

Supplemental data 1

Identification of small molecule inhibitor of HBV replication via HBX interaction

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Experimentally Negative (No Anti-HBx activity)

Experimentally Positive (Anti-HBx activity at 50 μ mol)

IRID	QED score	Binding affinity (Kcal/mol)
IR2105	0.44	-10.6
IR3049	0.5	-10.6
IR8414	0.47	-10.6
IR6514	0.51	-10.5
IR13218	0.52	-10.5
IR6099	0.58	-10.4
IR6707	0.78	-10.4
IR7845	0.41	-10.3
IR11718	0.42	-10.3
IR1068	0.66	-10.2
IR5076	0.59	-10.2
IR7116	0.53	-10.2
IR221	0.62	-10.1
IR711	0.76	-10.1
IR1109	0.79	-10.1
IR3260	0.43	-10.1
IR4183	0.41	-10.1
IR8398	0.76	-10.1
IR9121	0.7	-10.1
IR9650	0.48	-10.1
IR9736	0.57	-10.1
IR12828	0.8	-10.1
IR1828	0.54	-10
IR3695	0.75	-10
IR3758	0.64	-10
IR6391	0.68	-10
IR7347	0.69	-10
IR8505	0.42	-10
IR8818	0.58	-10
IR9171	0.42	-10
IR10008	0.57	-10
IR10443	0.41	-10
IR12857	0.62	-10

IR14001	0.55	-10
IR14006	0.4	-10
IR14270	0.46	-10
IR2208	0.51	-9.9
IR2292	0.43	-9.9
IR2800	0.79	-9.9
IR3181	0.5	-9.9
IR3820	0.62	-9.9
IR4201	0.67	-9.9
IR5469	0.56	-9.9
IR6766	0.48	-9.9
IR8212	0.55	-9.9
IR415	0.6	-9.9
IR8948	0.55	-9.9
IR9687	0.55	-9.9
IR9790	0.83	-9.9
IR9912	0.58	-9.9
IR10455	0.69	-9.9
IR11315	0.46	-9.9
IR11491	0.6	-9.9
IR12177	0.5	-9.9
IR13126	0.49	-9.9
IR13172	0.45	-9.9
IR13586	0.47	-9.9
IR336	0.63	-9.9
IR842	0.72	-9.9
IR7650	0.89	-9.8
IR427	0.55	-9.8
IR1990	0.74	-9.8
IR2906	0.83	-9.8
IR3291	0.44	-9.8
IR3461	0.81	-9.8
IR3492	0.79	-9.8
IR3681	0.78	-9.8
IR3794	0.59	-9.8
IR3854	0.57	-9.8
IR4019	0.65	-8.1
IR4712	0.62	-9.8
IR4764	0.85	-9.8
IR4974	0.66	-9.8
IR4978	0.57	-9.8
IR6226	0.7	-9.8
IR6484	0.87	-9.8
IR6645	0.58	-9.8
IR6740	0.53	-9.8
IR7543	0.43	-9.8

IR8058	0.47	-9.8
IR8081	0.59	-9.8
IR8285	0.48	-9.8
IR9210	0.5	-9.8
IR9705	0.41	-9.8
IR10980	0.52	-9.8
IR11856	0.87	-9.8
IR11873	0.45	-9.8
IR12193	0.54	-9.8
IR12673	0.59	-9.8
IR13969	0.71	-9.8
IR14015	0.52	-9.8
IR14255	0.42	-9.8
IR9602	0.62	-9.8
IR7866	0.65	-9.7
IR249	0.69	-9.7
IR313	0.81	-9.7
IR556	0.48	-9.7
IR2515	0.6	-9.7
IR1158	0.66	-9.7
IR13426	0.63	-9.7
IR858	0.7	-9.7
IR1435	0.59	-9.7
IR1797	0.47	-9.7
IR1886	0.57	-9.7
IR2015	0.72	-9.7
IR2316	0.57	-9.7
IR2536	0.59	-9.7
IR3082	0.57	-9.7
IR3689	0.46	-9.7
IR4836	0.66	-9.7
IR5133	0.66	-9.7
IR5679	0.63	-9.7
IR5876	0.47	-9.7
IR6698	0.56	-9.7
IR7692	0.49	-9.7
IR7707	0.69	-9.7
IR7979	0.84	-9.7
IR8134	0.45	-9.7
IR8799	0.53	-9.7
IR9385	0.54	-9.7
IR9462	0.46	-9.7
IR10372	0.42	-9.7
IR10675	0.48	-9.7
IR10843	0.46	-9.7
IR11239	0.43	-9.7

