

Engineered type 1 regulatory T cells designed for clinical use kill primary pediatric acute myeloid leukemia cells

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Supplemental Methods

Cytokine Secretion

To measure cytokine secretion upon stimulation, 1×10^5 LV-GFP or LV-10 cells were incubated for 48h with stimulation by immobilized anti-CD3 (10 $\mu\text{g}/\text{mL}$) and soluble anti-CD28 (1 $\mu\text{g}/\text{mL}$) in a 96-well round-bottomed plate. The levels of secreted IL-4, IL-10, and IFN- γ were determined by ELISA (BD Biosciences). IL-10 to IL-4 ratio was obtained by dividing IL-10 secretion by IL-4 secretion.

NCI TARGET pAML RNA-seq data

We obtained RNA-seq data of 187 pAML patients from the National Cancer Institute (NCI) initiative: Therapeutically Applicable Research to Generate Effective Treatments (TARGET) on childhood cancers at <https://ocg.cancer.gov/programs/target/projects/acute-myeloid-leukemia>. When compared to TARGET data, Stanford pAML samples were processed following the same NCI guidelines (https://docs.gdc.cancer.gov/Data/Bioinformatics_Pipelines/Expression_mRNA_Pipeline/).

Generation of CD200 overexpressing cell lines

CD200 was amplified from CD200 pORF (ABM, Richmond, BC, Canada) then ligated into pLVX-IRES-ZsGreen1 (Takara Bio, Mountain View, CA, USA) using XhoI and BamHI cut sites. psPAX2 and pVSVG packaging plasmids were co-transfected with pLVX-CD200-IRES-ZsGreen1 into 293T cells to produce virus. Lentivirus was concentrated using the Lenti-X concentrator (Takara Bio). U937 or ALL-CM cells were transduced with pLVX-CD200-IRES-ZsGreen1 or control lentivirus using retronectin with the manufacture's protocol 'RetroNectin-Bound Virus Infection Method By Centrifugation' (Takara Bio). 5 days after transduction, cells were stained as described in **Supplementary Table 1** and CD200⁺GFP⁺ or GFP⁺ cells were sorted by FACS.

Supplemental Figure Legends

Supplementary Figure 1: LV-10 cells are produced with high efficiency and have Tr1 functionality. (A)

LV-10 transduction efficiency. NGFR expression in CD4⁺ cells was measured 6 days after transduction by flow cytometry to determine transduction efficiency. (N=7). (B) Transduced cell lines retain purity in culture. The level of NGFR⁺ or GFP⁺NGFR⁺ cells was measured after 2 feeder cycles by flow cytometry. (N=7). (C) LV-10 cells have high IL-10 and IFN γ expression. Cytokine secretion from LV-10 and LV-GFP cells was measured at the end of a feeder cycle. 100,000 cells were cultured for 48h with 10 μ g/ml plate-bound anti-CD3 and 1 μ g/ml soluble anti-CD28. Cytokine secretion was measured by ELISA. (N=7) (* = $p < 0.05$, ** = $p < 0.01$, Wilcoxon Test.) (D) LV-10 have high IL-10/IL-4 expression ratios. The IL-10 to IL-4 expression ratio was calculated for LV-10 and LV-GFP cells after 48h stimulation with 10 μ g/ml plate-bound anti-CD3 and 1 μ g/ml soluble anti-CD28. (N=7). (* = $p < 0.05$, Wilcoxon test.) (E) LV-10 cells have higher baseline granzyme B expression. LV-10 or LV-GFP cells were fixed and stained for the presence of intracellular granzyme B. Overall percentages of granzyme B⁺ cells are shown. (N=12, significance indicated by Wilcoxon Test.) (F) LV-10 cells have superior degranulation against myeloid target cells. LV-10 and LV-GFP cells were incubated alone or with target cells at a 10:1 E:T ratio in the presence of anti-CD107a antibody. After 6h, expression of granzyme B and CD107a were measured by flow cytometry. Overall CD107a⁺ Granzyme B⁺ cells are shown for cells co-stimulated with K562, ALL-CM, or U937 cells. (N=10-12, significance indicated by Wilcoxon Test.) Representative plots for LV-10 and LV-GFP at baseline or after co-culture with U937 and K562 are shown on the right. (G) LV-10 cells efficiently eliminate the control myeloid U937 and ALL-CM cell lines but not the erythroleukemic K562 cell line. U937 or K562 cells were co-cultured at a 1:1 E:T ratio with LV-10 or LV-GFP cells. After 3d, remaining target cells (CD3⁺NGFR⁻) were enumerated using flow cytometry. Results for 4 independently derived LV-10 and LV-GFP pairs are shown. Elimination efficiency (E.E) was calculated as 1-(number of remaining target cells with LV-10 or LV-

GFP)/(number of remaining target cells alone). (N=7 per cell line.) Representative plots for U937 or K562 cells alone or with LV-10 or LV-GFP are shown on the right. GZMB = Granzyme B

Supplementary Figure 2: pAML sensitivity does not correlate with survival in culture or blast percentage. (A) pAML were cultured alone in media supplemented with 20ng/ml IL-3 and G-CSF. At the end of the 4d culture, remaining pAML were enumerated by flow cytometry and the percentage remaining of the plated pAML was determined. pAML survival in culture was graphed against the average elimination efficiency measured for that pAML (Figure 1), and a linear regression curve was derived. (N=23) (B) Blast percentage in pAML does not correlate with killing. Blast percentage, when available, was obtained by clinical laboratory analysis of patient's bone marrow aspirate, for each pAML was graphed against the median elimination efficiency measured for that pAML (Figure 1), and a linear regression curve was derived. (N=21)

Supplementary Figure 3: DEGs between intermediate resistant pAML and sensitive or resistant groups. (A) Two-dimensional heatmap of DEGs identified between sensitive and intermediate resistant pAML or (B) intermediate resistant and resistant pAML. 247 genes were differentially expressed between sensitive and intermediate resistant pAML, and 27 genes between intermediate resistant and resistant with $FDR < 0.05$, and $abs(\text{Log}_2\text{FC}) \geq 2$. Gene expression values were normalized to the average expression in sensitive pAML by subtracting the mean expression of sensitive pAML.

Supplementary Figure 4: Principle component analysis (PCA) of clinical lab flow cytometry. The frequency of 28 different proteins was measured on pAML gated for blasts by the Bass Center's clinical flow cytometry lab and was used to perform PCA analysis. Each dot represents one pAML patient sample. Labeled arrows represent the top 10 variable loadings in PC1 and arrow lengths are scaled by their contribution to the variance explained %.

Supplementary Figure 5: pAML origin is not a dominant technical covariate. Our 14 sequenced Stanford pAML were reanalyzed to match the analysis of the 187 RNA sequenced TARGET pAML dataset. (A) The top 10% most variably expressed genes between all 201 pAML were identified and used to perform PCA analysis of all pAML. (B) Expression of the top 10% most variably expressed genes clusters Stanford with TARGET pAML. Expression of the top 10% most variable genes was visualized as a two-dimensional heatmap. Sensitivity to elimination, risk group stratification, the timepoint the sample was acquired, and FAB category are also displayed for each pAML when applicable. Expression color is scaled per gene row.

Supplementary Figure 6: CD200 overexpression in U937 and ALL-CM cell lines. (A) Schematic of lentiviral CD200 overexpression plasmid. CD200 cDNA was ligated into pLVX-IRES-ZsGreen1 to enable bicistronic expression of CD200 and ZsGreen1 GFP. (B) CD200 overexpression in ALL-CM and U937 myeloid cell lines. ALL-CM and U937 were transduced with concentrated CD200 or empty vector lentivirus. After 5d, cells were stained for CD200 and analyzed by flow cytometry.

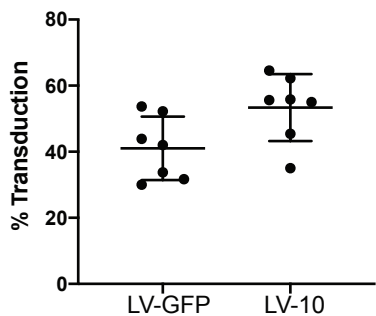
Supplementary Figure 7: Degranulation response of LV-10 against U937-CD200 cells can be partially blocked by anti-CD200R1 antibody treatment. (A) LV-10 were treated with isotype control or anti-CD200R1 blocking antibody prior to co-culture with targets. Antibody treated LV-10 cells were seeded at 10:1 effector: target (E:T) ratio and co-cultured with U937 WT or U937-CD200 over-expressing cells. Representative CD107a vs GranzymeB plots from one LV-10 donor are shown. Cells are gated on lymphocytes/live cells/CD3⁺/CD4⁺. (B) Cumulative CD107a⁺GranzymeB⁺% degranulation of LV-10 against U937-WT when treated with 25 ug/ml isotype control or anti-CD200R1 blocking antibody (N=6). Statistical analysis performed with Wilcoxon test. (C) LV-10 cells were treated for 30min with 25 or 50 ug/ml anti-CD200R1 blocking antibody. In the left panel, representative histograms show CD200R1 surface staining (violet: unstained, black: unblocked, red: anti-CD200R-blocked LV-10). On the right panel, CD200R1 staining reduction was calculated by dividing the CD200R1 APC MFI or %CD200R1⁺ of antibody-treated (red) sample by the respective value in the untreated (black) sample. (blue: LV-GFP

donor1, red: LV-10 donor1; pink: LV-GFP donor2, orange: LV-10 donor2; green: LV-GFP donor3, black: LV-10 donor3)

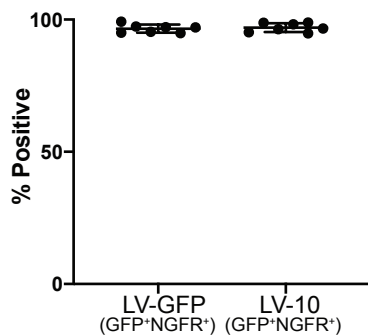
Supplementary Figure 8: CD200 overexpression in U937 and ALL-CM cell lines reduces degranulation and cytotoxicity of LV-GFP cells. (A) LV-GFP cell line (N = 8) degranulation, as measured by CD107a⁺granzyme B⁺ co-expression, was determined in co-culture with untransduced U937 and ALL-CM cells (No Vector), sorted GFP⁺ U937 and ALL-CM cells transduced with an empty vector (Empty Vector), or sorted GFP⁺CD200⁺ U937 and ALL-CM cells transduced with CD200 (CD200 Vector). (*= p<0.05, **= p<0.01, ***= p<0.001. Friedman ANOVA with Dunn's post hoc test.) (B) LV-GFP cells were co-cultured with empty vector or CD200-overexpressing U937 or ALL-CM cells at a 1:1 E:T ratio for 3d. Surviving cells were enumerated by flow cytometry. Ratio of remaining pAML was calculated as: (# remaining cells in CD200-overexpressing AML +LV-GFP/# remaining cells in CD200-overexpressing AML alone)/(# remaining cells in empty vector- AML +LV-GFP/# remaining cells in empty vector AML alone) (N=8, **=p<0.01, Wilcoxon test.)

Supplementary Figure 1

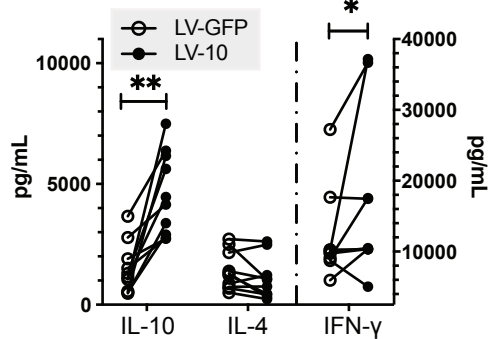
A. Transduction efficiency



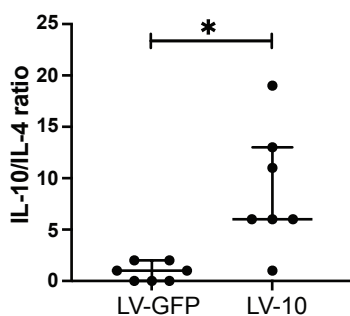
B. Post-sort purity, day 28



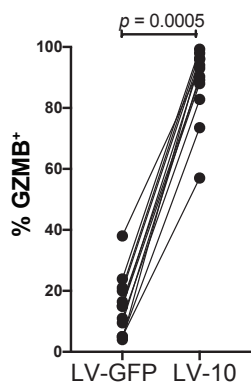
C. Cytokine secretion



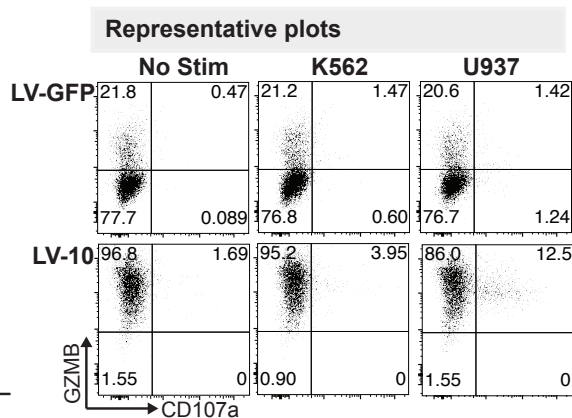
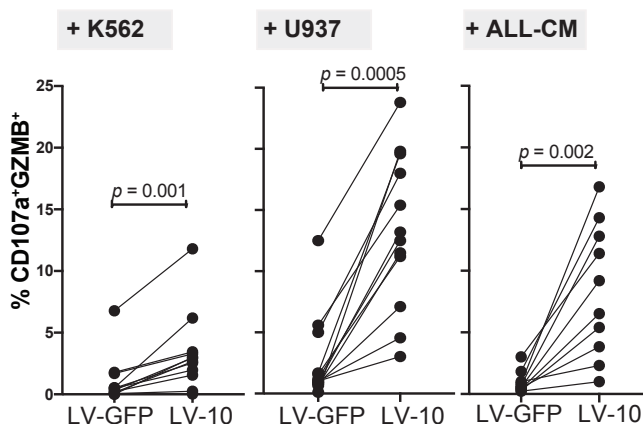
D. IL-10/IL-4 ratio



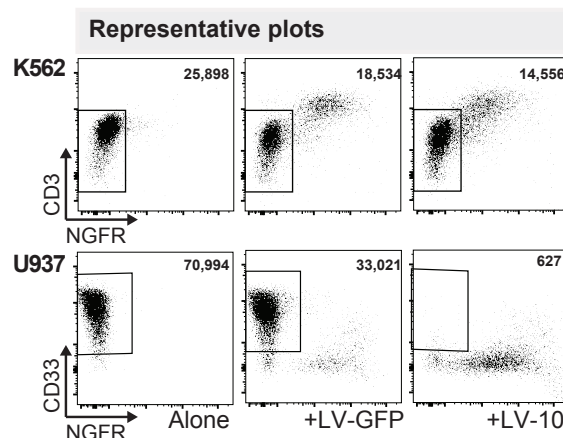
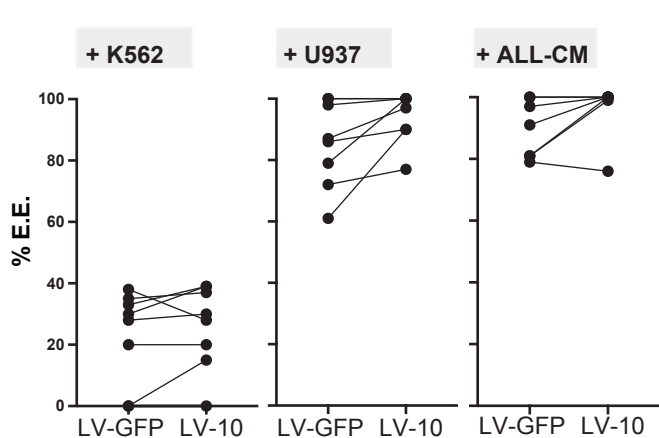
E. Baseline GZMB expression



F. Degranulation in response to cell lines

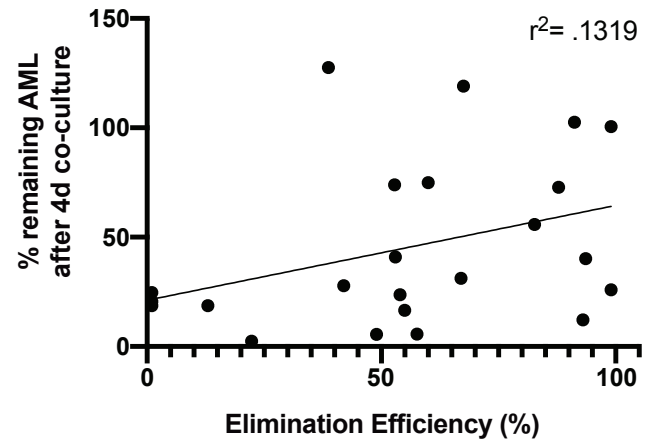


G. Elimination of cell lines

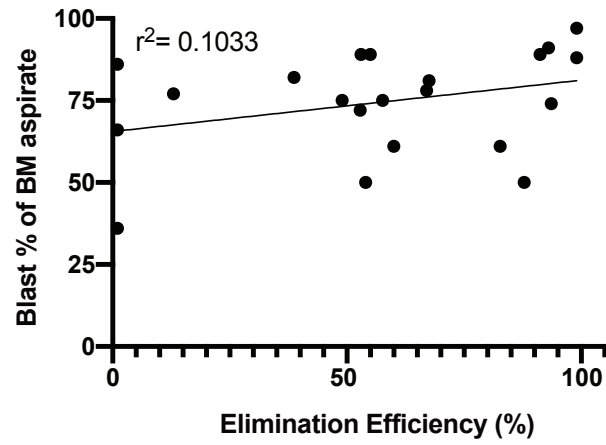


Supplementary Figure 2

A. Correlation between elimination efficiency and pAML survival after 4d culture



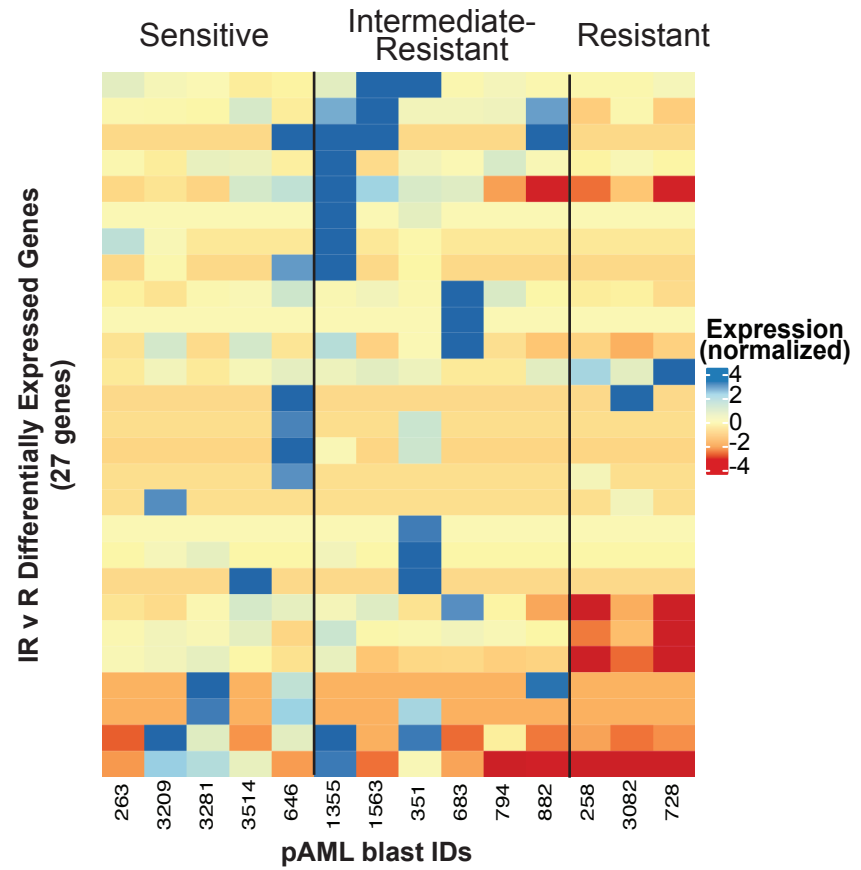
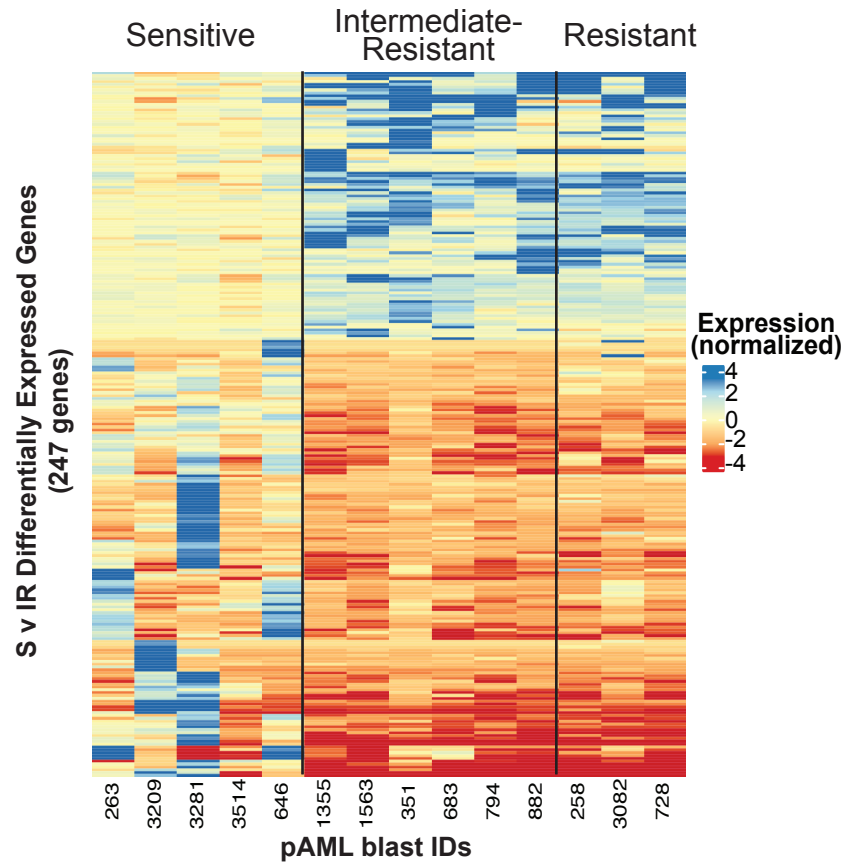
B. Correlation between elimination efficiency and pAML blast percentage



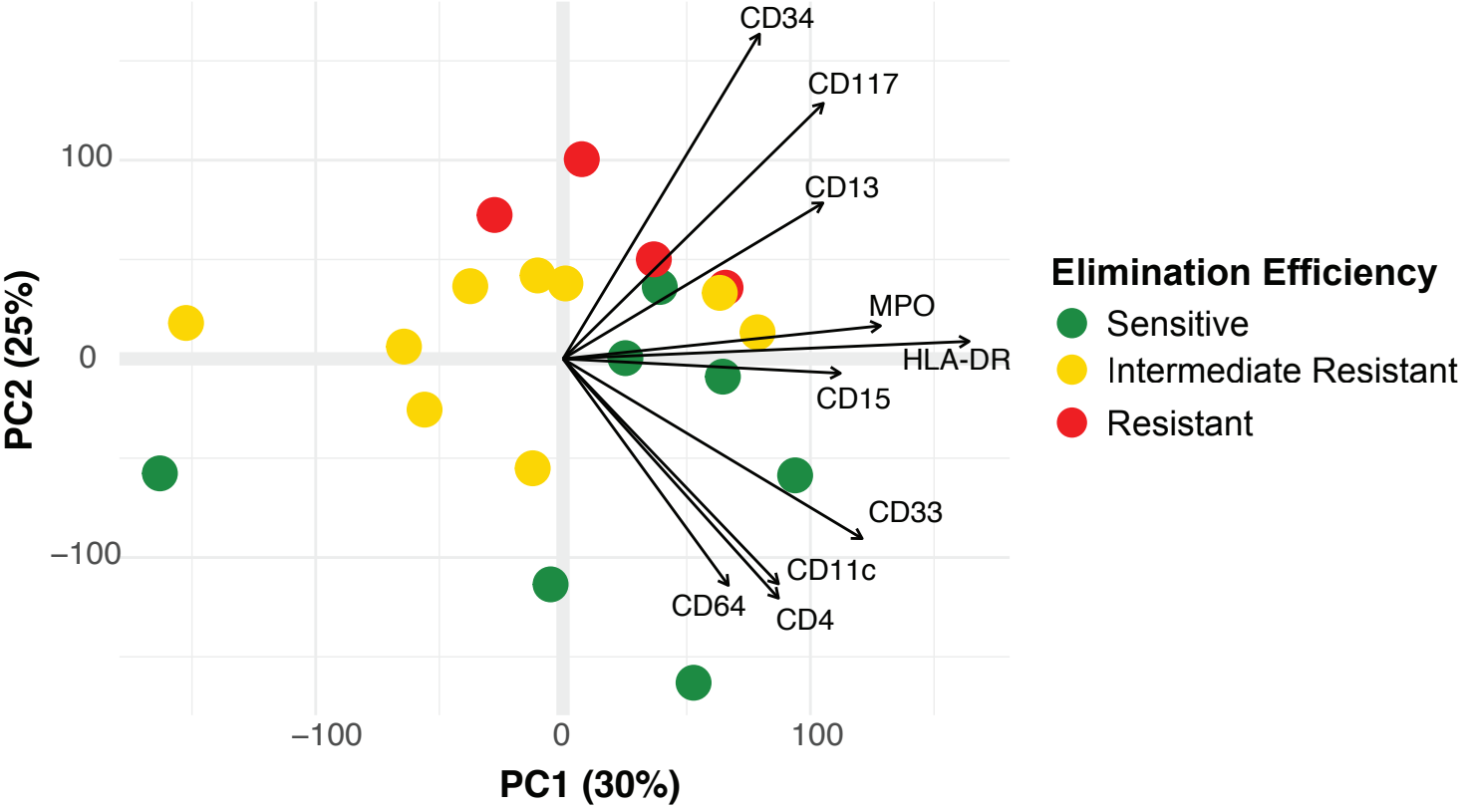
Supplementary Figure 3

A. Differentially expressed genes between S and IR pAML

B. Differentially expressed genes between IR and R pAML

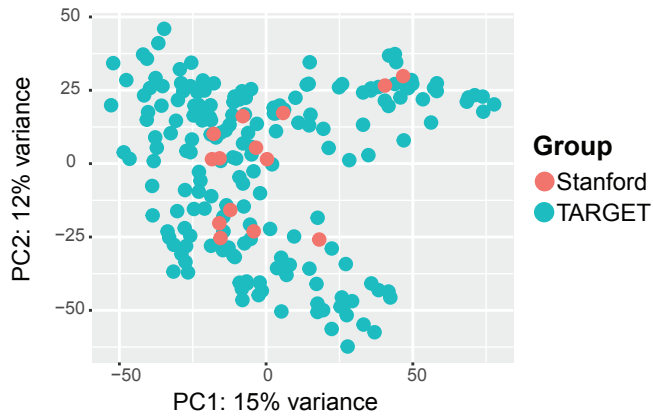


Supplementary Figure 4

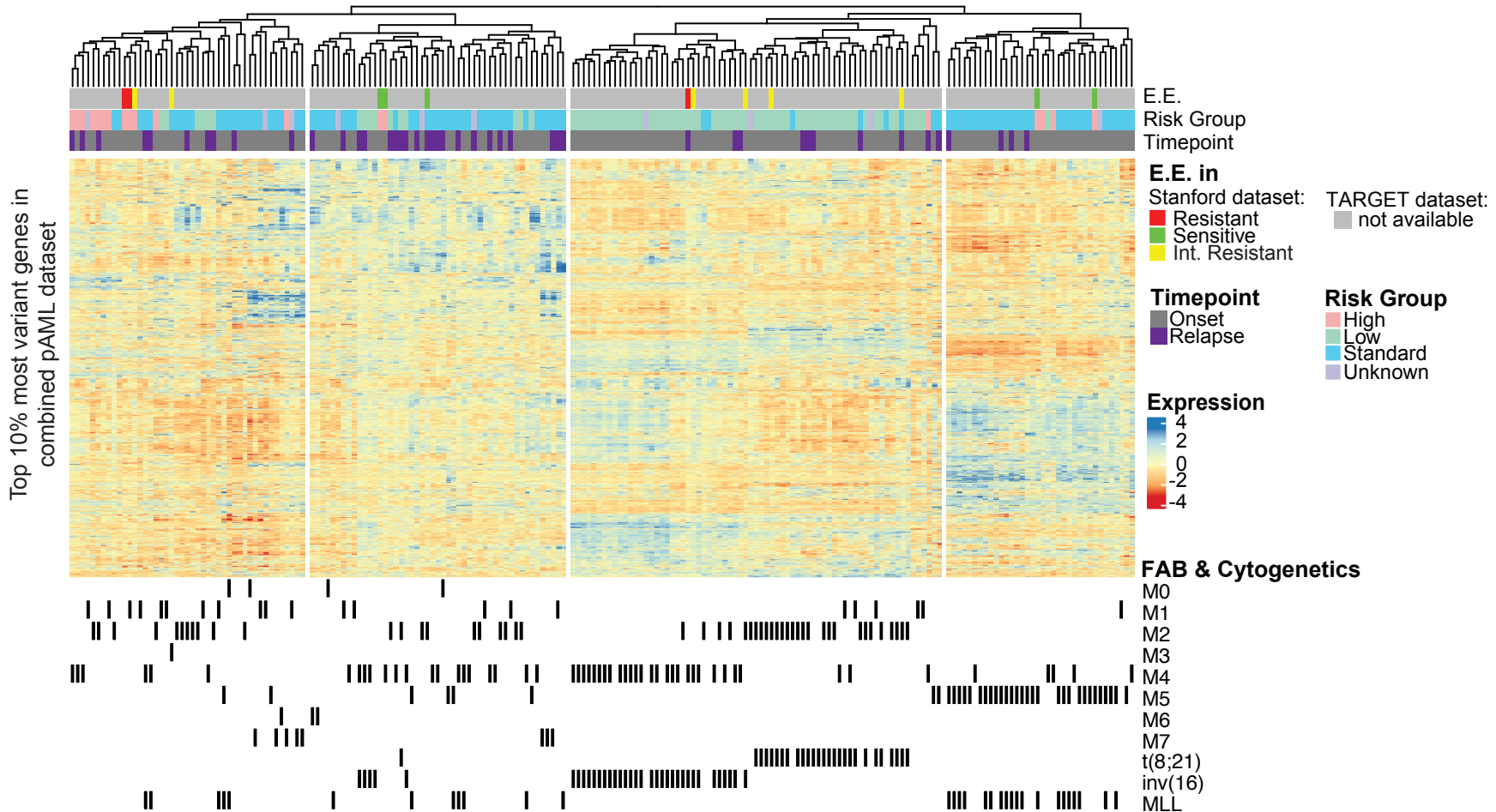


Supplementary Figure 5

A. PCA of Stanford & TARGET pAML Datasets

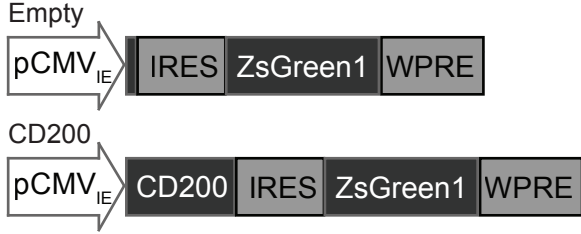


B. Clustering of top 10% variant genes in the combined Stanford and TARGET datasets

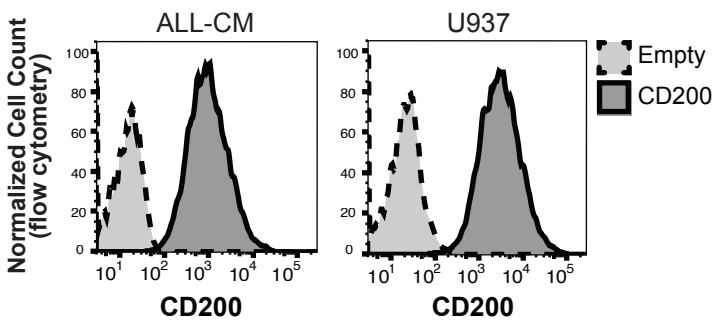


Supplementary Figure 6

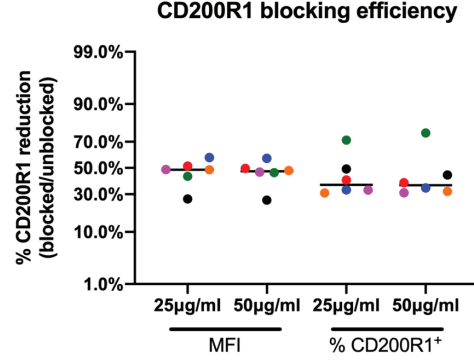
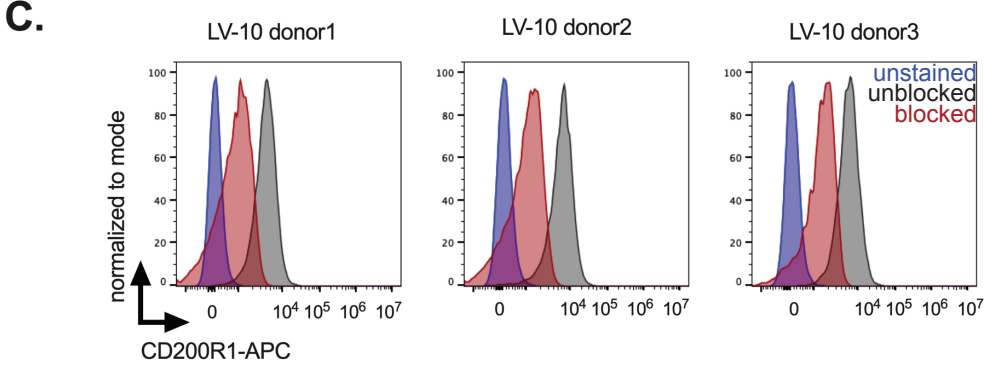
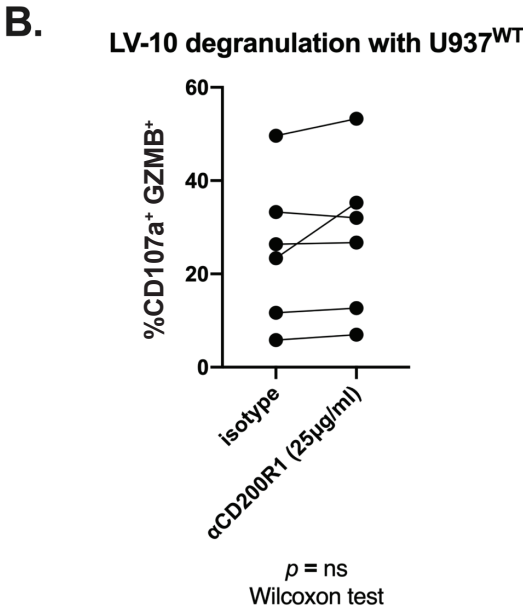
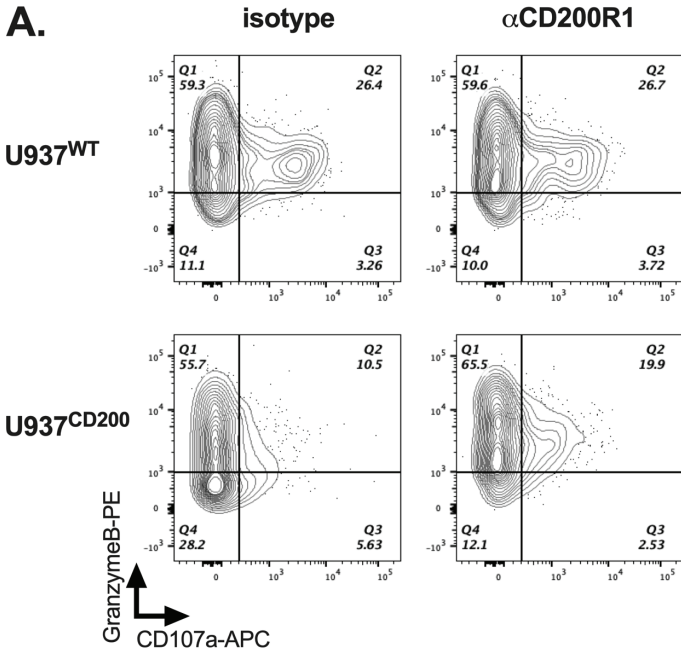
A. Overexpression Vector



B. CD200 expression post-transduction

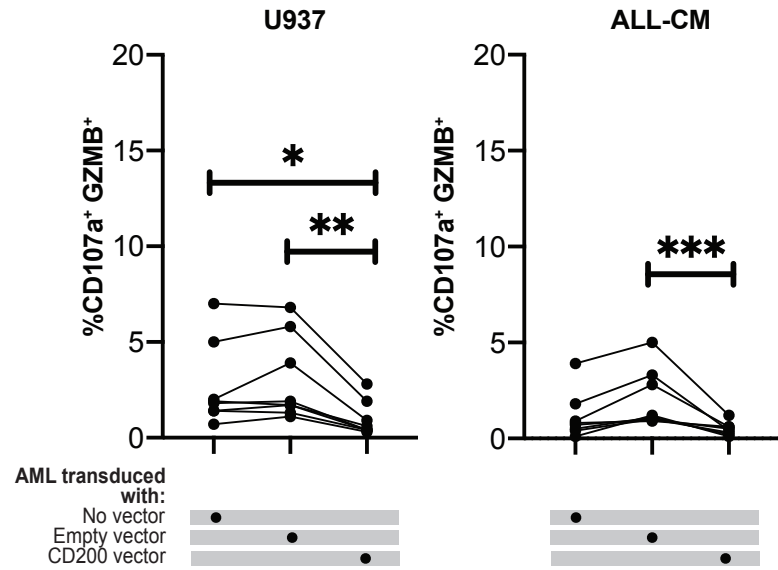


Supplementary Figure 7

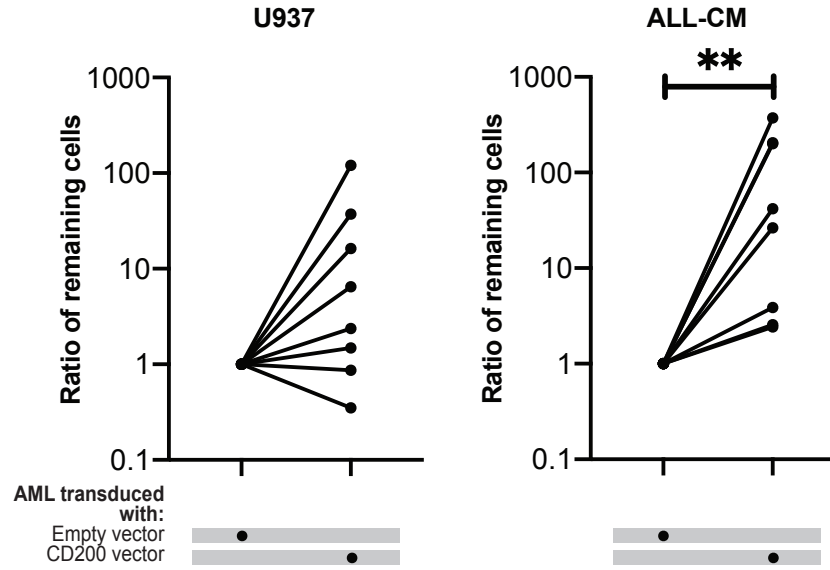


Supplementary Figure 8

A. CD200 overexpression reduces degranulation by LV-GFP cells



B. CD200 overexpression reduces cell killing of ALL-CM by LV-GFP cells



Supplementary Table 1 - Antibodies

	Antibody/Reagent	Clone	Fluorophore	Vendor	Catalog Number	ul Antibody
LV-10 panel	CD4	RPA-T4	APC-Cy7	Biolegend, San Diego, CA, USA	300517	1
	CD3	OKT3	BV605	Biolegend	317321	0.5
	NGFR	ME20.4	PE-Cy7	Biolegend	345109	0.5
	LIVE/DEAD Fixable Aqua Dead Cell Stain	-	-	Invitrogen, Carlsbad, CA, USA	L34957	0.25
pAML panel	CD200	325516	AlexaFluor700	R&D Systems, Minneapolis, MN, USA	FAB27241N	1
	CD33	AC104.3E3	APC	Miltenyi Biotec, Bergisch Gladbach, Germany	130-113-345	1
	CD4	RPA-T4	APC-Cy7	Biolegend	300517	1
	CD3	OKT3	BV605	Biolegend	317321	0.5
	NGFR	ME20.4	PE-Cy7	Biolegend	345109	0.5
LIVE/DEAD Fixable Aqua Dead Cell Stain	-	-	Invitrogen	L34957	0.25	
Degranulation panel	CD4	RPA-T4	APC-Cy7	Biolegend	300517	1
	CD3	OKT3	BV605	Biolegend	317321	0.5
	LIVE/DEAD Fixable Aqua Dead Cell Stain	-	-	Invitrogen	L34957	0.25
	CD107a	H4A3	APC	BD Biosciences	560664	4
Granzyme B (ICS)	GB12	PE	Invitrogen	MHGB04	1	
CD200	CD200	325516	AlexaFluor700	R&D Systems	FAB27241N	1
	CD200R1 Ultra LEAF purified	OX-108	-	Biolegend	329315	25ug/ml, 50ug/ml
	CD200R1	OX-108	APC	Biolegend	329307	1
	CD200R1	OX-108	PE	Biolegend	329305	1
	purified IgG1,K mouse isotype	MOPC-21		Biolegend	400102	25ug/ml, 50ug/ml
FcR block	FcR Blocking Reagent	-	-	Miltenyi Biotec	130-059-901	2

Surface staining protocol: Resuspend cells in 50ul FACS Buffer (PBS + 0.1% BSA + 1mM EDTA). Add in FcR reagent and incubate for 10min at room temperature. Mix staining antibodies and add, then incubate for 15min at room temperature. Add 150ul FACS Buffer to wash, then pellet by centrifugation and resuspend in 150ul FACS Buffer.

Intracellular staining protocol: Wash fixed cells and resuspend in 50ul 1X BD Perm/Wash buffer (BD Fixation/Permeabilization Kit, BD Biosciences). Add granzyme B antibody and stain for 30min at 4°C in the dark. Add 150ul 1x BD Perm/Wash buffer to wash, then pellet cells by centrifugation and resuspend in 150ul 1x BD Perm/Wash buffer.

Supplementary Table 2 Sensitive Versus Resistant Differential Gene Expression Results

	baseMean	log2FoldCh	lfcSE	stat	pvalue	padj
ABHD17C	1373.953	-4.56972	0.679262	-6.72748	1.73E-11	5.16E-08
ABLIM3	68.58016	5.368525	1.341944	4.000558	6.32E-05	0.006957
AC004791.	113.9795	-5.8486	1.60444	-3.64526	0.000267	0.018872
AC007041.	9.754174	-2.36638	0.599647	-3.9463	7.94E-05	0.008186
AC013474.	46.47551	-2.44608	0.699161	-3.4986	0.000468	0.026782
AC073063.	10.27891	-3.52489	1.023802	-3.44294	0.000575	0.03046
ACOT12	14.71386	-3.49145	0.846095	-4.12655	3.68E-05	0.005016
ACVR2A	207.4301	4.017728	0.701728	5.72548	1.03E-08	9.74E-06
ADAMDEC1	60.84903	3.936013	1.15043	3.42134	0.000623	0.032412
ADAMTS18	46.45218	-5.47123	1.46517	-3.73419	0.000188	0.015111
ADAMTS6	106.574	-3.51909	0.833732	-4.22088	2.43E-05	0.003864
ADAP2	401.6751	4.083578	0.887742	4.599963	4.23E-06	0.001185
ADGRL2	79.368	6.234154	1.548553	4.025793	5.68E-05	0.006458
AIF1L	98.80914	-4.90708	1.004081	-4.88713	1.02E-06	0.000367
AKR1C8P	17.49364	-2.97962	0.830325	-3.5885	0.000333	0.020941
ALAS2	714.1944	5.616094	1.423931	3.944078	8.01E-05	0.008214
AMY1C	11.1163	22.04543	4.116076	5.355935	8.51E-08	5.2E-05
ANKRD18D	35.76577	4.723867	1.421906	3.322208	0.000893	0.041232
ANO1	4.290297	-6.69479	2.02245	-3.31024	0.000932	0.042334
APOC2	35.9157	8.129771	1.78011	4.567004	4.95E-06	0.001287
APOC4-APC	115.495	6.350427	1.838357	3.454403	0.000552	0.029368
ARHGAP32	202.0243	3.619307	0.966096	3.746324	0.000179	0.014771
ARHGAP6	49.03717	7.53328	1.753663	4.295741	1.74E-05	0.003157
ARHGEF10	931.388	-4.67758	1.181473	-3.95911	7.52E-05	0.007849
ARHGEF10I	187.9007	4.118102	1.208816	3.406725	0.000657	0.033806
BAAT	11.38477	-3.31429	0.758855	-4.36748	1.26E-05	0.002479
BEND5	68.06414	-2.47781	0.585413	-4.23259	2.31E-05	0.003755
BLOC1S5-T.	41.5608	-7.99598	1.950389	-4.09969	4.14E-05	0.005335
BLVRB	421.271	2.434	0.736849	3.303253	0.000956	0.042875
BMPR1B	105.2184	5.130027	1.212707	4.230228	2.33E-05	0.003755
C17orf96	629.8414	4.964266	1.195474	4.152549	3.29E-05	0.004676
C2CD4B	18.53701	18.51634	4.12488	4.488941	7.16E-06	0.001742
C2orf72	10.28802	7.240352	2.130399	3.39859	0.000677	0.034565
CADM1	563.9677	4.842351	1.161008	4.170815	3.04E-05	0.00448
CAMK1	73.177	2.80361	0.70734	3.963595	7.38E-05	0.007748
CASC10	43.53615	4.048286	1.085165	3.730571	0.000191	0.015111
CAST	5448.964	2.51772	0.529353	4.756221	1.97E-06	0.000644
CCDC73	15.6804	2.913511	0.893399	3.261153	0.00111	0.047251
CCL23	28.76908	6.23826	1.316658	4.737951	2.16E-06	0.000692
CCL3	2208.869	3.008929	0.868741	3.463551	0.000533	0.028662
CD163L1	46.9238	5.556886	1.395728	3.981354	6.85E-05	0.007328
CD24	266.739	3.111558	0.93801	3.317191	0.000909	0.041731
CD36	2053.806	4.282627	1.140882	3.753784	0.000174	0.014587
CD4	870.553	4.440879	1.007681	4.407027	1.05E-05	0.002187
CD70	146.2415	4.3773	1.073036	4.079358	4.52E-05	0.005551
CDKN2B	203.5899	5.769753	1.684489	3.425225	0.000614	0.032138

CEMIP	2093.891	-6.11931	1.124123	-5.44363	5.22E-08	3.47E-05
CH17-472C	977.0532	2.382674	0.662607	3.595906	0.000323	0.020644
CIDEB	85.38984	2.635111	0.51154	5.151332	2.59E-07	0.000116
CLC	203.6884	5.13742	1.581373	3.248709	0.001159	0.048835
CLEC2L	10.42597	-18.126	4.098594	-4.42249	9.76E-06	0.002092
CNTN4	100.2865	7.291435	1.975701	3.690556	0.000224	0.016943
CNTNAP4	29.82533	33.58821	4.115015	8.162355	3.29E-16	3.54E-12
COL11A2	145.9057	-2.38696	0.708979	-3.36676	0.000761	0.037189
COL6A1	900.7378	4.820024	1.219437	3.952663	7.73E-05	0.008017
COL6A2	1303.805	4.004216	1.184507	3.38049	0.000724	0.036068
CPM	442.7052	2.081346	0.638564	3.259415	0.001116	0.047251
CPNE8	189.8526	6.998197	1.456278	4.805538	1.54E-06	0.000523
CSF2RB	921.7258	2.162115	0.551768	3.918522	8.91E-05	0.008979
CSMD1	64.67646	4.281363	1.119119	3.825655	0.00013	0.011586
CSPG5	48.88198	-3.42758	0.680278	-5.0385	4.69E-07	0.000175
CSTB	2224.188	2.135995	0.446289	4.786128	1.7E-06	0.000565
CTC-432M1	23.01588	21.35016	4.116254	5.186795	2.14E-07	0.000101
CTD-3092A	209.818	2.144432	0.644763	3.325921	0.000881	0.040864
CTSH	1256.875	3.690799	0.999741	3.691754	0.000223	0.016935
CTTNBP2	15.85871	21.97305	4.115658	5.338891	9.35E-08	5.2E-05
CX3CR1	75.158	4.136998	1.027548	4.026088	5.67E-05	0.006458
CXCL10	377.307	9.656484	1.707928	5.653919	1.57E-08	1.34E-05
CXCL11	42.00838	8.378053	1.721937	4.86548	1.14E-06	0.000402
CXCR2P1	39.33667	5.25114	1.287173	4.079591	4.51E-05	0.005551
CYB5R2	58.98609	2.954713	0.763032	3.872334	0.000108	0.010181
CYP27A1	51.1796	5.57396	1.362145	4.092047	4.28E-05	0.005432
CYP7B1	23.57319	5.925212	1.752467	3.381069	0.000722	0.036068
DASS-161H	30.97513	22.66311	4.115177	5.507202	3.65E-08	2.62E-05
DENND2D	231.9276	2.565526	0.584283	4.390894	1.13E-05	0.002302
DHCR24	227.7838	4.312294	1.322242	3.26135	0.001109	0.047251
DIRAS1	310.341	2.641331	0.799524	3.303632	0.000954	0.042875
DMRTA2	4.530218	-3.72814	1.099988	-3.38925	0.000701	0.035522
DNAAF1	93.29461	2.406447	0.709763	3.390495	0.000698	0.035466
DNAJC5B	76.26206	4.928892	1.348194	3.655922	0.000256	0.018394
DNASE1L1	489.4528	2.028988	0.451023	4.498633	6.84E-06	0.001729
DNTT	265.7958	-6.00988	1.737116	-3.45969	0.000541	0.028969
DOC2A	55.21376	-2.19825	0.627547	-3.50292	0.00046	0.026673
DOCK3	94.34472	4.122767	1.162793	3.545573	0.000392	0.023912
DTD1	154.8856	2.815431	0.835034	3.371635	0.000747	0.03694
DTX4	329.3155	4.025827	1.081346	3.722976	0.000197	0.015295
DUOX2	18.73468	-2.86243	0.733444	-3.90272	9.51E-05	0.009378
E2F7	585.8142	3.881859	1.180724	3.287694	0.00101	0.044537
EIF5A2	161.6517	3.713187	1.113267	3.335396	0.000852	0.040014
ELL2	3140.726	2.792662	0.850212	3.284665	0.001021	0.044689
ENTPD1	381.163	2.93594	0.659743	4.450124	8.58E-06	0.001925
EPB41L3	704.2543	5.184106	1.435927	3.610284	0.000306	0.020104
EPHB4	284.3095	-2.19713	0.535434	-4.10346	4.07E-05	0.005335
EPS8	175.4591	3.288822	0.877547	3.747743	0.000178	0.014756

EREG	5437.031	5.351863	1.158946	4.617869	3.88E-06	0.001122
ESPN	57.89471	5.626573	1.461971	3.848622	0.000119	0.01082
F12	21.47367	2.830557	0.700666	4.039809	5.35E-05	0.006234
FAM155B	8.548234	21.06479	4.117049	5.116478	3.11E-07	0.000136
FAM169A	161.1784	2.974004	0.917448	3.241605	0.001189	0.049488
FAM198B	61.17326	3.002019	0.802773	3.73956	0.000184	0.014968
FAM92A1	51.33748	4.158109	0.977413	4.254197	2.1E-05	0.003519
FAM95C	57.83654	6.930795	1.899441	3.648861	0.000263	0.018757
FBN1	390.2885	3.718243	1.022894	3.635024	0.000278	0.019333
FGD2	418.6839	2.538235	0.724297	3.504412	0.000458	0.026662
FGR	3372.916	2.878065	0.840743	3.423239	0.000619	0.03228
FILIP1L	124.9223	3.191321	0.883655	3.611501	0.000304	0.020104
FOXL2	93.64883	8.103491	2.449778	3.307848	0.00094	0.04239
FOXL2NB	163.7227	3.626382	1.03631	3.499321	0.000466	0.026782
FTCDNL1	25.6341	4.815311	1.26057	3.819947	0.000133	0.0118
GAS2L3	298.2262	3.11709	0.899285	3.466186	0.000528	0.028662
GDF15	31.99821	4.740346	1.124372	4.215995	2.49E-05	0.003915
GIPC3	13.6952	-22.454	4.049011	-5.54556	2.93E-08	2.29E-05
GOLGA8N	2937.061	3.509523	0.958139	3.662853	0.000249	0.017975
GOLGA8Q	147.7013	4.4973	1.173131	3.833587	0.000126	0.011322
GOLGA8R	422.389	3.242071	0.954022	3.398317	0.000678	0.034565
GPER1	13.04863	2.949383	0.875301	3.369565	0.000753	0.036984
GPNMB	115.6069	2.440401	0.74848	3.260474	0.001112	0.047251
GSAP	922.2411	2.439615	0.373449	6.532662	6.46E-11	1.66E-07
GSG1L	18.46609	-3.18658	0.881074	-3.6167	0.000298	0.01998
GSTM3	166.2922	3.147299	0.619559	5.079902	3.78E-07	0.000152
GSTO2	265.339	-2.34031	0.563785	-4.15107	3.31E-05	0.004676
GSX1	7.295556	-15.7206	4.214342	-3.73026	0.000191	0.015111
H3F3AP4	43.55036	22.77182	4.115071	5.533761	3.13E-08	2.34E-05
HAP1	68.33812	-2.42676	0.690818	-3.51287	0.000443	0.026139
HBA1	25446.55	6.183858	1.521243	4.065004	4.8E-05	0.005708
HBA2	32614.01	6.506222	1.623557	4.007387	6.14E-05	0.006801
HBB	24493.41	5.035219	1.402606	3.589902	0.000331	0.020902
HBG2	16498.38	9.021023	1.692433	5.330211	9.81E-08	5.2E-05
HHIP	105.9458	-4.07657	1.119624	-3.64101	0.000272	0.019036
HOMER2P1	9.830222	-21.7012	4.05085	-5.35719	8.45E-08	5.2E-05
HOXA10	361.963	7.072527	1.504377	4.701301	2.59E-06	0.000814
HOXA11	152.2707	28.60669	4.114507	6.952642	3.59E-12	1.29E-08
HOXA2	15.48319	7.855201	2.102037	3.736948	0.000186	0.015057
HOXA3	148.0756	9.668704	1.913362	5.053253	4.34E-07	0.000169
HOXA4	40.07569	7.010482	2.072831	3.382081	0.000719	0.03606
HOXA5	180.9916	7.701807	1.219177	6.317218	2.66E-10	4.78E-07
HOXA6	67.53771	6.408986	1.261662	5.079794	3.78E-07	0.000152
HOXA7	75.59405	5.576029	1.448226	3.850249	0.000118	0.01082
HOXA9	870.6456	8.455288	1.452612	5.820747	5.86E-09	5.84E-06
HOXB7	46.44495	8.426981	2.051725	4.107266	4E-05	0.005322
HPCAL4	55.32389	2.569487	0.758394	3.388062	0.000704	0.035522
HSBP1L1	69.99155	2.838204	0.795981	3.565667	0.000363	0.022381

HSPA12A	12.72801	3.27509	0.870662	3.761611	0.000169	0.014358
HTR2B	18.87549	6.050204	1.668164	3.626864	0.000287	0.019649
HTR7	191.4434	3.722302	0.931015	3.998112	6.38E-05	0.006986
IFI27	422.5115	5.464152	1.398528	3.907074	9.34E-05	0.009262
IGKV1-22	12.05356	-6.59329	1.902327	-3.46591	0.000528	0.028662
IGKV2-23	27.66161	-7.24809	1.631647	-4.44219	8.9E-06	0.001973
IGKV2-24	38.46271	-3.93698	1.073985	-3.66577	0.000247	0.017916
IGLL1	119.0487	-3.91254	1.109268	-3.52714	0.00042	0.025212
IGLON5	313.8075	-5.61307	1.311314	-4.28049	1.86E-05	0.003281
IGLV3-10	10.42331	-4.41696	1.316603	-3.35482	0.000794	0.038414
IHH	4.126367	-4.64606	1.340908	-3.46486	0.000531	0.028662
IL17REL	8.300693	-3.75076	0.934226	-4.01484	5.95E-05	0.006714
IL31RA	152.7634	5.159105	1.563666	3.299366	0.000969	0.043257
IL4I1	583.8157	4.252468	0.974848	4.362188	1.29E-05	0.002512
IRX1	156.2264	-11.0769	1.985312	-5.57942	2.41E-08	1.97E-05
KCNE1	117.4278	2.708246	0.720515	3.758767	0.000171	0.014454
KCNE3	295.3703	2.463656	0.541832	4.546899	5.44E-06	0.001396
KCNK5	286.0982	-3.03259	0.895166	-3.38774	0.000705	0.035522
KCNQ2	110.0511	8.866141	2.443878	3.627899	0.000286	0.019649
KDM1B	626.4077	2.159797	0.521447	4.141927	3.44E-05	0.004828
KIF28P	32.33397	-6.12345	1.333807	-4.59095	4.41E-06	0.0012
KLK1	27.47226	5.995163	1.726355	3.472729	0.000515	0.028359
KMO	440.6053	2.45041	0.744005	3.293538	0.000989	0.043945
KRT16	29.06068	-6.45674	1.543858	-4.18221	2.89E-05	0.004353
KRT17	788.1384	-11.1314	1.788932	-6.22237	4.9E-10	6.76E-07
KRT17P2	93.88838	-5.1401	1.197188	-4.29347	1.76E-05	0.003157
KRT17P6	49.72773	-6.46237	1.088325	-5.93791	2.89E-09	3.24E-06
KRT23	52.50056	9.578818	2.040213	4.695009	2.67E-06	0.000825
LAMP5	232.8332	7.126261	1.859396	3.832568	0.000127	0.011322
LDLRAP1	284.0692	2.722009	0.730577	3.725836	0.000195	0.015191
LGALS3	2860.982	3.084091	0.799094	3.859485	0.000114	0.01051
LPAR3	57.32582	3.823308	0.858457	4.453696	8.44E-06	0.001917
LRRC25	511.578	2.79312	0.8358	3.341853	0.000832	0.039728
LRRC37A	176.5477	3.39217	0.909594	3.729321	0.000192	0.015111
LY6H	5.797516	-4.94385	1.285621	-3.8455	0.00012	0.010904
LYZ	75887.16	2.743601	0.83744	3.276176	0.001052	0.045726
MAB21L1	4.648778	26.63714	4.118421	6.467805	9.94E-11	2.23E-07
MAGED4	32.50403	-6.46453	1.586722	-4.07414	4.62E-05	0.005562
MAGEF1	91.07755	2.050653	0.53019	3.867772	0.00011	0.010265
MARCKS	3440.139	5.503447	0.894698	6.151178	7.69E-10	9.2E-07
MCOLN2	213.8663	2.806681	0.680081	4.126983	3.68E-05	0.005016
MEGF11	34.45467	7.094965	1.925701	3.684355	0.000229	0.017173
MET	180.967	3.592223	0.998734	3.596777	0.000322	0.020644
METTL7B	170.1278	5.978533	1.464882	4.081238	4.48E-05	0.005551
MMP25	242.8537	-2.58528	0.774272	-3.33899	0.000841	0.040014
MMP9	670.7671	4.376795	1.303036	3.35892	0.000782	0.038156
MPP7	334.329	3.238503	0.637763	5.077912	3.82E-07	0.000152
MPPED2	36.48152	2.856988	0.693857	4.117545	3.83E-05	0.005128

MRAS	491.203	5.059484	1.234537	4.098285	4.16E-05	0.005335
MS4A4A	160.8156	5.039646	1.299649	3.877696	0.000105	0.010119
MS4A7	1161.665	3.017554	0.740338	4.075917	4.58E-05	0.005562
MYLK4	97.94086	-2.06681	0.633803	-3.26096	0.00111	0.047251
MYO18B	1240.879	-10.2487	2.311429	-4.43393	9.25E-06	0.002025
NCAM1	257.6371	5.044098	1.189771	4.239552	2.24E-05	0.003707
NDST3	183.7153	-5.14764	1.540388	-3.34178	0.000832	0.039728
NEK10	53.19364	-2.46271	0.69846	-3.52591	0.000422	0.025244
NETO1	44.52552	6.327778	1.806607	3.502576	0.000461	0.026673
NFE2L3	220.496	3.350162	0.696564	4.809554	1.51E-06	0.000522
NOG	422.6273	-2.7818	0.757764	-3.67106	0.000242	0.017829
NOXA1	20.60136	2.527613	0.721013	3.505642	0.000456	0.026639
ONECUT2	11.69736	5.483867	1.681749	3.260813	0.001111	0.047251
OTOF	49.60706	33.49449	4.114765	8.140073	3.95E-16	3.54E-12
P2RY2	222.3695	4.438274	1.154952	3.84282	0.000122	0.010968
PABPC4L	26.68342	-8.52922	2.323477	-3.67088	0.000242	0.017829
PAQR6	132.0847	-2.03322	0.485611	-4.18694	2.83E-05	0.0043
PAX8	47.19616	4.39521	0.995696	4.414207	1.01E-05	0.00214
PCDH10	383.5028	-8.44812	1.811105	-4.66462	3.09E-06	0.00091
PDE4DIP	4130.686	3.280557	0.632978	5.182736	2.19E-07	0.000101
PDK4	121.1017	5.157995	1.545821	3.336734	0.000848	0.040014
PDLIM4	9.264768	5.733199	1.677804	3.417085	0.000633	0.032828
PGBD4P1	72.88374	-4.86556	1.256063	-3.87366	0.000107	0.01018
PHACTR2	1637.408	2.778644	0.847564	3.278388	0.001044	0.045584
PHOSPHO1	69.51441	4.795453	1.478177	3.244167	0.001178	0.049177
PID1	61.53867	4.719108	1.349023	3.498166	0.000468	0.026782
PIP4K2C	280.2535	2.637176	0.428034	6.161135	7.22E-10	9.2E-07
PITX1	149.221	5.265979	1.447964	3.636816	0.000276	0.019274
PLA2G16	75.97067	3.328744	0.908634	3.663458	0.000249	0.017975
PLA2G4A	269.5696	4.245876	1.152545	3.683914	0.00023	0.017173
PLA2G7	211.7092	6.447895	1.515495	4.254646	2.09E-05	0.003519
PLCB1	817.3219	-2.44519	0.532973	-4.58782	4.48E-06	0.0012
PLCH1	22.3636	-5.036	1.22742	-4.10292	4.08E-05	0.005335
PLEKHA5	1754.566	-2.23545	0.500541	-4.46606	7.97E-06	0.001857
PMS2P2	20.01641	-3.16729	0.938932	-3.37329	0.000743	0.03682
PMS2P7	105.3547	-3.80894	0.88707	-4.29384	1.76E-05	0.003157
PON2	202.3859	3.625571	0.963745	3.761963	0.000169	0.014358
PPM1M	283.3509	2.001155	0.57086	3.505509	0.000456	0.026639
PPP1R26	229.09	4.068231	1.130541	3.598481	0.00032	0.020644
PPP1R3C	8.087304	16.21125	4.178507	3.879674	0.000105	0.010119
PRKCDBP	33.08855	6.901187	2.037739	3.386689	0.000707	0.035559
PRL	144.4535	8.634089	1.881592	4.588714	4.46E-06	0.0012
PTAFR	1755.756	2.841497	0.796366	3.56808	0.00036	0.022252
PTX3	1048.592	3.317254	0.827631	4.008129	6.12E-05	0.006801
RAB39A	47.69646	4.506839	0.964738	4.671568	2.99E-06	0.000894
RASSF4	377.8895	3.018204	0.86624	3.48426	0.000493	0.027503
RET	67.77206	-3.37802	1.002298	-3.37028	0.000751	0.036984
RGL1	639.7817	5.860128	1.337266	4.382172	1.18E-05	0.002343

RGS18	981.3654	-2.78246	0.835617	-3.32983	0.000869	0.040638
RHOV	5.895163	-4.47356	1.109513	-4.03201	5.53E-05	0.006403
RIN2	508.7309	3.99524	0.888856	4.49481	6.96E-06	0.001735
RMND5B	240.7584	2.12131	0.335116	6.330074	2.45E-10	4.78E-07
RNASE1	534.2597	5.494025	1.685256	3.260054	0.001114	0.047251
RNF165	13.84105	-2.51247	0.73826	-3.40323	0.000666	0.034143
RP11-1070	64.41833	21.33554	4.116121	5.18341	2.18E-07	0.000101
RP11-1415	5.678674	-6.78342	1.722212	-3.93878	8.19E-05	0.00835
RP11-213C	35.85259	4.042722	1.179909	3.426299	0.000612	0.032105
RP11-353N	41.42474	5.600516	1.543727	3.627918	0.000286	0.019649
RP11-723C	4.440577	5.199498	1.444418	3.599718	0.000319	0.020644
RP13-638C	10.4529	-4.99107	1.158026	-4.30998	1.63E-05	0.00302
RPL12P37	16.39852	-4.20661	1.160556	-3.62465	0.000289	0.01965
RPL23AP81	10.73592	-3.4223	0.762506	-4.48822	7.18E-06	0.001742
RPL41P1	5.654097	24.25787	4.117705	5.891113	3.84E-09	4.05E-06
RPL5P30	11.23015	-3.201	0.76661	-4.17552	2.97E-05	0.004446
RUNDC3A	80.19476	4.043022	1.120152	3.609353	0.000307	0.020104
S100A6	3566.72	2.274344	0.554878	4.09882	4.15E-05	0.005335
SCRN1	547.0935	4.033616	0.73831	5.463311	4.67E-08	3.23E-05
SDK2	653.7863	-3.59055	0.925772	-3.87844	0.000105	0.010119
SDPR	82.45841	5.86492	1.785429	3.284881	0.00102	0.044689
SELENBP1	94.18793	4.056732	1.21614	3.335743	0.000851	0.040014
SEPT10	54.79239	5.433118	1.480519	3.669739	0.000243	0.017829
SEPT14P2	6.199088	5.473413	1.498503	3.652587	0.00026	0.018561
SERPINB4	18.39963	20.7475	4.117134	5.039305	4.67E-07	0.000175
SGK223	372.8861	-2.22198	0.584677	-3.80035	0.000144	0.012526
SH3BP4	94.82861	5.047033	1.331894	3.789366	0.000151	0.012968
SHANK1	766.9562	-2.57443	0.69022	-3.72987	0.000192	0.015111
SIGLEC22P	16.12556	3.155535	0.972319	3.24537	0.001173	0.049177
SKIDA1	273.0471	5.333304	1.273121	4.189156	2.8E-05	0.004294
SLC22A15	398.3929	6.576471	1.520998	4.323786	1.53E-05	0.002897
SLC25A37	6588.002	2.23393	0.574326	3.889655	0.0001	0.00979
SLC2A12	27.70638	-6.00905	1.729052	-3.47534	0.00051	0.028171
SLC44A1	3777.592	2.709222	0.834392	3.246943	0.001167	0.049024
SLC4A1	793.2745	3.475266	1.03647	3.352984	0.000799	0.038565
SLC7A2	235.1499	6.142065	1.761997	3.485854	0.000491	0.027454
SLC8A1	160.5577	4.820908	1.265888	3.808321	0.00014	0.012248
SLFNL1	16.55961	-2.05657	0.569747	-3.60962	0.000307	0.020104
SLITRK6	12.52	31.44951	4.115886	7.641007	2.16E-14	1.29E-10
SMAD3	4317.622	2.089371	0.502564	4.157427	3.22E-05	0.004621
SMIM24	499.6627	-2.63768	0.747631	-3.52805	0.000419	0.025209
SMPDL3A	81.78479	3.715872	1.024405	3.627345	0.000286	0.019649
SNX24	42.82009	3.583264	0.831066	4.311647	1.62E-05	0.00302
SORCS1	12.9643	-5.91295	1.337254	-4.42171	9.79E-06	0.002092
SOWAHC	176.56	4.523305	1.12367	4.025476	5.69E-05	0.006458
SPARC	1945.311	-4.23266	1.145561	-3.69484	0.00022	0.016802
SPATS2L	439.7306	3.540745	0.66252	5.344362	9.07E-08	5.2E-05
SPCS2P4	53.35934	3.45865	0.830671	4.16368	3.13E-05	0.004569

SPINT1	88.58938	2.952979	0.838503	3.521727	0.000429	0.025476
SPIRE1	450.9188	2.997089	0.70864	4.229354	2.34E-05	0.003755
SPOCK1	20.45634	7.194575	1.815041	3.963865	7.37E-05	0.007748
SPRY1	1879.206	-3.69555	0.888892	-4.15747	3.22E-05	0.004621
ST14	273.5985	2.76654	0.844704	3.275158	0.001056	0.045774
ST18	472.8057	-4.69966	0.949716	-4.94849	7.48E-07	0.000274
STAB1	4519.465	4.300153	1.291478	3.329637	0.00087	0.040638
STK32B	137.3502	-2.99363	0.737414	-4.05963	4.91E-05	0.005803
SUSD3	28.83822	2.589052	0.705965	3.667395	0.000245	0.017875
SV2A	283.1879	-2.10995	0.632379	-3.33653	0.000848	0.040014
SVOPL	27.85326	-4.35401	1.140733	-3.81685	0.000135	0.01189
TAS2R6P	9.263402	-2.56367	0.776564	-3.30129	0.000962	0.043068
TBC1D12	258.1094	4.555529	0.97357	4.6792	2.88E-06	0.000876
TBC1D9	422.7407	3.374158	0.964576	3.498072	0.000469	0.026782
TEX22	18.69583	-2.29845	0.617782	-3.72049	0.000199	0.01538
TEX29	23.35086	-2.3657	0.581877	-4.06564	4.79E-05	0.005708
TGM5	146.6964	4.787898	0.898382	5.329469	9.85E-08	5.2E-05
THEM4	246.0116	2.852913	0.691652	4.124782	3.71E-05	0.005016
THSD7A	858.3146	9.967276	2.575053	3.870707	0.000109	0.010196
TICAM2	116.283	3.201016	0.813304	3.935818	8.29E-05	0.008406
TIMP3	323.7834	4.975095	1.33392	3.729681	0.000192	0.015111
TJP2	769.4762	2.400109	0.686723	3.495018	0.000474	0.026978
TM4SF1	2148.045	-4.87448	1.494186	-3.2623	0.001105	0.047251
TMCC2	187.8255	4.243293	1.282106	3.309628	0.000934	0.042334
TMIGD2	76.29154	-3.25891	0.74272	-4.38781	1.14E-05	0.002309
TMOD1	131.8247	3.893151	0.907234	4.291234	1.78E-05	0.003157
TNFRSF9	775.5724	3.195217	0.758874	4.210472	2.55E-05	0.003967
TNFSF15	899.0455	4.163079	1.155585	3.602574	0.000315	0.020561
TNFSF4	526.3251	-3.51134	0.82444	-4.25906	2.05E-05	0.003509
TPM1	293.8468	2.194191	0.350989	6.251446	4.07E-10	6.08E-07
TRIM24	6052.347	-2.84008	0.542215	-5.23792	1.62E-07	8.09E-05
TRIM7	117.7582	4.651629	1.071261	4.342201	1.41E-05	0.002693
TTC36	13.43702	-2.64308	0.659509	-4.00765	6.13E-05	0.006801
TUBB1	107.2111	5.233611	1.268951	4.12436	3.72E-05	0.005016
TYMP	1751.27	2.025229	0.517002	3.917253	8.96E-05	0.008979
UCP2	1367.064	2.02515	0.443092	4.5705	4.87E-06	0.001284
UMODL1	510.2125	-5.91983	1.634912	-3.62089	0.000294	0.019733
UNC5C	149.5744	25.88143	4.11451	6.290281	3.17E-10	5.17E-07
UNC93B1	394.9536	2.376813	0.639417	3.717158	0.000201	0.015517
VENTX	155.8343	2.865849	0.833174	3.439675	0.000582	0.030739
VNN1	250.7487	4.350957	1.262738	3.445652	0.00057	0.030245
WDFY3	788.5843	4.442798	1.154227	3.849154	0.000119	0.01082
WFS1	15.57694	3.839179	1.107851	3.465428	0.000529	0.028662
WHAMMP2	386.2676	2.548659	0.730226	3.490236	0.000483	0.027233
WI2-1896C	239.1653	4.917789	1.119986	4.390937	1.13E-05	0.002302
ZBTB7B	745.5051	3.301685	0.466307	7.080503	1.44E-12	6.44E-09
ZC2HC1A	30.96985	4.325424	1.194306	3.621705	0.000293	0.019733
ZFP2	48.56771	-2.44647	0.724177	-3.37828	0.000729	0.036258

ZNF318 1430.465 2.034668 0.441068 4.61305 3.97E-06 0.00113

Supplementary Table 3 Sensitive Vs IntResistant Differential Gene Expression Results

	baseMean	log2FoldCh	lfcSE	stat	pvalue	padj
ABCG2	52.70391	3.785123	0.956336	3.957941	7.56E-05	0.009421
ABHD17C	1373.953	-3.45489	0.564252	-6.12294	9.19E-10	6.87E-07
ABLIM3	68.58016	3.845637	1.058926	3.63164	0.000282	0.022795
AC004791.	113.9795	-6.54241	1.351704	-4.84012	1.3E-06	0.000348
AC011043.	153.6386	-2.67201	0.70636	-3.7828	0.000155	0.015455
AC073063.	10.27891	-3.92057	0.90344	-4.3396	1.43E-05	0.002614
AC097711.	25.63112	-2.39637	0.570305	-4.20191	2.65E-05	0.004241
ACVR2A	207.4301	2.531505	0.56933	4.446464	8.73E-06	0.001843
ADAMTS1	127.9273	-4.04218	1.167385	-3.46259	0.000535	0.035426
ADAMTS18	46.45218	-4.59263	1.235388	-3.71756	0.000201	0.018049
ADAP2	401.6751	2.783546	0.732161	3.801821	0.000144	0.014814
ADARB2	47.14481	-2.61875	0.725704	-3.60856	0.000308	0.02396
ADCY1	59.36431	4.452954	1.164581	3.823655	0.000131	0.013962
ADD2	279.0542	2.464844	0.558037	4.416993	1E-05	0.001974
ADGRL2	79.368	6.802733	1.338991	5.080493	3.76E-07	0.000125
ADPRHL1	527.0957	-3.63046	0.904705	-4.01287	6E-05	0.007974
AIF1L	98.80914	-3.79372	0.842855	-4.50104	6.76E-06	0.001526
ALAS2	714.1944	4.494569	1.176137	3.821466	0.000133	0.014004
ALDH2	725.1294	2.084263	0.552579	3.771884	0.000162	0.015801
AMMECR1	475.9486	2.180085	0.420636	5.182826	2.19E-07	8.53E-05
ANKRD20A	6.473883	20.43108	3.376505	6.050955	1.44E-09	9.23E-07
ANKRD20A	20.10552	4.026957	1.023529	3.934385	8.34E-05	0.010113
ANKRD9	156.4179	2.294581	0.597434	3.84073	0.000123	0.013261
APOC2	35.9157	4.536821	1.144228	3.964964	7.34E-05	0.009277
ARC	424.4625	-4.67593	1.085032	-4.30949	1.64E-05	0.002936
ARHGAP6	49.03717	5.694014	1.250759	4.552447	5.3E-06	0.001236
ATF5	1458.55	2.61264	0.678936	3.848137	0.000119	0.013023
BAAT	11.38477	-2.88897	0.677068	-4.26688	1.98E-05	0.003294
BCL6B	58.89644	-3.61281	1.013393	-3.56506	0.000364	0.0272
BLOC1S5-T.	41.5608	-8.67316	1.694066	-5.11973	3.06E-07	0.000109
BLVRB	421.271	2.057485	0.610426	3.370573	0.00075	0.045043
BMPR1B	105.2184	3.793354	0.984555	3.852861	0.000117	0.012932
C10orf105	20.77271	3.344006	0.876583	3.814819	0.000136	0.014219
C15orf48	377.81	2.653276	0.662714	4.003649	6.24E-05	0.008125
C17orf96	629.8414	4.916896	0.990736	4.962872	6.95E-07	0.000204
C2orf72	10.28802	5.522239	1.633653	3.380301	0.000724	0.044045
CA1	907.6071	3.898139	1.045968	3.726824	0.000194	0.017574
CA3	8.55428	3.689543	1.071625	3.442942	0.000575	0.037549
CACNA1C	73.77451	-4.44041	1.126186	-3.94288	8.05E-05	0.009828
CADM1	563.9677	4.344772	0.960318	4.524305	6.06E-06	0.001394
CCL23	28.76908	4.770059	0.91601	5.207434	1.91E-07	7.64E-05
CCNA1	1436.163	-3.42827	0.929444	-3.68852	0.000226	0.019275
CD4	870.553	3.107994	0.833834	3.727354	0.000194	0.017574
CD70	146.2415	3.288992	0.879512	3.739563	0.000184	0.017052
CDH23	73.4438	2.704923	0.786415	3.439563	0.000583	0.037746
CDH26	42.50965	-3.05187	0.781257	-3.90636	9.37E-05	0.011135

CEACAMP3	8.171726	-4.40932	1.238794	-3.55936	0.000372	0.027617
CEMIP	2093.891	-5.54847	0.934011	-5.94048	2.84E-09	1.76E-06
CLCN4	113.2443	3.589006	1.027899	3.491593	0.00048	0.032514
CLEC2L	10.42597	-21.9167	3.395961	-6.45376	1.09E-10	1.51E-07
CLIC2	81.05865	2.030696	0.567578	3.577828	0.000346	0.026123
CLSTN2	67.76718	3.686748	0.933652	3.94874	7.86E-05	0.009656
CMPK2	432.3281	3.295084	0.650425	5.066047	4.06E-07	0.00013
CNTN4	100.2865	6.43057	1.594405	4.03321	5.5E-05	0.007595
CNTNAP4	29.82533	22.71193	3.373864	6.731726	1.68E-11	3.01E-08
COL18A1	120.5932	2.483745	0.707055	3.512801	0.000443	0.030486
COL6A1	900.7378	3.923687	1.00942	3.887072	0.000101	0.011671
COL6A2	1303.805	3.678463	0.982115	3.745451	0.00018	0.016773
CPNE8	189.8526	4.633621	1.16519	3.976707	6.99E-05	0.008957
CSMD1	64.67646	4.137896	0.931594	4.441739	8.92E-06	0.001862
CSPG5	48.88198	-2.59014	0.577143	-4.48787	7.19E-06	0.001574
CTC-260E6	11.3779	-21.8652	3.395671	-6.43913	1.2E-10	1.54E-07
CTSE	20.38432	3.36817	0.983986	3.422986	0.000619	0.039554
CTTN	181.6665	3.476608	0.92308	3.766315	0.000166	0.01584
CX3CR1	75.158	3.542671	0.846147	4.186824	2.83E-05	0.004453
CXCL10	377.307	7.109943	1.296392	5.484406	4.15E-08	2.07E-05
CXCL11	42.00838	6.034895	1.148154	5.256172	1.47E-07	6.44E-05
CXCR2P1	39.33667	4.193554	1.012632	4.141243	3.45E-05	0.005209
CYB5R2	58.98609	2.644967	0.635586	4.161462	3.16E-05	0.004892
CYP7B1	23.57319	4.541492	1.340764	3.387242	0.000706	0.043239
CYR61	10.37165	-4.5026	1.271192	-3.54203	0.000397	0.028501
DAB2IP	26.50515	3.543786	0.987468	3.58876	0.000332	0.025264
DCANP1	7.546589	6.122371	1.648318	3.714315	0.000204	0.018191
DNAAF1	93.29461	2.598644	0.588206	4.417916	9.97E-06	0.001974
DNAAF3	12.91897	-3.50285	0.964744	-3.63086	0.000282	0.022795
DNAJC5B	76.26206	4.21194	1.107541	3.802965	0.000143	0.014814
DPEP1	6.786809	-5.65874	1.407032	-4.02176	5.78E-05	0.007803
DSG2	87.2177	3.73687	1.054838	3.5426	0.000396	0.028501
DTX3	54.36164	3.508827	0.927892	3.781503	0.000156	0.015455
EEF1A2	358.1742	4.626676	1.196359	3.867299	0.00011	0.012484
EPB41L3	704.2543	3.961395	1.185821	3.340633	0.000836	0.048543
ESPN	57.89471	5.440517	1.190683	4.569241	4.89E-06	0.001183
FAM169A	161.1784	2.541416	0.757404	3.355429	0.000792	0.046623
FAM92A1	51.33748	3.183926	0.795338	4.003237	6.25E-05	0.008125
FBN1	390.2885	4.6326	0.849784	5.451501	4.99E-08	2.42E-05
FLT4	159.8614	-3.33666	0.896527	-3.72177	0.000198	0.01784
FOXL2	93.64883	7.571053	1.98225	3.819424	0.000134	0.014037
FOXL2NB	163.7227	3.517504	0.857305	4.102977	4.08E-05	0.005951
GABRA4	48.36181	4.203658	0.986803	4.259874	2.05E-05	0.003367
GABRE	511.4781	-8.22659	1.829428	-4.49681	6.9E-06	0.001528
GALNT12	41.3695	2.480151	0.509207	4.870617	1.11E-06	0.000307
GAPDHP14	34.95082	-3.27065	0.969252	-3.3744	0.00074	0.044848
GAS2L3	298.2262	2.69806	0.742466	3.633918	0.000279	0.02277
GCNT1P3	13.95029	-2.65895	0.683312	-3.89127	9.97E-05	0.011605

