

Supplementary Table S1. Top significant pairwise interaction results with meta-analysis P values $< 10^{-6}$

SNP1	Chr	Position	Nearest gene	SNP2	Chr	Position	Nearest gene	$P_{\text{Kansas City}}$	P_{Omaha}	P_{combine}
rs6549904	3	28996413	RBMS3	rs4891159	18	72230929	ZNF516	3.46E-06	7.21E-07	3.64E-11
rs7640046	3	29002568	RBMS3	rs4891159	18	72230929	ZNF516	5.31E-06	4.40E-07	5.06E-11
rs10756576	9	14546659	ZDHHC21	rs4522433	16	79106759	DYNLRB2	9.42E-05	1.23E-04	6.41E-09
rs6471974	8	62864711	NKAIN3	rs10893849	11	127701782	ETS1	8.56E-06	5.82E-03	1.91E-08
rs1908458	8	62866300	NKAIN3	rs10893849	11	127701782	ETS1	1.32E-05	5.82E-03	2.66E-08
rs11776993	8	134624191	ST3GAL1	rs12447454	16	9548238	GRIN2A	3.54E-05	5.20E-03	3.30E-08
rs7539510	1	14183961	RP1-21O18.1	rs1004712	8	11659702	NEIL2	1.45E-05	2.68E-02	6.23E-08
rs10918471	1	164697108	FMO9P	rs10509394	10	79646927	LOC100132987	1.35E-06	6.98E-03	1.14E-07
rs1495010	8	62870287	NKAIN3	rs10893849	11	127701782	ETS1	1.54E-05	1.67E-02	1.34E-07
rs1580702	8	62872226	NKAIN3	rs10893849	11	127701782	ETS1	1.34E-05	1.72E-02	1.42E-07
rs637889	2	45785550	PRKCE	rs3852834	18	8806249	KIAA0802	2.78E-05	8.07E-03	1.84E-07
rs10485887	7	77905991	MAGI2	rs7083541	10	30997484	hCG_1783494	7.25E-06	8.68E-03	2.06E-07
rs10879389	12	70946050	LOC283392	rs10146130	14	74860052	JDP2	6.88E-06	2.87E-03	2.07E-07
rs563601	2	45782134	PRKCE	rs3852834	18	8806249	KIAA0802	2.35E-05	1.21E-02	2.27E-07
rs10918471	1	164697108	FMO9P	rs11002449	10	79645200	LOC100132987	8.77E-07	1.92E-02	2.31E-07
rs2281675	6	114415711	HS3ST5	rs7237399	18	25925135	DSC3	8.43E-06	2.72E-02	2.50E-07
rs7663120	4	170553723	NEK1	rs2209683	10	126805344	CTBP2	1.85E-05	1.48E-02	2.64E-07
rs7621973	3	31781192	OSBPL10	rs13270346	8	116513427	TRPS1	5.98E-05	3.31E-02	2.71E-07
rs563601	2	45782134	PRKCE	rs3852835	18	8806268	KIAA0802	3.37E-05	9.15E-03	2.91E-07
rs2219250	3	31792548	OSBPL10	rs13270346	8	116513427	TRPS1	6.08E-05	4.69E-02	3.00E-07
rs73143	1	108320393	SLC25A24	rs9908177	17	12243885	MYOCD	5.07E-05	2.90E-04	3.05E-07
rs637889	2	45785550	PRKCE	rs3852835	18	8806268	KIAA0802	3.97E-05	8.07E-03	3.13E-07
rs934797	2	60755669	PAPOLG	rs12800576	11	16552339	C11orf58	3.70E-05	3.73E-04	3.26E-07
rs2281675	6	114415711	HS3ST5	rs1404433	18	25906347	DSC3	8.01E-06	3.02E-02	3.33E-07
rs6804425	3	61975516	PTPRG	rs7765167	6	115801529	FRK	6.04E-05	1.41E-03	3.34E-07
rs13128252	4	54408451	RPL21P44	rs7173810	15	86077060	NTRK3	1.71E-06	1.77E-02	3.68E-07
rs17736191	4	54413060	RPL21P44	rs7173810	15	86077060	NTRK3	1.43E-06	1.77E-02	3.68E-07
rs4334719	4	170598726	NEK1	rs2209683	10	126805344	CTBP2	7.50E-06	4.16E-02	3.81E-07
rs6471974	8	62864711	NKAIN3	rs7131167	11	127709689	ETS1	5.09E-06	2.50E-02	3.88E-07
rs1155384	7	145948580	CNTNAP2	rs1296023	8	11764226	OR7E37P	4.90E-06	1.61E-04	3.89E-07

rs9830212	3	5405579	GRM7	rs2776938	10	33716916	PARD3	1.56E-05	8.34E-03	3.92E-07
rs4765961	12	2538733	CACNA1C	rs7991338	13	26349530	RPS20P32	7.70E-06	4.45E-02	4.11E-07
