.47
10:I:41:DT:H2'	10:I:43:DT:N3	2.30	0.47
1:A:250:ASN:O	1:A:253:LEU:HB3	2.15	0.47
1:A:323:VAL:O	1:A:327:VAL:HG12	2.15	0.47
1:A:1168:LEU:HA	1:A:1171:TRP:HB3	1.96	0.47
1:A:2540:LEU:HD11	1:A:2835:LYS:HD2	1.97	0.47
1:A:2978:LYS:O	1:A:2981:TRP:NE1	2.47	0.47
1:A:3494:GLN:HG2	1:A:3709:GLY:HA2	1.96	0.47
1:A:3513:ALA:HA	1:A:3516:HIS:ND1	2.30	0.47
1:A:3971:MET:SD	1:A:3974:MET:HB2	2.55	0.47
1:F:530:LEU:O	1:F:533:HIS:HB3	2.14	0.47
1:F:1185:HIS:HA	1:F:1188:ILE:HG12	1.97	0.47
1:F:1292:LYS:HD3	1:F:1296:PHE:CZ	2.48	0.47
1:F:1335:CYS:HB3	1:F:1382:ILE:HD12	1.96	0.47
1:F:1452:VAL:O	1:F:1456:LYS:HG2	2.14	0.47
1:F:1685:ASP:O	1:F:1689:LYS:N	2.39	0.47
1:F:1750:LEU:HA	1:F:1758:LEU:HD23	1.97	0.47
1:F:2188:GLU:O	1:F:2192:THR:HG23	2.15	0.47
1:F:3155:VAL:N	1:F:3159:ARG:HH22	2.13	0.47
1:F:3772:ASN:OD1	1:F:3788:LEU:HB3	2.15	0.47
3:M:785:ASN:ND2	3:M:787:GLN:O	2.47	0.47
1:A:675:ARG:O	1:A:679:LYS:HG3	2.15	0.47
1:A:934:LEU:HA	1:A:937:MET:HG2	1.96	0.47
1:A:1174:ALA:HA	1:A:1222:ASN:HD21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1184:ARG:NH2	1:A:1262:ALA:HA	2.30	0.47
1:A:2310:VAL:HG22	1:A:2316:TYR:CD2	2.49	0.47
1:A:2761:LEU:HA	1:A:2764:LYS:HD2	1.97	0.47
1:A:3363:SER:HA	1:A:3380:ARG:HH11	1.79	0.47
1:A:3778:ASP:O	1:A:3782:SER:OG	2.20	0.47
1:A:4065:LEU:HA	1:A:4069:GLU:HB3	1.97	0.47
1:F:1368:LEU:HA	1:F:1371:VAL:HG22	1.96	0.47
1:F:1776:GLU:HG3	1:F:1777:LEU:HD12	1.97	0.47
1:F:2383:PHE:HZ	1:F:2411:LEU:HD22	1.79	0.47
1:F:2396:LEU:O	1:F:2400:VAL:HG23	2.15	0.47
1:F:2418:LYS:HD3	1:F:2418:LYS:HA	1.72	0.47
1:F:2940:ARG:O	1:F:2944:THR:HG23	2.13	0.47
1:F:3314:SER:HG	1:F:3318:LYS:H	1.63	0.47
2:K:3:ARG:NH2	2:K:21:GLN:OE1	2.47	0.47
2:L:20:LEU:HG	2:L:86:PHE:HE2	1.80	0.47
4:Q:197:LYS:HD2	4:R:152:GLU:HB3	1.97	0.47
10:I:24:DA:H4'	10:I:26:DA:N1	2.29	0.47
1:A:1620:THR:O	1:A:1624:GLN:HG2	2.15	0.47
1:A:1626:TRP:CD1	1:A:1670:GLU:HG3	2.49	0.47
1:A:2404:ARG:HA	1:A:2404:ARG:HD2	1.70	0.47
1:A:2826:LEU:HA	1:A:2829:LYS:HD2	1.95	0.47
1:A:3314:SER:O	1:A:3317:SER:OG	2.20	0.47
1:F:414:LEU:HA	1:F:417:VAL:HG12	1.96	0.47
1:F:1453:SER:O	1:F:1457:GLN:HG3	2.15	0.47
1:F:2304:VAL:O	1:F:2348:GLN:NE2	2.48	0.47
1:F:3121:LEU:O	1:F:3124:SER:OG	2.27	0.47
1:F:3992:ARG:HE	1:F:4100:GLU:HG3	1.80	0.47
4:Q:34:TYR:CD1	4:Q:54:VAL:HG22	2.48	0.47
1:A:417:VAL:HA	1:A:420:VAL:HG12	1.96	0.46
1:A:709:LYS:HG2	1:A:713:GLU:OE2	2.15	0.46
1:A:913:ARG:HE	1:A:917:LEU:HD11	1.79	0.46
1:A:1442:GLN:OE1	1:A:1445:ARG:NH2	2.27	0.46
1:A:3009:LYS:HA	1:A:3009:LYS:HD2	1.74	0.46
1:A:3165:THR:O	1:A:3169:PRO:HD3	2.16	0.46
1:A:3235:LYS:HB3	1:A:3239:LYS:HE2	1.96	0.46
1:A:3266:SER:HA	1:A:3272:TRP:NE1	2.30	0.46
1:F:2193:ILE:HA	1:F:2196:TRP:CH2	2.50	0.46
1:F:2288:TYR:CE2	1:F:2296:SER:HA	2.50	0.46
1:F:3658:ASP:OD1	1:F:3658:ASP:N	2.48	0.46
1:F:3690:PHE:HZ	1:F:3695:LEU:HB2	1.80	0.46
2:K:98:GLU:HA	2:K:109:GLY:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:665:CYS:HB3	3:P:700:VAL:HG22	1.95	0.46
4:Q:163:GLU:HG3	4:R:179:LEU:HB2	1.97	0.46
4:R:193:PHE:O	4:R:198:LEU:N	2.48	0.46
11:J:17:DT:H2"	11:J:18:DA:N9	2.29	0.46
1:A:410:MET:O	1:A:414:LEU:HG	2.15	0.46
1:A:650:SER:HB3	1:A:673:THR:HG21	1.97	0.46
1:A:715:ALA:O	1:A:718:MET:HG3	2.16	0.46
1:A:762:TYR:HD2	1:A:765:LEU:HD23	1.81	0.46
1:A:1558:TYR:O	1:A:1562:LEU:HG	2.15	0.46
1:A:2349:LEU:HB3	1:A:2360:PHE:CE2	2.50	0.46
1:A:2746:LYS:O	1:A:2750:GLU:OE1	2.33	0.46
1:A:3266:SER:HA	1:A:3272:TRP:CD1	2.49	0.46
1:A:3420:CYS:O	1:A:3424:LEU:HG	2.16	0.46
1:A:4087:HIS:HA	1:A:4090:ARG:HD2	1.97	0.46
1:F:457:CYS:O	1:F:461:ILE:HG12	2.15	0.46
1:F:472:GLY:O	1:F:475:LEU:HB3	2.15	0.46
1:F:2307:MET:HE1	1:F:2320:ALA:HB2	1.97	0.46
1:F:3049:LEU:O	1:F:3053:LEU:HG	2.16	0.46
1:F:3546:SER:O	1:F:3549:HIS:NE2	2.48	0.46
1:F:4040:PRO:HA	1:F:4043:LYS:HG2	1.97	0.46
2:K:120:ALA:HA	2:L:40:HIS:CE1	2.50	0.46
2:K:164:LYS:HZ3	3:M:898:ILE:HA	1.80	0.46
3:M:865:ILE:HG21	3:M:869:HIS:HA	1.97	0.46
2:O:67:VAL:HG23	2:O:71:ARG:HH22	1.80	0.46
4:R:151:ARG:O	4:R:155:THR:HG23	2.14	0.46
1:A:76:ILE:HA	1:A:79:ARG:HB2	1.97	0.46
1:A:639:ALA:O	1:A:643:GLU:N	2.48	0.46
1:A:721:TYR:HB2	1:A:726:LEU:HD13	1.98	0.46
1:A:933:LEU:HD12	1:A:2793:PRO:HB2	1.97	0.46
1:A:975:ASP:O	1:A:981:ARG:NH2	2.48	0.46
1:A:1300:SER:CA	1:A:1304:HIS:HB2	2.40	0.46
1:A:1418:HIS:O	1:A:1421:GLU:HG2	2.14	0.46
1:A:1576:ASP:OD1	1:A:1576:ASP:N	2.47	0.46
1:A:1820:VAL:HA	1:A:1824:LEU:HD12	1.98	0.46
1:A:2246:LYS:HA	1:A:2249:LEU:HB2	1.97	0.46
1:A:2485:ARG:HH22	1:A:2530:ARG:HA	1.80	0.46
1:A:3172:LYS:HD3	1:A:3248:LYS:HB3	1.97	0.46
1:A:3324:ARG:HB3	1:A:3391:ALA:HB3	1.98	0.46
1:A:3956:PRO:HD2	1:A:4121:TRP:HB2	1.98	0.46
1:F:242:PRO:C	1:F:246:ARG:HH21	2.18	0.46
1:F:933:LEU:HD13	1:F:2793:PRO:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1169:VAL:HG21	1:F:1198:LEU:HD21	1.96	0.46
1:F:1195:VAL:HA	1:F:1198:LEU:HG	1.97	0.46
1:F:1347:THR:O	1:F:1351:THR:OG1	2.22	0.46
1:F:1952:ILE:HG23	1:F:1956:PHE:HB2	1.96	0.46
1:F:3965:ARG:HA	1:F:3968:ILE:HG12	1.98	0.46
2:K:30:SER:HA	2:K:49:GLU:HB2	1.96	0.46
2:K:140:LYS:HE3	2:L:141:ASN:ND2	2.31	0.46
2:L:52:ILE:HA	2:L:55:GLU:HG3	1.97	0.46
3:M:863:VAL:HB	3:M:886:PHE:CE2	2.50	0.46
3:P:882:PHE:HB3	3:P:884:ARG:HD3	1.97	0.46
4:Q:219:MET:HA	4:Q:222:THR:HG22	1.97	0.46
4:R:218:TYR:O	4:R:222:THR:HG23	2.16	0.46
1:A:342:MET:HE2	1:A:345:PHE:CD2	2.51	0.46
1:A:2738:LYS:NZ	9:E:43:DT:H3'	2.30	0.46
1:A:3260:LYS:O	1:A:3263:HIS:HB3	2.15	0.46
1:A:3349:ALA:HA	1:A:3352:GLU:HB3	1.97	0.46
1:A:4079:ALA:O	1:A:4083:GLY:N	2.47	0.46
1:F:1045:THR:HG22	1:F:1047:GLN:H	1.80	0.46
1:F:1505:LEU:HD12	1:F:1506:SER:N	2.31	0.46
1:F:2164:TRP:C	1:F:2167:PRO:HD2	2.36	0.46
1:F:3759:ARG:O	1:F:3763:ARG:HG2	2.16	0.46
1:F:4107:LEU:HD12	1:F:4111:ALA:HB3	1.97	0.46
3:M:666:VAL:HG12	3:M:675:LYS:HG3	1.97	0.46
3:M:826:ILE:HD12	3:M:878:PHE:HZ	1.81	0.46
4:Q:38:VAL:HB	4:Q:45:TRP:HB2	1.97	0.46
4:Q:295:ARG:HE	4:Q:295:ARG:HB2	1.56	0.46
4:R:217:LEU:O	4:R:221:VAL:HG23	2.15	0.46
1:A:337:LYS:HB2	1:A:369:PHE:CE1	2.49	0.46
1:A:732:PHE:CD2	1:A:733:LEU:HD22	2.50	0.46
1:A:980:THR:HA	1:A:983:LEU:HG	1.98	0.46
1:A:1028:PHE:HA	1:A:1031:ARG:NE	2.28	0.46
1:A:2356:MET:HE1	1:A:2359:LYS:HD3	1.96	0.46
1:A:2834:GLN:HG3	1:A:2838:GLN:NE2	2.31	0.46
1:A:3227:ILE:O	1:A:3231:ILE:HG23	2.16	0.46
1:A:3930:VAL:HA	1:A:3937:VAL:HA	1.96	0.46
1:A:3992:ARG:HE	1:A:4100:GLU:HG3	1.80	0.46
1:A:4111:ALA:O	1:A:4115:ASN:ND2	2.48	0.46
1:F:208:MET:HE1	1:F:252:VAL:HG11	1.96	0.46
1:F:801:LYS:HD3	1:F:801:LYS:HA	1.70	0.46
1:F:1190:LEU:O	1:F:1193:LYS:HG2	2.16	0.46
1:F:1294:VAL:HA	1:F:1297:PHE:CD2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2427:ARG:HG2	1:F:2432:GLN:NE2	2.30	0.46
1:F:2817:LEU:HD22	1:F:2865:HIS:CD2	2.50	0.46
1:F:3236:PHE:HD2	1:F:3269:ARG:HH22	1.61	0.46
1:F:3550:LYS:HA	1:F:3553:GLU:CD	2.36	0.46
3:M:848:HIS:NE2	3:M:897:SER:HB3	2.31	0.46
2:O:159:GLN:O	2:O:163:GLU:HG3	2.16	0.46
4:Q:211:VAL:O	4:Q:215:GLN:HG2	2.14	0.46
8:D:19:DA:H2	9:E:39:DA:H2	1.62	0.46
1:A:200:PHE:HB2	1:A:246:ARG:HH12	1.81	0.46
1:A:275:PHE:CZ	1:A:319:PHE:HB2	2.51	0.46
1:A:934:LEU:O	1:A:937:MET:HG2	2.15	0.46
1:A:943:GLY:HA3	1:A:2783:ILE:HG21	1.97	0.46
1:A:1214:GLU:OE1	1:A:1214:GLU:N	2.46	0.46
1:A:1642:LYS:O	1:A:1646:LEU:HG	2.15	0.46
1:A:1671:VAL:HA	1:A:1674:THR:HB	1.97	0.46
1:A:2225:HIS:CG	1:A:2230:VAL:HG23	2.50	0.46
1:A:2310:VAL:HG11	1:A:2359:LYS:HE2	1.97	0.46
1:A:3243:ILE:HD11	1:A:3258:LEU:HD23	1.97	0.46
1:A:3301:LEU:HB2	1:A:3333:THR:HG21	1.98	0.46
1:A:3455:LYS:HA	1:A:3490:VAL:HG23	1.97	0.46
1:A:3593:ARG:HH12	1:A:3661:ASP:CG	2.18	0.46
1:F:88:PHE:HD2	1:F:89:LEU:HD22	1.81	0.46
1:F:174:VAL:O	1:F:177:LEU:HB2	2.16	0.46
1:F:709:LYS:HG2	1:F:1389:VAL:HG11	1.97	0.46
1:F:1740:VAL:HA	1:F:1743:MET:HG2	1.97	0.46
1:F:2102:LYS:HE2	1:F:2102:LYS:HB3	1.78	0.46
1:F:2135:ASN:OD1	1:F:2135:ASN:N	2.49	0.46
1:F:2455:LEU:HD12	1:F:2458:VAL:HB	1.97	0.46
1:F:3029:LYS:N	1:F:3067:LYS:HZ1	2.14	0.46
1:F:3327:ASN:HB2	1:F:3388:ALA:HB2	1.98	0.46
1:F:3494:GLN:HB3	1:F:3709:GLY:N	2.30	0.46
3:M:793:ALA:O	3:M:814:ARG:HG3	2.16	0.46
3:M:803:TYR:HB2	3:M:805:TRP:CE2	2.51	0.46
3:P:668:SER:HG	3:P:704:SER:H	1.62	0.46
1:A:759:GLY:CA	1:A:766:ALA:HB2	2.46	0.46
1:A:1048:GLN:O	1:A:1052:SER:N	2.41	0.46
1:A:1369:MET:HA	1:A:1372:LEU:HB3	1.98	0.46
1:A:1437:TYR:HB2	1:A:1486:LEU:HD22	1.98	0.46
1:A:1558:TYR:O	1:A:1561:SER:OG	2.26	0.46
1:A:2817:LEU:O	1:A:2820:MET:HG3	2.15	0.46
1:A:2898:LEU:HD13	1:A:3972:LEU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3583:LEU:HA	1:A:3586:LYS:HE2	1.97	0.46
1:A:3881:ASP:N	1:A:3966:GLN:OE1	2.49	0.46
1:A:4038:TRP:HE3	1:A:4043:LYS:HZ3	1.63	0.46
1:F:997:ASN:HA	1:F:1043:GLN:HE21	1.80	0.46
1:F:1048:GLN:CD	1:F:1051:LYS:HZ3	2.19	0.46
1:F:2328:ARG:HA	1:F:2333:ARG:HH21	1.81	0.46
1:F:3586:LYS:HD3	1:F:3664:ASN:HD21	1.81	0.46
2:K:23:SER:N	2:K:33:VAL:O	2.49	0.46
2:K:157:ASP:OD2	3:M:837:ARG:NE	2.49	0.46
4:R:48:GLN:HB3	4:R:126:ALA:HB1	1.96	0.46
1:A:1130:ALA:O	1:A:1134:LEU:HG	2.16	0.46
1:A:2123:PRO:HA	1:A:2127:LYS:HG2	1.97	0.46
1:A:2227:LYS:O	1:A:2229:ALA:N	2.48	0.46
1:A:2266:ASN:O	1:A:2311:ARG:HB2	2.16	0.46
1:A:2421:VAL:O	1:A:2425:ARG:HG3	2.16	0.46
1:A:3793:VAL:HG12	1:A:3803:ILE:HB	1.97	0.46
1:F:453:MET:HA	1:F:456:VAL:HB	1.97	0.46
1:F:520:LYS:HA	1:F:520:LYS:HD3	1.72	0.46
1:F:670:LEU:HB3	1:F:732:PHE:CD1	2.51	0.46
1:F:965:THR:O	1:F:969:LEU:HG	2.16	0.46
1:F:1176:CYS:SG	1:F:1188:ILE:HG22	2.56	0.46
1:F:2522:ARG:HG3	1:F:2561:PHE:CE1	2.51	0.46
1:F:2928:LYS:HZ3	1:F:2993:PHE:HB2	1.81	0.46
1:F:3557:ARG:HG3	1:F:3561:LYS:HZ1	1.80	0.46
1:F:3582:GLU:O	1:F:3586:LYS:NZ	2.26	0.46
1:F:3772:ASN:ND2	1:F:3787:GLN:HE22	2.13	0.46
1:F:3924:HIS:H	1:F:3927:ASN:HD21	1.64	0.46
3:P:816:HIS:O	3:P:850:ALA:HA	2.16	0.46
8:D:14:DA:H2''	8:D:15:DA:C6	2.50	0.46
9:E:41:DT:H2''	9:E:42:DA:H2'	1.97	0.46
1:A:201:LEU:HB2	1:A:246:ARG:NH2	2.31	0.46
1:A:207:GLN:HE22	1:A:216:LYS:C	2.19	0.46
1:A:364:ARG:HA	1:A:364:ARG:HE	1.81	0.46
1:A:529:ASP:O	1:A:533:HIS:N	2.29	0.46
1:A:654:ILE:HD12	1:A:706:LEU:HD21	1.97	0.46
1:A:832:LYS:C	1:A:834:LEU:H	2.19	0.46
1:A:1182:GLU:HG3	1:A:1186:LYS:NZ	2.31	0.46
1:A:1756:PRO:HG3	1:A:1797:LEU:HD12	1.98	0.46
1:A:1797:LEU:O	1:A:1801:VAL:HG22	2.16	0.46
1:A:2330:VAL:O	1:A:2333:ARG:N	2.49	0.46
1:A:3666:LEU:HA	1:A:3669:LYS:NZ	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:54:GLN:HB3	1:F:3097:ASP:HB2	1.98	0.46
1:F:139:ARG:HA	1:F:142:ARG:NH2	2.18	0.46
1:F:528:VAL:O	1:F:532:ARG:HG2	2.16	0.46
1:F:1167:ASP:O	1:F:1170:LYS:HG3	2.16	0.46
1:F:2182:ILE:O	1:F:2186:VAL:HG23	2.16	0.46
1:F:2189:ILE:O	1:F:2192:THR:OG1	2.27	0.46
1:F:2511:ILE:HG13	1:F:2550:ILE:HG23	1.98	0.46
1:F:2939:LEU:HD13	1:F:2957:LEU:HD22	1.98	0.46
1:F:3090:TYR:O	1:F:3094:ASP:N	2.49	0.46
1:F:3179:TRP:HE3	1:F:3242:MET:SD	2.38	0.46
2:K:188:LYS:NZ	3:M:767:ILE:O	2.44	0.46
2:N:60:ALA:HB1	4:Q:93:ALA:HB2	1.98	0.46
2:O:59:MET:SD	2:O:61:MET:HB3	2.56	0.46
4:Q:150:VAL:HA	4:Q:153:LEU:HD12	1.97	0.46
1:A:242:PRO:O	1:A:246:ARG:HG2	2.15	0.46
1:A:1121:LEU:O	1:A:1124:ILE:HG12	2.16	0.46
1:A:1565:GLU:OE1	1:A:1606:ARG:NH1	2.46	0.46
1:A:1958:GLU:H	1:A:1958:GLU:CD	2.19	0.46
1:A:2724:ASP:N	1:A:2724:ASP:OD1	2.48	0.46
1:A:2726:LEU:HB3	1:A:2727:ARG:HH21	1.80	0.46
1:A:2871:LEU:HD11	1:A:2892:LEU:HD21	1.98	0.46
1:F:241:ASP:O	1:F:244:THR:HG22	2.16	0.46
1:F:966:PHE:HA	1:F:969:LEU:HD12	1.97	0.46
1:F:2310:VAL:HG13	1:F:2316:TYR:CE2	2.50	0.46
1:F:3138:ILE:HG22	1:F:3189:PHE:HZ	1.80	0.46
1:F:3163:THR:O	1:F:3167:ARG:NH1	2.49	0.46
1:F:3171:ALA:N	1:F:3179:TRP:HZ2	2.14	0.46
1:F:3625:LEU:N	1:F:3683:CYS:HA	2.31	0.46
1:F:3901:ARG:HD2	1:F:3902:SER:N	2.31	0.46
1:F:4115:ASN:O	1:F:4119:ARG:N	2.42	0.46
2:L:71:ARG:NH1	2:L:74:LEU:HD12	2.31	0.46
3:M:665:CYS:SG	3:M:690:VAL:HG13	2.55	0.46
2:N:34:ILE:HD12	2:N:74:LEU:CD2	2.45	0.46
4:Q:137:ARG:HB2	4:Q:138:PRO:HD3	1.98	0.46
1:A:139:ARG:NH2	1:A:179:GLY:O	2.49	0.45
1:A:848:LEU:O	1:A:852:ARG:HG3	2.15	0.45
1:A:860:GLY:HA3	1:A:3136:THR:CB	2.46	0.45
1:A:1264:LEU:HD11	1:A:1344:PHE:HB2	1.98	0.45
1:A:1420:ARG:HH12	1:A:1469:PRO:HD3	1.81	0.45
1:A:1577:LEU:H	1:A:1577:LEU:HD12	1.80	0.45
1:A:2972:TYR:CZ	1:A:2997:ALA:HB1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3081:HIS:HB2	1:A:3082:TYR:CE2	2.51	0.45
1:A:3158:LYS:HZ3	1:A:3162:ASN:HB3	1.81	0.45
1:A:3229:SER:N	1:A:3232:ARG:HH21	2.14	0.45
1:A:3387:GLU:O	1:A:3390:GLN:HG2	2.16	0.45
1:A:4113:ASP:O	1:A:4117:LEU:HG	2.16	0.45
1:F:802:THR:OG1	1:F:803:SER:N	2.48	0.45
1:F:934:LEU:HA	1:F:937:MET:HG2	1.98	0.45
1:F:1250:LEU:HD12	1:F:1251:GLN:N	2.31	0.45
1:F:1611:GLN:NE2	1:F:1614:GLN:HG3	2.30	0.45
1:F:1824:LEU:O	1:F:1828:LEU:HG	2.16	0.45
1:F:2228:ARG:HD3	10:I:44:DG:OP2	2.16	0.45
1:F:3300:VAL:HG13	1:F:3300:VAL:O	2.16	0.45
1:F:4127:TRP:CD1	1:F:4128:MET:N	2.85	0.45
2:O:163:GLU:HG2	3:P:843:LEU:HD22	1.97	0.45
3:P:864:ILE:HD11	3:P:906:GLU:HG2	1.98	0.45
4:R:166:ASP:O	4:R:170:SER:HB3	2.16	0.45
1:A:296:VAL:HG13	1:A:297:LEU:HD12	1.98	0.45
1:A:432:THR:O	1:A:435:LEU:HG	2.16	0.45
1:A:565:TYR:OH	1:A:642:PHE:HB2	2.15	0.45
1:A:898:PHE:HB2	1:A:901:MET:O	2.17	0.45
1:A:1611:GLN:NE2	1:A:1613:HIS:HB2	2.31	0.45
1:A:1667:SER:O	1:A:1670:GLU:HG2	2.16	0.45
1:A:1671:VAL:O	1:A:1675:TYR:N	2.39	0.45
1:A:2349:LEU:O	1:A:2353:GLN:HB2	2.16	0.45
1:A:2376:ASP:OD1	1:A:2377:ARG:N	2.48	0.45
1:A:3516:HIS:CE1	1:A:3554:PHE:HZ	2.34	0.45
1:A:3758:LEU:O	1:A:3762:GLN:N	2.42	0.45
1:F:30:ALA:O	1:F:33:GLN:HG2	2.16	0.45
1:F:1307:ILE:HG13	1:F:1308:ALA:H	1.81	0.45
1:F:1342:MET:HB2	1:F:1402:LEU:HD22	1.97	0.45
1:F:1465:HIS:HA	1:F:1468:LEU:HB3	1.98	0.45
1:F:1504:ASP:OD2	1:F:1506:SER:OG	2.34	0.45
1:F:1591:LYS:O	1:F:1594:SER:OG	2.28	0.45
1:F:2474:TYR:O	1:F:2478:MET:HG3	2.15	0.45
1:F:2791:ILE:O	1:F:2794:LEU:HB2	2.16	0.45
1:F:3008:TRP:H	1:F:3008:TRP:HE3	1.61	0.45
