Legends to supplemental figures

Figure S1. Activation of the p38/MAP Kinase pathway in response to sunitinib and chloroquine (CHL). 786-O cells were incubated in the presence of sunitinib 2.5 μM or CHL 100 μM for the indicated times. The total (p38) and phosphorylated (pp38) forms of p38 MAP Kinase were detected by immuno-blotting; Tubulin is shown as a loading control.

Figure S2. CXCL5 protein expression is up-regulated in sunitinib resistant RCC10 cells. CXCL5 protein levels were evaluated by ELISA in control (C), RCC10 cells treated with sunitinib for 48 hours (2.5 μM) and sunitinib resistant RCC10 cells. P values are indicated; ** $p < 0.01$; NS, not significant.

Figure S3. The lysosomotropic drug lapatinib stimulated CXCL5 expression in breast cancer cell models. **(A)** The fluorescence of the lysosomal probe (LysoTracker Red DND-99, Lyso) was followed by FACS analysis after 72 hours of treatment (2.5 μM) of BT474 cells. **(B)** Determination of ROS production in BT474 cells treated with 2.5 μM lapatinib for 48 hours. (**C**) CXCL5 protein levels were evaluated by ELISA in control (C) and BT474 cells treated for 48 hours with lapatinib (1 μM). P values are indicated; * $p < 0.05$; *** $p < 0.001$.

Figure S4. Relationship between tumor levels of CXCL5 and overall survival (OS) of breast cancer patients. **(A)** Relative expression level of CXCL5 in different subgroups of breast cancers. (**B**) Kaplan–Meier analysis of patients with hormone receptor positive tumors. **(C)** Kaplan–Meier analysis of patients with HER2 positive tumors. (**D**) Kaplan–Meier analysis of patients with node positive TNBC. Statistical significance (P value) is indicated.

Figure S5. Correlation between intra-tumor/plasmatic levels of CXCL5 and inflammatory cells. **(A)** The plasmatic and tumor levels of CXCL5 were determined respectively by ELISA and qPCR in samples from patients of the SUVEGIL trial. The correlation coefficient (CC) between the two values was calculated. (B) The growth of experimental tumors in mice was determined as already described [1]. Plasmatic levels of mouse **(C)** or human **(D)** CXCL5 were determined by ELISA. P values are indicated; ** $p < 0.01$; *** $p < 0.001$. **(E)** The plasmatic and tumor levels of mouse CXCL5 were determined by ELISA. The CC between the two values was calculated. **(F)** The intra-tumor levels of human (H C5), mouse (M C5) CXCL5 mRNA, and its receptors present on mouse cells CXCR1 (M CR1) and CXCR2 (M CR2), neutrophils (N, LCN2 and ELANE mRNA), M1 macrophages (M1, iNOS and IL1 mRNA) and M2 macrophages (M2, ARG1 and MRC1 mRNA) were determined by qPCR. The CC between each value is indicated.

Figure S6. Relationship between the plasma levels of CXCL5 and progression free survival (PFS) of mRCC patients treated with bevacizumab/interferon alpha or bevacizumab/temsirolimus. **(A)** Kaplan–Meier analysis of PFS of patients with mRCC treated with bevacizumab/interferon alpha. The PFS was calculated for patient subgroups with a CXCL5 plasma level at diagnosis that was less or greater than a cut-off value of 0.1 ng/mL. **(B)** Kaplan–Meier analysis of the PFS of patients with mRCC treated with bevacizumab/temsirolimus. PFS was calculated from patient subgroups with a CXCL5 plasma level at diagnosis that was less or greater than a cut-off value of 0.1 ng/mL. Statistical significance (P value) and the time of the median PFS is indicated.

Legends to supplemental tables

Table S1. List of up-regulated genes following sunitinib treatment of naïve cells revealed by a transcriptomic analysis. Genes were classified from the less to the most up-regulated (log2) and by alphabetical order.

Table S2. List of down-regulated genes following sunitinib treatment of naïve cells revealed by a transcriptomic analysis. Genes were classified from the less to the most down-regulated (log2) and by alphabetical order.

Table S3. List of up-regulated genes in sunitinib-resistant cells revealed by a transcriptomic analysis. Genes were classified from the less to the most up-regulated (log2) and by alphabetical order.

Table S4. List of down-regulated genes in sunitinib-resistant cells revealed by a transcriptomic analysis. Genes were classified from the less to the most down-regulated (log2) and by alphabetical order.

Table 5. Characteristics of the patients from a retrospective cohort of the Rennes Hospital.

Table S6. Characteristics of the patients included in the SUVEGIL and TORAVA clinical trials. (NR, not reached)

Table S7. Evaluation of the response to treatment of patients in the SUVEGIL and TORAVA clinical trials according to RECIST criteria. (NR, not reached; NA, not available).

Reference

1. Dufies M, Giuliano S, Viotti J, Borchiellini D, Cooley LS, Ambrosetti D, et al. CXCL7 is a predictive marker of sunitinib efficacy in clear cell renal cell carcinomas. Br J Cancer. 2017; 117: 947-53.
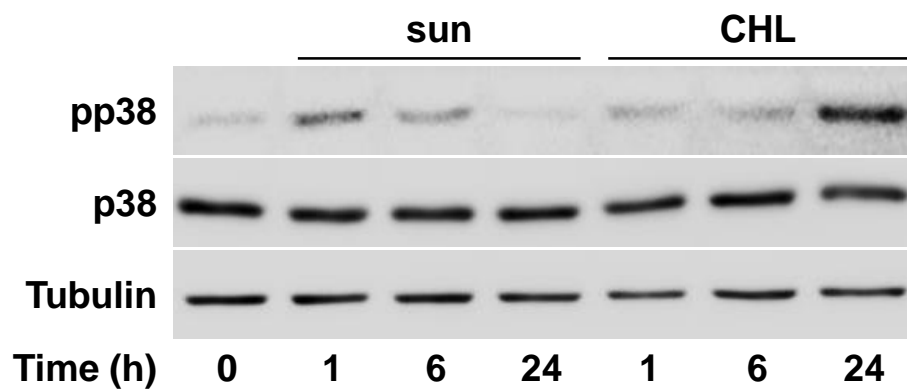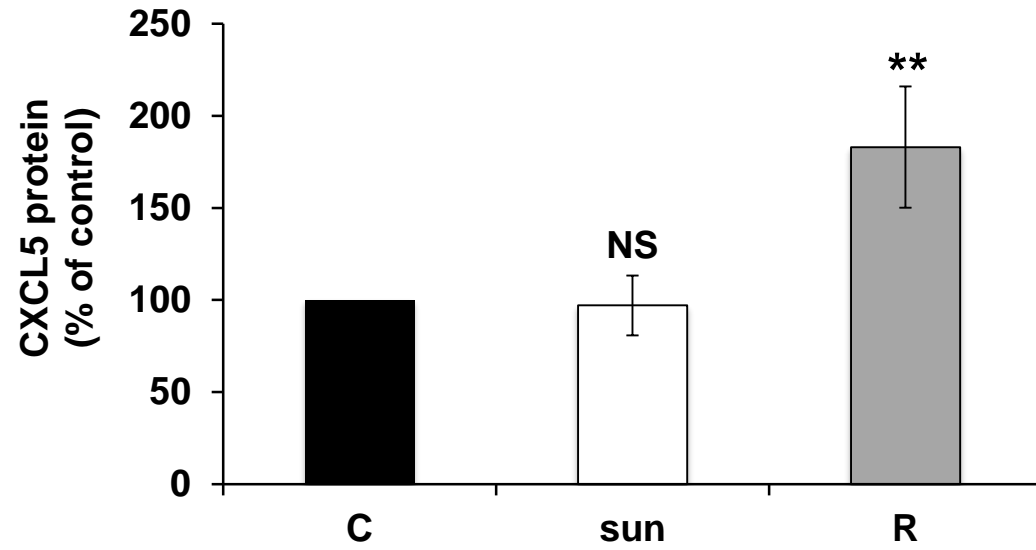
Figure S1: Giuliano, S *et al*

Figure S2: Giuliano *et al*

A

Counts

160

120

C
lapa
CHL

80

40

10^0 10^1 10^2 10^3 10^4

Lyso Tracker fluorescence

B

ROS production
(% of control)

200

150

100

50

0

*

C   lapa

C
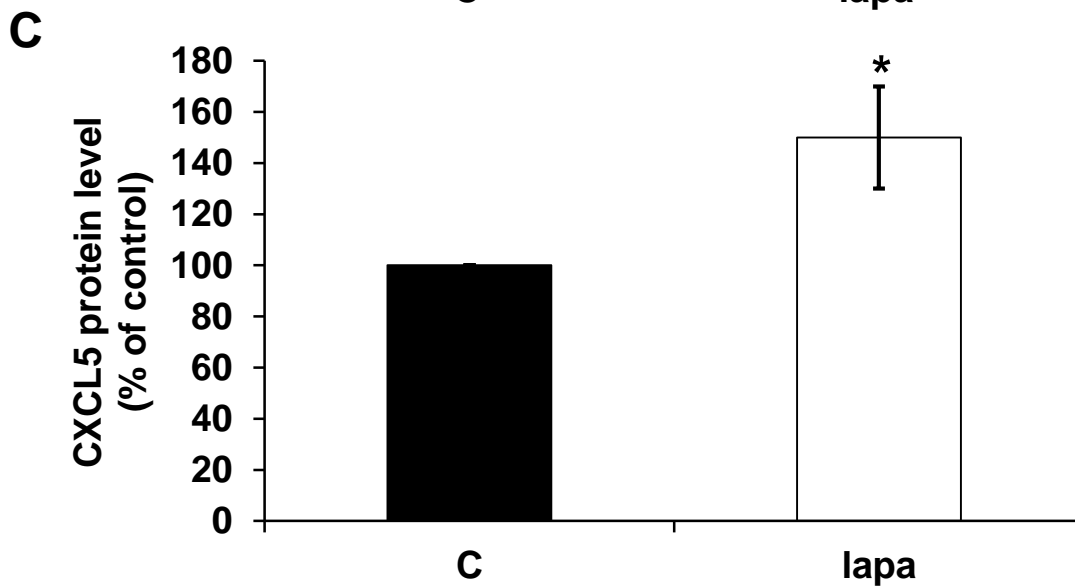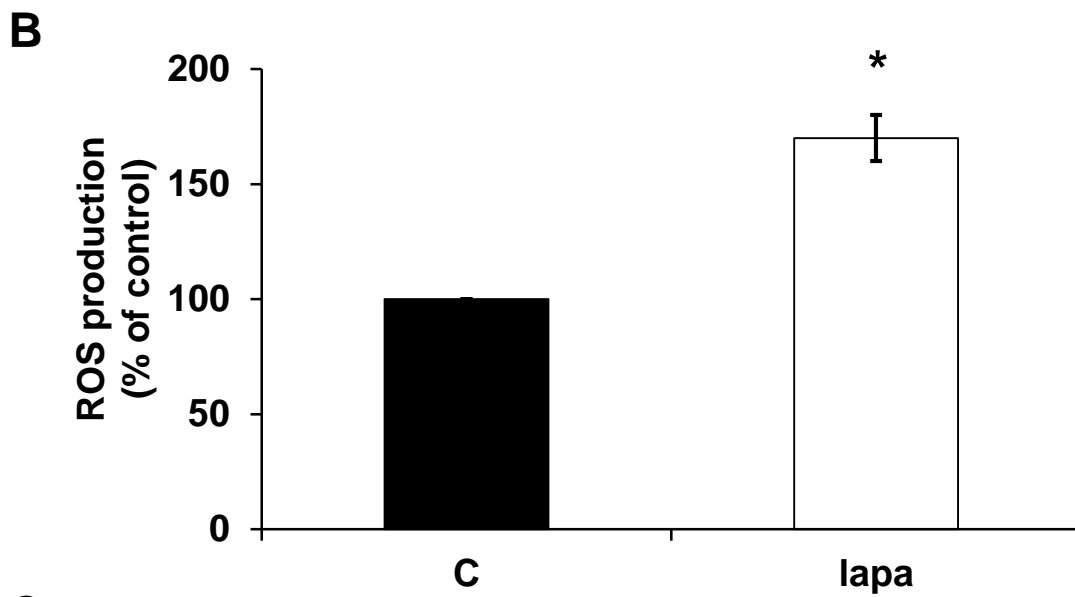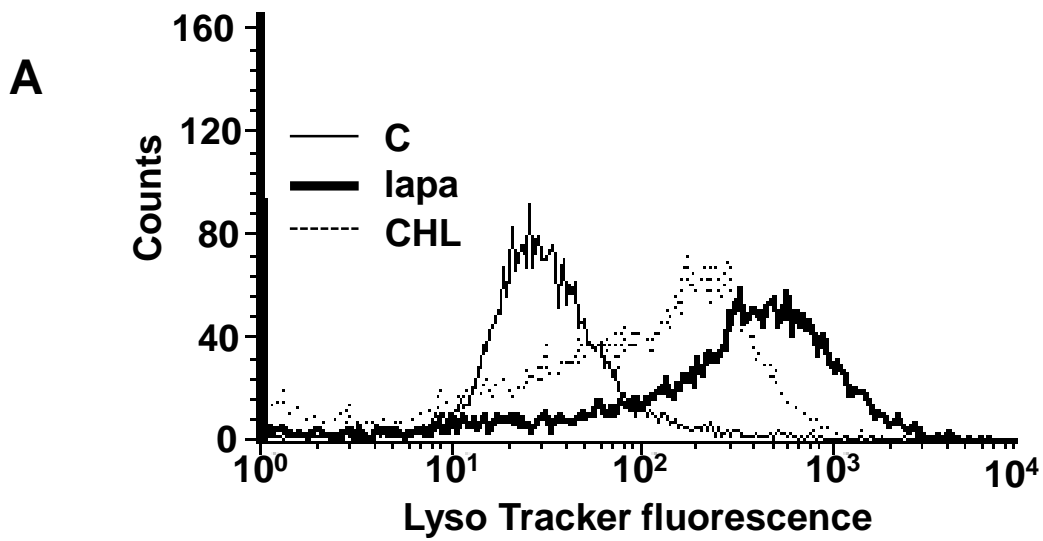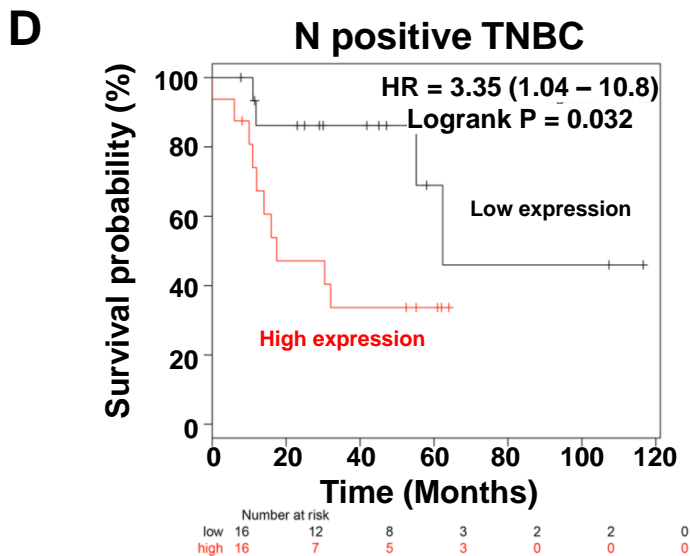
CXCL5 protein level
(% of control)

180
160
140
120
100
80
60
40
20
0

*

C   lapa

Figure S3: Giuliano, S *et al*

A

Mean = SEM of ER+/PR+   -0.095 + 0.02

Mean = SEM of HER2+   -0.037 + 0.06

Mean = SEM of TNBC   1.6 + 0.5

B   **Hormone receptors positive**

HR = 0.79 (0.66 – 0.93)
Logrank P = 0.0062

High expression

Low expression

Number at risk
low	985	680	298	76	14	2
high	948	723	340	66	5	0

C   **HER-2 positive**

HR = 0.63 (0.42 – 0.93)
Logrank P = 0.018

High expression

Low expression

Number at risk
low	129	45	19	8	1
high	122	65	24	7	1

D   **N positive TNBC**

HR = 3.35 (1.04 – 10.8)
Logrank P = 0.032

Low expression

High expression

Number at risk
low	16	12	8	3	2	2	0
high	16	7	5	3	0	0	0

Figure S4: Giuliano, S *et al*

A CC: -0.92

B

C **

D ***

E R² = 0.8097
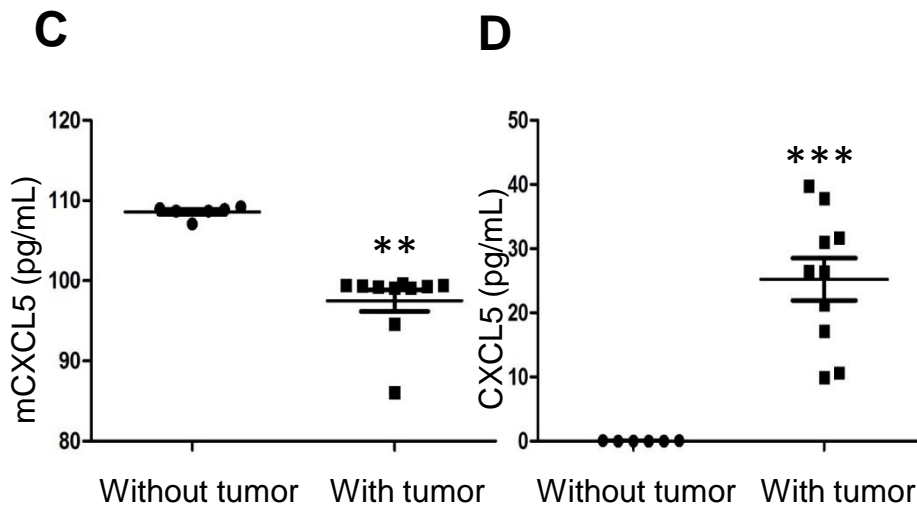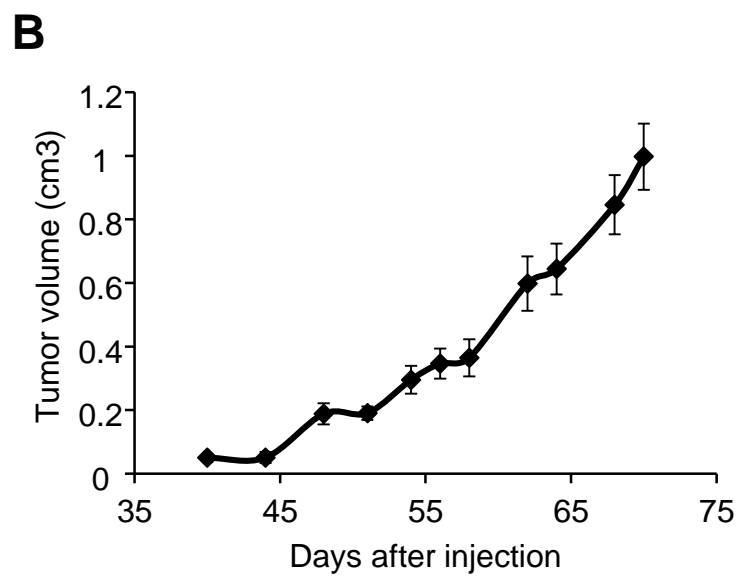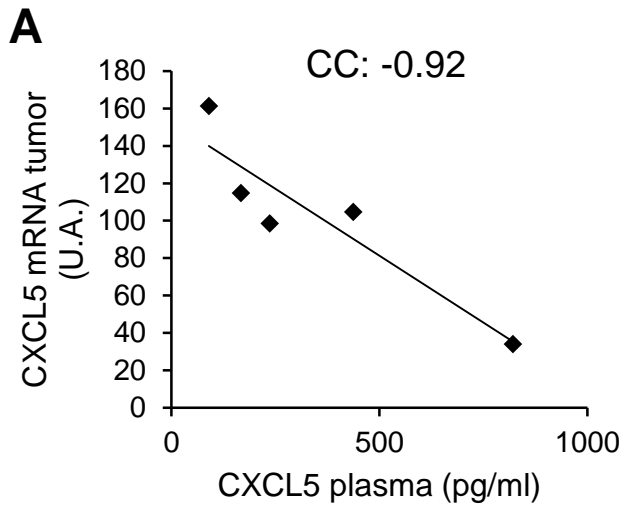
F

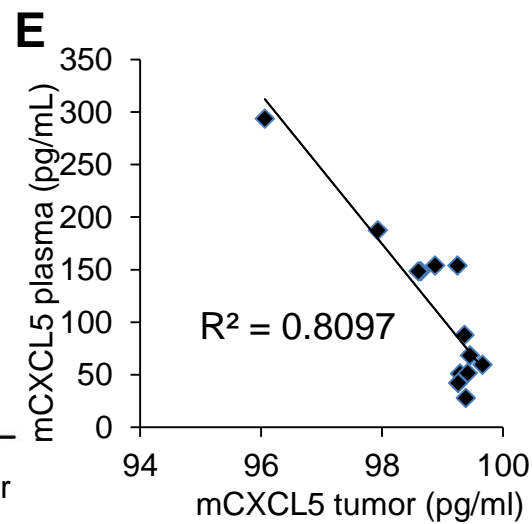| CC	H C5	M C5	M CR1	M CR2	N	M1	M2
H C5		0.47	0.18	0.85	-0.02	0.01	0.05
M C5			0.63	0.05	0.99	-0.29	0.91
M CR1				0.62	0.6	-0.3	0.58
M CR2					0.01	-0.11	-0.02
N						0.15	0.9
M1							-0.44
M2							

Figure S5: Giuliano, S *et al*

A

TORAVA : bevacizumab + roferon
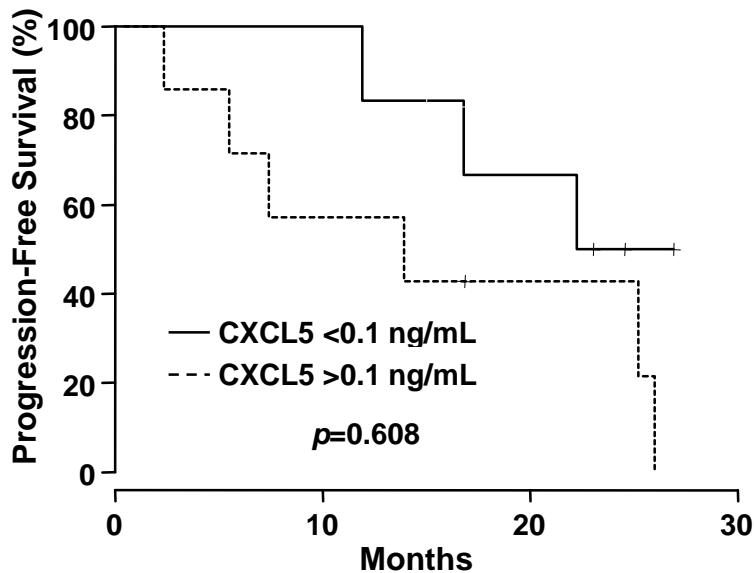
Plasma levels	Median survival (months)
CXCL5 high	13.9
CXCL5 low	24.6

B

TORAVA: bevacizumab + temsirolimus
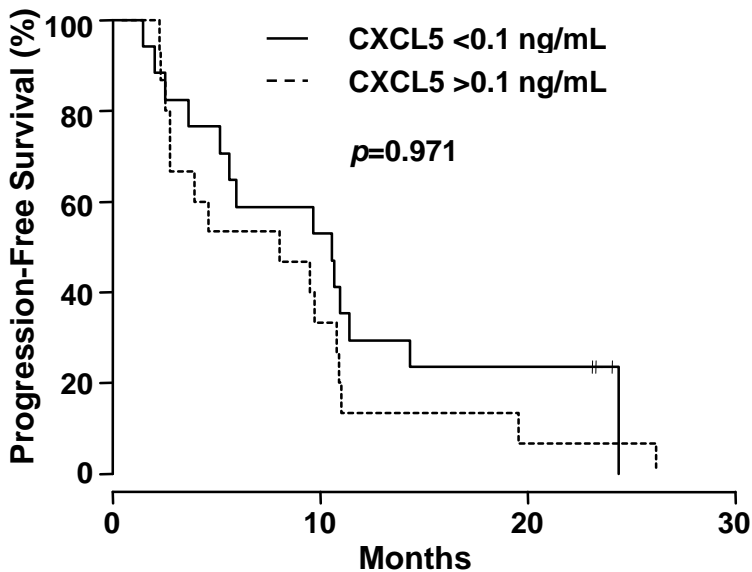
Plasma levels	Median survival (months)
CXCL5 high	8
CXCL5 low	10.5

Figure S6: Giuliano, S *et al*

Table S1

Up-regulated genes (Fold induction)		Up-regulated genes (Alphabetical order)	
TRIM31	1.00029113348829	ABCA3	1.37552443240479
FAM129A	1.00050382908327	ABCA5	2.09312119238122
KCNK3	1.00065421717695	ABCC3	1.30484418587795
PLTP	1.00115578827035	ABHD4	1.23478785363389
TTLL1	1.00133081079045	AC002480.4	1.00946797834248
UHRF1BP1	1.00158615957817	AC004466.1	1.00494357068192
ACVRL1	1.00173345323162	AC005077.12	1.38459967024167
COL17A1	1.00174846380515	AC005077.14	2.10641335201401
ERN1	1.00273300365534	AC006262.5	1.18953411827857
TTC25	1.00369536665564	AC007246.3	1.51994021336256
TMEM159	1.00376743371065	AC007566.10	1.6351200112413
TRPM4	1.00494052531002	AC009133.12	1.94177952414467
AC004466.1	1.00494357068192	AC009133.14	2.7487332145349
TMEM9B-AS1	1.00530599549151	AC015933.2	1.09254470696512
PTPRN2	1.0063860306722	AC019172.2	1.27049307982781
RP11-134G8.7	1.00652880385992	AC074286.1	1.17781806587397
LMLN	1.00706443217257	AC097662.2	1.37549503095335
DTX3L	1.00716247017992	AC104135.4	1.27965561488457
PQLC3	1.0087790523722	AC104695.3	1.22507177956087
SLC10A5	1.00911654240335	AC135048.13	1.0374587298776
PFKFB2	1.00920265660821	ACCS	1.529583919021
PEX1	1.00928940554534	ACP5	1.56446072638876
AC002480.4	1.00946797834248	ACSS1	1.25641293388503
AGT	1.01087286983995	ACSS2	1.08481109209208
ODF3B	1.01190614071574	ACTA2	2.07179490005135
DNHD1	1.0121786991557	ACVRL1	1.00173345323162
HLA-V	1.01258971000629	ACYP2	1.20926936228408
ZNF862	1.01333949087986	ADHFE1	1.47089772774052
GAD1	1.01461494528151	ADM2	2.20836214039733
POU2F2	1.01566355191543	AFAP1-AS1	2.03623697713368
TMEM171	1.01647031674484	AFAP1L1	1.01936200013909
TCN2	1.01709597164029	AFF3	1.03779276377884
ZNF506	1.01801939080027	AGA	1.31202043762431
MT-TD	1.01873724965867	AGT	1.01087286983995
AFAP1L1	1.01936200013909	AGTRAP	1.47762453644249
RP11-383C5.4	1.02011541812085	AGXT2	1.78088497641453
ZC3HAV1	1.02013799587624	AHNAK2	1.26312364823923
PDE11A	1.02101876812181	AICDA	1.90522835783926
ZNF658	1.02108280836446	AIFM3	1.19707232007224
RP11-181E10.3	1.02145207033715	AK8	1.06618445108503
SULF1	1.02171152545647	AKR1C1	1.55027762140066
IL34	1.02204253619537	AKR1C2	1.32475654010925
BMS1P10	1.02338347916336	AKR1C3	1.079583904037
RP11-7F17.1	1.0235789216775	ALOX5	1.58235148578748
ETV5	1.0237607125337	ALOX5AP	2.64943006754702
RNF32	1.02414631165113	ALOXE3	2.2510718596885

PABPC1L	1.02492148312894	ALS2CL	1.25346180113923
SPRED3	1.02502818781452	AMDHD1	1.41236126569185
RP11-166O4.5	1.02519993446637	ANGPTL4	1.09326055136812
SLC16A4	1.02591370913016	ANK2	2.02945019297479
DHRS4-AS1	1.02707138966756	ANKRD1	1.62445140993393
EDA2R	1.02772575228254	ANKRD20A5P	1.67278824150185
RP4-740C4.6	1.02792932778768	ANO9	1.4819829771699
HES6	1.02836393362897	ANXA8L1	1.34176909986088
CEBPB	1.02844716629568	ANXA8L2	1.17200980496933
FAS	1.02866312465589	AP000330.8	1.19618819121739
ZNF600	1.02921659438394	AP001258.4	1.09183019726058
RP11-166O4.6	1.02933415197359	APOBEC3G	1.19190053326621
FAM21C	1.02941800908614	APOL3	1.85520773989058
HEXB	1.02982972867853	APOL6	1.49417493665059
RETSAT	1.03001396702983	ARHGEF2	1.38724618273936
GBP1	1.03002119850481	ARHGEF37	2.24683803813284
TFAP2E	1.03079232572765	ARRDC4	1.37082391793086
RP11-46C24.7	1.03172231596233	ARSA	1.05806912554099
NINJ1	1.03248985653567	ASAH1	1.46984224792915
FZD8	1.03250184909726	ASNS	1.72556966923426
HOXB-AS1	1.03267074695566	ASS1	1.08084599386475
BRI3P1	1.0349384256008	ATF3	2.26272877352831
ZDHHC1	1.03566175026888	ATP1A1OS	1.07825766234968
TUBA8	1.03611753741012	ATP6V0A1	1.05625617135127
RP11-288G3.4	1.03697759902844	ATP8B1	1.1404974009089
AC135048.13	1.0374587298776	B2M	1.40032560741944
VPS13C	1.03757147080206	BATF2	1.64778161800194
AFF3	1.03779276377884	BMS1P10	1.02338347916336
HMOX1	1.0387067154301	BRI3	1.20389819111405
MYO1D	1.03882693286216	BRI3P1	1.0349384256008
TNFRSF10D	1.03884173892836	BSN	1.06634250998848
TRIM21	1.03888178831098	BTBD19	1.71257234534651
KLHDC9	1.04039377227842	BTC	1.59894742371972
NPTXR	1.04128903794663	BTG1	1.14835740062087
RP11-227J5.3	1.04382720147279	BTG2	1.51032078741087
SDCBPP2	1.04416597273452	C10orf11	1.31617453855123
SPP1	1.04473028763843	C10orf55	1.34437991001529
SNTB1	1.04511739394068	C14orf79	1.2608445046627
RP5-1148A21.3	1.04637836142152	C15orf48	1.84868533390059
PTGFR	1.04666307157735	C15orf65	1.37397451789271
RP11-49I11.1	1.0469937145582	C17orf103	1.09774780025774
STEAP2	1.04702342162068	C19orf66	1.35586761809029
RP11-21L23.4	1.04710313668583	C1orf226	1.67610588263144
ITGA1	1.04738959035913	C1orf228	1.41743223614279
H6PD	1.04863531547775	C1orf54	1.46181854047965
TMEM52B	1.05030131810337	C1orf56	1.09175381867722
TPRG1L	1.05040445171321	C1orf85	1.28194921093349
MBP	1.05310914832238	C1QTNF1	2.00162552822428
LRRC49	1.05332642100576	C1QTNF1-AS1	1.87441333857102
FAM179B	1.05549498965436	C1R	1.74451387550333

Gene	Value	Gene	Value
TAB3	1.05558089871772	C1S	2.88982612493359
CFL1P1	1.0561680385139	C21orf67	1.42378135810671
ATP6V0A1	1.05625617135127	C2orf81	1.48252951335324
TMEM242	1.05664984387651	C4BPB	1.39480234245404
SWT1	1.056671337122	C5orf51	1.07723057238192
HTR1D	1.05726011083163	C6orf1	1.40641978829666
RP11-662I13.2	1.05781217698702	C7orf63	1.07449434067542
ARSA	1.05806912554099	C8orf34	1.27126073197719
SYT1	1.05823647068164	C9orf72	1.06437815980355
SGK3	1.0582519353189	CACNA2D4	1.91143956525814
RAP2C-AS1	1.05893148760224	CALB2	1.13057453606141
LSMEM1	1.0595373299896	CALCOCO1	1.17891462810709
XKR3	1.0601697264976	CAMK2D	1.06733721841074
HIST1H4H	1.06262807386377	CAPS	1.11045275070293
STAT5A	1.06320227684441	CARD16	1.19529491274281
RP11-77H9.2	1.0633020122538	CARF	1.20088591269083
IDH1	1.06373711667751	CASP1	1.20498345721132
GGACT	1.0638790569173	CASP4	1.16868081144624
WHAMMP2	1.0641319767607	CATSPER2P1	1.14149997656904
C9orf72	1.06437815980355	CATSPERG	1.09944918765075
RP11-91K9.1	1.06438069970389	CBS	1.6738423413287
ZMAT1	1.06475052192097	CCDC122	1.60589472092142
FCER1G	1.06501345234001	CCDC53	1.09107708953206
AK8	1.06618445108503	CCDC62	1.33808724857411
BSN	1.06634250998848	CCDC69	1.55492321283003
GCNT4	1.0666612569001	CCL20	1.39042614457625
NANOS1	1.06690461576898	CCL5	1.41827006493955
CAMK2D	1.06733721841074	CCPG1	1.21407662962807
PKP2	1.06737108534123	CCRL2	2.51924217086526
HSD17B7P2	1.06739112162759	CD22	1.69602568539678
ITIH5	1.06856977813402	CD55	1.08708889996243
ZP3	1.06883096797119	CD69	1.54805972702016
MUC13	1.06966814674363	CDH13	1.0760170793398
KLHL31	1.0698497360459	CDKN1A	1.68879758261723
SP100	1.07221001071691	CDKN1C	2.00733959113659
RBM43	1.07421423411539	CEBPB	1.02844716629568
C7orf63	1.07449434067542	CFB	2.02112050276618
PKD1L2	1.07530575918251	CFL1P1	1.0561680385139
CLIP3	1.07590268293133	CHAC1	2.21275014579665
CDH13	1.0760170793398	CHST2	1.23887049944741
RP11-38L15.3	1.07646446134739	CLDN1	1.55625053010183
DYNAP	1.07703146700828	CLEC2D	2.19914698328534
C5orf51	1.07723057238192	CLEC4E	1.98280466342321
RP11-1398P2.1	1.07779829029524	CLGN	2.25607815753398
RP11-545I5.3	1.07780464356894	CLIP2	1.77521834528032
ATP1A1OS	1.07825766234968	CLIP3	1.07590268293133
SHISA4	1.078571253177	CLIP4	1.10768919689329
RAG1	1.0786378854483	CLTCL1	1.36242980371657
NCOA7	1.07926580431786	CMPK2	3.25713634377298
IGFN1	1.07951079608393	CNTNAP1	1.49445441637225

Gene	Value	Gene	Value
AKR1C3	1.079583904037	COL13A1	1.1028004968394
HCFC1R1	1.07972618260333	COL17A1	1.00174846380515
WDR19	1.07998576467981	COLGALT2	1.45648050143511
SLC8A1	1.07998635004338	CPED1	1.82922444255622
LINC00944	1.08011575892381	CPNE7	1.45420640326469
ASS1	1.08084599386475	CRB2	1.19961508429274
PLBD2	1.08108454379818	CREBRF	1.64490399515525
VAMP2	1.08139353683743	CRYAB	1.3571496962704
TMEM67	1.08140424166677	CRYM	2.65381009811518
CYP4F11	1.0814590566505	CSF2	1.38439201871015
RP11-558F24.4	1.08313168219173	CST7	4.23304613697369
LRRC37A15P	1.08450054864156	CSTB	1.12227409850012
ENO3	1.08451286572473	CTD-2035E11.3	1.17007592320388
FAT3	1.08473195416817	CTD-2196E14.4	1.10484259790815
ACSS2	1.08481109209208	CTD-2260A17.1	1.08517300165175
CTD-2260A17.1	1.08517300165175	CTD-2263F21.1	1.22197284358393
IL11RA	1.08544245054525	CTD-2521M24.9	1.20924327443194
RP3-510D11.2	1.08557736699511	CTD-3018O17.3	1.20391976480474
RHBDF1P1	1.08598769990676	CTD-3065J16.9	1.46346903750494
STX11	1.08649537228735	CTD-3131K8.2	1.25272216703987
CD55	1.08708889996243	CTGF	1.10192946389516
RP11-63P12.6	1.0877571285746	CTH	1.72954609648694
KCTD11	1.08779459500966	CTNS	1.45752439810988
PPP3CC	1.08822675707958	CTSD	1.55627822975634
FNIP2	1.08891909962167	CTSO	1.78178301657741
SCPEP1	1.09005522162706	CTSS	1.66211565935225
FAM21D	1.09081576518124	CXCL10	1.86266769838137
TAPBPL	1.09106338582248	CXCL11	1.96166196777404
CCDC53	1.09107708953206	CXCL16	1.6230866982302
C1orf56	1.09175381867722	CXCL2	1.98642131276319
AP001258.4	1.09183019726058	CXCL3	1.52292292985654
LIMCH1	1.09227662283236	CXCL5	1.49703662847563
TLR3	1.09234942438504	CXCL8/IL8	1.64559812305461
AC015933.2	1.09254470696512	CYFIP2	1.28710644953827
ANGPTL4	1.09326055136812	CYP4F11	1.0814590566505
STEAP1	1.09400266491591	CYP4F35P	1.15567052321818
ZNF641	1.094903322488	CYP4V2	1.98086818467713
FAM214A	1.09606848234828	CYSTM1	1.91058050898735
C17orf103	1.09774780025774	DDIT3	2.54750854436621
RP3-395M20.8	1.09930342322806	DDO	1.16975178792936
CATSPERG	1.09944918765075	DDX58	2.40046281634775
HLA-C	1.09970048375059	DDX60	2.33980620670998
PIK3R6	1.10087645702983	DDX60L	1.87825435165021
RP11-690G19.3	1.10129178231958	DENND6B	1.45583219675056
CTGF	1.10192946389516	DHRS4-AS1	1.02707138966756
SPATA25	1.10276592065639	DHX58	2.18811666945063
COL13A1	1.1028004968394	DLGAP1-AS2	1.79754622723753
GCH1	1.10309707426528	DNAH17	1.88080132781582
POLR3GL	1.10342113864864	DNAH7	1.30163578117456
MCOLN1	1.10379194958086	DNASE2	1.28574194974116

Gene	Value	Gene	Value
USP41	1.10438917949047	DNHD1	1.0121786991557
CTD-2196E14.4	1.10484259790815	DOCK11	1.89589614483405
MPP7	1.10520536606954	DOCK4	1.32170146739854
PIGZ	1.1056210604382	DPYSL2	1.21954543002655
CLIP4	1.10768919689329	DRP2	1.41018792153619
KB-1507C5.2	1.10869714296043	DTX3L	1.00716247017992
KCNQ4	1.10907929368837	DTX4	1.86474029881333
OSTM1	1.10999115182207	DUSP4	1.57250009505546
MANSC1	1.11044254641395	DUSP6	1.16422824784841
CAPS	1.11045275070293	DYNAP	1.07703146700828
SFTA1P	1.1106784751687	EBI3	1.76003433320266
RP11-540A21.2	1.11081834657618	EDA2R	1.02772575228254
WDR54	1.11180872643702	EFTUD1	1.15837810039345
RP11-367F23.2	1.11380030084982	EIF2AK2	1.33328231890773
NBR2	1.11459169406195	EML5	1.57892544414755
ZMAT3	1.11555656538784	ENO2	1.11655019246709
ITGAX	1.11632639562771	ENO3	1.08451286572473
ENO2	1.11655019246709	ENTPD5	1.16854947684101
TSC22D3	1.11682763398538	EPB41L1	1.31392175965825
IDUA	1.11707986921652	EPG5	1.30366044949947
RHPN1	1.11764127363643	EPHB1	1.17948358111908
FYN	1.11800844077292	EPN2	1.44727761959367
GLI1	1.11935048552137	ERICH2	1.15392300371945
TRAF5	1.11978203674865	ERN1	1.00273300365534
IFI27L2	1.12178089714761	ETHE1	1.24886733145573
CSTB	1.12227409850012	ETV5	1.0237607125337
ZNF165	1.12280505003137	ETV7	1.74499447934318
ICAM1	1.1229718299245	EVI2B	1.77587127972478
RIOK3	1.12333854817786	EXD3	1.17439414809647
FBXL2	1.123591568454	FAM129A	1.00050382908327
MAL2	1.12410095751182	FAM134B	1.24545604036275
SERTAD4	1.12449852255689	FAM177B	1.65308597333712
RP11-350J20.12	1.12658923334186	FAM179B	1.05549498965436
PPP4R4	1.12880603381052	FAM196B	1.69166307588974
RP11-326K13.4	1.12903594475095	FAM214A	1.09606848234828
ITGA2	1.1295128207201	FAM21C	1.02941800908614
FBN1	1.13052177722467	FAM21D	1.09081576518124
CALB2	1.13057453606141	FAM46A	1.14531886080031
SQRDL	1.13176697638868	FAM66C	1.4871385659702
SEMA4A	1.13180204723393	FAM83G	3.47461962537718
TM7SF2	1.13542649404049	FAM84B	1.23008850178387
ITK	1.13699368982749	FAS	1.02866312465589
NR1D1	1.13760798286048	FAT3	1.08473195416817
FHIT	1.13799216724251	FBN1	1.13052177722467
RP11-221N13.3	1.13936233586348	FBXL2	1.123591568454
ZFP3	1.14030168438107	FBXO39	3.73276769695771
ATP8B1	1.1404974009089	FBXO6	1.50404419634936
CATSPER2P1	1.14149997656904	FCER1G	1.06501345234001
PMAIP1	1.14186799793754	FGF18	1.74578073087503
PSTPIP2	1.14202546733791	FHIT	1.13799216724251

