

Supplementary Table S1 The summary statistic of significant probes associated with age ($P < 2.4 \times 10^{-7}$) ordered by Chromosome and position.

CpG	Beta	P	R ²	CHR	MAPINFO	Gene	feature	Known*
cg20822990	-0.58	4.6e-08	0.34	1	17338766	<i>ATP13A2</i>	TSS1500	1
cg09793172	0.58	7.0e-08	0.33	1	21044101	<i>KIF17</i>	1stExon	0
cg15728256	0.58	8.3e-08	0.33	1	40254184	<i>BMP8B</i>	5'UTR	0
cg18815943	0.62	3.6e-09	0.39	1	47882314	<i>FOXE3</i>	1stExon	1
cg01281911	0.57	9.0e-08	0.33	1	47882686	<i>FOXE3</i>	1stExon	1
cg06784991	0.68	2.4e-11	0.46	1	53308768	<i>ZYG11A</i>	Body	1
cg24466241	0.56	2.2e-07	0.31	1	53308908	<i>ZYG11A</i>	Body	1
cg10628205	-0.66	1.4e-10	0.44	1	61547131	<i>NFIA</i>	Body	1
cg12079303	-0.57	1.0e-07	0.33	1	61547163	<i>NFIA</i>	Body	0
cg23078123	-0.65	4.7e-10	0.42	1	68577796	<i>GPR177</i>	Body	1
cg20591472	0.62	3.9e-09	0.38	1	110008990	<i>SYPL2</i>	TSS200	1
cg01974375	-0.58	5.5e-08	0.34	1	151298954	<i>PI4KB</i>	TSS1500	1
cg03890680	-0.59	2.5e-08	0.35	1	227504721	<i>CDC42BPA</i>	1stExon	1
cg01557798	0.58	5.5e-08	0.34	1	228400628	<i>OBSCN</i>	Body	1
cg09809672	-0.56	1.8e-07	0.32	1	236557682	<i>EDARADD</i>	TSS1500	1
cg03422911	0.59	2.5e-08	0.35	1	237205295	<i>RYR2</i>	TSS1500	1
cg20491914	0.62	4.8e-09	0.38	2	26915349	<i>KCNK3</i>	TSS1500	0
cg27320127	0.61	7.0e-09	0.37	2	47798396	<i>KCNK12</i>	TSS1500	1
cg01968178	0.56	1.6e-07	0.32	2	86565038	<i>REEP1</i>	Body	1

cg06639320	0.73	2.7e-13	0.53	2	106015739	<i>FHL2</i>	TSS200	1
cg22454769	0.75	1.1e-14	0.57	2	106015767	<i>FHL2</i>	TSS200	1
cg24079702	0.75	9.5e-15	0.57	2	106015771	<i>FHL2</i>	TSS200	1
cg13381486	0.59	2.5e-08	0.35	2	131513632	<i>FAM123C</i>	TSS1500	1
cg23606718	0.74	5.3e-14	0.55	2	131513927	<i>FAM123C</i>	5'UTR	1
cg00573770	-0.61	8.4e-09	0.37	2	145278485	<i>ZEB2</i>	TSS1500	0
cg00602811	-0.59	2.9e-08	0.35	2	145278564	<i>ZEB2</i>	TSS1500	1
cg18311633	-0.58	5.0e-08	0.34	2	155309539	<i>GALNT13</i>	3'UTR	0
cg12757011	0.64	7.8e-10	0.41	2	162281111	<i>TBR1</i>	3'UTR	1
cg01620164	-0.62	2.8e-09	0.39	2	164590272	<i>FIGN</i>	Body	1
cg03767531	0.62	3.2e-09	0.39	2	182545572	<i>NEUROD1</i>	TSS200	0
cg03545227	0.63	1.5e-09	0.4	2	220173100	<i>PTPRN</i>	Body	1
cg23988310	0.59	3.0e-08	0.35	2	224467049	<i>SCG2</i>	5'UTR	0
cg12001304	0.61	1.0e-08	0.37	2	229045020	<i>SPHKAP</i>	Body	0
cg24436906	0.57	1.4e-07	0.32	2	242498081	<i>BOK</i>	TSS200	1
cg21117668	0.62	3.4e-09	0.39	2	242498349	<i>BOK</i>	5'UTR	1
cg22934295	0.62	5.2e-09	0.38	3	42306385	<i>CCK</i>	1stExon	0
cg12091542	0.57	1.3e-07	0.32	3	48700425	<i>CELSR3</i>	TSS200	0
cg16323609	-0.58	4.5e-08	0.34	3	48885591	<i>PRKAR2A</i>	TSS1500	0
cg01844642	0.65	2.6e-10	0.43	3	51989764	<i>GPR62</i>	1stExon	1
cg04474832	-0.6	1.9e-08	0.36	3	52008487	<i>ABHD14B</i>	1stExon	1
cg03607117	0.67	1.0e-10	0.44	3	53080440	<i>SFMBT1</i>	TSS1500	1
cg09379755	0.56	2.4e-07	0.31	3	62861925	<i>CADPS</i>	TSS1500	0

cg15618978	0.59	3.8e-08	0.34	3	160167990	<i>TRIM59</i>	TSS1500	1
cg00481951	0.63	2.1e-09	0.39	3	187387650	<i>SST</i>	Body	1
cg07963234	0.6	1.4e-08	0.36	4	5894923	<i>CRMP1</i>	TSS200	1
cg15448975	0.63	2.0e-09	0.4	4	5894930	<i>CRMP1</i>	TSS200	1
cg22680204	0.58	4.8e-08	0.34	4	5895098	<i>CRMP1</i>	TSS1500	0
cg21523251	0.6	1.4e-08	0.36	4	8582110	<i>GPR78</i>	TSS200	0
cg11970349	0.61	6.8e-09	0.37	4	8582287	<i>GPR78</i>	TSS200	1
cg23995914	0.58	5.6e-08	0.34	4	10459228	<i>ZNF518B</i>	TSS200	1
cg07809027	-0.56	2.2e-07	0.31	4	15007205	<i>CPEB2</i>	Body	0
cg18797590	-0.56	2.2e-07	0.31	4	15480643	<i>CC2D2A</i>	Body	0
cg20816447	-0.57	9.4e-08	0.33	4	15480781	<i>CC2D2A</i>	Body	1
cg13726191	-0.59	3.3e-08	0.35	4	15940033	<i>FGFBP1</i>	TSS200	1
cg24199834	0.58	6.3e-08	0.34	4	147560126	<i>POU4F2</i>	1stExon	1
cg01102833	-0.58	7.8e-08	0.33	4	176986621	<i>WDR17</i>	TSS1500	0
cg25302419	0.62	3.9e-09	0.38	5	11904015	<i>CTNND2</i>	5'UTR	0
cg06782035	0.62	4.4e-09	0.38	5	16179135	<i>MARCH11</i>	Body	1
cg23479922	0.57	1.4e-07	0.32	5	16179633	<i>MARCH11</i>	1stExon	1
cg09017434	0.59	4.3e-08	0.34	5	16179660	<i>MARCH11</i>	1stExon	1
cg12238343	0.58	4.9e-08	0.34	5	33936402	<i>RXFP3</i>	TSS200	1
cg17621438	-0.63	1.9e-09	0.4	5	63461216	<i>RNF180</i>	TSS1500	1
cg07850154	-0.63	1.3e-09	0.4	5	63461232	<i>RNF180</i>	TSS1500	1
cg23008153	-0.59	4.3e-08	0.34	5	63461305	<i>RNF180</i>	TSS1500	0
cg12563644	0.65	2.5e-10	0.43	5	87956996	<i>LOC645323</i>	Body	0

cg11700800	0.61	6.2e-09	0.38	5	92906633	<i>FLJ42709</i>	Body	0
cg02699218	0.62	2.8e-09	0.39	5	132150128	<i>ANKRD43</i>	1stExon	1
cg06448705	0.57	1.4e-07	0.32	5	135701094	<i>TRPC7</i>	5'UTR	0
cg21874213	-0.61	8.6e-09	0.37	5	139229292	<i>NRG2</i>	Body	1
cg13900817	-0.59	2.7e-08	0.35	5	172070153	<i>NEURL1B</i>	Body	0
cg06933824	0.59	4.0e-08	0.34	5	172110579	<i>NEURL1B</i>	Body	1
cg16867657	0.8	1.4e-17	0.64	6	11044877	<i>ELOVL2</i>	TSS1500	1
cg24724428	0.76	7.4e-15	0.57	6	11044888	<i>ELOVL2</i>	TSS1500	1
cg21572722	0.74	4.7e-14	0.55	6	11044894	<i>ELOVL2</i>	TSS1500	1
cg22736354	0.76	2.9e-15	0.58	6	18122719	<i>NHLRC1</i>	1stExon	1
cg06493994	0.62	3.1e-09	0.39	6	25652602	<i>SCGN</i>	1stExon	1
cg03236802	0.59	3.0e-08	0.35	6	32055316	<i>TNXB</i>	Body	1
cg18651026	-0.59	2.5e-08	0.35	6	33140660	<i>COL11A2</i>	Body	1
cg08541518	0.68	1.9e-11	0.47	6	69942892	<i>BAI3</i>	Body	1
cg01850269	0.59	2.7e-08	0.35	6	100903227	<i>SIMI</i>	Body	1
cg03350900	0.65	5.1e-10	0.42	6	107955689	<i>SOBP</i>	Body	1
cg02872426	-0.65	4.8e-10	0.42	6	110736772	<i>DDO</i>	TSS200	1
cg06413398	-0.57	8.5e-08	0.33	6	110736865	<i>DDO</i>	TSS200	1
cg07164639	-0.59	4.0e-08	0.34	6	110736958	<i>DDO</i>	TSS1500	1
cg14956327	-0.58	4.7e-08	0.34	6	110737053	<i>DDO</i>	TSS1500	1
cg20979799	0.58	6.3e-08	0.34	6	117198560	<i>RFX6</i>	1stExon	1
cg12597389	0.57	1.0e-07	0.33	7	8482235	<i>NXPH1</i>	Body	1
cg25962015	-0.58	8.4e-08	0.33	7	26579291	<i>KIAA0087</i>	TSS1500	0

