

**eTable 14. Candidate Pleiotropic Genes Identified by MAGMA**

Locus No.	CHR	START	STOP	GENE EntrezID	Gene symbol	P. value	P.adjusted
31	3	187866097	188613460	4026	LPP	8.49E-23	6.27E-20
17	2	102681836	102801334	3554	IL1R1	2.30E-16	8.50E-14
137	17	38072294	38088884	94103	ORMDL3	3.89E-16	9.58E-14
61	6	90631247	91011627	60468	BACH2	5.69E-16	1.05E-13
47	5	110400778	110418722	85480	TSLP	8.88E-16	1.31E-13
49	5	131988865	132001801	3596	IL13	1.17E-15	1.35E-13
49	5	131887616	131985313	10111	RAD50	1.28E-15	1.35E-13
115	13	99901967	99915682	2841	GPR18	1.61E-15	1.49E-13
39	4	123367625	123382650	3558	IL2	1.83E-15	1.50E-13
127	15	79046545	79108805	11173	ADAMTS7	2.16E-15	1.60E-13
17	2	102798433	102861462	8808	IL1RL2	6.73E-13	9.04E-12
17	2	103231166	103332809	6549	SLC9A2	2.98E-10	2.10E-09
127	15	78911636	78938587	1143	CHRN4	3.39E-15	1.91E-13
137	17	38114226	38139019	284110	GSDMA	3.61E-15	1.91E-13
49	5	131700396	131736306	6584	SLC22A5	4.11E-15	2.02E-13
105	12	57484187	57510196	6778	STAT6	4.77E-15	2.20E-13
115	13	99941789	99964749	1880	GPR183	6.44E-15	2.69E-13
137	17	38166614	38179066	1440	CSF3	6.55E-15	2.69E-13
125	15	67353036	67492533	4088	SMAD3	6.92E-15	2.69E-13
73	7	117115017	117313719	1080	CFTR	6.54E-06	1.46E-05
118	14	92975125	93160339	79890	RIN3	8.13E-15	2.86E-13
105	12	57311938	57333189	121214	SDR9C7	1.33E-14	4.47E-13
49	5	131404485	131416863	1437	CSF2	1.55E-14	4.94E-13
49	5	132004678	132023370	3565	IL4	1.63E-14	4.94E-13
115	13	99847679	100043753	337867	UBAC2	1.67E-14	4.94E-13
104	12	56362697	56395467	5869	RAB5B	1.99E-14	5.66E-13
77	8	27343519	27407439	2053	EPHX2	4.49E-06	1.02E-05
104	12	56386043	56404309	6821	SUOX	2.40E-14	6.33E-13
49	5	131872136	131897555	3567	IL5	3.13E-14	7.98E-13
140	17	47361568	47444835	22834	ZNF652	4.06E-14	1.00E-12
49	5	131588351	131614147	8572	PDLIM4	4.82E-14	1.15E-12
49	5	131625145	131684899	6583	SLC22A4	6.55E-14	1.51E-12
47	5	110554947	110835584	814	CAMK4	6.93E-14	1.55E-12
10	1	167394877	167492847	919	CD247	9.08E-14	1.97E-12
107	12	65667423	65865687	253827	MSRB3	1.17E-13	2.42E-12
127	15	78880394	78918637	1136	CHRNA3	1.18E-13	2.42E-12
127	15	78794906	78834715	123688	HYKK	1.27E-13	2.54E-12
138	17	43692710	43918194	1394	CRHR1	1.33E-13	2.59E-12
127	15	78827747	78846562	5685	PSMA4	1.38E-13	2.61E-12
124	15	60775483	61526502	6095	RORA	1.46E-13	2.70E-12
86	9	34656893	34667689	10850	CCL27	2.69E-06	6.45E-06
94	11	1137474	1167465	4586	MUC5AC	1.93E-13	3.40E-12
137	17	38213446	38255120	7067	THRA	2.31E-13	3.97E-12
49	5	131523299	131568556	8974	P4HA2	2.66E-13	4.47E-12
39	4	123528783	123547212	59067	IL21	2.85E-13	4.68E-12
49	5	132023323	132078265	11127	KIF3A	3.18E-13	5.11E-12
34	4	38792876	38811814	7096	TLR1	3.34E-13	5.16E-12
96	11	61562097	61589529	3992	FADS1	3.40E-13	5.16E-12
138	17	44102282	44307740	284058	KANSL1	3.42E-13	5.16E-12
47	5	110422870	110471200	134430	WDR36	3.73E-13	5.51E-12
154	20	61969662	62014487	1137	CHRNA4	4.64E-13	6.72E-12
138	17	43966702	44110700	4137	MAPT	4.76E-13	6.76E-12
96	11	61551602	61565085	746	TMEM258	5.34E-13	7.45E-12
156	22	41824492	41849234	10766	TOB2	5.87E-13	8.03E-12
86	9	34641586	34655595	2592	GALT	1.42E-05	2.92E-05

96	11	61555109	61569716	2237	FEN1	1.01E-12	1.33E-11
39	4	123295121	123355957	132612	ADAD1	1.03E-12	1.34E-11
86	9	34546425	34595713	1271	CNTFR	1.48E-05	3.03E-05
129	16	11033345	11281046	23274	CLEC16A	1.77E-12	2.22E-11
137	17	38078156	38100953	101928947	LOC101928947	2.12E-12	2.57E-11
49	5	131391347	131403896	3562	IL3	2.14E-12	2.57E-11
29	3	168796287	169386563	2122	MECOM	2.16E-12	2.57E-11
156	22	41758337	41800332	7008	TEF	2.74E-12	3.21E-11
24	3	33033100	33143694	2720	GLB1	4.06E-12	4.62E-11
24	3	33033219	33143689	643853	TMPPE	4.06E-12	4.62E-11
34	4	38768860	38789611	81793	TLR10	5.03E-12	5.63E-11
138	17	44663035	44839830	4905	NSF	5.21E-12	5.75E-11
86	9	34684567	34696274	6363	CCL19	2.14E-05	4.18E-05
104	12	56468809	56502291	2065	ERBB3	6.51E-12	6.97E-11
156	22	42090518	42200459	150365	MEI1	1.07E-11	1.13E-10
86	9	34608542	34625520	11258	DCTN3	2.37E-05	4.58E-05
137	17	38055848	38079903	55876	GSDMB	1.26E-11	1.29E-10
125	15	67542138	67799142	64799	IQCH	1.28E-11	1.30E-10
96	11	61578675	61639826	9415	FADS2	1.34E-11	1.34E-10
49	5	132081509	132118976	23176	SEPT8	1.38E-11	1.36E-10
156	22	41850721	41869708	84844	PHF5A	1.55E-11	1.50E-10
86	9	34647182	34666899	3590	IL11RA	5.29E-05	9.18E-05
138	17	44834872	44901126	7473	WNT3	1.65E-11	1.56E-10
154	20	62366211	62380403	56731	SLC2A4RG	1.81E-11	1.69E-10
129	16	11017748	11041257	28955	DEXI	1.97E-11	1.82E-10
156	22	41860099	41929993	50	ACO2	2.30E-11	2.10E-10
156	22	41967890	41990871	5372	PMM1	2.65E-11	2.39E-10
90	10	8082294	8122164	2625	GATA3	1.25E-08	5.34E-08
69	7	22761766	22776621	3569	IL6	3.10E-11	2.73E-10
123	15	49613822	49918128	196951	FAM227B	5.27E-07	1.45E-06
123	15	49710375	49784523	2252	FGF7	3.77E-06	8.76E-06
98	11	76150967	76268943	56946	C11orf30	3.82E-11	3.24E-10
156	22	42191636	42233175	79879	CCDC134	4.97E-11	4.17E-10
156	22	41989032	42022079	27351	DES1	5.36E-11	4.45E-10
154	20	62323004	62335051	8771	TNFRSF6B	5.88E-11	4.83E-10
137	17	37403897	37563530	84961	FBXL20	6.00E-11	4.87E-10
156	22	41916803	41945479	171568	POLR3H	6.78E-11	5.45E-10
156	22	41952014	41977670	27254	CSDC2	8.47E-11	6.73E-10
15	2	63343518	63820867	51057	WDPCP	8.66E-11	6.81E-10
156	22	41692507	41761151	23264	ZC3H7B	1.00E-10	7.78E-10
131	16	31089745	31105289	339105	PRSS53	3.11E-15	1.91E-13
154	20	62324995	62344365	10139	ARFRP1	1.28E-10	9.75E-10
138	17	44311744	44420160	9884	LRRC37A	1.47E-10	1.11E-09
131	16	31080581	31099833	9726	ZNF646	3.33E-15	1.91E-13
137	17	38244037	38261978	9572	NR1D1	1.70E-10	1.26E-09
71	7	99608204	99647803	7586	ZKSCAN1	2.07E-10	1.51E-09
39	4	123068488	123288914	84162	KIAA1109	2.10E-10	1.52E-09
131	16	31067164	31090641	79759	ZNF668	7.83E-15	2.86E-13
137	17	37555538	37612527	5469	MED1	2.87E-10	2.04E-09
131	16	31097175	31111699	79001	VKORC1	2.20E-14	6.02E-13
88	9	128504617	128734656	5090	PBX3	3.10E-10	2.16E-09
156	22	42012250	42065052	2547	XRCC6	3.49E-10	2.40E-09
18	2	111998803	112011256	101927260	LOC101927260	3.51E-10	2.40E-09
25	3	49823165	49842254	389118	CDHR4	3.80E-10	2.58E-09
156	22	42064937	42090296	4809	NHP2L1	3.93E-10	2.64E-09
58	6	27793952	27804305	8362	HIST1H4K	4.38E-10	2.92E-09
154	20	62333727	62372494	84619	ZGPAT	4.58E-10	2.98E-09

