

Supplementary Figure 1 Classification of transfer RNA-derived small RNAs in the MINTbase 2.0 database.

MINTbase v2.0: a database for the interactive exploration of mitochondrial and nuclear tRNA fragments (tRFs)

Sequence	GCCCCGGCTAGCTCAGTCGGTAGAGCATGAGAC		
License Plate (sequence derived)	tRF-32-P5QP4PW3FJJ01		
Available genomes	<i>H. sapiens</i> (hg19/GRCh37)		
MINTbase Alternative IDs (GRCh37 assembly- derived)	trna32_LysCTT_16_-3207406_3207478@1.32.32	trna119_LysCTT_1_-145395522_145395594@1.32.32	trna7_LysCTT_16_+3225692_3225764@1.32.32
	trna11_LysCTT_5_-180648979_180649051@1.32.32	trna9_LysCTT_5_+180634755_180634827@1.32.32	trna13_LysCTT_6_+26556774_2655748@1.32.32
Genomic locations	6		
Type(s)	5'-half		

Supplementary Table 1 The results of high-throughput sequencing technique in three pairs of Barcelona Clinic Liver Cancer 0/A stage hepatocellular carcinoma patients’ tissues and matched precancerous specimens

tRF_ID	tRF_Seq	MINTbase ID	Length	Log ₂ FC	Fold change	P value	Q value	Ca_CPM	P_CPM	1C	2C	3C	1P	2P	3P
tRF-1:32-Ala-CGC-3	GGGGAUGUAGCUCAGUG	tRF-32-R29P4P	32	3.488531	11.22412919	0.000435	0.095709	6.264877	2.7763452	194.30	19.495	20.630	7.3578	0	6.8160
	GUAGAGCGCGCGCUU	9L5HLVQ		6		8	5			352	817	163	103		286
Other-13:38-chrM.tRNA12-SerGCT	AAGAACUGCUAACUCAU	tRF-26-DBNIB	26	3.255632	9.550874971	0.006218	0.212905	4.333554	1.0779211	1.5733	21.662	26.524	1.0511	0	4.0896
	GCCCCCAUG	9I1KQ0		9		7	3			079	018	495	158		171
tRF-1:32-Lys-CTT-2-M2	GCCCGGCUAGCUCAGUC	tRF-32-PSQP4	32	3.108546	8.62512955	0.001169	0.103413	12.23437	9.1258264	4668.7	4126.6	3978.6	630.66	520.04	403.50
	GGUAGAGCAUGAGAC	PW3FJI01		1		5	6			912	145	743	946	376	889
tRF-1:24-Val-CAC-2	GCUUCUGUAGUGUAGUG	tRF-24-Q99P9P	24	2.716024	6.570598587	0.018798	0.275206	4.502206	1.7861807	4.7199	10.831	44.207	1.5766	4.9060	5.4528
	GUUAUCA	9NF2		8		8	3			237	009	492	736	732	229
Other-53:69-chrM.tRNA2-ValTAC	UAACUUGACCGCUCUGA	tRF-17-UIX1Q7	17	2.695146	6.476195696	0.049764	0.397473	3.363425	0.6682788	3.9332	3.2493	20.630	2.1022	0	0
		L		6		5	7			697	028	163	315		
Other-9:28-tRNA-His-GTG-1-M2	CGUAUAGUGGUUAGUAC	tRF-20-MQ18Y	20	2.691857	6.461448994	0.042060	0.374193	3.454932	0.7630744	22.026	0	10.315	1.0511	0	2.7264
	UCU	3E7		7		1	4			31		082	158		114
Other-43:71-chrM.tRNA5-MetCAT	AUGUUGGUUAUACCCUU	tRF-29-INRXU	29	2.675351	6.387942645	0.007234	0.213413	5.097446	2.4220943	7.0798	11.914	72.205	6.8322	0	2.7264
	CCCGUACUACCA	RYRSIE2		4		3				855	11	571	524		114
tRF-1:31-iMet-CAT-1-M2	AGCAGAGUGGCGCAGCG	tRF-31-FP18LP	31	2.644830	6.254222144	0.006677	0.212905	6.854278	4.2094473	306.79	18.412	33.892	6.8322	63.778	16.358
	GAAGCGUGCUGGGC	MBQ4NKD		5		8	3			504	716	411	524	952	469

tRF: Transfer RNA-derived fragment.

Supplementary Table 2 Use the expression levels of 5'-transfer RNA halve-lysine-CTT, alpha-fetoprotein, and abnormal prothrombinogen to distinguish hepatocellular carcinoma patients from healthy donors

	SEN	SPE	PPV	NPV	AUC
5'-tiRNA-Lys-CTT	0.8545	0.5000	0.6309	0.7746	0.673
AFP	0.5818	0.9455	0.9143	0.6933	0.755
APT	0.6455	0.8455	0.8069	0.7046	0.804
Combined diagnosis	0.7636	0.8909	0.8750	0.7903	0.930

tiRNA: Transfer RNA halve; Lys: Lysine; AFP: Alpha-fetoprotein; APT: Abnormal prothrombinogen; SEN: Sensitivity; SPE: Specificity; PPV: Positive predictive value; NPV: Negative predictive value; AUC: Area under the curve.

Supplementary Table 3 Use the expression levels of 5'-transfer RNA halve-lysine-CTT, alpha-fetoprotein, and abnormal prothrombinogen to distinguish early stage of hepatocellular carcinoma patients from healthy donors

	SEN	SPE	PPV	NPV	AUC
BCLC 0/A 5'-tiRNA-Lys-CTT	0.6136	0.8545	0.6278	0.8468	0.764
BCLC 0/A AFP	0.4545	0.9455	0.7694	0.8125	0.667
BCLC 0/A APT	0.5455	0.7909	0.5106	0.8131	0.726
BCLC 0/A combined diagnosis	0.6591	0.9182	0.7632	0.8707	0.913

BCLC: Barcelona Clinic Liver Cancer; tiRNA: Transfer RNA halve; Lys: Lysine; AFP: Alpha-fetoprotein; APT: Abnormal prothrombinogen; SEN: Sensitivity; SPE: Specificity; PPV: Positive predictive value; NPV: Negative predictive value; AUC: Area under the curve.

Supplementary Table 4 The target genes of 5'-transfer RNA halve-lysine-CTT predicted by miRanda, TargetScan, RIssearch, and RNAhybrid databases

Gene symbol	miRanda	RNAhybrid	RIssearch	TargetScan
A1BG	1	1	1	0
A1CF	1	0	0	0
A2ML1	1	1	1	0
A4GALT	0	1	1	0
AAMDC	0	1	0	0
AANAT	0	1	0	0
AARS1	1	1	1	1
AARS2	1	1	0	1
AASS	1	0	0	0
AATF	1	1	1	0
AATK	1	1	1	1
ABAT	1	1	0	0
ABCA10	1	0	0	0
ABCA13	1	0	0	0
ABCA2	1	1	1	1
ABCA3	1	1	0	1
ABCA7	0	1	0	0
ABCB11	1	0	0	1
ABCB5	1	1	1	0
ABCB6	0	1	0	0
ABCB7	1	0	0	0
ABCB8	1	1	1	1
ABCB9	1	1	1	0
ABCC1	1	0	0	0
ABCC10	1	0	0	0

ABCC2	0	0	0	1
ABCC3	1	1	1	1
ABCC4	0	1	0	0
ABCC5	1	1	0	1
ABCC6	0	1	1	0
ABCC8	1	1	1	1
ABCD1	1	1	0	0
ABCD4	1	1	0	0
ABCF1	0	1	1	0
ABCF2	1	0	1	0
ABCF2-H2BK1	0	1	1	0
ABCG1	1	1	1	0
ABCG4	1	1	0	0
ABHD1	0	1	0	0
ABHD10	0	1	0	0
ABHD11	1	1	1	0
ABHD12	0	1	1	0
ABHD12B	1	1	0	0
ABHD14A-ACY1	1	1	1	1
ABHD14B	0	1	0	0
ABHD15	1	0	1	1
ABHD16A	0	1	0	0
ABHD17A	1	1	0	0
ABHD17B	1	1	0	0
ABHD17C	0	1	0	0
ABHD18	1	1	0	1
ABHD4	0	0	1	0
ABHD5	0	1	1	0
ABHD6	0	1	1	0

ABHD8	1	0	0	1
ABI2	1	0	0	0
ABI3BP	0	1	0	0
ABL1	0	1	0	0
ABL2	1	0	0	1
ABLIM1	0	1	0	0
ABLIM2	1	1	0	0
ABLIM3	0	0	0	1
ABR	0	0	1	1
ABRAXAS1	1	0	0	0
ABT1	1	0	0	0
ABTB1	0	1	1	0
ABTB2	1	1	1	0
ACAA1	0	1	0	0
ACACA	0	1	0	0
ACACB	1	1	1	0
ACAD10	0	1	1	0
ACAD8	0	1	0	1
ACAD9	1	1	1	0
ACADS	0	1	0	0
ACADVL	1	1	0	0
ACAN	1	1	0	0
ACAT1	0	1	0	0
ACBD4	1	1	0	0
ACBD5	1	0	1	0
ACBD6	1	0	0	0
ACBD7	1	0	0	0
ACD	0	1	0	0
ACE	1	1	0	1

ACER1	0	0	0	1
ACER3	1	1	0	0
ACHE	1	1	1	1
ACIN1	1	0	0	1
ACKR2	1	1	0	0
ACO1	1	0	1	0
ACO2	1	1	0	1
ACOT11	1	1	1	1
ACOT7	0	1	0	0
ACOT8	0	1	0	0
ACOX1	1	1	0	0
ACOX2	1	1	0	0
ACOX3	0	1	0	0
ACOXL	1	1	1	1
ACP1	0	1	0	0
ACP2	1	1	0	0
ACP5	1	1	1	0
ACP6	1	1	0	0
ACP7	1	1	0	0
ACSBG1	0	1	0	0
ACSBG2	1	1	0	0
ACSF3	1	1	1	0
ACSL3	1	0	1	0
ACSL5	0	1	0	0
ACSL6	1	0	1	1
ACSM1	1	1	0	1
ACSS1	0	1	0	1
ACSS2	1	1	0	1
ACTA1	0	1	0	0

ACTB	1	1	1	0
ACTG1	1	1	0	0
ACTG2	1	1	0	0
ACTL8	0	1	0	0
ACTMAP	1	1	1	0
ACTN1	1	1	1	0
ACTN2	0	0	1	0
ACTN4	1	0	0	0
ACTR10	1	1	0	0
ACTR1A	0	1	0	0
ACTR1B	0	1	1	0
ACTR2	0	1	0	0
ACTR3B	0	1	1	0
ACTR3C	1	0	0	0
ACVR1B	1	1	0	0
ACVR2B	0	0	1	0
ACVRL1	1	1	0	0
ACY1	1	1	1	1
ACYP2	1	1	0	0
ADA	1	1	1	0
ADA2	1	1	1	1
ADAL	0	1	0	0
ADAM11	0	1	1	0
ADAM15	0	1	1	0
ADAM17	0	1	0	0
ADAM18	1	1	0	0
ADAM19	0	1	0	0
ADAM33	1	1	0	1
ADAM8	1	1	1	0

ADAM9	0	0	0	1
ADAMTS10	1	1	1	0
ADAMTS13	1	1	1	0
ADAMTS14	1	1	0	0
ADAMTS17	1	1	0	1
ADAMTS2	1	1	1	1
ADAMTS4	1	1	1	1
ADAMTS8	0	1	0	0
ADAMTSL1	1	1	0	0
ADAP1	0	1	0	0
ADAP2	0	1	0	0
ADARB1	0	1	0	0
ADARB2	1	1	1	0
ADAT1	1	0	0	1
ADAT2	1	0	0	0
ADAT3	0	1	0	0
ADCK1	1	1	0	1
ADCK5	1	1	1	0
ADCY3	0	1	1	0
ADCY4	0	1	1	1
ADCY5	0	1	0	0
ADCY6	0	0	1	0
ADCY7	1	1	0	0
ADCY9	1	0	0	1
ADD1	1	1	0	0
ADD2	1	1	1	0
ADGRA1	1	1	0	0
ADGRB1	1	1	1	1
ADGRB2	1	1	0	0

ADGRD1	1	0	0	1
ADGRD2	1	1	1	0
ADGRE2	0	1	0	0
ADGRE5	1	1	0	0
ADGRF3	0	0	1	0
ADGRF4	1	1	1	0
ADGRG1	1	1	1	0
ADGRG3	0	1	1	0
ADGRG5	0	1	0	0
ADGRL1	1	0	0	0
ADH1A	1	1	0	0
ADH6	0	1	0	0
ADIPOQ	1	0	0	0
ADM	0	1	0	0
ADO	0	0	1	0
ADORA1	1	1	1	0
ADORA2A	0	1	0	0
ADPGK	0	1	0	0
ADPRHL1	1	0	1	1
ADPRS	0	1	0	0
ADRA1A	1	1	0	0
ADRA1B	1	1	0	1
ADRA1D	0	1	0	0
ADRA2A	1	1	0	0
ADRA2B	0	1	0	1
ADRA2C	1	1	0	1
ADRB3	0	1	1	0
ADSL	1	1	0	0
ADSS1	0	1	0	0

ADSS2	0	1	0	0
AEBP1	1	1	0	0
AEN	0	1	1	0
AFAP1	1	0	1	0
AFAP1L1	1	0	0	0
AFDN	1	1	0	0
AFF2	1	0	1	0
AFG2A	1	0	0	1
AFG3L2	1	1	0	0
AFMID	1	1	1	0
AGAP1	1	0	0	0
AGAP3	1	1	1	0
AGAP6	0	1	1	0
AGBL4	1	1	0	0
AGBL5	0	1	0	0
AGFG2	1	0	1	0
AGL	0	0	1	0
AGMAT	1	1	1	0
AGO1	1	1	1	0
AGO2	1	1	1	0
AGO3	1	1	0	1
AGO4	0	0	1	1
AGPAT1	1	0	1	0
AGPAT2	1	1	0	1
AGPAT3	1	0	0	0
AGPAT4	0	1	0	0
AGPAT5	1	0	0	0
AGPS	1	0	0	0
AGRN	1	1	0	0

AGT	0	0	1	0
AGTRAP	0	1	0	0
AGXT	1	1	0	0
AHI1	1	1	0	1
AHNAK2	1	1	0	0
AHRR	1	1	1	0
AHSA1	1	1	1	0
AICDA	1	1	0	1
AIF1L	1	0	0	0
AIFM1	1	1	0	0
AIFM2	1	1	1	0
AIFM3	1	1	1	0
AIG1	1	1	0	0
AIP	1	1	1	1
AIPL1	1	1	1	1
AJAP1	0	0	1	1
AJM1	1	1	1	0
AK1	1	1	0	1
AK2	1	0	0	0
AK3	1	0	0	1
AK4	1	0	0	0
AK9	0	1	0	0
AKAIN1	0	1	1	0
AKAP1	0	1	0	0
AKAP17A	1	1	1	1
AKAP5	1	0	0	0
AKAP6	0	0	1	0
AKAP8L	0	1	0	0
AKAP9	0	1	0	0

AKIP1	1	1	1	0
AKIRIN1	1	0	0	1
AKNA	1	1	1	0
AKNAD1	0	1	0	0
AKR1B1	1	1	0	0
AKR1C8	0	1	0	0
AKR7L	1	0	0	0
AKT1	1	1	0	0
AKT2	1	1	1	1
AKT3	1	0	0	0
ALAD	1	1	1	0
ALCAM	1	0	1	0
ALDH16A1	1	1	1	1
ALDH1A2	0	1	0	0
ALDH1A3	1	1	1	0
ALDH1B1	1	1	0	0
ALDH1L1	1	1	0	0
ALDH1L2	1	0	0	0
ALDH2	1	1	1	1
ALDH3A2	1	1	0	0
ALDH3B1	1	1	1	0
ALDH4A1	0	1	1	0
ALDH5A1	1	1	1	0
ALDH6A1	1	0	1	0
ALDH7A1	1	1	0	0
ALDH8A1	0	1	0	0
ALG1	1	1	0	0
ALG10B	0	0	0	1
ALG11	0	1	0	0

