

SUPPLEMENTARY INFORMATION

Proneural and Mesenchymal glioma stem cells display major differences in splicing and lncRNA profiles

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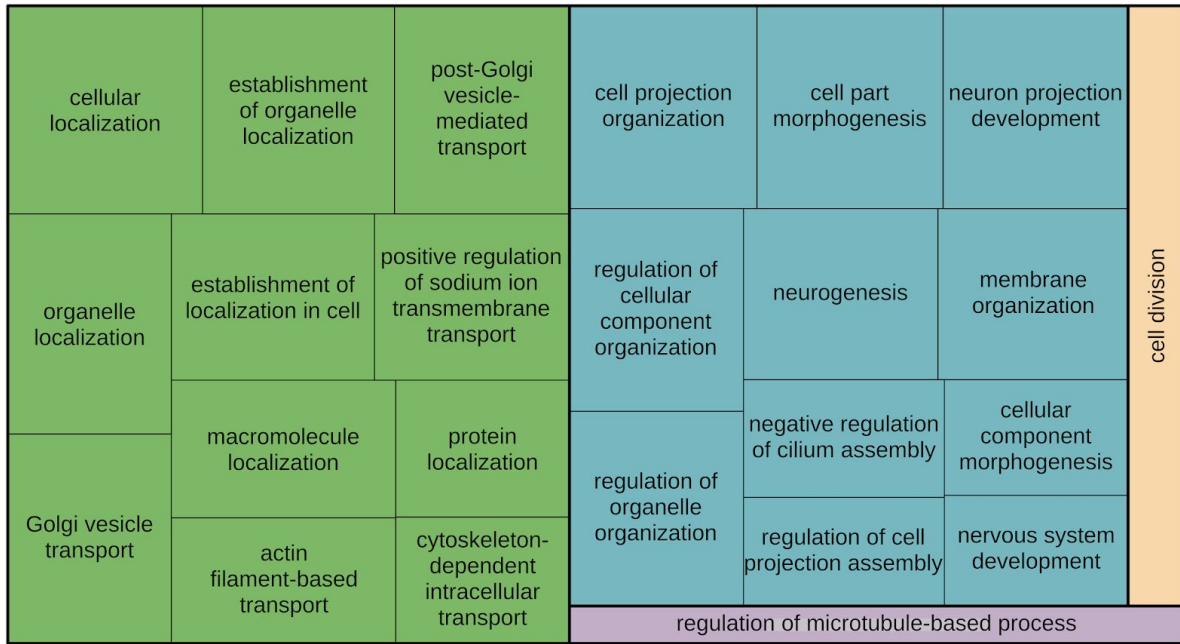
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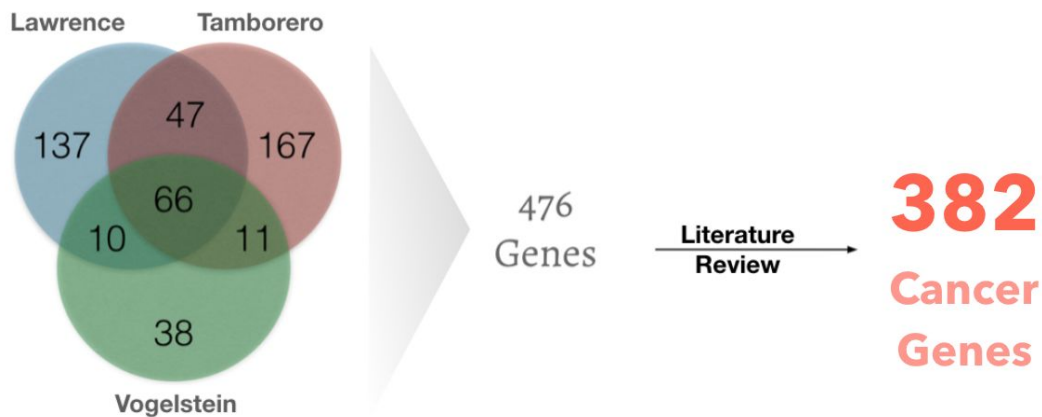
Supplementary Figures



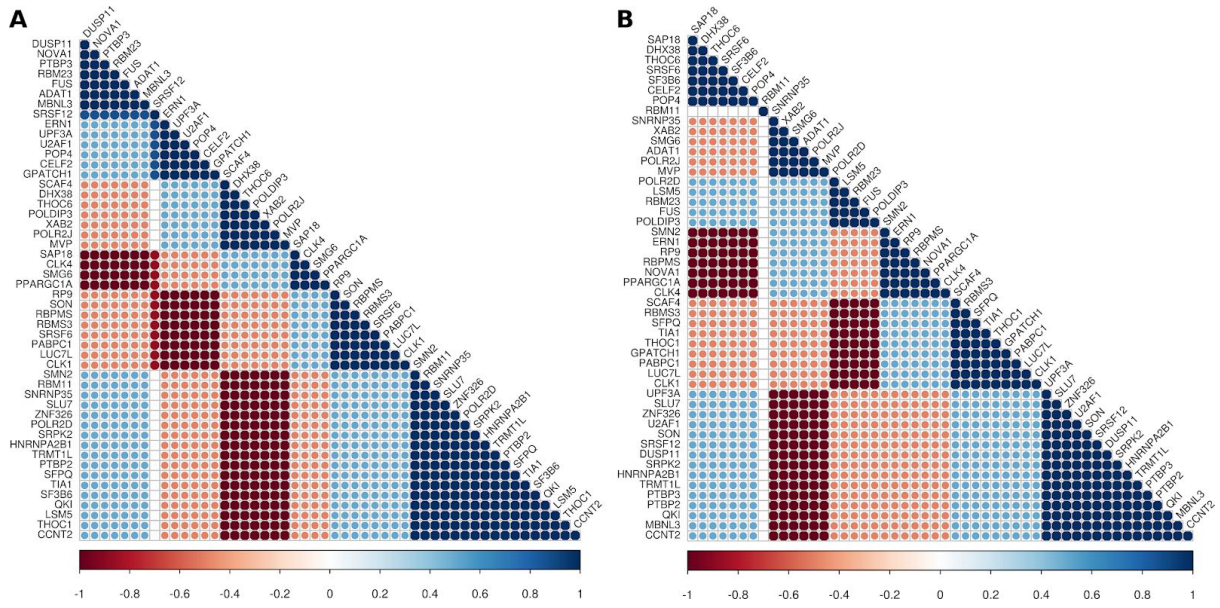
Supplementary Figure 1. RNA-Seq inclusion levels (PSI values) of (A) proneural GSCs and (B) mesenchymal GSCs exon skipping events further validated by qRT-PCR (Mann-Whitney Wilcoxon p-values).



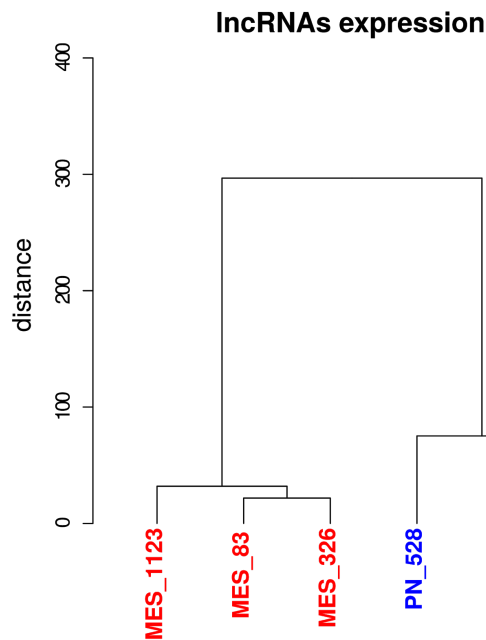
Supplementary Figure 2. Treemap of Gene ontology enriched processes for protein coding genes sharing AS events in proneural GSC and GBM versus mesenchymal GSC and GBM, respectively.



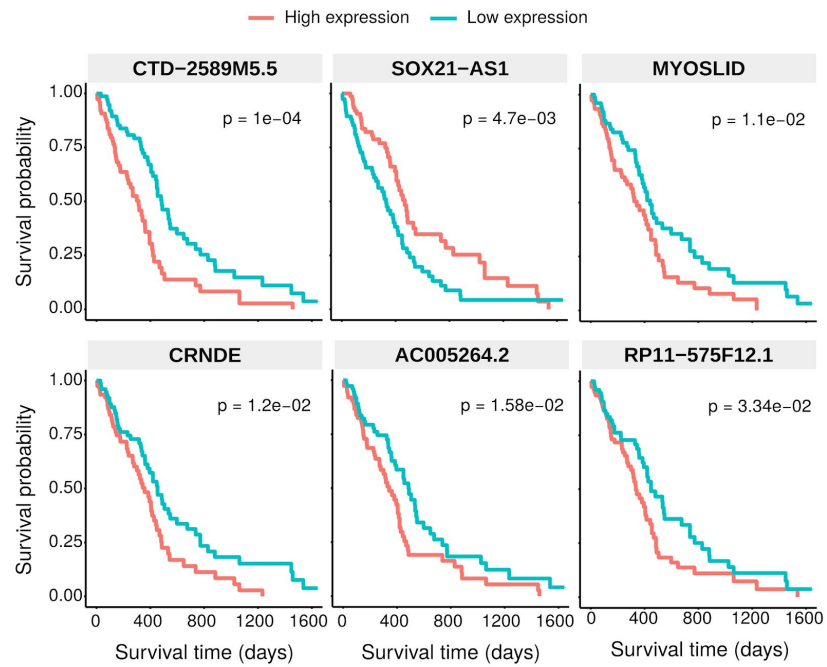
Supplementary Figure 3. Cancer genes. The set of cancer genes was defined using genes related to cancer presented in ¹, ² and ³. We conducted a literature review for all genes and kept only those genes already described as cancer-related in at least one publication).



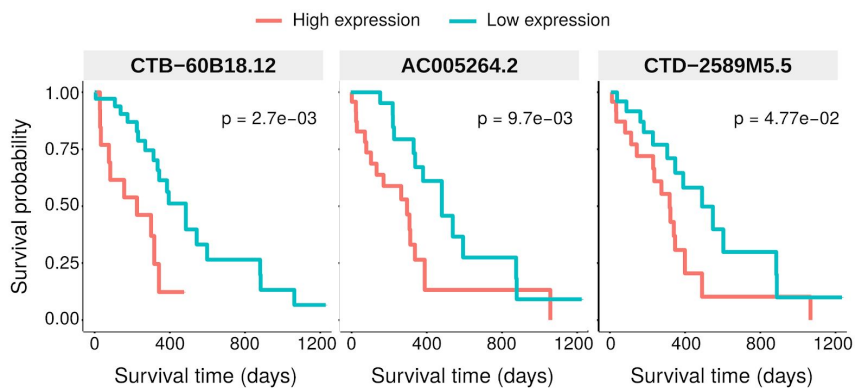
Supplementary Figure 4: Correlations among differentially expressed RBPs in A) mesenchymal GSCs; and B) proneural GSCs.



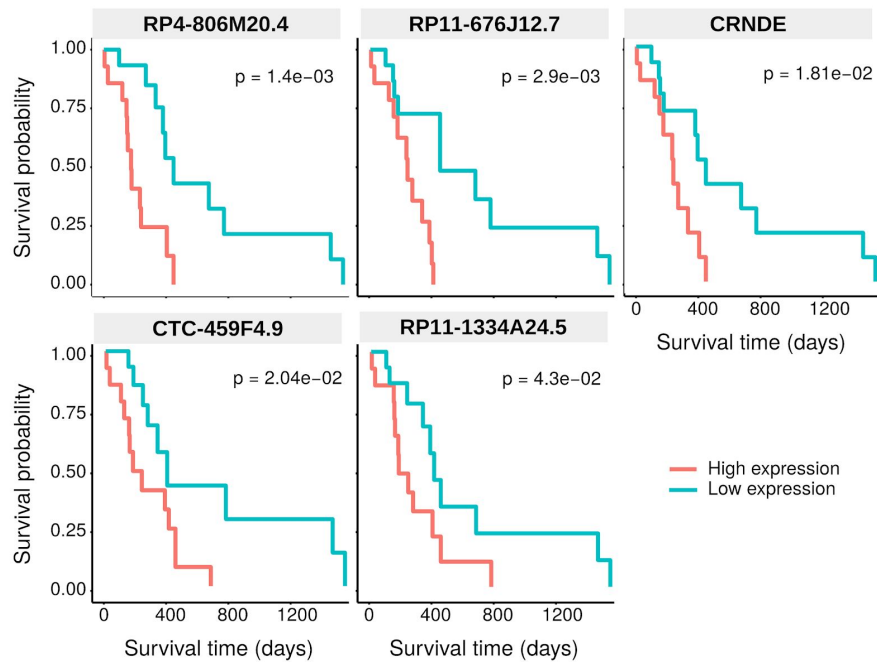
Supplementary Figure 5: Unsupervised hierarchical clustering of GSC samples based on expression levels of differentially expressed long non-coding RNAs (lncRNAs).



Supplementary Figure 6: Kaplan-Meier survival plots of differentially expressed lncRNAs significantly correlated with prognosis in GBM ($p < 0.05$, univariate Cox proportional-hazards regression).



Supplementary Figure 7: Kaplan-Meier survival plots of differentially expressed lncRNAs significantly associated with prognosis in mesenchymal GBM ($p < 0.05$, univariate Cox proportional-hazards regression).



Supplementary Figure 8: Kaplan-Meier survival plots of differentially expressed lncRNAs significantly associated with prognosis in proneural GBM ($p < 0.05$, univariate Cox proportional-hazards regression).

Supplementary Tables

Supplementary Table 1: Sequenced and reliable mapped reads per GSC sample.

sample	sequenced.reads	mapped.reads (>q20)	%mapped.reads (>q20)
MES-83	58,688,002	53,958,742	91.94
MES-326	61,481,484	56,192,789	91.40
MES-1123	61,517,920	52,705,388	85.67
PRO-19	69,594,474	66,841,359	96.04
PRO-157	62,056,008	59,633,152	96.10
PRO-528	58,363,862	55,228,567	94.63

Table with 5 columns: Gene Name, Strand, Chr, Start, End. Lists various genes and their genomic coordinates across chromosomes 7 to 19.

Table with 4 columns: Gene Symbol, Chromosome, Position (kb), and Gene Name. The table lists various genes and their genomic coordinates across multiple chromosomes (1-22, X, Y).

SE	KLHDC1	+	chr14:49728925-49729009	NA	0.363	0.04492330258
SE	TMEM143	-	chr19:48360071-48360176	NA	0.29	0.04513725149
SE	ACIN1	-	chr14:23071124-23071186	NA	0.194	0.04533534914
SE	CDKL3	-	chr5:134359896-134360091	NA	0.385	0.04552554741
SE	DOCK9	-	chr13:98825871-98825940	NA	0.149	0.04570926204
SE	SMUG1	-	chr12:54188514-54188596	NA	0.17	0.0459673085
SE	TCF20	-	chr22:42168608-42168736	NA	0.28	0.04608462819
SE	TFIP11	-	chr22:26511118-26511195	NA	0.144	0.04611867135
SE	DNM1	+	chr9:128240986-128241047	NA	0.22	0.04612861764
SE	DCTD	-	chr4:182916418-182916539	NA	0.153	0.0464612947
SE	RCN1	+	chr11:32103003-32103202	NA	0.332	0.04655359236
SE	PORCN	+	chrX:48512834-48512852	NA	0.154	0.04729117939
SE	SDCCAG3	-	chr9:136408998-136409067	NA	0.183	0.0474914878
SE	WARS	-	chr14:100375282-100375406	NA	0.185	0.04751030201
SE	PAQR3	-	chr4:78922140-78922421	NA	0.317	0.04751030201
SE	TMEM267	-	chr5:43479889-43479987	NA	0.131	0.04751393873
SE	NFIC	+	chr19:3456549-3456635	NA	0.109	0.04788326124
SE	HPS4	-	chr22:28466050-28466104	NA	0.314	0.04795517943
SE	ABCD4	-	chr14:74300149-74300268	NA	0.157	0.04822228261
SE	RCHY1	-	chr4:75491582-75491637	NA	0.129	0.04831464141
SE	SNX21	+	chr20:45840447-45840458	NA	0.535	0.04920193968
SE	ZFAND1	-	chr8:81717248-81717288	NA	0.224	0.04922594537
SE	CTNND1	+	chr11:57794009-57794081	NA	0.138	0.04953027008
SE	ZNF133	+	chr20:18297984-18298062	NA	0.116	0.04998063542

VPS53
 VPS54
 VPS8
 VPS9D1
 VRK3
 VTI1B
 WAC-AS1
 WARS
 WASF1
 WASF3
 WASH2P
 WASHC2A
 WASHC2C
 WBP1
 WBSR22
 WDFY3
 WDCPC
 WDR20
 WDR24
 WDR26
 WDR27
 WDR31
 WDR35
 WDR4
 WDR45
 WDR46
 WDR54
 WDR55
 WDR6
 WDR83
 WDR89
 WDR90
 WEE2-AS1
 WHAMM
 WIPF1
 WIPI1
 WIPI2
 WNK1
 WRAP73
 WSB1
 WWF2
 XIAP
 XKR9
 XPNPEP1
 XPNPEP3
 XPO1
 XPO6
 XRCC3
 XRN1
 XRR1
 YAF2
 YAP1
 YBX3
 YDJC
 YEATS4
 YIPF1
 YLPM1
 YPEL5
 YWHAZ
 YY1AP1
 ZBED3-AS1
 ZBED5-AS1
 ZBTB1
 ZBTB14
 ZBTB17
 ZBTB21
 ZBTB24
 ZBTB25
 ZBTB38
 ZBTB43
 ZBTB80S
 ZC2HC1A
 ZC3H11A
 ZC3H13
 ZC3H14
 ZC3H18
 ZC3H7B
 ZC3HAV1
 ZCCHC11
 ZCCHC8
 ZCWPW1
 ZCWPW2
 ZDHHHC15
 ZDHHHC16
 ZDHHHC17
 ZDHHHC24
 ZDHHHC4
 ZDHHHC6
 ZEB1
 ZFAND1
 ZFAND2A
 ZFAND5
 ZFAND6
 ZFAS1
 ZFX
 ZFYVE19
 ZFYVE21
 ZFYVE27
 ZGRF1
 ZHX3
 ZKSCAN3
 ZMAT1
 ZMIZ1
 ZMYM1
 ZMYM5
 ZMYND8
 ZNF10
 ZNF107
 ZNF133
 ZNF140
 ZNF141
 ZNF142
 ZNF155
 ZNF180
 ZNF189
 ZNF19
 ZNF195
 ZNF2
 ZNF202
 ZNF211
 ZNF226

ZNF232
ZNF253
ZNF254
ZNF260
ZNF267
ZNF271P
ZNF277
ZNF283
ZNF286A
ZNF3
ZNF30
ZNF302
ZNF317
ZNF326
ZNF33B
ZNF341
ZNF343
ZNF37BP
ZNF383
ZNF384
ZNF391
ZNF419
ZNF440
ZNF444
ZNF468
ZNF480
ZNF484
ZNF485
ZNF506
ZNF507
ZNF517
ZNF519
ZNF551
ZNF559
ZNF559-ZNF177
ZNF561
ZNF561-AS1
ZNF562
ZNF569
ZNF571
ZNF582-AS1
ZNF584
ZNF592
ZNF596
ZNF605
ZNF611
ZNF615
ZNF619
ZNF625-ZNF20
ZNF641
ZNF654
ZNF655
ZNF664
ZNF667-AS1
ZNF678
ZNF680
ZNF684
ZNF692
ZNF7
ZNF706
ZNF711
ZNF740
ZNF75A
ZNF75D
ZNF76
ZNF761
ZNF772
ZNF778
ZNF786
ZNF789
ZNF814
ZNF815P
ZNF821
ZNF83
ZNF90
ZNRD1ASP
ZNRANB2-AS2
ZNRANB3
ZSCAN23
ZSCAN26
ZSCAN31
ZSCAN32
ZSCAN5A
ZSWIM7
ZSWIM8
ZUFSP
ZWINT

Supplementary Table 3: Exon skipping events in mesenchymal (MES) and proneural GSC samples from which events were randomly selected for PCR validations. Validated events are highlighted in blue.

Exon skipping events in MES GSCs			
geneSymbol	deltaPSI	FDR	
WBP1	0.968	1.34E-13	
SLC27A5	0.897	3.04E-05	
ANKRD36	0.886	2.93E-08	
XPNPEP3	0.881	5.32E-13	
PCTP	0.874	0	
ADGRG6	0.871	0	
ARIH2	0.852	0	
ZNF667-AS1	0.819	1.32E-10	
TCF7L2	0.805	0.000153796721	
FRG1BP	0.796	0	
CCDC18-AS1	0.794	6.70E-06	
TCAF1	0.792	1.72E-09	
TWF1	0.789	4.38E-08	
RP11-849H4.2	0.787	4.30E-07	
EMC3-AS1	0.782	3.23E-08	
HKR1	0.782	7.85E-07	
LPP	0.778	1.83E-09	
NRG2	0.776	0.000300464970	
RAB18	0.763	6.19E-10	
LINC02210	0.754	3.26E-07	
C2orf74	0.743	1.09E-09	
IST1	0.742	0.000233405659	
DUSP18	0.738	1.14E-10	
SERHL2	0.73	1.31E-09	
SEPT2	0.718	0	
HKR1	0.712	1.03E-06	
APBB2	0.711	0	
KIF13A	0.706	0	
SPAST	0.697	5.59E-14	
ADD3	0.694	0	
FKTN	0.692	0	
EHBP1	0.692	0	
C2CD5	0.69	9.33E-06	
FNTB	0.679	5.36E-09	
APITD1-CORT	0.673	0.001998768924	
OSBPL6	0.671	0.000564656959	
PLA2G12A	0.67	7.20E-06	
RGMB-AS1	0.667	2.10E-07	
SLTM	0.667	1.22E-05	
C14orf93	0.667	3.29E-05	
RP13-968A2.1	0.667	0.000406792612	
RP11-1228E12.1	0.667	0.001952422279	
DYRK4	0.667	0.002780083212	
ACACA	0.667	0.003589770542	

Exon skipping events in PN GSCs			
geneSymbol	deltaPSI	FDR	
ST20		1	0
SEPT9		1	0
ARIH2		1	0
PUDP		1	0
PUDP		1	0
PUDP		1	9.24E-13
TTC13	0.993	0	
PIP5K1C	0.96	3.34E-13	
SORBS1	0.934	3.34E-13	
USP3-AS1	0.925	4.00E-12	
CLIP1	0.924	2.89E-14	
ANKAR	0.91	1.34E-13	
SRGAP1	0.904	2.23E-09	
TVP23C-CDRT4	0.897	0	
BTN3A3	0.881	5.48E-12	
RPS24	0.876	0	
BTN3A3	0.872	0	
ANKRD36	0.869	1.65E-11	
RP4-798P15.3	0.86	9.70E-11	
SYTL2	0.857	0	
PCBP1-AS1	0.84	2.34E-11	
ZNF83	0.838	6.02E-06	
GSN	0.835	3.15E-06	
DST	0.827	0	
RAPGEF2	0.824	0	
ATP2A1	0.824	1.09E-07	
VPS9D1	0.817	0.002386013963	
CLASP2	0.815	4.89E-12	
FUBP1	0.814	7.18E-09	
PLEKHA1	0.806	0	
AGAP4	0.8	0.000114900623	
RAPGEF6	0.797	0	
GSN	0.788	5.86E-11	
GULP1	0.787	0	
SBF1	0.784	2.68E-09	
PLEKHA1	0.778	0	
SORBS1	0.777	9.52E-08	
PPFIBP1	0.773	0	
SLC9A5	0.773	3.90E-10	
TLE2	0.769	3.07E-10	
KIF21A	0.766	0	
SYTL2	0.76	0	
SPTAN1	0.759	0	
MTTP	0.745	3.17E-09	

CAST	0.662	2.11E-09
SYTL2	0.66	0
RNF146	0.658	4.86E-08
CTD-2378E12.1	0.655	0.02204339488
DPH3	0.651	0
SNHG14	0.65	2.78E-07
RAI14	0.649	0
MCOLN3	0.648	3.05E-06
ZNF814	0.647	0.002347592929
FAM86B3P	0.64	0.01525821969
OSBPL6	0.635	0
RP11-33B1.1	0.635	0.000502483757
RP11-421L21.3	0.634	2.30E-06
KIAA1468	0.631	9.58E-12
TMEM218	0.631	8.71E-05
NDUFB2	0.623	7.31E-06
PAQR6	0.619	4.35E-07
TPT1-AS1	0.619	0.004168487247
ICA1L	0.618	0.008958063124
AC074286.1	0.616	6.59E-11
TWF1	0.612	8.15E-05
PPP2R3C	0.611	5.99E-06
PPP1R12B	0.611	0.03813114754
CPT1B	0.61	4.70E-13
MROH8	0.609	0.001277328111
MRNIP	0.604	1.26E-05
CLEC16A	0.601	0.001796423469
TEAD1	0.599	8.25E-14
RPL17-C18orf32	0.596	0
NEDD1	0.596	3.39E-06
ADGRG6	0.595	2.89E-14
FDFT1	0.595	1.01E-05
ANAPC10	0.592	0.006742072944
NBR2	0.583	2.65E-07
USP32P3	0.582	1.10E-08
IMMP1L	0.579	1.01E-07
TRIM16	0.577	0.006143326895
C14orf93	0.576	0.002308460508
SDHAP2	0.572	0
TCAF1	0.57	0.000133178287
ZNF571	0.57	0.002377389601
DAG1	0.562	2.12E-05
NDUFB2	0.561	1.31E-05
FAM86EP	0.559	5.49E-05
PPRC1	0.558	7.52E-13
RSG1	0.557	5.59E-05
RP11-371E8.4	0.557	0.000823192753
CNOT2	0.556	8.05E-05
SLCO4A1	0.556	0.000610301062

WDFY3	0.733	0
SPAG9	0.73	0
PRMT2	0.729	0
TMEM135	0.729	5.59E-06
XRRA1	0.728	5.96E-06
U2AF1L4	0.725	9.67E-13
ZNF706	0.718	1.02E-09
MRPL43	0.71	6.77E-07
CAST	0.698	0
ZNF391	0.698	7.31E-07
SORBS3	0.697	1.53E-06
SUZ12P1	0.696	5.79E-08
MICAL3	0.695	9.30E-11
MED24	0.695	1.34E-05
NEXN	0.687	4.41E-07
RP11-274B21.1	0.682	1.63E-09
CENPV	0.682	5.11E-08
SORBS1	0.681	1.03E-06
HLA-L	0.674	0.000182498683
CENPJ	0.667	0.008553574934
MPPE1	0.665	2.32E-06
U2AF1L4	0.662	2.54E-11
MAP3K6	0.66	0.000183314615
FHL2	0.659	1.87E-07
TMBIM6	0.658	3.62E-07
PCBP1-AS1	0.657	0.003866796193
MYO18A	0.652	0
PLD3	0.65	3.15E-06
CACNB4	0.65	7.65E-06
GPM6A	0.649	2.67E-10
NQO1	0.647	0
C19orf60	0.647	1.65E-09
ABI1	0.644	0
RSRP1	0.639	0
RBM5	0.637	0
SYNJ1	0.634	4.13E-11
EFCAB13	0.634	3.12E-05
PNISR	0.633	0
RASSF8-AS1	0.633	2.67E-10
VLDLR	0.626	0
PHACTR4	0.626	9.42E-06
DNAJC7	0.624	2.54E-07
UBA3	0.622	0.001965233616
SNX21	0.621	2.35E-05
YY1AP1	0.617	0
DGKH	0.615	4.55E-07
CTD-2341M24.1	0.612	5.70E-05
PAQR3	0.61	2.01E-05
CASK	0.608	4.65E-08

EXO1	0.555	0
ZNF189	0.554	9.33E-10
MAX	0.553	1.66E-10
SOS1	0.553	2.09E-06
PLD3	0.551	4.25E-06
U2AF1L4	0.55	1.56E-09
WIPI2	0.549	2.10E-05
POLL	0.548	0.001950407967
RP11-705C15.2	0.542	4.86E-07
TMEM161B-AS1	0.54	1.95E-07
ARHGEF9	0.538	3.67E-09
MORC2	0.537	0.006121948866
COA1	0.536	8.02E-12
C1orf65	0.536	0.001578796476
CADM2	0.535	5.93E-06
TMEM161B-AS1	0.534	8.81E-13
FBXL12	0.533	3.50E-05
LINC01001	0.533	0.01082847443
RWDD3	0.532	1.07E-06
TMEM254	0.532	0.000427698002
SUOX	0.531	4.75E-05
CCDC150	0.528	0.000138227630
C1orf50	0.527	3.15E-07
PHYKPL	0.526	4.88E-07
MRNIP	0.526	0.000354435123
ERBIN	0.523	0
C3orf18	0.523	0.000723779315
DENND4C	0.52	0
CSAD	0.52	0.000292367023
RPL17	0.518	0
RPL17	0.518	1.66E-09
RSRC2	0.517	0.000124092158
NUDT13	0.517	0.000847919809
GGT1	0.515	3.61E-05
DIAPH2	0.514	0.000176928792
ANAPC16	0.512	0
SGCE	0.512	0
IMMP1L	0.512	3.81E-13
STX16-NPEPL1	0.512	0.000287498151
DYNLL1	0.512	0.001232062067
CSAD	0.51	0.000152454658
SLCO4A1	0.51	0.006698640151
LINC01128	0.51	0.02372588051
SHF	0.508	0.000774571168
ZNF611	0.506	0.00374323208
OPA1	0.506	0.01205057511
C6orf52	0.505	0.01885208174
FANCI	0.504	3.29E-08
RWDD3	0.503	0.000293170732

GUSBP11	0.608	8.54E-06
FUBP1	0.606	5.11E-05
BCAS4	0.605	0
FNBP1	0.604	0
MXRA7	0.604	0
TNIK	0.604	3.94E-11
ULK3	0.603	0.02679711654
ARL4A	0.602	0
ZCWPW2	0.602	4.72E-09
TMEM161A	0.602	4.20E-05
PPA2	0.601	1.19E-07
TNC	0.601	0.000541520201
ANKRD12	0.597	0
CSNK1G3	0.597	5.04E-07
SYTL2	0.596	0.000166142762
RALGAPA1	0.594	8.12E-08
AP1G1	0.594	0.00126477858
RPRD2	0.591	0
ZNF584	0.59	5.49E-08
TEAD4	0.59	7.68E-06
NME4	0.59	0.000285155921
FHL2	0.59	0.02228946003
ZNF584	0.589	6.35E-08
EMC3-AS1	0.589	0.003046176652
FAM173B	0.584	0
SUZ12P1	0.583	1.11E-06
NSFL1C	0.582	0
MGRN1	0.582	1.44E-07
NIN	0.581	0
FGFR1OP2	0.58	0
AFDN	0.579	4.69E-10
ZNF584	0.579	3.95E-08
ZNF195	0.579	0.006463478574
CTNND1	0.578	0
FIRRE	0.578	0.03072258172
PPIP5K2	0.577	0.001101883147
EPB41L2	0.576	5.39E-12
TOX2	0.576	0.02126672239
MCTP1	0.575	1.56E-08
C9orf3	0.575	0.000766624702
PER3	0.575	0.003807338828
MARK3	0.574	0
WARS	0.573	9.26E-05
TTC28	0.572	6.78E-07
ELF2	0.572	0.001701782054
CTNND1	0.57	0
RPS24	0.57	5.37E-11
STAG3L3	0.569	0.000438379529
NUP214	0.564	0.006949996165

AREL1	0.502	0.001735749298
HMGXB4	0.501	0
RP11-274B21.14	0.501	0.000902998005
FAM86EP	0.499	0.001505065008
LCA5L	0.499	0.0264779633
GOSR2	0.498	8.57E-05
ELMOD3	0.498	9.02E-05
CLHC1	0.498	9.57E-05
AC004076.9	0.498	0.000121420327
MIOS	0.497	0.000153038993
NFRKB	0.497	0.000185977085
HSCB	0.496	5.71E-10
TRIM16	0.495	0.002239049543
RP11-156P1.3	0.494	0.000788106904
DTNB	0.491	0.000853855443
SDHAP1	0.49	0
RP11-705C15.2	0.49	4.12E-05
SEPT2	0.489	0.000119680357
DCLK2	0.488	7.92E-10
PBRM1	0.487	0.002131254622
GAB1	0.485	1.31E-05
SMARCC2	0.483	0.000311022291
SUOX	0.483	0.02072133492
PLCB4	0.482	0.000163314841
INVS	0.479	0.00118875574
HCG18	0.478	1.30E-07
PVR	0.478	0.000204852622
DUXAP9	0.478	0.03303492877
NHSL1	0.476	0.007436656522
SLC3A2	0.475	0
BPHL	0.475	1.12E-05
UBA2	0.474	0.001456868059
GCSH	0.473	0.009167109226
VCAN	0.471	3.38E-05
SHF	0.471	0.001004510926
TMEM241	0.469	2.54E-05
RP11-9G1.3	0.468	2.41E-06
LINC00630	0.467	0.000207640945
FAM228B	0.463	0.000586634990
BBS1	0.462	0.000150335610
LCA5L	0.462	0.001839490346
ULK4P2	0.462	0.02777981206
CLEC2D	0.461	5.17E-05
DHRS4L2	0.461	0.000641805077
EXO1	0.46	1.86E-12
CCDC15	0.46	0.000150335610
ARF4-AS1	0.46	0.003887141779
ZEB1	0.459	2.43E-06
MED23	0.459	5.22E-06

CCDC88A	0.561	0
CAST	0.557	0
AP1G1	0.557	0
WASH2P	0.555	0.000350375615
PIN4	0.554	0
SNX14	0.554	0
LIMCH1	0.554	1.32E-12
AMPD2	0.554	0.000293523243
ZNF484	0.552	3.08E-05
ZCWPW1	0.552	3.10E-05
C14orf166	0.55	0.000144875579
FAM126B	0.549	5.59E-08
EPB41L2	0.548	4.47E-06
C19orf60	0.546	1.17E-08
TMEM18	0.545	0
ITGB3BP	0.545	0
KIAA1191	0.544	0.000153038993
PPM1K	0.544	0.000961670070
CAST	0.543	0.000103588851
SLC7A11	0.542	9.09E-08
CACNB4	0.542	3.46E-05
FNBP1	0.541	0
ZCWPW1	0.541	0.000882828750
ASAP2	0.539	6.77E-06
FGFR2	0.539	0.008407926613
RNF146	0.538	2.89E-08
CEP72	0.538	1.80E-07
PHACTR4	0.538	2.41E-06
TSSC4	0.535	0
RP11-499E18.1	0.535	0.009473724616
SNX21	0.535	0.04920193968
WASF3	0.534	6.92E-10
FNBP1	0.534	3.18E-05
MARK3	0.529	0.000491654262
RAB3GAP1	0.527	5.95E-05
CDC14B	0.526	1.71E-08
PPIL3	0.525	1.32E-06
CCDC14	0.525	0.002598953941
PIGQ	0.524	0.000241931653
RP11-580I16.2	0.524	0.006170354981
TMEM18	0.523	0
MVD	0.523	0.000142670014
EEF1D	0.522	1.10E-11
FAM13B	0.522	3.97E-08
LRCH3	0.521	5.20E-11
NFYA	0.521	5.31E-07
MINDY3	0.52	2.85E-13
SEPT9	0.519	4.46E-08
CLSTN1	0.516	0

SPATS2L	0.459	0.02523595813
PICALM	0.458	0
CCDC148	0.458	0.02324707802
CDKL3	0.456	7.45E-05
PRR34-AS1	0.455	7.54E-05
C8orf44	0.455	0.000933997588
ERBIN	0.454	0.000133179949
FAM86FP	0.454	0.04253479721
NISCH	0.453	0.000173761839
C14orf93	0.453	0.003140202336
NSRP1	0.453	0.02613073178
SPIN1	0.452	0.003349315801
CSAD	0.452	0.00576997794
MED12L	0.451	0.000624395879
ITPRIPL1	0.45	4.21E-05
DDR1	0.449	0.000141064512
SUOX	0.449	0.001493573318
NBPF8	0.448	4.38E-05
LRRC37A4P	0.448	0.000603975683
RP11-345J4.5	0.448	0.01900449467
NUDT13	0.448	0.02109524081
SIL1	0.447	4.68E-06
DDR1	0.447	0.000114666020
HERC2P9	0.447	0.001439456619
PARBP	0.445	8.63E-06
RAD54B	0.445	0.00493556984
SMUG1	0.443	0.006943253512
ADGRG1	0.443	0.009505385205
EPB41L1	0.442	0.0111182907
CC2D1B	0.441	1.52E-05
TMEM234	0.441	0.000117787783
PVR	0.441	0.000296328986
AGPAT4	0.441	0.001023745599
DHFR	0.441	0.004239439132
CDK4	0.44	0.008685505951
WDR27	0.437	2.16E-05
TMEM161B-AS1	0.436	4.27E-09
PCBP1-AS1	0.436	2.42E-06
ATP11B	0.436	0.000113072913
DUXAP9	0.436	0.01476653649
C1RL	0.435	2.43E-05
PGAP2	0.434	0.01725172355
CLHC1	0.431	0.00013661978
STX2	0.43	0
IMMP1L	0.43	0
MACF1	0.428	5.56E-07
MRPS6	0.428	0.001796423469
PARD3	0.427	1.53E-12
HCG18	0.426	0.01832264645

FAM24B	0.515	1.61E-09
EVI5	0.515	0.000226627216
XPO6	0.514	1.03E-05
SNRPN	0.514	5.03E-05
TTC28-AS1	0.514	0.001921405105
EEF1D	0.512	4.25E-06
EEF1D	0.51	1.39E-05
TNFSF12-TNFSI	0.503	3.25E-06
NEK3	0.503	0.01092365486
MICAL3	0.5	1.06E-09
MAGI1	0.5	4.47E-07
PATJ	0.5	0.01919460471
ARL4A	0.499	7.00E-10
EEF1D	0.499	1.57E-08
ZNF277	0.497	0
EEF1D	0.497	1.12E-11
CTNND1	0.495	1.21E-11
MDM4	0.494	4.14E-05
RAD51L3-RFFL	0.493	0.001624246109
KIF3A	0.49	2.45E-09
SUN1	0.489	1.12E-05
RIF1	0.489	0.002957482326
AIFM1	0.488	0.003549029187
SEPT2	0.488	0.02613073178
GOLGA4	0.487	0
CENPU	0.484	0
TPK1	0.484	0.01202735009
PMS2CL	0.48	1.31E-10
TMEM25	0.48	0.002210906602
EEF1D	0.479	0.001367554607
ZNF19	0.476	0.001195407288
ARHGAP11B	0.474	0
EPB41L2	0.474	3.36E-07
DPM1	0.474	0.000332402615
DGKA	0.472	0.002122617065
NR4A1	0.472	0.01007221058
EEF1D	0.471	1.99E-05
DGKH	0.471	2.68E-05
MRPS15	0.47	0.003230017772
LRRC27	0.468	0.003432257142
ABCD4	0.467	0.000418686846
CATSPER2	0.467	0.002544829601
CUL5	0.466	0
TIA1	0.465	4.53E-11
UGGT2	0.462	1.74E-10
DNAJB6	0.461	0.000255290405
ATP11A	0.461	0.002993621228
GPCPD1	0.46	0.003724555554
GUK1	0.459	8.84E-08

SEC24B	0.425	2.17E-11
APEH	0.425	5.13E-08
COA1	0.425	1.83E-06
LINC01125	0.424	0.00448074171
IKZF4	0.422	0.002024138061
FAM227B	0.42	0.000671412157
TPM1	0.419	8.14E-10
CA5B	0.418	0.000115979367
MIR22HG	0.418	0.01461642436
PSMA3-AS1	0.417	1.58E-13
NUMA1	0.417	2.52E-09
SLC25A29	0.417	0.001127335634
XRRA1	0.417	0.005245556191
SEPT6	0.414	4.59E-07
ENTPD1	0.413	0.000150335610
ARL13B	0.413	0.009312346136
ZNF789	0.412	0.001102013063
C1orf159	0.411	0.00746974798
PICALM	0.41	0.004066478452
CCDC7	0.41	0.03915855325
BMP2K	0.409	4.44E-05
COX20	0.408	5.10E-07
PARPBP	0.408	7.60E-05
SEPT6	0.408	0.001889786218
CCDC7	0.407	0.00357102587
CPNE3	0.406	4.50E-07
SEMA4F	0.406	1.72E-06
ING4	0.405	0.001631986303
DLEU2	0.404	1.13E-06
ZNF211	0.403	0.002075918316
KHK	0.403	0.003344420368
TRIM16	0.403	0.01092216805
ULK4	0.403	0.01803272989
DOCK7	0.402	7.63E-12
FOXM1	0.4	0
STX16	0.4	4.53E-08
TMEM44-AS1	0.4	0.01519053624
SNAPC5	0.399	0.001312004339
PARPBP	0.397	1.97E-07
RASSF8-AS1	0.397	0.0415224856
TRAPPC13	0.396	1.37E-05
OPA1	0.396	0.002268274405
FAM66C	0.396	0.02043424899
ACYP2	0.395	0.000412618254
NISCH	0.395	0.001052296447
CLEC2D	0.395	0.02024804826
NAP1L4	0.394	6.18E-07
TPM1	0.394	0.000370694914
FAM76B	0.393	0.000260001515

LUC7L2	0.459	0.003536476151
ANKRD10	0.459	0.01041046655
AP2M1	0.458	0
ZNF419	0.458	0.001367971256
MCTP1	0.457	5.72E-11
ARHGAP11B	0.456	1.21E-06
CIRBP	0.456	1.72E-06
USP45	0.455	7.84E-09
CACNB4	0.455	0.000117862634
PPIL3	0.454	5.63E-11
FAM221A	0.453	0
PFDN5	0.453	0.000706638320
APLP1	0.448	3.77E-07
BEST1	0.448	0.01511068212
SDR39U1	0.447	2.11E-05
FNIP2	0.447	0.000114599384
SEPT2	0.447	0.001538786731
PRKAR1A	0.445	3.04E-05
DNAJC4	0.445	0.03833779699
CCSER2	0.444	0
TEX22	0.444	5.32E-13
CLASP1	0.444	9.89E-07
CACTIN	0.444	2.72E-05
NADSYN1	0.443	2.65E-05
FAM135A	0.442	1.50E-07
JKAMP	0.442	4.09E-07
MAP4K4	0.441	0
CANT1	0.441	0.004358181142
VPS13B	0.44	0.00206399437
WDR27	0.439	6.79E-07
FBRS	0.439	8.18E-06
ERBIN	0.439	0.005843897436
XRRA1	0.438	0.000133108710
LRRC75B	0.438	0.000475420331
LETM2	0.437	1.41E-06
MED23	0.436	3.90E-07
BNIP2	0.435	0
PUF60	0.435	2.28E-10
ABHD14B	0.435	4.64E-06
CTNND1	0.434	2.12E-08
CTNND1	0.434	2.44E-08
RALGAPA1	0.434	0.003894370242
PSMA3-AS1	0.432	7.31E-06
WARS	0.432	0.001631060496
TTC7A	0.432	0.004065365915
TAZ	0.431	7.20E-06
NOD1	0.431	0.000453765727
CTNND1	0.43	1.62E-11
HPS1	0.43	1.28E-05

NEO1	0.392	1.17E-08
ABCA11P	0.39	0.000855021521
STX16	0.389	3.14E-09
NFIB	0.389	0.000919138558
NME6	0.388	0.001460213182
KIF21B	0.388	0.005890845208
PICALM	0.387	0
MRPS28	0.387	0.01459665929
RWDD3	0.386	0.000293305197
FEZ2	0.386	0.006549900596
TMEM260	0.384	4.25E-06
MAP4K4	0.384	6.13E-05
KB-1572G7.2	0.382	0.002398430612
PROCA1	0.381	0.000336973187
CREB1	0.381	0.001185968339
TAF1	0.38	3.53E-07
ANKAR	0.38	6.03E-05
ZSCAN31	0.38	8.71E-05
SGCE	0.38	0.003512996048
ATP5C1	0.379	0.000431072153
POLL	0.378	4.71E-05
ZNF680	0.377	4.99E-05
ZNF253	0.377	0.000181045047
XIAP	0.377	0.001426975572
LTBP1	0.376	0.008353634004
NME6	0.375	7.94E-06
ELMOD3	0.375	0.000118488895
SREBF1	0.375	0.0013265261
CCNI	0.374	0.000776881723
ENSA	0.374	0.001478634489
NFIB	0.374	0.002058724474
ANAPC16	0.373	2.52E-07
MGAT5	0.373	0.01190796755
C3orf18	0.372	0.01820919836
RPS3A	0.371	1.58E-06
ZNF680	0.37	6.13E-05
CC2D2A	0.369	0.01564723304
BDNF-AS	0.368	0.00177508727
ADGRL2	0.368	0.004113255113
ZSCAN31	0.367	0.000114900623
MBD5	0.366	0.000195634142
RPL17	0.366	0.000484349733
PGAP2	0.366	0.001732186964
RTN2	0.366	0.00365172218
CC2D2A	0.366	0.01617330057
SGSM2	0.365	1.48E-06
ZC3H18	0.365	0.001733304234
GK	0.365	0.002839945502
RAD51D	0.364	0.04505876384

TSSC4	0.429	1.03E-08
MYL6	0.427	0
CEP57L1	0.427	0.000731961416
C4orf36	0.427	0.002784788117
GOLGB1	0.427	0.04360660297
DBR1	0.426	0
ZFAND5	0.426	0
IMMP1L	0.426	0.00831961416
QKI	0.424	0
OFD1	0.423	0
AC024560.3	0.423	4.05E-12
GOLGB1	0.423	0.01706419273
ORMDL1	0.422	0
SDR39U1	0.422	1.80E-10
RP11-51F16.8	0.422	1.24E-08
NAGK	0.422	0.003548756426
MON2	0.421	0.000963896981
RALGAPA2	0.421	0.0255521065
SEMA4F	0.419	0.000441818321
RAB34	0.418	4.03E-06
HMGN1	0.417	0
FAAP20	0.417	6.06E-08
ELFN2	0.417	0.001125297341
NR4A1	0.417	0.02371629734
PKIG	0.416	0
PXN	0.416	3.39E-06
TMEM116	0.416	1.88E-05
MBD1	0.415	0.000907332278
TCF7L2	0.415	0.002988281976
FBXO24	0.414	6.11E-06
SERPINB6	0.414	0.000387914863
MLLT6	0.413	3.20E-06
HMGN1	0.412	7.73E-13
GPR157	0.412	0.00512657653
RNF146	0.411	0.009704814921
FGFR2	0.411	0.01160808791
PILRB	0.41	9.00E-11
NFASC	0.41	2.42E-06
SLC35B1	0.41	0.000697169288
MPRIP	0.41	0.00173447688
KIAA1109	0.408	1.95E-08
JOSD2	0.407	2.52E-07
C17orf62	0.405	4.76E-07
CDK5RAP2	0.404	7.74E-05
THAP6	0.404	0.001289105061
ZFX	0.404	0.01252426593
MDM4	0.403	4.41E-05
HNRNPA2B1	0.402	0
PHACTR4	0.402	0.000288011465

SETD9	0.363	3.97E-05
PLEKHM1P1	0.363	0.002766188792
SLC25A26	0.363	0.00798304603
POGLUT1	0.363	0.01651821476
RP11-849H4.2	0.363	0.01809089575
RP11-421L21.3	0.362	1.04E-06
PCNX1	0.362	6.66E-05
ANXA2	0.362	0.006386827087
KB-1572G7.2	0.362	0.008304198588
PRKRIP1	0.361	2.37E-05
MRPL52	0.361	0.004738364736
KIAA0586	0.36	4.82E-05
TWF1	0.36	0.000148574459
MRNIP	0.36	0.01335046322
RPS3A	0.359	3.45E-09
GSAP	0.358	1.17E-05
ARMCX5-GPRA	0.358	0.000666033342
UBE2Q2P2	0.354	6.56E-05
TCTN1	0.353	0.005171587045
NADK	0.352	5.59E-14
ZFAND6	0.352	5.86E-11
RALY	0.352	0.000541806568
DRAM2	0.351	8.31E-06
TOPORS-AS1	0.351	0.001855130247
AP3S2	0.351	0.01954407125
MAP4K4	0.35	1.98E-11
DENND4A	0.35	1.22E-07
TPM1	0.35	0.002058724474
GIGYF2	0.35	0.03294531518
PICALM	0.349	0.000159697227
YPEL5	0.348	0
PPRC1	0.347	2.35E-13
FAM76B	0.347	2.25E-07
ZNF772	0.347	0.03664495534
ZGRF1	0.346	2.11E-06
ESYT2	0.346	0.001829980388
DLEU2	0.345	6.76E-07
PIGN	0.345	0.002929997565
BCAT2	0.345	0.01860693698
CDC25C	0.343	8.74E-06
ADARB1	0.343	2.24E-05
BDNF-AS	0.343	0.001406429329
RP11-421I10.1	0.342	6.74E-05
FBXL2	0.342	0.002142500663
LIPT1	0.342	0.01909479024
TMEM62	0.341	0.01692620548
NADK	0.34	2.89E-14
PPA2	0.34	1.28E-09
CDKL1	0.34	2.97E-05

SNAP47	0.402	0.00308346604
TRMU	0.401	0.000653105210
TEX30	0.4	4.43E-06
UBA2	0.399	5.38E-06
PPP1R3E	0.399	0.000150335610
ZFYVE27	0.398	5.08E-07
IFT122	0.398	0.005789128017
PLEKHA8	0.397	4.16E-05
ATXN2	0.397	5.72E-05
ZNF142	0.397	0.01252426593
GUK1	0.395	1.21E-08
GLS	0.395	0.000238932773
ELOVL5	0.395	0.003902246943
BCL2L2	0.394	1.28E-06
ARHGAP11B	0.392	2.89E-10
SYTL4	0.392	2.13E-05
ZNF383	0.392	0.007705740173
ZNF684	0.39	9.79E-05
DUSP12	0.39	0.001440110946
PQLC1	0.39	0.003043669782
SNX25	0.389	5.65E-12
OXR1	0.389	1.25E-11
SEPT7	0.389	8.87E-05
MYO9A	0.389	0.001802867873
TIAM1	0.388	0.02905195337
EXOC7	0.387	0
FAAP20	0.387	9.33E-08
EPB41L2	0.387	1.18E-05
SNHG17	0.386	7.64E-10
C21orf62-AS1	0.385	0.01673793337
CDKL3	0.385	0.04552554741
CTAGE5	0.384	9.02E-05
ST3GAL6-AS1	0.384	0.01134847022
USP36	0.382	2.27E-05
CARM1	0.381	2.60E-08
STIM1	0.381	6.19E-06
PPM1K	0.38	1.05E-06
ZCWPW2	0.377	4.60E-06
RP11-315D16.2	0.377	0.001966429415
SVIL	0.376	2.63E-06
GCSH	0.376	0.01290998373
HMGN1	0.375	7.19E-11
ZNF519	0.373	2.79E-06
BCHE	0.372	1.84E-13
PHC1	0.372	0.04253479721
ABI1	0.371	0
SEPT7	0.371	0.000802562723
MARK3	0.369	0
CIRBP	0.369	9.30E-07

POLL	0.34	0.01394848916
BAG6	0.338	1.58E-13
LYRM1	0.338	2.59E-05
IQCB1	0.338	0.003619441762
SLMAP	0.337	0
RP4-614C10.2	0.337	0.000398047305
PGAP2	0.337	0.04930931816
MARK2	0.336	0.04088100642
MCM3	0.335	0
KCTD9	0.335	0.007073635801
FAHD2A	0.335	0.02993461557
CARD8	0.334	6.60E-07
CENPO	0.334	5.09E-06
KLHL7	0.334	0.002563569625
AC004381.6	0.334	0.0241083796
ADAMTS13	0.333	9.27E-05
SLC50A1	0.332	1.70E-06
HHLA3	0.332	0.03495076767
STAG3L4	0.331	0.000965920658
ANKDD1A	0.33	5.01E-05
KANK2	0.329	0.00167889463
ATXN3	0.328	0.01781677028
TMTC4	0.327	1.64E-06
POLR2J4	0.327	0.001407114613
SLC24A1	0.326	0.0326161793
ZC3H11A	0.325	1.25E-06
ADGRB2	0.325	7.12E-06
ZC3H14	0.325	0.000154138242
ST5	0.325	0.000714324807
POLL	0.325	0.000994383049
RAD51D	0.325	0.01663502083
CBY1	0.324	0.001921405105
ST3GAL5	0.324	0.02209414026
OSBPL6	0.323	1.60E-09
MRPS31P4	0.323	0.000187247219
KCTD9	0.323	0.01287710281
ZNF761	0.322	1.76E-05
RP11-303E16.10	0.322	0.01648327918
ISCU	0.321	0.000141830539
CD27-AS1	0.321	0.000758051464
WIPF1	0.321	0.004005348732
C8orf44	0.321	0.01632161566
PTPMT1	0.32	0
LINC00969	0.32	2.17E-06
CDKL3	0.32	0.02984907237
FAM193B	0.319	2.98E-05
NEK6	0.319	0.004357067677
ADGRG1	0.318	0.005039214886
NEDD4	0.318	0.01072761332

ARMC4	0.369	0.01357652802
NUDT22	0.367	3.01E-09
ARHGAP21	0.367	1.48E-07
DCAF8	0.367	3.58E-07
GAA	0.367	8.37E-06
SH3GLB2	0.367	0.000914633672
PCBP4	0.367	0.01272273568
GSN	0.366	1.92E-12
MCTP1	0.365	1.48E-08
LAS1L	0.365	2.58E-06
ZNF277	0.364	0
STRADA	0.364	9.33E-06
DPY19L2	0.364	0.001505065008
RIN3	0.363	9.41E-05
SP140L	0.363	0.000167484406
KLHDC1	0.363	0.04492330258
MYO5A	0.362	0
ARIH2	0.362	1.11E-06
PDPR	0.362	0.01384958618
PICALM	0.361	0
FAM24B	0.361	1.17E-08
BORA	0.361	0.000221708809
NHLRC3	0.36	5.79E-08
PCBP1-AS1	0.359	2.03E-06
ASAH2B	0.359	0.000381490862
RTKN	0.359	0.002527404038
EED	0.359	0.02081308966
MCRIIP2	0.358	0.003349315801
TEX15	0.357	2.61E-05
TTLL3	0.357	0.000915025142
ZFX	0.357	0.03417336386
KIF23	0.356	4.47E-13
NBEAL1	0.355	0.000238314411
SUZ12P1	0.355	0.004564802919
KLHL24	0.354	7.54E-08
SAMD4B	0.354	0.01422507111
ZNF786	0.354	0.04214164797
METTL26	0.353	0.000414160831
BROX	0.353	0.00330261625
FAM228B	0.353	0.00823389498
SREBF2	0.353	0.02530794582
ARHGEF11	0.352	5.07E-07
ITPR1	0.351	0.008916593862
TOP1MT	0.35	1.38E-06
TIA1	0.349	1.08E-13
C17orf62	0.348	5.97E-10
TANC2	0.348	1.26E-07
C19orf12	0.347	0.000170947032
NKTR	0.346	6.05E-08

FAM208B	0.318	0.0313341614
ZCWPW2	0.318	0.04732471362
TMEM161B-AS1	0.317	2.86E-06
CENPO	0.316	2.58E-09
PCNX1	0.316	0.006891588316
SLC4A7	0.315	0.000246288097
ELMOD3	0.315	0.04376813577
LINC00174	0.314	0.000859083617
MAN2B2	0.313	0.000101047875
CHEK1	0.313	0.000281241984
GK	0.313	0.001523891106
CDC25C	0.312	1.94E-06
AK2	0.312	9.96E-06
SMUG1	0.312	0.000755532908
CCDC18-AS1	0.312	0.02759347156
PARBP	0.311	0.000285160773
LRP2BP	0.311	0.01178140079
ZBTB1	0.31	6.58E-06
MATR3	0.31	0.004029235655
FBF1	0.31	0.01257062869
MDM1	0.31	0.01658132986
NFIB	0.31	0.01760896452
IKZF4	0.31	0.02968938387
PSMA3-AS1	0.308	1.18E-05
STAG2	0.307	0.000101047875
MCAT	0.307	0.000304133418
ZNF655	0.307	0.002332507155
MIATNB	0.307	0.01784243899
ROBO1	0.306	2.98E-07
TMUB2	0.306	0.000469433957
FAHD2A	0.306	0.0211341988
CAPRN2	0.305	0.000240092465
ZSCAN23	0.305	0.000418220202
CLHC1	0.305	0.02539319847
PLA2G12A	0.304	1.31E-08
DLGAP1-AS1	0.304	4.07E-06
FAM45A	0.304	0.000180077800
PPP4R1	0.304	0.000788106904
CRBN	0.303	2.89E-14
KIF21A	0.303	2.13E-08
GDAP2	0.303	5.13E-05
ODF2L	0.303	0.000402847581
VAPB	0.303	0.004308658414
MUTYH	0.303	0.01134847022
EPB41	0.303	0.01397229194
CLHC1	0.302	5.10E-06
ZNF76	0.302	0.001129571315
PPP1R12B	0.302	0.001936037329
SREBF1	0.302	0.008461191506

EEF1D	0.346	5.02E-05
MOK	0.346	0.000589050278
IFT122	0.346	0.03306288922
POLE2	0.345	4.09E-07
FAM161A	0.345	5.12E-05
KIF1B	0.345	0.001701782054
SYNE1	0.343	0.02105099548
TMEM218	0.343	0.03972173331
MRPS18C	0.342	3.58E-13
MCM9	0.342	0.002662136025
MARK3	0.341	0.000688822865
IKZF4	0.341	0.007045125414
GOLGA6L9	0.341	0.009416548364
TNRC18	0.341	0.03499961163
NPHP3	0.34	1.09E-05
TPCN2	0.34	6.03E-05
PPIL3	0.339	1.93E-05
FAM13B	0.339	3.76E-05
MFSD12	0.339	4.34E-05
CACNB4	0.339	0.000462738566
SCML1	0.339	0.001379584947
HMMR	0.338	1.27E-11
NF1	0.338	2.85E-05
QRICH1	0.337	0.004077983224
CD27-AS1	0.337	0.02475961249
KMT5C	0.336	0.001968293186
C14orf93	0.336	0.01137520954
TOM1L2	0.335	6.07E-07
RAD51AP1	0.335	4.54E-05
March2	0.335	6.70E-05
YIPF1	0.335	0.000643276865
N4BP2	0.335	0.03898426062
DCAF8	0.334	4.67E-07
PCOLCE	0.334	0.000261928969
PCBP1-AS1	0.334	0.003387004345
ZDHHC15	0.334	0.01080928689
MRPS28	0.333	0.00106274245
APTX	0.332	7.79E-09
PGAP2	0.332	4.64E-06
AGRN	0.332	1.00E-04
ANO6	0.332	0.04369154184
RCN1	0.332	0.04655359236
TEPSIN	0.331	0.000116615585
RUNX2	0.331	0.01433428446
FHOD3	0.331	0.0391410956
AURKB	0.33	1.60E-09
PCOLCE	0.33	5.14E-05
RP11-295P9.3	0.33	0.003522034591
DCAF8	0.329	9.41E-05

PHYKPL	0.302	0.04422443977
PRKRIP1	0.301	0.000271826994
EP400NL	0.301	0.000748190390
ZSCAN23	0.301	0.000960374064

ERMARD	0.329	0.000145434513
PRPF40B	0.329	0.001138009614
PYM1	0.329	0.003959039809
ACTR3B	0.328	1.08E-13
CCHCR1	0.328	1.20E-06
NAB1	0.328	0.000145434513
ZMYM1	0.328	0.004503457102
SREK1	0.327	1.42E-06
MTIF3	0.327	0.000195921564
C1orf162	0.327	0.007797388202
AHI1	0.327	0.01187945836
SEPT7	0.326	0
SLC25A36	0.326	1.18E-10
MSH5-SAPCD1	0.326	3.62E-07
ELMOD3	0.326	0.02558045263
PCMTD1	0.325	1.42E-06
GORAB	0.325	0.02241166849
THUMPD3-AS1	0.324	4.80E-10
PAQR3	0.324	4.59E-08
RFX2	0.324	0.000309536167
ARHGEF10	0.324	0.000880675005
HMGN1	0.323	0
ACAP2	0.323	4.91E-13
ILF3	0.323	1.34E-11
NLRX1	0.323	8.79E-05
NDEL1	0.323	0.001234956404
INCENP	0.323	0.02376597087
SPATA6L	0.323	0.02903051114
MPHOSPH9	0.322	8.53E-11
KLHL24	0.322	0.000150335610
PPIP5K2	0.322	0.000206175873
ZNF419	0.322	0.005610157684
ZNF772	0.322	0.008723427672
TMEM39A	0.321	2.44E-10
APT X	0.321	6.31E-06
SPATA4	0.321	0.00010612589
ZNF711	0.32	7.32E-08
SPEF2	0.32	9.18E-05
BAZ1A	0.32	0.001379584947
PEX7	0.32	0.002238644159
MAP4K4	0.319	2.64E-09
TSSC4	0.319	5.66E-06
SLC2A11	0.319	9.42E-06
TRIM16	0.319	0.000782858272
TOP1MT	0.317	1.32E-09
NSUN5P1	0.317	0.003212828364
TRAF3IP2-AS1	0.317	0.01210955425
PAQR3	0.317	0.04751030201
USP8	0.316	7.79E-08

ZNF75D	0.316	0.002220951479
AAK1	0.316	0.006955259997
SUMF2	0.315	0
MYO6	0.315	3.49E-11
GOLT1B	0.315	5.26E-07
PCBP1-AS1	0.315	1.22E-05
CCP110	0.315	0.002784788117
TCEA1	0.315	0.01533786035
BPTF	0.314	9.73E-12
SENP7	0.314	1.18E-10
PPIP5K2	0.314	2.71E-06
HPS4	0.314	0.04795517943
RBM6	0.313	2.49E-06
NUDT13	0.313	0.000512763401
GATAD2A	0.313	0.00140484798
RGS19	0.313	0.003517135917
CD27-AS1	0.313	0.01675843214
MEIG1	0.313	0.03122985027
C14orf79	0.313	0.03336016912
SLC29A1	0.312	1.18E-05
EEF1D	0.311	0.000791141303
PDPR	0.311	0.000800021044
SLC9B1	0.311	0.006378477914
PFDN5	0.31	0
TMEM126B	0.31	4.34E-12
PRPF40A	0.309	0
DST	0.309	0
C17orf62	0.309	1.37E-07
ZDHHC16	0.309	0.006465468267
ARNTL2	0.309	0.02166060778
KIAA1468	0.309	0.03090604922
TCEA1	0.308	0.000990626250
DHX34	0.308	0.008437561811
JKAMP	0.307	2.33E-12
PQLC3	0.307	6.68E-05
UBXN2B	0.307	0.000146720567
BORA	0.306	2.29E-05
TMEM218	0.306	0.009312346136
HPS5	0.306	0.04407811637
JKAMP	0.305	1.06E-12
RP11-452F19.3	0.305	2.24E-05
ZNF133	0.305	0.01781677028
SCML1	0.304	5.26E-08
THRB	0.304	0.005335128453
C17orf62	0.304	0.01212190181
FECH	0.304	0.02354481015
METTL26	0.303	0.000438744160
RIPK2	0.303	0.007952215332
METTL25	0.303	0.02240571123

FBXO44	0.302	0.001244028305
SPEG	0.302	0.002168602909
TPCN2	0.302	0.004265354996
BBOF1	0.302	0.01050857481
RBM6	0.301	1.54E-10
ULK4	0.301	8.15E-05

Supplementary Table 4: Splicing events differing between mesenchymal (MES) and proneural (PN) GSCs, and between MES and PN GBM.

ASS (alternative splice site 5' or 3'): genomic coordinates of long and short exons (columns g.coord_1 and g.coord_2)

MXE (mutually exclusive exon): genomic coordinates of first and second exons (columns g.coord_1 and g.coord_2)

RI (retained intron): genomic coordinates of retained intron (column g.coord_1)

ES (exon skipping): genomic coordinates of skipped exon (column g.coord_1)

event.type	gene	strand	g.coord_1	g.coord_2	GSCs		GBM	
					inc.level.difference	FDR	inc.level.difference	FDR
ASS	FAXDC2	-	chr5:154823307-154823592	chr5:154823386-154823592	0.969	1.44E-12	-0.011	0.7552485584
ASS	FUZ	-	chr19:49812446-49812736	chr19:49812614-49812736	0.806	1.10E-09	0.002	0.03863816794
ASS	BTN3A3	+	chr6:26443366-26443442	chr6:26443381-26443442	0.734	1.43E-05	-0.006	1
ASS	INO80C	-	chr18:35487385-35487823	chr18:35487385-35487439	0.679	3.18E-10	0.039	1
ASS	PSMG4	+	chr6:3264173-3264325	chr6:3264208-3264325	0.676	6.14E-09	0.016	1
ASS	ULK3	-	chr15:74837750-74837798	chr15:74837756-74837798	0.665	0	0.006	1
ASS	STIL	-	chr1:47312947-47313156	chr1:47312947-47313021	0.653	0.002250382184	0.009	1
ASS	TSACC	+	chr1:156346767-156346995	chr1:156346778-156346995	0.653	0.04759067616	0.132	1
ASS	EXOC7	-	chr17:76090328-76090481	chr17:76090328-76090397	0.63	5.30E-08	-0.023	1
ASS	ZNF30	+	chr19:34926902-34927282	chr19:34926902-34927216	0.619	6.09E-07	-0.032	1
ASS	FUZ	-	chr19:49811362-49811491	chr19:49811362-49811467	0.594	0.03982276621	-0.034	6.05E-07
ASS	INPP4A	+	chr2:98555552-98555808	chr2:98555552-98555691	0.57	8.36E-05	0.108	5.73E-06
ASS	DAG1	+	chr3:49476848-49476905	chr3:49476848-49476900	0.565	0.008667503029	0.02	1
ASS	PHF20L1	+	chr8:132799082-132799172	chr8:132799094-132799172	0.563	0.0003262237303	-0.148	1
ASS	GPN3	-	chr12:110468125-110468264	chr12:110468195-110468264	0.556	3.93E-06	0.099	0.9966788445
ASS	QKI	+	chr6:163564666-163570145	chr6:163565945-163570145	0.545	3.14E-09	-0.038	0.001031669967
ASS	KIAA1109	+	chr4:122334343-122334545	chr4:122334343-122334440	0.543	0	-0.036	5.72E-06
ASS	RCAN3	+	chr1:24502896-24503150	chr1:24502896-24503117	0.534	0.01930630344	0.067	1
ASS	C21orf58	-	chr21:46314715-46315049	chr21:46314715-46314880	0.528	0.01015531981	-0.076	1
ASS	ATHL1	+	chr11:290657-291113	chr11:290677-291113	0.517	2.86E-06	-0.077	1
ASS	ITGA7	-	chr12:55700565-55701154	chr12:55700898-55701154	0.513	3.83E-06	-0.061	0.0449696624
ASS	C5orf45	-	chr5:179853196-179853437	chr5:179853377-179853437	0.513	0.003083787964	0.018	1
ASS	FUZ	-	chr19:49812446-49812736	chr19:49812637-49812736	0.508	1.43E-06	0.034	1
ASS	UBE2D3	-	chr4:102809067-102809184	chr4:102809067-102809159	0.505	0.01254382835	-0.003	1
ASS	CCHCR1	-	chr6:31157357-31157500	chr6:31157384-31157500	0.498	6.71E-06	-0.063	1
ASS	RASSF4	+	chr10:44983940-44984113	chr10:44984021-44984113	0.491	4.71E-05	0.036	1
ASS	GAS5	-	chr1:173865470-173865547	chr1:173865509-173865547	0.477	0	-0.009	1
ASS	ZCWPW1	-	chr7:100419001-100419189	chr7:100419110-100419189	0.476	0.0002101279767	-0.078	1
ASS	HERC2P9	+	chr15:28655272-28655691	chr15:28655272-28655420	0.469	0.0006755196922	-0.007	1
ASS	TCTN1	+	chr12:110647195-110647336	chr12:110647210-110647336	0.456	0.009968353808	0.059	1
ASS	ASB8	-	chr12:48150086-48150170	chr12:48150086-48150140	0.454	0.01183865018	0.054	1
ASS	ATG16L2	+	chr11:72821547-72821741	chr11:72821667-72821741	0.453	0.006062200051	-0.067	1
ASS	CBWD5	+	chr9:65732946-65733122	chr9:65732992-65733122	0.431	0.003471603937	-0.016	1
ASS	TCF4	-	chr18:55232508-55232671	chr18:55232520-55232671	0.431	5.01E-06	0.001	1
ASS	SMARCC2	-	chr12:56164302-56164731	chr12:56164647-56164731	0.43	1.46E-05	0.085	1.84E-11
ASS	PDLIM5	+	chr4:94575615-94576034	chr4:94575942-94576034	0.428	1.38E-06	0.04	0.676965413
ASS	ATP5O	-	chr21:33915135-33915724	chr21:33915651-33915724	0.422	1.59E-05	0.028	1
ASS	RAD9A	+	chr11:67393690-67393790	chr11:67393722-67393790	0.407	0.02636430401	0.002	1
ASS	CXorf23	-	chrX:19937417-19937532	chrX:19937504-19937532	0.403	6.40E-06	0.042	1
ASS	ATG16L2	+	chr11:72821198-72821741	chr11:72821667-72821741	0.398	0.00485576925	-0.073	0.5324033143
ASS	PROCA1	-	chr17:28704306-28704616	chr17:28704306-28704435	0.396	0.01603843118	-0.126	0.01850640356
ASS	SUV420H1	-	chr11:68171231-68171296	chr11:68171231-68171251	0.393	0.02228411796	0.017	1
ASS	PFN2	-	chr3:149964903-149966586	chr3:149964903-149966264	0.392	0	-0.026	0.07954730297
ASS	SNRPN	+	chr15:24974287-24974456	chr15:24974310-24974456	0.392	2.09E-08	0.002	0.9902235134
ASS	ATP11A	+	chr13:112881812-112887168	chr13:112881875-112887168	0.39	0.001121865795	0.057	1
ASS	PTBP2	+	chr1:96804784-96804939	chr1:96804799-96804939	0.389	0.03982276621	0.014	1
ASS	ABHD3	-	chr18:21663677-21664230	chr18:21664117-21664230	0.388	4.71E-07	0.001	0.235248041
ASS	GIT2	-	chr12:109947255-109948846	chr12:109947255-109947504	0.382	7.50E-05	0.036	0.1930077518
ASS	ERBB2	+	chr17:39694680-39695181	chr17:39694987-39695181	0.372	0.03581629335	0.113	1
ASS	FAM193B	-	chr5:177523158-177523265	chr5:177523162-177523265	0.368	0.004196039296	0.014	1
ASS	ENGASE	+	chr17:79081897-79082877	chr17:79081897-79082063	0.365	1.43E-06	0.016	1
ASS	CEP70	-	chr3:138572858-138572984	chr3:138572858-138572932	0.362	0.0004772283099	-0.021	0.609275072
ASS	VPS28	-	chr8:144425874-144426063	chr8:144425921-144426063	0.359	0.02683660206	-0.049	1
ASS	CNOT2	+	chr12:70294070-70294294	chr12:70294236-70294294	0.356	0.02871858636	-0.068	1
ASS	PAAF1	+	chr11:73886928-73887099	chr11:73887030-73887099	0.348	4.07E-05	-0.031	1

ASS	GSKIP	+	chr14:96379687-96379788	chr14:96379687-96379755	0.343	0.0001836014068	-0.047		1
ASS	FKBP1B	+	chr2:24063018-24063681	chr2:24063063-24063681	0.34	0.03680649749	-0.043	0.653044201	
ASS	TTC31	+	chr2:74483321-74483563	chr2:74483321-74483410	0.336	0.006799172032	0.118		1
ASS	CACNA2D1	-	chr7:81997178-81997250	chr7:81997178-81997235	0.334	0.01823872704	-0.038		1
ASS	HDLBP	-	chr2:241269200-241269295	chr2:241269205-241269295	0.332	0.02387795607	0.068		1
ASS	SSBP1	+	chr7:141741748-141741798	chr7:141741748-141741792	0.33	0.0005479620032	0.133		1
ASS	GEMIN8	-	chrX:14026051-14026221	chrX:14026139-14026221	0.327	3.93E-07	-0.006		1
ASS	FAM111A	+	chr11:59148703-59148953	chr11:59148835-59148953	0.327	0.0004411870038	-0.017		1
ASS	ECI2	-	chr6:4117307-4119275	chr6:4117307-4117451	0.327	2.46E-12	0.032		1
ASS	ARL13B	+	chr3:93996547-93996684	chr3:93996562-93996684	0.325	0.001110868338	0.033		1
ASS	SERHL2	+	chr22:42571120-42571901	chr22:42571120-42571203	0.324	1.14E-05	-0.245	1.17E-12	
ASS	CERS5	-	chr12:50132961-50134068	chr12:50132961-50133064	0.323	1.11E-05	0.078	0.8570516629	
ASS	RAP1GAP	-	chr1:21597960-21598095	chr1:21597960-21598040	0.321	0.001576710913	-0.056	0.5037900999	
ASS	BMP1	+	chr8:22201117-22201928	chr8:22201802-22201928	0.321	0.0003985755184	0.024		1
ASS	PANK4	-	chr1:2510677-2510782	chr1:2510677-2510748	0.32	0.004748089327	-0.004		1
ASS	MSTO1	+	chr1:155611688-155611852	chr1:155611688-155611827	0.319	0.001671111688	-0.063		1
ASS	AP1G2	-	chr14:23564045-23564221	chr14:23564045-23564159	0.319	0.0254485429	-0.111	0.0005465986558	
ASS	SYNRG	-	chr17:37596222-37596344	chr17:37596222-37596341	0.311	4.07E-05	-0.067		1
ASS	SERGEF	-	chr11:18010070-18010139	chr11:18010074-18010139	0.309	0.02139215565	-0.06		1
ASS	HSF4	+	chr16:67167719-67167947	chr16:67167823-67167947	0.308	0.007648353669	0.027		1
ASS	DCUN1D4	+	chr4:51886567-51887244	chr4:51886567-51886638	0.307	0	-0.022	0.01679940389	
ASS	ZNF740	+	chr12:53181676-53182190	chr12:53181676-53181992	0.305	4.35E-05	0.024		1
ASS	YY1AP1	-	chr1:155668626-155668777	chr1:155668626-155668717	0.304	8.73E-10	-0.043	0.0380951098	
ASS	CLK4	-	chr5:178619837-178620673	chr5:178619837-178619896	0.302	4.40E-05	0.037		1
ASS	MOV10	+	chr1:112699457-112699810	chr1:112699684-112699810	0.302	2.09E-08	-0.031	0.003361713201	
ASS	CPSF7	-	chr11:61421053-61421130	chr11:61421053-61421127	0.301	0.003195651006	0.054		1
ASS	OFD1	+	chrX:13752703-13753441	chrX:13753367-13753441	0.297	0.00566275157	-0.103	0.1720331179	
ASS	RABL2B	-	chr22:50769424-50769549	chr22:50769454-50769549	0.296	0.03112961493	0.011		1
ASS	PLEKHH3	-	chr17:42672085-42672392	chr17:42672085-42672212	0.295	0.01358674745	0		1
ASS	CHD3	+	chr17:7909142-7909384	chr17:7909142-7909338	0.295	0.0002879218488	-0.038	0.02484334521	
ASS	CDK11A	-	chr1:1707408-1707584	chr1:1707524-1707584	0.291	1.41E-10	0.091	0.0556495864	
ASS	ARL16	-	chr17:81682442-81682675	chr17:81682490-81682675	0.291	0.0003991287134	0.034		1
ASS	RNF181	+	chr2:85597103-85597581	chr2:85597444-85597581	0.288	0.007889084592	0.049	0.0484292929	
ASS	CTNND1	+	chr11:57761796-57762119	chr11:57761796-57762046	0.285	6.49E-09	0.009	0.02081041728	
ASS	METTL22	+	chr16:8644528-8644725	chr16:8644556-8644725	0.283	2.96E-05	0.019		1
ASS	OCIAD1	+	chr4:48831226-48831433	chr4:48831226-48831398	0.283	0.03335973344	-0.027		1
ASS	PARP6	-	chr15:72265269-72265473	chr15:72265412-72265473	0.279	0	0		1
ASS	ZNF226	+	chr19:44165587-44165807	chr19:44165756-44165807	0.275	5.46E-06	-0.088	0.0002121826412	
ASS	CHD3	+	chr17:7907890-7908019	chr17:7907893-7908019	0.274	0.005383440513	-0.005	0.1664054621	
ASS	SLC37A3	-	chr7:140351272-140351969	chr7:140351272-140351451	0.273	2.09E-08	-0.033		0
ASS	RPL17	-	chr18:49491735-49491833	chr18:49491745-49491833	0.271	0	0.022	0.1087311279	
ASS	ST3GAL6-A	-	chr3:98718418-98718521	chr3:98718423-98718521	0.268	0.005488468139	-0.099		1
ASS	TBC1D32	-	chr6:121115171-121115747	chr6:121115171-121115241	0.264	0.03686690828	-0.023		1
ASS	BTA1F1	+	chr10:91959064-91959282	chr10:91959064-91959154	0.258	0	-0.036		1
ASS	ZNF341	+	chr20:33757147-33757343	chr20:33757147-33757322	0.258	0.009675218226	-0.068		1
ASS	PIF1	-	chr15:64819846-64820019	chr15:64819846-64819986	0.253	0.01652397872	-0.094		1
ASS	ECI2	-	chr6:4133548-4133711	chr6:4133548-4133701	0.251	9.29E-07	-0.007		1
ASS	NSFL1C	-	chr20:1455713-1455870	chr20:1455713-1455719	0.25	2.59E-08	0.011		1
ASS	ARHGAP26	+	chr5:143207197-143207473	chr5:143207197-143207308	0.25	0.0009743166039	-0.078	0.09728090801	
ASS	POMZP3	-	chr7:76611453-76611627	chr7:76611453-76611591	0.25	0.02937565073	-0.008		1
ASS	MTMR2	-	chr11:95887611-95887759	chr11:95887611-95887684	0.249	0.0002271937679	-0.002		1
ASS	GAS8	+	chr16:90031175-90031496	chr16:90031298-90031496	0.247	0.01930354929	-0.11	6.26E-06	
ASS	CDKN2AIP	+	chr4:183445534-183445665	chr4:183445534-183445634	0.247	4.13E-05	0.008		1
ASS	PPAPDC1B	-	chr8:38268822-38268990	chr8:38268881-38268990	0.244	0.0002493600206	-0.037	0.000823726726	
ASS	ZMAT1	-	chrX:101895813-101895882	chrX:101895813-101895879	0.243	0.02099159975	-0.095		1
ASS	MTRF1L	-	chr6:152995135-152995319	chr6:152995135-152995294	0.242	0.03082514448	0.001		1
ASS	C14orf159	+	chr14:91215404-91215793	chr14:91215404-91215556	0.236	0.03523702781	0		1
ASS	DNAJC10	+	chr2:182739544-182740388	chr2:182740298-182740388	0.235	0.00743209034	-0.085	0.003064074245	
ASS	C11orf57	+	chr11:112075566-112075684	chr11:112075566-112075650	0.235	0.00395677552	0.024		1
ASS	KCTD9	-	chr8:25439605-25439792	chr8:25439605-25439664	0.234	0.00907788124	-0.016		1
ASS	ZBTB8OS	-	chr1:32634701-32634792	chr1:32634767-32634792	0.234	0.03728001552	0.016		1
ASS	POMT1	+	chr9:131509902-131510062	chr9:131509902-131509996	0.233	0.008187538655	-0.06	3.81E-06	
ASS	HUS1	-	chr7:47979409-47979553	chr7:47979420-47979553	0.233	0.01147637878	0.03		1

ASS	THOC2	-	chrX:123620374-123620965	chrX:123620906-123620965	0.231	0	-0.007	0.0003434966716
ASS	FAM73B	+	chr9:129068018-129068332	chr9:129068197-129068332	0.231	7.43E-05	0.005	0.8570516629
ASS	CNBP	-	chr3:129171633-129171771	chr3:129171654-129171771	0.231	5.77E-08	0.026	0.03863816794
ASS	PSMA3-AS1	-	chr14:58273978-58274135	chr14:58273978-58274010	0.23	0.00508214036	-0.052	0.7447194854
ASS	C11orf74	+	chr11:36594512-36594641	chr11:36594512-36594592	0.226	6.34E-05	-0.042	1
ASS	DPH5	-	chr1:101001466-101001587	chr1:101001466-101001544	0.225	0.004661268084	0.009	1
ASS	TMEM67	+	chr8:93758482-93758576	chr8:93758486-93758576	0.22	0.03659565077	-0.017	1
ASS	TPT1-AS1	+	chr13:45377060-45377215	chr13:45377139-45377215	0.22	0.00019763891	0.011	1
ASS	GAA	+	chr17:80101810-80101925	chr17:80101810-80101890	0.217	0.0003941467045	-0.026	0.2346365999
ASS	ZMYM5	-	chr13:19851354-19852190	chr13:19851688-19852190	0.216	0.0009282013644	-0.021	1
ASS	CAMK2D	-	chr4:113509637-113509675	chr4:113509637-113509672	0.216	0.004100974342	-0.108	0.0003760779331
ASS	FAM111A	+	chr11:59148796-59148953	chr11:59148835-59148953	0.215	0.003383676778	-0.02	1
ASS	FUZ	-	chr19:49812614-49812736	chr19:49812637-49812736	0.214	0.0005034348025	0.026	0.003903921844
ASS	UNKL	-	chr16:1369933-1370357	chr16:1370129-1370357	0.212	4.73E-05	-0.009	1
ASS	VPS54	-	chr2:63981645-63981887	chr2:63981645-63981851	0.212	0.02258460249	-0.047	1
ASS	SLC4A3	+	chr2:219633854-219633979	chr2:219633879-219633979	0.211	0.04759067616	0.002	1
ASS	THNSL1	+	chr10:25016657-25016789	chr10:25016657-25016692	0.211	0.007391124316	0.12	1
ASS	PBRM1	-	chr3:52679573-52679726	chr3:52679573-52679723	0.207	0.0011645449	0.016	1
ASS	GAPVD1	+	chr9:125321432-125321562	chr9:125321432-125321499	0.203	0.0004619053114	-0.065	0.05966462151
ASS	SLC35B1	-	chr17:49706203-49706334	chr17:49706203-49706309	0.202	7.79E-06	-0.01	1
ASS	PFAS	+	chr17:8266500-8266898	chr17:8266752-8266898	0.201	0.009613703767	-0.002	1
ASS	ALG9	-	chr11:111838248-111838399	chr11:111838248-111838378	0.2	0.009557061151	-0.027	0.2889115731
ASS	ANAPC5	-	chr12:121328315-121328497	chr12:121328315-121328458	0.198	5.53E-11	-0.087	0
ASS	HOOK2	-	chr19:12774560-12774741	chr19:12774634-12774741	0.197	0.02371124663	-0.037	1
ASS	PKD1	-	chr16:2105321-2105707	chr16:2105321-2105474	0.196	0.02000335302	-0.048	0.0009523146041
ASS	SETD4	-	chr21:36058815-36058973	chr21:36058815-36058924	0.195	0.03505499569	-0.023	1
ASS	MPV17	-	chr2:27312993-27313154	chr2:27312993-27313074	0.194	0.01272076164	-0.007	1
ASS	MED24	-	chr17:40020272-40020482	chr17:40020272-40020353	0.193	4.61E-06	-0.032	0
ASS	CMC2	-	chr16:80998284-80998473	chr16:80998284-80998354	0.193	0.04069570644	0.025	1
ASS	TIA1	-	chr2:70216752-70216994	chr2:70216885-70216994	0.191	1.98E-07	-0.046	6.41E-05
ASS	IRF3	-	chr19:49661449-49662328	chr19:49661947-49662328	0.191	0.003142933795	0.005	1
ASS	LMBR1L	-	chr12:49106510-49106746	chr12:49106544-49106746	0.188	0.0004977651348	0.043	1
ASS	ZC3HAV1	-	chr7:139079103-139080243	chr7:139079469-139080243	0.187	0.0002460105186	-0.022	1
ASS	DOCK10	-	chr2:224805407-224805529	chr2:224805407-224805502	0.187	0.004936945245	0.168	3.62E-06
ASS	SDR39U1	-	chr14:24442108-24442260	chr14:24442177-24442260	0.186	0.002257648074	-0.005	1
ASS	CDK10	+	chr16:89694568-89694788	chr16:89694664-89694788	0.186	0.01220499947	-0.026	0.02428250175
ASS	NSUN5P1	+	chr7:75415591-75415778	chr7:75415591-75415770	0.186	0.02639140838	-0.007	1
ASS	PRKCSH	+	chr19:11447692-11447789	chr19:11447722-11447789	0.185	0.01102843369	-0.013	1
ASS	BRF1	-	chr14:105219150-105219298	chr14:105219150-105219232	0.185	0.001386479338	0.004	1
ASS	RPP25L	-	chr9:34611859-34612104	chr9:34612063-34612104	0.183	0.008976958899	-0.021	0.4656072724
ASS	DPY19L3	+	chr19:32467473-32468813	chr19:32468730-32468813	0.183	0.02228411796	-0.003	0.01410483595
ASS	SETD5	+	chr3:9434276-9434485	chr3:9434333-9434485	0.181	0.002983828513	0.017	1
ASS	FAM73B	+	chr9:129067994-129068332	chr9:129068197-129068332	0.18	0.003471603937	0.002	1
ASS	STRN4	-	chr19:46727451-46727567	chr19:46727451-46727546	0.177	0.00157658726	-0.085	1.23E-12
ASS	TRIM33	-	chr1:114397607-114397990	chr1:114397607-114397860	0.173	0.0254485429	0.015	1
ASS	MAPRE3	+	chr2:27024095-27024297	chr2:27024095-27024252	0.171	0.0008976924693	0.154	4.02E-12
ASS	HAUS4	-	chr14:22956745-22957094	chr14:22956915-22957094	0.171	0.03020364092	-0.028	0.0732778143
ASS	C1orf112	+	chr1:169804074-169804240	chr1:169804111-169804240	0.17	0.003340729773	-0.015	1
ASS	KANK1	+	chr9:732377-734835	chr9:734747-734835	0.169	0.0005420927632	0.031	1
ASS	FAM219B	-	chr15:74904981-74905059	chr15:74904981-74905039	0.169	0.01124910275	0.027	1
ASS	APRT	-	chr16:88809468-88809840	chr16:88809468-88809706	0.167	1.57E-06	0.03	0.002294258572
ASS	BICD1	+	chr12:32337498-32337816	chr12:32337498-32337706	0.166	0.04888897915	-0.011	1
ASS	WDR26	-	chr1:224431476-224431581	chr1:224431524-224431581	0.166	0.004296445586	-0.029	0.4588527966
ASS	SLC25A19	-	chr17:75288497-75288591	chr17:75288501-75288591	0.165	0.0007135351241	-0.003	0.9595103662
ASS	RNF216	-	chr7:5739275-5739621	chr7:5739275-5739352	0.164	2.09E-08	-0.007	0.003577665493
ASS	KIF2A	+	chr5:62352587-62352710	chr5:62352587-62352653	0.164	0.004282582856	-0.039	0.6032882041
ASS	USP33	-	chr1:77721830-77721925	chr1:77721830-77721901	0.164	0.03232140899	0.001	1
ASS	ANK3	-	chr10:60059339-60060006	chr10:60059339-60059430	0.164	0.003617031386	0.24	7.50E-11
ASS	NCOR2	-	chr12:124327408-124327633	chr12:124327546-124327633	0.164	0.02794282114	-0.176	0
ASS	SFSWAP	+	chr12:131714070-131714240	chr12:131714070-131714193	0.163	1.54E-07	0.007	1
ASS	WHAMM	+	chr15:82826387-82826496	chr15:82826409-82826496	0.163	0.008521201378	-0.016	1
ASS	NUSAP1	+	chr15:41350990-41351129	chr15:41351032-41351129	0.162	0.0004781326667	-0.005	1
ASS	MSTO1	+	chr1:155613656-155613766	chr1:155613656-155613733	0.16	0.02717992751	-0.057	0.3210570112

ASS	IL17RC	+	chr3:9923880-9924137	chr3:9923880-9924020	0.159	0.01632096844	-0.053	7.56E-09
ASS	RP4-639F2C	+	chr1:94962924-94963270	chr1:94962978-94963270	0.159	0.02193666938	-0.018	1
ASS	TJAP1	+	chr6:43498922-43499100	chr6:43498974-43499100	0.158	0.005932310734	-0.025	0.1036896878
ASS	SECISBP2	+	chr9:89334521-89334730	chr9:89334635-89334730	0.158	0.002486846193	-0.014	1
ASS	RAP1GAP	-	chr1:21597960-21598064	chr1:21597960-21598040	0.156	0.002071148324	-0.018	1
ASS	HECTD4	-	chr12:112264083-112264212	chr12:112264089-112264212	0.156	0.04804249068	-0.051	1
ASS	RBM6	+	chr3:49967197-49968748	chr3:49967469-49968748	0.154	0.02566195299	0.028	1
ASS	HSF4	+	chr16:67167460-67167599	chr16:67167474-67167599	0.154	0.01065698785	0.002	1
ASS	FOXRED1	+	chr11:126273315-126273454	chr11:126273338-126273454	0.153	0.02000335302	-0.118	1
ASS	ZSCAN26	+	chr6:28271853-28272339	chr6:28271853-28272336	0.153	0.004252062559	-0.037	1
ASS	CENPK	-	chr5:65561462-65561564	chr5:65561496-65561564	0.15	5.79E-06	0.002	1
ASS	CYLD	+	chr16:50749548-50750202	chr16:50749575-50750202	0.149	0.001576710913	-0.037	1
ASS	MUTYH	-	chr1:45332917-45333324	chr1:45333284-45333324	0.149	0.03557564081	0.075	0
ASS	DDIT3	-	chr12:57517268-57517595	chr12:57517268-57517424	0.149	0.0401411959	-0.031	0.4700854447
ASS	SMTN	+	chr22:31088453-31088606	chr22:31088512-31088606	0.149	0.00185771104	-0.017	0.001441947888
ASS	PROSER3	+	chr19:35765033-35765176	chr19:35765066-35765176	0.148	0.02479012398	-0.042	1
ASS	TMEM62	+	chr15:43149028-43149151	chr15:43149107-43149151	0.147	3.84E-05	0.004	1
ASS	RMND1	-	chr6:151436419-151436554	chr6:151436445-151436554	0.147	0.009959142975	-0.013	0.4403719306
ASS	REPS1	-	chr6:138926400-138930098	chr6:138929976-138930098	0.146	2.51E-07	-0.009	0
ASS	ZDHHC4	+	chr7:6577467-6577720	chr7:6577467-6577498	0.146	0.007745721211	0.074	0.0006772200526
ASS	SFT2D1	-	chr6:166322856-166324595	chr6:166322856-166322886	0.146	0.02088288316	-0.007	1
ASS	BPHL	+	chr6:3138040-3140509	chr6:3140385-3140509	0.145	0.004748089327	-0.011	0.1581460708
ASS	ANKRD10	-	chr13:110900529-110900694	chr13:110900529-110900661	0.144	0.0004438203268	-0.049	1
ASS	SDHAP1	-	chr3:195965428-195965577	chr3:195965428-195965542	0.143	0.00934947157	-0.016	1
ASS	SART3	-	chr12:108544426-108544532	chr12:108544426-108544478	0.142	0.000777512798	-0.033	0.1930077518
ASS	NDOR1	+	chr9:137216066-137216188	chr9:137216093-137216188	0.142	0.0008449208851	-0.013	1
ASS	PPP4R1L	-	chr20:58240514-58240710	chr20:58240514-58240610	0.14	0.04060591643	-0.044	1
ASS	TJAP1	+	chr6:43498922-43499100	chr6:43498977-43499100	0.139	0.0218019065	-0.021	0.4092659801
ASS	ZFAND2A	-	chr7:1152906-1153241	chr7:1152906-1153224	0.139	0.02999909818	0.001	1
ASS	SNHG5	-	chr6:85677794-85678032	chr6:85677953-85678032	0.139	3.85E-07	0.158	2.28E-13
ASS	ZNF76	+	chr6:35290252-35290382	chr6:35290265-35290382	0.138	0.002194122714	-0.006	1
ASS	MARK3	+	chr14:103468032-103468186	chr14:103468080-103468186	0.136	0.007114890212	-0.042	0.02818569323
ASS	FKBP10	+	chr17:41819529-41820049	chr17:41819529-41819675	0.136	0.003748982002	-0.031	0
ASS	DUXAP8	+	chr22:15790660-15790798	chr22:15790684-15790798	0.136	0.01002753622	-0.095	1
ASS	CNOT3	+	chr19:54145541-54145817	chr19:54145594-54145817	0.135	0.001111191173	-0.038	0.0001534372107
ASS	ATF6B	-	chr6:32117036-32117130	chr6:32117036-32117107	0.134	1.90E-05	-0.019	4.89E-05
ASS	C21orf2	-	chr21:44334060-44335804	chr21:44335757-44335804	0.133	0.025564861	-0.022	0.0183057067
ASS	CDK5RAP3	+	chr17:47973518-47973693	chr17:47973518-47973650	0.131	1.44E-06	-0.03	0
ASS	GALE	-	chr1:23796508-23796782	chr1:23796696-23796782	0.129	0.002262636209	0.186	0
ASS	QKI	+	chr6:163563419-163563719	chr6:163563443-163563719	0.127	1.90E-05	0.02	0.01917737047
ASS	UNC50	+	chr2:98618145-98618515	chr2:98618167-98618515	0.127	0.0003777090284	-0.008	0.01434919428
ASS	APBA2	+	chr15:28921639-28921749	chr15:28921639-28921718	0.126	0.001751023104	0.018	0.1786536796
ASS	TECR	+	chr19:14563140-14563257	chr19:14563173-14563257	0.126	0.02150085512	-0.006	1
ASS	PAAF1	+	chr11:73886928-73887099	chr11:73887039-73887099	0.125	0.006867038563	-0.045	1
ASS	HSCB	+	chr22:28743881-28743978	chr22:28743881-28743923	0.124	0.0001921815736	0	1
ASS	PABPC1L	+	chr20:44938044-44938191	chr20:44938060-44938191	0.124	0.009237124357	0.002	1
ASS	C5orf45	-	chr5:179853196-179853437	chr5:179853377-179853437	0.124	0.001721902013	-0.035	6.13E-10
ASS	NUSAP1	+	chr15:41350987-41351129	chr15:41351032-41351129	0.123	0.000118969917	-0.001	1
ASS	NPHP3	-	chr3:132692653-132693865	chr3:132692653-132692818	0.122	3.53E-05	0.018	1
ASS	TIMM17B	-	chrX:48895351-48895501	chrX:48895351-48895454	0.121	0.00750782119	-0.001	1
ASS	CCDC90B	-	chr11:83273950-83274740	chr11:83273950-83273992	0.12	0.005087330558	0.033	0.7861625944
ASS	FUBP1	-	chr1:77947452-77947552	chr1:77947452-77947547	0.12	0.01033981784	0.011	1
ASS	TPT1-AS1	+	chr13:45390713-45390902	chr13:45390757-45390902	0.12	1.61E-05	0.018	1
ASS	ZNF664	+	chr12:123973218-123973352	chr12:123973218-123973303	0.12	0.0156075419	0.023	1
ASS	IVD	+	chr15:40407635-40407812	chr15:40407635-40407725	0.119	0.00226146107	-0.021	1.23E-14
ASS	SLC37A3	-	chr7:140352061-140352181	chr7:140352061-140352146	0.119	0.001576710913	-0.004	0.0001172081813
ASS	BMP1	+	chr8:22176923-22177139	chr8:22176960-22177139	0.119	0.01003596905	-0.076	5.14E-07
ASS	CCS	+	chr11:66605153-66605416	chr11:66605338-66605416	0.119	0.03445710622	-0.02	2.78E-07
ASS	CLN6	-	chr15:68211555-68211863	chr15:68211674-68211863	0.117	0.0269999003	-0.044	0
ASS	NDUFAF7	+	chr2:37241577-37241791	chr2:37241577-37241637	0.116	0.00662797432	-0.018	1
ASS	CASC3	+	chr17:40167370-40167612	chr17:40167497-40167612	0.116	0.0001438215556	0.002	1
ASS	RAB15	-	chr14:64950578-64951151	chr14:64951073-64951151	0.116	0.04917885074	-0.006	0.1808345877
ASS	PIGG	+	chr4:521055-521273	chr4:521055-521249	0.116	0.0004977651348	-0.032	1

ASS	SMC4	+	chr3:160412325-160412849	chr3:160412325-160412453	0.115	0	-0.001	1
ASS	CDK11A	-	chr1:1722587-1722831	chr1:1722707-1722831	0.114	0.006888488616	-0.016	0.08616336822
ASS	COX11	-	chr17:54961118-54962915	chr17:54961118-54961312	0.114	7.79E-06	0.11	0
ASS	THOC2	-	chrX:123610917-123610963	chrX:123610917-123610957	0.113	0.002286623134	0.052	0.0007886757372
ASS	C6orf48	+	chr6:31836298-31836517	chr6:31836423-31836517	0.113	0.03010599228	-0.006	1
ASS	JKAMP	+	chr14:59486712-59486804	chr14:59486730-59486804	0.112	0.0004772283099	0.038	0.06903160736
ASS	ZNF655	+	chr7:99561887-99562494	chr7:99562367-99562494	0.111	0.02597407973	-0.032	1
ASS	C6orf48	+	chr6:31836294-31836517	chr6:31836423-31836517	0.111	0.02999909818	-0.005	1
ASS	ZNF596	+	chr8:242886-243013	chr8:242917-243013	0.109	0.02146154903	-0.023	1
ASS	IGSF8	-	chr1:160091339-160091631	chr1:160091339-160091608	0.108	0.01220499947	-0.01	0.1785591081
ASS	DNAJC17	-	chr15:40776195-40776401	chr15:40776195-40776292	0.106	4.68E-08	-0.017	5.68E-07
ASS	ENSA	-	chr1:150627311-150627592	chr1:150627466-150627592	0.106	0.02703202502	0.018	1
ASS	PBRM1	-	chr3:52587352-52587510	chr3:52587352-52587435	0.106	0.007750127607	0.013	0.09767448422
ASS	ZNF3	-	chr7:100077228-100077433	chr7:100077302-100077433	0.106	0.01848702629	0.014	1
ASS	CACNB3	+	chr12:48826244-48826518	chr12:48826366-48826518	0.105	0.01216881001	-0.02	3.16E-06
ASS	KMT2C	-	chr7:152156204-152156346	chr7:152156204-152156274	0.104	0.001747876875	-0.024	0.3652827441
ASS	DNAJC10	+	chr2:182739544-182740388	chr2:182740298-182740388	0.104	0.0003718189421	-0.04	4.59E-07
ASS	ZBTB17	-	chr1:15946153-15946316	chr1:15946153-15946294	0.104	0.004732969007	-0.007	1
ASS	PEX1	-	chr7:92501506-92502079	chr7:92501506-92501673	0.104	0.0008732873205	0.036	1
ASS	TAX1BP1	+	chr7:27816348-27816520	chr7:27816348-27816394	0.103	5.39E-05	-0.017	0.05541473235
ASS	MAP4K4	+	chr2:101887087-101887261	chr2:101887087-101887237	-0.102	2.13E-07	0.031	1.16E-05
ASS	TIMM17B	-	chrX:48895351-48895972	chrX:48895351-48895501	-0.102	0.0463393071	0.005	1
ASS	CENPK	-	chr5:65554796-65554946	chr5:65554796-65554898	-0.103	0.004100974342	-0.011	0.1356658922
ASS	NUDT13	+	chr10:73126634-73126827	chr10:73126672-73126827	-0.103	0.02810489556	-0.113	1
ASS	ST5	-	chr11:8702571-8703611	chr11:8702571-8702720	-0.104	0.01220499947	-0.005	1.01E-06
ASS	FAM114A2	-	chr5:154038292-154038434	chr5:154038387-154038434	-0.106	0.005638572567	0.024	1
ASS	FZR1	+	chr19:3534420-3534522	chr19:3534420-3534513	-0.106	0.006456856362	0.011	0.9931016041
ASS	DCAF4	+	chr14:72945883-72946027	chr14:72945887-72946027	-0.106	0.02566195299	-0.01	1
ASS	WHSC1	+	chr4:1952751-1953524	chr4:1953323-1953524	-0.107	0.002824582625	-0.007	0.1770369432
ASS	RALGPS1	+	chr9:127212943-127213049	chr9:127212967-127213049	-0.109	0.007750127607	-0.008	1
ASS	BPTF	+	chr17:67945408-67946325	chr17:67945408-67945896	-0.11	0.00665733317	0.016	1
ASS	RUSC1	+	chr1:155326579-155327132	chr1:155326897-155327132	-0.112	0.01152357239	-0.012	0.01001965199
ASS	BDP1	+	chr5:71541453-71541682	chr5:71541456-71541682	-0.113	0.01057437769	0.019	1
ASS	FCHSD1	-	chr5:141644858-141644942	chr5:141644858-141644938	-0.113	0.003195651006	-0.013	1
ASS	HNRNPH3	+	chr10:68338502-68338687	chr10:68338502-68338642	-0.114	0.004040130954	0.002	1
ASS	TRIM37	-	chr17:59001597-59001741	chr17:59001597-59001714	-0.114	0.0003718189421	-0.002	1
ASS	SNHG8	+	chr4:118278708-118279137	chr4:118278708-118278792	-0.114	0.0009901676837	0.045	0.8071787139
ASS	ZC3H11A	+	chr1:203796292-203796601	chr1:203796292-203796496	-0.116	0.03765181523	0.033	1
ASS	MRRF	+	chr9:122285168-122285946	chr9:122285168-122285287	-0.116	0.01403880967	-0.002	0.253174273
ASS	RECQL	-	chr12:21501169-21501372	chr12:21501169-21501215	-0.117	0.02462972179	0.013	1
ASS	RAP1GAP	-	chr1:21602803-21603912	chr1:21602803-21602913	-0.117	7.66E-09	-0.016	0.000110843787
ASS	NAGK	+	chr2:71072825-71073594	chr2:71073481-71073594	-0.117	0.0006627704568	-0.025	0
ASS	GUCD1	-	chr22:24540437-24543100	chr22:24540437-24543097	-0.117	5.52E-06	-0.005	0.9902235134
ASS	SYVN1	-	chr11:65132247-65132780	chr11:65132731-65132780	-0.118	0.02387795607	0.006	1
ASS	XRN1	-	chr3:142332374-142332531	chr3:142332374-142332424	-0.119	0.02871858636	0.012	1
ASS	PXN	-	chr12:120215102-120215417	chr12:120215102-120215273	-0.121	0.002194122714	0.093	0.09087061813
ASS	RETSAT	-	chr2:85345512-85346094	chr2:85345974-85346094	-0.122	0.001218214733	-0.02	0
ASS	GABPB1	-	chr15:50301220-50301368	chr15:50301256-50301368	-0.122	0.02794282114	0.024	0.6345367851
ASS	FAHD2A	+	chr2:95410526-95411026	chr2:95410526-95410586	-0.122	0.04707260085	0.048	0.001080396776
ASS	MTG1	+	chr10:133401528-133402245	chr10:133402148-133402245	-0.122	0.01355011343	-0.012	1
ASS	PPP2R2D	+	chr10:131943967-131944145	chr10:131944094-131944145	-0.123	0.0004132445768	0.022	0.002816004248
ASS	DDX39B	-	chr6:31540321-31540664	chr6:31540321-31540534	-0.123	0.000140885502	-0.09	1.25E-06
ASS	PARP14	+	chr3:122720254-122721653	chr3:122720254-122720388	-0.124	0.009250039851	-0.012	8.44E-09
ASS	ZSCAN5A	-	chr19:56314619-56314839	chr19:56314680-56314839	-0.126	0.02674759003	-0.011	1
ASS	MRPL55	-	chr1:228108436-228109021	chr1:228108954-228109021	-0.126	0.001605495495	-0.061	0.03088046436
ASS	PSMD6	-	chr3:64022642-64022801	chr3:64022738-64022801	-0.126	0.04120128176	0.005	1
ASS	CASP8	+	chr2:201266460-201266791	chr2:201266486-201266791	-0.127	0.002459197716	-0.024	1
ASS	SH3D19	-	chr4:151176524-151176687	chr4:151176533-151176687	-0.127	0.001051640299	0.018	1
ASS	TAF1D	-	chr11:93736693-93737239	chr11:93737063-93737239	-0.127	1.32E-10	0.019	1
ASS	ISG20	+	chr15:88650234-88652310	chr15:88652169-88652310	-0.128	0.004538961798	-0.111	0.2212579832
ASS	HAUS8	-	chr19:17059996-17060092	chr19:17059996-17060089	-0.131	0.04551241736	-0.007	1
ASS	RUSC1	+	chr1:155326609-155327132	chr1:155326897-155327132	-0.131	0.01930354929	-0.015	0.01418407996
ASS	RYK	-	chr3:134191848-134191983	chr3:134191848-134191974	-0.132	0.02228411796	-0.021	1

ASS	CENPT	-	chr16:67832227-67832545	chr16:67832454-67832545	-0.133	0.0002116162297	0.007		1
ASS	SMARCA4	+	chr19:11058254-11058363	chr19:11058257-11058363	-0.134	0.008425492765	0.027	0.1906372409	
ASS	BZW2	+	chr7:16646130-16646304	chr7:16646130-16646288	-0.135	0.001551747794	0.024		1
ASS	RREB1	+	chr6:7181123-7181289	chr6:7181123-7181246	-0.136	0.005879821613	0.095		1
ASS	IMPA2	+	chr18:12012169-12012349	chr18:12012169-12012215	-0.136	0.02239688901	-0.021		1
ASS	PPT2-EGFL	+	chr6:32167086-32167257	chr6:32167102-32167257	-0.136	0.001225588831	0.032	1.85E-07	
ASS	ATG16L2	+	chr11:72825301-72825407	chr11:72825348-72825407	-0.137	0.0003901111932	-0.013		1
ASS	PIDD1	-	chr11:800984-801120	chr11:801001-801120	-0.139	0.01657875278	-0.007		1
ASS	UBE2D3	-	chr4:102826484-102826844	chr4:102826484-102826636	-0.14	0.0326899352	0.027	0.4551225185	
ASS	RMND5B	+	chr5:178138107-178138396	chr5:178138107-178138258	-0.141	0.03086650433	-0.023	0.01044156558	
ASS	WDPCP	-	chr2:63439756-63439871	chr2:63439756-63439855	-0.142	0.02937565073	0.047		1
ASS	RPL7L1	+	chr6:42880860-42881082	chr6:42880860-42880966	-0.144	0.0115195204	0		1
ASS	HUWE1	-	chrX:53543840-53543968	chrX:53543885-53543968	-0.145	0.04156987741	-0.005		1
ASS	CNOT8	+	chr5:154858638-154858816	chr5:154858638-154858768	-0.145	0.004634626811	-0.03	0.330382506	
ASS	RSRP1	-	chr1:25243549-25244224	chr1:25243549-25243633	-0.146	0	0.025		1
ASS	SLC22A17	-	chr14:23347459-23347731	chr14:23347513-23347731	-0.149	0.00896509776	-0.014	0.008337512171	
ASS	CPSF7	-	chr11:61420469-61421608	chr11:61421389-61421608	-0.151	0.002518662501	0.039	7.21E-10	
ASS	SHKBP1	+	chr19:40590729-40590853	chr19:40590732-40590853	-0.151	0.0151374011	-0.001		1
ASS	MSH5-SAPC	+	chr6:31761817-31761955	chr6:31761817-31761865	-0.151	4.80E-05	-0.002	0.7085476287	
ASS	HMG3	-	chr6:79202275-79202389	chr6:79202316-79202389	-0.153	4.51E-05	-0.019		1
ASS	ARHGEF1	+	chr19:41892024-41892373	chr19:41892330-41892373	-0.155	0.006062200051	0.064	1.01E-08	
ASS	FAM208A	-	chr3:56633043-56633966	chr3:56633043-56633843	-0.155	2.29E-06	-0.007		1
ASS	GPANK1	-	chr6:31663852-31664580	chr6:31663852-31664577	-0.155	0.01713879478	0.039	0.3562912458	
ASS	NEDD1	+	chr12:96907603-96907856	chr12:96907603-96907624	-0.158	0.0002711507675	0.047		1
ASS	RAD51	+	chr15:40695173-40695425	chr15:40695173-40695321	-0.159	0.0002455544809	0		1
ASS	CEP78	+	chr9:78251904-78252043	chr9:78251907-78252043	-0.161	0.02753281436	-0.007		1
ASS	FBNP1	-	chr9:129923843-129923996	chr9:129923843-129923939	-0.161	0.007390962247	-0.005		1
ASS	MRPL43	-	chr10:100983947-100984074	chr10:100984033-100984074	-0.163	0.005849655558	-0.021		1
ASS	PI4KAP1	-	chr22:18547245-18547421	chr22:18547245-18547373	-0.163	0.01057437769	0.019		1
ASS	ZCWPW1	-	chr7:100415974-100416097	chr7:100415974-100416094	-0.165	0.04156779975	0.009		1
ASS	PLEKHH3	-	chr17:42670993-42671130	chr17:42671002-42671130	-0.166	0.0177309439	-0.013		1
ASS	PHF20L1	+	chr8:132804611-132804740	chr8:132804614-132804740	-0.166	4.50E-06	-0.017		1
ASS	PRKCSH	+	chr19:11447438-11447618	chr19:11447438-11447597	-0.166	0.03010377877	-0.048	0.001154053307	
ASS	ANXA4	+	chr2:69806384-69806498	chr2:69806384-69806432	-0.17	2.79E-05	0.005		1
ASS	WSB1	+	chr17:27307743-27309272	chr17:27309099-27309272	-0.171	0	-0.089	0.002565534185	
ASS	KLC1	+	chr14:103679383-103679545	chr14:103679383-103679518	-0.171	0.02000464033	0.046	0.08950478072	
ASS	ZNF596	+	chr8:243721-243858	chr8:243721-243805	-0.172	0.001472187424	0.001		1
ASS	INPP5B	-	chr1:37931672-37932053	chr1:37931912-37932053	-0.173	3.09E-06	-0.014	0.2820841183	
ASS	TCAIM	+	chr3:44367455-44367708	chr3:44367531-44367708	-0.174	0.04017537365	0.007		1
ASS	SGOL1	-	chr3:20174248-20175055	chr3:20175004-20175055	-0.175	0.000404362015	0.034	0.1819771004	
ASS	PRPF38A	+	chr1:52405679-52405839	chr1:52405679-52405713	-0.175	0.0001084941665	0.01	0.001810073749	
ASS	ZNF232	-	chr17:5109393-5109868	chr17:5109393-5109768	-0.175	0.0004438203268	0.011	2.76E-05	
ASS	NOL8	-	chr9:92324905-92325350	chr9:92325305-92325350	-0.176	1.63E-06	-0.046		1
ASS	CPEB2	+	chr4:15007304-15007595	chr4:15007304-15007586	-0.18	0.0001514101156	0.014		1
ASS	ZWINT	-	chr10:56358804-56358947	chr10:56358908-56358947	-0.184	0.004634626811	-0.013		1
ASS	NPAS2	+	chr2:100995399-100996055	chr2:100995795-100996055	-0.184	2.46E-05	-0.038	0.2567807888	
ASS	DAP3	+	chr1:155689090-155689243	chr1:155689090-155689174	-0.185	0	0.004		1
ASS	TUBGCP4	+	chr15:43403682-43403842	chr15:43403682-43403799	-0.187	7.91E-06	-0.026		1
ASS	CXorf38	-	chrX:40639008-40640320	chrX:40639008-40639128	-0.188	0.000157290213	-0.03		1
ASS	TRIQQ	-	chr8:92885319-92886735	chr8:92885319-92886667	-0.188	0.003596342349	0.044	0.08095202563	
ASS	NAA60	+	chr16:3484698-3485083	chr16:3484698-3485061	-0.189	0.0002455544809	0.027	0.1856844325	
ASS	NAT9	-	chr17:74773575-74773688	chr17:74773575-74773685	-0.19	0.00736127707	0.009		1
ASS	DOCK1	+	chr10:127012231-127012374	chr10:127012294-127012374	-0.194	6.31E-06	-0.004		1
ASS	MYO19	-	chr17:36508896-36509135	chr17:36509061-36509135	-0.194	0.000193223543	-0.034	0.001388486115	
ASS	COA1	-	chr7:43650492-43650712	chr7:43650611-43650712	-0.196	0.007807705261	-0.035		1
ASS	SIPA1L1	+	chr14:71704720-71705340	chr14:71705221-71705340	-0.198	1.76E-05	0.002		1
ASS	FANCL	-	chr2:58198578-58198662	chr2:58198593-58198662	-0.201	0.0001938388517	0.016		1
ASS	KMT2A	+	chr11:118471661-118474315	chr11:118474178-118474315	-0.201	3.34E-05	-0.03		1
ASS	CCHCR1	-	chr6:31144628-31144788	chr6:31144686-31144788	-0.201	0.001143198533	-0.005		1
ASS	INTU	+	chr4:127685441-127687867	chr4:127687677-127687867	-0.203	0.004053514847	-0.119	0.0337448331	
ASS	ARID1A	+	chr1:26772811-26772987	chr1:26772814-26772987	-0.205	0.0005909680069	-0.003		1
ASS	WDR31	-	chr9:113330983-113331116	chr9:113330983-113331113	-0.206	0.02812554226	-0.037		1
ASS	MZF1	-	chr19:58573054-58573575	chr19:58573372-58573575	-0.21	0.025564861	-0.003		1

ASS	ARPC1B	+	chr7:99377337-99377455	chr7:99377337-99377439	-0.21	0.002309111532	-0.015	1
ASS	ADARB1	+	chr21:45222017-45223577	chr21:45222017-45222107	-0.212	0.003150772569	-0.032	1
ASS	ZNF559	+	chr19:9341616-9343843	chr19:9341694-9343843	-0.213	0.03031240378	-0.048	0.2212579832
ASS	NEO1	+	chr15:73270009-73270233	chr15:73270057-73270233	-0.215	0.0001021511285	-0.266	0
ASS	CCDC66	+	chr3:56566593-56566759	chr3:56566593-56566740	-0.215	0.001851714863	0.027	0.253174273
ASS	RSRP1	-	chr1:25244176-25245301	chr1:25245149-25245301	-0.218	0	0.029	1
ASS	SLC52A2	+	chr8:144358592-144359065	chr8:144358592-144358900	-0.218	0.003268335568	0.017	1
ASS	KIAA0195	+	chr17:75494626-75494808	chr17:75494709-75494808	-0.219	0.00121186621	-0.016	1
ASS	PRR13	+	chr12:53443390-53443773	chr12:53443540-53443773	-0.219	3.86E-05	-0.013	0.001193237389
ASS	EFNA1	+	chr1:155133502-155133780	chr1:155133729-155133780	-0.221	0.001140508688	0.036	1
ASS	KLC1	+	chr14:103679383-103679545	chr14:103679383-103679518	-0.222	0.002423306488	0.026	0.4847738017
ASS	PRR13	+	chr12:53443390-53443773	chr12:53443486-53443773	-0.223	8.78E-09	-0.01	0.9902235134
ASS	FAM208A	-	chr3:56633043-56633966	chr3:56633043-56633843	-0.224	4.33E-06	-0.001	1
ASS	KB-1572G7.	-	chr22:23686830-23686995	chr22:23686837-23686995	-0.224	0.005345968046	0.008	1
ASS	ISG20	+	chr15:88650234-88652310	chr15:88652109-88652310	-0.225	0.0436367351	-0.013	0
ASS	PRR13	+	chr12:53443486-53443773	chr12:53443540-53443773	-0.226	0.005572013596	-0.029	0.06438414149
ASS	SLC25A19	-	chr17:75288387-75288591	chr17:75288497-75288591	-0.227	8.47E-05	0.009	0.7951186121
ASS	TRIM69	+	chr15:44758612-44758854	chr15:44758620-44758854	-0.228	0.0004772283099	0.02	1
ASS	SENP6	+	chr6:75640683-75640704	chr6:75640686-75640704	-0.229	0.03982276621	0.047	1
ASS	TAZ	+	chrX:154413206-154413358	chrX:154413206-154413339	-0.23	0.04391007992	-0.036	1
ASS	AURKA	-	chr20:56392153-56392295	chr20:56392167-56392295	-0.231	0.02306657183	0.071	1
ASS	BDH2	-	chr4:103085348-103086540	chr4:103086479-103086540	-0.231	0.04209827853	0.024	0.3286128168
ASS	Sep15	-	chr1:86914027-86914424	chr1:86914314-86914424	-0.231	0	0.028	0
ASS	NPHP1	-	chr2:110164519-110164730	chr2:110164687-110164730	-0.238	0.0373288093	-0.121	1
ASS	SCAPER	-	chr15:76771723-76771954	chr15:76771741-76771954	-0.241	0.006799172032	-0.025	1
ASS	BDH2	-	chr4:103085698-103086540	chr4:103086479-103086540	-0.241	0	0.015	0.07530626706
ASS	HACE1	-	chr6:104777012-104777110	chr6:104777012-104777097	-0.242	0.01220499947	0.021	6.83E-08
ASS	PACRGL	+	chr4:20700457-20700747	chr4:20700457-20700611	-0.242	0.001751023104	-0.066	0.009106652149
ASS	FANCA	-	chr16:89739128-89739289	chr16:89739132-89739289	-0.242	0.009715487683	-0.003	1
ASS	FAM122B	-	chrX:134769566-134772283	chrX:134769566-134771354	-0.244	0	-0.019	1
ASS	ATG16L1	+	chr2:233272965-233273777	chr2:233272965-233273052	-0.245	0.01938843415	-0.046	0.00493616634
ASS	C19orf66	+	chr19:10091475-10091630	chr19:10091583-10091630	-0.246	0.006127776705	-0.013	0.4633519523
ASS	C9orf89	+	chr9:93107673-93107827	chr9:93107673-93107816	-0.246	0.0003422060407	-0.025	0.9166047911
ASS	LAS1L	-	chrX:65520701-65523707	chrX:65523559-65523707	-0.247	0	-0.138	0
ASS	DMAP1	+	chr1:44213662-44213858	chr1:44213708-44213858	-0.247	0.003715223759	-0.029	1
ASS	CDK11A	-	chr1:1719327-1719455	chr1:1719357-1719455	-0.248	0.0177309439	-0.026	1
ASS	BAHD1	+	chr15:40465334-40465435	chr15:40465343-40465435	-0.252	0.000491510266	0.051	0.8460730171
ASS	ARL6IP4	+	chr12:122981570-122981879	chr12:122981594-122981879	-0.254	3.67E-10	-0.021	0.3143760161
ASS	R3HDM1	+	chr2:135641535-135641790	chr2:135641535-135641604	-0.256	0.01629666727	-0.04	0.5894882427
ASS	NOP56	+	chr20:2655933-2656214	chr20:2655933-2656034	-0.26	0	-0.039	0.002273725252
ASS	XRCC3	-	chr14:103711465-103711661	chr14:103711465-103711567	-0.26	0.04859579048	-0.014	1
ASS	FNBP1	-	chr9:129923843-129924026	chr9:129923843-129923939	-0.261	0.0001981096245	-0.003	1
ASS	VPS29	-	chr12:110499456-110499546	chr12:110499534-110499546	-0.262	0.01416002077	0.02	1
ASS	SLC35A2	-	chrX:48904745-48905482	chrX:48904745-48904892	-0.268	0.003195651006	-0.016	1
ASS	CLPTM1L	-	chr5:1331798-1331883	chr5:1331802-1331883	-0.269	8.36E-05	0.014	1
ASS	AP4M1	+	chr7:100101879-100102393	chr7:100101879-100101968	-0.269	0	-0.015	1.56E-05
ASS	ZNF711	+	chrX:85246929-85247651	chrX:85247546-85247651	-0.271	7.29E-08	-0.02	1
ASS	ZNF641	-	chr12:48347148-48347343	chr12:48347251-48347343	-0.276	0.03772791898	0.085	1
ASS	RFC5	+	chr12:118017689-118018053	chr12:118017689-118017815	-0.284	0.002352533445	-0.077	0.5448320262
ASS	ADCY6	-	chr12:48773468-48774098	chr12:48773468-48773647	-0.286	0.002706536394	0.012	0.5681061732
ASS	LIG1	-	chr19:48120166-48121322	chr19:48121169-48121322	-0.288	0.02059523257	-0.039	0.06844812466
ASS	PNISR	-	chr6:99403828-99404702	chr6:99404602-99404702	-0.289	8.34E-11	0.025	0.699386043
ASS	C7orf50	-	chr7:1138188-1138257	chr7:1138217-1138257	-0.289	1.25E-06	0.12	0.06516334069
ASS	CDK13	+	chr7:40092784-40093237	chr7:40092964-40093237	-0.292	4.03E-10	0.019	1
ASS	B4GALT3	-	chr1:161175807-161176095	chr1:161175807-161176074	-0.292	1.36E-05	-0.167	0
ASS	KIZ	+	chr20:21205490-21205584	chr20:21205490-21205530	-0.295	0.01371813043	0.036	0.00973255938
ASS	WDR83	+	chr19:12670518-12670611	chr19:12670562-12670611	-0.299	0.04408854106	-0.018	0.02042970593
ASS	PARP2	+	chr14:20344931-20345126	chr14:20344931-20345087	-0.299	1.33E-08	-0.028	1
ASS	PCBP1-AS1	-	chr2:70083506-70083687	chr2:70083537-70083687	-0.299	0.004120571796	-0.135	1
ASS	NGLY1	-	chr3:25736308-25737455	chr3:25737333-25737455	-0.3	0.00181880726	0.041	1
ASS	ARHGEF40	+	chr14:21075331-21075765	chr14:21075331-21075499	-0.301	0.001128835062	0.049	1.23E-14
ASS	DPM1	-	chr20:50941104-50941209	chr20:50941128-50941209	-0.303	0.01135523264	-0.02	1
ASS	ARL6IP4	+	chr12:122981570-122981879	chr12:122981594-122981879	-0.303	5.86E-13	-0.004	1

ASS	OPTN	+	chr10:13109096-13109288	chr10:13109111-13109288	-0.305	0.02544833074	-0.058	1
ASS	PCID2	-	chr13:113177610-113178008	chr13:113177610-113177976	-0.315	1.16E-07	0.027	0.5094209076
ASS	TMEM214	+	chr2:27037789-27037892	chr2:27037814-27037892	-0.32	0.0214154521	-0.11	1
ASS	NABP1	+	chr2:191678135-191678705	chr2:191678135-191678241	-0.321	0.004867116873	-0.001	1
ASS	APTX	-	chr9:32987543-32987846	chr9:32987543-32987731	-0.325	9.48E-06	0.002	1
ASS	NDUFAF6	+	chr8:95031994-95032098	chr8:95031994-95032094	-0.327	2.95E-05	0.015	1
ASS	U2AF1L4	-	chr19:35744322-35744981	chr19:35744322-35744421	-0.329	0.01277456951	0.102	0.01436035444
ASS	RABL2B	-	chr22:50782187-50782351	chr22:50782187-50782347	-0.333	0.02937565073	0.014	1
ASS	TANGO2	+	chr22:20021068-20021246	chr22:20021068-20021134	-0.336	0.002947582078	0.021	1
ASS	PAM16	-	chr16:4341367-4341672	chr16:4341367-4341583	-0.336	3.17E-05	0.048	0.0132344605
ASS	BCS1L	+	chr2:218660306-218660482	chr2:218660306-218660421	-0.338	0.009675218226	0.054	0.9201442443
ASS	ADCY10P1	+	chr6:41108948-41109904	chr6:41109712-41109904	-0.34	0.01505331047	-0.042	1
ASS	AURKB	-	chr17:8207737-8207901	chr17:8207737-8207840	-0.343	0.007397341977	-0.132	1
ASS	U2AF1L4	-	chr19:35744322-35744738	chr19:35744322-35744421	-0.35	0.004351922584	0.106	0.00613842183
ASS	SUPT20H	-	chr13:37022010-37023044	chr13:37022010-37022317	-0.36	2.00E-06	-0.01	1
ASS	PKMYT1	-	chr16:2973137-2973253	chr16:2973137-2973215	-0.365	0.00200752727	0.074	0.0007379598445
ASS	COMMD4	+	chr15:75338061-75338420	chr15:75338061-75338133	-0.366	4.88E-11	0.041	0.01204700972
ASS	RNF126	-	chr19:651610-651855	chr19:651691-651855	-0.369	0.000119055682	0.062	0.0002124678132
ASS	MSI2	+	chr17:57674917-57675126	chr17:57674971-57675126	-0.372	0.009154824571	-0.036	0.755732217
ASS	MVD	-	chr16:88656104-88656561	chr16:88656104-88656304	-0.376	0.01930354929	-0.011	0.1256515688
ASS	SH3BP2	+	chr4:2831922-2832412	chr4:2832330-2832412	-0.38	0.01237140713	0.003	1
ASS	RNF32	+	chr7:156676294-156677130	chr7:156676418-156677130	-0.385	0.002902268724	0.184	1
ASS	PKMYT1	-	chr16:2973137-2973445	chr16:2973137-2973215	-0.386	4.25E-07	0.055	6.18E-06
ASS	YPEL5	+	chr2:30155814-30155910	chr2:30155849-30155910	-0.389	0.01033981784	0.012	1
ASS	PRKAG1	-	chr12:49005461-49005592	chr12:49005461-49005543	-0.39	0.01015531981	0.104	0.305961467
ASS	LRRC75B	-	chr22:24588213-24589393	chr22:24588213-24588329	-0.394	0.0009628756991	0.062	0.1959219425
ASS	MINK1	+	chr17:4890221-4890735	chr17:4890516-4890735	-0.395	0.004661268084	-0.039	0.04915354714
ASS	KAT6B	+	chr10:74975398-74976330	chr10:74975398-74975781	-0.395	0.0009030718475	0.082	1
ASS	ZNF286A	+	chr17:15700047-15700366	chr17:15700134-15700366	-0.398	0.00692806339	-0.06	1
ASS	DDX51	-	chr12:132141102-132141420	chr12:132141274-132141420	-0.411	2.38E-06	-0.006	0.8632958686
ASS	C19orf60	+	chr19:18588994-18589683	chr19:18588994-18589077	-0.412	1.58E-07	0.013	0.1819771004
ASS	IP6K2	-	chr3:48715314-48715527	chr3:48715388-48715527	-0.414	0.03593330065	0.006	1
ASS	DGKZ	+	chr11:46368001-46368079	chr11:46368004-46368079	-0.423	0.0004772283099	-0.012	1
ASS	PLK3	+	chr1:44804338-44804779	chr1:44804338-44804501	-0.426	0.0003250196594	-0.002	1
ASS	NDUFS5	+	chr1:39026317-39026402	chr1:39026317-39026398	-0.427	0	0.034	0.2769346244
ASS	CPM	-	chr12:68933141-68933199	chr12:68933169-68933199	-0.431	0.01433723906	-0.011	1
ASS	NOL8	-	chr9:92324905-92325350	chr9:92325317-92325350	-0.431	6.68E-05	-0.076	1
ASS	CPM	-	chr12:68933141-68933202	chr12:68933159-68933202	-0.432	5.28E-05	-0.003	1
ASS	C9orf91	+	chr9:114624135-114624459	chr9:114624349-114624459	-0.432	0.0004438203268	-0.034	1
ASS	MFF	+	chr2:227328677-227328899	chr2:227328677-227328789	-0.434	2.24E-06	0.008	1
ASS	PHB2	-	chr12:6969955-6970068	chr12:6969955-6970063	-0.437	0.0001139561149	-0.001	1
ASS	TOP3B	-	chr22:21975904-21976187	chr22:21975980-21976187	-0.44	0.001218214733	-0.038	1
ASS	CORO7-PAI	-	chr16:4341367-4341583	chr16:4341367-4341504	-0.44	3.17E-05	-0.03	0.001056435653
ASS	TAZ	+	chrX:154419542-154419746	chrX:154419542-154419623	-0.441	3.46E-08	0.068	0.02235414444
ASS	PBX4	-	chr19:19570585-19570833	chr19:19570686-19570833	-0.442	0.02703202502	-0.063	1
ASS	FNBP1	-	chr9:129923843-129924026	chr9:129923843-129923996	-0.447	0.0001222988585	0.006	1
ASS	C18orf54	+	chr18:54361642-54362431	chr18:54361642-54361948	-0.45	1.03E-08	-0.002	1
ASS	SLC25A14	+	chrX:130340106-130340353	chrX:130340106-130340344	-0.453	0.0008521869982	-0.067	1
ASS	TLE2	-	chr19:3019282-3019466	chr19:3019282-3019463	-0.457	0.002391964041	-0.001	1
ASS	EPB41	+	chr1:28987430-28987905	chr1:28987447-28987905	-0.471	0.01505331047	-0.249	1
ASS	CLEC16A	+	chr16:11003073-11003305	chr16:11003073-11003257	-0.473	4.65E-05	0.083	1
ASS	C16orf93	-	chr16:30759653-30759809	chr16:30759653-30759724	-0.478	0.02067176633	-0.032	1
ASS	CCDC24	+	chr1:43993886-43993964	chr1:43993889-43993964	-0.492	0.02163235123	0.017	1
ASS	NPHP1	-	chr2:110163047-110163135	chr2:110163047-110163132	-0.498	0.003019796635	0.019	1
ASS	TKT	-	chr3:53237796-53237921	chr3:53237796-53237820	-0.501	1.07E-07	0.015	1
ASS	HLA-A	+	chr6:29944499-29944634	chr6:29944499-29944616	-0.528	0	-0.009	0.663760545
ASS	PAM16	-	chr16:4341367-4341672	chr16:4341367-4341504	-0.529	6.69E-09	-0.025	0.09247298319
ASS	ZRANB2-AS	+	chr1:71237129-71237386	chr1:71237129-71237195	-0.531	0.0004010953459	-0.109	1
ASS	OSBPL3	-	chr7:24834086-24834736	chr7:24834485-24834736	-0.543	5.35E-13	0.015	1
ASS	NABP1	+	chr2:191683289-191683804	chr2:191683728-191683804	-0.552	2.14E-10	-0.097	1
ASS	FOPNL	-	chr16:15882948-15883048	chr16:15882948-15883020	-0.557	0.0005506993828	-0.007	1
ASS	QKI	+	chr6:163565945-163566795	chr6:163566720-163566795	-0.573	0	-0.041	0.2989539018
ASS	AP4M1	+	chr7:100101879-100102393	chr7:100101879-100101989	-0.585	3.09E-06	-0.027	1

ASS	PQBP1	+	chrX:48897911-48898093	chrX:48897911-48898082	-0.587	1.43E-06	-0.015	1
ASS	SLC2A11	+	chr22:23875084-23875241	chr22:23875120-23875241	-0.59	0.004351922584	0.008	1
ASS	MGRN1	+	chr16:4686258-4690974	chr16:4688795-4690974	-0.593	3.75E-10	-0.042	8.72E-06
ASS	ASIC1	+	chr12:50076967-50077060	chr12:50076967-50077049	-0.594	0.0001836014068	0.127	1
ASS	MTX1	+	chr1:155210547-155212219	chr1:155210547-155210627	-0.6	0	0.121	3.06E-08
ASS	C5orf42	-	chr5:37139339-37142480	chr5:37142309-37142480	-0.611	9.22E-10	0.032	1
ASS	C1orf159	-	chr1:1090352-1091374	chr1:1090352-1090428	-0.65	0.01370844678	0.005	1
ASS	NEK3	-	chr13:52143914-52143987	chr13:52143915-52143987	-0.653	5.08E-05	0.222	1
ASS	TANGO2	+	chr22:20061529-20061706	chr22:20061529-20061683	-0.657	0.007874013691	-0.024	0.8148565953
ASS	NRM	-	chr6:30690024-30690243	chr6:30690046-30690243	-0.66	7.95E-05	-0.176	1
ASS	CENPV	-	chr17:16348615-16349333	chr17:16348615-16348685	-0.676	2.77E-12	0.058	0.5158640232
ASS	SH3TC2	-	chr5:149041415-149041617	chr5:149041473-149041617	-0.733	1.14E-08	0.06	1
ASS	DZANK1	-	chr20:18412645-18412853	chr20:18412645-18412835	-0.791	1.24E-12	0.025	1
MXE	ARIH2	+	chr3:48945135-48945181	chr3:48961611-48961679	0.948	0	0.02	0.2684251991
MXE	ATG13	+	chr11:46630896-46630991	chr11:46632322-46632459	0.851	2.25E-08	-0.053	1
MXE	ARIH2	+	chr3:48922747-48922811	chr3:48961611-48961679	0.828	0	-0.01	1
MXE	AGAP4	-	chr10:45841652-45841687	chr10:45844325-45844394	0.785	1.11E-09	0.034	1
MXE	RP11-33B1	+	chr4:119528739-119528789	chr4:119550378-119550443	0.639	2.06E-07	-0.037	0.8998473395
MXE	NVL	-	chr1:224232088-224232182	chr1:224232894-224232972	0.615	0.000384726908	-0.039	1
MXE	SRGAP1	+	chr12:64091275-64091378	chr12:64091892-64091926	0.576	3.66E-10	0.247	1
MXE	DOCK9	-	chr13:98845328-98845372	chr13:98845923-98845991	0.55	4.87E-08	-0.002	1
MXE	ANKRD36	+	chr2:97198585-97198658	chr2:97200452-97200525	0.529	2.35E-05	0.06	1
MXE	FUZ	-	chr19:49812250-49812335	chr19:49812446-49812736	0.511	0.006041335787	0.014	1
MXE	PCBP1-AS1	-	chr2:70053730-70053792	chr2:70055713-70055910	0.505	1.79E-07	-0.072	0.7337601527
MXE	OSBPL6	+	chr2:178339671-178339764	chr2:178344285-178344360	0.48	0.0001659601603	0.182	1
MXE	SLC9B1	-	chr4:102949256-102949427	chr4:102989799-102989941	0.474	0.01001908489	0.108	1
MXE	ERBB2IP	+	chr5:66068876-66069020	chr5:66072168-66072291	0.469	1.14E-05	0.032	1
MXE	DOCK9	-	chr13:98845328-98845372	chr13:98845923-98846060	0.468	1.11E-09	0.004	1
MXE	TNC	-	chr9:115048259-115048532	chr9:115059729-115060002	0.464	3.13E-05	0.026	0.4060670565
MXE	DNM2	+	chr19:10796060-10796199	chr19:10797379-10797518	0.455	0	0.168	0
MXE	RAPGEF1	-	chr9:131604930-131605188	chr9:131619050-131619209	0.455	2.38E-05	0.08	1
MXE	ANXA2	-	chr15:60390212-60390317	chr15:60396150-60396427	0.449	0.04267432066	0.029	1
MXE	WASF3	+	chr13:26676548-26676724	chr13:26680034-26680201	0.44	0	-0.153	1.26E-05
MXE	RP11-421L2	+	chr1:101075394-101075716	chr1:101077362-101077508	0.439	3.74E-08	0.105	7.02E-07
MXE	NBPF26	+	chr1:120834494-120834546	chr1:120836516-120836568	0.438	0.03649123668	0.667	1
MXE	AD000671.6	-	chr19:35744625-35744738	chr19:35745124-35745212	0.435	4.44E-14	-0.083	0.002127710418
MXE	TNC	-	chr9:115048259-115048532	chr9:115059729-115060002	0.416	5.63E-05	0.021	0.7244533484
MXE	ADAP2	+	chr17:30926826-30926918	chr17:30931888-30931968	0.411	3.40E-05	0.007	1
MXE	CNOT2	+	chr12:70285399-70285586	chr12:70294236-70294294	0.41	0.001318100309	0.017	1
MXE	KLHDC1	+	chr14:49725685-49725769	chr14:49728925-49729009	0.409	0.001455592303	0.034	1
MXE	PCBP1-AS1	-	chr2:70053730-70053792	chr2:70059642-70059680	0.407	4.02E-06	0.003	1
MXE	ATAT1	+	chr6:30642767-30643011	chr6:30645894-30645974	0.4	0.0005709668944	-0.143	0
MXE	SLC26A11	+	chr17:80220918-80221115	chr17:80221547-80221794	0.399	0.0003818203054	0.015	0.9970477496
MXE	PLEKHA4	-	chr19:48839204-48839263	chr19:48841148-48841310	0.396	0.01313028342	-0.011	1
MXE	MAP4K4	+	chr2:101860824-101860986	chr2:101863820-101864051	0.393	0	0.248	0
MXE	PCBP1-AS1	-	chr2:70053730-70053792	chr2:70055655-70055910	0.392	5.67E-07	-0.04	1
MXE	POLE2	-	chr14:49646569-49646694	chr14:49646993-49647092	0.387	0.001174947873	-0.116	1
MXE	CCNYL1	+	chr2:207733946-207734047	chr2:207737410-207737446	0.386	4.44E-07	0.061	0.6835350824
MXE	RP4-717I23	-	chr1:93315148-93315269	chr1:93318167-93318228	0.386	0.04922057688	0.035	1
MXE	PCBP1-AS1	-	chr2:70053730-70053792	chr2:70055713-70055910	0.382	1.18E-06	-0.056	1
MXE	CPSF7	-	chr11:61421053-61421127	chr11:61421191-61421257	0.378	0.01173911421	-0.014	1
MXE	FAM228B	+	chr2:24135118-24135187	chr2:24167626-24167683	0.377	0.04707829882	0.018	1
MXE	RPL9	-	chr4:39456405-39456538	chr4:39457585-39457681	0.37	0.007466712483	0.05	0.3088808078
MXE	CRLS1	+	chr20:6026170-6026238	chr20:6028671-6028725	0.369	0.01002816107	0.056	1
MXE	CAST	+	chr5:96727488-96727530	chr5:96729152-96729209	0.368	6.23E-14	-0.003	1
MXE	CCBL1	-	chr9:128846679-128846859	chr9:128847432-128847643	0.365	0.0009655421884	0.092	1
MXE	TPM2	-	chr9:35684731-35684807	chr9:35685063-35685139	0.365	8.39E-13	0.005	1
MXE	ZCWPW2	+	chr3:28478813-28478931	chr3:28492126-28492173	0.365	0.04454817012	-0.019	1
MXE	FBXO22	+	chr15:75904490-75904629	chr15:75913202-75913290	0.364	1.52E-09	0.01	1
MXE	OGDH	+	chr7:44647443-44647534	chr7:44647656-44647759	0.363	0	-0.046	1.20E-09
MXE	OGDH	+	chr7:44647443-44647534	chr7:44647656-44647759	0.358	0	-0.021	0.0001402925284
MXE	PILRB	+	chr7:100353372-100353483	chr7:100353894-100354012	0.349	1.28E-10	0.034	0.7555031296
MXE	IMMP1L	-	chr11:31460625-31460714	chr11:31473723-31473786	0.349	0.0002261884385	-0.017	1

MXE	ARIH2	+	chr3:48927461-48927813	chr3:48961611-48961679	0.349	0	-0.005	1
MXE	ARIH2	+	chr3:48927461-48927813	chr3:48961611-48961679	0.347	0	-0.005	1
MXE	TPM1	+	chr15:63061197-63061273	chr15:63061712-63061788	0.344	5.99E-12	0.08	1.35E-05
MXE	FBXO22	+	chr15:75904490-75904629	chr15:75913202-75913290	0.343	4.51E-08	0.01	1
MXE	HMG1	-	chr21:39345829-39345958	chr21:39347378-39347483	0.323	0	0.023	1
MXE	CPSF7	-	chr11:61421053-61421130	chr11:61421191-61421257	0.32	0.0423514077	-0.034	1
MXE	PKD1P6	-	chr16:15125690-15125807	chr16:15127469-15127596	0.32	0.01727736852	0.003	1
MXE	HMG1	-	chr21:39345829-39345958	chr21:39347378-39347478	0.316	0	0.01	1
MXE	IFT88	+	chr13:20625749-20625849	chr13:20631015-20631102	0.315	2.93E-06	-0.034	1
MXE	ARIH2	+	chr3:48927461-48927813	chr3:48964918-48964982	0.314	0	-0.007	1
MXE	LINC01184	-	chr5:127956803-127956921	chr5:128061143-128061244	0.313	8.49E-05	-0.032	0.291262272
MXE	FAM228B	+	chr2:24146929-24147086	chr2:24167626-24167683	0.308	0.008954576075	0.007	1
MXE	EPB41L2	-	chr6:130870327-130870381	chr6:130876673-130876775	0.306	0.002539822157	0.163	7.51E-11
MXE	PIGP	-	chr21:37069551-37069624	chr21:37072144-37072310	0.304	6.45E-07	0.012	0.8697005245
MXE	FAM208B	+	chr10:5714134-5714207	chr10:5717658-5717750	0.298	2.88E-06	-0.034	1
MXE	IKZF4	+	chr12:56019317-56019415	chr12:56023670-56023764	0.295	0.03038613536	0.106	1
MXE	CDKL3	-	chr5:134308573-134308727	chr5:134312291-134312380	0.292	0.02648226135	-0.01	0.9363930543
MXE	CDKL3	-	chr5:134308573-134308727	chr5:134312291-134312380	0.291	0.02508081161	-0.008	1
MXE	MDM4	+	chr1:204526359-204526434	chr1:204537458-204537497	0.286	0.0001261302674	-0.024	1
MXE	PPIL3	-	chr2:200882341-200882382	chr2:200885261-200885343	0.286	0.004322405941	-0.021	0.1276900912
MXE	SPAST	+	chr2:32098795-32098891	chr2:32114637-32114825	0.281	5.89E-08	0.108	4.52E-10
MXE	PICALM	-	chr11:85983865-85983973	chr11:85990249-85990399	0.281	0	-0.014	0.00188858072
MXE	RFWD2	-	chr1:176136487-176136547	chr1:176149005-176149074	0.28	0.005073756977	0.003	1
MXE	ALG13	+	chrX:111689086-111689197	chrX:111708964-111709048	0.279	1.16E-05	0.041	1
MXE	AC005154.6	-	chr7:30576563-30576710	chr7:30584710-30584808	0.278	0.02127345004	0.017	1
MXE	NASP	+	chr1:45594693-45594773	chr1:45600384-45600457	0.277	0.03478906968	-0.02	0.7249845197
MXE	DAG1	+	chr3:49470964-49471049	chr3:49476848-49476905	0.277	0.03468750359	0.037	1
MXE	PPIL3	-	chr2:200882341-200882382	chr2:200885261-200885367	0.277	0.03684497474	-0.025	0.6695285476
MXE	LSM14B	+	chr20:62126225-62126439	chr20:62127584-62127701	0.276	0.000694920693	0.096	1.02E-05
MXE	SFI1	+	chr22:31604308-31604404	chr22:31604868-31604945	0.276	0.0008459114573	-0.017	1
MXE	SLC29A1	+	chr6:44227262-44227342	chr6:44229389-44229471	0.274	4.53E-11	-0.03	1.01E-06
MXE	GAS5	-	chr1:173865509-173865547	chr1:173865856-173866206	0.274	0	-0.013	0.9066165008
MXE	DCUN1D4	+	chr4:51891759-51891851	chr4:51899269-51899378	0.271	9.22E-05	0.008	1
MXE	USP45	-	chr6:99445796-99446463	chr6:99464603-99464747	0.271	4.26E-07	-0.023	1
MXE	CTU2	+	chr16:88707135-88707210	chr16:88709937-88710016	0.271	0.005693884603	-0.01	1
MXE	FAM228B	+	chr2:24146929-24147086	chr2:24164197-24164335	0.271	0.01854545969	0.012	1
MXE	FAM228B	+	chr2:24146929-24147086	chr2:24164197-24164335	0.263	0.01231089299	0.008	1
MXE	ACTN4	+	chr19:38710256-38710342	chr19:38711275-38711361	0.262	4.35E-11	0.252	0
MXE	TMEM241	-	chr18:23368714-23368750	chr18:23370215-23370261	0.262	0.0380235146	-0.005	1
MXE	FBXL2	+	chr3:33297868-33297962	chr3:33359282-33359357	0.262	0.01098908084	-0.006	1
MXE	ZMAT1	-	chrX:101887197-101887304	chrX:101895813-101895882	0.262	0.001875902704	-0.058	1
MXE	FAM228B	+	chr2:24146929-24147086	chr2:24167626-24167683	0.261	0.0408781115	0	1
MXE	N4BP2	+	chr4:40097226-40097569	chr4:40100035-40100126	0.26	0.01590946898	0.164	1
MXE	NFIC	+	chr19:3381711-3382243	chr19:3425105-3425177	0.258	0.0002641670792	0.011	1
MXE	SUN1	+	chr7:843340-843520	chr7:848417-848615	0.258	0.0001492596994	-0.075	8.72E-07
MXE	SNHG17	-	chr20:38422091-38422241	chr20:38425934-38426052	0.256	5.21E-09	0.014	1
MXE	ZNRD1-AS1	-	chr6:30021666-30021761	chr6:30034907-30035110	0.253	0.0004121135196	0.062	1
MXE	SPAG9	-	chr17:50975862-50975901	chr17:50977107-50977221	0.251	0	-0.001	1
MXE	VEGFA	+	chr6:43778459-43778536	chr6:43782010-43782087	0.25	2.69E-06	0.022	0.854414688
MXE	C2orf76	-	chr2:119317465-119317503	chr2:119321153-119321204	0.248	0.04224843685	-0.043	0.2210888422
MXE	GSN	+	chr9:121281469-121281562	chr9:121300055-121300126	0.247	2.72E-12	0.022	3.32E-06
MXE	RABL2B	-	chr22:50769454-50769552	chr22:50775771-50775851	0.246	0.006656664683	0.005	1
MXE	UBE3A	-	chr15:25407066-25407137	chr15:254008619-25408684	0.246	0.006838125131	-0.011	1
MXE	EIF4G3	-	chr1:20997600-20997633	chr1:21001198-21001312	0.242	1.39E-09	0.052	1
MXE	PRDM2	+	chr1:13773077-13773188	chr1:13778417-13782831	0.242	3.35E-09	0.021	1
MXE	ANKS3	-	chr16:4726658-4726780	chr16:4726978-4727177	0.242	0.04053130872	-0.013	1
MXE	SUZ12P1	+	chr17:30743300-30743369	chr17:30759490-30759539	0.242	8.81E-07	0.004	1
MXE	AUP1	-	chr2:74529131-74529282	chr2:74529361-74529499	0.241	6.67E-09	0	1
MXE	MSRB3	+	chr12:65308528-65308655	chr12:65326825-65326934	0.241	0.0416374328	0	1
MXE	ACTN4	+	chr19:38727945-38728026	chr19:38728315-38728381	0.24	0	0.086	0
MXE	TMEM161B	-	chr5:88228444-88228528	chr5:88240812-88240916	0.238	1.82E-06	0.001	1
MXE	AUP1	-	chr2:74529131-74529282	chr2:74529361-74529499	0.237	1.56E-08	-0.002	1
MXE	C17orf62	-	chr17:82447579-82447621	chr17:82449173-82449292	0.236	0.003734037699	0.003	1