RP11-353B9.1	1.14442383074401	FLRT1	2.55772265168186
FAM46A	1.14531886080031	FNIP2	1.08891909962167
RP13-941N14.1	1.14570080348237	FOLR3	1.22615735061175
KLHDC7A	1.14798474144998	FRY	1.64104942068387
BTG1	1.14835740062087	FTH1	1.29198504562995
RTN4R	1.15184158592982	FTH1P1	1.44741945576255
FTH1P15	1.15250161271945	FTH1P10	1.24370018426485
PTPRU	1.15349303642797	FTH1P11	1.38786021237305
ERICH2	1.15392300371945	FTH1P15	1.15250161271945
KIF6	1.15395429836788	FTH1P16	1.29710312683566
XDH	1.15521541567978	FTH1P2	1.36129038594388
CYP4F35P	1.15567052321818	FTH1P20	1.60226023917906
RP11-263K19.6	1.15616246949753	FTH1P5	1.45834736861469
EFTUD1	1.15837810039345	FTH1P7	1.26579416312132
RP11-6J24.6	1.15928998049928	FTH1P8	1.18368433481167
DUSP6	1.16422824784841	FUCA1	1.68999079747455
SIK1	1.16504601481206	FUT1	2.23790647319247
PPAPDC3	1.16644955140164	FYN	1.11800844077292
PHLDA1	1.16649989107671	FZD8	1.03250184909726
NPL	1.16712250567283	G0S2	1.70851931043374
ENTPD5	1.16854947684101	G6PD	1.21824992051066
CASP4	1.16868081144624	GAA	1.30141785924109
N4BP2L1	1.16884802900267	GAD1	1.01461494528151
DDO	1.16975178792936	GADD45A	2.1060623013867
CTD-2035E11.3	1.17007592320388	GALNT12	1.29265517587353
PCAT1	1.17107404957138	GAS6-AS2	1.31341952347016
PARD3B	1.17185307950879	GBA	1.46012393104341
ANXA8L2	1.17200980496933	GBP1	1.03002119850481
SLC31A2	1.17291405617566	GBP4	2.92802818751107
EXD3	1.17439414809647	GCH1	1.10309707426528
HLA-H	1.17498507355425	GCNT4	1.0666612569001
ZNF425	1.17501605851875	GDF15	3.81694975103574
RP11-383H13.1	1.17606564419324	GDPD5	1.48395534603591
RP11-379B18.5	1.17625763591952	GGACT	1.0638790569173
KIAA1407	1.17674202036841	GGT8P	1.20039447583825
AC074286.1	1.17781806587397	GLI1	1.11935048552137
SETDB2	1.17808433383393	GNPDA1	1.25840106847223
MIF4GD	1.178145483456	GOLGA7B	2.16693348278606
CALCOCO1	1.17891462810709	GPR115	1.18156811572779
EPHB1	1.17948358111908	GPR124	2.07980220666846
HINT3	1.18024631053459	GPR37L1	1.38867604544028
RP11-277L2.3	1.18084890496409	GPSM3	2.13681590581323
GPR115	1.18156811572779	GREB1	1.44966946455241
TMEM47	1.182089558302	GRN	1.71785782803659
SAMD12	1.18314997339821	GS1-600G8.5	2.67315415478399
STAP2	1.18366035481947	GSAP	1.29284020671101
FTH1P8	1.18368433481167	H1F0	1.88252096463356
RP11-554I8.2	1.18910548471474	H6PD	1.04863531547775
AC006262.5	1.18953411827857	HCFC1R1	1.07972618260333
HLA-L	1.19122015088055	HCP5	1.76258367257603

Gene	Value	Gene	Value
APOBEC3G	1.19190053326621	HELZ2	1.71134577373914
CARD16	1.19529491274281	HERC5	1.8951013115438
AP000330.8	1.19618819121739	HERC6	1.80707176802674
AIFM3	1.19707232007224	HES6	1.02836393362897
WNT4	1.19750385242486	HEXB	1.02982972867853
HPS1	1.19754960661354	HID1	1.36689707615444
HRK	1.19812328380513	HINT3	1.18024631053459
PPP1R14C	1.19867321085182	HIST1H2AC	2.7931237990367
CRB2	1.19961508429274	HIST1H2BD	1.95771504760684
SEMA3C	1.19997574326388	HIST1H2BJ	1.39794816231561
GGT8P	1.20039447583825	HIST1H2BK	2.05011989058017
CARF	1.20088591269083	HIST1H3E	1.42367793763168
LBX2	1.20131060734051	HIST1H4H	1.06262807386377
TINAGL1	1.20172958275945	HIST2H2BE	1.27082022126544
WLS	1.20215178392488	HIST2H4A	1.23598336005135
NPIPP1	1.2021889519891	HLA-A	1.22241447286166
RP11-420G6.4	1.20278426885936	HLA-B	1.44540378950514
BRI3	1.20389819111405	HLA-C	1.09970048375059
CTD-3018O17.3	1.20391976480474	HLA-F	2.9225493761457
SCARF1	1.20420584724964	HLA-G	1.26820045025205
CASP1	1.20498345721132	HLA-H	1.17498507355425
WDR31	1.20603688100216	HLA-L	1.19122015088055
RP11-50B3.4	1.20674339993191	HLA-V	1.01258971000629
VPS8	1.20707336268267	HMGA1	1.36448390338403
CTD-2521M24.9	1.20924327443194	HMGCL	1.39477847178442
ACYP2	1.20926936228408	HMOX1	1.0387067154301
RP11-359E10.1	1.21144046285208	HOXB-AS1	1.03267074695566
TXNIP	1.2137964388319	HPS1	1.19754960661354
CCPG1	1.21407662962807	HRK	1.19812328380513
PRIMA1	1.21625703365411	HS1BP3	1.62151250318688
G6PD	1.21824992051066	HSD11B1	1.34816340267032
DPYSL2	1.21954543002655	HSD17B7P2	1.06739112162759
PPP1R3B	1.22103677503694	HSH2D	2.0800627853191
CTD-2263F21.1	1.22197284358393	HTR1D	1.05726011083163
HLA-A	1.22241447286166	ICAM1	1.1229718299245
SDCBP	1.22242572404208	IDH1	1.06373711667751
IDNK	1.22463039533699	IDNK	1.22463039533699
AC104695.3	1.22507177956087	IDUA	1.11707986921652
FOLR3	1.22615735061175	IFI16	1.46786669488773
SLC17A5	1.22761781163852	IFI27	3.59131698080898
WHAMMP3	1.22768677721009	IFI27L2	1.12178089714761
FAM84B	1.23008850178387	IFI35	1.78586784867623
SMIM14	1.2321775984016	IFI44	2.17439310742694
OGDHL	1.23251809307452	IFI44L	3.0722023795419
PLLP	1.23350230962541	IFI6	2.46649977441892
PIK3AP1	1.23359141006439	IFIH1	2.68544624119787
MIR146A	1.233596210547	IFIT1	2.19005715842666
RP11-774O3.3	1.2337334280905	IFIT2	2.50218635662057
ABHD4	1.23478785363389	IFIT3	2.49956210290129
RP11-806O11.1	1.23568737102523	IFIT5	1.27670236539861

Gene	Value	Gene	Value
HIST2H4A	1.23598336005135	IFITM1	1.82525443044207
LARP6	1.23673253788157	IFITM3	1.32950143480476
KRT34	1.23869634870556	IGDCC4	2.15954155572912
CHST2	1.23887049944741	IGFN1	1.07951079608393
WNT5A	1.24131931340251	IL11RA	1.08544245054525
PLAU	1.24280843241905	IL18R1	1.69669060807191
FTH1P10	1.24370018426485	IL1RN	2.24225434688014
SLIT2	1.2449183969413	IL20RB	1.59427034948152
SLC36A1	1.2451861076954	IL21R	2.15914096683444
FAM134B	1.24545604036275	IL34	1.02204253619537
ST6GALNAC5	1.24577252611381	IL36B	2.75072916727668
WDR78	1.24753180031733	IL36G	1.7456079080231
ETHE1	1.24886733145573	IL4I1	1.5110062225016
SIAE	1.24969809068348	IL6	2.20355922282853
MST1R	1.2519365261201	IL7R	2.40103432295096
PLD1	1.25211742794588	INHBE	2.46358954973324
CTD-3131K8.2	1.25272216703987	IQCD	2.03800781909754
ALS2CL	1.25346180113923	IRF5	1.29793655878401
JHDM1D-AS1	1.25491688364862	IRF6	1.32728214509318
KIAA1107	1.25496480185487	IRF7	2.69612256476552
ACSS1	1.25641293388503	IRF9	1.38972032849734
RPL29P19	1.25748151507089	ISG15	2.42516778610244
TOM1	1.25833945089763	ISG20	2.90485179128354
GNPDA1	1.25840106847223	ITGA1	1.04738959035913
RP5-1103G7.4	1.2594668864267	ITGA2	1.1295128207201
TMCC2	1.25983246671357	ITGAX	1.11632639562771
STC1	1.26006265605948	ITGB2	3.3055176560441
RRM2B	1.26025828785602	ITGB2-AS1	3.20685153729175
C14orf79	1.2608445046627	ITIH5	1.06856977813402
AHNAK2	1.26312364823923	ITK	1.13699368982749
FTH1P7	1.26579416312132	JDP2	1.58083500034766
HLA-G	1.26820045025205	JHDM1D-AS1	1.25491688364862
P2RX6P	1.27000467101845	JPH2	1.97988820988371
AC019172.2	1.27049307982781	JUP	1.90764516037685
HIST2H2BE	1.27082022126544	KB-1460A1.5	1.80579631362531
ZMIZ1-AS1	1.27093420171083	KB-1507C5.2	1.10869714296043
C8orf34	1.27126073197719	KBTBD11	1.98181042331209
LINC00087	1.27398647957422	KCNK3	1.00065421717695
RP11-49I11.2	1.27592157971215	KCNQ4	1.10907929368837
XPA	1.2761414010949	KCP	1.71374222626367
IFIT5	1.27670236539861	KCTD11	1.08779459500966
SLC9A2	1.27886294629718	KDM7A	1.36755664321445
TRAF3IP2-AS1	1.27931724026763	KIAA0319	1.64670234107939
AC104135.4	1.27965561488457	KIAA1107	1.25496480185487
RNF187	1.27984912049464	KIAA1407	1.17674202036841
PLEKHA4	1.28001768827724	KIF6	1.15395429836788
TRIM25	1.28191341981459	KLF4	2.27447287827066
C1orf85	1.28194921093349	KLHDC7A	1.14798474144998
PARP12	1.28422142529042	KLHDC9	1.04039377227842
UPP1	1.28431907268179	KLHL24	1.8875793982927

Gene	Value	Gene	Value
DNASE2	1.28574194974116	KLHL31	1.0698497360459
PRLR	1.28618881879449	KRT34	1.23869634870556
CYFIP2	1.28710644953827	KRT7	2.09480184064817
RP11-50E11.3	1.2871961987459	KRT81	1.87868944102663
SEC31B	1.28784089744608	KYNU	1.40350887681271
FTH1	1.29198504562995	L1CAM	2.47127429736538
GALNT12	1.29265517587353	LACC1	1.59343181179381
GSAP	1.29284020671101	LAMA1	1.43176546043601
P2RX7	1.2970065454395	LARP6	1.23673253788157
FTH1P16	1.29710312683566	LBH	1.50665357494338
IRF5	1.29793655878401	LBX2	1.20131060734051
WDR63	1.29940466680182	LCP1	2.72400955472557
MMP15	1.30140224155517	LGALS9	1.50222383621064
GAA	1.30141785924109	LIMCH1	1.09227662283236
DNAH7	1.30163578117456	LINC00087	1.27398647957422
RP11-551L14.4	1.30287304774578	LINC00504	1.40741411670262
SLC37A1	1.3035894222769	LINC00520	1.56483130978955
EPG5	1.30366044949947	LINC00862	1.37656310565896
ABCC3	1.30484418587795	LINC00886	1.46803857406689
PPAP2B	1.30733540258546	LINC00944	1.08011575892381
TCEAL4	1.30955108950071	LINC01021	1.38514210326697
RP11-796G6.2	1.31043398289841	LL21NC02-1C16	1.6524843680838
RP11-1094H24.4	1.31192877952737	LMLN	1.00706443217257
AGA	1.31202043762431	LRRC37A15P	1.08450054864156
SNAI2	1.3127255899677	LRRC49	1.05332642100576
PLA2G16	1.3131248259042	LSMEM1	1.0595373299896
GAS6-AS2	1.31341952347016	LTF	1.80630758322289
EPB41L1	1.31392175965825	LURAP1L	2.20000574511242
C10orf11	1.31617453855123	LY6E	1.6594976033437
RP11-589P10.5	1.31723328289719	LY96	2.45144527200719
DOCK4	1.32170146739854	LYRM9	1.39379494217065
UAP1L1	1.3232697424833	MAFF	1.63199247962318
AKR1C2	1.32475654010925	MAL2	1.12410095751182
MROH8	1.32685990996683	MANBA	1.39904595285751
ST8SIA1	1.32711613686231	MANSC1	1.11044254641395
IRF6	1.32728214509318	MAP2	1.36724645047657
RP11-166B2.1	1.32764061497042	MARCH2	1.46319642721146
IFITM3	1.32950143480476	MBP	1.05310914832238
EIF2AK2	1.33328231890773	MCOLN1	1.10379194958086
PIWIL4	1.33385881251166	MCOLN3	2.03474363199805
TMEM139	1.33406296048599	MEGF6	2.03137622322269
CCDC62	1.33808724857411	MIF4GD	1.178145483456
NLRC5	1.33912269393547	MIPEPP3	1.40460052461502
ANXA8L1	1.34176909986088	MIR146A	1.233596210547
PREX1	1.3440695085962	MIR3189	1.34860157794563
C10orf55	1.34437991001529	MME	1.80946410052082
ORAI3	1.34585105078917	MMP15	1.30140224155517
HSD11B1	1.34816340267032	MORN4	2.53414123870274
MIR3189	1.34860157794563	MPP7	1.10520536606954
RP11-492E3.2	1.35039448293863	MR1	1.517229367801

Gene	Value	Gene	Value
RP11-89K10.1	1.35121514030584	MROH8	1.32685990996683
SPEF2	1.35125129562466	MSC	1.46484601891281
SLC46A3	1.35361813906283	MST1	1.86543398154562
SYNGR3	1.35472690903002	MST1R	1.2519365261201
C19orf66	1.35586761809029	MT-TD	1.018873724965867
CRYAB	1.3571496962704	MUC13	1.06966814674363
ZNF23	1.35980149212012	MX1	2.73787430340931
FTH1P2	1.36129038594388	MX2	3.76502873946905
RP11-705C15.3	1.36188593924585	MYO1D	1.03882693286216
CLTCL1	1.36242980371657	N4BP2L1	1.16884802900267
HMGA1	1.36448390338403	N4BP3	2.81546348171798
HID1	1.36689707615444	NANOS1	1.06690461576898
MAP2	1.36724645047657	NBR2	1.11459169406195
KDM7A	1.36755664321445	NCF2	1.83878701201906
ARRDC4	1.37082391793086	NCOA7	1.07926580431786
OSER1-AS1	1.37243188018044	NCR3LG1	1.54119110793154
C15orf65	1.37397451789271	NDUFA4L2	1.82594213190998
AC097662.2	1.37549503095335	NEU1	1.69779098178573
ABCA3	1.37552443240479	NEURL3	1.79187275942475
TTLL6	1.37650796170436	NINJ1	1.03248985653567
LINC00862	1.37656310565896	NLRC5	1.33912269393547
RP11-458F8.4	1.37673297624948	NOV	2.14301002628458
TMEM229B	1.37893593243201	NPC2	1.63319246380814
TMIE	1.38030340719988	NPIPP1	1.2021889519891
SORCS2	1.3804960698029	NPL	1.16712250567283
PSAT1	1.38237365480818	NPTXR	1.04128903794663
TFEC	1.38326628261376	NR1D1	1.13760798286048
CSF2	1.38439201871015	NR3C2	1.73832165235334
AC005077.12	1.38459967024167	NRCAM	1.45459636436011
LINC01021	1.38514210326697	NTM	2.33116367738562
TRAPPC6A	1.3856521585271	NTNG2	1.44534276833682
ARHGEF2	1.38724618273936	NUAK2	1.49708398700562
FTH1P11	1.38786021237305	NUDT7	1.60284593709497
PODXL	1.38853760512341	NUPR1	2.77134440215687
GPR37L1	1.38867604544028	NXPH4	2.14395619808565
SOCS2-AS1	1.38970930289199	OAS1	2.84780226573248
IRF9	1.38972032849734	OAS2	2.63592736318857
CCL20	1.39042614457625	OAS3	1.76332001070187
TMEM173	1.39056287286301	OASL	3.33334928982827
SAMD9	1.39061162714035	ODF3B	1.01190614071574
RP11-356J5.12	1.39092730400963	OGDHL	1.23251809307452
RP13-143G15.4	1.39162636288249	ORAI3	1.34585105078917
RP11-334C17.5	1.39308907329939	OSCP1	1.71845692346258
LYRM9	1.39379494217065	OSER1-AS1	1.37243188018044
HMGCL	1.39477847178442	OSTM1	1.10999115182207
C4BPB	1.39480234245404	P2RX4	1.42470632965901
HIST1H2BJ	1.39794816231561	P2RX6P	1.27000467101845
SLC6A9	1.39849458214385	P2RX7	1.2970065454395
MANBA	1.39904595285751	PABPC1L	1.02492148312894
B2M	1.40032560741944	PAPPA2	2.14690206143246

Gene	Value	Gene	Value
PHACTR1	1.40218503523581	PARD3B	1.17185307950879
YPEL1	1.4022251714447	PARP12	1.28422142529042
KYNU	1.40350887681271	PARP14	1.49060511486142
MIPEPP3	1.40460052461502	PARP9	1.59769823108178
RP11-612B6.2	1.40619254054844	PATL2	2.16937370608213
C6orf1	1.40641978829666	PAX8-AS1	2.62101405878717
LINC00504	1.40741411670262	PAXIP1-AS2	1.43804889680553
ZFP90	1.40756405837094	PCAT1	1.17107404957138
DRP2	1.41018792153619	PCDH1	1.45978370982489
TPCN1	1.41159431879647	PCK2	1.78801505398269
AMDHD1	1.41236126569185	PDCD1LG2	1.82381408505664
RP1-239B22.5	1.41258835286138	PDE11A	1.02101876812181
TOB2P1	1.41282214828833	PDZK1IP1	1.42939298907232
C1orf228	1.41743223614279	PEX1	1.00928940554534
RAB27B	1.41761616979073	PFKFB2	1.00920265660821
CCL5	1.41827006493955	PGPEP1	1.70161258618228
TMEM200C	1.42048075866916	PHACTR1	1.40218503523581
WBSCR27	1.42212478619017	PHLDA1	1.16649989107671
HIST1H3E	1.42367793763168	PIGZ	1.1056210604382
C21orf67	1.42378135810671	PIK3AP1	1.23359141006439
P2RX4	1.42470632965901	PIK3IP1	1.71024436782226
PDZK1IP1	1.42939298907232	PIK3R6	1.10087645702983
LAMA1	1.43176546043601	PIP5KL1	1.5231777934363
PAXIP1-AS2	1.43804889680553	PIWIL4	1.33385881251166
RP1-140K8.5	1.44359555916713	PKD1L2	1.07530575918251
VSTM1	1.44456868639835	PKP2	1.06737108534123
NTNG2	1.44534276833682	PLA2G16	1.3131248259042
HLA-B	1.44540378950514	PLA2G4C	2.52893303060006
PVRL4	1.44581687472744	PLAT	2.41735994643774
EPN2	1.44727761959367	PLAU	1.24280843241905
FTH1P1	1.44741945576255	PLBD2	1.08108454379818
GREB1	1.44966946455241	PLCG2	1.80371383562694
RP11-61L23.2	1.45240766863889	PLD1	1.25211742794588
CPNE7	1.45420640326469	PLEKHA4	1.28001768827724
NRCAM	1.45459636436011	PLEKHG1	1.57307659934321
DENND6B	1.45583219675056	PLK3	1.72646082712759
COLGALT2	1.45648050143511	PLLP	1.23350230962541
CTNS	1.45752439810988	PLSCR1	1.74649178244896
TYMP	1.45761489080338	PLTP	1.00115578827035
FTH1P5	1.45834736861469	PLXNA2	2.06367725180944
RHEBL1	1.45973807406176	PMAIP1	1.14186799793754
PCDH1	1.45978370982489	PNMA2	2.10863513524889
GBA	1.46012393104341	PODXL	1.38853760512341
C1orf54	1.46181854047965	POLR3GL	1.10342113864864
MARCH2	1.46319642721146	POU2F2	1.01566355191543
CTD-3065J16.9	1.46346903750494	PPAP2B	1.30733540258546
MSC	1.46484601891281	PPAPDC3	1.16644955140164
IFI16	1.46786669488773	PPARGC1A	1.77742521182603
LINC00886	1.46803857406689	PPP1R14C	1.19867321085182
WNT10A	1.46837741825611	PPP1R15A	1.94145311419807

ASAH1	1.46984224792915	PPP1R3B	1.22103677503694
SPINK1	1.47069240522206	PPP3CC	1.08822675707958
ADHFE1	1.47089772774052	PPP4R4	1.12880603381052
AGTRAP	1.47762453644249	PQLC3	1.0087790523722
ROBO3	1.48039274730284	PREX1	1.3440695085962
RPS6KA2	1.48115835858569	PRIMA1	1.21625703365411
ANO9	1.4819829771699	PRLR	1.28618881879449
C2orf81	1.48252951335324	PSAT1	1.38237365480818
GDPD5	1.48395534603591	PSMB9	1.52961364676082
TAPSAR1	1.48399865969296	PSORS1C1	1.61783395378769
RHOT1P1	1.48504257221046	PSTPIP2	1.14202546733791
TP53INP1	1.48539627123512	PTGFR	1.04666307157735
RARRES3	1.4861367346564	PTK6	1.63997890553308
RP11-640M9.1	1.48625240757972	PTPRN2	1.0063860306722
SLC2A3	1.48664217231728	PTPRU	1.15349303642797
FAM66C	1.4871385659702	PTX3	2.09562972075183
RP11-403I13.8	1.48941547084869	PVRL4	1.44581687472744
TAP1	1.49041906882535	RAB27B	1.41761616979073
PARP14	1.49060511486142	RAB3D	1.55610214816337
TMC6	1.49331429345862	RAG1	1.0786378854483
TNFSF4	1.49332268462765	RAP2C-AS1	1.05893148760224
APOL6	1.49417493665059	RARRES3	1.4861367346564
CNTNAP1	1.49445441637225	RASGEF1B	1.64971746659401
CXCL5	1.49703662847563	RASGRF1	2.24581798566592
NUAK2	1.49708398700562	RASGRP3	2.20274016009557
LGALS9	1.50222383621064	RBM43	1.07421423411539
FBXO6	1.50404419634936	RELN	1.74902809012248
LBH	1.50665357494338	RENBP	2.06540921625549
RILP	1.50957514079555	RETSAT	1.03001396702983
RRAGC	1.51029633802055	RHBDF1P1	1.08598769990676
BTG2	1.51032078741087	RHEBL1	1.45973807406176
RND3	1.51046426067427	RHOT1P1	1.48504257221046
IL4I1	1.5110062225016	RHPN1	1.11764127363643
MR1	1.517229367801	RILP	1.50957514079555
AC007246.3	1.51994021336256	RIOK3	1.12333854817786
RP11-284F21.9	1.52029798334989	RND3	1.51046426067427
SLC26A11	1.5211491088903	RNF144B	1.81167394432305
CXCL3	1.52292292985654	RNF187	1.27984912049464
PIP5KL1	1.5231777934363	RNF32	1.02414631165113
SLC22A15	1.52641835675296	ROBO3	1.48039274730284
ACCS	1.529583919021	ROBO4	1.60002396819334
PSMB9	1.52961364676082	RP11-1094H24.	1.31192877952737
TRIM14	1.53614490899108	RP11-125B21.2	1.87498629559274
NCR3LG1	1.54119110793154	RP11-134G8.7	1.00652880385992
CD69	1.54805972702016	RP11-134L10.1	1.7591796077356
AKR1C1	1.55027762140066	RP11-1398P2.1	1.07779829029524
CCDC69	1.55492321283003	RP11-166B2.1	1.32764061497042
RAB3D	1.55610214816337	RP11-166O4.5	1.02519993446637
CLDN1	1.55625053010183	RP11-166O4.6	1.02933415197359
CTSD	1.55627822975634	RP11-181E10.3	1.02145207033715

Gene	Value	Gene	Value
RP11-3L8.3	1.55682072900733	RP11-21L23.4	1.04710313668583
SLC48A1	1.55837381709084	RP11-221N13.3	1.13936233586348
RP11-298I3.4	1.56429874064784	RP11-227J5.3	1.04382720147279
ACP5	1.56446072638876	RP11-24F11.2	2.0518488942509
LINC00520	1.56483130978955	RP11-263K19.6	1.15616246949753
SEL1L3	1.56736228366595	RP11-26J3.1	1.94354044642412
DUSP4	1.57250009505546	RP11-277L2.3	1.18084890496409
PLEKHG1	1.57307659934321	RP11-284F21.9	1.52029798334989
SP110	1.57641439793815	RP11-288G3.4	1.03697759902844
EML5	1.57892544414755	RP11-298I3.4	1.56429874064784
JDP2	1.58083500034766	RP11-326G21.1	1.90325166991463
ALOX5	1.58235148578748	RP11-326K13.4	1.12903594475095
THBS3	1.58442738501969	RP11-334C17.5	1.39308907329939
TUBE1	1.58865830174128	RP11-350J20.1	1.12658923334186
RP1-249H1.4	1.59078055894415	RP11-353B9.1	1.14442383074401
LACC1	1.59343181179381	RP11-356J5.12	1.39092730400963
IL20RB	1.59427034948152	RP11-359E10.1	1.21144046285208
PARP9	1.59769823108178	RP11-367F23.2	1.11380030084982
BTC	1.59894742371972	RP11-379B18.5	1.17625763591952
ROBO4	1.60002396819334	RP11-383C5.4	1.02011541812085
FTH1P20	1.60226023917906	RP11-383H13.1	1.17606564419324
NUDT7	1.60284593709497	RP11-38L15.3	1.07646446134739
CCDC122	1.60589472092142	RP11-3L8.3	1.55682072900733
TNFRSF14	1.61010528800101	RP11-403I13.8	1.48941547084869
SGPP2	1.61220071824513	RP1-140K8.5	1.44359555916713
SMIM2-AS1	1.61406794506295	RP11-420G6.4	1.20278426885936
TSPAN18	1.61749907384927	RP11-458F8.4	1.37673297624948
PSORS1C1	1.61783395378769	RP11-459E5.1	2.03299606671504
HS1BP3	1.62151250318688	RP11-46C24.7	1.03172231596233
CXCL16	1.6230866982302	RP11-492E3.2	1.35039448293863
ANKRD1	1.62445140993393	RP11-49I11.1	1.0469937145582
SLC22A18	1.62839235910311	RP11-49I11.2	1.27592157971215
ZNF396	1.62868843318118	RP11-50B3.4	1.20674339993191
MAFF	1.63199247962318	RP11-50E11.3	1.2871961987459
NPC2	1.63319246380814	RP11-540A21.2	1.11081834657618
AC007566.10	1.6351200112413	RP11-545I5.3	1.07780464356894
PTK6	1.63997890553308	RP11-551L14.4	1.30287304774578
FRY	1.64104942068387	RP11-554I8.2	1.18910548471474
CREBRF	1.64490399515525	RP11-558F24.4	1.08313168219173
CXCL8/IL8	1.64559812305461	RP11-589P10.5	1.31723328289719
KIAA0319	1.64670234107939	RP11-612B6.2	1.40619254054844
SPRY4	1.64776938160739	RP11-61L23.2	1.45240766863889
BATF2	1.64778161800194	RP11-63P12.6	1.0877571285746
RASGEF1B	1.64971746659401	RP11-640M9.1	1.48625240757972
LL21NC02-1C16.	1.6524843680838	RP11-662I13.2	1.05781217698702
FAM177B	1.65308597333712	RP11-690G19.3	1.10129178231958
LY6E	1.6594976033437	RP11-6J24.6	1.15928998049928
CTSS	1.66211565935225	RP11-705C15.2	1.85025614193895
RTP4	1.67220345950211	RP11-705C15.3	1.36188593924585
ANKRD20A5P	1.67278824150185	RP11-774O3.3	1.2337334280905

Gene	Value	Gene	Value
CBS	1.6738423413287	RP11-77H9.2	1.0633020122538
WNK4	1.67445719358038	RP11-796G6.2	1.31043398289841
C1orf226	1.67610588263144	RP11-7F17.1	1.0235789216775
SGSH	1.67704217076768	RP11-806O11.1	1.23568737102523
WARS	1.67754582596937	RP11-818F20.5	2.00911044582093
RRAGD	1.67790086872694	RP11-89K10.1	1.35121514030584
RP3-326I13.1	1.68050832267253	RP11-91K9.1	1.06438069970389
SAMHD1	1.68592287618456	RP11-955H22.1	2.06391496904572
CDKN1A	1.68879758261723	RP1-239B22.5	1.41258835286138
FUCA1	1.68999079747455	RP1-249H1.4	1.59078055894415
FAM196B	1.69166307588974	RP13-143G15.3	1.98342982843429
CD22	1.69602568539678	RP13-143G15.4	1.39162636288249
IL18R1	1.69669060807191	RP13-941N14.1	1.14570080348237
NEU1	1.69779098178573	RP3-326I13.1	1.68050832267253
PGPEP1	1.70161258618228	RP3-395M20.8	1.09930342322806
G0S2	1.70851931043374	RP3-510D11.2	1.08557736699511
PIK3IP1	1.71024436782226	RP4-740C4.6	1.02792932778768
HELZ2	1.71134577373914	RP4-813F11.4	1.87370605577548
BTBD19	1.71257234534651	RP5-1103G7.4	1.2594668864267
KCP	1.71374222626367	RP5-1148A21.3	1.04637836142152
GRN	1.71785782803659	RP5-864K19.4	2.40054848064213
OSCP1	1.71845692346258	RPL29P19	1.25748151507089
SBF2-AS1	1.72025845455979	RPS6KA2	1.48115835858569
ASNS	1.72556966923426	RRAGC	1.51029633802055
PLK3	1.72646082712759	RRAGD	1.67790086872694
SP140	1.72924660506713	RRM2B	1.26025828785602
CTH	1.72954609648694	RSAD2	1.74604883371456
NR3C2	1.73832165235334	RTN4R	1.15184158592982
C1R	1.74451387550333	RTP4	1.67220345950211
ETV7	1.74499447934318	SAA1	2.33379542417038
IL36G	1.7456079080231	SAA2	1.98072979646251
FGF18	1.74578073087503	SAMD12	1.18314997339821
RSAD2	1.74604883371456	SAMD5	1.99193879679346
PLSCR1	1.74649178244896	SAMD9	1.39061162714035
RELN	1.74902809012248	SAMD9L	2.30413951897807
RP11-134L10.1	1.7591796077356	SAMHD1	1.68592287618456
EBI3	1.76003433320266	SBF2-AS1	1.72025845455979
HCP5	1.76258367257603	SCARF1	1.20420584724964
OAS3	1.76332001070187	SCG5	1.9258751658069
TRIM69	1.77283746604906	SCPEP1	1.09005522162706
CLIP2	1.77521834528032	SDCBP	1.22242572404208
EVI2B	1.77587127972478	SDCBPP2	1.04416597273452
PPARGC1A	1.77742521182603	SEC31B	1.28784089744608
TRANK1	1.77965561968146	SEL1L3	1.56736228366595
AGXT2	1.78088497641453	SEMA3C	1.19997574326388
CTSO	1.78178301657741	SEMA4A	1.13180204723393
IFI35	1.78586784867623	SERTAD4	1.12449852255689
PCK2	1.78801505398269	SERTAD4-AS1	1.822080070945
TNFAIP3	1.79132255121642	SETDB2	1.17808433383393
NEURL3	1.79187275942475	SFTA1P	1.1106784751687

Gene	Value	Gene	Value
DLGAP1-AS2	1.79754622723753	SGK3	1.0582519353189
PLCG2	1.80371383562694	SGPP2	1.61220071824513
KB-1460A1.5	1.80579631362531	SGSH	1.67704217076768
LTF	1.80630758322289	SHISA4	1.078571253177
HERC6	1.80707176802674	SHISA9	1.83716149916685
MME	1.80946410052082	SIAE	1.24969809068348
RNF144B	1.81167394432305	SIGLEC15	2.18671494076999
SERTAD4-AS1	1.822080070945	SIK1	1.16504601481206
PDCD1LG2	1.82381408505664	SLC10A5	1.00911654240335
IFITM1	1.82525443044207	SLC15A3	2.84566957298538
NDUFA4L2	1.82594213190998	SLC16A4	1.02591370913016
CPED1	1.82922444255622	SLC17A5	1.22761781163852
SHISA9	1.83716149916685	SLC22A15	1.52641835675296
UNC5B	1.83840606590664	SLC22A18	1.62839235910311
NCF2	1.83878701201906	SLC26A11	1.5211491088903
C15orf48	1.84868533390059	SLC2A3	1.48664217231728
RP11-705C15.2	1.85025614193895	SLC31A2	1.17291405617566
APOL3	1.85520773989058	SLC36A1	1.2451861076954
CXCL10	1.86266769838137	SLC37A1	1.3035894222769
DTX4	1.86474029881333	SLC46A3	1.35361813906283
MST1	1.86543398154562	SLC48A1	1.55837381709084
RP4-813F11.4	1.87370605577548	SLC6A9	1.39849458214385
C1QTNF1-AS1	1.87441333857102	SLC7A11	1.89311634638789
RP11-125B21.2	1.87498629559274	SLC8A1	1.07998635004338
DDX60L	1.87825435165021	SLC9A2	1.27886294629718
KRT81	1.87868944102663	SLC9A9	1.89341306291939
DNAH17	1.88080132781582	SLCO2B1	2.02853283877144
H1F0	1.88252096463356	SLFN5	2.81964476285716
KLHL24	1.8875793982927	SLIT2	1.2449183969413
STC2	1.89092266572632	SMIM14	1.2321775984016
SLC7A11	1.89311634638789	SMIM2-AS1	1.61406794506295
SLC9A9	1.89341306291939	SMPDL3B	2.15295180409983
HERC5	1.8951013115438	SNAI2	1.3127255899677
DOCK11	1.89589614483405	SNTB1	1.04511739394068
RP11-326G21.1	1.90325166991463	SOCS2-AS1	1.38970930289199
AICDA	1.90522835783926	SOD2	2.14467315548957
JUP	1.90764516037685	SORCS2	1.3804960698029
CYSTM1	1.91058050898735	SP100	1.07221001071691
CACNA2D4	1.91143956525814	SP110	1.57641439793815
STAT2	1.92573170471771	SP140	1.72924660506713
SCG5	1.9258751658069	SPATA25	1.10276592065639
PPP1R15A	1.94145311419807	SPEF2	1.35125129562466
AC009133.12	1.94177952414467	SPINK1	1.47069240522206
RP11-26J3.1	1.94354044642412	SPINT1	1.96686307156698
HIST1H2BD	1.95771504760684	SPP1	1.04473028763843
CXCL11	1.96166196777404	SPRED3	1.02502818781452
SPINT1	1.96686307156698	SPRY4	1.64776938160739
JPH2	1.97988820988371	SQRDL	1.13176697638868
SAA2	1.98072979646251	ST6GALNAC5	1.24577252611381
CYP4V2	1.98086818467713	ST8SIA1	1.32711613686231

Gene	Value	Gene	Value
KBTBD11	1.98181042331209	STAP2	1.18366035481947
CLEC4E	1.98280466342321	STAT2	1.92573170471771
RP13-143G15.3	1.98342982843429	STAT5A	1.06320227684441
CXCL2	1.98642131276319	STC1	1.26006265605948
SAMD5	1.99193879679346	STC2	1.89092266572632
C1QTNF1	2.00162552822428	STEAP1	1.09400266491591
TM4SF19	2.00194777469434	STEAP2	1.04702342162068
CDKN1C	2.00733959113659	STX11	1.08649537228735
RP11-818F20.5	2.00911044582093	SULF1	1.02171152545647
CFB	2.02112050276618	SWT1	1.056671337122
TNIP3	2.02409186029671	SYNGR3	1.35472690903002
SLCO2B1	2.02853283877144	SYT1	1.05823647068164
ANK2	2.02945019297479	TAB3	1.05558089871772
MEGF6	2.03137622322269	TAP1	1.49041906882535
RP11-459E5.1	2.03299606671504	TAPBPL	1.09106338582248
MCOLN3	2.03474363199805	TAPSAR1	1.48399865969296
AFAP1-AS1	2.03623697713368	TCEAL4	1.30955108950071
IQCD	2.03800781909754	TCN2	1.01709597164029
HIST1H2BK	2.05011989058017	TFAP2E	1.03079232572765
RP11-24F11.2	2.0518488942509	TFEC	1.38326628261376
TPP1	2.06183120831874	THBS3	1.58442738501969
PLXNA2	2.06367725180944	TIMP4	2.07479175314197
RP11-955H22.1	2.06391496904572	TINAGL1	1.20172958275945
RENBP	2.06540921625549	TLR3	1.09234942438504
ACTA2	2.07179490005135	TM4SF19	2.00194777469434
TIMP4	2.07479175314197	TM7SF2	1.13542649404049
GPR124	2.07980220666846	TMC6	1.49331429345862
HSH2D	2.0800627853191	TMCC2	1.25983246671357
ABCA5	2.09312119238122	TMEM139	1.33406296048599
KRT7	2.09480184064817	TMEM140	2.91344300767972
PTX3	2.09562972075183	TMEM159	1.00376743371065
GADD45A	2.1060623013867	TMEM171	1.01647031674484
AC005077.14	2.10641335201401	TMEM173	1.39056287286301
PNMA2	2.10863513524889	TMEM200C	1.42048075866916
GPSM3	2.13681590581323	TMEM229B	1.37893593243201
NOV	2.14301002628458	TMEM242	1.05664984387651
NXPH4	2.14395619808565	TMEM255B	2.52706065614781
SOD2	2.14467315548957	TMEM47	1.182089558302
PAPPA2	2.14690206143246	TMEM52B	1.05030131810337
SMPDL3B	2.15295180409983	TMEM67	1.08140424166677
IL21R	2.15914096683444	TMEM9B-AS1	1.00530599549151
IGDCC4	2.15954155572912	TMIE	1.38030340719988
GOLGA7B	2.16693348278606	TNFAIP3	1.79132255121642
PATL2	2.16937370608213	TNFRSF10D	1.03884173892836
IFI44	2.17439310742694	TNFRSF14	1.61010528800101
SIGLEC15	2.18671494076999	TNFSF13B	2.2828534428292
DHX58	2.18811666945063	TNFSF15	2.34541915947859
IFIT1	2.19005715842666	TNFSF4	1.49332268462765
CLEC2D	2.19914698328534	TNIP3	2.02409186029671
LURAP1L	2.20000574511242	TOB2P1	1.41282214828833