GIPC3	13.6952	-21.3307	3.397183	-6.27894	3.41E-10	3.3E-07
GJB6	29.52692	-4.97358	1.348852	-3.68727	0.000227	0.019278
GREM1	877.4535	-3.41266	0.969875	-3.51866	0.000434	0.030168
GSX1	7.295556	-21.4659	3.396846	-6.31938	2.63E-10	2.95E-07
GYPB	35.82205	4.25943	1.000653	4.25665	2.08E-05	0.003385
HAP1	68.33812	-2.4729	0.577869	-4.27935	1.87E-05	0.003234
HBA1	25446.55	4.916796	1.261232	3.898408	9.68E-05	0.011431
HBG2	16498.38	6.951063	1.401796	4.958682	7.1E-07	0.000205
HEMGN	314.0242	3.624196	0.999075	3.627553	0.000286	0.022922
HIST1H2AE	249.8777	-2.24459	0.647362	-3.46729	0.000526	0.034942
HIST1H2BG	941.7278	-2.69213	0.7404	-3.63605	0.000277	0.022685
HMBS	243.6007	2.482848	0.686408	3.617162	0.000298	0.023755
HMGA2	168.5779	3.04321	0.806092	3.775266	0.00016	0.015674
HMX3	77.97581	7.366023	2.115165	3.482481	0.000497	0.033389
HNF4A	49.19836	2.613951	0.745029	3.508521	0.000451	0.030863
HOMER2P1	9.830222	-21.1328	3.39777	-6.21962	4.98E-10	4.26E-07
HOXA10	361.963	7.73781	1.251545	6.182605	6.31E-10	4.92E-07
HOXA11	152.2707	25.26109	3.373245	7.488662	6.96E-14	3.12E-10
HOXA13	22.15709	22.28792	3.374179	6.605433	3.96E-11	6.47E-08
HOXA2	15.48319	7.389286	1.667545	4.431236	9.37E-06	0.001933
HOXA3	148.0756	10.76213	1.546775	6.957785	3.46E-12	7.75E-09
HOXA4	40.07569	5.833943	1.615706	3.61077	0.000305	0.02396
HOXA5	180.9916	7.455353	0.978208	7.621443	2.51E-14	2.25E-10
HOXA6	67.53771	6.689672	1.042938	6.414256	1.42E-10	1.69E-07
HOXA7	75.59405	7.461797	1.260609	5.919201	3.24E-09	1.94E-06
HOXA9	870.6456	9.753689	1.23375	7.905725	2.66E-15	4.78E-11
HOXB7	46.44495	5.72773	1.449432	3.951707	7.76E-05	0.009603
HOXB8	97.94158	24.35852	3.373336	7.220898	5.16E-13	1.54E-09
HOXB9	345.039	8.322096	1.934479	4.301983	1.69E-05	0.002978
IFI27	422.5115	4.931503	1.154837	4.270304	1.95E-05	0.003294
IFIT1	363.3359	3.028424	0.894063	3.387261	0.000706	0.043239
IFIT3	813.072	3.35966	0.78089	4.302347	1.69E-05	0.002978
IGFBP2	1212.226	-4.79708	1.155747	-4.15063	3.32E-05	0.005042
IGFBP5	251.943	8.264892	2.276745	3.630135	0.000283	0.022795
IGKV1-22	12.05356	-6.75265	1.655134	-4.07982	4.51E-05	0.006522
IGKV2-23	27.66161	-7.39403	1.444685	-5.11809	3.09E-07	0.000109
IGKV2-24	38.46271	-4.63709	0.913327	-5.07714	3.83E-07	0.000125
IGKV2D-23	9.377692	-6.72754	1.619529	-4.15401	3.27E-05	0.005011
IGLON5	313.8075	-3.97255	1.091131	-3.64076	0.000272	0.02247
IL4I1	583.8157	4.286873	0.808561	5.301853	1.15E-07	5.14E-05
INA	92.28737	-4.27188	1.133516	-3.7687	0.000164	0.01584
IRX1	156.2264	-9.86574	1.723775	-5.72334	1.04E-08	5.68E-06
KCNK5	286.0982	-2.98278	0.743848	-4.00994	6.07E-05	0.008014
KCNQ2	110.0511	9.069274	1.986557	4.565322	4.99E-06	0.001183
KEL	70.68647	3.206176	0.954201	3.360066	0.000779	0.045998
KRT16	29.06068	-4.85858	1.346728	-3.60769	0.000309	0.02396
KRT17	788.1384	-9.64984	1.537795	-6.27511	3.49E-10	3.3E-07
KRT17P2	93.88838	-5.07754	1.007939	-5.03755	4.72E-07	0.000148

KRT17P6	49.72773	-4.93888	0.944209	-5.23071	1.69E-07	7.1E-05
KRT23	52.50056	5.391042	1.424165	3.785406	0.000153	0.015386
LAMP5	232.8332	9.633104	1.644525	5.857683	4.69E-09	2.72E-06
LBX1	17.12691	21.87649	3.374434	6.48301	8.99E-11	1.34E-07
LHX9	516.75	12.1441	2.785271	4.360113	1.3E-05	0.002405
LIMS2	37.358	2.359321	0.668998	3.526648	0.000421	0.029617
LNP1	16.73981	-2.94906	0.796482	-3.7026	0.000213	0.018589
LPAR3	57.32582	2.888969	0.691298	4.179053	2.93E-05	0.004568
LSMEM2	23.41936	-3.86894	0.868387	-4.45532	8.38E-06	0.00179
MAB21L1	4.648778	20.51	3.378017	6.071609	1.27E-09	8.49E-07
MAGEC3	4.167515	-20.7257	3.399219	-6.0972	1.08E-09	7.75E-07
MAGED4	32.50403	-4.81986	1.367186	-3.52539	0.000423	0.029641
MARCKS	3440.139	3.703321	0.740602	5.000421	5.72E-07	0.000171
MCOLN2	213.8663	2.460463	0.561883	4.378962	1.19E-05	0.002252
MEGF11	34.45467	5.250849	1.530186	3.431512	0.0006	0.038468
METTL7B	170.1278	4.222937	1.191084	3.545456	0.000392	0.028499
MGAM2	120.648	-2.73631	0.763411	-3.58432	0.000338	0.02559
MPPED2	36.48152	2.321399	0.565351	4.106119	4.02E-05	0.005951
MTCO1P12	3858.907	-4.95981	1.183791	-4.18977	2.79E-05	0.004435
MTCO1P2	16.35971	-2.75296	0.821585	-3.3508	0.000806	0.047255
MUC4	85.7022	-4.94903	1.289323	-3.83847	0.000124	0.013303
MYH11	597.1762	-4.10061	1.083278	-3.78538	0.000153	0.015386
MYO18B	1240.879	-9.08852	1.929733	-4.70973	2.48E-06	0.000618
NDST3	183.7153	-4.35196	1.281522	-3.39593	0.000684	0.042469
NNAT	15.78582	4.933331	1.332334	3.702775	0.000213	0.018589
NRCAM	222.4871	-4.8111	0.95736	-5.02538	5.02E-07	0.000155
NYAP1	15.89379	-2.85505	0.824874	-3.4612	0.000538	0.035479
OASL	345.4362	2.321492	0.643608	3.606994	0.00031	0.02396
OGFOD1P1	6.211156	-4.19016	1.118003	-3.7479	0.000178	0.016754
OTOF	49.60706	23.78087	3.37356	7.049192	1.8E-12	4.61E-09
PABPC4L	26.68342	-7.31875	1.994015	-3.67036	0.000242	0.020406
PAQR9	24.10317	6.845765	1.603756	4.268583	1.97E-05	0.003294
PCDH10	383.5028	-6.11472	1.513408	-4.04036	5.34E-05	0.007541
PCGF2	114.4617	6.681869	1.511847	4.419673	9.89E-06	0.001974
PDCD1LG2	10.84454	4.669802	1.346178	3.468933	0.000523	0.034858
PGBD4P1	72.88374	-4.18801	1.054335	-3.97218	7.12E-05	0.009064
PITX1	149.221	5.381283	1.201958	4.477099	7.57E-06	0.001636
PLCB1	817.3219	-2.46021	0.442697	-5.55731	2.74E-08	1.4E-05
PLCH1	22.3636	-5.10125	1.07638	-4.73926	2.14E-06	0.000542
PLXNA1	935.6597	2.619283	0.551421	4.750063	2.03E-06	0.000521
PRL	144.4535	7.641526	1.461278	5.229344	1.7E-07	7.1E-05
PRPF38AP2	4.868626	6.171986	1.643273	3.755911	0.000173	0.016399
PTGDS	203.5456	-4.96974	1.327037	-3.74499	0.00018	0.016773
PTPRG	52.19712	-4.03497	1.087934	-3.70883	0.000208	0.018327
RFESD	45.77371	2.900592	0.869353	3.336495	0.000848	0.049041
RIN2	508.7309	2.651308	0.734078	3.611751	0.000304	0.02396
RMND5B	240.7584	2.086015	0.277001	7.5307	5.05E-14	3.02E-10
RNASE1	534.2597	5.984715	1.398236	4.280189	1.87E-05	0.003234

RNF150	15.71576	2.60492	0.713725	3.649752	0.000262	0.021808
RNF207	48.45928	2.607154	0.61934	4.209566	2.56E-05	0.004136
RP11-1319	19.70808	21.00699	3.375374	6.223603	4.86E-10	4.26E-07
RP11-395L	9.551785	6.203034	1.760488	3.523475	0.000426	0.02974
RP11-536P	6.792106	20.49669	3.376644	6.070136	1.28E-09	8.49E-07
RP11-619A	220.691	-2.41944	0.725977	-3.33266	0.00086	0.049475
RPL12P37	16.39852	-3.47646	1.000172	-3.47587	0.000509	0.034096
RPL41P1	5.654097	20.96308	3.377146	6.207336	5.39E-10	4.4E-07
RSAD2	668.6453	3.21744	0.704894	4.564429	5.01E-06	0.001183
RTN4R	86.63318	-3.0689	0.761384	-4.03069	5.56E-05	0.007618
RUNDC3A	80.19476	3.171718	0.923194	3.435592	0.000591	0.038029
RUNX1T1	592.2823	-8.5002	1.452682	-5.85138	4.88E-09	2.73E-06
SBK3	22.12279	-5.95564	1.352655	-4.40292	1.07E-05	0.002061
SCRN1	547.0935	2.961734	0.607724	4.873486	1.1E-06	0.000307
SEPT7P3	7.095219	-4.75076	1.318623	-3.60282	0.000315	0.024243
SHANK1	766.9562	-2.15979	0.573113	-3.76852	0.000164	0.01584
SIGLEC10	255.6149	2.035549	0.397791	5.117136	3.1E-07	0.000109
SIX4	136.3175	-4.36479	1.296438	-3.36675	0.000761	0.045229
SKIDA1	273.0471	5.44322	1.054466	5.162063	2.44E-07	9.33E-05
SKOR1	97.30762	4.422437	1.238539	3.570689	0.000356	0.026733
SLC2A12	27.70638	-5.51553	1.487196	-3.70868	0.000208	0.018327
SLCO2A1	7.004735	-3.93443	1.141575	-3.44649	0.000568	0.037194
SLCO2B1	82.65256	3.476941	0.893812	3.890013	0.0001	0.011605
SLITRK6	12.52	21.24556	3.374927	6.295117	3.07E-10	3.24E-07
SMAD6	207.5728	3.695489	0.932749	3.961932	7.43E-05	0.00933
SMIM24	499.6627	-2.10576	0.620742	-3.39232	0.000693	0.042884
SMPDL3A	81.78479	2.911589	0.841964	3.458092	0.000544	0.03576
SOBP	120.8756	5.034552	1.11886	4.499714	6.8E-06	0.001526
SORCS1	12.9643	-4.22518	1.192191	-3.54405	0.000394	0.028501
SPARC	1945.311	-3.32237	0.950208	-3.49647	0.000471	0.032047
SPATS2L	439.7306	2.785871	0.546406	5.098539	3.42E-07	0.000116
ST18	472.8057	-3.47701	0.790444	-4.3988	1.09E-05	0.002078
STK32B	137.3502	-3.47781	0.617236	-5.6345	1.76E-08	9.27E-06
SUCNR1	1709.294	-2.55939	0.744655	-3.43701	0.000588	0.037966
SVOPL	27.85326	-4.21975	0.987895	-4.27146	1.94E-05	0.003294
TAS2R6P	9.263402	-2.50719	0.679454	-3.69001	0.000224	0.019254
TBC1D12	258.1094	4.085737	0.800283	5.105364	3.3E-07	0.000114
TBC1D9	422.7407	3.01531	0.798423	3.776584	0.000159	0.015674
TGM5	146.6964	3.880867	0.729865	5.317242	1.05E-07	4.9E-05
TIMP3	323.7834	4.26554	1.101822	3.871352	0.000108	0.012371
TJP2	769.4762	2.134599	0.568885	3.752248	0.000175	0.016552
TLR7	217.7725	2.905003	0.816348	3.558536	0.000373	0.027617
TM4SF1	2148.045	-4.35393	1.239355	-3.51306	0.000443	0.030486
TMEM56	111.6411	3.181677	0.907993	3.504077	0.000458	0.031263
TMIGD2	76.29154	-2.96842	0.623193	-4.76324	1.91E-06	0.000495
TMOD1	131.8247	2.898518	0.741601	3.908462	9.29E-05	0.011112
TNFRSF9	775.5724	2.539459	0.62883	4.038388	5.38E-05	0.007545
TNIK	555.8382	2.826167	0.831535	3.398733	0.000677	0.042182

TPM1	293.8468	2.115658	0.289058	7.319151	2.5E-13	8.96E-10
TRIM24	6052.347	-2.18848	0.449691	-4.86662	1.14E-06	0.000309
TRIM7	117.7582	4.044599	0.883739	4.576691	4.72E-06	0.001161
TRPM4	186.4723	2.5821	0.76143	3.391122	0.000696	0.042924
UGT3A2	21.87551	-4.38846	1.297138	-3.38319	0.000716	0.043733
UNC5C	149.5744	11.9711	3.373249	3.548833	0.000387	0.028342
UNCX	23.2187	-23.0774	3.394617	-6.79824	1.06E-11	2.11E-08
WNT10B	58.41582	2.631756	0.78105	3.369509	0.000753	0.045043
ZNF532	260.712	2.30184	0.572498	4.020693	5.8E-05	0.007803

Supplementary Table 4 IntResistant Vs Resistant Differential Gene Expression Results

	baseMean	log2FoldCh	lfcSE	stat	pvalue	padj
ANKRD20A	6.473883	-16.6796	4.000301	-4.1696	3.05E-05	0.02171
C2CD4B	18.53701	21.4939	3.995766	5.37917	7.48E-08	0.000171
CCL3	2208.869	3.689139	0.841211	4.38551	1.16E-05	0.012349
CTC-260E6	11.3779	21.54963	3.996322	5.392365	6.95E-08	0.000171
CTC-432M1	23.01588	21.44624	3.996111	5.366777	8.02E-08	0.000171
CTTNBP2	15.85871	18.95298	4.008483	4.728218	2.26E-06	0.002719
DASS-161H	30.97513	20.67104	3.997338	5.171201	2.33E-07	0.000372
DSC2	552.6162	6.774527	1.63157	4.152152	3.29E-05	0.022597
FAM155B	8.548234	18.55942	4.007846	4.630773	3.64E-06	0.004117
GABRE	511.4781	9.252898	2.211897	4.183241	2.87E-05	0.021259
GAPDHP14	34.95082	5.50471	1.279503	4.302225	1.69E-05	0.014984
H3F3AP4	43.55036	21.78959	3.995791	5.453135	4.95E-08	0.000171
KCNE3	295.3703	2.652879	0.524778	5.05524	4.3E-07	0.00059
KIF28P	32.33397	-5.31678	1.258994	-4.22304	2.41E-05	0.019293
MAGEC3	4.167515	19.95264	3.999337	4.988986	6.07E-07	0.000777
MMP1	1129.497	8.56573	2.047766	4.182964	2.88E-05	0.021259
MTCO1P12	3858.907	5.63571	1.383093	4.074717	4.61E-05	0.030518
MTND4P24	147.5086	7.601072	1.742922	4.361109	1.29E-05	0.012429
PPP1R3C	8.087304	20.78604	3.997143	5.200223	1.99E-07	0.000348
RP11-1070	64.41833	23.37439	3.994937	5.851004	4.89E-09	4.7E-05
RP11-1319	19.70808	-21.683	3.908779	-5.54725	2.9E-08	0.000139
RP11-536P	6.792106	-17.033	3.962135	-4.29896	1.72E-05	0.014984
RUNX1T1	592.2823	8.883805	1.727799	5.141689	2.72E-07	0.000402
SERPINB4	18.39963	21.32931	3.996297	5.337267	9.44E-08	0.000181
SLC22A15	398.3929	6.258823	1.475914	4.240642	2.23E-05	0.018615
UNCX	23.2187	22.24389	3.995426	5.567338	2.59E-08	0.000139
ZBTB7B	745.5051	2.64539	0.452147	5.850732	4.89E-09	4.7E-05

Supplementary Table 5 GSEA GO Term Results

NAME	SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MA LEADING EDGE
GO_MONOCYTE_CHEMOTAXIS	35	0.7716977	2.049472	0	0.02966804	0.026	3511 tags=77%, list=16%, signal=92%
GO_AUDITORY_RECEPTOR_CELL_DIFI	26	0.7789088	1.9257894	0	0.05940495	0.303	1214 tags=23%, list=6%, signal=24%
GO_COCHLEA_DEVELOPMENT	34	0.7333925	1.9165494	0	0.06297484	0.358	2569 tags=35%, list=12%, signal=40%
GO_CELLULAR_RESPONSE_TO_INTEF	113	0.6207922	1.9115021	0	0.06335326	0.395	4684 tags=56%, list=22%, signal=71%
GO_RESPONSE_TO_INTERFERON_G/	134	0.6163777	1.9432386	0	0.06793419	0.212	4684 tags=54%, list=22%, signal=69%
GO_GAS_TRANSPORT	17	0.85192734	1.9268814	0	0.06891886	0.301	1091 tags=71%, list=5%, signal=74%
GO_AUDITORY_RECEPTOR_CELL_DEV	18	0.83141994	1.934549	0	0.06991538	0.266	1214 tags=28%, list=6%, signal=29%
GO_HAIR_CELL_DIFFERENTIATION	29	0.7654639	1.9526544	0	0.07651021	0.18	1214 tags=21%, list=6%, signal=22%
GO_CHEMOKINE_MEDIATED_SIGNAL	59	0.6978663	1.9678307	0	0.08568782	0.137	3511 tags=64%, list=16%, signal=77%
GO_UTERUS_DEVELOPMENT	17	0.8245897	1.8808342	0	0.08901946	0.574	58 tags=24%, list=0%, signal=24%
GO_LEUKOCYTE_CHEMOTAXIS	106	0.61696666	1.8867112	0	0.08981141	0.542	3511 tags=46%, list=16%, signal=55%
GO_HUMORAL_IMMUNE_RESPONSE	146	0.5911496	1.8587976	0	0.10404856	0.719	4282 tags=51%, list=20%, signal=63%
GO_ADAPTIVE_IMMUNE_RESPONSE	253	0.5651114	1.858945	0	0.11143486	0.717	4048 tags=40%, list=19%, signal=49%
GO_LYMPHOCYTE_CHEMOTAXIS	32	0.72688574	1.8628967	0.0013986	0.11241601	0.689	3511 tags=63%, list=16%, signal=74%
GO_DEFENSE_RESPONSE_TO_BACTE	168	0.5782375	1.8477222	0	0.11813908	0.79	3670 tags=46%, list=17%, signal=55%
GO_RESPONSE_TO_AUDITORY_STIM	19	0.7763084	1.83551	0.0015083	0.13500555	0.85	19 tags=11%, list=0%, signal=11%
GO_INTERFERON_GAMMA_MEDIATE	70	0.6279361	1.8300706	0	0.13970143	0.879	5773 tags=66%, list=27%, signal=89%
GO_EMBRYONIC_ORGAN_MORPHOC	239	0.5554103	1.8219961	0	0.14912815	0.917	2843 tags=28%, list=13%, signal=31%
GO_ANTERIOR_POSTERIOR_PATTERI	155	0.5756307	1.816855	0	0.15143572	0.928	2313 tags=27%, list=11%, signal=30%
GO_REGULATION_OF_LEUKOCYTE_N	50	0.64507633	1.8087487	0	0.16293481	0.952	5043 tags=54%, list=23%, signal=70%
GO_STARTLE_RESPONSE	21	0.7490167	1.7977537	0.00691563	0.17283693	0.971	1167 tags=19%, list=5%, signal=20%
GO_HUMORAL_IMMUNE_RESPONSE	59	0.62952226	1.7931162	0	0.17595036	0.981	4122 tags=54%, list=19%, signal=67%
GO_LYMPHOCYTE_MEDIATED_IMMU	134	0.56737417	1.78578	0	0.17837206	0.986	4412 tags=43%, list=20%, signal=54%
GO_EMBRYONIC_SKELETAL_SYSTEM	78	0.6070284	1.7984415	0	0.17943783	0.971	2843 tags=31%, list=13%, signal=35%
GO_RECEPTOR_INTERNALIZATION	38	0.66672105	1.7814729	0	0.18038827	0.992	3213 tags=37%, list=15%, signal=43%
GO_ADAPTIVE_IMMUNE_RESPONSE	143	0.56626266	1.7864113	0	0.18466309	0.986	4122 tags=41%, list=19%, signal=51%
GO_CYTOKINE_MEDIATED_SIGNALIN	410	0.525566	1.7752163	0	0.19007306	0.993	4700 tags=43%, list=22%, signal=53%
GO_INNER_EAR_RECEPTOR_CELL_DE	31	0.69415104	1.7684343	0.00423729	0.199763	0.995	1362 tags=23%, list=6%, signal=24%

Supplementary Table 6 Spearman Correlation of Gene Expression to Elimination Efficiency

	p	spearman_R	threshold (p < 0.05, R ≥ .7)
A1BG	0.040582	-0.55225556	FALSE
A1CF	0.916747	0.0308031	FALSE
A2M	0.50718	-0.19361948	FALSE
A2ML1	0.4638	-0.21342147	FALSE
A3GALT2	0.176678	-0.38283852	FALSE
A4GALT	0.291271	0.30363055	FALSE
AAAS	0.454411	0.21782191	FALSE
AACS	0.365865	-0.26182634	FALSE
AACSP1	0.070438	-0.49725003	FALSE
AADAC	0.003124	0.72854487	TRUE
AADA2L2	0.898983	0.03740376	FALSE
AADACP1	0.002242	0.74480895	TRUE
AADAT	0.143363	-0.41189427	FALSE
AAED1	0.280376	0.31023121	FALSE
AAGAB	0.713728	0.10781085	FALSE
AAK1	0.353453	0.26842701	FALSE
AAMDC	0.92861	-0.02640266	FALSE
AAMP	0.016388	-0.62706309	FALSE
AANAT	0.821835	-0.06629871	FALSE
AAR2	0.527033	0.18481859	FALSE
AARD	0.29867	0.2992301	FALSE
AARS	0.207961	0.35863608	FALSE
AARS2	0.787807	-0.07920797	FALSE
AARSD1	0.226404	0.34543475	FALSE
AASDH	0.557442	-0.17161727	FALSE
AASDHPPT	0.291271	-0.30363055	FALSE
AASS	0.730641	-0.10121018	FALSE
AATF	0.431353	-0.22882302	FALSE
AATK	0.988088	-0.00440044	FALSE
AATK-AS1	0.099514	-0.45808173	FALSE
AB019438.	0.043882	-0.54495187	FALSE
AB019441.	0.103603	-0.4532456	FALSE
ABAT	0.440504	0.22442258	FALSE
ABC13-474	0.863593	-0.05060509	FALSE
ABC14-864	0.034225	0.56765711	FALSE
ABC7-4240	0.800663	0.07431645	FALSE
ABC7-4241	0.021743	0.60552819	FALSE
ABC7-4817	0.236726	0.33833593	FALSE
ABCA1	0.641924	0.13641372	FALSE
ABCA10	0.674747	0.1232124	FALSE
ABCA11P	0.31379	0.29042922	FALSE
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APBB1IP	0.805166	0.0726073	FALSE
APBB2	0.422298	-0.23322346	FALSE
APBB3	0.647355	0.1342135	FALSE
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APC2	0.669238	-0.12541262	FALSE
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APEH	0.057064	0.51925224	FALSE
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APEX2	0.026463	0.58965932	FALSE
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API5P1	0.233278	-0.34068548	FALSE
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APLP2	0.527033	0.18481859	FALSE
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APOA1	0.764804	-0.08800885	FALSE
APOA2	0.833681	0.0618317	FALSE
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APOBEC3G	0.417807	0.23542368	FALSE
APOBEC3H	0.964274	0.01320133	FALSE
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APOE	0.747669	-0.09460952	FALSE
APOF	0.53205	-0.18261837	FALSE
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APP	0.527033	-0.18481859	FALSE
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ARC	0.171338	-0.38723896	FALSE
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AREG	0.121554	-0.43344361	FALSE
AREL1	0.445116	0.22222236	FALSE
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ARL3	0.468529	0.21122125	FALSE
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ARL4D	0.255905	0.32563276	FALSE
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ARSB	0.245826	-0.33223342	FALSE
ARSD	0.647355	0.1342135	FALSE
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ARSI	0.797358	0.07557208	FALSE
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ARSK	0.0201	-0.61166154	FALSE
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ASH2L	0.970226	-0.01100111	FALSE
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ASS1	0.472783	-0.2092511	FALSE
ASS1P1	0.83428	0.0616062	FALSE
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ASTN1	0.725231	-0.10331673	FALSE

ASTN2	0.910821	-0.03300332	FALSE
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ATAD5	0.280376	-0.31023121	FALSE
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ATE1-AS1	0.105502	0.45104538	FALSE
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ATG2B	0.032552	-0.57205755	FALSE
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ATP12A	0.132073	-0.42275096	FALSE
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ATP13A2	0.333291	0.27942811	FALSE
ATP13A3	0.187678	0.37403763	FALSE
ATP13A4	0.652801	-0.13201328	FALSE
ATP13A5	0.679015	-0.12151257	FALSE
ATP1A1	0.099878	0.45764604	FALSE
ATP1A2	0.353453	-0.26842701	FALSE
ATP1A3	0.724991	-0.1034104	FALSE
ATP1A4	0.005554	0.69747017	FALSE
ATP1B1	0.00357	-0.7216726	TRUE
ATP1B1P1	0.537087	0.18041815	FALSE
ATP1B2	0.273248	0.31463165	FALSE
ATP1B3	0.805166	0.0726073	FALSE
ATP1B4	0.325411	0.28382855	FALSE
ATP23	0.604388	0.15181527	FALSE
ATP2A1	0.043556	-0.5456549	FALSE
ATP2A2	0.325411	-0.28382855	FALSE
ATP2A3	0.12367	-0.43124339	FALSE
ATP2B1	0.82844	0.06380642	FALSE
ATP2B2	0.073396	0.49279444	FALSE
ATP2B3	0.720038	-0.1053429	FALSE
ATP2B4	0.747669	-0.09460952	FALSE
ATP2C1	0.15845	0.39824006	FALSE
ATP2C2	0.180039	-0.38011259	FALSE
ATP5A1	0.210967	-0.35643586	FALSE
ATP5A1P1C	0.512111	-0.19141926	FALSE
ATP5A1P3	0.7474	-0.09471366	FALSE
ATP5B	0.615026	0.14741483	FALSE
ATP5C1	0.793583	0.07700775	FALSE
ATP5D	0.658264	0.12981306	FALSE
ATP5E	0.004045	0.71507194	TRUE

ATP5F1	0.291271	0.30363055	FALSE
ATP5F1P1	0.266229	-0.3190321	FALSE
ATP5F1P5	0.857716	0.05280531	FALSE
ATP5G1	0.070438	0.49725003	FALSE
ATP5G1P3	0.952376	-0.01760177	FALSE
ATP5G2	0.306176	0.29482966	FALSE
ATP5G2P3	0.665026	0.1270985	FALSE
ATP5G3	0.306176	0.29482966	FALSE
ATP5H	0.4638	0.21342147	FALSE
ATP5HP4	0.761488	-0.08928309	FALSE
ATP5I	0.349368	0.27062723	FALSE
ATP5J	0.223262	0.34763497	FALSE
ATP5J2	0.148612	0.40704095	FALSE
ATP5J2-PTC	0.440504	-0.22442258	FALSE
ATP5L	0.552323	0.17381749	FALSE
ATP5L2	0.096246	0.46204648	FALSE
ATP5O	0.252518	0.32783298	FALSE
ATP5S	0.487675	-0.20242036	FALSE
ATP5SL	0.940487	-0.02200221	FALSE
ATP6AP1	0.003141	0.72827327	TRUE
ATP6AP1L	0.184888	-0.37623785	FALSE
ATP6AP2	0.413341	0.23762391	FALSE
ATP6VOA1	0.076365	0.48844914	FALSE
ATP6VOA2	0.266229	-0.3190321	FALSE
ATP6VOA4	0.078775	-0.48500762	FALSE
ATP6VOB	0.609698	0.14961505	FALSE
ATP6VOC	0.163526	0.39383962	FALSE
ATP6VOCP1	0.892544	0.03979986	FALSE
ATP6VOD1	0.034225	0.56765711	FALSE
ATP6VOD2	0.009537	0.66446685	FALSE
ATP6VOE1	0.179388	0.38063829	FALSE
ATP6VOE1F	0.080603	0.48244778	FALSE
ATP6VOE2	0.822609	0.06600664	FALSE
ATP6V1A	0.047766	0.53685401	FALSE
ATP6V1B2	0.50718	0.19361948	FALSE
ATP6V1C1	0.060866	0.51265158	FALSE
ATP6V1C2	0.588569	0.15841594	FALSE
ATP6V1D	0.454411	0.21782191	FALSE
ATP6V1E1	0.023759	0.59846021	FALSE
ATP6V1E2	0.851846	0.05500553	FALSE
ATP6V1F	0.15845	0.39824006	FALSE
ATP6V1G1	0.306176	0.29482966	FALSE
ATP6V1G1I	0.280376	-0.31023121	FALSE
ATP6V1G1I	0.657909	0.12995595	FALSE
ATP6V1G2	0.759081	-0.09020908	FALSE
ATP6V1G2-	0.381758	0.25354842	FALSE
ATP6V1H	0.030158	0.57865822	FALSE
ATP7A	0.40009	-0.24422457	FALSE

ATP7B	0.793583	-0.07700775	FALSE
ATP8A1	0.146217	-0.40924117	FALSE
ATP8A2	0.168708	0.38943918	FALSE
ATP8A2P2	0.81095	-0.07041513	FALSE
ATP8A2P3	0.601336	0.1530837	FALSE
ATP8B1	0.067601	-0.50165047	FALSE
ATP8B2	0.058312	-0.51705202	FALSE
ATP8B3	0.625734	0.14301439	FALSE
ATP8B4	0.269725	0.31683187	FALSE
ATP8B5P	0.842813	-0.05839661	FALSE
ATP9A	0.887164	-0.04180421	FALSE
ATP9B	0.287612	-0.30583077	FALSE
ATPAF1	0.663743	0.12761284	FALSE
ATPAF2	0.113334	-0.44224449	FALSE
ATPIF1	0.151032	0.40484073	FALSE
ATR	0.0779	-0.48624892	FALSE
ATRAID	0.663743	0.12761284	FALSE
ATRIP	0.988088	-0.00440044	FALSE
ATRN	0.875366	0.04620465	FALSE
ATRN1	0.306176	-0.29482966	FALSE
ATRX	0.041556	-0.55005534	FALSE
ATXN1	0.958324	0.01540155	FALSE
ATXN10	0.060866	-0.51265158	FALSE
ATXN1L	0.435916	0.2266228	FALSE
ATXN2	0.329337	-0.28162833	FALSE
ATXN2L	0.647355	-0.1342135	FALSE
ATXN3	0.53205	-0.18261837	FALSE
ATXN7	0.21706	-0.35203542	FALSE
ATXN7L1	0.708117	-0.11001107	FALSE
ATXN7L2	0.445116	-0.22222236	FALSE
ATXN7L3	0.502271	0.1958197	FALSE
ATXN7L3B	0.374268	0.2574259	FALSE
AUH	0.001028	-0.77887836	TRUE
AUNIP	0.609698	0.14961505	FALSE
AUP1	0.022488	0.60286065	FALSE
AURKA	0.636511	0.13861395	FALSE
AURKAIP1	0.12367	0.43124339	FALSE
AURKAPS1	0.34531	-0.27282745	FALSE
AURKB	0.143848	0.41144139	FALSE
AURKC	0.020678	-0.60946131	FALSE
AUTS2	0.15845	-0.39824006	FALSE
AVEN	0.130169	-0.42464272	FALSE
AVIL	0.004567	-0.70847128	TRUE
AVL9	0.168708	0.38943918	FALSE
AVP	0.713042	-0.10807953	FALSE
AVPI1	0.370053	0.25962612	FALSE
AVPR1A	0.685812	0.11881195	FALSE
AVPR1B	0.749293	-0.0939822	FALSE

AVPR2	0.753105	0.09251101	FALSE
AXDND1	0.431353	-0.22882302	FALSE
AXIN1	0.435916	0.2266228	FALSE
AXIN2	0.542145	-0.17821793	FALSE
AXL	0.302409	-0.29702988	FALSE
AZGP1	0.555974	-0.17224757	FALSE
AZI2	0.163526	-0.39383962	FALSE
AZIN1	0.341277	0.27502767	FALSE
AZIN2	0.691367	-0.11661173	FALSE
AZU1	0.79937	0.07480753	FALSE
B2M	0.625734	0.14301439	FALSE
B3GALNT1	0.552323	-0.17381749	FALSE
B3GALNT2	0.139186	0.41584184	FALSE
B3GALT1	0.107424	0.44884516	FALSE
B3GALT2	0.592261	0.15686931	FALSE
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B3GAT1	0.730641	-0.10121018	FALSE
B3GAT2	0.148612	0.40704095	FALSE
B3GAT3	0.851846	0.05500553	FALSE
B3GLCT	0.143848	-0.41144139	FALSE
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B3GNT3	0.45129	-0.21929444	FALSE
B3GNT4	0.70252	-0.11221129	FALSE
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B3GNT7	0.076365	0.48844914	FALSE
B3GNT8	0.982133	-0.00660066	FALSE
B3GNT9	0.674747	-0.1232124	FALSE
B3GNTL1	0.898983	-0.03740376	FALSE
B4GALNT1	0.4587	0.21580614	FALSE
B4GALNT2	0.459093	0.21562169	FALSE
B4GALNT3	0.730641	0.10121018	FALSE
B4GALNT4	0.294399	-0.30176211	FALSE
B4GALT1	0.685812	0.11881195	FALSE
B4GALT2	0.422298	0.23322346	FALSE
B4GALT3	0.143848	-0.41144139	FALSE
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B4GALT6	0.020678	-0.60946131	FALSE
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B4GAT1	0.730641	-0.10121018	FALSE
B9D1	0.402341	0.24309526	FALSE
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BAALC	0.417807	-0.23542368	FALSE
BAAT	0.006222	-0.6908695	FALSE
BABAM1	0.242521	0.33443365	FALSE

BACE1	0.83428	-0.0616062	FALSE
BACE2	0.970226	0.01100111	FALSE
BACH1	0.719353	0.10561062	FALSE
BACH2	0.413341	0.23762391	FALSE
BAD	0.482854	-0.20462059	FALSE
BAG1	0.502271	-0.1958197	FALSE
BAG2	0.223262	0.34763497	FALSE
BAG3	0.008604	0.67106751	FALSE
BAG4	0.517064	0.18921904	FALSE
BAG5	0.893071	0.03960398	FALSE
BAG6	0.934547	-0.02420243	FALSE
BAGE2	0.922677	0.02860288	FALSE
BAHCC1	0.741981	0.09680974	FALSE
BAHD1	0.958324	-0.01540155	FALSE
BAIAP2	0.29867	0.2992301	FALSE
BAIAP2L1	0.226404	0.34543475	FALSE
BAIAP2L2	0.329337	-0.28162833	FALSE
BAIAP3	0.663743	-0.12761284	FALSE
BAK1	0.196209	0.36743697	FALSE
BAK1P1	0.402481	0.24302514	FALSE
BAMBI	0.422298	0.23322346	FALSE
BANF1	0.071888	0.4950498	FALSE
BANF1P2	0.096246	-0.46204648	FALSE
BANF1P3	0.872554	0.04725489	FALSE
BANK1	0.079456	0.4840487	FALSE
BANP	0.094465	0.46424671	FALSE
BAP1	0.245826	0.33223342	FALSE
BARD1	0.810971	-0.07040708	FALSE
BARX2	0.652801	0.13201328	FALSE
BASP1	0.235992	0.33883409	FALSE
BATF	0.934547	0.02420243	FALSE
BATF2	0.002699	0.73585469	TRUE
BATF3	0.517064	-0.18921904	FALSE
BAX	0.141504	0.41364161	FALSE
BAZ1A	0.609698	0.14961505	FALSE
BAZ1B	0.724991	-0.1034104	FALSE
BAZ2A	0.970226	-0.01100111	FALSE
BAZ2B	0.329337	0.28162833	FALSE
BBC3	0.431353	0.22882302	FALSE
BBIP1	0.0779	0.48624892	FALSE
BBOF1	0.151032	-0.40484073	FALSE
BBS1	0.049979	-0.53245357	FALSE
BBS10	0.94643	-0.01980199	FALSE
BBS12	0.787807	-0.07920797	FALSE
BBS2	0.875366	-0.04620465	FALSE
BBS4	0.176678	0.38283852	FALSE
BBS5	0.893071	0.03960398	FALSE
BBS7	0.021269	-0.60726109	FALSE

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BBX	0.294957	-0.30143033	FALSE
BCAM	0.12367	0.43124339	FALSE
BCAN	0.708341	-0.10992302	FALSE
BCAP29	0.119462	0.43564383	FALSE
BCAP31	0.641924	-0.13641372	FALSE
BCAR1	0.000154	0.84274318	TRUE
BCAR3	0.141504	0.41364161	FALSE
BCAS1	0.151032	-0.40484073	FALSE
BCAS2	0.604388	0.15181527	FALSE
BCAS2P1	0.190112	0.37213524	FALSE
BCAS2P2	0.707053	0.11042909	FALSE
BCAS3	0.680272	0.12101217	FALSE
BCAS4	0.78204	0.08140819	FALSE
BCAT1	0.454411	-0.21782191	FALSE
BCAT2	0.793583	0.07700775	FALSE
BCCIP	0.719353	-0.10561062	FALSE
BCDIN3D	0.280376	0.31023121	FALSE
BCKDHA	0.631114	-0.14081417	FALSE
BCKDHB	0.730641	-0.10121018	FALSE
BCKDK	0.027898	0.58525888	FALSE
BCL10	0.08926	0.47084737	FALSE
BCL11A	0.78204	0.08140819	FALSE
BCL11B	0.187678	-0.37403763	FALSE
BCL2	0.349368	-0.27062723	FALSE
BCL2A1	0.620371	0.14521461	FALSE
BCL2L1	0.620371	0.14521461	FALSE
BCL2L10	0.34531	0.27282745	FALSE
BCL2L11	0.269725	0.31683187	FALSE
BCL2L12	0.94643	-0.01980199	FALSE
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BCL2L14	0.064846	-0.50605091	FALSE
BCL2L15	0.29867	-0.2992301	FALSE
BCL2L2	0.562581	0.16941704	FALSE
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BCL3	0.517064	-0.18921904	FALSE
BCL6	0.976179	-0.00880089	FALSE
BCL6B	0.934547	-0.02420243	FALSE
BCL7A	0.166104	-0.3916394	FALSE
BCL7B	0.669238	0.12541262	FALSE
BCL7C	0.325411	-0.28382855	FALSE
BCL9	0.641924	0.13641372	FALSE
BCL9L	0.084258	-0.47744803	FALSE
BCLAF1	0.708117	-0.11001107	FALSE
BCLAF1P1	0.608099	-0.15027707	FALSE
BCLAF1P2	0.291271	-0.30363055	FALSE
BCO2	0.151032	-0.40484073	FALSE
BCOR	0.349368	-0.27062723	FALSE

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BCR	0.00357	-0.7216726	TRUE
BCRP1	0.54838	-0.17551816	FALSE
BCRP2	0.012811	-0.64466486	FALSE
BCRP3	0.138707	-0.41629956	FALSE
BCS1L	0.719353	0.10561062	FALSE
BDH1	0.010201	-0.66006641	FALSE
BDH2	0.822609	0.06600664	FALSE
BDKRB1	0.21706	0.35203542	FALSE
BDKRB2	0.135462	0.41942925	FALSE
BDNF	0.197558	-0.36641008	FALSE
BDP1	0.079456	-0.4840487	FALSE
BEAN1	0.101729	0.45544582	FALSE
BECN1	0.408899	0.23982413	FALSE
BEGAIN	0.70252	0.11221129	FALSE
BEND2	0.857716	-0.05280531	FALSE
BEND3	0.207961	-0.35863608	FALSE
BEND3P1	0.041556	0.55005534	FALSE
BEND3P3	0.599491	0.15385121	FALSE
BEND4	0.724991	-0.1034104	FALSE
BEND5	0.000301	-0.82288279	TRUE
BEND6	0.557442	0.17161727	FALSE
BEND7	0.641924	-0.13641372	FALSE
BEST1	0.816786	0.06820686	FALSE
BEST2	0.527033	-0.18481859	FALSE
BEST3	0.893071	0.03960398	FALSE
BEST4	0.562581	0.16941704	FALSE
BET1	0.542145	0.17821793	FALSE
BET1L	0.887164	0.04180421	FALSE
BEX1	0.28728	0.30603166	FALSE
BEX2	0.382774	0.25302546	FALSE
BEX3	0.177512	0.38215859	FALSE
BEX4	0.096246	-0.46204648	FALSE
BEX5	0.044066	0.54455633	FALSE
BFAR	0.578116	-0.16281638	FALSE
BFSP1	0.240937	-0.33549423	FALSE
BGLAP	0.478056	-0.20682081	FALSE
BGN	0.788403	0.0789806	FALSE
BHLHB9	0.220147	-0.3498352	FALSE
BHLHE22	0.006103	0.6919958	FALSE
BHLHE23	0.109443	-0.44656228	FALSE
BHLHE40	0.527033	-0.18481859	FALSE
BHLHE41	0.583333	-0.16061616	FALSE
BHMG1	0.700963	-0.11282422	FALSE
BHMT	0.866389	0.04955947	FALSE
BHMT2	0.066213	-0.50385069	FALSE
BICC1	0.15845	0.39824006	FALSE

BICD1	0.387065	-0.25082523	FALSE
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BICD2	0.641924	-0.13641372	FALSE
BICDL1	0.680272	0.12101217	FALSE
BICDL2	0.599097	0.15401549	FALSE
BID	0.171338	0.38723896	FALSE
BIK	0.255905	0.32563276	FALSE
BIN1	0.759081	0.09020908	FALSE
BIN2	0.117395	0.43784405	FALSE
BIN2P1	0.316294	0.28899527	FALSE
BIN3	0.357565	0.26622678	FALSE
BIRC2	0.79937	-0.07480753	FALSE
BIRC3	0.096246	0.46204648	FALSE
BIRC5	0.015903	0.62926331	FALSE
BIRC6	0.713728	-0.10781085	FALSE
BIRC6-AS2	0.063475	-0.50829009	FALSE
BIVM	0.70252	-0.11221129	FALSE
BIVM-ERCC	0.816786	0.06820686	FALSE
BLCAP	0.473281	0.20902103	FALSE
BLID	0.725231	-0.10331673	FALSE
BLK	0.724991	-0.1034104	FALSE
BLM	0.229572	0.34323453	FALSE
BLMH	0.730641	-0.10121018	FALSE
BLNK	0.599097	0.15401549	FALSE
BLOC1S1	0.0201	0.61166154	FALSE
BLOC1S2	0.166104	0.3916394	FALSE
BLOC1S3	0.190494	0.37183741	FALSE
BLOC1S4	0.121554	0.43344361	FALSE
BLOC1S5	0.741981	0.09680974	FALSE
BLOC1S5-T	0.054464	-0.52395078	FALSE
BLOC1S6	0.593824	-0.15621572	FALSE
BLVRA	0.583333	0.16061616	FALSE
BLVRB	0.011636	0.65126552	FALSE
BLZF1	0.173995	-0.38503874	FALSE
BLZF2P	0.232769	0.34103431	FALSE
BMF	0.276799	-0.31243143	FALSE
BMI1	0.810971	0.07040708	FALSE
BMP1	0.53205	-0.18261837	FALSE
BMP10	0.86178	0.05128374	FALSE
BMP2	0.013296	0.64207048	FALSE
BMP2K	0.805166	-0.0726073	FALSE
BMP3	0.21706	0.35203542	FALSE
BMP4	0.705005	-0.11123348	FALSE
BMP5	0.045727	-0.54104343	FALSE
BMP6	0.572919	-0.1650166	FALSE
BMP6P1	0.804044	-0.07303297	FALSE
BMP7	0.741981	-0.09680974	FALSE
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BMPPER	0.054568	-0.52375978	FALSE
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BMPPR2	0.431353	0.22882302	FALSE
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BMS1P1	0.070438	-0.49725003	FALSE
BMS1P10	0.920924	0.02925303	FALSE
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BMS1P15	0.665581	-0.12687597	FALSE
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BMS1P17	0.816786	0.06820686	FALSE
BMS1P2	0.333291	-0.27942811	FALSE
BMS1P22	0.214	-0.35423564	FALSE
BMS1P3	0.260228	0.32285015	FALSE
BMS1P4	0.816786	0.06820686	FALSE
BMS1P7	0.282931	-0.30867029	FALSE
BMS1P8	0.730641	-0.10121018	FALSE
BMT2	0.009865	-0.66226663	FALSE
BMX	0.713493	0.10790307	FALSE
BNC2	0.030158	-0.57865822	FALSE
BNIP1	0.620371	0.14521461	FALSE
BNIP2	0.663743	-0.12761284	FALSE
BNIP3	0.625734	0.14301439	FALSE
BNIP3L	0.325411	0.28382855	FALSE
BNIP3P1	0.128411	0.42640586	FALSE
BNIP3P13	0.116805	-0.43847595	FALSE
BNIP3P15	0.761488	-0.08928309	FALSE
BNIP3P28	0.724991	-0.1034104	FALSE
BNIP3P33	0.250822	0.32894167	FALSE
BNIP3P37	0.141504	-0.41364161	FALSE
BNIP3P41	0.357328	0.26635288	FALSE
BNIP3P5	0.649148	-0.13348834	FALSE
BNIPL	0.002753	-0.73487393	TRUE
BOC	0.119462	-0.43564383	FALSE
BOD1	0.609698	-0.14961505	FALSE
BOD1L1	0.291271	-0.30363055	FALSE
BOD1L2	0.032349	-0.57260216	FALSE
BOK	0.828254	0.06387665	FALSE
BOLA1	0.641924	-0.13641372	FALSE
BOLA2	0.593824	-0.15621572	FALSE
BOLA2B	0.370053	0.25962612	FALSE
BOLA2P2	0.428558	0.23017621	FALSE
BOLA2P3	0.319279	0.2872944	FALSE
BOLA3	0.674747	0.1232124	FALSE
BOP1	0.404482	0.24202435	FALSE
BORA	0.741981	-0.09680974	FALSE

BORCS5	0.454411	0.21782191	FALSE
BORCS6	0.663743	0.12761284	FALSE
BORCS7	0.306176	0.29482966	FALSE
BORCS7-AS	0.958578	-0.01530764	FALSE
BORCS8	0.010901	0.65566596	FALSE
BORCS8-MI	0.333291	-0.27942811	FALSE
bP-21201H	0.245826	0.33223342	FALSE
bP-21264C	0.09862	0.45915763	FALSE
bP-2171C2	0.806406	0.07213698	FALSE
bP-218909	0.031454	0.57503876	FALSE
BPGM	0.517064	0.18921904	FALSE
BPHL	0.269725	0.31683187	FALSE
BPI	0.113334	0.44224449	FALSE
BPIFA3	0.517926	0.18883688	FALSE
BPIFB1	0.404482	-0.24202435	FALSE
BPNT1	0.148612	-0.40704095	FALSE
BPTF	0.370053	-0.25962612	FALSE
BRAF	0.357565	-0.26622678	FALSE
BRAFP1	0.7596	0.09000931	FALSE
BRAP	0.333291	-0.27942811	FALSE
BRAT1	0.887164	0.04180421	FALSE
BRCA1	0.101729	0.45544582	FALSE
BRCA2	0.845984	-0.05720576	FALSE
BRCC3	0.741981	-0.09680974	FALSE
BRCC3P1	0.92861	-0.02640266	FALSE
BRD1	0.636511	0.13861395	FALSE
BRD2	0.497383	-0.19801992	FALSE
BRD3	0.012811	-0.64466486	FALSE
BRD4	0.988088	0.00440044	FALSE
BRD7	0.317637	-0.288229	FALSE
BRD7P2	0.441037	0.22416765	FALSE
BRD7P4	0.315153	-0.28964758	FALSE
BRD8	0.007471	-0.6798684	FALSE
BRD9	0.822609	0.06600664	FALSE
BRDT	0.223262	0.34763497	FALSE
BRE	0.29867	0.2992301	FALSE
BRF1	0.099878	-0.45764604	FALSE
BRF2	0.680272	0.12101217	FALSE
BRI3	0.132385	0.4224425	FALSE
BRI3BP	0.759081	0.09020908	FALSE
BRI3BPP1	0.916443	0.03091585	FALSE
BRICD5	0.647355	0.1342135	FALSE
BRINP2	0.699815	0.11327651	FALSE
BRIP1	0.810971	0.07040708	FALSE
BRIX1	0.663743	-0.12761284	FALSE
BRK1	0.387065	0.25082523	FALSE
BRMS1	0.426813	-0.23102324	FALSE
BRMS1L	0.199106	-0.36523674	FALSE

BROX	0.845984	0.05720576	FALSE
BRPF1	0.572919	-0.1650166	FALSE
BRPF3	0.09805	-0.45984626	FALSE
BRS3	0.906957	0.03443891	FALSE
BRSK1	0.669238	0.12541262	FALSE
BRSK2	0.730355	0.10132159	FALSE
BRWD1	0.084258	-0.47744803	FALSE
BRWD3	0.052265	-0.52805312	FALSE
BSCCL2	0.31379	-0.29042922	FALSE
BSDC1	0.378508	-0.25522568	FALSE
BSG	0.022488	0.60286065	FALSE
BSN	0.810971	0.07040708	FALSE
BSND	0.252518	-0.32783298	FALSE
BSPRY	0.119462	-0.43564383	FALSE
BST1	0.160975	0.39603984	FALSE
BST2	0.242521	0.33443365	FALSE
BTAF1	0.615026	0.14741483	FALSE
BTBD1	1	0	FALSE
BTBD10	0.502271	-0.1958197	FALSE
BTBD10P2	0.29867	-0.2992301	FALSE
BTBD11	0.674747	-0.1232124	FALSE
BTBD18	0.433345	0.22786127	FALSE
BTBD19	0.976179	0.00880089	FALSE
BTBD2	0.952376	-0.01760177	FALSE
BTBD3	0.353453	-0.26842701	FALSE
BTBD6	0.02939	0.58085844	FALSE
BTBD6P1	0.092707	0.46644693	FALSE
BTBD7	0.232769	0.34103431	FALSE
BTBD7P1	0.881262	0.04400443	FALSE
BTBD8	0.025766	-0.59185954	FALSE
BTBD9	0.652801	0.13201328	FALSE
BTD	0.92861	0.02640266	FALSE
BTF3	0.08757	-0.47304759	FALSE
BTF3L4	0.187678	-0.37403763	FALSE
BTF3L4P2	0.262761	0.32123232	FALSE
BTF3P6	0.210429	0.35682819	FALSE
BTF3P7	0.16622	0.3915405	FALSE
BTG1	0.220147	0.3498352	FALSE
BTG1P1	0.941153	-0.0217556	FALSE
BTG2	0.34531	0.27282745	FALSE
BTG3	0.333291	-0.27942811	FALSE
BTK	0.204983	0.3608363	FALSE
BTLA	0.426813	0.23102324	FALSE
BTN1A1	0.007779	-0.67737617	FALSE
BTN2A1	0.94643	-0.01980199	FALSE
BTN2A2	0.242521	0.33443365	FALSE
BTN2A3P	0.776284	0.08360841	FALSE
BTN3A1	0.220147	-0.3498352	FALSE

BTN3A2	0.952376	-0.01760177	FALSE
BTN3A3	0.759081	-0.09020908	FALSE
BTNL2	0.701079	0.11277864	FALSE
BTNL3	0.773646	0.08461817	FALSE
BTNL8	0.609698	-0.14961505	FALSE
BTNL9	0.893071	0.03960398	FALSE
BTRC	0.0779	-0.48624892	FALSE
BUB1	0.562581	-0.16941704	FALSE
BUB1B	0.881262	0.04400443	FALSE
BUB1B-PAK	0.499532	0.19705121	FALSE
BUB3	0.220147	0.3498352	FALSE
BUD13	0.071888	-0.4950498	FALSE
BUD13P1	0.781806	-0.0814978	FALSE
BUD31	0.404482	-0.24202435	FALSE
BVES	0.001485	0.76347681	TRUE
BX004987.	0.350857	0.26982379	FALSE
BYSL	0.361702	0.26402656	FALSE
BZW1	0.719353	0.10561062	FALSE
BZW1P1	0.707053	0.11042909	FALSE
BZW1P2	0.863593	0.05060509	FALSE
BZW2	0.669238	0.12541262	FALSE
C10orf10	0.669238	-0.12541262	FALSE
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C10orf128	0.048864	0.53465379	FALSE
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C10orf71	0.829418	-0.06343799	FALSE
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C10orf82	0.119462	0.43564383	FALSE
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C10orf95	0.625734	-0.14301439	FALSE
C11orf1	0.055836	-0.52145246	FALSE
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C11orf24	0.976179	0.00880089	FALSE
C11orf31	0.753369	0.0924093	FALSE
C11orf45	0.719353	-0.10561062	FALSE
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C11orf65	0.845816	0.05726872	FALSE
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C12orf42	0.387065	-0.25082523	FALSE
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C12orf66	0.641924	-0.13641372	FALSE
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C14orf1	0.994044	-0.00220022	FALSE
C14orf105	0.117395	-0.43784405	FALSE
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C14orf159	0.294957	-0.30143033	FALSE
C14orf166	0.016388	-0.62706309	FALSE
C14orf169	0.708117	0.11001107	FALSE
C14orf178	0.184888	0.37623785	FALSE
C14orf2	0.636511	-0.13861395	FALSE
C14orf28	0.473281	-0.20902103	FALSE
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C14orf39	0.058267	0.51712991	FALSE
C14orf79	0.910821	0.03300332	FALSE
C14orf80	0.242521	0.33443365	FALSE
C14orf93	0.793583	-0.07700775	FALSE
C15orf38-A	0.036852	0.56105645	FALSE
C15orf39	0.934547	0.02420243	FALSE
C15orf40	0.006222	0.6908695	FALSE

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C15orf48	0.008309	0.67326773	FALSE
C15orf52	0.994044	-0.00220022	FALSE
C15orf57	0.060866	0.51265158	FALSE
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C15orf61	0.03596	0.56325667	FALSE
C15orf62	0.522038	0.18701882	FALSE
C15orf65	0.482854	-0.20462059	FALSE
C16orf45	0.851846	0.05500553	FALSE
C16orf46	0.387065	-0.25082523	FALSE
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C16orf96	0.09805	0.45984626	FALSE
C17orf100	0.15845	0.39824006	FALSE
C17orf105	0.741981	0.09680974	FALSE
C17orf107	0.674747	0.1232124	FALSE
C17orf47	0.881132	0.04405286	FALSE
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C17orf51	0.329337	0.28162833	FALSE
C17orf53	0.273248	0.31463165	FALSE
C17orf58	0.101729	0.45544582	FALSE
C17orf62	0.139186	0.41584184	FALSE
C17orf64	0.385936	-0.25140303	FALSE
C17orf67	0.92861	-0.02640266	FALSE
C17orf74	0.98728	-0.00469911	FALSE
C17orf75	0.431353	0.22882302	FALSE
C17orf80	0.193338	-0.36963719	FALSE
C17orf89	0.048864	0.53465379	FALSE
C17orf96	0.291271	0.30363055	FALSE
C17orf97	0.910821	-0.03300332	FALSE
C17orf98	0.325411	-0.28382855	FALSE
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C19orf12	0.647355	0.1342135	FALSE
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C19orf24	0.117395	0.43784405	FALSE
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C19orf33	0.335049	0.27845457	FALSE
C19orf35	0.173995	0.38503874	FALSE
C19orf38	0.160975	0.39603984	FALSE
C19orf43	0.130169	-0.42464272	FALSE
C19orf44	0.487675	-0.20242036	FALSE
C19orf45	0.578116	-0.16281638	FALSE
C19orf47	0.557442	0.17161727	FALSE
C19orf48	0.922677	0.02860288	FALSE
C19orf52	0.641924	-0.13641372	FALSE
C19orf53	0.15845	0.39824006	FALSE
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C19orf60	0.166104	0.3916394	FALSE
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C19orf67	0.184008	-0.37693547	FALSE
C19orf68	1	0	FALSE
C19orf70	0.03596	0.56325667	FALSE
C19orf71	0.204983	-0.3608363	FALSE
C19orf73	0.719353	0.10561062	FALSE
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C19orf84	0.527033	0.18481859	FALSE
C1D	0.631114	0.14081417	FALSE
C1DP1	0.81697	0.0681371	FALSE
C1GALT1	0.199106	0.36523674	FALSE
C1GALT1C1	0.663743	0.12761284	FALSE
C1GALT1C1	0.707053	0.11042909	FALSE
C1GALT1P1	0.117649	-0.43757146	FALSE
C1orf101	0.0201	-0.61166154	FALSE
C1orf105	0.841903	0.05873888	FALSE
C1orf106	0.259319	-0.32343254	FALSE
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C1orf112	0.32151	-0.28602878	FALSE
C1orf115	0.741981	-0.09680974	FALSE
C1orf116	0.283981	-0.30803099	FALSE
C1orf122	0.010901	0.65566596	FALSE
C1orf123	0.747669	0.09460952	FALSE
C1orf127	0.387065	0.25082523	FALSE
C1orf131	0.893071	0.03960398	FALSE
C1orf141	0.187678	0.37403763	FALSE
C1orf146	0.445116	0.22222236	FALSE
C1orf158	0.822609	0.06600664	FALSE
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C1orf162	0.171338	0.38723896	FALSE
C1orf167	0.063499	0.50825113	FALSE
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C1orf174	0.245826	-0.33223342	FALSE
C1orf186	0.024415	-0.59625999	FALSE
C1orf189	0.840128	0.05940598	FALSE
C1orf198	0.094465	0.46424671	FALSE
C1orf204	0.191586	-0.3709902	FALSE
C1orf21	0.052265	-0.52805312	FALSE
C1orf210	0.805166	-0.0726073	FALSE
C1orf216	0.547224	-0.17601771	FALSE
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C1orf228	0.970226	-0.01100111	FALSE
C1orf234	0.025084	-0.59405977	FALSE
C1orf27	0.049979	-0.53245357	FALSE
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C1orf50	0.242521	-0.33443365	FALSE
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C1orf56	0.970226	-0.01100111	FALSE
C1orf61	0.691367	-0.11661173	FALSE
C1orf64	0.404482	0.24202435	FALSE
C1orf74	0.210967	0.35643586	FALSE
C1orf87	0.055174	0.52265176	FALSE
C1QA	0.645887	0.13480737	FALSE
C1QB	0.512304	0.19133328	FALSE
C1QBP	0.283981	-0.30803099	FALSE
C1QC	0.783087	0.08100838	FALSE
C1QL3	0.251965	0.32819383	FALSE
C1QL4	0.428609	0.23015133	FALSE
C1QTNF1	0.578116	-0.16281638	FALSE
C1QTNF2	0.249158	0.3300332	FALSE
C1QTNF3	0.036852	-0.56105645	FALSE
C1QTNF3-A	0.090569	-0.469163	FALSE
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C1QTNF5	0.778715	0.08267883	FALSE
C1QTNF6	0.857716	-0.05280531	FALSE
C1QTNF7	0.595	-0.15572428	FALSE
C1QTNF9	0.50718	-0.19361948	FALSE
C1R	0.306176	0.29482966	FALSE
C1RL	0.160975	0.39603984	FALSE
C1S	0.255905	-0.32563276	FALSE
C2	0.053437	0.5258529	FALSE
C20orf144	0.940487	0.02200221	FALSE
C20orf173	0.630724	-0.1409733	FALSE
C20orf194	0.527033	0.18481859	FALSE

C20orf196	0.674747	0.1232124	FALSE
C20orf202	0.117649	-0.43757146	FALSE
C20orf203	0.958278	0.0154185	FALSE
C20orf24	0.669238	-0.12541262	FALSE
C20orf27	0.09805	0.45984626	FALSE
C20orf96	0.027898	-0.58525888	FALSE
C21orf2	0.273248	-0.31463165	FALSE
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C21orf58	0.445116	0.22222236	FALSE
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C22orf15	0.647355	0.1342135	FALSE
C22orf23	0.207961	0.35863608	FALSE
C22orf29	0.658264	-0.12981306	FALSE
C22orf39	0.724991	-0.1034104	FALSE
C22orf42	0.584355	0.160186	FALSE
C22orf46	0.647355	-0.1342135	FALSE
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C2CD2L	0.440504	-0.22442258	FALSE
C2CD3	0.291271	-0.30363055	FALSE
C2CD4A	0.625734	-0.14301439	FALSE
C2CD4B	0.33027	0.28110803	FALSE
C2CD4C	0.877325	-0.04547336	FALSE
C2CD4D	0.299935	0.2984841	FALSE
C2CD5	0.382774	-0.25302546	FALSE
C2orf15	0.259319	-0.32343254	FALSE
C2orf27A	0.078432	0.48549335	FALSE
C2orf40	0.718089	-0.1061045	FALSE
C2orf42	0.562581	-0.16941704	FALSE
C2orf47	0.753369	-0.0924093	FALSE
C2orf49	0.096246	-0.46204648	FALSE
C2orf50	0.092707	0.46644693	FALSE
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C2orf61	0.361702	-0.26402656	FALSE
C2orf66	0.701258	0.1127078	FALSE
C2orf68	0.741981	-0.09680974	FALSE
C2orf69	0.043556	0.5456549	FALSE
C2orf72	0.002321	0.7431645	TRUE
C2orf74	0.090972	-0.46864715	FALSE
C2orf76	0.713728	0.10781085	FALSE
C2orf78	0.366395	-0.26154706	FALSE
C2orf80	0.713728	0.10781085	FALSE
C2orf81	0.793583	-0.07700775	FALSE
C2orf82	0.081035	-0.48184848	FALSE
C2orf83	0.094465	-0.46424671	FALSE
C2orf88	0.696936	0.11441151	FALSE
C2orf91	0.904899	-0.03520354	FALSE
C3	0.445116	0.22222236	FALSE

C3AR1	0.269725	0.31683187	FALSE
C3orf14	0.394678	0.24695342	FALSE
C3orf18	0.940487	-0.02200221	FALSE
C3orf20	0.280376	-0.31023121	FALSE
C3orf33	0.005345	-0.69967039	FALSE
C3orf38	0.459093	0.21562169	FALSE
C3orf49	0.752309	-0.09281819	FALSE
C3orf52	0.210967	-0.35643586	FALSE
C3orf58	0.730641	-0.10121018	FALSE
C3orf62	0.245826	-0.33223342	FALSE
C3orf67	0.012811	0.64466486	FALSE
C3orf70	0.361702	-0.26402656	FALSE
C3orf80	0.487675	-0.20242036	FALSE
C4A	0.875366	0.04620465	FALSE
C4B	0.085903	-0.47524781	FALSE
C4BPA	0.026463	0.58965932	FALSE
C4BPB	0.408899	0.23982413	FALSE
C4orf17	0.119462	-0.43564383	FALSE
C4orf19	0.497383	-0.19801992	FALSE
C4orf22	0.395723	0.24642479	FALSE
C4orf26	0.696936	-0.11441151	FALSE
C4orf3	0.134627	0.42024228	FALSE
C4orf32	0.502271	0.1958197	FALSE
C4orf33	0.000543	0.80308079	TRUE
C4orf36	0.940487	0.02200221	FALSE
C4orf46	0.365865	0.26182634	FALSE
C4orf47	0.822609	0.06600664	FALSE
C4orf48	0.107424	0.44884516	FALSE
C4orf50	0.214524	-0.35385779	FALSE
C5	0.741981	0.09680974	FALSE
C5AR1	0.537087	0.18041815	FALSE
C5AR2	0.512111	0.19141926	FALSE
C5orf15	0.537087	-0.18041815	FALSE
C5orf22	0.631114	0.14081417	FALSE
C5orf24	0.374268	-0.2574259	FALSE
C5orf30	0.875366	-0.04620465	FALSE
C5orf34	0.395723	-0.24642479	FALSE
C5orf38	0.81095	-0.07041513	FALSE
C5orf42	0.00357	-0.7216726	TRUE
C5orf45	0.958324	-0.01540155	FALSE
C5orf49	0.030146	0.57869367	FALSE
C5orf51	0.910821	-0.03300332	FALSE
C5orf52	0.524286	0.18602737	FALSE
C5orf58	0.148337	0.40729213	FALSE
C5orf60	0.349368	-0.27062723	FALSE
C5orf63	0.014967	0.63366375	FALSE
C6orf1	0.092707	0.46644693	FALSE
C6orf106	0.252518	0.32783298	FALSE

C6orf120	0.245826	0.33223342	FALSE
C6orf132	0.578116	0.16281638	FALSE
C6orf136	0.29867	-0.2992301	FALSE
C6orf141	0.426813	0.23102324	FALSE
C6orf163	0.78204	-0.08140819	FALSE
C6orf203	0.904899	0.03520354	FALSE
C6orf222	0.653888	-0.13157508	FALSE
C6orf223	0.030035	0.57900871	FALSE
C6orf226	0.306176	0.29482966	FALSE
C6orf229	0.16229	0.39490299	FALSE
C6orf25	0.482854	0.20462059	FALSE
C6orf47	0.210967	0.35643586	FALSE
C6orf48	0.449752	-0.22002214	FALSE
C6orf52	0.946194	-0.01988961	FALSE
C6orf58	0.243588	-0.33372084	FALSE
C6orf62	0.615026	0.14741483	FALSE
C6orf89	0.079456	0.4840487	FALSE
C7	0.857561	-0.05286344	FALSE
C7orf25	0.009218	-0.66666707	FALSE
C7orf26	0.283981	-0.30803099	FALSE
C7orf31	0.121554	-0.43344361	FALSE
C7orf43	0.473281	-0.20902103	FALSE
C7orf49	0.593824	0.15621572	FALSE
C7orf50	0.014515	0.63586397	FALSE
C7orf55-LU	0.353453	0.26842701	FALSE
C7orf57	0.502271	0.1958197	FALSE
C7orf61	0.199106	-0.36523674	FALSE
C7orf73	0.291271	0.30363055	FALSE
C8G	0.179388	0.38063829	FALSE
C8orf33	0.50718	0.19361948	FALSE
C8orf34	0.076365	-0.48844914	FALSE
C8orf37	0.023759	-0.59846021	FALSE
C8orf44	0.958324	-0.01540155	FALSE
C8orf44-SG	0.647355	-0.1342135	FALSE
C8orf46	0.309969	0.29262944	FALSE
C8orf48	0.020761	0.60915123	FALSE
C8orf58	0.34531	-0.27282745	FALSE
C8orf59	0.658264	0.12981306	FALSE
C8orf74	0.910821	0.03300332	FALSE
C8orf76	0.482854	-0.20462059	FALSE
C8orf82	0.015903	0.62926331	FALSE
C8orf86	0.753369	0.0924093	FALSE
C8orf88	0.83428	-0.0616062	FALSE
C9	0.816786	-0.06820686	FALSE
C9orf116	0.176678	0.38283852	FALSE
C9orf131	0.130169	0.42464272	FALSE
C9orf142	0.502271	0.1958197	FALSE
C9orf152	0.934547	0.02420243	FALSE

C9orf153	0.875366	0.04620465	FALSE
C9orf16	0.898983	0.03740376	FALSE
C9orf172	0.223262	-0.34763497	FALSE
C9orf24	0.429261	0.22983552	FALSE
C9orf3	0.378508	0.25522568	FALSE
C9orf40	0.302409	0.29702988	FALSE
C9orf43	0.492518	-0.20022014	FALSE
C9orf47	0.898983	0.03740376	FALSE
C9orf50	0.497227	-0.19809045	FALSE
C9orf64	0.006222	0.6908695	FALSE
C9orf66	0.139186	0.41584184	FALSE
C9orf69	0.387065	0.25082523	FALSE
C9orf72	0.232769	0.34103431	FALSE
C9orf78	0.294957	-0.30143033	FALSE
C9orf84	0.980214	0.00730981	FALSE
C9orf85	0.08757	-0.47304759	FALSE
CA1	0.306176	0.29482966	FALSE
CA11	0.31379	0.29042922	FALSE
CA12	0.988088	0.00440044	FALSE
CA13	0.001811	0.75467592	TRUE
CA14	0.92861	0.02640266	FALSE
CA15P1	0.187678	-0.37403763	FALSE
CA15P2	0.502381	-0.19577025	FALSE
CA2	0.370053	0.25962612	FALSE
CA3	0.255351	0.32599119	FALSE
CA4	0.811831	-0.07008138	FALSE
CA5A	0.21706	-0.35203542	FALSE
CA5B	0.527033	0.18481859	FALSE
CA5BP1	0.269725	0.31683187	FALSE
CA6	0.609698	0.14961505	FALSE
CA8	0.524069	0.18612335	FALSE
CAAP1	0.082635	-0.47964826	FALSE
CAB39	0.32151	0.28602878	FALSE
CAB39L	0.53205	0.18261837	FALSE
CABIN1	0.03596	-0.56325667	FALSE
CABLES1	0.001725	-0.75687615	TRUE
CABLES2	0.863593	0.05060509	FALSE
CABP1	0.770539	-0.08580863	FALSE
CABP4	0.107424	-0.44884516	FALSE
CABP5	0.737149	0.0986825	FALSE
CABP7	0.452367	-0.21878573	FALSE
CABYR	0.497383	-0.19801992	FALSE
CACFD1	0.31379	0.29042922	FALSE
CACHD1	0.060866	0.51265158	FALSE
CACNA1A	0.294957	0.30143033	FALSE
CACNA1B	0.511638	-0.19162996	FALSE
CACNA1C	0.005992	-0.69306973	FALSE
CACNA1D	0.552323	-0.17381749	FALSE

CACNA1E	0.576412	0.16353681	FALSE
CACNA1F	0.193338	0.36963719	FALSE
CACNA1G	0.105502	-0.45104538	FALSE
CACNA1H	0.431353	-0.22882302	FALSE
CACNA1I	0.060534	-0.51321586	FALSE
CACNA2D1	0.590715	-0.15751629	FALSE
CACNA2D2	0.29867	-0.2992301	FALSE
CACNA2D3	0.136375	0.4185433	FALSE
CACNA2D4	0.155952	-0.40044029	FALSE
CACNB1	0.840128	-0.05940598	FALSE
CACNB2	0.625734	-0.14301439	FALSE
CACNB3	0.085903	-0.47524781	FALSE
CACNB4	0.863593	0.05060509	FALSE
CACNG2	0.582913	-0.16079295	FALSE
CACNG3	0.168198	-0.38986784	FALSE
CACNG4	0.35583	0.26715324	FALSE
CACNG6	0.676183	0.12264027	FALSE
CACNG7	0.35616	-0.26697667	FALSE
CACNG8	0.92861	0.02640266	FALSE
CACTIN	0.816786	-0.06820686	FALSE
CACUL1	0.56774	-0.16721682	FALSE
CACYBP	0.952376	0.01760177	FALSE
CAD	0.898983	-0.03740376	FALSE
CADM1	0.038684	0.556656	FALSE
CADM4	0.262761	-0.32123232	FALSE
CADPS	0.143848	-0.41144139	FALSE
CADPS2	0.317637	-0.288229	FALSE
CAGE1	0.970226	0.01100111	FALSE
CALB1	0.130169	-0.42464272	FALSE
CALB2	0.624981	-0.14332286	FALSE
CALCA	0.291727	0.30335731	FALSE
CALCB	0.280376	-0.31023121	FALSE
CALCOCO1	0.53205	-0.18261837	FALSE
CALCOCO2	0.454411	-0.21782191	FALSE
CALCRL	0.01898	0.61606198	FALSE
CALD1	0.349368	-0.27062723	FALSE
CALHM1	0.269725	0.31683187	FALSE
CALHM2	0.357565	0.26622678	FALSE
CALHM3	0.05934	0.51526417	FALSE
CALM1	0.168708	0.38943918	FALSE
CALM2	0.82844	0.06380642	FALSE
CALM2P2	0.265547	0.31946379	FALSE
CALM2P3	0.211422	0.3561048	FALSE
CALM3	0.291271	0.30363055	FALSE
CALML4	0.78204	-0.08140819	FALSE
CALML6	0.265547	0.31946379	FALSE
CALN1	0.413341	-0.23762391	FALSE
CALR	0.21706	-0.35203542	FALSE

CALR3	0.827649	-0.06410467	FALSE
CALU	0.79937	-0.07480753	FALSE
CALY	0.127285	-0.42754423	FALSE
CAMK1	0.002633	0.73707415	TRUE
CAMK1D	0.764804	-0.08800885	FALSE
CAMK1G	0.145106	0.4102699	FALSE
CAMK2A	0.287612	-0.30583077	FALSE
CAMK2B	0.40009	0.24422457	FALSE
CAMK2D	0.099878	0.45764604	FALSE
CAMK2G	0.787807	-0.07920797	FALSE
CAMK2N1	0.685812	0.11881195	FALSE
CAMK2N2	0.88591	-0.04227131	FALSE
CAMK4	0.562581	0.16941704	FALSE
CAMKK1	0.851846	-0.05500553	FALSE
CAMKK2	0.333291	0.27942811	FALSE
CAMKMT	0.636511	-0.13861395	FALSE
CAMKV	0.970226	-0.01100111	FALSE
CAMLG	0.006222	-0.6908695	FALSE
CAMP	0.143363	0.41189427	FALSE
CAMSAP1	0.004213	0.71287172	TRUE
CAMSAP2	0.370053	-0.25962612	FALSE
CAMSAP3	0.64699	0.13436123	FALSE
CAMTA1	0.636511	-0.13861395	FALSE
CAMTA2	0.08757	0.47304759	FALSE
CAND1	0.449752	-0.22002214	FALSE
CAND2	0.322901	0.28524229	FALSE
CANT1	0.269725	0.31683187	FALSE
CANX	0.333291	-0.27942811	FALSE
CAP1	0.107424	0.44884516	FALSE
CAP1P2	0.987818	0.00450047	FALSE
CAP2	0.443307	0.22308426	FALSE
CAP2P1	0.724991	-0.1034104	FALSE
CAPG	0.249158	0.3300332	FALSE
CAPN1	0.588569	0.15841594	FALSE
CAPN10	0.431353	-0.22882302	FALSE
CAPN11	0.349368	-0.27062723	FALSE
CAPN12	0.252518	0.32783298	FALSE
CAPN13	0.10156	-0.45564512	FALSE
CAPN14	0.869477	-0.04840487	FALSE
CAPN15	0.770539	-0.08580863	FALSE
CAPN2	0.023117	0.60066043	FALSE
CAPN3	0.578116	0.16281638	FALSE
CAPN5	0.283981	-0.30803099	FALSE
CAPN6	0.280835	0.3099502	FALSE
CAPN7	0.173995	-0.38503874	FALSE
CAPN8	0.306176	-0.29482966	FALSE
CAPNS1	0.317637	0.288229	FALSE
CAPNS2	0.196975	0.36685284	FALSE

CAPRIN1	0.893071	0.03960398	FALSE
CAPRIN2	0.593824	0.15621572	FALSE
CAPS	0.557442	0.17161727	FALSE
CAPS2	0.857716	0.05280531	FALSE
CAPSL	0.264048	-0.32041355	FALSE
CAPZA1	0.066213	0.50385069	FALSE
CAPZA2	0.235992	0.33883409	FALSE
CAPZB	0.030941	0.57645799	FALSE
CARD10	0.03596	0.56325667	FALSE
CARD11	0.413341	-0.23762391	FALSE
CARD14	0.916747	-0.0308031	FALSE
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CARD19	0.130169	0.42464272	FALSE
CARD6	0.970226	0.01100111	FALSE
CARD8	0.030158	0.57865822	FALSE
CARD9	0.062172	0.51045135	FALSE
CARF	0.916747	0.0308031	FALSE
CARHSP1	0.764804	0.08800885	FALSE
CARM1	0.196209	0.36743697	FALSE
CARM1P1	0.571195	-0.16574802	FALSE
CARMIL1	0.062172	0.51045135	FALSE
CARMIL2	0.615026	-0.14741483	FALSE
CARMIL3	0.736305	0.09900996	FALSE
CARNMT1	0.033381	-0.56985733	FALSE
CARNS1	0.378508	-0.25522568	FALSE
CARS	0.522038	0.18701882	FALSE
CARS2	0.239243	-0.33663387	FALSE
CASC1	0.904899	-0.03520354	FALSE
CASC10	0.014515	0.63586397	FALSE
CASC3	0.459093	-0.21562169	FALSE
CASC4	0.468529	-0.21122125	FALSE
CASC4P1	0.350479	-0.27002793	FALSE
CASD1	0.066213	-0.50385069	FALSE
CASK	0.064846	-0.50605091	FALSE
CASKIN1	0.770539	0.08580863	FALSE
CASKIN2	0.063499	-0.50825113	FALSE
CASP1	0.027898	0.58525888	FALSE
CASP10	0.014074	0.63806419	FALSE
CASP12	0.459055	-0.21563954	FALSE
CASP14	0.12367	-0.43124339	FALSE
CASP16P	0.365865	-0.26182634	FALSE
CASP1P2	0.678216	0.12183025	FALSE
CASP2	0.079456	-0.4840487	FALSE
CASP3	0.317637	0.288229	FALSE
CASP4	0.287612	-0.30583077	FALSE
CASP5	0.845984	-0.05720576	FALSE
CASP6	0.857716	-0.05280531	FALSE
CASP7	0.34531	-0.27282745	FALSE

CASP8	0.004213	-0.71287172	TRUE
CASP8AP2	0.631114	-0.14081417	FALSE
CASP9	0.01898	0.61606198	FALSE
CASQ1	0.372083	-0.25856496	FALSE
CASQ2	0.78204	0.08140819	FALSE
CASS4	0.223262	-0.34763497	FALSE
CAST	0.008309	0.67326773	FALSE
CASZ1	0.259319	-0.32343254	FALSE
CAT	0.039624	0.55445578	FALSE
CATIP	0.759081	0.09020908	FALSE
CATSPER1	0.357565	0.26622678	FALSE
CATSPER2	0.770539	-0.08580863	FALSE
CATSPER2P	0.719353	0.10561062	FALSE
CATSPER3	0.964274	-0.01320133	FALSE
CATSPERB	0.636511	0.13861395	FALSE
CATSPERD	0.468529	-0.21122125	FALSE
CATSPERG	0.353453	0.26842701	FALSE
CAV1	0.055836	0.52145246	FALSE
CAV2	0.067601	0.50165047	FALSE
CBARP	0.454411	0.21782191	FALSE
CBFA2T2	0.404482	-0.24202435	FALSE
CBFA2T3	0.103603	-0.4532456	FALSE
CBFB	0.468529	-0.21122125	FALSE
CBL	0.517064	-0.18921904	FALSE
CBLB	0.492518	-0.20022014	FALSE
CBLL1	0.82844	0.06380642	FALSE
CBLN1	0.065402	-0.50515201	FALSE
CBLN2	0.822416	-0.0660793	FALSE
CBLN3	0.220147	0.3498352	FALSE
CBR1	0.014074	0.63806419	FALSE
CBR3	0.440504	0.22442258	FALSE
CBR4	0.395723	0.24642479	FALSE
CBS	0.647355	0.1342135	FALSE
CBSL	0.725067	0.10338042	FALSE
CBWD1	0.070438	0.49725003	FALSE
CBWD2	0.696936	0.11441151	FALSE
CBWD3	0.964274	-0.01320133	FALSE
CBWD5	0.325411	0.28382855	FALSE
CBWD7	0.025766	-0.59185954	FALSE
CBX1	0.691367	-0.11661173	FALSE
CBX1P3	0.420186	0.23425669	FALSE
CBX2	0.008022	-0.67546796	FALSE
CBX3	0.223262	0.34763497	FALSE
CBX3P2	0.988088	-0.00440044	FALSE
CBX3P4	0.615026	-0.14741483	FALSE
CBX3P9	0.542942	-0.17787216	FALSE
CBX4	0.134627	-0.42024228	FALSE
CBX5	0.641924	-0.13641372	FALSE

