

SNP	rank	P	chromosome	position	type
rs764255	1	1.80E-07	16	72271184	
rs8059199	2	2.16E-07	16	72269735	
rs4839516	3	3.62E-07	1	116541973	
rs716270	4	8.83E-07	16	72266390	
rs716271	5	8.83E-07	16	72266025	
rs990258	6	1.05E-06	16	72265599	
rs4243136	7	2.06E-06	16	72263281	
rs4243137	8	2.06E-06	16	72263413	
rs11158345	9	3.30E-06	14	60964798	intronic
rs8048857	10	3.97E-06	16	72262552	
rs8056327	11	4.66E-06	16	72259525	
rs1480566	12	4.66E-06	16	72261772	
rs3956052	13	4.66E-06	16	72255613	
rs1928007	14	4.77E-06	13	69708224	
rs7989551	15	4.77E-06	13	69706509	
rs11945798	16	4.94E-06	4	12378330	
rs12050412	17	4.95E-06	14	82447756	
rs11577628	18	5.00E-06	1	160586148	intronic
rs12351590	19	5.16E-06	9	12098916	
rs4807927	20	5.59E-06	19	1374199	3downstream
rs1357978	21	5.85E-06	7	13526746	
rs1513049	22	6.62E-06	12	17254083	
rs13227425	23	6.80E-06	7	13520533	
rs13223493	24	6.80E-06	7	13519279	
rs4888588	25	6.80E-06	16	72253580	
rs2031573	26	6.89E-06	10	3991897	
rs10130259	27	7.41E-06	14	82412075	
rs638065	28	7.62E-06	1	58809213	
rs10925015	29	8.40E-06	1	245650300	intronic
rs4925650	30	8.40E-06	1	245650698	intronic
rs10960483	31	8.41E-06	9	12100840	
rs727125	32	1.07E-05	7	22941437	
rs8072794	33	1.12E-05	17	13570386	
rs12938791	34	1.12E-05	17	13570846	
rs4792392	35	1.12E-05	17	13569671	
rs8073786	36	1.12E-05	17	13570485	
rs4792391	37	1.12E-05	17	13569594	
rs10422145	38	1.13E-05	19	36293283	
rs17098356	39	1.14E-05	14	60968592	intronic
rs791775	40	1.15E-05	9	12123233	
rs7024763	41	1.15E-05	9	12155608	
rs16887512	42	1.17E-05	4	12343369	
rs462537	43	1.19E-05	9	137576984	5upstream
rs465208	44	1.19E-05	9	137577093	5upstream
rs2498522	45	1.20E-05	13	69698026	
rs1534774	46	1.21E-05	6	148397245	
rs1404488	47	1.21E-05	6	148401756	
rs1534775	48	1.21E-05	6	148398735	
rs16837352	49	1.22E-05	4	5555175	3downstream
rs7025259	50	1.28E-05	9	12155758	
rs10960488	51	1.28E-05	9	12114410	
rs9390526	52	1.34E-05	6	148393509	
rs3026411	53	1.40E-05	11	31758120	intronic
rs2177482	54	1.40E-05	11	31758933	intronic
rs7692270	55	1.42E-05	4	12353402	

rs1595127	56	1.43E-05	7	22955729 intronic
rs4719722	57	1.43E-05	7	22955345 intronic
rs7746768	58	1.46E-05	6	148419442
rs1973858	59	1.47E-05	6	148412237
rs12982708	60	1.53E-05	19	3971370 intronic
rs7675044	61	1.56E-05	4	12359020
rs7674264	62	1.56E-05	4	12358403
rs347272	63	1.57E-05	1	160585122 intronic
rs9903180	64	1.63E-05	17	13568905
rs6502296	65	1.63E-05	17	13574365
rs4792390	66	1.63E-05	17	13569512
rs12493123	67	1.65E-05	3	163551703
rs788782	68	1.68E-05	7	46118576
rs3786983	69	1.70E-05	19	1378260 intronic
rs11666805	70	1.70E-05	19	1376448 intronic
rs12590817	71	1.73E-05	14	60969235 intronic
rs1881827	72	1.74E-05	6	148383367
rs1358689	73	1.74E-05	6	148375653
rs1881826	74	1.74E-05	6	148383451
rs9386204	75	1.74E-05	6	148376009
rs9377097	76	1.74E-05	6	148382808
rs347273	77	1.75E-05	1	160584137 intronic
rs6469074	78	1.76E-05	8	107614766 intronic
rs17557502	79	1.80E-05	18	7800110 intronic
rs9322120	80	1.80E-05	6	148410214
rs2328843	81	1.80E-05	6	148409910
rs1669325	82	1.84E-05	3	3188262 intronic
rs4607514	83	1.92E-05	7	22950227 3utr
rs2286494	84	1.92E-05	7	22951349 3utr
rs6934331	85	2.00E-05	6	148407602
rs16874846	86	2.01E-05	8	107626818 intronic
rs2252068	87	2.04E-05	13	23723353 intronic
rs11945399	88	2.12E-05	4	46445090 non-coding intronic
rs2085408	89	2.13E-05	3	109568721 intronic
rs4600113	90	2.13E-05	10	3979450
rs6836854	91	2.17E-05	4	151961799 intronic
rs9520462	92	2.21E-05	13	106932910
rs1430566	93	2.21E-05	14	86879519 intronic
rs7692324	94	2.39E-05	4	12366540
rs1453227	95	2.48E-05	8	107613559 intronic
rs2479923	96	2.50E-05	13	69651244
rs12699509	97	2.53E-05	7	13528120
rs2288807	98	2.56E-05	5	146755570 intronic
rs13083821	99	2.60E-05	3	163462620
rs3760995	100	2.69E-05	19	1387874 5upstream

gene

PRKCH

NOS1AP

DAZAP1

NLRP3

NLRP3

PRKCH

OBP2A

OBP2A

DKFZp762M113

ELP4

ELP4

DRCTNNB1A
DRCTNNB1A

PIAS4

NOS1AP

DAZAP1
DAZAP1
PRKCH

NOS1AP
OXR1
PTPRM

CRBN
DRCTNNB1A
DRCTNNB1A

OXR1
SPATA13
COX7B2
HHLA2

LRBA

FAM155A

OXR1

DPYSL3

RPS15

Supplementary Table 2. Top 10 Most Significant Genes for Reading and Language Traits as Evaluated by VEGAS. Significant Genes Appear in Bold and Genes Associated with Multiple Traits are Superscripted.

Gene	Ch	Start Position	Stop Position	No. SNPS in Gene	p-value
Reading and Spelling					
<i>CDC2L1</i>¹	1	1560962	1645635	3	1.00 x10 ⁻⁶
<i>CDC2L2</i>²	1	1624029	1645651	3	2.00 x10 ⁻⁵
<i>LOC728661</i>³	1	1582801	1614103	3	2.00 x10 ⁻⁵
<i>RCAN3</i>	1	24701973	24735014	87	2.70 x10 ⁻⁵
<i>C1orf130</i>	1	24755188	24808403	84	6.10x10 ⁻⁵
<i>RPS15</i> ⁴	19	1389362	1391492	38	0.000171
<i>MEF2C</i>	5	88051921	88214780	159	0.000188
<i>CACNB3</i>	12	47498778	47508991	60	0.000243
<i>TIPRL</i>	1	1.66E+08	1.66E+08	72	0.000278
<i>FAM165B</i>	21	34669618	34683322	80	0.000324
Word					
Reading					
<i>PIAS4</i>	19	3958748	3989067	53	5.10x10 ⁻⁵
<i>EEF2</i>	19	3927053	3936461	45	0.000102
<i>ZNF707</i>	8	1.45E+08	1.45E+08	37	0.000119
<i>SPAG6</i>	10	22674404	22746545	91	0.000135
<i>TUFT1</i>	1	1.5E+08	1.5E+08	76	0.00015
<i>DIRC1</i>	2	1.89E+08	1.89E+08	166	0.000191
<i>CDC2L1</i>¹	1	1560962	1645635	3	0.000325
<i>RPS15</i> ⁴	19	1389362	1391492	38	0.000326
<i>CDC2L2</i>²	1	1624029	1645651	3	0.000329
<i>LOC728661</i>³	1	1582801	1614103	3	0.000334
Non-word					
Repetition					
<i>ADAMTS8</i>	11	129780027	129803749	83	0.000111
<i>APOC2</i>	19	50141082	50144658	66	0.000154
<i>H3F3A</i>	1	224317043	224326326	48	0.000162

<i>APOC4</i>	19	50137334	50140591	69	0.000164
<i>CLPTM1</i>	19	50150477	50188439	73	0.00017
<i>RELB</i>	19	50196551	50233292	61	0.000255
<i>UBL3</i>	13	29236541	29322160	207	0.000297
<i>ADPRH</i>	3	120781212	120791482	109	0.000333
<i>ADAMTS15</i>	11	129824078	129848926	90	0.000353
<i>TMEM55A</i>	8	92075674	92122224	85	0.000425

Chr	Gene	nSNPs	nSims	Start	Stop	Test	Pvalue
11	ADAMTS8	83	1.00E+06	1.3E+08	1.3E+08	436.4505	0.000111
19	APOC2	66	1.00E+06	50141082	50144658	414.7291	0.000154
1	H3F3A	48	1.00E+06	2.24E+08	2.24E+08	328.6396	0.000162
19	APOC4	69	1.00E+06	50137334	50140591	418.1863	0.000164
19	CLPTM1	73	1.00E+06	50150477	50188439	424.7454	0.00017
19	RELB	61	1.00E+06	50196551	50233292	305.6768	0.000255
13	UBL3	207	1.00E+06	29236541	29322160	891.603	0.000297
3	ADPRH	109	1.00E+06	1.21E+08	1.21E+08	414.1675	0.000333
11	ADAMTS15	90	1.00E+06	1.3E+08	1.3E+08	372.3581	0.000353
8	TMEM55A	85	1.00E+06	92075674	92122224	567.4623	0.000425
6	PLEKHG1	435	1.00E+06	1.51E+08	1.51E+08	1477.715	0.000496
10	FRMPD2	132	1.00E+06	49034611	49152723	606.5799	0.000603
16	COX6A2	29	1.00E+06	31346555	31347222	176.7971	0.00065
2	PAIP2B	152	1.00E+06	71263375	71307741	623.2386	0.000686
12	IFNG	180	1.00E+06	66834816	66839788	826.5722	0.000695
5	TTC33	85	1.00E+06	40747434	40791829	532.4822	0.00072
3	RNF13	110	1.00E+06	1.51E+08	1.51E+08	578.2979	0.000746
12	IFNG	180	1.00E+06	66834816	66839788	826.5722	0.000772
16	ARMC5	33	1.00E+06	31377817	31385989	172.9472	0.000897
1	C1orf174	77	1.00E+06	3795556	3806709	302.5342	0.00092
19	APOC1	66	1.00E+06	50109760	50114446	232.7745	0.000986
2	TRIB2	119	1.00E+06	12774448	12800309	569.5551	0.001022
21	HSPA13	139	1.00E+06	14665307	14677380	473.6745	0.001036
20	PREX1	389	1.00E+06	46674199	46877827	1441.615	0.001116
2	MYO1B	281	1.00E+06	1.92E+08	1.92E+08	1427.561	0.001207
5	PTGER4	64	1.00E+05	40715788	40729594	397.0078	0.00129
7	RAMP3	207	1.00E+06	45163891	45190375	713.7069	0.001376
9	KIAA0515	107	1.00E+06	1.33E+08	1.33E+08	623.5389	0.001477
19	APOE	71	1.00E+06	50100878	50104490	233.8539	0.001534
5	PRKAA1	88	1.00E+06	40795237	40834054	450.5702	0.001577
15	PLA2G4D	229	1.00E+05	40147172	40174044	765.0607	0.00159
8	OTUD6B	82	1.00E+06	92151599	92168499	461.1701	0.00166
19	CDC37	33	1.00E+05	10362808	10375271	154.9009	0.00186
16	TNRC6A	148	1.00E+06	24648549	24745048	635.4227	0.001997
19	PDE4A	44	1.00E+05	10392332	10441307	177.5689	0.00206
14	CNIH	65	1.00E+06	53963396	53977898	318.4843	0.002092
5	FAM105B	119	1.00E+05	14717782	14752842	462.7191	0.00232
16	CD2BP2	15	1.00E+05	30271668	30274128	117.3565	0.00233
16	TBC1D10B	16	1.00E+05	30275922	30289023	125.3759	0.00238
15	PLA2G4E	209	1.00E+05	40063243	40089737	603.4854	0.00242
3	PFN2	52	1.00E+05	1.51E+08	1.51E+08	230.9618	0.00244
5	DOCK2	774	1.00E+05	1.69E+08	1.69E+08	1848.82	0.00244
16	MYLPF	17	1.00E+05	30293623	30296811	134.1682	0.00244
2	FKBP1B	63	1.00E+05	24126131	24140054	323.6403	0.0026
2	PFN4	69	1.00E+05	24191747	24199655	339.1145	0.00261
2	C2orf44	58	1.00E+05	24105749	24123727	276.9672	0.00266
3	ARL14	108	1.00E+05	1.62E+08	1.62E+08	518.9412	0.00266
9	POMT1	98	1.00E+05	1.33E+08	1.33E+08	484.4052	0.00267
2	SF3B14	64	1.00E+05	24143957	24152818	333.052	0.00273
8	ABRA	110	1.00E+05	1.08E+08	1.08E+08	402.3816	0.00273
2	MPHOSPH10	127	1.00E+05	71210951	71230738	454.899	0.00276
2	ODC1	114	1.00E+05	10497958	10505904	347.928	0.0028
12	C12orf40	115	1.00E+05	38306238	38401985	579.6184	0.00285
21	USP25	122	1.00E+05	16024366	16174248	723.724	0.00285
16	ZNF553	21	1.00E+05	30314557	30318216	135.9008	0.00288