1:F:3490:VAL:HG13	1:F:3490:VAL:O	2.16	0.45
1:F:3495:PHE:HA	1:F:3498:TRP:HB2	1.99	0.45
1:F:3582:GLU:H	1:F:3582:GLU:CD	2.18	0.45
1:F:3736:LYS:HE2	1:F:3752:VAL:HB	1.98	0.45
1:F:4125:GLU:HG2	1:F:4127:TRP:CZ2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:813:PHE:HB3	3:M:816:HIS:HB2	1.98	0.45
3:M:879:ARG:NH1	3:M:888:ILE:HD11	2.31	0.45
2:O:29:GLU:OE1	2:O:71:ARG:HD3	2.16	0.45
4:Q:17:GLN:O	4:Q:94:THR:OG1	2.34	0.45
9:E:32:DA:H2'	9:E:33:DA:H3'	1.98	0.45
10:I:27:DC:H2'	11:J:30:DT:C2	2.51	0.45
1:A:78:PHE:HB2	1:A:79:ARG:HH12	1.81	0.45
1:A:234:PHE:HD1	1:A:235:THR:HG23	1.82	0.45
1:A:1418:HIS:HA	1:A:1421:GLU:CD	2.37	0.45
1:A:1428:ILE:H	1:A:1428:ILE:HD12	1.80	0.45
1:A:1646:LEU:HD23	1:A:1678:LEU:HD13	1.99	0.45
1:A:2130:HIS:HA	1:A:2164:TRP:CH2	2.51	0.45
1:A:2584:CYS:SG	1:A:2779:ASP:N	2.90	0.45
1:A:2955:SER:O	1:A:2958:LEU:HG	2.17	0.45
1:A:3072:GLU:OE1	1:A:3072:GLU:N	2.43	0.45
1:A:3078:LEU:HA	1:A:3082:TYR:HD2	1.81	0.45
1:A:3192:LYS:HB3	1:A:3196:LYS:NZ	2.31	0.45
1:A:3760:GLN:O	1:A:3764:VAL:HG23	2.17	0.45
1:F:30:ALA:O	1:F:34:LEU:HG	2.17	0.45
1:F:320:LEU:HA	1:F:323:VAL:HG22	1.98	0.45
1:F:394:GLN:CD	1:F:1737:ASN:HB3	2.36	0.45
1:F:1115:HIS:HB2	1:F:1180:GLN:HG3	1.97	0.45
1:F:1662:ASN:OD1	1:F:1663:THR:N	2.49	0.45
3:M:663:GLU:HA	3:M:688:TYR:HB2	1.97	0.45
2:O:147:GLU:O	2:O:150:ARG:HG3	2.16	0.45
4:Q:150:VAL:HG13	4:R:153:LEU:HD13	1.97	0.45
10:I:33:DA:H2''	10:I:34:DC:C6	2.51	0.45
1:A:79:ARG:HG2	1:A:79:ARG:HH11	1.82	0.45
1:A:676:ASN:O	1:A:679:LYS:HB2	2.16	0.45
1:A:984:TYR:HD1	1:A:987:LEU:HD23	1.82	0.45
1:A:1111:LEU:HD22	1:A:1183:CYS:HB2	1.99	0.45
1:A:1217:VAL:HA	1:A:1285:GLU:OE1	2.17	0.45
1:A:1253:THR:O	1:A:1257:LEU:HG	2.17	0.45
1:A:1731:PRO:HA	1:A:1736:PHE:CD2	2.51	0.45
1:A:2269:ASP:N	1:A:2269:ASP:OD1	2.48	0.45
1:A:2271:SER:HA	1:A:2274:ILE:HD12	1.99	0.45
1:A:2312:TYR:HE2	8:D:17:DT:P	2.40	0.45
1:A:2348:GLN:HG2	1:A:2352:HIS:HE1	1.82	0.45
1:A:2556:SER:O	1:A:2559:THR:OG1	2.30	0.45
1:A:3457:ASN:N	1:A:3457:ASN:OD1	2.49	0.45
1:F:296:VAL:HG22	1:F:300:TRP:CD1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:908:ASP:O	1:F:911:LEU:HB2	2.17	0.45
1:F:1131:ILE:HD11	1:F:1186:LYS:HG2	1.99	0.45
1:F:1149:LYS:H	1:F:1151:ARG:HH12	1.64	0.45
1:F:1156:GLY:O	1:F:1158:PRO:HD3	2.17	0.45
1:F:1251:GLN:N	1:F:1251:GLN:OE1	2.34	0.45
1:F:2233:HIS:CE1	1:F:2728:LEU:HA	2.51	0.45
1:F:2241:LEU:HA	1:F:2244:CYS:SG	2.56	0.45
1:F:2923:TRP:HE3	1:F:2942:ILE:HG23	1.82	0.45
1:F:3882:LEU:HD23	1:F:3885:ARG:NH1	2.32	0.45
1:F:3999:THR:HA	1:F:4002:MET:HE1	1.98	0.45
2:L:8:ILE:HD11	2:L:18:HIS:HB2	1.98	0.45
3:M:753:HIS:CE1	3:M:758:TYR:HE2	2.34	0.45
3:M:879:ARG:HB2	3:M:880:ARG:NH1	2.31	0.45
2:N:183:VAL:O	2:N:187:LYS:HG2	2.16	0.45
2:O:25:GLU:HG2	2:O:26:LYS:N	2.30	0.45
1:A:896:VAL:N	1:A:903:PRO:O	2.47	0.45
1:A:1012:ALA:HA	1:A:1015:ASP:OD2	2.16	0.45
1:A:1513:GLY:O	1:A:1517:LEU:HG	2.17	0.45
1:A:2411:LEU:H	1:A:2411:LEU:HD23	1.80	0.45
1:A:3103:ILE:HD13	1:A:3138:ILE:HD11	1.98	0.45
1:F:394:GLN:OE1	1:F:1737:ASN:HB3	2.16	0.45
1:F:487:LEU:HA	1:F:490:ILE:HG22	1.98	0.45
1:F:1925:GLU:OE1	1:F:1941:HIS:NE2	2.49	0.45
1:F:2093:CYS:O	1:F:2096:PRO:HD2	2.16	0.45
1:F:2860:ASP:O	1:F:2864:GLN:HG2	2.17	0.45
1:F:2974:GLU:O	1:F:2978:LYS:HG3	2.17	0.45
1:F:3462:ARG:O	1:F:3465:PHE:HB3	2.16	0.45
2:N:36:LEU:HD11	2:N:88:PHE:CG	2.51	0.45
2:N:144:LEU:HD13	2:O:145:GLN:HB2	1.99	0.45
8:D:13:DC:O5'	8:D:14:DA:C5	2.69	0.45
9:E:34:DC:H5	9:E:35:DT:C2	2.35	0.45
11:J:17:DT:H2''	11:J:18:DA:C4	2.52	0.45
1:A:215:PRO:C	1:A:217:LEU:N	2.70	0.45
1:A:765:LEU:HD12	1:A:766:ALA:N	2.32	0.45
1:A:1583:MET:O	1:A:1586:SER:OG	2.34	0.45
1:A:2497:GLU:HA	1:A:2500:LYS:HE2	1.98	0.45
1:A:3002:TYR:CE2	1:A:3013:TYR:HB3	2.52	0.45
1:A:3255:ALA:O	1:A:3259:LEU:N	2.41	0.45
1:A:3583:LEU:HD13	1:A:3733:ARG:HH21	1.81	0.45
1:A:3628:PHE:HA	1:A:3631:LYS:HE3	1.99	0.45
1:A:3670:MET:HG2	1:A:3670:MET:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3822:GLN:OE1	1:A:3822:GLN:N	2.49	0.45
1:A:3905:ALA:HB1	1:A:3980:MET:HE3	1.99	0.45
1:A:4055:ASN:HD21	1:A:4057:ALA:HB3	1.82	0.45
1:F:793:LEU:HD11	1:F:867:ASN:HA	1.99	0.45
1:F:1261:LEU:HD21	1:F:1337:VAL:HA	1.98	0.45
1:F:1310:GLU:HG3	1:F:1312:CYS:H	1.81	0.45
1:F:1868:THR:O	1:F:1871:MET:HB2	2.17	0.45
1:F:1947:CYS:O	1:F:1951:VAL:HG13	2.16	0.45
1:F:2330:VAL:O	1:F:2330:VAL:HG13	2.17	0.45
1:F:3110:PHE:CD2	1:F:3135:LEU:HD11	2.52	0.45
1:F:3657:SER:HA	1:F:3660:ASN:OD1	2.17	0.45
1:F:3819:THR:HG22	1:F:3889:ARG:HH11	1.81	0.45
3:M:759:ASP:HB2	3:M:763:ASP:HB3	1.99	0.45
3:M:794:SER:HA	3:M:815:ARG:HD3	1.99	0.45
3:P:716:ASN:HA	3:P:745:HIS:CE1	2.52	0.45
1:A:45:SER:HB3	1:A:88:PHE:HZ	1.82	0.45
1:A:54:GLN:HB3	1:A:3097:ASP:HB2	1.98	0.45
1:A:1282:LEU:HB3	1:A:1359:LEU:HD13	1.98	0.45
1:A:1711:ARG:HG3	1:A:1712:ARG:HH21	1.81	0.45
1:A:1711:ARG:HH11	1:A:1757:MET:HE3	1.81	0.45
1:A:3148:GLN:NE2	1:A:3150:ASN:HA	2.30	0.45
1:A:3178:ILE:H	1:A:3178:ILE:HD12	1.81	0.45
1:A:3548:GLY:O	1:A:3552:LYS:HG2	2.17	0.45
1:A:3832:PRO:HB2	1:A:3836:PRO:HG3	1.98	0.45
1:F:479:ILE:HA	1:F:482:VAL:HG22	1.98	0.45
1:F:653:LEU:HB3	1:F:670:LEU:HD21	1.99	0.45
1:F:1060:PHE:HB3	1:F:1064:TYR:CZ	2.52	0.45
1:F:1322:THR:OG1	1:F:1324:PRO:HD2	2.16	0.45
1:F:1359:LEU:HA	1:F:1362:ASP:CG	2.37	0.45
1:F:1653:LEU:HB3	1:F:1698:PHE:CE1	2.51	0.45
1:F:2971:GLN:HA	1:F:2974:GLU:OE2	2.17	0.45
1:F:3247:ARG:NH2	1:F:3248:LYS:HG3	2.30	0.45
1:F:3465:PHE:O	1:F:3468:LEU:HB3	2.17	0.45
2:L:40:HIS:O	2:L:119:PRO:HB2	2.16	0.45
3:M:671:ASP:OD1	3:M:672:SER:N	2.48	0.45
1:A:131:LEU:HD12	1:A:173:LYS:HB2	1.99	0.45
1:A:181:LEU:HD12	1:A:185:HIS:HB2	1.99	0.45
1:A:208:MET:SD	1:A:256:ILE:HD12	2.57	0.45
1:A:2294:ILE:HD12	1:A:2299:TYR:CD1	2.51	0.45
1:A:2464:HIS:CE1	1:A:2466:SER:HB3	2.52	0.45
1:F:208:MET:CE	1:F:252:VAL:HG11	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:465:PHE:HA	1:F:468:LEU:HG	1.98	0.45
1:F:983:LEU:HB3	1:F:2591:ILE:HD11	1.98	0.45
1:F:1341:ILE:O	1:F:1345:THR:HG23	2.17	0.45
1:F:1539:SER:HA	1:F:1552:HIS:CE1	2.51	0.45
1:F:1745:LYS:HA	1:F:1748:ASP:OD2	2.16	0.45
1:F:1836:LEU:HD13	1:F:1883:ARG:HG3	1.99	0.45
1:F:1869:LYS:HB3	1:F:1873:TYR:CZ	2.52	0.45
1:F:2102:LYS:O	1:F:2106:ARG:HG2	2.16	0.45
1:F:2431:ARG:HA	1:F:2434:VAL:HG22	1.98	0.45
1:F:3122:HIS:O	1:F:3126:LEU:HG	2.17	0.45
1:F:3148:GLN:NE2	1:F:3150:ASN:HD21	2.15	0.45
1:F:3499:ILE:O	1:F:3503:VAL:HG12	2.16	0.45
1:F:3920:ILE:HA	1:F:3944:HIS:O	2.16	0.45
2:K:7:ARG:HH21	2:L:135:ALA:HB2	1.82	0.45
2:K:107:ARG:O	4:R:64:ARG:NH2	2.49	0.45
3:M:787:GLN:HG3	3:M:792:MET:HE2	1.99	0.45
2:N:144:LEU:HD22	2:O:145:GLN:HA	1.98	0.45
2:O:63:LYS:O	2:O:67:VAL:HG22	2.15	0.45
2:O:158:VAL:O	2:O:161:ARG:HG2	2.17	0.45
9:E:39:DA:C6	9:E:40:DT:O4	2.69	0.45
10:I:42:DA:H3'	10:I:43:DT:O4'	2.17	0.45
1:A:584:GLU:N	1:A:613:HIS:O	2.50	0.45
1:A:1175:HIS:HA	1:A:1178:ARG:CZ	2.46	0.45
1:A:1724:MET:HG3	1:A:1725:GLN:HG2	1.99	0.45
1:A:2452:ARG:HD3	1:A:2494:ASP:HB3	1.99	0.45
1:A:2564:GLU:O	1:A:2567:SER:OG	2.24	0.45
1:A:3548:GLY:O	1:A:3552:LYS:NZ	2.43	0.45
1:A:3638:LYS:NZ	1:A:3642:LYS:HE2	2.29	0.45
1:A:3825:LYS:O	1:A:3829:LEU:HB2	2.17	0.45
1:A:4083:GLY:HA3	1:A:4088:ASN:HB3	1.99	0.45
1:F:131:LEU:HD12	1:F:173:LYS:HB2	1.99	0.45
1:F:1416:GLU:HA	1:F:1419:LEU:HB3	1.97	0.45
1:F:2225:HIS:CG	1:F:2230:VAL:HG23	2.52	0.45
1:F:2301:GLN:HA	1:F:2304:VAL:HG22	1.99	0.45
1:F:2825:THR:O	1:F:2829:LYS:HG3	2.17	0.45
1:F:2893:LEU:HB2	1:F:2926:LEU:HD21	1.98	0.45
1:F:3159:ARG:HA	1:F:3162:ASN:ND2	2.32	0.45
1:F:3230:LEU:O	1:F:3233:SER:OG	2.29	0.45
1:F:3998:LEU:O	1:F:4001:THR:HG22	2.17	0.45
2:K:53:SER:HA	2:K:63:LYS:NZ	2.32	0.45
2:K:84:TYR:HE1	2:K:101:LEU:HA	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:28:LEU:HB2	2:N:67:VAL:HG13	1.98	0.45
2:N:48:SER:OG	2:N:51:GLU:OE2	2.34	0.45
2:N:53:SER:HB3	4:Q:64:ARG:HH12	1.82	0.45
2:O:69:GLU:HB3	2:O:99:LYS:HG2	1.99	0.45
2:O:179:ARG:HD3	3:P:778:PHE:HB3	1.98	0.45
4:R:9:LEU:HD22	4:R:134:HIS:ND1	2.32	0.45
4:R:12:PRO:HB3	4:R:215:GLN:HB2	1.98	0.45
9:E:20:DT:H6	9:E:20:DT:H2'	1.62	0.45
9:E:35:DT:H2''	9:E:36:DA:C8	2.52	0.45
1:A:722:LYS:HG3	1:A:1024:THR:HB	1.98	0.45
1:A:786:GLN:N	1:A:787:PRO:HD2	2.32	0.45
1:A:953:GLN:N	1:A:956:PRO:HG3	2.31	0.45
1:A:1272:GLY:HA2	1:A:1351:THR:HG21	1.99	0.45
1:A:2121:ASP:N	1:A:2121:ASP:OD1	2.48	0.45
1:A:2245:TRP:O	1:A:2246:LYS:HE2	2.16	0.45
1:A:3002:TYR:CZ	1:A:3013:TYR:HB3	2.51	0.45
1:A:3923:ARG:O	1:A:4124:TRP:HA	2.17	0.45
1:A:4014:LYS:HG3	1:A:4015:ASN:ND2	2.32	0.45
1:F:886:TRP:CZ3	1:F:911:LEU:HB3	2.52	0.45
1:F:1368:LEU:HD12	1:F:1369:MET:N	2.31	0.45
1:F:1483:LEU:HD21	1:F:1515:LEU:HD23	1.99	0.45
1:F:1816:ARG:HA	1:F:1819:PHE:CD2	2.52	0.45
1:F:2723:THR:O	1:F:2727:ARG:N	2.36	0.45
1:F:3128:LYS:O	1:F:3131:SER:OG	2.28	0.45
1:F:3273:LEU:O	1:F:3277:VAL:HG23	2.16	0.45
1:F:3617:LEU:CD2	1:F:3633:ILE:HG22	2.47	0.45
1:F:3873:LYS:O	1:F:3877:LYS:CB	2.63	0.45
1:F:3880:ALA:HB1	1:F:3969:ASN:ND2	2.32	0.45
3:P:722:LYS:HA	3:P:722:LYS:HD3	1.72	0.45
4:R:5:GLU:HB3	4:R:130:LEU:HD22	1.99	0.45
9:E:28:DT:H5''	9:E:28:DT:H6	1.82	0.45
11:J:25:DT:H6	11:J:26:DT:C4	2.35	0.45
1:A:1294:VAL:HG13	1:A:1368:LEU:HD11	1.99	0.44
1:A:1348:LEU:O	1:A:1352:SER:HB2	2.17	0.44
1:A:2188:GLU:HG3	1:A:2728:LEU:HD11	1.99	0.44
1:A:2564:GLU:OE2	1:A:2795:GLN:NE2	2.46	0.44
1:F:67:VAL:HG12	1:F:71:LYS:HE3	1.98	0.44
1:F:410:MET:N	1:F:411:PRO:HD2	2.31	0.44
1:F:535:LEU:HB3	1:F:637:LYS:HG3	1.99	0.44
1:F:560:LEU:O	1:F:564:LEU:HG	2.16	0.44
1:F:1371:VAL:HA	1:F:1374:GLN:CD	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1693:VAL:HG11	1:F:1746:PHE:CD1	2.52	0.44
1:F:2571:ASP:OD1	1:F:2571:ASP:N	2.50	0.44
1:F:2936:TYR:HA	1:F:2939:LEU:HD12	1.99	0.44
1:F:3971:MET:SD	1:F:3974:MET:HB3	2.57	0.44
3:M:794:SER:HA	3:M:815:ARG:CD	2.47	0.44
2:N:168:ALA:HB1	3:P:810:LEU:HD11	1.99	0.44
3:P:722:LYS:HB2	3:P:742:PHE:HB2	1.99	0.44
4:Q:211:VAL:HG23	4:Q:212:MET:SD	2.57	0.44
8:D:23:DT:H3	9:E:34:DC:H41	1.65	0.44
9:E:38:DT:N3	9:E:39:DA:N3	2.65	0.44
1:A:100:ILE:HD12	1:A:103:TYR:CD1	2.53	0.44
1:A:234:PHE:CD1	1:A:235:THR:HG23	2.53	0.44
1:A:475:LEU:O	1:A:479:ILE:HG12	2.18	0.44
1:A:1611:GLN:HB2	1:A:1613:HIS:ND1	2.33	0.44
1:A:2347:LYS:HE2	1:A:2347:LYS:HB2	1.67	0.44
1:A:2411:LEU:HD21	1:A:2442:MET:CG	2.48	0.44
1:A:2835:LYS:HA	1:A:2838:GLN:OE1	2.18	0.44
1:A:3360:LEU:HD23	1:A:3373:VAL:HG11	1.99	0.44
1:A:4102:THR:O	1:A:4105:LYS:HG2	2.18	0.44
1:F:79:ARG:HG2	1:F:79:ARG:HH11	1.82	0.44
1:F:162:LEU:HG	1:F:164:LYS:H	1.81	0.44
1:F:316:LEU:O	1:F:320:LEU:HG	2.17	0.44
1:F:1017:ILE:HG23	1:F:1077:GLY:C	2.38	0.44
1:F:1444:ASP:N	1:F:1444:ASP:OD1	2.50	0.44
1:F:2149:LEU:O	1:F:2152:ASN:N	2.49	0.44
1:F:2485:ARG:NH1	1:F:2530:ARG:HG2	2.32	0.44
1:F:2756:GLU:HG3	1:F:2760:GLU:OE2	2.17	0.44
1:F:3258:LEU:O	1:F:3261:GLU:HG2	2.17	0.44
1:F:3454:LEU:HD13	1:F:3461:ALA:HB3	1.99	0.44
2:K:95:PHE:HE1	2:K:97:PHE:HB3	1.82	0.44
2:K:180:PHE:O	2:K:184:LEU:HG	2.17	0.44
2:N:133:THR:O	2:N:136:GLU:HG3	2.17	0.44
3:P:865:ILE:HD12	3:P:872:VAL:HG22	1.99	0.44
4:R:142:MET:N	4:R:221:VAL:HG13	2.32	0.44
8:D:22:DG:H5"	9:E:33:DA:H61	1.81	0.44
1:A:38:LEU:CD2	1:A:85:ILE:HG13	2.46	0.44
1:A:111:CYS:HA	1:A:114:VAL:HB	1.99	0.44
1:A:487:LEU:HD21	1:A:568:PHE:CE1	2.53	0.44
1:A:958:MET:HB2	1:A:961:LEU:HD12	1.99	0.44
1:A:1098:GLN:HA	1:A:1151:ARG:HG2	1.99	0.44
1:A:1228:GLY:O	1:A:1233:SER:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1586:SER:HB2	1:A:1593:VAL:HG21	1.99	0.44
1:A:1727:ARG:NH1	1:A:1727:ARG:HA	2.33	0.44
1:A:2093:CYS:O	1:A:2096:PRO:HD2	2.17	0.44
1:A:3008:TRP:HA	1:A:3011:LEU:HD12	1.99	0.44
1:A:3577:GLN:HE22	1:A:3630:ARG:HD3	1.83	0.44
1:A:3809:THR:OG1	1:A:3810:VAL:N	2.51	0.44
1:A:3984:MET:HB3	1:A:4104:VAL:HG11	1.99	0.44
1:F:108:LYS:HZ2	1:F:148:LYS:HB2	1.82	0.44
1:F:301:CYS:O	1:F:309:LYS:NZ	2.31	0.44
1:F:538:ASP:HA	1:F:541:MET:CG	2.44	0.44
1:F:639:ALA:HA	1:F:642:PHE:HB3	1.99	0.44
1:F:1037:LEU:O	1:F:1040:SER:OG	2.23	0.44
1:F:1100:VAL:HG23	1:F:1101:PHE:N	2.32	0.44
1:F:1294:VAL:HA	1:F:1297:PHE:CE2	2.51	0.44
1:F:2255:LEU:O	1:F:2258:GLU:HG2	2.17	0.44
1:F:2955:SER:O	1:F:2958:LEU:HG	2.16	0.44
1:F:3349:ALA:HA	1:F:3352:GLU:HB3	1.99	0.44
1:F:3419:PHE:O	1:F:3423:GLN:HG2	2.17	0.44
1:F:3516:HIS:O	1:F:3520:GLU:OE1	2.35	0.44
1:F:4059:ILE:HA	1:F:4062:ASP:OD2	2.17	0.44
2:K:145:GLN:HA	2:L:144:LEU:HD11	1.98	0.44
2:N:41:SER:N	2:N:119:PRO:HG3	2.32	0.44
2:N:95:PHE:O	2:N:111:PHE:N	2.46	0.44
2:O:3:ARG:HH22	2:O:122:VAL:HG13	1.82	0.44
3:P:681:ARG:NH2	3:P:730:PHE:HB3	2.31	0.44
4:R:23:LEU:HD13	4:R:45:TRP:CE3	2.52	0.44
4:R:105:ILE:HA	4:R:123:CYS:HB2	1.98	0.44
10:I:31:DA:H4'	10:I:32:DA:H5'	1.99	0.44
11:J:25:DT:H5''	11:J:26:DT:H73	1.98	0.44
1:A:83:GLU:HG2	1:A:129:ASP:OD2	2.17	0.44
1:A:301:CYS:HB3	1:A:312:ALA:HB3	1.98	0.44
1:A:639:ALA:HB2	1:A:676:ASN:HB3	1.99	0.44
1:A:1525:CYS:O	1:A:1529:VAL:HG23	2.17	0.44
1:A:1603:GLN:HB2	1:A:1606:ARG:HH21	1.82	0.44
1:A:1649:LEU:HA	1:A:1652:ILE:HD12	1.99	0.44
1:A:3835:PRO:O	1:A:3840:LYS:N	2.38	0.44
1:F:265:TYR:O	1:F:268:PRO:HD2	2.18	0.44
1:F:1000:LYS:HD3	1:F:1000:LYS:HA	1.84	0.44
1:F:1037:LEU:HD12	1:F:1038:LYS:N	2.32	0.44
1:F:1935:GLU:OE1	1:F:1935:GLU:N	2.47	0.44
1:F:2572:TYR:CE1	1:F:2791:ILE:HD11	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2586:PHE:CD1	1:F:2778:GLY:HA3	2.50	0.44
1:F:2817:LEU:O	1:F:2820:MET:HG3	2.17	0.44
1:F:2840:PHE:HD1	1:F:2843:PHE:HD2	1.66	0.44
1:F:3369:ASP:O	1:F:3373:VAL:HG23	2.17	0.44
1:F:3586:LYS:HE3	1:F:3668:LEU:HB3	2.00	0.44
1:F:4075:ARG:HA	1:F:4078:VAL:HG22	1.99	0.44
2:K:19:PHE:HE2	2:L:127:ILE:HG12	1.80	0.44
2:O:118:ASN:HB3	2:O:121:GLU:HB2	1.98	0.44
3:P:707:ILE:H	3:P:707:ILE:HD12	1.82	0.44
4:Q:50:ASP:OD1	4:Q:52:SER:OG	2.35	0.44
1:A:391:ARG:HA	1:A:394:GLN:OE1	2.17	0.44
1:A:472:GLY:O	1:A:475:LEU:HB3	2.18	0.44
1:A:723:ASP:C	1:A:725:LEU:N	2.71	0.44