rs1890879	10	13589933	PRPF18	rs7301225	12	53324971	DCD	1.31E-05	1.31E-02	4.48E-07
rs2281675	6	114415711	HS3ST5	rs12326822	18	25939078	DSC3	1.15E-05	2.72E-02	4.56E-07
rs4334719	4	170598726	NEK1	rs11245509	10	126803951	CTBP2	2.15E-05	4.29E-02	4.80E-07
rs1043424	1	20849587	PINK1	rs821292	6	13499134	GFOD1	3.02E-05	2.11E-02	4.84E-07
rs1043443	1	20849967	PINK1	rs821292	6	13499134	GFOD1	3.09E-05	2.18E-02	5.07E-07
rs9830212	3	5405579	GRM7	rs2785262	10	33727661	PARD3	1.82E-05	6.71E-03	5.15E-07
rs6804425	3	61975516	PTPRG	rs4563753	6	115805961	FRK	8.85E-05	1.78E-03	5.17E-07
rs1908458	8	62866300	NKAIN3	rs7131167	11	127709689	ETS1	8.06E-06	2.50E-02	5.37E-07
rs10174893	2	59644897	BCL11A	rs6489635	12	5518325	ANO2	2.32E-05	2.29E-02	5.43E-07
rs2964607	5	151260601	GLRA1	rs990529	21	27268417	GPX1	2.24E-05	6.17E-03	5.56E-07
rs1155384	7	145948580	CNTNAP2	rs1619200	8	11772110	OR7E37P	6.96E-07	1.16E-03	5.64E-07
rs7663120	4	170553723	NEK1	rs11245509	10	126803951	CTBP2	7.74E-05	1.60E-02	5.67E-07
rs7663120	4	170553723	NEK1	rs2225079	10	126805026	CTBP2	3.62E-05	1.48E-02	5.78E-07
rs6553169	4	189361000	RPL7AP27	rs17816285	15	30826590	FMN1	1.48E-05	1.51E-02	6.18E-07
rs10209275	2	59644737	BCL11A	rs6489635	12	5518325	ANO2	1.77E-05	3.52E-02	6.25E-07
rs6804425	3	61975516	PTPRG	rs4624905	6	115805692	FRK	9.97E-05	1.78E-03	6.64E-07
rs1155384	7	145948580	CNTNAP2	rs1619003	8	11772027	OR7E37P	1.11E-06	1.01E-03	6.65E-07
rs563601	2	45782134	PRKCE	rs9954356	18	8807441	KIAA0802	2.75E-05	1.01E-02	6.68E-07
rs12153468	5	144429586	LOC649660	rs10757485	9	24762803	TUSC1	2.01E-05	1.28E-02	6.78E-07
rs4334719	4	170598726	NEK1	rs2225079	10	126805026	CTBP2	1.55E-05	4.16E-02	6.87E-07
rs6471974	8	62864711	NKAIN3	rs7120585	11	127710163	ETS1	4.08E-05	2.35E-02	7.03E-07
rs1919440	2	148236536	RPL26P14	rs4706822	6	80727674	TTK	3.11E-06	1.74E-02	7.19E-07
rs712082	1	222792683	AKR1B1	rs4303699	2	204176719	ZNF207	2.22E-05	9.00E-03	7.20E-07
rs1155384	7	145948580	CNTNAP2	rs2250903	8	11772593	OR7E37P	1.45E-06	1.01E-03	7.53E-07
rs712087	1	222797114	AKR1B1	rs4303699	2	204176719	ZNF207	1.68E-05	1.22E-02	7.57E-07
rs7728183	5	133822029	PHF15	rs3860254	12	79328607	PTPRQ	3.44E-05	1.05E-02	7.81E-07
rs2281675	6	114415711	HS3ST5	rs2949528	18	26041261	DSC3	1.27E-05	4.64E-02	8.09E-07
rs1474646	1	22314612	WNT4	rs10945517	6	168708391	SMOC2	1.02E-05	7.97E-03	8.29E-07
rs9321715	6	139732764	CITED2	rs221303	7	157062744	PTPRN2	5.38E-05	1.21E-02	8.36E-07
rs10497022	2	148247215	RPL26P14	rs4706822	6	80727674	TTK	3.27E-06	1.87E-02	9.11E-07

rs9691874	7	145936108	CNTNAP2	rs1296023	8	11764226	OR7E37P	7.91E-06	2.80E-04	9.30E-07
rs210643	6	118007976	GOPC	rs11784259	8	87285716	LOC100128962	9.55E-05	4.06E-02	9.57E-07
rs1908458	8	62866300	NKAIN3	rs7120585	11	127710163	ETS1	6.30E-05	2.35E-02	9.71E-07

Supplementary Table S2. Significant pairwise interaction results contained genes identified by previous GWASs with P values $< 10^{-4}$ in the discovery sample.