CBX6	0.593824	0.15621572	FALSE
CBX7	0.970226	0.01100111	FALSE
CBX8	0.652801	0.13201328	FALSE
CBY1	0.988088	-0.00440044	FALSE
CC2D1A	0.249158	0.3300332	FALSE
CC2D1B	0.15845	0.39824006	FALSE
CC2D2A	0.56774	0.16721682	FALSE
CC2D2B	0.730641	0.10121018	FALSE
CCAR1	0.121554	-0.43344361	FALSE
CCAR2	0.583333	-0.16061616	FALSE
CCBE1	0.747669	-0.09460952	FALSE
CCDC102A	0.588569	-0.15841594	FALSE
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CCDC103	0.139186	0.41584184	FALSE
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CCDC144A	0.78204	-0.08140819	FALSE
CCDC144B	0.663743	0.12761284	FALSE
CCDC144C	0.593824	-0.15621572	FALSE
CCDC144N	0.198575	-0.36563877	FALSE
CCDC146	0.522038	-0.18701882	FALSE
CCDC148	0.50718	0.19361948	FALSE
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CCDC15	0.78204	0.08140819	FALSE

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CCDC158	0.970226	-0.01100111	FALSE
CCDC159	0.01898	0.61606198	FALSE
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CCDC162P	0.92861	-0.02640266	FALSE
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CCDC169	0.857716	0.05280531	FALSE
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CCDC187	0.473041	-0.20913173	FALSE
CCDC188	0.110466	-0.44541725	FALSE
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CCDC97	0.032552	0.57205755	FALSE
CCER2	0.658264	0.12981306	FALSE
CCHCR1	0.378508	-0.25522568	FALSE
CCIN	0.021269	-0.60726109	FALSE
CCL1	0.225881	-0.34579951	FALSE
CCL15	0.191222	-0.37127276	FALSE
CCL16	0.40009	0.24422457	FALSE
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CCL2	0.857716	0.05280531	FALSE
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CCL28	0.081035	0.48184848	FALSE
CCL3	0.053437	0.5258529	FALSE
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CCL5	0.063499	0.50825113	FALSE
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CCM2	0.055836	-0.52145246	FALSE
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CCNA1	0.139186	-0.41584184	FALSE
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CCNB1	0.958324	-0.01540155	FALSE
CCNB1IP1	0.084258	-0.47744803	FALSE
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CCNB2	0.283981	0.30803099	FALSE
CCNB3	0.660649	0.12885463	FALSE
CCNB3P1	0.512111	-0.19141926	FALSE
CCNC	0.081035	-0.48184848	FALSE
CCND1	0.934547	-0.02420243	FALSE
CCND2	0.003007	-0.73047349	TRUE
CCND3	0.153479	0.40264051	FALSE
CCNDBP1	0.34531	0.27282745	FALSE
CCNE1	0.83428	0.0616062	FALSE
CCNE2	0.171338	-0.38723896	FALSE
CCNF	0.94643	-0.01980199	FALSE

CCNG1	0.171338	-0.38723896	FALSE
CCNG2	0.163526	-0.39383962	FALSE
CCNH	0.857716	-0.05280531	FALSE
CCNI	0.417807	-0.23542368	FALSE
CCNI2	0.12367	0.43124339	FALSE
CCNJ	0.708117	-0.11001107	FALSE
CCNJL	0.287612	-0.30583077	FALSE
CCNK	0.497383	0.19801992	FALSE
CCNL1	0.473281	-0.20902103	FALSE
CCNL2	0.82844	-0.06380642	FALSE
CCNL2P1	0.0779	-0.48624892	FALSE
CCNT1	0.269725	-0.31683187	FALSE
CCNT2	0.232769	-0.34103431	FALSE
CCNY	0.658264	-0.12981306	FALSE
CCNYL1	0.163526	0.39383962	FALSE
CCNYL2	0.103603	-0.4532456	FALSE
CCP110	0.044582	-0.54345467	FALSE
CCPG1	0.952376	0.01760177	FALSE
CCR1	0.134627	0.42024228	FALSE
CCR10	0.988075	-0.00440529	FALSE
CCR2	0.132385	0.4224425	FALSE
CCR3	0.018305	0.61881401	FALSE
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CCR5	0.062172	0.51045135	FALSE
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CCR9	0.976073	-0.00883983	FALSE
CCRL2	0.382774	0.25302546	FALSE
CCS	0.160975	0.39603984	FALSE
CCSAP	0.31379	0.29042922	FALSE
CCSER1	0.058312	0.51705202	FALSE
CCSER2	0.337271	-0.27722789	FALSE
CCT2	0.669238	-0.12541262	FALSE
CCT3	0.904899	-0.03520354	FALSE
CCT4	0.898983	-0.03740376	FALSE
CCT4P2	0.655173	-0.13105727	FALSE
CCT5	0.134627	0.42024228	FALSE
CCT5P1	0.317077	0.28854794	FALSE
CCT5P2	0.752898	0.09259099	FALSE
CCT6A	0.916747	-0.0308031	FALSE
CCT6B	0.329337	-0.28162833	FALSE
CCT6P1	0.583333	0.16061616	FALSE
CCT6P3	0.958324	-0.01540155	FALSE
CCT7	0.696936	-0.11441151	FALSE
CCT8	0.696936	-0.11441151	FALSE
CCT8P1	0.869477	-0.04840487	FALSE
CCZ1	0.92861	0.02640266	FALSE
CCZ1B	0.365865	-0.26182634	FALSE

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CD109	0.337271	-0.27722789	FALSE
CD14	0.294957	0.30143033	FALSE
CD151	0.395723	0.24642479	FALSE
CD160	0.741981	-0.09680974	FALSE
CD163	0.032552	0.57205755	FALSE
CD163L1	0.033381	0.56985733	FALSE
CD164	0.92861	-0.02640266	FALSE
CD164L2	0.099446	-0.45816324	FALSE
CD177	0.777199	-0.08325861	FALSE
CD180	0.302409	0.29702988	FALSE
CD19	0.578116	0.16281638	FALSE
CD1A	0.027964	0.58506052	FALSE
CD1B	0.792197	-0.07753532	FALSE
CD1C	0.276799	0.31243143	FALSE
CD1D	0.048864	0.53465379	FALSE
CD1E	0.072916	0.49350857	FALSE
CD2	0.620371	-0.14521461	FALSE
CD200	0.003881	-0.71727216	TRUE
CD200R1	0.239243	0.33663387	FALSE
CD207	0.260151	-0.32289888	FALSE
CD209	0.478056	0.20682081	FALSE
CD22	0.408899	-0.23982413	FALSE
CD226	0.190494	0.37183741	FALSE
CD24	0.115352	0.44004427	FALSE
CD244	0.105502	0.45104538	FALSE
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CD276	0.15845	0.39824006	FALSE
CD28	0.898983	0.03740376	FALSE
CD2AP	0.021872	-0.60506087	FALSE
CD2BP2	0.431353	0.22882302	FALSE
CD300A	0.034225	0.56765711	FALSE
CD300C	0.141504	0.41364161	FALSE
CD300E	0.10937	0.44664493	FALSE
CD300LB	0.070438	0.49725003	FALSE
CD300LD	0.015903	0.62926331	FALSE
CD300LF	0.916747	0.0308031	FALSE
CD300LG	0.027898	-0.58525888	FALSE
CD302	0.374268	0.2574259	FALSE
CD320	0.422298	-0.23322346	FALSE
CD33	0.113334	0.44224449	FALSE
CD34	0.082635	-0.47964826	FALSE
CD36	0.009218	0.66666707	FALSE
CD37	0.302409	0.29702988	FALSE
CD38	0.214	-0.35423564	FALSE

CD3D	0.255905	-0.32563276	FALSE
CD3E	0.976179	0.00880089	FALSE
CD3EAP	0.934547	-0.02420243	FALSE
CD3G	0.454411	-0.21782191	FALSE
CD4	0.00695	0.68426884	FALSE
CD40	0.023117	0.60066043	FALSE
CD40LG	0.235992	0.33883409	FALSE
CD44	0.94643	0.01980199	FALSE
CD46	0.805166	-0.0726073	FALSE
CD47	0.214	-0.35423564	FALSE
CD48	0.562581	0.16941704	FALSE
CD5	0.193338	0.36963719	FALSE
CD52	0.934547	0.02420243	FALSE
CD53	0.09805	0.45984626	FALSE
CD55	0.857716	-0.05280531	FALSE
CD58	0.898983	0.03740376	FALSE
CD59	0.085903	0.47524781	FALSE
CD5L	0.77036	0.08587736	FALSE
CD6	0.83428	0.0616062	FALSE
CD63	0.070438	0.49725003	FALSE
CD68	0.199106	0.36523674	FALSE
CD69	0.333291	-0.27942811	FALSE
CD7	0.863593	-0.05060509	FALSE
CD70	0.00357	0.7216726	TRUE
CD72	0.674747	0.1232124	FALSE
CD74	0.280376	0.31023121	FALSE
CD79A	0.674747	-0.1232124	FALSE
CD79B	0.840128	0.05940598	FALSE
CD80	0.306176	0.29482966	FALSE
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CD82	0.680272	0.12101217	FALSE
CD83	0.440504	0.22442258	FALSE
CD84	0.058312	0.51705202	FALSE
CD86	0.011636	0.65126552	FALSE
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CD8B	0.329337	0.28162833	FALSE
CD9	0.431353	-0.22882302	FALSE
CD93	0.306176	0.29482966	FALSE
CD96	0.004045	-0.71507194	TRUE
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CD99P1	0.119462	-0.43564383	FALSE
CDA	0.020678	0.60946131	FALSE
CDADC1	0.027173	-0.5874591	FALSE
CDAN1	0.615026	-0.14741483	FALSE
CDC123	0.29867	-0.2992301	FALSE
CDC14A	0.408899	-0.23982413	FALSE
CDC14B	0.269725	0.31683187	FALSE

CDC16	0.204983	0.3608363	FALSE
CDC20	0.199106	0.36523674	FALSE
CDC20B	0.916747	-0.0308031	FALSE
CDC20P1	0.695121	0.1151282	FALSE
CDC23	0.130169	-0.42464272	FALSE
CDC25A	0.793583	0.07700775	FALSE
CDC25B	0.527033	0.18481859	FALSE
CDC25C	0.071888	0.4950498	FALSE
CDC26	0.349368	-0.27062723	FALSE
CDC27	0.255905	0.32563276	FALSE
CDC34	0.082635	0.47964826	FALSE
CDC37	0.810971	0.07040708	FALSE
CDC37L1	0.199106	0.36523674	FALSE
CDC40	0.193338	-0.36963719	FALSE
CDC42	0.151032	0.40484073	FALSE
CDC42BPA	0.137559	0.41740088	FALSE
CDC42BPB	0.994044	-0.00220022	FALSE
CDC42BPG	0.473281	0.20902103	FALSE
CDC42EP1	0.019534	0.61386176	FALSE
CDC42EP2	0.143848	0.41144139	FALSE
CDC42EP3	0.038684	0.556656	FALSE
CDC42EP4	0.4638	0.21342147	FALSE
CDC42P4	0.707809	-0.11013216	FALSE
CDC42P6	0.976073	-0.00883983	FALSE
CDC42SE1	0.049979	0.53245357	FALSE
CDC42SE2	0.922677	0.02860288	FALSE
CDC45	0.382774	0.25302546	FALSE
CDC5L	0.578116	-0.16281638	FALSE
CDC6	0.810971	0.07040708	FALSE
CDC7	0.588569	0.15841594	FALSE
CDC73	0.013222	-0.64246464	FALSE
CDCA2	0.840128	0.05940598	FALSE
CDCA3	0.044582	0.54345467	FALSE
CDCA4	0.487675	-0.20242036	FALSE
CDCA4P4	0.904899	-0.03520354	FALSE
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CDCA7	0.266229	0.3190321	FALSE
CDCA7L	0.038684	-0.556656	FALSE
CDCA8	0.445116	0.22222236	FALSE
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CDCP2	0.404522	-0.24200417	FALSE
CDH1	0.669238	0.12541262	FALSE
CDH10	0.845816	0.05726872	FALSE
CDH11	0.306176	0.29482966	FALSE
CDH12	0.497383	0.19801992	FALSE
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CDH13	0.130169	-0.42464272	FALSE
CDH15	0.994044	-0.00220022	FALSE

CDH16	0.944086	-0.02066971	FALSE
CDH17	0.851846	-0.05500553	FALSE
CDH18	0.759081	-0.09020908	FALSE
CDH19	0.497383	0.19801992	FALSE
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CDH20	0.596566	0.15507063	FALSE
CDH22	0.828254	-0.06387665	FALSE
CDH23	0.001642	0.75907637	TRUE
CDH24	0.090972	-0.46864715	FALSE
CDH26	0.136894	-0.41804206	FALSE
CDH3	0.680272	0.12101217	FALSE
CDH4	0.062172	-0.51045135	FALSE
CDH5	0.65932	-0.12938856	FALSE
CDH6	0.53205	0.18261837	FALSE
CDH7	0.572919	-0.1650166	FALSE
CDH8	0.593824	0.15621572	FALSE
CDH9	0.092707	-0.46644693	FALSE
CDHR1	0.242521	0.33443365	FALSE
CDHR2	0.262761	0.32123232	FALSE
CDHR3	0.099878	0.45764604	FALSE
CDHR4	0.204983	0.3608363	FALSE
CDHR5	0.361702	-0.26402656	FALSE
CDIP1	0.893071	0.03960398	FALSE
CDIPT	0.696936	0.11441151	FALSE
CDIPT-AS1	0.824569	-0.0652668	FALSE
CDK1	0.117395	0.43784405	FALSE
CDK10	0.378508	0.25522568	FALSE
CDK11A	0.893071	-0.03960398	FALSE
CDK11B	0.79937	0.07480753	FALSE
CDK12	0.309969	-0.29262944	FALSE
CDK13	0.413341	-0.23762391	FALSE
CDK14	0.988088	0.00440044	FALSE
CDK15	0.047178	0.53804811	FALSE
CDK16	0.092707	0.46644693	FALSE
CDK17	0.83428	-0.0616062	FALSE
CDK18	0.976179	0.00880089	FALSE
CDK19	0.103603	-0.4532456	FALSE
CDK2	0.413341	0.23762391	FALSE
CDK20	0.776284	0.08360841	FALSE
CDK2AP1	0.153479	-0.40264051	FALSE
CDK2AP2	0.547224	0.17601771	FALSE
CDK2AP2P	0.550723	0.17450706	FALSE
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CDK4	0.013643	0.64026441	FALSE
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CDK5	0.976179	-0.00880089	FALSE
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CDK5RAP3	0.132385	0.4224425	FALSE
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CDKL1	0.658264	0.12981306	FALSE
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CDKL3	0.125812	-0.42904316	FALSE
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CDKN1C	0.680272	0.12101217	FALSE
CDKN2A	0.522038	0.18701882	FALSE
CDKN2AIP	0.492518	0.20022014	FALSE
CDKN2AIP1	0.904899	-0.03520354	FALSE
CDKN2B	0.022988	0.60110828	FALSE
CDKN2C	0.652801	-0.13201328	FALSE
CDKN2D	0.482854	0.20462059	FALSE
CDKN3	0.121554	0.43344361	FALSE
CDNF	0.337271	-0.27722789	FALSE
CDO1	0.82844	-0.06380642	FALSE
CDON	0.625734	0.14301439	FALSE
CDPF1	0.193338	0.36963719	FALSE
CDR2	0.235992	0.33883409	FALSE
CDR2L	0.00357	-0.7216726	TRUE
CDRT1	0.11289	-0.44273128	FALSE
CDRT4	0.0779	-0.48624892	FALSE
CDS1	0.115595	0.43978142	FALSE
CDS2	0.417807	-0.23542368	FALSE
CDT1	0.759081	-0.09020908	FALSE
CDV3	0.482854	0.20462059	FALSE
CDX2	0.201498	-0.36343612	FALSE
CDYL	0.187678	-0.37403763	FALSE
CDYL2	0.127978	-0.42684294	FALSE
CEACAM1	0.934547	-0.02420243	FALSE
CEACAM16	0.122633	-0.43231813	FALSE
CEACAM19	0.615026	0.14741483	FALSE
CEACAM20	0.588446	0.15846776	FALSE
CEACAM21	0.058312	-0.51705202	FALSE
CEACAM22	0.857716	-0.05280531	FALSE
CEACAM3	0.79937	-0.07480753	FALSE
CEACAM4	0.964274	0.01320133	FALSE
CEACAM5	0.922677	0.02860288	FALSE
CEACAM6	0.468529	-0.21122125	FALSE

CEACAM8	0.680272	0.12101217	FALSE
CEACAMP3	0.011522	-0.65193728	FALSE
CEBPA	0.058312	-0.51705202	FALSE
CEBPB	0.079456	0.4840487	FALSE
CEBPD	0.413341	-0.23762391	FALSE
CEBPE	0.845984	-0.05720576	FALSE
CEBPG	0.964274	-0.01320133	FALSE
CEBPZ	0.309969	-0.29262944	FALSE
CEBPZOS	0.199106	0.36523674	FALSE
CECR1	0.333291	0.27942811	FALSE
CECR2	0.079456	0.4840487	FALSE
CECR5	0.50718	0.19361948	FALSE
CECR6	0.404482	-0.24202435	FALSE
CECR7	0.552323	-0.17381749	FALSE
CEL	0.29867	-0.2992301	FALSE
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CELA2A	0.387065	0.25082523	FALSE
CELA2B	0.976073	-0.00883983	FALSE
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CELF1	0.291271	0.30363055	FALSE
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CELSR2	0.713728	0.10781085	FALSE
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CEMIP	0.009865	-0.66226663	FALSE
CEMP1	0.9969	-0.00114503	FALSE
CENPA	0.214	0.35423564	FALSE
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CENPE	0.816786	0.06820686	FALSE
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CENPK	0.492518	0.20022014	FALSE
CENPL	0.242521	-0.33443365	FALSE
CENPM	0.502271	0.1958197	FALSE
CENPN	0.141504	0.41364161	FALSE
CENPO	0.898983	-0.03740376	FALSE
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CENPQ	0.822609	0.06600664	FALSE
CENPT	0.502271	0.1958197	FALSE

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CENPUP2	0.862087	-0.0511687	FALSE
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CEP126	0.713728	0.10781085	FALSE
CEP128	0.4638	-0.21342147	FALSE
CEP131	0.028637	0.58305866	FALSE
CEP135	0.583333	0.16061616	FALSE
CEP152	0.816786	-0.06820686	FALSE
CEP162	0.473281	-0.20902103	FALSE
CEP164	0.578116	0.16281638	FALSE
CEP164P1	0.810971	0.07040708	FALSE
CEP170	0.473281	-0.20902103	FALSE
CEP170B	0.214	0.35423564	FALSE
CEP170P1	0.199106	-0.36523674	FALSE
CEP19	0.572919	-0.1650166	FALSE
CEP192	0.468529	-0.21122125	FALSE
CEP250	0.910821	0.03300332	FALSE
CEP290	0.370053	-0.25962612	FALSE
CEP295	0.387065	-0.25082523	FALSE
CEP295NL	0.770539	-0.08580863	FALSE
CEP350	0.492518	-0.20022014	FALSE
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CEP83	0.459093	-0.21562169	FALSE
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CEPT1	0.269725	-0.31683187	FALSE
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CERK	0.132385	-0.4224425	FALSE
CERKL	0.045626	0.54125445	FALSE
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CERS6	0.020678	-0.60946131	FALSE
CES1	0.054568	0.52375978	FALSE
CES1P1	0.806748	-0.07200745	FALSE
CES2	0.724991	0.1034104	FALSE
CES3	0.01543	-0.63146353	FALSE
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CETN3	0.431353	-0.22882302	FALSE
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CFAP161	0.685812	-0.11881195	FALSE
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CFAP206	0.562581	0.16941704	FALSE
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CFB	0.189968	0.3722467	FALSE
CFD	0.696936	0.11441151	FALSE
CFDP1	0.604388	-0.15181527	FALSE
CFH	0.134627	0.42024228	FALSE
CFHR1	0.40009	-0.24422457	FALSE
CFHR3	0.070404	-0.49730144	FALSE
CFI	0.685812	0.11881195	FALSE
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CFL1P1	0.408899	0.23982413	FALSE
CFL1P2	0.733188	-0.10022026	FALSE

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CFLAR	0.070438	0.49725003	FALSE
CFP	0.01241	0.64686508	FALSE
CFTR	0.652801	-0.13201328	FALSE
CGA	0.753369	0.0924093	FALSE
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CGN	0.497383	-0.19801992	FALSE
CGNL1	0.70252	-0.11221129	FALSE
CGREF1	0.361702	0.26402656	FALSE
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CH17-118C	0.293767	0.30213901	FALSE
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CH17-224C	0.746982	-0.09487491	FALSE
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CH17-258A	0.049979	-0.53245357	FALSE
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CH17-39B1	0.219797	0.3500837	FALSE
CH17-431C	0.615026	0.14741483	FALSE
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CH17-5A7	0.041296	0.55063938	FALSE
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CH17-8C2C	0.808894	-0.07119378	FALSE
CH25H	0.194085	0.3690628	FALSE
CH507-23E	0.066213	-0.50385069	FALSE
CH507-39E	0.042144	0.54874719	FALSE
CH507-42F	0.994044	-0.00220022	FALSE
CH507-9B2	0.111339	-0.44444471	FALSE
CH507-9B2	0.431353	-0.22882302	FALSE
CH507-9B2	0.480323	-0.2057802	FALSE
CH507-9B2	0.604388	-0.15181527	FALSE
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CHD1	0.940487	0.02200221	FALSE
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CHD2	0.940487	0.02200221	FALSE
CHD3	0.904899	-0.03520354	FALSE
CHD4	0.074851	-0.49064936	FALSE
CHD5	0.537087	0.18041815	FALSE
CHD6	0.127978	-0.42684294	FALSE
CHD7	0.578116	0.16281638	FALSE
CHD8	0.094465	-0.46424671	FALSE
CHD9	0.207961	-0.35863608	FALSE
CHDH	0.78204	0.08140819	FALSE
CHEK1	0.220147	-0.3498352	FALSE
CHEK2	0.229572	0.34323453	FALSE
CHEK2P2	0.519898	0.1879644	FALSE
CHERP	0.31379	-0.29042922	FALSE
CHFR	0.176678	0.38283852	FALSE
CHGA	0.575063	0.16410796	FALSE
CHGB	0.517064	0.18921904	FALSE
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CHIAP2	0.537087	-0.18041815	FALSE
CHIC1	0.724991	-0.1034104	FALSE
CHIC2	0.125812	-0.42904316	FALSE
CHID1	0.620371	0.14521461	FALSE
CHIT1	0.970226	0.01100111	FALSE
CHKA	0.857716	0.05280531	FALSE
CHKB	0.057064	0.51925224	FALSE
CHKB-CPT1	0.249158	-0.3300332	FALSE
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CHM	0.588569	0.15841594	FALSE
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CHMP1B	0.50718	-0.19361948	FALSE
CHMP1B2F	0.013222	-0.64246464	FALSE
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CHMP2B	0.982133	0.00660066	FALSE
CHMP3	0.262761	0.32123232	FALSE
CHMP4A	0.478056	0.20682081	FALSE
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CHMP4BP1	0.245826	0.33223342	FALSE
CHMP4C	0.294957	0.30143033	FALSE
CHMP5	0.337271	0.27722789	FALSE
CHMP6	0.562581	0.16941704	FALSE
CHMP7	0.588569	0.15841594	FALSE
CHN1	0.934547	0.02420243	FALSE
CHN2	0.226404	-0.34543475	FALSE
CHODL	0.922592	0.02863436	FALSE
CHORDC1	0.249158	0.3300332	FALSE
CHP1	0.171338	0.38723896	FALSE
CHP2	0.53205	-0.18261837	FALSE
CHPF	0.910821	0.03300332	FALSE
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CHPT1	0.964274	0.01320133	FALSE
CHRAC1	0.214	-0.35423564	FALSE
CHRD	0.599097	0.15401549	FALSE
CHRD1	0.608099	0.15027707	FALSE
CHRD2	0.221709	0.34872941	FALSE
CHRFAM7A	0.064846	0.50605091	FALSE
CHRM2	0.422298	0.23322346	FALSE
CHRM3	0.107424	0.44884516	FALSE
CHRM4	0.4638	0.21342147	FALSE
CHRM5	0.793583	0.07700775	FALSE
CHRNA1	0.449752	0.22002214	FALSE
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CHRNA2	0.440504	-0.22442258	FALSE
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CHRNA7	0.08926	0.47084737	FALSE
CHRNA9	0.312015	-0.29144953	FALSE
CHRN1	0.641924	0.13641372	FALSE
CHRN2	0.804955	0.07268722	FALSE
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CHRNA	0.111495	-0.44427222	FALSE
CHRNE	0.537087	0.18041815	FALSE
CHRNA	0.927814	-0.02669767	FALSE
CHST1	0.194085	0.3690628	FALSE
CHST10	0.001028	-0.77887836	TRUE
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CHST12	0.204983	-0.3608363	FALSE
CHST13	0.246943	0.33149353	FALSE
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CHST15	0.916747	0.0308031	FALSE
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CHST5	0.153479	0.40264051	FALSE
CHST6	0.724991	0.1034104	FALSE
CHST7	0.0201	0.61166154	FALSE
CHST8	0.455374	-0.21736844	FALSE
CHST9	0.190494	0.37183741	FALSE
CHSY1	0.934547	-0.02420243	FALSE
CHSY3	0.755384	0.09163265	FALSE
CHTF18	0.136894	0.41804206	FALSE
CHTF8	0.487675	0.20242036	FALSE
CHTOP	0.365865	0.26182634	FALSE
CHUK	0.970226	-0.01100111	FALSE
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CHURC1-FM	0.236726	0.33833593	FALSE
CIAO1	0.863593	0.05060509	FALSE
CIAPIN1	0.058312	0.51705202	FALSE
CIART	0.730641	-0.10121018	FALSE
CIB1	0.027898	0.58525888	FALSE
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CIB3	0.492989	0.20000657	FALSE
CIC	0.283981	-0.30803099	FALSE
CICP14	0.537087	-0.18041815	FALSE
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CIDEB	9.41E-05	0.85588611	TRUE
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CIITA	0.805166	0.0726073	FALSE
CILP	0.092707	-0.46644693	FALSE
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CINP	0.121554	0.43344361	FALSE
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CIRBP	0.269725	-0.31683187	FALSE
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CISH	0.468529	0.21122125	FALSE
CIT	0.214	0.35423564	FALSE
CITED1	0.434564	0.22727351	FALSE
CITED2	0.134627	-0.42024228	FALSE
CITED4	0.262761	-0.32123232	FALSE
CIZ1	0.478056	-0.20682081	FALSE
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CKAP4	0.204983	0.3608363	FALSE
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CKB	0.182124	0.37843807	FALSE
CKLF	0.440504	0.22442258	FALSE
CKLF-CMTN	0.636511	-0.13861395	FALSE
CKM	0.035847	0.56353901	FALSE
CKMT2	0.12765	0.42717396	FALSE
CKS1B	0.107424	0.44884516	FALSE
CKS1BP3	0.200319	0.36432175	FALSE
CKS2	0.32151	0.28602878	FALSE
CLASP1	0.043556	-0.5456549	FALSE
CLASP2	0.168708	0.38943918	FALSE
CLASRP	0.805166	-0.0726073	FALSE
CLC	0.045342	0.54185022	FALSE
CLCA2	0.351942	-0.26923962	FALSE
CLCC1	0.552323	0.17381749	FALSE
CLCF1	0.239243	0.33663387	FALSE
CLCN1	0.988088	0.00440044	FALSE
CLCN2	0.922677	-0.02860288	FALSE
CLCN3	0.719353	-0.10561062	FALSE
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CLCP2	0.386156	0.25129031	FALSE
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CLEC12B	0.242521	-0.33443365	FALSE
CLEC14A	0.404522	-0.24200417	FALSE
CLEC16A	0.143848	-0.41144139	FALSE
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CLEC18A	0.487675	-0.20242036	FALSE
CLEC18B	0.976179	-0.00880089	FALSE
CLEC18C	0.482854	-0.20462059	FALSE
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CLEC2A	0.239235	-0.33663926	FALSE
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CLEC4D	0.235332	0.33928285	FALSE
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CLIC6	0.957859	-0.01557364	FALSE
CLINT1	0.130169	-0.42464272	FALSE
CLIP1	0.252518	-0.32783298	FALSE
CLIP2	0.922677	0.02860288	FALSE
CLIP3	0.008022	-0.67546796	FALSE
CLIP4	0.199106	-0.36523674	FALSE
CLK1	0.604388	-0.15181527	FALSE
CLK2	0.747669	0.09460952	FALSE
CLK3	0.497383	-0.19801992	FALSE
CLK3P2	0.350479	-0.27002793	FALSE
CLK4	0.12367	-0.43124339	FALSE
CLLU10S	0.034775	0.56624277	FALSE
CLMN	0.00577	-0.69526995	FALSE
CLMP	0.952376	0.01760177	FALSE

CLN3	0.805166	-0.0726073	FALSE
CLN5	0.805166	-0.0726073	FALSE
CLN6	0.83428	-0.0616062	FALSE
CLN8	0.166104	0.3916394	FALSE
CLNK	0.487675	-0.20242036	FALSE
CLNS1A	0.134627	-0.42024228	FALSE
CLOCK	0.922677	-0.02860288	FALSE
CLP1	0.542145	0.17821793	FALSE
CLPB	0.4638	0.21342147	FALSE
CLPP	0.31379	-0.29042922	FALSE
CLPTM1	0.309969	-0.29262944	FALSE
CLPTM1L	0.674747	-0.1232124	FALSE
CLPX	0.067601	-0.50165047	FALSE
CLRN1	0.163022	-0.39427313	FALSE
CLSPN	0.34531	0.27282745	FALSE
CLSTN1	0.810971	-0.07040708	FALSE
CLSTN2	0.810971	-0.07040708	FALSE
CLSTN3	0.741981	0.09680974	FALSE
CLTA	0.262761	0.32123232	FALSE
CLTB	0.70252	-0.11221129	FALSE
CLTC	0.171338	0.38723896	FALSE
CLTCL1	0.127978	0.42684294	FALSE
CLU	0.56774	0.16721682	FALSE
CLUAP1	0.204983	-0.3608363	FALSE
CLUH	0.764804	-0.08800885	FALSE
CLUHP3	0.440504	-0.22442258	FALSE
CLUL1	0.776044	-0.08370044	FALSE
CLVS1	0.753369	-0.0924093	FALSE
CLVS2	0.391183	-0.24872613	FALSE
CLYBL	1	0	FALSE
CMA1	0.823189	0.06578754	FALSE
CMAHP	0.741981	0.09680974	FALSE
CMAS	0.333291	0.27942811	FALSE
CMB9-22P:	0.431353	0.22882302	FALSE
CMBL	0.952376	-0.01760177	FALSE
CMC1	0.647355	0.1342135	FALSE
CMC2	0.32151	-0.28602878	FALSE
CMC4	0.988088	-0.00440044	FALSE
CMIP	0.235992	0.33883409	FALSE
CMKLR1	0.146217	0.40924117	FALSE
CMPK1	0.055836	-0.52145246	FALSE
CMPK2	0.220147	0.3498352	FALSE
CMSS1	0.517064	0.18921904	FALSE
CMTM1	0.547224	-0.17601771	FALSE
CMTM2	0.069009	-0.49945025	FALSE
CMTM3	0.904899	-0.03520354	FALSE
CMTM4	0.976179	0.00880089	FALSE
CMTM5	0.02356	0.59913654	FALSE

CMTM6	0.151032	0.40484073	FALSE
CMTM7	0.487675	0.20242036	FALSE
CMTM8	0.171338	-0.38723896	FALSE
CMTR1	0.502271	-0.1958197	FALSE
CMTR2	0.92861	0.02640266	FALSE
CMYA5	0.404482	-0.24202435	FALSE
CNBD2	0.391381	-0.24862501	FALSE
CNBP	0.408899	0.23982413	FALSE
CNDP1	0.964274	0.01320133	FALSE
CNDP2	0.517064	-0.18921904	FALSE
CNEP1R1	0.713728	0.10781085	FALSE
CNFN	0.502381	0.19577025	FALSE
CNGA1	0.517064	-0.18921904	FALSE
CNGA4	0.269725	0.31683187	FALSE
CNGB1	0.976179	0.00880089	FALSE
CNGB3	0.292719	0.30276409	FALSE
CNIH1	0.976179	-0.00880089	FALSE
CNIH2	0.148612	-0.40704095	FALSE
CNIH3	0.881262	0.04400443	FALSE
CNIH4	0.176678	0.38283852	FALSE
CNKSR1	0.542145	-0.17821793	FALSE
CNKSR2	0.54838	-0.17551816	FALSE
CNKSR3	0.934547	0.02420243	FALSE
CNN1	0.361702	0.26402656	FALSE
CNN2	0.245826	0.33223342	FALSE
CNN2P4	0.768737	0.08649948	FALSE
CNN2P9	0.196209	-0.36743697	FALSE
CNN3	0.317637	0.288229	FALSE
CNNM1	0.92861	0.02640266	FALSE
CNNM2	0.658264	0.12981306	FALSE
CNNM3	0.262761	-0.32123232	FALSE
CNNM4	0.163526	-0.39383962	FALSE
CNOT1	0.099878	-0.45764604	FALSE
CNOT10	0.00577	-0.69526995	FALSE
CNOT11	0.952376	-0.01760177	FALSE
CNOT2	0.245826	-0.33223342	FALSE
CNOT3	0.522038	-0.18701882	FALSE
CNOT4	0.044582	-0.54345467	FALSE
CNOT6	0.019534	-0.61386176	FALSE
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CNOT6LP1	0.015304	-0.63205739	FALSE
CNOT7	0.10937	-0.44664493	FALSE
CNOT8	0.005992	-0.69306973	FALSE
CNOT9	0.081035	0.48184848	FALSE
CNP	0.840128	-0.05940598	FALSE
CNPPD1	0.003723	0.71947238	TRUE
CNPY1	0.730641	0.10121018	FALSE
CNPY2	0.631114	-0.14081417	FALSE

CNPY3	0.56774	0.16721682	FALSE
CNPY4	0.387065	0.25082523	FALSE
CNR1	0.696936	-0.11441151	FALSE
CNR2	0.052265	0.52805312	FALSE
CNRIP1	0.34531	0.27282745	FALSE
CNST	0.204983	-0.3608363	FALSE
CNTD1	0.551879	-0.17400881	FALSE
CNTD2	0.045626	-0.54125445	FALSE
CNTF	0.468529	-0.21122125	FALSE
CNTFR	0.216505	-0.35243326	FALSE
CNTLN	0.887164	0.04180421	FALSE
CNTN1	0.306176	0.29482966	FALSE
CNTN4	0.274752	0.31369759	FALSE
CNTN5	0.181637	0.37882803	FALSE
CNTN6	0.662336	-0.1281775	FALSE
CNTNAP1	0.12367	0.43124339	FALSE
CNTNAP2	0.378508	-0.25522568	FALSE
CNTNAP3	0.776284	0.08360841	FALSE
CNTNAP3B	0.916747	-0.0308031	FALSE
CNTNAP3P	0.108428	0.44770585	FALSE
CNTNAP4	0.280835	0.3099502	FALSE
CNTNAP5	0.283424	-0.30837004	FALSE
CNTRL	0.269725	-0.31683187	FALSE
CNTROB	0.840128	0.05940598	FALSE
COA1	0.353453	-0.26842701	FALSE
COA3	0.94643	0.01980199	FALSE
COA4	0.365865	0.26182634	FALSE
COA5	0.404482	0.24202435	FALSE
COA6	0.92861	-0.02640266	FALSE
COA7	0.810971	0.07040708	FALSE
COASY	0.291271	0.30363055	FALSE
COBL	0.940487	0.02200221	FALSE
COBLL1	0.12367	-0.43124339	FALSE
COCH	0.31379	0.29042922	FALSE
COG1	0.190494	-0.37183741	FALSE
COG2	0.840128	-0.05940598	FALSE
COG3	0.502271	-0.1958197	FALSE
COG4	0.730641	0.10121018	FALSE
COG5	0.770539	-0.08580863	FALSE
COG6	0.56774	-0.16721682	FALSE
COG7	0.148612	-0.40704095	FALSE
COG8	0.542145	-0.17821793	FALSE
COIL	0.522038	-0.18701882	FALSE
COL10A1	0.315628	0.28937591	FALSE
COL11A2	0.025766	-0.59185954	FALSE
COL12A1	0.058826	-0.5161549	FALSE
COL13A1	0.169452	0.38881397	FALSE
COL14A1	0.468529	-0.21122125	FALSE

COL15A1	0.163526	-0.39383962	FALSE
COL16A1	0.134627	-0.42024228	FALSE
COL17A1	0.84531	-0.05745888	FALSE
COL18A1	0.119462	0.43564383	FALSE
COL19A1	0.517064	0.18921904	FALSE
COL1A1	0.184888	-0.37623785	FALSE
COL1A2	0.708117	-0.11001107	FALSE
COL20A1	0.296779	-0.30034876	FALSE
COL21A1	0.123251	0.43167687	FALSE
COL22A1	0.907835	-0.03411247	FALSE
COL23A1	0.349368	-0.27062723	FALSE
COL24A1	0.069009	-0.49945025	FALSE
COL25A1	0.279665	0.31066713	FALSE
COL27A1	0.242521	-0.33443365	FALSE
COL28A1	0.193338	-0.36963719	FALSE
COL2A1	0.869334	0.04845815	FALSE
COL3A1	0.141901	-0.41326694	FALSE
COL4A1	0.487675	0.20242036	FALSE
COL4A2	0.976179	0.00880089	FALSE
COL4A3	0.719353	0.10561062	FALSE
COL4A3BP	0.34531	-0.27282745	FALSE
COL4A4	0.958324	0.01540155	FALSE
COL4A5	0.761488	0.08928309	FALSE
COL5A1	0.724699	-0.10352423	FALSE
COL5A2	0.685483	-0.11894273	FALSE
COL5A3	0.658264	0.12981306	FALSE
COL6A1	0.036852	0.56105645	FALSE
COL6A2	0.413341	0.23762391	FALSE
COL6A3	0.492518	0.20022014	FALSE
COL6A4P1	0.782571	-0.0812054	FALSE
COL6A4P2	0.547224	0.17601771	FALSE
COL6A5	0.084621	0.47695968	FALSE
COL6A6	0.588569	-0.15841594	FALSE
COL7A1	0.994044	-0.00220022	FALSE
COL8A1	0.79937	0.07480753	FALSE
COL8A2	0.058312	0.51705202	FALSE
COL9A1	0.691367	-0.11661173	FALSE
COL9A2	0.0201	0.61166154	FALSE
COL9A3	0.619982	-0.14537445	FALSE
COLEC11	0.764804	-0.08800885	FALSE
COLEC12	0.557442	-0.17161727	FALSE
COLGALT1	0.952376	-0.01760177	FALSE
COLGALT2	0.005992	0.69306973	FALSE
COLQ	0.064846	-0.50605091	FALSE
COMMD1	1	0	FALSE
COMMD10	0.117395	0.43784405	FALSE
COMMD2	0.557442	0.17161727	FALSE
COMMD3	0.976179	0.00880089	FALSE

COMMD3-E	0.708117	-0.11001107	FALSE
COMMD4	0.039624	0.55445578	FALSE
COMMD5	0.115352	0.44004427	FALSE
COMMD6	0.365865	-0.26182634	FALSE
COMMD7	0.12367	0.43124339	FALSE
COMMD8	0.023759	0.59846021	FALSE
COMMD9	0.229572	0.34323453	FALSE
COMP	0.132385	-0.4224425	FALSE
COMT	0.685812	-0.11881195	FALSE
COMTD1	0.53205	0.18261837	FALSE
COPA	0.413341	0.23762391	FALSE
COPB1	0.0779	-0.48624892	FALSE
COPB2	0.440504	-0.22442258	FALSE
COPE	0.374268	0.2574259	FALSE
COPG1	0.023117	0.60066043	FALSE
COPG2	0.329337	-0.28162833	FALSE
COPRS	0.82844	-0.06380642	FALSE
COPS2	0.378508	-0.25522568	FALSE
COPS3	0.001208	-0.7722777	TRUE
COPS4	0.542145	-0.17821793	FALSE
COPS5	0.317637	0.288229	FALSE
COPS6	0.816786	0.06820686	FALSE
COPS7A	0.12367	0.43124339	FALSE
COPS7B	0.001273	-0.77007747	TRUE
COPS8	0.262761	-0.32123232	FALSE
COPS9	0.045626	0.54125445	FALSE
COPZ1	0.006222	0.6908695	FALSE
COPZ2	0.92861	-0.02640266	FALSE
COQ10A	0.32151	-0.28602878	FALSE
COQ10B	0.449752	0.22002214	FALSE
COQ2	0.374268	0.2574259	FALSE
COQ3	0.059579	-0.5148518	FALSE
COQ4	0.893071	0.03960398	FALSE
COQ5	0.176678	0.38283852	FALSE
COQ6	0.588569	-0.15841594	FALSE
COQ7	0.32151	0.28602878	FALSE
COQ8A	0.127978	-0.42684294	FALSE
COQ8B	0.249158	0.3300332	FALSE
COQ9	0.647355	0.1342135	FALSE
CORIN	0.922677	-0.02860288	FALSE
CORO1A	0.139186	-0.41584184	FALSE
CORO1B	0.155952	0.40044029	FALSE
CORO1C	0.239243	0.33663387	FALSE
CORO2A	0.076365	0.48844914	FALSE
CORO2B	0.940487	-0.02200221	FALSE
CORO6	0.82844	-0.06380642	FALSE
CORO7	0.816786	-0.06820686	FALSE
CORO7-PAN	0.663393	-0.1277533	FALSE

CORT	0.579076	-0.16241081	FALSE
COTL1	0.053437	0.5258529	FALSE
COX10	0.417807	-0.23542368	FALSE
COX11	0.0201	-0.61166154	FALSE
COX14	0.881262	-0.04400443	FALSE
COX15	0.21706	0.35203542	FALSE
COX16	0.940487	-0.02200221	FALSE
COX17	0.148612	0.40704095	FALSE
COX18	0.196209	-0.36743697	FALSE
COX19	0.615026	-0.14741483	FALSE
COX20	0.190494	0.37183741	FALSE
COX20P2	0.291727	0.30335731	FALSE
COX4I1	0.631114	0.14081417	FALSE
COX4I1P2	0.361702	-0.26402656	FALSE
COX5A	0.487675	0.20242036	FALSE
COX5B	0.001994	0.75027548	TRUE
COX5BP6	0.2503	-0.32928358	FALSE
COX6A1	0.309969	0.29262944	FALSE
COX6A1P2	0.02209	0.60427802	FALSE
COX6B1	0.329337	0.28162833	FALSE
COX6B2	0.426813	-0.23102324	FALSE
COX6C	0.840128	0.05940598	FALSE
COX6CP1	0.982133	-0.00660066	FALSE
COX6CP17	0.472739	-0.20927165	FALSE
COX7A1	0.812688	0.06975722	FALSE
COX7A2	0.776284	0.08360841	FALSE
COX7A2L	0.269725	-0.31683187	FALSE
COX7A2P1	0.40924	0.23965462	FALSE
COX7B	0.020678	0.60946131	FALSE
COX7B2	0.017997	0.62009124	FALSE
COX7C	0.454411	0.21782191	FALSE
COX8A	0.291271	0.30363055	FALSE
COX8C	0.539212	-0.17949308	FALSE
CP	0.202031	-0.36303652	FALSE
CPA3	0.130169	-0.42464272	FALSE
CPA4	0.103603	0.4532456	FALSE
CPA6	0.520303	0.18778517	FALSE
CPAMD8	0.395723	-0.24642479	FALSE
CPB1	0.982133	0.00660066	FALSE
CPB2	0.829418	0.06343799	FALSE
CPD	0.067601	0.50165047	FALSE
CPE	0.006639	0.6870189	FALSE
CPEB1	0.473281	0.20902103	FALSE
CPEB2	0.01898	0.61606198	FALSE
CPEB3	0.31379	0.29042922	FALSE
CPEB4	0.724991	-0.1034104	FALSE
CPED1	0.0201	0.61166154	FALSE
CPHL1P	0.66785	0.12596754	FALSE

CPLX1	0.59869	-0.15418502	FALSE
CPLX3	0.148612	-0.40704095	FALSE
CPLX4	0.708117	0.11001107	FALSE
CPM	0.010901	0.65566596	FALSE
CPN2	0.245826	-0.33223342	FALSE
CPNE1	0.374268	-0.2574259	FALSE
CPNE2	0.776284	-0.08360841	FALSE
CPNE3	0.055836	-0.52145246	FALSE
CPNE4	0.761488	-0.08928309	FALSE
CPNE5	0.517064	0.18921904	FALSE
CPNE7	0.266229	-0.3190321	FALSE
CPNE8	0.003079	0.72928577	TRUE
CPNE9	0.952376	0.01760177	FALSE
CPO	0.158962	-0.39779224	FALSE
CPOX	0.023759	0.59846021	FALSE
CPPED1	0.454411	0.21782191	FALSE
CPQ	0.325411	0.28382855	FALSE
CPS1	0.893071	-0.03960398	FALSE
CPSF1	0.547224	-0.17601771	FALSE
CPSF1P1	0.800817	0.07425768	FALSE
CPSF2	0.341277	0.27502767	FALSE
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CPSF3L	0.747669	-0.09460952	FALSE
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CPSF6	0.620371	0.14521461	FALSE
CPSF7	0.325411	0.28382855	FALSE
CPT1A	0.287612	-0.30583077	FALSE
CPT1B	0.562581	-0.16941704	FALSE
CPT1C	0.658264	-0.12981306	FALSE
CPT2	0.741981	0.09680974	FALSE
CPTP	0.492518	0.20022014	FALSE
CPVL	0.141504	0.41364161	FALSE
CPXM1	0.764804	-0.08800885	FALSE
CPXM2	0.155952	-0.40044029	FALSE
CR1	0.287612	0.30583077	FALSE
CR1L	0.182124	0.37843807	FALSE
CR2	0.291271	0.30363055	FALSE
CR848007.	0.068943	0.49955168	FALSE
CRABP1	0.862082	0.05117053	FALSE
CRABP2	0.076365	-0.48844914	FALSE
CRACR2A	0.134627	-0.42024228	FALSE
CRACR2B	0.724991	0.1034104	FALSE
CRADD	0.084258	0.47744803	FALSE
CRAMP1	0.482854	0.20462059	FALSE
CRAT	0.0201	0.61166154	FALSE
CRB1	0.805166	0.0726073	FALSE
CRB2	0.691367	-0.11661173	FALSE

CRB3	0.875366	0.04620465	FALSE
CRBN	0.067601	-0.50165047	FALSE
CRCP	0.199106	-0.36523674	FALSE
CREB1	0.329337	-0.28162833	FALSE
CREB3	0.007742	0.67766818	FALSE
CREB3L1	0.970226	0.01100111	FALSE
CREB3L2	0.009537	-0.66446685	FALSE
CREB3L3	0.810971	0.07040708	FALSE
CREB3L4	0.262761	-0.32123232	FALSE
CREB5	0.280376	0.31023121	FALSE
CREBBP	0.259319	-0.32343254	FALSE
CREBL2	0.119462	-0.43564383	FALSE
CREBRF	0.249158	-0.3300332	FALSE
CREBZF	0.502271	-0.1958197	FALSE
CREG1	0.741981	0.09680974	FALSE
CREG2	0.182124	-0.37843807	FALSE
CRELD1	0.988088	-0.00440044	FALSE
CRELD2	0.669238	0.12541262	FALSE
CREM	0.365865	-0.26182634	FALSE
CRHBP	0.155952	-0.40044029	FALSE
CRHR1-IT1	0.982133	0.00660066	FALSE
CRHR2	0.866534	-0.04950512	FALSE
CRIM1	0.094465	-0.46424671	FALSE
CRIP1	0.259319	0.32343254	FALSE
CRIP2	0.294957	-0.30143033	FALSE
CRIP3	0.132112	0.42271306	FALSE
CRIPT	0.840128	0.05940598	FALSE
CRISP3	0.100009	0.45748953	FALSE
CRISPLD1	0.604388	0.15181527	FALSE
CRISPLD2	0.988088	0.00440044	FALSE
CRK	0.361702	0.26402656	FALSE
CRKL	0.708117	0.11001107	FALSE
CRLF1	0.204983	-0.3608363	FALSE
CRLF2	0.527033	0.18481859	FALSE
CRLF3	0.78204	0.08140819	FALSE
CRLS1	0.522038	-0.18701882	FALSE
CRMP1	0.835407	0.06118215	FALSE
CRNKL1	0.139186	-0.41584184	FALSE
CROCC	0.53205	0.18261837	FALSE
CROCC2	0.171935	-0.38674246	FALSE
CROCCP2	0.53205	-0.18261837	FALSE
CROCCP3	0.958324	0.01540155	FALSE
CROCCP4	0.204022	0.36155035	FALSE
CROT	0.713728	-0.10781085	FALSE
CRP	0.707483	-0.11026003	FALSE
CRTAM	0.026463	0.58965932	FALSE
CRTAP	0.56774	0.16721682	FALSE
CRTC1	0.473281	-0.20902103	FALSE

CRTC2	0.21706	-0.35203542	FALSE
CRTC3	0.691367	-0.11661173	FALSE
CRX	0.537087	-0.18041815	FALSE
CRY1	0.537087	0.18041815	FALSE
CRY2	0.502271	0.1958197	FALSE
CRYAB	0.60877	0.14999913	FALSE
CRYBB1	0.116982	0.4382867	FALSE
CRYBB2P1	0.904899	0.03520354	FALSE
CRYBB3	0.022477	0.60289987	FALSE
CRYBG3	0.349368	0.27062723	FALSE
CRYGD	0.894731	-0.03898568	FALSE
CRYGN	0.499767	-0.19694542	FALSE
CRYGS	0.922677	-0.02860288	FALSE
CRYL1	0.173995	0.38503874	FALSE
CRYM	0.168708	0.38943918	FALSE
CRYM-AS1	0.00577	0.69526995	FALSE
CRYZ	0.440504	0.22442258	FALSE
CRYZL1	0.482854	-0.20462059	FALSE
CRYZP1	0.557002	0.17180617	FALSE
CS	0.753369	-0.0924093	FALSE
CSAD	0.223262	0.34763497	FALSE
CSDAP1	0.40924	-0.23965462	FALSE
CSDC2	0.429261	-0.22983552	FALSE
CSDE1	0.816786	-0.06820686	FALSE
CSE1L	0.417807	-0.23542368	FALSE
CSF1	0.151032	0.40484073	FALSE
CSF1R	0.121554	0.43344361	FALSE
CSF2	0.01543	0.63146353	FALSE
CSF2RA	0.910821	0.03300332	FALSE
CSF2RB	0.007207	0.68206862	FALSE
CSF3	0.91638	-0.0309394	FALSE
CSF3R	0.730641	-0.10121018	FALSE
CSGALNAC	0.893071	0.03960398	FALSE
CSGALNAC	0.557442	0.17161727	FALSE
CSK	0.387065	0.25082523	FALSE
CSMD1	0.037759	0.55885622	FALSE
CSMD2	0.266229	-0.3190321	FALSE
CSMD3	0.982133	0.00660066	FALSE
CSN1S1	0.579969	-0.16203423	FALSE
CSNK1A1	0.583333	0.16061616	FALSE
CSNK1D	0.609698	-0.14961505	FALSE
CSNK1E	0.049979	-0.53245357	FALSE
CSNK1G1	0.482854	-0.20462059	FALSE
CSNK1G2	0.365865	-0.26182634	FALSE
CSNK1G2P	0.691043	0.11674009	FALSE
CSNK1G3	0.588569	0.15841594	FALSE
CSNK2A1	0.141504	0.41364161	FALSE
CSNK2A2	0.139186	-0.41584184	FALSE

CSNK2A3	0.613554	-0.14802197	FALSE
CSNK2B	0.793583	0.07700775	FALSE
CSPG4	0.226404	0.34543475	FALSE
CSPG4P10	0.329963	0.2812791	FALSE
CSPG4P11	0.408368	-0.24008811	FALSE
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CSPG4P13	0.557002	0.17180617	FALSE
CSPG5	0.007742	-0.67766818	FALSE
CSPP1	0.012018	-0.6490653	FALSE
CSRNP1	0.413341	-0.23762391	FALSE
CSRNP2	0.770539	0.08580863	FALSE
CSRNP3	0.245275	0.33259912	FALSE
CSRP1	0.127978	0.42684294	FALSE
CSRP2	0.445116	-0.22222236	FALSE
CSRP3	0.499879	0.1968953	FALSE
CST3	0.063499	0.50825113	FALSE
CST6	0.643652	0.13571314	FALSE
CST7	0.663743	-0.12761284	FALSE
CSTA	0.076365	0.48844914	FALSE
CTB	1.03E-05	0.90209075	TRUE
CSTF1	0.113334	-0.44224449	FALSE
CSTF2	0.958324	0.01540155	FALSE
CSTF2T	0.051113	-0.53025335	FALSE
CSTF3	0.934547	-0.02420243	FALSE
CSTL1	0.204983	0.3608363	FALSE
CT45A11P	0.184888	-0.37623785	FALSE
CT45A5	0.071995	0.49488806	FALSE
CT45A6	0.280835	0.3099502	FALSE
CT55	0.280258	0.31030354	FALSE
CTA-150C2	0.641909	0.13642007	FALSE
CTA-215D1	0.663393	0.1277533	FALSE
CTA-242H1	0.361702	0.26402656	FALSE
CTA-246H3	0.166104	0.3916394	FALSE
CTA-276O3	0.916747	-0.0308031	FALSE
CTA-331F8	0.862082	0.05117053	FALSE
CTA-351J1	0.897955	-0.03778604	FALSE
CTA-440B3	0.170813	0.38767658	FALSE
CTA-963H5	0.869477	-0.04840487	FALSE
CTAGE11P	0.800663	0.07431645	FALSE
CTAGE12P	0.386156	-0.25129031	FALSE
CTAGE15	0.754831	-0.09184582	FALSE
CTAGE3P	0.595	-0.15572428	FALSE
CTAGE4	0.86178	-0.05128374	FALSE
CTAGE5	0.090972	-0.46864715	FALSE
CTAGE6	0.550538	0.17458659	FALSE
CTAGE8	0.169452	0.38881397	FALSE
CTB-102L5	0.324579	-0.28429616	FALSE
CTB-1048E	0.800098	-0.07453099	FALSE

CTB-127M1	0.232637	0.34112469	FALSE
CTB-133G6	0.593824	0.15621572	FALSE
CTB-134H2	0.007471	-0.6798684	FALSE
CTB-134H2	0.810971	0.07040708	FALSE
CTB-159G1	0.964274	0.01320133	FALSE
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CTB-167G5	0.15845	-0.39824006	FALSE
CTB-47B11	0.149234	-0.40647302	FALSE
CTB-50E14	0.023117	0.60066043	FALSE
CTB-50L17	0.016883	-0.62486286	FALSE
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CTB-52I2.3	0.245972	0.33213646	FALSE
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CTB-54O9.9	0.703271	-0.11191555	FALSE
CTB-75G16	0.34531	0.27282745	FALSE
CTB-78O21	0.092103	-0.46720918	FALSE
CTB-79E8.3	0.914348	-0.03169355	FALSE
CTB-85P21	0.842522	-0.05850605	FALSE
CTBP1	0.522038	-0.18701882	FALSE
CTBP2	0.647355	0.1342135	FALSE
CTBP2P4	0.019566	-0.61373688	FALSE
CTBP2P6	0.000329	-0.81999471	TRUE
CTBP2P7	0.03765	-0.55911909	FALSE
CTBS	0.79937	0.07480753	FALSE
CTC-209L10	0.193977	0.36914565	FALSE
CTC-232P5	0.123962	-0.43094159	FALSE
CTC-250P2	0.447698	-0.22099569	FALSE
CTC-260E6	0.906957	-0.03443891	FALSE
CTC-260F20	0.40009	-0.24422457	FALSE
CTC-273B1	0.103723	-0.45310605	FALSE
CTC-281F2	0.039624	0.55445578	FALSE
CTC-308K2	0.204022	-0.36155035	FALSE
CTC-308K2	0.320954	0.28634361	FALSE
CTC-311G1	0.251965	-0.32819383	FALSE
CTC-312O1	0.068644	0.50001644	FALSE
CTC-329H1	0.80596	-0.07230618	FALSE
CTC-359D2	0.787807	-0.07920797	FALSE
CTC-360J1	0.947809	0.01929173	FALSE
CTC-398G3	0.875498	-0.04615536	FALSE
CTC-412M1	0.232637	-0.34112469	FALSE
CTC-412M1	0.180039	-0.38011259	FALSE
CTC-421K2	0.32151	-0.28602878	FALSE
CTC-428H1	0.21706	-0.35203542	FALSE
CTC-429C1	0.011712	-0.65082675	FALSE
CTC-429P9	0.019363	0.61453744	FALSE
CTC-432M1	0.51229	0.19133948	FALSE
CTC-435M1	0.517064	-0.18921904	FALSE
CTC-436P1	0.691043	0.11674009	FALSE

CTC-441N1	0.933062	-0.02475256	FALSE
CTC-444N2	0.244154	-0.33334429	FALSE
CTC-448F2	0.040582	-0.55225556	FALSE
CTC-451P1	0.685812	-0.11881195	FALSE
CTC-454I21	0.334011	-0.27902886	FALSE
CTC-455F1	0.746898	0.09490735	FALSE
CTC-458A3	0.291727	0.30335731	FALSE
CTC-459F4	0.309969	-0.29262944	FALSE
CTC-471F3	0.085903	-0.47524781	FALSE
CTC-471J1	0.662973	-0.12792176	FALSE
CTC-479C5	0.652801	0.13201328	FALSE
CTC-484M2	0.285376	-0.30718401	FALSE
CTC-487M2	0.426813	-0.23102324	FALSE
CTC-490E2	0.139156	-0.41587124	FALSE
CTC-493P1	0.851846	-0.05500553	FALSE
CTC-534A2	0.21706	-0.35203542	FALSE
CTC-539A1	0.647355	0.1342135	FALSE
CTC-543D1	0.349368	0.27062723	FALSE
CTC-550B1	0.467881	-0.21152188	FALSE
CTC-554D6	0.176859	0.38269092	FALSE
CTC-559E9	0.214	-0.35423564	FALSE
CTC-563A5	0.151032	-0.40484073	FALSE
CTC-756D1	0.065406	0.50514481	FALSE
CTC1	0.337271	-0.27722789	FALSE
CTCF	0.047766	-0.53685401	FALSE
CTCFL	0.482854	-0.20462059	FALSE
CTD-2006C	0.601643	0.15295584	FALSE
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CTD-2007H	0.93682	0.02336046	FALSE
CTD-2007N	0.464702	0.21300055	FALSE
CTD-2008P	0.019419	-0.61431355	FALSE
CTD-2010I	0.353453	-0.26842701	FALSE
CTD-2012J	0.070557	0.49706741	FALSE
CTD-2013M	0.586798	0.15915938	FALSE
CTD-2014B	0.426813	-0.23102324	FALSE
CTD-2020K	1	0	FALSE
CTD-2021A	0.814073	0.06923305	FALSE
CTD-2021A	0.036852	0.56105645	FALSE
CTD-2021K	0.527033	0.18481859	FALSE
CTD-2026D	0.076365	-0.48844914	FALSE
CTD-2033A	0.505266	0.19447621	FALSE
CTD-2033D	0.311555	0.29171431	FALSE
CTD-2054M	0.650793	0.13282365	FALSE
CTD-2062F	0.382774	0.25302546	FALSE
CTD-2063L	0.302409	0.29702988	FALSE
CTD-2073C	0.679938	-0.12114537	FALSE
CTD-2083E	0.114905	-0.44052863	FALSE
CTD-2086L	0.993909	0.00225023	FALSE

CTD-2105E	0.437592	-0.22581777	FALSE
CTD-2114J	0.14906	-0.40663207	FALSE
CTD-2116N	0.287612	0.30583077	FALSE
CTD-2124B	0.851846	-0.05500553	FALSE
CTD-2132N	0.433833	-0.22762556	FALSE
CTD-2140B	0.990227	0.00361018	FALSE
CTD-2161E	0.615026	0.14741483	FALSE
CTD-2165H	0.78204	0.08140819	FALSE
CTD-2179L	0.759081	-0.09020908	FALSE
CTD-2184D	0.083389	-0.47862317	FALSE
CTD-2192J	0.01231	-0.64741843	FALSE
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CTD-2195N	0.423004	-0.23287871	FALSE
CTD-2206N	0.302409	-0.29702988	FALSE
CTD-2207C	0.004687	-0.70704846	TRUE
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CTD-2218G	0.248606	-0.33039648	FALSE
CTD-2224J	0.163526	-0.39383962	FALSE
CTD-2228K	0.386525	-0.25110132	FALSE
CTD-2235C	0.717108	-0.10648793	FALSE
CTD-2245F	0.976179	0.00880089	FALSE
CTD-2248H	0.276799	-0.31243143	FALSE
CTD-2262B	0.487675	0.20242036	FALSE
CTD-2267D	0.158392	0.3982912	FALSE
CTD-2270N	0.4638	0.21342147	FALSE
CTD-2275D	0.327689	-0.28255031	FALSE
CTD-2287C	0.114449	0.44102549	FALSE
CTD-2290C	0.101495	-0.45572254	FALSE
CTD-2301A	0.823187	-0.06578833	FALSE
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CTD-2302E	0.395723	0.24642479	FALSE
CTD-2311N	0.92861	0.02640266	FALSE
CTD-2319I	0.972903	-0.01001163	FALSE
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CTD-2323K	0.199893	0.36464289	FALSE
CTD-2325A	0.828254	-0.06387665	FALSE
CTD-2331H	0.204448	-0.36123348	FALSE
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CTD-2342I	0.731104	-0.1010304	FALSE
CTD-2349B	0.682468	-0.1201395	FALSE
CTD-2349P	0.872554	-0.04725489	FALSE
CTD-2353N	0.358929	0.26549972	FALSE
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CTD-2370N	0.101729	-0.45544582	FALSE
CTD-2410N	0.710615	0.10903084	FALSE
CTD-2501B	0.94643	-0.01980199	FALSE

CTD-2510F	0.274752	0.31369759	FALSE
CTD-2514C	0.072258	0.49449339	FALSE
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CTD-2521M	0.302409	0.29702988	FALSE
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CTD-2547L	0.287612	0.30583077	FALSE
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CTD-2552B	0.437945	-0.22564844	FALSE
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CTD-2568A	0.863593	-0.05060509	FALSE
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CTD-2616J	0.289034	0.30497405	FALSE
CTD-2623N	0.269725	-0.31683187	FALSE
CTD-2647E	0.367814	0.26080061	FALSE
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CTD-3006G	0.658264	0.12981306	FALSE
CTD-3018C	0.067681	-0.5015238	FALSE
CTD-3030D	0.536632	-0.18061674	FALSE
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CTD-3073N	0.358759	0.26558994	FALSE
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CTD-3092A	0.003422	0.72387283	TRUE
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CTD-3116E	0.34588	-0.2725175	FALSE
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CTD-3148I	0.829418	0.06343799	FALSE
CTD-3187F	0.368763	0.26030225	FALSE
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CTD-3199J	0.199106	-0.36523674	FALSE
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CTD-3222D	0.717108	-0.10648793	FALSE
CTD-3233P	0.986118	-0.00512837	FALSE
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CTDNEP1	0.435916	0.2266228	FALSE
CTDP1	0.0201	-0.61166154	FALSE
CTDSP1	0.869477	-0.04840487	FALSE
CTDSP2	0.101729	-0.45544582	FALSE
CTDSPL	0.204983	-0.3608363	FALSE
CTDSPL2	0.232769	-0.34103431	FALSE
CTF1	0.294957	0.30143033	FALSE
CTGF	0.453902	-0.21806167	FALSE
CTH	0.187678	0.37403763	FALSE
CTHRC1	0.629985	0.14127516	FALSE
CTIF	0.898983	0.03740376	FALSE
CTLA4	0.337271	-0.27722789	FALSE
CTNNA1	0.449752	0.22002214	FALSE
CTNNA2	0.29867	-0.2992301	FALSE
CTNNAL1	0.982133	-0.00660066	FALSE
CTNNB1	0.082635	0.47964826	FALSE
CTNNBIP1	0.249158	-0.3300332	FALSE
CTNNBL1	0.776284	0.08360841	FALSE
CTNND1	0.204983	-0.3608363	FALSE
CTNS	0.051113	0.53025335	FALSE
CTPS1	0.361702	-0.26402656	FALSE
CTPS2	0.916747	0.0308031	FALSE
CTR9	0.013643	-0.64026441	FALSE
CTRC	0.970226	0.01100111	FALSE
CTRL	0.459093	-0.21562169	FALSE
CTSA	0.179388	0.38063829	FALSE
CTSB	0.054627	0.52365268	FALSE
CTSC	0.435916	0.2266228	FALSE
CTSD	0.049979	0.53245357	FALSE
CTSE	0.204983	0.3608363	FALSE
CTSF	0.487675	-0.20242036	FALSE
CTSG	0.770539	0.08580863	FALSE
CTSH	0.062172	0.51045135	FALSE

CTSK	0.004567	-0.70847128	TRUE
CTSL	0.008022	0.67546796	FALSE
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CTSS	0.449752	0.22002214	FALSE
CTSV	0.016883	0.62486286	FALSE
CTSW	0.276799	-0.31243143	FALSE
CTSZ	0.060866	0.51265158	FALSE
CTTN	0.822609	-0.06600664	FALSE
CTTNBP2	0.417168	0.23573761	FALSE
CTTNBP2NI	0.547224	0.17601771	FALSE
CTU1	0.333291	0.27942811	FALSE
CTU2	0.770539	0.08580863	FALSE
CTXN1	0.544232	0.17731278	FALSE
CUBN	0.062172	-0.51045135	FALSE
CUEDC1	0.130169	0.42464272	FALSE
CUEDC2	0.776284	-0.08360841	FALSE
CUL1	0.002516	-0.73927437	TRUE
CUL2	0.83428	0.0616062	FALSE
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CUL4A	0.851846	0.05500553	FALSE
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CUL5	0.431353	-0.22882302	FALSE
CUL7	0.934547	-0.02420243	FALSE
CUL9	0.302409	0.29702988	FALSE
CUTA	0.641924	0.13641372	FALSE
CUTC	0.674747	0.1232124	FALSE
CUX1	0.002516	-0.73927437	TRUE
CUX2	0.599097	-0.15401549	FALSE
CUZD1	0.341277	-0.27502767	FALSE
CWC15	0.052265	-0.52805312	FALSE
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CWF19L1	0.413341	0.23762391	FALSE
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CX3CL1	0.204983	0.3608363	FALSE
CX3CR1	0.000195	0.83608411	TRUE
CXADR	0.10937	0.44664493	FALSE
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CXCL10	0.000431	0.81105418	TRUE
CXCL11	0.000114	0.85098814	TRUE
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CXCL13	0.794253	-0.07675306	FALSE
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CXCL9	0.079634	0.48380005	FALSE
CXCR1	0.691043	-0.11674009	FALSE
CXCR2	0.021269	0.60726109	FALSE
CXCR2P1	0.009218	0.66666707	FALSE
CXCR3	0.845984	0.05720576	FALSE
CXCR4	0.357565	-0.26622678	FALSE
CXCR5	0.988088	0.00440044	FALSE
CXCR6	0.422298	-0.23322346	FALSE
CXorf21	0.242521	0.33443365	FALSE
CXorf23	0.199106	0.36523674	FALSE
CXorf36	0.325411	0.28382855	FALSE
CXorf38	0.382774	0.25302546	FALSE
CXorf40A	0.34531	-0.27282745	FALSE
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CXorf56	0.193338	-0.36963719	FALSE
CXorf57	0.173995	0.38503874	FALSE
CXorf65	0.922677	0.02860288	FALSE
CXXC1	0.547224	-0.17601771	FALSE
CXXC1P1	0.57249	-0.16519824	FALSE
CXXC4	0.869334	-0.04845815	FALSE
CXXC5	0.32151	-0.28602878	FALSE
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CYB561D1	0.770539	0.08580863	FALSE
CYB561D2	0.094465	0.46424671	FALSE
CYB5A	0.361702	0.26402656	FALSE
CYB5B	0.857716	0.05280531	FALSE
CYB5D1	0.994044	-0.00220022	FALSE
CYB5D2	0.067601	0.50165047	FALSE
CYB5R1	0.139186	0.41584184	FALSE
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CYB5R3	0.79937	0.07480753	FALSE
CYB5R4	0.537087	0.18041815	FALSE
CYB5RL	0.001562	0.76127659	TRUE
CYBA	0.273248	0.31463165	FALSE
CYBB	0.435916	0.2266228	FALSE
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CYC1	0.151032	0.40484073	FALSE
CYCS	0.054627	0.52365268	FALSE
CYCSP24	0.57249	-0.16519824	FALSE
CYCSP28	0.871861	0.0475138	FALSE
CYCSP34	0.202031	-0.36303652	FALSE
CYCSP38	0.23754	0.33778429	FALSE
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CYHR1	0.522038	-0.18701882	FALSE
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CYTH1	0.445116	0.22222236	FALSE
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CYTL1	0.976073	-0.00883983	FALSE
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DAG1	0.017909	0.62046242	FALSE
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DAOA	0.969549	0.01125116	FALSE
DAP	0.904899	0.03520354	FALSE
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DAP3P1	0.87523	0.04625551	FALSE

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DAQB-143M	0.441742	0.22383109	FALSE
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DAW1	0.08757	0.47304759	FALSE
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DBIL5P	0.652801	0.13201328	FALSE
DBIL5P2	0.08926	-0.47084737	FALSE
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DBNDD1	0.431353	-0.22882302	FALSE
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DBNL	0.000651	0.79648013	TRUE
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DCBLD2	0.365865	-0.26182634	FALSE
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DDX6P2	0.234172	-0.34007435	FALSE
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DEC1	0.56774	-0.16721682	FALSE
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DEF6	0.625734	-0.14301439	FALSE
DEF8	0.096246	0.46204648	FALSE
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DEK	0.417807	0.23542368	FALSE
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DENND1B	0.408899	-0.23982413	FALSE
DENND1C	0.492518	0.20022014	FALSE
DENND2A	0.970226	0.01100111	FALSE
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DENND4A	0.696936	0.11441151	FALSE
DENND4B	0.010901	0.65566596	FALSE
DENND4C	0.035084	-0.56545689	FALSE
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DENND5B	0.487675	0.20242036	FALSE
DENND6A	0.294957	-0.30143033	FALSE
DENND6B	0.583333	0.16061616	FALSE
DENR	0.010901	-0.65566596	FALSE
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DEPTOR	0.512111	-0.19141926	FALSE
DERA	0.337271	0.27722789	FALSE
DERL1	0.970226	0.01100111	FALSE
DERL2	0.242521	0.33443365	FALSE
DERL3	0.036852	-0.56105645	FALSE
DES	0.14108	0.41404283	FALSE
DESI1	0.934547	0.02420243	FALSE
DESI2	0.353453	-0.26842701	FALSE
DET1	0.357565	-0.26622678	FALSE
DEXI	0.207961	-0.35863608	FALSE
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DGCR14	0.542145	-0.17821793	FALSE
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DGKA	0.994044	-0.00220022	FALSE
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DGKH	0.440504	0.22442258	FALSE
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DGKZ	0.537087	0.18041815	FALSE
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DHCR24	0.007471	0.6798684	FALSE
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DHFR	0.070438	0.49725003	FALSE
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DHH	0.679938	-0.12114537	FALSE
DHODH	0.53205	0.18261837	FALSE

DHPS	0.262761	-0.32123232	FALSE
DHRS1	0.255905	0.32563276	FALSE
DHRS11	0.631114	-0.14081417	FALSE
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DHRS4L1	0.816786	0.06820686	FALSE
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DHX38	0.680272	-0.12101217	FALSE
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DHX40P1	0.719353	0.10561062	FALSE
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DHX9	0.09805	-0.45984626	FALSE
DHX9P1	0.779659	-0.08231781	FALSE
DIABLO	0.064846	0.50605091	FALSE
DIAPH1	0.294957	0.30143033	FALSE
DIAPH2	0.764804	-0.08800885	FALSE
DIAPH3	0.168708	0.38943918	FALSE
DICER1	0.187678	-0.37403763	FALSE
DIDO1	0.168708	-0.38943918	FALSE
DIEXF	0.78204	-0.08140819	FALSE
DIMT1	0.857716	-0.05280531	FALSE
DIO1	0.465074	-0.21282751	FALSE
DIO2	0.881262	0.04400443	FALSE
DIP2A	0.764804	0.08800885	FALSE
DIP2B	0.487675	-0.20242036	FALSE
DIP2C	0.94643	0.01980199	FALSE
DIRAS1	0.010901	0.65566596	FALSE
DIRAS2	0.026463	0.58965932	FALSE

DIRC2	0.220147	-0.3498352	FALSE
DIRC3	0.009427	0.66521687	FALSE
DIS3	0.404482	-0.24202435	FALSE
DIS3L	0.764804	-0.08800885	FALSE
DIS3L2	0.229572	-0.34323453	FALSE
DISC1	0.578116	-0.16281638	FALSE
DISP1	0.047766	-0.53685401	FALSE
DISP2	0.599097	-0.15401549	FALSE
DISP3	0.182124	0.37843807	FALSE
DIXDC1	0.454411	-0.21782191	FALSE
DKC1	0.625734	-0.14301439	FALSE
DKK2	0.021147	0.60771229	FALSE
DKK3	0.009756	0.66298707	FALSE
DKK4	0.058025	-0.51755424	FALSE
DLAT	0.041556	-0.55005534	FALSE
DLC1	0.537087	-0.18041815	FALSE
DLD	0.404482	-0.24202435	FALSE
DLEC1	0.822609	0.06600664	FALSE
DLEU7	0.404482	0.24202435	FALSE
DLG1	0.736305	-0.09900996	FALSE
DLG2	0.079456	-0.4840487	FALSE
DLG3	0.604388	0.15181527	FALSE
DLG4	0.863593	0.05060509	FALSE
DLG5	0.658264	0.12981306	FALSE
DLGAP1	0.435916	-0.2266228	FALSE
DLGAP2	0.970094	0.01104978	FALSE
DLGAP3	0.976179	-0.00880089	FALSE
DLGAP4	0.869477	0.04840487	FALSE
DLGAP5	0.163526	0.39383962	FALSE
DLK1	0.981727	-0.0067507	FALSE
DLK2	0.361702	0.26402656	FALSE
DLL1	0.719353	0.10561062	FALSE
DLL3	0.57249	-0.16519824	FALSE
DLL4	0.522038	-0.18701882	FALSE
DLST	0.249158	0.3300332	FALSE
DLX1	0.884614	-0.04275442	FALSE
DLX2	0.473281	-0.20902103	FALSE
DLX3	0.776339	0.0835873	FALSE
DLX4	0.708117	0.11001107	FALSE
DLX6	0.91638	0.0309394	FALSE
DMAP1	0.302409	-0.29702988	FALSE
DMBT1P1	0.232769	-0.34103431	FALSE
DMBX1	0.255905	0.32563276	FALSE
DMC1	0.620371	-0.14521461	FALSE
DMD	0.857716	0.05280531	FALSE
DMGDH	0.631114	0.14081417	FALSE
DMKN	0.976179	-0.00880089	FALSE
DMPK	0.0779	0.48624892	FALSE

DMRT1	0.237039	0.3381234	FALSE
DMRTA1	0.000949	0.78207699	TRUE
DMRTA2	0.092823	-0.4663009	FALSE
DMRTC1B	0.611964	-0.14867841	FALSE
DMRTC2	0.357565	0.26622678	FALSE
DMTF1	0.713728	-0.10781085	FALSE
DMTN	0.262761	-0.32123232	FALSE
DMWD	0.007471	0.6798684	FALSE
DMXL1	0.578116	0.16281638	FALSE
DMXL2	0.173995	0.38503874	FALSE
DNA2	0.552323	-0.17381749	FALSE
DNAAF1	0.010901	0.65566596	FALSE
DNAAF2	0.365865	0.26182634	FALSE
DNAAF3	0.168198	-0.38986784	FALSE
DNAAF5	0.306176	-0.29482966	FALSE
DNAH1	0.357565	0.26622678	FALSE
DNAH10	0.940487	-0.02200221	FALSE
DNAH10OS	0.269725	-0.31683187	FALSE
DNAH11	0.658264	-0.12981306	FALSE
DNAH12	0.910821	-0.03300332	FALSE
DNAH14	0.940487	0.02200221	FALSE
DNAH17	0.527033	-0.18481859	FALSE
DNAH2	0.378508	-0.25522568	FALSE
DNAH3	0.459093	0.21562169	FALSE
DNAH5	0.713728	-0.10781085	FALSE
DNAH6	0.851846	-0.05500553	FALSE
DNAH7	0.459093	0.21562169	FALSE
DNAH8	0.287055	0.3061674	FALSE
DNAH9	0.572919	0.1650166	FALSE
DNAI2	0.86803	0.04894572	FALSE
DNAJA1	0.851846	0.05500553	FALSE
DNAJA1P2	0.233278	0.34068548	FALSE
DNAJA1P3	0.051951	0.52864989	FALSE
DNAJA2	0.32151	-0.28602878	FALSE
DNAJA3	0.952376	0.01760177	FALSE
DNAJA4	0.045626	0.54125445	FALSE
DNAJB1	0.357565	0.26622678	FALSE
DNAJB11	0.454411	-0.21782191	FALSE
DNAJB12	0.391381	0.24862501	FALSE
DNAJB13	0.83428	0.0616062	FALSE
DNAJB14	0.641924	-0.13641372	FALSE
DNAJB1P1	0.118883	0.436257	FALSE
DNAJB2	0.045626	0.54125445	FALSE
DNAJB4	0.163526	0.39383962	FALSE
DNAJB5	0.190494	0.37183741	FALSE
DNAJB6	0.964274	-0.01320133	FALSE
DNAJB7	0.103603	0.4532456	FALSE
DNAJB9	0.333291	-0.27942811	FALSE

DNAJC1	0.583333	-0.16061616	FALSE
DNAJC10	0.353453	0.26842701	FALSE
DNAJC11	0.117395	-0.43784405	FALSE
DNAJC12	0.210967	-0.35643586	FALSE
DNAJC13	0.56774	0.16721682	FALSE
DNAJC14	0.468529	-0.21122125	FALSE
DNAJC15	0.674747	0.1232124	FALSE
DNAJC16	0.988088	0.00440044	FALSE
DNAJC17	0.685812	0.11881195	FALSE
DNAJC18	0.333291	-0.27942811	FALSE
DNAJC19	0.032552	-0.57205755	FALSE
DNAJC19P5	0.492518	-0.20022014	FALSE
DNAJC2	0.090972	-0.46864715	FALSE
DNAJC21	0.291271	-0.30363055	FALSE
DNAJC22	0.034225	-0.56765711	FALSE
DNAJC24	0.242521	-0.33443365	FALSE
DNAJC25	0.994044	0.00220022	FALSE
DNAJC25-G	0.022488	-0.60286065	FALSE
DNAJC27	0.306176	-0.29482966	FALSE
DNAJC28	0.242521	-0.33443365	FALSE
DNAJC3	0.497383	0.19801992	FALSE
DNAJC30	0.134627	0.42024228	FALSE
DNAJC4	0.492518	-0.20022014	FALSE
DNAJC5	0.223262	0.34763497	FALSE
DNAJC5B	0.057064	0.51925224	FALSE
DNAJC5G	0.920924	-0.02925303	FALSE
DNAJC6	0.027898	0.58525888	FALSE
DNAJC7	0.922677	0.02860288	FALSE
DNAJC8	0.497383	0.19801992	FALSE
DNAJC8P1	0.642268	0.13627419	FALSE
DNAJC9	0.759081	-0.09020908	FALSE
DNAL1	0.014967	-0.63366375	FALSE
DNAL4	0.652801	-0.13201328	FALSE
DNALI1	0.904899	-0.03520354	FALSE
DNASE1	0.166104	-0.3916394	FALSE
DNASE1L1	0.000167	0.84048456	TRUE
DNASE1L2	0.143848	-0.41144139	FALSE
DNASE1L3	0.747669	0.09460952	FALSE
DNASE2	0.840128	0.05940598	FALSE
DND1	0.691367	-0.11661173	FALSE
DND1P1	0.302409	0.29702988	FALSE
DNER	0.116508	0.43879539	FALSE
DNHD1	0.904899	0.03520354	FALSE
DNLZ	0.776284	-0.08360841	FALSE
DNM1	0.578116	-0.16281638	FALSE
DNM1L	0.148612	-0.40704095	FALSE
DNM1P33	0.01531	-0.63203031	FALSE
DNM1P34	0.052265	-0.52805312	FALSE