1:A:1303:MET:N	1:A:1303:MET:SD	2.91	0.44
1:A:1851:LEU:HG	1:A:1852:LYS:HD3	2.00	0.44
1:A:2539:LEU:O	1:A:2542:LEU:HG	2.17	0.44
1:A:2574:ASN:C	1:A:2786:LYS:HG3	2.38	0.44
1:A:3878:VAL:HG11	1:A:4127:TRP:O	2.18	0.44
1:A:4091:ALA:HB1	1:A:4106:CYS:SG	2.57	0.44
1:F:35:ILE:HG12	1:F:36:ARG:NH2	2.32	0.44
1:F:230:LEU:HA	1:F:230:LEU:HD12	1.71	0.44
1:F:471:LYS:HB3	1:F:474:VAL:HB	2.00	0.44
1:F:643:GLU:HG2	1:F:644:PRO:HD3	2.00	0.44
1:F:1597:LEU:O	1:F:1601:LEU:HG	2.17	0.44
1:F:2577:PHE:HB2	1:F:2783:ILE:HG22	1.98	0.44
1:F:2830:ASN:O	1:F:2834:GLN:HG2	2.18	0.44
1:F:3058:ASP:OD1	1:F:3060:SER:N	2.50	0.44
1:F:3239:LYS:HD3	1:F:3258:LEU:HD11	1.98	0.44
1:F:3285:HIS:O	1:F:3288:SER:OG	2.21	0.44
1:F:4060:THR:O	1:F:4064:LEU:HG	2.18	0.44
1:F:4102:THR:HA	1:F:4105:LYS:HG2	1.99	0.44
2:K:3:ARG:HB2	2:K:129:TYR:CE2	2.53	0.44
2:K:84:TYR:CE1	2:K:99:LYS:HG3	2.52	0.44
4:R:36:LEU:HB3	4:R:47:GLU:H	1.83	0.44
1:A:51:LEU:HB3	1:A:3101:TYR:HD1	1.83	0.44
1:A:364:ARG:HH22	1:A:463:LYS:HZ2	1.65	0.44
1:A:801:LYS:NZ	1:A:920:THR:O	2.51	0.44
1:A:1790:SER:O	1:A:1794:GLN:HG3	2.18	0.44
1:A:2203:THR:HB	1:A:2247:ASP:OD2	2.18	0.44
1:A:2321:GLU:O	1:A:2325:LEU:HG	2.17	0.44
1:A:2351:GLN:O	1:A:2352:HIS:ND1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2749:ALA:O	1:A:2753:ARG:HG2	2.17	0.44
1:A:3658:ASP:N	1:A:3658:ASP:OD1	2.50	0.44
1:A:4047:ALA:HA	1:A:4050:LYS:HE2	1.99	0.44
1:A:4105:LYS:HA	1:A:4108:MET:HG3	1.99	0.44
1:F:175:TYR:HB2	1:F:223:CYS:HB3	2.00	0.44
1:F:295:GLU:O	1:F:299:LYS:NZ	2.45	0.44
1:F:305:ASN:O	1:F:308:LEU:N	2.48	0.44
1:F:966:PHE:CD2	1:F:1007:VAL:HG12	2.53	0.44
1:F:994:TRP:CE2	1:F:1000:LYS:HG3	2.52	0.44
1:F:1821:ASP:HA	1:F:1875:LYS:HZ1	1.81	0.44
1:F:2242:VAL:O	1:F:2246:LYS:HG3	2.18	0.44
1:F:2539:LEU:HD12	1:F:2542:LEU:HD11	2.00	0.44
1:F:3628:PHE:CE1	1:F:3632:PHE:HE2	2.36	0.44
1:F:3701:ILE:HB	1:F:3704:GLN:NE2	2.31	0.44
1:F:3834:ALA:HB1	1:F:3839:TYR:CZ	2.53	0.44
3:P:820:LEU:HD23	3:P:845:LEU:HD11	1.98	0.44
4:Q:104:LEU:O	4:Q:123:CYS:HB3	2.17	0.44
1:A:996:THR:HG23	1:A:1043:GLN:OE1	2.18	0.44
1:A:1136:ARG:HA	1:A:1139:GLU:OE2	2.18	0.44
1:A:1623:LEU:HD11	1:A:1671:VAL:HG21	2.00	0.44
1:A:1963:GLN:OE1	1:A:2125:TRP:N	2.51	0.44
1:A:2187:VAL:HG12	1:A:2728:LEU:HD13	1.98	0.44
1:A:2746:LYS:HD3	1:A:2746:LYS:N	2.33	0.44
1:A:3382:PHE:HB2	1:A:3419:PHE:CZ	2.52	0.44
1:A:3462:ARG:HB3	1:A:3498:TRP:CZ3	2.53	0.44
1:F:145:ASP:HB2	1:F:148:LYS:HZ1	1.83	0.44
1:F:721:TYR:C	1:F:722:LYS:HD2	2.38	0.44
1:F:1208:LEU:HD22	1:F:1275:THR:O	2.18	0.44
1:F:2228:ARG:HD2	10:I:44:DG:H3'	1.99	0.44
1:F:2350:LYS:HD2	1:F:2354:ASN:OD1	2.18	0.44
1:F:2995:GLU:O	1:F:2999:LEU:HG	2.17	0.44
1:F:3348:LEU:HD13	1:F:3351:ILE:HD12	1.99	0.44
1:F:3420:CYS:SG	1:F:3421:ASP:N	2.89	0.44
1:F:3571:PHE:CE2	1:F:3575:LEU:HD11	2.53	0.44
1:F:3675:LYS:NZ	1:F:3676:PRO:O	2.32	0.44
1:F:3699:LEU:HD23	1:F:3719:ILE:HD12	1.99	0.44
2:K:72:LYS:HB2	2:K:78:ALA:HB2	2.00	0.44
2:K:127:ILE:HG23	2:L:19:PHE:CE2	2.52	0.44
2:O:69:GLU:HG3	2:O:104:VAL:HG21	2.00	0.44
3:P:702:ALA:O	3:P:723:PRO:HD3	2.17	0.44
3:P:706:ASN:O	3:P:709:VAL:HB	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:748:PRO:HA	3:P:751:LYS:HD2	2.00	0.44
3:P:753:HIS:O	3:P:757:GLU:HG2	2.17	0.44
3:P:815:ARG:H	3:P:850:ALA:N	2.16	0.44
4:Q:146:LEU:HB3	4:R:150:VAL:HG11	1.98	0.44
4:R:37:LEU:HG	4:R:135:LEU:HD11	2.00	0.44
11:J:20:DT:C4	11:J:21:DA:C5	3.05	0.44
1:A:1058:SER:HA	1:A:1061:LYS:HE2	1.98	0.44
1:A:1080:LEU:HA	1:A:1083:ASN:ND2	2.33	0.44
1:A:1952:ILE:HA	1:A:1955:VAL:O	2.18	0.44
1:A:2322:VAL:HA	1:A:2325:LEU:HD12	2.00	0.44
1:A:2339:GLU:HA	1:A:2342:CYS:SG	2.57	0.44
1:A:3632:PHE:HA	1:A:3635:THR:OG1	2.18	0.44
1:F:88:PHE:CD2	1:F:89:LEU:HD22	2.53	0.44
1:F:336:ASN:HB3	1:F:340:TYR:CZ	2.52	0.44
1:F:651:TYR:O	1:F:655:LEU:HG	2.18	0.44
1:F:1428:ILE:HD12	1:F:1431:LEU:HB2	1.99	0.44
1:F:2924:VAL:HG21	1:F:2989:ALA:HB1	1.99	0.44
1:F:3314:SER:OG	1:F:3318:LYS:HG2	2.17	0.44
1:F:3940:ILE:HG22	1:F:3941:ASP:N	2.31	0.44
1:F:3964:THR:HG22	1:F:3967:PHE:CD2	2.53	0.44
2:K:88:PHE:HB2	2:K:95:PHE:HD2	1.82	0.44
3:P:657:ASN:HA	3:P:660:GLU:HG3	2.00	0.44
4:Q:8:LEU:HD21	4:Q:37:LEU:CB	2.47	0.44
9:E:40:DT:H1'	9:E:41:DT:O4'	2.18	0.44
1:A:23:ASP:HB2	1:A:70:ARG:HE	1.83	0.44
1:A:621:SER:O	1:A:624:ILE:HG12	2.17	0.44
1:A:738:HIS:N	1:A:775:GLU:OE2	2.51	0.44
1:A:899:ARG:HH11	1:A:2569:SER:N	2.16	0.44
1:A:933:LEU:HB2	1:A:2793:PRO:HB2	1.99	0.44
1:A:1118:GLU:OE2	1:A:1120:SER:OG	2.22	0.44
1:A:1226:GLY:HA3	1:A:1259:LEU:HG	2.00	0.44
1:A:2133:LEU:HB2	1:A:2146:LEU:HD13	2.00	0.44
1:A:2300:PHE:HB2	1:A:2341:LEU:HD22	1.99	0.44
1:A:2342:CYS:C	1:A:2377:ARG:HH12	2.21	0.44
1:A:2356:MET:HE1	1:A:2359:LYS:H	1.83	0.44
1:A:2567:SER:HA	1:A:2572:TYR:CD2	2.52	0.44
1:A:3897:PHE:CZ	1:A:3901:ARG:HD3	2.53	0.44
1:F:286:LEU:HD12	1:F:319:PHE:CD1	2.53	0.44
1:F:699:GLU:O	1:F:702:SER:OG	2.35	0.44
1:F:998:ASN:OD1	1:F:999:LYS:N	2.51	0.44
1:F:1101:PHE:HB2	1:F:1154:PRO:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1881:TYR:HE1	1:F:1953:CYS:HG	1.64	0.44
1:F:2260:PHE:CE2	1:F:2277:LEU:HD21	2.52	0.44
1:F:2348:GLN:HA	1:F:2352:HIS:CE1	2.53	0.44
1:F:2757:ILE:O	1:F:2761:LEU:HG	2.17	0.44
1:F:3252:PHE:CE1	1:F:3287:ARG:HA	2.53	0.44
1:F:3442:TYR:O	1:F:3445:LEU:HG	2.17	0.44
1:F:3549:HIS:CE1	1:F:3550:LYS:HD2	2.53	0.44
1:F:3961:PHE:CE2	1:F:3963:LEU:HB2	2.53	0.44
2:K:7:ARG:NH2	2:L:135:ALA:HB2	2.33	0.44
2:L:159:GLN:OE1	3:M:840:ILE:HD11	2.18	0.44
3:M:889:LEU:HD11	3:M:906:GLU:OE1	2.18	0.44
3:P:810:LEU:HD22	3:P:848:HIS:ND1	2.33	0.44
3:P:856:LEU:HD11	3:P:878:PHE:CG	2.53	0.44
4:R:28:PHE:HB3	4:R:35:ALA:HB3	2.00	0.44
1:A:101:ALA:O	1:A:104:SER:OG	2.29	0.43
1:A:275:PHE:CD2	1:A:315:ALA:HB1	2.53	0.43
1:A:1785:ILE:HA	1:A:1788:ARG:HB2	2.00	0.43
1:A:2269:ASP:O	1:A:2272:VAL:HG22	2.17	0.43
1:A:2362:VAL:O	1:A:2366:LYS:HG2	2.18	0.43
1:A:3014:CYS:O	1:A:3016:THR:HG23	2.17	0.43
1:A:3236:PHE:HD2	1:A:3269:ARG:NH2	2.15	0.43
1:A:3314:SER:OG	1:A:3318:LYS:N	2.51	0.43
1:A:3974:MET:HE1	1:A:3979:LEU:N	2.33	0.43
1:F:85:ILE:O	1:F:89:LEU:HD23	2.18	0.43
1:F:168:ASP:OD1	1:F:169:THR:N	2.51	0.43
1:F:890:LYS:HB3	1:F:906:PHE:CG	2.53	0.43
1:F:1147:LYS:HZ3	1:F:1149:LYS:HB2	1.83	0.43
1:F:1179:PRO:HG3	1:F:1259:LEU:HD13	1.99	0.43
1:F:1406:LEU:HD22	1:F:1415:LEU:HD11	2.00	0.43
1:F:2333:ARG:HA	1:F:2333:ARG:HD3	1.64	0.43
1:F:2954:GLN:HA	1:F:2957:LEU:HD12	2.00	0.43
1:F:2987:THR:HG23	1:F:2989:ALA:H	1.83	0.43
1:F:3076:ALA:O	1:F:3080:LEU:HG	2.17	0.43
1:F:3078:LEU:HA	1:F:3082:TYR:HD2	1.83	0.43
1:F:3364:GLY:HA3	1:F:3373:VAL:HG13	2.00	0.43
1:F:3459:ASN:O	1:F:3462:ARG:HB2	2.18	0.43
1:F:3662:ILE:O	1:F:3666:LEU:HG	2.18	0.43
1:F:3924:HIS:NE2	1:F:3926:ASN:HB2	2.32	0.43
2:K:53:SER:HA	2:K:63:LYS:HZ3	1.82	0.43
2:K:94:TYR:HB2	2:K:111:PHE:O	2.18	0.43
3:M:720:VAL:O	3:M:743:MET:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:51:GLU:HA	4:Q:64:ARG:HD2	2.00	0.43
4:Q:157:LEU:HD21	4:R:157:LEU:HA	2.00	0.43
4:R:109:ARG:NH2	4:R:120:ASN:HD22	2.16	0.43
1:A:54:GLN:HA	1:A:57:LEU:HG	2.00	0.43
1:A:222:GLY:HA2	1:A:225:LYS:HE3	1.99	0.43
1:A:391:ARG:HB3	1:A:395:MET:HE1	2.00	0.43
1:A:933:LEU:O	1:A:936:SER:OG	2.28	0.43
1:A:1115:HIS:HE1	1:A:1183:CYS:H	1.63	0.43
1:A:1356:TRP:HD1	1:A:1359:LEU:HD12	1.83	0.43
1:A:1369:MET:CE	1:A:1415:LEU:HA	2.47	0.43
1:A:1725:GLN:OE1	1:A:1769:GLU:HB3	2.18	0.43
1:A:1745:LYS:HA	1:A:1748:ASP:OD2	2.17	0.43
1:A:2251:ILE:HB	1:A:2253:TYR:CE2	2.54	0.43
1:A:2257:PHE:HB2	1:A:2299:TYR:HE1	1.82	0.43
1:A:2963:SER:OG	1:A:3250:ASN:O	2.36	0.43
1:A:2965:TYR:O	1:A:2969:ALA:N	2.43	0.43
1:A:2986:PRO:HG3	1:A:2994:TRP:CH2	2.53	0.43
1:A:2986:PRO:HG3	1:A:2994:TRP:HH2	1.83	0.43
1:A:3496:ILE:HB	1:A:3707:GLY:HA3	2.00	0.43
1:A:3699:LEU:HD12	1:A:3699:LEU:HA	1.83	0.43
1:F:344:GLN:O	1:F:348:ILE:HG12	2.18	0.43
1:F:485:GLN:O	1:F:485:GLN:NE2	2.51	0.43
1:F:847:SER:OG	1:F:848:LEU:N	2.49	0.43
1:F:1442:GLN:O	1:F:1446:SER:N	2.42	0.43
1:F:2586:PHE:CD2	1:F:2782:ASP:HB3	2.52	0.43
1:F:3044:MET:HB3	1:F:3048:LYS:NZ	2.32	0.43
1:F:3269:ARG:NH2	1:F:3272:TRP:HB2	2.33	0.43
1:F:3471:ILE:HA	1:F:3474:ARG:HG2	1.98	0.43
2:N:45:GLY:HA3	2:N:113:LEU:HA	2.01	0.43
2:N:154:ASP:HB3	2:O:155:TRP:CD1	2.53	0.43
2:N:179:ARG:HB3	3:P:805:TRP:CZ2	2.53	0.43
2:O:27:THR:OG1	2:O:30:SER:OG	2.36	0.43
4:R:84:LEU:HD22	4:R:95:PHE:HB2	2.00	0.43
4:R:154:ALA:HB1	4:R:186:GLU:HB2	1.99	0.43
9:E:45:DG:H21	9:E:45:DG:P	2.40	0.43
1:A:88:PHE:HA	1:A:91:ILE:HG12	2.00	0.43
1:A:320:LEU:HA	1:A:323:VAL:HG22	2.00	0.43
1:A:411:PRO:HB3	1:A:457:CYS:HA	2.01	0.43
1:A:1715:GLU:HA	1:A:1718:ILE:HG12	1.98	0.43
1:A:2140:LEU:HA	1:A:2143:ARG:HG2	1.99	0.43
1:A:2405:VAL:HA	1:A:2408:MET:HE2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2586:PHE:HB3	1:A:2776:ARG:O	2.16	0.43
1:A:3301:LEU:HD13	1:A:3333:THR:OG1	2.19	0.43
1:A:3679:ASN:HB3	1:A:3724:GLU:O	2.18	0.43
1:A:3749:PRO:HG2	1:A:3805:TRP:HB3	2.00	0.43
1:F:652:GLU:OE1	1:F:653:LEU:HD22	2.19	0.43
1:F:745:VAL:HG21	1:F:788:TYR:OH	2.18	0.43
1:F:939:MET:HE1	1:F:2782:ASP:N	2.33	0.43
1:F:1274:ARG:HH11	1:F:1351:THR:HB	1.83	0.43
1:F:2154:GLU:OE2	1:F:2195:SER:HB2	2.18	0.43
1:F:2228:ARG:HG3	1:F:2229:ALA:H	1.84	0.43
1:F:2812:LEU:HD12	1:F:2813:PHE:N	2.34	0.43
1:F:3444:ALA:HB2	1:F:3478:GLU:HG3	2.00	0.43
1:F:3586:LYS:O	1:F:3590:ASN:ND2	2.51	0.43
1:F:3718:ARG:H	1:F:3743:HIS:CE1	2.36	0.43
2:K:184:LEU:HD21	2:L:183:VAL:HG13	2.01	0.43
2:L:28:LEU:HD12	2:L:32:PHE:CG	2.53	0.43
3:M:708:ARG:O	3:M:712:ILE:HG12	2.18	0.43
3:M:725:TRP:HD1	3:M:742:PHE:CD2	2.35	0.43
4:R:62:ASN:OD1	4:R:119:TRP:HA	2.18	0.43
8:D:33:DA:H5"	8:D:33:DA:C8	2.53	0.43
1:A:11:SER:O	1:A:15:LEU:HD23	2.18	0.43
1:A:225:LYS:NZ	1:A:267:VAL:HG12	2.33	0.43
1:A:438:LEU:O	1:A:441:MET:HG3	2.18	0.43
1:A:896:VAL:HG13	1:A:903:PRO:HD2	2.00	0.43
1:A:933:LEU:HD12	1:A:2793:PRO:C	2.38	0.43
1:A:992:ILE:HG23	1:A:1036:PHE:HD1	1.83	0.43
1:A:1357:LYS:O	1:A:1360:LYS:HB3	2.19	0.43
1:A:1376:LEU:HD12	1:A:1399:CYS:SG	2.58	0.43
1:A:1862:THR:HG22	1:A:1865:THR:H	1.83	0.43
1:A:2272:VAL:HA	1:A:2275:GLN:HG2	2.00	0.43
1:A:2328:ARG:HG2	1:A:2329:TYR:CE1	2.53	0.43
1:A:3058:ASP:OD1	1:A:3059:GLN:N	2.52	0.43
1:A:3111:MET:SD	1:A:3112:GLN:N	2.92	0.43
1:A:3381:ALA:O	1:A:3385:LEU:HG	2.17	0.43
1:A:4010:SER:HA	1:A:4038:TRP:CZ2	2.54	0.43
1:F:188:GLU:CD	1:F:192:ASN:HD21	2.20	0.43
1:F:1104:LEU:O	1:F:1108:MET:HG2	2.18	0.43
1:F:1458:LEU:HD13	1:F:1467:ILE:HG21	1.99	0.43
1:F:1580:LEU:O	1:F:1584:GLN:HG2	2.19	0.43
1:F:2154:GLU:HA	1:F:2157:PHE:CZ	2.53	0.43
1:F:2575:PRO:HA	1:F:2785:ILE:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2855:VAL:O	1:F:2859:GLN:HG3	2.19	0.43
1:F:3185:ASN:HB3	1:F:3189:PHE:CZ	2.53	0.43
1:F:3590:ASN:OD1	1:F:3593:ARG:NH1	2.52	0.43
1:F:3628:PHE:HE1	1:F:3673:ASP:HB3	1.83	0.43
1:F:3631:LYS:O	1:F:3634:GLN:HG2	2.17	0.43
1:F:3814:ASP:HA	1:F:3817:LEU:HB3	2.01	0.43
2:L:34:ILE:H	2:L:47:VAL:HG21	1.82	0.43
2:L:38:ASP:OD1	2:L:39:GLY:N	2.52	0.43
2:L:169:LYS:HD3	3:M:810:LEU:HD12	1.99	0.43
4:Q:56:GLN:NE2	4:Q:60:GLU:HB3	2.34	0.43
8:D:37:DG:C8	9:E:19:DC:H2"	2.54	0.43
1:A:74:ASN:HA	1:A:79:ARG:HD2	2.00	0.43
1:A:1101:PHE:HB2	1:A:1154:PRO:HG3	2.01	0.43
1:A:2353:GLN:HG2	1:A:2356:MET:SD	2.59	0.43
1:A:2449:VAL:HA	1:A:2452:ARG:NE	2.33	0.43
1:A:2737:GLU:HG2	1:A:2740:SER:HB2	2.00	0.43
1:A:2940:ARG:NH1	1:A:3981:TYR:HB3	2.33	0.43
1:F:188:GLU:O	1:F:192:ASN:ND2	2.52	0.43
1:F:715:ALA:O	1:F:718:MET:HG3	2.18	0.43
1:F:892:LEU:HB2	1:F:908:ASP:OD1	2.18	0.43
1:F:1342:MET:O	1:F:1346:THR:HG23	2.17	0.43
1:F:2268:LYS:HB3	1:F:2315:VAL:HG22	2.00	0.43
1:F:2389:PHE:O	1:F:2394:LYS:HD3	2.19	0.43
1:F:3169:PRO:HB2	1:F:3179:TRP:CZ2	2.52	0.43
1:F:3442:TYR:HB3	1:F:3443:PRO:HD3	2.01	0.43
1:F:4013:TRP:HB2	1:F:4038:TRP:CD1	2.53	0.43
2:K:150:ARG:O	2:K:153:ARG:HG3	2.19	0.43
3:P:735:PHE:HZ	3:P:738:TRP:CZ2	2.36	0.43
3:P:856:LEU:HA	3:P:882:PHE:HE1	1.83	0.43
4:Q:14:ALA:N	4:Q:25:ALA:O	2.36	0.43
4:R:176:ARG:HA	4:R:176:ARG:NE	2.33	0.43
1:A:80:GLU:HG3	1:A:81:CYS:N	2.33	0.43
1:A:450:SER:OG	1:A:453:MET:HG3	2.18	0.43
1:A:461:ILE:O	1:A:464:VAL:HG22	2.19	0.43
1:A:623:PHE:O	1:A:626:LEU:HG	2.18	0.43
1:A:664:SER:O	1:A:668:LYS:HG3	2.18	0.43
1:A:1297:PHE:HA	1:A:1301:ILE:HG12	1.99	0.43
1:A:1511:ALA:HA	1:A:1514:LEU:HD12	2.01	0.43
1:A:1771:GLN:HE22	1:A:1774:MET:HA	1.84	0.43
1:A:1847:ALA:HA	1:A:1850:VAL:HG12	2.01	0.43
1:A:2090:ARG:HH22	1:A:2144:LEU:HD22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3567:VAL:HG13	1:A:3686:TRP:CH2	2.53	0.43
1:A:3622:ALA:H	1:A:3630:ARG:CZ	2.31	0.43
1:F:153:PHE:HE2	1:F:192:ASN:ND2	2.16	0.43
1:F:732:PHE:O	1:F:735:SER:OG	2.22	0.43
1:F:1092:GLU:OE2	1:F:1094:SER:N	2.52	0.43
1:F:1239:PRO:O	1:F:1310:GLU:HA	2.18	0.43
1:F:1306:ILE:HG13	1:F:1307:ILE:H	1.84	0.43
1:F:2219:LEU:HD12	1:F:2220:MET:N	2.33	0.43
1:F:2243:GLU:HA	1:F:2246:LYS:HE3	1.99	0.43
1:F:2510:LEU:HD21	1:F:2525:TRP:HD1	1.82	0.43
1:F:3236:PHE:O	1:F:3240:MET:HG2	2.18	0.43
1:F:4102:THR:HG22	1:F:4105:LYS:HE3	2.01	0.43
2:K:118:ASN:HD21	2:K:120:ALA:HB3	1.83	0.43
2:K:146:LYS:O	2:K:149:GLU:HG2	2.19	0.43
3:M:722:LYS:NZ	3:M:723:PRO:HD2	2.34	0.43
3:P:728:GLU:OE1	3:P:741:ARG:NH2	2.52	0.43
4:Q:13:TRP:CD2	4:Q:24:LEU:HG	2.53	0.43
4:R:95:PHE:CE1	4:R:108:VAL:HA	2.54	0.43
1:A:75:SER:O	1:A:79:ARG:HG2	2.19	0.43
1:A:886:TRP:HZ3	1:A:911:LEU:HB3	1.84	0.43
1:A:1062:ARG:HH11	1:A:3745:GLU:HB2	1.82	0.43
1:A:1491:ILE:HG21	1:A:1558:TYR:CE2	2.54	0.43
1:A:2254:ARG:NH2	1:A:2293:GLY:H	2.16	0.43
1:A:2921:LEU:O	1:A:2925:GLU:HG3	2.19	0.43
1:A:3371:GLU:HA	1:A:3374:ILE:HG12	2.01	0.43
1:A:3588:TRP:HE1	1:A:3609:MET:HG3	1.83	0.43
1:A:3781:CYS:SG	1:A:3786:LEU:HB2	2.58	0.43
1:A:3924:HIS:NE2	1:A:3927:ASN:OD1	2.52	0.43
1:F:183:GLU:HG2	1:F:184:VAL:H	1.84	0.43
1:F:192:ASN:O	1:F:196:LEU:HG	2.17	0.43
1:F:242:PRO:HB2	1:F:246:ARG:HH21	1.83	0.43
