

Supplementary Table 1. Allele frequencies of 161 SNPs examined

Chr	Associated Gene	SNP	Position	EArep GWAS minor allele	EArep GWAS MAF	ASW minor allele	ASW MAF	Sample minor allele	Sample MAF
1	<i>ANGPTL1</i>	rs4650994	178515312	G	0.49	A	0.22	A	0.18
1	<i>ANGPTL3</i>	rs2131925	63025942	G	0.34	G	0.34	T	0.35
1	<i>ANXA9</i>	rs267733	150958836	G	0.16	G	0.09	G	0.06
1	<i>ASAP3</i>	rs1077514	23766233	C	0.15	T	0.48	C	0.50
1	<i>EVI5</i>	rs7515577	93009438	C	0.23	C	0.49	C	0.07
1	<i>GALNT2</i>	rs4846914	230295691	G	0.41	A	0.20	A	0.13
1	<i>HDGF-PMVK</i>	rs12145743	156700651	G	0.34	G	0.05	G	0.06
1	<i>IRF2BP2</i>	rs514230	234858597	A	0.48	A	0.22	A	0.24
1	<i>LDLRAP1</i>	rs12027135	25775733	A	0.46	T	0.49	T	0.47
1	<i>MARCI</i>	rs2642442	220973563	C	0.33	C	0.25	C	0.22
1	<i>PABPC4</i>	rs4660293	40028180	G	0.24	G	0.07	G	0.05
1	<i>PCSK9</i>	rs2479409	55504650	G	.032	G	0.32	G	0.25
1	<i>PIGV-NR0B2</i>	rs12748152	27138393	T	0.09	T	0.00	T	0.02
1	<i>SORT1</i>	rs629301	109818306	G	0.24	G	0.42	G	0.36
1	<i>ZNF648</i>	rs1689800	182168885	G	0.35	G	0.28	G	0.34
2	<i>ABCB11</i>	rs2287623	169830155	G	0.41	G	0.41	G	0.42
2	<i>ABCG8</i>	rs4299376	44072576	G	0.31	G	0.14	G	0.15
2	<i>APOB</i>	rs1042034	21225281	C	N/A	C	0.16	C	0.16
2	<i>APOB</i>	rs1367117	21263900	A	0.32	A	0.17	A	0.10
2	<i>COBLL1</i>	rs10195252	165513091	C	0.41	T	0.25	T	0.24
2	<i>COBLL1</i>	rs12328675	165540800	C	N/A	C	0.20	C	0.16
2	<i>CPS1</i>	rs1047891	211540507	A	0.33	A	0.39	A	0.35
2	<i>EHBPI</i>	rs2710642	63149557	G	0.35	G	0.19	G	0.14
2	<i>FAM117B</i>	rs11694172	203532304	G	0.25	G	0.06	G	0.06
2	<i>FNI</i>	rs1250229	216304384	T	0.27	T	0.17	T	0.19
2	<i>GCKR</i>	rs1260326	27730940	T	0.39	T	0.10	T	0.15
2	<i>INSIG2</i>	rs10490626	118835841	A	0.08	A	0.00	A	0.01
2	<i>IRS1</i>	rs2972146	227100698	G	0.37	G	0.16	G	0.17
2	<i>LOC105373585</i>	rs2030746	121309488	T	0.4	T	0.41	C	0.45
2	<i>RAB3GAP1</i>	rs7570971	135837906	A	0.35	C	0.16	C	0.13
2	<i>UGT1A1</i>	rs11563251	234679384	T	0.12	T	0.3	T	0.37
3	<i>ACAD11</i>	rs17404153	132163200	T	0.14	T	0.04	T	0.03
3	<i>ATG7</i>	rs2606736	11400249	C	0.39	T	0.33	T	0.41
3	<i>CMTM6</i>	rs7640978	32533010	T	0.09	T	0.25	T	0.29
3	<i>GSK3B</i>	rs6805251	119560606	T	0.39	C	0.16	C	0.12