DNM1P38	0.073378	-0.49282039	FALSE
DNM1P46	0.417807	-0.23542368	FALSE
DNM1P47	0.4638	-0.21342147	FALSE
DNM1P51	0.378508	-0.25522568	FALSE
DNM2	0.482854	0.20462059	FALSE
DNM3	0.685812	-0.11881195	FALSE
DNMBP	0.337271	0.27722789	FALSE
DNMT1	0.182124	0.37843807	FALSE
DNMT3A	0.003881	-0.71727216	TRUE
DNMT3B	0.139186	0.41584184	FALSE
DNMT3L	0.612074	0.1486329	FALSE
DNPEP	0.096246	-0.46204648	FALSE
DNPH1	0.021872	0.60506087	FALSE
DNTT	0.232221	-0.34140969	FALSE
DNTTIP1	0.713728	0.10781085	FALSE
DNTTIP2	0.988088	0.00440044	FALSE
DOC2A	0.044582	-0.54345467	FALSE
DOC2B	0.92861	-0.02640266	FALSE
DOC2GP	0.101418	-0.45581368	FALSE
DOCK1	0.315403	0.28950435	FALSE
DOCK10	0.92861	0.02640266	FALSE
DOCK11	0.103603	-0.4532456	FALSE
DOCK11P1	0.752309	-0.09281819	FALSE
DOCK2	0.669238	0.12541262	FALSE
DOCK3	0.070438	0.49725003	FALSE
DOCK4	0.32151	-0.28602878	FALSE
DOCK5	0.770539	0.08580863	FALSE
DOCK6	0.105502	0.45104538	FALSE
DOCK7	0.522038	-0.18701882	FALSE
DOCK8	0.29867	0.2992301	FALSE
DOCK9	0.893071	0.03960398	FALSE
DOHH	0.134627	0.42024228	FALSE
DOK1	0.341277	0.27502767	FALSE
DOK2	0.119462	0.43564383	FALSE
DOK3	0.349368	0.27062723	FALSE
DOK4	0.193338	-0.36963719	FALSE
DOK5	0.069281	0.49902896	FALSE
DOK6	0.242521	-0.33443365	FALSE
DOK7	0.731792	0.10076277	FALSE
DOLK	0.810971	0.07040708	FALSE
DOLPP1	0.79937	-0.07480753	FALSE
DONSON	0.647355	-0.1342135	FALSE
DOPEY1	0.572919	-0.1650166	FALSE
DOPEY2	0.21706	0.35203542	FALSE
DOT1L	0.084258	0.47744803	FALSE
DPAGT1	0.593824	0.15621572	FALSE
DPCD	0.83428	-0.0616062	FALSE
DPEP1	0.112378	-0.44329586	FALSE

DPEP2	0.32151	0.28602878	FALSE
DPEP3	0.723817	0.10386797	FALSE
DPF1	0.103603	0.4532456	FALSE
DPF2	0.166104	-0.3916394	FALSE
DPF3	0.916747	0.0308031	FALSE
DPH1	0.204983	-0.3608363	FALSE
DPH2	0.547224	0.17601771	FALSE
DPH3	0.770539	0.08580863	FALSE
DPH5	0.179388	-0.38063829	FALSE
DPH6	0.041556	0.55005534	FALSE
DPH7	0.517064	-0.18921904	FALSE
DPM1	0.517064	0.18921904	FALSE
DPM2	0.062172	0.51045135	FALSE
DPM3	0.266229	0.3190321	FALSE
DPP10	0.302409	0.29702988	FALSE
DPP3	0.242521	0.33443365	FALSE
DPP4	0.266229	0.3190321	FALSE
DPP6	0.893071	-0.03960398	FALSE
DPP7	0.408899	0.23982413	FALSE
DPP8	0.952376	0.01760177	FALSE
DPP9	0.70252	-0.11221129	FALSE
DPPA4	0.759081	0.09020908	FALSE
DPPA5P4	0.271008	0.31602869	FALSE
DPRX	0.101119	0.45616757	FALSE
DPRXP2	0.569385	0.16651723	FALSE
DPRXP3	0.562581	0.16941704	FALSE
DPRXP4	0.53205	0.18261837	FALSE
DPY19L1	0.121554	0.43344361	FALSE
DPY19L1P1	0.492518	0.20022014	FALSE
DPY19L1P2	0.994018	-0.00220996	FALSE
DPY19L2	0.239243	-0.33663387	FALSE
DPY19L2P1	0.473281	-0.20902103	FALSE
DPY19L2P2	0.92861	-0.02640266	FALSE
DPY19L2P3	0.168708	0.38943918	FALSE
DPY19L3	0.337271	-0.27722789	FALSE
DPY19L4	0.111339	-0.44444471	FALSE
DPY30	0.56774	-0.16721682	FALSE
DPYD	0.741981	0.09680974	FALSE
DPYS	0.223262	-0.34763497	FALSE
DPYSL2	0.111339	0.44444471	FALSE
DPYSL3	0.337271	0.27722789	FALSE
DPYSL4	0.592171	0.15690694	FALSE
DPYSL5	0.105502	-0.45104538	FALSE
DQX1	0.668892	-0.12555066	FALSE
DR1	0.08757	0.47304759	FALSE
DRAM1	0.478056	0.20682081	FALSE
DRAM2	0.776284	-0.08360841	FALSE
DRAP1	0.875366	-0.04620465	FALSE

DRAXIN	0.557442	-0.17161727	FALSE
DRC1	0.652801	-0.13201328	FALSE
DRC3	0.337271	-0.27722789	FALSE
DRC7	0.910821	-0.03300332	FALSE
DRD4	0.026463	-0.58965932	FALSE
DRG1	0.851846	-0.05500553	FALSE
DRG2	0.964274	0.01320133	FALSE
DRGX	0.536632	0.18061674	FALSE
DRICH1	0.497383	-0.19801992	FALSE
DROSHA	0.092707	-0.46644693	FALSE
DRP2	0.805166	0.0726073	FALSE
DSC1	0.743601	0.09618265	FALSE
DSC2	0.190494	0.37183741	FALSE
DSC3	0.910821	-0.03300332	FALSE
DSCAML1	0.447698	0.22099569	FALSE
DSCC1	0.82844	-0.06380642	FALSE
DSCR3	0.79937	0.07480753	FALSE
DSE	0.713728	-0.10781085	FALSE
DSEL	0.497383	0.19801992	FALSE
DSG2	0.151032	0.40484073	FALSE
DSG3	0.736305	0.09900996	FALSE
DSN1	0.101729	0.45544582	FALSE
DSP	0.641924	0.13641372	FALSE
DST	0.01739	0.62266264	FALSE
DSTN	0.454411	-0.21782191	FALSE
DSTNP2	0.583333	0.16061616	FALSE
DSTYK	0.578116	-0.16281638	FALSE
DTD1	0.004753	0.70627105	TRUE
DTD2	0.196209	-0.36743697	FALSE
DTHD1	0.658264	0.12981306	FALSE
DTL	0.988088	-0.00440044	FALSE
DTNA	0.001811	0.75467592	TRUE
DTNB	0.067601	-0.50165047	FALSE
DTNBP1	0.266229	-0.3190321	FALSE
DTWD1	0.008604	-0.67106751	FALSE
DTWD2	0.255905	0.32563276	FALSE
DTX1	0.562581	0.16941704	FALSE
DTX2	0.179388	0.38063829	FALSE
DTX2P1	0.641924	-0.13641372	FALSE
DTX3	0.214	0.35423564	FALSE
DTX3L	0.058312	0.51705202	FALSE
DTX4	0.035084	0.56545689	FALSE
DTYMK	0.12367	0.43124339	FALSE
DUOX1	0.283981	-0.30803099	FALSE
DUOX2	0.011264	-0.65346574	FALSE
DUOXA1	0.278354	-0.31147278	FALSE
DUOXA2	0.065406	-0.50514481	FALSE
DUS1L	0.309969	0.29262944	FALSE

DUS2	0.361702	-0.26402656	FALSE
DUS3L	0.210967	-0.35643586	FALSE
DUS4L	0.822609	0.06600664	FALSE
DUSP1	0.115352	0.44004427	FALSE
DUSP10	0.141504	-0.41364161	FALSE
DUSP11	0.235992	-0.33883409	FALSE
DUSP12	0.329337	-0.28162833	FALSE
DUSP13	0.923746	0.02820606	FALSE
DUSP14	0.747669	-0.09460952	FALSE
DUSP15	0.053866	0.52505412	FALSE
DUSP16	0.934547	0.02420243	FALSE
DUSP18	0.101729	0.45544582	FALSE
DUSP19	0.073359	0.49284958	FALSE
DUSP2	0.982133	-0.00660066	FALSE
DUSP22	0.226404	-0.34543475	FALSE
DUSP23	0.845984	0.05720576	FALSE
DUSP27	0.198575	-0.36563877	FALSE
DUSP28	0.770539	0.08580863	FALSE
DUSP3	0.440504	0.22442258	FALSE
DUSP4	0.982133	0.00660066	FALSE
DUSP5	0.82844	0.06380642	FALSE
DUSP5P1	0.002723	0.73541073	TRUE
DUSP6	0.210967	0.35643586	FALSE
DUSP7	0.34531	0.27282745	FALSE
DUSP8	0.730641	0.10121018	FALSE
DUSP8P3	0.416886	-0.23587649	FALSE
DUSP8P5	0.56774	0.16721682	FALSE
DUT	0.547224	-0.17601771	FALSE
DUTP6	0.4638	-0.21342147	FALSE
DUX4	0.449752	0.22002214	FALSE
DUX4L27	0.220995	-0.34923461	FALSE
DUX4L35	0.143479	-0.41178623	FALSE
DUX4L50	0.955498	-0.01644689	FALSE
DUXA	0.243614	0.33370349	FALSE
DUXAP7	0.79937	0.07480753	FALSE
DUXAP9	0.111339	0.44444471	FALSE
DVL1	0.287612	0.30583077	FALSE
DVL2	0.527033	0.18481859	FALSE
DVL3	0.32151	-0.28602878	FALSE
DXO	0.081035	0.48184848	FALSE
DYDC1	0.41728	0.23568282	FALSE
DYDC2	0.70252	0.11221129	FALSE
DYM	0.113334	-0.44224449	FALSE
DYNAP	0.851846	-0.05500553	FALSE
DYNC1H1	0.94643	0.01980199	FALSE
DYNC1I1	0.404482	0.24202435	FALSE
DYNC1I2	0.741981	0.09680974	FALSE
DYNC1LI1	0.674747	-0.1232124	FALSE

DYNC1LI2	0.341277	0.27502767	FALSE
DYNC2H1	0.220147	0.3498352	FALSE
DYNC2LI1	0.023117	-0.60066043	FALSE
DYNLL1	0.916747	0.0308031	FALSE
DYNLL1P1	0.71126	0.10877799	FALSE
DYNLL1P4	0.163583	-0.39379073	FALSE
DYNLL2	0.422298	-0.23322346	FALSE
DYNLRB1	0.207961	0.35863608	FALSE
DYNLT1	0.741981	-0.09680974	FALSE
DYNLT3	0.863593	0.05060509	FALSE
DYNLT3P2	0.555673	0.17237664	FALSE
DYRK1A	0.863593	-0.05060509	FALSE
DYRK1B	0.151032	-0.40484073	FALSE
DYRK2	0.4638	-0.21342147	FALSE
DYRK3	0.092707	-0.46644693	FALSE
DYRK4	0.306176	-0.29482966	FALSE
DYSF	0.214	0.35423564	FALSE
DYTN	0.974562	-0.00939822	FALSE
DYX1C1	0.073359	-0.49284958	FALSE
DZANK1	0.583333	0.16061616	FALSE
DZIP1	0.204983	-0.3608363	FALSE
DZIP1L	0.92861	0.02640266	FALSE
DZIP3	0.641924	-0.13641372	FALSE
E2F1	0.187678	0.37403763	FALSE
E2F2	0.179388	0.38063829	FALSE
E2F3	0.31379	-0.29042922	FALSE
E2F3P1	0.618808	-0.14585715	FALSE
E2F3P2	0.32151	-0.28602878	FALSE
E2F4	0.631114	0.14081417	FALSE
E2F5	0.641924	-0.13641372	FALSE
E2F6	0.578116	-0.16281638	FALSE
E2F6P4	0.187701	-0.37401886	FALSE
E2F7	0.0201	0.61166154	FALSE
E2F8	0.259319	0.32343254	FALSE
E4F1	0.92861	-0.02640266	FALSE
EAF1	0.904899	0.03520354	FALSE
EAF2	0.103603	0.4532456	FALSE
EAPP	0.283981	-0.30803099	FALSE
EARS2	0.242521	0.33443365	FALSE
EBAG9	0.153479	-0.40264051	FALSE
EBAG9P1	0.793583	-0.07700775	FALSE
EBF1	0.893071	0.03960398	FALSE
EBF2	0.641554	0.13656388	FALSE
EBF3	0.006589	-0.68746493	FALSE
EBF4	0.922677	-0.02860288	FALSE
EBI3	0.166104	0.3916394	FALSE
EBLN2	0.875366	0.04620465	FALSE
EBNA1BP2	0.708117	0.11001107	FALSE

EBP	0.141504	0.41364161	FALSE
EBPL	0.042548	-0.54785512	FALSE
ECD	0.776284	0.08360841	FALSE
ECE1	0.119462	0.43564383	FALSE
ECE2	0.022488	-0.60286065	FALSE
ECEL1	0.042548	-0.54785512	FALSE
ECEL1P2	0.101119	0.45616757	FALSE
ECH1	0.422298	0.23322346	FALSE
ECHDC1	0.027898	0.58525888	FALSE
ECHDC2	0.232769	0.34103431	FALSE
ECHDC3	0.280376	0.31023121	FALSE
ECHS1	0.341277	0.27502767	FALSE
ECI1	0.259319	0.32343254	FALSE
ECI2	0.030158	-0.57865822	FALSE
ECM1	0.83428	-0.0616062	FALSE
ECM2	0.844282	0.05784495	FALSE
ECSCR	0.074851	-0.49064936	FALSE
ECSIT	0.79937	0.07480753	FALSE
ECT2	0.276799	-0.31243143	FALSE
ECT2L	0.153479	-0.40264051	FALSE
EDA	0.816587	0.06828194	FALSE
EDA2R	0.753369	0.0924093	FALSE
EDAR	0.804319	-0.07292858	FALSE
EDARADD	0.753369	0.0924093	FALSE
EDC3	0.047766	-0.53685401	FALSE
EDC4	0.283981	-0.30803099	FALSE
EDEM1	0.071888	0.4950498	FALSE
EDEM2	0.583333	-0.16061616	FALSE
EDEM3	0.042548	-0.54785512	FALSE
EDF1	0.562581	0.16941704	FALSE
EDIL3	0.461777	-0.21436582	FALSE
EDN1	0.50718	0.19361948	FALSE
EDN2	0.57323	0.16488454	FALSE
EDNRB	0.941153	-0.0217556	FALSE
EDRF1	0.413341	-0.23762391	FALSE
EEA1	0.970226	0.01100111	FALSE
EED	0.378508	-0.25522568	FALSE
EEF1A1	0.143848	-0.41144139	FALSE
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EEF1A1P10	0.101729	0.45544582	FALSE
EEF1A1P11	0.787807	-0.07920797	FALSE
EEF1A1P12	0.793583	-0.07700775	FALSE
EEF1A1P13	0.970226	-0.01100111	FALSE
EEF1A1P14	0.658264	-0.12981306	FALSE
EEF1A1P15	0.517064	-0.18921904	FALSE
EEF1A1P16	0.593824	0.15621572	FALSE
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EEF1A1P19	0.29867	-0.2992301	FALSE

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EEF1A1P25	0.193338	0.36963719	FALSE
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EEF1A1P28	0.741981	-0.09680974	FALSE
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EEF1A1P38	0.309969	0.29262944	FALSE
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EEF1A1P8	0.741981	-0.09680974	FALSE
EEF1A1P9	0.615026	-0.14741483	FALSE
EEF1A2	0.994044	-0.00220022	FALSE
EEF1AKMT1	0.669238	-0.12541262	FALSE
EEF1B2	0.0779	-0.48624892	FALSE
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EEF1B2P2	0.78204	-0.08140819	FALSE
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EEF1B2P7	0.720038	-0.1053429	FALSE
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EEF1DP1	0.507402	-0.19352002	FALSE
EEF1DP2	0.822609	-0.06600664	FALSE
EEF1DP3	0.730641	0.10121018	FALSE
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EEF1GP1	0.842522	0.05850605	FALSE
EEF1GP3	0.462968	0.21380951	FALSE
EEF1GP4	0.823189	0.06578754	FALSE
EEF1GP5	0.173995	-0.38503874	FALSE
EEF1GP7	0.517313	-0.18910848	FALSE
EEF1GP8	0.048102	-0.53617815	FALSE
EEF2	0.062172	-0.51045135	FALSE
EEF2K	0.127978	-0.42684294	FALSE
EEF2KMT	0.059579	0.5148518	FALSE
EEFSEC	0.988075	0.00440529	FALSE

EEPD1	0.341277	-0.27502767	FALSE
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EFCAB7	0.018439	-0.6182622	FALSE
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EFCC1	0.00943	0.66519702	FALSE
EFEMP1	0.221709	0.34872941	FALSE
EFEMP2	0.08757	0.47304759	FALSE
EFHB	0.196209	0.36743697	FALSE
EFHC1	0.171338	-0.38723896	FALSE
EFHC2	0.099878	-0.45764604	FALSE
EFHD1	0.121554	-0.43344361	FALSE
EFHD2	0.027173	0.5874591	FALSE
EFL1	0.857716	-0.05280531	FALSE
EFNA1	0.017909	-0.62046242	FALSE
EFNA2	0.081091	-0.4817706	FALSE
EFNA3	0.893071	0.03960398	FALSE
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EFNA5	0.021872	0.60506087	FALSE
EFNB1	0.361702	-0.26402656	FALSE
EFNB2	0.096858	-0.46129772	FALSE
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EFR3A	0.302409	0.29702988	FALSE
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EFS	0.068974	0.49950401	FALSE
EFTUD2	0.620371	0.14521461	FALSE
EGF	0.713425	-0.10792952	FALSE
EGFEM1P	0.839954	0.05947137	FALSE
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EGFL8	0.057064	-0.51925224	FALSE
EGFLAM	0.123962	0.43094159	FALSE
EGLN1	0.487675	0.20242036	FALSE
EGLN1P1	0.293038	-0.30257405	FALSE
EGLN2	0.426813	0.23102324	FALSE
EGLN3	0.916655	-0.030837	FALSE
EGR1	0.857716	0.05280531	FALSE
EGR2	0.229572	0.34323453	FALSE
EGR3	0.94643	-0.01980199	FALSE
EGR4	0.046687	0.53905423	FALSE
EHBP1	0.000301	-0.82288279	TRUE

EHBP1L1	0.073359	0.49284958	FALSE
EHD1	0.079456	0.4840487	FALSE
EHD2	0.173995	-0.38503874	FALSE
EHD3	0.940487	0.02200221	FALSE
EHD4	0.049979	0.53245357	FALSE
EHF	0.013241	0.64236267	FALSE
EHHADH	0.076365	0.48844914	FALSE
EHMT1	0.276799	-0.31243143	FALSE
EHMT2	0.40009	-0.24422457	FALSE
EI24	0.190494	-0.37183741	FALSE
EID1	0.588569	-0.15841594	FALSE
EID2	0.136894	-0.41804206	FALSE
EID2B	0.29867	-0.2992301	FALSE
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EIF1	0.753369	0.0924093	FALSE
EIF1AD	0.940487	0.02200221	FALSE
EIF1AX	0.736305	0.09900996	FALSE
EIF1AXP1	0.184888	0.37623785	FALSE
EIF1AY	0.357565	0.26622678	FALSE
EIF1B	0.055836	0.52145246	FALSE
EIF1P6	0.403523	-0.24250381	FALSE
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EIF2A	0.190494	-0.37183741	FALSE
EIF2AK1	0.893071	-0.03960398	FALSE
EIF2AK2	0.730641	0.10121018	FALSE
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EIF2D	0.099878	-0.45764604	FALSE
EIF2S1	0.139186	0.41584184	FALSE
EIF2S2	0.759081	-0.09020908	FALSE
EIF2S2P2	0.813517	0.06944324	FALSE
EIF2S2P3	0.019534	-0.61386176	FALSE
EIF2S2P4	0.408368	-0.24008811	FALSE
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EIF4A1P7	0.65932	0.12938856	FALSE
EIF4A1P9	0.908802	0.03375349	FALSE
EIF4A2	0.276799	-0.31243143	FALSE
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EIF4EBP1	0.869477	0.04840487	FALSE
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EIF4ENIF1	0.34531	-0.27282745	FALSE
EIF4G1	0.753369	0.0924093	FALSE
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EIF5	0.898983	0.03740376	FALSE
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EIF5A2	0.073359	0.49284958	FALSE
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EIF5AP2	0.074851	0.49064936	FALSE
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ELAC2	0.527033	-0.18481859	FALSE
ELANE	0.910821	-0.03300332	FALSE
ELAVL1	0.262761	-0.32123232	FALSE
ELAVL2	0.868904	0.04861905	FALSE
ELAVL3	0.747669	-0.09460952	FALSE
ELF1	0.741981	-0.09680974	FALSE
ELF2	0.01543	-0.63146353	FALSE
ELF3	0.674747	0.1232124	FALSE
ELF4	0.387065	0.25082523	FALSE
ELF5	0.002091	0.74807526	TRUE
ELFN1	0.034225	0.56765711	FALSE
ELFN2	0.439988	-0.2246696	FALSE
ELK1	0.730641	0.10121018	FALSE
ELK3	0.881262	-0.04400443	FALSE
ELK4	0.887164	-0.04180421	FALSE
ELL	0.478056	0.20682081	FALSE
ELL2	0.008604	0.67106751	FALSE
ELL2P1	0.005342	0.69970136	FALSE
ELL3	0.179388	0.38063829	FALSE
ELMO1	0.034225	-0.56765711	FALSE
ELMO2	0.184888	0.37623785	FALSE
ELMO3	0.572919	0.1650166	FALSE
ELMOD1	0.604388	0.15181527	FALSE
ELMOD2	0.845984	0.05720576	FALSE
ELMOD3	0.060866	0.51265158	FALSE
ELMSAN1	0.030158	-0.57865822	FALSE
ELN	0.747669	-0.09460952	FALSE
ELOF1	0.83428	0.0616062	FALSE
ELOVL1	0.232769	0.34103431	FALSE
ELOVL3	0.502271	0.1958197	FALSE
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ELOVL5	0.53205	0.18261837	FALSE
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ELP2	0.259319	-0.32343254	FALSE
ELP3	0.497383	0.19801992	FALSE
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EMB	0.502271	0.1958197	FALSE

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EMC2	0.294957	0.30143033	FALSE
EMC3	0.527033	0.18481859	FALSE
EMC3-AS1	0.753369	-0.0924093	FALSE
EMC4	0.78204	0.08140819	FALSE
EMC6	0.958324	0.01540155	FALSE
EMC7	0.309969	-0.29262944	FALSE
EMC8	0.562581	0.16941704	FALSE
EMC9	0.202031	0.36303652	FALSE
EMCN	0.09805	0.45984626	FALSE
EMD	0.002753	0.73487393	TRUE
EME1	0.910821	0.03300332	FALSE
EME2	0.417807	0.23542368	FALSE
EMG1	0.173995	0.38503874	FALSE
EMID1	0.487675	-0.20242036	FALSE
EMILIN1	0.898983	-0.03740376	FALSE
EMILIN2	0.306176	0.29482966	FALSE
EMILIN3	0.273746	-0.31432204	FALSE
EML1	0.840128	-0.05940598	FALSE
EML2	0.000871	0.78547902	TRUE
EML3	0.578116	0.16281638	FALSE
EML4	0.051113	0.53025335	FALSE
EML5	0.143848	0.41144139	FALSE
EML6	0.810971	0.07040708	FALSE
EMP1	0.730641	-0.10121018	FALSE
EMP2	0.747669	0.09460952	FALSE
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EMSY	0.011264	-0.65346574	FALSE
EMX2	0.537087	-0.18041815	FALSE
EN2	0.832452	-0.06229456	FALSE
ENAH	0.03596	-0.56325667	FALSE
ENAM	0.730641	-0.10121018	FALSE
ENC1	0.365865	-0.26182634	FALSE
ENDOD1	0.940487	0.02200221	FALSE
ENDOG	0.79937	0.07480753	FALSE
ENDOU	0.431353	-0.22882302	FALSE
ENDOV	0.875366	-0.04620465	FALSE
ENG	0.517064	-0.18921904	FALSE
ENGASE	0.994044	-0.00220022	FALSE
ENHO	0.331884	0.28020957	FALSE
ENKD1	0.101729	-0.45544582	FALSE
ENKUR	0.593412	-0.15638767	FALSE
ENO1	0.497383	0.19801992	FALSE
ENO1-IT1	0.696936	0.11441151	FALSE
ENO1P1	0.135462	0.41942925	FALSE
ENO1P3	0.953528	-0.01717547	FALSE

ENO1P4	0.108428	0.44770585	FALSE
ENO2	0.78204	-0.08140819	FALSE
ENO3	0.016883	0.62486286	FALSE
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ENOSF1	0.881262	0.04400443	FALSE
ENOX1	0.229572	0.34323453	FALSE
ENOX2	0.454411	-0.21782191	FALSE
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ENPP2	0.302409	0.29702988	FALSE
ENPP3	0.067601	0.50165047	FALSE
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ENPP5	0.847244	0.05673254	FALSE
ENPP6	0.070438	0.49725003	FALSE
ENPP7P1	0.590715	-0.15751629	FALSE
ENPP7P11	0.689179	0.11747775	FALSE
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ENPP7P6	0.235773	-0.33898321	FALSE
ENPP7P8	0.56774	-0.16721682	FALSE
ENSA	0.249158	0.3300332	FALSE
ENSAP2	0.773844	0.08454261	FALSE
ENTHD1	0.8926	0.03977922	FALSE
ENTPD1	0.014515	0.63586397	FALSE
ENTPD2	0.16619	-0.39156578	FALSE
ENTPD3	0.252518	-0.32783298	FALSE
ENTPD4	0.337271	0.27722789	FALSE
ENTPD5	0.34531	0.27282745	FALSE
ENTPD6	0.522038	0.18701882	FALSE
ENTPD7	0.111339	0.44444471	FALSE
ENTPD8	0.14218	0.41300454	FALSE
ENY2	0.417807	0.23542368	FALSE
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EOMES	0.631114	0.14081417	FALSE
EP300	0.537087	0.18041815	FALSE
EP400	0.934547	-0.02420243	FALSE
EP400NL	0.090972	-0.46864715	FALSE
EPAS1	0.09805	-0.45984626	FALSE
EPB41	0.636511	0.13861395	FALSE
EPB41L1	0.395723	-0.24642479	FALSE
EPB41L2	0.395723	0.24642479	FALSE
EPB41L3	0.042548	0.54785512	FALSE
EPB41L4A	0.143848	0.41144139	FALSE
EPB41L5	0.478056	0.20682081	FALSE
EPB42	0.166104	0.3916394	FALSE
EPC1	0.527033	-0.18481859	FALSE
EPC2	0.160975	-0.39603984	FALSE
EPCAM	0.881262	0.04400443	FALSE
EPDR1	0.440504	0.22442258	FALSE

EPG5	0.562581	-0.16941704	FALSE
EPGN	0.361702	-0.26402656	FALSE
EPHA1	0.719353	0.10561062	FALSE
EPHA10	0.79937	0.07480753	FALSE
EPHA2	0.620371	0.14521461	FALSE
EPHA3	0.994044	0.00220022	FALSE
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EPHB1	0.454411	0.21782191	FALSE
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EPHB3	0.440504	0.22442258	FALSE
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EPHX1	0.370053	-0.25962612	FALSE
EPHX2	0.018439	-0.6182622	FALSE
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EPM2AIP1	0.696936	-0.11441151	FALSE
EPN1	0.988088	-0.00440044	FALSE
EPN2	0.857716	0.05280531	FALSE
EPN3	0.822609	0.06600664	FALSE
EPO	0.771915	-0.08528117	FALSE
EPOR	0.02939	0.58085844	FALSE
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EPPK1	0.759081	0.09020908	FALSE
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EPS15	0.105502	-0.45104538	FALSE
EPS15L1	0.934547	0.02420243	FALSE
EPS15P1	0.291271	-0.30363055	FALSE
EPS8	0.010547	0.65786618	FALSE
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EPS8L2	0.413341	0.23762391	FALSE
EPS8L3	0.262645	0.32130592	FALSE
EPSTI1	0.092707	0.46644693	FALSE
EPT1	0.252518	0.32783298	FALSE
EPX	0.437592	0.22581777	FALSE
EQTN	0.969893	-0.01112403	FALSE
ERAL1	0.374268	-0.2574259	FALSE
ERAP1	0.071888	-0.4950498	FALSE
ERAP2	0.242521	-0.33443365	FALSE
ERAS	0.77036	-0.08587736	FALSE
ERBB2	0.022488	0.60286065	FALSE
ERBB3	0.893071	-0.03960398	FALSE
ERBB4	0.004583	0.70828199	TRUE
ERBIN	0.724991	0.1034104	FALSE
ERC1	0.239243	-0.33663387	FALSE

ERC2	0.31405	-0.29028003	FALSE
ERCC1	0.047766	0.53685401	FALSE
ERCC2	0.958324	-0.01540155	FALSE
ERCC3	0.422298	-0.23322346	FALSE
ERCC4	0.245826	-0.33223342	FALSE
ERCC5	0.132385	-0.4224425	FALSE
ERCC6	0.232769	0.34103431	FALSE
ERCC6L	0.50718	0.19361948	FALSE
ERCC6L2	0.014515	-0.63586397	FALSE
ERCC8	0.857716	0.05280531	FALSE
EREG	0.000823	0.78767924	TRUE
ERF	0.141504	-0.41364161	FALSE
ERFE	0.881262	0.04400443	FALSE
ERG	0.002091	-0.74807526	TRUE
ERGIC1	0.291271	0.30363055	FALSE
ERGIC2	0.793583	0.07700775	FALSE
ERGIC3	0.83428	-0.0616062	FALSE
ERH	0.713728	0.10781085	FALSE
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ERI3	0.583333	0.16061616	FALSE
ERICH1	0.641924	-0.13641372	FALSE
ERICH3	0.482854	-0.20462059	FALSE
ERICH4	0.472783	-0.2092511	FALSE
ERICH6	0.762245	-0.08899222	FALSE
ERICH6B	0.307133	-0.29427309	FALSE
ERLEC1	0.125812	-0.42904316	FALSE
ERLEC1P1	0.411519	0.23852467	FALSE
ERLIN1	0.916747	-0.0308031	FALSE
ERLIN2	0.40009	0.24422457	FALSE
ERMAP	0.527033	0.18481859	FALSE
ERMARD	0.952376	0.01760177	FALSE
ERMN	0.125812	-0.42904316	FALSE
ERMP1	0.674747	-0.1232124	FALSE
ERN1	0.032552	0.57205755	FALSE
ERN2	0.249158	-0.3300332	FALSE
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ERO1B	0.691367	-0.11661173	FALSE
ERP27	0.708117	-0.11001107	FALSE
ERP29	0.337271	-0.27722789	FALSE
ERP44	0.805166	-0.0726073	FALSE
ERRFI1	0.669238	0.12541262	FALSE
ERV3-1	0.537087	-0.18041815	FALSE
ERVFRD-1	0.134627	-0.42024228	FALSE
ERVFRD-3	0.372083	0.25856496	FALSE
ERVK3-1	0.940487	0.02200221	FALSE
ERVMER34	0.151032	0.40484073	FALSE
ERVW-1	0.053437	-0.5258529	FALSE

ESAM	0.527033	0.18481859	FALSE
ESCO1	0.094465	-0.46424671	FALSE
ESCO2	0.166104	0.3916394	FALSE
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ESPL1	0.008906	0.66886729	FALSE
ESPN	0.045342	0.54185022	FALSE
ESPNL	0.324855	-0.28414097	FALSE
ESPNP	0.089711	0.47026475	FALSE
ESR1	0.713493	-0.10790307	FALSE
ESR2	0.187678	0.37403763	FALSE
ESRP1	0.419217	0.23473146	FALSE
ESRP2	0.492518	0.20022014	FALSE
ESRRA	0.003279	0.72607305	TRUE
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ESRRG	0.770539	-0.08580863	FALSE
ESYT1	0.964274	-0.01320133	FALSE
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ETAA1	0.011636	-0.65126552	FALSE
ETF1	0.685812	0.11881195	FALSE
ETF1P1	0.731102	-0.10103087	FALSE
ETF1P2	0.92861	-0.02640266	FALSE
ETF1P3	0.265437	-0.31953305	FALSE
ETFA	0.887164	0.04180421	FALSE
ETFB	0.10937	0.44664493	FALSE
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ETFDH	0.168708	0.38943918	FALSE
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ETNK1	0.588569	0.15841594	FALSE
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ETNPPL	0.651354	0.13259741	FALSE
ETS1	0.898983	-0.03740376	FALSE
ETS2	0.127978	-0.42684294	FALSE
ETV1	0.814073	0.06923305	FALSE
ETV2	0.391381	0.24862501	FALSE
ETV3	0.40009	-0.24422457	FALSE
ETV3L	0.564102	0.16876746	FALSE
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ETV6	0.069009	-0.49945025	FALSE
ETV7	0.361702	0.26402656	FALSE
EVA1B	0.741981	0.09680974	FALSE
EVA1C	0.002296	0.74367482	TRUE
EVC	0.578116	0.16281638	FALSE
EVC2	0.863593	-0.05060509	FALSE
EVI2A	0.940487	-0.02200221	FALSE

EVI2B	0.869477	-0.04840487	FALSE
EVI5	0.252518	0.32783298	FALSE
EVI5L	0.857716	0.05280531	FALSE
EVL	0.82844	0.06380642	FALSE
EVPL	0.572919	0.1650166	FALSE
EVPLL	0.073391	-0.49280098	FALSE
EWSR1	0.40009	0.24422457	FALSE
EXD1	0.741981	0.09680974	FALSE
EXD2	0.708117	0.11001107	FALSE
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EXO1	0.085903	0.47524781	FALSE
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EXOC1	0.517064	0.18921904	FALSE
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EXOC3L1	0.730512	-0.10126047	FALSE
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EXOC8	0.736305	-0.09900996	FALSE
EXOG	0.724991	0.1034104	FALSE
EXOSC1	0.863593	0.05060509	FALSE
EXOSC10	0.337271	-0.27722789	FALSE
EXOSC2	0.851846	-0.05500553	FALSE
EXOSC3	0.266229	0.3190321	FALSE
EXOSC3P1	0.530573	-0.18326529	FALSE
EXOSC4	0.059579	0.5148518	FALSE
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EXPH5	0.08926	0.47084737	FALSE
EXT1	0.588569	0.15841594	FALSE
EXT2	0.115352	-0.44004427	FALSE
EXTL2	0.007207	-0.68206862	FALSE
EXTL3	0.454411	0.21782191	FALSE
EYA1	0.822609	0.06600664	FALSE
EYA3	0.074851	0.49064936	FALSE
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EZH1	0.143848	-0.41144139	FALSE
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EZR	0.79937	0.07480753	FALSE
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F2	0.218691	-0.35087111	FALSE
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F3	0.454411	0.21782191	FALSE
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F8	0.02939	0.58085844	FALSE
F8A1	0.422298	-0.23322346	FALSE
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FAM43A	0.910821	-0.03300332	FALSE
FAM45A	0.805166	-0.0726073	FALSE
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FAM49A	0.00357	0.7216726	TRUE
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FAM53A	0.53205	-0.18261837	FALSE
FAM53B	0.910821	0.03300332	FALSE
FAM53C	0.940487	-0.02200221	FALSE
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FAM57B	0.269725	0.31683187	FALSE
FAM58A	0.374268	0.2574259	FALSE
FAM60A	0.636511	-0.13861395	FALSE
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FAM71A	0.875366	0.04620465	FALSE
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FAM71E1	0.702206	0.1123348	FALSE
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FAM71F1	0.090569	-0.469163	FALSE
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FAM72A	0.207961	0.35863608	FALSE
FAM72B	0.306176	0.29482966	FALSE
FAM72C	0.344758	0.27312775	FALSE
FAM72D	0.032552	0.57205755	FALSE
FAM74A4	0.177035	0.38254697	FALSE
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FAM76B	0.958324	0.01540155	FALSE
FAM78A	0.83428	-0.0616062	FALSE
FAM81A	0.096246	0.46204648	FALSE
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FAM83A	0.976179	0.00880089	FALSE
FAM83B	0.668515	-0.12570152	FALSE

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FAM83H	0.002404	0.7414746	TRUE
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FAM90A25	0.191586	-0.3709902	FALSE
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FAM92A1	0.014074	0.63806419	FALSE
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FAM92B	0.597462	0.15469698	FALSE
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FAM98B	0.593824	0.15621572	FALSE
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FAR2P1	0.044582	0.54345467	FALSE
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FAR2P3	0.636511	0.13861395	FALSE
FAR2P4	0.039519	0.55469918	FALSE
FARP1	0.604388	0.15181527	FALSE
FARP2	0.53205	0.18261837	FALSE
FARS2	0.245826	-0.33223342	FALSE
FARSA	0.182124	-0.37843807	FALSE
FARSB	0.713728	0.10781085	FALSE
FAS	0.793583	0.07700775	FALSE
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FASTK	0.822609	-0.06600664	FALSE
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FASTKD3	0.887164	-0.04180421	FALSE
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FAT3	0.4638	0.21342147	FALSE
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FAU	0.857716	0.05280531	FALSE
FAUP1	0.482854	-0.20462059	FALSE
FAXC	0.952376	0.01760177	FALSE
FAXDC2	0.058312	0.51705202	FALSE
FBF1	0.041556	0.55005534	FALSE
FBL	0.0779	-0.48624892	FALSE
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FBLN2	0.615026	0.14741483	FALSE
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FBN1	0.163526	0.39383962	FALSE
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FBP1	0.001485	0.76347681	TRUE
FBRS	0.934547	-0.02420243	FALSE
FBRS1	0.280376	-0.31023121	FALSE
FBXL12	0.229572	0.34323453	FALSE
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FBX08	0.497383	-0.19801992	FALSE
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FCGBP	0.040582	0.55225556	FALSE
FCGR1A	0.09805	0.45984626	FALSE
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FCGR3B	0.994037	0.00220264	FALSE
FCGRT	0.027173	0.5874591	FALSE
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FCMR	0.378508	-0.25522568	FALSE
FCN1	0.090972	0.46864715	FALSE
FCN3	0.15559	-0.40076102	FALSE
FCRL1	0.893071	0.03960398	FALSE
FCRL2	0.940487	0.02200221	FALSE
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FCRLB	0.202031	0.36303652	FALSE
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FDX1	0.391381	0.24862501	FALSE
FDX2	0.517064	0.18921904	FALSE
FDXACB1	0.588569	0.15841594	FALSE
FDXR	0.620371	0.14521461	FALSE
FECH	0.309969	0.29262944	FALSE
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FEM1B	0.893071	-0.03960398	FALSE
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FEN1	0.283981	0.30803099	FALSE
FER	0.816786	0.06820686	FALSE
FER1L4	0.182124	-0.37843807	FALSE
FER1L5	0.787807	-0.07920797	FALSE
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FERMT1	0.111681	0.44406591	FALSE
FERMT2	0.378508	-0.25522568	FALSE
FERMT3	0.325411	0.28382855	FALSE
FES	0.151032	0.40484073	FALSE
FEZ1	0.916747	0.0308031	FALSE
FEZ2	0.317637	0.288229	FALSE
FEZF2	0.51021	-0.19226625	FALSE
FFAR1	0.625734	0.14301439	FALSE
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FGD1	0.603986	-0.15198238	FALSE
FGD2	0.030941	0.57645799	FALSE
FGD3	0.199106	0.36523674	FALSE
FGD4	0.010547	0.65786618	FALSE
FGD5	0.910821	-0.03300332	FALSE
FGD5P1	0.193338	-0.36963719	FALSE
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FGF13	0.625734	-0.14301439	FALSE
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FGF22	0.988036	-0.00441991	FALSE

FGF23	0.615026	0.14741483	FALSE
FGF5	0.741981	-0.09680974	FALSE
FGF7	0.134627	-0.42024228	FALSE
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FGF9	0.435916	0.2266228	FALSE
FGFBP2	0.422298	-0.23322346	FALSE
FGFBP3	0.34531	0.27282745	FALSE
FGFR1	0.051113	0.53025335	FALSE
FGFR1OP	0.753369	-0.0924093	FALSE
FGFR1OP2	0.076365	-0.48844914	FALSE
FGFR2	0.851846	0.05500553	FALSE
FGFR3	0.010201	-0.66006641	FALSE
FGFR4	0.242521	-0.33443365	FALSE
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FGGY	0.863593	-0.05060509	FALSE
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FGL2	0.03596	0.56325667	FALSE
FGR	0.010201	0.66006641	FALSE
FH	0.31379	0.29042922	FALSE
FHAD1	0.53205	0.18261837	FALSE
FHDC1	0.143848	0.41144139	FALSE
FHIT	0.276799	0.31243143	FALSE
FHL1	0.365865	0.26182634	FALSE
FHL2	0.958324	0.01540155	FALSE
FHL3	0.517064	-0.18921904	FALSE
FHOD1	0.365865	-0.26182634	FALSE
FIBCD1	0.396372	0.2460971	FALSE
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FICD	0.413341	-0.23762391	FALSE
FIG4	0.103603	0.4532456	FALSE
FIGN	0.279665	0.31066713	FALSE
FIGNL1	0.708117	-0.11001107	FALSE
FIGNL2	0.184888	0.37623785	FALSE
FILIP1	0.557442	0.17161727	FALSE
FILIP1L	0.009537	0.66446685	FALSE
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FIS1	0.081035	-0.48184848	FALSE
FITM1	0.615026	-0.14741483	FALSE
FITM2	0.223262	0.34763497	FALSE
FIZ1	0.730641	-0.10121018	FALSE
FJX1	0.594971	0.15573639	FALSE
FKBP10	0.05081	0.530837	FALSE
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FKBPL	0.56774	0.16721682	FALSE
FKRP	0.31379	0.29042922	FALSE
FKTN	0.845984	-0.05720576	FALSE
FLAD1	0.160975	0.39603984	FALSE
FLCN	0.148612	0.40704095	FALSE
FLG2	0.776284	-0.08360841	FALSE
FLI1	0.0201	-0.61166154	FALSE
FLII	0.202031	0.36303652	FALSE
FLJ42102	0.747669	-0.09460952	FALSE
FLNA	0.003881	0.71727216	TRUE
FLNB	0.066213	0.50385069	FALSE
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FLOT1	0.502271	0.1958197	FALSE
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FLRT1	0.276242	0.31277533	FALSE
FLRT2	0.78204	-0.08140819	FALSE
FLRT3	0.369488	-0.25992215	FALSE
FLT1	0.482854	-0.20462059	FALSE
FLT3	0.79937	-0.07480753	FALSE
FLT3LG	0.904899	0.03520354	FALSE
FLT4	0.404482	-0.24202435	FALSE
FLVCR1	0.435916	-0.2266228	FALSE
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FLYWCH1	0.79937	0.07480753	FALSE
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FMC1	0.934547	-0.02420243	FALSE
FMN1	0.557442	0.17161727	FALSE
FMN2	0.426813	-0.23102324	FALSE
FMNL1	0.787807	0.07920797	FALSE
FMNL2	0.663743	0.12761284	FALSE
FMNL3	0.593824	-0.15621572	FALSE
FMO1	0.502271	-0.1958197	FALSE
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FMO4	0.92861	0.02640266	FALSE
FMO5	0.604388	0.15181527	FALSE
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FMOD	0.202557	-0.36264331	FALSE
FMR1	0.840128	0.05940598	FALSE

FN1	0.70252	0.11221129	FALSE
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FNBP1	0.417807	0.23542368	FALSE
FNBP1L	0.111339	0.44444471	FALSE
FNBP1P1	0.753369	-0.0924093	FALSE
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FNDC3A	0.952376	-0.01760177	FALSE
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FNIP1	0.691367	-0.11661173	FALSE
FNIP2	0.0067	0.68646906	FALSE
FNTA	0.182124	-0.37843807	FALSE
FNTB	0.863593	-0.05060509	FALSE
FO538757.	0.759081	0.09020908	FALSE
FOCAD	0.395723	-0.24642479	FALSE
FOLH1	0.685812	0.11881195	FALSE
FOLR2	0.310141	0.29253026	FALSE
FOLR3	0.94643	0.01980199	FALSE
FOPNL	0.669238	-0.12541262	FALSE
FOS	0.631114	-0.14081417	FALSE
FOSB	0.609698	0.14961505	FALSE
FOSL1	0.547224	0.17601771	FALSE
FOSL1P1	0.222485	-0.34818208	FALSE
FOSL2	0.395723	0.24642479	FALSE
FOXA1	0.723817	-0.10386797	FALSE
FOXA2	0.76836	0.08664429	FALSE
FOXA3	0.848158	0.05638932	FALSE
FOXB1	0.956624	-0.01603044	FALSE
FOXC1	0.462301	-0.21412089	FALSE
FOXC2	0.688076	-0.1179147	FALSE
FOXD1	0.471281	0.2099459	FALSE
FOXD2	0.588569	-0.15841594	FALSE
FOXD4	0.988088	0.00440044	FALSE
FOXD4L1	0.025084	-0.59405977	FALSE
FOXD4L3	0.568871	-0.16673564	FALSE
FOXD4L4	0.108889	-0.44718592	FALSE
FOXD4L5	0.00577	-0.69526995	FALSE
FOXD4L6	0.134291	-0.42057035	FALSE
FOXE1	0.086439	0.47453674	FALSE
FOXE3	0.06988	-0.49810567	FALSE
FOXF1	0.764552	-0.08810573	FALSE

FOXF2	0.737152	-0.09868131	FALSE
FOXG1	0.350479	0.27002793	FALSE
FOXH1	0.007742	0.67766818	FALSE
FOXI1	0.079456	-0.4840487	FALSE
FOXI3	0.805166	-0.0726073	FALSE
FOXJ1	0.988088	-0.00440044	FALSE
FOXJ2	0.578116	-0.16281638	FALSE
FOXJ3	0.01898	-0.61606198	FALSE
FOXK1	0.822609	-0.06600664	FALSE
FOXK2	0.094465	-0.46424671	FALSE
FOXL1	0.563164	-0.16916796	FALSE
FOXL2	0.569385	0.16651723	FALSE
FOXL2NB	0.012811	0.64466486	FALSE
FOXM1	0.103603	0.4532456	FALSE
FOXN2	0.449752	-0.22002214	FALSE
FOXN3	0.934547	0.02420243	FALSE
FOXO1	0.787807	-0.07920797	FALSE
FOXO3	0.615026	0.14741483	FALSE
FOXO3B	0.747669	-0.09460952	FALSE
FOXO4	0.647355	-0.1342135	FALSE
FOXO6	0.793799	-0.07692561	FALSE
FOXP1	0.78204	-0.08140819	FALSE
FOXP2	0.53205	0.18261837	FALSE
FOXP3	0.758823	-0.09030837	FALSE
FOXP4	0.090972	0.46864715	FALSE
FOXQ1	0.102333	0.45473357	FALSE
FOXRED1	0.512111	0.19141926	FALSE
FOXRED2	0.958324	0.01540155	FALSE
FPGS	0.395723	0.24642479	FALSE
FPGT	0.103603	0.4532456	FALSE
FPGT-TNNI	0.517064	-0.18921904	FALSE
FPR1	0.522038	0.18701882	FALSE
FPR2	0.79937	0.07480753	FALSE
FPR3	0.958324	-0.01540155	FALSE
FRA10AC1	0.199106	-0.36523674	FALSE
FRAS1	0.341514	0.27489794	FALSE
FRAT1	0.076365	0.48844914	FALSE
FRAT2	0.21706	0.35203542	FALSE
FREM1	0.299935	0.2984841	FALSE
FREM2	0.085903	0.47524781	FALSE
FRG1	0.132385	-0.4224425	FALSE
FRG1BP	0.599097	-0.15401549	FALSE
FRG1CP	0.982133	0.00660066	FALSE
FRG1DP	0.040582	-0.55225556	FALSE
FRG1EP	0.224218	-0.34696323	FALSE
FRG1FP	0.51021	-0.19226625	FALSE
FRG1GP	0.306176	-0.29482966	FALSE
FRG1HP	0.252518	-0.32783298	FALSE

FRG1JP	0.982133	0.00660066	FALSE
FRG2	0.446918	0.22136564	FALSE
FRG2B	0.103509	-0.45335559	FALSE
FRG2C	0.128296	0.42652168	FALSE
FRG2FP	0.906957	0.03443891	FALSE
FRG2KP	0.148504	-0.40713942	FALSE
FRK	0.408899	-0.23982413	FALSE
FRMD1	0.34531	0.27282745	FALSE
FRMD3	0.417807	-0.23542368	FALSE
FRMD4A	0.025766	0.59185954	FALSE
FRMD4B	0.730641	-0.10121018	FALSE
FRMD6	0.696936	-0.11441151	FALSE
FRMD7	0.358929	-0.26549972	FALSE
FRMD8	0.78204	-0.08140819	FALSE
FRMPD1	0.045626	-0.54125445	FALSE
FRMPD2	0.682708	0.12004405	FALSE
FRMPD2B	0.297351	0.30000986	FALSE
FRMPD3	0.691367	0.11661173	FALSE
FRRS1	0.249158	0.3300332	FALSE
FRRS1L	0.741981	0.09680974	FALSE
FRS2	0.805166	0.0726073	FALSE
FRS3	0.542145	-0.17821793	FALSE
FRY	0.708117	-0.11001107	FALSE
FRYL	0.025084	-0.59405977	FALSE
FSBP	0.593412	-0.15638767	FALSE
FSCN1	0.413341	-0.23762391	FALSE
FSCN2	0.001281	0.76982379	TRUE
FSCN3	0.599097	-0.15401549	FALSE
FSD1	0.970226	-0.01100111	FALSE
FSD1L	0.130169	0.42464272	FALSE
FSD2	0.173995	0.38503874	FALSE
FSIP1	0.904899	0.03520354	FALSE
FSIP2	0.341277	-0.27502767	FALSE
FST	0.793583	-0.07700775	FALSE
FSTL1	0.663743	0.12761284	FALSE
FSTL3	0.255905	-0.32563276	FALSE
FSTL4	0.512111	-0.19141926	FALSE
FSTL5	0.176859	0.38269092	FALSE
FTCD	0.750251	0.09361233	FALSE
FTCDNL1	0.007111	0.68287668	FALSE
FTH1	0.970226	0.01100111	FALSE
FTH1P1	0.440504	-0.22442258	FALSE
FTH1P10	0.32151	-0.28602878	FALSE
FTH1P11	0.652801	0.13201328	FALSE
FTH1P12	0.736305	0.09900996	FALSE
FTH1P15	0.417807	-0.23542368	FALSE
FTH1P16	0.759081	0.09020908	FALSE
FTH1P2	0.934547	0.02420243	FALSE

FTH1P20	0.647355	0.1342135	FALSE
FTH1P21	0.547821	0.17575964	FALSE
FTH1P22	0.454126	0.21795588	FALSE
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FTH1P3	1	0	FALSE
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FTH1P5	0.139186	0.41584184	FALSE
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FTH1P8	0.40009	0.24422457	FALSE
FTL	0.395723	0.24642479	FALSE
FTLP10	0.317637	-0.288229	FALSE
FTLP2	0.065866	-0.50440529	FALSE
FTLP3	0.166104	0.3916394	FALSE
FTLP6	0.515177	-0.19005629	FALSE
FTO	0.764804	-0.08800885	FALSE
FTSJ1	0.107424	0.44884516	FALSE
FTSJ3	0.459093	-0.21562169	FALSE
FUBP1	0.337271	0.27722789	FALSE
FUBP3	0.094465	-0.46424671	FALSE
FUCA1	0.719353	0.10561062	FALSE
FUCA2	0.036852	0.56105645	FALSE
FUK	0.09805	0.45984626	FALSE
FUNDC1	0.283981	-0.30803099	FALSE
FUNDC2	0.016388	0.62706309	FALSE
FUNDC2P4	0.04451	-0.54360761	FALSE
FUOM	0.764804	-0.08800885	FALSE
FURIN	0.141504	-0.41364161	FALSE
FUS	0.039624	0.55445578	FALSE
FUT1	0.82844	0.06380642	FALSE
FUT10	0.117395	-0.43784405	FALSE
FUT11	0.669238	0.12541262	FALSE
FUT2	0.417807	0.23542368	FALSE
FUT3	0.187678	-0.37403763	FALSE
FUT4	0.349368	0.27062723	FALSE
FUT5	0.119965	-0.43511197	FALSE
FUT6	0.810971	0.07040708	FALSE
FUT7	0.857716	-0.05280531	FALSE
FUT8	0.652801	-0.13201328	FALSE
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FUZ	0.522038	0.18701882	FALSE
FXN	0.468529	0.21122125	FALSE
FXNP2	0.302408	-0.29703073	FALSE
FXR1	0.713728	-0.10781085	FALSE
FXR2	0.572919	-0.1650166	FALSE
FXYD1	0.011902	-0.64972733	FALSE
FXYD2	0.547224	0.17601771	FALSE
FXYD3	0.096246	-0.46204648	FALSE
FXYD5	0.048864	-0.53465379	FALSE

FXYD6	0.005992	0.69306973	FALSE
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FXYD7	0.317637	-0.288229	FALSE
FYB	0.468529	0.21122125	FALSE
FYCO1	0.378508	-0.25522568	FALSE
FYN	0.863593	-0.05060509	FALSE
FYTTD1	0.333291	-0.27942811	FALSE
FYTTD1P1	0.143472	-0.4117926	FALSE
FZD1	0.017909	0.62046242	FALSE
FZD2	0.604388	0.15181527	FALSE
FZD3	0.008309	0.67326773	FALSE
FZD4	0.048864	0.53465379	FALSE
FZD5	0.478056	0.20682081	FALSE
FZD6	0.940487	0.02200221	FALSE
FZD7	0.881262	-0.04400443	FALSE
FZD8	0.018008	0.62004405	FALSE
FZD9	0.019276	0.61488191	FALSE
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G0S2	0.776284	0.08360841	FALSE
G2E3	0.822609	-0.06600664	FALSE
G3BP1	0.940487	-0.02200221	FALSE
G3BP2	0.875366	-0.04620465	FALSE
G6PC	0.753369	0.0924093	FALSE
G6PC2	0.603986	-0.15198238	FALSE
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G6PD	0.016883	0.62486286	FALSE
GAA	0.000651	0.79648013	TRUE
GAB1	0.29867	0.2992301	FALSE
GAB2	0.132385	-0.4224425	FALSE
GAB3	0.242521	0.33443365	FALSE
GAB4	0.991712	0.00306153	FALSE
GABARAP	0.001725	0.75687615	TRUE
GABARAPL1	0.370053	-0.25962612	FALSE
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GABBR1	0.235992	0.33883409	FALSE
GABBR2	0.747669	0.09460952	FALSE
GABPA	0.160975	-0.39603984	FALSE
GABPB1	0.934547	-0.02420243	FALSE
GABPB2	0.262761	0.32123232	FALSE
GABRA1	0.145891	0.40954236	FALSE
GABRA2	0.259319	0.32343254	FALSE
GABRA3	0.982054	0.00662987	FALSE
GABRA4	0.117395	0.43784405	FALSE
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GABRB2	0.799153	0.07488987	FALSE
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GABRE	0.478056	-0.20682081	FALSE
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GABRP	0.079456	-0.4840487	FALSE
GABRQ	0.162251	0.39493703	FALSE
GABRR1	0.463048	0.21377211	FALSE
GABRR2	0.357565	-0.26622678	FALSE
GABRR3	0.786888	-0.07955845	FALSE
GAD1	0.82844	-0.06380642	FALSE
GADD45A	0.736305	0.09900996	FALSE
GADD45B	0.887164	0.04180421	FALSE
GADD45G	0.562581	0.16941704	FALSE
GADD45GII	0.658264	-0.12981306	FALSE
GADL1	0.736305	0.09900996	FALSE
GAGE1	0.431353	-0.22882302	FALSE
GAK	0.283981	0.30803099	FALSE
GAL	0.382774	0.25302546	FALSE
GAL3ST1	0.008211	-0.67400881	FALSE
GAL3ST2	0.50718	0.19361948	FALSE
GAL3ST4	0.046687	-0.53905423	FALSE
GALC	0.759081	-0.09020908	FALSE
GALE	0.001412	0.76567703	TRUE
GALK1	0.283981	0.30803099	FALSE
GALK2	0.00357	-0.7216726	TRUE
GALM	0.037759	0.55885622	FALSE
GALNS	0.103603	0.4532456	FALSE
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GALNT10	0.810971	0.07040708	FALSE
GALNT11	0.50718	0.19361948	FALSE
GALNT12	0.085903	0.47524781	FALSE
GALNT13	0.278141	0.31160392	FALSE
GALNT14	0.09805	-0.45984626	FALSE
GALNT15	0.235992	-0.33883409	FALSE
GALNT16	0.893071	0.03960398	FALSE
GALNT18	0.340713	0.27533636	FALSE
GALNT2	0.34531	-0.27282745	FALSE
GALNT3	0.259319	-0.32343254	FALSE
GALNT4	0.040582	0.55225556	FALSE
GALNT5	0.035084	0.56545689	FALSE
GALNT6	0.647355	0.1342135	FALSE
GALNT7	0.008604	-0.67106751	FALSE
GALNT8	0.964274	-0.01320133	FALSE
GALNT9	0.229572	-0.34323453	FALSE
GALNTL6	0.904113	-0.03549598	FALSE
GALR1	0.741981	0.09680974	FALSE
GALR2	0.163584	0.39379059	FALSE
GALT	0.922677	-0.02860288	FALSE
GAMT	0.199106	-0.36523674	FALSE
GAN	0.881262	0.04400443	FALSE
GANAB	0.753369	-0.0924093	FALSE
GANC	0.139186	0.41584184	FALSE

GAPDH	0.070438	-0.49725003	FALSE
GAPDHP1	0.478056	-0.20682081	FALSE
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GAPDHP2	0.22091	-0.34929448	FALSE
GAPDHP22	0.120961	-0.43406386	FALSE
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GAPDHP40	0.459093	-0.21562169	FALSE
GAPDHP44	0.71251	-0.10828789	FALSE
GAPDHP45	0.747927	-0.09450978	FALSE
GAPDHP52	0.077941	-0.48619052	FALSE
GAPDHP60	0.049979	-0.53245357	FALSE
GAPDHP61	0.411519	0.23852467	FALSE
GAPDHP62	0.35536	-0.26740478	FALSE
GAPDHP63	0.276799	-0.31243143	FALSE
GAPDHP65	0.220147	0.3498352	FALSE
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GAPDHS	0.64796	-0.13396868	FALSE
GAPT	0.492518	-0.20022014	FALSE
GAPVD1	0.641924	-0.13641372	FALSE
GAR1	0.134627	-0.42024228	FALSE
GAREM1	0.408899	0.23982413	FALSE
GAREM2	0.473281	0.20902103	FALSE
GARNL3	0.276799	0.31243143	FALSE
GARS	0.988088	-0.00440044	FALSE
GART	0.816786	0.06820686	FALSE
GAS1	0.068997	0.49946886	FALSE
GAS2	0.143025	0.41221134	FALSE
GAS2L1	0.12367	-0.43124339	FALSE
GAS2L2	0.316294	-0.28899527	FALSE
GAS2L3	0.127978	0.42684294	FALSE
GAS6	0.408899	0.23982413	FALSE
GAS7	0.887164	-0.04180421	FALSE
GAS8	0.032552	0.57205755	FALSE
GATA1	0.173995	0.38503874	FALSE
GATA2	0.459093	0.21562169	FALSE
GATA3	0.185756	0.37555066	FALSE
GATA5	0.090504	0.4692462	FALSE
GATA6	0.328768	0.28194661	FALSE
GATAD1	0.599097	0.15401549	FALSE
GATAD2A	0.669238	0.12541262	FALSE

GATAD2B	0.010201	-0.66006641	FALSE
GATB	0.155952	-0.40044029	FALSE
GATC	0.669238	-0.12541262	FALSE
GATM	0.291271	-0.30363055	FALSE
GATS	0.025084	-0.59405977	FALSE
GATSL2	0.063499	-0.50825113	FALSE
GATSL3	0.770539	0.08580863	FALSE
GBA	0.053437	0.5258529	FALSE
GBA2	0.062172	0.51045135	FALSE
GBAP1	0.502271	-0.1958197	FALSE
GBAS	0.502271	-0.1958197	FALSE
GBE1	0.440504	-0.22442258	FALSE
GBF1	0.583333	-0.16061616	FALSE
GBGT1	0.266229	0.3190321	FALSE
GBP1	0.79937	-0.07480753	FALSE
GBP1P1	0.869477	0.04840487	FALSE
GBP2	0.625734	0.14301439	FALSE
GBP3	0.426813	-0.23102324	FALSE
GBP4	0.449752	-0.22002214	FALSE
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GBP7	0.482525	0.20477118	FALSE
GBX1	0.172587	-0.38620188	FALSE
GCA	0.851846	-0.05500553	FALSE
GCAT	0.713728	-0.10781085	FALSE
GCC1	0.736305	-0.09900996	FALSE
GCC2	0.09805	-0.45984626	FALSE
GCDH	0.32151	-0.28602878	FALSE
GCFC2	0.099878	-0.45764604	FALSE
GCG	0.903221	-0.03582749	FALSE
GCGR	0.35536	0.26740478	FALSE
GCH1	0.787807	0.07920797	FALSE
GCHFR	0.054627	0.52365268	FALSE
GCKR	0.696936	0.11441151	FALSE
GCLC	0.578116	0.16281638	FALSE
GCLM	0.502271	-0.1958197	FALSE
GCM1	0.067601	-0.50165047	FALSE
GCN1	0.663743	0.12761284	FALSE
GCNT1	0.988088	0.00440044	FALSE
GCNT1P1	0.468529	-0.21122125	FALSE
GCNT1P3	0.018439	-0.6182622	FALSE
GCNT2	0.041556	0.55005534	FALSE
GCNT3	0.357565	0.26622678	FALSE
GCNT4	0.302409	0.29702988	FALSE
GCOM1	0.273248	0.31463165	FALSE
GCSAM	0.382774	-0.25302546	FALSE
GCSAML	0.245826	-0.33223342	FALSE
GCSAML-AS	0.478056	0.20682081	FALSE

GCSH	0.958324	-0.01540155	FALSE
GCSHP3	0.36309	0.26329135	FALSE
GCSHP5	0.660649	-0.12885463	FALSE
GDA	0.822609	0.06600664	FALSE
GDAP1	0.426813	0.23102324	FALSE
GDAP1L1	0.079505	0.48398056	FALSE
GDAP2	0.387065	0.25082523	FALSE
GDE1	0.12367	-0.43124339	FALSE
GDF1	0.289326	-0.30479837	FALSE
GDF10	0.075245	-0.49007348	FALSE
GDF11	0.207961	0.35863608	FALSE
GDF15	0.0067	0.68646906	FALSE
GDF3	0.313065	0.2908451	FALSE
GDF5	0.83428	-0.0616062	FALSE
GDF5OS	0.851846	0.05500553	FALSE
GDF6	0.123314	-0.43161229	FALSE
GDF7	0.273248	0.31463165	FALSE
GDF9	0.4638	-0.21342147	FALSE
GDI1	0.076365	0.48844914	FALSE
GDI2	0.724991	0.1034104	FALSE
GDI2P2	0.26918	0.31717372	FALSE
GDNF	0.353453	-0.26842701	FALSE
GDPD1	0.155952	-0.40044029	FALSE
GDPD2	0.994044	0.00220022	FALSE
GDPD3	0.816786	-0.06820686	FALSE
GDPD4	0.828254	-0.06387665	FALSE
GDPD5	0.014074	0.63806419	FALSE
GDPGP1	0.787807	-0.07920797	FALSE
GEM	0.045626	0.54125445	FALSE
GEMIN2	0.542145	0.17821793	FALSE
GEMIN4	0.851846	0.05500553	FALSE
GEMIN5	0.685812	-0.11881195	FALSE
GEMIN6	0.641924	0.13641372	FALSE
GEMIN7	0.674747	0.1232124	FALSE
GEMIN8	0.382774	0.25302546	FALSE
GEMIN8P4	0.422298	0.23322346	FALSE
GEN1	0.283981	0.30803099	FALSE
GET4	0.940487	0.02200221	FALSE
GFAP	0.970226	0.01100111	FALSE
GFER	0.00357	0.7216726	TRUE
GFI1	0.497383	-0.19801992	FALSE
GFI1B	0.459093	-0.21562169	FALSE
GFM1	0.15845	-0.39824006	FALSE
GFM2	0.163526	-0.39383962	FALSE
GFOD1	0.117395	-0.43784405	FALSE
GFOD2	0.663743	-0.12761284	FALSE
GFPT1	0.82844	0.06380642	FALSE
GFPT2	0.609698	-0.14961505	FALSE

GFRA1	0.041556	-0.55005534	FALSE
GFRA2	0.304342	0.29589914	FALSE
GFRA3	0.003376	-0.72457495	TRUE
GFRAL	0.895912	0.03854626	FALSE
GGA1	0.035084	0.56545689	FALSE
GGA2	0.119462	0.43564383	FALSE
GGA3	0.182124	-0.37843807	FALSE
GGACT	0.604388	0.15181527	FALSE
GGCT	0.658264	0.12981306	FALSE
GGCX	0.229572	-0.34323453	FALSE
GGH	0.266229	0.3190321	FALSE
GGN	0.141504	-0.41364161	FALSE
GGNBP1	0.255905	0.32563276	FALSE
GGNBP2	0.83428	0.0616062	FALSE
GGPS1	0.365865	0.26182634	FALSE
GGT1	0.527033	0.18481859	FALSE
GGT2	0.775113	0.08405681	FALSE
GGT3P	0.103077	-0.45386107	FALSE
GGT4P	0.29217	0.3030926	FALSE
GGT5	0.934547	0.02420243	FALSE
GGT6	0.413341	-0.23762391	FALSE
GGT7	0.005554	0.69747017	FALSE
GGT8P	0.12662	0.42821921	FALSE
GGTA1P	0.090972	0.46864715	FALSE
GGTA2P	0.730512	0.10126047	FALSE
GGTLC2	0.285376	0.30718401	FALSE
GGTLC3	0.173645	-0.38532703	FALSE
GGTLC5P	0.465074	0.21282751	FALSE
GH1	0.040316	0.55286344	FALSE
GHDC	0.079456	0.4840487	FALSE
GHITM	0.459093	0.21562169	FALSE
GHR	0.94643	-0.01980199	FALSE
GHRL	0.487675	0.20242036	FALSE
GID4	0.229572	-0.34323453	FALSE
GID8	0.445116	-0.22222236	FALSE
GIGYF1	0.09805	-0.45984626	FALSE
GIGYF2	0.893071	-0.03960398	FALSE
GIMAP1	0.269725	0.31683187	FALSE
GIMAP1-GI	0.737152	-0.09868131	FALSE
GIMAP2	0.4638	-0.21342147	FALSE
GIMAP4	0.374268	0.2574259	FALSE
GIMAP5	0.32151	0.28602878	FALSE
GIMAP6	0.036852	0.56105645	FALSE
GIMAP7	0.747669	0.09460952	FALSE
GIMAP8	0.810971	-0.07040708	FALSE
GIN1	0.685812	0.11881195	FALSE
GINM1	0.021269	-0.60726109	FALSE
GINs1	0.663743	0.12761284	FALSE

GINS2	0.136894	0.41804206	FALSE
GINS3	0.171338	0.38723896	FALSE
GINS4	0.478056	0.20682081	FALSE
GIPC1	0.816786	-0.06820686	FALSE
GIPC2	0.805166	0.0726073	FALSE
GIPC3	0.294924	-0.30144994	FALSE
GIPR	0.008906	0.66886729	FALSE
GIT1	0.517064	-0.18921904	FALSE
GIT2	0.082635	-0.47964826	FALSE
GJA1	0.000359	-0.81718062	TRUE
GJA3	0.988088	0.00440044	FALSE
GJA4	0.891459	-0.04020398	FALSE
GJB2	0.482854	0.20462059	FALSE
GJB6	0.037504	-0.55947137	FALSE
GJB7	0.190494	-0.37183741	FALSE
GJC1	0.063499	-0.50825113	FALSE
GJC2	0.636511	-0.13861395	FALSE
GJC3	0.576412	0.16353681	FALSE
GJD2	0.948838	0.01891085	FALSE
GJD3	0.888728	-0.04122113	FALSE
GJD4	0.810971	0.07040708	FALSE
GK	0.934547	0.02420243	FALSE
GK5	0.349368	0.27062723	FALSE
GKAP1	0.325411	-0.28382855	FALSE
GLA	0.027898	0.58525888	FALSE
GLB1	0.970226	0.01100111	FALSE
GLB1L	0.008309	0.67326773	FALSE
GLB1L2	0.435916	-0.2266228	FALSE
GLB1L3	0.976179	0.00880089	FALSE
GLCCI1	0.747669	0.09460952	FALSE
GLCE	0.057064	-0.51925224	FALSE
GLDC	0.755384	0.09163265	FALSE
GLDN	0.893071	-0.03960398	FALSE
GLE1	0.113334	-0.44224449	FALSE
GLG1	0.153479	0.40264051	FALSE
GLI1	0.413341	-0.23762391	FALSE
GLI2	0.366395	-0.26154706	FALSE
GLI3	0.747669	0.09460952	FALSE
GLI4	0.096246	-0.46204648	FALSE
GLIPR1	0.588569	0.15841594	FALSE
GLIPR1L2	0.391381	0.24862501	FALSE
GLIPR2	0.302409	-0.29702988	FALSE
GLIS2	0.119462	-0.43564383	FALSE
GLIS3	0.473281	0.20902103	FALSE
GLMN	0.042548	-0.54785512	FALSE
GLMP	0.325411	0.28382855	FALSE
GLO1	0.15845	0.39824006	FALSE
GLOD4	0.235992	-0.33883409	FALSE

GLP1R	0.113816	-0.44171635	FALSE
GLRA1	0.113334	0.44224449	FALSE
GLRA2	0.114921	-0.44051151	FALSE
GLRA3	0.176678	0.38283852	FALSE
GLRA4	0.227524	0.34465448	FALSE
GLRB	0.724618	0.10355571	FALSE
GLRX	0.658264	-0.12981306	FALSE
GLRX2	0.387065	0.25082523	FALSE
GLRX3	0.719353	0.10561062	FALSE
GLRX5	0.857716	0.05280531	FALSE
GLS	0.542145	0.17821793	FALSE
GLS2	0.673381	-0.12375759	FALSE
GLT1D1	0.625734	-0.14301439	FALSE
GLT8D1	0.512111	0.19141926	FALSE
GLT8D2	0.115595	0.43978142	FALSE
GLTP	0.857716	-0.05280531	FALSE
GLTPD2	0.861132	-0.05152642	FALSE
GLTSCR1	0.049979	-0.53245357	FALSE
GLTSCR1L	0.190494	-0.37183741	FALSE
GLTSCR2	0.000823	-0.78767924	TRUE
GLUD1	0.691367	-0.11661173	FALSE
GLUD1P3	0.21706	0.35203542	FALSE
GLUD1P7	0.724991	-0.1034104	FALSE
GLUD1P8	0.495215	-0.19899928	FALSE
GLUD2	0.31708	0.28854626	FALSE
GLUL	0.014074	-0.63806419	FALSE
GLULP5	0.210967	0.35643586	FALSE
GLYAT	0.055836	0.52145246	FALSE
GLYATL1	0.945833	0.02002325	FALSE
GLYATL2	0.311555	-0.29171431	FALSE
GLYCTK	0.269725	0.31683187	FALSE
GLYR1	0.857716	0.05280531	FALSE
GM2A	0.252518	0.32783298	FALSE
GMCL1	0.000921	-0.7832788	TRUE
GMCL1P1	0.507424	0.19351032	FALSE
GMDS	0.229572	-0.34323453	FALSE
GMEB1	0.084258	0.47744803	FALSE
GMEB2	0.134627	0.42024228	FALSE
GMFB	0.658264	0.12981306	FALSE
GMFG	0.153479	0.40264051	FALSE
GMIP	0.413341	0.23762391	FALSE
GML	0.193851	-0.36924291	FALSE
GMNC	0.045727	0.54104343	FALSE
GMNN	0.204983	0.3608363	FALSE
GMPPA	0.027173	0.5874591	FALSE
GMPPB	0.027173	0.5874591	FALSE
GMPR	0.374268	0.2574259	FALSE
GMPR2	0.287612	-0.30583077	FALSE

GMPS	0.103603	-0.4532456	FALSE
GNA11	0.759081	0.09020908	FALSE
GNA12	0.719353	-0.10561062	FALSE
GNA13	0.604388	-0.15181527	FALSE
GNA14	0.052199	0.5281797	FALSE
GNA15	0.018439	-0.6182622	FALSE
GNAI1	0.391381	-0.24862501	FALSE
GNAI2	0.713728	0.10781085	FALSE
GNAI3	0.512111	0.19141926	FALSE
GNAL	0.776284	-0.08360841	FALSE
GNAO1	0.693699	-0.11568989	FALSE
GNAQ	0.143848	-0.41144139	FALSE
GNAQP1	0.112886	0.44273631	FALSE
GNAS	0.408899	-0.23982413	FALSE
GNAT1	0.233793	-0.34033336	FALSE
GNAZ	0.166104	0.3916394	FALSE
GNB1	0.572919	-0.1650166	FALSE
GNB1L	0.422298	-0.23322346	FALSE
GNB2	0.730641	0.10121018	FALSE
GNB3	0.279885	0.31053212	FALSE
GNB4	0.294957	-0.30143033	FALSE
GNB5	0.934547	-0.02420243	FALSE
GNE	0.92861	0.02640266	FALSE
GNG10	0.291271	-0.30363055	FALSE
GNG11	0.554438	0.17290749	FALSE
GNG12	0.705005	0.11123348	FALSE
GNG2	0.337271	-0.27722789	FALSE
GNG3	0.168198	0.38986784	FALSE
GNG4	0.269725	-0.31683187	FALSE
GNG5	0.202031	0.36303652	FALSE
GNG7	0.50718	0.19361948	FALSE
GNG8	0.188558	0.37334802	FALSE
GNGT1	0.328783	0.28193833	FALSE
GNGT2	0.922677	0.02860288	FALSE
GNL1	0.119462	0.43564383	FALSE
GNL2	0.578116	-0.16281638	FALSE
GNL3	0.537087	0.18041815	FALSE
GNL3L	0.115352	0.44004427	FALSE
GNL3LP1	0.70252	0.11221129	FALSE
GNLY	0.333291	0.27942811	FALSE
GNMT	0.374268	-0.2574259	FALSE
GNPAT	0.317637	-0.288229	FALSE
GNPDA1	0.387065	0.25082523	FALSE
GNPDA2	0.173995	-0.38503874	FALSE
GNPNAT1	0.276799	-0.31243143	FALSE
GNPTAB	0.090972	-0.46864715	FALSE
GNPTG	0.000777	0.78987947	TRUE
GNRH1	0.032552	-0.57205755	FALSE

GNRH2	0.487675	-0.20242036	FALSE
GNRHR2	0.845984	-0.05720576	FALSE
GNRHR2P1	0.473281	0.20902103	FALSE
GNS	0.107424	0.44884516	FALSE
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GOLGA2	0.719353	-0.10561062	FALSE
GOLGA2P1	0.713728	0.10781085	FALSE
GOLGA2P1	0.736305	0.09900996	FALSE
GOLGA2P3	0.293516	0.30228831	FALSE
GOLGA2P5	0.036852	-0.56105645	FALSE
GOLGA2P7	0.413341	0.23762391	FALSE
GOLGA2P8	0.972108	0.01030528	FALSE
GOLGA2P9	0.525223	-0.18561485	FALSE
GOLGA3	0.904899	-0.03520354	FALSE
GOLGA4	0.29867	0.2992301	FALSE
GOLGA5	0.753369	-0.0924093	FALSE
GOLGA5P1	0.339058	0.27624461	FALSE
GOLGA6A	0.404482	-0.24202435	FALSE
GOLGA6B	0.753369	-0.0924093	FALSE
GOLGA6C	0.462968	-0.21380951	FALSE
GOLGA6D	0.085903	-0.47524781	FALSE
GOLGA6L1	0.12367	-0.43124339	FALSE
GOLGA6L1	0.170826	-0.3876652	FALSE
GOLGA6L2	0.015903	0.62926331	FALSE
GOLGA6L3	0.631114	-0.14081417	FALSE
GOLGA6L4	0.000733	-0.79207969	TRUE
GOLGA6L5	0.062172	-0.51045135	FALSE
GOLGA6L6	0.585164	0.15984574	FALSE
GOLGA6L7	0.934475	-0.02422907	FALSE
GOLGA6L9	0.160975	-0.39603984	FALSE
GOLGA7	0.223262	-0.34763497	FALSE
GOLGA7B	0.262761	0.32123232	FALSE
GOLGA8A	0.78204	0.08140819	FALSE
GOLGA8B	0.341277	0.27502767	FALSE
GOLGA8CP	0.289766	0.3045337	FALSE
GOLGA8EP	0.263017	0.32106946	FALSE
GOLGA8F	0.950558	-0.01827454	FALSE
GOLGA8G	0.976179	0.00880089	FALSE
GOLGA8H	0.663743	0.12761284	FALSE
GOLGA8IP	0.940487	0.02200221	FALSE
GOLGA8J	0.115352	0.44004427	FALSE
GOLGA8K	0.179388	0.38063829	FALSE
GOLGA8M	0.125812	0.42904316	FALSE
GOLGA8N	0.0201	0.61166154	FALSE
GOLGA8O	0.006229	0.69080214	FALSE
GOLGA8Q	0.049979	0.53245357	FALSE
GOLGA8R	0.006457	0.68866928	FALSE
GOLGA8S	0.103176	0.45374449	FALSE

GOLGA8UP	0.375154	0.25696505	FALSE
GOLGB1	0.273248	-0.31463165	FALSE
GOLIM4	0.636511	0.13861395	FALSE
GOLM1	0.21706	0.35203542	FALSE
GOLPH3	0.009218	-0.66666707	FALSE
GOLPH3L	0.262761	-0.32123232	FALSE
GOLT1A	0.987602	0.00458013	FALSE
GOLT1B	0.83428	0.0616062	FALSE
GON4L	0.32151	-0.28602878	FALSE
GON7	0.32151	0.28602878	FALSE
GOPC	0.283981	-0.30803099	FALSE
GORAB	0.713728	-0.10781085	FALSE
GORASP1	0.255905	0.32563276	FALSE
GORASP2	0.092707	-0.46644693	FALSE
GOSR1	0.357565	0.26622678	FALSE
GOSR2	0.182124	-0.37843807	FALSE
GOT1	0.730641	0.10121018	FALSE
GOT2	0.105502	-0.45104538	FALSE
GOT2P2	0.004638	-0.70762946	TRUE
GOT2P3	0.89487	-0.0389341	FALSE
GP1BA	0.043556	0.5456549	FALSE
GP1BB	0.262365	0.32148441	FALSE
GP2	0.235992	0.33883409	FALSE
GP5	0.361702	0.26402656	FALSE
GP6	0.78204	-0.08140819	FALSE
GP9	0.241923	0.33483324	FALSE
GPA33	0.976179	0.00880089	FALSE
GPAA1	0.079456	0.4840487	FALSE
GPAA1P2	0.387065	-0.25082523	FALSE
GPALPP1	0.252518	-0.32783298	FALSE
GPAM	0.291271	-0.30363055	FALSE
GPANK1	0.70252	0.11221129	FALSE
GPAT2	0.06316	0.50881057	FALSE
GPAT2P1	0.313065	0.2908451	FALSE
GPAT3	0.958324	0.01540155	FALSE
GPAT4	0.171338	-0.38723896	FALSE
GPATCH1	0.857716	0.05280531	FALSE
GPATCH11	0.262761	-0.32123232	FALSE
GPATCH2	0.691367	-0.11661173	FALSE
GPATCH2L	0.641924	0.13641372	FALSE
GPATCH3	0.764804	0.08800885	FALSE
GPATCH4	0.115352	0.44004427	FALSE
GPATCH8	0.547224	-0.17601771	FALSE
GPBAR1	0.641924	0.13641372	FALSE
GPBP1	0.08757	0.47304759	FALSE
GPBP1L1	0.970226	0.01100111	FALSE
GPC1	0.252518	-0.32783298	FALSE
GPC2	0.214	-0.35423564	FALSE

GPC3	0.488465	0.2020608	FALSE
GPC4	0.003865	0.7174998	TRUE
GPC5	0.170813	0.38767658	FALSE
GPC6	0.789547	0.07854489	FALSE
GPCPD1	0.151032	0.40484073	FALSE
GPD1	0.193338	-0.36963719	FALSE
GPD1L	0.408899	0.23982413	FALSE
GPD2	0.478056	-0.20682081	FALSE
GPFR1	0.000369	0.81628212	TRUE
GPHN	0.822609	-0.06600664	FALSE
GPI	0.952376	-0.01760177	FALSE
GPKOW	0.970226	0.01100111	FALSE
GPLD1	0.333291	0.27942811	FALSE
GPM6A	0.404482	0.24202435	FALSE
GPM6B	0.365865	0.26182634	FALSE
GPN1	0.747669	0.09460952	FALSE
GPN2	0.378508	0.25522568	FALSE
GPN3	0.015903	-0.62926331	FALSE
GPNMB	0.046687	0.53905423	FALSE
GPR1	0.449752	0.22002214	FALSE
GPR101	0.23453	0.33982953	FALSE
GPR107	0.680272	-0.12101217	FALSE
GPR108	0.214	0.35423564	FALSE
GPR12	0.067601	-0.50165047	FALSE
GPR132	0.190494	0.37183741	FALSE
GPR135	0.014967	-0.63366375	FALSE
GPR137	0.32151	0.28602878	FALSE
GPR137B	0.204983	0.3608363	FALSE
GPR137C	0.431353	-0.22882302	FALSE
GPR141	0.578116	0.16281638	FALSE
GPR142	0.02957	0.5803401	FALSE
GPR146	0.887164	-0.04180421	FALSE
GPR15	0.402341	0.24309526	FALSE
GPR150	0.81697	0.0681371	FALSE
GPR152	0.58001	-0.16201676	FALSE
GPR153	0.857716	-0.05280531	FALSE
GPR155	0.387065	-0.25082523	FALSE
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GPR157	0.770539	-0.08580863	FALSE
GPR158	0.477869	-0.20690692	FALSE
GPR160	0.382774	0.25302546	FALSE
GPR161	0.426813	0.23102324	FALSE
GPR162	0.117395	0.43784405	FALSE
GPR17	0.47762	0.20702141	FALSE
GPR171	0.517064	-0.18921904	FALSE
GPR173	0.160975	-0.39603984	FALSE
GPR174	0.141901	-0.41326694	FALSE
GPR176	0.893071	0.03960398	FALSE