SNP1	Chr	Position	Nearest gene	SNP2	Chr	Position	Nearest gene	P	Gene_GWAS
rs10520962	5	31130875	LOC100128783	rs1569788	6	152370309	ESR1	2.08E-07	ESR1
rs7825904	8	119998469	TNFRSF11B	rs4773340	13	110747254	ARHGEF7	4.10E-07	TNFRSF11B
rs6980043	7	120733990	WNT16	rs3099412	8	95593385	KIAA1429	1.52E-06	WNT16
rs17779721	17	67898631	SLC39A11	rs1805034	18	58178221	TNFRSF11A	2.12E-06	TNFRSF11A
rs1604333	7	121615520	RPL31P49	rs7950287	11	16448694	SOX6	3.77E-06	SOX6
rs11577288	1	240836130	LOC100130133	rs2673406	10	79061590	KCNMA1	4.32E-06	KCNMA1
rs10276111	7	120711574	C7orf58	rs3099412	8	95593385	KIAA1429	5.08E-06	C7orf58
rs980994	10	10590219	LOC254312	rs11598926	10	79034570	KCNMA1	5.65E-06	KCNMA1
rs1592830	5	103182634	RAB9P1	rs12864265	13	41912464	TNFSF11	5.99E-06	TNFSF11
rs10484632	6	20755639	CDKAL1	rs2487052	9	106726226	ABCA1	6.91E-06	CDKAL1
rs2304607	5	88024489	MEF2C	rs7306977	12	8379556	LOC100130675	7.25E-06	MEF2C
rs935066	2	101106537	TBC1D8	rs6807784	3	156618733	PLCH1	7.36E-06	TBC1D8
rs732136	2	101106663	TBC1D8	rs7203610	16	86246069	JPH3	7.63E-06	TBC1D8
rs1856859	6	151901803	C6orf97	rs1859526	7	70527975	WBSCR17	8.19E-06	C6orf97
rs3020306	6	152107579	ESR1	rs10980253	9	112007656	C9orf152	8.41E-06	ESR1
rs2144025	6	152349399	ESR1	rs8140216	22	25474070	RPL15P3	8.75E-06	ESR1
rs1474646	1	22314612	WNT4	rs4496325	2	222679239	PAX3	8.76E-06	WNT4
rs4610191	3	148133577	RPL21P7	rs2982712	6	152399872	ESR1	8.96E-06	ESR1
rs2392540	7	38225879	STARD3NL	rs7117376	11	6943002	ZNF214	9.06E-06	STARD3NL
rs11947850	4	189873281	MTRF1L	rs2144025	6	152349399	ESR1	9.19E-06	ESR1
rs324445	5	32489782	SUB1	rs2709117	7	37754332	TXNDC3	9.76E-06	TXNDC3
rs12664544	6	152350666	ESR1	rs6497978	16	26891866	C16orf82	1.01E-05	ESR1
rs1474646	1	22314612	WNT4	rs10945517	6	168708391	SMOC2	1.02E-05	WNT4
rs343693	6	80676567	ELOVL4	rs2673406	10	79061590	KCNMA1	1.03E-05	KCNMA1
rs12141338	1	91934579	TGFBR3	rs10997502	10	52859083	PRKG1	1.03E-05	TGFBR3
rs2152750	6	152111838	ESR1	rs4904964	14	92169620	RIN3	1.05E-05	ESR1
rs7746383	6	21249984	CDKAL1	rs6569099	6	120401401	C6orf170	1.07E-05	CDKAL1
rs747994	6	168673607	SMOC2	rs4740349	9	132430323	FUBP3	1.10E-05	FUBP3
rs2982573	6	152052227	ESR1	rs10121052	9	101316897	NR4A3	1.11E-05	ESR1

rs2060712	7	37858182	TXNDC3	rs6496602	15	88118801	MESP2	1.13E-05	TXNDC3
rs1878001	10	79048564	KCNMA1	rs4778541	15	21288717	MKRN3	1.36E-05	KCNMA1
rs7960190	12	27838186	KLHDC5	rs2025009	14	67913358	RAD51L1	1.49E-05	KLHDC5
rs13250845	8	1903503	LOC100128157	rs10219384	11	16285545	SOX6	1.61E-05	SOX6
rs2673406	10	79061590	KCNMA1	rs10835345	11	28455085	LOC729560	1.62E-05	KCNMA1
rs2392540	7	38225879	STARD3NL	rs7025595	9	14544281	ZDHHC21	1.63E-05	STARD3NL
rs4658112	1	91981254	TGFBR3	rs446095	5	3233897	IRX1	1.67E-05	TGFBR3
rs4538346	3	55582669	ERC2	rs2068011	11	15642254	SOX6	1.69E-05	SOX6