cg24853724	0.62	3.6e-09	0.39	7	28997403	<i>TRIL</i>	1stExon	1
cg09124496	-0.59	3.6e-08	0.35	7	41735851	<i>LOC285954</i>	Body	1
cg10092878	0.59	3.6e-08	0.35	7	73038859	<i>MLXIPL</i>	1stExon	0
cg00503840	0.56	2.2e-07	0.31	7	96650509	<i>DLX5</i>	Body	1
cg01287975	0.58	5.4e-08	0.34	7	97361241	<i>TAC1</i>	TSS200	1
cg08904363	0.61	1.1e-08	0.37	7	102790119	<i>NAPEPLD</i>	TSS1500	0
cg04528819	0.56	2.0e-07	0.31	7	130418315	<i>KLF14</i>	1stExon	1
cg00094518	0.63	1.7e-09	0.4	7	130418549	<i>KLF14</i>	1stExon	0
cg14361627	0.75	1.6e-14	0.56	7	130419116	<i>KLF14</i>	TSS1500	1
cg07955995	0.6	1.4e-08	0.36	7	130419159	<i>KLF14</i>	TSS1500	1
cg00292135	0.63	1.5e-09	0.4	7	156433068	<i>C7orf13</i>	Body	0
cg07927379	0.63	1.6e-09	0.4	7	156433108	<i>C7orf13</i>	Body	1
cg23636833	-0.57	1.2e-07	0.32	7	157514822	<i>PTPRN2</i>	Body	0
cg26330518	0.58	6.2e-08	0.34	8	24770342	<i>NEFM</i>	TSS1500	0
cg07502389	0.66	1.5e-10	0.44	8	24771259	<i>NEFM</i>	TSS200	1
cg18267374	0.61	1.0e-08	0.37	8	24771273	<i>NEFM</i>	TSS1500	1
cg07583137	-0.56	2.1e-07	0.31	8	82644012	<i>CHMP4C</i>	TSS1500	1
cg26290632	0.65	4.2e-10	0.42	8	91094847	<i>CALB1</i>	1stExon	1
cg04436528	-0.61	5.6e-09	0.38	8	143554875	<i>BAIL</i>	Body	0
cg21159778	0.59	2.7e-08	0.35	9	117266918	<i>DFNB31</i>	TSS1500	1
cg14058848	-0.59	4.2e-08	0.34	9	130479114	<i>TTC16</i>	Body	0
cg09642020	-0.61	1.1e-08	0.37	9	139379173	<i>C9orf163</i>	1stExon	1
cg12610471	0.59	4.1e-08	0.34	10	22634199	<i>SPAG6</i>	TSS200	1

cg12377139	0.6	1.5e-08	0.36	10	22634218	<i>SPAG6</i>	TSS200	1
cg16541931	0.59	3.8e-08	0.34	10	25463757	<i>LOC100128811</i>	Body	1
cg04599297	0.58	6.0e-08	0.34	10	26505442	<i>GAD2</i>	5'UTR	0
cg24350475	-0.58	8.1e-08	0.33	10	30316933	<i>KIAA1462</i>	Body	1
cg22796704	-0.65	2.6e-10	0.43	10	49673534	<i>ARHGAP22</i>	Body	1
cg10056132	0.67	4.3e-11	0.46	10	50887731	<i>C10orf53</i>	5'UTR	1
cg18738190	-0.57	1.2e-07	0.32	10	73740291	<i>CHST3</i>	5'UTR	1
cg14209784	-0.62	4.8e-09	0.38	10	88729861	<i>AGAP11</i>	TSS1500	1
cg19991948	-0.6	1.5e-08	0.36	10	121335173	<i>TIAL1</i>	3'UTR	1
cg20012537	-0.6	1.3e-08	0.36	10	134928794	<i>GPR123</i>	Body	1
cg07080372	-0.71	1.7e-12	0.5	11	796607	<i>SLC25A22</i>	TSS1500	1
cg05267118	-0.62	5.2e-09	0.38	11	2907884	<i>CDKN1C</i>	TSS1500	0
cg23091758	0.59	2.9e-08	0.35	11	9025767	<i>NRIP3</i>	TSS200	1
cg05923914	-0.56	2.3e-07	0.31	11	45792610	<i>DKFZp779M0652</i>	TSS1500	1
cg19589811	0.62	5.4e-09	0.38	11	82443961	<i>FAM181B</i>	1stExon	0
cg00202702	0.57	8.5e-08	0.33	11	101918157	<i>C11orf70</i>	TSS200	1
cg02423574	-0.57	9.4e-08	0.33	11	119066560	<i>CCDC153</i>	1stExon	1
cg11141380	0.56	2.2e-07	0.31	11	122852417	<i>BSX</i>	TSS200	0
cg16983588	-0.61	9.8e-09	0.37	11	129793108	<i>PRDM10</i>	Body	1
cg08622677	0.64	9.4e-10	0.41	12	3601306	<i>PRMT8</i>	Body	1
cg19056004	-0.63	1.8e-09	0.4	12	7023262	<i>LRRC23</i>	3'UTR	1
cg04604946	-0.61	8.0e-09	0.37	12	7023352	<i>LRRC23</i>	3'UTR	1
cg15626285	-0.62	3.3e-09	0.39	12	7167781	<i>CIS</i>	TSS200	1

cg13942826	-0.57	1.4e-07	0.32	12	11002609	<i>PRR4</i>	TSS1500	1
cg05242244	-0.62	5.5e-09	0.38	12	53553086	<i>CSAD</i>	Body	1
cg17436656	-0.6	2.1e-08	0.36	12	53627106	<i>RARG</i>	TSS1500	1
cg22358580	0.58	8.1e-08	0.33	12	54426725	<i>HOXC4</i>	5'UTR	1
cg18473521	0.6	1.4e-08	0.36	12	54448265	<i>HOXC4</i>	Body	1
cg25778262	0.62	5.5e-09	0.38	12	69327449	<i>CPM</i>	TSS1500	0
cg11649376	-0.73	1.1e-13	0.54	12	81473234	<i>ACSS3</i>	Body	1
cg08888956	-0.65	3.5e-10	0.42	12	86267839	<i>NTS</i>	TSS1500	0
cg12878812	0.64	6.9e-10	0.41	12	119419696	<i>SRRM4</i>	1stExon	1
cg11826475	-0.58	6.7e-08	0.33	12	120704006	<i>PXN</i>	TSS1500	1
cg09972864	0.67	5.4e-11	0.45	13	22248760	<i>FGF9</i>	Body	0
cg18236477	0.6	1.2e-08	0.37	13	26043066	<i>ATP8A2</i>	Body	1
cg26685941	-0.58	6.3e-08	0.34	13	95952902	<i>ABCC4</i>	Body	1
cg05412028	-0.61	7.6e-09	0.37	13	95952937	<i>ABCC4</i>	Body	1
cg00743094	0.56	2.1e-07	0.31	13	100547968	<i>CLYBL</i>	3'UTR	0
cg07416237	0.57	1.4e-07	0.32	13	100548078	<i>CLYBL</i>	3'UTR	1
cg13917662	0.56	2.1e-07	0.31	13	100548513	<i>CLYBL</i>	3'UTR	1
cg05404236	0.56	2.4e-07	0.31	13	110437093	<i>IRS2</i>	1stExon	1
cg25078444	0.59	3.0e-08	0.35	14	29235193	<i>FOXC1</i>	TSS1500	1
cg01302656	0.64	7.8e-10	0.41	14	29254853	<i>C14orf23</i>	Body	1
cg07850604	0.65	2.7e-10	0.43	14	36003443	<i>INSM2</i>	5'UTR	1
cg14836018	-0.61	6.8e-09	0.37	14	51706425	<i>TMX1</i>	TSS1500	1
cg02583151	0.57	1.0e-07	0.33	14	61116211	<i>SIX1</i>	TSS200	0