1	REN	99	1.00E+05	2.02E+08	2.02E+08	272.9086	0.00292
3	PLA1A	137	1.00E+05	1.21E+08	1.21E+08	454.0183	0.00302
19	PPAP2C	55	1.00E+05	232043	242435	209.7639	0.00302
12	PLEKHA9	90	1.00E+05	43853113	43896056	451.7309	0.00303
2	TP53I3	60	1.00E+05	24153808	24161232	327.1924	0.00311
6	FAM8A1	71	1.00E+05	17708564	17719929	296.6413	0.00324
3	TPRG1	302	1.00E+05	1.9E+08	1.91E+08	826.3935	0.00328
9	UCK1	91	1.00E+05	1.33E+08	1.33E+08	399.6083	0.00333
7	IKZF1	154	1.00E+05	50314923	50440292	432.4934	0.00335
19	MIER2	91	1.00E+06	256574	295791	253.9895	0.003381
14	GMFB	45	1.00E+05	54010958	54025494	241.4071	0.00342
3	WDR49	153	1.00E+05	1.69E+08	1.69E+08	600.1773	0.00343
1	RFX5	50	1.00E+05	1.5E+08	1.5E+08	214.2404	0.00345
11	SLC22A12	55	1.00E+05	64114857	64126396	273.8124	0.00353
19	TYK2	62	1.00E+05	10322203	10352248	191.3956	0.00354
8	DPYSL2	280	1.00E+06	26491337	26571610	899.3242	0.003706
2	LOC388931	55	1.00E+05	24086456	24100649	228.4728	0.00388
12	CLEC2B	108	1.00E+06	9896234	9913725	357.5766	0.003943
5	DPYSL3	105	1.00E+05	1.47E+08	1.47E+08	384.9047	0.00399
16	ITGAD	57	1.00E+05	31312133	31345327	189.9404	0.00408
12	TMEM16F	252	1.00E+05	43896169	44112399	977.5282	0.00418
16	TGFB111	34	1.00E+05	31390984	31396781	141.9789	0.00424
16	ZNF771	23	1.00E+05	30326977	30338231	119.4309	0.00435
9	RANBP6	95	1.00E+05	6001018	6005618	320.2437	0.00436
5	BTNL8	5	1.00E+05	1.8E+08	1.8E+08	22.85509	0.00452
3	ZIC4	84	1.00E+05	1.49E+08	1.49E+08	270.202	0.00454
17	TMEM101	51	1.00E+05	39444081	39447871	175.8966	0.00456
17	FAM101B	23	1.00E+05	289998	295959	85.36545	0.00466
1	TOE1	47	1.00E+05	45577928	45582237	222.191	0.00468
17	NAGS	51	1.00E+05	39437557	39441962	175.3063	0.00472
17	LSMD1	49	1.00E+05	7700727	7701897	136.4616	0.00475
2	ADCY3	184	1.00E+05	24895541	24995559	802.5346	0.00482
2	DLX1	64	1.00E+05	1.73E+08	1.73E+08	170.9036	0.00482
12	LYZ	105	1.00E+05	68028400	68034280	388.2614	0.00485
11	LPXN	77	1.00E+05	58050919	58099910	341.5077	0.00489
1	TESK2	106	1.00E+05	45582141	45729427	463.982	0.00493
17	TMEM88	50	1.00E+05	7699108	7700142	137.7288	0.00493
12	KLRF1	121	1.00E+05	9871343	9888870	378.87	0.00497
1	PI4KB	57	1.00E+05	1.5E+08	1.5E+08	255.7207	0.00501
2	OLA1	237	1.00E+05	1.75E+08	1.75E+08	960.7589	0.00501
6	CNKS3	212	1.00E+06	1.55E+08	1.55E+08	510.5062	0.005015
1	HPDL	43	1.00E+05	45565131	45566933	172.7133	0.00507
1	MUTYH	48	1.00E+05	45567500	45578729	214.5975	0.00512
8	ZC3H3	154	1.00E+05	1.45E+08	1.45E+08	487.1843	0.00519
7	FZD9	22	1.00E+05	72486044	72488386	83.19479	0.00527
14	NFKBIA	97	1.00E+05	34940466	34943711	279.4004	0.00535
2	RBJ	126	1.00E+05	25020008	25048328	592.6386	0.00541
8	GSDMDC1	100	1.00E+05	1.45E+08	1.45E+08	357.0493	0.00549
12	YEATS4	165	1.00E+05	68039798	68070843	501.6196	0.00576
10	ARHGAP22	347	1.00E+05	49324084	49483144	999.6239	0.00591
11	CNTF	100	1.00E+05	58146720	58149778	442.7607	0.00603
11	ZFP91	120	1.00E+05	58103162	58145091	554.9931	0.00607
17	CYB5D1	50	1.00E+05	7701788	7706325	136.579	0.00612
6	B3GAT2	160	1.00E+05	71627789	71723509	453.7881	0.00615
16	SLC5A2	39	1.00E+05	31401939	31409592	152.9475	0.00617
17	CCL16	86	1.00E+05	31327647	31332636	238.108	0.00617

11	ZFP91-CNTF	126	1.00E+05	58103162	58149781	562.1368	0.00644
11	SLC22A11	61	1.00E+05	64079673	64095575	245.1824	0.00646
5	FAM170A	145	1.00E+05	1.19E+08	1.19E+08	463.4289	0.00661
7	TBRG4	126	1.00E+05	45106223	45117842	408.2931	0.00682
8	NECAB1	208	1.00E+05	91872953	92040806	998.2592	0.00683
9	TGFBR1	138	1.00E+05	1.01E+08	1.01E+08	478.3113	0.00697
2	MRPL35	160	1.00E+05	86280066	86293988	723.8766	0.00702
16	C16orf58	50	1.00E+05	31408315	31427207	182.4303	0.00709
19	FCHO1	104	1.00E+05	17723335	17760365	298.3313	0.00718
2	DLX2	76	1.00E+05	1.73E+08	1.73E+08	196.3157	0.00722
11	ZBTB44	149	1.00E+05	1.3E+08	1.3E+08	441.1733	0.00722
11	OR5B21	47	1.00E+05	58031224	58032154	220.1546	0.00733
11	OR9I1	126	1.00E+05	57642547	57643492	422.3218	0.00737
16	XTP3TPA	27	1.00E+05	30342519	30348874	112.7499	0.00737
10	WAC	114	1.00E+05	28861705	28949475	435.1487	0.00741
3	ZIC1	66	1.00E+05	1.49E+08	1.49E+08	222.5588	0.00743
13	B3GALTL	233	1.00E+05	30672111	30804411	808.1641	0.00745
8	C8orf73	96	1.00E+05	1.45E+08	1.45E+08	325.2579	0.00768
4	C4orf40	113	1.00E+05	71054492	71066915	318.1446	0.00769
1	C1orf55	48	1.00E+05	2.24E+08	2.24E+08	157.6776	0.00772
1	SELENBP1	52	1.00E+05	1.5E+08	1.5E+08	166.8109	0.00773
11	FOLR3	65	1.00E+05	71524418	71528582	236.0678	0.00773
1	C8B	188	1.00E+05	57167470	57204276	559.2861	0.00775
17	LOC400566	34	1.00E+05	260433	264713	102.5447	0.00775
14	TMEM121	20	1.00E+05	1.05E+08	1.05E+08	71.93251	0.00776
11	LOC120126	34	1.00E+05	89125600	89126791	177.0553	0.0078
2	REEP1	273	1.00E+05	86294630	86418288	1022.465	0.00781
8	NAPRT1	85	1.00E+05	1.45E+08	1.45E+08	285.7742	0.00782
7	TMEM209	82	1.00E+05	1.3E+08	1.3E+08	237.965	0.00792
11	OR10Q1	144	1.00E+05	57751963	57752923	524.215	0.00797
6	C6orf146	118	1.00E+05	4013599	4024390	461.9433	0.00804
12	SLC2A13	617	1.00E+05	38435089	38785928	1473.178	0.00813
1	ESRRG	1209	1.00E+05	2.15E+08	2.15E+08	2399.954	0.00817
15	OTUD7A	242	1.00E+05	29562620	29734834	731.5947	0.00819
5	RASGEF1C	156	1.00E+05	1.79E+08	1.8E+08	386.8215	0.00822
4	ODAM	112	1.00E+05	71096832	71104882	333.9926	0.00827
1	C4BPB	86	1.00E+05	2.05E+08	2.05E+08	248.6314	0.00838
8	MYST3	95	1.00E+05	41906153	42028662	334.8607	0.00842
7	TAX1BP1	156	1.00E+05	27746262	27835911	545.8218	0.00853
7	HBP1	105	1.00E+05	1.07E+08	1.07E+08	461.6917	0.0086
7	MLXIPL	41	1.00E+05	72645459	72676806	143.0981	0.0086
11	OR5B12	93	1.00E+05	57963255	57964200	406.6881	0.00866
8	SLC30A8	142	1.00E+05	1.18E+08	1.18E+08	431.3161	0.00868
6	PRPF4B	166	1.00E+05	3966567	4010216	546.1677	0.00872
12	CD163	60	1.00E+05	7514676	7547681	158.4833	0.00874
11	OR1S1	146	1.00E+05	57738792	57739770	504.844	0.00875
2	C2orf70	137	1.00E+05	26638984	26655899	446.5278	0.0088
20	SULF2	232	1.00E+05	45719558	45848215	517.2886	0.00898
1	CHI3L2	209	1.00E+05	1.12E+08	1.12E+08	544.4061	0.00901
7	BAZ1B	39	1.00E+05	72492675	72574544	141.222	0.00904
1	ASTN1	377	1.00E+05	1.75E+08	1.75E+08	955.2904	0.00907
11	OR5B2	106	1.00E+05	57946380	57947310	455.4994	0.00914
4	EMCN	226	1.00E+05	1.02E+08	1.02E+08	693.045	0.0092
11	MRPL23	73	1.00E+05	1925113	1934408	261.925	0.00923
11	CHORDC1	128	1.00E+05	89574264	89595854	427.7559	0.00924
6	CD2AP	197	1.00E+05	47553483	47702955	824.1574	0.00927

2	MCEE	130	1.00E+05	71190313	71210902	383.4993	0.00932
6	MUT	120	1.00E+05	49506949	49538990	472.0156	0.00936
17	MPDU1	49	1.00E+05	7427853	7432247	152.9154	0.00939
7	LAT2	25	1.00E+05	73262022	73282100	77.01854	0.00944
11	FGF3	113	1.00E+05	69333916	69343129	322.2831	0.00959
14	FBXO33	92	1.00E+05	38936709	38971371	310.7833	0.0096
2	UBXD4	75	1.00E+05	24016879	24077197	280.9808	0.00962
1	ETNK2	119	1.00E+05	2.02E+08	2.02E+08	274.3107	0.00988
17	SOX15	47	1.00E+05	7432221	7434212	146.9791	0.01008
7	ORAI2	42	1.00E+05	1.02E+08	1.02E+08	141.8643	0.01014
11	FOLR1	45	1.00E+05	71578249	71585014	138.7902	0.01016
9	KIAA2026	191	1.00E+05	5909007	5998003	624.4831	0.01018
5	FBXO38	128	1.00E+05	1.48E+08	1.48E+08	553.6827	0.01042
5	RPL37	78	1.00E+05	40867186	40871144	269.7453	0.01044
2	CIB4	145	1.00E+05	26657576	26717715	434.4049	0.01045
7	COG5	267	1.00E+05	1.07E+08	1.07E+08	1042.62	0.01053
2	IMMT	193	1.00E+05	86224565	86276404	758.5385	0.01055
11	OR1S2	124	1.00E+05	57727251	57728229	405.7702	0.01055
2	DYNC2LI1	183	1.00E+05	43854685	43890653	577.1283	0.01058
14	CDKN3	87	1.00E+05	53933475	53956682	285.4005	0.01058
5	HSD17B4	150	1.00E+05	1.19E+08	1.19E+08	477.9823	0.01063
14	MIA2	70	1.00E+05	38772875	38792326	236.8526	0.01072
11	OR9Q1	315	1.00E+05	57547928	57705614	934.4892	0.01073
12	BICD1	446	1.00E+05	32151451	32422408	1033.388	0.01077
11	OR9Q2	129	1.00E+05	57714538	57715483	407.3516	0.01085
7	PRKRIP1	44	1.00E+05	1.02E+08	1.02E+08	146.4866	0.01089
1	ALX3	69	1.00E+05	1.1E+08	1.1E+08	220.3844	0.01116
17	FXR2	59	1.00E+05	7435271	7458796	172.81	0.0113
15	TMC3	95	1.00E+05	79411814	79453473	269.3762	0.01132
7	ALKBH4	32	1.00E+05	1.02E+08	1.02E+08	105.2431	0.01137
10	KIAA1462	149	1.00E+05	30343389	30376806	469.4712	0.01144
6	ZNF165	136	1.00E+05	28154550	28165319	531.8879	0.01153
19	DUXA	81	1.00E+05	62354905	62370668	214.7522	0.01162
5	RNF130	167	1.00E+05	1.79E+08	1.79E+08	496.0984	0.01169
14	CTAGE5	128	1.00E+05	38804226	38890148	406.2041	0.01169
7	RFC2	27	1.00E+05	73283767	73306674	76.14497	0.01179
2	POMC	55	1.00E+05	25237225	25245063	204.6765	0.01183
2	C2orf25	77	1.00E+05	1.5E+08	1.5E+08	285.6609	0.0119
1	YOD1	89	1.00E+05	2.05E+08	2.05E+08	265.7284	0.01191
4	SPARCL1	155	1.00E+05	88613511	88669679	478.4142	0.01192
8	ADCY8	480	1.00E+05	1.32E+08	1.32E+08	1062.066	0.01196
1	ZNF687	40	1.00E+05	1.5E+08	1.5E+08	171.8204	0.01198
16	LOC440350-4	2	1.00E+05	28677525	28690630	8.820605	0.012
7	C7orf23	76	1.00E+05	86663413	86686967	282.7325	0.01211
17	EIF4A1	45	1.00E+05	7416780	7423048	138.1846	0.01212
1	NEK2	138	1.00E+05	2.1E+08	2.1E+08	359.568	0.01223
16	ZNF267	57	1.00E+05	31792579	31836128	266.7324	0.01226
1	PSMD4	38	1.00E+05	1.49E+08	1.5E+08	152.7123	0.01237
11	PSMAL	99	1.00E+05	89032112	89071534	466.5022	0.01239
3	C3orf67	147	1.00E+05	58702776	59010755	503.2586	0.01247
17	CD68	45	1.00E+05	7423528	7426153	136.7886	0.01249
7	FIGNL1	154	1.00E+05	50479325	50485582	448.6221	0.01254
8	RPL7	84	1.00E+05	74365427	74368423	235.2998	0.01254
6	PKHD1	612	1.00E+05	51588103	52060382	1548.146	0.01261
5	ZFP62	15	1.00E+05	1.8E+08	1.8E+08	45.86917	0.01273
5	IRF1	130	1.00E+05	1.32E+08	1.32E+08	415.2829	0.01276