ALG12	0	0	0	1
ALG13	1	0	0	0
ALG14	1	0	1	0
ALG1L2	1	0	1	0
ALG3	1	1	1	0
ALG8	0	1	0	0
ALG9	1	1	1	0
ALKBH4	1	1	0	1
ALKBH5	0	1	1	0
ALKBH6	1	1	0	0
ALKBH7	1	0	0	0
ALOX15	1	1	0	0
ALOX5	0	1	0	0
ALPG	0	1	0	0
ALPI	1	1	1	0
ALPK1	1	0	0	0
ALPL	1	0	0	0
ALPP	0	1	0	0
ALS2	1	0	1	0
ALS2CL	1	1	1	0
ALX4	1	0	1	1
ALYREF	1	1	1	0
AMBP	0	1	0	0
AMBRA1	0	1	0	0
AMD1	1	0	0	0
AMDHD2	1	1	0	0
AMER2	1	0	0	0
AMER3	1	0	0	0
AMFR	1	1	1	0

AMIGO1	1	0	1	0
AMIGO3	0	1	0	0
AMMECR1L	0	0	1	0
AMOT	0	0	1	0
AMPD2	1	1	1	0
AMPD3	1	1	0	0
AMT	0	1	0	0
AMZ1	1	1	1	1
ANAPC11	1	1	1	0
ANAPC16	1	0	0	1
ANAPC5	0	1	0	0
ANAPC7	0	1	0	0
ANGEL1	0	0	1	1
ANGEL2	1	0	0	0
ANGPT1	0	1	0	0
ANGPT2	0	0	0	1
ANGPT4	1	0	0	0
ANGPTL4	1	1	0	0
ANGPTL8	1	1	0	0
ANHx	0	1	0	0
ANK2	1	0	0	0
ANK3	1	1	0	0
ANKDD1A	1	1	1	0
ANKFY1	1	1	1	0
ANKH	1	1	0	0
ANKIB1	1	1	0	0
ANKMY1	1	1	0	1
ANKRD11	1	1	1	0
ANKRD12	0	0	0	1

ANKRD13D	0	1	0	0
ANKRD18A	0	1	1	0
ANKRD18B	0	1	1	0
ANKRD20A1	0	1	0	0
ANKRD23	0	1	0	0
ANKRD24	1	1	1	1
ANKRD27	1	1	0	0
ANKRD30B	0	1	0	0
ANKRD33	1	0	0	0
ANKRD33B	1	1	1	0
ANKRD36B	1	0	0	0
ANKRD39	1	0	1	0
ANKRD42	1	0	0	0
ANKRD44	1	1	0	1
ANKRD46	1	0	0	0
ANKRD54	0	1	0	0
ANKRD60	1	0	1	0
ANKRD65	0	1	1	0
ANKRD9	1	0	1	0
ANKS1A	1	1	1	0
ANKS1B	1	1	1	1
ANKS3	1	1	0	0
ANKS4B	1	0	1	0
ANKS6	0	1	0	0
ANO1	1	1	1	1
ANO10	0	1	0	0
ANO7	0	1	0	0
ANO8	1	0	0	1
ANO9	0	1	0	0

ANPEP	0	1	0	0
ANTKMT	1	1	0	0
ANTXR1	0	0	0	1
ANTXR2	1	0	1	0
ANTXRL	0	1	0	1
ANXA2	0	1	0	0
ANXA4	1	0	0	1
ANXA8	1	1	1	1
ANXA8L1	1	1	1	1
ANXA9	1	1	1	0
AOC3	0	1	0	0
AOPEP	0	1	0	0
AP1B1	1	1	1	0
AP1G1	1	1	1	0
AP1G2	0	1	0	0
AP1M1	1	0	1	1
AP1S1	0	1	0	0
AP1S3	1	1	0	1
AP2A1	0	0	1	0
AP2A2	1	1	1	0
AP2M1	0	1	0	0
AP2S1	0	1	0	0
AP3B1	0	0	0	1
AP3B2	0	1	1	0
AP3D1	0	1	0	0
AP3S2	0	0	1	0
AP4M1	0	1	1	1
AP4S1	1	1	0	1
AP5B1	1	0	0	1

AP5M1	1	0	0	0
AP5S1	1	1	0	0
AP5Z1	1	1	0	1
APAF1	1	0	0	0
APBA2	1	1	0	1
APBA3	0	1	0	0
APBB2	1	0	1	0
APBB3	0	1	1	0
APC2	1	0	0	0
APCDD1	0	1	0	0
APCDD1L	0	1	0	0
APEH	1	1	0	0
APEX2	0	1	1	0
APH1A	1	1	1	0
APH1B	0	1	1	0
APLN	0	0	1	1
APLP1	0	1	0	0
APLP2	0	1	0	0
APMAP	0	1	0	0
APOBEC3A	0	1	0	0
APOBEC3C	0	1	0	0
APOBEC3D	1	1	0	1
APOBEC3H	0	0	0	1
APOBR	1	1	0	0
APOL1	0	1	0	1
APOL3	0	1	0	0
APOL4	1	0	0	0
APOL6	1	0	0	1
APOLD1	1	0	0	0

APP	0	1	0	0
APPBP2	1	0	0	0
APPL1	1	0	0	0
APRT	0	1	1	0
APTX	1	1	1	1
AQP1	0	1	1	0
AQP10	1	1	0	0
AQP12B	1	1	1	0
AQP7	0	1	0	1
AQP8	0	1	0	0
ARAF	0	1	0	0
ARAP1	1	1	1	0
ARC	1	0	0	0
ARCN1	1	0	0	0
AREL1	0	1	0	0
ARF1	1	1	0	0
ARF3	1	0	0	0
ARFGAP1	1	1	1	0
ARFGAP2	1	1	1	0
ARFGEF2	1	1	0	0
ARFGEF3	0	0	0	1
ARFIP2	0	1	0	0
ARFRP1	0	1	0	0
ARGFX	1	0	0	0
ARHGAP1	1	1	1	0
ARHGAP11B	0	1	0	0
ARHGAP22	0	1	0	0
ARHGAP23	1	1	0	0
ARHGAP26	0	0	0	1

ARHGAP27	1	1	0	1
ARHGAP30	1	1	0	0
ARHGAP31	1	0	1	0
ARHGAP32	1	0	1	1
ARHGAP35	0	0	1	0
ARHGAP39	1	1	1	0
ARHGAP4	1	1	0	0
ARHGAP44	1	1	1	1
ARHGAP45	1	1	1	1
ARHGAP6	1	0	1	1
ARHGAP9	1	1	0	0
ARHGDIA	1	1	0	0
ARHGEF1	0	1	1	0
ARHGEF10	0	1	0	0
ARHGEF10L	0	1	1	0
ARHGEF11	1	0	0	0
ARHGEF12	0	1	0	0
ARHGEF15	0	1	0	1
ARHGEF16	1	1	1	0
ARHGEF17	1	1	0	0
ARHGEF18	1	0	0	0
ARHGEF19	1	1	1	0
ARHGEF2	0	0	1	0
ARHGEF3	1	1	1	0
ARHGEF37	0	0	1	0
ARHGEF39	1	1	1	1
ARHGEF4	1	1	0	0
ARHGEF40	1	1	1	0
ARHGEF7	1	1	0	1

ARHGEF9	1	1	1	0
ARID1B	1	1	0	0
ARID3A	1	1	1	0
ARID5A	1	1	1	0
ARID5B	1	0	0	0
ARIH1	1	0	1	0
ARIH2	0	1	0	0
ARK2C	1	0	1	1
ARK2N	1	0	0	0
ARL10	1	0	1	0
ARL16	0	1	0	0
ARL17B	1	1	0	0
ARL2	0	1	0	0
ARL3	1	0	0	0
ARL4C	0	0	1	0
ARL5A	1	0	0	0
ARL5C	1	0	0	0
ARL8A	0	1	0	0
ARMC1	1	1	0	0
ARMC10	0	1	1	0
ARMC12	0	1	0	0
ARMC2	0	1	0	0
ARMC5	1	1	0	0
ARMC6	1	1	0	0
ARMC7	1	1	0	0
ARMC9	1	0	1	1
ARMCX5-GPRASP2	1	0	1	0
ARMH1	0	1	1	1
ARMH3	1	1	0	0

ARNT	1	1	0	0
ARNT2	1	0	1	0
ARPC1A	0	1	0	0
ARPC1B	1	1	0	0
ARPC4	1	1	1	1
ARPC4-TTLL3	0	1	1	0
ARPIN	0	1	1	0
ARPIN-AP3S2	0	1	0	0
ARRB1	1	1	0	1
ARRDC1	1	1	1	0
ARSB	1	0	0	1
ARSG	0	1	1	1
ARSJ	0	1	0	0
ARSK	0	0	0	1
ARSL	0	1	0	1
ARVCF	1	1	1	0
AS3MT	0	1	0	0
ASAH1	0	1	1	0
ASAH2	1	0	0	0
ASAH2B	1	0	0	0
ASAP1	1	0	0	0
ASAP3	0	1	1	1
ASB1	1	1	1	1
ASB10	1	1	1	1
ASB11	0	1	0	0
ASB16	1	1	0	0
ASB18	1	0	0	0
ASB6	1	1	1	0
ASB8	0	1	0	0

ASCC1	0	1	0	0
ASCC2	0	0	0	1
ASCL2	1	1	0	1
ASCL4	1	1	0	1
ASGR1	0	1	0	0
ASH1L	1	1	0	1
ASH2L	1	1	1	1
ASIC4	1	1	0	1
ASL	0	1	1	1
ASPG	1	0	1	1
ASPH	1	0	0	0
ASPHD1	1	1	0	0
ASPHD2	1	1	0	0
ASPRV1	1	0	0	0
ASPSCR1	0	1	0	0
ASRGL1	1	0	0	1
ASS1	0	1	1	0
ASTL	1	1	0	0
ASTN2	1	0	0	0
ATAD3A	1	1	1	0
ATAD3B	1	1	1	0
ATAD3C	0	1	0	0
ATAD5	0	1	0	0
ATCAY	1	1	1	1
ATE1	0	1	0	0
ATF3	0	1	0	0
ATF5	0	1	0	0
ATF6	1	1	0	1
ATF7	0	0	1	0

ATF7IP	1	0	0	1
ATG10	1	0	1	0
ATG12	1	0	1	0
ATG13	1	1	0	0
ATG14	1	0	1	0
ATG16L1	0	0	1	0
ATG16L2	0	1	1	0
ATG2A	0	1	0	0
ATG2B	1	0	0	0
ATG4B	1	1	0	0
ATG4D	0	1	0	0
ATG5	0	1	1	0
ATG7	1	0	1	0
ATG9A	0	1	1	0
ATG9B	1	1	0	1
ATIC	1	1	0	0
ATL2	1	0	0	0
ATL3	1	0	1	0
ATM	1	1	0	0
ATOH8	1	0	1	0
ATOX1	1	0	0	0
ATP10A	0	1	0	0
ATP11A	1	1	1	0
ATP13A1	1	1	0	0
ATP13A4	1	0	0	0
ATP1A1	0	1	0	0
ATP1A4	1	0	0	0
ATP1B2	1	1	1	0
ATP1B4	1	0	0	1

ATP2A2	0	0	1	1
ATP2A3	0	1	1	0
ATP2B1	0	1	0	0
ATP2B2	0	1	0	0
ATP2B3	1	0	1	1
ATP4A	0	1	0	0
ATP5F1A	0	1	1	0
ATP5IF1	1	1	1	0
ATP5MF	1	1	0	0
ATP5MF-PTCD1	0	1	0	0
ATP5MG	1	0	0	1
ATP5MJ	1	1	1	0
ATP5PB	1	1	0	1
ATP6AP1	0	1	1	0
ATP6V0A1	1	1	1	1
ATP6V0A2	1	0	0	1
ATP6V0B	0	1	0	0
ATP6V0C	1	1	0	0
ATP6V0D1	0	1	1	0
ATP6V0D2	1	0	0	1
ATP6V0E2	1	1	0	0
ATP6V1A	1	0	0	0
ATP6V1B1	0	1	0	0
ATP6V1B2	1	1	1	0
ATP6V1H	0	1	0	0
ATP7A	1	0	0	0
ATP7B	1	1	0	0
ATP8A2	1	0	1	0
ATP8B1	1	0	0	1

ATP8B2	1	1	1	0
ATP8B3	0	1	0	1
ATP8B4	0	1	0	0
ATP9A	1	0	1	0
ATP9B	0	1	0	0
ATPAF1	0	1	0	0
ATPAF2	0	1	0	0
ATRIP	0	1	0	0
ATRX	0	1	1	0
ATXN1	1	0	1	1
ATXN2	0	1	1	0
ATXN2L	0	1	0	0
ATXN3	1	1	1	1
ATXN7L1	1	0	1	1
ATXN7L2	1	1	0	0
ATXN7L3	0	0	1	0
AURKB	0	1	0	0
AURKC	0	1	1	0
AUTS2	1	0	0	1
AVIL	1	0	0	0
AVPR1A	1	0	0	0
AVPR1B	1	0	0	0
AVPR2	0	1	0	0
AWAT2	0	1	0	0
AZGP1	0	1	0	0
AZIN2	1	1	1	0
AZU1	1	1	0	0
B3GALNT2	1	0	0	0
B3GALT1	1	0	0	0

B3GALT5	1	0	1	0
B3GALT6	1	1	0	1
B3GAT1	1	0	0	1
B3GAT3	1	1	1	1
B3GNT4	0	1	0	0
B3GNT6	1	1	0	0
B3GNT7	1	0	0	0
B3GNT8	0	1	0	0
B3GNT9	0	1	0	0
B3GNTL1	0	1	1	0
B4GALNT1	0	1	1	0
B4GALNT2	0	0	0	1
B4GALNT4	1	1	0	0
B4GALT1	1	1	0	0
B4GALT2	0	1	0	0
B4GALT3	1	1	0	0
B4GALT4	1	0	0	0
B4GALT7	1	1	1	0
B9D1	1	1	1	0
BAAT	1	0	0	0
BABAM2	0	1	0	0
BACE1	0	1	0	0
BACE2	0	0	1	1
BAG5	1	0	1	0
BAG6	1	0	1	1
BAHD1	1	0	1	0
BAIAP2	0	1	1	1
BAIAP2L1	1	1	0	0
BAIAP2L2	1	1	1	1

BAIAP3	1	1	1	0
BAK1	0	1	0	0
BANP	0	1	0	0
BAP1	0	1	0	0
BARHL1	0	1	0	0
BARX1	0	1	0	0
BARX2	0	1	0	0
BATF	1	1	0	0
BATF2	1	1	0	0
BATF3	1	1	0	0
BAX	1	1	0	0
BBC3	1	1	1	0
BBLN	0	1	0	0
BBS1	0	1	0	0
BBS2	0	1	1	0
BBS5	1	0	0	0
BBS9	0	1	0	0
BBX	1	1	0	0
BCAM	0	1	0	0
BCAN	0	1	1	0
BCAP29	0	1	0	1
BCAP31	1	1	0	0
BCAR1	1	1	1	0
BCAS1	1	0	0	0
BCAS3	0	1	0	0
BCAS4	1	1	1	0
BCCIP	0	1	0	0
BCDIN3D	1	0	0	1
BCKDHB	1	0	0	0