12	1	203091833	203141533	134	ADORA1	4.58E-10	2.98E-09
138	17	44071616	44082060	246744	STH	4.66E-10	2.98E-09
42	5	1248282	1300178	7015	TERT	5.00E-10	2.98E-09
49	5	131812301	131831465	3659	IRF1	5.00E-10	2.98E-09
49	5	132078137	132094856	645121	CCNI2	5.00E-10	2.98E-09
51	5	141483324	141539008	80762	NDFIP1	5.00E-10	2.98E-09
125	15	67488013	67552536	79719	AAGAB	5.00E-10	2.98E-09
127	15	78852862	78892611	1138	CHRNA5	5.00E-10	2.98E-09
130	16	27320161	27381099	3566	IL4R	5.00E-10	2.98E-09
131	16	30990949	31005473	80270	HSD3B7	1.68E-13	3.03E-12
137	17	38132021	38159213	5709	PSMD3	5.00E-10	2.98E-09
137	17	38170350	38215889	9862	MED24	5.00E-10	2.98E-09
156	22	41760086	41771400	100996598	LOC100996598	5.07E-10	2.98E-09
96	11	61515121	61560990	745	MYRF	5.08E-10	2.98E-09
94	11	1406129	1488919	9024	BRSK2	5.95E-10	3.46E-09
105	12	57517282	57612142	4035	LRP1	7.62E-10	4.40E-09
105	12	57340215	57358158	8608	RDH16	8.51E-10	4.88E-09
156	22	42081547	42099140	79640	C22orf46	8.75E-10	4.97E-09
137	17	37612739	37726398	51755	CDK12	9.52E-10	5.37E-09
109	12	123712844	123747651	91574	C12orf65	1.17E-09	6.55E-09
25	3	49837638	49856391	7318	UBA7	1.21E-09	6.72E-09
94	11	1290598	1335892	54472	TOLLIP	1.23E-09	6.78E-09
78	8	71576600	71653177	389668	XKR9	1.24E-09	6.79E-09
36	4	89642105	90037549	10144	FAM13A	1.30E-09	7.06E-09
3	1	25221002	25296648	864	RUNX3	1.33E-09	7.17E-09
122	15	40692686	40733146	3712	IVD	1.40E-09	7.50E-09
15	2	63810743	63839331	4190	MDH1	1.60E-09	8.51E-09
154	20	62362480	62375460	54923	LIME1	1.63E-09	8.60E-09
136	17	15928408	16123874	9611	NCOR1	1.66E-09	8.70E-09
103	12	48171505	48218763	51564	HDAC7	1.86E-09	9.66E-09
108	12	94537499	94706451	10154	PLXNC1	1.87E-09	9.66E-09
93	10	104842774	104958063	22978	NT5C2	2.15E-09	1.10E-08
95	11	27671440	27748605	627	BDNF	2.38E-09	1.21E-08
138	17	44346550	44444416	100506084	ARL17B	3.01E-09	1.52E-08
97	11	65549505	65569690	5017	OVOL1	3.04E-09	1.53E-08
78	8	71544501	71586447	51110	LACTB2	3.07E-09	1.53E-08
149	19	41344441	41361360	1548	CYP2A6	3.29E-09	1.63E-08
58	6	28188029	28206265	7746	ZSCAN9	3.31E-09	1.63E-08
42	5	1312869	1350180	81037	CLPTM1L	3.40E-09	1.66E-08
138	17	43508266	43573146	9842	PLEKHM1	3.46E-09	1.68E-08
58	6	26276278	26290844	8365	HIST1H4H	3.85E-09	1.86E-08
130	16	27231315	27285113	197370	NSMCE1	4.75E-09	2.28E-08
154	20	62184439	62210592	85441	HELZ2	5.17E-09	2.46E-08
131	16	30929392	30965104	54620	FBXL19	1.53E-12	1.95E-11
32	3	196361656	196393875	375387	NRROS	5.51E-09	2.59E-08
127	15	79127903	79195081	10933	MORF4L1	6.11E-09	2.86E-08
20	2	157286965	157447915	2820	GPD2	6.50E-09	3.00E-08
154	20	62284163	62332606	51750	RTEL1	6.51E-09	3.00E-08
93	10	104673075	104843344	54805	CNNM2	6.56E-09	3.00E-08
137	17	37755021	37769175	4761	NEUROD2	6.57E-09	3.00E-08
138	17	43326760	43344479	124783	SPATA32	6.65E-09	3.01E-08
136	17	15874874	15908006	125150	ZSWIM7	6.67E-09	3.01E-08
109	12	123635943	123722785	10198	MPHOSPH9	7.03E-09	3.15E-08
58	6	27828107	27838576	8332	HIST1H2AL	8.54E-09	3.80E-08
58	6	27800544	27826533	8341	HIST1H2BN	8.99E-09	3.98E-08
87	9	127014885	127119721	10783	NEK6	1.05E-08	4.62E-08
131	16	30963615	31000985	9739	SETD1A	5.67E-12	6.16E-11