1	<i>DFFB</i>	136	1.00E+05	3763704	3791853	395.5545	0.01278
9	<i>LCN2</i>	43	1.00E+05	1.3E+08	1.3E+08	129.5249	0.01279
4	<i>REST</i>	91	1.00E+05	57468798	57493097	283.9989	0.0128
6	<i>C6orf115</i>	78	1.00E+05	1.39E+08	1.39E+08	203.7344	0.01281
6	<i>HERV-FRD</i>	93	1.00E+05	11210707	11219945	278.1599	0.01288
3	<i>PDCD10</i>	76	1.00E+05	1.69E+08	1.69E+08	385.2676	0.01298
6	<i>RPP40</i>	166	1.00E+05	4940278	4949270	494.8317	0.01302
9	<i>C9orf16</i>	43	1.00E+05	1.3E+08	1.3E+08	132.1674	0.01305
20	<i>PTGIS</i>	143	1.00E+05	47553817	47618114	343.5615	0.01305
1	<i>PFKFB2</i>	113	1.00E+05	2.05E+08	2.05E+08	297.439	0.01311
11	<i>DPAGT1</i>	63	1.00E+05	1.18E+08	1.18E+08	201.9798	0.01318
11	<i>NRXN2</i>	86	1.00E+05	64130221	64247236	311.8825	0.01323
11	<i>C11orf51</i>	81	1.00E+05	71498280	71501470	294.6843	0.01333
11	<i>OR52B2</i>	107	1.00E+05	6147160	6148132	290.9613	0.01333
3	<i>KCTD6</i>	63	1.00E+05	58452862	58463127	160.791	0.01334
12	<i>CPSF6</i>	107	1.00E+05	67919583	67954405	275.9966	0.01334
1	<i>EDEM3</i>	81	1.00E+05	1.83E+08	1.83E+08	297.5412	0.01338
6	<i>NUP153</i>	119	1.00E+05	17723247	17814797	348.0139	0.01346
7	<i>CLIP2</i>	77	1.00E+05	73341740	73458209	228.5265	0.01354
11	<i>PPME1</i>	120	1.00E+05	73560015	73643396	374.556	0.0136
12	<i>PARP11</i>	161	1.00E+05	3788287	3852869	403.9521	0.01366
8	<i>HEY1</i>	94	1.00E+05	80838799	80842653	210.4762	0.01367
10	<i>ST8SIA6</i>	351	1.00E+05	17402681	17536260	837.5233	0.01367
17	<i>CCL15</i>	95	1.00E+05	31334804	31353125	222.5243	0.01369
2	<i>ABCG5</i>	190	1.00E+05	43893114	43919462	509.3588	0.01391
7	<i>C7orf45</i>	68	1.00E+05	1.3E+08	1.3E+08	205.2427	0.01407
17	<i>CCL14</i>	95	1.00E+05	31334804	31353125	222.5243	0.01412
5	<i>EDIL3</i>	438	1.00E+05	83273881	83716367	945.816	0.01417
12	<i>LDHB</i>	56	1.00E+05	21679542	21702043	232.8649	0.01431
15	<i>ARRDC4</i>	77	1.00E+05	96304936	96318072	210.0824	0.01455
14	<i>OR4Q3</i>	64	1.00E+05	19285426	19286368	182.561	0.01456
5	<i>DCP2</i>	175	1.00E+05	1.12E+08	1.12E+08	501.3287	0.01458
6	<i>ZSCAN16</i>	112	1.00E+05	28200365	28205835	433.0264	0.01462
12	<i>IL26</i>	249	1.00E+05	66881395	66905838	599.7871	0.01467
2	<i>EFR3B</i>	142	1.00E+05	25118476	25235508	425.8687	0.01471
11	<i>H2AFX</i>	63	1.00E+05	1.18E+08	1.18E+08	199.4916	0.01479
11	<i>ST14</i>	139	1.00E+05	1.3E+08	1.3E+08	325.0066	0.01495
13	<i>INTS6</i>	154	1.00E+05	50833701	50925276	483.7389	0.01498
6	<i>ZNF192</i>	129	1.00E+05	28217694	28233215	493.1304	0.01516
3	<i>SERPINI2</i>	106	1.00E+05	1.69E+08	1.69E+08	326.6201	0.01536
11	<i>OR10W1</i>	152	1.00E+05	57790839	57792308	500.2512	0.01539
15	<i>STARD5</i>	97	1.00E+05	79392061	79403579	260.8124	0.01539
4	<i>FLJ46481</i>	237	1.00E+05	6009745	6041067	533.0606	0.01545
11	<i>RNF169</i>	112	1.00E+05	74137560	74231106	352.7689	0.01554
11	<i>OR5B3</i>	108	1.00E+05	57926513	57927458	457.4366	0.01555
7	<i>CYP3A5</i>	59	1.00E+05	99083752	99115542	267.1538	0.01579
6	<i>CCDC28A</i>	127	1.00E+05	1.39E+08	1.39E+08	325.7156	0.01596
1	<i>DFFA</i>	82	1.00E+05	10443189	10455200	281.2918	0.01602
6	<i>PIM1</i>	84	1.00E+05	37245963	37251182	204.9129	0.01611
2	<i>MAP1D</i>	92	1.00E+05	1.73E+08	1.73E+08	221.0256	0.01616
16	<i>BFAR</i>	19	1.00E+05	14634296	14670195	51.60586	0.01622
9	<i>RAB14</i>	97	1.00E+05	1.23E+08	1.23E+08	314.8329	0.01625
12	<i>ABCD2</i>	74	1.00E+05	38231288	38300110	208.4704	0.01626
7	<i>BCL7B</i>	28	1.00E+05	72588621	72609960	87.1201	0.01628
8	<i>PTK2B</i>	283	1.00E+05	27224915	27372820	826.4933	0.01629
17	<i>KRT40</i>	13	1.00E+05	36387493	36396116	51.32381	0.01635

17	<i>CDK5RAP3</i>	87	1.00E+05	43403427	43414146	277.4702	0.01637
5	<i>STK32A</i>	275	1.00E+05	1.47E+08	1.47E+08	640.7117	0.01641
7	<i>IRF5</i>	52	1.00E+05	1.28E+08	1.28E+08	144.9689	0.01642
12	<i>ZNF664</i>	102	1.00E+05	1.23E+08	1.23E+08	352.5638	0.01643
7	<i>CYP3A7</i>	49	1.00E+05	99140595	99170757	200.4525	0.01653
17	<i>ALOX12</i>	83	1.00E+05	6840107	6854779	202.059	0.01655
2	<i>C2orf16</i>	69	1.00E+05	27652892	27659093	253.4838	0.01656
2	<i>ZC3H15</i>	95	1.00E+05	1.87E+08	1.87E+08	325.8247	0.01656
3	<i>PDHB</i>	114	1.00E+05	58388393	58394605	391.1602	0.01656
5	<i>ANKH</i>	239	1.00E+05	14757908	14924887	525.4122	0.01656
17	<i>SLFN13</i>	74	1.00E+05	30786227	30799885	189.5729	0.01659
2	<i>ZNF512</i>	98	1.00E+05	27659396	27699467	337.7286	0.01661
17	<i>YPEL2</i>	91	1.00E+05	54763834	54833877	233.0925	0.01665
8	<i>EEF1D</i>	85	1.00E+05	1.45E+08	1.45E+08	236.0127	0.01676
22	<i>MAPK12</i>	43	1.00E+05	49033457	49042216	122.0537	0.01676
11	<i>HMBS</i>	63	1.00E+05	1.18E+08	1.18E+08	196.5376	0.01678
1	<i>CORT</i>	53	1.00E+05	10432557	10434546	175.8661	0.01681
2	<i>CCDC121</i>	83	1.00E+05	27702009	27705383	276.9303	0.01689
3	<i>COMMD2</i>	79	1.00E+05	1.51E+08	1.51E+08	220.5437	0.01691
17	<i>SAT2</i>	48	1.00E+05	7470280	7471889	124.553	0.01695
11	<i>OR10A5</i>	175	1.00E+05	6823489	6824443	571.892	0.0171
15	<i>HMG20A</i>	119	1.00E+05	75500297	75565000	418.2368	0.0171
14	<i>CGRRF1</i>	50	1.00E+05	54046336	54075084	152.3423	0.01712
17	<i>SHBG</i>	49	1.00E+05	7474215	7477395	124.6363	0.01716
14	<i>KIAA1409</i>	268	1.00E+05	92869317	93243442	806.5753	0.01725
11	<i>FAM168A</i>	129	1.00E+05	72794675	72986876	414.5599	0.01731
5	<i>CCDC99</i>	85	1.00E+05	1.69E+08	1.69E+08	321.5727	0.01735
1	<i>ABCB10</i>	79	1.00E+05	2.28E+08	2.28E+08	315.5539	0.01738
17	<i>ATAD4</i>	94	1.00E+05	43384332	43390109	295.7798	0.01748
12	<i>WNT1</i>	39	1.00E+05	47658502	47662746	116.6454	0.0177
1	<i>FAM40A</i>	65	1.00E+05	1.1E+08	1.1E+08	187.3972	0.01772
17	<i>CACNA1G</i>	127	1.00E+05	45993447	46059541	285.2433	0.01775
10	<i>BAMBI</i>	102	1.00E+05	29006429	29011874	240.5928	0.01778
11	<i>TSKU</i>	88	1.00E+05	76171932	76186846	233.7871	0.01778
17	<i>JMJD3</i>	60	1.00E+05	7683959	7698843	139.4899	0.01778
17	<i>SOCS7</i>	62	1.00E+05	33761530	33809545	173.6414	0.01778
17	<i>C17orf62</i>	54	1.00E+05	77993807	78001983	167.5752	0.01794
7	<i>TNPO3</i>	112	1.00E+05	1.28E+08	1.28E+08	307.5073	0.01808
20	<i>SYS1</i>	100	1.00E+05	43425114	43431263	291.1384	0.01821
11	<i>OR52W1</i>	100	1.00E+05	6177029	6177992	273.4229	0.01824
13	<i>PRHOXNB</i>	88	1.00E+05	27450242	27460774	214.3736	0.01845
7	<i>DMTF1</i>	108	1.00E+05	86619859	86663584	372.071	0.0185
17	<i>NARF</i>	66	1.00E+05	78009348	78039432	183.4603	0.01859
11	<i>FGF4</i>	96	1.00E+05	69296977	69299352	243.6047	0.01864
17	<i>RNASEK</i>	78	1.00E+05	6856521	6858575	183.1245	0.01882
1	<i>KIAA0562</i>	178	1.00E+05	3721203	3763657	464.0896	0.01885
11	<i>OR10A2</i>	190	1.00E+05	6847561	6848473	552.163	0.01886
11	<i>XRRA1</i>	115	1.00E+05	74229602	74337880	366.0667	0.01911
3	<i>SERPINI1</i>	116	1.00E+05	1.69E+08	1.69E+08	321.8208	0.01923
1	<i>C1orf116</i>	101	1.00E+05	2.05E+08	2.05E+08	265.8641	0.01944
14	<i>C14orf80</i>	20	1.00E+05	1.05E+08	1.05E+08	58.43111	0.0195
17	<i>PNPO</i>	91	1.00E+05	43373915	43381673	282.0171	0.01952
1	<i>ROR1</i>	553	1.00E+05	64012277	64417295	1172.398	0.01957
2	<i>PUM2</i>	121	1.00E+05	20311933	20390625	352.2907	0.01962
12	<i>KCNJ8</i>	34	1.00E+05	21809155	21819014	137.654	0.01963
17	<i>CCL23</i>	99	1.00E+05	31364209	31369118	226.9354	0.01964

4	ZNF509	177	1.00E+05	4342878	4374410	423.9437	0.01966
6	C6orf201	185	1.00E+05	4024438	4075998	501.0948	0.01966
5	SPINK9	94	1.00E+05	1.48E+08	1.48E+08	340.1404	0.01978
22	MAPK11	37	1.00E+05	49044268	49050906	101.4524	0.01993
12	DDX11	75	1.00E+05	31118045	31148992	219.4288	0.01994
9	GRIN3A	361	1.00E+05	1.03E+08	1.04E+08	1054.332	0.01996
2	LYPD6	172	1.00E+05	1.5E+08	1.5E+08	455.324	0.01997
15	IL16	169	1.00E+05	79276273	79392157	410.3048	0.01999
8	OXR1	612	1.00E+05	1.07E+08	1.08E+08	1327.972	0.02004
11	MRPL21	96	1.00E+05	68415321	68427879	315.8473	0.02014
22	HDAC10	48	1.00E+05	49025739	49031941	126.0154	0.02017
11	RELT	56	1.00E+05	72765052	72786167	199.6674	0.02029
6	MRPS18A	55	1.00E+05	43747019	43763506	141.1763	0.02035
3	RPL15	64	1.00E+05	23933642	23937336	213.0728	0.02036
3	SEMA3F	52	1.00E+05	50167851	50201512	157.2393	0.0205
19	TOMM40	68	1.00E+05	50086316	50098786	147.639	0.02053
17	SREBF1	54	1.00E+05	17656110	17681050	220.9442	0.02076
7	ZNF498	43	1.00E+05	99052506	99067966	156.6919	0.02077
19	RPS15	38	1.00E+05	1389362	1391492	94.64539	0.02078
15	GOLGA8A	57	1.00E+05	32458561	32487180	125.6845	0.0209
11	FLJ14213	264	1.00E+05	36354130	36443330	586.129	0.02093
8	PMP2	103	1.00E+05	82515118	82522274	339.4886	0.02097
5	LOC441108	185	1.00E+05	1.32E+08	1.32E+08	506.2171	0.02108
1	SAC	189	1.00E+05	1.66E+08	1.66E+08	401.2654	0.02113
19	SLC27A5	40	1.00E+05	63701516	63715157	116.3543	0.02121
1	ADAMTSL4	50	1.00E+05	1.49E+08	1.49E+08	131.3255	0.02123
8	DUSP4	107	1.00E+05	29249536	29264104	267.9072	0.02126
1	CYP4B1	70	1.00E+05	47037256	47057608	187.6463	0.02136
19	ZIM3	88	1.00E+05	62337275	62348382	214.0818	0.02143
17	TNFSF13	50	1.00E+05	7402339	7405642	128.2486	0.02163
5	IRX1	139	1.00E+05	3649167	3654517	318.2303	0.02175
11	OR2D2	200	1.00E+05	6869380	6870307	522.3977	0.02176
5	SFXN1	203	1.00E+05	1.75E+08	1.75E+08	485.7427	0.02178
2	GPN1	90	1.00E+05	27705406	27727217	275.6322	0.02182
11	USP28	129	1.00E+05	1.13E+08	1.13E+08	331.5304	0.02191
1	CYP4A22	45	1.00E+05	47375693	47387113	151.4861	0.02193
12	COPS7A	50	1.00E+05	6703481	6711291	134.178	0.02197
5	PCDHGC3	80	1.00E+05	1.41E+08	1.41E+08	195.9203	0.02199
6	OR2A4	84	1.00E+05	1.32E+08	1.32E+08	258.3923	0.02201
10	CSTF2T	78	1.00E+05	53125251	53129361	214.9966	0.02209
17	ZNF652	109	1.00E+05	44727484	44794834	315.7047	0.02218
11	OR10A4	205	1.00E+05	6854454	6855402	558.7842	0.02219
8	GRINA	24	1.00E+05	1.45E+08	1.45E+08	102.01	0.02222
10	ITIH2	154	1.00E+05	7785241	7831489	326.9838	0.02223
8	RLBP1L1	287	1.00E+05	62363103	62576758	664.2666	0.02231
17	GPR179	23	1.00E+05	33735018	33753219	69.73022	0.02235
17	SENP3	47	1.00E+05	7406042	7416011	123.9445	0.02237
7	GNG11	122	1.00E+05	93388951	93393762	295.1965	0.02254
2	OTOF	214	1.00E+05	26533574	26635070	504.3871	0.02263
3	NKIRAS1	76	1.00E+05	23908575	23933541	240.4612	0.02264
11	C2CD2L	59	1.00E+05	1.18E+08	1.18E+08	169.2815	0.02276
13	SLITRK5	77	1.00E+05	87122870	87129871	217.5709	0.02288
19	SCN1B	61	1.00E+05	40213373	40223193	139.4189	0.0229
8	PARP10	26	1.00E+05	1.45E+08	1.45E+08	117.8298	0.02296
7	EIF4H	30	1.00E+05	73226641	73249365	80.92765	0.023
16	ATXN2L	25	1.00E+05	28741914	28756059	111.0685	0.02306