rs12226164	11	15666021	SOX6	rs11658445	17	9657243	LOC644070	1.71E-05	SOX6
rs12703305	7	152778648	LOC100134791	rs1878002	10	79048513	KCNMA1	1.73E-05	KCNMA1
rs7648547	3	41163004	CTNNB1	rs17273109	8	59730729	NSMAF	1.74E-05	CTNNB1
rs7943358	11	15642146	SOX6	rs526045	15	48432822	FLJ10038	1.77E-05	SOX6
rs3007737	1	239787182	KMO	rs2059601	3	41179831	CTNNB1	1.79E-05	CTNNB1
rs7543680	1	22603856	ZBTB40	rs2410252	21	40789136	DSCAM	1.82E-05	ZBTB40
rs9479191	6	152434853	ESR1	rs3866769	14	85183606	LOC283584	1.84E-05	ESR1
rs9357538	6	47479851	CD2AP	rs10407255	19	38272990	GPATCH1	1.87E-05	GPATCH1
rs6540600	1	208734374	HHAT	rs508520	9	132382930	FUBP3	1.91E-05	FUBP3
rs1872426	8	120018937	TNFRSF11B	rs1453590	11	99271543	CNTN5	1.97E-05	TNFRSF11B
rs10407255	19	38272990	GPATCH1	rs2178900	21	14743232	SAMSN1	1.99E-05	GPATCH1
rs1864803	2	221744156	EPHA4	rs227811	6	44779065	SUPT3H	1.99E-05	SUPT3H
rs1124674	6	152122428	ESR1	rs2269640	22	24667911	MYO18B	2.09E-05	ESR1
rs851983	6	152066108	ESR1	rs3940268	7	24179221	NPY	2.21E-05	ESR1
rs1919440	2	148236536	RPL26P14	rs35799	10	78905237	KCNMA1	2.23E-05	KCNMA1
rs2709115	7	37756850	TXNDC3	rs2505126	10	30429832	LOC729663	2.24E-05	TXNDC3
rs16826899	3	158093361	LEKR1	rs12947580	17	73279820	TNRC6C	2.25E-05	LEKR1
rs2060712	7	37858182	TXNDC3	rs10254420	7	103330137	RELN	2.28E-05	TXNDC3
rs2241700	5	133936959	PHF15	rs4237709	11	15408823	SOX6	2.30E-05	SOX6
rs17410426	7	38213188	STARD3NL	rs7868862	9	14820821	FREM1	2.31E-05	STARD3NL
rs560737	2	80084980	CTNNA2	rs10824453	10	78270634	KCNMA1	2.36E-05	KCNMA1
rs9874196	3	141233155	CLSTN2	rs2350987	11	15290007	SOX6	2.45E-05	SOX6
rs6550509	3	37818821	ITGA9	rs7126053	11	15412541	SOX6	2.54E-05	SOX6
rs1884051	6	152324972	ESR1	rs3780414	9	4547165	SLC1A1	2.56E-05	ESR1

rs7578753	2	180809183	LOC729009	rs7748205	6	152321384	ESR1	2.61E-05	ESR1
rs188750	6	86099356	LOC389787	rs2982561	6	152094345	ESR1	2.62E-05	ESR1
rs2803245	1	63105798	LOC199897	rs2722269	7	37845491	TXNDC3	2.64E-05	TXNDC3
rs4233289	1	22663042	ZBTB40	rs3798009	5	9491120	SEMA5A	2.68E-05	ZBTB40
rs2718045	7	37761963	TXNDC3	rs11633980	15	88056559	WDR93	2.71E-05	TXNDC3
rs7108091	11	16155907	SOX6	rs12965133	18	53954741	NEDD4L	2.80E-05	SOX6
rs10219384	11	16285545	SOX6	rs740862	16	3629679	DNASE1	2.86E-05	SOX6
rs9651118	1	11784801	MTHFR	rs4622244	11	15345285	SOX6	2.86E-05	SOX6
rs2140648	7	120684197	C7orf58	rs7242929	18	54105844	NEDD4L	2.87E-05	C7orf58
rs3789080	2	111514002	ACOXL	rs6456356	6	20649498	CDKAL1	2.95E-05	CDKAL1
rs7324017	13	46304846	HTR2A	rs17250080	16	49664360	SALL1	2.96E-05	SALL1
rs433030	4	2785430	ADD1	rs7992970	13	41843463	TNFSF11	3.21E-05	TNFSF11
rs1124615	1	30928177	MATN1	rs10276111	7	120711574	C7orf58	3.30E-05	C7orf58
rs508609	9	132382895	FUBP3	rs9617449	22	47578169	C22orf34	3.30E-05	FUBP3