GPR179	0.507402	-0.19352002	FALSE
GPR18	0.459093	-0.21562169	FALSE
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GPR183	0.893071	0.03960398	FALSE
GPR19	0.502271	0.1958197	FALSE
GPR21	0.901033	0.03664101	FALSE
GPR26	0.542145	-0.17821793	FALSE
GPR27	0.735176	0.09944806	FALSE
GPR3	0.062172	0.51045135	FALSE
GPR31	0.568676	0.16681841	FALSE
GPR32	0.310086	0.29256194	FALSE
GPR34	0.302409	-0.29702988	FALSE
GPR35	0.482854	0.20462059	FALSE
GPR37L1	0.759081	0.09020908	FALSE
GPR4	0.857716	0.05280531	FALSE
GPR42	0.911115	0.03289417	FALSE
GPR52	0.349368	0.27062723	FALSE
GPR55	0.10937	0.44664493	FALSE
GPR61	0.393548	-0.2475256	FALSE
GPR63	0.084258	0.47744803	FALSE
GPR65	0.578116	-0.16281638	FALSE
GPR68	0.620371	0.14521461	FALSE
GPR75	0.776284	0.08360841	FALSE
GPR75-ASB	0.625734	-0.14301439	FALSE
GPR82	0.810971	-0.07040708	FALSE
GPR83	0.014074	-0.63806419	FALSE
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GPR89A	0.220147	-0.3498352	FALSE
GPR89B	0.691367	-0.11661173	FALSE
GPRASP1	0.557442	-0.17161727	FALSE
GPRASP2	0.976179	-0.00880089	FALSE
GPRC5A	0.625734	0.14301439	FALSE
GPRC5B	0.960867	-0.01446124	FALSE
GPRC5C	0.378508	0.25522568	FALSE
GPRIN1	0.032552	0.57205755	FALSE
GPRIN3	0.78204	0.08140819	FALSE
GPS1	0.232769	0.34103431	FALSE
GPS2	0.151032	0.40484073	FALSE
GPS2P1	0.978305	0.00801522	FALSE
GPS2P2	0.536601	0.18063011	FALSE
GPSM1	0.013222	-0.64246464	FALSE
GPSM2	0.214	-0.35423564	FALSE
GPSM3	0.037759	0.55885622	FALSE
GPT	0.15795	0.39867841	FALSE
GPT2	0.136894	-0.41804206	FALSE
GPX1	0.283981	0.30803099	FALSE

GPX1P1	0.32151	0.28602878	FALSE
GPX1P2	0.361154	0.26431718	FALSE
GPX2	0.713728	-0.10781085	FALSE
GPX3	0.685812	-0.11881195	FALSE
GPX4	0.255905	0.32563276	FALSE
GPX7	0.958324	-0.01540155	FALSE
GPX8	0.56774	-0.16721682	FALSE
GRAMD1A	0.143848	-0.41144139	FALSE
GRAMD1B	0.588569	-0.15841594	FALSE
GRAMD1C	0.12367	-0.43124339	FALSE
GRAMD2	0.31379	-0.29042922	FALSE
GRAMD3	0.599097	-0.15401549	FALSE
GRAMD4	0.115352	-0.44004427	FALSE
GRAMD4P5	0.103603	-0.4532456	FALSE
GRAMD4P7	0.439249	-0.22502328	FALSE
GRAP	0.730641	0.10121018	FALSE
GRAP2	0.916747	-0.0308031	FALSE
GRAPL	0.764804	0.08800885	FALSE
GRASP	0.588569	-0.15841594	FALSE
GRB10	0.857716	0.05280531	FALSE
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GREB1	0.190494	-0.37183741	FALSE
GREB1L	0.296114	0.30074305	FALSE
GREM1	0.317637	0.288229	FALSE
GREM2	0.776284	-0.08360841	FALSE
GRHL1	0.280376	0.31023121	FALSE
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GRHL3	0.562752	0.16934404	FALSE
GRHPR	0.057064	-0.51925224	FALSE
GRIA1	0.647355	-0.1342135	FALSE
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GRIA4	0.454411	0.21782191	FALSE
GRID1	0.395723	-0.24642479	FALSE
GRID2IP	0.074851	-0.49064936	FALSE
GRIK1	0.069149	-0.49923373	FALSE
GRIK2	0.21706	0.35203542	FALSE
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GRIN1	0.740264	0.09747483	FALSE
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GRIN3A	0.791052	-0.07797136	FALSE
GRIN3B	0.787807	-0.07920797	FALSE
GRINA	0.009865	0.66226663	FALSE
GRIP1	0.193338	0.36963719	FALSE

GRIP2	0.810149	0.07071862	FALSE
GRIPAP1	0.863593	-0.05060509	FALSE
GRK1	0.162136	-0.39503587	FALSE
GRK2	0.445116	-0.22222236	FALSE
GRK3	0.445116	-0.22222236	FALSE
GRK4	0.578116	0.16281638	FALSE
GRK5	0.887164	0.04180421	FALSE
GRK6	0.099878	0.45764604	FALSE
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GRK7	0.038684	-0.556656	FALSE
GRM1	0.168708	0.38943918	FALSE
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GRM3	0.134375	-0.42048826	FALSE
GRM4	0.70252	0.11221129	FALSE
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GRN	0.276799	0.31243143	FALSE
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GRPR	0.413341	-0.23762391	FALSE
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GRWD1	0.641924	-0.13641372	FALSE
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GS1-115G2	0.134063	-0.42079353	FALSE
GS1-124K5	0.497383	0.19801992	FALSE
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GS1-124K5	0.578116	-0.16281638	FALSE
GS1-124K5	0.585353	0.15976653	FALSE
GS1-124K5	0.373724	-0.25770925	FALSE
GS1-184P1	0.557061	-0.17178065	FALSE
GS1-21A4.	0.993977	-0.00222481	FALSE
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GS1-279B7	0.15845	-0.39824006	FALSE
GS1-304P7	0.645377	0.13501397	FALSE
GS1-393G1	0.248606	-0.33039648	FALSE
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GSK3A	0.187678	-0.37403763	FALSE
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GSTCD	0.266229	-0.3190321	FALSE
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GSTT1	0.084258	-0.47744803	FALSE
GSTT2	0.465074	-0.21282751	FALSE
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GSTZ1	0.179388	0.38063829	FALSE
GSX1	0.138002	-0.41697566	FALSE
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GTF2B	0.588569	0.15841594	FALSE
GTF2E1	0.934547	0.02420243	FALSE
GTF2E2	0.713728	0.10781085	FALSE
GTF2F1	0.353453	-0.26842701	FALSE
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GTF2H2B	0.010436	-0.65856715	FALSE
GTF2H2C	0.357565	-0.26622678	FALSE
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GTF2H3	0.361702	0.26402656	FALSE
GTF2H4	0.631114	-0.14081417	FALSE
GTF2H5	0.370053	-0.25962612	FALSE
GTF2I	0.01241	-0.64686508	FALSE
GTF2IP1	0.08757	-0.47304759	FALSE
GTF2IP11	0.148122	-0.40748899	FALSE
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GTF2IRD1P	0.232221	0.34140969	FALSE
GTF2IRD2	0.182124	-0.37843807	FALSE
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GTF2IRD2P	0.991056	-0.00330396	FALSE
GTF3A	0.482854	-0.20462059	FALSE
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GTSE1	0.276799	0.31243143	FALSE
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GUCA1B	0.341277	-0.27502767	FALSE
GUCD1	0.071888	0.4950498	FALSE
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GUCY2D	0.873984	-0.04672092	FALSE
GUCY2F	0.257161	0.32482162	FALSE
GUF1	0.413341	-0.23762391	FALSE
GUK1	0.011636	0.65126552	FALSE
GULP1	0.32151	0.28602878	FALSE
GUSB	0.291271	0.30363055	FALSE
GUSBP1	0.34531	-0.27282745	FALSE
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GVINP2	0.39254	0.24803649	FALSE
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GVQW2	0.730641	0.10121018	FALSE
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GXYLT1P4	0.762786	0.08878429	FALSE
GXYLT1P5	0.555974	0.17224757	FALSE
GXYLT2	0.922677	0.02860288	FALSE
GYG1	0.793583	-0.07700775	FALSE
GYG1P3	0.779878	-0.08223443	FALSE
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GYG2P1	0.764804	-0.08800885	FALSE
GYPA	0.096246	0.46204648	FALSE
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GYPC	0.039624	-0.55445578	FALSE
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H2AFZ	0.851846	0.05500553	FALSE
H2BFM	0.759081	-0.09020908	FALSE
H2BFS	0.176678	-0.38283852	FALSE
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H3F3AP4	0.272116	0.31533732	FALSE
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H3F3B	0.184888	0.37623785	FALSE
H3F3BP1	0.245275	-0.33259912	FALSE
H3F3C	0.232769	0.34103431	FALSE
H6PD	0.151032	0.40484073	FALSE
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HACD1	0.741981	0.09680974	FALSE
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HADHB	0.15845	0.39824006	FALSE
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HAS1	0.315892	-0.28922473	FALSE
HAS2	0.583333	-0.16061616	FALSE
HAS3	0.107424	-0.44884516	FALSE
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HAUS6	0.696936	0.11441151	FALSE
HAUS6P3	0.818637	-0.06750698	FALSE
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HAUS8	0.166104	0.3916394	FALSE
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HBB	0.408899	0.23982413	FALSE
HBBP1	0.581891	0.16122372	FALSE
HBD	0.329337	0.28162833	FALSE
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HBG2	0.266229	0.3190321	FALSE
HBM	0.347891	0.27142628	FALSE
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HBQ1	0.702515	0.11221309	FALSE
HBS1L	0.32151	-0.28602878	FALSE

HBZ	0.621653	0.14468795	FALSE
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HCAR3	0.764804	0.08800885	FALSE
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HCK	0.009537	0.66446685	FALSE
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HCN1	0.454411	0.21782191	FALSE
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HCN3	0.724991	0.1034104	FALSE
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HCRTR2	0.493442	0.1998016	FALSE
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HDAC3	0.063499	0.50825113	FALSE
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HDAC9	0.449752	0.22002214	FALSE
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HDDC2	0.052265	0.52805312	FALSE
HDDC3	0.404482	0.24202435	FALSE
HDGF	0.226404	-0.34543475	FALSE
HDGFP1	0.868601	0.0487321	FALSE
HDHD2	0.730641	0.10121018	FALSE
HDHD3	0.753369	0.0924093	FALSE
HDLBP	0.588569	-0.15841594	FALSE
HDX	0.065182	0.50550661	FALSE
HEATR1	0.223262	-0.34763497	FALSE
HEATR3	0.378508	0.25522568	FALSE
HEATR4	0.840128	-0.05940598	FALSE
HEATR5A	0.922677	0.02860288	FALSE
HEATR5B	0.199106	-0.36523674	FALSE

HEATR6	0.060866	0.51265158	FALSE
HEATR9	0.073736	0.49229075	FALSE
HEBP1	0.357565	0.26622678	FALSE
HEBP2	0.069009	0.49945025	FALSE
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HECTD1	0.220147	-0.3498352	FALSE
HECTD2	0.680272	0.12101217	FALSE
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HECTD4	0.182124	-0.37843807	FALSE
HECW1	0.306176	-0.29482966	FALSE
HECW2	0.229572	-0.34323453	FALSE
HEG1	0.071888	0.4950498	FALSE
HELB	0.663743	0.12761284	FALSE
HELLS	0.764804	0.08800885	FALSE
HELQ	0.658264	-0.12981306	FALSE
HELZ	0.0779	-0.48624892	FALSE
HELZ2	0.01898	0.61606198	FALSE
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HEPACAM	0.204983	0.3608363	FALSE
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HEPH	0.482111	-0.20496064	FALSE
HERC1	0.146217	0.40924117	FALSE
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HERC2P10	0.56774	-0.16721682	FALSE
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HEXDC	0.887164	-0.04180421	FALSE
HEXIM1	0.893071	-0.03960398	FALSE

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HEY2	0.667885	0.12595346	FALSE
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HGF	0.042548	-0.54785512	FALSE
HGFAC	0.439988	0.2246696	FALSE
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HHEX	0.007742	-0.67766818	FALSE
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HHLA1	0.187678	-0.37403763	FALSE
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HIKESHI	0.085903	0.47524781	FALSE
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HINT3	0.887164	0.04180421	FALSE
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HIST1H2BK	0.851846	-0.05500553	FALSE
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HK1	0.34531	0.27282745	FALSE
HK2	0.805166	0.0726073	FALSE
HK2P1	0.171485	-0.38711617	FALSE
HK3	0.0201	0.61166154	FALSE
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HLA-DQA1	0.094465	0.46424671	FALSE
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HLCS	0.83428	0.0616062	FALSE
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HLTF	0.652801	-0.13201328	FALSE
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HMBS	0.176678	0.38283852	FALSE
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HMGA1P2	0.288257	0.30544216	FALSE
HMGA1P3	0.367863	-0.26077491	FALSE
HMGA1P8	0.236726	0.33833593	FALSE
HMGA2	0.378508	0.25522568	FALSE
HMGB1	0.454411	-0.21782191	FALSE
HMGB1P1	0.684346	-0.11939364	FALSE
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HMGB1P1E	0.413452	-0.23756898	FALSE
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HMGB1P2C	0.4638	-0.21342147	FALSE
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HMGB1P3E	0.493442	-0.1998016	FALSE
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HMGB2	0.09805	0.45984626	FALSE
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HMX2	0.313224	0.29075389	FALSE
HMX3	0.5281	0.18435007	FALSE
HN1	0.793583	-0.07700775	FALSE

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HNMT	0.071888	0.4950498	FALSE
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HOMEZ	0.810971	0.07040708	FALSE
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HPS6	0.753369	0.0924093	FALSE
HPSE	0.898983	-0.03740376	FALSE
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HR	0.069009	-0.49945025	FALSE
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HS3ST1	0.190494	-0.37183741	FALSE
HS3ST2	0.341277	0.27502767	FALSE
HS3ST3A1	0.01241	-0.64686508	FALSE
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HS3ST4	0.235992	0.33883409	FALSE
HS6ST1	0.572919	-0.1650166	FALSE
HS6ST1P1	0.400753	0.24389171	FALSE
HS6ST2	0.351942	-0.26923962	FALSE
HSP1	0.168708	0.38943918	FALSE
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HSCB	0.970226	0.01100111	FALSE
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HSD11B2	0.235332	-0.33928285	FALSE
HSD17B1	0.724991	0.1034104	FALSE
HSD17B10	0.333291	0.27942811	FALSE
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HSP90B3P	0.240204	0.33598637	FALSE
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HUWE1	0.026463	0.58965932	FALSE
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HYAL2	0.090972	0.46864715	FALSE
HYAL3	0.4638	0.21342147	FALSE
HYAL4	0.204983	0.3608363	FALSE
HYDIN	0.141504	0.41364161	FALSE
HYI	0.747669	-0.09460952	FALSE
HYKK	0.958324	0.01540155	FALSE
HYLS1	0.408899	-0.23982413	FALSE
HYOU1	0.753369	0.0924093	FALSE
HYPK	0.669238	-0.12541262	FALSE
IAH1	0.099878	0.45764604	FALSE
IAPP	0.283981	-0.30803099	FALSE
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IARS2	0.111339	-0.44444471	FALSE
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IBTK	0.370053	0.25962612	FALSE
ICA1	0.184888	0.37623785	FALSE
ICA1L	0.445116	-0.22222236	FALSE
ICAM1	0.276799	0.31243143	FALSE
ICAM2	0.113334	0.44224449	FALSE
ICAM3	0.708117	-0.11001107	FALSE
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ICE1	0.074851	-0.49064936	FALSE
ICE2	0.115352	-0.44004427	FALSE
ICK	0.29867	-0.2992301	FALSE
ICMT	0.440504	0.22442258	FALSE
ICOS	0.970226	-0.01100111	FALSE
ICOSLG	0.40009	-0.24422457	FALSE
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ID4	0.605662	0.15128678	FALSE
IDE	0.527033	-0.18481859	FALSE
IDH1	0.787807	0.07920797	FALSE
IDH2	0.708117	0.11001107	FALSE
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IDH3B	0.378508	-0.25522568	FALSE

IDH3G	0.952376	0.01760177	FALSE
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IDI2	0.32711	-0.28287448	FALSE
IDNK	0.006222	0.6908695	FALSE
IDO1	0.636486	0.13862375	FALSE
IDO2	0.522038	0.18701882	FALSE
IDS	0.232769	-0.34103431	FALSE
IDSP1	0.208581	-0.35818092	FALSE
IDUA	0.810971	0.07040708	FALSE
IER2	0.863593	-0.05060509	FALSE
IER3	0.822609	-0.06600664	FALSE
IER3IP1	0.020678	-0.60946131	FALSE
IER5	0.341277	0.27502767	FALSE
IER5L	0.934547	0.02420243	FALSE
IFFO1	0.125812	0.42904316	FALSE
IFFO2	0.869477	0.04840487	FALSE
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IFIH1	0.572919	0.1650166	FALSE
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IFNG	0.517064	0.18921904	FALSE
IFNGR1	0.583333	0.16061616	FALSE
IFNGR2	0.004388	0.7106715	TRUE
IFNLR1	0.53205	-0.18261837	FALSE
IFNW1	0.168824	-0.38934098	FALSE
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IFRD2	0.182124	0.37843807	FALSE
IFT122	0.845984	0.05720576	FALSE
IFT140	0.002753	-0.73487393	TRUE
IFT172	0.970226	-0.01100111	FALSE
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IFT22	0.024415	-0.59625999	FALSE
IFT27	0.663743	0.12761284	FALSE
IFT43	0.010201	-0.66006641	FALSE
IFT46	0.468529	-0.21122125	FALSE
IFT52	0.898983	0.03740376	FALSE
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IGF1	0.431353	0.22882302	FALSE
IGF1R	0.94643	0.01980199	FALSE
IGF2	0.509808	0.19244568	FALSE
IGF2BP1	0.012811	0.64466486	FALSE
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IGF2R	0.361702	0.26402656	FALSE
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IGFBP6	0.527033	-0.18481859	FALSE
IGFBP7	0.235992	0.33883409	FALSE
IGFL2	0.70252	0.11221129	FALSE
IGFL4	0.076365	-0.48844914	FALSE
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IGHA1	0.096246	-0.46204648	FALSE
IGHA2	0.6093	-0.14977974	FALSE
IGHD	0.53205	0.18261837	FALSE
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IGHJ3	0.593412	0.15638767	FALSE
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IGHJ4	0.736305	0.09900996	FALSE
IGHJ5	0.299979	0.29845815	FALSE
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IGHV6-1	0.458239	0.21602235	FALSE
IGHV7-27	0.014504	-0.63591834	FALSE
IGHVII-30-1	0.306087	-0.29488149	FALSE
IGHVII-43-1	0.033538	-0.56944409	FALSE
IGHVII-44-2	0.187678	-0.37403763	FALSE
IGHVIII-38-	0.225776	-0.34587311	FALSE
IGHVIII-44	0.062279	-0.51027318	FALSE
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IGKV7-3	0.937583	0.02307768	FALSE
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IGLC3	0.934547	-0.02420243	FALSE
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IGLJ2	0.370887	-0.25918985	FALSE
IGLJ3	0.97224	-0.01025675	FALSE
IGLL1	0.085903	-0.47524781	FALSE
IGLL5	0.696936	0.11441151	FALSE
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IGLV11-55	0.668962	-0.12552262	FALSE
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IGLV3-25	0.898983	-0.03740376	FALSE
IGLV3-27	0.165238	0.39237569	FALSE
IGLV3-9	0.99627	0.00137798	FALSE

IGLV4-3	0.662171	-0.12824353	FALSE
IGLV4-60	0.076186	-0.48870745	FALSE
IGLV4-69	0.945833	-0.02002325	FALSE
IGLV5-45	0.922615	-0.02862579	FALSE
IGLV5-52	0.391381	-0.24862501	FALSE
IGLV6-57	0.119009	-0.43612335	FALSE
IGLV7-43	0.269155	-0.31718993	FALSE
IGLV7-46	0.854422	-0.05403977	FALSE
IGLV8-61	0.914861	0.03150326	FALSE
IGLV9-49	0.671298	0.12458911	FALSE
IGLVI-56	0.668962	-0.12552262	FALSE
IGLVI-70	0.631751	0.14055401	FALSE
IGLVIV-59	0.668962	-0.12552262	FALSE
IGLVV-58	0.141901	-0.41326694	FALSE
IGSF1	0.357565	-0.26622678	FALSE
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IGSF11	0.79937	-0.07480753	FALSE
IGSF22	0.80596	0.07230618	FALSE
IGSF3	0.793583	0.07700775	FALSE
IGSF5	0.708117	0.11001107	FALSE
IGSF6	0.00577	0.69526995	FALSE
IGSF8	0.034225	-0.56765711	FALSE
IGSF9	0.56774	-0.16721682	FALSE
IGSF9B	0.107424	0.44884516	FALSE
IHH	0.029454	-0.58067426	FALSE
IK	0.413341	-0.23762391	FALSE
IKBIP	0.057064	-0.51925224	FALSE
IKBKAP	0.163526	-0.39383962	FALSE
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IKBKE	0.341277	0.27502767	FALSE
IKBKG	0.007471	0.6798684	FALSE
IKBKGP1	0.074851	0.49064936	FALSE
IKZF1	0.547224	0.17601771	FALSE
IKZF2	0.674747	0.1232124	FALSE
IKZF3	0.593824	0.15621572	FALSE
IKZF4	0.187678	-0.37403763	FALSE
IKZF5	0.522038	-0.18701882	FALSE
IL10	0.620371	0.14521461	FALSE
IL10RA	0.032552	0.57205755	FALSE
IL10RB	0.143848	0.41144139	FALSE
IL11	0.187678	-0.37403763	FALSE
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IL12A	0.449752	-0.22002214	FALSE
IL12B	0.875366	0.04620465	FALSE
IL12RB1	0.869477	-0.04840487	FALSE
IL12RB2	0.404482	0.24202435	FALSE
IL13	0.141907	-0.41326194	FALSE
IL13RA1	0.249158	0.3300332	FALSE

IL15	0.002192	0.74587504	TRUE
IL15RA	0.904899	-0.03520354	FALSE
IL16	0.027898	0.58525888	FALSE
IL17B	0.993801	-0.00229006	FALSE
IL17C	0.50718	0.19361948	FALSE
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IL17F	0.012975	-0.64377808	FALSE
IL17RA	0.70252	-0.11221129	FALSE
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IL17RE	0.492518	-0.20022014	FALSE
IL17REL	0.001273	-0.77007747	TRUE
IL18	0.708117	-0.11001107	FALSE
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IL18R1	0.940487	0.02200221	FALSE
IL18RAP	0.641924	-0.13641372	FALSE
IL19	0.193338	-0.36963719	FALSE
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IL1B	0.043556	0.5456549	FALSE
IL1R1	0.171338	0.38723896	FALSE
IL1R2	0.94643	0.01980199	FALSE
IL1RAP	0.130169	-0.42464272	FALSE
IL1RAPL1	0.420885	0.23391407	FALSE
IL1RL1	0.408899	0.23982413	FALSE
IL1RL2	0.620371	0.14521461	FALSE
IL1RN	0.242521	0.33443365	FALSE
IL20	0.127661	-0.42716267	FALSE
IL20RB	0.262761	-0.32123232	FALSE
IL21R	0.816786	0.06820686	FALSE
IL22RA1	0.912199	0.03249161	FALSE
IL22RA2	0.546764	0.17621663	FALSE
IL23A	0.081035	0.48184848	FALSE
IL23R	0.857716	0.05280531	FALSE
IL24	0.776284	-0.08360841	FALSE
IL27	0.101189	-0.45608515	FALSE
IL27RA	0.641924	-0.13641372	FALSE
IL2RA	0.810971	-0.07040708	FALSE
IL2RB	0.934547	0.02420243	FALSE
IL2RG	0.609698	0.14961505	FALSE
IL3	0.14425	0.41106631	FALSE
IL31	0.775097	-0.08406287	FALSE
IL31RA	0.084258	0.47744803	FALSE
IL32	0.652801	0.13201328	FALSE
IL33	0.337271	-0.27722789	FALSE
IL34	0.375998	0.25652654	FALSE
IL36A	0.464702	0.21300055	FALSE
IL36G	0.011398	0.65266795	FALSE

IL36RN	0.023644	0.59885147	FALSE
IL3RA	0.291271	0.30363055	FALSE
IL4	0.371283	-0.25898287	FALSE
IL4I1	0.001562	0.76127659	TRUE
IL4R	0.922677	0.02860288	FALSE
IL5	0.746982	-0.09487491	FALSE
IL5RA	0.166104	0.3916394	FALSE
IL6	0.349368	0.27062723	FALSE
IL6R	0.187678	0.37403763	FALSE
IL6ST	0.487675	0.20242036	FALSE
IL7	0.776284	-0.08360841	FALSE
IL7R	0.822609	-0.06600664	FALSE
IL9	0.8186	0.06752105	FALSE
IL9R	0.016883	-0.62486286	FALSE
IL9RP3	0.262761	-0.32123232	FALSE
ILDR1	0.82844	0.06380642	FALSE
ILDR2	0.168708	-0.38943918	FALSE
ILF2	0.805166	-0.0726073	FALSE
ILF3	0.12367	-0.43124339	FALSE
ILK	0.502271	0.1958197	FALSE
ILKAP	0.851846	-0.05500553	FALSE
ILVBL	0.56774	0.16721682	FALSE
IMMP1L	0.810971	-0.07040708	FALSE
IMMP2L	0.50718	0.19361948	FALSE
IMMT	0.741981	0.09680974	FALSE
IMP3	0.685812	-0.11881195	FALSE
IMP3P2	0.152244	-0.40374829	FALSE
IMP4	0.887164	-0.04180421	FALSE
IMPA1	0.512111	0.19141926	FALSE
IMPA1P1	0.987818	-0.00450047	FALSE
IMPA2	0.09805	-0.45984626	FALSE
IMPACT	0.039624	0.55445578	FALSE
IMPAD1	0.374268	-0.2574259	FALSE
IMPDH1	0.502271	0.1958197	FALSE
IMPDH1P1	0.21706	0.35203542	FALSE
IMPDH1P6	0.912823	-0.03225968	FALSE
IMPDH2	0.512111	-0.19141926	FALSE
IMPG2	0.113334	-0.44224449	FALSE
INA	0.125812	-0.42904316	FALSE
INAFM1	0.83428	-0.0616062	FALSE
INAFM2	0.346784	-0.27202643	FALSE
INCA1	0.31379	0.29042922	FALSE
INCENP	0.269725	-0.31683187	FALSE
INF2	0.578116	0.16281638	FALSE
ING1	0.025766	-0.59185954	FALSE
ING2	0.776284	-0.08360841	FALSE
ING3	0.652801	-0.13201328	FALSE
ING4	0.641924	-0.13641372	FALSE

ING5	0.552323	0.17381749	FALSE
INGX	0.29867	0.2992301	FALSE
INHBA	0.32151	-0.28602878	FALSE
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INHBE	0.374268	-0.2574259	FALSE
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INMT	0.259319	-0.32343254	FALSE
INMT-FAM1	0.144136	-0.41117213	FALSE
INO80	0.875366	0.04620465	FALSE
INO80B	0.058312	-0.51705202	FALSE
INO80B-WI	0.068363	0.50045523	FALSE
INO80C	0.542145	0.17821793	FALSE
INO80D	0.196209	-0.36743697	FALSE
INO80E	0.669238	0.12541262	FALSE
INPP1	0.10937	0.44664493	FALSE
INPP4A	0.163526	0.39383962	FALSE
INPP4B	0.353453	-0.26842701	FALSE
INPP5A	0.009865	0.66226663	FALSE
INPP5B	0.143848	-0.41144139	FALSE
INPP5D	0.395723	0.24642479	FALSE
INPP5E	0.958324	-0.01540155	FALSE
INPP5F	0.468529	0.21122125	FALSE
INPP5J	0.177311	-0.38232254	FALSE
INPP5K	0.578116	0.16281638	FALSE
INPPL1	0.893071	-0.03960398	FALSE
INSC	0.051113	-0.53025335	FALSE
INSIG1	0.736305	-0.09900996	FALSE
INSIG2	0.56774	0.16721682	FALSE
INSL3	0.049979	-0.53245357	FALSE
INSL4	0.003051	-0.72973624	TRUE
INSL6	0.082635	0.47964826	FALSE
INSM1	0.656837	-0.13038746	FALSE
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INSR	0.56774	-0.16721682	FALSE
INSRR	0.842884	0.05837004	FALSE
INTS1	0.557442	-0.17161727	FALSE
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INTS3	0.121554	0.43344361	FALSE
INTS4	0.329337	0.28162833	FALSE
INTS4P1	0.673368	-0.1237628	FALSE
INTS4P2	0.588446	-0.15846776	FALSE
INTS5	0.887164	0.04180421	FALSE
INTS6	0.517064	-0.18921904	FALSE
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INTS9	0.904899	-0.03520354	FALSE
INTU	0.910821	0.03300332	FALSE
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IP6K1	0.193338	-0.36963719	FALSE
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IPCEF1	0.079456	0.4840487	FALSE
IPMK	0.583333	-0.16061616	FALSE
IPO11	0.151032	-0.40484073	FALSE
IPO13	0.578116	-0.16281638	FALSE
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IPO5	0.445116	-0.22222236	FALSE
IPO5P1	0.148612	-0.40704095	FALSE
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IPO8	0.641924	-0.13641372	FALSE
IPO8P1	0.308164	-0.29367434	FALSE
IPO9	0.708117	0.11001107	FALSE
IPP	0.56774	0.16721682	FALSE
IPPK	0.255905	-0.32563276	FALSE
IQCA1	0.096858	0.46129772	FALSE
IQCA1L	0.604388	-0.15181527	FALSE
IQCB1	0.378508	-0.25522568	FALSE
IQCB2P	0.185278	-0.37592881	FALSE
IQCC	0.56774	-0.16721682	FALSE
IQCD	0.490565	-0.20110608	FALSE
IQCE	0.473281	-0.20902103	FALSE
IQCF1	0.82844	0.06380642	FALSE
IQCF3	0.562581	0.16941704	FALSE
IQCG	0.805166	0.0726073	FALSE
IQCH	0.869477	-0.04840487	FALSE
IQJ-SCHIP	0.129701	-0.42511013	FALSE
IQCK	0.382774	-0.25302546	FALSE
IQGAP1	0.187678	0.37403763	FALSE
IQGAP2	0.121554	-0.43344361	FALSE
IQGAP3	0.56774	0.16721682	FALSE
IQSEC1	0.214	0.35423564	FALSE
IQSEC2	0.890653	-0.04050419	FALSE
IQSEC3	0.641924	-0.13641372	FALSE
IQSEC3P1	0.064813	-0.50610392	FALSE
IQUB	0.593824	-0.15621572	FALSE
IRAK1	0.058312	0.51705202	FALSE
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IRAK2	0.117395	0.43784405	FALSE
IRAK3	0.016883	0.62486286	FALSE
IRAK4	0.609698	0.14961505	FALSE
IREB2	0.111339	-0.44444471	FALSE
IRF1	0.262761	0.32123232	FALSE
IRF2	0.94643	-0.01980199	FALSE

IRF2BP1	0.02939	-0.58085844	FALSE
IRF2BP2	0.83428	-0.0616062	FALSE
IRF2BPL	0.92861	0.02640266	FALSE
IRF3	0.92861	-0.02640266	FALSE
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IRF7	0.055836	0.52145246	FALSE
IRF8	0.02939	0.58085844	FALSE
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IRS1	0.730641	0.10121018	FALSE
IRS2	0.952376	0.01760177	FALSE
IRX1	0.001358	-0.76732937	TRUE
IRX2	0.372301	-0.25845106	FALSE
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IRX5	0.34531	-0.27282745	FALSE
IRX6	0.320467	0.28661995	FALSE
ISCA1	0.764804	-0.08800885	FALSE
ISCA1P1	0.03674	0.56132905	FALSE
ISCA1P4	0.719047	-0.10572998	FALSE
ISCA2	0.010201	0.66006641	FALSE
ISCU	0.875366	-0.04620465	FALSE
ISG15	0.022488	0.60286065	FALSE
ISG20	0.881262	0.04400443	FALSE
ISG20L2	0.92861	-0.02640266	FALSE
ISL2	0.767606	0.08693354	FALSE
ISLR2	0.776284	0.08360841	FALSE
ISM1	0.762245	0.08899222	FALSE
ISM2	0.946372	0.01982379	FALSE
ISOC1	0.074851	-0.49064936	FALSE
ISOC2	0.652801	0.13201328	FALSE
ISPD	0.440504	-0.22442258	FALSE
IST1	0.391381	0.24862501	FALSE
ISY1	0.805166	-0.0726073	FALSE
ISY1-RAB43	0.604388	-0.15181527	FALSE
ISYNA1	0.845984	-0.05720576	FALSE
ITCH	0.881262	-0.04400443	FALSE
ITFG1	0.736305	-0.09900996	FALSE
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ITGA1	0.502271	0.1958197	FALSE
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ITGA2	0.449752	-0.22002214	FALSE
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ITGAE	0.713728	0.10781085	FALSE
ITGAL	0.79937	0.07480753	FALSE
ITGAM	0.010547	0.65786618	FALSE
ITGAV	0.223262	0.34763497	FALSE
ITGAX	0.044582	0.54345467	FALSE
ITGB1	0.730641	-0.10121018	FALSE
ITGB1BP1	0.370053	0.25962612	FALSE
ITGB1BP2	0.537087	0.18041815	FALSE
ITGB1P1	0.276703	0.31249082	FALSE
ITGB2	0.182124	0.37843807	FALSE
ITGB3	0.12367	0.43124339	FALSE
ITGB3BP	0.753369	0.0924093	FALSE
ITGB4	0.235992	-0.33883409	FALSE
ITGB5	0.976179	-0.00880089	FALSE
ITGB7	0.099878	0.45764604	FALSE
ITGB8	0.730641	0.10121018	FALSE
ITGBL1	0.750693	-0.09344184	FALSE
ITIH1	0.387065	0.25082523	FALSE
ITIH4	0.770539	-0.08580863	FALSE
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ITK	0.333291	0.27942811	FALSE
ITLN1	0.097501	0.46051279	FALSE
ITLN2	0.376206	0.25641869	FALSE
ITM2A	0.002633	-0.73707415	TRUE
ITM2B	0.478056	-0.20682081	FALSE
ITM2C	0.121554	-0.43344361	FALSE
ITPA	0.092707	0.46644693	FALSE
ITPK1	0.00357	0.7216726	TRUE
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ITPR2	0.0779	-0.48624892	FALSE
ITPR3	0.805166	0.0726073	FALSE
ITPRIP	0.857716	-0.05280531	FALSE
ITPRIPL1	0.361702	-0.26402656	FALSE
ITPRIPL2	0.776284	-0.08360841	FALSE
ITSN1	0.395723	0.24642479	FALSE
ITSN2	0.21706	0.35203542	FALSE
IVD	0.199106	-0.36523674	FALSE
IVNS1ABP	0.685812	-0.11881195	FALSE
IWS1	0.970226	0.01100111	FALSE

IYD	0.337271	0.27722789	FALSE
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IZUMO2	0.255905	0.32563276	FALSE
IZUMO4	0.404482	0.24202435	FALSE
JADE1	0.0779	-0.48624892	FALSE
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JADE3	0.226404	-0.34543475	FALSE
JAG1	0.593824	-0.15621572	FALSE
JAG2	0.753369	0.0924093	FALSE
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JAKMIP1	0.522038	-0.18701882	FALSE
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JAM2	0.382774	0.25302546	FALSE
JAM3	0.840128	0.05940598	FALSE
JAML	0.269725	0.31683187	FALSE
JARID2	0.294957	0.30143033	FALSE
JAZF1	0.226404	0.34543475	FALSE
JCHAIN	0.051113	-0.53025335	FALSE
JDP2	0.269725	-0.31683187	FALSE
JKAMP	0.182124	-0.37843807	FALSE
JMJD1C	0.557442	0.17161727	FALSE
JMJD4	0.043556	0.5456549	FALSE
JMJD6	0.805166	0.0726073	FALSE
JMJD7	0.08757	-0.47304759	FALSE
JMJD7-PLA	0.337271	-0.27722789	FALSE
JMJD8	0.83428	0.0616062	FALSE
JMY	0.869477	0.04840487	FALSE
JOSD1	0.387065	-0.25082523	FALSE
JOSD2	0.009537	0.66446685	FALSE
JPH1	0.15445	0.40177391	FALSE
JPH3	0.91638	-0.0309394	FALSE
JPH4	0.822609	0.06600664	FALSE
JRK	0.78204	-0.08140819	FALSE
JRKL	0.869477	0.04840487	FALSE
JSRP1	0.092707	0.46644693	FALSE
JTB	0.4638	0.21342147	FALSE
JUN	0.845984	-0.05720576	FALSE
JUNB	0.578116	0.16281638	FALSE
JUND	0.329337	0.28162833	FALSE
JUP	0.023759	-0.59846021	FALSE
KALRN	0.910821	0.03300332	FALSE
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KANK2	0.052265	0.52805312	FALSE
KANK3	0.204983	-0.3608363	FALSE

KANK4	0.965913	0.01259535	FALSE
KANSL1	0.840128	-0.05940598	FALSE
KANSL1L	0.223262	-0.34763497	FALSE
KANSL2	0.422298	-0.23322346	FALSE
KANSL3	5.99E-05	-0.86688721	TRUE
KANTR	0.252518	0.32783298	FALSE
KARS	0.038684	0.556656	FALSE
KAT14	0.255905	-0.32563276	FALSE
KAT2A	0.685812	-0.11881195	FALSE
KAT2B	0.904899	-0.03520354	FALSE
KAT5	0.193338	0.36963719	FALSE
KAT6A	0.113334	-0.44224449	FALSE
KAT6B	0.025084	-0.59405977	FALSE
KAT7	0.482854	-0.20462059	FALSE
KAT8	0.625734	0.14301439	FALSE
KATNA1	0.713728	-0.10781085	FALSE
KATNAL1	0.081035	-0.48184848	FALSE
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KATNB1	0.032552	-0.57205755	FALSE
KATNBL1	0.357565	-0.26622678	FALSE
KAZALD1	0.988075	0.00440529	FALSE
KAZN	0.090972	0.46864715	FALSE
KB-1027C1	0.034117	0.56793562	FALSE
KB-1980E6	0.770539	0.08580863	FALSE
KB-226F1.4	0.064813	-0.50610392	FALSE
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KCNF1	0.024193	0.59699783	FALSE
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KRT13	0.493639	0.19971218	FALSE
KRT14	0.368901	-0.26022982	FALSE

KRT15	0.117395	0.43784405	FALSE
KRT16	0.054568	-0.52375978	FALSE
KRT16P3	0.103077	-0.45386107	FALSE
KRT17	0.038877	-0.5562014	FALSE
KRT17P1	0.014823	-0.63436123	FALSE
KRT17P2	0.005345	-0.69967039	FALSE
KRT17P3	0.347195	-0.27180381	FALSE
KRT17P5	0.026076	-0.5908767	FALSE
KRT17P6	0.002296	-0.74367482	TRUE
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KRT18	0.869477	-0.04840487	FALSE
KRT18P1	0.487594	-0.20245731	FALSE
KRT18P15	0.155837	-0.40054143	FALSE
KRT18P16	0.2762	-0.31280158	FALSE
KRT18P17	0.130394	-0.424418	FALSE
KRT18P26	0.964116	0.01325974	FALSE
KRT18P31	0.547224	0.17601771	FALSE
KRT18P34	0.454126	0.21795588	FALSE
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KRT18P4	0.522038	-0.18701882	FALSE
KRT18P40	0.662973	-0.12792176	FALSE
KRT18P41	0.258065	-0.3242386	FALSE
KRT18P5	0.235992	0.33883409	FALSE
KRT18P52	0.067601	-0.50165047	FALSE
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KRT2	0.476147	-0.20769914	FALSE
KRT23	0.009633	0.66381867	FALSE
KRT26	0.193338	0.36963719	FALSE
KRT4	0.779878	0.08223443	FALSE
KRT42P	0.306176	-0.29482966	FALSE
KRT7	0.512558	-0.19122026	FALSE
KRT72	0.328783	-0.28193833	FALSE
KRT73	0.344758	-0.27312775	FALSE
KRT79	0.44224	0.22359296	FALSE
KRT8	0.378508	-0.25522568	FALSE
KRT80	0.105502	-0.45104538	FALSE
KRT81	0.885855	0.04229199	FALSE
KRT86	0.430974	0.2290063	FALSE
KRT8P11	0.300088	-0.29839349	FALSE
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KRT8P33	0.014074	-0.63806419	FALSE

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KRTAP16-1	0.693546	0.11575036	FALSE
KRTAP3-1	0.337235	-0.2772475	FALSE
KRTAP4-16	0.470595	-0.21026332	FALSE
KRTAP5-10	0.934258	0.02430953	FALSE
KRTAP5-11	0.377965	-0.25550661	FALSE
KRTAP5-4	0.168198	-0.38986784	FALSE
KRTAP5-7	0.146217	0.40924117	FALSE
KRTAP5-8	0.461777	0.21436582	FALSE
KRTAP5-9	0.325411	-0.28382855	FALSE
KRTAP9-6	0.631114	0.14081417	FALSE
KRTCAP2	0.604388	-0.15181527	FALSE
KRTCAP3	0.341277	-0.27502767	FALSE
KSR1	0.306176	-0.29482966	FALSE
KSR2	0.680272	0.12101217	FALSE
KTI12	0.893071	-0.03960398	FALSE
KTN1	0.12367	-0.43124339	FALSE
KXD1	0.090972	0.46864715	FALSE
KY	0.202031	0.36303652	FALSE
KYAT1	0.625734	-0.14301439	FALSE
KYAT3	0.426813	-0.23102324	FALSE
KYNU	0.044582	0.54345467	FALSE
KYNUP1	0.455374	-0.21736844	FALSE
KYNUP2	0.198771	0.36549074	FALSE
KYNUP3	0.169452	-0.38881397	FALSE
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L2HGDH	0.976179	0.00880089	FALSE
L3HYPDH	0.023117	-0.60066043	FALSE
L3MBTL1	0.259319	-0.32343254	FALSE
L3MBTL2	0.50718	0.19361948	FALSE
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LA16c-13E4	0.111811	0.44392146	FALSE
LA16c-306	0.543847	-0.17747988	FALSE
LA16c-306	0.958324	0.01540155	FALSE
LA16c-380	0.88237	-0.04359118	FALSE
LA16c-431	0.413341	-0.23762391	FALSE
LACC1	0.210967	0.35643586	FALSE
LACE1	0.341277	-0.27502767	FALSE
LACTB	0.245826	0.33223342	FALSE
LACTB2	0.857716	-0.05280531	FALSE
LACTBL1	0.452954	-0.21850862	FALSE

LAD1	0.15009	0.40569472	FALSE
LAG3	0.810971	-0.07040708	FALSE
LAGE3	0.747669	0.09460952	FALSE
LAGE3P1	0.862082	0.05117053	FALSE
LAIR1	0.492518	-0.20022014	FALSE
LAIR2	0.435916	-0.2266228	FALSE
LAMA1	0.736305	-0.09900996	FALSE
LAMA2	0.875366	-0.04620465	FALSE
LAMA3	1	0	FALSE
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LAMA5	0.793583	0.07700775	FALSE
LAMB1	0.417807	-0.23542368	FALSE
LAMB2	0.958324	0.01540155	FALSE
LAMB3	0.353453	0.26842701	FALSE
LAMB4	0.473281	-0.20902103	FALSE
LAMC1	0.048864	0.53465379	FALSE
LAMC2	0.512111	-0.19141926	FALSE
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LAMP1	0.29867	0.2992301	FALSE
LAMP2	0.249158	-0.3300332	FALSE
LAMP3	0.280376	0.31023121	FALSE
LAMP5	0.088634	0.47165879	FALSE
LAMTOR1	0.713728	0.10781085	FALSE
LAMTOR2	0.074851	0.49064936	FALSE
LAMTOR3	0.276799	0.31243143	FALSE
LAMTOR4	0.027173	0.5874591	FALSE
LAMTOR5	0.845984	0.05720576	FALSE
LANCL1	0.387065	-0.25082523	FALSE
LANCL2	0.851846	0.05500553	FALSE
LANCL3	0.916747	-0.0308031	FALSE
LAP3	0.09805	0.45984626	FALSE
LAP3P2	0.416827	0.23590519	FALSE
LAPTM4A	0.176678	-0.38283852	FALSE
LAPTM4B	0.32151	0.28602878	FALSE
LAPTM5	0.851846	0.05500553	FALSE
LARGE1	0.408899	0.23982413	FALSE
LARGE2	0.269725	0.31683187	FALSE
LARP1	0.391381	-0.24862501	FALSE
LARP1B	0.273248	-0.31463165	FALSE
LARP1P1	0.341277	-0.27502767	FALSE
LARP4	0.994044	-0.00220022	FALSE
LARP4B	0.658264	-0.12981306	FALSE
LARP6	0.143848	0.41144139	FALSE
LARP7	0.840128	0.05940598	FALSE
LARS	0.229572	-0.34323453	FALSE
LARS2	0.875366	0.04620465	FALSE
LAS1L	0.370053	-0.25962612	FALSE
LASP1	0.262761	-0.32123232	FALSE

LAT	0.035084	0.56545689	FALSE
LAT2	0.204983	0.3608363	FALSE
LATS1	0.382774	-0.25302546	FALSE
LATS2	0.040582	-0.55225556	FALSE
LAX1	0.033381	-0.56985733	FALSE
LAYN	0.40009	0.24422457	FALSE
LBH	0.730641	0.10121018	FALSE
LBHD1	0.262761	-0.32123232	FALSE
LBR	0.001485	-0.76347681	TRUE
LBX1	0.810994	0.07039849	FALSE
LBX2	0.776284	0.08360841	FALSE
LCA5	0.357565	0.26622678	FALSE
LCA5L	0.232769	-0.34103431	FALSE
LCAT	0.893071	0.03960398	FALSE
LCK	0.620371	-0.14521461	FALSE
LCLAT1	0.103603	-0.4532456	FALSE
LCMT1	0.168708	-0.38943918	FALSE
LCMT2	0.276799	0.31243143	FALSE
LCN10	0.030941	-0.57645799	FALSE
LCN12	0.478056	0.20682081	FALSE
LCN15	0.435916	-0.2266228	FALSE
LCN1P1	0.986118	0.00512837	FALSE
LCN2	0.351245	0.26961474	FALSE
LCN6	0.057064	-0.51925224	FALSE
LCN8	0.917678	0.03045756	FALSE
LCNL1	0.696048	0.11476187	FALSE
LCOR	0.696936	-0.11441151	FALSE
LCORL	0.79937	-0.07480753	FALSE
LCP1	0.062172	0.51045135	FALSE
LCP2	0.058312	0.51705202	FALSE
LCT	0.103779	-0.45304116	FALSE
LCTL	0.50718	0.19361948	FALSE
LDAH	0.875366	0.04620465	FALSE
LDB1	0.115352	-0.44004427	FALSE
LDB2	0.26736	-0.31831876	FALSE
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LDHA	0.001341	-0.76787725	TRUE
LDHAL6A	0.081035	-0.48184848	FALSE
LDHAL6B	0.319279	-0.2872944	FALSE
LDHAL6CP	0.741981	-0.09680974	FALSE
LDHAL6FP	0.988075	-0.00440529	FALSE
LDHAP2	0.663393	0.1277533	FALSE
LDHAP3	0.278141	-0.31160392	FALSE
LDHAP4	0.009865	-0.66226663	FALSE
LDHAP7	0.046687	-0.53905423	FALSE
LDHB	0.365865	-0.26182634	FALSE
LDHBP1	0.487675	-0.20242036	FALSE
LDHC	0.008604	-0.67106751	FALSE

LDHD	0.468028	-0.21145374	FALSE
LDLR	0.043556	0.5456549	FALSE
LDLRAD1	0.562581	0.16941704	FALSE
LDLRAD2	0.204983	0.3608363	FALSE
LDLRAD3	0.517064	0.18921904	FALSE
LDLRAD4	0.047766	-0.53685401	FALSE
LDLRAP1	0.007207	0.68206862	FALSE
LDOC1	0.82655	-0.06451936	FALSE
LDOC1L	0.615026	-0.14741483	FALSE
LEAP2	0.810971	-0.07040708	FALSE
LECT1	0.737149	-0.0986825	FALSE
LECT2	0.245826	-0.33223342	FALSE
LEF1	0.631114	0.14081417	FALSE
LEFTY1	0.702206	0.1123348	FALSE
LEFTY2	0.055077	-0.52282931	FALSE
LEKR1	0.674747	-0.1232124	FALSE
LEMD2	0.793583	-0.07700775	FALSE
LEMD3	0.70252	0.11221129	FALSE
LENEP	0.147693	0.40788223	FALSE
LENG1	0.182124	0.37843807	FALSE
LENG8	0.904899	-0.03520354	FALSE
LENG9	0.337271	0.27722789	FALSE
LEO1	0.440504	-0.22442258	FALSE
LEP	1	0	FALSE
LEPR	0.199106	0.36523674	FALSE
LEPROT	0.199106	0.36523674	FALSE
LEPROTL1	0.132385	-0.4224425	FALSE
LETM1	0.822609	0.06600664	FALSE
LETM2	0.10937	0.44664493	FALSE
LETMD1	0.604388	-0.15181527	FALSE
LEXM	0.095583	0.46286235	FALSE
LFNG	0.062172	0.51045135	FALSE
LGALS1	0.071888	0.4950498	FALSE
LGALS12	0.492518	-0.20022014	FALSE
LGALS14	0.625734	0.14301439	FALSE
LGALS17A	0.444602	-0.22246696	FALSE
LGALS2	0.066213	0.50385069	FALSE
LGALS3	0.009865	0.66226663	FALSE
LGALS3BP	0.060866	-0.51265158	FALSE
LGALS4	0.039624	-0.55445578	FALSE
LGALS7	0.990701	0.00343509	FALSE
LGALS8	0.249158	-0.3300332	FALSE
LGALS9	0.249158	0.3300332	FALSE
LGALS9B	0.500343	0.19668616	FALSE
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LGALS9DP	0.23453	0.33982953	FALSE
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LG11	0.353453	0.26842701	FALSE

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LGI3	0.758436	-0.09045749	FALSE
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LGR6	0.708117	0.11001107	FALSE
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LHFP	0.067601	-0.50165047	FALSE
LHFPL2	0.468529	-0.21122125	FALSE
LHFPL4	0.083264	0.47879287	FALSE
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LHPP	0.051113	0.53025335	FALSE
LHX1	0.662336	-0.1281775	FALSE
LHX2	0.44396	0.22277304	FALSE
LHX3	0.84531	0.05745888	FALSE
LHX4	0.329337	-0.28162833	FALSE
LHX6	0.798499	0.07513853	FALSE
LHX9	0.81697	-0.0681371	FALSE
LIAS	0.259319	-0.32343254	FALSE
LIF	0.204983	0.3608363	FALSE
LIFR	0.822609	-0.06600664	FALSE
LIG1	0.934547	0.02420243	FALSE
LIG3	1	0	FALSE
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LILRA1	0.015903	0.62926331	FALSE
LILRA2	0.249158	0.3300332	FALSE
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LILRA4	0.713728	-0.10781085	FALSE
LILRA5	0.141504	0.41364161	FALSE
LILRA6	0.229572	0.34323453	FALSE
LILRB1	0.085903	0.47524781	FALSE
LILRB2	0.030158	0.57865822	FALSE
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LILRP1	0.067601	0.50165047	FALSE
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LIM2	0.474779	0.20832972	FALSE
LIMA1	0.037759	0.55885622	FALSE
LIMCH1	0.987955	-0.00444961	FALSE
LIMD1	0.881262	0.04400443	FALSE
LIMD2	0.840128	0.05940598	FALSE
LIME1	0.747669	-0.09460952	FALSE
LIMK1	0.179388	0.38063829	FALSE
LIMK2	0.70252	-0.11221129	FALSE
LIMS1	0.262761	0.32123232	FALSE
LIMS2	0.113334	0.44224449	FALSE
LIMS3	0.232769	0.34103431	FALSE

LIMS4	0.199106	0.36523674	FALSE
LIN28A	0.003881	0.71727216	TRUE
LIN28B	0.916747	-0.0308031	FALSE
LIN37	0.94643	0.01980199	FALSE
LIN52	0.361702	0.26402656	FALSE
LIN54	0.674747	-0.1232124	FALSE
LIN7A	0.011917	0.64964323	FALSE
LIN7B	0.139186	-0.41584184	FALSE
LIN7C	0.043556	0.5456549	FALSE
LIN9	0.357565	-0.26622678	FALSE
LINC00094	0.440504	-0.22442258	FALSE
LINC00116	0.121554	0.43344361	FALSE
LINC00176	0.753369	-0.0924093	FALSE
LINC00202	0.614632	0.14757709	FALSE
LINC00264	0.691367	0.11661173	FALSE
LINC00265	0.839767	-0.05954164	FALSE
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LINC00371	0.182124	-0.37843807	FALSE
LINC00431	0.487186	-0.20264317	FALSE
LINC00444	0.393548	-0.2475256	FALSE
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LINC00493	0.306176	-0.29482966	FALSE
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LINC00672	0.007742	-0.67766818	FALSE
LINC00674	0.599097	0.15401549	FALSE
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LINC00854	0.309969	-0.29262944	FALSE
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LINS1	0.83428	0.0616062	FALSE
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LITAF	0.146217	0.40924117	FALSE
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LL22NC03-	0.294924	-0.30144994	FALSE
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Llfos-48D6	0.278141	0.31160392	FALSE
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LLGL2	0.893071	0.03960398	FALSE
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LLNLF-1870	0.046687	0.53905423	FALSE
LLNLF-18A0	0.482736	-0.20467481	FALSE
LLNLR-2710	0.94643	0.01980199	FALSE
LLNLR-3040	0.121554	0.43344361	FALSE
LLPH	0.422298	0.23322346	FALSE
LMAN1	0.002753	-0.73487393	TRUE
LMAN1L	0.187678	-0.37403763	FALSE
LMAN2	0.085903	0.47524781	FALSE
LMAN2L	0.166104	-0.3916394	FALSE
LMBR1	0.294957	-0.30143033	FALSE
LMBR1L	0.382774	-0.25302546	FALSE
LMBRD1	0.940487	-0.02200221	FALSE
LMBRD2	0.391381	-0.24862501	FALSE
LMCD1	0.374268	-0.2574259	FALSE
LMF1	0.994044	0.00220022	FALSE
LMF2	0.0201	0.61166154	FALSE

LMLN	0.857716	-0.05280531	FALSE
LMNA	0.374268	0.2574259	FALSE
LMNB1	0.680272	-0.12101217	FALSE
LMNB2	0.074851	-0.49064936	FALSE
LMNTD1	0.724991	0.1034104	FALSE
LMNTD2	0.031739	0.57425777	FALSE
LMO1	0.112886	-0.44273631	FALSE
LMO2	0.391381	-0.24862501	FALSE
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LMO4	0.522038	0.18701882	FALSE
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LMTK3	0.92861	0.02640266	FALSE
LMX1B	0.31379	0.29042922	FALSE
LNP1	0.066213	-0.50385069	FALSE
LNPEP	0.317637	-0.288229	FALSE
LNPK	0.235992	-0.33883409	FALSE
LNK1	0.413341	0.23762391	FALSE
LNK2	0.051113	-0.53025335	FALSE
LOC44046	0.593824	-0.15621572	FALSE
LONP1	0.107424	0.44884516	FALSE
LONP2	0.994044	-0.00220022	FALSE
LONRF1	0.408899	0.23982413	FALSE
LONRF2	0.081035	-0.48184848	FALSE
LONRF3	0.449752	0.22002214	FALSE
LOX	0.232079	0.34150766	FALSE
LOXHD1	0.537087	-0.18041815	FALSE
LOXL1	0.975913	-0.00889922	FALSE
LOXL2	0.283981	-0.30803099	FALSE
LOXL3	0.187678	0.37403763	FALSE
LOXL4	0.245826	-0.33223342	FALSE
LPAL2	0.770539	-0.08580863	FALSE
LPAR1	0.593824	-0.15621572	FALSE
LPAR2	0.663743	-0.12761284	FALSE
LPAR3	0.01543	0.63146353	FALSE
LPAR4	0.964274	-0.01320133	FALSE
LPAR5	0.875366	-0.04620465	FALSE
LPAR6	0.329337	-0.28162833	FALSE
LPCAT1	0.182124	0.37843807	FALSE
LPCAT2	0.391381	0.24862501	FALSE
LPCAT3	0.840128	0.05940598	FALSE
LPCAT4	0.294957	-0.30143033	FALSE
LPGAT1	0.482854	-0.20462059	FALSE
LPIN1	0.547224	-0.17601771	FALSE
LPIN2	0.226404	-0.34543475	FALSE
LPIN3	0.31379	0.29042922	FALSE
LPL	0.219605	0.35022026	FALSE

LPO	0.105502	0.45104538	FALSE
LPP	0.374268	0.2574259	FALSE
LPXN	0.365865	0.26182634	FALSE
LRAT	0.210967	0.35643586	FALSE
LRBA	0.413341	-0.23762391	FALSE
LRCH1	0.262761	-0.32123232	FALSE
LRCH3	0.4638	-0.21342147	FALSE
LRCH4	0.851846	-0.05500553	FALSE
LRCOL1	0.557675	-0.17151752	FALSE
LRFN1	0.084258	-0.47744803	FALSE
LRFN3	0.422298	-0.23322346	FALSE
LRFN4	0.94643	-0.01980199	FALSE
LRFN5	0.628378	-0.14193199	FALSE
LRG1	0.269725	0.31683187	FALSE
LRGUK	0.10937	-0.44664493	FALSE
LRIF1	0.583333	-0.16061616	FALSE
LRIG1	0.084258	0.47744803	FALSE
LRIG2	0.562581	-0.16941704	FALSE
LRIT3	0.182124	-0.37843807	FALSE
LRMP	0.242521	0.33443365	FALSE
LRP1	0.395723	0.24642479	FALSE
LRP10	0.214	0.35423564	FALSE
LRP11	0.000243	0.82948345	TRUE
LRP12	0.92861	0.02640266	FALSE
LRP1B	0.365133	0.26221221	FALSE
LRP2	0.287612	0.30583077	FALSE
LRP2BP	0.680272	0.12101217	FALSE
LRP3	0.56774	0.16721682	FALSE
LRP4	0.239243	-0.33663387	FALSE
LRP5	0.074851	-0.49064936	FALSE
LRP5L	0.333291	0.27942811	FALSE
LRP6	0.094465	-0.46424671	FALSE
LRP8	0.29867	0.2992301	FALSE
LRPAP1	0.291271	0.30363055	FALSE
LRPPRC	0.053437	-0.5258529	FALSE
LRR1	0.816786	0.06820686	FALSE
LRRC1	0.182124	-0.37843807	FALSE
LRRC10	0.449752	0.22002214	FALSE
LRRC14	0.382774	0.25302546	FALSE
LRRC15	0.367814	-0.26080061	FALSE
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LRRC18	0.287055	-0.3061674	FALSE
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LRRC2	0.276799	-0.31243143	FALSE
LRRC20	0.337271	0.27722789	FALSE
LRRC23	0.329337	0.28162833	FALSE
LRRC24	0.245826	0.33223342	FALSE
LRRC25	0.010901	0.65566596	FALSE

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LRRFIP1P1	0.631114	-0.14081417	FALSE
LRRFIP2	0.863593	0.05060509	FALSE
LRRIQ1	0.404482	-0.24202435	FALSE
LRRIQ3	0.665736	0.12681392	FALSE
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LRRK1	0.378508	-0.25522568	FALSE
LRRK2	0.517064	0.18921904	FALSE
LRRN1	0.440504	-0.22442258	FALSE
LRRN2	0.893071	-0.03960398	FALSE
LRRN3	0.468529	0.21122125	FALSE
LRRN4CL	0.027898	-0.58525888	FALSE
LRRTM2	0.315892	-0.28922473	FALSE
LRRTM4	0.647355	0.1342135	FALSE
LRSAM1	0.459093	0.21562169	FALSE
LRTM1	0.793583	-0.07700775	FALSE
LRTM2	0.030819	-0.57679875	FALSE
LRTOMT	0.127978	0.42684294	FALSE
LRWD1	0.160975	-0.39603984	FALSE
LSAMP	0.353453	-0.26842701	FALSE
LSG1	0.021872	-0.60506087	FALSE
LSM1	0.822609	0.06600664	FALSE
LSM10	0.074851	0.49064936	FALSE
LSM11	0.92861	0.02640266	FALSE
LSM12	0.487675	-0.20242036	FALSE
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LSM14A	0.101729	-0.45544582	FALSE
LSM14B	0.036852	-0.56105645	FALSE
LSM2	0.440504	-0.22442258	FALSE
LSM3	0.741981	0.09680974	FALSE
LSM4	0.329337	0.28162833	FALSE
LSM5	0.204983	0.3608363	FALSE
LSM6	0.588569	0.15841594	FALSE
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LSM8	0.4638	0.21342147	FALSE

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LSR	0.988088	-0.00440044	FALSE
LSS	0.030941	0.57645799	FALSE
LST1	0.691367	0.11661173	FALSE
LTA	0.117395	0.43784405	FALSE
LTA4H	0.547224	-0.17601771	FALSE
LTB	0.691367	-0.11661173	FALSE
LTB4R	0.049979	0.53245357	FALSE
LTB4R2	0.730641	0.10121018	FALSE
LTBP1	0.042548	0.54785512	FALSE
LTBP2	0.572919	-0.1650166	FALSE
LTBP3	0.013643	-0.64026441	FALSE
LTBP4	0.269725	-0.31683187	FALSE
LTBR	0.512111	0.19141926	FALSE
LTC4S	0.641924	0.13641372	FALSE
LTF	0.302409	-0.29702988	FALSE
LTK	0.276799	0.31243143	FALSE
LTN1	0.669238	0.12541262	FALSE
LTV1	0.413341	-0.23762391	FALSE
LUC7L	0.578116	0.16281638	FALSE
LUC7L2	0.103603	-0.4532456	FALSE
LUC7L3	0.663743	-0.12761284	FALSE
LUM	0.892111	0.03996144	FALSE
LURAP1	0.445116	-0.22222236	FALSE
LUZP1	0.090972	-0.46864715	FALSE
LUZP2	0.652801	0.13201328	FALSE
LUZP6	0.19516	0.36823825	FALSE
LVRN	0.232769	-0.34103431	FALSE
LXN	0.964274	-0.01320133	FALSE
LY6E	0.193338	-0.36963719	FALSE
LY6G5B	0.076365	-0.48844914	FALSE
LY6G5C	0.099878	-0.45764604	FALSE
LY6G6C	0.084258	-0.47744803	FALSE
LY6G6D	0.747927	0.09450978	FALSE
LY6G6E	0.16622	-0.3915405	FALSE
LY6G6F	0.159496	0.39732593	FALSE
LY6H	0.03359	-0.56930889	FALSE
LY6K	0.840128	0.05940598	FALSE
LY75	0.893071	-0.03960398	FALSE
LY75-CD30	0.822416	-0.0660793	FALSE
LY86	0.134627	0.42024228	FALSE
LY9	0.736305	0.09900996	FALSE
LY96	0.747669	-0.09460952	FALSE
LYAR	0.139186	0.41584184	FALSE
LYARP1	0.011636	-0.65126552	FALSE
LYG1	0.136894	-0.41804206	FALSE

LYG2	0.29787	-0.29970241	FALSE
LYL1	0.445116	0.22222236	FALSE
LYN	0.214	0.35423564	FALSE
LYNX1	0.440504	-0.22442258	FALSE
LYPD3	0.652801	-0.13201328	FALSE
LYPD4	0.91638	0.0309394	FALSE
LYPD5	0.141504	0.41364161	FALSE
LYPD6B	0.226476	0.34538459	FALSE
LYPD8	0.946372	-0.01982379	FALSE
LYPLA1	0.40009	-0.24422457	FALSE
LYPLA2	0.182124	0.37843807	FALSE
LYPLAL1	0.994044	-0.00220022	FALSE
LYRM1	0.70252	-0.11221129	FALSE
LYRM2	0.107424	0.44884516	FALSE
LYRM4	0.337271	-0.27722789	FALSE
LYRM5	0.952376	-0.01760177	FALSE
LYRM7	0.527033	0.18481859	FALSE
LYRM9	0.193338	-0.36963719	FALSE
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LYSMD2	0.202031	0.36303652	FALSE
LYSMD3	0.875366	-0.04620465	FALSE
LYSMD4	0.730641	-0.10121018	FALSE
LYST	0.593824	0.15621572	FALSE
LYVE1	0.252019	0.32815883	FALSE
LYZ	0.060866	0.51265158	FALSE
LZIC	0.417807	-0.23542368	FALSE
LZTFL1	0.094465	-0.46424671	FALSE
LZTR1	0.468529	0.21122125	FALSE
LZTS1	0.004045	-0.71507194	TRUE
LZTS2	0.033381	-0.56985733	FALSE
LZTS3	0.994044	-0.00220022	FALSE
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MAATS1	0.805166	0.0726073	FALSE
MAB21L1	0.181637	0.37882803	FALSE
MAB21L3	0.636511	0.13861395	FALSE
MACC1	0.232769	-0.34103431	FALSE
MACF1	0.143848	-0.41144139	FALSE
MACROD1	0.130169	-0.42464272	FALSE
MACROD2	0.478056	-0.20682081	FALSE
MAD1L1	0.146217	0.40924117	FALSE
MAD2L1	0.770539	0.08580863	FALSE
MAD2L1BP	0.21706	0.35203542	FALSE
MAD2L2	0.552323	-0.17381749	FALSE
MADCAM1	0.825334	0.06497797	FALSE
MADD	0.018439	-0.6182622	FALSE
MAEA	0.599097	0.15401549	FALSE
MAEL	0.214	-0.35423564	FALSE

MAF	0.964274	0.01320133	FALSE
MAF1	0.599097	-0.15401549	FALSE
MAFA	0.306176	-0.29482966	FALSE
MAFB	0.204983	0.3608363	FALSE
MAFF	0.542145	-0.17821793	FALSE
MAFG	0.625734	0.14301439	FALSE
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MAG	0.829418	0.06343799	FALSE
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MAGEC3	0.906957	0.03443891	FALSE
MAGED1	0.101729	-0.45544582	FALSE
MAGED2	0.759081	0.09020908	FALSE
MAGED4	0.000477	-0.80760443	TRUE
MAGED4B	0.014967	-0.63366375	FALSE
MAGEE1	0.982133	0.00660066	FALSE
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MAGI1	0.994044	0.00220022	FALSE
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MAGI3	0.139186	0.41584184	FALSE
MAGIX	0.139186	0.41584184	FALSE
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MAGOHB	0.148612	0.40704095	FALSE
MAGT1	0.046687	0.53905423	FALSE
MAK	0.435916	0.2266228	FALSE
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MAL	0.105071	0.45154185	FALSE
MALL	0.226404	0.34543475	FALSE
MALRD1	0.753625	-0.09231073	FALSE
MALSU1	0.615026	0.14741483	FALSE
MALT1	0.413341	-0.23762391	FALSE
MAMDC2	0.924814	0.02781007	FALSE
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MAML2	0.512111	0.19141926	FALSE
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MAMLD1	0.136894	0.41804206	FALSE
MAMSTR	0.15845	-0.39824006	FALSE
MAN1A1	0.034225	-0.56765711	FALSE
MAN1A2	0.01543	-0.63146353	FALSE
MAN1A2P1	0.843419	-0.05816902	FALSE
MAN1B1	0.440504	0.22442258	FALSE
MAN1C1	0.252518	0.32783298	FALSE
MAN2A1	0.141504	-0.41364161	FALSE
MAN2A2	0.857716	-0.05280531	FALSE

MAN2B1	0.168708	0.38943918	FALSE
MAN2B2	0.910821	-0.03300332	FALSE
MAN2C1	0.202031	0.36303652	FALSE
MANBA	0.262761	0.32123232	FALSE
MANBAL	0.210967	0.35643586	FALSE
MANEA	0.239243	-0.33663387	FALSE
MANEAL	0.647355	-0.1342135	FALSE
MANF	0.309969	0.29262944	FALSE
MANSC1	0.242521	0.33443365	FALSE
MAOA	0.588569	0.15841594	FALSE
MAOB	0.017909	-0.62046242	FALSE
MAP10	0.283981	-0.30803099	FALSE
MAP1A	0.090972	-0.46864715	FALSE
MAP1B	0.70252	0.11221129	FALSE
MAP1LC3A	0.151032	0.40484073	FALSE
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MAP1S	0.151032	-0.40484073	FALSE
MAP2	0.702206	0.1123348	FALSE
MAP2K1	0.096246	0.46204648	FALSE
MAP2K2	0.32151	0.28602878	FALSE
MAP2K3	0.685812	0.11881195	FALSE
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MAP2K4P1	0.008309	-0.67326773	FALSE
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MAP4K5	0.512111	0.19141926	FALSE
MAP6	0.516594	0.18942731	FALSE
MAP6D1	0.840128	0.05940598	FALSE
MAP7	0.035084	0.56545689	FALSE
MAP7D1	0.395723	0.24642479	FALSE
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MAP9	0.440504	0.22442258	FALSE
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MAPK11	0.810971	0.07040708	FALSE
MAPK12	0.266229	0.3190321	FALSE
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MAPK14	0.262761	-0.32123232	FALSE
MAPK15	0.730641	0.10121018	FALSE
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MAPK3	0.713728	0.10781085	FALSE
MAPK6	0.166104	0.3916394	FALSE
MAPK6PS3	0.487345	0.20257076	FALSE
MAPK7	0.204983	0.3608363	FALSE
MAPK8	0.32151	-0.28602878	FALSE
MAPK8IP1	0.060866	-0.51265158	FALSE
MAPK8IP2	0.026463	0.58965932	FALSE
MAPK8IP3	0.976179	0.00880089	FALSE
MAPK9	0.130169	-0.42464272	FALSE
MAPKAP1	0.691367	0.11661173	FALSE
MAPKAPK2	0.431353	0.22882302	FALSE
MAPKAPK3	0.166104	0.3916394	FALSE
MAPKAPK5	0.032552	-0.57205755	FALSE
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MAPRE1	0.107424	0.44884516	FALSE
MAPRE2	0.604388	-0.15181527	FALSE
MAPRE3	0.964274	-0.01320133	FALSE
MAPT	0.127978	0.42684294	FALSE
MARC1	0.171338	0.38723896	FALSE
MARC2	0.691043	-0.11674009	FALSE
MARCH1	0.976179	-0.00880089	FALSE
MARCH2	0.190494	0.37183741	FALSE
MARCH3	0.059579	0.5148518	FALSE
MARCH5	0.280376	-0.31023121	FALSE
MARCH6	0.625734	-0.14301439	FALSE
MARCH7	0.887164	0.04180421	FALSE
MARCH8	0.875366	-0.04620465	FALSE
MARCH9	0.232769	0.34103431	FALSE
MARCKS	0.00028	0.82508301	TRUE
MARCKSL1	0.378508	0.25522568	FALSE
MARCKSL1	0.449752	0.22002214	FALSE

MARCO	0.306176	0.29482966	FALSE
MARK1	0.053061	-0.52655447	FALSE
MARK2	0.952376	-0.01760177	FALSE
MARK2P13	0.694462	-0.11538841	FALSE
MARK2P4	0.242521	-0.33443365	FALSE
MARK2P8	0.100902	-0.45642526	FALSE
MARK2P9	0.455374	-0.21736844	FALSE
MARK3	0.56774	0.16721682	FALSE
MARK4	0.103603	-0.4532456	FALSE
MARS	0.417807	-0.23542368	FALSE
MARS2	0.370053	0.25962612	FALSE
MARVELD1	0.542145	-0.17821793	FALSE
MARVELD2	0.287612	0.30583077	FALSE
MARVELD3	0.787807	0.07920797	FALSE
MAS1	0.235992	0.33883409	FALSE
MASP1	0.970226	-0.01100111	FALSE
MASP2	0.92861	-0.02640266	FALSE
MAST1	0.417807	-0.23542368	FALSE
MAST2	0.40009	0.24422457	FALSE
MAST3	0.776284	0.08360841	FALSE
MAST4	0.291271	-0.30363055	FALSE
MASTL	0.02939	0.58085844	FALSE
MAT2A	0.845984	0.05720576	FALSE
MAT2B	0.12367	-0.43124339	FALSE
MATK	0.537087	-0.18041815	FALSE
MATN1	0.341277	-0.27502767	FALSE
MATN2	0.276799	-0.31243143	FALSE
MATN3	0.237039	-0.3381234	FALSE
MATN4	0.612359	0.14851536	FALSE
MATR3	0.940487	-0.02200221	FALSE
MAU2	0.713728	0.10781085	FALSE
MAVS	0.487675	-0.20242036	FALSE
MAX	0.134627	-0.42024228	FALSE
MAZ	0.079456	-0.4840487	FALSE
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MB21D1	0.016883	0.62486286	FALSE
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MBD1	0.370053	0.25962612	FALSE
MBD2	0.904899	0.03520354	FALSE
MBD3	0.262761	-0.32123232	FALSE
MBD4	0.259319	-0.32343254	FALSE
MBD5	0.325411	0.28382855	FALSE
MBD6	0.249158	0.3300332	FALSE
MBIP	0.02939	-0.58085844	FALSE
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MBLAC2	0.10937	-0.44664493	FALSE
MBNL1	0.875366	0.04620465	FALSE
MBNL2	0.881262	0.04400443	FALSE

MBNL3	0.006457	-0.68866928	FALSE
MBOAT1	0.252518	-0.32783298	FALSE
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MBOAT4	0.199595	-0.36486812	FALSE
MBOAT7	0.910821	-0.03300332	FALSE
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MBTPS1	0.29867	-0.2992301	FALSE
MBTPS2	0.604388	-0.15181527	FALSE
MC1R	0.391381	-0.24862501	FALSE
MC2R	0.001412	-0.76567703	TRUE
MC5R	0.522038	0.18701882	FALSE
MCAM	0.652801	0.13201328	FALSE
MCAT	0.82844	0.06380642	FALSE
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MCCC1	0.055836	-0.52145246	FALSE
MCCC2	0.631114	-0.14081417	FALSE
MCCD1P2	0.119209	-0.43591177	FALSE
MCEE	0.713728	-0.10781085	FALSE
MCEMP1	0.239243	-0.33663387	FALSE
MCF2	0.266229	-0.3190321	FALSE
MCF2L	0.09805	0.45984626	FALSE
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MCFD2	0.497383	-0.19801992	FALSE
MCHR2	0.741706	-0.0969163	FALSE
MCL1	0.685812	0.11881195	FALSE
MCM10	0.163526	0.39383962	FALSE
MCM2	0.266229	0.3190321	FALSE
MCM3	0.685812	0.11881195	FALSE
MCM3AP	0.869477	-0.04840487	FALSE
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MCM7	0.822609	0.06600664	FALSE
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MCM9	0.039624	-0.55445578	FALSE
MCMBP	0.459093	0.21562169	FALSE
MCMDC2	0.910821	0.03300332	FALSE
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MCOLN3	0.022488	0.60286065	FALSE
MCPH1	0.552323	-0.17381749	FALSE
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MCRIP2	0.115352	0.44004427	FALSE
MCRIP2P1	0.296779	-0.30034876	FALSE
MCRS1	0.291271	0.30363055	FALSE
MCTP1	0.349368	0.27062723	FALSE
MCTP2	0.422298	-0.23322346	FALSE

MCTS1	0.482854	-0.20462059	FALSE
MCTS2P	0.431353	0.22882302	FALSE
MCU	0.840128	0.05940598	FALSE
MCUB	0.045626	0.54125445	FALSE
MCUR1	0.196209	-0.36743697	FALSE
MDC1	0.478056	0.20682081	FALSE
MDFI	0.558841	-0.17101769	FALSE
MDFIC	0.387065	0.25082523	FALSE
MDGA1	0.378508	0.25522568	FALSE
MDGA2	0.572919	-0.1650166	FALSE
MDH1	0.283981	0.30803099	FALSE
MDH1B	0.105502	-0.45104538	FALSE
MDH2	0.107424	0.44884516	FALSE
MDK	0.816786	0.06820686	FALSE
MDM1	0.007207	-0.68206862	FALSE
MDM2	0.136894	0.41804206	FALSE
MDM4	0.155952	0.40044029	FALSE
MDN1	0.066213	-0.50385069	FALSE
MDP1	0.881262	0.04400443	FALSE
ME1	0.136894	-0.41804206	FALSE
ME2	0.609698	-0.14961505	FALSE
ME3	0.547224	0.17601771	FALSE
MEA1	0.287612	-0.30583077	FALSE
MEAF6	0.101729	-0.45544582	FALSE
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MECP2	0.012811	0.64466486	FALSE
MECR	0.035084	0.56545689	FALSE
MED1	0.132385	-0.4224425	FALSE
MED10	0.663743	0.12761284	FALSE
MED11	0.527033	0.18481859	FALSE
MED12	0.4638	-0.21342147	FALSE
MED12L	0.426813	-0.23102324	FALSE
MED13	0.747669	-0.09460952	FALSE
MED13L	0.512111	-0.19141926	FALSE
MED14	0.370053	0.25962612	FALSE
MED15	0.168708	0.38943918	FALSE
MED15P9	0.53205	0.18261837	FALSE
MED16	0.893071	-0.03960398	FALSE
MED17	0.431353	-0.22882302	FALSE
MED18	0.685812	0.11881195	FALSE
MED19	0.454411	0.21782191	FALSE
MED20	0.391381	0.24862501	FALSE
MED21	0.074851	-0.49064936	FALSE
MED22	0.232769	0.34103431	FALSE
MED23	0.008604	-0.67106751	FALSE
MED24	0.70252	0.11221129	FALSE
MED25	0.658264	0.12981306	FALSE
MED26	0.53205	-0.18261837	FALSE

MED27	0.252518	-0.32783298	FALSE
MED28	0.449752	0.22002214	FALSE
MED28P1	0.487675	0.20242036	FALSE
MED28P7	0.768039	-0.08676742	FALSE
MED29	0.522038	0.18701882	FALSE
MED30	0.023759	-0.59846021	FALSE
MED31	0.353453	0.26842701	FALSE
MED4	0.724991	-0.1034104	FALSE
MED6	0.898983	-0.03740376	FALSE
MED7	0.361702	0.26402656	FALSE
MED8	0.214	0.35423564	FALSE
MED9	0.151032	-0.40484073	FALSE
MEDAG	0.045727	-0.54104343	FALSE
MEF2A	0.179388	-0.38063829	FALSE
MEF2B	0.353453	-0.26842701	FALSE
MEF2C	0.840128	-0.05940598	FALSE
MEF2D	0.059579	-0.5148518	FALSE
MEFV	0.076365	0.48844914	FALSE
MEGF10	0.800098	-0.07453099	FALSE
MEGF11	0.586899	0.1591169	FALSE
MEGF6	0.01739	-0.62266264	FALSE
MEGF8	0.273248	-0.31463165	FALSE
MEGF9	0.207961	-0.35863608	FALSE
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MEIG1	0.91638	0.0309394	FALSE
MEIKIN	0.166666	-0.39116237	FALSE
MEIOB	0.432616	0.22821263	FALSE
MEIOC	0.010901	0.65566596	FALSE
MEIS1	0.107424	0.44884516	FALSE
MEIS2	0.982133	-0.00660066	FALSE
MEIS3	0.691367	0.11661173	FALSE
MEIS3P1	0.358877	0.26552747	FALSE
MEIS3P2	0.331303	0.28053272	FALSE
MELK	0.190494	0.37183741	FALSE
MELTF	0.012811	0.64466486	FALSE
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MEMO1P1	0.021417	0.60671463	FALSE
MEN1	0.184888	-0.37623785	FALSE
MEP1A	0.088562	0.47175298	FALSE
MEP1B	0.294957	-0.30143033	FALSE
MEPCE	0.413341	-0.23762391	FALSE
MERTK	0.922677	-0.02860288	FALSE
MESDC1	0.845984	-0.05720576	FALSE
MESDC2	0.014967	-0.63366375	FALSE
MESP1	0.628039	0.14207048	FALSE
MESP2	0.204983	0.3608363	FALSE
MEST	0.004045	-0.71507194	TRUE
MET	0.016883	0.62486286	FALSE

