

Supplementary Table 1. Sequences of primers and siRNA/shRNA/probe used in this study

Gene/RNA	Forward primer (5'→3') / Target sequence	Reverse primer (5'→3')
qRT-PCR		
circSPECC1(divergent)	GAGAGCTGCGAAGTTCAAGA	AGGTGTTTCGTAGGAGTGGG
circSPECC1(convergent)	TTCAGAAAGGGGCAGCAAGTC	CTTGAGGAGCCTGATGTCCG
SPECC1	CGGAAGCCCAACTGGAAATCA	TGCTCAAAGTCGGAAGCATCT
PGK1	GAACAAGGTTAAAGCCGAGCC	GTGGCAGATTGACTCCTACCA
GAPDH	AGAAGGCTGGGGCTCATTG	AGGGGCCATCCACAGTCTTC
ACTB	CATGTACGTTGCTATCCAGGC	CTCCTTAATGTCACGCACGAT
ChIP		
Binding site 1	GCCATAGTATTCATTTTGGGTGAGT	AACAACCTCGAGGAGGTGGTG
Binding site 2	CGGCAGGATGCAGATGAAG	CCTTCCAGTTCCCAGCAG
RIP		
PGK1	ACAAGCTGGACGTTAAAGGGA	CCAAGCAGAATTTGATGCTTGGG
siRNA		
siNC		
si-HIF1A	GTGATGAAAGAATTACCGAAT	
si-circSPECC1	AGTCTGCTGGCCAAGGGGCCT GGCCAAGGGGCCTTTACAACA	
si-IGF2PB2	AGTGAAGCTGGAAGCGCATAT TTCCCGCATCATCACTCTTAT	
shcircSPECC1	AGTCTGCTGGCCAAGGGGCCT GGCCAAGGGGCCTTTACAACA	
RNA pulldown probe		
circSPECC1 pulldown	AGUUGU+UGUAAAGGCCCCU+UGGCCAGCAGAC+UGGA	

Supplementary Table 2. Clinicopathological data of 11 paraffin-embedded nontumor brain tissues and 51 glioma tissues used for fluorescence in situ hybridization (FISH)

ID	Gender (M=Male; F=Femal)	Age	Histological Diagnosis	Histology grading	FISH		percentage (0-4)	OS Follow-up time	OS Outcome	ki-67(%)	P53	IDH1 Mutation	MGMT Methylation
					Score of circSPECC	Intensity(0 -3)							
01	M	44	Oligodendroglioma	II	1	1	1	2395	0	2	1	0	1
02	M	40	Astrocytoma	II	4	2	2	2534	0	4	1	NA	1
03	F	42	Oligodendroglioma	II	6	3	2	1434	1	1	1	NA	1
04	F	3	Astrocytoma	II	6	2	3	731	1	3	1	0	0
05	F	32	Oligodendroglioma	II	3	1	3	2314	0	10	1	0	0
06	M	65	Oligodendroglioma	II	4	2	2	629	1	20	1	0	1
07	M	14	Astrocytoma	II	2	1	2	2543	0	5	1	NA	0
08	M	24	Oligodendroglioma	II	3	3	1	2025	0	3	0	1	1
09	M	32	Astrocytoma	II	3	3	1	2018	0	2	0	0	1
10	M	22	Astrocytoma	II	0	1	0	2418	0	5	0	0	1
11	F	57	Astrocytoma	II	1	1	1	2296	0	10	1	0	1
12	F	56	Astrocytoma	II	6	3	2	1215	1	3	1	0	1
13	F	40	Astrocytoma	II	4	2	2	1942	0	5	0	0	0
14	M	27	Oligodendroglioma	II	4	2	2	3199	0	5	NA	NA	1
15	M	41	Astrocytoma	II	3	3	1	3521	0	2	0	NA	1
16	M	39	Astrocytoma	II	2	2	1	3510	0	1	NA	NA	1
17	F	41	Astrocytoma	II	6	3	2	1284	1	15	1	NA	0
18	M	35	Astrocytoma	II	6	3	2	1795	1	3	1	1	0
19	F	51	Astrocytoma	II	1	1	1	1949	0	7	1	0	0
20	M	44	Astrocytoma	II	4	2	2	613	1	NA	1	NA	0
21	M	43	Astrocytoma	III	2	2	1	1668	1	10	1	NA	1
22	F	35	Oligodendroglioma	III	4	2	2	2464	0	85	1	NA	0
23	M	22	Oligodendroglioma	III	9	3	3	213	1	5	1	0	0
24	M	54	Astrocytoma	III	12	3	4	132	1	50	1	1	1
25	M	41	Astrocytoma	III	6	2	3	959	1	2	0	NA	1
26	M	57	Astrocytoma	III	9	3	3	40	1	12.5	1	0	0
27	M	44	Astrocytoma	III	6	3	2	1932	0	10	1	0	1
28	M	36	Oligodendroglioma	III	3	3	1	3678	0	30	1	NA	1
29	F	34	Astrocytoma	III	6	2	3	1946	1	10	1	NA	1
30	M	19	Astrocytoma	III	4	2	2	2488	1	30	1	NA	1
31	M	22	Astrocytoma	III	8	2	4	520	1	NA	NA	NA	1
32	F	42	Oligodendroglioma	III	4	2	2	508	1	7.5	0	NA	0
33	F	31	Astrocytoma	III	2	2	1	4269	1	30	1	NA	1
34	F	34	Glioblastoma	IV	12	3	4	163	1	25	1	0	0
35	F	48	Glioblastoma	IV	2	2	1	913	1	90	1	0	1
36	M	66	Glioblastoma	IV	9	3	3	362	1	40	1	NA	1
37	M	56	Glioblastoma	IV	8	2	4	161	1	80	1	0	0

38	F	21	Glioblastoma	IV	12	3	4	2944	1	1	0	NA	1
39	M	73	Glioblastoma	IV	12	3	4	31	1	40	1	NA	0
40	M	37	Glioblastoma	IV	9	3	3	198	1	50	1	0	0
41	M	71	Glioblastoma	IV	6	2	3	204	1	30	1	0	0
42	F	36	Glioblastoma	IV	12	3	4	63	1	40	1	NA	1
43	M	52	Glioblastoma	IV	4	2	2	201	1	40	1	0	1
44	M	71	Glioblastoma	IV	2	2	1	611	1	3	1	NA	1
45	M	48	Glioblastoma	IV	6	2	3	207	1	20	1	1	1
46	F	49	Glioblastoma	IV	12	3	4	2527	0	20	1	NA	1
47	M	42	Glioblastoma	IV	12	3	4	2382	0	20	0	0	1
48	M	38	Glioblastoma	IV	12	3	4	1991	1	50	1	1	1
49	F	63	Glioblastoma	IV	12	3	4	921	1	20	1	0	0
50	M	41	Glioblastoma	IV	9	3	3	3242	0	30	1	NA	1
51	M	33	Glioblastoma	IV	8	2	4	1973	0	60	1	0	1
52	M	26	Non-tumor brain tissues	NA	0	1	0	NA	NA	NA	NA	NA	NA
53	F	24	Non-tumor brain tissues	NA	0	1	0	NA	NA	NA	NA	NA	NA
54	M	14	Non-tumor brain tissues	NA	2	2	1	NA	NA	NA	NA	NA	NA
55	F	14	Non-tumor brain tissues	NA	0	2	0	NA	NA	NA	NA	NA	NA
56	F	33	Non-tumor brain tissues	NA	1	1	1	NA	NA	NA	NA	NA	NA
57	M	21	Non-tumor brain tissues	NA	0	1	0	NA	NA	NA	NA	NA	NA
58	M	21	Non-tumor brain tissues	NA	0	1	0	NA	NA	NA	NA	NA	NA
59	F	29	Non-tumor brain tissues	NA	2	1	2	NA	NA	NA	NA	NA	NA
60	M	16	Non-tumor brain tissues	NA	2	2	1	NA	NA	NA	NA	NA	NA
61	M	54	Non-tumor brain tissues	NA	1	1	1	NA	NA	NA	NA	NA	NA
62	M	22	Non-tumor brain tissues	NA	0	2	0	NA	NA	NA	NA	NA	NA

Supplementary Table 3. RNA binding proteins interacted with circSPECC1 identified by RNA-pulldown-MS

Protein Name	Accession	Description	Abundances (Normalized): Probe_circS PECC1	Abundances (Normalized): Probe_negat ive	FC	Score
PABPC1	P11940	Polyadenylate-binding protein 1	1887702877	561489519	1.580979	99.8
PABPC4	Q13310	Polyadenylate-binding protein 4	209930583	138799826	1.51247	58.06
UPF1	Q92900	Regulator of nonsense transcrip	109683824	48716028.4	2.251494	51.87
RPS3	P23396	40S ribosomal protein S3 OS=H	178300266	97763320.2	1.823795	46.14
IGF2BP3	O00425	Insulin-like growth factor 2 mR	63565947.8	31552480.8	2.01461	20.16
IGF2BP2	Q9Y6M1	Insulin-like growth factor 2 mR	10733335.1	6674160.06	1.608193	8.05
LARP1	Q6PKG0	La-related protein 1 OS=Homo	89823260.4	41260056.9	2.177003	7.98
ELAVL1	Q15717	ELAV-like protein 1 OS=Homo	20216552.2	11616303.9	1.74036	7.82
RBM14	Q96PK6	RNA-binding protein 14 OS=H	45356546.1	34341618.5	1.320746	7.51
CPSF6	Q16630	Cleavage and polyadenylation s	2283188	930468.188	2.453806	4.09
SSB	P05455	Lupus La protein OS=Homo sa	7085085.07	4444353.19	1.594177	3.71
GAPDH	P04406	Glyceraldehyde-3-phosphate de	4354025.42	2322842.5	1.874439	2.4
HNRNPC	P07910	Heterogeneous nuclear ribonucl	7184490.6	4923792.91	1.459137	1.74
RALY	Q9UKM9	RNA-binding protein Raly OS=	4651595.3	2606077.31	1.784903	1.66
CPSF7	Q8N684	Cleavage and polyadenylation s	4508527.58	1603210.47	2.812187	0
EIF3B	P55884	Eukaryotic translation initiation	3348641.25	1626045.13	2.059378	0
LARP4	Q71RC2	La-related protein 4 OS=Homo	3745659.38	2418279.38	1.548894	0
MATR3	P43243	Matrin-3 OS=Homo sapiens OX	2108838.83	960712.563	2.195078	0
RBM39	Q14498	RNA-binding protein 39 OS=H	15801267.4	5587164.25	2.828137	0
RBM8A	Q9Y5S9	RNA-binding protein 8A OS=H	6464899.02	4575089.88	1.413065	0
TNRC6A	Q8NDV7	Trinucleotide repeat-containing	1774656.42	737943.375	2.404868	0
U2AF2	P26368	Splicing factor U2AF 65 kDa su	2577190.91	592044.813	4.353034	0

Supplementary Table 4. Differentially expressed genes in pGBM1 cells after circSPECC1 knockdown.

Gene ID	Gene Symbol	Chromosome	Start	End	Strand	Length	shNC-1	shNC-2	shNC-3	hcircSPECC1-1	hcircSPECC1-2	hcircSPECC1-3	FC	log2FoldChange	pvalue	padj
ENSG00000	CD74	5	1.5E+08	1.5E+08	-	4526	69.16	67.06	68.8	25.26	24.73	25.61	0.35471499	-1.495267795	0	0
ENSG00000	PGK1	X	77910739	78129295	+	5437	282.65	283.33	289.43	133.69	137.49	126.69	0.44748543	-1.160087396	0	0
ENSG00000	TFPI2	7	93885396	93890753	-	2444	107.52	111.06	113.62	900.77	898.59	882.24	7.76761645	2.957471966	0	0
ENSG00000	NAMPT	7	1.06E+08	1.06E+08	-	23584	25.55	25.38	25.39	55.56	53.52	53.73	2.05188509	1.036949941	0	0
ENSG00000	CA9	9	35673928	35681159	+	1598	131	129.12	134.56	25.95	23.22	25.64	0.18212439	-2.457003988	0	0
ENSG00000	CSF3	17	40015361	40017813	+	2220	22.06	21.56	21.8	104.16	108.4	105.64	4.68109978	2.226847516	0	0
ENSG00000	COL1A1	17	50184101	50201632	-	9007	101.62	103.47	103.61	27.19	29.32	27.83	0.2630284	-1.926709537	0	0
ENSG00000	ENO2	12	6913745	6923698	+	4281	69.88	73.11	73.22	30.43	29.66	28.36	0.39347692	-1.345649063	0	0
ENSG00000	TGFB1	5	1.36E+08	1.36E+08	+	7717	331.87	337.52	339.67	144.81	142.6	138.56	0.40611493	-1.300040039	0	0
ENSG00000	IL1B	2	1.13E+08	1.13E+08	-	3009	4.76	5.75	4.98	69.53	69.68	69.45	12.9672821	3.696804226	0	0
ENSG00000	COL5A1	9	1.35E+08	1.35E+08	+	11160	36.23	36.6	36.9	10.2	10.64	9.68	0.26760758	-1.901809111	0	0
ENSG00000	MAP1B	5	72107234	72209565	+	12540	23.08	23.16	22.89	56.28	55.65	55.42	2.3287291	1.219542823	0	0
ENSG00000	LOXL2	8	23296897	23425328	-	5985	99.84	102.16	101.91	43.69	45.96	42.15	0.41737509	-1.2605836	0	0
ENSG00000	IL36B	2	1.13E+08	1.13E+08	-	1871	66.46	61.26	61.88	185	190.68	198.23	2.91205115	1.542035694	0	0
ENSG00000	FGF2	4	1.23E+08	1.23E+08	+	6775	12.58	12.48	12.61	36.8	36.52	37.01	2.81743472	1.494382183	0	0
ENSG00000	COL6A1	21	45981770	46005050	+	5536	161.96	165.45	163.23	60.44	59.59	60.32	0.3536152	-1.499747824	0	0
ENSG00000	IGFBP3	7	45912245	45921874	-	4569	85.98	87.83	90.04	22.19	21.93	22.86	0.24425292	-2.033552281	0	0
ENSG00000	MMP3	11	1.03E+08	1.03E+08	-	1854	86.21	83.97	88.02	256.2	254.51	255.06	2.85333901	1.512651168	0	0
ENSG00000	PLOD2	3	1.46E+08	1.46E+08	-	7663	187.02	186.2	190.06	86.59	84.8	84.88	0.43768361	-1.192039751	0	0
ENSG00000	COL1A2	7	94394895	94431227	+	10812	77.32	77.38	78.32	37.71	38.11	37.21	0.46675441	-1.099264456	0	0
ENSG00000	FBN1	15	48408313	48645721	-	18525	36.57	36.3	35.91	14.38	14.18	14.3	0.37897944	-1.399808506	0	0
ENSG00000	CXCL8	4	73740519	73743716	+	2588	16.29	15.95	16.98	120.64	119.18	118.31	7.00027878	2.807412378	0	0
ENSG00000	BNIP3	10	1.32E+08	1.32E+08	-	4050	136.55	136.61	136.33	67.07	66.55	63.33	0.462635	-1.11205369	0	0
ENSG00000	ERO1A	14	52639915	52695900	-	7549	30.8	30.97	31.58	12.12	12	11.76	0.3696812	-1.435646429	0	0
ENSG00000	-	3	44117299	44122365	+	5067	43.63	42.63	43.96	14.41	15.72	14.35	0.32896381	-1.603999196	0	0
ENSG00000	RND3	2	1.5E+08	1.51E+08	-	3594	81.05	78.93	76.19	169.26	168.33	169.53	2.06554524	1.046522658	0.28811334491693e-303	0.31832396104946e-301
ENSG00000	GNG11	7	93921735	93928610	+	3019	67.84	67.95	66.41	149.89	148.35	154.9	2.15611306	1.108432829	0.17549028724582e-292	0.16917903680765e-289
ENSG00000	PCOLCE	7	1.01E+08	1.01E+08	+	3346	62.52	66.19	65	23.86	24.97	24.18	0.36282759	-1.462643942	0.21055709362544e-291	0.17228918121588e-289
ENSG00000	SEMA7A	15	74409289	74433958	-	3800	74.31	78.37	77.82	35.38	36.02	35.44	0.44611598	-1.164509282	0.09106870630779e-260	0.43041881244031e-257
ENSG00000	PTGES	9	1.3E+08	1.3E+08	-	1891	18.76	18.68	15.86	71.07	71.27	67.86	3.79199696	1.922957809	0.32566567333497e-243	0.13043300331766e-241
ENSG00000	ARL6IP1	16	18791669	18801572	-	3558	54.46	52.91	56.24	116.44	112.07	113.9	2.01332542	1.009580382	0.51579025599881e-240	0.51981498348992e-237
ENSG00000	NDRG1	8	1.33E+08	1.33E+08	-	12002	15.1	14.56	14.13	5.66	5.13	5.33	0.35352633	-1.500110431	0.64155541323157e-224	0.57994436233562e-221
ENSG00000	UBE2H	7	1.3E+08	1.3E+08	-	6514	13.03	12.14	12.42	33.67	34.1	31.39	2.53640978	1.342787844	0.50657966294567e-222	0.05578297911727e-219
ENSG00000	ADAM12	10	1.26E+08	1.26E+08	-	9882	18.78	19.23	19.04	9.03	8.54	8.49	0.43925821	-1.186858833	0.21112007522812e-193	0.39190967955391e-190
ENSG00000	CAMK2N1	1	20482391	20486210	-	2605	72.41	69.58	70.62	26.4	26.44	30.05	0.37523455	-1.414135425	0.02620001797764e-192	0.37101795195428e-190
ENSG00000	SLC16A3	17	82217934	82261129	+	9236	16.03	16.33	16.87	6.46	6.73	6.96	0.39411305	-1.343318577	0.93715896476822e-189	0.75796596744143e-187
ENSG00000	ALDH1A3	15	1.01E+08	1.01E+08	+	5335	15.73	15.64	15.42	38.98	36.56	36.42	2.30127168	1.202431313	0.86121699127068e-189	0.35233275640375e-186
ENSG00000	CRK	17	1420689	1463162	-	4064	9.61	9.57	10.22	28.47	28.53	29.08	2.81759383	1.494463658	0.57647057383928e-181	0.22468622679902e-179
ENSG00000	SLC38A1	12	46183063	46270017	-	10015	11.51	12.11	11.71	26.71	24.96	25.2	2.09290735	1.065508444	0.79651699055942e-178	0.85635087824164e-176
ENSG00000	EREG	4	74365145	74388749	+	5713	11.11	11.85	10.53	29.74	29.5	31.46	2.60612592	1.381906793	0.56064889155891e-178	0.21266180784661e-176
ENSG00000	MEST	7	1.3E+08	1.31E+08	+	4767	25.56	27.03	27.7	10.47	10.44	9.49	0.36420639	-1.457171848	0.30131177812872e-174	0.10739439810946e-172
ENSG00000	GREM1	15	32718004	32745106	+	14784	8.17	8.07	7.81	18.23	16.84	17.67	2.10895255	1.076526639	0.56527475815229e-170	0.71598311603912e-168
ENSG00000	ADM	11	10305073	10307397	+	2325	53.46	57.34	57.96	22.62	23.01	21.11	0.38053697	-1.393891477	0.59146944769213e-167	0.57814264225853e-165
ENSG00000	EFEMP1	2	55865967	55924139	-	3962	20.06	18.71	19.03	5.75	4.81	5.05	0.25915829	-1.948094552	0.93994460939071e-162	0.70881138517888e-159
ENSG00000	DYNLT3	X	37836757	37847571	-	3120	29.87	28.12	28.97	63.67	62.98	66.09	2.13214875	1.092308093	0.96392395807269e-158	0.69418039866108e-155
ENSG00000	C5orf15	5	1.34E+08	1.34E+08	-	2301	73.63	73.51	74.03	37.04	37.64	36.57	0.48399253	-1.046943313	0.57370311941533e-152	0.17906587195832e-149
ENSG00000	ODC1	2	10439968	10448327	-	3307	17.73	15.86	16.83	41.56	43.63	43.97	2.46460537	1.301356661	0.03530143652049e-151	0.74492920869467e-149
ENSG00000	GOLGA4	3	37243191	37366879	+	10837	7.38	6.82	7.02	16.26	16.52	17.68	2.28685144	1.19336265	0.61043845944062e-147	0.72958643113127e-144
ENSG00000	GOLM2	15	44288719	44415758	+	7105	12.82	13.11	13.08	27.95	26.33	27.02	2.00521054	1.00375372	0.35626894945001e-141	0.71395220241628e-139