137	17	37389040	37407043	101929578	LOC101929578	1.08E-08	4.69E-08
109	12	123740517	123761863	8099	CDK2AP1	1.17E-08	5.06E-08
131	16	31145244	31166415	146547	PRSS36	1.15E-11	1.20E-10
131	16	31123985	31147714	84148	KAT8	1.56E-11	1.50E-10
109	12	123463027	123640376	57605	PITPNM2	1.27E-08	5.39E-08
131	16	30955405	30971259	93129	ORAI3	3.16E-11	2.75E-10
58	6	27829570	27840359	3009	HIST1H1B	1.35E-08	5.67E-08
68	7	20365345	20460382	3696	ITGB8	1.39E-08	5.80E-08
137	17	37816599	37827807	8557	TCAP	1.49E-08	6.19E-08
58	6	27786903	27797258	8363	HIST1H4J	1.53E-08	6.32E-08
12	1	203047257	203060166	4656	MYOG	1.55E-08	6.36E-08
71	7	99656470	99685171	7551	ZNF3	1.56E-08	6.37E-08
58	6	27835926	27846289	8368	HIST1H4L	1.73E-08	7.02E-08
109	12	123863704	123898900	387893	SETD8	1.83E-08	7.39E-08
58	6	27834623	27845099	8354	HIST1H3I	1.96E-08	7.83E-08
116	14	68281496	69154889	5890	RAD51B	1.96E-08	7.83E-08
96	11	61635998	61664006	3995	FADS3	2.01E-08	7.99E-08
54	5	176779704	176804599	10636	RGS14	2.04E-08	8.06E-08
136	17	16115509	16235098	9487	PIGL	2.08E-08	8.18E-08
58	6	26012260	26023040	3024	HIST1H1A	2.35E-08	9.19E-08
131	16	31039416	31056489	6810	STX4	3.22E-11	2.77E-10
138	17	43917256	43929438	162540	SPPL2C	2.51E-08	9.70E-08
58	6	27800658	27811117	8330	HIST1H2AK	2.52E-08	9.70E-08
25	3	49756728	49828973	9807	IP6K1	2.65E-08	1.01E-07
140	17	47476410	47497267	5245	PHB	2.69E-08	1.02E-07
94	11	1069875	1109417	4583	MUC2	2.70E-08	1.02E-07
127	15	78725518	78798798	3658	IREB2	2.78E-08	1.05E-07
131	16	31114615	31129112	10295	BCKDK	1.25E-10	9.62E-10
154	20	62370021	62468731	140685	ZBTB46	2.88E-08	1.07E-07
82	8	109450853	109504136	9694	EMC2	2.88E-08	1.07E-07
58	6	26099176	26109565	8364	HIST1H4C	3.14E-08	1.16E-07
137	17	37788333	37825454	10948	STARD3	3.36E-08	1.24E-07
98	11	76087307	76130663	100506127	LOC100506127	3.72E-08	1.36E-07
18	2	111873491	111931022	10018	BCL2L11	3.85E-08	1.40E-07
130	16	27209807	27238089	79831	KDM8	3.87E-08	1.40E-07
58	6	27770977	27781445	8329	HIST1H2AI	3.97E-08	1.42E-07
109	12	123459607	123472460	51329	ARL6IP4	3.97E-08	1.42E-07
25	3	49861028	49898992	10293	TRAIP	4.03E-08	1.44E-07
25	3	49586922	49713982	8927	BSN	4.47E-08	1.59E-07
58	6	27772842	27783314	8357	HIST1H3H	4.52E-08	1.60E-07
25	3	49749267	49762238	386724	AMIGO3	4.65E-08	1.63E-07
131	16	30902928	30919881	1489	CTF1	2.64E-10	1.89E-09
70	7	27865192	28225437	221895	JAZF1	4.84E-08	1.69E-07
104	12	56396268	56437219	64375	IKZF4	5.21E-08	1.81E-07
131	16	30995577	31026829	112755	STX1B	5.00E-10	2.98E-09
138	17	43466268	43515282	201176	ARHGAP27	6.32E-08	2.17E-07
58	6	27873963	27885174	81697	OR2B2	6.47E-08	2.21E-07
25	3	49835687	49847463	389119	FAM212A	6.81E-08	2.32E-07
109	12	123454354	123469588	79676	OGFOD2	7.42E-08	2.52E-07
58	6	27770257	27780709	8340	HIST1H2BL	7.61E-08	2.57E-07
25	3	49721950	49763962	63891	RNF123	8.20E-08	2.74E-07
56	6	16294343	16766721	6310	ATXN1	8.20E-08	2.74E-07
137	17	37819234	37831728	5409	PNMT	8.34E-08	2.78E-07
98	11	76056004	76096880	5612	PRKRIR	8.45E-08	2.80E-07
58	6	26028320	26038796	8335	HIST1H2AB	8.59E-08	2.83E-07
40	4	140632545	141080233	55534	MAML3	8.81E-08	2.89E-07
58	6	29548818	29561745	7932	OR2H2	1.11E-07	3.63E-07

134	17	2235806	2289353	9905	SGSM2	1.26E-07	4.10E-07
58	6	26151559	26162343	3008	HIST1H1E	1.27E-07	4.12E-07
88	9	128194673	128474513	79109	MAPKAP1	1.30E-07	4.20E-07
75	8	8170258	8248941	157285	SGK223	1.40E-07	4.50E-07
58	6	28207404	28232030	387032	ZKSCAN4	1.42E-07	4.54E-07
93	10	104624183	104666656	57412	AS3MT	1.43E-07	4.56E-07
58	6	26015718	26026186	8350	HIST1H3A	1.47E-07	4.66E-07
156	22	41635781	41687255	5905	RANGAP1	1.49E-07	4.69E-07
58	6	27856203	27931100	8348	HIST1H2BO	1.49E-07	4.69E-07
131	16	30840373	30910852	9274	BCL7C	1.32E-08	5.57E-08
74	7	128572976	128595089	3663	IRF5	1.56E-07	4.84E-07
154	20	62266058	62289963	50861	STMN3	1.56E-07	4.84E-07
54	5	176753563	176783885	10960	LMAN2	1.58E-07	4.89E-07
138	17	43335488	43399414	9020	MAP3K14	1.66E-07	5.11E-07
58	6	26102640	26113364	3010	HIST1H1T	1.74E-07	5.34E-07
34	4	38820325	38863438	10333	TLR6	1.75E-07	5.34E-07
67	7	932537	1000208	11033	ADAP1	1.76E-07	5.35E-07
58	6	26022124	26032480	8366	HIST1H4B	1.88E-07	5.69E-07
58	6	28229788	28251001	7741	ZSCAN26	1.95E-07	5.86E-07
71	7	99642390	99667663	7589	ZSCAN21	1.95E-07	5.86E-07
46	5	74965023	75018313	134359	POC5	2.30E-07	6.88E-07
58	6	28222075	28233736	222698	NKAPL	2.31E-07	6.88E-07
101	12	1016255	1104774	5893	RAD52	2.37E-07	7.03E-07
58	6	28287514	28326972	64288	ZSCAN31	2.52E-07	7.45E-07
94	11	1239295	1288406	727897	MUC5B	2.64E-07	7.77E-07
58	6	27777080	27787518	8331	HIST1H2AJ	2.69E-07	7.89E-07
138	17	43219684	43234468	10614	HEXIM1	3.07E-07	8.97E-07
58	6	26038455	26048885	3018	HIST1H2BB	3.20E-07	9.31E-07
59	6	43206222	43260997	84630	TTBK1	3.71E-07	1.08E-06
93	10	104608967	104629718	119032	C10orf32	3.81E-07	1.10E-06
58	6	26152419	26176577	3017	HIST1H2BD	3.92E-07	1.13E-06
25	3	49753909	49766407	29925	GMPPB	4.01E-07	1.15E-06
1	1	1141706	1154703	7293	TNFRSF4	4.10E-07	1.17E-06
58	6	27777822	27788267	8342	HIST1H2BM	4.10E-07	1.17E-06
131	16	31137754	31152151	5652	PRSS8	4.65E-08	1.63E-07
131	16	30110977	30130264	79153	GDPD3	4.26E-07	1.20E-06
131	16	30478983	30539506	3683	ITGAL	2.48E-06	6.01E-06
84	9	5624031	5781557	57589	RIC1	4.77E-07	1.33E-06
25	3	49890414	49912655	79012	CAMKV	4.78E-07	1.33E-06
120	14	99630624	99743514	64919	BCL11B	4.79E-07	1.33E-06
126	15	76635526	77202796	49855	SCAPER	5.04E-07	1.39E-06
84	9	5779572	5838081	79956	ERMP1	5.08E-07	1.40E-06
131	16	30120426	30139630	5595	MAPK3	4.20E-06	9.55E-06
136	17	15897694	15937723	54902	TTC19	5.48E-07	1.50E-06
47	5	110068837	110105857	91137	SLC25A46	5.65E-07	1.54E-06
131	16	30092114	30108258	6911	TBX6	1.64E-05	3.31E-05
138	17	43232502	43252406	124790	HEXIM2	7.10E-07	1.92E-06
58	6	26268204	26278640	8346	HIST1H2BI	7.13E-07	1.92E-06
66	6	155049512	155287708	22828	SCAF8	8.06E-07	2.17E-06
111	13	40224764	40370802	57511	COG6	8.21E-07	2.20E-06
136	17	15843231	15884210	136	ADORA2B	8.35E-07	2.22E-06
84	9	6527464	6650692	2731	GLDC	8.36E-07	2.22E-06
98	11	76363568	76386990	2615	LRRC32	8.52E-07	2.26E-06
58	6	28244314	28275326	84547	PGBD1	8.66E-07	2.29E-06
58	6	26016907	26027278	8359	HIST1H4A	9.16E-07	2.41E-06
58	6	29048985	29060090	442184	OR2B3	9.47E-07	2.48E-06
130	16	27408483	27468363	50615	IL21R	9.95E-07	2.60E-06