3	<i>MSL2</i>	rs645040	135926622	G	0.23	G	0.26	G	0.30
3	<i>PXK</i>	rs13315871	58381287	A	0.1	A	0.07	A	0.04
3	<i>RAF1</i>	rs2290159	12628920	C	0.23	C	0.28	C	0.28
3	<i>RBM5</i>	rs2013208	50129399	T	0.5	C	0.47	C	0.41
3	<i>SETD2</i>	rs2290547	47061183	A	0.2	A	0.06	A	0.04
3	<i>STAB1</i>	rs13326165	52532118	A	0.21	A	0.37	A	0.34
4	<i>ADH5</i>	rs2602836	100014805	A	0.44	G	0.29	G	0.33
4	<i>FAM13A</i>	rs3822072	89741269	A	0.46	G	043	G	0.46
4	<i>KLHL8</i>	rs442177	88030261	G	0.42	G	0.50	G	0.50
4	<i>LRPAP1</i>	rs6831256	3473139	G	0.42	A	0.33	A	0.36
4	<i>SLC39A8</i>	rs13107325	103188709	T	0.08	T	0.02	T	0.01
4	<i>SMIM20</i>	rs10019888	26062990	G	0.18	G	0.25	G	0.23
5	<i>ARL15</i>	rs6450176	53298025	A	0.26	A	0.29	A	0.29

5	<i>CSNK1G3</i>	rs4530754	122855416	G	0.46	G	0.27	G	0.22
5	<i>HMGCR</i>	rs12916	74656539	C	0.4	C	0.28	C	0.23
5	<i>MAP3K1</i>	rs9686661	55861786	T	0.2	T	0.29	T	0.25
5	<i>TIMD4</i>	rs6882076	156390297	T	0.36	C	0.38	C	0.38
6	<i>C6orf106</i>	rs2814944	34552797	T	0.12	T	0.26	A	0.30
6	<i>C6orf106</i>	rs2814982	34546560	T	N/A	T	0.23	T	0.30
6	<i>CITED2</i>	rs605066	139829666	C	0.42	T	0.41	T	0.45
6	<i>FRK</i>	rs9488822	116312893	T	0.36	T	0.38	T	0.35
6	<i>HBS1L</i>	rs9376090	135411228	C	0.28	C	0.08	C	0.04
6	<i>HFE</i>	rs1800562	26093141	A	0.07	A	0.02	A	0.01
6	<i>HLA-DRA</i>	rs3177928	32412435	A	0.17	A	0.13	A	0.10
6	<i>KCNK17</i>	rs2758886	39250837	A	0.3	A	0.21	A	0.16
6	<i>LPA</i>	rs1564348	160578860	C	0.18	C	0.09	C	0.11
6	<i>MYLIP</i>	rs3757354	16127407	T	0.24	T	0.39	T	0.34
6	<i>RSPO3</i>	rs1936800	127436064	C	0.49	C	0.50	C	0.48
6	<i>VEGFA</i>	rs998584	43757896	A	0.49	A	0.27	A	0.22
7	<i>DAGLB</i>	rs702485	6449272	G	0.45	A	0.31	A	0.21
7	<i>DNAH11</i>	rs12670798	21607352	C	0.25	C	0.35	C	0.33
7	<i>GPR146</i>	rs1997243	1083777	G	0.16	G	0.02	G	0.03
7	<i>IKZF1</i>	rs4917014	50305863	G	0.32	G	0.08	G	0.08
7	<i>KLF14</i>	rs4731702	130433384	T	0.42	T	0.32	T	0.26
7	<i>MET</i>	rs38855	116358044	G	0.47	G	0.24	G	0.20
7	<i>MIR148A</i>	rs4722551	25991826	C	0.2	C	0.05	C	0.04
7	<i>MLXIPL</i>	rs17145738	72982874	T	0.13	T	0.07	T	0.09
7	<i>NPC1L1</i>	rs2072183	44579180	C	0.29	C	0.20	C	0.20
7	<i>SNX13</i>	rs4142995	17919258	T	0.38	G	0.30	G	0.30
7	<i>TMEM176A</i>	rs17173637	150529449	C	0.12	C	0.06	C	0.06