cg06934523	-0.61	5.7e-09	0.38	14	70077930	<i>KIAA0247</i>	TSS1500	0
cg23998119	0.61	8.4e-09	0.37	14	77600217	<i>ZDHHC22</i>	Body	1
cg15480367	0.6	2.2e-08	0.35	14	93389485	<i>CHGA</i>	5'UTR	1
cg12422450	0.57	1.4e-07	0.32	14	93389891	<i>CHGA</i>	Body	1
cg15341124	0.59	2.4e-08	0.35	14	102027734	<i>DIO3</i>	5'UTR	1
cg01763090	0.71	1.9e-12	0.5	15	31775406	<i>OTUD7A</i>	3'UTR	1
cg04875128	0.78	2.6e-16	0.61	15	31775895	<i>OTUD7A</i>	Body	1
cg21296230	0.57	1.6e-07	0.32	15	33010536	<i>GREM1</i>	5'UTR	1
cg25826226	0.56	2.2e-07	0.31	15	41953061	<i>MGA</i>	5'UTR	0
cg16717122	0.57	1.0e-07	0.33	15	51973920	<i>SCG3</i>	5'UTR	1
cg07931844	-0.6	1.5e-08	0.36	15	72102213	<i>NR2E3</i>	TSS1500	1
cg21801378	0.61	6.3e-09	0.38	15	72612125	<i>BRUNOL6</i>	1stExon	1
cg20809087	0.56	2.0e-07	0.32	15	72612221	<i>BRUNOL6</i>	5'UTR	1
cg27552679	0.6	1.3e-08	0.36	15	74425757	<i>ISLR2</i>	Body	0
cg27569300	0.66	1.3e-10	0.44	15	99645065	<i>SYNM</i>	TSS1500	1
cg01797043	-0.61	6.3e-09	0.38	16	2004686	<i>RPL3L</i>	TSS200	1
cg11220950	0.57	1.0e-07	0.33	16	2042693	<i>SYNGR3</i>	Body	1
cg27269561	-0.56	1.9e-07	0.32	16	3072713	<i>HCFC1R1</i>	3'UTR	0
cg03136323	-0.56	2.2e-07	0.31	16	19195100	<i>SYT17</i>	Body	0
cg00448560	-0.61	6.0e-09	0.38	16	49525727	<i>ZNF423</i>	Body	1
cg04229059	-0.6	2.2e-08	0.35	16	58718971	<i>SLC38A7</i>	TSS1500	1
cg06279276	0.61	6.2e-09	0.38	16	67184164	<i>B3GNT9</i>	Body	1
cg09636661	-0.58	6.2e-08	0.34	16	69743901	<i>NQO1</i>	3'UTR	1

cg06086177	-0.58	4.8e-08	0.34	16	73090646	<i>ZFHX3</i>	5'UTR	0
cg04987608	0.59	3.0e-08	0.35	16	75300043	<i>BCAR1</i>	TSS200	0
cg00551679	0.57	1.3e-07	0.32	16	86547530	<i>FOXF1</i>	3'UTR	0
cg04503319	-0.58	5.8e-08	0.34	16	89368367	<i>ANKRD11</i>	Body	1
cg17457912	-0.57	1.4e-07	0.32	17	1617102	<i>C17orf91</i>	Body	1
cg10137837	0.62	3.9e-09	0.38	17	6926742	<i>BCL6B</i>	5'UTR	1
cg13029847	0.6	2.2e-08	0.35	17	27333273	<i>SEZ6</i>	TSS200	1
cg14692377	0.69	6.5e-12	0.48	17	28562685	<i>SLC6A4</i>	1stExon	1
cg06247837	-0.57	1.0e-07	0.33	17	37820135	<i>TCAP</i>	TSS1500	1
cg22156456	-0.58	6.5e-08	0.34	17	39844239	<i>EIF1</i>	TSS1500	1
cg24212517	-0.57	1.4e-07	0.32	17	42428168	<i>GRN</i>	Body	0
cg12892303	0.56	1.8e-07	0.32	17	42733592	<i>C17orf104</i>	TSS200	1
cg12781700	0.57	8.7e-08	0.33	17	42733729	<i>C17orf104</i>	TSS200	0
cg20396069	-0.58	7.4e-08	0.33	17	46908122	<i>CALCOCO2</i>	TSS1500	0
cg24847230	-0.63	1.7e-09	0.4	17	46986807	<i>UBE2Z</i>	Body	1
cg18618815	-0.58	8.4e-08	0.33	17	48275324	<i>COL1A1</i>	Body	1
cg11071401	0.73	2.7e-13	0.53	17	48637194	<i>CACNA1G</i>	TSS1500	1
cg16477091	0.64	1.1e-09	0.4	17	56833000	<i>PPM1E</i>	TSS1500	1
cg07584066	0.62	5.0e-09	0.38	17	57642749	<i>DHX40</i>	TSS200	1
cg16969368	0.59	3.0e-08	0.35	17	57642752	<i>DHX40</i>	TSS200	0
cg26897150	0.6	2.2e-08	0.35	17	57642763	<i>DHX40</i>	TSS200	0
cg07365960	0.57	9.8e-08	0.33	17	72848535	<i>GRIN2C</i>	Body	1
cg00439658	0.62	5.3e-09	0.38	17	72848669	<i>GRIN2C</i>	Body	1

cg05776388	0.62	4.4e-09	0.38	17	72983414	<i>CDR2L</i>	TSS1500	0
cg17024199	-0.58	7.0e-08	0.33	17	74881747	<i>MGAT5B</i>	Body	1
cg01502244	-0.57	1.3e-07	0.32	17	78188904	<i>SGSH</i>	Body	0
cg19761273	-0.61	7.1e-09	0.37	17	80232096	<i>CSNK1D</i>	TSS1500	1
cg23718736	-0.57	1.1e-07	0.33	18	6413908	<i>L3MBTL4</i>	5'UTR	1
cg03614193	0.6	1.3e-08	0.36	18	55021542	<i>ST8SLA3</i>	Body	1
cg19283806	-0.71	1.4e-12	0.5	18	66389420	<i>CCDC102B</i>	5'UTR	1
cg17471102	-0.59	3.6e-08	0.35	19	5851255	<i>FUT3</i>	5'UTR	1
cg08694544	0.62	4.3e-09	0.38	19	12946228	<i>RTBDN</i>	1stExon	0
cg14556683	0.69	7.3e-12	0.48	19	15342982	<i>EPHX3</i>	1stExon	1
cg19784428	-0.6	2.0e-08	0.36	19	16830746	<i>NWD1</i>	TSS200	1
cg19344626	-0.58	6.9e-08	0.33	19	16830749	<i>NWD1</i>	TSS200	1
cg01580888	0.57	1.5e-07	0.32	19	33556060	<i>RHPN2</i>	TSS1500	1
cg05346491	-0.6	1.9e-08	0.36	19	48917104	<i>GRIN2D</i>	Body	1
cg04731544	0.57	1.1e-07	0.33	19	49004834	<i>LMTK3</i>	Body	1
cg19593767	0.58	5.8e-08	0.34	20	42544666	<i>TOX2</i>	TSS200	1
cg19702785	0.71	1.9e-12	0.5	20	43727089	<i>KCNS1</i>	Body	1
cg06369624	0.57	9.6e-08	0.33	20	43727355	<i>KCNS1</i>	Body	0
cg07547549	0.65	4.7e-10	0.42	20	44658225	<i>SLC12A5</i>	Body	1
cg00387658	-0.62	5.3e-09	0.38	20	54986793	<i>CASS4</i>	TSS1500	1
cg14374829	0.58	4.4e-08	0.34	21	33244742	<i>HUNK</i>	TSS1500	0
cg07127410	-0.58	7.7e-08	0.33	22	29427851	<i>ZNRF3</i>	Body	0
cg21064451	-0.57	1.2e-07	0.32	22	38071534	<i>LGALS1</i>	TSS200	0

							<i>Beta:</i> <i>standardized</i> <i>regression</i> <i>coefficients</i> <i>*: knwon</i> <i>age-related</i> <i>CpG (No =</i> <i>0; Yes =1)</i>	
--	--	--	--	--	--	--	--	--