MXE	HSCB	+	chr22:28743881-28743923	chr22:28751240-28751288	0.233	0.01546534984	0.029	0.859825515
MXE	GAS5	-	chr1:173865509-173865547	chr1:173866176-173866206	0.233	0	-0.008	1
MXE	SEC24B	+	chr4:109481676-109481781	chr4:109491326-109491407	0.23	6.93E-08	-0.058	0.0007635296406
MXE	POP4	+	chr19:29610408-29610457	chr19:29611861-29611939	0.229	0.007333096958	0.015	0.9668803811
MXE	PIGF	-	chr2:46588074-46588179	chr2:46591802-46591925	0.224	0.004271075024	-0.094	6.72E-05
MXE	LRP8	-	chr1:53275630-53275753	chr1:53280586-53280715	0.224	0.0304034326	0.032	0.8275904879
MXE	TMEM161B	+	chr5:88287435-88287622	chr5:88410072-88410194	0.224	0.0129113373	0.101	0.0003093883312
MXE	CENPO	+	chr2:24793851-24793965	chr2:24799674-24799844	0.222	3.30E-09	0.002	1
MXE	DCTN6	+	chr8:30164110-30164175	chr8:30175084-30175190	0.221	0.01355535248	0.016	0.9854573988
MXE	NBPF9	-	chr1:149058924-149059097	chr1:149062092-149062265	0.221	2.56E-05	0.02	0.3997409494
MXE	MKKS	-	chr20:10412529-10413931	chr20:10420527-10420758	0.218	3.79E-12	0.027	0.01347495685
MXE	ELOVL5	-	chr6:53287861-53287942	chr6:53290094-53290189	0.217	0.0009267743125	-0.108	1
MXE	PDE9A	+	chr21:42731769-42731949	chr21:42732069-42732124	0.216	0.004302566949	0.028	0.1385328075
MXE	RP11-421L2	+	chr1:101075394-101075716	chr1:101083460-101083574	0.215	0.03685287948	0.014	1
MXE	FBXL2	+	chr3:33297868-33297962	chr3:33364624-33364719	0.214	0.001031064798	-0.014	1
MXE	GAS5	-	chr1:173865509-173865547	chr1:173866527-173866567	0.214	6.74E-05	-0.012	0.9763670398
MXE	ZGRF1	-	chr4:112589723-112589874	chr4:112603523-112603697	0.213	0.0003964893019	-0.05	1
MXE	MTCL1	+	chr18:8806892-8807060	chr18:8812978-8813233	0.212	0.0002977314871	0.033	1
MXE	ZGRF1	-	chr4:112589723-112589874	chr4:112603523-112603697	0.211	0.0006512876139	-0.055	1
MXE	ASPH	-	chr8:61618977-61619019	chr8:61633682-61633727	0.21	2.91E-07	-0.055	0.000493692975
MXE	ANKRD27	-	chr19:32605834-32605954	chr19:32607634-32607832	0.209	0.01128144421	-0.017	1
MXE	CKLF	+	chr16:66558189-66558348	chr16:66563121-66563217	0.209	1.40E-11	0.04	1.02E-05
MXE	ZGRF1	-	chr4:112589723-112589874	chr4:112603523-112603697	0.206	0.0001070343972	-0.064	1
MXE	C11orf80	+	chr11:66788159-66788269	chr11:66796280-66796364	0.206	0.0005733001896	-0.025	1
MXE	GAS5	-	chr1:173864674-173864704	chr1:173865228-173865282	0.206	5.01E-11	-0.009	1
MXE	RPL21	+	chr13:27253764-27253843	chr13:27255241-27255354	0.205	0.006823004384	0.001	1
MXE	RPL21	+	chr13:27253764-27253843	chr13:27255241-27255349	0.201	0.006700381109	0.007	1
MXE	SLMAP	+	chr3:57907883-57908006	chr3:57909075-57909150	0.2	0.000440024471	0	1
MXE	ZC3H11A	+	chr1:203796450-203796601	chr1:203801574-203801628	0.199	0.03537717391	0.089	1
MXE	PGAP3	-	chr17:39676613-39676755	chr17:39684596-39684749	0.199	0.007333096958	0.008	0.02862868358
MXE	COA1	-	chr7:43656032-43656153	chr7:43665657-43665722	0.198	1.72E-06	-0.025	0.8598337163
MXE	PCBP1-AS1	-	chr2:70018014-70018131	chr2:70051202-70051305	0.198	0.04071530613	-0.019	1
MXE	NBPF12	+	chr1:146987953-146988126	chr1:146989573-146989746	0.198	0.0001456783967	0	1
MXE	PRKRIP1	+	chr7:102395976-102396537	chr7:102397619-102397698	0.196	0.0001029012069	-0.018	0.1966846816
MXE	RP11-73M1	+	chr14:103574106-103574170	chr14:103587273-103587364	0.194	4.96E-08	0.039	0.1026254872
MXE	CFLAR	+	chr2:201140356-201140439	chr2:201145377-201145432	0.193	5.62E-06	-0.007	1
MXE	ZFAND5	-	chr9:72359417-72359521	chr9:72360109-72360221	0.191	1.68E-12	-0.006	1
MXE	KNSTRN	+	chr15:40383227-40383322	chr15:40386404-40386494	0.19	3.93E-05	0.003	1
MXE	TNFSF12-TI	+	chr17:7559623-7559702	chr17:7559845-7559893	0.19	0.006396217123	-0.011	1
MXE	MPHOSPH9	-	chr12:123226287-123226351	chr12:123227545-123227616	0.189	6.55E-07	0.039	1
MXE	MPV17	-	chr2:27312993-27313074	chr2:27322447-27322522	0.188	3.87E-06	-0.015	0.442229027
MXE	CCDC15	+	chr11:124993168-124993243	chr11:125003866-125003959	0.188	0.0004781924829	0.007	1
MXE	TNC	-	chr9:115048259-115048532	chr9:115064646-115064919	0.187	0.03274388609	0.042	0.2240421397
MXE	XKR9	+	chr8:70674817-70674899	chr8:70680780-70681330	0.185	0.002440740444	-0.053	1
MXE	GIT2	-	chr12:109947255-109947504	chr12:109951211-109951316	0.184	0.0005428233416	0.004	1
MXE	ACOX1	-	chr17:75960214-75960375	chr17:75973624-75973785	0.184	0.0006007034903	-0.018	0.1839333804
MXE	ZNF83	-	chr19:52635065-52635153	chr19:52655560-52655687	0.184	0.008711948191	-0.046	0.238757624
MXE	ARIH2	+	chr3:48922747-48922811	chr3:48945135-48945181	0.183	0.0001227177574	-0.042	0.4385128411
MXE	PCBP1-AS1	-	chr2:70059642-70059680	chr2:70083506-70083687	0.183	0.01562606437	0.016	1
MXE	MFF	+	chr2:227347225-227347384	chr2:227352513-227352573	0.182	0.0003367841868	0.056	5.72E-05
MXE	MPHOSPH9	-	chr12:123226287-123226351	chr12:123227462-123227572	0.18	1.39E-06	0.037	1
MXE	GRB10	-	chr7:50710874-50710990	chr7:50755886-50756056	0.18	0.03407818423	-0.003	1
MXE	ACSL3	+	chr2:222887829-222887888	chr2:222900673-222900780	0.18	0.001419689146	0.043	1
MXE	POP5	-	chr12:120579513-120579597	chr12:120581114-120581257	0.18	0.004097329756	-0.003	1
MXE	NUDT17	+	chr1:145846012-145846196	chr1:145846597-145846690	0.18	0.004181133627	0.034	1
MXE	RNF19B	-	chr1:32942251-32942459	chr1:32944018-32944159	0.179	0.03033891155	0.005	1
MXE	ABI1	-	chr10:26755654-26755741	chr10:26759061-26759235	0.179	0.001001354063	0.049	0.004433906038
MXE	WNK1	+	chr12:879572-880031	chr12:880720-880999	0.178	3.96E-05	-0.023	1
MXE	SPAG1	+	chr8:100213818-100213918	chr8:100220278-100220431	0.178	0.03855224577	-0.018	1
MXE	ST7L	-	chr1:112583971-112584126	chr1:112591524-112591603	0.177	0.03649123668	-0.005	1
MXE	ALG13	+	chrX:111689086-111689197	chrX:111708026-111708393	0.177	2.24E-06	0.011	1
MXE	NT5C3A	-	chr7:33024038-33024108	chr7:33026816-33026915	0.177	0.04140530147	-0.01	1
MXE	CAST	+	chr5:96722638-96722698	chr5:96729152-96729209	0.177	0.00121263946	0.035	0.4484738992

MXE	ZGRF1	-	chr4:112586444-112586583	chr4:112603523-112603697	0.176	0.01943201436	0.022	1
MXE	ANKRD39	-	chr2:96848268-96848444	chr2:96853400-96853604	0.176	0.03138932416	-0.002	1
MXE	RCL1	+	chr9:4826857-4827033	chr9:4833153-4833228	0.175	0.006396217123	-0.019	1
MXE	ACLY	-	chr17:41896619-41896649	chr17:41897748-41897839	0.174	2.86E-05	-0.022	0.0470832219
MXE	METTL6	-	chr3:15414020-15414162	chr3:15415497-15415583	0.174	0.02355341548	-0.024	1
MXE	FAM122B	-	chrX:134781820-134781917	chrX:134785885-134785947	0.173	0.003764948527	-0.016	1
MXE	COG7	-	chr16:23418699-23418827	chr16:23424748-23424947	0.173	0.04308153903	0	1
MXE	DGUOK	+	chr2:73946718-73946906	chr2:73950584-73950732	0.172	0.0001474551712	0.057	2.75E-10
MXE	MTHFD1L	+	chr6:150887841-150887981	chr6:150905649-150905761	0.172	0.001134691147	0.035	0.3570144628
MXE	KIF21A	-	chr12:39315931-39315970	chr12:39318072-39318201	0.172	2.61E-06	0.125	2.28E-07
MXE	AKIP1	+	chr11:8911443-8911671	chr11:8914825-8914930	0.172	0.0304034326	0.012	0.9920590038
MXE	NUTM2A-AS1	-	chr10:87246114-87246212	chr10:87288441-87288495	0.172	1.51E-05	-0.074	0.3277942775
MXE	HAGH	-	chr16:1819114-1819223	chr16:1819896-1820014	0.171	1.72E-06	0.003	1
MXE	DBR1	-	chr3:138163777-138163858	chr3:138167080-138167305	0.171	0.01047188361	-0.048	0.1460140654
MXE	GLS	+	chr2:190913192-190913364	chr2:190920214-190920248	0.17	0.0003834698295	0.058	1
MXE	ABI1	-	chr10:26755654-26755741	chr10:26759061-26759238	0.17	0.0004781924829	0.05	0.0005222918194
MXE	COMMD4	+	chr15:75338061-75338133	chr15:75338354-75338420	0.17	3.33E-07	-0.017	0.0001138023157
MXE	OGDH	+	chr7:44645326-44645518	chr7:44647656-44647759	0.168	0.002859687472	-0.01	1
MXE	ZNF655	+	chr7:99561887-99561973	chr7:99562367-99562494	0.168	0.01140485557	0.003	1
MXE	HJURP	-	chr2:233845727-233845820	chr2:233847396-233847461	0.167	0.0009825921946	0.042	0.9535636341
MXE	RELA	-	chr11:65661686-65661835	chr11:65661936-65662088	0.167	0.002859687472	0.006	1
MXE	PGAP2	+	chr11:3823612-3823740	chr11:3823882-3824135	0.166	9.22E-05	-0.018	4.55E-07
MXE	ARIH2	+	chr3:48924717-48924839	chr3:48945135-48945181	0.166	1.09E-05	-0.031	0.6250065823
MXE	PCBP1-AS1	-	chr2:70053730-70053792	chr2:70083506-70083687	0.166	6.87E-06	0.009	1
MXE	PCBP1-AS1	-	chr2:70018014-70018131	chr2:70051202-70051305	0.165	0.04040093942	-0.022	1
MXE	PPP4C	+	chr16:30081258-30081310	chr16:30082483-30082534	0.164	0.005808692927	0.029	0.001191643273
MXE	CFLAR	+	chr2:201140356-201140439	chr2:201149002-201149052	0.163	2.56E-05	-0.026	0.6534637752
MXE	MYEF2	-	chr15:48151472-48151571	chr15:48151873-48151942	0.163	0.001055792768	-0.024	0.8311654373
MXE	DGUOK	+	chr2:73946718-73946906	chr2:73957124-73957240	0.163	3.19E-05	0.067	2.63E-14
MXE	MBNL1	+	chr3:152455541-152455577	chr3:152456266-152456361	0.163	0.01194955016	-0.004	1
MXE	RANBP3	-	chr19:5931418-5931531	chr19:5932451-5932544	0.161	0.03047068983	0.002	1
MXE	C5orf45	-	chr5:179847977-179848066	chr5:179853196-179853276	0.159	0.004780932254	-0.003	0.443059214
MXE	DGUOK	+	chr2:73946718-73946906	chr2:73957124-73957240	0.158	0.0002387901891	0.079	0
MXE	BTF3L4	+	chr1:52064824-52064938	chr1:52083339-52083541	0.158	0.0002261884385	0.007	1
MXE	DGUOK	+	chr2:73938909-73939022	chr2:73950584-73950732	0.157	0.00925802358	0.082	0
MXE	NSMF	-	chr9:137453055-137453180	chr9:137453730-137453820	0.157	0.0007803381414	0.003	1
MXE	TEX22	+	chr14:105445417-105445511	chr14:105449358-105449409	0.156	0.0001522249229	-0.038	0.2537068609
MXE	H2AFY	-	chr5:135350822-135350913	chr5:135352945-135353045	0.155	2.56E-09	-0.054	0.1211480961
MXE	PIGP	-	chr21:37069551-37069624	chr21:37072144-37072310	0.155	7.30E-07	0.008	0.3247655327
MXE	LETMD1	+	chr12:51052091-51052207	chr12:51056143-51056245	0.154	0.03327346733	0.034	0.226484228
MXE	UBE3A	-	chr15:25407066-25407262	chr15:25408619-25408684	0.154	0.01414466032	-0.011	1
MXE	GAS5	-	chr1:173865509-173865547	chr1:173865856-173865894	0.154	2.88E-11	-0.01	1
MXE	RP4-769N1	+	chrX:102601879-102601977	chrX:102639399-102639533	0.154	0.02227107106	-0.011	1
MXE	ACOT8	-	chr20:45848449-45848675	chr20:45855158-45855292	0.153	0.01128144421	0.023	0.03473123519
MXE	CEP85L	-	chr6:118491685-118491865	chr6:118511297-118511415	0.153	0.04132591343	0.034	1
MXE	STAU1	-	chr20:49165996-49166285	chr20:49174194-49174269	0.153	8.71E-08	0.047	0.00166323334
MXE	PPIL3	-	chr2:200882341-200882435	chr2:200885261-200885367	0.153	1.17E-05	-0.023	0.09285044144
MXE	ATP2B1	-	chr12:89627677-89627716	chr12:89630504-89630645	0.152	0.007378547302	0.008	1
MXE	DLG1	-	chr3:197149742-197149796	chr3:197161639-197161738	0.152	0.000188737718	0.008	1
MXE	EED	+	chr11:86257514-86257596	chr11:86264171-86264263	0.151	0.003132359724	0.001	1
MXE	FAM49B	-	chr8:129904498-129904585	chr8:129970942-129970995	0.151	0.001100968158	0.128	1.82E-10
MXE	MPF	+	chr2:227347225-227347384	chr2:227352513-227352573	0.151	0.007663048107	0.048	0.0001226727659
MXE	HMG1	-	chr21:39348291-39348339	chr21:39348421-39348577	0.151	0.03247308498	-0.006	0.2194692576
MXE	DLST	+	chr14:74882590-74882624	chr14:74885585-74885634	0.149	0.01029295253	0.02	1
MXE	TTC13	-	chr1:230936157-230936264	chr1:230939385-230939496	0.149	4.98E-05	-0.069	0.009095902606
MXE	AP2A2	+	chr11:977094-977224	chr11:981197-981299	0.149	0.003517278317	0.005	1
MXE	MAPT	+	chr17:45971858-45971945	chr17:45978374-45978440	0.149	0.0005296925756	0.056	2.63E-14
MXE	BCL2L13	+	chr22:17683213-17683321	chr22:17702242-17702386	0.148	0.0002387901891	-0.011	1
MXE	PCBP1-AS1	-	chr2:70053730-70053792	chr2:70083537-70083687	0.148	5.92E-06	0.016	0.6302690865
MXE	IRF3	-	chr19:49660712-49660828	chr19:49661947-49662328	0.146	0.02026289817	0.009	1
MXE	SNX14	-	chr6:85549722-85549879	chr6:85557975-85558060	0.146	0.01475123239	0.006	1
MXE	FAM49B	-	chr8:129879596-129879789	chr8:129896748-129896854	0.146	0.01128144421	-0.042	1
MXE	NSMF	-	chr9:137452735-137452819	chr9:137453055-137453180	0.146	4.68E-06	0.004	1

MXE	PCNX	+	chr14:70988566-70988699	chr14:71009633-71009724	0.145	0.01152016078	0.002	1
MXE	HJURP	-	chr2:233844204-233844283	chr2:233849762-233849859	0.145	0.0003822624243	0.005	1
MXE	C6orf52	-	chr6:10683186-10683232	chr6:10686965-10687164	0.145	0.02470719013	0.014	1
MXE	TMEM14B	+	chr6:10749201-10749268	chr6:10770076-10770204	0.143	0.04701157616	0.043	0.03497287862
MXE	TMEM161A	-	chr19:19133129-19133210	chr19:19134783-19134887	0.142	0.002295330497	0.003	1
MXE	MTHFD1L	+	chr6:150887844-150887981	chr6:150905649-150905761	0.142	0.008350531521	0.027	0.7920307084
MXE	DHTKD1	+	chr10:12088985-12089255	chr10:12091512-12091684	0.142	0.03547198855	-0.001	1
MXE	ATG10	+	chr5:82164398-82164537	chr5:82178489-82178587	0.141	0.04224761506	0.019	1
MXE	PIGP	-	chr21:37067261-37067380	chr21:37072144-37072310	0.141	0.0001179796604	0.008	0.9584830328
MXE	PHF7	+	chr3:52422221-52422338	chr3:52422759-52422881	0.14	0.00222168987	0.013	1
MXE	ZRANB3	-	chr2:135390801-135390820	chr2:135504328-135504496	0.14	0.0369310243	0.015	1
MXE	CAPN7	+	chr3:15240753-15240853	chr3:15245525-15245671	0.139	0.03674380634	-0.021	0.7925114743
MXE	POLL	-	chr10:101582762-101582891	chr10:101585861-101586156	0.139	0.03049002289	0.008	1
MXE	PICALM	-	chr11:85983865-85983973	chr11:85990249-85990378	0.138	0	-0.007	0.3621489362
MXE	RAD1	-	chr5:34911553-34911812	chr5:34913469-34913578	0.137	8.28E-06	0.014	1
MXE	LRRCC1	+	chr8:85115374-85115584	chr8:85124791-85124939	0.137	0.004174444603	0.038	0.8759998953
MXE	CIZ1	-	chr9:128187862-128187934	chr9:128190328-128190444	0.137	0.0168551311	0.005	1
MXE	EPS8	-	chr12:15670855-15670923	chr12:15681225-15681302	0.137	0.02834580514	0.02	1
MXE	CRELD2	+	chr22:49923233-49923317	chr22:49924359-49924455	0.137	0.02184438566	0.005	1
MXE	ARPC1B	+	chr7:99376432-99376574	chr7:99377357-99377455	0.136	0.001794772579	-0.003	0.05702319254
MXE	PMS2	-	chr7:5978595-5978696	chr7:5982823-5982991	0.135	0.03417749302	-0.024	1
MXE	LDLR	+	chr19:11123173-11123344	chr19:11128007-11128085	0.134	0.008448894889	0.009	1
MXE	CASK	-	chrX:41555599-41555635	chrX:41557031-41557100	0.134	0.001407486282	-0.043	0.0001035333759
MXE	GRB10	-	chr7:50732271-50732368	chr7:50755886-50756056	0.133	0.003775870552	0.009	1
MXE	DGUOK	+	chr2:73938909-73939022	chr2:73957124-73957240	0.133	0.00191291694	0.069	0
MXE	THUMP2	-	chr2:39768900-39769093	chr2:39769709-39770119	0.133	2.96E-06	0.012	1
MXE	SH3GLB2	-	chr9:129010669-129010693	chr9:129012235-129012298	0.133	0.02873734411	0.039	0.164683156
MXE	RBM6	+	chr3:50048244-50048319	chr3:50054334-50054395	0.131	0.000205403459	-0.011	1
MXE	DYNC112	+	chr2:171690146-171690263	chr2:171692776-171692894	0.13	0.001121487013	-0.02	0.3455800053
MXE	MDC1	-	chr6:30707565-30708357	chr6:30711411-30711504	0.13	0.001143797693	0.015	0.946859693
MXE	ACP1	+	chr2:272036-272150	chr2:272191-272305	0.13	0.01002816107	-0.006	1
MXE	KRIT1	-	chr7:92235402-92236542	chr7:92237666-92237759	0.128	0.006841950359	-0.004	1
MXE	MELK	+	chr9:36589535-36589652	chr9:36594627-36594771	0.128	0.004831103709	-0.032	1
MXE	STRN3	-	chr14:30913523-30913657	chr14:30929200-30929311	0.128	0.0001502871092	-0.005	0.9587829415
MXE	MELK	+	chr9:36589535-36589652	chr9:36594627-36594771	0.127	0.01013902407	-0.038	1
MXE	LETMD1	+	chr12:51052091-51052207	chr12:51055834-51056021	0.126	0.007378020695	0.034	0.04226380702
MXE	ASCC3	-	chr6:100848147-100848707	chr6:100864063-100864214	0.126	0.01102991524	0.008	1
MXE	P4HTM	+	chr3:49004860-49005046	chr3:49005776-49005867	0.126	0.03840447679	-0.003	1
MXE	POLL	-	chr10:101582762-101582891	chr10:101584601-101584919	0.125	0.02262017329	0.014	1
MXE	P4HTM	+	chr3:49004860-49005046	chr3:49005717-49005867	0.125	0.03416242048	0.005	1
MXE	QKI	+	chr6:163534981-163535125	chr6:163561981-163562069	0.124	2.92E-06	0.013	0.7253696346
MXE	ESYT2	-	chr7:158737047-158737179	chr7:158739022-158739121	0.124	0.0006139817884	-0.007	1
MXE	DCTN6	+	chr8:30164110-30164175	chr8:30175084-30175190	0.123	2.03E-07	0.006	1
MXE	MPDZ	-	chr9:13113930-13114021	chr9:13115247-13115334	0.123	0.04158436659	0.005	1
MXE	SCP2	+	chr1:52948008-52948080	chr1:52950754-52950886	0.123	0.04701157616	0.002	1
MXE	C6orf52	-	chr6:10683186-10683232	chr6:10686965-10687164	0.123	0.03336528488	-0.015	1
MXE	DCXR	-	chr17:82036383-82036448	chr17:82036543-82036643	0.123	0.007049774526	-0.009	0.865728919
MXE	DPY19L3	+	chr19:32467473-32467626	chr19:32468730-32468813	0.123	0.002975638097	-0.009	0.01860732592
MXE	GTSE1	+	chr22:46326435-46326654	chr22:46328687-46328889	0.122	0.006468149765	-0.005	1
MXE	HMGN1	-	chr21:39347246-39347292	chr21:39347378-39347478	0.122	0.02072749562	-0.026	1
MXE	POMGNT1	-	chr1:46194552-46194651	chr1:46194843-46194961	0.121	0.003915883207	-0.022	0.0896573496
MXE	TPM3	-	chr1:154171412-154171488	chr1:154172028-154172104	0.121	0	0.146	0
MXE	DLG1	-	chr3:197076585-197076685	chr3:197081050-197081117	0.12	0.004195565611	-0.032	0.6917497094
MXE	XPO1	-	chr2:61525491-61526521	chr2:61533771-61533903	0.12	0	-0.004	1
MXE	KRTCAP2	-	chr1:155169790-155169857	chr1:155172564-155172892	0.12	6.32E-05	0.005	1
MXE	MARK3	+	chr14:103491776-103492034	chr14:103498501-103498528	0.119	8.37E-10	0.031	0.0001760395163
MXE	HMG20B	+	chr19:3575539-3575660	chr19:3576260-3576307	0.118	0.001067898129	-0.003	1
MXE	EED	+	chr11:86250295-86250448	chr11:86264171-86264263	0.118	4.38E-11	-0.007	1
MXE	C1orf50	+	chr1:42767508-42767624	chr1:42773562-42773649	0.118	0.0002590266131	0.029	0.2873861516
MXE	MPHOSPH8	-	chr12:123226287-123226351	chr12:123227462-123227616	0.117	9.96E-07	0.021	1
MXE	NOP56	+	chr20:2655933-2656034	chr20:2656400-2656549	0.117	1.38E-07	0.015	0.2786831776
MXE	SLC6A8	+	chrX:153693904-153694017	chrX:153694203-153694267	0.117	0.04184520844	0.009	1
MXE	POP5	-	chr12:120579773-120579923	chr12:120580995-120581257	0.117	3.96E-05	-0.002	1

MXE	HLA-C	-	chr6:31270209-31270485	chr6:31271072-31271331	0.117	5.70E-06	0.019	1
MXE	ALG13	+	chrX:111708964-111709048	chrX:111711674-111711725	0.116	0.03083217036	-0.028	1
MXE	PLAT	-	chr8:42185080-42185158	chr8:42187397-42187572	0.116	0.009587266545	-0.002	1
MXE	UBA2	+	chr19:34430575-34430659	chr19:34431860-34431931	0.116	0.0003332621248	-0.03	0.01524426996
MXE	RABEPK	+	chr9:125220538-125220700	chr9:125227909-125228059	0.116	0.004332221339	0.021	0.1005484389
MXE	GUSB	-	chr7:65976014-65976202	chr7:65979833-65979911	0.116	0.02072749562	0.014	1
MXE	ARPC1B	+	chr7:99376432-99376574	chr7:99377337-99377455	0.114	0.003775870552	0	0.06377427603
MXE	CENPO	+	chr2:24793851-24793965	chr2:24799674-24799844	0.114	0.0008017307644	-0.002	1
MXE	HNRNPH1	-	chr5:179620891-179621397	chr5:179623036-179623164	0.114	2.46E-06	-0.013	0.7854809476
MXE	TALDO1	+	chr11:755878-756002	chr11:759008-759057	0.114	0.01128144421	0.005	1
MXE	PMS2	-	chr7:5982823-5982991	chr7:5986758-5987620	0.113	0.0002590266131	0.003	1
MXE	ETNK1	+	chr12:22671271-22671355	chr12:22673499-22673660	0.112	0.008574289804	-0.001	1
MXE	KIAA1429	-	chr8:94530962-94531085	chr8:94534838-94535007	0.112	0.02615574639	-0.012	1
MXE	CIB1	-	chr15:90232218-90232327	chr15:90233668-90233703	0.112	0.01287962329	0.017	0.3584000157
MXE	TRAPPC3	-	chr1:36139719-36139819	chr1:36140068-36140166	0.111	0.01217057872	-0.004	1
MXE	KIAA1551	+	chr12:31960776-31960871	chr12:31980877-31985957	0.111	0.01001908489	-0.023	1
MXE	STAG3L5P1	+	chr7:100338772-100338889	chr7:100345864-100345968	0.111	0.00296195312	0.012	1
MXE	RMDN3	-	chr15:40738500-40738576	chr15:40745119-40745259	0.11	0.007869364411	-0.001	1
MXE	ANAPC16	+	chr10:72223887-72224056	chr10:72230365-72230440	0.11	0.003363953235	-0.007	1
MXE	LUC7L3	+	chr17:50737286-50737479	chr17:50738136-50738199	0.109	5.64E-06	-0.061	1
MXE	AGPAT4	-	chr6:161154148-161154310	chr6:161165576-161165713	0.108	0.0006171062672	-0.019	0.005268690489
MXE	BCL2L13	+	chr22:17688985-17689142	chr22:17696140-17696210	0.108	0.001814591819	0.009	1
MXE	CTSC	-	chr11:88312387-88312554	chr11:88334936-88335082	0.108	0.0247604586	0.021	0.771352608
MXE	CHKA	-	chr11:68074716-68074830	chr11:68081403-68081457	0.108	0.02218226445	-0.068	0.0005110467477
MXE	RPS6KB2	+	chr11:67431367-67431515	chr11:67432355-67432492	0.108	0.0007294478413	0.058	0
MXE	CUEDC2	-	chr10:102423797-102423859	chr10:102423995-102424178	0.107	0.001455705933	0.001	1
MXE	ZGRF1	-	chr4:112587279-112587929	chr4:112603523-112603697	0.107	0.01126235261	0.026	1
MXE	SOD1	+	chr21:31663789-31663886	chr21:31666448-31666518	0.107	0.000440024471	0.002	1
MXE	TPT1-AS1	+	chr13:45383090-45383235	chr13:45389734-45389820	0.107	0.018188216	-0.026	1
MXE	RPS6KB2	+	chr11:67431367-67431515	chr11:67432352-67432492	0.107	0.0005752714278	0.057	0
MXE	LUC7L3	+	chr17:50737286-50737479	chr17:50738140-50738199	0.106	4.40E-06	-0.059	1
MXE	FBXL4	-	chr6:98917373-98917719	chr6:98934761-98934879	0.106	0.001380734764	-0.006	1
MXE	B4GALT4	-	chr3:119229846-119230244	chr3:119236852-119237070	0.106	0.004953620754	-0.008	1
MXE	HNRNPH1	-	chr5:179621241-179621397	chr5:179623036-179623164	0.106	0.0002986804302	-0.016	0.5513892917
MXE	SLC38A9	-	chr5:55656714-55656774	chr5:55664692-55664863	0.106	0.02053550709	0.005	0.9214862729
MXE	TLK1	-	chr2:171028338-171028405	chr2:171046173-171046362	0.105	0.01313028342	0.015	1
MXE	DPH5	-	chr1:100995109-100995149	chr1:101001466-101001587	0.104	0.001814591819	0.003	1
MXE	PPIL3	-	chr2:200882341-200882435	chr2:200885261-200885343	0.104	3.05E-06	-0.016	0.001421949682
MXE	CBWD1	-	chr9:146101-146158	chr9:151304-151427	0.103	0.02204786988	-0.005	0.8649321474
MXE	GSAP	-	chr7:77329332-77329391	chr7:77330238-77330367	0.103	0.0002698227188	0.022	1
MXE	RABEPK	+	chr9:125220538-125220700	chr9:125227909-125228059	0.102	0.01742082734	0.01	1
MXE	TFRC	-	chr3:196075158-196075360	chr3:196077063-196077122	0.101	0.001018090401	-0.004	1
MXE	ARNT	-	chr1:150842423-150842468	chr1:150846262-150846307	0.101	0.01126235261	-0.043	0.3623723167
MXE	C1orf43	-	chr1:154213892-154213946	chr1:154214456-154214574	0.101	0.001794772579	0.012	0.6985415487
MXE	HMG2	+	chr1:26473482-26473527	chr1:26473702-26473817	0.101	5.39E-06	0.001	0.01181436369
MXE	MRPL47	-	chr3:179598674-179598771	chr3:179601729-179601790	-0.101	3.57E-10	-0.005	1
MXE	RPAIN	+	chr17:5425970-5426299	chr17:5428070-5428211	-0.102	0.005830025374	-0.016	1
MXE	FIP1L1	+	chr4:53399729-53399839	chr4:53452919-53453133	-0.103	0.0001310168527	0.007	1
MXE	CCDC14	-	chr3:123955842-123955965	chr3:123956354-123956427	-0.103	0.01001908489	0.044	0.6057130972
MXE	LARP1	+	chr5:154793594-154793723	chr5:154793799-154794000	-0.104	0.0001568303725	-0.033	0.2190766925
MXE	MVK	+	chr12:109579801-109579946	chr12:109581394-109581550	-0.105	0.03891190073	0.006	1
MXE	FAM92A1	+	chr8:93709770-93709875	chr8:93718674-93718788	-0.105	0.006065508786	-0.016	0.9582556869
MXE	FAM221A	+	chr7:23692182-23692253	chr7:23698191-23698299	-0.105	0.0006007034903	-0.042	2.32E-06
MXE	NSRP1	+	chr17:30118079-30118173	chr17:301363066-301363162	-0.106	0.0001113518188	0.011	0.8547258525
MXE	ACTR10	+	chr14:58215204-58215284	chr14:58219693-58219729	-0.106	0.002706536064	-0.007	1
MXE	IGF2BP3	-	chr7:23319137-23319254	chr7:23342063-23342189	-0.106	0.00699945538	-0.029	1
MXE	MOK	-	chr14:102263545-102263616	chr14:102278605-102278694	-0.108	0.01710508937	0.025	1
MXE	ARL14EP	+	chr11:30330885-30331374	chr11:30332865-30332993	-0.109	0.03819192811	-0.033	0.04351879584
MXE	NDUFAF6	+	chr8:95036370-95036494	chr8:95040705-95040927	-0.109	0.04341779919	0.047	0.01612042262
MXE	CCDC66	+	chr3:56563683-56564125	chr3:56566593-56566740	-0.109	0.0372602753	0.021	1
MXE	STRADA	-	chr17:63714005-63714108	chr17:63726637-63726695	-0.109	1.34E-05	-0.047	2.28E-05
MXE	CHEK2	-	chr22:28695709-28695873	chr22:28696900-28696987	-0.111	0.008687271641	0.015	1
MXE	USP53	+	chr4:119235289-119235411	chr4:119239217-119239903	-0.112	0.02547112692	0.051	0.112898373

MXE	SHMT1	-	chr17:18333165-18333288	chr17:18335558-18335675	-0.112	0.0274075858	-0.001	1
MXE	SH3GLB2	-	chr9:129012235-129012298	chr9:129014410-129014503	-0.113	5.31E-05	-0.002	0.9066802714
MXE	SLCO4A1-A	-	chr20:62664923-62665497	chr20:62665859-62666010	-0.113	7.86E-06	-0.042	5.69E-06
MXE	HNRNPAB	+	chr5:178209329-178209432	chr5:178210131-178210272	-0.114	1.43E-06	-0.017	0.08268356326
MXE	TACC3	+	chr4:1723727-1723870	chr4:1727707-1728787	-0.115	0.001047468692	-0.018	0.5328406679
MXE	PSMA4	+	chr15:78542176-78542219	chr15:78542482-78542645	-0.115	0.0002604984889	-0.008	1
MXE	GPD2	+	chr2:156476097-156476207	chr2:156496043-156496215	-0.115	0.01261593438	-0.029	1
MXE	RP4-777O2'	-	chr7:30500535-30500681	chr7:30524366-30524486	-0.115	0	-0.065	7.85E-08
MXE	STX2	-	chr12:130806981-130807090	chr12:130808630-130808704	-0.116	0.03649123668	-0.027	1
MXE	C17orf80	+	chr17:73233219-73233325	chr17:73235475-73236995	-0.116	8.46E-06	0.014	1
MXE	TPT1-AS1	+	chr13:45379898-45380001	chr13:45383090-45383235	-0.116	0.03030437867	0	1
MXE	PTTG1IP	-	chr21:44856192-44856364	chr21:44861162-44861271	-0.116	0.0003146550775	-0.004	1
MXE	TBC1D5	-	chr3:17508473-17508605	chr3:17623848-17623913	-0.117	0.03804740112	-0.021	1
MXE	SENPF	-	chr3:101398860-101399055	chr3:101417592-101417790	-0.117	0.009790410867	0.011	1
MXE	HNRNPAB	+	chr5:178209329-178209447	chr5:178210131-178210272	-0.117	1.08E-07	-0.017	0.03188244244
MXE	SEC24C	+	chr10:73751107-73751243	chr10:73759621-73759794	-0.118	0.03147663073	0.005	1
MXE	THAP9-AS1	-	chr4:82895691-82895724	chr4:82897988-82898062	-0.118	0.01323461605	-0.054	0.8140679126
MXE	SUMF2	+	chr7:56074173-56074218	chr7:56074585-56074736	-0.12	4.97E-05	-0.028	0.07792216463
MXE	ZUFSP	-	chr6:116660735-116660846	chr6:116666633-116666912	-0.12	0.03791778075	0.037	0.5922684338
MXE	DPY19L4	+	chr8:94756035-94756159	chr8:94761699-94761834	-0.12	0.01971974686	0.03	0.8433385351
MXE	MTA1	+	chr14:105445666-105445852	chr14:105449358-105449409	-0.12	9.90E-07	-0.004	0.5868038912
MXE	DIABLO	-	chr12:122224511-122224644	chr12:122224644-122224748	-0.12	3.44E-11	-0.009	0.6105059873
MXE	FASTK	-	chr7:151076912-151077027	chr7:151077100-151077236	-0.121	0.01029295253	0.004	1
MXE	CCDC14	-	chr3:123955842-123955965	chr3:123956045-123956115	-0.121	0.02785913751	0.003	1
MXE	SIPA1L3	+	chr19:38119305-38119882	chr19:38130497-38130772	-0.122	0.008360219703	0.007	1
MXE	DONSON	-	chr21:33583487-33583666	chr21:33584589-33584768	-0.122	0.0002959732077	0.033	0.1163465324
MXE	PGAP2	+	chr11:3811249-3811424	chr11:3823612-3823740	-0.123	0.004195565611	0.039	1.89E-05
MXE	ERCC1	-	chr19:45421177-45421393	chr19:45423269-45423381	-0.124	0.0008495928534	-0.026	0.005620356807
MXE	NDE1	+	chr16:15651468-15651584	chr16:15651930-15652050	-0.124	0.03549421484	0.004	1
MXE	AGTPBP1	-	chr9:85681267-85681335	chr9:85692688-85692813	-0.124	0.0003822624243	0.032	1
MXE	GBA	-	chr1:155240629-155240717	chr1:155241085-155241180	-0.124	0.002845465673	-0.008	0.9785565686
MXE	CALU	+	chr7:128754261-128754455	chr7:128754528-128754722	-0.125	0.0002985715716	-0.036	3.80E-13
MXE	AURKA	-	chr20:56388311-56388506	chr20:56388686-56388784	-0.126	0.008758570512	0.01	1
MXE	CCDC176	+	chr14:74046059-74046130	chr14:74047929-74048074	-0.127	0.01977590355	-0.093	1
MXE	SDCCAG3	-	chr9:136405117-136405202	chr9:136405904-136405978	-0.127	1.74E-05	0.01	0.8346712181
MXE	FASTKD1	-	chr2:169538012-169538141	chr2:169540050-169540179	-0.128	0.003836887588	0.003	1
MXE	NCK2	+	chr2:105855047-105855289	chr2:105881327-105882049	-0.129	0.0008495928534	0.004	1
MXE	PMF1-BGLA	+	chr1:156233627-156233728	chr1:156236287-156236483	-0.129	0.001301445097	0.004	1
MXE	NDUFAF6	+	chr8:95036301-95036494	chr8:95040705-95040927	-0.13	0.03547198855	0.036	0.04183150021
MXE	TFDP1	+	chr13:113610995-113611062	chr13:113631622-113631744	-0.13	0.0007625425829	-0.02	0.03652199859
MXE	CARD8	-	chr19:48249522-48249633	chr19:48249750-48249847	-0.132	0.01479498131	0.009	1
MXE	TRIQQ	-	chr8:92921502-92921660	chr8:92954405-92954564	-0.132	1.64E-09	-0.015	0.4796691057
MXE	FAM228B	+	chr2:24135118-24135187	chr2:24164197-24164335	-0.133	0.02193360829	-0.007	1
MXE	HDAC8	-	chrX:72488932-72489041	chrX:72495155-72495268	-0.134	0.0247604586	-0.012	1
MXE	SAP30BP	+	chr17:75703310-75703371	chr17:75703807-75703859	-0.134	0.01563724167	0	1
MXE	MFF	+	chr2:227342744-227342819	chr2:227347225-227347384	-0.134	2.19E-05	-0.014	0.3929611123
MXE	MOK	-	chr14:102265822-102265912	chr14:102278605-102278694	-0.135	0.04446147507	0.034	1
MXE	SH3D19	-	chr4:151147921-151148186	chr4:151149499-151149561	-0.136	0.01943201436	0.025	1
MXE	ELP2	+	chr18:36138794-36138872	chr18:36141136-36141201	-0.137	8.74E-05	0.034	1.76E-11
MXE	IFI27L1	+	chr14:94100738-94100771	chr14:94101813-94102059	-0.137	0.02602007324	-0.006	1
MXE	PVT1	+	chr8:127939507-127939676	chr8:127983903-127984204	-0.137	0.0001007016067	-0.01	1
MXE	OFD1	+	chrX:13763744-13763855	chrX:13767126-13767284	-0.138	0.0004426164455	0.004	1
MXE	FAM3A	-	chrX:154511847-154511871	chrX:154512822-154512936	-0.138	0.0001121731905	-0.007	1
MXE	LPHN3	+	chr4:61676825-61676935	chr4:61732753-61733554	-0.138	0.008473719203	0.016	1
MXE	MARK2	+	chr11:63903060-63903158	chr11:63903985-63904147	-0.139	0.04895904011	0.055	5.31E-07
MXE	ZMYND8	-	chr20:47236325-47236516	chr20:47249286-47249439	-0.139	0.005434224012	0.007	1
MXE	RPAIN	+	chr17:5426235-5426299	chr17:5428070-5428211	-0.139	2.66E-06	-0.003	1
MXE	SCAI	-	chr9:124974174-124974276	chr9:124975246-124975389	-0.139	0.01228392512	0.036	1
MXE	HPS5	-	chr11:18311913-18312024	chr11:18317750-18317907	-0.14	0.03038613536	-0.047	0.7408635736
MXE	MSRA	+	chr8:10207832-10207901	chr8:10245103-10245223	-0.14	5.58E-06	-0.053	0
MXE	RGL1	+	chr1:183806374-183806485	chr1:183847565-183847774	-0.141	0.02946769912	0.021	0.9019539908
MXE	RWDD3	+	chr1:95244210-95244698	chr1:95246541-95246657	-0.142	0.006065508786	-0.027	0.6016057985
MXE	SEC24B	+	chr4:109473003-109473186	chr4:109481676-109481781	-0.145	2.50E-06	0.042	0.01875358126

MXE	FOXM1	-	chr12:2865354-2865399	chr12:2866392-2866521	-0.146	7.70E-05	-0.128	0
MXE	TRPC1	+	chr3:142736378-142736533	chr3:142743484-142743586	-0.146	0.006802253715	0.038	1
MXE	PAQR3	-	chr4:78920533-78920681	chr4:78923856-78923947	-0.147	0.03575113456	0.018	1
MXE	PXN	-	chr12:120215559-120215661	chr12:120216272-120217116	-0.148	0.002279950226	0.015	1
MXE	LRP8	-	chr1:53271027-53271153	chr1:53271226-53271346	-0.148	0.006052763706	-0.019	1
MXE	ANKRD11	-	chr16:89305205-89305344	chr16:89316932-89317078	-0.148	0.0003367841868	0.024	0.6690858706
MXE	CARF	+	chr2:202924356-202924415	chr2:202941859-202941980	-0.149	0.004239967383	0.05	0.9952485255
MXE	CENPU	-	chr4:184697646-184697803	chr4:184700819-184700881	-0.15	1.65E-07	0.033	0.7284504163
MXE	MSRA	+	chr8:10207832-10207901	chr8:10245103-10245223	-0.15	2.77E-06	-0.047	0
MXE	GALNT7	+	chr4:173297794-173297977	chr4:173298114-173298297	-0.152	0.008807758448	-0.055	0.2018823108
MXE	ZC3H18	+	chr16:88608933-88609051	chr16:88611267-88611536	-0.152	0.00231520176	-0.027	0.69030266
MXE	GTPBP10	+	chr7:90355085-90355230	chr7:90372154-90372228	-0.153	0.01403485768	-0.001	1
MXE	ENO2	+	chr12:6917037-6917107	chr12:6917580-6917714	-0.153	6.05E-07	-0.002	1
MXE	SH3D19	-	chr4:151147921-151148186	chr4:151149499-151149561	-0.154	0.0002641670792	0.021	1
MXE	OSBPL1A	-	chr18:24341546-24341658	chr18:24366891-24366966	-0.154	0.004423317853	0.03	1
MXE	FYN	-	chr6:111696276-111696456	chr6:111700103-111700268	-0.155	1.01E-06	-0.018	0.05560903508
MXE	CAPRIN2	-	chr12:30719078-30719225	chr12:30720810-30720915	-0.157	0.009621429537	-0.007	1
MXE	FAM135A	+	chr6:70426438-70426532	chr6:70426569-70426709	-0.159	0.03932366509	0.032	1
MXE	GARNL3	+	chr9:127264951-127265021	chr9:127291167-127291242	-0.161	0.04806034241	-0.014	1
MXE	DLG1	-	chr3:197075836-197075870	chr3:197076585-197076685	-0.165	0.003356174234	0.051	0.2483918727
MXE	RWDD3	+	chr1:95244210-95244698	chr1:95246541-95246657	-0.166	0.003664600071	-0.035	0.2305103564
MXE	TTC28-AS1	+	chr22:27935150-27935230	chr22:27993123-27993535	-0.166	0.007663048107	0.003	1
MXE	ATP9B	+	chr18:79154503-79154555	chr18:79176812-79176907	-0.167	0.001097782761	-0.066	1
MXE	QKI	+	chr6:163455278-163455421	chr6:163534981-163535125	-0.168	3.05E-05	0.004	1
MXE	USP15	+	chr12:62325871-62325933	chr12:62349220-62349307	-0.168	0.002700201888	-0.03	1
MXE	MEF2A	+	chr15:99671322-99671454	chr15:99671519-99671657	-0.169	0.002084043817	0.005	1
MXE	MEF2A	+	chr15:99671322-99671454	chr15:99671519-99671657	-0.174	0.0005770143277	-0.004	1
MXE	FOXK2	+	chr17:82582740-82582934	chr17:82584012-82584188	-0.175	3.95E-05	-0.011	1
MXE	CAMK2G	-	chr10:73824039-73824084	chr10:73825278-73825347	-0.176	0.009092240333	-0.018	1
MXE	ZNF562	-	chr19:9656546-9656653	chr19:9660719-9660874	-0.177	0.01002915357	0.007	1
MXE	DOPEY1	+	chr6:83147235-83147291	chr6:83148758-83148863	-0.179	0.01456348202	-0.015	1
MXE	SRBD1	-	chr2:45476992-45477075	chr2:45488239-45488331	-0.18	0.02536826635	-0.011	1
MXE	ANKMY1	-	chr2:240507559-240507691	chr2:240511860-240512001	-0.18	0.009147376957	0.002	1
MXE	RASSF4	+	chr10:44982520-44982663	chr10:44984021-44984113	-0.181	0.006290006577	0.01	0.7969899087
MXE	B3GNTL1	-	chr17:82965650-82965746	chr17:83005114-83005210	-0.181	0.000398856445	-0.004	1
MXE	FAM118B	+	chr11:126234994-126235087	chr11:126240791-126241044	-0.182	7.70E-05	0.017	1
MXE	SF11	+	chr22:31556941-31557059	chr22:31561289-31561392	-0.182	0.01122483829	-0.009	1
MXE	MRPS18C	+	chr4:83458345-83458429	chr4:83459739-83459797	-0.184	1.82E-11	0.002	1
MXE	GTPBP10	+	chr7:90355085-90355230	chr7:90372154-90372228	-0.185	0.001463632539	0.008	1
MXE	GALNT7	+	chr4:173297794-173297977	chr4:173298114-173298297	-0.185	0.0004884841784	-0.061	0.2428842518
MXE	ZGRF1	-	chr4:112603523-112603697	chr4:112606007-112606091	-0.186	0.005366809164	-0.045	1
MXE	RCC1	+	chr1:28508829-28508901	chr1:28516724-28516867	-0.187	0.0002881438691	0.002	1
MXE	MLLT10	+	chr10:21586293-21586348	chr10:21595330-21595440	-0.189	1.95E-06	-0.048	0.5245300014
MXE	SH3D19	-	chr4:151149499-151149561	chr4:151159239-151159352	-0.189	0.0144354842	0.041	1
MXE	KIF13A	-	chr6:17873376-17873437	chr6:17898167-17898180	-0.19	0.02565955525	-0.012	1
MXE	PQLC3	+	chr2:11164203-11164261	chr2:11171924-11172045	-0.19	0.0108490355	-0.022	1
MXE	TMEM63B	+	chr6:44150563-44150629	chr6:44151845-44152008	-0.191	0.002658984414	-0.023	1
MXE	RABGEF1	+	chr7:66739995-66740792	chr7:66771882-66772078	-0.192	7.65E-05	-0.04	0.3079977626
MXE	ZGRF1	-	chr4:112603523-112603697	chr4:112606007-112606091	-0.193	0.003456374552	-0.049	1
MXE	GAS5	-	chr1:173865470-173865547	chr1:173866527-173866567	-0.194	8.27E-05	-0.004	1
MXE	TXLNA	+	chr1:32184524-32184616	chr1:32187953-32188124	-0.196	0.001031064798	0.003	1
MXE	MOK	-	chr14:102263545-102263616	chr14:102265822-102265912	-0.197	0.02719533086	-0.028	1
MXE	RP11-421L2	+	chr1:101075275-101075394	chr1:101075394-101075716	-0.198	0.0003131589947	-0.042	0.4348041261
MXE	SYTL2	-	chr11:85714412-85714507	chr11:85717482-85717530	-0.199	0.008014771864	0.038	1
MXE	DCUN1D4	+	chr4:51891759-51891851	chr4:51911069-51911174	-0.2	1.55E-06	0.015	1
MXE	MFF	+	chr2:227342744-227342819	chr2:227347225-227347384	-0.2	2.28E-05	-0.015	0.8673176874
MXE	TFPI	-	chr2:187513615-187513646	chr2:187529363-187529485	-0.201	0.002783607971	-0.008	1
MXE	HSF4	+	chr16:67167474-67167599	chr16:67167823-67167947	-0.201	0.004540987033	0.008	1
MXE	ABHD14A	+	chr3:51978258-51978374	chr3:51980392-51980628	-0.203	0.0318128299	-0.014	1
MXE	UGGT2	-	chr13:95856157-95856340	chr13:95859590-95859675	-0.204	0.001400276335	0.026	0.2681968531
MXE	TRIM5	-	chr11:5665980-5666081	chr11:5667688-5667711	-0.204	0.005212261631	-0.008	1
MXE	CLIP1	-	chr12:122347374-122347479	chr12:122351110-122351143	-0.208	0.0009627121469	0.038	1
MXE	ANKRD27	-	chr19:32607634-32607832	chr19:32615657-32615780	-0.209	0.004476786939	0.019	1

MXE	ACER3	+	chr11:76985642-76985724	chr11:76990538-76990574	-0.21	0.006065508786	-0.036		1
MXE	DLG1	-	chr3:197075836-197075870	chr3:197076585-197076682	-0.212	0.003045392827	0.06	0.2112286043	
MXE	ACAA1	-	chr3:38131925-38132005	chr3:38133951-38134009	-0.213	0.006804735893	0.037	0.007783566267	
MXE	SDHC	+	chr1:161323613-161323670	chr1:161328395-161328497	-0.213	0.001810025378	0.006		1
MXE	SUZ12P1	+	chr17:30734896-30734943	chr17:30743300-30743369	-0.214	6.63E-06	0.016		1
MXE	TTC25	+	chr17:41935470-41935543	chr17:41935598-41935749	-0.215	0.03441493153	-0.073		1
MXE	MPPE1	-	chr18:11897525-11897620	chr18:11905737-11905953	-0.218	0.0011580361	-0.004		1
MXE	CTNND1	+	chr11:57789036-57789155	chr11:57791384-57791673	-0.219	0.004696136325	-0.002		1
MXE	SFI1	+	chr22:31556941-31557059	chr22:31561289-31561392	-0.221	0.04505429643	-0.042		1
MXE	CD27-AS1	-	chr12:6448639-6448737	chr12:6450340-6450980	-0.223	0.0003131589947	0.011		1
MXE	ARNTL2	+	chr12:27370128-27370230	chr12:27376345-27376387	-0.224	0.002977500621	-0.017		1
MXE	GAS5	-	chr1:173864674-173864704	chr1:173865228-173865282	-0.224	0	-0.004		1
MXE	WDR27	-	chr6:169665485-169665556	chr6:169670568-169670693	-0.225	0.01847367209	0.026		1
MXE	FAM86C1	+	chr11:71791735-71791819	chr11:71793379-71793481	-0.231	0.01960597291	-0.004		1
MXE	SUN1	+	chr7:848417-848615	chr7:849922-850033	-0.231	1.08E-07	0.017	0.8312730181	
MXE	KIF13A	-	chr6:17789871-17789910	chr6:17794248-17794395	-0.232	0.01033725682	-0.045		1
MXE	RP11-421L2	+	chr1:101077362-101077508	chr1:101083460-101083574	-0.235	0.04252502176	-0.1	2.15E-06	
MXE	MSL1	+	chr17:40129244-40129627	chr17:40132033-40132098	-0.237	0	0.051	8.80E-07	
MXE	CTNND1	+	chr11:57789036-57789155	chr11:57791493-57791673	-0.237	0.007137831095	-0.012		1
MXE	FLCN	-	chr17:17222500-17222661	chr17:17223921-17224143	-0.238	0.00723383536	-0.006		1
MXE	CTNND1	+	chr11:57789036-57789155	chr11:57791491-57791673	-0.238	0.007189633564	-0.013		1
MXE	SYTL2	-	chr11:85714412-85714507	chr11:85717482-85717726	-0.242	3.60E-07	0.005		1
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.246	0.01388670621	0.088	0.4140041386	
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.246	0.01388670621	0.099	0.1388438884	
MXE	SCHIP1	+	chr3:159866162-159866281	chr3:159886206-159886324	-0.247	0	-0.017	0.6671294199	
MXE	ARHGEF40	+	chr14:21087000-21087105	chr14:21087319-21087463	-0.249	6.58E-05	-0.095	8.37E-13	
MXE	RUFY3	+	chr4:70789494-70789592	chr4:70793764-70793904	-0.252	0.005649545712	-0.195	0	
MXE	UGGT2	-	chr13:95859590-95859675	chr13:95860787-95860883	-0.253	0.0001298389853	0.039	0.8375223012	
MXE	SPOP	-	chr17:49636758-49636809	chr17:49668026-49668078	-0.254	0.009456335949	-0.035	0.5066287568	
MXE	PCNT	+	chr21:46421969-46422124	chr21:46425830-46425971	-0.26	0.01452950685	-0.016	0.9719564839	
MXE	SUN1	+	chr7:849519-849603	chr7:849922-850033	-0.266	1.97E-10	0.041	0.1766295962	
MXE	PCBP1-AS1	-	chr2:70055655-70055910	chr2:70059642-70059680	-0.27	0.01020578741	0.056	0.9571047309	
MXE	CTNND1	+	chr11:57789036-57789155	chr11:57794009-57794081	-0.274	1.02E-13	-0.038	0.4669800982	
MXE	SNX14	-	chr6:85541984-85542043	chr6:85543181-85543306	-0.275	9.64E-12	-0.031	0.02285440182	
MXE	PPRC1	+	chr10:102144249-102144307	chr10:102146671-102147392	-0.277	2.09E-07	0.039	0.2473813842	
MXE	DGKZ	+	chr11:46368001-46368079	chr11:46369493-46369550	-0.279	0.004410053941	0.003		1
MXE	FAM228B	+	chr2:24139369-24139450	chr2:24146929-24147086	-0.281	0.00294268215	-0.013		1
MXE	RNF146	+	chr6:127280515-127280604	chr6:127285207-127285348	-0.284	0.0001091448679	-0.077	0.0004303877121	
MXE	GUSBP11	-	chr22:23695172-23695517	chr22:23700725-23700845	-0.284	0.0001265450782	-0.018		1
MXE	TNC	-	chr9:115046409-115046682	chr9:115048259-115048532	-0.285	0.04224761506	-0.045	3.59E-07	
MXE	SLCO5A1	-	chr8:69738039-69738204	chr8:69755423-69755641	-0.288	0.000307498296	-0.05		1
MXE	SLC29A1	+	chr6:44227262-44227342	chr6:44229389-44229471	-0.303	0	0.044	0.001575429063	
MXE	DHRS4L2	+	chr14:23995031-23995133	chr14:24001383-24001517	-0.307	0.02072749562	0.052	0.07792216463	
MXE	TPT1-AS1	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.308	9.27E-05	-0.012		1
MXE	EMILIN2	+	chr18:2884963-2885139	chr18:2890560-2892486	-0.309	9.76E-05	0.017		1
MXE	C1QTNF6	-	chr22:37191671-37191737	chr22:37195380-37195458	-0.314	0.01470907625	-0.001		1
MXE	ELOVL5	-	chr6:53290094-53290189	chr6:53290400-53290535	-0.319	0.0004536946538	-0.06		1
MXE	CCNJL	-	chr5:160269462-160269544	chr5:160276268-160276412	-0.321	0.004337264385	-0.018		1
MXE	FAM45A	+	chr10:119123468-119123569	chr10:119129514-119129622	-0.327	8.86E-05	-0.01		1
MXE	SEC31A	-	chr4:82861630-82861708	chr4:82862533-82862572	-0.328	1.11E-09	-0.01		1
MXE	U2AF1	-	chr21:6492130-6492197	chr21:6493043-6493110	-0.334	0.04701157616	-0.078		1
MXE	RFWD2	-	chr1:176149005-176149074	chr1:176184632-176184692	-0.34	0.01289228184	-0.014		1
MXE	YY1AP1	-	chr1:155679927-155680008	chr1:155680381-155680456	-0.342	3.79E-05	0.004		1
MXE	FANCI	+	chr15:89245194-89245311	chr15:89245755-89245839	-0.348	1.65E-07	-0.007		1
MXE	FYN	-	chr6:111699514-111699670	chr6:111700103-111700268	-0.349	0	-0.056		0
MXE	TADA2A	+	chr17:37426949-37427009	chr17:37437737-37437922	-0.353	0.0007720291368	0.06	0.9317169586	
MXE	CBWD1	-	chr9:147900-148040	chr9:151304-151427	-0.365	0.01047188361	-0.039		1
MXE	ETFA	-	chr15:76284364-76284460	chr15:76284804-76284927	-0.367	2.24E-05	-0.008		1
MXE	CTNND1	+	chr11:57789036-57789155	chr11:57794009-57794081	-0.371	0	-0.045	0.2954947816	
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.379	0.0002725051906	0.095		1
MXE	RNF146	+	chr6:127280515-127280604	chr6:127282286-127282395	-0.382	0.01094845149	-0.174	1.52E-11	
MXE	HDAC11	+	chr3:13498512-13498555	chr3:13500712-13500789	-0.384	0.0001997038677	0.023		1
MXE	PGAP2	+	chr11:3811249-3811424	chr11:3822908-3822993	-0.385	4.38E-11	0.01	0.01935677844	

MXE	MTMR2	-	chr11:95882373-95882496	chr11:95887611-95887684	-0.388	0.01313028342	-0.067		1
MXE	NQO1	-	chr16:69713027-69713129	chr16:69714963-69715077	-0.394	0	0.016		1
MXE	FAM86C1	+	chr11:71791738-71791819	chr11:71793379-71793481	-0.395	0.00664473448	0.04		1
MXE	SUN1	+	chr7:849519-849603	chr7:849922-850033	-0.397	5.58E-12	-0.011		1
MXE	TANGO2	+	chr22:20055942-20056013	chr22:20063337-20063442	-0.397	0.00308776571	0.022	0.547983957	1
MXE	LINC00894	+	chrX:149941789-149941847	chrX:149943650-149943762	-0.4	0.002052545047	0.063		1
MXE	SEPT2	+	chr2:241317498-241317599	chr2:241324408-241324662	-0.404	1.58E-05	0.052		1
MXE	ZHX3	-	chr20:41213733-41213899	chr20:41267462-41267612	-0.408	0.01738238435	-0.087		1
MXE	RP11-507M:	+	chr2:24139369-24139450	chr2:24146929-24147086	-0.408	0.004156507974	0.017		1
MXE	LINC00630	+	chrX:102816991-102817082	chrX:102825992-102826169	-0.413	0.002188454797	-0.126		1
MXE	SS18	-	chr18:26080304-26080423	chr18:26082362-26082528	-0.419	0.0001659601603	0.244		1
MXE	MX1	+	chr21:41449136-41449295	chr21:41451166-41451243	-0.419	0.04197901362	0.008		1
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.431	0.03469929876	0.11	0.1021250984	1
MXE	DNM1	+	chr9:128224250-128224389	chr9:128226034-128226173	-0.438	2.11E-05	0.155	3.08E-07	1
MXE	TMBIM6	+	chr12:49741956-49742280	chr12:49743416-49743565	-0.442	0.001459892005	0.072	0.1378272727	1
MXE	LINC00894	+	chrX:149942183-149942329	chrX:149943650-149943762	-0.445	0.0005601986855	0.13		1
MXE	DAK	+	chr11:61335839-61335937	chr11:61336203-61336390	-0.446	0.0003061337011	0.036		1
MXE	ISYNA1	-	chr19:18436972-18437105	chr19:18437598-18437760	-0.472	3.96E-05	-0.001		1
MXE	TRMT2B	-	chrX:101051250-101051366	chrX:101051643-101051733	-0.474	0.004271075024	0.044		1
MXE	TNFSF13	+	chr17:7559623-7559702	chr17:7559850-7559893	-0.476	3.35E-06	0.011		1
MXE	ANKMY1	-	chr2:240509347-240509455	chr2:240511860-240512001	-0.477	0.005009216857	0.046		1
MXE	RP11-175P1	-	chr12:100177042-100177120	chr12:100180552-100180716	-0.478	0.0002414008361	-0.073		1
MXE	KIAA1468	+	chr18:62279773-62279856	chr18:62280359-62280442	-0.495	1.61E-13	-0.055	0.01431104557	1
MXE	SYTL2	-	chr11:85714412-85714507	chr11:85717482-85717530	-0.512	0	-0.016		1
MXE	DLEU1	+	chr13:50433412-50433550	chr13:50527865-50528064	-0.517	0.0001288175153	-0.168		1
MXE	ZCWPW2	+	chr3:28492126-28492173	chr3:28514063-28514122	-0.527	0.0004781924829	0.044		1
MXE	CNTLN	+	chr9:17273732-17273866	chr9:17298189-17298352	-0.54	6.62E-10	0.022		1
MXE	HSD11B1L	+	chr19:5684818-5684905	chr19:5684964-5685119	-0.541	0.01372157933	-0.02	0.790753828	1
MXE	SS18	-	chr18:26080304-26080423	chr18:26084051-26084175	-0.557	9.01E-05	0.142		1
MXE	HSD11B1L	+	chr19:5684818-5684905	chr19:5684964-5685119	-0.557	0.007513422672	-0.03	0.3387484737	1
MXE	NAT1	+	chr8:18212390-18212774	chr8:18216876-18216994	-0.582	0.0002815207596	-0.008		1
MXE	HDHD1	-	chrX:7077219-7077449	chrX:7105619-7105838	-0.583	0	0		1
MXE	SYTL2	-	chr11:85711112-85711232	chr11:85714412-85714507	-0.625	0	-0.022		1
MXE	NQO2	+	chr6:3003668-3003789	chr6:3004494-3004651	-0.629	0.0003073158693	-0.037		1
MXE	NOTCH2NL	-	chr1:146136352-146136455	chr1:146142649-146142752	-0.66	4.61E-07	0.096		1
MXE	TCF7L2	+	chr10:113159919-113159992	chr10:113160618-113160691	-0.684	0.0007076008699	-0.061		1
MXE	FAM122C	+	chrX:134847882-134847971	chrX:134849166-134849228	-0.69	0.0008449722938	0.015		1
MXE	TXNRD1	+	chr12:104290992-104291104	chr12:104309758-104309950	-0.697	4.20E-05	0.135		1
MXE	TVP23C-CD	-	chr17:15503097-15503232	chr17:15540432-15540561	-0.827	0	-0.06	0.6267284598	1
RI	HLA-A	+	chr6:29944499-29945091	NA	0.911	0	0.041	0.5203650265	1
RI	NID2	-	chr14:52005736-52006660	NA	0.884	1.29E-06	-0.022	4.39E-08	1
RI	ZNF582-AS	+	chr19:56398276-56399168	NA	0.809	0	-0.003	8.31E-05	1
RI	TPT1	-	chr13:45340711-45341158	NA	0.802	4.16E-13	-0.045	0.009230892338	1
RI	WDR90	+	chr16:655057-655468	NA	0.76	0.0002730825593	-0.015		1
RI	TCF4	-	chr18:55228846-55232671	NA	0.753	7.37E-05	-0.018	0.0002409891459	1
RI	PLXNB1	-	chr3:48410454-48411036	NA	0.641	0.01297814223	-0.015		0
RI	QKI	+	chr6:163563419-163570145	NA	0.602	3.34E-14	-0.026	1.78E-06	1
RI	AP1G2	-	chr14:23563583-23563856	NA	0.577	6.09E-10	-0.009	0.5361133281	1
RI	NPR2	+	chr9:35808508-35808853	NA	0.544	0.001284150908	-0.042	0.006974750714	1
RI	ZNF517	+	chr8:144802869-144804238	NA	0.542	8.14E-05	-0.005		1
RI	ABCB6	-	chr2:219210380-219210823	NA	0.538	0.001910688849	-0.03		0
RI	AP1G2	-	chr14:23563379-23563638	NA	0.518	9.00E-08	-0.052		1
RI	PPIL2	+	chr22:21694936-21695496	NA	0.507	0.000377647128	-0.031		1
RI	FNBP1L	+	chr1:93550946-93554659	NA	0.47	0	0.113	1.85E-13	1
RI	GAS5	-	chr1:173865228-173865547	NA	0.436	0	-0.012	0.002626283484	1
RI	PI4KAP2	-	chr22:21475210-21476764	NA	0.423	0.0002582586347	0.142		1
RI	AP1G2	-	chr14:23563715-23564221	NA	0.412	3.17E-07	-0.088	0.002836188205	1
RI	QKI	+	chr6:163563419-163570145	NA	0.403	4.78E-07	0.008		1
RI	ARL6IP4	+	chr12:122981128-122981879	NA	0.401	1.61E-08	-0.042	0.007097848044	1
RI	U2AF1L4	-	chr19:35744322-35744738	NA	0.397	9.78E-05	-0.004	0.9339013671	1
RI	OBSL1	-	chr2:219550728-219551798	NA	0.388	0.03714903893	-0.067	3.75E-06	1
RI	BBS1	+	chr11:66531655-66532219	NA	0.388	0.0009446880095	-0.029	2.07E-11	1
RI	ATHL1	+	chr11:290677-292095	NA	0.381	3.71E-07	-0.051	0.2222305185	1

RI	HLA-F	+	chr6:29726010-29726526	NA	0.379	0.0001249613788	-0.023	1.84E-09
RI	TTC28-AS1	+	chr22:27997410-27998838	NA	0.378	9.64E-07	0.013	0.9865056133
RI	POMT1	+	chr9:131509902-131510415	NA	0.364	5.98E-08	-0.062	1.81E-07
RI	KIAA0195	+	chr17:75492928-75493593	NA	0.355	4.12E-08	-0.024	4.79E-05
RI	SERHL2	+	chr22:42555663-42556083	NA	0.355	8.44E-05	-0.049	1
RI	ENO2	+	chr12:6916670-6917107	NA	0.353	0	-0.003	0
RI	KIAA1217	+	chr10:24544980-24547843	NA	0.335	0.02220739931	-0.008	1
RI	FBXL6	-	chr8:144356299-144356713	NA	0.333	0.00642391228	-0.021	0.1849841908
RI	CELSR3	-	chr3:48641850-48642467	NA	0.33	0.04364710769	0.001	1
RI	ATP5D	+	chr19:1244314-1244825	NA	0.328	7.42E-07	-0.035	0.01190386311
RI	MFSD10	-	chr4:2931374-2931936	NA	0.328	5.32E-07	0.073	0.007813240274
RI	PNISR	-	chr6:99403828-99404702	NA	0.328	6.32E-09	0.003	1
RI	ARHGAP33	+	chr19:35787167-35788822	NA	0.324	0.0001837228863	-0.015	1
RI	SYVN1	-	chr11:65130001-65130379	NA	0.323	0.01538941007	-0.02	0.1608661574
RI	ELMOD3	+	chr2:85355075-85357252	NA	0.322	0.002439817932	-0.01	1
RI	GOLGA2	-	chr9:128262562-128263092	NA	0.313	2.48E-07	-0.013	2.35E-08
RI	BTN3A2	+	chr6:26367989-26368267	NA	0.308	0.001170885484	-0.009	0.7901193723
RI	MAGED4	+	chrX:52186396-52187845	NA	0.307	0.01903661337	0.087	1
RI	AP1G2	-	chr14:23565605-23566160	NA	0.306	0.000143996723	-0.014	1
RI	SNHG17	-	chr20:38421005-38422241	NA	0.299	0.004901189048	-0.03	1
RI	MUS81	+	chr11:65864719-65865145	NA	0.292	7.45E-05	-0.032	0.004995050927
RI	ADD1	+	chr4:2908514-2909431	NA	0.284	0.01160406502	0.007	1
RI	ZSWIM8	+	chr10:73794146-73794639	NA	0.284	0.002500567157	0.01	1
RI	U2AF1L4	-	chr19:35744322-35745187	NA	0.282	0.005964038928	0.018	1
RI	TTL3	+	chr3:9817644-9820741	NA	0.276	0.0001504685719	-0.032	0.4762847514
RI	ATAT1	+	chr6:30642767-30644679	NA	0.271	2.34E-08	0.125	0
RI	AP1G2	-	chr14:23562503-23563638	NA	0.27	0.000308896551	-0.01	1
RI	WBP1	+	chr2:74459437-74459745	NA	0.268	5.64E-05	0.04	0.3367828665
RI	ACADVL	+	chr17:7224320-7224552	NA	0.266	0.03643105134	-0.006	1
RI	NAT9	-	chr17:74771959-74772277	NA	0.266	0.0003929852813	-0.11	5.20E-08
RI	HCN3	+	chr1:155283973-155284757	NA	0.266	0.001850082181	-0.031	0.5948979623
RI	AP1G2	-	chr14:23561511-23562415	NA	0.266	0.01014875315	0.032	0.05209917345
RI	PSME1	+	chr14:24136984-24137431	NA	0.265	0.04795993741	0.059	0.3903378356
RI	C21orf58	-	chr21:46301129-46302154	NA	0.265	3.09E-06	-0.064	0.05204595944
RI	NICN1	-	chr3:49424948-49425438	NA	0.264	0.02849421127	-0.042	0.00314863413
RI	C11orf49	+	chr11:47161126-47162247	NA	0.261	0.0006560085309	-0.034	0.147638566
RI	POMZP3	-	chr7:76618182-76618615	NA	0.259	0.01055453037	-0.061	0.15525877
RI	ATP5G1	+	chr17:48893408-48895334	NA	0.256	0.0005832107347	0.039	1
RI	MIB2	+	chr1:1628018-1628399	NA	0.252	0.002590851266	-0.012	0.003114513445
RI	PLCD4	+	chr2:218633604-218634221	NA	0.245	8.18E-06	-0.019	1
RI	WDR6	+	chr3:49011634-49014293	NA	0.245	9.44E-07	-0.005	1
RI	TMEM175	+	chr4:948115-948615	NA	0.244	0.001050415336	-0.03	1
RI	MUS81	+	chr11:65865810-65866439	NA	0.242	2.06E-09	-0.033	0.0001614240489
RI	TMEM80	+	chr11:698868-700235	NA	0.241	9.73E-06	-0.016	0.03065871459
RI	LIN37	+	chr19:35754245-35754519	NA	0.239	0.00873127551	-0.003	1
RI	DHRS1	-	chr14:24292183-24292784	NA	0.237	0.002376863758	-0.052	0.0008685476598
RI	TRIM22	+	chr11:5697247-5698545	NA	0.236	0.03643105134	-0.003	0.4342450058
RI	BAX	+	chr19:48960809-48961798	NA	0.233	0	-0.028	2.03E-05
RI	C16orf93	-	chr16:30759341-30759724	NA	0.231	0.04587055951	-0.103	0.02202247675
RI	ARL6IP4	+	chr12:122981128-122981879	NA	0.229	0.00421474628	-0.031	0.4367982126
RI	WBP1	+	chr2:74459437-74459745	NA	0.226	0.0007736868659	0.037	0.1526846262
RI	TUBGCP6	-	chr22:50219287-50219791	NA	0.225	0.007846724902	0	0.0007867004752
RI	BDH2	-	chr4:103085348-103086540	NA	0.223	8.25E-05	-0.106	0.0006568547472
RI	TJAP1	+	chr6:43503622-43506553	NA	0.22	7.65E-05	-0.008	0.003719528183
RI	NRBP2	-	chr8:143839508-143840030	NA	0.219	1.41E-12	-0.008	1.90E-06
RI	RBM5	+	chr3:50100531-50103166	NA	0.214	0.0005495594221	-0.012	1
RI	MAU2	+	chr19:19344848-19345369	NA	0.213	0.000191588729	-0.015	1.42E-05
RI	DDX11	+	chr12:31103576-31104791	NA	0.21	0.01676346818	-0.051	0.004456518969
RI	ZNF7	+	chr8:144829042-144829604	NA	0.209	0.01867064045	-0.057	0.06075179784
RI	CDK11A	-	chr1:1703475-1703940	NA	0.208	0.0007969360077	-0.041	1.45E-07
RI	CCDC159	+	chr19:11354579-11354943	NA	0.208	0.01046368681	-0.002	1
RI	RBM8A	-	chr1:145926808-145927077	NA	0.208	0.007696141702	-0.03	0.2455024824
RI	GAS5	-	chr1:173864483-173864704	NA	0.206	4.03E-10	-0.017	4.93E-08

RI	CUL9	+	chr6:43196068-43196862	NA	0.205	0.009992530522	-0.036	5.12E-05
RI	PRMT2	+	chr21:46660832-46661936	NA	0.205	0.006535676432	-0.007	4.34E-05
RI	C21orf59	-	chr21:32601666-32603292	NA	0.204	0.007746832051	0.072	0.01577654258
RI	CTC1	-	chr17:8229890-8230468	NA	0.204	0.001464590268	-0.057	1.81E-06
RI	CC2D1B	-	chr1:52360423-52361132	NA	0.202	1.15E-07	-0.023	8.67E-14
RI	MUS81	+	chr11:65864719-65865323	NA	0.2	4.10E-08	-0.007	0.2614932913
RI	CDK5RAP3	+	chr17:47974399-47975337	NA	0.199	6.86E-10	-0.025	0.3129948839
RI	PCSK7	-	chr11:117223207-117224216	NA	0.199	0.02272113874	0.002	0.1947017111
RI	CENPT	-	chr16:67829764-67830548	NA	0.195	8.95E-05	-0.06	0.06005234483
RI	PCYT2	-	chr17:81906099-81906546	NA	0.195	0	-0.015	3.27E-12
RI	HSF4	+	chr16:67165521-67165846	NA	0.187	0.0009475934077	-0.014	1
RI	PAN2	-	chr12:56319087-56319487	NA	0.186	0.008317953933	-0.045	0.03870315637
RI	FADS3	-	chr11:61876358-61876963	NA	0.185	0.009886221094	-0.085	1.03E-07
RI	ING4	-	chr12:6652270-6652770	NA	0.184	0.001649350636	0	1
RI	DPM2	-	chr9:127936552-127937523	NA	0.183	9.37E-07	-0.054	0
RI	EWSR1	+	chr22:29298732-29299851	NA	0.181	0.009886221094	-0.027	0.1021827972
RI	IL17RC	+	chr3:9923880-9924291	NA	0.18	0.007244724238	-0.054	2.35E-08
RI	TNFRSF25	-	chr1:6462862-6463127	NA	0.18	0.004890547527	-0.072	0.3375541643
RI	RPL12	-	chr9:127449609-127451405	NA	0.177	0.0001196031007	-0.003	1
RI	C16orf93	-	chr16:30759011-30759247	NA	0.176	0.03403927258	-0.063	1
RI	TIAL1	-	chr10:119576610-119577203	NA	0.175	0.0004445519329	-0.01	0.0007022138268
RI	CAPRIN2	-	chr12:30714958-30716676	NA	0.173	0.04460971474	-0.078	0.0002060574012
RI	EFHC1	+	chr6:52452687-52454287	NA	0.172	0.006772555752	-0.016	0.5857241083
RI	MAGED2	+	chrX:54815247-54816007	NA	0.171	3.60E-08	-0.037	0
RI	GAS5	-	chr1:173864256-173864506	NA	0.171	1.09E-08	-0.015	1.05E-13
RI	STX10	-	chr19:13144061-13144671	NA	0.17	0	-0.021	2.70E-10
RI	TMEM234	-	chr1:32216196-32217351	NA	0.169	0.01538941007	-0.035	3.41E-08
RI	BRF1	-	chr14:105211121-105212164	NA	0.167	0.0236309712	-0.014	0
RI	ARL16	-	chr17:81682033-81682675	NA	0.167	8.83E-05	0.014	1
RI	CCNK	+	chr14:99500765-99502376	NA	0.166	0.0009695331436	-0.049	0.4311923144
RI	FAM50A	+	chrX:154449680-154449931	NA	0.165	1.14E-05	-0.012	1.14E-12
RI	DXO	-	chr6:31970605-31971147	NA	0.165	0.02210643183	-0.035	0.06841266514
RI	ZFYVE19	+	chr15:40813942-40814569	NA	0.164	0.03791551547	0.002	1
RI	USP21	+	chr1:161164533-161164942	NA	0.162	0.01262240708	-0.073	0.0002098949126
RI	PDZD7	-	chr10:101021797-101022385	NA	0.162	0.002698189981	-0.049	1
RI	RP11-252A2	-	chr16:74352039-74352378	NA	0.16	0.009084561186	0.045	1
RI	TPRN	-	chr9:137191616-137192365	NA	0.157	2.31E-05	-0.002	0.3809034212
RI	ACAA1	-	chr3:38126161-38126700	NA	0.156	8.83E-05	-0.028	6.65E-13
RI	TMEM218	-	chr11:125102131-125102809	NA	0.156	0.02020371516	-0.062	7.28E-05
RI	CCDC150	+	chr2:196729192-196729861	NA	0.155	0.00999475111	0.082	1
RI	DSN1	-	chr20:36770872-36771473	NA	0.155	0.01437449705	-0.032	1
RI	EIF4A2	+	chr3:186784563-186786051	NA	0.153	4.57E-06	0.015	0.1015092422
RI	RNF215	-	chr22:30379481-30379780	NA	0.152	0.003341924059	-0.015	0.1179909992
RI	HSF4	+	chr16:67169278-67169945	NA	0.151	0.01288428282	-0.049	1
RI	MUTYH	-	chr1:45332762-45333324	NA	0.151	0.01473339108	0.093	0
RI	WDR24	-	chr16:685868-686186	NA	0.15	0.02211554839	-0.036	6.14E-06
RI	MEN1	-	chr11:64805634-64806368	NA	0.15	0.0002725309832	-0.014	0.003925373802
RI	GAS5	-	chr1:173864256-173865282	NA	0.15	0	-0.012	0
RI	NR2C2	+	chr3:15037999-15039227	NA	0.148	0.01160759958	-0.005	0.1156182394
RI	DDIT3	-	chr12:57517268-57517753	NA	0.147	0.00342269305	-0.036	0.08978042819
RI	ZSWIM8	+	chr10:73794146-73794639	NA	0.147	0.007527884364	-0.003	0.4762847514
RI	JMJD8	-	chr16:683321-683598	NA	0.146	0.004143798929	-0.1	0
RI	CIRBP	+	chr19:1271980-1273172	NA	0.145	7.01E-05	-0.001	1
RI	MOV10	+	chr1:112698286-112699810	NA	0.143	0.001314429458	-0.028	6.57E-05
RI	ING4	-	chr12:6652661-6653050	NA	0.142	0.004201701249	-0.009	0.002957063449
RI	ERCC3	-	chr2:127289336-127289824	NA	0.142	8.44E-05	-0.015	6.33E-06
RI	TPM3	-	chr1:154170648-154172978	NA	0.14	1.13E-05	0.093	0.04270665674
RI	DVL3	+	chr3:184164795-184165206	NA	0.14	1.86E-06	-0.001	0.7797013353
RI	ATP13A1	-	chr19:19656659-19656916	NA	0.138	0.006156541073	-0.036	0.00349910865
RI	SAT2	-	chr17:7627142-7627414	NA	0.136	0.0002695271887	-0.037	0
RI	EFNA1	+	chr1:155133502-155133780	NA	0.136	0.01309155262	-0.033	8.54E-09
RI	FBXO9	+	chr6:53092733-53093561	NA	0.135	0.01685875146	-0.016	0.005485746792
RI	EFEMP2	-	chr11:65870120-65870658	NA	0.135	3.56E-06	-0.005	0.0003296405564

RI	CDK11A	-	chr1:1704222-1704655	NA	0.134	0.004818730187	-0.041	0.01994143287
RI	RHOT2	+	chr16:672253-672825	NA	0.134	1.09E-08	-0.019	0.02641073325
RI	MOV10	+	chr1:112698286-112698789	NA	0.132	0.02573388838	-0.05	1.32E-05
RI	CRELD1	+	chr3:9943076-9943515	NA	0.132	9.79E-07	-0.034	1.96E-13
RI	PRPF31	+	chr19:54129056-54129370	NA	0.131	0.0001267919825	-0.006	3.97E-05
RI	LDLRAP1	+	chr1:25563660-25565207	NA	0.131	0.01068294572	-0.013	1
RI	HTRA2	+	chr2:74531338-74531702	NA	0.13	0.001981135288	-0.122	0.001332338633
RI	CDK10	+	chr16:89693273-89693467	NA	0.13	0.03804967276	-0.076	0.0139818314
RI	RNF213	+	chr17:80388611-80389367	NA	0.128	0.0002137736042	-0.016	2.21E-08
RI	SAT2	-	chr17:7627362-7627802	NA	0.127	0.007818289167	-0.024	0
RI	COMMD7	-	chr20:32702702-32704071	NA	0.127	2.13E-07	-0.013	5.23E-14
RI	RELT	+	chr11:73394235-73394734	NA	0.126	0.001605230086	0.001	1
RI	CENPT	-	chr16:67829764-67831358	NA	0.126	0.03113327069	-0.02	0.007089067466
RI	ASPSCR1	+	chr17:82016799-82017113	NA	0.125	0.002774257415	-0.029	2.69E-06
RI	SAT2	-	chr17:7627362-7627805	NA	0.124	0.04004330286	-0.034	0.0265299928
RI	ZNF76	+	chr6:35286127-35286399	NA	0.123	0.001893949787	-0.006	0.001043272011
RI	BEST1	+	chr11:61958145-61959578	NA	0.12	0.0001484207919	-0.037	1
RI	DDIT3	-	chr12:57517268-57517753	NA	0.12	0.04122650279	-0.004	0.03653090247
RI	PRPF4B	+	chr6:4056320-4057187	NA	0.118	0.0001702677729	-0.024	1.40E-14
RI	EMD	+	chrX:154379941-154380367	NA	0.117	2.22E-13	-0.025	0
RI	TTC31	+	chr2:74490024-74490473	NA	0.117	0.02129946588	-0.033	0.3483858373
RI	CDK11A	-	chr1:1704038-1704344	NA	0.116	0.00555582277	-0.008	0.6643929134
RI	XPNPEP1	-	chr10:109875527-109877867	NA	0.116	0.001120005346	-0.006	0.03012675355
RI	UBXN1	-	chr11:62676497-62677005	NA	0.114	5.34E-05	-0.008	2.69E-06
RI	C1orf35	-	chr1:228102079-228102382	NA	0.111	0.007696141702	-0.057	4.08E-09
RI	C5orf42	-	chr5:37139339-37142480	NA	0.11	3.58E-13	-0.009	0.004241921815
RI	NOP56	+	chr20:2657080-2658393	NA	0.109	0.001723300719	-0.009	0.000914828258
RI	ULK3	-	chr15:74842074-74842420	NA	0.109	0.0146694743	-0.038	4.93E-08
RI	SYVN1	-	chr11:65132247-65132780	NA	0.109	3.46E-07	-0.016	6.51E-12
RI	FAM219B	-	chr15:74899991-74902786	NA	0.109	0.02030767124	0.027	0.03057139956
RI	CDK5RAP3	+	chr17:47973518-47974031	NA	0.107	6.43E-06	-0.009	1.28E-11
RI	PIAS3	-	chr1:145848521-145850269	NA	0.106	0.0095896582	0.001	1
RI	MED22	-	chr9:133340904-133344333	NA	0.106	2.59E-06	0.214	0
RI	BBS1	+	chr11:66515692-66515933	NA	0.106	0.02792705927	-0.019	5.27E-09
RI	MOSPD3	+	chr7:100612729-100613269	NA	0.105	0.005192877926	-0.003	0.0038948208
RI	SLC12A4	-	chr16:67945086-67945553	NA	0.105	0.03906439299	-0.014	2.48E-15
RI	EIF2B5	+	chr3:184143051-184143565	NA	0.105	0.01970885861	-0.041	7.77E-05
RI	RGL2	-	chr6:33293794-33294066	NA	0.105	0.000485827391	-0.045	0
RI	OGT	+	chrX:71544566-71548023	NA	0.104	1.60E-05	-0.005	1
RI	DGKA	+	chr12:55940081-55940722	NA	0.103	0.001744039268	-0.059	0
RI	SPAG5	-	chr17:28579750-28580120	NA	-0.101	2.69E-09	-0.024	2.62E-06
RI	BTN3A2	+	chr6:26373275-26373413	NA	-0.101	0.001925892701	-0.005	1
RI	RBM25	+	chr14:73110830-73111802	NA	-0.103	0.01817881467	-0.01	0.08530603406
RI	C3orf17	-	chr3:113012733-113013403	NA	-0.103	0.0006844104956	-0.007	0.04836579501
RI	TIMM21	+	chr18:74155144-74155403	NA	-0.104	0.0006993832697	0.001	0.1088174894
RI	RBM41	-	chrX:107088435-107088839	NA	-0.104	0.0003658835225	0	1
RI	ARL6IP4	+	chr12:122981128-122981879	NA	-0.104	0.001961330751	-0.033	6.01E-08
RI	RNH1	-	chr11:499014-499999	NA	-0.105	0.0006770723973	-0.01	0
RI	DDX46	+	chr5:134816429-134817714	NA	-0.105	0.0003968948543	0.007	1
RI	EXOSC8	+	chr13:37002933-37004561	NA	-0.106	7.73E-06	-0.002	1
RI	RPAIN	+	chr17:5425970-5428211	NA	-0.106	0.002482770348	-0.027	0
RI	POP5	-	chr12:120579513-120579923	NA	-0.106	0.002482369946	-0.025	4.93E-12
RI	NIT2	+	chr3:100345584-100346255	NA	-0.108	0.0002330445727	-0.005	0.7014034958
RI	TAMM41	-	chr3:11807832-11809682	NA	-0.108	6.68E-13	-0.042	0
RI	MCM7	-	chr7:100099022-100099753	NA	-0.108	0	-0.002	0.1176138885
RI	ARAP1	-	chr11:72712437-72713243	NA	-0.108	0.008307631995	-0.042	0
RI	GALE	-	chr1:23798116-23798730	NA	-0.109	0.0001267152438	-0.022	6.08E-07
RI	C11orf57	+	chr11:112074315-112074916	NA	-0.109	0.04557377175	-0.009	0.5437975795
RI	TMEM208	+	chr16:67228796-67229278	NA	-0.109	0.0002668533231	0.008	0.4610517445
RI	PRPF4B	+	chr6:4060412-4061147	NA	-0.11	4.91E-05	0.023	0.0002323265305
RI	ACAD11	-	chr3:132578795-132579558	NA	-0.11	0.00157883001	-0.055	0.003829939189
RI	GALE	-	chr1:23796508-23796782	NA	-0.111	0.01001845849	-0.044	3.88E-08
RI	YBX3	-	chr12:10709907-10713333	NA	-0.112	1.32E-07	-0.003	0.024518083

RI	NEK8	+	chr17:28737305-28737736	NA	-0.113	0.0180385365	-0.145	1
RI	ELP5	+	chr17:7258587-7259940	NA	-0.113	0.0002144640796	0.007	0.001423666323
RI	SPATA7	+	chr14:88427629-88429463	NA	-0.114	0.01608781478	-0.007	0.2948560283
RI	PILRB	+	chr7:100353372-100354012	NA	-0.115	0.04986683364	-0.014	0.1987536026
RI	CAPRIN2	-	chr12:30719078-30720915	NA	-0.116	0.02160256185	-0.022	0.001718528215
RI	COMMD3	+	chr10:22318271-22318713	NA	-0.116	0.0002480556874	-0.014	1.37E-10
RI	PTGES2	-	chr9:128122361-128123134	NA	-0.117	0.02567180123	0.016	0.669622968
RI	DERL2	-	chr17:5481100-5481389	NA	-0.118	0.01314365759	0.017	1
RI	MTX1	+	chr1:155210547-155212219	NA	-0.118	0.0001735682727	-0.036	1.61E-14
RI	RPP21	+	chr6:30345297-30346557	NA	-0.118	1.90E-06	-0.002	0.06402147554
RI	DDX39A	-	chr19:14409741-14410334	NA	-0.119	0.002219711602	-0.004	0.9200018801
RI	NKTR	+	chr3:42619019-42619708	NA	-0.12	0.02667604946	0.003	1
RI	WDR45	-	chrX:49076644-49077911	NA	-0.12	0.01992583731	0.012	0.5739021329
RI	LRRC41	-	chr1:46279181-46279614	NA	-0.122	0.0001182452421	-0.007	0.004490061065
RI	MIF4GD	-	chr17:75267745-75268192	NA	-0.123	0.001166852681	-0.031	4.23E-10
RI	SLC25A3	+	chr12:98593974-98595848	NA	-0.124	3.27E-10	-0.004	6.96E-07
RI	EXOSC9	+	chr4:121813865-121816447	NA	-0.124	9.95E-08	-0.007	0.01466038292
RI	TJAP1	+	chr6:43500743-43501687	NA	-0.124	0.005092959178	-0.018	0.01770379103
RI	NAGK	+	chr2:71072640-71073594	NA	-0.128	0.000164408632	-0.028	0
RI	STAT2	-	chr12:56354777-56355351	NA	-0.129	0.01748877641	-0.125	8.90E-06
RI	DRG2	+	chr17:18099016-18100435	NA	-0.13	6.99E-07	0	0.2576807227
RI	IKBKB	+	chr8:42319269-42320844	NA	-0.132	0.01928890763	0.078	2.48E-15
RI	PIDD1	-	chr11:800761-801120	NA	-0.135	0.007244724238	-0.001	1
RI	ETV4	-	chr17:43545273-43545668	NA	-0.136	2.47E-06	-0.029	1
RI	TCF4	-	chr18:55228846-55232671	NA	-0.136	0.000666479782	-0.013	1.46E-08
RI	E2F4	+	chr16:67192760-67193170	NA	-0.136	9.34E-06	-0.042	2.32E-05
RI	HDLBP	-	chr2:241268953-241269295	NA	-0.137	0.04657411543	0.12	1
RI	MFN1	+	chr3:179378340-179378814	NA	-0.137	4.80E-10	-0.005	0.1793576111
RI	POLR1C	+	chr6:43519705-43520185	NA	-0.137	0.006280059241	-0.027	5.93E-05
RI	SRSF7	-	chr2:38748578-38749705	NA	-0.138	2.58E-05	0.007	0.9650266323
RI	QTRT1	+	chr19:10701949-10702254	NA	-0.138	0.001162103423	-0.025	0
RI	NELFE	-	chr6:31954554-31955096	NA	-0.139	0.01266779508	0.026	0.2484620488
RI	KRIT1	-	chr7:92235402-92236542	NA	-0.14	9.18E-06	-0.005	0.6493889757
RI	C2orf49	+	chr2:105342847-105343223	NA	-0.14	0.001365874141	0.01	1
RI	TPM1	+	chr15:63061197-63062277	NA	-0.14	1.57E-11	-0.024	0
RI	FUS	+	chr16:31184938-31188357	NA	-0.141	6.33E-13	0.008	1
RI	PNKP	-	chr19:49864178-49864403	NA	-0.142	0.0095896582	-0.039	7.98E-05
RI	CIRBP	+	chr19:1271980-1274440	NA	-0.142	5.48E-11	0.001	1
RI	ZNF232	-	chr17:5108925-5109868	NA	-0.142	0.02997087908	-0.117	6.68E-07
RI	ILF3	+	chr19:10681218-10682192	NA	-0.143	1.78E-07	-0.016	0.09343721961
RI	FAM200B	+	chr4:15686235-15687148	NA	-0.143	0.02854546606	0.018	1
RI	ANAPC5	-	chr12:121327095-121328497	NA	-0.144	0	0.006	0.05237580454
RI	ANAPC5	-	chr12:121345838-121347005	NA	-0.144	0	0.013	1.05E-08
RI	C18orf8	+	chr18:23530228-23530612	NA	-0.144	0.004901189048	0	1
RI	NELFE	-	chr6:31953728-31954134	NA	-0.144	1.11E-09	-0.013	0.0002534816591
RI	BTN3A1	+	chr6:26409893-26410032	NA	-0.15	5.62E-08	-0.038	5.81E-06
RI	SCYL1	+	chr11:65538269-65538704	NA	-0.15	0.005191038741	-0.045	0.07108288609
RI	CLK3	+	chr15:74622119-74622560	NA	-0.15	1.92E-06	-0.007	0.2069400463
RI	BAZ2A	-	chr12:56615013-56615607	NA	-0.151	1.89E-10	-0.003	1
RI	LMNA	+	chr1:156137653-156138757	NA	-0.152	0.001867343234	-0.045	0.0001998731416
RI	WDR46	-	chr6:33280427-33280987	NA	-0.152	6.22E-06	0.005	1
RI	ATG16L1	+	chr2:233289853-233290353	NA	-0.153	0.03527976138	-0.02	0.08041337484
RI	TTC8	+	chr14:88841036-88841514	NA	-0.153	0.002168953809	0.005	1
RI	B4GALNT1	-	chr12:57631199-57631364	NA	-0.155	0.000336563563	0.024	5.47E-12
RI	PCNXL2	-	chr1:232984135-232986540	NA	-0.155	0.006928555429	-0.084	1.63E-09
RI	HAUS7	-	chrX:153454393-153455766	NA	-0.157	1.59E-09	-0.002	0.7311315753
RI	HDAC6	+	chrX:48814961-48815490	NA	-0.158	0.04960482811	-0.048	0.01542143747
RI	RBM33	+	chr7:155738059-155740026	NA	-0.159	0.003244746418	-0.008	1
RI	CDCA7	+	chr2:173363817-173364989	NA	-0.16	0.01251638125	-0.014	0.01265986631
RI	HNRNPM	+	chr19:8465323-8465515	NA	-0.161	7.93E-08	-0.006	1
RI	NAGK	+	chr2:71075554-71076701	NA	-0.162	0.006239792161	-0.007	2.75E-06
RI	EOGT	-	chr3:68988505-68989017	NA	-0.162	0.04266975874	-0.058	0.3511442743
RI	C5orf45	-	chr5:179837275-179840959	NA	-0.163	0.005154888944	0.015	1

RI	NKIRAS2	+	chr17:42022398-42022640	NA	-0.163	5.64E-05	-0.007	0.2847463068
RI	RPS27	+	chr1:153990762-153991034	NA	-0.166	2.22E-10	-0.016	0.007689539258
RI	ORC2	-	chr2:200913294-200913992	NA	-0.167	0.01229678921	-0.011	0.7308035463
RI	CD274	+	chr9:5462833-5463121	NA	-0.167	0.0004473236184	-0.003	1
RI	RSRP1	-	chr1:25243549-25245301	NA	-0.168	0	0.027	0.9699067261
RI	ORMDL1	-	chr2:189782421-189783123	NA	-0.168	0.002200528562	-0.017	0.8767054258
RI	UBXN4	+	chr2:135753538-135754277	NA	-0.168	8.43E-07	-0.023	2.57E-09
RI	TSEN2	+	chr3:12529761-12531659	NA	-0.169	0	0.026	0.008442343124
RI	CCAR2	+	chr8:22619149-22620468	NA	-0.169	0.001791555223	-0.013	4.85E-09
RI	CAD	+	chr2:27233311-27233808	NA	-0.17	0.005154888944	-0.071	2.10E-10
RI	THAP7	-	chr22:21000646-21001411	NA	-0.17	5.29E-05	-0.094	0
RI	AKNA	-	chr9:114343707-114346009	NA	-0.174	0.005410896005	-0.006	0.08557171304
RI	NSD1	+	chr5:177135086-177136030	NA	-0.175	0.0001641005066	0.022	1
RI	DECR2	+	chr16:406684-406952	NA	-0.175	0.03089148023	-0.029	1
RI	CHKB	-	chr22:50580189-50580416	NA	-0.177	0.0007579141903	-0.068	4.74E-05
RI	BRAT1	-	chr7:2539785-2541052	NA	-0.181	0.02743375478	-0.037	2.72E-08
RI	SNX15	+	chr11:65035519-65038829	NA	-0.182	2.03E-05	0	0.4979325872
RI	TANC1	+	chr2:159219237-159219867	NA	-0.182	0.01003146764	-0.033	0.07769260489
RI	NOC3L	-	chr10:94357173-94358215	NA	-0.182	0	-0.007	1
RI	PACS2	+	chr14:105383358-105384463	NA	-0.184	1.17E-07	-0.001	1
RI	TMEM138	+	chr11:61364249-61364518	NA	-0.186	0.0003481439514	-0.006	0.5105583676
RI	WDR55	+	chr5:140668233-140668502	NA	-0.188	3.74E-07	-0.079	1.39E-07
RI	BBS2	-	chr16:56502316-56502808	NA	-0.191	0	-0.014	1.84E-06
RI	ZSWIM7	-	chr17:15977578-15977913	NA	-0.191	0.02434367906	0.019	0.9015479658
RI	FAM3A	-	chrX:154515759-154516242	NA	-0.192	0.00491760265	-0.026	0.2187702092
RI	COG4	-	chr16:70508405-70509388	NA	-0.192	1.14E-14	0.026	0.2730210341
RI	TEN1-CDK3	+	chr17:76002510-76003398	NA	-0.193	0.01292108692	0.026	1
RI	RPP30	+	chr10:90894774-90895483	NA	-0.194	0.0002573288381	-0.009	7.68E-05
RI	PEX1	-	chr7:92501506-92502079	NA	-0.198	9.31E-05	-0.034	0.03800830747
RI	BPHL	+	chr6:3138040-3140509	NA	-0.198	0.01313973159	0.074	0.1329040777
RI	MLST8	+	chr16:2206357-2206659	NA	-0.198	5.59E-08	0.011	0.01410214697
RI	RBM8A	-	chr1:145926481-145927077	NA	-0.199	3.44E-05	-0.002	1
RI	KANSL2	-	chr12:48681381-48682225	NA	-0.201	4.32E-05	0.014	8.74E-06
RI	ARHGAP32	-	chr11:128972452-128975002	NA	-0.203	4.53E-08	0.01	0.2827202429
RI	CC2D1B	-	chr1:52357780-52358461	NA	-0.203	0.01047160473	-0.034	5.67E-05
RI	MOK	-	chr14:102232534-102233789	NA	-0.205	0.0006345139613	-0.062	0.002836188205
RI	N6AMT1	-	chr21:28872190-28876491	NA	-0.205	0.01873364361	0.005	1
RI	DUS1L	-	chr17:82061208-82061721	NA	-0.208	0.002439817932	-0.018	2.92E-14
RI	ADARB1	+	chr21:45222017-45226560	NA	-0.208	0.002219711602	-0.04	0.4312666656
RI	PEX1	-	chr7:92492952-92494396	NA	-0.21	2.53E-05	-0.066	0.0003051041912
RI	RPGR	-	chrX:38287093-38288041	NA	-0.212	1.39E-05	-0.003	1
RI	DET1	-	chr15:88530622-88531715	NA	-0.216	0.007987937871	0.012	0.2614932913
RI	WRAP73	-	chr1:3630766-3631657	NA	-0.219	0.0189131366	-0.079	6.18E-11
RI	FBF1	-	chr17:75914121-75914932	NA	-0.219	0.01867064045	-0.04	0.0001056579432
RI	NECAB3	-	chr20:33659884-33660395	NA	-0.22	0.01873719104	0.061	1
RI	RUSC1	+	chr1:155325863-155327132	NA	-0.221	0.005394362141	-0.03	0.03198465532
RI	DENND4C	+	chr9:19336269-19336832	NA	-0.222	9.18E-06	-0.055	1
RI	SREBF1	-	chr17:17817547-17817916	NA	-0.223	0.01127882976	-0.032	1
RI	HMBS	+	chr11:119092124-119092523	NA	-0.227	0.03751352006	-0.071	1.69E-05
RI	MPP2	-	chr17:43882902-43883355	NA	-0.23	8.14E-05	0.035	1
RI	PINK1	+	chr1:20648504-20649231	NA	-0.23	2.52E-05	-0.005	0.0003067980742
RI	RPS9	+	chr19:54206275-54206724	NA	-0.234	0.001162103423	-0.04	0.04059299619
RI	DALRD3	-	chr3:49015972-49016340	NA	-0.234	0.03426009204	-0.077	2.81E-08
RI	HARS2	+	chr5:140693490-140693665	NA	-0.235	0.001275168466	-0.004	1
RI	IDH3A	+	chr15:78156907-78157631	NA	-0.239	0.0001490791649	-0.053	1
RI	C19orf66	+	chr19:10091249-10091630	NA	-0.243	0.002219711602	-0.027	0.0314046826
RI	NSUN5	-	chr7:73307582-73308553	NA	-0.246	0.002672952032	-0.018	1
RI	March6	+	chr5:10400783-10402139	NA	-0.253	4.85E-09	0.004	1
RI	BDH2	-	chr4:103085348-103086540	NA	-0.253	0	0.013	0.4026289619
RI	ISCU	+	chr12:108564059-108564392	NA	-0.255	3.67E-05	-0.081	0.03298130095
RI	GNRHR2	+	chr1:145919343-145919900	NA	-0.257	0.002073595908	-0.002	1
RI	CDK20	-	chr9:87969193-87970897	NA	-0.259	0.0002155787581	-0.002	1
RI	ABTB1	+	chr3:127676535-127677286	NA	-0.262	0.002857952109	-0.021	9.27E-14

RI	AFTPH	+	chr2:64579485-64581273	NA	-0.262	0.009886221094	-0.015	0.8648963937
RI	MTF2	+	chr1:93110229-93110428	NA	-0.264	1.02E-07	-0.007	1
RI	POLD1	+	chr19:50415723-50416528	NA	-0.266	0.005472713134	-0.069	2.48E-15
RI	ENDOV	+	chr17:80429772-80430343	NA	-0.266	2.91E-05	-0.03	1
RI	NPHP1	-	chr2:110163047-110164730	NA	-0.268	0.01528618861	-0.134	0.05663681961
RI	DCXR	-	chr17:82036858-82037547	NA	-0.268	0.04849882675	0.022	0.0003818895414
RI	TUBGCP4	+	chr15:43401715-43403799	NA	-0.278	7.93E-08	-0.018	0.8599833433
RI	PLSCR1	-	chr3:146521543-146522053	NA	-0.279	1.65E-09	-0.005	1
RI	ATP5SL	-	chr19:41431318-41433434	NA	-0.28	0.0007734376691	-0.015	0.01736526612
RI	BRAT1	-	chr7:2543203-2543962	NA	-0.283	9.46E-05	-0.034	3.24E-11
RI	DALRD3	-	chr3:49015818-49016086	NA	-0.283	0.0001551860719	-0.102	3.08E-09
RI	ABHD11	-	chr7:73737220-73737735	NA	-0.285	0.0236309712	-0.141	4.76E-09
RI	RPL3	-	chr22:39313190-39314208	NA	-0.286	0.0007965341189	0.033	2.47E-10
RI	CEP192	+	chr18:13057584-13059312	NA	-0.287	0	0.009	0.09509219872
RI	B4GALT3	-	chr1:161176433-161177106	NA	-0.298	0.0007328348363	-0.055	1
RI	ARRDC1	+	chr9:137612895-137613510	NA	-0.299	1.29E-06	-0.098	1.42E-06
RI	C9orf89	+	chr9:93110567-93112289	NA	-0.301	3.15E-07	-0.003	1
RI	RRNAD1	+	chr1:156731990-156732473	NA	-0.303	0.000167746949	-0.098	7.76E-10
RI	LIN37	+	chr19:35753086-35754157	NA	-0.312	0.0007935197621	-0.014	0.002626283484
RI	PIDD1	-	chr11:802681-803647	NA	-0.317	0.001045349009	-0.016	1
RI	NDUFAF7	+	chr2:37241577-37242693	NA	-0.318	2.72E-05	-0.044	0.1580231666
RI	RPS9	+	chr19:54206552-54207647	NA	-0.319	6.28E-05	-0.042	0.04129831848
RI	SUGP2	-	chr19:18994365-18995280	NA	-0.322	1.97E-13	0.02	0.2272518209
RI	MAEA	+	chr4:1336860-1338617	NA	-0.323	0.01580040133	0.021	0.2669472176
RI	RPL17	-	chr18:49491531-49491833	NA	-0.324	0	0.016	0.0002667903333
RI	CLK4	-	chr5:178616881-178618778	NA	-0.325	0.00639004427	0.011	1
RI	SLC9A5	+	chr16:67255392-67255930	NA	-0.326	0.0072366921	0.07	1
RI	PLEKHH2	+	chr2:43710488-43712383	NA	-0.327	0.0005898240881	-0.013	1
RI	MIIP	+	chr1:12029222-12030124	NA	-0.328	0.008465546508	-0.024	1.32E-08
RI	HMG1	-	chr21:39345145-39348339	NA	-0.329	1.73E-12	-0.028	0
RI	NAPRT	-	chr8:143576077-143576572	NA	-0.331	0.03947238461	-0.012	5.15E-05
RI	U2AF1L4	-	chr19:35744322-35745187	NA	-0.332	0.0095896582	0.107	0.001914407062
RI	CLK4	-	chr5:178617343-178618778	NA	-0.336	9.82E-08	0.046	0.002583436711
RI	MAN2C1	-	chr15:75358461-75358808	NA	-0.337	1.41E-12	-0.015	0.1499871015
RI	WDR45	-	chrX:49076644-49077911	NA	-0.337	0.0006389898037	0.034	0.7736195789
RI	KCNAB3	-	chr17:7923967-7924265	NA	-0.341	0.002842735607	0.072	1
RI	RBM6	+	chr3:50061461-50062108	NA	-0.347	1.98E-07	0.014	1
RI	MAMDC4	+	chr9:136856463-136856826	NA	-0.348	0.0271123135	-0.044	1
RI	EWSR1	+	chr22:29298732-29299280	NA	-0.354	9.93E-05	-0.018	1
RI	PRPF40B	+	chr12:49631859-49632880	NA	-0.355	4.01E-05	0.112	0.0003839233133
RI	COMMD4	+	chr15:75338984-75339878	NA	-0.366	6.58E-07	0.025	0.003388821628
RI	NAPEPLD	-	chr7:103099775-103103554	NA	-0.376	0.002761239845	0.026	1.53E-05
RI	ZNF10	+	chr12:133130610-133131014	NA	-0.378	0.02210096143	0.074	1
RI	CLK1	-	chr2:200859679-200861466	NA	-0.38	5.85E-11	-0.049	0.3040324742
RI	AMBRA1	-	chr11:46541944-46543398	NA	-0.38	8.95E-05	-0.008	1
RI	CYB5R2	-	chr11:7668477-7672523	NA	-0.382	0.003244746418	0.051	1
RI	ALDH3B1	+	chr11:68015296-68018637	NA	-0.385	0.01778902412	-0.003	1
RI	MED23	-	chr6:131592387-131593171	NA	-0.386	0.0008916825081	-0.017	0.0111019012
RI	SH3TC2	-	chr5:149026859-149028718	NA	-0.387	8.54E-05	0.117	1
RI	MATR3	+	chr5:139314674-139316188	NA	-0.388	8.68E-14	-0.028	1
RI	NUDT17	+	chr1:145846432-145846690	NA	-0.388	0.0002993961125	-0.051	0.1983694294
RI	SIRT7	-	chr17:81914293-81915512	NA	-0.388	8.29E-05	-0.041	6.14E-06
RI	CCHCR1	-	chr6:31144686-31145073	NA	-0.388	2.14E-05	-0.019	0.5164150801
RI	LLGL1	+	chr17:18235469-18236760	NA	-0.389	0.01561183787	0.001	1
RI	DPH1	+	chr17:2041767-2043424	NA	-0.39	0.0004699056745	-0.013	0.709521158
RI	ARHGEF40	+	chr14:21087000-21087463	NA	-0.404	0.0005943848687	-0.085	4.06E-12
RI	TRABD	+	chr22:50197822-50198186	NA	-0.409	0.000651342608	-0.102	1.24E-05
RI	SAMD4A	+	chr14:54784339-54784620	NA	-0.417	0.002500459043	-0.035	1
RI	MTMR11	-	chr1:149930364-149930965	NA	-0.421	0.000164408632	-0.048	0.02194223989
RI	CENPT	-	chr16:67832011-67832545	NA	-0.428	8.43E-08	0.028	9.59E-08
RI	CENPT	-	chr16:67832011-67832545	NA	-0.43	0.0004376056157	-0.076	1
RI	MINK1	+	chr17:4889646-4890735	NA	-0.431	0.001258786667	-0.03	0.007493007502
RI	CCDC136	+	chr7:128806236-128806858	NA	-0.455	1.38E-05	-0.008	1

RI	CPSF3L	-	chr1:1312225-1312700	NA	-0.462	0.01464113754	0.069	0.04946945316
RI	BCKDK	+	chr16:31110400-31111219	NA	-0.469	3.95E-07	0.093	0.05338492089
RI	RP11-295P	+	chr10:13654352-13655482	NA	-0.475	0.0001735682727	-0.027	1
RI	CD46	+	chr1:207767012-207770362	NA	-0.477	0	-0.142	3.34E-09
RI	CLK4	-	chr5:178616881-178618778	NA	-0.481	1.16E-13	0.042	0.09158095123
RI	RCHY1	-	chr4:75490580-75491782	NA	-0.482	0.003299762828	-0.007	1
RI	CTC-308K2	-	chr5:172957153-172958257	NA	-0.484	1.27E-07	0.013	0.6521013934
RI	RABGGTA	-	chr14:24270836-24271169	NA	-0.487	0.004579326249	-0.048	1
RI	DDX51	-	chr12:132140830-132141420	NA	-0.49	7.41E-06	0.002	0.6720834607
RI	NUDT8	-	chr11:67628918-67629921	NA	-0.504	0.000634117199	-0.013	1
RI	POLD1	+	chr19:50401998-50402373	NA	-0.509	0.003199637451	-0.022	0.005934433671
RI	PHF7	+	chr3:52421647-52422881	NA	-0.515	0.0004977363804	-0.087	1
RI	TERF2	-	chr16:69368375-69368595	NA	-0.523	1.08E-05	-0.018	1
RI	FAH	+	chr15:80152793-80153135	NA	-0.544	3.92E-08	-0.093	0.7285943532
RI	TLE2	-	chr19:3019282-3019773	NA	-0.546	1.93E-05	-0.039	1
RI	BCL3	+	chr19:44758245-44758841	NA	-0.546	0.0007097597659	-0.014	1.07E-05
RI	A1BG-AS1	+	chr19:58353713-58355183	NA	-0.563	1.09E-06	-0.04	0.3358816376
RI	GNG5	-	chr1:84506010-84506565	NA	-0.566	0.0005832107347	-0.021	1
RI	EPS8L2	+	chr11:709552-710486	NA	-0.571	1.48E-06	-0.059	1
RI	WDR83	+	chr19:12669754-12670080	NA	-0.576	5.75E-06	-0.017	0.9366484804
RI	NAGS	+	chr17:44006528-44007494	NA	-0.583	2.47E-09	0.099	0.03185542832
RI	CROCCP3	-	chr1:16476929-16478437	NA	-0.584	3.92E-05	0.04	1
RI	IMP4	+	chr2:130342893-130343194	NA	-0.588	0.004901189048	-0.062	0.1505246326
RI	CCDC57	-	chr17:82193755-82194139	NA	-0.603	0.001120005346	-0.052	1
RI	DNHD1	+	chr11:6497584-6498961	NA	-0.604	1.49E-08	0.005	1
RI	MYO15B	+	chr17:75590906-75591246	NA	-0.606	0.0004401943641	0.024	1
RI	TPM2	-	chr9:35684487-35685139	NA	-0.633	3.04E-07	-0.018	1
RI	THOP1	+	chr19:2807441-2808444	NA	-0.64	0.0001902823536	-0.023	3.65E-06
RI	MLST8	+	chr16:2206357-2206659	NA	-0.766	1.14E-14	0.026	0.4706446529
SE	HDHD1	-	chrX:7105748-7105838	NA	1	0	0.003	1
SE	PIP5K1C	-	chr19:3633436-3633520	NA	0.96	3.34E-13	0.136	7.35E-10
SE	SORBS1	-	chr10:95434621-95434717	NA	0.934	3.34E-13	0.047	0.3523006826
SE	USP3-AS1	-	chr15:63593748-63593877	NA	0.925	4.00E-12	0.25	1
SE	CLIP1	-	chr12:122351110-122351143	NA	0.924	2.89E-14	0.03	1
SE	ANKAR	+	chr2:189693073-189693177	NA	0.91	1.34E-13	0.004	1
SE	SRGAP1	+	chr12:64091892-64091926	NA	0.904	2.23E-09	0.001	1
SE	BTN3A3	+	chr6:26443366-26443442	NA	0.881	5.48E-12	0.061	1
SE	RPS24	+	chr10:78040203-78040225	NA	0.876	0	0.028	0
SE	ANKRD36	+	chr2:97209680-97209709	NA	0.869	1.65E-11	0.007	1
SE	RP4-798P1	-	chr1:177984205-177984418	NA	0.86	9.70E-11	0.02	1
SE	SYTL2	-	chr11:85717482-85717726	NA	0.857	0	-0.047	1
SE	PCBP1-AS1	-	chr2:70053730-70053815	NA	0.84	2.34E-11	0	1
SE	ZNF83	-	chr19:52617245-52617335	NA	0.838	6.02E-06	0.159	1
SE	DST	-	chr6:56468981-56468999	NA	0.827	0	0.001	0.01236024759
SE	RAPGEF2	+	chr4:159344035-159344059	NA	0.824	0	0.052	1
SE	ATP2A1	+	chr16:28894504-28894607	NA	0.824	1.09E-07	-0.085	1
SE	VPS9D1	-	chr16:89708426-89708531	NA	0.817	0.002386013963	-0.011	1
SE	CLASP2	-	chr3:33596710-33596734	NA	0.815	4.89E-12	0.076	1
SE	FUBP1	-	chr1:77947452-77947547	NA	0.814	7.18E-09	0	1
SE	PLEKHA1	+	chr10:122428275-122428420	NA	0.806	0	0.018	1
SE	SBF1	-	chr22:50457033-50457111	NA	0.784	2.68E-09	0.013	1
SE	PLEKHA1	+	chr10:122428275-122428316	NA	0.778	0	-0.002	1
SE	SORBS1	-	chr10:95414493-95414655	NA	0.777	9.52E-08	-0.107	1
SE	PPFIBP1	+	chr12:27658815-27658848	NA	0.773	0	0.101	1
SE	SLC9A5	+	chr16:67262211-67262289	NA	0.773	3.90E-10	-0.088	1
SE	TLE2	-	chr19:3017839-3017859	NA	0.769	3.07E-10	-0.033	0.1059516518
SE	KIF21A	-	chr12:39330241-39330262	NA	0.766	0	0.223	1
SE	SYTL2	-	chr11:85717482-85717530	NA	0.76	0	-0.014	0.4684459028
SE	SPTAN1	+	chr9:128609650-128609665	NA	0.759	0	0.102	3.38E-08
SE	WDFY3	-	chr4:84726860-84726911	NA	0.733	0	-0.011	1
SE	SPAG9	-	chr17:50975862-50975901	NA	0.73	0	-0.003	1
SE	PRMT2	+	chr21:46636438-46636547	NA	0.729	0	0.067	0.2319464078
SE	XRR1	-	chr11:74940784-74940882	NA	0.728	5.96E-06	0.119	1

SE	ZNF706	-	chr8:101204649-101204693	NA	0.718	1.02E-09	0.046		1
SE	MRPL43	-	chr10:100983947-100984074	NA	0.71	6.77E-07	-0.039		1
SE	ZNF391	+	chr6:27395016-27395095	NA	0.698	7.31E-07	-0.199		1
SE	CAST	+	chr5:96726793-96726859	NA	0.698	0	0.031		1
SE	SUZ12P1	+	chr17:30734896-30734943	NA	0.696	5.79E-08	0.022		1
SE	MED24	-	chr17:40020527-40020619	NA	0.695	1.34E-05	0.043		1
SE	MICAL3	-	chr22:17803810-17803861	NA	0.695	9.30E-11	0.081	0.9403152009	
SE	NEXN	+	chr1:77925187-77925229	NA	0.687	4.41E-07	-0.062		1
SE	CENPV	-	chr17:16349139-16349333	NA	0.682	5.11E-08	-0.063	0.9854954385	
SE	RP11-274B2	+	chr7:128577963-128578033	NA	0.682	1.63E-09	0.03		1
SE	SORBS1	-	chr10:95414493-95414862	NA	0.681	1.03E-06	-0.112		1
SE	HLA-L	+	chr6:30262294-30262342	NA	0.674	0.0001824986839	-0.02		1
SE	MAP3K6	-	chr1:27364660-27364684	NA	0.66	0.0001833146153	0.005		1
SE	FHL2	-	chr2:105396646-105396697	NA	0.659	1.87E-07	-0.054		1
SE	MYO18A	-	chr17:29085603-29085648	NA	0.652	0	0.031		1
SE	PLD3	+	chr19:40365552-40365585	NA	0.65	3.15E-06	0.038		1
SE	CACNB4	-	chr2:151869176-151869235	NA	0.65	7.65E-06	-0.057		1
SE	GPM6A	-	chr4:175812190-175812249	NA	0.649	2.67E-10	0.168	2.56E-10	
SE	C19orf60	+	chr19:18589478-18589683	NA	0.647	1.65E-09	-0.02	0.02956170982	
SE	NQO1	-	chr16:69714963-69715077	NA	0.647	0	-0.019	0.3824801379	
SE	ABI1	-	chr10:26771074-26771089	NA	0.644	0	0.038	0.8846931441	
SE	RSRP1	-	chr1:25244453-25244498	NA	0.639	0	-0.024		1
SE	SYNJ1	-	chr21:32634860-32634884	NA	0.634	4.13E-11	0.12	3.29E-05	
SE	EFCAB13	+	chr17:47347807-47347951	NA	0.634	3.12E-05	0.039		1
SE	PNISR	-	chr6:99403828-99403882	NA	0.633	0	-0.005	0.8137340216	
SE	VLDLR	+	chr9:2651414-2651498	NA	0.626	0	0.005		1
SE	DNAJC7	-	chr17:42003358-42003557	NA	0.624	2.54E-07	0.03		1
SE	UBA3	-	chr3:69071534-69071617	NA	0.622	0.001965233616	-0.054	1.51E-07	
SE	DGKH	+	chr13:42221263-42221394	NA	0.615	4.55E-07	0.211		1
SE	CTD-2341M	+	chr14:86128664-86128773	NA	0.612	5.70E-05	-0.013		1
SE	PAQR3	-	chr4:78935120-78935176	NA	0.61	2.01E-05	-0.076	0.0001321555703	
SE	CASK	-	chrX:41557031-41557100	NA	0.608	4.65E-08	0.034		1
SE	GUSBP11	-	chr22:23700725-23700845	NA	0.608	8.54E-06	0.005		1
SE	FUBP1	-	chr1:77947452-77947552	NA	0.606	5.11E-05	-0.001		1
SE	BCAS4	+	chr20:50840536-50840930	NA	0.605	0	-0.124	0.0005746395579	
SE	TNIK	-	chr3:171139469-171139556	NA	0.604	3.94E-11	0.077		1
SE	FNBP1	-	chr9:129923843-129924026	NA	0.604	0	0.071	0.0002937363512	
SE	ULK3	-	chr15:74838151-74838173	NA	0.603	0.02679711654	-0.039	0.1239974608	
SE	TMEM161A	-	chr19:19134783-19134916	NA	0.602	4.20E-05	-0.014		1
SE	ARL4A	+	chr7:12687634-12687728	NA	0.602	0	0.047		1
SE	ZCWPW2	+	chr3:28492126-28492173	NA	0.602	4.72E-09	-0.008		1
SE	TNC	-	chr9:115048259-115048532	NA	0.601	0.0005415202019	0.124	0.006188894532	
SE	ANKRD12	+	chr18:9204475-9204544	NA	0.597	0	0.183		1
SE	SYTL2	-	chr11:85717482-85717530	NA	0.596	0.0001661427625	0.035		1
SE	RALGAPA1	-	chr14:35548507-35548538	NA	0.594	8.12E-08	0.041		1
SE	RPRD2	+	chr1:150441880-150441958	NA	0.591	0	-0.09	0.0888300337	
SE	NME4	+	chr16:406684-406777	NA	0.59	0.0002851559216	0.003		1
SE	FHL2	-	chr2:105396646-105396697	NA	0.59	0.02228946003	0.016		1
SE	ZNF584	+	chr19:58409964-58410091	NA	0.59	5.49E-08	-0.002		1
SE	TEAD4	+	chr12:2959947-2960353	NA	0.59	7.68E-06	-0.125		1
SE	ZNF584	+	chr19:58410005-58410091	NA	0.589	6.35E-08	-0.01		1
SE	EMC3-AS1	+	chr3:9987905-9988007	NA	0.589	0.003046176652	0.002		1
SE	SUZ12P1	+	chr17:30734896-30734943	NA	0.583	1.11E-06	0.02		1
SE	NSFL1C	-	chr20:1455713-1455719	NA	0.582	0	0.031	0.01245407629	
SE	MGRN1	+	chr16:4686258-4686303	NA	0.582	1.44E-07	0.08	0.001210876276	
SE	NIN	-	chr14:50756491-50758630	NA	0.581	0	0.004		1
SE	FGFR1OP2	+	chr12:26960514-26960628	NA	0.58	0	-0.019		1
SE	ZNF195	-	chr11:3373576-3373656	NA	0.579	0.006463478574	-0.055		1
SE	MLLT4	+	chr6:167913402-167913423	NA	0.579	4.69E-10	-0.104		1
SE	ZNF584	+	chr19:58409940-58410091	NA	0.579	3.95E-08	-0.006		1
SE	CTNND1	+	chr11:57789036-57789155	NA	0.578	0	0.05	1.32E-06	
SE	FIRRE	-	chrX:131795808-131796331	NA	0.578	0.03072258172	-0.083		1
SE	PPIP5K2	+	chr5:103135992-103136114	NA	0.577	0.001101883147	-0.059		1

SE	EPB41L2	-	chr6:130870327-130870381	NA	0.576	5.39E-12	0.247	0
SE	TOX2	+	chr20:44065711-44066107	NA	0.576	0.02126672239	-0.051	1
SE	PER3	+	chr1:7787197-7787246	NA	0.575	0.003807338828	0.149	1
SE	C9orf3	+	chr9:94928424-94928531	NA	0.575	0.0007666247027	-0.073	1
SE	MCTP1	-	chr5:94917895-94917973	NA	0.575	1.56E-08	0.068	1
SE	WARS	-	chr14:100375282-100375350	NA	0.573	9.26E-05	-0.014	1
SE	TTC28	-	chr22:27990788-27990812	NA	0.572	6.78E-07	0.082	1
SE	ELF2	-	chr4:139116648-139116807	NA	0.572	0.001701782054	0.14	0.4389218514
SE	RPS24	+	chr10:78040200-78040225	NA	0.57	5.37E-11	0.104	0
SE	STAG3L3	-	chr7:73000357-73000481	NA	0.569	0.0004383795297	-0.004	1
SE	NUP214	+	chr9:131189052-131189131	NA	0.564	0.006949996165	-0.019	1
SE	CCDC88A	-	chr2:55303068-55303152	NA	0.561	0	0.064	0.05755593527
SE	CAST	+	chr5:96726753-96726859	NA	0.557	0	0.032	1
SE	AP1G1	-	chr16:71767876-71767885	NA	0.557	0	0.148	0.0005668235355
SE	WASH2P	+	chr2:113595062-113595161	NA	0.555	0.000350375615	-0.084	0.02421113543
SE	LIMCH1	+	chr4:41638931-41638967	NA	0.554	1.32E-12	-0.006	1
SE	PIN4	+	chrX:72186233-72186534	NA	0.554	0	-0.029	1
SE	AMPD2	+	chr1:109622184-109622353	NA	0.554	0.0002935232439	0.007	1
SE	SNX14	-	chr6:85538837-85538864	NA	0.554	0	0.052	0.0002910068944
SE	ZCWPW1	-	chr7:100407227-100407303	NA	0.552	3.10E-05	-0.048	1
SE	ZNF484	-	chr9:92875014-92875059	NA	0.552	3.08E-05	-0.017	1
SE	C14orf166	+	chr14:52004239-52004242	NA	0.55	0.00014487575793	0.005	0.005065734623
SE	EPB41L2	-	chr6:130870327-130870381	NA	0.548	4.47E-06	0.244	0
SE	C19orf60	+	chr19:18589412-18589683	NA	0.546	1.17E-08	-0.016	0.03770047692
SE	ITGB3BP	-	chr1:63447564-63447614	NA	0.545	0	0.156	1.01E-12
SE	KIAA1191	-	chr5:176359480-176359567	NA	0.544	0.0001530389937	0	1
SE	PPM1K	-	chr4:88278535-88278642	NA	0.544	0.0009616700701	0.114	0.01644211319
SE	CAST	+	chr5:96726793-96726859	NA	0.543	0.0001035888519	-0.001	1
SE	SLC7A11	-	chr4:138185120-138185244	NA	0.542	9.09E-08	-0.011	1
SE	ZCWPW1	-	chr7:100402515-100402576	NA	0.541	0.0008828287501	-0.087	7.43E-08
SE	FNBP1	-	chr9:129923843-129923996	NA	0.541	0	0.081	0.0009275162984
SE	ASAP2	+	chr2:9391061-9391196	NA	0.539	6.77E-06	0.072	1
SE	CEP72	+	chr5:665940-666099	NA	0.538	1.80E-07	0.045	1
SE	RNF146	+	chr6:127280515-127280604	NA	0.538	2.89E-08	0.118	8.93E-12
SE	TSSC4	+	chr11:2401838-2402147	NA	0.535	0	0.007	1
SE	WASF3	+	chr13:26680034-26680201	NA	0.534	6.92E-10	0.007	1
SE	FNBP1	-	chr9:129923843-129923939	NA	0.534	3.18E-05	-0.021	1
SE	MARK3	+	chr14:103498501-103498528	NA	0.529	0.0004916542622	-0.055	1
SE	RAB3GAP1	+	chr2:135169733-135169848	NA	0.527	5.95E-05	0	1
SE	CCDC14	-	chr3:123956354-123956427	NA	0.525	0.002598953941	-0.005	1
SE	PPIL3	-	chr2:200882341-200882382	NA	0.525	1.32E-06	-0.041	0.1038708471
SE	PIGQ	+	chr16:581198-581341	NA	0.524	0.0002419316532	0.001	1
SE	RP11-58011	-	chr17:47626546-47626627	NA	0.524	0.006170354981	-0.014	1
SE	MVD	-	chr16:88657145-88657247	NA	0.523	0.0001426700148	0.013	1
SE	FAM13B	-	chr5:138018954-138019146	NA	0.522	3.97E-08	-0.026	1
SE	NFYA	+	chr6:41080810-41080897	NA	0.521	5.31E-07	0.012	1
SE	LRCH3	+	chr3:197858833-197858905	NA	0.521	5.20E-11	0.132	1.39E-09
SE	FAM188A	-	chr10:15838227-15838279	NA	0.52	2.85E-13	0	1
SE	SEPT9	+	chr17:77402336-77402495	NA	0.519	4.46E-08	0	1
SE	CLSTN1	-	chr1:9756480-9756510	NA	0.516	0	0.04	0.1189545023
SE	FAM24B	-	chr10:122850423-122850520	NA	0.515	1.61E-09	-0.013	1
SE	SNRPN	+	chr15:24974641-24974957	NA	0.514	5.03E-05	0.028	1
SE	XPO6	-	chr16:28155701-28155771	NA	0.514	1.03E-05	0.029	1
SE	TTC28-AS1	+	chr22:27989881-27990026	NA	0.514	0.001921405105	0.011	1
SE	EEF1D	-	chr8:143592646-143592797	NA	0.512	4.25E-06	0.046	1
SE	EEF1D	-	chr8:143590607-143590729	NA	0.51	1.39E-05	-0.009	1
SE	TNFSF12-TI	+	chr17:7559623-7559702	NA	0.503	3.25E-06	-0.022	1
SE	INADL	+	chr1:62100318-62100408	NA	0.5	0.01919460471	-0.013	1
SE	MAGI1	-	chr3:65387142-65387226	NA	0.5	4.47E-07	0.237	3.26E-11
SE	MICAL3	-	chr22:17826453-17826516	NA	0.5	1.06E-09	-0.146	1
SE	ARL4A	+	chr7:12687634-12687728	NA	0.499	7.00E-10	0.109	0.2419974143
SE	EEF1D	-	chr8:143592646-143592942	NA	0.497	1.12E-11	0.038	1
SE	ZNF277	+	chr7:112286876-112287074	NA	0.497	0	0.002	1

SE	CTNND1	+	chr11:57789036-57789155	NA	0.495	1.21E-11	0.021	1
SE	MDM4	+	chr1:204537429-204537497	NA	0.494	4.14E-05	-0.063	1
SE	KIF3A	-	chr5:132706450-132706459	NA	0.49	2.45E-09	0.152	1
SE	RIF1	+	chr2:151480097-151480227	NA	0.489	0.002957482326	-0.051	1
SE	SUN1	+	chr7:849519-849603	NA	0.489	1.12E-05	-0.129	0.0748433781
SE	AIFM1	-	chrX:130155155-130155286	NA	0.488	0.003549029187	0.02	1
SE	GOLGA4	+	chr3:37266841-37266940	NA	0.487	0	-0.063	1
SE	TPK1	-	chr7:144681806-144681864	NA	0.484	0.01202735009	0.081	1
SE	TMEM25	+	chr11:118533419-118533551	NA	0.48	0.002210906602	-0.136	3.15E-14
SE	PMS2CL	+	chr7:6733398-6733527	NA	0.48	1.31E-10	0.153	0
SE	EEF1D	-	chr8:143590644-143590735	NA	0.479	0.001367554607	0.011	1
SE	DPM1	-	chr20:50941104-50941209	NA	0.474	0.0003324026152	-0.027	1
SE	EPB41L2	-	chr6:130870327-130870381	NA	0.474	3.36E-07	0.076	1
SE	DGKA	+	chr12:55932560-55932909	NA	0.472	0.002122617065	0.206	1
SE	NR4A1	+	chr12:52052473-52052645	NA	0.472	0.01007221058	0.044	1
SE	DGKH	+	chr13:42221161-42221394	NA	0.471	2.68E-05	0.235	1
SE	MRPS15	-	chr1:36461263-36461312	NA	0.47	0.003230017772	0.013	1
SE	LRRRC27	+	chr10:132342212-132342271	NA	0.468	0.003432257142	-0.017	1
SE	CATSPER2	-	chr15:43647049-43647118	NA	0.467	0.002544829601	0.044	1
SE	CUL5	+	chr11:108104189-108104902	NA	0.466	0	-0.001	1
SE	TIA1	-	chr2:70228343-70228462	NA	0.465	4.53E-11	0.015	1
SE	UGGT2	-	chr13:95860787-95860883	NA	0.462	1.74E-10	0.001	1
SE	DNAJB6	+	chr7:157409794-157415529	NA	0.461	0.0002552904057	-0.014	1
SE	GPCPD1	-	chr20:5586193-5586269	NA	0.46	0.003724555554	-0.053	0.0005656385185
SE	ANKRD10	-	chr13:110894284-110894393	NA	0.459	0.01041046655	0.049	1
SE	GUK1	+	chr1:228141123-228141507	NA	0.459	8.84E-08	0.028	0.04222877495
SE	C7orf55-LUC	+	chr7:139375508-139375583	NA	0.459	0.003536476151	-0.022	1
SE	MCTP1	-	chr5:94917895-94917973	NA	0.457	5.72E-11	-0.056	1
SE	CIRBP	+	chr19:1273600-1273715	NA	0.456	1.72E-06	0.02	1
SE	USP45	-	chr6:99445796-99446463	NA	0.455	7.84E-09	-0.082	1
SE	PPIL3	-	chr2:200882341-200882435	NA	0.454	5.63E-11	-0.03	0.002990973779
SE	PFDN5	+	chr12:53296429-53296551	NA	0.453	0.0007066383201	-0.069	0.09450408021
SE	FAM221A	+	chr7:23692182-23694913	NA	0.453	0	0.037	1
SE	APLP1	+	chr19:35878081-35878108	NA	0.448	3.77E-07	0.027	6.52E-13
SE	FNIP2	+	chr4:158833800-158833890	NA	0.447	0.0001145993843	-0.039	1
SE	SEPT2	+	chr2:241316421-241316540	NA	0.447	0.001538786731	0.028	1
SE	DNAJC4	+	chr11:64231031-64231147	NA	0.445	0.03833779699	0.01	1
SE	CLASP1	-	chr2:121409023-121409047	NA	0.444	9.89E-07	0.166	5.97E-05
SE	CACTIN	-	chr19:3611228-3611364	NA	0.444	2.72E-05	0.006	1
SE	TEX22	+	chr14:105449358-105449409	NA	0.444	5.32E-13	-0.065	8.91E-05
SE	NADSYN1	+	chr11:71476032-71477438	NA	0.443	2.65E-05	0.064	4.34E-07
SE	FAM135A	+	chr6:70486166-70486244	NA	0.442	1.50E-07	-0.03	1
SE	MAP4K4	+	chr2:101868028-101868037	NA	0.441	0	0.268	0
SE	VPS13B	+	chr8:99507769-99507911	NA	0.44	0.00206399437	-0.009	1
SE	ERBB2IP	+	chr5:66072168-66072291	NA	0.439	0.005843897436	0.137	0.02706632387
SE	FBRS	+	chr16:30661303-30661333	NA	0.439	8.18E-06	-0.027	0.4139295319
SE	WDR27	-	chr6:169665485-169665556	NA	0.439	6.79E-07	-0.009	1
SE	XRRA1	-	chr11:74945017-74945085	NA	0.438	0.0001331087106	0.079	1
SE	LRRRC75B	-	chr22:24588678-24589265	NA	0.438	0.0004754203316	-0.078	0.2099330039
SE	LETM2	+	chr8:38406945-38407038	NA	0.437	1.41E-06	0.028	1
SE	MED23	-	chr6:131615323-131615341	NA	0.436	3.90E-07	0.144	1
SE	ABHD14B	-	chr3:51971811-51971892	NA	0.435	4.64E-06	0.033	0.5163550836
SE	PUF60	-	chr8:143820665-143820716	NA	0.435	2.28E-10	0.041	0.0002170931953
SE	RALGAPA1	-	chr14:35700161-35700302	NA	0.434	0.003894370242	0.301	1
SE	CTNND1	+	chr11:57791491-57791673	NA	0.434	2.44E-08	0.043	1
SE	CTNND1	+	chr11:57791493-57791673	NA	0.434	2.12E-08	0.043	1
SE	TTC7A	+	chr2:46958494-46958552	NA	0.432	0.004065365915	0.005	1
SE	WARS	-	chr14:100375282-100375406	NA	0.432	0.001631060496	-0.014	1
SE	PSMA3-AS1	-	chr14:58288717-58288813	NA	0.432	7.31E-06	-0.008	1
SE	NOD1	-	chr7:30463608-30463698	NA	0.431	0.0004537657274	0.097	1
SE	HPS1	-	chr10:98431130-98431291	NA	0.43	1.28E-05	-0.008	1
SE	TSSC4	+	chr11:2401975-2402147	NA	0.429	1.03E-08	0.003	1
SE	C4orf36	-	chr4:86932221-86932319	NA	0.427	0.002784788117	-0.044	1