138	17	43204967	43226548	79777	ACBD4	1.01E-06	2.63E-06
131	16	30754574	30777497	5261	PHKG2	1.84E-05	3.66E-05
104	12	56355556	56371573	1017	CDK2	1.05E-06	2.71E-06
58	6	26108389	26129266	8347	HIST1H2BC	1.06E-06	2.73E-06
58	6	25957917	25992557	10475	TRIM38	1.10E-06	2.82E-06
38	4	106468704	106607070	54848	ARHGEF38	1.35E-06	3.45E-06
25	3	49203987	49218919	200942	KLHDC8B	1.42E-06	3.62E-06
64	6	135599670	135823903	54806	AHI1	1.44E-06	3.66E-06
58	6	26119370	26144337	8334	HIST1H2AC	1.52E-06	3.85E-06
58	6	26026817	26037288	8358	HIST1H3B	1.57E-06	3.95E-06
101	12	856759	1025618	65125	WNK1	1.57E-06	3.95E-06
58	6	26082422	26101438	3077	HFE	1.59E-06	3.98E-06
117	14	78631716	80339633	9369	NRXN3	1.60E-06	3.99E-06
25	3	49210069	49234291	646498	C3orf84	1.65E-06	4.11E-06
151	19	46293968	46323605	81492	RSPH6A	1.87E-06	4.64E-06
150	19	45412577	45427606	341	APOC1	1.91E-06	4.72E-06
25	3	49454766	49471777	84276	NICN1	2.10E-06	5.17E-06
94	11	1637188	1648368	387267	KRTAP5-4	2.25E-06	5.52E-06
26	3	70998865	71638140	27086	FOXP1	2.26E-06	5.53E-06
144	19	1004650	1026173	91304	TMEM259	2.28E-06	5.56E-06
4	1	50878223	50894119	63950	DMRTA2	2.39E-06	5.81E-06
131	16	30189731	30205397	11151	CORO1A	2.94E-05	5.49E-05
145	19	6577969	6596163	970	CD70	2.58E-06	6.23E-06
131	16	30763733	30778598	90835	C16orf93	3.35E-05	6.11E-05
131	16	30098635	30113248	83719	YPEL3	3.82E-05	6.80E-05
132	16	53732875	54153379	79068	FTO	2.82E-11	2.51E-10
71	7	99559350	99578735	563	AZGP1	2.92E-06	6.96E-06
76	8	10748654	11063875	286046	XKR6	2.95E-06	7.01E-06
25	3	49501136	49578051	1605	DAG1	3.06E-06	7.25E-06
87	9	127110744	127182752	5695	PSMB7	3.21E-06	7.58E-06
59	6	43133920	43154244	6722	SRF	3.48E-06	8.19E-06
25	3	49449211	49465111	275	AMT	3.50E-06	8.21E-06
109	12	123894936	123926264	196383	RILPL2	3.51E-06	8.21E-06
59	6	43039006	43134458	5754	PTK7	3.73E-06	8.70E-06
135	17	7447375	7469925	407977	TNFSF12-TNFSF13	4.21E-07	1.19E-06
104	12	56430686	56443007	6231	RPS26	3.82E-06	8.84E-06
135	17	7447375	7466207	8742	TNFSF12	1.02E-06	2.64E-06
58	6	25840328	25879471	10786	SLC17A3	3.87E-06	8.91E-06
105	12	57477677	57494259	4665	NAB2	3.91E-06	8.97E-06
49	5	131280666	131352761	23305	ACSL6	3.94E-06	9.01E-06
25	3	49391569	49454526	387	RHOA	4.16E-06	9.49E-06
135	17	7486496	7499037	6665	SOX15	2.64E-06	6.35E-06
135	17	7460309	7480287	26168	SENP3	3.83E-06	8.84E-06
28	3	101287997	101318281	57092	PCNP	4.71E-06	1.06E-05
25	3	49444639	49458909	6988	TCTA	4.71E-06	1.06E-05
60	6	64424876	66422118	346007	EYS	4.82E-06	1.08E-05
140	17	47295728	47314009	162466	PHOSPHO1	5.91E-06	1.32E-05
126	15	76624065	76639817	64843	ISL2	6.27E-06	1.40E-05
135	17	7512382	7541700	6462	SHBG	1.43E-05	2.94E-05
135	17	7481965	7496530	9526	MPDU1	1.50E-05	3.06E-05
59	6	43188367	43202211	10591	DNPH1	7.73E-06	1.71E-05
79	8	74327604	74664943	27067	STAU2	7.74E-06	1.71E-05
58	6	26050968	26061699	3006	HIST1H1C	7.94E-06	1.75E-05
112	13	51281759	51422885	220107	DLEU7	8.10E-06	1.78E-05
59	6	43144913	43197325	23113	CUL9	8.27E-06	1.81E-05
25	3	49389609	49400791	2876	GPX1	8.30E-06	1.81E-05
52	5	147758498	147827399	81545	FBXO38	8.32E-06	1.81E-05

84	9	6210149	6262983	90865	IL33	8.42E-06	1.82E-05
137	17	37908968	38025441	22806	IKZF3	8.49E-06	1.83E-05
25	3	49309577	49382536	7375	USP4	8.78E-06	1.89E-05
92	10	94444681	94460408	3087	HHEX	9.44E-06	2.03E-05
58	6	28312691	28341954	80317	ZKSCAN3	9.48E-06	2.03E-05
22	2	242669030	242713231	728294	D2HGDH	9.68E-06	2.07E-05
58	6	26040639	26051097	8352	HIST1H3C	1.02E-05	2.17E-05
34	4	38864354	38952365	92689	FAM114A1	1.06E-05	2.25E-05
28	3	101275680	101290290	54931	TRMT10C	1.09E-05	2.31E-05
133	16	75322608	75472387	10428	CFDP1	1.20E-05	2.53E-05
58	6	26360387	26383548	11118	BTN3A2	1.22E-05	2.57E-05
151	19	46281205	46301060	1762	DMWD	1.23E-05	2.58E-05
38	4	106811588	106897828	255743	NPNT	1.24E-05	2.60E-05
2	1	10530003	10695815	5195	PEX14	1.36E-05	2.83E-05
82	8	109208972	109265959	3646	EIF3E	1.36E-05	2.83E-05
137	17	38092727	38105987	100505591	LRRC3C	1.37E-05	2.84E-05
54	5	176725763	176738960	27166	PRELID1	1.37E-05	2.84E-05
54	5	176806432	176830849	6569	SLC34A1	1.38E-05	2.85E-05
135	17	7524552	7536194	112483	SAT2	3.30E-05	6.05E-05
135	17	7471024	7487324	1973	EIF4A1	4.74E-05	8.26E-05
139	17	46621232	46672634	3213	HOXB3	1.69E-10	1.26E-09
139	17	46647869	46660743	3214	HOXB4	5.23E-09	2.48E-08
92	10	94206441	94338852	3416	IDE	1.55E-05	3.16E-05
30	3	176733542	176920048	79718	TBL1XR1	1.62E-05	3.29E-05
139	17	46601807	46613272	3211	HOXB1	1.08E-08	4.69E-08
76	8	11346521	11427108	640	BLK	1.64E-05	3.31E-05
58	6	29269467	29280432	442191	OR14J1	1.70E-05	3.42E-05
65	6	138183325	138209451	7128	TNFAIP3	1.74E-05	3.49E-05
44	5	35851977	35884705	3575	IL7R	1.79E-05	3.58E-05
54	5	176723199	176735744	53917	RAB24	1.79E-05	3.58E-05
139	17	46615017	46627393	3212	HOXB2	1.24E-08	5.33E-08
122	15	40669922	40691489	90417	KNSTRN	1.84E-05	3.66E-05
1	1	1162629	1175421	126792	B3GALT6	1.91E-05	3.78E-05
126	15	77218962	77247601	5955	RCN2	1.99E-05	3.93E-05
47	5	109750197	110067507	642987	TMEM232	2.01E-05	3.96E-05
1	1	1172826	1187102	388581	FAM132A	2.11E-05	4.15E-05
133	16	75472136	75503584	124491	TMEM170A	2.12E-05	4.16E-05
139	17	46205802	46512596	8631	SKAP1	2.46E-08	9.57E-08
105	12	57383355	57395469	11318	GPR182	2.25E-05	4.39E-05
113	13	58199238	58308445	27253	PCDH17	2.26E-05	4.40E-05
58	6	28341598	28372544	9753	ZSCAN12	2.29E-05	4.44E-05
139	17	46663619	46676103	3215	HOXB5	2.82E-08	1.06E-07
8	1	114234824	114307165	10745	PHTF1	2.38E-05	4.59E-05
58	6	27088912	27105743	8970	HIST1H2BJ	2.42E-05	4.66E-05
137	17	38019417	38039149	124626	ZBP2	2.48E-05	4.75E-05
58	6	28104688	28132250	7745	ZKSCAN8	2.49E-05	4.75E-05
76	8	10617473	10702394	54984	PINX1	2.49E-05	4.75E-05
91	10	75556669	75576589	8509	NDST2	2.58E-05	4.91E-05
58	6	27109861	27120341	85235	HIST1H2AH	2.59E-05	4.92E-05
137	17	37778177	37797878	84152	PPP1R1B	2.69E-05	5.08E-05
8	1	114299454	114360070	54665	RSBN1	2.69E-05	5.08E-05
58	6	27855477	27865963	8336	HIST1H2AM	2.72E-05	5.13E-05
71	7	99762229	99779990	221914	GPC2	2.74E-05	5.15E-05
140	17	47282589	47305587	51225	ABI3	2.81E-05	5.27E-05
139	17	45805610	45828485	30009	TBX21	5.25E-08	1.81E-07
139	17	46684708	46697474	3218	HOXB8	1.50E-07	4.70E-07
38	4	106624935	106773882	79807	GSTCD	2.99E-05	5.57E-05