Supplementary Table S2 Age-related eCpGs

CpG	Transcript	CpG		Transcript		CpG x Transcript		R2	CHR	MAPINFO	Gene	feature	r ^a	index	Known ^b
		Beta	P	Beta	P	Beta	P								
cg07198402	ILMN_1749667	8.69	2.4e-02	10.48	2.0e-02	-14.3	2.0e-02	0.17	1	228395145	<i>OBSCN</i>	TSS1500	0.07	y	0
cg07600278	ILMN_1749667	8.39	4.6e-02	14.71	4.4e-02	-16.67	4.4e-02	0.06	1	228548163	<i>OBSCN</i>	Body	-0.04	n	0
cg13539203	ILMN_1768483	9.55	7.8e-03	10.02	7.8e-03	-14.08	7.1e-03	0.12	2	26950545	<i>KCNK3</i>	Body	0.01	y	0
cg10666081	ILMN_2355831	-6.92	8.4e-03	-12.79	1.2e-02	14.17	1.1e-02	0.17	2	105985002	<i>FHL2</i>	Body	-0.05	y	0
cg06907053	ILMN_1668411	6.63	3.2e-02	2.37	2.9e-02	-6.96	3.5e-02	0.09	2	106015869	<i>FHL2</i>	TSS200	0.04	n	0
cg08239282	ILMN_2355831	-7.99	1.5e-02	-19.35	1.8e-02	19.98	1.7e-02	0.12	2	106026162	<i>FHL2</i>	5'UTR	-0.13	n	0
cg08239282	ILMN_1668411	-7.22	2.8e-02	-17.36	3.4e-02	18.88	3.3e-02	0.11	2	106026162	<i>FHL2</i>	5'UTR	0.01	n	0
cg12336777	ILMN_1688698	4.85	2.8e-02	1.52	1.5e-02	-5.22	2.9e-02	0.1	2	145210222	<i>ZEB2</i>	Body	0.18	n	0
cg12571570	ILMN_1820767	-8.91	2.8e-02	-2.76	4.9e-02	9	3.0e-02	0.16	2	145267984	<i>ZEB2</i>	Body	-0.09	n	0
cg23095192	ILMN_1820767	-8.89	1.9e-02	-3.94	3.2e-02	8.89	2.2e-02	0.2	2	145271307	<i>ZEB2</i>	Body	-0.19	y	0
cg07246225	ILMN_1688698	5.49	2.6e-02	1.77	1.8e-02	-5.53	3.2e-02	0.14	2	145277659	<i>ZEB2</i>	Body	0.01	n	0
cg14421309	ILMN_1820767	-10.41	4.5e-03	-1.76	1.4e-02	10.87	4.2e-03	0.19	2	145277734	<i>ZEB2</i>	Body	0.1	n	0
cg12974733	ILMN_1739366	-5.3	1.2e-02	-1.24	1.5e-02	5.79	1.0e-02	0.1	2	162273524	<i>TBR1</i>	1stExon	0.19	n	0
cg22743761	ILMN_1739366	-5.7	3.2e-02	-2.22	2.7e-02	6.85	2.6e-02	0.11	2	162273648	<i>TBR1</i>	Body	0.26	y	0
cg03578473	ILMN_1669425	-9.72	1.3e-02	-1.15	1.3e-02	9.9	1.2e-02	0.09	2	182546504	<i>NEUROD1</i>	TSS1500	0.05	y	0
cg20671534	ILMN_1658576	-6.04	6.5e-03	-2.56	1.2e-02	6.65	8.8e-03	0.15	2	220174629	<i>PTPRN</i>	TSS1500	0.12	y	0
cg21126969	ILMN_2391750	4.56	4.5e-02	7.6	2.9e-02	-10.02	3.1e-02	0.17	3	53030684	<i>SFMBT1</i>	5'UTR	0.28	n	0
cg12962167	ILMN_2391750	5.11	3.2e-02	13.97	3.0e-02	-14.23	3.1e-02	0.07	3	53033115	<i>SFMBT1</i>	5'UTR	-0.13	n	0
cg17761990	ILMN_1741585	8.07	6.4e-03	11.07	5.7e-03	-14.09	5.4e-03	0.14	3	53042940	<i>SFMBT1</i>	5'UTR	0.03	n	0
cg17761990	ILMN_2391750	8.32	1.4e-03	14.69	1.0e-03	-17.13	1.1e-03	0.17	3	53042940	<i>SFMBT1</i>	5'UTR	0.03	y	0
cg24445507	ILMN_2391750	4.55	2.6e-02	11.38	1.9e-02	-12.15	1.9e-02	0.12	3	53044901	<i>SFMBT1</i>	5'UTR	-0.04	n	0
cg04503182	ILMN_2391750	4.36	3.5e-02	8.54	2.6e-02	-9.05	2.5e-02	0.13	3	53078218	<i>SFMBT1</i>	5'UTR	-0.16	n	0
cg20332195	ILMN_1682449	-10.72	9.2e-03	-2.15	9.0e-03	11.19	7.3e-03	0.2	4	10459929	<i>ZNF518B</i>	TSS1500	-0.04	y	0

cg03463279	ILMN_1774948	6.11	4.4e-02	2.1	2.7e-02	-6.44	4.4e-02	0.1	4	15004942	<i>CPEB2</i>	TSS1500	0.04	n	0
cg19929852	ILMN_1774948	9.08	1.0e-02	13.15	8.6e-03	-15.21	9.6e-03	0.14	4	15068643	<i>CPEB2</i>	3'UTR	-0.08	y	0
cg10512498	ILMN_1746552	6.42	2.4e-02	7.42	2.2e-02	-9.27	2.1e-02	0.1	4	176986333	<i>WDR17</i>	TSS1500	-0.14	n	0
cg18443378	ILMN_1746552	-5.65	4.2e-02	-1.52	3.1e-02	6.09	3.2e-02	0.16	4	176986950	<i>WDR17</i>	TSS200	-0.04	y	0
cg14782559	ILMN_1721178	-10.87	2.5e-03	-0.79	8.2e-03	10.9	2.9e-03	0.14	6	33131893	<i>COL11A2</i>	Body	0.21	n	0
cg20506659	ILMN_1721178	8.82	4.9e-02	4.65	4.4e-02	-9.37	4.1e-02	0.16	6	33132943	<i>COL11A2</i>	Body	-0.22	n	0
cg02667414	ILMN_1748166	9.52	3.5e-02	11.59	3.5e-02	-14.54	3.3e-02	0.09	6	33133517	<i>COL11A2</i>	Body	-0.08	n	0
cg06924878	ILMN_1748166	8.56	1.9e-02	3.81	2.0e-02	-9.43	1.7e-02	0.12	6	33134045	<i>COL11A2</i>	Body	-0.04	n	0
cg14812123	ILMN_1748166	6.99	3.3e-02	12.68	3.2e-02	-14.46	3.0e-02	0.09	6	33135284	<i>COL11A2</i>	Body	-0.03	n	0
cg00933415	ILMN_1748166	7.66	1.9e-02	9.42	1.7e-02	-12.81	1.6e-02	0.14	6	33135453	<i>COL11A2</i>	Body	0.07	n	0
cg25482983	ILMN_1748166	7.71	4.6e-02	7.81	4.4e-02	-10.68	4.1e-02	0.1	6	33135756	<i>COL11A2</i>	Body	-0.09	n	0
cg22748722	ILMN_1748166	7.31	4.1e-02	8.9	3.8e-02	-11.59	3.6e-02	0.11	6	33135868	<i>COL11A2</i>	Body	-0.03	n	0
cg24158878	ILMN_1721178	10.62	2.7e-02	2.2	2.9e-02	-10.58	2.9e-02	0.07	6	33137570	<i>COL11A2</i>	Body	-0.08	n	0
cg02673107	ILMN_1721178	14.88	3.3e-04	5.68	3.2e-04	-15.09	2.9e-04	0.19	6	33138131	<i>COL11A2</i>	Body	-0.18	n	0
cg18651026	ILMN_1748166	5.35	4.3e-02	3.16	2.9e-02	-6.87	2.5e-02	0.4	6	33140660	<i>COL11A2</i>	Body	0.04	y	1
cg20974826	ILMN_1721178	8.78	3.0e-02	5.44	2.6e-02	-9.7	2.5e-02	0.15	6	33141040	<i>COL11A2</i>	Body	-0.18	n	1
cg00350615	ILMN_1721178	8.5	5.0e-02	3.64	4.7e-02	-8.98	4.5e-02	0.09	6	33141152	<i>COL11A2</i>	Body	-0.13	n	1
cg13224161	ILMN_1721178	12.94	6.2e-03	2.39	6.6e-03	-13.01	6.0e-03	0.1	6	33141279	<i>COL11A2</i>	Body	-0.09	n	0
cg00115458	ILMN_1721178	11.18	5.6e-03	2.35	5.5e-03	-11.47	4.9e-03	0.14	6	33141305	<i>COL11A2</i>	Body	-0.06	n	0
cg11960243	ILMN_1721178	12.85	2.8e-03	1.34	3.6e-03	-12.59	3.1e-03	0.13	6	33143135	<i>COL11A2</i>	Body	-0.16	n	0
cg21771125	ILMN_1721178	-8.02	3.5e-02	-8	4.4e-02	11.41	4.4e-02	0.17	6	33149047	<i>COL11A2</i>	Body	0.06	n	0
cg03260211	ILMN_1721178	-8.1	3.9e-02	-7.37	4.5e-02	12.22	4.3e-02	0.09	6	33151921	<i>COL11A2</i>	Body	0.27	n	0
cg04182805	ILMN_1748166	9.23	3.0e-02	19.44	2.7e-02	-22.09	2.7e-02	0.11	6	33154830	<i>COL11A2</i>	Body	0.05	n	0
cg21509966	ILMN_1748166	5.94	2.8e-02	10.88	2.6e-02	-12.61	2.5e-02	0.1	6	33156463	<i>COL11A2</i>	Body	0.01	n	0
cg11835806	ILMN_1721178	-8.41	2.9e-02	-12.32	3.3e-02	15.44	3.3e-02	0.1	6	33156836	<i>COL11A2</i>	Body	0.09	n	0
cg24936204	ILMN_1721178	7.8	4.1e-02	5.24	3.7e-02	-8.62	3.4e-02	0.14	6	33157138	<i>COL11A2</i>	Body	-0.23	n	0
cg16507569	ILMN_1721178	-8.56	1.3e-02	-0.86	3.5e-02	8.57	1.7e-02	0.15	6	33158020	<i>COL11A2</i>	Body	0.27	n	0
cg19628686	ILMN_1721178	-11.06	1.2e-02	-9.5	1.4e-02	15.26	1.4e-02	0.12	6	33158503	<i>COL11A2</i>	Body	0.12	n	0