rs4714085	6	37703524	MDGA1	rs2709115	7	37756850	TXNDC3	3.31E-05	TXNDC3
rs3109398	3	183884795	ATP11B	rs10762731	10	78297136	KCNMA1	3.36E-05	KCNMA1
rs11808673	1	193939480	KCNT2	rs3798573	6	152431055	ESR1	3.37E-05	ESR1
rs10974449	9	4301035	SLC1A1	rs10411529	19	38308096	GPATCH1	3.37E-05	GPATCH1
rs2982573	6	152052227	ESR1	rs7181556	15	65263822	SMAD3	3.49E-05	ESR1
rs7350480	11	15387984	SOX6	rs732428	17	6909787	CLEC10A	3.49E-05	SOX6
rs9861544	3	8519420	LMCD1	rs851980	6	152069648	ESR1	3.55E-05	ESR1
rs10444354	11	105770115	GUCY1A2	rs17250080	16	49664360	SALL1	3.58E-05	SALL1
rs10740382	10	72939302	CDH23	rs1528603	16	49691149	SALL1	3.62E-05	SALL1
rs12141338	1	91934579	TGFBR3	rs2657940	19	57555648	LOC400713	3.64E-05	TGFBR3
rs2585581	4	40789993	APBB2	rs1322667	6	44577984	SUPT3H	3.65E-05	SUPT3H
rs13322318	3	158106964	LEKR1	rs7925817	11	93483682	HEPHL1	3.75E-05	LEKR1
rs4566860	6	92010671	EPHA7	rs8094884	18	58179108	TNFRSF11A	3.82E-05	TNFRSF11A
rs3923657	4	151138248	DCLK2	rs10276111	7	120711574	C7orf58	3.85E-05	C7orf58
rs2304607	5	88024489	MEF2C	rs1830006	7	17794410	SNX13	3.89E-05	MEF2C
rs11184966	1	107033761	PRMT6	rs4870042	6	151929746	C6orf97	3.92E-05	C6orf97
rs17573483	1	91990833	TGFBR3	rs2029686	12	49851069	TFCP2	3.93E-05	TGFBR3
rs584763	1	39631085	MACF1	rs1528603	16	49691149	SALL1	3.94E-05	SALL1

rs1293935	6	152059651	ESR1	rs1652704	10	76793657	ZNF503	3.95E-05	ESR1
rs10814562	9	37482440	POLR1E	rs912423	13	41949804	TNFSF11	3.98E-05	TNFSF11
rs9460540	6	20756741	CDKAL1	rs7328604	13	19128525	MPHOSPH8	4.02E-05	CDKAL1
rs4459911	3	104598179	ALCAM	rs7746383	6	21249984	CDKAL1	4.07E-05	CDKAL1
rs851985	6	152062083	ESR1	rs881365	11	103340769	PDGFD	4.13E-05	ESR1
rs1124674	6	152122428	ESR1	rs6042169	20	13421863	TASP1	4.13E-05	ESR1
rs1878449	4	155107054	DCHS2	rs1322667	6	44577984	SUPT3H	4.21E-05	SUPT3H
rs7825904	8	119998469	TNFRSF11B	rs766509	13	46528047	SUCLA2	4.25E-05	TNFRSF11B
rs4655071	1	22700518	ZBTB40	rs12647173	4	110352489	COL25A1	4.32E-05	ZBTB40
rs2709115	7	37756850	TXNDC3	rs1764967	13	85155608	SLITRK6	4.35E-05	TXNDC3
rs33983617	3	83841518	CADM2	rs1353171	8	119942179	TNFRSF11B	4.37E-05	TNFRSF11B
rs4335008	6	148379845	SASH1	rs11002065	10	78605177	KCNMA1	4.44E-05	KCNMA1
rs1453590	11	99271543	CNTN5	rs6077869	20	10598510	JAG1	4.46E-05	JAG1
rs7825904	8	119998469	TNFRSF11B	rs2417349	12	14472716	ATF7IP	4.48E-05	TNFRSF11B
rs16826899	3	158093361	LEKR1	rs2105815	22	20861074	VPREB1	4.51E-05	LEKR1
rs1561473	2	212410671	ERBB4	rs4680317	3	158139447	LEKR1	4.53E-05	LEKR1
rs433030	4	2785430	ADD1	rs8094884	18	58179108	TNFRSF11A	4.58E-05	TNFRSF11A
rs3739455	9	111940828	AKAP2	rs2350987	11	15290007	SOX6	4.61E-05	SOX6
rs2688994	3	126300783	SLC12A8	rs35799	10	78905237	KCNMA1	4.68E-05	KCNMA1
rs13205111	6	91173066	MAP3K7	rs2287681	19	38300573	GPATCH1	4.72E-05	GPATCH1
rs2144025	6	152349399	ESR1	rs9608667	22	26870492	TTC28	4.74E-05	ESR1