IR11356	0.49	-9.7
IR11428	0.9	-9.7
IR11640	0.65	-9.7
IR11680	0.58	-9.7
IR11712	0.48	-9.7
IR12334	0.6	-9.7
IR12948	0.8	-9.7
IR13077	0.5	-9.7
IR13451	0.44	-9.7
IR13672	0.8	-9.7
IR319	0.47	-9.6
IR353	0.62	-9.6
IR665	0.84	-9.6
IR1197	0.88	-9.6
IR1244	0.44	-9.6
IR1418	0.68	-9.6
IR1547	0.56	-9.6
IR1634	0.55	-9.6
IR1787	0.56	-9.6
IR1890	0.69	-9.6
IR2196	0.56	-9.6
IR2725	0.6	-9.6
IR2867	0.46	-9.6
IR3306	0.5	-9.6
IR4317	0.72	-9.6
IR5421	0.68	-9.6
IR5496	0.81	-9.6
IR5823	0.67	-9.6
IR6347	0.72	-9.6
IR6383	0.47	-9.6
IR6495	0.51	-9.6
IR6809	0.79	-9.6
IR6946	0.67	-9.6
IR6979	0.49	-9.6
IR7239	0.67	-9.6
IR7816	0.41	-9.6
IR7860	0.66	-9.6
IR8143	0.48	-9.6
IR8718	0.61	-9.6
IR9322	0.53	-9.6
IR10507	0.69	-9.6
IR11354	0.46	-9.6
IR11407	0.46	-9.6
IR11504	0.64	-9.6
IR11687	0.67	-9.6
IR11756	0.55	-9.6

IR11759	0.42	-9.6
IR12526	0.59	-9.6
IR12791	0.46	-9.6
IR13447	0.67	-9.6
IR13953	0.84	-9.6
IR53	0.59	-9.5
IR55	0.49	-9.5
IR222	0.71	-9.5
IR245	0.87	-9.5
IR639	0.71	-9.5
IR717	0.69	-9.5
IR739	0.46	-9.5
IR986	0.55	-9.5
IR1108	0.43	-9.5
IR1340	0.63	-9.5
IR1444	0.63	-9.5
IR2135	0.85	-9.5
IR2207	0.5	-9.5
IR2480	0.84	-9.5
IR2765	0.67	-9.5
IR2902	0.62	-9.5
IR3003	0.52	-9.5
IR3512	0.72	-9.5
IR3779	0.55	-9.5
IR4042	0.73	-9.5
IR4132	0.83	-9.5
IR4181	0.57	-9.5
IR4252	0.73	-9.5
IR4261	0.5	-9.5
IR4937	0.87	-9.5
IR5214	0.64	-9.5
IR5240	0.71	-9.5
IR5298	0.45	-9.5
IR6278	0.69	-9.5
IR6480	0.42	-9.5
IR6531	0.73	-9.5
IR6822	0.65	-9.5
IR6988	0.47	-9.5
IR7608	0.45	-9.5
IR7667	0.79	-9.5
IR8198	0.57	-9.5
IR8517	0.63	-9.5
IR8620	0.5	-9.5
IR8795	0.44	-9.5
IR8798	0.72	-9.5
IR8841	0.69	-9.5

IR8976	0.57	-9.5
IR9447	0.68	-9.5
IR10155	0.43	-9.5
IR10525	0.75	-9.5
IR10860	0.72	-9.5
IR10891	0.53	-9.5
IR11290	0.64	-9.5
IR11314	0.51	-9.5
IR11417	0.61	-9.5
IR11671	0.72	-9.5
IR11769	0.66	-9.5
IR11844	0.67	-9.5
IR11940	0.45	-9.5
IR12072	0.71	-9.5
IR12115	0.44	-9.5
IR12415	0.76	-9.5
IR12563	0.49	-9.5
IR13080	0.65	-9.5
IR13101	0.91	-9.5
IR13303	0.66	-9.5
IR13464	0.75	-9.5
IR82	0.5	-9.4
IR101	0.61	-9.4
IR523	0.41	-9.4
IR984	0.55	-9.4
IR1131	0.53	-9.4
IR1173	0.51	-9.4
IR1382	0.41	-9.4
IR1588	0.58	-9.4
IR11	0.91	-9.4
IR1972	0.53	-9.4
IR2209	0.53	-9.4
IR2298	0.8	-9.4
IR2446	0.73	-9.4
IR2771	0.68	-9.4
IR3031	0.52	-9.4
IR3475	0.65	-9.4
IR3542	0.58	-9.4
IR3666	0.44	-9.4
IR4451	0.48	-9.4
IR4546	0.49	-9.4
IR4586	0.55	-9.4
IR4980	0.57	-9.4
IR5021	0.73	-9.4
IR5136	0.88	-9.4
IR5197	0.49	-9.4