BCKDK	0	1	0	0
BCL10	0	1	0	0
BCL11A	0	1	1	0
BCL2	0	1	0	1
BCL2L1	1	1	0	0
BCL2L10	0	1	0	0
BCL2L12	1	1	1	1
BCL2L15	1	0	1	0
BCL2L2	0	0	1	0
BCL6	0	1	0	0
BCL6B	0	1	0	0
BCL7A	1	0	0	0
BCL7B	0	1	1	0
BCL7C	0	1	1	0
BCL9L	1	0	1	1
BCLAF1	1	1	1	0
BCLAF3	1	1	0	1
BCOR	1	1	0	0
BCORL1	0	1	0	0
BCS1L	0	1	0	0
BDH1	1	0	1	0
BEAN1	0	0	1	1
BEGAIN	1	0	0	0
BEND3	0	0	1	0
BEND5	0	1	0	0
BEST1	1	1	0	0
BEST2	0	1	0	0
BET1	1	0	1	0
BET1L	1	1	1	0

BGLAP	0	1	1	0
BHLHA15	1	0	1	1
BHLHA9	1	1	1	0
BHLHE41	0	0	1	0
BHMT2	1	1	0	1
BICD1	0	0	0	1
BICDL1	1	1	1	1
BICDL2	0	1	0	0
BICRA	1	1	1	1
BID	0	1	0	0
BIK	1	0	0	0
BIN1	0	1	0	0
BIN2	0	1	0	0
BIRC5	0	1	1	0
BIRC7	0	1	0	0
BIVM	0	0	0	1
BLACAT1	0	1	0	0
BLK	1	1	0	0
BLM	1	1	0	0
BLOC1S2	0	0	1	0
BLOC1S3	1	1	0	0
BLOC1S6	1	0	0	0
BLTP1	1	0	0	1
BLVRB	1	1	0	0
BMAL1	1	0	0	0
BMAL2	1	0	0	0
BMERB1	1	1	1	0
BMF	1	0	0	1
BMP1	0	1	1	0

BMP3	1	0	1	0
BMP4	0	1	0	0
BMP7	1	0	0	1
BMP8A	1	0	1	0
BMPER	1	1	1	0
BMPR1A	1	0	0	0
BMPR2	1	0	0	1
BNIP2	1	0	1	0
BNIP3	1	0	1	0
BNIPL	1	1	0	0
BOK	1	1	0	0
BOLA1	0	1	0	0
BOLA2-SMG1P6	1	0	1	0
BOP1	0	1	1	0
BORCS5	1	0	0	0
BORCS6	0	1	0	0
BORCS7-ASMT	1	0	0	0
BORCS8	1	1	1	0
BORCS8-MEF2B	1	1	0	1
BPHL	0	1	0	0
BPI	0	0	0	1
BPIFB2	1	0	0	0
BPIFB4	0	1	0	0
BPIFC	0	1	0	0
BPNT1	1	1	0	0
BPNT2	0	0	1	0
BRAF	1	0	0	1
BRAP	1	0	0	0
BRAT1	0	1	0	0

BRCA1	0	1	0	0
BRCA2	0	1	0	0
BRD3	1	1	0	0
BRD3OS	1	1	1	0
BRD4	1	1	1	1
BRD7	1	0	0	0
BRF1	1	1	1	0
BRF2	1	1	1	0
BRI3BP	0	0	0	1
BRICD5	0	1	0	0
BRIP1	1	1	1	0
BRMS1	0	1	0	0
BROX	1	0	0	0
BRPF1	1	1	0	1
BRPF3	0	1	0	0
BRSK2	0	1	1	0
BSCL2	0	1	0	0
BSDC1	0	1	1	0
BSG	1	1	1	0
BSND	1	0	1	0
BSPRY	1	1	1	0
BST2	0	1	1	0
BTBD1	0	1	0	0
BTBD19	1	1	1	1
BTBD2	1	1	1	1
BTBD7	1	0	0	0
BTBD9	1	0	0	0
BTD	1	1	0	0
BTN2A1	0	1	0	0

BTN2A2	0	1	0	0
BTN3A2	0	0	0	1
BTNL8	1	1	1	0
BUB3	1	0	0	0
BUD13	0	1	0	0
BZW1	1	0	1	0
C10orf105	0	0	1	0
C10orf143	1	0	0	1
C10orf53	0	1	0	0
C10orf67	1	1	1	0
C10orf90	0	1	0	0
C11orf21	1	1	1	0
C11orf52	0	1	0	0
C11orf54	0	1	0	0
C11orf80	1	1	1	1
C11orf86	1	1	1	0
C11orf87	0	0	0	1
C11orf96	0	1	1	0
C12orf42	0	1	0	0
C12orf43	0	1	1	0
C14orf119	1	0	0	0
C14orf132	1	0	0	1
C14orf180	0	1	0	0
C15orf39	0	1	1	0
C15orf61	1	0	0	0
C15orf62	1	1	0	1
C16orf54	0	1	0	0
C16orf74	0	1	0	0
C16orf82	0	0	0	1

C16orf86	1	1	0	0
C16orf87	1	0	1	0
C16orf90	1	1	0	0
C16orf92	1	0	0	0
C17orf107	1	1	1	1
C17orf113	1	1	1	0
C17orf49	0	1	0	0
C17orf75	1	0	0	1
C17orf80	0	1	0	0
C18orf32	1	0	1	0
C19orf18	0	1	0	0
C19orf25	1	1	1	1
C19orf33	0	1	0	0
C19orf44	0	1	1	0
C19orf47	1	1	0	1
C19orf53	1	1	1	1
C1QA	0	1	0	0
C1QB	1	1	1	0
C1QC	0	1	0	0
C1QL1	1	1	1	1
C1QTNF1	1	1	0	0
C1QTNF3	1	0	0	0
C1QTNF5	0	1	0	0
C1QTNF6	1	1	1	0
C1QTNF7	1	0	0	0
C1QTNF8	0	0	1	0
C1RL	1	1	0	1
C1S	0	1	0	0
C1orf115	1	0	0	0

C1orf116	0	1	1	0
C1orf122	0	1	0	0
C1orf127	0	1	0	0
C1orf141	1	0	0	0
C1orf159	1	1	0	0
C1orf174	1	1	1	0
C1orf198	1	0	0	0
C1orf21	1	0	1	1
C1orf210	1	1	1	0
C1orf35	0	1	0	0
C1orf43	1	1	0	1
C1orf50	1	0	0	1
C1orf56	1	0	0	0
C2	1	1	1	0
C20orf202	1	0	0	0
C20orf203	1	0	1	0
C20orf204	1	1	1	0
C21orf58	1	1	1	0
C21orf62	1	0	0	1
C22orf39	1	0	1	0
C22orf42	1	0	0	0
C2CD2	1	0	0	0
C2CD2L	1	1	1	1
C2CD3	0	1	0	0
C2CD4C	1	1	1	0
C2orf15	0	0	0	1
C2orf16	1	1	0	0
C2orf50	1	0	1	0
C2orf68	1	1	1	1

C2orf72	1	0	1	1
C2orf74	1	0	0	0
C2orf92	0	1	0	0
C3	0	1	0	0
C3orf18	0	1	0	0
C3orf22	1	1	0	0
C3orf33	1	1	1	0
C3orf52	0	1	0	0
C3orf62	1	0	0	0
C3orf70	1	0	1	0
C3orf80	0	1	0	0
C4orf17	0	0	1	0
C4orf19	1	0	0	0
C4orf36	1	1	0	0
C4orf50	0	0	1	1
C5AR1	1	0	0	0
C5AR2	1	0	1	1
C6orf132	1	0	0	1
C6orf141	1	1	1	0
C6orf15	0	1	0	0
C6orf89	0	1	0	0
C7	0	0	1	0
C7orf50	1	1	1	0
C8A	0	1	0	0
C8G	0	1	1	0
C8orf33	0	1	0	0
C8orf58	0	1	0	0
C8orf74	1	0	1	0
C8orf82	0	1	1	0

C9orf43	0	1	0	0
C9orf78	1	1	0	0
C9orf85	1	0	0	0
CA12	1	1	0	1
CA13	1	0	0	0
CA5B	1	0	1	0
CA6	1	1	0	0
CA7	1	1	0	0
CABIN1	0	1	0	0
CABLES1	1	1	0	0
CABP1	1	1	1	0
CABP2	1	1	0	0
CABP4	0	1	0	1
CABP7	1	0	1	0
CABYR	0	1	0	0
CACFD1	1	0	0	0
CACNA1A	1	1	0	1
CACNA1B	1	0	1	0
CACNA1C	1	1	1	0
CACNA1D	1	0	0	0
CACNA1E	1	1	1	0
CACNA1G	1	1	0	1
CACNA1H	1	1	0	1
CACNA1I	1	1	1	1
CACNA1S	1	1	1	1
CACNA2D2	1	1	1	0
CACNA2D4	1	1	1	0
CACNB1	0	1	1	0
CACNB2	0	0	0	1

CACNB3	0	1	0	0
CACNB4	0	1	0	0
CACNG4	1	0	0	1
CACNG5	1	0	1	1
CACNG6	1	0	0	0
CACNG7	1	1	0	0
CACNG8	1	0	1	1
CACTIN	1	1	0	0
CACUL1	1	0	1	1
CACYBP	1	1	0	0
CAD	0	1	0	0
CADM1	1	0	1	0
CADM3	1	0	0	1
CALCA	0	1	0	0
CALCOCO1	0	1	0	0
CALCOCO2	1	0	0	0
CALCR	0	1	0	0
CALHM5	0	0	1	0
CALM1	1	1	1	0
CALM3	0	1	0	0
CALML4	0	1	0	0
CALML5	0	1	0	0
CALR	1	1	1	0
CALY	0	1	1	0
CAMK1	1	1	1	1
CAMK1D	0	0	1	1
CAMK1G	0	1	0	0
CAMK2A	1	1	0	0
CAMK2B	1	1	1	0

CAMK2G	0	1	1	0
CAMK2N2	0	1	0	0
CAMKK1	1	1	1	0
CAMKK2	0	1	0	0
CAMKV	0	1	0	0
CAMP	0	1	0	0
CAMSAP1	0	1	0	0
CAMSAP3	1	1	1	0
CAMTA1	1	1	1	1
CAMTA2	1	1	0	1
CAND1	1	0	0	0
CAND2	1	1	1	1
CANT1	0	1	0	0
CANX	0	1	0	0
CAPN1	0	1	0	0
CAPN10	0	1	1	0
CAPN11	0	1	0	0
CAPN12	1	1	0	0
CAPN13	0	1	0	0
CAPN15	1	1	0	0
CAPN3	0	1	0	0
CAPN5	1	1	1	1
CAPN8	0	1	0	0
CAPRIN2	0	0	0	1
CAPS	0	1	0	0
CAPZA2	0	0	0	1
CAPZB	1	0	1	1
CARD10	0	1	1	0
CARD14	0	1	0	0

CARD19	0	1	0	0
CARD8	1	1	1	0
CARD9	1	1	1	0
CARF	1	1	0	0
CARHSP1	1	1	0	1
CARM1	1	1	1	0
CARMIL2	0	1	0	0
CARNS1	0	1	0	0
CARS1	0	1	0	0
CARS2	1	1	0	0
CASK	0	0	0	1
CASKIN1	1	1	1	0
CASKIN2	1	1	0	0
CASP1	0	1	0	0
CASP10	0	0	0	1
CASP12	0	1	1	0
CASP2	0	0	1	1
CASP8	1	0	0	0
CASP9	1	1	0	0
CASQ1	1	1	0	0
CASQ2	1	1	0	0
CASR	1	0	0	1
CASS4	1	1	1	1
CAST	1	1	0	1
CASTOR2	1	0	1	0
CASZ1	0	1	0	0
CATSPER4	0	1	1	0
CATSPERG	0	0	1	0
CAV1	0	1	0	0

CAV2	0	1	0	0
CAV3	0	1	0	0
CAVIN1	1	0	0	0
CAVIN2	0	1	0	0
CAVIN4	1	1	0	0
CBARP	1	1	0	1
CBFA2T2	1	0	1	1
CBL	1	1	1	0
CBLC	0	1	0	0
CBLN1	1	1	0	0
CBR1	0	1	0	0
CBS	0	1	1	0
CBX2	1	1	1	1
CBX3	0	1	0	0
CBX5	1	1	0	0
CBX6	1	1	1	1
CBX7	1	0	0	0
CBX8	1	0	0	0
CBY2	0	1	0	0
CC2D1A	0	1	0	0
CC2D1B	1	1	1	0
CC2D2A	1	0	0	0
CC2D2B	0	1	0	0
CCAR2	0	1	0	0
CCBE1	0	1	0	0
CCDC106	1	1	1	1
CCDC113	1	0	0	0
CCDC117	0	1	0	0
CCDC120	1	1	1	0

CCDC122	1	0	0	0
CCDC127	1	0	0	1
CCDC134	1	1	1	0
CCDC137	1	0	0	1
CCDC141	1	0	0	0
CCDC142	0	1	0	1
CCDC149	1	1	0	1
CCDC150	0	0	0	1
CCDC154	0	1	0	0
CCDC157	1	1	1	1
CCDC159	1	1	0	1
CCDC169	0	0	1	0
CCDC17	1	1	1	0
CCDC18	1	0	1	0
CCDC180	1	1	0	1
CCDC184	0	1	0	0
CCDC186	1	0	1	0
CCDC187	1	1	1	1
CCDC194	1	0	0	1
CCDC197	1	1	0	0
CCDC24	1	1	1	0
CCDC27	1	1	1	0
CCDC30	1	0	0	1
CCDC32	1	1	1	1
CCDC33	0	1	1	0
CCDC38	1	0	0	0
CCDC57	1	1	1	1
CCDC6	1	0	0	0
CCDC61	1	1	1	0

CCDC66	1	0	1	1
CCDC74A	1	1	0	1
CCDC74B	1	1	0	1
CCDC77	0	1	0	0
CCDC8	0	1	0	0
CCDC80	1	0	0	0
CCDC82	1	0	1	0
CCDC85B	1	1	0	0
CCDC85C	1	0	1	1
CCDC86	0	1	0	0
CCDC88C	1	1	0	1
CCDC9	1	1	0	1
CCDC90B	0	1	0	0
CCDC92	0	1	0	0
CCDC92B	1	0	0	1
CCDC93	0	0	1	0
CCDC9B	1	0	0	1
CCER2	1	1	1	0
CCHCR1	1	1	0	0
CCKBR	1	1	0	0
CCL15	1	0	0	0
CCL17	0	1	0	0
CCL21	0	1	1	0
CCL22	1	0	1	0
CCL25	0	1	1	0
CCL28	1	0	1	0
CCL4L2	0	1	0	0
CCL5	1	1	0	1
CCM2	0	1	0	0

CCM2L	1	1	0	1
CCNC	1	0	0	0
CCND1	0	0	1	0
CCND2	1	0	0	0
CCND3	0	1	0	0
CCNF	1	1	0	0
CCNI2	1	1	1	0
CCNJL	1	0	1	0
CCNK	0	1	0	0
CCNL2	1	1	0	0
CCNO	0	1	0	0
CCNP	1	1	1	1
CCNQ	1	1	0	0
CCR1	0	1	0	0
CCR10	0	1	0	0
CCR6	0	1	0	0
CCR9	0	1	0	0
CCS	0	1	0	0
CCSER1	1	0	0	0
CCSER2	1	0	1	0
CCT7	0	1	0	0
CD151	0	1	1	0
CD160	1	0	0	0
CD163L1	0	1	0	0
CD164L2	1	1	0	0
CD180	1	0	1	0
CD200	0	1	0	0
CD207	1	1	1	0
CD209	0	1	0	0

