

**Supplementary Table 2. *In Vitro* Characteristics of Selected Chemicals with Docking Score Order 51–100**

Lab No.*	Docking score	ChemBridge ID	MW	Relative inhibition <sup>†</sup>	Dil-LDL uptake <sup>‡</sup>	LDLR <sup>§</sup>	PCSK9 <sup>§</sup>
CBC_51	26.99	7127155	468.5	-2.6%	0.95	0.74	0.85
CBC_52	26.99	7010655	295.4	15.4%	1.80	1.41	0.60
CBC_53	26.98	6707210	409.6	28.4%	1.74	1.16	0.75
CBC_54	26.98	7980928	391.9	2.6%	1.74	1.09	0.87
CBC_55	26.97	7059604	448.4	-5.3%	1.03	0.51	0.67
CBC_56	26.95	9006787	370.4	26.1%	1.02	1.40	0.50
CBC_57	26.94	6991769	318.5	12.5%	2.18	1.10	0.46
CBC_58	26.89	7116267	469.6	-27.9%	1.49	1.43	0.23
CBC_59	26.86	6587027	339.8	-5.8%	1.18	0.53	0.00
CBC_60	26.85	5537034	332.4	4.6%	0.94	0.61	0.16
CBC_61	26.84	6578162	459.6	14.9%	1.03	1.26	0.74
CBC_62	26.81	9011745	356.4	4.7%	1.02	0.70	0.15
CBC_63	26.81	7913488	402.5	-11.1%	0.90	0.45	0.57
CBC_64	26.79	6447900	400.5	-0.6%	2.04	1.27	0.72
CBC_65	26.79	7261073	353.5	-1.8%	1.17	0.98	0.26
CBC_66	26.78	7943026	493.4	10.2%	1.93	0.83	0.60
CBC_67	26.75	5252938	378.4	-10.6%	1.08	0.44	0.79
CBC_68	26.74	5426872	389.5	10.0%	0.52	0.65	0.41
CBC_69	26.74	7970741	345.5	5.8%	1.22	1.18	0.88
CBC_70	26.73	9025813	348.4	9.8%	2.06	1.23	0.59
CBC_71	26.69	7547620	361.4	-8.5%	1.01	0.68	0.41
CBC_72	26.69	5723280	330.4	25.8%	1.21	1.06	1.28
CBC_73	26.68	5425499	345.5	18.9%	1.93	1.76	1.26
CBC_74	26.67	7968546	341.5	19.6%	1.94	1.48	1.49
CBC_75	26.67	5665101	459.5	-1.5%	1.23	0.52	0.75
CBC_76	26.66	7873145	381.5	7.0%	1.10	0.70	0.33
CBC_77	26.66	9036091	337.4	16.0%	1.18	0.82	1.06
CBC_78	26.64	7543524	368.4	-2.7%	1.44	0.77	0.23
CBC_79	26.62	5427177	398.5	52.3%	1.76	0.98	0.62
CBC_80	26.62	7924529	299.4	6.9%	1.49	1.36	1.18
CBC_81	26.62	7232922	431.5	-10.0%	1.35	1.20	0.15
CBC_82	26.61	6759201	397.6	12.1%	1.32	1.65	1.45
CBC_83	26.61	9014232	327.8	22.5%	2.08	0.97	0.61
CBC_84	26.59	7997500	377.5	11.9%	1.34	1.62	1.80
CBC_85	26.59	7924880	329.5	18.6%	1.44	1.31	1.22
CBC_86	26.58	9038237	348.4	8.4%	1.54	1.22	0.89
CBC_87	26.55	7966644	385.5	11.2%	1.80	1.60	1.37
CBC_88	26.48	7595292	373.9	3.3%	1.09	0.65	0.08
CBC_89	26.48	7968661	475.5	3.2%	1.26	1.21	0.39
CBC_90	26.47	7839314	389.4	6.2%	0.76	1.47	0.95
CBC_91	26.44	7889540	366.4	2.5%	1.12	2.08	0.76
CBC_92	26.43	9030034	422.4	1.1%	1.46	1.44	0.59
CBC_93	26.41	6484579	375.5	2.3%	1.18	1.26	0.78
CBC_94	26.39	7280568	366.5	-5.6%	1.11	1.03	0.91
CBC_95	26.35	7934110	416.5	-12.5%	0.91	1.19	0.64
CBC_96	26.34	6659178	403.4	-11.3%	1.01	0.59	0.86
CBC_97	26.33	9019728	371.5	-0.2%	1.44	0.97	1.01
CBC_98	26.32	7633305	397.4	6.0%	1.05	0.97	0.05
CBC_99	26.31	7791626	434.6	11.5%	0.91	0.74	0.84
CBC_100	26.24	7933432	444.5	-3.0%	0.85	0.62	0.68

MW, molecular weight; LDL, low density lipoprotein; LDLR, LDL receptor; PCSK9, proprotein convertase subtilisin/kexin type 9.

\*Lab No. is arbitrarily denoted according to the order of the ChemBridge ID number, <sup>†</sup>Relative inhibition represents the difference in percentile between the intensity of PCSK9-LDLR in the presence of the chemical and that in the presence of the vehicle (DMSO), which was set as 100%, <sup>‡</sup>Dil-LDL uptake denotes the factor of the mean fluorescence intensity in HepG2 cells treated with each chemical compared to that in cells treated with the vehicle, <sup>§</sup>The amount of LDLR or PCSK9 denotes the factor of the signal for LDLR or PCSK9, respectively, from immunoblot data analyzed by ImageJ.