58	6	28043482	28062341	7718	ZNF165	3.09E-05	5.74E-05
1	1	1147288	1172447	51150	SDF4	3.12E-05	5.78E-05
94	11	1613407	1624524	440021	KRTAP5-2	3.13E-05	5.78E-05
151	19	46362518	46382055	3171	FOXA3	3.17E-05	5.84E-05
150	19	45404039	45417650	348	APOE	3.30E-05	6.05E-05
139	17	46668099	46687343	3216	HOXB6	4.32E-07	1.21E-06
58	6	25778125	25837287	6568	SLC17A1	3.33E-05	6.09E-05
139	17	46679594	46693383	3217	HOXB7	6.23E-07	1.69E-06
58	6	27101924	27113258	8294	HIST1H4I	3.43E-05	6.24E-05
58	6	26453132	26481849	11120	BTN2A1	3.45E-05	6.26E-05
139	17	46042894	46064152	80279	CDK5RAP3	2.89E-06	6.91E-06
58	6	27101072	27119637	85236	HIST1H2BK	3.63E-05	6.56E-05
48	5	118599418	118735294	25816	TNFAIP8	3.65E-05	6.58E-05
99	11	88232256	88801846	2915	GRM5	3.66E-05	6.58E-05
58	6	28087334	28102864	80345	ZSCAN16	3.67E-05	6.58E-05
27	3	75950845	77704115	6092	ROBO2	3.78E-05	6.76E-05
137	17	37880409	37891792	84299	MIEN1	3.80E-05	6.78E-05
139	17	45879733	45904169	114881	OSBPL7	7.61E-06	1.69E-05
154	20	62213955	62263381	26205	GMEB2	4.12E-05	7.32E-05
1	1	1104286	1138315	254173	TTL10	4.18E-05	7.41E-05
140	17	47278596	47292936	2793	GNGT2	4.23E-05	7.48E-05
71	7	99719317	99731121	255374	MBLAC1	4.25E-05	7.50E-05
58	6	26592171	26605278	29777	ABT1	4.58E-05	8.06E-05
128	15	84317838	84713594	57188	ADAMTSL3	4.59E-05	8.06E-05
91	10	75540334	75566556	23053	ZSWIM8	4.60E-05	8.06E-05
84	9	5505512	5576282	80380	PDCD1LG2	4.63E-05	8.09E-05
139	17	46179911	46205109	29916	SNX11	2.90E-05	5.43E-05
148	19	33694570	33721756	56301	SLC7A10	5.14E-05	8.94E-05
139	17	45910047	45923699	90507	SCRN2	3.53E-05	6.39E-05
115	13	100148628	100221302	9375	TM9SF2	5.51E-05	9.54E-05
137	17	38329242	38356906	51195	RAPGEFL1	5.53E-05	9.55E-05
25	3	49140479	49163371	10869	USP19	5.64E-05	9.72E-05
97	11	65536369	65553062	91056	AP5B1	6.18E-05	1.06E-04
1	1	1133888	1147163	8784	TNFRSF18	6.28E-05	1.08E-04
84	9	6408151	6512054	115426	UHRF2	6.47E-05	1.11E-04
126	15	76503628	76608810	2108	ETFA	6.83E-05	1.17E-04
54	5	176727501	176746096	83463	MXD3	6.98E-05	1.19E-04
135	17	7477805	7490429	968	CD68	7.15E-05	1.21E-04
74	7	128589234	128700227	23534	TNPO3	7.23E-05	1.22E-04
17	2	102922962	102973497	9173	IL1RL1	7.24E-05	1.22E-04
25	3	49230861	49300636	339834	CCDC36	7.28E-05	1.23E-04
144	19	1021274	1044064	1265	CNN2	7.86E-05	1.32E-04
135	17	7456609	7469925	8741	TNFSF13	8.23E-05	1.38E-04
5	1	77742662	78030654	26289	AK5	8.29E-05	1.39E-04
89	9	136437141	136479472	642968	FAM163B	8.36E-05	1.40E-04
142	18	34818003	35151000	56853	CELF4	8.89E-05	1.48E-04
44	5	35899397	35943881	133690	CAPSL	8.96E-05	1.49E-04
2	1	10515588	10537613	1676	DFFA	9.64E-05	1.60E-04
151	19	46267975	46290815	1760	DMPK	9.72E-05	1.61E-04
139	17	46024333	46040252	79170	PRR15L	9.73E-05	1.61E-04
86	9	34629719	34642805	10280	SIGMAR1	9.86E-05	1.63E-04
86	9	34616455	34633011	138715	ARID3C	1.03E-04	1.70E-04
139	17	46142414	46183883	10951	CBX1	1.04E-04	1.71E-04
46	5	74902301	74972671	728780	ANKDD1B	1.05E-04	1.72E-04
94	11	1570746	1582687	101927562	LOC101927562	1.06E-04	1.73E-04
94	11	1600572	1611513	387264	KRTAP5-1	1.06E-04	1.74E-04
76	8	11273972	11329276	83648	FAM167A	1.09E-04	1.77E-04