CD22	0	1	0	0
CD226	1	0	0	0
CD244	0	1	1	0
CD247	1	1	1	0
CD248	1	0	0	0
CD276	1	1	0	1
CD2BP2	1	0	1	0
CD300A	0	1	0	0
CD300C	0	1	1	0
CD300E	1	0	1	0
CD300LB	0	1	0	0
CD300LD	1	0	0	0
CD300LF	0	1	0	0
CD300LG	1	1	1	0
CD302	1	0	1	0
CD320	1	1	1	0
CD34	0	1	0	0
CD37	0	1	0	0
CD3G	1	1	0	0
CD4	1	1	0	0
CD40	0	1	1	0
CD48	0	1	0	0
CD5	0	1	0	0
CD6	0	1	0	0
CD7	0	1	0	0
CD74	1	0	0	0
CD81	0	1	1	0
CD82	1	1	0	1
CD83	0	1	0	0

CD84	1	0	0	1
CD86	0	1	0	0
CD8A	0	1	0	0
CD8B	0	1	0	0
CD8B2	1	0	0	0
CD96	0	0	0	1
CD99	0	1	0	0
CD99L2	1	0	0	0
CDAN1	1	1	0	0
CDC123	0	1	0	0
CDC14B	1	0	1	0
CDC14C	0	1	0	0
CDC20B	0	1	0	0
CDC23	1	1	1	0
CDC25A	0	1	0	1
CDC25B	1	1	0	0
CDC25C	0	1	0	0
CDC34	0	1	0	0
CDC37	1	1	1	0
CDC42	1	0	1	0
CDC42BPA	1	1	0	0
CDC42BPB	0	1	0	0
CDC42BPG	1	1	0	1
CDC42EP2	0	1	1	0
CDC42EP4	0	1	0	0
CDC45	0	1	0	0
CDC6	1	0	0	0
CDCA3	0	1	0	0
CDCA4	1	1	1	0

CDCA5	0	1	1	0
CDCA7L	1	0	0	0
CDCA8	0	1	0	0
CDCP1	1	0	1	0
CDCP2	1	1	0	0
CDH1	1	1	0	0
CDH13	1	0	0	1
CDH16	1	1	1	0
CDH23	1	1	1	0
CDH24	0	1	1	0
CDH3	1	1	0	0
CDH4	1	1	0	0
CDH5	0	1	0	0
CDH7	1	0	0	0
CDHR4	1	1	0	0
CDHR5	1	1	1	0
CDIP1	0	1	0	0
CDIPT	0	1	1	0
CDK10	1	1	0	0
CDK11A	1	1	1	1
CDK11B	1	1	0	1
CDK13	1	1	1	1
CDK15	0	1	0	0
CDK18	1	1	1	0
CDK19	1	0	0	0
CDK2	1	1	0	0
CDK3	0	1	0	0
CDK5	1	1	1	1
CDK5R2	0	1	1	0

CDK5RAP2	0	1	0	0
CDK5RAP3	0	1	1	0
CDK6	1	0	0	0
CDK9	0	1	0	0
CDKL1	1	0	0	0
CDKL5	1	0	0	1
CDKN1A	1	0	0	0
CDKN2A	1	1	1	0
CDKN2B	0	1	0	0
CDON	1	1	0	0
CDPF1	0	1	0	0
CDR2L	0	1	0	0
CDS2	1	0	1	0
CDT1	0	0	0	1
CDX2	1	0	1	1
CDYL2	0	0	1	0
CEACAM16	0	1	0	0
CEACAM19	1	1	1	0
CEACAM21	0	1	1	0
CEACAM4	1	0	0	0
CEBPA	1	1	0	0
CEBPB	0	1	1	1
CEBPD	0	1	0	0
CEBPZOS	1	1	1	0
CECR2	0	0	1	0
CELA3B	0	1	0	0
CELF1	1	0	1	0
CELF2	0	1	0	0
CELF4	1	0	0	0

CELF6	1	0	0	1
CELSR1	0	1	1	0
CELSR2	1	0	0	0
CELSR3	0	1	1	0
CEMIP2	0	0	0	1
CEND1	0	1	0	0
CENPL	1	1	0	0
CENPM	0	1	0	0
CENPP	1	0	1	1
CENPS-CORT	0	1	0	0
CENPT	0	1	0	0
CENPV	0	1	1	0
CEP104	1	0	0	0
CEP131	0	1	0	0
CEP135	1	1	0	1
CEP164	0	1	0	0
CEP170B	0	1	1	1
CEP19	0	1	0	0
CEP192	0	1	1	0
CEP250	0	1	1	1
CEP290	1	0	1	0
CEP41	1	1	0	0
CEP43	1	0	1	1
CEP44	1	0	1	0
CEP57L1	1	0	0	1
CEP63	1	0	0	0
CEP76	1	0	0	0
CEP78	1	1	0	1
CEP85	0	1	0	0

CEP89	1	1	1	1
CEP97	1	0	0	0
CER1	1	1	1	0
CERCAM	0	1	0	0
CERK	1	0	0	0
CERKL	0	1	0	0
CERS1	1	1	1	1
CERS3	0	0	1	0
CERS5	1	1	1	0
CERT1	1	1	1	1
CES1	0	1	0	0
CES2	1	0	0	0
CES3	1	1	1	0
CFAP107	1	0	0	0
CFAP119	0	1	1	0
CFAP157	1	1	1	1
CFAP20DC	1	0	0	0
CFAP298	0	0	0	1
CFAP298-TCP10L	1	1	1	0
CFAP410	0	1	0	0
CFAP44	1	0	0	0
CFAP46	0	1	1	0
CFAP57	0	0	0	1
CFAP58	0	1	0	0
CFAP61	0	1	0	0
CFAP65	0	1	0	0
CFAP69	0	1	0	0
CFAP70	0	1	0	0
CFAP90	0	1	0	0

CFAP91	0	1	1	0
CFAP92	1	1	0	0
CFAP97D1	1	0	1	0
CFAP97D2	0	1	0	0
CFB	1	0	0	1
CFH	1	1	0	0
CFLAR	1	1	1	0
CFP	0	1	0	0
CGAS	1	1	0	1
CGREF1	0	1	0	0
CHAC1	0	1	0	0
CHAF1B	1	0	0	0
CHAT	0	1	1	0
CHCHD10	0	1	0	0
CHCHD4	0	1	0	0
CHCHD5	1	0	1	0
CHCHD6	0	1	0	0
CHD1L	0	1	0	0
CHD2	1	1	1	1
CHD3	1	0	1	1
CHD4	1	1	0	1
CHD5	1	1	1	1
CHD8	0	1	0	0
CHD9NB	1	0	0	0
CHEK2	0	1	0	1
CHERP	0	1	0	0
CHFR	1	1	1	1
CHGA	0	1	1	0
CHI3L1	1	1	1	0

CHI3L2	0	1	1	0
CHIC1	0	0	1	0
CHID1	1	1	1	0
CHIT1	1	1	0	0
CHKA	0	1	0	0
CHKB	0	1	0	0
CHKB-CPT1B	1	0	0	0
CHL1	1	0	0	1
CHMP1A	1	1	1	0
CHMP2A	0	1	0	0
CHMP4A	0	1	0	0
CHMP4B	0	1	0	0
CHMP4C	0	1	0	0
CHMP6	0	1	0	0
CHMP7	0	1	0	0
CHP2	0	1	0	0
CHPF	1	1	1	0
CHPF2	1	1	0	1
CHRA1	1	1	1	0
CHRD	1	1	1	1
CHRD1	0	1	0	0
CHRM3	0	0	1	0
CHRM4	0	1	0	0
CHRNA1	1	1	0	0
CHRNA10	0	1	1	0
CHRNA2	0	1	0	0
CHRNA4	1	1	1	0
CHRNA7	0	1	0	0
CHRNA1	1	1	1	0

CHRNA2	1	1	0	1
CHRNA3	0	1	0	0
CHRNA4	1	1	1	0
CHRNA5	0	1	1	0
CHRNA6	0	1	0	0
CHRNA7	1	0	0	0
CHST1	1	1	1	1
CHST12	1	0	1	1
CHST13	1	1	1	0
CHST14	0	1	0	0
CHST15	0	1	1	0
CHST6	1	0	1	1
CHST8	0	1	0	0
CHST9	1	0	0	0
CHTF18	0	1	1	1
CHTF8	0	1	1	0
CHURC1	1	0	0	1
CHURC1-FNTB	0	1	1	0
CIAO1	1	0	0	1
CIAO2B	0	1	0	0
CIAO3	1	1	1	0
CIAPIN1	1	1	1	0
CIB1	0	1	0	0
CIB2	1	1	0	0
CIBAR2	0	1	0	0
CIC	0	1	0	0
CIDEA	1	1	0	0
CIITA	1	1	1	1
CILP	1	1	0	0

CILP2	0	1	0	0
CIMAP1A	0	1	0	0
CIMAP3	0	1	0	0
CINP	1	0	1	1
CIR1	1	1	0	1
CIRBP	0	1	1	0
CIT	1	1	0	0
CKAP4	0	1	1	0
CKB	1	1	0	0
CKLF	0	1	0	0
CKLF-CMTM1	1	1	1	1
CLASP1	1	0	1	0
CLBA1	0	1	1	0
CLCC1	0	1	0	0
CLCF1	0	1	0	0
CLCN2	1	1	1	0
CLCN3	0	0	0	1
CLCN4	1	0	0	0
CLCN5	1	0	0	0
CLCN6	1	0	1	1
CLCN7	1	1	1	0
CLCNKB	0	1	0	0
CLDN11	0	1	1	0
CLDN14	0	1	0	0
CLDN15	1	1	0	0
CLDN16	0	0	0	1
CLDN18	1	0	1	0
CLDN19	1	1	1	0
CLDN2	0	1	0	0

CLDN22	0	0	1	0
CLDN3	1	1	0	0
CLDN34	0	1	0	0
CLDN4	0	1	1	0
CLDN5	0	1	0	0
CLDN6	0	1	0	0
CLDN7	0	1	0	0
CLDN9	1	1	1	0
CLDND1	0	0	0	1
CLEC10A	0	1	0	0
CLEC12B	1	0	0	0
CLEC17A	1	1	0	0
CLEC1A	0	1	1	0
CLEC2D	1	1	0	0
CLEC2L	1	1	1	0
CLHC1	0	1	0	0
CLIC6	0	1	0	0
CLIP2	1	1	1	1
CLK3	1	1	1	0
CLMN	1	0	0	0
CLMP	1	0	0	1
CLN3	1	1	1	0
CLN5	0	1	1	0
CLN6	0	1	1	0
CLN8	1	0	0	1
CLNK	1	0	0	0
CLPB	1	1	1	0
CLPP	1	1	0	0
CLPTM1	0	1	1	0

CLPX	1	0	1	0
CLSPN	1	0	0	0
CLSTN1	1	1	0	0
CLSTN2	1	0	0	0
CLSTN3	1	1	1	0
CLTB	0	1	0	0
CLTC	0	1	0	0
CLTCL1	0	1	0	0
CLUAP1	1	0	0	1
CLUH	1	1	1	0
CLXN	1	1	0	0
CLYBL	1	0	1	1
CMBL	1	0	0	1
CMC2	1	0	1	0
CMIP	1	0	0	0
CMKLR1	0	0	1	0
CMKLR2	1	0	0	0
CMSS1	1	0	1	0
CMTM3	0	1	1	0
CMTM4	1	1	0	0
CMTM6	1	0	0	0
CMTM7	1	1	0	0
CMTR1	0	1	0	0
CNBD2	1	1	0	0
CNBP	1	0	1	0
CNDP2	1	1	1	0
CNEP1R1	1	1	1	0
CNGA2	1	1	1	0
CNGB1	1	1	0	1

CNIH2	1	1	0	0
CNIH3	0	1	1	0
CNKSR1	1	1	1	0
CNKSR3	1	0	0	1
CNN1	1	1	0	1
CNN2	1	1	0	0
CNNM1	0	0	0	1
CNNM2	1	1	1	1
CNNM3	1	1	1	0
CNNM4	1	0	0	0
CNOT10	0	1	0	0
CNOT3	1	0	0	0
CNOT4	0	1	0	0
CNP	1	1	1	1
CNPY3	1	0	0	0
CNR1	0	0	1	0
CNTFR	0	1	0	0
CNTN2	1	1	1	1
CNTNAP1	1	1	1	1
CNTNAP2	1	0	0	0
CNTNAP3B	0	1	0	0
CNTNAP5	0	0	1	0
CNTRL	0	0	1	0
CNTROB	1	1	1	1
COA1	0	1	0	0
COA5	1	1	1	0
COA7	0	0	0	1
COA8	0	1	0	0
COBL	0	1	0	0

COG1	0	1	0	0
COG2	0	1	0	0
COG4	1	1	0	0
COG7	1	1	0	0
COG8	1	1	0	0
COL11A1	0	0	0	1
COL11A2	0	1	0	0
COL13A1	1	1	1	1
COL17A1	0	1	1	0
COL18A1	1	1	1	0
COL20A1	0	0	1	1
COL23A1	1	1	0	1
COL26A1	0	1	0	0
COL27A1	1	1	0	1
COL4A1	0	1	1	0
COL4A2	0	1	0	0
COL4A3	0	1	0	0
COL4A5	0	1	0	0
COL5A2	1	0	0	0
COL6A1	0	1	1	0
COL6A2	0	1	0	1
COL6A3	0	1	0	0
COL9A3	0	1	0	0
COLEC12	0	0	0	1
COLGALT1	1	1	0	0
COLQ	0	1	0	0
COMMD1	0	1	0	0
COMMD2	1	0	1	0
COMMD4	1	1	0	1

COMMD6	0	1	0	0
COMT	1	1	1	0
COMTD1	1	1	1	0
COPA	0	0	0	1
COPB2	1	0	0	0
COPS5	0	1	0	0
COPS7A	1	1	0	0
COPS7B	1	1	1	0
COPS8	0	0	1	0
COPS9	0	1	0	0
COPZ2	0	1	1	0
COQ2	0	1	0	0
COQ4	0	1	0	0
COQ6	0	1	1	0
COQ8A	1	1	0	0
COQ8B	1	1	1	1
CORO1B	1	1	1	1
CORO2B	0	1	0	0
CORO6	0	1	1	0
CORO7	1	1	1	0
CORO7-PAM16	0	1	0	1
CORT	0	1	0	0
COTL1	1	1	0	0
COX10	1	1	1	0
COX15	1	1	0	0
COX16	1	1	1	0
COX17	1	1	0	0
COX18	1	0	1	0
COX19	1	1	1	1

COX20	1	0	0	1
COX4I1	0	1	1	0
COX4I2	0	1	1	0
COX6B2	1	1	0	0
COX7A2	0	1	0	0
CPA4	1	1	0	0
CPAMD8	1	1	1	1
CPEB1	0	1	0	0
CPLANE2	0	1	0	0
CPLX1	0	1	0	0
CPLX2	1	0	1	0
CPLX3	1	1	0	0
CPLX4	1	1	0	1
CPM	0	0	0	1
CPN1	1	1	0	0
CPNE6	0	1	1	0
CPNE7	1	1	0	0
CPNE9	0	1	0	0
CPSF2	1	0	0	0
CPSF4	0	1	1	0
CPSF4L	0	1	0	0
CPSF6	1	0	1	0
CPSF7	0	1	0	0
CPT1C	1	0	1	0
CPT2	1	1	0	0
CPTP	0	1	0	0
CPZ	1	0	1	0
CR1	1	1	0	0
CRACR2A	1	0	0	0