Gene	Value	Gene	Value
RASGRP3	2.20274016009557	TOM1	1.25833945089763
IL6	2.20355922282853	TP53INP1	1.48539627123512
ADM2	2.20836214039733	TPCN1	1.41159431879647
CHAC1	2.21275014579665	TPP1	2.06183120831874
FUT1	2.23790647319247	TPRG1L	1.05040445171321
IL1RN	2.24225434688014	TRAF3IP2-AS1	1.27931724026763
RASGRF1	2.24581798566592	TRAF5	1.11978203674865
ARHGEF37	2.24683803813284	TRANK1	1.77965561968146
ALOXE3	2.2510718596885	TRAPPC6A	1.3856521585271
CLGN	2.25607815753398	TRIM14	1.53614490899108
ATF3	2.26272877352831	TRIM21	1.03888178831098
KLF4	2.27447287827066	TRIM25	1.28191341981459
TNFSF13B	2.2828534428292	TRIM31	1.00029113348829
SAMD9L	2.30413951897807	TRIM69	1.77283746604906
NTM	2.33116367738562	TRPM4	1.00494052531002
SAA1	2.33379542417038	TSC22D3	1.11682763398538
DDX60	2.33980620670998	TSPAN18	1.61749907384927
TNFSF15	2.34541915947859	TTC25	1.00369536665564
USP18	2.36012064530109	TTLL1	1.00133081079045
DDX58	2.40046281634775	TTLL6	1.37650796170436
RP5-864K19.4	2.40054848064213	TUBA8	1.03611753741012
IL7R	2.40103432295096	TUBE1	1.58865830174128
PLAT	2.41735994643774	TXNIP	1.2137964388319
ISG15	2.42516778610244	TYMP	1.45761489080338
LY96	2.45144527200719	UAP1L1	1.3232697424833
ZFYVE28	2.46013152862205	UBE2L6	2.51635528974611
INHBE	2.46358954973324	UHRF1BP1	1.00158615957817
IFI6	2.46649977441892	ULBP1	2.8572215552699
L1CAM	2.47127429736538	UNC13A	3.08319094270475
IFIT3	2.49956210290129	UNC5B	1.83840606590664
IFIT2	2.50218635662057	UPP1	1.28431907268179
UBE2L6	2.51635528974611	USP18	2.36012064530109
CCRL2	2.51924217086526	USP41	1.10438917949047
TMEM255B	2.52706065614781	VAMP2	1.08139353683743
PLA2G4C	2.52893303060006	VPS13C	1.03757147080206
MORN4	2.53414123870274	VPS8	1.20707336268267
DDIT3	2.54750854436621	VSTM1	1.44456868639835
FLRT1	2.55772265168186	WARS	1.67754582596937
PAX8-AS1	2.62101405878717	WBSCR27	1.42212478619017
OAS2	2.63592736318857	WDR19	1.07998576467981
ALOX5AP	2.64943006754702	WDR31	1.20603688100216
CRYM	2.65381009811518	WDR54	1.11180872643702
GS1-600G8.5	2.67315415478399	WDR63	1.29940466680182
IFIH1	2.68544624119787	WDR78	1.24753180031733
IRF7	2.69612256476552	WHAMMP2	1.0641319767607
LCP1	2.72400955472557	WHAMMP3	1.22768677721009
MX1	2.73787430340931	WLS	1.20215178392488
AC009133.14	2.7487332145349	WNK4	1.67445719358038
IL36B	2.75072916727668	WNT10A	1.46837741825611
NUPR1	2.77134440215687	WNT4	1.19750385242486

HIST1H2AC	2.7931237990367	WNT5A	1.24131931340251
XAF1	2.79837033921671	XAF1	2.79837033921671
N4BP3	2.81546348171798	XDH	1.15521541567978
SLFN5	2.81964476285716	XKR3	1.0601697264976
SLC15A3	2.84566957298538	XPA	1.2761414010949
OAS1	2.84780226573248	YPEL1	1.4022251714447
ULBP1	2.8572215552699	ZC3HAV1	1.02013799587624
C1S	2.88982612493359	ZDHHC1	1.03566175026888
ISG20	2.90485179128354	ZFP3	1.14030168438107
TMEM140	2.91344300767972	ZFP90	1.40756405837094
HLA-F	2.9225493761457	ZFYVE28	2.46013152862205
GBP4	2.92802818751107	ZMAT1	1.06475052192097
IFI44L	3.0722023795419	ZMAT3	1.11555656538784
UNC13A	3.08319094270475	ZMIZ1-AS1	1.27093420171083
ITGB2-AS1	3.20685153729175	ZNF165	1.12280505003137
CMPK2	3.25713634377298	ZNF23	1.35980149212012
ITGB2	3.3055176560441	ZNF396	1.62868843318118
OASL	3.33334928982827	ZNF425	1.17501605851875
FAM83G	3.47461962537718	ZNF506	1.01801939080027
IFI27	3.59131698080898	ZNF600	1.02921659438394
FBXO39	3.73276769695771	ZNF641	1.094903322488
MX2	3.76502873946905	ZNF658	1.02108280836446
GDF15	3.81694975103574	ZNF862	1.01331949087986
CST7	4.23304613697369	ZP3	1.06883096797119

Table S2

Down-regulated genes (Fold induction)		Down-regulated genes (Alphabetical order)	
NPM1P21	-1.00034776781239	AACSP1	-1.44392821304499
ALYREF	-1.0016913910083	AC005102.1	-1.4255729181306
ADAMTS15	-1.00248967217592	AC011738.4	-2.97119620134385
PTOV1	-1.00331906524834	AC016831.7	-1.47611593128032
RP1-159M24.1	-1.00466438379097	AC027307.3	-1.14893791148675
DDX39A	-1.00636986784904	AC073043.1	-1.15225359306499
ITGB1BP2	-1.00659079123104	AC132872.1	-1.19879719487318
LINC00460	-1.00773001939084	AC132872.2	-1.10112900347212
TK1	-1.00951917443596	AC139100.2	-1.0130298073715
AC139100.2	-1.0130298073715	ACMSD	-1.72012324223128
ELFN2	-1.01354626965244	ADAMTS15	-1.00248967217592
S100A4	-1.01524119964049	AFAP1L2	-1.8500748418952
NMU	-1.01552115034722	AL590822.2	-1.07305523259548
POLRMTP1	-1.0155566023376	ALDH1A1	-1.19609281056394
TOMM22P5	-1.01881667025639	ALYREF	-1.0016913910083
LNP1	-1.01885750024119	AMACR	-1.04192187997363
TSPAN13	-1.02000208510608	AMBP	-1.12816494730541
PTGIS	-1.02054975089452	AMPD2	-1.47051695545048
GLCCI1	-1.02097546607572	ANO3	-1.60658807160297
INHBB	-1.02482574401324	AP001619.2	-1.05679818026787
MLK4	-1.02498072744792	AREG	-1.75341352872915
RP11-598F7.6	-1.03020323616602	ARID3B	-1.12731688734498
FHOD1	-1.03050474155403	ARL14EPL	-1.4959168171683
TNIK	-1.03144234682188	ARL4C	-1.15865932540485
EFCAB4A	-1.03397025443114	ARTN	-2.44011460422527
FGFR3	-1.0339702817812	ATAD3B	-1.2142550144906
EEF1A2	-1.03400797463928	ATOH8	-1.10145992417349
SLC4A4	-1.03466555785517	ATP6V0A4	-1.31168840926903
RPL13AP2	-1.0354406246823	B3GALT5	-1.10552230200474
VSTM4	-1.0356012355343	B3GNT6	-1.04220083534544
PLK1	-1.03719367590431	B4GALNT4	-1.30377327796634
TINAG	-1.03916946278173	BCAS1	-1.56313789368378
AMACR	-1.04192187997363	BCL3	-1.13837547232805
B3GNT6	-1.04220083534544	BCMO1	-1.28494955754593
CAMKK1	-1.04244395686395	BOP1	-1.14571553490696
PAPOLB	-1.04249364538443	BRINP1	-1.24641992599796
TGFBR3L	-1.04934424660963	BTBD11	-1.3376004554187
RP11-274M17.1	-1.04970618967663	BTBD16	-1.19075763906847
CCDC183-AS1	-1.04974060646083	C11orf86	-2.16765631333035
LONRF2	-1.05239840305134	C22orf34	-1.08311261015964
SFXN2	-1.05268322475616	C6orf99	-1.58110501080006
ORC1	-1.05435686633919	C9orf172	-1.29082958264354
HMGB1P10	-1.05514571494495	C9orf84	-1.26304252456272
AP001619.2	-1.05679818026787	CAMKK1	-1.04244395686395
PC	-1.05688166636476	CCDC183-AS1	-1.04974060646083
ZSCAN5A	-1.05691300549968	CCDC80	-1.60380869069728
CCNF	-1.0569239944412	CCDC85C	-1.26768734533645

Gene	Value	Gene	Value
CDC20P1	-1.05825403431411	CCNF	-1.0569239944412
YTHDF3-AS1	-1.05850276073542	CD24P4	-1.13989533453748
LINC00261	-1.06077666823658	CDC20	-1.09309567199129
RP11-443B20.1	-1.06120855003023	CDC20P1	-1.05825403431411
PSG9	-1.06165495012427	CDH16	-1.25090066314148
HABP2	-1.06318194888468	CDH6	-2.25887930075111
LCK	-1.06399531832574	CDKN2C	-1.17198084779469
SLC7A8	-1.06463982312694	CENPO	-1.09054716631395
GNG2	-1.0673643588728	CFI	-1.91483635640552
RP11-137N23.1	-1.06793235544417	CGB8	-1.26809997316983
FILIP1L	-1.0696094082738	CHAF1A	-1.11681262883928
DANCR	-1.07003641839868	CHRDL1	-1.08804064987513
HIST1H4E	-1.07126925464808	CLDN2	-2.46015686779495
GABBR2	-1.07223696368691	CNKSR3	-1.36757045600491
AL590822.2	-1.07305523259548	COL14A1	-1.28463639075811
RP11-605F14.2	-1.07448576141189	COL1A1	-1.9987522038809
SHF	-1.07560566921499	CRABP2	-1.56250477769691
LRRN4	-1.07738610789692	CREB3L1	-1.54994366945872
KIAA0101	-1.0773990019961	CRISPLD2	-2.21542814659419
ING5	-1.07813290004396	CSF1R	-2.801471995994
GMNC	-1.07815230699395	CTA-989H11.1	-1.11409413021699
PAGR1	-1.07911881710992	CTD-2501M5.1	-1.38430002512553
LIN7A	-1.07973432636968	CTD-2571E19.3	-1.31502831309287
SNORD3D	-1.08088270884109	CTNNA3	-1.31690459206807
GUCA1C	-1.08121192281657	CYP1B1	-2.09302540179393
SCNN1A	-1.08220588981487	CYP1B1-AS1	-1.26706770558068
MAGED1	-1.08307029591355	CYP3A5	-1.1852535992468
C22orf34	-1.08311261015964	DANCR	-1.07003641839868
NCAPD2P1	-1.08338723501406	DAPK1	-1.36683822610215
RP3-508I15.9	-1.08428200079458	DCDC2	-1.35555207013892
RNA5S13	-1.08571523520136	DCLK2	-1.61578440353788
GPR56	-1.08575612973596	DDX39A	-1.00636986784904
KLHL14	-1.08723284019836	DGCR9	-1.54836723675548
CHRDL1	-1.08804064987513	DHRS9	-1.27506860973544
PCDHB14	-1.08809971484385	DLEU2	-1.21186253808527
SLC3A1	-1.09026061849984	DNAJC22	-1.33149864256197
CENPO	-1.09054716631395	DOT1L	-1.34413082920755
CDC20	-1.09309567199129	DUSP9	-1.45502094451622
FERMT1	-1.09371339896725	E2F2	-1.23457837859122
PDE6G	-1.09386560775949	E2F8	-1.32564983355368
PRICKLE1	-1.09502199255444	EDN2	-1.172471899623
LMCD1	-1.09563531985512	EEF1A2	-1.03400797463928
HNF1B	-1.10052290262036	EFCAB4A	-1.03397025443114
AC132872.2	-1.10112900347212	EFHB	-2.37691713969588
ATOH8	-1.10145992417349	ELFN2	-1.01354626965244
RP11-31F19.1	-1.10321162892024	ELMOD1	-1.25424799795349
RP11-7O14.1	-1.10381569897193	EPHA4	-1.18187875902603
KRT18P34	-1.10493682828698	EREG	-1.27098751331098
B3GALT5	-1.10552230200474	ESPNL	-1.19402890808159
RNA5S12	-1.10738723841976	FAM198B	-1.55886118464898

PDZK1P1	-1.10907689187023	FAM20C	-1.12468003957935
GUCY1B3	-1.11202506841213	FAM83F	-1.15574669394758
SF3A2	-1.11249166458857	FBL	-1.22759962152717
TRPM2	-1.11289635892138	FERMT1	-1.09371339896725
CTA-989H11.1	-1.11409413021699	FGFR3	-1.0339702817812
TCEAL4P1	-1.11545308130767	FGFR4	-1.19460296109695
HAVCR1	-1.11566295788767	FHDC1	-1.42699314021102
CHAF1A	-1.11681262883928	FHOD1	-1.03050474155403
POLA2	-1.11760785768771	FILIP1L	-1.0696094082738
IL11	-1.11877029807184	FLRT3	-1.33575642526597
RP11-304L19.12	-1.11897050731488	FOLR1	-1.30188347910513
KIF18B	-1.12125986795134	FPR1	-2.30267725310949
RCC1	-1.12278151140857	FRMD4B	-1.14701027495608
FAM20C	-1.12468003957935	GABBR2	-1.07223696368691
MYH15	-1.12579586997583	GCNT1	-1.20441092701972
RP11-367J11.2	-1.126846878091	GJA1	-1.52731457549102
ARID3B	-1.12731688734498	GLCCI1	-1.02097546607572
AMBP	-1.12816494730541	GLIS1	-1.46333127930295
TIMM13	-1.13695117203735	GMNC	-1.07815230699395
PLEKHG4	-1.13719000510723	GNB1L	-1.19327741234394
RNA5-8S5	-1.1375196361619	GNG2	-1.0673643588728
BCL3	-1.13837547232805	GNGT2	-1.52500619442473
CD24P4	-1.13989533453748	GPR56	-1.08575612973596
MT-RNR1	-1.14426857488982	GRB7	-1.23275489842691
BOP1	-1.14571553490696	GRIK2	-1.77056576155996
P2RY8	-1.14600626845925	GUCA1C	-1.08121192281657
FRMD4B	-1.14701027495608	GUCY1B3	-1.11202506841213
MAP2K6	-1.14774310490292	HABP2	-1.06318194888468
SRRT	-1.14844526950937	HAS3	-2.19277334796994
AC027307.3	-1.14893791148675	HAVCR1	-1.11566295788767
TERF1P5	-1.1496212669131	HHIPL2	-1.48039234676893
TM4SF18	-1.15019952845623	HIST1H4C	-1.23104304154346
RNA5S17	-1.15046401983124	HIST1H4E	-1.07126925464808
AC073043.1	-1.15225359306499	HMGB1P10	-1.05514571494495
MAZ	-1.15474073423474	HNF1B	-1.10052290262036
FAM83F	-1.15574669394758	HNRNPA1P35	-1.18137333774907
PRICKLE2	-1.15635137005272	ID1	-1.20141586796484
ARL4C	-1.15865932540485	ID3	-1.3682947680917
LDHAP7	-1.16443072543221	IGF2	-6.93227277034572e-05
RP5-1021I20.2	-1.16575328897579	IGFBP1	-1.93071035540087
ZBTB38	-1.1708862408515	IL11	-1.11877029807184
CDKN2C	-1.17198084779469	ING5	-1.07813290004396
EDN2	-1.172471899623	INHBB	-1.02482574401324
SMTN	-1.17835123589267	ITGB1BP2	-1.00659079123104
MYBL2	-1.17877393430523	ITGB6	-1.2010562904375
TAGLN3	-1.18108168287027	KCNJ16	-2.60634685297188
HNRNPA1P35	-1.18137333774907	KCNK2	-1.33180118286155
EPHA4	-1.18187875902603	KIAA0101	-1.0773990019961
RNU12	-1.18232744659465	KIF18B	-1.12125986795134
CYP3A5	-1.1852535992468	KIF20A	-1.36605279520304

Gene	Value	Gene	Value
THY1	-1.18615102543026	KLHL14	-1.08723284019836
BTBD16	-1.19075763906847	KLHL4	-1.5604785617806
TPI1P3	-1.19304337374647	KM-PA-2	-1.20029455811091
GNB1L	-1.19327741234394	KRT18P34	-1.10493682828698
ESPNL	-1.19402890808159	KRT223P	-1.93725662740657
FGFR4	-1.19460296109695	KRT79	-1.55818348306371
MCM10	-1.19467999848676	LCK	-1.06396531832574
RNA5S10	-1.19477913235222	LDHAP7	-1.16443072543221
ALDH1A1	-1.19609281056394	LIN7A	-1.07973432636968
AC132872.1	-1.19879719487318	LINC00261	-1.06077666823658
RP11-613M10.6	-1.19880622167571	LINC00460	-1.00773001939084
RP11-16P6.1	-1.20002135019882	LINC01119	-1.32115406926481
KM-PA-2	-1.20029455811091	LMCD1	-1.09563531985512
RP11-176D17.3	-1.20058574243034	LMNB1	-1.20777671918231
ITGB6	-1.2010562904375	LNP1	-1.01885750024119
ID1	-1.20141586796484	LONRF2	-1.05239840305134
GCNT1	-1.20441092701972	LPPR5	-1.87380452184517
RRM2	-1.20485938377383	LRRC37A3	-1.26055851587176
LMNB1	-1.20777671918231	LRRN4	-1.07738610789692
DLEU2	-1.21186253808527	MAB21L3	-1.21334835785432
MAB21L3	-1.21334835785432	MAGED1	-1.08307029591355
ATAD3B	-1.2142550144906	MALRD1	-2.14601013234303
THBS1	-1.21620149126351	MAP2K6	-1.14774310490292
RNA5S7	-1.21835463754018	MAZ	-1.15474073423474
RP11-512H23.2	-1.22113294642659	MBL2	-1.63878073605812
FBL	-1.22759962152717	MCM10	-1.19467999848676
RPL24P7	-1.23044374491887	MGAT5B	-1.86328308848568
HIST1H4C	-1.23104304154346	MGC4294	-1.98273771401297
GRB7	-1.23275489842691	MLK4	-1.02498072744792
E2F2	-1.23457837859122	MMP13	-1.82786009497833
MMP7	-1.23560846196046	MMP7	-1.23560846196046
MYH16	-1.24010101594633	MT-RNR1	-1.14426857488982
TNFRSF19	-1.24287697592795	MT-TS2	-1.76562946905004
RRM2P3	-1.24404316865408	MYBL2	-1.17877393430523
BRINP1	-1.24641992599796	MYH13	-2.76580039824046
CDH16	-1.25090066314148	MYH15	-1.12579586997583
ELMOD1	-1.25424799795349	MYH16	-1.24010101594633
VAC14-AS1	-1.2584432220963	NCAPD2P1	-1.08338723501406
LRRC37A3	-1.26055851587176	NCKAP5	-1.31731271948341
C9orf84	-1.26304252456272	NES	-1.29578970766011
CYP1B1-AS1	-1.26706770558068	NMU	-1.01552115034722
CCDC85C	-1.26768734533645	NPM1P21	-1.00034776781239
CGB8	-1.26809997316983	NRP1	-1.62132522479039
EREG	-1.27098751331098	NT5DC2	-1.41103303166988
DHRS9	-1.27506860973544	OLFML2B	-1.84571403592367
RP11-380P13.2	-1.27510571138356	ORC1	-1.05435686633919
RNA5S3	-1.2761451087063	P2RY8	-1.14600626845925
SEMA6B	-1.27843451478866	PAGR1	-1.07911881710992
SLC6A6	-1.28196681262218	PAPOLB	-1.04249364538443
COL14A1	-1.28463639075811	PARD6G	-1.51419145675052

Gene	Value	Gene	Value
BCMO1	-1.28494955754593	PC	-1.05688166636476
C9orf172	-1.29082958264354	PCDHB14	-1.08809971484385
NES	-1.29578970766011	PCSK5	-1.8203305350071
FOLR1	-1.30188347910513	PDE6G	-1.09386560775949
B4GALNT4	-1.30377327796634	PDGFRB	-1.30622093374164
RNA5S2	-1.30512344153273	PDLIM4	-1.32999898523344
PDGFRB	-1.30622093374164	PDZK1	-1.42612778660205
RYR3	-1.30632019231376	PDZK1P1	-1.10907689187023
ATP6V0A4	-1.31168840926903	PEG10	-2.50673740711732
TERT	-1.31171316659585	PLEKHG4	-1.13719000510723
CTD-2571E19.3	-1.31502831309287	PLEKHG4B	-1.70501760047986
CTNNA3	-1.31690459206807	PLK1	-1.03719367590431
NCKAP5	-1.31731271948341	POLA2	-1.11760785768771
RNU2-59P	-1.31906312047899	POLRMTP1	-1.0155566023376
LINC01119	-1.32115406926481	PPAPDC1A	-1.33992493624214
SYTL3	-1.32116917338955	PRICKLE1	-1.09502199255444
E2F8	-1.32564983355368	PRICKLE2	-1.15635137005272
RNA5S16	-1.32638750986399	PROM2	-1.95927377345176
RNA5S5	-1.3280489338324	PSG9	-1.06165495012427
RNA5S15	-1.3293707905675	PTGER2	-1.8164111685353
PDLIM4	-1.32999898523344	PTGIS	-1.02054975089452
DNAJC22	-1.33149864256197	PTOV1	-1.00331906524834
KCNK2	-1.33180118286155	RASL11A	-2.10997909649245
FLRT3	-1.33575642526597	RCC1	-1.12278151140857
BTBD11	-1.3376004554187	RNA5-8S5	-1.1375196361619
PPAPDC1A	-1.33992493624214	RNA5S1	-1.55044130442097
TNS1	-1.3405310493071	RNA5S10	-1.19477913235222
DOT1L	-1.34413082920755	RNA5S12	-1.10738723841976
RNA5S8	-1.34492316756801	RNA5S13	-1.08571523520136
TENM2	-1.35285962957597	RNA5S14	-1.4047079447295
DCDC2	-1.35555207013892	RNA5S15	-1.3293707905675
RP11-229P13.25	-1.36419323718995	RNA5S16	-1.32638750986399
KIF20A	-1.36605279520304	RNA5S17	-1.15046401983124
DAPK1	-1.36683822610215	RNA5S2	-1.30512344153273
CNKSR3	-1.36757045600491	RNA5S3	-1.2761451087063
ID3	-1.3682947680917	RNA5S4	-1.37131612846922
RNA5S4	-1.37131612846922	RNA5S5	-1.3280489338324
SORBS1	-1.37321711691302	RNA5S6	-1.37930393140998
RNA5S6	-1.37930393140998	RNA5S7	-1.21835463754018
RP11-267A15.1	-1.37971584553606	RNA5S8	-1.34492316756801
SLC26A1	-1.38375683693446	RNU12	-1.18232744659465
CTD-2501M5.1	-1.38430002512553	RNU2-59P	-1.31906312047899
WI2-2998D17.2	-1.38640156179877	RNU4-2	-1.64885288104153
SNORD3B-2	-1.39758810870202	RP11-137N23.1	-1.06793235544417
RNA5S14	-1.4047079447295	RP11-16P6.1	-1.20002135019882
NT5DC2	-1.41103303166988	RP11-176D17.3	-1.20058574243034
AC005102.1	-1.4255729181306	RP11-184M15.1	-1.93790384489909
SLC17A3	-1.42581717416572	RP11-229P13.25	-1.36419323718995
PDZK1	-1.42612778660205	RP11-267A15.1	-1.37971584553606
FHDC1	-1.42699314021102	RP11-274M17.1	-1.04970618967663

Gene	Value	Gene	Value
SLC2A5	-1.43111448199831	RP11-304L19.12	-1.11897050731488
AACSP1	-1.44392821304499	RP11-309M7.1	-1.45098953063476
RP11-309M7.1	-1.45098953063476	RP11-31F19.1	-1.10321162892024
DUSP9	-1.45502094451622	RP11-367J11.2	-1.126846878091
SLC6A13	-1.45936913108315	RP11-380I10.4	-1.52164424568488
GLIS1	-1.46333127930295	RP11-380P13.2	-1.27510571138356
AMPD2	-1.47051695545048	RP11-424C20.2	-1.64424230345333
AC016831.7	-1.47611593128032	RP11-443B20.1	-1.06120855003023
HHIPL2	-1.48039234676893	RP11-47I22.3	-1.97465380191593
TFCP2L1	-1.4813892895656	RP11-512H23.2	-1.22113294642659
ARL14EPL	-1.4959168171683	RP11-54O7.3	-1.50814495694851
RP11-54O7.3	-1.50814495694851	RP11-598F7.6	-1.03020323616602
UPK1B	-1.51156731145869	RP1-159M24.1	-1.00466438379097
PARD6G	-1.51419145675052	RP11-605F14.2	-1.07448576141189
RP11-380I10.4	-1.52164424568488	RP11-613M10.6	-1.19880622167571
GNGT2	-1.52500619442473	RP11-649A18.7	-1.73338088334311
GJA1	-1.52731457549102	RP11-7O14.1	-1.10381569897193
UHRF1	-1.5346833302908	RP3-428L16.2	-1.79047426423233
SUSD4	-1.53499401798112	RP3-508I15.9	-1.08428200079458
DGCR9	-1.54836723675548	RP5-1021I20.2	-1.16575328897579
CREB3L1	-1.54994366945872	RPL13AP2	-1.0354406246823
RNA5S1	-1.55044130442097	RPL24P7	-1.23044374491887
KRT79	-1.55818348306371	RRM2	-1.20485938377383
FAM198B	-1.55886118464898	RRM2P3	-1.24404316865408
KLHL4	-1.5604785617806	RYR3	-1.30632019231376
SLC47A2	-1.5619320929113	S100A2	-1.60026417583989
CRABP2	-1.56250477769691	S100A4	-1.01524119964049
BCAS1	-1.56313789368378	S1PR1	-2.02224863962077
C6orf99	-1.58110501080006	SAMD11	-1.85625737638315
S100A2	-1.60026417583989	SCNN1A	-1.08220588981487
SNORA73B	-1.60256397922414	SEMA6A	-1.65316748056694
CCDC80	-1.60380869069728	SEMA6B	-1.27843451478866
ANO3	-1.60658807160297	SEMA6D	-1.80743760602023
SNORD17	-1.6119526422515	SF3A2	-1.11249166458857
DCLK2	-1.61578440353788	SFXN2	-1.05268322475616
NRP1	-1.62132522479039	SGK2	-2.14405906251969
TRPM8	-1.63479861411852	SHF	-1.07560566921499
MBL2	-1.63878073605812	SLC17A3	-1.42581717416572
RP11-424C20.2	-1.64424230345333	SLC26A1	-1.38375683693446
RNU4-2	-1.64885288104153	SLC2A5	-1.43111448199831
SEMA6A	-1.65316748056694	SLC3A1	-1.09026061849984
PLEKHG4B	-1.70501760047986	SLC47A2	-1.5619320929113
ACMSD	-1.72012324223128	SLC4A4	-1.03466555785517
RP11-649A18.7	-1.73338088334311	SLC6A13	-1.45936913108315
AREG	-1.75341352872915	SLC6A6	-1.28196681262218
MT-TS2	-1.76562946905004	SLC7A8	-1.06463982312694
GRIK2	-1.77056576155996	SLN	-2.19250946490367
TNC	-1.77768849696252	SMTN	-1.17835123589267
RP3-428L16.2	-1.79047426423233	SNAI1	-2.45034945218028
SEMA6D	-1.80743760602023	SNORA73B	-1.60256397922414

Gene	Value	Gene	Value
TRIM9	-1.81502538807319	SNORD17	-1.6119526422515
PTGER2	-1.8164111685353	SNORD3B-2	-1.39758810870202
PCSK5	-1.8203305350071	SNORD3D	-1.08088270884109
MMP13	-1.82786009497833	SOAT2	-2.72390809666256
OLFML2B	-1.84571403592367	SORBS1	-1.37321711691302
AFAP1L2	-1.8500748418952	SRRT	-1.14844526950937
SAMD11	-1.85625737638315	SUSD4	-1.53499401798112
MGAT5B	-1.86328308848568	SYTL3	-1.32116917338955
LPPR5	-1.87380452184517	TAGLN3	-1.18108168287027
CFI	-1.91483635640552	TCEAL4P1	-1.11545308130767
IGFBP1	-1.93071035540087	TENM2	-1.35285962957597
KRT223P	-1.93725662740657	TERF1P5	-1.1496212669131
RP11-184M15.1	-1.93790384489909	TERT	-1.31171316659585
PROM2	-1.95927377345176	TFCP2L1	-1.4813892895656
RP11-47I22.3	-1.97465380191593	TGFBR3L	-1.04934424660963
MGC4294	-1.98273771401297	THBS1	-1.21620149126351
COL1A1	-1.9987522038809	THY1	-1.18615102543026
S1PR1	-2.02224863962077	TIMM13	-1.13695117203735
CYP1B1	-2.09302540179393	TINAG	-1.03916946278173
RASL11A	-2.10997909649245	TK1	-1.00951917443596
SGK2	-2.14405906251969	TM4SF18	-1.15019952845623
MALRD1	-2.14601013234303	TNC	-1.77768849696252
C11orf86	-2.16765631333035	TNFRSF19	-1.24287697592795
SLN	-2.19250946490367	TNIK	-1.03144234682188
HAS3	-2.19277334796994	TNS1	-1.3405310493071
CRISPLD2	-2.21542814659419	TOMM22P5	-1.01881667025639
CDH6	-2.25887930075111	TPI1P3	-1.19304337374647
FPR1	-2.30267725310949	TRIM9	-1.81502538807319
EFHB	-2.37691713969588	TRPM2	-1.11289635892138
ARTN	-2.44011460422527	TRPM8	-1.63479861411852
SNAI1	-2.45034945218028	TSPAN13	-1.02000208510608
CLDN2	-2.46015686779495	UHRF1	-1.5346833302908
PEG10	-2.50673740711732	UPK1B	-1.51156731145869
WNT7B	-2.52839298604989	VAC14-AS1	-1.2584432220963
KCNJ16	-2.60634685297188	VAV3	-3.55007048340834
SOAT2	-2.72390809666256	VSTM4	-1.0356012355343
MYH13	-2.76580039824046	WI2-2998D17.2	-1.38640156179877
ZCCHC5	-2.77910302225097	WNT7B	-2.52839298604989
CSF1R	-2.801471995994	YTHDF3-AS1	-1.05850276073542
AC011738.4	-2.97119620134385	ZBTB38	-1.1708862408515
VAV3	-3.55007048340834	ZCCHC5	-2.77910302225097
ZNF121	-3.89798934961158e-05	ZNF121	-3.89798934961158e-05
IGF2	-6.93227277034572e-05	ZSCAN5A	-1.05691300549968

Table S3

Up-regulated genes (Fold induction)		Up-regulated genes (Alphabetical order)	
AC068039.4	0.990130894335957	A4GALT	1.12091485973195
CGRRF1	0.990725222670276	ABAT	1.12331851604991
ARHGAP6	0.991015185177854	ABCA3	1.73185940174763
AP006621.6	0.991488033398191	ABCA5	1.96239422075551
TIMM10B	0.991520672653167	ABCB6	1.46414686970342
PCDHA2	0.991702742630403	ABCB7	1.59664970627131
FZD4	0.992541152465031	ABCC10	1.42919178539858
PKN1	0.993010824336748	ABCD4	1.39126627841835
CYB5D2	0.99306575557406	ABHD4	1.8652460593227
CEBPB	0.993091549799146	ABHD8	1.13578415936718
BIRC3	0.993351937068212	ABI3	2.69001160482816
OGDH	0.993567864449068	ABTB2	1.70976089641443
RP11-255J3.2	0.994017441690391	AC002480.3	2.05989215159104
RP11-492E3.2	0.994134210265492	AC002480.4	2.60361288154492
PTGS2	0.994174265543472	AC005307.3	1.22085774431116
UBXN1	0.994443958293373	AC005540.3	1.55021850643895
MFHAS1	0.994580487691405	AC006262.5	3.98691914997494
KIAA0196	0.995184672418208	AC006262.6	3.67471254615386
RPS4XP7	0.996179546200338	AC006273.5	2.22511349284178
MAPK11	0.99640789466539	AC007879.2	1.14492016597892
KIAA1109	0.996714366329443	AC007879.5	1.10486008530786
RTN3P1	0.997925674731477	AC009133.14	1.43699082074698
AC068580.5	0.998836508048737	AC009404.2	1.02233680449586
FCAMR	0.999310236002415	AC016710.1	1.29102622782135
DPAGT1	0.999402420786639	AC025171.1	1.0335930921991
HOXD-AS2	0.999513220049369	AC025335.1	1.45782321634315
RP11-357C3.3	0.999806141424853	AC034220.3	1.11835083978661
HIST1H2AC	1.00082438613179	AC068039.4	0.990130894335957
LYRM9	1.00084404839316	AC068580.5	0.998836508048737
OXA1L	1.00183510917754	AC074389.9	1.8666952747684
CLU	1.00212487278372	AC079776.2	2.67250010787592
RP11-423O2.5	1.00303766038204	AC093391.2	1.63199090900551
C2orf27A	1.00312130561246	AC093818.1	1.3943697990253
GET4	1.00321545055609	AC104024.1	1.6415076834482
CCNG2	1.00335037127441	AC104135.4	1.32064434994029
RP11-299H21.1	1.0036064651181	AC104841.2	1.57577986188534
TRIB2	1.003974333023	AC124789.1	3.55651999693537
HPS1	1.00427921988012	AC147651.4	1.68248557631401
STOML1	1.00496316504475	ACAD8	1.1663939773044
CD22	1.00581395719154	ACBD4	1.64639909522101
CXCL3	1.00676567238053	ACCS	1.47674448973995
SLC22A5	1.00700924086602	ACO1	1.18734884056052
HIBADH	1.0071407724492	ACOT1	1.78577840223098
BHMT2	1.00816413594669	ACOT2	1.75064413354616
LRRC49	1.00826931195078	ACP2	1.88024693114517
PSMF1	1.00855235020335	ACP5	4.10206791905833

Gene	Value	Gene	Value
C6orf1	1.00863367438618	ACPL2	1.37622426057807
GRK5	1.00979772920134	ACRC	2.1252638424283
RP11-188P20.3	1.0100020543043	ACSS1	3.78262538710588
RP11-288G3.4	1.01017926991769	ACSS3	3.84813195083771
RNPEPL1	1.01056686559473	ADAM23	2.27523687064012
STK10	1.0106010656504	ADAM28	5.62887323139791
SHISA4	1.01134561594778	ADAMTS10	2.73988653564351
NRCAM	1.0121643933512	ADAMTS14	1.80306972948627
EIF4E3	1.01316772605653	ADAMTS15	1.04037840921938
ZNF18	1.01336370221298	ADAMTS2	1.36085169972882
WDR25	1.01392564649699	ADAMTS5	1.33907974364199
SUGCT	1.01393138086949	ADAMTS9	1.44083375741505
RHPN1	1.01419529339112	ADAMTSL4	1.18809003975347
ZCCHC3	1.01449386058585	ADH5P2	1.0922097897706
GYPC	1.01449737479209	ADM	1.17173808708385
RP11-166D19.1	1.01521202585118	ADM2	1.28196929155068
RN7SL1	1.01594310751923	ADORA2B	1.77860100254826
BEST1	1.0162663443704	ADRB2	2.64495715198614
S100A2	1.01629209463473	ADRBK2	4.90188590009152
IFIT3	1.01650717095328	AFAP1	2.04818432813132
CTD-2008L17.1	1.01665094323445	AFAP1L1	2.51598974293074
DLGAP1-AS2	1.01724676237367	AGA	2.29878691918164
DCTD	1.01779925359464	AGAP2	2.27755566957888
DOCK6	1.01805370030376	AGMAT	1.49557382402213
TEP1	1.01872411648767	AGT	1.5817654669485
MT-TD	1.01910138842137	AHNAK2	2.24996697500168
FADD	1.01917006001726	AICDA	1.07687855587584
USP28	1.01931899991677	AIFM3	2.16822739803142
DHRS4L2	1.01967005925405	AJAP1	5.33316695028154
MEGF6	1.02049640920367	AJUBA	1.165943648744
PDE6D	1.0206667886051	AKR1C4	1.05879908389015
EPOR	1.02099188413185	AKR1C7P	1.992461933275
GNL1	1.02196277054008	AL109763.2	3.59268910755931
GABARAP	1.02200056030618	AL589743.1	2.21538118202951
ZNF133	1.0220273827466	AL591704.5	1.24596014215731
AC009404.2	1.02233680449586	AL592284.1	1.75221617369367
RP11-121M22.1	1.02275562246653	AL603965.1	1.05227006657579
CPA6	1.02337937258363	ALDH16A1	1.03895904810927
LAMTOR1	1.02358974862123	ALDH1A3	1.7835827088523
RTBDN	1.02360786924872	ALDH1L2	3.62408755726248
UNC5A	1.02415315246796	ALDH5A1	1.19152648508081
IL18	1.02448736946302	ALDH9A1	1.098473469965
AP001631.10	1.02508834807381	ALOX5	2.77760594399539
XPA	1.0256412104174	ALOX5AP	3.91891911048729
FGGY	1.02681339093865	ALS2CL	2.24271054469512
TBCEL	1.02800835174646	AMDHD1	1.85626240734354
FAM177A1	1.02882675062303	AMPD3	1.77644523285947
FAAH	1.02913162209198	ANGPTL4	2.01626235782978
FAM172A	1.02973634491702	ANK2	2.11978065334844
ATG14	1.02993325663428	ANKDD1A	1.05785986829509

RP11-50E11.3	1.03038294572385	ANKHD1-EIF4EBP3	1.06109312792811
ZMYM3	1.03038784316281	ANKRD10	1.04909057900997
OLA1P1	1.03045326511416	ANKRD18B	1.48188140903195
ASS1P5	1.03151108336462	ANKRD2	3.92785449790637
VIPAS39	1.03154640978448	ANKRD6	3.2620401177896
SDR39U1	1.03238559668852	ANO10	1.39852253575165
CRYBA2	1.03278960726149	ANO7	1.03792930837401
KCNQ3	1.0328404086797	ANO9	1.52660929885383
SHH	1.0329762780939	ANTXR1	2.66418989095581
RRAS2	1.03331155406917	AP000525.9	2.56360080011318
DDX60L	1.0334888175332	AP000654.4	8.66976129755603e-05
SERGEF	1.03354693160817	AP001007.1	1.7383816320332
AC025171.1	1.0335930921991	AP001063.1	1.04326225185612
POLR2G	1.03393994787472	AP001258.4	1.7160929548541
ZNF763	1.03438462994763	AP001631.10	1.02508834807381
MX2	1.03473982962779	AP006621.6	0.991488033398191
RHEBL1	1.0348527114952	AP1G2	1.68888422772586
LYPD6	1.03648465344363	AP5Z1	1.05769613906456
CTD-2033A16.2	1.03703826053686	APBA1	2.72920849768198
IFITM10	1.03742617644467	APBB1	2.39906815507191
PGPEP1	1.03746346636922	APBB2	1.03931454239038
TOM1	1.03746539256035	APC2	1.36253414891304
PLEK2	1.03751503620761	APLN	1.86210234286435
ANO7	1.03792930837401	APOOL	1.19652585820873
BCL9L	1.03800416792665	ARAP1	1.67197810898764
YAP1	1.03891667504642	ARHGAP1	1.09558173414303
ALDH16A1	1.03895904810927	ARHGAP10	1.04037378290203
APBB2	1.03931454239038	ARHGAP23	2.33487947694496
RP3-368A4.6	1.03939165183252	ARHGAP23P1	1.48444484471689
SDCBPP3	1.0401834634849	ARHGAP39	1.12154660109735
ARHGAP10	1.04037378290203	ARHGAP40	1.12323193928602
ADAMTS15	1.04037840921938	ARHGAP6	0.991015185177854
FRMD6	1.04078656011547	ARHGEF12	1.13801240195568
IFI27L2	1.04104845485741	ARHGEF2	1.10256014212364
LAPTM4B	1.04137177394385	ARHGEF25	1.13573086051319
GJC1	1.04184089368862	ARHGEF28	1.23615689528381
DPF1	1.04199817039871	ARHGEF37	1.21634615289071
AP001063.1	1.04326225185612	ARHGEF40	1.23285491620017
TGFBR3	1.04334522653142	ARL10	5.20582857556194
ST5	1.04390638420169	ARL2	1.31071429207487
RP11-366H4.1	1.04470976168802	ARMC4	2.64692255520974
CLIC6	1.04470976168802	ARRB1	1.68421281506028
LBH	1.04474666377091	ARRB2	1.79731392801028
PAX9	1.04482284224084	ARSB	1.25427738312158
TTC39B	1.0449319526285	ARSD	1.13048634057361
DLGAP1-AS1	1.04530064797114	ARVCF	1.33394244729207
RP11-693J15.3	1.04557256467139	ASB2	1.72999468667424
LAMP5	1.04591577681666	ASPHD2	1.43847781743992
MEGF8	1.0461321663802	ASRGL1	1.09297762122659
SLC41A2	1.04671311634716	ASS1	4.01205114240482