IR5246	0.51	-9.4
IR5260	0.55	-9.4
IR5368	0.75	-9.4
IR5819	0.71	-9.4
IR6060	0.65	-9.4
IR6368	0.78	-9.4
IR6412	0.52	-9.4
IR6555	0.57	-9.4
IR7114	0.44	-9.4
IR7128	0.71	-9.4
IR7270	0.43	-9.4
IR7277	0.65	-9.4
IR7354	0.61	-9.4
IR7559	0.71	-9.4
IR7905	0.55	-9.4
IR8039	0.89	-9.4
IR8109	0.48	-9.4
IR8538	0.79	-9.4
IR8560	0.66	-9.4
IR8780	0.71	-9.4
IR8954	0.56	-9.4
IR9025	0.74	-9.4
IR9073	0.63	-9.4
IR9376	0.57	-9.4
IR9595	0.73	-9.4
IR9625	0.49	-9.4
IR9990	0.53	-9.4
IR10201	0.72	-9.4
IR10673	0.71	-9.4
IR10778	0.46	-9.4
IR10885	0.57	-9.4
IR10986	0.61	-9.4
IR11266	0.47	-9.4
IR11489	0.46	-9.4
IR11943	0.51	-9.4
IR12064	0.6	-9.4
IR12444	0.49	-9.4
IR12628	0.82	-9.4
IR12641	0.69	-9.4
IR12721	0.47	-9.4
IR12872	0.66	-9.4
IR12978	0.44	-9.4
IR13038	0.42	-9.4
IR13250	0.5	-9.4
IR13678	0.63	-9.4
IR13705	0.64	-9.4

IR13833	0.59	-9.4
IR13862	0.64	-9.4
IR14254	0.6	-9.4
IR42	0.73	-9.3
IR117	0.57	-9.3
IR178	0.59	-9.3
IR241	0.61	-9.3
IR740	0.91	-9.3
IR1212	0.54	-9.3
IR1273	0.54	-9.3
IR1627	0.41	-9.3
IR1822	0.61	-9.3
IR2152	0.48	-9.3
IR2172	0.46	-9.3
IR2756	0.76	-9.3
IR2781	0.43	-9.3
IR2958	0.43	-9.3
IR3135	0.9	-9.3
IR3215	0.72	-9.3
IR3322	0.75	-9.3
IR3366	0.55	-9.3
IR3423	0.44	-9.3
IR3440	0.41	-9.3
IR3776	0.77	-9.3
IR4043	0.66	-9.3
IR4250	0.66	-9.3
IR4292	0.62	-9.3
IR4426	0.54	-9.3
IR4564	0.6	-9.3
IR4796	0.69	-9.3
IR4827	0.66	-9.3
IR4844	0.54	-9.3
IR5027	0.53	-9.3
IR5029	0.79	-9.3
IR5453	0.42	-9.3
IR5473	0.67	-9.3
IR5952	0.57	-9.3
IR5991	0.63	-9.3
IR6158	0.62	-9.3
IR6177	0.59	-9.3
IR6217	0.45	-9.3
IR6370	0.46	-9.3
IR6376	0.5	-9.3
IR6732	0.5	-9.3
IR6835	0.66	-9.3
IR6921	0.64	-9.3

IR7073	0.67	-9.3
IR7113	0.43	-9.3
IR7372	0.7	-9.3
IR7374	0.54	-9.3
IR7377	0.44	-9.3
IR7681	0.67	-9.3
IR7803	0.66	-9.3
IR8062	0.73	-9.3
IR8376	0.51	-9.3
IR8471	0.57	-9.3
IR8679	0.63	-9.3
IR9133	0.87	-9.3
IR9297	0.76	-9.3
IR9344	0.46	-9.3
IR9395	0.92	-9.3
IR9509	0.75	-9.3
IR9613	0.69	-9.3
IR9628	0.54	-9.3
IR9693	0.67	-9.3
IR9778	0.74	-9.3
IR9826	0.59	-9.3
IR9895	0.49	-9.3
IR9948	0.7	-9.3
IR10227	0.65	-9.3
IR10350	0.77	-9.3
IR10512	0.7	-9.3
IR10704	0.82	-9.3
IR10771	0.4	-9.3
IR10851	0.81	-9.3
IR11013	0.76	-9.3
IR11372	0.51	-9.3
IR11450	0.46	-9.3
IR11620	0.43	-9.3
IR11715	0.73	-9.3
IR11724	0.5	-9.3
IR12163	0.72	-9.3
IR12203	0.43	-9.3
IR12328	0.49	-9.3
IR12828	0.8	-10.1
IR12860	0.68	-9.3
IR13144	0.51	-9.3
IR13619	0.58	-9.3
IR13650	0.82	-9.3
IR13766	0.61	-9.3
IR14064	0.78	-9.3
IR14083	0.74	-9.3