cg11700230	ILMN_1721178	6.58	3.6e-02	3.51	3.9e-02	-6.63	4.0e-02	0.07	6	33159353	COL11A2	Body	-0.22	n	0
cg26385062	ILMN_1721178	6.61	2.6e-02	3.44	2.7e-02	-6.78	2.7e-02	0.07	6	33159361	COL11A2	Body	-0.2	n	0
cg02452416	ILMN_1748166	-7.48	4.9e-02	-1.09	3.2e-02	7.66	4.5e-02	0.09	6	33160450	COL11A2	TSS1500	-0.04	n	0
cg05615552	ILMN_1748166	-7.62	3.3e-02	-0.95	2.2e-02	7.67	3.0e-02	0.09	6	33160952	COL11A2	TSS1500	-0.15	n	0
cg02764478	ILMN_1696279	6.66	3.7e-02	1.85	4.9e-02	-6.46	4.5e-02	0.14	6	100904316	SIMI	Body	-0.1	y	1
cg03511031	ILMN_1728844	-6.26	3.2e-02	-9.48	3.3e-02	10.72	3.2e-02	0.07	7	157460477	PTPRN2	Body	-0.13	n	0
cg22623223	ILMN_1728844	7.14	2.0e-02	1.77	2.0e-02	-7.25	2.3e-02	0.1	7	157484045	PTPRN2	Body	0.04	n	0
cg11872672	ILMN_1728844	-7.36	2.6e-02	-5.7	3.7e-02	7.75	3.9e-02	0.36	7	157514730	PTPRN2	Body	-0.23	y	0
cg04237822	ILMN_1728844	-5.79	3.6e-02	-3.63	3.7e-02	6.74	3.3e-02	0.07	7	157523541	PTPRN2	Body	-0.06	n	0
cg25821143	ILMN_1728844	-6.03	2.2e-02	-6.93	2.5e-02	8.97	2.4e-02	0.08	7	157529705	PTPRN2	Body	-0.04	n	0
cg24935409	ILMN_1728844	7.27	3.0e-02	2.32	2.7e-02	-7.55	3.0e-02	0.07	7	157667762	PTPRN2	Body	-0.02	n	0
cg09845489	ILMN_1728844	7.95	4.8e-03	1.46	5.1e-03	-8.18	5.3e-03	0.12	7	157667853	PTPRN2	Body	0.14	n	0
cg09350411	ILMN_1728844	7.84	9.6e-03	4	9.1e-03	-8.99	9.9e-03	0.1	7	157667935	PTPRN2	Body	0.07	n	0
cg19013611	ILMN_1728844	8.87	2.4e-03	1.84	2.1e-03	-9.17	2.4e-03	0.13	7	157668051	PTPRN2	Body	0.08	n	0
cg15298059	ILMN_1728844	6.4	1.6e-02	1.25	1.6e-02	-6.54	1.7e-02	0.09	7	157668141	PTPRN2	Body	0.1	n	0
cg24241530	ILMN_1728844	-5.44	4.6e-02	-7.93	4.9e-02	9.31	4.7e-02	0.06	7	158061820	PTPRN2	Body	-0.07	n	0
cg16419421	ILMN_1728844	-8.45	7.4e-03	-10.72	7.4e-03	12.56	7.0e-03	0.11	7	158073079	PTPRN2	Body	-0.17	n	0
cg13409070	ILMN_1728844	6.47	4.4e-02	7.83	3.9e-02	-11.1	4.1e-02	0.07	7	158114558	PTPRN2	Body	0.19	n	0
cg18566911	ILMN_1728844	-6.71	3.2e-02	-14.74	3.6e-02	14.69	3.6e-02	0.08	7	158183784	PTPRN2	Body	-0.24	n	0
cg20764780	ILMN_1728844	-7.78	3.4e-02	-3.18	3.6e-02	8.35	3.2e-02	0.08	7	158187725	PTPRN2	Body	-0.06	n	0
cg15035217	ILMN_1728844	-7.24	4.0e-02	-10.89	4.6e-02	13.04	4.5e-02	0.09	7	158235051	PTPRN2	Body	0	n	0
cg02512724	ILMN_1728844	10.15	6.5e-03	9.86	6.5e-03	-12.73	6.8e-03	0.11	7	158343573	PTPRN2	Body	-0.18	n	0
cg00841760	ILMN_1728844	-8.54	2.5e-02	-2.71	2.8e-02	8.74	2.4e-02	0.07	7	158362966	PTPRN2	Body	-0.09	n	0
cg26180501	ILMN_1728844	-7.56	3.5e-02	-3.93	4.2e-02	8.11	3.9e-02	0.08	7	158363265	PTPRN2	Body	-0.09	n	0
cg21325485	ILMN_1728844	-7.2	2.7e-02	-3.91	3.2e-02	8.12	2.9e-02	0.09	7	158364932	PTPRN2	Body	0	n	0
cg17949162	ILMN_1796855	13.11	1.6e-02	1.51	9.1e-03	-13.17	1.7e-02	0.11	10	121355153	TIAL1	Body	0.03	y	0
cg19262958	ILMN_1687958	4.49	4.8e-02	8.21	4.2e-02	-9.57	3.8e-02	0.14	11	792861	SLC25A22	Body	-0.02	y	0
cg10970251	ILMN_1687958	-7.57	2.6e-02	-2.73	1.7e-02	7.66	2.6e-02	0.11	11	796421	SLC25A22	TSS1500	-0.11	n	0

cg11718501	ILMN_1666310	5.18	4.2e-02	1.13	2.3e-02	-5.09	4.1e-02	0.08	11	122850972	<i>BSX</i>	Body	-0.21	y	0
cg22345428	ILMN_2352295	-7	4.7e-02	-1.32	3.7e-02	7.23	4.2e-02	0.1	11	129781496	<i>PRDM10</i>	Body	-0.06	n	0
cg24937685	ILMN_2352295	9.73	2.0e-02	9.39	2.1e-02	-13.3	2.0e-02	0.08	11	129806002	<i>PRDM10</i>	Body	-0.04	n	0
cg12284171	ILMN_2352295	9.04	4.0e-02	11.04	3.9e-02	-14.15	3.8e-02	0.08	11	129814770	<i>PRDM10</i>	Body	-0.03	n	0
cg14082919	ILMN_2352295	11.16	8.2e-03	14.14	7.3e-03	-16.69	6.8e-03	0.17	11	129814820	<i>PRDM10</i>	Body	-0.17	y	0
cg12409074	ILMN_2352295	-11.66	1.4e-02	-3.15	1.3e-02	11.44	1.5e-02	0.1	11	129870648	<i>PRDM10</i>	5'UTR	-0.16	n	0
cg03198733	ILMN_1781626	-8.1	3.3e-02	-8.59	3.8e-02	11.75	3.8e-02	0.11	12	7167584	<i>CIS</i>	TSS1500	0.02	n	0
cg13053396	ILMN_1781626	-10.19	4.5e-03	-8.53	5.1e-03	12.23	5.4e-03	0.15	12	7168545	<i>CIS</i>	5'UTR	-0.13	y	0
cg20378628	ILMN_1781626	-8.86	1.5e-02	-11.74	1.8e-02	15.48	1.8e-02	0.14	12	7169154	<i>CIS</i>	5'UTR	0.14	n	0
cg22509041	ILMN_2119692	5.42	4.1e-02	1.18	2.4e-02	-5.6	4.3e-02	0.09	12	53574524	<i>CSAD</i>	TSS200	0.15	y	0
cg15817960	ILMN_1719975	-4.13	1.5e-02	-1.1	2.2e-02	4.58	1.5e-02	0.08	12	54409599	<i>HOXC4</i>	TSS1500	0.31	n	0
cg20381985	ILMN_1719975	-4.94	2.5e-02	-3.59	3.3e-02	5.73	3.3e-02	0.12	12	54410662	<i>HOXC4</i>	5'UTR	-0.06	n	0
cg09481972	ILMN_1719975	-5.66	1.5e-02	-2.89	1.4e-02	6.25	1.3e-02	0.1	12	54410666	<i>HOXC4</i>	5'UTR	-0.08	n	0
cg10918927	ILMN_1719975	-5	8.1e-03	-3.62	7.7e-03	5.95	7.2e-03	0.1	12	54411193	<i>HOXC4</i>	5'UTR	-0.1	n	0
cg16765387	ILMN_1719975	-5.3	7.1e-04	-3.14	8.3e-04	5.9	7.2e-04	0.15	12	54411245	<i>HOXC4</i>	5'UTR	-0.09	y	0
cg00506343	ILMN_1719975	-3.64	3.7e-02	-1.64	3.0e-02	4.29	2.8e-02	0.11	12	54421033	<i>HOXC4</i>	5'UTR	0.07	n	0
cg19182597	ILMN_1719975	-3.71	1.9e-02	-1.35	2.0e-02	4.17	1.7e-02	0.08	12	54426670	<i>HOXC4</i>	5'UTR	0.14	n	0
cg15244786	ILMN_1719975	3.47	4.8e-02	2.16	4.6e-02	-4.36	4.6e-02	0.06	12	54446279	<i>HOXC4</i>	5'UTR	0.15	n	0
cg22370252	ILMN_1719975	3.57	3.9e-02	1.94	3.7e-02	-4.37	3.7e-02	0.06	12	54446289	<i>HOXC4</i>	5'UTR	0.18	n	0
cg14233050	ILMN_1684440	4.64	1.5e-02	15.22	1.3e-02	-15.37	1.4e-02	0.11	12	120651871	<i>PXN</i>	Body	-0.09	n	0
cg01866518	ILMN_1684440	4.36	3.2e-02	9.76	2.7e-02	-10.63	2.9e-02	0.09	12	120673235	<i>PXN</i>	5'UTR	0.01	n	0
cg04256697	ILMN_1684440	5.15	1.3e-02	3.05	8.5e-03	-6.22	1.2e-02	0.11	12	120688557	<i>PXN</i>	Body	0.1	y	0
cg17370322	ILMN_1788457	7.85	1.4e-02	0.88	7.8e-03	-7.95	1.5e-02	0.1	13	95953482	<i>ABCC4</i>	Body	0.16	y	0
cg22853485	ILMN_1663538	-4.58	2.1e-02	-1.76	1.5e-02	4.88	2.1e-02	0.09	13	100258524	<i>CLYBL</i>	TSS1500	0	n	0
cg01726399	ILMN_1663538	-5.11	2.6e-02	-2.1	1.8e-02	5.56	2.4e-02	0.09	13	100258641	<i>CLYBL</i>	TSS1500	0	n	0
cg26867370	ILMN_1663538	4.27	4.4e-02	6.12	4.4e-02	-7.64	4.0e-02	0.08	13	100262973	<i>CLYBL</i>	Body	0.01	n	0
cg03261783	ILMN_1663538	4.66	2.3e-02	10.68	2.1e-02	-11.42	1.9e-02	0.1	13	100497453	<i>CLYBL</i>	Body	-0.09	n	0
cg26862247	ILMN_1663538	4.36	4.1e-02	14.09	3.6e-02	-15.19	3.5e-02	0.09	13	100497665	<i>CLYBL</i>	Body	0.07	n	0