ENSG00000	SLC2A1	1	42925353	42958893	-	6614	18.8	18.27	18.85	8	8.46	8.7	0.43314273	-1.207085601	1.40398062231512e-134	1.26421358440866e-131
ENSG00000	MYL9	20	36541497	36551447	+	2808	69.61	68.48	71.66	36.64	32.13	31.24	0.4581205	-1.126200972	1.44082861457165e-132	1.33149732566944e-130
ENSG00000	SERPINB2	18	63871692	63903888	+	2741	1.83	1.57	1.73	13.39	12.75	13.63	7.44982923	2.897207356	1.11157166750743e-131	1.77143211458924e-129
ENSG00000	FER1L4	20	35558737	35607562	-	10228	6.65	5.89	6.15	1.9	1.82	1.83	0.28563882	-1.807736007	1.04754588798484e-125	1.29306935465138e-122
ENSG00000	BET1	7	93962762	94004382	-	5244	7.19	7.02	7.1	17.97	18.08	19.76	2.5195375	1.333158926	1.13099765187034e-115	1.39019498340629e-112
ENSG00000	PAX8-AS1	2	1.13E+08	1.13E+08	+	22105	1.18	1.31	1.37	3.67	3.65	3.52	2.70831586	1.437396005	1.70852836188285e-114	1.26673908423466e-112
ENSG00000	FAM162A	3	1.22E+08	1.22E+08	+	11604	13.4	12.89	12.82	6.46	7.04	6.71	0.49769584	-1.006663764	1.37619479564548e-112	1.45760693503871e-110
ENSG00000	HLA-DRA	6	32439878	32445046	+	1244	86.88	86.26	79.9	38.44	36.57	36.45	0.42343635	-1.239782981	1.3644804463697e-111	1.48923795193224e-109
ENSG00000	IL13RA2	X	1.15E+08	1.15E+08	-	1626	19.46	16.91	16.13	50.89	49.85	51.68	2.79048152	1.480514094	1.00369741042586e-109	1.28571000055913e-107
ENSG00000	VGf	7	1.01E+08	1.01E+08	-	2680	8.24	8.43	7.56	24.08	24.85	23.83	2.88961893	1.530879247	1.76109919946486e-107	1.44736703287576e-105
ENSG00000	IL1RN	2	1.13E+08	1.13E+08	+	3734	1.64	1.66	1.39	8.76	9.05	8.85	5.45809113	2.448396483	1.40352604927672e-103	1.68732062940063e-101
ENSG00000	IMPA1	8	81656914	81686331	-	4405	3.13	3	2.84	11.78	11.9	10.31	3.64313871	1.865181924	1.08377723449755e-101	1.78106696760197e-99
ENSG00000	-	7	94022833	94066661	+	1064	26	21.08	22.47	74.43	67.67	68.52	2.90929899	1.540671568	1.83051806922531e-99	2.98359441037256e-97
ENSG00000	ECHDC1	6	1.27E+08	1.27E+08	-	5676	9.84	8.39	9.41	22.43	20.65	21.81	2.25751009	1.174732438	8.73026534850935e-98	1.41139289800901e-95
ENSG00000	MIF	22	23894383	23895227	+	730	124.06	126.99	134.75	64.56	63.01	62.19	0.47315365	-1.079619329	1.5841673724716e-88	2.33341986678501e-86
ENSG00000	DCAF7	17	63550222	63594286	+	12752	1.79	1.84	1.73	4.7	4.79	4.76	2.55269094	1.35201888	4.09511314599971e-86	5.9875974197209e-84
ENSG00000	PFKFB4	3	48517684	48562015	-	6107	14.91	15.31	16.01	8.05	7.13	7.09	0.46294863	-1.111075982	3.8667357845124e-85	5.57174210688616e-83
ENSG00000	ARRDC4	15	97960703	97973833	+	4062	24.19	23.93	23.01	11.77	12.64	12.5	0.49949071	-1.001470249	2.17625463896626e-78	3.00519607610029e-76
ENSG00000	OLFML2B	1	1.62E+08	1.62E+08	-	3430	13.51	13.51	12.95	4.93	4.37	4.94	0.34235541	-1.546433287	9.36964215218486e-78	1.27613242600134e-75
ENSG00000	MMP1	11	1.03E+08	1.03E+08	-	2738	1.47	1.46	1.49	8.37	8.64	8.68	5.60182434	2.485896744	7.1670375165573e-76	9.43818152428755e-74
ENSG00000	GPS1	17	82050691	82057470	+	6145	5.52	5.39	5.67	12.01	13.09	12.19	2.16420407	1.113836542	3.02215695210339e-75	3.90231110341402e-73
ENSG00000	PHLDA3	1	2.01E+08	2.01E+08	-	3243	15.19	15.78	16.02	34.02	35.22	30.24	2.03707897	1.026501911	1.85800083249086e-74	2.33837636418233e-72
ENSG00000	MNAT1	14	60734742	60699965	+	3877	5.08	5.62	5.14	14.97	13.27	15.63	2.66300088	1.413052907	7.39423979097982e-70	8.64908577903728e-68
ENSG00000	RRAD	16	66921679	66925536	-	1601	19.05	20.74	20.98	46.02	46.6	42.84	2.1451572	1.101083373	6.68584678246408e-69	7.59703218681704e-67
ENSG00000	FURIN	15	90868588	90883564	+	4960	4.17	4.31	4.58	10.97	11.77	10.48	2.44772801	1.291443254	2.16203699576189e-68	2.42893252320482e-66
ENSG00000	PNLIPRP3	10	1.16E+08	1.16E+08	+	2374	6.33	6.74	7.1	18.14	19.21	19.07	2.69420079	1.429857376	2.61463232625617e-68	2.92089684312382e-66
ENSG00000	LIF	22	30240453	30246759	-	3871	5.15	5.77	5.72	13.95	14.05	13.58	2.40436587	1.265656448	7.35215534545946e-68	8.12208939135896e-66
ENSG00000	PPFIA4	1	2.03E+08	2.03E+08	+	9718	2.97	3.44	3.14	0.9	0.9	0.98	0.28106023	-1.831048765	5.41531416868769e-65	5.72784692789121e-63
ENSG00000	ALDOC	17	28573115	28576948	-	2612	16.4	18.32	17.68	7.56	6.91	6.27	0.38039002	-1.394448685	1.11157146360715e-62	1.14526417377348e-60
ENSG00000	ZNF395	8	28345590	28402701	-	5808	8.68	8.51	9.37	3	3.92	3.63	0.38344157	-1.382921341	3.17913260983315e-62	3.24190009982216e-60
ENSG00000	FPR1	19	51745172	51804115	-	2583	20.29	18.69	19.79	9.25	7.94	7.67	0.40596168	-1.300584538	1.94846224486684e-61	1.94699354573252e-59
ENSG00000	DEPP1	10	44970981	44978809	-	2979	10.36	9.98	10.29	3.45	2.7	3.27	0.29517819	-1.760341982	2.52467545906756e-61	2.51015857517792e-59
ENSG00000	APLN	X	1.3E+08	1.3E+08	-	3224	19.15	17.77	16.65	7.31	8.31	7.81	0.42100616	-1.248086761	2.77777666819829e-61	2.74806413169766e-59
ENSG00000	IL36RN	2	1.13E+08	1.13E+08	+	3209	6.39	5.78	6.71	17.04	15.29	15.27	2.42351364	1.277100205	4.44063923142987e-59	4.18493417616033e-57
ENSG00000	PLXDC1	17	39063313	39154394	-	9255	3.2	3.09	3.17	1.1	0.94	1.01	0.3088881	-1.69484381	9.54337417339051e-59	8.90938945717701e-57
ENSG00000	PDK1	2	1.73E+08	1.73E+08	+	14845	4.31	4.38	4.5	2.25	2.28	1.87	0.4664642	-1.100161731	1.4890779754678e-58	1.37722397870591e-56
ENSG00000	IGFBP4	17	40443450	40457725	+	2205	22.36	19.38	20.21	8.24	8.64	8.59	0.39557493	-1.337977109	2.61260858565024e-58	2.39167671350776e-56
ENSG00000	BEX1	X	1.03E+08	1.03E+08	-	795	9.26	8.66	9.85	32.75	33.75	33.94	3.47971036	1.798967226	4.79494707475928e-58	4.3339782991631e-56
ENSG00000	C1QL1	17	44959693	44968303	-	1527	29.72	28.39	27.2	11.48	12.66	10.53	0.39122744	-1.353920523	9.77960998637551e-58	8.79943640629308e-56
ENSG00000	ASS1	9	1.3E+08	1.31E+08	+	3018	7.72	7.46	7.6	17.17	17.04	16.82	2.15506877	1.107733905	6.61044014906328e-55	5.49994152151144e-53
ENSG00000	MTMR6	13	25246222	25287488	-	5237	2.29	2.31	1.92	6.75	6.71	6.06	2.87897643	1.525555977	1.38270766241093e-53	1.10867507528393e-51
ENSG00000	OLFML2A	9	1.25E+08	1.25E+08	+	6771	7.43	7.59	7.21	3.65	2.9	3.44	0.43140004	-1.21290179	5.17872038207212e-52	4.05428562194898e-50
ENSG00000	IFITM3	11	319676	329475	-	2844	18.6	20.21	19.4	8.73	10.22	9.75	0.4752664	-1.073191688	2.43980432571864e-50	1.83077392516661e-48
ENSG00000	GALNT10	5	1.54E+08	1.54E+08	+	10496	2.45	2.99	2.82	5.88	5.9	5.85	2.05710735	1.040617081	3.13976171370085e-50	2.34714893522336e-48
ENSG00000	ADAM19	5	1.57E+08	1.58E+08	-	7704	3.3	2.96	3.34	1.11	0.9	0.93	0.29430585	-1.764611867	1.929577225114e-49	1.41585398971926e-47
ENSG00000	ANGPTL4	19	8363289	8374370	+	2475	11.04	10.94	9.41	3.23	2.31	3.37	0.27223339	-1.877084054	3.52106938122394e-48	2.50955070414473e-46
ENSG00000	CRABP2	1	1.57E+08	1.57E+08	-	1082	44.98	45.57	41.19	20.49	22.39	20.04	0.45967305	-1.12132002	2.45695208080994e-47	1.73866520024575e-45
ENSG00000	TMEM45A	3	1E+08	1.01E+08	+	6005	6.58	7.18	6.69	2.61	3.34	2.74	0.40985632	-1.28680985	4.89627871790344e-47	3.41622815107052e-45
ENSG00000	OLFML3	1	1.14E+08	1.14E+08	+	2821	17.37	17.33	15.65	8.4	8.11	7.35	0.45546239	-1.134596163	5.26607396404001e-47	3.66139443269005e-45
ENSG00000	MIR210HG	11	565657	568457	-	2324	9.12	8.38	9.25	2.9	2.61	2.31	0.28030123	-1.834950002	2.35976704605964e-45	1.55377376526145e-43
ENSG00000	PLEKHG4	16	67277510	67289499	+	7328	6.23	6.45	6.35	3.38	3.21	2.98	0.48339084	-1.048737951	4.28093000968545e-45	2.79102600795394e-43

ENSG00000	ATP6V0D2	8	85987323	86154225	+	2940	1.84	1.23	1.47	6.61	6.25	6.26	4.03553023	2.012758244	1.92621824687484e-43	1.204449213330522e-41
ENSG00000	RPLPOP2	11	61615036	61639449	+	4060	1.35	1.43	1.15	5.3	4.69	4.79	3.61489566	1.853954007	2.33284750213265e-43	1.44964601812212e-41
ENSG00000	CCDC30	1	42463221	42657190	+	25199	0.31	0.34	0.22	1.05	0.94	1.07	3.3717482	1.753496802	5.1609786545172e-43	3.16747100447761e-41
ENSG00000	DHRS3	1	12567910	12618210	-	3515	1.76	2.48	2.26	6.58	7.44	7.59	3.21267576	1.683775386	9.65523970651999e-43	5.85348907207774e-41
ENSG00000	MTSS2	16	70661204	70686053	-	4979	7.59	7.3	7.44	3.52	3.19	3.64	0.44562025	-1.166113293	3.31311258383494e-42	1.96660429043456e-40
ENSG00000	LEPR	1	65420652	65641559	+	11370	4.13	4.35	3.71	2.09	1.79	1.62	0.43356544	-1.205678326	3.7007557699141e-42	2.18366553367187e-40
ENSG00000	SPAG4	20	35615829	35621094	+	2348	12.27	15.22	15.8	5.76	5.87	5.06	0.37117457	-1.429830229	5.54612886613731e-42	3.23415755141174e-40
ENSG00000	RPS6KA2	6	1.66E+08	1.67E+08	-	8251	0.16	0.19	0.21	1.42	1.37	1.36	7.09823538	2.827460415	1.28519711461331e-41	7.40757815190891e-40
ENSG00000	ESRRA	11	64305497	64316743	+	3101	4.41	4.91	5.28	13.48	12.18	10.84	2.40324339	1.264982764	4.63433517537749e-40	2.55982652673282e-38
ENSG00000	SERPINB7	18	63752935	63805376	+	2637	4.91	5.22	5.12	11.85	12.56	14.59	2.46276949	1.3002816	1.77578730188743e-39	9.67439191726889e-38
ENSG00000	DPYSL4	10	1.32E+08	1.32E+08	+	3111	5.98	6.79	6.41	2.08	2.2	1.91	0.31061016	-1.686823084	2.30302339354442e-39	1.24444620056062e-37
ENSG00000	TCAF2	7	1.44E+08	1.44E+08	+	6410	2.48	2.23	2.51	0.67	0.52	0.65	0.24420743	-2.033821007	2.53436976508424e-38	1.31926551776702e-36
ENSG00000	RASSF4	10	44959407	44995891	+	9481	3.97	4.04	3.72	2.03	1.86	1.86	0.47082631	-1.086733156	1.3427597029243e-37	6.88164347748706e-36
ENSG00000	-	3	44115818	44117487	-	1670	18.95	19.48	19.62	8.67	9.71	7.4	0.42763726	-1.225540545	3.32992371171591e-37	1.68487361342165e-35
ENSG00000	H1-0	22	37805229	37807432	+	2204	8.4	9.38	10.36	18.93	21.32	20.04	2.06541369	1.046430775	1.7124254779678e-36	8.4705424451218e-35
ENSG00000	ADAMTS14	10	70672506	70762441	+	5566	1.67	1.77	2.21	0.25	0.29	0.25	0.13515196	-2.887345644	1.93166124135386e-36	9.48421821835099e-35
ENSG00000	CPTP	1	1324756	1328896	+	2555	4.38	4.86	6.01	12.03	13.35	13.82	2.47691973	1.308547114	4.0122461662928e-36	1.94593939065201e-34
ENSG00000	LINC02392	12	90280894	90300974	+	2841	1.82	1.84	2.38	6.62	6.79	6.65	3.19727767	1.676844041	4.25858472951543e-36	2.05538731423336e-34
ENSG00000	ZP1	11	60867542	60875693	+	2456	6.18	5.29	5.92	1.29	1.76	1.07	0.22894775	-2.126909709	1.05282251589747e-34	4.83495975256841e-33
ENSG00000	CCR1	3	46201711	46208313	-	2646	13.65	13.86	14.66	6.98	6.59	7.73	0.48610962	-1.040646404	2.94785167547305e-34	1.34754093256969e-32
ENSG00000	TENM2	5	1.67E+08	1.68E+08	+	21297	0.92	0.8	0.86	0.32	0.29	0.25	0.32203364	-1.634716709	1.56616894507863e-33	6.98279584593914e-32
ENSG00000	SCUBE3	6	35213956	35253079	+	7819	1.56	1.18	0.99	0.16	0.13	0.13	0.1108974	-3.17270256	2.40214227412737e-33	1.06621873037997e-31
ENSG00000	NRXN3	14	78170373	79868291	+	15534	0.6	0.66	0.56	0.13	0.08	0.08	0.14721127	-2.764039934	4.23373568117506e-32	1.77237545305613e-30
ENSG00000	SPINK1	5	1.48E+08	1.48E+08	-	1361	1.1	1.14	1.1	6.77	6.29	7.28	5.8632451	2.551699366	9.28011156349165e-31	3.71297823823001e-29
ENSG00000	WNT5B	12	1529891	1647212	+	4240	6.37	8.42	6.96	3	3.55	2.63	0.40619127	-1.299768851	2.7283980132974e-29	1.05758663731811e-27
ENSG00000	CCL2	17	34255274	34257208	+	1935	15.71	15.39	17.63	8.44	8.38	8.04	0.49084373	-1.026664305	4.42980250558658e-29	1.69072212713232e-27
ENSG00000	C10orf90	10	1.26E+08	1.27E+08	-	5659	16.26	15.13	14.21	5.78	7.32	6.76	0.41922103	-1.254217014	5.05284783493787e-29	1.92482527198735e-27
ENSG00000	SLC7A11	4	1.38E+08	1.38E+08	-	9645	0.61	0.51	0.46	1.61	1.65	1.76	3.06375991	1.615303244	5.56391681349506e-29	2.11545862019788e-27
ENSG00000	LCP1	13	46125920	46211871	-	5076	1.96	1.81	1.5	4.64	4.77	4.18	2.47923579	1.309895486	1.4194615506991e-28	5.27588653002832e-27
ENSG00000	GPR137B	1	2.36E+08	2.36E+08	+	2307	0.47	0.52	0.69	3.72	3.54	3.51	6.16078089	2.623113227	1.87245082182074e-28	6.92075921782629e-27
ENSG00000	UBE2Q2	15	75843307	75901078	+	3830	3.6	4.07	3.51	8.18	7.54	8.41	2.07637046	1.054063866	4.27750578081492e-28	1.5635928980256e-26
ENSG00000	MED11	17	4731428	4733608	+	1475	1.72	2.07	2.38	7.32	9.49	8.22	3.91536482	1.969146738	7.17524608515652e-28	2.60364540882002e-26
ENSG00000	HDAC9	7	18086949	19002416	+	17269	0.73	0.75	0.7	1.69	1.61	1.5	2.11026769	1.077426016	7.53238285822481e-28	2.72825925566121e-26
ENSG00000	CSTA	3	1.22E+08	1.22E+08	+	1366	0.47	1.1	0.53	6.09	5	6.27	7.97230402	2.994996727	1.49093937201656e-27	5.28472895054356e-26
ENSG00000	PCLO	7	82754012	83162930	-	22874	0.49	0.47	0.45	1.09	1.06	1.04	2.18212947	1.125736701	3.03279125505376e-27	1.06174391033e-25
ENSG00000	FIBCD1	9	1.31E+08	1.31E+08	-	4056	3.4	3.73	3.61	1.36	1.14	1.26	0.33662017	-1.570806482	1.06468842078709e-26	3.65653354876535e-25
ENSG00000	LINC01119	2	46816697	46859009	+	4240	8.17	6.73	7.75	4.03	3.58	3.92	0.48873537	-1.032874565	1.10017387451059e-26	3.77188922321432e-25
ENSG00000	CXCL2	4	74097040	74099196	-	1398	6.91	5.04	5.6	14.58	15.3	15.67	2.49577227	1.319486299	1.44566700746117e-26	4.94786375961539e-25
ENSG00000	LRCH2	X	1.15E+08	1.15E+08	-	4953	0.99	1.11	1.11	3.3	3.2	2.87	2.80086976	1.485874898	8.21322793881154e-26	2.72200062605446e-24
ENSG00000	MYEF2	15	48134632	48178353	-	13901	0.7	0.75	0.64	1.64	1.53	1.79	2.28764979	1.193866209	1.36495290610076e-25	4.46415929898249e-24
ENSG00000	DACT1	14	58633967	58648321	+	4584	1.64	1.19	1.38	3.74	4.01	3.85	2.65088021	1.406471481	1.87503530513385e-25	6.08239429732246e-24
ENSG00000	SEMA3A	7	83955777	84492724	-	9259	0.83	1.07	1.01	2.26	2.25	2.29	2.2532002	1.171975502	1.4795820753413e-23	4.41101792626112e-22
ENSG00000	SLC16A6	17	68267026	68291267	-	4056	0.1	0.18	0.18	1.41	1.51	1.35	9.06020562	3.179543792	1.92384687660803e-23	5.66751039131121e-22
ENSG00000	UNC5B	10	71212570	71302864	+	6841	1.85	1.42	1.94	4.17	3.82	3.66	2.14389106	1.100231597	2.98891193164885e-23	8.70197858870241e-22
ENSG00000	LINC00520	14	55781132	55796731	-	3482	1.74	2.04	1.61	4.71	4.5	5.24	2.57696704	1.365674085	3.69887134548006e-23	1.07062673515096e-21
ENSG00000	TRIM9	14	50975262	51096061	-	8945	2.51	2.23	2.56	1.2	0.98	1.23	0.44770974	-1.159364376	5.14679349667767e-23	1.48324621277443e-21
ENSG00000	DC	18	52340197	53535903	+	13135	1.11	1.03	1.06	0.48	0.33	0.35	0.34648699	-1.529126915	6.48271074506284e-23	1.85747410901404e-21
ENSG00000	PPP2R2B	5	1.47E+08	1.47E+08	-	13610	1.61	1.72	1.61	0.67	0.86	0.86	0.46787882	-1.095793159	2.93604224460468e-22	8.15407821703409e-21
ENSG00000	PLEKHG4B	5	92168	189972	+	13287	0.5	0.5	0.43	0.02	0.06	0.1	0.12832152	-2.96216499	4.78122477035312e-22	1.3113745456341e-20
ENSG00000	GCH1	14	54842008	54902826	-	2925	1.7	1.72	2.22	5.32	4.86	5.08	2.60484253	1.381196159	1.64526991019768e-21	1.43308836914376e-20
ENSG00000	CTSO	4	1.56E+08	1.56E+08	-	7908	2.63	2.36	2.98	1.41	1.16	1.08	0.44048266	-1.182842866	1.92895601181952e-21	5.16248859960043e-20