CRACR2B	0	1	0	0
CRADD	1	1	0	0
CRAMP1	1	0	0	1
CRAT	0	1	1	0
CRB2	1	1	0	0
CRB3	0	1	0	0
CRCP	1	1	0	0
CREB1	0	0	1	1
CREB3L2	0	0	0	1
CREB3L3	0	1	1	0
CREB5	1	0	0	0
CREBZF	0	0	1	0
CREG1	0	1	0	0
CRELD1	1	1	1	0
CRHR1	1	1	1	0
CRHR2	1	1	0	0
CRIP2	0	1	0	0
CRISPLD2	0	1	1	0
CRK	0	1	0	0
CRLF3	1	0	0	0
CROT	1	0	0	1
CRPPA	1	0	0	0
CRTC1	1	1	0	1
CRTC2	1	1	0	0
CRTC3	0	0	1	1
CRX	1	0	1	1
CRY2	1	1	1	0
CRYGN	1	0	0	1
CRYL1	1	1	0	0

CRYM	1	0	0	0
CRYZL1	1	0	0	1
CSAD	0	1	0	0
CSF1	0	1	0	0
CSF1R	0	1	0	0
CSF2	1	0	0	1
CSF3	0	1	0	0
CSF3R	1	1	1	0
CSH1	0	1	0	0
CSH2	0	1	0	0
CSHL1	0	1	0	0
CSK	0	1	0	0
CSMD2	0	0	0	1
CSNK1A1	0	0	0	1
CSNK1D	1	1	1	1
CSNK1E	1	1	1	1
CSNK2A1	1	1	1	1
CSNK2B	1	1	0	0
CSPG4	1	1	0	0
CSRNP1	0	1	0	0
CSRP1	0	1	0	0
CST7	0	1	0	0
CST9	0	1	0	0
CSTA	0	1	0	0
CSTB	0	1	0	0
CSTPP1	1	1	1	0
CTAG1A	0	1	0	0
CTAG1B	0	1	0	0
CTBP1	0	1	1	0

CTC1	0	1	1	0
CTCF	1	0	0	0
CTCFL	1	1	0	0
CTDNEP1	0	1	1	0
CTDP1	0	1	0	0
CTDSP1	0	1	0	0
CTDSP2	1	1	1	0
CTDSPL2	0	1	0	0
CTF1	0	0	1	0
CTIF	1	0	1	1
CTNNA1	0	1	0	0
CTNNB1	0	1	0	0
CTNNBIP1	1	1	1	0
CTNND1	1	1	1	0
CTNND2	1	0	0	0
CTNS	1	1	1	1
CTPS1	1	0	0	0
CTR9	1	0	0	0
CTRB1	0	1	1	0
CTRB2	0	1	0	0
CTRC	1	0	1	0
CTSA	1	1	1	0
CTSB	1	1	0	0
CTSC	0	1	0	0
CTSD	1	1	1	0
CTSF	0	1	0	0
CTSH	1	1	0	1
CTSK	0	0	0	1
CTSL	1	1	0	0

CTSO	1	0	1	0
CTSS	1	1	1	0
CTSV	1	0	0	0
CTSW	0	1	0	0
CTSZ	0	1	1	0
CTTN	1	1	0	1
CTU1	1	1	1	0
CTU2	0	1	1	0
CTXN1	0	1	1	0
CTXN2	0	0	1	0
CTXND1	0	0	0	1
CUEDC1	1	0	0	1
CUL1	1	0	0	0
CUL2	0	1	0	0
CUL4A	1	0	1	0
CUL4B	1	1	0	1
CUL7	1	1	1	1
CUL9	1	1	1	0
CUTA	0	1	1	0
CUX1	1	1	0	0
CWC25	0	0	0	1
CWC27	1	0	0	0
CWF19L1	1	0	0	0
CX3CL1	1	1	1	0
CX3CR1	1	1	1	0
CXCL12	1	1	1	1
CXCL13	0	1	0	0
CXCL14	1	1	0	1
CXCL16	1	1	0	0

CXCR2	0	0	0	1
CXCR5	0	0	1	0
CXCR6	0	1	0	0
CXXC1	0	1	0	0
CXXC5	0	1	0	0
CXorf38	0	0	0	1
CYB561	1	1	1	0
CYB561A3	1	1	1	1
CYB561D1	1	1	1	0
CYB5A	1	0	0	0
CYB5B	1	0	0	0
CYB5D1	1	1	0	0
CYB5D2	1	1	0	0
CYB5R2	1	1	0	0
CYB5R3	1	1	0	1
CYB5RL	1	1	1	0
CYBA	1	1	1	1
CYBB	1	0	0	0
CYBC1	1	1	1	1
CYBRD1	0	1	1	0
CYCS	1	0	1	1
CYFIP1	0	1	1	0
CYFIP2	0	1	1	0
CYLC2	1	0	0	0
CYLD	1	1	0	0
CYP11A1	1	1	0	0
CYP19A1	0	1	0	0
CYP1A1	0	1	0	0
CYP1A2	1	1	0	0

CYP20A1	1	0	0	1
CYP21A2	0	1	0	1
CYP24A1	0	1	0	0
CYP26A1	0	1	1	0
CYP26C1	1	1	0	0
CYP27A1	0	1	0	0
CYP27B1	0	1	0	0
CYP27C1	1	1	1	1
CYP2A13	0	1	0	0
CYP2A6	0	1	0	0
CYP2A7	0	1	0	0
CYP2C19	1	0	1	0
CYP2C9	1	1	1	0
CYP2F1	0	1	0	0
CYP2J2	0	1	0	0
CYP2S1	0	1	0	0
CYP3A4	0	0	0	1
CYP3A43	1	1	0	0
CYP4B1	0	1	0	0
CYP4F11	0	1	0	0
CYP4F12	0	1	1	0
CYP4F2	0	1	0	0
CYP4F22	0	1	1	0
CYP4F8	0	1	0	0
CYP4V2	1	0	1	0
CYP7B1	1	0	0	0
CYP8B1	1	0	0	0
CYREN	0	1	0	0
CYRIB	0	0	0	1

CYS1	1	0	1	0
CYTH1	1	1	1	0
CYTH2	0	1	0	0
CYTH3	0	0	1	0
D2HGDH	1	1	1	1
DAAM2	1	0	1	0
DAB2IP	1	1	1	0
DACH2	1	1	0	0
DACT2	0	1	0	0
DACT3	0	0	0	1
DAG1	0	1	1	0
DAGLA	1	0	1	1
DAGLB	0	1	1	0
DALRD3	0	1	1	0
DAND5	1	1	1	0
DAP3	1	1	1	1
DAPK1	1	0	1	1
DAPK2	1	1	1	1
DAPK3	0	1	1	0
DAZAP2	1	1	1	0
DBH	0	1	0	0
DBN1	1	1	0	0
DBNDD1	0	1	1	0
DBNDD2	0	1	0	0
DBNL	1	1	1	1
DBP	0	1	0	0
DBT	1	0	1	1
DCAF10	1	0	0	1
DCAF11	1	0	0	1

DCAF15	1	0	0	0
DCAF16	1	0	0	1
DCAF17	0	1	0	0
DCAF4	1	1	1	1
DCAF5	1	0	0	0
DCAF7	1	1	1	1
DCAF8	0	1	0	0
DCAKD	1	1	0	0
DCDC1	1	1	0	0
DCLK2	0	1	0	0
DCLRE1B	0	1	0	0
DCLRE1C	0	1	1	0
DCN	0	1	0	0
DCP1A	1	0	0	1
DCP1B	0	1	0	0
DCPS	1	0	1	1
DCST1	0	1	0	0
DCST2	0	1	0	0
DCT	0	1	0	0
DCTD	1	1	1	0
DCTN1	0	1	1	0
DCTN2	0	1	0	0
DCTN5	1	0	1	0
DCTN6	0	1	0	1
DCUN1D2	0	0	0	1
DCUN1D4	1	1	0	0
DCUN1D5	0	1	0	0
DDA1	1	0	1	0
DDB1	0	1	0	0

DDB2	0	1	0	0
DDC	0	1	0	0
DDI2	1	0	0	1
DDIT4	1	1	1	0
DDIT4L	0	1	0	0
DDN	1	1	1	0
DDOST	0	1	0	0
DDR1	1	1	1	1
DDT	1	1	0	0
DDX10	1	1	0	1
DDX11	0	1	0	0
DDX18	1	1	0	0
DDX19A	0	1	0	1
DDX19B	0	1	0	0
DDX20	0	1	0	0
DDX23	0	1	0	0
DDX25	0	1	1	0
DDX31	0	1	1	0
DDX39A	1	0	0	0
DDX3X	0	1	1	0
DDX41	0	1	0	0
DDX49	0	1	0	0
DDX51	1	0	1	1
DDX52	1	0	0	1
DDX54	1	1	1	0
DDX55	0	1	0	0
DDX56	0	1	0	0
DDX59	1	1	0	1
DDX6	1	0	0	0

DDX60	1	0	0	0
DEAF1	1	0	0	0
DECR2	1	1	0	0
DEDD2	0	1	1	0
DEF6	1	1	1	1
DEFA4	0	1	0	0
DEFB105A	0	1	0	0
DEGS1	1	1	0	1
DEGS2	1	0	0	1
DEK	1	1	1	0
DELE1	0	1	1	0
DENND10	1	0	0	1
DENND11	1	0	1	0
DENND1A	1	1	1	0
DENND1C	1	0	0	0
DENND2A	1	1	0	0
DENND2B	0	1	0	0
DENND2C	1	0	0	0
DENND3	1	1	1	1
DENND4A	1	0	0	0
DENND4C	0	1	0	0
DENND5A	1	1	0	1
DENND6B	1	0	1	1
DEPDC1	0	1	0	0
DEPDC4	1	0	0	0
DEPDC5	1	1	1	0
DERL1	1	1	0	0
DERL3	1	1	1	0
DERPC	0	1	1	0

DES	1	1	0	0
DES1	1	0	1	1
DEXI	1	1	0	0
DFFA	1	0	1	1
DFFB	1	1	0	0
DGAT1	1	1	1	0
DGAT2	1	1	0	0
DGCR2	1	0	1	0
DGCR6	0	1	1	0
DGCR6L	0	1	1	0
DGCR8	0	1	0	0
DGKA	0	1	1	0
DGKD	0	1	1	0
DGKE	0	0	0	1
DGKG	0	1	0	0
DGKH	1	0	0	1
DGKI	1	0	0	0
DGKQ	1	1	1	0
DGKZ	1	1	0	0
DGLUCY	0	1	1	0
DHCR24	1	0	0	0
DHCR7	1	1	0	0
DHDDS	1	1	1	1
DHDH	0	1	0	0
DHFR	1	0	0	1
DHFR2	1	0	0	0
DHH	0	0	1	0
DHODH	1	1	0	0
DHPS	0	1	0	0

DHRS1	0	1	0	0
DHRS11	0	0	1	0
DHRS12	1	1	0	1
DHRS13	0	1	0	0
DHRS3	0	1	0	0
DHTKD1	0	0	0	1
DHX30	0	1	1	0
DHX33	1	1	0	0
DHX34	0	1	1	1
DHX35	0	1	0	0
DHX37	1	1	1	0
DHX38	1	1	0	0
DHX57	0	1	0	0
DHX58	0	1	0	0
DHX8	0	1	0	1
DIABLO	0	1	1	0
DIAPH1	0	1	0	0
DIDO1	1	0	1	0
DIMT1	0	1	0	0
DIO1	1	0	0	0
DIO2	0	1	0	0
DIO3	1	1	1	0
DIP2A	0	0	0	1
DIRAS1	1	0	1	0
DIS3	1	1	0	0
DIS3L	0	1	0	1
DIS3L2	1	1	0	0
DISC1	1	1	1	0
DISP2	1	0	0	1

DISP3	0	1	0	0
DKC1	0	1	1	0
DKK3	0	1	0	0
DLEC1	0	1	0	0
DLG1	1	0	1	1
DLG4	1	0	0	0
DLG5	1	1	1	0
DLGAP2	1	0	0	0
DLGAP3	1	1	0	0
DLGAP4	0	1	0	0
DLK1	1	0	0	0
DLL1	0	1	0	0
DLST	0	1	0	0
DLX1	1	1	0	0
DLX2	1	1	0	1
DMAC2	0	1	0	0
DMAP1	0	1	0	0
DMBX1	0	0	1	0
DMD	1	0	1	0
DMGDH	0	1	0	0
DMKN	1	0	0	1
DMPK	1	1	1	1
DMRT2	1	0	0	0
DMRTA2	0	1	0	0
DMRTB1	0	1	0	0
DMRTC1	0	1	1	0
DMRTC1B	0	1	1	0
DMTN	0	1	0	0
DMWD	1	1	0	0

DNA2	1	0	0	0
DNAAF3	0	1	0	0
DNAAF4	1	0	0	0
DNAAF8	0	1	0	0
DNAH10	0	0	0	1
DNAH2	1	0	1	0
DNAH9	0	1	0	0
DNAI2	1	1	0	1
DNAI4	1	0	0	0
DNAJA3	1	1	0	0
DNAJA4	0	1	0	0
DNAJB11	0	1	0	0
DNAJB12	0	1	0	0
DNAJB13	1	1	0	1
DNAJB2	1	1	1	1
DNAJC10	1	0	1	0
DNAJC11	0	1	1	0
DNAJC14	1	1	0	0
DNAJC16	1	1	1	0
DNAJC17	0	1	1	0
DNAJC2	1	0	0	0
DNAJC21	0	0	0	1
DNAJC22	1	1	0	0
DNAJC24	1	0	0	0
DNAJC25-GNG10	1	1	0	0
DNAJC4	1	1	0	0
DNAJC5	1	0	0	0
DNAJC6	1	0	0	0
DNAJC8	1	0	0	0

DNAL1	1	1	0	1
DNALI1	0	1	0	0
DNASE1	1	1	0	1
DNASE1L1	0	1	0	0
DNASE1L2	0	1	0	0
DNHD1	1	1	1	1
DNLZ	1	0	0	0
DNM1	1	1	1	1
DNM1L	0	1	0	0
DNM2	0	1	0	0
DNMBP	0	1	0	0
DNMT1	1	1	1	1
DNMT3A	1	1	1	0
DNPEP	0	1	0	1
DOC2A	1	1	0	1
DOC2B	1	0	1	1
DOCK2	1	1	0	1
DOCK5	1	1	0	0
DOCK7	1	0	0	1
DOCK9	1	1	0	1
DOK1	1	1	0	0
DOK2	0	1	0	0
DOK3	0	1	0	0
DOK4	1	1	1	0
DOK7	1	1	1	0
DOLPP1	1	1	1	0
DOP1B	1	0	1	0
DOT1L	1	1	1	1
DPAGT1	0	1	0	0

DPF1	1	1	0	0
DPF2	1	0	1	0
DPF3	1	0	0	0
DPH1	1	1	1	0
DPH2	1	1	0	0
DPM2	0	0	0	1
DPP3	0	1	0	0
DPP6	0	1	0	0
DPP7	0	1	0	0
DPP9	0	1	0	1
DPPA4	1	1	0	0
DPPA5	0	0	0	1
DPT	0	1	0	1
DPY19L3	1	1	0	1
DPY19L4	1	0	0	1
DPYSL2	1	0	0	0
DPYSL3	0	1	1	0
DPYSL4	0	1	0	0
DPYSL5	1	0	1	1
DQX1	0	1	0	0
DR1	1	0	1	0
DRAM1	1	0	0	0
DRAXIN	1	0	1	1
DRC1	1	1	0	0
DRC3	0	1	0	0
DRC7	1	0	0	0
DRD2	1	1	1	0
DRD5	0	1	0	0
DRG2	1	1	1	0