SE	GOLGB1	-	chr3:121719645-121719753	NA	0.427	0.04360660297	0.092	1
SE	CEP57L1	+	chr6:109106034-109106090	NA	0.427	0.0007319614165	0.009	1
SE	ZFAND5	-	chr9:72363469-72363606	NA	0.426	0	0.023	0.5651198145
SE	DBR1	-	chr3:138163777-138163858	NA	0.426	0	-0.017	1
SE	IMMP1L	-	chr11:31460625-31460714	NA	0.426	0.00831961416	-0.017	1
SE	OFD1	+	chrX:13763744-13763855	NA	0.423	0	-0.022	0.6703107187
SE	GOLGB1	-	chr3:121719645-121719768	NA	0.423	0.01706419273	0.084	1
SE	AC024560.3	-	chr3:197624471-197624720	NA	0.423	4.05E-12	0.029	1
SE	NAGK	+	chr2:71070740-71070839	NA	0.422	0.003548756426	-0.047	1
SE	ORMDL1	-	chr2:189783013-189783123	NA	0.422	0	-0.041	0.9341657548
SE	MON2	+	chr12:62566013-62566031	NA	0.421	0.0009638969816	0.045	1
SE	RALGAPA2	-	chr20:20396694-20396734	NA	0.421	0.0255521065	-0.094	3.15E-14
SE	SEMA4F	+	chr2:74662731-74662825	NA	0.419	0.0004418183214	0.036	1
SE	RAB34	-	chr17:28717212-28717291	NA	0.418	4.03E-06	0.012	1
SE	C1orf86	-	chr1:2192844-2192975	NA	0.417	6.06E-08	-0.005	1
SE	ELFN2	-	chr22:37417768-37417919	NA	0.417	0.001125297341	-0.007	1
SE	HMG1	-	chr21:39345829-39345958	NA	0.417	0	0.033	1
SE	PKIG	+	chr20:44582584-44582731	NA	0.416	0	-0.101	3.41E-05
SE	MBD1	-	chr18:50271468-50271540	NA	0.415	0.0009073322787	-0.06	0.04015298357
SE	FBXO24	+	chr7:100595101-100595223	NA	0.414	6.11E-06	0.03	1
SE	SERPINB6	-	chr6:2968778-2968913	NA	0.414	0.0003879148638	0.021	1
SE	MLLT6	+	chr17:38721877-38722227	NA	0.413	3.20E-06	-0.089	1
SE	GPR157	-	chr1:9105485-9105680	NA	0.412	0.00512657653	0.078	1
SE	HMG1	-	chr21:39345829-39345958	NA	0.412	7.73E-13	0.047	0
SE	SLC35B1	-	chr17:49707342-49707444	NA	0.41	0.0006971692881	0.01	1
SE	PILRB	+	chr7:100353894-100354012	NA	0.41	9.00E-11	0.032	0.2268086619
SE	MPRIP	+	chr17:17180606-17180669	NA	0.41	0.00173447688	-0.075	0.02200380162
SE	NFASC	+	chr1:204962107-204962158	NA	0.41	2.42E-06	0.178	8.88E-09
SE	KIAA1109	+	chr4:122275971-122276022	NA	0.408	1.95E-08	0.153	1
SE	C17orf62	-	chr17:82447579-82447621	NA	0.405	4.76E-07	-0.007	1
SE	CDK5RAP2	-	chr9:120460571-120460747	NA	0.404	7.74E-05	-0.019	1
SE	THAP6	+	chr4:75542408-75542486	NA	0.404	0.001289105061	-0.1	1
SE	MDM4	+	chr1:204537458-204537497	NA	0.403	4.41E-05	-0.058	1
SE	HNRNPA2B	-	chr7:26190992-26191128	NA	0.402	0	-0.001	1
SE	TEX30	-	chr13:102770011-102770086	NA	0.4	4.43E-06	-0.002	0.6358331318
SE	UBA2	+	chr19:34430092-34430186	NA	0.399	5.38E-06	-0.018	1
SE	PPP1R3E	-	chr14:23300106-23300325	NA	0.399	0.0001503356103	0.009	1
SE	ZFYVE27	+	chr10:97743093-97743164	NA	0.398	5.08E-07	-0.01	1
SE	IFT122	+	chr3:129461227-129461304	NA	0.398	0.005789128017	-0.073	1
SE	PLEKHA8	+	chr7:30050433-30050474	NA	0.397	4.16E-05	-0.004	1
SE	ZNF142	-	chr2:218651700-218651822	NA	0.397	0.01252426593	0.089	1
SE	ATXN2	-	chr12:111464661-111464715	NA	0.397	5.72E-05	0.005	1
SE	ELOVL5	-	chr6:53290400-53290535	NA	0.395	0.003902246943	-0.129	1
SE	GLS	+	chr2:190920214-190920248	NA	0.395	0.0002389327734	-0.044	1
SE	GUK1	+	chr1:228141123-228141288	NA	0.395	1.21E-08	0.032	1
SE	BCL2L2	+	chr14:23308815-23308932	NA	0.394	1.28E-06	-0.002	1
SE	SYTL4	-	chrX:100703092-100703185	NA	0.392	2.13E-05	0.038	1
SE	ZNF383	+	chr19:37219598-37219749	NA	0.392	0.007705740173	-0.042	1
SE	DUSP12	+	chr1:161751131-161751377	NA	0.39	0.001440110946	-0.062	1
SE	MYO9A	-	chr15:71892964-71893177	NA	0.389	0.001802867873	-0.135	1
SE	SNX25	+	chr4:185351444-185351609	NA	0.389	5.65E-12	-0.003	1
SE	OXR1	+	chr8:106737519-106737600	NA	0.389	1.25E-11	0.169	3.60E-09
SE	TIAM1	-	chr21:31276731-31276908	NA	0.388	0.02905195337	0.014	1
SE	EPB41L2	-	chr6:130876673-130876775	NA	0.387	1.18E-05	0.1	0.2015795536
SE	C1orf86	-	chr1:2192646-2192975	NA	0.387	9.33E-08	0.008	0.001859775651
SE	EXOC7	-	chr17:76091142-76091235	NA	0.387	0	0.128	0.0001621404627
SE	SNHG17	-	chr20:38422091-38422241	NA	0.386	7.64E-10	-0.025	1
SE	CDKL3	-	chr5:134359896-134360091	NA	0.385	0.04552554741	-0.095	1
SE	C21orf62-A5	+	chr21:32788611-32788701	NA	0.385	0.01673793337	-0.091	1
SE	CTAGE5	+	chr14:39320927-39321056	NA	0.384	9.02E-05	0.038	0.2046867693
SE	ST3GAL6-A	-	chr3:98718423-98718521	NA	0.384	0.01134847022	0.016	1
SE	USP36	-	chr17:78797785-78797879	NA	0.382	2.27E-05	0.033	1
SE	STIM1	+	chr11:4084672-4084765	NA	0.381	6.19E-06	-0.006	1

SE	ZCWPW2	+	chr3:28478813-28478931	NA	0.377	4.60E-06	0.007		1
SE	SVIL	-	chr10:29532001-29532172	NA	0.376	2.63E-06	-0.058		1
SE	HMG1	-	chr21:39347246-39347292	NA	0.375	7.19E-11	0.041		1
SE	ZNF519	-	chr18:14080188-14080266	NA	0.373	2.79E-06	-0.051		1
SE	CIRBP	+	chr19:1273493-1273715	NA	0.369	9.30E-07	0.015		1
SE	ARMC4	-	chr10:27968922-27969018	NA	0.369	0.01357652802	0.072		1
SE	PCBP4	-	chr3:51961748-51961894	NA	0.367	0.01272273568	0.008	0.05908775887	
SE	ARHGAP21	-	chr10:24622732-24622762	NA	0.367	1.48E-07	0.028		1
SE	DCAF8	-	chr1:160261284-160261350	NA	0.367	3.58E-07	0.043	0.3245857962	
SE	SH3GLB2	-	chr9:129010669-129010693	NA	0.367	0.0009146336722	-0.014		1
SE	NUDT22	+	chr11:64227567-64227666	NA	0.367	3.01E-09	-0.046	6.37E-07	
SE	GAA	+	chr17:80101810-80101890	NA	0.367	8.37E-06	-0.036		1
SE	LAS1L	-	chrX:65524563-65524614	NA	0.365	2.58E-06	0.054	0.2567188962	
SE	MCTP1	-	chr5:94799012-94799132	NA	0.365	1.48E-08	0.06		1
SE	DPY19L2	-	chr12:63590998-63591127	NA	0.364	0.001505065008	-0.02		1
SE	STRADA	-	chr17:63726637-63726695	NA	0.364	9.33E-06	0.015		1
SE	RIN3	+	chr14:92615406-92615479	NA	0.363	9.41E-05	-0.022		1
SE	SP140L	+	chr2:230328756-230328831	NA	0.363	0.0001674844062	0.006		1
SE	KLHDC1	+	chr14:49728925-49729009	NA	0.363	0.04492330258	0.006		1
SE	PDPR	+	chr16:70114820-70114930	NA	0.362	0.01384958618	-0.086		1
SE	MYO5A	-	chr15:52337809-52337884	NA	0.362	0	-0.191		1
SE	PICALM	-	chr11:85978069-85978093	NA	0.361	0	-0.134	1.09E-12	
SE	BORA	+	chr13:72734959-72735005	NA	0.361	0.0002217088096	-0.043		1
SE	FAM24B	-	chr10:122850423-122850550	NA	0.361	1.17E-08	-0.007		1
SE	NHLRC3	+	chr13:39042104-39042305	NA	0.36	5.79E-08	0.05	0.8245268707	
SE	EED	+	chr11:86264171-86264263	NA	0.359	0.02081308966	-0.052		1
SE	ASAH2B	+	chr10:50745127-50745274	NA	0.359	0.000381490862	-0.038		1
SE	FAM195A	+	chr16:646471-646608	NA	0.358	0.003349315801	0.022		1
SE	ZFX	+	chrX:24161714-24161842	NA	0.357	0.03417336386	0.161		1
SE	TEX15	-	chr8:30874936-30875102	NA	0.357	2.61E-05	-0.077		1
SE	TTLL3	+	chr3:9818821-9818920	NA	0.357	0.0009150251426	-0.02		1
SE	KIF23	+	chr15:69425281-69425323	NA	0.356	4.47E-13	-0.081	0.01190529972	
SE	NBEAL1	+	chr2:203115984-203116070	NA	0.355	0.0002383144115	-0.046		1
SE	KLHL24	+	chr3:183636220-183636311	NA	0.354	7.54E-08	0.031		1
SE	SAMD4B	+	chr19:39351816-39352374	NA	0.354	0.01422507111	0.042		1
SE	ZNF786	-	chr7:149080590-149080717	NA	0.354	0.04214164797	-0.03		1
SE	C16orf13	-	chr16:635517-635774	NA	0.353	0.0004141608316	-0.024		1
SE	BROX	+	chr1:222715144-222715269	NA	0.353	0.00330261625	0.055		1
SE	SREBF2	+	chr22:41904534-41904732	NA	0.353	0.02530794582	0.002	4.37E-07	
SE	ARHGEF11	-	chr1:156938417-156938513	NA	0.352	5.07E-07	0.013		1
SE	ITPR1	+	chr3:4653841-4653886	NA	0.351	0.008916593862	-0.112		1
SE	TOP1MT	-	chr8:143334107-143334285	NA	0.35	1.38E-06	0.021		1
SE	TIA1	-	chr2:70229058-70229091	NA	0.349	1.08E-13	-0.024		1
SE	TANC2	+	chr17:63412679-63412709	NA	0.348	1.26E-07	0.311		1
SE	C17orf62	-	chr17:82446622-82446692	NA	0.348	5.97E-10	-0.007		1
SE	MOK	-	chr14:102265822-102265912	NA	0.346	0.0005890502783	-0.022		1
SE	IFT122	+	chr3:129458598-129458677	NA	0.346	0.03306288922	-0.086	0.341561334	
SE	KIF1B	+	chr1:10326110-10326359	NA	0.345	0.001701782054	0.184	3.19E-09	
SE	POLE2	-	chr14:49674349-49674427	NA	0.345	4.09E-07	-0.001	0.537773333	
SE	FAM161A	-	chr2:61836582-61836872	NA	0.345	5.12E-05	0.056		1
SE	SYNE1	-	chr6:152145486-152145555	NA	0.343	0.02105099548	-0.205	8.16E-11	
SE	TMEM218	-	chr11:125102131-125102302	NA	0.343	0.03972173331	0.001		1
SE	MCM9	-	chr6:118856370-118856545	NA	0.342	0.002662136025	0.033		1
SE	MRPS18C	+	chr4:83458345-83458429	NA	0.342	3.58E-13	-0.007		1
SE	TNRC18	-	chr7:5329936-5329969	NA	0.341	0.03499961163	-0.086	0.07802427692	
SE	GOLGA6L9	+	chr15:82432571-82432631	NA	0.341	0.009416548364	-0.139		1
SE	NPHP3	-	chr3:132696730-132696813	NA	0.34	1.09E-05	0.034		1
SE	TPCN2	+	chr11:69067502-69067605	NA	0.34	6.03E-05	-0.052		1
SE	FAM13B	-	chr5:137946227-137946311	NA	0.339	3.76E-05	-0.061	0.00986286595	
SE	SCML1	+	chrX:17744070-17744219	NA	0.339	0.001379584947	-0.062		1
SE	MFSD12	-	chr19:3542775-3542977	NA	0.339	4.34E-05	0.04		1
SE	PPIL3	-	chr2:200885261-200885367	NA	0.339	1.93E-05	-0.034		1
SE	HMMR	+	chr5:163467700-163467748	NA	0.338	1.27E-11	-0.051		1

SE	NF1	+	chr17:31252937-31253000	NA	0.338	2.85E-05	-0.015	1
SE	CD27-AS1	-	chr12:6450892-6450980	NA	0.337	0.02475961249	0.024	1
SE	SUV420H2	+	chr19:55343977-55343997	NA	0.336	0.001968293186	-0.035	1
SE	YIPF1	-	chr1:53855000-53855051	NA	0.335	0.0006432768657	0.023	1
SE	N4BP2	+	chr4:40100035-40100126	NA	0.335	0.03898426062	0.172	1
SE	March2	+	chr19:8418741-8418807	NA	0.335	6.70E-05	-0.03	1
SE	RAD51AP1	+	chr12:4545781-4545832	NA	0.335	4.54E-05	-0.086	1
SE	TOM1L2	-	chr17:17857768-17857855	NA	0.335	6.07E-07	0.04	1
SE	ZDHHC15	-	chrX:75429077-75429198	NA	0.334	0.01080928689	-0.012	1
SE	PCOLCE	+	chr7:100605504-100605812	NA	0.334	0.000261928969	-0.017	0.4364746126
SE	PCBP1-AS1	-	chr2:70059642-70059680	NA	0.334	0.003387004345	0.025	1
SE	MRPS28	-	chr8:80028694-80028796	NA	0.333	0.00106274245	0.081	1
SE	RCN1	+	chr11:32103003-32103202	NA	0.332	0.04655359236	0.005	1
SE	ANO6	+	chr12:45228167-45228273	NA	0.332	0.04369154184	-0.007	1
SE	AGRN	+	chr1:1051031-1051043	NA	0.332	1.00E-04	0.256	0
SE	FHOD3	+	chr18:36687127-36687178	NA	0.331	0.0391410956	0.056	1
SE	ENTHD2	-	chr17:81232314-81232518	NA	0.331	0.0001166155859	-0.065	0.02667018268
SE	PCOLCE	+	chr7:100605675-100605812	NA	0.33	5.14E-05	-0.01	1
SE	AURKB	-	chr17:8210176-8210225	NA	0.33	1.60E-09	0.156	7.96E-09
SE	RP11-295P	+	chr10:13654088-13654258	NA	0.33	0.003522034591	0.012	1
SE	PRPF40B	+	chr12:49632595-49632623	NA	0.329	0.001138009614	-0.077	0.07353316925
SE	ERMARD	+	chr6:169753037-169753181	NA	0.329	0.0001454345137	0.035	1
SE	DCAF8	-	chr1:160261284-160261325	NA	0.329	9.41E-05	0.019	1
SE	WIBG	-	chr12:55927075-55927267	NA	0.329	0.003959039809	0.088	1
SE	ACTR3B	+	chr7:152811696-152811733	NA	0.328	1.08E-13	-0.062	0.06486921955
SE	ZMYM1	+	chr1:35093319-35093441	NA	0.328	0.004503457102	0.114	1
SE	CCHCR1	-	chr6:31157384-31157500	NA	0.328	1.20E-06	0.035	1
SE	MTIF3	-	chr13:27441016-27441077	NA	0.327	0.0001959215647	0.084	1
SE	AHI1	-	chr6:135302711-135302817	NA	0.327	0.01187945836	0.069	0.2343642136
SE	C1orf162	+	chr1:111477650-111477775	NA	0.327	0.007797388202	-0.035	1
SE	SREK1	+	chr5:66156064-66158932	NA	0.327	1.42E-06	0.009	1
SE	SLC25A36	+	chr3:140966933-140967036	NA	0.326	1.18E-10	-0.019	1
SE	ELMOD3	+	chr2:85371439-85371562	NA	0.326	0.02558045263	-0.018	1
SE	SEPT7	+	chr7:35831491-35832034	NA	0.326	0	0.096	0.003911619295
SE	MSH5-SAPC	+	chr6:31762789-31763168	NA	0.326	3.62E-07	-0.06	0.06333810809
SE	GORAB	+	chr1:170536309-170536421	NA	0.325	0.02241166849	0.006	1
SE	PCMTD1	-	chr8:51839446-51839638	NA	0.325	1.42E-06	0.04	3.17E-07
SE	RFX2	-	chr19:6026162-6026237	NA	0.324	0.0003095361672	-0.076	1
SE	ARHGEF10	+	chr8:1880047-1880164	NA	0.324	0.000880675005	0.082	1
SE	ILF3	+	chr19:10684415-10684476	NA	0.323	1.34E-11	0.002	1
SE	INCENP	+	chr11:62141499-62141511	NA	0.323	0.02376597087	-0.121	0.0004036382164
SE	NLRX1	+	chr11:119172355-119172425	NA	0.323	8.79E-05	-0.011	1
SE	NDEL1	+	chr17:8463319-8463354	NA	0.323	0.001234956404	-0.03	0.4336648067
SE	HMGN1	-	chr21:39345829-39347292	NA	0.323	0	0.039	1
SE	MPHOSPH9	-	chr12:123226287-123226351	NA	0.322	8.53E-11	0.094	1
SE	KLHL24	+	chr3:183636220-183636311	NA	0.322	0.0001503356103	0.018	1
SE	PPIP5K2	+	chr5:103186319-103186439	NA	0.322	0.0002061758732	0.035	1
SE	ZNF772	-	chr19:57475659-57475786	NA	0.322	0.008723427672	0.14	1
SE	SPATA4	-	chr4:176192957-176193076	NA	0.321	0.00010612589	0.027	1
SE	TMEM39A	-	chr3:119435754-119435935	NA	0.321	2.44E-10	0.155	1
SE	PEX7	+	chr6:136869889-136870003	NA	0.32	0.002238644159	-0.017	1
SE	ZNF711	+	chrX:85246929-85247183	NA	0.32	7.32E-08	0.024	1
SE	SPEF2	+	chr5:35644354-35644525	NA	0.32	9.18E-05	-0.102	1
SE	BAZ1A	-	chr14:34786125-34786221	NA	0.32	0.001379584947	-0.027	1
SE	SLC2A11	+	chr22:23877384-23877869	NA	0.319	9.42E-06	-0.002	0.6223901432
SE	TSSC4	+	chr11:2401838-2401979	NA	0.319	5.66E-06	-0.001	1
SE	TRIM16	-	chr17:15651090-15651946	NA	0.319	0.0007828582725	-0.066	0.005247877485
SE	TOP1MT	-	chr8:143332486-143332657	NA	0.317	1.32E-09	0.052	0.08678612438
SE	TRAF3IP2-A	+	chr6:111574620-111574658	NA	0.317	0.01210955425	-0.03	1
SE	AAK1	-	chr2:69495984-69496080	NA	0.316	0.006955259997	0.164	1
SE	USP8	+	chr15:50484274-50484361	NA	0.316	7.79E-08	-0.012	1
SE	CCP110	+	chr16:19524779-19525019	NA	0.315	0.002784788117	-0.075	1
SE	GOLT1B	+	chr12:21507943-21508109	NA	0.315	5.26E-07	0.16	1

SE	SUMF2	+	chr7:56074113-56074218	NA	0.315	0	-0.024	0.03608106686
SE	TCEA1	-	chr8:54002891-54002940	NA	0.315	0.01533786035	0.01	0.05019875989
SE	MYO6	+	chr6:75911671-75911698	NA	0.315	3.49E-11	0.034	1
SE	SENP7	-	chr3:101417592-101417790	NA	0.314	1.18E-10	0.012	1
SE	PPIP5K2	+	chr5:103187313-103187376	NA	0.314	2.71E-06	0.043	0.2318864067
SE	BPTF	+	chr17:67875555-67875744	NA	0.314	9.73E-12	0.016	1
SE	RBM6	+	chr3:49975322-49975392	NA	0.313	2.49E-06	-0.019	1
SE	C14orf79	+	chr14:104989631-104989707	NA	0.313	0.03336016912	-0.064	1
SE	NUDT13	+	chr10:73124213-73124320	NA	0.313	0.0005127634016	-0.006	1
SE	GATAD2A	+	chr19:19436130-19436219	NA	0.313	0.00140484798	-0.062	1
SE	RGS19	-	chr20:64076856-64076954	NA	0.313	0.003517135917	-0.015	1
SE	MEIG1	+	chr10:14970247-14970546	NA	0.313	0.03122985027	0.076	1
SE	CD27-AS1	-	chr12:6450869-6450980	NA	0.313	0.01675843214	0.003	1
SE	SLC29A1	+	chr6:44226060-44226167	NA	0.312	1.18E-05	-0.047	1
SE	PDPR	+	chr16:70114869-70114930	NA	0.311	0.0008000210449	-0.086	1
SE	EEF1D	-	chr8:143590644-143590738	NA	0.311	0.0007911413037	-0.013	1
SE	SLC9B1	-	chr4:102949256-102949427	NA	0.311	0.006378477914	0.17	1
SE	ARNTL2	+	chr12:27370128-27370230	NA	0.309	0.02166060778	0.007	1
SE	KIAA1468	+	chr18:62279773-62279856	NA	0.309	0.03090604922	0.109	2.86E-13
SE	DST	-	chr6:56463045-56463156	NA	0.309	0	-0.009	0.0004247547399
SE	ZDHHC16	+	chr10:97448189-97448350	NA	0.309	0.006465468267	0.003	1
SE	C17orf62	-	chr17:82449173-82449292	NA	0.309	1.37E-07	-0.014	1
SE	PRPF40A	-	chr2:152679055-152679109	NA	0.309	0	0.017	1
SE	DHX34	+	chr19:47376914-47376989	NA	0.308	0.008437561811	-0.001	1
SE	TCEA1	-	chr8:54002891-54003092	NA	0.308	0.0009906262505	0.006	0.002119978404
SE	JKAMP	+	chr14:59486680-59486804	NA	0.307	2.33E-12	0.003	1
SE	UBXN2B	+	chr8:58413298-58413371	NA	0.307	0.0001467205675	0.006	1
SE	BORA	+	chr13:72731280-72731387	NA	0.306	2.29E-05	-0.032	2.61E-06
SE	TMEM218	-	chr11:125102131-125102317	NA	0.306	0.009312346136	-0.001	1
SE	JKAMP	+	chr14:59486730-59486804	NA	0.305	1.06E-12	0.002	1
SE	ZNF133	+	chr20:18289898-18290074	NA	0.305	0.01781677028	-0.051	1
SE	RP11-452F1	+	chr1:222823855-222823945	NA	0.305	2.24E-05	0.053	1
SE	SCML1	+	chrX:17744070-17744219	NA	0.304	5.26E-08	0.079	1
SE	FECH	-	chr18:57585863-57585973	NA	0.304	0.02354481015	-0.01	1
SE	THRB	-	chr3:24297225-24297371	NA	0.304	0.005335128453	-0.153	1
SE	C17orf62	-	chr17:82447579-82447646	NA	0.304	0.01212190181	-0.058	5.68E-07
SE	RIPK2	+	chr8:89762828-89762982	NA	0.303	0.007952215332	-0.015	1
SE	METTL25	+	chr12:82456726-82456820	NA	0.303	0.02240571123	0.006	1
SE	SPEG	+	chr2:219444029-219444059	NA	0.302	0.002168602909	-0.005	1
SE	CCDC176	+	chr14:74046059-74046130	NA	0.302	0.01050857481	0.054	1
SE	FBXO44	+	chr1:11655327-11655699	NA	0.302	0.001244028305	-0.007	1
SE	TPCN2	+	chr11:69079833-69079883	NA	0.302	0.004265354996	-0.156	8.11E-05
SE	RBM6	+	chr3:49972058-49972148	NA	0.301	1.54E-10	-0.019	1
SE	ULK4	-	chr3:41819422-41819506	NA	0.301	8.15E-05	-0.019	1
SE	SBNO2	-	chr19:1147308-1147420	NA	0.3	0.001484505828	-0.001	1
SE	TCF7	+	chr5:134144796-134144869	NA	0.3	0.003218971638	0.242	2.65E-09
SE	NPHP3	-	chr3:132717954-132718117	NA	0.3	0.0001161877562	0.042	1
SE	PRIMPOL	+	chr4:184682247-184682336	NA	0.3	0.001312112384	-0.063	1
SE	COA1	-	chr7:43665657-43665722	NA	0.299	5.25E-12	0.171	3.71E-07
SE	FBXL4	-	chr6:98880552-98880624	NA	0.299	0.0008985289339	-0.029	0.06462676519
SE	PTK2	-	chr8:140925660-140925749	NA	0.299	1.81E-10	-0.015	1
SE	UBE2G2	-	chr21:44774566-44774741	NA	0.299	1.20E-05	0.01	1
SE	NPHP3	-	chr3:132699352-132699450	NA	0.298	0.002000095534	-0.089	0.6590073355
SE	SEC31A	-	chr4:82862533-82862572	NA	0.298	6.25E-12	-0.015	1
SE	SLC25A22	-	chr11:796042-796367	NA	0.298	0.0003906458635	-0.071	1
SE	WDR27	-	chr6:169670568-169670693	NA	0.297	2.79E-06	0.007	1
SE	ADAMTS6	-	chr5:65470777-65471142	NA	0.295	6.69E-05	-0.013	1
SE	WDR35	-	chr2:19960553-19960614	NA	0.295	3.39E-07	-0.011	1
SE	SGCE	-	chr7:94644605-94644667	NA	0.295	0.002784788117	0.061	1
SE	ENOSF1	-	chr18:691203-691276	NA	0.295	0.0006544003966	-0.093	1
SE	ANKMY1	-	chr2:240557189-240557352	NA	0.295	0.009947313719	-0.203	1
SE	MTCL1	+	chr18:8809447-8809561	NA	0.295	3.95E-10	-0.035	1
SE	FAM118B	+	chr11:126229224-126229336	NA	0.294	0.006913625577	-0.064	1

SE	EPB41L1	+	chr20:36195328-36195364	NA	0.293	0.001588997599	0.136	7.06E-06
SE	MTA1	+	chr14:105445666-105445852	NA	0.292	0	-0.047	1
SE	ZMYM1	+	chr1:35093393-35093441	NA	0.292	0.0004387441602	0.15	1
SE	AP4M1	+	chr7:100102245-100102393	NA	0.292	1.62E-12	0.016	0.01138816182
SE	ZNF83	-	chr19:52616717-52616815	NA	0.291	1.25E-05	0.035	1
SE	CD320	-	chr19:8305030-8305805	NA	0.291	0.02730924673	-0.073	0.05327408743
SE	KIAA1109	+	chr4:122226706-122226835	NA	0.29	0.005433588589	0.055	1
SE	RFWD2	-	chr1:176136487-176136547	NA	0.29	2.21E-05	0.009	1
SE	TMEM143	-	chr19:48360071-48360176	NA	0.29	0.04513725149	-0.053	1
SE	ARAP1	-	chr11:72732514-72732597	NA	0.29	0.002607277755	-0.012	1
SE	MRPL22	+	chr5:154950802-154950938	NA	0.289	1.18E-07	-0.09	1.19E-13
SE	PRDM2	+	chr1:13778417-13782831	NA	0.289	2.58E-09	0.016	1
SE	TYSND1	-	chr10:70143841-70143972	NA	0.289	0.000311701948	0.001	1
SE	SYNJ1	-	chr21:32634860-32634881	NA	0.289	6.83E-05	0.129	1
SE	PKIG	+	chr20:44585099-44585204	NA	0.289	0.002174269931	-0.012	2.33E-10
SE	ARPP19	-	chr15:52564189-52564246	NA	0.288	3.04E-05	-0.018	1
SE	CLSTN1	-	chr1:9737497-9737554	NA	0.288	0	0.088	0
SE	NAGPA	-	chr16:5028296-5028398	NA	0.287	0.00234344699	0.026	0.1222207181
SE	CAPN7	+	chr3:15245525-15245671	NA	0.287	0.001480159749	-0.027	1.99E-08
SE	FANCA	-	chr16:89762637-89762793	NA	0.287	5.88E-11	0.013	1
SE	TMEM117	+	chr12:44143524-44143624	NA	0.285	0.006170354981	-0.014	1
SE	PILRB	+	chr7:100353894-100354012	NA	0.284	7.18E-05	0.056	0.05251272139
SE	PQLC3	+	chr2:11172750-11172824	NA	0.284	0.005969129601	0.138	1
SE	PTPRD	-	chr9:8437197-8437239	NA	0.283	6.82E-05	0.04	1
SE	ATP5H	-	chr17:75039871-75040041	NA	0.283	0.01033447427	-0.118	1
SE	BAZ2B	-	chr2:159430862-159431156	NA	0.282	0.02202842779	0.033	1
SE	FNBP1	-	chr9:129923843-129924026	NA	0.282	0.004212179557	-0.012	1
SE	SPEG	+	chr2:219444024-219444059	NA	0.281	0.001400638034	0	1
SE	AC024560.3	-	chr3:197622186-197622330	NA	0.281	3.78E-07	-0.124	2.03E-05
SE	TCF20	-	chr22:42168608-42168736	NA	0.28	0.04608462819	0.218	0
SE	CDK16	+	chrX:47222260-47222380	NA	0.28	0.004926977751	0.032	0.9951118393
SE	NME4	+	chr16:398207-398385	NA	0.28	0.0349971465	0.01	1
SE	MAST1	+	chr19:12865315-12865481	NA	0.28	0.03825624706	0.001	1
SE	SPATS2	+	chr12:49371227-49371290	NA	0.28	1.33E-05	0.122	0.002406835435
SE	IKZF4	+	chr12:56024661-56024905	NA	0.279	0.004728450157	0.158	1
SE	FOXD3-AS1	-	chr1:63321664-63322080	NA	0.279	0.002721675563	0.068	0.04617524532
SE	APAF1	+	chr12:98703370-98703499	NA	0.278	0.001135475143	-0.039	0.9007699827
SE	CASK	-	chrX:41555599-41555635	NA	0.278	1.34E-11	0.011	1
SE	C9orf89	+	chr9:93111878-93111938	NA	0.278	1.56E-08	-0.073	3.47E-06
SE	SUZ12P1	+	chr17:30743300-30743369	NA	0.278	0.0002914239142	0.008	1
SE	CAMTA2	-	chr17:4982088-4982227	NA	0.274	0.002049001138	0.018	1
SE	LUC7L3	+	chr17:50738136-50738199	NA	0.274	3.31E-09	-0.171	1
SE	ITGB3BP	-	chr1:63446805-63446856	NA	0.274	0	-0.009	1
SE	TBC1D8B	+	chrX:106839325-106839457	NA	0.271	4.34E-05	-0.054	1
SE	CDK5RAP2	-	chr9:120460571-120460667	NA	0.271	3.89E-05	-0.023	1
SE	ALKBH8	-	chr11:107549752-107549823	NA	0.271	0.0001857822036	-0.059	1
SE	WDR35	-	chr2:19932382-19932447	NA	0.27	8.36E-07	-0.002	1
SE	KIAA1109	+	chr4:122325854-122325917	NA	0.27	0.01494049834	-0.056	0.0001767220318
SE	CD27-AS1	-	chr12:6450340-6450980	NA	0.27	0.01669192307	0.009	1
SE	RFX3	-	chr9:3301545-3301620	NA	0.269	3.88E-05	0.042	0.0003000116087
SE	SLC25A10	+	chr17:81713261-81713506	NA	0.269	0.001237237216	-0.015	1
SE	SEC31A	-	chr4:82862533-82862572	NA	0.268	7.13E-06	0.022	1
SE	TPM1	+	chr15:63061712-63061788	NA	0.268	6.41E-13	0.07	5.59E-09
SE	DLEU1	+	chr13:50083141-50083194	NA	0.268	8.10E-07	-0.098	0.003387663196
SE	BCOR	-	chrX:40071636-40071690	NA	0.268	0.002441790178	0.064	1
SE	NAGLU	+	chr17:42537397-42537545	NA	0.267	0.002270954097	-0.064	4.33E-07
SE	MCCC2	+	chr5:71626639-71626753	NA	0.267	2.16E-05	-0.016	1
SE	PPIP5K2	+	chr5:103187313-103187376	NA	0.267	0.02576515749	0.085	0.08718094723
SE	NBN	-	chr8:89981952-89982002	NA	0.266	0.02189479798	-0.016	1
SE	CTNND1	+	chr11:57806460-57806478	NA	0.266	4.23E-10	0.196	0
SE	FAM13B	-	chr5:137956476-137956542	NA	0.265	0.002442117802	-0.064	0.9867544371
SE	R3HDM1	+	chr2:135616151-135616193	NA	0.265	0.01888167559	-0.014	1
SE	CAMTA2	-	chr17:4982088-4982175	NA	0.265	0.003568838564	0.013	1

SE	LRRFIP1	+	chr2:237751199-237751271	NA	0.265	0	0.059	0
SE	ATAT1	+	chr6:30640534-30640603	NA	0.265	0.02320561358	-0.094	1.11E-12
SE	RHOQ	+	chr2:46543753-46543812	NA	0.264	0.005789128017	-0.002	1
SE	FAM122B	-	chrX:134772142-134772283	NA	0.264	2.18E-10	0.016	1
SE	ARHGEF3	-	chr3:57007181-57007336	NA	0.264	0.001289105061	-0.045	1
SE	PRR3	+	chr6:30561327-30561508	NA	0.264	0.01244086474	-0.031	0.3827413428
SE	POLDIP3	-	chr22:42601969-42602107	NA	0.263	0.007773580358	-0.067	0.07531317234
SE	PARD3	-	chr10:34372497-34372536	NA	0.263	8.40E-06	0.039	0.2716532777
SE	SON	+	chr21:33572550-33572630	NA	0.263	0	-0.024	1
SE	RP11-1212A	-	chr16:18372577-18372854	NA	0.263	0.03838602055	-0.072	1
SE	BRD8	-	chr5:138159554-138159599	NA	0.262	0.0001421619531	0.046	6.12E-06
SE	MFSD6	+	chr2:190415291-190415413	NA	0.262	0.01422507111	0.016	1
SE	TCEA1	-	chr8:54002891-54003086	NA	0.261	0.0075854768	0.005	0.4694765891
SE	FAM118B	+	chr11:126229224-126229293	NA	0.261	0.003200271846	-0.031	1
SE	TRIM35	-	chr8:27290155-27290178	NA	0.26	0.0007441076698	-0.052	1
SE	ZBTB14	-	chr18:5293971-5294001	NA	0.26	0.002715613574	-0.021	1
SE	PTPRS	-	chr19:5218786-5218798	NA	0.259	0.005967428301	-0.049	1.09E-05
SE	UHRF2	+	chr9:6495584-6497103	NA	0.259	3.07E-05	0.011	0.0004981566378
SE	SMTN	+	chr22:31080449-31080754	NA	0.259	0.002442197371	-0.008	1
SE	PRKD1	-	chr14:29656475-29656499	NA	0.259	1.68E-07	0.131	1.22E-06
SE	RP11-295P	+	chr10:13652845-13653148	NA	0.259	0.0255521065	0.011	1
SE	RAD51AP1	+	chr12:4545218-4545312	NA	0.258	1.28E-05	0.026	1
SE	NASP	+	chr1:45607320-45608337	NA	0.258	0.01542938513	0.122	0.0001609554291
SE	PCGF3	+	chr4:732399-732498	NA	0.258	0.03122303962	-0.024	1
SE	UBE2Q2P2	+	chr15:82415527-82415675	NA	0.258	0.002987989726	-0.074	1
SE	ISYNA1	-	chr19:18437598-18437760	NA	0.257	0.01175358981	-0.029	1
SE	MTMR4	-	chr17:58514991-58515083	NA	0.257	0.0005045853247	-0.007	1
SE	RIC8B	+	chr12:106874480-106874567	NA	0.257	0.001966429415	-0.019	1
SE	LPHN2	+	chr1:81987288-81987341	NA	0.256	1.66E-05	-0.047	0.2525992523
SE	LRRRC23	+	chr12:6909889-6910026	NA	0.254	0.0001253084563	-0.056	1.94E-06
SE	TNRC6A	+	chr16:24793472-24793649	NA	0.254	1.07E-06	0.191	1.41E-06
SE	CENPA	+	chr2:26792501-26792833	NA	0.254	0.0005141992172	-0.009	1
SE	SRRM1	+	chr1:24663182-24663224	NA	0.254	5.46E-06	0.061	0.05116587074
SE	APLP1	+	chr19:35878084-35878108	NA	0.253	4.07E-05	0.02	0
SE	EVI5L	+	chr19:7857091-7857124	NA	0.253	0.009226021974	0.165	1.47E-10
SE	LUZP1	-	chr1:23109584-23109650	NA	0.253	0.017863027	-0.144	1
SE	BTF3L4	+	chr1:52083339-52083541	NA	0.252	2.12E-09	0.007	1
SE	HDAC11	+	chr3:13496735-13496852	NA	0.252	0.006200467481	-0.002	1
SE	TIAL1	-	chr10:119580470-119580846	NA	0.251	0.008171877175	0.012	0.0005019871937
SE	CACNB4	-	chr2:151860710-151860820	NA	0.251	0.005673378401	-0.068	1
SE	IQGAP3	-	chr1:156554234-156554392	NA	0.251	0.001556186387	-0.05	1
SE	ZMYND8	-	chr20:47212641-47212725	NA	0.25	0.0003587716172	-0.105	4.56E-06
SE	MTSS1L	-	chr16:70665465-70665540	NA	0.25	0.001167925376	0.007	1
SE	CHEK2	-	chr22:28696900-28696987	NA	0.25	1.08E-13	-0.001	1
SE	FAM86EP	-	chr4:3954959-3955033	NA	0.25	0.00443138389	-0.024	1
SE	SEMA6C	-	chr1:151138315-151138406	NA	0.248	0.02759566031	-0.044	0.002697885149
SE	ARHGEF40	+	chr14:21075622-21075765	NA	0.248	0.0008843185609	-0.034	0
SE	RBM5	+	chr3:50110378-50110463	NA	0.247	0	-0.036	0
SE	FUK	+	chr16:70469151-70469323	NA	0.247	0.002737544214	-0.038	0.00249957137
SE	TMEM9B	-	chr11:8962091-8962183	NA	0.247	1.02E-08	-0.014	0.01444928176
SE	WHSC1	+	chr4:1942338-1942565	NA	0.246	0.0001438727222	0.062	0.2939917334
SE	CD46	+	chr1:207767778-207767823	NA	0.246	2.53E-05	-0.029	1
SE	GPR155	-	chr2:174482872-174482918	NA	0.246	8.71E-05	0.034	1
SE	XRRA1	-	chr11:74930299-74930372	NA	0.246	0.01359356348	-0.011	1
SE	METTL4	-	chr18:2544652-2544759	NA	0.245	4.20E-07	0.02	1
SE	CDK16	+	chrX:47222260-47222342	NA	0.245	0.01326260223	0.01	1
SE	STAMPB	+	chr2:73829404-73829510	NA	0.245	1.54E-05	0.096	0.00306661764
SE	ZNF83	-	chr19:52616717-52616875	NA	0.245	1.38E-05	0.054	0.9530455421
SE	MYLK	-	chr3:123732895-123733102	NA	0.244	0.0001112824625	0.131	1
SE	TMEM62	+	chr15:43178606-43178711	NA	0.244	3.47E-05	-0.033	1
SE	CNNM3	+	chr2:96831968-96832068	NA	0.242	3.12E-05	0.14	1.16E-12
SE	ZNF615	-	chr19:52007292-52007330	NA	0.242	0.006828710607	-0.026	1
SE	March7	+	chr2:159715680-159715766	NA	0.241	0.01974476361	-0.119	1

SE	DRAM2	-	chr1:111122615-111122643	NA	0.241	0.006855151817	-0.025	1
SE	PPIP5K2	+	chr5:103176865-103176910	NA	0.24	7.34E-12	0	1
SE	FAM189B	-	chr1:155253858-155253978	NA	0.24	0.008470168692	-0.031	1
SE	HYI	-	chr1:43452902-43453004	NA	0.24	0.02445759739	0.001	1
SE	CAMTA2	-	chr17:4982088-4982160	NA	0.239	0.0003906458635	0.005	1
SE	NSRP1	+	chr17:30118079-30118173	NA	0.239	0.002111221232	0.026	1
SE	ARL14EP	+	chr11:30330885-30331374	NA	0.239	4.00E-13	0.032	5.08E-07
SE	ZFYVE19	+	chr15:40809155-40809240	NA	0.239	1.17E-08	-0.016	1
SE	LTB4R2	+	chr14:24310170-24310255	NA	0.239	0.007647461604	-0.148	1
SE	TJP1	-	chr15:29719776-29720016	NA	0.238	2.38E-05	-0.019	1
SE	TTYH3	+	chr7:2647958-2648054	NA	0.238	8.35E-09	0	1
SE	FAM168A	-	chr11:73425021-73425048	NA	0.237	5.74E-10	0.122	1
SE	CBWD5	+	chr9:65732946-65733122	NA	0.237	0.000307827365	-0.009	1
SE	CELF1	-	chr11:47500860-47500932	NA	0.237	0.02326580329	-0.048	1
SE	PLA2G6	-	chr22:38125638-38125691	NA	0.237	0.03472346189	-0.14	9.74E-12
SE	LTBP4	+	chr19:40622949-40623021	NA	0.236	1.52E-05	-0.084	3.01E-05
SE	PTPRS	-	chr19:5216719-5216767	NA	0.236	3.60E-08	0.06	0.3354210696
SE	BAZ2B	-	chr2:159397073-159397100	NA	0.236	0.0006556996521	-0.048	1
SE	PSMG1	-	chr21:39179923-39179986	NA	0.236	2.86E-10	-0.001	1
SE	MPHOSPH9	-	chr12:123226287-123226351	NA	0.235	5.93E-06	0.125	1
SE	SLC26A6	-	chr3:48632244-48632337	NA	0.235	0.01192185245	-0.04	1
SE	ARFIP1	+	chr4:152870752-152870848	NA	0.234	2.20E-11	-0.077	0.1913637849
SE	JKAMP	+	chr14:59486712-59486804	NA	0.233	2.89E-14	0.001	1
SE	ACIN1	-	chr14:23089981-23090101	NA	0.233	0.02847082484	-0.092	0.1548117789
SE	WARS	-	chr14:100375282-100375403	NA	0.232	1.37E-10	-0.081	0.02690079185
SE	HGSNAT	+	chr8:43173712-43173743	NA	0.232	0.002089000179	-0.022	1
SE	TOP1MT	-	chr8:143332486-143332601	NA	0.232	8.45E-05	0.065	0.05902137746
SE	IFT88	+	chr13:20615792-20615879	NA	0.231	0.0002900265419	-0.005	0.004249519972
SE	RTN4	-	chr2:55025085-55027485	NA	0.231	0.0003550262261	0.333	0
SE	SGOL1	-	chr3:20174248-20175055	NA	0.231	0.002075918316	0.004	1
SE	GPR155	-	chr2:174482872-174482918	NA	0.231	0.0001494592795	-0.13	1
SE	FLYWCH1	+	chr16:2913005-2913250	NA	0.23	0.003866750586	-0.029	0.11362415
SE	NEDD1	+	chr12:96907701-96907856	NA	0.23	0.001184309423	-0.05	1
SE	ZNF440	+	chr19:11830273-11830409	NA	0.23	0.00448074171	-0.009	1
SE	WDR45	-	chrX:49077642-49077747	NA	0.23	0.002782540749	-0.023	2.85E-05
SE	LTBP4	+	chr19:40622949-40623021	NA	0.229	4.13E-11	-0.039	0
SE	POLDIP3	-	chr22:42601969-42602056	NA	0.229	0.005634242534	-0.038	0.005666031768
SE	SYTL2	-	chr11:85704857-85705028	NA	0.229	2.15E-05	-0.006	1
SE	THUMPD2	-	chr2:39768900-39769093	NA	0.229	0.0009046763203	0.027	1
SE	FANCD2	+	chr3:10064355-10064429	NA	0.229	6.59E-06	-0.008	1
SE	ZBTB43	+	chr9:126808792-126808915	NA	0.229	0.006518544222	0.001	1
SE	FAM66C	+	chr12:8187731-8188225	NA	0.229	0.03557962837	-0.021	1
SE	RBM23	-	chr14:22908332-22908380	NA	0.228	1.15E-05	-0.041	0.01356018259
SE	SLC29A1	+	chr6:44225972-44226167	NA	0.228	3.37E-06	-0.113	1
SE	KLC1	+	chr14:103692358-103692425	NA	0.228	0.003905473379	-0.031	0.03628582128
SE	RPS6KB2	+	chr11:67432355-67432492	NA	0.228	0.003857761711	0.094	1.96E-10
SE	PUF60	-	chr8:143824312-143824396	NA	0.228	0.008185219315	-0.04	0.0002717723216
SE	DYNC2H1	+	chr11:103287532-103287605	NA	0.228	1.53E-05	-0.004	1
SE	UPRT	+	chrX:75294562-75294620	NA	0.227	0.0002487257324	0.023	1
SE	RHEB	-	chr7:151498088-151498180	NA	0.227	0.001382000474	0	1
SE	ZNF815P	+	chr7:5833526-5833568	NA	0.226	0.016092165	-0.008	1
SE	MAPK8IP3	+	chr16:1758147-1758159	NA	0.225	2.71E-05	0	1
SE	ZNF83	-	chr19:52616717-52616841	NA	0.225	7.13E-05	0.036	1
SE	MIS12	+	chr17:5487556-5487694	NA	0.225	1.66E-10	0.046	1
SE	PSMG4	+	chr6:3264208-3264325	NA	0.225	0	0	1
SE	WNK1	+	chr12:880720-880999	NA	0.224	0.0001029798356	0.018	1
SE	ZFAND1	-	chr8:81717248-81717288	NA	0.224	0.04922594537	0.012	1
SE	KDM4C	+	chr9:7105401-7105500	NA	0.224	0.03074448238	0.042	0.06438158474
SE	LPHN3	+	chr4:61730621-61730636	NA	0.224	0.001796423469	0.049	1
SE	MIOS	+	chr7:7567606-7567688	NA	0.224	0.02561488547	0.079	1
SE	GAS5	-	chr1:173864674-173864704	NA	0.223	0.0005287084667	0.131	1
SE	MRPL22	+	chr5:154950820-154950938	NA	0.222	3.60E-08	-0.07	0
SE	KIF21A	-	chr12:39315931-39315970	NA	0.222	7.86E-05	0.229	1

SE	EIF4A2	+	chr3:186788309-186788420	NA	0.222	0.00365172218	-0.009		1
SE	RPS6KB2	+	chr11:67432352-67432492	NA	0.222	0.00513160654	0.094	1.32E-10	
SE	TBL2	-	chr7:73576540-73576701	NA	0.221	0.006525933172	0.014	0.3044475248	
SE	EEF2KMT	-	chr16:5097279-5097353	NA	0.221	0.006146579901	0.019		1
SE	CAMK2G	-	chr10:73818208-73818895	NA	0.221	0.01243956146	0.008		1
SE	FLVCR1	+	chr1:212863724-212863869	NA	0.221	2.23E-05	-0.041		1
SE	ADAM22	+	chr7:88186614-88186701	NA	0.22	4.44E-07	0.098	8.84E-06	
SE	DNM1	+	chr9:128240986-128241047	NA	0.22	0.04612861764	-0.016		1
SE	SLC29A1	+	chr6:44226060-44226167	NA	0.22	0.003873995416	-0.112		1
SE	TICRR	+	chr15:89592046-89592176	NA	0.22	1.65E-05	-0.005		1
SE	BEND6	+	chr6:57018420-57018557	NA	0.22	0.02050644615	0.002		1
SE	RIF1	+	chr2:151468473-151468551	NA	0.219	0.001720428133	0.044		1
SE	PLK3	+	chr1:44804649-44804779	NA	0.219	0.01310929813	-0.009		1
SE	THRAP3	+	chr1:36225411-36225463	NA	0.218	0.01278202333	-0.001		1
SE	THOC5	-	chr22:29550727-29550843	NA	0.218	2.53E-08	-0.011		1
SE	BRD8	-	chr5:138157641-138157894	NA	0.218	0.001234249565	0.16	5.27E-06	
SE	INTS3	+	chr1:153753700-153753818	NA	0.218	0.01176581464	0.095		1
SE	LRRC75A-A	+	chr17:16460892-16461245	NA	0.218	0.04305333938	-0.12		1
SE	RBMS1	-	chr2:160282256-160282304	NA	0.217	0.02751345708	-0.031		1
SE	UPF3A	+	chr13:114286301-114286400	NA	0.217	0.0008678622588	0.02		1
SE	ICA1	-	chr7:8138984-8139047	NA	0.216	5.39E-06	-0.003		1
SE	EPS15	-	chr1:51459040-51459148	NA	0.216	0.04158645599	0.064		1
SE	FXR1	+	chr3:180971074-180971155	NA	0.216	0	0.049	0.0001362988217	
SE	SMG7	+	chr1:183547102-183547252	NA	0.216	0.0002682286217	-0.004		1
SE	CEP164	+	chr11:117363428-117363506	NA	0.215	0.01185604305	0.037		1
SE	DCAF10	+	chr9:37857240-37857351	NA	0.214	0.02641179415	-0.03		1
SE	SNAPIN	+	chr1:153659137-153659184	NA	0.214	7.04E-09	-0.048		0
SE	CBWD5	+	chr9:65732992-65733122	NA	0.214	0.0003888102782	-0.009		1
SE	ZNF507	+	chr19:32347244-32347338	NA	0.214	0.004718480332	0.016		1
SE	CTC-444N2	-	chr19:57278115-57278182	NA	0.214	0.02156029198	0.021		1
SE	UBE3A	-	chr15:25407066-25407137	NA	0.213	0.0001454345137	0.007		1
SE	LSM14B	+	chr20:62127584-62127701	NA	0.213	0.00694961065	0.129	1.21E-05	
SE	SACS	-	chr13:23341444-23341690	NA	0.213	1.17E-10	-0.08		1
SE	MYT1	+	chr20:64223290-64223359	NA	0.213	0.008775297312	0.156		1
SE	DHRS4-AS1	-	chr14:23953773-23954033	NA	0.213	0.004865530267	0.007		1
SE	VPS53	-	chr17:661808-661895	NA	0.212	0.0001833798291	-0.009		1
SE	SREK1	+	chr5:66158808-66158932	NA	0.212	0.01430870942	0.02		1
SE	PCBP4	-	chr3:51961748-51962088	NA	0.211	0.01378706426	-0.014		1
SE	SEC22C	-	chr3:42563764-42563980	NA	0.211	0	-0.011	0.01905582287	
SE	FLT3LG	+	chr19:49480297-49480476	NA	0.21	0.009473724616	0.004		1
SE	ECHDC2	-	chr1:52905033-52906611	NA	0.209	0.0008643964118	0.013		1
SE	NUMB	-	chr14:73316389-73316422	NA	0.209	1.27E-06	0.032		1
SE	DEPDC5	+	chr22:31861367-31861433	NA	0.208	0.0009982071298	0.311		0
SE	FAM219B	-	chr15:74904981-74905059	NA	0.208	7.91E-05	-0.009		1
SE	BCL2L13	+	chr22:17696140-17696210	NA	0.207	4.22E-06	-0.004		1
SE	PHKB	+	chr16:47463881-47463993	NA	0.207	0.002682815417	0.065		1
SE	POLG	-	chr15:89332217-89332374	NA	0.207	0.002540358248	-0.007		1
SE	NPRL3	-	chr16:117300-117375	NA	0.206	0.005136856933	-0.035	0.09544121561	
SE	RPL13A	+	chr19:49489849-49490090	NA	0.206	2.84E-05	0		1
SE	H2AFY	-	chr5:135350822-135350913	NA	0.205	0	-0.006	0.08520446241	
SE	WARS	-	chr14:100375282-100375350	NA	0.205	7.15E-10	-0.097	0.011127145	
SE	MRPS28	-	chr8:80028694-80028796	NA	0.205	0.01136970053	0.061		1
SE	IL17RC	+	chr3:9930399-9930459	NA	0.205	0.003957427051	-0.025	0.07451454225	
SE	PRKAG1	-	chr12:49005742-49005881	NA	0.205	2.77E-08	-0.059	1.54E-07	
SE	LPHN1	-	chr19:14167015-14167030	NA	0.204	0.002071693895	0.138	0.0002093392385	
SE	PHKB	+	chr16:47463898-47463993	NA	0.204	0.0007058046358	0.047		1
SE	DGUOK	+	chr2:73957124-73957240	NA	0.204	0.002786142805	0.146		0
SE	CCDC15	+	chr11:125003866-125003959	NA	0.204	0.0007539629551	-0.004		1
SE	SUN1	+	chr7:849519-849603	NA	0.204	0.01249196002	-0.094		1
SE	PCGF3	+	chr4:732443-732498	NA	0.204	0.04316493501	-0.023		1
SE	PGAP1	-	chr2:196892345-196892401	NA	0.204	0.02951502951	-0.002		1
SE	AGTPBP1	-	chr9:85660935-85660973	NA	0.203	0.002196361706	-0.006		1
SE	TANC2	+	chr17:63151269-63151380	NA	0.203	0.0003699647386	0.104		1

SE	FAM107B	-	chr10:14553321-14553387	NA	0.202	0.01165258035	-0.092		1
SE	PPP6R2	+	chr22:50436987-50437068	NA	0.202	0.0006841654985	-0.039	0.8502105905	
SE	CMC2	-	chr16:81001247-81001334	NA	0.202	0	0.046	0.05756834268	
SE	NEDD1	+	chr12:96924832-96924942	NA	0.202	0.001854735332	0.021		1
SE	SVIL	-	chr10:29526960-29527056	NA	0.202	7.64E-06	0.097		1
SE	SVIL	-	chr10:29535988-29536069	NA	0.202	0.04292658489	0.007		1
SE	METTL4	-	chr18:2544194-2544286	NA	0.201	1.41E-06	0.014		1
SE	SLC29A1	+	chr6:44226060-44226167	NA	0.201	0.01275158129	-0.013		1
SE	SENP5	+	chr3:196927795-196927879	NA	0.201	0.003991670538	-0.019	0.1202433306	
SE	SH3GLB2	-	chr9:129010669-129010693	NA	0.201	6.34E-07	0		1
SE	FEZ2	-	chr2:36560784-36560865	NA	0.201	0.0002096174479	0.001		1
SE	THAP9-AS1	-	chr4:82897988-82898062	NA	0.201	0.03668129886	0.036		1
SE	WDR54	+	chr2:74422119-74422375	NA	0.2	0.04089304347	0.058	0.04076956037	
SE	RBM27	+	chr5:146251710-146251875	NA	0.2	0.003498229501	0.002		1
SE	POLG	-	chr15:89317938-89318037	NA	0.2	0	0.047	5.09E-06	
SE	ATP9B	+	chr18:79375393-79375426	NA	0.2	0.0001362768567	0.16	8.67E-11	
SE	TMEM45A	+	chr3:100519461-100519608	NA	0.2	0.004619682531	-0.007		1
SE	MYO19	-	chr17:36501851-36501961	NA	0.2	5.91E-07	0.219	2.54E-11	
SE	HMMR	+	chr5:163467703-163467748	NA	0.199	1.66E-09	-0.062		1
SE	SH3D19	-	chr4:151144219-151144288	NA	0.199	0.0001322429857	0.029		1
SE	RWDD1	+	chr6:116574057-116574171	NA	0.198	4.92E-07	-0.009		1
SE	CHEK1	+	chr11:125637448-125637544	NA	0.198	8.61E-13	-0.006		1
SE	LIN9	-	chr1:226295841-226295946	NA	0.198	0.001604315093	-0.081		1
SE	RP5-1021I2I	+	chr14:73922065-73922206	NA	0.198	0.001649349498	0.036	0.02743546281	
SE	CTD-2583A'	+	chr19:57820493-57820549	NA	0.198	0.004759894371	-0.022		1
SE	MEF2BNB-M	-	chr19:19180685-19180761	NA	0.197	0.001347769055	-0.012	0.1330025421	
SE	CCDC91	+	chr12:28225794-28225861	NA	0.197	0.02611709641	0.029		1
SE	AGTPBP1	-	chr9:85678334-85678398	NA	0.197	3.06E-06	-0.026	0.07907275112	
SE	GOLGA2	-	chr9:128272784-128272865	NA	0.197	0.04068278322	-0.099	0.002359423705	
SE	SHMT1	-	chr17:18335558-18335675	NA	0.197	0.0005294509158	-0.031	0.4412670492	
SE	GGCX	-	chr2:85552415-85552567	NA	0.196	1.86E-06	-0.03	3.43E-05	
SE	ZNF384	-	chr12:6678662-6678710	NA	0.196	0.0003506228985	-0.062	1.87E-05	
SE	CSNK1D	-	chr17:82249697-82250179	NA	0.196	0	0.014	0	
SE	MTX1	+	chr1:155212126-155212219	NA	0.196	0	-0.035	0	
SE	HSPA14	+	chr10:14851218-14851323	NA	0.196	2.58E-09	-0.005		1
SE	EIF3E	-	chr8:108242111-108242346	NA	0.195	0.0001580415189	-0.046		1
SE	PARP6	-	chr15:72250844-72250957	NA	0.195	0.002626254247	0.04	0.6378306673	
SE	EIF4A2	+	chr3:186788309-186788416	NA	0.195	0.0009928791088	-0.01	0.5902580187	
SE	AMACR	-	chr5:34004573-34004734	NA	0.195	0.0008221747762	-0.039		1
SE	CDKL3	-	chr5:134359896-134360091	NA	0.194	0.03199306257	-0.036		1
SE	ACIN1	-	chr14:23071124-23071186	NA	0.194	0.04533534914	-0.069	0.04489001631	
SE	COA1	-	chr7:43656032-43656153	NA	0.194	8.02E-05	-0.021		1
SE	ATAD5	+	chr17:30879422-30879487	NA	0.194	1.38E-05	0.002		1
SE	SLC35A3	+	chr1:99999260-99999415	NA	0.193	0.02279519203	-0.025		1
SE	TBC1D8B	+	chrX:106839307-106839457	NA	0.193	0.0002577584141	-0.047		1
SE	INIP	-	chr9:112689526-112689617	NA	0.193	0.0008535483712	-0.011		1
SE	NUDT2	+	chr9:34336228-34336341	NA	0.193	0	-0.036	0.9487342534	
SE	TARBP1	-	chr1:234400852-234400948	NA	0.192	0.03775197242	0.105	0.0002920998039	
SE	RECQL5	-	chr17:75650516-75650718	NA	0.192	4.71E-05	-0.019		1
SE	BAI2	-	chr1:31736572-31736723	NA	0.192	0.005745634186	-0.003		1
SE	MDC1	-	chr6:30707565-30708357	NA	0.192	0.0001681652016	0.026		1
SE	HDHD2	-	chr18:47137234-47137338	NA	0.192	0.0001146885166	0.037	1.49E-13	
SE	MFF	+	chr2:227342744-227342819	NA	0.192	0.000146113945	-0.006		1
SE	MYO9A	-	chr15:71902940-71903063	NA	0.191	0.0001969559049	-0.004		1
SE	SMARCC2	-	chr12:56172936-56173029	NA	0.191	2.01E-05	0.102	7.48E-05	
SE	FAM219B	-	chr15:74904981-74905039	NA	0.191	0.0003588759518	-0.005		1
SE	GPBP1	+	chr5:57237112-57237172	NA	0.19	1.14E-08	0.025		1
SE	UBE2W	-	chr8:73870268-73870301	NA	0.19	4.28E-08	0.026		1
SE	P4HA1	-	chr10:73044980-73045051	NA	0.19	3.13E-05	-0.015	0.02562999478	
SE	PDCD2L	+	chr19:34404648-34404990	NA	0.19	0.01204751673	-0.054	0	
SE	AGAP3	+	chr7:151120519-151120745	NA	0.19	0.01944727044	0.083	0.0009914770566	
SE	NSUN2	-	chr5:6631872-6631977	NA	0.189	1.23E-10	0.006		1
SE	SEC61A2	+	chr10:12155777-12155931	NA	0.189	0.02675707532	0.047	9.76E-05	

SE	NBN	-	chr8:89981952-89982002	NA	0.189	2.01E-05	-0.034	1
SE	DMPK	-	chr19:45780322-45780381	NA	0.189	0.001052296447	0.015	1
SE	CLTC	+	chr17:59687000-59687021	NA	0.189	0	0.154	0
SE	DCAF8	-	chr1:160261284-160261358	NA	0.188	9.23E-05	0.008	1
SE	GUSB	-	chr7:65974918-65975071	NA	0.188	1.27E-05	-0.042	0.06188305526
SE	PAAF1	+	chr11:73887030-73887099	NA	0.188	4.40E-11	0.124	3.37E-05
SE	SLC25A42	+	chr19:19104912-19104938	NA	0.188	0.00274477048	-0.001	1
SE	CCDC125	-	chr5:69294792-69294900	NA	0.188	0.004507877005	0.003	1
SE	NBPF1	-	chr1:16594930-16595009	NA	0.188	0.02406623634	-0.028	1
SE	SPAG9	-	chr17:50975862-50975901	NA	0.187	8.78E-05	0	1
SE	TTC23	-	chr15:99245388-99245510	NA	0.187	0.03499961163	0.008	1
SE	GUK1	+	chr1:228148370-228148539	NA	0.187	1.39E-05	-0.011	1
SE	AP2A2	+	chr11:1000431-1000598	NA	0.186	0.02196082209	-0.027	2.03E-07
SE	SPTAN1	+	chr9:128627924-128627942	NA	0.186	0	0.018	0
SE	NOL8	-	chr9:92311145-92311259	NA	0.186	1.93E-09	-0.008	1
SE	UFD1L	-	chr22:19475495-19475602	NA	0.185	0.0002027578632	0.059	7.80E-13
SE	ZFYVE21	+	chr14:103729792-103729846	NA	0.185	0.001742917457	0.166	0
SE	ZC2HC1A	+	chr8:78711989-78712106	NA	0.185	0.0001857822036	-0.015	1
SE	NADK2	-	chr5:36208624-36208690	NA	0.185	1.16E-07	0.002	1
SE	ARHGAP23	+	chr17:38498413-38498510	NA	0.185	0.03589513837	0.007	1
SE	MTMR11	-	chr1:149931259-149931426	NA	0.184	0.0223742272	-0.001	1
SE	FAT1	-	chr4:186590367-186590403	NA	0.184	8.32E-08	-0.05	0.005454289519
SE	MRPL55	-	chr1:228108436-228108474	NA	0.184	0.03254129005	-0.044	0.03034242192
SE	FRS2	+	chr12:69486201-69486297	NA	0.184	0.005841165759	-0.025	1
SE	C17orf62	-	chr17:82447579-82447621	NA	0.184	0.006498475566	-0.028	2.15E-11
SE	HAGH	-	chr16:1819114-1819223	NA	0.183	2.21E-10	0.007	1
SE	VTI1B	-	chr14:67663028-67663190	NA	0.183	1.67E-10	-0.004	0.5757117115
SE	SAP30BP	+	chr17:75671815-75671863	NA	0.183	0	-0.003	0.05352239286
SE	SDCCAG3	-	chr9:136408998-136409067	NA	0.183	0.0474914878	0.018	1
SE	CAMK2G	-	chr10:73819531-73819645	NA	0.182	2.25E-06	0.011	1
SE	KMT2D	-	chr12:49024052-49024100	NA	0.182	5.73E-08	-0.019	0.05994834723
SE	ADCY6	-	chr12:48773939-48774098	NA	0.182	0.001421550924	-0.002	1
SE	INTS6	-	chr13:51423029-51423090	NA	0.181	0.04127709796	0.066	1
SE	GTPBP10	+	chr7:90355085-90355230	NA	0.181	9.97E-05	-0.019	1
SE	SCAMP3	-	chr1:155261656-155261734	NA	0.181	2.09E-06	-0.03	0.002395562845
SE	OSBPL3	-	chr7:24863199-24863292	NA	0.18	0.0004067926128	0.012	1
SE	DDHD1	-	chr14:53093315-53093444	NA	0.18	0.01034250695	0.017	1
SE	PARP6	-	chr15:72250844-72250954	NA	0.18	0.000680065943	0.036	0.6407210674
SE	DEF8	+	chr16:89952561-89952682	NA	0.18	0.00897994775	0.002	1
SE	PLOD2	-	chr3:146077861-146077924	NA	0.18	0.007990153349	0.008	1
SE	RHOC	-	chr1:112705099-112705201	NA	0.18	0.002921158496	-0.027	0.5802092128
SE	AGAP1	+	chr2:235750353-235750488	NA	0.18	3.67E-06	-0.012	1
SE	FAM189B	-	chr1:155250275-155250929	NA	0.18	0.001414702212	-0.003	1
SE	NLE1	-	chr17:35134942-35135059	NA	0.179	0.002462945607	-0.009	1
SE	WHSC1	+	chr4:1942338-1942432	NA	0.179	7.24E-05	0.058	0.409967346
SE	VEGFA	+	chr6:43781955-43782052	NA	0.179	0.000117787783	0.089	1.24E-07
SE	CCDC18	+	chr1:93183359-93183495	NA	0.179	0.01918166239	0.017	1
SE	ERMARD	+	chr6:169753286-169753372	NA	0.179	0.03259045842	0.024	1
SE	IL11RA	+	chr9:34660803-34660936	NA	0.179	0.00233625466	-0.016	1
SE	THAP9	+	chr4:82905860-82905926	NA	0.179	0.003447264686	0.044	1
SE	MBTD1	-	chr17:51202021-51202077	NA	0.178	0.008345359488	0.03	1
SE	IFNGR2	+	chr21:33410840-33410892	NA	0.178	0.000258114977	0.001	1
SE	TMEM230	-	chr20:5111499-5111605	NA	0.177	0.0001350148226	0.016	1
SE	CRBN	-	chr3:3153959-3154075	NA	0.177	2.26E-06	0.003	1
SE	LMBR1L	-	chr12:49106653-49106746	NA	0.177	4.77E-07	0.001	1
SE	DEF8	+	chr16:89952557-89952682	NA	0.177	0.009482340098	0.001	1
SE	FAM131A	+	chr3:184337310-184337371	NA	0.177	0.001823831485	-0.016	1
SE	CEBPZOS	+	chr2:37198493-37198672	NA	0.177	0.02655662668	0.047	1
SE	FHL1	+	chrX:136209242-136209442	NA	0.176	0	0.011	0.7426068118
SE	ZCCHC8	-	chr12:122490461-122490567	NA	0.176	1.79E-06	0.002	1
SE	CHD9	+	chr16:53319812-53319951	NA	0.176	0.01436473974	0.001	0.1433774672
SE	SSH1	-	chr12:108802321-108802368	NA	0.175	0.0250286001	0.026	1
SE	HARS2	+	chr5:140696102-140696201	NA	0.175	1.39E-10	-0.023	1

SE	PFDN5	+	chr12:53296429-53296551	NA	0.175	7.32E-07	0.05	2.75E-11
SE	VPS13B	+	chr8:99507136-99507203	NA	0.175	0.01780311254	-0.044	1
SE	LMBR1L	-	chr12:49106544-49106746	NA	0.175	0.02376495083	-0.001	1
SE	C16orf13	-	chr16:634888-635063	NA	0.174	0.001291710649	0.003	1
SE	TBC1D32	-	chr6:121255327-121255410	NA	0.174	0.0009385159804	0.026	1
SE	IFNGR2	+	chr21:33410835-33410892	NA	0.174	0.0005294509158	-0.002	1
SE	SLC4A1AP	+	chr2:27688699-27688767	NA	0.174	0.01068668249	-0.002	1
SE	BPTF	+	chr17:67875555-67875744	NA	0.174	2.33E-06	-0.001	1
SE	ARNTL2	+	chr12:27370128-27370230	NA	0.173	0.0002979307257	-0.057	1
SE	C17orf53	+	chr17:44150960-44151044	NA	0.173	0.03360945903	-0.057	1
SE	TSEN2	+	chr3:12516610-12516661	NA	0.173	0.007851399504	-0.013	1
SE	ZNF326	+	chr1:90007611-90007750	NA	0.173	5.06E-06	0.006	1
SE	PAAF1	+	chr11:73886928-73887099	NA	0.173	2.20E-10	0.127	8.56E-07
SE	SNHG14	+	chr15:25111764-25111894	NA	0.173	0.02967749663	0.001	1
SE	SDCCAG8	+	chr1:243293398-243293494	NA	0.172	0.007959369707	-0.02	1
SE	MTMR2	-	chr11:95887611-95887684	NA	0.172	6.89E-05	0.007	1
SE	ABCD4	-	chr14:74288206-74288259	NA	0.172	0.01087266728	-0.013	0.08165659186
SE	PDLIM5	+	chr4:94584985-94585003	NA	0.172	2.58E-07	0.076	0.0002059159903
SE	GAPVD1	+	chr9:125342218-125342299	NA	0.172	1.64E-10	-0.019	0.02188844353
SE	STRA13	-	chr17:82019509-82019694	NA	0.172	0.002280843257	-0.006	1
SE	AK2	-	chr1:33031543-33031661	NA	0.171	0	0.032	5.97E-11
SE	MADD	+	chr11:47326737-47326807	NA	0.171	2.26E-05	-0.034	0.2160637101
SE	CCHCR1	-	chr6:31157357-31157500	NA	0.171	0.01760896452	0.057	1
SE	RRP12	-	chr10:97424800-97424893	NA	0.17	0.02624280943	-0.113	1
SE	PHF14	+	chr7:11061790-11061841	NA	0.17	0	-0.002	1
SE	CLK4	-	chr5:178619837-178619896	NA	0.17	0.0004320131833	-0.003	1
SE	TIAL1	-	chr10:119580470-119580538	NA	0.17	0.02493720771	0.022	2.51E-05
SE	C20orf194	-	chr20:3343675-3343731	NA	0.169	0.0087482388	-0.019	1
SE	PCBP4	-	chr3:51962809-51962892	NA	0.169	0.01989487174	0.022	1
SE	ATP6V0B	+	chr1:43975664-43975848	NA	0.169	0.01015259463	-0.014	1
SE	CITED1	-	chrX:72305301-72305422	NA	0.169	0.00029790281	-0.027	1
SE	ARHGEF39	-	chr9:35662945-35663074	NA	0.169	0.001596040472	0.061	1
SE	ARHGEF40	+	chr14:21075644-21075765	NA	0.169	0.000780430881	-0.022	1
SE	PER3	+	chr1:7787197-7787246	NA	0.168	0.00357297092	0.016	1
SE	DGUOK	+	chr2:73950600-73950732	NA	0.168	0.0001134949235	0.148	0
SE	CDCA7	+	chr2:173359254-173359491	NA	0.168	1.93E-05	0.121	1.81E-06
SE	RHOT1	+	chr17:32172936-32173060	NA	0.167	0.02106816711	-0.006	1
SE	SYVN1	-	chr11:65132247-65132308	NA	0.167	0.009427282182	-0.005	1
SE	OMA1	-	chr1:58530600-58530729	NA	0.167	3.05E-06	-0.014	1
SE	PTK2	-	chr8:140803542-140803650	NA	0.167	0	-0.004	1
SE	MPHOSPH8	-	chr12:123162114-123162218	NA	0.166	1.93E-05	-0.001	1
SE	MAEA	+	chr4:1322380-1322503	NA	0.166	6.91E-05	-0.034	1
SE	VRK3	-	chr19:50009235-50009385	NA	0.166	0.003445306513	-0.041	3.53E-10
SE	COA1	-	chr7:43656032-43656153	NA	0.166	6.41E-13	0.001	1
SE	HMGS1	-	chr5:43307765-43307824	NA	0.166	5.14E-13	0.015	1
SE	SLC25A36	+	chr3:140966999-140967036	NA	0.166	0.01612752722	-0.01	1
SE	C11orf1	+	chr11:111883135-111883202	NA	0.166	0.0003246175549	0.001	0.8240834163
SE	RPL13A	+	chr19:49489849-49489912	NA	0.166	9.38E-05	0	1
SE	FNBP4	-	chr11:47725736-47725836	NA	0.165	9.68E-05	0.032	1
SE	PKP4	+	chr2:158676738-158676867	NA	0.165	3.10E-06	0.163	5.75E-13
SE	MFF	+	chr2:227352513-227352573	NA	0.165	1.13E-05	0.006	0.2366737735
SE	ZNF440	+	chr19:11830282-11830409	NA	0.165	0.02119091855	0	1
SE	CCNE1	+	chr19:29821995-29822130	NA	0.164	1.69E-05	-0.021	1
SE	FTSJ2	-	chr7:2238014-2238937	NA	0.164	0.008753276415	0.012	1
SE	SIN3B	+	chr19:16862883-16862979	NA	0.164	0.008586619979	0.047	0.02216388922
SE	SUN1	+	chr7:832504-832601	NA	0.164	4.30E-07	-0.017	0.01627928816
SE	R3HDM4	-	chr19:901419-901546	NA	0.164	0.009304957146	0.002	1
SE	AP2B1	+	chr17:35670856-35670898	NA	0.163	8.61E-05	0.07	0.0001450373156
SE	GTPBP10	+	chr7:90354457-90354549	NA	0.163	0.001003586949	-0.022	1
SE	PRPF4B	+	chr6:4062556-4062760	NA	0.163	0.0001935444919	0.029	1
SE	CEP78	+	chr9:78246668-78246782	NA	0.163	1.69E-10	-0.012	1
SE	SLC7A11	-	chr4:138223198-138223324	NA	0.163	0.0001997450176	0.005	1
SE	RNMT	+	chr18:13759941-13760208	NA	0.162	0.0004093805217	-0.005	1

SE	ARHGEF7	+	chr13:111288353-111288443	NA	0.162	8.37E-06	-0.007	0.1515690427
SE	PPP1R12C	-	chr19:55096261-55096335	NA	0.162	3.49E-05	-0.008	1
SE	RIN2	+	chr20:19964951-19965024	NA	0.162	0.001397451056	-0.028	1
SE	EMC10	+	chr19:50481860-50481947	NA	0.162	0	-0.031	5.89E-05
SE	ZNF444	+	chr19:56142275-56142386	NA	0.162	0.02259035035	-0.018	1
SE	ARRB1	-	chr11:75271700-75271724	NA	0.161	0.005673378401	0.123	0.0005740650471
SE	SMARCAL1	+	chr2:216438419-216438485	NA	0.161	0.0002091071405	-0.004	1
SE	ETNK2	-	chr1:204134514-204134694	NA	0.161	0.03472346189	-0.015	1
SE	TBC1D32	-	chr6:121299445-121299505	NA	0.161	0.0005716012452	-0.032	1
SE	SNHG11	+	chr20:38447929-38448093	NA	0.161	0.02738999534	0.021	1
SE	CCDC92	-	chr12:123944271-123944364	NA	0.16	0.008185219315	-0.015	1
SE	PAK4	+	chr19:39168229-39168302	NA	0.16	0.0002900265419	-0.012	1
SE	SETD5	+	chr3:9429826-9430051	NA	0.16	0.0119410651	0.067	0.06221824574
SE	PXMP2	+	chr12:132695883-132696046	NA	0.16	0.03033077178	-0.005	0.4102931695
SE	RP11-319G6	+	chr3:139419556-139419680	NA	0.16	0.0005716012452	0.038	1
SE	ACO1	+	chr9:32386370-32386438	NA	0.159	9.98E-07	-0.029	0.1239584912
SE	RMND1	-	chr6:151422540-151422605	NA	0.159	5.32E-05	-0.006	1
SE	TAPT1	-	chr4:16170652-16170729	NA	0.159	0.01024382028	-0.007	1
SE	NQO2	+	chr6:3015529-3015643	NA	0.158	0.01432424694	-0.05	1.17E-06
SE	TBC1D9B	-	chr5:179867444-179867495	NA	0.158	0	0.124	0
SE	GABBR1	-	chr6:29627485-29627646	NA	0.158	0.0415224856	0.002	1
SE	PPP2R3C	-	chr14:35109818-35109847	NA	0.157	0.01371870462	-0.007	1
SE	RSRC2	-	chr12:122520503-122520581	NA	0.157	0.000549099964	-0.043	1
SE	TOM1L1	+	chr17:54905488-54905567	NA	0.157	8.32E-05	0.03	1
SE	LSM14B	+	chr20:62127584-62127701	NA	0.157	0.008345604047	-0.009	1
SE	HIVEP2	-	chr6:142769551-142775125	NA	0.156	0.0007818481423	-0.013	1
SE	PIBF1	+	chr13:72783422-72783721	NA	0.156	9.12E-07	-0.027	1
SE	HNRNPL	-	chr19:38841612-38841682	NA	0.156	0.03764037285	0.002	1
SE	MRPL18	+	chr6:159790667-159790787	NA	0.156	7.43E-06	0.015	0.02825197921
SE	PPOX	+	chr1:161167370-161167486	NA	0.156	0.04131087203	0	1
SE	IMMP1L	-	chr11:31456259-31456386	NA	0.156	0.03497307275	0.01	1
SE	SH3YL1	-	chr2:260084-260702	NA	0.155	0.0307508689	-0.021	1
SE	FERMT2	-	chr14:52861013-52861034	NA	0.155	0	0.071	2.63E-07
SE	ZFAND6	+	chr15:80073265-80073330	NA	0.155	0.0006650621728	0.008	0.3473770622
SE	GPATCH2	-	chr1:217495014-217495075	NA	0.155	0.01558075653	-0.004	1
SE	POLA1	+	chrX:24725980-24726055	NA	0.155	6.82E-06	-0.007	1
SE	RALGPS1	+	chr9:126977694-126977745	NA	0.155	0.00469384981	-0.008	1
SE	UGP2	+	chr2:63842538-63842599	NA	0.155	1.39E-05	0.078	0.002278911379
SE	UPP1	+	chr7:48103296-48103411	NA	0.155	0.001796423469	-0.003	1
SE	PORCN	+	chrX:48512834-48512852	NA	0.154	0.04729117939	0.075	0.0009153999046
SE	SSX2IP	-	chr1:84671188-84671308	NA	0.154	0.02654969046	0.046	1
SE	RBM39	-	chr20:35740524-35740597	NA	0.154	0.003153225159	0.01	1
SE	DCTD	-	chr4:182916418-182916539	NA	0.153	0.0464612947	0.01	1
SE	IFT88	+	chr13:20631015-20631102	NA	0.152	0.002607315509	0.001	1
SE	NQO2	+	chr6:3002049-3002286	NA	0.152	0.01579734626	-0.018	1
SE	TMEM87B	+	chr2:112074911-112074962	NA	0.152	0.004874200486	-0.014	1
SE	MTA1	+	chr14:105445666-105445852	NA	0.152	9.06E-08	0.003	1
SE	FAM134C	-	chr17:42587833-42587864	NA	0.151	0.002611775813	0.03	1
SE	SNHG6	-	chr8:66922613-66922725	NA	0.151	0	0.023	0
SE	VPRBP	-	chr3:51466805-51466876	NA	0.15	0.03019391919	0.006	1
SE	BPTF	+	chr17:67886127-67886316	NA	0.15	0.0001037401653	0.011	1
SE	FAM192A	-	chr16:57178501-57178852	NA	0.15	0.01213319028	-0.007	1
SE	TARBP1	-	chr1:234427316-234427388	NA	0.149	2.67E-05	0.034	0.01321933004
SE	DOCK9	-	chr13:98825871-98825940	NA	0.149	0.04570926204	-0.013	1
SE	EFCAB14	-	chr1:46688352-46688544	NA	0.149	0.01675843214	0.07	0.00251862826
SE	JMJD1C	-	chr10:63215552-63215617	NA	0.149	0.0001826002476	-0.01	1
SE	WDR27	-	chr6:169664165-169664286	NA	0.149	0.02319335102	-0.024	1
SE	DNM3	+	chr1:172093695-172093725	NA	0.149	0.001174848614	-0.025	1
SE	WAC-AS1	-	chr10:28525947-28526008	NA	0.149	0.001169338867	0.026	1
SE	ZNF561-AS1	+	chr19:9627715-9627806	NA	0.149	0.02302160623	0.061	0.6809108068
SE	BBX	+	chr3:107789786-107789876	NA	0.148	0.03881092694	-0.046	1
SE	SLC23A2	-	chr20:4885820-4885909	NA	0.147	0.01214445282	-0.012	0.02707584673
SE	CCAR2	+	chr8:22613016-22613136	NA	0.147	8.25E-14	-0.001	1

SE	PSMG4	+	chr6:3264173-3264325	NA	0.147	2.71E-09	0.002		1
SE	NBPF1	-	chr1:16594930-16595013	NA	0.147	0.04422144556	-0.017		1
SE	ZDHHC6	-	chr10:112440533-112440695	NA	0.146	2.19E-06	-0.016		1
SE	PEX3	+	chr6:143472159-143472328	NA	0.146	1.34E-05	-0.011		1
SE	POLB	+	chr8:42352518-42352568	NA	0.146	0.0001215527779	-0.026	5.91E-10	
SE	COL4A3BP	-	chr5:75399309-75399387	NA	0.146	2.38E-05	0.121	3.64E-06	
SE	NGLY1	-	chr3:25732318-25732483	NA	0.146	2.13E-09	0.044	4.43E-13	
SE	ACSS1	-	chr20:25015137-25015230	NA	0.146	0.02664983959	0.001		1
SE	ALG13	+	chrX:111721602-111721711	NA	0.145	6.15E-05	-0.015		1
SE	BCL2L12	+	chr19:49667021-49667161	NA	0.145	0.02383511682	-0.028		1
SE	MFF	+	chr2:227352513-227352573	NA	0.145	5.60E-06	0.005		1
SE	N4BP2L2	-	chr13:32538617-32538684	NA	0.145	3.80E-06	0.009		1
SE	TNFRSF12A	+	chr16:3021188-3021319	NA	0.144	0.001101883147	0.002		1
SE	TFIP11	-	chr22:26511118-26511195	NA	0.144	0.04611867135	0.012		1
SE	LPHN2	+	chr1:81987259-81987341	NA	0.144	0.0439700115	-0.032	0.5058044519	
SE	KTN1	+	chr14:55673171-55673255	NA	0.144	0.0006166132953	-0.105		0
SE	MLLT10	+	chr10:21557620-21557824	NA	0.143	0.00041663617	0.095		1
SE	SLC35C2	-	chr20:46355801-46355874	NA	0.143	6.22E-08	-0.003		1
SE	NENF	+	chr1:212442545-212442625	NA	0.143	9.57E-05	-0.028	0.0001670778283	
SE	SLC35B3	-	chr6:8419579-8419677	NA	0.143	0.001346225949	-0.018		1
SE	ARPP19	-	chr15:52568847-52568900	NA	0.143	0.0007495632856	-0.003		1
SE	SSBP4	+	chr19:18425908-18426083	NA	0.143	0.01287323078	0.001		1
SE	TMBIM6	+	chr12:49742437-49742607	NA	0.143	0.009482340098	0.01		1
SE	TSC1	-	chr9:132921362-132921436	NA	0.143	0.001322173813	-0.016		1
SE	FAM21C	+	chr10:45751481-45751553	NA	0.143	1.48E-05	0.014		1
SE	ZNF195	-	chr11:3361975-3362032	NA	0.142	0.01403856436	0.037		1
SE	ZNF195	-	chr11:3362545-3362602	NA	0.142	0.02225064706	0.03		1
SE	ZBTB25	-	chr14:64487113-64487196	NA	0.142	0.007295871206	-0.04		1
SE	UBE2D3	-	chr4:102825238-102825317	NA	0.142	0.02414968727	-0.02		1
SE	PRDM5	-	chr4:120754552-120754638	NA	0.142	0.03926733927	-0.01		1
SE	MELK	+	chr9:36594627-36594771	NA	0.142	0.008988988263	-0.04		1
SE	FAM21A	+	chr10:50092161-50092233	NA	0.141	0.002623125021	-0.012	0.09679735232	
SE	MAPK3	-	chr16:30117136-30117285	NA	0.141	1.99E-10	0.003	0.5815311423	
SE	SNRNP70	+	chr19:49102113-49103587	NA	0.141	0	0.033	0.8188259869	
SE	FAM120B	+	chr6:170358225-170358318	NA	0.141	0.003756883991	-0.009		1
SE	RCL1	+	chr9:4833153-4833228	NA	0.141	8.10E-07	0.005		1
SE	RECQL	-	chr12:21501169-21501215	NA	0.14	0.03400412644	-0.036		1
SE	TARS2	+	chr1:150504631-150504733	NA	0.14	0.0001016278257	-0.038	3.19E-11	
SE	CSNK1G3	+	chr5:123595038-123595134	NA	0.14	0.0001322429857	0.122	2.21E-11	
SE	EPB41	+	chr1:29060421-29060484	NA	0.14	0.006560213909	0.007		1
SE	GABBR1	-	chr6:29609228-29609379	NA	0.14	4.05E-08	0.21	2.71E-10	
SE	IFT88	+	chr13:20589810-20589867	NA	0.139	0.02953166679	-0.07	0.1152574686	
SE	RCBTB2	-	chr13:48524658-48524757	NA	0.139	0.007914741791	0.008		1
SE	CPEB2	+	chr4:15040463-15040487	NA	0.139	0.002054465018	0.148	0.01776847332	
SE	TLK2	+	chr17:62523133-62523177	NA	0.139	0.01462858414	-0.011		1
SE	EPB41	+	chr1:29058810-29058852	NA	0.139	0.003539628202	0.013		1
SE	SLC26A6	-	chr3:48632244-48632396	NA	0.139	0.004427904581	-0.034		1
SE	MYCBP2	-	chr13:77103208-77103310	NA	0.138	0.007740262278	0.018		1
SE	ARHGEF10	+	chr8:1926376-1926463	NA	0.138	1.97E-05	-0.012		1
SE	CRYZ	-	chr1:74707102-74707204	NA	0.138	2.18E-05	-0.015	0.02631510705	
SE	STX16	+	chr20:58659622-58659634	NA	0.138	0.0008643964118	0.102	0.0003486423568	
SE	CHN1	-	chr2:174945169-174945261	NA	0.138	0.009304957146	0.005	4.23E-06	
SE	ARFGAP2	-	chr11:47172280-47172333	NA	0.138	0.00357102587	-0.006		1
SE	GPX4	+	chr19:1106180-1106266	NA	0.138	8.15E-08	-0.022	3.15E-14	
SE	CTNND1	+	chr11:57794009-57794081	NA	0.138	0.04953027008	0.01		1
SE	PVT1	+	chr8:128070159-128070272	NA	0.138	0.003876184563	-0.004		1
SE	CDKL3	-	chr5:134319357-134319497	NA	0.137	0.03403990512	-0.018	0.7335603905	
SE	DTWD1	+	chr15:49631000-49631058	NA	0.137	6.02E-06	-0.013	0.7843853241	
SE	CHAF1A	+	chr19:4418019-4418076	NA	0.137	3.24E-08	-0.023		1
SE	EXOSC10	-	chr1:11080498-11080514	NA	0.137	0.01358618517	-0.045	7.07E-09	
SE	SEPT10	-	chr2:109545384-109545542	NA	0.137	9.50E-12	0.069	4.54E-07	
SE	HMG5	-	chrX:81197705-81197778	NA	0.137	0.02630321839	0.001		1
SE	PPM1A	+	chr14:60250379-60250481	NA	0.136	0.002092126104	0.003		1

SE	PDCD10	-	chr3:167725400-167725473	NA	0.136	0.002643161609	0.024	1
SE	TJAP1	+	chr6:43478658-43478718	NA	0.136	6.56E-08	0.004	1
SE	TMEM259	-	chr19:1011095-1011195	NA	0.136	1.43E-11	-0.003	1
SE	GPATCH8	-	chr17:44467096-44467114	NA	0.136	0.01205057511	-0.023	1
SE	TRMT1	-	chr19:13109914-13110001	NA	0.135	0.02576294352	-0.08	0.001079766575
SE	SEMA3D	-	chr7:85097804-85097965	NA	0.135	0.03294531518	0.002	1
SE	TSEN2	+	chr3:12505153-12505231	NA	0.135	0.02398359823	-0.015	1
SE	TOP3B	-	chr22:21975904-21976187	NA	0.134	0.0003277096277	-0.02	1
SE	SP110	-	chr2:230216780-230216821	NA	0.134	0.04267665388	-0.019	1
SE	VKORC1	-	chr16:31093311-31093482	NA	0.134	0.0001852608114	-0.058	3.77E-12
SE	IP6K2	-	chr3:48694458-48694525	NA	0.133	0.003363630737	0.013	1
SE	MTMR3	+	chr22:29970975-29971062	NA	0.133	0.01356089458	-0.007	1
SE	COL12A1	-	chr6:75138319-75138340	NA	0.133	0.006341438047	0.017	1
SE	STAU1	-	chr20:49165996-49166285	NA	0.133	1.66E-05	0.053	0.005303244308
SE	C16orf13	-	chr16:634888-634956	NA	0.133	0.0006246456998	-0.022	1
SE	FAM189B	-	chr1:155250275-155250821	NA	0.133	0.004324272947	-0.002	1
SE	TBC1D23	+	chr3:100311832-100311877	NA	0.132	0.0001948670864	0.026	1.62E-07
SE	CCNT2	+	chr2:134945786-134945982	NA	0.132	0.02298175873	0.056	6.14E-05
SE	CREM	+	chr10:35201450-35201486	NA	0.132	0.003127472154	-0.069	0.001607562557
SE	OCIAD1	+	chr4:48831226-48831496	NA	0.132	0.02831425901	0.019	0.08659141384
SE	FXR1	+	chr3:180971074-180971155	NA	0.132	0	0.014	0.0009531020857
SE	TRIM41	+	chr5:181233412-181233435	NA	0.132	0.00683098948	0.019	1
SE	UAP1L1	+	chr9:137078049-137078254	NA	0.132	0.02820264394	0.015	1
SE	PET100	+	chr19:7631231-7631321	NA	0.132	0	-0.005	0.4987957518
SE	ADRM1	+	chr20:62304460-62304577	NA	0.131	0	0.003	1
SE	GAK	-	chr4:851749-851974	NA	0.131	0.002471213769	0	1
SE	DNAJC13	+	chr3:132462466-132462523	NA	0.13	0.003988133396	-0.001	1
SE	SENP3	+	chr17:7565694-7565764	NA	0.13	0.0008458178938	-0.041	0.0001097197167
SE	MTX3	-	chr5:79990593-79990663	NA	0.13	0.0006469923546	-0.012	1
SE	ABI1	-	chr10:26755654-26755741	NA	0.129	0.0001864371792	0.096	1.45E-05
SE	TMEM219	+	chr16:29972041-29972140	NA	0.129	1.05E-05	0.007	1
SE	RCHY1	-	chr4:75491582-75491637	NA	0.129	0.04831464141	-0.039	0.9821681081
SE	HNRNPH1	-	chr5:179619268-179619360	NA	0.129	5.52E-09	0.023	0.1229639939
SE	ZNF569	-	chr19:37454833-37455073	NA	0.129	0.003350576238	0.017	1
SE	USP36	-	chr17:78796316-78796494	NA	0.128	0.001449853653	0.026	1
SE	TGFB3	-	chr14:75960268-75960386	NA	0.128	0.009293494939	0.008	0.1390942615
SE	SCPEP1	+	chr17:56998373-56998498	NA	0.128	0.01954785441	-0.004	1
SE	UBA1	+	chrX:47198166-47198355	NA	0.128	1.49E-10	0.015	0.0002299308617
SE	PUF60	-	chr8:143827384-143827536	NA	0.128	0.000780430881	-0.007	0.001798425144
SE	SH3YL1	-	chr2:242797-242871	NA	0.127	6.59E-08	0.033	0.01598709411
SE	TFIP11	-	chr22:26511118-26511317	NA	0.127	0.0127859952	0.015	1
SE	CEP152	-	chr15:48748442-48748610	NA	0.127	0.002066660603	-0.087	1
SE	GNPDA1	-	chr5:142012287-142012339	NA	0.127	0.0001952559675	-0.077	5.36E-11
SE	AHI1	-	chr6:135297431-135297492	NA	0.127	0.02667616491	0.015	1
SE	GNE	-	chr9:36236831-36236984	NA	0.127	0.003266110278	-0.063	0
SE	R3HDM2	-	chr12:57297327-57297387	NA	0.127	0.0003145254367	-0.027	0
SE	ARHGEF1	+	chr19:41892024-41892123	NA	0.126	0.008891331548	-0.029	6.36E-10
SE	RAB34	-	chr17:28717212-28717647	NA	0.126	0.01139775805	0.004	1
SE	DHRS1	-	chr14:24291555-24291625	NA	0.126	0.04221843917	0.008	1
SE	PCBP4	-	chr3:51961940-51962088	NA	0.125	0.02326580329	-0.038	1
SE	PFDN5	+	chr12:53296453-53296551	NA	0.125	0.006837178035	0.049	1.20E-11
SE	ARHGAP32	-	chr11:129040927-129041009	NA	0.125	0.0008706042036	-0.031	1
SE	KIAA2026	-	chr9:5933750-5933881	NA	0.125	0.005769454447	-0.062	1
SE	SLK	+	chr10:104002171-104003527	NA	0.124	2.43E-08	0.008	1
SE	ARVCF	-	chr22:19972357-19972411	NA	0.124	0.003171110219	-0.015	1
SE	UBE2E1	+	chr3:23811459-23811510	NA	0.124	0	0.004	1
SE	RPS28	+	chr19:8321655-8321703	NA	0.124	0.01756076189	0	1
SE	TNFRSF12A	+	chr16:3021214-3021319	NA	0.123	0.001898049618	0.001	1
SE	LRRC23	+	chr12:6907314-6907445	NA	0.123	0.0002615336253	-0.023	6.91E-09
SE	ASPM	-	chr1:197100430-197105185	NA	0.123	0.009515144024	-0.006	0.05706057739
SE	FANCI	+	chr15:89245194-89245311	NA	0.123	8.00E-09	-0.012	1
SE	ARNT	-	chr1:150842423-150842468	NA	0.123	0.0001999884726	-0.046	0.1877618683
SE	GATC	+	chr12:120454932-120455030	NA	0.123	8.48E-06	0.012	1

SE	SNX11	+	chr17:48110707-48110767	NA	0.122	4.93E-05	-0.026	0.0522783913
SE	NDUFC1	-	chr4:139297384-139297443	NA	0.122	0.02506932821	-0.057	0.0002301436447
SE	HYKK	+	chr15:78513083-78513425	NA	0.122	0.01097352416	0.001	1
SE	GLMP	-	chr1:156293319-156293429	NA	0.122	0.007592639129	-0.03	0.0004217889346
SE	THAP9-AS1	-	chr4:82897988-82898062	NA	0.122	0.02355317783	0.048	1
SE	GRAMD4	+	chr22:46676599-46676668	NA	0.121	0.0341951532	-0.026	1.83E-10
SE	PPP6R2	+	chr22:50391866-50392015	NA	0.121	0.01437782339	-0.073	1
SE	TMEM87B	+	chr2:112077191-112077282	NA	0.121	0.007276760501	-0.012	1
SE	KNTC1	+	chr12:122601535-122601625	NA	0.121	0.002873453659	0.008	1
SE	DDX42	+	chr17:63799588-63799625	NA	0.121	6.10E-06	-0.022	0.0004885254591
SE	LINC01021	+	chr5:27477638-27477801	NA	0.121	0.03820251916	0.1	1
SE	CHORDC1	-	chr11:90206747-90206810	NA	0.12	3.29E-05	0.068	9.72E-06
SE	CENPA	+	chr2:26792755-26792833	NA	0.12	5.47E-05	-0.003	1
SE	C9orf156	-	chr9:97912872-97912975	NA	0.12	0.01516291276	-0.01	1
SE	PRR4	-	chr12:11121009-11121180	NA	0.119	0.0009347379716	-0.038	0.9228271422
SE	GLS	+	chr2:190913192-190913364	NA	0.119	2.51E-07	0.002	1
SE	YLPM1	+	chr14:74824255-74824307	NA	0.119	0.0005060879067	0.005	1
SE	SPOP	-	chr17:49636758-49636809	NA	0.119	0.004939913488	0.001	1
SE	TMEM62	+	chr15:43138573-43138619	NA	0.119	0.02228420277	-0.089	1
SE	TPCN2	+	chr11:69067502-69067605	NA	0.119	0.03637629393	0	1
SE	RAB34	-	chr17:28717212-28717593	NA	0.118	0.005954277431	0	1
SE	SRSF7	-	chr2:38748897-38749346	NA	0.118	8.21E-09	-0.002	1
SE	ESCO2	+	chr8:27783999-27784057	NA	0.118	0.04261741669	0.01	1
SE	MLF1	+	chr3:158588851-158588924	NA	0.118	8.38E-08	0.011	1
SE	PRKDC	-	chr8:47782161-47782254	NA	0.118	1.08E-13	0.066	0.001044918815
SE	ZNF195	-	chr11:3361975-3362073	NA	0.117	0.004491791827	0.037	0.2244350862
SE	PPP5C	+	chr19:46383410-46383476	NA	0.117	4.00E-13	-0.053	1.26E-05
SE	UBE3A	-	chr15:25407066-25407262	NA	0.117	0.002354815036	0.006	1
SE	C16orf13	-	chr16:634888-635063	NA	0.117	0.0001053612437	-0.01	1
SE	DENND5A	-	chr11:9142721-9143485	NA	0.117	0.02602112914	-0.033	1.83E-08
SE	NOMO2	-	chr16:18528012-18528071	NA	0.117	0.01502360744	0.096	1
SE	CORO7	-	chr16:4415714-4415852	NA	0.117	2.30E-05	-0.005	1
SE	IFT88	+	chr13:20663262-20663386	NA	0.116	2.64E-05	-0.013	1
SE	USP33	-	chr1:77715741-77715868	NA	0.116	0.01924510814	-0.023	1
SE	ITGAE	-	chr17:3723287-3723383	NA	0.116	0	0.011	1
SE	COQ5	-	chr12:120526456-120526546	NA	0.116	8.30E-07	0.108	4.46E-09
SE	ZNF133	+	chr20:18297984-18298062	NA	0.116	0.04998063542	-0.059	1
SE	SGCE	-	chr7:94639340-94639448	NA	0.116	0.002822164336	0.032	1
SE	PCGF6	-	chr10:103347237-103347297	NA	0.116	0.01001026167	-0.102	0.0002471633823
SE	CEP57L1	+	chr6:109155790-109155877	NA	0.116	0.001692970305	0.004	1
SE	DZIP3	+	chr3:108605334-108605438	NA	0.116	0.002236110888	-0.045	1
SE	RAB34	-	chr17:28717212-28717620	NA	0.115	0.006132731773	0	1
SE	NENF	+	chr1:212442564-212442625	NA	0.115	0.0001526398926	-0.018	9.75E-06
SE	RAB34	-	chr17:28717212-28717647	NA	0.114	0.006207750042	0	1
SE	NDUFS8	+	chr11:68035627-68035788	NA	0.114	1.32E-06	0.003	1
SE	MED6	-	chr14:70585755-70585783	NA	0.114	1.29E-09	0.003	1
SE	UGGT1	+	chr2:128156391-128156415	NA	0.114	0.002140032246	0.042	1
SE	CD320	-	chr19:8303854-8304088	NA	0.114	0.0006458606726	-0.025	2.09E-09
SE	AK2	-	chr1:33012073-33012122	NA	0.113	2.89E-14	0.032	2.68E-06
SE	RECQL	-	chr12:21501169-21501372	NA	0.113	0.002987512401	-0.03	1
SE	DLGAP4	+	chr20:36465264-36465367	NA	0.113	0.006207750042	0.011	1
SE	DGUOK	+	chr2:73950626-73950732	NA	0.113	1.12E-08	0.138	0
SE	SGK494	-	chr17:28612261-28612366	NA	0.113	0.03885696071	-0.029	1
SE	SH2B1	+	chr16:28866011-28867033	NA	0.113	0.005860391112	0.002	1
SE	PPP2R3C	-	chr14:35109818-35109901	NA	0.112	0.01192661118	-0.004	1
SE	TOP3B	-	chr22:21975980-21976187	NA	0.112	0.0164236481	-0.031	1
SE	RARS2	-	chr6:87545615-87545699	NA	0.112	0.004068455867	-0.025	1
SE	PAPD4	+	chr5:79615074-79615163	NA	0.112	0.003439201947	-0.004	1
SE	MFF	+	chr2:227342744-227342819	NA	0.112	2.01E-08	-0.018	0.3763213742
SE	ENTPD5	-	chr14:73972883-73973024	NA	0.112	0.005732405631	0	1
SE	TMEM63A	-	chr1:225866573-225866682	NA	0.112	0.006984479321	0.001	1
SE	ATP11C	-	chrX:139737730-139737796	NA	0.111	0.01111677213	0.18	1
SE	SPAG1	+	chr8:100220278-100220431	NA	0.111	0.003664403339	-0.012	1

SE	CARD8	-	chr19:48223718-48223868	NA	0.111	0.02523536706	-0.019		1
SE	CLIP1	-	chr12:122351110-122351143	NA	0.111	0.003673171316	0.078		1
SE	CPSF7	-	chr11:61420469-61420530	NA	0.111	0.002471171293	-0.016	5.46E-05	
SE	GSAP	-	chr7:77353571-77353641	NA	0.111	0.01348537548	0.014		1
SE	SUSD1	-	chr9:112042100-112042165	NA	0.11	0.01062440517	-0.002		1
SE	SRSF6	+	chr20:43459152-43459420	NA	0.11	0.0009388080305	0.069	0.08187010603	
SE	ECSIT	-	chr19:11519074-11519193	NA	0.11	0.001119481664	-0.054	2.61E-07	
SE	STXBP1	+	chr9:127684367-127684493	NA	0.11	1.02E-06	0.024	4.37E-10	
SE	APLP2	+	chr11:130123611-130123779	NA	0.109	0.02102855911	-0.054	0.06573600478	
SE	AP3B1	-	chr5:78175625-78175697	NA	0.109	2.62E-06	0.006		1
SE	WARS	-	chr14:100375282-100375350	NA	0.109	0.003593871272	-0.127	0.009775879358	
SE	DAK	+	chr11:61343341-61343458	NA	0.109	0.002348355715	-0.017	0.009262246572	
SE	PRKAG1	-	chr12:49005742-49005852	NA	0.109	1.93E-09	-0.038	3.69E-11	
SE	CKLF	+	chr16:66563121-66563217	NA	0.109	2.44E-06	-0.007	0.4918071069	
SE	TMEM260	+	chr14:56593114-56593317	NA	0.108	0.02900749021	0.019		1
SE	SEC22C	-	chr3:42563764-42563880	NA	0.108	5.82E-12	-0.01	0.03225444425	
SE	CENPT	-	chr16:67832227-67832350	NA	0.108	0.000723793159	-0.005		1
SE	PEX7	+	chr6:136866626-136866733	NA	0.108	0.01676038414	-0.007		1
SE	FAM120B	+	chr6:170348150-170348323	NA	0.108	0.006986795451	-0.008		1
SE	SPIRE1	-	chr18:12459754-12459928	NA	0.108	0.001432568516	-0.043		1
SE	KIF16B	-	chr20:16335925-16336015	NA	0.107	0.016488075	0.013		1
SE	CENPT	-	chr16:67832227-67832354	NA	0.107	0.0006888228651	-0.006		1
SE	ZNF326	+	chr1:90007344-90007750	NA	0.107	6.21E-05	0.003		1
SE	SUN1	+	chr7:849519-849603	NA	0.107	1.48E-09	-0.009	0.1970997238	
SE	LRTOMT	+	chr11:72089416-72089596	NA	0.107	0.02085996974	-0.022	0.01970884038	
SE	SYNRG	-	chr17:37577379-37577613	NA	0.107	0.009170669219	-0.053	2.99E-11	
SE	MYO19	-	chr17:36501851-36501901	NA	0.107	0.00682352165	0.196	1.40E-11	
SE	ATP6V0A1	+	chr17:42507519-42507627	NA	0.106	7.40E-05	-0.003		1
SE	DDX58	-	chr9:32492390-32492538	NA	0.106	0.002559520408	-0.012		1
SE	DDX50	+	chr10:68906225-68906337	NA	0.106	1.74E-06	0.021		1
SE	RTN4	-	chr2:55028163-55028220	NA	0.106	4.37E-06	0.032	4.56E-09	
SE	CDCA7	+	chr2:173359342-173359491	NA	0.106	0.0004100811703	0.101	7.40E-06	
SE	CENPJ	-	chr13:24886233-24886385	NA	0.106	0.02450060409	0.02	0.2310102641	
SE	MIA3	+	chr1:222662887-222663031	NA	0.106	0.02231683261	-0.004		1
SE	FAM208A	-	chr3:56638705-56638765	NA	0.106	0.0001130893075	0.003		1
SE	CTBP2	-	chr10:125110989-125111093	NA	0.106	0.04007048318	-0.008		1
SE	BCL2L12	+	chr19:49667018-49667161	NA	0.105	0.01389440019	-0.024	0.4661532477	
SE	ZGRF1	-	chr4:112589723-112589874	NA	0.105	0.01226428593	-0.026		1
SE	ESCO2	+	chr8:27780173-27780267	NA	0.105	0.04297087789	0.004		1
SE	TMEM230	-	chr20:5111763-5111808	NA	0.104	0.002611775813	0.01		1
SE	DHPS	-	chr19:12677107-12677211	NA	0.104	2.35E-13	-0.02	1.13E-06	
SE	CEP192	+	chr18:13058293-13058435	NA	0.104	1.04E-05	0.007		1
SE	PAPD7	+	chr5:6743711-6743840	NA	0.104	2.72E-05	-0.004		1
SE	ENOSF1	-	chr18:677344-677444	NA	0.104	0.001190248648	-0.009		1
SE	SLC38A6	+	chr14:61034018-61034113	NA	0.104	0.001528473657	0.018		1
SE	FAM227B	-	chr15:49611214-49611268	NA	0.104	0.02259035035	0.005		1
SE	SERPINB6	-	chr6:2968778-2968913	NA	0.103	2.38E-05	0.007		1
SE	GNPDA1	-	chr5:142012287-142012377	NA	0.102	3.27E-05	-0.065	3.15E-14	
SE	CDCA7	+	chr2:173363999-173364161	NA	0.102	0.003022493822	0.021	0.01067769121	
SE	SIDT2	+	chr11:117186989-117187001	NA	0.102	0.001234249565	0.102	2.31E-05	
SE	CENPJ	-	chr13:24886234-24886385	NA	0.102	0.02219822181	0.027	0.06661899907	
SE	FRS2	+	chr12:69537915-69537983	NA	0.102	0.007194573322	0.024		1
SE	RNF10	+	chr12:120539367-120539468	NA	0.101	0.0004537657274	0.019	0.0003902832663	
SE	TEAD2	-	chr19:49359843-49360081	NA	0.101	0.0003628054664	0.003		1
SE	DTWD1	+	chr15:49630955-49631058	NA	0.101	2.38E-08	-0.012	0.1724486627	
SE	RAB34	-	chr17:28717212-28717398	NA	0.101	0.007840343391	-0.001		1
SE	GOLT1B	+	chr12:21508382-21508561	NA	0.101	6.35E-09	0.011		1
SE	DGUOK	+	chr2:73950584-73950732	NA	0.101	0.007035617093	0.019	0.04222875936	
SE	RARS2	-	chr6:87548590-87548646	NA	0.101	0.004302882599	-0.029	1.49E-13	
SE	TBC1D31	+	chr8:123082701-123082817	NA	0.101	0.0004520812027	-0.055		1
SE	RPUSD4	-	chr11:126206253-126206553	NA	0.101	0.0003073383043	0.004	0.3340085523	
SE	KPNA5	+	chr6:116692054-116692156	NA	0.101	0.005599612143	0.004		1
SE	AC007040.1	-	chr2:70991829-70991983	NA	0.101	0.01868342172	-0.044	3.91E-13	

SE	CWF19L1	-	chr10:100250247-100250332	NA	-0.101	0.00170288151	-0.005		1
SE	CABIN1	+	chr22:24041138-24041273	NA	-0.101	0.03112960624	-0.035		1
SE	NHP2L1	-	chr22:41682355-41682587	NA	-0.101	1.11E-11	0.02	3.20E-08	
SE	CARF	+	chr2:202974333-202974496	NA	-0.101	0.003230019984	-0.027		1
SE	CENPE	-	chr4:103143247-103143406	NA	-0.101	3.31E-05	-0.022		1
SE	DOLPP1	+	chr9:129086138-129086267	NA	-0.101	0.01074850663	-0.004		1
SE	BAG6	-	chr6:31644306-31644414	NA	-0.101	0.03174855014	-0.102		0
SE	CHMP2B	+	chr3:87240322-87240453	NA	-0.102	0.04720535292	-0.005	0.267483413	
SE	UBE2Q2	+	chr15:75890434-75890483	NA	-0.102	0.004301470106	-0.009		1
SE	GFM2	-	chr5:74738501-74738642	NA	-0.102	0.01693677111	-0.043	6.60E-06	
SE	KIAA0430	-	chr16:15624768-15624927	NA	-0.102	0.002706069451	0.004		1
SE	PSMA3-AS1	-	chr14:58293313-58293544	NA	-0.102	0.005554562012	0.001		1
SE	TOP3B	-	chr22:21970209-21970406	NA	-0.103	0.02168639396	0.003		1
SE	PHF3	+	chr6:63678827-63679020	NA	-0.103	7.80E-07	0.033		1
SE	ZNF692	-	chr1:248856372-248856422	NA	-0.103	0.001282264471	-0.019		1
SE	ZNF562	-	chr19:9658008-9658135	NA	-0.103	0.03489005793	0.004		1
SE	UBTF	-	chr17:44208618-44209001	NA	-0.104	6.26E-08	-0.003		1
SE	POT1	-	chr7:124870910-124871041	NA	-0.104	0.01884693048	-0.005		1
SE	UBR3	+	chr2:169877493-169877637	NA	-0.104	0.002544829601	0.021		1
SE	NMT2	-	chr10:15130141-15130312	NA	-0.104	0.001857369881	-0.003		1
SE	ZBTB8OS	-	chr1:32633261-32633354	NA	-0.104	0.005563206351	0.008		1
SE	PSTK	+	chr10:122986299-122986375	NA	-0.104	0.04261741669	-0.051	1.21E-07	
SE	RB1CC1	-	chr8:52685936-52686156	NA	-0.105	0.0001409018816	0.037		1
SE	TNRC6A	+	chr16:24776932-24777358	NA	-0.105	0.006129789789	-0.01		1
SE	SMC4	+	chr3:160412529-160412849	NA	-0.105	1.36E-12	0		1
SE	METTL14	+	chr4:118705610-118705821	NA	-0.105	5.49E-05	-0.016		1
SE	RPRD2	+	chr1:150464526-150464727	NA	-0.105	0.001107474483	-0.019		1
SE	ZNF561	-	chr19:9617620-9617768	NA	-0.105	0.006032195647	-0.002		1
SE	GABBR1	-	chr6:29608600-29608733	NA	-0.105	0.0005418065682	-0.016		1
SE	HRSP12	-	chr8:98108645-98108713	NA	-0.106	0.00140484798	-0.013	0.09155746834	
SE	ANAPC11	+	chr17:81899241-81899542	NA	-0.106	0	0		1
SE	PAM	+	chr5:103025130-103025334	NA	-0.106	0.001547919879	0.005		1
SE	SFXN2	+	chr10:102729318-102729394	NA	-0.106	0.04627864623	-0.153	5.96E-10	
SE	NAA16	+	chr13:41355143-41355216	NA	-0.106	0.009473724616	0.015		1
SE	SEC24C	+	chr10:73746629-73746716	NA	-0.106	8.85E-06	-0.008		1
SE	SNHG5	-	chr6:85677790-85677875	NA	-0.106	4.04E-11	-0.135	3.15E-14	
SE	KATNAL1	-	chr13:30255446-30255615	NA	-0.107	0.0002645918642	-0.019		1
SE	COQ3	-	chr6:99383007-99383130	NA	-0.107	0.009287960857	0.009		1
SE	FAM175A	-	chr4:83470202-83470396	NA	-0.107	0.03069639954	-0.004		1
SE	NUP50	+	chr22:45170987-45171152	NA	-0.108	0.0205273931	0.018	0.2460414665	
SE	MFSD10	-	chr4:2931554-2931663	NA	-0.108	0.0007475297347	-0.065	3.15E-14	
SE	ACAD10	+	chr12:111729805-111729956	NA	-0.108	0.01123275744	-0.056		1
SE	GABPB2	+	chr1:151073038-151073157	NA	-0.108	0.03900299778	0.001		1
SE	C5orf45	-	chr5:179851242-179851337	NA	-0.108	0.009537224812	0		1
SE	RP11-33B1	+	chr4:119488644-119488717	NA	-0.108	0.002384550275	-0.01		1
SE	RBM6	+	chr3:49967197-49968748	NA	-0.109	2.69E-05	-0.006		1
SE	DCUN1D4	+	chr4:51905188-51905320	NA	-0.109	2.74E-06	0.015		1
SE	TIMM8B	-	chr11:112085966-112086310	NA	-0.109	0.0008728679574	-0.003		1
SE	CHURC1	+	chr14:64926009-64926080	NA	-0.109	9.60E-08	0		1
SE	VPS41	-	chr7:38796414-38796526	NA	-0.11	1.23E-08	0.001		1
SE	TUBD1	-	chr17:59886082-59886230	NA	-0.11	0.03243601941	-0.046		1
SE	WHSC1	+	chr4:1954536-1954685	NA	-0.11	2.54E-05	0.004		1
SE	BCHE	-	chr3:165777716-165777795	NA	-0.11	1.52E-06	0.006	7.54E-09	
SE	TMEM45A	+	chr3:100519076-100519316	NA	-0.11	6.71E-06	0.005		1
SE	ARID4B	-	chr1:235213768-235214026	NA	-0.111	0.002459905923	0.036		1
SE	HNRNPUL1	+	chr19:41305831-41305867	NA	-0.111	0.000558909809	-0.011	0.5809769352	
SE	HACL1	-	chr3:15574976-15575082	NA	-0.111	0.0003159746893	-0.045		1
SE	BCL2L11	+	chr2:111123732-111123869	NA	-0.111	0.01404100243	0.046		1
SE	SLC37A3	-	chr7:140345868-140345970	NA	-0.111	0.01020257768	-0.035		1
SE	EDC3	-	chr15:74687090-74687179	NA	-0.111	0.0231839421	-0.005		1
SE	PMS2CL	+	chr7:6737075-6737936	NA	-0.111	0.0004879258515	0.033		1
SE	GTF2IP1	-	chr7:75202541-75202613	NA	-0.111	0.0239620042	0.016		1
SE	RABGAP1	+	chr9:122945331-122945432	NA	-0.112	0.001312112384	-0.011		1

SE	RPLP0	-	chr12:120198553-120198739	NA	-0.112	0	-0.009	0
SE	TOM1	+	chr22:35321958-35322019	NA	-0.112	0.02259035035	-0.042	0.00244859248
SE	HMGCR	+	chr5:75355055-75355214	NA	-0.112	0	0.012	1
SE	B4GALT3	-	chr1:161176911-161177106	NA	-0.112	2.40E-08	0.002	0.3906935861
SE	TMEM194A	-	chr12:57069233-57069306	NA	-0.112	0.043757897	-0.018	1
SE	ZFAS1	+	chr20:49280484-49280570	NA	-0.112	5.59E-14	-0.074	0
SE	ASPH	-	chr8:61646749-61646878	NA	-0.112	0	-0.002	1
SE	TADA2A	+	chr17:37423508-37423615	NA	-0.112	0.007108285273	0.012	1
SE	CHFR	-	chr12:132870723-132870783	NA	-0.113	0.009067303247	-0.033	1
SE	MVK	+	chr12:109579801-109579946	NA	-0.113	0.019011357	-0.089	0.0005025009757
SE	B3GALNT1	-	chr3:161089959-161090062	NA	-0.113	0.01458009455	0.058	4.50E-12
SE	FUT8	+	chr14:65430215-65430309	NA	-0.114	0.02578183739	0.006	1
SE	EPB41L2	-	chr6:130878103-130878250	NA	-0.114	1.20E-05	-0.222	2.05E-13
SE	MYL6	+	chr12:56159586-56159622	NA	-0.114	0.003043669782	-0.013	0
SE	ZNF317	+	chr19:9157979-9158075	NA	-0.114	0.01281397378	-0.031	1
SE	CDK7	+	chr5:69254601-69254669	NA	-0.114	0.01973663004	-0.014	1
SE	BORA	+	chr13:72734959-72735005	NA	-0.114	0.02872793168	-0.105	0
SE	FAM188A	-	chr10:15816834-15816915	NA	-0.114	0.03671992905	-0.026	0.4593155239
SE	TMEM67	+	chr8:93791881-93792004	NA	-0.114	0.02775592997	0.005	1
SE	BRD7	-	chr16:50326283-50326391	NA	-0.114	6.79E-10	0.001	1
SE	L3MBTL3	+	chr6:130049650-130049830	NA	-0.114	0.03879465813	0.039	1
SE	MYO19	-	chr17:36512657-36512779	NA	-0.114	0.008854836282	0.062	0.2365470521
SE	GLS	+	chr2:190913192-190913364	NA	-0.115	0.001084209801	-0.053	1
SE	INIP	-	chr9:112701787-112701880	NA	-0.115	0.0001351758142	-0.007	1
SE	ANO10	-	chr3:43551471-43551588	NA	-0.115	2.25E-05	0.005	0.9816504588
SE	FBXO22	+	chr15:75913202-75913290	NA	-0.115	0.02857103996	-0.004	1
SE	GTF2E2	-	chr8:30612298-30612481	NA	-0.115	3.77E-11	0.013	1
SE	NFATC3	+	chr16:68221195-68221284	NA	-0.116	0.0364768483	-0.006	1
SE	CDCA3	-	chr12:6849322-6849413	NA	-0.116	3.55E-08	-0.103	0.004971439658
SE	DLG4	-	chr17:7191892-7192002	NA	-0.116	0.004221254915	-0.007	1
SE	CARS2	-	chr13:110648317-110649297	NA	-0.116	1.25E-08	0.003	1
SE	UBQLN1	-	chr9:83666349-83666394	NA	-0.116	0.01785569141	-0.051	0.07701091082
SE	N6AMT2	-	chr13:20731840-20732121	NA	-0.116	0.03161887069	0.028	0.2821223924
SE	USP25	+	chr21:15849776-15849872	NA	-0.116	0.0002637844158	0.004	1
SE	SLC12A2	+	chr5:128177104-128177152	NA	-0.117	4.35E-06	-0.051	0.1017851617
SE	NFYC	+	chr1:40766917-40766974	NA	-0.117	0.002262356732	-0.008	0.01352635303
SE	SEC14L2	+	chr22:30415758-30416087	NA	-0.117	0.0002925652383	-0.038	7.19E-12
SE	RPAIN	+	chr17:5426235-5426299	NA	-0.117	0.0008985289339	-0.123	1.10E-11
SE	CCNT1	-	chr12:48695998-48696162	NA	-0.117	0.005099606958	-0.051	1
SE	C6orf52	-	chr6:10686965-10687056	NA	-0.117	0.0084424949	-0.004	1
SE	SLC33A1	-	chr3:155833467-155833585	NA	-0.117	0.00728625754	-0.006	1
SE	URB2	+	chr1:229645858-229645969	NA	-0.118	0.004374083708	0.002	1
SE	NUP54	-	chr4:76134174-76134362	NA	-0.118	3.46E-06	0.009	1
SE	CDC25C	-	chr5:138289479-138289563	NA	-0.118	0.01782449163	-0.038	1
SE	TRAPP6B	-	chr14:39154210-39154294	NA	-0.118	0.01034319119	-0.003	1
SE	C12orf65	+	chr12:123253646-123255033	NA	-0.119	0.01080983012	0.011	1
SE	ANK3	-	chr10:60059697-60060033	NA	-0.119	0.00550678331	-0.196	3.65E-13
SE	HEATR3	+	chr16:50072604-50072714	NA	-0.119	0.02655662668	-0.026	1
SE	GEMIN4	-	chr17:749813-749909	NA	-0.119	0.03462897539	0.038	1
SE	HERC2P9	+	chr15:28612058-28612173	NA	-0.119	0.0384989077	-0.019	1
SE	ELOVL5	-	chr6:53273219-53273344	NA	-0.12	0	-0.031	0.0170225618
SE	PLEKHH1	+	chr14:67586809-67586949	NA	-0.12	0.0001479566393	0.017	3.40E-11
SE	CCNC	-	chr6:99544205-99544273	NA	-0.12	1.47E-07	0.013	2.72E-06
SE	LIAS	+	chr4:39462195-39462289	NA	-0.12	0.02343194834	-0.02	1
SE	RBCK1	+	chr20:409883-410025	NA	-0.12	0.006423577048	-0.003	1
SE	FKBP10	+	chr17:41819840-41820023	NA	-0.12	2.58E-07	0.019	0
SE	LRCH3	+	chr3:197866111-197866219	NA	-0.12	1.39E-05	-0.075	5.01E-05
SE	PHTF2	+	chr7:77937709-77937838	NA	-0.121	1.21E-07	-0.014	1
SE	DHX9	+	chr1:182855576-182855713	NA	-0.121	3.15E-10	0.008	0.2382460916
SE	AP1AR	+	chr4:112262987-112263086	NA	-0.121	0.002927110877	-0.172	4.17E-13
SE	TIMM8B	-	chr11:112085977-112086310	NA	-0.121	0.001838520626	-0.004	1
SE	ZNF202	-	chr11:123727475-123727595	NA	-0.121	1.81E-05	-0.026	1
SE	XRR1	-	chr11:74909888-74910012	NA	-0.121	0.00199678348	-0.034	1

SE	KATNAL2	+	chr18:47046390-47046527	NA	-0.121	0.01677792067	0.016	1
SE	UBA2	+	chr19:34430092-34430186	NA	-0.122	2.15E-07	0.03	6.66E-08
SE	PRKRIP1	+	chr7:102397619-102397698	NA	-0.122	0.0140171851	-0.039	0.04239164553
SE	CAMK1	-	chr3:9765758-9765890	NA	-0.122	0.001499769913	-0.038	2.09E-07
SE	GGACT	-	chr13:100533562-100533774	NA	-0.122	0.008751623156	0.063	1
SE	RNF157	-	chr17:76155251-76155317	NA	-0.122	0.0145371809	-0.027	3.60E-08
SE	VPS8	+	chr3:184922428-184922483	NA	-0.122	6.66E-05	-0.011	1
SE	USP54	-	chr10:73504849-73504990	NA	-0.122	0.0168943985	-0.023	1
SE	ZNF561	-	chr19:9617620-9617758	NA	-0.122	0.002940491554	0.001	1
SE	CDK11A	-	chr1:1722587-1722634	NA	-0.123	0.01643350428	-0.002	1
SE	ADAT1	-	chr16:75618585-75618698	NA	-0.123	0.009096233477	-0.038	1
SE	USP53	+	chr4:119268267-119268420	NA	-0.123	0.00393903467	-0.013	1
SE	GFM2	-	chr5:74730259-74730398	NA	-0.123	0.003000752999	-0.027	0.180170117
SE	POLL	-	chr10:101582762-101582891	NA	-0.123	0.001498880467	0.006	1
SE	IST1	+	chr16:71924090-71924281	NA	-0.123	0.001113102966	0.01	2.26E-06
SE	ANGEL1	-	chr14:76810088-76810254	NA	-0.124	0.0001146705376	-0.008	1
SE	POLQ	-	chr3:121473349-121473487	NA	-0.124	0.008199787959	-0.001	1
SE	MADD	+	chr11:47288967-47289027	NA	-0.124	0.01952163363	0.008	1
SE	TJP2	+	chr9:69251034-69251364	NA	-0.124	0.03536904157	-0.048	0.001909610936
SE	ZMYM5	-	chr13:19838699-19838985	NA	-0.124	0.0002257543833	0.023	1
SE	PPCDC	+	chr15:75043440-75043536	NA	-0.124	0.03357411761	0.005	1
SE	PAM	+	chr5:102974115-102974436	NA	-0.124	0.001610289966	0.028	1
SE	MRRF	+	chr9:122286038-122286166	NA	-0.124	0.004509801696	0.066	0.1442757745
SE	KIAA0753	-	chr17:6611918-6612148	NA	-0.124	0.006509517624	0.006	1
SE	SNHG5	-	chr6:85677794-85677868	NA	-0.124	3.33E-08	-0.136	0
SE	LAS1L	-	chrX:65528259-65528369	NA	-0.125	2.61E-07	-0.023	1.65E-10
SE	USP28	-	chr11:113830866-113830946	NA	-0.125	0.0296972396	-0.014	1
SE	ALDH3A2	+	chr17:19673150-19673275	NA	-0.125	1.60E-07	0.041	1
SE	RPLP0	-	chr12:120198553-120198770	NA	-0.125	0	-0.013	2.05E-13
SE	NUP50	+	chr22:45170987-45171143	NA	-0.125	0.000806993149	0.012	1
SE	EIF2D	-	chr1:206599462-206599612	NA	-0.125	1.15E-11	-0.089	0
SE	PAM	+	chr5:103025133-103025334	NA	-0.125	0.001027895403	0.005	1
SE	PDPR	+	chr16:70131301-70131419	NA	-0.126	0.03206756502	0.079	1
SE	IMMP1L	-	chr11:31456259-31456386	NA	-0.126	0.01808880893	-0.02	1
SE	TMEM237	-	chr2:201634803-201634893	NA	-0.126	8.05E-09	0.008	1
SE	PHF5A	-	chr22:41468019-41468147	NA	-0.127	8.80E-05	-0.031	2.63E-07
SE	CBLB	-	chr3:105681478-105681610	NA	-0.127	0.001497862413	-0.031	1
SE	HNRNPR	-	chr1:23340851-23341020	NA	-0.127	6.33E-05	-0.002	1
SE	TPRKB	-	chr2:73734527-73734591	NA	-0.127	0.001712917184	0.003	1
SE	TBL1X	+	chrX:9534899-9535034	NA	-0.128	0.0006349605137	0.005	1
SE	PHF20L1	+	chr8:132825034-132825157	NA	-0.128	0.0005152712216	0.036	0.07618515052
SE	SNHG5	-	chr6:85677794-85677899	NA	-0.128	7.18E-08	-0.147	9.07E-14
SE	SNAP23	+	chr15:42529674-42529819	NA	-0.129	0.0001857822036	0.001	1
SE	HDLBP	-	chr2:241269360-241269561	NA	-0.129	2.19E-07	-0.007	1
SE	TNIK	-	chr3:171128713-171128878	NA	-0.129	0.00168795208	0.006	1
SE	THAP6	+	chr4:75521735-75521861	NA	-0.129	0.005749812137	-0.064	4.17E-13
SE	MORF4L1	+	chr15:78887268-78887349	NA	-0.129	0.003025881065	-0.002	1
SE	TCOF1	+	chr5:150372005-150372236	NA	-0.13	0.003432257142	0.001	1
SE	DNMT3A	-	chr2:25239314-25239513	NA	-0.13	0.001496409421	0.001	1
SE	ZCCHC11	-	chr1:52458335-52458449	NA	-0.13	0.03293364916	0.008	1
SE	TRPC1	+	chr3:142792823-142792967	NA	-0.13	0.007980648665	0.007	1
SE	MRPS18C	+	chr4:83458345-83458429	NA	-0.13	1.79E-06	-0.013	0.2516003699
SE	DENND5A	-	chr11:9176771-9176902	NA	-0.13	3.99E-12	0.004	1
SE	TFDP1	+	chr13:113631622-113631905	NA	-0.13	0.01092216805	-0.112	1.87E-11
SE	ACTN1	-	chr14:68878988-68879069	NA	-0.131	2.38E-08	-0.019	1.92E-05
SE	ZNF302	+	chr19:34679827-34679959	NA	-0.131	1.32E-06	0.001	0.0002950735094
SE	NQO2	+	chr6:3002049-3002286	NA	-0.131	2.94E-07	0.003	1
SE	HP1BP3	-	chr1:20780344-20780540	NA	-0.131	0.0274504833	-0.054	0.05102852609
SE	TBC1D5	-	chr3:17622647-17622765	NA	-0.131	0.0439700115	-0.037	1
SE	ZMYM5	-	chr13:19837655-19837821	NA	-0.131	0.009523405635	0	1
SE	CDK7	+	chr5:69254601-69254669	NA	-0.131	0.02599262688	0.061	1
SE	GIT2	-	chr12:109951166-109951316	NA	-0.131	0.003988133396	-0.004	1
SE	WDR89	-	chr14:63641298-63641407	NA	-0.131	0.01313831589	-0.002	1

SE	C9orf85	+	chr9:71971504-71971618	NA	-0.131	0.004011400497	-0.018	1
SE	TAB3	-	chrX:30842965-30843049	NA	-0.131	0.0088897773	0.02	1
SE	ARAP1	-	chr11:72692752-72692785	NA	-0.131	0.04752424816	-0.018	0.7127745885
SE	TRIM16	-	chr17:15682860-15682951	NA	-0.131	0.006132731773	-0.144	0.0002239694333
SE	ATG5	-	chr6:106308363-106308491	NA	-0.132	0.009067089434	-0.067	0.0003631199993
SE	THOC5	-	chr22:29531077-29531110	NA	-0.132	2.46E-05	-0.013	0.3101146591
SE	DLGAP5	-	chr14:55148593-55148684	NA	-0.132	3.50E-10	0.039	1
SE	MICAL1	-	chr6:109447874-109447963	NA	-0.132	0.01210955425	-0.046	2.05E-13
SE	KANSL2	-	chr12:48679035-48679150	NA	-0.132	0.0006849077524	-0.031	1
SE	FAM192A	-	chr16:57174619-57174688	NA	-0.132	7.91E-09	-0.017	2.03E-05
SE	ZNF37BP	-	chr10:42525539-42525660	NA	-0.132	0.001151705187	0.084	1
SE	RP11-87H9.	+	chr9:41008880-41009006	NA	-0.132	0.0006889078724	-0.016	1
SE	RSU1	-	chr10:16816972-16817084	NA	-0.133	1.64E-07	-0.025	0.7525329271
SE	AASDH	-	chr4:56345126-56345290	NA	-0.133	0.004080108744	-0.046	1
SE	STARD4	-	chr5:111501961-111502088	NA	-0.133	0.02770700481	0.013	1
SE	STK40	-	chr1:36367847-36368084	NA	-0.133	0.008231467309	-0.032	0.0006167935661
SE	TLE1	-	chr9:81652213-81652288	NA	-0.133	0.02872169449	-0.015	1
SE	KIAA1715	-	chr2:175994133-175994280	NA	-0.134	5.77E-09	-0.002	1
SE	LRP8	-	chr1:53257239-53257464	NA	-0.134	3.98E-08	0.004	1
SE	ZNF271P	+	chr18:35291009-35291232	NA	-0.134	0.01506849521	-0.005	1
SE	SPPL2A	-	chr15:50726072-50726126	NA	-0.135	0.01789049185	-0.024	0.8359812358
SE	ANK3	-	chr10:60200128-60200263	NA	-0.135	0.002225080387	-0.022	1
SE	RHNO1	+	chr12:2885262-2885534	NA	-0.135	0.0004129172434	-0.024	0.04322393452
SE	RBM23	-	chr14:22905605-22905659	NA	-0.136	6.52E-08	-0.001	1
SE	CLCN3	+	chr4:169717791-169717867	NA	-0.136	2.41E-05	-0.022	0.09189064949
SE	MICAL2	+	chr11:12249183-12249246	NA	-0.136	0.02165860992	-0.015	1
SE	SCLT1	-	chr4:128942995-128943188	NA	-0.136	0.03286776765	-0.008	1
SE	RPUSD3	-	chr3:9838984-9839171	NA	-0.136	0.007378662604	-0.022	0.04035963457
SE	CLHC1	-	chr2:55180509-55180712	NA	-0.136	0.001870402945	0.01	1
SE	SETD2	-	chr3:47080800-47081083	NA	-0.136	0.004085034607	-0.003	1
SE	HNRNPAB	+	chr5:178210131-178210272	NA	-0.136	2.85E-13	-0.026	0.221852334
SE	CHPF2	+	chr7:151236955-151237172	NA	-0.137	0.0003362019884	0.079	0.2590016045
SE	NTAN1	-	chr16:15047996-15048099	NA	-0.137	0.002085721271	-0.026	1
SE	IRAK4	+	chr12:43772911-43772986	NA	-0.137	0.01711610116	-0.014	1
SE	CCNC	-	chr6:99544178-99544273	NA	-0.138	1.82E-06	0.019	1.57E-09
SE	ANKRD11	-	chr16:89313316-89313589	NA	-0.138	1.55E-09	0.002	1
SE	ENO3	+	chr17:4952024-4952147	NA	-0.139	0.00490899262	0.012	0.4798648571
SE	MRPL47	-	chr3:179602651-179602737	NA	-0.139	1.07E-12	-0.014	1
SE	GUF1	+	chr4:44691665-44691799	NA	-0.139	0.03109214455	0.023	1
SE	ASAP1	-	chr8:130091972-130092143	NA	-0.139	0.0008506612306	-0.032	0.6580130316
SE	SPG7	+	chr16:89545871-89546030	NA	-0.139	1.91E-06	0.028	0
SE	RPLP0	-	chr12:120198553-120198631	NA	-0.14	0	-0.015	8.93E-12
SE	ZMIZ1	+	chr10:79162052-79162133	NA	-0.14	0.000864542017	-0.035	1
SE	MFF	+	chr2:227347225-227347384	NA	-0.14	0.009275745962	-0.084	6.66E-09
SE	ZNF655	+	chr7:99561887-99562494	NA	-0.14	0.02620422848	-0.114	0.0009465271811
SE	EML1	+	chr14:99914565-99914697	NA	-0.141	0.01019963675	-0.008	1
SE	LTA4H	-	chr12:96003837-96003981	NA	-0.141	0.02140667551	-0.038	0.5455110131
SE	YWHAZ	-	chr8:100951928-100952125	NA	-0.141	1.20E-07	0.009	1
SE	FUZ	-	chr19:49812446-49812736	NA	-0.142	0.001793405002	-0.067	0.01336889041
SE	C12orf4	-	chr12:4517060-4517189	NA	-0.142	0.0001872045859	0.005	1
SE	BTN2A1	+	chr6:26458606-26458718	NA	-0.142	0.001159125414	-0.023	0.007301125562
SE	POC1B	-	chr12:89425160-89425379	NA	-0.142	5.41E-06	0.037	0.01190586918
SE	EYA3	-	chr1:28027788-28027926	NA	-0.142	0.007720184609	-0.019	1
SE	CHTF8	-	chr16:69121052-69121170	NA	-0.142	2.57E-05	-0.055	1
SE	FAM210A	-	chr18:13671861-13671973	NA	-0.142	0.000175916401	-0.016	1
SE	FAM120C	-	chrX:54085714-54085916	NA	-0.142	0.005509184309	0.022	1
SE	LETMD1	+	chr12:51058005-51058128	NA	-0.143	0.03029140932	0.009	1
SE	CYP20A1	+	chr2:203272669-203272748	NA	-0.143	0.003905914187	-0.047	0.09191980553
SE	CHTF8	-	chr16:69120106-69120208	NA	-0.143	0.04354642454	0.026	1
SE	COPG1	+	chr3:129250681-129250894	NA	-0.143	0.002239049543	-0.027	0.60943402
SE	C2orf74	+	chr2:61162841-61162955	NA	-0.143	0	-0.016	1
SE	HEATR6	-	chr17:60073745-60073886	NA	-0.144	0.000218129136	0.006	1
SE	SLC25A40	-	chr7:87860071-87860169	NA	-0.144	0.02566581821	-0.006	1

SE	CARD8	-	chr19:48218870-48219012	NA	-0.144	0.006207750042	-0.041	0.5131149699
SE	PRUNE	+	chr1:151024610-151024795	NA	-0.144	0.02759566031	-0.01	1
SE	FAM200B	+	chr4:15684885-15684959	NA	-0.144	0.009167109226	-0.003	1
SE	ABCD4	-	chr14:74299547-74299675	NA	-0.145	0.001061603759	0.004	1
SE	MACF1	+	chr1:39465094-39465112	NA	-0.145	5.30E-07	-0.008	1
SE	ZGRF1	-	chr4:112623816-112623876	NA	-0.145	0.008185219315	-0.096	1
SE	NUDT22	+	chr11:64229849-64230070	NA	-0.145	0.000222018372	-0.039	0.007436051979
SE	C5orf45	-	chr5:179851242-179851424	NA	-0.145	9.74E-05	0.004	0.5676840759
SE	KCNAB3	-	chr17:7925096-7925183	NA	-0.145	0.003016887814	-0.01	1
SE	ARHGEF12	+	chr11:120429711-120429831	NA	-0.145	1.69E-05	-0.021	1
SE	SOX9-AS1	-	chr17:72074548-72076733	NA	-0.145	0.0002651228345	-0.027	1
SE	VEZT	+	chr12:95256549-95256622	NA	-0.146	0.04376813577	-0.025	1
SE	FAM35A	+	chr10:87175888-87176095	NA	-0.146	0.00447617254	-0.045	1
SE	ZBTB38	+	chr3:141438242-141438365	NA	-0.146	0.04507777634	-0.035	1
SE	ZNF506	-	chr19:19793833-19795660	NA	-0.147	0.001824574982	-0.001	1
SE	ATP6V1B1	+	chr2:70963161-70963312	NA	-0.147	0.001312492684	-0.061	1
SE	TRIM5	-	chr11:5665980-5666081	NA	-0.147	9.07E-05	-0.016	1
SE	TET2	+	chr4:105241338-105241429	NA	-0.147	0.005143745186	0.001	1
SE	DLG3	+	chrX:70497179-70497221	NA	-0.148	0.006943205476	0	1
SE	YAP1	+	chr11:102209516-102209564	NA	-0.148	0.001899552138	-0.004	1
SE	SLC50A1	+	chr1:155137578-155137722	NA	-0.148	0.0006659499029	-0.032	0.3558783218
SE	TPT1-AS1	+	chr13:45390757-45390902	NA	-0.148	1.99E-05	-0.042	1
SE	IQCB1	-	chr3:121799195-121799374	NA	-0.148	1.16E-05	-0.023	1
SE	ZDHHC17	+	chr12:76821057-76821167	NA	-0.148	0.002782691887	-0.003	1
SE	SH3YL1	-	chr2:256206-256690	NA	-0.149	0.0128107561	0.035	0.3725291074
SE	LETMD1	+	chr12:51058074-51058128	NA	-0.149	0.0290614872	0.007	1
SE	MACF1	+	chr1:39427960-39428287	NA	-0.149	1.08E-08	-0.139	0
SE	TMEM63B	+	chr6:44135327-44135366	NA	-0.149	2.00E-05	-0.244	0
SE	C5orf22	+	chr5:31548489-31548687	NA	-0.15	9.78E-06	0.001	1
SE	ULBP2	+	chr6:149947319-149947451	NA	-0.15	0.005873187661	-0.067	0.4059025373
SE	ZSWIM7	-	chr17:15986799-15986886	NA	-0.15	0.003676103307	0.006	0.2490285615
SE	BRD9	-	chr5:868606-868804	NA	-0.151	0	0.002	1
SE	ST3GAL6	+	chr3:98756368-98756540	NA	-0.151	0.02805536072	0.051	1
SE	RPAIN	+	chr17:5425970-5426299	NA	-0.151	0.00352321067	-0.074	1.17E-05
SE	CRIM1	+	chr2:36537351-36537546	NA	-0.151	1.02E-08	0.011	1
SE	RHNO1	+	chr12:2885282-2885492	NA	-0.151	0.0005058911378	-0.031	0.04539760873
SE	C11orf80	+	chr11:66822563-66822674	NA	-0.151	0.02626010702	-0.07	1
SE	DHODH	+	chr16:72021123-72021311	NA	-0.152	0.00832100594	-0.006	1
SE	MPDZ	-	chr9:13115247-13115334	NA	-0.152	0.0002389659815	-0.004	1
SE	PRKAB1	+	chr12:119671494-119671668	NA	-0.152	0.007309215227	-0.006	1
SE	ACOX1	-	chr17:75973624-75973785	NA	-0.152	0.04320406396	0.01	0.03035785603
SE	ZNF611	-	chr19:52711206-52711304	NA	-0.152	0.02423789603	0.019	1
SE	FIS1	-	chr7:101244006-101244139	NA	-0.152	0	-0.018	3.15E-14
SE	CLEC2D	+	chr12:9692827-9693948	NA	-0.153	0.0009874780662	-0.004	1
SE	BLOC1S6	+	chr15:45592134-45592276	NA	-0.153	0.0001872045859	-0.074	2.62E-11
SE	ZNF680	-	chr7:64560945-64561273	NA	-0.153	0.04800831293	0.003	1
SE	ZC3H14	+	chr14:88601923-88602083	NA	-0.154	0.04519826484	-0.002	1
SE	INTS4	-	chr11:77910969-77911152	NA	-0.154	0.0009230389767	0.012	0.00310164235
SE	GUF1	+	chr4:44690716-44690860	NA	-0.155	0.04593373253	0.019	1
SE	SPRY1	+	chr4:123397610-123397856	NA	-0.155	0.0008703111406	-0.013	1
SE	POLL	-	chr10:101584601-101584919	NA	-0.155	0.0001700015266	-0.006	1
SE	NARFL	-	chr16:740021-740103	NA	-0.156	6.49E-08	0.007	1
SE	CENPK	-	chr5:65551105-65551242	NA	-0.156	0	-0.01	1
SE	LYPLAL1	+	chr1:219193081-219193251	NA	-0.156	0.001062493224	0.006	1
SE	ZNF260	-	chr19:36525154-36525373	NA	-0.156	0.001648135725	0.005	1
SE	ATG10	+	chr5:82164398-82164537	NA	-0.157	0.01125548831	-0.05	0.005542284501
SE	THAP5	-	chr7:108565829-108566022	NA	-0.157	0.0005452233171	-0.036	0.007207114976
SE	UROS	-	chr10:125789282-125789528	NA	-0.157	0.01755232888	0.003	1
SE	STK40	-	chr1:36367851-36368084	NA	-0.157	0.007647461604	-0.039	0.0001717830389
SE	PATZ1	-	chr22:31328786-31328859	NA	-0.158	0.001028859064	-0.087	9.07E-11
SE	ASCC2	-	chr22:29825621-29825780	NA	-0.158	0.0005291269653	-0.017	1
SE	GRB10	-	chr7:50732271-50732368	NA	-0.158	0.002538626055	0.056	1
SE	FRG1	+	chr4:189955036-189955151	NA	-0.158	1.68E-08	0.02	0.7399231888