ENSG00000	IL11	19	55364382	55370463	-	2678	2.66	3.38	3.06	7.85	7.99	6.27	2.33736009	1.224880012	4.21958312225671e-21	1.10987315325496e-19
ENSG00000	HNMT	2	1.38E+08	1.38E+08	+	4756	2.17	2.48	2.1	4.53	4.7	5.06	2.03731983	1.02667248	1.63046167503922e-20	4.16731753318186e-19
ENSG00000	IL33	9	6215786	6257983	+	3253	1.41	0.81	1.24	3.51	3.55	3.87	3.04169388	1.604874964	1.91778669161883e-19	4.57805382507088e-18
ENSG00000	-	14	61570405	61658696	+	2861	4.97	5.16	4.11	1.86	1.57	2.12	0.37483794	-1.415661123	3.25396585582449e-19	7.6213322783357e-18
ENSG00000	IGFBP1	7	45888360	45893660	+	1642	8.85	9.3	8.98	3.71	3.72	4.54	0.42514226	-1.233982428	4.09125927793814e-19	9.50405265675233e-18
ENSG00000	CXCL14	5	1.36E+08	1.36E+08	-	1975	7.26	6.79	7.17	3.12	3.32	2.8	0.41903755	-1.254848557	5.46934850894574e-19	1.26315906039937e-17
ENSG00000	ADA	20	44584896	44652252	-	12177	1.72	2.14	1.77	0.84	1.03	0.98	0.48740871	-1.036796065	5.62422132970591e-19	1.29742043087241e-17
ENSG00000	APOL2	22	36226209	36239954	-	3417	2.5	2.86	3.11	6.56	5.84	5.59	2.04169392	1.029766604	2.524765614955e-18	5.6157678135772e-17
ENSG00000	PI3	20	45174902	45176544	+	551	20.59	17.11	17.3	34.93	39.42	43.47	2.06175513	1.043873	2.94514715489746e-18	6.52163153397951e-17
ENSG00000	LDAF1	16	21158377	21180616	+	2558	3.19	2.45	3	8.67	6.93	5.95	2.39179443	1.258093399	4.67835809028604e-18	1.01560208106264e-16
ENSG00000	HSF4	16	67164681	67169945	+	3913	3.97	3.38	4.03	1.92	1.72	1.39	0.42356439	-1.239346796	1.09990630663683e-17	2.33671334481553e-16
ENSG00000	DYDC2	10	80344745	80368073	+	2465	0.48	0.74	0.48	2.55	2.5	2.67	4.37554958	2.129464233	1.57762759619013e-17	3.30919037449797e-16
ENSG00000	TMEM119	12	1.09E+08	1.09E+08	-	3184	3.34	4.59	4.4	1.84	1.59	1.57	0.38943976	-1.360527901	2.54948872381657e-17	5.25898166733326e-16
ENSG00000	DCLK1	13	35768652	36131382	-	14451	0.54	0.52	0.47	1.2	1.35	0.99	2.23447408	1.159935309	3.3140012009189e-17	6.79370246188375e-16
ENSG00000	MAMDC4	9	1.37E+08	1.37E+08	+	5490	2.19	2.2	2.42	1.03	1.04	0.87	0.41542871	-1.267327173	3.94038418700253e-17	8.00352804479523e-16
ENSG00000	-	19	28606688	28615229	+	4778	0.94	0.7	0.99	0.07	0.14	0.05	0.09420629	-3.408032725	4.63566458928288e-17	9.32997878116297e-16
ENSG00000	COPG2IT1	7	1.31E+08	1.31E+08	+	7947	0.98	0.89	0.93	0.25	0.31	0.29	0.29343426	-1.768890764	1.03297076530704e-16	2.02770223772265e-15
ENSG00000	CXCL3	4	74036589	74038807	-	2219	2.56	2.71	1.76	5.41	6.73	6.43	2.54445303	1.347355562	1.04818587642878e-16	2.05351489190013e-15
ENSG00000	WASF3	13	26557683	26688948	+	5182	1.35	1.5	1.46	3.32	2.96	3.1	2.09147871	1.064523311	1.05859881013001e-16	2.07187375388143e-15
ENSG00000	STARD9	15	42575606	42720998	+	20776	0.63	0.77	0.76	0.24	0.37	0.32	0.41484231	-1.269365054	1.06420569363155e-16	2.08079943145167e-15
ENSG00000	EIF1AXP1	1	16685621	16686055	-	435	16.93	17.14	19.19	40.15	40.23	34.43	2.07361885	1.052150739	2.49154827169091e-16	4.74109448637069e-15
ENSG00000	SH3D21	1	36306368	36329340	+	8142	1.84	1.62	1.46	0.81	0.64	0.7	0.41999796	-1.251545771	2.59813820527180e-16	4.9391948577275e-15
ENSG00000	IFITM2	11	303655	309397	+	1606	7	7.06	5.61	2.1	2.84	2.58	0.36819728	-1.441449117	4.82917997119736e-16	8.97460221750089e-15
ENSG00000	PCK2	14	24094053	24110598	+	4177	1.26	1.53	2.02	4.49	3.72	3.5	2.34240839	1.227992625	1.00807202352595e-15	1.84072655535478e-14
ENSG00000	GTF2IP20	1	2.24E+08	2.24E+08	-	4199	3.52	3.55	3.55	1.74	1.89	1.76	0.48919026	-1.031532405	1.92774820097348e-15	3.45968167656658e-14
ENSG00000	BEAN1	16	66427295	66493529	+	7681	1.69	1.63	1.69	0.9	0.64	0.75	0.43749341	-1.192666805	2.31804040789854e-15	4.12660998308527e-14
ENSG00000	C4orf47	4	1.85E+08	1.85E+08	+	1366	8.41	7.62	6	2.6	2.93	2.82	0.36465308	-1.455403524	2.84488896043063e-15	5.02403347941057e-14
ENSG00000	LRRC32	11	76657524	76670747	-	4459	1.91	2.43	2.24	1.01	0.75	0.77	0.36877158	-1.439200622	3.70512245655124e-15	6.47989094534049e-14
ENSG00000	MIRLET7IHG	12	62602752	62622213	+	8693	1.29	0.87	1.11	0.31	0.31	0.48	0.32316588	-1.629653189	4.7110003571304e-15	8.17436667552687e-14
ENSG00000	DAPL1	2	1.59E+08	1.59E+08	+	1325	2.4	3.52	3.19	0.34	0.42	0.62	0.14557347	-2.78018068	1.38829898799894e-14	2.32768342127815e-13
ENSG00000	LYPLAL1-DT	1	2.19E+08	2.19E+08	-	6275	0.19	0.22	0.07	0.78	0.84	0.87	5.0040293	2.323090236	1.74000389933042e-14	2.89782056433713e-13
ENSG00000	CSF1R	5	1.5E+08	1.5E+08	-	5151	3.27	2.73	3.21	1.13	1.32	1.88	0.45318862	-1.141816454	9.77519225469262e-14	1.54637786781673e-12
ENSG00000	PLCXD2	3	1.12E+08	1.12E+08	+	8974	0.12	0.08	0.11	0.45	0.57	0.46	4.74709921	2.247046203	1.860394881727e-13	2.87220125956067e-12
ENSG00000	SCG5	15	32641676	32697098	+	2196	3.63	2.71	3.14	7.35	6.48	6.32	2.03892153	1.027806252	2.72122036872388e-13	4.14012754644792e-12
ENSG00000	RAB39B	X	1.55E+08	1.55E+08	-	3413	2.42	2.73	1.75	4.26	5.4	5.53	2.12016518	1.084176671	3.91141806620331e-13	5.89231426109491e-12
ENSG00000	CHAC1	15	40952962	40956512	+	2051	1.94	1.24	2.06	5.05	5.09	4.09	2.61054856	1.384352995	4.68420536521288e-13	7.02454175620347e-12
ENSG00000	TRIB3	20	362835	397559	+	3291	1.48	1.43	1.32	3.11	3.83	3.03	2.26893036	1.18201233	7.16313875666176e-13	1.06139354825797e-11
ENSG00000	-	10	1.26E+08	1.26E+08	+	2971	2.43	3.17	2.55	0.83	1.22	1.02	0.3639711	-1.458104211	8.4380478939251e-13	1.24105460333358e-11
ENSG00000	HLA-DQA1	6	32628179	32647062	+	6883	1.43	1.38	1.58	0.67	0.75	0.57	0.43699878	-1.194298839	1.1578280691858e-12	1.68299789150289e-11
ENSG00000	FOS	14	75278826	75282230	+	3186	3	2.7	2.78	1.18	1.45	0.9	0.39980011	-1.322649227	1.54898982951163e-12	2.23362311528925e-11
ENSG00000	-	6	1.36E+08	1.36E+08	-	8029	0.22	0.28	0.36	1.08	0.79	0.83	3.01954996	1.594333543	1.68571268081732e-12	2.41327549733999e-11
ENSG00000	HLA-F	6	29722775	29738528	+	4315	2.7	2.9	2.48	1.34	1.35	1.35	0.48085454	-1.056327552	2.18088293860801e-12	3.0844137435434e-11
ENSG00000	PAPPA2	1	1.76E+08	1.77E+08	+	10926	0.36	0.3	0.25	0.81	0.74	0.82	2.49501894	1.319050769	2.82482915054108e-12	3.96133481371716e-11
ENSG00000	EVI2B	17	31303770	31314105	-	2061	1.93	1.66	1.75	4.04	4.18	5.29	2.43367254	1.28313506	3.26720902381311e-12	4.54961144527476e-11
ENSG00000	SH3BGR	21	39445855	39515506	+	1448	2.51	2.32	1.6	5.83	5.33	6.24	2.59815237	1.377486038	3.82355555634674e-12	5.30205036526882e-11
ENSG00000	RILPL2	12	1.23E+08	1.23E+08	-	1752	4.03	4.38	3.12	7.5	8.66	7.85	2.00498835	1.003593855	5.57819483041853e-12	7.65510035906643e-11
ENSG00000	LINC01326	3	1.67E+08	1.67E+08	-	755	0.07	0.48	0.14	2.94	3.53	3.71	14.488819	3.856868101	8.86509446480471e-12	1.2016523751373e-10
ENSG00000	FLG-AS1	1	1.52E+08	1.52E+08	+	14980	0.09	0.08	0.16	0.37	0.44	0.37	3.38117932	1.75752653	8.90194210083634e-12	1.20500421153935e-10
ENSG00000	INAFM1	19	47274885	47275723	+	839	14.65	23.4	20.51	9.54	8.48	11.04	0.47784588	-1.065382704	1.20219192046757e-11	1.61197480367483e-10
ENSG00000	-	12	93640822	93641586	-	765	10.93	10.97	13.2	5.48	5.45	5.03	0.43740266	-1.192966116	1.65556817929375e-11	2.18598759928661e-10
ENSG00000	-	3	1.46E+08	1.46E+08	-	2095	3.14	2.18	2.09	0.97	0.56	0.5	0.26091285	-1.938360088	1.78788225706143e-11	2.35132530963403e-10

ENSG00000	SP6	17	47844908	47855874	-	4045	3.1	3.12	3.03	1.22	1.7	1.82	0.49491324	-1.014752452	2.13811500056315e-11	2.78796175647202e-10
ENSG00000	ARTN	1	43933320	43937240	+	2657	2.83	4.19	3.98	1.72	1.28	1.73	0.41336391	-1.274515664	2.4595965776915e-11	3.19458379800101e-10
ENSG00000	TNFSF14	19	6661253	6670588	-	4780	0.3	0.23	0.22	1.2	0.8	0.9	3.72794063	1.898378883	5.14822643270432e-11	6.45475930733452e-10
ENSG00000	LINC01807	2	2.28E+08	2.29E+08	-	1947	0.08	0.08	0.24	1.7	0.94	1.44	9.94750038	3.314334049	5.48609830442642e-11	6.86971440702263e-10
ENSG00000	CXCL5	4	73995642	73998677	-	2436	0.47	0.38	0.36	1.49	1.46	2.25	4.1227732	2.043615098	6.41630949942096e-11	7.9543836905228e-10
ENSG00000	PRSS3	9	33750679	33799231	+	1425	1.36	1.34	1.41	3.83	3.9	4.46	2.85045642	1.511192946	6.46234884236678e-11	8.00646770906315e-10
ENSG00000	-	21	44331234	44335851	+	4354	1.57	1.49	1.53	0.69	0.65	0.29	0.34153234	-1.549905894	7.30686766034365e-11	9.03027118868449e-10
ENSG00000	FBLN5	14	91869411	91947987	-	4845	0.15	0.25	0.23	0.81	0.79	0.94	3.86877941	1.95187847	8.65691244903042e-11	1.06326562105602e-09
ENSG00000	FCRLA	1	1.62E+08	1.62E+08	+	3275	0.94	0.89	1.1	2.95	2.58	1.98	2.46016486	1.298754997	1.05100983527546e-10	1.28216751990506e-09
ENSG00000	ANK1	8	41653220	41896762	-	10797	1.52	1.1	1.34	0.72	0.78	0.47	0.47979092	-1.059522243	1.09489625040675e-10	1.33325241514624e-09
ENSG00000	WFDC3	20	45747944	45791932	-	2405	3.56	3.81	4.03	1.87	1.89	1.79	0.46966763	-1.090287943	1.11307131540075e-10	1.35372618389871e-09
ENSG00000	RNASE1	14	20801228	20802855	-	1083	8.73	6.12	8.61	3.99	2.46	3.28	0.39709354	-1.332449214	1.14514169762009e-10	1.39017964940021e-09
ENSG00000	TNFSF13B	13	1.08E+08	1.08E+08	+	3059	3.14	3.62	3.34	1.76	1.58	1.81	0.49082248	-1.026726758	1.20665511460548e-10	1.45950954707603e-09
ENSG00000	PHETA1	12	1.11E+08	1.11E+08	-	3361	0.99	0.86	0.98	2.46	2.05	2.46	2.3608508	1.239306873	1.46724169709557e-10	1.76077858459538e-09
ENSG00000	CHRD1	X	1.11E+08	1.11E+08	-	3920	1.54	1.64	1.79	0.7	0.77	0.49	0.37875867	-1.400649185	1.58790554475972e-10	1.89870726142797e-09
ENSG00000	CSDC2	22	41561010	41577741	+	3003	0.25	0.5	0.55	1.67	1.79	1.32	3.55819195	1.831144342	2.03485368836855e-10	2.40995030334774e-09
ENSG00000	-	11	35014075	35067192	-	3401	0.51	0.49	0.47	1.87	1.81	1.13	3.14495583	1.653039756	2.62944209206882e-10	3.08111113734758e-09
ENSG00000	FGF7	15	49423237	49488775	+	6516	0.72	0.56	0.55	1.61	1.08	2.01	2.47256045	1.306005795	3.86251556005134e-10	4.46028582529738e-09
ENSG00000	-	4	1.12E+08	1.12E+08	+	4813	0.34	0.43	0.47	1.02	1.57	1.13	2.88410543	1.528123903	4.77285735177573e-10	5.44198786926952e-09
ENSG00000	SCG2	2	2.24E+08	2.24E+08	-	2577	3.84	3.86	4.58	2.42	2.22	1.74	0.49890423	-1.003165201	7.88639333149982e-10	8.75116804670055e-09
ENSG00000	GABRG3-AS1	15	27038978	27161319	-	2864	3.3	3.35	3.72	1.37	1.67	2.12	0.48020767	-1.058269635	8.00614531836867e-10	8.8790964671367e-09
ENSG00000	MUC1	1	1.55E+08	1.55E+08	-	2401	1.33	1.25	1.61	0.48	0.3	0.22	0.22671922	-2.141021397	8.15127713343984e-10	9.02998026732319e-09
ENSG00000	MIR3681HG	2	11833926	12702913	+	9856	0.88	0.8	1.04	0.39	0.51	0.41	0.46663584	-1.099630976	9.51046246717297e-10	1.04541484886531e-08
ENSG00000	TUSC3	8	15417215	15766649	+	5190	0.49	0.49	0.59	1.25	1.84	1.11	2.5895106	1.372679464	9.87696536415021e-10	1.08330643279717e-08
ENSG00000	DNAH10	12	1.24E+08	1.24E+08	+	16234	0.25	0.15	0.2	0.64	0.45	0.45	2.47786801	1.309099339	1.01455778922679e-09	1.1109296056594e-08
ENSG00000	-	3	11193439	11225877	-	1000	1.39	1.35	0.57	3.87	4.22	4.49	3.65588996	1.870222647	1.0767618987058e-09	1.17840150470977e-08
ENSG00000	KCNS1	20	45091214	45101127	-	5649	0.85	0.76	0.93	0.22	0.37	0.27	0.32959146	-1.601249223	1.2805551247195e-09	1.38465680560344e-08
ENSG00000	GBAP1	1	1.55E+08	1.55E+08	-	4163	2.34	2.24	2.07	1.02	1.28	1.09	0.49223606	-1.022577741	1.62229384941266e-09	1.73998453050543e-08
ENSG00000	PCDHB7	5	1.41E+08	1.41E+08	+	3740	1.64	1.97	1.9	0.82	0.92	0.7	0.42662063	-1.228974365	1.80235611885112e-09	1.9227388102658e-08
ENSG00000	ALOXE3	17	8095900	8119047	-	3761	0.19	0.22	0.29	0.96	1.05	0.79	3.89410831	1.96129301	1.83802109157514e-09	1.95973455259902e-08
ENSG00000	CCDC178	18	32937402	33441101	-	4475	1.21	1.47	1.3	0.54	0.51	0.6	0.39800827	-1.329129697	1.95679895790173e-09	2.0830271562032e-08
ENSG00000	-	7	76071469	76074963	-	3495	1.15	0.84	0.77	2.25	2.38	1.98	2.29988201	1.20155985	2.11493644359412e-09	2.24535564233151e-08
ENSG00000	TNFAIP6	2	1.51E+08	1.51E+08	+	1577	2.15	2.4	3.27	5.44	5.46	6.47	2.14319368	1.099762231	2.67061701031055e-09	2.8097999603188e-08
ENSG00000	LINC00601	10	1.26E+08	1.26E+08	-	1168	4.52	6.56	5.74	2.83	2.33	1.6	0.38538307	-1.375634886	2.79679820617021e-09	2.9378939424033e-08
ENSG00000	GNB3	12	6839954	6847393	+	3437	1.82	1.64	2.14	0.65	0.81	0.92	0.40793016	-1.293605917	2.85990074796486e-09	3.00100930729716e-08
ENSG00000	NPL	1	1.83E+08	1.83E+08	+	4975	0.77	0.91	0.55	1.75	1.64	1.68	2.18860156	1.130009332	3.88602902860967e-09	4.0079713295593e-08
ENSG00000	LINC03024	8	1.34E+08	1.34E+08	-	609	0.41	0.09	0.68	3.34	2.74	4.69	8.84545173	3.144935822	4.50894467369108e-09	4.62166829053336e-08
ENSG00000	-	1	70947379	70951493	+	749	0.66	0.76	0.21	2.8	3.26	4.05	5.95931149	2.575145659	5.53395987342001e-09	5.62303485349806e-08
ENSG00000	NR3C2	4	1.48E+08	1.48E+08	-	6607	0.41	0.45	0.33	1.09	1.04	0.83	2.39075631	1.257467084	6.89241382826404e-09	6.91501760721646e-08
ENSG00000	PTER	10	16436943	16513745	+	4003	0.51	0.39	0.5	1.06	1.83	1.22	2.83695554	8.27560728645902e-09	8.26106681180912e-08	
ENSG00000	ADAM32	8	39106990	39284917	+	10050	0.61	0.59	0.4	0.24	0.17	0.2	0.36279298	-1.462781548	9.49829137052156e-09	9.40137003000604e-08
ENSG00000	-	X	1.35E+08	1.35E+08	+	2227	3.66	3.86	3.1	1.94	1.57	1.75	0.47537465	-1.072863131	1.0315550592995e-08	1.01546892842428e-07
ENSG00000	WFDC21P	17	60083562	60091885	-	1103	2.84	1.74	2.66	6.28	6.75	5.13	2.40774449	1.267682301	1.06596755678082e-08	1.04727099143215e-07
ENSG00000	OSR1	2	19351485	19358623	-	5279	1.53	1.81	1.4	0.52	0.64	0.98	0.43733344	-1.193194437	1.06971618856441e-08	1.05043488442485e-07
ENSG00000	MLXIPL	7	73593194	73624543	-	4815	0.12	0.08	0.05	0.47	0.62	0.41	5.72392639	2.51700512	1.18767885456502e-08	1.16168194899289e-07
ENSG00000	IL1A	2	1.13E+08	1.13E+08	-	2017	1.11	0.46	0.46	2.96	2.26	1.96	3.37774727	1.756061388	1.24607382998596e-08	1.21640540546248e-07
ENSG00000	FAM107B	10	14518557	14774897	-	7019	0.19	0.18	0.3	0.58	0.82	0.63	2.9308443	1.551316325	1.47277155106652e-08	1.42789187191408e-07
ENSG00000	MGAM	7	1.42E+08	1.42E+08	+	10767	0.02	0.02	0.05	0.18	0.18	0.27	6.33590315	2.663550282	1.71326969478202e-08	1.64900134950341e-07
ENSG00000	PRRT2	16	29811382	29815892	+	3755	2.16	2.87	2.66	0.98	1.54	1.4	0.49248219	-1.021856538	1.72538823228522e-08	1.65745628014452e-07
ENSG00000	MPP3	17	43800799	43833170	-	4491	1.7	1.83	1.92	1.07	0.83	0.92	0.49784414	-1.006233939	2.10672431106077e-08	1.99962830193047e-07
ENSG00000	SNED1	2	2.41E+08	2.41E+08	+	13812	0.42	0.46	0.43	0.21	0.19	0.2	0.43991152	-1.184714699	2.25146400545404e-08	2.1319219880216e-07