1:F:651:TYR:CZ	1:F:655:LEU:HD11	2.53	0.43
1:F:1048:GLN:HA	1:F:1051:LYS:HG2	1.99	0.43
1:F:2158:ARG:HB2	1:F:2159:PRO:HD3	2.01	0.43
1:F:2269:ASP:OD1	1:F:2270:ASN:N	2.51	0.43
1:F:2306:ASN:HA	1:F:2309:PHE:HD2	1.84	0.43
1:F:2313:LYS:O	1:F:2317:ALA:CB	2.67	0.43
1:F:2973:ASP:O	1:F:2977:ASN:ND2	2.51	0.43
1:F:3041:LEU:O	1:F:3045:ILE:HG12	2.19	0.43
1:F:3140:GLU:O	1:F:3143:SER:OG	2.33	0.43
1:F:3228:SER:O	1:F:3231:ILE:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3299:THR:O	1:F:3299:THR:HG23	2.19	0.43
1:F:3482:LEU:O	1:F:3485:LYS:HG2	2.19	0.43
1:F:3488:SER:O	1:F:3491:PRO:HD3	2.19	0.43
2:K:33:VAL:HA	2:K:46:THR:HA	2.00	0.43
2:K:180:PHE:HE2	2:L:176:LEU:HB3	1.83	0.43
3:M:719:ASP:OD2	3:M:750:THR:OG1	2.36	0.43
3:M:817:THR:HA	3:M:851:LYS:HB2	2.00	0.43
2:O:24:TRP:CZ2	2:O:28:LEU:HD23	2.54	0.43
2:O:88:PHE:HB2	2:O:95:PHE:CE2	2.53	0.43
4:Q:18:LEU:HD12	4:Q:97:CYS:O	2.19	0.43
4:R:8:LEU:HD22	4:R:35:ALA:HB1	1.99	0.43
10:I:39:DA:C2	11:J:19:DA:C2	3.07	0.43
11:J:27:DT:H1'	11:J:28:DA:C2	2.54	0.43
1:A:40:GLN:CD	1:A:2427:ARG:HB2	2.39	0.43
1:A:645:TRP:HB3	1:A:649:PHE:CB	2.48	0.43
1:A:996:THR:HG21	1:A:1039:TRP:HD1	1.83	0.43
1:A:1623:LEU:HG	1:A:1667:SER:OG	2.18	0.43
1:A:2735:ASP:N	1:A:2735:ASP:OD1	2.52	0.43
1:A:2750:GLU:O	1:A:2754:GLU:OE1	2.37	0.43
1:F:122:LYS:HA	1:F:122:LYS:HD3	1.70	0.43
1:F:471:LYS:O	1:F:475:LEU:N	2.23	0.43
1:F:542:ASP:OD1	1:F:543:SER:N	2.51	0.43
1:F:710:PHE:HA	1:F:713:GLU:CD	2.39	0.43
1:F:925:GLN:CD	1:F:2769:VAL:HG13	2.39	0.43
1:F:1582:LEU:HD12	1:F:1583:MET:N	2.34	0.43
1:F:1661:PHE:CD1	1:F:1665:HIS:HB2	2.54	0.43
1:F:2446:LEU:HD11	1:F:2450:GLU:HB2	2.00	0.43
1:F:3705:TYR:HE1	1:F:3716:HIS:CE1	2.36	0.43
1:F:3855:TYR:HB3	1:F:3859:TYR:CZ	2.54	0.43
2:K:8:ILE:CG2	2:K:20:LEU:H	2.31	0.43
2:K:164:LYS:NZ	3:M:898:ILE:HA	2.34	0.43
2:L:134:ILE:HA	2:L:137:ASN:HD21	1.83	0.43
2:O:42:ALA:HB2	2:O:123:ILE:HG13	1.99	0.43
4:R:81:ARG:NH1	4:R:85:LYS:H	2.17	0.43
4:R:105:ILE:HD13	4:R:123:CYS:HB3	1.99	0.43
9:E:26:DA:H2	9:E:27:DC:H2'	1.78	0.43
1:A:42:CYS:HG	1:A:91:ILE:HD11	1.84	0.43
1:A:183:GLU:HG3	1:A:184:VAL:H	1.83	0.43
1:A:296:VAL:HG22	1:A:300:TRP:CD1	2.54	0.43
1:A:832:LYS:HG3	1:A:834:LEU:H	1.83	0.43
1:A:1069:HIS:NE2	1:A:3744:ASP:HA	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1479:VAL:HG11	1:A:1518:ALA:HA	2.00	0.43
1:A:1627:LYS:HA	1:A:1630:ASP:OD1	2.19	0.43
1:A:1872:GLY:O	1:A:1876:ILE:HG12	2.19	0.43
1:A:2245:TRP:HB3	1:A:2246:LYS:H	1.64	0.43
1:A:2304:VAL:HA	1:A:2307:MET:HG2	2.01	0.43
1:A:2386:LEU:O	1:A:2394:LYS:NZ	2.29	0.43
1:A:2854:PHE:O	1:A:2858:ILE:HG12	2.18	0.43
1:A:3270:ASP:OD1	1:A:3271:ASP:N	2.51	0.43
1:A:3297:VAL:O	1:A:3300:VAL:HG13	2.18	0.43
1:A:3347:CYS:O	1:A:3351:ILE:N	2.41	0.43
1:A:3864:ARG:O	1:A:3867:THR:HB	2.18	0.43
1:A:3958:LEU:HD22	1:A:4115:ASN:HD22	1.83	0.43
1:A:3974:MET:HE3	1:A:3978:GLY:H	1.83	0.43
1:F:856:VAL:HA	1:F:859:LEU:HD12	2.00	0.43
1:F:1173:LEU:HD12	1:F:1173:LEU:HA	1.83	0.43
1:F:1374:GLN:O	1:F:1378:GLU:N	2.29	0.43
1:F:1479:VAL:HG21	1:F:1518:ALA:HA	2.01	0.43
1:F:3749:PRO:O	1:F:3805:TRP:HB3	2.19	0.43
1:F:3880:ALA:HA	1:F:3966:GLN:OE1	2.19	0.43
3:M:846:ARG:NH2	3:M:852:VAL:HG21	2.34	0.43
2:O:46:THR:O	2:O:112:ASN:HB2	2.19	0.43
2:O:175:ASP:O	2:O:179:ARG:HD2	2.19	0.43
2:O:177:TYR:CZ	3:P:796:ILE:HG23	2.54	0.43
4:R:29:ILE:HG23	4:R:76:LEU:O	2.19	0.43
1:A:225:LYS:HZ3	1:A:267:VAL:HG12	1.84	0.43
1:A:473:PRO:N	1:A:476:ARG:HH21	2.16	0.43
1:A:1269:THR:O	1:A:1273:GLU:HB2	2.18	0.43
1:A:1672:PHE:CZ	1:A:1676:ILE:HD11	2.54	0.43
1:A:2792:THR:N	1:A:2793:PRO:HD2	2.34	0.43
1:A:3262:LEU:O	1:A:3266:SER:N	2.52	0.43
1:A:3390:GLN:HA	1:A:3393:GLU:OE1	2.19	0.43
1:F:931:CYS:O	1:F:984:TYR:OH	2.37	0.43
1:F:1115:HIS:HB3	1:F:1180:GLN:HE21	1.84	0.43
1:F:1372:LEU:HD12	1:F:1373:VAL:N	2.34	0.43
1:F:1913:LYS:O	1:F:1917:LYS:HG2	2.19	0.43
1:F:2097:LEU:HD23	1:F:2100:LEU:HD12	2.01	0.43
1:F:2920:VAL:CA	1:F:2923:TRP:HB2	2.48	0.43
1:F:2999:LEU:HD22	1:F:3014:CYS:HA	2.01	0.43
1:F:3118:ASP:C	1:F:3125:ARG:HH21	2.22	0.43
1:F:3330:LEU:HD23	1:F:3384:HIS:CD2	2.54	0.43
1:F:3760:GLN:O	1:F:3764:VAL:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:187:LYS:HB3	2:L:187:LYS:HG2	2.01	0.43
3:M:748:PRO:HA	3:M:751:LYS:HD2	2.01	0.43
2:N:50:SER:HA	4:Q:115:LEU:HD22	2.01	0.43
2:N:163:GLU:HA	2:N:166:VAL:HG22	2.00	0.43
2:O:107:ARG:NE	2:O:109:GLY:O	2.52	0.43
2:O:193:SER:O	2:O:197:LYS:HG2	2.18	0.43
4:R:109:ARG:HA	4:R:119:TRP:CD1	2.54	0.43
8:D:13:DC:H4'	8:D:14:DA:C4	2.54	0.43
8:D:19:DA:H2'	8:D:20:DT:H72	2.00	0.43
1:A:337:LYS:HA	1:A:341:PHE:CD2	2.54	0.42
1:A:385:TYR:O	1:A:389:ILE:HG12	2.18	0.42
1:A:960:GLN:O	1:A:964:ARG:HG2	2.19	0.42
1:A:1576:ASP:HB3	1:A:1621:THR:HG21	2.01	0.42
1:A:1675:TYR:O	1:A:1679:LEU:HG	2.19	0.42
1:A:2158:ARG:NH2	1:A:2196:TRP:HB3	2.34	0.42
1:A:2167:PRO:HA	1:A:2170:GLN:HE21	1.82	0.42
1:A:2303:LEU:CB	1:A:2323:LEU:HD21	2.49	0.42
1:A:2481:HIS:ND1	1:A:2499:PHE:HE1	2.17	0.42
1:A:2540:LEU:O	1:A:2835:LYS:NZ	2.52	0.42
1:A:3022:GLU:HG3	1:A:3037:GLN:HG3	2.01	0.42
1:A:3638:LYS:HZ3	1:A:3642:LYS:HB3	1.84	0.42
1:F:718:MET:HA	1:F:721:TYR:CD2	2.53	0.42
1:F:894:PHE:O	1:F:905:ILE:N	2.42	0.42
1:F:1569:THR:O	1:F:1573:LYS:HG3	2.19	0.42
1:F:1591:LYS:HG3	1:F:1592:MET:N	2.34	0.42
1:F:1781:SER:O	1:F:1785:ILE:HG12	2.19	0.42
1:F:2185:MET:O	1:F:2189:ILE:HG12	2.19	0.42
1:F:3550:LYS:O	1:F:3554:PHE:HB2	2.19	0.42
1:F:3864:ARG:O	1:F:3868:VAL:HG23	2.18	0.42
1:F:4114:PRO:HA	1:F:4117:LEU:HD12	2.01	0.42
2:L:28:LEU:CD2	2:L:70:LEU:HB3	2.49	0.42
2:N:150:ARG:NH1	2:N:154:ASP:OD2	2.51	0.42
2:N:194:LEU:HB2	2:O:194:LEU:HD13	2.01	0.42
3:P:743:MET:HG2	3:P:754:PHE:HE2	1.84	0.42
3:P:816:HIS:H	3:P:850:ALA:HA	1.84	0.42
4:Q:112:LEU:HD22	4:Q:117:PHE:HE2	1.84	0.42
4:R:84:LEU:HD13	4:R:95:PHE:HB2	2.01	0.42
1:A:894:PHE:N	1:A:905:ILE:O	2.52	0.42
1:A:901:MET:HB2	1:A:2819:GLU:HG2	2.00	0.42
1:A:1310:GLU:HG3	1:A:1312:CYS:H	1.83	0.42
1:A:3048:LYS:HB2	1:A:3061:LEU:HD22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3897:PHE:CD2	1:A:3898:LEU:HD23	2.53	0.42
1:F:540:MET:O	1:F:544:ILE:HG12	2.19	0.42
1:F:1115:HIS:CE1	1:F:1182:GLU:HB3	2.54	0.42
1:F:1124:ILE:HG13	1:F:1125:GLN:OE1	2.19	0.42
1:F:2447:LYS:HB2	1:F:2450:GLU:OE1	2.19	0.42
1:F:2891:ARG:O	1:F:2895:GLU:HG2	2.19	0.42
1:F:3037:GLN:HA	1:F:3040:TYR:CD2	2.54	0.42
1:F:3148:GLN:OE1	1:F:3148:GLN:N	2.52	0.42
1:F:3253:SER:HA	1:F:3256:MET:HE1	2.02	0.42
1:F:3558:ILE:O	1:F:3562:LEU:HG	2.20	0.42
2:O:11:VAL:HB	2:O:89:SER:HA	2.00	0.42
2:O:183:VAL:O	2:O:187:LYS:HG2	2.19	0.42
3:P:752:GLU:HG3	3:P:756:ARG:HH21	1.84	0.42
3:P:814:ARG:HB2	3:P:847:PHE:C	2.40	0.42
4:Q:28:PHE:O	4:Q:35:ALA:HB3	2.19	0.42
4:R:166:ASP:OD1	4:R:167:TYR:N	2.53	0.42
4:R:210:PHE:O	4:R:214:LEU:HB2	2.19	0.42
11:J:24:DT:H6	11:J:24:DT:H2'	1.58	0.42
1:A:40:GLN:OE1	1:A:2427:ARG:HB2	2.19	0.42
1:A:71:LYS:HA	1:A:71:LYS:HD3	1.85	0.42
1:A:520:LYS:HD3	1:A:520:LYS:HA	1.67	0.42
1:A:525:LYS:O	1:A:528:VAL:HG22	2.19	0.42
1:A:902:LYS:HG2	1:F:2570:PRO:HB2	2.01	0.42
1:A:1689:LYS:HD3	1:A:1721:HIS:NE2	2.34	0.42
1:A:2208:ASP:OD1	1:A:2209:GLU:N	2.52	0.42
1:A:2214:ARG:HG2	1:A:2218:PHE:CE2	2.54	0.42
1:A:2731:ARG:HD3	1:A:2731:ARG:HA	1.74	0.42
1:A:2773:ARG:HD2	1:A:2789:SER:O	2.19	0.42
1:A:2792:THR:O	1:A:2795:GLN:HG2	2.19	0.42
1:A:2821:ASP:N	1:A:2821:ASP:OD1	2.50	0.42
1:A:3260:LYS:O	1:A:3264:LYS:NZ	2.48	0.42
1:F:794:PRO:HA	1:F:870:LEU:HD12	2.01	0.42
1:F:1013:ILE:O	1:F:1017:ILE:HB	2.20	0.42
1:F:1155:ARG:HA	1:F:3693:GLU:CD	2.38	0.42
1:F:1261:LEU:HD11	1:F:1337:VAL:HG22	2.02	0.42
1:F:1357:LYS:HD3	1:F:1410:PRO:HD2	2.00	0.42
1:F:1380:ALA:HA	1:F:1384:PHE:HA	2.01	0.42
1:F:2140:LEU:HA	1:F:2143:ARG:HB3	2.00	0.42
1:F:2228:ARG:NH1	10:I:44:DG:H21	2.17	0.42
1:F:2276:LEU:O	1:F:2280:VAL:HG23	2.19	0.42
1:F:2433:LYS:HB2	1:F:2433:LYS:HE2	1.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2927:ALA:O	1:F:2931:ARG:N	2.37	0.42
1:F:3258:LEU:HA	1:F:3261:GLU:HG2	2.01	0.42
1:F:3423:GLN:NE2	1:F:3426:LYS:HE3	2.34	0.42
1:F:3444:ALA:HB2	1:F:3478:GLU:HB2	2.01	0.42
1:F:3459:ASN:HA	1:F:3462:ARG:HE	1.84	0.42
1:F:3575:LEU:HB2	1:F:3800:LEU:HD21	2.01	0.42
1:F:3962:ARG:HA	1:F:4124:TRP:CZ2	2.50	0.42
2:L:179:ARG:HA	3:M:781:ILE:HG21	2.00	0.42
2:O:102:LYS:HA	2:O:102:LYS:HD3	1.65	0.42
4:Q:112:LEU:HD22	4:Q:117:PHE:CE2	2.54	0.42
4:R:51:THR:O	4:R:55:SER:OG	2.27	0.42
4:R:81:ARG:CD	4:R:85:LYS:HG3	2.49	0.42
4:R:96:SER:OG	4:R:107:ARG:HD2	2.20	0.42
8:D:16:DA:N1	9:E:41:DT:C4	2.87	0.42
8:D:27:DT:C4	9:E:30:DA:N6	2.88	0.42
11:J:29:DG:O6	11:J:30:DT:N3	2.46	0.42
1:A:955:ALA:O	1:A:959:TYR:HB2	2.19	0.42
1:A:1371:VAL:HA	1:A:1374:GLN:CD	2.38	0.42
1:A:2102:LYS:O	1:A:2106:ARG:HG2	2.19	0.42
1:A:2534:ASN:ND2	1:A:2537:ASP:H	2.17	0.42
1:A:2586:PHE:CD1	1:A:2782:ASP:HB3	2.54	0.42
1:A:3182:ILE:O	1:A:3186:ARG:HG2	2.19	0.42
1:A:3186:ARG:O	1:A:3190:LEU:HG	2.20	0.42
1:A:3509:ASP:OD1	1:A:3509:ASP:N	2.50	0.42
1:A:3589:SER:O	1:A:3592:VAL:HG12	2.18	0.42
1:A:3630:ARG:HD2	1:A:3633:ILE:HD11	2.01	0.42
1:A:3895:GLU:H	1:A:3895:GLU:CD	2.20	0.42
1:A:3977:THR:HA	1:A:3981:TYR:HB2	2.01	0.42
1:F:58:VAL:HG11	1:F:3098:ARG:HD2	2.00	0.42
1:F:117:LYS:O	1:F:119:ARG:N	2.53	0.42
1:F:649:PHE:O	1:F:653:LEU:HD23	2.20	0.42
1:F:1234:GLY:HA2	1:F:1237:ALA:HB3	2.01	0.42
1:F:1271:ILE:O	1:F:1274:ARG:HD2	2.20	0.42
1:F:1306:ILE:HG13	1:F:1307:ILE:N	2.35	0.42
1:F:1373:VAL:HA	1:F:1376:LEU:HB3	2.02	0.42
1:F:1663:THR:O	1:F:1665:HIS:ND1	2.37	0.42
1:F:2225:HIS:HE1	1:F:2234:ASN:HD21	1.67	0.42
1:F:2503:LYS:O	1:F:2507:ILE:HG13	2.19	0.42
1:F:2940:ARG:HH22	1:F:3982:SER:HB3	1.84	0.42
1:F:3001:CYS:HA	1:F:3004:HIS:ND1	2.35	0.42
1:F:3164:TRP:O	1:F:3167:ARG:N	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3547:THR:O	1:F:3550:LYS:HB2	2.20	0.42
1:F:3555:VAL:O	1:F:3558:ILE:HB	2.19	0.42
1:F:3701:ILE:HD12	1:F:3717:VAL:HG13	2.01	0.42
1:F:3758:LEU:O	1:F:3762:GLN:N	2.39	0.42
1:F:3778:ASP:HB3	1:F:3781:CYS:SG	2.59	0.42
1:F:4003:ASP:HA	1:F:4007:LYS:HB2	2.02	0.42
1:F:4086:ASP:O	1:F:4089:ILE:HG12	2.19	0.42
2:K:137:ASN:HB3	2:L:141:ASN:HD21	1.84	0.42
2:L:44:THR:HB	2:L:116:VAL:HG11	2.01	0.42
2:N:32:PHE:CE1	2:N:74:LEU:HD21	2.54	0.42
3:P:813:PHE:C	3:P:849:GLY:H	2.22	0.42
4:Q:8:LEU:HD21	4:Q:37:LEU:HB2	1.99	0.42
8:D:16:DA:H2"	8:D:17:DT:C5	2.54	0.42
1:A:340:TYR:HB3	1:A:344:GLN:OE1	2.19	0.42
1:A:669:LEU:HA	1:A:672:ILE:HG22	2.01	0.42
1:A:749:VAL:O	1:A:753:GLN:HG2	2.19	0.42
1:A:787:PRO:HG2	1:A:788:TYR:CD1	2.54	0.42
1:A:1102:GLU:O	1:A:1106:ILE:HG12	2.20	0.42
1:A:1331:ASN:ND2	1:A:1384:PHE:N	2.67	0.42
1:A:1343:GLU:OE2	1:A:1398:VAL:HG21	2.19	0.42
1:A:1399:CYS:O	1:A:1403:MET:HG2	2.20	0.42
1:A:1468:LEU:HD12	1:A:1469:PRO:HD2	2.02	0.42
1:A:1627:LYS:NZ	1:A:1670:GLU:HB2	2.35	0.42
1:A:1756:PRO:O	1:A:1759:LEU:HB3	2.20	0.42
1:A:2219:LEU:HD12	1:A:2220:MET:N	2.35	0.42
1:A:3387:GLU:HA	1:A:3390:GLN:NE2	2.35	0.42
1:F:41:GLU:HA	1:F:44:LEU:HD12	2.01	0.42
1:F:410:MET:O	1:F:413:PHE:HB2	2.20	0.42
1:F:738:HIS:O	1:F:742:GLU:HG3	2.19	0.42
1:F:1769:GLU:N	1:F:1822:ARG:HH12	2.17	0.42
1:F:2349:LEU:HB3	1:F:2360:PHE:CE2	2.55	0.42
1:F:2475:ASN:HA	1:F:2478:MET:CE	2.49	0.42
1:F:2534:ASN:HD21	1:F:2536:LEU:HB3	1.84	0.42
1:F:3022:GLU:HG2	1:F:3037:GLN:CD	2.40	0.42
1:F:3162:ASN:HA	1:F:3166:ASN:OD1	2.19	0.42
1:F:3493:TRP:HD1	1:F:3521:ILE:HG23	1.84	0.42
1:F:3810:VAL:HG13	1:F:3930:VAL:HG13	2.02	0.42
3:M:822:SER:HB3	3:M:838:LEU:HD22	2.01	0.42
2:N:88:PHE:CE2	2:N:90:LYS:HG2	2.55	0.42
4:Q:152:GLU:HB2	4:R:189:PHE:HZ	1.84	0.42
4:R:96:SER:O	4:R:107:ARG:NH1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:52:ALA:O	1:A:55:THR:OG1	2.31	0.42
1:A:149:ILE:HG13	1:A:150:GLY:N	2.33	0.42
1:A:195:ASN:HA	1:A:198:ARG:NE	2.34	0.42
1:A:993:HIS:ND1	1:A:2779:ASP:OD1	2.52	0.42
1:A:996:THR:HG21	1:A:1039:TRP:CD1	2.54	0.42
1:A:3313:SER:HB3	1:A:3316:LEU:HA	2.00	0.42
1:A:3826:ALA:O	1:A:3830:SER:OG	2.28	0.42
1:F:203:GLU:O	1:F:207:GLN:HG2	2.20	0.42
1:F:371:GLY:O	1:F:375:VAL:HG23	2.20	0.42
1:F:409:GLN:H	1:F:409:GLN:CD	2.21	0.42
1:F:614:PRO:HG2	1:F:617:PRO:HG3	2.01	0.42
1:F:737:PRO:O	1:F:740:ILE:HG22	2.20	0.42
1:F:847:SER:OG	1:F:850:GLU:HG2	2.19	0.42
1:F:1220:LEU:O	1:F:1224:PHE:HB2	2.19	0.42
1:F:1422:LYS:HD3	1:F:1422:LYS:HA	1.81	0.42
1:F:1589:ASN:OD1	1:F:1592:MET:HG3	2.20	0.42
1:F:1667:SER:O	1:F:1667:SER:OG	2.38	0.42
1:F:1783:ARG:HH21	1:F:1830:HIS:CD2	2.37	0.42
1:F:2773:ARG:HB2	1:F:2775:TYR:CZ	2.55	0.42
1:F:2859:GLN:OE1	1:F:2888:VAL:HG13	2.20	0.42
1:F:2880:CYS:O	1:F:2885:GLN:N	2.52	0.42
1:F:3108:GLN:O	1:F:3111:MET:HG3	2.19	0.42
1:F:3393:GLU:HG2	1:F:3413:TYR:OH	2.20	0.42
1:F:3494:GLN:OE1	1:F:3709:GLY:HA2	2.19	0.42
2:K:106:PHE:HE1	4:R:110:SER:HB3	1.83	0.42
3:M:888:ILE:HD13	3:M:910:LEU:HG	2.01	0.42
2:N:30:SER:HA	2:N:49:GLU:HG2	2.01	0.42
3:P:759:ASP:CG	3:P:763:ASP:HB3	2.39	0.42
3:P:818:VAL:O	3:P:853:VAL:HB	2.19	0.42
8:D:15:DA:C8	8:D:16:DA:N6	2.88	0.42
11:J:25:DT:H3'	11:J:26:DT:C5	2.55	0.42
1:A:58:VAL:HG21	1:A:3098:ARG:HH11	1.85	0.42
1:A:386:VAL:O	1:A:390:GLN:HG2	2.20	0.42
1:A:573:LEU:O	1:A:577:GLU:HG2	2.20	0.42
1:A:580:ASP:HB3	1:A:619:ASP:OD2	2.20	0.42
1:A:712:LYS:HD3	1:A:712:LYS:HA	1.74	0.42
1:A:1015:ASP:OD1	1:A:1015:ASP:N	2.49	0.42
1:A:1297:PHE:HA	1:A:1301:ILE:CG1	2.50	0.42
1:A:1307:ILE:HD11	1:A:1311:LYS:H	1.84	0.42
1:A:1423:ILE:HD11	1:A:1427:SER:H	1.85	0.42
1:A:1443:VAL:HG22	1:A:1447:ARG:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1869:LYS:HB3	1:A:1873:TYR:CZ	2.55	0.42
1:A:2579:HIS:CD2	1:F:947:GLN:HB2	2.54	0.42
1:A:3348:LEU:HD12	1:A:3349:ALA:N	2.35	0.42
1:A:3392:ALA:HB1	1:A:3409:VAL:HG22	2.01	0.42
1:A:3422:GLN:O	1:A:3426:LYS:HG2	2.20	0.42
1:F:133:LYS:O	1:F:137:THR:HG23	2.20	0.42
1:F:240:GLU:O	1:F:243:GLN:HB2	2.20	0.42
1:F:2428:ASP:O	1:F:2432:GLN:HG2	2.20	0.42
1:F:3553:GLU:HG3	1:F:3557:ARG:NH2	2.34	0.42