Gene	Value	Gene	Value
FAM166B	1.04681635071348	ASS1P1	3.18369880751136
MT-TC	1.04769531267963	ASS1P10	1.62934338545092
ANKRD10	1.04909057900997	ASS1P11	3.62129462229199
PTGER2	1.04927630110315	ASS1P12	1.32914587224379
PSORS1C2	1.05034522439339	ASS1P5	1.03151108336462
PARD6B	1.05063033606508	ASS1P7	2.30793983057575
MSC	1.05070609063284	ASS1P9	3.79834382322607
LINC00528	1.05206167250247	ATG14	1.02993325663428
INHBA	1.0522626402097	ATG16L2	1.75027773741319
AL603965.1	1.05227006657579	ATP2A1	1.21120972529826
SFRP4	1.0523094168912	ATP6V0A1	1.28582851322307
SPIRE1	1.05232264247794	ATP8B1	1.95575020408667
BRMS1L	1.05268228759472	ATP8B2	2.82786163782445
SH3PXD2A	1.05271898573303	ATPAF2	1.22846443540479
RBM43	1.05280169272185	ATRN	1.13979078492185
ZNF48	1.05292342723564	ATRX	1.8367347441327
HEXB	1.05353495975843	ATXN3	1.5336848075794
GRIN2A	1.05419582740788	AUTS2	5.4617882514394
NAP1L5	1.05436584824228	B3GALT4	1.24531591516503
NUDT14	1.05452290848491	B3GNT1	1.23345687899137
PKD1L1	1.05487588824332	B3GNT7	3.25848156770761
RAB11FIP4	1.05487588824332	B4GALNT2	2.88916260698976
SBF2	1.05522203006584	BAI2	2.34637788038899
SIRPAP1	1.05546846493371	BATF2	1.4641857488537
TMEM42	1.05559351784	BATF3	1.34821571308526
TMEM38A	1.05570927931502	BBS5	1.69986590415856
FKBPL	1.0568725334701	BCAM	1.81713964306765
AP5Z1	1.05769613906456	BCAS3	1.37839997225575
ANKDD1A	1.05785986829509	BCL11B	1.66151233030719
AKR1C4	1.05879908389015	BCL9L	1.03800416792665
KCNK15	1.05889065331215	BEST1	1.0162663443704
TAF10	1.05993566801714	BEST3	1.26249722100657
ANKHD1-EIF4EBP3	1.06109312792811	BHMT2	1.00816413594669
DRP2	1.06330243414861	BIK	1.71225119083119
NONO	1.06342438974512	BIRC3	0.993351937068212
FARP1	1.0645163420725	BIRC7	1.18453670681597
PAPPA2	1.06457925430632	BLVRB	1.38771327544355
HCFC1R1	1.06459183646712	BMF	1.44909299389208
INTS1	1.06509812358215	BMP6	1.18408663254636
ZNF747	1.06546634107651	BMPER	1.18259129345513
HS6ST2	1.06551606973248	BMPR2	1.06615365337696
RP11-25K19.1	1.06589494929454	BNIP3L	1.36315752912891
BMPR2	1.06615365337696	BOK	1.37165272549557
TRIM69	1.06638476966666	BPHL	1.50878948596745
PTPRA	1.06763453601803	BRMS1L	1.05268228759472
TLR1	1.06766559959825	BSN	1.39042571197022
IL21R	1.06771640724288	BTBD6	1.44954011934288
RNF187	1.06782837182807	C10orf11	2.48477066342239
LINC00869	1.06840516773759	C10orf12	1.0938994979983
CCR10	1.06864009059637	C10orf54	3.67720923192899

LINC00087	1.06925124468467	C11orf1	1.36360960949403
SLC17A5	1.0697130566622	C11orf45	2.97273320186442
OPTN	1.0707396988148	C11orf54	1.10520394814694
DTD1	1.07081677714053	C12orf39	1.58550175843709
UVRAG	1.0716858164718	C14orf132	2.1873580423177
RP13-977J11.5	1.07176807257001	C14orf182	1.09090574593507
GTF2H1	1.07202634485301	C15orf38	1.72961244143019
RP11-356J5.12	1.07292017209738	C15orf39	1.40056558793042
RP11-347C12.3	1.07345300558532	C15orf48	1.16609538474789
RIOK3	1.07386665446371	C15orf62	4.09760930392519
CTD-3232M19.2	1.0744797986352	C16orf74	1.09350859934267
CTSH	1.07468296750175	C17orf103	1.61703186929973
PARVA	1.07488331528922	C17orf96	1.84577134214693
ZNF408	1.07494676905128	C19orf33	1.75560123138208
PITPNC1	1.07497683150148	C19orf68	1.16810515244617
LINC00346	1.0750612655126	C1orf115	1.54533769810632
TOB2P1	1.07592914367244	C1orf145	1.43789362200779
AICDA	1.07687855587584	C1orf186	1.57608598156209
OSTM1	1.0773302517803	C1orf226	2.06540858137967
PACSIN3	1.07779717811414	C1orf56	1.82135548977507
FAXC	1.07810645256245	C1QTNF1	1.70148069092426
RP11-334A14.2	1.07810943603518	C1QTNF2	1.32695903604285
DDR1	1.07878385625463	C20orf194	1.0969494274234
ERMARD	1.07910016299479	C20orf96	2.19058724882305
STX8	1.08034155256268	C21orf67	1.18855143279244
TDRKH	1.08149503910284	C22orf46	1.1928995802663
STS	1.08249122014162	C2orf27A	1.00312130561246
RAPGEFL1	1.08286026683829	C3	2.4494934233583
TINF2	1.0841248521181	C3orf55	2.55846294426997
GOLGA8R	1.08486722929457	C4BPB	2.91900512391784
PARD3B	1.08503514303357	C4orf19	4.01145778076618
RPS4XP11	1.08555890315133	C6orf1	1.00863367438618
CCRN4L	1.0856201700821	C6orf132	4.33404217320583
XKR6	1.08607154700227	C6orf203	1.08751509646642
MPI	1.08621548683958	C6orf223	2.65781961776061
PBXIP1	1.08645973131724	C6orf58	1.88719341581867
C6orf203	1.08751509646642	C8orf46	1.16848763628572
SDCBP	1.08794690628614	C8orf47	3.84631571186332
PTPN21	1.08820995847084	C9orf72	1.11448916681846
TSPYL2	1.08842760007413	C9orf91	1.47316755230086
WBP1L	1.08856569900375	CA8	1.49357169369048
FBXO44	1.08920377715886	CADM4	1.30130060992609
RP11-589P10.5	1.08931590070873	CALCOCO1	1.28276903352203
JPX	1.08935212308501	CAMK2D	1.46276647302491
PP13439	1.08998599290713	CAPN5	2.04093501687579
STX3	1.09042983290725	CARS	1.23027373678343
RMND5B	1.09070695382947	CASP1	1.39942633577528
C14orf182	1.09090574593507	CASP4	2.09888854876317
ENDOD1	1.09101649572355	CATSPER2P1	1.24987007780781
RP11-563J2.2	1.09137718080299	CBS	1.73851494837861

Gene	Value	Gene	Value
KPNA5	1.09144513646176	CC2D2A	2.07515685522653
FAM155A	1.09148071358666	CCAT1	2.45777489217651
TIGD3	1.09193143292776	CCDC120	1.84771362412085
ADH5P2	1.0922097897706	CCDC122	1.53743410449167
SPIRE2	1.09267044867018	CCDC62	1.93143491280157
ASRGL1	1.09297762122659	CCDC69	3.0400371826091
CCDC88C	1.09334173141718	CCDC84	1.20416355327823
C16orf74	1.09350859934267	CCDC85B	1.15696268546146
FADS1	1.09351309886814	CCDC88C	1.09334173141718
C10orf12	1.0938994979983	CCL2	1.68414470983322
PKN3	1.09455486190536	CCL20	2.10533914477054
TBXA2R	1.09530495318826	CCL28	1.47720156371958
GLCE	1.09556652426719	CCNG2	1.00335037127441
ARHGAP1	1.09558173414303	CCR10	1.06864009059637
HYLS1	1.09594721572062	CCRL2	1.88626319084685
FAM169A	1.09641501184897	CCRN4L	1.0856201700821
SWAP70	1.09676608167187	CCS	1.15113649518822
C20orf194	1.0969494274234	CCSER2	1.27788816621613
ROBO1	1.09715828417265	CD177	2.27173773134395
DFNB31	1.09746209093657	CD22	1.00581395719154
RP11-589N15.2	1.09791176179845	CD40	1.42570280877298
SSC5D	1.09816105676452	CD59	1.29481865742611
ALDH9A1	1.098473469965	CD69	2.16406462737125
ENTPD5	1.09930208814035	CDA	2.03387876666925
SCDP1	1.10074467238361	CDC42EP2	2.0919868270803
TECTA	1.10138121501123	CDH4	9.25015550931889
ARHGEF2	1.10256014212364	CDHR1	3.85068826088668
SOBP	1.1027741916231	CDKN1C	3.49114499986083
ILK	1.10288004323501	CDS2	1.47366389593524
PLEKHM1	1.10291192526264	CEBPB	0.993091549799146
CTD-2591A6.2	1.10302094536194	CEBPD	2.16523506393367
SULT2B1	1.10302094536194	CELF2	5.10818297413556
THAP8	1.10313899633272	CENPB	1.22227776381576
RNF141	1.10409760148353	CERCAM	1.75910030274344
PADI3	1.10411521393177	CFB	3.33441924898787
SUMF1	1.10445315433143	CFL1P3	1.12095153814191
AC007879.5	1.10486008530786	CGRRF1	0.990725222670276
C11orf54	1.10520394814694	CHAC1	2.47756011027816
MAFF	1.105840066705	CHKA	2.43533838046105
RNF214	1.10599634984048	CHN1	2.87150745397445
CTC-241F20.4	1.10639395274203	CHRDL1	3.12477836743783
RRAGC	1.10690271894057	CHRM3	1.19742900006486
RP11-353N4.4	1.10706694700621	CHRM4	2.09481850988088
ICOSLG	1.10719550979667	CILP2	1.6045787607896
SEC31B	1.10821764257083	CLCN5	1.62705971689315
ERCC6L	1.10963029252277	CLDN16	7.69734616069071
FOXN3	1.11023685132933	CLEC4E	2.47022125919594
SARS	1.11075055596246	CLGN	3.2973614295544
FTX	1.11128858356516	CLIC6	1.04470976168802
PRR5L	1.11133895587062	CLIP2	1.21539538188988

Gene	Value	Gene	Value
EFTUD1P1	1.11245214992159	CLIP3	1.19953195688961
TFAP2A-AS1	1.11251442015211	CLU	1.00212487278372
ZFAND4	1.11299063413705	CLUHP3	2.13546036549683
HPS5	1.11325969623493	CMTM3	1.26631137950578
SNX25P1	1.11344075356025	CNGB1	1.27655372955381
GRB10	1.11394909553501	CNNM2	1.53894423910363
C9orf72	1.11448916681846	CNPY3	1.19047316718354
SLC46A3	1.11466438727504	CNRIP1	1.38755739064449
SPNS3	1.11579741269817	CNTNAP1	1.94922042942879
LINC00431	1.11645259805416	COL12A1	3.76999867535316
NCALD	1.11673958902506	COL15A1	1.86146414291567
RP3-426I6.2	1.11676932548913	COL4A4	4.55855852036949
SUPT3H	1.11691440810251	COL6A2	1.18830923400567
GPM6A	1.11703393232675	COL9A2	3.78110288527727
VPS13C	1.11719319483459	COLEC10	6.1912133493769
SAT2	1.1174750934087	COLQ	1.89626076839127
MCF2L2	1.11757587758996	COMMD9	1.2253384033152
AC034220.3	1.11835083978661	COQ6	1.12470625116995
PCDHGA11	1.11866811626073	CORO1B	1.41407086848305
FAM120C	1.11888073581699	CORO2A	2.37926251043559
MPC1	1.11905238573652	CPA6	1.02337937258363
RP4-555D20.4	1.11952568221419	CPM	1.70951464606046
A4GALT	1.12091485973195	CPNE7	2.92535316257024
CFL1P3	1.12095153814191	CPQ	1.51055448825936
EXTL3	1.12128583315514	CREBRF	1.53484883345233
ISCA2	1.12132013162284	CRIP3	1.44430336002991
ARHGAP39	1.12154660109735	CRISPLD1	4.99753175258899
PLD2	1.12180596972128	CRYAA	1.15762765206829
SH3GLB2	1.12210067639868	CRYAB	2.98435311947201
TCP11L1	1.12263452260471	CRYBA2	1.03278960726149
EDN1	1.12279314101652	CSF2	1.40937786739318
LARP6	1.1229247012135	CSF2RA	2.01403851693208
ARHGAP40	1.12323193928602	CSGALNACT1	1.6809752045277
ABAT	1.12331851604991	CSPG4P11	2.02442789819758
EXOC6	1.12428236267122	CST6	4.07228854802934
N4BP2L1	1.1244702490131	CTA-941F9.9	1.88586221984526
COQ6	1.12470625116995	CTB-147C13.1	1.54939105597297
STEAP1B	1.12546056762322	CTC1	1.63005313259368
PPP1R21	1.1256007514214	CTC-241F20.4	1.10639395274203
PLEKHA4	1.12567800222602	CTC-436P18.3	1.15736171029328
THTPA	1.12608625900463	CTD-2008L17.1	1.01665094323445
LGI2	1.12633501487852	CTD-2014B16.2	1.65311036351156
RP11-264B17.3	1.12781628594758	CTD-2015H6.3	1.79974787494056
TNFSF13	1.12854404562146	CTD-2033A16.2	1.03703826053686
DOCK10	1.1288762134651	CTD-2081K17.2	2.82670326191147
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WDR45	1.1302776365611	CTD-2314B22.3	3.48796046017116

ARSD	1.13048634057361	CTD-2319I12.1	6.14249677759424
HSBP1L1	1.13098694450683	CTD-2354A18.1	1.97297793394872
TRIM45	1.13135731885679	CTD-2357A8.3	1.5861293181346
IDH1-AS1	1.13149775889453	CTD-2591A6.2	1.10302094536194
CYP2J2	1.13170110934386	CTD-2600O9.1	2.41299939900851
NCR3LG1	1.13186211983535	CTD-3131K8.2	1.72130581481531
RP6-206I17.1	1.13193779927169	CTD-3232M19.2	1.0744797986352
FAM21FP	1.13254268432048	CTGF	1.95622571631007
TRAF6	1.13434846535764	CTH	1.72102076505117
KIAA1731	1.13441237628597	CTHRC1	2.84984772704275
MEIS3P2	1.1346833403446	CTIF	2.20297431370023
LRRC28	1.13485093373135	CTNS	2.02004452949866
PVRL2	1.13486859944409	CTR9	1.22166439286141
MARCO	1.13519403833831	CTSB	1.58457010728961
IL17RD	1.13553577541334	CTSD	1.75174878905936
RP11-728B21.3	1.1356406369115	CTSH	1.07468296750175
SCARNA9	1.13567128669693	CTSO	1.26577774815494
ARHGEF25	1.13573086051319	CTTN	1.3867028480353
PLCD3	1.13575855291167	CXADR	5.67246847491765
ABHD8	1.13578415936718	CXCL1	1.48349763047199
SLCO3A1	1.13608209512504	CXCL12	6.42542060450465
ISG20	1.13700380097105	CXCL16	4.46918767544405
VPS26B	1.1375757619909	CXCL2	2.42735482615941
ARHGEF12	1.13801240195568	CXCL3	1.00676567238053
RP11-332H14.1	1.13830967146134	CXCL5	2.67962104053309
PDP1	1.13851780990456	CYB5D2	0.99306575557406
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SPNS1	1.14031959783557	CYGB	3.70891814627149
VPS41	1.14096116689098	CYP24A1	4.84899137030484
PPP1R3B	1.14183384257236	CYP27A1	1.92304519067577
PELP1	1.14215893323602	CYP2J2	1.13170110934386
TECPR2	1.14252908607729	CYP2R1	1.13011801599117
ITPK1	1.14442053068474	CYP2U1	2.29716082997016
AC007879.2	1.14492016597892	CYP4F26P	1.79015701154555
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PSAT1	1.1460041079159	CYS1	1.42880018885854
PYGO1	1.14641968779158	CYSTM1	1.20902334087547
MAP3K8	1.14726843692973	CYTH3	1.29847041300136
OLFML2A	1.15009559026849	D2HGDH	2.0963438797301
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CCS	1.15113649518822	DACT1	1.17155453075337
GVINP1	1.15253801281678	DAG1	1.25839853566818
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SEMA6B	1.15510833453903	DAPP1	1.81488201269457
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TMEM256	1.1586040830523	DCTD	1.01779925359464
SYNJ2BP	1.16052382185627	DDAH2	1.38543611417227
RP4-800G7.2	1.16063370528358	DDC	1.63727457743602
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NPPA-AS1	1.16105086629796	DDIT3	1.65745202286534
RP11-347H15.2	1.16105772794322	DDR1	1.07878385625463
DERL2	1.16168181812479	DDX58	1.44723823873216
HKDC1	1.16175839113818	DDX60L	1.0334888175332
RP11-125B21.2	1.16243301990035	DEFB1	2.03689893058552
DVL2	1.16414020373438	DERL2	1.16168181812479
LIMD1	1.16436074392581	DFNA5	1.51448541698961
AJUBA	1.165943648744	DFNB31	1.09746209093657
C15orf48	1.16609538474789	DGKA	1.83923673018478
ACAD8	1.1663939773044	DHRS12	1.26386038821146
C19orf68	1.16810515244617	DHRS4-AS1	1.3019545229567
C8orf46	1.16848763628572	DHRS4L2	1.01967005925405
RAB15	1.16884572487364	DISC1	2.70294393834434
GGACT	1.1692895900752	DISP2	2.16935614388071
SAV1	1.16938536157095	DKK3	1.17336669296002
MGAT4A	1.16951419990859	DLG1-AS1	1.19385509418976
HDAC5	1.16952111547967	DLG3	1.75907054206184
MAD1L1	1.16981498376571	DLGAP1-AS1	1.04530064797114
IFIT2	1.17104043599535	DLGAP1-AS2	1.01724676237367
DACT1	1.17155453075337	DLK2	3.46961489619172
ADM	1.17173808708385	DMD	1.25275414471765
RAB39B	1.17238661211344	DNASE2	1.93194684456084
KIAA0391	1.17253692170926	DND1P1	1.21071762650584
SH3D19	1.17327600282437	DNER	1.9518992944105
DKK3	1.17336669296002	DNHD1	1.40149138017502
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RAB30	1.17383474077361	DNMT3B	1.82295374901676
RP11-697N18.3	1.17414156859954	DOC2A	3.01166249038641
PAQR5	1.17449988357209	DOCK10	1.1288762134651
GK	1.17458896771861	DOCK11	2.34761305201497
NRXN3	1.17467381350552	DOCK6	1.01805370030376
PDZD2	1.17489997260192	DOK6	2.16837660932042
RPL29P19	1.17526431213849	DPAGT1	0.999402420786639
POF1B	1.17603795534528	DPF1	1.04199817039871
RAPSN	1.17648260825366	DPYSL2	2.26516299671301
SLC22A18	1.17663306835604	DRP2	1.06330243414861
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MED11	1.17749667315799	DTX2	1.29853369581948
SVILP1	1.17809743428585	DTX4	2.56040748776873
YIPF6	1.18016531945292	DUSP3	1.43932943243433
XDH	1.18223789281369	DUSP4	1.96085136670351
GBAS	1.18250008534777	DVL2	1.16414020373438
BMPER	1.18259129345513	DYSF	2.37556845598745
PEAR1	1.18279386686971	DZIP1	1.24207813261271
SYNE2	1.18321176534638	EBF4	1.62156217423208
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BIRC7	1.18453670681597	EFHD1	5.2443992014501
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ACO1	1.18734884056052	EGOT	1.92234495929272
XXYLT1	1.18738899752381	EHD1	1.51254183720625
IFT46	1.18762673530662	EIF4E3	1.01316772605653
ADAMTSL4	1.18809003975347	EIF4EBP1	1.18526471141396
COL6A2	1.18830923400567	ELF3	1.2167609127831
PLXND1	1.18835201127045	ELFN1	2.43067551306806
C21orf67	1.18855143279244	ELOVL4	2.2168655834753
P2RX7	1.18953780124521	EMILIN2	1.31543088649878
PPP1R15A	1.18998610239564	ENDOD1	1.09101649572355
CNPY3	1.19047316718354	ENG	6.68359111464656
ALDH5A1	1.19152648508081	ENO3	2.21989785293906
SLCO4C1	1.19210246345635	ENTPD5	1.09930208814035
PIWIL4	1.1922991329723	EPB41L1	1.79332591954488
C22orf46	1.1928995802663	EPB41L4A	1.99256633037288
TUBE1	1.19321941840839	EPG5	1.57147748784887
DLG1-AS1	1.19385509418976	EPHB1	3.7427207749738
FMN2	1.19401976794838	EPHX4	1.29464533234961
SMPDL3B	1.19413525269151	EPN2	5.08433419009775
PKD1L2	1.19473057573586	EPOR	1.02099188413185
GDPD1	1.19537549967335	ERCC2	1.47729894422484
KCNJ5	1.19604085957985	ERCC6L	1.10963029252277
RAB7L1	1.19622999666521	ERMARD	1.07910016299479
TMEM170B	1.19633056677554	ERVMER34-1	6.14038411232516
SDC2	1.1963859602076	ESYT3	1.28050766275408
APOOL	1.19652585820873	ETHE1	2.6636822433563
CHRM3	1.19742900006486	ETNK2	3.98599035719181
RPS4X	1.19759954083378	EVI5L	1.40474480402246
CLIP3	1.19953195688961	EXOC6	1.12428236267122
TAX1BP3	1.19967047739433	EXT2	1.23766988929705
TAF1	1.20036305759223	EXTL3	1.12128583315514
FRMPD3	1.20047065741489	F2RL1	2.09718417710827
SCRN1	1.20059682732534	F2RL3	1.58507205833436
PTCH1	1.20063056535257	FAAH	1.02913162209198
NEK11	1.20289287307037	FADD	1.01917006001726
SMCR8	1.20348944988667	FADS1	1.09351309886814
CCDC84	1.20416355327823	FADS3	2.14028535581916
MACROD1	1.20567599819408	FAIM3	2.91679913066206
SYTL2	1.20594014907728	FAM110B	1.92785277382743
NKX6-1	1.20721685475967	FAM118B	1.25845428139704
LL22NC03-N14H11.	1.20822500528933	FAM120C	1.11888073581699
TMEM179B	1.2090171023869	FAM129A	1.31849098720544
CYSTM1	1.20902334087547	FAM134B	1.70552006916723
DND1P1	1.21071762650584	FAM155A	1.09148071358666

ATP2A1	1.21120972529826	FAM166B	1.04681635071348
TBC1D2B	1.213606014898	FAM169A	1.09641501184897
HCG16	1.21403029373744	FAM171B	1.58269627293176
SIPA1	1.21407923020374	FAM172A	1.02973634491702
CLIP2	1.21539538188988	FAM177A1	1.02882675062303
ARHGEF37	1.21634615289071	FAM177B	2.24762858003471
ELF3	1.2167609127831	FAM179B	1.34124032043654
SLFN12	1.21684062553622	FAM189A1	5.88988075045464
FAM78A	1.2171285803011	FAM189A2	4.43067576407977
SPRY1	1.21763784574354	FAM19A2	4.31118980247868
FERMT1	1.21817595040286	FAM20C	1.98350404467315
RPS4XP2	1.21841230912689	FAM211A	2.4291179432792
ZNF543	1.22012947644843	FAM213A	2.94074431042862
AC005307.3	1.22085774431116	FAM21A	1.40682768263048
TMEM256-PLSCR3	1.22145616762958	FAM21B	1.49454457904732
PPM1N	1.22162766839294	FAM21C	1.62612496506801
CTR9	1.22166439286141	FAM21D	1.70919571489985
UBTD2	1.2217384810082	FAM21FP	1.13254268432048
SPOCK2	1.22192596696066	FAM26E	1.59942179955277
GUCY1A2	1.22199926352657	FAM26F	1.5700590973537
CENPB	1.22227776381576	FAM43A	3.98644568391338
GPC5	1.22263819311243	FAM46C	1.38036419799557
RP3-449M8.6	1.22287290719192	FAM65C	1.81229309611153
RP11-420A23.1	1.22313339606913	FAM78A	1.2171285803011
SOCS2-AS1	1.22375215617649	FAM83A	2.29182436749804
COMMD9	1.2253384033152	FAM83G	4.03365591218685
UHRF1BP1	1.22545985717406	FAM84B	1.64765471007392
RP5-874C20.3	1.22558606994692	FAM89A	1.83356016425237
YWHAEP7	1.22716408482369	FARP1	1.0645163420725
STX7	1.22747123086643	FAT1	1.36449019554618
FERMT3	1.22776381283215	FAXC	1.07810645256245
TSNARE1	1.22838727683773	FBLIM1	2.65197940806171
ATPAF2	1.22846443540479	FBLN1	5.16245962212002
SLC22A15	1.22881260827698	FBLN7	2.73481517284799
PATL2	1.22943664868457	FBN1	4.1152566702651
NEGR1	1.23022517287026	FBXL18	1.49042260078503
CARS	1.23027373678343	FBXO25	1.43704576028057
WWC1	1.230521954454	FBXO44	1.08920377715886
PPP1R14C	1.23232248243738	FBXO6	2.01287144023972
CYCSP6	1.23244331521378	FCAMR	0.999310236002415
SLC36A1	1.23271042482359	FCGRT	5.22356771872667
ARHGEF40	1.23285491620017	FERMT1	1.21817595040286
UBXN2B	1.23297345142604	FERMT3	1.22776381283215
LOXL3	1.23301968739475	FEZ1	4.34232137358706
B3GNT1	1.23345687899137	FGF18	3.54588216304479
SP9	1.23362359211507	FGGY	1.02681339093865
PCDHB11	1.23420517838087	FIGNL1	1.67779161124245
GOLGA6L5P	1.2348278959039	FJX1	1.46995814455511
LONRF1	1.23521428585639	FKBP9	1.53231162955141
PPA2	1.23547066915034	FKBP9L	1.42561751014684

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RCOR2	1.23691924317877	FLCN	1.47617620201588
PXDNL	1.23715650037396	FLRT1	1.37094501734132
EXT2	1.23766988929705	FLT1	5.64609095726749
PRDX5	1.23784465085038	FMN2	1.19401976794838
NMNAT2	1.23810156246725	FMNL2	1.42173548619902
IGF2-AS	1.23841791272051	FN3K	1.6554248133918
IRAK1BP1	1.23867067097457	FOXN3	1.11023685132933
RP1-261D10.1	1.23963416536258	FOXN3-AS1	2.00754326435062
GOLGA8N	1.2405381057425	FOXO4	1.59504636623802
PTGS1	1.2409523788399	FOXRED2	1.99655675490463
HDAC9	1.24181170131908	FRAS1	5.0725161955531
DZIP1	1.24207813261271	FRAT1	1.76848117047598
PADI1	1.24289276802058	FREM2	1.54773570879649
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B3GALT4	1.24531591516503	FRMPD3	1.20047065741489
THOC6	1.24574889080332	FRY	1.90022375957416
AL591704.5	1.24596014215731	FSD1	1.34848804059853
KLHL30	1.24672241959147	FTCDNL1	1.49645915525173
KCNN3	1.24805265221564	FTH1	3.23924433843859
YPEL2	1.24888683522722	FTH1P1	2.84544409607425
KIAA1107	1.24958778837477	FTH1P10	3.20523293537001
CATSPER2P1	1.24987007780781	FTH1P11	3.36927009668747
GPNMB	1.25086753786427	FTH1P12	2.8146922724261
MARCH9	1.25091567763043	FTH1P15	2.15579057656082
PDZD4	1.25130958737737	FTH1P16	3.18863397309095
NEURL2	1.25162457062742	FTH1P2	3.34198370242175
SLC7A11	1.25189574105625	FTH1P20	3.03271781422315
SLC50A1	1.2522148448642	FTH1P21	2.04989565588389
RASGRP1	1.25260697021242	FTH1P23	3.00156053900226
DMD	1.25275414471765	FTH1P3	1.95218943182489
SDCBPP2	1.25426655231412	FTH1P4	1.99265436540226
ARSB	1.25427738312158	FTH1P5	3.26468741312218
GPR137B	1.25515488244744	FTH1P7	3.28995152966446
DAG1	1.25839853566818	FTH1P8	3.29665770206668
FAM118B	1.25845428139704	FTL	1.50062913764053
RP11-351I24.1	1.25944497591917	FTLP2	1.41308703565647
VEGFB	1.26046569589504	FTLP3	1.50147555718233
MAP4K5	1.2620713185816	FTX	1.11128858356516
BEST3	1.26249722100657	FUT1	3.31191775960812
DHRS12	1.26386038821146	FYN	2.92048367211362
SP140	1.2648057500078	FZD4	0.992541152465031
LINC00862	1.26523953364041	G6PD	1.44617745116432
CTSO	1.26577774815494	GAB2	1.36189234192124
RP11-806O11.1	1.26592417928975	GAB3	2.51727094356457
CMTM3	1.26631137950578	GABARAP	1.02200056030618
RP11-521B24.3	1.26668871831256	GABRB3	1.72341470300476
DDC8	1.26765686774199	GAD1	2.21228962369987
SOS2	1.26838417758949	GALNT12	3.43512851551324

SNPH	1.26879918207503	GALNT18	2.20290308843114
TOX	1.26950178987726	GALNT6	1.31815834731475
OSBP2	1.27094071900977	GALT	1.42511191083374
ZNF620	1.27407244362753	GAREML	1.62827559922759
PTPLA	1.27411757188971	GATA3	1.72515622637264
SEL1L3	1.27423164502459	GBA	1.75315764186039
CNGB1	1.27655372955381	GBAS	1.18250008534777
ZNF396	1.2767135645391	GBX2	1.93231528105871
CCSER2	1.27788816621613	GCH1	1.28382152933127
TNFAIP2	1.27804547094351	GCHFR	1.77901213617917
HID1	1.27833225983253	GCNT2	1.33338756348168
PCNXL4	1.27925578072427	GCNT3	1.83226921594257
TMEM159	1.27959495182912	GCNT4	1.31886886015748
TSPAN2	1.28021595937249	GDA	2.35677749057453
ESYT3	1.28050766275408	GDAP1	3.04666964555228
ADM2	1.28196929155068	GDF15	2.78555767527966
CALCOCO1	1.28276903352203	GDPD1	1.19537549967335
NEAT1	1.28323437697863	GDPD5	1.35064435806384
GCH1	1.28382152933127	GET4	1.00321545055609
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WWC2-AS2	1.28422734283665	GID4	1.51397040957845
LINC00944	1.28433922530597	GJC1	1.04184089368862
RPS4XP3	1.28520888725532	GK	1.17458896771861
ATP6V0A1	1.28582851322307	GLCE	1.09556652426719
KCP	1.28614794696865	GLI1	1.57686734957524
PABPC4L	1.28675734414849	GLI3	1.70533548330186
UCA1	1.2878191023775	GNG4	4.68992306057533
TMEM194B	1.28804139580535	GNGT2	3.21094439725131
MDGA2	1.28973717551904	GNL1	1.02196277054008
LINC00623	1.29078337642397	GNPDA1	1.60426731707917
RNF152	1.29102622782135	GNPTG	1.15812983531577
AC016710.1	1.29102622782135	GOLGA2P7	1.31751125273346
SQRDL	1.29122923751408	GOLGA6L5P	1.2348278959039
LURAP1L	1.29252722347623	GOLGA7B	1.65516288079918
EPHX4	1.29464533234961	GOLGA8N	1.2405381057425
CD59	1.29481865742611	GOLGA8O	1.31263780481465
NFKBIA	1.29513344196897	GOLGA8R	1.08486722929457
PHACTR2	1.29652966576159	GPC5	1.22263819311243
ZBED3	1.29736807444459	GPER1	3.34384329726789
CYTH3	1.29847041300136	GPM6A	1.11703393232675
DTX2	1.29853369581948	GPNMB	1.25086753786427
IGBP1P1	1.2986073639467	GPR124	2.25543788471701
HS1BP3	1.30006694534947	GPR137B	1.25515488244744
IFNGR1	1.30122778758899	GPR146	1.82572254024042
SNX8	1.30123281377534	GPR176	1.43638325737806
CADM4	1.30130060992609	GPR37L1	1.94712086816508
SAMD4A	1.30137093797177	GPRC5C	3.26937536624383
DHRS4-AS1	1.3019545229567	GPSM3	1.80960746759824
RP13-580F15.2	1.30367775793447	GRB10	1.11394909553501
SERTAD4-AS1	1.30479595294085	GRIN2A	1.05419582740788

SNX24	1.30545566673341	GRIP1	2.0720487759149
PIK3CD	1.30663066977376	GRK5	1.00979772920134
MX1	1.3076356782471	GRN	2.3196032472888
RP11-69G7.1	1.30778791112602	GSTA4	2.1288309102894
PDE2A	1.30847216039168	GSTM3	1.51464514834433
ARL2	1.31071429207487	GSTO2	3.60526869374795
STAT1	1.31097591589536	GSTT2	1.5860151455157
LINC00908	1.31140308397364	GTDC1	1.74400738441228
RP11-191L9.4	1.31178189124957	GTF2H1	1.07202634485301
HTATIP2	1.31226602148315	GUCY1A2	1.22199926352657
GOLGA8O	1.31263780481465	GVINP1	1.15253801281678
RP11-362F19.1	1.31298494670367	GYPC	1.01449737479209
PSEN1	1.31530185413638	H1F0	5.41271713675675
EMILIN2	1.31543088649878	H2BFXP	8.66976129755603e-05
NIN	1.31679249047383	H6PD	1.5065420716439
GOLGA2P7	1.31751125273346	HCFC1R1	1.06459183646712
PANX1	1.31774262994596	HCG16	1.21403029373744
PCDHB13	1.31777645674446	HCN4	5.01937175787624
TP53	1.31812543730719	HDAC5	1.16952111547967
GALNT6	1.31815834731475	HDAC9	1.24181170131908
FAM129A	1.31849098720544	HDDC3	1.1510724771717
GCNT4	1.31886886015748	HDX	1.69870162570233
TRIM21	1.31973894010789	HECW1	1.5279591882911
TTC9	1.32038847897336	HECW2	1.55835807547278
ITGB2-AS1	1.32047588342511	HERC2P2	1.33582985061713
AC104135.4	1.32064434994029	HERC5	2.86118478613672
TLE2	1.32339923123905	HEXB	1.05353495975843
ZNF98	1.3264553657155	HIBADH	1.0071407724492
C1QTNF2	1.32695903604285	HID1	1.27833225983253
OAF	1.32813145602984	HIF1A	3.92555009707969
ASS1P12	1.32914587224379	HIST1H2AC	1.00082438613179
MST1	1.33080533366479	HIST1H3E	1.41630162755402
MED12	1.33101110291765	HKDC1	1.16175839113818
GCNT2	1.33338756348168	HMGA1	4.46207416108908
ARVCF	1.33394244729207	HMGA1P1	2.66192941493438
SEMA3E	1.33535927669122	HMGA1P2	3.582655601982
HERC2P2	1.33582985061713	HMGA1P3	4.0136424377817
ULK2	1.33786948653791	HMGA1P8	2.71331267517153
TNRC6C	1.33831704029556	HMHA1	3.84460970753989
HTATSF1P2	1.3386374892476	HMOX1	2.91342095782481
ADAMTS5	1.33907974364199	HOXA13	1.38245243300893
SOCS2	1.34103075644314	HOXA7	3.8014296847888
FAM179B	1.34124032043654	HOXD-AS2	0.999513220049369
JMY	1.34174967283023	HPS1	1.00427921988012
LRRC20	1.34456669412261	HPS5	1.11325969623493
ST14	1.34537887966399	HRK	2.21592531104127
ZSCAN16	1.34540303049024	HS1BP3	1.30006694534947
BATF3	1.34821571308526	HS3ST1	1.88592340080155
FSD1	1.34848804059853	HS6ST2	1.06551606973248
SLC8B1	1.34954769151749	HSBP1L1	1.13098694450683

SERPINH1P1	1.34985200185234	HSPA2	1.87799901056219
GDPD5	1.35064435806384	HTATIP2	1.31226602148315
SLC25A4	1.35119230275908	HTATSF1P2	1.3386374892476
TWF2	1.35128704539645	HYLS1	1.09594721572062
RAB3B	1.35435454173831	ICAM2	1.74501372669618
LRP4	1.35466856816101	ICOSLG	1.10719550979667
SC5D	1.35538166475593	IDH1-AS1	1.13149775889453
LIMS2	1.35682519880264	IDNK	1.44467849455908
LBX2-AS1	1.35695658500501	IDUA	1.54993237242719
RP11-159D12.2	1.35700900155146	IFI27L2	1.04104845485741
MMP2	1.3584255933097	IFI35	1.67875780484362
RGS9BP	1.36023137760788	IFIH1	1.67174363835537
ADAMTS2	1.36085169972882	IFIT2	1.17104043599535
SUSD1	1.36122284549349	IFIT3	1.01650717095328
NFIB	1.36148101054537	IFITM10	1.03742617644467
GAB2	1.36189234192124	IFNGR1	1.30122778758899
MAPK8IP1	1.36240287969958	IFT46	1.18762673530662
MANBA	1.36247771498511	IGBP1	1.95017590234382
APC2	1.36253414891304	IGBP1P1	1.2986073639467
ZNF492	1.36289514836168	IGDCC4	6.62539442876845
BNIP3L	1.36315752912891	IGF2-AS	1.23841791272051
C11orf1	1.36360960949403	IGF2BP1	1.68273809702642
FAT1	1.36449019554618	IGFBP2	5.00269310594521
RP11-350J20.12	1.36845252874145	IGFBP4	2.96966205237471
SLC19A3	1.36907771438887	IGFBP5	2.58365799425137
KCNMB1	1.36940004021259	IKBKE	1.14522866514366
FLRT1	1.37094501734132	IL17RD	1.13553577541334
BOK	1.37165272549557	IL18	1.02448736946302
SYT1	1.37172343516149	IL21R	1.06771640724288
SRR	1.37203822620812	IL27RA	3.08312633263045
ZNF517	1.37227743601616	IL2RG	1.83708349409091
RP11-867G23.8	1.37353557119099	IL31RA	2.93084710181865
UBE2Q2P1	1.37615786733878	IL4I1	1.40966424683496
ACPL2	1.37622426057807	IL6	2.34393444262438
LBX2	1.37668552788582	IL6R	1.56570735309074
BCAS3	1.37839997225575	IL8	1.72974766167172
FAM46C	1.38036419799557	ILK	1.10288004323501
RALGAPA2	1.38088936521658	IMPA2	1.47356174105844
RAG1	1.3813483744709	INCA1	1.47906007841654
ZNF319	1.38152148421988	INHBA	1.0522626402097
RP11-697N18.1	1.38210857865327	INHBE	4.14781039153648
HOXA13	1.38245243300893	INPP4B	5.32514935524869
ZNF688	1.38383307885683	INTS1	1.06509812358215
TCIRG1	1.38499868781292	IQCD	2.80604637862498
DDAH2	1.38543611417227	IRAK1BP1	1.23867067097457
NR1H3	1.38620058862739	IRF8	1.78677727152813
CTTN	1.3867028480353	IRF9	1.41423793348105
CNRIP1	1.38755739064449	ISCA2	1.12132013162284
BLVRB	1.38771327544355	ISG20	1.13700380097105
BSN	1.39042571197022	ITGA1	2.21329217615986

ABCD4	1.39126627841835	ITGA4	1.97193321766347
PRSS12	1.39133381499623	ITGA6	1.75766657383349
RP11-1055B8.7	1.39299399182231	ITGB2-AS1	1.32047588342511
AC093818.1	1.3943697990253	ITPK1	1.14442053068474
TP53INP2	1.3950620702499	JAM2	1.63140598342236
OTUB2	1.39654727082387	JDP2	2.86800630469048
UPRT	1.3966122745902	JMY	1.34174967283023
KCNT2	1.39852201928781	JPH1	2.70022053103649
ANO10	1.39852253575165	JPH2	3.66900712055258
TCF7L2	1.39878916748978	JPX	1.08935212308501
REEP6	1.39891012903791	KBTBD11	1.93084109617641
TBC1D8	1.39912924287394	KCNAB2	1.47156546583294
CASP1	1.39942633577528	KCNIP1	7.47321650658197
SHBG	1.39997101347838	KCNJ12	2.13455174750902
SYTL4	1.40007716435012	KCNJ5	1.19604085957985
C15orf39	1.40056558793042	KCNK15	1.05889065331215
DNHD1	1.40149138017502	KCNK3	3.69680341308939
OSR1	1.40154848220041	KCNMB1	1.36940004021259
EVI5L	1.40474480402246	KCNN3	1.24805265221564
MATN2	1.40647671056756	KCNQ3	1.0328404086797
FAM21A	1.40682768263048	KCNQ4	2.85060118725657
OSER1-AS1	1.40684486268153	KCNT2	1.39852201928781
CSF2	1.40937786739318	KCP	1.28614794696865
PSG3	1.40949240387355	KCTD14	2.77772808838426
IL4I1	1.40966424683496	KDELC2	1.54019103455753
LCN2	1.41171529578238	KHDRBS3	1.89760887378774
FTLP2	1.41308703565647	KIAA0040	1.60143580678594
PCED1A	1.41352799977165	KIAA0196	0.995184672418208
CORO1B	1.41407086848305	KIAA0391	1.17253692170926
TMEM134	1.41419675524408	KIAA1107	1.24958778837477
IRF9	1.41423793348105	KIAA1109	0.996714366329443
HIST1H3E	1.41630162755402	KIAA1211	3.35044279722165
MAP4K2	1.4163765592929	KIAA1683	1.43775939453641
RP11-472M19.2	1.41944755150388	KIAA1731	1.13441237628597
LIMD2	1.41948566743941	KIF17	1.45261148830282
FMNL2	1.42173548619902	KIF26A	1.6351601226692
GALT	1.42511191083374	KIF6	2.90542056291763
FKBP9L	1.42561751014684	KLF4	1.7530994653855
CD40	1.42570280877298	KLF8	1.62784942361415
MYO5C	1.42788699496178	KLHDC8B	2.46894125117696
CYS1	1.42880018885854	KLHL24	2.67330601682424
ABCC10	1.42919178539858	KLHL29	1.54223289829925
KPTN	1.43018998294891	KLHL30	1.24672241959147
RP11-403I13.8	1.43047618243525	KPNA5	1.09144513646176
PSG7	1.4324347171439	KPTN	1.43018998294891
GPR176	1.43638325737806	KRT17	6.37571446125045
AC009133.14	1.43699082074698	KRT33B	1.82434266428921
FBXO25	1.43704576028057	KRT34	2.54151591569985
KIAA1683	1.43775939453641	KRT7	3.03675476312849
C1orf145	1.43789362200779	KRT81	3.2474427683037