ENSG00000	PCDHB14	5	1.41E+08	1.41E+08	+	4417	1.33	1.93	1.76	0.76	0.93	0.63	0.44634511	-1.163768476	2.34030444750892e-08	2.20973190592189e-07
ENSG00000	RHBDL3	17	32265832	32324659	+	5746	0.41	0.36	0.35	0.07	0.07	0.06	0.16769057	-2.576126556	2.37738753558636e-08	2.24368064286354e-07
ENSG00000	MMP12	11	1.03E+08	1.03E+08	-	1822	0.87	1.34	1.3	2.86	2.81	3.52	2.52258962	1.334905526	2.38063681172229e-08	2.24568135678832e-07
ENSG00000	SERPIND1	22	20774113	20787720	+	2319	1.07	1.16	0.82	2.88	2.18	2.64	2.41688128	1.273146607	2.48983008121809e-08	2.34091116619488e-07
ENSG00000	ERC2	3	55508311	56469095	-	8219	0.05	0.04	0.06	0.28	0.27	0.28	5.32899326	2.413863007	2.52647322671537e-08	2.37311856935452e-07
ENSG00000	ACP3	3	1.32E+08	1.32E+08	+	4280	1.9	2.37	2.4	1.07	0.92	1.46	0.49821866	-1.005149053	3.72706268095704e-08	3.43591290731714e-07
ENSG00000	SYTL5	X	38006553	38128819	+	4820	0.88	0.84	0.82	0.28	0.39	0.24	0.34619646	-1.530337102	4.04449835387948e-08	3.70963329183087e-07
ENSG00000	NNT-AS1	5	43571594	43603230	-	6987	0.28	0.32	0.38	0.81	0.74	0.87	2.37417824	1.247428247	4.51579392099219e-08	4.10029964013377e-07
ENSG00000	-	13	76552807	76846524	-	7045	0.04	0.04	0.11	0.29	0.35	0.4	5.08749114	2.346954375	5.6507400487801e-08	5.06833404916519e-07
ENSG00000	PTGFR	1	78303884	78540701	+	5764	0.38	0.4	0.42	0.03	0.13	0.06	0.18606438	-2.426126168	5.71425073949463e-08	5.12067940310278e-07
ENSG00000	CACHD1	1	64470129	64693058	+	7022	0.4	0.34	0.4	0.78	0.88	0.99	2.22009215	1.15061956	8.11010790985574e-08	7.1326623523875e-07
ENSG00000	THBD	20	23045633	23049672	-	4040	0.23	0.19	0.43	0.93	1.25	0.76	3.30062656	1.72273992	8.69090325502647e-08	7.6098023437341e-07
ENSG00000	WDR48	3	39052013	39096671	+	7473	0.67	0.56	1.05	1.93	2.38	2.21	2.75081641	1.459859858	9.4329692916952e-08	8.21254791442027e-07
ENSG00000	TRABD2B	1	47760528	47997385	-	7524	0.46	0.61	0.44	0.2	0.14	0.18	0.33273541	-1.587552701	9.80697201376839e-08	8.52323594815492e-07
ENSG00000	MAGED4	X	52184876	52192268	+	4756	0.69	0.69	0.95	0.17	0.33	0.27	0.32072525	-1.640590158	1.10536914946487e-07	9.54833429066418e-07
ENSG00000	NME5	5	1.38E+08	1.38E+08	-	2389	1.67	0.85	1.62	2.87	3.3	3.32	2.21078535	1.144558955	1.23330032353584e-07	1.06165268267331e-06
ENSG00000	TRPM8	2	2.34E+08	2.34E+08	+	7928	0.77	0.73	0.75	0.43	0.34	0.28	0.45173964	-1.146436575	1.42501761089512e-07	1.22139979278661e-06
ENSG00000	GUSBP11	22	23638487	23717356	-	7764	0.67	0.75	0.6	0.29	0.29	0.33	0.4330217	-1.207488779	1.74894796102912e-07	1.48750343049889e-06
ENSG00000	GOS2	1	2.1E+08	2.1E+08	+	876	6.36	6.92	8.12	3.19	4.25	2.66	0.45552437	-1.134399867	2.16508419630352e-07	1.81274523130508e-06
ENSG00000	RCN1P2	13	45390353	45391267	-	915	1.9	2.94	2.03	0.62	0.3	0.45	0.19043164	-2.392654882	2.39313083308571e-07	1.99444285900709e-06
ENSG00000	ZNF337	20	25673195	25696853	-	4855	1	0.94	0.58	0.33	0.31	0.29	0.35099349	-1.51048382	2.4691669026591e-07	2.05436752549692e-06
ENSG00000	-	20	35262727	35264187	-	1461	4.02	4.43	4.13	1.35	1.67	2.67	0.43727072	-1.193401355	2.52259942494207e-07	2.09619262703607e-06
ENSG00000	FDCSP	4	70226124	70235252	+	513	2.13	2.73	2.81	8.05	6.39	7.73	2.77913121	1.474633949	2.91701175658897e-07	2.40284916237662e-06
ENSG00000	DLX5	7	97020396	97024950	-	1744	3.99	3.15	3.37	2.08	1.53	1.47	0.46225238	-1.113247361	3.0510441841641e-07	2.50806174460947e-06
ENSG00000	CA2	8	85463968	85481493	+	2007	0.57	0.44	0.28	1.55	1.61	1.36	3.35813313	1.747659427	3.17589116246522e-07	2.59994218878637e-06
ENSG00000	PSG5	19	43166256	43186536	-	4678	0.36	0.4	0.28	0.05	0.05	0.04	0.12877994	-2.957020231	3.64368568749814e-07	2.95854184956719e-06
ENSG00000	KCNN3	1	1.55E+08	1.55E+08	-	13599	0.02	0	0.01	0.14	0.09	0.1	10.663999	3.414676649	4.00627986351121e-07	3.23188108618711e-06
ENSG00000	STXBP5L	3	1.21E+08	1.21E+08	+	11085	0.19	0.08	0.15	0.42	0.39	0.37	2.70903052	1.437776647	4.12365331600101e-07	3.31308469449212e-06
ENSG00000	IGFBP5	2	2.17E+08	2.17E+08	-	6466	1.49	1.52	1.09	0.77	0.48	0.86	0.49224137	-1.022562174	4.43187583700888e-07	3.55354237979523e-06
ENSG00000	SLC22A25	11	63158437	63243599	-	10252	0.01	0.02	0.03	0.23	0.11	0.14	8.29267141	3.051836927	4.83832921399943e-07	3.85611929540595e-06
ENSG00000	PCDHGA1	5	1.41E+08	1.42E+08	+	6303	0.66	0.81	0.67	0.24	0.37	0.3	0.40891349	-1.290132433	5.28205672424508e-07	4.18460948054237e-06
ENSG00000	C1QTNF6	22	37180166	37199385	-	7144	0.84	0.92	1.24	0.55	0.53	0.47	0.4975347	-1.007130955	6.49663203246047e-07	5.09005232330482e-06
ENSG00000	LHX8	1	75128434	75161533	+	4471	0.42	0.68	0.58	1.14	1.49	1.23	2.21024206	1.14420438	7.57294160834786e-07	5.88694073033609e-06
ENSG00000	KCNK15	20	44745865	44752313	+	2514	0.61	0.68	0.41	0	0.02	0.05	0.03959416	-4.658568432	8.02406248042652e-07	6.22545776134535e-06
ENSG00000	ADAMTS13	9	1.33E+08	1.33E+08	+	5708	0.86	0.9	1.04	0.52	0.46	0.17	0.39505859	-1.33986147	8.60150196104291e-07	6.65011145005203e-06
ENSG00000	-	11	50184250	50208794	+	1432	1.95	1.34	2.73	4.52	4.85	4.19	2.16964159	1.117456742	8.65846783399728e-07	6.69155199685332e-06
ENSG00000	CARMN	5	1.49E+08	1.49E+08	+	18220	0.1	0.14	0.12	0.03	0.02	0.04	0.23130433	-2.112135835	1.04489467721369e-06	7.98836242075902e-06
ENSG00000	PARM1	4	74933095	75050115	+	5034	0.37	0.29	0.46	0.82	0.85	1.12	2.41454621	1.271752075	1.07820357604103e-06	8.23035628006751e-06
ENSG00000	RPL12P14	1	15792796	15793285	+	490	0.61	0.74	0.74	3.37	4.76	2.97	5.13613408	2.360682865	1.37775467438251e-06	1.03559715445034e-05
ENSG00000	JDP2-AS1	14	75423683	75427741	-	4059	0.2	0.17	0.14	0.5	0.78	0.57	3.56140717	1.832447385	1.49104884300133e-06	1.11464309184517e-05
ENSG00000	C2orf92	2	97664217	97703066	+	6503	0.41	0.49	0.38	0.14	0.12	0.17	0.31866659	-1.649880342	1.54988646336797e-06	1.15558651383847e-05
ENSG00000	RENBP	X	1.54E+08	1.54E+08	-	2047	0.36	0.61	0.6	1.43	1.47	1.85	2.90560928	1.538840716	1.5593935827519e-06	1.16223918264698e-05
ENSG00000	HES7	17	8120592	8124106	-	1880	1.11	0.91	0.9	2.77	2.25	2.11	2.3355593	1.223768074	1.74352598087095e-06	1.28932741277868e-05
ENSG00000	LINC02015	3	1.78E+08	1.78E+08	+	4384	0.37	0.25	0.26	0.85	0.89	0.7	2.66395546	1.413569959	1.87287022693411e-06	1.37933423935499e-05
ENSG00000	RNF150	4	1.41E+08	1.41E+08	-	11012	0.03	0.03	0.05	0.17	0.22	0.14	4.56746426	2.191393439	2.12618160582233e-06	1.5038948411357e-05
ENSG00000	EPHA3	3	89107621	89482134	+	6577	0.63	0.63	0.53	0.29	0.25	0.24	0.41927071	-1.254046057	2.75485013577029e-06	1.97691068025233e-05
ENSG00000	RPL17P50	10	73005833	73006595	-	546	10.48	7.97	8.3	5.47	3.97	2.24	0.41704617	-1.261720979	2.8297688179261e-06	2.02701559598201e-05
ENSG00000	LBP	20	38346482	38377013	+	1825	0.85	1.05	0.73	0.14	0.12	0.22	0.17733947	-2.495414399	2.92177348515801e-06	2.0899088400132e-05
ENSG00000	CCN5	20	44714844	44728509	+	4981	1.47	0.71	1.34	0.01	0.13	0.15	0.08232662	-3.602497246	2.99766837825927e-06	2.13651024020379e-05
ENSG00000	TBC1D3L	17	37978155	37989060	-	3505	1.45	1.68	1.79	0.76	0.78	1	0.49609056	-1.011324579	3.00013483677831e-06	2.13750201466631e-05
ENSG00000	GGT5	22	24219654	24245108	-	6020	0.22	0.15	0.23	0.01	0.01	0.01	0.04639409	-4.429915185	3.48634297379746e-06	2.45662402671731e-05