9	SUSD1	219	1.00E+05	1.14E+08	1.14E+08	484.6991	0.02319
5	CARD6	83	1.00E+05	40877166	40891213	255.0573	0.02324
19	LYPD5	129	1.00E+05	48991918	49016648	361.5833	0.0233
1	AGTRAP	98	1.00E+05	11718728	11733415	238.1484	0.02351
11	C11orf42	98	1.00E+05	6183373	6188937	272.4713	0.02352
19	ZNF627	69	1.00E+05	11569326	11590974	187.9129	0.02371
11	C11orf59	77	1.00E+05	71485985	71491970	269.7847	0.02372
22	TBC1D22A	700	1.00E+05	45537212	45948388	1339.416	0.02373
5	MEF2C	159	1.00E+05	88051921	88214780	387.5934	0.02377
3	POPDC2	128	1.00E+05	1.21E+08	1.21E+08	364.824	0.02379
1	MTHFR	147	1.00E+05	11768373	11788702	387.1737	0.02402
9	CEP110	147	1.00E+05	1.23E+08	1.23E+08	466.5367	0.02403
13	CDX2	60	1.00E+05	27434277	27441317	139.728	0.02407
1	SFRS11	47	1.00E+05	70443952	70490272	128.003	0.02411
17	HEXDC	60	1.00E+05	77969540	77993805	159.5986	0.02423
7	PRKAR2B	168	1.00E+05	1.06E+08	1.07E+08	456.5106	0.02425
17	GFAP	104	1.00E+05	40338518	40348394	277.5608	0.02431
20	NCOA3	191	1.00E+05	45564063	45719021	467.9294	0.02431
10	SORCS3	864	1.00E+05	1.06E+08	1.07E+08	2026.137	0.02433
20	SLC2A10	116	1.00E+05	44771685	44798392	291.0661	0.02434
8	CHRNA2	153	1.00E+05	27373194	27392730	415.4891	0.02438
6	TFAP2B	131	1.00E+05	50894397	50923285	358.9884	0.0244
17	SLFN12	85	1.00E+05	30762193	30783656	193.8493	0.02446
9	TNC	343	1.00E+05	1.17E+08	1.17E+08	751.9909	0.02461
17	WSB1	80	1.00E+05	22645232	22664772	217.1386	0.02463
15	C15orf59	110	1.00E+05	71819193	71830869	255.1845	0.02465
17	SPATA20	87	1.00E+05	45979560	45988212	211.2763	0.02465
17	ABCC3	99	1.00E+05	46067226	46124062	204.0771	0.02468
1	PIP5K1A	40	1.00E+05	1.49E+08	1.49E+08	122.4669	0.02484
17	C1QL1	72	1.00E+05	40392586	40401170	160.8719	0.02486
1	MCL1	43	1.00E+05	1.49E+08	1.49E+08	115.0545	0.02491
19	ZNF283	126	1.00E+05	49023312	49044890	392.1642	0.02494
19	ACP5	57	1.00E+05	11546474	11550801	149.1458	0.02499
17	C17orf49	75	1.00E+05	6858847	6861563	167.3961	0.025
20	SDC4	132	1.00E+05	43387342	43410478	307.898	0.02503
2	SUPT7L	84	1.00E+05	27727182	27739953	249.013	0.02506
13	LOC647174	102	1.00E+05	50813168	50834240	277.8697	0.02507
1	MCOLN3	127	1.00E+05	85256352	85286757	370.0132	0.0251
7	GNGT1	123	1.00E+05	93373755	93378421	295.5393	0.02513
5	PCDHGC5	72	1.00E+05	1.41E+08	1.41E+08	173.539	0.02517
1	TROVE2	52	1.00E+05	1.91E+08	1.91E+08	173.19	0.02522
17	IGF2BP1	71	1.00E+05	44429772	44488506	209.0983	0.02529
17	CCDC103	101	1.00E+05	40332679	40336155	269.779	0.02532
19	NAPA	67	1.00E+05	52682702	52710309	177.8502	0.02543
17	CACNG5	154	1.00E+05	62303912	62311819	305.677	0.02547
1	BRDT	88	1.00E+05	92187515	92252573	256.0386	0.0255
15	FAM148B	90	1.00E+05	60243028	60244774	217.8459	0.02551
3	CHL1	426	1.00E+05	213649	426097	875.5714	0.02553
5	GLRXL	62	1.00E+05	1.61E+08	1.61E+08	185.4021	0.02557
10	UBE2D1	120	1.00E+05	59764744	59800515	282.6406	0.02557
7	CHCHD2	65	1.00E+05	56136759	56141681	169.5445	0.02558
4	NUDT9	94	1.00E+05	88562758	88598523	235.9391	0.02561
6	CDC40	88	1.00E+05	1.11E+08	1.11E+08	263.7635	0.02564
6	CENPQ	90	1.00E+05	49539054	49568779	265.8267	0.02579
11	P4HA3	106	1.00E+05	73655349	73700347	276.0203	0.0258
1	ABHD7	81	1.00E+05	92268145	92301681	207.1707	0.02582

5	<i>PCDHGC4</i>	74	1.00E+05	1.41E+08	1.41E+08	176.9679	0.02586
2	<i>TMEM177</i>	76	1.00E+05	1.2E+08	1.2E+08	213.8085	0.02591
6	<i>OGFRL1</i>	102	1.00E+05	72055197	72068694	252.634	0.02592
18	<i>APCDD1</i>	181	1.00E+05	10444624	10478698	439.107	0.02594
7	<i>PDIA4</i>	64	1.00E+05	1.48E+08	1.48E+08	169.8934	0.02598
17	<i>KIF18B</i>	103	1.00E+05	40358973	40380608	250.7686	0.02605
19	<i>ELOF1</i>	47	1.00E+05	11524857	11531051	109.5728	0.0261
16	<i>GPR139</i>	150	1.00E+05	19950543	19992601	363.285	0.02613
14	<i>OR4M1</i>	86	1.00E+05	19318321	19319263	206.1585	0.02615
7	<i>ABCA13</i>	609	1.00E+05	48208388	48657637	1273.78	0.02621
2	<i>RBKS</i>	96	1.00E+05	27857769	27966727	366.1373	0.02623
12	<i>CCDC92</i>	103	1.00E+05	1.23E+08	1.23E+08	347.5726	0.02627
1	<i>SDHB</i>	129	1.00E+05	17217811	17253252	371.5187	0.02634
16	<i>ZNF423</i>	427	1.00E+05	48082021	48418419	802.7258	0.02634
1	<i>GLRX2</i>	53	1.00E+05	1.91E+08	1.91E+08	187.7466	0.02636
15	<i>NOLA3</i>	78	1.00E+05	32421208	32422654	208.0173	0.02638
1	<i>CYP4Z1</i>	88	1.00E+05	47305746	47356579	306.1228	0.02645
11	<i>ANKK1</i>	156	1.00E+05	1.13E+08	1.13E+08	418.2808	0.02665
11	<i>MIZF</i>	59	1.00E+05	1.18E+08	1.19E+08	167.7229	0.02665
20	<i>RPS21</i>	87	1.00E+05	60395515	60396971	209.0376	0.02679
22	<i>GAS2L1</i>	50	1.00E+05	28032996	28038774	142.1754	0.02681
12	<i>C12orf53</i>	41	1.00E+05	6673217	6680073	105.7986	0.02685
11	<i>YAP1</i>	141	1.00E+05	1.01E+08	1.02E+08	405.9644	0.02703
1	<i>GATAD2B</i>	113	1.00E+05	1.52E+08	1.52E+08	360.5439	0.02704
1	<i>AOF2</i>	53	1.00E+05	23218532	23282771	186.9668	0.02708
5	<i>FAM105A</i>	112	1.00E+05	14634931	14664205	253.5574	0.02718
15	<i>LPCAT4</i>	65	1.00E+05	32438380	32446687	171.9732	0.02722
2	<i>NTSR2</i>	116	1.00E+05	11715754	11727780	249.0896	0.02728
1	<i>RIT1</i>	49	1.00E+05	1.54E+08	1.54E+08	155.8956	0.02731
16	<i>SH2B1</i>	35	1.00E+05	28782814	28793027	136.5397	0.02733
21	<i>KRTAP13-1</i>	103	1.00E+05	30690262	30691009	275.2867	0.02748
2	<i>PLEKHH2</i>	329	1.00E+05	43717950	43848630	757.1097	0.02755
6	<i>BRP44L</i>	76	1.00E+05	1.67E+08	1.67E+08	209.026	0.0276
2	<i>PCDP1</i>	137	1.00E+05	1.2E+08	1.2E+08	341.0341	0.02768
3	<i>SLC38A3</i>	37	1.00E+05	50217695	50233410	99.19651	0.02771
7	<i>MNX1</i>	78	1.00E+05	1.56E+08	1.56E+08	205.8841	0.02781
14	<i>KCNK13</i>	182	1.00E+05	89597860	89721948	369.9625	0.02784
12	<i>WNT10B</i>	38	1.00E+05	47645389	47651810	113.3253	0.02788
16	<i>TUFM</i>	28	1.00E+05	28761232	28765230	115.7433	0.02791
8	<i>KIF13B</i>	229	1.00E+05	28980713	29176529	524.6164	0.02795
14	<i>COX8C</i>	57	1.00E+05	92883289	92884453	165.2045	0.02797
17	<i>LSM12</i>	64	1.00E+05	39467529	39499531	181.6853	0.02798
11	<i>LRRC51</i>	86	1.00E+05	71469552	71485586	300.7945	0.02803
17	<i>MYO15A</i>	123	1.00E+05	17952744	18023841	324.4074	0.02806
14	<i>STRN3</i>	170	1.00E+05	30432755	30565358	382.1776	0.02808
1	<i>TAF5L</i>	93	1.00E+05	2.28E+08	2.28E+08	251.2672	0.02813
19	<i>GRAMD1A</i>	67	1.00E+05	40183085	40209213	147.1668	0.0282
17	<i>EFTUD2</i>	113	1.00E+05	40283804	40332289	294.2309	0.02821
3	<i>LMLN</i>	105	1.00E+05	1.99E+08	1.99E+08	299.3719	0.0283
20	<i>C20orf10</i>	93	1.00E+05	43435933	43440371	260.7423	0.02837
1	<i>LAX1</i>	91	1.00E+05	2.02E+08	2.02E+08	219.5931	0.0284
13	<i>GPC6</i>	1396	1.00E+05	92677095	93853948	2518.285	0.02843
15	<i>C15orf55</i>	77	1.00E+05	32425357	32437223	203.0161	0.0285
5	<i>DRD1</i>	160	1.00E+05	1.75E+08	1.75E+08	341.6769	0.02856
11	<i>NEU3</i>	83	1.00E+05	74377597	74396391	245.6806	0.02865
1	<i>GPR25</i>	83	1.00E+05	1.99E+08	1.99E+08	189.8201	0.02882