rs221295	7	157055372	PTPRN2	rs4237709	11	15408823	SOX6	4.78E-05	SOX6
rs3094584	6	31491827	MICB	rs2982561	6	152094345	ESR1	4.82E-05	ESR1
rs2371868	7	83072658	SEMA3E	rs2707520	7	120738380	WNT16	4.92E-05	WNT16
rs9864310	3	131589599	COL29A1	rs2982554	6	152099703	ESR1	4.97E-05	ESR1
rs2982712	6	152399872	ESR1	rs961291	16	63371599	CDH11	5.00E-05	ESR1
rs6970138	7	157119751	PTPRN2	rs2280163	10	79049943	KCNMA1	5.00E-05	KCNMA1
rs12783211	10	71116553	COL13A1	rs7897566	10	78626486	KCNMA1	5.08E-05	KCNMA1
rs1569788	6	152370309	ESR1	rs1861829	9	89439873	DAPK1	5.21E-05	ESR1
rs11678215	2	203769134	NBEAL1	rs16826899	3	158093361	LEKR1	5.40E-05	LEKR1
rs6980043	7	120733990	WNT16	rs12674047	7	157987469	PTPRN2	5.49E-05	WNT16
rs10219384	11	16285545	SOX6	rs2223667	20	6868193	FUSIP1	5.53E-05	SOX6

rs2059601	3	41179831	CTNNB1	rs8054026	16	9549520	GRIN2A	5.58E-05	CTNNB1
rs2059601	3	41179831	CTNNB1	rs12543533	8	71608082	TRAM1	5.59E-05	CTNNB1
rs9462994	6	44601697	SUPT3H	rs2189303	17	33134218	HNF1B	5.59E-05	SUPT3H
rs2485024	1	6122264	CHD5	rs4620684	11	16135202	SOX6	5.70E-05	SOX6
rs1973857	4	105124930	CXXC4	rs12770151	10	79046051	KCNMA1	5.79E-05	KCNMA1
rs6686484	1	35141347	DLGAP3	rs11773477	7	38204644	STARD3NL	5.92E-05	STARD3NL
rs10196263	2	67365492	ETAA1	rs4680317	3	158139447	LEKR1	5.97E-05	LEKR1
rs17573483	1	91990833	TGFBR3	rs4374263	18	73915290	LOC100132713	6.17E-05	TGFBR3
rs9469220	6	32766288	LOC731881	rs12959396	18	58190289	TNFRSF11A	6.22E-05	TNFRSF11A
rs3821719	3	156345782	MME	rs1871859	6	151940199	C6orf97	6.23E-05	C6orf97
rs12697671	5	25965589	CDH9	rs3941951	7	38152948	STARD3NL	6.23E-05	STARD3NL
rs16829861	2	134446170	MGAT5	rs7772579	6	152084195	ESR1	6.26E-05	ESR1
rs10198823	2	75319067	FAM176A	rs7905490	10	28607813	MPP7	6.29E-05	MPP7
rs851983	6	152066108	ESR1	rs6602437	10	6170083	RBM17	6.32E-05	ESR1
rs243204	14	89119255	FOXP3	rs3826906	19	38312737	GPATCH1	6.38E-05	GPATCH1
rs9844054	3	158158010	LEKR1	rs9617449	22	47578169	C22orf34	6.41E-05	LEKR1
rs10276111	7	120711574	C7orf58	rs12674047	7	157987469	PTPRN2	6.46E-05	C7orf58
rs11039014	11	46851954	LRP4	rs11826705	11	115474199	BUD13	6.47E-05	LRP4
rs2290884	11	46846964	LRP4	rs485152	19	60840201	ZNF580	6.50E-05	LRP4
rs4740349	9	132430323	FUBP3	rs6118078	20	8056714	PLCB1	6.70E-05	FUBP3
rs714830	6	20732361	CDKAL1	rs310963	13	61870441	LOC729287	6.76E-05	CDKAL1
rs7559325	2	101097003	TBC1D8	rs7184673	16	12950953	LOC729993	6.79E-05	TBC1D8
rs2092322	1	22308310	WNT4	rs7784118	7	97095028	TAC1	6.82E-05	WNT4
rs12545037	8	49422210	RPL29P15	rs1353171	8	119942179	TNFRSF11B	6.84E-05	TNFRSF11B
rs7792547	7	150754462	CRYGN	rs11023860	11	16152517	SOX6	6.94E-05	SOX6
rs2722334	7	37833561	TXNDC3	rs688244	11	102543737	DYNC2H1	7.07E-05	TXNDC3
rs12630133	3	148852874	LOC644037	rs3020348	6	152099607	ESR1	7.16E-05	ESR1