ENSG00000	P2RY8	X	1462581	1537185	-	4528	0.32	0.43	0.22	0.84	0.8	0.91	2.53307965	1.340892441	3.49986243979609e-06	2.46440384615245e-05
ENSG00000	TNIP3	4	1.21E+08	1.21E+08	-	3749	0.6	0.59	0.54	1.3	1.19	1.35	2.13850464	1.096602338	3.56546717467087e-06	2.50704790552794e-05
ENSG00000	CCL26	7	75769533	75789896	-	703	1.7	2.06	1.98	4.88	5.85	4.39	2.53813813	1.343770587	3.7049944862249e-06	2.59597658064067e-05
ENSG00000	SLC38A4	12	46764761	46832408	-	4145	1.16	1.4	0.98	0.35	0.43	0.76	0.41949647	-1.253269416	3.81739092751768e-06	2.67096476402847e-05
ENSG00000	CYP2E1	10	1.34E+08	1.34E+08	+	9622	0.46	0.51	0.43	0.16	0.18	0.28	0.43448676	-1.20261588	3.98406372174002e-06	2.77878313247283e-05
ENSG00000	RAB38	11	88113251	88175443	-	1432	0.76	0.33	0.36	1.51	2.13	1.63	3.48638774	1.80173303	4.29857265636824e-06	2.98245349867001e-05
ENSG00000	SUSD2	22	24181487	24189106	+	5047	0.28	0.67	0.39	0.11	0.11	0.12	0.24516191	-2.02819325	4.32063122918012e-06	2.99671266104802e-05
ENSG00000	RAB40B	17	82654973	82698698	-	6164	0.55	0.6	0.69	0.27	0.26	0.27	0.42049008	-1.249856335	4.43779096758502e-06	3.07047576167113e-05
ENSG00000	-	7	94071759	94077157	-	446	1.34	1.97	0.92	3.7	6.85	5.49	3.65586483	1.870212729	4.47652052255023e-06	3.09404277340672e-05
ENSG00000	SLN	11	1.08E+08	1.08E+08	-	906	3.13	2.34	2.62	0.28	0.8	1.22	0.27637444	-1.85530391	4.54197563112855e-06	3.13601338281219e-05
ENSG00000	-	7	1.56E+08	1.56E+08	+	5295	0.36	0.6	0.39	1.12	0.91	0.97	2.14653875	1.10201222	4.66349831136714e-06	3.21433843748824e-05
ENSG00000	GRAMD2B	5	1.26E+08	1.26E+08	+	5051	0.28	0.22	0.13	0.79	0.47	0.63	2.91396052	1.542981331	5.17275981307247e-06	3.53958461400365e-05
ENSG00000	-	7	1.44E+08	1.44E+08	-	7144	0.38	0.43	0.34	0.15	0.05	0.17	0.31300936	-1.675722314	5.37212612524804e-06	3.66214357218229e-05
ENSG00000	ALPL	1	21509397	21578410	+	2980	0.65	0.5	0.85	0.19	0.21	0.12	0.24703109	-2.017235485	5.39992758766481e-06	3.67857348683504e-05
ENSG00000	SLC16A14	2	2.3E+08	2.3E+08	-	4932	0.24	0.26	0.22	0.8	0.52	0.69	2.65273681	1.407481545	5.83397095070246e-06	3.95124360881193e-05
ENSG00000	C9A9	3	1.43E+08	1.44E+08	-	4041	0.64	0.79	0.59	1.46	1.64	1.15	2.02373367	1.01701944	6.26041911284732e-06	4.21994691725319e-05
ENSG00000	DMBX1	1	46489836	46516216	+	5068	0.32	0.32	0.27	0.05	0.08	0.06	0.19487964	-2.359344737	6.37043292870824e-06	4.28683786082448e-05
ENSG00000	MYBPH	1	2.03E+08	2.03E+08	-	1818	1.07	1.2	1.53	0.38	0.15	0.54	0.27318184	-1.872066503	6.54367316219537e-06	4.39004523718809e-05
ENSG00000	-	3	1.78E+08	1.78E+08	+	5278	0.01	0	0	0.2	0.11	0.32	58.3688213	5.86712603	7.02334223483764e-06	4.68497686480196e-05
ENSG00000	PSG2	19	43064209	43083045	-	2833	0.35	0.57	0.4	0.07	0.06	0.04	0.1216614	-3.039056591	7.50594070713603e-06	4.98016786657991e-05
ENSG00000	PELATON	20	50247643	50283250	+	7595	0.17	0.15	0.15	0.51	0.37	0.39	2.58710618	1.371339265	8.88856915692074e-06	5.8333068543026e-05
ENSG00000	-	1	1.71E+08	1.71E+08	+	2045	1.97	2	2.19	0.99	0.92	1.05	0.4637824	-1.108480022	9.25319576265888e-06	6.05063458534929e-05
ENSG00000	HLA-C	6	31268749	31272130	-	2507	20.48	15.89	27.42	10.59	10.7	11.72	0.49843541	-1.004521539	9.3918619157969e-06	6.13727158053307e-05
ENSG00000	IFITM1	11	310041	315272	+	1666	1.19	1.18	0.84	0.27	0.23	0.31	0.24378283	-2.036331548	1.04322257948985e-05	6.76376947934652e-05
ENSG00000	SUN3	7	47987148	48029119	-	1720	0.29	0.15	0.18	1.29	0.68	1.02	4.60638776	2.203635861	1.10287972032027e-05	7.12500430102943e-05
ENSG00000	NDRG2	14	21016763	21070872	-	7550	0.11	0.16	0.13	0.53	0.37	0.28	2.87228409	1.522198449	1.15671320287521e-05	7.44135944327841e-05
ENSG00000	LINC00972	7	85421122	85489293	+	813	0.12	0.19	0.06	1.48	1.57	1	10.3594968	3.372882029	1.22059481621058e-05	7.81691720462072e-05
ENSG00000	KCNMB4	12	70366290	70434292	+	4860	0.34	0.46	0.35	0.98	0.88	0.74	2.18439268	1.127232228	1.48371744845384e-05	9.37518953368436e-05
ENSG00000	CADM4	19	43622368	43639850	-	2257	1.9	2.29	2.1	1.46	0.86	0.7	0.45885077	-1.123903056	1.51965341656489e-05	9.59006924417419e-05
ENSG00000	MANSC1	12	12326056	12350242	-	5716	0.17	0.2	0.19	0.43	0.66	0.46	2.66286622	1.412979952	1.57185946524072e-05	9.89127388174421e-05
ENSG00000	VNN1	6	1.33E+08	1.33E+08	-	3853	0.32	0.24	0.21	0.64	0.82	0.73	2.70542851	1.43585712	1.58200442019425e-05	9.9519639024241e-05
ENSG00000	NAT2	8	18391282	18401218	+	1285	0.04	0	0.08	0.69	0.65	1.04	19.2910895	4.26986272	1.66872925272307e-05	0.000104611
ENSG00000	-	16	17227023	17228000	-	978	3.05	2.91	1.79	0.84	0.97	0.89	0.33543327	-1.575902304	1.69564303332828e-05	0.000106198
ENSG00000	-	15	99805793	99916818	+	7716	0.63	0.61	0.55	0.35	0.27	0.3	0.49355366	-1.018721135	1.78655142278231e-05	0.00011161
ENSG00000	RPSAP44	6	54624605	54625488	+	884	0.23	0.18	0.23	1.44	1.95	0.92	6.53422556	2.708016257	1.87949447375482e-05	0.000117086
ENSG00000	LINC02381	12	54126019	54147485	+	4346	0.46	0.52	0.55	1.08	1.09	1.02	2.00835296	1.006012837	2.15309654191121e-05	0.000132675
ENSG00000	-	9	5457477	5629748	-	3047	1.42	1.5	1.72	0.96	0.6	0.82	0.49191125	-1.023530039	2.36160379520557e-05	0.000144716
ENSG00000	TMEM91	19	41350911	41384083	+	2487	1.48	2.21	2.15	0.59	1.21	1.01	0.46491707	-1.104954691	2.75714737103991e-05	0.00016705
ENSG00000	PADI2	1	17066761	17119451	-	6000	0.29	0.37	0.27	0.12	0.06	0.11	0.28433476	-1.814337596	3.33125488820108e-05	0.000199164
ENSG00000	CXCL1	4	73869393	73871308	+	1362	1.5	0.91	0.76	3.22	3.22	1.8	2.49067665	1.316537737	3.38502163914281e-05	0.000202075
ENSG00000	-	8	1.35E+08	1.35E+08	-	2186	1.62	1.18	0.83	0.61	0.38	0.32	0.34473076	-1.536458078	3.76046084486637e-05	0.00022189
ENSG00000	RPTN	1	1.52E+08	1.52E+08	-	3569	0.43	0.25	0.1	1.46	1.49	0.96	4.80791291	2.265410762	3.76312208563055e-05	0.000221981
ENSG00000	KLHDC7B	22	50545899	50551023	+	5125	0.07	0.04	0.04	0.42	0.17	0.23	5.27652192	2.399587274	4.06212780639028e-05	0.000237855
ENSG00000	MTFP1	22	30425623	30429054	+	1604	2.73	2.52	3.53	1.19	2.01	1.16	0.48005187	-1.058737811	4.143238498467e-05	0.000242461
ENSG00000	RHPN1	8	1.43E+08	1.43E+08	+	4184	0.26	0.28	0.21	0.02	0.03	0.06	0.12520395	-2.997648042	4.18582576343527e-05	0.000244593
ENSG00000	NR2F2-AS1	15	96110040	96327361	-	11966	0.25	0.35	0.31	0.15	0.13	0.15	0.45318842	-1.141817106	4.32638384663164e-05	0.00025214
ENSG00000	-	6	1.43E+08	1.43E+08	+	1138	4.07	2.96	3.12	2.01	1.42	1.49	0.46285655	-1.11136296	4.65522367113813e-05	0.000269566
ENSG00000	-	7	1.31E+08	1.31E+08	+	623	4.31	3.57	5.29	1.02	2.14	1.96	0.37726317	-1.406356812	4.71674597934165e-05	0.000272891
ENSG00000	DNAH11	7	21543039	21901839	+	16147	0.03	0.04	0.07	0.14	0.11	0.18	2.98792694	1.57914487	4.78609173483031e-05	0.000276661
ENSG00000	SYT9-AS1	11	7418826	7513665	-	11515	0.04	0.04	0.04	0.17	0.11	0.18	3.64799559	1.867103984	4.93488543246935e-05	0.000284532
ENSG00000	LCNL1	9	1.37E+08	1.37E+08	+	4052	0.1	0.15	0.15	0	0	0	0.01915672	-5.706005925	4.98499165975681e-05	0.000287074

ENSG00000	-	15	30344307	30348236	-	3930	0.2	0.16	0.09	0.6	0.61	0.36	3.30634589	1.725237658	5.25676785455648e-05	0.000301763
ENSG00000	-	4	59152834	59176146	+	327	2.28	2.22	2.52	7.96	5.95	6.77	2.82858051	1.500078235	5.53243484162219e-05	0.000316674
ENSG00000	GDAP1L1	20	44247099	44280947	+	3404	0.16	0.08	0.09	0.71	0.57	0.22	4.37845215	2.130420946	5.70877921885121e-05	0.000326111
ENSG00000	FRAS1	4	78057323	78544269	+	20323	0.04	0.06	0.03	0.14	0.14	0.1	2.69219339	1.428782048	7.00829315947342e-05	0.000392342
ENSG00000	NECAB2	16	83968244	84002776	+	2908	1.15	1.03	1.33	0.59	0.53	0.56	0.46187632	-1.114421518	7.18471693688782e-05	0.000401766
ENSG00000	-	16	67261108	67263784	+	2677	1.19	1.37	1.48	0.69	0.66	0.65	0.4769959	-1.067951233	7.30619627363289e-05	0.000407871
ENSG00000	MYO3B	2	1.7E+08	1.71E+08	+	8236	0.25	0.2	0.32	0.77	0.45	0.48	2.10226699	1.071945906	7.32854495972566e-05	0.000409004
ENSG00000	BRSK2	11	1389899	1462689	+	6903	0.2	0.08	0.07	0	0.01	0	0.02506294	-5.318300344	7.72221777463272e-05	0.000429048
ENSG00000	DRICH1	22	23608452	23632321	-	1302	0.88	0.8	1.27	0.29	0.21	0.13	0.20812166	-2.264500999	8.456438562434e-05	0.00046542
ENSG00000	PI4KAP1	22	18533646	18577968	-	4812	0.62	0.6	0.81	0.34	0.33	0.28	0.45166752	-1.146666933	8.4892369130401e-05	0.000466838
ENSG00000	DACH1	13	71437966	71867204	-	5401	0.15	0.1	0.1	0.42	0.27	0.43	3.08818564	1.626759479	8.52990069896459e-05	0.000468944
ENSG00000	CYSLTR1	X	78271468	78327691	-	5567	0.4	0.33	0.31	0.13	0.15	0.08	0.3312488	-1.594012879	0.000100773	0.000546013
ENSG00000	C1QTNF3	5	34017858	34043213	-	4547	0.42	0.32	0.18	0.1	0.04	0.08	0.21897381	-2.191169795	0.00010315	0.000557982
ENSG00000	TPRXL	3	13937273	14082811	+	3748	0.24	0.03	0.16	0	0	0	0.01933607	-5.692561224	0.000109077	0.000588122
ENSG00000	PPIL6	6	1.09E+08	1.09E+08	-	4481	0.28	0.29	0.43	0.69	0.89	0.68	2.20092178	1.138107873	0.000109858	0.000592175
ENSG00000	SPTBN1-AS2	2	54661011	54680045	-	1236	1.33	0.84	1.29	0.36	0.27	0.28	0.2524865	-1.985721856	0.000113677	0.000609785
ENSG00000	SRD5A2	2	31522480	31580938	-	4519	0.04	0.08	0.02	0.24	0.28	0.26	5.10953682	2.353192517	0.000115587	0.000618861
ENSG00000	CCDC69	5	1.51E+08	1.51E+08	-	4941	0.35	0.31	0.19	0.6	0.67	0.71	2.23417553	1.159742536	0.000122444	0.00065206
ENSG00000	FER1L6	8	1.24E+08	1.24E+08	+	6051	0.08	0.11	0.2	0.37	0.46	0.31	2.81370781	1.492472521	0.000125553	0.000666119
ENSG00000	PLAAT4	11	63536808	63546462	+	1300	2.64	2.67	3.01	1.32	1.62	1.3	0.49167596	-1.024220271	0.0001297	0.000686655
ENSG00000	-	17	82249067	82251844	+	2778	0.68	0.47	0.56	0.25	0.1	0.15	0.27769993	-1.848401268	0.000130588	0.000690413
ENSG00000	LINC01141	1	20360579	20431234	-	4734	0.24	0.31	0.23	0.03	0.07	0.07	0.21463655	-2.220032331	0.000132484	0.000699348
ENSG00000	MSH5	6	31739677	31762676	+	6284	0.56	0.62	0.51	0.31	0.25	0.3	0.48734487	-1.036985048	0.000138535	0.000728966
ENSG00000	CACNG7	19	53909278	53943950	+	2866	0.57	0.31	0.61	0.98	1.16	1.32	2.23370538	1.159438912	0.000157855	0.000822357
ENSG00000	DAZL	3	16586792	16670306	-	3555	0.2	0.07	0.04	0.32	0.47	0.51	3.98212595	1.993538852	0.000158503	0.000825304
ENSG00000	MCHR1	22	40679273	40682812	+	2436	0.51	0.68	0.68	0.21	0.16	0.19	0.28754805	-1.798125059	0.000160827	0.000836748
ENSG00000	SMKR1	7	1.3E+08	1.3E+08	+	969	1.18	1.92	2.55	3.67	4.3	4.21	2.07951395	1.056246362	0.000161034	0.000837383
ENSG00000	CDH23	10	71396920	71815947	+	18592	0.19	0.18	0.19	0.08	0.1	0.1	0.49237768	-1.022162716	0.000163397	0.000847626
ENSG00000	HAS3	16	69105653	69118719	+	5200	0.52	0.56	0.48	0.23	0.25	0.22	0.43581412	-1.198215145	0.000164149	0.000851135
ENSG00000	BCL2A1	15	79960892	79971196	-	995	0.15	0.36	0.16	1.4	0.95	1.11	4.98180559	2.316668722	0.000168227	0.00087024
ENSG00000	ELMO1	7	36852906	37449223	-	10999	0.29	0.18	0.21	0.08	0.09	0.11	0.39897108	-1.325643919	0.000173125	0.000893481
ENSG00000	FHIT	3	59747277	61251459	-	7472	0.52	0.43	0.5	0.23	0.24	0.28	0.49824085	-1.00508479	0.000175741	0.000906281
ENSG00000	MIAT	22	26646411	26676475	+	15892	0.18	0.11	0.16	0.04	0.07	0.07	0.38269894	-1.385718187	0.000176388	0.000909377
ENSG00000	HOXD10	2	1.76E+08	1.76E+08	+	2488	0.36	0.44	0.62	1.1	1.16	1.1	2.2839547	1.191534039	0.000214708	0.001089153
ENSG00000	SYN3	22	32507820	33058381	-	10185	0.05	0.02	0.07	0	0	0	0.02281084	-5.45413684	0.000217475	0.001102344
ENSG00000	CCL20	2	2.28E+08	2.28E+08	+	1594	0.37	0.16	0.16	0.56	1.25	0.99	3.85241059	1.945761476	0.000231435	0.001167745
ENSG00000	TLE2	19	2997639	3047635	-	4150	0.22	0.34	0.12	0.03	0.04	0.03	0.14091595	-2.827093207	0.000235721	0.001187864
ENSG00000	DENND3-AS1	8	1.41E+08	1.41E+08	-	2828	0.97	1.43	1.09	0.49	0.65	0.58	0.47583249	-1.071474321	0.000237548	0.001195253
ENSG00000	UBAP1L	15	65092760	65115200	-	8549	0.28	0.29	0.31	0.15	0.13	0.12	0.43154678	-1.212411142	0.000243111	0.001219851
ENSG00000	CISH	3	50606489	50611774	-	5056	0.32	0.25	0.25	0.04	0.09	0.1	0.26988065	-1.889606531	0.000243417	0.001221079
ENSG00000	IGF2BP1	17	48997385	49056145	+	9631	0.05	0.06	0.09	0.01	0	0	0.03145815	-4.990422467	0.000244183	0.00122461
ENSG00000	ABCD2	12	39550033	39619803	-	6290	0.03	0.02	0.04	0.22	0.19	0.09	5.47914089	2.453949701	0.000246317	0.00123438
ENSG00000	-	8	53177571	53242683	+	842	0	0.18	0	0.91	0.66	1.18	14.4636293	3.854357705	0.000249314	0.00124751
ENSG00000	CCDC190	1	1.63E+08	1.63E+08	-	5861	0.23	0.27	0.12	0.02	0.06	0.06	0.2176763	-2.199743788	0.000252249	0.001260294
ENSG00000	-	X	1.49E+08	1.5E+08	-	9702	0.14	0.18	0.15	0.05	0.06	0.04	0.30821329	-1.697999039	0.000256284	0.001278845
ENSG00000	-	12	1.19E+08	1.2E+08	-	1469	2.95	3.38	1.47	1.38	1.17	1.19	0.46034476	-1.119213371	0.00025816	0.001287241
ENSG00000	AKR7L	1	19265982	19274194	-	2768	0.95	0.6	0.63	0.32	0.28	0.23	0.36565085	-1.45146139	0.000263902	0.001313564
ENSG00000	-	7	56288230	56291425	+	2884	0.55	0.34	0.43	0.97	0.96	1.09	2.19665726	1.135309785	0.000275455	0.001365828
ENSG00000	KLRC2	12	10426854	10442300	-	1506	0.89	0.79	0.92	2.45	1.96	1.55	2.18906154	1.130312514	0.000276153	0.001368721
ENSG00000	VAC14-AS1	16	70755035	70773251	+	9145	0.22	0.24	0.12	0.03	0.11	0.03	0.28404939	-1.815786279	0.000286379	0.001416932
ENSG00000	CXXC4	4	1.04E+08	1.04E+08	-	8112	0.06	0.04	0.03	0.18	0.17	0.14	3.73150939	1.899759316	0.000300696	0.001481868