SE	DIEXF	+	chr1:209842582-209842695	NA	-0.158	0.02912579184	-0.029		1
SE	PTPRA	+	chr20:2947981-2948024	NA	-0.158	0.004696244476	-0.033	0.970570909	
SE	TRPC1	+	chr3:142791018-142791158	NA	-0.158	0.002527404038	-0.031		1
SE	FANCA	-	chr16:89758576-89758705	NA	-0.158	0.03898426062	-0.005		1
SE	RFFL	-	chr17:35021370-35021781	NA	-0.159	8.79E-05	0.031	0.5929753256	
SE	MYH14	+	chr19:50224153-50224177	NA	-0.159	0.003134453167	0.054		1
SE	CHURC1-FM	+	chr14:64926006-64926080	NA	-0.159	8.36E-08	0.001		1
SE	MGEA5	-	chr10:101793912-101793998	NA	-0.159	4.00E-13	-0.022	0.0008377962418	
SE	ZHX3	-	chr20:41213733-41213899	NA	-0.16	4.68E-06	-0.007		1
SE	KBTBD3	-	chr11:106076506-106076707	NA	-0.16	0.007742020846	0.01		1
SE	MAP4K4	+	chr2:101871493-101871685	NA	-0.161	7.79E-08	-0.071	4.82E-06	
SE	MBD1	-	chr18:50273333-50273426	NA	-0.161	0.01539580262	-0.094	8.44E-06	
SE	RAB26	+	chr16:2151129-2151315	NA	-0.161	0.002964538658	-0.008		1
SE	BRPF3	+	chr6:36225266-36225364	NA	-0.162	0.03182618393	-0.031		1
SE	LPIN1	+	chr2:11776085-11776193	NA	-0.162	0.0003811031107	0.025		1
SE	APOM	+	chr6:31656471-31656626	NA	-0.162	0.0009638969816	-0.003		1
SE	SLC4A7	-	chr3:27409355-27409530	NA	-0.163	2.31E-08	-0.063		1
SE	SLC35D2	-	chr9:96336716-96336784	NA	-0.163	0.0005475375873	-0.004		1
SE	FIP1L1	+	chr4:53391429-53391498	NA	-0.163	0.004672475626	0.04	0.5459772561	
SE	FAM120C	-	chrX:54087754-54087964	NA	-0.163	0.002895587267	0.016		1
SE	ZC3H14	+	chr14:88596733-88596808	NA	-0.164	0.002711949392	-0.03		1
SE	ALMS1	+	chr2:73550266-73550437	NA	-0.164	0.0009874780662	-0.029		1
SE	RPAIN	+	chr17:5425970-5426082	NA	-0.164	0.003868841766	-0.073	0.0003832155032	
SE	C11orf74	+	chr11:36636050-36636117	NA	-0.164	0.000648428039	0.02		1
SE	LPCAT4	-	chr15:34361399-34361532	NA	-0.164	0.0001905212064	-0.037	5.01E-05	
SE	UBE2F	+	chr2:237987962-237987992	NA	-0.164	0.002623975802	-0.014		1
SE	TMEM222	+	chr1:27330984-27331137	NA	-0.165	0.001213990935	-0.004		1
SE	RP11-87H9	+	chr9:40993252-40993434	NA	-0.165	0.006454968809	0.046		1
SE	NDUFAF7	+	chr2:37242634-37242693	NA	-0.166	0.01724334818	0.029		1
SE	BCLAF1	-	chr6:136269140-136269303	NA	-0.166	3.04E-05	0.01	0.1681799919	
SE	MEF2A	+	chr15:99620890-99621080	NA	-0.166	0.03836748222	-0.058		1
SE	TRDMT1	-	chr10:17161482-17161548	NA	-0.166	0.01480028911	-0.024		1
SE	ESYT2	-	chr7:158752780-158752843	NA	-0.166	0	-0.025	3.10E-07	
SE	RPAIN	+	chr17:5425970-5428211	NA	-0.166	0.0001203924305	-0.044	1.16E-05	
SE	NR2C2AP	-	chr19:19202469-19202575	NA	-0.166	3.85E-05	-0.105	4.87E-10	
SE	RANGAP1	-	chr22:41284900-41285153	NA	-0.167	0.002089000179	-0.001		1
SE	LIG4	-	chr13:108214537-108214610	NA	-0.167	0.0005007711641	0.007		1
SE	ALOX12-AS	-	chr17:7010058-7010137	NA	-0.167	0.005410559041	-0.008		1
SE	TTC38	+	chr22:46281970-46282151	NA	-0.168	0.008685505951	0.002		1
SE	DCUN1D4	+	chr4:51908919-51908975	NA	-0.168	0.0005258881182	0.026		1
SE	ABCD4	-	chr14:74297638-74298069	NA	-0.168	0.0005076552538	0.019		1
SE	LYPLAL1	+	chr1:219193129-219193251	NA	-0.168	0.001177240212	0.002		1
SE	KIAA0195	+	chr17:75492238-75492337	NA	-0.168	0.007872163172	-0.01		1
SE	LMAN2L	-	chr2:96737136-96737217	NA	-0.169	1.72E-06	0.008		1
SE	SETD5	+	chr3:9434044-9434181	NA	-0.169	0.03496582331	0.066		1
SE	IQCB1	-	chr3:121828469-121828632	NA	-0.169	3.04E-10	-0.01		1
SE	ACAT1	+	chr11:108129102-108129201	NA	-0.17	0.04997449951	0.045		1
SE	PEX1	-	chr7:92509328-92509411	NA	-0.17	0.001359664745	-0.08	0.03926674578	
SE	ITGB3BP	-	chr1:63510064-63510181	NA	-0.17	0	-0.002		1
SE	NCOA1	+	chr2:24768078-24768135	NA	-0.171	0.01318176908	-0.031		1
SE	COA1	-	chr7:43650492-43650712	NA	-0.171	0	-0.041		0
SE	ORC2	-	chr2:200926767-200926900	NA	-0.171	0.0003867219596	-0.005		1
SE	ATPAF1	-	chr1:46645160-46645256	NA	-0.171	0.0007654461304	-0.019		1
SE	FAM192A	-	chr16:57175538-57175700	NA	-0.171	0.02184055867	0.016		1
SE	RP11-156P1	-	chr17:47033277-47033381	NA	-0.171	0.02472987573	-0.099		1
SE	YEATS4	+	chr12:69365789-69365884	NA	-0.172	0.0001418200435	0.005		1
SE	DNM2	+	chr19:10808568-10808580	NA	-0.173	6.70E-09	-0.125	3.49E-05	
SE	CNTRL	+	chr9:121171407-121171548	NA	-0.173	0.001925312558	-0.017		1
SE	FBXO38	+	chr5:148427212-148427722	NA	-0.173	0.00170797872	0.099	1.15E-07	
SE	ACSF3	+	chr16:89114338-89114487	NA	-0.173	0.03184982237	-0.074	2.35E-08	
SE	CEP63	+	chr3:134547334-134547472	NA	-0.173	6.22E-05	0.025	0.1996070004	
SE	AC091729.9	+	chr7:1162351-1162543	NA	-0.173	0.04292658489	-0.073		1
SE	PVT1	+	chr8:127983903-127984204	NA	-0.173	1.02E-05	0.007		1

SE	POC1A	-	chr3:52096568-52096712	NA	-0.174	0.002778487747	-0.044		1
SE	CFAP44	-	chr3:113333405-113333583	NA	-0.174	0.02483827348	-0.048		1
SE	IGF2BP2	-	chr3:185672540-185672669	NA	-0.175	0.0001714835135	-0.115		1
SE	ORC2	-	chr2:200925835-200925932	NA	-0.175	0.0003271679084	-0.003		1
SE	TTC3	+	chr21:37094004-37094090	NA	-0.175	1.50E-06	-0.003		1
SE	PATZ1	-	chr22:31328786-31328924	NA	-0.176	6.08E-05	-0.059	1.94E-06	
SE	SETX	-	chr9:132269402-132269489	NA	-0.176	0.0006607809519	0		1
SE	FBXO38	+	chr5:148427212-148427947	NA	-0.176	0.000531989971	0.098	2.29E-08	
SE	BLOC1S5	-	chr6:8027206-8027399	NA	-0.176	0.02561488547	-0.021		1
SE	DHX33	-	chr17:5463528-5463689	NA	-0.177	3.95E-06	-0.064	0.05454204889	
SE	DNAJC13	+	chr3:132484362-132484493	NA	-0.177	1.90E-07	-0.002		1
SE	SLC20A2	-	chr8:42535171-42535335	NA	-0.177	0.04253479721	0.069	0.5310320296	
SE	TNRC18	-	chr7:5361593-5361722	NA	-0.177	0.0001631757984	-0.114	1.57E-09	
SE	ZNF655	+	chr7:99563193-99563266	NA	-0.177	0.03398103924	0.032	0.0006725046737	
SE	IGF2BP3	-	chr7:23361533-23361597	NA	-0.178	0.0001511590587	-0.022		1
SE	GAPVD1	+	chr9:125335171-125335252	NA	-0.178	0.001005069542	0.038	0.007320527099	
SE	TCF25	+	chr16:89878460-89878627	NA	-0.179	0	0.001	0.3228993575	
SE	C11orf74	+	chr11:36633283-36633438	NA	-0.18	0.001232514114	0.021		1
SE	IQCB1	-	chr3:121795456-121795566	NA	-0.18	6.62E-06	-0.03		1
SE	PARPBP	+	chr12:102151569-102151800	NA	-0.18	2.79E-09	0.032		1
SE	MTMR9LP	-	chr1:32234035-32234301	NA	-0.18	0.04339536956	0.051		1
SE	ERLEC1	+	chr2:53808298-53808460	NA	-0.181	4.53E-11	0.027	0.1371881116	
SE	SBF2	-	chr11:9828125-9828221	NA	-0.181	0.001230254427	-0.002		1
SE	HNRNPD	-	chr4:82356536-82356683	NA	-0.181	1.83E-06	0.001		1
SE	ZNF468	-	chr19:52853871-52854107	NA	-0.181	0.01962932789	0.03		1
SE	TPRKB	-	chr2:73734527-73734588	NA	-0.182	0.0003277096277	0.006		1
SE	C5orf45	-	chr5:179853196-179853276	NA	-0.182	0.0005585912991	0.016	0.03078998763	
SE	CXorf23	-	chrX:19935808-19935898	NA	-0.182	0.0007224857652	-0.004		1
SE	PVT1	+	chr8:128099369-128099573	NA	-0.182	2.16E-05	-0.007		1
SE	MON2	+	chr12:62470700-62470778	NA	-0.183	2.20E-05	0.058		1
SE	DLG1	-	chr3:197161639-197161738	NA	-0.183	0.01173470505	-0.024		1
SE	PLGRKT	-	chr9:5381862-5382031	NA	-0.183	0.001850489502	-0.115		1
SE	NQO2	+	chr6:3004494-3004651	NA	-0.183	2.89E-14	0.014	0.8136727638	
SE	RBCK1	+	chr20:417219-417342	NA	-0.183	7.29E-07	0		1
SE	SEC31A	-	chr4:82861630-82861708	NA	-0.183	2.27E-08	-0.004		1
SE	METTL6	-	chr3:15414729-15414914	NA	-0.183	0.01601132017	0.083	0.0001102242049	
SE	AGPAT4	-	chr6:161165576-161165713	NA	-0.184	1.73E-06	0.007	0.004403524414	
SE	SNX14	-	chr6:85565331-85565419	NA	-0.184	0.001898049618	0.037		1
SE	MFF	+	chr2:227328677-227330846	NA	-0.184	0.008685505951	0.09	0.002578297385	
SE	ZSWIM7	-	chr17:15986799-15986892	NA	-0.184	0.0004348505466	0.011	0.0647562408	
SE	APOPT1	+	chr14:103579370-103579491	NA	-0.184	0.00718773629	-0.082	4.33E-05	
SE	FAM114A2	-	chr5:154038292-154038434	NA	-0.185	0.0001340157811	-0.01		1
SE	DCAF10	+	chr9:37842088-37842286	NA	-0.185	4.77E-06	0.013		1
SE	ATG4D	+	chr19:10546838-10547253	NA	-0.185	0.009304957146	-0.046		1
SE	DNAJC14	-	chr12:55829488-55829636	NA	-0.185	0.0009943830497	0.088	0.02081818664	
SE	HNRNPDL	-	chr4:82425562-82425667	NA	-0.185	3.12E-07	0.003		1
SE	RP11-421L2	+	chr1:101083460-101083574	NA	-0.185	0.001013602768	-0.114	0.0001433071412	
SE	DNAJC5	+	chr20:63931108-63931182	NA	-0.186	0.04246695346	-0.006		1
SE	PLD3	+	chr19:40365661-40365930	NA	-0.186	0.0290614872	-0.166	7.56E-13	
SE	ACAD10	+	chr12:111729805-111729956	NA	-0.186	0.04957365061	-0.046		1
SE	TBC1D5	-	chr3:17428449-17428519	NA	-0.186	6.16E-10	-0.028		1
SE	RGS5	-	chr1:163248529-163248598	NA	-0.186	0.03328327983	-0.041		1
SE	RPS27	+	chr1:153990913-153991034	NA	-0.186	0.04298664594	0.003	3.43E-11	
SE	GMIP	-	chr19:19634506-19634703	NA	-0.187	0.02076062402	-0.01	0.8869189082	
SE	TJP2	+	chr9:69249374-69249485	NA	-0.187	0.005796639247	-0.193	5.22E-13	
SE	ZC3H13	-	chr13:46051931-46051989	NA	-0.187	0.01151561822	0.053		1
SE	SLC35B3	-	chr6:8417401-8417494	NA	-0.187	0.00405415197	-0.04	2.87E-09	
SE	POLL	-	chr10:101584601-101584919	NA	-0.187	4.65E-05	-0.058	0.009125994487	
SE	RNASEH1-A	+	chr2:3559447-3559729	NA	-0.187	0.0001717190751	-0.018		1
SE	CDKL3	-	chr5:134308573-134308727	NA	-0.188	0.0127687169	0.024		1
SE	UFD1L	-	chr22:19451877-19452000	NA	-0.188	0.04996473423	0.005		1
SE	IFT43	+	chr14:76076596-76076691	NA	-0.188	0.01764911282	-0.115		1
SE	IGF2BP3	-	chr7:23361533-23361597	NA	-0.188	3.26E-05	0.025		1

SE	SYTL2	-	chr11:85711112-85711232	NA	-0.188	0.04030865465	-0.046	1
SE	ZNF343	-	chr20:2486640-2486763	NA	-0.189	0.01973132719	-0.152	0.04312643186
SE	RBFOX2	-	chr22:35836319-35836439	NA	-0.189	1.49E-07	-0.024	1
SE	MFF	+	chr2:227347225-227347384	NA	-0.189	0.0008205256852	-0.031	0.01051332156
SE	THTPA	+	chr14:23556742-23557304	NA	-0.189	0.0007750139882	-0.086	0.0001347111507
SE	NCOA2	-	chr8:70144641-70144848	NA	-0.19	0.0410268245	0.029	1
SE	SLC16A4	-	chr1:110378852-110379356	NA	-0.19	0.0004009114888	0.044	0.002967562341
SE	TRIQQ	-	chr8:92921502-92921660	NA	-0.19	0.00409329242	-0.065	7.38E-05
SE	SNX19	-	chr11:130880621-130880806	NA	-0.191	7.19E-09	0.004	1
SE	SLC47A1	+	chr17:19571477-19571572	NA	-0.191	0.001141438719	0.078	1
SE	FAM227B	-	chr15:49589775-49590007	NA	-0.191	0.002064161024	0.008	1
SE	NAA16	+	chr13:41336649-41336756	NA	-0.191	0.000130332972	-0.011	1
SE	TLE1	-	chr9:81652183-81652288	NA	-0.191	0.01278775258	-0.006	2.29E-06
SE	SHARPIN	-	chr8:144099080-144099205	NA	-0.192	0.01419024747	-0.065	6.52E-08
SE	DDR1	+	chr6:30895403-30895514	NA	-0.192	0.01899892488	-0.067	5.99E-09
SE	TTLL3	+	chr3:9833103-9833273	NA	-0.192	0.0275139992	-0.029	1
SE	ABHD11	-	chr7:73737220-73737360	NA	-0.193	0.007980648665	-0.114	0.005031905239
SE	LRRCC1	+	chr8:85123412-85123606	NA	-0.193	1.49E-05	-0.033	1
SE	AMMECR1L	-	chr2:127871248-127871359	NA	-0.193	0.02137621621	-0.082	1
SE	LAMP2	-	chrX:120439075-120439293	NA	-0.194	0.000310718969	0.054	0.005295519913
SE	SEPSECS	-	chr4:25159627-25159764	NA	-0.194	0.006939518803	-0.037	1
SE	RHOT1	+	chr17:32209349-32209445	NA	-0.194	0.01725573761	-0.032	0.1023117668
SE	RABEPK	+	chr9:125220538-125220700	NA	-0.194	3.05E-07	-0.034	0.004062852733
SE	EME1	+	chr17:50378594-50378681	NA	-0.194	5.20E-09	0.019	1
SE	UBE2F	+	chr2:237994743-237994809	NA	-0.194	0.001936623701	-0.03	1
SE	CDC14B	-	chr9:96551795-96551872	NA	-0.195	0.0005340109262	-0.041	1
SE	CCDC91	+	chr12:28225794-28225861	NA	-0.195	0.02409243924	-0.04	1
SE	ATRX	-	chrX:77595711-77595785	NA	-0.196	2.07E-11	0.013	1
SE	AFMID	+	chr17:78204827-78204900	NA	-0.196	0.01185604305	-0.023	1
SE	C2orf76	-	chr2:119321153-119321204	NA	-0.196	4.71E-09	0.049	0.1967951618
SE	TRIM16	-	chr17:15682853-15682964	NA	-0.196	0.002384579214	-0.16	1
SE	MLLT10	+	chr10:21617111-21617207	NA	-0.197	1.81E-08	-0.027	1
SE	GRB10	-	chr7:50710874-50710990	NA	-0.197	0.00375709255	0.02	1
SE	CLOCK	-	chr4:55486392-55486549	NA	-0.197	0.002404395753	-0.068	1
SE	TACC2	+	chr10:122143571-122143706	NA	-0.197	0.003050330045	0.025	1
SE	NFIC	+	chr19:3453762-3453916	NA	-0.197	0.02539293364	-0.053	0.06164307927
SE	AMACR	-	chr5:33994077-33994120	NA	-0.197	6.29E-08	-0.004	1
SE	C17orf80	+	chr17:73242243-73242351	NA	-0.198	0.03616841176	-0.026	1
SE	DNAJC19	-	chr3:180986997-180987022	NA	-0.198	0.009511077212	0.004	1
SE	RPL17	-	chr18:49491745-49491833	NA	-0.198	1.13E-05	0.018	6.40E-07
SE	KMT2E	+	chr7:105110476-105110602	NA	-0.199	3.54E-09	-0.1	1.12E-09
SE	C16orf93	-	chr16:30759341-30759724	NA	-0.199	0.02284834663	-0.031	0.3996345431
SE	MATR3	+	chr5:139279934-139280058	NA	-0.199	0.006055130299	-0.04	1
SE	CAMTA1	+	chr1:6820180-6820250	NA	-0.2	0.0001018934292	-0.002	1
SE	LCORL	-	chr4:17886067-17886161	NA	-0.2	0.03026946122	0.033	1
SE	TMEM161B	+	chr5:88285740-88285851	NA	-0.2	0.02616662861	0.01	1
SE	SAMD4A	+	chr14:54737023-54737287	NA	-0.201	0.000707373342	-0.046	1
SE	MYNN	+	chr3:169774030-169774097	NA	-0.201	0.00559327814	-0.023	1
SE	TCF25	+	chr16:89908965-89909083	NA	-0.201	7.43E-06	-0.008	0.3340085523
SE	DNAF2	-	chr14:49628011-49628155	NA	-0.201	0.000992479765	-0.03	1
SE	BPTF	+	chr17:67963332-67963506	NA	-0.201	0.02039831761	0.025	1
SE	DPY19L3	+	chr19:32467473-32467626	NA	-0.201	0.009323277483	-0.003	0.8430130572
SE	PSMA3-AS1	-	chr14:58293765-58295811	NA	-0.201	4.24E-05	-0.01	0.4096347567
SE	SCMH1	-	chr1:41151613-41151684	NA	-0.202	0.002354333127	-0.105	0.05240945867
SE	SCMH1	-	chr1:41152598-41152741	NA	-0.202	0.03233185005	-0.03	1
SE	GLT8D1	-	chr3:52704723-52704952	NA	-0.203	0.00793029098	0.078	5.35E-05
SE	OFD1	+	chrX:13751248-13751368	NA	-0.203	7.43E-06	0.045	1
SE	E2F6	-	chr2:11455341-11455474	NA	-0.203	0.000284447168	0	1
SE	ARNTL2	+	chr12:27376345-27376387	NA	-0.204	0.005462739449	0.046	1
SE	PVR	+	chr19:44658741-44658900	NA	-0.204	0.0003788723075	0.015	1
SE	RPP40	-	chr6:4998715-4998841	NA	-0.204	6.11E-06	-0.008	1
SE	MBD5	+	chr2:148233244-148233395	NA	-0.204	6.62E-06	-0.003	1
SE	DEPDC1	-	chr1:68482045-68482897	NA	-0.205	0.01524058518	0.213	7.38E-06

SE	PRPSAP2	+	chr17:18857783-18857853	NA	-0.205	0.0006885416923	-0.024		1
SE	CASC4	+	chr15:44402886-44403054	NA	-0.205	1.92E-08	0.03		1
SE	STRN3	-	chr14:30929200-30929311	NA	-0.205	0.0001232390093	0.029		1
SE	SMUG1	-	chr12:54187818-54187905	NA	-0.206	0.01517451728	0.003		1
SE	HUWE1	-	chrX:53625785-53626034	NA	-0.207	0.01157165107	0.073		1
SE	PPCDC	+	chr15:75044385-75044514	NA	-0.207	0.01663502083	0.018	0.0001170558574	
SE	ZNF180	-	chr19:44485035-44485157	NA	-0.207	0.04841923256	0.027		1
SE	ZNF155	+	chr19:43990023-43990112	NA	-0.207	0.0001224929477	-0.019		1
SE	RBM26-AS1	+	chr13:79417834-79417916	NA	-0.207	0.0179359004	-0.125	6.15E-14	
SE	RP11-216L1	+	chr9:136809254-136809429	NA	-0.207	0.01082847443	-0.143		1
SE	SEPT6	-	chrX:119625334-119625396	NA	-0.208	0.0005682274055	0.016	0.3152060732	
SE	AHSA2	+	chr2:61183546-61183662	NA	-0.209	1.32E-10	-0.004		1
SE	ZNF625-ZNI	-	chr19:12145257-12146224	NA	-0.209	0.01755228438	-0.012		1
SE	TARBP1	-	chr1:234463836-234463934	NA	-0.21	0.02650525741	-0.168		0
SE	CLEC2D	+	chr12:9693415-9693948	NA	-0.21	0.0004320131833	0.023		1
SE	LTBP4	+	chr19:40616888-40617042	NA	-0.21	0.03749535962	0.008		1
SE	NAT9	-	chr17:74773865-74774055	NA	-0.21	0.002803673059	-0.01		1
SE	IAH1	+	chr2:9475986-9476039	NA	-0.21	0.003840014914	-0.004		1
SE	ATPAF2	-	chr17:18021421-18021663	NA	-0.21	0.002988281976	0.003		1
SE	TPGS2	-	chr18:36805373-36805397	NA	-0.211	9.62E-09	-0.065	5.84E-08	
SE	GPR180	+	chr13:94619149-94619330	NA	-0.211	0.01825893441	0.023		1
SE	LRRK2	+	chr12:40313971-40314173	NA	-0.211	0.0001763959562	-0.055		1
SE	FUZ	-	chr19:49812446-49812685	NA	-0.212	0.001680905192	-0.069		1
SE	HM13	+	chr20:31568077-31568280	NA	-0.212	0.002292667923	-0.042		1
SE	HAUS2	+	chr15:42560781-42560870	NA	-0.212	6.71E-05	0.055		1
SE	UBA7	-	chr3:49809389-49809464	NA	-0.212	0.03434244633	-0.018		1
SE	ZNF814	-	chr19:57885882-57885969	NA	-0.212	0.001014446317	-0.009		1
SE	ZCCHC8	-	chr12:122483278-122483344	NA	-0.213	0.0247351972	0.002		1
SE	AFTPH	+	chr2:64579485-64579546	NA	-0.213	0.002066660603	-0.057	0.1318557848	
SE	THUMPD2	-	chr2:39768900-39769093	NA	-0.213	0.04630611355	0.012		1
SE	TRPC1	+	chr3:142743484-142743586	NA	-0.213	0.04709255475	0.022		1
SE	ZNF468	-	chr19:52853871-52854126	NA	-0.214	0.01228624385	0.054		1
SE	SNX10	+	chr7:26357006-26357127	NA	-0.215	0.0001989304633	-0.005		1
SE	SEC24B	+	chr4:109481676-109481781	NA	-0.216	0.01392337102	0.014		1
SE	UBE3A	-	chr15:25408619-25408684	NA	-0.217	4.55E-05	0.024		1
SE	PREPL	-	chr2:44359496-44359750	NA	-0.217	0.01939041588	0.037		1
SE	ANAPC16	+	chr10:72223887-72224056	NA	-0.218	0	-0.021	0.001566799978	
SE	ZNF655	+	chr7:99562348-99562494	NA	-0.219	0.02239654989	-0.09	0.3484447737	
SE	WBP1	+	chr2:74459477-74459562	NA	-0.219	0.02421023616	0.041		1
SE	MVK	+	chr12:109581394-109581550	NA	-0.22	0.0001835601539	-0.083	0.002006938341	
SE	DDIAS	+	chr11:82913282-82913386	NA	-0.22	9.98E-05	-0.026		1
SE	TLL11	-	chr9:122031722-122031856	NA	-0.221	0.03455480269	-0.047		1
SE	PCYT2	-	chr17:81907203-81907257	NA	-0.221	2.89E-14	-0.014	0.03479523062	
SE	MRPL33	+	chr2:27774423-27774530	NA	-0.221	6.94E-09	-0.038	0.008284518975	
SE	FAM86DP	-	chr3:75427426-75427692	NA	-0.221	8.51E-06	-0.015		1
SE	CSPP1	+	chr8:67172768-67172973	NA	-0.222	2.44E-07	0.028	3.92E-06	
SE	TMTC4	-	chr13:100670359-100670569	NA	-0.222	1.46E-06	0.009		1
SE	SBF2	-	chr11:9992414-9992543	NA	-0.223	9.19E-08	0.008		1
SE	IMMP1L	-	chr11:31456259-31456386	NA	-0.223	3.19E-06	-0.003		1
SE	SLC11A2	-	chr12:51006173-51006271	NA	-0.224	0.01585603976	-0.08		1
SE	ZBTB24	-	chr6:109476762-109476930	NA	-0.224	0.0423681903	-0.118	1.58E-10	
SE	LL22NC03-ε	+	chr22:22308696-22308819	NA	-0.224	6.91E-05	-0.048		1
SE	CARD8	-	chr19:48206383-48206520	NA	-0.225	0.008844746833	-0.061		1
SE	FEZ2	-	chr2:36560784-36560865	NA	-0.225	0	0.197		0
SE	TCTN1	+	chr12:110644966-110645129	NA	-0.225	0.0008678622588	-0.05	2.93E-05	
SE	KCTD17	+	chr22:37060822-37060922	NA	-0.226	0.00289981091	-0.153	1.32E-06	
SE	KANSL2	-	chr12:48679035-48679238	NA	-0.226	0.005663637832	-0.045		1
SE	AURKA	-	chr20:56390555-56390665	NA	-0.227	0.008722123107	-0.063		1
SE	LPHN2	+	chr1:81986900-81987029	NA	-0.227	3.49E-10	0.057	3.85E-11	
SE	KCTD17	+	chr22:37061538-37061629	NA	-0.228	0.01385980222	-0.128	4.10E-06	
SE	MANBA	-	chr4:102753822-102753995	NA	-0.228	0.0001816263906	0.102		1
SE	CLHC1	-	chr2:55208625-55208710	NA	-0.228	0.008763410401	-0.025		1
SE	GINS3	+	chr16:58395101-58395218	NA	-0.228	0.0001444542877	0.012		1

SE	AC007566.1	+	chr7:92462957-92463026	NA	-0.228	3.06E-06	-0.056	0.03277997034
SE	PVT1	+	chr8:127983903-127984204	NA	-0.228	0.001136224867	-0.089	1
SE	CYP20A1	+	chr2:203272645-203272748	NA	-0.229	0.00918764879	-0.077	0.128834362
SE	C1orf52	-	chr1:85258934-85259061	NA	-0.229	0.01080748181	0.027	1
SE	CRELD1	+	chr3:9943901-9944095	NA	-0.229	0.00516164134	0.015	0.05719650957
SE	ERCC6L2	+	chr9:95967458-95967625	NA	-0.229	0.006683548413	-0.004	0.001909610936
SE	IRAK4	+	chr12:43771219-43771365	NA	-0.229	0.03571655976	-0.131	1
SE	MTIF2	-	chr2:55266380-55266518	NA	-0.23	0	0.008	1
SE	ZC3H14	+	chr14:88602827-88603060	NA	-0.23	6.94E-06	-0.033	1
SE	ALDOA	+	chr16:30065875-30065927	NA	-0.23	1.22E-06	-0.022	1
SE	SEC61A2	+	chr10:12167752-12167893	NA	-0.231	0.002784788117	-0.112	1
SE	CHFR	-	chr12:132869618-132869798	NA	-0.231	0.000242143471	-0.013	1
SE	C11orf30	+	chr11:76535894-76536059	NA	-0.231	1.35E-06	-0.031	1
SE	EIF1AX	-	chrX:20132181-20132263	NA	-0.231	0.02363008235	0.002	1
SE	CD27-AS1	-	chr12:6450473-6450708	NA	-0.232	0.0496313164	-0.045	1
SE	SCMH1	-	chr1:41159724-41159933	NA	-0.234	0.02810714143	-0.105	0.1131855418
SE	CAPRIN2	-	chr12:30720810-30720915	NA	-0.234	0.004393856425	-0.068	0.8406346425
SE	BNIP2	-	chr15:59665349-59665442	NA	-0.234	8.71E-06	0.005	1
SE	CCBL1	-	chr9:128846679-128846859	NA	-0.234	0.04202003307	-0.054	1
SE	MBNL1	+	chr3:152446703-152446757	NA	-0.235	0.04669502336	0.184	4.02E-08
SE	RNF181	+	chr2:85596856-85596931	NA	-0.235	0.01446539393	-0.044	0.0007419914904
SE	ATAT1	+	chr6:30642767-30643011	NA	-0.236	0.01637108017	0.047	5.33E-05
SE	FAM111B	+	chr11:59109539-59109706	NA	-0.236	2.18E-09	-0.032	1
SE	CFAP44	-	chr3:113409105-113409322	NA	-0.236	0.003084990753	-0.103	1
SE	OSER1-AS1	+	chr20:44214887-44215003	NA	-0.236	0.01202849288	0.067	0.07979102748
SE	MTRF1L	-	chr6:152991184-152991321	NA	-0.237	0.01806842543	0.032	1
SE	LIG4	-	chr13:108214537-108214807	NA	-0.237	7.32E-05	0.01	1
SE	PSMA3-AS1	-	chr14:58273978-58274135	NA	-0.237	7.74E-05	0.056	1
SE	ANKHD1	+	chr5:140472238-140472295	NA	-0.238	1.18E-05	0.004	1
SE	TMEM14B	+	chr6:10749621-10749698	NA	-0.238	0.0145521764	-0.057	1
SE	PEX5	+	chr12:7202240-7202351	NA	-0.238	0.003024317095	-0.094	3.12E-07
SE	JAM2	+	chr21:25711366-25711568	NA	-0.238	0	0	1
SE	RP11-421L2	+	chr1:101075394-101075716	NA	-0.238	0.002624894621	-0.026	1
SE	THTPA	+	chr14:23556742-23557034	NA	-0.239	0.001064705924	-0.084	0.0001353553277
SE	TMPO	+	chr12:98544950-98545061	NA	-0.24	0.0008503980827	-0.055	0.144092348
SE	ZEB1	+	chr10:31387123-31387266	NA	-0.24	1.97E-06	-0.103	1
SE	C11orf54	+	chr11:93741962-93742094	NA	-0.24	0.01116962224	0.066	1
SE	THTPA	+	chr14:23556742-23557039	NA	-0.24	0.001013018677	-0.085	0.0001048126062
SE	ZNF592	+	chr15:84778182-84778312	NA	-0.241	0.000908503465	0.005	1
SE	HMG1	-	chr21:39347378-39347483	NA	-0.241	0.008201186754	0.007	1
SE	IFT80	-	chr3:160366092-160366152	NA	-0.242	0.001172941124	-0.057	0.001087131773
SE	YPEL5	+	chr2:30148244-30148305	NA	-0.242	0	0.006	1
SE	CCDC57	-	chr17:82107401-82107621	NA	-0.242	0.0008632009723	-0.008	1
SE	MYEF2	-	chr15:48151099-48151171	NA	-0.243	2.46E-08	0.048	0.02383342557
SE	XRRA1	-	chr11:74927390-74927488	NA	-0.244	0.003894370242	-0.043	1
SE	LINC00963	+	chr9:129502396-129503139	NA	-0.244	0.02048193694	0.064	0.6082805099
SE	DECR2	+	chr16:405512-405665	NA	-0.244	0.03712636787	0.017	6.96E-06
SE	NFE2L1	+	chr17:48057031-48057121	NA	-0.245	1.71E-08	-0.078	0
SE	CENPI	+	chrX:101099808-101100065	NA	-0.245	1.04E-07	-0.112	1
SE	SLC25A30	-	chr13:45411732-45411938	NA	-0.245	1.54E-05	-0.003	1
SE	SUZ12P1	+	chr17:30743300-30743369	NA	-0.245	4.02E-05	-0.055	0.8659334431
SE	MAP4	-	chr3:47867245-47867338	NA	-0.246	0	-0.129	0
SE	LRRCC1	+	chr8:85115099-85115275	NA	-0.246	2.17E-05	-0.047	0.916041012
SE	CHD3	+	chr17:7907600-7907702	NA	-0.246	6.56E-08	-0.065	0.08178015237
SE	PUM2	-	chr2:20278582-20278819	NA	-0.248	8.29E-06	-0.006	1
SE	PUM2	-	chr2:20331716-20331937	NA	-0.248	8.33E-09	0.005	1
SE	KLC1	+	chr14:103684985-103685036	NA	-0.248	0.01272844939	0.024	0.8524029425
SE	CFAP44	-	chr3:113344515-113344712	NA	-0.248	0.001534015222	0.038	1
SE	BICD1	+	chr12:32338785-32338979	NA	-0.249	0.02450190234	0.043	1
SE	LZTFL1	-	chr3:45837926-45838047	NA	-0.249	0.0008526729915	0	1
SE	IFI27L1	+	chr14:94097491-94097678	NA	-0.249	0.007405164285	0.019	2.87E-07
SE	BCS1L	+	chr2:218660036-218660166	NA	-0.25	0.0001103973794	-0.105	0.001970275672
SE	PPP1R12B	+	chr1:202443086-202443127	NA	-0.25	0.03843822808	-0.16	1

SE	SH3PXD2A	-	chr10:103622469-103622553	NA	-0.25	0.000219648813	-0.131	1
SE	RPAIN	+	chr17:5428070-5428211	NA	-0.25	1.74E-07	-0.096	2.67E-05
SE	TRPC1	+	chr3:142743484-142743586	NA	-0.25	0.005039214886	0.032	1
SE	UBAP2L	+	chr1:154269361-154269412	NA	-0.251	0.0249882848	-0.074	3.44E-08
SE	TIMM23B	+	chr10:49943234-49943358	NA	-0.251	0.03179732384	0.05	1
SE	PHKA1	-	chrX:72620724-72620901	NA	-0.252	4.07E-05	0.002	0.0003193279855
SE	HM13	+	chr20:31568077-31568224	NA	-0.252	8.23E-05	-0.049	1
SE	ALG2	-	chr9:99220978-99221137	NA	-0.252	0.009618423766	0.001	1
SE	TRIM9	-	chr14:51000682-51000828	NA	-0.253	0.0006452214125	-0.027	1
SE	ATP6V1B1	+	chr2:70963161-70963261	NA	-0.253	0.0008122141714	-0.056	1
SE	PFKL	+	chr21:44305799-44305935	NA	-0.253	0.04584038807	-0.031	1
SE	OSBPL6	+	chr2:178230425-178230513	NA	-0.254	0.02472987573	0.023	1
SE	KAT6A	-	chr8:42049619-42049707	NA	-0.254	0.0005347540089	0.17	1
SE	ATAD2	-	chr8:123400742-123401175	NA	-0.254	0.02776636468	-0.018	1
SE	CDKL3	-	chr5:134306608-134306702	NA	-0.255	0.0007711754357	-0.068	1
SE	PRPF4B	+	chr6:4056526-4056688	NA	-0.255	6.63E-13	0.023	3.15E-14
SE	RPS3A	+	chr4:151100974-151101012	NA	-0.255	0.0001633148417	-0.005	0.3892592243
SE	SEPT7P2	-	chr7:45728831-45729026	NA	-0.255	7.82E-11	0.006	1
SE	RABEPK	+	chr9:125213369-125213522	NA	-0.256	2.92E-10	-0.055	1.46E-05
SE	TMPO	+	chr12:98544441-98544537	NA	-0.257	5.59E-14	-0.037	0.4772502517
SE	EBPL	-	chr13:49669776-49669846	NA	-0.257	0.0002342420853	-0.023	0.2089693241
SE	ZEB1	+	chr10:31387123-31387266	NA	-0.257	6.18E-05	-0.129	0
SE	LRP8	-	chr1:53272603-53272642	NA	-0.257	0.01439386568	-0.127	1
SE	KIF23	+	chr15:69440767-69441079	NA	-0.258	3.51E-05	0.129	4.24E-05
SE	ZDHHC24	-	chr11:66526935-66527006	NA	-0.258	0.02660810651	-0.088	1
SE	HEATR6	-	chr17:60073745-60074159	NA	-0.259	1.02E-05	0.028	1
SE	HACE1	-	chr6:104824813-104824907	NA	-0.259	0.00276043376	-0.096	1
SE	MEIS3	-	chr19:47415050-47415101	NA	-0.259	0.02092964191	-0.011	1
SE	CCNYL1	+	chr2:207740654-207740706	NA	-0.26	2.18E-06	-0.029	1
SE	AC138969.4	+	chr16:16335860-16336137	NA	-0.26	0.007599994575	-0.037	1
SE	CHFR	-	chr12:132869618-132869834	NA	-0.261	0.0001382408096	-0.017	1
SE	ALG13	+	chrX:111689086-111689197	NA	-0.261	4.16E-06	-0.091	1
SE	RAC1	+	chr7:6398661-6398718	NA	-0.261	4.82E-06	-0.004	0.5875483802
SE	RP11-849H4	-	chr11:71925932-71926104	NA	-0.261	0.01221869075	-0.062	1
SE	MAZ	+	chr16:29809539-29809764	NA	-0.262	1.98E-06	-0.01	1
SE	NOD1	-	chr7:30437572-30437656	NA	-0.262	2.01E-05	0.051	0.8351505569
SE	RAD1	-	chr5:34913469-34913578	NA	-0.262	0.0008025627237	-0.024	1
SE	RPTOR	+	chr17:80925369-80925480	NA	-0.262	0.04458274527	0.001	1
SE	DNAJC19	-	chr3:180986942-180987022	NA	-0.262	1.04E-06	0.001	1
SE	BRPF3	+	chr6:36225270-36225364	NA	-0.263	0.00709572117	-0.049	5.10E-12
SE	PREPL	-	chr2:44359496-44360038	NA	-0.263	0.000403764681	0.03	1
SE	C2orf76	-	chr2:119340158-119340361	NA	-0.263	0.04431440655	-0.078	0.7458835289
SE	MAP4	-	chr3:47869213-47869327	NA	-0.264	0	-0.152	0
SE	WASF1	-	chr6:110178597-110178742	NA	-0.264	1.70E-05	-0.071	0.04264150054
SE	CLHC1	-	chr2:55181569-55181744	NA	-0.264	0.0002588502674	0.022	1
SE	LCAT	-	chr16:67940736-67940831	NA	-0.264	0.03618639737	0.011	1
SE	ZC3H14	+	chr14:88602827-88603045	NA	-0.265	0.000317236808	-0.038	1
SE	IFI27L1	+	chr14:94097494-94097678	NA	-0.265	0.006289332786	0.023	7.85E-06
SE	CCDC57	-	chr17:82179026-82179189	NA	-0.265	0.04941263439	-0.099	0.0544597215
SE	IMMP1L	-	chr11:31463171-31463305	NA	-0.266	5.79E-06	-0.025	0.01631422618
SE	RP4-769N11	+	chrX:102601879-102601977	NA	-0.266	1.98E-07	0.035	1
SE	ITGB1BP1	-	chr2:9419989-9420100	NA	-0.267	0.001505065008	0.025	1
SE	PIGP	-	chr21:37072144-37072310	NA	-0.267	6.49E-09	-0.007	1
SE	C8orf44	+	chr8:66676744-66676902	NA	-0.267	0.02133016112	0.031	1
SE	LINC00963	+	chr9:129502396-129503139	NA	-0.268	0.03797039936	0.041	0.001474455026
SE	RP11-762I7	-	chr12:55815886-55815939	NA	-0.268	0.02987985873	-0.001	1
SE	EZH2	-	chr7:148836821-148837000	NA	-0.269	0.000373023368	-0.15	1
SE	KIF21A	-	chr12:39318072-39318201	NA	-0.269	2.19E-06	-0.08	1
SE	ARHGEF10I	+	chr1:17634547-17634562	NA	-0.27	0.02106431358	-0.03	1.35E-10
SE	KLHL42	+	chr12:27797246-27797349	NA	-0.27	2.88E-07	0.05	0.2378188244
SE	PXN	-	chr12:120226838-120227117	NA	-0.27	0.04038676185	0.004	1
SE	REPS1	-	chr6:138926400-138926481	NA	-0.27	0.01380120963	0.093	0.0005225978947
SE	TMBIM6	+	chr12:49749617-49749856	NA	-0.271	0.001910715501	0.018	1

SE	PLSCR1	-	chr3:146528613-146528831	NA	-0.271	0.0004347064404	-0.054	0.0210189815
SE	ZC3H11A	+	chr1:203796292-203796601	NA	-0.272	1.68E-09	-0.025	1
SE	NUMB	-	chr14:73279280-73279424	NA	-0.272	0	0.002	1
SE	TTC8	+	chr14:88841424-88841514	NA	-0.273	0.03451558164	-0.022	1
SE	TCTN2	+	chr12:123694841-123694976	NA	-0.273	5.84E-06	-0.008	1
SE	SLCO4A1-A	-	chr20:62664923-62665497	NA	-0.273	2.23E-06	-0.144	0.1614596839
SE	BDNF-AS	+	chr11:27658240-27658462	NA	-0.274	1.00E-06	-0.036	1
SE	SEPT6	-	chrX:119625334-119625379	NA	-0.275	8.27E-11	-0.023	1
SE	INTS3	+	chr1:153761019-153761109	NA	-0.275	0	-0.009	1
SE	CEP78	+	chr9:78265858-78265906	NA	-0.275	3.30E-08	0.046	0.6253280454
SE	EME1	+	chr17:50378599-50378681	NA	-0.275	5.50E-09	0.013	1
SE	SUCO	+	chr1:172577538-172577559	NA	-0.276	0.0005405865695	0.127	7.27E-05
SE	ZBED3-AS1	+	chr5:77100235-77100391	NA	-0.276	0.009747054499	0.082	1
SE	MIS12	+	chr17:5488195-5488589	NA	-0.277	3.75E-10	-0.001	1
SE	RPE	+	chr2:210009638-210009736	NA	-0.277	0.001384659396	-0.076	9.71E-11
SE	BIRC5	+	chr17:78222827-78222992	NA	-0.278	2.86E-05	0.005	1
SE	HDAC9	+	chr7:18629349-18629481	NA	-0.279	0.0001629656818	0.037	1
SE	ZSCAN32	-	chr16:3390009-3390133	NA	-0.279	0.01658132986	-0.054	1
SE	NFIC	+	chr19:3453762-3453916	NA	-0.281	0.0002392046182	-0.027	1
SE	PDE9A	+	chr21:42731769-42731949	NA	-0.281	0.006781962229	-0.06	0.1118308266
SE	WDFY3	-	chr4:84808333-84808417	NA	-0.281	6.05E-07	-0.025	1
SE	TAF2	-	chr8:119744880-119745036	NA	-0.283	1.62E-08	0.009	1
SE	TCTN1	+	chr12:110644966-110645143	NA	-0.283	0.002401590692	-0.063	0.003957862823
SE	AKAP11	+	chr13:42285985-42286035	NA	-0.284	0.0005294509158	0.011	1
SE	SCRN3	+	chr2:174397335-174397404	NA	-0.284	0.03300582981	0.057	1
SE	PHF8	-	chrX:53993600-53993903	NA	-0.284	8.23E-06	-0.055	0.3846135774
SE	AP1S2	-	chrX:15833443-15833524	NA	-0.284	0.03860979484	0.046	1
SE	RP11-10K1c	-	chr4:173166644-173166790	NA	-0.284	0.000342014704	-0.091	0.02088168224
SE	DCUN1D4	+	chr4:51887122-51887244	NA	-0.285	0	0.023	0.2942302704
SE	ITGB1BP1	-	chr2:9419989-9420100	NA	-0.285	0.008497664699	-0.095	0.2003718815
SE	LINC00630	+	chrX:102839800-102839863	NA	-0.285	0.04393571592	-0.011	1
SE	PBRM1	-	chr3:52554723-52554879	NA	-0.286	0.008665320904	-0.132	0.001071403471
SE	SPTAN1	+	chr9:128592982-128593042	NA	-0.286	2.07E-07	-0.039	1
SE	TRIQQ	-	chr8:92921502-92921660	NA	-0.286	0.000185566505	-0.016	0.4813644051
SE	UBL7-AS1	+	chr15:74466035-74466130	NA	-0.286	0.00472504306	0.007	1
SE	PLEKHM1	-	chr17:45468208-45468593	NA	-0.287	2.06E-05	-0.016	1
SE	CTD-2651B	-	chr15:45264626-45264809	NA	-0.287	0.01243842924	0.093	1
SE	NR2F1-AS1	-	chr5:93438702-93438741	NA	-0.288	0.004687272022	0.006	1
SE	SNX14	-	chr6:85567533-85567577	NA	-0.289	0.01711655461	0.08	0.7878538332
SE	DTNB	-	chr2:25455404-25455494	NA	-0.289	0.001751966261	-0.199	0
SE	STK19	+	chr6:31972620-31972919	NA	-0.289	0.00395611319	-0.022	1
SE	PSMA3-AS1	-	chr14:58285590-58285756	NA	-0.289	0.0005255286629	0.03	1
SE	COA1	-	chr7:43665657-43665722	NA	-0.29	1.78E-05	0.025	0.932701491
SE	SLC35F5	-	chr2:113717752-113717848	NA	-0.29	6.95E-06	0.011	1
SE	ZNF283	+	chr19:43827775-43827940	NA	-0.29	2.15E-05	0.048	1
SE	ETV1	-	chr7:13989267-13989464	NA	-0.291	9.08E-05	-0.092	1
SE	DUS4L	+	chr7:107573703-107573883	NA	-0.291	6.90E-05	0.034	1
SE	PCBP1-AS1	-	chr2:70085815-70085903	NA	-0.291	0.0008998411314	0.018	1
SE	TBXAS1	+	chr7:139782487-139782564	NA	-0.293	0.04145970596	-0.032	1
SE	CCNYL1	+	chr2:207733946-207734047	NA	-0.293	0.0004783507939	-0.063	0.2653902291
SE	CCBL1	-	chr9:128847432-128847643	NA	-0.293	1.47E-07	-0.059	1
SE	ZNF678	+	chr1:227646543-227646670	NA	-0.293	0.01382788928	-0.031	1
SE	FAM189B	-	chr1:155251094-155251164	NA	-0.295	0.005179405283	0.056	1
SE	EPB41L2	-	chr6:130876673-130876775	NA	-0.296	5.60E-05	-0.17	1
SE	TRDMT1	-	chr10:17168840-17168917	NA	-0.296	0.007123014945	-0.048	1
SE	SLC50A1	+	chr1:155136827-155136951	NA	-0.296	0.0001103751914	-0.039	0.5783982015
SE	LRRCC1	+	chr8:85109594-85109800	NA	-0.297	0.01949475042	-0.132	1
SE	CHRM3	+	chr1:239826852-239827081	NA	-0.298	0.04103024877	0.157	1
SE	REPS1	-	chr6:138926400-138926478	NA	-0.299	0.01444851823	0.092	0.0001449755893
SE	IMMP1L	-	chr11:31460625-31460714	NA	-0.299	0.01505945115	-0.13	0.005720682925
SE	CLASP1	-	chr2:121445448-121445496	NA	-0.3	4.70E-05	-0.236	1
SE	SLCO4A1	+	chr20:62668011-62668184	NA	-0.3	0	-0.118	1.48E-06
SE	ZBTB21	-	chr21:42002349-42002503	NA	-0.3	0.03885696071	0.002	1

SE	TMEM161B-	+	chr5:88283009-88283086	NA	-0.3	0.01655644229	0.004	1
SE	NBPF11	-	chr1:148124898-148125001	NA	-0.3	0.03825624706	-0.001	1
SE	PRKRIP1	+	chr7:102395976-102396537	NA	-0.301	0.000271826994	0.007	1
SE	EP400NL	+	chr12:132109767-132109832	NA	-0.301	0.0007481903903	0.059	1
SE	ZSCAN23	-	chr6:28435459-28435607	NA	-0.301	0.0009603740643	-0.011	1
SE	SREBF1	-	chr17:17823517-17823607	NA	-0.302	0.008461191506	0	1
SE	CLHC1	-	chr2:55181569-55181744	NA	-0.302	5.10E-06	-0.03	0.1269639185
SE	PHYKPL	-	chr5:178224615-178224729	NA	-0.302	0.04422443977	-0.023	1
SE	CRBN	-	chr3:3175162-3175266	NA	-0.303	2.89E-14	-0.052	0.1757137416
SE	ODF2L	-	chr1:86356443-86356602	NA	-0.303	0.0004028475812	0.046	1
SE	VAPB	+	chr20:58434601-58434705	NA	-0.303	0.004308658414	-0.063	0.08639686555
SE	MUTYH	-	chr1:45332917-45332959	NA	-0.303	0.01134847022	-0.078	0
SE	KIF21A	-	chr12:39318072-39318201	NA	-0.303	2.13E-08	0.012	1
SE	EPB41	+	chr1:29060421-29060484	NA	-0.303	0.01397229194	0.095	0.1710696772
SE	GDAP2	-	chr1:117877775-117877841	NA	-0.303	5.13E-05	-0.015	0.775169044
SE	FAM45A	+	chr10:119105310-119105495	NA	-0.304	0.0001800778006	-0.01	1
SE	PLA2G12A	-	chr4:109718682-109718759	NA	-0.304	1.31E-08	-0.025	0.03889098255
SE	PPP4R1	-	chr18:9562921-9563046	NA	-0.304	0.0007881069043	0.011	1
SE	DLGAP1-AS	+	chr18:3596578-3596675	NA	-0.304	4.07E-06	0.028	1
SE	CAPRN2	-	chr12:30719078-30720915	NA	-0.305	0.0002400924652	-0.047	1
SE	CLHC1	-	chr2:55228031-55228204	NA	-0.305	0.02539319847	0.074	1
SE	FAHD2A	+	chr2:95410526-95410586	NA	-0.306	0.0211341988	-0.027	0.000765265166
SE	MCAT	-	chr22:43137080-43137298	NA	-0.307	0.0003041334185	-0.02	1
SE	STAG2	+	chrX:124021366-124021431	NA	-0.307	0.0001010478751	-0.159	1
SE	MIATNB	+	chr22:26718139-26718231	NA	-0.307	0.01784243899	-0.016	1
SE	MDM1	-	chr12:68325440-68325575	NA	-0.31	0.01658132986	-0.016	1
SE	IKZF4	+	chr12:56023670-56023764	NA	-0.31	0.02968938387	0.117	1
SE	ZBTB1	+	chr14:64516599-64516751	NA	-0.31	6.58E-06	0.022	1
SE	MATR3	+	chr5:139293452-139293575	NA	-0.31	0.004029235655	0.046	1
SE	LRP2BP	-	chr4:185378080-185378207	NA	-0.311	0.01178140079	-0.037	1
SE	PARPBP	+	chr12:102182548-102182627	NA	-0.311	0.0002851607735	-0.071	1
SE	AK2	-	chr1:33011447-33011710	NA	-0.312	9.96E-06	-0.002	1
SE	CDC25C	-	chr5:138325814-138325904	NA	-0.312	1.94E-06	-0.06	1
SE	MAN2B2	+	chr4:6609396-6609574	NA	-0.313	0.0001010478751	0.001	1
SE	CHEK1	+	chr11:125656205-125656335	NA	-0.313	0.0002812419842	0.064	1
SE	LINC00174	-	chr7:66400321-66400437	NA	-0.314	0.0008590836179	0.068	1
SE	ELMOD3	+	chr2:85355554-85355784	NA	-0.315	0.04376813577	0.012	1
SE	PCNX	+	chr14:70988566-70988699	NA	-0.316	0.006891588316	-0.042	1
SE	TMEM161B-	+	chr5:88285740-88285851	NA	-0.317	2.86E-06	0.002	1
SE	NEDD4	-	chr15:55991925-55992005	NA	-0.318	0.01072761332	-0.05	1
SE	FAM208B	+	chr10:5709529-5709663	NA	-0.318	0.0313341614	-0.105	1
SE	ZCWPW2	+	chr3:28478813-28478931	NA	-0.318	0.04732471362	0.017	1
SE	NEK6	+	chr9:124292848-124293013	NA	-0.319	0.004357067677	-0.028	0.01472867009
SE	FAM193B	-	chr5:177531281-177531521	NA	-0.319	2.98E-05	-0.011	1
SE	CDKL3	-	chr5:134350248-134350427	NA	-0.32	0.02984907237	-0.062	1
SE	LINC00969	+	chr3:195663623-195663832	NA	-0.32	2.17E-06	0.06	1
SE	WIPF1	-	chr2:174677044-174677124	NA	-0.321	0.004005348732	-0.027	1
SE	ISCU	+	chr12:108564059-108564155	NA	-0.321	0.0001418305399	-0.007	0.5714972179
SE	C8orf44	+	chr8:66677641-66677954	NA	-0.321	0.01632161566	0.026	1
SE	ZNF761	+	chr19:53445000-53445123	NA	-0.322	1.76E-05	0.021	1
SE	OSBPL6	+	chr2:178324176-178324269	NA	-0.323	1.60E-09	-0.043	1
SE	KCTD9	-	chr8:25446079-25446250	NA	-0.323	0.01287710281	0.039	1
SE	MRPS31P4	+	chr13:52629218-52629359	NA	-0.323	0.0001872472194	-0.164	0.002335329708
SE	ZC3H14	+	chr14:88601923-88602083	NA	-0.325	0.0001541382425	-0.024	1
SE	ST5	-	chr11:8729949-8731209	NA	-0.325	0.0007143248076	-0.038	0.9077938238
SE	TMTC4	-	chr13:100670282-100670569	NA	-0.327	1.64E-06	0.015	1
SE	POLR2J4	-	chr7:43986600-43986677	NA	-0.327	0.001407114613	-0.09	0.02530429799
SE	ATXN3	-	chr14:92047895-92048089	NA	-0.328	0.01781677028	0.025	1
SE	KANK2	-	chr19:11196049-11196227	NA	-0.329	0.00167889463	0.12	1
SE	ANKDD1A	+	chr15:64944651-64944747	NA	-0.33	5.01E-05	-0.048	0.2380220377
SE	STAG3L4	+	chr7:67308576-67308652	NA	-0.331	0.0009659206584	-0.21	1
SE	SLC50A1	+	chr1:155136827-155136951	NA	-0.332	1.70E-06	-0.02	1
SE	HHLA3	+	chr1:70366145-70366328	NA	-0.332	0.03495076767	0.033	1.29E-05

SE	ADAMTS13	+	chr9:133438245-133438366	NA	-0.333	9.27E-05	0.03	1
SE	AC004381.6	+	chr16:20813189-20813302	NA	-0.334	0.0241083796	0.041	1
SE	CARD8	-	chr19:48242539-48242644	NA	-0.334	6.60E-07	0.002	1
SE	KLHL7	+	chr7:23117833-23117964	NA	-0.334	0.002563569625	-0.174	1.47E-05
SE	KCTD9	-	chr8:25446128-25446250	NA	-0.335	0.007073635801	0.035	1
SE	MCM3	-	chr6:52265234-52265385	NA	-0.335	0	0.004	0.3051416962
SE	MARK2	+	chr11:63903985-63904147	NA	-0.336	0.04088100642	0.111	1.17E-06
SE	PGAP2	+	chr11:3823616-3823740	NA	-0.337	0.04930931816	0.079	1
SE	SLMAP	+	chr3:57907883-57908006	NA	-0.337	0	-0.046	1
SE	IQCB1	-	chr3:121797117-121797227	NA	-0.338	0.003619441762	-0.041	1
SE	BAG6	-	chr6:31639499-31639646	NA	-0.338	1.58E-13	0	1
SE	NADK	-	chr1:1756778-1756882	NA	-0.34	2.89E-14	0.002	1
SE	CDKL1	-	chr14:50332261-50332432	NA	-0.34	2.97E-05	0.083	0.6450388627
SE	PPA2	-	chr4:105456695-105456745	NA	-0.34	1.28E-09	-0.065	0.08720728937
SE	POLL	-	chr10:101584877-101584919	NA	-0.34	0.01394848916	-0.09	1
SE	LIPT1	+	chr2:99156300-99156426	NA	-0.342	0.01909479024	-0.012	1
SE	FBXL2	+	chr3:33297868-33297962	NA	-0.342	0.002142500663	-0.024	1
SE	RP11-42110.	+	chr16:48671860-48672033	NA	-0.342	6.74E-05	0.011	1
SE	CDC25C	-	chr5:138326020-138326054	NA	-0.343	8.74E-06	-0.101	1
SE	ADARB1	+	chr21:45184473-45184593	NA	-0.343	2.24E-05	0.039	1
SE	BDNF-AS	+	chr11:27675576-27676140	NA	-0.343	0.001406429329	0.001	1
SE	BCAT2	-	chr19:48807755-48808236	NA	-0.345	0.01860693698	-0.136	0.008072673115
SE	ZGRF1	-	chr4:112548252-112548380	NA	-0.346	2.11E-06	-0.122	0.005489998185
SE	FAM76B	-	chr11:95779077-95779135	NA	-0.347	2.25E-07	-0.064	0.1550974639
SE	PPRC1	+	chr10:102146671-102147392	NA	-0.347	2.35E-13	0.031	1
SE	PICALM	-	chr11:85990249-85990399	NA	-0.349	0.0001596972278	0.009	1
SE	MAP4K4	+	chr2:101860824-101860986	NA	-0.35	1.98E-11	0.024	0.6076199675
SE	DENND4A	-	chr15:65700543-65700672	NA	-0.35	1.22E-07	0.079	1
SE	GIGYF2	+	chr2:232722553-232722658	NA	-0.35	0.03294531518	0.048	1
SE	DRAM2	-	chr1:111139587-111139711	NA	-0.351	8.31E-06	-0.108	0.007389615969
SE	AP3S2	-	chr15:89877305-89877424	NA	-0.351	0.01954407125	-0.166	0.002541734369
SE	TOPORS-AS	+	chr9:32565396-32565628	NA	-0.351	0.001855130247	-0.099	1
SE	NADK	-	chr1:1756738-1756882	NA	-0.352	5.59E-14	0.005	0.6692838042
SE	RALY	+	chr20:34065043-34065160	NA	-0.352	0.0005418065682	-0.04	0.4734481098
SE	TCTN1	+	chr12:110634395-110634463	NA	-0.353	0.005171587045	-0.107	0.006492979708
SE	UBE2Q2P2	+	chr15:82408287-82408367	NA	-0.354	6.56E-05	0.022	1
SE	GSAP	-	chr7:77328605-77328637	NA	-0.358	1.17E-05	-0.107	1
SE	RPS3A	+	chr4:151100484-151100588	NA	-0.359	3.45E-09	-0.003	1
SE	KIAA0586	+	chr14:58543882-58543967	NA	-0.36	4.82E-05	-0.031	0.05872442611
SE	TWF1	-	chr12:43805830-43806002	NA	-0.36	0.0001485744595	0.008	0.009466461147
SE	C5orf45	-	chr5:179853196-179853276	NA	-0.36	0.01335046322	-0.098	1
SE	PRKRIP1	+	chr7:102395976-102396537	NA	-0.361	2.37E-05	-0.032	1
SE	MRPL52	+	chr14:22830963-22831037	NA	-0.361	0.004738364736	0.041	0.005021442539
SE	PCNX	+	chr14:70995740-70995925	NA	-0.362	6.66E-05	0.016	1
SE	ANXA2	-	chr15:60396150-60396427	NA	-0.362	0.006386827087	0.079	1
SE	RP11-421L2	+	chr1:101075394-101075716	NA	-0.362	1.04E-06	-0.113	0.0005273259685
SE	KB-1572G7.	-	chr22:23686830-23686995	NA	-0.362	0.008304198588	-0.082	1
SE	SLC25A26	+	chr3:66236543-66236700	NA	-0.363	0.00798304603	-0.013	1
SE	POGLUT1	+	chr3:119478333-119478474	NA	-0.363	0.01651821476	-0.045	1
SE	RP11-849H4	-	chr11:71925932-71926104	NA	-0.363	0.01809089575	0.07	1
SE	RAD51D	-	chr17:35116858-35117037	NA	-0.364	0.04505876384	0.023	1
SE	SGSM2	+	chr17:2367270-2367405	NA	-0.365	1.48E-06	-0.048	0.0007408437771
SE	ZC3H18	+	chr16:88611267-88611536	NA	-0.365	0.001733304234	-0.015	1
SE	GK	+	chrX:30668011-30668118	NA	-0.365	0.002839945502	-0.015	1
SE	CC2D2A	+	chr4:15479222-15479328	NA	-0.366	0.01617330057	0.108	3.17E-10
SE	RTN2	-	chr19:45493159-45493378	NA	-0.366	0.00365172218	-0.11	0.0003053249332
SE	PGAP2	+	chr11:3823612-3823740	NA	-0.366	0.001732186964	0.039	0.001668824333
SE	ZSCAN31	-	chr6:28329302-28329778	NA	-0.367	0.0001149006239	0.043	1
SE	LPHN2	+	chr1:81952986-81953025	NA	-0.368	0.004113255113	0.037	1
SE	BDNF-AS	+	chr11:27675296-27676140	NA	-0.368	0.00177508727	0	1
SE	RPS3A	+	chr4:151100974-151101085	NA	-0.371	1.58E-06	-0.005	1
SE	C3orf18	-	chr3:50565525-50565700	NA	-0.372	0.01820919836	0.038	0.8353793742
SE	MGAT5	+	chr2:134253094-134253218	NA	-0.373	0.01190796755	-0.015	1

SE	ANAPC16	+	chr10:72220053-72220379	NA	-0.373	2.52E-07	-0.011	1
SE	CCNI	-	chr4:77056248-77056323	NA	-0.374	0.0007768817232	0.057	1
SE	NFIB	-	chr9:14116180-14116346	NA	-0.374	0.002058724474	-0.036	2.82E-05
SE	SREBF1	-	chr17:17817547-17817591	NA	-0.375	0.0013265261	-0.002	1
SE	ELMOD3	+	chr2:85387097-85387225	NA	-0.375	0.0001184888955	0.004	1
SE	NME6	-	chr3:48296118-48296158	NA	-0.375	7.94E-06	0.038	1
SE	ZNF680	-	chr7:64543706-64543802	NA	-0.377	4.99E-05	-0.043	1
SE	ATP5C1	+	chr10:7806973-7807010	NA	-0.379	0.0004310721539	0.019	1
SE	SGCE	-	chr7:94639340-94639448	NA	-0.38	0.003512996048	0.006	1
SE	ANKAR	+	chr2:189705022-189705224	NA	-0.38	6.03E-05	-0.008	1
SE	ZSCAN31	-	chr6:28329302-28329714	NA	-0.38	8.71E-05	0.043	1
SE	CREB1	+	chr2:207577109-207577224	NA	-0.381	0.001185968339	-0.111	1
SE	TMEM260	+	chr14:56621530-56621702	NA	-0.384	4.25E-06	-0.055	0.02941186272
SE	MAP4K4	+	chr2:101860824-101860986	NA	-0.384	6.13E-05	-0.195	1.41E-10
SE	RWDD3	+	chr1:95237347-95237460	NA	-0.386	0.0002933051974	-0.004	1
SE	PICALM	-	chr11:85990249-85990378	NA	-0.387	0	0.015	4.24E-05
SE	MRPS28	-	chr8:80028694-80028796	NA	-0.387	0.01459665929	-0.1	0.002399977568
SE	KIF21B	-	chr1:200983055-200983094	NA	-0.388	0.005890845208	0.08	1
SE	NME6	-	chr3:48296118-48296236	NA	-0.388	0.001460213182	0.087	0.364791001
SE	ABCA11P	-	chr4:437445-437511	NA	-0.39	0.0008550215213	-0.059	1
SE	FAM76B	-	chr11:95779077-95779135	NA	-0.393	0.0002600015158	-0.104	1
SE	TPM1	+	chr15:63064063-63064190	NA	-0.394	0.0003706949144	0.005	1
SE	NAP1L4	-	chr11:2989128-2989271	NA	-0.394	6.18E-07	-0.023	1
SE	NISCH	+	chr3:52480878-52481109	NA	-0.395	0.001052296447	-0.052	1
SE	CLEC2D	+	chr12:9693033-9693115	NA	-0.395	0.02024804826	-0.036	1
SE	ACYP2	+	chr2:54050957-54051050	NA	-0.395	0.0004126182547	0.003	1
SE	TRAPPC13	+	chr5:65655635-65655653	NA	-0.396	1.37E-05	-0.068	0.1112287712
SE	OPA1	+	chr3:193617783-193617837	NA	-0.396	0.002268274405	-0.047	1
SE	FAM66C	+	chr12:8195276-8195412	NA	-0.396	0.02043424899	-0.009	1
SE	RASSF8-AS	-	chr12:25947518-25947622	NA	-0.397	0.0415224856	-0.036	1
SE	SNAPC5	-	chr15:66494902-66495419	NA	-0.399	0.001312004339	-0.029	1
SE	FOXMI	-	chr12:2865354-2865399	NA	-0.4	0	-0.291	0
SE	STX16	+	chr20:58669301-58669453	NA	-0.4	4.53E-08	-0.033	1
SE	DOCK7	-	chr1:62544946-62545039	NA	-0.402	7.63E-12	0.028	0.02735058732
SE	ZNF211	+	chr19:57633785-57633905	NA	-0.403	0.002075918316	0.058	1
SE	ULK4	-	chr3:41915976-41916052	NA	-0.403	0.01803272989	0.028	1
SE	TRIM16	-	chr17:15677175-15677280	NA	-0.403	0.01092216805	-0.054	1
SE	DLEU2	-	chr13:50044650-50044768	NA	-0.404	1.13E-06	-0.047	1
SE	ING4	-	chr12:6655637-6655913	NA	-0.405	0.001631986303	-0.094	1
SE	CPNE3	+	chr8:86524876-86524997	NA	-0.406	4.50E-07	-0.131	1
SE	SEMA4F	+	chr2:74657852-74657951	NA	-0.406	1.72E-06	0.186	1
SE	SEPT6	-	chrX:119625334-119625379	NA	-0.408	0.001889786218	0.017	0.4065025993
SE	PARBP	+	chr12:102195311-102195447	NA	-0.408	7.60E-05	-0.044	1
SE	PICALM	-	chr11:85990249-85990378	NA	-0.41	0.004066478452	0.001	1
SE	CCDC7	+	chr10:32471063-32471230	NA	-0.41	0.03915855325	-0.056	1
SE	C1orf159	-	chr1:1083914-1084011	NA	-0.411	0.00746974798	0.037	0.291894514
SE	ZNF789	+	chr7:99478273-99478356	NA	-0.412	0.001102013063	-0.044	1
SE	ENTPD1	+	chr10:95842343-95842494	NA	-0.413	0.0001503356103	0.002	1
SE	ARL13B	+	chr3:93996562-93996684	NA	-0.413	0.009312346136	0.034	1
SE	NUMA1	-	chr11:72012400-72012442	NA	-0.417	2.52E-09	-0.102	0
SE	SLC25A29	-	chr14:100298026-100298190	NA	-0.417	0.001127335634	-0.003	1
SE	PSMA3-AS1	-	chr14:58293065-58293138	NA	-0.417	1.58E-13	-0.004	0.9650937482
SE	CA5B	+	chrX:15772495-15772614	NA	-0.418	0.0001159793671	-0.003	1
SE	TPM1	+	chr15:63061197-63061273	NA	-0.419	8.14E-10	-0.075	0.01630012279
SE	FAM227B	-	chr15:49577171-49577305	NA	-0.42	0.0006714121578	0.051	1
SE	IKZF4	+	chr12:56019317-56019415	NA	-0.422	0.002024138061	0.056	1
SE	SEC24B	+	chr4:109481676-109481781	NA	-0.425	2.17E-11	0.107	0.005586626612
SE	APEH	+	chr3:49674488-49674621	NA	-0.425	5.13E-08	-0.067	2.69E-05
SE	HCG18	-	chr6:30314268-30314482	NA	-0.426	0.01832264645	-0.023	1
SE	PARD3	-	chr10:34336198-34336243	NA	-0.427	1.53E-12	0.037	1
SE	MACF1	+	chr1:39436481-39436490	NA	-0.428	5.56E-07	-0.19	1.61E-07
SE	MRPS6	+	chr21:34103496-34103519	NA	-0.428	0.001796423469	0.047	1
SE	STX2	-	chr12:130795994-130796120	NA	-0.43	0	0.063	0.2859101726

SE	PGAP2	+	chr11:3823612-3823740	NA	-0.434	0.01725172355	0.087		1
SE	ATP11B	+	chr3:182902480-182902566	NA	-0.436	0.0001130729132	-0.115		1
SE	TMEM161B-	+	chr5:88287435-88287622	NA	-0.436	4.27E-09	-0.073	0.5167260806	
SE	WDR27	-	chr6:169613558-169613656	NA	-0.437	2.16E-05	-0.002		1
SE	CDK4	-	chr12:57750441-57750563	NA	-0.44	0.008685505951	-0.044		1
SE	AGPAT4	-	chr6:161165576-161165713	NA	-0.441	0.001023745599	-0.12		1
SE	PVR	+	chr19:44658741-44658765	NA	-0.441	0.0002963289862	0.023		1
SE	CC2D1B	-	chr1:52354364-52354454	NA	-0.441	1.52E-05	-0.001		1
SE	TMEM234	-	chr1:32217436-32217577	NA	-0.441	0.000117787783	-0.024	0.0003342243668	
SE	DHFR	-	chr5:80637882-80638009	NA	-0.441	0.004239439132	-0.018		1
SE	EPB41L1	+	chr20:36173763-36173954	NA	-0.442	0.0111182907	0.024		1
SE	GPR56	+	chr16:57641586-57641708	NA	-0.443	0.009505385205	0.124	1.73E-12	
SE	SIL1	-	chr5:139127943-139128052	NA	-0.447	4.68E-06	0.011		1
SE	DDR1	+	chr6:30885624-30885680	NA	-0.447	0.0001146660205	-0.177	3.91E-13	
SE	HERC2P9	+	chr15:28655494-28655691	NA	-0.447	0.001439456619	-0.001		1
SE	NUDT13	+	chr10:73125397-73125509	NA	-0.448	0.02109524081	0.006		1
SE	LRRC37A4F	-	chr17:45542763-45542835	NA	-0.448	0.0006039756834	0.013		1
SE	RP11-345J4	-	chr16:29450111-29450276	NA	-0.448	0.01900449467	0.091		1
SE	NBPF8P	+	chr1:120447093-120447166	NA	-0.448	4.38E-05	0.5		1
SE	SUOX	+	chr12:55999332-55999590	NA	-0.449	0.001493573318	-0.019		1
SE	ITPRIPL1	+	chr2:96325746-96325849	NA	-0.45	4.21E-05	-0.053		1
SE	MED12L	+	chr3:151409242-151409332	NA	-0.451	0.0006243958793	0.012		1
SE	SPIN1	+	chr9:88416643-88416766	NA	-0.452	0.003349315801	0.12		1
SE	CSAD	-	chr12:53171325-53171441	NA	-0.452	0.00576997794	-0.052		1
SE	NISCH	+	chr3:52480878-52481037	NA	-0.453	0.0001737618393	-0.049		1
SE	C14orf93	-	chr14:22999956-23000117	NA	-0.453	0.003140202336	0.046		1
SE	NSRP1	+	chr17:30163066-30163162	NA	-0.453	0.02613073178	0.058		1
SE	FAM86FP	-	chr12:8235252-8235518	NA	-0.454	0.04253479721	0.235	1.12E-06	
SE	C8orf44	+	chr8:66676744-66676902	NA	-0.455	0.0009339975889	0.055		1
SE	PRR34-AS1	+	chr22:46055598-46055733	NA	-0.455	7.54E-05	0.122		1
SE	CDKL3	-	chr5:134312291-134312380	NA	-0.456	7.45E-05	0.05		1
SE	PICALM	-	chr11:85990249-85990399	NA	-0.458	0	0.019	0.0002234820154	
SE	CCDC148	-	chr2:158345214-158345318	NA	-0.458	0.02324707802	-0.162		1
SE	SPATS2L	+	chr2:200308886-200309090	NA	-0.459	0.02523595813	-0.055	0.003101143011	
SE	CCDC15	+	chr11:124991460-124991583	NA	-0.46	0.0001503356103	0.117		1
SE	EXO1	+	chr1:241849111-241849216	NA	-0.46	1.86E-12	-0.09		1
SE	CLEC2D	+	chr12:9693824-9693948	NA	-0.461	5.17E-05	-0.004		1
SE	DHRS4L2	+	chr14:24001383-24001517	NA	-0.461	0.0006418050778	0.071	0.4484524402	
SE	LCA5L	-	chr21:39427758-39427905	NA	-0.462	0.001839490346	0.086		1
SE	BBS1	+	chr11:66523171-66523365	NA	-0.462	0.0001503356103	0.023	1.21E-09	
SE	FAM228B	+	chr2:24137908-24138100	NA	-0.463	0.0005866349904	0.003		1
SE	LINC00630	+	chrX:102825992-102826169	NA	-0.467	0.0002076409456	-0.152		1
SE	RP11-9G1.3	-	chr4:133140585-133140659	NA	-0.468	2.41E-06	0.043		1
SE	TMEM241	-	chr18:23370215-23370261	NA	-0.469	2.54E-05	0.057		1
SE	VCAN	+	chr5:83537006-83542268	NA	-0.471	3.38E-05	-0.202		0
SE	SHF	-	chr15:45171882-45172002	NA	-0.471	0.001004510926	0.027		1
SE	UBA2	+	chr19:34431860-34431931	NA	-0.474	0.001456868059	0.044		1
SE	BPHL	+	chr6:3119284-3119512	NA	-0.475	1.12E-05	0.035		1
SE	SLC3A2	+	chr11:62870744-62870837	NA	-0.475	0	-0.164	0.0004743134009	
SE	NHSL1	-	chr6:138441982-138442114	NA	-0.476	0.007436656522	0.027		1
SE	PVR	+	chr19:44658741-44658765	NA	-0.478	0.0002048526225	0.045		1
SE	HCG18	-	chr6:30314268-30314482	NA	-0.478	1.30E-07	0.039		1
SE	INVS	+	chr9:100131869-100131954	NA	-0.479	0.00118875574	-0.12		1
SE	PLCB4	+	chr20:9373046-9373104	NA	-0.482	0.0001633148417	-0.178		1
SE	SUOX	+	chr12:55999332-55999458	NA	-0.483	0.02072133492	-0.063		1
SE	SMARCC2	-	chr12:56164302-56164368	NA	-0.483	0.0003110222918	-0.065		0
SE	PBRM1	-	chr3:52554723-52554879	NA	-0.487	0.002131254622	-0.026	0.3753665405	
SE	DCLK2	+	chr4:150253473-150253556	NA	-0.488	7.92E-10	-0.024		0
SE	SDHAP1	-	chr3:195968218-195968385	NA	-0.49	0	0.009		1
SE	DTNB	-	chr2:25383835-25383889	NA	-0.491	0.0008538554437	-0.053	0.02369477492	
SE	TRIM16	-	chr17:15677175-15677280	NA	-0.495	0.002239049543	0.047		1
SE	MIOS	+	chr7:7567606-7567688	NA	-0.497	0.0001530389937	0.068		1
SE	CLHC1	-	chr2:55208625-55208710	NA	-0.498	9.57E-05	0.06		1

SE	AC004076.9	-	chr19:57475659-57475786	NA	-0.498	0.0001214203275	-0.003		1
SE	FAM86EP	-	chr4:3948089-3948220	NA	-0.499	0.001505065008	-0.011		1
SE	AREL1	-	chr14:74701668-74701774	NA	-0.502	0.001735749298	-0.193		1
SE	RWDD3	+	chr1:95239776-95239909	NA	-0.503	0.0002931707329	-0.008		1
SE	FANCI	+	chr15:89245755-89245839	NA	-0.504	3.29E-08	-0.002		1
SE	C6orf52	-	chr6:10672546-10672636	NA	-0.505	0.01885208174	-0.064		1
SE	OPA1	+	chr3:193667370-193667455	NA	-0.506	0.01205057511	-0.239		1
SE	ZNF611	-	chr19:52707391-52707538	NA	-0.506	0.00374323208	-0.027		1
SE	SHF	-	chr15:45171882-45172078	NA	-0.508	0.0007745711686	0.034	0.9718710115	
SE	SLCO4A1	+	chr20:62668157-62668184	NA	-0.51	0.006698640151	-0.133		1
SE	CSAD	-	chr12:53171176-53171441	NA	-0.51	0.0001524546588	-0.043		1
SE	LINC01128	+	chr1:850177-850351	NA	-0.51	0.02372588051	0.083		1
SE	DYNLL1	+	chr12:120495283-120495437	NA	-0.512	0.001232062067	0.073		1
SE	ANAPC16	+	chr10:72220053-72220379	NA	-0.512	0	-0.043	0.2418983119	
SE	STX16-NPE	+	chr20:58691404-58691562	NA	-0.512	0.0002874981515	-0.089		1
SE	DIAPH2	+	chrX:96763099-96763120	NA	-0.514	0.0001769287926	-0.011		1
SE	GGT1	+	chr22:24608989-24609231	NA	-0.515	3.61E-05	0.016		1
SE	RSRC2	-	chr12:122526169-122526293	NA	-0.517	0.0001240921588	0.017		1
SE	NUDT13	+	chr10:73125397-73125509	NA	-0.517	0.0008479198092	0.034		1
SE	RPL17	-	chr18:49491735-49491833	NA	-0.518	1.66E-09	0.066	0.003111975725	
SE	RPL17	-	chr18:49491735-49491833	NA	-0.518	0	0.024	5.34E-05	
SE	DENND4C	+	chr9:19336685-19336832	NA	-0.52	0	0.028		1
SE	CSAD	-	chr12:53171272-53171441	NA	-0.52	0.0002923670232	-0.041		1
SE	ERBB2IP	+	chr5:66075023-66075230	NA	-0.523	0	-0.006		1
SE	C5orf45	-	chr5:179853196-179853276	NA	-0.526	0.0003544351238	-0.12		1
SE	PHYKPL	-	chr5:178223319-178223451	NA	-0.526	4.88E-07	0.015		1
SE	C1orf50	+	chr1:42767508-42767624	NA	-0.527	3.15E-07	-0.082	0.008228621344	
SE	CCDC150	+	chr2:196677114-196677192	NA	-0.528	0.0001382276306	-0.06		1
SE	SUOX	+	chr12:55999332-55999458	NA	-0.531	4.75E-05	-0.019		1
SE	RWDD3	+	chr1:95239776-95239909	NA	-0.532	1.07E-06	-0.022		1
SE	TMEM254	+	chr10:80086230-80086258	NA	-0.532	0.0004276980026	-0.025		1
SE	FBXL12	-	chr19:9813230-9813274	NA	-0.533	3.50E-05	-0.005		1
SE	TMEM161B-	+	chr5:88287435-88287622	NA	-0.534	8.81E-13	-0.039		1
SE	CADM2	+	chr3:85979163-85979283	NA	-0.535	5.93E-06	-0.15		1
SE	MORC2	-	chr22:30963224-30963334	NA	-0.537	0.006121948866	-0.054		1
SE	TMEM161B-	+	chr5:88283009-88283086	NA	-0.54	1.95E-07	-0.031		1
SE	RP11-705C'	+	chr12:9656567-9656697	NA	-0.542	4.86E-07	-0.017		1
SE	POLL	-	chr10:101584877-101584919	NA	-0.548	0.001950407967	0.128		1
SE	U2AF1L4	-	chr19:35744490-35744540	NA	-0.55	1.56E-09	-0.001		1
SE	SOS1	-	chr2:38989269-38989314	NA	-0.553	2.09E-06	-0.225	2.43E-11	
SE	MAX	-	chr14:65077562-65077643	NA	-0.553	1.66E-10	-0.031		1
SE	ZNF189	+	chr9:101399394-101399530	NA	-0.554	9.33E-10	-0.028		1
SE	EXO1	+	chr1:241849108-241849216	NA	-0.555	0	-0.111		1
SE	SLCO4A1	+	chr20:62668154-62668184	NA	-0.556	0.0006103010624	-0.115		1
SE	CNOT2	+	chr12:70285399-70285586	NA	-0.556	8.05E-05	0.02	0.7382928969	
SE	RSG1	-	chr1:16232892-16233017	NA	-0.557	5.59E-05	-0.135	0.000196399903	
SE	RP11-371E8	+	chr14:93188892-93188997	NA	-0.557	0.0008231927538	-0.117		1
SE	PPRC1	+	chr10:102145019-102145090	NA	-0.558	7.52E-13	0.008		1
SE	FAM86EP	-	chr4:3946625-3946939	NA	-0.559	5.49E-05	0.004		1
SE	NDUFB2	+	chr7:140700869-140700959	NA	-0.561	1.31E-05	-0.02		1
SE	SDHAP2	+	chr3:195663623-195663767	NA	-0.572	0	0.056		1
SE	TRIM16	-	chr17:15681050-15681222	NA	-0.577	0.006143326895	-0.231		1
SE	NBR2	+	chr17:43132955-43133137	NA	-0.583	2.65E-07	0.028		1
SE	FDFT1	+	chr8:11803090-11803225	NA	-0.595	1.01E-05	-0.125		1
SE	RPL17-C18c	-	chr18:49488499-49488566	NA	-0.596	0	-0.006		0
SE	TEAD1	+	chr11:12878888-12878900	NA	-0.599	8.25E-14	-0.099		1
SE	CLEC16A	+	chr16:11174153-11174277	NA	-0.601	0.001796423469	0.044	0.00696067509	
SE	C5orf45	-	chr5:179851242-179851424	NA	-0.604	1.26E-05	-0.111		1
SE	MROH8	-	chr20:37155062-37155167	NA	-0.609	0.001277328111	0.013		1
SE	CPT1B	-	chr22:50573807-50573921	NA	-0.61	4.70E-13	-0.076	0.03505798078	
SE	PPP2R3C	-	chr14:35108138-35108236	NA	-0.611	5.99E-06	-0.033		1
SE	TWF1	-	chr12:43805830-43805885	NA	-0.612	8.15E-05	-0.003		1
SE	AC074286.1	-	chr2:177332141-177332251	NA	-0.616	6.59E-11	0.033	0.7292808135	

SE	PAQR6	-	chr1:156247509-156247632	NA	-0.619	4.35E-07	0.008		1
SE	TPT1-AS1	+	chr13:45360140-45360239	NA	-0.619	0.004168487247	-0.044		1
SE	NDUFB2	+	chr7:140700869-140700959	NA	-0.623	7.31E-06	-0.014		1
SE	KIAA1468	+	chr18:62280359-62280442	NA	-0.631	9.58E-12	-0.034		1
SE	OSBPL6	+	chr2:178339671-178339764	NA	-0.635	0	0.009		1
SE	RP11-33B1.	+	chr4:119543752-119543845	NA	-0.635	0.0005024837576	0.071	0.3209474617	1
SE	FAM86B3P	+	chr8:8234482-8234584	NA	-0.64	0.01525821969	-0.058		1
SE	MCOLN3	-	chr1:85036709-85036868	NA	-0.648	3.05E-06	0.051		1
SE	RAI14	+	chr5:34813573-34813660	NA	-0.649	0	-0.022		1
SE	SNHG14	+	chr15:25053265-25053363	NA	-0.65	2.78E-07	-0.092		1
SE	CTD-2378E	-	chr15:50890855-50891077	NA	-0.655	0.02204339488	-0.014		1
SE	SYTL2	-	chr11:85711112-85711232	NA	-0.66	0	-0.056		1
SE	DYRK4	+	chr12:4580823-4580977	NA	-0.667	0.002780083212	0.06		1
SE	C14orf93	-	chr14:23000958-23001031	NA	-0.667	3.29E-05	0.011		1
SE	SLTM	-	chr15:58912562-58912610	NA	-0.667	1.22E-05	0.03		1
SE	RGMB-AS1	-	chr5:98771655-98771766	NA	-0.667	2.10E-07	0.219		1
SE	ACACA	-	chr17:37345252-37345382	NA	-0.667	0.003589770542	0.457		1
SE	RP11-1228E	-	chr17:71365-71556	NA	-0.667	0.001952422279	-0.065		1
SE	PLA2G12A	-	chr4:109718688-109718759	NA	-0.67	7.20E-06	-0.047	0.7537550146	1
SE	OSBPL6	+	chr2:178339671-178339764	NA	-0.671	0.0005646569594	-0.099		1
SE	APITD1-COI	+	chr1:10440346-10440413	NA	-0.673	0.001998768924	-0.151		1
SE	FNTB	+	chr14:65032358-65032521	NA	-0.679	5.36E-09	0.005	0.001500651941	1
SE	C2CD5	-	chr12:22519114-22519239	NA	-0.69	9.33E-06	0.135		1
SE	FKTN	+	chr9:105574197-105574332	NA	-0.692	0	-0.095		1
SE	ADD3	+	chr10:110132304-110132400	NA	-0.694	0	-0.006		1
SE	SPAST	+	chr2:32098795-32098891	NA	-0.697	5.59E-14	-0.233	2.79E-10	1
SE	KIF13A	-	chr6:17789871-17789910	NA	-0.706	0	-0.13	0.0001637023178	1
SE	HKR1	+	chr19:37346887-37347052	NA	-0.712	1.03E-06	0.023	0.17022336	1
SE	SERHL2	+	chr22:42573633-42573745	NA	-0.73	1.31E-09	0.082		1
SE	DUSP18	-	chr22:30664954-30665121	NA	-0.738	1.14E-10	-0.022		1
SE	IST1	+	chr16:71903164-71903258	NA	-0.742	0.0002334056595	0.029		1
SE	C2orf74	+	chr2:61157861-61158012	NA	-0.743	1.09E-09	-0.012		1
SE	CRHR1-IT1	+	chr17:45640388-45640455	NA	-0.754	3.26E-07	-0.012		1
SE	NRG2	-	chr5:139871043-139871148	NA	-0.776	0.0003004649703	0.166		1
SE	LPP	+	chr3:188341662-188341719	NA	-0.778	1.83E-09	-0.094		1
SE	EMC3-AS1	+	chr3:9988371-9988477	NA	-0.782	3.23E-08	-0.089		1
SE	HKR1	+	chr19:37344609-37344774	NA	-0.782	7.85E-07	-0.013		1
SE	RP11-849H4	-	chr11:71925932-71926104	NA	-0.787	4.30E-07	0.021		1
SE	TWF1	-	chr12:43805523-43805637	NA	-0.789	4.38E-08	-0.001		1
SE	FRG1B	+	chr20:30391196-30391308	NA	-0.796	0	0		1
SE	TCF7L2	+	chr10:113160618-113160691	NA	-0.805	0.0001537967219	-0.105	0.5033618553	1
SE	ARIH2	+	chr3:48945135-48945181	NA	-0.852	0	-0.041	0.8091615025	1
SE	GPR126	+	chr6:142383759-142383843	NA	-0.871	0	0.102		1
SE	PCTP	+	chr17:55787565-55787654	NA	-0.874	0	-0.116		1
SE	XPNPEP3	+	chr22:40860677-40860793	NA	-0.881	5.32E-13	0.019		1
SE	SLC27A5	-	chr19:58481063-58481187	NA	-0.897	3.04E-05	-0.007		1
SE	WBP1	+	chr2:74458831-74458919	NA	-0.968	1.34E-13	-0.05		1

Supplementary Table 5: Differentially expressed (multi-exon) genes between mesenchymal (MES) and proneural (PN) GSCs.

Up-regulated genes in MES (down-regulated in PN)		
gene	log2FoldChange	FDR
ANPEP	10.37672335	1.99E-70
CDCP1	10.40751179	4.38E-70
SLFN11	10.60639843	5.23E-70
FOSL1	6.627260714	6.26E-67
TGM2	8.0496362	2.47E-62
ALDH1A3	9.693668267	4.46E-58
CTSZ	9.232888351	3.20E-56
FGF5	9.914601859	9.77E-56
MDFIC	8.245710663	1.49E-53
DNAH14	9.92104056	1.48E-51
HTATIP2	9.580435866	1.73E-51
NPTX1	9.466385946	5.90E-48
PROCR	6.359394042	3.17E-47
C4orf32	9.223157055	2.46E-46
PLBD1	9.361245145	1.24E-45
MAGEB2	10.47706157	4.67E-45
DGKE	4.657100071	1.82E-42
TNFRSF10D	9.844729806	5.15E-42
EGR1	5.868025559	5.36E-42
MAGEA6	8.868855162	2.48E-41
STEAP2	10.03667625	3.45E-41
SAGE1	9.807227223	3.65E-41
TUSC3	10.13746076	3.85E-41
BAIAP2L1	6.367793984	1.04E-40
MAGEA12	8.887703501	2.63E-40
PLAC8	8.325223787	1.25E-39
SSH3	6.341574541	1.85E-39
PCDHGA2	6.176337738	7.07E-39
ME1	9.99547059	1.63E-37
MAGEA3	9.20938161	2.18E-37
AIM1	4.484574169	2.27E-37
KRT8	9.674670956	7.60E-37
DSP	8.731780312	1.50E-36
ADIRF-AS1	8.146945972	3.93E-36
EFEMP1	10.94104935	1.18E-35
TMEM200A	8.154277392	2.21E-35
PRAME	11.30299762	2.28E-34
CENPV	6.07890014	5.41E-34
LY6K	9.042398443	1.69E-33
TNNT1	7.367167158	2.31E-33
AP1M2	8.676689761	2.52E-33
CARD10	3.768033105	3.49E-33
TPTEP1	8.710320898	4.75E-33
NFE4	9.976464198	6.41E-33
TRIML2	11.22848393	7.02E-33
CCNA1	7.873729163	3.98E-32
KCNC4	5.727273687	8.91E-32
LRRK1	8.571496039	1.06E-31
MTUS2	10.68290418	9.40E-31
RP11-169F17.1	9.033911847	1.37E-30
SH2D5	6.059762317	1.63E-30
VRK2	8.89492723	2.36E-30
KIAA1324L	6.036329732	2.36E-30
FAT4	6.403587108	2.76E-30
CDYL2	4.09893842	3.66E-30
DOCK5	9.951895733	4.36E-30
TRIM59	8.908310705	4.97E-30
KATNAL1	3.923730963	2.47E-29
ANKRD19P	9.505126862	4.11E-29
HYI	4.717152425	4.55E-29
RAB11FIP1	7.786360457	5.32E-29
BNC1	9.628933752	7.03E-29
SLC6A15	10.63090322	8.52E-29

Down-regulated genes in MES (up-regulated in PN)		
gene	log2FoldChange	FDR
GPM6B	-10.7108866	3.53E-127
XIST	-10.22135421	1.92E-94
S100B	-11.42490738	4.02E-86
PTPN12	-9.999474471	2.84E-81
PDE4B	-9.699042881	7.76E-74
PMP2	-10.52753001	1.69E-69
COL11A1	-9.852666093	2.15E-68
ARNT2	-9.154545309	4.87E-65
PTPRZ1	-10.28835018	1.65E-64
PRTFDC1	-10.00667187	1.29E-63
KCNJ10	-9.87928151	2.84E-63
GLUL	-10.26958145	1.42E-61
KCNA2	-10.10043006	1.60E-61
NRN1	-6.728159335	6.09E-58
FEZ1	-10.17148472	4.86E-57
BCAN	-10.28913039	4.13E-56
EDNRB	-10.41573472	1.47E-55
PRRX1	-10.14033503	1.39E-54
ZNF532	-10.70904731	7.97E-54
ARL10	-8.203124291	9.15E-54
THY1	-10.7581076	3.55E-53
PCDH15	-9.315194192	3.32E-52
LAMA4	-10.27567243	3.49E-52
FXND6	-9.91321044	1.22E-51
OLIG2	-10.26687569	3.17E-50
C16orf62	-5.362219583	8.72E-50
NLGN3	-7.881961442	1.09E-49
GJA1	-10.83161779	4.49E-46
TUBB2B	-10.34902154	4.63E-46
PDE7B	-7.554988903	1.01E-45
LSAMP	-11.09310763	2.38E-45
JAM3	-10.09854089	3.23E-45
VCAN	-10.59791853	6.34E-45
GNG2	-10.37731504	2.35E-44
SEMA5A	-8.620146667	2.59E-44
LPL	-10.86010733	5.94E-44
SLC35F1	-9.913492707	1.09E-43
OLIG1	-10.4094014	1.77E-43
CSPG4	-9.981876495	1.87E-43
MATN2	-5.727630561	5.55E-43
SOX2-OT	-9.101572388	5.55E-43
ANGPTL2	-10.21874552	2.80E-42
LOXL3	-8.960420753	6.74E-42
MMP2	-10.58258811	1.13E-41
ZNF608	-8.890494985	3.60E-41
ZNF354C	-6.988507908	3.01E-40
FREM2	-5.34289419	1.36E-39
ZNF300	-11.00747094	4.33E-39
SALL1	-10.58666471	5.44E-39
SFRP2	-10.44066802	7.92E-39
PLEKHG1	-5.313309705	1.25E-38
CADM1	-10.13968566	2.92E-38
MAP2	-8.550779268	1.24E-37
SEMA6D	-10.74443082	2.38E-37
MPHOSPH8	-9.960201482	2.46E-37
ZNF334	-9.167076066	2.52E-37
MDFI	-9.446982379	2.61E-37
CELF2	-9.197588986	3.31E-37
ZNF736	-10.01302976	3.31E-37
SULF2	-9.432349657	3.40E-37
ARRDC4	-9.922042555	9.19E-37
ZNF542P	-8.241290774	1.08E-36
FGFBP3	-4.890933756	1.31E-36

RP11-29H23.5	5.503680744	1.10E-28	SETD6	-7.381658324	1.68E-36
EGFR	8.054984625	2.38E-28	SCRG1	-11.00534551	2.13E-36
GALNT6	9.520782009	5.22E-28	ANK3	-5.405543463	3.28E-36
KRT18	10.48646723	8.62E-28	KBTBD2	-10.16136065	3.63E-36
SYT1	9.182934052	9.78E-28	VANGL2	-10.05992989	4.66E-36
STEAP1B	7.740812364	1.01E-27	DZIP1	-10.41702861	7.91E-36
ZDHC23	5.825985955	1.38E-27	EMILIN2	-9.817925615	1.18E-35
MEIOC	10.28027997	2.24E-27	MLLT11	-3.661895834	1.41E-35
ADM2	8.178556601	3.47E-27	LINC00511	-4.72758947	8.94E-35
RUNX3	7.918046976	1.00E-26	PCDHGC3	-8.35313208	1.06E-34
FAM83G	8.138353029	2.19E-26	ARMCX4	-9.554212362	1.39E-34
TES	11.5895949	2.98E-26	ZNF883	-7.861048753	2.51E-34
CASP4	5.47407291	5.91E-26	CPXM1	-10.59310884	2.90E-34
MIPEP	3.630105065	6.82E-26	GAS7	-10.61413097	3.24E-34
ANKRD27	3.621652629	2.55E-25	TTYH1	-9.274951487	3.37E-34
NIPAL2	8.36324125	1.11E-24	ZNF426	-6.550993203	3.83E-34
ATP1A3	6.239698946	1.15E-24	RFTN2	-9.486571459	3.83E-34
CADPS2	8.128795909	1.94E-24	SALL3	-9.484263493	7.54E-34
STAMBPL1	6.804542538	2.61E-24	SOX5	-10.44884347	8.88E-34
FAM167A	6.998362133	4.32E-24	TNS2	-5.274985934	1.11E-33
MAP3K21	4.424497619	5.59E-24	ELOVL2	-10.50214959	1.29E-33
ASPHD1	6.064175804	9.89E-24	FAXDC2	-8.26761745	6.82E-33
SPAG1	4.676396214	1.16E-23	LINC00665	-6.508442983	2.47E-32
MAT1A	7.790193181	1.41E-23	COL15A1	-9.540643455	3.01E-32
FRG1CP	5.838530862	2.66E-23	ZNF93	-6.992893798	5.30E-32
MIR222HG	4.064738431	3.46E-23	ZCCHC24	-3.633322916	5.98E-32
IER3	8.701544953	4.32E-23	DISC1	-7.749702677	6.46E-32
CHAC1	5.281574911	4.60E-23	AEBP1	-10.00012064	7.06E-32
PRKCH	6.334595303	7.52E-23	SALL2	-10.13047648	7.18E-32
DUSP23	7.170341232	7.62E-23	CHFR	-4.3815182	1.70E-31
RP11-66B24.7	8.978200339	8.13E-23	ZNF585B	-5.896946498	2.98E-31
GBP3	5.910045439	1.02E-22	GNG7	-3.592546789	5.58E-31
CATSPER1	7.986893223	1.24E-22	COL9A3	-10.84611674	7.89E-31
ECHDC2	6.681644148	1.60E-22	SV2A	-10.50705791	8.45E-31
DENND2C	5.835339136	2.82E-22	PNMAL1	-10.66805759	1.01E-30
ALS2CL	6.818265014	3.48E-22	GPRC5B	-6.25402465	1.37E-30
GALNT14	9.829325991	3.89E-22	PCDH17	-7.346332956	1.62E-30
LTBR	11.6375772	4.79E-22	SNTB1	-10.72263333	1.78E-30
G0S2	7.105369181	5.12E-22	METTL7A	-10.00097875	2.29E-30
ZYG11A	9.298223962	8.93E-22	PPP1R9A	-10.27095545	3.18E-30
AOX1	7.880765933	9.45E-22	CGREF1	-8.270353768	5.04E-30
TPM2	4.718007161	1.31E-21	PROM1	-9.594418494	2.08E-29
DMKN	10.85795198	2.40E-21	ZNF431	-10.57495506	5.15E-29
NME7	3.184804872	4.21E-21	SOX8	-10.61991431	6.31E-29
ZFP69	6.679942664	5.57E-21	CALD1	-6.980993502	7.17E-29
RASGEF1A	11.32825721	6.39E-21	CCDC149	-9.605882251	1.74E-28
SELENOM	6.401009234	7.38E-21	FRMD5	-3.470142481	2.15E-28
MAP7	5.298952006	9.52E-21	DNAH9	-10.38475554	3.92E-28
SIK1	4.775276041	1.51E-20	AIF1L	-6.580842703	5.14E-28
IL4R	8.482273784	1.84E-20	IGFBP2	-8.857058782	6.29E-28
EMB	11.61506186	2.13E-20	TP73-AS1	-8.380778075	9.40E-28
SERPINB9	8.0080179	2.24E-20	DDX19B	-7.00083471	1.38E-27
PPARG	8.888484141	2.51E-20	ZNF43	-10.46143831	1.44E-27
KCNG1	6.44977673	2.70E-20	TNS1	-7.553817513	1.59E-27
MPP7	5.703107201	3.90E-20	PTN	-7.544921187	9.51E-27
TNFRSF10A	11.17295269	6.54E-20	PAG1	-6.013691688	1.28E-26
CTGF	5.860050234	1.69E-19	FLRT3	-9.404052833	1.57E-26
PMAIP1	5.786364675	1.71E-19	ELMO1	-10.38645852	1.57E-26
CSAG1	10.39534479	2.24E-19	HUNK	-8.59894225	1.94E-26
LINC00960	10.26330846	2.66E-19	GTF2I	-3.536858275	1.97E-26
IL7	6.924790947	2.84E-19	ARHGEF7	-3.169599061	2.19E-26
RERG	6.463962203	2.84E-19	CERS6	-11.63716116	2.20E-26
NIPAL1	5.786889744	3.62E-19	FAM222A	-4.446160383	2.27E-26
PTPRH	6.884909544	3.71E-19	GREB1	-4.58141535	6.44E-26
PARP4	3.664220502	3.83E-19	COL20A1	-8.507407137	2.20E-25
TPBG	10.9432167	3.92E-19	RP11-43F13.1	-5.493523604	2.46E-25
RP11-420A23.1	3.684649121	4.13E-19	LINC00461	-4.071773964	3.20E-25
FLT4	11.1406747	5.10E-19	GATM	-6.081612298	3.42E-25

TRIM58	9.157004469	5.22E-19	ZNF521	-9.053771583	6.87E-25
SLC7A1	4.685882218	6.19E-19	TCF4	-6.396944488	9.15E-25
PCK2	4.053455228	9.70E-19	PCYT1B	-9.739303728	1.14E-24
LINC00470	10.06050549	1.29E-18	STK32B	-9.948259043	1.30E-24
CECR7	6.053854562	1.36E-18	C8orf46	-7.552860078	1.30E-24
LINC01123	7.706435703	1.45E-18	MAPK10	-5.577673238	2.41E-24
SERPINB1	6.875822023	1.82E-18	SATB1	-8.151615527	2.44E-24
LRRC3	10.06294273	2.15E-18	SLIT1	-8.858801125	2.97E-24
BCL2A1	9.578396942	2.28E-18	C3orf70	-9.879811433	4.32E-24
MYPN	7.765391721	2.87E-18	DGKI	-8.056519559	4.98E-24
RANBP17	9.991459436	3.49E-18	ID4	-9.676126145	5.08E-24
LINC01436	9.962790407	3.64E-18	FUZ	-5.489171703	6.01E-24
CHMP4C	10.67411186	4.88E-18	ASIC4	-7.363346329	6.89E-24
PCBD1	2.576167751	4.88E-18	MEGF10	-7.723854206	8.88E-24
LINC00707	8.816289946	5.03E-18	KCNIP1	-10.4081515	1.00E-23
RCN3	4.914377718	5.39E-18	FAM49A	-9.702722105	1.06E-23
NMU	5.767828016	5.93E-18	TMEM246	-9.921678381	1.46E-23
SLFN12	9.859558309	6.30E-18	BMPR1B	-8.276208211	1.75E-23
PLA2G16	3.456964396	6.33E-18	NLGN4X	-11.23965927	2.53E-23
BTNL9	10.55411173	6.77E-18	DTX3	-9.417946781	2.67E-23
CTC-459F4.3	2.972995332	7.19E-18	PPP1R14C	-11.01184836	2.80E-23
MGST1	8.323798165	7.62E-18	TET1	-9.264971076	4.27E-23
CT45A10	9.842596013	8.52E-18	IFFO1	-8.216836297	5.09E-23
ADAMTS20	6.395726259	8.90E-18	ZNF738	-11.13900474	6.12E-23
CD40	9.848257012	9.59E-18	ZNF382	-7.315329042	6.23E-23
ANKRD18A	9.840397959	9.59E-18	SEMA5B	-8.997057749	6.86E-23
MLPH	9.97898411	1.03E-17	LGI2	-9.662332607	6.86E-23
AC005301.9	10.40930029	1.21E-17	HSD17B7P2	-4.537758875	7.26E-23
SPAG4	4.83178205	1.24E-17	NIM1K	-6.896650699	7.95E-23
POPDC3	10.70298984	1.47E-17	PEG3	-9.771631465	9.70E-23
H2AFJ	10.10846556	1.58E-17	U2AF1	-4.008162325	1.11E-22
TNFAIP2	4.579302989	1.82E-17	KLHL13	-7.731430076	1.55E-22
ELL2	4.370510164	1.84E-17	LRRN3	-9.781411133	1.99E-22
TBX18	10.55129888	1.88E-17	ZNF506	-9.665650226	3.80E-22
RP11-30P6.6	5.681131516	2.14E-17	JAKMIP2	-9.286124584	4.60E-22
LDHC	7.827302255	2.32E-17	HR	-8.47755102	4.64E-22
AC003092.1	10.50044544	3.23E-17	B3GAT1	-10.73660002	7.25E-22
PDE2A	7.539356435	3.24E-17	ZNF558	-10.88040244	8.30E-22
MAN1A1	5.994690759	3.81E-17	BCHE	-6.773798862	2.14E-21
LINC00857	8.351658274	5.01E-17	SPARC	-9.925643879	2.19E-21
PPP4R4	6.434039894	5.47E-17	GOLGA8A	-4.239484651	2.24E-21
EPHA6	10.32105983	5.55E-17	MIR34AHG	-7.151118111	2.77E-21
HS3ST3A1	8.286553592	5.75E-17	PDGFRA	-7.789961156	3.32E-21
WDR66	6.426849601	7.31E-17	UNC80	-6.892903517	3.32E-21
RP5-884M6.1	9.72557049	8.11E-17	FYN	-2.80300083	3.86E-21
TRHDE	10.225134	1.02E-16	FABP7	-10.09407029	4.62E-21
MME	7.580851253	1.13E-16	COL25A1	-9.871205098	5.67E-21
IL31RA	10.29331539	1.31E-16	LRRC17	-9.852956937	7.20E-21
GATA2	7.564511382	1.87E-16	RNF175	-10.6522121	7.91E-21
GFPT2	3.789043114	2.39E-16	NID2	-10.74102599	8.89E-21
CXCL5	9.88726771	2.48E-16	EPDR1	-10.62044559	9.54E-21
MYEOV	6.72909767	2.78E-16	CD200	-7.121530413	1.07E-20
POP4	2.558240582	3.06E-16	ATCAY	-8.890513603	1.24E-20
ZC3H12B	10.03520897	3.13E-16	ARHGEF6	-8.800450871	1.25E-20
RP11-366H4.1	10.03231099	3.19E-16	TBCEL	-10.51166637	1.63E-20
LYPD5	6.057885385	3.45E-16	LRRTM2	-8.257057854	1.96E-20
DMC1	4.532516677	3.59E-16	PTPRO	-9.49242516	2.01E-20
ZNF215	10.02543514	3.62E-16	SEMA6A	-3.721909589	2.06E-20
EXT1	3.434408515	3.92E-16	BRSK2	-9.124951221	2.23E-20
CCDC68	8.224374394	3.99E-16	TNFAIP6	-11.87449937	2.51E-20
ALOXE3	7.381877954	4.18E-16	MBNL3	-7.840253782	2.85E-20
UQCRRF51	2.88582042	4.45E-16	DPYSL2	-3.285516338	3.22E-20
TMEM156	9.559318585	5.31E-16	ZNF577	-4.719904165	4.14E-20
IRF5	7.00966284	5.34E-16	NFATC4	-9.281561952	4.66E-20
FAM201A	9.935176618	5.54E-16	RHOJ	-8.207722309	4.68E-20
LINC01249	9.35697513	5.98E-16	AC074289.1	-6.611724699	5.13E-20
ARHGAP44	9.385450595	6.31E-16	DOCK10	-5.317664304	5.21E-20
CSAG3	9.420240009	6.95E-16	ZNF254	-3.300071439	5.92E-20

FBXL13	4.073630031	7.04E-16	SHISA4	-8.252074567	6.07E-20
RP11-497G19.1	7.366430786	7.63E-16	BAALC	-9.8394667	8.66E-20
RP11-108M9.4	6.808368938	8.17E-16	MAF	-9.360820864	9.09E-20
IRX2	9.879670091	1.04E-15	SCN4B	-7.319101004	1.11E-19
TM4SF19	8.107684931	1.12E-15	SLITRK2	-10.04752805	1.22E-19
UBR5-AS1	3.568858858	1.20E-15	CHDH	-8.279875292	1.35E-19
ARNTL2	3.112129098	1.27E-15	ZNF737	-7.790571748	1.36E-19
CD55	6.416076487	1.55E-15	MAGI2	-4.699332574	1.77E-19
HLA-F	3.785726115	1.74E-15	EFS	-11.71719437	2.19E-19
ECHDC3	9.916313073	1.95E-15	ZNF529	-10.37140739	2.19E-19
LINC00944	9.821144795	2.02E-15	ZNF85	-8.923181435	2.41E-19
HHEX	9.284678213	2.09E-15	CEP41	-2.976284071	2.58E-19
RP11-148B18.4	9.230758474	2.71E-15	KLHDC8B	-5.177604003	2.70E-19
TEC	9.788127266	2.87E-15	SHROOM2	-9.25792332	3.70E-19
MPC2	2.217026581	2.91E-15	TRPM3	-9.023382272	4.07E-19
LINC01139	9.226548995	3.83E-15	ZNF853	-9.488504741	4.76E-19
ARHGAP18	2.894816636	4.55E-15	CENPBD1P1	-6.754699469	5.26E-19
FBXO2	6.161180216	4.82E-15	SIK3	-2.593062937	5.61E-19
MSC-AS1	7.978350409	5.06E-15	ZNF100	-10.16308062	6.51E-19
SRGN	8.999051767	5.33E-15	CTSF	-10.82814364	8.15E-19
PCDHB16	3.639258312	7.40E-15	ZNF813	-5.755383586	8.26E-19
SNCA	9.822429782	7.71E-15	PDK2	-8.066321843	9.06E-19
HTR7	9.07563604	8.97E-15	GALM	-7.069916342	1.19E-18
KIRREL2	5.612867901	9.91E-15	DPYSL3	-5.057738842	1.22E-18
LINC01605	7.765975334	1.00E-14	FAM185A	-6.1123909	1.32E-18
PDCD5	2.815378657	1.13E-14	GRIA3	-9.675971287	1.44E-18
TOR4A	5.508333968	1.13E-14	HS6ST2	-11.41136831	1.53E-18
CASC9	9.550356712	1.20E-14	ZNF714	-4.260582069	2.14E-18
RP11-66B24.2	9.683498973	1.23E-14	SLC1A3	-3.63981199	2.29E-18
GABRG2	9.665870915	1.75E-14	LGR5	-7.870737827	2.81E-18
ANKRD29	5.047227526	1.75E-14	SCN1A	-9.357026789	2.95E-18
SLC6A17	9.499196799	1.77E-14	GPC4	-11.45651654	2.98E-18
CTB-140J7.2	9.055864721	1.87E-14	MYO5C	-6.118861437	3.15E-18
SLC37A1	3.021648762	1.89E-14	PDE1C	-8.354175503	3.44E-18
PLCG2	9.590450465	2.05E-14	GAL3ST4	-6.443570621	3.64E-18
DSE	2.704223603	2.09E-14	ZNF677	-9.188854358	3.86E-18
MIR137HG	9.463462249	2.91E-14	NACAD	-10.5508776	4.41E-18
RP4-647C14.2	9.440803875	3.12E-14	ZNF528	-10.1800793	8.36E-18
HES7	4.361735502	3.25E-14	LGALS3BP	-6.121070095	1.03E-17
RBM11	9.634986879	3.26E-14	PYROXD2	-6.317394309	1.11E-17
ADGRE1	9.915077612	3.80E-14	CTNND2	-9.188019381	1.14E-17
WBP2NL	6.031877741	3.81E-14	ZNF649	-4.239487276	1.14E-17
RPS14	2.69839837	4.43E-14	CYTL1	-11.17613217	1.15E-17
PEAR1	9.651199139	4.78E-14	C1orf106	-10.54470501	1.19E-17
LINC00910	4.052061325	4.78E-14	HNMT	-8.373712742	1.46E-17
ZNF185	4.038606758	4.79E-14	STS	-6.984349731	1.60E-17
ANKRD20A5P	9.060929706	5.04E-14	ZNF493	-9.795868508	1.61E-17
ZNF507	2.576833563	5.28E-14	GAB1	-3.007152327	1.63E-17
SLC35F3	7.725858952	5.52E-14	LINGO1	-7.211888039	1.66E-17
CCL28	9.472655039	5.61E-14	TNFRSF21	-3.469843197	2.52E-17
TRHDE-AS1	9.426571735	5.89E-14	MEST	-10.35274885	2.57E-17
MVP	4.607741975	6.03E-14	TMEM100	-10.92996911	2.82E-17
VEGFC	8.836172741	6.20E-14	GRIA2	-6.415433296	3.08E-17
LRRC8E	8.858383051	6.47E-14	RNF165	-7.209967682	3.16E-17
XAGE1A	8.842575962	6.51E-14	RNF182	-10.33654376	3.24E-17
MTMR11	3.003439045	8.69E-14	LRRC4	-10.7217206	3.37E-17
TBC1D31	2.526802507	8.82E-14	NR2F1	-4.215252249	3.50E-17
ADTRP	9.315486173	9.03E-14	SETD9	-4.251404359	3.77E-17
SYDE2	2.786296789	9.42E-14	ITPKB	-9.904710761	3.79E-17
EIF3H	2.355237204	9.92E-14	KCNK2	-7.243138293	3.93E-17
RP11-129M6.1	9.283071256	1.02E-13	GPR158	-2.873095031	4.71E-17
CRLF1	8.337542336	1.05E-13	NPAS3	-7.214867527	5.70E-17
ANKRD33B	3.577189315	1.07E-13	NDRG4	-6.076663384	6.00E-17
CT83	9.346767662	1.11E-13	PHYHIPL	-10.89254433	6.17E-17
SPOCD1	6.738843561	1.11E-13	FCGRT	-6.761377092	6.89E-17
FOXF1	6.367552262	1.21E-13	IL17D	-4.924958106	7.23E-17
ENPEP	7.734195951	1.37E-13	CDH11	-8.197407409	7.76E-17
SLC27A2	6.13916901	1.78E-13	ZNF90	-10.21007468	8.19E-17

PCAT7	7.012366968	1.83E-13	NCALD	-8.930482188	9.75E-17
URI1	2.834677087	1.93E-13	FOXG1	-10.62131767	9.94E-17
TBX3	8.766174026	2.04E-13	HOXD10	-6.527447426	1.09E-16
PCDHGA11	4.423236618	2.15E-13	ZNF788	-8.068120567	1.13E-16
AC009237.8	9.329693341	2.55E-13	EDA2R	-9.853769986	1.18E-16
CHMP1B2P	9.57475411	2.71E-13	SCARA3	-9.682658406	1.23E-16
CHRNB1	3.381862282	2.84E-13	AC018647.3	-10.62948487	1.29E-16
POMP	3.077207618	2.86E-13	EHD3	-10.17479461	1.42E-16
ABL2	1.946649981	3.09E-13	L3MBTL1	-8.284658022	1.44E-16
GREB1L	5.654658124	3.32E-13	AUTS2	-6.38015083	1.64E-16
PI15	9.287295526	3.53E-13	NLGN1	-5.059927971	1.80E-16
UAP1	3.917844275	3.56E-13	HAGLR	-10.37607784	1.88E-16
TYMP	7.789511082	4.06E-13	CLIP3	-5.945129955	1.96E-16
TRDN	7.458389294	4.29E-13	CSGALNACT1	-8.232399915	2.10E-16
SYTL3	4.49682492	4.53E-13	PALD1	-10.90680831	2.15E-16
EOGT	2.54815863	4.75E-13	ATP1B2	-9.504524542	2.62E-16
PAX9	5.974857725	6.11E-13	ZNF682	-10.42077159	3.19E-16
RP11-390F4.3	4.822466039	6.69E-13	NTRK3	-9.197252806	3.19E-16
LINC01533	9.351719175	6.69E-13	EFNB3	-8.591446455	3.21E-16
GABRA3	8.575160557	6.74E-13	IL17RB	-8.654065736	3.24E-16
ADAMTSL5	4.541447974	6.83E-13	ZNF660	-10.0699578	3.32E-16
STARDB4	2.836661212	7.11E-13	RAB33A	-8.576585853	3.40E-16
NEXN	3.064731182	7.17E-13	P2RX7	-9.187600357	3.74E-16
CYR61	5.2672121	7.41E-13	SOX21-AS1	-10.67844791	4.24E-16
STARDB8	4.215153879	8.20E-13	PPFIBP2	-3.621657396	4.66E-16
TINAGL1	9.507350859	8.94E-13	PRMT2	-3.181143107	5.87E-16
C9orf84	8.657146418	9.74E-13	UGT2B7	-8.956885073	6.58E-16
XDH	9.82222514	1.07E-12	ST8SIA5	-7.849818162	7.58E-16
POLD4	4.083277395	1.07E-12	ZIC1	-11.0272921	7.94E-16
MICAL2	3.586544564	1.11E-12	LEF1	-7.382403235	8.04E-16
LINC00662	2.658992173	1.17E-12	ZNF329	-6.00381647	9.07E-16
SP140L	2.932572231	1.28E-12	SDHAP3	-3.905372433	9.40E-16
SULT1B1	9.066396323	1.36E-12	ZNF880	-8.091083864	1.21E-15
PDLIM1	6.279512668	1.36E-12	GRIA4	-11.20919008	1.27E-15
RP11-262H14.3	4.33804083	1.57E-12	COLGALT2	-7.359081654	1.30E-15
C2orf61	6.773942963	1.57E-12	ZNF829	-9.859562407	1.31E-15
PIK3CD	4.158851226	1.58E-12	SNX32	-7.353942281	1.40E-15
TATDN1	3.26461441	1.65E-12	COL9A2	-4.675710053	1.53E-15
MELTF	3.497884867	1.83E-12	ZNF626	-10.13870792	1.63E-15
MARVELD2	6.100614067	1.88E-12	SBDSP1	-2.872161777	1.91E-15
NPAS1	4.601118761	1.93E-12	RCBTB2	-4.409763263	2.01E-15
S100A11	7.009811445	1.93E-12	DNAL1	-10.66378167	2.06E-15
RP11-221N13.3	5.221276331	1.97E-12	CX3CL1	-9.218951742	2.23E-15
SPHK1	4.437044625	2.09E-12	ZNF513	-4.810389562	2.35E-15
ARMC4	5.531166913	2.15E-12	C2orf72	-3.585382675	2.43E-15
MED30	2.878150653	2.31E-12	HERC2P2	-2.411534305	2.53E-15
AP001065.15	8.370716353	2.71E-12	TUBA1A	-3.493380648	2.64E-15
CASC8	7.391618522	2.71E-12	TIMP4	-10.35828778	2.66E-15
RSPH9	6.504984186	2.87E-12	LRRK2	-3.487581527	2.69E-15
RP11-121P12.1	9.043223723	2.97E-12	CDIP1	-4.509824675	2.72E-15
NEURL1	4.506955651	3.17E-12	RP11-210M15.2	-7.961094847	2.74E-15
KCNH5	8.870059735	3.35E-12	PNMA2	-9.704858902	2.96E-15
STK26	6.445434363	3.42E-12	MAP3K1	-4.201957506	3.36E-15
RBP7	7.112883305	3.84E-12	SPATA18	-8.537539251	3.80E-15
KC6	8.731874238	4.18E-12	RRN3P1	-10.05930384	3.80E-15
SP100	5.294358713	4.33E-12	MEG3	-9.884091578	3.89E-15
LINC00668	8.742740586	4.45E-12	DSEL	-4.768684615	3.96E-15
PERP	4.800936489	4.47E-12	AFG3L1P	-3.001978887	4.39E-15
VSTM1	8.855953601	4.48E-12	RAPGEF4	-6.607849543	4.48E-15
DAW1	9.25006084	4.94E-12	RP11-161M6.2	-9.861994023	4.74E-15
PCBP3	5.969916999	5.81E-12	FAM131B	-8.237770506	5.08E-15
SLC27A6	8.464113724	5.81E-12	IGFBP5	-10.19729231	5.33E-15
RP11-879F14.2	7.167672853	5.85E-12	EN2	-10.45114509	5.51E-15
FMNL1	5.775497124	6.05E-12	MANSC1	-7.903026856	5.68E-15
GF11	3.369899347	6.06E-12	ZNF585A	-9.42763627	5.98E-15
PABPC1	2.380206452	6.33E-12	PDGFD	-7.056337249	6.09E-15
ADRA2C	7.735334101	6.79E-12	NCAM1	-7.326499882	6.63E-15
FOXL1	8.909237677	7.98E-12	CHST11	-3.183656018	7.04E-15

LINC00937	8.783839089	8.75E-12	ZNF629	-2.225279491	8.15E-15
SNTG2	6.807679703	9.17E-12	LBH	-10.08479512	8.24E-15
LINC01615	8.243950135	1.01E-11	PHLPP1	-3.848510032	8.98E-15
DLK2	5.946646145	1.02E-11	D2HGDH	-10.12616631	9.56E-15
SNAP91	8.220812466	1.04E-11	DACT1	-9.543800149	9.59E-15
FAM129A	2.374203625	1.05E-11	GPM6A	-4.887951774	9.76E-15
FAAP24	2.666230167	1.13E-11	SLC16A9	-10.22003955	1.05E-14
GPATCH1	1.971018955	1.16E-11	GPX7	-10.41985536	1.09E-14
CEBPG	2.700543542	1.20E-11	EPHA3	-7.074658212	1.20E-14
IL18R1	5.756643411	1.32E-11	ZSCAN16	-9.661877953	1.36E-14
PIWIL4	3.814574611	1.37E-11	ZNF502	-7.840554377	1.38E-14
CTD-2162K18.4	3.338334789	1.38E-11	AGPAT4	-2.101653927	1.40E-14
AHNAK2	2.884554936	1.54E-11	LCTL	-8.342543906	1.62E-14
SLFN13	8.597945999	1.62E-11	SUGCT	-4.222257183	1.63E-14
RAB32	3.783890141	1.68E-11	UNC5C	-8.446723159	1.67E-14
ACVR1C	4.38929114	1.70E-11	PIM2	-4.257253211	1.67E-14
SH3RF2	6.545880405	1.76E-11	BMP7	-9.001588407	1.76E-14
C5orf38	8.731947638	1.94E-11	RLBP1	-9.386454877	1.78E-14
HYLS1	3.339636784	1.95E-11	CADM2	-5.915072343	1.94E-14
ITGBL1	6.954455607	1.95E-11	UNC5D	-9.606742574	2.14E-14
LSR	4.782358779	1.97E-11	LAYN	-8.206920928	2.15E-14
CYP1B1	3.102717418	2.12E-11	ZNF528-AS1	-10.33612284	2.16E-14
SYPL2	3.680256023	2.31E-11	HTRA1	-3.634436826	2.25E-14
MOXD1	6.016829671	2.41E-11	PROX1	-9.558855829	2.47E-14
PAX2	8.646906415	2.45E-11	COL9A1	-10.68593224	2.62E-14
TAP2	2.389164376	2.48E-11	CTNNA3	-9.274033093	2.75E-14
RAD21L1	6.88404503	2.52E-11	SLC16A4	-5.396769728	2.81E-14
TBX1	6.295838857	2.57E-11	ID2	-3.718737131	2.82E-14
CTD-2054N24.2	8.481067491	2.59E-11	RAMP1	-7.671859269	2.95E-14
STOM	3.04993815	2.64E-11	ZNF501	-9.124117562	3.11E-14
SCFD1	1.869988954	3.05E-11	GRID1	-9.147065955	3.15E-14
HSD17B7	2.263053874	3.22E-11	RP11-275H4.1	-9.076431963	3.29E-14
RIMS2	5.801715661	3.30E-11	NYNRIN	-9.748043583	3.77E-14
RP11-1149O23.3	8.06830903	3.64E-11	QKI	-2.873719689	4.43E-14
LINC00704	8.789363096	4.84E-11	CHT3	-2.172466205	4.46E-14
TREM1	8.84915168	4.89E-11	ARHGAP20	-6.330070706	4.68E-14
TMEM56	4.632607028	4.89E-11	RHBDL3	-9.394730482	4.78E-14
LAMA3	4.531572023	5.51E-11	ZKSCAN7	-9.551872719	4.80E-14
JAKMIP1	8.486903626	5.74E-11	BACE1	-2.538914293	4.81E-14
NCEH1	2.635097116	5.80E-11	SARM1	-4.854439691	5.29E-14
STARD10	3.220951235	6.92E-11	ENG	-9.407434652	6.08E-14
B3GNTL1	2.81932632	7.08E-11	GAREM2	-9.527203178	6.11E-14
STEAP1	6.699685619	7.55E-11	VSTM2B	-4.142350575	7.38E-14
ANKRD20A7P	5.747945417	7.68E-11	TANC1	-2.836249914	7.73E-14
ASNS	2.0213876	7.88E-11	PCDH7	-5.016483528	7.83E-14
RUNDC3B	5.662783935	8.15E-11	POM121	-2.615466504	8.67E-14
KCTD15	1.991483107	8.64E-11	TRIO	-2.359186565	1.01E-13
FENRRR	8.871195576	8.73E-11	ADCY1	-9.958402246	1.06E-13
MCL1	2.043310787	8.90E-11	TMEM255A	-10.15856111	1.11E-13
SLC44A3	4.801732463	1.03E-10	CRISPLD1	-2.36138726	1.16E-13
DLX4	5.605708081	1.04E-10	TMEM169	-3.73587433	1.21E-13
TRPM2	8.127330888	1.12E-10	LRP6	-2.387109171	1.27E-13
PLAGL1	6.907773222	1.13E-10	LRRTM3	-10.16304446	1.37E-13
PRDM6	5.357796962	1.15E-10	CHL1	-8.664921802	1.42E-13
IL22RA1	6.270520045	1.25E-10	TRIM71	-9.558260951	1.45E-13
ADAMTS16	7.971275535	1.27E-10	SPSB4	-9.108004162	1.52E-13
DYNC2H1	2.176882976	1.49E-10	DGKG	-5.995938399	1.70E-13
HTR4	8.278498155	1.62E-10	FCGR2A	-7.848040645	1.81E-13
CDC42EP1	3.893832613	1.63E-10	RP11-508N22.2	-4.021098732	1.89E-13
LINC02163	8.256808714	1.70E-10	ZNF793	-7.107591698	1.97E-13
RP11-66B24.4	8.411213248	1.78E-10	SLC38A3	-9.315850306	2.16E-13
SQRDL	3.78406253	1.95E-10	XYLT1	-6.404403193	2.29E-13
PARM1	5.76649706	1.96E-10	REEP2	-9.587509125	2.44E-13
PAWR	5.694403024	2.04E-10	ZNF350	-9.344411185	2.51E-13
PITPNM1	3.342526777	2.11E-10	KCNH2	-9.049089005	2.81E-13
PPIC	2.63486009	2.12E-10	SESN3	-4.662226537	2.89E-13
CEP55	1.781176612	2.28E-10	EN1	-9.470049184	2.89E-13
C1QTNF12	8.566225282	2.40E-10	SHC4	-4.204050352	3.06E-13

MET	4.964316953	2.68E-10	LOX	-9.595329966	3.09E-13
HLX	8.32616275	2.94E-10	STAC2	-9.498233452	3.17E-13
KLC2	2.363450549	2.99E-10	FGL2	-9.087055866	3.27E-13
NOX3	8.950231655	3.13E-10	DTNA	-7.133382993	3.43E-13
HPSE	3.841066439	3.35E-10	ZNF568	-4.321616907	3.53E-13
CTC-308K20.1	4.217809789	3.39E-10	RASL10B	-8.773796533	3.54E-13
MSMO1	2.104822324	3.44E-10	MLC1	-9.919336826	3.84E-13
TCIRG1	5.547952219	3.44E-10	SRSF12	-8.947413633	4.03E-13
RP11-268G12.1	4.871952911	3.91E-10	DCHS1	-7.789766224	4.62E-13
CD109	5.115971602	3.98E-10	SPATA6	-4.438571329	4.74E-13
CSAG2	8.209689102	4.01E-10	BEND5	-8.950317877	5.12E-13
SAMD3	8.241270508	4.11E-10	LRRC37A2	-5.296736398	5.33E-13
NAGS	4.321507059	4.13E-10	NKX2-2	-9.630164842	5.42E-13
PKP3	5.624990457	4.20E-10	SOBP	-3.061564279	5.54E-13
LPIN3	5.542145588	4.30E-10	LINC01896	-8.717255997	5.77E-13
GADD45B	3.506902648	4.44E-10	CD302	-9.487738425	5.83E-13
NUDT19	2.322905383	4.50E-10	HILS1	-9.081856382	5.86E-13
CDK15	8.483118047	4.56E-10	SEPT7	-2.503100507	6.00E-13
SPTB	4.068049916	4.77E-10	ITGB8	-4.02595054	6.13E-13
MAFK	3.048115348	4.79E-10	CLN5	-2.411325908	6.77E-13
RP4-756H11.3	3.053415812	4.84E-10	SPARCL1	-9.751046978	6.93E-13
ICAM1	4.553629258	4.92E-10	AMPH	-8.840481822	7.46E-13
TMEM65	2.609586651	5.00E-10	TMEM200C	-8.883351685	8.01E-13
P4HA3	6.022250026	5.15E-10	HAND2	-9.26807746	8.19E-13
DUSP1	3.286689697	5.55E-10	YWHAG	-2.719357957	8.83E-13
FCHSD1	2.542522501	5.64E-10	CACNG4	-9.330201339	9.32E-13
INHBE	5.439184056	5.77E-10	CA14	-9.090733215	1.00E-12
DMTN	4.237842151	5.83E-10	CSMD2	-8.919807686	1.01E-12
NUDT2	2.454110123	6.04E-10	ZNF613	-7.44015856	1.05E-12
KCNJ11	5.858381609	6.04E-10	CAND2	-8.970632865	1.07E-12
STXBP5-AS1	4.832831339	6.31E-10	PPARGC1A	-8.12470585	1.11E-12
PCDHGB4	5.331412664	6.42E-10	DAAM2	-9.243406812	1.12E-12
MAGEA2B	8.073498741	6.56E-10	NKAIN1	-6.859791618	1.16E-12
SLCO1A2	7.854010996	6.88E-10	CASC15	-9.336123802	1.20E-12
SLC9A2	5.285059646	7.06E-10	PLPPR5	-8.882810232	1.21E-12
LRP11	2.168077483	7.06E-10	COL22A1	-8.535900913	1.22E-12
STEAP3	2.615728039	7.06E-10	FAM168B	-1.779746693	1.22E-12
RP11-423H2.1	1.799410715	7.08E-10	RP3-525N10.2	-6.660068513	1.23E-12
INO80C	2.350599073	7.35E-10	SHC3	-2.691407268	1.44E-12
PTTG1	2.509301668	7.36E-10	ZNF708	-2.62627655	1.52E-12
ATF7IP2	7.706519694	8.31E-10	ZNF730	-8.739699902	1.60E-12
DGAT2	3.211915537	8.32E-10	BAZ1B	-2.762258786	1.62E-12
BNC2	6.47115463	8.34E-10	ZNF597	-9.041500888	1.89E-12
DRAP1	2.595262103	8.69E-10	PTPRD	-6.138160757	1.92E-12
SLC39A4	7.931494444	9.21E-10	ATP1A2	-8.800575235	2.08E-12
MICA	4.090575775	9.23E-10	ENC1	-2.964578613	2.18E-12
SHC1	3.049894071	9.26E-10	NOMO1	-2.07002862	2.28E-12
EFCAB10	6.816508256	9.46E-10	GRASP	-8.820935872	2.28E-12
ACSM3	3.829226204	9.62E-10	SPOCK1	-9.259056785	2.33E-12
IL1R1	5.977225851	1.01E-09	PLXNB1	-3.31053848	2.56E-12
KDELR3	3.078509215	1.03E-09	TGFBR1	-1.937063821	2.67E-12
RNF135	2.03717114	1.07E-09	DYNLL2	-2.049706022	2.84E-12
BLZF1	2.286235671	1.16E-09	MREG	-3.147754199	2.96E-12
RP11-962G15.1	5.492674363	1.17E-09	EVL	-2.592056101	3.09E-12
KSR2	7.934479716	1.23E-09	WISP1	-10.04000776	3.34E-12
RP11-191L9.4	7.544550047	1.24E-09	LURAP1	-8.932546904	3.59E-12
NDUFB9	2.297508066	1.32E-09	BEX4	-10.68838961	3.83E-12
FOXA1	8.296014433	1.32E-09	FN1	-4.475818544	3.95E-12
ADAP2	3.360071655	1.37E-09	ING5	-2.56375819	4.09E-12
STOX1	2.308681879	1.42E-09	ZNF610	-5.579433024	4.45E-12
TUBA1C	3.494690159	1.46E-09	MOCS1	-9.461182549	4.60E-12
GCNT2	2.558151097	1.52E-09	PCDH9	-4.972407095	4.66E-12
MYO1D	6.093075883	1.52E-09	NF2	-1.93103303	4.81E-12
PAPLN	5.08331233	1.60E-09	SLC22A23	-2.670555266	5.01E-12
KCNG3	5.224748569	1.73E-09	ING3	-1.920348482	5.24E-12
CALB2	8.803131501	1.76E-09	ACSBG1	-8.637936478	5.29E-12
GPR176	2.096464143	1.79E-09	DNAH11	-6.336125387	5.60E-12
FSTL3	2.678035027	1.90E-09	SLC8A3	-8.98646579	6.19E-12

HJURP	1.609170662	1.92E-09	PDPN	-9.474467004	6.32E-12
RSPH3	1.979736713	1.93E-09	TGFA	-6.037124927	7.26E-12
TMEM74	6.599369178	2.05E-09	MIDN	-2.23557856	7.29E-12
CCDC69	4.491225879	2.15E-09	TENM1	-7.601857637	7.83E-12
SLC5A12	3.495395949	2.16E-09	PDZRN3	-9.905967086	8.74E-12
ERVMER34-1	6.97777023	2.21E-09	VGLL4	-2.113415267	9.17E-12
SUN3	8.842694345	2.25E-09	POM121C	-2.53890947	9.25E-12
GATA6	7.960430528	2.45E-09	SIPA1L2	-3.833376088	9.27E-12
RP11-419H17.1	5.188552613	2.55E-09	PLEKHA7	-5.426444875	9.33E-12
GLT8D2	3.528624475	2.68E-09	RP11-629G13.1	-8.379396214	1.00E-11
CD274	3.414469829	2.86E-09	ZNF253	-3.346594707	1.03E-11
FADS3	2.588280271	2.88E-09	RP11-403A3.3	-9.883416675	1.05E-11
MNX1-AS1	4.331028456	2.88E-09	PIANP	-10.25838693	1.06E-11
OSCAR	6.070837964	2.92E-09	MIR99AHG	-3.934916524	1.08E-11
AC116614.1	5.717797695	3.06E-09	DCLK1	-9.305260473	1.08E-11
IQCG	2.723182171	3.06E-09	ZNF132	-9.138988243	1.09E-11
COL6A4P1	7.77648113	3.07E-09	TAS2R14	-3.171611974	1.10E-11
ARHGEF28	4.940166241	3.11E-09	NRDE2	-1.863926192	1.11E-11
ITGB2	8.433974296	3.31E-09	CECR2	-2.933356988	1.12E-11
LPIN1	2.365586945	3.53E-09	MAMLD1	-2.539879194	1.13E-11
HRK	3.464099169	3.89E-09	ZMIZ1	-2.719191971	1.15E-11
TSPEAR-AS2	7.861341045	4.06E-09	EXOC4	-1.869811181	1.23E-11
GATA2-AS1	7.511897668	4.17E-09	APCDD1	-9.562531603	1.23E-11
MSX2	7.854637092	4.22E-09	CASD1	-2.900277409	1.28E-11
TRABD2A	4.547917093	4.49E-09	NOTCH3	-8.153628127	1.28E-11
LINC01106	7.775865143	4.51E-09	ARHGAP42	-4.016082445	1.28E-11
ARHGAP40	6.48402718	4.53E-09	FCGR2C	-8.443591396	1.38E-11
PPP1R13L	4.301383932	4.60E-09	MARC1	-4.341247758	1.41E-11
N4BP3	4.528783286	4.64E-09	FADS2	-3.083241594	1.47E-11
LINC00941	4.901685682	5.11E-09	AC108142.1	-8.919909338	1.48E-11
SLC29A1	1.920056266	5.26E-09	CDKN1B	-2.410553199	1.50E-11
PTGER4	7.785381826	5.29E-09	FAM120C	-3.415820507	1.51E-11
MNX1	3.125025732	5.42E-09	WWC3	-2.606629707	1.60E-11
SMS	2.102905405	5.53E-09	ST5	-3.325106723	1.61E-11
TSPEAR-AS1	7.720834221	5.64E-09	RGR	-8.660629444	1.72E-11
RP11-359K18.4	3.529648568	5.78E-09	LHFPL3	-8.914018515	1.74E-11
AURKB	2.363529693	5.90E-09	AC005154.6	-2.818045991	1.77E-11
OTX1	3.284793985	6.08E-09	SCUBE2	-5.496805625	1.86E-11
AC141928.1	6.975413428	6.36E-09	LMO7	-3.435356769	1.95E-11
HOXB6	7.306240165	6.46E-09	SORBS2	-7.416761466	2.11E-11
EFHD2	3.113296975	6.64E-09	CECR6	-4.563177647	2.13E-11
RP1-102E24.8	7.947629154	6.95E-09	ANKRD10	-2.292872501	2.15E-11
ADAMTSL4	4.74600961	7.04E-09	LUC7L2	-1.977428472	2.21E-11
CXCL3	7.715941373	7.11E-09	ZNF3	-1.958961924	2.23E-11
TTC39B	3.361909153	7.13E-09	ZNF10	-2.637146165	2.31E-11
RP11-408B11.2	7.274106998	7.61E-09	PGAP1	-3.788491919	2.33E-11
YIF1A	2.578775453	7.78E-09	ABCA1	-7.763159382	2.49E-11
NBPF8	2.38466	8.48E-09	PAX6	-9.115436937	2.65E-11
LBX2-AS1	4.21313293	8.53E-09	VASH1	-2.201840561	2.69E-11
DNAAF3	5.303352744	8.56E-09	DCC	-9.774836514	2.74E-11
RP4-639F20.1	2.662459679	8.82E-09	WLS	-3.153694785	2.75E-11
TMEM171	5.96635433	8.97E-09	SLC40A1	-9.266258679	2.91E-11
PARD3	1.788626557	9.72E-09	PKNOX2	-4.070588837	2.92E-11
CLCF1	3.814585842	1.05E-08	KIF5A	-8.617260508	2.92E-11
EML2-AS1	4.336272386	1.09E-08	RIMS4	-9.34069477	3.16E-11
RP11-63G10.4	7.212949803	1.11E-08	LINC01268	-8.650840613	3.20E-11
AJAP1	8.711525395	1.18E-08	TIMP3	-7.153875308	3.21E-11
RP11-809O17.1	4.287316525	1.19E-08	TMEM176B	-8.555184998	3.44E-11
EFHC1	2.799524328	1.29E-08	LINC00888	-2.387346492	3.44E-11
RHBDF2	4.081740817	1.30E-08	RP11-436K8.1	-9.1534206	3.66E-11
BAG2	3.89029467	1.30E-08	NDRG2	-6.381420359	4.04E-11
PLEKHF1	3.814623752	1.30E-08	SUSD6	-2.126698254	4.08E-11
PAQR7	2.272751283	1.33E-08	ZNF572	-8.619138989	4.10E-11
PDGFB	8.448542423	1.33E-08	CAMK1	-9.994859989	4.23E-11
DNAH5	4.547241587	1.38E-08	ZNF713	-4.053929672	4.51E-11
RP11-328K4.1	7.624906303	1.43E-08	CRB1	-5.505328506	4.53E-11
PATJ	2.919373071	1.43E-08	PRKAR1B	-3.259574342	4.53E-11
XAGE1B	7.222530678	1.47E-08	FAM212B	-5.595424626	4.87E-11

SQLE	2.524282569	1.51E-08	CDH19	-9.505711618	5.31E-11
NNMT	6.432835991	1.57E-08	TRIM60P18	-8.481672752	5.59E-11
CPNE7	4.899991934	1.61E-08	PLEKHB1	-3.027593713	5.60E-11
TIPRL	1.877169407	1.63E-08	FAXC	-9.168673541	5.80E-11
NUP62CL	4.744812088	1.73E-08	TAGLN3	-4.519613998	6.20E-11
PFDN2	2.058843105	1.80E-08	DMRT2	-9.000753292	6.27E-11
GATA5	7.949669946	1.85E-08	CYP4F29P	-5.689165553	6.45E-11
EML6	3.425680033	1.85E-08	FAT3	-9.339960752	6.50E-11
PCDHB3	3.758112054	1.86E-08	CADM4	-3.963953463	6.66E-11
TMEM144	4.359403781	1.94E-08	CDH7	-9.825580941	6.92E-11
LSM11	1.6528952	1.98E-08	ZNF704	-3.535780593	7.48E-11
AGAP7P	4.35551378	2.05E-08	ASTN1	-8.68251012	7.52E-11
AREG	7.61528496	2.07E-08	GTF2IP4	-3.201276445	7.59E-11
NEUROG2	7.524682836	2.10E-08	CTD-2561J22.2	-8.181471606	7.99E-11
ROR2	6.574301034	2.26E-08	ADGRB3	-4.848981131	8.56E-11
TCOF1	2.715985488	2.38E-08	CRYAB	-9.02962067	9.05E-11
VWA5B2	7.190222738	2.57E-08	ZNF561-AS1	-2.939397831	9.05E-11
GKAP1	2.219373884	2.61E-08	GTF2IP1	-3.267517506	9.27E-11
SNHG8	3.401142657	2.65E-08	VPS41	-2.261133259	9.57E-11
IL15RA	4.472840219	2.73E-08	EPC2	-2.282359641	1.01E-10
AMN1	1.879947855	2.78E-08	GRB10	-3.972812942	1.02E-10
KISS1	7.941750254	2.87E-08	TMPRSS5	-4.684669572	1.08E-10
PEX6	1.916659702	3.16E-08	HOXD9	-6.410263676	1.10E-10
FXYD5	6.520124096	3.17E-08	ISPD	-8.344366595	1.14E-10
RP11-497G19.2	7.584318915	3.32E-08	TIGAR	-2.393431335	1.16E-10
RHOV	3.636398347	3.79E-08	KIF1A	-7.638648178	1.19E-10
HPCAL1	3.3483159	3.99E-08	ARSE	-8.719077726	1.37E-10
RP11-295G20.2	2.273079322	4.32E-08	TNC	-7.489376663	1.49E-10
GPRC5C	6.533455558	4.39E-08	RP5-882C2.2	-3.146614921	1.50E-10
RHOF	4.348262877	4.42E-08	ATMIN	-1.874946624	1.52E-10
MTBP	1.769542495	4.57E-08	DPY19L2P2	-4.952084237	1.52E-10
RSPO4	6.466341757	4.69E-08	NPL	-9.070858855	1.56E-10
IL15	4.619122369	4.74E-08	KCND2	-8.877509591	1.58E-10
SZT2-AS1	7.536631183	4.74E-08	MIAT	-7.634121988	1.63E-10
IFNLR1	7.070643901	4.75E-08	C14orf37	-3.948436124	1.84E-10
CYP26B1	4.713464233	4.90E-08	PELI2	-6.949413329	1.84E-10
LGALS2	7.361977356	5.03E-08	HIST1H2BN	-3.779246657	1.96E-10
CDH23	6.127350939	5.32E-08	FAM196A	-9.293231276	2.04E-10
SPEF2	3.786749972	5.41E-08	ST3GAL6	-2.436643253	2.20E-10
SLC46A3	4.129271264	5.57E-08	LINC00641	-2.919069966	2.50E-10
STAT6	3.171037153	6.07E-08	PDLIM4	-8.372382622	2.63E-10
GLRX	3.569756984	6.16E-08	ZNF844	-6.085858807	2.68E-10
SMAGP	4.50820343	6.23E-08	FOXN3	-2.317824893	2.92E-10
MATK	7.406494039	6.30E-08	ZNF66	-8.179382212	2.92E-10
TBC1D8B	2.272984517	6.35E-08	ELAVL3	-9.381212236	3.04E-10
NDUFV1	2.133710812	6.47E-08	EPHB3	-5.128718708	3.16E-10
OPLAH	5.898682853	6.56E-08	XKR5	-8.089127271	3.27E-10
ZFAND1	2.270683786	6.65E-08	BEX1	-8.951649524	3.33E-10
MID2	3.741921803	6.95E-08	TPT1-AS1	-2.889017128	3.55E-10
EIF3E	2.189769702	6.97E-08	POLR2D	-1.884638485	3.73E-10
CTD-2207P18.2	7.554943496	6.98E-08	AC114730.3	-8.540168498	3.82E-10
UPK1A-AS1	7.064243249	6.99E-08	ZNF630	-8.26587763	3.83E-10
CTD-2587H24.5	7.513565712	7.00E-08	ZBTB8B	-8.177094174	3.96E-10
ITPR3	3.859249955	7.40E-08	DSC2	-8.144468934	3.99E-10
MYH15	3.529512421	7.61E-08	RP11-444D3.1	-8.218665966	4.12E-10
ATP8B3	4.105206884	7.62E-08	PHLDB1	-2.851358214	4.28E-10
TPRG1	4.362960397	7.82E-08	PLEKHA4	-3.202731542	4.50E-10
FAM86JP	2.88795307	7.83E-08	MOB3B	-3.794909886	4.68E-10
FLNC	5.17668967	7.89E-08	TTLL6	-8.027738674	4.77E-10
CTD-2066L21.3	6.285733224	7.90E-08	NES	-6.06911089	4.89E-10
SEMA3F	3.825659501	8.02E-08	ATP9B	-2.419285766	5.32E-10
NBPF26	2.644124877	8.36E-08	CBX3	-1.863023118	5.44E-10
RP11-1038A11.1	7.25275581	8.52E-08	RGS7BP	-8.748284792	5.58E-10
PLEKHG4	5.867395301	8.60E-08	ST8SIA1	-8.861677802	5.73E-10
INSIG1	1.385068067	9.07E-08	CXXC4	-4.496589375	6.10E-10
RAD21	1.785180942	9.28E-08	CTC-559E9.5	-8.344951059	6.27E-10
LINC00623	3.533898273	9.56E-08	RNF180	-8.866709877	6.69E-10
RP11-89C3.4	7.943650619	1.01E-07	PCDHB5	-8.079950987	6.87E-10