IR14100	0.69	-9.3
IR14237	0.64	-9.3
IR14321	0.57	-9.3
IR136	0.65	-9.2
IR246	0.91	-9.2
IR400	0.54	-9.2
IR860	0.53	-9.2
IR930	0.53	-9.2
IR1114	0.71	-9.2
IR1286	0.48	-9.2
IR1405	0.66	-9.2
IR1457	0.48	-9.2
IR1603	0.56	-9.2
IR1777	0.67	-9.2
IR1863	0.74	-9.2
IR2032	0.84	-9.2
IR2129	0.71	-9.2
IR2139	0.65	-9.2
IR2433	0.83	-9.2
IR2555	0.58	-9.2
IR2777	0.58	-9.2
IR2952	0.73	-9.2
IR3238	0.59	-9.2
IR3323	0.8	-9.2
IR3376	0.64	-9.2
IR3605	0.44	-9.2
IR3665	0.66	-9.2
IR3872	0.51	-9.2
IR3972	0.5	-9.2
IR4063	0.55	-9.2
IR4479	0.72	-9.2
IR4553	0.5	-9.2
IR4567	0.41	-9.2
IR4680	0.47	-9.2
IR4688	0.69	-9.2
IR4745	0.69	-9.2
IR4816	0.46	-9.2
IR4930	0.63	-9.2
IR4969	0.6	-9.2
IR5023	0.45	-9.2
IR5086	0.56	-9.2
IR5465	0.63	-9.2
IR5508	0.47	-9.2
IR5725	0.41	-9.2
IR5906	0.71	-9.2
IR6105	0.45	-9.2

IR6142	0.76	-9.2
IR6205	0.77	-9.2
IR6276	0.71	-9.2
IR6375	0.48	-9.2
IR6411	0.73	-9.2
IR6560	0.4	-9.2
IR6643	0.46	-9.2
IR6780	0.45	-9.2
IR6787	0.52	-9.2
IR6965	0.64	-9.2
IR7203	0.81	-9.2
IR7244	0.71	-9.2
IR7272	0.8	-9.2
IR7294	0.54	-9.2
IR7310	0.58	-9.2
IR7419	0.7	-9.2
IR7432	0.57	-9.2
IR7438	0.49	-9.2
IR7479	0.55	-9.2
IR7904	0.89	-9.2
IR8029	0.74	-9.2
IR8225	0.55	-9.2
IR8287	0.48	-9.2
IR8314	0.5	-9.2
IR8497	0.62	-9.2
IR8509	0.55	-9.2
IR8545	0.44	-9.2
IR8582	0.83	-9.2
IR8645	0.44	-9.2
IR8751	0.79	-9.2
IR8808	0.5	-9.2
IR8889	0.79	-9.2
IR9014	0.94	-9.2
IR9077	0.77	-9.2
IR9093	0.67	-9.2
IR9220	0.65	-9.2
IR9345	0.49	-9.2
IR9653	0.58	-9.2
IR9935	0.8	-9.2
IR9998	0.86	-9.2
IR10202	0.8	-9.2
IR10518	0.73	-9.2
IR10670	0.51	-9.2
IR10692	0.66	-9.2
IR10731	0.64	-9.2
IR11012	0.75	-9.2