ENSG00000	ACSM3	16	20610243	20797581	+	7510	0.11	0.11	0.12	0.35	0.17	0.41	2.67813644	1.421229462	0.000309015	0.001519475
ENSG00000	TNXB	6	32041153	32115334	-	15909	0.01	0.01	0.05	0.09	0.07	0.11	4.22759465	2.079837056	0.000313455	0.001539026
ENSG00000	H2BC11	6	27125897	27132795	-	1046	1.33	1.58	1.13	3.04	3.19	2.62	2.10020506	1.070530197	0.000317088	0.001554176
ENSG00000	-	6	1528364	1528911	-	548	2.09	0.95	1.13	0.12	0	0.21	0.07475763	-3.741635263	0.000318833	0.001561576
ENSG00000	PCDHGA6	5	1.41E+08	1.42E+08	+	7929	0.16	0.12	0.16	0.03	0.05	0.03	0.24095556	-2.053160982	0.000321212	0.001572063
ENSG00000	-	2	37208875	37212677	+	3803	0.47	0.5	0.26	0.18	0.13	0.06	0.29125939	-1.779623516	0.00034069	0.001658006
ENSG00000	SERPINB4	18	63637259	63644256	-	1971	0.33	0.6	0.71	1.1	1.44	1.45	2.35030251	1.232846461	0.000360049	0.001745388
ENSG00000	NEIL1	15	75346955	75357115	+	6939	0.38	0.31	0.32	0.12	0.14	0.18	0.42152341	-1.246315344	0.000365352	0.001768509
ENSG00000	SEC31B	10	1E+08	1.01E+08	-	7934	0.51	0.39	0.34	0.2	0.15	0.26	0.47739358	-1.06674893	0.000367128	0.001775805
ENSG00000	FCER1G	1	1.61E+08	1.61E+08	+	964	0.26	0.16	0.21	0.99	1.15	1.03	4.80948299	2.265881816	0.000367988	0.001779103
ENSG00000	RPL21P89	10	49815096	49815562	+	467	1.17	1.33	1.32	0.14	0	0	0.03416492	-4.871340288	0.000376566	0.00181166
ENSG00000	-	11	78223815	78225909	+	1753	0.88	1.03	0.38	0.18	0.16	0.27	0.25341428	-1.980430288	0.000391997	0.001880091
ENSG00000	GABRR2	6	89254464	89315299	-	4974	0.15	0.29	0.29	0.11	0.02	0.04	0.22192901	-2.17182981	0.000400536	0.001917807
ENSG00000	LINC02232	4	64885649	65024485	-	6564	0	0	0	0.06	0.09	0.04	41.8846674	5.388350311	0.000401456	0.001921752
ENSG00000	CROCCP3	1	16467436	16499257	-	6905	0.45	0.46	0.43	0.3	0.11	0.23	0.45931333	-1.122449448	0.00043004	0.002046755
ENSG00000	PTPRF	1	43525187	43623666	+	10712	0.12	0.13	0.15	0.02	0.05	0.05	0.30227923	-1.726046227	0.000430185	0.002046957
ENSG00000	NR4A3	9	99821855	99866891	+	6314	0.2	0.24	0.24	0.35	0.63	0.51	2.12358213	1.086499905	0.000434796	0.002065438
ENSG00000	IGSF22	11	18704312	18726230	-	4834	0.12	0.02	0.11	0.25	0.3	0.37	3.52108289	1.816019191	0.000447786	0.002120556
ENSG00000	-	12	55761550	55762628	-	529	0.56	1.17	1.66	0.12	0	0	0.03407916	-4.874966463	0.000448145	0.002121755
ENSG00000	DNM1P35	15	75727670	75738629	-	3714	0.5	0.4	0.4	0.07	0.22	0.14	0.32450887	-1.623670201	0.000458924	0.002168657
ENSG00000	-	8	1.24E+08	1.24E+08	+	2464	0.67	0.59	0.4	1.44	1.24	0.99	2.13301102	1.092891421	0.000459342	0.002169094
ENSG00000	-	8	87540835	87755718	-	2921	0	0	0	0.13	0.15	0.12	40.1684245	5.327989973	0.00046073	0.002174608
ENSG00000	-	8	1.03E+08	1.03E+08	+	2556	0.66	0.53	0.4	0.15	0.15	0.18	0.29210553	-1.77543844	0.000467724	0.002202911
ENSG00000	NPIPB12	16	29484690	29505999	-	3560	0.48	0.32	0.46	0.09	0.17	0.15	0.31444843	-1.669104677	0.000468006	0.002203716
ENSG00000	NLRX1	11	1.19E+08	1.19E+08	+	5320	0.29	0.43	0.35	0.12	0.14	0.16	0.37944477	-1.3980382	0.000484775	0.002274064
ENSG00000	-	1	1059687	1069355	+	2658	0.41	0.23	0.39	0.76	0.88	0.92	2.38617635	1.254700666	0.000510547	0.002383837
ENSG00000	-	18	12040101	12040300	-	200	2.99	3.11	6.96	0.64	0.56	0.87	0.1525571	-2.712578741	0.000516698	0.002406779
ENSG00000	FOXS1	20	31844303	31845604	-	1302	1.3	1.19	1.62	0.29	0.17	0.9	0.3184599	-1.650816395	0.000555512	0.00257611
ENSG00000	LRRC2	3	46515385	46606948	-	5774	0	0	0	0.08	0.1	0.03	40.0973539	5.325435128	0.000566001	0.002619861
ENSG00000	ZNF691-DT	1	42832522	42846427	-	3784	0.37	0.31	0.49	0.84	0.81	0.82	2.02026858	1.014547103	0.000568336	0.002629446
ENSG00000	NCF2	1	1.84E+08	1.84E+08	-	4319	0.08	0.02	0.07	0.16	0.37	0.26	4.32438053	2.112493481	0.00059012	0.002721996
ENSG00000	SLITRK3	3	1.65E+08	1.65E+08	-	5274	0.01	0	0.01	0.12	0.14	0.11	18.3228184	4.19556953	0.00060509	0.002784085
ENSG00000	COL5A3	19	9959561	10010504	-	6783	0.28	0.4	0.21	0.13	0.11	0.11	0.38621011	-1.372542164	0.000612366	0.002812466
ENSG00000	TMEM178B	7	1.41E+08	1.41E+08	+	10786	0.06	0.06	0.02	0.14	0.15	0.15	3.06142539	1.614203526	0.000625524	0.002867347
ENSG00000	RFPL4A	19	55759097	55763421	+	1198	0	0	0	0.16	0.23	0.58	40.0789127	5.324771466	0.000627995	0.002878011
ENSG00000	ILIRL1	2	1.02E+08	1.02E+08	+	5746	0.06	0.07	0.12	0.28	0.2	0.31	3.06766718	1.61714197	0.000650098	0.002969721
ENSG00000	LINC01723	20	12950288	13008417	+	2900	0.03	0.05	0.05	0.33	0.23	0.3	5.86312631	2.551670136	0.000663095	0.00302215
ENSG00000	ROR1	1	63774017	64181498	+	6718	0.48	0.37	0.32	0.18	0.23	0.15	0.45820699	-1.125928613	0.000671115	0.003054503
ENSG00000	CALCRL	2	1.87E+08	1.87E+08	-	7309	0.15	0.09	0.14	0.33	0.24	0.37	2.35711204	1.237020333	0.000673718	0.003062843
ENSG00000	ARHGAP15	2	1.43E+08	1.44E+08	+	6127	0.02	0.03	0.08	0.29	0.13	0.17	4.22652545	2.079472137	0.000675838	0.003071178
ENSG00000	RPS6KL1	14	74903951	74923302	-	7526	0.03	0	0.04	0.15	0.17	0.07	5.55996709	2.475076342	0.000678372	0.00308189
ENSG00000	GPSM3	6	32190766	32195523	-	1833	0.05	0.17	0.2	0.55	0.52	0.73	4.14397516	2.051015355	0.000679127	0.003084613
ENSG00000	LINC01561	10	1.21E+08	1.21E+08	+	2176	0.59	0.69	0.92	0.09	0.43	0.19	0.3141514	-1.670468092	0.000683442	0.003101379
ENSG00000	MYO7B	2	1.28E+08	1.28E+08	+	8910	0.19	0.09	0.13	0.05	0.01	0.05	0.24733437	-2.015465368	0.00068963	0.003126604
ENSG00000	CNKS2	X	21372801	21654695	+	31865	0.02	0.03	0.02	0.07	0.05	0.08	2.45786339	1.297404734	0.000691017	0.003132182
ENSG00000	CDKL2	4	75576496	75630716	-	5290	0.22	0.23	0.24	0.37	0.44	0.78	2.24827858	1.168820808	0.000694062	0.003143834
ENSG00000	CDNF	10	14819245	14838575	-	1703	0.15	0.27	0.06	0.71	0.72	0.58	4.02246213	2.008078838	0.000696416	0.003153058
ENSG00000	LINC02104	5	39520398	39524726	+	650	0	0.88	0.24	1.86	1.71	1.79	4.66184921	2.220902341	0.000717273	0.00323534
ENSG00000	REC8	14	24171853	24180257	+	3843	0.62	0.63	0.42	0.15	0.22	0.33	0.40448725	-1.305833853	0.000735586	0.003304819
ENSG00000	FLRT2-AS1	14	85517967	85531660	-	6444	0.29	0.15	0.3	0.66	0.42	0.5	2.04062357	1.029010078	0.000763734	0.003416615
ENSG00000	POU2F3	11	1.2E+08	1.2E+08	+	6700	0.02	0	0.03	0.08	0.14	0.15	6.62186084	2.727236692	0.000784401	0.003501978

ENSG00000	S1PR1	1	1.01E+08	1.01E+08	+	5223	0.2	0.25	0.14	0.45	0.47	0.45	2.2391423	1.162946214	0.000800693	0.00356591
ENSG00000	CHRNA10	11	3665587	3671384	-	2703	0.64	0.44	0.61	0.21	0.16	0.24	0.34705756	-1.526753152	0.000807277	0.00359362
ENSG00000	ACAD9-DT	3	1.29E+08	1.29E+08	-	3591	0.79	0.62	0.79	0.32	0.46	0.29	0.47164781	-1.084218112	0.000825511	0.0036674
ENSG00000	-	6	45421079	45422005	-	927	2.31	3.3	2.72	1.58	1.02	1.45	0.46518635	-1.104119344	0.000826203	0.003669655
ENSG00000	RAPGEF5	7	22118236	22357154	-	10257	0.08	0.07	0.08	0.17	0.2	0.2	2.41230646	1.270413202	0.000858242	0.003800077
ENSG00000	-	12	1.04E+08	1.04E+08	-	701	0.43	0.66	0.37	1.63	1.82	1.75	3.43610009	1.780772062	0.000873278	0.003858063
ENSG00000	-	7	16695871	16719898	-	648	0.46	0.16	0.4	0.98	1.89	1.8	4.41231458	2.141535653	0.000908009	0.004000835
ENSG00000	DUSP5-DT	10	1.1E+08	1.1E+08	-	3430	0.23	0.12	0.15	0.37	0.49	0.59	2.77335594	1.471632787	0.000951794	0.004167899
ENSG00000	-	5	1.33E+08	1.33E+08	+	2034	0.44	0.23	0.61	0.62	1.31	1.43	2.5480779	1.349409382	0.000978481	0.004276283
ENSG00000	ACOT1	14	73537143	73543796	+	1686	0.65	0.58	0.64	1.21	1.55	1.45	2.16208039	1.112420169	0.001033862	0.00448872
ENSG00000	ZNF652-AS1	17	49361150	49369998	+	2377	0.31	0.5	0.37	0.05	0.14	0.07	0.22013973	-2.183508544	0.001041277	0.004517954
ENSG00000	SPATA6L	9	4553386	4666674	-	9565	0.05	0.1	0.08	0.21	0.19	0.18	2.5203389	1.333617742	0.001089576	0.004698813
ENSG00000	GRM1	6	1.46E+08	1.46E+08	+	7408	0.03	0.03	0.03	0.15	0.13	0.14	3.86082372	1.948908683	0.00109477	0.004719165
ENSG00000	COL21A1	6	56056590	56394094	-	6912	0.16	0.19	0.24	0.03	0.12	0.02	0.27628001	-1.855796921	0.001099646	0.004736075
ENSG00000	-	20	311731	313237	+	629	2.37	2.96	3.36	1.11	1.68	0.74	0.39240693	-1.349577561	0.001104932	0.00475678
ENSG00000	CDH3	16	68636189	68727468	+	6392	0.31	0.46	0.32	0.08	0.24	0.15	0.42411695	-1.237465946	0.001115768	0.004794089
ENSG00000	FEZF1	7	1.22E+08	1.22E+08	-	2942	0.41	0.39	0.19	0.8	0.7	0.83	2.26757601	1.181150912	0.001145081	0.004911547
ENSG00000	STARD4-AS1	5	1.12E+08	1.12E+08	+	9263	0.87	0.73	0.67	0.2	0.5	0.33	0.43486594	-1.201357365	0.001167661	0.004998694
ENSG00000	LMNTD1	12	25409307	25648579	-	3083	0	0	0	0.04	0.14	0.15	35.6351462	5.155228938	0.001287334	0.005463958
ENSG00000	LINC00571	13	38050817	38350259	-	1625	0.09	0.03	0.06	0.35	0.48	0.47	6.64833484	2.732993044	0.001298056	0.005507114
ENSG00000	-	12	4909867	5026012	+	9655	0.02	0.08	0.02	0	0	0	0.02905839	-5.104901393	0.001319852	0.005591237
ENSG00000	-	8	1.44E+08	1.45E+08	-	4894	0.31	0.23	0.33	0.06	0.12	0.12	0.3465407	-1.528903313	0.001357181	0.005737148
ENSG00000	TRAC	14	22547506	22552156	+	978	2.49	2.22	1.58	0.45	0.74	1.43	0.40288085	-1.311574848	0.001371258	0.00579296
ENSG00000	-	6	1.43E+08	1.43E+08	-	2556	0	0.02	0.08	0.4	0.11	0.34	8.13487622	3.024120393	0.001428821	0.00601824
ENSG00000	PCAT6	1	2.03E+08	2.03E+08	+	1624	0.98	1.5	1.24	0.66	0.44	0.57	0.4343761	-1.202983357	0.00148058	0.006206017
ENSG00000	LINC00310	21	34157724	34190244	+	3280	0.24	0.33	0.36	0.08	0.14	0.04	0.25742933	-1.957751681	0.001483255	0.006215915
ENSG00000	TNFSF15	9	1.15E+08	1.15E+08	-	7785	0.01	0.01	0.01	0.09	0.09	0.07	7.34930186	2.87760721	0.001511442	0.006322455
ENSG00000	MMP10	11	1.03E+08	1.03E+08	-	1759	0	0.03	0	0.51	0.09	0.23	25.5162298	4.673343274	0.00151403	0.006331544
ENSG00000	LINC01252	12	11548030	11590369	+	4456	0.36	0.41	0.69	0.21	0.1	0.3	0.40491209	-1.304319381	0.001516339	0.006339866
ENSG00000	LINC02593	1	916865	921016	-	4152	0.7	0.37	0.69	0.34	0.23	0.28	0.45851009	-1.124974615	0.001523534	0.006365933
ENSG00000	GABRG1	4	46035769	46124054	-	6758	0	0	0.03	0.12	0.07	0.1	9.25654024	3.210473066	0.001547818	0.006459256
ENSG00000	LINC01426	21	34745756	34784886	+	5397	0.19	0.13	0.15	0.39	0.29	0.48	2.29989335	1.201566965	0.00157142	0.006541277
ENSG00000	PKP1	1	2.01E+08	2.01E+08	+	6211	0.09	0.05	0.02	0	0	0	0.03084248	-5.018937518	0.001573375	0.006548044
ENSG00000	-	21	44978832	44979274	+	443	6.51	3.74	6.75	3.01	2.76	2.63	0.47455093	-1.075365163	0.001610904	0.00668604
ENSG00000	DGCR6	22	18906028	18914238	+	5165	0.08	0.41	0.33	0.04	0.13	0.06	0.26551501	-1.9131347	0.001635038	0.006777732
ENSG00000	ESM1	5	54977867	55022671	-	2692	0.2	0.21	0.1	0.57	0.5	0.48	2.88862382	1.530382337	0.00166291	0.006888951
ENSG00000	C6orf52	6	10671418	10694797	-	891	2.23	2.33	3.7	1.78	1.12	1.11	0.46564906	-1.102685014	0.001671517	0.006920284
ENSG00000	CLDN14	21	36460621	36576569	-	2382	0.04	0.22	0.04	0.43	0.19	0.81	4.54205891	2.183346418	0.001711669	0.007063066
ENSG00000	SOX9-AS1	17	72067099	72237203	-	15844	0.01	0	0	0.04	0.03	0.04	10.8356837	3.43771828	0.001787621	0.007343903
ENSG00000	SPRR2D	1	1.53E+08	1.53E+08	-	1052	0.14	0.2	0.49	1.69	0.9	0.66	3.77144466	1.915117256	0.001800188	0.007391437
ENSG00000	LINC00161	21	28539318	28540355	+	870	1.54	1.61	1.66	0.44	0.64	0.74	0.36473243	-1.455089599	0.001813422	0.007441166
ENSG00000	NCKAP1L	12	54497752	54548243	+	10560	0	0	0	0.03	0.06	0.04	23.5113806	4.555287353	0.001833055	0.007515526
ENSG00000	CPEB1-AS1	15	82647770	82692820	+	5014	0.05	0.09	0.06	0.29	0.24	0.16	3.28524855	1.716002524	0.001867739	0.007641973
ENSG00000	FGL2	7	77193369	77199848	-	6480	0.03	0.02	0.05	0.08	0.13	0.22	4.42161287	2.144572718	0.001873765	0.007663473
ENSG00000	SCIRT	6	43931572	44074655	-	3691	0.44	0.31	0.4	0.12	0.17	0.16	0.36992366	-1.434700508	0.001933628	0.007893302
ENSG00000	GRID2	4	92303966	93810157	+	10617	0.06	0.1	0.09	0.03	0.01	0.03	0.23257858	-2.104209861	0.001951358	0.007961173
ENSG00000	NGF	1	1.15E+08	1.15E+08	-	4110	0.39	0.19	0.29	0.54	0.74	0.58	2.07440346	1.052696518	0.001979104	0.008062949
ENSG00000	PDPR2P	16	74332402	74368240	-	3828	0.39	0.41	0.42	0.17	0.12	0.21	0.39193568	-1.351311175	0.001979143	0.008062949
ENSG00000	GGN	19	38384267	38388082	-	2445	0.63	0.72	0.78	0.39	0.2	0.33	0.41643595	-1.263833493	0.002008856	0.008166568
ENSG00000	FAM83C-AS1	20	35285251	35285756	+	352	0.42	0.15	0.88	3.25	3	1.16	4.90640679	2.294666854	0.002011388	0.00817255
ENSG00000	-	3	16647666	16697604	-	1483	0.27	0.1	0.14	0.99	0.45	0.63	3.83893843	1.940707422	0.002021888	0.008203478

ENSG00000	ANO7	2	2.41E+08	2.41E+08	+	6294	0.15	0.2	0.23	0.08	0.05	0.06	0.32966936	-1.600908284	0.002049341	0.008308234
ENSG00000	-	7	1.51E+08	1.51E+08	-	1230	1.29	2.15	1.13	0.41	0.54	0.95	0.40225831	-1.31380586	0.002051891	0.008315032
ENSG00000	-	7	12469621	12542222	+	3737	0.03	0.06	0.03	0.25	0.12	0.23	5.33031779	2.414221547	0.002068921	0.008382333
ENSG00000	GCGR	17	81804132	81814008	+	3236	0.86	0.5	0.86	0.29	0.45	0.34	0.47161587	-1.084315841	0.002077074	0.008408515
ENSG00000	SPANXB1	X	1.41E+08	1.41E+08	+	466	0.32	0.44	0.44	3.54	1.07	1.25	4.64667303	2.21619813	0.002084205	0.008427088
ENSG00000	C3orf85	3	1.09E+08	1.09E+08	+	3434	0.52	0.47	0.83	0.44	0.21	0.12	0.4056522	-1.301684795	0.002099639	0.008487765
ENSG00000	C1QL4	12	49332409	49337188	-	2073	1.06	0.67	0.97	0.37	0.38	0.48	0.43512206	-1.200507932	0.002216125	0.008916966
ENSG00000	INE1	X	47204921	47205865	+	945	0.37	0.44	0.38	1.28	1.88	0.74	3.15895504	1.659447402	0.002275706	0.00913452
ENSG00000	PCDHB11	5	1.41E+08	1.41E+08	+	4170	0.43	0.5	0.58	0.24	0.21	0.28	0.47018421	-1.088702017	0.002356549	0.009426018
ENSG00000	SLC38A4-AS1	12	46383433	46876784	+	5227	0.54	0.47	0.39	0.17	0.24	0.3	0.49263802	-1.021400122	0.002359693	0.009435449
ENSG00000	PKD1-AS1	2	1.72E+08	1.73E+08	-	2447	0.85	1.08	0.95	0.52	0.48	0.5	0.49937559	-1.001802804	0.00238955	0.009547157
ENSG00000	RAB11FIP1	8	37858618	37899497	-	9632	0.05	0.11	0.02	0.01	0.01	0	0.06714395	-3.896598672	0.00241951	0.009655218
ENSG00000	-	20	40696499	40698616	-	1669	0.98	0.9	1.42	0.68	0.47	0.31	0.42417232	-1.237277603	0.002472995	0.009850861
ENSG00000	MIR4280HG	5	87048858	87138397	-	6281	0.3	0.24	0.31	0.07	0.12	0.18	0.42175651	-1.24551776	0.002477537	0.009866978
ENSG00000	SIRLNT	8	40298697	40353133	-	1974	0	0	0.05	0.19	0.23	0.38	14.9575908	3.902805917	0.00248077	0.0098741
ENSG00000	-	21	32841496	32841811	-	316	0.16	0.66	2.45	0	0	0	0.03059519	-5.030551218	0.002480815	0.0098741
ENSG00000	KCNK6	19	38319845	38332076	+	6168	0.02	0.04	0.02	0.13	0.09	0.15	4.83314068	2.272960989	0.002525417	0.010031544
ENSG00000	-	10	33684755	33709868	+	1986	0.05	0.05	0.08	0.51	0.14	0.44	5.81617721	2.540071228	0.002533331	0.010058962
ENSG00000	CHCHD3P3	1	27200834	27201473	-	640	0.7	0.4	0.32	0	0	0	0.03424648	-4.867900579	0.002620093	0.010372397
ENSG00000	-	17	77444704	77447167	+	2464	0.08	0.13	0.33	0	0	0.02	0.04591666	-4.444838413	0.002648263	0.010470313
ENSG00000	HLCS-AS1	21	36966461	36975164	+	4412	0.08	0.12	0.11	0.2	0.3	0.38	2.84528453	1.508572929	0.002706258	0.010687973
ENSG00000	SERF1B	5	70025247	70043113	+	3051	0.44	0.95	0.42	0.15	0.29	0.31	0.39710684	-1.332400879	0.002738136	0.01080813
ENSG00000	SNORD3A	17	19188016	19188714	+	699	0.5	1.11	0.22	1.45	3.26	1.33	3.18782122	1.672570721	0.002742523	0.010822598
ENSG00000	IL6ST-DT	5	55995153	56003649	+	2563	0.04	0.18	0.14	0.35	0.46	0.45	3.3706001	1.753005471	0.002845031	0.011189368
ENSG00000	CDHR2	5	1.77E+08	1.77E+08	+	5397	0.32	0.5	0.34	0.07	0.25	0.21	0.43658705	-1.195658772	0.002859212	0.011227377
ENSG00000	SMGIP2	16	29527568	29594966	-	4221	0.26	0.16	0.39	1.34	1.49	0.4	3.82987176	1.937296085	0.002878558	0.011292192
ENSG00000	ELOA-AS1	1	23706901	23778325	-	3246	0.35	0.32	0.35	0.61	0.98	0.59	2.05412789	1.038526007	0.002884226	0.011312195
ENSG00000	-	6	1.01E+08	1.01E+08	+	1544	0.35	0.27	0.27	1.23	0.86	0.53	2.82216147	1.496800533	0.002960194	0.011578587
ENSG00000	-	18	24725762	24986980	+	8281	0.04	0.06	0.01	0	0	0	0.03409048	-4.87448724	0.002977203	0.011640126
ENSG00000	LCN9	9	1.36E+08	1.36E+08	+	1657	0.33	0.31	0.5	1.23	0.84	0.84	2.44851009	1.291904142	0.002982429	0.011653684
ENSG00000	RNF43	17	58353676	58417595	-	6329	0.1	0.11	0.18	0.37	0.33	0.22	2.24930585	1.169479845	0.003029061	0.011809307
ENSG00000	-	14	87710419	87872291	-	1845	0.32	0.06	0.11	0.59	0.45	0.76	3.48729115	1.802106816	0.003029976	0.011809307
ENSG00000	LINC00598	13	40079106	40535807	-	19673	0.03	0.01	0.03	0.09	0.06	0.04	3.07774449	1.621873467	0.003078796	0.01196707
ENSG00000	-	5	73213930	73295258	+	4119	0.02	0.06	0.03	0.19	0.15	0.21	4.69769782	2.231953916	0.003080934	0.011972711
ENSG00000	-	5	8207019	8366437	-	3087	0.45	0.25	0.5	0.06	0.2	0.15	0.33220303	-1.589862866	0.003093218	0.012015752
ENSG00000	ZSCAN12P1	6	28091137	28093664	+	1674	0.86	0.71	0.46	0.87	1.66	1.95	2.12340378	1.086378735	0.003094932	0.012020064
ENSG00000	CEP192-DT	18	12984694	12991173	-	474	1.26	0.98	0.98	3.48	1.76	3.81	2.69388841	1.429690091	0.003138488	0.012160725
ENSG00000	ESRRG	1	2.17E+08	2.17E+08	-	10932	0.16	0.11	0.06	0.26	0.21	0.23	2.05848299	1.041581531	0.003142529	0.012174009
ENSG00000	EVA1A-AS	2	75524068	75542706	+	1185	1.26	1.22	0.91	0.38	0.38	0.59	0.37997194	-1.396035222	0.00339071	0.013031363
ENSG00000	BTN2A3P	6	26421391	26432383	+	4217	0.44	0.48	0.64	0.23	0.22	0.33	0.48599933	-1.040973766	0.003401538	0.013062877
ENSG00000	-	19	19516227	19536076	+	1846	0.65	0.31	0.78	0.21	0.12	0.22	0.30200823	-1.727340215	0.003411671	0.013094204
ENSG00000	CHRM5	15	33968497	34067458	+	6041	0.03	0.07	0.04	0	0	0	0.0360085	-4.795518683	0.003427621	0.01314274
ENSG00000	PCOLCE-AS1	7	1.01E+08	1.01E+08	-	3265	0.34	0.14	0.33	0.08	0.09	0.05	0.2570424	-1.959921741	0.003453881	0.013233222
ENSG00000	LINC01711	20	58634772	58635738	+	967	1.54	1.93	2.34	1.25	0.46	0.96	0.43852054	-1.18928366	0.003482603	0.013327862
ENSG00000	EPS15P1	7	46781373	46783443	+	2071	0.05	0.18	0.07	0.4	0.4	0.42	3.97023869	1.989225744	0.003541366	0.01353451
ENSG00000	-	1	36329630	36335406	+	4878	0.34	0.21	0.36	0.14	0.09	0.14	0.39839526	-1.327727625	0.003544055	0.013542186
ENSG00000	XKR3	22	16783412	16825411	-	1811	0.19	0.31	0	0.67	0.49	0.71	3.53162286	1.820331285	0.003559481	0.013593295
ENSG00000	ZNF618	9	1.14E+08	1.14E+08	+	10386	0.23	0.17	0.19	0.14	0.09	0.06	0.4668539	-1.098956957	0.003622917	0.013809029
ENSG00000	LINC02280	14	1.05E+08	1.05E+08	-	3816	0.48	0.48	0.36	0.13	0.25	0.21	0.43530933	-1.199887162	0.003678494	0.013994042
ENSG00000	MEGF6	1	3487951	3611508	-	9021	0.06	0.2	0.1	0.04	0.05	0.01	0.28026766	-1.835122832	0.003713267	0.014112827
ENSG00000	SPTBN2	11	66682497	66744670	-	12609	0.12	0.11	0.11	0.03	0.07	0.04	0.39362717	-1.345098276	0.003720651	0.014138188