cg00130181	ILMN_1663538	5.02	1.3e-02	9.05	1.2e-02	-10.46	1.1e-02	0.12	13	100517033	CLYBL	Body	-0.01	n	0
cg04259706	ILMN_1712088	-7.93	3.8e-02	-9.68	3.8e-02	12.42	3.9e-02	0.06	13	100545517	CLYBL	3'UTR	0	n	0
cg00743094	ILMN_1663538	-3.09	4.3e-02	-1.21	7.3e-03	3.9	1.7e-02	0.39	13	100547968	CLYBL	3'UTR	0.09	y	0
cg10912240	ILMN_2149946	-5.43	3.2e-02	-1.76	2.4e-02	5.99	2.6e-02	0.11	14	29235907	FOXG1	TSS1500	0.06	y	1
cg08198377	ILMN_1691181	-3.6	2.7e-02	-1.84	3.2e-02	3.62	2.8e-02	0.07	14	51707975	TMX1	Body	-0.24	y	0
cg06799422	ILMN_2372379	7.08	1.7e-02	1.54	1.7e-02	-7	2.3e-02	0.19	15	41952235	MGA	TSS1500	0.07	y	1
cg03752425	ILMN_1808587	5.51	4.3e-02	9.85	3.6e-02	-11.77	3.7e-02	0.09	16	72840504	ZFHX3	Body	0.1	n	0
cg08858926	ILMN_1808587	-7.5	8.9e-03	-3.74	1.2e-02	7.97	1.0e-02	0.12	16	72918832	ZFHX3	Body	-0.09	y	0
cg10415570	ILMN_1808587	-9.11	7.6e-03	-16.32	8.7e-03	17.43	8.5e-03	0.12	16	73053779	ZFHX3	5'UTR	-0.15	n	0
cg03891962	ILMN_1690465	-9.26	9.9e-04	-11.7	1.1e-03	16.49	1.1e-03	0.15	16	89336560	ANKRD11	Body	0.23	n	0
cg02033182	ILMN_1690465	-6.41	4.2e-02	-7.52	4.0e-02	10.18	4.1e-02	0.06	16	89337334	ANKRD11	Body	0.06	n	0
cg03594907	ILMN_1690465	-7.46	1.8e-02	-15.46	2.3e-02	17.83	2.2e-02	0.13	16	89337953	ANKRD11	Body	0.12	n	0
cg09474599	ILMN_1690465	-6.09	3.7e-02	-14.32	3.8e-02	15.78	3.8e-02	0.06	16	89338043	ANKRD11	Body	0.04	n	0
cg04381043	ILMN_1690465	-10.15	9.6e-04	-22.02	1.1e-03	24.72	1.1e-03	0.17	16	89341467	ANKRD11	Body	0.06	n	0
cg06098690	ILMN_1690465	-11.53	2.3e-04	-30.12	2.5e-04	32.88	2.5e-04	0.18	16	89341682	ANKRD11	Body	0.06	n	0
cg10256077	ILMN_1690465	-7.66	3.0e-02	-14.61	2.9e-02	17.7	3.0e-02	0.07	16	89341851	ANKRD11	Body	0.18	n	0
cg26479658	ILMN_1690465	-10.83	3.7e-03	-19.06	4.4e-03	22.54	4.4e-03	0.15	16	89342677	ANKRD11	Body	0.08	n	0
cg09867358	ILMN_1690465	-8.95	8.5e-04	-20.83	1.0e-03	22.3	1.0e-03	0.16	16	89342851	ANKRD11	Body	-0.04	n	0
cg08927754	ILMN_1690465	-6.12	3.5e-02	-8.86	3.8e-02	11.28	3.8e-02	0.07	16	89344197	ANKRD11	Body	0.12	n	0
cg26747517	ILMN_1690465	-6.86	1.3e-02	-9.92	1.3e-02	12.05	1.4e-02	0.09	16	89344383	ANKRD11	Body	0.01	n	0
cg11051669	ILMN_1690465	-7.72	1.0e-02	-17.16	1.2e-02	19.65	1.2e-02	0.11	16	89346436	ANKRD11	Body	0.13	n	0
cg00679681	ILMN_1690465	-14.87	5.5e-05	-41.63	6.1e-05	44.5	6.1e-05	0.22	16	89346491	ANKRD11	Body	0.03	n	0
cg04949226	ILMN_1690465	-9.23	4.4e-03	-23.53	5.2e-03	25.4	5.2e-03	0.13	16	89348469	ANKRD11	Body	0.02	n	0
cg03362018	ILMN_1690465	-7.22	3.0e-02	-15.58	3.3e-02	17.77	3.3e-02	0.08	16	89348956	ANKRD11	Body	0.1	n	0
cg09301471	ILMN_1690465	-6.31	4.3e-02	-13.22	4.9e-02	14.94	4.9e-02	0.09	16	89349945	ANKRD11	Body	0.07	n	0
cg02500806	ILMN_1690465	-6.35	3.0e-02	-10.43	3.1e-02	12.32	3.1e-02	0.07	16	89349976	ANKRD11	Body	0.03	n	0
cg06636372	ILMN_1690465	-10.23	6.0e-04	-15.95	7.3e-04	19.48	7.3e-04	0.18	16	89349979	ANKRD11	Body	0.08	n	0
cg08130612	ILMN_1690465	-5.88	1.8e-02	-11.97	2.2e-02	13.52	2.2e-02	0.12	16	89350233	ANKRD11	Body	0.06	n	0