2:L:12:SER:OG	2:L:88:PHE:N	2.52	0.42
3:M:668:SER:HB3	3:M:702:ALA:HA	2.01	0.42
3:M:749:SER:HA	3:M:752:GLU:OE1	2.19	0.42
2:N:187:LYS:HB3	2:O:187:LYS:HB3	2.01	0.42
4:R:65:LEU:HA	4:R:117:PHE:CE2	2.55	0.42
4:R:218:TYR:HA	4:R:221:VAL:HB	2.01	0.42
1:A:11:SER:HA	1:A:14:ARG:NE	2.35	0.42
1:A:187:SER:HA	1:A:190:ILE:HB	2.02	0.42
1:A:738:HIS:HB2	1:A:780:ILE:HD11	2.01	0.42
1:A:924:ARG:NH2	1:A:2768:GLN:HA	2.35	0.42
1:A:990:GLN:NE2	1:A:2778:GLY:O	2.53	0.42
1:A:1352:SER:HB3	1:A:1356:TRP:HB2	2.00	0.42
1:A:1575:LEU:HD21	1:A:1617:LYS:CB	2.50	0.42
1:A:1664:SER:HA	1:A:1668:PHE:CD2	2.55	0.42
1:A:2140:LEU:HD23	1:A:2143:ARG:HD2	2.01	0.42
1:A:2595:TRP:CH2	1:A:2767:ALA:HA	2.55	0.42
1:A:2820:MET:HA	1:A:2823:PHE:CZ	2.54	0.42
1:A:2826:LEU:HD13	1:A:2829:LYS:HD2	2.00	0.42
1:A:3075:LYS:HE2	1:A:3075:LYS:HB3	1.72	0.42
1:A:3231:ILE:O	1:A:3235:LYS:HD3	2.20	0.42
1:A:3607:GLU:O	1:A:3611:GLU:HG2	2.20	0.42
1:A:3690:PHE:CE2	1:A:3696:ARG:HB3	2.54	0.42
1:A:3981:TYR:O	1:A:3985:VAL:HG23	2.20	0.42
1:F:900:GLU:OE1	1:F:900:GLU:N	2.53	0.42
1:F:1087:ARG:HA	1:F:1090:ARG:NE	2.35	0.42
1:F:1209:LYS:HA	1:F:1209:LYS:HD3	1.90	0.42
1:F:1783:ARG:HH21	1:F:1830:HIS:CG	2.37	0.42
1:F:1879:VAL:O	1:F:1882:SER:OG	2.32	0.42
1:F:2120:ARG:NH1	1:F:2160:TYR:HB2	2.34	0.42
1:F:2155:GLU:O	1:F:2158:ARG:HG2	2.20	0.42
1:F:2430:GLU:HA	1:F:2433:LYS:HE2	2.01	0.42
1:F:2749:ALA:HB1	1:F:2753:ARG:NH1	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3178:ILE:H	1:F:3178:ILE:HD12	1.84	0.42
1:F:3302:LYS:O	1:F:3303:THR:OG1	2.36	0.42
1:F:3460:GLU:O	1:F:3464:LYS:HD3	2.19	0.42
1:F:3552:LYS:HA	1:F:3555:VAL:HG22	2.01	0.42
2:K:45:GLY:HA2	2:K:114:GLU:H	1.85	0.42
2:K:95:PHE:H	2:K:113:LEU:HG	1.85	0.42
2:O:117:GLU:H	2:O:117:GLU:CD	2.23	0.42
3:P:723:PRO:O	3:P:727:LEU:HG	2.20	0.42
3:P:890:LYS:HG2	3:P:904:GLN:O	2.20	0.42
4:Q:24:LEU:HB2	4:Q:211:VAL:HG12	2.00	0.42
4:R:20:GLU:H	4:R:97:CYS:HB3	1.85	0.42
4:R:95:PHE:HE1	4:R:108:VAL:HG13	1.85	0.42
1:A:79:ARG:NE	1:A:82:ARG:HE	2.14	0.42
1:A:207:GLN:NE2	1:A:216:LYS:C	2.73	0.42
1:A:616:LYS:O	1:A:620:PHE:HD1	2.03	0.42
1:A:1028:PHE:O	1:A:1031:ARG:HG2	2.20	0.42
1:A:1474:ASP:OD1	1:A:1474:ASP:N	2.53	0.42
1:A:2321:GLU:HB2	1:A:2366:LYS:NZ	2.34	0.42
1:A:2340:SER:O	1:A:2344:LEU:HG	2.20	0.42
1:A:2405:VAL:O	1:A:2408:MET:HG2	2.20	0.42
1:A:3324:ARG:HA	1:A:3327:ASN:OD1	2.20	0.42
1:A:3457:ASN:HB3	1:A:3494:GLN:HE22	1.84	0.42
1:F:165:LYS:HA	1:F:165:LYS:HD3	1.76	0.42
1:F:623:PHE:O	1:F:626:LEU:HG	2.19	0.42
1:F:987:LEU:HA	1:F:990:GLN:HE21	1.85	0.42
1:F:1440:ASP:OD1	1:F:1441:ALA:N	2.48	0.42
1:F:1484:LEU:HA	1:F:1487:VAL:HG12	2.01	0.42
1:F:1538:LEU:O	1:F:1552:HIS:ND1	2.44	0.42
1:F:1690:GLY:O	1:F:1694:THR:HG23	2.19	0.42
1:F:2386:LEU:HD23	1:F:2418:LYS:HB3	2.02	0.42
1:F:3237:SER:O	1:F:3241:LYS:HG2	2.19	0.42
1:F:3684:SER:HB3	1:F:3687:MET:HB2	2.01	0.42
1:F:3751:LEU:HB3	1:F:3803:ILE:HG12	2.02	0.42
2:L:154:ASP:O	2:L:158:VAL:HG12	2.20	0.42
2:N:55:GLU:HB2	2:N:61:MET:CE	2.49	0.42
3:P:812:MET:H	3:P:848:HIS:HB2	1.85	0.42
3:P:879:ARG:HB2	3:P:886:PHE:HE1	1.84	0.42
4:Q:18:LEU:HD11	4:Q:21:ASN:HB3	2.02	0.42
8:D:19:DA:N6	9:E:37:DT:H73	2.34	0.42
11:J:31:DT:C4	11:J:32:DT:C4	3.08	0.42
1:A:128:LEU:H	1:A:128:LEU:HD12	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:925:GLN:HA	1:A:2769:VAL:HG13	2.02	0.42
1:A:1064:TYR:HA	1:A:1106:ILE:HG21	2.02	0.42
1:A:1527:ARG:O	1:A:1530:SER:OG	2.30	0.42
1:A:1758:LEU:HA	1:A:1761:LEU:HD12	2.02	0.42
1:A:2952:ILE:HD13	1:A:2975:ALA:HB2	2.02	0.42
1:A:3108:GLN:O	1:A:3111:MET:HG3	2.19	0.42
1:A:3314:SER:OG	1:A:3318:LYS:HB2	2.19	0.42
1:A:3480:LEU:HA	1:A:3483:MET:HG2	2.01	0.42
1:A:3786:LEU:HD11	1:A:3906:SER:HB2	2.01	0.42
1:F:111:CYS:HB2	1:F:134:LEU:HD21	2.02	0.42
1:F:296:VAL:HG22	1:F:300:TRP:NE1	2.35	0.42
1:F:451:PRO:O	1:F:455:LEU:HG	2.20	0.42
1:F:1255:CYS:HA	1:F:1258:ASP:OD2	2.20	0.42
1:F:1395:LEU:O	1:F:1398:VAL:HG12	2.19	0.42
1:F:1471:GLN:H	1:F:1476:HIS:HD2	1.68	0.42
1:F:1762:MET:HB3	1:F:1778:PHE:HE2	1.85	0.42
1:F:1800:SER:O	1:F:1803:GLU:HG2	2.20	0.42
1:F:2420:PHE:HE2	1:F:2439:ILE:HD11	1.85	0.42
1:F:2757:ILE:HD13	1:F:2757:ILE:HA	1.94	0.42
1:F:2782:ASP:N	1:F:2782:ASP:OD1	2.53	0.42
1:F:3169:PRO:HB2	1:F:3179:TRP:CE2	2.55	0.42
2:L:23:SER:OG	2:L:33:VAL:HB	2.20	0.42
2:L:153:ARG:NH2	2:L:156:ASN:HB3	2.35	0.42
3:M:800:GLU:HB3	3:M:806:ASP:N	2.35	0.42
3:M:893:TRP:O	3:M:896:ASP:HB2	2.20	0.42
2:N:66:TYR:CZ	2:N:70:LEU:HD21	2.55	0.42
2:N:181:ILE:HD11	3:P:771:LEU:HA	2.02	0.42
4:Q:57:ARG:HH22	4:Q:76:LEU:HD12	1.85	0.42
4:Q:134:HIS:N	4:R:40:ASP:O	2.52	0.42
1:A:559:SER:O	1:A:562:HIS:HB3	2.19	0.41
1:A:774:GLU:O	1:A:778:ILE:HG12	2.19	0.41
1:A:1419:LEU:CD1	1:A:1467:ILE:HD13	2.50	0.41
1:A:1591:LYS:HG3	1:A:1592:MET:N	2.34	0.41
1:A:1731:PRO:HA	1:A:1736:PHE:CE2	2.55	0.41
1:A:2121:ASP:HB2	1:A:2127:LYS:HD3	2.01	0.41
1:A:2227:LYS:NZ	1:A:2736:GLN:OE1	2.31	0.41
1:A:2382:VAL:HA	1:A:2385:LEU:HG	2.02	0.41
1:A:2965:TYR:HB3	1:A:3001:CYS:CB	2.43	0.41
1:A:2973:ASP:O	1:A:2976:LEU:HG	2.20	0.41
1:A:3459:ASN:O	1:A:3462:ARG:HB2	2.19	0.41
1:A:3725:ARG:HB3	1:A:3739:ILE:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3901:ARG:HD2	1:A:3971:MET:HE3	2.02	0.41
1:F:942:LEU:HD12	1:F:2783:ILE:HD11	2.02	0.41
1:F:1334:LYS:O	1:F:1338:VAL:HG23	2.18	0.41
1:F:1875:LYS:HE2	1:F:1875:LYS:HB3	1.68	0.41
1:F:1960:LYS:HD3	1:F:1961:PHE:H	1.85	0.41
1:F:2806:LYS:HB2	1:F:2857:CYS:HB2	2.02	0.41
1:F:3239:LYS:O	1:F:3242:MET:HB2	2.20	0.41
1:F:3459:ASN:O	1:F:3463:LEU:HG	2.20	0.41
1:F:3704:GLN:NE2	1:F:3717:VAL:O	2.38	0.41
2:K:104:VAL:HG11	4:R:75:HIS:NE2	2.35	0.41
2:L:61:MET:SD	2:L:66:TYR:HE1	2.43	0.41
3:M:838:LEU:CD2	3:M:867:GLU:H	2.33	0.41
2:N:84:TYR:HD1	2:N:97:PHE:HB2	1.85	0.41
2:N:176:LEU:HB3	2:N:180:PHE:CZ	2.55	0.41
3:P:769:THR:HA	3:P:773:GLN:OE1	2.19	0.41
8:D:22:DG:C8	8:D:23:DT:H71	2.55	0.41
1:A:53:LEU:O	1:A:57:LEU:HG	2.19	0.41
1:A:212:VAL:HG23	1:A:214:GLU:HB2	2.01	0.41
1:A:493:LYS:HA	1:A:494:PRO:HD3	1.91	0.41
1:A:1418:HIS:O	1:A:1422:LYS:NZ	2.34	0.41
1:A:1727:ARG:HA	1:A:1727:ARG:CZ	2.49	0.41
1:A:2195:SER:O	1:A:2722:ARG:HG3	2.20	0.41
1:A:2310:VAL:HG13	1:A:2316:TYR:CE2	2.54	0.41
1:A:3240:MET:SD	1:A:3241:LYS:HG3	2.60	0.41
1:A:3738:ILE:HG12	1:A:3750:PHE:O	2.20	0.41
1:A:3755:GLY:HA2	1:A:3799:ARG:C	2.39	0.41
1:A:3914:SER:O	1:A:3918:LEU:HG	2.20	0.41
1:A:4055:ASN:ND2	1:A:4058:VAL:HG23	2.34	0.41
1:F:324:SER:OG	1:F:368:LEU:O	2.37	0.41
1:F:900:GLU:HB2	1:F:901:MET:CE	2.51	0.41
1:F:1212:LEU:HD12	1:F:1215:GLU:O	2.19	0.41
1:F:1816:ARG:HA	1:F:1819:PHE:CE2	2.55	0.41
1:F:2165:LEU:HD21	1:F:2202:PRO:HA	2.02	0.41
1:F:2181:GLY:HA3	1:F:2184:TYR:HD2	1.86	0.41
1:F:3111:MET:SD	1:F:3112:GLN:N	2.93	0.41
1:F:3465:PHE:CE1	1:F:3469:LEU:HD21	2.56	0.41
1:F:3506:LEU:HD21	1:F:3555:VAL:HG12	2.01	0.41
3:M:823:TYR:C	3:M:871:ARG:HH22	2.21	0.41
3:M:879:ARG:HH11	3:M:888:ILE:HD11	1.84	0.41
2:O:2:GLU:OE1	2:O:27:THR:N	2.53	0.41
2:O:166:VAL:HG12	2:O:170:GLU:OE2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:35:ALA:HB1	4:Q:48:GLN:NE2	2.35	0.41
4:Q:43:GLN:HG2	4:Q:126:ALA:HA	2.02	0.41
10:I:43:DT:H2'	10:I:44:DG:N2	2.35	0.41
1:A:1015:ASP:O	1:A:1019:ASP:HB2	2.21	0.41
1:A:1677:SER:O	1:A:1681:ASP:N	2.53	0.41
1:A:2352:HIS:CD2	1:A:2353:GLN:HG3	2.55	0.41
1:A:2773:ARG:NH1	1:A:2775:TYR:OH	2.53	0.41
1:A:3699:LEU:O	1:A:3718:ARG:HB3	2.20	0.41
1:A:3778:ASP:HB3	1:A:3781:CYS:HB3	2.02	0.41
1:F:965:THR:HG23	1:F:966:PHE:CD1	2.56	0.41
1:F:2225:HIS:ND1	1:F:2230:VAL:HG23	2.35	0.41
1:F:2225:HIS:HB3	1:F:2227:LYS:H	1.85	0.41
1:F:2260:PHE:CD2	1:F:2277:LEU:HD11	2.55	0.41
1:F:3162:ASN:OD1	1:F:3163:THR:N	2.53	0.41
1:F:3347:CYS:O	1:F:3351:ILE:HG13	2.20	0.41
1:F:3629:ARG:O	1:F:3633:ILE:HG23	2.20	0.41
1:F:3768:PHE:O	1:F:3771:MET:HG2	2.19	0.41
1:F:3970:LEU:HD23	1:F:3971:MET:H	1.84	0.41
1:F:4094:PRO:HB2	1:F:4098:LEU:HD13	2.01	0.41
2:K:127:ILE:HD11	2:L:126:LEU:HD13	2.02	0.41
2:K:189:THR:HA	2:K:192:ARG:HE	1.84	0.41
2:L:86:PHE:HB3	2:L:95:PHE:HE1	1.84	0.41
3:P:757:GLU:HG3	3:P:758:TYR:CD2	2.55	0.41
8:D:29:DG:H2'	8:D:30:DT:H71	2.01	0.41
1:A:131:LEU:O	1:A:135:LEU:HD23	2.20	0.41
1:A:576:VAL:HA	1:A:579:LEU:HG	2.03	0.41
1:A:774:GLU:HG3	1:A:858:MET:HE2	2.03	0.41
1:A:889:GLU:HB2	1:A:891:ARG:HE	1.85	0.41
1:A:982:GLN:CD	1:A:2591:ILE:HG23	2.40	0.41
1:A:1334:LYS:O	1:A:1338:VAL:HG23	2.21	0.41
1:A:1339:VAL:HA	1:A:1342:MET:HG3	2.01	0.41
1:A:1633:TRP:CE3	1:A:1674:THR:HG23	2.55	0.41
1:A:1783:ARG:O	1:A:1787:ARG:NE	2.48	0.41
1:A:2835:LYS:HD3	1:A:2839:ASP:OD2	2.20	0.41
1:A:2852:PRO:HG2	1:A:3116:SER:OG	2.21	0.41
1:A:2940:ARG:HD2	1:A:3977:THR:O	2.21	0.41
1:A:2998:SER:HA	1:A:3001:CYS:SG	2.61	0.41
1:A:3360:LEU:CD2	1:A:3373:VAL:HG11	2.50	0.41
1:F:238:MET:HA	1:F:243:GLN:HG3	2.02	0.41
1:F:621:SER:O	1:F:624:ILE:HG12	2.20	0.41
1:F:977:ASP:HB3	1:F:980:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1048:GLN:HA	1:F:1051:LYS:HZ2	1.85	0.41
1:F:1055:ASN:ND2	1:F:1057:LYS:HG3	2.35	0.41
1:F:1104:LEU:HD11	1:F:1138:ILE:HD11	2.02	0.41
1:F:2349:LEU:O	1:F:2353:GLN:HB2	2.20	0.41
1:F:2738:LYS:HZ1	10:I:44:DG:N2	2.17	0.41
1:F:3033:GLU:HB2	1:F:3034:PRO:HD3	2.02	0.41
1:F:3104:GLN:HA	1:F:3107:ILE:HD12	2.01	0.41
1:F:3144:PHE:HD2	1:F:3150:ASN:ND2	2.18	0.41
1:F:3235:LYS:HB2	1:F:3235:LYS:HE2	1.79	0.41
1:F:3571:PHE:O	1:F:3575:LEU:HG	2.20	0.41
3:M:818:VAL:HG13	3:M:864:ILE:HG12	2.03	0.41
2:N:108:LEU:HG	2:N:109:GLY:H	1.84	0.41
2:N:133:THR:HA	2:N:136:GLU:HG3	2.03	0.41
2:O:124:ARG:HE	2:O:127:ILE:HD12	1.85	0.41
4:Q:157:LEU:CD2	4:R:157:LEU:HA	2.50	0.41
9:E:23:DT:H2"	9:E:25:DA:C2	2.55	0.41
1:A:416:SER:O	1:A:419:SER:OG	2.30	0.41
1:A:447:PRO:HD3	1:A:527:TYR:CE2	2.55	0.41
1:A:760:LEU:HD21	1:A:798:GLY:HA3	2.02	0.41
1:A:921:ALA:HB3	1:A:927:LYS:HD2	2.03	0.41
1:A:993:HIS:CD2	1:A:1039:TRP:CD2	3.09	0.41
1:A:997:ASN:O	1:A:1001:PHE:HB2	2.20	0.41
1:A:1100:VAL:HG23	1:A:1101:PHE:N	2.35	0.41
1:A:1626:TRP:CZ2	1:A:1674:THR:HG21	2.56	0.41
1:A:1771:GLN:HE22	1:A:1774:MET:H	1.67	0.41
1:A:2473:MET:HA	1:A:2476:ILE:HD12	2.01	0.41
1:A:2973:ASP:OD1	1:A:2977:ASN:ND2	2.54	0.41
1:A:3330:LEU:HG	1:A:3384:HIS:CE1	2.56	0.41
1:A:3901:ARG:HH11	1:A:3971:MET:CE	2.33	0.41
1:A:4013:TRP:HB2	1:A:4038:TRP:HE1	1.86	0.41
1:A:4059:ILE:HA	1:A:4062:ASP:OD2	2.20	0.41
1:F:243:GLN:O	1:F:246:ARG:HG2	2.19	0.41
1:F:2339:GLU:O	1:F:2342:CYS:N	2.54	0.41
1:F:2584:CYS:SG	1:F:2779:ASP:HB2	2.61	0.41
1:F:3425:ARG:HA	1:F:3428:GLU:OE2	2.21	0.41
1:F:3874:ARG:O	1:F:3878:VAL:HG12	2.20	0.41
3:P:699:CYS:HA	3:P:719:ASP:HB2	2.02	0.41
1:A:175:TYR:O	1:A:227:LEU:HD12	2.20	0.41
1:A:248:ILE:HA	1:A:251:PHE:CD2	2.56	0.41
1:A:646:VAL:O	1:A:650:SER:OG	2.30	0.41
1:A:890:LYS:HG2	1:A:3889:ARG:NH2	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:992:ILE:HD13	1:A:992:ILE:HA	1.95	0.41
1:A:1016:GLY:O	1:A:1026:ARG:HG2	2.21	0.41
1:A:1407:LYS:HA	1:A:1412:LYS:HB3	2.02	0.41
1:A:2295:GLN:HE21	1:A:2298:GLU:C	2.24	0.41
1:A:3080:LEU:HD23	1:A:3080:LEU:HA	1.94	0.41
1:A:3124:SER:O	1:A:3127:THR:OG1	2.32	0.41
1:A:3128:LYS:HA	1:A:3128:LYS:HD3	1.83	0.41
1:A:3226:ASP:O	1:A:3230:LEU:HG	2.20	0.41
1:A:3571:PHE:CZ	1:A:3575:LEU:HD11	2.56	0.41
1:A:3722:PHE:HA	1:A:3741:ARG:HB3	2.02	0.41
1:A:3920:ILE:HA	1:A:3944:HIS:O	2.20	0.41
1:A:3958:LEU:CD2	1:A:4115:ASN:HD22	2.34	0.41
1:F:32:HIS:O	1:F:36:ARG:HG2	2.21	0.41
1:F:333:MET:O	1:F:337:LYS:CB	2.69	0.41
1:F:405:ASP:OD1	1:F:406:ARG:N	2.53	0.41
1:F:771:ASN:HA	1:F:774:GLU:CD	2.40	0.41
1:F:990:GLN:HB3	1:F:2781:PRO:HD3	2.02	0.41
1:F:1333:SER:O	1:F:1337:VAL:HG23	2.21	0.41
1:F:2339:GLU:HA	1:F:2342:CYS:SG	2.61	0.41
1:F:2452:ARG:NE	1:F:2497:GLU:OE1	2.50	0.41
1:F:2492:ASP:OD2	1:F:2494:ASP:HB2	2.20	0.41
1:F:3106:GLY:O	1:F:3110:PHE:HD2	2.03	0.41
1:F:3289:ARG:H	1:F:3292:GLY:HA3	1.85	0.41
2:K:1:MET:N	2:K:26:LYS:HE2	2.35	0.41
2:K:130:CYS:SG	2:K:131:LEU:N	2.93	0.41
2:L:6:SER:O	2:L:7:ARG:HD2	2.20	0.41
2:L:134:ILE:HA	2:L:137:ASN:ND2	2.36	0.41
3:M:754:PHE:O	3:M:758:TYR:N	2.44	0.41
2:N:188:LYS:HG2	3:P:765:TYR:C	2.41	0.41
2:O:178:LYS:HE3	3:P:787:GLN:NE2	2.35	0.41
4:Q:96:SER:O	4:Q:107:ARG:N	2.32	0.41
4:Q:133:GLN:HB2	4:R:42:GLN:C	2.41	0.41
1:A:220:LEU:HD12	1:A:223:CYS:SG	2.61	0.41
1:A:369:PHE:O	1:A:372:PRO:HD2	2.21	0.41
1:A:406:ARG:HA	1:A:409:GLN:HE22	1.86	0.41
1:A:848:LEU:O	1:A:851:ILE:HB	2.21	0.41
1:A:865:GLN:HB2	1:A:3168:TYR:O	2.20	0.41
1:A:886:TRP:CZ3	1:A:911:LEU:HB3	2.55	0.41
1:A:907:LEU:HD12	1:A:910:PHE:CD2	2.56	0.41
1:A:1278:ALA:O	1:A:1282:LEU:N	2.47	0.41
1:A:1375:THR:HA	1:A:1378:GLU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2166:SER:HB3	1:A:2207:LYS:NZ	2.36	0.41
1:A:2182:ILE:O	1:A:2186:VAL:HG23	2.21	0.41
1:A:2883:SER:O	1:A:2883:SER:OG	2.35	0.41
1:A:3505:LEU:HG	1:A:3515:GLN:HE22	1.86	0.41
1:A:3603:LYS:H	1:A:3606:ILE:HB	1.86	0.41
1:F:79:ARG:NH2	1:F:82:ARG:HD2	2.35	0.41
1:F:718:MET:SD	1:F:719:LYS:HG3	2.61	0.41
1:F:959:TYR:O	1:F:963:LYS:HG3	2.21	0.41
1:F:1219:PHE:O	1:F:1223:THR:OG1	2.21	0.41
1:F:1457:GLN:N	1:F:1460:ARG:HH21	2.18	0.41
1:F:1934:LEU:HA	1:F:1937:ARG:NE	2.34	0.41
1:F:2586:PHE:HZ	1:F:2780:LEU:HB2	1.86	0.41
1:F:3837:CYS:HA	1:F:3841:ASP:HB2	2.03	0.41
1:F:4085:LYS:O	1:F:4089:ILE:HG23	2.19	0.41
2:K:133:THR:O	2:K:136:GLU:HG2	2.21	0.41
2:L:58:ASP:OD1	2:L:59:MET:N	2.54	0.41
2:N:192:ARG:NE	3:P:766:PHE:O	2.54	0.41
2:O:42:ALA:CB	2:O:122:VAL:HB	2.51	0.41
3:P:813:PHE:N	3:P:848:HIS:HB2	2.35	0.41
4:R:52:SER:O	4:R:56:GLN:HG2	2.20	0.41
4:R:84:LEU:HD11	4:R:86:ASP:HB2	2.03	0.41
1:A:14:ARG:HG3	1:A:15:LEU:HD22	2.03	0.41
1:A:373:CYS:HB2	1:A:381:VAL:HG22	2.03	0.41
1:A:886:TRP:CD2	1:A:964:ARG:HG3	2.55	0.41
1:A:1384:PHE:HB3	1:A:1386:ILE:HG22	2.03	0.41
1:A:1627:LYS:HA	1:A:1627:LYS:HD3	1.89	0.41
1:A:2307:MET:HE1	1:A:2319:ALA:HB3	2.02	0.41
1:A:2397:CYS:O	1:A:2401:VAL:HG23	2.21	0.41
1:A:2534:ASN:HD22	1:A:2537:ASP:HB2	1.85	0.41