IR11127	0.69	-9.2
IR11367	0.64	-9.2
IR11409	0.41	-9.2
IR11835	0.55	-9.2
IR12058	0.58	-9.2
IR12179	0.64	-9.2
IR12211	0.68	-9.2
IR12215	0.76	-9.2
IR12314	0.68	-9.2
IR12407	0.52	-9.2
IR12411	0.59	-9.2
IR12549	0.61	-9.2
IR12631	0.59	-9.2
IR12682	0.5	-9.2
IR12709	0.72	-9.2
IR12815	0.8	-9.2
IR13003	0.67	-9.2
IR13109	0.77	-9.2
IR13201	0.47	-9.2
IR13475	0.82	-9.2
IR13687	0.8	-9.2
IR13720	0.65	-9.2
IR13758	0.58	-9.2
IR13765	0.67	-9.2
IR13820	0.64	-9.2
IR13917	0.65	-9.2
IR13949	0.59	-9.2
IR13971	0.43	-9.2
IR14131	0.61	-9.2
IR14180	0.8	-9.2
IR14184	0.85	-9.2
IR23	0.67	-9.1
IR69	0.48	-9.1
IR80	0.47	-9.1
IR177	0.55	-9.1
IR280	0.79	-9.1
IR393	0.83	-9.1
IR394	0.72	-9.1
IR613	0.82	-9.1
IR625	0.53	-9.1
IR644	0.47	-9.1
IR656	0.6	-9.1
IR799	0.8	-9.1
IR811	0.63	-9.1
IR927	0.61	-9.1
IR972	0.42	-9.1

IR998	0.67	-9.1
IR1011	0.7	-9.1
IR1021	0.8	-9.1
IR1143	0.59	-9.1
IR1150	0.55	-9.1
IR1182	0.72	-9.1
IR1231	0.53	-9.1
IR1252	0.42	-9.1
IR1456	0.67	-9.1
IR1462	0.66	-9.1
IR1687	0.55	-9.1
IR1899	0.65	-9.1
IR2091	0.66	-9.1
IR2120	0.47	-9.1
IR2206	0.52	-9.1
IR2329	0.68	-9.1
IR2353	0.73	-9.1
IR2373	0.79	-9.1
IR2429	0.57	-9.1
IR2465	0.57	-9.1
IR2642	0.83	-9.1
IR2665	0.69	-9.1
IR2694	0.8	-9.1
IR2730	0.53	-9.1
IR3101	0.8	-9.1
IR3330	0.84	-9.1
IR3341	0.44	-9.1
IR3414	0.74	-9.1
IR3429	0.43	-9.1
IR3516	0.8	-9.1
IR3521	0.71	-9.1
IR3639	0.7	-9.1
IR3658	0.41	-9.1
IR3755	0.74	-9.1
IR3827	0.53	-9.1
IR4134	0.64	-9.1
IR4272	0.48	-9.1
IR4431	0.61	-9.1
IR4463	0.7	-9.1
IR4614	0.84	-9.1
IR4817	0.57	-9.1
IR4832	0.77	-9.1
IR4960	0.49	-9.1
IR4961	0.67	-9.1
IR5007	0.84	-9.1
IR5104	0.51	-9.1

IR5235	0.71	-9.1
IR5455	0.58	-9.1
IR5612	0.49	-9.1
IR5663	0.47	-9.1
IR5667	0.67	-9.1
IR5761	0.4	-9.1
IR6024	0.57	-9.1
IR6061	0.51	-9.1
IR6110	0.42	-9.1
IR6160	0.46	-9.1
IR6381	0.75	-9.1
IR6400	0.79	-9.1
IR6472	0.53	-9.1
IR6573	0.63	-9.1
IR7038	0.42	-9.1
IR7074	0.49	-9.1
IR7181	0.59	-9.1
IR7201	0.68	-9.1
IR7336	0.49	-9.1
IR7369	0.54	-9.1
IR7390	0.64	-9.1
IR7401	0.78	-9.1
IR7535	0.76	-9.1
IR7550	0.58	-9.1
IR7627	0.71	-9.1
IR7671	0.44	-9.1
IR7721	0.8	-9.1
IR7829	0.5	-9.1
IR7852	0.74	-9.1
IR7929	0.77	-9.1
IR8097	0.85	-9.1
IR8142	0.53	-9.1
IR8247	0.61	-9.1
IR8336	0.45	-9.1
IR8358	0.73	-9.1
IR8370	0.52	-9.1
IR8373	0.57	-9.1
IR8438	0.53	-9.1
IR8844	0.84	-9.1
IR9001	0.6	-9.1
IR9180	0.46	-9.1
IR9249	0.59	-9.1
IR9409	0.53	-9.1
IR9547	0.5	-9.1
IR9615	0.77	-9.1
IR9871	0.68	-9.1