7	<i>TYW1B</i>	rs13238203	72129667	T	0.04	T	0.01	T	0.01
8	<i>CYP7A1</i>	rs2081687	59388565	T	0.36	T	0.25	T	0.23
8	<i>LPL</i>	rs12678919	19844222	G	0.13	G	0.09	G	0.11
8	<i>NAT2</i>	rs1495741	18272881	G	0.26	G	0.33	G	0.39
8	<i>PINX1</i>	rs11776767	10683929	C	0.37	G	0.32	G	0.31
8	<i>PLEC</i>	rs11136341	145043543	G	0.4	G	0.39	A	0.50
8	<i>PPP1R3B</i>	rs9987289	9183358	A	0.1	A	0.20	A	0.17
8	<i>SOX17</i>	rs10102164	55421614	A	0.21	A	0.15	A	0.17
8	<i>TRIB1</i>	rs2954029	126490972	T	0.47	T	0.34	T	0.34
8	<i>TRPS1</i>	rs2293889	116599199	T	0.41	T	0.06	T	0.10
8	<i>TRPS1</i>	rs2737229	116648565	C	N/A	A	0.20	A	0.17
9	<i>ABCA1</i>	rs1883025	107664301	T	0.25	T	0.38	T	0.34
9	<i>TTC39B</i>	rs581080	15305378	G	0.21	G	0.38	C	0.49
9	<i>VLDLR</i>	rs3780181	2640759	G	0.08	G	0.21	G	0.20
10	<i>AKR1C4</i>	rs1832007	5254847	G	0.18	G	0.04	G	0.03
10	<i>CYP26A1</i>	rs2068888	94839642	A	0.45	A	0.34	A	0.33
10	<i>GPAM</i>	rs2255141	113933886	A	0.3	A	0.07	A	0.08
10	<i>JMJD1C</i>	rs10761731	65027610	T	0.44	T	0.30	T	0.30
10	<i>MARCH8</i>	rs970548	46013277	C	0.26	C	0.22	C	0.22
10	<i>VIM-ASI</i>	rs10904908	17260290	G	0.43	G	0.34	G	0.36
11	<i>AMPD3</i>	rs2923084	10388782	G	0.18	G	0.48	G	0.47
11	<i>APOA1</i>	rs964184	116648917	C	0.84	G	0.22	G	0.22
11	<i>FADS1</i>	rs174546	61569830	T	0.36	T	0.11	T	0.07
11	<i>KAT5</i>	rs12801636	65391317	A	0.23	A	0.27	A	0.26
11	<i>LRP4</i>	rs3136441	46743247	C	0.18	C	0.04	C	0.03
11	<i>MOGAT2</i>	rs499974	75455021	A	0.19	A	0.40	A	0.34

11	<i>OR4C46</i>	rs11246602	51512090	C	0.15	C	0.12	C	0.05
11	<i>PHLDB1</i>	rs11603023	118486067	T	0.42	T	0.45	T	0.48
11	<i>SPTY2D1</i>	rs10128711	18632984	T	0.3	C	0.30	C	0.20
11	<i>ST3GAL4</i>	rs11220462	126243952	A	0.14	A	0.04	A	0.04
11	<i>UBASH3B</i>	rs7941030	122522375	C	0.39	C	0.41	C	0.43
12	<i>BRAP</i>	rs11065987	112072424	G	0.41	G	0.09	G	0.07
12	<i>HNF1A</i>	rs1169288	121416650	C	0.34	C	0.13	C	0.12
12	<i>LRP1</i>	rs11613352	57792580	T	0.26	T	0.14	T	0.09
12	<i>MVK</i>	rs7134594	110000193	C	0.48	C	0.33	C	0.26
12	<i>PDE3A</i>	rs7134375	20473758	A	0.43	A	0.36	A	0.29
12	<i>PHC1</i>	rs4883201	9082581	G	0.12	G	0.03	G	0.02
12	<i>SBNO1</i>	rs4759375	123796238	T	0.08	T	0.08	T	0.14