1	UCHL5	41	1.00E+05	1.91E+08	1.91E+08	116.5198	0.02887
19	ZBTB45	34	1.00E+05	63716708	63722733	93.33098	0.02891
4	PHF17	104	1.00E+05	1.3E+08	1.3E+08	255.7999	0.02893
1	PADI2	139	1.00E+05	17265842	17318535	363.2494	0.02899
6	LOC100129128	154	1.00E+05	73975313	74029640	384.9135	0.02899
3	TMEM158	159	1.00E+05	45240959	45242818	379.488	0.029
8	FABP5	95	1.00E+05	82355339	82359563	241.9585	0.029
19	MZF1	27	1.00E+05	63765095	63776754	74.77276	0.02901
1	CYP4X1	74	1.00E+05	47261826	47289010	231.9399	0.02902
18	MEP1B	139	1.00E+05	28023984	28054364	319.0046	0.02911
8	PNMA2	174	1.00E+05	26418112	26427400	412.2106	0.02912
20	C20orf85	89	1.00E+05	56159388	56169589	203.2813	0.02919
15	VPS33B	143	1.00E+05	89342777	89366837	306.1337	0.02924
2	OSBPL6	277	1.00E+05	1.79E+08	1.79E+08	587.3819	0.02932
1	LEPROT	124	1.00E+05	65658906	65670839	283.8003	0.02933
11	TNNT3	68	1.00E+05	1897374	1916512	156.2584	0.02939
2	RBM45	123	1.00E+05	1.79E+08	1.79E+08	272.0715	0.0294
5	SMAD5	129	1.00E+05	1.35E+08	1.36E+08	430.622	0.02943
8	IL7	117	1.00E+05	79807559	79880313	286.1967	0.02944
3	CD80	154	1.00E+05	1.21E+08	1.21E+08	329.4983	0.02954
5	SPINK7	90	1.00E+05	1.48E+08	1.48E+08	265.372	0.02954
3	PXK	217	1.00E+05	58293656	58385918	622.7024	0.02956
12	SPSB2	49	1.00E+05	6850360	6852713	133.9895	0.02958
2	SLC4A1AP	85	1.00E+05	27739841	27771351	234.8329	0.02971
2	GTDC1	182	1.00E+05	1.44E+08	1.45E+08	384.3204	0.02974
8	FABP9	92	1.00E+05	82533172	82536313	272.8609	0.02986
1	APITD1	67	1.00E+05	10412745	10434797	178.9995	0.02987
20	TFAP2C	70	1.00E+05	54637764	54647745	153.3512	0.02987
20	LSM14B	78	1.00E+05	60130911	60143829	213.1427	0.02993
10	DUPD1	101	1.00E+05	76467599	76488278	224.3446	0.03007
1	NUP133	84	1.00E+05	2.28E+08	2.28E+08	286.2586	0.03013
7	PHKG1	64	1.00E+05	56116168	56128183	163.0357	0.03014
10	CCDC6	267	1.00E+05	61218526	61336824	626.1151	0.03014
3	GNAT1	34	1.00E+05	50204046	50208953	101.8352	0.03039
11	SPCS2	87	1.00E+05	74337939	74367724	251.0491	0.03042
6	SFT2D1	92	1.00E+05	1.67E+08	1.67E+08	231.6606	0.03043
22	RASL10A	45	1.00E+05	28038921	28041748	125.4565	0.03046
22	SBF1	83	1.00E+05	49232100	49260320	199.4692	0.03052
6	SLC22A16	178	1.00E+05	1.11E+08	1.11E+08	344.7541	0.03057
1	DDEFL1	105	1.00E+05	23627642	23683258	255.9783	0.0306
12	TPI1	52	1.00E+05	6846966	6850253	136.0609	0.03074
11	OR5B17	116	1.00E+05	57882173	57883118	414.9085	0.03085
1	CDC73	119	1.00E+05	1.91E+08	1.91E+08	384.4205	0.03086
13	KCNRG	44	1.00E+05	49487390	49493059	135.1356	0.0309
21	KRTAP13-3	83	1.00E+05	30719581	30720101	312.1178	0.03098
12	ATN1	38	1.00E+05	6903886	6921745	114.7493	0.031
1	KIAA0907	48	1.00E+05	1.54E+08	1.54E+08	155.2339	0.03103
16	CIRH1A	39	1.00E+05	67723999	67760438	114.7892	0.03105
14	CRIP1	20	1.00E+05	1.05E+08	1.05E+08	52.52743	0.0311
17	CSNK1D	49	1.00E+05	77795528	77824862	133.8901	0.0311
2	PTCD3	163	1.00E+05	86186848	86222791	495.1685	0.03111
19	GNA11	72	1.00E+05	3045407	3072454	142.8876	0.03124
2	ZNF638	212	1.00E+05	71412396	71515697	567.8029	0.03143
9	MRRF	94	1.00E+05	1.24E+08	1.24E+08	211.0174	0.03143
21	KRTAP13-4	86	1.00E+05	30724464	30724947	321.8249	0.03144
8	FZD3	118	1.00E+05	28407691	28477880	307.263	0.03147

19	<i>USP29</i>	94	1.00E+05	62323320	62335105	212.6263	0.03153
14	<i>SERPINA6</i>	148	1.00E+05	93840337	93859441	339.269	0.0316
12	<i>MLF2</i>	77	1.00E+05	6727422	6732530	170.6779	0.03171
14	<i>ESRRB</i>	251	1.00E+05	75907478	76036961	471.2836	0.03175
22	<i>RAB36</i>	101	1.00E+05	21817512	21836531	300.6241	0.03176
14	<i>COCH</i>	115	1.00E+05	30413515	30429573	236.3067	0.0319
15	<i>LOC643007</i>	69	1.00E+05	33022541	33022953	214.4156	0.03196
13	<i>KL</i>	242	1.00E+05	32488570	32538279	509.1252	0.03208
9	<i>RPS6</i>	76	1.00E+05	19366253	19370235	209.5306	0.03213
1	<i>RXFP4</i>	42	1.00E+05	1.54E+08	1.54E+08	138.6005	0.03224
12	<i>APOF</i>	25	1.00E+05	55040621	55042850	69.07046	0.03224
1	<i>DENND4B</i>	45	1.00E+05	1.52E+08	1.52E+08	153.1688	0.03225
5	<i>PARP8</i>	176	1.00E+05	49998569	50173933	462.7718	0.03227
19	<i>CHMP2A</i>	28	1.00E+05	63754744	63758298	74.77363	0.03235
17	<i>HS3ST3A1</i>	235	1.00E+05	13339730	13445969	481.4845	0.03238
12	<i>C12orf57</i>	36	1.00E+05	6923463	6925426	105.1542	0.03247
7	<i>TBL2</i>	31	1.00E+05	72621209	72630949	85.09963	0.03256
11	<i>SPA17</i>	65	1.00E+05	1.24E+08	1.24E+08	149.8341	0.03259
15	<i>ARHGAP11A</i>	69	1.00E+05	30694982	30719160	139.8778	0.03267
15	<i>ZNF770</i>	73	1.00E+05	33057835	33067746	185.0368	0.03278
19	<i>UBE2M</i>	28	1.00E+05	63758890	63762155	74.77363	0.03279
12	<i>IL23A</i>	28	1.00E+05	55018929	55020461	82.55308	0.03284
4	<i>C4orf14</i>	92	1.00E+05	57524272	57538583	230.8225	0.03286
6	<i>C6orf186</i>	201	1.00E+05	1.11E+08	1.11E+08	472.9262	0.03286
17	<i>ALKBH5</i>	92	1.00E+05	18027591	18053992	270.0186	0.03289
20	<i>PSMA7</i>	83	1.00E+05	60145185	60151869	215.453	0.0329
15	<i>GABRA5</i>	69	1.00E+05	24663150	24776749	154.9526	0.03291
19	<i>KPTN</i>	66	1.00E+05	52670211	52679333	158.4577	0.03294
11	<i>MRGPRD</i>	97	1.00E+05	68504065	68505031	267.058	0.03297
1	<i>MIER1</i>	141	1.00E+05	67163229	67226890	390.3992	0.033
13	<i>SLITRK1</i>	86	1.00E+05	83349343	83354529	224.7862	0.03301
17	<i>SLC4A1</i>	42	1.00E+05	39681283	39701028	96.06801	0.03304
1	<i>ZC3H12A</i>	56	1.00E+05	37712705	37722565	128.6929	0.03305
3	<i>C3orf60</i>	18	1.00E+05	49032911	49035930	62.56772	0.03313
20	<i>SLC32A1</i>	140	1.00E+05	36786518	36791429	376.3976	0.03321
1	<i>C1orf149</i>	51	1.00E+05	37730762	37752951	123.7954	0.03325
1	<i>TCEA3</i>	107	1.00E+05	23580141	23623848	266.6763	0.03325
8	<i>YTHDF3</i>	80	1.00E+05	64243674	64287900	211.1701	0.03328
12	<i>PTPN6</i>	43	1.00E+05	6926000	6940740	115.0444	0.03333
12	<i>ENO2</i>	34	1.00E+05	6893874	6903120	109.8906	0.03339
12	<i>ARF3</i>	48	1.00E+05	47616258	47637519	139.5234	0.03347
3	<i>SLC25A20</i>	35	1.00E+05	48869359	48911406	139.5128	0.03362
3	<i>NR1D2</i>	103	1.00E+05	23961809	23996241	284.5808	0.03365
11	<i>AMBRA1</i>	48	1.00E+05	46374539	46569490	180.2227	0.03375
12	<i>DDN</i>	30	1.00E+05	47675199	47679355	79.3515	0.03375
2	<i>HOXD3</i>	70	1.00E+05	1.77E+08	1.77E+08	159.8463	0.03391
5	<i>PCDHGA12</i>	107	1.00E+05	1.41E+08	1.41E+08	242.1526	0.03392
12	<i>ASCL4</i>	62	1.00E+05	1.07E+08	1.07E+08	151.411	0.03393
12	<i>STAT2</i>	29	1.00E+05	55021648	55040176	82.99085	0.03399
11	<i>GAB2</i>	224	1.00E+05	77603989	77806414	749.4911	0.034
19	<i>SAPS1</i>	62	1.00E+05	60432958	60461850	118.0585	0.03405
9	<i>CIZ1</i>	67	1.00E+05	1.3E+08	1.3E+08	155.2258	0.0341
12	<i>PAN2</i>	36	1.00E+05	54996984	55014092	114.8816	0.03414
5	<i>NDFIP1</i>	157	1.00E+05	1.41E+08	1.42E+08	377.3955	0.03418
20	<i>UBOX5</i>	96	1.00E+05	3036218	3088540	181.6546	0.03426
22	<i>IL17RA</i>	132	1.00E+05	15945848	15971389	291.5123	0.03426

17	SFRS1	46	1.00E+05	53433278	53439706	139.7678	0.03428
19	MYO9B	154	1.00E+05	17047590	17185104	306.2699	0.03435
2	MRPL33	43	1.00E+05	27848087	27856112	147.2007	0.03446
5	GPBP1	92	1.00E+05	56505531	56595169	254.6105	0.03452
11	LOC643923	110	1.00E+05	1.07E+08	1.07E+08	244.4214	0.03461
13	TRIM13	50	1.00E+05	49469143	49490604	144.758	0.03472
19	KCNN4	87	1.00E+05	48962524	48977249	193.9097	0.03486
8	LRRC69	136	1.00E+05	92184022	92300640	407.9021	0.03491
3	HHATL	73	1.00E+05	42709158	42718017	183.5328	0.03492
11	TTC12	193	1.00E+05	1.13E+08	1.13E+08	440.0643	0.03496
7	SLC26A5	118	1.00E+05	1.03E+08	1.03E+08	281.2725	0.03498
16	ERAF	48	1.00E+05	31446703	31447625	122.4656	0.03501
17	SLC16A11	91	1.00E+05	6885672	6887966	175.9955	0.03502
17	SKAP1	341	1.00E+05	43565800	43862593	800.0884	0.03508
19	HPN	70	1.00E+05	40223249	40249315	140.9232	0.03514
10	KIN	166	1.00E+05	7837372	7869950	371.077	0.03518
13	C13orf1	76	1.00E+05	49384842	49408626	187.3711	0.03527
3	TM4SF19	32	1.00E+05	1.98E+08	1.98E+08	89.43638	0.03528
19	ARRDC2	63	1.00E+05	17972943	17985911	135.5734	0.03528
8	XKR4	617	1.00E+05	56177570	56601264	1137.068	0.03529
12	CMKLR1	161	1.00E+05	1.07E+08	1.07E+08	330.6177	0.03539
20	DBNDD2	84	1.00E+05	43468084	43472661	220.3476	0.03541
11	CPT1A	116	1.00E+05	68278663	68365975	270.261	0.03543
1	CHIA	235	1.00E+05	1.12E+08	1.12E+08	476.5669	0.03548
17	CCDC57	123	1.00E+05	77652634	77763978	421.5825	0.03554
15	CD276	89	1.00E+05	71763674	71793912	221.229	0.03563
16	ROGDI	57	1.00E+05	4786969	4792675	140.045	0.03568
9	CNTNAP3	22	1.00E+05	39062763	39278300	48.32306	0.03577
11	NARS2	189	1.00E+05	77824890	77963367	620.1013	0.0358
11	IGHMBP2	121	1.00E+05	68427894	68464645	338.1965	0.03586
5	PCDHGA11	116	1.00E+05	1.41E+08	1.41E+08	256.0096	0.03597
20	SS18L1	111	1.00E+05	60152216	60190961	248.1644	0.03599
11	TMEM136	76	1.00E+05	1.2E+08	1.2E+08	164.7946	0.03601
12	CS	39	1.00E+05	54951749	54980442	124.2227	0.03603
8	PLEC1	62	1.00E+05	1.45E+08	1.45E+08	192.8765	0.03605
12	CNPY2	34	1.00E+05	54990483	54996387	109.528	0.03609
2	HPCAL1	267	1.00E+05	10360490	10485194	486.2887	0.03619
11	HARBI1	13	1.00E+05	46580986	46595353	48.37611	0.03623
11	VPS11	78	1.00E+05	1.18E+08	1.18E+08	191.55	0.03624
19	APC2	43	1.00E+05	1401147	1424243	95.79504	0.03625
16	ATP2A1	34	1.00E+05	28797309	28823331	114.3298	0.03626
1	CD53	132	1.00E+05	1.11E+08	1.11E+08	318.522	0.03631
12	RPL6	26	1.00E+05	1.11E+08	1.11E+08	64.2688	0.03632
11	TMPRSS4	242	1.00E+05	1.17E+08	1.17E+08	463.691	0.03644
1	MPN2	95	1.00E+05	2.26E+08	2.26E+08	203.2565	0.03646
12	SYT10	187	1.00E+05	33419614	33484021	486.2737	0.03652
5	PDLIM4	109	1.00E+05	1.32E+08	1.32E+08	289.0095	0.03658
7	KIAA0265	78	1.00E+05	1.29E+08	1.3E+08	167.0631	0.03662
14	CRIP2	18	1.00E+05	1.05E+08	1.05E+08	43.16348	0.03663
16	RABEP2	36	1.00E+05	28823242	28844033	102.8892	0.03663
6	ARMC2	205	1.00E+05	1.09E+08	1.09E+08	489.6195	0.03667
8	RDH10	141	1.00E+05	74369890	74399347	289.2574	0.03667
1	SELE	232	1.00E+05	1.68E+08	1.68E+08	543.7876	0.03673
3	CCDC13	98	1.00E+05	42724877	42789749	239.8494	0.03679
1	MPZL1	184	1.00E+05	1.66E+08	1.66E+08	378.5814	0.03682
2	IFIH1	112	1.00E+05	1.63E+08	1.63E+08	318.019	0.03682