1:A:2921:LEU:O	1:A:2924:VAL:HG12	2.21	0.41
1:A:2985:GLU:OE1	1:A:2985:GLU:N	2.52	0.41
1:A:3042:PRO:HA	1:A:3045:ILE:HG12	2.03	0.41
1:A:3238:MET:HA	1:A:3241:LYS:HD2	2.03	0.41
1:A:3557:ARG:O	1:A:3561:LYS:HG3	2.21	0.41
1:A:3806:LEU:HD11	1:A:3938:ILE:HD12	2.03	0.41
1:F:418:ALA:HB3	1:F:463:LYS:NZ	2.35	0.41
1:F:1651:LYS:HA	1:F:1651:LYS:HD2	1.94	0.41
1:F:1783:ARG:HE	1:F:1830:HIS:CB	2.34	0.41
1:F:1805:PHE:CD1	1:F:1820:VAL:HB	2.56	0.41
1:F:2104:MET:SD	1:F:2105:HIS:N	2.93	0.41
1:F:2524:PHE:O	1:F:2530:ARG:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2527:HIS:HB3	1:F:2530:ARG:NH1	2.35	0.41
1:F:3378:TYR:CD1	1:F:3419:PHE:HE1	2.38	0.41
1:F:3422:GLN:NE2	1:F:3423:GLN:HG2	2.36	0.41
1:F:3449:LYS:HG2	1:F:3452:LYS:HZ3	1.86	0.41
1:F:3474:ARG:HG3	1:F:3475:TYR:CD2	2.56	0.41
1:F:3582:GLU:HG2	1:F:3671:ASN:HB3	2.03	0.41
1:F:3811:THR:OG1	1:F:3926:ASN:OD1	2.35	0.41
2:N:88:PHE:HE1	2:N:93:CYS:HA	1.86	0.41
2:N:99:LYS:HB2	2:N:108:LEU:HB2	2.02	0.41
4:Q:170:SER:O	4:R:172:ALA:HA	2.21	0.41
4:R:24:LEU:HG	4:R:210:PHE:CZ	2.56	0.41
1:A:23:ASP:HB3	1:A:34:LEU:HD11	2.02	0.41
1:A:229:SER:HB2	1:A:277:LEU:HD12	2.02	0.41
1:A:637:LYS:HA	1:A:637:LYS:HD2	1.73	0.41
1:A:638:GLN:HB2	1:A:641:PHE:HD2	1.86	0.41
1:A:713:GLU:O	1:A:717:LYS:HG2	2.21	0.41
1:A:737:PRO:HG2	1:A:740:ILE:HG22	2.03	0.41
1:A:901:MET:HA	1:F:2570:PRO:HB3	2.03	0.41
1:A:1000:LYS:HA	1:A:1004:GLN:NE2	2.35	0.41
1:A:1112:ALA:HA	1:A:1180:GLN:HG2	2.03	0.41
1:A:1155:ARG:O	1:A:3693:GLU:HG2	2.20	0.41
1:A:1330:TYR:O	1:A:1333:SER:OG	2.32	0.41
1:A:2312:TYR:CE2	8:D:17:DT:P	3.14	0.41
1:A:2387:PRO:HG3	1:A:2418:LYS:HD2	2.03	0.41
1:A:2467:THR:N	1:A:2470:ARG:HH21	2.18	0.41
1:A:2739:LEU:HA	1:A:2742:MET:HG2	2.02	0.41
1:A:2893:LEU:HB3	1:A:2926:LEU:HD21	2.03	0.41
1:A:3192:LYS:O	1:A:3195:GLU:HG2	2.20	0.41
1:A:3257:LYS:O	1:A:3261:GLU:HG3	2.21	0.41
1:A:3503:VAL:HG22	1:A:3536:SER:HB3	2.02	0.41
1:A:3580:ASN:HB2	1:A:3583:LEU:HD12	2.03	0.41
1:A:3584:LEU:H	1:A:3584:LEU:HD12	1.85	0.41
1:A:3881:ASP:O	1:A:3885:ARG:HG3	2.21	0.41
1:A:4051:LEU:HD12	1:A:4051:LEU:HA	1.86	0.41
1:A:4064:LEU:O	1:A:4068:HIS:HB3	2.21	0.41
1:F:31:GLY:HA3	1:F:77:GLU:HB2	2.03	0.41
1:F:156:PHE:HA	1:F:159:GLU:HG3	2.02	0.41
1:F:238:MET:HG2	1:F:283:SER:N	2.36	0.41
1:F:652:GLU:OE2	1:F:656:GLN:NE2	2.53	0.41
1:F:745:VAL:O	1:F:749:VAL:HG23	2.21	0.41
1:F:826:PHE:O	1:F:836:LYS:NZ	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:985:GLU:N	1:F:986:PRO:HD2	2.36	0.41
1:F:1058:SER:O	1:F:1062:ARG:HG2	2.21	0.41
1:F:1206:LEU:HA	1:F:1209:LYS:HG2	2.03	0.41
1:F:1418:HIS:O	1:F:1422:LYS:HG2	2.21	0.41
1:F:1591:LYS:HG3	1:F:1592:MET:H	1.85	0.41
1:F:1646:LEU:O	1:F:1649:LEU:HG	2.21	0.41
1:F:1710:LEU:O	1:F:1713:VAL:HG22	2.20	0.41
1:F:1712:ARG:NE	1:F:1712:ARG:O	2.54	0.41
1:F:1818:SER:HB2	1:F:1822:ARG:HE	1.86	0.41
1:F:2164:TRP:O	1:F:2168:LEU:HG	2.21	0.41
1:F:2214:ARG:HG2	1:F:2218:PHE:CZ	2.56	0.41
1:F:2284:ASP:OD1	1:F:2284:ASP:N	2.54	0.41
1:F:2420:PHE:CE2	1:F:2439:ILE:HD11	2.56	0.41
1:F:2859:GLN:O	1:F:2862:SER:OG	2.26	0.41
1:F:3384:HIS:HA	1:F:3387:GLU:OE1	2.21	0.41
1:F:3557:ARG:HG3	1:F:3561:LYS:NZ	2.36	0.41
1:F:3608:LYS:HG3	1:F:3612:ARG:CZ	2.50	0.41
1:F:3751:LEU:HD12	1:F:3751:LEU:HA	1.97	0.41
1:F:4115:ASN:OD1	1:F:4116:ILE:N	2.54	0.41
2:K:8:ILE:HG12	2:K:20:LEU:HD22	2.03	0.41
2:K:98:GLU:HA	2:K:108:LEU:HB2	2.03	0.41
2:K:150:ARG:HD3	2:K:153:ARG:HH21	1.85	0.41
2:L:13:GLU:O	2:L:16:ILE:HG22	2.21	0.41
2:L:179:ARG:O	2:L:183:VAL:HG12	2.21	0.41
3:M:723:PRO:O	3:M:727:LEU:HG	2.21	0.41
3:M:813:PHE:HB3	3:M:816:HIS:CG	2.56	0.41
2:N:32:PHE:HE1	2:N:74:LEU:HD21	1.86	0.41
2:N:93:CYS:O	2:N:113:LEU:HB2	2.21	0.41
2:N:151:LEU:HD12	2:O:148:ASN:OD1	2.21	0.41
2:O:104:VAL:HG13	2:O:106:PHE:CZ	2.56	0.41
3:P:715:SER:OG	3:P:718:HIS:HE1	2.03	0.41
3:P:733:LYS:HA	3:P:733:LYS:HD3	1.75	0.41
3:P:853:VAL:HG11	3:P:860:VAL:HG21	2.02	0.41
4:Q:32:GLN:C	4:Q:50:ASP:HA	2.41	0.41
4:Q:131:VAL:HG23	4:R:136:ILE:HG12	2.03	0.41
4:R:11:GLN:HG3	4:R:26:LYS:HD2	2.02	0.41
4:R:65:LEU:CD2	4:R:119:TRP:HE3	2.33	0.41
8:D:37:DG:N3	9:E:20:DT:H4'	2.36	0.41
9:E:18:DG:N3	9:E:19:DC:N4	2.69	0.41
10:I:32:DA:N1	11:J:25:DT:C4	2.89	0.41
11:J:17:DT:H6	11:J:17:DT:H2'	1.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:220:LEU:HD12	1:A:220:LEU:HA	1.88	0.41
1:A:327:VAL:HG13	1:A:372:PRO:HG3	2.02	0.41
1:A:489:ARG:O	1:A:493:LYS:NZ	2.54	0.41
1:A:1013:ILE:O	1:A:1017:ILE:HB	2.21	0.41
1:A:2330:VAL:O	1:A:2330:VAL:HG13	2.21	0.41
1:A:2752:LYS:O	1:A:2756:GLU:HG2	2.21	0.41
1:A:3499:ILE:HA	1:A:3502:MET:SD	2.61	0.41
1:A:3571:PHE:CE1	1:A:3575:LEU:HD21	2.55	0.41
1:A:3789:ARG:HD3	1:A:3938:ILE:HD11	2.02	0.41
1:A:3929:MET:HG2	1:A:3940:ILE:HD13	2.03	0.41
1:F:87:LYS:HD3	1:F:831:LEU:HD13	2.02	0.41
1:F:242:PRO:HB2	1:F:246:ARG:NH2	2.36	0.41
1:F:275:PHE:CE2	1:F:319:PHE:HB2	2.56	0.41
1:F:341:PHE:HB3	1:F:345:PHE:CE2	2.56	0.41
1:F:439:VAL:O	1:F:443:ILE:HG12	2.19	0.41
1:F:745:VAL:HA	1:F:748:TYR:CD2	2.52	0.41
1:F:1342:MET:HE3	1:F:1398:VAL:HG13	2.03	0.41
1:F:1382:ILE:HD11	1:F:1385:ASN:HA	2.02	0.41
1:F:1867:ILE:HD11	1:F:1940:TYR:HB2	2.03	0.41
1:F:2251:ILE:HD12	1:F:2253:TYR:OH	2.21	0.41
1:F:2305:ASN:O	1:F:2308:SER:OG	2.28	0.41
1:F:2871:LEU:HD12	1:F:2871:LEU:HA	1.93	0.41
1:F:2923:TRP:CE3	1:F:2942:ILE:HG23	2.56	0.41
1:F:3142:ILE:O	1:F:3145:ILE:HG12	2.21	0.41
1:F:3235:LYS:HB3	1:F:3239:LYS:NZ	2.36	0.41
1:F:3516:HIS:HA	1:F:3554:PHE:HZ	1.86	0.41
2:K:188:LYS:O	2:K:192:ARG:HG3	2.21	0.41
2:O:22:VAL:HG21	2:O:34:ILE:HD12	2.03	0.41
3:P:878:PHE:O	3:P:881:THR:OG1	2.30	0.41
4:Q:132:SER:H	4:R:43:GLN:H	1.69	0.41
4:R:74:CYS:O	4:R:78:ASN:N	2.32	0.41
1:A:95:LYS:HA	1:A:95:LYS:CE	2.51	0.40
1:A:357:LYS:O	1:A:361:ILE:HG12	2.21	0.40
1:A:672:ILE:HA	1:A:675:ARG:HE	1.86	0.40
1:A:1468:LEU:HD21	1:A:1476:HIS:ND1	2.36	0.40
1:A:1569:THR:O	1:A:1573:LYS:HE2	2.20	0.40
1:A:2224:PHE:HA	1:A:2231:PHE:CE1	2.56	0.40
1:A:2481:HIS:NE2	1:A:2530:ARG:HG3	2.35	0.40
1:A:2500:LYS:HE2	1:A:2500:LYS:HB2	1.92	0.40
1:A:2761:LEU:HD12	1:A:2764:LYS:HD2	2.03	0.40
1:A:3044:MET:O	1:A:3047:SER:OG	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3074:GLN:O	1:A:3077:ILE:HG12	2.21	0.40
1:A:3189:PHE:O	1:A:3193:ILE:HG12	2.21	0.40
1:A:3319:ASN:HB2	1:A:3321:LEU:HD23	2.02	0.40
1:A:3714:GLU:OE1	1:A:3714:GLU:N	2.54	0.40
1:A:4092:GLN:O	1:A:4095:GLU:HB2	2.21	0.40
1:F:32:HIS:O	1:F:35:ILE:HG22	2.21	0.40
1:F:207:GLN:HE22	1:F:216:LYS:C	2.24	0.40
1:F:393:LYS:O	1:F:396:PHE:HB3	2.21	0.40
1:F:738:HIS:HB2	1:F:780:ILE:HD11	2.03	0.40
1:F:1372:LEU:HD22	1:F:1402:LEU:HD21	2.03	0.40
1:F:2247:ASP:OD1	1:F:2247:ASP:N	2.48	0.40
1:F:3262:LEU:HD13	1:F:3272:TRP:HH2	1.86	0.40
1:F:3712:LEU:HD13	1:F:3712:LEU:HA	1.91	0.40
1:F:3980:MET:O	1:F:3983:ILE:HB	2.22	0.40
2:K:31:GLY:HA3	2:K:47:VAL:O	2.21	0.40
2:K:51:GLU:O	2:K:54:GLN:HG3	2.21	0.40
2:O:22:VAL:HG13	2:O:24:TRP:CZ3	2.57	0.40
1:A:914:VAL:O	1:A:918:ALA:N	2.35	0.40
1:A:1087:ARG:O	1:A:1090:ARG:NE	2.53	0.40
1:A:1475:LEU:HD21	1:A:1527:ARG:HB2	2.03	0.40
1:A:2044:ASP:O	1:A:2048:GLY:N	2.53	0.40
1:A:2428:ASP:O	1:A:2432:GLN:HG2	2.21	0.40
1:A:2446:LEU:HA	1:A:2446:LEU:HD12	1.81	0.40
1:A:2461:PHE:HB2	1:A:2473:MET:SD	2.62	0.40
1:A:2834:GLN:HG3	1:A:2838:GLN:HE21	1.86	0.40
1:A:3312:VAL:O	1:A:3316:LEU:HD22	2.21	0.40
1:A:3420:CYS:HB3	1:A:3446:VAL:HG11	2.04	0.40
1:A:3999:THR:HA	1:A:4002:MET:SD	2.61	0.40
1:F:433:PRO:HA	1:F:436:GLU:HG3	2.03	0.40
1:F:634:LEU:N	1:F:635:PRO:HD2	2.36	0.40
1:F:1627:LYS:HZ2	1:F:1670:GLU:HB2	1.86	0.40
1:F:1767:CYS:HA	1:F:1822:ARG:HD2	2.03	0.40
1:F:1851:LEU:HD11	1:F:1874:TYR:CE1	2.56	0.40
1:F:1963:GLN:HB2	1:F:2125:TRP:CE2	2.56	0.40
1:F:2101:VAL:HG11	1:F:2153:THR:HG22	2.02	0.40
1:F:2219:LEU:O	1:F:2223:VAL:N	2.53	0.40
1:F:2435:CYS:O	1:F:2439:ILE:HG12	2.22	0.40
1:F:2564:GLU:HG2	1:F:2795:GLN:OE1	2.21	0.40
1:F:2850:PHE:CE2	1:F:2879:GLY:HA2	2.57	0.40
1:F:3169:PRO:HB2	1:F:3179:TRP:CH2	2.57	0.40
2:K:124:ARG:O	2:K:127:ILE:HG22	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:192:ARG:NH2	3:M:768:ASP:OD1	2.36	0.40
3:M:678:LEU:HD23	3:M:681:ARG:NH2	2.37	0.40
2:N:36:LEU:HD23	2:N:36:LEU:H	1.86	0.40
3:P:681:ARG:HA	3:P:684:GLU:OE1	2.21	0.40
4:R:93:ALA:HA	4:R:111:GLU:HB3	2.03	0.40
11:J:31:DT:C5	11:J:32:DT:C4	3.09	0.40
1:A:321:LYS:HD3	1:A:325:ASN:HD21	1.86	0.40
1:A:453:MET:HA	1:A:456:VAL:HB	2.03	0.40
1:A:527:TYR:HB2	1:A:629:PHE:CE2	2.56	0.40
1:A:531:PHE:HA	1:A:534:LEU:HD12	2.04	0.40
1:A:729:CYS:O	1:A:733:LEU:HD23	2.21	0.40
1:A:928:VAL:HB	1:A:2769:VAL:HG11	2.03	0.40
1:A:1430:GLU:N	1:A:1430:GLU:OE1	2.54	0.40
1:A:2268:LYS:HG2	1:A:2315:VAL:CG2	2.52	0.40
1:A:2356:MET:CE	1:A:2358:ASP:HB3	2.52	0.40
1:A:3300:VAL:HG23	1:A:3300:VAL:O	2.21	0.40
1:A:3358:ARG:O	1:A:3362:LEU:N	2.43	0.40
1:A:3517:SER:O	1:A:3521:ILE:HG13	2.21	0.40
1:A:3586:LYS:HG2	1:A:3664:ASN:HD21	1.87	0.40
1:F:51:LEU:HG	1:F:52:ALA:N	2.37	0.40
1:F:232:CYS:HA	1:F:235:THR:OG1	2.21	0.40
1:F:1093:GLU:O	1:F:1096:VAL:HG22	2.22	0.40
1:F:1098:GLN:OE1	1:F:1151:ARG:HA	2.22	0.40
1:F:1124:ILE:HG13	1:F:1125:GLN:N	2.37	0.40
1:F:1231:GLN:HG3	1:F:1235:ILE:HD11	2.04	0.40
1:F:1583:MET:SD	1:F:1628:LYS:HB2	2.61	0.40
1:F:1751:GLU:HG2	1:F:1785:ILE:HG23	2.03	0.40
1:F:2920:VAL:HG12	1:F:2947:ILE:HA	2.02	0.40
1:F:3354:ASP:N	1:F:3354:ASP:OD1	2.54	0.40
1:F:3586:LYS:HD3	1:F:3586:LYS:HA	1.95	0.40
1:F:3774:ILE:HD11	1:F:3998:LEU:HD21	2.03	0.40
2:K:176:LEU:HD11	2:L:173:GLU:HG3	2.03	0.40
2:L:8:ILE:HG21	2:L:86:PHE:CE2	2.56	0.40
3:M:845:LEU:HD21	3:M:893:TRP:HZ3	1.87	0.40
2:N:179:ARG:O	2:N:182:LEU:HG	2.21	0.40
2:N:184:LEU:O	2:N:188:LYS:HE2	2.21	0.40
2:O:20:LEU:HD21	2:O:35:THR:HG22	2.04	0.40
4:Q:1:MET:CE	4:Q:3:GLU:HG3	2.52	0.40
4:Q:54:VAL:HG13	4:Q:57:ARG:NH2	2.37	0.40
4:Q:65:LEU:HG	4:Q:66:THR:H	1.87	0.40
4:R:20:GLU:HB3	4:R:99:CYS:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:D:24:DT:N3	9:E:33:DA:H2	2.18	0.40
11:J:24:DT:H2"	11:J:25:DT:N1	2.36	0.40
1:A:127:ALA:O	1:A:131:LEU:HG	2.22	0.40
1:A:147:PHE:C	1:A:148:LYS:HD3	2.41	0.40
1:A:160:LEU:HD12	1:A:161:ALA:N	2.35	0.40
1:A:643:GLU:O	1:A:646:VAL:HG22	2.22	0.40
1:A:717:LYS:HA	1:A:717:LYS:HD2	1.87	0.40
1:A:835:LYS:HB3	1:A:835:LYS:HE3	1.81	0.40
1:A:1693:VAL:HG11	1:A:1746:PHE:CG	2.56	0.40
1:A:1820:VAL:HG21	1:A:1872:GLY:HA2	2.03	0.40
1:A:2880:CYS:HA	1:A:2885:GLN:HB2	2.02	0.40
1:A:3088:LEU:HD21	1:A:3138:ILE:HG21	2.04	0.40
1:A:3164:TRP:O	1:A:3168:TYR:N	2.54	0.40
1:A:3483:MET:SD	1:A:3511:ALA:HA	2.62	0.40
1:A:3492:CYS:SG	1:A:3711:PRO:HD3	2.61	0.40
1:A:3958:LEU:HD22	1:A:4115:ASN:CB	2.50	0.40
1:A:3970:LEU:HD23	1:A:3971:MET:H	1.86	0.40
1:A:3995:PRO:O	1:A:3999:THR:HG23	2.22	0.40
1:F:208:MET:SD	1:F:252:VAL:HG11	2.62	0.40
1:F:217:LEU:N	1:F:218:PRO:HD2	2.35	0.40
1:F:341:PHE:O	1:F:344:GLN:N	2.55	0.40
1:F:763:THR:OG1	1:F:764:PRO:HD3	2.22	0.40
1:F:828:LYS:HE2	1:F:828:LYS:HA	2.04	0.40
1:F:2295:GLN:HG3	1:F:2298:GLU:H	1.85	0.40
1:F:2307:MET:CE	1:F:2363:CYS:HB3	2.51	0.40
1:F:2776:ARG:HE	1:F:2776:ARG:HB2	1.76	0.40
1:F:3320:ILE:HD13	1:F:3394:GLU:HB2	2.03	0.40
1:F:3463:LEU:HD23	1:F:3498:TRP:CH2	2.56	0.40
1:F:3508:LYS:HB3	1:F:3510:GLN:HG2	2.03	0.40
1:F:3551:ASN:O	1:F:3555:VAL:HG13	2.21	0.40
3:M:740:PRO:HD2	3:M:741:ARG:NH1	2.35	0.40
2:N:57:ASP:HB3	4:Q:62:ASN:OD1	2.22	0.40
2:O:166:VAL:O	2:O:170:GLU:HG3	2.21	0.40
4:R:31:LYS:HD2	4:R:31:LYS:HA	1.86	0.40
1:A:114:VAL:O	1:A:119:ARG:HB3	2.22	0.40
1:A:1020:PRO:HA	1:A:1073:PHE:CZ	2.57	0.40
1:A:1301:ILE:HA	1:A:1334:LYS:HZ2	1.87	0.40
1:A:1445:ARG:HB3	1:A:1510:LEU:HD11	2.03	0.40
1:A:2155:GLU:H	1:A:2155:GLU:CD	2.21	0.40
1:A:2217:ASN:O	1:A:2221:LYS:HG2	2.21	0.40
1:A:2547:SER:C	1:A:2549:LYS:H	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3035:PHE:HA	1:A:3038:GLU:CG	2.52	0.40
1:A:3325:ASP:O	1:A:3329:LEU:HG	2.21	0.40
1:A:3364:GLY:HA3	1:A:3373:VAL:HG13	2.03	0.40
1:A:3578:LEU:HD11	1:A:3681:LYS:HE3	2.04	0.40
1:A:4010:SER:O	1:A:4014:LYS:HG2	2.21	0.40
1:F:13:LEU:HB2	1:F:59:PHE:CZ	2.57	0.40
1:F:204:LEU:HD21	1:F:224:LEU:HD22	2.04	0.40
1:F:275:PHE:HE2	1:F:319:PHE:HB2	1.87	0.40
1:F:452:LYS:O	1:F:456:VAL:HG23	2.22	0.40
1:F:580:ASP:O	1:F:581:LEU:HD23	2.22	0.40
1:F:793:LEU:HD21	1:F:866:ILE:HG22	2.02	0.40
1:F:1144:SER:O	1:F:1147:LYS:NZ	2.45	0.40
1:F:1184:ARG:HD3	1:F:1266:CYS:SG	2.61	0.40
1:F:1560:TYR:CZ	1:F:1596:VAL:HA	2.57	0.40
1:F:2925:GLU:O	1:F:2929:LEU:HG	2.22	0.40
1:F:3154:GLN:O	1:F:3156:PRO:HD3	2.21	0.40
1:F:3227:ILE:O	1:F:3231:ILE:HG23	2.22	0.40
1:F:3534:ILE:O	1:F:3538:GLU:HG3	2.20	0.40
1:F:3557:ARG:O	1:F:3561:LYS:NZ	2.31	0.40
1:F:3628:PHE:O	1:F:3631:LYS:HG2	2.21	0.40
1:F:3958:LEU:HB2	1:F:4115:ASN:ND2	2.35	0.40
1:F:3998:LEU:O	1:F:4002:MET:HE3	2.22	0.40
3:M:659:PHE:HB2	3:M:685:PHE:O	2.21	0.40
3:M:815:ARG:NH1	3:M:815:ARG:HA	2.37	0.40
2:O:43:TRP:HD1	2:O:116:VAL:H	1.69	0.40
2:O:55:GLU:HB3	2:O:66:TYR:CZ	2.56	0.40
4:Q:134:HIS:HA	4:Q:137:ARG:HH21	1.85	0.40
9:E:43:DT:H2'	9:E:44:DG:N7	2.36	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3477/4128 (84%)	3144 (90%)	328 (9%)	5 (0%)	51	85
1	F	3467/4128 (84%)	3148 (91%)	319 (9%)	0	100	100
2	K	199/336 (59%)	179 (90%)	20 (10%)	0	100	100
2	L	191/336 (57%)	182 (95%)	9 (5%)	0	100	100
2	N	199/336 (59%)	186 (94%)	13 (6%)	0	100	100
2	O	190/336 (56%)	183 (96%)	7 (4%)	0	100	100
3	M	256/911 (28%)	238 (93%)	18 (7%)	0	100	100
3	P	242/911 (27%)	218 (90%)	21 (9%)	3 (1%)	13	50
4	Q	210/299 (70%)	185 (88%)	24 (11%)	1 (0%)	29	68
4	R	219/299 (73%)	192 (88%)	26 (12%)	1 (0%)	29	68
5	a	503/609 (83%)	464 (92%)	39 (8%)	0	100	100
5	h	503/609 (83%)	471 (94%)	32 (6%)	0	100	100
6	b	640/732 (87%)	599 (94%)	41 (6%)	0	100	100
6	j	624/732 (85%)	597 (96%)	27 (4%)	0	100	100
7	c	21/204 (10%)	21 (100%)	0	0	100	100
7	i	21/204 (10%)	21 (100%)	0	0	100	100
All	All	10962/15110 (72%)	10028 (92%)	924 (8%)	10 (0%)	54	85