58	6	28534407	28560112	114821	ZBED9	1.13E-04	1.83E-04
153	20	30860443	30927814	9371	KIF3B	1.14E-04	1.84E-04
49	5	130594702	130735383	56990	CDC42SE2	1.16E-04	1.88E-04
58	6	25749927	25786403	10050	SLC17A4	1.17E-04	1.89E-04
77	8	27312278	27341813	1135	CHRNA2	1.21E-04	1.95E-04
131	16	30430019	30446373	79077	DCTPP1	1.25E-04	2.01E-04
131	16	30575998	30590243	146542	ZNF688	1.28E-04	2.05E-04
137	17	37889162	37908538	2886	GRB7	1.28E-04	2.05E-04
58	6	28394373	28416279	222696	ZSCAN23	1.31E-04	2.08E-04
137	17	38370556	38443944	147179	WIPF2	1.31E-04	2.09E-04
4	1	50901935	51430936	11124	FAF1	1.31E-04	2.09E-04
77	8	27163999	27321908	2185	PTK2B	1.35E-04	2.13E-04
72	7	105512251	105681877	222256	CDHR3	1.41E-04	2.23E-04
94	11	1623795	1634693	387266	KRTAP5-3	1.42E-04	2.24E-04
11	1	198603098	198731605	5788	PTPRC	1.47E-04	2.31E-04
139	17	45968516	46011323	6668	SP2	1.47E-04	2.31E-04
126	15	76347299	76502304	123591	C15orf27	1.49E-04	2.34E-04
139	17	46013889	46031674	55163	PNPO	1.50E-04	2.36E-04
28	3	100936390	101044419	50939	IMP2	1.52E-04	2.37E-04
91	10	75536808	75548406	118487	CHCHD1	1.57E-04	2.44E-04
144	19	995437	1014723	116444	GRIN3B	1.63E-04	2.53E-04
38	4	106598784	106634881	57117	INTS12	1.64E-04	2.55E-04
139	17	45903993	45920079	90506	LRRC46	1.69E-04	2.61E-04
123	15	49275835	49343760	9728	SECISBP2L	1.72E-04	2.65E-04
139	17	45917280	45938240	80320	SP6	1.76E-04	2.71E-04
58	6	25907982	25935954	10246	SLC17A2	1.79E-04	2.75E-04
52	5	147825595	148039090	3360	HTR4	1.84E-04	2.83E-04
25	3	49706427	49725936	327	APEH	1.86E-04	2.85E-04
82	8	108906544	109100913	340419	RSPO2	1.89E-04	2.89E-04
28	3	101038049	101237085	57337	SEN7	1.92E-04	2.94E-04
22	2	242711240	242748702	64090	GAL3ST2	1.95E-04	2.97E-04
122	15	40645434	40668256	85455	DISP2	2.01E-04	3.06E-04
43	5	14659783	14704842	90268	OTULIN	2.06E-04	3.13E-04
15	2	63272192	63289966	5013	OTX1	2.17E-04	3.28E-04
9	1	152376719	152391750	49860	CRNN	2.29E-04	3.46E-04
94	11	1485685	1512948	81532	MOB2	2.30E-04	3.47E-04
8	1	114351433	114419375	26191	PTPN22	2.33E-04	3.50E-04
58	6	28466073	28488570	257202	GPX6	2.35E-04	3.53E-04
55	6	7536808	7591946	1832	DSP	2.36E-04	3.54E-04
58	6	27853093	27863570	8356	HIST1H3J	2.58E-04	3.87E-04
44	5	35948191	36071639	133688	UGT3A1	2.67E-04	3.99E-04
137	17	38273235	38298047	339287	MSL1	2.70E-04	4.02E-04
50	5	134363970	134685370	100996485	C5orf66	2.73E-04	4.06E-04
92	10	94347825	94420152	3832	KIF11	2.77E-04	4.11E-04
131	16	30608879	30627096	115509	ZNF689	2.81E-04	4.17E-04
136	17	16240831	16261812	201161	CENPV	2.88E-04	4.25E-04
58	6	26495577	26515653	696	BTN1A1	2.90E-04	4.27E-04
131	16	30082297	30101698	5531	PPP4C	2.91E-04	4.29E-04
139	17	45895638	45913907	124995	MRPL10	3.01E-04	4.43E-04
54	5	176527822	176553835	101928726	LOC101928726	3.09E-04	4.53E-04
151	19	46313700	46371548	8189	SYMPK	3.14E-04	4.59E-04
94	11	1570281	1598150	1850	DUSP8	3.14E-04	4.59E-04
131	16	30363422	30386522	26000	TBC1D10B	3.26E-04	4.75E-04
133	16	75502022	75533926	4166	CHST6	3.29E-04	4.79E-04
25	3	49153547	49175599	3913	LAMB2	3.52E-04	5.12E-04
15	2	62895986	63278622	23301	EHBP1	3.58E-04	5.18E-04
86	9	34605482	34617110	138716	RPP25L	3.68E-04	5.32E-04

99	11	88906040	89033927	7299	TYR	4.01E-04	5.79E-04
137	17	37839167	37889915	2064	ERBB2	4.10E-04	5.91E-04
150	19	45389477	45411946	10452	TOMM40	4.11E-04	5.91E-04
105	12	57444426	57477574	23306	TMEM194A	4.18E-04	5.99E-04
131	16	30384454	30399171	1731	SEPT1	4.28E-04	6.13E-04
131	16	30560085	30574642	92595	ZNF764	4.37E-04	6.25E-04
36	4	90027651	90041734	166815	TIGD2	4.39E-04	6.26E-04
109	12	123768656	123854756	55206	SBNO1	4.48E-04	6.37E-04
131	16	30530322	30543821	79724	ZNF768	4.75E-04	6.75E-04
71	7	99741530	99756833	389541	LAMTOR4	4.80E-04	6.81E-04
131	16	30381123	30394310	29895	MYLPF	4.84E-04	6.85E-04
91	10	75567259	75639349	818	CAMK2G	4.91E-04	6.93E-04
44	5	35612900	35819713	79925	SPEF2	5.12E-04	7.23E-04
151	19	46263043	46277497	147912	SIX5	5.21E-04	7.33E-04
131	16	30784770	30803564	23361	ZNF629	5.41E-04	7.60E-04
137	17	37822375	37849310	93210	PGAP3	5.72E-04	8.03E-04
22	2	242744920	242763742	129807	NEU4	5.76E-04	8.06E-04
58	6	27920019	27930960	26212	OR2B6	5.86E-04	8.18E-04
71	7	99712265	99728131	245812	CNPY4	5.96E-04	8.31E-04
139	17	46120686	46143907	4779	NFE2L1	5.98E-04	8.33E-04
150	19	45344393	45397485	5819	PVRL2	6.37E-04	8.85E-04
62	6	106627351	106778695	9474	ATG5	6.82E-04	9.46E-04
131	16	30357087	30371682	10421	CD2BP2	7.26E-04	1.00E-03
131	16	30704571	30756450	10847	SRCAP	7.26E-04	1.00E-03
57	6	19832579	19847431	3400	ID4	7.59E-04	1.05E-03
152	20	21371005	21383047	644524	NKX2-4	8.36E-04	1.15E-03
49	5	130754614	130975929	51735	RAPGEF6	8.37E-04	1.15E-03
58	6	26378111	26400102	10385	BTN2A2	8.47E-04	1.16E-03
135	17	7489548	7523215	9513	FXR2	8.54E-04	1.17E-03
123	15	49412471	49452854	9318	COPS2	8.56E-04	1.17E-03
137	17	38460423	38518895	5914	RARA	8.79E-04	1.20E-03
25	3	49128365	49147562	5859	QARS	8.89E-04	1.21E-03
110	13	32884617	32978809	675	BRCA2	9.02E-04	1.23E-03
91	10	75499039	75536933	9632	SEC24C	9.16E-04	1.24E-03
73	7	116998276	117072577	136991	ASZ1	9.41E-04	1.27E-03
17	2	103084173	103155433	389015	SLC9A4	9.46E-04	1.28E-03
22	2	242787033	242806058	5133	PDCD1	9.83E-04	1.33E-03
131	16	30746512	30761517	100862671	TMEM265	1.05E-03	1.42E-03
25	3	49301030	49319864	375341	C3orf62	1.10E-03	1.47E-03
131	16	30384633	30416429	197407	ZNF48	1.15E-03	1.54E-03
84	9	6006019	6020640	26953	RANBP6	1.29E-03	1.73E-03
94	11	1646033	1657160	439915	KRTAP5-5	1.31E-03	1.76E-03
9	1	152073793	152092930	7062	TCHH	1.34E-03	1.79E-03
122	15	40728411	40765441	22893	BAHD1	1.36E-03	1.81E-03
71	7	99685351	99704563	4176	MCM7	1.41E-03	1.88E-03
131	16	30536688	30551345	65988	ZNF747	1.42E-03	1.88E-03
137	17	38439146	38464413	990	CDC6	1.46E-03	1.93E-03
104	12	56342889	56365523	6490	PMEL	1.49E-03	1.97E-03
58	6	25722137	25732573	255626	HIST1H2BA	1.49E-03	1.97E-03
91	10	75429033	75469357	729092	AGAP5	1.57E-03	2.07E-03
154	20	62167163	62183857	6725	SRMS	1.63E-03	2.15E-03
9	1	152533175	152544229	353145	LCE3E	1.67E-03	2.19E-03
138	17	43184008	43214891	113026	PLCD3	1.69E-03	2.22E-03
58	6	25721291	25731790	221613	HIST1H2AA	1.72E-03	2.24E-03
85	9	8309246	10617723	5789	PTPRD	1.74E-03	2.27E-03
58	6	26246848	26266783	8345	HIST1H2BH	1.75E-03	2.28E-03
58	6	29359416	29370448	26529	OR12D2	1.76E-03	2.29E-03