Gene	Value	Gene	Value
ASPHD2	1.43847781743992	KRT86	1.77228751317101
DUSP3	1.43932943243433	KSR1	2.84666633823723
PPM1L	1.44016430690576	L1CAM	5.44724645498087
CYBRD1	1.44031170761954	LAMA1	1.95556390466503
ADAMTS9	1.44083375741505	LAMA2	3.4974409378906
SGK3	1.44110164181282	LAMA5	3.20679234833955
SLC16A2	1.44384524551161	LAMP5	1.04591577681666
CRIP3	1.44430336002991	LAMTOR1	1.02358974862123
IDNK	1.44467849455908	LAPTM4B	1.04137177394385
G6PD	1.44617745116432	LARP6	1.1229247012135
DDX58	1.44723823873216	LBH	1.04474666377091
SIX1	1.44800966797551	LBX2	1.37668552788582
BMF	1.44909299389208	LBX2-AS1	1.35695658500501
MMP16	1.4490999321645	LCN2	1.41171529578238
BTBD6	1.44954011934288	LCP1	3.63531474502358
KIF17	1.45261148830282	LGALSL	2.11408298251936
ZNF234	1.45267552812507	LGI2	1.12633501487852
MOCS1	1.45449342821053	LGR4	2.61090713287462
UQCRFS1P1	1.45608550956448	LHPP	1.55067920635518
AC025335.1	1.45782321634315	LIMCH1	5.10852091572275
TRIB1	1.45974119897162	LIMD1	1.16436074392581
CAMK2D	1.46276647302491	LIMD2	1.41948566743941
RP11-849F2.8	1.46338366590276	LIMS2	1.35682519880264
MSANTD1	1.46406053710472	LIN7A	1.73064471045673
ABCB6	1.46414686970342	LINC00087	1.06925124468467
BATF2	1.4641857488537	LINC00346	1.0750612655126
MACROD2	1.46449772584283	LINC00355	3.66641822921016
CTD-2267D19.3	1.4649834409922	LINC00431	1.11645259805416
PIN4	1.46596286243904	LINC00521	2.80008623961866
FJX1	1.46995814455511	LINC00528	1.05206167250247
SLC18B1	1.47002277917964	LINC00607	2.1808321463271
SERPINB9	1.47085929100876	LINC00623	1.29078337642397
KCNAB2	1.47156546583294	LINC00638	1.85047073246782
RP11-17M16.2	1.47270736395638	LINC00857	2.52817450091202
C9orf91	1.47316755230086	LINC00862	1.26523953364041
IMPA2	1.47356174105844	LINC00869	1.06840516773759
CDS2	1.47366389593524	LINC00908	1.31140308397364
FLCN	1.47617620201588	LINC00944	1.28433922530597
ACCS	1.47674448973995	LINC00948	1.61303995553913
CCL28	1.47720156371958	LIPC	3.0855341091243
ERCC2	1.47729894422484	LL21NC02-1C16.1	1.70474370286819
RP11-417E7.1	1.47807921398654	LL22NC03-N14H11.	1.20822500528933
RP3-368A4.5	1.47837990250461	LL22NC03-N64E9.1	2.24703534745113
TTLL3	1.4784591455382	LMO2	3.4989580463916
INCA1	1.47906007841654	LONRF1	1.23521428585639
ZC3H12C	1.4796115457883	LOX	2.56825184723752
RP11-1166P10.1	1.47991604219041	LOXL1	1.61579439086226
ANKRD18B	1.48188140903195	LOXL1-AS1	1.97337340203987
CXCL1	1.48349763047199	LOXL3	1.23301968739475
ARHGAP23P1	1.48444484471689	LPAR2	1.18530318040598

Gene	Value	Gene	Value
TRIM29	1.48711810147177	LPL	6.46298655251002
TAGLN3	1.48712774824712	LRFN3	1.9280247062768
TENM4	1.4888097555716	LRP4	1.35466856816101
RLIM	1.48986506364935	LRRC15	2.40272603225294
MDGA1	1.49024874511349	LRRC20	1.34456669412261
FBXL18	1.49042260078503	LRRC28	1.13485093373135
NFE2L1	1.49074837219509	LRRC49	1.00826931195078
CA8	1.49357169369048	LSR	2.32734215693863
FAM21B	1.49454457904732	LTBP2	3.42170453306095
AGMAT	1.49557382402213	LURAP1L	1.29252722347623
RP11-115J23.1	1.49582033714311	LY6E	1.66898002504328
FTCDNL1	1.49645915525173	LY6K	4.76004932962275
MROH8	1.49911074147087	LYPD6	1.03648465344363
TBC1D30	1.49924296295562	LYRM9	1.00084404839316
MT2A	1.50062057172165	LZTS3	1.68690918524293
FTL	1.50062913764053	MACROD1	1.20567599819408
FTLP3	1.50147555718233	MACROD2	1.46449772584283
SCAND2P	1.50172393390848	MAD1L1	1.16981498376571
SH3GL2	1.50332308981409	MAFF	1.105840066705
PCLO	1.50610634767193	MAGEB2	3.55087584340967
H6PD	1.5065420716439	MAL2	1.98597043648025
BPHL	1.50878948596745	MANBA	1.36247771498511
PARD6G	1.50984725532852	MAP1LC3C	2.33828344042949
RNF150	1.5104911908086	MAP3K15	2.35403238303129
CPQ	1.51055448825936	MAP3K5	1.55145899508348
EHD1	1.51254183720625	MAP3K8	1.14726843692973
MBP	1.51290730371165	MAP4K2	1.4163765592929
GID4	1.51397040957845	MAP4K5	1.2620713185816
DFNA5	1.51448541698961	MAPK11	0.99640789466539
GSTM3	1.51464514834433	MAPK8IP1	1.36240287969958
NCOA7	1.51553037164811	MARCH2	1.69578030831136
WDR81	1.51768117228239	MARCH4	2.11382612941475
PTPRM	1.52018734647288	MARCH9	1.25091567763043
SNX12	1.5210892909496	MARCO	1.13519403833831
ANO9	1.52660929885383	MARK1	4.04360030855694
SERPINH1	1.52772040876775	MATK	1.7012044134412
HECW1	1.5279591882911	MATN2	1.40647671056756
QRFPR	1.52936562827465	MATN3	2.6685682147261
FKBP9	1.53231162955141	MBP	1.51290730371165
MT2P1	1.53279700212329	MCAM	1.72622413937075
ATXN3	1.5336848075794	MCF2L2	1.11757587758996
CREBRF	1.53484883345233	MCOLN3	4.27245506171112
EFTUD1	1.53532821238795	MDGA1	1.49024874511349
CCDC122	1.53743410449167	MDGA2	1.28973717551904
CNNM2	1.53894423910363	MED11	1.17749667315799
KDELC2	1.54019103455753	MED12	1.33101110291765
PLD1	1.54068619966227	MEGF6	1.02049640920367
NAGLU	1.54148320198323	MEGF8	1.0461321663802
KLHL29	1.54223289829925	MEIS3	4.42113513228702
PACS2	1.54341179243777	MEIS3P1	1.94259729066746

C1orf115	1.54533769810632	MEIS3P2	1.1346833403446
FREM2	1.54773570879649	MERTK	2.07969046675562
SLC2A12	1.54850787887593	MFHAS1	0.994580487691405
CTB-147C13.1	1.54939105597297	MFSD2B	2.01198639437677
IDUA	1.54993237242719	MGAT4A	1.16951419990859
AC005540.3	1.55021850643895	MGAT4C	3.34868543714253
LHPP	1.55067920635518	MIOX	1.57784958335963
MAP3K5	1.55145899508348	MIR146A	2.56292799300193
TRANK1	1.55324862867134	MISP	2.40317572584616
PPT2	1.554230914573	MKX	3.13969811866897
RP3-399L15.3	1.55517726354599	MLPH	5.64399111992244
TET1	1.55671662412873	MMP1	4.87621795797021
SDR42E1	1.55678460832432	MMP15	2.88706982555748
RP11-554I8.2	1.55700274527408	MMP16	1.4490999321645
HECW2	1.55835807547278	MMP17	2.53323276209055
WWC2	1.55885530394105	MMP2	1.3584255933097
TEX22	1.55931027167223	MOB3B	2.3912982839137
WNT5A	1.56115220206361	MOCS1	1.45449342821053
NANOS1	1.56174156027093	MPC1	1.11905238573652
PROS1	1.56289888461542	MPI	1.08621548683958
RP11-879F14.2	1.56394978658389	MPP2	1.76062576364523
PEPD	1.5656421945341	MPP7	2.13744752248594
IL6R	1.56570735309074	MROH8	1.49911074147087
THY1	1.56902222823076	MSANTD1	1.46406053710472
FAM26F	1.5700590973537	MSC	1.05070609063284
EPG5	1.57147748784887	MSRA	1.78887814492065
NKIRAS2	1.57395500253987	MST1	1.33080533366479
AC104841.2	1.57577986188534	MT1L	2.16037247679907
C1orf186	1.57608598156209	MT2A	1.50062057172165
GLI1	1.57686734957524	MT2P1	1.53279700212329
MIOX	1.57784958335963	MTHFS	1.82976405866168
AGT	1.5817654669485	MTMR8	7.63900772537091e-05
TCEAL4	1.58244158302031	MTMR9LP	2.89196184425077
RP11-150O12.3	1.58248210117882	MT-TC	1.04769531267963
FAM171B	1.58269627293176	MT-TD	1.01910138842137
CTSB	1.58457010728961	MX1	1.3076356782471
F2RL3	1.58507205833436	MX2	1.03473982962779
C12orf39	1.58550175843709	MYH14	4.39563976003861
TLCD2	1.58590922105188	MYO1D	2.41694362784994
GSTT2	1.5860151455157	MYO5C	1.42788699496178
CTD-2357A8.3	1.5861293181346	MYO7A	4.15475933827725
P2RY8	1.58673731402998	N4BP2L1	1.1244702490131
TNFAIP3	1.58764064108089	N4BP3	4.20194029244529
RP11-445P17.8	1.58794496767435	NAGLU	1.54148320198323
PALM2	1.59025009132832	NANOS1	1.56174156027093
ZBTB44	1.59056084970358	NAP1L5	1.05436584824228
SAA2-SAA4	1.5917295431447	NAT8L	3.88330185926872
PRDM11	1.59296216409123	NCALD	1.11673958902506
FOXO4	1.59504636623802	NCOA7	1.51553037164811
TRAF5	1.59512655309298	NCOR1P3	2.56450169247178

ABCB7	1.59664970627131	NCR3LG1	1.13186211983535
SLC37A2	1.59739419607546	NEAT1	1.28323437697863
FAM26E	1.59942179955277	NEGR1	1.23022517287026
KIAA0040	1.60143580678594	NEIL1	1.75836400378836
GNPDA1	1.60426731707917	NEK11	1.20289287307037
CILP2	1.6045787607896	NELL2	2.92288101388655
RP11-783K16.14	1.60609226377489	NEU1	2.19345978582345
PIK3AP1	1.60884454683274	NEURL2	1.25162457062742
TMEM47	1.60959686283509	NEURL3	2.59140425178687
LINC00948	1.61303995553913	NFE2L1	1.49074837219509
LOXL1	1.61579439086226	NFIB	1.36148101054537
C17orf103	1.61703186929973	NFKBIA	1.29513344196897
SVIL	1.62078906176342	NHLRC1	1.86224648065617
EBF4	1.62156217423208	NID2	3.28476824641945
FAM21C	1.62612496506801	NIN	1.31679249047383
RRAGB	1.62622456663396	NINL	1.8761177066405
CLCN5	1.62705971689315	NKAIN4	2.05788218700449
KLF8	1.62784942361415	NKIRAS2	1.57395500253987
GAREML	1.62827559922759	NKX6-1	1.20721685475967
ASS1P10	1.62934338545092	NLRX1	1.6717280981648
CTC1	1.63005313259368	NME4	3.20875287127741
JAM2	1.63140598342236	NMNAT2	1.23810156246725
AC093391.2	1.63199090900551	NOG	3.88467455843557
RP4-584D14.7	1.63223243943053	NONO	1.06342438974512
KIF26A	1.6351601226692	NOXA1	1.97036280054878
PPM1E	1.6351601226692	NPC2	2.21623558746186
UNC13A	1.63565685113596	NPNT	1.86504085387487
PRKCQ-AS1	1.63723221577658	NPPA-AS1	1.16105086629796
DDC	1.63727457743602	NPPB	7.70747124026654
RPS4XP17	1.63751204338727	NPR1	2.21352105137509
AC104024.1	1.6415076834482	NPR2	2.03662095067629
PDZD11	1.64453386388028	NPTXR	1.66601191071954
ACBD4	1.64639909522101	NR0B1	3.13544543653425
FAM84B	1.64765471007392	NR1H3	1.38620058862739
STK33	1.64946536560748	NR3C2	2.29969406743381
SLC27A3	1.65079788386947	NR4A1	1.87211721810222
CTD-2014B16.2	1.65311036351156	NRARP	1.8247812925204
RALGAPA1	1.65468054184864	NRCAM	1.0121643933512
SOX13	1.65491667349807	NRG2	1.99359441610025
GOLGA7B	1.65516288079918	NRXN2	1.98391186624639
FN3K	1.6554248133918	NRXN3	1.17467381350552
DDIT3	1.65745202286534	NTN1	1.8636254910082
BCL11B	1.66151233030719	NUAK2	1.80355183455411
TCN2	1.6645406053025	NUDT14	1.05452290848491
PPM1J	1.665563238618	NUDT7	1.92090065421489
NPTXR	1.66601191071954	NUP210	2.40999846647116
SNN	1.66628549706769	NUPR1	4.23627586558843
LY6E	1.66898002504328	NXPH4	3.7240514128326
UXS1	1.66943266680778	NYX	2.2857176969772
PHYH	1.67066142459473	OAF	1.32813145602984

UCP2	1.67129490435584	OBSCN	3.11070272404768
NLRX1	1.6717280981648	OGDH	0.993567864449068
IFIH1	1.67174363835537	OGDHL	2.50575598867261
ARAP1	1.67197810898764	OGT	2.12940827470207
FIGNL1	1.67779161124245	OLA1P1	1.03045326511416
IFI35	1.67875780484362	OLFML2A	1.15009559026849
CSGALNACT1	1.6809752045277	OPHN1	2.61109466606879
PSG2	1.68203745693017	OPLAH	3.45424317226391
AC147651.4	1.68248557631401	OPTN	1.0707396988148
IGF2BP1	1.68273809702642	OR12D2	2.82911927011026
TMCC2	1.68412314481929	OSBP2	1.27094071900977
CCL2	1.68414470983322	OSBPL1A	2.90233778837991
ARRB1	1.68421281506028	OSCAR	2.55512814252361
SNX18P7	1.6844540102598	OSER1-AS1	1.40684486268153
LZTS3	1.68690918524293	OSR1	1.40154848220041
RP11-907D1.2	1.6876297957901	OSTM1	1.0773302517803
AP1G2	1.68888422772586	OTUB2	1.39654727082387
DAGLB	1.69224499651387	OXA1L	1.00183510917754
MARCH2	1.69578030831136	P2RX4	1.91742757186926
PADI2	1.69584524450028	P2RX7	1.18953780124521
RGS10	1.69716361722447	P2RY8	1.58673731402998
HDX	1.69870162570233	PABPC4L	1.28675734414849
BBS5	1.69986590415856	PACS2	1.54341179243777
MATK	1.7012044134412	PACSIN3	1.07779717811414
PPP4R4	1.70140985003362	PADI1	1.24289276802058
C1QTNF1	1.70148069092426	PADI2	1.69584524450028
RP11-35G9.3	1.70316529096735	PADI3	1.10411521393177
LL21NC02-1C16.1	1.70474370286819	PALM2	1.59025009132832
RAB32	1.70516339945239	PANX1	1.31774262994596
GLI3	1.70533548330186	PAPPA	3.39964024540629
FAM134B	1.70552006916723	PAPPA2	1.06457925430632
FAM21D	1.70919571489985	PAQR5	1.17449988357209
CPM	1.70951464606046	PAQR6	1.86674696130154
ABTB2	1.70976089641443	PARD3B	1.08503514303357
BIK	1.71225119083119	PARD6B	1.05063033606508
PPARGC1A	1.71495660615441	PARD6G	1.50984725532852
AP001258.4	1.7160929548541	PARVA	1.07488331528922
PPM1M	1.71944290264189	PATL2	1.22943664868457
CTH	1.72102076505117	PAX9	1.04482284224084
CTD-3131K8.2	1.72130581481531	PBXIP1	1.08645973131724
GABRB3	1.72341470300476	PCDH1	4.05339103392783
VPS13B	1.72406061868564	PCDH10	2.0595993396171
GATA3	1.72515622637264	PCDH20	4.11250068814852
MCAM	1.72622413937075	PCDHA2	0.991702742630403
PLSCR4	1.72717595408194	PCDHB11	1.23420517838087
ZNF318	1.72729905535431	PCDHB13	1.31777645674446
TUBAL3	1.72743496552435	PCDHGA11	1.11866811626073
VNN1	1.72858246341975	PCED1A	1.41352799977165
ZNF235	1.72896877574897	PCK2	2.47602466076012
C15orf38	1.72961244143019	PCLO	1.50610634767193

IL8	1.72974766167172	PCNXL4	1.27925578072427
ASB2	1.72999468667424	PCSK9	3.21471985846448
ROBO3	1.73059342353352	PDE2A	1.30847216039168
LIN7A	1.73064471045673	PDE3B	5.05539824734231
ABCA3	1.73185940174763	PDE6D	1.0206667886051
RIN3	1.73480103109823	PDP1	1.13851780990456
PTPRJ	1.73651533399221	PDPN	5.26683031638475
AP001007.1	1.7383816320332	PDZD11	1.64453386388028
CBS	1.73851494837861	PDZD2	1.17489997260192
CTD-2227C6.3	1.74298116684776	PDZD4	1.25130958737737
GTDC1	1.74400738441228	PDZK1IP1	1.74773720983117
ICAM2	1.74501372669618	PEAR1	1.18279386686971
RP11-293M10.6	1.74604671773184	PELP1	1.14215893323602
PDZK1IP1	1.74773720983117	PEPD	1.5656421945341
TMEM55B	1.74971627982112	PGM2L1	1.87632496363256
ATG16L2	1.75027773741319	PGPEP1	1.03746346636922
ACOT2	1.75064413354616	PHACTR1	2.87410787294982
CTSD	1.75174878905936	PHACTR2	1.29652966576159
AL592284.1	1.75221617369367	PHF21B	2.64865628545113
KLF4	1.7530994653855	PHLDB3	1.91511760472663
GBA	1.75315764186039	PHYH	1.67066142459473
ZBTB47	1.75524846061221	PIK3AP1	1.60884454683274
C19orf33	1.75560123138208	PIK3CD	1.30663066977376
ITGA6	1.75766657383349	PIK3IP1	4.52405039846925
NEIL1	1.75836400378836	PIK3R6	2.69077223879794
DLG3	1.75907054206184	PIN4	1.46596286243904
CERCAM	1.75910030274344	PIP5KL1	3.64519556654239
RP5-864K19.4	1.75983527318832	PITPNC1	1.07497683150148
MPP2	1.76062576364523	PITPNM3	1.83017840721901
STOX2	1.76158438726908	PIWIL4	1.1922991329723
FRAT1	1.76848117047598	PKD1L1	1.05487588824332
RP11-24F11.2	1.76914581612267	PKD1L2	1.19473057573586
KRT86	1.77228751317101	PKN1	0.993010824336748
PLEKHF1	1.77627362864045	PKN3	1.09455486190536
AMPD3	1.77644523285947	PLA2G16	3.13123645747181
ADORA2B	1.77860100254826	PLA2G4A	2.66305603821505
ST3GAL1	1.77891982568377	PLA2G4C	3.3966536948633
GCHFR	1.77901213617917	PLAG1	2.32439828387504
RAPGEF3	1.78165626361346	PLAT	5.59207552101742
PNRC1	1.78205858026599	PLBD1	3.83216926163726
ALDH1A3	1.7835827088523	PLCD3	1.13575855291167
PLEKHH1	1.78560972360402	PLCG2	5.43273328576454
ACOT1	1.78577840223098	PLD1	1.54068619966227
RP11-554D15.4	1.78674162162897	PLD2	1.12180596972128
IRF8	1.78677727152813	PLEK2	1.03751503620761
MSRA	1.78887814492065	PLEKHA4	1.12567800222602
CYP4F26P	1.79015701154555	PLEKHA7	2.95081202087046
THYN1	1.79069722581682	PLEKHF1	1.77627362864045
EPB41L1	1.79332591954488	PLEKHH1	1.78560972360402
ARRB2	1.79731392801028	PLEKHM1	1.10291192526264

CTD-2015H6.3	1.79974787494056	PLSCR4	1.72717595408194
ADAMTS14	1.80306972948627	PLXNA2	4.11346915095832
NUAK2	1.80355183455411	PLXND1	1.18835201127045
SHF	1.80356209656383	PNMA2	3.06621012656119
ZFYVE1	1.80627588984069	PNPLA3	2.18872695677175
GPSM3	1.80960746759824	PNRC1	1.78205858026599
RP11-79H23.3	1.81149957928626	POF1B	1.17603795534528
FAM65C	1.81229309611153	POLN	2.27099108965716
UFSP2	1.81246106599487	POLR2G	1.03393994787472
RTN4R	1.813797973637	POU2F2	1.90079137685957
DAPP1	1.81488201269457	POU3F3	4.93900728628492
BCAM	1.81713964306765	PP13439	1.08998599290713
ZFHX2	1.81957673696616	PPA2	1.23547066915034
C1orf56	1.82135548977507	PPAP2B	1.95352568739179
DNMT3B	1.82295374901676	PPAP2C	3.78234788836011
SETBP1	1.82308401547788	PPARGC1A	1.71495660615441
KRT33B	1.82434266428921	PPFIBP2	1.9824675477036
NRARP	1.8247812925204	PPM1E	1.6351601226692
GPR146	1.82572254024042	PPM1J	1.665563238618
RP11-157P1.4	1.82811165113594	PPM1L	1.44016430690576
MTHFS	1.82976405866168	PPM1M	1.71944290264189
PITPNM3	1.83017840721901	PPM1N	1.22162766839294
GCNT3	1.83226921594257	PPP1R14C	1.23232248243738
UBBP4	1.83339892531479	PPP1R15A	1.18998610239564
FAM89A	1.83356016425237	PPP1R21	1.1256007514214
SLC25A37	1.83506761399536	PPP1R3B	1.14183384257236
DCHS2	1.8366964413802	PPP1R3G	1.87112055107534
ATRX	1.8367347441327	PPP4R4	1.70140985003362
IL2RG	1.83708349409091	PPT2	1.554230914573
DGKA	1.83923673018478	PRDM11	1.59296216409123
U91319.1	1.84276063388862	PRDM6	1.9850361155667
C17orf96	1.84577134214693	PRDX5	1.23784465085038
CCDC120	1.84771362412085	PRKAA2	1.94852033313162
LINC00638	1.85047073246782	PRKCQ	2.57649792494284
SEMA4A	1.85505312821378	PRKCQ-AS1	1.63723221577658
AMDHD1	1.85626240734354	PRKCZ	7.24769772985519
EFEMP2	1.85741191466432	PROS1	1.56289888461542
COL15A1	1.86146414291567	PROSER2-AS1	2.26815029861767
APLN	1.86210234286435	PRR5L	1.11133895587062
NHLRC1	1.86224648065617	PRRX2	2.06360640163891
RP11-20J15.2	1.86327463968435	PRSS12	1.39133381499623
NTN1	1.8636254910082	PRTG	2.12745009800158
NPNT	1.86504085387487	PSAT1	1.1460041079159
ABHD4	1.8652460593227	PSEN1	1.31530185413638
AC074389.9	1.8666952747684	PSG1	3.06570351976075
PAQR6	1.86674696130154	PSG2	1.68203745693017
PPP1R3G	1.87112055107534	PSG3	1.40949240387355
NR4A1	1.87211721810222	PSG5	3.03615934832742
RHOB	1.87221405350216	PSG7	1.4324347171439
NINL	1.8761177066405	PSG9	4.338851038294

PGM2L1	1.87632496363256	PSMF1	1.00855235020335
HSPA2	1.87799901056219	PSORS1C1	1.979962417656
TNF	1.87802309357792	PSORS1C2	1.05034522439339
ACP2	1.88024693114517	PTCH1	1.20063056535257
CTA-941F9.9	1.88586221984526	PTCHD1	4.78313118985851
HS3ST1	1.88592340080155	PTGDS	2.14362154293666
CCRL2	1.88626319084685	PTGER2	1.04927630110315
C6orf58	1.88719341581867	PTGS1	1.2409523788399
WHAMMP2	1.8872990921462	PTGS2	0.994174265543472
WARS	1.89109152959514	PTPLA	1.27411757188971
DBNDD2	1.8950210797722	PTPN21	1.08820995847084
COLQ	1.89626076839127	PTPRA	1.06763453601803
THBD	1.8963678659415	PTPRJ	1.73651533399221
KHDRBS3	1.89760887378774	PTPRM	1.52018734647288
RP1-140K8.5	1.89772511793862	PTPRS	2.96411407087933
RILP	1.90011940207623	PTPRU	3.45479821586529
FRY	1.90022375957416	PVRL2	1.13486859944409
POU2F2	1.90079137685957	PXDNL	1.23715650037396
TMCC3	1.90617700567083	PYGO1	1.14641968779158
SPNS2	1.9128110036653	QPRT	1.98719617673532
PHLDB3	1.91511760472663	QRFPR	1.52936562827465
P2RX4	1.91742757186926	RAB11FIP4	1.05487588824332
NUDT7	1.92090065421489	RAB15	1.16884572487364
EGOT	1.92234495929272	RAB19	3.7247583582687
CYP27A1	1.92304519067577	RAB30	1.17383474077361
FAM110B	1.92785277382743	RAB32	1.70516339945239
LRFN3	1.9280247062768	RAB39B	1.17238661211344
KBTBD11	1.93084109617641	RAB3B	1.35435454173831
CCDC62	1.93143491280157	RAB3D	2.53510225638029
TBC1D12	1.93158749368829	RAB3IL1	4.14092474883216
DNASE2	1.93194684456084	RAB7L1	1.19622999666521
GBX2	1.93231528105871	RAG1	1.3813483744709
RP11-320G24.1	1.93516859574348	RALGAPA1	1.65468054184864
SNX18	1.93775486823005	RALGAPA2	1.38088936521658
SLFN5	1.94004720029341	RAP1GAP2	2.04044626815812
MEIS3P1	1.94259729066746	RAPGEF3	1.78165626361346
GPR37L1	1.94712086816508	RAPGEFL1	1.08286026683829
PRKAA2	1.94852033313162	RAPSN	1.17648260825366
TLCD1	1.94887780349911	RASAL1	3.24240412350413
SLC48A1	1.94901595018604	RASGRF1	4.18769457168142
CNTNAP1	1.94922042942879	RASGRP1	1.25260697021242
IGBP1	1.95017590234382	RASSF2	2.68281911178081
DNER	1.9518992944105	RBM43	1.05280169272185
FTH1P3	1.95218943182489	RCAN2	3.75782565391272
PPAP2B	1.95352568739179	RCOR2	1.23691924317877
LAMA1	1.95556390466503	REEP6	1.39891012903791
ATP8B1	1.95575020408667	RELN	6.72123022284839
CTGF	1.95622571631007	RENBP	2.96989355358406
TRIML2	1.95928634031273	REPS2	2.99850440741846
ZNF219	1.95984903080565	RGS10	1.69716361722447

Gene	Value	Gene	Value
DUSP4	1.96085136670351	RGS7	3.29381846845593
ABCA5	1.96239422075551	RGS9BP	1.36023137760788
ST6GAL2	1.96307850896504	RHEBL1	1.0348527114952
RP11-314N14.1	1.96921481501541	RHOB	1.87221405350216
NOXA1	1.97036280054878	RHPN1	1.01419529339112
TMEM136	1.97086348022217	RILP	1.90011940207623
SYNGR3	1.9710543581313	RIMKLA	2.89691266824921
ITGA4	1.97193321766347	RIMS1	2.83622439600892
CTD-2354A18.1	1.97297793394872	RIN3	1.73480103109823
LOXL1-AS1	1.97337340203987	RIOK3	1.07386665446371
PSORS1C1	1.979962417656	RLIM	1.48986506364935
SPRY4	1.98122506848343	RMND5B	1.09070695382947
PPFIBP2	1.9824675477036	RN7SL1	1.01594310751923
FAM20C	1.98350404467315	RN7SL3	2.09635385355393
NRXN2	1.98391186624639	RNF135	1.16089054400324
PRDM6	1.9850361155667	RNF141	1.10409760148353
MAL2	1.98597043648025	RNF144B	2.3814433181113
QPRT	1.98719617673532	RNF150	1.5104911908086
SLC25A27	1.99210327125355	RNF152	1.29102622782135
AKR1C7P	1.992461933275	RNF187	1.06782837182807
EPB41L4A	1.99256633037288	RNF214	1.10599634984048
FTH1P4	1.99265436540226	RNPEPL1	1.01056686559473
SERTAD4	1.9926642394381	ROBO1	1.09715828417265
NRG2	1.99359441610025	ROBO3	1.73059342353352
FOXRED2	1.99655675490463	ROBO4	3.20268662838499
YPEL1	1.99744411413272	RP11-1017G21.6	8.66976129755603e-05
EFNB1	2.00699305736566	RP11-1055B8.7	1.39299399182231
FOXN3-AS1	2.00754326435062	RP11-10C24.1	1.13007109069459
MFSD2B	2.01198639437677	RP11-112J1.3	2.18006330284981
FBXO6	2.01287144023972	RP11-115J23.1	1.49582033714311
CSF2RA	2.01403851693208	RP11-1166P10.1	1.47991604219041
CYP4V2	2.01488586108798	RP11-121M22.1	1.02275562246653
ANGPTL4	2.01626235782978	RP11-125B21.2	1.16243301990035
CTNS	2.02004452949866	RP11-137H2.6	1.12930387766796
CSPG4P11	2.02442789819758	RP11-150O12.3	1.58248210117882
RP11-496D24.2	2.02507619546521	RP11-157P1.4	1.82811165113594
CDA	2.03387876666925	RP11-159D12.2	1.35700900155146
NPR2	2.03662095067629	RP11-166D19.1	1.01521202585118
TRIM7	2.03662189651695	RP11-173M11.2	1.18553596377542
DEFB1	2.03689893058552	RP11-17M16.2	1.47270736395638
TMEM37	2.03995792990733	RP11-188P20.3	1.0100020543043
RAP1GAP2	2.04044626815812	RP11-191L9.4	1.31178189124957
CAPN5	2.04093501687579	RP11-20J15.2	1.86327463968435
RP11-640M9.1	2.04463182175126	RP11-24F11.2	1.76914581612267
AFAP1	2.04818432813132	RP11-255J3.2	0.994017441690391
ST6GALNAC5	2.04952305576747	RP11-25K19.1	1.06589494929454
FTH1P21	2.04989565588389	RP11-264B17.3	1.12781628594758
ZFYVE26	2.05065258416851	RP11-267D19.2	3.22237069302789
NKAIN4	2.05788218700449	RP11-288G3.4	1.01017926991769
PCDH10	2.0595993396171	RP11-293M10.6	1.74604671773184

AC002480.3	2.05989215159104	RP11-298I3.4	2.555725094897
PRRX2	2.06360640163891	RP11-299H21.1	1.0036064651181
C1orf226	2.06540858137967	RP11-314N14.1	1.96921481501541
GRIP1	2.0720487759149	RP11-320G24.1	1.93516859574348
ZC3H12A	2.07332754151607	RP11-332H14.1	1.13830967146134
CC2D2A	2.07515685522653	RP11-334A14.2	1.07810943603518
RP13-143G15.3	2.07531532116313	RP11-334C17.5	2.73376821448351
MERTK	2.07969046675562	RP11-336N8.2	2.23489469093162
UBE2L6	2.08556682049085	RP11-344E13.3	2.51791383650547
RP11-519G16.5	2.08927403682053	RP11-347C12.3	1.07345300558532
SLPI	2.09062300936597	RP11-347H15.2	1.16105772794322
TNFRSF11B	2.09171556785754	RP11-350J20.12	1.36845252874145
CDC42EP2	2.0919868270803	RP11-351I24.1	1.25944497591917
SYNGR1	2.09228972796874	RP11-353N4.4	1.10706694700621
VTCN1	2.09345162981329	RP11-356J5.12	1.07292017209738
CHRM4	2.09481850988088	RP11-357C3.3	0.999806141424853
D2HGDH	2.0963438797301	RP11-35G9.3	1.70316529096735
RN7SL3	2.09635385355393	RP11-362F19.1	1.31298494670367
F2RL1	2.09718417710827	RP11-366H4.1	1.04470976168802
CASP4	2.09888854876317	RP11-382M14.1	2.99486324126384
ZFP69	2.10067281367249	RP11-384O8.1	1.28405591883907
CTD-2207P18.2	2.10515210690988	RP11-403I13.8	1.43047618243525
CCL20	2.10533914477054	RP1-140K8.5	1.89772511793862
UAP1L1	2.10850293319771	RP11-417E7.1	1.47807921398654
MARCH4	2.11382612941475	RP11-420A23.1	1.22313339606913
LGALSL	2.11408298251936	RP11-423O2.5	1.00303766038204
TRPM2	2.11575229869781	RP11-445P17.8	1.58794496767435
TUBA8	2.11832531344623	RP11-472M19.2	1.41944755150388
ANK2	2.11978065334844	RP11-47I22.3	1.15108037511341
ACRC	2.1252638424283	RP11-492E3.2	0.994134210265492
PRTG	2.12745009800158	RP11-496D24.2	2.02507619546521
GSTA4	2.1288309102894	RP11-50E11.3	1.03038294572385
OGT	2.12940827470207	RP11-519G16.5	2.08927403682053
KCNJ12	2.13455174750902	RP11-521B24.3	1.26668871831256
CLUHP3	2.13546036549683	RP11-540A21.2	2.57088123707848
MPP7	2.13744752248594	RP11-554D15.1	3.65047932933479
FADS3	2.14028535581916	RP11-554D15.4	1.78674162162897
RP13-890H12.2	2.14116154639645	RP11-554I8.2	1.55700274527408
PTGDS	2.14362154293666	RP1-155D22.2	2.35327129595373
FTH1P15	2.15579057656082	RP11-561C5.4	1.17668364130681
MT1L	2.16037247679907	RP11-563J2.2	1.09137718080299
CD69	2.16406462737125	RP11-589N15.2	1.09791176179845
CEBPD	2.16523506393367	RP11-589P10.5	1.08931590070873
SLC43A1	2.16680785646757	RP11-640M9.1	2.04463182175126
AIFM3	2.16822739803142	RP11-641A6.9	1.18338707098913
DOK6	2.16837660932042	RP11-676J12.7	3.53395003218741
DISP2	2.16935614388071	RP11-693J15.3	1.04557256467139
RP11-112J1.3	2.18006330284981	RP11-695J4.2	2.32171253071909
LINC00607	2.1808321463271	RP11-697N18.1	1.38210857865327
C14orf132	2.1873580423177	RP11-697N18.3	1.17414156859954

PNPLA3	2.18872695677175	RP11-69G7.1	1.30778791112602
C20orf96	2.19058724882305	RP11-728B21.3	1.1356406369115
NEU1	2.19345978582345	RP11-783K16.14	1.60609226377489
SLC20A2	2.19854221015212	RP11-78C3.1	5.66686404119822
GALNT18	2.20290308843114	RP1-178F10.3	1.24477190761443
CTIF	2.20297431370023	RP11-79H23.3	1.81149957928626
GAD1	2.21228962369987	RP11-806O11.1	1.26592417928975
ITGA1	2.21329217615986	RP11-849F2.8	1.46338366590276
NPR1	2.21352105137509	RP11-867G23.8	1.37353557119099
AL589743.1	2.21538118202951	RP1-186E20.1	2.46106626489421
HRK	2.21592531104127	RP11-879F14.2	1.56394978658389
SYT16	2.21619374602303	RP11-907D1.2	1.6876297957901
NPC2	2.21623558746186	RP1-239B22.5	1.17370299920282
ELOVL4	2.2168655834753	RP1-261D10.1	1.23963416536258
ENO3	2.21989785293906	RP13-143G15.3	2.07531532116313
AC006273.5	2.22511349284178	RP13-143G15.4	2.34070684324584
RP11-336N8.2	2.23489469093162	RP13-580F15.2	1.30367775793447
TTC28	2.24180335820021	RP13-890H12.2	2.14116154639645
ALS2CL	2.24271054469512	RP13-977J11.5	1.07176807257001
STC2	2.24405690667068	RP3-368A4.5	1.47837990250461
YBX2	2.24549205071541	RP3-368A4.6	1.03939165183252
TMEM220	2.24588910242064	RP3-399L15.3	1.55517726354599
LL22NC03-N64E9.1	2.24703534745113	RP3-426I6.2	1.11676932548913
FAM177B	2.24762858003471	RP3-449M8.6	1.22287290719192
AHNAK2	2.24996697500168	RP4-555D20.4	1.11952568221419
GPR124	2.25543788471701	RP4-584D14.7	1.63223243943053
DPYSL2	2.26516299671301	RP4-800G7.2	1.16063370528358
PROSER2-AS1	2.26815029861767	RP5-864K19.4	1.75983527318832
POLN	2.27099108965716	RP5-874C20.3	1.22558606994692
CD177	2.27173773134395	RP6-206I17.1	1.13193779927169
SPTBN5	2.2747358137381	RPAIN	1.24475768336247
ADAM23	2.27523687064012	RPL29P19	1.17526431213849
AGAP2	2.27755566957888	RPS4X	1.19759954083378
SLC29A2	2.2826324100248	RPS4XP11	1.08555890315133
NYX	2.2857176969772	RPS4XP17	1.63751204338727
FAM83A	2.29182436749804	RPS4XP2	1.21841230912689
CYP2U1	2.29716082997016	RPS4XP3	1.28520888725532
AGA	2.29878691918164	RPS4XP7	0.996179546200338
NR3C2	2.29969406743381	RPS6KA2	3.44920135881289
ASS1P7	2.30793983057575	RRAGB	1.62622456663396
TPP1	2.31076164910264	RRAGC	1.10690271894057
TGM4	2.31085193879391	RRAGD	6.84884272338266
VAT1	2.31578904077536	RRAS2	1.03331155406917
GRN	2.3196032472888	RTBDN	1.02360786924872
SLC25A35	2.32101705269332	RTN3P1	0.997925674731477
RP11-695J4.2	2.32171253071909	RTN4R	1.813797973637
PLAG1	2.32439828387504	S100A2	1.01629209463473
LSR	2.32734215693863	SAA1	5.1476112169884
ARHGAP23	2.33487947694496	SAA2	4.95555013073573
MAP1LC3C	2.33828344042949	SAA2-SAA4	1.5917295431447