7	BCAP29	78	1.00E+05	1.07E+08	1.07E+08	243.2051	0.0369
5	PCDHGB7	117	1.00E+05	1.41E+08	1.41E+08	256.0116	0.03701
1	IFI6	56	1.00E+05	27865158	27871311	157.0041	0.03703
17	EPN3	89	1.00E+05	45965046	45976110	197.5322	0.0373
1	CRTC2	40	1.00E+05	1.52E+08	1.52E+08	126.0776	0.03731
15	FAM63B	101	1.00E+05	56850684	56937026	261.2126	0.03735
19	TRIM28	31	1.00E+05	63747647	63753894	79.52478	0.03736
4	GALNT7	169	1.00E+05	1.74E+08	1.74E+08	367.4133	0.03738
3	DALRD3	18	1.00E+05	49027438	49033471	64.61987	0.03739
5	PCDHGA10	119	1.00E+05	1.41E+08	1.41E+08	257.4062	0.0374
4	SNX25	163	1.00E+05	1.86E+08	1.87E+08	404.2258	0.03741
5	GABRA6	78	1.00E+05	1.61E+08	1.61E+08	217.1658	0.03741
19	MAP1S	89	1.00E+05	17691302	17706324	204.6082	0.03745
11	KIAA0652	37	1.00E+05	46595702	46652644	99.184	0.03749
2	RNPEPL1	72	1.00E+05	2.41E+08	2.41E+08	148.3105	0.03752
16	SNTB2	75	1.00E+05	67778550	67900456	220.7038	0.03753
3	PH-4	24	1.00E+05	49002344	49019585	85.9685	0.03764
3	RNF168	56	1.00E+05	1.98E+08	1.98E+08	146.7235	0.03768
1	CAMSAP1L1	162	1.00E+05	1.99E+08	1.99E+08	372.0844	0.0377
7	CSGlcA-T	77	1.00E+05	1.51E+08	1.51E+08	172.2444	0.03779
1	B3GALT2	52	1.00E+05	1.91E+08	1.91E+08	159.5889	0.03787
6	C6orf125	187	1.00E+05	33773323	33787482	441.3274	0.03792
7	CYP3A4	43	1.00E+05	99192539	99219744	121.9047	0.03792
19	NANOS3	36	1.00E+05	13848949	13852571	105.3422	0.03793
8	ERICH1	149	1.00E+05	604199	671226	319.915	0.03798
3	C3orf20	228	1.00E+05	14691657	14789545	470.3356	0.038
12	LRRC23	37	1.00E+05	6884212	6893667	116.5957	0.03806
10	ATOH7	114	1.00E+05	69660387	69661861	297.0653	0.03809
6	C6orf206	49	1.00E+05	43720787	43746722	119.9233	0.03817
7	PFTK1	742	1.00E+05	90176647	90677840	1495.904	0.03824
3	IMPDH2	18	1.00E+05	49036765	49041879	60.87217	0.03825
14	FOS	82	1.00E+05	74815283	74818665	146.0935	0.03832
3	ARIH2	40	1.00E+05	48931284	48997975	144.5765	0.03841
20	TP53RK	90	1.00E+05	44746410	44751683	211.4531	0.03848
2	METTL5	78	1.00E+05	1.7E+08	1.7E+08	191.6589	0.0386
1	SLC39A1	38	1.00E+05	1.52E+08	1.52E+08	113.042	0.03872
7	C7orf27	63	1.00E+05	2544038	2561672	139.4414	0.03875
17	SLC16A3	47	1.00E+05	77779581	77790658	140.0537	0.0388
6	CAP2	190	1.00E+05	17501714	17666002	390.0833	0.03884
3	C3orf71	27	1.00E+05	48930224	48931822	100.3003	0.03889
17	COPZ2	83	1.00E+05	43458531	43470151	205.6218	0.03889
19	ZNF404	121	1.00E+05	49068354	49076128	391.6269	0.03899
20	PIGT	93	1.00E+05	43478137	43488298	217.7469	0.0391
1	ACTA1	50	1.00E+05	2.28E+08	2.28E+08	122.0904	0.03921
2	BRE	408	1.00E+05	27966985	28415271	908.2652	0.0394
3	WDR6	21	1.00E+05	49019829	49028386	73.15152	0.03942
3	TCTEX1D2	40	1.00E+05	1.98E+08	1.98E+08	105.1904	0.03952
9	RBM18	89	1.00E+05	1.24E+08	1.24E+08	188.2929	0.03954
17	BCL6B	90	1.00E+05	6867092	6873685	175.6679	0.03958
6	MAD2L1BP	38	1.00E+05	43705256	43716666	99.77666	0.03967
17	PYY	110	1.00E+05	39385632	39437363	239.3698	0.03968
22	MB	155	1.00E+05	34332756	34349347	324.5522	0.03971
2	NRP2	169	1.00E+05	2.06E+08	2.06E+08	309.4086	0.03973
11	RNF121	94	1.00E+05	71317730	71386291	326.5842	0.03978
1	MMACHC	57	1.00E+05	45738442	45749326	169.9788	0.03984
2	GCA	39	1.00E+05	1.63E+08	1.63E+08	93.04762	0.04

22	TUBGCP6	61	1.00E+05	48998244	49025527	136.0709	0.04004
11	SCGB2A1	100	1.00E+05	61732715	61737987	236.6446	0.04012
4	SCLT1	237	1.00E+05	1.3E+08	1.3E+08	586.6822	0.04015
15	SLC12A6	156	1.00E+05	32309488	32417557	357.4537	0.04034
12	BBS10	59	1.00E+05	75262396	75266353	147.021	0.04043
16	PDP2	50	1.00E+05	65471936	65479356	130.4894	0.04045
17	KRT39	47	1.00E+05	36368194	36376670	114.1358	0.04054
1	C1QB	97	1.00E+05	22852268	22860616	234.4262	0.04056
17	SLC16A13	89	1.00E+05	6880425	6884005	168.3903	0.04056
10	FAM45A	68	1.00E+05	1.21E+08	1.21E+08	174.9069	0.0406
2	ALS2CR13	63	1.00E+05	2.03E+08	2.03E+08	145.9438	0.04063
10	FAM45B	68	1.00E+05	1.21E+08	1.21E+08	174.9069	0.0407
5	PCDHGB6	122	1.00E+05	1.41E+08	1.41E+08	260.5812	0.04095
8	TNFRSF10A	108	1.00E+05	23104914	23138584	209.587	0.04104
20	WFDC9	171	1.00E+05	43669991	43693321	470.733	0.04104
2	GCKR	51	1.00E+05	27573209	27600054	139.8646	0.04108
17	G6PC3	51	1.00E+05	39503643	39509238	138.0842	0.04111
7	AKR1D1	125	1.00E+05	1.37E+08	1.37E+08	267.1049	0.04117
3	KBTBD5	74	1.00E+05	42702014	42708942	171.902	0.04119
11	IL18BP	67	1.00E+05	71387605	71391222	234.83	0.04122
12	PTPN11	62	1.00E+05	1.11E+08	1.11E+08	156.303	0.04131
17	TNFSF12	62	1.00E+05	7393098	7401931	140.1948	0.04132
1	UBE2T	66	1.00E+05	2.01E+08	2.01E+08	194.6074	0.04142
12	PRDM4	69	1.00E+05	1.07E+08	1.07E+08	161.9729	0.04142
1	PRPF38B	53	1.00E+05	1.09E+08	1.09E+08	110.1413	0.04145
12	ZNF384	36	1.00E+05	6645903	6668930	75.75893	0.0415
7	DUS4L	54	1.00E+05	1.07E+08	1.07E+08	175.2899	0.04153
3	PRKAR2A	47	1.00E+05	48763096	48860274	159.835	0.04158
1	C1orf156	146	1.00E+05	1.68E+08	1.68E+08	368.5137	0.04163
1	PSMB4	57	1.00E+05	1.5E+08	1.5E+08	141.0586	0.04165
12	ANKRD52	30	1.00E+05	54917857	54938410	76.86761	0.04186
16	CDH16	47	1.00E+05	65499525	65510267	117.9044	0.04216
12	COQ10A	28	1.00E+05	54946908	54951017	75.797	0.04217
1	MCOLN2	154	1.00E+05	85163853	85235384	331.1674	0.04218
19	B3GNT3	96	1.00E+05	17766918	17785385	179.6116	0.0422
3	SLC4A7	170	1.00E+05	27389217	27473249	390.1528	0.04222
20	CABLES2	113	1.00E+05	60397080	60415734	235.2433	0.04231
17	SP2	92	1.00E+05	43328514	43361322	206.7676	0.04236
7	ABCF2	84	1.00E+05	1.51E+08	1.51E+08	179.8053	0.04239
2	GPR35	109	1.00E+05	2.41E+08	2.41E+08	234.2928	0.04268
10	EIF3A	88	1.00E+05	1.21E+08	1.21E+08	214.5342	0.04278
17	HIC1	71	1.00E+05	1905142	1909731	158.8598	0.04282
6	HDGFL1	155	1.00E+05	22677656	22678729	376.8146	0.04283
5	PCDHGA9	126	1.00E+05	1.41E+08	1.41E+08	264.9632	0.04289
7	POLR2J	24	1.00E+05	1.02E+08	1.02E+08	56.39485	0.043
1	C1orf102	131	1.00E+05	36656093	36688639	285.1739	0.04303
5	DIAPH1	120	1.00E+05	1.41E+08	1.41E+08	240.4033	0.04306
20	L3MBTL	104	1.00E+05	41576466	41603949	211.3764	0.04308
22	SAPS2	79	1.00E+05	49128625	49230380	180.4609	0.04319
4	SLC7A11	89	1.00E+05	1.39E+08	1.39E+08	186.6656	0.04323
8	HR	47	1.00E+05	22027876	22043975	100.1645	0.04323
7	C7orf36	89	1.00E+05	39572533	39578996	197.5098	0.04324
3	MYD88	34	1.00E+05	38155008	38159516	78.20774	0.04332
5	ZBED3	68	1.00E+05	76408287	76418786	143.1717	0.04333
14	MTA1	20	1.00E+05	1.05E+08	1.05E+08	38.54662	0.04339
14	SERPINA10	122	1.00E+05	93819402	93829349	269.1242	0.04339

17	FASN	54	1.00E+05	77629502	77649395	145.2765	0.0434
7	FKBP6	34	1.00E+05	72380235	72410577	110.8228	0.04342
6	ZNF193	115	1.00E+05	28301051	28309239	278.0687	0.0435
3	KIAA1143	32	1.00E+05	44769530	44778158	97.5591	0.04351
15	LOC650137	76	1.00E+05	19915065	19915749	144.1318	0.04365
21	KRTAP15-1	77	1.00E+05	30734516	30734969	273.8515	0.04373
19	ZNF446	50	1.00E+05	63679606	63684409	130.885	0.04374
22	ZBED4	98	1.00E+05	48633500	48669730	280.8224	0.04374
4	CRMP1	218	1.00E+05	5873391	5945686	398.545	0.04377
19	GCDH	38	1.00E+05	12862973	12871783	101.426	0.04377
12	PRKAG1	31	1.00E+05	47682321	47698859	76.24654	0.0438
8	FAM164A	106	1.00E+05	79740884	79792490	301.8283	0.04392
1	CREB3L4	35	1.00E+05	1.52E+08	1.52E+08	106.6218	0.04396
19	C19orf57	37	1.00E+05	13854167	13877909	101.2926	0.04397
13	DOCK9	509	1.00E+05	98243741	98536661	1118.752	0.04413
1	CLCN6	166	1.00E+05	11788793	11825788	376.3321	0.04422
5	PCDHGB5	127	1.00E+05	1.41E+08	1.41E+08	265.1794	0.04428
1	LOC126661	50	1.00E+05	45733167	45738233	146.2014	0.04447
7	YWHAG	82	1.00E+05	75794051	75826252	184.9401	0.04451
4	SLAIN2	127	1.00E+05	48038369	48122972	297.5393	0.04457
17	RAI1	117	1.00E+05	17525511	17655490	287.5112	0.04459
1	LCE1A	110	1.00E+05	1.51E+08	1.51E+08	280.2153	0.04462
6	IHPK3	212	1.00E+05	33797420	33822660	481.5048	0.04469
1	SERTAD4	62	1.00E+05	2.08E+08	2.08E+08	132.2106	0.0447
9	NR5A1	57	1.00E+05	1.26E+08	1.26E+08	125.909	0.04475
17	TOM1L2	101	1.00E+05	17687546	17816509	349.9317	0.04478
1	PRDX1	55	1.00E+05	45749293	45760196	156.3023	0.0448
9	ASAH3L	155	1.00E+05	19398924	19442500	313.2494	0.04484
2	DUSP28	61	1.00E+05	2.41E+08	2.41E+08	125.3728	0.04488
1	NUP210L	81	1.00E+05	1.52E+08	1.52E+08	205.6761	0.04506
10	PGBD3	120	1.00E+05	50393249	50402332	263.8899	0.04512
6	MAP3K4	302	1.00E+05	1.61E+08	1.61E+08	638.093	0.04516
5	FBXO4	76	1.00E+05	41961112	41977429	232.9903	0.04519
15	RFXDC2	203	1.00E+05	54170022	54322775	489.6696	0.04519
19	ZNF132	71	1.00E+05	63635992	63643401	192.1726	0.04523
19	KLF2	55	1.00E+05	16296650	16299339	113.3995	0.04524
10	RPP30	132	1.00E+05	92621688	92658292	309.4023	0.04526
19	ZNF324	59	1.00E+05	63670274	63676577	153.9993	0.04536
7	TFPI2	133	1.00E+05	93353680	93358001	279.5049	0.04538
14	ANKRD9	40	1.00E+05	1.02E+08	1.02E+08	92.6301	0.04538
11	ABCG4	41	1.00E+05	1.19E+08	1.19E+08	114.3375	0.04551
19	KLF1	38	1.00E+05	12856236	12859017	102.2997	0.04553
5	DDX46	42	1.00E+05	1.34E+08	1.34E+08	101.3266	0.04554
2	ANKRD44	284	1.00E+05	1.98E+08	1.98E+08	592.6254	0.04558
11	SFRS2B	109	1.00E+05	94439703	94444036	222.8939	0.04562
11	NAALAD2	150	1.00E+05	89507465	89565427	383.0759	0.04569
11	OR6A2	148	1.00E+05	6772331	6773715	345.5886	0.04585
8	PTK2	263	1.00E+05	1.42E+08	1.42E+08	816.4247	0.04588
15	ABHD2	222	1.00E+05	87432428	87546591	437.5463	0.04588
8	EPPK1	44	1.00E+05	1.45E+08	1.45E+08	96.25084	0.04589
20	CBFA2T2	35	1.00E+05	31541588	31701498	83.94531	0.04595
7	TRIM50	28	1.00E+05	72364470	72380021	96.1698	0.04599
17	TNFSF12-TNFSF13	64	1.00E+05	7393139	7405649	141.148	0.04601
8	SPATC1	29	1.00E+05	1.45E+08	1.45E+08	84.09632	0.04606
12	FLJ22662	89	1.00E+05	14547863	14612058	178.6373	0.0461
18	TNFRSF11A	252	1.00E+05	58143527	58204484	481.9206	0.04612