154	20	62154766	62173723	5753	PTK6	1.79E-03	2.32E-03
151	19	46231515	46272376	388553	BHMG1	1.87E-03	2.42E-03
25	3	49062140	49136504	54870	QRICH1	1.87E-03	2.42E-03
4	1	51437129	51618754	284546	C1orf185	1.88E-03	2.43E-03
18	2	111485150	111880799	55289	ACOXL	1.89E-03	2.43E-03
131	16	30704025	30714810	730183	LOC730183	1.91E-03	2.46E-03
153	20	30941147	31032122	171023	ASXL1	1.93E-03	2.48E-03
123	15	49442974	49664955	2585	GALK2	1.95E-03	2.50E-03
84	9	6323349	6336900	89882	TPD52L3	1.97E-03	2.52E-03
131	16	30413735	30434916	51333	ZNF771	2.02E-03	2.58E-03
1	1	1184292	1214234	118424	UBE2J2	2.03E-03	2.60E-03
17	2	103030254	103074025	8807	IL18RAP	2.17E-03	2.77E-03
43	5	14576891	14621289	54491	FAM105A	2.26E-03	2.87E-03
156	22	41483614	41581081	2033	EP300	2.35E-03	2.98E-03
76	8	11137000	11190655	66036	MTMR9	2.35E-03	2.98E-03
25	3	49194968	49208785	64925	CCDC71	2.41E-03	3.04E-03
58	6	26266146	26276612	8355	HIST1H3G	2.43E-03	3.07E-03
71	7	99751865	99771373	79690	GAL3ST4	2.52E-03	3.18E-03
63	6	128284924	128846870	5796	PTPRK	2.53E-03	3.18E-03
71	7	99699693	99722481	6878	TAF6	2.67E-03	3.36E-03
91	10	75664727	75687535	414236	C10orf55	2.75E-03	3.45E-03
71	7	99694130	99709803	9179	AP4M1	2.78E-03	3.48E-03
9	1	151999982	152014511	6282	S100A11	2.88E-03	3.60E-03
25	3	49716380	49731196	4485	MST1	2.90E-03	3.62E-03
127	15	79209092	79242436	1512	CTSH	2.95E-03	3.68E-03
151	19	46208887	46239151	23403	FBXO46	2.97E-03	3.69E-03
156	22	41600861	41641935	150356	CHADL	2.98E-03	3.70E-03
58	6	27210480	27229399	10279	PRSS16	3.05E-03	3.78E-03
131	16	30670778	30687131	64319	FBRS	3.06E-03	3.79E-03
58	6	26435700	26458643	10384	BTN3A3	3.08E-03	3.81E-03
9	1	152779447	152790585	353132	LCE1B	3.15E-03	3.89E-03
84	9	5885895	5914822	2315	MLANA	3.29E-03	4.05E-03
17	2	102974093	103020230	8809	IL18R1	3.57E-03	4.39E-03
54	5	176555026	176732214	64324	NSD1	3.67E-03	4.51E-03
17	2	102309165	102516152	9448	MAP4K4	3.74E-03	4.58E-03
138	17	43294192	43329685	752	FMNL1	3.83E-03	4.69E-03
137	17	38539773	38579202	7153	TOP2A	3.92E-03	4.79E-03
58	6	26179024	26189458	8344	HIST1H2BE	4.02E-03	4.90E-03
109	12	123400498	123456056	23457	ABCB9	4.13E-03	5.03E-03
156	22	41596312	41632276	83746	L3MBTL2	4.28E-03	5.20E-03
153	20	31025862	31177875	140688	NOL4L	4.34E-03	5.26E-03
139	17	46098533	46125908	51226	COPZ2	4.44E-03	5.38E-03
43	5	14699909	14876887	56172	ANKH	4.52E-03	5.46E-03
58	6	26533572	26552165	10473	HMG4	4.53E-03	5.47E-03
91	10	75665862	75682259	5328	PLAU	4.58E-03	5.53E-03
154	20	62146426	62158524	79144	PPDPF	4.60E-03	5.54E-03
49	5	131137683	131286391	728637	MEIKIN	4.79E-03	5.76E-03
105	12	57387617	57405297	9880	ZBTB39	4.89E-03	5.87E-03
128	15	85180607	85202521	84942	WDR73	4.98E-03	5.96E-03
105	12	57417301	57449549	4640	MYO1A	4.99E-03	5.96E-03
49	5	130972407	131137756	96459	FNIP1	5.01E-03	5.98E-03
78	8	71480453	71525694	23471	TRAM1	5.49E-03	6.54E-03
58	6	28865779	28896768	5987	TRIM27	5.53E-03	6.58E-03
58	6	26629611	26664980	79692	ZNF322	5.63E-03	6.68E-03
58	6	27413521	27445897	7738	ZNF184	5.64E-03	6.68E-03
155	21	36155098	36426595	861	RUNX1	5.65E-03	6.69E-03
131	16	30657038	30672734	78994	PRR14	5.79E-03	6.84E-03