IR9887	0.63	-9.1
IR10069	0.45	-9.1
IR10161	0.4	-9.1
IR10166	0.44	-9.1
IR10242	0.48	-9.1
IR10312	0.66	-9.1
IR10334	0.76	-9.1
IR10487	0.71	-9.1
IR10563	0.72	-9.1
IR10690	0.92	-9.1
IR10866	0.61	-9.1
IR11296	0.82	-9.1
IR11374	0.68	-9.1
IR11502	0.78	-9.1
IR11541	0.7	-9.1
IR11556	0.6	-9.1
IR11641	0.71	-9.1
IR11677	0.78	-9.1
IR11704	0.51	-9.1
IR11713	0.59	-9.1
IR11726	0.49	-9.1
IR11869	0.68	-9.1
IR11872	0.47	-9.1
IR11881	0.77	-9.1
IR12119	0.66	-9.1
IR12340	0.77	-9.1
IR12392	0.44	-9.1
IR12528	0.62	-9.1
IR12556	0.92	-9.1
IR12963	0.83	-9.1
IR13094	0.64	-9.1
IR13393	0.75	-9.1
IR13437	0.79	-9.1
IR13480	0.55	-9.1
IR13793	0.62	-9.1
IR13795	0.58	-9.1
IR14038	0.77	-9.1
IR14259	0.47	-9.1
IR190	0.67	-9
IR220	0.47	-9
IR290	0.52	-9
IR390	0.58	-9
IR438	0.56	-9
IR480	0.6	-9
IR566	0.4	-9
IR571	0.67	-9

IR653	0.51	-9
IR765	0.59	-9
IR767	0.49	-9
IR778	0.67	-9
IR903	0.54	-9
IR965	0.65	-9
IR1019	0.85	-9
IR1035	0.7	-9
IR1101	0.7	-9
IR1180	0.6	-9
IR1255	0.43	-9
IR1325	0.58	-9
IR1395	0.92	-9
IR1518	0.43	-9
IR1582	0.5	-9
IR1846	0.71	-9
IR1860	0.79	-9
IR1939	0.58	-9
IR1952	0.63	-9
IR1964	0.84	-9
IR2062	0.74	-9
IR2095	0.63	-9
IR2163	0.79	-9
IR2164	0.66	-9
IR2246	0.68	-9
IR2263	0.75	-9
IR2374	0.7	-9
IR2467	0.75	-9
IR2652	0.68	-9
IR2706	0.79	-9
IR2879	0.86	-9
IR2977	0.79	-9
IR3172	0.56	-9
IR3389	0.49	-9
IR3507	0.51	-9
IR3697	0.76	-9
IR3809	0.7	-9
IR3881	0.55	-9
IR3893	0.47	-9
IR3963	0.48	-9
IR3992	0.86	-9
IR4047	0.9	-9
IR4169	0.49	-9
IR4204	0.63	-9
IR4215	0.73	-9
IR4239	0.73	-9

IR4253	0.42	-9
IR4338	0.43	-9
IR4355	0.85	-9
IR4396	0.64	-9
IR4416	0.48	-9
IR4441	0.51	-9
IR4464	0.45	-9
IR4469	0.55	-9
IR4619	0.53	-9
IR4621	0.53	-9
IR4705	0.79	-9
IR4984	0.61	-9
IR5114	0.48	-9
IR5343	0.72	-9
IR5362	0.45	-9
IR5393	0.91	-9
IR5557	0.78	-9
IR5592	0.91	-9
IR5633	0.63	-9
IR5700	0.81	-9
IR5862	0.69	-9
IR6317	0.69	-9
IR6458	0.59	-9
IR6464	0.94	-9
IR6720	0.59	-9
IR7069	0.52	-9
IR7141	0.77	-9
IR7175	0.49	-9
IR7192	0.74	-9
IR7256	0.43	-9
IR7258	0.9	-9
IR7332	0.4	-9
IR7462	0.57	-9
IR7564	0.69	-9
IR7653	0.46	-9
IR7744	0.41	-9
IR7764	0.59	-9
IR7805	0.54	-9
IR7806	0.53	-9
IR8001	0.49	-9
IR8100	0.61	-9
IR8133	0.48	-9
IR8249	0.47	-9
IR8482	0.94	-9
IR8578	0.65	-9
IR8651	0.57	-9

IR8722	0.72	-9
IR8781	0.44	-9
IR8950	0.66	-9
IR8965	0.59	-9
IR8971	0.49	-9
IR9163	0.91	-9
IR9186	0.41	-9
IR9357	0.66	-9
IR9490	0.64	-9
IR9507	0.56	-9
IR9516	0.52	-9
IR9552	0.44	-9
IR9573	0.88	-9
IR9649	0.6	-9
IR9965	0.49	-9
IR10219	0.77	-9
IR10430	0.61	-9
IR10551	0.76	-9
IR10591	0.65	-9
IR10764	0.69	-9
IR10975	0.47	-9
IR11109	0.51	-9
IR11126	0.73	-9
IR11166	0.45	-9
IR11199	0.72	-9
IR11208	0.68	-9
IR11451	0.94	-9
IR11503	0.72	-9
IR11523	0.74	-9
IR11656	0.7	-9
IR11659	0.83	-9
IR11678	0.58	-9
IR11791	0.46	-9
IR11950	0.51	-9
IR11992	0.94	-9
IR12004	0.83	-9
IR12030	0.76	-9
IR12093	0.71	-9
IR12144	0.46	-9
IR12268	0.8	-9
IR12352	0.64	-9
IR12408	0.48	-9
IR12512	0.55	-9
IR12550	0.41	-9
IR12559	0.46	-9
IR12564	0.41	-9