MSR1	7.541335162	1.01E-07	COTL1	-3.055208784	6.94E-10
UHMK1	1.692010055	1.08E-07	NT5C3A	-3.028047386	7.01E-10
BLVRB	2.876808058	1.18E-07	ADAMTS9	-7.090363115	7.01E-10
CYB561	3.092550208	1.23E-07	ZMAT3	-2.642406905	7.10E-10
DNM1P46	6.052414083	1.31E-07	RNF150	-3.959658885	7.11E-10
CENPW	2.491538787	1.42E-07	XKR6	-8.041604331	7.17E-10
LY6E	2.951091292	1.46E-07	DYRK1B	-3.235545655	7.21E-10
TMEM134	2.341927806	1.48E-07	FAM198A	-8.460612073	7.23E-10
LINC00689	7.919931953	1.49E-07	NRCAM	-6.213205884	7.44E-10
LINC01162	7.206055523	1.50E-07	RABIF	-1.955012276	8.39E-10
CCND1	1.809733394	1.51E-07	GSTM2	-3.604770705	8.43E-10
RIN1	4.552124496	1.54E-07	C1orf216	-2.517013065	9.32E-10
RGS10	2.795463949	1.57E-07	RTKN	-2.49647924	9.56E-10
LINC00702	6.819882379	1.58E-07	RP11-398K22.12	-2.943377545	9.86E-10
CTD-2311M21.3	7.220608546	1.59E-07	RP9	-2.602651596	9.96E-10
SMTN	2.681079236	1.62E-07	MSI2	-2.047638975	1.02E-09
P4HA2	2.693749571	1.76E-07	RP11-159D12.2	-2.798991565	1.02E-09
AC060834.3	7.227385695	1.77E-07	C8orf88	-4.039531664	1.03E-09
RNF6	1.582813696	1.81E-07	RP1-40E16.9	-8.392876913	1.07E-09
RNF212	6.803707261	1.85E-07	SLC44A5	-8.087998331	1.24E-09
CTD-2303H24.2	4.704207831	1.86E-07	TMEM198	-4.741158452	1.24E-09
RP11-15A1.2	6.787720725	1.88E-07	DCHS2	-9.574562666	1.25E-09
AADAC	7.315291823	1.89E-07	BBS9	-2.466197549	1.32E-09
BOK	2.559645467	1.94E-07	KIAA1456	-8.305725189	1.36E-09
SMCO4	4.126781577	1.96E-07	FREM1	-6.784375309	1.45E-09
PRDX6	1.645290329	2.00E-07	CTC-260E6.6	-8.030632831	1.49E-09
EOMES	7.192390853	2.01E-07	HIP1	-3.591111157	1.55E-09
PCED1B	4.281590813	2.03E-07	MURC	-2.442062179	1.70E-09
ATP2A3	4.039885023	2.04E-07	SLC26A4	-3.015547134	1.72E-09
RP5-965G21.4	4.610304614	2.04E-07	ZNF827	-2.468447492	1.75E-09
RNF169	2.001124756	2.06E-07	SOGA1	-1.855397591	1.77E-09
CDKN3	1.688374591	2.12E-07	GATS	-3.246205848	1.80E-09
CXCL2	6.887738653	2.13E-07	GULP1	-2.526194695	1.91E-09
FBXO6	3.1018191	2.16E-07	GPC6	-2.803358148	1.92E-09
EGFR-AS1	7.467470445	2.19E-07	ANKRD44	-3.196667075	1.94E-09
RALBP1	1.778190423	2.26E-07	EPHX2	-8.04684561	1.96E-09
SEC23A	1.558129817	2.26E-07	ELN	-8.936451314	1.98E-09
CXCL1	6.977692859	2.35E-07	ZNF680	-2.663909908	1.98E-09
ZNF233	3.070973205	2.42E-07	GPC2	-4.058467056	2.00E-09
GLDN	4.760803465	2.45E-07	FRAS1	-8.252173315	2.05E-09
C3orf67	6.177947413	2.46E-07	MEOX2	-8.673562863	2.11E-09
FAM26E	5.676871117	2.53E-07	CHI3L2	-5.647455583	2.12E-09
FASN	3.050996704	2.54E-07	GPR37L1	-8.395592638	2.16E-09
ZDHHC11B	2.826765098	2.57E-07	ZNF454	-6.438354007	2.17E-09
CYSTM1	2.171272826	2.61E-07	SLC18A1	-8.004944337	2.19E-09
CLMP	3.030158787	2.85E-07	AC092835.2	-5.100191558	2.35E-09
KCTD13	2.033754176	2.95E-07	HSBP1	-1.822454641	2.36E-09
SLFN5	4.700280359	3.08E-07	RFX4	-7.937190342	2.49E-09
NKX2-5	7.317834473	3.14E-07	GPCPD1	-2.600260486	2.66E-09
FAM169A	2.008542279	3.20E-07	KIAA1211L	-8.264788865	2.68E-09
BARX2	7.522678667	3.27E-07	MARCKSL1	-2.669447732	2.69E-09
CGB7	7.223634926	3.32E-07	MIR3681HG	-8.879008143	2.81E-09
CEP72	1.882470845	3.36E-07	BCL2L11	-2.97836296	2.82E-09
FAAHP1	5.416285714	3.44E-07	ZNF529-AS1	-5.273696736	2.83E-09
AF241725.6	7.924878636	3.66E-07	DUSP26	-8.525617216	2.95E-09
GINS4	2.031489432	3.91E-07	PLPP3	-5.627070568	2.96E-09
EHBPI1L1	1.792657484	4.05E-07	PHLDA3	-7.570852467	3.02E-09
DNAJC4	2.04947275	4.07E-07	FILIP1L	-7.662232146	3.21E-09
RAP1GAP2	4.292559392	4.12E-07	KCNE4	-7.935718471	3.38E-09
MYO1C	1.882132997	4.16E-07	FAM212B-AS1	-6.817557936	3.47E-09
DSCC1	2.31735151	4.26E-07	JARID2	-1.748312874	3.53E-09
CASZ1	3.693027205	4.28E-07	ZNF724	-7.444310404	3.66E-09
MICE	3.083714381	4.31E-07	NGFR	-6.462276435	4.07E-09
SLC44A3-AS1	5.830589531	4.44E-07	TMEM179	-9.231262094	4.07E-09
LINC01583	6.789227152	4.51E-07	GTF2IRD2B	-3.719785254	4.12E-09
LURAP1L-AS1	3.789069238	4.54E-07	ZNF362	-2.57010904	4.24E-09
SCN5A	4.505321824	4.61E-07	ABAT	-4.674580115	4.30E-09
ACSL4	2.253050982	4.65E-07	TMEM154	-8.223809462	4.37E-09

GSDMD	3.635684488	4.65E-07	ATL1	-3.003787884	4.39E-09
FGFR4	4.799967876	4.69E-07	MTTP	-5.89335954	4.46E-09
ELOVL5	2.212994865	4.89E-07	ABHD17B	-1.733436895	4.83E-09
FRRS1	2.964843836	4.93E-07	C1orf61	-6.822194754	4.91E-09
KCNK13	4.974536378	5.17E-07	TMEM108	-4.299944648	4.96E-09
CHD5	5.376680068	5.23E-07	CALCRL	-5.410894749	5.14E-09
RP11-656D10.3	3.355014087	5.27E-07	AMER2	-8.862580022	5.22E-09
CBX7	2.601754525	5.44E-07	LINC02199	-7.534188611	5.40E-09
DARS2	2.296150259	5.48E-07	NEDD9	-7.188475463	5.53E-09
PRR16	5.600692946	5.50E-07	RHBDD2	-3.845511535	5.83E-09
RP11-195E2.1	7.057265458	5.59E-07	TECTA	-7.743850242	5.96E-09
LVCAT1	5.211867124	6.09E-07	ZIC4	-8.146380871	6.18E-09
TUBB6	3.27415385	6.31E-07	RP11-428P16.2	-7.86775702	6.18E-09
BIK	5.971804006	6.31E-07	PLXNA4	-8.48024317	6.30E-09
TUFT1	2.06422218	6.32E-07	FBN1	-4.137277214	6.33E-09
APOBEC3C	2.037104548	6.34E-07	RP11-71N10.1	-8.619040808	6.40E-09
NOVA1-AS1	2.538877294	6.37E-07	ZNF781	-7.818880084	6.49E-09
SBSN	5.833322417	6.48E-07	RP11-15H20.6	-5.437567657	6.65E-09
NDC80	1.885478018	6.58E-07	C1orf94	-8.827077991	6.75E-09
MICB	4.316847305	6.70E-07	TCF7L1	-1.887735669	7.13E-09
OSMR-AS1	4.848799816	7.28E-07	NEU4	-8.102452312	7.29E-09
HLA-C	2.254181172	7.31E-07	FGF13	-7.459756937	7.48E-09
HCFC1R1	2.47347224	7.42E-07	LINC01550	-8.085630697	7.55E-09
CDC25C	1.700115583	7.59E-07	FOXO1	-1.923665028	7.86E-09
SEC24D	1.699647125	7.72E-07	RNF157	-3.845677675	8.58E-09
TRMT12	1.710909702	8.02E-07	NOMO3	-1.97768309	8.59E-09
SLFN12L	6.520704362	8.22E-07	NSUN5P1	-2.567205263	9.04E-09
MIR548XHG	6.517723896	8.96E-07	HFM1	-3.707314173	9.08E-09
RP11-495K9.9	6.202264434	8.96E-07	YPEL3	-5.0035072	9.09E-09
TFAP2C	4.732647929	9.35E-07	EFNB2	-3.784330275	9.60E-09
CLEC2B	2.653662736	9.42E-07	EIF4EBP2	-1.583543798	9.86E-09
SAMD12	6.111494055	9.50E-07	ZNF582-AS1	-7.903489168	9.86E-09
SIGIRR	4.589014124	9.60E-07	ART3	-8.92987239	9.90E-09
ETNK2	1.587366752	9.65E-07	DYRK1A	-1.57302506	1.10E-08
AC007773.2	4.236120734	1.03E-06	ARPP21	-8.037769413	1.10E-08
AC156455.1	4.687323369	1.04E-06	RP11-255H23.2	-6.803708505	1.10E-08
RP11-25H12.1	6.900994063	1.07E-06	HOXA7	-6.678710098	1.11E-08
VAV1	6.485448416	1.07E-06	LINC01535	-7.587569134	1.12E-08
SP8	6.662064717	1.07E-06	HYDIN2	-7.68485573	1.26E-08
KIF22	2.035682696	1.08E-06	NOVA1	-3.14922289	1.31E-08
CCBE1	7.699538682	1.10E-06	FBN3	-9.076354861	1.35E-08
AP3S1	1.833769151	1.11E-06	MRPS17	-2.813500722	1.36E-08
DCAF6	1.605474642	1.12E-06	TSC22D1	-2.753393057	1.38E-08
WIPI1	2.199242472	1.12E-06	HOXD8	-8.425698446	1.39E-08
FCHO1	2.776417965	1.13E-06	NALCN	-7.485100974	1.39E-08
MT2A	3.685100979	1.13E-06	THBS2	-6.224305204	1.46E-08
GCLM	2.924993181	1.14E-06	ATP10A	-9.044377242	1.50E-08
NOTUM	5.056976923	1.15E-06	RAD54L2	-1.652976576	1.59E-08
PER1	3.098570984	1.20E-06	URM1	-2.854212069	1.63E-08
SEH1L	2.020635887	1.21E-06	EMILIN3	-8.295601114	1.65E-08
SHCBP1	1.510681798	1.22E-06	TRIM24	-2.676643359	1.70E-08
CYP4F26P	5.220397301	1.28E-06	LINC00403	-7.699092752	1.72E-08
PLEKHN1	5.383533565	1.28E-06	GPC3	-8.395769478	1.75E-08
COPA	1.36073993	1.32E-06	RIC3	-7.784436663	1.90E-08
PDIA5	2.017252978	1.36E-06	PIP5K1B	-8.099273	1.95E-08
PLAG1	3.499824371	1.37E-06	NPR2	-3.536623637	1.98E-08
BATF3	2.312783236	1.38E-06	MTURN	-2.353547582	1.99E-08
FAM131C	4.525550992	1.44E-06	RCOR2	-2.846955055	2.15E-08
LINC00659	6.365318386	1.52E-06	BCORL1	-1.797160233	2.18E-08
ASL	2.032431243	1.53E-06	KCND3	-8.744996697	2.18E-08
TM4SF1	2.042896698	1.53E-06	LZTS1	-4.845174792	2.20E-08
ICAM5	4.104295751	1.55E-06	PCDHB11	-6.626659834	2.21E-08
CLDN1	4.924402347	1.56E-06	TRIM9	-3.555181903	2.26E-08
ESYT2	1.269970749	1.59E-06	CDC42SE1	-1.423495394	2.34E-08
NKD2	4.543978384	1.60E-06	AVL9	-2.031096303	2.38E-08
RAB27A	1.793352869	1.61E-06	CTD-2245F17.3	-8.32753367	2.40E-08
RP13-463N16.6	7.120883305	1.64E-06	AHCYL2	-3.107472138	2.54E-08
REEP6	2.747845644	1.64E-06	C1orf56	-5.000468537	2.65E-08

CSAG4	6.892698854	1.65E-06	HOXD11	-6.65021582	2.73E-08
CFH	4.434859221	1.65E-06	CTD-2291D10.4	-7.697930084	2.78E-08
GPR39	5.688826339	1.65E-06	IDUA	-7.665887637	2.81E-08
CLINT1	1.459013568	1.67E-06	RP11-448P19.1	-8.466375954	2.88E-08
ICOSLG	4.677805147	1.73E-06	BDH2	-2.602569511	2.91E-08
ZBTB7B	1.825271449	1.77E-06	RGS6	-8.116777337	2.91E-08
GRIP1	6.814249783	1.79E-06	TOR1A	-2.750079149	3.11E-08
DERL1	1.81614536	1.81E-06	FARP1	-2.829871658	3.18E-08
DHRS3	6.676793674	1.84E-06	DAB1	-8.110970716	3.31E-08
C10orf35	3.689413158	1.84E-06	PXDN	-1.571777527	3.34E-08
IER2	2.046300321	1.87E-06	UGGT1	-1.915996479	3.57E-08
PLBD1-AS1	6.911744437	1.87E-06	SSBP3	-1.912885399	3.64E-08
NUDT8	3.004048672	1.91E-06	GNAI1	-2.266042737	3.70E-08
ZC3H12A	2.846977729	1.98E-06	ATAT1	-1.772771174	3.82E-08
ERRF1	2.245704251	1.99E-06	ZC3H4	-1.829162559	3.83E-08
MRPL13	2.013787244	2.00E-06	MCAM	-2.717888117	3.92E-08
FAM95C	6.86653314	2.08E-06	KLRC4-KLRK1	-7.827849964	3.93E-08
ISL1	6.806063501	2.12E-06	GPX3	-7.586653029	4.02E-08
ZNF692	1.745599356	2.27E-06	TECPR2	-2.859290907	4.14E-08
COL17A1	6.70896012	2.34E-06	ANKRD7	-6.584471336	4.16E-08
OSBPL10	1.898111641	2.34E-06	APBB2	-2.016174325	4.24E-08
LINC01036	6.818139675	2.35E-06	CASP2	-1.930698257	4.25E-08
CCDC7	2.031794083	2.35E-06	RP11-472N13.3	-7.835931094	4.56E-08
LINC01273	5.680137692	2.37E-06	LINC01105	-8.210805291	4.78E-08
RNF139-AS1	2.092008006	2.49E-06	HIST1H2AC	-2.827217506	4.87E-08
TCAM1P	7.293955208	2.51E-06	RP4-756G23.5	-7.97797169	5.04E-08
ATAD2	1.758292203	2.57E-06	SNTG1	-8.861365597	5.27E-08
RP11-284F21.7	4.128882055	2.63E-06	PTPRD-AS1	-7.51830869	5.39E-08
CTC1	1.799988321	2.65E-06	FKBP9	-4.452799388	5.47E-08
ALOX12B	5.352522856	2.66E-06	CALM1	-3.04562266	5.56E-08
PRSS16	4.846260439	2.66E-06	RP11-496D24.2	-7.031095606	5.62E-08
CGB2	6.747292713	2.68E-06	C1orf54	-6.838687744	5.86E-08
RP11-402J6.1	6.757541223	2.72E-06	MYO16	-8.760883412	5.90E-08
LMLN-AS1	5.648446421	2.82E-06	NAA16	-1.696138497	6.02E-08
RP11-519M16.1	6.69772685	2.85E-06	CREB3L1	-8.518968892	6.58E-08
LACTB2	1.79429672	2.86E-06	TAOK3	-2.790647027	6.63E-08
CEP295	1.572774351	2.95E-06	PLCG1	-2.005319028	6.65E-08
SLC7A5	2.344790914	3.00E-06	MMP16	-2.885515091	6.65E-08
LINC00460	3.729442416	3.14E-06	KCNAB3	-3.517345913	6.77E-08
ASPH	2.246488196	3.23E-06	GLI3	-2.693784032	6.78E-08
RP11-491I11.1	3.617485545	3.44E-06	SYT11	-3.310530806	6.79E-08
SPRYD3	2.01858611	3.45E-06	PLEKHB2	-1.469004499	6.89E-08
MTND6P21	6.767640478	3.51E-06	TNS3	-5.113245881	7.14E-08
EDARADD	4.151564967	3.53E-06	MAMDC2-AS1	-3.933905485	7.18E-08
RP11-66B24.1	6.774858729	3.65E-06	STARD9	-1.495835056	7.29E-08
PSMG2	1.600887281	3.68E-06	TMEM170A	-1.92049578	7.48E-08
RP11-575F12.1	6.731795954	3.72E-06	HIBADH	-1.630515359	7.53E-08
LRRC73	3.648509954	3.74E-06	NEB	-5.359146876	7.60E-08
GRK3	2.903328225	3.76E-06	TSPAN11	-8.615608089	7.61E-08
P2RY2	4.956249106	3.85E-06	LINC00265	-1.778749128	7.71E-08
TSPAN2	6.937036044	3.93E-06	DOK5	-7.796575297	7.73E-08
RP11-148O21.4	6.908853839	3.99E-06	DPP6	-7.448093195	7.77E-08
RP11-326A19.4	4.369169949	4.03E-06	TSN	-1.817214094	8.25E-08
PLP2	2.453788251	4.12E-06	SRD5A1	-1.953186578	8.28E-08
IFT57	1.45190077	4.23E-06	STK33	-8.564881991	8.35E-08
MGAT4B	1.432445544	4.32E-06	ARHGAP21	-1.782212896	8.36E-08
C8orf59	1.726836254	4.36E-06	RPE65	-7.032590115	8.47E-08
HCG25	2.351298305	4.45E-06	LDLRAD3	-2.164772284	8.53E-08
PRDM15	1.324954751	4.56E-06	RAMP2-AS1	-8.60775794	8.64E-08
RP11-268G12.3	4.200333373	4.56E-06	PARP11	-2.454731806	8.87E-08
WNT2B	3.059556555	4.99E-06	ZSCAN21	-1.697076628	9.29E-08
METTL23	1.355119318	5.01E-06	ITGA11	-8.065481368	1.00E-07
RP11-403I13.5	6.607682454	5.12E-06	HOXB13	-8.108059774	1.08E-07
RP11-802E16.3	3.829069566	5.16E-06	MEX3A	-1.907301753	1.09E-07
HOXB4	4.02657126	5.22E-06	CNTFR	-7.594799677	1.15E-07
LBX2	5.427944399	5.25E-06	DDN	-6.485112482	1.16E-07
MCUB	2.459460478	5.40E-06	IPO9	-1.691754838	1.18E-07
ABHD14B	1.769971385	5.59E-06	FTX	-2.006892193	1.18E-07

AKAP12	3.582451821	5.60E-06	IL6ST	-2.547443899	1.18E-07
RP1-28O10.1	6.740643804	5.65E-06	FHIT	-3.500481858	1.19E-07
NFKB2	1.785925269	5.75E-06	DSCAML1	-7.267352456	1.21E-07
CA13	1.724515939	5.85E-06	MOAP1	-1.649148768	1.25E-07
QLC3	1.511373337	6.02E-06	GPR75	-3.191995755	1.26E-07
ZNF280A	6.254061821	6.03E-06	LMO4	-2.141140155	1.26E-07
INTS8	1.768235684	6.10E-06	ZNF117	-4.120366935	1.28E-07
SLC9A7	2.387908572	6.12E-06	CLEC4F	-5.476451894	1.28E-07
RNF19B	2.087396167	6.12E-06	RFC2	-2.343146498	1.32E-07
LINC01037	6.270344811	6.20E-06	KATNAL2	-3.382314823	1.36E-07
RP11-64D22.5	6.670237088	6.25E-06	ID3	-3.408057246	1.45E-07
MSRB3	2.358771729	6.61E-06	FMNL2	-2.0567261	1.48E-07
PTHLH	4.026781908	6.74E-06	LINC01415	-8.371321319	1.48E-07
RHBDD1	1.633073166	7.03E-06	DACT3	-4.782381239	1.49E-07
RP3-522D1.1	3.049267853	7.07E-06	ZKSCAN3	-2.032009982	1.50E-07
PLGRKT	1.75562491	7.40E-06	TOX3	-8.513050805	1.50E-07
DOC2GP	4.240544738	7.46E-06	MAPRE2	-2.258173208	1.55E-07
CHTF18	2.729195271	7.49E-06	PHTF2	-2.110360977	1.56E-07
CAV2	2.607289905	7.52E-06	ZNF429	-4.22913794	1.58E-07
LINC01703	3.063371686	7.75E-06	ETV1	-2.039385166	1.60E-07
LINC01186	6.337343389	7.82E-06	DPYSL5	-2.41613775	1.60E-07
PRKAG2	3.10829687	7.97E-06	PCDHB12	-4.445327016	1.60E-07
SACS	2.252386019	8.15E-06	RAMP2	-7.946178774	1.62E-07
HSD17B14	3.767280143	8.33E-06	C7orf49	-1.897189854	1.68E-07
DHRS2	3.877385968	8.48E-06	CRABP1	-8.200511103	1.72E-07
STK3	1.842450934	8.49E-06	GSK3B	-1.865462316	1.81E-07
BCRP2	6.089677043	8.92E-06	MLYCD	-2.358479961	1.84E-07
DNAH17-AS1	6.671372493	8.96E-06	ADCYAP1R1	-8.568914004	1.84E-07
AADACP1	7.060145573	9.01E-06	EP300	-1.649613285	1.87E-07
GAPLINC	6.488946566	9.04E-06	SLC25A29	-2.248481258	1.87E-07
GGH	1.690024189	9.13E-06	KMT2C	-1.997615406	1.89E-07
LL22NC03-86G7	4.727001344	9.25E-06	HAND2-AS1	-7.871059918	1.90E-07
NUF2	1.692206242	9.42E-06	CHRM1	-7.240024674	1.90E-07
AC073130.3	6.442162012	9.95E-06	TSPAN12	-3.791941242	2.02E-07
PCDHB6	4.284167385	1.01E-05	KLHDC8A	-7.188530969	2.07E-07
VAT1L	7.489768673	1.05E-05	TSPAN14	-2.315003229	2.08E-07
SLC7A11	2.225019393	1.05E-05	NINJ2	-6.911686183	2.15E-07
CRNDE	1.661141577	1.07E-05	LRRC4C	-4.841782525	2.19E-07
XXyac-YM21GA	6.615020672	1.08E-05	SNN	-4.293138139	2.19E-07
SYNGR2	3.255089625	1.09E-05	HES1	-6.804834893	2.20E-07
GATA3	4.587389185	1.10E-05	CTC-543D15.8	-7.521818143	2.35E-07
CH17-472G23.2	3.37406725	1.11E-05	ZNF790-AS1	-7.2818115	2.38E-07
RP11-54A9.1	7.48207227	1.12E-05	MTFR1L	-1.630826464	2.48E-07
PPP2R3A	1.839795585	1.12E-05	ATP2B1	-2.479504465	2.50E-07
MTFR1	1.679659048	1.12E-05	GPR156	-5.196448605	2.51E-07
KHDRBS2	6.558804198	1.13E-05	GPR155	-3.944168043	2.57E-07
ALDH7A1	1.64177603	1.13E-05	PIPOX	-6.204250135	2.58E-07
UTP23	1.74213718	1.15E-05	SCN3A	-6.130215416	2.60E-07
RP5-1139I1.1	6.931226549	1.15E-05	CA8	-7.615048346	2.67E-07
SNHG6	1.619245894	1.16E-05	BAG5	-1.463471935	2.69E-07
RILP	2.948389258	1.16E-05	CDKN2C	-2.585768632	2.71E-07
ADAMTS2	6.835618425	1.19E-05	PLEKHH2	-2.333159992	2.95E-07
MSC	6.418676483	1.20E-05	CTD-2017D11.1	-3.960102808	2.97E-07
PTPRF	2.346133855	1.20E-05	ARGLU1	-1.907938535	2.99E-07
TMEM244	6.446484348	1.22E-05	PTCH1	-2.850126841	2.99E-07
CORO1B	2.39135338	1.23E-05	PMP22	-1.686197621	3.16E-07
RECQL	1.531731314	1.24E-05	VAMP5	-7.736934812	3.24E-07
ARHGAP29	4.987765888	1.26E-05	CDH2	-3.41840142	3.32E-07
RAET1E	5.356798537	1.26E-05	RP11-290O12.2	-7.111607088	3.32E-07
TTPA	1.908082052	1.27E-05	GAS2	-5.162235767	3.33E-07
DCUN1D5	2.108779238	1.32E-05	MAP1A	-4.195995788	3.39E-07
CWF19L2	1.61379868	1.33E-05	NAALAD2	-7.935443856	3.40E-07
RP11-162D16.2	6.403115552	1.33E-05	RASSF2	-2.877848345	3.47E-07
IGSF1	5.118692232	1.34E-05	LRP4	-3.769580609	3.49E-07
BTNL8	7.586761091	1.36E-05	RP9P	-3.261884755	3.67E-07
MAP3K14	2.040029072	1.39E-05	IFI27L1	-2.049833197	3.69E-07
RP11-60A8.1	7.059636969	1.42E-05	PPP1R1B	-8.430361447	3.74E-07
MYL12A	2.238812181	1.42E-05	RP11-329B9.4	-3.828846578	3.74E-07

DYRK3	1.566193026	1.43E-05	PREX1	-3.119859533	3.81E-07
RP11-462L8.1	2.684911141	1.43E-05	C3AR1	-7.681887624	3.88E-07
SLC1A5	2.455219237	1.45E-05	SECISBP2L	-1.795157252	4.09E-07
SLC22A5	3.356202981	1.46E-05	C21orf62	-8.318048444	4.12E-07
CCT4	1.474237762	1.51E-05	ELAVL4	-7.968105052	4.13E-07
RNMT	1.890106209	1.51E-05	EIF4H	-1.658449733	4.28E-07
RP11-535M15.1	6.836140007	1.53E-05	TSC22D4	-2.930594811	4.35E-07
SPOCK3	6.329898052	1.53E-05	SETBP1	-7.623236886	4.36E-07
MSL3P1	6.358039667	1.60E-05	DDR2	-2.897682051	4.44E-07
HSD11B2	5.026868	1.60E-05	STMN3	-4.766113492	4.59E-07
ADCY7	2.979349539	1.61E-05	RP11-488C13.5	-2.246146887	4.77E-07
MPP3	1.949467635	1.61E-05	NNT-AS1	-2.064197224	5.02E-07
NUDT22	1.845685503	1.64E-05	CHRNA1	-8.095522574	5.03E-07
PLSCR1	1.572589187	1.64E-05	CLASP1	-1.87962099	5.14E-07
CD7	7.099517001	1.67E-05	STXBP6	-3.537600572	5.23E-07
CFD	4.508607275	1.67E-05	GRIK1	-8.236882397	5.27E-07
METTL4	1.536763995	1.67E-05	TCF12	-1.720337644	5.29E-07
RP11-134G8.5	3.127231423	1.71E-05	SELENOP	-6.646577824	5.44E-07
NEBL	4.522355671	1.73E-05	SRGAP3	-3.750123528	5.48E-07
NEK2	1.397007791	1.74E-05	DGKB	-7.637144541	5.55E-07
LINC01694	4.575615416	1.74E-05	LINC00391	-7.146426634	5.71E-07
RPL7	1.459415794	1.83E-05	CTA-293F17.1	-4.702427301	5.76E-07
TMEM14A	2.036706921	1.83E-05	AC010729.1	-7.260223812	5.96E-07
MARCH3	2.209893142	1.84E-05	IGF2R	-2.053806072	6.01E-07
ITGB4	3.640100631	1.84E-05	FABP3	-7.747128444	6.13E-07
NRIP3	4.999236115	1.84E-05	ZNF428	-2.728824689	6.19E-07
CEP57	1.613756419	1.93E-05	CDHR1	-7.499802815	6.31E-07
RHPN2	1.431673136	1.93E-05	MEGF9	-2.374344931	6.31E-07
FBXL8	1.733355167	1.93E-05	YAE1D1	-1.510469401	6.41E-07
IGFN1	5.37807095	1.93E-05	IRS2	-1.791708871	6.76E-07
ANKRD34A	1.846622896	1.95E-05	USP11	-1.909865811	6.84E-07
RP11-148O21.3	6.106927561	2.05E-05	RP11-617F23.1	-3.124766954	6.90E-07
NOXA1	4.590671454	2.06E-05	UPF3A	-1.593880475	6.92E-07
CHCHD10	1.685787785	2.07E-05	CBX2	-1.938858457	7.31E-07
JMJ3D6	1.53374278	2.07E-05	MARVELD1	-1.944570686	7.37E-07
TPD52	2.862086799	2.08E-05	KLRC4	-7.755224737	7.61E-07
CIB1	1.975761493	2.09E-05	WIPF3	-6.084224839	7.77E-07
FAM227A	2.020644878	2.13E-05	GTF2IRD2	-3.802822639	7.78E-07
YARS2	1.801488105	2.18E-05	USP32P3	-2.482787701	8.01E-07
EGFL7	3.38536721	2.19E-05	ACP2	-2.20655722	8.09E-07
RP13-977J11.2	4.165965675	2.22E-05	C6orf52	-3.754987247	8.14E-07
HIVEP2	2.651215167	2.24E-05	RP11-480I12.9	-3.362314911	8.24E-07
TRAF1	2.355712267	2.24E-05	WDR91	-1.961959135	8.27E-07
GPRC5A	2.739553481	2.26E-05	GOLIM4	-1.766557423	8.38E-07
PGM5P2	1.910117592	2.30E-05	ZNF726	-5.148445832	8.73E-07
XKR9	3.57442536	2.41E-05	RP11-611L7.2	-4.304779814	8.76E-07
ENO1-IT1	2.386887831	2.46E-05	RAB39A	-2.63991549	9.06E-07
IRX3	2.442739043	2.47E-05	DIP2B	-1.988339997	9.50E-07
FAM72D	2.224275534	2.49E-05	PNMAL2	-7.418551756	9.58E-07
RGS5	2.484751525	2.49E-05	RNASE1	-6.964960939	9.83E-07
SENCR	6.08542527	2.56E-05	EYA4	-8.961759465	9.99E-07
LDOC1	1.759039104	2.59E-05	RP11-277P12.2C	-2.86194715	1.03E-06
SYCP2L	4.087907768	2.59E-05	RNF122	-2.087607451	1.03E-06
CARMIL2	3.323888319	2.66E-05	SATB2	-2.653640328	1.04E-06
FAM91A1	1.674245702	2.72E-05	ARHGAP31	-2.013985984	1.04E-06
ZNF438	1.506994198	2.75E-05	ZNF582	-3.09410555	1.06E-06
GDPD5	3.08011749	2.81E-05	SPP1	-8.555276201	1.07E-06
EPS8L2	3.084997859	2.89E-05	RP11-966I7.2	-7.196263744	1.09E-06
NAP1L3	3.01901456	2.91E-05	ZKSCAN2	-1.963998383	1.10E-06
AK7	3.84364141	2.99E-05	PTPRA	-1.998838714	1.10E-06
ASAP2	1.226637135	3.03E-05	B4GALNT3	-4.457473266	1.12E-06
TRIB3	2.504197396	3.09E-05	DOLPP1	-2.518584887	1.15E-06
PRELID2	2.769968727	3.11E-05	ZNF157	-5.307676041	1.20E-06
HSPA1L	2.084791325	3.12E-05	WWTR1	-3.078049584	1.22E-06
LAS1L	1.782298979	3.15E-05	PLCH1	-4.604689477	1.27E-06
C6orf1	2.608738581	3.16E-05	ENTPD1	-5.669436679	1.28E-06
HIF1A-AS2	6.404846376	3.20E-05	H2AFV	-1.989108523	1.28E-06
LAMP3	4.373717262	3.20E-05	RP11-25K19.1	-5.405367611	1.31E-06

FMN2	2.896931178	3.22E-05	SSPN	-5.155750258	1.33E-06
SLU7	1.473450764	3.22E-05	SNX18	-2.917330113	1.33E-06
HEBP2	1.588958192	3.35E-05	A2M	-7.803565545	1.36E-06
RP11-527N22.2	5.339134282	3.42E-05	FAM69C	-7.049023183	1.36E-06
TMED3	1.539236874	3.59E-05	E2F3	-2.939029264	1.38E-06
IL6R	2.767996341	3.61E-05	STIM2	-1.92396479	1.38E-06
ARFGEF1	1.772181883	3.69E-05	CPVL	-6.316671589	1.39E-06
GOT1	1.431330006	3.74E-05	PCDHGA9	-6.37877329	1.43E-06
SDC4	1.475645055	3.74E-05	ZNF570	-2.405767216	1.44E-06
PSTPIP2	2.035974703	3.75E-05	RP11-4O1.2	-4.615001879	1.45E-06
CTC-378H22.1	6.534646783	3.76E-05	GS1-24F4.2	-6.779841943	1.45E-06
SCNN1A	6.306270098	3.76E-05	IQGAP2	-6.45493982	1.51E-06
MYH9	1.611472476	3.78E-05	ZNF436	-2.105896892	1.55E-06
MRE11	1.47349534	3.78E-05	MVB12B	-1.836275973	1.57E-06
KCTD8	4.173064287	3.79E-05	FNTB	-1.997061983	1.60E-06
CT45A1	6.249095502	3.82E-05	MMP11	-4.666912154	1.60E-06
SPAG5	1.444661329	3.84E-05	MAP1LC3A	-7.379274997	1.78E-06
FAM72B	2.151622872	3.85E-05	AGMO	-6.104132665	1.81E-06
RP11-686D22.8	6.198503793	3.99E-05	MYEF2	-2.082989992	1.84E-06
C19orf12	1.45752136	4.01E-05	AP002954.3	-3.351638835	1.87E-06
KHNYN	1.433067726	4.02E-05	UTP14C	-1.529938232	1.92E-06
MFSD13B	5.779481009	4.10E-05	ZSWIM6	-2.403045418	2.02E-06
SLC22A4	3.393892488	4.12E-05	H19	-5.533234603	2.07E-06
LIF	3.366762223	4.20E-05	ABCA12	-6.827329406	2.15E-06
CTDSPL	1.34538877	4.21E-05	ZNF430	-1.528009521	2.21E-06
FBXO28	1.629398402	4.25E-05	LANCL2	-2.013564318	2.23E-06
NSMCE2	1.72261495	4.29E-05	KCNIP2	-2.6298532	2.25E-06
CTF1	3.875202164	4.31E-05	PEAK1	-1.85409197	2.26E-06
DDX10	1.725076038	4.31E-05	RP11-480I12.5	-2.908564525	2.28E-06
MAGEA2	6.225964748	4.32E-05	NR2F1-AS1	-2.868865851	2.32E-06
RP11-531A24.5	2.303603847	4.33E-05	LYNX1	-7.396014617	2.35E-06
BIRC3	4.058512438	4.34E-05	AK1	-2.930008372	2.39E-06
GABRD	4.418032104	4.42E-05	PHACTR1	-6.182714971	2.39E-06
LINC00706	6.476287527	4.44E-05	ZNF425	-3.506601368	2.43E-06
PTPN2	2.132937987	4.57E-05	PRSS35	-7.592427111	2.44E-06
HSD17B11	1.424828471	4.58E-05	DENND5A	-1.518925004	2.45E-06
SERPINA1	5.951116786	4.60E-05	SEMA4A	-3.958432841	2.46E-06
F8	1.958369945	4.61E-05	ADGRL2	-4.221479784	2.51E-06
ZFYVE19	2.195482656	4.68E-05	CXCR4	-5.419354816	2.53E-06
FSIP2-AS1	3.101133259	4.68E-05	ABTB2	-2.737344682	2.57E-06
ANKRD20A21P	5.8115734	4.74E-05	NCOA5	-1.940734617	2.57E-06
AC012485.2	5.923739888	4.79E-05	CDK2AP1	-2.00372139	2.57E-06
ARHGAP19	1.214350342	4.81E-05	LY6G5C	-4.083229345	2.57E-06
BAIAP2	2.052515418	4.82E-05	NUDT3	-1.637251599	2.61E-06
COA6	1.770294751	4.90E-05	ZC3H7A	-1.556624236	2.63E-06
AC007879.5	3.074641483	4.97E-05	SORCS3	-7.475381403	2.64E-06
TMEM151A	4.304951232	5.04E-05	GBGT1	-7.258447304	2.72E-06
WDYHV1	1.76547478	5.05E-05	DNM3OS	-7.790383001	2.74E-06
AARS	1.429283699	5.07E-05	TRIM46	-2.255560482	2.76E-06
RPL30	1.484595814	5.11E-05	FAM110C	-6.868585317	2.79E-06
ABCB7	1.540121436	5.11E-05	DAGLA	-2.215702492	2.83E-06
KCNH3	4.130173125	5.11E-05	PNMA6A	-6.664836396	2.84E-06
TRIM7	2.819998212	5.32E-05	SERHL2	-6.70343082	2.88E-06
LINC01006	3.63077232	5.60E-05	RP11-1217F2.1	-2.58704717	2.93E-06
SLC16A7	5.556371159	5.66E-05	KRCC1	-1.591256356	2.97E-06
SYNPO	2.573724643	5.76E-05	ZDHHC15	-2.442360766	3.07E-06
GPR18	6.108106477	5.76E-05	TIA1	-1.927848441	3.09E-06
CMBL	1.123094417	5.88E-05	KLRC3	-6.660664937	3.13E-06
RAB3B	2.334459043	5.93E-05	SLC25A25	-2.564863044	3.18E-06
CEP126	4.765219743	5.93E-05	GOLGA2	-2.170339054	3.30E-06
LRRFIP1	1.871229807	5.98E-05	JAG1	-4.421832899	3.35E-06
AC079922.3	1.956902709	5.98E-05	ZHX2	-2.734538351	3.39E-06
WDR4	1.877400742	6.14E-05	NNT	-1.688072149	3.50E-06
DPM3	2.452919188	6.16E-05	CLK4	-1.941223901	3.54E-06
CH17-472G23.4	1.693241182	6.19E-05	TICAM1	-6.409461793	3.65E-06
SLC22A31	6.404361955	6.21E-05	MIER3	-2.020480536	3.67E-06
TESC	4.034938023	6.24E-05	NRIP1	-1.552155897	3.74E-06
TRIM6	3.341998393	6.33E-05	ACAD8	-1.751444729	3.84E-06

MESP2	6.064005094	6.39E-05	SLC12A8	-5.863900494	3.88E-06
RP11-564D11.3	2.831109385	6.41E-05	KLHL14	-6.76944669	3.91E-06
DDIT3	2.215673428	6.49E-05	ADAMTS15	-6.455448723	3.96E-06
ATM	1.287728998	6.59E-05	RP11-126K1.6	-3.730455453	3.98E-06
SLC50A1	1.565384987	6.64E-05	BMF	-4.069333969	4.10E-06
ACTN1	1.184788077	6.70E-05	ZSCAN25	-1.732893065	4.23E-06
CLNS1A	1.126096736	6.84E-05	TBX15	-4.171671145	4.24E-06
AP003900.6	6.142594363	7.05E-05	PRR18	-6.298117461	4.25E-06
FHL2	3.387355058	7.06E-05	CD207	-5.178703944	4.26E-06
AC073130.1	6.12655016	7.07E-05	SMURF1	-1.33102264	4.27E-06
SIL1	1.740002194	7.11E-05	KLHL7	-1.719891504	4.28E-06
QSOX1	1.834396104	7.19E-05	ZDHHC22	-5.533750026	4.32E-06
FAM86B3P	1.958737718	7.41E-05	CBSL	-3.91480754	4.45E-06
RP11-280G9.1	6.171046787	7.41E-05	SORCS2	-6.471728621	4.77E-06
TLL2	4.082117802	7.48E-05	CHADL	-6.890250281	4.81E-06
CYBR2	4.606681285	7.55E-05	FAM214A	-1.950336965	4.87E-06
RPL12	1.429467442	7.62E-05	BCL7B	-2.769198511	4.94E-06
FBXO43	2.380969891	7.84E-05	PEBP1	-1.756583715	5.01E-06
RP11-495P10.10	1.936887807	8.03E-05	AC078842.3	-6.312706899	5.01E-06
FAR2P1	4.936531953	8.05E-05	PAQR6	-2.277732777	5.05E-06
HSPA9	1.249272179	8.05E-05	KCNN2	-6.800474237	5.19E-06
PEPD	2.039501264	8.10E-05	PLXNB3	-3.407645123	5.28E-06
KLC3	6.165012543	8.13E-05	bP-21264C1.1	-6.335504816	5.33E-06
HLA-L	2.063913934	8.15E-05	COL16A1	-4.031738769	5.33E-06
SIRPB1	4.675312778	8.27E-05	LA16c-306E5.2	-6.609989098	5.38E-06
RP11-465B22.3	2.976147091	8.27E-05	SDPR	-7.580559368	5.40E-06
ERO1B	2.100009409	8.28E-05	MYCN	-7.634149725	5.43E-06
MYOSLID	6.251556237	8.30E-05	RBM23	-1.47130468	5.57E-06
RP11-122G18.11	4.018316325	8.30E-05	PAR6G	-2.029138891	5.72E-06
ACD	1.882616365	8.31E-05	AC064875.2	-8.268709306	5.72E-06
OAF	2.390448949	8.33E-05	SLC7A3	-6.98685071	5.97E-06
RP11-148O21.2	6.292163975	8.38E-05	KANK1	-3.055429556	6.04E-06
RP11-818F20.5	5.837404855	8.44E-05	LEPROTL1	-2.38294778	6.16E-06
APOL1	4.325237844	8.46E-05	PLCB1	-3.154386266	6.19E-06
ECE2	2.428320432	8.58E-05	ESRRG	-7.840914344	6.19E-06
DENND3	2.990357638	8.62E-05	RP11-742D12.2	-6.600456329	6.20E-06
AC116609.3	6.271703909	8.65E-05	ZNF835	-7.47760205	6.31E-06
TRIP10	1.657131428	8.73E-05	ZKSCAN1	-2.017420509	6.33E-06
SMPDL3B	4.616445423	8.74E-05	RND2	-1.916048024	6.35E-06
DUSP5	3.686129958	8.81E-05	WSB1	-2.327253738	6.35E-06
TRIP13	1.600358181	8.90E-05	RGL1	-1.914148063	6.35E-06
CES3	3.017303193	8.98E-05	CCDC120	-6.445042338	6.40E-06
MAP2K3	1.320056939	9.04E-05	BBOX1	-7.257404167	6.45E-06
KCNN1	3.188418263	9.20E-05	MBTPS1	-1.246984379	6.45E-06
ZC3H15	1.607253748	9.21E-05	ATP6V0E2-AS1	-2.617283231	6.45E-06
CDK7	1.328809493	9.44E-05	CHST9	-6.261634078	6.75E-06
NTRK1	3.864659504	9.49E-05	TGFB3	-2.174138043	7.01E-06
FAM111A	1.434909359	9.61E-05	CDH6	-8.393378183	7.06E-06
SLCO1B1	6.200788044	9.65E-05	CORO2B	-4.079241563	7.06E-06
KRT34	6.175123649	9.66E-05	ADARB2	-6.253261526	7.07E-06
SNHG3	2.007679738	9.72E-05	ZFAND5	-1.333078315	7.09E-06
RP11-336A10.5	6.036433974	9.75E-05	LINCR-0001	-3.583810268	7.15E-06
TEKT4P2	1.652994433	9.76E-05	LINC00909	-1.795020664	7.52E-06
GUCA1B	2.512679652	9.79E-05	IFITM2	-6.357688366	7.72E-06
FDPS	1.682649589	9.81E-05	AC073343.13	-3.817835458	7.97E-06
DNAJA2	1.254528871	9.83E-05	LINC01224	-6.942475864	8.32E-06
SNTA1	1.855026372	9.83E-05	RASA3	-1.870986963	8.33E-06
MTHFD2	1.611108297	1.01E-04	ADAMTS3	-2.702139134	8.33E-06
MICALCL	5.09568983	1.01E-04	ITM2C	-2.910323702	8.35E-06
ARRDC1	2.227428125	1.01E-04	REV3L	-1.769411596	8.46E-06
RAB27B	4.233431928	1.02E-04	COLEC12	-6.264337315	8.51E-06
PKD1L2	4.005502551	1.04E-04	SON	-1.19079563	8.55E-06
RP11-445O3.3	5.996668	1.05E-04	OPN3	-1.743267409	8.70E-06
SMCO2	2.552941153	1.05E-04	ATP6V0E2	-2.493339529	8.70E-06
CMB9-22P13.1	4.696612941	1.06E-04	PLD5	-8.560230933	8.78E-06
ALDH9A1	1.167266015	1.08E-04	CD36	-5.879239698	8.99E-06
RP11-789C2.1	6.134136909	1.11E-04	KANSL2	-1.278645852	9.00E-06
TMC6	2.137676287	1.11E-04	RGS16	-2.249077285	9.11E-06

C10orf11	3.201052494	1.11E-04
RP11-77H9.2	2.414492258	1.11E-04
ROBO4	5.253815395	1.12E-04
CMTM4	1.509838385	1.13E-04
GOLT1B	1.587493058	1.15E-04
ARHGAP45	3.899697261	1.18E-04
ARHGAP27	2.946301498	1.19E-04
MND1	1.798401823	1.21E-04
TMEM39A	1.114901907	1.23E-04
RP11-126K1.2	2.955735961	1.24E-04
FAM98C	1.451070818	1.25E-04
GTF2H2B	1.695819244	1.28E-04
RP11-61A14.1	5.6362257	1.28E-04
TMEM200B	3.904905657	1.28E-04
FKBP2	1.428743831	1.29E-04
RP11-681B3.4	5.946072551	1.29E-04
AGPAT2	2.30862541	1.30E-04
TMEM40	6.63599404	1.30E-04
LRRC2-AS1	6.032954976	1.31E-04
AIP	2.098549984	1.33E-04
TBC1D32	2.354456866	1.33E-04
CREG1	1.511955171	1.39E-04
PANX2	2.967373077	1.40E-04
RFTN1	4.409310376	1.40E-04
NBL1	3.393181516	1.41E-04
MARS	1.386117466	1.41E-04
AXDND1	3.490919951	1.43E-04
ANXA11	1.540619085	1.44E-04
CTC-281F24.3	3.96588506	1.46E-04
LRRC2	4.249950974	1.49E-04
STYK1	5.307218857	1.49E-04
THG1L	1.125594406	1.52E-04
TPK1	1.484219136	1.53E-04
DEPTOR	3.926036101	1.53E-04
RABGAP1L	1.686217785	1.55E-04
TRIM25	1.290707489	1.56E-04
UQCRCB	1.431678816	1.59E-04
CTC-241N9.1	2.085569121	1.62E-04
RP11-745L13.2	5.965543072	1.63E-04
ADRA1B	6.001859259	1.63E-04
EMBP1	4.881064498	1.65E-04
EVA1A	4.734748264	1.65E-04
SHANK2	5.327824646	1.65E-04
EBAG9	1.489276633	1.65E-04
LINC01238	1.855748333	1.66E-04
NRTN	3.205906131	1.66E-04
NMNAT3	2.730653499	1.66E-04
UPK1A	4.837453706	1.67E-04
LINC01293	5.944346668	1.67E-04
STPG2	3.302883306	1.72E-04
DNASE1L1	2.513631086	1.72E-04
DDIT4	2.039723673	1.74E-04
RP11-43A14.1	4.387826573	1.75E-04
DNHD1	1.743757735	1.75E-04
GFOD1	2.586068154	1.78E-04
PRR5	3.722403025	1.79E-04
MYOF	4.747732201	1.79E-04
CAPN12	4.001323879	1.80E-04
PLCB4	2.002095885	1.80E-04
PIK3CD-AS2	2.914291017	1.81E-04
OPTN	1.759683322	1.84E-04
GRAMD1C	2.134171971	1.85E-04
BCAS4	1.852960821	1.88E-04
RP11-445F12.1	3.584080174	1.88E-04
NAP1L1	1.336960592	1.89E-04
TAF1D	1.84307435	1.90E-04
CTD-2128A3.2	5.916777774	1.90E-04
KIAA1522	1.414859377	1.93E-04

CCR1	-7.206672765	9.14E-06
RP5-981L23.7	-6.696184964	9.14E-06
RP11-834C11.4	-6.194158157	9.19E-06
MAML2	-1.79195954	9.28E-06
GLCCI1	-2.205050697	9.29E-06
STXBPSL	-7.422078541	9.37E-06
RALGAPA2	-1.489220243	9.40E-06
CAMK2B	-5.991190257	9.40E-06
NETO1	-7.185569657	9.45E-06
ALK	-6.706011432	9.77E-06
AFDN	-1.359167603	9.79E-06
RGCC	-6.812449545	9.92E-06
ARHGAP6	-7.322137496	1.00E-05
STYXL1	-2.704520263	1.01E-05
MTPN	-1.360651814	1.02E-05
GALNT5	-6.678601559	1.03E-05
ANO7	-6.489876957	1.03E-05
SH3KBP1	-1.573217871	1.03E-05
ABCB6	-3.307001766	1.03E-05
ASB16-AS1	-1.933744054	1.04E-05
WTAP	-1.762099491	1.04E-05
LUM	-6.315667694	1.07E-05
POGLUT1	-1.533434776	1.10E-05
KDM5B	-2.455462867	1.10E-05
USP32P1	-7.126391356	1.11E-05
SYNE2	-2.479573527	1.14E-05
HDLBP	-1.473395602	1.15E-05
AP1S2	-2.574886233	1.17E-05
ITIH6	-6.56496578	1.17E-05
IGDCC4	-5.056808897	1.20E-05
SCARB2	-1.994238576	1.21E-05
ZNF578	-5.785074336	1.21E-05
ACVR2A	-1.850858818	1.23E-05
RAB42	-6.520326766	1.23E-05
TXLNB	-6.662405579	1.23E-05
RCC1L	-2.173430859	1.24E-05
ATOH8	-6.274964139	1.26E-05
LSM5	-1.225545572	1.26E-05
SRGAP2	-2.101690719	1.28E-05
CENPU	-1.734265274	1.29E-05
DRAXIN	-8.939502572	1.30E-05
PSMA2	-1.741675785	1.30E-05
SGK2	-6.779409355	1.32E-05
PMS2P3	-2.299633367	1.32E-05
BPHL	-1.510703854	1.33E-05
CREB5	-5.185225317	1.33E-05
CITED1	-4.037283125	1.35E-05
CELSR2	-1.989719953	1.36E-05
SNHG18	-4.647868931	1.37E-05
NKAIN4	-5.761509818	1.40E-05
LDB1	-1.190045783	1.40E-05
TMEM35A	-6.115730612	1.41E-05
RP11-351J23.2	-7.008216051	1.41E-05
CCNT2-AS1	-2.887192815	1.44E-05
PROX1-AS1	-6.483430831	1.45E-05
PLIN3	-3.321967585	1.49E-05
COL5A3	-5.341963106	1.51E-05
VCAM1	-6.092706226	1.52E-05
WBSCR22	-1.867522876	1.53E-05
RENBP	-5.059132296	1.53E-05
ARHGAP19-SLI'	-5.336643306	1.54E-05
WIPF1	-1.877854311	1.55E-05
WDR60	-1.929350583	1.55E-05
MZF1-AS1	-4.109415081	1.56E-05
U52111.14	-5.209094491	1.56E-05
CYP4F24P	-7.661051506	1.56E-05
VAV3	-8.529394563	1.57E-05
LINC01759	-6.155727325	1.58E-05

DLX2	2.865885537	1.93E-04
MAP4K2	1.561770013	1.95E-04
ACAT1	1.901181734	1.95E-04
TRMT1L	1.3881325	1.96E-04
SSSCA1	2.207044177	1.97E-04
ANKRD18DP	3.798272606	1.97E-04
TIGD7	1.261368628	2.00E-04
RP11-115J23.1	3.59549855	2.00E-04
AC058791.1	2.103776712	2.02E-04
FAM19A3	3.17626306	2.02E-04
TDRKH	1.509200106	2.04E-04
SRPX	1.590762144	2.08E-04
LINC00397	5.833030396	2.08E-04
RP3-414A15.2	5.833030396	2.08E-04
MCF2L2	2.689258539	0.0002088209552
RP11-553A21.3	5.668675854	0.0002120600755
CISH	2.757082702	0.0002139745216
ANKRD13D	1.658325304	0.0002139745216
P2RX5	3.68335431	0.0002161277632
TBC1D2	2.378117517	0.000217989657
COQ8A	1.766127002	0.0002205338588
INTS3	1.059356499	0.0002221196089
RPSAP52	4.192110637	0.0002231950541
HRAT17	6.195418077	0.0002233493012
CD163L1	4.532283777	0.0002241113478
GRIN3B	5.205836495	0.0002242319126
KIAA1551	1.587805706	0.0002265759245
TRANK1	3.34275518	0.0002270264672
RAD21-AS1	3.167226406	0.0002277363176
RIDA	1.471036813	0.0002279195181
ST8SIA6	4.701773242	0.0002284750564
AC007879.2	4.331446467	0.0002325843762
AC115522.3	4.767627014	0.0002331553758
THAP1	1.160970462	0.0002344459672
CANB3	1.889676045	0.0002359353223
RAD51	1.432194582	0.0002378392159
C8orf37	1.402812314	0.0002405864509
CDS1	4.593883748	0.0002419520018
SP6	3.239145168	0.0002441319584
DHX38	1.461842975	0.0002464800835
FOXP4-AS1	2.326531954	0.0002478962423
HSP90AB1	1.643094068	0.0002505446139
SGMS2	4.069633842	0.0002521425125
RPTOR	1.680011242	0.0002543925844
NME3	3.532225519	0.0002575574722
FHOD1	1.938712913	0.0002614833863
TRPC4	6.383015553	0.0002631858383
KNDC1	4.666180877	0.0002632122149
ACBD3	1.232549163	0.0002648191853
ONECUT3	6.009196337	0.0002657434757
LHX1	3.861006975	0.0002673204673
KB-1980E6.3	3.412296271	0.0002681835125
CENPL	1.275730176	0.0002735563401
MTX1	1.439471995	0.0002755913006
AP1S3	3.400879318	0.0002799911503
PRKCG	4.282526901	0.0002803721307
IMPA1	1.556668686	0.0002806190871
SHISA2	6.44072761	0.0002837849483
FAM210A	2.304700909	0.0002839375426
SNX16	1.61366185	0.0002859528621
MED8	1.564165631	0.0002870742793
CAST	1.654880843	0.0002882611704
CPNE3	1.493605788	0.0002888576008
STX11	4.864614093	0.0002891687071
C1orf204	3.41048722	0.000289401083
SLC35E4	2.065000348	0.0002937047911
C6orf99	5.335843395	0.000296850181
NR4A3	2.45754144	0.0003046372206

LMTK2	-1.254268351	1.58E-05
PLA2G3	-6.221722267	1.61E-05
CABLES1	-3.085311481	1.64E-05
TRMT10B	-2.12178456	1.66E-05
APC2	-3.469252438	1.69E-05
CYP27A1	-5.862314049	1.73E-05
PPM1D	-1.381414749	1.74E-05
VTI1B	-1.383130372	1.77E-05
KLF15	-2.49576687	1.77E-05
RPS6KL1	-7.440406124	1.78E-05
RP11-268J15.5	-3.199082895	1.80E-05
SLAIN1	-2.38790468	1.81E-05
PSMA3-AS1	-1.50008569	1.84E-05
CDK5RAP2	-1.249065616	1.84E-05
SEL1L	-1.643248111	1.84E-05
GLIDR	-2.364688409	1.86E-05
DENND2A	-3.682338511	1.86E-05
GABRA4	-7.578027863	1.88E-05
C8orf31	-6.714240074	1.88E-05
TLCD2	-4.302835096	1.94E-05
RALA	-1.610496687	1.95E-05
SFXN5	-2.49676208	1.95E-05
ELMO2	-1.264742299	1.97E-05
PIK3C3	-1.622590212	1.98E-05
KDM2B	-1.360665572	1.98E-05
CLCN3P1	-6.002472608	2.00E-05
TCTA	-2.179191107	2.00E-05
PANK2	-1.291076364	2.02E-05
GABBR2	-6.866019027	2.02E-05
RP11-174J11.1	-6.328840649	2.05E-05
TSPAN3	-2.151383699	2.06E-05
ZSWIM7	-1.5524246	2.08E-05
TSTD2	-1.70327186	2.14E-05
NPNT	-8.467447428	2.19E-05
KIAA1841	-1.605669308	2.24E-05
SAP130	-1.314017605	2.23E-05
NDP	-7.141590608	2.40E-05
RP13-942N8.1	-3.265656338	2.40E-05
ZNF286A	-1.547561835	2.41E-05
PBX1	-2.793970555	2.52E-05
SH3PXD2B	-1.896790533	2.52E-05
VWCE	-2.896423675	2.54E-05
KCTD14	-5.675366872	2.54E-05
CH17-408M7.1	-6.258366558	2.57E-05
LOXL4	-6.355158721	2.61E-05
SLC15A2	-3.58681522	2.61E-05
UGGT2	-1.504955429	2.64E-05
APOLD1	-4.099375945	2.66E-05
MRPS33	-1.373964755	2.72E-05
MSRA	-2.529747678	2.81E-05
NAA60	-1.877030786	2.83E-05
GDPD2	-7.437552248	2.83E-05
SRPK3	-6.234286216	2.83E-05
TP53RK	-1.298426852	2.84E-05
XXYL1	-2.230129922	2.87E-05
SYNPO2L	-5.332730031	2.88E-05
LAMP1	-1.844623723	2.90E-05
TMEM178A	-4.806759992	2.90E-05
TNFRSF1B	-2.657970399	2.94E-05
SUSD1	-3.382783751	2.94E-05
CNDP2	-1.794495006	2.95E-05
COMMD2	-1.22822191	2.97E-05
DBNL	-1.952715567	3.04E-05
KLF12	-1.65512703	3.05E-05
TRIB2	-4.958139284	3.05E-05
PTPRN2	-6.161037669	3.06E-05
SYNJ1	-1.590950773	3.08E-05
APPBP2	-1.383694247	3.08E-05

IL11	3.632908975	0.0003060368088	TRAF3IP2-AS1	-1.702715019	3.10E-05
FAM157A	2.268478236	0.0003174286696	CREBBP	-1.347635202	3.11E-05
CDK2AP2	2.25631826	0.0003179336575	RP11-120J1.1	-3.974457425	3.13E-05
KREMEN2	3.44683736	0.0003180906123	RBMS3	-2.084815207	3.15E-05
TWIST1	2.072764073	0.00031877083	AC004980.7	-1.951479398	3.15E-05
NUDCD1	1.445088151	0.0003197934527	PELI1	-2.894373961	3.16E-05
EMC2	1.441392204	0.0003226318849	C11orf87	-7.467912664	3.24E-05
LPCAT4	1.318391558	0.0003256612307	LPAR4	-4.813612636	3.33E-05
RP4-660H19.1	5.734910136	0.0003298900161	APAF1	-1.567964156	3.34E-05
RP11-93B14.4	5.670451112	0.0003303264004	BTG2	-2.695127505	3.38E-05
BMI1	1.097282306	0.0003325018199	C2orf80	-6.820461667	3.39E-05
SLC30A3	2.985670228	0.0003348502855	NHSL1	-1.657548669	3.47E-05
METTL18	1.478235135	0.0003348583015	KCNC1	-5.274886501	3.49E-05
TMCO4	2.188888771	0.0003360913493	FAM66C	-1.945290987	3.52E-05
ZNF32-AS2	3.544314316	0.0003360913493	TBC1D7	-1.645422456	3.55E-05
SH3BGRL2	3.173192198	0.0003364128856	RHOU	-3.186389645	3.57E-05
AC017101.10	5.833569888	0.0003380045622	APOM	-2.442445538	3.57E-05
POLR3H	1.702608562	0.0003383808089	L1CAM	-2.681938808	3.61E-05
FAM83B	5.92848296	0.0003413396104	CCDC13	-3.711319491	3.72E-05
CYP11A1	5.812518334	0.0003422847813	RP5-894A10.2	-2.171188768	3.73E-05
CROCCP2	1.589934001	0.0003473772004	LMBR1	-1.907251373	3.80E-05
MRPL41	2.199824598	0.0003509099361	ZNF793-AS1	-6.754784127	3.80E-05
AC006369.2	5.86520115	0.000353289208	RAB7B	-3.086765115	3.82E-05
RP11-289F5.1	4.967720654	0.0003563823617	ZNF786	-1.723777774	3.84E-05
CTC-378H22.2	5.863256032	0.0003609088144	SLC7A8	-4.41206003	3.86E-05
ZFP36	2.259034882	0.0003661364537	VPS45	-1.411453451	3.86E-05
FAM72C	2.873088917	0.0003737272994	SRSF6	-1.135706591	3.91E-05
SNX9	1.165885814	0.0003748318134	KAT2B	-2.244531308	3.96E-05
TSGA10IP	5.724587022	0.0003767621378	MAN1C1	-3.530480386	4.04E-05
TAF7	1.256122997	0.0003800456543	RP11-1263C18.1	-7.313387613	4.16E-05
DCAF13	1.401547357	0.0003863106457	SULT1A1	-5.492318495	4.17E-05
TNFRSF11A	3.925731058	0.0003954832737	BST2	-6.441679716	4.21E-05
APOBEC3D	5.28173632	0.0003990469086	CTD-2049O4.1	-7.321369781	4.22E-05
SLC13A3	1.318403408	0.0004008600538	PLOD3	-1.681723964	4.25E-05
GHITM	1.264366628	0.0004019056312	MPPED2	-7.737450791	4.31E-05
LYPLA1	1.412389414	0.0004055566677	CCNT2	-1.499508598	4.38E-05
SLC17A7	3.188159766	0.0004118426117	AC004540.4	-6.282644251	4.39E-05
RFESD	1.780747034	0.0004129507907	SHISA7	-4.836924153	4.41E-05
EIF2S2	1.497174808	0.0004143754969	NAA40	-1.315186546	4.50E-05
MSLN	5.79488103	0.0004158964924	ENKUR	-4.544953997	4.50E-05
GRPEL2	1.136061341	0.0004190176426	SFPQ	-1.301935116	4.51E-05
SIRT7	1.280458303	0.000419290467	NOTCH4	-3.352951333	4.57E-05
RP11-195F19.9	4.469005451	0.0004238631088	SPPL3	-1.578143627	4.71E-05
ABCA5	3.479459943	0.0004258580416	GPR107	-1.730129255	4.79E-05
AHNAK	3.86555057	0.0004269202114	YBX2	-4.076146014	4.80E-05
CACNA2D2	3.657926708	0.0004271538083	DRD2	-7.214940803	4.98E-05
DNPH1	1.904916479	0.0004316625232	PXMP2	-2.741124337	4.98E-05
FKBP5	1.443127729	0.0004372348403	PDZD2	-5.08230256	5.00E-05
CDIPT-AS1	3.803998997	0.0004372348403	EZH2	-1.393782233	5.05E-05
CENPA	1.254057718	0.0004419414531	PCDHA10	-4.574259996	5.05E-05
AC009502.4	5.730004875	0.0004430834675	AC009120.6	-1.504138068	5.08E-05
RP11-783K16.1	2.343228486	0.000449774211	PRRT4	-4.437228743	5.08E-05
TMEM123	1.481262415	0.0004498855903	NSUN5P2	-2.058475023	5.14E-05
OLMALINC	1.752506758	0.0004498855903	ARL17A	-2.634782824	5.21E-05
TUBE1	1.582715801	0.0004520677542	IFRD1	-1.452438355	5.21E-05
ADAM11	2.858991538	0.0004525825731	CNP	-2.810932937	5.25E-05
RGS4	3.91157089	0.0004567081725	CCDC144CP	-2.84803853	5.28E-05
COG1	1.11675938	0.0004570488584	CACFD1	-2.355884735	5.32E-05
IRF6	6.176392219	0.0004583536955	RARB	-6.197173452	5.54E-05
COPS5	1.325793217	0.0004588084407	ATP6V1G2	-2.12424706	5.58E-05
RP11-146F11.5	3.46808574	0.0004612645846	TMEM181	-1.224017819	5.80E-05
KIAA1429	1.24880511	0.000462955549	SLC19A3	-1.834850488	5.93E-05
SPATS2	1.474620984	0.0004632507756	ADAT1	-1.502652197	6.01E-05
GLTSCR2	1.999321341	0.0004641758216	SLC26A4-AS1	-5.453726901	6.07E-05
IMPA2	1.554706474	0.0004666207193	HEY2	-4.414289421	6.08E-05
BOLA3	1.518398992	0.0004728041371	CHURC1	-1.999784717	6.11E-05
KIF20B	1.703329965	0.0004755326231	TLX1	-6.950689331	6.15E-05
BEND6	2.07869001	0.0004886709483	METTL2B	-1.168119304	6.18E-05

PNPLA6	1.908810733	0.0004961947864	TFAP2A-AS1	-2.578756204	6.18E-05
CMTM8	1.566319755	0.0004977234145	NOTCH1	-2.38416656	6.32E-05
KRTAP4-8	6.443207316	0.0004977485223	N6AMT1	-1.464241785	6.41E-05
ULK4	1.312172531	0.0004999601834	PTPRJ	-2.995008524	6.50E-05
ABCC10	1.102596042	0.0005019276307	S1PR2	-2.131228152	6.59E-05
DUSP11	1.167737455	0.000506676372	RP11-582J16.4	-4.940195472	6.60E-05
LINC01291	5.777375091	0.0005150146816	PRKAB1	-1.386382525	6.65E-05
RPS6KA6	4.176362664	0.0005179845633	FAAH	-3.063708142	6.66E-05
NARFL	1.394658197	0.0005220812319	ZP3	-4.245213998	6.70E-05
TJP3	4.995679468	0.0005221144978	ERV3-1	-2.923616752	6.71E-05
TRIQK	1.513918681	0.0005225205458	MTSS1	-2.902033457	6.74E-05
SYT7	3.220055066	0.0005225750323	NHLRC3	-1.972023136	6.78E-05
SHANK1	4.034790192	0.0005341234804	RP11-625L16.1	-6.239954724	6.85E-05
HMGCS1	1.801653223	0.0005392205274	CCDC188	-6.771855543	6.86E-05
TKFC	1.504730346	0.0005411830668	CDS2	-1.517824367	6.97E-05
FAM3D	5.651387957	0.0005411830668	EGF	-5.910481677	7.11E-05
A2M-AS1	4.168786915	0.0005431319448	LRRC37A	-4.076792221	7.24E-05
FAM72A	1.52670555	0.0005460427912	TET2	-1.726384486	7.26E-05
RP11-1149O23.4	5.650212647	0.0005514826019	PIAS2	-1.903096706	7.28E-05
BTBD1	1.164110292	0.0005561650065	RCOR3	-1.339422034	7.59E-05
ALDH1L2	1.822030814	0.0005673223049	TRPC3	-1.952000887	7.69E-05
GRAMD1B	4.141690663	0.0005700008455	TSHZ1	-1.843380294	7.79E-05
EEF1A2	2.505721147	0.0005703344178	TPGS2	-1.401330585	7.91E-05
BAIAP3	2.92378439	0.0005741814719	ZMYM2	-1.450774501	7.91E-05
CCDC110	2.663756586	0.0005794115432	DIRC3	-6.029398735	8.08E-05
INTS4	1.03261393	0.0005889573993	PIK3AP1	-6.231266927	8.13E-05
TTC9C	1.040712325	0.0005901527529	ZNF681	-4.664779331	8.20E-05
APOBEC3B	1.462245881	0.0005912597489	BCL9	-1.522688419	8.23E-05
RP11-1038A11.3	5.598300563	0.0005962509155	C1R	-4.054879308	8.35E-05
HEBP1	1.097962078	0.0006017518789	TEKT2	-6.281671406	8.36E-05
CRABP2	3.371708802	0.0006024485267	UBN2	-1.42492328	8.42E-05
ZNF550	1.569937387	0.0006024485267	PHKG1	-3.559632841	8.42E-05
ODF3B	5.538985642	0.0006087419115	POMT2	-1.693584754	8.68E-05
LINC01611	5.665276992	0.0006123094382	RP11-1114A5.4	-2.634229881	8.80E-05
CYYR1-AS1	5.796277869	0.0006165715929	PCDH18	-2.946862256	8.89E-05
C4orf22	5.639824024	0.0006184386534	SLC24A2	-4.93774687	8.93E-05
SEMA6B	2.99833995	0.0006242887352	KLF3-AS1	-4.575331248	9.04E-05
TIPARP-AS1	1.715318172	0.0006259775515	LINC00326	-6.314611164	9.07E-05
TOMM34	1.484771827	0.0006277886936	LGI3	-5.896132289	9.07E-05
MC1R	1.600320028	0.0006305477162	ARHGAP15	-6.128386239	9.19E-05
LINC01011	1.594381048	0.0006314346565	CDK14	-2.799083317	9.22E-05
RGS9	1.629533345	0.0006322646672	TMEM221	-7.015319196	9.22E-05
POLR1C	1.532565206	0.0006361256789	LINC00664	-7.036373964	9.29E-05
CFAP58-AS1	5.230445092	0.0006387733307	LRIG1	-2.651161315	9.30E-05
XXYac-YX65C7_	3.152361148	0.0006402732459	CYP24A1	-6.52652621	9.39E-05
AP001596.6	3.794530851	0.000642315236	MED4	-1.051860378	9.42E-05
MRPL15	1.303477517	0.0006428825236	CCNE2	-2.351715611	9.60E-05
NFKBID	1.919576001	0.0006428825236	CPT1C	-1.802348229	9.70E-05
HLA-DRB1	5.738595578	0.0006457898972	TBC1D13	-2.139992088	9.72E-05
TBC1D3P1	5.291093929	0.000647412725	ACADL	-6.34097609	9.79E-05
RP1-46F2.3	5.65892083	0.0006545522028	CABYR	-5.855067283	9.87E-05
CTD-2020K17.1	3.574560661	0.0006555385044	ZNF397	-1.473815447	9.91E-05
C19orf24	2.110828977	0.0006593560176	MDH2	-1.625473508	0.0001007438938
CTD-2035E11.3	2.266749235	0.0006709769816	CIPC	-1.381691935	0.0001016672288
TFB1M	1.790036923	0.0006723643113	ZNF195	-1.767649668	0.0001017868071
AP1AR	1.737939287	0.0006747747283	RP5-942I16.1	-6.014181696	0.0001022728821
HDDC3	1.759334291	0.0006815891691	LSMEM1	-1.933097674	0.0001035192066
DHCR7	2.046923772	0.0006851095909	RP11-1191J2.2	-6.395026286	0.000105034038
CHCHD7	1.778174469	0.0006962552906	RP2	-1.494590892	0.0001097058338
CCNG1	1.5095986	0.0007141528471	PLGLB1	-6.174394792	0.0001098830558
CTD-3162L10.1	3.682695686	0.0007170087374	FGF11	-4.064848348	0.000110963311
ALDH1L1	3.991164527	0.0007254732201	PLCD4	-4.835138045	0.0001127538413
ADORA2B	2.014181587	0.0007315146553	MEF2C	-2.528773143	0.000113082075
VSIR	3.796135419	0.0007328115695	BCL6	-3.223438576	0.0001146074646
SCN8A	2.419899739	0.0007407571256	AC108025.2	-6.017357396	0.0001211827081
SP5	4.554661859	0.0007536343928	ZNF326	-1.548570916	0.0001216444844
EPHX4	2.926726861	0.0007537808265	COL24A1	-5.802589958	0.0001217649257
FAM182B	2.503938656	0.0007599373597	GUCY1A2	-3.926729462	0.000126960291

SLC10A3	1.800831718	0.0007610381976	BRINP2	-7.485391959	0.0001280409123
MRPL39	1.038188436	0.000767811906	LINC01571	-6.934581678	0.0001285817886
LINC01385	5.213778355	0.0007681225893	TNR	-6.04713422	0.0001303132065
KLC4	1.596923805	0.00077108709	RUFY3	-2.021686763	0.0001331939762
LINC00887	4.768162992	0.0007718938547	CTD-2380F24.1	-5.961929438	0.000133566291
CTC-296K1.4	3.998608616	0.0007742883328	SEPT7P2	-1.5492593	0.0001381117189
VDAC3	1.190327297	0.0007761568429	DBI	-1.932590626	0.0001413593038
WT1	3.054803397	0.0007794766914	STK36	-1.786876929	0.0001429509668
ATF1	1.260589816	0.0007796596635	CPNE5	-4.985076934	0.0001435921825
SERPINE1	4.000771324	0.0007828209038	DCUN1D2	-1.610155966	0.0001436026314
PTBP3	1.157095553	0.0007908280334	P2RX6	-3.114256558	0.0001437275736
SH3TC1	3.332567684	0.0007908280334	CROT	-1.498122017	0.0001447607742
MRPL14	1.632865686	0.0007918457095	HAS2-AS1	-4.085607506	0.000145027447
AFG3L2	1.335459631	0.0007931669319	LINC00844	-6.506214183	0.0001455942328
QPCTL	1.613619578	0.0007952536066	USP6NL	-2.094789533	0.0001476601159
CENPQ	1.289494425	0.0007956586358	SLC6A1	-6.291388637	0.0001492338217
IGFBP6	3.173399727	0.000800734132	IGFBPL1	-6.916218781	0.0001494838741
WNT9A	2.56043785	0.0008139272622	ZNF665	-4.534523102	0.0001497526294
RP11-255I10.2	5.566707451	0.0008192694951	CPEB2	-2.183944531	0.0001499956786
MMP1	5.633896566	0.0008244235812	CASK	-1.218153687	0.0001505001211
ERC2	3.784584233	0.0008292004769	EFHB	-3.885577778	0.0001505001211
RP11-288C17.1	3.627892416	0.0008293602346	TET3	-1.227875609	0.0001534002706
ZFP64	1.346982885	0.0008300294422	AGAP9	-2.033008178	0.0001537526836
RP11-756A22.7	2.907268163	0.0008300294422	ATP5S	-1.128715878	0.000153854396
ERO1A	1.418742592	0.0008327648629	RP11-75C10.7	-6.823811427	0.000155208407
KCNQ1	4.077196153	0.0008396977699	MN1	-4.443220461	0.0001558878363
SERTAD4-AS1	4.408977222	0.0008421646925	LINC00908	-6.481107341	0.0001560257212
GINM1	1.248458477	0.0008472979903	KCNH8	-6.433689519	0.0001566449822
KIF12	4.465577191	0.0008712928593	VPS26B	-1.518328242	0.0001570580839
ICAM3	3.65704382	0.0008724535267	ADGRL3	-2.625659858	0.0001581451265
CCDC114	2.64997732	0.0008784063149	CKB	-2.672190752	0.000162358273
CHORDC1	1.807189398	0.0008981652702	NKIRAS2	-1.596413971	0.0001624482971
NVL	1.127588771	0.0009049303891	TP53INP1	-1.653609753	0.0001654590983
ASH1L-AS1	1.385697423	0.0009050364661	DCTN5	-1.055875566	0.0001655936404
USP32P2	3.895944784	0.0009065648927	SETD4	-1.309390555	0.0001660571308
RPS27	1.340957822	0.0009072209424	GATSL2	-2.222107936	0.0001667032109
AMIGO2	3.23171473	0.0009230832358	DNAJC28	-1.930911085	0.0001672499089
ELL	1.648829891	0.0009297164672	SH3BGR	-1.595741591	0.0001689731608
PMFBP1	3.089186111	0.0009411070239	PTBP2	-1.71189802	0.0001693405314
LINC01763	5.073877759	0.0009411342309	ANTXR1	-2.029216227	0.00016971677
FAM86C2P	1.718322423	0.0009413369038	LUC7L	-1.204263891	0.0001700296867
SPINT2	5.145401442	0.0009486656075	THRA	-1.577056733	0.0001700296867
DMBT1	4.86532157	0.0009512461699	FBLN7	-2.776087263	0.0001700296867
CA3	2.793056217	0.0009560913198	ARC	-4.32165699	0.0001700296867
HOMER2	2.272314876	0.0009628237861	SH3D21	-2.287195531	0.0001700296867
HMG20B	1.561510133	0.0009635275437	RARRES1	-6.300998123	0.0001720297713
ZFPL1	1.636337777	0.0009682942101	HSDL1	-1.271066674	0.0001741519536
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VPS51	1.870147358	0.000976192413	RP11-13A1.1	-5.656338899	0.0001779992895
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PCDHGA6	1.536393755	0.0009884439744	LMO1	-5.950475905	0.0001783490544
RP11-399K21.14	3.580469233	0.0009919611781	HOXD-AS2	-5.941264646	0.0001805001733
LYN	2.426066615	0.0009969719692	ZC3H14	-1.091280277	0.0001805689676
OCLN	2.151543405	0.001010326866	EML1	-2.320998196	0.0001829236705
SLC7A7	3.608463611	0.001013418859	SGCB	-2.150964053	0.0001837833549
EXPH5	3.583238705	0.001020974983	RP11-498P14.3	-2.986561638	0.0001840136747
CAMSAP3	3.450092755	0.001025413497	CPT2	-1.274499213	0.0001844144916
AMOT	1.330270957	0.001026221568	SLC43A2	-2.551602162	0.0001846792081
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GALK1	2.036385407	0.001052722926	ABHD3	-1.355213982	0.0001874053284
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HERC6	1.668345692	0.001076415138	LRRC34	-6.126019086	0.0001934924996
COL18A1	2.550279121	0.001091350925	AGMAT	-6.047277268	0.0001945278792

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GOLGA2P5	2.611589384	0.00110347967
AARS2	1.236828906	0.001104496593
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PRX	2.644822701	0.00113863024
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LINC01096	2.569687218	0.001152849704
FAM155A	4.173376415	0.001157937365
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MVD	1.930819022	0.001183642154
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LBHD1	2.095812149	0.001214530668
ZNF699	1.418449388	0.001218901552
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AMPD2	2.127534674	0.001378832489
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TYSDN1	1.019071886	0.002446071019	STAG3L2	-1.470266106	0.0004350216878
ABC13-4748860	2.813551695	0.002448828568	RAB8B	-1.343883294	0.0004350522156
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GOLGA7	1.083449249	0.00250931742	CDC42EP5	-3.495141466	0.0004480469678
FES	4.199193872	0.002515623008	TMTC4	-1.460991474	0.0004490877643
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BUB1	1.427294233	0.002530619371	SLITRK3	-5.239480202	0.0004522480856
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PAPSS2	3.231283632	0.005736179243
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SMARCC2	-1.063520582	0.0009264981633
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HEPACAM	-5.76113418	0.0009309387314
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PSAP	-1.654737776	0.001027753675
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CTC-425O23.2	-2.852989458	0.001073961961
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LINC01885	4.994167419	0.006321021797	RAPGEF2	-1.409371468	0.001218870822
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LGALS1	2.21882012	0.006370787179	PDE8B	-3.700553355	0.001245744216
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PIGBOS1	1.000880743	0.00641802659	VWA1	-2.698634104	0.001250649091
L3MBTL3	1.434549104	0.006471405453	AC053503.11	-5.392283488	0.00125124486
TUBB8	2.832842369	0.006483562325	UBE2F	-1.537666482	0.001260329777
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COMMD3	1.009450084	0.006532714084	INPP4B	-2.030011082	0.001298229868
C19orf45	3.240817488	0.006544402877	CHPF2	-1.997068952	0.001300539951
DEF6	3.605515311	0.006557158622	RUNDC3A	-5.397720084	0.001306188132
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B3GNT4	2.692529731	0.006716031652	LINC00945	-5.54097168	0.001325653116
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AIDA	1.027806676	0.006755697512	PLCG1-AS1	-2.769857823	0.001345851591
MRPS10	1.418138402	0.006788305089	ATP6V1B2	-1.567900004	0.001350594139
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BAK1	1.32771267	0.006789221904	NR6A1	-1.929138252	0.001365775065
LINC01001	2.271547507	0.006862132394	TSPOAP1	-5.614674885	0.001372251799
BRMS1	1.413838982	0.006888058205	ZNF510	-1.429627072	0.001376199344
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CCDC88B	2.05545113	0.006967348885	CC2D2A	-1.390230277	0.001385648879
NDUFS8	1.679540398	0.006992665117	GTDC1	-1.111713956	0.001391514196
ELF4	3.063217715	0.007009850199	HOXD3	-5.49486847	0.001398162548
G2E3	1.517291239	0.007024580778	PLEKHA8	-1.634648153	0.001400125611
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PLCH2	5.413050575	0.007056366685	RP4-657D16.3	-3.717522492	0.001415189303
SPATA2L	1.888749159	0.007077079882	MTMR9LP	-2.237656843	0.001420092965
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ANAPC5	1.354446441	0.007216952797	RP3-405J10.3	-2.720753833	0.001451610997
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WASH7P	1.870511785	0.007298988956	SCHIP1	-1.896485882	0.00147597191
YIF1B	1.541856075	0.007312925369	HOXD4	-5.415875505	0.001492918482
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PIM1	1.451187687	0.007476320772	IFT88	-1.256084782	0.001525613517
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CYB5D1	1.498431445	0.007600996498	ITM2B	-2.251890341	0.001544067822
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PLEKHA3	1.205736867	0.007923721601	LFNG	-4.401100276	0.001641433711
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TRAM1	1.308153921	0.008484773304	CASQ1	-5.875069705	0.001760278683
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STC2	2.130682695	0.008548755807	CAMSAP2	-1.688860712	0.001775311086
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COMTD1	2.554934906	0.009123856803	USP2	-1.702051063	0.001863938051
TM4SF1-AS1	3.203756647	0.009164230146	PHF23	-1.417662842	0.001868447494
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PRRC1	1.428758241	0.009834703337	SORT1	-1.182434614	0.002084518684
C1orf112	1.271165254	0.009836671994	CTC-30107.4	-2.520257058	0.002121245305
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LIPE-AS1	1.590611256	0.009882149942	ZFP92	-5.485138638	0.002129980868
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AIM1L	4.457851278	0.009960755221	CTNS	-1.503832073	0.002136917781
MEA1	1.390541957	0.0100518035	EIF5	-1.490435122	0.00214247161
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SMIM1	5.034602763	0.01006068444	NASP	-1.200291752	0.002166809433
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SFTA1P	3.346689327	0.01028588464
SLFNL1-AS1	1.774575445	0.01032988242
JAK1	1.290805482	0.01035721323
RP11-15A1.3	3.031428648	0.01041824749
TMEM126A	1.06662998	0.01042308435
POLRMT	1.543480099	0.01042935935
VAPA	1.109077985	0.0104518636
GM2A	1.005405175	0.01058741719
RAD9A	1.305442359	0.0105912549
MEIOB	5.090568695	0.01064961141
PHF7	1.178655745	0.01077870112
SF3B6	1.299698683	0.01084435673
HSPA4	1.157494729	0.01088991775
UPP1	2.831806786	0.01090030194
RP4-536B24.4	3.687087304	0.01091224381
GPR157	1.555173699	0.01091927609
FAM189B	1.18974639	0.01094929775
DDX21	1.24954371	0.01096742447
WT1-AS	2.909754676	0.0110624291
RHEBL1	1.247967664	0.01113904435
RP11-403I13.8	2.274308992	0.01115131042
RP11-503E24.2	1.464539684	0.01116260243
RAB4A	1.027069786	0.01119198074
ZNHIT2	2.572180477	0.011284547
SUGT1P1	1.941639646	0.01132040195
CTB-32O4.2	2.07953376	0.01132040195
NUDT10	2.240531042	0.01132728928
ALKBH8	1.114900193	0.01146910437
ACOT11	2.467434737	0.01154972144
SLC29A3	1.60960267	0.01155285193
BRD9P2	3.525458266	0.0115736808
AC013268.3	4.407178048	0.0116057418
AP001628.6	2.652537389	0.01166723233
LINC01021	1.955564405	0.0116975285
PAK4	1.497362863	0.0117030675
ZNF485	1.603917783	0.0117030675
RP11-122G18.1	1.750285823	0.0117030675
AC034220.3	2.795064426	0.0117410892
CLTB	1.220606303	0.01179654722
MR1	2.05998565	0.01181950615
RPL23A	1.009886092	0.01181950615
RPL4	1.004875584	0.0118496327
NFKBIE	1.137553129	0.0118580468
FAM155B	3.459266388	0.011939212
NDUFA13	1.81546263	0.01194748927
PSTK	1.127310752	0.01195941578
NBPF15	1.127673643	0.01195941578
FABP6	4.357111374	0.01198826389
AC092159.2	2.193511264	0.01210692174
COMMD8	1.219897899	0.01213465645
PPP1R14B	1.256467816	0.01215113757
FMR1-AS1	3.142794257	0.0121972216
GALNT18	2.476880593	0.01222787732
UNC5CL	2.243079792	0.01223221056
LMAN1	1.023409725	0.01224338129
RP11-885N19.6	4.896083994	0.01226465106
IQUB	2.230426676	0.01229921336
CSPP1	1.075755792	0.01232382156
LINC01970	2.18814385	0.01232382156
UHRF1BP1L	1.090652884	0.01234487413
PAOX	2.048870373	0.01237116143
SH2D4A	2.630100743	0.01239851874
TAP1	1.190263155	0.01240232959
PRDX5	1.312170986	0.01246318459
PRKCI	1.031567856	0.01252419199
LURAP1L	2.174431828	0.01253368522

DPP4	-7.081551791	0.002187760254
C5orf22	-1.025136578	0.002193718997
PRSS51	-5.401632613	0.002200142887
VPS13C	-1.625226187	0.002209726013
IQCK	-1.413293854	0.002214891262
PLEKHO1	-1.56099081	0.002242453415
CYP2U1	-1.54916895	0.00225206805
TTLL9	-2.940491598	0.002267169685
FZD3	-2.056433612	0.002274488801
GLYR1	-1.030221614	0.00230004626
WVOX	-1.470254724	0.002302854937
ZNRF2	-1.744668359	0.002304038463
STARD3NL	-1.330645349	0.002308870484
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FCGR2B	-5.301211227	0.002349666099
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KIF2A	-1.442609524	0.002363777415
LDLRAD4	-2.851598509	0.002367170941
CRYGS	-1.571592478	0.002374161956
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WRB	-1.060185092	0.002396782596
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ARPP19	-1.185558463	0.002416539789
MAG1	-1.938859083	0.002418317121
KLRA1P	-1.388054194	0.002431490307
PSPC1	-1.382587729	0.002433042662
CCDC50	-1.836099372	0.002433042662
CTC-255N20.1	-5.90996629	0.002439508492
RUNX1T1	-6.997520152	0.002448828568
ABHD13	-1.602081948	0.002455075867
SOSTDC1	-5.408561818	0.002457337802
B3GNT9	-2.281263144	0.00247372978
RP11-7F17.3	-5.580193964	0.00247372978
MACC1	-3.274386347	0.002476659264
MKL2	-1.04636603	0.002478787465
CARF	-1.718585399	0.002492204581
PMS2P5	-2.158910434	0.002494399158
GMPR	-3.206833988	0.002515623008
AVIL	-3.53253046	0.002533511218
SPPL2A	-1.1827833	0.002553452309
FMO5	-3.417845396	0.002559959598
CLEC1A	-7.037307196	0.002565029261
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ATP2B2	-5.266123504	0.002594676316
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TBRG1	-1.010654317	0.002622542545
KIAA0391	-1.305759089	0.002626274004
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GPRIN3	-5.649765006	0.002645563332
CLSTN2	-5.721474439	0.002652297541
IMPG2	-2.933315649	0.002654360523
FAM234B	-1.454317713	0.002657696648
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UBE2E1	-1.162698735	0.002684419434
ZBED3-AS1	-1.506734757	0.00271888178
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TSHZ2	-6.733312498	0.002724450858
SMG6	-1.280044418	0.002746806291
AP000708.1	-5.357866885	0.002751679981
NRXN3	-5.272801432	0.002761862418
ATG9B	-3.589388111	0.002778510077
DNER	-2.999847754	0.002783631869
DGCR2	-1.20415802	0.002786456208
NOX4	-3.833526622	0.00280134791
AOAH	-5.265812186	0.002819850895
TMTC3	-1.355298178	0.002832286109
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METTL7B	2.219113569	0.01254948389	APH1B	-1.770994603	0.002847404102
ZNF121	1.050329825	0.01254948389	KANK2	-1.675140318	0.002861384131
ITGAD	4.718672953	0.01265679995	MRM2	-1.239198402	0.002862619913
LACC1	2.317336734	0.01266671626	ZNF638-IT1	-1.964433573	0.002868869478
RIPK4	3.742394763	0.01266671626	PLEKHO2	-1.235390528	0.002883267205
PXK	1.10101024	0.01273246732	KLHL32	-2.678828179	0.002900675185
LGI4	3.207732691	0.01274098655	ZNF891	-1.284413488	0.002908255704
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EIF5A2	1.125817127	0.01276821164	TMEM164	-1.223446755	0.002918748577
ANXA2R	1.368624168	0.0127717863	OLFM3	-6.870260521	0.002924637615
KRTCAP2	1.029343212	0.01280530371	RNF219	-1.551291778	0.002944286573
SCLT1	1.401555349	0.01282257651	TBC1D3D	-4.89079955	0.002962870257
MPG	1.451553521	0.01288545546	MGRN1	-1.610982278	0.002998999055
ANAPC11	1.453076968	0.012934033	MUC12	-5.749996543	0.003006732773
NAA20	1.124383618	0.01294606321	RP11-247A12.2	-4.169126105	0.003010826868
ATP5G3	1.513077704	0.01298827909	COP22	-3.444508501	0.003022518273
SPATA13	1.041755525	0.01302649019	NGRN	-1.399211402	0.003043211262
TRIM41	1.089862148	0.01306965592	BAALC-AS2	-5.621475819	0.003052205524
CCNYL2	3.218215789	0.01309015325	HIST1H3E	-2.705513947	0.003073410086
LINC01239	3.6509458	0.01310638174	GABARAPL2	-1.356573527	0.003078801489
ISYNA1	1.591722281	0.01311051218	MRPL32	-1.070717167	0.003078801489
ZCCHC7	1.531475121	0.01314366069	GSG1L	-5.655331607	0.003102433649
CTD-2319112.2	2.33651796	0.01327537354	DPY19L1P1	-1.491951695	0.003106900844
FAM3A	1.15564421	0.01331123808	TG	-5.16811765	0.00311883998
HCG27	1.663921782	0.01331123808	KRIT1	-1.068110366	0.003123809116
VNN1	4.279483881	0.01347063473	TMEM253	-2.741413488	0.003145646479
NAPG	1.055555076	0.01349792432	C7orf61	-3.717244455	0.00314651588
FLI1	1.814636051	0.0134981105	ALG9	-1.252130947	0.003147345933
NDUFB7	1.724841999	0.01351498188	ZKSCAN8	-1.416130327	0.003157362787
COL13A1	3.051250545	0.01356327445	ADAM32	-3.173090326	0.003159530003
C2CD4C	2.615641019	0.01358591996	MFSD9	-1.349341051	0.003162814829
TTC27	1.01618063	0.01381059306	ZC3HC1	-1.198346157	0.003176572458
RAB12	1.451656382	0.01382833228	GINS2	-1.414972173	0.003183069205
HYKK	2.240949091	0.01387365106	LIFR	-2.318622349	0.003191589008
MAOA	1.636824515	0.01388672603	RP11-620J15.1	-5.318300474	0.003237995702
FAM173A	1.790835965	0.01389986998	TP53	-1.484196512	0.003245564641
SLC4A11	1.459091064	0.01396445195	ZNF141	-1.858099581	0.003260757943
NPM3	1.100605149	0.0139785401	AC097662.2	-1.687064586	0.0032674624
RP11-1398P2.1	4.229813996	0.01403510319	CLCN2	-1.577793902	0.00326854886
MAPK13	1.818111434	0.01406113973	RBBP4	-1.015227957	0.00326854886
LINC01881	1.198299415	0.01406693285	PTOV1-AS1	-1.975556696	0.003281406381
IGF2	2.894109053	0.01406798947	HIVEP3	-2.754662634	0.003286301156
AP000442.4	3.40471652	0.01410817025	N4BP2	-1.350727574	0.003290573016
PPOX	1.082271124	0.01412079581	LINC00601	-3.655881329	0.003293974386
CACYBP	1.491283369	0.01419799094	TMEM51	-2.307598675	0.003295663095
ALDOC	3.500023866	0.0142321712	WDR7	-1.052464064	0.003313960837
CDC42EP2	1.940784982	0.01427460765	MGAT5	-1.713395288	0.003319575422
ACOT1	1.936027123	0.014304362	AKT1	-1.277894445	0.003332183403
SIPA1	1.88859968	0.01432514328	TUBB2BP1	-4.758732598	0.003346107893
VPS37C	1.229300215	0.01439310279	ZBTB7C	-5.577719834	0.003399716967
HID1	1.562757589	0.01440175027	SPATA22	-5.151983746	0.003400853304
GACAT2	3.202431636	0.01443440693	NDFIP2	-1.225079092	0.00340616981
SNHG16	1.108452011	0.01444495472	TRAF6	-1.471911578	0.003406754276
NTSR1	2.362662101	0.0144580115	C9orf50	-5.277628932	0.003419623425
STN1	1.052906669	0.01453654082	KLRK1	-6.813386098	0.003438214437
SCUBE1	5.086918573	0.01454779536	ALAD	-1.247897782	0.003497147531
WHAMMP2	1.767897285	0.01455453445	NUP210	-1.497317033	0.003499844693
LINC00882	2.586730527	0.0145691493	FST	-3.116680368	0.003507713563
TWIST2	3.54078188	0.01460170189	CMTM1	-2.110482737	0.003530184084
LINC00493	1.024922823	0.01460294371	AC079584.3	-5.146737373	0.003569273891
SPERT	4.829518267	0.01464747894	SP2	-1.212603048	0.003572919198
ATP23	1.064346127	0.01465495581	ADD1	-1.324669409	0.003595515826
FLJ21408	1.739172781	0.01465495581	ITGA2B	-2.983063795	0.003598927211
RSF1-IT1	2.226558023	0.01476475356	BRSK1	-1.497702774	0.003610092026
DHRS11	1.102447309	0.01483763052	LRRC3B	-5.546849316	0.003628677402
SRFBP1	1.217525587	0.01484868622	RAB38	-2.408044613	0.00363585349
NR1D1	1.427238925	0.01491029533	RP5-1024C24.1	-5.999230278	0.003644599512
LINC01572	1.39448343	0.0149485061	ADAMTS9-AS2	-5.996907911	0.003644678278

FAM92A1P1	1.537147414	0.01497220412	BTK	-4.69252084	0.003654835156
RP11-247L20.4	1.297895405	0.01499724708	GNB4	-1.994316203	0.003662183227
MIF	1.836275922	0.01502694145	WFDC1	-4.69535704	0.003674131656
RUSC2	1.17464369	0.01507705015	ATP6V1G1	-1.133491421	0.003686156411
SBNO2	1.447993006	0.01511098396	PCDHB9	-3.203210781	0.003700407369
CCZ1B	1.009681098	0.01511098396	HERPUD2	-1.239676053	0.003707479166
S100A13	1.392327852	0.01521717001	CNPY4	-1.663794402	0.003707479166
CHMP5	1.263280854	0.01524579701	SEC14L5	-4.376461958	0.003708139987
GLIS3	2.245227673	0.01531899732	ZFAND2A	-1.817010382	0.003714018982
EIF4A2	1.027788198	0.01535765521	BEX2	-5.066748804	0.003720183558
GDF9	1.234405124	0.01542850194	TEAD2	-2.08855701	0.003726359863
KLHL29	1.298807423	0.01544212058	CHL1-AS2	-5.65075024	0.003741768487
RP11-482G13.1	4.725877673	0.01544297214	ASB4	-5.252805382	0.003742443548
NCR3LG1	2.257380401	0.01550717836	ABHD17C	-2.535920025	0.003749303409
PLAUR	2.13184167	0.0155146524	TMED10	-1.068832266	0.003776549229
GNA15	3.586551437	0.01558921968	EFCAB2	-1.493264648	0.003777830725
MUT	1.115681414	0.01568411776	TRIM22	-3.201786811	0.003809392918
OXLD1	1.113127281	0.01570929141	NECAB2	-3.695586677	0.003821188309
MFS10	1.631706667	0.01571849455	C3orf62	-1.202992092	0.003822747738
SARDH	4.458753304	0.01578269765	RP11-204L24.2	-3.122698041	0.003824633773
FAM175A	1.108223786	0.0158683899	C14orf159	-1.018135535	0.0038468482
TOP1MT	1.130399805	0.01595215506	TOR1B	-1.205636552	0.0038468482
BCAR3	2.544640885	0.01597247322	HECTD4	-1.04526215	0.003863815683
XAB2	1.301967349	0.01598622458	TOP3A	-1.042855151	0.0038682073
WNT4	3.129300295	0.01610828401	EFTUD1P1	-3.234812208	0.003874123523
FAAP100	1.221033362	0.01613011237	LINC00506	-5.295590616	0.00387448858
KCNJ14	1.658584444	0.01619642901	SOD2	-1.265259247	0.003877286368
AC093732.1	4.611877005	0.01625136653	COLQ	-2.075582557	0.003894387102
WASH2P	1.286103579	0.01628826123	AMY2B	-2.211568306	0.003894387102
OSMR	4.93512791	0.01635436406	GUCY1A3	-5.988752041	0.003895413923
FBXL2	1.808411585	0.01647970542	BMS1P2	-4.052098732	0.003901674228
CEP89	1.412626602	0.01650476732	ZNF268	-1.958203452	0.003907286282
SREBF1	1.511079099	0.01662573772	STAT5A	-3.313644331	0.003923227954
RECQL4	1.431947871	0.0166434539	TMOD1	-3.398457435	0.003926137547
FAM114A1	1.219219448	0.0167783071	SH3BP2	-2.246801789	0.003933020251
UCK2	1.034370667	0.01679082456	GF11B	-3.727546609	0.003950897647
ULBP1	3.129786652	0.01684234547	ZNF91	-2.985322129	0.003950897647
ZFPM2-AS1	2.865300646	0.01698869866	PSKH1	-1.449828295	0.003954404804
MAPKAPK3	1.584800926	0.0170506469	NCS1	-1.477361497	0.004010450174
GRK6	1.100039681	0.01705819225	PLLP	-2.169383487	0.004015854903
STC1	2.420088322	0.01735882349	TBCE	-1.388628023	0.004059057399
KLK1	3.400247202	0.01737274577	SLC25A40	-1.147453659	0.004064043798
FBXO32	1.69479155	0.01739309656	NDUFA9	-1.189861271	0.004103782492
DUSP2	2.573539817	0.01744102166	RGMA	-3.452668704	0.004103782492
ELOVL4	1.861673353	0.01781338723	CA12	-2.935371191	0.004112074955
RP11-535M15.2	3.929105412	0.01787343677	POLDIP3	-1.1845829	0.00411630455
NOS3	3.876076561	0.01790888322	SLC25A34	-2.793612554	0.004122196302
C10orf25	2.148915277	0.01794711604	CEMIP	-6.080204997	0.004129390959
BMP4	1.221114222	0.01794855886	DGCR8	-1.271239475	0.004165638026
RP3-467K16.4	2.82104963	0.01807675308	FSBP	-3.788140782	0.004167144363
TOX2	1.841117966	0.01826355756	RPS27L	-1.163187218	0.004197117081
AC145343.2	3.750887357	0.01832311228	EIF1AX	-1.34560509	0.004202077406
ALG10	1.193737109	0.01840696425	RP11-429G19.3	-5.180231863	0.004224718689
TTC6	4.235383389	0.0184246866	LHFP	-2.745093962	0.004227378322
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RP11-134G8.7	1.650136783	0.01842740977	LRRC37A3	-2.799352769	0.004236224549
HSPA4L	1.167002966	0.0185318009	DDX56	-1.259142347	0.00424171754
EVA1B	2.989108463	0.01854690629	ZNF423	-4.874175865	0.00426192226
HAUS4	1.0448497	0.01855474263	ACSF2	-1.254972269	0.004279685898
EFR3A	1.351535902	0.01857446034	PER3	-1.903743332	0.004294537408
IMPDH2	1.068117651	0.01861473125	RCBTB1	-1.066634271	0.004303880939
FAM208A	1.166974884	0.0186427278	RP11-281O15.4	-5.048132452	0.004303880939
GLIPR1L2	1.692223458	0.01872135097	GPBP1	-1.335598319	0.004324841391
ANAPC10	1.022415053	0.01885973881	GAB2	-1.502713089	0.004325200767
PSEN2	1.393372932	0.01888964793	FBXO41	-1.187585919	0.004325200767
CGN	1.255766417	0.01890152822	IGDCC3	-2.949762438	0.004336012166
ATP6V1B1-AS1	3.433189361	0.01890187137	MAEL	-5.464500876	0.004338551551
IGF2BP1	4.685445109	0.01894746024	FAM117B	-1.563920686	0.004359959699

FAM86HP	1.751332613	0.01896799307	ZNF391	-1.385817452	0.004364708063
LDLR	1.241552419	0.01911814173	ADPRH	-5.433206133	0.004368055373
NDUFV2	1.586314944	0.01918657031	DISP3	-2.169585591	0.004377850978
RP11-650K20.3	3.615188719	0.01921205146	GPR173	-1.703163255	0.00440903211
LRFN4	1.592714353	0.01921625364	ANKRD10-IT1	-1.541373901	0.004425009632
LINC02057	4.121472717	0.01929912714	LINC00877	-5.162567193	0.004430997495
TMA16	1.194177342	0.01931921015	BLOC1S2	-1.091436053	0.004435476071
CCNO	2.057851353	0.01934800273	PNMA3	-4.283594923	0.004451324321
RP11-677M14.3	3.392028617	0.01952092811	ZDHH3	-1.015206125	0.004460942112
HECA	1.06119965	0.01963206607	IKBKE	-2.583830452	0.00446594411
THOC1	1.006603965	0.01964208744	LMAN2L	-1.398350486	0.004470000054
PTER	4.609702103	0.01970721479	TMEM176A	-5.895689635	0.004528325101
AC106786.1	4.191157465	0.01977993331	LINC00606	-5.915208686	0.004529393032
PCLO	2.516770863	0.01989108627	DACT3-AS1	-4.634377855	0.004559218413
EPHB6	4.067710728	0.01992255906	STRIP1	-1.069424467	0.00457864508
PCGF5	1.304516557	0.01998900498	IFT81	-1.152316531	0.004582483218
SLIT2	2.562782214	0.02002261143	LINC00205	-1.177100916	0.00459041247
CCDC71L	1.213161228	0.02002261143	PLCB2	-4.620534843	0.0045964445
PIK3CG	4.336444541	0.020048825	CUX1	-1.119175674	0.004604822623
RABEPK	1.007530426	0.02016004222	AGAP1	-1.972480215	0.004616489308
BCAR1	1.687367185	0.02021182386	ARID5B	-2.115980148	0.004640907386
CH507-154B10.1	1.455764363	0.02028470541	MGP	-5.119008872	0.004658574498
CTD-2337A12.1	4.537149604	0.02032954731	LRIG2	-1.142181047	0.004663445946
TNKS1BP1	1.485608127	0.02040811731	EVI5	-1.39108446	0.004666592538
VARS	1.143985836	0.02052514182	ZNF322	-1.195794908	0.004666592538
EEF2	1.180576562	0.02058990351	TRIM13	-1.082299016	0.004672968424
WASHC1	1.102188977	0.0207091044	AFF3	-4.850708475	0.004683221846
TBX19	1.586289407	0.02071502199	ZNRF1	-1.083219305	0.004684760128
FAM86C1	1.275477784	0.02080754254	RPRD1A	-1.049058634	0.004705397279
LINC02086	2.70406007	0.0208398748	PGM5P4	-5.473616854	0.004726158734
HPRT1	1.491272772	0.02111368115	ASAP3	-1.798129361	0.00473771552
VASP	1.087737242	0.02118515044	MGAM	-3.875615188	0.004741665923
RP3-460G2.2	2.392090466	0.02127348231	IFNAR1	-1.118767274	0.004742904452
GADD45GIP1	1.207094011	0.02148357022	TJP1	-1.630312674	0.004748682988
PRPS2	1.300665286	0.02152290263	MAPT	-1.08660315	0.004757739311
CEP57L1	1.105833171	0.02166298656	C6orf89	-1.0134314	0.004815699227
ITGB2-AS1	4.593664851	0.0216808998	TMEM184C	-1.025054577	0.004817898663
RHBDL1	2.500206027	0.02171493037	STAG3L3	-1.758547837	0.004817898663
DUSP10	1.36033127	0.0218259368	ZNF763	-2.878455955	0.004817898663
SEMA6A-AS1	1.611079106	0.02188255209	TRAK2	-1.842841422	0.004852126212
UBE2S	1.394583147	0.02194888456	DNMT3A	-1.269829176	0.004865294804
DLGAP2	4.52102113	0.02195686522	MRPL57	-1.408108246	0.004880726723
MYLK	1.500267615	0.02198623706	POTEE	-1.632164519	0.004929574104
NKX6-1	2.950053556	0.02199967924	HHATL	-5.354682809	0.004949183226
TMEM267	1.174500718	0.02200779639	MTHFSD	-1.160669355	0.004956092823
RPL21	1.16409132	0.02213664948	KLHDC10	-1.045219994	0.004961398181
AJUBA	1.700124755	0.02217522739	GPR12	-5.213071627	0.004963393387
RP11-286H14.4	1.271120736	0.02221796274	KMT2E	-1.203849336	0.004965091321
RP11-14N7.2	4.478142569	0.02225577315	SLC39A6	-1.466502006	0.004991306023
OR2L13	4.477934074	0.02225733432	SOCS6	-1.404263663	0.005019916908
ZNF404	3.215989816	0.02230053156	ZNF84	-1.253175728	0.005026043336
CTC-338M12.4	1.275170231	0.02234600247	ATP6V0D1	-1.286942125	0.005062311635
RP11-297A16.2	4.19827412	0.02245840739	EXTL3	-2.476230764	0.005104970887
FAM110D	2.097575172	0.02249236466	TAF1A-AS1	-1.711780788	0.005107535178
RP11-84D1.1	4.552179696	0.02250465587	MMP15	-1.877414676	0.005118873902
TTC7A	1.236208095	0.02253544339	APP	-1.88228629	0.005137694534
LRP5	1.356248105	0.02254183327	ASCL1	-6.422209399	0.005145285726
PRKCQ-AS1	1.210084497	0.02254512085	EBF4	-2.348431562	0.00523631933
NFKBIL1	1.388376684	0.02264509758	RP11-758P17.2	-3.714195116	0.00523631933
COL4A4	2.247917666	0.02269664849	LINC02001	-1.277770011	0.005245208224
CAMKK1	2.098885569	0.02307761215	WNK3	-1.224242877	0.005272581938
SHB	1.408419158	0.02317633592	STRADB	-1.45114737	0.005282551095
FAM117A	1.188743276	0.02318523575	SCAMP5	-1.747422611	0.005298695264
AP001372.2	1.140514682	0.02328766813	ST7	-1.361638941	0.005310336115
ERN1	1.04968285	0.02331227598	RP4-625H18.2	-4.934561949	0.005310336115
RNF32	2.667459828	0.02334372343	EMILIN1	-3.364557113	0.005315343912
AC053503.4	2.784715264	0.02356068188	DIRAS3	-3.872198124	0.005327635563
SOCS2-AS1	2.678361743	0.02356068188	SFRP4	-5.279322847	0.005387453413

EPOR	1.607168607	0.02369126955	CINP	-1.431986774	0.005409339547
MIR4500HG	3.170335241	0.02370021912	CCT6P3	-1.35492557	0.005435119535
LIPA	1.489928127	0.02374382983	ATE1-AS1	-2.633969664	0.005454328544
RB1CC1	1.242945521	0.02377184471	MRPS31P5	-1.635780829	0.005466152176
USH1G	3.502674536	0.02387122837	SERPING1	-5.394287071	0.005470351194
LLGL2	3.468753111	0.02387366844	RAB11B-AS1	-2.034888011	0.005484735777
DMBX1	3.059766211	0.02403996129	RP11-216B9.9	-3.234881605	0.00551751757
PFAS	1.077632119	0.02410976757	SLC44A2	-1.871872122	0.005544398093
RPL29	1.20357207	0.02450292679	SLC4A2	-1.574651094	0.005547422294
ENGASE	1.344762342	0.02455274659	RP11-136C24.3	-5.298529017	0.005547422294
RASL11A	1.871102945	0.02460933712	SPATA42	-5.071871399	0.005567303863
CTD-2540B15.11	3.480146378	0.02462087006	GPR153	-1.727413411	0.005579646203
SLC19A2	1.446280035	0.02463571257	NCKAP5L	-1.303268217	0.005617076307
HELZ2	1.626916829	0.02472205589	BTN2A3P	-1.727781991	0.005643170577
GOLGA3	1.029643975	0.02472449783	RBMS3-AS3	-2.808902002	0.005653211982
TCEA1	1.021016919	0.02475288636	LTK	-3.388892373	0.005681758137
TXNRD2	1.460290662	0.02475964209	GNG3	-5.027208951	0.005684921355
FAM166B	3.24192301	0.02476612505	ZNF561	-1.101989568	0.005696688325
RP11-122K13.12	1.829609781	0.02484619539	TMSB15A	-1.702155627	0.005715438568
RBKS	1.814333277	0.02484654259	PTGER4P2-CDK	-2.953415243	0.005780874326
LARP1B	1.141526501	0.02490957687	ZNF580	-1.214847721	0.00581547482
HSD17B1	1.85547278	0.02491647428	RP11-620J15.4	-4.943769079	0.00581547482
CASP8	2.371285742	0.02496524068	CXXC5	-2.221080117	0.005823144848
UGCG	1.291875187	0.02500634755	YBEY	-1.207543828	0.005829622156
LTBP4	1.425418433	0.0250517973	PKD1L1	-2.745934646	0.005834575571
RP11-736K20.5	2.270516973	0.02522601544	C11orf49	-1.685126938	0.005878006534
DDO	2.732498667	0.02524786372	DZANK1	-1.213273265	0.005928809403
ARAP3	2.200094909	0.02526481134	ARHGDI	-5.322135219	0.005944883797
RP11-423H2.3	2.618659719	0.02526481134	CIART	-1.872670573	0.005952085852
NHP2	1.190595491	0.02529063821	PTGFRN	-3.442098665	0.005964505308
PRORS1P	2.69412074	0.02543442697	TMX1	-1.259130896	0.005964505308
TXNRD1	1.49172468	0.02544450274	KIAA1755	-3.416720388	0.00599194589
RAB1B	1.181542574	0.0254483105	ITGB1BP2	-1.65738193	0.006026702556
MIOX	4.449188315	0.02557995605	SNCAIP	-2.928106546	0.006030695839
GOLGA2P7	2.857246491	0.02558465875	CENPF	-1.33805948	0.006030695839
YJEFN3	1.470108105	0.02561824967	C6orf141	-5.129777171	0.006036570855
CNBD2	1.056901655	0.025642613	GTF2IRD1	-1.792596473	0.006063890623
THSD4	3.086262806	0.025642613	TMEM216	-3.434415906	0.006073305984
REEP5	1.157430091	0.02576280535	GRK5	-1.485800323	0.006098625766
RP11-297N6.4	3.098554344	0.02583155998	AASS	-1.460635917	0.006107761749
ST6GALNAC2	2.699145091	0.02589483178	LINC01977	-5.32261339	0.006111137619
PML	1.021428802	0.02594461184	NEDD4L	-1.248186939	0.006136482573
ADGRE2	2.634192958	0.0259800486	EBF1	-3.85546155	0.006140889725
RP13-455A7.1	4.448132981	0.02606312664	SDC3	-2.259838459	0.006150186689
AC012358.4	4.444920068	0.02616117794	RP11-241F15.1	-4.700815893	0.006161049313
RP1-266L20.2	4.485001717	0.0262392154	CLSPN	-1.495364896	0.006189936577
AC116609.2	2.735095742	0.02625603682	RP11-110I1.12	-2.361724833	0.006242885529
RP11-89K11.1	3.443333393	0.02625755707	HARBI1	-1.136532334	0.006268883221
C4orf50	4.712446567	0.02630366597	GRIA1	-4.638861346	0.006283049894
GAA	1.240166167	0.0264254815	DICER1	-1.036318558	0.006300467461
MOV10L1	4.444118524	0.02649441971	ZEB2-AS1	-4.099506045	0.006310215433
MRPL4	1.306785942	0.02651802535	ZMYND11	-1.033284575	0.006310351727
C1RL	1.429504006	0.02653790596	RNF41	-1.054053974	0.006322627221
MRPS35	1.005748141	0.02664116115	LRRC37B	-1.151313638	0.006355494958
DLC1	1.317641176	0.02668564577	RP4-635E18.8	-2.277617836	0.006381108126
EBF2	3.605722265	0.02671588276	LINC01778	-2.722293474	0.006404109579
E2F8	1.031957423	0.02674096747	KLRC2	-6.228398516	0.006410093941
FGF17	3.981645443	0.02704254102	CCT6B	-2.03058941	0.006428037019
RPS18	1.143236991	0.02704254102	ALOX12P2	-5.095230955	0.006447121808
UBXN6	1.338209262	0.02742119653	GDF7	-5.293838915	0.00645975598
CCDC62	1.469654237	0.02749417207	OAZ2	-1.187357799	0.006499035546
ADAM15	1.068667253	0.02750839065	KIF21A	-1.865969966	0.00651053706
KCND1	1.648977835	0.02758436408	C6orf62	-1.127655932	0.006545012497
SH2D3C	3.584609517	0.02760236855	GPR135	-1.161234495	0.006565965774
SLC25A35	1.069666021	0.0276067638	CACNA1D	-4.457495342	0.006569160096
CTC-453G23.8	2.202087822	0.02768265983	JMJ1C	-1.082624334	0.006579413059
DNAJC5G	2.738367277	0.02769752914	NIFK-AS1	-1.50979	0.006581792306
SLC29A4P2	4.505728154	0.02788244635	PLXNA2	-3.707638384	0.006618121071

IL27RA	1.972693484	0.02801953559	PODN	-5.717730119	0.006634694516
HSP90AB2P	1.286271622	0.02809119485	LINC01089	-1.256446448	0.006649216337
ELFN1	2.717904802	0.02817111397	PCDHA3	-5.707672322	0.006655107343
CTB-131B5.5	1.750013657	0.02837920971	RAP2A	-2.388459348	0.006668303842
FRA10AC1	1.122346196	0.02849619811	FIGN	-1.310633238	0.006685984479
TLR5	2.220447221	0.02860894651	RERE	-1.189308685	0.006706069916
RP11-77P6.2	1.167662649	0.02866036952	SLC25A33	-1.04901577	0.006754455841
RP11-235E17.6	2.055833607	0.02879479414	AGK	-1.222104795	0.006760970495
CNBD1	2.968543564	0.02881649906	FKBP14	-1.343572894	0.006764061764
ST20	1.093934916	0.02882289017	MYO18A	-1.18297083	0.006777988076
C11orf70	1.875325323	0.02886202535	CDK5R1	-1.701945974	0.006852079505
MKNK2	1.110012591	0.02886266936	OLFML2A	-3.143219955	0.006855833043
FAM53A	2.620544423	0.02886469305	CNIH3	-1.982384192	0.00687410851
JAG2	1.877050586	0.02900291738	GLS	-1.265784768	0.006881038643
EBLN3P	1.252644577	0.02907481304	SELENOV	-5.256844569	0.006881038643
RPL13P5	1.432700187	0.0292484033	CHD7	-1.219221779	0.006911578283
TMLHE-AS1	3.187322844	0.02935365836	FERMT3	-2.510695406	0.006921858627
NDST3	4.420464372	0.02943598537	C2orf66	-4.315048385	0.006934827397
RP11-402G3.3	4.417007063	0.02959428294	TMBIM4	-1.036313056	0.006941580647
APBA3	1.104362129	0.02964744196	C1QTNF1	-2.224858531	0.006969056909
CDC42BPG	3.249485587	0.02964744196	DGUOK	-1.026493349	0.006999614181
MFSO13A	1.287378137	0.02965218063	AC091133.1	-1.942806565	0.007032716316
SNHG12	1.162502945	0.0297142304	CNTLN	-1.707947443	0.00709396116
RP11-54C4.3	1.722094744	0.02973853888	FAM110B	-1.90209877	0.007127110212
TMEM145	1.089310047	0.03012363356	TMEM80	-1.310460343	0.007157746281
DUS1L	1.350888534	0.03015202888	NOP14-AS1	-1.292889805	0.0071673344
GATA6-AS1	3.995721576	0.03019054622	ZNF841	-1.641010051	0.007209203249
MSLNL	4.414125529	0.03030087138	TRIM67	-4.97399557	0.007222763671
RP3-467K16.7	4.411508278	0.03040004781	ATG2B	-2.122035986	0.007314229283
DPP7	1.603242981	0.03045632509	MINDY3	-1.208613357	0.007328234251
TUT1	1.072338265	0.03057907622	GABPB1-AS1	-1.12794287	0.007344285083
TMEM9B-AS1	1.529967684	0.03058264342	ZNF518A	-1.091974294	0.007385267707
TCTE1	3.942206796	0.03062300989	SDK2	-4.777173557	0.007422900564
NAT6	1.053434812	0.03062300989	PCDHGB2	-3.160451764	0.007422900564
STAR4-AS1	1.96123643	0.03065540496	OLFM1	-6.227339927	0.007442543374
NACAP1	1.034900651	0.0307217102	DISP1	-1.790612397	0.007464342372
SLC2A4RG	1.213604184	0.03077495083	LINC01816	-4.92710743	0.00747520279
ARL2	1.333342336	0.03101619364	ABCC9	-5.719689475	0.007479423969
RP11-501C14.5	4.024117001	0.03129581396	RHOBTB1	-1.365892438	0.007487304493
CRYM-AS1	2.390710586	0.03146325358	RP11-282O18.3	-1.395987859	0.007566092326
CAMTA2	1.011549198	0.03148317724	DPY19L1	-1.162918818	0.007671262437
SLC29A2	2.729380933	0.03156376466	UCP2	-1.582867376	0.007671262437
MCMDC2	3.536732217	0.03159987824	ETV5	-1.430772337	0.00768203319
CYP39A1	2.849863087	0.03162380654	DUSP15	-1.945630796	0.007689829314
POLB	1.710448332	0.03165134489	MFSD5	-1.491431773	0.007689829314
ADAMTS12	3.197889811	0.03165134489	AC004893.11	-1.505077532	0.00774465452
GPAT3	3.317589671	0.03169334889	TFDP1	-1.671615367	0.007794169846
HERC2P10	2.652305393	0.03175654797	ANKRD45	-3.236919385	0.007803202587
TSPAN4	1.47852995	0.03182322762	MUTYH	-1.087860648	0.007820749729
RP11-239A17.1	4.321337041	0.0318658036	SLC6A16	-2.079988901	0.007836097101
FOXC2-AS1	4.53987788	0.0319408992	GTF3C6	-2.08547215	0.007846086901
OXTR	1.969510352	0.03204349082	ARL4A	-1.808872899	0.007965219414
PIEZO1	1.152245111	0.03217150924	NR2E1	-4.998425318	0.008078625944
WASH5P	1.55629634	0.032183519	CHRNA4	-5.67091649	0.008107543827
SLC16A6	1.889646526	0.03223780035	RP11-277P12.9	-4.971186188	0.008118670935
UNC5A	2.900876876	0.03231884527	SLC30A1	-1.043399911	0.008135180032
BCRP7	4.434811519	0.03239631346	BCL2L15	-3.02854094	0.008137511493
BCL2L12	1.036374197	0.03262397763	POR	-1.608275558	0.008145464157
LYSMD3	1.146260471	0.03265971689	CASP3	-2.007195593	0.008183761794
MCRIP2	1.157305055	0.03284819752	LINC01833	-5.271226429	0.008201056469
IRAK1	1.029966	0.03286665052	THAP5	-1.078117063	0.008204994159
RASD2	2.249821986	0.03296000835	ERVK13-1	-1.346821894	0.008245782331
UBE2W	1.104073456	0.03299355355	BMPR1A	-1.449981754	0.008262197588
WFDC21P	4.438280554	0.03299355355	KIAA1549	-1.228877654	0.00827401152
LINC02210	1.019602373	0.03303933055	CDK6	-2.460414467	0.008276424262
ERGC2	1.046840657	0.03304121069	TYW5	-1.089644667	0.008303749361
OTUD6B-AS1	1.051572853	0.03304121069	COMMD9	-1.216817124	0.008340096915
AP001258.4	1.046833372	0.03309785096	DNAJB2	-1.039933749	0.008352247292

ARHGAP22	1.852843606	0.033131005
RP11-95P2.3	4.311069376	0.033131005
FBXL17	1.251150204	0.03314059298
ABC7-42389800	1.064830219	0.0333193869
RP11-497E19.1	4.428545803	0.03337487315
RP5-901A4.1	1.916525277	0.03360784306
PICK1	2.541143568	0.03361843736
CRLF3	1.162553519	0.03363422176
FBXO24	1.407262694	0.03379967997
SP140	2.069142568	0.03385740527
SNX29P1	4.040861205	0.03386266392
LRGUK	2.291963264	0.03390716001
ZMYND15	2.453982143	0.03391007681
THOC6	1.169586913	0.0339520237
PSMD6-AS2	1.072555648	0.03431800531
RP11-351I24.1	2.562296038	0.03437842433
ZNF569	1.016084274	0.03452300258
CDC26	1.003115016	0.03457984822
DDX54	1.052762139	0.03464229929
ESYT3	2.023447446	0.0346486406
MAGEB3	4.302391807	0.03473447582
NOA1	1.181236046	0.03473473425
SDF2L1	1.509234598	0.03507454094
ALKBH7	1.708166414	0.03513903195
PEX3	1.101002375	0.03515749002
RP11-888D10.3	2.41165358	0.03533741854
RP11-366F6.2	4.34276227	0.03550164201
RUVBL2	1.281350723	0.03551359427
RCCD1	1.821092189	0.03554808692
BMS1P10	2.802872297	0.03567976326
ANKRD37	1.659281687	0.0357312581
SELENOH	1.470682877	0.03583679679
RP11-1228E12.1	1.830938095	0.03593843095
RAB3IL1	1.574331572	0.03605493733
TRAM2	1.155605364	0.03608807348
TK1	1.326923442	0.03611814988
IGSF8	1.164869832	0.03614910135
HERC2P3	1.978943424	0.03620001818
ROPN1B	4.105995045	0.03620890119
PUS1	1.23610431	0.03622741263
CHIC1	1.314888946	0.0362703262
RP13-895J2.3	3.993426306	0.03644455666
GSTO1	1.028699177	0.03657556116
TMEM190	4.368570096	0.03700932462
BFSP1	1.947666971	0.03723757524
PTK6	3.41126913	0.03731249048
RIBC2	2.018656952	0.03749598744
RTN4R	2.274178385	0.03751848322
RP11-406H4.1	4.286387948	0.03756156167
CTD-2341M24.1	1.475568801	0.03769661099
TKT	1.141137656	0.0377038072
ZNF318	1.100741946	0.03784257957
CCNE1	1.359604972	0.03822066458
AC092168.2	3.869228131	0.03823486444
GMD5	1.60585824	0.03824853784
F2RL1	3.143916323	0.03850898767
ADAT2	1.5829078	0.03850898767
PPP2R5D	1.029706322	0.03857188783
SCOC-AS1	1.415130662	0.0385734574
RP11-551L14.4	2.068696538	0.03878982026
C19orf33	4.23279734	0.03881257332
HLA-V	3.181607782	0.03884900345
CSF3	4.273837827	0.03888023559
TMEM161A	1.158196105	0.03903221258
GMIP	1.243604304	0.03907621375
VEPH1	2.564739522	0.03915655096
ARL13A	4.270617367	0.03934339155
LINP1	3.012624307	0.03934463347

BTD	-1.109892061	0.008352247292
ACTN2	-3.088266622	0.008359029552
RAPGEF5	-2.78974019	0.008447942644
RP11-472N13.2	-4.464710927	0.008450219104
GTF2IP13	-1.396123789	0.008526508601
GPR158-AS1	-4.848467894	0.008553432204
IGFBP4	-2.982805565	0.008596466917
AC009506.1	-1.829064139	0.008609605431
CTC-429P9.5	-1.447075865	0.008652922341
RORA	-3.129045506	0.008655684644
CTD-2116N20.1	-2.493858948	0.008759872539
AC003991.3	-4.831684984	0.008761441907
STAR	-5.182937317	0.008793743218
PCDHB15	-2.388931659	0.008840830186
S100A4	-2.87993749	0.00886444768
TNFRSF19	-3.867091943	0.008924069337
TYRO3	-1.264610557	0.00895432122
DMRTA2	-4.828751997	0.009035238128
DIXDC1	-1.616748419	0.009042714686
ATP2A2	-1.061903328	0.009085993475
LYPD1	-3.739508984	0.009102181056
MTMR10	-1.242104465	0.009145037318
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AGBL3	-1.061288194	0.009173829677
TIAM1	-2.07132173	0.00924211985
TMX3	-1.238228024	0.00926465335
KLHL24	-1.345531734	0.009388624109
OS9	-1.120775826	0.00939927667
MBD1	-1.128847187	0.009399627428
PHF12	-1.088155462	0.009408449871
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VPS33A	-1.057034115	0.009462820097
RNF128	-5.182990908	0.009488958547
SNX1	-2.163906944	0.009498479923
CDKAL1	-1.816706617	0.009498479923
LHX2	-1.135520715	0.0095553037
LPAR1	-1.49994187	0.00956113669
SFMBT2	-1.187935395	0.00956113669
PDIA4	-1.158319336	0.009565871393
L3HYPDH	-1.752081738	0.009658583907
MAP1LC3B	-1.460463461	0.00966229218
PRRT3	-1.848819964	0.009683793108
ARHGAP35	-1.16773525	0.009683864136
C21orf58	-1.187242538	0.009693058467
KCNJ15	-5.525751705	0.009794806531
LIPG	-5.093382783	0.00980149363
GABRB3	-5.54822997	0.009810522744
ABHD2	-1.24510971	0.009834703337
LINC01578	-1.334542649	0.009873474105
ITGA9	-4.922385084	0.009885444252
SLC26A1	-4.844346393	0.009926816565
CPSF4	-1.13349966	0.009927863387
SATB2-AS1	-2.516153774	0.009929319141
SVILP1	-2.605414226	0.00997183135
GABRA2	-4.956357453	0.01002012745
CTD-2506P8.6	-2.007486644	0.0100673699
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NAXD	-1.193327903	0.01013055487
SETMAR	-1.224699386	0.01022691535
RP11-495P10.1	-2.427570824	0.01023459117
NXPH2	-5.502533381	0.01027794582
GOLM1	-1.853170757	0.01033799195
UBE2N	-1.010149092	0.01037461648
STAT3	-1.406207472	0.01052727282
LMOD1	-4.857411798	0.01057241416
FAFAP1L1	-1.667286633	0.01068536734
PDCD4-AS1	-1.479755948	0.01069589917
LSP1	-3.952276757	0.01073264238

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KIF7	1.737705301	0.03934937729	PLEK	-4.941306972	0.01080182827
SIDT1	3.841068065	0.03937217257	RP11-131L12.2	-4.429400759	0.01081304619
ERICH6-AS1	1.601404055	0.03938598822	CUBN	-2.516740013	0.0108455522
CSMD3	2.749939768	0.03941735517	POLR2J4	-1.531158764	0.01085000352
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METRNL	2.174270526	0.03955328855	MAP4K4	-1.042399508	0.01087233698
MED15P9	4.418146045	0.03958973964	SKINT1L	-4.598385595	0.01088255378
BOP1	1.261122679	0.03964881747	SCRN1	-1.933484303	0.01090030194
LYAR	1.550537407	0.03966314585	PCDHGA10	-3.261688889	0.01095545531
CATSPER2P1	1.263821367	0.03966314585	SNAP25	-3.574188949	0.01099160421
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CTC-529P8.1	2.519627515	0.03979660975	SRR	-1.264081587	0.01100692949
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STAT4	2.806143704	0.04009804403	BRMS1L	-1.229905563	0.01106363478
PCDHGA7	1.518863482	0.04014914625	CLDN4	-4.465142947	0.01106725497
SPSB2	1.166286291	0.04030232701	RBM26-AS1	-1.372105486	0.01108391598
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RP11-66N24.3	1.113943438	0.04105688984	RIMKLA	-1.557459297	0.01131328688
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RP11-150C16.1	3.321742726	0.04124693278	VWA5A	-3.888056191	0.01135056792
RP4-607I.1	2.803939029	0.04132568467	CTSO	-2.034259644	0.01135572716
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EREG	4.297083774	0.04148729096	SMAD2	-1.047772627	0.01145145868
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BCL6B	2.879423633	0.04314804473	AC005519.4	-1.765263623	0.01181083695
MAP3K15	1.418234632	0.04320500181	RABGAP1	-1.418405523	0.01182730268
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MYL2	4.391155455	0.04344809764	C18orf32	-2.032558263	0.01213050375
PYY	3.33794033	0.04344809764	LHFPL4	-1.457515424	0.01215705758
AIFM2	1.225566695	0.04355187067	MYO23	-4.137125699	0.01217059243
UVRAG	1.205152265	0.0437845838	CCDC140	-5.103303613	0.01218791759
ULBP3	1.203934904	0.04383406315	HLF	-1.867360276	0.0121972216
DNAJC12	1.142199416	0.04436566611	CD34	-5.415531733	0.01219909409
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WDR3	1.018149225	0.04440133557	COX5BP6	-2.155563195	0.01228379554
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WDR18	1.350059104	0.04508854596	GDF6	-5.419686649	0.01249898506
POLD1	1.223461571	0.04540326691	CHRNA9	-4.98906756	0.01255874903
LMNA	1.117541231	0.0454063878	MAOB	-5.532764789	0.012634349
LINC00466	2.60243764	0.04580605729	EPN2	-1.058710327	0.01264815875

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RP11-799D4.4	2.484736958	0.04605572258
LINC01232	1.268280286	0.04613359129
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RP11-360O19.4	4.227441386	0.04688807227
RP11-429J17.7	3.84532819	0.04698622317
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SHROOM1	1.872767263	0.04734839073
RP3-465N24.5	1.668474974	0.04751939906
RP11-498P14.5	2.081135395	0.04765588714
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RP11-473M10.3	4.224174443	0.04813156201
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SYNE3	2.357888273	0.04832024572
RP11-321L2.1	3.216843551	0.04848793487
RP11-526D8.7	4.217815787	0.04853946633
RP1-179N16.6	1.310811807	0.04867548494
CFAP54	2.730732716	0.04892529335
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CFAP45	2.1429671	0.04910570688
CTD-2334D19.1	4.331422054	0.04916671913
SMKR1	1.684159571	0.04930666603
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TNFRSF12A	2.04597705	0.04984552332
KLF4	1.96858706	0.04985425972
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HECW1	1.639764714	0.04991663415
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SERPINH1	-2.201737213	0.01265483939
SLC12A9	-1.420691004	0.01266671626
FIS1	-1.122048494	0.01266671626
PDIA2	-4.90016734	0.01267762998
TIGD4	-1.361237215	0.0127164305
ETV6	-1.779954798	0.01273246732
ACTR1A	-1.068640004	0.01276985639
KRBA1	-1.121816959	0.0127717863
PCDH1	-2.73880449	0.01279173593
INHBB	-3.97827568	0.01282362396
HACD3	-1.023127296	0.01285832088
ACTR3C	-5.066091268	0.01289228634
HCG22	-5.376293427	0.01290859019
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KANSL1L	-1.09224532	0.01299767714
CIDECP	-1.25557719	0.01300758988
STRIP2	-1.92399899	0.01302249865
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TLE4	-1.632946777	0.0130706618
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NIPAL4	-4.815582117	0.01311051218
LINC01505	-3.330138445	0.01312200277
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PAQR4	-1.343392509	0.0134282859
ZNF836	-1.578500416	0.01345613209
DNAJA4	-5.125224956	0.01347063473
CHST6	-1.909169059	0.0134862283
ISCA1	-1.040601339	0.01364840762
LINC01132	-4.971933474	0.01375764852
VPS37D	-2.311506937	0.01382833228
RP11-50D16.4	-4.651213362	0.01382833228
CNPY2	-1.45389995	0.01383247188
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CCDC160	-4.087525217	0.01385019035
AKR7A2	-1.29363271	0.01386987368
TUBB2A	-1.597020733	0.01388183374
CRYBB1	-5.455885259	0.01392924946
MAP7D1	-1.084772101	0.01396760647
COPG2	-1.081491684	0.01397250807
TSPAN31	-1.16005719	0.01400256042
ANKLE1	-2.4666407	0.01401653329
RASL10A	-4.645904155	0.01412309898
CYP4F25P	-2.5169652	0.01420853731
SEPT2	-1.010013484	0.0142321712
GSTM1	-4.612987802	0.01432514328
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LINC00648	-4.645172685	0.01450753403
CDH3	-3.769199448	0.01462086309
GPER1	-3.245480098	0.01471688999
PAR3B	-1.350809921	0.01473880184
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DBNDD1	-1.435023233	0.01502694145
LMCD1-AS1	-2.605152147	0.01511098396
MROH8	-1.737143816	0.01520324938
CUL4A	-1.105717857	0.0154294165
USP54	-2.161500499	0.01553958042
ZNF480	-1.319612695	0.01558938453
XRCC2	-1.080519715	0.01565827956

MEG9	-5.272678764	0.01572805843
ARHGFE26	-1.52033562	0.01573856063
CPA2	-5.294565689	0.01573856063
MYH7	-4.862240757	0.01586121556
FMC1	-2.232695125	0.01590144024
ZNF180	-1.11388579	0.01595483866
UNC13A	-3.218726903	0.01598231002
UCP3	-1.752307867	0.01598900147
SELENON	-1.258213644	0.0159939912
ZMYM4	-1.073665877	0.0160645195
TOMM5	-1.152875408	0.01608499587
AE000661.37	-5.261994157	0.01613549692
BMP1	-1.898669967	0.01614389603
THSD7A	-3.652561692	0.0161488789
WARS	-1.0592577	0.01615281415
SIDT2	-1.229256527	0.01615281415
LOH12CR2	-1.67691758	0.01636598428
GRM2	-4.427570348	0.01644954715
PPM1L	-1.03094081	0.01649610118
ADCK1	-1.507689762	0.01649658618
SMIM7	-1.089195785	0.01656341556
GLIPR2	-1.635939354	0.01660478679
RP11-2711.4	-1.559549043	0.01667587774
MCUR1	-1.048329386	0.01671446453
CIZ1	-1.126964478	0.01685817668
C6orf223	-2.803776968	0.01688864763
AC010883.5	-2.094717492	0.01690504352
LANCL3	-3.676289883	0.01716366508
SWAP70	-1.00314323	0.01722553773
RP11-796E2.4	-2.760083635	0.01723144724
PPIA	-1.182175414	0.0173059176
JAM2	-3.00487969	0.01743735981
LINC01410	-1.678064504	0.0174400882
RPP40	-1.061085731	0.01746395472
TSPAN5	-2.215451125	0.01755012935
FKBP9P1	-2.786653961	0.01763436275
PPP1R12B	-1.091803732	0.01764074781
TMEM132C	-5.280471444	0.01764074781
TAX1BP1	-1.020367875	0.01765393428
PROCA1	-1.879371455	0.01774208688
RP11-428J1.4	-2.3268122	0.01789964346
KAT7	-1.112235302	0.01793708259
PAXBP1-AS1	-1.862069318	0.01803800624
DBX2	-4.985128784	0.01803947302
FGF1	-2.194756496	0.01809873022
ZADH2	-1.010574957	0.01814637299
RP11-627G23.1	-4.609350113	0.01814637299
RSU1P2	-5.225366186	0.01818090749
RP11-257P3.3	-4.876959069	0.01823445458
LINC01085	-3.70779577	0.01823959845
FBLN5	-4.702085663	0.01828660283
PTCH2	-2.74398405	0.01836790408
HORMAD2	-5.188698527	0.01839180083
POLR2J	-1.083909056	0.01842346686
SLC26A10	-1.571036973	0.01842346686
TRIM62	-1.30990185	0.01847844345
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ATP8A2	-4.291460198	0.01851106605
SEC14L2	-1.335052376	0.0185284686
TENM3	-3.492901526	0.01855474263
SERF1B	-2.038929624	0.01857871248
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FAP	-4.835194214	0.01863198518
ZFYVE16	-1.625023493	0.01864231613
ADCY6	-1.377884627	0.01864612585
TEF	-1.438246803	0.0186734286
CLK1	-1.121236214	0.01885873773
RBP1	-4.740776138	0.01886058615

TPP1	-1.118401138	0.01887313444
ADAMTS7	-2.2195974	0.01896799307
TCTN2	-1.430464998	0.01907818385
SERINC5	-1.141579865	0.01919392089
FMN1	-2.440974978	0.01923363864
AC108488.4	-1.73751869	0.01934800273
RECK	-1.095674901	0.01938349282
LIMA1	-1.110009956	0.01949806652
PITHD1	-1.049148389	0.01949968909
RABL2A	-1.062556597	0.01956697924
KLC1	-1.135311744	0.01962575376
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NMRAL2P	-3.568712178	0.01965706005
GIPC3	-4.757185092	0.01970721479
NAGLU	-1.421840041	0.0197509011
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RTP4	-3.567992139	0.01977993331
CYSLTR2	-5.180562209	0.01977993331
RP11-54D18.2	-2.897950156	0.0198209433
SMARCB1	-1.03897791	0.01982550254
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LINC01549	-4.572397451	0.02015732158
NAPA	-1.170732703	0.02016004222
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MYSM1	-1.008475942	0.0203993544
ARHGEF40	-1.48529973	0.02048618293
TRAC	-5.207150108	0.02051717342
AC074391.1	-3.969413731	0.02052388547
HIST1H3D	-3.066695655	0.02062658511
SCN2B	-4.612587548	0.02067453567
RP11-263K19.4	-2.442177897	0.02069675234
CHST14	-1.362274446	0.02076114267
LINC00856	-3.714459878	0.02076114267
MMD2	-4.703942691	0.02095120897
PBLD	-1.511055991	0.0210456504
CMYA5	-2.199542165	0.0211731849
NFE2L1	-1.284855613	0.02143014669
EGFEM1P	-1.60304294	0.02143829914
EPHB4	-1.451703659	0.02152335606
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ZSCAN23	-1.278905726	0.02154150772
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KCNAB1	-4.634241237	0.02159080678
ELAVL2	-2.680505056	0.02170893029
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FLOT2	-1.291724195	0.02199967924
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C20orf196	-1.653755861	0.02229771785
NRXN1	-4.878613041	0.02236941137
AC147651.4	-2.346840133	0.02236941137
IQCA1L	-3.961663442	0.02236941137
TIMP2	-1.605633935	0.02246955709
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ANKRD9	-1.609927333	0.02298963557
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DNM1	-1.940673073	0.02316430587
COQ4	-1.166664683	0.02321509016
MEIS3	-1.979511956	0.02331342304
RASGRP1	-2.255421973	0.02333289846
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STKLD1	-1.593759505	0.02353526342
C20orf194	-1.095541521	0.02358174193
ATP6V1B1	-1.639697141	0.0235821543
ENDOU	-4.481845887	0.02358390116
GPSM3	-1.593961387	0.02358390116
SAMD14	-3.210717561	0.02361794864
RTP1	-5.119707558	0.02361794864
SMC5-AS1	-1.897243206	0.02369980112
CDK4	-1.080127317	0.02382768186
PLOD2	-1.094339997	0.02385448137
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MEPCE	-1.418934641	0.02387366844
RSPH14	-3.872224168	0.02404210977
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SEMA6A-AS2	-3.304025762	0.02410976757
PNCK	-2.012182039	0.02413654138
IGLON5	-5.574917337	0.0242550133
ERMAP	-1.565357325	0.02430926605
LINC01176	-2.557288743	0.02431191476
KANTR	-1.274402115	0.02433597946
IGFBP3	-3.485180675	0.02436418194
PTPN9	-1.009102308	0.02443376064
RP1-274L7.4	-3.830894524	0.02450292679
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MAFTRR	-4.19633104	0.02455506531
C5orf67	-5.027492741	0.02460976606
SPX	-3.521762736	0.0246260443
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TENM4	-5.697139054	0.02483349446
MGARP	-3.460228809	0.02484654259
TEKT3	-2.570098095	0.02496524068
ACSS1	-1.001498873	0.0250473989
AC083867.4	-4.653553283	0.02528750154
POMZP3	-1.390858878	0.02538695052
HERC2	-1.107655719	0.02539201053
CXCL11	-4.886617656	0.0254483105
LA16c-313D11.1	-2.757496698	0.0254956113
RNF208	-1.949666981	0.02554610578
YWHAH	-1.16405029	0.02558465875
MATN3	-4.59424317	0.02558909313
VOPP1	-1.468894317	0.02577933295
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TOB1	-1.404346425	0.02578653601
MYCBP2	-1.320982412	0.0258168125
TPTE2P5	-3.062938455	0.02589483178
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ENO3	-1.927766405	0.0259800486
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MEOX2-AS1	-5.001717284	0.02608338642
TAF1C	-1.124258077	0.02609705691
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SNHG11	-1.126572362	0.02635014089
THSD1	-2.519072703	0.02637928321
COLCA1	-4.48488505	0.02648659538
PTCD1	-1.174756734	0.026520623
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PAQR9	-2.369702211	0.02671071193
TBCK	-1.366191321	0.02671588276
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TAF6L	-1.054566535	0.02769866225
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COA3	-1.147274974	0.02809119485
TBKBP1	-1.015032544	0.0280926059
LINC01679	-4.497326429	0.02812941459
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LAMTOR4	-1.171464262	0.02817940831
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LDB2	-5.615356655	0.02860894651
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SLC35E2	-1.22683416	0.02876714954
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FAM53B	-1.032313943	0.02886202535
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FLT1	-5.331703573	0.02886266936
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RAPGEF4-AS1	-4.937860174	0.02950265689
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SEZ6	-5.337512154	0.02964744196
LACTB2-AS1	-4.286377731	0.02964744196
PRAG1	-2.397735907	0.02964744196
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CHMP3	-1.099229998	0.02973509386
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USP5	-1.10345883	0.02993405952
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AQP4	-5.303845444	0.03128250069
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PRR26	-4.360719055	0.03165134489
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SPON1	-4.383978921	0.03169829402
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GBP2	-2.065336421	0.03219449816
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NAPSA	-3.887056667	0.03314059298
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ROCK1P1	-2.039979695	0.03423169291
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CHRFAM7A	-3.315962818	0.03431800531
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HSF2BP	-1.615555654	0.03447360378
HIF1A-AS1	-2.767681274	0.03452866598
BHLHB9	-1.214364914	0.03466837556
ST6GALNAC6	-1.40334193	0.03470165226
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FOXRED2	-1.059887226	0.03470882196
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MIR181A1HG	-3.345085444	0.03482068087
PDLIM5	-1.044069279	0.03484552108
PINK1-AS	-1.057937569	0.0349061461
ADCY2	-3.90805118	0.03505702405
ZFP37	-1.191089625	0.03531694235
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SCD5	-1.247348129	0.03539622341
PTGDS	-2.914017724	0.03539875304
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CEP162	-1.670415613	0.03553978026

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PODXL	-1.022715717	0.0356894481
TIMELESS	-1.025764368	0.03568986748
ABCB4	-3.485831353	0.03586087542
G6PC3	-1.080659601	0.03590447464
TBC1D20	-1.092307016	0.03600027876
RP11-798M19.3	-1.580474485	0.03616799772
DHX29	-1.017302754	0.03620890119
LINC00342	-1.17401864	0.0362703262
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TACC1	-1.073020901	0.03644455666
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RAD9B	-1.53490995	0.03660662791
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RIPPLY3	-4.279496184	0.03664590129
H2AFX	-1.32837733	0.03678170336
RBM26	-1.069181615	0.03681120708
RP11-146D12.2	-2.33503296	0.03686205144
CPNE4	-4.865033835	0.03694665305
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WNT7B	-2.993345368	0.03698862136
IL20RA	-4.927124666	0.03699888875
ITGA1	-1.060674415	0.03703453328
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NBPF10	-1.079349352	0.03733945011
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WBP1L	-1.199936575	0.03751585839
ZCCHC18	-1.226255666	0.03751585839
POM121B	-1.835226599	0.03753094183
SMAD7	-1.220665672	0.03755200236
GRID2IP	-3.025782384	0.03767317655
PACS2	-1.114402437	0.03768606891
CSRP1	-1.197304934	0.03803866331
RHBDD3	-1.133610052	0.03806597832
EFHD1	-2.136805664	0.03825883665
SPRED2	-1.132952794	0.03834267084
FBXW2	-1.108008763	0.03835017869
AKAP3	-1.737265058	0.03837795254
CAMK2D	-1.860134917	0.03850898767
ZMAT1	-1.271681481	0.03854992543
TNFSF4	-2.047753265	0.03875376185
STX1B	-1.896603968	0.03875464921
DPM2	-1.183995468	0.03880813815
CTB-179K24.3	-3.105323631	0.03897929109
KCNJ16	-4.291577987	0.03898190613
SH3RF1	-1.323076361	0.03938598822
SLC38A6	-1.146823099	0.03948874047
ACSL6	-4.332264302	0.03948874047
ZNF324	-1.076614657	0.03955312061
PLCL1	-3.087375714	0.03955655056
COL4A3BP	-1.373986406	0.03973000025
ZNF33B	-1.738782497	0.03981548942
RBM6	-1.011106047	0.03993438768
CTSS	-2.548455445	0.03993438768
FAM174B	-2.454478594	0.04000782695
CA3-AS1	-3.408899148	0.04007012692
PITX2	-3.176344797	0.04011675102
SATB1-AS1	-4.265492318	0.04023208631
MGAT4A	-1.86885204	0.04036255058
CH507-9B2.9	-1.414574764	0.04036255058
FGFR2	-1.679881674	0.0404314925
NDE1	-1.00806691	0.04055652833
CTD-2619J13.3	-3.870494129	0.04066267001
SEPT7-AS1	-1.273688927	0.04070666908
ADAM19	-3.106171353	0.04072612632
C22orf24	-3.362164712	0.04078140421
HAVCR2	-2.701801774	0.04078140421

SSPO	-2.781909787	0.04104117359
ATP11A	-1.141711817	0.04120840326
ZER1	-1.199783197	0.04120840326
MSS51	-1.103355636	0.04123771566
TTLL1	-1.001596167	0.04129163677
CTC-325H20.8	-4.379620268	0.04129163677
CLN6	-1.011937542	0.04139550145
DOPEY1	-1.404679516	0.04143512895
HIRA	-1.078028655	0.04146879641
IL1RAP	-2.900354913	0.04148729096
RP13-644M16.5	-4.354222882	0.04152622899
LRRC9	-4.700008534	0.04183496363
RP11-431M7.3	-4.378161653	0.04183496363
FAM19A5	-4.065415292	0.04186174727
PON2	-1.368842646	0.04192275078
CTD-2514C3.1	-2.222142808	0.04194898996
RP11-84G21.1	-1.530244352	0.04196204402
BORCS7	-1.703255918	0.04204337993
SLC35D3	-4.46357639	0.04210636138
CLCN4	-1.017580389	0.04216759745
CNTNAP1	-1.348060327	0.04218039325
LINC01206	-4.551707684	0.04221773341
C15orf59	-2.09205171	0.04257278328
LINC01852	-1.687920867	0.0426691845
IGSF9	-3.833904903	0.04272012445
WEE2-AS1	-1.371126783	0.04272802559
ZSCAN30	-1.133090654	0.04287216576
MIPEPP3	-1.459318041	0.0429307971
AP000432.1	-1.255746825	0.0431367002
ZBTB20	-1.134427569	0.04320818754
HYAL1	-3.016854124	0.04326354761
NFIA-AS2	-4.690934248	0.04341261462
HSD11B1L	-1.169662346	0.04341275038
RP11-685N10.1	-1.873748264	0.04343756073
RP5-884C9.2	-4.67028136	0.04372566592
RP11-770J1.3	-1.978003662	0.04376810314
CCDC157	-1.924673812	0.04387464067
RP11-369K16.1	-4.378477827	0.0439055597
LINC00519	-4.174203244	0.04414826492
RP11-712B9.2	-1.681867447	0.04438495977
ZSCAN9	-1.143102764	0.04440547237
CORO1C	-1.371073466	0.04444309768
NRXN2	-3.265152575	0.04446223563
KALRN	-2.765885882	0.04446223563
POC1B-AS1	-1.487207304	0.04446223563
ROBO2	-3.104746093	0.04512684457
MCTP2	-3.767260804	0.04523505001
NREP	-2.461486964	0.04536548297
AKAP9	-1.053334069	0.04537460484
OTOGL	-3.202638704	0.04566219905
AGBL4	-3.874891035	0.04569855501
FGFR1	-1.811983801	0.04574920331
MYO5A	-1.8759313	0.0457881529
RP11-359B12.2	-1.014373795	0.04585671536
TPST2	-1.635293308	0.04596908844
CTC-344H19.4	-3.534171212	0.046018976
AC007566.10	-1.014212726	0.04603914804
RNF219-AS1	-4.287346862	0.04607192115
HEY1	-1.938937907	0.04610567765
CCDC93	-1.053906336	0.04613359129
IL1RAPL2	-4.641402639	0.046158938
SLC2A10	-1.896922159	0.04618397365
RANBP3L	-4.054300833	0.04627817694
MSI1	-1.269715637	0.04628176266
COL4A5	-1.165371807	0.0462852139
LINC02082	-2.0766378	0.04636223328
ADAMTS14	-3.460689324	0.04636286823
HES6	-1.291320261	0.04637935409

PTPN13	-1.817108422	0.04651237249
NCK1-AS1	-1.304319419	0.04651237249
CCND2-AS1	-3.947812765	0.04700024178
AC018804.6	-3.27395259	0.04707095723
VEZF1P1	-1.223038487	0.04722431029
THRB	-2.247924883	0.04737934441
FAM189A1	-3.061011094	0.04790594259
GFAP	-4.644488325	0.04797167238
KLHDC1	-1.635443325	0.0484250351
NRBP2	-1.153527038	0.04855267055
BCL11A	-2.418681084	0.04862494178
LINC01252	-2.073475688	0.04871208694
ZBTB21	-1.040193851	0.04872465371
SKIDA1	-1.19451375	0.04872465371
PTP4A1	-1.179304474	0.0489195171
RGS11	-4.442310826	0.04898101713
ZBBX	-3.102530499	0.04909249068
RP5-994D16.3	-2.841919319	0.04942585422
HS6ST1	-1.229941371	0.04945159219
TCEAL8	-1.00031066	0.04956146826
MAGED2	-1.077604338	0.04959084528
STAC3	-1.509375238	0.04968037008
BTBD19	-2.424382464	0.04970254872
ALDH3A1	-3.812078314	0.0497637965
SHISA9	-4.285136647	0.04994722536

Supplementary Table 6: Highly expressed (multi-exon) genes in mesenchymal (MES) and proneural (PN) GSCs ($\log_2FC > 3$ and $FDR < 0.05$), with expression differences between MES and PN GBM ($|\log_2FC| > 0$).