rs9374354	6	113093307	RPS27AP11	rs3941951	7	38152948	STARD3NL	7.22E-05	STARD3NL
rs732136	2	101106663	TBC1D8	rs35411253	4	157855306	PDGFC	7.22E-05	TBC1D8
rs1468115	17	47147884	CA10	rs2287680	19	38300406	GPATCH1	7.25E-05	GPATCH1
rs2161228	5	88037554	MEF2C	rs4483108	8	33171375	FUT10	7.28E-05	MEF2C
rs2094708	9	78913952	RP11-470P4.2	rs1496437	16	49671075	SALL1	7.37E-05	SALL1

rs17511666	1	91899190	TGFBR3	rs12591624	15	56553189	LIPC	7.43E-05	TGFBR3
rs6899458	6	152093736	ESR1	rs10111751	8	10893862	XKR6	7.47E-05	ESR1
rs2718045	7	37761963	TXNDC3	rs9805112	12	23803313	SOX5	7.47E-05	TXNDC3
rs16826899	3	158093361	LEKR1	rs8002365	13	60487773	PCDH20	7.49E-05	LEKR1
rs4655071	1	22700518	ZBTB40	rs16893884	6	40743388	UNC5CL	7.49E-05	ZBTB40
rs7950287	11	16448694	SOX6	rs1669867	15	50534153	MYO5A	7.54E-05	SOX6
rs670495	1	114477152	SYT6	rs7950287	11	16448694	SOX6	7.59E-05	SOX6
rs7905490	10	28607813	MPP7	rs10160549	11	129121757	LOC729717	7.61E-05	MPP7
rs935066	2	101106537	TBC1D8	rs7670682	4	97759896	COX7A2	7.65E-05	TBC1D8
rs2270353	2	29794324	ALK	rs3020396	6	152321571	ESR1	7.69E-05	ESR1
rs2161228	5	88037554	MEF2C	rs10884451	10	109025397	LOC100128304	7.70E-05	MEF2C
rs1883570	1	19965212	TMCO4	rs6077869	20	10598510	JAG1	7.71E-05	JAG1
rs4620684	11	16135202	SOX6	rs2723840	12	11845170	ETV6	7.71E-05	SOX6
rs4740349	9	132430323	FUBP3	rs10734537	11	45658151	SLC35C1	7.80E-05	FUBP3
rs754387	6	88935578	ACTB	rs12864265	13	41912464	TNFSF11	7.80E-05	TNFSF11
rs6456356	6	20649498	CDKAL1	rs10733852	10	70841974	TACR2	7.82E-05	CDKAL1
rs2709115	7	37756850	TXNDC3	rs6031224	20	41980953	TOX2	7.85E-05	TXNDC3
rs6790074	3	58592552	FAM3D	rs3020306	6	152107579	ESR1	7.93E-05	ESR1
rs523684	3	9014469	SRGAP3	rs2280163	10	79049943	KCNMA1	7.94E-05	KCNMA1
rs9345145	6	92295792	EPHA7	rs35799	10	78905237	KCNMA1	7.97E-05	KCNMA1
rs6543018	2	101096720	TBC1D8	rs879465	3	55173929	WNT5A	8.02E-05	TBC1D8
rs2304607	5	88024489	MEF2C	rs17602	16	1965679	TBL3	8.06E-05	MEF2C
rs10980253	9	112007656	C9orf152	rs10824453	10	78270634	KCNMA1	8.09E-05	KCNMA1
rs7559325	2	101097003	TBC1D8	rs12109110	5	23881638	AKTIP	8.10E-05	TBC1D8
rs17573483	1	91990833	TGFBR3	rs9366375	6	21187552	CDKAL1	8.12E-05	CDKAL1
rs1124615	1	30928177	MATN1	rs6980043	7	120733990	WNT16	8.20E-05	WNT16
rs2144025	6	152349399	ESR1	rs979672	8	104186687	C8orf56	8.23E-05	ESR1
rs10973396	9	37518290	FBXO10	rs912423	13	41949804	TNFSF11	8.29E-05	TNFSF11
rs7798775	7	43114490	HECW1	rs10219384	11	16285545	SOX6	8.32E-05	SOX6
rs4520068	7	38226580	STARD3NL	rs10509319	10	71072908	COL13A1	8.38E-05	STARD3NL
rs4921534	5	159254801	ADRA1B	rs4391273	6	151934766	C6orf97	8.39E-05	C6orf97
rs12636705	3	176241333	NAALADL2	rs6939622	6	21202717	CDKAL1	8.39E-05	CDKAL1

rs4740349	9	132430323	FUBP3	rs914695	10	44752265	RASSF4	8.40E-05	FUBP3
rs7036157	9	111985595	C9orf152	rs2350987	11	15290007	SOX6	8.42E-05	SOX6