DRGX	1	0	0	0
DSC2	1	0	0	0
DSC3	1	0	1	0
DSCAM	0	1	0	0
DSEL	0	0	0	1
DSG3	0	0	0	1
DSN1	0	1	0	0
DSTYK	1	0	0	1
DTD1	1	0	1	1
DTD2	0	1	0	0
DTNA	1	0	0	0
DTNB	1	1	0	0
DTNBP1	1	1	0	0
DTWD1	1	0	0	0
DTWD2	1	0	0	0
DTX1	1	1	0	0
DTX2	0	1	1	1
DTX3	1	1	0	0
DTX3L	1	0	1	0
DTX4	1	0	0	1
DUOX1	0	0	1	0
DUOX2	0	1	1	0
DUOXA1	0	1	0	0
DUOXA2	0	1	0	0
DUS3L	0	1	0	0
DUSP12	1	0	0	0
DUSP13A	1	1	1	0
DUSP16	1	0	0	0
DUSP18	1	0	0	0

DUSP2	0	1	1	0
DUSP22	1	1	1	0
DUSP28	1	0	1	0
DUSP29	0	1	0	0
DUSP3	1	1	1	0
DUSP4	1	1	1	0
DUSP7	1	1	0	0
DUSP8	1	0	1	0
DUSP9	0	1	0	0
DVL1	0	1	0	0
DVL2	0	1	0	0
DVL3	1	1	0	0
DYM	1	0	0	0
DYNC1H1	1	1	1	1
DYNC1LI2	0	1	0	0
DYNC2H1	1	0	0	0
DYNC2I1	0	1	0	0
DYNLL1	1	1	0	1
DYNLL2	1	0	0	0
DYRK1A	1	0	1	1
DYRK1B	0	1	0	0
DZANK1	1	1	0	0
DZIP1	0	1	1	0
DZIP1L	0	1	0	0
E2F1	1	1	0	0
E2F2	0	0	1	0
E2F4	0	1	0	0
E2F5	1	0	0	0
E4F1	1	1	1	0

EAF1	0	1	0	0
EBF4	0	1	0	0
EBI3	1	1	1	0
ECE1	1	1	0	1
ECE2	0	1	0	0
ECEL1	0	1	0	0
ECHDC2	0	1	0	0
ECHS1	1	1	0	0
ECSIT	1	1	1	0
EDAR	1	0	0	1
EDARADD	0	1	1	0
EDC3	1	1	1	1
EDEM1	1	1	0	0
EDF1	0	1	1	0
EDN2	0	1	0	0
EEF1A2	0	1	0	0
EEF1AKMT4-ECE2	0	1	0	0
EEF1D	0	1	1	0
EEF2KMT	1	1	1	1
EEFSEC	0	1	0	0
EEIG1	1	0	0	0
EEPD1	0	1	0	0
EFCAB10	0	1	0	0
EFCAB11	1	0	0	0
EFCAB14	1	1	0	0
EFCC1	0	1	0	0
EFEMP2	1	1	1	1
EFHC1	1	1	0	0
EFHD1	0	1	0	0

EFHD2	0	1	1	0
EFNA1	0	1	0	0
EFNA2	1	1	1	0
EFNA3	0	0	0	1
EFNB1	0	1	0	0
EFNB3	1	1	0	0
EFR3B	1	1	0	1
EFS	0	1	0	0
EFTUD2	1	1	0	0
EGFL7	0	1	0	0
EGFL8	1	1	1	0
EGFLAM	0	0	0	1
EGR2	1	1	0	0
EGR3	0	1	0	0
EHBP1L1	1	1	0	0
EHD1	1	1	1	1
EHD2	1	1	1	0
EHD4	1	0	0	0
EHMT1	1	1	1	0
EI24	0	1	0	0
EIF1	1	1	0	0
EIF1AD	0	1	1	0
EIF2AK2	1	1	1	0
EIF2B1	1	0	0	0
EIF2B4	0	1	1	0
EIF2B5	1	1	0	1
EIF2S2	0	1	1	0
EIF3B	0	1	0	0
EIF3E	1	0	1	1

EIF3F	0	1	0	0
EIF3G	0	1	0	0
EIF3I	1	1	0	0
EIF3M	1	0	0	0
EIF4A1	0	1	0	0
EIF4A2	0	1	0	0
EIF4A3	1	1	0	0
EIF4E1B	0	1	0	0
EIF4EBP1	0	1	0	0
EIF4EBP2	1	0	0	0
EIF4G1	1	0	1	1
EIF4G3	0	0	0	1
EIF4H	0	1	1	0
EIF6	1	1	1	0
EIPR1	1	1	1	0
ELAC2	1	1	0	0
ELAPOR1	1	1	1	1
ELAVL1	1	0	1	0
ELAVL3	1	0	0	0
ELF2	0	1	0	0
ELF3	0	1	0	0
ELF5	0	1	0	0
ELFN1	0	1	0	0
ELFN2	1	0	0	0
ELK1	0	1	0	0
ELK4	1	0	1	0
ELL	1	0	0	0
ELMO1	1	1	0	0
ELMO2	0	1	0	0

ELMOD1	0	1	0	0
ELMOD3	0	1	0	0
ELN	1	1	0	0
ELOA	1	0	0	0
ELOB	1	0	0	0
ELOC	1	0	1	0
ELOF1	1	1	1	0
ELOVL1	1	1	1	0
ELOVL3	0	1	0	0
ELOVL5	0	1	0	0
ELP1	0	1	0	0
ELP2	1	0	0	0
ELP3	1	1	0	1
ELP4	0	1	0	0
ELP5	0	1	1	0
ELP6	0	1	0	0
EMC1	1	1	0	1
EMC10	1	1	1	0
EMC2	1	0	1	0
EMC3	0	1	0	1
EMC8	1	1	1	0
EMD	0	1	1	0
EME1	0	1	0	0
EME2	1	0	1	0
EMG1	1	0	0	0
EMID1	1	1	1	0
EMILIN1	1	1	0	0
EMILIN3	0	1	0	0
EML1	1	1	0	0

EML2	1	1	0	0
EML3	1	1	1	1
EML6	1	1	1	1
EMP1	0	1	0	0
EMP2	1	0	0	1
EMX1	0	1	0	0
EMX2	1	1	0	0
ENAH	0	0	1	0
ENC1	1	0	1	0
ENDOD1	0	0	1	0
ENDOU	1	0	0	1
ENDOV	1	1	1	1
ENG	1	1	0	0
ENGASE	1	1	1	1
ENHO	0	1	0	0
ENKD1	0	1	0	0
ENO1	0	1	0	0
ENO2	0	1	0	0
ENO3	1	1	0	0
ENPP1	1	0	1	1
ENSA	0	1	0	0
ENTPD1	1	0	1	0
ENTPD2	0	1	0	0
ENTPD6	0	1	0	0
ENTPD8	1	1	0	0
ENTR1	0	1	0	0
ENTREP1	1	1	0	0
ENTREP2	0	0	1	1
ENTREP3	1	1	1	1

EOGT	1	1	0	0
EOMES	0	1	0	0
EPB41	1	0	0	0
EPB41L3	1	0	0	0
EPB41L4A	1	0	1	0
EPB41L4B	1	0	1	0
EPB41L5	1	0	0	1
EPG5	1	0	0	0
EPHA10	1	1	1	0
EPHA2	0	1	0	0
EPHA3	1	0	0	0
EPHA8	1	1	1	0
EPHB1	1	1	1	0
EPHB2	1	1	0	1
EPHB3	1	1	0	1
EPHB4	0	0	0	1
EPHB6	1	0	1	1
EPHX2	0	1	1	0
EPM2A	0	1	0	0
EPN2	1	1	1	0
EPN3	1	1	0	1
EPOP	1	1	0	0
EPOR	0	1	0	1
EPPIN	0	1	0	0
EPPK1	0	1	0	0
EPS15L1	1	1	1	0
EPS8	1	0	0	0
EPS8L1	0	1	0	0
EPS8L2	1	1	0	1

EPS8L3	1	1	0	1
EPX	1	1	0	0
ERAL1	1	1	1	0
ERAP1	1	1	0	0
ERAP2	1	1	0	1
ERBB2	0	1	1	0
ERBB3	1	1	1	0
ERC1	0	1	0	0
ERCC1	1	1	0	0
ERCC2	1	1	1	1
ERCC3	1	1	0	0
ERCC4	1	0	1	0
ERCC6	1	0	0	1
ERCC6L2	1	1	1	1
ERCC8	1	0	0	0
EREG	1	0	0	0
ERF	0	1	0	0
ERFE	1	1	1	1
ERG	1	1	1	1
ERGIC1	0	1	0	0
ERGIC2	1	0	0	0
ERI3	0	1	0	0
ERICH1	1	1	1	1
ERLEC1	0	0	1	0
ERLIN2	1	0	0	1
ERMP1	1	1	1	1
ERN1	1	0	0	1
ERN2	1	1	1	0
ERO1A	1	0	0	0

ERP29	1	1	0	0
ERVMER34-1	1	1	1	0
ESAM	0	1	0	0
ESPL1	1	0	1	1
ESPN	1	1	0	0
ESPNL	1	1	1	1
ESR2	0	0	0	1
ESRP2	0	1	0	0
ESRRA	1	1	0	0
ESRRB	1	0	0	0
ESS2	0	1	0	0
ESYT2	0	0	0	1
ETFBKMT	1	0	1	0
ETHE1	1	1	1	0
ETNK2	1	1	1	0
ETS1	0	1	0	0
ETV1	0	1	0	0
ETV3L	0	1	0	0
ETV6	1	0	0	0
EVC2	0	0	0	1
EVI5L	0	1	0	0
EVL	1	1	1	0
EVPLL	0	1	1	0
EVX1	0	1	0	0
EXD1	1	1	1	0
EXD2	1	1	0	0
EXD3	1	1	1	0
EXOC3	1	0	1	1
EXOC3L1	0	1	0	0

EXOC3L4	0	1	1	0
EXOC4	0	1	0	0
EXOC7	1	1	0	0
EXOG	1	1	1	0
EXOSC2	1	0	1	1
EXOSC3	1	1	0	0
EXOSC6	1	0	1	0
EXOSC8	0	1	0	0
EXOSC9	1	0	1	0
EXPH5	1	0	0	0
EXT2	1	0	1	1
EXTL1	0	1	0	0
EXTL3	1	0	0	1
EYA2	1	1	0	0
EYS	0	0	0	1
EZH1	1	0	1	0
F10	0	1	0	0
F11R	0	1	0	0
F12	1	1	1	0
F2R	0	0	0	1
F2RL2	0	0	1	0
F2RL3	1	1	1	0
F7	0	1	0	0
FA2H	0	1	0	0
FAAH	0	1	0	0
FAAP100	1	1	1	1
FAAP20	1	1	0	0
FAAP24	1	1	0	0
FABP2	0	1	0	0

FADD	0	1	0	0
FADS2	1	1	1	0
FADS6	0	1	0	0
FAF2	1	0	0	0
FAH	0	0	0	1
FAHD1	0	1	0	1
FAIM2	1	0	1	1
FAM107A	1	1	1	0
FAM107B	0	1	0	0
FAM110A	0	1	0	0
FAM110D	1	1	0	1
FAM111A	1	1	1	0
FAM114A1	1	0	1	0
FAM118A	1	1	0	0
FAM120AOS	1	1	0	0
FAM124A	0	1	0	0
FAM124B	1	1	1	0
FAM131A	1	1	1	1
FAM131B	0	0	1	0
FAM131C	0	1	0	0
FAM133B	0	0	0	1
FAM135A	0	0	0	1
FAM135B	1	0	0	1
FAM13C	0	1	1	0
FAM153A	0	1	0	0
FAM161A	0	1	0	0
FAM163B	1	1	1	0
FAM167A	0	1	0	0
FAM167B	1	1	1	0

FAM168B	1	0	0	0
FAM171A2	0	1	0	0
FAM172A	0	1	1	0
FAM174C	0	1	0	0
FAM177A1	1	1	1	0
FAM180A	1	1	1	0
FAM181A	1	1	1	0
FAM185A	0	1	0	0
FAM186A	1	1	0	0
FAM186B	0	1	0	0
FAM193A	1	1	1	0
FAM193B	1	1	1	1
FAM204A	1	0	1	0
FAM20A	1	1	0	0
FAM20B	1	0	0	0
FAM20C	1	1	1	0
FAM210A	1	0	0	0
FAM210B	0	0	0	1
FAM216A	0	1	0	0
FAM217B	0	0	0	1
FAM219B	1	1	0	0
FAM221A	1	1	1	0
FAM222A	1	1	0	1
FAM222B	1	0	1	0
FAM227A	0	0	0	1
FAM228A	0	1	0	0
FAM229A	1	1	1	0
FAM234A	1	1	1	0
FAM241A	1	0	0	1

FAM241B	0	1	1	0
FAM246C	1	1	0	1
FAM32A	0	1	0	0
FAM3A	0	1	0	0
FAM3D	0	1	0	0
FAM43B	0	1	0	0
FAM50B	0	1	0	0
FAM53A	1	1	0	0
FAM53B	1	1	1	1
FAM76A	0	0	0	1
FAM78A	1	0	0	0
FAM78B	1	1	0	0
FAM83A	1	1	1	0
FAM83B	1	0	1	0
FAM83E	1	1	0	0
FAM83F	1	1	1	0
FAM83H	1	1	1	0
FAM86B1	1	1	0	1
FAM86B2	1	1	0	0
FAM89B	0	1	1	0
FAM90A11P	0	1	0	0
FAM91A1	0	0	1	0
FAM98A	1	1	0	1
FAM98C	0	1	0	0
FAM9C	0	0	0	1
FAN1	1	1	1	0
FANCA	1	1	0	1
FANCB	0	1	0	0
FANCC	1	1	0	0

FANCD2	1	1	1	0
FANCE	0	1	0	0
FANCG	0	1	1	0
FANCI	0	1	0	0
FARP1	1	0	0	0
FARP2	1	0	0	0
FARSA	1	1	0	0
FAS	1	0	1	1
FASN	1	1	0	0
FASTKD2	1	0	0	1
FAT1	0	1	0	0
FATE1	0	1	0	0
FAXC	0	0	0	1
FAXDC2	0	1	0	0
FBF1	1	1	1	0
FBL	0	1	0	0
FBLN1	1	1	1	0
FBLN5	0	1	0	0
FBLN7	0	1	0	0
FBN1	1	0	1	0
FBN3	0	1	0	0
FBRs	0	1	1	1
FBRSL1	0	1	1	0
FBXL12	1	1	1	0
FBXL13	0	0	0	1
FBXL14	0	1	0	0
FBXL16	1	1	1	0
FBXL18	1	1	1	0
FBXL19	1	1	0	1

FBXL2	1	1	0	1
FBXL22	1	1	1	0
FBXL8	1	1	0	1
FBXO10	0	1	1	0
FBXO15	0	1	1	0
FBXO16	0	1	0	0
FBXO17	1	1	1	1
FBXO2	0	1	0	0
FBXO21	1	1	1	1
FBXO22	1	0	0	0
FBXO24	1	1	0	0
FBXO27	1	0	0	1
FBXO3	1	0	0	0
FBXO31	0	1	0	1
FBXO32	1	1	1	0
FBXO36	0	1	0	0
FBXO40	1	0	0	0
FBXO42	0	0	1	0
FBXO44	0	1	0	0
FBXO45	1	0	0	0
FBXO46	0	1	0	0
FBXO48	0	0	0	1
FBXO6	0	0	0	1
FBXW10	0	0	1	0
FBXW10B	0	0	0	1
FBXW11	0	1	0	0
FBXW2	1	0	0	0
FBXW4	1	0	0	0
FBXW5	1	1	0	0