RP13-143G15.4	2.34070684324584	SAA4	2.39883434996892
STOX1	2.3412857278602	SAMD4A	1.30137093797177
IL6	2.34393444262438	SAMD5	3.8349108238057
ZSWIM5	2.34562346353345	SARDH	5.41712980662145
BAI2	2.34637788038899	SARM1	2.89809071515233
DOCK11	2.34761305201497	SARS	1.11075055596246
RP1-155D22.2	2.35327129595373	SAT2	1.1174750934087
MAP3K15	2.35403238303129	SAV1	1.16938536157095
GDA	2.35677749057453	SBF2	1.05522203006584
ST6GALNAC3	2.35986722927355	SBF2-AS1	2.80008883502535
DYSF	2.37556845598745	SC5D	1.35538166475593
CORO2A	2.37926251043559	SCAND2P	1.50172393390848
RNF144B	2.3814433181113	SCARNA9	1.13567128669693
ULBP1	2.38179619741572	SCD5	5.90745455564008
MOB3B	2.3912982839137	SCDP1	1.10074467238361
TK2	2.39177006102569	SCN5A	2.64627160676572
SAA4	2.39883434996892	SCN8A	6.52670296467715
APBB1	2.39906815507191	SCRN1	1.20059682732534
LRRC15	2.40272603225294	SDC2	1.1963859602076
MISP	2.40317572584616	SDCBP	1.08794690628614
NUP210	2.40999846647116	SDCBPP2	1.25426655231412
CTD-2600O9.1	2.41299939900851	SDCBPP3	1.0401834634849
MYO1D	2.41694362784994	SDK1	2.5877219113644
CXCL2	2.42735482615941	SDR39U1	1.03238559668852
FAM211A	2.4291179432792	SDR42E1	1.55678460832432
ELFN1	2.43067551306806	SEC31B	1.10821764257083
CHKA	2.43533838046105	SEL1L3	1.27423164502459
STX11	2.43560580413222	SELPLG	2.67901061532958
SIGLEC15	2.4384322799256	SEMA3E	1.33535927669122
C3	2.4494934233583	SEMA4A	1.85505312821378
CCAT1	2.45777489217651	SEMA6B	1.15510833453903
TMEM86A	2.46064403184726	SERGEF	1.03354693160817
RP1-186E20.1	2.46106626489421	SERPINB9	1.47085929100876
KLHDC8B	2.46894125117696	SERPINF1	3.84787945223088
CLEC4E	2.47022125919594	SERPING1	2.87823125066161
PCK2	2.47602466076012	SERPINH1	1.52772040876775
CHAC1	2.47756011027816	SERPINH1P1	1.34985200185234
C10orf11	2.48477066342239	SERTAD4	1.9926642394381
FRMD4A	2.48919962149521	SERTAD4-AS1	1.30479595294085
OGDHL	2.50575598867261	SETBP1	1.82308401547788
AFAP1L1	2.51598974293074	SFMBT2	5.09818633657252
GAB3	2.51727094356457	SFRP4	1.0523094168912
RP11-344E13.3	2.51791383650547	SFTA1P	6.00099890817673
LINC00857	2.52817450091202	SGK3	1.44110164181282
TM4SF19	2.52881730732908	SGPP2	2.683717139847
SIRPB1	2.5288920458016	SGSH	2.96438628794589
MMP17	2.53323276209055	SH2D2A	4.16270211443079
RAB3D	2.53510225638029	SH3D19	1.17327600282437
TP53I3	2.54000479026498	SH3GL2	1.50332308981409
KRT34	2.54151591569985	SH3GLB2	1.12210067639868

OSCAR	2.55512814252361	SH3PXD2A	1.05271898573303
RP11-298I3.4	2.555725094897	SHBG	1.39997101347838
C3orf55	2.55846294426997	SHF	1.80356209656383
DTX4	2.56040748776873	SHH	1.0329762780939
MIR146A	2.56292799300193	SHISA4	1.01134561594778
AP000525.9	2.56360080011318	SHISA9	3.71173029597449
NCOR1P3	2.56450169247178	SIGLEC15	2.4384322799256
LOX	2.56825184723752	SIPA1	1.21407923020374
TIAM2	2.57008590508169	SIRPAP1	1.05546846493371
RP11-540A21.2	2.57088123707848	SIRPB1	2.5288920458016
PRKCQ	2.57649792494284	SIX1	1.44800966797551
IGFBP5	2.58365799425137	SLAIN1	3.51994133456541
UPP1	2.5852648714534	SLC15A3	3.61179495128138
SDK1	2.5877219113644	SLC16A13	3.31875689955274
SORT1	2.59091765901313	SLC16A2	1.44384524551161
NEURL3	2.59140425178687	SLC17A5	1.0697130566622
AC002480.4	2.60361288154492	SLC18B1	1.47002277917964
LGR4	2.61090713287462	SLC19A3	1.36907771438887
OPHN1	2.61109466606879	SLC20A2	2.19854221015212
TNFRSF14	2.63376641006314	SLC22A15	1.22881260827698
ADRB2	2.64495715198614	SLC22A18	1.17663306835604
SCN5A	2.64627160676572	SLC22A5	1.00700924086602
ARMC4	2.64692255520974	SLC25A27	1.99210327125355
PHF21B	2.64865628545113	SLC25A35	2.32101705269332
FBLIM1	2.65197940806171	SLC25A37	1.83506761399536
DBNDD1	2.65656650593843	SLC25A4	1.35119230275908
C6orf223	2.65781961776061	SLC26A11	2.6590897976616
SLC26A11	2.6590897976616	SLC27A3	1.65079788386947
HMGA1P1	2.66192941493438	SLC29A2	2.2826324100248
PLA2G4A	2.66305603821505	SLC2A12	1.54850787887593
ETHE1	2.6636822433563	SLC36A1	1.23271042482359
ANTXR1	2.66418989095581	SLC37A1	3.00181216325429
SLC4A8	2.66592872153469	SLC37A2	1.59739419607546
TNIP3	2.66722797312797	SLC38A5	6.80472298485663
MATN3	2.6685682147261	SLC41A2	1.04671311634716
AC079776.2	2.67250010787592	SLC43A1	2.16680785646757
KLHL24	2.67330601682424	SLC46A3	1.11466438727504
SELPLG	2.67901061532958	SLC48A1	1.94901595018604
CXCL5	2.67962104053309	SLC4A11	3.76573987387841
RASSF2	2.68281911178081	SLC4A8	2.66592872153469
SGPP2	2.683717139847	SLC50A1	1.2522148448642
ABI3	2.69001160482816	SLC7A11	1.25189574105625
PIK3R6	2.69077223879794	SLC8B1	1.34954769151749
JPH1	2.70022053103649	SLC9A2	2.75999009915477
DISC1	2.70294393834434	SLC9A3R2	3.22154681482933
HMGA1P8	2.71331267517153	SLCO2B1	7.2172424613676
APBA1	2.72920849768198	SLCO3A1	1.13608209512504
RP11-334C17.5	2.73376821448351	SLCO4C1	1.19210246345635
FBLN7	2.73481517284799	SLFN12	1.21684062553622
ADAMTS10	2.73988653564351	SLFN5	1.94004720029341

SNAPC1	2.74642811080503	SLPI	2.09062300936597
SLC9A2	2.75999009915477	SMCR8	1.20348944988667
ALOX5	2.77760594399539	SMPDL3B	1.19413525269151
KCTD14	2.77772808838426	SMTNL2	5.58267807888172
VGLL3	2.78042198021127	SNAPC1	2.74642811080503
GDF15	2.78555767527966	SNN	1.66628549706769
CTD-2291D10.4	2.79848441034443	SNPH	1.26879918207503
DAB2IP	2.79976004775897	SNX12	1.5210892909496
LINC00521	2.80008623961866	SNX18	1.93775486823005
SBF2-AS1	2.80008883502535	SNX18P7	1.6844540102598
TRERF1	2.80547206629526	SNX24	1.30545566673341
IQCD	2.80604637862498	SNX25P1	1.11344075356025
FTH1P12	2.8146922724261	SNX8	1.30123281377534
WASF3	2.82278653612841	SOBP	1.1027741916231
CTD-2081K17.2	2.82670326191147	SOCS2	1.34103075644314
ATP8B2	2.82786163782445	SOCS2-AS1	1.22375215617649
OR12D2	2.82911927011026	SOD2	3.07144112684507
VASH1	2.83266713126666	SORCS2	3.73372293020151
RIMS1	2.83622439600892	SORL1	4.83913725943574
FTH1P1	2.84544409607425	SORT1	2.59091765901313
KSR1	2.84666633823723	SOS2	1.26838417758949
CTHRC1	2.84984772704275	SOWAHD	3.481201371877
KCNQ4	2.85060118725657	SOX13	1.65491667349807
WLS	2.8609446873065	SP140	1.2648057500078
HERC5	2.86118478613672	SP9	1.23362359211507
JDP2	2.86800630469048	SPIRE1	1.05232264247794
CHN1	2.87150745397445	SPIRE2	1.09267044867018
PHACTR1	2.87410787294982	SPNS1	1.14031959783557
SERPING1	2.87823125066161	SPNS2	1.9128110036653
MMP15	2.88706982555748	SPNS3	1.11579741269817
B4GALNT2	2.88916260698976	SPOCK2	1.22192596696066
MTMR9LP	2.89196184425077	SPRY1	1.21763784574354
RIMKLA	2.89691266824921	SPRY4	1.98122506848343
SARM1	2.89809071515233	SPTBN5	2.2747358137381
OSBPL1A	2.90233778837991	SQRDL	1.29122923751408
KIF6	2.90542056291763	SRR	1.37203822620812
HMOX1	2.91342095782481	SSC5D	1.09816105676452
FAIM3	2.91679913066206	ST14	1.34537887966399
C4BPB	2.91900512391784	ST3GAL1	1.77891982568377
FYN	2.92048367211362	ST5	1.04390638420169
NELL2	2.92288101388655	ST6GAL2	1.96307850896504
CPNE7	2.92535316257024	ST6GALNAC3	2.35986722927355
IL31RA	2.93084710181865	ST6GALNAC5	2.04952305576747
FAM213A	2.94074431042862	STAT1	1.31097591589536
PLEKHA7	2.95081202087046	STAT5A	3.03446351069232
PTPRS	2.96411407087933	STC2	2.24405690667068
SGSH	2.96438628794589	STEAP1B	1.12546056762322
IGFBP4	2.96966205237471	STK10	1.0106010656504
RENBP	2.96989355358406	STK33	1.64946536560748
C11orf45	2.97273320186442	STOML1	1.00496316504475

Gene	Value	Gene	Value
CRYAB	2.98435311947201	STOX1	2.3412857278602
RP11-382M14.1	2.99486324126384	STOX2	1.76158438726908
REPS2	2.99850440741846	STS	1.08249122014162
FTH1P23	3.00156053900226	STX11	2.43560580413222
SLC37A1	3.00181216325429	STX3	1.09042983290725
DOC2A	3.01166249038641	STX7	1.22747123086643
DACH1	3.02833858114756	STX8	1.08034155256268
FTH1P20	3.03271781422315	SUGCT	1.01393138086949
STAT5A	3.03446351069232	SULF2	3.54678388209233
PSG5	3.03615934832742	SULT2B1	1.10302094536194
KRT7	3.03675476312849	SUMF1	1.10445315433143
CCDC69	3.0400371826091	SUMF2	1.18347977508018
GDAP1	3.04666964555228	SUN3	5.26646946429176
TLL2	3.05787866606945	SUPT3H	1.11691440810251
TNFSF12	3.06317078833104	SUSD1	1.36122284549349
DNM1P47	3.06379518772483	SVIL	1.62078906176342
PSG1	3.06570351976075	SVILP1	1.17809743428585
PNMA2	3.06621012656119	SWAP70	1.09676608167187
SOD2	3.07144112684507	SYNE2	1.18321176534638
IL27RA	3.08312633263045	SYNGR1	2.09228972796874
LIPC	3.0855341091243	SYNGR3	1.9710543581313
OBSCN	3.11070272404768	SYNJ2BP	1.16052382185627
CHRDL1	3.12477836743783	SYT1	1.37172343516149
TP53I11	3.12593396131651	SYT12	3.66444240696274
PLA2G16	3.13123645747181	SYT16	2.21619374602303
EFNA1	3.13356954453691	SYT17	4.34512208415688
NR0B1	3.13544543653425	SYTL2	1.20594014907728
MKX	3.13969811866897	SYTL4	1.40007716435012
ASS1P1	3.18369880751136	TAF1	1.20036305759223
UNC5B	3.18812861957968	TAF10	1.05993566801714
FTH1P16	3.18863397309095	TAGLN	3.56476203950709
ROBO4	3.20268662838499	TAGLN3	1.48712774824712
FTH1P10	3.20523293537001	TAX1BP3	1.19967047739433
LAMA5	3.20679234833955	TBC1D12	1.93158749368829
NME4	3.20875287127741	TBC1D2B	1.213606014898
GNGT2	3.21094439725131	TBC1D30	1.49924296295562
PCSK9	3.21471985846448	TBC1D8	1.39912924287394
SLC9A3R2	3.22154681482933	TBCEL	1.02800835174646
RP11-267D19.2	3.22237069302789	TBXA2R	1.09530495318826
FTH1	3.23924433843859	TCEAL4	1.58244158302031
TMEM171	3.23985294015142	TCF7L1	4.06302509105835
RASAL1	3.24240412350413	TCF7L2	1.39878916748978
KRT81	3.2474427683037	TCIRG1	1.38499868781292
B3GNT7	3.25848156770761	TCN2	1.6645406053025
ANKRD6	3.2620401177896	TCP11L1	1.12263452260471
FTH1P5	3.26468741312218	TDRKH	1.08149503910284
GPRC5C	3.26937536624383	TECPR2	1.14252908607729
NID2	3.28476824641945	TECTA	1.10138121501123
FTH1P7	3.28995152966446	TENM4	1.4888097555716
RGS7	3.29381846845593	TEP1	1.01872411648767

FTH1P8	3.29665770206668	TET1	1.55671662412873
CLGN	3.2973614295544	TEX22	1.55931027167223
FUT1	3.31191775960812	TFAP2A	3.4368581638213
SLC16A13	3.31875689955274	TFAP2A-AS1	1.11251442015211
CFB	3.33441924898787	TFAP2C	4.81150189722886
FTH1P2	3.34198370242175	TFR2	4.49922325605346
GPER1	3.34384329726789	TGFBR3	1.04334522653142
MGAT4C	3.34868543714253	TGM4	2.31085193879391
KIAA1211	3.35044279722165	THAP8	1.10313899633272
FTH1P11	3.36927009668747	THBD	1.8963678659415
PLA2G4C	3.3966536948633	THBS3	1.18728497171184
PAPPA	3.39964024540629	THOC6	1.24574889080332
TNK1	3.40308466077555	THTPA	1.12608625900463
LTBP2	3.42170453306095	THY1	1.56902222823076
GALNT12	3.43512851551324	THYN1	1.79069722581682
TFAP2A	3.4368581638213	TIAM2	2.57008590508169
WDR66	3.44868924224187	TIGD3	1.09193143292776
RPS6KA2	3.44920135881289	TIMM10B	0.991520672653167
OPLAH	3.45424317226391	TIMP4	4.35769186797208
PTPRU	3.45479821586529	TINF2	1.0841248521181
DLK2	3.46961489619172	TK2	2.39177006102569
SOWAHD	3.481201371877	TLCD1	1.94887780349911
CTD-2314B22.3	3.48796046017116	TLCD2	1.58590922105188
CDKN1C	3.49114499986083	TLE2	1.32339923123905
LAMA2	3.4974409378906	TLL2	3.05787866606945
LMO2	3.4989580463916	TLR1	1.06766559959825
SLAIN1	3.51994133456541	TLR2	5.07476393860391
RP11-676J12.7	3.53395003218741	TM4SF19	2.52881730732908
FGF18	3.54588216304479	TMCC2	1.68412314481929
SULF2	3.54678388209233	TMCC3	1.90617700567083
MAGEB2	3.55087584340967	TMEM130	5.1803441124497
AC124789.1	3.55651999693537	TMEM134	1.41419675524408
TAGLN	3.56476203950709	TMEM136	1.97086348022217
HMGA1P2	3.582655601982	TMEM159	1.27959495182912
AL109763.2	3.59268910755931	TMEM170B	1.19633056677554
EBI3	3.60138014169525	TMEM171	3.23985294015142
GSTO2	3.60526869374795	TMEM179B	1.2090171023869
SLC15A3	3.61179495128138	TMEM194B	1.28804139580535
ASS1P11	3.62129462229199	TMEM220	2.24588910242064
ALDH1L2	3.62408755726248	TMEM255B	3.73597599409345
LCP1	3.63531474502358	TMEM256	1.1586040830523
PIP5KL1	3.64519556654239	TMEM256-PLSCR3	1.22145616762958
RP11-554D15.1	3.65047932933479	TMEM37	2.03995792990733
SYT12	3.66444240696274	TMEM38A	1.05570927931502
LINC00355	3.66641822921016	TMEM40	6.20433328037269
JPH2	3.66900712055258	TMEM42	1.05559351784
AC006262.6	3.67471254615386	TMEM47	1.60959686283509
C10orf54	3.67720923192899	TMEM55B	1.74971627982112
KCNK3	3.69680341308939	TMEM86A	2.46064403184726
CYGB	3.70891814627149	TMEM98	4.44307428273568

SHISA9	3.71173029597449	TMIE	3.90416155258881
NXPH4	3.7240514128326	TNF	1.87802309357792
RAB19	3.7247583582687	TNFAIP2	1.27804547094351
SORCS2	3.73372293020151	TNFAIP3	1.58764064108089
ZNF362	3.73574316783607	TNFRSF11B	2.09171556785754
TMEM255B	3.73597599409345	TNFRSF14	2.63376641006314
EPHB1	3.7427207749738	TNFSF12	3.06317078833104
RCAN2	3.75782565391272	TNFSF13	1.12854404562146
SLC4A11	3.76573987387841	TNIP3	2.66722797312797
COL12A1	3.76999867535316	TNK1	3.40308466077555
COL9A2	3.78110288527727	TNRC6C	1.33831704029556
PPAP2C	3.78234788836011	TOB2P1	1.07592914367244
ACSS1	3.78262538710588	TOM1	1.03746539256035
ASS1P9	3.79834382322607	TOX	1.26950178987726
HOXA7	3.8014296847888	TP53	1.31812543730719
VSTM1	3.80530797820355	TP53I11	3.12593396131651
XK	3.81400805464297	TP53I3	2.54000479026498
PLBD1	3.83216926163726	TP53INP2	1.3950620702499
SAMD5	3.8349108238057	TPP1	2.31076164910264
HMHA1	3.84460970753989	TRAF5	1.59512655309298
C8orf47	3.84631571186332	TRAF6	1.13434846535764
SERPINF1	3.84787945223088	TRANK1	1.55324862867134
ACSS3	3.84813195083771	TRERF1	2.80547206629526
CDHR1	3.85068826088668	TRIB1	1.45974119897162
NAT8L	3.88330185926872	TRIB2	1.003974333023
NOG	3.88467455843557	TRIM21	1.31973894010789
TMIE	3.90416155258881	TRIM29	1.48711810147177
ALOX5AP	3.91891911048729	TRIM45	1.13135731885679
HIF1A	3.92555009707969	TRIM69	1.06638476966666
ANKRD2	3.92785449790637	TRIM7	2.03662189651695
ETNK2	3.98599035719181	TRIML2	1.95928634031273
FAM43A	3.98644568391338	TRPM2	2.11575229869781
AC006262.5	3.98691914997494	TSNARE1	1.22838727683773
C4orf19	4.01145778076618	TSPAN18	6.23557193702169
ASS1	4.01205114240482	TSPAN2	1.28021595937249
HMGA1P3	4.0136424377817	TSPYL2	1.08842760007413
FAM83G	4.03365591218685	TTC28	2.24180335820021
MARK1	4.04360030855694	TTC39B	1.0449319526285
PCDH1	4.05339103392783	TTC9	1.32038847897336
TCF7L1	4.06302509105835	TTLL3	1.4784591455382
CST6	4.07228854802934	TUBA8	2.11832531344623
C15orf62	4.09760930392519	TUBAL3	1.72743496552435
ACP5	4.10206791905833	TUBE1	1.19321941840839
PCDH20	4.11250068814852	TWF2	1.35128704539645
PLXNA2	4.11346915095832	U91319.1	1.84276063388862
FBN1	4.1152566702651	UAP1L1	2.10850293319771
RAB3IL1	4.14092474883216	UBBP4	1.83339892531479
INHBE	4.14781039153648	UBE2L6	2.08556682049085
MYO7A	4.15475933827725	UBE2Q2P1	1.37615786733878
SH2D2A	4.16270211443079	UBTD2	1.2217384810082

RASGRF1	4.18769457168142	UBXN1	0.994443958293373
N4BP3	4.20194029244529	UBXN2B	1.23297345142604
NUPR1	4.23627586558843	UCA1	1.2878191023775
ZNF716	4.25329099756663	UCP2	1.67129490435584
MCOLN3	4.27245506171112	UFSP2	1.81246106599487
FAM19A2	4.31118980247868	UHRF1BP1	1.22545985717406
C6orf132	4.33404217320583	ULBP1	2.38179619741572
PSG9	4.338851038294	ULK2	1.33786948653791
FEZ1	4.34232137358706	UNC13A	1.63565685113596
SYT17	4.34512208415688	UNC13D	5.66978366567631
TIMP4	4.35769186797208	UNC5A	1.02415315246796
MYH14	4.39563976003861	UNC5B	3.18812861957968
MEIS3	4.42113513228702	UPP1	2.5852648714534
FAM189A2	4.43067576407977	UPRT	1.3966122745902
TMEM98	4.44307428273568	UQCRFS1P1	1.45608550956448
HMGA1	4.46207416108908	USP28	1.01931899991677
CXCL16	4.46918767544405	UVRAG	1.0716858164718
TFR2	4.49922325605346	UXS1	1.66943266680778
PIK3IP1	4.52405039846925	VASH1	2.83266713126666
COL4A4	4.55855852036949	VAT1	2.31578904077536
GNG4	4.68992306057533	VEGFB	1.26046569589504
LY6K	4.76004932962275	VGLL3	2.78042198021127
PTCHD1	4.78313118985851	VIPAS39	1.03154640978448
TFAP2C	4.81150189722886	VNN1	1.72858246341975
SORL1	4.83913725943574	VPS13B	1.72406061868564
CYP24A1	4.84899137030484	VPS13C	1.11719319483459
MMP1	4.87621795797021	VPS26B	1.1375757619909
ADRBK2	4.90188590009152	VPS41	1.14096116689098
POU3F3	4.93900728628492	VSTM1	3.80530797820355
WTIP	4.95450381933551	VTCN1	2.09345162981329
SAA2	4.95555013073573	WARS	1.89109152959514
CRISPLD1	4.99753175258899	WASF3	2.82278653612841
IGFBP2	5.00269310594521	WBP1L	1.08856569900375
HCN4	5.01937175787624	WDR25	1.01392564649699
PDE3B	5.05539824734231	WDR45	1.1302776365611
FRAS1	5.0725161955531	WDR66	3.44868924224187
TLR2	5.07476393860391	WDR81	1.51768117228239
EPN2	5.08433419009775	WHAMMP2	1.8872990921462
SFMBT2	5.09818633657252	WLS	2.8609446873065
CELF2	5.10818297413556	WNT5A	1.56115220206361
LIMCH1	5.10852091572275	WNT5B	6.72658512778995
SAA1	5.1476112169884	WTIP	4.95450381933551
FBLN1	5.16245962212002	WWC1	1.230521954454
TMEM130	5.1803441124497	WWC2	1.55885530394105
ARL10	5.20582857556194	WWC2-AS2	1.28422734283665
FCGRT	5.22356771872667	XDH	1.18223789281369
EFHD1	5.2443992014501	XK	3.81400805464297
SUN3	5.26646946429176	XKR6	1.08607154700227
PDPN	5.26683031638475	XPA	1.0256412104174
INPP4B	5.32514935524869	XXYLT1	1.18738899752381

AJAP1	5.33316695028154	YAP1	1.03891667504642
H1F0	5.41271713675675	YBX2	2.24549205071541
SARDH	5.41712980662145	YIPF6	1.18016531945292
PLCG2	5.43273328576454	YPEL1	1.99744411413272
L1CAM	5.44724645498087	YPEL2	1.24888683522722
AUTS2	5.4617882514394	YWHAEP7	1.22716408482369
SMTNL2	5.58267807888172	ZBED3	1.29736807444459
PLAT	5.59207552101742	ZBTB42	1.13947638467751
ADAM28	5.62887323139791	ZBTB44	1.59056084970358
MLPH	5.64399111992244	ZBTB47	1.75524846061221
FLT1	5.64609095726749	ZC3H12A	2.07332754151607
RP11-78C3.1	5.66686404119822	ZC3H12C	1.4796115457883
UNC13D	5.66978366567631	ZCCHC3	1.01449386058585
CXADR	5.67246847491765	ZFAND4	1.11299063413705
DBH-AS1	5.79718264462241	ZFHX2	1.81957673696616
FAM189A1	5.88988075045464	ZFP69	2.10067281367249
SCD5	5.90745455564008	ZFYVE1	1.80627588984069
SFTA1P	6.00099890817673	ZFYVE26	2.05065258416851
ERVMER34-1	6.14038411232516	ZMYM3	1.03038784316281
CTD-2319I12.1	6.14249677759424	ZNF114	6.8885657355176
COLEC10	6.1912133493769	ZNF133	1.0220273827466
TMEM40	6.20433328037269	ZNF18	1.01336370221298
TSPAN18	6.23557193702169	ZNF219	1.95984903080565
KRT17	6.37571446125045	ZNF234	1.45267552812507
CXCL12	6.42542060450465	ZNF235	1.72896877574897
LPL	6.46298655251002	ZNF271	8.3587556301859e-05
SCN8A	6.52670296467715	ZNF285	1.129950067004
IGDCC4	6.62539442876845	ZNF318	1.72729905535431
ENG	6.68359111464656	ZNF319	1.38152148421988
RELN	6.72123022284839	ZNF362	3.73574316783607
WNT5B	6.72658512778995	ZNF385B	1.15419725276554
SLC38A5	6.80472298485663	ZNF396	1.2767135645391
RRAGD	6.84884272338266	ZNF408	1.07494676905128
ZNF114	6.8885657355176	ZNF48	1.05292342723564
SLCO2B1	7.2172424613676	ZNF492	1.36289514836168
PRKCZ	7.24769772985519	ZNF517	1.37227743601616
KCNIP1	7.47321650658197	ZNF543	1.22012947644843
MTMR8	7.63900772537091e-05	ZNF620	1.27407244362753
CLDN16	7.69734616069071	ZNF688	1.38383307885683
NPPB	7.70747124026654	ZNF716	4.25329099756663
ZNF271	8.3587556301859e-05	ZNF747	1.06546634107651
AP000654.4	8.66976129755603e-05	ZNF763	1.03438462994763
RP11-1017G21.6	8.66976129755603e-05	ZNF98	1.3264553657155
H2BFXP	8.66976129755603e-05	ZSCAN16	1.34540303049024
CDH4	9.25015550931889	ZSWIM5	2.34562346353345

Table S4

Down-regulated genes (Fold induction)		Down-regulated genes (Alphabetical order)	
AC092155.1	-0.9909482554741	5S_rRNA	-2.12103470001882
RARRES2P1	-0.990952661632299	AACSP1	-1.54935042770702
RP11-959F10.5	-0.991981665177088	ABCA1	-2.20750807144444
LMAN1	-0.992108670815045	ABCA12	-1.13526329020563
CFD	-0.993166961800685	ABCA13	-1.9277285735931
RMRP	-0.99443344477232	ABCA17P	-1.33500644698175
PHB2P1	-0.995331419387175	ABCA2	-1.81217005359528
ETNK1	-0.996014650416367	ABCC2	-1.973287549534
ABCC6P1	-0.996081269436426	ABCC6	-1.03658457602048
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SAPCD2	-0.997408501188129	ABCC9	-2.43765195577431
NACC2	-0.997606843743906	ABCF2	-1.38513136049994
TAF12	-0.998077946286909	ABCF2P1	-1.26348213059051
MKLN1	-0.998508778522896	ABCG2	-1.69190077191949
LDHB	-0.998696212284354	ABHD11	-1.05467622623686
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ATP8B3	-0.999267672534958	AC002454.1	-1.11491786797864
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TTC3	-1.00227214069765	AC005329.7	-1.64407241477274
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USP13	-1.00240030150018	AC007362.1	-2.74527623781646
C21orf49	-1.00262445009535	AC008443.1	-0.997301997913978
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PRKRIP1	-1.00392392284377	AC011718.1	-1.38113525771037
MYO15B	-1.00429279045305	AC011738.4	-3.190941623878
ZNF667-AS1	-1.0043786510919	AC012066.1	-1.03854803546482
CD24P4	-1.00457357609213	AC016405.1	-1.20295803726606
SNHG10	-1.00467657234077	AC016723.4	-1.02002891676507
KCND1	-1.00506390521064	AC016831.7	-1.0227345138974
POMGNT1	-1.00533065864962	AC027307.3	-1.51060282539439
CMPK2	-1.00557045286219	AC068831.10	-1.03199660011135
MYCBP	-1.00561504924586	AC073043.1	-1.03025844741109
FAM98A	-1.00584109966667	AC073283.4	-0.998965502926457
LRP12	-1.00597754598807	AC074183.4	-1.09997816800106
RABL5	-1.00624395279576	AC083900.1	-1.2754362792542
GBP2	-1.00660013808482	AC092155.1	-0.9909482554741
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SLC13A3	-1.00814785806577	AC093415.2	-1.83339654771684
DDX12P	-1.00871292116193	AC093673.5	-2.04092219489573
JAZF1	-1.00873724853325	AC118138.2	-1.11338571488808
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CARS2	-1.01165715522266	ACMSD	-1.12429972257578
LINC01011	-1.01166344941315	ACN9	-1.40881927277216
ILF3-AS1	-1.01174193847564	ACSL5	-1.97131351590678
GABBR2	-1.01192165070344	ACSM3	-2.03191495011997
IDS	-1.01232734890594	ACTR3B	-2.1525867903674
CDH15	-1.01270053634562	ACTR3C	-1.33514269852322
SEC24A	-1.01339575723721	ACTRT3	-1.03507042931591
GLYATL1	-1.01383923959103	ADAM22	-1.06922275161942
DMTF1	-1.01384755960764	ADAMTS1	-1.35951151257254
DLEU1	-1.01393373505135	ADAMTS6	-1.37346373911336
TFDP1	-1.01399797894849	ADAMTSL1	-1.1042264273167
C16orf93	-1.01471171952434	ADAP2	-2.47468528125482
SULF1	-1.01482771134734	ADIRF-AS1	-1.46238601628802
PTPN1	-1.01539399624917	AEN	-1.1181564089137
RP11-613M5.2	-1.01542553973632	AFF2	-2.36749779798605
INTS6	-1.01559734197406	AFF3	-1.54550389638947
KRT8P3	-1.01610940669398	AFP	-1.25491984895881
NCBP1	-1.01733687193256	AGAP3	-1.23883412911255
PRPF40B	-1.01785825048929	AGFG2	-1.21374192019558
BX842568.2	-1.01823554257197	AGK	-1.20426670620475
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SLC22A3	-1.01918636094209	AHDC1	-1.83568548087888
HNRNPA1P28	-1.01985504451665	AK5	-4.21244861293007
AC016723.4	-1.02002891676507	AKAP9	-1.47189738297749
SPA17	-1.02034985057845	AKR1B10	-3.26349480936249
KIAA1549	-1.02045083335345	AKR1B10P1	-2.152170008916
VDAC1	-1.02174560481009	AKR1B15	-1.11505768985451
KRT8P45	-1.02259798339573	AL035610.1	-1.37047969243617
AC016831.7	-1.0227345138974	AL360004.1	-1.5899837868017
KIF3C	-1.0229009639348	ALDH1A1	-8.10268486043232
TCEB3	-1.02393141637187	ALDH2	-7.47979461048787
PDXK	-1.02439180955509	ALDOC	-1.10085868363323
LMO7	-1.02476557466024	ALOXE3	-1.09204805449432
RBM48	-1.02596722014395	ALPK3	-5.25571732043333
LINC00467	-1.02601298909218	AMACR	-1.40548905645385
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USP5	-1.0263705105444	AMPD2	-2.28546845939771
POPDC2	-1.02694745671256	ANAPC2	-1.2356098433547
CC2D1A	-1.02730925209846	ANK3	-2.31948757109412
DAPK1	-1.02765911365636	ANKRD20A11P	-2.97639039290732
FOXJ2	-1.02791971269991	ANO3	-1.6163846839966
CROT	-1.02825029062755	ANXA10	-1.79035756455283
YRDC	-1.02850453975036	AP000569.9	-1.44180127603074
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RAD51AP1	-1.0301660144786	AP001619.2	-1.04927305697436
AC073043.1	-1.03025844741109	AP1S1	-1.29586244336904
USP16	-1.03032188659469	AP1S3	-2.5865487390484
KIAA1644	-1.03073715596831	AP4M1	-1.12197110246643
FAM83F	-1.03122545397945	APOM	-1.07635576220338

PIGP	-1.03160389983859	AREG	-1.55669703567091
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MAPK9	-1.03299643288973	ARHGEF19	-1.33600854529669
CXXC5	-1.03348726989027	ARHGEF34P	-1.49443529747441
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UBXN11	-1.03480806406023	ARHGEF6	-2.2942334578145
PLXNA3	-1.03502248926901	ARID5B	-1.67364232613501
ACTRT3	-1.03507042931591	ARL14EPL	-2.71340089425855
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ABCC6	-1.03658457602048	ARL4C	-1.16920480259567
PTPLAD2	-1.03670282454324	ARL4D	-1.06988556845279
IRX5	-1.03688582132355	ARMC10	-1.29052034666425
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LYRM5	-1.03846804542487	ARRDC4	-1.15516549327696
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BTG2	-1.03921084837066	ASAP3	-1.44982290850554
NOP2	-1.03924847773243	ASMTL	-2.47459078064563
PAN3-AS1	-1.03967303303195	ASPHD1	-1.44316216754862
PHLDA3	-1.04006469243031	ASTN2	-1.15275321704548
KLHL21	-1.040650159877	ATAD3A	-1.29283937353238
TPM1	-1.04077330760162	ATAT1	-3.0301791570386
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MDM2	-1.04104979508373	ATP11A	-1.01038561313204
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CLDN12	-1.04215988015962	ATP5J2	-1.41427248981714
NAPRT1	-1.04257648409413	ATP6V0E2	-2.09626019740203
BUD31	-1.04281559934372	ATP6V0E2-AS1	-1.85845194859369
TBC1D4	-1.04365055814115	ATP6V1F	-1.0599198706718
NOP16	-1.04397357687827	ATP8B3	-0.999267672534958
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MAGED1	-1.04697260732399	B3GNT6	-1.38774832979055
SNHG9	-1.04770916696188	B4GALNT1	-1.32726886595771
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FBXL16	-1.04835704923301	BACE2	-1.03727236084322
TRABD	-1.04903134058824	BAIAP2L1	-1.48303997392218
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MZT1	-1.0499114479942	BARX2	-1.65825977960214
TCEAL8	-1.05241853004023	BAZ1B	-1.33243455846834
FRMD3	-1.05243109393928	BCAP29	-1.44531929392092
TBL2	-1.05301053861815	BCAS1	-1.57305728722663
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LMO4	-1.05397895639305	BCL7B	-1.47511251531383
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ABHD11	-1.05467622623686	BET1	-1.80099773261969
SLITRK4	-1.05510981551252	BHLHE41	-1.14741311116743
HMGN2	-1.05548311312017	BICD1	-1.20475569871451
RNU4-1	-1.05569062945509	BMP2	-1.1947980223991
PCBP1-AS1	-1.05601876577079	BOLA1	-2.75950132029281
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AXIN2	-1.05755784966566	BORA	-1.1684531252502
HOXC8	-1.05756798350023	BST2	-3.53909867378253
UGT1A7	-1.05783259919979	BTBD16	-1.30247675418542
MYLK	-1.05825774454905	BTC	-1.16861677776452
ZNF593	-1.05845997935453	BTG2	-1.03921084837066
SRIP3	-1.05905398121803	BTG3	-1.2593456861215
COX17	-1.05969425821135	BUD31	-1.04281559934372
ATP6V1F	-1.0599198706718	BX842568.2	-1.01823554257197
CALB2	-1.06128992300379	C10orf126	-1.12379381068955
WWTR1	-1.0617662283385	C10orf128	-4.030801321459
AC010132.11	-1.06470936662488	C11orf86	-3.21015112938209
RP11-598F7.6	-1.06519870026077	C12orf23	-1.07822992075083
COPS6	-1.06660793056745	C12orf57	-1.72125968393095
CHPF	-1.06801965998695	C16orf45	-1.13688957967046
HTR7P1	-1.06856106275943	C16orf86	-1.15813354873449
ADAM22	-1.06922275161942	C16orf93	-1.01471171952434
KCNIP3	-1.06958416751472	C16orf95	-1.09983801212809
LRRC23	-1.06961130318262	C1orf21	-2.27462793981867
RANBP1	-1.06983929979511	C1orf51	-1.3338954294875
ARL4D	-1.06988556845279	C1orf85	-2.41529184600928
EPT1	-1.07001051608397	C1QL1	-1.58728891338417
HSDL2	-1.07008024612224	C1S	-1.21562702872988
KDM1A	-1.0702746954194	C21orf49	-1.00262445009535
FILIP1L	-1.07074577167374	C21orf58	-1.33827531649619
LINC01116	-1.07087230466423	C22orf34	-5.16450677592684
FGF13	-1.07100911355809	C3AR1	-2.44262660634267
DKFZP761J1410	-1.07170286768125	C3orf18	-1.15263205377489
RP11-225H22.7	-1.07321588681705	C3orf80	-1.115265300804
CTB-51J22.1	-1.07365879343586	C5orf63	-2.14748634592294
UGCG	-1.0752512165662	C6orf99	-2.48545111347615
CLCN2	-1.07570718599922	C7orf13	-2.09799370012498
LINC00882	-1.07626245442256	C7orf43	-1.63595665939024
APOM	-1.07635576220338	C7orf55	-1.94218971795452
TREX2	-1.07659393137418	C7orf55-LUC7L2	-1.27623428078881
NAA50	-1.07670439013957	C7orf57	-1.14845321611795
FAM131C	-1.07675033372468	C7orf61	-1.29627164672147
CNKSR3	-1.07690517981496	C7orf73	-1.71190746784122
NAPEPLD	-1.07725295882487	C9orf172	-2.39824068051339
MYLK-AS1	-1.07730847025792	C9orf3	-1.2627763512653
RNA5S2	-1.07733556213689	C9orf84	-1.87340478725554
C12orf23	-1.07822992075083	C9orf85	-1.31550216121312

HMMR	-1.07874407467537	CA12	-4.99892508943625
PRDM2	-1.07895175739406	CALB2	-1.06128992300379
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RP1-305B16.3	-1.07937678509764	CAMK1D	-3.33869372074614
AC005083.1	-1.07963535896772	CAMK4	-1.33580278212895
DNAJC25	-1.07980324244287	CAMSAP3	-2.16571162117149
TMEM86B	-1.07996131321843	CAPZA2	-1.51990330982116
EPHX2	-1.08029798222607	CARD11	-4.75067211652356
MAPK10	-1.08037901795783	CARS2	-1.01165715522266
SERINC5	-1.08080359180078	CASC15	-1.36541432492196
CDC45	-1.08161613663013	CASD1	-1.12247063189091
DCDC2	-1.08218821559004	CASKIN2	-1.28022354053088
TMEM165	-1.08238025021553	CAV1	-1.80991476547737
RNA5-8S5	-1.08245243261644	CAV2	-2.27790201893699
SRP72P2	-1.08300709920933	CBLL1	-1.17384147350199
USP12	-1.083085402007	CBR3	-1.45475176096378
SLC34A1	-1.08322473165266	CBR3-AS1	-2.15809464753148
RP11-325O24.2	-1.08352526421389	CC2D1A	-1.02730925209846
PSPC1	-1.08411849032654	CCBE1	-1.36517132298986
CIB1	-1.08477885902728	CCBL1	-1.44880885036193
LDHBP2	-1.08490904429771	CCDC136	-1.80922275504147
MIR4653	-1.0856505206396	CCDC152	-1.6829396482602
RAD51C	-1.08587775670869	CCDC183	-2.1250476313042
COPG2	-1.08660717460607	CCDC183-AS1	-1.31945591661185
KRT8	-1.08783469433466	CCDC71L	-1.9874982850174
RNA5S11	-1.08798483006223	CCDC74A	-3.49082006953533
GATAD1	-1.08810206547252	CCDC74B	-2.43073710031618
RNASEH1-AS1	-1.08941225289983	CD101	-1.20463551989418
LRP1	-1.08962655813358	CD109	-3.00196137284742
RP11-617F23.1	-1.09083491947262	CD163L1	-1.52355947090157
DPH2	-1.09087215289864	CD24P4	-1.00457357609213
ALOXE3	-1.09204805449432	CD274	-1.52258453786819
RP11-539I5.1	-1.09297817796746	CD320	-3.44665609606542
LPXN	-1.09359509318826	CD70	-2.06698213917517
DUSP1	-1.09423671924657	CD82	-1.25527234639599
USP25	-1.09543835432368	CD99	-1.17810486450025
FBXO10	-1.09569206819906	CDC14B	-1.24708178281898
CNPY4	-1.09614434299518	CDC42EP3	-1.55839220305586
IPO13	-1.09622259879379	CDC45	-1.08161613663013
PHB2	-1.09623775326405	CDCA3	-1.23858674757409
PTCD1	-1.09670693928688	CDH15	-1.01270053634562
RASSF8-AS1	-1.09700147894512	CDH6	-6.0780187493647
ARNTL2	-1.0974799762798	CDIP1	-1.93361191909398
TRIM24	-1.09752418097741	CDK14	-2.41851673849028
CRYZ	-1.0982990088639	CDK15	-4.38475703902596
RP11-462G12.1	-1.09977858604953	CDK20	-1.99905978369626
C16orf95	-1.09983801212809	CDK5	-1.57596956367706
AC074183.4	-1.09997816800106	CDK6	-1.81777588589791
RNF43	-1.10000262888485	CDKN1A	-2.25427401602016