All (10) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	218	PRO
3	P	814	ARG
4	Q	131	VAL
1	A	216	LYS
3	P	812	MET
3	P	813	PHE
4	R	42	GLN
1	A	3170	ASP
1	A	3168	TYR
1	A	3304	VAL

### 5.3.2 Protein sidechains ⓘ

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



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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3097/3671 (84%)	3082 (100%)	15 (0%)	88	93
1	F	3109/3671 (85%)	3095 (100%)	14 (0%)	88	93
2	K	180/303 (59%)	180 (100%)	0	100	100
2	L	176/303 (58%)	174 (99%)	2 (1%)	73	85
2	N	178/303 (59%)	177 (99%)	1 (1%)	86	92
2	O	177/303 (58%)	176 (99%)	1 (1%)	86	92
3	M	232/808 (29%)	231 (100%)	1 (0%)	91	94
3	P	217/808 (27%)	213 (98%)	4 (2%)	59	77
4	Q	192/262 (73%)	192 (100%)	0	100	100
4	R	200/262 (76%)	199 (100%)	1 (0%)	88	93
5	a	445/548 (81%)	444 (100%)	1 (0%)	93	96
5	h	445/548 (81%)	445 (100%)	0	100	100
6	b	583/649 (90%)	582 (100%)	1 (0%)	93	96
6	j	562/649 (87%)	561 (100%)	1 (0%)	93	96
7	c	18/160 (11%)	18 (100%)	0	100	100
7	i	17/160 (11%)	17 (100%)	0	100	100
All	All	9828/13408 (73%)	9786 (100%)	42 (0%)	91	94

All (42) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	70	ARG
1	A	217	LEU
1	A	310	LYS
1	A	476	ARG
1	A	782	ARG
1	A	1155	ARG
1	A	2263	LYS
1	A	2730	ARG
1	A	2734	ARG
1	A	3646	LYS
1	A	3734	ARG
1	A	3923	ARG
1	A	4049	ARG
1	A	4075	ARG

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Mol	Chain	Res	Type
1	A	4090	ARG
1	F	24	ARG
1	F	61	ARG
1	F	1170	LYS
1	F	1331	ASN
1	F	1727	ARG
1	F	1768	ARG
1	F	2120	ARG
1	F	2170	GLN
1	F	2311	ARG
1	F	2730	ARG
1	F	3874	ARG
1	F	4049	ARG
1	F	4075	ARG
1	F	4090	ARG
2	L	26	LYS
2	L	107	ARG
3	M	782	LYS
2	N	107	ARG
2	O	7	ARG
3	P	741	ARG
3	P	782	LYS
3	P	813	PHE
3	P	884	ARG
4	R	63	LYS
5	a	230	ARG
6	b	656	ASN
6	j	238	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (76) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	40	GLN
1	A	207	GLN
1	A	250	ASN
1	A	935	HIS
1	A	1071	ASN
1	A	1201	ASN
1	A	1331	ASN
1	A	1465	HIS
1	A	1476	HIS
1	A	1509	GLN

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Mol	Chain	Res	Type
1	A	2234	ASN
1	A	2348	GLN
1	A	2352	HIS
1	A	2354	ASN
1	A	2472	GLN
1	A	2574	ASN
1	A	2954	GLN
1	A	3084	GLN
1	A	3133	GLN
1	A	3148	GLN
1	A	3166	ASN
1	A	3384	HIS
1	A	3494	GLN
1	A	3664	ASN
1	A	3743	HIS
1	F	40	GLN
1	F	192	ASN
1	F	207	GLN
1	F	330	ASN
1	F	399	GLN
1	F	753	GLN
1	F	1047	GLN
1	F	1071	ASN
1	F	1115	HIS
1	F	1201	ASN
1	F	1268	ASN
1	F	1568	ASN
1	F	1830	HIS
1	F	2170	GLN
1	F	2233	HIS
1	F	2234	ASN
1	F	2291	GLN
1	F	2295	GLN
1	F	2306	ASN
1	F	2432	GLN
1	F	2574	ASN
1	F	2971	GLN
1	F	2977	ASN
1	F	3112	GLN
1	F	3113	ASN
1	F	3162	ASN
1	F	3326	GLN

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Mol	Chain	Res	Type
1	F	3422	GLN
1	F	3515	GLN
1	F	3787	GLN
1	F	4088	ASN
2	L	18	HIS
2	L	141	ASN
3	M	718	HIS
2	N	18	HIS
2	N	137	ASN
2	O	21	GLN
3	P	718	HIS
4	Q	43	GLN
4	Q	75	HIS
4	R	62	ASN
5	a	65	GLN
6	b	350	GLN
6	b	411	HIS
6	b	488	GLN
6	b	500	HIS
6	b	551	GLN
5	h	416	GLN
6	j	33	GLN
6	j	312	GLN
6	j	614	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

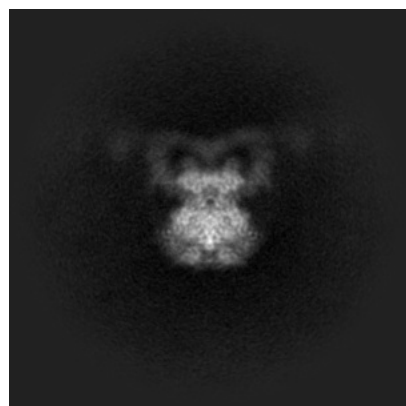
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-16070. These allow visual inspection of the internal detail of the map and identification of artifacts.

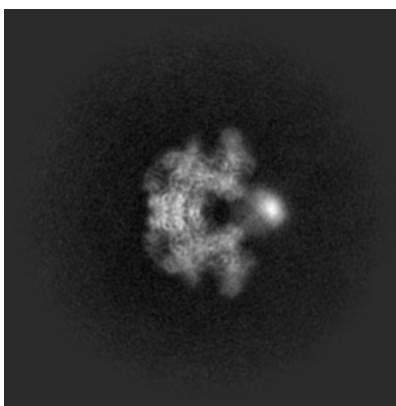
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

### 6.1 Orthogonal projections [i](#)

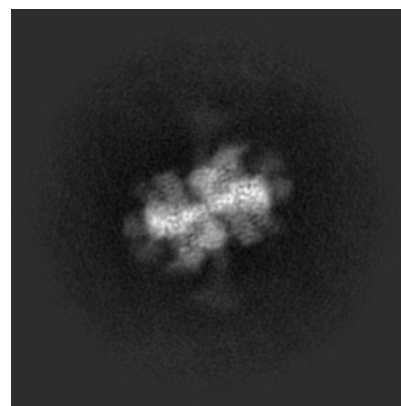
#### 6.1.1 Primary map



X

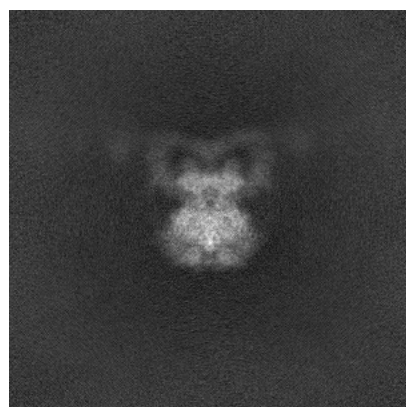


Y

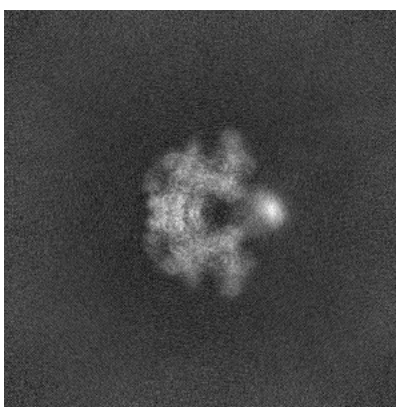


Z

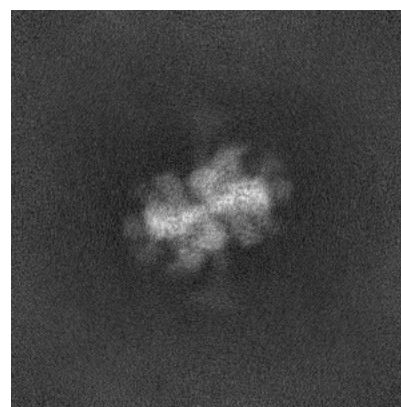
#### 6.1.2 Raw map



X



Y

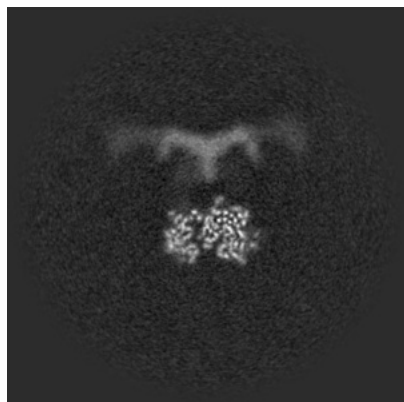


Z

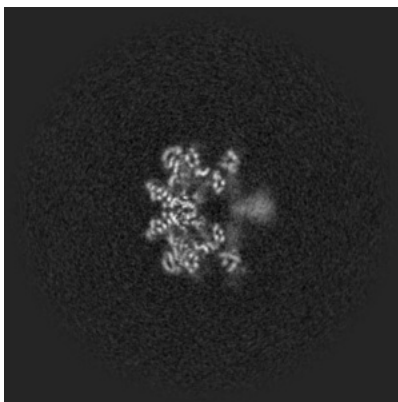
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

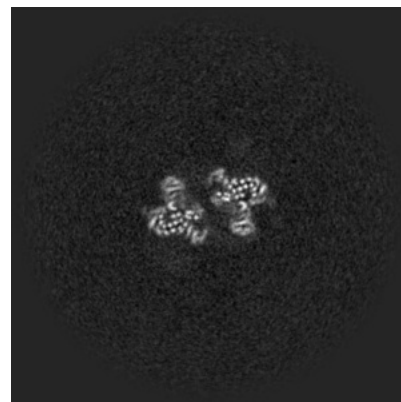
### 6.2.1 Primary map



X Index: 260

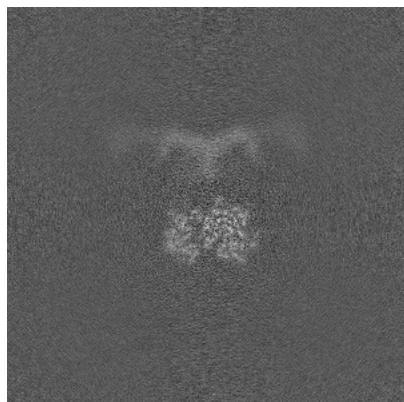


Y Index: 260

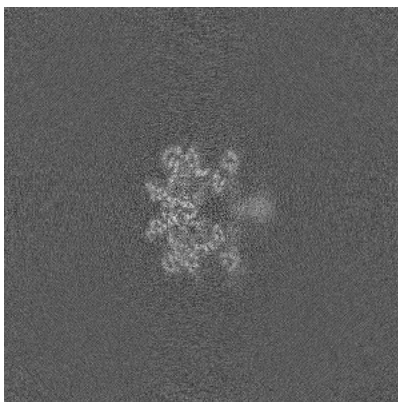


Z Index: 260

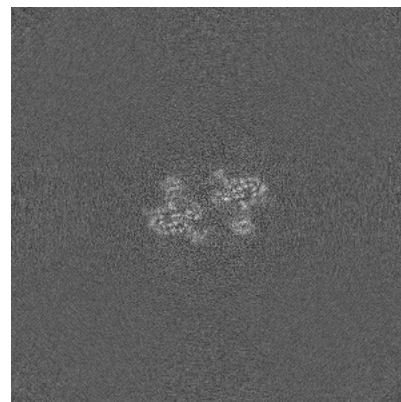
### 6.2.2 Raw map



X Index: 260



Y Index: 260



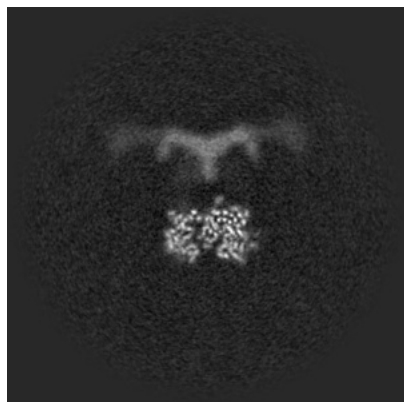
Z Index: 260

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

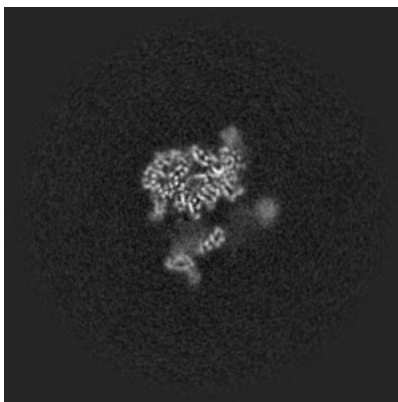


## 6.3 Largest variance slices [i](#)

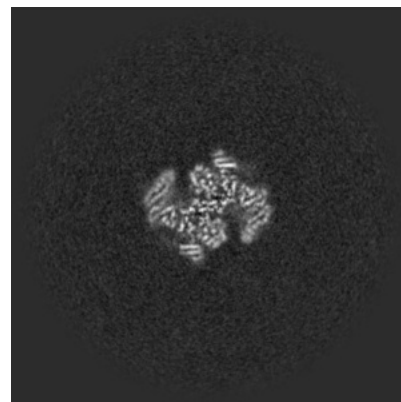
### 6.3.1 Primary map



X Index: 259

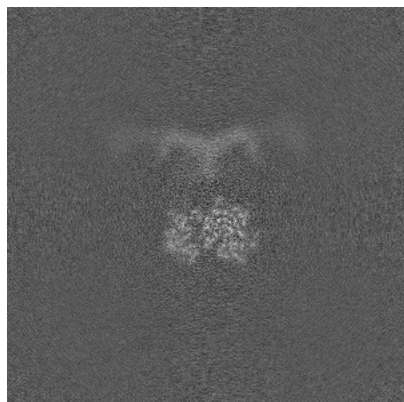


Y Index: 275

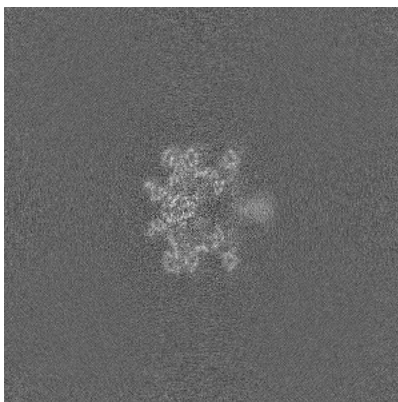


Z Index: 229

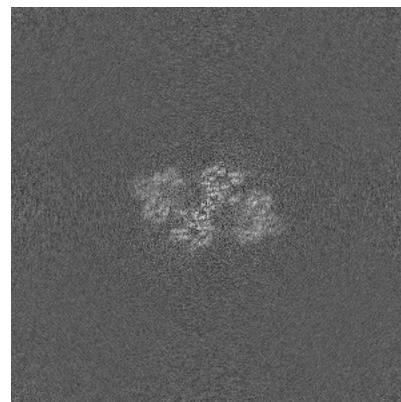
### 6.3.2 Raw map



X Index: 260



Y Index: 262

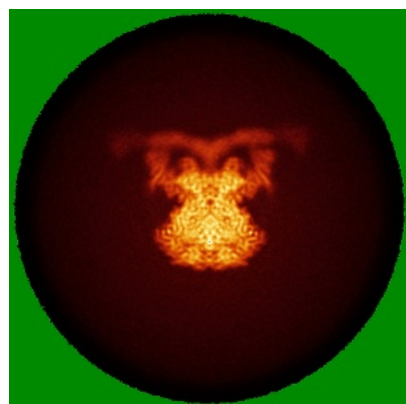


Z Index: 242

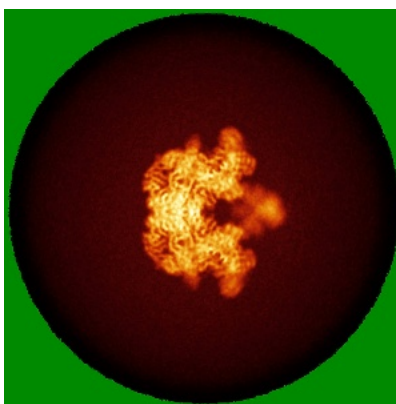
The images above show the largest variance slices of the map in three orthogonal directions.

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

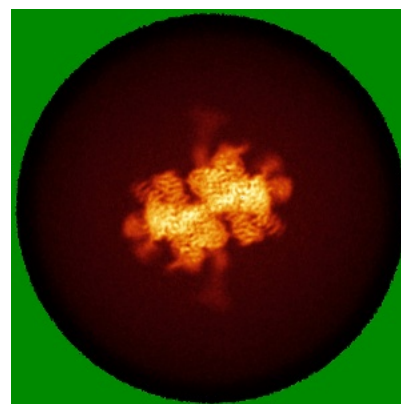
### 6.4.1 Primary map



X

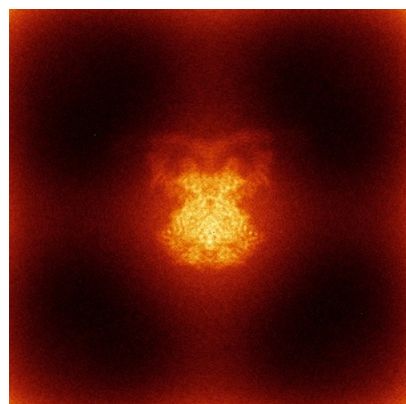


Y

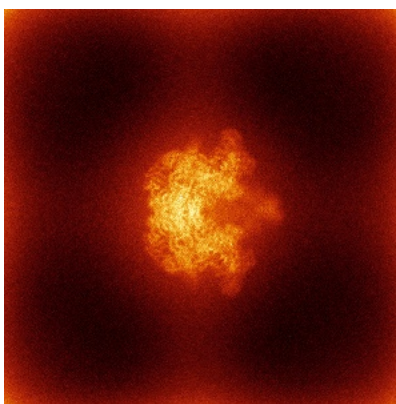


Z

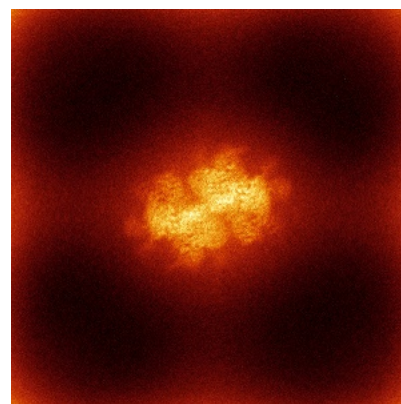
### 6.4.2 Raw map



X



Y

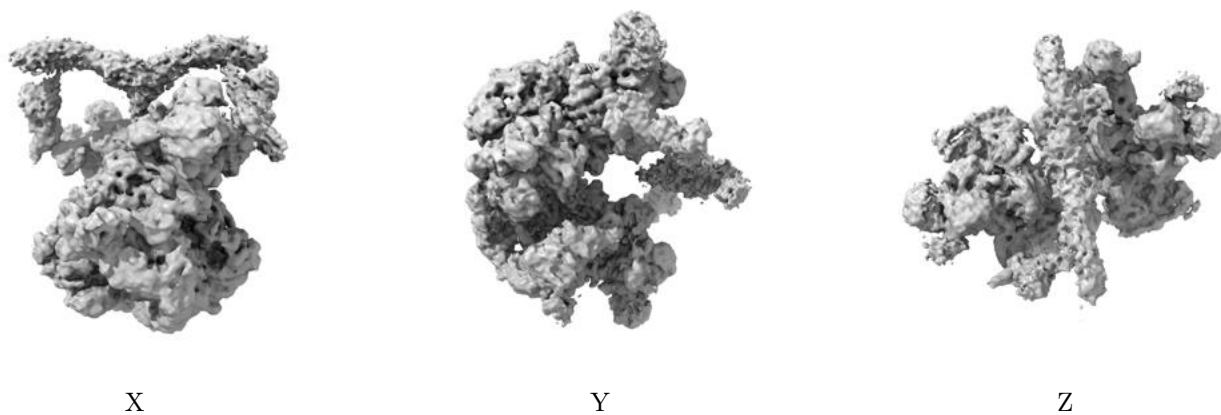


Z

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

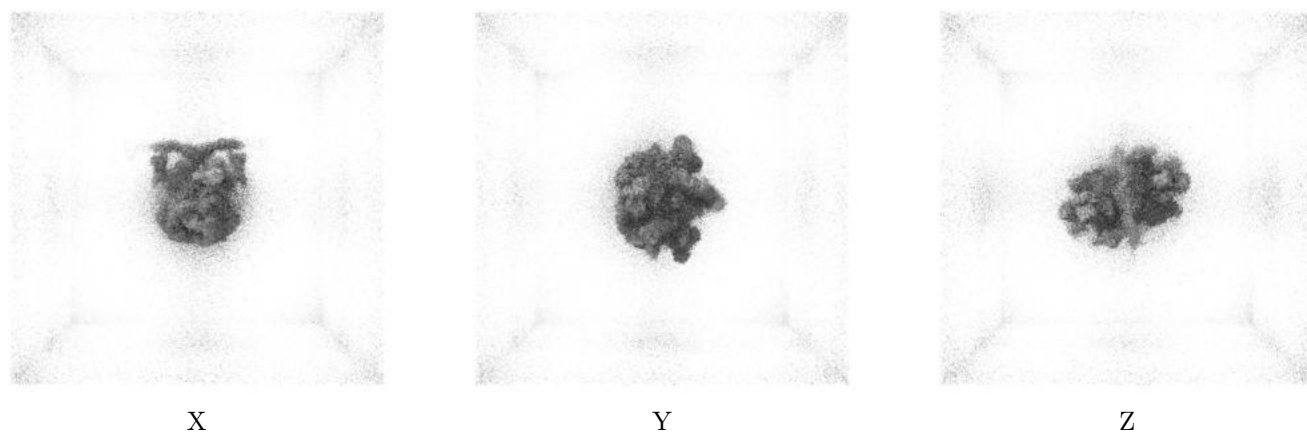
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.168. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