cg00199000	ILMN_1690465	-6.7	3.1e-02	-11.34	3.4e-02	13.66	3.4e-02	0.08	16	89350310	<i>ANKRD11</i>	Body	0.1	n	0
cg04937029	ILMN_1690465	-5.69	3.8e-02	-11.03	4.4e-02	12.79	4.4e-02	0.08	16	89351359	<i>ANKRD11</i>	Body	0.09	n	0
cg16593941	ILMN_1690465	-8.26	2.0e-02	-19.78	2.6e-02	22.1	2.6e-02	0.19	16	89351893	<i>ANKRD11</i>	Body	0.11	n	0
cg02134790	ILMN_1690465	-7.5	3.6e-03	-19.32	4.4e-03	21.89	4.4e-03	0.14	16	89352812	<i>ANKRD11</i>	Body	0.18	n	0
cg09274451	ILMN_1690465	-7.96	9.7e-03	-13.99	1.2e-02	16.27	1.2e-02	0.14	16	89353600	<i>ANKRD11</i>	Body	0.04	n	0
cg07159469	ILMN_1690465	-6.66	1.7e-02	-19.94	2.2e-02	21.8	2.2e-02	0.14	16	89355005	<i>ANKRD11</i>	Body	0.14	n	0
cg03317919	ILMN_1690465	-7.57	1.3e-02	-16.8	1.3e-02	19.34	1.4e-02	0.09	16	89355071	<i>ANKRD11</i>	Body	0.14	n	0
cg01875529	ILMN_1690465	-8.84	6.4e-03	-18.53	7.0e-03	21.95	7.0e-03	0.11	16	89355462	<i>ANKRD11</i>	Body	0.19	n	0
cg09875780	ILMN_1690465	-6.24	3.7e-02	-15.27	4.5e-02	17.2	4.4e-02	0.11	16	89357086	<i>ANKRD11</i>	Body	0.14	n	0
cg09776094	ILMN_1690465	-8.56	1.6e-02	-15.39	1.8e-02	19.01	1.7e-02	0.1	16	89357477	<i>ANKRD11</i>	Body	0.2	n	0
cg27207530	ILMN_1690465	-9.21	5.8e-03	-17.17	6.9e-03	21	6.8e-03	0.13	16	89357600	<i>ANKRD11</i>	Body	0.21	n	0
cg09220891	ILMN_1690465	-8.04	3.5e-02	-9.55	3.7e-02	13.01	3.8e-02	0.07	16	89357741	<i>ANKRD11</i>	Body	0.1	n	0
cg02487202	ILMN_1690465	-8.56	4.4e-03	-14.48	5.3e-03	17.83	5.3e-03	0.14	16	89358232	<i>ANKRD11</i>	Body	0.16	n	0
cg03025000	ILMN_1690465	-9.68	4.3e-03	-15.69	5.0e-03	20.01	5.0e-03	0.13	16	89358837	<i>ANKRD11</i>	Body	0.21	n	0
cg27267258	ILMN_1690465	-6.83	1.6e-02	-15.93	1.8e-02	18.93	1.8e-02	0.08	16	89359175	<i>ANKRD11</i>	Body	0.28	n	0
cg07108351	ILMN_1690465	-8.43	1.5e-03	-18.56	1.8e-03	21.66	1.7e-03	0.15	16	89359631	<i>ANKRD11</i>	Body	0.18	n	0
cg00332509	ILMN_1690465	-8.49	5.4e-03	-16.05	6.0e-03	19.51	5.9e-03	0.11	16	89363830	<i>ANKRD11</i>	Body	0.2	n	0
cg09607566	ILMN_1690465	-6.93	2.6e-02	-10.52	3.1e-02	13.25	3.1e-02	0.11	16	89367323	<i>ANKRD11</i>	Body	0.14	n	0
cg26783123	ILMN_1690465	-6.31	3.9e-02	-7.23	4.7e-02	9.85	4.7e-02	0.11	16	89367859	<i>ANKRD11</i>	Body	0.09	n	0
cg16699022	ILMN_1690465	-7.06	1.3e-02	-17.17	1.6e-02	19.38	1.6e-02	0.12	16	89371566	<i>ANKRD11</i>	Body	0.14	n	0
cg00711584	ILMN_1690465	-7.35	1.2e-02	-24.95	1.4e-02	26.56	1.4e-02	0.11	16	89373295	<i>ANKRD11</i>	Body	0.09	n	0
cg07661162	ILMN_1690465	-6.13	1.3e-02	-11.16	1.6e-02	13.84	1.5e-02	0.1	16	89375203	<i>ANKRD11</i>	Body	0.23	n	0
cg03615921	ILMN_1690465	-8.33	7.6e-03	-22.05	9.8e-03	24.46	9.7e-03	0.16	16	89375284	<i>ANKRD11</i>	Body	0.13	n	0
cg02415470	ILMN_1690465	-6.3	2.4e-02	-10.52	2.4e-02	13.77	2.4e-02	0.07	16	89383614	<i>ANKRD11</i>	5'UTR	0.3	n	0
cg26546229	ILMN_1690465	-8.22	4.5e-03	-18.25	5.3e-03	20.17	5.4e-03	0.14	16	89385611	<i>ANKRD11</i>	5'UTR	0.03	n	0
cg08888321	ILMN_1690465	-7.26	4.8e-03	-13.39	5.4e-03	15.32	5.4e-03	0.12	16	89385892	<i>ANKRD11</i>	5'UTR	0.02	n	0
cg27247807	ILMN_1690465	-9.45	5.6e-04	-16.47	6.1e-04	20.41	6.1e-04	0.16	16	89387225	<i>ANKRD11</i>	5'UTR	0.19	n	0
cg27300957	ILMN_1690465	-9.8	7.5e-04	-11.77	1.0e-03	15.85	1.0e-03	0.21	16	89387418	<i>ANKRD11</i>	5'UTR	0.1	n	0

cg09420319	ILMN_1690465	-7.83	4.6e-02	-17.1	4.8e-02	19.92	4.8e-02	0.06	16	89387569	<i>ANKRD11</i>	5'UTR	0.17	n	0
cg08311935	ILMN_1690465	-7.5	5.2e-03	-9.65	5.8e-03	12.74	5.8e-03	0.12	16	89387805	<i>ANKRD11</i>	5'UTR	0.1	n	0
cg05504729	ILMN_1690465	-7.94	1.8e-02	-4.04	2.1e-02	8.9	2.1e-02	0.11	16	89399490	<i>ANKRD11</i>	5'UTR	0.05	n	0
cg07054502	ILMN_1690465	-10.71	3.3e-04	-7.8	4.4e-04	13.88	4.3e-04	0.2	16	89405478	<i>ANKRD11</i>	5'UTR	0.13	n	0
cg06873916	ILMN_1690465	-7.86	2.7e-02	-17.56	3.1e-02	19.98	3.1e-02	0.11	16	89410196	<i>ANKRD11</i>	5'UTR	0.12	n	0
cg05071195	ILMN_1690465	-7.12	7.7e-03	-10.31	7.9e-03	13.55	7.9e-03	0.1	16	89411232	<i>ANKRD11</i>	5'UTR	0.19	n	0
cg01271982	ILMN_1690465	-8.03	2.4e-03	-16.39	2.8e-03	18.96	2.8e-03	0.13	16	89417545	<i>ANKRD11</i>	5'UTR	0.11	n	0
cg00911267	ILMN_1690465	-10.89	4.1e-04	-10.97	5.4e-04	16.4	5.3e-04	0.2	16	89418486	<i>ANKRD11</i>	5'UTR	0.15	n	0
cg05507697	ILMN_1690465	-9.42	7.2e-05	-11.21	9.0e-05	16.09	8.7e-05	0.21	16	89421700	<i>ANKRD11</i>	5'UTR	0.22	n	0
cg06411447	ILMN_1690465	-9.02	4.9e-03	-8.64	6.5e-03	13.48	6.2e-03	0.17	16	89421749	<i>ANKRD11</i>	5'UTR	0.2	n	0
cg01619533	ILMN_1690465	-8.43	2.8e-03	-11.46	3.1e-03	15.86	3.1e-03	0.13	16	89421770	<i>ANKRD11</i>	5'UTR	0.26	n	0
cg02749356	ILMN_1690465	-11.39	1.0e-04	-22.64	1.2e-04	26.85	1.2e-04	0.21	16	89421929	<i>ANKRD11</i>	5'UTR	0.16	n	0
cg26533023	ILMN_1690465	-8.69	3.9e-03	-22.59	4.5e-03	25.45	4.5e-03	0.12	16	89422171	<i>ANKRD11</i>	5'UTR	0.17	n	0
cg00345343	ILMN_1690465	-6.81	9.4e-03	-13.4	1.4e-02	15.61	1.4e-02	0.2	16	89422185	<i>ANKRD11</i>	5'UTR	0.12	n	0
cg27096292	ILMN_1690465	-9.3	1.4e-03	-19.94	1.8e-03	23.07	1.7e-03	0.16	16	89422212	<i>ANKRD11</i>	5'UTR	0.14	n	0
cg00948881	ILMN_1690465	-7.3	3.3e-02	-15.04	3.8e-02	17.18	3.8e-02	0.11	16	89433544	<i>ANKRD11</i>	5'UTR	0.09	n	0
cg26877336	ILMN_1690465	-5.83	2.0e-02	-11.02	2.2e-02	12.84	2.2e-02	0.08	16	89433760	<i>ANKRD11</i>	5'UTR	0.09	n	0
cg06660116	ILMN_1690465	-6.98	1.4e-02	-13.43	1.4e-02	16.38	1.4e-02	0.08	16	89433876	<i>ANKRD11</i>	5'UTR	0.21	n	0
cg08420923	ILMN_1690465	-10.18	2.6e-03	-9.58	2.3e-03	15.23	2.4e-03	0.13	16	89436447	<i>ANKRD11</i>	5'UTR	0.18	n	1
cg09033641	ILMN_1690465	-7.63	3.5e-02	-10.07	3.8e-02	13.47	3.8e-02	0.08	16	89436838	<i>ANKRD11</i>	5'UTR	0.16	n	0
cg10515125	ILMN_1690465	-11.73	1.5e-04	-30.19	1.7e-04	33.38	1.7e-04	0.19	16	89437361	<i>ANKRD11</i>	5'UTR	0.1	n	0
cg03633073	ILMN_1690465	-8	1.4e-02	-33.21	1.8e-02	34.58	1.8e-02	0.18	16	89437518	<i>ANKRD11</i>	5'UTR	0.07	n	0
cg12069856	ILMN_1690465	-9.24	3.8e-03	-16.98	5.1e-03	20.37	5.1e-03	0.19	16	89438504	<i>ANKRD11</i>	5'UTR	0.15	n	0
cg07447015	ILMN_1690465	-9.24	2.4e-03	-20.19	2.6e-03	23.64	2.6e-03	0.13	16	89438597	<i>ANKRD11</i>	5'UTR	0.18	n	0
cg08822215	ILMN_2108709	11.47	2.5e-02	8.75	3.0e-02	-14.03	2.4e-02	0.18	16	89438651	<i>ANKRD11</i>	5'UTR	-0.09	n	0
cg08822215	ILMN_1690465	-8.8	3.6e-04	-12.52	3.7e-04	14.88	3.8e-04	0.17	16	89438651	<i>ANKRD11</i>	5'UTR	-0.05	n	0
cg01881136	ILMN_1690465	-9.1	1.6e-03	-28.38	2.1e-03	30.59	2.1e-03	0.19	16	89438758	<i>ANKRD11</i>	5'UTR	0.1	n	0
cg09537792	ILMN_1690465	-8.49	8.0e-03	-21.08	8.8e-03	23.18	8.8e-03	0.11	16	89438892	<i>ANKRD11</i>	5'UTR	0.07	n	0

