

Supplementary Table S1. List of SNPs (from the lowest to the highest p value) used for GRS optimization and their effect on the strength of association (expressed as change in p value and R square) with HOMA—IR by adjusted (for ethnicity, sex, age, BMI, and treatments) regression models.

No.	SNP	Gene	p value	R square	Delta p value	Delta R square	Included / excluded
1	rs7961581	<i>TSPAN8</i>	1.37E-03	0.2489	——	——	Included
2	rs1801282	<i>PPARG</i>	1.02E-04	0.2541	1.27E-03	-5.24E-03	Included
3	rs6822892	<i>PDGFC</i>	6.00E-05	0.2552	4.20E-05	-1.07E-03	Included
4	rs13266634	<i>SLC30A8</i>	7.00E-06	0.2596	5.30E-05	-4.43E-03	Included
5	rs4430796	<i>HNF1B</i>	8.88E-07	0.2638	6.11E-06	-4.16E-03	Included
6	rs10010131	<i>WFS1</i>	1.63E-07	0.2672	7.25E-07	-3.46E-03	Included
7	rs7903146	<i>TCF7L2</i>	2.05E-07	0.2668	-4.22E-08	4.70E-04	Excluded
8	rs5219	<i>KCNJ11</i>	3.66E-07	0.2656	-2.03E-07	1.65E-03	Excluded
9	rs731839	<i>PEPD</i>	7.00E-06	0.2595	-6.84E-06	7.77E-03	Excluded
10	rs459193	<i>C5orf67</i>	6.89E-08	0.2690	9.42E-08	-1.76E-03	Included
11	rs4402960	<i>IGF2BP2</i>	3.50E-08	0.2704	3.39E-08	-1.38E-03	Included
12	rs308971	<i>SYN2</i>	1.24E-08	0.2725	2.26E-08	-2.11E-03	Included
13	rs10811661	<i>CDKN2B-AS1</i>	1.61E-08	0.2720	-3.68E-09	5.28E-04	Excluded
14	rs4607103	<i>ADAMTS9-AS2</i>	8.40E-09	0.2733	4.01E-09	-7.95E-04	Included
15	rs7754840	<i>CDKAL1</i>	4.00E-09	0.2748	4.40E-09	-1.51E-03	Included
16	rs3822072	<i>FAM13A</i>	4.68E-09	0.2745	-6.80E-10	3.19E-04	Excluded
17	rs7578597	<i>THADA</i>	2.23E-09	0.2760	1.77E-09	-1.19E-03	Included
18	rs1111875	<i>HHEX</i>	1.91E-09	0.2763	3.20E-10	-3.14E-04	Included
19	rs2943645	<i>NYAP2</i>	5.57E-09	0.2741	-3.65E-09	2.17E-03	Excluded
20	rs780094	<i>GCKR</i>	2.35E-09	0.2759	-4.36E-10	4.17E-04	Excluded
21	rs4846565	<i>LYPLAL1-AS1</i>	3.14E-09	0.2753	-1.22E-09	1.00E-03	Excluded
22	rs10195252	<i>COBLL1</i>	1.05E-08	0.2728	-8.59E-09	3.46E-03	Excluded
23	rs10923931	<i>NOTCH2</i>	3.93E-09	0.2748	-2.02E-09	1.46E-03	Excluded
24	rs8050136	<i>FTO</i>	3.35E-09	0.2751	-1.44E-09	1.14E-03	Excluded
25	rs4865796	<i>ARL15</i>	1.88E-09	0.2763	2.79E-11	-3.00E-05	Included
26	rs864745	<i>JAZF1</i>	1.13E-09	0.2774	7.59E-10	-1.05E-03	Included
27	rs564398	<i>CDKN2B-AS1</i>	2.05E-09	0.2761	-9.28E-10	1.22E-03	Excluded
28	rs2745353	<i>RSPO3</i>	1.27E-08	0.2724	-1.15E-08	4.92E-03	Excluded
29	rs2237892	<i>KCNQ1</i>	4.37E-09	0.2746	-3.24E-09	2.75E-03	Excluded