58	6	25647429	25707011	10590	SCGN	5.83E-03	6.88E-03
123	15	49908226	49942333	56986	DTWD1	5.85E-03	6.89E-03
154	20	62114365	62135668	1917	EEF1A2	5.88E-03	6.92E-03
5	1	78439847	78488648	11080	DNAJB4	6.03E-03	7.08E-03
58	6	26194787	26205216	8343	HIST1H2BF	6.04E-03	7.08E-03
121	14	101341569	101364826	388015	RTL1	6.11E-03	7.16E-03
128	15	85139249	85171947	54993	ZSCAN2	6.26E-03	7.32E-03
154	20	62179373	62193061	79025	C20orf195	6.36E-03	7.42E-03
106	12	62855597	62996363	23041	MON2	6.46E-03	7.53E-03
21	2	228731325	228794131	164781	DAW1	7.02E-03	8.17E-03
71	7	99747043	99761338	55262	C7orf43	7.30E-03	8.48E-03
71	7	99681583	99694823	10980	COPS6	7.41E-03	8.60E-03
5	1	78404740	78449839	8880	FUBP1	7.44E-03	8.62E-03
84	9	5914008	6013479	158358	KIAA2026	8.11E-03	9.38E-03
58	6	27271842	27285011	94026	POM121L2	8.18E-03	9.45E-03
76	8	11183495	11194695	83650	SLC35G5	8.25E-03	9.52E-03
60	6	64340707	64429407	23469	PHF3	9.39E-03	1.08E-02
58	6	26194012	26204521	3013	HIST1H2AD	9.55E-03	1.10E-02
110	13	32969860	33007490	90634	N4BP2L1	1.03E-02	1.18E-02
91	10	75526830	75540977	170384	FUT11	1.05E-02	1.21E-02
131	16	30767933	30792628	9810	RNF40	1.06E-02	1.21E-02
58	6	26183938	26194304	8360	HIST1H4D	1.08E-02	1.23E-02
131	16	30449952	30462224	22928	SEPHS2	1.09E-02	1.24E-02
5	1	78349200	78417009	91624	NEXN	1.12E-02	1.28E-02
106	12	62649121	62808501	9958	USP15	1.12E-02	1.28E-02
58	6	27095817	27106314	8969	HIST1H2AG	1.15E-02	1.31E-02
137	17	38511904	38525945	125111	GJD3	1.19E-02	1.35E-02
4	1	51429367	51445309	1031	CDKN2C	1.25E-02	1.41E-02
58	6	26191982	26204521	8351	HIST1H3D	1.25E-02	1.41E-02
58	6	26199873	26210249	8367	HIST1H4E	1.25E-02	1.41E-02
58	6	26397465	26420444	11119	BTN3A1	1.29E-02	1.45E-02
128	15	84899525	84919120	643707	GOLGA6L4	1.38E-02	1.55E-02
9	1	152051620	152066540	126637	TCHHL1	1.40E-02	1.57E-02
109	12	123843046	123855336	100293704	LOC100293704	1.40E-02	1.57E-02
60	6	64276917	64298493	7803	PTP4A1	1.66E-02	1.86E-02
37	4	103167198	103271655	64116	SLC39A8	1.94E-02	2.17E-02
9	1	152481978	152493481	54544	CRCT1	2.33E-02	2.60E-02
5	1	78023160	78154119	26009	ZZZ3	2.35E-02	2.62E-02
131	16	30199256	30210627	654483	BOLA2B	2.43E-02	2.71E-02
33	4	25309396	25379190	29063	ZCCHC4	2.45E-02	2.72E-02
49	5	130501641	130546119	90624	LYRM7	2.51E-02	2.78E-02
73	7	116911685	116968343	7472	WNT2	2.54E-02	2.81E-02
58	6	29336200	29348068	81797	OR12D3	2.64E-02	2.92E-02
58	6	26245370	26255835	8968	HIST1H3F	2.66E-02	2.94E-02
5	1	78240309	78350225	374986	FAM73A	2.88E-02	3.18E-02
38	4	107231767	107275382	9255	AIMP1	3.05E-02	3.36E-02
9	1	152764227	152775657	353134	LCE1D	3.36E-02	3.70E-02
94	11	1768982	1790222	1509	CTSD	3.49E-02	3.83E-02
137	17	38291507	38333431	22794	CASC3	3.54E-02	3.88E-02
131	16	30586994	30602092	146540	ZNF785	3.81E-02	4.18E-02
58	6	26229440	26240216	3007	HIST1H1D	3.83E-02	4.19E-02
17	2	102603306	102649885	7850	IL1R2	4.11E-02	4.49E-02
110	13	33155564	33357158	23047	PDS5B	4.32E-02	4.71E-02
154	20	62026561	62108993	3785	KCNQ2	4.90E-02	5.33E-02
94	11	1704527	1715286	100505570	LOC100505570	4.91E-02	5.33E-02
33	4	25373848	25425120	29945	ANAPC4	5.05E-02	5.48E-02
119	14	94744648	94764608	51156	SERPINA10	5.15E-02	5.58E-02

58	6	25274656	25625758	55604	LRRRC16A	5.58E-02	6.03E-02
58	6	27351524	27376683	346157	ZNF391	5.90E-02	6.38E-02
9	1	152478320	152489653	254910	LCE5A	6.12E-02	6.60E-02
110	13	33001625	33121839	10443	N4BP2L2	6.22E-02	6.70E-02
94	11	1713425	1723985	440023	KRTAP5-6	6.49E-02	6.98E-02
9	1	152581287	152591574	353143	LCE3B	6.65E-02	7.14E-02
9	1	152590310	152600579	353142	LCE3A	6.75E-02	7.24E-02
54	5	176822108	176832637	345456	PFN3	7.25E-02	7.77E-02
133	16	75257928	75306951	9564	BCAR1	7.58E-02	8.11E-02
119	14	94838084	94862029	5265	SERPINA1	7.74E-02	8.27E-02
22	2	242806886	242820482	285093	RTP5	7.98E-02	8.51E-02
110	13	32600269	32875794	10129	FRY	8.10E-02	8.63E-02
58	6	28957562	28978037	282890	ZNF311	8.99E-02	9.56E-02
58	6	29419947	29437099	26716	OR2H1	9.99E-02	1.06E-01
58	6	26235654	26246021	8361	HIST1H4F	1.00E-01	1.06E-01
119	14	94765585	94794688	866	SERPINA6	1.00E-01	1.06E-01
9	1	152772311	152784107	353133	LCE1C	1.01E-01	1.07E-01
49	5	130489976	130506041	3094	HINT1	1.01E-01	1.07E-01
106	12	63032762	63333665	57460	PPM1H	1.13E-01	1.19E-01
58	6	26219427	26232706	8353	HIST1H3E	1.14E-01	1.20E-01
73	7	117345702	117518561	83992	CTTNBP2	1.18E-01	1.24E-01
58	6	26211428	26221872	8339	HIST1H2BG	1.25E-01	1.31E-01
5	1	78156672	78230564	23032	USP33	1.26E-01	1.32E-01
58	6	26212148	26222711	3012	HIST1H2AE	1.43E-01	1.50E-01
58	6	29136311	29147351	26707	OR2J2	1.47E-01	1.54E-01
20	2	157175944	157194287	4929	NR4A2	1.61E-01	1.68E-01
110	13	32872908	32891091	646799	ZAR1L	1.66E-01	1.73E-01
119	14	94825651	94838039	390502	SERPINA2	1.71E-01	1.78E-01
9	1	152546860	152557980	84648	LCE3D	1.73E-01	1.79E-01
105	12	57398781	57415344	6866	TAC3	1.73E-01	1.79E-01
58	6	29518389	29532702	10537	UBD	1.76E-01	1.83E-01
38	4	106962233	107242861	93627	TBCK	1.82E-01	1.88E-01
119	14	94635649	94751092	57718	PPP4R4	1.89E-01	1.95E-01
9	1	152316213	152337482	388698	FLG2	2.23E-01	2.30E-01
51	5	141375234	141397620	10007	GNPDA1	2.71E-01	2.79E-01
9	1	152686998	152697905	100129271	C1orf68	2.72E-01	2.80E-01
9	1	152743848	152754445	353137	LCE1F	2.77E-01	2.84E-01
9	1	152725506	152739529	448834	KPRP	2.84E-01	2.91E-01
94	11	1748640	1776824	402778	IFITM10	2.88E-01	2.95E-01
9	1	152047033	152058058	100131107	LOC100131107	3.24E-01	3.31E-01
58	6	28488789	28507728	2880	GPX5	3.43E-01	3.51E-01
58	6	29074587	29085661	442186	OR2J3	3.59E-01	3.66E-01
9	1	152269651	152302679	2312	FLG	3.70E-01	3.78E-01
58	6	29006990	29017952	26692	OR2W1	3.95E-01	4.02E-01
9	1	152179552	152201672	388697	HRNR	3.97E-01	4.04E-01
9	1	152753753	152765902	353135	LCE1E	4.09E-01	4.15E-01
58	6	29388281	29429848	26531	OR11A1	4.61E-01	4.67E-01
9	1	152121071	152136704	126638	RPTN	4.61E-01	4.67E-01
58	6	29318007	29329054	81696	OR5V1	5.58E-01	5.64E-01
9	1	151950386	151971714	6281	S100A10	5.90E-01	5.96E-01
58	6	26241839	26252205	8369	HIST1H4G	6.85E-01	6.90E-01
9	1	152676523	152686910	199834	LCE4A	7.26E-01	7.31E-01
9	1	152630887	152642135	353141	LCE2D	7.53E-01	7.57E-01
58	6	29402716	29413754	442194	OR10C1	8.15E-01	8.18E-01
9	1	152665840	152676918	353139	LCE2A	8.43E-01	8.45E-01
9	1	152642791	152654050	353140	LCE2C	8.46E-01	8.47E-01
9	1	152653599	152664877	26239	LCE2B	9.74E-01	9.74E-01

Locus No., the numerical order of pleiotropic genomic risk locus; CHR, chromosome; BP, base pair							
P.adjusted represents the Bonferroni-corrected P.value.							