12	<i>SCARB1</i>	rs838880	125261593	C	0.34	T	0.35	T	0.33
12	<i>ZNF664</i>	rs4765127	124460167	T	0.35	T	0.35	T	0.36
13	<i>BRCA2</i>	rs4942486	32953388	T	0.48	T	0.48	T	0.49
14	<i>NYNRIN</i>	rs8017377	24883887	A	0.46	A	0.16	A	0.19
14	<i>ZBTB42</i>	rs4983559	105277209	G	0.4	A	0.39	A	0.42
15	<i>CAPN3</i>	rs2412710	42683787	A	0.04	A	0.06	A	0.07
15	<i>FRMD5</i>	rs2929282	44245931	T	0.07	T	0.31	T	0.31
15	<i>LACTB</i>	rs2652834	63396867	A	0.21	A	0.27	A	0.30
15	<i>LIPC</i>	rs1532085	58683366	A	0.4	G	0.48	G	0.46
16	<i>CETP</i>	rs3764261	56993324	A	0.32	A	0.31	A	0.31
16	<i>CMIP</i>	rs2925979	81534790	T	0.31	T	0.37	T	0.30
16	<i>CTF1</i>	rs11649653	30918487	G	0.4	G	0.11	G	0.09
16	<i>FTO</i>	rs1121980	53809247	A	0.43	A	0.49	A	0.45
16	<i>HPR</i>	rs2000999	72108093	A	0.2	A	0.08	A	0.07
16	<i>LCAT</i>	rs16942887	67928042	A	0.14	A	0.23	A	0.19
16	<i>PDXDC1</i>	rs3198697	15129940	T	0.43	T	0.09	T	0.06
17	<i>ABCA8</i>	rs4148008	66875294	G	0.33	C	0.43	C	0.46
17	<i>APOH</i>	rs1801689	64210580	C	0.04	C	0.00	C	0.01
17	<i>DLG4</i>	rs314253	7091650	C	0.37	C	0.32	C	0.39
17	<i>MPP3</i>	rs8077889	41878166	C	0.22	C	0.14	C	0.18
17	<i>OSBPL7</i>	rs7206971	45425115	A	0.49	G	0.56	A	0.46
17	<i>PGS1</i>	rs4129767	76403984	G	0.48	A	0.33	A	0.32
17	<i>STARD3</i>	rs11869286	37813856	G	0.35	C	0.34	C	0.23
18	<i>LIPG</i>	rs7241918	47160953	G	0.19	G	0.06	G	0.05
18	<i>MC4R</i>	rs12967135	57849023	A	0.25	A	0.26	A	0.27
19	<i>ANGPTL4</i>	rs7255436	8433196	C	0.47	C	0.36	C	0.31
19	<i>APOE</i>	rs439401	45414451	T	N/A	T	0.16	T	0.19
19	<i>APOE</i>	rs4420638	45422946	G	0.19	G	0.29	G	0.19
19	<i>CILP2</i>	rs10401969	19407718	C	0.09	C	0.18	C	0.17
19	<i>FUT2</i>	rs492602	49206417	G	0.47	A	0.49	A	0.49
19	<i>HAS1</i>	rs17695224	52324216	A	0.26	A	0.16	A	0.16
19	<i>INSR</i>	rs7248104	7224431	A	0.42	A	0.26	A	0.30
19	<i>LDLR</i>	rs6511720	11202306	T	0.12	T	0.12	T	0.12
19	<i>LILRA3</i>	rs386000	54792761	C	0.26	C	0.20	C	0.16
19	<i>LOC55908</i>	rs737337	11347493	C	0.11	C	0.40	C	0.45
19	<i>PEPD</i>	rs731839	33899065	G	0.35	G	0.43	G	0.38
20	<i>ERGIC3</i>	rs2277862	34152782	T	0.15	T	0.16	T	0.20
20	<i>HNF4A</i>	rs1800961	43042364	T	0.05	T	0.00	T	0.01
20	<i>MAFB</i>	rs2902940	39091487	G	0.3	G	0.42	G	0.48
20	<i>PLTP</i>	rs6065906	44554015	C	0.19	C	0.16	C	0.14