METAP1	0.588569	0.15841594	FALSE
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METAP2	0.117395	-0.43784405	FALSE
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METRNL	0.374268	0.2574259	FALSE
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METTL12	0.916747	0.0308031	FALSE
METTL13	0.78204	0.08140819	FALSE
METTL14	0.431353	-0.22882302	FALSE
METTL15	0.096246	-0.46204648	FALSE
METTL15P1	0.677346	0.12217686	FALSE
METTL16	0.512111	0.19141926	FALSE
METTL17	0.374268	-0.2574259	FALSE
METTL18	0.435916	-0.2266228	FALSE
METTL21A	0.193338	0.36963719	FALSE
METTL21AF	0.958324	0.01540155	FALSE
METTL21B	0.431353	-0.22882302	FALSE
METTL21EF	0.674747	0.1232124	FALSE
METTL22	0.306176	-0.29482966	FALSE
METTL23	0.08757	0.47304759	FALSE
METTL24	0.794817	-0.07653818	FALSE
METTL25	0.009865	-0.66226663	FALSE
METTL26	0.337271	0.27722789	FALSE
METTL2A	0.869477	0.04840487	FALSE
METTL2B	0.696936	-0.11441151	FALSE
METTL3	0.863593	0.05060509	FALSE
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METTL6	0.40009	0.24422457	FALSE
METTL7A	0.487675	0.20242036	FALSE
METTL7B	0.034225	0.56765711	FALSE
METTL8	0.370053	-0.25962612	FALSE
METTL9	0.557442	-0.17161727	FALSE
MEX3A	0.537087	0.18041815	FALSE
MEX3B	0.113334	-0.44224449	FALSE
MEX3C	0.057064	-0.51925224	FALSE
MEX3D	0.32151	0.28602878	FALSE
MFAP1	0.759081	0.09020908	FALSE
MFAP1P1	0.215317	-0.35328654	FALSE
MFAP2	0.337706	-0.2769883	FALSE
MFAP3	0.387065	0.25082523	FALSE
MFAP3L	0.413341	-0.23762391	FALSE
MFAP4	0.173995	-0.38503874	FALSE
MFAP5	0.249158	-0.3300332	FALSE
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MFSD10	0.269725	0.31683187	FALSE
MFSD11	0.487675	0.20242036	FALSE
MFSD12	0.370053	0.25962612	FALSE
MFSD13A	0.125812	0.42904316	FALSE
MFSD13B	0.114622	0.44083713	FALSE
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MFSD14B	0.512111	-0.19141926	FALSE
MFSD14C	0.922677	0.02860288	FALSE
MFSD1P1	0.311089	-0.29198303	FALSE
MFSD2A	0.013222	0.64246464	FALSE
MFSD2B	0.337271	-0.27722789	FALSE
MFSD3	0.374268	0.2574259	FALSE
MFSD4A	0.482854	0.20462059	FALSE
MFSD4B	0.076365	0.48844914	FALSE
MFSD4BP1	0.578116	0.16281638	FALSE
MFSD5	0.193338	0.36963719	FALSE
MFSD6	0.042548	-0.54785512	FALSE
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MFSD7	0.038684	0.556656	FALSE
MFSD8	0.578116	-0.16281638	FALSE
MFSD9	0.382774	-0.25302546	FALSE
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MGAT4A	0.030941	-0.57645799	FALSE
MGAT4B	0.235992	0.33883409	FALSE
MGAT4C	0.269725	0.31683187	FALSE
MGAT4EP	0.064846	0.50605091	FALSE
MGAT5	0.249158	-0.3300332	FALSE
MGAT5B	0.163526	-0.39383962	FALSE
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MGLL	0.542145	0.17821793	FALSE
MGME1	0.492518	0.20022014	FALSE
MGMT	0.685812	0.11881195	FALSE
MGP	0.042548	-0.54785512	FALSE
MGRN1	0.404482	-0.24202435	FALSE
MGST1	0.449752	-0.22002214	FALSE
MGST2	0.171338	0.38723896	FALSE
MGST3	0.168708	0.38943918	FALSE
MIA	0.531591	-0.18281938	FALSE

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MIA2	0.904899	0.03520354	FALSE
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MIB1	0.168708	-0.38943918	FALSE
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MICA	0.187678	0.37403763	FALSE
MICAL1	0.002878	0.73267371	TRUE
MICAL2	0.337271	0.27722789	FALSE
MICAL3	0.994044	0.00220022	FALSE
MICALCL	0.13231	0.42251662	FALSE
MICALL1	0.287612	0.30583077	FALSE
MICALL2	0.94643	-0.01980199	FALSE
MICB	0.134627	0.42024228	FALSE
MICD	0.144136	-0.41117213	FALSE
MICE	0.187678	0.37403763	FALSE
MICU1	0.497383	0.19801992	FALSE
MICU2	0.730641	-0.10121018	FALSE
MICU3	0.741981	-0.09680974	FALSE
MID1	0.964274	0.01320133	FALSE
MID1IP1	0.435916	0.2266228	FALSE
MID2	0.934475	0.02422907	FALSE
MIDN	0.851846	0.05500553	FALSE
MIEF1	0.604388	0.15181527	FALSE
MIEF2	0.294957	0.30143033	FALSE
MIEN1	0.007471	0.6798684	FALSE
MIER1	0.869477	-0.04840487	FALSE
MIER2	0.787807	0.07920797	FALSE
MIER3	0.426813	0.23102324	FALSE
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MIF4GD	1	0	FALSE
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MIGA2	0.713728	-0.10781085	FALSE
MIIP	0.329337	0.28162833	FALSE
MILR1	0.119462	0.43564383	FALSE
MINA	0.647355	0.1342135	FALSE
MINK1	0.006457	0.68866928	FALSE
MINOS1	0.034225	0.56765711	FALSE
MINOS1-NE	0.208453	0.35827494	FALSE
MINPP1	0.119462	0.43564383	FALSE
MIOS	0.025084	0.59405977	FALSE
MIOX	0.810971	-0.07040708	FALSE
MIP	0.487675	-0.20242036	FALSE
MIPEP	0.02939	-0.58085844	FALSE
MIPEPP1	0.368901	-0.26022982	FALSE
MIPEPP3	0.111339	-0.44444471	FALSE
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MIS12	0.810971	0.07040708	FALSE
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MISP	0.542145	-0.17821793	FALSE
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MITF	0.922677	-0.02860288	FALSE
MIXL1	0.266229	-0.3190321	FALSE
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MKKS	0.875366	-0.04620465	FALSE
MKL1	0.776284	0.08360841	FALSE
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MKNK1	0.663743	0.12761284	FALSE
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MKRN1	0.478056	-0.20682081	FALSE
MKRN2	0.276799	-0.31243143	FALSE
MKRN2OS	0.349368	0.27062723	FALSE
MKRN3	0.615026	-0.14741483	FALSE
MKRN5P	0.678926	0.12154763	FALSE
MKRN9P	0.273248	-0.31463165	FALSE
MKRNP2	0.315892	0.28922473	FALSE
MKS1	0.422298	-0.23322346	FALSE
MLANA	0.845984	-0.05720576	FALSE
MLC1	9.41E-05	-0.85588611	TRUE
MLEC	0.099878	-0.45764604	FALSE
MLF1	0.02939	0.58085844	FALSE
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MLIP	0.440504	0.22442258	FALSE
MLKL	0.422298	0.23322346	FALSE
MLLT1	0.631114	-0.14081417	FALSE
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MLLT11	0.976179	-0.00880089	FALSE
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MLLT6	0.395723	0.24642479	FALSE
MLNR	0.057015	-0.51933987	FALSE
MLPH	0.121554	0.43344361	FALSE
MLST8	0.898983	-0.03740376	FALSE
MLX	0.160975	0.39603984	FALSE
MLXIP	0.502271	-0.1958197	FALSE
MLXIPL	0.29867	0.2992301	FALSE
MLYCD	0.196209	-0.36743697	FALSE
MMAA	0.94643	0.01980199	FALSE
MMAB	0.02939	0.58085844	FALSE
MMACHC	0.387065	0.25082523	FALSE
MMADHC	0.537087	-0.18041815	FALSE
MMD	0.15845	0.39824006	FALSE
MME	0.94643	-0.01980199	FALSE

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MMGT1	0.502271	-0.1958197	FALSE
MMP1	0.0366	0.56167401	FALSE
MMP10	0.148122	0.40748899	FALSE
MMP11	0.08926	0.47084737	FALSE
MMP12	0.262645	0.32130592	FALSE
MMP13	0.701258	-0.1127078	FALSE
MMP14	0.952376	0.01760177	FALSE
MMP15	0.691043	-0.11674009	FALSE
MMP16	0.276799	0.31243143	FALSE
MMP17	0.249158	0.3300332	FALSE
MMP19	0.863593	0.05060509	FALSE
MMP2	0.707809	-0.11013216	FALSE
MMP21	0.581646	-0.16132685	FALSE
MMP23A	0.909008	0.0336768	FALSE
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MMP24	0.845984	0.05720576	FALSE
MMP24-AS	0.916747	0.0308031	FALSE
MMP25	0.001642	-0.75907637	TRUE
MMP27	0.876121	-0.04592291	FALSE
MMP28	0.127661	-0.42716267	FALSE
MMP7	0.816786	-0.06820686	FALSE
MMP8	0.816587	0.06828194	FALSE
MMP9	0.073359	0.49284958	FALSE
MMRN1	0.822609	-0.06600664	FALSE
MMRN2	0.054627	0.52365268	FALSE
MMS19	0.787807	-0.07920797	FALSE
MMS22L	0.309969	0.29262944	FALSE
MN1	0.013222	-0.64246464	FALSE
MNAT1	0.382774	-0.25302546	FALSE
MND1	0.522038	0.18701882	FALSE
MNDA	0.631114	0.14081417	FALSE
MNS1	0.081035	0.48184848	FALSE
MNT	0.952376	0.01760177	FALSE
MX1	0.653884	0.13157667	FALSE
MOAP1	0.139186	0.41584184	FALSE
MOB1A	0.851846	-0.05500553	FALSE
MOB1B	0.449752	0.22002214	FALSE
MOB2	0.724991	-0.1034104	FALSE
MOB3A	0.001811	0.75467592	TRUE
MOB3B	0.764804	-0.08800885	FALSE
MOB3C	0.160975	0.39603984	FALSE
MOB4	0.934547	-0.02420243	FALSE
MOBP	0.685812	-0.11881195	FALSE
MOCOS	0.033381	0.56985733	FALSE
MOCS1	0.016551	0.62633223	FALSE
MOCS2	0.674747	0.1232124	FALSE
MOCS3	0.395723	0.24642479	FALSE

MOG	0.685812	-0.11881195	FALSE
MOGAT1	0.022213	0.60383565	FALSE
MOGAT3	0.361702	0.26402656	FALSE
MOGS	0.753369	0.0924093	FALSE
MOK	0.005554	-0.69747017	FALSE
MON1A	0.604388	-0.15181527	FALSE
MON1B	0.669238	-0.12541262	FALSE
MON2	0.204983	-0.3608363	FALSE
MORC1	0.422057	0.233341	FALSE
MORC2	0.113334	-0.44224449	FALSE
MORC3	0.101729	0.45544582	FALSE
MORC4	0.636511	-0.13861395	FALSE
MORF4	0.464755	0.21297586	FALSE
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MORF4L1P	0.148612	0.40704095	FALSE
MORF4L1P	0.830563	-0.06300652	FALSE
MORF4L2	0.387065	0.25082523	FALSE
MORN1	0.542145	-0.17821793	FALSE
MORN2	0.057064	0.51925224	FALSE
MORN3	0.988088	0.00440044	FALSE
MORN4	0.176678	-0.38283852	FALSE
MOSPD1	0.422298	0.23322346	FALSE
MOSPD2	0.391381	0.24862501	FALSE
MOSPD3	0.459093	0.21562169	FALSE
MOV10	0.139186	-0.41584184	FALSE
MOV10L1	0.226404	-0.34543475	FALSE
MOXD1	0.209118	0.35778701	FALSE
MPC1	0.12367	-0.43124339	FALSE
MPC2	0.207961	0.35863608	FALSE
MPDU1	0.009865	0.66226663	FALSE
MPDZ	0.936644	0.02342567	FALSE
MPEG1	0.036852	0.56105645	FALSE
MPG	0.50718	0.19361948	FALSE
MPHOSPH1	0.522038	-0.18701882	FALSE
MPHOSPH€	0.0201	0.61166154	FALSE
MPHOSPH€	0.210967	-0.35643586	FALSE
MPHOSPH€	0.631114	-0.14081417	FALSE
MPI	0.713728	0.10781085	FALSE
MPL	0.752492	0.09274755	FALSE
MPLKIP	0.255905	0.32563276	FALSE
MPND	0.492518	-0.20022014	FALSE
MPO	0.652801	-0.13201328	FALSE
MPP1	0.030158	0.57865822	FALSE
MPP2	0.576444	-0.16352321	FALSE
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MPP4	0.92861	0.02640266	FALSE
MPP5	0.770539	-0.08580863	FALSE
MPP6	0.83428	0.0616062	FALSE

MPP7	0.003279	0.72607305	TRUE
MPPE1	0.680272	-0.12101217	FALSE
MPPED2	0.00357	0.7216726	TRUE
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MPST	0.970226	-0.01100111	FALSE
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MPV17L	0.34531	0.27282745	FALSE
MPV17L2	0.431353	-0.22882302	FALSE
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MPZL2	0.287612	0.30583077	FALSE
MPZL3	0.851846	-0.05500553	FALSE
MR1	0.440504	0.22442258	FALSE
MRAP2	0.332737	-0.27973568	FALSE
MRAS	0.036852	0.56105645	FALSE
MRC1	0.40009	-0.24422457	FALSE
MRC2	0.204983	-0.3608363	FALSE
MRE11A	0.141504	-0.41364161	FALSE
MREG	0.276799	-0.31243143	FALSE
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MRFAP1L1	0.370053	-0.25962612	FALSE
MRGBP	0.391381	0.24862501	FALSE
MRGPRF	0.731104	-0.1010304	FALSE
MRGPRX2	0.64002	-0.1371868	FALSE
MRGPRX3	0.337271	0.27722789	FALSE
MRI1	0.229572	-0.34323453	FALSE
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MRM1	0.604388	0.15181527	FALSE
MRM2	0.273248	0.31463165	FALSE
MRM3	0.988088	-0.00440044	FALSE
MRO	0.497383	0.19801992	FALSE
MROH1	0.004944	0.70407083	TRUE
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MROH7-TT	0.759081	-0.09020908	FALSE
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MRPL1	0.378508	-0.25522568	FALSE
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MRPL11	0.680272	0.12101217	FALSE
MRPL12	0.329337	0.28162833	FALSE
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MRPL2P1	0.797456	-0.07553475	FALSE
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MRPL4	0.139186	-0.41584184	FALSE
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MRPL40P1	0.857093	0.05303897	FALSE
MRPL41	0.143848	0.41144139	FALSE
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MRPL42P2	0.004388	-0.7106715	TRUE
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MRPS10P2	0.463048	-0.21377211	FALSE
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MRPS17P1	0.663743	0.12761284	FALSE
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MRRF	0.105502	0.45104538	FALSE
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MS4A2	0.805166	0.0726073	FALSE
MS4A3	0.609698	0.14961505	FALSE
MS4A4A	0.001725	0.75687615	TRUE
MS4A4E	0.009537	0.66446685	FALSE
MS4A5	0.433833	0.22762556	FALSE
MS4A6A	0.009865	0.66226663	FALSE
MS4A6E	0.773735	0.08458398	FALSE

MS4A7	0.008309	0.67326773	FALSE
MSANTD1	0.473281	0.20902103	FALSE
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MSANTD3	0.810971	0.07040708	FALSE
MSANTD3-T	0.793583	-0.07700775	FALSE
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MSC	0.910821	0.03300332	FALSE
MSH2	0.160975	-0.39603984	FALSE
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MSH5	0.964274	0.01320133	FALSE
MSH5-SAPC	0.976179	0.00880089	FALSE
MSH6	0.096246	-0.46204648	FALSE
MSI1	0.021269	0.60726109	FALSE
MSI2	0.40009	-0.24422457	FALSE
MSL1	0.239243	-0.33663387	FALSE
MSL2	0.030158	-0.57865822	FALSE
MSL3	0.952376	-0.01760177	FALSE
MSL3P1	0.041556	-0.55005534	FALSE
MSLN	0.868904	0.04861905	FALSE
MSLNL	0.545118	0.17692889	FALSE
MSMB	0.005379	-0.69930562	FALSE
MSMO1	0.413341	0.23762391	FALSE
MSMP	0.06988	0.49810567	FALSE
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MSNP1	0.545424	0.17679655	FALSE
MSR1	0.522038	0.18701882	FALSE
MSRA	0.40009	0.24422457	FALSE
MSRB1	0.916747	-0.0308031	FALSE
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MSS51	0.863593	0.05060509	FALSE
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MSTN	0.08886	-0.47136564	FALSE
MSTO1	0.916747	0.0308031	FALSE
MSTO2P	0.417807	-0.23542368	FALSE
MSX1	0.29867	-0.2992301	FALSE
MSX2	0.789547	0.07854489	FALSE
MT-ATP6	0.952376	-0.01760177	FALSE
MT-ATP8	0.53205	0.18261837	FALSE
MT-CO1	0.482854	0.20462059	FALSE
MT-CO2	0.578116	0.16281638	FALSE
MT-CO3	0.353453	0.26842701	FALSE
MT-CYB	0.487675	0.20242036	FALSE
MT-ND1	0.459093	0.21562169	FALSE

MT-ND2	0.56774	0.16721682	FALSE
MT-ND3	0.652801	0.13201328	FALSE
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MT-ND5	0.747669	0.09460952	FALSE
MT-ND6	0.50718	0.19361948	FALSE
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MT1E	0.805166	0.0726073	FALSE
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MT1G	0.540122	0.17909685	FALSE
MT1H	0.154151	0.40203981	FALSE
MT1JP	0.922615	-0.02862579	FALSE
MT1L	0.171394	0.38719222	FALSE
MT1M	0.100009	0.45748953	FALSE
MT1X	0.685812	0.11881195	FALSE
MT1XP1	0.619982	-0.14537445	FALSE
MT2A	0.103603	0.4532456	FALSE
MTA1	0.037759	-0.55885622	FALSE
MTA2	0.615026	-0.14741483	FALSE
MTA3	0.101729	-0.45544582	FALSE
MTAP	0.193338	0.36963719	FALSE
MTATP6P1	0.741981	0.09680974	FALSE
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MTATP6P2	0.796256	0.07599119	FALSE
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MTBP	0.497383	-0.19801992	FALSE
MTCH1	0.084258	0.47744803	FALSE
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MTCL1	0.869477	0.04840487	FALSE
MTCO1P11	0.724991	-0.1034104	FALSE
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MTCO1P2	0.370053	0.25962612	FALSE
MTCO1P22	0.753369	-0.0924093	FALSE
MTCO1P24	0.294399	0.30176211	FALSE
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MTCO1P28	0.345841	-0.27253869	FALSE
MTCO1P31	0.990106	-0.00365491	FALSE
MTCO1P4	0.347891	0.27142628	FALSE
MTCO1P40	0.615026	0.14741483	FALSE
MTCO1P42	0.057208	0.51899685	FALSE
MTCO1P53	0.269402	0.3170348	FALSE
MTCO2P11	0.805166	-0.0726073	FALSE
MTCO2P12	0.478056	0.20682081	FALSE
MTCO2P19	0.487361	0.20256314	FALSE
MTCO2P2	0.958324	0.01540155	FALSE
MTCO2P22	0.857716	-0.05280531	FALSE

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MTCO2P4	0.733746	0.10000329	FALSE
MTCO3P11	0.669238	-0.12541262	FALSE
MTCO3P12	0.435916	0.2266228	FALSE
MTCO3P17	0.129624	0.42518756	FALSE
MTCO3P21	0.391381	-0.24862501	FALSE
MTCO3P22	0.552208	0.17386707	FALSE
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MTCO3P44	0.667885	-0.12595346	FALSE
MTCP1	0.302409	0.29702988	FALSE
MTCYBP14	0.391381	0.24862501	FALSE
MTCYBP18	0.886667	0.04198918	FALSE
MTCYBP23	0.245826	0.33223342	FALSE
MTCYBP28	0.044917	-0.54274493	FALSE
MTCYBP3	0.173995	-0.38503874	FALSE
MTCYBP36	0.387129	0.25079246	FALSE
MTCYBP4	0.141901	-0.41326694	FALSE
MTCYBP7	0.500343	0.19668616	FALSE
MTDH	0.391381	-0.24862501	FALSE
MTERF1	0.232769	0.34103431	FALSE
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MTERF4	0.141504	-0.41364161	FALSE
MTF1	0.492518	0.20022014	FALSE
MTF2	0.069009	-0.49945025	FALSE
MTFMT	0.151032	-0.40484073	FALSE
MTFP1	0.92861	0.02640266	FALSE
MTFR1	0.357565	-0.26622678	FALSE
MTFR1L	0.291271	0.30363055	FALSE
MTFR2	0.15845	-0.39824006	FALSE
MTG1	0.53205	-0.18261837	FALSE
MTG2	0.10937	0.44664493	FALSE
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MTHFD2	0.395723	0.24642479	FALSE
MTHFD2L	0.125812	-0.42904316	FALSE
MTHFD2P1	0.604388	0.15181527	FALSE
MTHFD2P7	0.288257	-0.30544216	FALSE
MTHFR	0.032552	0.57205755	FALSE
MTHFS	0.542145	0.17821793	FALSE
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MTIF2	0.242521	-0.33443365	FALSE
MTIF3	0.404482	-0.24202435	FALSE
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MTMR1	0.052265	-0.52805312	FALSE
MTMR10	0.542145	-0.17821793	FALSE
MTMR11	0.027898	0.58525888	FALSE

MTMR12	0.970226	0.01100111	FALSE
MTMR14	0.003881	0.71727216	TRUE
MTMR2	0.770539	0.08580863	FALSE
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MTMR4	0.497383	0.19801992	FALSE
MTMR6	0.994044	0.00220022	FALSE
MTMR7	0.083868	0.47797357	FALSE
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MTMR9	0.127978	0.42684294	FALSE
MTMR9LP	0.141504	0.41364161	FALSE
MTND1P10	0.468529	-0.21122125	FALSE
MTND1P11	0.562581	-0.16941704	FALSE
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MTND2P12	0.199106	-0.36523674	FALSE
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MTND2P24	0.31708	-0.28854626	FALSE
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MTND2P9	0.142361	0.41283408	FALSE
MTND3P12	0.755963	0.09140969	FALSE
MTND3P13	0.017603	-0.6217521	FALSE
MTND3P22	0.82655	0.06451936	FALSE
MTND3P4	0.179401	-0.38062792	FALSE
MTND3P5	0.056348	0.52052993	FALSE
MTND4LP1	0.08757	0.47304759	FALSE
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MTND4LP3	0.840128	-0.05940598	FALSE
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MTND4P9	0.4969	0.19823789	FALSE
MTND5P10	0.393568	0.24751517	FALSE
MTND5P11	0.199106	0.36523674	FALSE
MTND5P12	0.291727	0.30335731	FALSE
MTND5P14	0.620371	-0.14521461	FALSE
MTND5P15	0.018439	-0.6182622	FALSE
MTND5P19	0.090357	-0.46943398	FALSE
MTND5P2	0.781806	0.0814978	FALSE
MTND5P26	0.013419	-0.64142853	FALSE

MTND5P32	0.333291	0.27942811	FALSE
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MTND6P21	0.543181	-0.17776839	FALSE
MTND6P22	0.204738	0.36101789	FALSE
MTND6P4	0.787807	0.07920797	FALSE
MTND6P5	0.964274	0.01320133	FALSE
MTO1	0.952376	0.01760177	FALSE
MTOR	0.134627	-0.42024228	FALSE
MTPAP	0.615026	-0.14741483	FALSE
MTPN	0.357565	0.26622678	FALSE
MTR	0.34531	-0.27282745	FALSE
MTRF1	0.4638	-0.21342147	FALSE
MTRF1L	0.136894	0.41804206	FALSE
MTRNR2L1	0.329337	0.28162833	FALSE
MTRNR2L1	0.232769	0.34103431	FALSE
MTRNR2L1	0.220147	0.3498352	FALSE
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MTRNR2L4	0.171338	0.38723896	FALSE
MTRNR2L5	0.238693	0.33700441	FALSE
MTRNR2L6	0.273248	0.31463165	FALSE
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MTRNR2L8	0.287612	0.30583077	FALSE
MTRR	0.652801	-0.13201328	FALSE
MTSS1	0.492518	0.20022014	FALSE
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MTURN	0.038684	-0.556656	FALSE
MTUS1	0.12367	0.43124339	FALSE
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MTX1	0.148612	0.40704095	FALSE
MTX2	0.016883	0.62486286	FALSE
MTX3	0.004045	0.71507194	TRUE
MUC1	0.182124	0.37843807	FALSE
MUC12	0.382232	0.25330396	FALSE
MUC13	0.830563	0.06300652	FALSE
MUC16	0.31708	-0.28854626	FALSE
MUC17	0.298584	0.29928096	FALSE
MUC19	0.50718	-0.19361948	FALSE
MUC2	0.372301	0.25845106	FALSE
MUC20	0.040582	-0.55225556	FALSE
MUC20P1	0.276242	-0.31277533	FALSE
MUC21	0.691367	-0.11661173	FALSE
MUC3A	0.636486	0.13862375	FALSE
MUC4	0.317637	-0.288229	FALSE
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MUC6	0.994044	-0.00220022	FALSE
MUCL1	0.768737	0.08649948	FALSE
MUL1	0.21706	0.35203542	FALSE
MUM1	0.066213	0.50385069	FALSE
MURC	0.468529	-0.21122125	FALSE
MUS81	0.141504	0.41364161	FALSE
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MUT	0.468529	-0.21122125	FALSE
MUTYH	0.010547	-0.65786618	FALSE
MVB12A	0.291271	0.30363055	FALSE
MVB12B	0.055836	-0.52145246	FALSE
MVD	0.001028	0.77887836	TRUE
MVK	0.117395	0.43784405	FALSE
MVP	0.235992	0.33883409	FALSE
MX1	0.12367	0.43124339	FALSE
MX2	0.063499	0.50825113	FALSE
MXD1	0.719353	-0.10561062	FALSE
MXD3	0.337271	0.27722789	FALSE
MXD4	0.674747	0.1232124	FALSE
MXI1	0.329337	0.28162833	FALSE
MXRA7	0.000921	-0.7832788	TRUE
MXRA8	0.027898	0.58525888	FALSE
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MYADML2	0.323996	0.28462474	FALSE
MYB	0.970226	0.01100111	FALSE
MYBBP1A	0.730641	0.10121018	FALSE
MYBL1	0.881262	0.04400443	FALSE
MYBL2	0.005345	0.69967039	FALSE
MYBPC1	0.003595	0.7213134	TRUE
MYBPC2	0.245275	0.33259912	FALSE
MYBPC3	0.079456	0.4840487	FALSE
MYBPH	0.725908	-0.10305283	FALSE
MYBPHL	0.614312	-0.14770906	FALSE
MYC	0.952376	-0.01760177	FALSE
MYCBP	0.816786	-0.06820686	FALSE
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MYCBPAP	0.207961	-0.35863608	FALSE
MYCL	0.17461	0.3845325	FALSE
MYCN	0.011264	-0.65346574	FALSE
MYCT1	0.83428	0.0616062	FALSE
MYD88	0.770539	0.08580863	FALSE
MYDGF	0.92861	-0.02640266	FALSE
MYEF2	0.631114	-0.14081417	FALSE
MYEOV	0.669238	-0.12541262	FALSE
MYF6	0.280835	0.3099502	FALSE
MYH10	0.40009	0.24422457	FALSE
MYH11	0.196209	-0.36743697	FALSE

MYH14	0.329337	0.28162833	FALSE
MYH15	0.578116	-0.16281638	FALSE
MYH16	0.145482	-0.40992128	FALSE
MYH3	0.018439	-0.6182622	FALSE
MYH7B	0.741981	0.09680974	FALSE
MYH9	0.497383	-0.19801992	FALSE
MYL10	0.910821	-0.03300332	FALSE
MYL12A	0.031739	0.57425777	FALSE
MYL12AP1	0.2549	0.32628375	FALSE
MYL12B	0.08926	0.47084737	FALSE
MYL12BP1	0.166104	-0.3916394	FALSE
MYL12BP2	0.225881	0.34579951	FALSE
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MYL4	0.137268	0.41768185	FALSE
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MYL6B	0.426813	-0.23102324	FALSE
MYL6P1	0.340713	0.27533636	FALSE
MYL6P4	0.002442	-0.7407279	TRUE
MYL9	0.374268	0.2574259	FALSE
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MYLK2	0.0366	-0.56167401	FALSE
MYLK3	0.875366	-0.04620465	FALSE
MYLK4	0.062172	-0.51045135	FALSE
MYLPF	0.266229	-0.3190321	FALSE
MYNN	0.572919	0.1650166	FALSE
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MYO16	0.378508	0.25522568	FALSE
MYO18A	0.922677	-0.02860288	FALSE
MYO18B	0.053127	-0.52643172	FALSE
MYO19	0.599097	-0.15401549	FALSE
MYO1A	0.537087	0.18041815	FALSE
MYO1B	0.79937	-0.07480753	FALSE
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MYO1D	0.557442	-0.17161727	FALSE
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MYO3B	0.910821	-0.03300332	FALSE
MYO5A	0.15845	0.39824006	FALSE
MYO5B	0.803028	-0.07341858	FALSE
MYO5C	0.473281	-0.20902103	FALSE
MYO6	0.378508	0.25522568	FALSE

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MYO7B	0.851846	-0.05500553	FALSE
MYO9A	0.01543	-0.63146353	FALSE
MYO9B	0.449752	0.22002214	FALSE
MYOF	0.173995	0.38503874	FALSE
MYOG	0.550538	0.17458659	FALSE
MYOM1	0.881262	-0.04400443	FALSE
MYOM2	0.417807	-0.23542368	FALSE
MYOM3	0.910821	0.03300332	FALSE
MYOZ1	0.624318	-0.14359446	FALSE
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MYPN	0.70252	-0.11221129	FALSE
MYPOP	0.361702	-0.26402656	FALSE
MYRF	0.125812	-0.42904316	FALSE
MYRFL	0.695654	-0.11491776	FALSE
MYRIP	0.515179	0.19005518	FALSE
MYSM1	0.229572	-0.34323453	FALSE
MYT1	0.383766	-0.25251544	FALSE
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MZT1	0.527033	0.18481859	FALSE
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MZT2B	0.851846	-0.05500553	FALSE
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N4BP2L1	0.004567	-0.70847128	TRUE
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NAA10	0.306176	0.29482966	FALSE
NAA11	0.090357	0.46943398	FALSE
NAA15	0.708117	0.11001107	FALSE
NAA16	0.413341	-0.23762391	FALSE
NAA20	0.893071	-0.03960398	FALSE
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NAA50	0.143848	0.41144139	FALSE
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NAAA	0.593824	0.15621572	FALSE
NAALAD2	0.854422	-0.05403977	FALSE
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NAB1	0.337271	0.27722789	FALSE

NAB2	0.747669	0.09460952	FALSE
NABP1	0.92861	-0.02640266	FALSE
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NACA	0.069009	-0.49945025	FALSE
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NACAD	0.435916	0.2266228	FALSE
NACAP1	0.291271	0.30363055	FALSE
NACC1	0.134627	-0.42024228	FALSE
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NADK	0.027898	0.58525888	FALSE
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NADSYN1	0.341277	-0.27502767	FALSE
NAE1	0.10937	-0.44664493	FALSE
NAF1	0.759081	-0.09020908	FALSE
NAGA	0.040582	0.55225556	FALSE
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NANOGP1	0.708117	0.11001107	FALSE
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NANOS1	0.431353	-0.22882302	FALSE
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NAP1L1	0.059579	-0.5148518	FALSE
NAP1L1P1	0.202031	-0.36303652	FALSE
NAP1L1P3	0.397942	-0.24530522	FALSE
NAP1L2	0.921815	-0.02892247	FALSE
NAP1L3	0.753576	0.09232943	FALSE
NAP1L4	0.747669	-0.09460952	FALSE
NAP1L4P1	0.572919	0.1650166	FALSE
NAP1L4P3	0.072916	0.49350857	FALSE
NAP1L5	0.599097	-0.15401549	FALSE
NAPA	0.053437	0.5258529	FALSE
NAPB	0.043556	-0.5456549	FALSE
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NAPG	0.94643	-0.01980199	FALSE

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NARS2	0.341277	-0.27502767	FALSE
NASP	0.21706	-0.35203542	FALSE
NAT1	0.071888	0.4950498	FALSE
NAT10	0.009537	-0.66446685	FALSE
NAT14	0.166104	-0.3916394	FALSE
NAT16	0.753369	-0.0924093	FALSE
NAT6	0.004213	0.71287172	TRUE
NAT8B	0.602208	0.15272108	FALSE
NAT8L	0.207961	-0.35863608	FALSE
NAT9	0.982133	0.00660066	FALSE
NATD1	0.40009	0.24422457	FALSE
NAV1	0.02939	-0.58085844	FALSE
NAV2	0.199106	0.36523674	FALSE
NAV3	0.78204	0.08140819	FALSE
NAXD	0.857716	0.05280531	FALSE
NAXE	0.153479	0.40264051	FALSE
NBAS	0.449752	-0.22002214	FALSE
NBEA	0.173995	-0.38503874	FALSE
NBEAL1	0.370053	0.25962612	FALSE
NBEAL2	0.090972	0.46864715	FALSE
NBEAP1	0.117395	-0.43784405	FALSE
NBL1	0.764804	0.08800885	FALSE
NBN	0.306176	-0.29482966	FALSE
NBPF1	0.445116	-0.22222236	FALSE
NBPF10	0.039624	0.55445578	FALSE
NBPF11	0.759081	0.09020908	FALSE
NBPF12	0.103603	0.4532456	FALSE
NBPF13P	0.404482	0.24202435	FALSE
NBPF14	0.08926	0.47084737	FALSE
NBPF15	0.074851	0.49064936	FALSE
NBPF17P	0.012714	0.64519362	FALSE
NBPF19	0.085903	0.47524781	FALSE
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NBPF25P	0.038684	0.556656	FALSE
NBPF26	0.000777	0.78987947	TRUE
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NBR2	0.445116	0.22222236	FALSE
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NCAM1	0.013643	0.64026441	FALSE
NCAM2	0.575089	0.16409692	FALSE
NCAN	0.062755	-0.50948048	FALSE
NCAPD2	0.988088	0.00440044	FALSE
NCAPD3	0.034225	-0.56765711	FALSE
NCAPG	0.226404	0.34543475	FALSE
NCAPG2	0.881262	-0.04400443	FALSE
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NCAPH	0.12367	0.43124339	FALSE
NCAPH2	0.255905	0.32563276	FALSE
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NBP2	0.374268	0.2574259	FALSE
NBP2-AS2	0.242521	-0.33443365	FALSE
NBP3	0.719353	-0.10561062	FALSE
NCCRP1	0.182124	-0.37843807	FALSE
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NCEH1	0.454411	0.21782191	FALSE
NCF1	0.625734	0.14301439	FALSE
NCF1B	0.309969	0.29262944	FALSE
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NCF2	0.184888	0.37623785	FALSE
NCF4	0.435916	0.2266228	FALSE
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NCK2	0.851846	-0.05500553	FALSE
NCKAP1	0.21706	0.35203542	FALSE
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NCKAP5	0.718089	0.1061045	FALSE
NCKAP5L	0.904899	0.03520354	FALSE
NCKIPSD	0.214	0.35423564	FALSE
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NCMAP	0.08757	-0.47304759	FALSE
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NCOA4	0.283981	-0.30803099	FALSE
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NCOR2	0.266229	0.3190321	FALSE
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NCR3	0.94643	0.01980199	FALSE

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NDEL1	0.994044	0.00220022	FALSE
NDFIP1	0.139186	0.41584184	FALSE
NDFIP2	0.309969	0.29262944	FALSE
NDN	0.390294	-0.24917823	FALSE
NDNF	0.228853	0.34373246	FALSE
NDOR1	0.29867	0.2992301	FALSE
NDRG1	0.641924	-0.13641372	FALSE
NDRG2	0.747669	0.09460952	FALSE
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NDRG4	0.026463	0.58965932	FALSE
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NDUFB4	0.229572	0.34323453	FALSE
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NDUFB4P8	0.907835	-0.03411247	FALSE
NDUFB5	0.309969	0.29262944	FALSE
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NDUFB8P2	0.312015	-0.29144953	FALSE
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NDUFC1	0.887164	0.04180421	FALSE
NDUFC2	0.674747	-0.1232124	FALSE
NDUFC2-KC	0.541208	-0.17862491	FALSE
NDUFS1	0.916747	-0.0308031	FALSE
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NDUFV1	0.898983	0.03740376	FALSE
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NEB	0.136894	0.41804206	FALSE
NEBL	0.031739	0.57425777	FALSE
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NECAB3	0.502271	0.1958197	FALSE
NECAP1	0.840128	-0.05940598	FALSE
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NECTIN1	0.497383	0.19801992	FALSE
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NECTIN4	0.604388	0.15181527	FALSE
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NEDD8-MD	0.825334	0.06497797	FALSE

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NEFH	0.252518	0.32783298	FALSE
NEFL	0.274127	0.31408556	FALSE
NEFM	0.068644	0.50001644	FALSE
NEGR1	0.557442	-0.17161727	FALSE
NEIL1	0.119462	0.43564383	FALSE
NEIL2	0.881262	0.04400443	FALSE
NEIL3	0.113334	0.44224449	FALSE
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NEK2	0.53205	0.18261837	FALSE
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NEK4	0.269725	0.31683187	FALSE
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NEK7	0.179388	-0.38063829	FALSE
NEK8	0.105502	0.45104538	FALSE
NEK9	0.374268	0.2574259	FALSE
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NELFB	0.753369	0.0924093	FALSE
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NELL2	0.245826	0.33223342	FALSE
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NEPRO	0.382774	0.25302546	FALSE
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NETO1	0.309969	0.29262944	FALSE
NETO2	0.01898	-0.61606198	FALSE
NEU1	0.229572	0.34323453	FALSE
NEU3	0.764804	-0.08800885	FALSE
NEU4	0.190494	0.37183741	FALSE
NEURL1	0.934547	0.02420243	FALSE
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NEURL3	0.244619	0.33303445	FALSE
NEURL4	0.770539	-0.08580863	FALSE
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NEUROD2	0.910821	0.03300332	FALSE
NEUROG2	0.495443	-0.19889612	FALSE
NEUROG3	0.154301	0.40190605	FALSE

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NFASC	0.058312	-0.51705202	FALSE
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NFATC1	0.517064	-0.18921904	FALSE
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NFE2L3	0.000973	0.78107858	TRUE
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NFIA	0.599097	0.15401549	FALSE
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NFX1	0.063499	0.50825113	FALSE
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NFYA	0.764804	-0.08800885	FALSE
NFYB	0.182124	-0.37843807	FALSE
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NGDN	0.631114	-0.14081417	FALSE
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NGFR	0.922677	0.02860288	FALSE
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NHEJ1	0.259319	-0.32343254	FALSE
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NHLRC1	0.000449	0.80968146	TRUE
NHLRC2	0.391381	-0.24862501	FALSE
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NHSL2	0.103603	0.4532456	FALSE
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NKAP	0.269725	0.31683187	FALSE
NKAPL	0.67967	0.1212519	FALSE
NKAPP1	0.94643	-0.01980199	FALSE
NKD1	0.395723	-0.24642479	FALSE
NKD2	0.026463	-0.58965932	FALSE
NKG7	0.042548	0.54785512	FALSE
NKIRAS1	0.922677	0.02860288	FALSE
NKIRAS2	0.239243	0.33663387	FALSE
NKPD1	0.242521	-0.33443365	FALSE
NKRF	0.341277	-0.27502767	FALSE
NKTR	0.214	-0.35423564	FALSE
NKX2-2	0.130845	0.42396926	FALSE
NKX2-3	0.581131	0.16154377	FALSE

NKX3-1	0.478056	0.20682081	FALSE
NKX3-2	0.016856	-0.62498164	FALSE
NKX6-2	0.216228	0.35263169	FALSE
NLE1	0.708117	-0.11001107	FALSE
NLGN2	0.922677	0.02860288	FALSE
NLGN3	0.010901	-0.65566596	FALSE
NLGN4X	0.128862	-0.42595172	FALSE
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NLK	0.232769	-0.34103431	FALSE
NLN	0.179388	0.38063829	FALSE
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NMNAT2	0.477869	0.20690692	FALSE
NMNAT3	0.179388	0.38063829	FALSE
NMRAL1	0.604388	0.15181527	FALSE
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NMRK1	0.103603	0.4532456	FALSE
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NOCT	0.204983	0.3608363	FALSE
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NOG	0.001145	-0.77447792	TRUE
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NONOP2	0.066213	-0.50385069	FALSE
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NOS1	0.02939	-0.58085844	FALSE
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NOS2P3	0.94643	0.01980199	FALSE
NOS3	0.857716	0.05280531	FALSE
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NOV	0.034225	0.56765711	FALSE
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NOX4	0.522038	0.18701882	FALSE
NOX5	0.776284	-0.08360841	FALSE
NOXA1	0.001341	0.76787725	TRUE
NOXO1	0.881262	-0.04400443	FALSE
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NPAP1	0.940487	0.02200221	FALSE
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NPAS1	0.487675	-0.20242036	FALSE
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NPC1	0.387065	0.25082523	FALSE
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NPRL2	0.845984	-0.05720576	FALSE
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NPTN	0.674747	0.1232124	FALSE
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NPTXR	0.325411	0.28382855	FALSE
NPW	0.459093	-0.21562169	FALSE
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NR1D1	0.542145	0.17821793	FALSE
NR1D2	0.179388	0.38063829	FALSE
NR1H2	0.387065	0.25082523	FALSE
NR1H3	0.910821	-0.03300332	FALSE
NR1I2	0.566003	0.16795672	FALSE
NR1I3	0.593824	0.15621572	FALSE
NR2C1	0.101729	-0.45544582	FALSE
NR2C2	0.000613	-0.79868035	TRUE
NR2C2AP	0.599097	0.15401549	FALSE
NR2E3	0.116982	-0.4382867	FALSE
NR2F6	0.547224	0.17601771	FALSE
NR3C1	0.652801	-0.13201328	FALSE
NR3C2	0.887164	-0.04180421	FALSE
NR4A1	0.413341	-0.23762391	FALSE
NR4A2	0.153479	-0.40264051	FALSE
NR4A3	0.482854	-0.20462059	FALSE
NR5A1	0.048253	-0.53587474	FALSE
NR5A2	0.658264	-0.12981306	FALSE
NR6A1	0.333291	0.27942811	FALSE
NRADDP	0.767606	0.08693354	FALSE
NRARP	0.31379	0.29042922	FALSE
NRAS	0.776284	0.08360841	FALSE
NRBF2	0.370053	0.25962612	FALSE
NRBF2P3	0.50932	-0.19266351	FALSE
NRBF2P5	0.331066	-0.28066453	FALSE
NRBP1	0.741981	0.09680974	FALSE
NRBP2	0.111339	0.44444471	FALSE
NRCAM	0.028637	-0.58305866	FALSE
NRDC	0.079456	-0.4840487	FALSE
NRDE2	0.857716	0.05280531	FALSE
NREP	0.552323	0.17381749	FALSE
NRF1	0.82844	0.06380642	FALSE
NRG1	0.309969	-0.29262944	FALSE
NRG2	0.166666	-0.39116237	FALSE
NRG4	0.83428	0.0616062	FALSE
NRGN	0.011264	0.65346574	FALSE
NRIP1	0.306176	0.29482966	FALSE
NRIP2	0.187678	-0.37403763	FALSE
NRIP3	0.82844	-0.06380642	FALSE
NRK	0.482362	0.20484581	FALSE
NRL	0.482854	0.20462059	FALSE
NRM	0.631114	0.14081417	FALSE
NRN1	0.337271	-0.27722789	FALSE
NRN1L	0.084258	-0.47744803	FALSE
NRP1	0.187678	-0.37403763	FALSE

NRP2	0.522038	0.18701882	FALSE
NRROS	0.262761	0.32123232	FALSE
NRSN1	0.422298	0.23322346	FALSE
NRSN2	0.041556	0.55005534	FALSE
NRTN	0.904113	-0.03549598	FALSE
NRXN1	0.357565	0.26622678	FALSE
NRXN2	0.92861	-0.02640266	FALSE
NRXN3	0.353453	-0.26842701	FALSE
NSA2	0.059579	-0.5148518	FALSE
NSD1	0.53205	-0.18261837	FALSE
NSDHL	0.753369	-0.0924093	FALSE
NSF	0.887164	-0.04180421	FALSE
NSFL1C	0.187678	-0.37403763	FALSE
NSFP1	0.005554	0.69747017	FALSE
NSG1	0.663743	0.12761284	FALSE
NSL1	0.249158	-0.3300332	FALSE
NSMAF	0.759081	-0.09020908	FALSE
NSMCE1	0.001901	0.7524757	TRUE
NSMCE2	0.105502	0.45104538	FALSE
NSMCE3	0.691367	-0.11661173	FALSE
NSMCE4A	0.242521	-0.33443365	FALSE
NSMF	0.111339	0.44444471	FALSE
NSRP1	0.988088	0.00440044	FALSE
NSRP1P1	0.70252	-0.11221129	FALSE
NSUN2	0.058312	0.51705202	FALSE
NSUN3	0.537087	-0.18041815	FALSE
NSUN4	0.70252	-0.11221129	FALSE
NSUN5	0.067601	0.50165047	FALSE
NSUN5P1	0.302409	-0.29702988	FALSE
NSUN5P2	0.417807	-0.23542368	FALSE
NSUN6	0.468529	-0.21122125	FALSE
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NT5C	0.898983	0.03740376	FALSE
NT5C2	0.805166	-0.0726073	FALSE
NT5C3A	0.636511	0.13861395	FALSE
NT5C3AP1	0.274565	-0.31381388	FALSE
NT5C3B	0.552323	-0.17381749	FALSE
NT5DC1	0.502271	-0.1958197	FALSE
NT5DC2	0.31379	0.29042922	FALSE
NT5DC3	0.042548	0.54785512	FALSE
NT5DC4	0.196054	0.36755511	FALSE
NT5E	0.70252	-0.11221129	FALSE
NT5M	0.280376	0.31023121	FALSE
NTAN1	0.413341	0.23762391	FALSE
NTAN1P2	0.468529	-0.21122125	FALSE
NTHL1	0.747669	-0.09460952	FALSE
NTM	0.83428	0.0616062	FALSE
NTMT1	0.422298	0.23322346	FALSE

NTN1	0.578116	-0.16281638	FALSE
NTN4	0.01681	0.6251872	FALSE
NTN5	0.187678	-0.37403763	FALSE
NTNG1	0.741981	0.09680974	FALSE
NTNG2	0.084258	-0.47744803	FALSE
NTPCR	0.349368	-0.27062723	FALSE
NTRK1	0.810971	-0.07040708	FALSE
NTRK2	0.836116	0.06091512	FALSE
NTRK3	0.15845	-0.39824006	FALSE
NTS	0.179401	0.38062792	FALSE
NTSR1	0.214	-0.35423564	FALSE
NUAK1	0.636511	0.13861395	FALSE
NUAK2	0.578116	0.16281638	FALSE
NUB1	0.214	-0.35423564	FALSE
NUBP1	0.333291	0.27942811	FALSE
NUBP2	0.988088	0.00440044	FALSE
NUBPL	0.199106	-0.36523674	FALSE
NUCB1	0.53205	0.18261837	FALSE
NUCB2	0.081035	-0.48184848	FALSE
NUCKS1	0.522038	-0.18701882	FALSE
NUDC	0.302409	0.29702988	FALSE
NUDCD1	0.127978	-0.42684294	FALSE
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NUDT5	0.242521	-0.33443365	FALSE
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NUF2	0.599097	0.15401549	FALSE
NUFIP1	0.042548	-0.54785512	FALSE
NUFIP2	0.922677	-0.02860288	FALSE
NUGGC	0.207961	-0.35863608	FALSE
NUMA1	0.184888	-0.37623785	FALSE
NUMB	0.647355	0.1342135	FALSE
NUMBL	0.070438	-0.49725003	FALSE
NUP107	0.08926	-0.47084737	FALSE
NUP133	0.12367	-0.43124339	FALSE
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NUP188	0.329337	-0.28162833	FALSE
NUP205	0.40009	-0.24422457	FALSE
NUP210	0.34531	0.27282745	FALSE
NUP210L	0.079456	-0.4840487	FALSE
NUP214	0.82844	-0.06380642	FALSE
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NUP37	0.492518	0.20022014	FALSE
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NUP54	0.199106	-0.36523674	FALSE
NUP58	0.810971	0.07040708	FALSE
NUP62	0.006222	0.6908695	FALSE
NUP62CL	0.395723	0.24642479	FALSE
NUP85	0.21706	-0.35203542	FALSE
NUP88	0.245826	-0.33223342	FALSE
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NUP98	0.130169	-0.42464272	FALSE
NUPL2	0.857716	-0.05280531	FALSE
NUPR1	0.099878	0.45764604	FALSE
NUPR2	0.403949	-0.24229075	FALSE
NUS1	0.663743	0.12761284	FALSE
NUS1P1	0.973173	-0.00991189	FALSE
NUSAP1	0.204983	0.3608363	FALSE
NUTF2	0.417807	0.23542368	FALSE
NUTM1	0.932925	-0.02480365	FALSE
NUTM2A	0.15845	0.39824006	FALSE
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NUTM2D	0.964274	-0.01320133	FALSE
NUTM2E	0.227382	-0.34475328	FALSE
NUTM2G	0.839429	-0.05966884	FALSE
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NVL	0.487675	-0.20242036	FALSE
NWD1	0.459093	-0.21562169	FALSE
NXF1	0.652801	-0.13201328	FALSE
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NXN	0.426813	0.23102324	FALSE
NXNL1	0.572919	-0.1650166	FALSE
NXNL2	0.609698	-0.14961505	FALSE
NXPE3	0.325411	0.28382855	FALSE
NXPH3	0.961851	0.01409733	FALSE
NXPH4	0.547224	-0.17601771	FALSE
NXT1	0.845984	0.05720576	FALSE
NXT2	0.875366	0.04620465	FALSE
NYAP1	0.117395	-0.43784405	FALSE
NYAP2	0.708117	-0.11001107	FALSE
NYNRIN	0.557442	-0.17161727	FALSE
NYX	0.83288	-0.06213343	FALSE
OACYLP	0.20287	0.36240888	FALSE
OAF	0.15845	0.39824006	FALSE
OARD1	0.259319	-0.32343254	FALSE
OAS1	0.111339	0.44444471	FALSE
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OAS3	0.685812	0.11881195	FALSE
OASL	0.054627	0.52365268	FALSE
OAT	0.916747	0.0308031	FALSE
OAZ1	0.160975	0.39603984	FALSE
OAZ2	0.063499	0.50825113	FALSE
OAZ3	0.609698	-0.14961505	FALSE
OBFC1	0.085903	-0.47524781	FALSE
OBSCN	0.537087	-0.18041815	FALSE
OBSL1	0.542145	0.17821793	FALSE
OCA2	0.499532	0.19705121	FALSE
OCEL1	0.609698	0.14961505	FALSE
OCIAD1	0.047766	-0.53685401	FALSE
OCIAD2	0.724991	0.1034104	FALSE
OCLM	0.805166	0.0726073	FALSE
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OCM	0.641554	-0.13656388	FALSE
OCRL	0.387065	0.25082523	FALSE
OCSTAMP	0.09547	0.46300146	FALSE
ODC1	0.658264	0.12981306	FALSE
ODCP	0.776284	-0.08360841	FALSE
ODF2	0.151032	-0.40484073	FALSE
ODF2L	0.021269	-0.60726109	FALSE
ODF3	0.536601	0.18063011	FALSE
ODF3B	0.160975	0.39603984	FALSE
ODF3L1	0.691367	0.11661173	FALSE
ODF4	0.974562	0.00939822	FALSE
OFCC1	0.914861	-0.03150326	FALSE
OFD1	0.023759	0.59846021	FALSE
OFD1P6Y	0.358244	0.26586427	FALSE
OGDH	0.038684	0.556656	FALSE

OGDHL	0.292064	0.30315571	FALSE
OGFOD1	0.395723	-0.24642479	FALSE
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OGFOD2	0.552323	-0.17381749	FALSE
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OGFR	0.058312	0.51705202	FALSE
OGFRL1	0.34531	-0.27282745	FALSE
OGG1	0.395723	0.24642479	FALSE
OGN	0.695121	0.1151282	FALSE
OGT	0.239243	-0.33663387	FALSE
OIP5	0.604388	0.15181527	FALSE
OIT3	0.5536	0.17326792	FALSE
OLA1	0.337271	-0.27722789	FALSE
OLA1P1	0.243588	-0.33372084	FALSE
OLA1P2	0.063499	0.50825113	FALSE
OLA1P3	0.29867	-0.2992301	FALSE
OLAH	0.94643	0.01980199	FALSE
OLFM2	0.630734	-0.14096916	FALSE
OLFM4	0.223858	0.3472162	FALSE
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OLFML1	0.50718	-0.19361948	FALSE
OLFML2A	0.730641	0.10121018	FALSE
OLFML2B	0.294399	-0.30176211	FALSE
OLFML3	0.365865	-0.26182634	FALSE
OLIG1	0.294957	0.30143033	FALSE
OLIG2	0.071888	0.4950498	FALSE
OLR1	0.512111	0.19141926	FALSE
OMA1	0.207961	0.35863608	FALSE
OMD	0.464702	0.21300055	FALSE
OMG	0.562581	-0.16941704	FALSE
OMP	0.03501	0.56564556	FALSE
ONECUT1	0.922677	-0.02860288	FALSE
ONECUT2	0.114905	0.44052863	FALSE
ONECUT3	0.952376	0.01760177	FALSE
OOEP	0.827692	-0.06408875	FALSE
OPA1	0.964274	0.01320133	FALSE
OPA3	0.404482	0.24202435	FALSE
OPALIN	0.696704	-0.11450315	FALSE
OPCML	0.536601	0.18063011	FALSE
OPHN1	0.741981	0.09680974	FALSE
OPLAH	0.079456	0.4840487	FALSE
OPN3	0.037759	0.55885622	FALSE
OPRD1	0.875366	-0.04620465	FALSE
OPRK1	0.636511	0.13861395	FALSE
OPRL1	0.787807	0.07920797	FALSE
OPRM1	0.382774	-0.25302546	FALSE
OPTN	0.084258	0.47744803	FALSE
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OR10AC1	0.454411	0.21782191	FALSE
OR10AE1P	0.614632	-0.14757709	FALSE
OR10B1P	0.046037	-0.54039766	FALSE
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OR13C5	0.337808	-0.27693218	FALSE
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OR1J1	0.16229	0.39490299	FALSE
OR2A1-AS1	0.042144	0.54874719	FALSE
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OR2AE1	0.640437	-0.13701733	FALSE
OR2AJ1	0.04063	-0.55214544	FALSE
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OR2L13	0.201031	-0.36378686	FALSE
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OR2T32P	0.109574	-0.44641546	FALSE
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OR2W3	0.24197	-0.33480176	FALSE
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OR3A1	0.950302	0.01836916	FALSE
OR4A49P	0.514596	-0.19031396	FALSE
OR4F13P	0.622661	-0.14427397	FALSE
OR4F15	0.663743	0.12761284	FALSE
OR4F21	0.357328	0.26635288	FALSE
OR4F3	0.350479	-0.27002793	FALSE
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OR52A1	0.179388	0.38063829	FALSE
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OR52K2	0.557061	0.17178065	FALSE
OR52K3P	0.210986	0.35642197	FALSE
OR52N2	0.918817	0.03003488	FALSE
OR52N4	0.829553	-0.0633871	FALSE
OR52P1P	0.641909	0.13642007	FALSE
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OR52U1P	0.34176	0.27476349	FALSE
OR52V1P	0.402481	-0.24302514	FALSE
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OR5B12	0.695121	0.1151282	FALSE
OR5B15P	0.17112	-0.38742018	FALSE
OR5B1P	0.593346	-0.1564154	FALSE
OR5B21	0.674747	-0.1232124	FALSE
OR6C6	0.658264	-0.12981306	FALSE
OR6J1	0.658264	-0.12981306	FALSE
OR6K3	0.066213	0.50385069	FALSE
OR6K4P	0.387129	0.25079246	FALSE
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OR6N1	0.280835	0.3099502	FALSE
OR6R1P	0.163911	0.3935095	FALSE
OR6R2P	0.570532	-0.16602957	FALSE
OR7A19P	0.047766	-0.53685401	FALSE
OR7A5	0.599097	0.15401549	FALSE
OR7D2	0.4638	-0.21342147	FALSE
OR7E100P	0.399833	-0.24435373	FALSE
OR7E115P	0.169452	0.38881397	FALSE
OR7E117P	0.477869	-0.20690692	FALSE
OR7E140P	0.176859	0.38269092	FALSE
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OR7E26P	0.937394	0.02314775	FALSE
OR7E38P	0.599097	-0.15401549	FALSE
OR7E47P	0.640437	0.13701733	FALSE
OR7E59P	0.468529	-0.21122125	FALSE
OR7E7P	0.009865	-0.66226663	FALSE
OR7E94P	0.210967	-0.35643586	FALSE
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OR8G2P	0.1167	0.43858889	FALSE
OR8H2	0.463296	0.21365639	FALSE
OR8R1P	0.421518	0.23360459	FALSE
OR8S1	0.259319	0.32343254	FALSE
OR9A1P	0.059539	-0.51491996	FALSE
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ORC2	0.94643	-0.01980199	FALSE
ORC3	0.593824	0.15621572	FALSE
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ORC5	0.4638	-0.21342147	FALSE
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ORM1	0.827692	-0.06408875	FALSE
ORM2	0.910276	-0.03320591	FALSE
ORMDL1	0.011264	-0.65346574	FALSE
ORMDL2	0.020678	0.60946131	FALSE
ORMDL3	0.053437	-0.5258529	FALSE
OS9	0.572919	0.1650166	FALSE
OSBP	0.063499	-0.50825113	FALSE
OSBP2	0.674747	-0.1232124	FALSE
OSBPL10	0.887164	-0.04180421	FALSE
OSBPL11	0.291271	0.30363055	FALSE
OSBPL1A	0.082635	0.47964826	FALSE
OSBPL2	0.863593	-0.05060509	FALSE
OSBPL3	0.010547	-0.65786618	FALSE
OSBPL5	0.179388	-0.38063829	FALSE
OSBPL6	0.50718	0.19361948	FALSE
OSBPL7	0.730641	0.10121018	FALSE
OSBPL8	0.512111	0.19141926	FALSE
OSBPL9	0.005992	-0.69306973	FALSE
OSCAR	0.904899	0.03520354	FALSE
OSCP1	0.487675	-0.20242036	FALSE
OSER1	0.840128	0.05940598	FALSE
OSGEP	0.787807	0.07920797	FALSE
OSGEPL1	0.119462	-0.43564383	FALSE
OSGIN1	0.50718	0.19361948	FALSE
OSGIN2	0.770539	0.08580863	FALSE
OSM	0.50718	-0.19361948	FALSE
OSMR	0.266229	-0.3190321	FALSE
OSR2	0.68527	0.1190271	FALSE
OST4	0.378508	0.25522568	FALSE
OSTC	0.242521	-0.33443365	FALSE
OSTCP1	0.776339	-0.0835873	FALSE
OSTCP8	0.887164	-0.04180421	FALSE
OSTF1	0.273248	0.31463165	FALSE
OSTM1	0.370053	0.25962612	FALSE
OSTN	0.727154	0.10256747	FALSE
OTOA	0.83428	-0.0616062	FALSE
OTOF	0.067496	0.50181486	FALSE
OTOG	0.68527	-0.1190271	FALSE
OTOGL	0.263875	0.32052336	FALSE
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OTUD1	0.641924	0.13641372	FALSE
OTUD3	0.202031	-0.36303652	FALSE
OTUD4	0.404482	0.24202435	FALSE
OTUD4P1	0.759081	-0.09020908	FALSE
OTUD5	0.210967	-0.35643586	FALSE
OTUD6A	0.53205	0.18261837	FALSE
OTUD6B	0.21706	-0.35203542	FALSE
OTUD7A	0.56774	0.16721682	FALSE
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OTULIN	0.207961	0.35863608	FALSE
OTX1	0.025372	-0.59312631	FALSE
OVCA2	0.057064	0.51925224	FALSE
OVCH2	0.793583	0.07700775	FALSE
OVGP1	0.009218	-0.66666707	FALSE
OVOL1	0.119462	0.43564383	FALSE
OVOS2	0.79937	-0.07480753	FALSE
OXA1L	0.851846	0.05500553	FALSE
OXCT1	0.422298	0.23322346	FALSE
OXCT2	0.103176	0.45374449	FALSE
OXCT2P1	0.241923	0.33483324	FALSE
OXER1	0.487675	-0.20242036	FALSE
OXLD1	0.196209	0.36743697	FALSE
OXNAD1	0.593824	-0.15621572	FALSE
OXR1	0.620371	-0.14521461	FALSE
OXSM	0.572919	-0.1650166	FALSE
OXSR1	0.468529	0.21122125	FALSE
OXT	0.980921	0.00704867	FALSE
OXTR	0.070438	-0.49725003	FALSE
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P2RX2	0.079042	-0.48463132	FALSE
P2RX3	0.952376	-0.01760177	FALSE
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P2RX5	0.916747	0.0308031	FALSE
P2RX5-TAX	0.583333	0.16061616	FALSE
P2RX6	0.776284	0.08360841	FALSE
P2RX7	0.047766	0.53685401	FALSE
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P2RY10	0.294957	-0.30143033	FALSE
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P2RY4	0.532471	0.18243406	FALSE
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P3H4	0.431353	0.22882302	FALSE
P4HA1	0.669238	0.12541262	FALSE
P4HA2	0.193338	0.36963719	FALSE
P4HA3	0.076365	-0.48844914	FALSE
P4HB	0.922677	0.02860288	FALSE
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PABPC1	0.696936	-0.11441151	FALSE
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PADI2	0.92861	0.02640266	FALSE
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PADI4	0.252518	0.32783298	FALSE
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PAFAH1B3	0.893071	-0.03960398	FALSE
PAFAH2	0.497383	-0.19801992	FALSE
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PAICS	0.374268	0.2574259	FALSE
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PAK3	0.173995	0.38503874	FALSE
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PAK6	0.027898	0.58525888	FALSE
PALB2	0.845984	-0.05720576	FALSE
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PALM3	0.487186	0.20264317	FALSE
PALMD	0.730641	-0.10121018	FALSE
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PAMR1	0.309969	0.29262944	FALSE
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PANX2	0.022488	-0.60286065	FALSE
PAOX	0.572919	0.1650166	FALSE
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PAQR4	0.34531	0.27282745	FALSE
PAQR5	0.680272	0.12101217	FALSE
PAQR6	0.009218	-0.66666707	FALSE
PAQR7	0.269725	0.31683187	FALSE
PAQR8	0.502271	0.1958197	FALSE
PAQR9	0.338087	0.27677863	FALSE
PARD3	0.599097	0.15401549	FALSE
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PARD6A	0.713728	0.10781085	FALSE
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PARG	0.105502	-0.45104538	FALSE
PARGP1	0.062172	-0.51045135	FALSE
PARK2	0.764804	0.08800885	FALSE
PARK7	0.019534	0.61386176	FALSE
PARL	0.875366	-0.04620465	FALSE
PARM1	0.875366	0.04620465	FALSE
PARN	0.242521	-0.33443365	FALSE
PARP1	0.31379	-0.29042922	FALSE
PARP10	0.764804	0.08800885	FALSE
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PARP12	0.276799	0.31243143	FALSE
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PARP16	0.269725	-0.31683187	FALSE
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PARPBP	0.982133	-0.00660066	FALSE
PARS2	0.70252	-0.11221129	FALSE
PARVA	0.572919	-0.1650166	FALSE
PARVB	0.016883	0.62486286	FALSE
PARVG	0.242521	0.33443365	FALSE
PASK	0.547224	-0.17601771	FALSE
PATE2	0.805166	0.0726073	FALSE
PATE4	0.182124	-0.37843807	FALSE
PATJ	0.036852	0.56105645	FALSE
PATL1	0.255905	-0.32563276	FALSE
PATL2	0.382774	0.25302546	FALSE
PATZ1	0.370053	-0.25962612	FALSE
PAWR	0.136894	0.41804206	FALSE
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PAXBP1	0.010901	-0.65566596	FALSE
PAXIP1	0.010201	-0.66006641	FALSE
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PBK	0.170826	0.3876652	FALSE
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PBOV1	1	0	FALSE
PBRM1	0.512111	-0.19141926	FALSE
PBX1	0.333291	-0.27942811	FALSE
PBX2	0.431353	-0.22882302	FALSE
PBX3	0.132385	0.4224425	FALSE
PBX4	0.378508	0.25522568	FALSE
PBXIP1	0.226404	-0.34543475	FALSE
PC	0.049979	0.53245357	FALSE
PCBD1	0.378508	0.25522568	FALSE
PCBD2	0.337271	-0.27722789	FALSE
PCBP1	0.014515	0.63586397	FALSE
PCBP2	0.552323	-0.17381749	FALSE
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PCBP3	0.669238	-0.12541262	FALSE
PCBP4	0.196209	0.36743697	FALSE
PCCA	0.669238	0.12541262	FALSE
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PCGF1	0.56774	0.16721682	FALSE
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PCIF1	0.468529	0.21122125	FALSE
PCK2	0.572919	0.1650166	FALSE
PCLO	0.005987	0.69311874	FALSE
PCM1	0.022488	-0.60286065	FALSE
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PCMTD1	0.067601	-0.50165047	FALSE
PCMTD2	0.039624	-0.55445578	FALSE
PCNA	0.395723	0.24642479	FALSE
PCNP	0.226404	-0.34543475	FALSE
PCNPP1	0.408899	-0.23982413	FALSE
PCNT	0.08757	-0.47304759	FALSE
PCNX1	0.242521	-0.33443365	FALSE
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PCP4L1	0.110875	-0.44496112	FALSE
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PCYT2	0.449752	0.22002214	FALSE
PDAP1	0.869477	0.04840487	FALSE
PDCD1	0.229572	0.34323453	FALSE
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PDCL	0.08757	-0.47304759	FALSE
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PDCL3P5	0.934258	-0.02430953	FALSE
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PDF	0.636511	0.13861395	FALSE
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PDGFD	0.014205	0.6374068	FALSE
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PDHB	0.522038	0.18701882	FALSE
PDHX	0.753369	-0.0924093	FALSE
PDIA2	0.532849	0.18226885	FALSE
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PDXP	0.816786	-0.06820686	FALSE
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PDZK1IP1	0.107494	0.44876502	FALSE
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PELP1	0.669238	-0.12541262	FALSE
PEMT	0.052265	-0.52805312	FALSE
PENK	0.096648	0.46155363	FALSE
PEPD	0.431353	0.22882302	FALSE
PER1	0.79937	0.07480753	FALSE
PER2	0.527033	-0.18481859	FALSE
PER3	0.719353	0.10561062	FALSE
PERM1	0.129518	0.42529399	FALSE
PERP	0.069009	0.49945025	FALSE
PES1	0.952376	-0.01760177	FALSE
PET100	0.214	0.35423564	FALSE
PET117	0.395723	0.24642479	FALSE
PEX1	0.00028	-0.82508301	TRUE

PEX10	0.119462	0.43564383	FALSE
PEX11A	0.361702	-0.26402656	FALSE
PEX11B	0.15845	-0.39824006	FALSE
PEX11G	0.210967	0.35643586	FALSE
PEX12	0.127978	-0.42684294	FALSE
PEX13	0.361702	-0.26402656	FALSE
PEX14	0.136894	-0.41804206	FALSE
PEX16	0.302409	0.29702988	FALSE
PEX19	0.422298	0.23322346	FALSE
PEX2	0.026463	0.58965932	FALSE
PEX26	0.934547	-0.02420243	FALSE
PEX3	0.038684	-0.556656	FALSE
PEX5	0.78204	-0.08140819	FALSE
PEX5L	0.426813	-0.23102324	FALSE
PEX6	0.395723	-0.24642479	FALSE
PEX7	0.245826	0.33223342	FALSE
PF4	0.158962	0.39779224	FALSE
PF4V1	0.406468	-0.24103356	FALSE
PFAS	0.863593	-0.05060509	FALSE
PFDN1	0.391381	0.24862501	FALSE
PFDN2	0.994044	-0.00220022	FALSE
PFDN4	0.027173	-0.5874591	FALSE
PFDN5	0.459093	0.21562169	FALSE
PFDN6	0.0201	0.61166154	FALSE
PFKFB1	0.030941	0.57645799	FALSE
PFKFB2	0.976179	0.00880089	FALSE
PFKFB3	0.051113	-0.53025335	FALSE
PFKFB4	0.171338	0.38723896	FALSE
PFKL	0.793583	0.07700775	FALSE
PFKM	0.004213	0.71287172	TRUE
PFKP	0.01543	-0.63146353	FALSE
PFN1	0.054627	0.52365268	FALSE
PFN1P2	0.127978	0.42684294	FALSE
PFN1P8	0.122461	0.43249738	FALSE
PFN2	0.764804	0.08800885	FALSE
PFN4	0.571198	0.16574677	FALSE
PGA3	0.204983	0.3608363	FALSE
PGA4	0.204412	-0.36126023	FALSE
PGA5	0.942031	0.02143069	FALSE
PGAM1	0.023117	0.60066043	FALSE
PGAM1P1C	0.642268	-0.13627419	FALSE
PGAM1P11	0.153479	0.40264051	FALSE
PGAM1P2	0.727745	0.10233741	FALSE
PGAM1P5	0.609698	0.14961505	FALSE
PGAM1P6	0.265674	0.31938326	FALSE
PGAM1P7	0.426813	-0.23102324	FALSE
PGAM2	0.361154	0.26431718	FALSE
PGAM4	0.251445	0.32853398	FALSE

PGAM5	0.269725	0.31683187	FALSE
PGAP1	0.593824	0.15621572	FALSE
PGAP2	0.337271	-0.27722789	FALSE
PGAP3	0.583333	-0.16061616	FALSE
PGBD1	0.013643	-0.64026441	FALSE
PGBD2	0.047766	-0.53685401	FALSE
PGBD4	0.214	-0.35423564	FALSE
PGBD4P1	0.010784	-0.65638767	FALSE
PGBD5	0.537087	0.18041815	FALSE
PGC	0.770539	-0.08580863	FALSE
PGD	0.631114	-0.14081417	FALSE
PGF	0.440504	0.22442258	FALSE
PGGHG	0.599097	-0.15401549	FALSE
PGGT1B	0.055836	0.52145246	FALSE
PGK1	0.459093	0.21562169	FALSE
PGK1P2	0.278141	0.31160392	FALSE
PGLS	0.40009	0.24422457	FALSE
PGLYRP1	0.994037	0.00220264	FALSE
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PGM2	0.014515	-0.63586397	FALSE
PGM2L1	0.202031	-0.36303652	FALSE
PGM3	0.840128	0.05940598	FALSE
PGM5	0.404482	0.24202435	FALSE
PGM5P2	0.887164	-0.04180421	FALSE
PGP	0.127978	0.42684294	FALSE
PGPEP1	0.002516	0.73927437	TRUE
PGPEP1L	0.430832	0.22907489	FALSE
PGRMC1	0.898983	-0.03740376	FALSE
PGRMC2	0.970226	-0.01100111	FALSE
PGS1	0.370053	0.25962612	FALSE
PHACTR1	0.291271	0.30363055	FALSE
PHACTR2	0.096246	0.46204648	FALSE
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PHAX	0.121554	-0.43344361	FALSE
PHB	0.863593	0.05060509	FALSE
PHB2	0.413341	-0.23762391	FALSE
PHBP19	0.663743	0.12761284	FALSE
PHBP2	0.158726	-0.39799855	FALSE
PHBP7	0.006361	-0.6895592	FALSE
PHBP9	0.88074	0.04419914	FALSE
PHC1	0.02939	0.58085844	FALSE
PHC1P1	0.578116	-0.16281638	FALSE
PHC2	0.593824	-0.15621572	FALSE
PHC3	0.724991	-0.1034104	FALSE
PHEX	0.440504	0.22442258	FALSE
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PHF12	0.08757	-0.47304759	FALSE
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PHF19	0.542145	0.17821793	FALSE
PHF2	0.171338	-0.38723896	FALSE
PHF20	0.127978	0.42684294	FALSE
PHF20L1	0.468529	-0.21122125	FALSE
PHF21A	0.066213	-0.50385069	FALSE
PHF21B	1	0	FALSE
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PHF24	0.101729	0.45544582	FALSE
PHF3	0.00577	-0.69526995	FALSE
PHF5A	0.604388	0.15181527	FALSE
PHF5CP	0.395187	-0.24669604	FALSE
PHF6	0.527033	-0.18481859	FALSE
PHF7	0.588569	0.15841594	FALSE
PHF8	0.101729	-0.45544582	FALSE
PHGDH	0.325411	-0.28382855	FALSE
PHGR1	0.655543	-0.13090815	FALSE
PHIP	0.034225	-0.56765711	FALSE
PHKA1	0.708117	0.11001107	FALSE
PHKA1P1	0.176678	-0.38283852	FALSE
PHKA2	0.426813	0.23102324	FALSE
PHKB	0.048864	-0.53465379	FALSE
PHKG1	0.669238	0.12541262	FALSE
PHKG1P2	0.917444	0.03054422	FALSE
PHKG2	0.92861	-0.02640266	FALSE
PHLDA1	0.111339	0.44444471	FALSE
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PHLDB1	0.259319	0.32343254	FALSE
PHLDB2	0.730641	-0.10121018	FALSE
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PHLPP1	0.353453	0.26842701	FALSE
PHLPP2	0.283981	0.30803099	FALSE
PHOSPHO1	0.348817	0.27092511	FALSE
PHOSPHO2	0.34531	0.27282745	FALSE
PHOX2A	0.258065	-0.3242386	FALSE
PHPT1	0.83428	-0.0616062	FALSE
PHRF1	0.674747	0.1232124	FALSE
PHTF1	0.435916	0.2266228	FALSE
PHTF2	0.94643	0.01980199	FALSE
PHYH	0.079456	0.4840487	FALSE
PHYHD1	6.58E-05	-0.86468699	TRUE
PHYHIP	0.49741	-0.1980077	FALSE
PHYKPL	0.374268	0.2574259	FALSE

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PI16	0.237908	0.33753492	FALSE
PI3	0.552208	-0.17386707	FALSE
PI4K2A	0.53205	0.18261837	FALSE
PI4K2B	0.810971	0.07040708	FALSE
PI4KA	0.893071	-0.03960398	FALSE
PI4KAP1	0.562581	0.16941704	FALSE
PI4KAP2	0.378508	0.25522568	FALSE
PI4KB	0.562581	0.16941704	FALSE
PIANP	0.072984	-0.49340656	FALSE
PIAS1	0.220147	-0.3498352	FALSE
PIAS2	0.034225	-0.56765711	FALSE
PIAS3	0.266229	-0.3190321	FALSE
PIAS4	0.583333	0.16061616	FALSE
PIBF1	0.073359	-0.49284958	FALSE
PICALM	0.413341	-0.23762391	FALSE
PICK1	0.417807	0.23542368	FALSE
PID1	0.002895	0.73237885	TRUE
PIDD1	0.287612	0.30583077	FALSE
PIEZO1	0.83428	0.0616062	FALSE
PIEZO2	0.473281	-0.20902103	FALSE
PIF1	0.964274	0.01320133	FALSE
PIFO	0.57249	-0.16519824	FALSE
PIGA	0.810971	0.07040708	FALSE
PIGB	0.468529	0.21122125	FALSE
PIGBOS1	0.337271	0.27722789	FALSE
PIGC	0.435916	0.2266228	FALSE
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PIGF	0.952376	0.01760177	FALSE
PIGG	0.387065	-0.25082523	FALSE
PIGH	0.341277	-0.27502767	FALSE
PIGHP1	0.231311	0.34203538	FALSE
PIGK	0.522038	-0.18701882	FALSE
PIGL	0.875366	-0.04620465	FALSE
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PIGN	0.620371	0.14521461	FALSE
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PIGS	0.604388	0.15181527	FALSE
PIGT	0.805166	0.0726073	FALSE
PIGU	0.970226	-0.01100111	FALSE
PIGV	0.084258	0.47744803	FALSE
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PIK3C2A	0.840128	0.05940598	FALSE
PIK3C2B	0.79937	0.07480753	FALSE
PIK3C2G	0.440504	-0.22442258	FALSE
PIK3C3	0.096246	-0.46204648	FALSE
PIK3CA	0.445116	-0.22222236	FALSE
PIK3CB	0.31379	0.29042922	FALSE
PIK3CD	0.497383	0.19801992	FALSE
PIK3CG	0.349368	-0.27062723	FALSE
PIK3IP1	0.685812	0.11881195	FALSE
PIK3R1	0.012811	-0.64466486	FALSE
PIK3R2	0.810971	0.07040708	FALSE
PIK3R3	0.042548	0.54785512	FALSE
PIK3R4	0.023117	-0.60066043	FALSE
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PILRA	0.691367	0.11661173	FALSE
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PIM3	0.730641	-0.10121018	FALSE
PIN1	0.916747	0.0308031	FALSE
PIN4	0.685812	0.11881195	FALSE
PINK1	0.641924	-0.13641372	FALSE
PINLYP	0.4638	0.21342147	FALSE
PINX1	0.016883	-0.62486286	FALSE
PIP4K2A	0.193338	0.36963719	FALSE
PIP4K2B	0.007207	-0.68206862	FALSE
PIP4K2C	0.000103	0.85368589	TRUE
PIP5K1A	0.163526	-0.39383962	FALSE
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PIP5K1C	0.845984	-0.05720576	FALSE
PIP5KL1	0.851846	-0.05500553	FALSE
PIPOX	0.593824	-0.15621572	FALSE
PIPSL	0.512111	-0.19141926	FALSE
PIR	0.0779	0.48624892	FALSE
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PITPNA	0.449752	0.22002214	FALSE
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PITPNM1	0.387065	-0.25082523	FALSE
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PKD1L3	0.449752	0.22002214	FALSE
PKD1P1	0.333291	0.27942811	FALSE
PKD1P5	0.724991	-0.1034104	FALSE
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PKD2	0.155952	-0.40044029	FALSE
PKD2L1	0.201498	0.36343612	FALSE
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PKHD1	0.099878	0.45764604	FALSE
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PKIA	0.916747	0.0308031	FALSE
PKIB	0.245826	0.33223342	FALSE
PKIG	0.816786	0.06820686	FALSE
PKLR	0.612359	0.14851536	FALSE
PKM	0.101729	0.45544582	FALSE
PKMP1	0.210245	0.35696262	FALSE
PKMP3	0.039624	-0.55445578	FALSE
PKMP5	0.656524	0.1305135	FALSE
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PKN1	0.202031	0.36303652	FALSE
PKN2	0.074851	-0.49064936	FALSE
PKN3	0.417807	-0.23542368	FALSE
PKNOX1	0.235992	0.33883409	FALSE
PKNOX2	0.685812	-0.11881195	FALSE
PKP2	0.021269	0.60726109	FALSE
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PKP4	0.018439	-0.6182622	FALSE
PLA1A	0.822416	-0.0660793	FALSE
PLA2G10	0.679938	-0.12114537	FALSE
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PLA2G1B	0.033864	-0.56859232	FALSE
PLA2G2C	0.588569	-0.15841594	FALSE
PLA2G2D	0.79937	0.07480753	FALSE

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PLA2G4B	0.0779	-0.48624892	FALSE
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PLA2G4D	0.226404	0.34543475	FALSE
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PLA2G5	0.946372	-0.01982379	FALSE
PLA2G6	0.337271	-0.27722789	FALSE
PLA2G7	0.0779	0.48624892	FALSE
PLA2R1	0.845984	0.05720576	FALSE
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PLAC8	0.440504	0.22442258	FALSE
PLAC8L1	0.081035	-0.48184848	FALSE
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PLAG1	0.210967	0.35643586	FALSE
PLAGL1	0.449752	-0.22002214	FALSE
PLAGL2	0.29867	0.2992301	FALSE
PLAT	0.730641	-0.10121018	FALSE
PLAU	0.522038	0.18701882	FALSE
PLAUR	0.952376	-0.01760177	FALSE
PLB1	0.042548	0.54785512	FALSE
PLBD1	0.417807	0.23542368	FALSE
PLBD2	0.071888	0.4950498	FALSE
PLCB1	0.000369	-0.81628212	TRUE
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PLCB4	0.01372	0.63986784	FALSE
PLCD1	0.94643	-0.01980199	FALSE
PLCD3	0.15845	0.39824006	FALSE
PLCD4	0.724991	0.1034104	FALSE
PLCE1	0.674747	-0.1232124	FALSE
PLCG1	0.103603	-0.4532456	FALSE
PLCG2	0.12367	0.43124339	FALSE
PLCH1	0.000873	-0.78535638	TRUE
PLCH2	0.620371	0.14521461	FALSE
PLCL1	0.863593	0.05060509	FALSE
PLCL2	0.776284	-0.08360841	FALSE
PLCXD1	0.204983	-0.3608363	FALSE
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PLD1	0.881262	0.04400443	FALSE
PLD2	0.026463	0.58965932	FALSE
PLD3	0.468529	0.21122125	FALSE
PLD4	0.163526	0.39383962	FALSE
PLD5	0.287612	0.30583077	FALSE
PLD6	0.113334	0.44224449	FALSE
PLEC	0.016388	0.62706309	FALSE
PLEK	0.071888	0.4950498	FALSE