FBXW8	1	0	1	0
FBXW9	0	1	0	0
FCAMR	0	1	0	0
FCAR	1	1	1	0
FCF1	1	1	0	0
FCGBP	0	1	0	0
FCGR2A	1	1	0	0
FCGRT	0	1	1	0
FCHO1	1	1	1	0
FCN1	1	0	1	0
FCN3	1	1	1	1
FCRL1	1	1	1	0
FCRL2	0	1	0	0
FCRL3	0	0	1	0
FCRLB	1	1	0	1
FCSK	0	1	1	0
FDFT1	1	1	1	0
FDPS	1	1	1	1
FDX1	1	0	0	0
FDX2	0	1	1	0
FDXACB1	1	1	0	0
FDXR	1	1	1	0
FECH	1	0	1	0
FEM1A	1	0	1	1
FEN1	0	1	0	0
FERMT3	0	1	1	0
FES	0	1	1	0
FEZ1	1	0	0	0
FEZ2	0	1	0	0

FFAR1	0	1	0	1
FFAR2	0	1	1	0
FFAR3	0	1	0	0
FGD2	1	1	1	0
FGD3	1	1	1	1
FGD4	0	1	0	0
FGD5	0	1	0	0
FGD6	1	0	0	0
FGF1	0	1	0	0
FGF11	1	1	1	0
FGF16	0	1	0	0
FGF17	1	1	1	1
FGF19	0	1	0	0
FGF2	0	0	1	0
FGF8	0	1	1	0
FGFBP3	0	1	0	0
FGFR1	0	1	0	0
FGFR2	1	1	1	1
FGFR3	0	1	0	0
FGFR4	0	1	1	0
FGL2	0	0	0	1
FHAD1	0	1	0	0
FHDC1	0	0	1	0
FHIP1A	1	0	1	1
FHIP2B	1	1	0	0
FHL2	1	1	0	1
FHOD1	1	1	0	1
FIBCD1	1	1	1	1
FIBP	1	1	0	0

FICD	1	0	0	0
FIG4	1	1	1	1
FIGNL2	1	0	1	0
FITM2	1	0	0	0
FIZ1	0	1	0	0
FKBP10	1	1	1	1
FKBP11	0	1	0	0
FKBP15	1	1	1	1
FKBP1A	0	1	0	1
FKBP1B	0	1	0	0
FKBP5	1	0	0	1
FKBP6	1	1	0	0
FKBP8	0	1	0	0
FKBP9	1	1	0	0
FKRP	1	1	0	0
FKTN	0	1	0	0
FLCN	1	1	0	0
FLI1	1	0	0	1
FLII	1	1	1	0
FLNA	1	1	1	1
FLNB	1	1	0	1
FLNC	0	1	1	0
FLOT2	0	1	0	0
FLRT2	1	0	0	1
FLT1	1	0	0	0
FLT3LG	1	1	0	0
FLT4	1	0	0	0
FLVCR1	1	0	1	1
FLVCR2	0	1	0	0

FLYWCH1	1	1	0	0
FMN1	1	0	0	1
FMNL1	1	1	1	0
FMOD	0	1	1	0
FN3KRP	0	1	0	0
FNBP1	1	0	0	1
FNDC10	1	1	0	1
FNDC5	1	1	1	0
FNTB	0	1	1	0
FOLH1	1	1	0	0
FOLR2	0	1	0	0
FOSB	0	1	1	0
FOSL2	0	0	1	0
FOXA1	0	1	0	0
FOXB1	0	1	0	0
FOXD2	0	1	1	0
FOXD4L3	0	1	0	0
FOXD4L5	0	1	0	0
FOXD4L6	0	1	0	0
FOXE1	0	1	1	0
FOXE3	0	1	1	0
FOXI2	1	0	0	1
FOXJ1	1	1	0	0
FOXJ2	1	0	1	0
FOXJ3	1	0	0	0
FOXK1	1	1	1	1
FOXK2	0	1	0	0
FOXL1	0	0	1	0
FOXL2	0	1	0	1

FOXL2NB	1	1	0	0
FOXM1	0	1	0	0
FOXN1	0	1	0	0
FOXN3	1	1	0	0
FOXN4	0	1	0	0
FOXO3B	1	0	0	0
FOXO4	1	1	1	0
FOXP4	1	1	0	0
FOXRED1	1	1	0	0
FOXRED2	1	1	0	0
FPGS	0	1	1	0
FPR1	0	1	0	0
FRA10AC1	0	1	0	0
FRAS1	1	1	0	0
FRAT1	0	1	0	0
FRAT2	1	1	0	0
FREM1	0	0	0	1
FREM2	1	0	0	0
FRG2	1	1	0	0
FRG2B	1	1	0	0
FRG2C	1	0	0	0
FRK	0	0	1	0
FRMD1	1	1	0	1
FRMD3	0	1	0	0
FRMD5	0	1	0	0
FRMD8	1	1	1	0
FRMPD2	1	0	1	0
FRMPD3	1	1	0	1
FRRS1	1	0	1	0

FRRS1L	1	0	0	1
FRYL	0	1	0	0
FSCN1	1	1	0	0
FSD1L	0	0	0	1
FSTL1	0	1	0	0
FSTL3	1	1	0	1
FTCD	0	1	0	0
FTO	1	1	1	1
FTSJ3	1	1	0	0
FUCA2	0	1	0	0
FUOM	0	1	0	0
FURIN	1	1	1	0
FUS	1	0	0	0
FUT1	1	0	1	0
FUT10	1	0	0	0
FUT2	0	1	1	0
FUT3	0	1	0	0
FUT4	0	0	1	0
FUT5	0	1	0	0
FUT7	0	1	0	0
FUZ	1	1	1	0
FXN	1	0	0	1
FXYD2	1	0	0	1
FXYD3	0	1	0	0
FXYD5	1	1	0	0
FXYD6	0	1	0	0
FXYD6-FXYD2	1	0	0	0
FXYD7	0	1	0	0
FYCO1	1	0	0	0

FZD1	0	0	0	1
FZD4	1	0	1	0
FZD8	1	0	0	0
FZR1	1	1	1	0
G3BP1	1	0	0	0
G6PC1	1	0	0	0
G6PC3	1	1	1	0
G6PD	0	1	0	1
GAA	1	1	0	0
GAB1	1	1	1	0
GAB4	1	1	0	0
GABARAP	0	1	1	0
GABARAPL1	0	1	0	0
GABBR1	0	1	1	0
GABBR2	1	0	0	1
GABPB2	1	0	0	1
GABRA1	0	1	0	0
GABRA2	1	0	0	0
GABRA3	0	1	0	0
GABRB3	0	1	0	0
GABRD	1	1	1	0
GABRG2	1	1	1	0
GABRG3	1	1	0	1
GABRP	0	1	0	0
GABRR2	1	0	0	0
GABRR3	0	1	0	0
GAD1	0	1	0	0
GADD45B	0	1	0	1
GADD45GIP1	1	1	1	0

GAK	0	1	0	0
GAL3ST2	1	1	0	0
GAL3ST3	0	1	1	0
GAL3ST4	1	1	0	0
GALC	1	1	1	0
GALE	0	1	0	0
GALK1	1	1	0	0
GALK2	1	1	0	0
GALM	1	0	0	0
GALNS	1	1	0	0
GALNT10	1	0	0	0
GALNT12	0	1	0	0
GALNT16	1	0	1	1
GALNT2	1	0	0	1
GALNT6	1	0	0	1
GALNT9	0	1	0	0
GALNTL6	1	0	0	0
GALR1	1	0	0	0
GALT	1	1	0	0
GAMT	1	1	1	0
GAN	1	1	0	1
GANAB	0	1	1	0
GAPVD1	1	0	0	1
GAREM1	1	0	0	0
GAREM2	0	1	1	0
GARIN1A	0	1	1	0
GARIN1B	0	1	0	0
GARNL3	0	1	0	0
GARRE1	0	0	0	1

GART	1	1	0	0
GAS1	0	1	1	0
GAS2	1	1	1	0
GAS2L1	0	1	0	0
GAS2L3	1	0	0	1
GAS6	1	1	0	1
GAS7	1	1	1	0
GAS8	1	1	1	0
GASK1A	1	1	1	0
GASK1B	1	0	1	0
GATA2	0	1	0	0
GATA4	1	1	0	0
GATAD2A	1	1	0	0
GATB	0	1	0	0
GATC	1	0	0	0
GATD1	1	1	0	1
GATD3	1	1	1	1
GATM	1	0	0	0
GBA1	0	1	0	0
GBA2	0	1	0	0
GBF1	1	1	1	0
GBGT1	1	1	0	0
GBP4	0	0	0	1
GBP5	1	0	1	0
GCHFR	1	1	0	0
GCK	0	1	1	0
GCM1	1	0	0	0
GCNT2	1	1	0	1
GCNT3	1	1	0	0

GCOM1	0	1	0	0
GDAP1	1	0	1	0
GDAP1L1	1	1	1	1
GDF10	0	1	0	0
GDF2	1	1	1	0
GDF7	0	0	1	0
GDI1	0	1	0	0
GDPD1	1	0	0	0
GDPD5	1	0	1	1
GDPGP1	1	0	0	0
GEMIN2	1	0	0	0
GEMIN4	0	1	0	0
GEMIN6	1	0	0	1
GEMIN8	1	0	0	1
GEN1	1	0	0	1
GET1	1	1	1	0
GET4	0	1	0	0
GFAP	1	1	1	0
GFER	1	1	1	1
GFI1	1	1	0	0
GFI1B	1	1	1	0
GFM1	1	0	0	0
GFOD1	1	0	1	1
GFOD2	1	1	1	0
GFPT1	1	1	1	0
GFRA2	1	1	1	1
GFRA3	0	1	0	0
GGA1	0	1	0	0
GGA2	1	0	1	0

GGA3	1	0	0	0
GGCX	1	0	1	1
GGH	1	1	0	0
GGN	0	1	1	0
GGPS1	0	1	0	0
GGT1	1	1	0	0
GGT5	0	1	0	0
GGT6	0	1	0	0
GGTA1	1	0	0	0
GGTLC2	1	1	0	0
GH1	0	1	0	0
GH2	0	1	0	0
GHR	1	0	0	0
GHRHR	0	1	1	0
GHSR	0	1	1	0
GID4	0	1	0	0
GID8	1	0	1	0
GIGYF1	1	0	1	0
GIGYF2	1	1	0	0
GIMAP1	1	0	0	0
GIN1	0	1	0	0
GINM1	0	1	0	0
GINS4	1	0	0	1
GIPC1	0	1	1	0
GIPR	1	1	0	1
GIT1	1	1	1	0
GJA4	1	1	1	0
GJA5	0	1	0	0
GJB1	0	1	0	0

GJB3	1	1	1	1
GJB5	0	1	0	0
GJC1	1	1	0	1
GJC2	1	1	0	0
GJD3	1	0	1	0
GJD4	1	0	0	0
GK	0	1	0	0
GK5	1	0	0	0
GKN2	0	1	1	0
GLB1L	0	0	0	1
GLB1L2	1	1	1	0
GLB1L3	1	1	0	0
GLDN	1	1	1	1
GLE1	1	0	0	1
GLG1	1	0	0	0
GLI2	1	1	0	0
GLI3	0	1	1	0
GLI4	1	1	1	0
GLIS1	0	1	0	0
GLIS2	1	0	1	0
GLIS3	0	1	0	0
GLMP	1	1	0	1
GLO1	0	1	0	0
GLRX2	1	0	1	0
GLRX3	1	1	1	0
GLRX5	1	1	0	0
GLS2	0	1	0	0
GLT1D1	1	1	0	0
GLTPD2	0	1	0	0

GLUD1	0	1	0	0
GLUL	1	0	1	0
GLYATL1	0	1	0	0
GLYCTK	1	1	1	0
GLYR1	1	1	1	0
GM2A	0	1	0	0
GMD5	1	1	0	1
GMEB1	1	0	0	1
GMFG	1	0	0	0
GMPPA	0	1	1	0
GMPPB	1	1	1	0
GMPR2	1	1	1	0
GMPS	1	0	0	0
GNA11	1	0	0	1
GNA12	0	0	1	0
GNA15	1	1	0	0
GNAI1	1	0	0	0
GNAI3	0	0	1	0
GNAO1	1	1	1	0
GNAQ	0	0	1	0
GNAT1	1	1	0	0
GNAZ	1	1	0	1
GNB2	0	1	0	0
GNB4	1	0	0	1
GNB5	1	1	1	1
GNE	1	0	0	1
GNG10	1	1	0	0
GNG4	1	1	1	0
GNG5	1	0	1	0

GNG7	1	0	1	1
GNGT2	0	1	0	0
GNL1	1	0	0	0
GNL3L	1	1	1	0
GNPTAB	0	1	0	0
GNPTG	1	1	0	0
GNS	1	0	1	0
GOLGA2	1	1	1	1
GOLGA3	1	1	1	1
GOLGA5	0	1	0	0
GOLGA6L1	0	1	0	1
GOLGA6L2	1	1	1	1
GOLGA6L22	0	1	0	1
GOLGA6L24	0	1	0	1
GOLGA6L25	0	1	0	1
GOLGA6L26	0	1	0	1
GOLGA6L6	0	1	0	1
GOLGA7	0	0	0	1
GOLGA7B	1	0	1	1
GOLGB1	0	1	0	0
GOLM2	0	1	0	0
GOLT1A	0	1	0	0
GON4L	0	1	0	0
GORASP1	1	1	1	0
GORASP2	0	1	0	1
GOSR2	1	1	1	1
GP1BA	1	0	0	0
GP5	1	1	1	0
GP6	0	1	0	0

GPA33	0	1	0	0
GPAA1	0	1	0	0
GPALPP1	1	0	0	0
GPANK1	1	0	0	0
GPAT4	1	0	1	0
GPATCH11	0	0	0	1
GPATCH2	1	1	0	1
GPATCH2L	1	0	0	0
GPATCH8	1	0	0	1
GPC1	1	1	1	0
GPC2	1	1	1	0
GPC3	0	1	0	0
GPCPD1	0	0	1	0
GPD1	1	1	1	0
GPED1	1	1	1	0
GPI	1	0	0	0
GPIHBP1	0	1	0	1
GPLD1	1	0	0	0
GPN2	1	0	0	0
GPR107	1	0	0	0
GPR108	0	1	0	0
GPR12	0	0	0	1
GPR132	1	1	1	1
GPR137	1	1	0	1
GPR143	0	1	0	0
GPR146	0	1	0	0
GPR153	0	1	0	0
GPR156	1	1	0	0
GPR157	1	0	0	0

GPR161	1	1	1	1
GPR17	0	1	0	0
GPR176	1	0	0	0
GPR179	0	1	0	0
GPR182	0	1	1	0
GPR20	1	1	0	1
GPR26	1	0	0	1
GPR31	1	1	0	1
GPR35	0	1	0	0
GPR37L1	1	1	1	0
GPR39	1	1	0	0
GPR4	0	1	0	0
GPR42	0	1	0	0
GPR52	0	1	0	0
GPR55	1	1	1	0
GPR61	0	1	1	0
GPR65	0	0	0	1
GPR68	1	1	1	0
GPR78	1	0	1	0
GPR85	0	0	1	0
GPR89A	0	1	0	1
GPR89B	0	0	0	1
GPRASP3	1	0	1	0
GPRC5A	1	1	1	1
GPRC5B	0	0	1	0
GPRC5C	0	1	0	0
GPRIN1	1	1	1	0
GPRIN2	1	0	1	0
GPRIN3	1	0	0	1

GPS1	0	1	0	0
GPSM1	1	1	1	1
GPSM2	1	0	1	0
GPSM3	1	0	0	0
GPT	0	1	0	0
GPX2	0	1	0	1
GPX4	0	1	1	0
GPX8	1	0	0	1
GRAMD1A	1	1	0	0
GRAMD1B	1	1	1	0
GRAMD1C	1	0	0	0
GRAMD4	1	0	1	0
GRAP	0	1	1	0
GRAP2	0	0	1	0
GRAPL	1	1	0	0
GRB10	1	1	0	0
GRB2	0	1	1	1
GRB7	0	1	0	0
GREB1	1	0	0	0
GREM1	1	0	0	1
GREP1	1	1	1	0
GRHL1	1	1	0	1
GRHL2	1	1	0	0
GRID1	0	1	0	0
GRID2IP	1	1	1	0
GRIK3	1	0	1	0
GRIK4	1	0	1	0
GRIK5	0	1	0	1
GRIN1	1	1	1	1