3	<i>IQCG</i>	83	1.00E+05	1.99E+08	1.99E+08	211.3116	0.04614
5	<i>PFDN1</i>	92	1.00E+05	1.4E+08	1.4E+08	245.0594	0.04622
20	<i>FASTKD5</i>	78	1.00E+05	3075164	3088532	147.7782	0.04626
22	<i>PLXNB2</i>	28	1.00E+05	49055534	49075336	63.45234	0.04639
7	<i>NSUN5</i>	22	1.00E+05	72355161	72360759	74.35777	0.04648
19	<i>NLRP11</i>	231	1.00E+05	60988574	61039940	405.2014	0.0465
1	<i>RAB1F</i>	95	1.00E+05	2.01E+08	2.01E+08	209.8265	0.04653
19	<i>ICAM3</i>	68	1.00E+05	10305451	10311345	132.2727	0.04659
1	<i>MRPS15</i>	113	1.00E+05	36693948	36702627	246.9514	0.0466
1	<i>LCE1B</i>	101	1.00E+05	1.51E+08	1.51E+08	250.7094	0.04662
1	<i>GNL2</i>	56	1.00E+05	37805003	37834083	129.9267	0.04669
20	<i>SPTLC3</i>	394	1.00E+05	12937626	13095411	748.5383	0.0467
14	<i>VASH1</i>	81	1.00E+05	76297987	76319116	162.2727	0.04672
20	<i>GTPBP5</i>	105	1.00E+05	60191475	60211205	210.5625	0.04675
1	<i>JTB</i>	33	1.00E+05	1.52E+08	1.52E+08	96.43558	0.04677
11	<i>PHCA</i>	202	1.00E+05	76249564	76412498	632.0844	0.04678
11	<i>UBE2L6</i>	60	1.00E+05	57075704	57092029	144.9083	0.04682
4	<i>SCD5</i>	366	1.00E+05	83769713	83939034	750.0854	0.04685
20	<i>CEBPB</i>	49	1.00E+05	48240782	48242619	123.3984	0.04686
4	<i>MAN2B2</i>	115	1.00E+05	6627802	6675089	206.3199	0.04687
22	<i>ADM2</i>	61	1.00E+05	49266877	49271732	122.2306	0.0469
1	<i>NMNAT2</i>	243	1.00E+05	1.81E+08	1.82E+08	566.6529	0.04693
4	<i>FAM149A</i>	93	1.00E+05	1.87E+08	1.87E+08	185.4696	0.04706
7	<i>ZBPB</i>	206	1.00E+05	49947584	50103372	527.6815	0.0471
16	<i>SLC5A11</i>	103	1.00E+05	24765052	24830445	200.9683	0.04713
16	<i>PARN</i>	77	1.00E+05	14437059	14631540	174.0577	0.04739
3	<i>ZNF501</i>	34	1.00E+05	44746127	44753579	101.4561	0.04748
11	<i>OR51T1</i>	186	1.00E+05	4859624	4860689	381.9819	0.04757
1	<i>RPS27</i>	32	1.00E+05	1.52E+08	1.52E+08	89.26093	0.04761
20	<i>MAFB</i>	116	1.00E+05	38747930	38751290	238.1315	0.04776
11	<i>FAM160A2</i>	135	1.00E+05	6189139	6212517	300.5295	0.04777
14	<i>OR5AU1</i>	96	1.00E+05	20692935	20694024	180.9239	0.04802
11	<i>C11orf70</i>	76	1.00E+05	1.01E+08	1.01E+08	205.9705	0.04814
19	<i>FDX1L</i>	64	1.00E+05	10281890	10287691	122.159	0.0483
6	<i>PECI</i>	153	1.00E+05	4060925	4080830	328.4563	0.04839
6	<i>GPR110</i>	185	1.00E+05	47075771	47118041	352.5976	0.04854
11	<i>NUMA1</i>	117	1.00E+05	71391558	71469221	393.065	0.04856
8	<i>FBXO16</i>	76	1.00E+05	28341847	28403703	153.4748	0.04857
17	<i>AKAP1</i>	105	1.00E+05	52517551	52553709	196.3823	0.04872
22	<i>CRELD2</i>	48	1.00E+05	48698347	48707180	134.9686	0.04874
17	<i>MRC2</i>	93	1.00E+05	58058493	58124684	211.9577	0.04877
1	<i>RAB13</i>	31	1.00E+05	1.52E+08	1.52E+08	85.66381	0.04894
2	<i>CAPN10</i>	122	1.00E+05	2.41E+08	2.41E+08	245.0827	0.04912
3	<i>C3orf19</i>	145	1.00E+05	14668256	14689170	321.865	0.04912
16	<i>CKLF</i>	81	1.00E+05	65143966	65157655	207.826	0.04926
16	<i>LOC23117-1</i>	1	1.00E+05	21320950	21344159	3.863748	0.04928
2	<i>ABCG8</i>	178	1.00E+05	43919606	43959109	344.5155	0.04929
11	<i>SMTNL1</i>	58	1.00E+05	57065554	57074684	141.2352	0.04929
3	<i>RPP14</i>	123	1.00E+05	58267011	58280960	307.6193	0.04931
7	<i>GPR22</i>	71	1.00E+05	1.07E+08	1.07E+08	204.7481	0.04933
15	<i>TSPAN3</i>	71	1.00E+05	75125385	75150568	156.7759	0.04936
17	<i>DHRS7B</i>	91	1.00E+05	20970849	21035428	200.2343	0.04942
1	<i>OR10X1</i>	110	1.00E+05	1.57E+08	1.57E+08	298.086	0.04949
20	<i>WFDC8</i>	211	1.00E+05	43613204	43641379	565.7867	0.04953
1	<i>SLC16A1</i>	60	1.00E+05	1.13E+08	1.13E+08	152.8263	0.04956
9	<i>MLANA</i>	144	1.00E+05	5880908	5899822	312.9896	0.04958

3	<i>RPL35A</i>	60	1.00E+05	1.99E+08	1.99E+08	158.2585	0.04964
22	<i>RASD2</i>	154	1.00E+05	34267297	34279991	275.9392	0.04972
14	<i>ZDHHC2</i>	120	1.00E+05	76667365	76677887	235.1752	0.04982
16	<i>RRAD</i>	43	1.00E+05	65513082	65516940	100.0209	0.04985
11	<i>OR2AG1</i>	144	1.00E+05	6762844	6763795	326.2697	0.04991
19	<i>ZNF584</i>	68	1.00E+05	63611874	63621504	170.7619	0.04997

Best-SNP	SNP-pvalue
rs765386	3.54E-05
rs2075620	4.14E-05
rs4271181	8.91E-05
rs2075620	4.14E-05
rs2075620	4.14E-05
rs2075620	4.14E-05
rs2892463	7.50E-06
rs2688638	0.0002092
rs765386	3.54E-05
rs1178015	0.0001519
rs7738394	9.04E-05
rs1769716	0.0001882
rs1164014	0.000379
rs1049618	5.41E-05
rs1118866	0.001452
rs434778	8.45E-05
rs6764359	2.31E-05
rs1118866	0.001452
rs1164014	0.000379
rs4446914	0.0005382
rs1270988	7.04E-05
rs1092983	5.57E-05
rs1232978	9.63E-08
rs1232943	0.0001618
rs6761649	0.000315
rs434778	8.45E-05
rs1866572	2.04E-05
rs7857419	0.0005843
rs1270988	7.04E-05
rs434778	8.45E-05
rs1712434	9.79E-05
rs1178015	0.0001519
rs1108573	0.0007033
rs4787649	0.0003369
rs1108573	0.0007033
rs7148766	0.001309
rs152970	0.0001818
rs4787643	0.001685
rs4787643	0.001685
rs1712434	9.79E-05
rs9834090	0.0001185
rs155341	0.0003253
rs4787643	0.001685
rs1019483	0.002327
rs1018761	0.002327
rs1019483	0.002327
rs2367209	5.25E-05
rs7857419	0.0005843
rs1019483	0.002327
rs1009053	0.0006084
rs1049618	5.41E-05
rs3821199	9.41E-05
rs1078393	0.0006847
rs2823502	0.0001788
rs4787643	0.001685

rs4951307	0.0005673
rs2688638	0.0002092
rs4897940	4.60E-05
rs1088075	0.0005045
rs1019483	0.002327
rs1984516	0.0003257
rs9290889	0.0001329
rs7857419	0.0005843
rs2886554	0.001975
rs4897940	4.60E-05
rs7148766	0.001309
rs9853197	0.002393
rs2025900	0.000615
rs1730074	0.000347
rs1108573	0.0007033
rs7820433	0.0004858
rs3769665	0.002327
rs7313141	0.00028
rs1754893	0.000254
rs1164014	0.000379
rs1118298	7.60E-05
rs1164375	0.0008245
rs4787643	0.001685
rs1075873	0.002264
rs1708069	0.001017
rs7635829	0.0007712
rs3744419	0.002596
rs1293777	0.001329
rs2487442	0.00435
rs3744419	0.002596
rs2279620	8.90E-05
rs1168321	0.002193
rs4972600	0.0009669
rs315140	0.001518
rs1279283	0.002192
rs6690821	0.002388
rs2279620	8.90E-05
rs7313141	0.00028
rs2025900	0.000615
rs935396	0.0004191
rs6557347	0.0002702
rs2153608	0.004981
rs1121110	0.004981
rs7834318	0.003999
rs1323151	0.00236
rs4982271	3.43E-05
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rs7834318	0.003999
rs315140	0.001518
rs1077661	0.0001565
rs4619168	0.002033
rs4619168	0.002033
rs2279620	8.90E-05
rs9455273	0.001627
rs1164375	0.0008245
rs2735484	0.0006851

rs4619168	0.002033
rs1730074	0.000347
rs328698	0.0003935
rs1866572	2.04E-05
rs7831333	0.0004536
rs7043624	0.001013
rs3821017	0.003058
rs1164375	0.0008245
rs7245542	0.001087
rs4972600	0.0009669
rs2324055	0.0003262
rs2510861	0.004312
rs2044856	0.001912
rs4787643	0.001685
rs1082647	0.0008569
rs7635829	0.0007712
rs9541291	9.71E-05
rs7834318	0.003999
rs952385	0.003601
rs1273512	0.000123
rs2025900	0.000615
rs650372	0.005394
rs1088902	0.0001291
rs1293777	0.001329
rs1014222	0.006796
rs1101875	3.71E-05
rs3821017	0.003058
rs7834318	0.003999
rs1994467	0.0007071
rs3911230	0.0006799
rs2745452	0.001074
rs1117354	0.000816
rs6604652	5.53E-05
rs8029946	5.09E-05
rs1317640	0.003241
rs952385	0.003601
rs923109	0.002975
rs1095870	0.001419
rs1095118	0.0002559
rs1981696	0.004245
rs799165	0.001912
rs1089678	0.003696
rs1688950	0.004818
rs2745452	0.001074
rs1074393	0.002355
rs3911230	0.0006799
rs1019216	3.72E-05
rs6063154	0.00112
rs5029527	0.001101
rs1323151	0.00236
rs4652211	0.0007076
rs1089678	0.003696
rs4541514	0.0003656
rs2668848	0.001198
rs1236124	0.0002257
rs1004173	0.0002699

rs1049618:	5.41E-05
rs1175709:	0.001205
rs9901675	0.0003013
rs7810996	0.001702
rs1079685:	0.0003055
rs2038278	0.001092
rs1303470:	0.0005868
rs4951307	0.0005673
rs9901675	0.0003013
rs1023323:	0.002327
rs650372	0.005394
rs1012148:	0.001544
rs1051560:	0.0006764
rs154268	0.0007145
rs1019216:	3.72E-05
rs1266795:	0.00117
rs3821017	0.003058
rs3911230	0.0006799
rs6544699	0.000267
rs1016243:	0.001593
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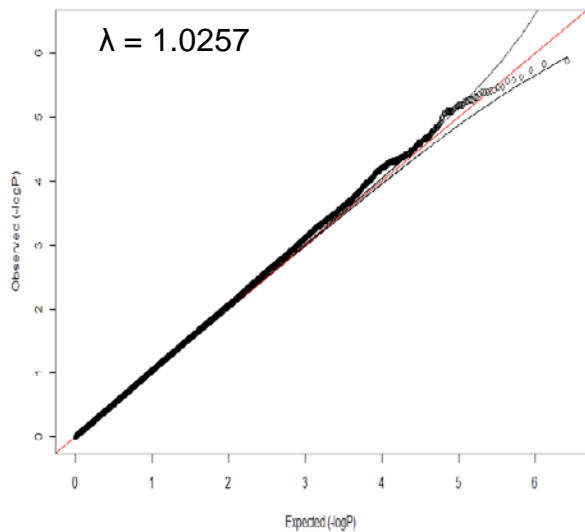
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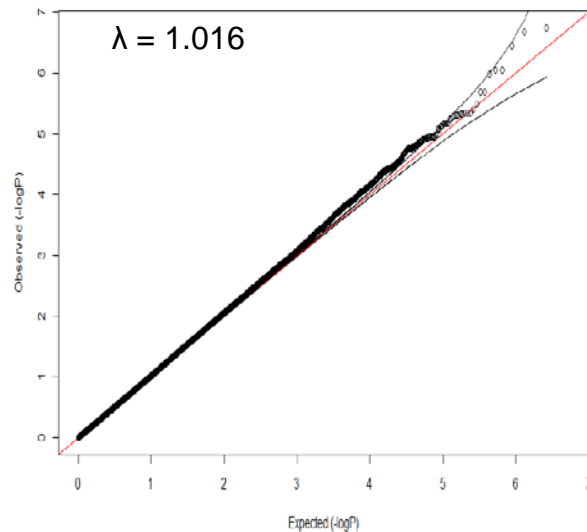
Reading and Spelling