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PLEKHH1	0.294957	0.30143033	FALSE
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PLEKHJ1	0.085903	0.47524781	FALSE
PLEKHM1	0.863593	-0.05060509	FALSE
PLEKHM1P	0.027898	-0.58525888	FALSE
PLEKHM2	0.127978	0.42684294	FALSE
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PLEKHN1	0.144543	0.41079295	FALSE
PLEKHO1	0.440504	-0.22442258	FALSE
PLEKHO2	0.01898	0.61606198	FALSE
PLEKHS1	0.56774	-0.16721682	FALSE
PLG	0.132385	-0.4224425	FALSE
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PLGLB1	0.283981	-0.30803099	FALSE
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PLGRKT	0.50718	0.19361948	FALSE
PLIN1	0.025766	-0.59185954	FALSE
PLIN2	0.21706	0.35203542	FALSE
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PLIN4	0.609698	-0.14961505	FALSE
PLIN5	0.940487	0.02200221	FALSE
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PLK3	0.497383	0.19801992	FALSE
PLK4	0.680272	-0.12101217	FALSE
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PLLP	0.337271	-0.27722789	FALSE
PLN	0.736305	-0.09900996	FALSE
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PLOD3	0.719353	-0.10561062	FALSE
PLP2	0.810971	-0.07040708	FALSE
PLPP1	0.094465	-0.46424671	FALSE
PLPP2	0.468529	0.21122125	FALSE
PLPP3	0.487675	0.20242036	FALSE
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PLPP7	0.285896	0.30686844	FALSE
PLPPR2	0.016883	0.62486286	FALSE
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PLRG1	0.753369	-0.0924093	FALSE
PLS1	0.431353	-0.22882302	FALSE
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PLSCR1	0.805166	-0.0726073	FALSE
PLSCR2	0.163526	-0.39383962	FALSE
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PLTP	0.669238	0.12541262	FALSE
PLVAP	0.076365	0.48844914	FALSE
PLXDC1	0.459093	0.21562169	FALSE
PLXDC2	0.435916	0.2266228	FALSE
PLXNA1	0.092707	0.46644693	FALSE
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PLXNA3	0.70252	0.11221129	FALSE
PLXNA4	0.952376	0.01760177	FALSE
PLXNB1	0.173995	0.38503874	FALSE
PLXNB2	0.166104	0.3916394	FALSE
PLXNB3	0.134627	0.42024228	FALSE
PLXNC1	0.759081	0.09020908	FALSE
PLXND1	0.696936	0.11441151	FALSE
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PM20D2	0.000112	-0.85148566	TRUE
PMAIP1	0.276799	-0.31243143	FALSE
PMCH	0.499879	-0.1968953	FALSE
PMCHL1	0.002192	0.74587504	TRUE
PMCHL2	0.45706	0.21657578	FALSE
PMEL	0.10937	-0.44664493	FALSE
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PMF1	0.317637	-0.288229	FALSE
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PMFBP1	0.482854	-0.20462059	FALSE

PML	0.759081	0.09020908	FALSE
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PMVK	0.232769	0.34103431	FALSE
PNCK	0.435916	-0.2266228	FALSE
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PNKD	0.094465	-0.46424671	FALSE
PNKP	0.01241	0.64686508	FALSE
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PNLIPP1	0.287612	0.30583077	FALSE
PNLIPRP1	0.770539	-0.08580863	FALSE
PNMA1	0.647355	-0.1342135	FALSE
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PNMA3	0.154216	0.40198238	FALSE
PNMA5	0.342758	-0.27421812	FALSE
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PNMAL1	0.982133	0.00660066	FALSE
PNMAL2	0.463048	-0.21377211	FALSE
PNMT	0.214891	0.3535931	FALSE
PNN	0.408899	0.23982413	FALSE
PNO1	0.793583	0.07700775	FALSE
PNOC	0.431353	0.22882302	FALSE
PNP	0.103603	0.4532456	FALSE
PNPLA1	0.21706	0.35203542	FALSE
PNPLA2	0.647355	-0.1342135	FALSE
PNPLA3	0.229572	0.34323453	FALSE
PNPLA4	0.647355	0.1342135	FALSE
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PNPLA7	0.084258	-0.47744803	FALSE
PNPLA8	0.663743	0.12761284	FALSE

PNPO	0.468028	0.21145374	FALSE
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POC1B	0.822609	-0.06600664	FALSE
POC1B-GAL	0.325411	-0.28382855	FALSE
POC5	0.875366	-0.04620465	FALSE
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POF1B	0.537087	-0.18041815	FALSE
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POLA2	0.15845	0.39824006	FALSE
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POLD4	0.000243	0.82948345	TRUE
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POLE4	0.245826	0.33223342	FALSE
POLG	0.620371	0.14521461	FALSE
POLG2	0.148612	-0.40704095	FALSE
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POLI	0.522038	-0.18701882	FALSE
POLK	0.287612	0.30583077	FALSE
POLL	0.473281	0.20902103	FALSE
POLM	0.130169	0.42464272	FALSE
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POLR1A	0.182124	-0.37843807	FALSE
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POLR1C	0.952376	-0.01760177	FALSE
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POLR2A	0.708117	0.11001107	FALSE
POLR2B	0.063499	-0.50825113	FALSE

POLR2C	0.898983	0.03740376	FALSE
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POLR2F	0.210967	-0.35643586	FALSE
POLR2G	0.341277	0.27502767	FALSE
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POLR2KP1	0.009112	-0.66740698	FALSE
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POLR2M	0.280376	-0.31023121	FALSE
POLR3A	0.023759	-0.59846021	FALSE
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POLR3K	0.349368	0.27062723	FALSE
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POP1	0.988088	0.00440044	FALSE
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PPAN-P2RY	0.107424	-0.44884516	FALSE
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PPAT	0.557442	-0.17161727	FALSE
PPBP	0.53205	0.18261837	FALSE
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PPCDC	0.647355	0.1342135	FALSE
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PPP2CB	0.56774	0.16721682	FALSE
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PPP2R2A	0.497383	0.19801992	FALSE

PPP2R2B	0.29867	-0.2992301	FALSE
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PRAF2	0.736305	-0.09900996	FALSE
PRAM1	0.255905	-0.32563276	FALSE
PRAME	0.665736	-0.12681392	FALSE
PRAMEF1	0.800663	-0.07431645	FALSE
PRAMENP	0.638172	-0.13793795	FALSE
PRAP1	0.0779	0.48624892	FALSE
PRC1	0.306176	0.29482966	FALSE
PRCC	0.449752	-0.22002214	FALSE
PRCD	0.730641	-0.10121018	FALSE

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PRDM2	0.658264	0.12981306	FALSE
PRDM4	0.337271	0.27722789	FALSE
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PRDM7	0.747669	0.09460952	FALSE
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PRDX4	0.512111	0.19141926	FALSE
PRDX5	0.119462	0.43564383	FALSE
PRDX6	0.060866	-0.51265158	FALSE
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PRELID1P1	0.753369	0.0924093	FALSE
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PRELID2	0.92861	-0.02640266	FALSE
PRELID2P1	0.159724	0.3971278	FALSE
PRELID3A	0.663743	0.12761284	FALSE
PRELID3B	0.952376	0.01760177	FALSE
PRELID3BP	0.673368	-0.1237628	FALSE
PRELID3BP	0.841903	-0.05873888	FALSE
PRELP	0.875366	0.04620465	FALSE
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PREPL	0.395723	0.24642479	FALSE
PREX1	0.604388	0.15181527	FALSE
PREX2	0.537087	-0.18041815	FALSE
PRF1	0.863593	0.05060509	FALSE
PRG2	0.020678	0.60946131	FALSE
PRG3	0.783087	0.08100838	FALSE
PRH1	0.017781	-0.62099789	FALSE
PRH1-PRR4	0.88074	-0.04419914	FALSE
PRICKLE1	0.189445	0.37265494	FALSE
PRICKLE3	0.982133	-0.00660066	FALSE
PRICKLE4	0.130169	0.42464272	FALSE
PRIM1	0.599097	0.15401549	FALSE
PRIM2	0.615026	0.14741483	FALSE

PRIMPOL	0.604388	0.15181527	FALSE
PRKAA1	0.055836	-0.52145246	FALSE
PRKAA2	0.440504	0.22442258	FALSE
PRKAB1	0.283981	-0.30803099	FALSE
PRKAB2	0.787807	0.07920797	FALSE
PRKACA	0.663743	0.12761284	FALSE
PRKACB	0.652801	0.13201328	FALSE
PRKAG1	0.70252	0.11221129	FALSE
PRKAG2	0.741981	-0.09680974	FALSE
PRKAR1A	0.816786	0.06820686	FALSE
PRKAR1B	0.333291	-0.27942811	FALSE
PRKAR2A	0.604388	0.15181527	FALSE
PRKAR2B	0.003422	0.72387283	TRUE
PRKCA	0.4638	0.21342147	FALSE
PRKCB	0.994044	-0.00220022	FALSE
PRKCD	0.022488	0.60286065	FALSE
PRKCDBP	0.057015	0.51933987	FALSE
PRKCE	0.182124	-0.37843807	FALSE
PRKCG	0.976179	-0.00880089	FALSE
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PRKCI	0.011636	-0.65126552	FALSE
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PRKCSH	0.685812	-0.11881195	FALSE
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PRKDC	0.273248	-0.31463165	FALSE
PRKG1	0.181637	0.37882803	FALSE
PRKG2	0.583333	-0.16061616	FALSE
PRKRA	0.220147	-0.3498352	FALSE
PRKRIP1	0.168708	-0.38943918	FALSE
PRKX	0.069009	-0.49945025	FALSE
PRKXP1	0.552323	0.17381749	FALSE
PRKY	0.276799	0.31243143	FALSE
PRL	0.058267	0.51712991	FALSE
PRLHR	0.349368	-0.27062723	FALSE
PRLR	0.007207	0.68206862	FALSE
PRMT1	0.160975	-0.39603984	FALSE
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PRMT2	0.680272	0.12101217	FALSE
PRMT3	0.090972	-0.46864715	FALSE
PRMT5	0.229572	-0.34323453	FALSE
PRMT6	0.190494	-0.37183741	FALSE
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PRND	0.547224	-0.17601771	FALSE

PRNP	0.583333	-0.16061616	FALSE
PROB1	0.130169	-0.42464272	FALSE
PROC	0.014515	-0.63586397	FALSE
PROCA1	0.663743	0.12761284	FALSE
PROCR	0.426813	-0.23102324	FALSE
PRODH	0.210967	-0.35643586	FALSE
PRODH2	0.258765	-0.32378855	FALSE
PROK1	0.898474	-0.03759288	FALSE
PROK2	0.615026	0.14741483	FALSE
PROKR1	0.787578	0.07929515	FALSE
PROM1	0.53205	-0.18261837	FALSE
PROM2	0.631114	-0.14081417	FALSE
PRORS1P	0.609698	-0.14961505	FALSE
PRORY	0.477561	0.20704846	FALSE
PROS1	0.171338	0.38723896	FALSE
PROSC	0.179388	-0.38063829	FALSE
PROSER1	0.01241	-0.64686508	FALSE
PROSER2	0.487675	-0.20242036	FALSE
PROSER3	0.262761	0.32123232	FALSE
PROX1	0.904899	0.03520354	FALSE
PROX2	0.916747	0.0308031	FALSE
PROZ	0.668656	0.12564516	FALSE
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PRPF38A	0.422298	0.23322346	FALSE
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PRPSAP2	0.34531	0.27282745	FALSE
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PRR12	0.4638	-0.21342147	FALSE
PRR13	0.034225	0.56765711	FALSE
PRR13P2	0.512111	-0.19141926	FALSE
PRR13P5	0.835407	-0.06118215	FALSE
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PRRC1	0.357565	-0.26622678	FALSE
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PRRC2C	0.994044	-0.00220022	FALSE
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PRRG2	0.8341	-0.06167401	FALSE
PRRG3	0.163526	0.39383962	FALSE
PRRG4	0.014967	0.63366375	FALSE
PRRT1	0.027173	-0.5874591	FALSE
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PRRT4	0.064846	-0.50605091	FALSE
PRRX2	0.97362	0.00974642	FALSE
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PSD	0.845984	-0.05720576	FALSE
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PSMA1	0.34531	-0.27282745	FALSE
PSMA2	0.910821	-0.03300332	FALSE
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PSMA4	0.413341	0.23762391	FALSE
PSMA5	0.136894	0.41804206	FALSE
PSMA6	0.56774	0.16721682	FALSE
PSMA6P1	0.462301	-0.21412089	FALSE
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PSMB3	0.713728	0.10781085	FALSE
PSMB4	0.141504	0.41364161	FALSE
PSMB5	0.12367	0.43124339	FALSE
PSMB6	0.83428	0.0616062	FALSE
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PSMC4	0.171338	0.38723896	FALSE
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PSMC6	0.770539	0.08580863	FALSE
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PSME2	0.082635	0.47964826	FALSE
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PSME3	0.220147	0.3498352	FALSE
PSME4	0.34531	-0.27282745	FALSE
PSMF1	0.881262	-0.04400443	FALSE
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PSPH	0.502271	-0.1958197	FALSE
PSPHP1	0.458239	0.21602235	FALSE
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PSRC1	0.059579	0.5148518	FALSE
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PTBP1	0.527033	0.18481859	FALSE
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PTGER1	0.47762	-0.20702141	FALSE
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PTP4A2	0.857716	0.05280531	FALSE
PTP4A2P1	0.994018	-0.00220996	FALSE
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PTRHD1	0.708117	-0.11001107	FALSE
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PUF60	0.422298	0.23322346	FALSE
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PVR	0.32151	0.28602878	FALSE
PVRIG	0.636511	-0.13861395	FALSE
PVRIG2P	0.912199	-0.03249161	FALSE
PWP1	0.958324	0.01540155	FALSE
PWP2	0.204983	0.3608363	FALSE
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PXDC1	0.691367	-0.11661173	FALSE
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PXYLP1	0.266229	-0.3190321	FALSE

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PYGL	0.223262	-0.34763497	FALSE
PYGM	0.010201	-0.66006641	FALSE
PYGO1	0.583333	-0.16061616	FALSE
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PYHIN1	0.134627	-0.42024228	FALSE
PYM1	0.132385	0.4224425	FALSE
PYROXD1	0.058312	0.51705202	FALSE
PYROXD2	0.685812	-0.11881195	FALSE
PYURF	0.562581	-0.16941704	FALSE
PYY	0.344758	-0.27312775	FALSE
PYY2	0.353453	-0.26842701	FALSE
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QDPR	0.56774	0.16721682	FALSE
QKI	0.4638	-0.21342147	FALSE
QPCT	0.869477	0.04840487	FALSE
QPCTL	0.875366	0.04620465	FALSE
QPRT	0.325411	-0.28382855	FALSE
QRFP	0.811831	-0.07008138	FALSE
QRICH1	0.249158	-0.3300332	FALSE
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QSOX2	0.210967	-0.35643586	FALSE
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R3HDM1	0.196209	-0.36743697	FALSE
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RAB12	0.259319	0.32343254	FALSE
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RAB23	0.199106	0.36523674	FALSE
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RAB33B	0.163526	-0.39383962	FALSE
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RAB5B	0.910821	-0.03300332	FALSE
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RAB6B	0.631114	-0.14081417	FALSE
RAB6C	0.937394	-0.02314775	FALSE
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RAB7B	0.255905	-0.32563276	FALSE
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RAB9A	0.046687	0.53905423	FALSE
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RAC3	0.787807	0.07920797	FALSE
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RAD1	0.445116	0.22222236	FALSE
RAD17	0.440504	-0.22442258	FALSE
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RAD21	0.317637	-0.288229	FALSE
RAD23A	0.220147	0.3498352	FALSE
RAD23B	0.34531	-0.27282745	FALSE
RAD23BP1	0.776284	0.08360841	FALSE
RAD50	0.487675	-0.20242036	FALSE
RAD51	0.317637	0.288229	FALSE
RAD51AP1	0.53205	0.18261837	FALSE
RAD51B	0.058312	0.51705202	FALSE

RAD51C	0.079456	-0.4840487	FALSE
RAD51D	0.593824	0.15621572	FALSE
RAD51L3-R	0.091615	-0.46782815	FALSE
RAD52	0.599097	-0.15401549	FALSE
RAD54B	0.56774	0.16721682	FALSE
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RAD54L2	0.497383	-0.19801992	FALSE
RAD9A	0.875366	0.04620465	FALSE
RAD9B	0.29867	0.2992301	FALSE
RADIL	0.076365	-0.48844914	FALSE
RAE1	0.940487	-0.02200221	FALSE
RAET1E	0.408899	0.23982413	FALSE
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RAET1K	0.115352	0.44004427	FALSE
RAF1	0.502271	-0.1958197	FALSE
RAG1	0.039624	-0.55445578	FALSE
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RAI1	0.378508	-0.25522568	FALSE
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RAVER2	0.016388	-0.62706309	FALSE
RAX2	0.391381	-0.24862501	FALSE
RB1	0.269725	-0.31683187	FALSE
RB1CC1	0.333291	-0.27942811	FALSE
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RBBP4	0.497383	-0.19801992	FALSE
RBBP4P1	0.117395	-0.43784405	FALSE
RBBP4P2	0.916835	0.03077024	FALSE
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RBBP5	0.522038	-0.18701882	FALSE
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RBCK1	0.691367	-0.11661173	FALSE
RBFA	0.652801	0.13201328	FALSE
RBFOX2	0.349368	0.27062723	FALSE
RBFOX3	0.143848	0.41144139	FALSE
RBKS	0.934547	0.02420243	FALSE
RBL1	0.374268	0.2574259	FALSE
RBL2	0.391381	-0.24862501	FALSE
RBM10	0.787807	-0.07920797	FALSE
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RBM12B	0.631114	0.14081417	FALSE
RBM14	0.636511	0.13861395	FALSE
RBM14-RBI	0.747669	0.09460952	FALSE
RBM15	0.970226	0.01100111	FALSE
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RBM17	0.08757	-0.47304759	FALSE
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RBM34	0.168708	-0.38943918	FALSE
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RBM4	0.232769	0.34103431	FALSE
RBM41	0.269725	-0.31683187	FALSE
RBM42	0.776284	0.08360841	FALSE
RBM43	0.893071	0.03960398	FALSE
RBM44	0.810971	-0.07040708	FALSE
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RBM47	0.242521	0.33443365	FALSE
RBM48	0.210967	-0.35643586	FALSE
RBM4B	0.658264	0.12981306	FALSE
RBM5	0.151032	-0.40484073	FALSE
RBM6	0.283981	-0.30803099	FALSE
RBM7	0.609698	-0.14961505	FALSE
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RBMS2	0.01898	-0.61606198	FALSE
RBMS2P1	0.829418	-0.06343799	FALSE
RBMS3	0.658264	0.12981306	FALSE
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RBMX2	0.179388	-0.38063829	FALSE
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RBMXL1	0.840128	0.05940598	FALSE
RBMXP2	0.512304	0.19133328	FALSE
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RBP4	0.730594	0.10122865	FALSE
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RC3H1	0.31379	-0.29042922	FALSE
RC3H2	0.29867	-0.2992301	FALSE
RCAN1	0.011264	0.65346574	FALSE
RCAN2	0.04063	0.55214544	FALSE
RCAN3	0.982133	-0.00660066	FALSE
RCBTB1	0.08926	-0.47084737	FALSE
RCBTB2	0.229572	0.34323453	FALSE
RCC1	0.184888	-0.37623785	FALSE
RCC1L	0.179388	0.38063829	FALSE
RCC2	0.01898	-0.61606198	FALSE
RCC2P6	0.155952	-0.40044029	FALSE
RCCD1	0.280376	0.31023121	FALSE
RCE1	0.572919	0.1650166	FALSE
RCHY1	0.482854	0.20462059	FALSE
RCL1	0.851846	-0.05500553	FALSE
RCN1	0.361702	-0.26402656	FALSE
RCN1P2	0.910821	-0.03300332	FALSE
RCN2	0.081035	-0.48184848	FALSE
RCN3	0.0779	0.48624892	FALSE
RCOR1	0.910821	0.03300332	FALSE
RCOR2	0.560828	-0.17016668	FALSE
RCOR3	0.020678	-0.60946131	FALSE
RCSD1	0.898983	0.03740376	FALSE
RCVRN	0.187678	-0.37403763	FALSE
RD3	0.269725	0.31683187	FALSE
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RDH5	0.92861	0.02640266	FALSE
RDH8	0.857093	0.05303897	FALSE
RDM1	0.83428	0.0616062	FALSE
RDX	0.193338	0.36963719	FALSE
REC8	0.141504	0.41364161	FALSE
RECK	0.887164	0.04180421	FALSE
RECQL	0.066213	0.50385069	FALSE
RECQL4	0.70252	0.11221129	FALSE
RECQL5	0.70252	0.11221129	FALSE
REEP2	0.887164	0.04180421	FALSE
REEP3	0.071888	0.4950498	FALSE
REEP4	0.349368	-0.27062723	FALSE
REEP5	0.053437	-0.5258529	FALSE
REEP6	0.537087	0.18041815	FALSE

REG4	0.04968	0.53303965	FALSE
REL	0.776284	0.08360841	FALSE
RELA	0.970226	-0.01100111	FALSE
RELB	0.822609	0.06600664	FALSE
RELL1	0.002091	-0.74807526	TRUE
RELL2	0.049979	0.53245357	FALSE
RELN	0.940422	0.02202643	FALSE
RELT	0.048864	0.53465379	FALSE
REM1	0.162251	-0.39493703	FALSE
REM2	0.497383	0.19801992	FALSE
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RENBP	0.193338	0.36963719	FALSE
REP15	0.887164	-0.04180421	FALSE
REPIN1	0.283981	-0.30803099	FALSE
REPS1	0.027173	-0.5874591	FALSE
REPS2	0.113334	0.44224449	FALSE
RER1	0.741981	0.09680974	FALSE
RERE	0.353453	-0.26842701	FALSE
REG	0.252518	0.32783298	FALSE
RESP18	0.215287	-0.35330771	FALSE
REST	0.000421	-0.81188168	TRUE
RET	0.014515	-0.63586397	FALSE
RETN	0.422298	-0.23322346	FALSE
RETNLB	0.484341	0.20394112	FALSE
RETSAT	0.609698	0.14961505	FALSE
REV1	0.143848	-0.41144139	FALSE
REV3L	0.302409	-0.29702988	FALSE
REXO1	0.599097	0.15401549	FALSE
REXO1L1P	0.160975	-0.39603984	FALSE
REXO2	0.497383	-0.19801992	FALSE
REXO4	0.023117	-0.60066043	FALSE
RFC1	0.025766	-0.59185954	FALSE
RFC2	0.663743	0.12761284	FALSE
RFC3	0.759081	0.09020908	FALSE
RFC4	0.527033	0.18481859	FALSE
RFC5	0.440504	0.22442258	FALSE
RFESD	0.691367	0.11661173	FALSE
RFFL	0.615026	-0.14741483	FALSE
RFK	0.232769	-0.34103431	FALSE
RFNG	0.793583	0.07700775	FALSE
RFPL1	0.785932	-0.07992287	FALSE
RFPL2	0.131902	0.42291991	FALSE
RFPL4A	0.050698	0.53105493	FALSE
RFPL4AL1	0.231742	0.34173917	FALSE
RFT1	0.512111	0.19141926	FALSE
RFTN1	0.160975	-0.39603984	FALSE
RFTN1P1	0.426813	0.23102324	FALSE
RFTN2	0.94643	-0.01980199	FALSE

RFWD2	0.887164	-0.04180421	FALSE
RFWD3	0.708117	0.11001107	FALSE
RFX1	0.099878	-0.45764604	FALSE
RFX2	0.226404	-0.34543475	FALSE
RFX3	0.40009	-0.24422457	FALSE
RFX4	0.249158	-0.3300332	FALSE
RFX5	0.069009	0.49945025	FALSE
RFX7	0.002516	-0.73927437	TRUE
RFX8	0.111339	-0.44444471	FALSE
RFXANK	0.753369	-0.0924093	FALSE
RFXAP	0.085903	-0.47524781	FALSE
RGAG1	0.32711	0.28287448	FALSE
RGAG4	0.70252	0.11221129	FALSE
RGCC	0.674747	-0.1232124	FALSE
RGL1	0.02939	0.58085844	FALSE
RGL2	0.132385	-0.4224425	FALSE
RGL3	0.337271	0.27722789	FALSE
RGL4	0.527033	-0.18481859	FALSE
RGMA	0.770539	-0.08580863	FALSE
RGMB	0.764804	-0.08800885	FALSE
RGN	0.082635	-0.47964826	FALSE
RGP1	0.273248	0.31463165	FALSE
RGPD1	0.223262	0.34763497	FALSE
RGPD2	0.013643	0.64026441	FALSE
RGPD3	0.988088	0.00440044	FALSE
RGPD4	0.477424	0.20711142	FALSE
RGPD5	0.881262	0.04400443	FALSE
RGPD6	0.404482	0.24202435	FALSE
RGPD8	0.82844	0.06380642	FALSE
RGR	0.517064	0.18921904	FALSE
RGS1	0.34531	-0.27282745	FALSE
RGS10	0.266229	0.3190321	FALSE
RGS11	0.636511	0.13861395	FALSE
RGS12	0.00577	0.69526995	FALSE
RGS13	0.03596	-0.56325667	FALSE
RGS14	0.059579	0.5148518	FALSE
RGS16	0.527033	-0.18481859	FALSE
RGS17	0.497383	0.19801992	FALSE
RGS17P1	0.94643	-0.01980199	FALSE
RGS18	0.006457	-0.68866928	FALSE
RGS19	0.604388	0.15181527	FALSE
RGS2	0.382774	-0.25302546	FALSE
RGS20	0.323184	0.28508278	FALSE
RGS22	0.741981	-0.09680974	FALSE
RGS3	0.994044	-0.00220022	FALSE
RGS4	0.043556	-0.5456549	FALSE
RGS5	0.741981	0.09680974	FALSE
RGS6	0.003526	0.72232472	TRUE

RGS9	0.445116	-0.22222236	FALSE
RGS9BP	0.267495	0.31823379	FALSE
RGSL1	0.431353	-0.22882302	FALSE
RHAG	0.143363	0.41189427	FALSE
RHBDD1	0.395723	0.24642479	FALSE
RHBDD2	0.658264	0.12981306	FALSE
RHBDD3	0.910821	-0.03300332	FALSE
RHBDF1	0.958324	0.01540155	FALSE
RHBDF2	0.881262	0.04400443	FALSE
RHBDL1	0.306176	-0.29482966	FALSE
RHBDL2	0.547224	-0.17601771	FALSE
RHBDL3	0.173995	-0.38503874	FALSE
RHBG	0.893071	0.03960398	FALSE
RHCE	0.583333	0.16061616	FALSE
RHCG	0.596566	-0.15507063	FALSE
RHD	0.179388	0.38063829	FALSE
RHEB	0.747669	0.09460952	FALSE
RHEBL1	0.583333	0.16061616	FALSE
RHEBP1	0.181012	0.37932935	FALSE
RHEBP2	0.222718	-0.34801762	FALSE
RHNO1	0.776284	0.08360841	FALSE
RHO	0.611036	-0.14906197	FALSE
RHOA	0.652801	0.13201328	FALSE
RHOB	0.741981	0.09680974	FALSE
RHOBTB1	0.696936	-0.11441151	FALSE
RHOBTB2	0.009537	0.66446685	FALSE
RHOBTB3	0.663743	-0.12761284	FALSE
RHOC	0.273248	0.31463165	FALSE
RHOD	0.258708	0.32382542	FALSE
RHOF	0.770539	0.08580863	FALSE
RHOG	0.105502	0.45104538	FALSE
RHOH	0.226404	-0.34543475	FALSE
RHOJ	0.857716	-0.05280531	FALSE
RHOQ	0.713728	-0.10781085	FALSE
RHOQP1	0.325411	0.28382855	FALSE
RHOT1	0.000733	-0.79207969	TRUE
RHOT1P1	0.443307	0.22308426	FALSE
RHOT2	0.070438	0.49725003	FALSE
RHOU	0.229572	0.34323453	FALSE
RHOV	0.011902	-0.64972733	FALSE
RHOXF1	0.961851	-0.01409733	FALSE
RHOXF1P1	0.045322	0.54189034	FALSE
RHOXF1P2	0.108428	0.44770585	FALSE
RHOXF2	0.896697	0.03825396	FALSE
RHOXF2B	0.77675	0.08343021	FALSE
RHPN1	0.166104	-0.3916394	FALSE
RHPN2	0.669238	0.12541262	FALSE
RIBC1	0.204983	0.3608363	FALSE

RIBC2	0.103603	0.4532456	FALSE
RIC1	0.071888	-0.4950498	FALSE
RIC3	0.83428	-0.0616062	FALSE
RIC8A	0.604388	0.15181527	FALSE
RIC8B	0.696936	-0.11441151	FALSE
RICTOR	0.445116	-0.22222236	FALSE
RIDA	0.764804	0.08800885	FALSE
RIF1	0.719353	-0.10561062	FALSE
RIAD1	0.265187	0.31969148	FALSE
RILP	0.03596	0.56325667	FALSE
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RIMBP3	0.647355	0.1342135	FALSE
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RIN3	0.893071	0.03960398	FALSE
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RIOK1	0.245826	-0.33223342	FALSE
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RLF	0.459093	0.21562169	FALSE
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RLN3	0.039156	0.55554592	FALSE
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RMI1	0.4638	0.21342147	FALSE
RMI2	0.249158	0.3300332	FALSE
RMND1	0.374268	-0.2574259	FALSE
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RNASE1	0.166104	0.3916394	FALSE
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RNASE13	0.566003	-0.16795672	FALSE
RNASE2	0.182124	0.37843807	FALSE
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RNLS	0.816786	0.06820686	FALSE
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RNPEPL1	0.105502	0.45104538	FALSE
RNPS1	0.82844	0.06380642	FALSE
RNPS1P1	0.690062	0.11712834	FALSE
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ROCK2	0.753369	-0.0924093	FALSE
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ROM1	0.294957	0.30143033	FALSE
ROMO1	0.066213	0.50385069	FALSE
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RP1-102G2	0.493639	0.19971218	FALSE
RP1-128O3	0.226476	0.34538459	FALSE
RP1-130G2	0.264114	-0.32037201	FALSE
RP1-130H1	0.994037	0.00220264	FALSE
RP1-130L2	0.431353	-0.22882302	FALSE
RP1-13D1C	0.196209	-0.36743697	FALSE
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RP1-159A1	0.154151	0.40203981	FALSE
RP1-159M	0.439249	-0.22502328	FALSE
RP1-168P1	0.776284	0.08360841	FALSE
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RP1-196A1	0.390294	-0.24917823	FALSE
RP1-199J3	0.73769	-0.09847271	FALSE
RP1-206D1	0.445116	0.22222236	FALSE
RP1-217P2	0.426813	0.23102324	FALSE
RP1-223H1	0.146217	0.40924117	FALSE
RP1-228H1	0.981404	0.00687019	FALSE
RP1-228P1	0.840128	-0.05940598	FALSE
RP1-229K2	0.374268	-0.2574259	FALSE
RP1-22N22	0.59869	0.15418502	FALSE
RP1-232L2	0.500343	-0.19668616	FALSE
RP1-272E8	0.713728	-0.10781085	FALSE
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RP1-27O5	0.306176	-0.29482966	FALSE
RP1-281H8	0.460939	0.21475771	FALSE
RP1-283E3	0.542145	0.17821793	FALSE
RP1-292B1	0.207961	-0.35863608	FALSE
RP1-296G1	0.132385	0.4224425	FALSE
RP1-303A1	0.337507	-0.27709762	FALSE
RP1-308E4	0.512111	0.19141926	FALSE
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RP1-93H18	0.222127	-0.34843451	FALSE
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RP11-1016	0.557442	0.17161727	FALSE
RP11-1017	0.444602	0.22246696	FALSE
RP11-101E	0.497383	-0.19801992	FALSE
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RP11-104N	0.609698	-0.14961505	FALSE
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RP11-106E	0.949147	0.01879644	FALSE
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RP11-113C	0.433833	0.22762556	FALSE
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RP4-701O1	0.107424	-0.44884516	FALSE
RP4-706A1	0.443052	-0.22320565	FALSE
RP4-714D9	0.86052	-0.05175535	FALSE
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RPL7	0.049979	-0.53245357	FALSE
RPL7A	0.160975	-0.39603984	FALSE
RPL7AP11	0.590715	0.15751629	FALSE
RPL7AP14	0.512304	-0.19133328	FALSE
RPL7AP15	0.298112	-0.29955947	FALSE
RPL7AP28	0.027258	0.58719879	FALSE
RPL7AP3	0.71105	-0.10886046	FALSE
RPL7AP30	0.66785	-0.12596754	FALSE
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RPL7AP34	0.525174	0.18563638	FALSE
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RPL7AP64	0.104427	0.45228744	FALSE
RPL7AP66	0.910723	-0.03303965	FALSE
RPL7AP8	0.996989	0.0011124	FALSE
RPL7L1	0.309969	-0.29262944	FALSE
RPL7L1P1	0.742109	0.09676001	FALSE
RPL7L1P1C	0.940487	-0.02200221	FALSE
RPL7L1P3	0.770539	0.08580863	FALSE
RPL7L1P5	0.386635	-0.25104524	FALSE
RPL7P1	0.845984	0.05720576	FALSE
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RPL7P11	0.067594	0.50166021	FALSE
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RPS12P26	0.082635	-0.47964826	FALSE
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RPS18P9	0.132385	-0.4224425	FALSE
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RPS4Y1	0.70252	-0.11221129	FALSE
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RPSA	0.625734	-0.14301439	FALSE
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RPSAP36	0.249158	0.3300332	FALSE
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RPSAP5	0.81697	-0.0681371	FALSE
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RPSAP69	0.057064	-0.51925224	FALSE
RPSAP76	0.020759	-0.60915676	FALSE
RPSAP8	1	0	FALSE
RPSAP9	0.547224	-0.17601771	FALSE
RPTOR	0.085903	-0.47524781	FALSE
RPUSD1	0.226404	-0.34543475	FALSE
RPUSD2	0.994044	-0.00220022	FALSE
RPUSD3	0.994044	0.00220022	FALSE
RPUSD4	0.413341	0.23762391	FALSE
RRAD	0.049979	0.53245357	FALSE
RRAGA	0.016883	0.62486286	FALSE
RRAGB	0.085903	-0.47524781	FALSE
RRAGC	0.155952	0.40044029	FALSE
RRAGD	0.317637	-0.288229	FALSE
RRAS	0.039624	0.55445578	FALSE
RRAS2	0.007742	-0.67766818	FALSE
RRBP1	0.431353	-0.22882302	FALSE
RREB1	0.562581	-0.16941704	FALSE
RRH	0.522038	-0.18701882	FALSE
RRM1	0.958324	-0.01540155	FALSE
RRM2	0.333291	0.27942811	FALSE
RRM2B	0.232769	-0.34103431	FALSE
RRM2P2	0.740264	0.09747483	FALSE
RRM2P3	0.052265	-0.52805312	FALSE
RRN3	0.073359	0.49284958	FALSE
RRN3P1	0.071888	0.4950498	FALSE
RRN3P2	0.000577	0.80088057	TRUE
RRN3P3	0.599097	-0.15401549	FALSE
RRNAD1	0.333291	0.27942811	FALSE
RRP1	0.040582	0.55225556	FALSE
RRP12	0.770539	0.08580863	FALSE
RRP15	0.143848	-0.41144139	FALSE
RRP1B	0.94643	-0.01980199	FALSE
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RRP7A	0.042548	0.54785512	FALSE
RRP7BP	0.572919	-0.1650166	FALSE
RRP8	0.588569	-0.15841594	FALSE
RRP9	0.70252	0.11221129	FALSE
RRS1	0.417807	0.23542368	FALSE
RSAD1	0.893071	0.03960398	FALSE

RSAD2	0.079456	0.4840487	FALSE
RSBN1	0.182124	-0.37843807	FALSE
RSBN1L	0.033381	-0.56985733	FALSE
RSC1A1	0.179388	0.38063829	FALSE
RSF1	0.329337	-0.28162833	FALSE
RSG1	0.527033	-0.18481859	FALSE
RSL1D1	0.007207	-0.68206862	FALSE
RSL24D1	0.173995	-0.38503874	FALSE
RSL24D1P1	0.453455	-0.21827258	FALSE
RSL24D1P1	0.14108	-0.41404283	FALSE
RSL24D1P1	0.305166	-0.29541813	FALSE
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RSPH1	0.588569	0.15841594	FALSE
RSPH10B	0.107424	-0.44884516	FALSE
RSPH10B2	0.01543	-0.63146353	FALSE
RSPH3	0.910821	0.03300332	FALSE
RSPH4A	0.057064	-0.51925224	FALSE
RSPH6A	0.332737	-0.27973568	FALSE
RSPH9	0.252518	0.32783298	FALSE
RSPO1	0.697035	0.11437238	FALSE
RSPO2	0.841903	-0.05873888	FALSE
RSPO3	0.568871	0.16673564	FALSE
RSPO4	0.63983	-0.1372642	FALSE
RSPRY1	0.431353	-0.22882302	FALSE
RSRC1	0.053437	-0.5258529	FALSE
RSRC2	0.988088	-0.00440044	FALSE
RSRP1	0.449752	0.22002214	FALSE
RSU1	0.070438	0.49725003	FALSE
RSU1P2	0.988088	-0.00440044	FALSE
RTBDN	0.787807	0.07920797	FALSE
RTCA	0.887164	0.04180421	FALSE
RTCB	0.035084	0.56545689	FALSE
RTL1	0.079456	0.4840487	FALSE
RTL1-TNFF	0.067601	0.50165047	FALSE
RTL1P1	0.602771	0.15248703	FALSE
RTF1	0.046687	-0.53905423	FALSE
RTFDC1	0.03596	0.56325667	FALSE
RTKN	0.01241	-0.64686508	FALSE
RTKN2	0.875366	0.04620465	FALSE
RTN1	0.000498	0.80610217	TRUE
RTN2	0.08926	0.47084737	FALSE
RTN3	0.459093	0.21562169	FALSE
RTN4	0.454411	0.21782191	FALSE
RTN4IP1	0.512111	-0.19141926	FALSE
RTN4R	0.00695	-0.68426884	FALSE
RTN4RL1	0.680272	-0.12101217	FALSE
RTN4RL2	0.82844	0.06380642	FALSE
RTP4	0.245826	0.33223342	FALSE

RTP5	0.527033	-0.18481859	FALSE
RTTN	0.609698	-0.14961505	FALSE
RUBCN	0.341277	-0.27502767	FALSE
RUBCNL	0.696936	-0.11441151	FALSE
RUFY1	0.631114	-0.14081417	FALSE
RUFY2	0.325411	-0.28382855	FALSE
RUFY3	0.067601	-0.50165047	FALSE
RUFY4	0.008671	0.67056937	FALSE
RUNDC1	0.492518	-0.20022014	FALSE
RUNDC3A	0.0779	0.48624892	FALSE
RUNDC3B	0.214891	0.3535931	FALSE
RUNX1	0.130169	-0.42464272	FALSE
RUNX1T1	1	0	FALSE
RUNX2	0.357565	-0.26622678	FALSE
RUNX3	0.685812	0.11881195	FALSE
RUSC1	0.805166	0.0726073	FALSE
RUSC2	0.115352	0.44004427	FALSE
RUVBL1	0.357565	0.26622678	FALSE
RUVBL2	0.572919	0.1650166	FALSE
RWDD1	0.001901	-0.7524757	TRUE
RWDD2A	0.976179	-0.00880089	FALSE
RWDD2B	0.741981	-0.09680974	FALSE
RWDD3	0.805166	-0.0726073	FALSE
RWDD4	0.663743	-0.12761284	FALSE
RXFP1	0.345841	0.27253869	FALSE
RXFP2	0.022213	0.60383565	FALSE
RXFP4	0.611964	0.14867841	FALSE
RXRA	0.160975	0.39603984	FALSE
RXRB	0.184888	-0.37623785	FALSE
RYBP	0.994044	-0.00220022	FALSE
RYK	0.391381	0.24862501	FALSE
RYR1	0.361702	0.26402656	FALSE
RYR3	0.130169	0.42464272	FALSE
S100A1	0.8926	-0.03977922	FALSE
S100A10	0.136894	0.41804206	FALSE
S100A11	0.136894	0.41804206	FALSE
S100A12	0.431353	0.22882302	FALSE
S100A13	0.016883	0.62486286	FALSE
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S100A16	0.449752	0.22002214	FALSE
S100A2	0.002633	0.73707415	TRUE
S100A3	0.233829	0.34030837	FALSE
S100A4	0.004567	0.70847128	TRUE
S100A5	0.517064	0.18921904	FALSE
S100A6	0.010901	0.65566596	FALSE
S100A8	0.329337	0.28162833	FALSE
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S100B	0.56774	0.16721682	FALSE

S100P	0.730641	-0.10121018	FALSE
S100PBP	0.588569	-0.15841594	FALSE
S100Z	0.179388	-0.38063829	FALSE
S1PR1	0.249158	-0.3300332	FALSE
S1PR2	0.807084	0.07187985	FALSE
S1PR3	0.512111	0.19141926	FALSE
S1PR4	0.226404	-0.34543475	FALSE
S1PR5	0.609698	0.14961505	FALSE
SAA1	0.622337	0.14440716	FALSE
SAA2	0.34531	-0.27282745	FALSE
SAA4	0.386781	-0.25097031	FALSE
SAAL1	0.636511	-0.13861395	FALSE
SAC3D1	0.685812	-0.11881195	FALSE
SACM1L	0.015903	-0.62926331	FALSE
SACS	0.136894	-0.41804206	FALSE
SAE1	0.179388	0.38063829	FALSE
SAFB	0.182124	-0.37843807	FALSE
SAFB2	0.199106	-0.36523674	FALSE
SAG	0.810971	-0.07040708	FALSE
SAGE1	0.005213	0.70108976	TRUE
SAGE4P	0.41203	0.23827181	FALSE
SALL2	0.204448	-0.36123348	FALSE
SALL3	0.42527	0.23177398	FALSE
SALL4	0.325411	0.28382855	FALSE
SALL4P6	0.0654	-0.50515434	FALSE
SAMD1	0.163526	-0.39383962	FALSE
SAMD10	0.426813	0.23102324	FALSE
SAMD11	0.079456	-0.4840487	FALSE
SAMD12	0.970226	-0.01100111	FALSE
SAMD13	0.408899	-0.23982413	FALSE
SAMD14	0.599097	0.15401549	FALSE
SAMD15	0.001642	-0.75907637	TRUE
SAMD3	0.92861	0.02640266	FALSE
SAMD4A	0.552323	-0.17381749	FALSE
SAMD4B	0.459093	0.21562169	FALSE
SAMD5	0.557442	0.17161727	FALSE
SAMD7	0.0923	0.46696035	FALSE
SAMD8	0.588569	0.15841594	FALSE
SAMD9	0.631114	-0.14081417	FALSE
SAMD9L	0.625734	0.14301439	FALSE
SAMHD1	0.075993	0.48898678	FALSE
SAMM50	0.273248	-0.31463165	FALSE
SAMSN1	0.851846	0.05500553	FALSE
SAP130	0.153479	-0.40264051	FALSE
SAP18	0.805166	0.0726073	FALSE
SAP25	0.143848	-0.41144139	FALSE
SAP30	0.132385	-0.4224425	FALSE
SAP30BP	0.31379	0.29042922	FALSE

SAP30L	0.387065	-0.25082523	FALSE
SAPCD1	0.822609	0.06600664	FALSE
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SAR1B	0.357565	-0.26622678	FALSE
SARAF	0.417807	-0.23542368	FALSE
SARDH	0.741981	-0.09680974	FALSE
SARM1	0.940487	-0.02200221	FALSE
SARNP	0.741981	0.09680974	FALSE
SARS	0.294957	0.30143033	FALSE
SARS2	0.049979	0.53245357	FALSE
SART1	0.810971	-0.07040708	FALSE
SART3	0.473281	-0.20902103	FALSE
SASH1	0.101729	0.45544582	FALSE
SASH3	0.631114	0.14081417	FALSE
SASS6	0.708117	0.11001107	FALSE
SAT1	0.184888	0.37623785	FALSE
SAT2	0.148612	0.40704095	FALSE
SATB1	0.537087	0.18041815	FALSE
SATB2	0.014515	0.63586397	FALSE
SAV1	0.578116	0.16281638	FALSE
SAXO1	0.758436	0.09045749	FALSE
SAXO2	0.822609	0.06600664	FALSE
SAYSD1	0.193338	-0.36963719	FALSE
SBDS	0.857716	-0.05280531	FALSE
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SBF1	0.922677	-0.02860288	FALSE
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SBK2	0.621653	-0.14468795	FALSE
SBK3	0.077211	-0.48723243	FALSE
SBNO1	0.440504	-0.22442258	FALSE
SBNO2	0.252518	-0.32783298	FALSE
SBSN	0.176889	-0.38266656	FALSE
SBSPON	0.753369	-0.0924093	FALSE
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SC5D	0.280376	0.31023121	FALSE
SCAF1	0.78204	0.08140819	FALSE
SCAF11	0.329337	0.28162833	FALSE
SCAF4	0.816786	-0.06820686	FALSE
SCAF8	0.50718	-0.19361948	FALSE
SCAI	0.070438	-0.49725003	FALSE
SCAMP1	0.101729	-0.45544582	FALSE
SCAMP2	0.537087	-0.18041815	FALSE
SCAMP3	0.166104	-0.3916394	FALSE
SCAMP4	0.037759	0.55885622	FALSE
SCAMP5	0.117395	0.43784405	FALSE
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SCAND2P	0.982133	-0.00660066	FALSE
SCAP	0.064846	-0.50605091	FALSE
SCAPER	0.636511	-0.13861395	FALSE
SCARA3	0.71251	-0.10828789	FALSE
SCARB1	0.964274	-0.01320133	FALSE
SCARB2	0.349368	0.27062723	FALSE
SCARF1	0.599097	0.15401549	FALSE
SCARF2	0.168708	-0.38943918	FALSE
SCART1	0.357565	-0.26622678	FALSE
SCCPDH	0.337271	-0.27722789	FALSE
SCD	0.361702	0.26402656	FALSE
SCD5	0.046687	-0.53905423	FALSE
SCFD1	0.730641	-0.10121018	FALSE
SCFD2	0.163526	-0.39383962	FALSE
SCG2	0.603986	0.15198238	FALSE
SCG3	0.904899	-0.03520354	FALSE
SCG5	0.988088	-0.00440044	FALSE
SCGB2B2	0.276799	-0.31243143	FALSE
SCGB3A1	0.980921	-0.00704867	FALSE
SCGB3A2	0.724991	0.1034104	FALSE
SCHIP1	0.085903	-0.47524781	FALSE
SCIMP	0.076365	0.48844914	FALSE
SCIN	0.000921	0.7832788	TRUE
SCLT1	0.002091	0.74807526	TRUE
SCLY	0.952376	0.01760177	FALSE
SCMH1	0.001028	-0.77887836	TRUE
SCML1	0.259319	0.32343254	FALSE
SCML2	0.011636	-0.65126552	FALSE
SCML2P2	0.753369	0.0924093	FALSE
SCML4	0.674747	-0.1232124	FALSE
SCN11A	0.674747	0.1232124	FALSE
SCN1A	0.522038	0.18701882	FALSE
SCN1B	0.753369	-0.0924093	FALSE
SCN2A	0.805166	-0.0726073	FALSE
SCN2B	0.21706	-0.35203542	FALSE
SCN3A	0.322901	0.28524229	FALSE
SCN3B	0.588569	0.15841594	FALSE
SCN4A	0.266229	-0.3190321	FALSE
SCN4B	0.578116	-0.16281638	FALSE
SCN5A	0.145891	-0.40954236	FALSE
SCN7A	0.266229	-0.3190321	FALSE
SCN8A	0.32151	0.28602878	FALSE
SCN9A	0.273248	0.31463165	FALSE
SCNM1	0.730641	0.10121018	FALSE
SCNN1A	0.249158	-0.3300332	FALSE
SCNN1D	0.620371	0.14521461	FALSE
SCNN1G	0.674747	-0.1232124	FALSE
SCO1	0.023117	-0.60066043	FALSE

SCO2	0.15845	0.39824006	FALSE
SCOC	0.593824	-0.15621572	FALSE
SCOCP1	0.151032	-0.40484073	FALSE
SCP2	0.497383	0.19801992	FALSE
SCPEP1	0.085903	0.47524781	FALSE
SCRG1	0.56774	0.16721682	FALSE
SCRIB	0.753369	-0.0924093	FALSE
SCRN1	0.000301	0.82288279	TRUE
SCRN2	0.851846	-0.05500553	FALSE
SCRN3	0.952376	0.01760177	FALSE
SCRT1	0.137003	0.4179365	FALSE
SCRT2	0.705426	0.11106806	FALSE
SCT	0.606006	-0.15114416	FALSE
SCTR	0.507317	0.19355809	FALSE
SCUBE1	0.413341	-0.23762391	FALSE
SCUBE2	0.01739	-0.62266264	FALSE
SCUBE3	0.337271	0.27722789	FALSE
SCX	0.132385	-0.4224425	FALSE
SCYL1	0.044582	-0.54345467	FALSE
SCYL2	0.658264	0.12981306	FALSE
SCYL3	0.988088	-0.00440044	FALSE
SDAD1	0.970226	0.01100111	FALSE
SDAD1P1	0.893071	0.03960398	FALSE
SDC1	0.357565	-0.26622678	FALSE
SDC2	0.148612	0.40704095	FALSE
SDC3	0.708117	0.11001107	FALSE
SDC4	0.863593	0.05060509	FALSE
SDCBP	0.022488	0.60286065	FALSE
SDCBP2	0.259319	-0.32343254	FALSE
SDCBPP1	0.851964	-0.05496151	FALSE
SDCBPP2	0.879554	0.04464155	FALSE
SDCCAG3	0.56774	0.16721682	FALSE
SDCCAG8	0.810971	-0.07040708	FALSE
SDE2	0.674747	-0.1232124	FALSE
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SDF4	0.641924	0.13641372	FALSE
SDHA	0.40009	-0.24422457	FALSE
SDHAF1	0.517064	0.18921904	FALSE
SDHAF2	0.593824	0.15621572	FALSE
SDHAF3	0.435916	-0.2266228	FALSE
SDHAF4	0.952376	0.01760177	FALSE
SDHAP1	0.79937	0.07480753	FALSE
SDHAP2	0.713728	-0.10781085	FALSE
SDHAP3	0.459093	0.21562169	FALSE
SDHB	0.190494	0.37183741	FALSE
SDHC	0.038684	0.556656	FALSE
SDHCP3	0.685812	0.11881195	FALSE

SDHD	0.713728	0.10781085	FALSE
SDHDP6	0.339729	-0.27587589	FALSE
SDK1	0.153479	0.40264051	FALSE
SDK2	0.071888	-0.4950498	FALSE
SDPR	0.071901	0.49503034	FALSE
SDR16C6P	0.724699	-0.10352423	FALSE
SDR39U1	0.4638	0.21342147	FALSE
SDR42E1	0.29867	0.2992301	FALSE
SDR42E1P5	0.186694	0.3748107	FALSE
SDR42E2	0.765562	-0.08771778	FALSE
SDR9C7	0.001403	-0.76595495	TRUE
SDS	0.599097	0.15401549	FALSE
SDSL	0.032552	0.57205755	FALSE
SEC11A	0.459093	0.21562169	FALSE
SEC11C	0.040582	0.55225556	FALSE
SEC13	0.199106	-0.36523674	FALSE
SEC14L1	0.127978	-0.42684294	FALSE
SEC14L1P1	0.171338	-0.38723896	FALSE
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SEC14L4	0.92861	0.02640266	FALSE
SEC14L5	0.21706	0.35203542	FALSE
SEC14L6	0.663743	-0.12761284	FALSE
SEC16A	0.776284	0.08360841	FALSE
SEC16B	0.047766	0.53685401	FALSE
SEC1P	0.085903	0.47524781	FALSE
SEC22A	0.101729	0.45544582	FALSE
SEC22B	0.235992	0.33883409	FALSE
SEC22C	0.127978	0.42684294	FALSE
SEC23A	0.79937	-0.07480753	FALSE
SEC23B	0.910821	0.03300332	FALSE
SEC23IP	0.12367	0.43124339	FALSE
SEC24A	0.770539	-0.08580863	FALSE
SEC24B	0.473281	-0.20902103	FALSE
SEC24C	0.163526	0.39383962	FALSE
SEC24D	0.816786	-0.06820686	FALSE
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SEC61A2	0.017909	-0.62046242	FALSE
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SEC61G	0.492518	-0.20022014	FALSE
SEC62	0.822609	0.06600664	FALSE
SEC63	0.910821	-0.03300332	FALSE
SEC63P1	0.695121	0.1151282	FALSE
SECISBP2	0.473281	-0.20902103	FALSE
SECISBP2L	0.085903	-0.47524781	FALSE
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SEL1L	0.08757	-0.47304759	FALSE
SEL1L3	0.793583	0.07700775	FALSE
SELE	0.134336	-0.42052664	FALSE
SELENBP1	0.107424	0.44884516	FALSE
SELK	0.220147	0.3498352	FALSE
SELL	0.747669	0.09460952	FALSE
SELM	0.776284	-0.08360841	FALSE
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SELP	0.176678	0.38283852	FALSE
SELPLG	0.29867	0.2992301	FALSE
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SELV	0.515177	-0.19005629	FALSE
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SEPHS2	0.349368	-0.27062723	FALSE
SEPN1	0.176678	0.38283852	FALSE
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SEPSECS	0.537087	-0.18041815	FALSE
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SEPW1	0.013643	0.64026441	FALSE
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SESTD1	0.010547	0.65786618	FALSE
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SETD2	0.082635	-0.47964826	FALSE
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SETD7	0.445116	0.22222236	FALSE
SETD8P1	0.267495	0.31823379	FALSE
SETD9	0.252518	0.32783298	FALSE
SETDB1	0.70252	0.11221129	FALSE
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SETMAR	0.417807	-0.23542368	FALSE
SETP11	0.83288	-0.06213343	FALSE
SETP14	0.482362	0.20484581	FALSE
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SETP20	0.690355	0.1170121	FALSE
SETP21	0.155454	0.40088106	FALSE
SETP3	0.077823	0.4863579	FALSE
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SETP9	0.040013	0.55355726	FALSE
SETSIP	0.713217	-0.10801117	FALSE
SETX	0.713728	-0.10781085	FALSE
SEZ6	0.50718	-0.19361948	FALSE
SEZ6L	0.015903	0.62926331	FALSE
SEZ6L2	0.487675	-0.20242036	FALSE
SF1	0.713728	-0.10781085	FALSE
SF3A1	0.599097	-0.15401549	FALSE
SF3A2	0.583333	0.16061616	FALSE
SF3A3	0.242521	-0.33443365	FALSE
SF3B1	0.309969	-0.29262944	FALSE
SF3B2	0.736305	-0.09900996	FALSE
SF3B3	0.719353	-0.10561062	FALSE
SF3B4	0.857716	0.05280531	FALSE
SF3B5	0.708117	0.11001107	FALSE
SF3B6	0.29867	-0.2992301	FALSE
SFI1	0.845984	0.05720576	FALSE
SFMBT1	0.039624	0.55445578	FALSE
SFMBT2	0.21706	-0.35203542	FALSE
SFN	0.395723	-0.24642479	FALSE
SFPQ	0.94643	0.01980199	FALSE
SFR1	0.245826	0.33223342	FALSE
SFRP1	0.775113	-0.08405681	FALSE
SFRP4	0.922677	-0.02860288	FALSE
SFRP5	0.139891	0.41517057	FALSE
SFSWAP	0.025084	-0.59405977	FALSE
SFT2D1	0.003007	0.73047349	TRUE
SFT2D2	0.082635	0.47964826	FALSE
SFT2D3	0.148612	0.40704095	FALSE
SFTPA2	0.759223	0.09015438	FALSE
SFTPB	0.964274	-0.01320133	FALSE
SFTPD	0.13898	0.41603865	FALSE
SFXN1	0.382774	0.25302546	FALSE
SFXN2	0.652801	0.13201328	FALSE
SFXN3	0.196209	0.36743697	FALSE
SFXN4	0.663743	-0.12761284	FALSE
SFXN5	0.113334	-0.44224449	FALSE
SGCA	0.777199	-0.08325861	FALSE
SGCB	0.276799	0.31243143	FALSE
SGCD	0.462968	-0.21380951	FALSE
SGF29	0.325411	-0.28382855	FALSE
SGIP1	0.719353	0.10561062	FALSE
SGK1	0.229572	0.34323453	FALSE
SGK2	0.01898	-0.61606198	FALSE
SGK223	0.010901	-0.65566596	FALSE
SGK3	0.014967	0.63366375	FALSE
SGK494	0.266229	-0.3190321	FALSE
SGMS1	0.387065	0.25082523	FALSE

SGMS2	0.202031	0.36303652	FALSE
SGO1	0.153479	0.40264051	FALSE
SGO2	0.40009	-0.24422457	FALSE
SGPL1	0.609698	-0.14961505	FALSE
SGPP1	0.045626	0.54125445	FALSE
SGPP2	0.136894	0.41804206	FALSE
SGSH	0.31379	0.29042922	FALSE
SGSM1	0.636511	-0.13861395	FALSE
SGSM2	0.708117	-0.11001107	FALSE
SGSM3	0.863593	0.05060509	FALSE
SGTA	0.952376	-0.01760177	FALSE
SGTB	0.232769	0.34103431	FALSE
SH2B1	0.94643	0.01980199	FALSE
SH2B2	0.374268	0.2574259	FALSE
SH2B3	0.115352	0.44004427	FALSE
SH2D1A	0.130169	-0.42464272	FALSE
SH2D1B	0.898983	0.03740376	FALSE
SH2D2A	0.696936	0.11441151	FALSE
SH2D3A	0.691367	-0.11661173	FALSE
SH2D3C	0.881262	0.04400443	FALSE
SH2D4A	0.374268	0.2574259	FALSE
SH2D4B	0.083868	-0.47797357	FALSE
SH2D5	0.770539	-0.08580863	FALSE
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SH3BGR	0.680272	0.12101217	FALSE
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SH3BGRL3	0.719353	0.10561062	FALSE
SH3BP1	0.478056	0.20682081	FALSE
SH3BP2	0.049979	0.53245357	FALSE
SH3BP4	0.042548	0.54785512	FALSE
SH3BP5	0.440504	0.22442258	FALSE
SH3BP5L	0.816786	0.06820686	FALSE
SH3D19	0.34531	0.27282745	FALSE
SH3D21	0.055836	0.52145246	FALSE
SH3GL1	0.378508	0.25522568	FALSE
SH3GL1P1	0.021872	-0.60506087	FALSE
SH3GL1P2	0.444574	0.22248056	FALSE
SH3GL1P3	0.737152	0.09868131	FALSE
SH3GL2	0.23697	-0.33817045	FALSE
SH3GL3	0.325411	0.28382855	FALSE
SH3GLB1	0.875366	-0.04620465	FALSE
SH3GLB2	0.21706	0.35203542	FALSE
SH3KBP1	0.302409	-0.29702988	FALSE
SH3PXD2A	0.071888	-0.4950498	FALSE
SH3PXD2B	0.445116	0.22222236	FALSE
SH3RF1	0.787807	0.07920797	FALSE
SH3RF2	0.276799	0.31243143	FALSE

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SH3TC1	0.713728	0.10781085	FALSE
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SHANK1	0.00357	-0.7216726	TRUE
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SHANK3	0.399555	-0.24449339	FALSE
SHARPIN	0.096246	0.46204648	FALSE
SHB	0.512111	0.19141926	FALSE
SHBG	0.707809	-0.11013216	FALSE
SHC1	0.557442	0.17161727	FALSE
SHC1P2	0.101729	-0.45544582	FALSE
SHC2	0.823189	-0.06578754	FALSE
SHC3	0.725908	0.10305283	FALSE
SHC4	0.53205	-0.18261837	FALSE
SHCBP1	0.473281	0.20902103	FALSE
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SHD	0.014967	-0.63366375	FALSE
SHE	0.431353	0.22882302	FALSE
SHF	0.146217	-0.40924117	FALSE
SHFM1	0.190494	-0.37183741	FALSE
SHH	0.262761	-0.32123232	FALSE
SHISA2	0.893071	-0.03960398	FALSE
SHISA4	0.028637	-0.58305866	FALSE
SHISA5	0.020678	0.60946131	FALSE
SHISA7	0.585353	0.15976653	FALSE
SHISA8	0.816786	-0.06820686	FALSE
SHISA9	0.753369	-0.0924093	FALSE
SHKBP1	0.337271	0.27722789	FALSE
SHMT1	0.184888	0.37623785	FALSE
SHMT2	0.280376	0.31023121	FALSE
SHOC2	0.764804	-0.08800885	FALSE
SHOX	0.210967	0.35643586	FALSE
SHOX2	0.016727	-0.62555066	FALSE
SHPK	0.232769	0.34103431	FALSE
SHPRH	0.004944	-0.70407083	TRUE
SHQ1	0.787807	-0.07920797	FALSE
SHROOM1	0.317637	0.288229	FALSE
SHROOM2	0.365865	-0.26182634	FALSE
SHROOM3	0.08926	0.47084737	FALSE
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SHTN1	0.02939	0.58085844	FALSE
SIAE	0.329337	0.28162833	FALSE
SIAH1	0.478056	-0.20682081	FALSE
SIAH2	0.708117	0.11001107	FALSE
SIAH3	0.417807	0.23542368	FALSE
SIDT1	0.869477	0.04840487	FALSE
SIDT2	0.753369	-0.0924093	FALSE

SIGIRR	0.266229	-0.3190321	FALSE
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SIGLEC10	0.004045	0.71507194	TRUE
SIGLEC11	0.187678	0.37403763	FALSE
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SIGLEC14	0.53205	-0.18261837	FALSE
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SIGLEC16	0.426813	0.23102324	FALSE
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SIGLEC18P	0.828254	-0.06387665	FALSE
SIGLEC19P	0.535946	0.18091574	FALSE
SIGLEC20P	0.184008	0.37693547	FALSE
SIGLEC22P	0.00695	0.68426884	FALSE
SIGLEC5	0.840128	0.05940598	FALSE
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SIGLEC7	0.076365	0.48844914	FALSE
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SIGLECL1	0.873984	-0.04672092	FALSE
SIGMAR1	0.016388	0.62706309	FALSE
SIK1	0.417807	-0.23542368	FALSE
SIK2	0.132385	0.4224425	FALSE
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SIKE1	0.522038	0.18701882	FALSE
SIL1	0.822609	0.06600664	FALSE
SIM1	0.399088	-0.24472862	FALSE
SIM2	0.851846	-0.05500553	FALSE
SIMC1	0.988088	-0.00440044	FALSE
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SIRPB1	0.084258	0.47744803	FALSE
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SIRPG	0.512111	0.19141926	FALSE
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SIRT3	0.94643	0.01980199	FALSE
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SIRT6	0.207961	0.35863608	FALSE
SIRT7	0.010201	0.66006641	FALSE
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SIX1	0.261896	-0.32178329	FALSE
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SIX4	0.988088	-0.00440044	FALSE
SIX5	0.276242	0.31277533	FALSE
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SKA2	0.92861	0.02640266	FALSE
SKA3	0.497383	-0.19801992	FALSE
SKAP1	0.708117	-0.11001107	FALSE
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SKI	0.269725	-0.31683187	FALSE
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SKIV2L	0.557442	0.17161727	FALSE
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SKOR1	0.501791	-0.19603524	FALSE
SKP1	0.459093	0.21562169	FALSE
SKP1P1	0.446918	0.22136564	FALSE
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SLA	0.32151	0.28602878	FALSE
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SNX18P13	0.231742	0.34173917	FALSE
SNX18P26	0.620947	0.14497799	FALSE
SNX18P3	0.038684	0.556656	FALSE
SNX18P4	0.655878	0.13077353	FALSE
SNX18P8	0.059295	0.51534194	FALSE
SNX18P9	0.060002	0.51412364	FALSE
SNX19	0.887164	0.04180421	FALSE
SNX19P3	0.214681	-0.35374409	FALSE
SNX2	0.249158	0.3300332	FALSE
SNX20	0.176678	0.38283852	FALSE
SNX21	0.214	0.35423564	FALSE
SNX22	0.005345	0.69967039	FALSE
SNX24	0.000301	0.82288279	TRUE
SNX25	0.893071	-0.03960398	FALSE
SNX25P1	0.179388	-0.38063829	FALSE
SNX27	0.435916	-0.2266228	FALSE
SNX29	0.56774	0.16721682	FALSE
SNX29P1	0.199106	0.36523674	FALSE
SNX29P2	0.615026	0.14741483	FALSE
SNX3	0.82844	-0.06380642	FALSE
SNX30	0.747669	-0.09460952	FALSE
SNX31	0.588569	-0.15841594	FALSE
SNX32	0.940487	0.02200221	FALSE
SNX33	0.404482	-0.24202435	FALSE
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SNX5	0.370053	0.25962612	FALSE
SNX5P1	0.975206	-0.00916025	FALSE
SNX6	0.21706	0.35203542	FALSE
SNX7	0.250828	0.32893771	FALSE
SNX8	0.090972	0.46864715	FALSE

SNX9	0.426813	0.23102324	FALSE
SOAT1	0.202031	0.36303652	FALSE
SOAT2	0.949147	0.01879644	FALSE
SOBP	0.365865	0.26182634	FALSE
SOCS1	0.168708	0.38943918	FALSE
SOCS2	0.851846	-0.05500553	FALSE
SOCS3	0.759081	0.09020908	FALSE
SOCS4	0.713728	0.10781085	FALSE
SOCS5	0.361702	-0.26402656	FALSE
SOCS5P4	0.691367	0.11661173	FALSE
SOCS6	0.92861	-0.02640266	FALSE
SOCS7	0.071888	-0.4950498	FALSE
SOD1	0.294957	0.30143033	FALSE
SOD1P1	0.071527	0.49559471	FALSE
SOD2	0.049979	0.53245357	FALSE
SOGA1	0.764804	-0.08800885	FALSE
SOGA3	0.698688	-0.11372063	FALSE
SOHLH2	0.541694	-0.1784141	FALSE
SON	0.459093	0.21562169	FALSE
SORBS1	0.232769	0.34103431	FALSE
SORBS2	0.79937	0.07480753	FALSE
SORBS3	0.033381	0.56985733	FALSE
SORCS1	0.000162	-0.84140969	TRUE
SORCS2	0.163526	-0.39383962	FALSE
SORD	0.309969	-0.29262944	FALSE
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SORL1	0.431353	-0.22882302	FALSE
SORT1	0.143848	0.41144139	FALSE
SOS1	0.163526	-0.39383962	FALSE
SOS2	0.910821	0.03300332	FALSE
SOST	0.976153	0.00881057	FALSE
SOSTDC1	0.743437	-0.09624589	FALSE
SOWAHB	0.035149	-0.56529234	FALSE
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SOWAHD	0.053437	0.5258529	FALSE
SOX11	0.021269	0.60726109	FALSE
SOX12	0.0201	-0.61166154	FALSE
SOX13	0.115352	0.44004427	FALSE
SOX15	0.810971	0.07040708	FALSE
SOX17	0.983426	0.00612305	FALSE
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SOX30	0.678926	0.12154763	FALSE
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SOX5	0.863593	0.05060509	FALSE
SOX6	0.10937	0.44664493	FALSE
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SP110	0.787807	0.07920797	FALSE
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SP2	0.404482	-0.24202435	FALSE
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SP4	0.160975	-0.39603984	FALSE
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SP7	0.690063	-0.11712772	FALSE
SP8	0.881132	-0.04405286	FALSE
SPA17	0.012018	0.6490653	FALSE
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SPACA7	0.861132	0.05152642	FALSE
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SPAG17	0.024057	0.59745554	FALSE
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SPAG6	0.64699	0.13436123	FALSE
SPAG7	0.306176	0.29482966	FALSE
SPAG8	0.512111	0.19141926	FALSE
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SPARC	0.045626	-0.54125445	FALSE
SPAST	0.067601	-0.50165047	FALSE
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SPATA31C1	0.857716	0.05280531	FALSE
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SPATS2	0.361702	-0.26402656	FALSE
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SPC24	0.40009	0.24422457	FALSE
SPC25	0.625734	0.14301439	FALSE
SPCS1	0.255905	0.32563276	FALSE
SPCS2	0.422298	0.23322346	FALSE
SPCS2P4	0.015051	0.63325991	FALSE
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SPDEF	0.097483	-0.46053476	FALSE
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SPDYA	0.199106	-0.36523674	FALSE
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SPECC1	0.747669	0.09460952	FALSE
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SPECC1L-AI	0.252518	-0.32783298	FALSE
SPEF1	0.990966	-0.00333721	FALSE
SPEF2	0.887164	-0.04180421	FALSE
SPEG	0.012811	0.64466486	FALSE
SPEM1	0.958578	0.01530764	FALSE
SPEN	0.770539	-0.08580863	FALSE
SPESP1	0.555673	0.17237664	FALSE
SPG11	0.176678	0.38283852	FALSE
SPG20	0.235992	-0.33883409	FALSE
SPG21	0.053437	0.5258529	FALSE
SPG7	0.542145	0.17821793	FALSE
SPHK1	0.641924	0.13641372	FALSE
SPHK2	0.753369	0.0924093	FALSE
SPI1	0.012018	0.6490653	FALSE
SPIB	0.94643	0.01980199	FALSE

SPICE1	0.143848	-0.41144139	FALSE
SPIDR	0.337271	-0.27722789	FALSE
SPIN1	0.492518	-0.20022014	FALSE
SPIN2A	0.674747	-0.1232124	FALSE
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SPIN3	0.025556	0.59253162	FALSE
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SPINT1	0.004388	0.7106715	TRUE
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SPIRE1	0.041556	0.55005534	FALSE
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SPNS1	0.067601	0.50165047	FALSE
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SPOCK1	0.046602	0.53922948	FALSE
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SPOCK3	0.001078	0.77694862	TRUE
SPON1	0.863444	0.05066079	FALSE
SPON2	0.117395	-0.43784405	FALSE
SPOP	0.875366	-0.04620465	FALSE
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SPOUT1	0.92861	-0.02640266	FALSE
SPP1	0.759081	-0.09020908	FALSE
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SPPL3	0.024415	-0.59625999	FALSE
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SPRY1	0.000301	-0.82288279	TRUE
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SPSB2	0.103603	0.4532456	FALSE
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SPTA1	0.527033	0.18481859	FALSE
SPTAN1	0.069009	-0.49945025	FALSE
SPTB	0.512111	0.19141926	FALSE
SPTBN1	0.325411	0.28382855	FALSE
SPTBN2	0.685812	-0.11881195	FALSE
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SPTLC1	0.857716	0.05280531	FALSE
SPTLC1P1	0.468529	-0.21122125	FALSE
SPTLC2	0.916747	-0.0308031	FALSE
SPTLC3	0.141504	-0.41364161	FALSE
SPTSSA	0.615026	0.14741483	FALSE
SPTY2D1	0.283981	-0.30803099	FALSE
SPTY2D1-A	0.306176	0.29482966	FALSE
SPX	0.34531	-0.27282745	FALSE
SQL	0.210967	0.35643586	FALSE
SQRDL	0.78204	0.08140819	FALSE
SQSTM1	0.000243	0.82948345	TRUE
SRA1	0.454411	0.21782191	FALSE
SRBD1	0.155952	-0.40044029	FALSE
SRC	0.454411	0.21782191	FALSE
SRCAP	0.09805	-0.45984626	FALSE
SRCIN1	0.29867	0.2992301	FALSE
SRD5A1	0.001725	0.75687615	TRUE
SRD5A2	0.066087	-0.50405214	FALSE
SRD5A3	0.143848	-0.41144139	FALSE
SREBF1	0.105502	0.45104538	FALSE
SREBF2	0.166104	0.3916394	FALSE
SREK1	0.179388	-0.38063829	FALSE
SREK1IP1	0.337271	-0.27722789	FALSE
SRF	0.94643	-0.01980199	FALSE
SRFBP1	0.730641	-0.10121018	FALSE
SRGAP1	0.013222	0.64246464	FALSE
SRGAP2	0.125812	0.42904316	FALSE
SRGAP2B	0.127978	0.42684294	FALSE
SRGAP2C	0.593824	0.15621572	FALSE
SRGAP2D	0.798499	-0.07513853	FALSE
SRGAP3	0.552323	0.17381749	FALSE
SRGN	0.074851	0.49064936	FALSE
SRI	0.107424	0.44884516	FALSE
SRL	0.232769	-0.34103431	FALSE
SRM	0.94643	-0.01980199	FALSE
SRMS	0.458239	0.21602235	FALSE
SRP14	0.822609	0.06600664	FALSE
SRP19	0.691367	0.11661173	FALSE

SRP54	0.062172	0.51045135	FALSE
SRP54-AS1	0.32151	-0.28602878	FALSE
SRP68	0.652801	-0.13201328	FALSE
SRP72	0.578116	-0.16281638	FALSE
SRP72P2	0.170813	0.38767658	FALSE
SRP9	0.970226	0.01100111	FALSE
SRP9P1	0.204983	0.3608363	FALSE
SRPK1	0.542145	0.17821793	FALSE
SRPK2	0.776284	0.08360841	FALSE
SRPK3	0.958324	-0.01540155	FALSE
SRPRA	0.680272	0.12101217	FALSE
SRPRB	0.70252	-0.11221129	FALSE
SRPX	0.413986	-0.23730506	FALSE
SRPX2	0.647355	-0.1342135	FALSE
SRR	0.374268	0.2574259	FALSE
SRRD	0.008022	0.67546796	FALSE
SRRM1	0.719353	-0.10561062	FALSE
SRRM2	0.92861	-0.02640266	FALSE
SRRM3	0.303206	0.29656316	FALSE
SRRM4	0.229572	-0.34323453	FALSE
SRRM5	0.685812	-0.11881195	FALSE
SRRT	0.353453	-0.26842701	FALSE
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SRSF11	0.92861	-0.02640266	FALSE
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SRSF3	0.148612	0.40704095	FALSE
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SRSF5	0.916747	-0.0308031	FALSE
SRSF6	0.223262	-0.34763497	FALSE
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SRSF8	0.353453	-0.26842701	FALSE
SRSF9	0.904899	0.03520354	FALSE
SRXN1	0.273248	0.31463165	FALSE
SS18	0.395723	0.24642479	FALSE
SS18L1	0.94643	-0.01980199	FALSE
SS18L2	0.103603	0.4532456	FALSE
SSB	0.724991	-0.1034104	FALSE
SSBP1	0.148612	-0.40704095	FALSE
SSBP2	0.53205	-0.18261837	FALSE
SSBP3	0.893071	-0.03960398	FALSE
SSBP4	0.353453	0.26842701	FALSE
SSC4D	0.863593	-0.05060509	FALSE
SSC5D	0.291271	-0.30363055	FALSE
SSFA2	0.82844	0.06380642	FALSE
SSH1	0.730641	-0.10121018	FALSE

SSH2	0.445116	0.22222236	FALSE
SSH3	0.588569	-0.15841594	FALSE
SSNA1	0.517064	0.18921904	FALSE
SSPN	0.011636	-0.65126552	FALSE
SSPO	0.204983	-0.3608363	FALSE
SSR1	0.004388	-0.7106715	TRUE
SSR2	0.273248	0.31463165	FALSE
SSR3	0.583333	0.16061616	FALSE
SSR4	0.887164	0.04180421	FALSE
SSR4P1	0.478056	-0.20682081	FALSE
SSRP1	0.302409	-0.29702988	FALSE
SSCA1	0.50718	0.19361948	FALSE
SSTR2	0.887164	0.04180421	FALSE
SSTR3	0.636511	0.13861395	FALSE
SSU72	0.000226	-0.83168367	TRUE
SSUH2	0.074851	-0.49064936	FALSE
SSX2IP	0.583333	0.16061616	FALSE
SSX5	0.628787	0.14176466	FALSE
SSX7	0.822609	0.06600664	FALSE
ST13	0.851846	-0.05500553	FALSE
ST13P11	0.727154	-0.10256747	FALSE
ST13P13	0.851964	0.05496151	FALSE
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ST13P5	0.50718	0.19361948	FALSE
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ST14	0.031739	0.57425777	FALSE
ST18	0.008604	-0.67106751	FALSE
ST20	0.94643	0.01980199	FALSE
ST20-MTHF	0.094465	0.46424671	FALSE
ST3GAL1	0.259319	-0.32343254	FALSE
ST3GAL2	0.387065	-0.25082523	FALSE
ST3GAL3	0.445116	0.22222236	FALSE
ST3GAL4	0.994044	0.00220022	FALSE
ST3GAL5	0.964274	0.01320133	FALSE
ST3GAL6	0.940487	-0.02200221	FALSE
ST5	0.141504	-0.41364161	FALSE
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ST8SIA2	0.892544	0.03979986	FALSE
ST8SIA3	0.325411	-0.28382855	FALSE
ST8SIA4	0.719353	0.10561062	FALSE
ST8SIA5	0.329337	-0.28162833	FALSE
ST8SIA6	0.032552	0.57205755	FALSE
STAB1	0.012811	0.64466486	FALSE
STAC	0.267931	0.31795917	FALSE
STAC2	0.776284	0.08360841	FALSE
STAC3	0.190494	0.37183741	FALSE
STAG1	0.031739	-0.57425777	FALSE
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STAG3L1	0.325411	-0.28382855	FALSE
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STAG3L3	0.306176	-0.29482966	FALSE
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STAG3L5P	0.229572	-0.34323453	FALSE
STAM	0.038684	-0.556656	FALSE
STAM2	0.202031	0.36303652	FALSE
STAMPB	0.34531	0.27282745	FALSE
STAMBPL1	0.255905	-0.32563276	FALSE
STAP1	0.816786	-0.06820686	FALSE
STAP2	0.040582	-0.55225556	FALSE
STAR	0.266229	0.3190321	FALSE
STARD10	0.459093	-0.21562169	FALSE
STARD13	0.964274	0.01320133	FALSE
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STARD3NL	0.982133	-0.00660066	FALSE
STARD4	0.134627	0.42024228	FALSE
STARD5	0.422298	0.23322346	FALSE
STARD6	0.068363	0.50045523	FALSE
STARD7	0.604388	-0.15181527	FALSE
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STAT1	0.527033	0.18481859	FALSE
STAT2	0.333291	0.27942811	FALSE
STAT3	0.572919	-0.1650166	FALSE
STAT4	0.478056	-0.20682081	FALSE
STAT5A	0.593824	-0.15621572	FALSE
STAT5B	0.764804	0.08800885	FALSE
STAT6	0.021269	0.60726109	FALSE
STATH	0.111811	-0.44392146	FALSE
STAU1	0.081035	-0.48184848	FALSE
STAU2	0.027898	-0.58525888	FALSE
STBD1	0.274464	0.31387665	FALSE

STC1	0.4638	0.21342147	FALSE
STC2	0.589654	0.1579612	FALSE
STEAP1	0.568871	0.16673564	FALSE
STEAP1B	0.616427	-0.14683717	FALSE
STEAP2	0.869477	-0.04840487	FALSE
STEAP3	0.353453	0.26842701	FALSE
STEAP4	0.204983	0.3608363	FALSE
STIL	0.736305	-0.09900996	FALSE
STIM1	0.32151	0.28602878	FALSE
STIM2	0.863593	-0.05060509	FALSE
STIP1	0.210967	0.35643586	FALSE
STK10	0.160975	0.39603984	FALSE
STK11	0.893071	-0.03960398	FALSE
STK11IP	0.631114	-0.14081417	FALSE
STK16	0.024415	0.59625999	FALSE
STK17A	0.970226	-0.01100111	FALSE
STK17B	0.028637	-0.58305866	FALSE
STK19	0.473281	-0.20902103	FALSE
STK24	0.764804	-0.08800885	FALSE
STK24P1	0.353453	0.26842701	FALSE
STK25	0.146217	0.40924117	FALSE
STK26	0.0201	-0.61166154	FALSE
STK3	0.0779	-0.48624892	FALSE
STK31	0.753369	0.0924093	FALSE
STK32A	0.171338	-0.38723896	FALSE
STK32B	0.007471	-0.6798684	FALSE
STK32C	0.033381	0.56985733	FALSE
STK33	0.845984	0.05720576	FALSE
STK33P1	0.015517	0.63105727	FALSE
STK35	0.168708	-0.38943918	FALSE
STK36	0.163526	0.39383962	FALSE
STK38	0.349368	-0.27062723	FALSE
STK38L	0.184888	-0.37623785	FALSE
STK39	0.502271	-0.1958197	FALSE
STK4	0.32151	-0.28602878	FALSE
STK40	0.395723	0.24642479	FALSE
STKLD1	0.934547	0.02420243	FALSE
STMN1	0.631114	-0.14081417	FALSE
STMN1P1	0.08926	0.47084737	FALSE
STMN3	0.685812	-0.11881195	FALSE
STMN4	0.994044	-0.00220022	FALSE
STMND1	0.074851	-0.49064936	FALSE
STOM	0.674747	-0.1232124	FALSE
STOML1	0.214	0.35423564	FALSE
STOML2	0.365865	0.26182634	FALSE
STOML3	0.192291	0.37044481	FALSE
STON1	0.502271	0.1958197	FALSE
STON1-GTF	0.230574	0.34254332	FALSE

STON2	0.845984	0.05720576	FALSE
STOX1	0.341277	-0.27502767	FALSE
STOX2	0.235992	0.33883409	FALSE
STPG1	0.674747	0.1232124	FALSE
STPG2	0.403949	0.24229075	FALSE
STPG3	0.59869	0.15418502	FALSE
STRA13	0.069009	0.49945025	FALSE
STRA6	0.741981	0.09680974	FALSE
STRADA	0.976179	-0.00880089	FALSE
STRADB	0.759081	0.09020908	FALSE
STRAP	0.922677	-0.02860288	FALSE
STRBP	0.204983	-0.3608363	FALSE
STRC	0.685812	0.11881195	FALSE
STRCP1	0.087173	-0.47356828	FALSE
STRIP1	0.040582	-0.55225556	FALSE
STRIP2	0.176678	0.38283852	FALSE
STRN	0.003881	-0.71727216	TRUE
STRN3	0.34531	-0.27282745	FALSE
STRN4	0.492518	-0.20022014	FALSE
STS	0.593824	-0.15621572	FALSE
STT3A	0.845984	-0.05720576	FALSE
STT3B	0.125812	-0.42904316	FALSE
STUB1	0.047766	0.53685401	FALSE
STUM	0.887164	-0.04180421	FALSE
STX10	0.631114	-0.14081417	FALSE
STX11	0.176678	0.38283852	FALSE
STX12	0.669238	0.12541262	FALSE
STX16	0.111339	0.44444471	FALSE
STX16-NPEI	0.512111	0.19141926	FALSE
STX17	0.096246	-0.46204648	FALSE
STX18	0.875366	0.04620465	FALSE
STX19	0.276152	-0.3128308	FALSE
STX1A	0.005554	0.69747017	FALSE
STX1B	0.187678	0.37403763	FALSE
STX2	0.184888	0.37623785	FALSE
STX3	0.378508	0.25522568	FALSE
STX4	0.857716	0.05280531	FALSE
STX5	0.478056	0.20682081	FALSE
STX6	0.063499	-0.50825113	FALSE
STX7	0.572919	0.1650166	FALSE
STX8	0.881262	-0.04400443	FALSE
STXBP1	0.840128	-0.05940598	FALSE
STXBP2	0.031739	0.57425777	FALSE
STXBP3	0.741981	-0.09680974	FALSE
STXBP4	0.207961	-0.35863608	FALSE
STXBP5	0.143848	-0.41144139	FALSE
STXBP5L	0.724618	-0.10355571	FALSE
STXBP6	0.045394	0.54174016	FALSE