PPP2R3A	-1.10042563957799	CDKN2C	-1.29244496140952
REPIN1	-1.1005930353394	CECR7	-1.12745273952594
TTC26	-1.10068686348636	CENPV	-5.71047696896032
MTSS1	-1.10073909471909	CERK	-1.70074526979877
SRP72	-1.10074845368549	CFD	-0.993166961800685
ALDOC	-1.10085868363323	CFH	-5.29136127339618
TCF3	-1.10129681733495	CFI	-2.354690468672
TDO2	-1.1013653833862	CGB8	-2.14870053376725
SP5	-1.10219887103367	CGNL1	-1.12121749797917
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ADAMTSL1	-1.1042264273167	CHCHD3P3	-1.17309611037485
PAXIP1-AS1	-1.10442253286853	CHML	-1.74994370835219
RASEF	-1.10472937631712	CHPF	-1.06801965998695
CPSF4	-1.10485018734079	CHPF2	-1.45813863697618
ZSCAN25	-1.1052058018673	CIB1	-1.08477885902728
TGFB3	-1.10629818688475	CISH	-1.27528824643482
P2RX6	-1.10649429016935	CLCN2	-1.07570718599922
ZNF282	-1.10812066656453	CLDN12	-1.04215988015962
NDUFB2-AS1	-1.10869706570766	CLDN2	-1.77610395800344
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LYRM1	-1.11019597139713	CLEC2B	-3.8272088943289
BOP1	-1.1103794135027	CLOCK	-1.34477231828527
LINC00263	-1.11056024862664	CLYBL	-1.12401922414892
RP11-471M2.3	-1.11315304680038	CMAS	-1.12925666235631
AC118138.2	-1.11338571488808	CMBL	-1.76812330279419
PTBP3	-1.11402776003876	CMIP	-1.59303565715876
TNFRSF1A	-1.11403618404759	CMPK2	-1.00557045286219
PCDHGA9	-1.11455735471391	CNIH3	-1.64391931875104
ARHGEF5	-1.11471421552219	CNKSR3	-1.07690517981496
RP11-4C20.4	-1.11482705199281	CNPY4	-1.09614434299518
AC002454.1	-1.11491786797864	CNR1	-1.58247300796741
AKR1B15	-1.11505768985451	COBLL1	-1.85760719396649
TMEM200C	-1.11510393652686	COCH	-1.82766312649534
C3orf80	-1.115265300804	COG5	-1.20054349191035
SEMA5B	-1.11541637447623	COL17A1	-1.67753022937433
RPL21	-1.11543214727694	COL4A5	-5.54382336200188
FGFR4	-1.11561704721189	COL5A2	-1.63876775222889
RHEBP2	-1.1157692480038	COL6A3	-6.95714569363262
CTA-445C9.14	-1.11602997780553	COPG2	-1.08660717460607
NDUFB2	-1.11613292265361	COPS6	-1.06660793056745
SLC25A13	-1.11683403979263	COPZ2	-1.73031291248464
MSRB3	-1.11730411514547	COX17	-1.05969425821135
TRIQK	-1.11771608599565	CP	-1.37471205350393
AEN	-1.1181564089137	CPED1	-1.13477428228409
LRCH1	-1.11866383603949	CPSF4	-1.10485018734079
ARL3	-1.1193744861314	CPT1A	-1.13981673822937
RN7SK	-1.11974811369611	CRABP2	-1.25255867616126
LMBR1	-1.12048274307942	CREB3L1	-3.04130729330342
FHOD1	-1.1205444940859	CREB3L2	-1.42156430595078
CGNL1	-1.12121749797917	CRISPLD2	-1.22707456183186

Gene	Value	Gene	Value
WDR5B	-1.12158378089646	CROT	-1.02825029062755
AP4M1	-1.12197110246643	CRYZ	-1.0982990088639
POT1	-1.12197575200852	CSF1R	-4.53880217068712
RP5-1024G6.8	-1.12220781799938	CTA-29F11.1	-1.38892705361468
CASD1	-1.12247063189091	CTA-384D8.36	-1.03258916802715
KRT8P13	-1.12303128596687	CTA-445C9.14	-1.11602997780553
RTKN2	-1.12329462619383	CTA-445C9.15	-2.25039095927671
IRF6	-1.12332546974903	CTA-929C8.7	-1.54029172569239
ZC3HC1	-1.12352488285182	CTB-175P5.4	-2.08978448029865
FGD4	-1.12370481050678	CTB-31O20.2	-1.00980088795168
C10orf126	-1.12379381068955	CTB-51J22.1	-1.07365879343586
CLYBL	-1.12401922414892	CTC-428G20.3	-1.36435485884268
SYPL1	-1.12429590092539	CTC-534B23.1	-1.3226547485753
ACMSD	-1.12429972257578	CTC-559E9.5	-1.49541948333369
PTGER4	-1.12477723245861	CTD-2023M8.1	-1.13937892146455
LINC00961	-1.1248431578916	CTD-2060C23.1	-1.7511381859891
NCAPD2P1	-1.12650306035955	CTD-2114J12.1	-1.21427788511166
CECR7	-1.12745273952594	CTD-2171N6.1	-2.18351582695817
RP11-274B21.3	-1.1280132709563	CTD-2186M15.3	-1.36122559909196
LINC00634	-1.12897537976566	CTD-2196E14.9	-1.24565451572031
CMAS	-1.12925666235631	CTD-2203K17.1	-1.29345151872695
ING3	-1.12985468053265	CTD-2228K2.5	-2.10186149703504
RP11-145M9.4	-1.13121372020459	CTD-2230M5.1	-1.15149759123624
RPS27P27	-1.13135018190558	CTD-2269F5.1	-1.07921058153134
ZNF491	-1.13188956379392	CTD-2331H12.5	-1.04125472456135
TICAM2	-1.13232324413625	CTD-2501M5.1	-2.3904638726716
RP11-465B22.3	-1.13288366281865	CTD-2521M24.9	-2.47070771432215
CPED1	-1.13477428228409	CTD-2620I22.2	-1.46504113707136
RP11-226L15.5	-1.13490999845725	CTD-3018O17.3	-1.48044395706523
ABCA12	-1.13526329020563	CTD-3184A7.4	-1.02632522105966
DNAJC2	-1.13652978600062	CTNNA3	-2.37904539904998
RP3-467K16.4	-1.1367120197148	CTTNBP2	-2.48039944055636
E2F8	-1.13681129650477	CTU2	-1.19858544545821
C16orf45	-1.13688957967046	CTXN1	-1.23279353294514
SERPINE1	-1.13757380141453	CUL1	-1.68431440812441
ZFPM1	-1.13788666891345	CXCR4	-2.14956731875374
CTD-2023M8.1	-1.13937892146455	CXorf40B	-0.999281631912032
SFXN2	-1.13944034766061	CXorf57	-2.67834479871152
RP1-193H18.2	-1.13978838917366	CXXC5	-1.03348726989027
CPT1A	-1.13981673822937	CYB561	-1.44091015866243
METTL2B	-1.13987747470622	CYB5A	-3.38970097883393
EVA1A	-1.1407628903011	CYP1B1	-3.65020232321176
KRIT1	-1.1415706370725	CYP1B1-AS1	-2.40349816049931
SPHK1	-1.14208814494735	CYP3A5	-1.9297125111532
SH3BGRL2	-1.14219801453257	CYP4F29P	-2.32086816481204
ID2	-1.14330570306327	CYTH4	-1.4919122532732
RP11-397E7.4	-1.14522235473631	CYTL1	-1.24371254088267
YIPF2	-1.14544346332481	DAPK1	-1.02765911365636
BHLHE41	-1.14741311116743	DBF4	-1.32352560344444
POLR2J3	-1.14813127965574	DCBLD2	-1.2952662749657

C7orf57	-1.14845321611795	DCDC2	-1.08218821559004
ZNF398	-1.14895163013881	DCLK1	-2.78939635108174
SCARB1	-1.14906123800535	DCLK2	-2.69993308373609
PITHD1	-1.14953831096703	DDO	-1.15265727156847
MTPN	-1.15042226799058	DDX11	-1.22080557078603
CTD-2230M5.1	-1.15149759123624	DDX12P	-1.00871292116193
C3orf18	-1.15263205377489	DDX3Y	-6.95541956462426
DDO	-1.15265727156847	DDX3YP1	-1.26329293825055
ASTN2	-1.15275321704548	DENND2D	-3.50889688131361
KLHDC10	-1.15287291456466	DERL3	-1.67012996747936
POLR2B	-1.15375573235162	DGAT2	-3.20973451175965
HOXA4	-1.15433899011245	DGCR5	-3.01190719595017
B4GALT1	-1.15443004090206	DGCR9	-2.55086831302144
TNFAIP6	-1.1547832078094	DGKI	-2.98716030038112
PAXBP1-AS1	-1.15488741609971	DHRS11	-1.28227003721382
ZSCAN5A	-1.15511280023435	DHRS9	-1.4175983282299
ARRDC4	-1.15516549327696	DHX58	-3.47199914111345
TRIM54	-1.15571781522969	DICER1-AS1	-1.41424697550309
HMGN2P3	-1.15688881392725	DIRAS2	-3.30572983696396
RP11-15N24.4	-1.1573021673622	DIXDC1	-2.25933342338061
C16orf86	-1.15813354873449	DKFZP761J141(	-1.07170286768125
HIP1	-1.15814150918581	DLEU1	-1.01393373505135
URB1	-1.15824379970524	DLEU2	-1.79792053784141
LXN	-1.15989950347926	DLG5-AS1	-2.35876019534972e-05
SLC6A6	-1.15999013710373	DMC1	-1.58588922089902
SNORD3B-2	-1.16012996959494	DMRTA1	-1.58309676454504
SCFD2	-1.1635994518458	DMTF1	-1.01384755960764
EPHA4	-1.16425957600386	DNAJC12	-1.88032042790948
LINC00973	-1.16492704887833	DNAJC15	-4.01134898535328
STAC	-1.16547292803692	DNAJC2	-1.13652978600062
FNDC3A	-1.16719209252519	DNAJC22	-4.30410779713312
BORA	-1.1684531252502	DNAJC25	-1.07980324244287
BTC	-1.16861677776452	DNAJC30	-1.27442952561443
ARL4C	-1.16920480259567	DONSON	-1.40299911860588
N6AMT1	-1.16963539765582	DPH2	-1.09087215289864
PER1	-1.17145756462411	DPY19L2P2	-1.28167959969544
RNA5S4	-1.17164004918295	DPYD	-1.37977588589005
PCSK6	-1.17189133693328	DPYSL3	-2.00575559447688
KDM4A-AS1	-1.17208800668757	DPYSL4	-1.59404530370457
CHCHD3P3	-1.17309611037485	DSP	-1.76198250370972
PCDH7	-1.17363946759686	DTNA	-3.21826514345096
CBLL1	-1.17384147350199	DUS4L	-1.67223261265202
LPCAT1	-1.17447085509392	DUSP1	-1.09423671924657
PRKAR2A	-1.17712934211968	DUSP9	-2.42781632963274
AC092295.7	-1.17740356163742	DYNC1I1	-3.95228721272617
TMEM209	-1.17791222250132	E2F2	-1.98496800630481
GGTLC2	-1.17805092698139	E2F8	-1.13681129650477
CD99	-1.17810486450025	ECHDC2	-2.0707711768928
PPAT	-1.17839188929385	ECHDC3	-3.99665543629566
ZNF320	-1.17851564471501	ECM1	-1.49698400915653

MAMDC4	-1.17868998477561	EDA2R	-5.41141366683029
RP6-42F4.1	-1.17869787668071	EDIL3	-1.21416739138217
PMS2P3	-1.17899896276105	EEF1A2	-1.26358873676554
SPC24	-1.17900423407339	EEPD1	-1.71904079515054
SRPK2	-1.17919534988154	EFCAB4A	-2.8803323839124
ETV1	-1.17980192986121	EFEMP1	-2.9554428232653
VWA1	-1.17989329595273	EFHB	-2.45875898668787
EIF4HP1	-1.18027971840929	EFHD2	-1.373558459663
RRP1B	-1.18071095134882	EFNB2	-1.55885464865145
FCHO1	-1.18194008546462	EGF	-1.78376224355124
NCS1	-1.18237064161917	EGLN3	-3.23111700929812
MRPS35	-1.18289642333016	EIF1AY	-5.65193518133929
IMPDH1P4	-1.18352620792102	EIF4H	-1.25109102762457
TNPO3	-1.18395723852312	EIF4HP1	-1.18027971840929
PWP2	-1.18440316552294	ELFN2	-3.87721047961369
ZNF789	-1.18458638647701	ELL2	-1.25820546514624
SSBP1	-1.18503537832669	ELMOD1	-2.19468761914382
SPATC1L	-1.1880807051863	ENC1	-1.31121381604294
UBE2HP1	-1.18817949164954	ENKD1	-2.07233478171512
NEO1	-1.18826277396789	ENO4	-0.997368845521345
RNF182	-1.18851318651649	ENPEP	-2.33896106892796
RP13-585F24.1	-1.18982036442056	ENPP2	-1.20787984125648
PANX2	-1.18995082414531	EPB41	-1.35496328841728
MANSC1	-1.19020854997467	EPB41L3	-3.55034652872233
RP11-220I1.1	-1.19048075720163	EPCAM	-3.12628096489074
SPINT2	-1.19057891520905	EPHA4	-1.16425957600386
SLC6A13	-1.19094739462024	EPHX2	-1.08029798222607
GLIS1	-1.19177934339811	EPS8	-1.32871024826877
XXcos-LUCA11.4	-1.19180551675096	EPS8L1	-1.4504845092102
SNORD125	-1.19263751426871	EPT1	-1.07001051608397
HNRNPA1P51	-1.19277216187352	EREG	-2.27629436015885
KLRC1	-1.19279488835365	ERGIC1	-1.28968021188091
RP11-148B18.3	-1.19337646014991	ERICH2	-1.25652066474636
RP11-22B23.1	-1.19357649084349	ERV3-1	-1.50517450234628
BMP2	-1.1947980223991	ESPNL	-2.27431942308858
ZNF655	-1.19850074812447	ETNK1	-0.996014650416367
CTU2	-1.19858544545821	ETV1	-1.17980192986121
RNA5S16	-1.19873411943145	EVA1A	-1.1407628903011
SEC31A	-1.19877274496689	EVC2	-4.23063870054077
STRAP	-1.19926069053642	EVI2A	-4.28919476610671
MAPKAPK3	-1.19957886745824	EVPL	-2.07986614331229
ZMAT3	-1.20016237882374	EXPH5	-1.65182121667737
COG5	-1.20054349191035	EZH2	-1.52729628318896
NAMPT	-1.20093254462958	EZH2P1	-1.23140328856658
MBNL3	-1.20149289207947	F12	-2.46675385378124
RP1-272L16.1	-1.20150707117589	F3	-1.29225960364333
AC016405.1	-1.20295803726606	FABP6	-1.92695762469259
MRTO4	-1.20347113506324	FAM109B	-3.71645812076046
PLEKHA5	-1.20414365914556	FAM115C	-2.38478679240703
AGK	-1.20426670620475	FAM131C	-1.07675033372468

LINC00998	-1.20440547919038	FAM132B	-1.04801505490679
CD101	-1.20463551989418	FAM13A-AS1	-1.26712266030382
BICD1	-1.20475569871451	FAM13C	-1.84113050379833
LINC00707	-1.20488041470389	FAM198B	-3.43040793022325
ENPP2	-1.20787984125648	FAM200A	-1.5816115399876
RHBDL2	-1.20830759660765	FAM211B	-1.38415451020405
GMNC	-1.20843502015311	FAM213B	-2.18845447268478
RP11-54A9.1	-1.20875227882869	FAM225B	-1.36477638208254
IQCB1	-1.20890760943814	FAM3C	-1.9298102077022
KRT8P41	-1.21338156704871	FAM3C2	-1.38746894994549
FSTL3	-1.21350828728926	FAM46B	-1.64710567329658
AGFG2	-1.21374192019558	FAM49A	-2.04253706181793
EDIL3	-1.21416739138217	FAM83F	-1.03122545397945
CTD-2114J12.1	-1.21427788511166	FAM83H	-1.40935813211817
IKBKG	-1.2154673968793	FAM90A1	-1.51021103543431
C1S	-1.21562702872988	FAM98A	-1.00584109966667
GPR75	-1.21607619124165	FAR2	-2.39385063308815
RASD2	-1.21716923384241	FAS	-1.23540493941884
GLYATL2	-1.21744050741083	FAT2	-1.47517942674687
WDR4	-1.21776955290311	FAT4	-1.93481995826998
RP1-30G7.2	-1.2180840856209	FBXL13	-1.37921187506028
SOD1	-1.21893259260956	FBXL16	-1.04835704923301
PYROXD1	-1.21930095492515	FBXO10	-1.09569206819906
MLF2	-1.21990947764846	FCHO1	-1.18194008546462
DDX11	-1.22080557078603	FGD4	-1.12370481050678
ZBTB18	-1.22161322726593	FGF13	-1.07100911355809
TSPAN13	-1.22200764422273	FGFR4	-1.11561704721189
SGCB	-1.22204863019441	FGFRL1	-1.39926607490426
SYT11	-1.22315922907628	FHDC1	-2.60662262471211
ARHGAP8	-1.22355262893599	FHL2	-1.48272590848711
NAA38	-1.22549261630757	FHOD1	-1.1205444940859
PUS7	-1.22577345569758	FILIP1L	-1.07074577167374
RNA5S13	-1.22654274867809	FIS1	-1.66477010407881
CRISPLD2	-1.22707456183186	FKBP10	-1.87545637977584
ARPC1B	-1.22774630166214	FKBP7	-1.68647813516807
RP11-452L6.1	-1.22828818734894	FLG	-7.29108280405468
NEBL	-1.22874192790195	FLNC	-1.66779308877023
RNF144A	-1.23038517828148	FLRT3	-1.3439531016527
RHEB	-1.23056388931806	FMO4	-1.53474296418207
MEPCE	-1.23122810931556	FN1	-1.56001103912658
LEAP2	-1.2313032297366	FNBP1P1	-1.69167760020211
EZH2P1	-1.23140328856658	FNDC3A	-1.16719209252519
ZNF667	-1.23141856874956	FNDC4	-1.96679692117177
RNU2-59P	-1.23155679834169	FOLR1	-2.84538902413685
SLC35B4	-1.23176359804538	FOXA2	-2.96237417165126
UBE2FP1	-1.23201630019628	FOXJ2	-1.02791971269991
RP11-115C21.2	-1.23207055367919	FOXL1	-1.36795423615004
CTXN1	-1.23279353294514	FOXP2	-2.67723356862781
AC144652.1	-1.23376126734559	FPR1	-2.1975015685955
STPG1	-1.23405719279201	FRMD3	-1.05243109393928

GRIK2	-1.23435059996305	FRMD5	-2.41505129660022
ZNF626	-1.23438447689681	FSBP	-1.55139065197533
LNX1	-1.23458020747872	FSTL3	-1.21350828728926
SLC17A3	-1.23470643224243	GABBR2	-1.01192165070344
LMNA	-1.23479913961602	GALNT3	-3.71046658673796
FAS	-1.23540493941884	GALNT5	-5.99076845412303
ANAPC2	-1.2356098433547	GAMT	-1.38580919908729
RPS7P14	-1.23577414452352	GAS6	-2.02324869267469
VEPH1	-1.23729960579199	GATA2	-1.25736522056508
MRPS33	-1.23763125641343	GATAD1	-1.08810206547252
CDCA3	-1.23858674757409	GATS	-1.98441187283488
RP11-660L16.2	-1.23858708860999	GBP2	-1.00660013808482
AGAP3	-1.23883412911255	GCKR	-2.08992675667129
RGS3	-1.23958421239254	GFPT2	-2.90507609783617
LINC01004	-1.24053612396671	GGT1	-1.40293530045371
TLR5	-1.24059671844467	GGTLC2	-1.17805092698139
SYT13	-1.24113494259817	GJA1	-5.993732623996
TMEM168	-1.24117487702289	GLCCI1	-2.00383886095232
NUB1	-1.24208963100549	GLIPR1	-1.28896381123514
WBSCR16	-1.24208996567483	GLIS1	-1.19177934339811
RFC2	-1.24232887829793	GLP2R	-1.90163635571587
CYTL1	-1.24371254088267	GLYATL1	-1.01383923959103
CALD1	-1.24390265910738	GLYATL2	-1.21744050741083
PLOD1	-1.24443153869201	GMNC	-1.20843502015311
PKDCC	-1.24516483839946	GNAI1	-2.24356522648375
TTC28-AS1	-1.24526947812878	GNAS-AS1	-2.72742213889173
MIR25	-1.24541208162955	GNAZ	-2.524823776741
CTD-2196E14.9	-1.24565451572031	GNB3	-3.31601603579868
QRICH2	-1.24575212835483	GNG11	-1.51054985794803
CDC14B	-1.24708178281898	GNGT1	-2.3608478444142
LAMA3	-1.24763379319627	GOLT1B	-1.51989774464082
ZNF783	-1.2479084052493	GPC1	-1.30140920397815
RP11-399O19.9	-1.24799304116386	GPC4	-1.40863082072167
ICAM3	-1.24831510888575	GPI	-1.2770521238925
MLLT11	-1.24914965556262	GPR1	-4.36231501516776
HSPB1P1	-1.249413979372	GPR115	-1.57844655966993
RRP1	-1.25030677387286	GPR132	-3.78990071846148
RNA5S8	-1.25084805051462	GPR156	-1.65007812799999
EIF4H	-1.25109102762457	GPR19	-1.41661396171872
LRWD1	-1.25222360552884	GPR64	-2.50204757765274
CRABP2	-1.25255867616126	GPR68	-2.34719233365973
TRIP6	-1.25354874786306	GPR75	-1.21607619124165
RP11-342K6.1	-1.2541944852005	GPRC5B	-2.04529697506362
AFP	-1.25491984895881	GPRIN2	-2.69159895673667
CD82	-1.25527234639599	GPRIN3	-2.56852942690472
ERICH2	-1.25652066474636	GPSM1	-1.2761826608813
PHTF2	-1.256875987917	GPX3	-4.78691205036929
GATA2	-1.25736522056508	GRB7	-4.06177243743093
ELL2	-1.25820546514624	GRIK2	-1.23435059996305
RPL13P5	-1.25880258756225	GRIK4	-3.70424402574295

Gene	Value	Gene	Value
BTG3	-1.2593456861215	GRIN2B	-4.648407930829
N6AMT2	-1.25945559581657	GS1-358P8.4	-1.31363243369862
HSPB1	-1.26009204096166	GSAP	-1.33094591974123
RSBN1L	-1.26058247474815	GSE1	-1.33681781209983
RILPL2	-1.26065544037065	GTF2I	-1.33537684726326
MAGEH1	-1.26071971870586	GTF2IP1	-1.41465495750497
SNORA73B	-1.26123225794949	GTF2IRD1	-1.52645142578484
C9orf3	-1.2627763512653	GTPBP10	-1.29067826078968
NCAPG2	-1.26317584280632	GUCA1C	-1.36202415674813
DDX3YP1	-1.26329293825055	GUCY1A3	-1.60538217456001
ABCF2P1	-1.26348213059051	GUCY1B3	-2.13660770246449
EEF1A2	-1.26358873676554	HABP2	-1.42000406212123
RP4-607J23.2	-1.26407257056332	HAS3	-2.10599294295897
NREP	-1.26468286669716	HAVCR2	-1.74719476934299
PRICKLE2	-1.26473014542604	HCN2	-1.48425629644625
RRM2P3	-1.2657356506266	HHIPL2	-4.53591129349724
IL22RA1	-1.26575305515194	HIP1	-1.15814150918581
RP11-7O14.1	-1.26636322960627	HIPK2	-2.07581581377302
FAM13A-AS1	-1.26712266030382	HIVEP3	-1.80069751915142
IFI27	-1.2680288945948	HLF	-1.47086784253054
RP5-1063M23.2	-1.26991256424948	HMGN2	-1.05548311312017
RP11-644F5.10	-1.27131178830919	HMGN2P3	-1.15688881392725
BAIAP2L2	-1.27144260688694	HMMR	-1.07874407467537
NCAPD2	-1.2735497791924	HNF1A	-1.87277765821167
DNAJC30	-1.27442952561443	HNMT	-2.23367206635243
CISH	-1.27528824643482	HNRNPA1P28	-1.01985504451665
AC083900.1	-1.2754362792542	HNRNPA1P51	-1.19277216187352
GPSM1	-1.2761826608813	HOXA4	-1.15433899011245
C7orf55-LUC7L2	-1.27623428078881	HOXB8	-1.44874865506613
MTMR11	-1.27646852469462	HOXC6	-1.49489142034515
AC002467.7	-1.27649964560479	HOXC8	-1.05756798350023
GPI	-1.2770521238925	HPGD	-1.29607319677992
CASKIN2	-1.28022354053088	HRASLS	-1.75686952262107
DPY19L2P2	-1.28167959969544	HSD17B8	-1.43354732889368
DHRS11	-1.28227003721382	HSD3B7	-2.4218958006096
SLFN13	-1.28401482393472	HSDL2	-1.07008024612224
LYPD1	-1.28512465616898	HSPA12A	-2.34286505842173
SCNN1A	-1.28540481495062	HSPA6	-1.05687803537012
ATP1A3	-1.28550607668908	HSPB1	-1.26009204096166
ZCWPW1	-1.28649237338019	HSPB1P1	-1.249413979372
RP11-517B11.7	-1.28738429196036	HSPB1P2	-1.35704628295305
P2RY11	-1.28775134472407	HTR7P1	-1.06856106275943
GLIPR1	-1.28896381123514	ICAM3	-1.24831510888575
ZYX	-1.28921909995491	ID1	-2.49553441939276
ERGIC1	-1.28968021188091	ID2	-1.14330570306327
PTPRN2	-1.2897752666546	ID3	-5.82185155317149
ARMC10	-1.29052034666425	IDS	-1.01232734890594
GTPBP10	-1.29067826078968	IFFO2	-1.4228434184025
F3	-1.29225960364333	IFI27	-1.2680288945948
CDKN2C	-1.29244496140952	IFNLR1	-2.7251908167564

ATAD3A	-1.29283937353238	IGFBP1	-1.50837763298161
CTD-2203K17.1	-1.29345151872695	IKBKG	-1.2154673968793
RNA5S3	-1.29452269349183	IL11	-1.34561744012172
DCBLD2	-1.2952662749657	IL1R1	-1.80697595986079
AP1S1	-1.29586244336904	IL1R2	-2.43602808870513
HPGD	-1.29607319677992	IL22RA1	-1.26575305515194
C7orf61	-1.29627164672147	ILDR2	-4.6607240307511
ZNF3	-1.29719227218287	ILF3-AS1	-1.01174193847564
RUNX2	-1.29919071166335	IMMP2L	-2.21736791801263
TMEM208	-1.29938573936215	IMPDH1	-1.34698324323474
POR	-1.30104564482593	IMPDH1P4	-1.18352620792102
GPC1	-1.30140920397815	ING3	-1.12985468053265
BTBD16	-1.30247675418542	INSIG1	-1.64466984031154
TRIM22	-1.3030915425752	INTS6	-1.01559734197406
SRI	-1.30511925552007	IPO13	-1.09622259879379
AC007040.7	-1.30569805207442	IQCB1	-1.20890760943814
BOLA3-AS1	-1.30639778542404	IRF6	-1.12332546974903
RP3-359N14.1	-1.30640692195746	IRF7	-3.27106829742525
RP11-613M10.6	-1.30787013702474	IRX5	-1.03688582132355
SLC26A1	-1.30903887301423	ITGB5	-1.46280277545251
RP11-100G15.7	-1.31014130821348	ITGB8	-1.3893986728154
ENC1	-1.31121381604294	ITIH5	-1.47277413670035
RP4-813F11.4	-1.31242781506042	ITM2C	-1.34472325718624
ATN1	-1.31316241982173	ITPR1	-2.12163526205679
RBM28	-1.3134349567165	JAG1	-1.35452328166317
GS1-358P8.4	-1.31363243369862	JAK3	-2.20706038165797
MAFG-AS1	-1.31470016886973	JAZF1	-1.00873724853325
C9orf85	-1.31550216121312	KALRN	-1.38176200268519
TAF7	-1.31814498178058	KCND1	-1.00506390521064
TMEM133	-1.31933758449658	KCNH2	-5.52047324263345
CCDC183-AS1	-1.31945591661185	KCNIP3	-1.06958416751472
TPRN	-1.32119533466842	KCNJ15	-2.8044812552652
CTC-534B23.1	-1.3226547485753	KCNJ16	-1.95151130220558
SNHG18	-1.32293489490149	KCNK1	-5.16938507224926
DBF4	-1.32352560344444	KCNK2	-1.59120232477023
PPP1R35	-1.32496338783966	KCNN4	-1.39305987989989
RNA5S12	-1.32713960493969	KCNS3	-1.85351121620081
B4GALNT1	-1.32726886595771	KDM1A	-1.0702746954194
RHBDF2	-1.3286162432577	KDM4A-AS1	-1.17208800668757
EPS8	-1.32871024826877	KDM5D	-7.01796630684176
RP11-448A19.1	-1.32988222264068	KIAA0195	-1.36303655565541
GSAP	-1.33094591974123	KIAA0513	-2.64739203758686
ZKSCAN1	-1.33167236024784	KIAA1024	-1.67619788531494
TRO	-1.332316247628	KIAA1147	-1.73960686163743
SMURF1	-1.33236535723685	KIAA1462	-1.76313341332695
BAZ1B	-1.33243455846834	KIAA1549	-1.02045083335345
TGFBR3L	-1.3325266218139	KIAA1644	-1.03073715596831
C1orf51	-1.3338954294875	KIAA1755	-2.77769500716279
LRRC37A3	-1.33474055702524	KIF3C	-1.0229009639348
ABCA17P	-1.33500644698175	KIF7	-2.74583351891817

ACTR3C	-1.33514269852322	KITLG	-2.17546974381561
GTF2I	-1.33537684726326	KLC3	-2.58697029189038
RP11-424G14.1	-1.33556285942092	KLHDC10	-1.15287291456466
CAMK4	-1.33580278212895	KLHL13	-1.70635655888062
RP11-249L21.4	-1.33593332177463	KLHL21	-1.040650159877
ARHGEF19	-1.33600854529669	KLHL4	-3.03074319327015
GSE1	-1.33681781209983	KLRAP1	-1.51100042510034
YWHAG	-1.33698274073203	KLRC1	-1.19279488835365
RP11-453F18__B.	-1.33772388199178	KMO	-3.93951610226074
C21orf58	-1.33827531649619	KMT2E-AS1	-1.40081758539817
UBE2G2	-1.33907738559269	KRBA1	-1.86771070460358
RP11-537H15.4	-1.34077623754697	KRIT1	-1.1415706370725
FLRT3	-1.3439531016527	KRT19	-2.08241141873772
ITM2C	-1.34472325718624	KRT19P1	-1.98859782959576
CLOCK	-1.34477231828527	KRT223P	-3.96800481179923
IL11	-1.34561744012172	KRT79	-3.70136924227024
IMPDH1	-1.34698324323474	KRT8	-1.08783469433466
SLCO4A1	-1.34797814494335	KRT8P13	-1.12303128596687
TMEM158	-1.34809144073019	KRT8P3	-1.01610940669398
RP11-134G8.8	-1.34861960589714	KRT8P41	-1.21338156704871
PAICS	-1.35003003073076	KRT8P45	-1.02259798339573
RP11-522I20.3	-1.35027024051915	KY	-2.82040219269903
OR2A1-AS1	-1.35129974722587	L3MBTL4	-4.5289784070167
TFCP2L1	-1.35259399097551	LAMA3	-1.24763379319627
MTCP1	-1.35360126711763	LAYN	-5.36079333164028
SCN9A	-1.35373247185598	LCA5L	-2.22690680506355
JAG1	-1.35452328166317	LCK	-1.57650450266459
RNA5S15	-1.35493652950625	LDHB	-0.998696212284354
EPB41	-1.35496328841728	LDHBP2	-1.08490904429771
NUP205	-1.35528293065473	LDLRAP1	-1.82452802902165
AC142293.3	-1.35573429304652	LEAP2	-1.2313032297366
TLE6	-1.35625254440726	LEPREL2	-3.11490544222787
HSPB1P2	-1.35704628295305	LINC00261	-1.7232144911947
ADAMTS1	-1.35951151257254	LINC00263	-1.11056024862664
TLE1	-1.36050849932936	LINC00278	-1.99818791366258
CTD-2186M15.3	-1.36122559909196	LINC00460	-2.62629633833281
MCEE	-1.3619400246487	LINC00467	-1.02601298909218
RP11-368L12.1	-1.36200518938368	LINC00475	-3.04088949885824
GUCA1C	-1.36202415674813	LINC00478	-1.04530096976331
RPH3AL	-1.36208564705035	LINC00634	-1.12897537976566
PMPCB	-1.36240832194871	LINC00665	-5.76331630487695
KIAA0195	-1.36303655565541	LINC00702	-2.08292579369283
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FAM225B	-1.36477638208254	LINC00707	-1.20488041470389
TES	-1.36510114704876	LINC00882	-1.07626245442256
CCBE1	-1.36517132298986	LINC00961	-1.1248431578916
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UPB1	-1.36769677241104	LINC00998	-1.20440547919038
FOXL1	-1.36795423615004	LINC01004	-1.24053612396671
S100A4	-1.37027498046914	LINC01011	-1.01166344941315

AL035610.1	-1.37047969243617	LINC01111	-1.54848043143136
ADAMTS6	-1.37346373911336	LINC01116	-1.07087230466423
EFHD2	-1.373558459663	LMAN1	-0.992108670815045
PTGFRN	-1.37358691404223	LMBR1	-1.12048274307942
TMEM17	-1.37459516582755	LMNA	-1.23479913961602
CP	-1.37471205350393	LMO4	-1.05397895639305
RP11-301G19.1	-1.37475910883244	LMO7	-1.02476557466024
PSMC2	-1.37625708773428	LNP1	-2.04885009723518
FBXL13	-1.37921187506028	LNX1	-1.23458020747872
PORCN	-1.37945768394752	LPAR1	-1.99488561258013
DPYD	-1.37977588589005	LPCAT1	-1.17447085509392
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SLITRK5	-1.38115229369148	LPPR5	-1.88623464051087
RP5-886K2.3	-1.38163998849756	LPXN	-1.09359509318826
KALRN	-1.38176200268519	LRCH1	-1.11866383603949
PDLIM4	-1.38313937674669	LRCH2	-2.19412818432615
RNA5S7	-1.38336264781273	LRCH4	-1.0537194771312
RP3-398G3.5	-1.38395483635287	LRP1	-1.08962655813358
FAM211B	-1.38415451020405	LRP12	-1.00597754598807
ABCF2	-1.38513136049994	LRRC23	-1.06961130318262
ZBED6CL	-1.38537676870858	LRRC34	-1.73370998665226
ZNF117	-1.38538261890818	LRRC37A3	-1.33474055702524
GAMT	-1.38580919908729	LRRK2	-1.40034446493514
SLC4A2	-1.3858759703808	LRWD1	-1.25222360552884
PCYOX1L	-1.38649055877516	LTBP1	-2.40963179477459
FAM3C2	-1.38746894994549	LUM	-3.39491089511331
B3GNT6	-1.38774832979055	LXN	-1.15989950347926
CTA-29F11.1	-1.38892705361468	LYPD1	-1.28512465616898
ZNF439	-1.38926986758467	LYRM1	-1.11019597139713
ITGB8	-1.3893986728154	LYRM5	-1.03846804542487
KCNN4	-1.39305987989989	MAF	-2.70565930793551
NSUN5	-1.39393205215468	MAFG-AS1	-1.31470016886973
ZNF486	-1.39501338640364	MAGED1	-1.04697260732399
MTSS1L	-1.3952780103244	MAGEH1	-1.26071971870586
FGFRL1	-1.39926607490426	MAGOHB	-1.45570253330974
MCM7	-1.40014398666726	MALL	-1.74216367396648
SSNA1	-1.40016671953689	MALRD1	-2.34297035575447
STYXL1	-1.40025895079969	MAMDC4	-1.17868998477561
LRRK2	-1.40034446493514	MANSC1	-1.19020854997467
KMT2E-AS1	-1.40081758539817	MAOA	-3.33595826476442
POLR2J	-1.40085432831984	MAP2K6	-2.68121120794064
NSUN5P1	-1.40117349718762	MAP3K14	-1.6043510773145
RINT1	-1.40202705398561	MAP3K7CL	-1.45642483908819
UBE3C	-1.40259913124611	MAP7D2	-4.01763984408144
GGT1	-1.40293530045371	MAPK10	-1.08037901795783
DONSON	-1.40299911860588	MAPK8IP2	-3.11336715137712
ORAI2	-1.40305225215241	MAPK9	-1.03299643288973
PDIK1L	-1.40393900911585	MAPKAPK3	-1.19957886745824
MMP7	-1.40427227884426	MAPRE3	-3.22836901358422
PER2	-1.4050078323739	MARCH3	-1.97778502754937

AMACR	-1.40548905645385	MASP2	-1.76836859004612
GPC4	-1.40863082072167	MBL2	-1.63842647385895
RCSD1	-1.40866578297153	MBNL3	-1.20149289207947
ACN9	-1.40881927277216	MCC	-2.37519817285719
FAM83H	-1.40935813211817	MCEE	-1.3619400246487
RTKN	-1.40978864303171	MCM7	-1.40014398666726
TUBA4A	-1.41297064647117	MCTP2	-1.97009811630968
MPZL3	-1.41310122453024	MDFIC	-1.56504661434759
ABCC6P2	-1.4140094793513	MDH2	-1.59051728881916
DICER1-AS1	-1.41424697550309	MDM2	-1.04104979508373
ATP5J2	-1.41427248981714	MEF2C	-2.18335545322803
GTF2IP1	-1.41465495750497	MEPCE	-1.23122810931556
MPP1	-1.4161753532597	MET	-2.06155257107831
GPR19	-1.41661396171872	METTL2B	-1.13987747470622
SLC25A40	-1.41757021408901	METTL7B	-2.10327631212661
DHRS9	-1.4175983282299	MFNG	-1.03508973349009
HABP2	-1.42000406212123	MFSD2A	-2.86669232191414
RRAD	-1.42021061402596	MGMT	-5.70468285136659
RNA5S6	-1.42129707208935	MIR155HG	-1.74623681909429
CREB3L2	-1.42156430595078	MIR25	-1.24541208162955
IFFO2	-1.4228434184025	MIR296	-1.84018950492888
PDAP1	-1.42383561819161	MIR4653	-1.0856505206396
SIK1	-1.4277851234317	MITF	-2.35332844202118
SLC25A10	-1.42798729506729	MKLN1	-0.998508778522896
PINK1-AS	-1.42921764092079	MLF2	-1.21990947764846
PRKAG2-AS1	-1.4292427237028	MLLT11	-1.24914965556262
PDIA4	-1.43128138186638	MMP13	-3.50465992515455
PYCARD	-1.43256862562684	MMP7	-1.40427227884426
HSD17B8	-1.43354732889368	MOK	-2.76554992168211
WASL	-1.43797914386414	MPP1	-1.4161753532597
WDR72	-1.43953059351747	MPZL3	-1.41310122453024
CHAF1B	-1.43973086774046	MRPL33	-1.64077407422928
CYB561	-1.44091015866243	MRPS33	-1.23763125641343
AP000569.9	-1.44180127603074	MRPS35	-1.18289642333016
ASPHD1	-1.44316216754862	MRTO4	-1.20347113506324
STRIP2	-1.44340887649172	MSRB3	-1.11730411514547
AMN1	-1.44481994090604	MSX2	-3.39450401779448
BCAP29	-1.44531929392092	MTCP1	-1.35360126711763
RP11-598F7.5	-1.44667867020889	MTL5	-2.02307672098367
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RNU4-2	-1.44812506714905	MTPN	-1.15042226799058
HOXB8	-1.44874865506613	MTSS1	-1.10073909471909
CCBL1	-1.44880885036193	MTSS1L	-1.3952780103244
SPSB2	-1.44891451615185	MUC12	-2.1921944088152
ASAP3	-1.44982290850554	MVB12B	-1.72537670202048
EPS8L1	-1.4504845092102	MYCBP	-1.00561504924586
NSUN5P2	-1.45286554043515	MYEOV	-3.12811865504882
SND1	-1.45328999068112	MYH13	-2.68908339170111
CBR3	-1.45475176096378	MYH15	-2.17150640046527
MAGOHB	-1.45570253330974	MYH16	-2.01824673898841

MAP3K7CL	-1.45642483908819	MYL9	-8.71288354678854
SH3BGRL3	-1.45685367561205	MYLK	-1.05825774454905
CHPF2	-1.45813863697618	MYLK-AS1	-1.07730847025792
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ATP2B4	-1.46062160927894	MYOM3	-3.17717534428266
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PMS2P5	-1.49544266572131	NMU	-3.94092013304041
POM121C	-1.49595959756345	NOM1	-1.57014203773626
RRM2	-1.49652338114812	NOP16	-1.04397357687827
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PROM2	-1.503588509214	NRP1	-2.09664903797841
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TGIF2	-1.5044111312016	NSUN5	-1.39393205215468
ERV3-1	-1.50517450234628	NSUN5P1	-1.40117349718762
IGFBP1	-1.50837763298161	NSUN5P2	-1.45286554043515