ENSG00000	LINC02846	9	1.36E+08	1.36E+08	-	1334	1.04	1.01	0.81	0.05	0.67	0.22	0.31905986	-1.64810097	0.003773927	0.014321476
ENSG00000	-	2	1.77E+08	1.77E+08	+	1624	0.37	0.61	0.22	0.08	0.07	0.07	0.17529234	-2.512165119	0.003802492	0.014418871
ENSG00000	FABP4	8	81478419	81483236	-	1369	0.25	0.19	0.26	0.74	0.61	0.94	3.11051037	1.637151314	0.003864117	0.014637996
ENSG00000	TNNI3	19	55151767	55157773	-	2034	0.27	0.13	0.41	0.87	0.44	0.92	2.6688514	1.416218982	0.003915576	0.014794076
ENSG00000	KLRA1P	12	10588063	10599669	-	2457	0.57	0.93	0.75	0.21	0.52	0.28	0.43698384	-1.194348151	0.003925847	0.014830066
ENSG00000	-	4	1.13E+08	1.13E+08	-	498	36.17	89.33	60.84	26.91	24.88	36.04	0.45417387	-1.138683398	0.003948486	0.014898603
ENSG00000	SCN5A	3	38548057	38649687	-	10028	0.07	0.02	0.04	0	0	0.01	0.0501868	-4.31654822	0.004067058	0.015282209
ENSG00000	THY1	11	1.19E+08	1.19E+08	-	6900	0.14	0.08	0.15	0.04	0.02	0.04	0.26808608	-1.899231759	0.004195563	0.015708674
ENSG00000	MIR138-1	3	44114212	44114310	+	99	7.04	10.99	8.85	1.28	2.24	4.12	0.2763476	-1.855443987	0.004209045	0.015742662
ENSG00000	PKP3	11	392614	404908	+	3795	0.31	0.11	0.14	0.45	0.42	0.51	2.36626128	1.242609381	0.004217117	0.015765625
ENSG00000	RAB43	3	1.29E+08	1.29E+08	-	4991	0.01	0.04	0.1	0.2	0.2	0.18	3.62360505	1.857425718	0.004268252	0.01594181
ENSG00000	INMT	7	30697985	30757602	+	3376	0.03	0.17	0.06	0	0	0	0.035855	-4.801681709	0.004302997	0.016062531
ENSG00000	ZNF256	19	57940833	57947706	-	2207	0.27	0.23	0.19	0	0.05	0.03	0.11005882	-3.183653298	0.004333729	0.016168143
ENSG00000	-	17	40921430	40975926	+	815	0	0	0	0.08	0.41	0.57	29.6664565	4.890760712	0.004345796	0.01620404
ENSG00000	PDCL3P4	3	1.02E+08	1.02E+08	+	5804	0.41	0.4	0.29	0.26	0.15	0.15	0.48866639	-1.033078227	0.004361872	0.016254838
ENSG00000	RGS16	1	1.83E+08	1.83E+08	-	2408	0.04	0.02	0.15	0.45	0.18	0.36	4.50750757	2.172329915	0.004388558	0.016342035
ENSG00000	PDCD4-AS1	10	1.11E+08	1.11E+08	-	925	0.86	0.45	0.67	1.92	1.56	1.45	2.39002554	1.257026034	0.004529374	0.016822301
ENSG00000	DNAH1	3	52316319	52400492	+	13873	0.18	0.12	0.16	0.06	0.08	0.09	0.49826116	-1.005025983	0.004584463	0.016991994
ENSG00000	COL11A2	6	33162681	33192499	-	7364	0.14	0.12	0.17	0.09	0.05	0	0.29009603	-1.78539752	0.004619176	0.017095528
ENSG00000	MYB	6	1.35E+08	1.35E+08	+	5497	0.05	0.04	0.06	0.21	0.1	0.21	3.37009343	1.752788589	0.00465562	0.017217224
ENSG00000	IBA57-DT	1	2.28E+08	2.28E+08	-	641	1.24	1.37	0.32	0.2	0	0.27	0.1517628	-2.720109851	0.004672673	0.017277075
ENSG00000	LINC01940	2	2.39E+08	2.39E+08	-	3489	0.61	0.3	0.28	0.11	0.11	0.23	0.36727173	-1.44508024	0.004675873	0.01728569
ENSG00000	MAGEB6	X	26192440	26195646	+	1949	0.05	0.05	0	0.52	0.23	0.12	7.93231052	2.987741155	0.004777928	0.017591018
ENSG00000	ATP13A4-AS1	3	1.94E+08	1.94E+08	+	1046	0	0	0	0.18	0.37	0.22	27.8241912	4.798267846	0.004785903	0.017613857
ENSG00000	-	19	8008729	8016025	+	421	3.78	1.6	2.2	0.45	1.19	0.83	0.31595749	-1.662197627	0.004797986	0.017651795
ENSG00000	SELENOO-AS1	22	50208461	50209542	-	640	2.18	1.94	1.21	1.19	0.26	0.36	0.32103354	-1.639204047	0.004799458	0.017653945
ENSG00000	KCNA1	12	4909905	4918256	+	7985	0.24	0.22	0.17	0.12	0.06	0.11	0.44540113	-1.166822887	0.005020989	0.018378724
ENSG00000	STK24-AS1	13	98577244	98578830	+	1278	0.78	0.85	1.13	0.25	0.39	0.41	0.36879485	-1.439109591	0.005032988	0.018410773
ENSG00000	ROCR	17	72021851	72058073	-	3586	0	0	0.01	0.09	0.15	0.07	19.4303422	4.280239406	0.005079365	0.01856307
ENSG00000	NAIP	5	70968166	71025339	-	10055	0.16	0.18	0.09	0.03	0.08	0.06	0.38426061	-1.379842991	0.005085696	0.018579654
ENSG00000	-	1	1.55E+08	1.55E+08	+	1224	0.37	0.51	0.08	0	0	0.05	0.05195481	-4.266598793	0.005094569	0.018608652
ENSG00000	DRAXIN	1	11691710	11725857	+	7365	0.07	0.1	0.08	0.01	0.03	0.01	0.18306385	-2.44958119	0.00511066	0.0186622
ENSG00000	-	18	35716370	35717978	+	1609	1.36	1.42	1.22	0.28	0.93	0.76	0.47935607	-1.060830387	0.005132898	0.018731451
ENSG00000	-	12	9398355	9414851	-	400	2.11	1.94	1.29	0.32	0.83	0	0.20947312	-2.255162961	0.005268549	0.019180722
ENSG00000	-	4	1.71E+08	1.71E+08	+	1133	1.05	0.73	1.64	0.67	0.34	0.31	0.36902468	-1.438210786	0.005287592	0.01923596
ENSG00000	DDX11-AS1	12	31019434	31073847	-	4240	0.43	0.37	0.4	0.19	0.18	0.21	0.46742953	-1.097179205	0.005308438	0.019297675
ENSG00000	ANPEP	15	89784895	89815401	-	5046	0.17	0.21	0.15	0.05	0.08	0.03	0.29770967	-1.748021998	0.005325343	0.019348521
ENSG00000	ARL14	3	1.61E+08	1.61E+08	+	1289	0.08	0.08	0.08	0.34	0.43	0.59	5.53843056	2.469477214	0.005420566	0.019647821
ENSG00000	WTAPP1	11	1.03E+08	1.03E+08	+	3331	0.04	0	0.06	0.13	0.13	0.33	5.4093752	2.435461969	0.005520244	0.01996182
ENSG00000	NPIPA7	16	16379140	16393972	+	1334	0.48	1.4	1.31	0.48	0.17	0.57	0.36335765	-1.460537827	0.005529415	0.019990116
ENSG00000	-	2	99405218	99405843	+	626	1.43	2.73	1.48	0.41	1.06	0.56	0.34980291	-1.515385817	0.005530079	0.019990116
ENSG00000	SERTAD4-AS1	1	2.1E+08	2.1E+08	-	1093	2.19	1.28	1.08	0.64	1.02	0.27	0.40674702	-1.297796334	0.005541004	0.020025965
ENSG00000	-	17	8365563	8381328	+	1408	0.95	0.18	0.22	0.09	0.12	0	0.14708936	-2.765235164	0.00556038	0.020081394
ENSG00000	COL28A1	7	7356203	7535873	-	6639	0.16	0.09	0.12	0.04	0.03	0.04	0.27885627	-1.842406377	0.005612309	0.020257898
ENSG00000	AATK	17	81110487	81166221	-	13177	0.09	0.05	0.1	0.02	0.05	0.01	0.30692688	-1.704033107	0.005648553	0.020362848
ENSG00000	ZGLP1	19	10304803	10309880	-	2431	0.49	0.87	0.59	0.24	0.34	0.31	0.43941811	-1.186333777	0.005875337	0.021088643
ENSG00000	CDC42-AS1	1	22028317	22052927	-	2574	0.81	0.58	0.54	0.49	0.24	0.14	0.42505679	-1.234272502	0.00591147	0.021203028
ENSG00000	LINC01152	17	72030291	72041310	+	4164	0.16	0.07	0.09	0.18	0.44	0.28	2.74770439	1.458226804	0.005924242	0.021245005
ENSG00000	NLGN4Y	Y	14522573	14845654	+	8593	0.19	0.19	0.2	0.1	0.11	0.08	0.47084085	-1.086688611	0.005936003	0.021283342
ENSG00000	SPNS2	17	4498881	4539035	+	4068	0	0	0.03	0.05	0.18	0.11	13.0571364	3.706766624	0.005958929	0.021353993
ENSG00000	-	7	227554	229557	-	2004	0.4	0.13	0.28	0.06	0.06	0	0.13981085	-2.838451764	0.005979701	0.021405286

ENSG00000	-	20	62928621	62929297	-	677	1.1	0.61	0.91	0.19	0.16	0.17	0.19121009	-2.38676946	0.006086495	0.021728896
ENSG00000	PADI1	1	17205128	17246007	+	4903	0.26	0.44	0.26	0.16	0.07	0.2	0.4203364	-1.250383713	0.006135639	0.021872925
ENSG00000	ALK	2	29192774	29921586	-	7382	0.23	0.25	0.18	0.13	0.1	0.09	0.45774216	-1.127392912	0.006197528	0.022061912
ENSG00000	FMO1	1	1.71E+08	1.71E+08	+	3602	0.1	0.36	0.2	0.04	0.09	0.03	0.23788359	-2.071672327	0.006209233	0.02209567
ENSG00000	PRR4	12	10845849	10849475	-	1310	0.91	0.51	0.98	0.15	0.34	0.36	0.33888171	-1.561146323	0.006221732	0.022132227
ENSG00000	-	16	29913144	29915337	-	2194	0.52	0.68	0.26	0.2	0.13	0.19	0.33645487	-1.571515099	0.006234818	0.022170844
ENSG00000	-	7	19112474	19114271	+	1711	0.84	1.57	1.05	0.52	0.06	0.07	0.1785061	-2.485954753	0.006282813	0.022328517
ENSG00000	DIO1	1	53891239	53911086	+	2282	0.33	0.18	0.14	0.03	0	0.05	0.1161617	-3.105793563	0.006287946	0.022339792
ENSG00000	EPCAM-DT	2	47192405	47345074	-	3594	0.01	0.01	0	0.11	0.12	0.13	12.1979644	3.608568505	0.006290533	0.022344988
ENSG00000	-	1	1.2E+08	1.2E+08	+	853	0.35	0.43	0.66	1.34	1.37	1.3	2.68354754	1.424141444	0.006326221	0.022463735
ENSG00000	EPHB1	3	1.35E+08	1.35E+08	+	5843	0.01	0.01	0	0.05	0.07	0.1	12.190497	3.607685038	0.006588614	0.023295625
ENSG00000	ATP13A5	3	1.93E+08	1.93E+08	-	6206	0.07	0.05	0.01	0	0	0	0.03853164	-4.697812764	0.00667949	0.023566652
ENSG00000	PSG9	19	43211791	43269530	-	5048	0.12	0.12	0.09	0.04	0	0.02	0.17086889	-2.54903836	0.006722977	0.02369486
ENSG00000	LINC01389	1	47380928	47408477	-	483	1.65	0.43	1.28	0.13	0.35	0	0.13829972	-2.854129834	0.006752365	0.023777366
ENSG00000	TMEM86B	19	55226638	55228784	-	2147	0.63	1.09	1.34	0.56	0.39	0.62	0.49581727	-1.012119573	0.006782214	0.023865568
ENSG00000	-	2	2.17E+08	2.17E+08	-	2879	0.14	0.14	0.18	0	0	0.04	0.08545258	-3.548732113	0.006849629	0.024077226
ENSG00000	LINC01176	7	30390885	30412375	+	5096	0.24	0.38	0.12	0.05	0.09	0.14	0.35804282	-1.481795975	0.006865534	0.024116082
ENSG00000	COL4A1	13	1.1E+08	1.1E+08	-	14662	0.18	0.12	0.17	0.03	0.14	0.06	0.47416979	-1.076524339	0.006944292	0.024375508
ENSG00000	MANCR	10	4581295	4678216	-	3143	0.44	0.41	0.57	0.14	0.3	0.2	0.43863552	-1.188905466	0.007012007	0.024561168
ENSG00000	PCAT19	19	41449520	41501255	-	8213	0.08	0.06	0.15	0.22	0.26	0.17	2.19468076	1.134011102	0.007049188	0.024674018
ENSG00000	-	5	58114598	58145996	+	789	0.38	1.44	0.65	0.16	0.21	0.15	0.2030708	-2.29994532	0.007071503	0.024743417
ENSG00000	-	17	7858943	7866083	+	7141	0.13	0.17	0.18	0.07	0.09	0.01	0.34664952	-1.528450325	0.007122492	0.024913063
ENSG00000	-	11	66269832	66278525	-	2792	0.29	0.19	0.17	0.02	0.02	0.08	0.19105753	-2.387920972	0.007127085	0.024924741
ENSG00000	GOLGA2P5	12	1E+08	1E+08	-	10957	0.02	0.07	0.01	0.14	0.07	0.11	3.00032411	1.585118355	0.007146639	0.024988731
ENSG00000	IRAG2	12	25004342	25108335	+	6611	0.14	0.11	0.1	0.01	0.05	0.04	0.26889824	-1.8948678	0.007228598	0.025248668
ENSG00000	ZNF474	5	1.22E+08	1.22E+08	+	2731	0.33	0.59	0.47	0.19	0.18	0.21	0.40464205	-1.305281858	0.007328296	0.025574135
ENSG00000	CACNA2D1-AS1	7	82009177	82029955	+	2651	0.56	0.59	0.52	0.26	0.19	0.33	0.44843091	-1.157042382	0.007395484	0.02579081
ENSG00000	C9orf24	9	34379019	34397828	-	1435	0.69	0.47	0.36	0	0.27	0.08	0.22830513	-2.130964826	0.007419425	0.025853169
ENSG00000	-	20	58817132	58817725	-	594	0.67	1.31	1.56	0.64	0.09	0.1	0.22047959	-2.181282984	0.007447567	0.025940597
ENSG00000	RBBP4P2	3	94075912	94077175	-	1264	0.12	0.37	0.12	0	0	0	0.04072022	-4.618110795	0.007488962	0.026057395
ENSG00000	-	2	2.01E+08	2.01E+08	+	973	0.36	0.69	0.64	0.07	0.06	0.18	0.17325572	-2.529025143	0.007543238	0.026231615
ENSG00000	-	1	2.35E+08	2.35E+08	+	526	1.42	1.08	0.29	0.24	0.11	0	0.11624844	-3.104716724	0.007616924	0.026442482
ENSG00000	APP-DT	21	26170871	26217381	+	4245	0.14	0.07	0.04	0.24	0.22	0.29	2.86881075	1.520452799	0.007755535	0.026876753
ENSG00000	ADGRF2	6	47656487	47695192	+	2852	0	0.04	0.05	0.24	0.14	0.18	6.04376512	2.595447594	0.007932771	0.027357466
ENSG00000	SSR4P1	21	45070952	45074165	-	2636	0.26	0.37	0.57	0.1	0.19	0.15	0.35563965	-1.491511904	0.008059435	0.027719267
ENSG00000	RIBC1	X	53422690	53431120	+	2993	0.12	0.1	0.29	0.3	0.52	0.53	2.5347732	1.341856666	0.008181496	0.028083729
ENSG00000	FLG	1	1.52E+08	1.52E+08	-	12793	0	0.02	0.05	0.08	0.06	0.09	3.47597212	1.797416511	0.008248635	0.028289774
ENSG00000	ZNF14	19	19710472	19733112	-	2963	0.05	0.07	0.05	0.43	0.15	0.16	4.0779968	2.027860644	0.008252507	0.028298174
ENSG00000	-	16	89268104	89273044	+	3660	0.27	0.45	0.53	0.21	0.24	0.13	0.44282773	-1.175182532	0.008309285	0.02846832
ENSG00000	CNDP1	18	74534500	74587212	+	7117	0.12	0.07	0.04	0.16	0.22	0.2	2.38536909	1.254212511	0.008322149	0.028507484
ENSG00000	CFP	X	47623172	47630305	-	5617	0.08	0.2	0.11	0.05	0.02	0.04	0.25918286	-1.947957801	0.008423435	0.0288088
ENSG00000	GRIN3A	9	1.02E+08	1.02E+08	-	8189	0.01	0.01	0.01	0.09	0.01	0.11	6.32893278	2.661962245	0.0084246	0.0288088
ENSG00000	SMCO3	12	14804650	14814182	-	2104	0	0.05	0	0.45	0.18	0.03	13.0323872	3.704029463	0.008549404	0.02918038
ENSG00000	-	9	35491133	35491969	-	663	0.38	0.31	0.47	1.53	1.68	0.7	3.25705301	1.7035672	0.008593212	0.02931481
ENSG00000	-	11	22829380	22945393	+	5339	0.09	0.05	0.04	0.1	0.22	0.25	3.01622892	1.592745927	0.008642105	0.029461384
ENSG00000	KCNJ5-AS1	11	1.29E+08	1.29E+08	-	3759	0.45	0.32	0.44	0.12	0.28	0.16	0.44586081	-1.165334709	0.008689451	0.029595988
ENSG00000	NAIPP2	5	70094659	70128434	-	3544	0.51	0.34	0.36	0.09	0.3	0.13	0.41852934	-1.256599327	0.008832116	0.030026779
ENSG00000	ABAT	16	8674596	8784575	+	9713	0.03	0.08	0.06	0.13	0.14	0.15	2.3875422	1.255526232	0.008913506	0.030267259
ENSG00000	KRT8P33	5	1.23E+08	1.23E+08	-	1423	0.14	0.11	0.18	0.62	0.35	0.61	3.55007034	1.827847609	0.00895752	0.030395952
ENSG00000	DNAH6	2	84516455	84819589	+	13514	0.03	0.07	0.06	0.1	0.12	0.15	2.18572206	1.128109959	0.008962981	0.030409294
ENSG00000	TSSC2	11	3380918	3408981	+	3715	0.74	0.59	0.36	0.38	0.31	0.19	0.49922331	-1.002242787	0.008978334	0.030456186