20	<i>SNX5</i>	rs2328223	17845921	C	0.21	C	0.10	C	0.22

20	<i>SPTLC3</i>	rs364585	12962718	A	0.38	A	0.15	A	0.16
20	<i>TOP1</i>	rs6029526	39672618	A	0.47	T	0.19	T	0.24
22	<i>MTMR3</i>	rs5763662	30378703	T	0.04	T	0.02	T	0.01
22	<i>PLA2G6</i>	rs5756931	38546033	C	0.4	C	0.11	C	0.11
22	<i>PPARA</i>	rs4253772	46627603	T	0.11	T	0.01	T	0.02
22	<i>TOM1</i>	rs138777	35711098	A	0.36	G	0.32	G	0.19
22	<i>UBE2L3</i>	rs181362	21932068	T	0.23	T	0.40	T	0.42

*Chr= Chromosome; Allele frequencies for populations acquired from 1,000 genomes project build 37; GWAS = genome wide association study; MAF = minor allele frequency; ASW= African Ancestry in Southwest US; EArep = European Ancestry replication study; ASW is the U.S. representative populations in 1,000 genomes for African Americans (http://grch37.ensembl.org/Homo_sapiens/Info/Index?db=core;r=1:178514812-178515812;v=rs4650994;vdb=variation;vf=2817147).

Supplementary Table 2. M-values of 66 DNAm sites examined

Chr	Gene	DNAm site	Position	Mean M-Value	SD of Mean M-value
1	<i>EVI5</i>	cg00519208	93030907	0.767	0.051
1	<i>EVI5</i>	cg10989326	93031496	0.692	0.045
1	<i>GALNT2</i>	cg04702490	228269053	0.042	0.026
1	<i>GALNT2</i>	cg13769204	228270234	0.042	0.019
1	<i>PABPC4</i>	cg08866753	39814648	0.031	0.006
1	<i>PABPC4</i>	cg12585282	39815314	0.096	0.041
2	<i>APOB</i>	cg05337441	21120073	0.227	0.094
2	<i>APOB</i>	cg24309555	21120461	0.398	0.124
2	<i>GCKR</i>	cg20022122	27573626	0.800	0.036
2	<i>GCKR</i>	cg20229788	27572002	0.155	0.032
2	<i>RAB3GAP1</i>	cg12813922	135526410	0.023	0.006
2	<i>RAB3GAP1</i>	cg18312807	135526163	0.048	0.010
3	<i>RAF1</i>	cg09326546	12680291	0.037	0.027
3	<i>RAF1</i>	cg18331396	12680704	0.038	0.008
4	<i>SLC39A8</i>	cg04304927	103485577	0.027	0.020
4	<i>SLC39A8</i>	cg18277508	103485368	0.109	0.024
5	<i>HMGCR</i>	cg02162412	74668682	0.029	0.023
5	<i>TIMD4</i>	cg18994063	156322277	0.711	0.038
6	<i>FRK</i>	cg00430287	116489569	0.930	0.011
6	<i>FRK</i>	cg16176600	116488302	0.785	0.052
6	<i>HFE</i>	cg06892726	26195586	0.142	0.026
6	<i>HLA-DRA</i>	cg19248557	32515816	0.053	0.012
6	<i>HLA-DRA</i>	cg25764570	32515267	0.558	0.071
7	<i>NPC1L1</i>	cg14477619	44547406	0.861	0.024