Highly expressed genes in MES			
gene	GSCs.log2FC	GSCs.FDR	GBM.log2FC
ANPEP	10.3767	1.99E-70	2.09953
CDCP1	10.4075	4.38E-70	1.38869
SLFN11	10.6064	5.23E-70	0.11886
FOSL1	6.6273	6.26E-67	1.55408
TGM2	8.0496	2.47E-62	1.21532
ALDH1A3	9.6937	4.46E-58	1.68304
CTSZ	9.2329	3.20E-56	1.47754
FGF5	9.9146	9.77E-56	0.53909
MDFIC	8.2457	1.49E-53	1.36954
DNAH14	9.9210	1.48E-51	0.35166
HTATIP2	9.5804	1.73E-51	0.50266
PROCR	6.3594	3.17E-47	0.81380
C4orf32	9.2232	2.46E-46	0.57075
PLBD1	9.3612	1.24E-45	1.47594
MAGEB2	10.4771	4.67E-45	0.46958
TNFRSF10D	9.8447	5.15E-42	1.22471
EGR1	5.8680	5.36E-42	0.71143
STEAP2	10.0367	3.45E-41	1.10119
TUSC3	10.1375	3.85E-41	0.17589
BAIAP2L1	6.3678	1.04E-40	0.93680
MAGEA12	8.8877	2.63E-40	0.05420
SSH3	6.3416	1.85E-39	0.53649
ME1	9.9955	1.63E-37	0.49086
AIM1	4.4846	2.27E-37	1.72706
KRT8	9.6747	7.60E-37	1.07739
DSP	8.7318	1.50E-36	0.48866
ADIRF-AS1	8.1469	3.93E-36	0.30912
EFEMP1	10.9410	1.18E-35	1.50093
PRAME	11.3030	2.28E-34	1.27959
LY6K	9.0424	1.69E-33	0.27941
NFE4	9.9765	6.41E-33	0.97714
KCNC4	5.7273	8.91E-32	0.04717
LRRK1	8.5715	1.06E-31	0.65678
VRK2	8.8949	2.36E-30	0.63973
FAT4	6.4036	2.76E-30	0.72110
CDYL2	4.0989	3.66E-30	0.17782
DOCK5	9.9519	4.36E-30	0.62253
KATNAL1	3.9237	2.47E-29	0.14296
RAB11FIP1	7.7864	5.32E-29	1.16974
RP11-29H23.5	5.5037	1.10E-28	0.27002
EGFR	8.0550	2.38E-28	0.87717
GALNT6	9.5208	5.22E-28	0.90483
KRT18	10.4865	8.62E-28	1.19541
STEAP1B	7.7408	1.01E-27	0.12919

Highly expressed genes in PN			
gene	GSCs.log2FC	GSCs.FDR	GBM.log2FC
GPM6B	10.7109	3.53E-127	0.0319
PDE4B	9.6990	7.76E-74	0.0007
PMP2	10.5275	1.69E-69	0.2675
COL11A1	9.8527	2.15E-68	1.0411
ARNT2	9.1545	4.87E-65	0.1831
PTPRZ1	10.2884	1.65E-64	0.4263
PRTFDC1	10.0067	1.29E-63	0.3787
KCNJ10	9.8793	2.84E-63	0.4904
KCNA2	10.1004	1.60E-61	0.9668
FEZ1	10.1715	4.86E-57	0.3374
BCAN	10.2891	4.13E-56	1.3340
EDNRB	10.4157	1.47E-55	0.6797
ZNF532	10.7090	7.97E-54	0.2351
ARL10	8.2031	9.15E-54	0.5634
PCDH15	9.3152	3.32E-52	2.7574
FXYD6	9.9132	1.22E-51	1.1235
OLIG2	10.2669	3.17E-50	1.7045
NLGN3	7.8820	1.09E-49	0.6115
TUBB2B	10.3490	4.63E-46	0.5740
LSAMP	11.0931	2.38E-45	0.8173
JAM3	10.0985	3.23E-45	0.1004
VCAN	10.5979	6.34E-45	0.0602
GNG2	10.3773	2.35E-44	0.8572
SEMA5A	8.6201	2.59E-44	0.4534
SLC35F1	9.9135	1.09E-43	0.9902
OLIG1	10.4094	1.77E-43	1.6634
CSPG4	9.9819	1.87E-43	0.3887
SOX2-OT	9.1016	5.55E-43	0.3283
ANGPTL2	10.2187	2.80E-42	0.1308
MMP2	10.5826	1.13E-41	0.1237
ZNF608	8.8905	3.60E-41	0.0877
ZNF354C	6.9885	3.01E-40	0.3125
FREM2	5.3429	1.36E-39	0.3714
ZNF300	11.0075	4.33E-39	1.1409
MAP2	8.5508	1.24E-37	1.0706
MPHOSPH8	9.9602	2.46E-37	0.0527
ZNF334	9.1671	2.52E-37	0.0701
MDFI	9.4470	2.61E-37	0.7509
CELF2	9.1976	3.31E-37	0.2632
ZNF736	10.0130	3.31E-37	0.3164
SULF2	9.4323	3.40E-37	0.7024
ZNF542P	8.2413	1.08E-36	0.0470
FGFBP3	4.8909	1.31E-36	1.1660
SETD6	7.3817	1.68E-36	0.2128

ZDHHC23	5.8260	1.38E-27	0.58893	SCRG1	11.0053	2.13E-36	0.4437
ADM2	8.1786	3.47E-27	0.18935	ANK3	5.4055	3.28E-36	0.5443
RUNX3	7.9180	1.00E-26	0.46877	VANGL2	10.0599	4.66E-36	0.4403
FAM83G	8.1384	2.19E-26	0.91705	DZIP1	10.4170	7.91E-36	0.2864
TES	11.5896	2.98E-26	0.90344	MLLT11	3.6619	1.41E-35	0.9375
CASP4	5.4741	5.91E-26	1.14022	LINC00511	4.7276	8.94E-35	0.6536
MIPEP	3.6301	6.82E-26	0.42856	PCDHGC3	8.3531	1.06E-34	0.4938
ANKRD27	3.6217	2.55E-25	0.05869	ARMCX4	9.5542	1.39E-34	0.6346
NIPAL2	8.3632	1.11E-24	1.10676	ZNF883	7.8610	2.51E-34	0.3449
CADPS2	8.1288	1.94E-24	1.17465	CPXM1	10.5931	2.90E-34	0.1185
STAMBPL1	6.8045	2.61E-24	0.00945	TTYH1	9.2750	3.37E-34	0.5267
MAP3K21	4.4245	5.59E-24	0.40366	RFTN2	9.4866	3.83E-34	0.5545
SPAG1	4.6764	1.16E-23	0.77369	SALL3	9.4843	7.54E-34	1.3368
MAT1A	7.7902	1.41E-23	0.45222	SOX5	10.4488	8.88E-34	0.7518
MIR222HG	4.0647	3.46E-23	1.40482	TNS2	5.2750	1.11E-33	0.0346
IER3	8.7015	4.32E-23	1.17211	LINC00665	6.5084	2.47E-32	0.3358
CHAC1	5.2816	4.60E-23	0.37037	ZNF93	6.9929	5.30E-32	0.4982
PRKCH	6.3346	7.52E-23	0.39253	ZCCHC24	3.6333	5.98E-32	0.2863
DUSP23	7.1703	7.62E-23	0.98536	DISC1	7.7497	6.46E-32	0.5254
RP11-66B24.7	8.9782	8.13E-23	0.19592	SALL2	10.1305	7.18E-32	0.1669
GBP3	5.9100	1.02E-22	1.18576	CHFR	4.3815	1.70E-31	0.2096
CATSPER1	7.9869	1.24E-22	1.26298	ZNF585B	5.8969	2.98E-31	0.0772
ECHDC2	6.6816	1.60E-22	0.68730	GNG7	3.5925	5.58E-31	0.3424
DENND2C	5.8353	2.82E-22	0.21653	COL9A3	10.8461	7.89E-31	0.6293
ALS2CL	6.8183	3.48E-22	1.41048	SV2A	10.5071	8.45E-31	0.4885
LTBR	11.6376	4.79E-22	0.89730	PNMAL1	10.6681	1.01E-30	0.4353
G0S2	7.1054	5.12E-22	1.13372	GPRC5B	6.2540	1.37E-30	0.2128
AOX1	7.8808	9.45E-22	0.56697	PCDH17	7.3463	1.62E-30	0.4427
TPM2	4.7180	1.31E-21	0.70770	PPP1R9A	10.2710	3.18E-30	0.2278
DMKN	10.8580	2.40E-21	1.43401	CGREF1	8.2704	5.04E-30	0.5471
NME7	3.1848	4.21E-21	0.03588	PROM1	9.5944	2.08E-29	0.5557
RASGEF1A	11.3283	6.39E-21	0.12246	ZNF431	10.5750	5.15E-29	0.5580
SELENOM	6.4010	7.38E-21	0.92268	SOX8	10.6199	6.31E-29	1.9157
SIK1	4.7753	1.51E-20	0.61608	CCDC149	9.6059	1.74E-28	0.0466
IL4R	8.4823	1.84E-20	1.01604	FRMD5	3.4701	2.15E-28	0.3661
EMB	11.6151	2.13E-20	1.54406	AIF1L	6.5808	5.14E-28	0.6226
SERPINB9	8.0080	2.24E-20	0.75261	DDX19B	7.0008	1.38E-27	0.0338
PPARG	8.8885	2.51E-20	0.61278	ZNF43	10.4614	1.44E-27	0.3268
KCNG1	6.4498	2.70E-20	0.68860	PAG1	6.0137	1.28E-26	0.3382
MPP7	5.7031	3.90E-20	0.06112	FLRT3	9.4041	1.57E-26	0.4117
TNFRSF10A	11.1730	6.54E-20	1.06264	ELMO1	10.3865	1.57E-26	0.9021
CTGF	5.8601	1.69E-19	0.61500	HUNK	8.5989	1.94E-26	0.7926
PMAIP1	5.7864	1.71E-19	0.64524	GTF2I	3.5369	1.97E-26	0.1669
CSAG1	10.3953	2.24E-19	0.08240	ARHGEF7	3.1696	2.19E-26	0.8176
IL7	6.9248	2.84E-19	0.83074	CERS6	11.6372	2.20E-26	0.1270
RERG	6.4640	2.84E-19	0.70168	FAM222A	4.4462	2.27E-26	1.8273
NIPAL1	5.7869	3.62E-19	0.09044	GREB1	4.5814	6.44E-26	0.3667
PTPRH	6.8849	3.71E-19	0.93175	COL20A1	8.5074	2.20E-25	2.6896
PARP4	3.6642	3.83E-19	0.53202	RP11-43F13.1	5.4935	2.46E-25	0.0034

TPBG	10.9432	3.92E-19	1.78491	LINC00461	4.0718	3.20E-25	0.3884
RP11-420A23.1	3.6846	4.13E-19	0.05179	TCF4	6.3969	9.15E-25	0.3696
TRIM58	9.1570	5.22E-19	0.41985	PCYT1B	9.7393	1.14E-24	0.2838
PCK2	4.0535	9.70E-19	0.52767	STK32B	9.9483	1.30E-24	0.6871
SERPINB1	6.8758	1.82E-18	1.17338	C8orf46	7.5529	1.30E-24	0.7258
BCL2A1	9.5784	2.28E-18	1.25019	MAPK10	5.5778	2.41E-24	0.4253
CHMP4C	10.6741	4.88E-18	0.67970	SATB1	8.1516	2.44E-24	0.8926
LINC00707	8.8163	5.03E-18	0.24621	SLIT1	8.8588	2.97E-24	1.3022
RCN3	4.9144	5.39E-18	1.15529	C3orf70	9.8798	4.32E-24	0.6956
SLFN12	9.8596	6.30E-18	0.68571	DGKI	8.0565	4.98E-24	1.0900
PLA2G16	3.4570	6.33E-18	0.41644	ID4	9.6761	5.08E-24	0.4220
MGST1	8.3238	7.62E-18	0.92754	ASIC4	7.3633	6.89E-24	1.6741
CT45A10	9.8426	8.52E-18	0.57785	KCNIP1	10.4082	1.00E-23	0.4133
CD40	9.8483	9.59E-18	0.80510	FAM49A	9.7027	1.06E-23	0.0765
MLPH	9.9790	1.03E-17	0.99098	TMEM246	9.9217	1.46E-23	1.2458
SPAG4	4.8318	1.24E-17	0.49310	NLGN4X	11.2397	2.53E-23	0.0599
H2AFJ	10.1085	1.58E-17	0.68030	DTX3	9.4179	2.67E-23	1.7209
TNFAIP2	4.5793	1.82E-17	1.63649	PPP1R14C	11.0118	2.80E-23	0.4694
ELL2	4.3705	1.84E-17	0.70862	TET1	9.2650	4.27E-23	0.8858
TBX18	10.5513	1.88E-17	0.86630	ZNF738	11.1390	6.12E-23	1.0439
LDHC	7.8273	2.32E-17	0.12632	ZNF382	7.3153	6.23E-23	0.3182
AC003092.1	10.5004	3.23E-17	0.97824	SEMA5B	8.9971	6.86E-23	0.9562
MAN1A1	5.9947	3.81E-17	1.56757	LG12	9.6623	6.86E-23	0.0194
LINC00857	8.3517	5.01E-17	1.19285	HSD17B7P2	4.5378	7.26E-23	0.2911
HS3ST3A1	8.2866	5.75E-17	0.49443	NIM1K	6.8967	7.95E-23	0.2594
WDR66	6.4268	7.31E-17	0.68652	PEG3	9.7716	9.70E-23	0.8884
RP5-884M6.1	9.7256	8.11E-17	0.50697	KLHL13	7.7314	1.55E-22	0.5893
MME	7.5809	1.13E-16	2.08298	ZNF506	9.6657	3.80E-22	0.3161
IL31RA	10.2933	1.31E-16	2.41949	JAKMIP2	9.2861	4.60E-22	0.0455
GFPT2	3.7890	2.39E-16	1.13101	HR	8.4776	4.64E-22	1.4023
CXCL5	9.8873	2.48E-16	2.06286	B3GAT1	10.7366	7.25E-22	0.9428
RP11-366H4.1	10.0323	3.19E-16	1.78157	BCHE	6.7738	2.14E-21	0.4914
DMC1	4.5325	3.59E-16	0.81462	GOLGA8A	4.2395	2.24E-21	0.3784
ZNF215	10.0254	3.62E-16	0.70861	PDGFRA	7.7900	3.32E-21	2.7554
EXT1	3.4344	3.92E-16	0.19825	UNC80	6.8929	3.32E-21	0.8055
CCDC68	8.2244	3.99E-16	0.44872	RNF175	10.6522	7.91E-21	0.1974
TMEM156	9.5593	5.31E-16	0.23005	CD200	7.1215	1.07E-20	0.5397
IRF5	7.0097	5.34E-16	0.66357	ATCAY	8.8905	1.24E-20	1.9143
FBXL13	4.0736	7.04E-16	0.46210	TBCEL	10.5117	1.63E-20	0.0253
RP11-108M9.4	6.8084	8.17E-16	0.65201	LRRTM2	8.2571	1.96E-20	0.9006
TM4SF19	8.1077	1.12E-15	0.83681	PTPRO	9.4924	2.01E-20	0.5242
UBR5-AS1	3.5689	1.20E-15	0.21289	SEMA6A	3.7219	2.06E-20	0.3107
ARNTL2	3.1121	1.27E-15	0.53968	BRSK2	9.1250	2.23E-20	1.7043
CD55	6.4161	1.55E-15	0.60302	DPYSL2	3.2855	3.22E-20	0.0300
HLA-F	3.7857	1.74E-15	0.76844	ZNF577	4.7199	4.14E-20	0.2319
ECHDC3	9.9163	1.95E-15	0.40381	AC074289.1	6.6117	5.13E-20	0.2217
LINC00944	9.8211	2.02E-15	0.31916	DOCK10	5.3177	5.21E-20	0.2855
HHEX	9.2847	2.09E-15	0.64843	ZNF254	3.3001	5.92E-20	0.2384
RP11-148B18.4	9.2308	2.71E-15	0.96897	SHISA4	8.2521	6.07E-20	0.2450

TEC	9.7881	2.87E-15	1.38344	BAALC	9.8395	8.66E-20	0.3276
MSC-AS1	7.9784	5.06E-15	0.23046	SLITRK2	10.0475	1.22E-19	1.1851
SRGN	8.9991	5.33E-15	1.23161	ZNF737	7.7906	1.36E-19	0.7210
HTR7	9.0756	8.97E-15	1.20624	MAGI2	4.6993	1.77E-19	0.3501
KIRREL2	5.6129	9.91E-15	0.14202	EFS	11.7172	2.19E-19	0.6064
LINC01605	7.7660	1.00E-14	2.15906	ZNF529	10.3714	2.19E-19	0.2753
TOR4A	5.5083	1.13E-14	0.90684	ZNF85	8.9232	2.41E-19	0.4293
CASC9	9.5504	1.20E-14	0.62265	KLHDC8B	5.1776	2.70E-19	0.2149
RP11-66B24.2	9.6835	1.23E-14	0.44563	SHROOM2	9.2579	3.70E-19	0.1916
ANKRD29	5.0472	1.75E-14	0.95849	ZNF853	9.4885	4.76E-19	0.4280
CTB-140J7.2	9.0559	1.87E-14	0.75484	ZNF100	10.1631	6.51E-19	0.4029
PLCG2	9.5905	2.05E-14	0.77150	ZNF813	5.7554	8.26E-19	0.1357
MIR137HG	9.4635	2.91E-14	0.02217	DPYSL3	5.0577	1.22E-18	0.0746
RP4-647C14.2	9.4408	3.12E-14	0.05569	GRIA3	9.6760	1.44E-18	0.5356
ADGRE1	9.9151	3.80E-14	1.50048	HS6ST2	11.4114	1.53E-18	0.0266
WBP2NL	6.0319	3.81E-14	0.11438	ZNF714	4.2606	2.14E-18	0.6874
LINC00910	4.0521	4.78E-14	0.16762	LGR5	7.8707	2.81E-18	2.1117
ZNF185	4.0386	4.79E-14	0.93264	SCN1A	9.3570	2.95E-18	0.5056
MVP	4.6077	6.03E-14	1.09301	ZNF677	9.1889	3.86E-18	0.4288
VEGFC	8.8362	6.20E-14	1.18112	NACAD	10.5509	4.41E-18	0.3061
LRRC8E	8.8584	6.47E-14	2.36695	ZNF528	10.1801	8.36E-18	0.0845
XAGE1A	8.8426	6.51E-14	0.14350	CTNND2	9.1880	1.14E-17	0.2969
MTMR11	3.0034	8.69E-14	0.62618	ZNF649	4.2395	1.14E-17	0.6281
ADTRP	9.3155	9.03E-14	1.08193	C1orf106	10.5447	1.19E-17	1.2267
CRLF1	8.3375	1.05E-13	0.98678	ZNF493	9.7959	1.61E-17	0.5381
ANKRD33B	3.5772	1.07E-13	0.01018	GAB1	3.0072	1.63E-17	0.4226
SPOCD1	6.7388	1.11E-13	1.70761	LINGO1	7.2119	1.66E-17	1.5168
ENPEP	7.7342	1.37E-13	0.50792	TNFRSF21	3.4698	2.52E-17	0.2299
AC009237.8	9.3297	2.55E-13	0.39299	TMEM100	10.9300	2.82E-17	1.2110
CHRN1	3.3819	2.84E-13	0.28296	GRIA2	6.4154	3.08E-17	1.0503
POMP	3.0772	2.86E-13	0.28585	RNF165	7.2100	3.16E-17	1.8203
PI15	9.2873	3.53E-13	0.90130	RNF182	10.3365	3.24E-17	0.5468
UAP1	3.9178	3.56E-13	0.51545	LRRC4	10.7217	3.37E-17	1.2425
TYMP	7.7895	4.06E-13	1.06827	NR2F1	4.2153	3.50E-17	0.0510
TRDN	7.4584	4.29E-13	0.03248	KCNK2	7.2431	3.93E-17	0.8776
SYTL3	4.4968	4.53E-13	0.61531	NPAS3	7.2149	5.70E-17	0.1145
ADAMTSL5	4.5414	6.83E-13	0.53055	NDRG4	6.0767	6.00E-17	0.3645
NEXN	3.0647	7.17E-13	0.61634	PHYHIPL	10.8925	6.17E-17	1.2116
CYR61	5.2672	7.41E-13	1.02943	IL17D	4.9250	7.23E-17	0.0384
STARD8	4.2152	8.20E-13	0.72133	ZNF90	10.2101	8.19E-17	0.8103
TINAGL1	9.5074	8.94E-13	0.56862	NCALD	8.9305	9.75E-17	0.8427
C9orf84	8.6571	9.74E-13	0.02998	HOXD10	6.5274	1.09E-16	0.4700
XDH	9.8222	1.07E-12	1.69047	AC018647.3	10.6295	1.29E-16	0.4354
POLD4	4.0833	1.07E-12	0.80954	EHD3	10.1748	1.42E-16	0.5472
MICAL2	3.5865	1.11E-12	0.61134	L3MBTL1	8.2847	1.44E-16	0.8110
SULT1B1	9.0664	1.36E-12	0.81093	AUTS2	6.3802	1.64E-16	0.1232
PDLIM1	6.2795	1.36E-12	0.66582	NLGN1	5.0599	1.80E-16	0.2593
PIK3CD	4.1589	1.58E-12	0.60764	HAGLR	10.3761	1.88E-16	1.2307
MELTF	3.4979	1.83E-12	0.52782	CLIP3	5.9451	1.96E-16	0.5690

MARVELD2	6.1006	1.88E-12	0.79659	CSGALNACT1	8.2324	2.10E-16	0.1920
NPAS1	4.6011	1.93E-12	0.08459	ZNF682	10.4208	3.19E-16	0.6207
S100A11	7.0098	1.93E-12	1.20691	NTRK3	9.1973	3.19E-16	0.3906
RP11-221N13.	5.2213	1.97E-12	2.31656	EFNB3	8.5914	3.21E-16	0.7890
SPHK1	4.4370	2.09E-12	0.63231	ZNF660	10.0700	3.32E-16	0.2745
ARMC4	5.5312	2.15E-12	1.15290	RAB33A	8.5766	3.40E-16	1.6957
AP001065.15	8.3707	2.71E-12	0.52286	P2RX7	9.1876	3.74E-16	0.9403
CASC8	7.3916	2.71E-12	1.33385	SOX21-AS1	10.6784	4.24E-16	0.3024
RSPH9	6.5050	2.87E-12	0.15116	PPFIBP2	3.6217	4.66E-16	0.0988
STK26	6.4454	3.42E-12	0.69332	UGT2B7	8.9569	6.58E-16	4.1225
RBP7	7.1129	3.84E-12	0.15239	ST8SIA5	7.8498	7.58E-16	0.9420
KC6	8.7319	4.18E-12	1.18096	ZNF329	6.0038	9.07E-16	0.2118
SP100	5.2944	4.33E-12	1.00819	SDHAP3	3.9054	9.40E-16	0.2353
PERP	4.8009	4.47E-12	1.08670	GRIA4	11.2092	1.27E-15	0.9964
VSTM1	8.8560	4.48E-12	1.60418	ZNF829	9.8596	1.31E-15	0.3077
DAW1	9.2501	4.94E-12	0.25744	SNX32	7.3539	1.40E-15	0.9148
SLC27A6	8.4641	5.81E-12	1.35163	COL9A2	4.6757	1.53E-15	0.3980
RP11-879F14.2	7.1677	5.85E-12	0.55834	ZNF626	10.1387	1.63E-15	0.0446
FMNL1	5.7755	6.05E-12	0.93437	ZNF513	4.8104	2.35E-15	0.2064
GFI1	3.3699	6.06E-12	0.65206	C2orf72	3.5854	2.43E-15	0.3489
FOXL1	8.9092	7.98E-12	0.30968	TUBA1A	3.4934	2.64E-15	0.7098
LINC01615	8.2440	1.01E-11	1.64958	TIMP4	10.3583	2.66E-15	0.7220
IL18R1	5.7566	1.32E-11	1.39850	LRRK2	3.4876	2.69E-15	0.9987
PIWIL4	3.8146	1.37E-11	0.38059	CDIP1	4.5098	2.72E-15	0.0397
SLFN13	8.5979	1.62E-11	0.36084	RP11-210M15	7.9611	2.74E-15	0.0025
RAB32	3.7839	1.68E-11	0.75663	PNMA2	9.7049	2.96E-15	0.0734
SH3RF2	6.5459	1.76E-11	0.91868	MAP3K1	4.2020	3.36E-15	0.4219
ITGBL1	6.9545	1.95E-11	1.50077	RRN3P1	10.0593	3.80E-15	0.3782
CYP1B1	3.1027	2.12E-11	2.70550	MEG3	9.8841	3.89E-15	0.4281
MOXD1	6.0168	2.41E-11	1.93569	DSEL	4.7687	3.96E-15	0.6453
PAX2	8.6469	2.45E-11	1.13829	AFG3L1P	3.0020	4.39E-15	0.2170
RAD21L1	6.8840	2.52E-11	0.12328	RAPGEF4	6.6078	4.48E-15	1.0553
TBX1	6.2958	2.57E-11	0.66479	RP11-161M6.2	9.8620	4.74E-15	2.0987
CTD-2054N24.	8.4811	2.59E-11	0.84929	FAM131B	8.2378	5.08E-15	0.6709
STOM	3.0499	2.64E-11	1.13344	EN2	10.4511	5.51E-15	0.2974
RP11-1149O23	8.0683	3.64E-11	1.04664	ZNF585A	9.4276	5.98E-15	0.2671
LINC00704	8.7894	4.84E-11	0.52666	NCAM1	7.3265	6.63E-15	1.0888
TREM1	8.8492	4.89E-11	1.76455	CHST11	3.1837	7.04E-15	0.3314
TMEM56	4.6326	4.89E-11	0.36539	LBH	10.0848	8.24E-15	0.2082
LAMA3	4.5316	5.51E-11	1.18632	PHLPP1	3.8485	8.98E-15	0.6619
STEAP1	6.6997	7.55E-11	1.36881	D2HGDH	10.1262	9.56E-15	0.2232
FENDRR	8.8712	8.73E-11	0.35790	DACT1	9.5438	9.59E-15	0.0176
SLC44A3	4.8017	1.03E-10	0.45702	GPM6A	4.8880	9.76E-15	0.6292
DLX4	5.6057	1.04E-10	0.32022	SLC16A9	10.2200	1.05E-14	0.2550
TRPM2	8.1273	1.12E-10	0.93405	ZSCAN16	9.6619	1.36E-14	0.5897
PLAGL1	6.9078	1.13E-10	1.32230	ZNF502	7.8406	1.38E-14	0.1671
PRDM6	5.3578	1.15E-10	0.03644	BMP7	9.0016	1.76E-14	0.7346
IL22RA1	6.2705	1.25E-10	0.65651	RLBP1	9.3865	1.78E-14	0.7819
ADAMTS16	7.9713	1.27E-10	0.46750	CADM2	5.9151	1.94E-14	1.2857

HTR4	8.2785	1.62E-10	0.35549	ZNF528-AS1	10.3361	2.16E-14	0.6251
RP11-66B24.4	8.4112	1.78E-10	0.40107	PROX1	9.5589	2.47E-14	0.4543
SQRDL	3.7841	1.95E-10	0.97608	COL9A1	10.6859	2.62E-14	1.5901
PARM1	5.7665	1.96E-10	0.71548	CTNNA3	9.2740	2.75E-14	1.3380
PAWR	5.6944	2.04E-10	0.08806	ID2	3.7187	2.82E-14	0.0559
PITPNM1	3.3425	2.11E-10	0.33007	ZNF501	9.1241	3.11E-14	0.3065
MET	4.9643	2.68E-10	1.08407	GRID1	9.1471	3.15E-14	0.3637
HLX	8.3262	2.94E-10	0.97581	RP11-275H4.1	9.0764	3.29E-14	1.5444
NOX3	8.9502	3.13E-10	0.03972	RHBDL3	9.3947	4.78E-14	1.2899
HPSE	3.8411	3.35E-10	0.28960	ZKSCAN7	9.5519	4.80E-14	0.5157
TCIRG1	5.5480	3.44E-10	1.17082	SARM1	4.8544	5.29E-14	0.5753
CD109	5.1160	3.98E-10	1.47040	GAREM2	9.5272	6.11E-14	1.1055
SAMD3	8.2413	4.11E-10	1.12324	VSTM2B	4.1424	7.38E-14	2.1009
NAGS	4.3215	4.13E-10	0.53373	PCDH7	5.0165	7.83E-14	0.8293
PKP3	5.6250	4.20E-10	0.14105	ADCY1	9.9584	1.06E-13	0.9362
LPIN3	5.5421	4.30E-10	0.98350	TMEM169	3.7359	1.21E-13	1.1852
GADD45B	3.5069	4.44E-10	0.81728	LRRTM3	10.1630	1.37E-13	0.6713
CDK15	8.4831	4.56E-10	0.53994	TRIM71	9.5583	1.45E-13	2.0498
MAFK	3.0481	4.79E-10	0.43280	SPSB4	9.1080	1.52E-13	1.2024
RP4-756H11.3	3.0534	4.84E-10	0.17550	DGKG	5.9959	1.70E-13	0.4023
ICAM1	4.5536	4.92E-10	1.42324	ZNF793	7.1076	1.97E-13	0.4239
P4HA3	6.0223	5.15E-10	1.61087	XYLT1	6.4044	2.29E-13	0.9167
DUSP1	3.2867	5.55E-10	0.96551	REEP2	9.5875	2.44E-13	0.0539
INHBE	5.4392	5.77E-10	0.26902	KCNH2	9.0491	2.81E-13	0.4182
STXBP5-AS1	4.8328	6.31E-10	0.12152	SESN3	4.6622	2.89E-13	0.0207
MAGEA2B	8.0735	6.56E-10	0.10503	EN1	9.4700	2.89E-13	0.3339
SLC9A2	5.2851	7.06E-10	0.14593	ZNF568	4.3216	3.53E-13	0.0487
ATF7IP2	7.7065	8.31E-10	0.34324	RASL10B	8.7738	3.54E-13	0.9736
BNC2	6.4712	8.34E-10	1.85641	SRSF12	8.9474	4.03E-13	0.8772
SLC39A4	7.9315	9.21E-10	0.67107	DCHS1	7.7898	4.62E-13	0.3531
MICA	4.0906	9.23E-10	0.91722	SPATA6	4.4386	4.74E-13	0.0022
SHC1	3.0499	9.26E-10	1.32064	BEND5	8.9503	5.12E-13	0.3565
EFCAB10	6.8165	9.46E-10	0.38571	LRRC37A2	5.2967	5.33E-13	0.3784
ACSM3	3.8292	9.62E-10	0.44102	NKX2-2	9.6302	5.42E-13	1.5421
IL1R1	5.9772	1.01E-09	1.43425	SOBP	3.0616	5.54E-13	0.2811
KDELR3	3.0785	1.03E-09	1.84643	LINC01896	8.7173	5.77E-13	1.0336
KSR2	7.9345	1.23E-09	0.08929	HILS1	9.0819	5.86E-13	1.1825
ADAP2	3.3601	1.37E-09	0.86774	AMPH	8.8405	7.46E-13	0.6070
TUBA1C	3.4947	1.46E-09	0.66020	TMEM200C	8.8834	8.01E-13	0.2599
MYO1D	6.0931	1.52E-09	0.21667	HAND2	9.2681	8.19E-13	1.6791
PAPLN	5.0833	1.60E-09	1.11819	CACNG4	9.3302	9.32E-13	1.3925
CALB2	8.8031	1.76E-09	0.37906	CA14	9.0907	1.00E-12	0.5940
TMEM74	6.5994	2.05E-09	0.12750	CSMD2	8.9198	1.01E-12	0.8205
CCDC69	4.4912	2.15E-09	0.78682	CAND2	8.9706	1.07E-12	0.3045
SUN3	8.8427	2.25E-09	0.82984	DAAM2	9.2434	1.12E-12	1.1223
GATA6	7.9604	2.45E-09	1.65716	NKAIN1	6.8598	1.16E-12	2.5212
GLT8D2	3.5286	2.68E-09	1.15556	CASC15	9.3361	1.20E-12	0.9993
CD274	3.4145	2.86E-09	1.48593	PLPPR5	8.8828	1.21E-12	1.1660
OSCAR	6.0708	2.92E-09	1.11755	RP3-525N10.2	6.6601	1.23E-12	0.9506

COL6A4P1	7.7765	3.07E-09	0.19604	ZNF730	8.7397	1.60E-12	1.1191
ITGB2	8.4340	3.31E-09	1.06362	PTPRD	6.1382	1.92E-12	0.6246
TSPEAR-AS2	7.8613	4.06E-09	0.36782	ATP1A2	8.8006	2.08E-12	0.2700
TRABD2A	4.5479	4.49E-09	0.75556	SPOCK1	9.2591	2.33E-12	0.3359
ARHGAP40	6.4840	4.53E-09	0.84930	PLXNB1	3.3105	2.56E-12	0.6963
PPP1R13L	4.3014	4.60E-09	0.88316	LURAP1	8.9325	3.59E-12	0.0707
LINC00941	4.9017	5.11E-09	2.07034	BEX4	10.6884	3.83E-12	0.3494
PTGER4	7.7854	5.29E-09	1.41492	ZNF610	5.5794	4.45E-12	0.5136
TSPEAR-AS1	7.7208	5.64E-09	0.72689	MOCS1	9.4612	4.60E-12	0.0860
RP11-359K18.4	3.5296	5.78E-09	0.38844	ACSBG1	8.6379	5.29E-12	0.2461
OTX1	3.2848	6.08E-09	0.74048	SLC8A3	8.9865	6.19E-12	1.9222
HOXB6	7.3062	6.46E-09	2.46748	TGFA	6.0371	7.26E-12	0.3010
EFHD2	3.1133	6.64E-09	0.21980	TENM1	7.6019	7.83E-12	0.0166
RP1-102E24.8	7.9476	6.95E-09	0.69862	PDZRN3	9.9060	8.74E-12	0.3727
ADAMTSL4	4.7460	7.04E-09	0.97874	RP11-629G13.1	8.3794	1.00E-11	0.2281
CXCL3	7.7159	7.11E-09	2.25093	ZNF253	3.3466	1.03E-11	0.5556
TTC39B	3.3619	7.13E-09	0.40113	PIANP	10.2584	1.06E-11	0.9088
LBX2-AS1	4.2131	8.53E-09	1.01622	TAS2R14	3.1716	1.10E-11	0.2839
DNAAF3	5.3034	8.56E-09	1.17521	APCDD1	9.5625	1.23E-11	0.4033
TMEM171	5.9664	8.97E-09	0.42340	ARHGAP42	4.0161	1.28E-11	0.2582
CLCF1	3.8146	1.05E-08	1.92885	MARC1	4.3412	1.41E-11	0.0629
EML2-AS1	4.3363	1.09E-08	0.39496	FADS2	3.0832	1.47E-11	0.6707
RP11-809O17.1	4.2873	1.19E-08	0.54437	AC108142.1	8.9199	1.48E-11	0.3438
RHBDF2	4.0817	1.30E-08	0.93501	RGR	8.6606	1.72E-11	1.7076
PLEKHF1	3.8146	1.30E-08	0.87114	LHFPL3	8.9140	1.74E-11	1.3649
PDGFB	8.4485	1.33E-08	0.09174	SCUBE2	5.4968	1.86E-11	0.1648
DNAH5	4.5472	1.38E-08	0.87709	LMO7	3.4354	1.95E-11	0.1850
RP11-328K4.1	7.6249	1.43E-08	1.42516	SORBS2	7.4168	2.11E-11	0.0332
XAGE1B	7.2225	1.47E-08	0.48974	CECR6	4.5632	2.13E-11	0.9829
NNMT	6.4328	1.57E-08	1.40321	PGAP1	3.7885	2.33E-11	0.5285
NUP62CL	4.7448	1.73E-08	0.56300	DCC	9.7748	2.74E-11	1.7475
EML6	3.4257	1.85E-08	0.00246	WLS	3.1537	2.75E-11	0.0592
AREG	7.6153	2.07E-08	2.10910	PKNOX2	4.0706	2.92E-11	0.6154
ROR2	6.5743	2.26E-08	1.68472	KIF5A	8.6173	2.92E-11	1.9538
IL15RA	4.4728	2.73E-08	0.93722	RIMS4	9.3407	3.16E-11	1.0504
FXYD5	6.5201	3.17E-08	0.72357	LINC01268	8.6508	3.20E-11	1.0059
RHOV	3.6364	3.79E-08	0.02555	RP11-436K8.1	9.1534	3.66E-11	0.9481
HPCAL1	3.3483	3.99E-08	0.25860	NDRG2	6.3814	4.04E-11	0.7366
GPRC5C	6.5335	4.39E-08	0.07639	ZNF572	8.6191	4.10E-11	0.3987
RSPO4	6.4663	4.69E-08	0.06196	CRB1	5.5053	4.53E-11	1.1383
IL15	4.6191	4.74E-08	1.30654	PRKAR1B	3.2596	4.53E-11	0.3520
IFNLR1	7.0706	4.75E-08	0.15995	FAM212B	5.5954	4.87E-11	0.8427
LGALS2	7.3620	5.03E-08	0.74371	CDH19	9.5057	5.31E-11	1.0267
CDH23	6.1274	5.32E-08	0.19479	TRIM60P18	8.4817	5.59E-11	0.4083
SPEF2	3.7867	5.41E-08	0.61324	PLEKHB1	3.0276	5.60E-11	0.3401
SLC46A3	4.1293	5.57E-08	0.53603	FAXC	9.1687	5.80E-11	0.8637
STAT6	3.1710	6.07E-08	0.92170	TAGLN3	4.5196	6.20E-11	1.3246
GLRX	3.5698	6.16E-08	0.90019	DMRT2	9.0008	6.27E-11	2.1949
SMAGP	4.5082	6.23E-08	1.07167	CYP4F29P	5.6892	6.45E-11	0.5092

OPLAH	5.8987	6.56E-08	0.88836	FAT3	9.3400	6.50E-11	0.4182
MID2	3.7419	6.95E-08	0.18382	CADM4	3.9640	6.66E-11	0.4446
CTD-2207P18.	7.5549	6.98E-08	1.20368	CDH7	9.8256	6.92E-11	2.1405
UPK1A-AS1	7.0642	6.99E-08	0.34326	ZNF704	3.5358	7.48E-11	0.7691
CTD-2587H24.	7.5136	7.00E-08	0.81242	ASTN1	8.6825	7.52E-11	0.3163
ITPR3	3.8592	7.40E-08	1.17806	GTF2IP4	3.2013	7.59E-11	0.3442
ATP8B3	4.1052	7.62E-08	0.65853	CTD-2561J22.	8.1815	7.99E-11	0.3625
TPRG1	4.3630	7.82E-08	0.93908	ADGRB3	4.8490	8.56E-11	0.8661
FLNC	5.1767	7.89E-08	0.06530	CRYAB	9.0296	9.05E-11	1.1423
CTD-2066L21.3	6.2857	7.90E-08	0.45914	GTF2IP1	3.2675	9.27E-11	0.1797
LINC00623	3.5339	9.56E-08	0.45178	TMPRSS5	4.6847	1.08E-10	1.0040
RP11-89C3.4	7.9437	1.01E-07	0.46369	HOXD9	6.4103	1.10E-10	0.9914
MSR1	7.5413	1.01E-07	1.11755	KIF1A	7.6386	1.19E-10	0.9688
CYB561	3.0926	1.23E-07	0.67475	RP5-882C2.2	3.1466	1.50E-10	0.2545
DNM1P46	6.0524	1.31E-07	0.81795	DPY19L2P2	4.9521	1.52E-10	0.2943
LINC01162	7.2061	1.50E-07	0.16915	KCND2	8.8775	1.58E-10	1.3305
RIN1	4.5521	1.54E-07	1.30710	MIAT	7.6341	1.63E-10	1.3584
LINC00702	6.8199	1.58E-07	0.66971	C14orf37	3.9484	1.84E-10	0.1785
CTD-2311M21.	7.2206	1.59E-07	1.16875	PELI2	6.9494	1.84E-10	0.2385
RNF212	6.8037	1.85E-07	2.20456	HIST1H2BN	3.7792	1.96E-10	0.0916
CTD-2303H24.	4.7042	1.86E-07	0.37253	ZNF844	6.0859	2.68E-10	0.2944
AADAC	7.3153	1.89E-07	1.18256	ZNF66	8.1794	2.92E-10	0.8251
SMCO4	4.1268	1.96E-07	0.47627	ELAVL3	9.3812	3.04E-10	1.3824
EOMES	7.1924	2.01E-07	1.46346	EPHB3	5.1287	3.16E-10	0.6567
PCED1B	4.2816	2.03E-07	0.94027	XKR5	8.0891	3.27E-10	0.3656
ATP2A3	4.0399	2.04E-07	0.81821	BEX1	8.9516	3.33E-10	0.8387
CXCL2	6.8877	2.13E-07	1.27004	AC114730.3	8.5402	3.82E-10	1.4959
FBXO6	3.1018	2.16E-07	0.35175	ZBTB8B	8.1771	3.96E-10	1.2613
EGFR-AS1	7.4675	2.19E-07	0.50939	RP11-444D3.1	8.2187	4.12E-10	0.5984
CXCL1	6.9777	2.35E-07	1.70101	MOB3B	3.7949	4.68E-10	1.1832
GLDN	4.7608	2.45E-07	0.40223	RGS7BP	8.7483	5.58E-10	1.0360
FAM26E	5.6769	2.53E-07	0.44452	ST8SIA1	8.8617	5.73E-10	0.0034
CLMP	3.0302	2.85E-07	0.85470	CXXC4	4.4966	6.10E-10	1.2176
SLFN5	4.7003	3.08E-07	0.31697	CTC-559E9.5	8.3450	6.27E-10	0.2682
NKX2-5	7.3178	3.14E-07	0.45745	PCDHB5	8.0800	6.87E-10	0.1035
CGB7	7.2236	3.32E-07	0.53395	NT5C3A	3.0280	7.01E-10	0.0929
RAP1GAP2	4.2926	4.12E-07	0.27833	RNF150	3.9597	7.11E-10	0.7011
CASZ1	3.6930	4.28E-07	0.44149	XKR6	8.0416	7.17E-10	0.4426
MICE	3.0837	4.31E-07	0.57472	DYRK1B	3.2355	7.21E-10	0.2726
SLC44A3-AS1	5.8306	4.44E-07	0.51389	FAM198A	8.4606	7.23E-10	0.2534
GSDMD	3.6357	4.65E-07	1.13360	C8orf88	4.0395	1.03E-09	0.0678
KCNK13	4.9745	5.17E-07	0.53223	SLC44A5	8.0880	1.24E-09	0.6897
PRR16	5.6007	5.50E-07	0.32534	TMEM198	4.7412	1.24E-09	0.5905
RP11-195E2.1	7.0573	5.59E-07	0.00305	FREM1	6.7844	1.45E-09	0.5807
TUBB6	3.2742	6.31E-07	0.62360	CTC-260E6.6	8.0306	1.49E-09	1.0055
BIK	5.9718	6.31E-07	0.49101	HIP1	3.5911	1.55E-09	0.4058
SBSN	5.8333	6.48E-07	1.36809	GATS	3.2462	1.80E-09	0.7425
MICB	4.3168	6.70E-07	0.45382	ANKRD44	3.1967	1.94E-09	0.1252
OSMR-AS1	4.8488	7.28E-07	0.71496	GPC2	4.0585	2.00E-09	2.1590

SLFN12L	6.5207	8.22E-07	0.54868	FRAS1	8.2522	2.05E-09	0.4777
TFAP2C	4.7326	9.35E-07	1.64091	ZNF454	6.4384	2.17E-09	0.5752
SIGIRR	4.5890	9.60E-07	0.33416	SLC18A1	8.0049	2.19E-09	1.8850
AC156455.1	4.6873	1.04E-06	0.09661	AC092835.2	5.1002	2.35E-09	0.5628
VAV1	6.4854	1.07E-06	0.97678	DUSP26	8.5256	2.95E-09	1.5113
SP8	6.6621	1.07E-06	1.09518	FAM212B-AS1	6.8176	3.47E-09	1.1393
MT2A	3.6851	1.13E-06	1.02600	ZNF724	7.4443	3.66E-09	0.7671
NOTUM	5.0570	1.15E-06	0.23494	NGFR	6.4623	4.07E-09	0.2548
PER1	3.0986	1.20E-06	0.05608	TMEM179	9.2313	4.07E-09	0.8530
PLEKHN1	5.3835	1.28E-06	0.95595	GTF2IRD2B	3.7198	4.12E-09	0.1266
PLAG1	3.4998	1.37E-06	0.28752	ABAT	4.6746	4.30E-09	0.5108
LINC00659	6.3653	1.52E-06	0.36044	ATL1	3.0038	4.39E-09	0.5209
CLDN1	4.9244	1.56E-06	0.74963	C1orf61	6.8222	4.91E-09	1.1464
NKD2	4.5440	1.60E-06	0.15834	TMEM108	4.2999	4.96E-09	0.7762
RP13-463N16.4	7.1209	1.64E-06	2.53901	CALCRL	5.4109	5.14E-09	0.4515
CSAG4	6.8927	1.65E-06	0.23911	AMER2	8.8626	5.22E-09	0.7588
CFH	4.4349	1.65E-06	1.99961	LINC02199	7.5342	5.40E-09	1.4736
GPR39	5.6888	1.65E-06	1.29320	TECTA	7.7439	5.96E-09	0.6624
ICOSLG	4.6778	1.73E-06	0.79175	PLXNA4	8.4802	6.30E-09	0.3292
DHRS3	6.6768	1.84E-06	0.78840	ZNF781	7.8189	6.49E-09	0.6775
PLBD1-AS1	6.9117	1.87E-06	0.80311	NEU4	8.1025	7.29E-09	2.0569
NUDT8	3.0040	1.91E-06	0.25522	FGF13	7.4598	7.48E-09	0.6600
COL17A1	6.7090	2.34E-06	0.95513	LINC01550	8.0856	7.55E-09	0.1503
LINC01036	6.8181	2.35E-06	0.04642	RNF157	3.8457	8.58E-09	0.6021
LINC01273	5.6801	2.37E-06	0.63868	HFM1	3.7073	9.08E-09	0.8667
PRSS16	4.8463	2.66E-06	0.33127	YPEL3	5.0035	9.09E-09	0.0207
CGB2	6.7473	2.68E-06	0.09861	ZNF582-AS1	7.9035	9.86E-09	0.0312
RP11-402J6.1	6.7575	2.72E-06	0.00690	ARPP21	8.0378	1.10E-08	1.1399
RP11-519M16.4	6.6977	2.85E-06	0.10229	RP11-255H23.3	6.8037	1.10E-08	0.1298
LINC00460	3.7294	3.14E-06	2.34298	HOXA7	6.6787	1.11E-08	0.6904
RP11-491I11.1	3.6175	3.44E-06	1.23603	LINC01535	7.5876	1.12E-08	0.4357
LRRC73	3.6485	3.74E-06	0.07918	HYDIN2	7.6849	1.26E-08	0.7603
P2RY2	4.9562	3.85E-06	0.76596	NOVA1	3.1492	1.31E-08	0.8639
TSPAN2	6.9370	3.93E-06	0.86914	FBN3	9.0764	1.35E-08	2.0368
RP11-326A19.4	4.3692	4.03E-06	0.27005	HOXD8	8.4257	1.39E-08	1.3032
WNT2B	3.0596	4.99E-06	0.03846	NALCN	7.4851	1.39E-08	0.8309
RP11-403I13.5	6.6077	5.12E-06	0.73730	EMILIN3	8.2956	1.65E-08	0.5605
RP11-802E16.3	3.8291	5.16E-06	1.32311	LINC00403	7.6991	1.72E-08	1.1060
HOXB4	4.0266	5.22E-06	0.77482	RIC3	7.7844	1.90E-08	0.6547
LBX2	5.4279	5.25E-06	0.37418	KCND3	8.7450	2.18E-08	0.5605
AKAP12	3.5825	5.60E-06	0.55671	TRIM9	3.5552	2.26E-08	0.3551
RP1-28O10.1	6.7406	5.65E-06	0.78494	C1orf56	5.0005	2.65E-08	0.0309
ZNF280A	6.2541	6.03E-06	0.50701	HOXD11	6.6502	2.73E-08	0.3152
LINC01037	6.2703	6.20E-06	0.26267	CTD-2291D10	7.6979	2.78E-08	0.9282
RP11-64D22.5	6.6702	6.25E-06	0.86965	RP11-448P19.4	8.4664	2.88E-08	1.0048
PTHLH	4.0268	6.74E-06	0.65102	DAB1	8.1110	3.31E-08	0.9916
LINC01703	3.0634	7.75E-06	0.32373	KLRC4-KLRK1	7.8278	3.93E-08	2.4113
LINC01186	6.3373	7.82E-06	0.77576	RP11-472N13.3	7.8359	4.56E-08	0.4240
PRKAG2	3.1083	7.97E-06	0.08830	LINC01105	8.2108	4.78E-08	1.7989

HSD17B14	3.7673	8.33E-06	0.18341	SNTG1	8.8614	5.27E-08	0.7946
DNAH17-AS1	6.6714	8.96E-06	0.02288	PTPRD-AS1	7.5183	5.39E-08	0.6054
AADACP1	7.0601	9.01E-06	0.78872	CALM1	3.0456	5.56E-08	0.0535
GAPLINC	6.4889	9.04E-06	0.91808	MYO16	8.7609	5.90E-08	0.8936
LL22NC03-86C	4.7270	9.25E-06	0.06886	KCNAB3	3.5173	6.77E-08	0.5775
AC073130.3	6.4422	9.95E-06	0.41210	SYT11	3.3105	6.79E-08	0.3429
PCDHB6	4.2842	1.01E-05	0.02358	TNS3	5.1132	7.14E-08	0.1412
SYNGR2	3.2551	1.09E-05	0.66154	NEB	5.3591	7.60E-08	0.1503
GATA3	4.5874	1.10E-05	1.71327	TSPAN11	8.6156	7.61E-08	0.2543
CH17-472G23.	3.3741	1.11E-05	0.22474	DPP6	7.4481	7.77E-08	0.4283
RP11-54A9.1	7.4821	1.12E-05	0.84593	RPE65	7.0326	8.47E-08	0.0959
RP5-113911.1	6.9312	1.15E-05	0.87108	RAMP2-AS1	8.6078	8.64E-08	0.8693
ADAMTS2	6.8356	1.19E-05	1.59596	CNTFR	7.5948	1.15E-07	1.5436
MSC	6.4187	1.20E-05	1.33238	DDN	6.4851	1.16E-07	0.5959
TMEM244	6.4465	1.22E-05	0.05625	FHIT	3.5005	1.19E-07	0.3433
ARHGAP29	4.9878	1.26E-05	0.96156	DSCAML1	7.2674	1.21E-07	2.1167
RAET1E	5.3568	1.26E-05	0.51016	ZNF117	4.1204	1.28E-07	0.2252
RP11-162D16.	6.4031	1.33E-05	0.17109	CLEC4F	5.4765	1.28E-07	0.9937
IGSF1	5.1187	1.34E-05	0.14123	ID3	3.4081	1.45E-07	0.0594
BTNL8	7.5868	1.36E-05	0.63913	LINC01415	8.3713	1.48E-07	0.2638
RP11-60A8.1	7.0596	1.42E-05	0.51943	DACT3	4.7824	1.49E-07	0.6125
SLC22A5	3.3562	1.46E-05	0.32027	TOX3	8.5131	1.50E-07	1.7679
MSL3P1	6.3580	1.60E-05	0.21881	ZNF429	4.2291	1.58E-07	0.3861
CD7	7.0995	1.67E-05	1.06078	PCDHB12	4.4453	1.60E-07	0.1313
CFD	4.5086	1.67E-05	0.76351	RAMP2	7.9462	1.62E-07	0.3166
RP11-134G8.5	3.1272	1.71E-05	0.41683	CRABP1	8.2005	1.72E-07	0.9403
NEBL	4.5224	1.73E-05	0.39882	ADCYAP1R1	8.5689	1.84E-07	0.3659
ITGB4	3.6401	1.84E-05	0.93519	HAND2-AS1	7.8711	1.90E-07	2.2214
NOXA1	4.5907	2.06E-05	0.40712	CHRM1	7.2400	1.90E-07	1.3130
EGFL7	3.3854	2.19E-05	0.07168	TSPAN12	3.7919	2.02E-07	0.3340
RP13-977J11.2	4.1660	2.22E-05	0.10188	LRRC4C	4.8418	2.19E-07	0.3902
XKR9	3.5744	2.41E-05	0.03847	SNN	4.2931	2.19E-07	0.3341
SENCR	6.0854	2.56E-05	0.54951	CTC-543D15.8	7.5218	2.35E-07	0.3541
GDPD5	3.0801	2.81E-05	0.04114	ZNF790-AS1	7.2818	2.38E-07	0.2634
EPS8L2	3.0850	2.89E-05	0.56857	GPR156	5.1964	2.51E-07	0.4145
AK7	3.8436	2.99E-05	1.62802	GPR155	3.9442	2.57E-07	0.2467
HIF1A-AS2	6.4048	3.20E-05	0.93856	SCN3A	6.1302	2.60E-07	1.3950
LAMP3	4.3737	3.20E-05	0.54071	CTD-2017D11	3.9601	2.97E-07	0.3026
RP11-527N22.	5.3391	3.42E-05	1.86058	MAP1A	4.1960	3.39E-07	0.2694
CTC-378H22.1	6.5346	3.76E-05	0.77472	LRP4	3.7696	3.49E-07	0.5343
SCNN1A	6.3063	3.76E-05	1.06684	RP9P	3.2619	3.67E-07	0.1943
CT45A1	6.2491	3.82E-05	0.04096	PREX1	3.1199	3.81E-07	0.1445
RP11-686D22.	6.1985	3.99E-05	0.63035	ELAVL4	7.9681	4.13E-07	1.8819
SLC22A4	3.3939	4.12E-05	0.88710	SETBP1	7.6232	4.36E-07	0.1660
LIF	3.3668	4.20E-05	2.20341	STMN3	4.7661	4.59E-07	0.3862
CTF1	3.8752	4.31E-05	0.90155	STXBP6	3.5376	5.23E-07	0.5613
MAGEA2	6.2260	4.32E-05	0.13708	SRGAP3	3.7501	5.48E-07	0.6684
BIRC3	4.0585	4.34E-05	1.60311	DGKB	7.6371	5.55E-07	1.1143
SERPINA1	5.9511	4.60E-05	1.55661	LINC00391	7.1464	5.71E-07	0.0841

AC012485.2	5.9237	4.79E-05	0.17227	AC010729.1	7.2602	5.96E-07	1.2802
AC007879.5	3.0746	4.97E-05	0.64791	CDHR1	7.4998	6.31E-07	1.4757
GPR18	6.1081	5.76E-05	0.86830	RP11-617F23.	3.1248	6.90E-07	0.1808
CEP126	4.7652	5.93E-05	0.24304	KLRC4	7.7552	7.61E-07	2.6217
SLC22A31	6.4044	6.21E-05	0.34994	GTF2IRD2	3.8028	7.78E-07	0.1810
TESC	4.0349	6.24E-05	0.14992	C6orf52	3.7550	8.14E-07	0.3741
TRIM6	3.3420	6.33E-05	0.83816	RP11-480I12.9	3.3623	8.24E-07	0.4134
MESP2	6.0640	6.39E-05	0.36358	ZNF726	5.1484	8.73E-07	1.0421
FHL2	3.3874	7.06E-05	1.20276	RP11-611L7.2	4.3048	8.76E-07	0.4454
AC073130.1	6.1266	7.07E-05	1.04707	PNMAL2	7.4186	9.58E-07	0.4397
RP11-280G9.1	6.1710	7.41E-05	1.05615	RP11-966I7.2	7.1963	1.09E-06	0.2390
CYB5R2	4.6067	7.55E-05	0.17376	ZNF157	5.3077	1.20E-06	0.9451
KLC3	6.1650	8.13E-05	0.49981	RP11-25K19.1	5.4054	1.31E-06	0.5767
SIRPB1	4.6753	8.27E-05	0.82802	FAM69C	7.0490	1.36E-06	0.5424
MYOSLID	6.2516	8.30E-05	2.13958	RP11-4O1.2	4.6150	1.45E-06	0.0759
RP11-818F20.5	5.8374	8.44E-05	1.07220	GS1-24F4.2	6.7798	1.45E-06	0.9853
APOL1	4.3252	8.46E-05	1.32488	AP002954.3	3.3516	1.87E-06	0.7650
SMPDL3B	4.6164	8.74E-05	0.37931	H19	5.5332	2.07E-06	1.7596
DUSP5	3.6861	8.81E-05	0.51111	PHACTR1	6.1827	2.39E-06	0.3109
CES3	3.0173	8.98E-05	0.89508	PRSS35	7.5924	2.44E-06	0.3953
NTRK1	3.8647	9.49E-05	0.83309	LY6G5C	4.0832	2.57E-06	0.1481
KRT34	6.1751	9.66E-05	0.00412	SORCS3	7.4754	2.64E-06	1.0075
RP11-336A10.5	6.0364	9.75E-05	0.52207	PNMA6A	6.6648	2.84E-06	0.7500
MICALCL	5.0957	0.0001	0.59789	KLRC3	6.6607	3.13E-06	2.2619
PKD1L2	4.0055	0.0001	0.62697	RP11-126K1.6	3.7305	3.98E-06	0.5977
C10orf11	3.2011	0.0001	0.77456	PRR18	6.2981	4.25E-06	0.4771
ROBO4	5.2538	0.0001	0.12160	CD207	5.1787	4.26E-06	0.1910
ARHGAP45	3.8997	0.0001	0.65857	ZDHHC22	5.5338	4.32E-06	2.1002
RP11-61A14.1	5.6362	0.0001	1.12198	CBSL	3.9148	4.45E-06	0.7452
TMEM200B	3.9049	0.0001	1.14820	CHADL	6.8903	4.81E-06	0.8103
TMEM40	6.6360	0.0001	1.03200	AC078842.3	6.3127	5.01E-06	0.0614
LRRC2-AS1	6.0330	0.0001	1.11174	KCNN2	6.8005	5.19E-06	0.2585
RFTN1	4.4093	0.0001	0.80631	PLXNB3	3.4076	5.28E-06	0.6982
NBL1	3.3932	0.0001	0.56873	bP-21264C1.1	6.3355	5.33E-06	0.5720
AXDND1	3.4909	0.0001	0.29095	LA16c-306E5.2	6.6100	5.38E-06	0.0146
LRRC2	4.2500	0.0001	1.51988	SDPR	7.5806	5.40E-06	0.0461
DEPTOR	3.9260	0.0002	0.56669	MYCN	7.6341	5.43E-06	1.6800
RP11-745L13.2	5.9655	0.0002	1.38492	AC064875.2	8.2687	5.72E-06	0.3105
EMBP1	4.8811	0.0002	0.82084	SLC7A3	6.9869	5.97E-06	0.2299
EVA1A	4.7347	0.0002	1.43955	KANK1	3.0554	6.04E-06	0.5487
RP11-43A14.1	4.3878	0.0002	0.03395	PLCB1	3.1544	6.19E-06	0.8093
PRR5	3.7224	0.0002	0.60505	RP11-742D12.	6.6005	6.20E-06	0.8636
MYOF	4.7477	0.0002	1.15184	ZNF835	7.4776	6.31E-06	0.1419
CAPN12	4.0013	0.0002	0.59287	CCDC120	6.4450	6.40E-06	0.5659
CTD-2128A3.2	5.9168	0.0002	2.28349	CHST9	6.2616	6.75E-06	0.7348
RP11-115J23.1	3.5955	0.0002	1.95127	ADARB2	6.2533	7.07E-06	1.0284
FAM19A3	3.1763	0.0002	0.56508	LINCR-0001	3.5838	7.15E-06	1.0618
RP3-414A15.2	5.8330	0.0002	0.56476	AC073343.13	3.8178	7.97E-06	0.6155
RP11-553A21.5	5.6687	0.0002	0.90011	LINC01224	6.9425	8.32E-06	1.7384

RPSAP52	4.1921	0.0002	2.23202	PLD5	8.5602	8.78E-06	0.0531
HRAT17	6.1954	0.0002	1.61930	RP11-834C11.1	6.1942	9.19E-06	0.2289
CD163L1	4.5323	0.0002	0.60903	STXBP5L	7.4221	9.37E-06	1.0328
GRIN3B	5.2058	0.0002	0.17320	CAMK2B	5.9912	9.40E-06	0.2237
TRANK1	3.3428	0.0002	0.63481	NETO1	7.1856	9.45E-06	2.2945
AC007879.2	4.3314	0.0002	0.76861	RGCC	6.8124	9.92E-06	0.5416
CDS1	4.5939	0.0002	0.46412	ABCB6	3.3070	1.03E-05	0.3453
SP6	3.2391	0.0002	1.14649	USP32P1	7.1264	1.11E-05	0.7514
SGMS2	4.0696	0.0003	1.30459	ITIH6	6.5650	1.17E-05	2.3300
NME3	3.5322	0.0003	0.25691	ZNF578	5.7851	1.21E-05	1.0256
KNDC1	4.6662	0.0003	0.31460	ATOH8	6.2750	1.26E-05	0.5653
AP1S3	3.4009	0.0003	0.49872	DRAXIN	8.9395	1.30E-05	0.6659
STX11	4.8646	0.0003	0.77466	SGK2	6.7794	1.32E-05	0.6031
C1orf204	3.4105	0.0003	0.37009	CREB5	5.1852	1.33E-05	0.4064
IL11	3.6329	0.0003	1.25543	NKAIN4	5.7615	1.40E-05	1.7634
CYP11A1	5.8125	0.0003	1.43145	TMEM35A	6.1157	1.41E-05	1.2180
AC006369.2	5.8652	0.0004	1.04352	RP11-351J23.2	7.0082	1.41E-05	0.3510
RP11-289F5.1	4.9677	0.0004	0.76085	PROX1-AS1	6.4834	1.45E-05	0.0064
CTC-378H22.2	5.8633	0.0004	0.71676	ARHGAP19-SL	5.3366	1.54E-05	1.9297
TSGA10IP	5.7246	0.0004	0.34301	U52111.14	5.2091	1.56E-05	0.2236
TNFRSF11A	3.9257	0.0004	1.21691	CYP4F24P	7.6611	1.56E-05	0.1064
APOBEC3D	5.2817	0.0004	1.20233	PLA2G3	6.2217	1.61E-05	0.2056
MSLN	5.7949	0.0004	1.41620	CABLES1	3.0853	1.64E-05	0.3929
RP11-195F19.9	4.4690	0.0004	0.37952	APC2	3.4693	1.69E-05	0.6474
ABCA5	3.4795	0.0004	0.54194	RPS6KL1	7.4404	1.78E-05	1.4148
AHNAK	3.8656	0.0004	0.91749	RP11-268J15.3	3.1991	1.80E-05	0.0660
AC009502.4	5.7300	0.0004	0.87633	GABRA4	7.5780	1.88E-05	0.0433
RGS4	3.9116	0.0005	0.79709	C8orf31	6.7142	1.88E-05	0.2861
IRF6	6.1764	0.0005	0.41778	CLCN3P1	6.0025	2.00E-05	0.4349
FAM3D	5.6514	0.0005	0.19854	GABBR2	6.8660	2.02E-05	0.6836
A2M-AS1	4.1688	0.0005	0.55337	RP11-174J11.1	6.3288	2.05E-05	0.6565
CRABP2	3.3717	0.0006	0.86578	RP13-942N8.1	3.2657	2.40E-05	0.5635
ODF3B	5.5390	0.0006	0.73959	CH17-408M7.1	6.2584	2.57E-05	0.2412
LINC01611	5.6653	0.0006	1.37590	SRPK3	6.2343	2.83E-05	0.7928
CYYR1-AS1	5.7963	0.0006	0.68461	SYNPO2L	5.3327	2.88E-05	1.6004
C4orf22	5.6398	0.0006	0.72873	TMEM178A	4.8068	2.90E-05	0.2724
CFAP58-AS1	5.2304	0.0006	0.14104	TRIB2	4.9581	3.05E-05	0.5500
XXyac-YX65C7	3.1524	0.0006	0.47664	PTPRN2	6.1610	3.06E-05	0.2378
AP001596.6	3.7945	0.0006	0.67843	RP11-120J1.1	3.9745	3.13E-05	0.8404
HLA-DRB1	5.7386	0.0006	1.22954	C11orf87	7.4679	3.24E-05	0.2894
TBC1D3P1	5.2911	0.0006	1.09975	LPAR4	4.8136	3.33E-05	1.1740
CTD-2020K17.1	3.5746	0.0007	0.87396	C2orf80	6.8205	3.39E-05	1.0319
ALDH1L1	3.9912	0.0007	0.56721	KCNC1	5.2749	3.49E-05	1.0930
VSIR	3.7961	0.0007	0.61088	RHOU	3.1864	3.57E-05	0.0450
LINC01385	5.2138	0.0008	1.07309	ZNF793-AS1	6.7548	3.80E-05	0.9097
LINC00887	4.7682	0.0008	0.75053	CTD-2049O4.1	7.3214	4.22E-05	0.8453
WT1	3.0548	0.0008	0.98865	MPPED2	7.7375	4.31E-05	1.0711
SERPINE1	4.0008	0.0008	1.81472	AC004540.4	6.2826	4.39E-05	0.5345
SH3TC1	3.3326	0.0008	0.71729	SHISA7	4.8369	4.41E-05	2.3274

IGFBP6	3.1734	0.0008	2.25711	NOTCH4	3.3530	4.57E-05	0.0190
MMP1	5.6339	0.0008	0.73956	YBX2	4.0761	4.80E-05	0.8540
ERC2	3.7846	0.0008	0.03046	DRD2	7.2149	4.98E-05	1.4385
RP11-288C17.	3.6279	0.0008	0.13041	PDZD2	5.0823	5.00E-05	0.3173
KCNQ1	4.0772	0.0008	0.73603	PCDHA10	4.5743	5.05E-05	0.7852
SERTAD4-AS1	4.4090	0.0008	1.03537	PRRT4	4.4372	5.08E-05	0.4625
ICAM3	3.6570	0.0009	0.75673	RARB	6.1972	5.54E-05	0.1622
USP32P2	3.8959	0.0009	0.50473	SLC26A4-AS1	5.4537	6.07E-05	0.4367
AMIGO2	3.2317	0.0009	1.31796	HEY2	4.4143	6.08E-05	0.7923
SPINT2	5.1454	0.0009	0.56944	TLX1	6.9507	6.15E-05	1.4355
RP11-1094H24	3.4360	0.0010	0.82410	RP11-582J16.4	4.9402	6.60E-05	0.1800
RP11-399K21.1	3.5805	0.0010	0.43195	FAAH	3.0637	6.66E-05	0.8473
SLC7A7	3.6085	0.0010	0.93479	RP11-625L16.	6.2400	6.85E-05	1.8692
EXPH5	3.5832	0.0010	0.19545	CCDC188	6.7719	6.86E-05	0.7646
TSPAN19	5.2938	0.0010	0.61481	LRRC37A	4.0768	7.24E-05	0.2365
RP5-1071N3.1	3.2324	0.0011	0.20494	DIRC3	6.0294	8.08E-05	0.6085
CNGA1	4.0856	0.0011	0.01097	ZNF681	4.6648	8.20E-05	0.8585
RP11-379B18.3	3.0185	0.0011	0.25385	SLC24A2	4.9377	8.93E-05	0.2471
RP11-320G24.	5.4414	0.0011	0.27479	LINC00326	6.3146	9.07E-05	0.1436
ZNF600	3.2265	0.0011	0.77642	LGI3	5.8961	9.07E-05	0.9421
CUL7	3.8050	0.0012	0.74510	LINC00664	7.0364	9.29E-05	0.8471
MTUS2-AS1	4.3280	0.0013	0.64259	CABYR	5.8551	9.87E-05	0.6687
RNLS	3.6791	0.0013	0.68962	PLGLB1	6.1744	0.0001	0.6562
SMC1B	3.5405	0.0013	0.13500	FGF11	4.0648	0.0001	0.2315
LINC01137	3.2354	0.0014	0.56905	PLCD4	4.8351	0.0001	0.2321
TMEM255B	3.6261	0.0014	0.59492	AC108025.2	6.0174	0.0001	1.2788
AC023590.1	5.4404	0.0014	0.58251	GUCY1A2	3.9267	0.0001	0.4330
RP11-26J3.1	3.1958	0.0015	0.16760	BRINP2	7.4854	0.0001	0.4023
RP11-108K3.1	5.3599	0.0016	0.28687	TNR	6.0471	0.0001	2.2137
SERPINB7	5.5530	0.0017	1.60606	CTD-2380F24.	5.9619	0.0001	1.4868
RGL3	3.2498	0.0018	0.72499	CPNE5	4.9851	0.0001	0.8456
ISG20	3.0068	0.0019	0.70550	P2RX6	3.1143	0.0001	0.0903
PHOSPHO1	4.9892	0.0020	0.37387	HAS2-AS1	4.0856	0.0001	0.1556
RP11-273G15.	4.3554	0.0020	0.53436	LINC00844	6.5062	0.0001	0.8353
SERPINB9P1	4.3809	0.0020	1.10637	SLC6A1	6.2914	0.0001	0.4046
GPR160	3.5211	0.0020	0.91619	IGFBPL1	6.9162	0.0001	2.4912
CTD-2589M5.5	5.0084	0.0020	0.93880	EFHB	3.8856	0.0002	0.4369
CT45A5	5.3070	0.0021	0.07938	MN1	4.4432	0.0002	1.2035
EFNA5	3.7005	0.0021	0.72212	KCNH8	6.4337	0.0002	1.8099
COL12A1	3.3791	0.0021	1.97470	ARC	4.3217	0.0002	0.5959
LMNTD2	3.3682	0.0021	0.75230	SCN2A	5.7205	0.0002	0.5109
RP11-276H7.2	4.8640	0.0022	1.09268	TBX21	5.8877	0.0002	0.9926
RP11-445O3.2	5.2975	0.0022	0.61157	LMO1	5.9505	0.0002	1.8365
MUC3A	3.8218	0.0022	0.19107	HOXD-AS2	5.9413	0.0002	0.7560
CFAP57	3.6191	0.0022	0.65972	LINC00977	6.2199	0.0002	0.1053
AC137932.6	4.9362	0.0023	0.04071	SCG3	6.1874	0.0002	1.1116
RNASE10	5.4559	0.0024	0.48354	RP11-231C18.	6.0200	0.0002	1.6517
FES	4.1992	0.0025	1.14158	AC073283.4	5.9773	0.0002	1.1089
RP11-686D22.	5.2272	0.0026	0.75118	CDH4	5.0572	0.0002	0.2821

TCHH	4.0853	0.0026	0.96130	PROM2	4.2110	0.0002	1.3758
NLRP3	3.5103	0.0027	0.58435	FOXG1-AS1	6.0182	0.0002	0.4371
TARID	5.1318	0.0028	0.68985	TNKS2-AS1	3.7280	0.0003	0.3557
RP11-568K15.1	3.2391	0.0030	0.92734	TMEM132B	5.3763	0.0003	1.4219
SLC16A3	3.7661	0.0030	0.86781	SGCZ	6.7577	0.0003	0.2330
ACAP1	4.8279	0.0030	0.66589	TLX2	6.1123	0.0003	0.8312
AP000695.4	3.4169	0.0032	0.55724	ALPL	6.1093	0.0003	0.0626
AC018816.3	5.1713	0.0032	0.82565	GRIP2	5.6165	0.0003	1.3666
RP11-565A3.2	5.2522	0.0032	0.22361	IFI44L	6.8232	0.0003	0.2389
TESMIN	3.9377	0.0032	0.78776	RP11-698N11.1	5.9051	0.0003	0.7841
PRDM9	5.1964	0.0033	0.00884	HIF3A	6.0409	0.0003	0.2935
BTC	4.1913	0.0033	0.50962	ASXL3	6.5663	0.0003	1.0015
SPATA4	3.1652	0.0034	0.37639	CCDC144A	4.4431	0.0003	0.8893
C15orf48	4.0123	0.0034	1.24892	WFDC2	5.1275	0.0003	0.2908
LINC01776	3.9838	0.0037	0.56968	LINC01748	5.1733	0.0003	0.7891
RP11-114H21.1	5.2812	0.0037	0.05373	AC007204.2	6.2085	0.0003	1.1527
DNAI1	3.3832	0.0037	0.17461	RP11-838N2.5	6.0375	0.0003	0.4641
AC005264.2	5.2786	0.0038	0.98056	ZNF433	3.2226	0.0003	0.3425
NLRP14	3.3960	0.0039	0.09753	GPR162	3.2251	0.0003	0.4771
VDR	3.1495	0.0041	2.20966	ZBTB16	5.4963	0.0003	0.6482
KRT80	3.6164	0.0042	1.60467	DCT	4.3779	0.0004	1.7277
NXNL2	3.7519	0.0043	1.21408	TMEM178B	4.8848	0.0004	0.6946
MYO1B	3.7254	0.0043	0.51001	ZFP2	3.5856	0.0004	0.2171
NBEAP1	3.0703	0.0045	0.30936	MASP1	7.7266	0.0004	0.0686
LINC01111	5.5117	0.0045	1.66477	ESPN	4.8488	0.0004	0.4437
RP1-137D17.1	5.0387	0.0046	0.21997	APOL4	6.4464	0.0004	0.0385
RP11-755F10.1	4.2900	0.0049	0.01045	CAMKV	3.4023	0.0004	1.9006
CAPN11	4.3936	0.0050	1.08441	FLRT1	5.8128	0.0004	1.7925
RP11-676J12.7	5.8714	0.0052	0.46775	KCNIP4	6.3195	0.0004	0.3244
MYCBPAP	3.2978	0.0055	0.79495	ILDR2	3.6885	0.0005	0.4312
MLKL	3.1180	0.0057	0.80525	NEUROD1	5.8631	0.0005	1.1665
PAPSS2	3.2313	0.0057	0.61965	PLPPR3	6.0302	0.0005	2.4924
NDNF	3.5747	0.0059	0.36658	IKZF2	3.1807	0.0005	0.1809
SOCS2	3.0625	0.0062	0.18757	LINC01630	5.6072	0.0005	1.7337
NPTX2	3.4776	0.0063	1.28670	AC017104.6	3.3167	0.0006	0.4561
AC131056.3	4.9942	0.0063	0.38697	WNT7A	6.3405	0.0006	0.7564
DEF6	3.6055	0.0066	0.88804	ST3GAL5	3.3009	0.0006	0.2505
MCOLN3	3.4780	0.0069	0.38890	B3GALT2	5.2923	0.0006	1.1476
ELF4	3.0632	0.0070	0.85559	STON2	6.1040	0.0006	0.0009
LINC01939	6.2742	0.0071	0.41921	RP11-507K2.3	5.7402	0.0006	0.5577
AC020571.3	4.5507	0.0072	1.23355	WI2-1896O14.1	5.5978	0.0006	0.2526
LRRIQ1	3.9182	0.0074	1.53367	KCNJ9	5.9471	0.0006	1.7324
RP3-467K16.2	4.4681	0.0075	0.56022	SP9	5.9708	0.0006	2.1380
AC092614.2	4.9414	0.0075	0.48941	ADAMTS5	4.3736	0.0007	0.0579
UNC93B3	3.6987	0.0077	0.37359	ZFP30	4.0777	0.0007	0.3282
ACTRT3	3.0419	0.0079	1.15920	FGF14	5.7500	0.0007	0.3414
NEK5	3.3218	0.0084	0.75995	RFLNA	5.6907	0.0007	0.8682
CNFN	4.9846	0.0085	0.49720	HCG17	4.4801	0.0007	0.3996
TFPI2	3.0829	0.0093	2.02646	LIFR-AS1	3.0592	0.0007	0.3076

SERTAD4	3.0394	0.0097	0.75212	EFCAB5	4.1113	0.0007	1.2357
RP11-460B17.2	4.4683	0.0097	2.16402	WSCD1	3.5136	0.0008	0.7507
IL1A	5.0092	0.0098	0.66339	RP11-307B6.3	5.2974	0.0008	0.6533
MAGEA4	5.5329	0.0098	0.33787	IPCEF1	5.7150	0.0008	0.3759
CTD-2540B15.1	4.0184	0.0099	0.77401	CSPG5	3.6750	0.0008	1.1222
SMIM1	5.0346	0.0101	1.09564	ADCY8	4.3174	0.0008	0.2693
SFTA1P	3.3467	0.0103	0.70429	MIMT1	6.0754	0.0008	1.6634
RP11-885N19.1	4.8961	0.0123	1.61159	NXPH3	3.2696	0.0008	0.8535
ITGAD	4.7187	0.0127	1.45897	OLFM2	3.0780	0.0008	0.1989
LGI4	3.2077	0.0127	0.01996	NCAN	7.5679	0.0008	0.5057
AC008592.3	4.6919	0.0128	0.93842	MESTIT1	6.1561	0.0008	0.1114
LINC01239	3.6509	0.0131	1.49952	LRP1B	4.2071	0.0009	0.3226
VNN1	4.2795	0.0135	1.06338	LINC01102	5.9799	0.0009	1.0991
COL13A1	3.0513	0.0136	2.05599	ADGRG1	4.4408	0.0009	0.5186
RP11-1398P2.1	4.2298	0.0140	1.10989	NSG1	5.7824	0.0009	0.1387
AP000442.4	3.4047	0.0141	0.28090	LINC01158	3.5994	0.0009	0.3068
GACAT2	3.2024	0.0144	0.11248	TENM2	4.7292	0.0009	0.1128
TWIST2	3.5408	0.0146	1.66808	HOXA2	4.9391	0.0009	1.3967
SPERT	4.8295	0.0146	0.94762	SHD	5.4326	0.0010	2.0781
GNA15	3.5866	0.0156	1.27382	AP000289.6	6.1491	0.0010	1.6762
SARDH	4.4588	0.0158	0.79471	CTB-118P15.2	5.4817	0.0010	1.0792
WNT4	3.1293	0.0161	0.88294	CTC-467M3.1	5.6468	0.0010	0.5689
OSMR	4.9351	0.0164	1.22204	MCF2L	3.0785	0.0010	0.8547
RP11-535M15.1	3.9291	0.0179	0.03152	TMEM229B	3.1153	0.0010	0.2452
NOS3	3.8761	0.0179	0.28895	LINC00643	5.7984	0.0010	1.4408
AC145343.2	3.7509	0.0183	0.53261	LAMP5	6.1520	0.0010	0.0670
AC002076.10	3.8424	0.0184	0.86434	CH17-258A22.1	4.1065	0.0010	0.0446
RP11-650K20.3	3.6152	0.0192	0.92055	FAM185BP	3.0974	0.0011	0.0482
LINC02057	4.1215	0.0193	0.39344	PDE8B	3.7006	0.0012	0.2282
PTER	4.6097	0.0197	0.16752	AC053503.11	5.3923	0.0013	1.8829
AC106786.1	4.1912	0.0198	0.46195	CC2D2B	4.5274	0.0013	0.1065
PIK3CG	4.3364	0.0200	0.71098	RUNDC3A	5.3977	0.0013	1.4718
CTD-2337A12.1	4.5371	0.0203	0.58038	LEMD1	5.9745	0.0013	0.8117
ITGB2-AS1	4.5937	0.0217	0.60709	PSPC1P1	4.0416	0.0013	0.2474
RP11-14N7.2	4.4781	0.0223	0.24367	LINC00945	5.5410	0.0013	0.7030
RP11-297A16.1	4.1983	0.0225	0.39012	TSPOAP1	5.6147	0.0014	0.6303
LLGL2	3.4688	0.0239	0.41053	HOXD3	5.4949	0.0014	1.4608
AC012358.4	4.4449	0.0262	0.00672	RP4-657D16.3	3.7175	0.0014	0.3317
RP11-89K11.1	3.4433	0.0263	0.31701	HOXD4	5.4159	0.0015	1.3408
MOV10L1	4.4441	0.0265	0.63408	STUM	5.4701	0.0015	0.4918
EBF2	3.6057	0.0267	0.15407	TTBK1	4.7454	0.0016	0.7564
GATA6-AS1	3.9957	0.0302	1.26542	LFNG	4.4011	0.0016	0.1920
RP3-467K16.7	4.4115	0.0304	1.50772	DDR1	3.4264	0.0017	0.0309
ADAMTS12	3.1979	0.0317	1.13029	RP11-430H10.1	5.5299	0.0017	0.3254
GPAT3	3.3176	0.0317	1.28396	SERP2	6.0986	0.0017	0.6553
FOXC2-AS1	4.5399	0.0319	1.07089	CD101	5.3992	0.0017	0.2487
WFDC21P	4.4383	0.0330	1.31817	AP006222.2	5.4094	0.0017	0.1647
RP11-95P2.3	4.3111	0.0331	1.02435	CASQ1	5.8751	0.0018	0.3069
SNX29P1	4.0409	0.0339	0.04275	RPS6KA2	3.3976	0.0018	0.0586

RP11-366F6.2	4.3428	0.0355	0.40639	RP11-38M8.1	5.9893	0.0018	0.2782
TMEM190	4.3686	0.0370	0.99047	AP3B2	4.7431	0.0018	0.9162
AC092168.2	3.8692	0.0382	0.68960	JPH4	6.1414	0.0018	1.3734
F2RL1	3.1439	0.0385	1.20420	RXFP1	4.8677	0.0018	0.7205
C19orf33	4.2328	0.0388	0.19382	COL28A1	4.4945	0.0019	0.4136
HLA-V	3.1816	0.0388	0.07377	MIR181A2HG	3.0687	0.0020	0.8415
CSF3	4.2738	0.0389	2.51381	PRSS51	5.4016	0.0022	0.9272
SIDT1	3.8411	0.0394	0.03443	CTC-255N20.1	5.9100	0.0024	0.4790
MED15P9	4.4181	0.0396	0.25970	RUNX1T1	6.9975	0.0024	0.4504
RP11-54O7.18	4.3049	0.0404	0.22346	SOSTDC1	5.4086	0.0025	0.0885
RP11-438D8.2	4.2184	0.0409	0.21019	AVIL	3.5325	0.0025	1.2415
RP11-150C16.	3.3217	0.0412	0.49684	FMO5	3.4178	0.0026	0.2359
EREG	4.2971	0.0415	3.12461	ATP2B2	5.2661	0.0026	0.8111
RP11-350J20.5	3.0287	0.0421	0.14878	CLSTN2	5.7215	0.0027	1.1158
PRDM16	3.2025	0.0424	0.12259	AP000708.1	5.3579	0.0028	0.1114
TMEM191A	3.3151	0.0424	0.08724	NRXN3	5.2728	0.0028	0.3186
RP11-525A16.4	3.5332	0.0426	1.12813	ATG9B	3.5894	0.0028	0.3798
GMNC	4.3933	0.0434	0.68632	OLFM3	6.8703	0.0029	0.9459
FGF7P8	4.3642	0.0434	0.03762	TBC1D3D	4.8908	0.0030	0.7413
PYY	3.3379	0.0434	0.05025	RP11-247A12.	4.1691	0.0030	0.3506
RP11-666A20.4	4.1992	0.0450	0.13444	GSG1L	5.6553	0.0031	0.5406
RP11-360O19.	4.2274	0.0469	0.20909	C7orf61	3.7172	0.0031	0.6755
HSPA1A	4.1625	0.0491	0.39271	RP11-620J15.	5.3183	0.0032	2.0189
CTD-2334D19.	4.3314	0.0492	0.02606	TUBB2BP1	4.7587	0.0033	0.5226
RP11-89F3.2	3.7575	0.0496	0.15480	SPATA22	5.1520	0.0034	0.1093
TRPM6	3.3470	0.0500	0.01057	KLRK1	6.8134	0.0034	2.0787
				LRRC3B	5.5468	0.0036	0.8352
				RP5-1024C24.	5.9992	0.0036	0.8969
				WFDC1	4.6954	0.0037	0.7572
				PCDHB9	3.2032	0.0037	0.6081
				SEC14L5	4.3765	0.0037	1.0790
				BEX2	5.0667	0.0037	0.7579
				ASB4	5.2528	0.0037	0.6381
				NECAB2	3.6956	0.0038	0.9083
				EFTUD1P1	3.2348	0.0039	0.3442
				LINC00506	5.2956	0.0039	0.1917
				BMS1P2	4.0521	0.0039	0.4080
				GFI1B	3.7275	0.0040	0.5945
				RGMA	3.4527	0.0041	0.0208
				FSBP	3.7881	0.0042	0.9495
				ZNF423	4.8742	0.0043	0.3785
				RP11-281O15.	5.0481	0.0043	0.6800
				LINC00877	5.1626	0.0044	0.2446
				PNMA3	4.2836	0.0045	1.2794
				LINC00606	5.9152	0.0045	0.4150
				DACT3-AS1	4.6344	0.0046	0.8437
				AFF3	4.8507	0.0047	0.6721
				HHATL	5.3547	0.0049	0.9503
				GPR12	5.2131	0.0050	1.4840

ASCL1	6.4222	0.0051	1.5635
RP11-758P17.	3.7142	0.0052	0.1701
RP11-216B9.9	3.2349	0.0055	0.5805
RP11-136C24.	5.2985	0.0055	0.5999
SPATA42	5.0719	0.0056	0.5594
LTK	3.3889	0.0057	0.6213
GNG3	5.0272	0.0057	0.7093
RP11-620J15.4	4.9438	0.0058	1.7478
ARHGDIG	5.3221	0.0059	0.9620
KIAA1755	3.4167	0.0060	0.4759
LINC01977	5.3226	0.0061	1.0575
RP11-241F15.	4.7008	0.0062	0.9812
ZEB2-AS1	4.0995	0.0063	0.1863
KLRC2	6.2284	0.0064	2.8325
GDF7	5.2938	0.0065	0.9583
CACNA1D	4.4575	0.0066	0.6191
PLXNA2	3.7076	0.0066	0.2782
PODN	5.7177	0.0066	0.6198
PCDHA3	5.7077	0.0067	0.8190
SELENOV	5.2568	0.0069	1.1943
TRIM67	4.9740	0.0072	2.6221
SDK2	4.7772	0.0074	0.0914
OLFM1	6.2273	0.0074	0.9495
LINC01816	4.9271	0.0075	0.8473
CHRNA4	5.6709	0.0081	2.2968
RP11-277P12.	4.9712	0.0081	2.2566
BCL2L15	3.0285	0.0081	0.5070
ACTN2	3.0883	0.0084	0.2396
RP11-472N13.	4.4647	0.0085	0.7597
GPR158-AS1	4.8485	0.0086	0.0642
AC003991.3	4.8317	0.0088	0.4532
RP11-318C24.	4.8280	0.0091	0.5283
AC005220.3	5.5520	0.0094	0.1061
RNF128	5.1830	0.0095	0.0309
GABRB3	5.5482	0.0098	1.3130
SLC26A1	4.8443	0.0099	0.6689
GABRA2	4.9564	0.0100	0.4802
RP11-259K15.	5.0183	0.0101	1.1989
NXPH2	5.5025	0.0103	1.1442
SKINT1L	4.5984	0.0109	0.5295
PCDHGA10	3.2617	0.0110	0.6541
SNAP25	3.5742	0.0110	0.8426
TMEM130	4.6349	0.0110	0.6108
IGSF5	4.8598	0.0114	0.2773
ZNF571-AS1	4.9748	0.0117	0.8521
MYOZ3	4.1371	0.0122	0.3432
RTN1	3.7524	0.0124	0.4498
GDF6	5.4197	0.0125	0.9618
PDIA2	4.9002	0.0127	1.4515

HCG22	5.3763	0.0129	0.2231
LINC01505	3.3301	0.0131	0.7594
GS1-259H13.2	3.1565	0.0132	0.0925
DNAJA4	5.1252	0.0135	0.0129
RP11-50D16.4	4.6512	0.0138	0.6064
RASL10A	4.6459	0.0141	0.8780
LINC00648	4.6452	0.0145	1.5474
CDH3	3.7692	0.0146	0.6309
GPFR1	3.2455	0.0147	0.1122
AC027612.4	5.3158	0.0148	0.4684
MEG9	5.2727	0.0157	0.0300
CPA2	5.2946	0.0157	0.1324
MYH7	4.8622	0.0159	0.4765
UNC13A	3.2187	0.0160	1.1579
THSD7A	3.6526	0.0161	1.0109
GRM2	4.4276	0.0164	0.9824
TMEM132C	5.2805	0.0176	1.0937
RP11-627G23.	4.6094	0.0181	0.2903
RSU1P2	5.2254	0.0182	0.3793
ATP8A2	4.2915	0.0185	0.5791
RP11-351J23.	4.4960	0.0196	0.5468
LINC01549	4.5724	0.0202	0.4761
SCN2B	4.6126	0.0207	0.2847
MMD2	4.7039	0.0210	1.6718
ZIM2-AS1	5.7285	0.0216	1.0882
KCNAB1	4.6342	0.0216	0.3873
AC006026.13	4.4791	0.0221	0.2633
SLC6A11	4.7330	0.0222	0.0728
NRXN1	4.8786	0.0224	1.0610
GFRA3	4.7162	0.0225	0.6031
SEZ6L	5.6002	0.0231	1.3996
AC013460.1	3.9413	0.0232	1.3381
SAMD14	3.2107	0.0236	0.6566
FAM182A	3.6100	0.0239	1.0859
RP11-266K4.9	4.2405	0.0241	0.4630
SEMA6A-AS2	3.3040	0.0241	0.1935
IGLON5	5.5749	0.0243	1.3758
RP1-274L7.4	3.8309	0.0245	0.8858
C5orf67	5.0275	0.0246	0.1530
AC083867.4	4.6536	0.0253	1.6979
TPTE2P5	3.0629	0.0259	0.2563
GRM7	3.4682	0.0263	1.0132
RP11-103J8.1	4.6266	0.0270	0.0646
C16orf45	3.1398	0.0279	0.4463
LINC01679	4.4973	0.0281	0.9819
RP11-615I2.2	4.3658	0.0286	1.2044
GADD45G	4.6236	0.0287	1.8836
RP11-728K20.	4.9300	0.0289	0.1546
CTD-2010I16.1	3.2384	0.0289	0.4354

LINC01207	4.7089	0.0295	1.5553
RAPGEF4-AS1	4.9379	0.0295	0.4769
SEZ6	5.3375	0.0296	1.4494
TMEM88	3.9319	0.0302	0.0721
AC007255.8	3.5024	0.0307	0.7794
PRR26	4.3607	0.0317	0.8069
RP11-536C5.2	4.3234	0.0317	0.8584
SPON1	4.3840	0.0317	0.2559
RPH3A	5.3879	0.0324	0.2942
KCNQ4	4.0489	0.0326	0.2564
NAPSA	3.8871	0.0331	0.0376
HOXD13	3.1541	0.0339	0.2672
ZNF663P	4.3205	0.0340	0.6102
RP11-15I11.3	3.5674	0.0342	0.8645
CTD-2339F6.1	5.0117	0.0344	1.9449
RP11-182J1.14	3.3037	0.0347	1.2716
MIR181A1HG	3.3451	0.0348	1.0008
ADCY2	3.9081	0.0351	0.6100
RP11-138I1.3	4.4079	0.0354	0.2193
RP11-624M8.1	3.8383	0.0357	0.1144
RP11-109E12.	4.3468	0.0365	0.5169
RIPPLY3	4.2795	0.0366	0.5124
MYBPHL	3.9107	0.0372	0.3339
LINC00598	3.2572	0.0374	0.0892
GRID2IP	3.0258	0.0377	0.7852
ACSL6	4.3323	0.0395	0.6218
PLCL1	3.0874	0.0396	0.7133
SATB1-AS1	4.2655	0.0402	1.0831
CTD-2619J13.	3.8705	0.0407	0.1729
C22orf24	3.3622	0.0408	0.4299
RP13-644M16	4.3542	0.0415	0.2604
FAM19A5	4.0654	0.0419	0.8651
SLC35D3	4.4636	0.0421	0.7549
IGSF9	3.8339	0.0427	1.3024
HYAL1	3.0169	0.0433	0.1436
RP11-369K16.	4.3785	0.0439	0.2091
LINC00519	4.1742	0.0441	0.0473
NRXN2	3.2652	0.0445	1.1900
ROBO2	3.1047	0.0451	0.7539
OTOGL	3.2026	0.0457	0.9311
CTC-344H19.4	3.5342	0.0460	0.2764
RNF219-AS1	4.2873	0.0461	1.2373
IL1RAPL2	4.6414	0.0462	0.7757
CCND2-AS1	3.9478	0.0470	0.4098
FAM189A1	3.0610	0.0479	0.1377
RGS11	4.4423	0.0490	0.1674
SHISA9	4.2851	0.0499	0.6837

Supplementary Table 7: Alternatively spliced and differentially expressed genes between mesenchymal (MES) and proneural (PN) GSCs.

ASS (alternative splice site 5' or 3'): genomic coordinates of long and short exons (columns g.coord

MXE (mutually exclusive exon): genomic coordinates of first and second exons (columns g.coord_1

RI (retained intron): genomic coordinates of retained intron (column g.coord_1)

ES (exon skipping): genomic coordinates of skipped exon (column g.coord_1)

gene	Differential expression		Differential splicing					
	log2FoldChange	FDR	event.type	strand	g.coord_1	g.coord_2	inc.level.difference	FDR
ABCB6	-3.307001766	1.03E-05	RI	-	chr2:219210380-219210823	NA	0.538	0.001910688849
ABCD4	-1.49262165	0.000205653789	ES	-	chr14:74295147-74295198	NA	-0.467	0.000418686846
			ES	-	chr14:74297638-74298069	NA	0.168	0.000507655253
			ES	-	chr14:74299547-74299675	NA	0.145	0.001061603759
			ES	-	chr14:74300149-74300268	NA	0.162	0.004938847597
			ES	-	chr14:74288206-74288259	NA	-0.172	0.01087266728
			ES	-	chr14:74299547-74299675	NA	-0.244	0.01184031581
			ES	-	chr14:74300149-74300268	NA	-0.157	0.04822228261
ABHD11	-2.239355234	0.000919304976	ES	-	chr7:73737220-73737360	NA	0.193	0.007980648665
			RI	-	chr7:73737220-73737735	NA	-0.285	0.0236309712
ABHD14B	1.769971385	5.59E-06	ES	-	chr3:51971811-51971892	NA	-0.435	4.64E-06
ABHD3	-1.355213982	0.000187405328	A5SS	-	chr18:21663677-21664230	chr18:21664117-21664230	0.388	4.71E-07
ABL2	1.946649981	3.09E-13	ES	-	chr1:179133311-179133374	NA	-0.173	0.001458185891
AC005154.6	-2.818045991	1.77E-11	MXE	-	chr7:30576563-30576710	chr7:30584710-30584808	0.278	0.02127345004
AC007040.11	3.466808863	0.002252917358	ES	-	chr2:70991829-70991983	NA	-0.101	0.01868342172
AC007566.10	-1.014212726	0.04603914804	ES	+	chr7:92462957-92463026	NA	0.228	3.06E-06
AC108488.4	-1.73751869	0.01934800273	ES	-	chr2:3533107-3533190	NA	0.211	0.02986419007
ACAD11	1.659899111	0.005686184971	RI	-	chr3:132578795-132579558	NA	-0.11	0.00157883001
ACAT1	1.901181734	0.000194905780	ES	+	chr11:108129102-108129201	NA	0.17	0.04997449951
ACSS1	-1.001498873	0.0250473989	ES	-	chr20:25015137-25015230	NA	-0.146	0.02664983959
ACTN1	1.184788077	6.70E-05	ES	-	chr14:68878988-68879069	NA	0.131	2.38E-08
ADAM22	-1.886876099	0.0016332856	ES	+	chr7:88186614-88186701	NA	-0.22	4.44E-07
ADAMTS6	2.436437792	0.009602273143	ES	-	chr5:65470777-65471142	NA	-0.295	6.69E-05
ADAP2	3.360071655	1.37E-09	MXE	+	chr17:30926826-30926918	chr17:30931888-30931968	0.411	3.40E-05
ADAT1	-1.502652197	6.01E-05	ES	-	chr16:75618585-75618698	NA	0.123	0.009096233477
ADCY6	-1.377884627	0.01864612585	ES	-	chr12:48773939-48774098	NA	-0.182	0.001421550924
			A3SS	-	chr12:48773468-48774098	chr12:48773468-48773647	-0.286	0.002706536394
ADD1	-1.324669409	0.003595515826	RI	+	chr4:2908514-2909431	NA	0.284	0.01160406502
ADGRG1	-4.440798232	0.000895656285	ES	+	chr16:57641590-57641708	NA	0.318	0.005039214886
			ES	+	chr16:57641586-57641708	NA	0.443	0.009505385205
ADGRL1	-1.685372987	0.000393716323	ES	-	chr19:14167015-14167030	NA	-0.204	0.002071693895
ADGRL2	-4.221479784	2.51E-06	ES	+	chr1:81986900-81987029	NA	0.227	3.49E-10
			ES	+	chr1:81987288-81987341	NA	-0.256	1.66E-05
			ES	+	chr1:81952986-81953025	NA	0.368	0.004113255113
			ES	+	chr1:81987259-81987341	NA	-0.144	0.0439700115
ADGRL3	-2.625659858	0.000158145126	ES	+	chr4:61730621-61730636	NA	-0.224	0.001796423469
			MXE	+	chr4:61676825-61676935	chr4:61732753-61733554	-0.138	0.008473719203
AFDN	-1.359167603	9.79E-06	ES	+	chr6:167913402-167913423	NA	-0.579	4.69E-10
AGAP1	-1.972480215	0.004616489308	ES	+	chr2:235750353-235750488	NA	-0.18	3.67E-06
AGAP4	-1.336505827	0.000590755917	MXE	-	chr10:45841652-45841687	chr10:45844325-45844394	0.785	1.11E-09
			ES	-	chr10:45834015-45834116	NA	-0.8	0.000114900623
			MXE	-	chr10:45834015-45834116	chr10:45841652-45841687	0.708	0.000194493061
AGPAT4	-2.101653927	1.40E-14	ES	-	chr6:161165576-161165713	NA	0.184	1.73E-06
			MXE	-	chr6:161154148-161154310	chr6:161165576-161165713	0.108	0.000617106267
			ES	-	chr6:161165576-161165713	NA	0.441	0.001023745599
ALG9	-1.252130947	0.003147345933	A3SS	-	chr11:111838248-111838399	chr11:111838248-11183837	0.2	0.009557061151
ALKBH8	1.114900193	0.01146910437	ES	-	chr11:107549752-107549823	NA	-0.271	0.000185782203
ALPK1	2.727274259	0.001304598993	ES	+	chr4:112315800-112315852	NA	-0.153	0.004367829994
AMMECR1L	-1.161534664	0.000509267750	ES	-	chr2:127871248-127871359	NA	0.193	0.02137621621
AMPD2	2.127534674	0.001378832489	ES	+	chr1:109622184-109622353	NA	-0.554	0.000293523243
ANAPC10	1.022415053	0.01885973881	ES	-	chr4:145097687-145097760	NA	0.592	0.006742072944

ANAPC11	1.453076968	0.012934033	ES	+	chr17:81899241-81899542	NA	0.106	0
ANAPC5	1.354446441	0.007216952797	RI	-	chr12:121345838-121347005	NA	-0.144	0
			RI	-	chr12:121327095-121328497	NA	-0.144	0
			A3SS	-	chr12:121328315-121328497	chr12:121328315-12132845	0.198	5.53E-11
ANK3	-5.405543463	3.28E-36	ES	-	chr10:60200128-60200263	NA	0.135	0.002225080387
			A3SS	-	chr10:60059339-60060006	chr10:60059339-60059430	0.164	0.003617031386
			ES	-	chr10:60059697-60060033	NA	0.119	0.00550678331
			ES	-	chr10:60145967-60146021	NA	0.18	0.02371629734
ANKHD1-EIF4E	-1.934119146	0.000596927736	ES	+	chr5:140496519-140497278	NA	0.155	2.70E-05
			A3SS	+	chr5:140537337-140537589	chr5:140537388-140537589	0.176	0.000113258999
ANKRD10	-2.292872501	2.15E-11	A3SS	-	chr13:110900529-110900694	chr13:110900529-11090066	0.144	0.000443820326
			ES	-	chr13:110894284-110894393	NA	-0.459	0.01041046655
ANKRD20A11F	-2.370088227	0.000991961178	MXE	-	chr21:13915186-13915409	chr21:13916746-13916958	0.288	0.002470228289
ANKRD27	3.621652629	2.55E-25	MXE	-	chr19:32607634-32607832	chr19:32615657-32615780	-0.209	0.004476786939
			MXE	-	chr19:32605834-32605954	chr19:32607634-32607832	0.209	0.01128144421
ANXA4	1.080039129	0.005402096904	A5SS	+	chr2:69806384-69806498	chr2:69806384-69806432	-0.17	2.79E-05
AP1AR	1.737939287	0.000674774728	ES	+	chr4:112262987-112263086	NA	0.121	0.002927110877
AP1S2	-2.574886233	1.17E-05	ES	-	chrX:15833443-15833524	NA	0.284	0.03860979484
APAF1	-1.567964156	3.34E-05	ES	+	chr12:98703370-98703499	NA	-0.278	0.001135475143
APBB2	-2.016174325	4.24E-08	ES	-	chr4:40935076-40935139	NA	0.711	0
APOM	-2.442445538	3.57E-05	ES	+	chr6:31656471-31656626	NA	0.162	0.000963896981
APRT	1.454839965	0.005964505308	A3SS	-	chr16:88809468-88809840	chr16:88809468-88809706	0.167	1.57E-06
AREL1	-1.10195675	0.000261842113	ES	-	chr14:74701668-74701774	NA	0.502	0.001735749298
ARHGAP21	-1.782212896	8.36E-08	ES	-	chr10:24622732-24622762	NA	-0.367	1.48E-07
ARHGEF10	1.376884529	0.002520603555	ES	+	chr8:1926376-1926463	NA	-0.138	1.97E-05
			ES	+	chr8:1880047-1880164	NA	-0.324	0.000880675005
ARHGEF40	-1.48529973	0.02048618293	MXE	+	chr14:21087000-21087105	chr14:21087319-21087463	-0.249	6.58E-05
			RI	+	chr14:21087000-21087463	NA	-0.404	0.000594384868
			ES	+	chr14:21075644-21075765	NA	-0.169	0.000780430881
			ES	+	chr14:21075622-21075765	NA	-0.248	0.000884318560
			A5SS	+	chr14:21075331-21075765	chr14:21075331-21075499	-0.301	0.001128835062
ARHGEF7	-3.169599061	2.19E-26	MXE	+	chr13:111205288-111205373	chr13:111209871-11121000	0.312	7.62E-10
			ES	+	chr13:111288353-111288443	NA	-0.162	8.37E-06
			MXE	+	chr13:111205288-111205373	chr13:111209871-11121000	0.219	1.07E-05
			ES	+	chr13:111209871-111210002	NA	-0.238	1.63E-05
			ES	+	chr13:111209871-111210002	NA	-0.205	0.007873662431
			MXE	+	chr13:111153904-111153991	chr13:111209871-11121000	0.14	0.008703836928
ARL4A	-1.808872899	0.007965219414	ES	+	chr7:12687634-12687728	NA	-0.602	0
			ES	+	chr7:12687634-12687728	NA	-0.499	7.00E-10
ARMC4	5.531166913	2.15E-12	ES	-	chr10:27968922-27969018	NA	-0.369	0.01357652802
ARMCX5-GPR	-1.407923176	0.00109723521	ES	+	chrX:102601879-102601977	NA	0.266	1.98E-07
			ES	+	chrX:102601463-102601509	NA	0.358	0.000666033342
			MXE	+	chrX:102601463-102601509	chrX:102601879-102601977	-0.371	0.001699714909
			MXE	+	chrX:102601879-102601977	chrX:102639399-102639533	0.154	0.02227107106
ARNTL2	3.112129098	1.27E-15	ES	+	chr12:27370128-27370230	NA	-0.173	0.000297930725
			MXE	+	chr12:27370128-27370230	chr12:27376345-27376387	-0.224	0.002977500621
			ES	+	chr12:27376345-27376387	NA	0.204	0.005462739449
			ES	+	chr12:27370128-27370230	NA	-0.309	0.02166060778
ARPC4	-1.03693576	0.03217150924	MXE	+	chr3:9797658-9797777	chr3:9800184-9800296	0.15	9.96E-07
ARPP19	-1.185558463	0.002416539789	ES	-	chr15:52564189-52564246	NA	-0.288	3.04E-05
			ES	-	chr15:52568847-52568902	NA	-0.12	0.000174792228
			ES	-	chr15:52568847-52568900	NA	-0.143	0.000749563285
ARRDC1	2.227428125	0.000101178293	RI	+	chr9:137612895-137613510	NA	-0.299	1.29E-06
ASAP2	1.226637135	3.03E-05	ES	+	chr2:9391061-9391196	NA	-0.539	6.77E-06
ASPH	2.246488196	3.23E-06	ES	-	chr8:61646749-61646878	NA	0.112	0
			MXE	-	chr8:61651049-61651124	chr8:61653567-61653660	0.132	0
			MXE	-	chr8:61618977-61619019	chr8:61633682-61633727	0.21	2.91E-07
			MXE	-	chr8:61583943-61584029	chr8:61633682-61633727	0.178	1.90E-06
ASPSCR1	1.548665312	0.007131859271	RI	+	chr17:82016799-82017113	NA	0.125	0.002774257415
			MXE	+	chr17:82016475-82016527	chr17:82016799-82016869	-0.327	0.03891190073

ATAD2	1.758292203	2.57E-06	ES	-	chr8:123400742-123401175	NA	0.254	0.02776636468
ATAD5	1.107936454	0.003567230275	ES	+	chr17:30879422-30879487	NA	-0.194	1.38E-05
ATAT1	-1.772771174	3.82E-08	RI	+	chr6:30642767-30644679	NA	0.271	2.34E-08
			MXE	+	chr6:30642767-30643011	chr6:30645894-30645974	0.4	0.000570966894
			ES	+	chr6:30642767-30643011	NA	0.236	0.01637108017
			ES	+	chr6:30640534-30640603	NA	-0.265	0.02320561358
ATP11A	-1.141711817	0.04120840326	A3SS	+	chr13:112881812-112887168	chr13:112881875-11288716	0.39	0.001121865795
			ES	+	chr13:112878216-112878303	NA	-0.461	0.002993621228
ATP2B1	-2.479504465	2.50E-07	MXE	-	chr12:89627677-89627716	chr12:89630504-89630645	0.152	0.007378547302
ATP6V1B1	-1.639697141	0.0235821543	ES	+	chr2:70963161-70963261	NA	0.253	0.000812214171
			ES	+	chr2:70963161-70963312	NA	0.147	0.001312492684
ATP9B	-2.419285766	5.32E-10	ES	+	chr18:79375393-79375426	NA	-0.2	0.000136276856
			MXE	+	chr18:79154503-79154555	chr18:79176812-79176907	-0.167	0.001097782761
AURKB	2.363529693	5.90E-09	ES	-	chr17:8210176-8210249	NA	-0.232	1.97E-11
			ES	-	chr17:8210176-8210225	NA	-0.33	1.60E-09
			A3SS	-	chr17:8207737-8207901	chr17:8207737-8207840	-0.343	0.007397341977
B3GNTL1	2.81932632	7.08E-11	MXE	-	chr17:82965650-82965746	chr17:83005114-83005210	-0.181	0.000398856445
BAIAP2	2.052515418	4.82E-05	ES	+	chr17:81036862-81036961	NA	-0.133	0.03537587177
BAX	-1.699565106	0.00169985767	RI	+	chr19:48960809-48961798	NA	0.233	0
			ES	+	chr19:48955547-48955599	NA	0.209	0.02365356143
BCAS4	1.852960821	0.000187599744	ES	+	chr20:50840536-50840930	NA	-0.605	0
BCHE	-6.773798862	2.14E-21	ES	-	chr3:165829516-165831041	NA	-0.372	1.84E-13
			ES	-	chr3:165777716-165777795	NA	0.11	1.52E-06
BCL2L11	-2.97836296	2.82E-09	ES	+	chr2:111124049-111124139	NA	0.168	0.000244558941
			A5SS	+	chr2:111123745-111124139	chr2:111123745-111123869	0.154	0.000276218368
			ES	+	chr2:111123732-111123869	NA	0.111	0.01404100243
BCL2L12	1.036374197	0.03262397763	ES	+	chr19:49667018-49667161	NA	-0.105	0.01389440019
			ES	+	chr19:49667021-49667161	NA	-0.145	0.02383511682
BDH2	-2.602569511	2.91E-08	A5SS	-	chr4:103085698-103086540	chr4:103086479-103086540	-0.241	0
			RI	-	chr4:103085348-103086540	NA	-0.253	0
			RI	-	chr4:103085348-103086540	NA	0.223	8.25E-05
			A5SS	-	chr4:103085348-103086540	chr4:103086479-103086540	-0.231	0.04209827853
BDNF-AS	-2.440499658	0.000270164116	ES	+	chr11:27658240-27658462	NA	0.274	1.00E-06
			ES	+	chr11:27675576-27676140	NA	0.343	0.001406429329
			ES	+	chr11:27675296-27676140	NA	0.368	0.00177508727
BEND6	2.07869001	0.000488670948	ES	+	chr6:57018420-57018557	NA	-0.22	0.02050644615
BMP1	-1.898669967	0.01614389603	A3SS	+	chr8:22201117-22201928	chr8:22201802-22201928	0.321	0.000398575518
			A3SS	+	chr8:22176923-22177139	chr8:22176960-22177139	0.119	0.01003596905
BPHL	-1.510703854	1.33E-05	ES	+	chr6:3119284-3119512	NA	0.475	1.12E-05
			A3SS	+	chr6:3138040-3140509	chr6:3140385-3140509	0.145	0.004748089327
			RI	+	chr6:3138040-3140509	NA	-0.198	0.01313973159
BTBD3	-1.310719678	0.00191197591	RI	+	chr20:11917864-11918601	NA	-0.352	0.000314242349
C11orf49	-1.685126938	0.005878006534	ES	+	chr11:47157022-47157218	NA	-0.276	1.06E-10
			RI	+	chr11:47161126-47162247	NA	0.261	0.000656008530
C11orf65	1.684546621	0.004043590229	ES	-	chr11:108431745-108431838	NA	0.536	0.001578796476
			MXE	-	chr11:108405428-108405559	chr11:108431745-10843183	0.19	0.01613726558
C14orf159	-1.018135535	0.0038468482	A5SS	+	chr14:91215404-91215793	chr14:91215404-91215556	0.236	0.03523702781
C19orf12	1.45752136	4.01E-05	ES	-	chr19:29708253-29708423	NA	-0.347	0.000170947032
C1orf112	1.271165254	0.009836671994	A3SS	+	chr1:169804074-169804240	chr1:169804111-169804240	0.17	0.003340729773
C1QTNF1	-2.224858531	0.006969056909	ES	+	chr17:79043954-79044123	NA	0.132	0.003512996048
C1RL	1.429504006	0.02653790596	ES	-	chr12:7108250-7108479	NA	0.435	2.43E-05
C20orf194	-1.095541521	0.02358174193	ES	-	chr20:3343675-3343731	NA	-0.169	0.0087482388
C21orf58	-1.187242538	0.009693058467	RI	-	chr21:46301129-46302154	NA	0.265	3.09E-06
			A3SS	-	chr21:46314715-46315049	chr21:46314715-46314880	0.528	0.01015531981
C5orf22	-1.025136578	0.002193718997	ES	+	chr5:31548489-31548687	NA	0.15	9.78E-06
C6orf52	-3.754987247	8.14E-07	ES	-	chr6:10686965-10687056	NA	0.117	0.0084424949
			ES	-	chr6:10672546-10672636	NA	0.505	0.01885208174
			MXE	-	chr6:10683186-10683232	chr6:10686965-10687164	0.145	0.02470719013
			MXE	-	chr6:10683186-10683232	chr6:10686965-10687164	0.123	0.03336528488
C9orf85	-1.363159949	0.001757229442	ES	+	chr9:71971504-71971618	NA	0.131	0.004011400497

CADM2	-5.915072343	1.94E-14	ES	+	chr3:85979163-85979283	NA	0.535	5.93E-06
CAMK1	-9.994859989	4.23E-11	ES	-	chr3:9765758-9765890	NA	0.122	0.001499769913
CAMK2D	-1.860134917	0.03850898767	A3SS	-	chr4:113509637-113509675	chr4:113509637-113509672	0.216	0.004100974342
CAMTA2	1.011549198	0.03148317724	ES	-	chr17:4982088-4982160	NA	-0.239	0.000390645863
			ES	-	chr17:4982088-4982227	NA	-0.274	0.002049001138
			ES	-	chr17:4982088-4982175	NA	-0.265	0.003568838564
CARF	-1.718585399	0.002492204581	ES	+	chr2:202974333-202974496	NA	0.101	0.003230019984
			MXE	+	chr2:202924356-202924415	chr2:202941859-202941980	-0.149	0.004239967383
CASK	-1.218153687	0.000150500121	ES	-	chrX:41555599-41555635	NA	-0.278	1.34E-11
			ES	-	chrX:41557031-41557100	NA	-0.608	4.65E-08
			MXE	-	chrX:41555599-41555635	chrX:41557031-41557100	0.134	0.001407486282
CASP4	5.47407291	5.91E-26	ES	-	chr11:104951895-104952063	NA	-0.144	0.005857179572
CASP8	2.371285742	0.02496524068	A3SS	+	chr2:201266460-201266791	chr2:201266486-201266791	-0.127	0.002459197716
CAST	1.654880843	0.000288261170	ES	+	chr5:96726793-96726859	NA	-0.698	0
			ES	+	chr5:96726753-96726859	NA	-0.557	0
			MXE	+	chr5:96727488-96727530	chr5:96729152-96729209	0.368	6.23E-14
			ES	+	chr5:96740744-96740783	NA	0.662	2.11E-09
			ES	+	chr5:96729152-96729209	NA	-0.178	4.62E-07
			ES	+	chr5:96726793-96726859	NA	-0.543	0.000103588851
			MXE	+	chr5:96722638-96722698	chr5:96729152-96729209	0.177	0.00121263946
CC2D2A	-1.390230277	0.001385648879	ES	+	chr4:15479218-15479328	NA	0.369	0.01564723304
			ES	+	chr4:15479222-15479328	NA	0.366	0.01617330057
CCDC125	2.030840177	0.002684419434	ES	-	chr5:69294792-69294900	NA	-0.188	0.004507877005
CCDC159	-1.294502763	0.03393469197	RI	+	chr19:11354579-11354943	NA	0.208	0.01046368681
CCDC7	2.031794083	2.35E-06	ES	+	chr10:32567669-32567891	NA	0.407	0.00357102587
			MXE	+	chr10:32463016-32463049	chr10:32471063-32471230	-0.421	0.0054461904
			ES	+	chr10:32463016-32463049	NA	-0.147	0.01351304657
			ES	+	chr10:32471063-32471230	NA	0.41	0.03915855325
CCNE1	1.359604972	0.03822066458	ES	+	chr19:29821995-29822130	NA	-0.164	1.69E-05
			ES	+	chr19:29812531-29812578	NA	-0.23	0.000898392038
CCNT2	-1.499508598	4.38E-05	ES	+	chr2:134945786-134945982	NA	-0.132	0.02298175873
CD27-AS1	-1.901100354	0.000615687138	MXE	-	chr12:6448639-6448737	chr12:6450340-6450980	-0.223	0.000313158994
			ES	-	chr12:6443545-6443717	NA	0.321	0.000758051464
			ES	-	chr12:6450340-6450980	NA	-0.27	0.01669192307
			ES	-	chr12:6450869-6450980	NA	-0.313	0.01675843214
			ES	-	chr12:6450892-6450980	NA	-0.337	0.02475961249
			ES	-	chr12:6450473-6450708	NA	0.232	0.0496313164
CD274	3.414469829	2.86E-09	RI	+	chr9:5462833-5463121	NA	-0.167	0.000447323618
CDC25C	1.700115583	7.59E-07	ES	-	chr5:138329552-138329647	NA	0.277	4.21E-10
			MXE	-	chr5:138325814-138325904	chr5:138328483-138328529	-0.357	4.51E-08
			ES	-	chr5:138325814-138325904	NA	0.312	1.94E-06
			ES	-	chr5:138326020-138326054	NA	0.343	8.74E-06
			ES	-	chr5:138289479-138289563	NA	0.118	0.01782449163
CDC42SE1	-1.423495394	2.34E-08	ES	-	chr1:151056650-151056786	NA	-0.108	8.21E-09
CDK4	-1.080127317	0.02382768186	ES	-	chr12:57750441-57750563	NA	0.44	0.008685505951
CDK5RAP2	-1.249065616	1.84E-05	ES	-	chr9:120460571-120460667	NA	-0.271	3.89E-05
			ES	-	chr9:120460571-120460747	NA	-0.404	7.74E-05
CDK7	1.328809493	9.44E-05	ES	+	chr5:69254601-69254669	NA	0.114	0.01973663004
			ES	+	chr5:69254601-69254669	NA	0.131	0.02599262688
CDKL1	1.247930004	0.002650618585	ES	-	chr14:50332261-50332432	NA	0.34	2.97E-05
CENPA	1.254057718	0.000441941453	ES	+	chr2:26792755-26792833	NA	-0.12	5.47E-05
			ES	+	chr2:26792501-26792833	NA	-0.254	0.000514199217
CENPU	-1.734265274	1.29E-05	ES	-	chr4:184700819-184700881	NA	-0.484	0
			MXE	-	chr4:184697646-184697803	chr4:184700819-184700881	-0.15	1.65E-07
CENPV	6.07890014	5.41E-34	A3SS	-	chr17:16348615-16349333	chr17:16348615-16348685	-0.676	2.77E-12
			ES	-	chr17:16349139-16349333	NA	-0.682	5.11E-08
CEP192	1.04466848	0.01026137748	RI	+	chr18:13057584-13059312	NA	-0.287	0
			ES	+	chr18:13058293-13058435	NA	-0.104	1.04E-05
CEP41	-2.976284071	2.58E-19	ES	-	chr7:130400038-130400254	NA	0.189	7.13E-06
CEP57L1	1.105833171	0.02166298656	ES	+	chr6:109106034-109106090	NA	-0.427	0.000731961416

			ES	+	chr6:109155790-109155877	NA		-0.116	0.001692970305
			ES	+	chr6:109145218-109145381	NA		0.161	0.04168586939
CEP70	1.735715871	0.001458130752	A3SS	-	chr3:138572858-138572984	chr3:138572858-138572932		0.362	0.000477228309
CEP72	1.882470845	3.36E-07	ES	+	chr5:665940-666099	NA		-0.538	1.80E-07
CEP85L	-1.700958305	0.02196281938	MXE	-	chr6:118491685-118491865	chr6:118511297-118511415		0.153	0.04132591343
CFAP44	-1.662966401	0.001218901552	ES	-	chr3:113344515-113344712	NA		0.248	0.001534015222
			ES	-	chr3:113409105-113409322	NA		0.236	0.003084990753
			ES	-	chr3:113333405-113333583	NA		0.174	0.02483827348
CHFR	-4.3815182	1.70E-31	ES	-	chr12:132869618-132869834	NA		0.261	0.000138240809
			ES	-	chr12:132869618-132869798	NA		0.231	0.000242143471
			ES	-	chr12:132870723-132870783	NA		0.113	0.009067303247
CHN1	-1.329591775	0.000500387181	ES	-	chr2:174945169-174945261	NA		-0.138	0.009304957146
CHORDC1	1.807189398	0.000898165270	ES	-	chr11:90206747-90206810	NA		-0.12	3.29E-05
CHPF2	-1.997068952	0.001300539951	ES	+	chr7:151236955-151237172	NA		0.137	0.000336201988
CHURC1	-1.999784717	6.11E-05	ES	+	chr14:64926009-64926080	NA		0.109	9.60E-08
CIB1	1.975761493	2.09E-05	MXE	-	chr15:90232218-90232327	chr15:90233668-90233703		0.112	0.01287962329
CIRBP	-1.846245573	0.000636699871	RI	+	chr19:1271980-1274440	NA		-0.142	5.48E-11
			ES	+	chr19:1273493-1273715	NA		-0.369	9.30E-07
			ES	+	chr19:1273600-1273715	NA		-0.456	1.72E-06
			RI	+	chr19:1271980-1273172	NA		0.145	7.01E-05
CITED1	-4.037283125	1.35E-05	ES	-	chrX:72305301-72305422	NA		-0.169	0.00029790281
CIZ1	-1.126964478	0.01685817668	MXE	-	chr9:128187862-128187934	chr9:128190328-128190444		0.137	0.0168551311
CLASP1	-1.87962099	5.14E-07	ES	-	chr2:121409023-121409047	NA		-0.444	9.89E-07
			ES	-	chr2:121445448-121445496	NA		0.3	4.70E-05
CLCN2	-1.577793902	0.00326854886	A3SS	-	chr3:184354547-184354714	chr3:184354547-184354658		-0.555	3.27E-05
CLEC2B	2.653662736	9.42E-07	ES	-	chr12:9862498-9862573	NA		0.149	4.64E-06
CLEC2D	-1.568440398	0.000191776461	ES	+	chr12:9693824-9693948	NA		0.461	5.17E-05
			ES	+	chr12:9693415-9693948	NA		0.21	0.000432013183
			ES	+	chr12:9692827-9693948	NA		0.153	0.000987478066
			ES	+	chr12:9692827-9692931	NA		0.167	0.001097891832
			ES	+	chr12:9693033-9693115	NA		0.395	0.02024804826
CLK1	-1.121236214	0.01885873773	RI	-	chr2:200859679-200861466	NA		-0.38	5.85E-11
CLK4	-1.941223901	3.54E-06	RI	-	chr5:178616881-178618778	NA		-0.481	1.16E-13
			RI	-	chr5:178617343-178618778	NA		-0.336	9.82E-08
			A3SS	-	chr5:178619837-178620673	chr5:178619837-178619896		0.302	4.40E-05
			ES	-	chr5:178619837-178619896	NA		-0.17	0.000432013183
			ES	-	chr5:178619837-178620673	NA		-0.125	0.000805592955
			RI	-	chr5:178616881-178618778	NA		-0.325	0.00639004427
CLN6	-1.011937542	0.04139550145	A5SS	-	chr15:68211555-68211863	chr15:68211674-68211863		0.117	0.0269999003
CNTLN	-1.707947443	0.00709396116	MXE	+	chr9:17273732-17273866	chr9:17298189-17298352		-0.54	6.62E-10
COA1	-1.041327704	0.000316425810	ES	-	chr7:43650611-43650712	NA		0.256	0
			ES	-	chr7:43650492-43650712	NA		0.171	0
			ES	-	chr7:43656032-43656153	NA		-0.166	6.41E-13
			ES	-	chr7:43665657-43665722	NA		-0.299	5.25E-12
			ES	-	chr7:43650611-43650712	NA		0.536	8.02E-12
			MXE	-	chr7:43656032-43656153	chr7:43665657-43665722		0.198	1.72E-06
			ES	-	chr7:43650611-43650712	NA		0.425	1.83E-06
			ES	-	chr7:43665657-43665722	NA		0.29	1.78E-05
			ES	-	chr7:43656032-43656153	NA		-0.194	8.02E-05
			A5SS	-	chr7:43650492-43650712	chr7:43650611-43650712		-0.196	0.007807705261
COL12A1	3.37911517	0.002110433248	ES	-	chr6:75138319-75138340	NA		-0.133	0.006341438047
COL4A3BP	-1.373986406	0.03973000025	ES	-	chr5:75399309-75399387	NA		-0.146	2.38E-05
COMMD3	1.009450084	0.006532714084	RI	+	chr10:22318271-22318713	NA		-0.116	0.000248055687
COX11	-1.49664347	0.000561712389	A3SS	-	chr17:54961118-54962915	chr17:54961118-54961312		0.114	7.79E-06
CPEB2	-2.183944531	0.000149995678	A5SS	+	chr4:15007304-15007595	chr4:15007304-15007586		-0.18	0.000151410115
			ES	+	chr4:15040463-15040487	NA		-0.139	0.002054465018
CPM	-3.507635036	0.001723473239	A5SS	-	chr12:68933141-68933202	chr12:68933159-68933202		-0.432	5.28E-05
			A5SS	-	chr12:68933141-68933199	chr12:68933169-68933199		-0.431	0.01433723906
CPNE3	1.493605788	0.000288857600	ES	+	chr8:86524876-86524997	NA		0.406	4.50E-07
CROCCP2	1.589934001	0.000347377200	ES	-	chr1:16642766-16642850	NA		-0.292	0.0125683966

			MXE	-	chr1:16635026-16635168	chr1:16642766-16642850	-0.24	0.01637989376
			ES	-	chr1:16643027-16643145	NA	-0.19	0.0290614872
CSPP1	1.075755792	0.01232382156	ES	+	chr8:67172768-67172973	NA	0.222	2.44E-07
CTC-308K20.1	4.217809789	3.39E-10	RI	-	chr5:172957153-172958257	NA	-0.484	1.27E-07
CTC1	1.799988321	2.65E-06	RI	-	chr17:8229890-8230468	NA	0.204	0.001464590268
CTD-2341M24.	1.475568801	0.03769661099	ES	+	chr14:86128664-86128773	NA	-0.612	5.70E-05
CUL5	1.13192506	0.003545923711	ES	+	chr11:108104189-108104902	NA	-0.466	0
CYB5R2	4.606681285	7.55E-05	RI	-	chr11:7668477-7672523	NA	-0.382	0.003244746418
DAG1	-1.728892896	0.000233466817	ES	+	chr3:49470964-49471049	NA	0.562	2.12E-05
			ES	+	chr3:49487253-49487415	NA	0.199	0.002308161594
			A5SS	+	chr3:49476848-49476905	chr3:49476848-49476900	0.565	0.008667503029
			MXE	+	chr3:49470964-49471049	chr3:49476848-49476905	0.277	0.03468750359
DCLK2	-2.814230064	0.000336253814	ES	+	chr4:150253473-150253556	NA	0.488	7.92E-10
DDIT3	2.215673428	6.49E-05	RI	-	chr12:57517268-57517753	NA	0.147	0.00342269305
			A3SS	-	chr12:57517268-57517595	chr12:57517268-57517424	0.149	0.0401411959
			RI	-	chr12:57517268-57517753	NA	0.12	0.04122650279
DDR1	-3.42640979	0.001650917708	ES	+	chr6:30885624-30885680	NA	0.447	0.000114666020
			ES	+	chr6:30884537-30884710	NA	0.449	0.000141064512
			ES	+	chr6:30895403-30895514	NA	0.192	0.01899892488
DENND5A	-1.518925004	2.45E-06	ES	-	chr11:9176771-9176902	NA	0.13	3.99E-12
			ES	-	chr11:9143402-9143485	NA	-0.105	0.02294288612
			ES	-	chr11:9142721-9143485	NA	-0.117	0.02602112914
DGUOK	-1.026493349	0.006999614181	ES	+	chr2:73950626-73950732	NA	-0.113	1.12E-08
			MXE	+	chr2:73946718-73946906	chr2:73957124-73957240	0.163	3.19E-05
			ES	+	chr2:73950600-73950732	NA	-0.168	0.000113494923
			MXE	+	chr2:73946718-73946906	chr2:73950584-73950732	0.172	0.000147455171
			MXE	+	chr2:73946718-73946906	chr2:73957124-73957240	0.158	0.000238790189
			MXE	+	chr2:73938909-73939022	chr2:73957124-73957240	0.133	0.00191291694
			ES	+	chr2:73957124-73957240	NA	-0.204	0.002786142805
			ES	+	chr2:73950584-73950732	NA	-0.101	0.007035617093
			MXE	+	chr2:73938909-73939022	chr2:73950584-73950732	0.157	0.00925802358
DHX34	1.266315824	0.003350781558	ES	+	chr19:47376914-47376989	NA	-0.308	0.008437561811
DMTF1	-1.362356312	0.000684214166	ES	+	chr7:87194683-87194828	NA	0.205	4.66E-08
DNAJC4	2.04947275	4.07E-07	ES	+	chr11:64231031-64231147	NA	-0.445	0.03833779699
DNHD1	1.743757735	0.000175070153	RI	+	chr11:6497584-6498961	NA	-0.604	1.49E-08
DNM1	-1.940673073	0.02316430587	MXE	+	chr9:128224250-128224389	chr9:128226034-128226173	-0.438	2.11E-05
			ES	+	chr9:128240986-128241047	NA	-0.22	0.04612861764
DNM3	-2.772483874	0.000743564357	ES	+	chr1:172093695-172093725	NA	-0.149	0.001174848614
DNMT3A	-1.269829176	0.004865294804	ES	-	chr2:25239314-25239513	NA	0.13	0.001496409421
DOCK10	-5.317664304	5.21E-20	A3SS	-	chr2:224805407-224805529	chr2:224805407-224805502	0.187	0.004936945245
DOK1	-1.831450135	0.001437456887	ES	+	chr2:74555893-74556078	NA	0.164	5.43E-05
DOLPP1	-2.518584887	1.15E-06	ES	+	chr9:129086138-129086267	NA	0.101	0.01074850663
DOPEY1	-1.404679516	0.04143512895	MXE	+	chr6:83147235-83147291	chr6:83148758-83148863	-0.179	0.01456348202
DPM2	-1.183995468	0.03880813815	RI	-	chr9:127936552-127937523	NA	0.183	9.37E-07
DUS1L	1.350888534	0.03015202888	RI	-	chr17:82061208-82061721	NA	-0.208	0.002439817932
DYNC2H1	2.176882976	1.49E-10	ES	+	chr11:103287532-103287605	NA	-0.228	1.53E-05
DZANK1	-1.213273265	0.005928809403	A3SS	-	chr20:18412645-18412853	chr20:18412645-18412835	-0.791	1.24E-12
ECHDC2	6.681644148	1.60E-22	ES	-	chr1:52905033-52906611	NA	-0.209	0.000864396411
ECSIT	1.639205203	0.0017216827	ES	-	chr19:11519074-11519193	NA	-0.11	0.001119481664
EFHC1	2.799524328	1.29E-08	A3SS	+	chr6:52454061-52454287	chr6:52454094-52454287	0.24	0.000251187674
			ES	+	chr6:52488556-52488675	NA	-0.223	0.000645485187
			RI	+	chr6:52452687-52454287	NA	0.172	0.006772555752
EIF1AX	-1.34560509	0.004202077406	ES	-	chrX:20132181-20132263	NA	0.231	0.02363008235
EIF3E	2.189769702	6.97E-08	ES	-	chr8:108242111-108242346	NA	-0.195	0.000158041518
EIF4A2	1.027788198	0.01535765521	ES	+	chr3:186784961-186785101	NA	0.29	0
			RI	+	chr3:186784563-186786051	NA	0.153	4.57E-06
			MXE	+	chr3:186784961-186785101	chr3:186786163-186786273	0.108	3.42E-05
			ES	+	chr3:186788309-186788416	NA	-0.195	0.000992879108
			ES	+	chr3:186788309-186788420	NA	-0.222	0.00365172218
ELOVL5	2.212994865	4.89E-07	ES	-	chr6:53273219-53273344	NA	0.12	0