ENSG00000	HCLS1	3	1.22E+08	1.22E+08	-	5093	0.08	0.11	0.09	0.27	0.27	0.17	2.45955932	1.298399851	0.009027499	0.030607301
ENSG00000	KREMEN2	16	2964216	2968383	+	2342	0.36	0.44	0.64	0.14	0.26	0.17	0.38432507	-1.379601011	0.009058723	0.030697461
ENSG00000	-	1	19608114	19608568	+	455	0.55	1.71	0.57	0.14	0	0.13	0.08922355	-3.486431569	0.009083787	0.030766668
ENSG00000	-	3	45795970	45863928	+	8660	0.11	0.03	0.1	0.01	0.01	0.04	0.21794758	-2.197946894	0.009210642	0.031144408
ENSG00000	LINC02958	18	23957754	23982556	-	2343	0.06	0.24	0.29	0.03	0.02	0.02	0.12301805	-3.023058091	0.009301196	0.031428086
ENSG00000	LYG1	2	99284238	99304742	-	1114	1.56	0.98	1.76	0.91	0.6	0.58	0.46427334	-1.106953645	0.009323923	0.031494175
ENSG00000	-	5	1.4E+08	1.4E+08	+	6140	0.12	0.2	0.1	0.01	0.05	0.08	0.30189507	-1.727880912	0.009519799	0.032043699
ENSG00000	-	8	1.3E+08	1.3E+08	+	3369	0.01	0.02	0.05	0.08	0.13	0.26	5.95799847	2.574827754	0.009797667	0.032871033
ENSG00000	-	5	1.41E+08	1.41E+08	+	2086	0	0.02	0	0.18	0.11	0.17	16.6922453	4.061106126	0.009812229	0.032914335
ENSG00000	C1QTNF12	1	1242446	1246722	-	1794	0.22	0.06	0.06	0.64	0.28	0.39	3.68011429	1.87975057	0.010053379	0.033660791
ENSG00000	ZNF420	19	37007857	37130368	+	4077	0.15	0.04	0.19	0.42	0.19	0.39	2.5553138	1.35350047	0.010241959	0.034215709
ENSG00000	-	16	67550815	67552935	-	2121	0.05	0.29	0.02	0	0	0	0.04056699	-4.62354997	0.01051794	0.03496894
ENSG00000	YWHAZP2	2	1.27E+08	1.27E+08	-	728	0.07	0	0.21	0.61	0.61	0.72	6.67411065	2.738575605	0.010536549	0.035007398
ENSG00000	CLXN	8	48710789	48735311	-	5822	0.14	0.07	0.07	0.25	0.17	0.26	2.34511078	1.229656076	0.010628486	0.035265716
ENSG00000	CFAP54	12	96489571	96875555	+	12914	0.11	0.05	0.05	0.12	0.15	0.17	2.03229195	1.023107667	0.01063666	0.035281063
ENSG00000	ZNF385B	2	1.79E+08	1.8E+08	-	5417	0.05	0.07	0.02	0.19	0.1	0.16	3.2821091	1.714623198	0.010694881	0.03546235
ENSG00000	-	5	96784777	96785999	+	1001	0.7	1.71	0.98	0.44	0.44	0.47	0.38588878	-1.373742996	0.010714169	0.035520382
ENSG00000	UCA1	19	15828206	15836328	+	4154	0	0.02	0.01	0.17	0.09	0.06	8.22610761	3.040209945	0.010743468	0.035581922
ENSG00000	-	1	2E+08	2E+08	-	638	0	0.16	0	0.7	0.61	0.55	11.0963867	3.472018063	0.010983106	0.036275379
ENSG00000	TNFRSF11A	18	62325287	62391288	+	8989	0.07	0.05	0.03	0.12	0.15	0.12	2.4656179	1.301949243	0.010998498	0.03630283
ENSG00000	-	13	1.03E+08	1.03E+08	+	867	0.75	0.42	0.89	0.15	0.06	0.27	0.22367324	-2.1605354	0.011134413	0.036687292
ENSG00000	EHF	11	34621093	34663288	+	6617	0.05	0.05	0.1	0.14	0.22	0.16	2.50548937	1.325092419	0.01128013	0.037087531
ENSG00000	RPL29P11	3	37016523	37017014	-	492	1.21	1.68	0.73	2.84	3.27	2.37	2.24781251	1.168521706	0.011355018	0.037309078
ENSG00000	LINC01238	2	2.42E+08	2.42E+08	+	2854	0.07	0.22	0.05	0	0.02	0	0.0626123	-3.997410068	0.011425842	0.037498409
ENSG00000	-	7	1.52E+08	1.52E+08	+	1554	0.03	0.23	0	0.41	0.36	0.49	4.56875972	2.19180257	0.011477136	0.037654322
ENSG00000	F8A3	X	1.55E+08	1.55E+08	-	1707	0.58	0.27	0.48	0.07	0.13	0.2	0.296073	-1.755975147	0.011536692	0.037812282
ENSG00000	TFPI2-DT	7	93890913	93893601	+	527	0.09	0	0	1.33	0.32	0.22	17.0751151	4.093823395	0.011558958	0.037854064
ENSG00000	SLC38A5	X	48458537	48470260	-	4017	0.2	0.24	0.19	0.05	0.12	0.04	0.32973853	-1.600605634	0.011611339	0.038006826
ENSG00000	PSG1	19	42866464	42879822	-	4961	0.29	0.19	0.32	0.06	0.19	0.09	0.42294457	-1.241459511	0.011638557	0.038083382
ENSG00000	CHRM3	1	2.39E+08	2.4E+08	+	15173	0.08	0.1	0.14	0.03	0.04	0.08	0.46667811	-1.099500282	0.011655425	0.038119756
ENSG00000	BEAN1-AS1	16	66469796	66481230	-	1728	0.14	0.27	0.27	0.04	0	0.03	0.09722772	-3.362488435	0.011721945	0.038286938
ENSG00000	DMRT1	9	841690	969090	+	3253	0.08	0.11	0.08	0.25	0.36	0.2	2.9222105	1.547060106	0.01192413	0.038877081
ENSG00000	-	22	15823197	15823890	+	694	0.43	1.42	0.45	0.09	0.08	0.25	0.17835694	-2.487160772	0.012012667	0.039133665
ENSG00000	RUSF1-DT	16	31508464	31509566	+	1103	0.59	0.19	0.42	1.32	0.65	1.22	2.55590296	1.35383306	0.01208804	0.039353419
ENSG00000	-	16	70661667	70665836	+	4170	0.13	0.09	0.26	0.03	0.05	0.04	0.25535435	-1.96942746	0.012140687	0.039498948
ENSG00000	-	4	1.05E+08	1.05E+08	-	549	2.81	4.15	2.35	1.39	1.21	2.12	0.48885099	-1.032533307	0.012191637	0.03964525
ENSG00000	-	21	25515349	25518865	-	1431	0.28	0.18	0.25	0.53	0.82	0.65	2.7086539	1.437576062	0.012198205	0.039660123
ENSG00000	ABHD11-AS1	7	73734994	73736161	+	757	0.2	0.14	0.61	1.26	0.81	1.15	3.27731356	1.712513711	0.012213472	0.039696779
ENSG00000	-	22	35298838	35299541	-	385	0.52	0.94	0.94	0.16	0	0	0.06628995	-3.91506612	0.012317136	0.039974353
ENSG00000	BMP7	20	57168753	57266641	-	5425	0.02	0.01	0	0.04	0.08	0.12	8.08125124	3.01457867	0.012430177	0.040256362
ENSG00000	TET1	10	68560337	68694487	+	9612	0.09	0.08	0.09	0.02	0.05	0.02	0.33764429	-1.566423948	0.012558713	0.040606504
ENSG00000	LINC00971	3	84638405	84881924	-	8725	0.01	0	0.01	0.04	0.04	0.04	10.5777281	3.40295789	0.012606474	0.040741058
ENSG00000	-	14	19072333	19075341	+	2144	0.14	0.19	0.1	0	0.03	0	0.06637795	-3.913152139	0.012624209	0.040791744
ENSG00000	-	15	52017167	52018032	-	866	0.75	0.72	0.77	1.32	1.15	2.69	2.22562186	1.154208492	0.012631439	0.040808475
ENSG00000	NINJ2-AS1	12	630858	664196	+	4356	0.17	0.04	0.08	0.34	0.24	0.21	2.60602592	1.381851434	0.012642674	0.040824875
ENSG00000	PAGE1	X	49687447	49695984	-	659	0.23	0.24	0.08	1.73	0.76	0.27	4.86000757	2.280958561	0.012726448	0.041042074
ENSG00000	LNCOG	12	76259836	76305969	+	2108	0.19	0.29	0.22	0.45	0.74	0.53	2.35550005	1.236033363	0.012754551	0.041119364
ENSG00000	GLUD2	X	1.21E+08	1.21E+08	+	2485	0.22	0.21	0.21	0.64	0.42	0.45	2.27411218	1.185303422	0.013250525	0.042532153
ENSG00000	BAMBI	10	28677510	28682932	+	2139	0.14	0.29	0.31	0.59	0.6	0.57	2.28999015	1.195341395	0.013256007	0.042536018
ENSG00000	EHBP1-AS1	2	62957326	63048640	-	3367	0.35	0.23	0.38	0.15	0.08	0.17	0.40214798	-1.314201612	0.01329242	0.042639099
ENSG00000	-	18	1883524	2489426	-	6656	0.13	0.23	0.16	0.1	0.08	0.05	0.41503495	-1.268695275	0.013343537	0.042782365

ENSG00000	RPL37P1	20	35588324	35588607	+	284	1.4	0.55	1.27	0	0.2	0	0.06671537	-3.905837075	0.013380623	0.042894357
ENSG00000	-	17	38749360	38751773	+	2414	0.14	0.19	0.19	0.45	0.37	0.53	2.44946573	1.292467109	0.013390153	0.042911071
ENSG00000	FAM30A	14	1.06E+08	1.06E+08	+	10311	0.14	0.14	0.11	0.04	0.11	0.01	0.40225449	-1.313819553	0.013427463	0.043023702
ENSG00000	-	18	51019401	51030050	-	358	2.78	0.14	1.15	0	0.47	0	0.11342445	-3.140196385	0.013523258	0.04330971
ENSG00000	ARAP2	4	35948221	36244514	-	12427	0.08	0.1	0.27	0.37	0.37	0.42	2.43952639	1.286601088	0.01358171	0.043468906
ENSG00000	SH3TC2	5	1.49E+08	1.49E+08	-	38112	0.02	0.03	0.01	0.03	0.06	0.04	2.10386042	1.073038992	0.013732226	0.043865913
ENSG00000	-	11	3084393	3085443	-	730	0.2	0.78	0.28	0	0.08	0	0.06605535	-3.920180744	0.01399517	0.044555547
ENSG00000	TMEM151B	6	44270450	44307506	+	5475	0.06	0.05	0.06	0.23	0.11	0.15	2.81395745	1.492600515	0.014071681	0.044756138
ENSG00000	COP1-DT	1	1.76E+08	1.76E+08	+	3821	0.05	0.04	0.03	0.2	0.22	0.08	3.95044912	1.982016681	0.014154504	0.044990779
ENSG00000	-	20	23179272	23190419	+	5313	0.07	0.1	0.08	0.19	0.24	0.18	2.43395712	1.283303749	0.014203929	0.045108616
ENSG00000	LINC01431	20	23356586	23358175	-	1590	0.53	0.52	0.32	0.08	0.17	0.18	0.30839723	-1.697138267	0.014242815	0.045213661
ENSG00000	CTXND1	15	80195481	80252213	-	6893	0.1	0.09	0.07	0	0.01	0.05	0.22152985	-2.174426971	0.014276867	0.045300065
ENSG00000	ENAM	4	70628744	70646824	+	5807	0.02	0	0	0.11	0.05	0.04	10.8026357	3.433311454	0.014380763	0.045578813
ENSG00000	CPN2	3	1.94E+08	1.94E+08	-	3025	0.12	0.22	0.14	0.44	0.33	0.39	2.34795151	1.231402611	0.014573581	0.046101758
ENSG00000	CACNB2	10	18140424	18543557	+	11162	0.15	0.09	0.14	0.02	0.09	0.06	0.43608047	-1.197333716	0.014711901	0.046480165
ENSG00000	-	5	1.52E+08	1.52E+08	+	3317	0.33	0.19	0.2	0.06	0	0.16	0.28703396	-1.800706637	0.014801059	0.046717312
ENSG00000	SNHG22	18	49813965	49851059	+	2662	0.34	0.21	0.19	0.05	0.1	0.07	0.2836568	-1.817781635	0.014871222	0.046886674
ENSG00000	-	19	49050217	49050846	-	630	0.08	0	0.16	0.6	0.97	0.37	7.71923495	2.94845787	0.014877307	0.046898422
ENSG00000	SDCBP2	20	1309909	1329139	-	2553	0.02	0.02	0.06	0.17	0.17	0.21	5.33215466	2.414718625	0.015016228	0.047238995
ENSG00000	-	21	6228966	6267317	-	2878	0	0.02	0	0	0.12	0.22	17.2231739	4.106279125	0.015105616	0.047467631
ENSG00000	TRIM7-AS2	5	1.81E+08	1.81E+08	+	664	1.8	3.67	1.47	1.15	0.75	1.4	0.45747001	-1.128250918	0.015135815	0.047522872
ENSG00000	CACNA1E	1	1.81E+08	1.82E+08	+	21561	0.05	0.06	0.04	0.01	0.03	0.02	0.40913381	-1.289355332	0.015189447	0.04763567
ENSG00000	GLYATL1	11	58905398	59043527	+	5440	0.05	0.01	0.02	0.21	0.11	0.04	4.15725105	2.055629872	0.015469987	0.048467101
ENSG00000	VASH2	1	2.13E+08	2.13E+08	+	9086	0.08	0.08	0.07	0.02	0.03	0.02	0.30452841	-1.715351252	0.015499991	0.048531316
ENSG00000	SSMEM1	7	1.3E+08	1.3E+08	+	1368	0.18	0.11	0.08	0.65	0.2	0.6	3.7316849	1.899827172	0.015935033	0.049728206

Supplementary Table 5. Gene Set Enrichment Analysis (GSEA) identifies hallmark pathways suppressed by circSPECC1 knockdown in pGBM1 cells

ID	setSize	enrichment	S NES	pvalue	p.adjust	qvalue	rank	leading edge	core	enrichment
HALLMARK_HYPOXIA	21	-0.55448629	-2.3317497	0.000376677	0.005273475	0.004361521	211	tags=81%,	lis	SLC2A1/IGFBP1/TMEM45A/TGFB1/FOS/ENO2/ADM/ALDOC/ERO1A/NDRG1/DPYSL4/PPFIA4/ANGPTL4/COL5A1/IGFBP3/CCN5/PKP1
HALLMARK_GLYCOLYSIS	15	-0.53429415	-1.97351726	0.004742842	0.033199894	0.027458559	237	tags=87%,	lis	PGK1/PLOD2/ARTN/TGFB1/SLC16A3/ENO2/SPAG4/ERO1A/DPYSL4/PPFIA4/ANGPTL4/COL5A1/IGFBP3
HALLMARK_TNFA_SIGNALING_VIA	17	0.42808587	1.590687188	0.032454993	0.151456634	0.125264885	216	tags=65%,	lis	IL1B/SLC16A6/SERPINB2/BCL2A1/CCL20/IL1A/GCH1/CXCL3/CXCL2/CXCL1/LIF

Supplementary Table 6. Information of antibodies used in the study

Antibody	Company	Category Number	Dilution
N-cadherin	Cell Signaling Technology	4061	WB: 1:1000
CD44	Proteintech Group	15675-1-AP	WB: 1:1000
Vimentin	Cell Signaling Technology	5741	WB: 1:1000
Snail	Cell Signaling Technology	3879	WB: 1:1000
Slug	Cell Signaling Technology	9585	WB: 1:1000
PGK1	Proteintech Group	17811-1-AP	WB: 1:10000
Tubulin	Ray Antibody Biotech	RM2003	WB: 1:5000
IGF2BP2	Proteintech Group	11601-1-AP	WB:1:2000; IF:1: 50