STYK1	0.759081	-0.09020908	FALSE
STYX	0.329337	-0.28162833	FALSE
STYXL1	0.291271	0.30363055	FALSE
SUB1	0.770539	0.08580863	FALSE
SUCLA2	0.276799	-0.31243143	FALSE
SUCLG1	0.341277	-0.27502767	FALSE
SUCLG2	0.207961	0.35863608	FALSE
SUCLG2P4	0.357015	-0.26651982	FALSE
SUCNR1	0.066213	-0.50385069	FALSE
SUCO	0.497383	-0.19801992	FALSE
SUDS3	0.012018	-0.6490653	FALSE
SUDS3P1	0.053374	-0.52596974	FALSE
SUFU	0.014515	-0.63586397	FALSE
SUGCT	0.071901	-0.49503034	FALSE
SUGP1	0.404482	-0.24202435	FALSE
SUGP2	0.822609	-0.06600664	FALSE
SUGT1	0.631114	0.14081417	FALSE
SUGT1P	0.793583	-0.07700775	FALSE
SUGT1P2	0.387065	-0.25082523	FALSE
SUGT1P3	0.006222	-0.6908695	FALSE
SULF1	0.374268	0.2574259	FALSE
SULF2	0.066213	-0.50385069	FALSE
SULT1A1	0.121554	0.43344361	FALSE
SULT1A2	0.232769	0.34103431	FALSE
SULT1A3	1	0	FALSE
SULT1A4	0.922677	-0.02860288	FALSE
SULT1B1	0.10937	-0.44664493	FALSE
SULT1C2	0.674747	-0.1232124	FALSE
SULT1C2P1	0.045626	-0.54125445	FALSE
SULT1C4	0.730641	-0.10121018	FALSE
SULT1E1	0.691043	-0.11674009	FALSE
SULT2A1	0.40009	0.24422457	FALSE
SULT2B1	0.747669	0.09460952	FALSE
SULT4A1	0.397991	0.24528053	FALSE
SUMF1	0.064846	0.50605091	FALSE
SUMF2	0.070438	-0.49725003	FALSE
SUMO1	0.851846	-0.05500553	FALSE
SUMO1P1	0.019406	0.61436802	FALSE
SUMO1P4	0.212203	-0.35553678	FALSE
SUMO2	0.53205	-0.18261837	FALSE
SUMO2P1	0.681518	-0.12051678	FALSE
SUMO2P17	0.869334	-0.04845815	FALSE
SUMO2P19	0.033983	-0.56828194	FALSE
SUMO2P2C	0.649521	0.13333772	FALSE
SUMO3	0.583333	-0.16061616	FALSE
SUMO4	0.840128	0.05940598	FALSE
SUN1	0.070438	0.49725003	FALSE
SUN2	0.084258	0.47744803	FALSE

SUN3	0.309412	-0.29295154	FALSE
SUOX	0.578116	-0.16281638	FALSE
SUPT16H	0.976179	-0.00880089	FALSE
SUPT16HP:	0.970094	-0.01104978	FALSE
SUPT20H	0.845984	0.05720576	FALSE
SUPT3H	0.082635	-0.47964826	FALSE
SUPT4H1	0.171338	0.38723896	FALSE
SUPT5H	0.552323	-0.17381749	FALSE
SUPT6H	0.845984	0.05720576	FALSE
SUPT7L	0.753369	-0.0924093	FALSE
SUPV3L1	0.008604	-0.67106751	FALSE
SURF1	0.182124	0.37843807	FALSE
SURF2	0.620371	-0.14521461	FALSE
SURF4	0.202031	0.36303652	FALSE
SURF6	0.816786	-0.06820686	FALSE
SUSD1	0.910821	-0.03300332	FALSE
SUSD2	0.008906	-0.66886729	FALSE
SUSD3	0.002091	0.74807526	TRUE
SUSD4	0.319279	0.2872944	FALSE
SUSD5	0.863593	-0.05060509	FALSE
SUSD6	0.34531	0.27282745	FALSE
SUV39H1	0.79937	-0.07480753	FALSE
SUV39H2	0.79937	0.07480753	FALSE
SUZ12	0.003279	-0.72607305	TRUE
SUZ12P1	0.226404	-0.34543475	FALSE
SV2A	0.002516	-0.73927437	TRUE
SV2B	0.010901	-0.65566596	FALSE
SV2C	0.026463	-0.58965932	FALSE
SVBP	0.599097	0.15401549	FALSE
SVEP1	0.588569	-0.15841594	FALSE
SVIL	0.916747	0.0308031	FALSE
SVIL-AS1	0.92861	0.02640266	FALSE
SVILP1	0.770539	0.08580863	FALSE
SVIP	0.922677	0.02860288	FALSE
SVOP	0.168708	-0.38943918	FALSE
SVOPL	0.011514	-0.65198238	FALSE
SWAP70	0.306176	-0.29482966	FALSE
SWI5	0.517064	-0.18921904	FALSE
SWSAP1	0.262761	0.32123232	FALSE
SWT1	0.148612	-0.40704095	FALSE
SYAP1	0.691367	-0.11661173	FALSE
SYBU	0.17887	0.38105727	FALSE
SYCE1	0.713042	-0.10807953	FALSE
SYCE1L	0.287612	0.30583077	FALSE
SYCE2	0.193338	-0.36963719	FALSE
SYCE3	0.022006	-0.60457663	FALSE
SYCP1	0.764804	0.08800885	FALSE
SYCP2	0.094465	0.46424671	FALSE

SYCP2L	0.249158	0.3300332	FALSE
SYCP3	0.051113	-0.53025335	FALSE
SYDE1	0.118982	-0.43615228	FALSE
SYDE2	0.552323	0.17381749	FALSE
SYF2	0.56774	-0.16721682	FALSE
SYK	0.50718	0.19361948	FALSE
SYMPK	0.857716	-0.05280531	FALSE
SYN1	0.56774	0.16721682	FALSE
SYN2	0.139186	0.41584184	FALSE
SYN3	0.449752	0.22002214	FALSE
SYNC	0.736305	-0.09900996	FALSE
SYNCRIP	0.898983	-0.03740376	FALSE
SYNDIG1L	0.584074	-0.16030441	FALSE
SYNE1	0.719353	0.10561062	FALSE
SYNE2	0.708117	0.11001107	FALSE
SYNE3	0.426813	0.23102324	FALSE
SYNE4	0.940487	0.02200221	FALSE
SYNGAP1	0.249158	-0.3300332	FALSE
SYNGR1	0.020678	-0.60946131	FALSE
SYNGR2	0.70252	0.11221129	FALSE
SYNGR3	0.79937	0.07480753	FALSE
SYNGR4	0.90448	0.03535931	FALSE
SYNJ1	0.333291	-0.27942811	FALSE
SYNJ2	1	0	FALSE
SYNJ2BP	0.730641	-0.10121018	FALSE
SYNJ2BP-C	0.740875	-0.0972381	FALSE
SYNM	0.468529	-0.21122125	FALSE
SYNPO	0.964274	-0.01320133	FALSE
SYNPO2	0.287612	0.30583077	FALSE
SYNPO2L	0.024415	0.59625999	FALSE
SYNPR	0.728848	0.1019078	FALSE
SYNRG	0.552323	-0.17381749	FALSE
SYP	0.184888	0.37623785	FALSE
SYPL1	0.030158	-0.57865822	FALSE
SYPL2	0.793361	0.07709251	FALSE
SYS1	0.641924	-0.13641372	FALSE
SYS1-DBND	0.14906	-0.40663207	FALSE
SYT1	0.011712	0.65082675	FALSE
SYT10	0.209118	-0.35778701	FALSE
SYT11	0.724991	-0.1034104	FALSE
SYT12	0.468529	-0.21122125	FALSE
SYT13	0.079456	0.4840487	FALSE
SYT14	0.023759	0.59846021	FALSE
SYT15	0.291271	-0.30363055	FALSE
SYT16	0.204983	-0.3608363	FALSE
SYT17	0.01543	0.63146353	FALSE
SYT2	0.875366	-0.04620465	FALSE
SYT3	0.828254	0.06387665	FALSE

SYT4	0.823189	0.06578754	FALSE
SYT5	0.537087	-0.18041815	FALSE
SYT6	0.730512	0.10126047	FALSE
SYT7	0.84531	-0.05745888	FALSE
SYTL1	0.663743	0.12761284	FALSE
SYTL2	0.196209	-0.36743697	FALSE
SYTL3	0.179388	-0.38063829	FALSE
SYTL4	0.026463	0.58965932	FALSE
SYTL5	0.039156	0.55554592	FALSE
SYVN1	0.547224	-0.17601771	FALSE
SZRD1	0.851846	0.05500553	FALSE
SZT2	0.184888	-0.37623785	FALSE
T	0.767606	-0.08693354	FALSE
TAB1	0.92861	-0.02640266	FALSE
TAB2	0.674747	0.1232124	FALSE
TAB3	0.445116	-0.22222236	FALSE
TAB3P1	0.238004	-0.33746978	FALSE
TAC3	0.652441	-0.13215859	FALSE
TAC4	0.473041	-0.20913173	FALSE
TACC1	0.764804	0.08800885	FALSE
TACC2	0.857716	-0.05280531	FALSE
TACC3	0.242521	-0.33443365	FALSE
TACO1	0.934547	-0.02420243	FALSE
TACR2	0.232769	-0.34103431	FALSE
TACSTD2	0.978305	-0.00801522	FALSE
TADA1	0.071888	-0.4950498	FALSE
TADA2A	0.096246	0.46204648	FALSE
TADA2B	0.239243	0.33663387	FALSE
TADA3	0.02939	0.58085844	FALSE
TAF1	0.136894	-0.41804206	FALSE
TAF10	0.031739	0.57425777	FALSE
TAF11	0.652801	0.13201328	FALSE
TAF12	0.793583	-0.07700775	FALSE
TAF13	0.994044	0.00220022	FALSE
TAF15	0.881262	-0.04400443	FALSE
TAF1A	0.31379	-0.29042922	FALSE
TAF1B	0.018439	0.6182622	FALSE
TAF1C	0.857716	0.05280531	FALSE
TAF1D	0.190494	-0.37183741	FALSE
TAF1L	0.747669	0.09460952	FALSE
TAF2	0.547224	-0.17601771	FALSE
TAF3	0.060866	-0.51265158	FALSE
TAF4	0.658264	-0.12981306	FALSE
TAF4B	0.730641	0.10121018	FALSE
TAF5	0.139186	-0.41584184	FALSE
TAF5L	0.473281	0.20902103	FALSE
TAF6	0.958324	0.01540155	FALSE
TAF6L	0.719353	-0.10561062	FALSE

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TAF7L	0.317637	0.288229	FALSE
TAF8	0.557442	-0.17161727	FALSE
TAF9	0.130169	0.42464272	FALSE
TAF9B	0.82844	-0.06380642	FALSE
TAF9P3	0.879944	0.04449611	FALSE
TAGAP	1	0	FALSE
TAGLN	0.517064	-0.18921904	FALSE
TAGLN2	0.166104	0.3916394	FALSE
TAGLN2P1	0.468529	0.21122125	FALSE
TAGLN3	0.043318	-0.5461718	FALSE
TAL1	0.413341	0.23762391	FALSE
TAL2	0.42527	-0.23177398	FALSE
TALDO1	0.641924	0.13641372	FALSE
TAMM41	0.770539	-0.08580863	FALSE
TANC1	0.787807	0.07920797	FALSE
TANC2	0.898983	0.03740376	FALSE
TANGO2	0.037759	0.55885622	FALSE
TANGO6	0.028637	-0.58305866	FALSE
TANK	0.482854	0.20462059	FALSE
TAOK1	0.92861	0.02640266	FALSE
TAOK2	0.325411	-0.28382855	FALSE
TAOK3	0.881262	-0.04400443	FALSE
TAP1	0.103603	0.4532456	FALSE
TAP2	0.171338	0.38723896	FALSE
TAPBP	0.593824	-0.15621572	FALSE
TAPBPL	0.291271	0.30363055	FALSE
TAPT1	0.266229	-0.3190321	FALSE
TARBP1	0.413341	-0.23762391	FALSE
TARBP2	0.287612	-0.30583077	FALSE
TARDBP	0.79937	0.07480753	FALSE
TARDBPP2	0.044066	-0.54455633	FALSE
TARM1	0.08926	-0.47084737	FALSE
TARS	0.527033	-0.18481859	FALSE
TARS2	0.615026	0.14741483	FALSE
TARSL2	0.32151	-0.28602878	FALSE
TAS1R1	0.69666	0.11452043	FALSE
TAS1R2	0.206581	-0.35965292	FALSE
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TAS2R63P	0.291271	-0.30363055	FALSE
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TASP1	0.361702	-0.26402656	FALSE
TAT	0.893071	-0.03960398	FALSE
TATDN1	0.863593	0.05060509	FALSE
TATDN2	0.964274	0.01320133	FALSE
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TAZ	0.038684	0.556656	FALSE
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TBC1D10B	0.724991	0.1034104	FALSE
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TBC1D12	0.002192	0.74587504	TRUE
TBC1D13	0.473281	-0.20902103	FALSE
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TBC1D23	0.252518	-0.32783298	FALSE
TBC1D24	0.283981	-0.30803099	FALSE
TBC1D25	0.374268	0.2574259	FALSE
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TBC1D30	0.168708	0.38943918	FALSE
TBC1D31	0.034225	-0.56765711	FALSE

TBC1D32	0.32151	-0.28602878	FALSE
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TBC1D3C	0.791323	-0.0778682	FALSE
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TBC1D3F	0.492199	-0.20036493	FALSE
TBC1D3I	0.357015	-0.26651982	FALSE
TBC1D3K	0.965303	0.01282093	FALSE
TBC1D3L	0.609698	-0.14961505	FALSE
TBC1D3P5	0.245826	-0.33223342	FALSE
TBC1D3P6	0.366395	-0.26154706	FALSE
TBC1D4	0.730641	0.10121018	FALSE
TBC1D5	0.747669	0.09460952	FALSE
TBC1D7	0.641924	-0.13641372	FALSE
TBC1D8	0.199106	-0.36523674	FALSE
TBC1D8B	0.357565	-0.26622678	FALSE
TBC1D9	0.005992	0.69306973	FALSE
TBC1D9B	0.306176	0.29482966	FALSE
TBCA	0.658264	-0.12981306	FALSE
TBCAP3	0.082635	0.47964826	FALSE
TBCB	0.249158	0.3300332	FALSE
TBCC	0.193338	-0.36963719	FALSE
TBCCD1	0.83428	0.0616062	FALSE
TBCD	0.805166	0.0726073	FALSE
TBCE	0.049979	0.53245357	FALSE
TBCEL	0.893071	-0.03960398	FALSE
TBCK	0.652801	-0.13201328	FALSE
TBK1	0.210967	0.35643586	FALSE
TBKBP1	0.001028	-0.77887836	TRUE
TBL1X	0.408899	-0.23982413	FALSE
TBL1XR1	0.000921	-0.7832788	TRUE
TBL1Y	0.434371	-0.22736679	FALSE
TBL2	0.202031	0.36303652	FALSE
TBL3	0.517064	0.18921904	FALSE
TBP	0.620371	-0.14521461	FALSE
TBPL1	0.176678	-0.38283852	FALSE
TBPL2	0.599097	0.15401549	FALSE
TBR1	0.011264	-0.65346574	FALSE
TBRG1	0.454411	0.21782191	FALSE
TBRG4	0.887164	0.04180421	FALSE
TBX1	0.753369	0.0924093	FALSE
TBX10	0.193851	-0.36924291	FALSE
TBX15	0.001063	-0.77753304	TRUE
TBX18	0.327804	-0.28248601	FALSE
TBX19	0.572919	-0.1650166	FALSE
TBX2	0.308164	-0.29367434	FALSE
TBX20	0.553552	0.17328859	FALSE
TBX21	0.422298	-0.23322346	FALSE

TBX3	0.363669	0.26298487	FALSE
TBX4	0.53205	-0.18261837	FALSE
TBX5	0.707479	0.11026141	FALSE
TBX6	0.976179	0.00880089	FALSE
TBXA2R	0.94643	0.01980199	FALSE
TBXAS1	0.449752	0.22002214	FALSE
TC2N	0.294957	0.30143033	FALSE
TCAF1	0.004944	-0.70407083	TRUE
TCAF1P1	0.01739	-0.62266264	FALSE
TCAF2	0.869477	0.04840487	FALSE
TCAIM	0.625734	-0.14301439	FALSE
TCAM1P	0.863593	0.05060509	FALSE
TCAP	0.857716	0.05280531	FALSE
TCEA1	0.039624	-0.55445578	FALSE
TCEA1P2	0.736305	-0.09900996	FALSE
TCEA1P4	0.730641	-0.10121018	FALSE
TCEA2	0.685812	0.11881195	FALSE
TCEA3	0.370053	-0.25962612	FALSE
TCEAL1	1.5E-05	-0.89549009	TRUE
TCEAL2	0.130989	0.42382547	FALSE
TCEAL3	0.747669	-0.09460952	FALSE
TCEAL4	0.562581	-0.16941704	FALSE
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TCEANC	0.094465	0.46424671	FALSE
TCEANC2	0.840128	-0.05940598	FALSE
TCEB1	0.708117	0.11001107	FALSE
TCEB1P19	0.011264	-0.65346574	FALSE
TCEB1P2	0.206925	0.35939923	FALSE
TCEB1P24	0.98135	0.0068899	FALSE
TCEB1P33	0.793583	0.07700775	FALSE
TCEB2	0.349368	0.27062723	FALSE
TCEB3	0.273248	0.31463165	FALSE
TCERG1	0.094465	-0.46424671	FALSE
TCERG1L	0.542145	-0.17821793	FALSE
TCF12	0.214	-0.35423564	FALSE
TCF15	0.027947	0.58511109	FALSE
TCF19	0.70252	0.11221129	FALSE
TCF20	0.032552	-0.57205755	FALSE
TCF21	0.273248	-0.31463165	FALSE
TCF23	0.067601	-0.50165047	FALSE
TCF24	0.988088	-0.00440044	FALSE
TCF25	0.210967	0.35643586	FALSE
TCF3	0.090972	-0.46864715	FALSE
TCF3P1	0.916747	0.0308031	FALSE
TCF4	0.220147	-0.3498352	FALSE
TCF7	0.50718	0.19361948	FALSE

TCF7L1	0.190494	0.37183741	FALSE
TCF7L2	0.317637	-0.288229	FALSE
TCFL5	0.492518	-0.20022014	FALSE
TCHH	0.940487	0.02200221	FALSE
TCHP	0.851846	-0.05500553	FALSE
TCIRG1	0.007207	0.68206862	FALSE
TCL1A	0.816786	-0.06820686	FALSE
TCL1B	0.567839	0.1671746	FALSE
TCN1	0.636511	0.13861395	FALSE
TCN2	0.08926	0.47084737	FALSE
TCOF1	0.482854	-0.20462059	FALSE
TCP1	0.609698	0.14961505	FALSE
TCP10L	0.482362	-0.20484581	FALSE
TCP10L2	0.63271	-0.14016275	FALSE
TCP11	0.775317	-0.08397836	FALSE
TCP11L1	0.680272	0.12101217	FALSE
TCP11L2	0.32151	-0.28602878	FALSE
TCTA	0.160975	0.39603984	FALSE
TCTE1	0.341277	-0.27502767	FALSE
TCTE3	0.478056	-0.20682081	FALSE
TCTEX1D1	0.741981	0.09680974	FALSE
TCTEX1D2	0.609698	0.14961505	FALSE
TCTEX1D4	0.904795	0.03524229	FALSE
TCTN1	0.10937	-0.44664493	FALSE
TCTN2	0.014515	-0.63586397	FALSE
TCTN3	0.875366	0.04620465	FALSE
TDG	0.468529	0.21122125	FALSE
TDGF1	0.593824	0.15621572	FALSE
TDGF1P3	0.395723	-0.24642479	FALSE
TDGF1P7	0.006639	-0.6870189	FALSE
TDH	0.890653	-0.04050419	FALSE
TDP1	0.625734	-0.14301439	FALSE
TDP2	0.875366	0.04620465	FALSE
TDRD1	0.329337	0.28162833	FALSE
TDRD10	0.855018	0.05381648	FALSE
TDRD12	0.4638	-0.21342147	FALSE
TDRD3	0.207961	-0.35863608	FALSE
TDRD6	0.035149	0.56529234	FALSE
TDRD7	0.004944	0.70407083	TRUE
TDRD9	0.588569	0.15841594	FALSE
TDRKH	0.994044	-0.00220022	FALSE
TDRP	0.376817	0.2561015	FALSE
TEAD1	0.023117	0.60066043	FALSE
TEAD2	0.621837	0.14461236	FALSE
TEAD3	0.179388	-0.38063829	FALSE
TEAD4	0.207425	-0.35903084	FALSE
TEC	0.583333	0.16061616	FALSE
TECPR1	0.988088	-0.00440044	FALSE

TECPR2	0.787807	0.07920797	FALSE
TECR	0.636511	-0.13861395	FALSE
TECRL	0.674747	-0.1232124	FALSE
TECTA	0.321951	-0.28577956	FALSE
TEDDM1	0.922677	-0.02860288	FALSE
TEF	0.658264	0.12981306	FALSE
TEFM	0.625734	0.14301439	FALSE
TEK	0.663743	0.12761284	FALSE
TEKT1	0.628378	0.14193199	FALSE
TEKT2	0.680272	-0.12101217	FALSE
TEKT3	0.685812	-0.11881195	FALSE
TEKT4	0.169662	0.38863849	FALSE
TEKT4P2	0.014967	0.63366375	FALSE
TEKT5	0.145891	0.40954236	FALSE
TELO2	0.547224	0.17601771	FALSE
TEN1	0.522038	0.18701882	FALSE
TEN1-CDK3	0.395261	0.24665851	FALSE
TENM1	0.887164	0.04180421	FALSE
TENM2	0.193778	0.36929878	FALSE
TENM3	0.515179	0.19005518	FALSE
TENM4	0.50718	0.19361948	FALSE
TEP1	0.916747	-0.0308031	FALSE
TEPP	0.53205	0.18261837	FALSE
TEPSIN	0.816786	0.06820686	FALSE
TERB1	0.341277	-0.27502767	FALSE
TERB2	0.816786	-0.06820686	FALSE
TERF1	0.245826	-0.33223342	FALSE
TERF2	0.12367	-0.43124339	FALSE
TERF2IP	0.759081	-0.09020908	FALSE
TERT	0.602771	-0.15248703	FALSE
TES	0.141504	0.41364161	FALSE
TESC	0.940487	0.02200221	FALSE
TESK1	0.408899	0.23982413	FALSE
TESK2	0.787807	0.07920797	FALSE
TESMIN	0.0779	0.48624892	FALSE
TESPA1	0.934547	-0.02420243	FALSE
TET1	0.370053	-0.25962612	FALSE
TET2	0.810971	0.07040708	FALSE
TET3	0.647355	0.1342135	FALSE
TEX10	0.055836	-0.52145246	FALSE
TEX101	0.113334	-0.44224449	FALSE
TEX11	0.685812	0.11881195	FALSE
TEX12	0.279819	-0.31057269	FALSE
TEX13C	0.272692	-0.31497797	FALSE
TEX14	0.593824	-0.15621572	FALSE
TEX15	0.45161	0.21914335	FALSE
TEX19	0.158726	-0.39799855	FALSE
TEX2	0.199106	0.36523674	FALSE

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TEX22	0.004213	-0.71287172	TRUE
TEX261	0.934547	0.02420243	FALSE
TEX264	0.417807	-0.23542368	FALSE
TEX28	0.350162	0.27019883	FALSE
TEX29	0.003007	-0.73047349	TRUE
TEX30	0.502271	-0.1958197	FALSE
TEX35	0.291271	-0.30363055	FALSE
TEX40	0.060002	-0.51412364	FALSE
TEX43	0.165303	-0.39232059	FALSE
TEX9	0.155952	0.40044029	FALSE
TF	0.547224	-0.17601771	FALSE
TFAM	0.016883	-0.62486286	FALSE
TFAMP1	0.783087	-0.08100838	FALSE
TFAMP2	0.108428	0.44770585	FALSE
TFAP2A	0.579767	-0.1621193	FALSE
TFAP2C	0.787807	-0.07920797	FALSE
TFAP2E	0.562581	-0.16941704	FALSE
TFAP4	0.578116	-0.16281638	FALSE
TFB1M	1	0	FALSE
TFB2M	0.223262	-0.34763497	FALSE
TFCP2	0.970226	0.01100111	FALSE
TFCP2L1	0.845984	-0.05720576	FALSE
TFDP1	0.317637	0.288229	FALSE
TFDP2	0.00695	-0.68426884	FALSE
TFE3	0.964274	-0.01320133	FALSE
TFEB	0.03596	0.56325667	FALSE
TFEC	0.583333	-0.16061616	FALSE
TFF2	0.070438	-0.49725003	FALSE
TFF3	0.318419	-0.28778357	FALSE
TFG	0.374268	0.2574259	FALSE
TFIP11	0.512111	-0.19141926	FALSE
TFP1	0.691043	0.11674009	FALSE
TFPI	0.609698	-0.14961505	FALSE
TFPI2	0.073378	0.49282039	FALSE
TFPT	0.214	-0.35423564	FALSE
TFR2	0.492518	0.20022014	FALSE
TFRC	0.753369	0.0924093	FALSE
TG	0.609698	-0.14961505	FALSE
TGDS	0.125812	-0.42904316	FALSE
TGFA	0.026463	0.58965932	FALSE
TGFB1	0.445116	-0.22222236	FALSE
TGFB111	0.982133	0.00660066	FALSE
TGFB2	0.770539	-0.08580863	FALSE
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TGFBR1	0.770539	0.08580863	FALSE
TGFBR2	0.302409	-0.29702988	FALSE

TGFBR3	0.527033	0.18481859	FALSE
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TGFBRAP1	0.024415	-0.59625999	FALSE
TGIF1	0.090972	-0.46864715	FALSE
TGIF2	0.454411	0.21782191	FALSE
TGIF2-C20c	0.317637	0.288229	FALSE
TGIF2P1	0.454411	-0.21782191	FALSE
TGM1	0.325411	0.28382855	FALSE
TGM2	0.012811	0.64466486	FALSE
TGM3	0.099878	0.45764604	FALSE
TGM4	0.464268	-0.21320293	FALSE
TGM5	0.000167	0.84048456	TRUE
TGOLN2	0.863593	0.05060509	FALSE
TGS1	0.449752	-0.22002214	FALSE
THA1P	0.379878	-0.25451761	FALSE
THADA	0.413341	-0.23762391	FALSE
THAP1	0.517064	0.18921904	FALSE
THAP10	0.001785	0.75534753	TRUE
THAP11	0.869477	-0.04840487	FALSE
THAP12	0.869477	0.04840487	FALSE
THAP12P1	0.904792	0.03524333	FALSE
THAP12P7	0.958324	-0.01540155	FALSE
THAP12P9	0.522603	0.18676932	FALSE
THAP2	0.103603	0.4532456	FALSE
THAP3	0.082635	0.47964826	FALSE
THAP4	0.021269	-0.60726109	FALSE
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THAP5P1	0.8926	0.03977922	FALSE
THAP6	0.547224	-0.17601771	FALSE
THAP7	0.317637	0.288229	FALSE
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THAP9	0.294957	-0.30143033	FALSE
THBD	0.70252	-0.11221129	FALSE
THBS1	0.542145	0.17821793	FALSE
THBS2	0.389167	-0.24975201	FALSE
THBS3	0.56774	0.16721682	FALSE
THBS4	0.851846	-0.05500553	FALSE
THEG	0.135462	0.41942925	FALSE
THEGL	0.809427	-0.07099195	FALSE
THEM4	0.005141	0.70187061	TRUE
THEM5	0.138332	0.41665944	FALSE
THEM6	0.916747	0.0308031	FALSE
THEMIS	0.207961	0.35863608	FALSE
THEMIS2	0.127978	0.42684294	FALSE
THG1L	0.492518	0.20022014	FALSE
THNSL1	0.079456	-0.4840487	FALSE
THNSL2	0.09805	0.45984626	FALSE
THOC1	0.15845	-0.39824006	FALSE

THOC2	0.146217	-0.40924117	FALSE
THOC3	0.674747	0.1232124	FALSE
THOC5	0.863593	0.05060509	FALSE
THOC6	0.478056	-0.20682081	FALSE
THOC7	0.713728	0.10781085	FALSE
THOP1	0.620371	-0.14521461	FALSE
THRA	0.160975	-0.39603984	FALSE
THRAP3	0.952376	0.01760177	FALSE
THRAP3P1	0.623293	0.1440149	FALSE
THRB	0.497383	0.19801992	FALSE
THSD1	0.56774	-0.16721682	FALSE
THSD4	0.857716	0.05280531	FALSE
THSD7A	0.079505	0.48398056	FALSE
THTPA	0.117395	0.43784405	FALSE
THUMPD1	0.341277	-0.27502767	FALSE
THUMPD1F	0.565001	0.168384	FALSE
THUMPD2	0.370053	0.25962612	FALSE
THUMPD3	0.50718	0.19361948	FALSE
THUMPD3F	0.211609	-0.3559689	FALSE
THYN1	0.125812	-0.42904316	FALSE
TIA1	0.904899	0.03520354	FALSE
TIAF1	0.863593	-0.05060509	FALSE
TIAL1	0.041556	-0.55005534	FALSE
TIAM1	0.063499	0.50825113	FALSE
TIAM2	0.204983	-0.3608363	FALSE
TICAM1	0.223262	0.34763497	FALSE
TICAM2	0.01241	0.64686508	FALSE
TICRR	0.940487	-0.02200221	FALSE
TIE1	0.741981	0.09680974	FALSE
TIFA	0.881262	-0.04400443	FALSE
TIFAB	0.119009	0.43612335	FALSE
TIGAR	0.816786	0.06820686	FALSE
TIGD1	0.473281	-0.20902103	FALSE
TIGD2	0.306176	-0.29482966	FALSE
TIGD3	0.276799	-0.31243143	FALSE
TIGD4	0.01115	0.65414724	FALSE
TIGD5	0.964274	-0.01320133	FALSE
TIGD6	0.249158	0.3300332	FALSE
TIGD7	0.252518	0.32783298	FALSE
TIGIT	0.29867	0.2992301	FALSE
TIMD4	0.934547	0.02420243	FALSE
TIMELESS	0.040582	0.55225556	FALSE
TIMM10	0.422298	0.23322346	FALSE
TIMM10B	0.163526	0.39383962	FALSE
TIMM13	0.881262	0.04400443	FALSE
TIMM17A	0.004045	0.71507194	TRUE
TIMM17B	0.361702	0.26402656	FALSE
TIMM21	0.691367	-0.11661173	FALSE

TIMM22	0.413341	-0.23762391	FALSE
TIMM23	0.56774	0.16721682	FALSE
TIMM23B	0.006222	-0.6908695	FALSE
TIMM44	0.255905	-0.32563276	FALSE
TIMM50	0.542145	-0.17821793	FALSE
TIMM8A	0.83428	-0.0616062	FALSE
TIMM8B	0.002878	0.73267371	TRUE
TIMM9	0.047766	-0.53685401	FALSE
TIMMDC1	0.910821	0.03300332	FALSE
TIMP1	0.202031	0.36303652	FALSE
TIMP2	0.50718	-0.19361948	FALSE
TIMP3	0.030158	0.57865822	FALSE
TIMP4	0.374268	0.2574259	FALSE
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TINCR	0.29867	-0.2992301	FALSE
TINF2	0.003141	0.72827327	TRUE
TIPARP	0.50718	-0.19361948	FALSE
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TIPRL	0.249158	-0.3300332	FALSE
TIRAP	0.302409	0.29702988	FALSE
TISP43	0.269725	-0.31683187	FALSE
TJAP1	0.408899	0.23982413	FALSE
TJP1	0.82844	-0.06380642	FALSE
TJP2	0.030158	0.57865822	FALSE
TJP3	0.023106	-0.60069751	FALSE
TK1	0.184888	0.37623785	FALSE
TK2	0.202031	0.36303652	FALSE
TKFC	0.066213	0.50385069	FALSE
TKT	0.29867	0.2992301	FALSE
TKTL1	0.92861	0.02640266	FALSE
TKTL2	0.534546	-0.18152707	FALSE
TLCD1	0.964274	-0.01320133	FALSE
TLCD2	0.958324	-0.01540155	FALSE
TLDC1	0.387065	0.25082523	FALSE
TLDC2	0.030281	0.57830982	FALSE
TLE1	0.578116	-0.16281638	FALSE
TLE1P1	0.773348	-0.08473233	FALSE
TLE2	0.478056	0.20682081	FALSE
TLE3	0.245826	0.33223342	FALSE
TLE4	0.787807	-0.07920797	FALSE
TLE6	0.074573	0.49105701	FALSE
TLK1	0.005141	-0.70187061	TRUE
TLK2	0.341277	-0.27502767	FALSE
TLK2P1	0.928295	0.02651948	FALSE
TLL2	0.357565	-0.26622678	FALSE
TLN1	0.011264	0.65346574	FALSE
TLN2	0.115352	0.44004427	FALSE
TLR1	0.353453	-0.26842701	FALSE

TLR10	0.940487	-0.02200221	FALSE
TLR2	0.229572	0.34323453	FALSE
TLR3	0.226404	-0.34543475	FALSE
TLR4	0.34531	0.27282745	FALSE
TLR5	0.001412	0.76567703	TRUE
TLR6	0.111339	-0.44444471	FALSE
TLR7	0.604388	0.15181527	FALSE
TLR8	0.387065	0.25082523	FALSE
TLR9	0.449752	-0.22002214	FALSE
TLX2	0.803872	0.07309815	FALSE
TM2D1	0.793583	0.07700775	FALSE
TM2D2	0.413341	0.23762391	FALSE
TM2D3	0.770539	-0.08580863	FALSE
TM4SF1	0.329337	-0.28162833	FALSE
TM4SF18	0.249158	-0.3300332	FALSE
TM4SF19	0.50718	0.19361948	FALSE
TM4SF19-T	0.601499	-0.15301583	FALSE
TM4SF20	0.988088	-0.00440044	FALSE
TM6SF1	0.893071	-0.03960398	FALSE
TM6SF2	0.244154	-0.33334429	FALSE
TM7SF2	0.239243	-0.33663387	FALSE
TM7SF3	0.026463	-0.58965932	FALSE
TM9SF1	0.588569	-0.15841594	FALSE
TM9SF2	0.111339	-0.44444471	FALSE
TM9SF3	0.276799	-0.31243143	FALSE
TM9SF4	0.31379	0.29042922	FALSE
TMA16	0.952376	-0.01760177	FALSE
TMA7	0.117395	0.43784405	FALSE
TMBIM1	0.361702	0.26402656	FALSE
TMBIM4	0.010201	0.66006641	FALSE
TMBIM6	0.599097	0.15401549	FALSE
TMC1	0.542145	-0.17821793	FALSE
TMC2	0.904899	-0.03520354	FALSE
TMC3	0.719353	-0.10561062	FALSE
TMC4	0.32151	0.28602878	FALSE
TMC5	0.113334	0.44224449	FALSE
TMC6	0.647355	-0.1342135	FALSE
TMC7	0.454411	-0.21782191	FALSE
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TMCC1	0.417807	-0.23542368	FALSE
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TMCO1	0.952376	-0.01760177	FALSE
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TMCO5B	0.240204	-0.33598637	FALSE
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TMEM99	0.15845	0.39824006	FALSE

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TMPRSS11I	0.181637	0.37882803	FALSE
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TMPRSS9	0.82844	-0.06380642	FALSE
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TMUB2	0.035084	0.56545689	FALSE
TMX1	0.910821	0.03300332	FALSE
TMX2	0.309969	-0.29262944	FALSE
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TMX2P1	0.153479	-0.40264051	FALSE
TMX3	0.239243	-0.33663387	FALSE
TMX4	0.857716	-0.05280531	FALSE

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TNF	0.652801	0.13201328	FALSE
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TNFAIP6	0.29867	0.2992301	FALSE
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TNFRSF10A	0.193338	0.36963719	FALSE
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TNFRSF10C	0.202031	0.36303652	FALSE
TNFRSF10D	0.226404	0.34543475	FALSE
TNFRSF11A	0.572919	-0.1650166	FALSE
TNFRSF11B	0.840128	0.05940598	FALSE
TNFRSF12A	0.440504	-0.22442258	FALSE
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TNFRSF18	0.875366	0.04620465	FALSE
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TNFRSF1A	0.060866	-0.51265158	FALSE
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TNFRSF21	0.537087	-0.18041815	FALSE
TNFRSF25	0.805166	-0.0726073	FALSE
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TNN	0.842522	0.05850605	FALSE
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TNNT2	0.459093	-0.21562169	FALSE
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TNPO3	0.445116	0.22222236	FALSE
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TNRC6C	0.473281	-0.20902103	FALSE
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TOB2	0.34531	0.27282745	FALSE
TOB2P1	0.542145	0.17821793	FALSE
TOE1	0.435916	-0.2266228	FALSE
TOLLIP	0.179388	0.38063829	FALSE
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TOM1L2	0.473281	-0.20902103	FALSE
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TOMM20P1	0.678926	0.12154763	FALSE
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TOMM34	0.03596	0.56325667	FALSE
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TOP2B	0.15845	-0.39824006	FALSE
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TOP3B	0.708117	-0.11001107	FALSE
TOP3BP1	0.756059	0.09137268	FALSE
TOPBP1	0.085903	-0.47524781	FALSE
TOPORS	0.0201	-0.61166154	FALSE
TOPORS-AS	0.609698	0.14961505	FALSE
TOR1A	0.83428	-0.0616062	FALSE
TOR1AIP1	0.776284	0.08360841	FALSE
TOR1AIP2	0.793583	0.07700775	FALSE
TOR1B	0.604388	-0.15181527	FALSE
TOR2A	0.096246	0.46204648	FALSE
TOR3A	0.306176	0.29482966	FALSE
TOR4A	0.037759	0.55885622	FALSE
TOX	0.044582	-0.54345467	FALSE
TOX2	0.747669	0.09460952	FALSE
TOX4	0.226404	0.34543475	FALSE
TOX4P1	0.657909	0.12995595	FALSE
TP53	0.512111	0.19141926	FALSE
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TP53BP1	0.000394	-0.8140819	TRUE
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TP53I11	0.40009	-0.24422457	FALSE
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TP53RK	0.599097	0.15401549	FALSE
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TP63	0.468529	0.21122125	FALSE
TP73	0.285376	0.30718401	FALSE
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TPBG	0.680272	0.12101217	FALSE
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TPD52	0.232769	-0.34103431	FALSE
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TPH2	0.822609	0.06600664	FALSE

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TPK1	0.302409	0.29702988	FALSE
TPM1	0.002404	0.7414746	TRUE
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TPMT	0.0201	0.61166154	FALSE
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TPSG1	0.512439	0.19127349	FALSE
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TPST1	0.50718	0.19361948	FALSE
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TRAIP	0.153479	0.40264051	FALSE
TRAJ1	0.814073	0.06923305	FALSE
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TRAJ18	0.862087	0.0511687	FALSE
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TRAP1	0.082635	0.47964826	FALSE
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TRAV26-1	0.962816	0.01374038	FALSE
TRAV26-2	0.881018	0.04409538	FALSE
TRAV27	0.785331	0.0801522	FALSE
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TRAV35	0.234595	-0.33978515	FALSE
TRAV36DV	0.141907	-0.41326194	FALSE
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TRAV38-2D	0.291019	-0.30378142	FALSE
TRAV39	0.289692	0.30457838	FALSE
TRAV4	0.002723	0.73541073	TRUE
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TRAV8-6	0.559793	0.17060969	FALSE
TRAV9-2	0.602982	0.15239918	FALSE
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TRPC2	0.21706	-0.35203542	FALSE
TRPC4AP	0.759081	-0.09020908	FALSE
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TRPV5	0.810761	-0.07048665	FALSE
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TRRAP	0.000777	-0.78987947	TRUE
TRUB1	0.193338	-0.36963719	FALSE
TRUB2	0.647355	-0.1342135	FALSE
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TSC1	0.166104	-0.3916394	FALSE
TSC2	0.56774	-0.16721682	FALSE
TSC22D1	0.08926	-0.47084737	FALSE
TSC22D2	0.636511	0.13861395	FALSE
TSC22D3	0.365865	0.26182634	FALSE
TSC22D4	0.084258	-0.47744803	FALSE
TSEN15	0.994044	0.00220022	FALSE
TSEN2	0.357565	-0.26622678	FALSE
TSEN34	0.851846	-0.05500553	FALSE
TSEN54	0.269725	-0.31683187	FALSE
TSFM	0.674747	-0.1232124	FALSE
TSG101	0.207961	0.35863608	FALSE
TSGA10	0.171338	-0.38723896	FALSE
TSGA10IP	0.594971	-0.15573639	FALSE
TSGA13	0.679938	0.12114537	FALSE
TSHR	0.737152	0.09868131	FALSE
TSHZ1	0.32151	-0.28602878	FALSE
TSHZ2	0.29867	-0.2992301	FALSE
TSHZ3	0.713728	-0.10781085	FALSE
TSKS	0.04245	0.54806931	FALSE
TSKU	0.916747	0.0308031	FALSE
TSLP	0.008344	0.67300369	FALSE
TSN	0.160975	-0.39603984	FALSE
TSNARE1	0.239243	0.33663387	FALSE
TSNAX	0.537087	0.18041815	FALSE
TSNAX-DISC	0.184888	-0.37623785	FALSE
TSNAXIP1	0.229572	-0.34323453	FALSE
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TSPYL2	0.593824	0.15621572	FALSE
TSPYL4	0.283981	-0.30803099	FALSE
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TSR1	0.473281	0.20902103	FALSE
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TSR3	0.143848	0.41144139	FALSE
TSSC1	0.810971	0.07040708	FALSE
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TSTA3	0.045626	0.54125445	FALSE
TSTD1	0.56774	-0.16721682	FALSE
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TTC1	0.557442	0.17161727	FALSE
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TTC9C	0.904899	0.03520354	FALSE
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TTK	0.916747	0.0308031	FALSE
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TTLL9	0.276799	0.31243143	FALSE
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TTYH3	0.008906	0.66886729	FALSE
TUB	0.875366	0.04620465	FALSE
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TUBA1B	0.317637	0.288229	FALSE
TUBA1C	0.042548	0.54785512	FALSE
TUBA3FP	0.975913	0.00889922	FALSE
TUBA4A	0.099878	0.45764604	FALSE
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TUBB	0.223262	0.34763497	FALSE
TUBB1	0.023759	0.59846021	FALSE
TUBB2A	0.060866	0.51265158	FALSE
TUBB2B	0.202031	0.36303652	FALSE
TUBB2BP1	0.625349	0.14317181	FALSE
TUBB3	0.583333	0.16061616	FALSE
TUBB4A	0.29867	-0.2992301	FALSE
TUBB4B	0.009865	0.66226663	FALSE
TUBB4BP2	0.09123	-0.46831788	FALSE
TUBB6	0.171338	0.38723896	FALSE
TUBB8P11	0.305166	-0.29541813	FALSE
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TUFM	0.449752	-0.22002214	FALSE
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TVP23C	0.413341	-0.23762391	FALSE
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TVP23CP1	0.153424	0.40268981	FALSE
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TWISTNB	0.079456	-0.4840487	FALSE
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TXK	0.741981	0.09680974	FALSE
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TXNRD3	0.674407	-0.12334802	FALSE
TYK2	0.103603	0.4532456	FALSE
TYMP	0.003007	0.73047349	TRUE
TYMS	0.252518	0.32783298	FALSE
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TYW1	0.027173	-0.5874591	FALSE
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UACA	0.625734	0.14301439	FALSE
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UBA1	0.10937	0.44664493	FALSE
UBA2	0.051113	-0.53025335	FALSE
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UBA5	0.245826	-0.33223342	FALSE
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UBA52P8	0.411215	-0.23867534	FALSE
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UBAP2	0.976179	0.00880089	FALSE
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UBASH3B	0.417807	0.23542368	FALSE
UBB	0.085903	0.47524781	FALSE
UBBP1	0.517064	0.18921904	FALSE
UBBP2	0.713425	-0.10792952	FALSE
UBBP4	0.609698	0.14961505	FALSE
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UBE2FP1	0.764804	-0.08800885	FALSE
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UBE2Q1	0.916747	0.0308031	FALSE
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UBE2SP1	0.122149	0.43282191	FALSE
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UBE2V1	0.50718	0.19361948	FALSE
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UBE2W	0.604388	-0.15181527	FALSE
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UBFD1	0.202031	-0.36303652	FALSE
UBIAD1	0.34531	-0.27282745	FALSE
UBL3	0.294957	-0.30143033	FALSE

UBL4A	0.387065	0.25082523	FALSE
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UBL5	0.099878	0.45764604	FALSE
UBL5P4	0.618075	-0.14615865	FALSE
UBL7	0.805166	0.0726073	FALSE
UBLCP1	0.016883	0.62486286	FALSE
UBN1	0.840128	0.05940598	FALSE
UBN2	0.910821	-0.03300332	FALSE
UBOX5	0.940487	0.02200221	FALSE
UBP1	0.793583	0.07700775	FALSE
UBQLN1	0.060866	0.51265158	FALSE
UBQLN2	0.502271	-0.1958197	FALSE
UBQLN4	0.163526	-0.39383962	FALSE
UBQLN4P1	0.004876	-0.70484581	TRUE
UBQLNL	0.449752	0.22002214	FALSE
UBR1	0.631114	-0.14081417	FALSE
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UBR4	0.252518	0.32783298	FALSE
UBR5	0.235992	-0.33883409	FALSE
UBR7	0.50718	-0.19361948	FALSE
UBTD1	0.916747	0.0308031	FALSE
UBTD2	0.039624	0.55445578	FALSE
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UBTFL5	0.712151	-0.10842892	FALSE
UBTFL6	0.099572	-0.4580126	FALSE
UBTFL9	0.306176	0.29482966	FALSE
UBXN1	0.669238	-0.12541262	FALSE
UBXN10	0.028315	0.58401147	FALSE
UBXN11	0.179388	0.38063829	FALSE
UBXN2A	0.440504	-0.22442258	FALSE
UBXN2B	0.904899	0.03520354	FALSE
UBXN4	0.599097	-0.15401549	FALSE
UBXN6	0.266229	0.3190321	FALSE
UBXN7	0.08757	-0.47304759	FALSE
UBXN8	0.193338	0.36963719	FALSE
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UHL5	0.280376	-0.31023121	FALSE
UCK1	0.719353	0.10561062	FALSE
UCK2	0.898983	-0.03740376	FALSE
UCKL1	0.31379	0.29042922	FALSE
UCN	0.440504	-0.22442258	FALSE
UCN2	0.562581	0.16941704	FALSE
UCP2	0.017909	0.62046242	FALSE
UCP3	0.127978	-0.42684294	FALSE
UEVLD	0.059579	0.5148518	FALSE

UFC1	0.78204	-0.08140819	FALSE
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UFL1	0.468529	-0.21122125	FALSE
UFM1	0.266229	-0.3190321	FALSE
UFSP1	0.685812	0.11881195	FALSE
UFSP2	0.940487	-0.02200221	FALSE
UGCG	0.051113	0.53025335	FALSE
UGDH	0.168708	0.38943918	FALSE
UGGT1	0.82844	-0.06380642	FALSE
UGGT2	0.53205	0.18261837	FALSE
UGP2	0.583333	-0.16061616	FALSE
UGT1A1	0.357565	0.26622678	FALSE
UGT1A7	0.435916	-0.2266228	FALSE
UGT2A1	0.881262	-0.04400443	FALSE
UGT2B15	0.878581	0.04500466	FALSE
UGT2B4	0.214891	0.3535931	FALSE
UGT2B7	0.487675	-0.20242036	FALSE
UGT3A1	0.280376	-0.31023121	FALSE
UGT3A2	0.063475	-0.50829009	FALSE
UGT8	0.609698	0.14961505	FALSE
UHKM1	0.445116	-0.22222236	FALSE
UHRF1	0.29867	-0.2992301	FALSE
UHRF1BP1	0.096246	-0.46204648	FALSE
UHRF1BP1	0.78204	-0.08140819	FALSE
UHRF2	0.245826	-0.33223342	FALSE
UHRF2P1	0.272023	0.31539498	FALSE
UIMC1	0.449752	0.22002214	FALSE
ULBP1	0.146217	0.40924117	FALSE
ULBP2	0.863593	-0.05060509	FALSE
ULBP3	0.019534	0.61386176	FALSE
ULK1	0.0779	-0.48624892	FALSE
ULK2	0.022488	0.60286065	FALSE
ULK3	0.741981	-0.09680974	FALSE
ULK4	0.013222	-0.64246464	FALSE
ULK4P1	0.021269	0.60726109	FALSE
ULK4P2	0.857716	0.05280531	FALSE
ULK4P3	0.29867	0.2992301	FALSE
UMAD1	0.070438	0.49725003	FALSE
UMODL1	0.048864	-0.53465379	FALSE
UMPS	0.599097	0.15401549	FALSE
UNC119	0.001485	0.76347681	TRUE
UNC119B	0.002633	-0.73707415	TRUE
UNC13A	0.680272	0.12101217	FALSE
UNC13B	0.910821	-0.03300332	FALSE
UNC13C	0.349368	0.27062723	FALSE
UNC13D	0.578116	0.16281638	FALSE
UNC45A	0.615026	0.14741483	FALSE
UNC45B	0.31379	0.29042922	FALSE

UNC50	0.357565	-0.26622678	FALSE
UNC5A	0.747927	0.09450978	FALSE
UNC5B	0.468529	-0.21122125	FALSE
UNC5C	0.015504	0.63111508	FALSE
UNC5CL	0.021872	-0.60506087	FALSE
UNC79	0.004045	0.71507194	TRUE
UNC80	0.887164	-0.04180421	FALSE
UNC93B1	0.002633	0.73707415	TRUE
UNCX	0.8445	-0.05776286	FALSE
UNG	0.276799	-0.31243143	FALSE
UNGP1	0.199106	0.36523674	FALSE
UNGP3	0.945833	-0.02002325	FALSE
UNK	0.01739	0.62266264	FALSE
UNKL	0.113334	-0.44224449	FALSE
UPB1	0.202031	0.36303652	FALSE
UPF1	0.753369	0.0924093	FALSE
UPF2	0.78204	-0.08140819	FALSE
UPF3A	0.53205	-0.18261837	FALSE
UPF3AP1	0.204721	0.3610309	FALSE
UPF3AP2	0.163526	-0.39383962	FALSE
UPF3AP3	0.840128	-0.05940598	FALSE
UPF3B	0.904899	0.03520354	FALSE
UPK1A	0.025084	-0.59405977	FALSE
UPK1B	0.881262	-0.04400443	FALSE
UPK2	0.60787	-0.15037152	FALSE
UPK3A	0.051504	0.52950373	FALSE
UPK3B	0.076365	-0.48844914	FALSE
UPK3BL	0.631114	0.14081417	FALSE
UPK3BP1	0.586899	-0.1591169	FALSE
UPP1	0.171338	0.38723896	FALSE
UPP2	0.078298	0.48568282	FALSE
UPRT	0.776284	0.08360841	FALSE
UQCC1	0.680272	0.12101217	FALSE
UQCC2	0.016883	0.62486286	FALSE
UQCC3	0.153479	0.40264051	FALSE
UQCR10	0.146217	0.40924117	FALSE
UQCR11	0.034225	0.56765711	FALSE
UQCRB	0.440504	0.22442258	FALSE
UQCRC1	0.115352	0.44004427	FALSE
UQCRC2	0.252518	0.32783298	FALSE
UQCRFS1	0.473281	0.20902103	FALSE
UQCRFS1P:	0.741981	0.09680974	FALSE
UQCRH	0.588569	0.15841594	FALSE
UQCRHL	0.952376	0.01760177	FALSE
UQCRQ	0.039624	0.55445578	FALSE
URAD	0.421772	-0.23348018	FALSE
URB1	0.382774	-0.25302546	FALSE
URB2	0.652801	0.13201328	FALSE

URGCP	0.011264	0.65346574	FALSE
URGCP-MR	0.587226	0.15897959	FALSE
URI1	0.070438	-0.49725003	FALSE
URM1	0.229572	0.34323453	FALSE
UROD	0.952376	0.01760177	FALSE
UROS	0.736305	0.09900996	FALSE
USB1	0.527033	0.18481859	FALSE
USE1	0.952376	-0.01760177	FALSE
USF1	0.547224	-0.17601771	FALSE
USF1P1	0.407984	0.240279	FALSE
USF2	0.007207	-0.68206862	FALSE
USF3	0.647355	-0.1342135	FALSE
USH1G	0.934106	-0.02436605	FALSE
USHBP1	0.132385	-0.4224425	FALSE
USMG5	0.096246	0.46204648	FALSE
USO1	0.171338	-0.38723896	FALSE
USP1	0.517064	-0.18921904	FALSE
USP10	0.136894	-0.41804206	FALSE
USP11	0.988088	0.00440044	FALSE
USP12	0.641924	0.13641372	FALSE
USP13	0.232769	-0.34103431	FALSE
USP14	0.620371	-0.14521461	FALSE
USP15	0.537087	0.18041815	FALSE
USP16	0.857716	0.05280531	FALSE
USP18	0.353453	0.26842701	FALSE
USP19	0.085903	-0.47524781	FALSE
USP2	0.94643	0.01980199	FALSE
USP20	0.620371	-0.14521461	FALSE
USP21	0.235992	-0.33883409	FALSE
USP22	0.283981	0.30803099	FALSE
USP24	0.994044	-0.00220022	FALSE
USP25	0.708117	-0.11001107	FALSE
USP26	0.547224	0.17601771	FALSE
USP27X	0.173995	-0.38503874	FALSE
USP28	0.468529	-0.21122125	FALSE
USP29	0.840128	0.05940598	FALSE
USP3	0.822609	0.06600664	FALSE
USP30	0.214	-0.35423564	FALSE
USP31	0.134627	0.42024228	FALSE
USP32	0.291271	0.30363055	FALSE
USP32P1	0.869477	0.04840487	FALSE
USP32P2	0.685812	0.11881195	FALSE
USP32P3	0.562581	-0.16941704	FALSE
USP33	0.006222	-0.6908695	FALSE
USP34	0.226404	-0.34543475	FALSE
USP35	0.620371	0.14521461	FALSE
USP36	0.252518	-0.32783298	FALSE
USP37	0.875366	-0.04620465	FALSE

USP38	0.395723	-0.24642479	FALSE
USP39	0.620371	-0.14521461	FALSE
USP4	0.970226	-0.01100111	FALSE
USP40	0.242521	-0.33443365	FALSE
USP41	0.805166	0.0726073	FALSE
USP42	0.047766	-0.53685401	FALSE
USP43	0.357565	-0.26622678	FALSE
USP44	0.048864	0.53465379	FALSE
USP45	0.4638	-0.21342147	FALSE
USP46	0.976179	0.00880089	FALSE
USP47	0.964274	-0.01320133	FALSE
USP48	0.887164	-0.04180421	FALSE
USP49	0.741981	-0.09680974	FALSE
USP5	0.82844	0.06380642	FALSE
USP50	0.049979	-0.53245357	FALSE
USP51	0.057064	-0.51925224	FALSE
USP53	0.071888	-0.4950498	FALSE
USP54	0.753369	-0.0924093	FALSE
USP6	0.562581	-0.16941704	FALSE
USP6NL	0.557442	-0.17161727	FALSE
USP7	0.680272	0.12101217	FALSE
USP8	0.964274	-0.01320133	FALSE
USP8P1	0.021872	-0.60506087	FALSE
USP9X	0.887164	0.04180421	FALSE
USP9Y	0.82844	-0.06380642	FALSE
USP9YP14	0.240204	-0.33598637	FALSE
USP9YP28	0.746898	-0.09490735	FALSE
USP9YP3	0.337271	0.27722789	FALSE
USP9YP4	0.635439	0.13905035	FALSE
USPL1	0.970226	-0.01100111	FALSE
UST	0.255905	0.32563276	FALSE
UTF1	0.335689	0.2781007	FALSE
UTP11	0.214	-0.35423564	FALSE
UTP14A	0.422298	-0.23322346	FALSE
UTP14C	0.276799	-0.31243143	FALSE
UTP15	0.537087	-0.18041815	FALSE
UTP18	0.512111	-0.19141926	FALSE
UTP20	0.454411	-0.21782191	FALSE
UTP23	0.736305	0.09900996	FALSE
UTP3	0.620371	-0.14521461	FALSE
UTP4	0.121554	-0.43344361	FALSE
UTP6	0.869477	-0.04840487	FALSE
UTRN	0.017909	0.62046242	FALSE
UTS2	0.649713	-0.13325991	FALSE
UTS2B	0.994044	0.00220022	FALSE
UTS2R	0.860694	0.05169021	FALSE
UTY	0.685812	-0.11881195	FALSE
UVRAG	0.012811	0.64466486	FALSE

UVSSA	0.329337	0.28162833	FALSE
UXS1	0.805166	-0.0726073	FALSE
UXT	0.816786	-0.06820686	FALSE
VAC14	0.34531	0.27282745	FALSE
VAMP1	0.00357	-0.7216726	TRUE
VAMP2	0.822609	-0.06600664	FALSE
VAMP3	0.255905	0.32563276	FALSE
VAMP4	0.685812	-0.11881195	FALSE
VAMP5	0.70252	-0.11221129	FALSE
VAMP7	0.076365	-0.48844914	FALSE
VAMP8	0.730641	0.10121018	FALSE
VANGL1	0.747669	0.09460952	FALSE
VANGL2	0.82844	0.06380642	FALSE
VAPA	0.413341	-0.23762391	FALSE
VAPB	0.863593	0.05060509	FALSE
VARS	0.207961	0.35863608	FALSE
VARS2	0.593824	-0.15621572	FALSE
VASH1	0.631114	0.14081417	FALSE
VASH2	0.620371	0.14521461	FALSE
VASN	0.94643	-0.01980199	FALSE
VASP	0.155952	0.40044029	FALSE
VAT1	0.232769	0.34103431	FALSE
VAT1L	0.630724	0.1409733	FALSE
VAV1	0.478056	-0.20682081	FALSE
VAV2	0.374268	0.2574259	FALSE
VAV3	0.719353	-0.10561062	FALSE
VAX1	0.940487	0.02200221	FALSE
VBP1	0.166104	-0.3916394	FALSE
VCAM1	0.758044	0.09060823	FALSE
VCAN	0.280376	0.31023121	FALSE
VCL	0.982133	-0.00660066	FALSE
VCP	0.572919	0.1650166	FALSE
VCPIP1	0.502271	0.1958197	FALSE
VCPKMT	0.680272	0.12101217	FALSE
VDAC1	0.719353	-0.10561062	FALSE
VDAC1P8	0.255905	-0.32563276	FALSE
VDAC2	0.696936	0.11441151	FALSE
VDAC2P2	0.114515	0.44095377	FALSE
VDAC3	0.78204	-0.08140819	FALSE
VDR	0.652801	0.13201328	FALSE
VEGFA	0.027898	0.58525888	FALSE
VEGFB	0.239243	0.33663387	FALSE
VEGFC	0.882585	-0.0435112	FALSE
VEGFD	0.546764	0.17621663	FALSE
VENTX	0.176678	0.38283852	FALSE
VENTXP4	0.008309	-0.67326773	FALSE
VEPH1	0.134643	0.42022656	FALSE
VEZF1	0.148612	-0.40704095	FALSE

VEZT	0.040582	-0.55225556	FALSE
VGf	0.631114	-0.14081417	FALSE
VGLL3	0.08926	-0.47084737	FALSE
VGLL4	0.002091	-0.74807526	TRUE
VHL	0.53205	0.18261837	FALSE
VHLL	0.311089	0.29198303	FALSE
VIL1	0.361702	-0.26402656	FALSE
VILL	0.018439	0.6182622	FALSE
VIM	0.527033	0.18481859	FALSE
VIMP	0.214	0.35423564	FALSE
VIP	0.956041	0.0162458	FALSE
VIPAS39	0.492518	-0.20022014	FALSE
VIPR1	0.291271	0.30363055	FALSE
VIPR2	0.395187	-0.24669604	FALSE
VKORC1	0.32151	0.28602878	FALSE
VKORC1L1	0.019534	-0.61386176	FALSE
VLDLR	0.223262	0.34763497	FALSE
VMA21	0.395723	-0.24642479	FALSE
VMAC	0.845984	0.05720576	FALSE
VMO1	0.089358	-0.47072082	FALSE
VMP1	0.29867	0.2992301	FALSE
VN1R1	0.764804	0.08800885	FALSE
VN1R107P	0.633859	0.13969384	FALSE
VN1R108P	0.537087	-0.18041815	FALSE
VN1R110P	0.098711	-0.45904749	FALSE
VN1R17P	0.597744	-0.15457925	FALSE
VN1R2	0.922677	0.02860288	FALSE
VN1R20P	0.197204	0.36667872	FALSE
VN1R42P	0.264001	-0.32044375	FALSE
VN1R5	0.203646	-0.36182995	FALSE
VN1R80P	0.044819	0.54295154	FALSE
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VN1R84P	0.072649	-0.49390684	FALSE
VNN1	0.003279	0.72607305	TRUE
VNN2	0.014074	0.63806419	FALSE
VNN3	0.374268	0.2574259	FALSE
VOPP1	0.173995	0.38503874	FALSE
VPREB1	0.517926	-0.18883688	FALSE
VPREB3	0.934258	0.02430953	FALSE
VPS11	0.652801	-0.13201328	FALSE
VPS13A	0.696936	-0.11441151	FALSE
VPS13B	0.370053	-0.25962612	FALSE
VPS13C	0.776284	-0.08360841	FALSE
VPS13D	0.047766	-0.53685401	FALSE
VPS16	0.736305	0.09900996	FALSE
VPS18	0.204983	0.3608363	FALSE

VPS25	0.079456	0.4840487	FALSE
VPS26A	0.125812	0.42904316	FALSE
VPS26B	0.043556	-0.5456549	FALSE
VPS26BP1	0.669238	-0.12541262	FALSE
VPS28	0.074851	0.49064936	FALSE
VPS29	0.063499	0.50825113	FALSE
VPS33A	0.952376	0.01760177	FALSE
VPS33B	0.940487	0.02200221	FALSE
VPS35	0.517064	0.18921904	FALSE
VPS36	0.50718	-0.19361948	FALSE
VPS37A	0.01898	-0.61606198	FALSE
VPS37B	0.641924	-0.13641372	FALSE
VPS37C	0.004045	0.71507194	TRUE
VPS37D	0.188385	-0.37348272	FALSE
VPS39	0.713728	-0.10781085	FALSE
VPS41	0.249158	0.3300332	FALSE
VPS45	0.845984	-0.05720576	FALSE
VPS4A	0.822609	0.06600664	FALSE
VPS4B	0.680272	-0.12101217	FALSE
VPS50	0.141504	-0.41364161	FALSE
VPS51	0.085903	-0.47524781	FALSE
VPS52	0.845984	0.05720576	FALSE
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VPS54	0.059579	-0.5148518	FALSE
VPS72	0.132385	0.4224425	FALSE
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VPS9D1	0.79937	0.07480753	FALSE
VRK1	0.904899	-0.03520354	FALSE
VRK2	0.239243	0.33663387	FALSE
VRK3	0.107424	0.44884516	FALSE
VRTN	0.609698	0.14961505	FALSE
VSIG1	0.647355	-0.1342135	FALSE
VSIG10	0.047766	-0.53685401	FALSE
VSIG10L	0.988088	0.00440044	FALSE
VSIG2	0.225358	0.34616523	FALSE
VSIG4	0.34531	-0.27282745	FALSE
VSIG8	0.217782	-0.35151928	FALSE
VSNL1	0.413341	-0.23762391	FALSE
VSTM1	0.182124	-0.37843807	FALSE
VSTM2A	0.541208	-0.17862491	FALSE
VSTM2L	0.818637	0.06750698	FALSE
VSTM4	0.239243	0.33663387	FALSE
VSX1	0.810971	0.07040708	FALSE
VTA1	0.599097	-0.15401549	FALSE
VTCN1	0.60787	0.15037152	FALSE
VTI1A	0.83428	0.0616062	FALSE
VTI1B	0.048864	0.53465379	FALSE
VTI1BP2	0.287055	0.3061674	FALSE

VTI1BP4	0.892544	0.03979986	FALSE
VTN	0.579969	-0.16203423	FALSE
VWA1	0.076365	-0.48844914	FALSE
VWA2	0.121098	-0.4339207	FALSE
VWA3A	0.126117	-0.42873164	FALSE
VWA3B	0.473281	-0.20902103	FALSE
VWA5A	0.663743	-0.12761284	FALSE
VWA5B1	0.119462	0.43564383	FALSE
VWA5B2	0.752309	0.09281819	FALSE
VWA7	0.724991	-0.1034104	FALSE
VWA8	0.160975	0.39603984	FALSE
VWA9	0.003881	-0.71727216	TRUE
VWC2	0.615026	-0.14741483	FALSE
VWCE	0.049979	-0.53245357	FALSE
VWDE	0.009756	0.66298707	FALSE
VWF	0.583333	-0.16061616	FALSE
VWFP1	0.955258	-0.01653577	FALSE
WAC	0.869477	-0.04840487	FALSE
WAPL	0.395723	-0.24642479	FALSE
WARS	0.015903	0.62926331	FALSE
WARS2	0.680272	-0.12101217	FALSE
WAS	0.046687	0.53905423	FALSE
WASF1	0.012811	-0.64466486	FALSE
WASF2	0.964274	0.01320133	FALSE
WASF3	0.440504	-0.22442258	FALSE
WASF4P	0.728848	0.1019078	FALSE
WASH1	0.663743	-0.12761284	FALSE
WASH2P	0.431353	0.22882302	FALSE
WASH3P	0.199106	0.36523674	FALSE
WASH4P	0.245826	-0.33223342	FALSE
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WBP1	0.063499	-0.50825113	FALSE
WBP11	0.391381	-0.24862501	FALSE
WBP11P1	0.171577	0.38704004	FALSE
WBP1L	0.708117	0.11001107	FALSE
WBP1LP1	0.138002	-0.41697566	FALSE
WBP1LP2	0.5803	0.16189427	FALSE
WBP2	0.053437	0.5258529	FALSE
WBP2NL	0.552323	0.17381749	FALSE
WBP4	0.29867	0.2992301	FALSE
WBSCR17	0.845984	-0.05720576	FALSE
WBSCR22	0.82844	-0.06380642	FALSE
WDCP	0.83428	-0.0616062	FALSE
WDFY1	0.32151	0.28602878	FALSE
WDFY2	0.517064	-0.18921904	FALSE

WDFY3	0.032552	0.57205755	FALSE
WDFY4	0.139186	0.41584184	FALSE
WDHD1	0.599097	0.15401549	FALSE
WDPCP	0.262761	-0.32123232	FALSE
WDR1	0.226404	0.34543475	FALSE
WDR11	0.378508	0.25522568	FALSE
WDR12	0.759081	0.09020908	FALSE
WDR13	0.034225	0.56765711	FALSE
WDR17	0.53205	0.18261837	FALSE
WDR18	0.454411	0.21782191	FALSE
WDR19	8.63E-05	-0.85808633	TRUE
WDR20	0.609698	-0.14961505	FALSE
WDR24	0.374268	-0.2574259	FALSE
WDR25	0.669238	-0.12541262	FALSE
WDR26	0.210967	0.35643586	FALSE
WDR27	0.255905	-0.32563276	FALSE
WDR3	0.604388	0.15181527	FALSE
WDR31	0.214	-0.35423564	FALSE
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WDR34	0.547224	0.17601771	FALSE
WDR35	0.658264	-0.12981306	FALSE
WDR36	0.210967	-0.35643586	FALSE
WDR37	0.329337	0.28162833	FALSE
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WDR41	0.982133	-0.00660066	FALSE
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WDR44	0.910821	-0.03300332	FALSE
WDR45	0.134627	0.42024228	FALSE
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WDR46	0.29867	-0.2992301	FALSE
WDR47	0.337271	-0.27722789	FALSE
WDR48	0.038684	-0.556656	FALSE
WDR49	0.40009	0.24422457	FALSE
WDR5	0.753369	0.0924093	FALSE
WDR53	0.588569	-0.15841594	FALSE
WDR54	0.988088	-0.00440044	FALSE
WDR55	0.199106	0.36523674	FALSE
WDR59	0.021872	-0.60506087	FALSE
WDR5B	0.79937	-0.07480753	FALSE
WDR6	0.117395	0.43784405	FALSE
WDR60	0.245826	-0.33223342	FALSE
WDR61	0.970226	0.01100111	FALSE
WDR62	0.669238	0.12541262	FALSE
WDR63	0.24361	0.33370648	FALSE
WDR64	0.074573	0.49105701	FALSE
WDR66	0.542145	-0.17821793	FALSE
WDR7	0.583333	0.16061616	FALSE
WDR70	0.242521	-0.33443365	FALSE

WDR72	0.027898	0.58525888	FALSE
WDR73	0.374268	0.2574259	FALSE
WDR74	0.173995	0.38503874	FALSE
WDR75	1	0	FALSE
WDR76	0.302409	0.29702988	FALSE
WDR77	0.851846	-0.05500553	FALSE
WDR78	0.266229	-0.3190321	FALSE
WDR81	0.29867	0.2992301	FALSE
WDR82	0.680272	-0.12101217	FALSE
WDR83	0.970226	-0.01100111	FALSE
WDR83OS	0.478056	0.20682081	FALSE
WDR86	0.730641	0.10121018	FALSE
WDR87	0.345286	0.27284014	FALSE
WDR89	0.604388	0.15181527	FALSE
WDR90	0.15845	0.39824006	FALSE
WDR91	0.940487	0.02200221	FALSE
WDR92	0.663743	-0.12761284	FALSE
WDR93	0.262761	-0.32123232	FALSE
WDR97	0.562581	-0.16941704	FALSE
WDSUB1	0.153479	-0.40264051	FALSE
WDTC1	0.417807	-0.23542368	FALSE
WDYHV1	0.40009	0.24422457	FALSE
WEE1	0.572919	0.1650166	FALSE
WEE2	0.097483	-0.46053476	FALSE
WFDC1	0.547224	-0.17601771	FALSE
WFDC11	0.674747	-0.1232124	FALSE
WFDC12	0.113334	0.44224449	FALSE
WFDC2	0.092103	-0.46720918	FALSE
WFDC21P	0.202838	0.36243293	FALSE
WFDC3	0.096246	-0.46204648	FALSE
WFDC8	0.557442	0.17161727	FALSE
WFIKKN1	0.562581	-0.16941704	FALSE
WFIKKN2	0.116508	-0.43879539	FALSE
WFS1	0.010547	0.65786618	FALSE
WHAMM	0.527033	0.18481859	FALSE
WHAMMP2	0.008022	0.67546796	FALSE
WHAMMP3	0.007207	0.68206862	FALSE
WHRN	0.413341	-0.23762391	FALSE
WHSC1	0.382774	-0.25302546	FALSE
WHSC1L1	0.741981	-0.09680974	FALSE
WI2-1896C	0.000345	0.81848234	TRUE
WIPF1	0.609698	-0.14961505	FALSE
WIPF2	0.663743	-0.12761284	FALSE
WIPF3	0.153479	0.40264051	FALSE
WIP11	0.922677	0.02860288	FALSE
WIP12	0.02939	-0.58085844	FALSE
WISP2	0.982133	0.00660066	FALSE
WISP3	0.83428	-0.0616062	FALSE

WIZ	0.107424	-0.44884516	FALSE
WLS	0.841903	0.05873888	FALSE
WNK1	0.82844	-0.06380642	FALSE
WNK2	0.64699	0.13436123	FALSE
WNK3	0.958324	-0.01540155	FALSE
WNK4	0.940487	0.02200221	FALSE
WNT1	0.443052	-0.22320565	FALSE
WNT10A	0.79937	-0.07480753	FALSE
WNT10B	0.449752	0.22002214	FALSE
WNT11	0.417807	0.23542368	FALSE
WNT16	0.716334	0.10679067	FALSE
WNT2B	0.787807	-0.07920797	FALSE
WNT3	0.085903	0.47524781	FALSE
WNT4	0.171935	0.38674246	FALSE
WNT5A	0.212999	0.35495976	FALSE
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WNT7A	0.097633	-0.46035242	FALSE
WNT7B	0.487675	-0.20242036	FALSE
WNT8A	0.97362	0.00974642	FALSE
WNT9A	0.085903	-0.47524781	FALSE
WNT9B	0.408899	-0.23982413	FALSE
WRAP53	0.542145	0.17821793	FALSE
WRAP73	0.435916	0.2266228	FALSE
WRB	0.669238	-0.12541262	FALSE
WRN	0.121554	-0.43344361	FALSE
WRNIP1	0.007207	-0.68206862	FALSE
WSB1	0.517064	0.18921904	FALSE
WSB2	0.492518	0.20022014	FALSE
WSCD1	0.252686	0.32772336	FALSE
WSCD2	0.717108	0.10648793	FALSE
WT1	0.000852	-0.78634361	TRUE
WTAP	0.134627	0.42024228	FALSE
WTAPP1	0.094465	-0.46424671	FALSE
WTH3DI	0.462968	0.21380951	FALSE
WTIP	0.249158	-0.3300332	FALSE
WWC1	0.609698	-0.14961505	FALSE
WWC2	0.062172	0.51045135	FALSE
WWC3	0.32151	-0.28602878	FALSE
WVOX	0.787807	-0.07920797	FALSE
WWP1	0.02939	-0.58085844	FALSE
WWP2	0.047766	0.53685401	FALSE
WWTR1	0.869477	0.04840487	FALSE
XAB2	0.713728	-0.10781085	FALSE
XAF1	0.422298	0.23322346	FALSE
XAGE1A	0.550723	0.17450706	FALSE
XAGE1B	0.323823	0.28472204	FALSE
XAGE5	0.837026	0.06057269	FALSE
XBP1	0.018439	-0.6182622	FALSE

XBP1P1	0.21706	0.35203542	FALSE
XCL1	0.875366	-0.04620465	FALSE
XCL2	0.857716	0.05280531	FALSE
XCR1	0.713728	0.10781085	FALSE
XDH	0.280376	-0.31023121	FALSE
XG	0.060866	-0.51265158	FALSE
XIAP	0.527033	0.18481859	FALSE
XIRP1	0.730641	0.10121018	FALSE
XIRP2	0.086813	0.47404304	FALSE
XK	0.652801	0.13201328	FALSE
XKR3	0.123211	-0.43171806	FALSE
XKR4	0.952376	0.01760177	FALSE
XKR5	0.893071	0.03960398	FALSE
XKR6	0.53205	0.18261837	FALSE
XKR7	0.020678	0.60946131	FALSE
XKR8	0.454411	-0.21782191	FALSE
XKR9	0.148612	0.40704095	FALSE
XKRX	0.34742	0.27168145	FALSE
XPA	0.199106	-0.36523674	FALSE
XPC	0.934547	0.02420243	FALSE
XPNPEP1	0.309969	0.29262944	FALSE
XPNPEP2	0.307734	-0.29392427	FALSE
XPNPEP3	0.34531	-0.27282745	FALSE
XPO1	0.190494	0.37183741	FALSE
XPO4	0.026463	-0.58965932	FALSE
XPO5	0.449752	-0.22002214	FALSE
XPO6	0.033381	0.56985733	FALSE
XPO7	0.349368	-0.27062723	FALSE
XPOT	0.273248	-0.31463165	FALSE
XPOTP1	0.276703	-0.31249082	FALSE
XPR1	0.517064	-0.18921904	FALSE
XRCC1	0.741981	0.09680974	FALSE
XRCC2	0.187678	-0.37403763	FALSE
XRCC3	0.08926	0.47084737	FALSE
XRCC4	0.56774	0.16721682	FALSE
XRCC5	0.70252	-0.11221129	FALSE
XRCC6	0.537087	0.18041815	FALSE
XRCC6P1	0.234172	0.34007435	FALSE
XRCC6P2	0.763791	-0.08839828	FALSE
XRN1	0.052265	-0.52805312	FALSE
XRN2	0.028637	-0.58305866	FALSE
XRR1	0.239243	0.33663387	FALSE
XX-CR54.1	0.674747	0.1232124	FALSE
XXbac-B33	0.409931	0.23931158	FALSE
XXbac-B56	0.655878	0.13077353	FALSE
XXbac-BCX	0.810299	0.07066154	FALSE
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XXbac-BPG	0.906957	0.03443891	FALSE

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XXcos-LUC	0.272844	-0.31488366	FALSE
XXyac-YRM	0.072649	0.49390684	FALSE
XXYLT1	0.079456	-0.4840487	FALSE
XYLB	0.753369	0.0924093	FALSE
XYLT1	0.994044	-0.00220022	FALSE
XYLT2	0.117395	-0.43784405	FALSE
YAE1D1	0.497383	-0.19801992	FALSE
YAF2	0.361702	-0.26402656	FALSE
YAP1	0.055836	-0.52145246	FALSE
YAP1P1	0.291271	-0.30363055	FALSE
YARS	0.121554	0.43344361	FALSE
YARS2	0.111339	-0.44444471	FALSE
YBEY	0.132385	0.4224425	FALSE
YBX1	0.759081	-0.09020908	FALSE
YBX1P1	0.92861	0.02640266	FALSE
YBX1P10	0.904899	0.03520354	FALSE
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YBX2	0.574211	0.16446885	FALSE
YBX3	0.669238	0.12541262	FALSE
YDJC	0.15845	0.39824006	FALSE
YEATS2	0.302409	-0.29702988	FALSE
YEATS4	0.685812	-0.11881195	FALSE
YES1	0.552323	-0.17381749	FALSE
YES1P1	0.78204	-0.08140819	FALSE
YIF1A	0.4638	0.21342147	FALSE
YIF1B	0.280376	0.31023121	FALSE
YIPF1	0.994044	-0.00220022	FALSE
YIPF2	0.631114	0.14081417	FALSE
YIPF3	0.898983	-0.03740376	FALSE
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YJEFN3	0.062172	-0.51045135	FALSE
YKT6	0.287612	0.30583077	FALSE
YLPM1	0.030158	-0.57865822	FALSE
YME1L1	0.223262	0.34763497	FALSE

YOD1	0.741981	-0.09680974	FALSE
YPEL1	0.031739	-0.57425777	FALSE
YPEL2	0.922677	0.02860288	FALSE
YPEL3	0.276799	-0.31243143	FALSE
YPEL4	1	0	FALSE
YPEL5	0.454411	-0.21782191	FALSE
YRDC	0.822609	0.06600664	FALSE
YRDCP1	0.906957	0.03443891	FALSE
YTHDC1	0.176678	-0.38283852	FALSE
YTHDC2	0.599097	0.15401549	FALSE
YTHDF1	0.83428	-0.0616062	FALSE
YTHDF2	0.378508	-0.25522568	FALSE
YTHDF2P1	0.371677	-0.25877712	FALSE
YTHDF3	0.863593	-0.05060509	FALSE
YWHAB	0.057064	0.51925224	FALSE
YWHABP2	0.588569	0.15841594	FALSE
YWHAE	0.426813	0.23102324	FALSE
YWHAEP1	0.51021	-0.19226625	FALSE
YWHAEP5	0.123251	0.43167687	FALSE
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YWHAQP5	0.391381	-0.24862501	FALSE
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YWHAZ	0.199106	0.36523674	FALSE
YWHAZP2	0.344758	0.27312775	FALSE
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YY1	0.497383	-0.19801992	FALSE
YY1AP1	0.822609	-0.06600664	FALSE
YY2	0.387065	-0.25082523	FALSE
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ZACN	0.747669	0.09460952	FALSE
ZADH2	0.027173	-0.5874591	FALSE
ZAN	0.963462	-0.0135014	FALSE
ZAP70	0.025766	-0.59185954	FALSE
ZAR1	0.329963	-0.2812791	FALSE
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ZBBX	0.773735	0.08458398	FALSE
ZBED1	0.431353	0.22882302	FALSE
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ZBP1	0.487675	0.20242036	FALSE
ZBTB1	0.440504	-0.22442258	FALSE
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ZBTB12	0.50718	0.19361948	FALSE
ZBTB14	0.245826	-0.33223342	FALSE
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ZEB1	0.382774	-0.25302546	FALSE
ZEB2	0.199106	0.36523674	FALSE
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ZFAND4	0.970226	0.01100111	FALSE
ZFAND5	0.31379	0.29042922	FALSE
ZFAND6	0.025084	0.59405977	FALSE
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ZFHX2	0.196209	0.36743697	FALSE
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ZFP37	0.764804	0.08800885	FALSE
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ZFP69	0.242521	-0.33443365	FALSE
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