			MXE	-	chr6:53290094-53290189	chr6:53290400-53290535	-0.319	0.000453694653
			MXE	-	chr6:53287861-53287942	chr6:53290094-53290189	0.217	0.000926774312
			ES	-	chr6:53290400-53290535	NA	-0.395	0.003902246943
EMC8	-1.024324004	0.02758436408	ES	-	chr16:85780378-85780473	NA	0.164	1.58E-13
EMILIN2	-9.817925615	1.18E-35	MXE	+	chr18:2884963-2885139	chr18:2890560-2892486	-0.309	9.76E-05
EML1	-2.320998196	0.000182923670	ES	+	chr14:99914565-99914697	NA	0.141	0.01019963675
EMSY	1.149535574	0.001106280874	ES	+	chr11:76535894-76536059	NA	0.231	1.35E-06
ENGASE	1.344762342	0.02455274659	A5SS	+	chr17:79081897-79082877	chr17:79081897-79082063	0.365	1.43E-06
			ES	+	chr17:79083481-79083590	NA	0.201	0.0149867324
ENO3	-1.927766405	0.0259800486	ES	+	chr17:4952024-4952147	NA	0.139	0.00490899262
ENTPD1	-5.669436679	1.28E-06	ES	+	chr10:95842343-95842494	NA	0.413	0.000150335610
ENTPD6	1.140937453	0.006258935377	ES	+	chr20:25207075-25207397	NA	0.27	1.31E-05
			ES	+	chr20:25207078-25207397	NA	0.274	1.54E-05
			ES	+	chr20:25221231-25221333	NA	-0.148	0.000203737327
EOGT	2.54815863	4.75E-13	RI	-	chr3:68988505-68989017	NA	-0.162	0.04266975874
EPS8L2	3.084997859	2.89E-05	RI	+	chr11:709552-710486	NA	-0.571	1.48E-06
ERCC3	-1.077530913	0.000362829510	RI	-	chr2:127289336-127289824	NA	0.142	8.44E-05
ESYT2	1.269970749	1.59E-06	MXE	-	chr7:158748193-158748280	chr7:158749648-158749723	0.142	0
			ES	-	chr7:158752780-158752843	NA	0.166	0
			MXE	-	chr7:158737047-158737179	chr7:158739022-158739121	0.124	0.000613981788
			ES	-	chr7:158752780-158752843	NA	0.346	0.001829980388
ETNK2	1.587366752	9.65E-07	ES	-	chr1:204134514-204134694	NA	-0.161	0.03472346189
ETV1	-2.039385166	1.60E-07	ES	-	chr7:13989267-13989464	NA	0.291	9.08E-05
EVI5	-1.39108446	0.004666592538	ES	-	chr1:92663419-92663452	NA	-0.515	0.000226627216
EZH2	-1.393782233	5.05E-05	ES	-	chr7:148836821-148837000	NA	0.269	0.000373023368
FADS3	2.588280271	2.88E-09	RI	-	chr11:61876358-61876963	NA	0.185	0.009886221094
FAM107B	-2.376139257	0.000771160333	ES	-	chr10:14553321-14553387	NA	-0.202	0.01165258035
FAM111A	1.434909359	9.61E-05	A3SS	+	chr11:59148703-59148953	chr11:59148835-59148953	0.327	0.000441187003
			A3SS	+	chr11:59148796-59148953	chr11:59148835-59148953	0.215	0.003383676778
FAM120C	-3.415820507	1.51E-11	ES	-	chrX:54087754-54087964	NA	0.163	0.002895587267
			ES	-	chrX:54085714-54085916	NA	0.142	0.005509184309
FAM13B	-1.149549599	0.001024926722	ES	-	chr5:138018954-138019146	NA	-0.522	3.97E-08
			ES	-	chr5:137946227-137946311	NA	-0.339	3.76E-05
			ES	-	chr5:137956476-137956542	NA	-0.265	0.002442117802
FAM175A	1.108223786	0.0158683899	ES	-	chr4:83470202-83470396	NA	0.107	0.03069639954
FAM189B	1.18974639	0.01094929775	ES	-	chr1:155250275-155250929	NA	-0.18	0.001414702212
			ES	-	chr1:155250275-155250821	NA	-0.133	0.004324272947
			ES	-	chr1:155251094-155251164	NA	0.295	0.005179405283
			ES	-	chr1:155253858-155253978	NA	-0.24	0.008470168692
FAM208A	1.166974884	0.0186427278	A3SS	-	chr3:56633043-56633966	chr3:56633043-56633843	-0.155	2.29E-06
			A3SS	-	chr3:56633043-56633966	chr3:56633043-56633843	-0.224	4.33E-06
			ES	-	chr3:56638705-56638765	NA	-0.106	0.000113089307
FAM210A	2.304700909	0.000283937542	ES	-	chr18:13671861-13671973	NA	0.142	0.000175916401
FAM3A	1.15564421	0.01331123808	MXE	-	chrX:154511847-154511871	chrX:154512822-154512936	-0.138	0.000112173190
			RI	-	chrX:154515759-154516242	NA	-0.192	0.00491760265
FAM49B	1.891508876	0.002892038074	MXE	-	chr8:129904498-129904585	chr8:129970942-129970995	0.151	0.001100968158
			ES	-	chr8:129904498-129904585	NA	-0.157	0.006151912774
			MXE	-	chr8:129879596-129879789	chr8:129896748-129896854	0.146	0.01128144421
FAM66C	-1.945290987	3.52E-05	ES	+	chr12:8195276-8195412	NA	0.396	0.02043424899
			ES	+	chr12:8187731-8188225	NA	-0.229	0.03557962837
FAM86B3P	1.958737718	7.41E-05	ES	+	chr8:8234482-8234584	NA	0.64	0.01525821969
FAM86C1	1.275477784	0.02080754254	MXE	+	chr11:71791738-71791819	chr11:71793379-71793481	-0.395	0.00664473448
			MXE	+	chr11:71791735-71791819	chr11:71793379-71793481	-0.231	0.01960597291
FAXDC2	-8.26761745	6.82E-33	A5SS	-	chr5:154823307-154823592	chr5:154823386-154823592	0.969	1.44E-12
FBXL2	1.808411585	0.01647970542	MXE	+	chr3:33297868-33297962	chr3:33364624-33364719	0.214	0.001031064798
			ES	+	chr3:33297868-33297962	NA	0.342	0.002142500663
			MXE	+	chr3:33297868-33297962	chr3:33359282-33359357	0.262	0.01098908084
FBXO24	1.407262694	0.03379967997	ES	+	chr7:100595101-100595223	NA	-0.414	6.11E-06
FCHSD1	2.542522501	5.64E-10	A3SS	-	chr5:141644858-141644942	chr5:141644858-141644938	-0.113	0.003195651006
FEZ2	1.606738363	0.003314191503	MXE	-	chr2:36555682-36555748	chr2:36558437-36558513	0.176	0

				MXE	-	chr2:36558437-36558513	chr2:36560784-36560865	0.131	0
				ES	-	chr2:36560784-36560865	NA	0.225	0
				ES	-	chr2:36560784-36560865	NA	-0.201	0.000209617447
				MXE	-	chr2:36555682-36555748	chr2:36558437-36558513	-0.108	0.003486529079
				ES	-	chr2:36560784-36560865	NA	0.386	0.006549900596
FGFR2	-1.679881674	0.0404314925		ES	-	chr10:121565636-121565704	NA	-0.539	0.008407926613
				ES	-	chr10:121565437-121565704	NA	-0.411	0.01160808791
FHL2	3.387355058	7.06E-05		ES	-	chr2:105396646-105396697	NA	-0.659	1.87E-07
				ES	-	chr2:105396646-105396697	NA	-0.59	0.02228946003
FIS1	-1.122048494	0.01266671626		ES	-	chr7:101244006-101244139	NA	0.152	0
FNIP2	-1.346893651	0.01328457477		ES	+	chr4:158833800-158833890	NA	-0.447	0.000114599384
FNTB	-1.997061983	1.60E-06		ES	+	chr14:65032358-65032521	NA	0.679	5.36E-09
FRG1BP	2.113799438	0.001486390724		ES	+	chr20:30391196-30391308	NA	0.796	0
FRG1CP	5.838530862	2.66E-23		MXE	-	chr20:28588642-28588757	chr20:28591393-28591519	-0.364	6.65E-05
FUS	-1.199979067	0.001206886185		RI	+	chr16:31184938-31188357	NA	-0.141	6.33E-13
FUZ	-5.489171703	6.01E-24		A5SS	-	chr19:49812446-49812736	chr19:49812614-49812736	0.806	1.10E-09
				A5SS	-	chr19:49812446-49812736	chr19:49812637-49812736	0.508	1.43E-06
				A5SS	-	chr19:49812614-49812736	chr19:49812637-49812736	0.214	0.000503434802
				ES	-	chr19:49812446-49812685	NA	0.212	0.001680905192
				ES	-	chr19:49812446-49812736	NA	0.142	0.001793405002
				MXE	-	chr19:49812250-49812335	chr19:49812446-49812736	0.511	0.006041335787
				A3SS	-	chr19:49811362-49811491	chr19:49811362-49811467	0.594	0.03982276621
FYN	-2.80300083	3.86E-21		MXE	-	chr6:111699514-111699670	chr6:111700103-111700268	-0.349	0
				MXE	-	chr6:111696276-111696456	chr6:111700103-111700268	-0.155	1.01E-06
				ES	-	chr6:111846588-111846629	NA	0.25	1.07E-06
GAA	1.240166167	0.0264254815		ES	+	chr17:80101810-80101890	NA	-0.367	8.37E-06
				A5SS	+	chr17:80101810-80101925	chr17:80101810-80101890	0.217	0.000394146704
GAB1	-3.007152327	1.63E-17		ES	+	chr4:143457679-143457769	NA	0.485	1.31E-05
GALNT7	-1.317781676	0.001760688009		MXE	+	chr4:173297794-173297977	chr4:173298114-173298297	-0.185	0.000488484178
				MXE	+	chr4:173297794-173297977	chr4:173298114-173298297	-0.152	0.008807758448
GAS5	1.714774757	0.001737349134		MXE	-	chr1:173865470-173865547	chr1:173865856-173865894	-0.266	0
				MXE	-	chr1:173865856-173865894	chr1:173866527-173866796	0.254	0
				MXE	-	chr1:173865856-173865894	chr1:173866176-173866206	0.232	0
				RI	-	chr1:173864256-173865282	NA	0.15	0
				MXE	-	chr1:173865509-173865547	chr1:173866176-173866206	0.233	0
				RI	-	chr1:173865228-173865547	NA	0.436	0
				A5SS	-	chr1:173865470-173865547	chr1:173865509-173865547	0.477	0
				MXE	-	chr1:173864674-173864704	chr1:173865228-173865282	-0.224	0
				MXE	-	chr1:173865509-173865547	chr1:173865856-173866206	0.274	0
				MXE	-	chr1:173864483-173864506	chr1:173865228-173865282	-0.124	6.96E-12
				MXE	-	chr1:173865509-173865547	chr1:173865856-173865894	0.154	2.88E-11
				MXE	-	chr1:173864674-173864704	chr1:173865228-173865282	0.206	5.01E-11
				RI	-	chr1:173864483-173864704	NA	0.206	4.03E-10
				MXE	-	chr1:173865470-173865547	chr1:173866176-173866206	-0.232	1.87E-09
				RI	-	chr1:173864256-173864506	NA	0.171	1.09E-08
				MXE	-	chr1:173865856-173865894	chr1:173866760-173866796	0.229	1.36E-07
				MXE	-	chr1:173865228-173865282	chr1:173865470-173865547	0.121	1.59E-05
				MXE	-	chr1:173865228-173865547	chr1:173866176-173866206	-0.198	2.31E-05
				MXE	-	chr1:173865509-173865547	chr1:173866527-173866567	0.214	6.74E-05
				MXE	-	chr1:173865470-173865547	chr1:173866527-173866567	-0.194	8.27E-05
				MXE	-	chr1:173865856-173865894	chr1:173866527-173866567	0.25	0.000377180693
				ES	-	chr1:173864674-173864704	NA	-0.223	0.000528708466
				MXE	-	chr1:173866760-173866796	chr1:173866990-173867043	-0.166	0.008854126289
GLS	-1.265784768	0.006881038643		ES	+	chr2:190913192-190913364	NA	-0.119	2.51E-07
				ES	+	chr2:190920214-190920248	NA	-0.395	0.000238932773
				MXE	+	chr2:190913192-190913364	chr2:190920214-190920248	0.17	0.000383469829
				ES	+	chr2:190913192-190913364	NA	0.115	0.001084209801
GMIP	1.243604304	0.03907621375		ES	-	chr19:19634506-19634703	NA	0.187	0.02076062402
GNRHR2	1.733210137	0.007101758843		RI	+	chr1:145919343-145919900	NA	-0.257	0.002073595908
GOLGA2	-2.170339054	3.30E-06		RI	-	chr9:128262562-128263092	NA	0.313	2.48E-07

			ES	-	chr9:128272784-128272865	NA		-0.197	0.04068278322
GOLT1B	1.587493058	0.000115319109	ES	+	chr12:21508382-21508561	NA		-0.101	6.35E-09
			ES	+	chr12:21507943-21508109	NA		-0.315	5.26E-07
GPBP1	-1.335598319	0.004324841391	ES	+	chr5:57237112-57237172	NA		-0.19	1.14E-08
GPCPD1	-2.600260486	2.66E-09	ES	-	chr20:5586193-5586269	NA		-0.46	0.003724555554
GPM6A	-4.887951774	9.76E-15	ES	-	chr4:175812190-175812249	NA		-0.649	2.67E-10
GPR155	-3.944168043	2.57E-07	ES	-	chr2:174482872-174482918	NA		-0.246	8.71E-05
			ES	-	chr2:174482872-174482918	NA		-0.231	0.000149459279
GPR157	1.555173699	0.01091927609	ES	-	chr1:9105485-9105680	NA		-0.412	0.00512657653
GPR158	-2.873095031	4.71E-17	MXE	+	chr10:25412249-25412473	chr10:25466650-25466719		-0.612	4.45E-12
GRB10	-3.972812942	1.02E-10	ES	-	chr7:50732271-50732368	NA		0.158	0.002538626055
			ES	-	chr7:50710874-50710990	NA		0.197	0.00375709255
			MXE	-	chr7:50732271-50732368	chr7:50755886-50756056		0.133	0.003775870552
			MXE	-	chr7:50710874-50710990	chr7:50755886-50756056		0.18	0.03407818423
GTF2IP1	-3.267517506	9.27E-11	ES	-	chr7:75202541-75202613	NA		0.111	0.0239620042
GULP1	-2.526194695	1.91E-09	ES	+	chr2:188584264-188584403	NA		-0.787	0
HACL1	1.526402891	0.00422753797	ES	-	chr3:15574976-15575082	NA		0.111	0.000315974689
HAUS4	1.0448497	0.01855474263	A5SS	-	chr14:22956745-22957094	chr14:22956915-22957094		0.171	0.03020364092
HCFC1R1	2.47347224	7.42E-07	ES	-	chr16:3023473-3023530	NA		-0.28	0.007123014945
HDLBP	-1.473395602	1.15E-05	ES	-	chr2:241269360-241269561	NA		0.129	2.19E-07
			A5SS	-	chr2:241269200-241269295	chr2:241269205-241269295		0.332	0.02387795607
			RI	-	chr2:241268953-241269295	NA		-0.137	0.04657411543
HECTD4	-1.04526215	0.003863815683	A5SS	-	chr12:112264083-112264212	chr12:112264089-11226421		0.156	0.04804249068
HIVEP2	2.651215167	2.24E-05	ES	-	chr6:142769551-142775125	NA		-0.156	0.000781848142
HJURP	1.609170662	1.92E-09	MXE	-	chr2:233844204-233844283	chr2:233849762-233849859		0.145	0.000382262424
			MXE	-	chr2:233845727-233845820	chr2:233847396-233847461		0.167	0.000982592194
HKR1	-1.432214895	0.001068682443	ES	+	chr19:37344609-37344774	NA		0.782	7.85E-07
			ES	+	chr19:37346887-37347052	NA		0.712	1.03E-06
			ES	+	chr19:37322184-37322232	NA		-0.262	0.001068047104
HLA-C	2.254181172	7.31E-07	MXE	-	chr6:31270209-31270485	chr6:31271072-31271331		0.117	5.70E-06
HLA-F	3.785726115	1.74E-15	RI	+	chr6:29726010-29726526	NA		0.379	0.000124961378
HLA-L	2.063913934	8.15E-05	ES	+	chr6:30262294-30262342	NA		-0.674	0.000182498683
HMG20B	1.561510133	0.000963527543	MXE	+	chr19:3575539-3575660	chr19:3576260-3576307		0.118	0.001067898129
HMGCS1	1.801653223	0.000539220527	ES	-	chr5:43307765-43307824	NA		-0.166	5.14E-13
HNRNPA2B1	-1.125577478	0.000740757125	ES	-	chr7:26190992-26191128	NA		-0.402	0
HSD11B1L	-1.169662346	0.04341275038	MXE	+	chr19:5684818-5684905	chr19:5684964-5685119		-0.557	0.007513422672
			MXE	+	chr19:5684818-5684905	chr19:5684964-5685119		-0.541	0.01372157933
HYI	4.717152425	4.55E-29	ES	-	chr1:43452902-43453004	NA		-0.24	0.02445759739
HYKK	2.240949091	0.01387365106	ES	+	chr15:78513083-78513425	NA		-0.122	0.01097352416
ICA1	1.844884327	0.001320099891	ES	-	chr7:8138984-8139047	NA		-0.216	5.39E-06
IFI27L1	-2.498331197	3.69E-07	ES	+	chr14:94097494-94097678	NA		0.265	0.006289332786
			ES	+	chr14:94097491-94097678	NA		0.249	0.007405164285
			MXE	+	chr14:94100738-94100771	chr14:94101813-94102059		-0.137	0.02602007324
IFRD1	-1.452438355	5.21E-05	MXE	+	chr7:112450507-112450782	chr7:112455762-112455867		0.193	0.000362523698
IFT88	-1.256084782	0.001525613517	MXE	+	chr13:20625749-20625849	chr13:20631015-20631102		0.315	2.93E-06
			ES	+	chr13:20663262-20663386	NA		-0.116	2.64E-05
			ES	+	chr13:20615792-20615879	NA		-0.231	0.000290026541
			ES	+	chr13:20631015-20631102	NA		-0.152	0.002607315509
			ES	+	chr13:20589810-20589867	NA		-0.139	0.02953166679
IGSF8	1.164869832	0.03614910135	A3SS	-	chr1:160091339-160091631	chr1:160091339-160091608		0.108	0.01220499947
IMPA2	1.554706474	0.000466620719	A5SS	+	chr18:12012169-12012349	chr18:12012169-12012215		-0.136	0.02239688901
ING4	-1.682920315	0.001655799854	ES	-	chr12:6655637-6655913	NA		0.405	0.001631986303
			RI	-	chr12:6652270-6652770	NA		0.184	0.001649350636
			RI	-	chr12:6652661-6653050	NA		0.142	0.004201701249
INIP	-1.00002656	0.002136516719	ES	-	chr9:112701787-112701880	NA		0.115	0.000135175814
			ES	-	chr9:112689526-112689617	NA		-0.193	0.000853548371
INO80C	2.350599073	7.35E-10	A3SS	-	chr18:35487385-35487823	chr18:35487385-35487439		0.679	3.18E-10
INTS3	1.059356499	0.000222119608	ES	+	chr1:153761019-153761109	NA		0.275	0
			ES	+	chr1:153753700-153753818	NA		-0.218	0.01176581464
INTS4	1.03261393	0.000588957399	ES	-	chr11:77910969-77911152	NA		0.154	0.000923038976

IQCK	-1.413293854	0.002214891262	MXE	+	chr16:19735352-19735450	chr16:19788837-19788922	-0.216	0.04786024144
ISG20	3.006849006	0.001931643352	A3SS	+	chr15:88650234-88652310	chr15:88652169-88652310	-0.128	0.004538961798
			A3SS	+	chr15:88650234-88652310	chr15:88652109-88652310	-0.225	0.0436367351
ISYNA1	1.59172281	0.01311051218	MXE	-	chr19:18436972-18437105	chr19:18437598-18437760	-0.472	3.96E-05
			ES	-	chr19:18437598-18437760	NA	-0.257	0.01175358981
ITPRIPL1	-1.43474733	0.000239711901	ES	+	chr2:96325746-96325849	NA	0.45	4.21E-05
JAM2	-3.00487969	0.01743735981	ES	+	chr21:25711366-25711568	NA	0.238	0
JMJD1C	-1.082624334	0.006579413059	ES	-	chr10:63215552-63215617	NA	-0.149	0.000182600247
			ES	-	chr10:63215552-63215696	NA	-0.103	0.000344036754
KANK1	-3.055429556	6.04E-06	A3SS	+	chr9:732377-734835	chr9:734747-734835	0.169	0.000542092763
KANK2	-1.675140318	0.002861384131	ES	-	chr19:11196049-11196227	NA	0.329	0.00167889463
KANSL2	-1.278645852	9.00E-06	RI	-	chr12:48681381-48682225	NA	-0.201	4.32E-05
			ES	-	chr12:48679035-48679150	NA	0.132	0.000684907752
			ES	-	chr12:48679035-48679238	NA	0.226	0.005663637832
KATNAL1	3.923730963	2.47E-29	ES	-	chr13:30255446-30255615	NA	0.107	0.000264591864
KATNAL2	-3.382314823	1.36E-07	ES	+	chr18:47046390-47046527	NA	0.121	0.01677792067
KCNAB3	-3.517345913	6.77E-08	RI	-	chr17:7923967-7924265	NA	-0.341	0.002842735607
			ES	-	chr17:7925096-7925183	NA	0.145	0.003016887814
KIAA1429	1.24880511	0.000462955549	MXE	-	chr8:94530962-94531085	chr8:94534838-94535007	0.112	0.02615574639
KIAA1551	1.587805706	0.000226575924	ES	+	chr12:31987238-31987322	NA	-0.143	0.000575324216
			ES	+	chr12:31970188-31970356	NA	-0.106	0.002983483307
			MXE	+	chr12:31960776-31960871	chr12:31980877-31985957	0.111	0.01001908489
KIF21A	-1.865969966	0.00651053706	ES	-	chr12:39330241-39330262	NA	-0.766	0
			A5SS	-	chr12:39321347-39322882	chr12:39322667-39322882	-0.441	0
			ES	-	chr12:39318072-39318201	NA	0.303	2.13E-08
			ES	-	chr12:39318072-39318201	NA	0.269	2.19E-06
			MXE	-	chr12:39315931-39315970	chr12:39318072-39318201	0.172	2.61E-06
			ES	-	chr12:39315931-39315970	NA	-0.222	7.86E-05
			MXE	-	chr12:39311414-39311553	chr12:39319905-39320013	-0.432	0.002295330497
KIF2A	-1.442609524	0.002363777415	A5SS	+	chr5:62352587-62352710	chr5:62352587-62352653	0.164	0.004282582856
KLC1	-1.135311744	0.01962575376	A5SS	+	chr14:103679383-103679545	chr14:103679383-10367951	-0.222	0.002423306488
			ES	+	chr14:103692358-103692425	NA	-0.228	0.003905473379
			ES	+	chr14:103684985-103685036	NA	0.248	0.01272844939
			A5SS	+	chr14:103679383-103679545	chr14:103679383-10367951	-0.171	0.02000464033
KLHDC1	-1.635443325	0.0484250351	MXE	+	chr14:49725685-49725769	chr14:49728925-49729009	0.409	0.001455592303
			ES	+	chr14:49728925-49729009	NA	-0.363	0.04492330258
KLHL24	-1.345531734	0.009388624109	ES	+	chr3:183636220-183636311	NA	-0.354	7.54E-08
			ES	+	chr3:183636220-183636311	NA	-0.322	0.000150335610
KLHL7	-1.719891504	4.28E-06	ES	+	chr7:23117833-23117964	NA	0.334	0.002563569625
KMT2C	-1.997615406	1.89E-07	A3SS	-	chr7:152156204-152156346	chr7:152156204-152156274	0.104	0.001747876875
KMT2E	-1.203849336	0.004965091321	ES	+	chr7:105110476-105110602	NA	0.199	3.54E-09
KRIT1	-1.068110366	0.003123809116	RI	-	chr7:92235402-92236542	NA	-0.14	9.18E-06
			ES	-	chr7:92244001-92244149	NA	0.288	1.62E-05
			MXE	-	chr7:92235402-92236542	chr7:92237666-92237759	0.128	0.006841950359
KRTCAP2	1.029343212	0.01280530371	MXE	-	chr1:155169790-155169857	chr1:155172564-155172892	0.12	6.32E-05
L3HYPDH	-1.752081738	0.009658583907	ES	-	chr14:59474438-59474526	NA	0.268	0.006032195647
			ES	-	chr14:59474438-59474526	NA	0.206	0.01072927059
L3MBTL3	1.434549104	0.006471405453	ES	+	chr6:130049650-130049830	NA	0.114	0.03879465813
LAS1L	1.782298979	3.15E-05	A5SS	-	chrX:65520701-65523707	chrX:65523559-65523707	-0.247	0
			MXE	-	chrX:65524055-65524262	chrX:65524563-65524614	-0.225	3.21E-08
			ES	-	chrX:65528259-65528369	NA	0.125	2.61E-07
			ES	-	chrX:65524563-65524614	NA	-0.365	2.58E-06
LCA5L	-1.622065567	0.02252697764	ES	-	chr21:39427758-39427905	NA	0.462	0.001839490346
			ES	-	chr21:39428171-39428503	NA	0.499	0.0264779633
LDLR	1.241552419	0.01911814173	MXE	+	chr19:11123173-11123344	chr19:11128007-11128085	0.134	0.008448894889
LETM2	1.639964307	0.006151047724	ES	+	chr8:38406945-38407038	NA	-0.437	1.41E-06
LIG4	-1.759531589	0.000706942462	ES	-	chr13:108214537-108214807	NA	0.237	7.32E-05
			ES	-	chr13:108214537-108214610	NA	0.167	0.000500771164
LINC00910	4.052061325	4.78E-14	ES	-	chr17:43387935-43388057	NA	0.294	2.51E-05
LINC01001	2.271547507	0.006862132394	ES	-	chr11:134563-134796	NA	0.533	0.01082847443

LINC01021	1.95564405	0.0116975285	ES	+	chr5:27477638-27477801	NA	-0.121	0.03820251916
LINC01778	-2.722293474	0.006404109579	MXE	+	chr1:30826554-30826652	chr1:30829747-30829882	-0.203	0.04357236015
LINC02210	1.019602373	0.03303933055	ES	+	chr17:45640388-45640455	NA	0.754	3.26E-07
LMAN2L	-1.398350486	0.004470000054	ES	-	chr2:96737136-96737217	NA	0.169	1.72E-06
LMNA	1.117541231	0.0454063878	RI	+	chr1:156137653-156138757	NA	-0.152	0.001867343234
LPCAT4	1.318391558	0.000325661230	ES	-	chr15:34361399-34361532	NA	0.164	0.000190521206
LPIN1	2.365586945	3.53E-09	ES	+	chr2:11776085-11776193	NA	0.162	0.000381103110
LRP2BP	-1.857891393	0.03534109477	ES	-	chr4:185378080-185378207	NA	0.311	0.01178140079
LRRC37B	-1.151313638	0.006355494958	ES	+	chr17:32045699-32045818	NA	0.181	0.000129012653
LRRC75B	-2.286462868	0.002054883078	ES	-	chr22:24588678-24589265	NA	-0.438	0.000475420331
			A3SS	-	chr22:24588213-24589393	chr22:24588213-24588329	-0.394	0.000962875699
LRRFIP1	1.871229807	5.98E-05	ES	+	chr2:237751199-237751271	NA	-0.265	0
LRRK2	-3.487581527	2.69E-15	ES	+	chr12:40313971-40314173	NA	0.211	0.000176395956
LTBP4	1.425418433	0.0250517973	ES	+	chr19:40622949-40623021	NA	-0.229	4.13E-11
			ES	+	chr19:40622949-40623021	NA	-0.236	1.52E-05
			ES	+	chr19:40617099-40617225	NA	0.159	0.005927429303
			ES	+	chr19:40616888-40617042	NA	0.21	0.03749535962
LUC7L2	-1.977428472	2.21E-11	ES	+	chr7:139375508-139375583	NA	-0.459	0.003536476151
MAGED2	-1.077604338	0.04959084528	RI	+	chrX:54815247-54816007	NA	0.171	3.60E-08
MAGI1	-1.938859083	0.002418317121	ES	-	chr3:65387142-65387226	NA	-0.5	4.47E-07
MAP4K4	-1.042399508	0.01087233698	MXE	+	chr2:101860824-101860986	chr2:101863820-101864051	0.393	0
			ES	+	chr2:101868028-101868037	NA	-0.441	0
			ES	+	chr2:101860824-101860986	NA	0.35	1.98E-11
			ES	+	chr2:101863820-101864051	NA	-0.319	2.64E-09
			ES	+	chr2:101871493-101871685	NA	0.161	7.79E-08
			A5SS	+	chr2:101887087-101887261	chr2:101887087-101887237	-0.102	2.13E-07
			ES	+	chr2:101860824-101860986	NA	0.384	6.13E-05
MAP7D1	-1.084772101	0.01396760647	ES	+	chr1:36174897-36175008	NA	-0.155	0.001511022672
MAPT	-1.08660315	0.004757739311	MXE	+	chr17:45971858-45971945	chr17:45978374-45978440	0.149	0.000529692575
			ES	+	chr17:45971858-45971945	NA	0.225	0.001677676425
MBD1	-1.128847187	0.009399627428	ES	-	chr18:50271468-50271540	NA	-0.415	0.000907332278
			ES	-	chr18:50273333-50273471	NA	0.124	0.009485303594
			ES	-	chr18:50273333-50273426	NA	0.161	0.01539580262
MBTD1	-1.252823664	0.000571616756	ES	-	chr17:51202021-51202077	NA	-0.178	0.008345359488
			ES	-	chr17:51193427-51193510	NA	-0.119	0.01245768692
MCOLN3	3.478039877	0.006921858627	ES	-	chr1:85036709-85036868	NA	0.648	3.05E-06
MCRIP2	1.157305055	0.03284819752	ES	+	chr16:646471-646608	NA	-0.358	0.003349315801
MEIS3	-1.979511956	0.02331342304	ES	-	chr19:47415050-47415101	NA	0.259	0.02092964191
MELTF	3.497884867	1.83E-12	MXE	-	chr3:197021403-197021471	chr3:197022956-197023113	-0.268	0.02020366208
METTL2B	-1.168119304	6.18E-05	ES	+	chr7:128477081-128477173	NA	0.255	4.97E-11
METTL4	1.536763995	1.67E-05	ES	-	chr18:2544652-2544759	NA	-0.245	4.20E-07
			ES	-	chr18:2544194-2544286	NA	-0.201	1.41E-06
			ES	-	chr18:2547354-2547529	NA	0.114	0.01235782639
MFSD10	1.631706667	0.01571849455	RI	-	chr4:2931374-2931936	NA	0.328	5.32E-07
			ES	-	chr4:2931554-2931663	NA	0.108	0.000747529734
MGAT5	-1.713395288	0.003319575422	ES	+	chr2:134253094-134253218	NA	0.373	0.01190796755
MGRN1	-1.610982278	0.002998999055	A3SS	+	chr16:4686258-4690974	chr16:4688795-4690974	-0.593	3.75E-10
			ES	+	chr16:4686258-4686303	NA	-0.582	1.44E-07
MICAL2	3.586544564	1.11E-12	ES	+	chr11:12249183-12249246	NA	0.136	0.02165860992
MIIP	1.563275249	0.004499888838	RI	+	chr1:12029222-12030124	NA	-0.328	0.008465546508
MINDY3	-1.208613357	0.007328234251	ES	-	chr10:15838227-15838279	NA	-0.52	2.85E-13
			ES	-	chr10:15816834-15816915	NA	0.114	0.03671992905
MIR99AHG	-3.934916524	1.08E-11	ES	+	chr21:16537378-16537439	NA	0.119	0.003127023316
MLF1	1.891544441	0.003629853842	ES	+	chr3:158588851-158588924	NA	-0.118	8.38E-08
			ES	+	chr3:158588851-158588924	NA	-0.16	3.81E-05
MRM2	-1.239198402	0.002862619913	ES	-	chr7:2238014-2238937	NA	-0.164	0.008753276415
MROH8	-1.737143816	0.01520324938	ES	-	chr20:37155062-37155167	NA	0.609	0.001277328111
MSI2	-2.047638975	1.02E-09	A3SS	+	chr17:57674917-57675126	chr17:57674971-57675126	-0.372	0.009154824571
MSRA	-2.529747678	2.81E-05	MXE	+	chr8:10207832-10207901	chr8:10245103-10245223	-0.15	2.77E-06
			MXE	+	chr8:10207832-10207901	chr8:10245103-10245223	-0.14	5.58E-06

MSRB3	2.358771729	6.61E-06	MXE	+	chr12:65308528-65308655	chr12:65326825-65326934	0.241	0.0416374328
MTMR11	3.003439045	8.69E-14	RI	-	chr1:149930364-149930965	NA	-0.421	0.000164408632
			ES	-	chr1:149931259-149931426	NA	-0.184	0.0223742272
MTMR9LP	-2.237656843	0.001420092965	ES	-	chr1:32234035-32234301	NA	0.18	0.04339536956
MTSS1L	-1.986879617	0.000287594815	ES	-	chr16:70665465-70665540	NA	-0.25	0.001167925376
MTTP	-5.89335954	4.46E-09	ES	+	chr4:99574808-99574970	NA	-0.745	3.17E-09
MTX1	1.439471995	0.000275591300	ES	+	chr1:155212126-155212219	NA	-0.196	0
			A5SS	+	chr1:155210547-155212219	chr1:155210547-155210627	-0.6	0
			RI	+	chr1:155210547-155212219	NA	-0.118	0.000173568272
MUTYH	-1.087860648	0.007820749729	ES	-	chr1:45332917-45332959	NA	0.303	0.01134847022
			RI	-	chr1:45332762-45333324	NA	0.151	0.01473339108
			A5SS	-	chr1:45332917-45333324	chr1:45333284-45333324	0.149	0.03557564081
MVD	1.930819022	0.001183642154	ES	-	chr16:88657145-88657247	NA	-0.523	0.000142670014
			A3SS	-	chr16:88656104-88656561	chr16:88656104-88656304	-0.376	0.01930354929
MYCBP2	-1.320982412	0.0258168125	ES	-	chr13:77103208-77103310	NA	-0.138	0.007740262278
MYEF2	-2.082989992	1.84E-06	ES	-	chr15:48151099-48151171	NA	0.243	2.46E-08
			MXE	-	chr15:48151472-48151571	chr15:48151873-48151942	0.163	0.001055792768
MYLK	1.500267615	0.02198623706	ES	-	chr3:123732895-123733102	NA	-0.244	0.000111282462
MYO15B	2.216823759	0.002319364735	RI	+	chr17:75590906-75591246	NA	-0.606	0.000440194364
MYO18A	-1.18297083	0.006777988076	ES	-	chr17:29085603-29085648	NA	-0.652	0
MYO5A	-1.8759313	0.0457881529	ES	-	chr15:52337809-52337884	NA	-0.362	0
N4BP2	-1.350727574	0.003290573016	MXE	+	chr4:40097226-40097569	chr4:40100035-40100126	0.26	0.01590946898
			ES	+	chr4:40100035-40100126	NA	-0.335	0.03898426062
N6AMT1	-1.464241785	6.41E-05	RI	-	chr21:28872190-28876491	NA	-0.205	0.01873364361
NAA16	-1.696138497	6.02E-08	ES	+	chr13:41336649-41336756	NA	0.191	0.000130332972
			ES	+	chr13:41336649-41336756	NA	0.165	0.005376307953
			ES	+	chr13:41355143-41355216	NA	0.106	0.009473724616
NAA60	-1.877030786	2.83E-05	A5SS	+	chr16:3484698-3485083	chr16:3484698-3485061	-0.189	0.000245554480
NAGLU	-1.421840041	0.0197509011	ES	+	chr17:42537397-42537545	NA	-0.267	0.002270954097
NAGS	4.321507059	4.13E-10	RI	+	chr17:44006528-44007494	NA	-0.583	2.47E-09
NAP1L1	1.336960592	0.000189389238	ES	-	chr12:76074202-76074239	NA	-0.129	1.61E-08
NAPEPLD	-2.582972854	0.000551482601	RI	-	chr7:103099775-103103554	NA	-0.376	0.002761239845
NARFL	1.394658197	0.000522081231	ES	-	chr16:740021-740103	NA	0.156	6.49E-08
NASP	-1.200291752	0.002166809433	ES	+	chr1:45607320-45608337	NA	-0.258	0.01542938513
			MXE	+	chr1:45594693-45594773	chr1:45600384-45600457	0.277	0.03478906968
NBPF26	2.644124877	8.36E-08	MXE	+	chr1:120834494-120834546	chr1:120836516-120836568	0.438	0.03649123668
NBPF8	2.38466	8.48E-09	MXE	+	chr1:120447093-120447166	chr1:120447629-120447841	0.575	1.47E-06
			ES	+	chr1:120447093-120447166	NA	0.448	4.38E-05
NDE1	-1.00806691	0.04055652833	MXE	+	chr16:15687374-15687511	chr16:15691143-15691323	-0.145	9.27E-05
			MXE	+	chr16:15651468-15651584	chr16:15651930-15652050	-0.124	0.03549421484
NDUFB2	-1.281500233	0.001782880306	ES	+	chr7:140700869-140700959	NA	0.623	7.31E-06
			ES	+	chr7:140700869-140700959	NA	0.561	1.31E-05
NDUFC1	1.149202519	0.00308601753	ES	-	chr4:139297384-139297443	NA	-0.122	0.02506932821
NDUFS8	1.679540398	0.006992665117	ES	+	chr11:68035627-68035788	NA	-0.114	1.32E-06
NEK8	1.273202264	0.008633506123	RI	+	chr17:28737305-28737736	NA	-0.113	0.0180385365
NEO1	-1.368746629	0.0110537643	ES	+	chr15:73293389-73293548	NA	0.392	1.17E-08
			A3SS	+	chr15:73270009-73270233	chr15:73270057-73270233	-0.215	0.000102151128
NEXN	3.064731182	7.17E-13	ES	+	chr1:77925187-77925229	NA	-0.687	4.41E-07
NF2	-1.93103303	4.81E-12	MXE	+	chr22:29668332-29668446	chr22:29673268-29673486	-0.623	0
NFE2L1	-1.284855613	0.02143014669	ES	+	chr17:48057031-48057121	NA	0.245	1.71E-08
NHLRC3	-1.972023136	6.78E-05	ES	+	chr13:39042104-39042305	NA	-0.36	5.79E-08
NHSL1	-1.657548669	3.47E-05	ES	-	chr6:138441982-138442114	NA	0.476	0.007436656522
NID2	-10.74102599	8.89E-21	RI	-	chr14:52005736-52006660	NA	0.884	1.29E-06
NKIRAS2	-1.596413971	0.000162448297	RI	+	chr17:42022398-42022640	NA	-0.163	5.64E-05
NMNAT3	2.730653499	0.000166470975	ES	-	chr3:139637962-139638062	NA	-0.251	0.0425199426
NOVA1-AS1	2.538877294	6.37E-07	ES	+	chr14:26797913-26798030	NA	-0.122	0.01371870462
NPR2	-3.536623637	1.98E-08	RI	+	chr9:35808508-35808853	NA	0.544	0.001284150908
NR2F1-AS1	-2.868865851	2.32E-06	ES	-	chr5:93438702-93438741	NA	0.288	0.004687272022
NRBP2	-1.153527038	0.04855267055	RI	-	chr8:143839508-143840030	NA	0.219	1.41E-12
NRM	-1.41478861	0.01307985467	ES	-	chr6:30689275-30689452	NA	-0.259	8.50E-12

			A5SS	-	chr6:30690024-30690243	chr6:30690046-30690243	-0.66	7.95E-05
NSUN5P1	-2.567205263	9.04E-09	ES	+	chr7:75411654-75411759	NA	-0.317	0.003212828364
			ES	+	chr7:75410605-75410726	NA	-0.256	0.005608000496
			A5SS	+	chr7:75415591-75415778	chr7:75415591-75415770	0.186	0.02639140838
NT5C3A	-3.028047386	7.01E-10	ES	-	chr7:33035933-33035988	NA	-0.264	0.008891469354
			MXE	-	chr7:33024038-33024108	chr7:33026816-33026915	0.177	0.04140530147
NUDT17	1.179491928	0.004580350482	RI	+	chr1:145846432-145846690	NA	-0.388	0.000299396112
			MXE	+	chr1:145846012-145846196	chr1:145846597-145846690	0.18	0.004181133627
NUDT2	2.454110123	6.04E-10	ES	+	chr9:34336228-34336341	NA	-0.193	0
NUDT22	1.845685503	1.64E-05	ES	+	chr11:64227567-64227666	NA	-0.367	3.01E-09
			ES	+	chr11:64229849-64230070	NA	0.145	0.000222018372
NUDT8	3.004048672	1.91E-06	RI	-	chr11:67628918-67629921	NA	-0.504	0.000634117199
NVL	1.127588771	0.000904930389	MXE	-	chr1:224232088-224232182	chr1:224232894-224232972	0.615	0.000384726908
OBSL1	-1.403701046	0.01240023565	RI	-	chr2:219550728-219551798	NA	0.388	0.03714903893
OGDH	-1.526948973	0.000370643214	MXE	+	chr7:44647443-44647534	chr7:44647656-44647759	0.358	0
			MXE	+	chr7:44647443-44647534	chr7:44647656-44647759	0.363	0
			MXE	+	chr7:44645326-44645518	chr7:44647656-44647759	0.168	0.002859687472
OPTN	1.759683322	0.000184078235	A3SS	+	chr10:13109096-13109288	chr10:13109111-13109288	-0.305	0.02544833074
ORMDL1	-1.110626883	0.001455323896	ES	-	chr2:189783013-189783123	NA	-0.422	0
			RI	-	chr2:189782421-189783123	NA	-0.168	0.002200528562
PACS2	-1.114402437	0.03768606891	RI	+	chr14:105383358-105384463	NA	-0.184	1.17E-07
PAK4	1.497362863	0.0117030675	ES	+	chr19:39168229-39168312	NA	-0.166	0.000241931653
			ES	+	chr19:39168229-39168302	NA	-0.16	0.000290026541
PANK4	1.300454609	0.002768792228	A3SS	-	chr1:2510677-2510782	chr1:2510677-2510748	0.32	0.004748089327
PAQR6	-2.277732777	5.05E-06	ES	-	chr1:156247509-156247632	NA	0.619	4.35E-07
PARD3	1.788626557	9.72E-09	ES	-	chr10:34336198-34336243	NA	0.427	1.53E-12
			ES	-	chr10:34372497-34372536	NA	-0.263	8.40E-06
PATJ	2.919373071	1.43E-08	ES	+	chr1:62100318-62100408	NA	-0.5	0.01919460471
PBRM1	-1.352841199	0.002059250533	A3SS	-	chr3:52679573-52679726	chr3:52679573-52679723	0.207	0.0011645449
			ES	-	chr3:52554723-52554879	NA	0.487	0.002131254622
			A3SS	-	chr3:52587352-52587510	chr3:52587352-52587435	0.106	0.007750127607
			ES	-	chr3:52554723-52554879	NA	0.286	0.008665320904
PCDHGC3	-8.35313208	1.06E-34	ES	+	chr5:141478393-141478546	NA	0.206	0.007191723509
PCGF3	-1.337546151	0.000276849824	ES	+	chr4:732399-732498	NA	-0.258	0.03122303962
			ES	+	chr4:732443-732498	NA	-0.204	0.04316493501
PCNX2	2.539563468	0.006367894852	RI	-	chr1:232984135-232986540	NA	-0.155	0.006928555429
			ES	-	chr1:233160282-233160433	NA	-0.131	0.01676038414
PDGFRA	-7.789961156	3.32E-21	MXE	+	chr4:54258756-54258817	chr4:54261094-54261412	-0.168	0.000306191906
PDLIM5	-1.044069279	0.03484552108	ES	+	chr4:94584985-94585003	NA	-0.172	2.58E-07
			A3SS	+	chr4:94575615-94576034	chr4:94575942-94576034	0.428	1.38E-06
PER3	-1.903743332	0.004294537408	RI	+	chr1:7829836-7830161	NA	0.148	0.000143573687
			ES	+	chr1:7787197-7787246	NA	-0.168	0.00357297092
			ES	+	chr1:7787197-7787246	NA	-0.575	0.003807338828
PEX2	1.294604673	0.004559218413	ES	-	chr8:76988306-76988338	NA	0.111	3.97E-08
PEX3	1.101002375	0.03515749002	ES	+	chr6:143472159-143472328	NA	-0.146	1.34E-05
PFAS	1.077632119	0.02410976757	A3SS	+	chr17:8266500-8266898	chr17:8266752-8266898	0.201	0.009613703767
PGAP1	-3.788491919	2.33E-11	ES	-	chr2:196892345-196892401	NA	-0.204	0.02951502951
PGGHG	1.615200075	0.008488698839	RI	+	chr11:290677-292095	NA	0.381	3.71E-07
			A3SS	+	chr11:290657-291113	chr11:290677-291113	0.517	2.86E-06
PHF7	1.178655745	0.01077870112	RI	+	chr3:52421647-52422881	NA	-0.515	0.000497736380
			MXE	+	chr3:52422221-52422338	chr3:52422759-52422881	0.14	0.00222168987
PHTF2	-2.110360977	1.56E-07	ES	+	chr7:77937709-77937838	NA	0.121	1.21E-07
PKIG	-3.052054967	0.000383770232	ES	+	chr20:44582584-44582731	NA	-0.416	0
			ES	+	chr20:44585099-44585204	NA	-0.289	0.002174269931
PLCB4	2.002095885	0.000180340697	ES	+	chr20:9373046-9373104	NA	0.482	0.000163314841
PLCD4	-4.835138045	0.000112753841	RI	+	chr2:218633604-218634221	NA	0.245	8.18E-06
PLEKHA4	-3.202731542	4.50E-10	MXE	-	chr19:48839204-48839263	chr19:48841148-48841310	0.396	0.01313028342
PLEKHA8	-1.634648153	0.001400125611	ES	+	chr7:30050433-30050474	NA	-0.397	4.16E-05
PLEKHH2	-2.333159992	2.95E-07	RI	+	chr2:43710488-43712383	NA	-0.327	0.000589824088
PLGRKT	1.75562491	7.40E-06	ES	-	chr9:5381862-5382031	NA	0.183	0.001850489502

PLOD2	-1.094339997	0.02385448137	ES	-	chr3:146077861-146077924	NA	-0.18	0.007990153349
PLSCR1	1.572589187	1.64E-05	RI	-	chr3:146521543-146522053	NA	-0.279	1.65E-09
			ES	-	chr3:146528613-146528831	NA	0.271	0.000434706440
			ES	-	chr3:146536539-146536565	NA	-0.146	0.03266616291
PLXNB1	-3.31053848	2.56E-12	RI	-	chr3:48410454-48411036	NA	0.641	0.01297814223
PNPLA6	1.908810733	0.000496194786	ES	+	chr19:7541983-7542067	NA	-0.137	0.002534240441
POGLUT1	-1.533434776	1.10E-05	ES	+	chr3:119478333-119478474	NA	0.363	0.01651821476
POLB	1.710448332	0.03165134489	ES	+	chr8:42352518-42352568	NA	-0.146	0.000121552777
POLD1	1.223461571	0.04540326691	RI	+	chr19:50401998-50402373	NA	-0.509	0.003199637451
			RI	+	chr19:50415723-50416528	NA	-0.266	0.005472713134
POLDIP3	-1.1845829	0.00411630455	ES	-	chr22:42601969-42602056	NA	-0.229	0.005634242534
			ES	-	chr22:42601969-42602107	NA	-0.263	0.007773580358
POLR1C	1.532565206	0.000636125678	RI	+	chr6:43519705-43520185	NA	-0.137	0.006280059241
POMZP3	-1.390858878	0.02538695052	RI	-	chr7:76618182-76618615	NA	0.259	0.01055453037
			A3SS	-	chr7:76611453-76611627	chr7:76611453-76611591	0.25	0.02937565073
POP4	2.558240582	3.06E-16	MXE	+	chr19:29610408-29610457	chr19:29611861-29611939	0.229	0.007333096958
PPFIBP1	-1.562329375	0.002152984153	ES	+	chr12:27658815-27658848	NA	-0.773	0
PPOX	1.082271124	0.01412079581	RI	+	chr1:161170906-161171218	NA	0.241	0.003244746418
PPP1R12B	-1.091803732	0.01764074781	ES	+	chr1:161167370-161167486	NA	-0.156	0.04131087203
			ES	+	chr1:202445045-202445228	NA	0.302	0.001936037329
			ES	+	chr1:202501858-202502005	NA	0.611	0.03813114754
PQLC3	1.511373337	6.02E-06	ES	+	chr1:202443086-202443127	NA	0.25	0.03843822808
			ES	+	chr2:11174967-11175009	NA	-0.307	6.68E-05
			ES	+	chr2:11174967-11175009	NA	-0.106	0.00284845948
			ES	+	chr2:11172750-11172824	NA	-0.284	0.005969129601
MXE	+	chr2:11164203-11164261	chr2:11171924-11172045	-0.19	0.0108490355			
PRKAB1	-1.386382525	6.65E-05	ES	+	chr12:119671494-119671668	NA	0.152	0.007309215227
PRKRIP1	-1.683699027	0.000656677814	ES	+	chr7:102395976-102396537	NA	0.361	2.37E-05
			MXE	+	chr7:102395976-102396537	chr7:102397619-102397698	0.196	0.000102901206
			ES	+	chr7:102395976-102396537	NA	0.301	0.000271826994
			ES	+	chr7:102397619-102397698	NA	0.122	0.0140171851
PRMT2	-3.181143107	5.87E-16	ES	+	chr21:46636438-46636547	NA	-0.729	0
			RI	+	chr21:46660832-46661936	NA	0.205	0.006535676432
PROCA1	-1.879371455	0.01774208688	ES	-	chr17:28706679-28706763	NA	0.381	0.000336973187
			A3SS	-	chr17:28704306-28704616	chr17:28704306-28704435	0.396	0.01603843118
PSMA3-AS1	-1.50008569	1.84E-05	ES	-	chr14:58293065-58293138	NA	0.417	1.58E-13
			ES	-	chr14:58288717-58288813	NA	-0.432	7.31E-06
			ES	-	chr14:58285590-58285756	NA	0.308	1.18E-05
			ES	-	chr14:58293765-58295811	NA	0.201	4.24E-05
			ES	-	chr14:58273978-58274135	NA	0.237	7.74E-05
			ES	-	chr14:58285590-58285756	NA	0.289	0.000525528662
			MXE	-	chr14:58273978-58274010	chr14:58285590-58285756	0.377	0.001136202548
			A3SS	-	chr14:58273978-58274135	chr14:58273978-58274010	0.23	0.00508214036
			MXE	-	chr14:58285590-58285756	chr14:58291634-58291707	-0.248	0.005483540331
ES	-	chr14:58293313-58293544	NA	0.102	0.005554562012			
PSTK	1.127310752	0.01195941578	ES	+	chr10:122986299-122986375	NA	0.104	0.04261741669
PTBP2	-1.71189802	0.000169340531	A3SS	+	chr1:96804784-96804939	chr1:96804799-96804939	0.389	0.03982276621
PTPMT1	-1.543709706	0.000558997362	ES	+	chr11:47569699-47569891	NA	0.32	0
PTPN4	-1.779165956	0.000652537197	ES	+	chr2:119881785-119881830	NA	0.222	5.64E-05
PTPRA	-1.998838714	1.10E-06	ES	+	chr20:2947981-2948024	NA	0.158	0.004696244476
PTPRD	-6.138160757	1.92E-12	ES	-	chr9:8437197-8437239	NA	-0.283	6.82E-05
PVT1	1.306446058	0.004494224275	ES	+	chr8:127983903-127984204	NA	0.173	1.02E-05
			ES	+	chr8:128099369-128099573	NA	0.182	2.16E-05
			MXE	+	chr8:127939507-127939676	chr8:127983903-127984204	-0.137	0.000100701606
			ES	+	chr8:127983903-127984204	NA	0.228	0.001136224867
ES	+	chr8:128070159-128070272	NA	-0.138	0.003876184563			
PXMP2	-2.741124337	4.98E-05	ES	+	chr12:132695883-132696046	NA	-0.16	0.03033077178
QKI	-2.873719689	4.43E-14	ES	+	chr6:163455278-163455421	NA	-0.424	0
			A3SS	+	chr6:163565945-163566795	chr6:163566720-163566795	-0.573	0
			RI	+	chr6:163563419-163570145	NA	0.602	3.34E-14

			A3SS	+	chr6:163564666-163570145	chr6:163565945-163570145	0.545	3.14E-09
			MXE	+	chr6:163534981-163535125	chr6:163561981-163562069	0.124	1.07E-08
			RI	+	chr6:163563419-163570145	NA	0.403	4.78E-07
			MXE	+	chr6:163534981-163535125	chr6:163561981-163562069	0.124	2.92E-06
			A3SS	+	chr6:163563419-163563719	chr6:163563443-163563719	0.127	1.90E-05
			MXE	+	chr6:163455278-163455421	chr6:163534981-163535125	-0.168	3.05E-05
RAB26	1.469735496	0.005051953101	ES	+	chr16:2151129-2151315	NA	0.161	0.002964538658
RAB3IP	1.710010051	0.007890185133	ES	+	chr12:69812777-69812877	NA	-0.262	6.76E-08
RABEPK	1.007530426	0.02016004222	ES	+	chr9:125213369-125213522	NA	0.256	2.92E-10
			ES	+	chr9:125220538-125220700	NA	0.194	3.05E-07
			MXE	+	chr9:125220538-125220700	chr9:125227909-125228059	0.116	0.004332221339
			MXE	+	chr9:125220538-125220700	chr9:125227909-125228059	0.102	0.01742082734
RABGAP1	-1.418405523	0.01182730268	ES	+	chr9:122945331-122945432	NA	0.112	0.001312112384
RABGEF1	1.725345461	0.001619465417	MXE	+	chr7:66739995-66740792	chr7:66771882-66772078	-0.192	7.65E-05
RAC1	-1.355164181	0.000244410226	ES	+	chr7:6398661-6398718	NA	0.261	4.82E-06
RAD51	1.432194582	0.000237839215	A5SS	+	chr15:40695173-40695425	chr15:40695173-40695321	-0.159	0.000245554480
RAD9A	1.305442359	0.0105912549	A3SS	+	chr11:67393690-67393790	chr11:67393722-67393790	0.407	0.02636430401
RALGAPA2	-1.489220243	9.40E-06	ES	-	chr20:20396694-20396734	NA	-0.421	0.0255521065
RAP1GAP	-1.748237365	0.000911836653	A3SS	-	chr1:21602803-21603912	chr1:21602803-21602913	-0.117	7.66E-09
			A3SS	-	chr1:21597960-21598095	chr1:21597960-21598040	0.321	0.001576710913
			A3SS	-	chr1:21597960-21598064	chr1:21597960-21598040	0.156	0.002071148324
RAPGEF2	-1.409371468	0.001218870822	ES	+	chr4:159344035-159344059	NA	-0.824	0
RB1CC1	1.242945521	0.02377184471	ES	-	chr8:52685936-52686156	NA	0.105	0.000140901881
RBM23	-1.47130468	5.57E-06	ES	-	chr14:22905605-22905659	NA	0.136	6.52E-08
			ES	-	chr14:22908332-22908380	NA	-0.228	1.15E-05
RBM26-AS1	-1.372105486	0.01108391598	ES	+	chr13:79417834-79417916	NA	0.207	0.0179359004
RBM6	-1.011106047	0.03993438768	ES	+	chr3:49972058-49972148	NA	-0.301	1.54E-10
			RI	+	chr3:50061461-50062108	NA	-0.347	1.98E-07
			ES	+	chr3:49975322-49975392	NA	-0.313	2.49E-06
			ES	+	chr3:49967197-49968748	NA	0.109	2.69E-05
			MXE	+	chr3:50048244-50048319	chr3:50054334-50054395	0.131	0.000205403459
			A3SS	+	chr3:49967197-49968748	chr3:49967469-49968748	0.154	0.02566195299
RCBTB2	-4.409763263	2.01E-15	ES	-	chr13:48524658-48524757	NA	-0.139	0.007914741791
RECQL	1.531731314	1.24E-05	ES	-	chr12:21501169-21501372	NA	-0.113	0.002987512401
			A3SS	-	chr12:21501169-21501372	chr12:21501169-21501215	-0.117	0.02462972179
			ES	-	chr12:21501169-21501215	NA	-0.14	0.03400412644
RFWD3	1.11757597	0.006083751041	ES	-	chr16:74664623-74664745	NA	0.289	0.04080879163
RGL1	-1.914148063	6.35E-06	MXE	+	chr1:183806374-183806485	chr1:183847565-183847774	-0.141	0.02946769912
RGMB-AS1	-2.82462874	0.02763328829	ES	-	chr5:98771655-98771766	NA	0.667	2.10E-07
RGS5	2.484751525	2.49E-05	ES	-	chr1:163319181-163319291	NA	-0.123	0.001702146197
			ES	-	chr1:163248529-163248598	NA	0.186	0.03328327983
RHOQ	-1.664656514	0.000497939125	ES	+	chr2:46543753-46543812	NA	-0.264	0.005789128017
RIDA	1.471036813	0.000227919518	ES	-	chr8:98108645-98108713	NA	0.106	0.00140484798
RIN2	1.964168698	0.00137101705	ES	+	chr20:19964951-19965024	NA	-0.162	0.001397451056
RIPK2	1.600186203	0.001553100893	ES	+	chr8:89762828-89762982	NA	-0.303	0.007952215332
RNF157	-3.845677675	8.58E-09	ES	-	chr17:76155251-76155317	NA	0.122	0.0145371809
RNF19B	2.087396167	6.12E-06	MXE	-	chr1:32942251-32942459	chr1:32944018-32944159	0.179	0.03033891155
RNF32	2.667459828	0.02334372343	A3SS	+	chr7:156676294-156677130	chr7:156676418-156677130	-0.385	0.002902268724
RNMT	1.890106209	1.51E-05	ES	+	chr18:13759941-13760208	NA	-0.162	0.000409380521
ROBO1	-1.805351697	0.000386310645	ES	-	chr3:78693347-78693356	NA	0.306	2.98E-07
RP11-1228E12	1.830938095	0.03593843095	ES	-	chr17:71365-71556	NA	0.667	0.001952422279
RP11-156P1.3	-1.092878188	0.03206607327	ES	-	chr17:47072471-47072559	NA	0.494	0.000788106904
			ES	-	chr17:47033277-47033381	NA	0.171	0.02472987573
RP4-639F20.1	2.662459679	8.82E-09	A3SS	+	chr1:94962924-94963270	chr1:94962978-94963270	0.159	0.02193666938
RPL12	1.429467442	7.62E-05	RI	-	chr9:127449609-127451405	NA	0.177	0.000119603100
RPL21	1.16409132	0.02213664948	MXE	+	chr13:27253764-27253843	chr13:27255241-27255349	0.201	0.006700381109
			MXE	+	chr13:27253764-27253843	chr13:27255241-27255354	0.205	0.006823004384
RPL3	1.104790604	0.004135022035	RI	-	chr22:39313190-39314208	NA	-0.286	0.000796534118
RPP40	-1.061085731	0.01746395472	ES	-	chr6:4998715-4998841	NA	0.204	6.11E-06
RPS27	1.340957822	0.000907220942	RI	+	chr1:153990762-153991034	NA	-0.166	2.22E-10

			ES	+	chr1:153990913-153991034	NA		0.186	0.04298664594
RPS3	1.164655539	0.00311883998	ES	+	chr11:75401639-75401733	NA		-0.255	0.001839342785
RPS6KB2	1.231233459	0.001936588515	MXE	+	chr11:67431367-67431515	chr11:67432352-67432492		0.107	0.000575271427
			MXE	+	chr11:67431367-67431515	chr11:67432355-67432492		0.108	0.000729447841
			ES	+	chr11:67432355-67432492	NA		-0.228	0.003857761711
			ES	+	chr11:67432352-67432492	NA		-0.222	0.00513160654
RPTOR	1.680011242	0.000254392584	ES	+	chr17:80925369-80925480	NA		0.262	0.04458274527
RTKN	-2.49647924	9.56E-10	ES	-	chr2:74439550-74439977	NA		-0.359	0.002527404038
RUFY3	-2.021686763	0.000133193976	MXE	+	chr4:70789494-70789592	chr4:70793764-70793904		-0.252	0.005649545712
SACS	2.252386019	8.15E-06	ES	-	chr13:23341444-23341690	NA		-0.213	1.17E-10
SBNO2	1.447993006	0.01511098396	ES	-	chr19:1147308-1147420	NA		-0.3	0.001484505828
SCHIP1	-1.896485882	0.00147597191	MXE	+	chr3:159866162-159866281	chr3:159886206-159886324		-0.247	0
SCLT1	1.401555349	0.01282257651	ES	-	chr4:128942995-128943188	NA		0.136	0.03286776765
SCYL1	1.545494851	0.003111621492	RI	+	chr11:65538269-65538704	NA		-0.15	0.005191038741
SEC14L2	-1.335052376	0.0185284686	ES	+	chr22:30415947-30416087	NA		0.154	0.000126474028
			ES	+	chr22:30415758-30416087	NA		0.117	0.000292565238
			ES	+	chr22:30415758-30415865	NA		0.109	0.000366701875
SEPT2	-1.010013484	0.0142321712	ES	+	chr2:241324408-241324662	NA		0.718	0
			MXE	+	chr2:241317498-241317599	chr2:241324408-241324662		-0.404	1.58E-05
			ES	+	chr2:241324408-241324662	NA		0.489	0.000119680357
			ES	+	chr2:241316421-241316540	NA		-0.447	0.001538786731
			ES	+	chr2:241317498-241317599	NA		-0.488	0.02613073178
SEPT7	-2.503100507	6.00E-13	ES	+	chr7:35831491-35832034	NA		-0.326	0
			ES	+	chr7:35831352-35831496	NA		-0.389	8.87E-05
			ES	+	chr7:35831424-35831496	NA		-0.371	0.000802562723
SEPT7P2	-1.5492593	0.000138111781	ES	-	chr7:45728831-45729026	NA		0.255	7.82E-11
SERHL2	-6.70343082	2.88E-06	ES	+	chr22:42573633-42573745	NA		0.73	1.31E-09
			A5SS	+	chr22:42571120-42571901	chr22:42571120-42571203		0.324	1.14E-05
			RI	+	chr22:42555663-42556083	NA		0.355	8.44E-05
SETD4	-1.309390555	0.000166057130	A3SS	-	chr21:36058815-36058973	chr21:36058815-36058924		0.195	0.03505499569
SETD9	-4.251404359	3.77E-17	ES	+	chr5:56911168-56911536	NA		0.363	3.97E-05
SH3BP2	-2.246801789	0.003933020251	A3SS	+	chr4:2831922-2832412	chr4:2832330-2832412		-0.38	0.01237140713
SIDT2	-1.229256527	0.01615281415	ES	+	chr11:117186989-117187001	NA		-0.102	0.001234249565
SIL1	1.740002194	7.11E-05	ES	-	chr5:139127943-139128052	NA		0.447	4.68E-06
SIPA1L3	1.621798139	0.009677210874	MXE	+	chr19:38119305-38119882	chr19:38130497-38130772		-0.122	0.008360219703
SIRT7	1.280458303	0.000419290467	RI	-	chr17:81914293-81915512	NA		-0.388	8.29E-05
SLC16A4	-5.396769728	2.81E-14	ES	-	chr1:110378852-110379356	NA		0.19	0.000400911488
SLC22A17	-1.4546415	0.02866036952	A5SS	-	chr14:23347459-23347731	chr14:23347513-23347731		-0.149	0.00896509776
SLC25A19	1.289248701	0.04036255058	A5SS	-	chr17:75288387-75288591	chr17:75288497-75288591		-0.227	8.47E-05
			A5SS	-	chr17:75288497-75288591	chr17:75288501-75288591		0.165	0.000713535124
SLC25A22	1.073915209	0.04186119758	ES	-	chr11:796042-796367	NA		-0.298	0.000390645863
SLC25A29	-2.248481258	1.87E-07	ES	-	chr14:100298026-100298190	NA		0.417	0.001127335634
SLC25A40	-1.147453659	0.004064043798	ES	-	chr7:87860071-87860169	NA		0.144	0.02566581821
SLC29A1	1.920056266	5.26E-09	MXE	+	chr6:44227262-44227342	chr6:44229389-44229471		-0.303	0
			MXE	+	chr6:44227262-44227342	chr6:44229389-44229471		0.274	4.53E-11
			ES	+	chr6:44225972-44226167	NA		-0.228	3.37E-06
			ES	+	chr6:44226060-44226167	NA		-0.312	1.18E-05
			ES	+	chr6:44226060-44226167	NA		-0.22	0.003873995416
			ES	+	chr6:44226060-44226167	NA		-0.201	0.01275158129
SLC2A11	-1.269476672	0.03262397763	ES	+	chr22:23877384-23877869	NA		-0.319	9.42E-06
			A3SS	+	chr22:23875084-23875241	chr22:23875120-23875241		-0.59	0.004351922584
SLC38A6	-1.146823099	0.03948874047	ES	+	chr14:61034018-61034113	NA		-0.104	0.001528473657
SLC38A9	-1.102937651	0.03174089186	MXE	-	chr5:55656714-55656774	chr5:55664692-55664863		0.106	0.02053550709
SLC3A2	1.460644012	0.00830256746	ES	+	chr11:62870744-62870837	NA		0.475	0
			ES	+	chr11:62871576-62871669	NA		0.132	0.03843822808
SLC47A1	1.87458136	0.008743852052	ES	+	chr17:19571477-19571572	NA		0.191	0.001141438719
SLC50A1	1.565384987	6.64E-05	ES	+	chr1:155136827-155136951	NA		0.332	1.70E-06
			ES	+	chr1:155136827-155136951	NA		0.296	0.000110375191
			ES	+	chr1:155137560-155137722	NA		0.133	0.000352212672
			ES	+	chr1:155137578-155137722	NA		0.148	0.000665949902

SLC7A11	2.225019393	1.05E-05	ES	-	chr4:138185120-138185244	NA	-0.542	9.09E-08
			ES	-	chr4:138223198-138223324	NA	-0.163	0.000199745017
SMARCC2	-1.063520582	0.000926498163	A5SS	-	chr12:56164302-56164731	chr12:56164647-56164731	0.43	1.46E-05
			ES	-	chr12:56172936-56173029	NA	-0.191	2.01E-05
			ES	-	chr12:56164302-56164368	NA	0.483	0.000311022291
SMTN	2.681079236	1.62E-07	A3SS	+	chr22:31088453-31088606	chr22:31088512-31088606	0.149	0.00185771104
			ES	+	chr22:31080449-31080754	NA	-0.259	0.002442197371
SNHG11	-1.126572362	0.02635014089	ES	+	chr20:38447929-38448093	NA	-0.161	0.02738999534
SNHG3	2.007679738	9.72E-05	ES	+	chr1:28508127-28508160	NA	0.173	0.0111445589
SNHG6	1.619245894	1.16E-05	ES	-	chr8:66922613-66922725	NA	-0.151	0
SNHG8	3.401142657	2.65E-08	A5SS	+	chr4:118278708-118279137	chr4:118278708-118278792	-0.114	0.000990167683
SNX11	-1.34865531	0.00189522751	ES	+	chr17:48110707-48110767	NA	-0.122	4.93E-05
SON	-1.19079563	8.55E-06	ES	+	chr21:33572550-33572630	NA	-0.263	0
SP110	1.142791827	0.001863938051	ES	-	chr2:230216780-230216821	NA	-0.134	0.04267665388
SP140L	2.932572231	1.28E-12	ES	+	chr2:230328756-230328831	NA	-0.363	0.000167484406
SPAG1	4.676396214	1.16E-23	ES	+	chr8:100220278-100220431	NA	-0.111	0.003664403339
			MXE	+	chr8:100213818-100213918	chr8:100220278-100220431	0.178	0.03855224577
SPAG5	1.444661329	3.84E-05	RI	-	chr17:28579750-28580120	NA	-0.101	2.69E-09
SPATA4	3.165186094	0.003400696606	ES	-	chr4:176192957-176193076	NA	-0.321	0.00010612589
SPATS2	1.474620984	0.000463250775	ES	+	chr12:49371227-49371290	NA	-0.28	1.33E-05
SPEF2	3.786749972	5.41E-08	ES	+	chr5:35644354-35644525	NA	-0.32	9.18E-05
SPIN3	-1.02601748	0.02299982084	A3SS	-	chrX:56978579-56978762	chrX:56978579-56978660	0.322	5.15E-06
			A3SS	-	chrX:56978579-56978747	chrX:56978579-56978660	0.322	1.29E-05
			A3SS	-	chrX:56978579-56978751	chrX:56978579-56978660	0.318	1.35E-05
SPPL2A	-1.1827833	0.002553452309	ES	-	chr15:50726072-50726126	NA	0.135	0.01789049185
SPRY1	-3.912389351	0.000339711427	ES	+	chr4:123397610-123397856	NA	0.155	0.000870311140
SREBF1	1.511079099	0.01662573772	ES	-	chr17:17817547-17817591	NA	0.375	0.0013265261
			ES	-	chr17:17823517-17823607	NA	0.302	0.008461191506
			RI	-	chr17:17817547-17817916	NA	-0.223	0.01127882976
SRSF6	-1.135706591	3.91E-05	ES	+	chr20:43459152-43459420	NA	-0.11	0.000938808030
SS18	-1.026121465	0.000811369334	MXE	-	chr18:26080304-26080423	chr18:26084051-26084175	-0.557	9.01E-05
			MXE	-	chr18:26080304-26080423	chr18:26082362-26082528	-0.419	0.000165960160
			ES	-	chr18:26035830-26035923	NA	0.123	0.003304618959
SSH1	-1.210330621	0.02404780723	ES	-	chr12:108802321-108802368	NA	-0.175	0.0250286001
ST20	1.093934916	0.02882289017	ES	-	chr15:79907628-79907684	NA	-1	0
ST3GAL5	-3.300851484	0.000588957399	MXE	-	chr2:85851263-85851703	chr2:85852859-85853099	-0.153	0.000619848871
			MXE	-	chr2:85851263-85851703	chr2:85852859-85853091	-0.148	0.000836217543
			MXE	-	chr2:85851263-85851703	chr2:85852859-85853000	-0.212	0.001463632539
			ES	-	chr2:85870071-85870258	NA	0.324	0.02209414026
ST3GAL6	-2.436643253	2.20E-10	ES	+	chr3:98756368-98756540	NA	0.151	0.02805536072
ST5	-3.325106723	1.61E-11	ES	-	chr11:8729949-8731209	NA	0.325	0.000714324807
			A3SS	-	chr11:8702571-8703611	chr11:8702571-8702720	-0.104	0.01220499947
STAG3L3	-1.758547837	0.004817898663	ES	-	chr7:73000357-73000481	NA	-0.569	0.000438379529
STARD4	2.836661212	7.11E-13	ES	-	chr5:111501961-111502088	NA	0.133	0.02770700481
STAT2	-1.017569891	0.000642882523	RI	-	chr12:56354777-56355351	NA	-0.129	0.0174877641
STYXL1	-2.704520263	1.01E-05	ES	-	chr7:76021850-76021992	NA	0.112	0.003498861351
			ES	-	chr7:76013741-76013887	NA	0.105	0.003523797492
SUSD1	-3.382783751	2.94E-05	ES	-	chr9:112042100-112042165	NA	-0.11	0.01062440517
SVIL	-2.159804119	0.000607367883	ES	-	chr10:29532001-29532172	NA	-0.376	2.63E-06
			ES	-	chr10:29526960-29527056	NA	-0.202	7.64E-06
			ES	-	chr10:29535988-29536069	NA	-0.202	0.04292658489
SYNE2	-2.479573527	1.14E-05	ES	+	chr14:64098746-64098821	NA	0.232	0.000938468137
SYNJ1	-1.590950773	3.08E-05	ES	-	chr21:32634860-32634884	NA	-0.634	4.13E-11
			ES	-	chr21:32634860-32634881	NA	-0.289	6.83E-05
TADA2A	-1.238555727	0.000336288305	MXE	+	chr17:37426949-37427009	chr17:37437737-37437922	-0.353	0.000772029136
			ES	+	chr17:37423508-37423615	NA	0.112	0.007108285273
TAF1D	1.84307435	0.000189951980	A5SS	-	chr11:93736693-93737239	chr11:93737063-93737239	-0.127	1.32E-10
TAF2	1.180512274	0.005026043336	ES	-	chr8:119744880-119745036	NA	0.283	1.62E-08
TANC1	-2.836249914	7.73E-14	RI	+	chr2:159219237-159219867	NA	-0.182	0.01003146764
TAPT1	-1.490575276	0.000430933133	ES	-	chr4:16170652-16170729	NA	-0.159	0.01024382028

TATDN1	3.26461441	1.65E-12	ES	-	chr8:124522150-124522200	NA	0.101	0.002762253283
TAX1BP1	-1.020367875	0.01765393428	A5SS	+	chr7:27816348-27816520	chr7:27816348-27816394	0.103	5.39E-05
TBC1D31	2.526802507	8.82E-14	ES	+	chr8:123082701-123082817	NA	-0.101	0.000452081202
TBC1D32	2.354456866	0.000132871583	ES	-	chr6:121090852-121091041	NA	-0.271	1.21E-05
			ES	-	chr6:121299445-121299505	NA	-0.161	0.000571601245
			ES	-	chr6:121255327-121255410	NA	-0.174	0.000938515980
			A3SS	-	chr6:121115171-121115747	chr6:121115171-121115241	0.264	0.03686690828
TBC1D7	-1.645422456	3.55E-05	ES	-	chr6:13325093-13325174	NA	0.194	0.01448293753
TBC1D8B	2.272984517	6.35E-08	ES	+	chrX:106839325-106839457	NA	-0.271	4.34E-05
			ES	+	chrX:106839307-106839457	NA	-0.193	0.000257758414
TBC1D9B	1.363305773	0.004627839498	ES	-	chr5:179867444-179867495	NA	-0.158	0
TBL2	-1.483785536	0.000778199389	ES	-	chr7:73576540-73576701	NA	-0.221	0.006525933172
TCEA1	1.021016919	0.02475288636	ES	-	chr8:54002891-54003092	NA	-0.308	0.000990626250
			ES	-	chr8:54002891-54003086	NA	-0.261	0.0075854768
			ES	-	chr8:54002891-54002940	NA	-0.315	0.01533786035
TCEAL8	-1.00031066	0.04956146826	ES	-	chrX:103254604-103254677	NA	0.212	6.41E-13
TCF4	-6.396944488	9.15E-25	A5SS	-	chr18:55232508-55232671	chr18:55232520-55232671	0.431	5.01E-06
			RI	-	chr18:55228846-55232671	NA	0.753	7.37E-05
			RI	-	chr18:55228846-55232671	NA	-0.136	0.000666479782
TCF7L2	-2.759525068	0.001075604654	ES	+	chr10:113160618-113160691	NA	0.805	0.000153796721
			MXE	+	chr10:113159919-113159992	chr10:113160618-11316069	-0.684	0.000707600869
			ES	+	chr10:113159919-113159992	NA	-0.415	0.002988281976
TCOF1	2.715985488	2.38E-08	ES	+	chr5:150379228-150379408	NA	0.127	2.19E-11
			ES	+	chr5:150372005-150372236	NA	0.13	0.003432257142
TCTN1	-1.353109434	0.001925945779	ES	+	chr12:110644966-110645129	NA	0.225	0.000867862258
			ES	+	chr12:110644966-110645143	NA	0.283	0.002401590692
			ES	+	chr12:110634395-110634463	NA	0.353	0.005171587045
			A3SS	+	chr12:110647195-110647336	chr12:110647210-11064733	0.456	0.009968353808
TCTN2	-1.430464998	0.01907818385	ES	+	chr12:123694841-123694976	NA	0.273	5.84E-06
TEAD2	-2.08855701	0.003726359863	ES	-	chr19:49355958-49355970	NA	-0.145	0.000154946153
			ES	-	chr19:49359843-49360081	NA	-0.101	0.000362805466
TEAD4	1.779013698	0.001677124986	ES	+	chr12:2959947-2960353	NA	-0.59	7.68E-06
TET2	-1.726384486	7.26E-05	ES	+	chr4:105241338-105241429	NA	0.147	0.005143745186
			ES	+	chr4:105190359-105190505	NA	0.155	0.02398359823
TFDP1	-1.671615367	0.007794169846	MXE	+	chr13:113610995-113611062	chr13:113631622-11363174	-0.13	0.000762542582
			MXE	+	chr13:113610995-113611062	chr13:113623179-11362328	-0.147	0.001750191041
			ES	+	chr13:113631622-113631905	NA	0.13	0.01092216805
TGFB3	-2.174138043	7.01E-06	ES	-	chr14:75960268-75960386	NA	-0.128	0.009293494939
THAP5	-1.078117063	0.008204994159	ES	-	chr7:108565829-108566022	NA	0.157	0.000545223317
			ES	-	chr7:108565951-108566022	NA	0.278	0.000942157194
THRB	-2.247924883	0.04737934441	ES	-	chr3:24297225-24297371	NA	-0.304	0.005335128453
TIA1	-1.927848441	3.09E-06	ES	-	chr2:70229058-70229091	NA	-0.349	1.08E-13
			ES	-	chr2:70228343-70228462	NA	-0.465	4.53E-11
			A5SS	-	chr2:70216752-70216994	chr2:70216885-70216994	0.191	1.98E-07
TIAM1	-2.07132173	0.00924211985	ES	-	chr21:31276731-31276908	NA	-0.388	0.02905195337
TJP1	-1.630312674	0.004748682988	ES	-	chr15:29719776-29720016	NA	-0.238	2.38E-05
TKFC	1.504730346	0.000541183066	MXE	+	chr11:61335839-61335937	chr11:61336203-61336390	-0.446	0.000306133701
			ES	+	chr11:61343341-61343458	NA	-0.109	0.002348355715
			ES	+	chr11:61335839-61335937	NA	-0.113	0.03969952441
TKT	1.141137656	0.0377038072	A3SS	-	chr3:53237796-53237921	chr3:53237796-53237820	-0.501	1.07E-07
TMA16	1.194177342	0.01931921015	MXE	+	chr4:163514073-163514158	chr4:163515312-163515461	-0.108	0.005271854269
TMEM117	-1.419785806	0.000325336688	ES	+	chr12:44143524-44143624	NA	-0.285	0.006170354981
TMEM161A	1.158196105	0.03903221258	ES	-	chr19:19134783-19134916	NA	-0.602	4.20E-05
			MXE	-	chr19:19133129-19133210	chr19:19134783-19134887	0.142	0.002295330497
			ES	-	chr19:19134783-19134887	NA	-0.228	0.03346111353
TMEM178A	-4.806759992	2.90E-05	ES	+	chr2:39707048-39707186	NA	0.269	2.40E-05
TMEM198B	-1.744418197	0.000443742202	RI	+	chr12:55830840-55831349	NA	0.33	1.84E-08
			A3SS	+	chr12:55832870-55833014	chr12:55832958-55833014	0.387	4.38E-06
			A5SS	+	chr12:55832958-55833038	chr12:55832958-55833014	0.385	0.000399128713
			RI	+	chr12:55832958-55833541	NA	0.151	0.000400561250

TMEM267	1.174500718	0.02200779639	ES	-	chr5:43479889-43479987	NA	-0.131	0.04751393873
TMEM39A	1.114901907	0.000123257389	ES	-	chr3:119435754-119435935	NA	-0.321	2.44E-10
TMEM63B	1.061736475	0.003785927863	ES	+	chr6:44135327-44135366	NA	0.149	2.00E-05
			MXE	+	chr6:44150563-44150629	chr6:44151845-44152008	-0.191	0.002658984414
TMEM80	-1.310460343	0.007157746281	RI	+	chr11:698868-700235	NA	0.241	9.73E-06
TMEM87B	1.286252218	0.005893794913	ES	+	chr2:112074911-112074962	NA	-0.152	0.004874200486
			ES	+	chr2:112077191-112077282	NA	-0.121	0.007276760501
TMTC4	-1.460991474	0.000449087764	ES	-	chr13:100670359-100670569	NA	0.222	1.46E-06
			ES	-	chr13:100670282-100670569	NA	0.327	1.64E-06
TNC	-7.489376663	1.49E-10	MXE	-	chr9:115048259-115048532	chr9:115059729-115060002	0.464	3.13E-05
			MXE	-	chr9:115048259-115048532	chr9:115059729-115060002	0.416	5.63E-05
			ES	-	chr9:115048259-115048532	NA	-0.601	0.000541520201
			MXE	-	chr9:115048259-115048532	chr9:115064646-115064919	0.187	0.03274388609
			MXE	-	chr9:115046409-115046682	chr9:115048259-115048532	-0.285	0.04224761506
TNFRSF12A	2.04597705	0.04984552332	ES	+	chr16:3021188-3021319	NA	-0.144	0.001101883147
			ES	+	chr16:3021214-3021319	NA	-0.123	0.001898049618
TNFSF13	-2.944961944	0.03695774867	MXE	+	chr17:7559623-7559702	chr17:7559850-7559893	-0.476	3.35E-06
			MXE	+	chr17:7559623-7559702	chr17:7559845-7559893	-0.405	9.38E-06
TNIK	-2.903496877	0.001557595646	ES	-	chr3:171139469-171139556	NA	-0.604	3.94E-11
			ES	-	chr3:171128713-171128878	NA	0.129	0.00168795208
TOP1MT	1.130399805	0.01595215506	ES	-	chr8:143332486-143332657	NA	-0.317	1.32E-09
			ES	-	chr8:143334107-143334285	NA	-0.35	1.38E-06
			ES	-	chr8:143332486-143332601	NA	-0.232	8.45E-05
TOX2	1.841117966	0.01826355756	ES	+	chr20:44065711-44066107	NA	-0.576	0.02126672239
TPGS2	-1.401330585	7.91E-05	ES	-	chr18:36805373-36805397	NA	0.211	9.62E-09
TPK1	1.484219136	0.000152871539	ES	-	chr7:144681806-144681864	NA	-0.484	0.01202735009
TPM2	4.718007161	1.31E-21	MXE	-	chr9:35684731-35684807	chr9:35685063-35685139	0.365	8.39E-13
			RI	-	chr9:35684487-35685139	NA	-0.633	3.04E-07
TPT1-AS1	-2.889017128	3.55E-10	MXE	+	chr13:45378529-45378671	chr13:45383090-45383235	-0.625	6.05E-07
			MXE	+	chr13:45379194-45379335	chr13:45383090-45383235	-0.547	3.37E-06
			A3SS	+	chr13:45390713-45390902	chr13:45390757-45390902	0.12	1.61E-05
			ES	+	chr13:45390757-45390902	NA	0.148	1.99E-05
			ES	+	chr13:45390713-45390902	NA	0.109	2.67E-05
			MXE	+	chr13:45379194-45379335	chr13:45383090-45383235	-0.37	3.21E-05
			MXE	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.293	8.84E-05
			MXE	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.308	9.27E-05
			MXE	+	chr13:45379194-45380001	chr13:45383090-45383235	-0.377	0.000188143965
			A3SS	+	chr13:45377060-45377215	chr13:45377139-45377215	0.22	0.00019763891
			MXE	+	chr13:45379194-45380001	chr13:45383090-45383235	-0.397	0.000310183700
			ES	+	chr13:45360140-45360239	NA	0.619	0.004168487247
			MXE	+	chr13:45383090-45383235	chr13:45389734-45389820	0.107	0.018188216
			MXE	+	chr13:45379898-45380001	chr13:45383090-45383235	-0.116	0.03030437867
TRABD	1.696639361	0.005296480166	RI	+	chr22:50197822-50198186	NA	-0.409	0.000651342608
TRABD2A	4.547917093	4.49E-09	MXE	-	chr2:84839148-84839323	chr2:84841860-84842007	-0.25	0.03053270545
TRAF3IP2-AS1	-1.702715019	3.10E-05	ES	+	chr6:111574620-111574658	NA	-0.317	0.01210955425
TRIM22	-3.201786811	0.003809392918	RI	+	chr11:5697247-5698545	NA	0.236	0.03643105134
TRIM41	1.089862148	0.01306965592	ES	+	chr5:181233412-181233435	NA	-0.132	0.00683098948
TRIM9	-3.555181903	2.26E-08	ES	-	chr14:51000682-51000828	NA	0.253	0.000645221412
TRIQK	1.513918681	0.000522520545	MXE	-	chr8:92921502-92921660	chr8:92954405-92954564	-0.132	1.64E-09
			ES	-	chr8:92921502-92921660	NA	0.286	0.000185566505
			A3SS	-	chr8:92885319-92886735	chr8:92885319-92886667	-0.188	0.003596342349
			ES	-	chr8:92921502-92921660	NA	0.19	0.00409329242
TRMO	-1.823014284	0.00206196536	ES	-	chr9:97916163-97916338	NA	0.189	0.001827589487
			ES	-	chr9:97912872-97912975	NA	-0.12	0.01516291276
TSPAN4	1.47852995	0.03182322762	ES	+	chr11:850287-850367	NA	-0.239	3.83E-05
TTC3	-1.411619257	0.000190155777	ES	+	chr21:37150819-37150884	NA	-0.141	2.10E-11
			ES	+	chr21:37094004-37094090	NA	0.175	1.50E-06
TTC7A	1.236208095	0.02253544339	ES	+	chr2:46958494-46958552	NA	-0.432	0.004065365915
TTL11	-1.55986009	0.000941336903	ES	-	chr9:122031722-122031856	NA	0.221	0.03455480269
TXLNA	1.00075337	0.00428866993	MXE	+	chr1:32184524-32184616	chr1:32187953-32188124	-0.196	0.001031064798

TXNRD1	1.49172468	0.02544450274	MXE	+	chr12:104290992-104291104	chr12:104309758-10430995	-0.697	4.20E-05
TYSND1	1.019071886	0.002446071019	ES	-	chr10:70143841-70143972	NA	-0.289	0.000311701948
UBA7	-1.808348574	0.01975944203	ES	-	chr3:49809389-49809464	NA	0.212	0.03434244633
UBE2E1	-1.162698735	0.002684419434	ES	+	chr3:23811459-23811510	NA	-0.124	0
UBE2F	-1.537666482	0.001260329777	ES	+	chr2:237987962-237987992	NA	0.108	0.001458988257
			ES	+	chr2:237994743-237994809	NA	0.194	0.001936623701
			ES	+	chr2:237987962-237987992	NA	0.164	0.002623975802
UBE2W	1.104073456	0.03299355355	ES	-	chr8:73870268-73870301	NA	-0.19	4.28E-08
UGGT1	-1.915996479	3.57E-08	ES	+	chr2:128156391-128156415	NA	-0.114	0.002140032246
UGGT2	-1.504955429	2.64E-05	ES	-	chr13:95860787-95860883	NA	-0.462	1.74E-10
			MXE	-	chr13:95859590-95859675	chr13:95860787-95860883	-0.253	0.000129838985
			MXE	-	chr13:95856157-95856340	chr13:95859590-95859675	-0.204	0.001400276335
ULBP2	1.906203493	0.001114037869	ES	+	chr6:149947319-149947451	NA	0.15	0.005873187661
ULK4	1.312172531	0.000499960183	ES	-	chr3:41819422-41819506	NA	-0.301	8.15E-05
			ES	-	chr3:41915976-41916052	NA	0.403	0.01803272989
UPF3A	-1.593880475	6.92E-07	ES	+	chr13:114298839-114299000	NA	0.129	3.01E-05
			ES	+	chr13:114286301-114286400	NA	-0.217	0.000867862258
UPP1	2.831806786	0.01090030194	ES	+	chr7:48103296-48103411	NA	-0.155	0.001796423469
URI1	2.834677087	1.93E-13	ES	+	chr19:29971192-29971227	NA	-0.253	0.002066660603
USP32P3	-2.482787701	8.01E-07	ES	+	chr17:20420378-20420605	NA	0.582	1.10E-08
USP54	-2.161500499	0.01553958042	ES	-	chr10:73504849-73504990	NA	0.122	0.0168943985
VCAN	-10.59791853	6.34E-45	ES	+	chr5:83537006-83542268	NA	0.471	3.38E-05
VEPH1	2.564739522	0.03915655096	ES	-	chr3:157495211-157495506	NA	-0.107	0.003593871272
VPS41	-2.261133259	9.57E-11	ES	-	chr7:38796414-38796526	NA	0.11	1.23E-08
VTI1B	-1.383130372	1.77E-05	ES	-	chr14:67663028-67663190	NA	-0.183	1.67E-10
WARS	-1.0592577	0.01615281415	ES	-	chr14:100375282-100375403	NA	-0.232	1.37E-10
			ES	-	chr14:100375282-100375406	NA	-0.236	2.43E-10
			ES	-	chr14:100375282-100375350	NA	-0.205	7.15E-10
			ES	-	chr14:100375282-100375350	NA	-0.573	9.26E-05
			ES	-	chr14:100375282-100375406	NA	-0.432	0.001631060496
			ES	-	chr14:100375282-100375350	NA	-0.109	0.003593871272
			ES	-	chr14:100375282-100375406	NA	-0.185	0.04751030201
WASH2P	1.286103579	0.01628826123	ES	+	chr2:113595062-113595161	NA	-0.555	0.000350375615
WBSR22	-1.867522876	1.53E-05	MXE	+	chr7:73693623-73693669	chr7:73693991-73694050	-0.103	0.03980685599
WDR20	-1.134379684	0.000254392584	ES	+	chr14:102197754-102197847	NA	0.174	0.009240772418
WDR4	1.877400742	6.14E-05	MXE	-	chr21:42859661-42859722	chr21:42862281-42862394	-0.158	0.02770680963
			MXE	-	chr21:42855681-42855780	chr21:42859661-42859722	-0.189	0.04529641663
WEE2-AS1	-1.371126783	0.04272802559	ES	-	chr7:141714188-141714374	NA	0.275	0.000891391094
WIPF1	-1.877854311	1.55E-05	ES	-	chr2:174677044-174677124	NA	0.321	0.004005348732
WIPI1	2.199242472	1.12E-06	ES	-	chr17:68434555-68434626	NA	0.101	0.00192549168
WSB1	-2.327253738	6.35E-06	A3SS	+	chr17:27307743-27309272	chr17:27309099-27309272	-0.171	0
WWP2	-1.97774029	0.02010486098	ES	+	chr16:69783031-69783152	NA	-0.18	0.000659813177
XKR9	3.57442536	2.41E-05	MXE	+	chr8:70674817-70674899	chr8:70680780-70681330	0.185	0.002440740444
YLPM1	-1.017819958	0.001002470897	ES	+	chr14:74824255-74824307	NA	-0.119	0.000506087906
ZBED3-AS1	-1.506734757	0.00271888178	ES	+	chr5:77100235-77100391	NA	0.276	0.009747054499
ZBTB1	-1.036029902	0.02315678997	ES	+	chr14:64516599-64516751	NA	0.31	6.58E-06
ZBTB21	-1.040193851	0.04872465371	ES	-	chr21:42002896-42002961	NA	-0.134	0.03287761207
			ES	-	chr21:42002349-42002503	NA	0.3	0.03885696071
ZBTB38	1.447947042	0.008308455737	ES	+	chr3:141438242-141438365	NA	0.146	0.04507777634
ZC3H14	-1.091280277	0.000180568967	ES	+	chr14:88602827-88603060	NA	0.23	6.94E-06
			ES	+	chr14:88601923-88602083	NA	0.325	0.000154138242
			ES	+	chr14:88602827-88603045	NA	0.265	0.000317236808
			ES	+	chr14:88596733-88596808	NA	0.164	0.002711949392
			ES	+	chr14:88601923-88602083	NA	0.154	0.04519826484
ZDHHC15	-2.442360766	3.07E-06	ES	-	chrX:75429077-75429198	NA	-0.334	0.01080928689
ZDHHC17	-1.032897555	0.02019774548	ES	+	chr12:76821057-76821167	NA	0.148	0.002782691887
ZFAND1	2.270683786	6.65E-08	ES	-	chr8:81717248-81717288	NA	-0.224	0.04922594537
ZFAND2A	-1.817010382	0.003714018982	A3SS	-	chr7:1152906-1153241	chr7:1152906-1153224	0.139	0.02999909818
ZFAND5	-1.333078315	7.09E-06	MXE	-	chr9:72356930-72357056	chr9:72360109-72360221	0.19	0
			ES	-	chr9:72363469-72363606	NA	-0.426	0

ZSCAN31	-1.453863139	0.002312761048	ES	-	chr6:28329302-28329714	NA	0.38	8.71E-05
			ES	-	chr6:28329302-28329778	NA	0.367	0.000114900623
ZSWIM7	-1.5524246	2.08E-05	ES	-	chr17:15986799-15986892	NA	0.184	0.000434850546
			ES	-	chr17:15986799-15986886	NA	0.15	0.003676103307
			RI	-	chr17:15977578-15977913	NA	-0.191	0.02434367906
ZUFSP	1.758944026	0.004122196302	MXE	-	chr6:116660735-116660846	chr6:116666633-116666912	-0.12	0.03791778075

Supplementary Table 8: Alternatively spliced and differentially expressed protein-coding genes in GSCs significantly associated with prognosis in mesenchymal and proneural GBM.

PART A. Univariate analysis of protein-coding genes

gene.symbol	higher.expression.GSCs	MES GBM samples		PN GBM samples	
		log-rank.pvalue	prognosis	log-rank.pvalue	prognosis
LRRFIP1	MES	0.0089	poor	0.0209	poor
WBSCR22	PN	0.4699	----	<0.001	poor
EMILIN2	PN	0.5632	----	0.0198	poor
CC2D2A	PN	0.5877	----	0.0208	better
RABGAP1	PN	0.8292	----	0.0279	better
FAXDC2	PN	0.2130	----	0.0289	better
TIAM1	PN	0.9708	----	0.0318	better
ATP6V1B1	PN	0.4047	----	0.0350	poor
SLC25A40	PN	0.4172	----	0.0406	poor
TCTN2	PN	0.5923	----	0.0419	poor
SH3BP2	PN	0.5459	----	0.0495	poor
DOCK10	PN	0.3564	----	0.0499	better

PART B. Multivariate analysis of protein-coding genes and clinical parameters in mesenchymal GBM

variable	LRRFIP1		
	beta.coef	Wald.statistic	Cox.pvalue
gene	0.3576	2.1732	0.0298
age at diagnosis	1.0235	2.1386	0.0325
gender	-0.5672	-0.9263	0.3543
CIMP status	----	----	----
IDH1 mutation	----	----	----
MGMT methylation	0.6664	1.0655	0.2866
chr 19/20 co-gain	-0.3824	-0.4919	0.6228
chr 7 gain/chr 10 loss	1.6639	3.0849	0.0020

*significant variables (p<0.05)

PART C. Multivariate analysis of protein-coding genes and clinical parameters in proneural GBM

variable	WBSCR22			EMILIN2			CC2D2A		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
gene	0.4371	2.8880	0.0039	0.3057	2.2905	0.0220	-0.6509	-2.1904	0.0285
age at diagnosis	0.6586	0.7622	0.4459	1.7669	1.7764	0.0757	0.9869	1.2168	0.2237
gender	2.0447	2.1251	0.0336	1.3444	1.5675	0.1170	1.4648	1.6988	0.0894
CIMP status	-0.4641	-0.2689	0.7880	-1.3122	-0.9068	0.3645	-1.6557	-0.9882	0.3230
IDH1 mutation	0.6683	0.3387	0.7348	1.1980	0.7027	0.4823	2.4601	1.3693	0.1709
MGMT methylation	-0.6517	-0.8580	0.3909	-0.2245	-0.3230	0.7467	-0.5978	-0.8284	0.4075
chr 19/20 co-gain	2.5858	2.0582	0.0396	3.0716	2.3222	0.0202	1.9142	1.6647	0.0960
chr 7 gain/chr 10 loss	-3.1405	-2.4756	0.0133	-3.2788	-3.3061	0.0009	-3.0877	-2.7108	0.0067

variable	RABGAP1			FAXDC2			TIAM1		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
gene	-0.4898	-2.6637	0.0077	-0.3867	-2.3636	0.0181	-0.4516	-2.3453	0.0190
age at diagnosis	1.5329	1.6473	0.0995	1.0947	1.2361	0.2164	0.9877	1.1502	0.2500
gender	1.0491	1.3994	0.1617	1.5410	1.9416	0.0522	0.9314	1.2902	0.1970
CIMP status	-0.7617	-0.5088	0.6109	0.5045	0.2817	0.7781	-0.8702	-0.6871	0.4920
IDH1 mutation	1.3375	0.7748	0.4385	0.4471	0.2210	0.8251	1.9105	1.2648	0.2059
MGMT methylation	-0.1112	-0.1626	0.8708	-0.5255	-0.7487	0.4541	-0.2856	-0.4097	0.6820
chr 19/20 co-gain	3.6093	2.6960	0.0070	3.8169	2.7339	0.0063	3.2484	2.5389	0.0111
chr 7 gain/chr 10 loss	-2.9092	-2.6597	0.0078	-3.6507	-3.1298	0.0017	-2.7238	-2.4488	0.0143

variable	ATP6V1B1			SLC25A40			TCTN2		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
gene	0.9800	2.7176	0.0066	-0.6519	-1.9933	0.0462	-0.5079	-2.1521	0.0314

age at diagnosis	1.2171	1.2241	0.2209	0.0986	0.1209	0.9038	1.3442	1.3018	0.1930
gender	1.3306	1.7217	0.0851	0.8510	1.2075	0.2272	1.9354	2.0847	0.0371
CIMP status	-1.0483	-0.4788	0.6321	-1.0927	-0.9923	0.3211	-0.3113	-0.2644	0.7915
IDH1 mutation	1.2353	0.5064	0.6126	3.4524	2.1729	0.0298	2.3793	1.5883	0.1122
MGMT methylation	-0.1912	-0.2778	0.7811	0.2864	0.3885	0.6977	-0.7888	-1.0348	0.3008
chr 19/20 co-gain	2.4281	2.1981	0.0279	1.7522	1.4073	0.1593	3.2235	2.5165	0.0119
chr 7 gain/chr 10 loss	-3.8004	-3.4037	0.0007	-3.4784	-3.1967	0.0014	-3.6597	-3.1296	0.0018

variable	SH3BP2			DOCK10		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
gene	0.4703	2.9020	0.0037	-0.4336	-2.5625	0.0104
age at diagnosis	-0.1829	-0.1705	0.8646	2.4709	2.1732	0.0298
gender	1.6646	2.1857	0.0288	0.6621	0.9648	0.3346
CIMP status	-1.2888	-0.4183	0.6757	-1.2697	-0.9045	0.3657
IDH1 mutation	4.4787	1.2527	0.2103	1.0125	0.5902	0.5551
MGMT methylation	0.9293	1.1462	0.2517	0.0835	0.1115	0.9112
chr 19/20 co-gain	1.1558	0.9661	0.3340	3.7678	2.9061	0.0037
chr 7 gain/chr 10 loss	-2.6520	-2.9495	0.0032	-2.8759	-2.6857	0.0072

Supplementary Table 9: Co-expression of protein-coding genes associated with survival in PN GBM.

	RABGAP1	CC2D2A	WBSCR22	SLC25A40	SH3BP2	ATP6V1B1	EMILIN2	DOCK10	TIAM1	TCTN2	FAXDC2
RABGAP1	1	---	---	---	---	---	---	---	---	---	---
CC2D2A	0.3778 *	1	---	---	---	---	---	---	---	---	---
WBSCR22	-0.4728 **	-0.5614 ***	1	---	---	---	---	---	---	---	---
SLC25A40	0.1489	0.0202	0.1651	1	---	---	---	---	---	---	---
SH3BP2	-0.1133	-0.1089	0.2537	0.0130	1	---	---	---	---	---	---
ATP6V1B1	-0.2706	-0.2227	0.4765 **	0.0485	0.5485 ***	1	---	---	---	---	---
EMILIN2	-0.4391 **	-0.4684 **	0.4113 *	-0.0629	0.2745	0.3251 *	1	---	---	---	---
DOCK10	0.4522 **	0.5113 **	-0.3949 *	-0.2087	-0.1564	-0.0277	-0.5242 ***	1	---	---	---
TIAM1	0.5437 ***	0.3678 *	-0.4822 **	-0.1319	-0.0248	-0.0955	-0.2969	0.6133 ***	1	---	---
TCTN2	0.0143	0.2205	-0.0137	0.2529	0.1962	-0.0242	0.1408	-0.0546	-0.0513	1	---
FAXDC2	0.3104	0.2907	-0.5157 ***	-0.0152	-0.0399	-0.2645	-0.4730 **	0.4783 **	0.4010 *	-0.0701	1

* p<0.05 ** p<0.01 *** p<0.001

Supplementary Table 10: List of cancer-related genes.

proto.oncogenes	tumor.suppressor.genes
AKT1	ACVR1B
BRAF	APC
CTNNB1	ARID1A
DNMT3A	ARID2
EGFR	ASXL1
ERBB2	ATM
EZH2	B2M
FGFR2	BAP1
FGFR3	BCOR
FLT3	BRCA1
HRAS	CASP8
IDH1	CDH1
IDH2	CDKN2A
KIT	CEBPA
KRAS	EP300
MED12	FBXW7
NFE2L2	GATA3
NOTCH1	KDM5C
NPM1	KDM6A
NRAS	MAP3K1
PIK3CA	NCOR1
PTPN11	NF1
SF3B1	PBRM1
SPOP	PHF6
U2AF1	PIK3R1
ALK	PPP2R1A
CARD11	PTEN
HIST1H3B	RB1
MAP2K1	RUNX1
MET	SETD2
MYD88	SMAD2
ABL1	SMAD4
AR	SMARCA4
GNAS	STAG2
JAK2	STK11
PDGFRA	TET2
AJUBA	TP53
ARID5B	VHL
CBFB	WT1
CCND1	CREBBP
CHD4	PRDM1
ELF3	SMARCB1
ERCC2	TSC1
FOXA1	ATRX
MTOR	BRCA2

MYB	CDC73
RAC1	CIC
RAD21	CYLD
RASA1	RNF43
RHEB	ARHGAP35
RHOA	AXIN2
RXRA	BCLAF1
SGK1	CDK12
SMC1A	CDKN1A
SMC3	CDKN1B
SOS1	CHD8
SPEN	CTCF
TBL1XR1	DDX5
TBX3	GPS2
TCF7L2	HLA-A
BCL2	HLA-B
CBL	HSP90AB1
CRLF2	KEAP1
CSF1R	MAP2K4
DNMT1	NSD1
FOXL2	PCBP1
FUBP1	RPL5
GATA1	SOX17
GATA2	TCF7L2
GNA11	TGFBR2
GNAQ	TP53BP1
H3F3A	ZFHX3
JAK1	ARID1B
JAK3	AXIN1
KLF4	DAXX
MPL	HNF1A
NOTCH2	MEN1
PAX5	MLH1
RET	MSH2
SETBP1	MSH6
SMO	NF2
SOX9	PAX5
SRSF2	PTCH1
TSHR	SOCS1
ABCB1	TNFAIP3
ADAM10	TRAF7
AKAP9	ANAPC1
AMPH	ANKRD12
ARHGEF6	APAF1
ASPM	ATG13
BUB1B	ATR
CAD	BARD1

CARM1	BLM
CAST	BUB1B
CLIP1	CCAR1
CLTC	CDKN2C
CREB1	CHEK2
CRTC1	CLTC
CRTC3	COL18A1
CTNND1	DMD
CTTN	EIF4A2
CUL1	FANCA
DICER1	FBN2
DOCK2	FBXO11
EEF1A1	FOXA2
ERBB2IP	KALRN
ESR1	KIAA1109
EWSR1	LIFR
FES	MAP3K4
FN1	MATK
GOLGA5	MAX
GOT2	MST1
HGF	NAV3
HSPA8	NEDD4L
HUWE1	NLRP3
IRS2	NR1H2
ITGA6	PABPC1
KIFC3	PCM1
LCP1	PHLDA1
LEPR	POTEF
LPP	PRKCD
LUM	RBMX
LYN	RPL22
MALAT1	SIN3A
MAP3K3	SYNE1
MAPK8IP1	TJP2
MAST2	TOP3A
MDC1	TSC2
MECOM	TXNIP
MEF2A	ZFP36L1
MLLT10	ZFP36L2
MLLT3	ZNF132
MLLT4	ACO1
MMP2	ALPK2
MN1	ATP5B
MSN	AZGP1
MYH9	CCDC6
NCOA3	FAT1
NCOR2	ING1

NONO	IRF6
NR4A2	MED23
NUMA1	MGA
NUP214	MPO
NUP98	MUC17
PCM1	MYOCD
PIK3CB	NBPF1
PIK3CG	NTN4
PIP5K1A	ODAM
PLCG1	OMA1
PLEC	OTUD7A
PRKAR1A	PDSS2
PRKCD	PPP6C
STAT3	QKI
SUZ12	RBM10
TAF1	SERPINB13
TCF12	SIRT4
TFDP1	SLC26A3
TGIF1	TAP1
TNFRSF10C	TRAF3
TPR	KMT2C
TRIO	KMT2D
WHSC1	AMER1
WHSC1L1	
WRN	
ZMYM2	
ZNF300	
ACVR2B	
BRE	
CAP2	
CD1D	
CD70	
CDC27	
CDK4	
CNKSR1	
COL5A1	
CUL4B	
CUX1	
DDX3X	
DIAPH1	
DIS3	
EPHA2	
ERBB3	
EZR	
FAT1	
FGFBP1	
FOXQ1	

GNA13
GNB1
IL7R
INPPL1
IRF4
ITGB7
MAP4K3
MBD1
MED23
MORC4
MUC17
MYCN
NTN4
ODAM
PLCG2
POU2F2
PPM1D
RIT1
RPS15
RPS2
SETDB1
STX2
TCEB1
TIMM17A
TNF
TNFRSF14
TPX2
TRAF3
WASF3
XPO1
KMT2D
KMT2B
SRSF2
KMT2A

Supplementary Table 11: Differentially spliced and expressed cancer-related genes in GSCs.

	AS		AS & up-regulated		AS & down-regulated	
	MES	PN	MES	PN	MES	PN
Proto-oncogenes	22	17	1	1	3	8
Tumor suppressor genes	19	14	1	2	5	5
Total cancer genes	41	31	2	3	8	13

* MES: mesenchymal; PN: proneural; AS: alternative splicing

Supplementary Table 12: Functional annotation of genes exclusively undergoing splicing alterations in mesenchymal (MES) and proneural (PN) GSCs samples based on gene ontology (GO) terms for biological process (BP), cellular component (CC), and molecular function (MF).

GO category	GO term	# genes	% genes	FDR
GOTERM_BP_DIRECT	GO:0006281~DNA repair	55	2.819067145	3.70E-06
GOTERM_BP_DIRECT	GO:0060271~cilium morphogenesis	38	1.947719118	1.12E-05
GOTERM_BP_DIRECT	GO:0042384~cilium assembly	35	1.79395182	3.69E-05
GOTERM_BP_DIRECT	GO:0051301~cell division	65	3.331624808	0.001310342791
GOTERM_BP_DIRECT	GO:0000398~mRNA splicing, via spliceosome	45	2.306509482	0.008430104661
GOTERM_BP_DIRECT	GO:0000086~G2/M transition of mitotic cell cycle	32	1.640184521	0.01364712908
GOTERM_BP_DIRECT	GO:0007062~sister chromatid cohesion	26	1.332649923	0.0285266066
GOTERM_CC_DIRECT	GO:0005654~nucleoplasm	464	23.78267555	6.82E-35
GOTERM_CC_DIRECT	GO:0005737~cytoplasm	657	33.67503844	6.59E-15
GOTERM_CC_DIRECT	GO:0005634~nucleus	676	34.648898	9.83E-15
GOTERM_CC_DIRECT	GO:0005829~cytosol	442	22.65504869	7.31E-12
GOTERM_CC_DIRECT	GO:0005813~centrosome	91	4.664274731	5.32E-10
GOTERM_CC_DIRECT	GO:0016607~nuclear speck	47	2.409021015	2.51E-05
GOTERM_CC_DIRECT	GO:0005814~centriole	32	1.640184521	7.03E-05
GOTERM_CC_DIRECT	GO:0005730~nucleolus	131	6.714505382	9.41E-05
GOTERM_CC_DIRECT	GO:0016020~membrane	278	14.24910302	0.0006209350894
GOTERM_CC_DIRECT	GO:0036064~ciliary basal body	27	1.383905689	0.001692829306
GOTERM_CC_DIRECT	GO:0005739~mitochondrion	176	9.021014864	0.009257314479
GOTERM_CC_DIRECT	GO:0000922~spindle pole	27	1.383905689	0.01426062834
GOTERM_CC_DIRECT	GO:1904115~axon cytoplasm	14	0.7175807278	0.0162211246
GOTERM_MF_DIRECT	GO:0005515~protein binding	1088	55.76627371	4.14E-27
GOTERM_MF_DIRECT	GO:0044822~poly(A) RNA binding	199	10.19989749	3.66E-13
GOTERM_MF_DIRECT	GO:0003723~RNA binding	87	4.459251666	0.01536239243

Supplementary Table 13: Functional annotation of genes exclusively undergoing expression alterations between mesenchymal (MES) and proneural (PN) GSCs samples based on KEGG pathways gene ontology (GO) terms for biological process (BP), cellular component (CC), and molecular function (MF).

Up-regulated genes in MES

Category	Term	# genes	% genes	FDR
GOTERM_BP_DIRECT	GO:0098609~cell-cell adhesion	46	2.212602213	0.04799407647
GOTERM_MF_DIRECT	GO:0005515~protein binding	866	41.65464165	0.04744372776

Up-regulated genes in PN

Category	Term	# genes	% genes	FDR
GOTERM_BP_DIRECT	GO:0006351~transcription, DNA-templated	323	12.75167785	3.58E-08
GOTERM_BP_DIRECT	GO:0007399~nervous system development	72	2.842479274	9.92E-07
GOTERM_BP_DIRECT	GO:0006355~regulation of transcription, DNA-templated	250	9.8697197	6.38E-06
GOTERM_BP_DIRECT	GO:0007156~homophilic cell adhesion via plasma membrane adhesion molecules	46	1.816028425	1.56E-05
GOTERM_BP_DIRECT	GO:0007155~cell adhesion	95	3.750493486	6.75E-05
GOTERM_BP_DIRECT	GO:0000122~negative regulation of transcription from RNA polymerase II promoter	128	5.053296486	0.00235541617
GOTERM_BP_DIRECT	GO:0007158~neuron cell-cell adhesion	11	0.4342676668	0.00375030318
GOTERM_BP_DIRECT	GO:0045665~negative regulation of neuron differentiation	21	0.8290564548	0.004961836942
GOTERM_BP_DIRECT	GO:0010977~negative regulation of neuron projection development	18	0.7106198184	0.008066097786
GOTERM_BP_DIRECT	GO:0007411~axon guidance	40	1.579155152	0.009417216454
GOTERM_BP_DIRECT	GO:0030198~extracellular matrix organization	46	1.816028425	0.01217008478
GOTERM_BP_DIRECT	GO:0007416~synapse assembly	21	0.8290564548	0.02206267871
GOTERM_BP_DIRECT	GO:0051965~positive regulation of synapse assembly	21	0.8290564548	0.02900744251
GOTERM_CC_DIRECT	GO:0005578~proteinaceous extracellular matrix	69	2.724042637	3.28E-07
GOTERM_CC_DIRECT	GO:0030054~cell junction	94	3.711014607	5.88E-05
GOTERM_CC_DIRECT	GO:0009986~cell surface	103	4.066324516	0.0005953719362
GOTERM_CC_DIRECT	GO:0005622~intracellular	204	8.053691275	0.02365275485
GOTERM_MF_DIRECT	GO:0003700~transcription factor activity, sequence-specific DNA binding	174	6.869324911	1.48E-06
GOTERM_MF_DIRECT	GO:0046872~metal ion binding	320	12.63324122	1.34E-05
GOTERM_MF_DIRECT	GO:0005509~calcium ion binding	130	5.132254244	0.0002364379719
GOTERM_MF_DIRECT	GO:0003676~nucleic acid binding	161	6.356099487	0.005817301938
GOTERM_MF_DIRECT	GO:0050840~extracellular matrix binding	13	0.5132254244	0.01829692888
GOTERM_MF_DIRECT	GO:0005518~collagen binding	20	0.789577576	0.04420150625
KEGG_PATHWAY	hsa05200:Pathways in cancer	77	3.039873668	7.38E-05
KEGG_PATHWAY	hsa04360:Axon guidance	32	1.263324122	0.006546766066
KEGG_PATHWAY	hsa04350:TGF-beta signaling pathway	23	0.9080142124	0.04864576473

Supplementary Table 14: RNA binding proteins (RBPs) mapped to spliceosome components.

RBP	up in MES	up in PN	AS.events	spliceosome
DHX38	yes	----	----	2nd step factor
SLU7	yes	----	----	2nd step factor
DDX50	----	----	MES	B act
CACTIN	----	----	MES	Complex C
GPATCH1	yes	----	----	Complex C
PPIL3	----	----	MES	Complex C
PPWD1	----	----	MES	Complex C
WDR83	----	----	PN	Complex C
TFIP11	----	----	MES	Complex C2
FUS	----	yes	PN	Complex A
LUC7L	----	yes	----	Complex A
PRPF40A	----	----	MES	Complex A
RBM23	----	yes	MES & PN	Complex A
RBM25	----	----	PN	Complex A
RBM39	----	----	MES	Complex A
RBM5	----	----	MES	Complex A
SF1	----	----	MES	Complex A
PRPF38A	----	----	PN	Complex B
PRPF4B	----	----	MES & PN	Complex B
THRAP3	----	----	MES	Complex B
ACIN1	----	----	MES	EJC/TREX
SAP18	----	yes	----	EJC/TREX
THOC1	yes	----	----	EJC/TREX
THOC2	----	----	MES	EJC/TREX
THOC5	----	----	MES & PN	EJC/TREX
THOC6	yes	----	----	EJC/TREX
HNRNPA1	----	----	MES	hnRNP
HNRNPA2B1	----	yes	MES	hnRNP
HNRNPD	----	----	MES & PN	hnRNP
HNRNPDL	----	----	PN	hnRNP
HNRNPH1	----	----	MES	hnRNP
HNRNPH3	----	----	PN	hnRNP
HNRNPL	----	----	MES	hnRNP
HNRNPM	----	----	PN	hnRNP
HNRNPR	----	----	PN	hnRNP
HNRNPUL1	----	----	PN	hnRNP
PTBP2	----	yes	MES	hnRNP
PTBP3	yes	----	----	hnRNP
RALY	----	----	PN	hnRNP
LSM1	----	----	PN	Lsm protein
LSM5	----	yes	----	Lsm protein
CELF1	----	----	MES	MISC
DHX9	----	----	PN	MISC

ILF3	----	----	MES & PN	MISC
NSRP1	----	----	MES & PN	MISC
PABPC1	yes	----	----	MISC
QKI	----	yes	MES & PN	MISC
RBFOX2	----	----	PN	MISC
XAB2	yes	----	----	Complex Prp19 associated
SNRPG	----	----	PN	Sm protein
SNRPN	----	----	MES	Sm protein
SREK1	----	----	MES	SR protein
SRRM1	----	----	MES	SR protein
SRSF12	----	yes	----	SR protein
SRSF6	----	yes	MES	SR protein
SRSF7	----	----	MES & PN	SR protein
SNRNP70	----	----	MES	snRNP U1
SNRNP35	----	yes	----	snRNP U11/U12
PHF5A	----	----	PN	snRNP U2
SF3B6	yes	----	----	snRNP U2
DDX46	----	----	PN	snRNP U2 associated
PUF60	----	----	MES	snRNP U2 associated
U2AF1	----	yes	----	snRNP U2 associated
PRPF31	----	----	MES	snRNP U4/U6
SNU13	----	----	PN	snRNP U4/U6
SRPK2	----	yes	----	snRNP U5oU4/U6

Supplementary Table 15: Differentially expressed splicing-related RNA binding proteins (RBPs) between mesenchymal (MES) and proneural (PN) GSCs and GBM samples from TCGA.

GSCs			
RBP	log2FoldChange	FDR	up.regulated
CELF2	9.197588986	3.31E-37	PN
U2AF1	4.008162325	1.11E-22	PN
MBNL3	7.840253782	2.85E-20	PN
POP4	2.558240582	3.06E-16	MES
RBM11	9.634986879	3.26E-14	MES
QKI	2.873719689	4.43E-14	PN
MVP	4.607741975	6.03E-14	MES
SRSF12	8.947413633	4.03E-13	PN
PPARGC1A	8.12470585	1.11E-12	PN
PABPC1	2.380206452	6.33E-12	MES
GPATCH1	1.971018955	1.16E-11	MES
POLR2D	1.884638485	3.73E-10	PN
RP9	2.602651596	9.96E-10	PN
NOVA1	3.14922289	1.31E-08	PN
UPF3A	1.593880475	6.92E-07	PN
TIA1	1.927848441	3.09E-06	PN
CLK4	1.941223901	3.54E-06	PN
RBM23	1.47130468	5.57E-06	PN
SON	1.19079563	8.55E-06	PN
LSM5	1.225545572	1.26E-05	PN
RBMS3	2.084815207	3.15E-05	PN
SLU7	1.473450764	3.22E-05	MES
SRSF6	1.135706591	3.91E-05	PN
CCNT2	1.499508598	4.38E-05	PN
SFPQ	1.301935116	4.51E-05	PN
ADAT1	1.502652197	6.01E-05	PN
ZNF326	1.548570916	0.0001216444844	PN
PTBP2	1.71189802	0.0001693405314	PN
LUC7L	1.204263891	0.0001700296867	PN
SMN2	4.577968467	0.0001945506733	PN
TRMT1L	1.3881325	0.0001964197515	MES
DHX38	1.461842975	0.0002464800835	MES
SRPK2	1.236213978	0.0003627820659	PN
SAP18	1.211323091	0.0004215602091	PN
DUSP11	1.167737455	0.000506676372	MES
HNRNPA2B1	1.125577478	0.0007407571256	PN
PTBP3	1.157095553	0.0007908280334	MES
SCAF4	1.029350091	0.0009154269133	PN
SNRNP35	1.116655399	0.001132352051	PN
FUS	1.199979067	0.001206886185	PN
SMG6	1.280044418	0.002746806291	PN
POLDIP3	1.1845829	0.00411630455	PN
SF3B6	1.299698683	0.01084435673	MES
XAB2	1.301967349	0.01598622458	MES
POLR2J	1.083909056	0.01842346686	PN
CLK1	1.121236214	0.01885873773	PN
THOC1	1.006603965	0.01964208744	MES
ERN1	1.04968285	0.02331227598	MES

GBM from TCGA			
RBP	diff	p.adj	up.regulated
MVP	1.12	0	MES
QKI	0.63	0	PN
POLR2D	0.28	0	PN
NOVA1	1.13	0	PN
TIA1	0.46	0	PN
RBM23	0.27	0	PN
CCNT2	0.35	0	PN
SFPQ	0.48	0	PN
ZNF326	0.27	0	PN
PTBP2	0.92	0	PN
LUC7L	0.44	0	PN
SRPK2	0.31	0	PN
SNRNP35	0.26	0	PN
FUS	0.37	0	PN
POLDIP3	0.4	0	PN
CLK1	0.46	0	PN
HNRNPA2B1	0.21	0.01	PN
CELF2	0.26	0.02	PN
UPF3A	0.26	0.03	PN

RBPMS	2.56712388	0.02742119653	PN
THOC6	1.169586913	0.0339520237	MES

Supplementary Table 16: RNA Binding Protein (RBPs)-associated splicing events enriched in mesenchymal (MES) and preneural (PN) GSCs samples.

ASS (alternative 5' or 3' splice site): genomic coordinates of long and short exons (columns g.coord_1 and g.coord_2)

MXE (mutually exclusive exon): genomic coordinates of first and EScond exons (columns g.coord_1 and g.coord_2)

RI (retained introns): genomic coordinates of retained intron (column g.coord_1)

ES (exon skipping): genomic coordinates of skipped exon (column g.coord_1)

MES						
event.type	RBP	strand	g.coord_1	g.coord_2	inc.level.difference	FDR
ES	RBM5	+	chr3:50104247-50104308	NA	0.637	0
ES	RBM5	+	chr3:50110378-50110463	NA	0.247	0
ES	SNRNP70	+	chr19:49102113-49103587	NA	0.141	0
ES	QKI	+	chr6:163455278-16345421	NA	0.424	0
ES	HNRNPA2B1	-	chr7:26190992-26191128	NA	0.402	0
ASS	THOC2	-	chrX:123620374-123620965	chrX:123620906-123620965	0.231	0
ES	DBR1	-	chr3:138163777-138163858	NA	0.426	0
ES	SON	+	chr21:33572550-33572630	NA	0.263	0
ES	PRPF40A	-	chr2:152679055-152679109	NA	0.309	0
RI	QKI	+	chr6:163563419-163570145	NA	0.602	3.34E-14
ES	CCAR2	+	chr8:22613016-22613136	NA	0.147	8.25E-14
ES	TIA1	-	chr2:70229058-70229091	NA	0.349	1.08E-13
ES	U2AF1L4	-	chr19:35744625-35744692	NA	0.725	9.67E-13
ES	EEF1D	-	chr8:143592646-143592893	NA	0.522	1.10E-11
ES	EEF1D	-	chr8:143592646-143592942	NA	0.497	1.12E-11
ES	ILF3	+	chr19:10684415-10684476	NA	0.323	1.34E-11
ES	U2AF1L4	-	chr19:35744625-35744738	NA	0.662	2.54E-11
ES	TIA1	-	chr2:70228343-70228462	NA	0.465	4.53E-11
ES	PPIL3	-	chr2:200882341-200882435	NA	0.454	5.63E-11
ES	NSUN2	-	chr5:6631872-6631977	NA	0.189	1.23E-10
ES	PUF60	-	chr8:143820665-143820716	NA	0.355	2.28E-10
ES	HNRNPD	-	chr4:82371527-82371584	NA	0.29	3.90E-10
ASS	QKI	+	chr6:163564666-163570145	chr6:163565945-163570145	0.545	3.14E-09
ES	LUC7L3	+	chr17:50738136-50738199	NA	0.274	3.31E-09
ES	HNRNPH1	-	chr5:179619268-179619360	NA	0.129	5.52E-09
ES	SRSF7	-	chr2:38748897-38749346	NA	0.118	8.21E-09
MXE	QKI	+	chr6:163534981-163535125	chr6:163561981-163562069	0.124	1.07E-08
ES	EEF1D	-	chr8:143592646-143592893	NA	0.499	1.57E-08
RI	ARL6IP4	+	chr12:122981128-122981879	NA	0.401	1.61E-08
ASS	SNRPN	+	chr15:24974287-24974456	chr15:24974310-24974456	0.392	2.09E-08
ES	THOC5	-	chr22:29550727-29550843	NA	0.218	2.53E-08
ES	PPWD1	+	chr5:65571838-65572286	NA	0.179	4.50E-08
ES	MBNL1	+	chr3:152456266-152456361	NA	0.13	5.88E-08
ES	SF1	-	chr11:64771463-64771537	NA	0.208	1.08E-07
ASS	SFSWAP	+	chr12:131714070-131714240	chr12:131714070-131714193	0.163	1.54E-07
ASS	TIA1	-	chr2:70216752-70216994	chr2:70216885-70216994	0.191	1.98E-07
ASS	GEMIN8	-	chrX:14026051-14026221	chrX:14026139-14026221	0.327	3.93E-07
RI	QKI	+	chr6:163563419-163570145	NA	0.403	4.78E-07
ES	ACO1	+	chr9:32386370-32386438	NA	0.159	9.98E-07
ES	PPIL3	-	chr2:200882341-200882382	NA	0.525	1.32E-06
ES	SREK1	+	chr5:66156064-66158932	NA	0.327	1.42E-06
ES	DDX50	+	chr10:68906225-68906337	NA	0.106	1.74E-06
ES	ZCCHC8	-	chr12:122490461-122490567	NA	0.176	1.79E-06
MXE	HNRNPH1	-	chr5:179620891-179621397	chr5:179623036-179623164	0.114	2.46E-06
MXE	QKI	+	chr6:163534981-163535125	chr6:163561981-163562069	0.124	2.92E-06
MXE	PPIL3	-	chr2:200882341-200882435	chr2:200885261-200885343	0.104	3.05E-06
ES	EEF1D	-	chr8:143592646-143592797	NA	0.512	4.25E-06
MXE	LUC7L3	+	chr17:50737286-50737479	chr17:50738136-50738199	0.106	4.40E-06
ES	ZNF326	+	chr1:90007611-90007750	NA	0.173	5.06E-06
ES	SRRM1	+	chr11:24663182-24663224	NA	0.254	5.46E-06
MXE	LUC7L3	+	chr17:50737286-50737479	chr17:50738136-50738199	0.109	5.64E-06
ES	RBM23	+	chr14:22908332-22908380	NA	0.228	1.15E-05
MXE	PPIL3	-	chr2:200882341-200882435	chr2:200885261-200885367	0.153	1.17E-05
ES	EEF1D	-	chr8:143590607-143590729	NA	0.51	1.39E-05
ASS	QKI	+	chr6:163563419-163563719	chr6:163563443-163563719	0.127	1.90E-05
ES	PPIL3	-	chr2:200885261-200885367	NA	0.339	1.93E-05
ES	EEF1D	-	chr8:143590607-143590735	NA	0.471	1.99E-05
ASS	HNRNPH1	-	chr5:179623594-179623671	chr5:179623635-179623671	0.141	2.06E-05
ES	CACTIN	-	chr19:3611228-3611364	NA	0.444	2.72E-05
ASS	CLK4	-	chr5:178619837-178619896	chr5:178619837-178619896	0.302	4.40E-05
ES	EEF1D	-	chr8:143590607-143590738	NA	0.346	5.02E-05
ES	SNRPN	+	chr15:24974641-24974957	NA	0.514	5.03E-05
ES	ZNF326	+	chr1:90007344-90007750	NA	0.107	6.21E-05
MXE	HNRNPD	-	chr4:82355303-82355401	chr4:82356536-82356683	0.127	8.41E-05
RI	U2AF1L4	-	chr19:35744322-35744738	NA	0.397	9.78E-05
RI	PRPF31	+	chr19:54129056-54129370	NA	0.131	0.000126791982
ASS	CASC3	+	chr17:40167370-40167612	chr17:40167497-40167612	0.116	0.000143821555
RI	PRPF4B	+	chr6:4056320-4057187	NA	0.118	0.000170267772
ES	PRPF4B	+	chr6:4062556-4062760	NA	0.163	0.000193544491
ES	SMG7	+	chr1:183547102-183547252	NA	0.216	0.000268228621
MXE	HNRNPH1	-	chr5:179621241-179621397	chr5:179623036-179623164	0.106	0.000298680430
ES	CLK4	-	chr5:178619837-178619896	NA	0.17	0.000432013183
RI	RBM5	+	chr3:50100531-50103166	NA	0.214	0.000549559422
ES	TRMU	+	chr22:46355989-46356072	NA	0.401	0.000653105210
ES	HNRNPA1	+	chr12:54281385-54281502	NA	0.112	0.000749873320
ASS	SART3	-	chr12:108544426-108544532	chr12:108544426-108544478	0.142	0.000777512798
ES	PUF60	-	chr8:143827384-143827536	NA	0.128	0.000780430881
ES	EEF1D	-	chr8:143590644-143590738	NA	0.311	0.000791141303
ES	CLK4	-	chr5:178619837-178620673	NA	0.125	0.000805592955
ES	UPF3A	+	chr13:114286301-114286400	NA	0.217	0.000867862258
ES	SRSF6	+	chr20:43459152-43459420	NA	0.11	0.000938808030
ES	PRPF40B	+	chr12:49632595-49632623	NA	0.329	0.001138009614
MXE	DEK	-	chr6:18258303-18258405	chr6:18263842-18263996	0.121	0.001323759902
ES	EEF1D	-	chr8:143590644-143590735	NA	0.479	0.001367554607
ES	NSRP1	+	chr17:30118079-30118173	NA	0.239	0.002111221232
ASS	THOC2	-	chrX:123610917-123610963	chrX:123610917-123610957	0.113	0.002286623134
ES	CPSF7	-	chr11:61420469-61420530	NA	0.111	0.002471171293
ASS	SECISBP2	+	chr9:89334521-89334730	chr9:89334635-89334730	0.158	0.002486846193

PN						
event.type	RBP	strand	g.coord_1	g.coord_2	inc.level.difference	FDR
ASS	QKI	+	chr6:163565945-163566795	chr6:163566720-163566795	-0.573	0
ASS	DAP3	+	chr1:155689090-155689243	chr1:155689090-155689174	-0.185	0
RI	TSEN2	+	chr3:12529761-12531659	NA	-0.169	0
RI	CLK4	-	chr5:178616881-178618778	NA	-0.481	1.16E-13
RI	SUGP2	-	chr19:18994365-18995280	NA	-0.322	1.97E-13
ASS	ARL6IP4	+	chr12:122981570-122981879	chr12:122981594-122981879	-0.303	5.86E-13
RI	FUS	+	chr16:31184938-31188357	NA	-0.141	6.33E-13
ES	PRPF4B	+	chr6:4056256-4056688	NA	-0.255	6.63E-13
ES	NONO	+	chrX:71284983-71285097	NA	-0.185	7.49E-12
ES	SNU13	-	chr22:41682355-41682587	NA	-0.101	1.11E-11
RI	CLK1	-	chr2:200859679-200861466	NA	-0.38	5.85E-11
ES	DHX9	+	chr1:18285576-182855713	NA	-0.121	3.15E-10
ASS	ARL6IP4	+	chr12:122981570-122981879	chr12:122981594-122981879	-0.254	3.67E-10
ES	U2AF1L4	-	chr19:35744490-35744540	NA	-0.55	1.56E-09
ES	UBTF	-	chr17:44208618-44209001	NA	-0.104	6.26E-08
ES	RBM23	-	chr14:22905605-22905659	NA	-0.136	6.52E-08
RI	HNRNPM	+	chr19:8465323-8465515	NA	-0.161	7.93E-08
RI	CLK4	-	chr5:178617343-178618778	NA	-0.336	9.82E-08
ES	RFXO2	-	chr22:35836319-35836439	NA	-0.189	1.49E-07
RI	ILF3	+	chr19:10681218-10682192	NA	-0.143	1.78E-07
ES	HNRNPD	-	chr4:82425562-82425667	NA	-0.185	3.32E-07
MXE	EEF1D	-	chr8:143581228-143581328	chr8:143586218-143586290	-0.184	1.14E-06
ES	HNRNPD	-	chr4:82356536-82356683	NA	-0.181	1.83E-06
RI	CLK3	+	chr15:74622119-74622560	NA	-0.15	1.92E-06
RI	WDR83	+	chr19:12669754-12670080	NA	-0.576	5.75E-06
ES	SNRPG	-	chr2:70289349-70289372	NA	-0.177	8.30E-06
ES	LSM1	-	chr8:38169801-38169917	NA	-0.102	2.05E-05
ES	ADARB1	+	chr21:45184473-45184593	NA	-0.343	2.24E-05
ES	THOC5	-	chr22:29531077-29531110	NA	-0.132	2.46E-05
RI	SRSF7	-	chr2:38748578-38749705	NA	-0.138	2.58E-05
ES	UPF3A	+	chr13:114298839-114299000	NA	-0.129	3.01E-05
MXE	QKI	+	chr6:163565278-163565421	chr6:163534981-163535125	-0.168	3.05E-05
RI	PRPF40B	+	chr12:49631859-49632880	NA	-0.355	4.01E-05
ES	HNRNPR	-	chr1:23340851-23341017	NA	-0.125	4.88E-05
RI	PRPF4B	+	chr6:4060412-4061147	NA	-0.11	4.91E-05
ES	HNRNPR	-	chr1:23340851-23341020	NA	-0.127	6.33E-05
ES	PHF5A	-	chr2:4168019-41688147	NA	-0.127	8.80E-05
ASS	PRPF38A	+	chr1:52405679-52405839	chr1:52405679-52405713	-0.175	0.000108494166
RI	ZCCHC8	-	chr12:122483278-122483563	NA	-0.216	0.000110570446
MXE	NSRP1	+	chr17:30118079-30118173	chr17:30163066-30163162	-0.106	0.000111351818
RI	DDX46	+	chr5:134816429-134817714	NA	-0.105	0.000396894854
MXE	SUGP2	-	chr19:18995143-18995280	chr19:19001612-19001674	-0.153	0.000401558081
ES	RALY	+	chr20:34065043-34065160	NA	-0.352	0.000541806568
MXE	HNRNPD	-	chr19:91305831-91305867	NA	-0.111	0.000558909809
MXE	TRMT2B	-	chrX:101042041-101042312	chrX:101051643-101051733	-0.147	0.000818605483
RI	CCAR2	+	chr8:22619149-22620468	NA	-0.169	0.001791555223
RI	ARL6IP4	+	chr12:122981128-122981879	NA	-0.104	0.001961330751
RI	DDX39A	+	chr19:14409741-14410334	NA	-0.119	0.002219711602
RI	ADARB1	+	chr21:45222017-45222650	NA	-0.208	0.002719711602
ASS	CPSF7	-	chr11:61420469-61421608	chr11:61421389-61421608	-0.151	0.002518662501
ES	GFM2	-	chr5:74730259-74			

ES	RBM39	-	chr20:35740524-35740597	NA	0.154	0.003153225159
ASS	CPSF7	-	chr11:61421053-61421130	chr11:61421053-61421127	0.301	0.003195651006
RI	ARL6IP4	+	chr12:122981128-122981879	NA	0.229	0.00421474628
MXE	PPIL3	-	chr2:200882341-200882382	chr2:200885261-200885343	0.286	0.004322405941
ES	POLDIP3	-	chr22:42601969-42602056	NA	0.229	0.005634242534
RI	UZAF1L4	-	chr19:35744322-35745187	NA	0.282	0.005964038928
MXE	POP4	+	chr19:29610408-29610457	chr19:29611861-29611939	0.229	0.007333098958
ES	POLDIP3	-	chr22:42601969-42602107	NA	0.263	0.007773580358
ES	PRPF4B	+	chr6:4062556-4062633	NA	0.151	0.007818435325
ES	TSEN2	+	chr3:12516610-12516661	NA	0.173	0.007851399504
ES	PUF60	-	chr8:143824312-143824396	NA	0.228	0.008185219315
MXE	DBR1	-	chr3:138163777-138163858	chr3:138167080-138167305	0.171	0.01047188361
MXE	CPSF7	-	chr11:61421053-61421127	chr11:61421191-61421257	0.378	0.01173911421
MXE	MBNL1	+	chr3:152455541-152455577	chr3:152456266-152456361	0.163	0.01194955016
ES	THRAP3	+	chr1:36225411-36225463	NA	0.218	0.01278202333
ES	TFIP11	-	chr22:26511118-26511317	NA	0.127	0.0127859952
ES	EXOSC10	-	chr1:11080498-11080514	NA	0.137	0.01358618517
ES	SREK1	+	chr5:66158808-66158932	NA	0.212	0.01430870942
ES	RBM5	+	chr3:50100531-50100605	NA	0.228	0.02074446813
ES	CCNT2	+	chr2:134945786-134945982	NA	0.132	0.02298175873
ES	CELF1	-	chr11:47500860-47500932	NA	0.237	0.02326580329
ES	TSEN2	+	chr3:12505153-12505231	NA	0.135	0.02398359823
ES	RBMS1	-	chr2:160282256-160282304	NA	0.217	0.02751345708
ES	ACIN1	-	chr14:23089981-23090101	NA	0.233	0.02847082484
MXE	PPIL3	-	chr2:200882341-200882382	chr2:200885261-200885367	0.277	0.03684497474
ES	PUF60	-	chr8:143824312-143824399	NA	0.166	0.0374094293
ES	HNRNPL	-	chr19:38841612-38841682	NA	0.156	0.03764037285
ASS	PTBP2	+	chr1:96804784-96804939	chr1:96804799-96804939	0.389	0.03982276621
MXE	CPSF7	-	chr11:61421053-61421130	chr11:61421191-61421257	0.32	0.0423514077
ES	ACIN1	-	chr14:23071124-23071186	NA	0.194	0.04533534914
ES	TFIP11	-	chr22:26511118-26511195	NA	0.144	0.04611867135

Supplementary Table 17: Differentially spliced/expressed RNA binding proteins (RBPs) in GSCs with splice-site-creating mutations reported at Jayasinghe et al.