XXyac-YM21GA2.4	-1.50981330884101	NTM	-1.84087763076629
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PDGFD	-1.51048060321861	NUB1	-1.24208963100549
GNG11	-1.51054985794803	NUP205	-1.35528293065473
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KLRAP1	-1.51100042510034	ODCP	-1.4814584836903
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GOLT1B	-1.51989774464082	P2RX6	-1.10649429016935
CAPZA2	-1.51990330982116	P2RY11	-1.28775134472407
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GTF2IRD1	-1.52645142578484	PANX2	-1.18995082414531
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SGCE	-1.53144732065922	PAXBP1-AS1	-1.15488741609971
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ULBP2	-1.53617657401928	PCDH7	-1.17363946759686
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FSBP	-1.55139065197533	PDAP1	-1.42383561819161
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EFNB2	-1.55885464865145	PDIA4	-1.43128138186638
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TMCO3	-1.5800269694914	PITHD1	-1.14953831096703
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DMRTA1	-1.58309676454504	PLCL2	-2.73089940199489
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TCF4	-1.62393217729276	PPFIA3	-1.7792993025697
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COL5A2	-1.63876775222889	PRAME	-1.72223771541537
MRPL33	-1.64077407422928	PRDM2	-1.07895175739406
PON2	-1.64125763000507	PRICKLE1	-1.67703889864684
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PRUNE2	-1.68719768416719
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CHML	-1.74994370835219	RHBDL2	-1.20830759660765
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MASP2	-1.76836859004612	RNA5S11	-1.08798483006223
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EGF	-1.78376224355124	RNA5S8	-1.25084805051462
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ANXA10	-1.79035756455283	RNF144A	-1.23038517828148
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RNA5S1	-1.79131655273812	RNF32	-2.26617145316005
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BET1	-1.80099773261969	RNU4-1	-1.05569062945509
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RP11-16P6.1	-1.83590382627415	RP11-220I1.1	-1.19048075720163
RPS27L	-1.83591175948498	RP11-225H22.7	-1.07321588681705
MIR296	-1.84018950492888	RP11-226L15.5	-1.13490999845725
NTM	-1.84087763076629	RP11-22B23.1	-1.19357649084349
FAM13C	-1.84113050379833	RP11-22P6.3	-1.99037095969977
WT1	-1.85323756851555	RP11-249L21.4	-1.33593332177463
KCNS3	-1.85351121620081	RP11-251G23.5	-1.88265521714847
NTNG1	-1.85423971950683	RP11-259N19.1	-1.05728364473987
COBLL1	-1.85760719396649	RP11-266K4.9	-2.24622014738574
ATP6V0E2-AS1	-1.85845194859369	RP11-267A15.1	-4.00009955842772
RARRES2P7	-1.86093318270436	RP11-274B21.3	-1.1280132709563
SOAT2	-1.86338350124105	RP11-274H2.5	-1.04134807789478
KRBA1	-1.86771070460358	RP11-280G9.1	-1.01851099301403
HNF1A	-1.87277765821167	RP11-283G6.3	-1.46153357814496
RP11-314B1.2	-1.87323599053738	RP11-284F21.1(	-2.06265159763048
C9orf84	-1.87340478725554	RP11-286H14.6	-1.51652718219975
RP1-63G5.5	-1.87545006173848	RP11-290L1.6	-1.47157020950421
FKBP10	-1.87545637977584	RP11-301G19.1	-1.37475910883244
DNAJC12	-1.88032042790948	RP11-304L19.5	-2.44381970063542
PLCXD1	-1.88208409673182	RP11-305O4.2	-1.00239800172503
RP11-251G23.5	-1.88265521714847	RP11-309L24.6	-1.59970030480919
LPPR5	-1.88623464051087	RP11-309M7.1	-2.32483047052873
SEMA3A	-1.88924696341069	RP11-314B1.2	-1.87323599053738
RP11-782C8.2	-1.8965646395348	RP11-320A16.1	-1.5330360754828
POT1-AS1	-1.9000560100744	RP11-325O24.2	-1.08352526421389
GLP2R	-1.90163635571587	RP11-331F4.1	-4.01317929284166
SNAI1	-1.90438654883407	RP11-339B21.1	-2.23772778414199
RYR2	-1.91467380312627	RP11-342K6.1	-1.2541944852005
TSPAN33	-1.92360047532331	RP11-350F4.2	-2.29544081136154
FABP6	-1.92695762469259	RP11-368L12.1	-1.36200518938368
ABCA13	-1.9277285735931	RP11-380I10.4	-2.48777155132604
CYP3A5	-1.9297125111532	RP11-381E24.1	-1.58592414790845
FAM3C	-1.9298102077022	RP11-383J24.6	-1.5715298107283
SIGIRR	-1.93078233614877	RP11-389K14.3	-1.68819680884373
CDIP1	-1.93361191909398	RP11-393M11.2	-1.49183117549221
PWWP2B	-1.93414471506673	RP11-395B7.4	-3.77525637210929
FAT4	-1.93481995826998	RP11-395B7.7	-1.52230370084061
TFEB	-1.93514000518751	RP11-396K3.1	-1.50403749800873
TRIM55	-1.93829714717148	RP11-397E7.4	-1.14522235473631
C7orf55	-1.94218971795452	RP11-397G5.2	-1.64532258550953

Gene	Value	Gene	Value
RBM47	-1.94559126033518	RP11-399O19.9	-1.24799304116386
RP13-582O9.5	-1.95022752107386	RP11-424G14.1	-1.33556285942092
KCNJ16	-1.95151130220558	RP11-438N16.1	-2.14611611523528
AC003092.1	-1.95684241144007	RP11-439E19.9	-2.19592606105321
SYNE1	-1.95710164840442	RP11-448A19.1	-1.32988222264068
TNFRSF11A	-1.95726110002923	RP11-44N11.2	-1.03702658666279
SLAMF8	-1.96131955679612	RP11-44N21.1	-1.03724601762055
FNDC4	-1.96679692117177	RP11-452L6.1	-1.22828818734894
ZNF813	-1.96781823586231	RP11-453F18__	-1.33772388199178
MCTP2	-1.97009811630968	RP11-462G12.1	-1.09977858604953
RP11-551L14.4	-1.97058754814243	RP11-465B22.3	-1.13288366281865
ACSL5	-1.97131351590678	RP11-471M2.3	-1.11315304680038
ABCC2	-1.973287549534	RP11-483H11.1	-1.67145984781561
MARCH3	-1.97778502754937	RP11-498C9.15	-1.48483614276355
TCF7	-1.97838854701892	RP11-4C20.4	-1.11482705199281
PIM1	-1.98282339725823	RP11-4F5.2	-1.98602836925586
GATS	-1.98441187283488	RP11-517B11.7	-1.28738429196036
E2F2	-1.98496800630481	RP11-522I20.3	-1.35027024051915
RP11-4F5.2	-1.98602836925586	RP11-527J8.1	-1.03715508836766
CCDC71L	-1.9874982850174	RP11-527N22.2	-2.30357931798596
KRT19P1	-1.98859782959576	RP1-152L7.9	-1.60675247853301
RAET1E	-1.99011215148803	RP11-535M15.1	-1.51343916149248
RP11-22P6.3	-1.99037095969977	RP11-537H15.4	-1.34077623754697
LPAR1	-1.99488561258013	RP11-539I5.1	-1.09297817796746
NLRP1	-1.99519490385793	RP11-54A9.1	-1.20875227882869
SH3YL1	-1.99643415980462	RP11-54O7.1	-1.01024073955584
LINC00278	-1.99818791366258	RP11-54O7.17	-2.62546058854216
CDK20	-1.99905978369626	RP11-54O7.3	-2.47990094523402
GLCCI1	-2.00383886095232	RP11-551L14.4	-1.97058754814243
DPYSL3	-2.00575559447688	RP11-598F7.5	-1.44667867020889
SNX18P16	-2.01615446274987	RP11-598F7.6	-1.06519870026077
MYH16	-2.01824673898841	RP11-613M10.6	-1.30787013702474
ZNF568	-2.02077448128291	RP11-613M5.2	-1.01542553973632
MTL5	-2.02307672098367	RP11-617F23.1	-1.09083491947262
GAS6	-2.02324869267469	RP11-644F5.10	-1.27131178830919
VAC14-AS1	-2.02473561449569	RP11-649A18.7	-1.5713599408682
NAAA	-2.02931711597771	RP11-64B16.2	-1.49658643786731
ACSM3	-2.03191495011997	RP11-660L16.2	-1.23858708860999
ZNF775	-2.0367926887379	RP11-669B18.1	-1.00024465527051
AC093673.5	-2.04092219489573	RP11-682N22.1	-1.07933155963793
FAM49A	-2.04253706181793	RP11-782C8.2	-1.8965646395348
GPRC5B	-2.04529697506362	RP11-7O14.1	-1.26636322960627
SULT1A1	-2.04592142870553	RP11-815D16.1	-1.78195376093038
LNP1	-2.04885009723518	RP11-818F20.5	-1.00955974430653
RUNDC3B	-2.05178638871041	RP11-83N9.5	-1.49259464752877
SNORA76	-2.05505431073757	RP1-193H18.2	-1.13978838917366
MET	-2.06155257107831	RP11-956E11.1	-2.61080514919696
NYAP2	-2.06243236914658	RP11-959F10.5	-0.991981665177088
RP11-284F21.10	-2.06265159763048	RP1-228P16.7	-1.05449661091381
CD70	-2.06698213917517	RP1-272L16.1	-1.20150707117589

ZNF862	-2.06751840435996	RP1-305B16.3	-1.07937678509764
PRIMA1	-2.06964901022069	RP1-30G7.2	-1.2180840856209
ECHDC2	-2.0707711768928	RP13-36G14.3	-6.51874581746173e-05
ENKD1	-2.07233478171512	RP13-582O9.5	-1.95022752107386
HIPK2	-2.07581581377302	RP13-585F24.1	-1.18982036442056
TMEM141	-2.07895387838531	RP1-60O19.1	-1.00092743193094
EVPL	-2.07986614331229	RP1-63G5.5	-1.87545006173848
KRT19	-2.08241141873772	RP3-359N14.1	-1.30640692195746
LINC00702	-2.08292579369283	RP3-398G3.5	-1.38395483635287
VILL	-2.08374108618197	RP3-400B16.1	-1.00318788123417
SLC1A3	-2.0849209338041	RP3-428L16.2	-2.68945985922217
SLC45A1	-2.08493221439198	RP3-467K16.4	-1.1367120197148
ARHGAP33	-2.08678307691694	RP3-510D11.2	-2.08740308900305
RP3-510D11.2	-2.08740308900305	RP4-607J23.2	-1.26407257056332
CTB-175P5.4	-2.08978448029865	RP4-806M20.3	-2.33745857919095
GCKR	-2.08992675667129	RP4-813F11.4	-1.31242781506042
SLC4A3	-2.09427536439812	RP5-1021I20.2	-2.53880655280778
ATP6V0E2	-2.09626019740203	RP5-1024G6.8	-1.12220781799938
NRP1	-2.09664903797841	RP5-1063M23.1	-1.76630200387052
SEMA6A	-2.09746817660054	RP5-1063M23.2	-1.26991256424948
C7orf13	-2.09799370012498	RP5-1136G13.2	-1.77433941326004
PTPRE	-2.09928015564933	RP5-1172A22.1	-1.4900156401761
CTD-2228K2.5	-2.10186149703504	RP5-884M6.1	-1.7201790153691
METTL7B	-2.10327631212661	RP5-886K2.3	-1.38163998849756
TINAG	-2.10587256807121	RP5-894A10.2	-1.81296448271336
HAS3	-2.10599294295897	RP5-894A10.6	-1.04556822464811
TM4SF1	-2.10696243058762	RP6-42F4.1	-1.17869787668071
5S_rRNA	-2.12103470001882	RPH3AL	-1.36208564705035
ITPR1	-2.12163526205679	RPL13P5	-1.25880258756225
CCDC183	-2.1250476313042	RPL21	-1.11543214727694
SLC2A10	-2.13096756049124	RPL21P75	-1.02928303104441
GUCY1B3	-2.13660770246449	RPL32P34	-2.20609953575549e-06
NCF2	-2.14308645274543	RPP25	-1.58395377230666
RP11-438N16.1	-2.14611611523528	RPS26P13	-1.03370410312377
C5orf63	-2.14748634592294	RPS27L	-1.83591175948498
CGB8	-2.14870053376725	RPS27P27	-1.13135018190558
CXCR4	-2.14956731875374	RPS4Y1	-8.88152282557197
AP000688.29	-2.14965694258117	RPS7P14	-1.23577414452352
AKR1B10P1	-2.152170008916	RRAD	-1.42021061402596
ACTR3B	-2.1525867903674	RRM2	-1.49652338114812
CBR3-AS1	-2.15809464753148	RRM2P3	-1.2657356506266
RP11-1069G10.1	-2.1626835105406	RRP1	-1.25030677387286
CAMSAP3	-2.16571162117149	RRP1B	-1.18071095134882
MYH15	-2.17150640046527	RSBN1L	-1.26058247474815
KITLG	-2.17546974381561	RTKN	-1.40978864303171
PXDN	-2.17804417136434	RTKN2	-1.12329462619383
PDGFRB	-2.18314953779927	RUNDC3B	-2.05178638871041
MEF2C	-2.18335545322803	RUNX2	-1.29919071166335
CTD-2171N6.1	-2.18351582695817	RYR2	-1.91467380312627
FAM213B	-2.18845447268478	RYR3	-1.76742581116402

MUC12	-2.1921944088152	S100A4	-1.37027498046914
LRCH2	-2.19412818432615	S100A6	-1.57859317319288
ELMOD1	-2.19468761914382	S1PR3	-1.5171359815928
RP11-439E19.9	-2.19592606105321	SALL1	-1.81954124021997
FPR1	-2.1975015685955	SAMD11	-2.84031823699413
SLCO5A1	-2.20272823934441	SAPCD2	-0.997408501188129
RPL32P34	-2.20609953575549e-06	SATB1	-4.9182529601329
JAK3	-2.20706038165797	SBDSP1	-1.493752593481
SLN	-2.20738434657147	SCARB1	-1.14906123800535
ABCA1	-2.20750807144444	SCARF2	-4.11503777216132
IMMP2L	-2.21736791801263	SCFD2	-1.1635994518458
RGS14	-2.21830845208488	SCN9A	-1.35373247185598
LCA5L	-2.22690680506355	SCNN1A	-1.28540481495062
HNMT	-2.23367206635243	SDC1	-1.5539624592857
RP11-339B21.11	-2.23772778414199	SEC14L6	-1.44734073555701
GNAI1	-2.24356522648375	SEC24A	-1.01339575723721
RP11-266K4.9	-2.24622014738574	SEC31A	-1.19877274496689
CTA-445C9.15	-2.25039095927671	SEMA3A	-1.88924696341069
TGFA	-2.25390198061684	SEMA3B	-3.6882971552853
CDKN1A	-2.25427401602016	SEMA3F	-2.82331743782225
DIXDC1	-2.25933342338061	SEMA4B	-1.77820723546457
RNF32	-2.26617145316005	SEMA5B	-1.11541637447623
ESPNL	-2.27431942308858	SEMA6A	-2.09746817660054
C1orf21	-2.27462793981867	SEMA6D	-3.0617191771706
EREG	-2.27629436015885	SEMA7A	-1.72583743835992
CAV2	-2.27790201893699	SERINC5	-1.08080359180078
AMPD2	-2.28546845939771	SERPINE1	-1.13757380141453
ARHGEF6	-2.2942334578145	SFXN2	-1.13944034766061
RP11-350F4.2	-2.29544081136154	SGCB	-1.22204863019441
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RP11-150O12.1	-2.30047522259939	SGK2	-1.64923094452855
RP11-527N22.2	-2.30357931798596	SGK223	-1.58906120095277
RBM24	-2.30603474059045	SH2D3A	-3.03940629527491
TTTY14	-2.31196059051967	SH3BGRL2	-1.14219801453257
TM4SF18	-2.31305647126589	SH3BGRL3	-1.45685367561205
LPCAT2	-2.31426814904929	SH3YL1	-1.99643415980462
PAK3	-2.31612352293559	SHFM1	-1.59274933442984
ANK3	-2.31948757109412	SHISA2	-6.5978606048503
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RP4-806M20.3	-2.33745857919095	SKAP1	-3.99349461835528
ENPEP	-2.33896106892796	SLAMF8	-1.96131955679612
NPL	-2.33977800068525	SLC12A9	-1.77854310161671
HSPA12A	-2.34286505842173	SLC13A3	-1.00814785806577
MALRD1	-2.34297035575447	SLC16A12	-4.68588153422629
GPR68	-2.34719233365973	SLC16A4	-4.18133485946983
RDM1	-2.34941524827658	SLC16A5	-4.45686328058376
OLFML2B	-2.35300176453667	SLC17A3	-1.23470643224243
MITF	-2.35332844202118	SLC17A9	-2.43842981869094
CFI	-2.354690468672	SLC19A1	-1.57385606901404

DLG5-AS1	-2.35876019534972e-05	SLC1A1	-1.68619930025407
GNGT1	-2.3608478444142	SLC1A3	-2.0849209338041
AFF2	-2.36749779798605	SLC22A3	-1.01918636094209
SMARCD3	-2.37068394669434	SLC25A10	-1.42798729506729
PLXDC2	-2.37515981906981	SLC25A13	-1.11683403979263
MCC	-2.37519817285719	SLC25A40	-1.41757021408901
CTNNA3	-2.37904539904998	SLC26A1	-1.30903887301423
FAM115C	-2.38478679240703	SLC26A7	-2.46401031878538
CTD-2501M5.1	-2.3904638726716	SLC26A9	-1.60386265407492
FAR2	-2.39385063308815	SLC2A10	-2.13096756049124
C9orf172	-2.39824068051339	SLC2A3	-4.95449591056742
ZFP82	-2.39961068526318	SLC2A5	-1.69063845739147
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CYP1B1-AS1	-2.40349816049931	SLC35B4	-1.23176359804538
LTBP1	-2.40963179477459	SLC45A1	-2.08493221439198
FRMD5	-2.41505129660022	SLC47A2	-2.42161978413265
C1orf85	-2.41529184600928	SLC4A2	-1.3858759703808
CDK14	-2.41851673849028	SLC4A3	-2.09427536439812
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HSD3B7	-2.4218958006096	SLC6A13	-1.19094739462024
ZNF736P9Y	-2.42199877984748	SLC6A6	-1.15999013710373
DUSP9	-2.42781632963274	SLC6A9	-3.50074183113291
CCDC74B	-2.43073710031618	SLC7A8	-2.4351137466767
NGF	-2.43094166749568	SLCO4A1	-1.34797814494335
SLC7A8	-2.4351137466767	SLCO5A1	-2.20272823934441
IL1R2	-2.43602808870513	SLFN13	-1.28401482393472
ABCC9	-2.43765195577431	SLITRK2	-1.7856678538714
SLC17A9	-2.43842981869094	SLITRK4	-1.05510981551252
C3AR1	-2.44262660634267	SLITRK5	-1.38115229369148
RP11-304L19.5	-2.44381970063542	SLN	-2.20738434657147
ZBTB38	-2.4465922703597	SMAD9	-2.7960798341013
EFHB	-2.45875898668787	SMARCD3	-2.37068394669434
SLC26A7	-2.46401031878538	SMIM11	-1.64362143549449
F12	-2.46675385378124	SMPDL3A	-1.63712056380401
BCMO1	-2.47046899088319	SMTN	-1.64912315541182
CTD-2521M24.9	-2.47070771432215	SMURF1	-1.33236535723685
ASMTL	-2.47459078064563	SNAI1	-1.90438654883407
ADAP2	-2.47468528125482	SNAP25	-3.64543289854612
TTN	-2.47890572572717	SND1	-1.45328999068112
RP11-54O7.3	-2.47990094523402	SNHG10	-1.00467657234077
CTTNBP2	-2.48039944055636	SNHG12	-1.67735921311315
C6orf99	-2.48545111347615	SNHG18	-1.32293489490149
RP11-380I10.4	-2.48777155132604	SNHG3	-1.48258312734834
WDR91	-2.49208775089808	SNHG7	-1.52355057661655
ID1	-2.49553441939276	SNHG9	-1.04770916696188
GPR64	-2.50204757765274	SNORA73B	-1.26123225794949
GNAZ	-2.524823776741	SNORA76	-2.05505431073757
RP5-1021I20.2	-2.53880655280778	SNORD125	-1.19263751426871
DGCR9	-2.55086831302144	SNORD3B-2	-1.16012996959494
GPRIN3	-2.56852942690472	SNORD99	-1.72096498903772

AP1S3	-2.5865487390484	SNX18P16	-2.01615446274987
KLC3	-2.58697029189038	SOAT2	-1.86338350124105
FHDC1	-2.60662262471211	SOD1	-1.21893259260956
RP11-956E11.1	-2.61080514919696	SP5	-1.10219887103367
RP11-54O7.17	-2.62546058854216	SPA17	-1.02034985057845
LINC00460	-2.62629633833281	SPATA18	-4.20327926882411
PCDHGB6	-2.64328418799346	SPATC1L	-1.1880807051863
KIAA0513	-2.64739203758686	SPC24	-1.17900423407339
FOXP2	-2.67723356862781	SPHK1	-1.14208814494735
CXorf57	-2.67834479871152	SPINT1	-3.45758652704004
MAP2K6	-2.68121120794064	SPINT2	-1.19057891520905
STYK1	-2.68384475750343	SPN	-5.77670102569125
ZNF883	-2.68463017026968	SPOCD1	-3.81211833638237
MYH13	-2.68908339170111	SPOCK1	-6.05998968142764
RP3-428L16.2	-2.68945985922217	SPSB2	-1.44891451615185
GPRIN2	-2.69159895673667	SRI	-1.30511925552007
ZNF665	-2.69824472265324	SRIP3	-1.05905398121803
DCLK2	-2.69993308373609	SRP72	-1.10074845368549
MAF	-2.70565930793551	SRP72P2	-1.08300709920933
ARL14EPL	-2.71340089425855	SRPK2	-1.17919534988154
IFNLR1	-2.7251908167564	SSBP1	-1.18503537832669
GNAS-AS1	-2.72742213889173	SSBP3	-1.79145979263648
PLCL2	-2.73089940199489	SSNA1	-1.40016671953689
ST3GAL5	-2.73133147443501	ST3GAL5	-2.73133147443501
PEX5L	-2.74132830557401	ST7	-1.04095996764125
AC007362.1	-2.74527623781646	STAC	-1.16547292803692
KIF7	-2.74583351891817	STPG1	-1.23405719279201
BOLA1	-2.75950132029281	STRAP	-1.19926069053642
MOK	-2.76554992168211	STRIP2	-1.44340887649172
KIAA1755	-2.77769500716279	STXBP6	-4.03311783537698
TNFRSF19	-2.78257369323424	STYK1	-2.68384475750343
DCLK1	-2.78939635108174	STYXL1	-1.40025895079969
SMAD9	-2.7960798341013	SULF1	-1.01482771134734
KCNJ15	-2.8044812552652	SULT1A1	-2.04592142870553
NPY4R	-2.81929772938366	SUSD4	-4.45627043873728
KY	-2.82040219269903	SYK	-4.64693000822441
TP73	-2.82097592807113	SYNE1	-1.95710164840442
SEMA3F	-2.82331743782225	SYPL1	-1.12429590092539
SAMD11	-2.84031823699413	SYT11	-1.22315922907628
FOLR1	-2.84538902413685	SYT13	-1.24113494259817
MFSD2A	-2.86669232191414	TAF12	-0.998077946286909
EFCAB4A	-2.8803323839124	TAF7	-1.31814498178058
ZNF630	-2.88390304616829	TBC1D4	-1.04365055814115
UPK1B	-2.90120260737869	TBL2	-1.05301053861815
GFPT2	-2.90507609783617	TBXAS1	-2.29684915412183
RASSF5	-2.93054551399139	TCEA3	-3.02953572509561
NRP2	-2.94225436943766	TCEAL8	-1.05241853004023
EFEMP1	-2.9554428232653	TCEB3	-1.02393141637187
FOXA2	-2.96237417165126	TCF3	-1.10129681733495
RHOF	-2.96911181191759	TCF4	-1.62393217729276

Gene	Value	Gene	Value
ZNF528	-2.97372326463175	TCF7	-1.97838854701892
ANKRD20A11P	-2.97639039290732	TDO2	-1.1013653833862
DGKI	-2.98716030038112	TES	-1.36510114704876
VWA5A	-2.98907966736265	TFCP2	-3.70363032759813
NCKAP5	-3.00166578988834	TFCP2L1	-1.35259399097551
CD109	-3.00196137284742	TFDP1	-1.01399797894849
DGCR5	-3.01190719595017	TFEB	-1.93514000518751
TMEM184A	-3.02243718764765	TGFA	-2.25390198061684
TCEA3	-3.02953572509561	TGFB3	-1.10629818688475
ATAT1	-3.0301791570386	TGFBI	-1.5903825016841
KLHL4	-3.03074319327015	TGFBR3L	-1.3325266218139
SH2D3A	-3.03940629527491	TGIF2	-1.5044111312016
LINC00475	-3.04088949885824	TGM2	-3.51703863885425
CREB3L1	-3.04130729330342	THAP5	-1.71439811130075
SEMA6D	-3.0617191771706	THSD1	-1.60389151111082
MAPK8IP2	-3.11336715137712	TICAM2	-1.13232324413625
LEPREL2	-3.11490544222787	TINAG	-2.10587256807121
EPCAM	-3.12628096489074	TLE1	-1.36050849932936
MYEOV	-3.12811865504882	TLE6	-1.35625254440726
RAB31	-3.12823826839028	TLR5	-1.24059671844467
TNIK	-3.12864042962481	TM4SF1	-2.10696243058762
RASL11A	-3.1657902824021	TM4SF18	-2.31305647126589
MYOM3	-3.17717534428266	TMCO3	-1.5800269694914
AC011738.4	-3.190941623878	TMEM133	-1.31933758449658
DGAT2	-3.20973451175965	TMEM141	-2.07895387838531
C11orf86	-3.21015112938209	TMEM158	-1.34809144073019
DTNA	-3.21826514345096	TMEM163	-3.23538839434293
MAPRE3	-3.22836901358422	TMEM165	-1.08238025021553
EGLN3	-3.23111700929812	TMEM168	-1.24117487702289
TMEM163	-3.23538839434293	TMEM169	-1.10242679652603
PCSK5	-3.24295962420057	TMEM17	-1.37459516582755
AKR1B10	-3.26349480936249	TMEM184A	-3.02243718764765
IRF7	-3.27106829742525	TMEM200B	-1.50076421382319
TRABD2B	-3.27680907404703	TMEM200C	-1.11510393652686
DIRAS2	-3.30572983696396	TMEM208	-1.29938573936215
GNB3	-3.31601603579868	TMEM209	-1.17791222250132
ZNF585B	-3.3289855962043	TMEM243	-1.6232084762567
MAOA	-3.33595826476442	TMEM86B	-1.07996131321843
ZNF829	-3.33674019255188	TMUB1	-1.48282718155461
XAF1	-3.33705639463239	TNFAIP6	-1.1547832078094
CAMK1D	-3.33869372074614	TNFRSF11A	-1.95726110002923
ZNF365	-3.36847872240413	TNFRSF19	-2.78257369323424
CYB5A	-3.38970097883393	TNFRSF1A	-1.11403618404759
MSX2	-3.39450401779448	TNFRSF25	-1.75458533748146
LUM	-3.39491089511331	TNIK	-3.12864042962481
VAV3	-3.4156611319697	TNPO3	-1.18395723852312
VSTM4	-3.41770837098796	TP53TG1	-1.81413352943418
FAM198B	-3.43040793022325	TP73	-2.82097592807113
CD320	-3.44665609606542	TPM1	-1.04077330760162
ARTN	-3.45636248331675	TPRN	-1.32119533466842

SPINT1	-3.45758652704004	TPST1	-1.78616856082881
PAX2	-3.46664478281236	TPST2	-1.78363317616699
DHX58	-3.47199914111345	TRABD	-1.04903134058824
TRIM9	-3.47329273520209	TRABD2B	-3.27680907404703
CCDC74A	-3.49082006953533	TREX2	-1.07659393137418
SLC6A9	-3.50074183113291	TRIM22	-1.3030915425752
MMP13	-3.50465992515455	TRIM24	-1.09752418097741
ZNF772	-3.50479941531057	TRIM54	-1.15571781522969
DENND2D	-3.50889688131361	TRIM55	-1.93829714717148
TGM2	-3.51703863885425	TRIM9	-3.47329273520209
BST2	-3.53909867378253	TRIP6	-1.25354874786306
EPB41L3	-3.55034652872233	TRIQK	-1.11771608599565
ZNF296	-3.62753082228274	TRO	-1.332316247628
ZNF585A	-3.63570517029499	TSPAN13	-1.22200764422273
SNAP25	-3.64543289854612	TSPAN33	-1.92360047532331
CYP1B1	-3.65020232321176	TTC26	-1.10068686348636
SEMA3B	-3.6882971552853	TTC28-AS1	-1.24526947812878
TYMP	-3.68975563594529	TTC3	-1.00227214069765
KRT79	-3.70136924227024	TTN	-2.47890572572717
TFCP2	-3.70363032759813	TTTY14	-2.31196059051967
GRIK4	-3.70424402574295	TTTY15	-5.85666418792017
GALNT3	-3.71046658673796	TUBA4A	-1.41297064647117
FAM109B	-3.71645812076046	TXLNG2P	-5.90926462894479
RP11-395B7.4	-3.77525637210929	TYMP	-3.68975563594529
GPR132	-3.78990071846148	U47924.30	-1.54018166887383
SPOCD1	-3.81211833638237	U47924.31	-1.77400083220436
CLEC2B	-3.8272088943289	UBE2FP1	-1.23201630019628
ELFN2	-3.87721047961369	UBE2G2	-1.33907738559269
VAMP5	-3.90737968245372	UBE2H	-1.69228205880284
KMO	-3.93951610226074	UBE2HP1	-1.18817949164954
NMU	-3.94092013304041	UBE3C	-1.40259913124611
DYNC1I1	-3.95228721272617	UBXN11	-1.03480806406023
KRT223P	-3.96800481179923	UGCG	-1.0752512165662
ROR2	-3.96842900630332	UGT1A6	-6.72745442336316
SKAP1	-3.99349461835528	UGT1A7	-1.05783259919979
ECHDC3	-3.99665543629566	UGT1A8	-4.59525112117106
RP11-267A15.1	-4.00009955842772	ULBP2	-1.53617657401928
ZNF506	-4.01069075593165	UPB1	-1.36769677241104
DNAJC15	-4.01134898535328	UPK1B	-2.90120260737869
RP11-331F4.1	-4.01317929284166	URB1	-1.15824379970524
MAP7D2	-4.01763984408144	USP12	-1.083085402007
C10orf128	-4.030801321459	USP13	-1.00240030150018
STXBP6	-4.03311783537698	USP16	-1.03032188659469
RNF128	-4.04120743492764	USP25	-1.09543835432368
GRB7	-4.06177243743093	USP5	-1.0263705105444
NCAM1	-4.1077525884581	USP9Y	-5.65297077648891
SCARF2	-4.11503777216132	UTY	-5.5292952517767
SLC16A4	-4.18133485946983	VAC14-AS1	-2.02473561449569
VPS9D1-AS1	-4.18659206099585	VAMP5	-3.90737968245372
SPATA18	-4.20327926882411	VAV3	-3.4156611319697

AK5	-4.21244861293007	VCAM1	-6.15510299882547
PTCHD4	-4.2201844965332	VCAN	-1.47305904939188
EVC2	-4.23063870054077	VDAC1	-1.02174560481009
EVI2A	-4.28919476610671	VEPH1	-1.23729960579199
AGTRAP	-4.29330159611033	VILL	-2.08374108618197
DNAJC22	-4.30410779713312	VPS9D1-AS1	-4.18659206099585
B3GALT5	-4.30690795619165	VSTM4	-3.41770837098796
GPR1	-4.36231501516776	VWA1	-1.17989329595273
CDK15	-4.38475703902596	VWA5A	-2.98907966736265
RCAN3	-4.40389250532228	WASL	-1.43797914386414
ZNF43	-4.43770698903463	WBSCR16	-1.24208996567483
SUSD4	-4.45627043873728	WBSCR22	-1.47053974497309
SLC16A5	-4.45686328058376	WDR4	-1.21776955290311
B4GALNT4	-4.4658318612671	WDR5B	-1.12158378089646
PLEK	-4.52434066996294	WDR72	-1.43953059351747
PODXL2	-4.52842813698007	WDR91	-2.49208775089808
L3MBTL4	-4.5289784070167	WT1	-1.85323756851555
HHIPL2	-4.53591129349724	WWTR1	-1.0617662283385
CSF1R	-4.53880217068712	XAF1	-3.33705639463239
SLC4A4	-4.57770940067413	XRCC2	-1.67015740637996
ZNF300	-4.59044893658912	XXcos-LUCA11.4	-1.19180551675096
UGT1A8	-4.59525112117106	XXyac-YM21GA2	-1.50981330884101
ZCCHC5	-4.60241477631991	YBEY	-1.03253083329502
SYK	-4.64693000822441	YIPF2	-1.14544346332481
GRIN2B	-4.648407930829	YRDC	-1.02850453975036
ILDR2	-4.6607240307511	YWHAG	-1.33698274073203
ARHGAP28	-4.6641781117157	ZBED6CL	-1.38537676870858
SLC16A12	-4.68588153422629	ZBTB18	-1.22161322726593
CARD11	-4.75067211652356	ZBTB38	-2.4465922703597
ZNF140	-4.76116865871045	ZC3HC1	-1.12352488285182
GPX3	-4.78691205036929	ZCCHC5	-4.60241477631991
NLGN4Y	-4.87125037516848	ZCWPW1	-1.28649237338019
PRKY	-4.90656323623007	ZFP3	-1.72224705250815
SATB1	-4.9182529601329	ZFP82	-2.39961068526318
BCL2L15	-4.9494333073898	ZFPM1	-1.13788666891345
SLC2A3	-4.95449591056742	ZFY	-5.71609115668161
CA12	-4.99892508943625	ZKSCAN1	-1.33167236024784
LINC00704	-5.02538983979673	ZMAT3	-1.20016237882374
AC004791.2	-5.10677562879685	ZNF117	-1.38538261890818
C22orf34	-5.16450677592684	ZNF140	-4.76116865871045
KCNK1	-5.16938507224926	ZNF185	-1.78347547667423
PLEKHG4B	-5.23910617157845	ZNF275	-1.62313736053852
ALPK3	-5.25571732043333	ZNF282	-1.10812066656453
CFH	-5.29136127339618	ZNF296	-3.62753082228274
LAYN	-5.36079333164028	ZNF3	-1.29719227218287
EDA2R	-5.41141366683029	ZNF300	-4.59044893658912
KCNH2	-5.52047324263345	ZNF320	-1.17851564471501
UTY	-5.5292952517767	ZNF365	-3.36847872240413
COL4A5	-5.54382336200188	ZNF398	-1.14895163013881
PTPN6	-5.65095254670192	ZNF425	-1.59239090055866

EIF1AY	-5.65193518133929	ZNF43	-4.43770698903463
USP9Y	-5.65297077648891	ZNF439	-1.38926986758467
RAB36	-5.6989963061257	ZNF471	-1.53310248063236
MGMT	-5.70468285136659	ZNF486	-1.39501338640364
CENPV	-5.71047696896032	ZNF491	-1.13188956379392
ZFY	-5.71609115668161	ZNF506	-4.01069075593165
LINC00665	-5.76331630487695	ZNF513	-2.40128405542919
SPN	-5.77670102569125	ZNF528	-2.97372326463175
ID3	-5.82185155317149	ZNF568	-2.02077448128291
TTTY15	-5.85666418792017	ZNF585A	-3.63570517029499
TXLNG2P	-5.90926462894479	ZNF585B	-3.3289855962043
GALNT5	-5.99076845412303	ZNF586	-1.71166243560672
GJA1	-5.993732623996	ZNF593	-1.05845997935453
NDN	-6.03834324390368	ZNF626	-1.23438447689681
SPOCK1	-6.05998968142764	ZNF630	-2.88390304616829
CDH6	-6.0780187493647	ZNF655	-1.19850074812447
VCAM1	-6.15510299882547	ZNF665	-2.69824472265324
CLDN4	-6.35470088204738	ZNF667	-1.23141856874956
RBM23	-6.50666251179428	ZNF667-AS1	-1.0043786510919
RP13-36G14.3	-6.51874581746173e-05	ZNF736P9Y	-2.42199877984748
NID1	-6.52083750775042	ZNF772	-3.50479941531057
SHISA2	-6.5978606048503	ZNF775	-2.0367926887379
UGT1A6	-6.72745442336316	ZNF783	-1.2479084052493
DDX3Y	-6.95541956462426	ZNF789	-1.18458638647701
COL6A3	-6.95714569363262	ZNF813	-1.96781823586231
KDM5D	-7.01796630684176	ZNF829	-3.33674019255188
FLG	-7.29108280405468	ZNF862	-2.06751840435996
ALDH2	-7.47979461048787	ZNF883	-2.68463017026968
PEG10	-7.9147399555245	ZNHIT1	-1.60186689019319
ALDH1A1	-8.10268486043232	ZNHIT1P1	-1.76201710669398
RARRES2	-8.50882223858208	ZSCAN25	-1.1052058018673
MYL9	-8.71288354678854	ZSCAN5A	-1.15511280023435
RPS4Y1	-8.88152282557197	ZYX	-1.28921909995491

GROUP	
Number of patients	57
ccRCC	57 (100%)
Sex - Woman - Man	 19 (33.3%) 38 (66.7%)
Age	62 (42-82)
Furhman grade - 2 - 3 - 4	 20 (35.1%) 21 (36.8%) 16 (28.1%)
Metastatic status pM - M0 - M1	 43 (75.4%) 14 (24.6%)
Lymp-h node status pN - N0 - N1	 48 (84.2%) 9 (15.8%)
Size status pT - 1 - 2 - 3 - 4	 20 (35.1%) 9 (15.8%) 26 (45.6%) 2 (3.5%)

Table S5: Giuliano, S *et al*

COHORT	SUVEGIL	TORAVA	TORAVA
Treatment	Sunitinib	Bevacizumab/roferon	Bevacizumab/temsirolimus
Number of patients	37	13	32
Gender			
Female	8 (21.6%)	5 (38.5%)	7 (21.9%)
Male	29 (78.4%)	8 (61.5%)	25 (78.1%)
PRIMARY TUMOR			
Fuhrman grade			
1	1 (2.7%)	1 (7.6%)	2 (6.2%)
2	10 (27%)	4 (30.8%)	7 (21.9%)
3	19 (51.4%)	5 (38.5%)	12 (37.5%)
4	7 (18.9%)	3 (23.1%)	11 (34.4%)
pT			
1	6 (16.2%)	0 (0%)	7 (21,9%)
2	10 (27%)	3 (23.1%)	4 (12.5%)
3	14 (37.9%)	7 (53.8%)	16 (50%)
X	7 (18,9%)	3 (23.1%)	5 (15.6%)
pN			
0	13 (35.1%)	0 (0%)	0 (0%)
1	2 (5.4%)	0 (0%)	0 (0%)
2	4 (10.8%)	0 (0%)	0 (0%)
NA	18 (48.7%)	13 (100%)	32 (100%)
BEGINNING OF THE TREATMENT			
Age at therapy initiation (yr)	63.6 (10.3)	58.7 (7.8)	57.2 (11.3)
Metastatic at diagnosis	10 (27%)	4 (30.8%)	14 (43.7%)
Time from diagnosis to treatment			
< 1 yr	17 (45.9%)	7 (53.9%)	19 (59.4%)
≥ 1 yr	20 (54.1%)	6 (46.1%)	13 (40.6%)
Number of metastatic sites			
1	18 (48.7%)	6 (46.1%)	16 (50%)
2	12 (32.4%)	5 (38.5%)	8 (25%)
≥ 3	7 (18.9%)	2 (15.4%)	8 (25%)
Risk factor (MSKCC)			
Good	16 (43.2%)	5 (38.5%)	14 (43.7%)
Intermediate	13 (35.1%)	7 (53.8%)	16 (50%)
Bad	1 (2.7%)	0 (0%)	0 (0%)
NA	7 (19%)	1 (7.7%	2 (6.3%)
Median followed (month)	44.5 (21.9-NR)	24 (23-NR)	24 (23.1-NR)

Table S6: Giuliano, S *et al*

COHORT / Treatment	SUVEGIL / Sunitinib	TORAVA / bevacizumab/roferon	TORAVA / bevacizumab/temsirolimus
Median survival (month)	24.6 (20.5-34.4)	NR (21.1-NR)	24.1 (17.4-NR)
Best Response			
Complete response	4 (10.8%)	0 (0%)	2 (6.2%)
Partial response	12 (32.4%)	8 (61.5%)	7 (21.9%)
Stable disease	17 (46%)	3 (23.1%)	14 (43.8%)
Progression	4 (10.8%)	2 (15.4%)	8 (25%)
NA	0 (0%)	0 (0%)	1 (3.1%)

Table S7: Giuliano, S *et al*