rs1298942	6	44762349	SUPT3H	rs1125432	10	33762754	PARD3	8.42E-05	SUPT3H
rs735876	7	25893896	NFE2L3	rs17171172	7	37839175	TXNDC3	8.50E-05	TXNDC3
rs2709115	7	37756850	TXNDC3	rs6415582	8	59807828	TOX	8.51E-05	TXNDC3
rs2351793	4	47331977	CORIN	rs8094884	18	58179108	TNFRSF11A	8.52E-05	TNFRSF11A
rs6543018	2	101096720	TBC1D8	rs7857243	9	38399081	IGFBPL1	8.54E-05	TBC1D8
rs3020306	6	152107579	ESR1	rs2762917	20	52166451	CYP24A1	8.61E-05	ESR1
rs6899458	6	152093736	ESR1	rs4731451	7	127841336	C7orf68	8.62E-05	ESR1
rs9462994	6	44601697	SUPT3H	rs1003827	7	92454454	SAMD9	8.68E-05	SUPT3H
rs16903111	8	129655958	hCG_1814486	rs1981818	19	38306962	GPATCH1	8.72E-05	GPATCH1
rs508609	9	132382895	FUBP3	rs2251521	10	109461321	LOC100128304	8.73E-05	FUBP3
rs2722242	7	37840135	TXNDC3	rs642698	18	46676983	ME2	8.76E-05	TXNDC3
rs12364769	11	15357829	SOX6	rs226275	21	26919581	ADAMTS1	8.77E-05	SOX6
rs376027	3	9015714	SRGAP3	rs227811	6	44779065	SUPT3H	8.77E-05	SUPT3H
rs508609	9	132382895	FUBP3	rs2070947	21	45165271	ITGB2	8.85E-05	FUBP3
rs10276111	7	120711574	C7orf58	rs2251842	10	56527584	ZWINT	8.88E-05	C7orf58
rs12278251	11	15373266	SOX6	rs2511989	11	57134901	SERPING1	8.93E-05	SOX6
rs10832406	11	15320598	SOX6	rs2114322	12	47237874	LALBA	8.93E-05	SOX6
rs13001719	2	224536542	MRPL44	rs1981818	19	38306962	GPATCH1	8.98E-05	GPATCH1
rs11965062	6	20755941	CDKAL1	rs4411357	13	28910312	KIAA0774	9.04E-05	CDKAL1
rs6543018	2	101096720	TBC1D8	rs10805387	5	63903306	RGS7BP	9.04E-05	TBC1D8
rs3923657	4	151138248	DCLK2	rs6980043	7	120733990	WNT16	9.08E-05	WNT16
rs1861044	4	15148596	CC2D2A	rs16949339	16	49693508	SALL1	9.10E-05	SALL1
rs4314538	6	983781	LOC285768	rs2060712	7	37858182	TXNDC3	9.10E-05	TXNDC3
rs2092322	1	22308310	WNT4	rs12603186	17	11159432	FLJ45455	9.13E-05	WNT4
rs4869742	6	151949441	C6orf97	rs9297604	8	120820193	TAF2	9.49E-05	C6orf97
rs1322667	6	44577984	SUPT3H	rs12358575	10	122952924	FGFR2	9.51E-05	SUPT3H
rs7942880	11	15983418	SOX6	rs8032944	15	58681733	RORA	9.62E-05	SOX6
rs11023685	11	15666560	SOX6	rs7206547	16	10259963	ATF7IP2	9.68E-05	SOX6
rs1470719	7	37857390	TXNDC3	rs9901757	17	78556620	B3GNTL1	9.72E-05	TXNDC3
rs11808673	1	193939480	KCNT2	rs4498013	3	40994892	CTNNB1	9.83E-05	CTNNB1

rs2392540	7	38225879	STARD3NL	rs7044318	9	34544999	CNTFR	9.84E-05	STARD3NL
rs7046334	9	132461091	FUBP3	rs7295312	12	77285557	LOC642550	9.89E-05	FUBP3
rs7559325	2	101097003	TBC1D8	rs10877778	12	60667209	FAM19A2	9.89E-05	TBC1D8
rs2074395	4	105734496	TET2	rs6975425	7	38128043	STARD3NL	9.91E-05	STARD3NL
rs7825904	8	119998469	TNFRSF11B	rs8001679	13	110764641	LOC731227	9.97E-05	TNFRSF11B
rs429004	8	15699452	MSR1	rs1870097	10	28581478	MPP7	9.99E-05	MPP7

Note, for each pair of genes, the most significant pair of SNPs was shown in this table. Gene_GWAS means genes identified by previous GWASs.