$\lambda = 1.0257$



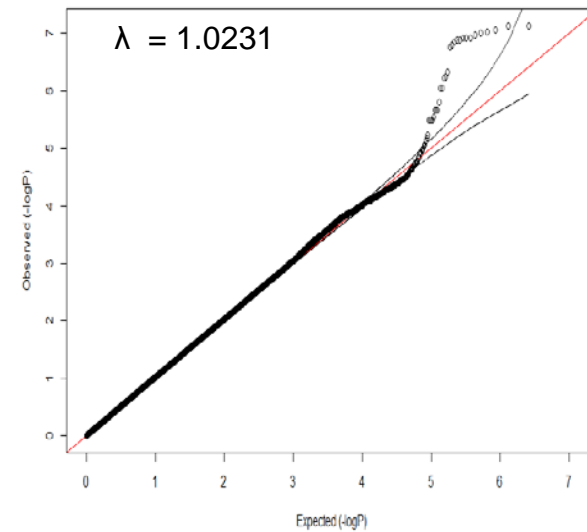
Word Reading

$\lambda = 1.016$

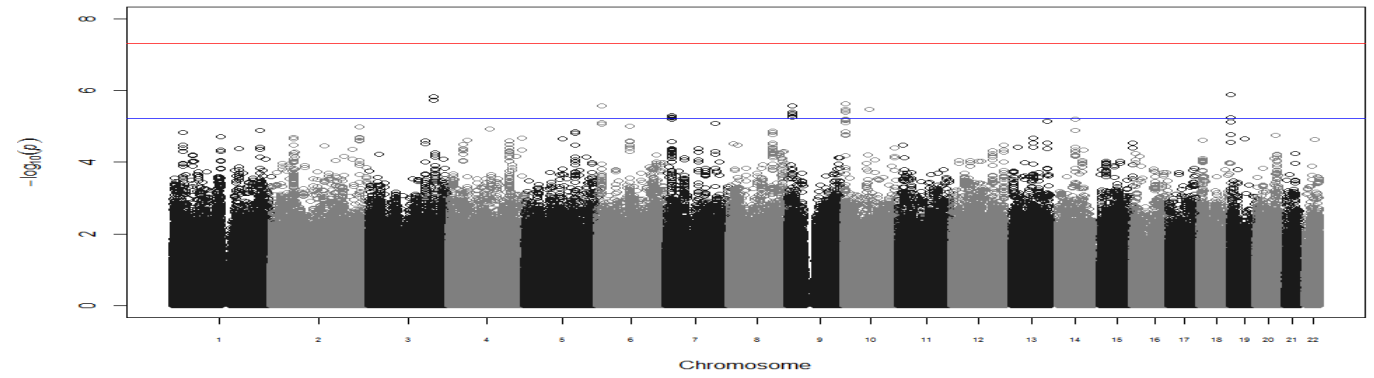


Non-word Repetition

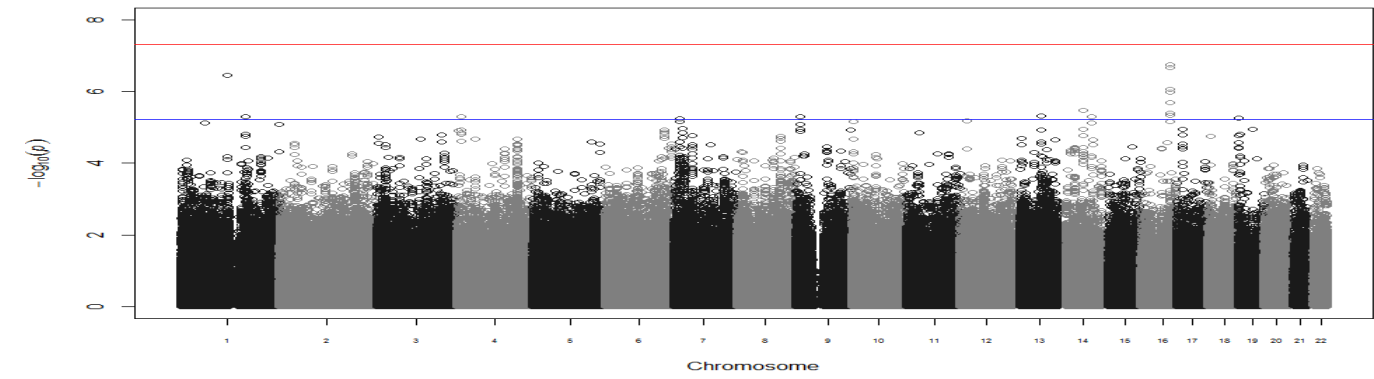
$\lambda = 1.0231$



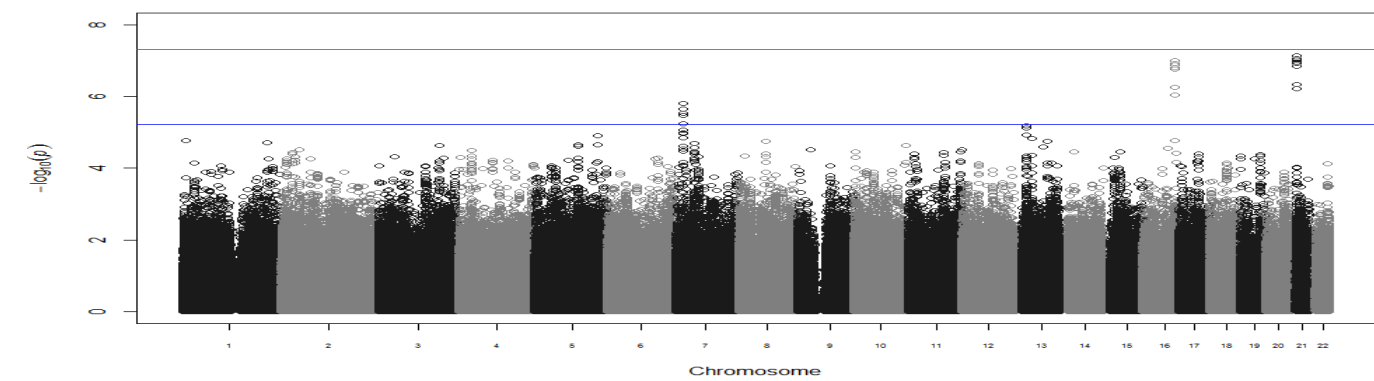
Reading and Spelling

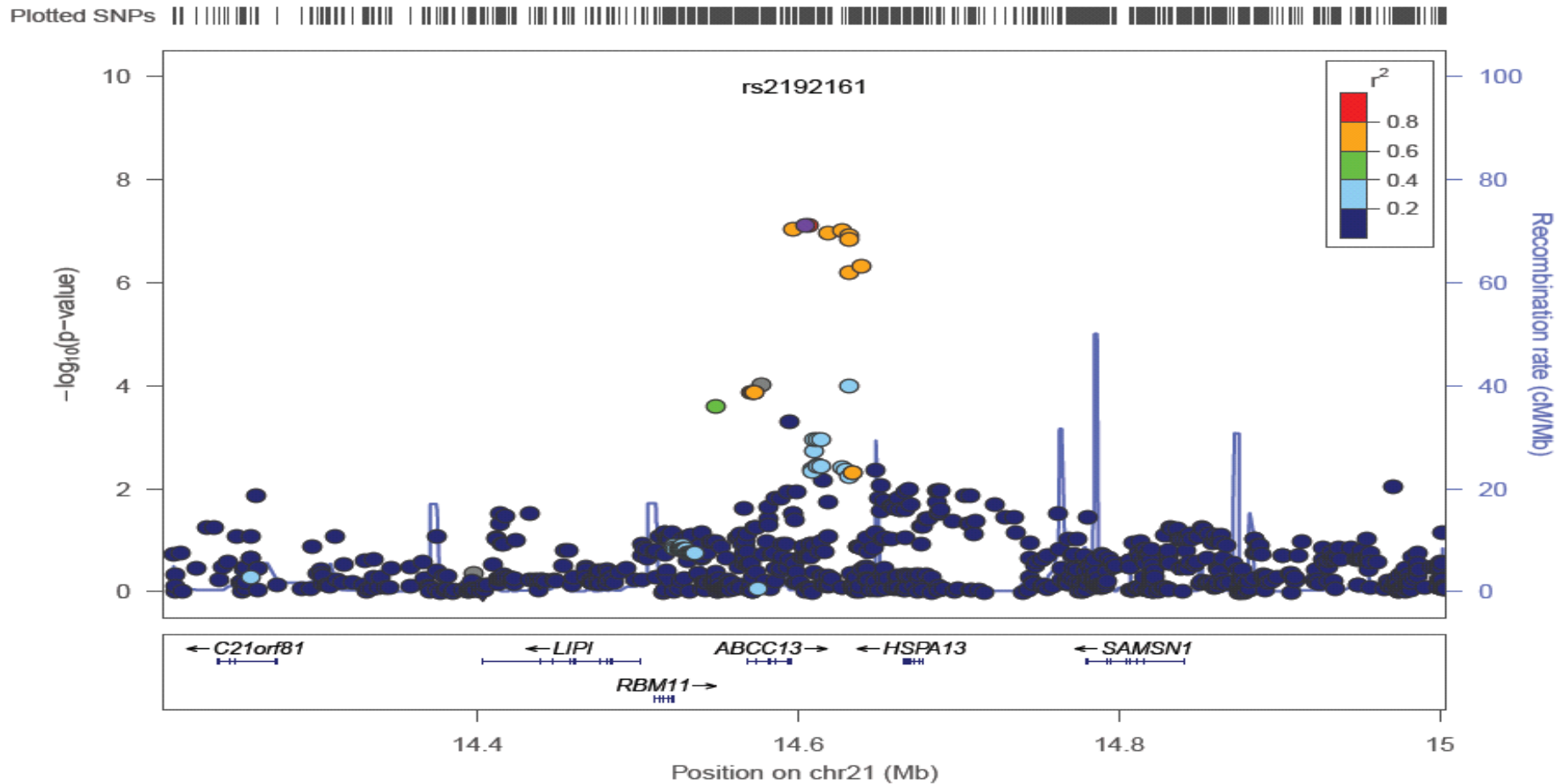


Word Reading

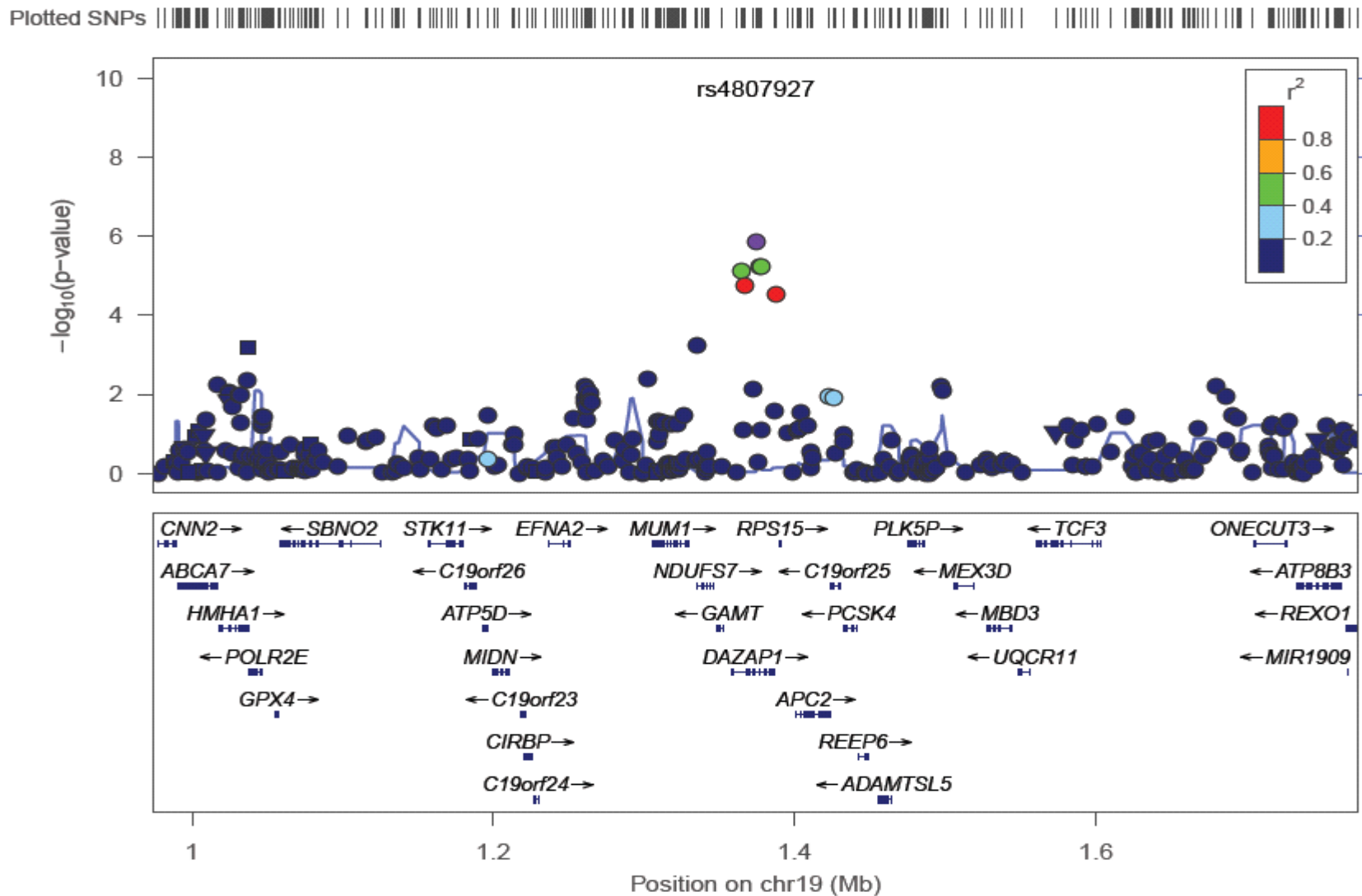


Non-word Repetition





Supplementary Figure 3. Annotation for NWR association in region surrounding rs2192161. Linkage disequilibrium is represented by r^2 . No non-synonymous coding SNPs can be observed.



Supplementary Figure 4. Annotation for the reading and spelling association in the region surrounding rs4807927. Linkage disequilibrium is represented by r^2 . Non-synonymous (\blacktriangledown) and coding (\blacksquare) SNPs can be observed.