RBP	GSCs		Mutations Jayasinghe <i>et al.</i>							
	Mesenchy	AS.events	Exon	Intron	Site	Chromosome	Position	MutationType	NovelJunctionPosition	Cancer
ACIN1	----	MES	14/19	.	TCGA-D1-A2G0_14_23532257_G_A	14	23532257	Missense	23532247	UCEC
			12/19	.	TCGA-CF-A27C_14_23533388_C_G	14	23533388	Missense	23533386	BLCA
DDX46	----	PN	18/23	.	TCGA-YG-AA3O_5_134147386_G_A	5	134147386	Missense	134147388	SKCM
DHX38	up	----	.	15/26	TCGA-DG-A2KM_16_72138925_G_C	16	72138925	Splice Site	72138934	CESC
GEMIN8	----	MES	5/5	.	TCGA-BF-AAP1_X_14027019_C_T	X	14027019	Other	14027017	SKCM
			.	4/4	TCGA-G3-A7M6_X_14027290_T_A	X	14027290	Splice Site	14027281	LIHC
HNRNPL	----	MES	.	9/12	TCGA-CV-A45Q_19_39329240_T_C	19	39329240	Splice Site	39329226	HNSC
LUC7L	down	----	6/10	.	TCGA-ZF-A9R7_16_249172_G_T	16	249172	Silent	249174	BLCA
NONO	----	PN	3/12	.	TCGA-YC-A9TC_X_70510515_G_C	X	70510515	Missense	70510517	BLCA
RBFOX2	----	PN	.	2/13	TCGA-34-5241_22_36236390_T_C	22	36236390	Other	36236394	LUSC
RBM39	----	MES	.	2/16	TCGA-34-A5IX_20_34328745_C_A	20	34328745	Splice Site	34328727	LUSC
RBM5	----	MES	.	13/24	TCGA-50-5068_3_50145581_G_A	3	50145581	Splice Site	50145585	LUAD
			.	3/24	TCGA-UY-A78L_3_50131152_G_A	3	50131152	Splice Site	50131154	BLCA
SCAF4	down	----	.	7/19	TCGA-G2-A3IE_21_33069064_C_T	21	33069064	Splice Site	33069061	BLCA
SMG7	----	MES	.	18/22	TCGA-D5-6924_1_183518342_G_A	1	183518342	Splice Site	183518360	COAD
			9/23	.	TCGA-EE-A2GM_1_183502377_C_T	1	183502377	Missense	183502390	SKCM
SRRM1	----	MES	9/17	8/16	TCGA-BR-8686_1_24981344_AGA_-	1	24981344	Splice Site	24981348	STAD
SRSF6	down	MES	.	5/5	TCGA-85-A4JC_20_42089342_G_T	20	42089342	Splice Site	42089348	LUSC
THOC5	----	MES & PN	.	4/19	TCGA-22-5472_22_29938946_C_A	22	29938946	Splice Site	29938937	LUSC
THRAP3	----	MES	5/12	.	TCGA-J2-A4AD_1_36755327_C_A	1	36755327	Silent	36755325	LUAD
UBTF	----	PN	.	10/20	TCGA-P3-A6T5_17_42288700_C_G	17	42288700	Splice Site	42288694	HNSC
			20/21	.	TCGA-AJ-A8CT_17_42284837_G_A	17	42284837	Silent	42284838	UCEC
ZNF326	down	MES	8/12	.	TCGA-FS-A1Z0_1_90483007_T_G	1	90483007	Missense	90483003	SKCM

Supplementary Table 18: Differentially spliced/expressed RBPs in GSCs frequently mutated according to Seiler *et al.*

RBP	GSCs		Mutations Seiler et al.				tcga.cohort
	Mesenchymal	AS.events	percentage.non.silent.mutation	percentage.hotspot	percentage.LoF		
CLK4	down	MES & PN	1.14, 0.43, 0.9, 0.95, 0.94, 0.17, 0.35, 0.35, 1.72, 0.35, 1.21, 0.68, 0.14, 0.31, 0.43, 0.61, 0.58, 0.32, 0.95, 1, 3.19	40, 20, 0, 0, 0, 0, 0, 0, 0, 0, 50, 0, 25, 0, 50, 100, 16, 0, 0, 20, 20, 16.67	0, 40, 0, 40, 0, 100, 0, 0, 60, 50, 0, 0, 0, 50, 0, 22.67, 0, 0, 40, 20, 22.22	BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KIRC, KIRP, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, READ, SARC, SKCM, STAD, UCEC	
DDX50	---	MES	1.09, 1.14, 0.43, 0.6, 1.53, 1.42, 0.17, 0.18, 1.77, 0.71, 0.69, 0.5, 0.17, 1.7, 2.05, 0.29, 0.16, 0.43, 0.98, 0.59, 1.75, 1.13, 2.59, 6.38	0, 0, 0, 0, 12.5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 6.67, 0, 33.33, 0, 0, 16.67	100, 20, 20, 0, 37.5, 0, 100, 0, 0, 16.67, 50, 0, 100, 30, 0, 66.67, 0, 46.15, 41.67	ACC, BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KICH, KIRC, KIRP, LAML, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, PRAD, READ, SKCM, STAD, UCEC	
DHX9	---	PN	4.34, 1.04, 2.1, 1.96, 3.82, 1.89, 0.33, 0.88, 0.53, 1.37, 0.35, 2.91, 2.56, 1.15, 0.47, 0.43, 1.73, 2.34, 3.4, 2.99, 9.57, 3.51	0, 0, 14.29, 0, 15, 0, 0, 0, 0, 0, 50, 0, 0, 0, 0, 0, 0, 5.69, 0, 5.56, 6.67, 9.26, 0	10.53, 8.33, 0, 0, 30, 25, 50, 0, 33.33, 0, 0, 16.67, 6.67, 12.5, 33.33, 100, 21.33, 0, 11.11, 40, 35.19, 0	BLCA, BRCA, CESC, CHOL, COAD, ESCA, GBM , HNSC, KIRC, KIRP, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, READ, SKCM, STAD, UCEC, UCS	
HNRNPD	---	MES & PN	0.91, 0.17, 0.3, 1.15, 1.79, 0.47, 0.88, 0.18, 0.34, 0.17, 0.24, 0.51, 0.43, 0.57, 0.2, 0.64, 1.13, 0.4, 0.19, 4.43, 1.75	0, 0	50, 50, 100, 0, 50, 0, 40, 0, 0, 100, 100, 33.33, 66.67, 33.33, 100, 0, 0, 0, 0, 40, 0	BLCA, BRCA, CESC, COAD, DLBC, ESCA, HNSC, KIRC, KIRP, LGG, LIHC, LUAD, LUSC, pancan, PRAD, SARC, SKCM, STAD, THCA, UCEC, UCS	
HNRNPD	---	PN	1.09, 1.37, 0.35, 0.9, 2.48, 0.47, 0.83, 0.88, 0.18, 0.69, 0.5, 0.17, 0.17, 0.72, 0.16, 0.67, 0.2, 0.58, 0.32, 0.38, 1.8, 0.38, 2.84	0, 0, 0, 0, 0, 0, 0, 20, 0, 0, 0, 0, 0, 20, 0, 3.66, 0, 0, 0, 0, 0, 6.25	0, 0, 50, 33.33, 46.15, 0, 20, 60, 0, 0, 0, 100, 100, 0, 100, 32.93, 0, 0, 0, 100, 55.56, 0, 25	ACC, BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KIRC, KIRP, LAML, LGG, LUAD, LUSC, OV, pancan, PRAD, READ, SARC, SKCM, STAD, THCA, UCEC	
HNRNPH3	---	PN	0.68, 0.43, 0.95, 0.47, 0.33, 0.18, 0.34, 0.5, 0.17, 0.58, 0.43, 0.45, 0.39, 0.58, 1.32, 1, 2.66	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 25, 0, 7.27, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	0, 20, 20, 100, 0, 0, 0, 0, 100, 0, 25, 0, 16.36, 0, 0, 28.57, 0, 13.33	BLCA, BRCA, COAD, ESCA, GBM , HNSC, KIRP, LAML, LUAD, LUSC, PAAD, pancan, PRAD, READ, SKCM, STAD, UCEC	
HNRNPL	---	MES	0.68, 0.35, 0.6, 4.01, 0.47, 0.33, 1.23, 0.18, 0.17, 0.73, 0.43, 0.31, 0.75, 1.17, 2.46, 1.4, 3.55	0, 0, 0, 4.76, 0, 50, 0, 0, 0, 0, 0, 0, 0, 0, 3.26, 0, 0, 14.29, 0	33.33, 25, 50, 57.14, 100, 0, 42.86, 0, 0, 33.33, 0, 50, 31.52, 50, 7.69, 14.29, 25	BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KIRC, LGG, LIHC, LUSC, OV, pancan, READ, SKCM, STAD, UCEC	
NOVA1	down	---	1.09, 0.91, 0.17, 0.9, 3.63, 0.89, 0.94, 0.7, 0.34, 0.17, 1.46, 3.76, 2.16, 0.31, 0.43, 1.47, 0.39, 2.92, 0.32, 6.05, 2.79, 0.81, 6.91, 1.75	0, 0, 50, 0, 0, 0, 0, 0, 0, 0, 0, 0, 13.64, 13.33, 0, 0, 9.5, 0, 20, 100, 6.25, 28.57, 0, 7.69, 0	0, 0, 0, 0, 52.63, 0, 0, 0, 0, 100, 33.33, 13.64, 6.67, 0, 100, 21.23, 0, 0, 0, 21.88, 14.29, 0, 28.21, 0	ACC, BLCA, BRCA, CESC, COAD, DLBC, ESCA, HNSC, KIRP, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, PRAD, READ, SARC, SKCM, STAD, THYM, UCEC, UCS	
NSRP1	---	MES & PN	0.68, 0.26, 0.6, 1.53, 0.33, 0.53, 0.34, 0.73, 1.03, 0.29, 0.31, 0.63, 0.2, 0.58, 0.32, 1.89, 1.2, 4.08	0, 0	33.33, 0, 0, 37.5, 0, 0, 0, 66.67, 0, 0, 18.18, 0, 0, 0, 0, 33.33, 26.09	BLCA, BRCA, CESC, COAD, GBM , HNSC, KIRP, LIHC, LUAD, LUSC, OV, pancan, PRAD, READ, SARC, SKCM, STAD, UCEC	
PABPC1	up	---	1.09, 1.6, 0.26, 0.3, 2.29, 1.79, 0.47, 0.18, 0.35, 0.35, 0.24, 0.85, 0.86, 0.31, 0.72, 0.58, 0.32, 2.08, 1, 0.19, 3.9, 1.75	0, 0, 0, 100, 16.67, 0, 0, 0, 0, 50, 0, 0, 0, 0, 0, 0, 17.05, 100, 0, 9.09, 0, 0, 40.91, 0	0, 14.29, 0, 0, 16.67, 100, 0, 0, 0, 50, 0, 0, 0, 12.5, 100, 0, 0, 0, 0, 18.18, 0	ACC, BLCA, BRCA, CESC, COAD, DLBC, ESCA, HNSC, KIRC, LGG, LIHC, LUAD, LUSC, OV, pancan, READ, SARC, SKCM, STAD, THCA, UCEC, UCS	
PHF5A	---	PN	0.23, 0.17, 0.35, 0.88, 0.35, 0.35, 0.43, 0.16, 0.2, 0.57, 0.4, 0.18	0, 100, 0, 100, 0, 100, 66.67, 47.37, 0, 66.67, 50, 0	0, 0, 50, 0, 0, 0, 33.33, 10.53, 0, 0, 0, 0	BLCA, GBM , HNSC, KICH, KIRC, LGG, LUSC, pancan, PRAD, SKCM, STAD, UCEC	
PRPF40B	---	MES & PN	0.91, 0.43, 1.2, 2.86, 0.94, 1.16, 1.58, 0.88, 0.53, 0.69, 0.52, 1.71, 0.86, 0.16, 1.17, 0.2, 2.92, 0.32, 3.21, 2.99, 5.67	0, 0, 0, 6.67, 0, 0, 0, 0, 33.33, 0, 0, 0, 10, 16.67, 0, 6.29, 100, 0, 0, 0, 0, 12.5	0, 20, 50, 26.67, 0, 14.29, 11.11, 0, 0, 0, 0, 10, 33.33, 0, 16.08, 0, 0, 100, 0, 33.33, 15.62	BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KICH, KIRC, KIRP, LGG, LUAD, LUSC, OV, pancan, PRAD, READ, SARC, SKCM, STAD, UCEC	
PRPF4B	---	MES & PN	1.09, 1.83, 1.04, 0.9, 2.67, 0.47, 0.33, 1.23, 0.35, 1.37, 0.35, 0.73, 1.88, 0.86, 1.14, 0.47, 1.26, 0.59, 0.58, 0.64, 3.02, 2.79, 0.38, 6.21, 1.75	0, 0, 8.33, 0, 0, 0, 0, 14.29, 0, 0, 0, 0, 0, 0, 33.33, 1.95, 0, 0, 0, 0, 0, 0, 0, 0, 0	100, 25, 0, 33.33, 50, 100, 50, 0, 0, 25, 50, 33.33, 9.09, 0, 0, 33.33, 27.27, 0, 100, 0, 6.25, 78.57, 0, 31.43, 0	ACC, BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KIRC, KIRP, LGG, LIHC, LUAD, LUSC, MESO, OV, pancan, PRAD, READ, SARC, SKCM, STAD, THCA, UCEC, UCS	
QKI	down	MES & PN	1.09, 0.68, 0.17, 0.3, 1.53, 1.16, 0.88, 0.69, 0.5, 0.17, 0.68, 0.72, 0.43, 0.74, 0.39, 0.58, 0.32, 1.89, 2.59, 3.72, 1.25	0, 0, 0, 0, 0, 0, 20, 0, 0, 0, 0, 0, 0, 4.44, 0, 100, 0, 0, 7.69, 4.76, 0	0, 33.33, 50, 0, 50, 57.14, 0, 0, 0, 0, 20, 0, 42.22, 50, 0, 0, 60, 61.54, 52.38, 100	ACC, BLCA, BRCA, CESC, COAD, GBM , HNSC, KIRP, LAML, LGG, LUAD, LUSC, PAAD, pancan, PRAD, READ, SARC, SKCM, STAD, UCEC, UVM	
RBM25	---	PN	1.83, 0.86, 2.1, 1.96, 2.1, 0.47, 0.5, 0.53, 0.88, 0.18, 0.69, 0.24, 0.85, 1.3, 0.31, 0.43, 1.22, 0.39, 2.34, 0.32, 3.78, 2.4, 0.67, 7.09, 1.75	12.5, 10, 14.29, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 50, 0, 16.78, 50, 0, 0, 5, 41.67, 0, 32.5, 0	12.5, 10, 0, 0, 9.09, 0, 33.33, 33.33, 0, 0, 25, 0, 0, 22.22, 50, 0, 12.75, 0, 0, 100, 0, 8.33, 0, 20, 0	BLCA, BRCA, CESC, CHOL, COAD, ESCA, GBM , HNSC, KICH, KIRC, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, PRAD, READ, SARC, SKCM, STAD, TGCT, UCEC, UCS	
SF1	---	MES	2.28, 0.35, 1.8, 2.1, 0.47, 0.5, 0.88, 0.35, 0.73, 2.56, 0.58, 0.31, 0.43, 0.95, 0.2, 0.58, 0.64, 2.08, 2.59, 3.72	40, 25, 50, 9.09, 0, 33.33, 20, 0, 0, 13.33, 0, 50, 0, 19.83, 0, 0, 0, 23.08, 28.57	0, 0, 16.67, 27.27, 100, 0, 60, 0, 0, 26.67, 0, 0, 100, 16.38, 100, 0, 0, 0, 23.08, 9.52	BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, PRAD, READ, SARC, SKCM, STAD, UCEC	
SNRNP35	down	---	1.09, 0.46, 0.26, 1.15, 0.47, 0.17, 0.35, 0.34, 0.17, 0.14, 0.43, 0.37, 0.58, 0.38, 0.6, 0.19, 0.81, 3.01	0, 0	0, 0, 66.67, 33.33, 100, 0, 0, 0, 0, 26.67, 0, 0, 66.67, 0, 0, 29.41	ACC, BLCA, BRCA, COAD, ESCA, GBM , HNSC, KIRP, LGG, LUSC, PAAD, pancan, READ, SKCM, STAD, THCA, THYM, UCEC	
SNRPN	---	MES	1.09, 0.91, 0.26, 0.3, 1.53, 0.89, 1.42, 1.05, 0.35, 0.17, 0.49, 2.39, 1.44, 0.31, 0.43, 0.84, 0.58, 3.02, 2.2, 2.84	0, 25, 33.33, 100, 50, 0, 33.33, 16.67, 0, 0, 50, 14.29, 10, 0, 0, 20.39, 0, 12.5, 45.45, 6.25	0, 0, 33.33, 0, 12.5, 0, 0, 33.33, 0, 0, 0, 20, 0, 0, 8.74, 0, 6.25, 0, 12.5	ACC, BLCA, BRCA, CESC, COAD, DLBC, ESCA, HNSC, KIRC, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, READ, SKCM, STAD, UCEC	

THOC5	----	MES & PN	2.05, 0.26, 0.9, 1.96, 2.48, 0.89, 0.35, 0.18, 0.34, 0.35, 0.49, 0.34, 1.15, 0.47, 1.3, 0.83, 0.39, 0.58, 0.32, 2.08, 1, 0.67, 0.38, 4.08, 1.75	0, 33.33, 0, 0, 15.38, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.94, 0, 0, 0, 0, 0, 0, 13.04, 0	11.11, 33.33, 33.33, 0, 7.69, 0, 0, 100, 0, 0, 0, 0, 25, 0, 0, 12.87, 50, 0, 0, 18.18, 0, 100, 0, 8.7, 0	BLCA, BRCA, CESC, CHOL, COAD, DLBC, HNSC, KIRC, KIRP, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, PRAD, READ, SARC, SKCM, STAD, TGCT, THCA, UCEC, UCS
THOC6	up	---	0.46, 0.3, 0.57, 0.17, 0.35, 0.18, 0.35, 0.24, 1.03, 0.47, 0.43, 0.48, 0.2, 0.32, 1.32, 0.6, 4.08	0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 12.07, 0, 0, 0, 0, 26.09	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 6.9, 0, 0, 28.57, 33.33, 4.35	BLCA, CESC, COAD, GBM , HNSC, KIRC, LGG, LIHC, LUAD, OV, PAAD, pancan, PRAD, SARC, SKCM, STAD, UCEC
THRAP3	----	MES	3.88, 0.78, 1.5, 1.96, 2.67, 0.33, 0.7, 0.35, 0.69, 1.49, 0.52, 0.49, 1.88, 1.15, 1.14, 1.09, 0.87, 1.48, 0.39, 2.34, 0.32, 4.73, 3.39, 6.91	0, 0, 20, 0, 21.43, 50, 0, 0, 50, 33.33, 0, 0, 0, 0, 0, 0, 0, 11.05, 0, 0, 0, 8, 23.53, 17.95	41.18, 0, 40, 100, 21.43, 50, 25, 50, 50, 33.33, 0, 50, 18.18, 37.5, 100, 28.57, 0, 28.73, 50, 0, 100, 28, 41.18, 23.08	BLCA, BRCA, CESC, CHOL, COAD, GBM , HNSC, KIRC, KIRP, LAML, LGG, LIHC, LUAD, LUSC, MESO, OV, PAAD, pancan, PRAD, READ, SARC, SKCM, STAD, UCEC
TIA1	down	MES	0.23, 0.52, 0.3, 1.15, 0.47, 0.5, 0.18, 0.18, 0.17, 0.17, 1.3, 0.48, 0.2, 0.58, 0.32, 1.51, 1, 1.95, 1.75	0, 0	0, 33.33, 100, 66.67, 0, 66.67, 100, 0, 100, 0, 0, 30.51, 0, 0, 100, 37.5, 40, 9.09, 0	BLCA, BRCA, CESC, COAD, ESCA, GBM , HNSC, KIRC, LGG, LUAD, LUSC, pancan, PRAD, READ, SARC, SKCM, STAD, UCEC, UCS
U2AF1	down	---	1.09, 1.83, 0.17, 0.6, 0.76, 0.17, 0.35, 0.03, 0.35, 2.22, 0.14, 0.16, 1.3, 0.63, 0.2, 0.58, 0.95, 1, 0.19, 3.01, 3.51	100, 12.5, 0, 100, 0, 0, 50, 0.86, 0, 92.31, 0, 0, 100, 48.05, 100, 0, 0, 0, 100, 52.94, 100	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.3, 0, 0, 0, 20, 0, 0, 0	ACC, BLCA, BRCA, CESC, COAD, GBM , HNSC, LAML, LGG, LUAD, LUSC, OV, PAAD, pancan, PRAD, READ, SKCM, STAD, THCA, UCEC, UCS
ZCCHC8	----	MES & PN	1.09, 2.74, 0.6, 1.8, 1.96, 1.72, 1.79, 0.94, 0.7, 0.88, 0.35, 0.34, 0.17, 0.24, 1.2, 0.58, 0.16, 0.43, 0.9, 1.75, 0.64, 1.32, 1.4, 0.19, 4.79	0, 16.67, 0, 0, 0, 0, 0, 0, 25, 0, 0, 0, 0, 0, 14.29, 25, 0, 0, 8.18, 0, 0, 14.29, 14.29, 0, 7.41	0, 8.33, 14.29, 0, 0, 11.11, 0, 0, 0, 0, 0, 100, 0, 100, 28.57, 0, 100, 0, 18.18, 0, 0, 14.29, 14.29, 0, 37.04	ACC, BLCA, BRCA, CESC, CHOL, COAD, DLBC, ESCA, HNSC, KICH, KIRC, KIRP, LGG, LIHC, LUAD, LUSC, OV, PAAD, pancan, READ, SARC, SKCM, STAD, THCA, UCEC

Supplementary Table 19: Differentially expressed lncRNAs between mesenchymal (MES) and proneural (PN) GSCs samples.

Up-regulated lncRNAs in MES (down-regulated in PN)		
lncRNA	log2FoldChange	FDR
ADIRF-AS1	8.146945972	3.93E-36
RP11-169F17.1	9.033911847	1.37E-30
HCG11	6.647723412	3.53E-25
MIR222HG	4.064738431	3.46E-23
RP11-66B24.7	8.978200339	8.13E-23
LINC00960	10.26330846	2.66E-19
RP11-420A23.1	3.684649121	4.13E-19
LINC00470	10.06050549	1.29E-18
LINC01123	7.706435703	1.45E-18
LINC01436	9.962790407	3.64E-18
LINC00707	8.816289946	5.03E-18
CTC-459F4.3	2.972995332	7.19E-18
AC005301.9	10.40930029	1.21E-17
RP11-30P6.6	5.681131516	2.14E-17
AC003092.1	10.50044544	3.23E-17
LINC00857	8.351658274	5.01E-17
RP5-884M6.1	9.72557049	8.11E-17
RP11-366H4.1	10.03231099	3.19E-16
FAM201A	9.935176618	5.54E-16
LINC01249	9.35697513	5.98E-16
RP11-497G19.1	7.366430786	7.63E-16
RP11-108M9.4	6.808368938	8.17E-16
UBR5-AS1	3.568858858	1.20E-15
RP11-575F12.3	7.440012405	1.80E-15
LINC00944	9.821144795	2.02E-15
RP11-148B18.4	9.230758474	2.71E-15
LINC01139	9.226548995	3.83E-15
MSC-AS1	7.978350409	5.06E-15
LINC01605	7.765975334	1.00E-14
CASC9	9.550356712	1.20E-14
RP11-66B24.2	9.683498973	1.23E-14
CTB-140J7.2	9.055864721	1.87E-14
MIR137HG	9.463462249	2.91E-14
RP4-647C14.2	9.440803875	3.12E-14
LINC00910	4.052061325	4.78E-14
TRHDE-AS1	9.426571735	5.89E-14
RP11-129M6.1	9.283071256	1.02E-13
PCAT7	7.012366968	1.83E-13
RP11-390F4.3	4.822466039	6.69E-13
LINC01533	9.351719175	6.69E-13
LINC00662	2.658992173	1.17E-12
RP11-262H14.3	4.33804083	1.57E-12

Down-regulated lncRNAs in MES (up-regulated in PN)		
lncRNA	log2FoldChange	FDR
XIST	-10.22135421	1.92E-94
SOX2-OT	-9.101572388	5.55E-43
LINC00511	-4.72758947	8.94E-35
LINC00665	-6.508442983	2.47E-32
LINC00461	-4.071773964	3.20E-25
MIR34AHG	-7.151118111	2.77E-21
RP11-196G18.22	-9.157734844	1.05E-20
AC074289.1	-6.611724699	5.13E-20
LINC01963	-5.64863106	1.60E-17
AC018647.3	-10.62948487	1.29E-16
HAGLR	-10.37607784	1.88E-16
SOX21-AS1	-10.67844791	4.24E-16
RP11-288C18.1	-3.662952762	5.00E-16
RP11-210M15.2	-7.961094847	2.74E-15
MEG3	-9.884091578	3.89E-15
RP11-566E18.1	-6.093151216	3.97E-15
RP11-161M6.2	-9.861994023	4.74E-15
ZNF528-AS1	-10.33612284	2.16E-14
RP11-275H4.1	-9.076431963	3.29E-14
CTD-2353F22.2	-4.084734896	1.33E-13
LINC01896	-8.717255997	5.77E-13
AF131215.2	-9.011129608	6.69E-13
CASC15	-9.336123802	1.20E-12
RP3-525N10.2	-6.660068513	1.23E-12
RP11-119F7.5	-8.593043845	1.63E-12
RP11-629G13.1	-8.379396214	1.00E-11
RP11-403A3.3	-9.883416675	1.05E-11
MIR99AHG	-3.934916524	1.08E-11
AC108142.1	-8.919909338	1.48E-11
AC005154.6	-2.818045991	1.77E-11
LINC01268	-8.650840613	3.20E-11
RP11-436K8.1	-9.1534206	3.66E-11
RP11-893F2.14	-8.211591997	4.55E-11
AF131215.9	-8.346895896	7.37E-11
RP1-140K8.5	-7.58448199	8.15E-11
ZNF561-AS1	-2.939397831	9.05E-11
RP11-104N10.2	-2.659618794	1.14E-10
RP5-882C2.2	-3.146614921	1.50E-10
MIAT	-7.634121988	1.63E-10
LINC00641	-2.919069966	2.50E-10
CTC-260E6.4	-8.239041606	2.69E-10
TPT1-AS1	-2.889017128	3.55E-10

RP11-221N13.3	5.221276331	1.97E-12	AC114730.3	-8.540168498	3.82E-10
AP001065.15	8.370716353	2.71E-12	RP11-444D3.1	-8.218665966	4.12E-10
CASC8	7.391618522	2.71E-12	RP11-981G7.6	-4.471913906	5.13E-10
RP11-121P12.1	9.043223723	2.97E-12	CTC-559E9.5	-8.344951059	6.27E-10
KC6	8.731874238	4.18E-12	RP11-398K22.12	-2.943377545	9.86E-10
LINC00668	8.742740586	4.45E-12	RP11-159D12.2	-2.798991565	1.02E-09
RP11-879F14.2	7.167672853	5.85E-12	RP1-40E16.9	-8.392876913	1.07E-09
LINC00937	8.783839089	8.75E-12	RP11-196G18.24	-7.657098272	1.30E-09
LINC01615	8.243950135	1.01E-11	CTC-260E6.6	-8.030632831	1.49E-09
CTD-2162K18.4	3.338334789	1.38E-11	FGF14-AS2	-7.851104231	2.11E-09
CTD-2054N24.2	8.481067491	2.59E-11	MIR3681HG	-8.879008143	2.81E-09
RP11-1149O23.3	8.06830903	3.64E-11	ZNF529-AS1	-5.273696736	2.83E-09
CTD-2574D22.4	2.185932751	4.70E-11	FAM212B-AS1	-6.817557936	3.47E-09
LINC00704	8.789363096	4.84E-11	LINC00997	-2.566414249	5.29E-09
FENDRR	8.871195576	8.73E-11	LINC02199	-7.534188611	5.40E-09
AC006946.16	6.245377065	1.48E-10	CTD-2619J13.17	-7.692717819	6.18E-09
LINC02163	8.256808714	1.70E-10	RP11-71N10.1	-8.619040808	6.40E-09
RP11-66B24.4	8.411213248	1.78E-10	RP11-15H20.6	-5.437567657	6.65E-09
CTC-308K20.1	4.217809789	3.39E-10	LINC01550	-8.085630697	7.55E-09
RP11-268G12.1	4.871952911	3.91E-10	ZNF582-AS1	-7.903489168	9.86E-09
RP4-756H11.3	3.053415812	4.84E-10	LINC01535	-7.587569134	1.12E-08
STXBP5-AS1	4.832831339	6.31E-10	LINC00403	-7.699092752	1.72E-08
RP13-270P17.3	4.51796317	6.97E-10	RP11-159D12.8	-2.225130911	1.75E-08
RP4-555D20.4	3.567185961	8.62E-10	RP11-713M15.2	-7.552931119	2.17E-08
RP11-962G15.1	5.492674363	1.17E-09	ATP2B1-AS1	-4.769950165	2.53E-08
RP11-471M2.3	7.569974173	1.21E-09	CTD-2291D10.4	-7.697930084	2.78E-08
RP11-191L9.4	7.544550047	1.24E-09	RP11-448P19.1	-8.466375954	2.88E-08
RP11-419I17.1	5.188552613	2.55E-09	RP4-751H13.7	-4.908088963	3.87E-08
MNX1-AS1	4.331028456	2.88E-09	RP11-223I10.1	-4.899060475	4.30E-08
AC116614.1	5.717797695	3.06E-09	RP11-472N13.3	-7.835931094	4.56E-08
TSPEAR-AS2	7.861341045	4.06E-09	LINC01105	-8.210805291	4.78E-08
GATA2-AS1	7.511897668	4.17E-09	RP4-756G23.5	-7.97797169	5.04E-08
LINC01106	7.775865143	4.51E-09	PTPRD-AS1	-7.51830869	5.39E-08
RP11-440D17.3	7.420510911	4.73E-09	RP11-496D24.2	-7.031095606	5.62E-08
LINC00941	4.901685682	5.11E-09	ST7-AS1	-4.374864479	6.18E-08
TSPEAR-AS1	7.720834221	5.64E-09	MAMDC2-AS1	-3.933905485	7.18E-08
RP11-359K18.4	3.529648568	5.78E-09	LINC00265	-1.778749128	7.71E-08
AC141928.1	6.975413428	6.36E-09	RP1-193H18.2	-4.664498604	8.02E-08
RP1-102E24.8	7.947629154	6.95E-09	RAMP2-AS1	-8.60775794	8.64E-08
RP11-408B11.2	7.274106998	7.61E-09	FTX	-2.006892193	1.18E-07
LBX2-AS1	4.21313293	8.53E-09	LINC01415	-8.371321319	1.48E-07
RP4-639F20.1	2.662459679	8.82E-09	RP11-481J2.4	-7.144945655	1.76E-07
EML2-AS1	4.336272386	1.09E-08	RP11-395L14.18	-2.820322349	1.77E-07
RP11-63G10.4	7.212949803	1.11E-08	HAND2-AS1	-7.871059918	1.90E-07
RP11-809O17.1	4.287316525	1.19E-08	C6orf3	-3.798519763	1.94E-07
RP11-328K4.1	7.624906303	1.43E-08	RP11-57H14.4	-2.092178357	2.09E-07
SNHG8	3.401142657	2.65E-08	RP5-1024N4.4	-7.130551155	2.15E-07

RP11-416N2.4	5.710982828	2.69E-08	CTC-543D15.8	-7.521818143	2.35E-07
RP11-497G19.2	7.584318915	3.32E-08	ZNF790-AS1	-7.2818115	2.38E-07
RP11-295G20.2	2.273079322	4.32E-08	RP11-471B22.3	-7.2094215	2.84E-07
SZT2-AS1	7.536631183	4.74E-08	CTD-2017D11.1	-3.960102808	2.97E-07
CTD-2207P18.2	7.554943496	6.98E-08	RP11-290O12.2	-7.111607088	3.32E-07
UPK1A-AS1	7.064243249	6.99E-08	RP11-329B9.4	-3.828846578	3.74E-07
CTD-2587H24.5	7.513565712	7.00E-08	RP11-488C13.5	-2.246146887	4.77E-07
CTD-2066L21.3	6.285733224	7.90E-08	NNT-AS1	-2.064197224	5.02E-07
RP11-1038A11.1	7.25275581	8.52E-08	LINC00391	-7.146426634	5.71E-07
LINC00623	3.533898273	9.56E-08	CTA-293F17.1	-4.702427301	5.76E-07
RP11-89C3.4	7.943650619	1.01E-07	AC010729.1	-7.260223812	5.96E-07
LINC00689	7.919931953	1.49E-07	RP11-710C12.1	-6.584402572	6.24E-07
LINC01162	7.206055523	1.50E-07	CTD-2587H19.2	-6.980442654	6.68E-07
LINC00702	6.819882379	1.58E-07	RP11-617F23.1	-3.124766954	6.90E-07
CTD-2311M21.3	7.220608546	1.59E-07	XXbac-BPG283O16	-2.719804735	7.12E-07
AC060834.3	7.227385695	1.77E-07	RP11-1148L6.8	-2.711128153	7.16E-07
CTD-2303H24.2	4.704207831	1.86E-07	RP11-274B21.10	-7.017479016	1.01E-06
RP11-15A1.2	6.787720725	1.88E-07	RP11-277P12.20	-2.86194715	1.03E-06
RP5-965G21.4	4.610304614	2.04E-07	RP11-966I7.2	-7.196263744	1.09E-06
EGFR-AS1	7.467470445	2.19E-07	RP11-25K19.1	-5.405367611	1.31E-06
RP11-467L13.7	3.326213921	3.44E-07	CTD-2541J13.1	-3.859070692	1.42E-06
AF241725.6	7.924878636	3.66E-07	RP11-4O1.2	-4.615001879	1.45E-06
LINC01583	6.789227152	4.51E-07	GS1-24F4.2	-6.779841943	1.45E-06
LURAP1L-AS1	3.789069238	4.54E-07	RP11-679B19.1	-8.107790291	1.51E-06
RP11-656D10.3	3.355014087	5.27E-07	RP11-225B17.2	-2.395268743	1.81E-06
LVCAT1	5.211867124	6.09E-07	AP002954.3	-3.351638835	1.87E-06
NOVA1-AS1	2.538877294	6.37E-07	LPP-AS2	-3.390293858	1.92E-06
RP11-440D17.4	7.058620585	6.76E-07	H19	-5.533234603	2.07E-06
OSMR-AS1	4.848799816	7.28E-07	NR2F1-AS1	-2.868865851	2.32E-06
MIR548XHG	6.517723896	8.96E-07	RP11-823E8.3	-4.921400554	2.60E-06
RP11-495K9.9	6.202264434	8.96E-07	DNM3OS	-7.790383001	2.74E-06
AC007773.2	4.236120734	1.03E-06	RP11-16P6.1	-4.139371016	3.47E-06
AC156455.1	4.687323369	1.04E-06	RP11-126K1.6	-3.730455453	3.98E-06
RP11-25H12.1	6.900994063	1.07E-06	RP11-737O24.5	-6.683925926	4.25E-06
CYP4F26P	5.220397301	1.28E-06	AC078842.3	-6.312706899	5.01E-06
LINC00659	6.365318386	1.52E-06	RP11-283I3.6	-2.064384119	5.27E-06
RP13-463N16.6	7.120883305	1.64E-06	RP11-257O5.2	-1.980800207	5.32E-06
PLBD1-AS1	6.911744437	1.87E-06	AC064875.2	-8.268709306	5.72E-06
FAM95C	6.86653314	2.08E-06	RP11-715J22.6	-3.397527777	5.97E-06
LINC01036	6.818139675	2.35E-06	RP11-742D12.2	-6.600456329	6.20E-06
LINC01273	5.680137692	2.37E-06	ATP6V0E2-AS1	-2.617283231	6.45E-06
RNF139-AS1	2.092008006	2.49E-06	LINCR-0001	-3.583810268	7.15E-06
RP11-284F21.7	4.128882055	2.63E-06	LINC00909	-1.795020664	7.52E-06
RP11-402J6.1	6.757541223	2.72E-06	RP11-251G23.5	-2.710204464	7.65E-06
LMLN-AS1	5.648446421	2.82E-06	AC073343.13	-3.817835458	7.97E-06
RP11-519M16.1	6.69772685	2.85E-06	LINC01224	-6.942475864	8.32E-06
LINC00460	3.729442416	3.14E-06	RP11-399B17.1	-3.845322242	8.48E-06

RP11-49I11.1	3.617485545	3.44E-06	RP11-999E24.3	-5.359679484	9.02E-06
RP11-66B24.1	6.774858729	3.65E-06	RP5-981L23.7	-6.696184964	9.14E-06
RP11-575F12.1	6.731795954	3.72E-06	RP11-834C11.4	-6.194158157	9.19E-06
RP11-148O21.4	6.908853839	3.99E-06	RP11-212P7.2	-2.845628074	9.90E-06
RP11-326A19.4	4.369169949	4.03E-06	ASB16-AS1	-1.933744054	1.04E-05
HCG25	2.351298305	4.45E-06	RP11-420L9.5	-1.908570577	1.10E-05
RP11-268G12.3	4.200333373	4.56E-06	RP11-403A3.2	-7.184113199	1.17E-05
RP11-403I13.5	6.607682454	5.12E-06	RP11-348P10.2	-1.86151317	1.23E-05
RP11-802E16.3	3.829069566	5.16E-06	SNHG18	-4.647868931	1.37E-05
RP11-888D10.4	2.615126859	5.27E-06	RP11-351J23.2	-7.008216051	1.41E-05
RP1-28O10.1	6.740643804	5.65E-06	RP11-329B9.3	-5.279490129	1.42E-05
LINC01037	6.270344811	6.20E-06	CCNT2-AS1	-2.887192815	1.44E-05
RP3-522D1.1	3.049267853	7.07E-06	PROX1-AS1	-6.483430831	1.45E-05
LINC01703	3.063371686	7.75E-06	RP11-395I6.3	-3.734767077	1.53E-05
LINC01186	6.337343389	7.82E-06	MZF1-AS1	-4.109415081	1.56E-05
DNAH17-AS1	6.671372493	8.96E-06	U52111.14	-5.209094491	1.56E-05
CTC-480C2.1	6.476276773	9.00E-06	LINC01759	-6.155727325	1.58E-05
GAPLINC	6.488946566	9.04E-06	RP11-375N15.2	-5.839939169	1.74E-05
LL22NC03-86G7.1	4.727001344	9.25E-06	RP11-268J15.5	-3.199082895	1.80E-05
AC073130.3	6.442162012	9.95E-06	PSMA3-AS1	-1.50008569	1.84E-05
CRNDE	1.661141577	1.07E-05	GLIDR	-2.364688409	1.86E-05
XXyac-YM21GA2.	6.615020672	1.08E-05	C8orf31	-6.714240074	1.88E-05
RP11-54A9.1	7.48207227	1.12E-05	RP11-46H11.11	-5.332381628	1.88E-05
RP5-1139I1.1	6.931226549	1.15E-05	RP11-174J11.1	-6.328840649	2.05E-05
SNHG6	1.619245894	1.16E-05	RP11-731C17.2	-3.268225973	2.30E-05
RP11-490G2.2	6.510949254	1.22E-05	RP5-967N21.11	-2.324336409	2.30E-05
RP11-162D16.2	6.403115552	1.33E-05	RP11-51F16.1	-4.936587761	2.35E-05
RP11-60A8.1	7.059636969	1.42E-05	RP13-942N8.1	-3.265656338	2.40E-05
RP11-462L8.1	2.684911141	1.43E-05	GS1-358P8.4	-1.446336752	2.47E-05
RP11-535M15.1	6.836140007	1.53E-05	CH17-408M7.1	-6.258366558	2.57E-05
RP11-134G8.5	3.127231423	1.71E-05	RP5-1039K5.19	-1.852020323	2.86E-05
LINC01694	4.575615416	1.74E-05	TRAF3IP2-AS1	-1.702715019	3.10E-05
RP11-148O21.3	6.106927561	2.05E-05	RP11-120J1.1	-3.974457425	3.13E-05
RP13-977J11.2	4.165965675	2.22E-05	FAM66C	-1.945290987	3.52E-05
ENO1-IT1	2.386887831	2.46E-05	RP5-894A10.2	-2.171188768	3.73E-05
SENCR	6.08542527	2.56E-05	RP5-1054A22.4	-6.344397026	3.74E-05
CEBPA-AS1	3.857018567	3.16E-05	FLJ16779	-6.872421382	3.78E-05
HIF1A-AS2	6.404846376	3.20E-05	ZNF793-AS1	-6.754784127	3.80E-05
RP11-527N22.2	5.339134282	3.42E-05	RP11-70D24.2	-6.968508177	4.04E-05
CTC-378H22.1	6.534646783	3.76E-05	RP11-1263C18.2	-7.313387613	4.16E-05
RP11-686D22.8	6.198503793	3.99E-05	CTD-2049O4.1	-7.321369781	4.22E-05
RP11-148O21.6	6.315889341	4.01E-05	AC004540.4	-6.282644251	4.39E-05
RP11-531A24.5	2.303603847	4.33E-05	AC009120.6	-1.504138068	5.08E-05
LINC00706	6.476287527	4.44E-05	SLC26A4-AS1	-5.453726901	6.07E-05
FSIP2-AS1	3.101133259	4.68E-05	RP11-298I3.6	-4.958802067	6.14E-05
AC012485.2	5.923739888	4.79E-05	TFAP2A-AS1	-2.578756204	6.18E-05
AC007879.5	3.074641483	4.97E-05	RP11-563K23.1	-6.952420153	6.18E-05

LINC01006	3.63077232	5.60E-05
AC079922.3	1.956902709	5.98E-05
KB-68A7.1	6.166678949	6.29E-05
AP003900.6	6.142594363	7.05E-05
AC073130.1	6.12655016	7.07E-05
RP11-280G9.1	6.171046787	7.41E-05
MYOSLID	6.251556237	8.30E-05
RP11-122G18.11	4.018316325	8.30E-05
RP11-148O21.2	6.292163975	8.38E-05
RP11-818F20.5	5.837404855	8.44E-05
AC116609.3	6.271703909	8.65E-05
RP11-796E10.1	6.028707466	8.66E-05
CTC-459F4.9	2.311443761	9.18E-05
RP4-561L24.3	2.730763156	9.65E-05
SNHG3	2.007679738	9.72E-05
RP11-336A10.5	6.036433974	9.75E-05
RP5-906A24.1	6.163773382	0.0001015202373
RP11-445O3.3	5.996668	0.0001047885947
RP11-789C2.1	6.134136909	0.000110518313
RP11-77H9.2	2.414492258	0.0001109149926
RP11-126K1.2	2.955735961	0.0001237668845
RP11-61A14.1	5.6362257	0.0001275645902
RP11-64C12.1	6.037386758	0.0001287785648
RP11-681B3.4	5.946072551	0.0001294839333
LRRC2-AS1	6.032954976	0.0001313836569
RP1-80N2.3	6.076198882	0.0001424505241
CTC-241N9.1	2.085569121	0.0001624255994
RP11-745L13.2	5.965543072	0.0001629744574
LINC01238	1.855748333	0.0001655287567
RP11-284F21.10	3.759829959	0.0001668059475
LINC01293	5.944346668	0.0001670993592
RP11-43A14.1	4.387826573	0.0001750318637
PIK3CD-AS2	2.914291017	0.0001805689676
RP11-445F12.1	3.584080174	0.0001880725427
CTD-2128A3.2	5.916777774	0.0001900227398
CAPN10-AS1	1.275388447	0.0001929530167
RP11-115J23.1	3.59549855	0.0002004776747
AC058791.1	2.103776712	0.0002022208292
LINC00397	5.833030396	0.0002076789859
RP3-414A15.2	5.833030396	0.0002076789859
RP11-553A21.3	5.668675854	0.0002120600755
HRAT17	6.195418077	0.0002233493012
RAD21-AS1	3.167226406	0.0002277363176
AC007879.2	4.331446467	0.0002325843762
AC115522.3	4.767627014	0.0002331553758
FOXP4-AS1	2.326531954	0.0002478962423
KB-1980E6.3	3.412296271	0.0002681835125

CTB-92J24.2	-5.314069527	6.34E-05
LINC01003	-2.501040256	6.39E-05
RP11-645C24.5	-6.087222557	6.49E-05
RP11-582J16.4	-4.940195472	6.60E-05
CTC-260E6.3	-6.190075006	6.62E-05
AC083843.4	-4.139200705	6.70E-05
RP11-625L16.1	-6.239954724	6.85E-05
RP11-73M18.8	-1.594714807	8.36E-05
RP11-479G22.8	-2.85231467	8.58E-05
RP11-546D6.3	-1.665107563	8.65E-05
RP11-1114A5.4	-2.634229881	8.80E-05
KLF3-AS1	-4.575331248	9.04E-05
LINC00326	-6.314611164	9.07E-05
LINC00664	-7.036373964	9.29E-05
RP11-1191J2.5	-6.320824449	9.92E-05
RP5-942I16.1	-6.014181696	0.0001022728821
RP11-565F19.2	-2.237585259	0.0001032761953
RP11-1191J2.2	-6.395026286	0.000105034038
AC108025.2	-6.017357396	0.0001211827081
RP11-873E20.1	-6.226084246	0.0001229669432
RP11-177H2.1	-6.058860997	0.0001237316106
RP11-172H24.4	-3.04103295	0.0001265054452
AP000473.8	-5.81538309	0.0001278147999
LINC01571	-6.934581678	0.0001285817886
CTD-2380F24.1	-5.961929438	0.000133566291
RP11-713C5.1	-6.876356427	0.0001355681751
HAS2-AS1	-4.085607506	0.000145027447
LINC00844	-6.506214183	0.0001455942328
RP11-75C10.7	-6.823811427	0.000155208407
LINC00908	-6.481107341	0.0001560257212
CTC-490E21.11	-2.791691542	0.0001629744574
RP11-13A1.1	-5.656338899	0.0001779992895
RP3-412A9.16	-5.700218034	0.000178039151
RP11-399J13.2	-3.953294004	0.000179960132
HOXD-AS2	-5.941264646	0.0001805001733
RP11-498P14.3	-2.986561638	0.0001840136747
LINC00977	-6.219898602	0.0001857006558
SLC25A25-AS1	-1.773493332	0.0001957125507
RP11-378A13.1	-3.932969614	0.0001961897978
CTB-12A17.2	-4.347383965	0.0002094631782
RP11-506M12.1	-2.336284409	0.0002171325614
RP11-231C18.1	-6.020036331	0.0002193220442
AC073283.4	-5.977321528	0.0002270424433
CTD-2003C8.2	-5.594257181	0.0002325843762
RP11-797A18.5	-2.60626251	0.0002400735245
ZSCAN16-AS1	-1.461219801	0.0002479286896
FOXG1-AS1	-6.018204201	0.0002485594216

RP11-85I17.2	1.952760501	0.0002794556833
C6orf99	5.335843395	0.000296850181
RP4-660H19.1	5.734910136	0.0003298900161
RP11-93B14.4	5.670451112	0.0003303264004
RP11-848P1.2	2.476435257	0.0003354439189
ZNF32-AS2	3.544314316	0.0003360913493
AC017101.10	5.833569888	0.0003380045622
AC006369.2	5.86520115	0.000353289208
RP11-289F5.1	4.967720654	0.0003563823617
CTC-378H22.2	5.863256032	0.0003609088144
RP11-195F19.9	4.469005451	0.0004238631088
AC009502.4	5.730004875	0.0004430834675
RP11-783K16.13	2.343228486	0.000449774211
OLMALINC	1.752506758	0.0004498855903
RP11-146F11.5	3.46808574	0.0004612645846
LINC01023	3.312964937	0.00049292833
LINC01291	5.777375091	0.0005150146816
A2M-AS1	4.168786915	0.0005431319448
RP11-1149O23.4	5.650212647	0.0005514826019
RP11-1038A11.3	5.598300563	0.0005962509155
LINC01611	5.665276992	0.0006123094382
CYYR1-AS1	5.796277869	0.0006165715929
TIPARP-AS1	1.715318172	0.0006259775515
LINC01011	1.594381048	0.0006314346565
CFAP58-AS1	5.230445092	0.0006387733307
XXyac-YX65C7_A	3.152361148	0.0006402732459
AP001596.6	3.794530851	0.000642315236
RP1-46F2.3	5.65892083	0.0006545522028
RP11-686D22.4	5.215504474	0.0006545533053
CTD-2020K17.1	3.574560661	0.0006555385044
CTD-2035E11.3	2.266749235	0.0006709769816
CTD-3162L10.1	3.682695686	0.0007170087374
LINC01385	5.213778355	0.0007681225893
LINC00887	4.768162992	0.0007718938547
CTC-296K1.4	3.998608616	0.0007742883328
RP11-255I10.2	5.566707451	0.0008192694951
RP11-313L6.2	5.542958397	0.0008296757669
SERTAD4-AS1	4.408977222	0.0008421646925
ASH1L-AS1	1.385697423	0.0009050364661
LINC01763	5.073877759	0.0009411342309
RP11-1094H24.4	3.435986713	0.000978736911
RP11-399K21.14	3.580469233	0.0009919611781
CTD-2527I21.5	5.707627463	0.001009396059
RP11-33E12.2	2.942980229	0.001049733793
RP11-337C18.8	1.595992218	0.001058565184
RP5-1071N3.1	3.232444987	0.001062444777
RP11-1C8.4	5.648537776	0.001063952771

TNKS2-AS1	-3.728040785	0.0002505536513
LINC01060	-4.844039641	0.0002649837324
BDNF-AS	-2.440499658	0.0002701641166
RP11-698N11.2	-5.905142346	0.0002839375426
RP11-218E20.3	-6.164438919	0.0002884489359
RP3-394A18.1	-6.54873568	0.0003054275043
LINC01748	-5.173272614	0.0003304188215
AC007204.2	-6.208465703	0.000337371729
RP11-384F7.2	-5.770543132	0.0003414203548
RP11-797A18.6	-2.336037687	0.0003469052726
RP11-838N2.5	-6.037508918	0.0003469971602
C9orf170	-5.720069529	0.0003627820659
RP11-77K12.9	-4.828734775	0.0003678902314
RP11-180M15.7	-2.099645006	0.0003789415833
CTD-2528L19.6	-1.793558835	0.0003862636578
BACE1-AS	-1.443267009	0.0003869969702
RP11-266K4.14	-4.242588344	0.000397881714
RP11-216B9.6	-2.91571161	0.0004165283251
RP5-1042I8.7	-3.113608267	0.0004197058299
LLNLR-245B6.1	-1.761195398	0.0004349915419
AF127936.9	-2.501819757	0.0004353287072
RP11-347E10.1	-5.757603834	0.0004553496524
CTB-113D17.1	-5.734937449	0.0004607993101
RP3-368A4.6	-1.449611238	0.0004745898413
RP11-227D13.1	-5.867579877	0.0005170571664
RP11-644A7.2	-5.790196387	0.0005276721712
RP11-428J1.5	-1.543597441	0.0005411830668
CTD-2516F10.2	-3.097854954	0.0005424818889
LINC01630	-5.607228072	0.0005489052178
AC017104.6	-3.316715648	0.0005752778421
CTD-3014M21.1	-4.237842183	0.0005861190858
RP11-263K19.6	-2.906382897	0.0006004662344
RP11-507K2.3	-5.740163394	0.0006139981934
CD27-AS1	-1.901100354	0.0006156871384
RP11-340F14.6	-6.094730703	0.0006597727109
RP5-912I13.2	-5.21900265	0.0006875965339
HCG17	-4.4800824	0.0007135491804
LIFR-AS1	-3.059186499	0.0007322952109
AC002454.1	-5.217373136	0.0007379084536
CTD-2017D11.2	-3.427087233	0.0007380361314
RP11-815I9.4	-1.355214018	0.0007654657756
RP5-1024N4.5	-6.026962016	0.000770880823
RP11-307B6.3	-5.297361506	0.0007717132749
MIMT1	-6.075412883	0.0007965113531
MESTIT1	-6.156109399	0.000840727958
LINC01102	-5.979861627	0.0008665028436
RP1-153G14.4	-3.352936442	0.0008724535267

RP11-800A3.4	3.836645469	0.001103710061
CTA-14H9.5	5.444560449	0.001111568331
RP11-585P4.5	2.303163707	0.001122770321
RP11-379B18.5	3.018498083	0.001126284887
LRRC3-AS1	5.440915985	0.001134270019
RP11-320G24.1	5.44144726	0.001135271104
RP11-344P13.6	5.019574774	0.001135717299
LINC01096	2.569687218	0.001152849704
RP11-666A8.8	2.71470148	0.001185413762
RP11-377G16.2	5.05269672	0.001208141242
RP11-397A16.1	5.144165161	0.001252642336
CTA-280A3.2	5.43109425	0.001261036766
MTUS2-AS1	4.327983052	0.00126518416
RP11-6D1.3	5.100909506	0.001274578173
PCBP3-OT1	4.988139472	0.001306281919
AC007319.1	3.659058233	0.001320099891
VIM-AS1	1.900326091	0.001325357573
LINC01137	3.235447082	0.001389626545
AC023590.1	5.440417548	0.001449039108
RP11-26J3.1	3.195826099	0.001540317144
CTD-3131K8.2	1.618109617	0.001550529686
AC006946.17	5.357788586	0.001586759001
RP11-108K3.1	5.359911445	0.001590979682
WWC2-AS2	3.74645957	0.00169144635
CASC20	5.373598885	0.001717624055
CTB-60B18.12	3.931782788	0.001731460144
GAS5	1.714774757	0.001737349134
LINC00858	5.202331	0.001792908341
RP11-273G15.2	4.355439323	0.001960726502
SERPINB9P1	4.380934561	0.001960820253
RP11-495K9.10	4.068974459	0.001973420312
CTD-2589M5.5	5.00840386	0.002049313577
RP11-190A12.8	4.239058034	0.00209242228
CTA-292E10.6	1.83530987	0.002103897253
RP11-276H7.2	4.864001821	0.002168345373
RP11-445O3.2	5.297465727	0.002174603479
ERVK-28	3.507293559	0.002219708396
UXT-AS1	2.187486049	0.002240510999
AC137932.6	4.936227677	0.002326603314
RP11-222K16.1	4.830431392	0.002339860971
CARD8-AS1	1.859352843	0.002363507089
RP11-91J19.3	3.229595167	0.00237987829
RP5-1011O1.2	3.750543005	0.0024213379
LINC01024	1.414845232	0.002426669236
RP11-783K16.5	2.211442807	0.002505096368
RP4-621F18.2	2.891474187	0.002586145421
RP11-686D22.5	5.227165141	0.002588758152

LINC01158	-3.599358667	0.0009065648927
RP11-644F5.11	-1.56797691	0.0009066423293
RP4-761J14.10	-5.526895507	0.0009086436691
RP11-78O7.2	-3.269803284	0.0009193049761
AFDN-AS1	-2.1176868	0.0009529911553
RP11-731J8.2	-6.106345858	0.00096371095
AP000289.6	-6.149069418	0.0009735564463
RP5-1159O4.2	-3.33637214	0.0009783005669
CTB-118P15.2	-5.481705306	0.0009795451864
CTC-467M3.1	-5.646775277	0.0009841545403
CTC-425O23.2	-2.852989458	0.001073961961
ARMCX5-GPRASP1	-1.407923176	0.00109723521
RP1-273N12.4	-4.680797573	0.001114511942
RP11-142E9.1	-2.148972429	0.001153749262
AC002456.2	-3.333117086	0.00119975203
CAHM	-2.066462593	0.001205708899
RP11-893F2.13	-2.327250988	0.001208141242
RP5-894A10.6	-1.410084025	0.00121887929
RP11-324E6.10	-5.020937672	0.001218901552
AP000254.8	-2.895415786	0.001234586927
AC053503.11	-5.392283488	0.00125124486
LINC00945	-5.54097168	0.001325653116
PLCG1-AS1	-2.769857823	0.001345851591
RP4-657D16.3	-3.717522492	0.001415189303
RP11-723O4.9	-2.963186604	0.00144225339
RP3-405J10.3	-2.720753833	0.001451610997
RP11-549B18.1	-2.066701039	0.001453948792
RP11-303E16.9	-2.946717768	0.001498140987
LINC01948	-5.764782325	0.001519939855
CTD-2621I17.3	-2.433641132	0.001532216372
CTC-429P9.3	-1.61425528	0.001584564787
RP11-141M1.3	-5.389178491	0.001586759001
RP11-1109F11.3	-1.584739307	0.001588949572
RP11-51J9.6	-4.941437238	0.001664504684
RP11-430H10.1	-5.529941441	0.001677124986
RP11-178H8.7	-1.996689343	0.001691175555
GAS1RR	-4.356538262	0.001723439264
AP006222.2	-5.409402215	0.001739006595
RP11-612B6.2	-5.2185601	0.001739823326
RP11-44F14.6	-2.711064773	0.001784799015
RP11-81H14.2	-5.286201455	0.001804927089
RP11-38M8.1	-5.989338989	0.001825357441
CBR3-AS1	-2.111612848	0.001848250624
RP11-1060J15.9	-5.057482317	0.001897250751
RP11-88E10.4	-2.970796319	0.001899397513
MIR181A2HG	-3.068725026	0.001971044384
RP11-495L19.1	-4.385950377	0.002059250533

RP11-982M15.6	4.795134696	0.002743005064
TARID	5.131806908	0.002771968959
CTD-2314G24.2	5.351285335	0.002777985103
CTD-2574D22.3	1.219204514	0.002957277444
AP000640.10	5.400424159	0.002995682983
RP11-533E19.5	2.854644329	0.003073410086
AC069277.2	5.147331362	0.003112925884
AP000695.4	3.416925837	0.003157362787
AC018816.3	5.17125313	0.003190497569
RP11-565A3.2	5.252153328	0.003195230488
RP11-930P14.2	4.416514667	0.003244161404
RP4-806M20.4	4.969661965	0.003280006796
RP11-284F21.9	2.870204056	0.003382508368
RP11-121L10.2	1.929467064	0.003489041343
UCHL1-AS1	3.427530133	0.003512105265
AC129492.6	4.059740766	0.003514426529
AC140912.1	3.255235499	0.003529503524
RP11-1334A24.5	2.375697794	0.003558685932
RP11-626P14.2	2.26797985	0.003569273891
CTD-2126E3.1	2.962621907	0.003576745562
RP11-700A24.1	2.393535101	0.003625553534
LINC00115	2.058579187	0.003644678278
LINC01776	3.983772495	0.003706084058
RP11-211G23.2	5.094660684	0.003707479166
RP11-114H21.2	5.281203818	0.003726359863
ALMS1-IT1	1.478924142	0.003776549229
AC005264.2	5.278574391	0.003777830725
AJ003147.9	3.526535287	0.003895413923
DLGAP4-AS1	3.802442206	0.004250083204
RP11-432J22.2	1.669411574	0.004252190209
RP11-504P24.9	1.962017455	0.004254237365
RP11-98I9.4	1.842933091	0.004333315917
RP11-359E10.1	3.480699906	0.004367681772
RP11-610P16.1	2.850455675	0.004433280276
RP11-547D24.1	4.721708797	0.004476192619
PVT1	1.306446058	0.004494224275
LINC01111	5.511718329	0.004537567949
HYMAI	5.040696403	0.004537567949
RP1-137D17.1	5.038749263	0.004627321859
HLA-F-AS1	1.5497679	0.004645809335
LL21NC02-1C16.2	5.890732138	0.004724494364
RP11-755F10.1	4.290032186	0.004897947718
XXbac-BPG294E2	2.530545502	0.004953593184
AC068831.10	2.283396586	0.004956503438
RP11-676J12.7	5.871415047	0.005231143184
CTD-3220F14.1	2.781303803	0.005275095619
PACERR	3.216647238	0.005341262143

RP11-73E17.2	-1.5225864	0.002066691171
RP11-379H18.1	-1.47162864	0.00208566031
RP11-454H19.2	-5.491275053	0.002117863573
CTC-301O7.4	-2.520257058	0.002121245305
CTD-2227E11.1	-5.715709335	0.002187760254
RP1-30M3.5	-2.957415119	0.002318239095
RP5-1085F17.3	-1.699213656	0.002380817185
AC005083.1	-5.100366778	0.002413394299
CTC-255N20.1	-5.90996629	0.002439508492
RP11-7F17.3	-5.580193964	0.00247372978
RP11-571L19.8	-4.096570865	0.002515623008
AP000280.66	-7.07685636	0.002526135113
RP11-517B11.7	-1.948887852	0.002565866236
RP11-49K24.8	-5.084806688	0.002582499042
RP11-455F5.3	-2.775083786	0.002586820684
AC104653.1	-3.300505301	0.002628005199
ZBED3-AS1	-1.506734757	0.00271888178
RP11-196G18.3	-3.786317056	0.002722278814
AP000708.1	-5.357866885	0.002751679981
ZNF638-IT1	-1.964433573	0.002868869478
RP11-70D24.3	-5.505695201	0.002968008946
BLACAT1	-5.30854716	0.002993764745
RP11-247A12.2	-4.169126105	0.003010826868
BAALC-AS2	-5.621475819	0.003052205524
RP11-429B14.4	-2.884900617	0.00313103042
RP11-620J15.1	-5.318300474	0.003237995702
AC097662.2	-1.687064586	0.0032674624
PTOV1-AS1	-1.975556696	0.003281406381
LINC00601	-3.655881329	0.003293974386
AC079584.3	-5.146737373	0.003569273891
RP5-1024C24.1	-5.999230278	0.003644599512
ADAMTS9-AS2	-5.996907911	0.003644678278
CHL1-AS2	-5.65075024	0.003741768487
RP11-204L24.2	-3.122698041	0.003824633773
RP11-447D11.3	-2.285101453	0.003834401889
LINC00638	-2.516873246	0.00386929974
LINC00506	-5.295590616	0.00387448858
RP11-345J18.2	-5.54459906	0.003906506877
RP11-429G19.3	-5.180231863	0.004224718689
ELOVL2-AS1	-5.065880739	0.004229916802
RP11-281O15.4	-5.048132452	0.004303880939
RP11-261P13.5	-5.345587797	0.004311879315
CTD-2310F14.1	-5.097612394	0.004314407439
RP11-333O1.1	-4.797569852	0.004356240433
RP11-229D13.3	-2.522981967	0.004358301733
ANKRD10-IT1	-1.541373901	0.004425009632
LINC00877	-5.162567193	0.004430997495

RP4-794I6.4	4.302509489	0.005583274299
RP6-24A23.3	4.523628477	0.00589811513
CTC-1337H24.4	3.823592819	0.006134441325
RP11-167H9.4	3.150506454	0.006292529877
MIR2052HG	3.947255514	0.006300265844
LINC01885	4.994167419	0.006321021797
AC131056.3	4.994167419	0.006321021797
AJ003147.8	3.284970252	0.006400022459
RP11-49I11.4	3.298447728	0.006716031652
LINC01202	5.044433095	0.006718757131
LINC01001	2.271547507	0.006862132394
LINC01939	6.274155912	0.007125126266
AC020571.3	4.550672319	0.007221518883
RP3-467K16.2	4.46813714	0.007460598712
AC092614.2	4.941359329	0.007464342372
CTD-2382E5.6	2.51016861	0.007465628382
RP13-143G15.4	4.43834854	0.007680267498
RP11-315O6.1	1.918246088	0.007885067528
RP11-415J8.5	2.871950971	0.007936253088
HAR1A	4.666604453	0.008044817922
LINC00526	1.255142528	0.008534755491
AC137932.4	2.795844251	0.00869507607
LINC01124	4.820811423	0.00877107676
TM4SF1-AS1	3.203756647	0.009164230146
RP11-798K23.1	4.808731238	0.0094402494
RP11-381K20.2	2.670945807	0.009598075674
RP11-460B17.2	4.468328266	0.009700297729
SNCA-AS1	4.835756356	0.009801529201
RP11-816J6.3	4.80383904	0.009874746881
LIPE-AS1	1.590611256	0.009882149942
CTD-2540B15.9	4.018448288	0.00988955589
RP11-107N15.1	4.349087981	0.009996760949
AP003068.23	2.087838199	0.0100518035
SFTA1P	3.346689327	0.01028588464
SLFNL1-AS1	1.774575445	0.01032988242
RP11-15A1.3	3.031428648	0.01041824749
RP4-536B24.4	3.687087304	0.01091224381
WT1-AS	2.909754676	0.0110624291
RP11-445P19.3	4.784105335	0.01113904435
RP11-503E24.2	1.464539684	0.01116260243
CTB-32O4.2	2.07953376	0.01132040195
CTD-2270P14.5	1.611690475	0.01137785432
AP001628.6	2.652537389	0.01166723233
LINC01021	1.955564405	0.0116975285
RP11-122G18.12	1.750285823	0.0117030675
AC034220.3	2.795064426	0.0117410892
AC092159.2	2.193511264	0.01210692174

LINC00606	-5.915208686	0.004529393032
DACT3-AS1	-4.634377855	0.004559218413
LINC00205	-1.177100916	0.00459041247
RP3-428L16.2	-2.843211281	0.004603675121
RP11-478J18.2	-5.016918499	0.004865294804
RP11-884K10.7	-1.241319978	0.005095643322
TAF1A-AS1	-1.711780788	0.005107535178
RP11-758P17.2	-3.714195116	0.00523631933
LINC02001	-1.277770011	0.005245208224
RP4-625H18.2	-4.934561949	0.005310336115
RAB11B-AS1	-2.034888011	0.005484735777
RP11-216B9.9	-3.234881605	0.00551751757
RP11-139H14.5	-4.122590574	0.005561575863
SPATA42	-5.071871399	0.005567303863
RBMS3-AS3	-2.808902002	0.005653211982
RP11-305E6.4	-1.44701567	0.005653211982
PTGER4P2-CDK2A	-2.953415243	0.005780874326
RP11-620J15.4	-4.943769079	0.00581547482
RP11-2E11.5	-5.760933414	0.005964505308
LINC01977	-5.32261339	0.006111137619
RP11-110I1.12	-2.361724833	0.006242885529
CTD-2373N4.3	-3.131337625	0.006244244755
ZEB2-AS1	-4.099506045	0.006310215433
RP4-635E18.8	-2.277617836	0.006381108126
LINC01778	-2.722293474	0.006404109579
NIFK-AS1	-1.50979	0.006581792306
LINC01089	-1.256446448	0.006649216337
RP1-101A2.1	-2.16468442	0.006717658182
RP11-1055B8.1	-4.764731927	0.006756104393
RP11-429P3.8	-2.212538116	0.006911578283
AC091133.1	-1.942806565	0.007032716316
RP11-259N19.1	-1.551587016	0.007164029932
NOP14-AS1	-1.292889805	0.0071673344
RP11-20I23.13	-5.036447104	0.00719956373
GABPB1-AS1	-1.12794287	0.007344285083
RP11-541N10.3	-2.198334071	0.007432138973
RP13-753N3.3	-1.939758783	0.007464342372
LINC01816	-4.92710743	0.00747520279
RP11-282O18.3	-1.395987859	0.007566092326
AC004893.11	-1.505077532	0.00774465452
RP11-303E16.2	-1.116020249	0.007846086901
RP3-425C14.4	-1.847167451	0.008006701946
RP11-277P12.9	-4.971186188	0.008118670935
CTD-2286N8.2	-2.935585777	0.008120622619
LINC01833	-5.271226429	0.008201056469
ERVK13-1	-1.346821894	0.008245782331
RP11-526I2.5	-2.412792585	0.008271190894

FMR1-AS1	3.142794257	0.0121972216	RP11-472N13.2	-4.464710927	0.008450219104
RP11-885N19.6	4.896083994	0.01226465106	GPR158-AS1	-4.848467894	0.008553432204
LINC01970	2.18814385	0.01232382156	AC009506.1	-1.829064139	0.008609605431
RP11-843B15.4	2.063634549	0.01244819334	CTC-429P9.5	-1.447075865	0.008652922341
LINC01239	3.6509458	0.01310638174	CTD-2116N20.1	-2.493858948	0.008759872539
CTD-2319I12.2	2.33651796	0.01327537354	AC003991.3	-4.831684984	0.008761441907
HCG27	1.663921782	0.01331123808	AC002550.6	-2.956937025	0.008784520128
RP11-286N22.14	2.374173794	0.0134862283	RP11-48B3.4	-2.734011924	0.008835094593
RP11-1398P2.1	4.229813996	0.01403510319	RP11-318C24.2	-4.828048624	0.009147507666
AP000442.4	3.40471652	0.01410817025	AC005220.3	-5.551988115	0.009426543604
KB-431C1.5	2.606676792	0.01425787821	CTA-276F8.1	-2.233223989	0.0094402494
GACAT2	3.202431636	0.01443440693	CTB-119C2.1	-2.21113906	0.009598075674
SNHG16	1.108452011	0.01444495472	LINC01578	-1.334542649	0.009873474105
LINC00346	2.516630852	0.01450628056	SATB2-AS1	-2.516153774	0.009929319141
LINC00882	2.586730527	0.0145691493	CTD-2506P8.6	-2.007486644	0.0100673699
FLJ21408	1.739172781	0.01465495581	RP11-259K15.2	-5.018307458	0.01012902648
RSF1-IT1	2.226558023	0.01476475356	RP11-568N6.1	-2.769320265	0.01017272629
LINC01572	1.39448343	0.0149485061	RP11-247A12.7	-5.018047244	0.0104112034
RP11-247L20.4	1.297895405	0.01499724708	RP11-996F15.6	-2.648966799	0.01063016375
RP11-482G13.1	4.725877673	0.01544297214	RP11-182L21.6	-1.329206658	0.01069523342
XXbac-BPG299F1	1.473385639	0.01560910182	PDCD4-AS1	-1.479755948	0.01069589917
LINC00622	2.778829799	0.01561320562	RP11-557L19.1	-4.256984938	0.01075240857
AC093732.1	4.611877005	0.01625136653	RP11-131L12.2	-4.429400759	0.01081304619
ZFPM2-AS1	2.865300646	0.01698869866	DLEU2L	-1.325731708	0.01087992414
C10orf25	2.148915277	0.01794711604	RBM26-AS1	-1.372105486	0.01108391598
RP3-467K16.4	2.82104963	0.01807675308	RP11-111K18.2	-2.32547559	0.01132040195
AC145343.2	3.750887357	0.01832311228	LINC01727	-5.094783739	0.01133708271
AC002076.10	3.84241051	0.01842606347	RP11-343L5.2	-2.09831483	0.01136507759
RP11-134G8.7	1.650136783	0.01842740977	AC009403.2	-1.503408273	0.01143030468
ATP6V1B1-AS1	3.433189361	0.01890187137	RP11-890B15.3	-1.77508915	0.01149966624
RP11-650K20.3	3.615188719	0.01921205146	RP11-46H11.12	-4.730923494	0.01160296881
LINC02057	4.12147217	0.01929912714	RP11-134K13.4	-3.565316139	0.01160795922
RP11-677M14.3	3.392028617	0.01952092811	RP11-582J16.5	-1.954152104	0.01160868639
RP11-7F18.2	1.500458157	0.01960752343	LINC02104	-4.951757049	0.01162481901
AC106786.1	4.191157465	0.01977993331	WDR86-AS1	-5.442248239	0.01163761728
RP11-63E9.1	4.798029568	0.0198209433	ZNF571-AS1	-4.974764195	0.01170403198
CH507-154B10.1	1.455764363	0.02028470541	AC093642.1	-2.599684197	0.01172659291
CTD-2337A12.1	4.537149604	0.02032954731	AC005519.4	-1.765263623	0.01181083695
LINC02086	2.70406007	0.0208398748	RP11-456K23.1	-5.421627125	0.0118534843
RP3-460G2.2	2.392090466	0.02127348231	CTC-498J12.1	-4.715600867	0.01241394295
ITGB2-AS1	4.593664851	0.0216808998	HCG22	-5.376293427	0.01290859019
SEMA6A-AS1	1.611079106	0.02188255209	RP11-395A13.2	-2.110592624	0.01298823947
RP11-14N7.2	4.478142569	0.02225577315	LINC01505	-3.330138445	0.01312200277
CTC-338M12.4	1.275170231	0.02234600247	AL022393.9	-2.869433763	0.0131653149
RP11-297A16.2	4.19827412	0.02245840739	LEF1-AS1	-4.864527245	0.01317131543
RP11-84D1.1	4.552179696	0.02250465587	RP11-496I9.1	-2.981307848	0.01322938674
PRKCQ-AS1	1.210084497	0.02254512085	LINC01132	-4.971933474	0.01375764852

AC005754.8	2.282792454	0.02300016749
AP001372.2	1.140514682	0.02328766813
AC053503.4	2.784715264	0.02356068188
SOCS2-AS1	2.678361743	0.02356068188
MIR4500HG	3.170335241	0.02370021912
XXbac-BPG181B2	3.435231655	0.02374267554
CTD-2540B15.10	3.480146378	0.02462087006
RP11-122K13.12	1.829609781	0.02484619539
RP11-736K20.5	2.270516973	0.02522601544
RP11-423H2.3	2.618659719	0.02526481134
RP11-297N6.4	3.098554344	0.02583155998
RP13-455A7.1	4.448132981	0.02606312664
RP1-266L20.2	4.485001717	0.0262392154
AC116609.2	2.735095742	0.02625603682
RP11-455F15.1	4.180136384	0.0263973349
RP11-259K5.2	1.403386795	0.02701010484
RP11-533E19.7	1.648595301	0.02704133112
CTC-453G23.8	2.202087822	0.02768265983
CTB-131B5.5	1.750013657	0.02837920971
RP11-77P6.2	1.167662649	0.02866036952
RP11-235E17.6	2.055833607	0.02879479414
RP11-375I20.6	2.511867114	0.02888306097
EBLN3P	1.252644577	0.02907481304
TMLHE-AS1	3.187322844	0.02935365836
SNHG12	1.162502945	0.0297142304
RP11-54C4.3	1.722094744	0.02973853888
GATA6-AS1	3.995721576	0.03019054622
AD000864.6	4.372146893	0.03034770741
RP3-467K16.7	4.411508278	0.03040004781
TMEM9B-AS1	1.529967684	0.03058264342
STARD4-AS1	1.96123643	0.03065540496
RP11-481J2.3	1.653053125	0.03115767131
RP11-501C14.5	4.024117001	0.03129581396
CRYM-AS1	2.390710586	0.03146325358
RP11-239A17.1	4.321337041	0.0318658036
FOXC2-AS1	4.53987788	0.0319408992
WFDC21P	4.438280554	0.03299355355
OTUD6B-AS1	1.051572853	0.03304121069
AP001258.4	1.046833372	0.03309785096
RP11-95P2.3	4.311069376	0.033131005
RP11-497E19.1	4.428545803	0.03337487315
RP5-901A4.1	1.916525277	0.03360784306
PSMD6-AS2	1.072555648	0.03431800531
RP11-715F3.2	1.601567836	0.03436347478
RP11-351I24.1	2.562296038	0.03437842433
RP11-79H23.3	4.299504049	0.03483550597
RP11-888D10.3	2.41165358	0.03533741854

RP11-48G14.2	-4.684513252	0.01381711614
RP11-9N12.2	-4.684513252	0.01381711614
RP11-50D16.4	-4.651213362	0.01382833228
RP11-848P1.5	-2.669653108	0.01383247188
RP5-1065J22.8	-1.649678346	0.01386497538
AC000403.4	-2.741311201	0.01391242411
RP11-332H14.2	-1.111480965	0.01399112789
RP5-1136G13.2	-1.599171771	0.01401653329
RP11-350N15.6	-3.047191588	0.01423488913
CTB-105N12.2	-4.983529656	0.0143183238
LINC00648	-4.645172685	0.01450753403
RP11-390E23.6	-1.171112194	0.01455555821
RP11-1134I14.8	-4.652330353	0.01471688999
AP000473.5	-3.704294737	0.01474654732
RP11-231G15.3	-4.811260988	0.0149979938
LMCD1-AS1	-2.605152147	0.01511098396
CTB-36H16.2	-2.200069423	0.01540239574
RP3-333H23.9	-1.682743633	0.01550077249
MEG9	-5.272678764	0.01572805843
RP11-758H9.2	-1.607081423	0.0160937755
AE000661.37	-5.261994157	0.01613549692
LOH12CR2	-1.67691758	0.01636598428
AC010883.5	-2.094717492	0.01690504352
RP11-380B4.3	-2.439577585	0.01705551462
RP11-81H14.1	-4.806787285	0.01719813169
CTC-360G5.9	-2.368500479	0.01720457727
RP11-796E2.4	-2.760083635	0.01723144724
LINC01410	-1.678064504	0.0174400882
RP11-428J1.4	-2.3268122	0.01789964346
CTA-246H3.12	-4.798251726	0.0179619574
PAXBP1-AS1	-1.862069318	0.01803800624
RP11-627G23.1	-4.609350113	0.01814637299
RP11-257P3.3	-4.876959069	0.01823445458
LINC01085	-3.70779577	0.01823959845
AC009166.7	-5.201731791	0.01837383149
LINC00294	-1.095938356	0.01855474263
CTC-366B18.4	-2.093559034	0.01865539229
RP11-260M2.1	-1.318083794	0.01886728818
RP11-749I16.3	-2.217730829	0.01887511345
CTB-152G17.6	-1.643327484	0.01890152822
RP11-448A19.1	-1.219705379	0.01918016334
AC108488.4	-1.73751869	0.01934800273
RP11-351J23.1	-4.495981675	0.0196358903
RP11-16P20.4	-4.810891092	0.01992404833
RP11-1109F11.5	-2.273051173	0.01998900498
RP11-403A3.1	-4.659595147	0.02001479214
LINC01549	-4.572397451	0.02015732158

RP11-366F6.2	4.34276227	0.03550164201
RP11-1228E12.1	1.830938095	0.03593843095
RP11-81A1.6	1.075472397	0.03620001818
RP13-895J2.3	3.993426306	0.03644455666
RP11-73K9.2	1.107972094	0.03647433494
RP11-43F13.4	3.285308497	0.03697037675
RP11-1020A11.2	1.888200393	0.03727368249
RP11-406H4.1	4.286387948	0.03756156167
CTD-2341M24.1	1.475568801	0.03769661099
RP11-277B15.3	2.004144709	0.03781760213
AC092168.2	3.869228131	0.03823486444
SCOC-AS1	1.415130662	0.0385734574
LINP1	3.012624307	0.03934463347
AP000442.1	1.819045455	0.03934463347
ERICH6-AS1	1.601404055	0.03938598822
RP11-44N22.3	2.451911166	0.03951878733
CTC-529P8.1	2.519627515	0.03979660975
RP11-810P12.7	2.392211464	0.03989634644
RP13-349O20.2	1.41595205	0.04007012692
RP11-54O7.18	4.304917175	0.0404314925
RP11-380G5.2	3.144009804	0.04066267001
RP11-438D8.2	4.218401032	0.04088791089
RP11-66N24.3	1.113943438	0.04105688984
LINC00896	4.25843734	0.04124060309
RP11-150C16.1	3.321742726	0.04124693278
RP4-607I7.1	2.803939029	0.04132568467
RP11-108M9.3	4.217755779	0.04135778809
RP11-330O11.3	1.84891761	0.04168350781
AC012456.4	3.658464197	0.04192439519
RP11-350J20.5	3.028697357	0.04207796074
RP11-532M24.1	2.8707048	0.04210636138
RP11-525A16.4	3.533212305	0.04257278328
AC091878.1	4.248277103	0.04292114517
RP3-523K23.2	4.203013618	0.04340980105
LINC01376	1.365574836	0.04341651479
CTD-2616J11.16	3.779180972	0.04453057161
RP11-666A20.4	4.199150077	0.04500514622
SSSCA1-AS1	1.198465235	0.04549432814
LINC00466	2.60243764	0.04580605729
ZEB1-AS1	1.400077752	0.0460241598
RP11-799D4.4	2.484736958	0.04605572258
LINC01232	1.268280286	0.04613359129
RP11-763B22.4	4.23049027	0.04623083657
RP11-255E6.6	4.187792162	0.04629119587
CTD-2616J11.2	2.356376529	0.0466112716
RP11-360O19.4	4.227441386	0.04688807227
RP11-429J17.7	3.84532819	0.04698622317

LINC01503	-3.739534837	0.02029372027
AC074391.1	-3.969413731	0.02052388547
RP1-86C11.7	-2.953936931	0.02056099504
RP11-263K19.4	-2.442177897	0.02069675234
LINC00856	-3.714459878	0.02076114267
CH17-262A2.1	-2.550560831	0.02078054112
RP11-387M24.5	-4.518544328	0.02134639103
AC006116.24	-4.602989578	0.02136451585
RP11-1055B8.4	-1.750344036	0.02152849722
ZIM2-AS1	-5.728487225	0.02157254241
RP11-342K6.4	-4.385682779	0.0221367623
RP11-265E18.1	-3.28672003	0.02214553784
AC006026.13	-4.479051824	0.02214956939
RP11-1263C18.1	-5.088165351	0.0222210514
AC147651.4	-2.346840133	0.02236941137
RP11-632L2.2	-2.839659583	0.0224747888
KIF9-AS1	-2.115428858	0.02255149604
CTA-363E19.2	-2.28344642	0.02266258966
LINC01579	-5.63619742	0.02270412626
CTC-471J1.2	-2.610533659	0.02304810569
AC013460.1	-3.941300567	0.02315678997
RP11-506K6.4	-5.165760808	0.02351283909
RP11-415J8.7	-4.194523533	0.0236786889
SMC5-AS1	-1.897243206	0.02369980112
FAM182A	-3.610013261	0.02387122837
RP11-266K4.9	-4.240484463	0.02410366745
SEMA6A-AS2	-3.304025762	0.02410976757
RP11-690D19.3	-1.169963848	0.02426667977
LINC01176	-2.557288743	0.02431191476
AC005592.3	-2.891919018	0.02450292679
MAFTRR	-4.19633104	0.02455506531
RP11-402D21.2	-2.199728472	0.02464133448
RP11-161M6.6	-2.786670968	0.02470335821
AC083867.4	-4.653553283	0.02528750154
LA16c-313D11.12	-2.757496698	0.0254956113
CTC-487M23.6	-1.69272911	0.02564487108
RP11-767N6.7	-1.718742998	0.02577956814
RP11-465C12.1	-4.999887627	0.02589483178
AC009473.1	-2.9445404	0.02598977373
MEOX2-AS1	-5.001717284	0.02608338642
LINC01351	-2.878391493	0.0262392154
SNHG11	-1.126572362	0.02635014089
COLCA1	-4.48488505	0.02648659538
BBOX1-AS1	-4.343046929	0.026520623
AC008088.4	-4.415163761	0.02682158665
RP11-386G11.8	-4.980436546	0.02682216905
RP11-103J8.1	-4.62662294	0.02702386982

RP11-498P14.5	2.081135395	0.04765588714
AC007879.3	2.990029833	0.04801605006
RP11-473M10.3	4.224174443	0.04813156201
RP11-321L2.1	3.216843551	0.04848793487
RP1-179N16.6	1.310811807	0.04867548494
CTD-2334D19.1	4.331422054	0.04916671913
RP11-89F3.2	3.75747999	0.04956146826
RP11-300E4.2	4.126787633	0.04989447671

RP11-173P15.9	-3.052212839	0.02761667489
RGMB-AS1	-2.82462874	0.02763328829
UG0898H09	-5.411559902	0.02770926109
LINC01679	-4.497326429	0.02812941459
AP000662.4	-2.885341154	0.02812941459
LINC01126	-1.767347444	0.02835847673
RP11-615I2.2	-4.365796099	0.02857671418
RP11-762I7.4	-2.278249563	0.02883168565
RP11-73M18.7	-1.140167638	0.02883168565
RP11-4B14.3	-4.355487064	0.02886202535
RP11-631N16.2	-1.085770273	0.02886266936
DICER1-AS1	-1.364817281	0.0292484033
CTD-2081C10.7	-3.434787641	0.02930132666
RP11-727F15.11	-4.118654448	0.02948834621
RAPGEF4-AS1	-4.937860174	0.02950265689
LACTB2-AS1	-4.286377731	0.02964744196
AC007255.8	-3.502363755	0.03069365847
CTB-25B13.5	-2.348980938	0.03093578474
RP1-79C4.4	-4.442624133	0.03125269414
RP11-977G19.5	-1.031585015	0.03128250069
RP11-594N15.3	-2.363080029	0.03129911619
RP11-329B9.5	-3.129805678	0.03139442107
RP11-101E13.5	-1.556053153	0.03164908581
RP11-536C5.2	-4.323396763	0.03165134489
RP11-4L24.4	-1.128201374	0.03186785628
RP11-426D19.1	-3.920727587	0.03202164348
RP11-156P1.3	-1.092878188	0.03206607327
RP5-981O7.2	-2.847910582	0.03218753862
AP000704.5	-2.044727445	0.03219449816
LINC01080	-4.462752051	0.03219449816
AP001626.2	-2.759241704	0.03227373944
CTC-463A16.1	-2.200716717	0.03229865297
AC025171.1	-1.521519352	0.03242846035
RP11-445N18.5	-4.872461677	0.03250247295
RP11-723J4.3	-2.86558885	0.03250247295
RP11-127B20.2	-3.268284733	0.03252835712
CTD-2017F17.2	-1.890797922	0.03272478463
RP11-372K14.2	-2.734014231	0.03299355355
CTD-2349P21.9	-1.653768305	0.03302221907
RP11-283G6.4	-3.20224338	0.03358664258
KB-318B8.7	-1.944256244	0.03362102375
FAM13A-AS1	-1.68370732	0.0336246098
ZNF663P	-4.320542161	0.03395267252
RP11-15I11.3	-3.567386603	0.03422589494
RP11-576I22.2	-2.829342613	0.03429533444
CTD-2339F6.1	-5.01173296	0.03435862537
HIF1A-AS1	-2.767681274	0.03452866598

RP11-358L22.3	-1.863561675	0.03475279743
CTD-2267D19.3	-2.037278158	0.03477260771
MIR181A1HG	-3.345085444	0.03482068087
PINK1-AS	-1.057937569	0.0349061461
RP11-120K24.3	-4.292761346	0.03502009568
RP11-309L24.10	-4.367741678	0.03528179292
RP11-454E5.4	-1.72255704	0.03528179292
RP11-649E7.5	-2.509432048	0.0354452056
RP11-138I1.3	-4.407859811	0.0354452056
RP11-455O6.8	-3.389333778	0.0354606177
RP11-155D18.13	-2.850027708	0.03549900072
RP11-966I7.4	-4.833089133	0.03566957238
RP11-624M8.1	-3.838254014	0.03567976326
RP11-21L23.2	-1.641763783	0.03587147586
RP11-798M19.3	-1.580474485	0.03616799772
LINC00342	-1.17401864	0.0362703262
RP11-109E12.1	-4.346789663	0.03650719876
DGCR11	-1.522625147	0.03660919963
RP11-146D12.2	-2.33503296	0.03686205144
LINC00598	-3.25721974	0.03740130574
CTC-487M23.5	-1.617480029	0.03788049924
RP11-503P10.1	-2.93979721	0.03808119036
RP11-46C24.7	-1.453625372	0.03839689006
CTB-179K24.3	-3.105323631	0.03897929109
RP11-274H2.5	-1.774968806	0.03902359236
RP11-407G23.5	-1.162246303	0.0391767662
RP11-180M15.6	-3.830464148	0.03990378392
CA3-AS1	-3.408899148	0.04007012692
SATB1-AS1	-4.265492318	0.04023208631
RP11-362K14.6	-1.798464724	0.04032130625
RP11-76I23.7	-2.909154172	0.04051247153
CTD-2619J13.3	-3.870494129	0.04066267001
FBXL19-AS1	-1.214368531	0.04067420231
SEPT7-AS1	-1.273688927	0.04070666908
C22orf24	-3.362164712	0.04078140421
CTC-325H20.8	-4.379620268	0.04129163677
RP11-431M7.3	-4.378161653	0.04183496363
RP11-84G21.1	-1.530244352	0.04196204402
LINC01206	-4.551707684	0.04221773341
LINC01852	-1.687920867	0.0426691845
WEE2-AS1	-1.371126783	0.04272802559
AP000432.1	-1.255746825	0.0431367002
NFIA-AS2	-4.690934248	0.04341261462
RP11-685N10.1	-1.873748264	0.04343756073
RP11-226L15.5	-1.156051126	0.04355089618
RP5-884C9.2	-4.67028136	0.04372566592
RP11-770J1.3	-1.978003662	0.04376810314

RP11-500G22.4	-4.213399087	0.04400849013
LINC00519	-4.174203244	0.04414826492
RP11-712B9.2	-1.681867447	0.04438495977
POC1B-AS1	-1.487207304	0.04446223563
AGPAT4-IT1	-1.387935733	0.04454139494
RP11-359B12.2	-1.014373795	0.04585671536
U47924.31	-2.014400185	0.04592004515
CTC-344H19.4	-3.534171212	0.046018976
AC007566.10	-1.014212726	0.04603914804
RNF219-AS1	-4.287346862	0.04607192115
LINC02082	-2.0766378	0.04636223328
NCK1-AS1	-1.304319419	0.04651237249
CCND2-AS1	-3.947812765	0.04700024178
RP11-445N20.2	-2.679775	0.04734839073
RP11-73M18.6	-1.485525302	0.04735323094
LINC01686	-4.286835057	0.04863535485
LINC01252	-2.073475688	0.04871208694
RP11-390P24.1	-1.435312492	0.04924716103
RP5-994D16.3	-2.841919319	0.04942585422
SPRY4-IT1	-1.766620564	0.04966854642

Supplementary Table 20: Highly expressed lncRNAs in mesenchymal (MES) and proneural (PN) GSCs ($\log_2FC > 3$ and $FDR < 0.05$), with expression differences between MES and PN GBM ($|\log_2FC| > 0$).

Highly expressed lncRNAs in MES			
lncRNA	log2FC.GSCs	FDR.GSCs	log2FC.GBM
ADIRF-AS1	8.1469	3.93E-36	0.3091
MIR222HG	4.0647	3.46E-23	1.4048
RP11-66B24.7	8.9782	8.13E-23	0.1959
RP11-420A23.1	3.6846	4.13E-19	0.0518
LINC00707	8.8163	5.03E-18	0.2462
AC003092.1	10.5004	3.23E-17	0.9782
LINC00857	8.3517	5.01E-17	1.1929
RP5-884M6.1	9.7256	8.11E-17	0.5070
RP11-366H4.1	10.0323	3.19E-16	1.7816
RP11-108M9.4	6.8084	8.17E-16	0.6520
UBR5-AS1	3.5689	1.20E-15	0.2129
LINC00944	9.8211	2.02E-15	0.3192
RP11-148B18.4	9.2308	2.71E-15	0.9690
MSC-AS1	7.9784	5.06E-15	0.2305
LINC01605	7.7660	1.00E-14	2.1591
CASC9	9.5504	1.20E-14	0.6227
RP11-66B24.2	9.6835	1.23E-14	0.4456
CTB-140J7.2	9.0559	1.87E-14	0.7548
MIR137HG	9.4635	2.91E-14	0.0222
RP4-647C14.2	9.4408	3.12E-14	0.0557
LINC00910	4.0521	4.78E-14	0.1676
RP11-221N13.3	5.2213	1.97E-12	2.3166
AP001065.15	8.3707	2.71E-12	0.5229
CASC8	7.3916	2.71E-12	1.3339
KC6	8.7319	4.18E-12	1.1810
RP11-879F14.2	7.1677	5.85E-12	0.5583
LINC01615	8.2440	1.01E-11	1.6496
CTD-2054N24.2	8.4811	2.59E-11	0.8493
RP11-1149O23.3	8.0683	3.64E-11	1.0466
LINC00704	8.7894	4.84E-11	0.5267
FENDRR	8.8712	8.73E-11	0.3579
RP11-66B24.4	8.4112	1.78E-10	0.4011
RP4-756H11.3	3.0534	4.84E-10	0.1755
STXBP5-AS1	4.8328	6.31E-10	0.1215
TSPEAR-AS2	7.8613	4.06E-09	0.3678
LINC00941	4.9017	5.11E-09	2.0703
TSPEAR-AS1	7.7208	5.64E-09	0.7269
RP11-359K18.4	3.5296	5.78E-09	0.3884
RP1-102E24.8	7.9476	6.95E-09	0.6986
LBX2-AS1	4.2131	8.53E-09	1.0162
EML2-AS1	4.3363	1.09E-08	0.3950
RP11-809O17.1	4.2873	1.19E-08	0.5444
RP11-328K4.1	7.6249	1.43E-08	1.4252
CTD-2207P18.2	7.5549	6.98E-08	1.2037

Highly expressed lncRNAs in PN			
lncRNA	log2FC.GSCs	GSCs.FDR	log2FC.GBM
SOX2-OT	9.1016	5.55E-43	0.3283
LINC00511	4.7276	8.94E-35	0.6536
LINC00665	6.5084	2.47E-32	0.3358
LINC00461	4.0718	3.20E-25	0.3884
AC074289.1	6.6117	5.13E-20	0.2217
AC018647.3	10.6295	1.29E-16	0.4354
HAGLR	10.3761	1.88E-16	1.2307
SOX21-AS1	10.6784	4.24E-16	0.3024
RP11-210M15.2	7.9611	2.74E-15	0.0025
MEG3	9.8841	3.89E-15	0.4281
RP11-161M6.2	9.8620	4.74E-15	2.0987
ZNF528-AS1	10.3361	2.16E-14	0.6251
RP11-275H4.1	9.0764	3.29E-14	1.5444
LINC01896	8.7173	5.77E-13	1.0336
CASC15	9.3361	1.20E-12	0.9993
RP3-525N10.2	6.6601	1.23E-12	0.9506
RP11-629G13.1	8.3794	1.00E-11	0.2281
AC108142.1	8.9199	1.48E-11	0.3438
LINC01268	8.6508	3.20E-11	1.0059
RP11-436K8.1	9.1534	3.66E-11	0.9481
RP5-882C2.2	3.1466	1.50E-10	0.2545
MIAT	7.6341	1.63E-10	1.3584
AC114730.3	8.5402	3.82E-10	1.4959
RP11-444D3.1	8.2187	4.12E-10	0.5984
CTC-559E9.5	8.3450	6.27E-10	0.2682
CTC-260E6.6	8.0306	1.49E-09	1.0055
FAM212B-AS1	6.8176	3.47E-09	1.1393
LINC02199	7.5342	5.40E-09	1.4736
LINC01550	8.0856	7.55E-09	0.1503
ZNF582-AS1	7.9035	9.86E-09	0.0312
LINC01535	7.5876	1.12E-08	0.4357
LINC00403	7.6991	1.72E-08	1.1060
CTD-2291D10.4	7.6979	2.78E-08	0.9282
RP11-448P19.1	8.4664	2.88E-08	1.0048
RP11-472N13.3	7.8359	4.56E-08	0.4240
LINC01105	8.2108	4.78E-08	1.7989
PTPRD-AS1	7.5183	5.39E-08	0.6054
RAMP2-AS1	8.6078	8.64E-08	0.8693
LINC01415	8.3713	1.48E-07	0.2638
HAND2-AS1	7.8711	1.90E-07	2.2214
CTC-543D15.8	7.5218	2.35E-07	0.3541
ZNF790-AS1	7.2818	2.38E-07	0.2634
CTD-2017D11.1	3.9601	2.97E-07	0.3026
LINC00391	7.1464	5.71E-07	0.0841

UPK1A-AS1	7.0642	6.99E-08	0.3433	AC010729.1	7.2602	5.96E-07	1.2802
CTD-2587H24.5	7.5136	7.00E-08	0.8124	RP11-617F23.1	3.1248	6.90E-07	0.1808
CTD-2066L21.3	6.2857	7.90E-08	0.4591	RP11-966I7.2	7.1963	1.09E-06	0.2390
LINC00623	3.5339	9.56E-08	0.4518	RP11-25K19.1	5.4054	1.31E-06	0.5767
RP11-89C3.4	7.9437	1.01E-07	0.4637	RP11-4O1.2	4.6150	1.45E-06	0.0759
LINC01162	7.2061	1.50E-07	0.1691	GS1-24F4.2	6.7798	1.45E-06	0.9853
LINC00702	6.8199	1.58E-07	0.6697	AP002954.3	3.3516	1.87E-06	0.7650
CTD-2311M21.3	7.2206	1.59E-07	1.1687	H19	5.5332	2.07E-06	1.7596
CTD-2303H24.2	4.7042	1.86E-07	0.3725	RP11-126K1.6	3.7305	3.98E-06	0.5977
EGFR-AS1	7.4675	2.19E-07	0.5094	AC078842.3	6.3127	5.01E-06	0.0614
OSMR-AS1	4.8488	7.28E-07	0.7150	AC064875.2	8.2687	5.72E-06	0.3105
AC156455.1	4.6873	1.04E-06	0.0966	RP11-742D12.2	6.6005	6.20E-06	0.8636
LINC00659	6.3653	1.52E-06	0.3604	LINCR-0001	3.5838	7.15E-06	1.0618
RP13-463N16.6	7.1209	1.64E-06	2.5390	AC073343.13	3.8178	7.97E-06	0.6155
PLBD1-AS1	6.9117	1.87E-06	0.8031	LINC01224	6.9425	8.32E-06	1.7384
LINC01036	6.8181	2.35E-06	0.0464	RP11-834C11.4	6.1942	9.19E-06	0.2289
LINC01273	5.6801	2.37E-06	0.6387	RP11-351J23.2	7.0082	1.41E-05	0.3510
RP11-402J6.1	6.7575	2.72E-06	0.0069	PROX1-AS1	6.4834	1.45E-05	0.0064
RP11-519M16.1	6.6977	2.85E-06	0.1023	U52111.14	5.2091	1.56E-05	0.2236
LINC00460	3.7294	3.14E-06	2.3430	RP11-268J15.5	3.1991	1.80E-05	0.0660
RP11-49I11.1	3.6175	3.44E-06	1.2360	C8orf31	6.7142	1.88E-05	0.2861
RP11-326A19.4	4.3692	4.03E-06	0.2700	RP11-174J11.1	6.3288	2.05E-05	0.6565
RP11-403I13.5	6.6077	5.12E-06	0.7373	RP13-942N8.1	3.2657	2.40E-05	0.5635
RP11-802E16.3	3.8291	5.16E-06	1.3231	CH17-408M7.1	6.2584	2.57E-05	0.2412
RP1-28O10.1	6.7406	5.65E-06	0.7849	RP11-120J1.1	3.9745	3.13E-05	0.8404
LINC01037	6.2703	6.20E-06	0.2627	ZNF793-AS1	6.7548	3.80E-05	0.9097
LINC01703	3.0634	7.75E-06	0.3237	CTD-2049O4.1	7.3214	4.22E-05	0.8453
LINC01186	6.3373	7.82E-06	0.7758	AC004540.4	6.2826	4.39E-05	0.5345
DNAH17-AS1	6.6714	8.96E-06	0.0229	SLC26A4-AS1	5.4537	6.07E-05	0.4367
GAPLINC	6.4889	9.04E-06	0.9181	RP11-582J16.4	4.9402	6.60E-05	0.1800
LL22NC03-86G7.1	4.7270	9.25E-06	0.0689	RP11-625L16.1	6.2400	6.85E-05	1.8692
AC073130.3	6.4422	9.95E-06	0.4121	LINC00326	6.3146	9.07E-05	0.1436
RP11-54A9.1	7.4821	1.12E-05	0.8459	LINC00664	7.0364	9.29E-05	0.8471
RP5-1139I1.1	6.9312	1.15E-05	0.8711	AC108025.2	6.0174	0.0001	1.2788
RP11-162D16.2	6.4031	1.33E-05	0.1711	CTD-2380F24.1	5.9619	0.0001	1.4868
RP11-60A8.1	7.0596	1.42E-05	0.5194	HAS2-AS1	4.0856	0.0001	0.1556
RP11-134G8.5	3.1272	1.71E-05	0.4168	LINC00844	6.5062	0.0001	0.8353
RP13-977J11.2	4.1660	2.22E-05	0.1019	HOXD-AS2	5.9413	0.0002	0.7560
SENCR	6.0854	2.56E-05	0.5495	LINC00977	6.2199	0.0002	0.1053
HIF1A-AS2	6.4048	3.20E-05	0.9386	RP11-231C18.1	6.0200	0.0002	1.6517
RP11-527N22.2	5.3391	3.42E-05	1.8606	AC073283.4	5.9773	0.0002	1.1089
CTC-378H22.1	6.5346	3.76E-05	0.7747	FOXG1-AS1	6.0182	0.0002	0.4371
RP11-686D22.8	6.1985	3.99E-05	0.6303	TNKS2-AS1	3.7280	0.0003	0.3557
AC012485.2	5.9237	4.79E-05	0.1723	RP11-698N11.2	5.9051	0.0003	0.7841
AC007879.5	3.0746	4.97E-05	0.6479	LINC01748	5.1733	0.0003	0.7891
AC073130.1	6.1266	7.07E-05	1.0471	AC007204.2	6.2085	0.0003	1.1527
RP11-280G9.1	6.1710	7.41E-05	1.0562	RP11-838N2.5	6.0375	0.0003	0.4641
MYOSLID	6.2516	8.30E-05	2.1396	LINC01630	5.6072	0.0005	1.7337
RP11-818F20.5	5.8374	8.44E-05	1.0722	AC017104.6	3.3167	0.0006	0.4561

RP11-336A10.5	6.0364	9.75E-05	0.5221	RP11-507K2.3	5.7402	0.0006	0.5577
RP11-61A14.1	5.6362	0.0001	1.1220	HCG17	4.4801	0.0007	0.3996
LRRC2-AS1	6.0330	0.0001	1.1117	LIFR-AS1	3.0592	0.0007	0.3076
RP11-745L13.2	5.9655	0.0002	1.3849	RP11-307B6.3	5.2974	0.0008	0.6533
RP11-43A14.1	4.3878	0.0002	0.0340	MIMT1	6.0754	0.0008	1.6634
CTD-2128A3.2	5.9168	0.0002	2.2835	MESTIT1	6.1561	0.0008	0.1114
RP11-115J23.1	3.5955	0.0002	1.9513	LINC01102	5.9799	0.0009	1.0991
RP3-414A15.2	5.8330	0.0002	0.5648	LINC01158	3.5994	0.0009	0.3068
RP11-553A21.3	5.6687	0.0002	0.9001	AP000289.6	6.1491	0.0010	1.6762
HRAT17	6.1954	0.0002	1.6193	CTB-118P15.2	5.4817	0.0010	1.0792
AC007879.2	4.3314	0.0002	0.7686	CTC-467M3.1	5.6468	0.0010	0.5689
AC006369.2	5.8652	0.0004	1.0435	AC053503.11	5.3923	0.0013	1.8829
RP11-289F5.1	4.9677	0.0004	0.7608	LINC00945	5.5410	0.0013	0.7030
CTC-378H22.2	5.8633	0.0004	0.7168	RP4-657D16.3	3.7175	0.0014	0.3317
RP11-195F19.9	4.4690	0.0004	0.3795	RP11-430H10.1	5.5299	0.0017	0.3254
AC009502.4	5.7300	0.0004	0.8763	AP006222.2	5.4094	0.0017	0.1647
A2M-AS1	4.1688	0.0005	0.5534	RP11-38M8.1	5.9893	0.0018	0.2782
LINC01611	5.6653	0.0006	1.3759	MIR181A2HG	3.0687	0.0020	0.8415
CYYR1-AS1	5.7963	0.0006	0.6846	CTC-255N20.1	5.9100	0.0024	0.4790
CFAP58-AS1	5.2304	0.0006	0.1410	AP000708.1	5.3579	0.0028	0.1114
XXyac-YX65C7_A.	3.1524	0.0006	0.4766	RP11-247A12.2	4.1691	0.0030	0.3506
AP001596.6	3.7945	0.0006	0.6784	RP11-620J15.1	5.3183	0.0032	2.0189
CTD-2020K17.1	3.5746	0.0007	0.8740	RP5-1024C24.1	5.9992	0.0036	0.8969
LINC01385	5.2138	0.0008	1.0731	LINC00506	5.2956	0.0039	0.1917
LINC00887	4.7682	0.0008	0.7505	RP11-281O15.4	5.0481	0.0043	0.6800
SERTAD4-AS1	4.4090	0.0008	1.0354	LINC00877	5.1626	0.0044	0.2446
RP11-1094H24.4	3.4360	0.0010	0.8241	LINC00606	5.9152	0.0045	0.4150
RP11-399K21.14	3.5805	0.0010	0.4319	DACT3-AS1	4.6344	0.0046	0.8437
RP5-1071N3.1	3.2324	0.0011	0.2049	RP11-758P17.2	3.7142	0.0052	0.1701
RP11-379B18.5	3.0185	0.0011	0.2539	RP11-216B9.9	3.2349	0.0055	0.5805
RP11-320G24.1	5.4414	0.0011	0.2748	SPATA42	5.0719	0.0056	0.5594
MTUS2-AS1	4.3280	0.0013	0.6426	RP11-620J15.4	4.9438	0.0058	1.7478
LINC01137	3.2354	0.0014	0.5691	LINC01977	5.3226	0.0061	1.0575
AC023590.1	5.4404	0.0014	0.5825	ZEB2-AS1	4.0995	0.0063	0.1863
RP11-26J3.1	3.1958	0.0015	0.1676	LINC01816	4.9271	0.0075	0.8473
RP11-108K3.1	5.3599	0.0016	0.2869	RP11-277P12.9	4.9712	0.0081	2.2566
RP11-273G15.2	4.3554	0.0020	0.5344	RP11-472N13.2	4.4647	0.0085	0.7597
SERPINB9P1	4.3809	0.0020	1.1064	GPR158-AS1	4.8485	0.0086	0.0642
CTD-2589M5.5	5.0084	0.0020	0.9388	AC003991.3	4.8317	0.0088	0.4532
RP11-276H7.2	4.8640	0.0022	1.0927	RP11-318C24.2	4.8280	0.0091	0.5283
RP11-445O3.2	5.2975	0.0022	0.6116	AC005220.3	5.5520	0.0094	0.1061
AC137932.6	4.9362	0.0023	0.0407	RP11-259K15.2	5.0183	0.0101	1.1989
RP11-686D22.5	5.2272	0.0026	0.7512	ZNF571-AS1	4.9748	0.0117	0.8521
TARID	5.1318	0.0028	0.6899	HCG22	5.3763	0.0129	0.2231
AP000695.4	3.4169	0.0032	0.5572	LINC01505	3.3301	0.0131	0.7594
AC018816.3	5.1713	0.0032	0.8256	RP11-50D16.4	4.6512	0.0138	0.6064
RP11-565A3.2	5.2522	0.0032	0.2236	LINC00648	4.6452	0.0145	1.5474
LINC01776	3.9838	0.0037	0.5697	MEG9	5.2727	0.0157	0.0300
RP11-114H21.2	5.2812	0.0037	0.0537	RP11-627G23.1	4.6094	0.0181	0.2903

AC005264.2	5.2786	0.0038	0.9806	RP11-351J23.1	4.4960	0.0196	0.5468
LINC01111	5.5117	0.0045	1.6648	LINC01549	4.5724	0.0202	0.4761
RP1-137D17.1	5.0387	0.0046	0.2200	ZIM2-AS1	5.7285	0.0216	1.0882
RP11-755F10.1	4.2900	0.0049	0.0104	AC006026.13	4.4791	0.0221	0.2633
RP11-676J12.7	5.8714	0.0052	0.4677	AC013460.1	3.9413	0.0232	1.3381
AC131056.3	4.9942	0.0063	0.3870	FAM182A	3.6100	0.0239	1.0859
LINC01939	6.2742	0.0071	0.4192	RP11-266K4.9	4.2405	0.0241	0.4630
AC020571.3	4.5507	0.0072	1.2336	SEMA6A-AS2	3.3040	0.0241	0.1935
RP3-467K16.2	4.4681	0.0075	0.5602	AC083867.4	4.6536	0.0253	1.6979
AC092614.2	4.9414	0.0075	0.4894	RP11-103J8.1	4.6266	0.0270	0.0646
RP11-460B17.2	4.4683	0.0097	2.1640	LINC01679	4.4973	0.0281	0.9819
CTD-2540B15.9	4.0184	0.0099	0.7740	RP11-615I2.2	4.3658	0.0286	1.2044
SFTA1P	3.3467	0.0103	0.7043	RAPGEF4-AS1	4.9379	0.0295	0.4769
RP11-885N19.6	4.8961	0.0123	1.6116	AC007255.8	3.5024	0.0307	0.7794
LINC01239	3.6509	0.0131	1.4995	RP11-536C5.2	4.3234	0.0317	0.8584
RP11-1398P2.1	4.2298	0.0140	1.1099	ZNF663P	4.3205	0.0340	0.6102
AP000442.4	3.4047	0.0141	0.2809	RP11-151I1.3	3.5674	0.0342	0.8645
GACAT2	3.2024	0.0144	0.1125	CTD-2339F6.1	5.0117	0.0344	1.9449
AC145343.2	3.7509	0.0183	0.5326	MIR181A1HG	3.3451	0.0348	1.0008
AC002076.10	3.8424	0.0184	0.8643	RP11-138I1.3	4.4079	0.0354	0.2193
RP11-650K20.3	3.6152	0.0192	0.9205	RP11-624M8.1	3.8383	0.0357	0.1144
LINC02057	4.1215	0.0193	0.3934	RP11-109E12.1	4.3468	0.0365	0.5169
AC106786.1	4.1912	0.0198	0.4619	LINC00598	3.2572	0.0374	0.0892
CTD-2337A12.1	4.5371	0.0203	0.5804	SATB1-AS1	4.2655	0.0402	1.0831
ITGB2-AS1	4.5937	0.0217	0.6071	CTD-2619J13.3	3.8705	0.0407	0.1729
RP11-14N7.2	4.4781	0.0223	0.2437	C22orf24	3.3622	0.0408	0.4299
RP11-297A16.2	4.1983	0.0225	0.3901	LINC00519	4.1742	0.0441	0.0473
GATA6-AS1	3.9957	0.0302	1.2654	CTC-344H19.4	3.5342	0.0460	0.2764
RP3-467K16.7	4.4115	0.0304	1.5077	RNF219-AS1	4.2873	0.0461	1.2373
FOXC2-AS1	4.5399	0.0319	1.0709	CCND2-AS1	3.9478	0.0470	0.4098
WFDC21P	4.4383	0.0330	1.3182				
RP11-95P2.3	4.3111	0.0331	1.0244				
RP11-366F6.2	4.3428	0.0355	0.4064				
AC092168.2	3.8692	0.0382	0.6896				
RP11-54O7.18	4.3049	0.0404	0.2235				
RP11-438D8.2	4.2184	0.0409	0.2102				
RP11-150C16.1	3.3217	0.0412	0.4968				
RP11-350J20.5	3.0287	0.0421	0.1488				
RP11-525A16.4	3.5332	0.0426	1.1281				
RP11-666A20.4	4.1992	0.0450	0.1344				
RP11-360O19.4	4.2274	0.0469	0.2091				
CTD-2334D19.1	4.3314	0.0492	0.0261				
RP11-89F3.2	3.7575	0.0496	0.1548				

Supplementary Table 21: TCGA tumor types considered in the lncRNAs survival analyses.

Tumor type	TCGA's abbreviation	Samples
Breast invasive carcinoma	BRCA	1,037
Bladder urothelial carcinoma	BLCA	395
Cervical squamous cell carcinoma and endocervical adenocarcinoma	CESC	287
Colon adenocarcinoma	COAD	350
Glioblastoma multiforme	GBM	153
Head and neck squamous cell carcinoma	HNSC	495
Kidney renal clear cell carcinoma	KIRC	519
Kidney renal papillary cell carcinoma	KIRP	269
Lower grade glioma	LGG	655
Liver hepatocellular carcinoma	LIHC	338
Lung adenocarcinoma	LUAD	476
Lung squamous cell carcinoma	LUSC	475
Ovarian serous cystadenocarcinoma	OV	372
Prostate adenocarcinoma	PRAD	496
Rectum adenocarcinoma	READ	125
Skin cutaneous melanoma	SKCM	85
Stomach adenocarcinoma	STAD	338
Thyroid carcinoma	THCA	498
Uterine corpus endometrioid carcinoma	UCEC	539

Supplementary Table 22: Differentially expressed lncRNAs in GSCs significantly associated with prognosis in GBM.

PART A. Univariate analysis of lncRNAs

lncRNA	Mesenchymal-GSCs	Cox regression			log-rank.pvalue	other.tumors
		beta.coef	Wald.statistic	Cox.pvalue		
CTD-2589M5.5	up	2.7389	3.7104	0.0002	0.0001	KIRC
SOX21-AS1	down	-0.1676	-3.2633	0.0011	0.0047	CESC
MYOSLID	up	0.3918	3.1528	0.0016	0.0110	HNSC,KIRC,KIRP,LGG,UCEC
CRNDE	up	0.0863	3.5171	0.0004	0.0120	LGG,LUAD,THCA
AC005264.2	up	4.9631	3.5559	0.0004	0.0158	HNSC
RP11-575F12.1	up	3.9087	2.4723	0.0134	0.0334	----

high expression associated with poor prognosis

high expression associated with better prognosis

PART B. Multivariate analysis of lncRNAs and clinical parameters

variable	CTD-2589M5.5			SOX21-AS1			MYOSLID		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
lncRNA	2.9512	3.1500	0.0016	-0.1790	-2.6102	0.0090	0.8050	2.1389	0.0324
age at diagnosis	0.5335	1.7187	0.0857	0.5917	1.8940	0.0582	0.6910	2.1127	0.0346
gender	-0.3129	-1.1116	0.2663	0.1605	0.5079	0.6115	-0.2283	-0.8285	0.4074
CIMP status	0.2230	0.2378	0.8120	0.3155	0.3541	0.7233	0.4810	0.5311	0.5954
IDH1 mutation	1.4575	1.4885	0.1366	1.5631	1.6686	0.0952	1.4187	1.4822	0.1383
MGMT methylation	0.2439	0.8588	0.3904	0.0376	0.1227	0.9023	0.3214	1.1492	0.2505
chr 19/20 co-gain	1.2870	2.8095	0.0050	1.1573	2.5024	0.0123	1.2405	2.7213	0.0065
chr 7 gain/chr 10 loss	0.0805	0.2733	0.7846	0.1482	0.5271	0.5981	0.2086	0.7326	0.4638

*significant variables (p<0.05)

variable	CRNDE			AC005264.2			RP11-575F12.1		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
lncRNA	0.0708	2.2929	0.0219	6.2901	4.0482	0.0001	5.2020	1.9933	0.0462
age at diagnosis	0.5759	1.8630	0.0625	0.5009	1.6054	0.1084	0.5246	1.6998	0.0892
gender	-0.3174	-1.1087	0.2675	-0.0666	-0.2353	0.8140	-0.3786	-1.3188	0.1872
CIMP status	0.7011	0.7955	0.4263	0.4377	0.4857	0.6272	0.5731	0.6738	0.5004
IDH1 mutation	1.5042	1.5970	0.1103	1.4554	1.5310	0.1258	1.6372	1.7991	0.0720
MGMT methylation	0.4147	1.4743	0.1404	0.4312	1.5554	0.1199	0.5118	1.8300	0.0672
chr 19/20 co-gain	1.3610	3.0141	0.0026	1.2733	2.7621	0.0057	1.1554	2.5138	0.0119
chr 7 gain/chr 10 loss	0.4099	1.4812	0.1386	0.1894	0.6771	0.4984	0.4450	1.5918	0.1114

*significant variables (p<0.05)

Supplementary Table 23: Differentially expressed lncRNAs in GSCs significantly associated with prognosis in mesenchymal and proneural GBM.

PART A. Univariate analysis of lncRNAs in mesenchymal GBM

lncRNA	Mesenchymal-GSCs	Cox regression			log-rank.pvalue	other.tumors
		beta.coef	Wald.statistic	Cox.pvalue		
CTB-60B18.12	up	20.5377	3.0619	0.0022	0.0027	----
AC005264.2	up	9.1094	3.3256	0.0009	0.0097	HNSC
CTD-2589M5.5	up	2.9758	2.8526	0.0043	0.0477	KIRC

high expression associated with poor prognosis

high expression associated with better prognosis

PART B. Univariate analysis of lncRNAs in proneural GBM

lncRNA	Mesenchymal-GSCs	Cox regression			log-rank.pvalue	other.tumors
		beta.coef	Wald.statistic	Cox.pvalue		
RP4-806M20.4	up	3.7744	3.5038	0.0005	0.0014	BLCA,KIRC
RP11-676J12.7	up	8.0575	2.2958	0.0217	0.0029	STAD
CRNDE	up	0.1092	2.7879	0.0053	0.0181	LGG,LUAD,THCA
CTC-459F4.9	up	0.6691	2.0621	0.0392	0.0204	KIRC,LUSC
RP11-1334A24.5	up	2.2393	2.1045	0.0353	0.043	BRCA,KIRC,KIRP,LGG

PART C. Multivariate analysis of lncRNAs and clinical parameters in mesenchymal GBM

variable	CTB-60B18.12			AC005264.2			CTD-2589M5.5		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
lncRNA	33.0376	2.8358	0.0046	7.8433	2.3209	0.0203	2.7948	1.9768	0.0481
age at diagnosis	2.1069	2.4202	0.0155	1.2896	1.7938	0.0728	1.1447	1.5948	0.1108
gender	-0.0734	-0.0961	0.9235	-0.1417	-0.1815	0.8560	-0.4173	-0.5389	0.5899
CIMP status	----	----	----	----	----	----	----	----	----
IDH1 mutation	----	----	----	----	----	----	----	----	----
MGMT methylation	-0.2769	-0.3597	0.7191	0.0773	0.0979	0.9221	0.4200	0.5347	0.5929
chr 19/20 co-gain	1.4125	1.3232	0.1858	-0.4264	-0.4767	0.6336	-0.3758	-0.4180	0.6759
chr 7 gain/chr 10 loss	1.5644	2.5044	0.0123	1.1077	1.6839	0.0922	1.0507	1.5672	0.1171

*significant variables (p<0.05)

PART D. Multivariate analysis of lncRNAs and clinical parameters in proneural GBM

variable	RP4-806M20.4			RP11-676J12.7			CRNDE		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
lncRNA	5.4902	2.3728	0.0177	43.5598	6.7626	<0.0001	0.1043	2.7750	0.0055
age at diagnosis	-0.1168	-0.0705	0.9438	1.4617	1.3044	0.1921	0.0185	0.0170	0.9864
gender	1.8457	1.3081	0.1909	5.8983	5.0449	<0.0001	2.6368	2.7610	0.0058
CIMP status	----	----	----	----	----	----	----	----	----
IDH1 mutation	23.4572	0.0015	0.9988	24.7285	0.0017	0.9987	19.6754	0.0050	0.9960
MGMT methylation	-2.3104	-2.0284	0.0425	-3.7578	-4.8466	<0.0001	-2.2035	-3.1479	0.0016
chr 19/20 co-gain	21.5606	0.0008	0.9994	21.3173	0.0009	0.9993	18.7554	0.0027	0.9978
chr 7 gain/chr 10 loss	-4.2776	-2.3606	0.0182	-5.1058	-4.4856	<0.0001	-3.1269	-2.6810	0.0073

*significant variables (p<0.05)

variable	CTC-459F4.9			RP11-1334A24.5		
	beta.coef	Wald.statistic	Cox.pvalue	beta.coef	Wald.statistic	Cox.pvalue
lncRNA	1.4546	2.0460	0.0408	8.4904	2.0374	0.0416
age at diagnosis	-0.1616	-0.1363	0.8916	0.3081	0.2469	0.8050
gender	1.9280	1.7567	0.0790	3.9690	2.5544	0.0106
CIMP status	----	----	----	----	----	----
IDH1 mutation	20.9784	0.0013	0.9990	19.2700	0.0012	0.9990

MGMT methylation	-2.0482	-2.0364	0.0417	1.0608	0.7475	0.4548
chr 19/20 co-gain	20.8821	0.0007	0.9994	18.6720	0.0006	0.9995
chr 7 gain/chr 10 loss	-3.4659	-2.7186	0.0066	-3.9128	-2.5797	0.0099

*significant variables (p<0.05)

Supplementary Table 24: lncRNA-associated splicing events enriched in mesenchymal (MES) and proneural (PN) GSCs samples.

ASS (alternative 5' or 3' splice site): genomic coordinates of long and short exons (columns g.coord_1 and g.coord_2)
MXE (mutually exclusive exon): genomic coordinates of first and SEcond exons (columns g.coord_1 and g.coord_2)
RI (retained introns): genomic coordinates of retained intron (column g.coord_1)
ES (exon skipping): genomic coordinates of skipped exon (column g.coord_1)

MES								PN							
event.type	lncRNA	strand	g.coord_1	g.coord_2	inc.level.difference	FDR		event.type	lncRNA	strand	g.coord_1	g.coord_2	inc.level.difference	FDR	
MXE	GAS5	-	chr1:173865509-173865547	chr1:173865856-173866206	0.274	0		MXE	GAS5	-	chr1:173865470-173865547	chr1:173865856-173865894	-0.266	0	
MXE	GAS5	-	chr1:173865856-173865894	chr1:173866527-173866796	0.254	0		MXE	GAS5	-	chr1:173864674-173864704	chr1:173865228-173865282	-0.224	0	
RI	GAS5	-	chr1:173865228-173865547	NA	0.436	0		ES	ZFAS1	+	chr20:49280484-49280570	NA	-0.112	5.59E-14	
RI	GAS5	-	chr1:173864256-173865282	NA	0.15	0		ES	PSMA3-AS1	-	chr14:58293065-58293138	NA	-0.417	1.58E-13	
ASS	GAS5	-	chr1:173865470-173865547	chr1:173865509-173865547	0.477	0		ES	TMEM161B-AS1	+	chr5:88287435-88287622	NA	-0.534	8.81E-13	
MXE	GAS5	-	chr1:173865856-173865894	chr1:173866176-173866206	0.232	0		MXE	GAS5	-	chr1:173864483-173864506	chr1:173865228-173865282	-0.124	6.96E-12	
MXE	GAS5	-	chr1:173865509-173865547	chr1:173866176-173866206	0.233	0		ES	MAPKAPK5-AS1	-	chr12:111840332-111840477	NA	-0.213	3.75E-11	
ES	SNHG6	-	chr8:66922613-66922725	NA	0.151	0		ES	SNHG5	-	chr6:85677790-85677875	NA	-0.106	4.04E-11	
RI	ZNF582-AS1	+	chr19:56398276-56399168	NA	0.809	0		ES	AC074286.1	-	chr2:177332141-177332251	NA	-0.616	6.59E-11	
ES	USP3-AS1	-	chr15:63593748-63593877	NA	0.925	4.00E-12		ES	ZNF667-AS1	+	chr19:56491576-56491766	NA	-0.819	1.32E-10	
ES	PCBP1-AS1	-	chr2:7005370-7005381	NA	0.84	2.34E-11		MXE	RASSF8-AS1	-	chr12:25952757-25953076	chr12:25956226-25956347	-0.53	9.32E-10	
MXE	GAS5	-	chr1:173865509-173865547	chr1:173865856-173865894	0.154	2.88E-11		MXE	GAS5	-	chr1:173865470-173865547	chr1:173866176-173866206	-0.232	1.87E-09	
MXE	GAS5	-	chr1:173864674-173864704	chr1:173865228-173865282	0.206	5.01E-11		ES	TMEM161B-AS1	+	chr5:88287435-88287622	NA	-0.436	4.27E-09	
ES	RP4-798P15.3	-	chr1:177984205-177984418	NA	0.86	9.70E-11		ES	SNHG5	-	chr6:85677794-85677868	NA	-0.124	3.33E-08	
ES	RASSF8-AS1	-	chr12:25956226-25956347	NA	0.633	2.67E-10		ES	SNHG5	-	chr6:85677794-85677899	NA	-0.128	7.18E-08	
RI	GAS5	-	chr1:173864483-173864704	NA	0.206	4.03E-10		RI	CTC-308K20.1	-	chr5:172957153-172958257	NA	-0.484	1.27E-07	
ES	THUMP3-AS1	-	chr3:9395505-9395579	NA	0.324	4.80E-10		ES	HCG18	-	chr6:30314268-30314482	NA	-0.478	1.30E-07	
ES	SNHG17	-	chr20:38422091-38422241	chr20:38425934-38426052	0.256	5.21E-09		ES	TMEM161B-AS1	+	chr5:88283009-88283086	NA	-0.54	1.95E-07	
MXE	SNHG17	-	chr20:38422091-38422241	chr20:38425934-38426052	0.256	5.21E-09		ES	ARMCX5-GPRASP2	+	chrX:102601879-102601977	NA	-0.266	1.98E-07	
RI	GAS5	-	chr1:173864256-173864506	NA	0.171	1.09E-08		ES	RGM8-AS1	-	chr5:98771655-98771766	NA	-0.667	2.10E-07	
MXE	RP11-421L21.3	+	chr1:10107362-10107571	chr1:101077362-101077508	0.439	3.74E-08		ES	SNHG14	-	chr15:25053265-25053363	NA	-0.65	2.78E-07	
MXE	GAS5	-	chr1:173865856-173865894	chr1:173866760-173866796	0.229	1.36E-07		MXE	TPT1-AS1	-	chr13:45378529-45378671	chr13:45383090-45383235	-0.625	6.05E-07	
MXE	PCBP1-AS1	-	chr2:7005370-70053792	chr2:7005513-70055910	0.505	1.79E-07		ES	DLEU2	-	chr13:50049583-50049662	NA	-0.345	6.76E-07	
ASS	SNHG5	-	chr6:85677794-85678032	chr6:85677953-85678032	0.139	3.85E-07		ES	BDNF-AS	+	chr11:27658240-27658462	NA	-0.274	1.00E-06	
ES	PCBP1-AS1	-	chr2:7005370-7005392	NA	0.227	4.19E-07		ES	RP11-421L21.3	+	chr1:101075394-101075716	NA	-0.362	1.04E-06	
MXE	PCBP1-AS1	-	chr2:7005370-7005392	chr2:70055655-70055910	0.392	5.67E-07		RI	A1BG-AS1	+	chr19:58353713-58355183	NA	-0.563	1.09E-06	
RI	TTC28-AS1	+	chr22:27997410-27998838	NA	0.378	9.64E-07		ES	DLEU2	-	chr13:50044650-50044768	NA	-0.404	1.13E-06	
MXE	PCBP1-AS1	-	chr2:7005370-7005392	chr2:7005513-70055910	0.382	1.18E-06		ES	LINC00969	+	chr3:195663623-195663832	NA	-0.32	2.17E-06	
ES	PCBP1-AS1	-	chr2:7005370-7005392	NA	0.359	2.03E-06		ES	SLCO4A1-AS1	-	chr20:62664293-62665497	NA	-0.273	2.23E-06	
MXE	PCBP1-AS1	-	chr2:7005370-7005392	chr2:70059642-70059680	0.407	4.02E-06		ES	RP11-421L21.3	+	chr1:101080388-101080613	NA	-0.634	2.30E-06	
MXE	PCBP1-AS1	-	chr2:7005370-7005392	chr2:70083537-70083687	0.148	5.92E-06		ES	RP11-9G1.3	-	chr4:133140585-133140659	NA	-0.468	2.41E-06	
MXE	PCBP1-AS1	-	chr2:7005370-7005392	chr2:70083506-70083687	0.166	6.87E-06		ES	PCBP1-AS1	-	chr2:70055713-70055910	NA	-0.436	2.42E-06	
ES	PSMA3-AS1	-	chr14:58288717-58288813	NA	0.432	7.31E-06		ES	TMEM161B-AS1	+	chr5:88287540-88285851	NA	-0.317	2.86E-06	
ES	GUSBP11	-	chr22:23700725-23700845	NA	0.608	8.54E-06		ES	AC007566.10	+	chr7:92462957-92463026	NA	-0.228	3.06E-06	
ES	PCBP1-AS1	-	chr2:7005370-7005392	NA	0.315	1.22E-05		MXE	TPT1-AS1	+	chr13:45379194-45379335	chr13:45383090-45383235	-0.547	3.37E-06	
MXE	NUTM2A-AS1	-	chr10:87246114-87246212	chr10:87288441-87288495	0.172	1.51E-05		ES	DLGAP1-AS1	+	chr8:35965758-3596675	NA	-0.304	4.07E-06	
MXE	GAS5	-	chr1:173865228-173865282	chr1:173865470-173865547	0.121	1.59E-05		ES	CDC18-AS1	-	chr1:93318167-93318228	NA	-0.794	6.70E-06	
ASS	TPT1-AS1	+	chr13:45390713-45390902	chr13:45390757-45390902	0.12	1.61E-05		MXE	SLCO4A1-AS1	-	chr20:62664293-62665497	chr20:62665859-62666010	-0.113	7.86E-06	
ES	RP11-452F19.3	+	chr1:222823855-222823945	NA	0.305	2.24E-05		ES	PVT1	+	chr8:127983903-127984204	NA	-0.173	1.02E-05	
ES	CTD-2341M24.1	+	chr14:86128664-86128773	NA	0.612	5.70E-05		ES	PSMA3-AS1	-	chr14:58285905-58285756	NA	-0.308	1.18E-05	
MXE	GAS5	-	chr1:173865509-173865547	chr1:173866527-173866567	0.214	6.74E-05		ASS	LRRC75A-AS1	+	chr17:16463163-16463317	chr17:16463166-16463317	-0.451	1.54E-05	
MXE	LINC01184	-	chr5:127956803-127956921	chr5:128061143-128061244	0.313	8.49E-05		ASS	RISN614	+	chr15:25087466-25089866	NA	-0.204	1.55E-05	
ASS	TPT1-AS1	+	chr13:45377060-45377215	chr13:45377139-45377215	0.22	1.98E-04		ES	TPT1-AS1	+	chr13:45390757-45390902	NA	-0.148	1.99E-05	
MXE	GAS5	-	chr1:173865856-173865894	chr1:173866527-173866567	0.25	3.77E-04		ES	PVT1	+	chr8:128099369-128099573	NA	-0.182	2.16E-05	
ES	GAS5	-	chr1:173864674-173864704	NA	0.223	5.29E-04		MXE	GAS5	-	chr1:173865228-173865547	chr1:173866176-173866206	-0.198	2.31E-05	
ES	RP11-319G6.1	+	chr3:139419556-139419604	NA	0.16	5.72E-04		ES	LINC00910	-	chr17:43387935-43388057	NA	-0.294	2.51E-05	
MXE	PKD1P6-NPIP1	+	chr16:15118925-15119505	chr16:15125690-15125807	0.146	7.72E-04		ES	TPT1-AS1	+	chr13:45390713-45390902	NA	-0.109	2.67E-05	
MXE	PSMA3-AS1	-	chr14:58273978-58274010	chr14:58285590-58285756	0.377	1.14E-03		MXE	TPT1-AS1	+	chr13:45379194-45379335	chr13:45383090-45383235	-0.37	3.21E-05	
ES	WAC-AS1	-	chr20:28525947-28526008	NA	0.149	1.17E-03		MXE	LINC00630	+	chrX:102816991-102817082	chrX:102825992-102826169	-0.477	4.09E-05	
ES	TTC28-AS1	+	chr22:27989881-27990026	NA	0.514	1.92E-03		ES	PSMA3-AS1	-	chr14:58293765-58293811	NA	-0.201	4.24E-05	
ASS	PCBP1-AS1	-	chr2:70085815-70086273	chr2:70086123-70086273	0.138	1.97E-03		ES	RP11-4210.1	+	chr16:48671860-48672033	NA	-0.342	6.74E-05	
ES	FOXD3-AS1	-	chr1:63321664-63322080	NA	0.279	2.72E-03		ES	PRR34-AS1	-	chr22:46055598-46055733	NA	-0.455	7.54E-05	
MXE	STAG3L5P-PVRIG2P-PILRB	+	chr7:100338772-100338889	chr7:100345864-100345968	0.111	2.96E-03		ES	PSMA3-AS1	-	chr14:58273978-58274135	NA	-0.237	7.74E-05	
ES	PCBP1-AS1	-	chr2:70059642-70059680	NA	0.334	3.39E-03		MXE	GAS5	-	chr1:173865470-173865547	chr1:173866527-173866567	-0.194	8.27E-05	
ES	RP11-295P9.3	+	chr10:13654088-13654258	NA	0.33	3.52E-03		MXE	TPT1-AS1	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.293	8.84E-05	
ASS	PCBP1-AS1	-	chr2:70080654-70080629	chr2:70086123-70086269	0.295	3.79E-03		MXE	TPT1-AS1	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.308	9.27E-05	
ES	PCBP1-AS1	-	chr2:7005370-7005392	NA	0.657	3.87E-03		MXE	PVT1	+	chr8:127939507-127939676	chr8:127983903-127984204	-0.137	0.000100701608	
ES	PVT1	+	chr8:128070159-128070272	NA	0.138	3.88E-03		MXE	GUSBP11	-	chr22:23700725-23700845	NA	-0.284	0.000126545078	
ES	TTC28-AS1	+	chr22:27935150-27935230	NA	0.145	4.42E-03		ES	RNASEH1-AS1	+	chr2:3559447-3559729	NA	-0.187	0.000171719075	
ES	DHRS4-AS1	-	chr14:23953773-23954033	NA	0.213	4.87E-03		RI	RP11-295P9.3	+	chr10:13654352-13654482	NA	-0.475	0.000173568272	
RI	SNHG17	-	chr20:38421005-38422241	NA	0.299	4.90E-03		MXE	TPT1-AS1	+	chr13:45379194-45380001	chr13:45383090-45383235	-0.377	0.000188143965	
ASS	PSMA3-AS1	-	chr14:58273978-58274135	chr14:58273978-58274010	0.23	5.08E-03									

ES	LRR75A-AS1	+	chr17:16460892-16461245	NA	0.218	0.04305333938
MXE	CCDC18-AS1	-	chr1:93315148-93315269	chr1:93318167-93318228	0.386	0.04922057688
ASS	PCBP1-AS1	-	chr2:70083506-70083687	chr2:70083537-70083687	-0.299	0.004120571796
ES	TPT1-AS1	+	chr13:45360140-45360239	NA	-0.619	0.004168487247
ES	NR2F1-AS1	-	chr5:93438702-93438741	NA	-0.288	0.004687272022
ES	UBL7-AS1	+	chr15:74466035-74466130	NA	-0.286	0.00472504306
ASS	KB-1572G7.2	-	chr22:23686830-23686995	chr22:23686837-23686995	-0.224	0.005345988046
ES	ALOX12-AS1	-	chr17:70100558-7010137	NA	-0.167	0.005410559041
MXE	PSMA3-AS1	-	chr14:58285590-58285756	chr14:58291634-58291707	-0.248	0.005483540331
ES	PSMA3-AS1	-	chr14:58293313-58293544	NA	-0.102	0.005554562012
MXE	TTC28-AS1	+	chr22:27935150-27935230	chr22:27993123-27993535	-0.166	0.007663048107
ES	SNHG14	+	chr15:24998969-24999078	NA	-0.19	0.007705740173
MXE	LINC00174	-	chr7:66455658-66455853	chr7:66467681-66467719	-0.442	0.008104896287
ES	KB-1572G7.2	-	chr22:23686830-23686995	NA	-0.362	0.008304198588
MXE	GAS5	-	chr1:173866760-173866796	chr1:173866990-173867043	-0.166	0.008854126289
ES	ZBED3-AS1	+	chr5:77100235-77100391	NA	-0.276	0.009747054499
MXE	PCBP1-AS1	-	chr2:70055655-70055910	chr2:70059642-70059680	-0.27	0.01020578741
ES	LINC01001	-	chr11:134563-134796	NA	-0.533	0.01082847443
ES	RP11-216L13.19	+	chr9:136809254-136809429	NA	-0.207	0.01082847443
ES	SNHG3	+	chr1:28508127-28508160	NA	-0.173	0.0111445589
ES	OSER1-AS1	+	chr20:44214887-44215003	NA	-0.236	0.01202849288
ES	CTD-2651B20.3	-	chr15:45264626-45264809	NA	-0.287	0.01243842924
MXE	THAP9-AS1	-	chr4:82895691-82895774	chr4:82897988-82898062	-0.118	0.01323461605
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.246	0.01388670621
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.246	0.01388670621
ES	MIR22HG	-	chr17:1714370-1714453	NA	-0.418	0.01461642436
ES	TMEM44-AS1	+	chr3:194589473-194589626	NA	-0.4	0.01519053624
ES	TMEM161B-AS1	+	chr5:88283009-88283086	NA	-0.3	0.01655644229
ES	MIATNB	+	chr22:26718139-26718231	NA	-0.307	0.01784243899
ES	RBM26-AS1	+	chr13:79417834-79417916	NA	-0.207	0.0179359004
ES	HCG18	-	chr6:30314268-30314482	NA	-0.426	0.01832264645
ES	RP11-250B2.3	+	chr6:80454109-80454227	NA	-0.281	0.01900862158
ES	TUG1	+	chr22:30972047-30972172	NA	-0.204	0.02023209143
ES	FAM66C	+	chr12:8195276-8195412	NA	-0.396	0.02043424899
ES	LINC00963	+	chr9:129502396-129503139	NA	-0.244	0.02048193694
ES	CTD-2378E12.1	-	chr15:50890855-50891077	NA	-0.655	0.02204339488
ES	LINC01128	+	chr1:850177-850351	NA	-0.51	0.02372588051
ES	RP11-156P1.3	-	chr17:47033277-47033381	NA	-0.171	0.02472987573
ES	LINC00969	+	chr3:195688338-195689438	NA	-0.151	0.02605534879
ES	TMEM161B-AS1	+	chr5:88285740-88285851	NA	-0.2	0.02616662861
ES	CCDC18-AS1	-	chr1:93318167-93318228	NA	-0.312	0.02759347156
ES	AC108488.4	-	chr2:3533107-3533190	NA	-0.211	0.02988419007
MXE	TPT1-AS1	+	chr13:45379998-45380001	chr13:45383090-45383235	-0.116	0.03030437867
ES	RP11-274B21.14	+	chr7:128579998-128580094	NA	-0.156	0.0314556154
MXE	PCBP1-AS1	-	chr2:70055713-70055910	chr2:70059642-70059680	-0.431	0.03469929876
ES	PSMG3-AS1	+	chr7:1579286-1579404	NA	-0.294	0.03625932837
ES	LINC00963	+	chr9:129502396-129503139	NA	-0.268	0.03797039936
ES	RASSF8-AS1	-	chr12:25947518-25947622	NA	-0.397	0.0415224856
MXE	RP11-421L21.3	+	chr1:101077362-101077508	chr1:101083460-101083574	-0.235	0.04252502176
ES	AC091729.9	+	chr7:1162351-1162543	NA	-0.173	0.04292658489
MXE	LINC01778	+	chr1:30826554-30826652	chr1:30829747-30829882	-0.203	0.04357236015
ES	LINC00630	+	chrX:102839800-102839863	NA	-0.285	0.04393571592
ES	CD27-AS1	-	chr12:6450473-6450708	NA	-0.232	0.0496313164

Supplementary Table 25: Differentially spliced and expressed lncRNAs in mesenchymal (MES) and proneural (PN) GSCs samples.

ASS (alternative 5' or 3' splice site): genomic coordinates of long and short exons (columns g.coord_1 and g.coord_2)

MXE (mutually exclusive exon): genomic coordinates of first and EScond exons (columns g.coord_1 and g.coord_2)

RI (retained introns): genomic coordinates of retained intron (column g.coord_1)

ES (exon skipping): genomic coordinates of skipped exon (column g.coord_1)

lncRNA	Differential expression		Differential splicing					
	log2FoldChange	FDR	event.type	strand	g.coord_1	g.coord_2	inc.level.difference	FDR
AC005154.6	-2.818045991	1.77E-11	MXE	-	chr7:30576563-30576710	chr7:30584710-30584808	0.278	0.02127345004
AC007566.10	-1.014212726	0.04603914804	ES	+	chr7:92462957-92463026	NA	0.228	3.06E-06
AC108488.4	-1.73751869	0.01934800273	ES	-	chr2:3533107-3533190	NA	0.211	0.02986419007
ARMCX5-GPRASP2	-1.407923176	0.00109723521	ES	+	chrX:102601879-102601977	NA	0.266	1.98E-07
			ES	+	chrX:102601463-102601509	NA	0.358	0.000666033342
			MXE	+	chrX:102601463-102601509	chrX:102601879-102601977	-0.371	0.001699714909
			MXE	+	chrX:102601879-102601977	chrX:102639399-102639533	0.154	0.02227107106
BDNF-AS	-2.440499658	0.000270164116	ES	+	chr11:27658240-27658462	NA	0.274	1.00E-06
			ES	+	chr11:27675576-27676140	NA	0.343	0.001406429329
			ES	+	chr11:27675296-27676140	NA	0.368	0.00177508727
CD27-AS1	-1.901100354	0.000615687138	MXE	-	chr12:6448639-6448737	chr12:6450340-6450980	-0.223	0.000313158994
			ES	-	chr12:6443545-6443717	NA	0.321	0.000758051464
			ES	-	chr12:6450340-6450980	NA	-0.27	0.01669192307
			ES	-	chr12:6450869-6450980	NA	-0.313	0.01675843214
			ES	-	chr12:6450892-6450980	NA	-0.337	0.02475961249
			ES	-	chr12:6450473-6450708	NA	0.232	0.0496313164
CTC-308K20.1	4.217809789	3.39E-10	RI	-	chr5:172957153-172958257	NA	-0.484	1.27E-07
CTD-2341M24.1	1.475568801	0.03769661099	ES	+	chr14:86128664-86128773	NA	-0.612	5.70E-05
FAM66C	-1.945290987	3.52E-05	ES	+	chr12:8195276-8195412	NA	0.396	0.02043424899
			ES	+	chr12:8187731-8188225	NA	-0.229	0.03557962837
GAS5	1.714774757	0.001737349134	A5SS	-	chr1:173865470-173865547	chr1:173865509-173865547	0.477	0
			MXE	-	chr1:173865509-173865547	chr1:173866176-173866206	0.233	0
			MXE	-	chr1:173864674-173864704	chr1:173865228-173865282	-0.224	0
			MXE	-	chr1:173865856-173865894	chr1:173866527-173866796	0.254	0
			RI	-	chr1:173864256-173865282	NA	0.15	0
			MXE	-	chr1:173865470-173865547	chr1:173865856-173865894	-0.266	0
			RI	-	chr1:173865228-173865547	NA	0.436	0
			MXE	-	chr1:173865509-173865547	chr1:173865856-173866206	0.274	0
			MXE	-	chr1:173865856-173865894	chr1:173866176-173866206	0.232	0
			MXE	-	chr1:173864483-173864506	chr1:173865228-173865282	-0.124	6.96E-12
			MXE	-	chr1:173865509-173865547	chr1:173865856-173865894	0.154	2.88E-11
			MXE	-	chr1:173864674-173864704	chr1:173865228-173865282	0.206	5.01E-11
			RI	-	chr1:173864483-173864704	NA	0.206	4.03E-10
			MXE	-	chr1:173865470-173865547	chr1:173866176-173866206	-0.232	1.87E-09
			RI	-	chr1:173864256-173864506	NA	0.171	1.09E-08
			MXE	-	chr1:173865856-173865894	chr1:173866760-173866796	0.229	1.36E-07
			MXE	-	chr1:173865228-173865282	chr1:173865470-173865547	0.121	1.59E-05
			MXE	-	chr1:173865228-173865547	chr1:173866176-173866206	-0.198	2.31E-05
			MXE	-	chr1:173865509-173865547	chr1:173866527-173866567	0.214	6.74E-05
			MXE	-	chr1:173865470-173865547	chr1:173866527-173866567	-0.194	8.27E-05
			MXE	-	chr1:173865856-173865894	chr1:173866527-173866567	0.25	0.000377180693
			ES	-	chr1:173864674-173864704	NA	-0.223	0.000528708466
			MXE	-	chr1:173866760-173866796	chr1:173866990-173867043	-0.166	0.008854126289
LINC00910	4.052061325	4.78E-14	ES	-	chr17:43387935-43388057	NA	0.294	2.51E-05
LINC01001	2.271547507	0.006862132394	ES	-	chr11:134563-134796	NA	0.533	0.01082847443
LINC01021	1.955564405	0.0116975285	ES	+	chr5:27477638-27477801	NA	-0.121	0.03820251916
LINC01778	-2.722293474	0.006404109579	MXE	+	chr1:30826554-30826652	chr1:30829747-30829882	-0.203	0.04357236015
MIR99AHG	-3.934916524	1.08E-11	ES	+	chr21:16537378-16537439	NA	0.119	0.003127023316
NOVA1-AS1	2.538877294	6.37E-07	ES	+	chr14:26797913-26798030	NA	-0.122	0.01371870462
NR2F1-AS1	-2.868865851	2.32E-06	ES	-	chr5:93438702-93438741	NA	0.288	0.004687272022
PSMA3-AS1	-1.50008569	1.84E-05	ES	-	chr14:58293065-58293138	NA	0.417	1.58E-13
			ES	-	chr14:58288717-58288813	NA	-0.432	7.31E-06
			ES	-	chr14:58285590-58285756	NA	0.308	1.18E-05
			ES	-	chr14:58293765-58295811	NA	0.201	4.24E-05
			ES	-	chr14:58273978-58274135	NA	0.237	7.74E-05

			ES	-	chr14:58285590-58285756	NA	0.289	0.000525528662
			MXE	-	chr14:58273978-58274010	chr14:58285590-58285756	0.377	0.001136202548
			A3SS	-	chr14:58273978-58274135	chr14:58273978-58274010	0.23	0.00508214036
			MXE	-	chr14:58285590-58285756	chr14:58291634-58291707	-0.248	0.005483540331
			ES	-	chr14:58293313-58293544	NA	0.102	0.005554562012
PVT1	1.306446058	0.004494224275	ES	+	chr8:127983903-127984204	NA	0.173	1.02E-05
			ES	+	chr8:128099369-128099573	NA	0.182	2.16E-05
			MXE	+	chr8:127939507-127939676	chr8:127983903-127984204	-0.137	0.000100701606
			ES	+	chr8:127983903-127984204	NA	0.228	0.001136224867
			ES	+	chr8:128070159-128070272	NA	-0.138	0.003876184563
RBM26-AS1	-1.372105486	0.01108391598	ES	+	chr13:79417834-79417916	NA	0.207	0.0179359004
RGMB-AS1	-2.82462874	0.02763328829	ES	-	chr5:98771655-98771766	NA	0.667	2.10E-07
RP11-1228E12.1	1.830938095	0.03593843095	ES	-	chr17:71365-71556	NA	0.667	0.001952422279
RP11-156P1.3	-1.092878188	0.03206607327	ES	-	chr17:47072471-47072559	NA	0.494	0.000788106904
			ES	-	chr17:47033277-47033381	NA	0.171	0.02472987573
RP4-639F20.1	2.662459679	8.82E-09	A3SS	+	chr1:94962924-94963270	chr1:94962978-94963270	0.159	0.02193666938
SNHG11	-1.126572362	0.02635014089	ES	+	chr20:38447929-38448093	NA	-0.161	0.02738999534
SNHG3	2.007679738	9.72E-05	ES	+	chr1:28508127-28508160	NA	0.173	0.0111445589
SNHG6	1.619245894	1.16E-05	ES	-	chr8:66922613-66922725	NA	-0.151	0
SNHG8	3.401142657	2.65E-08	A5SS	+	chr4:118278708-118279137	chr4:118278708-118278792	-0.114	0.000990167683
TPT1-AS1	-2.889017128	3.55E-10	MXE	+	chr13:45378529-45378671	chr13:45383090-45383235	-0.625	6.05E-07
			MXE	+	chr13:45379194-45379335	chr13:45383090-45383235	-0.547	3.37E-06
			A3SS	+	chr13:45390713-45390902	chr13:45390757-45390902	0.12	1.61E-05
			ES	+	chr13:45390757-45390902	NA	0.148	1.99E-05
			ES	+	chr13:45390713-45390902	NA	0.109	2.67E-05
			MXE	+	chr13:45379194-45379335	chr13:45383090-45383235	-0.37	3.21E-05
			MXE	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.293	8.84E-05
			MXE	+	chr13:45379925-45380001	chr13:45383090-45383235	-0.308	9.27E-05
			MXE	+	chr13:45379194-45380001	chr13:45383090-45383235	-0.377	0.000188143965
			A3SS	+	chr13:45377060-45377215	chr13:45377139-45377215	0.22	0.00019763891
			MXE	+	chr13:45379194-45380001	chr13:45383090-45383235	-0.397	0.000310183700
			ES	+	chr13:45360140-45360239	NA	0.619	0.004168487247
			MXE	+	chr13:45383090-45383235	chr13:45389734-45389820	0.107	0.018188216
			MXE	+	chr13:45379898-45380001	chr13:45383090-45383235	-0.116	0.03030437867
TRAF3IP2-AS1	-1.702715019	3.10E-05	ES	+	chr6:111574620-111574658	NA	-0.317	0.01210955425
WEE2-AS1	-1.371126783	0.04272802559	ES	-	chr7:141714188-141714374	NA	0.275	0.000891391094
ZBED3-AS1	-1.506734757	0.00271888178	ES	+	chr5:77100235-77100391	NA	0.276	0.009747054499
ZNF561-AS1	-2.939397831	9.05E-11	ES	+	chr19:9627715-9627806	NA	-0.149	0.02302160623
ZNF582-AS1	-7.903489168	9.86E-09	RI	+	chr19:56398276-56399168	NA	0.809	0

Supplementary Table 26: List of primers used for validation of splicing events by qRT-PCR.

gene	exon	Primer Forward (5' - 3')	Primer Reverse (5' - 3')
OSBPL6	constitutive	ATGTGGGACTCTCAGTCAT	CTTCGGTGTCAAGGTCTATTC
	alternative	GCTAACTGTGTAGATATTTCAAAGAA	TTTGTATCTTTGCTGACACTTT
RAB18	constitutive	GCTGGTCAAGAGAGGTTTAG	ACCCTGTGCACCTCTATAA
	alternative	TTACTTTGCATCAGCAGACT	CCACTTCAGGATTGGACTATTT
ELMOD3	constitutive	CAAGGAAGGCAAAGGTAGAG	CTATGTGGAGAGCCAGAGAT
	alternative	GAAAGCTGGTCACGATTCT	ACAGGCGGGTATGGTAATA
WASF3	constitutive	ACTACTGATAACTGAGCCAAAG	CATGTAATCGTTGACTATGGGT
	alternative	GCTGAACCCTAACAGAAACC	CCTTCTCTCCCACTCTTCTT
SLC9A5	constitutive	GGGAGCAGTTTGACAAGAA	CCTGTAGTACACATCCCAGA
	alternative	GGATAGAGCTGAGGACAGA	CATGTCAGTCTGGAGGAAAG
GSN	constitutive	CTCTCTTTGTCCAGTGCTTC	TGTGCAGGGTGAAGAGT
	alternative	CAGATACAGCGCTAGGAAA	TCCATTCTAGACCTGAATTACTC
FDFT1	constitutive	CAGAACGTGCCAACTCTATG	TTCTCCTTGCTGGTCTT
	alternative	GTCCTGGCTGACCTGT	AACCACCGGGAACCA
B2M	endogenous	TGCCGTGTGAACCATGTGA	GCTTACATGTCTCGATCCCACT

Supplementary References

- 1) Lawrence, Michael S., Petar Stojanov, Craig H. Mermel, James T. Robinson, Levi A. Garraway, Todd R. Golub, Matthew Meyerson, Stacey B. Gabriel, Eric S. Lander, and Gad Getz. 2014. "Discovery and Saturation Analysis of Cancer Genes across 21 Tumour Types." *Nature* 505 (7484): 495–501.
- 2) Vogelstein, Bert, Nickolas Papadopoulos, Victor E. Velculescu, Shibin Zhou, Luis A. Diaz Jr, and Kenneth W. Kinzler. 2013. "Cancer Genome Landscapes." *Science* 339 (6127): 1546–58.
- 3) Tamborero, David, Abel Gonzalez-Perez, Christian Perez-Llamas, Jordi Deu-Pons, Cyriac Kandoth, Jüri Reimand, Michael S. Lawrence, et al. 2013. "Comprehensive Identification of Mutational Cancer Driver Genes across 12 Tumor Types." *Scientific Reports* 3 (October): 2650.