IR12585	0.58	-9
IR12618	0.71	-9
IR12698	0.8	-9
IR12842	0.56	-9
IR12925	0.85	-9
IR13222	0.54	-9
IR13274	0.43	-9
IR13513	0.49	-9
IR13524	0.51	-9
IR13660	0.52	-9
IR13666	0.5	-9
IR13792	0.69	-9
IR13864	0.64	-9
IR13894	0.48	-9
IR13912	0.52	-9
IR14106	0.57	-9
IR14173	0.49	-9
IR14193	0.64	-9
IR14295	0.86	-9
IR96	0.73	-8.9
IR239	0.58	-8.9
IR316	0.45	-8.9
IR456	0.72	-8.9
IR495	0.55	-8.9
IR522	0.6	-8.9
IR704	0.64	-8.9
IR776	0.77	-8.9
IR786	0.62	-8.9
IR838	0.5	-8.9
IR852	0.47	-8.9
IR893	0.41	-8.9
IR909	0.54	-8.9
IR928	0.61	-8.9
IR1023	0.82	-8.9
IR1025	0.68	-8.9
IR1054	0.82	-8.9
IR1094	0.77	-8.9
IR1154	0.49	-8.9
IR1295	0.8	-8.9
IR1388	0.68	-8.9
IR1394	0.81	-8.9
IR1492	0.49	-8.9
IR1545	0.62	-8.9
IR1551	0.43	-8.9
IR1564	0.42	-8.9
IR1598	0.46	-8.9

IR1658	0.64	-8.9
IR1669	0.72	-8.9
IR1754	0.84	-8.9
IR1784	0.57	-8.9
IR1799	0.57	-8.9
IR1818	0.85	-8.9
IR1857	0.49	-8.9
IR1903	0.85	-8.9
IR1961	0.42	-8.9
IR1969	0.67	-8.9
IR1995	0.67	-8.9
IR2033	0.43	-8.9
IR2078	0.65	-8.9
IR2086	0.49	-8.9
IR2150	0.69	-8.9
IR2184	0.65	-8.9
IR2188	0.51	-8.9
IR2277	0.77	-8.9
IR2284	0.42	-8.9
IR2386	0.46	-8.9
IR2416	0.53	-8.9
IR2558	0.67	-8.9
IR2700	0.71	-8.9
IR2796	0.48	-8.9
IR2812	0.69	-8.9
IR2956	0.77	-8.9
IR3007	0.52	-8.9
IR3079	0.59	-8.9
IR3110	0.57	-8.9
IR3224	0.7	-8.9
IR3267	0.92	-8.9
IR3356	0.67	-8.9
IR3668	0.68	-8.9
IR3721	0.49	-8.9
IR3763	0.41	-8.9
IR3771	0.68	-8.9
IR3819	0.45	-8.9
IR3843	0.66	-8.9
IR4100	0.67	-8.9
IR4112	0.49	-8.9
IR4120	0.44	-8.9
IR4487	0.6	-8.9
IR4685	0.69	-8.9
IR4690	0.54	-8.9
IR4813	0.6	-8.9
IR4851	0.42	-8.9