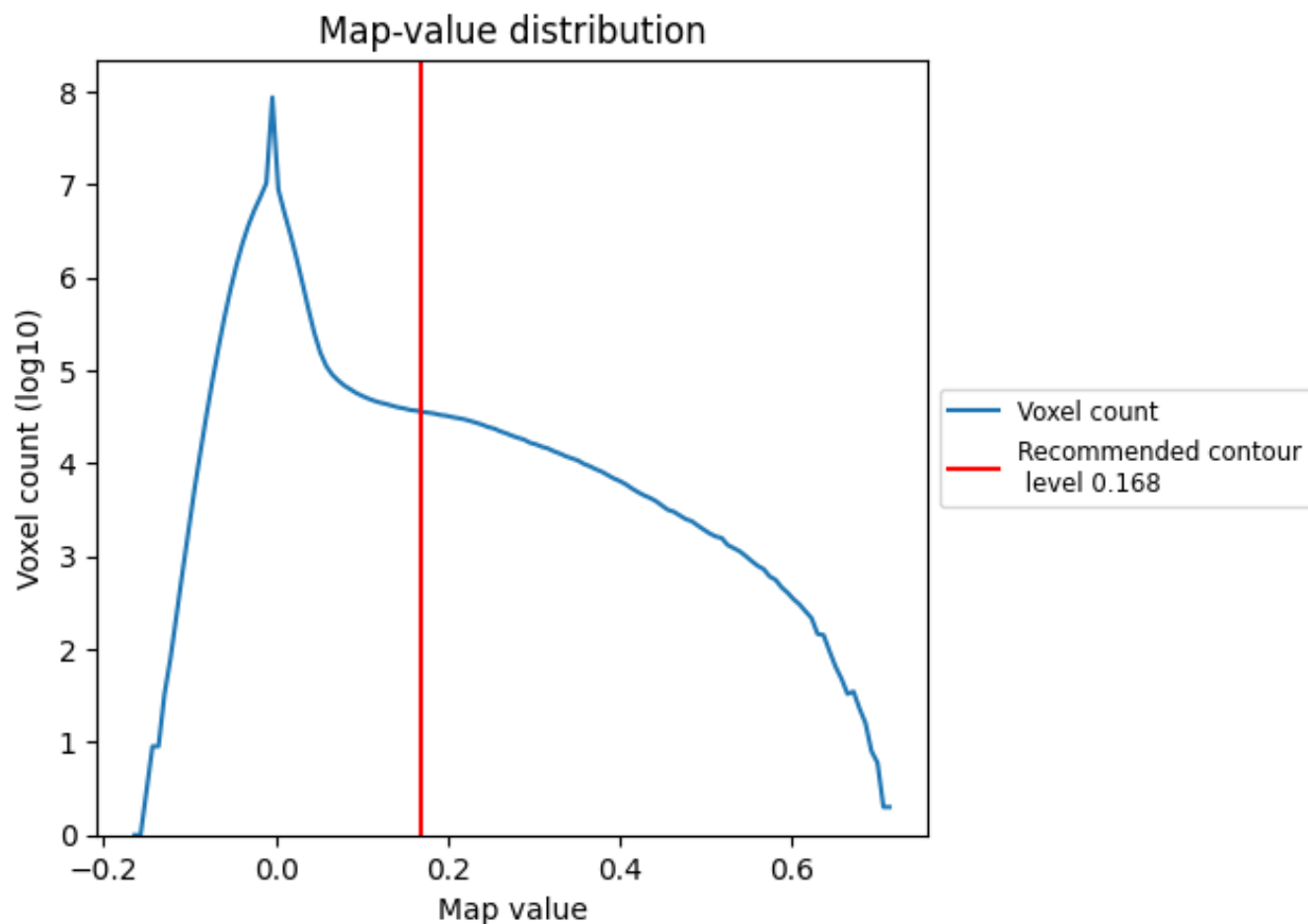
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

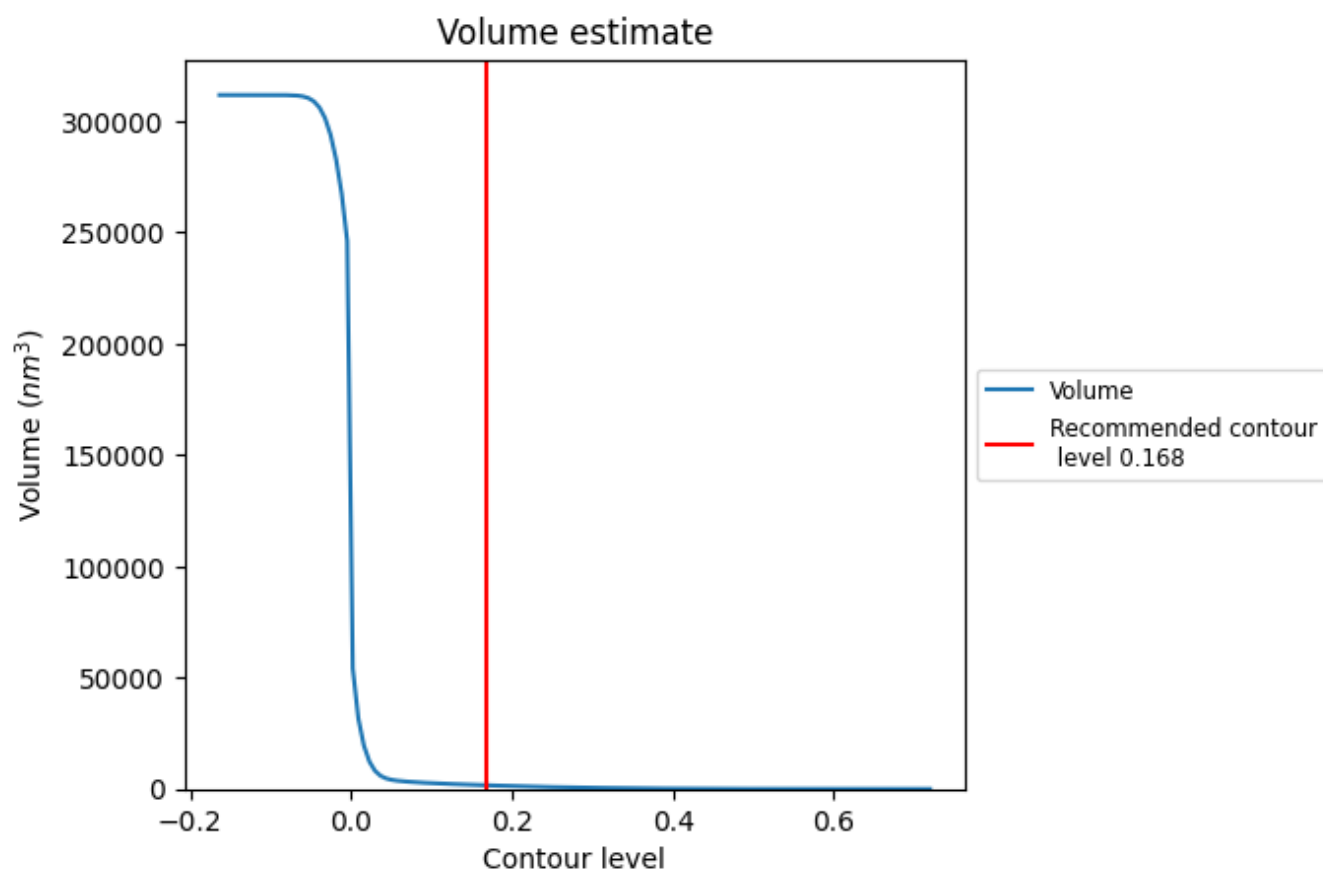
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

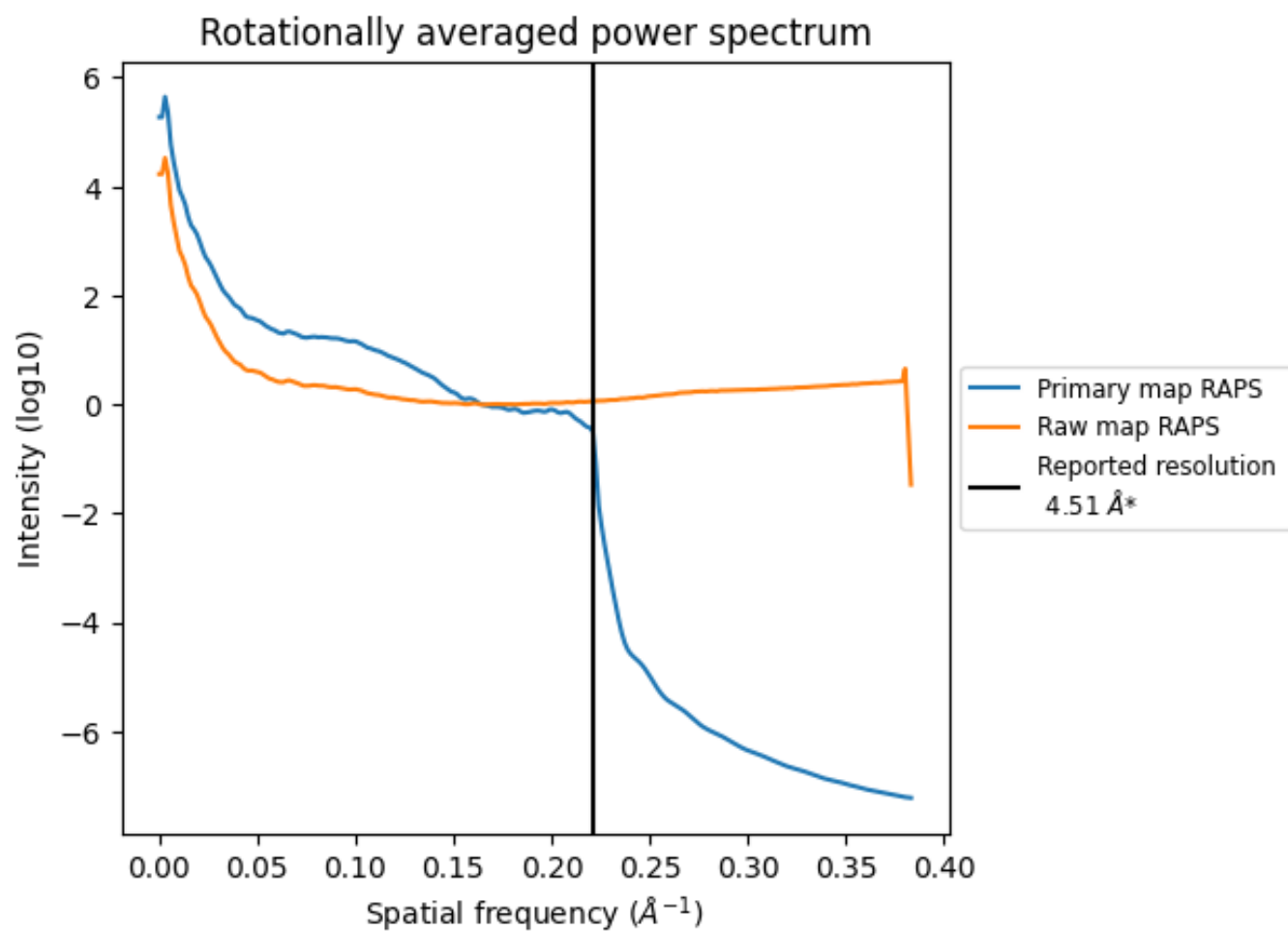
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1663 nm<sup>3</sup>; this corresponds to an approximate mass of 1502 kDa.

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

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

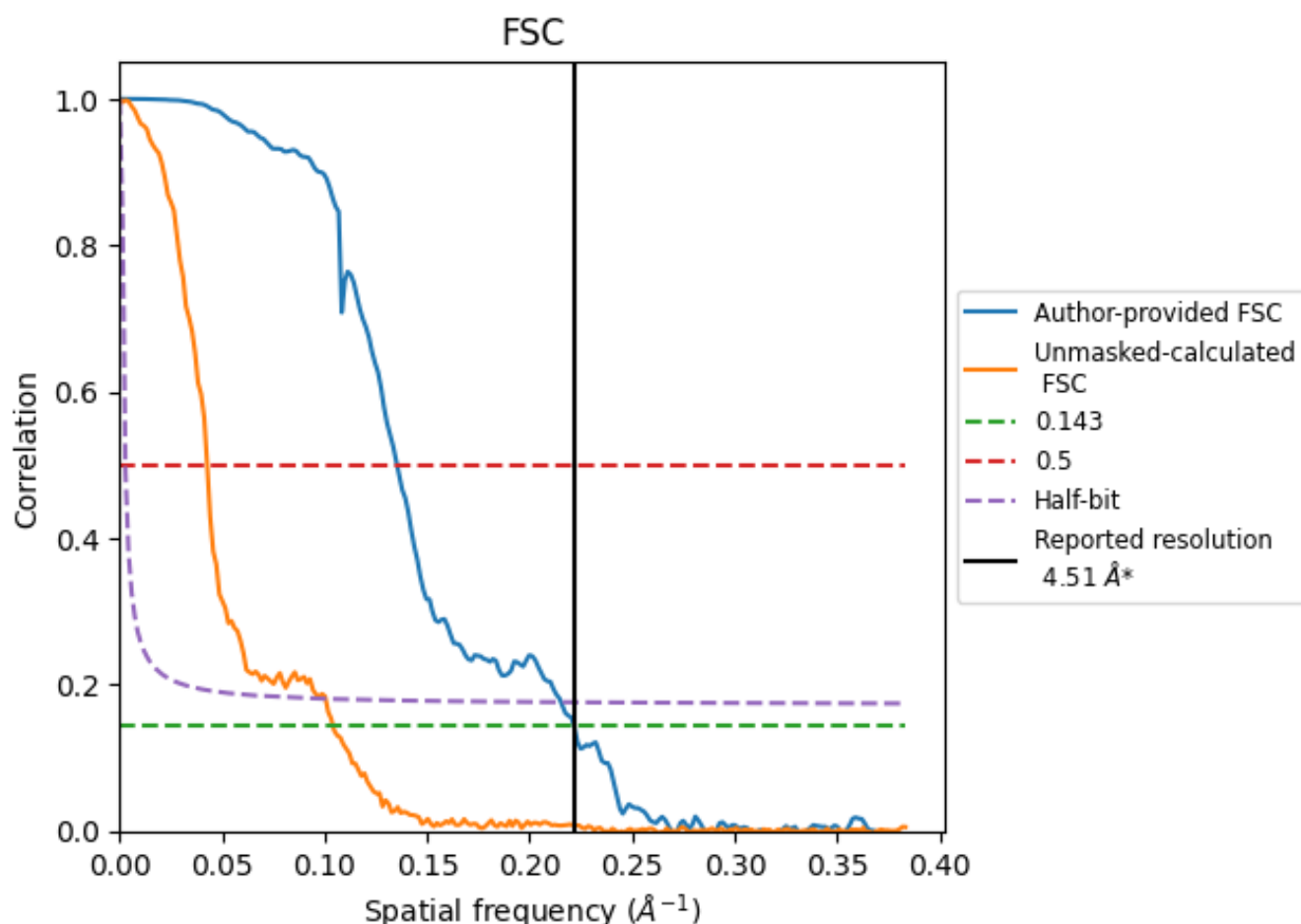


\*Reported resolution corresponds to spatial frequency of 0.222  $\text{\AA}^{-1}$

## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.222  $\text{\AA}^{-1}$



## 8.2 Resolution estimates [i](#)

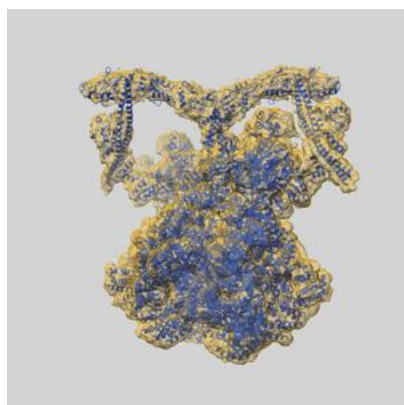
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.51	-	-
Author-provided FSC curve	4.51	7.39	4.64
Unmasked-calculated*	9.60	23.42	9.95

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 9.60 differs from the reported value 4.51 by more than 10 %

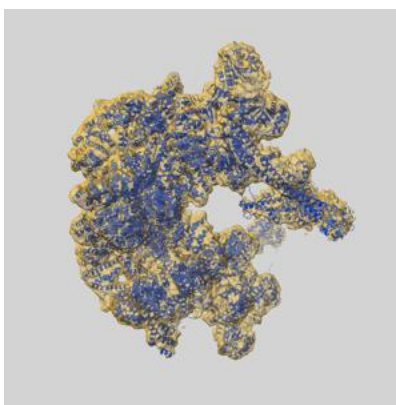
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-16070 and PDB model 8BHV. Per-residue inclusion information can be found in section [3](#) on page [7](#).

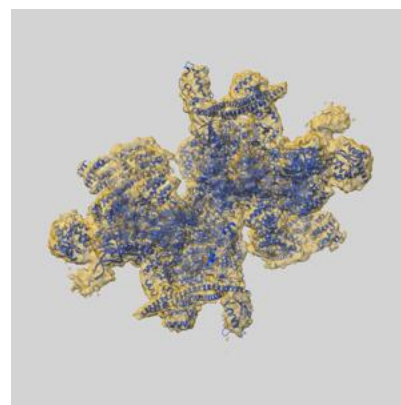
### 9.1 Map-model overlay [i](#)



X



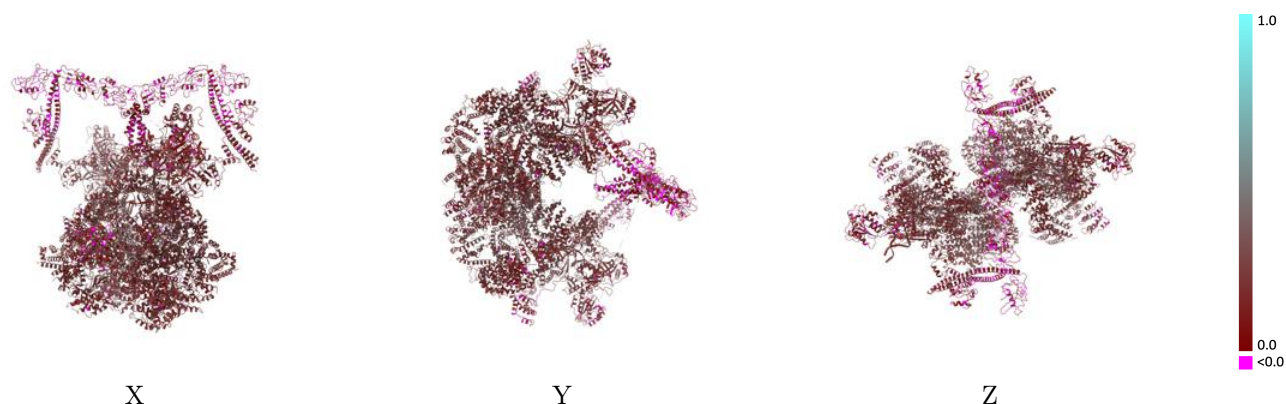
Y



Z

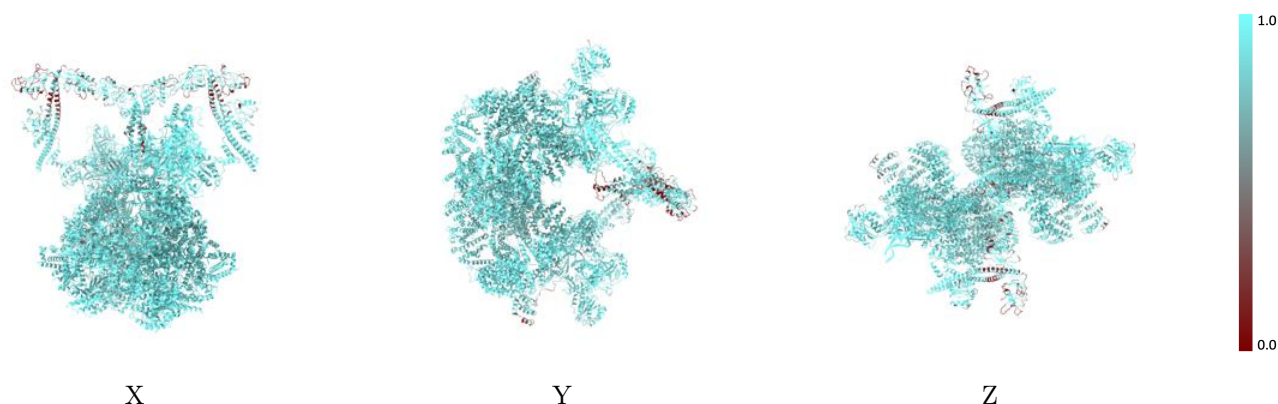
The images above show the 3D surface view of the map at the recommended contour level 0.168 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



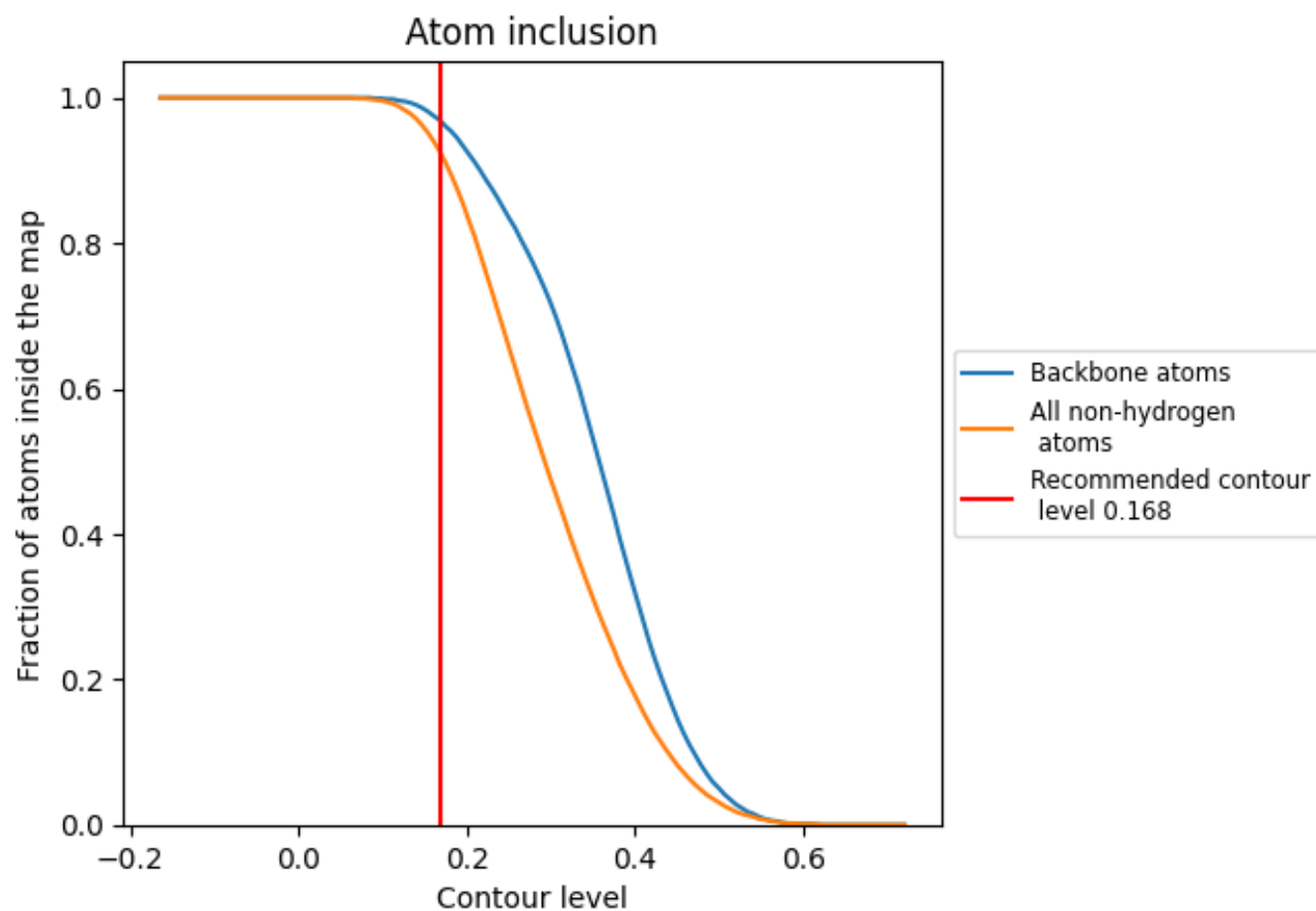
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.168).











































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 97% of all backbone atoms, 93% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.168) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9260	 0.2030
A	 0.9500	 0.2210
D	 0.9570	 0.2520
E	 0.9790	 0.2310
F	 0.9560	 0.2290
I	 0.9720	 0.2110
J	 0.9800	 0.2680
K	 0.7510	 0.0990
L	 0.6330	 0.1040
M	 0.9080	 0.1520
N	 0.8230	 0.0990
O	 0.6800	 0.1210
P	 0.9420	 0.1500
Q	 0.8030	 0.0910
R	 0.7830	 0.0720
a	 0.9610	 0.2170
b	 0.8810	 0.1760
c	 0.9700	 0.2440
h	 0.9610	 0.2310
i	 0.9940	 0.2550
j	 0.9380	 0.1920