7	<i>NPC1L1</i>	cg17754680	44548356	0.721	0.065
8	<i>PINX1</i>	cg11108432	10735108	0.041	0.024
8	<i>TRPS1</i>	cg12569516	116750367	0.045	0.007
8	<i>TRPS1</i>	cg21312090	116750901	0.113	0.085
9	<i>ABCA1</i>	cg05286874	106730306	0.028	0.012
9	<i>ABCA1</i>	cg21572316	106729839	0.088	0.020
10	<i>GPAM</i>	cg12137206	113933387	0.088	0.016
10	<i>GPAM</i>	cg24965984	113933713	0.151	0.048
10	<i>JMJD1C</i>	cg22492966	64698935	0.105	0.019
11	<i>FADS1</i>	cg09462826	61341349	0.100	0.017
11	<i>FADS1</i>	cg27173322	61340688	0.027	0.025
11	<i>ST3GAL4</i>	cg01234063	125731217	0.081	0.017
11	<i>ST3GAL4</i>	cg08203715	125731364	0.091	0.018
12	<i>SBNO1</i>	cg04398275	122400770	0.780	0.036
12	<i>SBNO1</i>	cg16068780	122401376	0.878	0.023
12	<i>ZNF664</i>	cg02252918	123024395	0.024	0.016
12	<i>ZNF664</i>	cg26493932	123022544	0.058	0.012

15	<i>CAPN3</i>	cg19170321	40427608	0.856	0.021
15	<i>CAPN3</i>	cg23414431	40427575	0.864	0.021
15	<i>FRMD5</i>	cg16046465	42274484	0.063	0.057
15	<i>FRMD5</i>	cg23074453	42275216	0.110	0.025
16	<i>HPR</i>	cg09584711	70654445	0.519	0.073
16	<i>HPR</i>	cg20672044	70653999	0.916	0.016
17	<i>ABCA8</i>	cg21660392	64462140	0.898	0.039
17	<i>STARD3</i>	cg14115004	35046738	0.082	0.031
17	<i>STARD3</i>	cg23894539	35047044	0.025	0.016
19	<i>ANGPTL4</i>	cg02505409	8335160	0.041	0.026
19	<i>ANGPTL4</i>	cg16745616	8334856	0.113	0.026
19	<i>FUT2</i>	cg01656853	53890984	0.413	0.047
19	<i>FUT2</i>	cg19025034	53890712	0.855	0.018
19	<i>LDLR</i>	cg05249393	11060883	0.095	0.018
19	<i>LDLR</i>	cg23943360	11061146	0.051	0.011
20	<i>ERGIC3</i>	cg00340102	33592870	0.255	0.042
20	<i>ERGIC3</i>	cg00350702	33593341	0.063	0.012
20	<i>HNF4A</i>	cg19717150	42418292	0.741	0.056
20	<i>HNF4A</i>	cg23834593	42417334	0.751	0.046
20	<i>TOP1</i>	cg04119538	39090865	0.042	0.019
20	<i>TOP1</i>	cg16376234	39090920	0.072	0.015
22	<i>PLA2G6</i>	cg04280397	36908084	0.067	0.011
22	<i>PLA2G6</i>	cg10184886	36907524	0.211	0.045
22	<i>UBE2L3</i>	cg25421647	20251833	0.140	0.054
22	<i>UBE2L3</i>	cg26286036	20252412	0.044	0.008

*Chr= Chromosome; Map locations based on Illumina Infinium annotation file for the 27K array build 36 (<https://support.illumina.com/array/downloads.html>)