IR4881	0.86	-8.9
IR4940	0.57	-8.9
IR4964	0.43	-8.9
IR5099	0.48	-8.9
IR5122	0.81	-8.9
IR5142	0.58	-8.9
IR5244	0.93	-8.9
IR5280	0.62	-8.9
IR5403	0.63	-8.9
IR5408	0.54	-8.9
IR5450	0.59	-8.9
IR5512	0.63	-8.9
IR5547	0.8	-8.9
IR5655	0.43	-8.9
IR5775	0.61	-8.9
IR5939	0.63	-8.9
IR5949	0.58	-8.9
IR6059	0.68	-8.9
IR6069	0.52	-8.9
IR6202	0.58	-8.9
IR6256	0.84	-8.9
IR6321	0.67	-8.9
IR6443	0.73	-8.9
IR6452	0.63	-8.9
IR6462	0.54	-8.9
IR6500	0.58	-8.9
IR6684	0.46	-8.9
IR6703	0.67	-8.9
IR6708	0.91	-8.9
IR6757	0.62	-8.9
IR6773	0.85	-8.9
IR6779	0.51	-8.9
IR6825	0.54	-8.9
IR6826	0.84	-8.9
IR6918	0.74	-8.9
IR6923	0.79	-8.9
IR6994	0.65	-8.9
IR7047	0.5	-8.9
IR7109	0.66	-8.9
IR7168	0.73	-8.9
IR7210	0.53	-8.9
IR7217	0.48	-8.9
IR7375	0.76	-8.9
IR7440	0.84	-8.9
IR7446	0.68	-8.9
IR7469	0.69	-8.9

IR7496	0.87	-8.9
IR7538	0.71	-8.9
IR7696	0.51	-8.9
IR7902	0.5	-8.9
IR8000	0.5	-8.9
IR8048	0.77	-8.9
IR8078	0.54	-8.9
IR8115	0.69	-8.9
IR8136	0.5	-8.9
IR8138	0.58	-8.9
IR8203	0.63	-8.9
IR8229	0.77	-8.9
IR8251	0.52	-8.9
IR8346	0.45	-8.9
IR8387	0.71	-8.9
IR8574	0.65	-8.9
IR8577	0.54	-8.9
IR8598	0.89	-8.9
IR8774	0.79	-8.9
IR8820	0.71	-8.9
IR8914	0.45	-8.9
IR8992	0.62	-8.9
IR9144	0.84	-8.9
IR9251	0.72	-8.9
IR9464	0.74	-8.9
IR9499	0.51	-8.9
IR9599	0.74	-8.9
IR9617	0.72	-8.9
IR9659	0.92	-8.9
IR9757	0.86	-8.9
IR9781	0.58	-8.9
IR9928	0.5	-8.9
IR9951	0.89	-8.9
IR10043	0.4	-8.9
IR10048	0.77	-8.9
IR10070	0.65	-8.9
IR10079	0.42	-8.9
IR10113	0.48	-8.9
IR10148	0.59	-8.9
IR10205	0.42	-8.9
IR10244	0.55	-8.9
IR10277	0.86	-8.9
IR10330	0.49	-8.9
IR10335	0.79	-8.9
IR10403	0.48	-8.9
IR10418	0.46	-8.9

IR10421	0.52	-8.9
IR10505	0.82	-8.9
IR10546	0.62	-8.9
IR10594	0.41	-8.9
IR10756	0.61	-8.9
IR10857	0.76	-8.9
IR10937	0.8	-8.9
IR11073	0.73	-8.9
IR11163	0.75	-8.9
IR11242	0.84	-8.9
IR11337	0.65	-8.9
IR11360	0.57	-8.9
IR11496	0.75	-8.9
IR11570	0.58	-8.9
IR11948	0.67	-8.9
IR12041	0.6	-8.9
IR12084	0.61	-8.9
IR12095	0.55	-8.9
IR12154	0.77	-8.9
IR12162	0.62	-8.9
IR12216	0.63	-8.9
IR12338	0.68	-8.9
IR12376	0.91	-8.9
IR12377	0.75	-8.9
IR12428	0.6	-8.9
IR12431	0.75	-8.9
IR12450	0.6	-8.9
IR12555	0.88	-8.9
IR12602	0.77	-8.9
IR12715	0.87	-8.9
IR12717	0.67	-8.9
IR12730	0.71	-8.9
IR12731	0.52	-8.9
IR12777	0.72	-8.9
IR12818	0.51	-8.9
IR12850	0.55	-8.9
IR12918	0.79	-8.9
IR13028	0.66	-8.9
IR13173	0.53	-8.9
IR13185	0.72	-8.9
IR13210	0.77	-8.9
IR13261	0.61	-8.9
IR13312	0.51	-8.9
IR13329	0.46	-8.9
IR13372	0.57	-8.9
IR13457	0.59	-8.9

IR13506	0.58	-8.9
IR13593	0.51	-8.9
IR13630	0.6	-8.9
IR13649	0.78	-8.9
IR13756	0.71	-8.9
IR13773	0.55	-8.9
IR13778	0.43	-8.9
IR13817	0.75	-8.9
IR13916	0.69	-8.9
IR13947	0.58	-8.9
IR13984	0.88	-8.9
IR14073	0.47	-8.9
IR14188	0.52	-8.9