cg08417142	ILMN_1690465	-9.88	2.5e-04	-21.6	2.9e-04	25.4	2.9e-04	0.19	16	89439771	<i>ANKRD11</i>	5'UTR	0.2	n	0
cg08549241	ILMN_1690465	-8.03	2.3e-02	-8.35	2.7e-02	12.4	2.7e-02	0.1	16	89440133	<i>ANKRD11</i>	5'UTR	0.17	n	0
cg05638739	ILMN_1690465	-10.44	4.4e-05	-12.94	5.4e-05	18	5.3e-05	0.22	16	89440324	<i>ANKRD11</i>	5'UTR	0.19	y	0
cg16525838	ILMN_1690465	-8.56	4.9e-03	-11.02	5.7e-03	14.94	5.7e-03	0.12	16	89440460	<i>ANKRD11</i>	5'UTR	0.17	n	0
cg00770754	ILMN_1690465	-16.53	5.2e-03	-16.08	5.0e-03	22.83	5.1e-03	0.11	16	89440949	<i>ANKRD11</i>	5'UTR	-0.02	n	0
cg26946905	ILMN_1690465	-8.31	3.3e-03	-15.14	3.7e-03	17.7	3.7e-03	0.13	16	89441595	<i>ANKRD11</i>	5'UTR	0.07	n	0
cg02582213	ILMN_1690465	-7.22	8.0e-03	-13.71	1.0e-02	15.28	1.0e-02	0.16	16	89441654	<i>ANKRD11</i>	5'UTR	-0.01	n	0
cg00926926	ILMN_1690465	-10.57	2.9e-04	-28.55	3.6e-04	31.88	3.5e-04	0.19	16	89445433	<i>ANKRD11</i>	5'UTR	0.16	n	0
cg08595667	ILMN_1690465	-7.38	8.7e-04	-21.33	1.3e-03	23.24	1.3e-03	0.21	16	89445453	<i>ANKRD11</i>	5'UTR	0.11	n	0
cg00488747	ILMN_1690465	-9.12	1.2e-03	-17.53	1.5e-03	20.63	1.5e-03	0.16	16	89445503	<i>ANKRD11</i>	5'UTR	0.12	n	0
cg03484438	ILMN_1690465	-7.55	5.0e-03	-11.85	7.4e-03	14.59	7.3e-03	0.21	16	89452237	<i>ANKRD11</i>	5'UTR	0.12	n	0
cg02013146	ILMN_1690465	-10.27	1.3e-03	-26.97	1.4e-03	29.48	1.4e-03	0.15	16	89452259	<i>ANKRD11</i>	5'UTR	0.07	n	0
cg09823077	ILMN_1690465	-6.91	1.2e-02	-15.37	1.6e-02	17.62	1.6e-02	0.13	16	89452360	<i>ANKRD11</i>	5'UTR	0.14	n	0
cg06270206	ILMN_1690465	-6.71	1.7e-02	-11.32	2.3e-02	14.8	2.2e-02	0.13	16	89455108	<i>ANKRD11</i>	5'UTR	0.32	n	0
cg02226192	ILMN_1746706	-8.33	2.6e-02	-3.23	1.6e-02	8.2	2.8e-02	0.15	16	89461734	<i>ANKRD11</i>	5'UTR	-0.18	n	0
cg06365976	ILMN_1690465	-6.42	9.6e-03	-17.4	1.3e-02	17.94	1.4e-02	0.17	16	89462292	<i>ANKRD11</i>	5'UTR	-0.08	n	0
cg07118196	ILMN_1690465	-9.88	3.0e-03	-16.08	3.1e-03	20.29	3.2e-03	0.12	16	89462418	<i>ANKRD11</i>	5'UTR	0.18	n	0
cg05900234	ILMN_1690465	-10.5	2.4e-03	-17.94	2.7e-03	22.35	2.7e-03	0.13	16	89462661	<i>ANKRD11</i>	5'UTR	0.19	n	0
cg03258727	ILMN_1690465	-6.69	2.0e-02	-10.94	2.4e-02	12.88	2.4e-02	0.12	16	89462782	<i>ANKRD11</i>	5'UTR	0.04	n	0
cg07746351	ILMN_1690465	-11.51	1.9e-03	-17.99	2.1e-03	22.41	2.1e-03	0.15	16	89466392	<i>ANKRD11</i>	5'UTR	0.12	n	0
cg04340114	ILMN_1690465	-6.21	2.5e-02	-12.95	3.1e-02	14.76	3.1e-02	0.11	16	89468673	<i>ANKRD11</i>	5'UTR	0.09	n	0
cg00206490	ILMN_1746706	-9.67	3.8e-02	-1.98	1.9e-02	9.54	3.4e-02	0.17	16	89469729	<i>ANKRD11</i>	5'UTR	-0.27	n	0
cg09293925	ILMN_1690465	-5.84	1.5e-02	-10.92	1.6e-02	13.01	1.6e-02	0.08	16	89471650	<i>ANKRD11</i>	5'UTR	0.13	n	0
cg05749855	ILMN_1690465	-8.36	4.2e-03	-22.13	5.3e-03	24.35	5.3e-03	0.15	16	89472771	<i>ANKRD11</i>	5'UTR	0.1	n	0
cg09486407	ILMN_1690465	-10.93	4.4e-04	-20.13	5.7e-04	24.75	5.6e-04	0.2	16	89478268	<i>ANKRD11</i>	5'UTR	0.21	n	0
cg09222577	ILMN_2108709	10.15	3.7e-02	6.2	4.6e-02	-11.88	3.6e-02	0.17	16	89480222	<i>ANKRD11</i>	5'UTR	-0.04	n	0
cg09222577	ILMN_1690465	-6	3.9e-02	-6.87	3.9e-02	9.39	4.0e-02	0.06	16	89480222	<i>ANKRD11</i>	5'UTR	0.07	n	0
cg09222577	ILMN_1746706	7.38	3.6e-02	5.96	4.4e-02	-9.88	3.5e-02	0.13	16	89480222	<i>ANKRD11</i>	5'UTR	0.04	n	0

Supplementary Table S3 Literature-based assessment of the functional role of age-related eCpG genes in adipose tissue and obesity

Gene	Max. R2	Methylation	SNP	Transcript	Animal	Role (functional)	Notes	References
<i>ANKRD11</i>								
<i>COL11A2</i>	0.5	yes	yes	yes	human/pig	part of collagen involved in structure and strength of tissue support	1. epigenetically associated with MetS and 2. insulin resistance in visceral fat from obese subjects 3. upregulated in fat pig breed (JNP)	[36,37]
<i>C1s</i>	0.54			yes	human	part of complement system involved in inflammation	1. upregulated in adipose tissue in heavier BMI co-twins, 2. upregulated in adipose tissue in obese males	[38]
<i>CPEB2</i>								
<i>TOX2</i>								
<i>KCNS1</i>								
<i>FHL2</i>	0.31	yes	yes	yes	human/mouse	regulation of intracellular signal transduction pathways	1. hyper-methylation is associated with human aging and increase gene expression in blood and adipose, 2. FHL2 methylation in both blood and adipose associated with aging	[39]
<i>TIAL1</i>								
<i>BSX</i>								
<i>PTPRN</i>								
search terms "gene AND obesity", "gene AND adipose"								