GRIN2B	1	0	0	1
GRIN2D	0	0	0	1
GRIN3A	1	0	0	0
GRIP2	1	1	1	1
GRK1	1	0	1	0
GRK4	0	1	0	1
GRK5	1	0	0	1
GRK6	1	1	1	0
GRM2	0	1	0	1
GRM4	1	1	0	0
GRM6	1	0	0	0
GRM7	1	1	0	0
GRN	1	1	0	0
GRPEL1	0	1	0	0
GRTP1	0	1	0	0
GSC	0	0	0	1
GSC2	1	1	1	0
GSDMA	1	0	0	0
GSDMB	0	1	1	0
GSG1L	0	1	1	0
GSK3A	1	1	0	0
GSK3B	0	1	1	0
GSN	0	1	0	0
GSPT1	1	0	0	0
GSR	0	1	0	0
GSS	1	1	0	0
GSTM1	0	1	0	0
GSTM2	0	1	0	0
GSTM3	1	0	0	0

GSTM4	0	1	1	0
GSTO2	1	0	1	0
GSTT4	0	1	0	0
GSX1	0	1	1	0
GSX2	0	0	0	1
GTDC1	1	0	0	0
GTF2E1	1	0	0	0
GTF2E2	0	1	0	0
GTF2H2	0	0	0	1
GTF2H2C	1	1	0	1
GTF2H3	1	0	0	0
GTF2H4	0	1	1	0
GTF2H5	1	0	0	1
GTF2I	1	0	0	1
GTF2IRD1	1	0	0	1
GTF2IRD2	1	1	0	0
GTF2IRD2B	1	1	0	0
GTF3A	0	1	0	0
GTF3C1	0	1	1	0
GTF3C2	1	1	1	0
GTF3C3	0	1	0	0
GTF3C5	1	1	0	1
GTPBP10	1	0	0	0
GTPBP3	1	1	1	0
GTPBP4	0	0	1	0
GTPBP8	1	0	0	0
GTSE1	0	0	0	1
GUCA1A	1	1	0	1
GUCA1ANB-GUCA1A	0	1	0	0

GUCA1B	0	1	0	1
GUCA2A	1	0	0	0
GUCD1	0	1	0	1
GUCY2D	0	1	0	0
GULP1	1	0	1	0
GUSB	0	1	0	0
GVQW3	1	0	1	1
GXYLT1	1	0	0	0
GXYLT2	1	0	0	0
GYG1	1	0	0	0
GYG2	0	1	0	0
GYPA	0	0	1	0
GYPC	0	1	0	0
GYS1	0	0	0	1
GZMB	0	1	0	0
H1-10	1	1	0	0
H1-7	0	1	0	0
H2AC25	0	1	0	0
H2AJ	0	1	0	0
H2AX	1	1	1	1
H2AZ2	0	0	0	1
H2BC15	1	0	0	1
H2BC21	0	0	0	1
H2BC26	1	0	0	0
H3-7	1	1	1	1
H3C6	1	0	0	0
H4C16	1	0	0	0
H4C8	1	1	0	0
H6PD	1	0	1	1

HABP4	0	1	0	0
HACD1	0	1	0	0
HADH	1	0	0	0
HAGH	0	1	1	0
HAGHL	1	1	1	0
HAL	1	1	0	0
HAND1	0	1	0	0
HAND2	0	1	0	0
HAP1	0	0	1	1
HAPLN2	0	1	0	1
HAPLN3	1	1	0	0
HAPLN4	1	0	1	0
HAPSTR1	1	0	0	0
HARS1	0	1	0	0
HARS2	0	1	0	0
HAS1	0	1	0	0
HAS3	1	0	0	1
HASPIN	1	1	0	1
HAUS2	1	1	0	0
HAUS3	1	0	0	0
HAUS5	1	1	1	1
HAVCR1	1	0	1	0
HAVCR2	1	1	1	0
HBA2	0	1	0	0
HBB	0	1	0	0
HBS1L	0	1	0	0
HCAR1	1	0	0	1
HCK	0	1	0	1
HCLS1	0	1	1	0

HCN1	1	0	0	0
HCN2	1	1	0	0
HCN4	1	0	0	0
HDAC1	0	1	0	0
HDAC10	1	1	1	0
HDAC11	1	1	0	1
HDAC2	1	0	1	0
HDAC3	0	1	0	0
HDAC4	1	0	0	0
HDAC5	0	1	0	0
HDAC6	1	1	1	0
HDAC7	1	1	1	0
HDAC8	1	1	0	1
HDAC9	1	1	0	0
HDDC3	0	0	0	1
HDGFL2	1	1	1	0
HDGFL3	1	0	0	1
HDHD5	0	1	1	0
HDLBP	0	1	1	0
HEATR3	1	0	1	0
HEATR5A	0	0	0	1
HEATR9	0	1	0	0
HEBP2	1	0	0	0
HECTD4	1	0	0	1
HECW1	1	0	0	1
HECW2	1	0	0	0
HEG1	1	0	1	1
HELLS	1	0	1	0
HELZ2	0	1	0	0

HEMK1	1	0	1	1
HEPACAM	0	1	0	0
HEPH	0	1	0	0
HERC2	1	0	1	1
HERC4	1	0	1	0
HERC6	0	1	0	0
HERPUD1	1	1	0	0
HERPUD2	1	1	1	1
HES2	1	1	1	1
HES5	1	1	1	0
HES6	0	1	0	0
HEXA	1	1	0	0
HEXD	1	1	1	0
HEXIM1	0	1	0	0
HEY1	0	0	1	0
HGF	1	0	0	0
HGH1	1	1	1	0
HGS	1	1	1	0
HGSNAT	1	1	1	0
HIBADH	0	1	0	0
HIC1	1	1	1	0
HIC2	1	0	1	1
HID1	0	1	0	0
HIF1AN	1	0	1	0
HIF3A	1	1	0	1
HIGD1B	0	0	0	1
HILPDA	0	1	0	0
HINT1	1	0	1	1
HINT3	0	0	0	1

HIP1	1	0	1	1
HIPK2	1	0	1	1
HIPK4	1	1	1	0
HIRA	0	1	0	0
HJURP	1	0	0	0
HK2	1	0	1	0
HK3	1	0	0	1
HLA-DMA	0	1	0	0
HLA-DOA	1	0	1	0
HLA-DQA2	0	1	0	0
HLA-DQB1	0	1	1	0
HLA-DQB2	0	1	0	0
HLA-DRB1	1	1	0	0
HLCS	1	0	1	0
HLF	0	1	1	0
HLX	0	1	0	0
HM13	0	1	0	1
HMBOX1	0	1	0	0
HMBS	0	1	0	0
HMCES	1	1	0	0
HMCN2	1	0	1	0
HMG20B	0	1	0	0
HMGA2	1	0	0	1
HMGCL	0	1	1	0
HMGCR	1	0	1	0
HMGCS1	0	1	1	0
HMGCS2	0	1	0	0
HMGXB3	0	1	0	0
HMGXB4	1	0	0	0

HMSD	0	1	1	0
HMX1	0	1	0	0
HMX2	0	1	0	1
HMX3	1	1	0	0
HNF1A	1	1	0	1
HNF1B	0	1	0	0
HNF4A	1	1	1	1
HNRNPA1	0	1	0	0
HNRNPA2B1	1	0	0	0
HNRNPH1	0	1	0	0
HNRNPL	0	0	0	1
HNRNPM	0	1	1	0
HNRNPR	0	1	0	0
HNRNPU	1	0	0	0
HNRNPUL2	0	0	1	0
HNRNPUL2-BSCL2	0	1	0	0
HOGA1	1	0	0	0
HOMER2	1	0	1	0
HOMER3	1	1	1	0
HOMEZ	1	1	0	0
HOOK2	0	1	0	0
HOOK3	1	0	0	0
HOXA1	0	1	0	0
HOXA10	0	1	0	0
HOXA11	0	1	0	0
HOXA13	0	0	0	1
HOXA3	1	1	1	1
HOXA7	0	1	0	0
HOXB1	0	1	0	1

HOXB13	0	0	0	1
HOXB3	1	1	1	0
HOXB4	1	1	1	0
HOXB5	0	1	0	0
HOXB6	1	1	0	0
HOXB8	1	1	1	1
HOXB9	0	1	0	0
HOXC11	1	0	1	0
HOXC12	1	0	1	0
HOXC13	0	1	0	0
HOXC5	1	1	1	0
HOXC6	1	1	1	1
HOXC9	0	1	0	0
HOXD11	0	1	0	0
HOXD3	0	0	1	0
HOXD4	1	1	1	0
HOXD9	0	1	1	0
HP	0	1	0	0
HP1BP3	1	0	0	0
HPCAL1	1	1	1	0
HPCAL4	1	0	1	0
HPD	0	1	0	0
HPGD	1	1	0	0
HPR	0	1	0	0
HPS1	1	1	1	0
HPS4	1	0	1	0
HPSE	1	0	0	0
HPSE2	0	1	1	0
HPX	0	1	0	0

HR	0	1	1	0
HRAS	0	1	0	0
HRCT1	0	1	0	0
HRG	0	1	1	0
HRH2	0	1	0	0
HRH4	1	0	1	0
HRK	1	0	1	1
HROB	0	0	0	1
HRURF	0	1	0	0
HS1BP3	1	1	1	1
HS2ST1	0	1	0	0
HS3ST2	0	1	0	0
HS3ST6	0	1	0	0
HS6ST1	1	0	0	0
HS6ST3	1	0	1	0
HSBP1	1	1	0	1
HSCB	1	1	0	1
HSD11B1L	0	1	0	0
HSD11B2	1	1	0	0
HSD17B1	0	1	1	0
HSD17B10	0	1	0	0
HSD17B13	1	1	1	0
HSD17B2	1	0	0	1
HSD17B3	0	1	0	0
HSD17B4	1	0	0	0
HSF1	0	1	0	0
HSF2BP	0	1	1	0
HSF4	0	1	0	0
HSH2D	1	1	1	1

HSPA12A	1	1	1	0
HSPA12B	1	1	0	0
HSPA2	1	0	0	0
HSPA4L	1	0	0	1
HSPA5	1	1	0	0
HSPB2-C11orf52	0	1	0	0
HSPB7	0	1	0	0
HSPD1	0	1	1	0
HSPG2	0	1	1	0
HTD2	0	1	0	0
HTR3B	1	0	0	0
HTR3C	1	1	0	0
HTR4	0	1	0	0
HTR5A	0	1	0	0
HTR6	0	1	1	0
HTR7	0	1	1	0
HTRA2	0	1	0	0
HTRA3	0	1	1	0
HTT	1	0	0	0
HUNK	1	0	0	1
HYAL1	0	1	0	0
HYAL2	1	1	0	0
HYCC1	1	0	0	0
HYDIN	1	1	0	1
HYKK	1	0	1	0
HYLS1	0	1	0	0
HYOU1	0	1	0	0
HYPK	0	0	1	0
IAPP	0	0	0	1

IBA57	1	0	1	0
ICA1	1	1	1	0
ICA1L	0	0	1	0
ICAM1	1	1	0	0
ICAM3	1	1	0	0
ICAM4	0	1	0	0
ICE2	1	0	1	1
ICOSLG	1	1	1	1
ID1	0	1	0	0
ID3	0	1	0	0
ID4	1	0	1	0
IDE	1	0	0	0
IDH2	1	1	0	0
IDH3A	0	1	1	0
IDH3B	0	1	0	0
IDNK	1	1	0	0
IDO1	0	1	0	1
IDS	0	1	0	0
IDUA	1	0	0	0
IER2	1	1	0	1
IER5L	1	1	1	1
IFFO1	1	1	0	0
IFFO2	1	0	1	0
IFI27L1	0	1	0	0
IFI44L	0	1	1	1
IFIT1	0	0	1	0
IFIT3	0	1	0	0
IFITM10	0	0	1	0
IFNAR1	1	0	0	1

IFNAR2	0	1	0	0
IFNGR2	1	1	0	0
IFNL4	1	1	1	0
IFNLR1	0	1	0	1
IFRD1	0	1	0	0
IFRD2	1	1	1	0
IFT122	1	1	1	0
IFT140	1	1	1	1
IFT172	1	1	0	0
IFT22	0	1	0	0
IFT27	0	1	0	0
IFT43	0	1	1	0
IFT46	0	1	0	0
IFT56	1	0	1	0
IFT80	0	1	0	0
IFT88	0	0	0	1
IFTAP	1	0	1	1
IGDCC3	0	1	0	0
IGDCC4	1	0	0	0
IGF1R	1	0	0	0
IGF2	1	0	1	0
IGF2BP1	1	0	1	0
IGF2BP2	0	1	0	0
IGF2R	1	0	1	0
IGFALS	1	1	0	0
IGFBP3	0	1	0	0
IGFBPL1	1	0	1	0
IGFL3	1	1	0	0
IGFLR1	0	1	0	0

IGFN1	0	1	0	0
IGHG1	0	1	0	0
IGHG2	0	1	0	0
IGHG3	0	1	0	0
IGHG4	0	1	0	0
IGHM	1	1	1	0
IGHMBP2	1	1	1	1
IGLL1	1	0	0	0
IGLL5	0	1	0	0
IGSF11	0	1	0	0
IGSF22	1	0	0	0
IGSF9B	1	0	1	1
IHH	0	1	0	0
IHO1	1	1	0	0
IKBKB	1	1	1	0
IKBKE	0	1	0	0
IKBKG	0	1	0	0
IKZF1	1	1	1	0
IKZF3	1	0	1	1
IL10	0	0	0	1
IL10RA	1	1	0	0
IL10RB	1	1	1	0
IL11	1	1	0	0
IL11RA	1	1	1	0
IL12RB1	0	1	0	0
IL12RB2	1	1	0	0
IL13RA1	1	0	0	0
IL15RA	0	1	0	0
IL16	1	1	1	1

IL17D	0	1	0	0
IL17RC	1	1	1	0
IL17RE	1	1	1	0
IL17REL	1	0	1	0
IL18	0	1	0	0
IL18BP	0	1	1	0
IL19	0	1	0	0
IL1R1	0	1	0	0
IL1RAPL1	0	1	1	0
IL1RL1	1	1	0	0
IL1RL2	1	1	0	0
IL20RB	1	1	0	0
IL21R	1	1	0	0
IL22RA1	0	1	1	0
IL2RA	0	0	0	1
IL2RB	1	0	0	0
IL34	1	1	0	0
IL3RA	1	1	1	0
IL4I1	1	1	1	1
IL4R	1	1	1	1
IL6R	1	1	1	1
IL9R	0	1	0	0
ILF3	0	1	1	0
ILK	0	1	0	0
ILKAP	1	0	0	0
ILVBL	1	1	1	1
IMMP1L	1	1	1	0
IMP4	0	1	0	0
IMPA2	1	1	1	0

IMPDH1	0	1	0	0
IMPDH2	0	1	0	0
IMPG2	1	0	1	0
INAFM1	1	1	1	0
INAVA	1	0	0	0
INF2	1	1	1	1
ING1	1	0	0	0
ING4	0	1	0	0
ING5	0	1	0	0
INHBB	0	1	0	0
INHBE	1	0	0	0
INKA2	1	0	1	1
INMT	1	1	0	0
INMT-MINDY4	1	0	0	1
INO80	1	1	1	1
INO80B	0	1	0	0
INO80B-WBP1	0	1	0	0
INO80C	1	0	0	0
INO80E	1	1	0	0
INPP4A	0	0	1	0
INPP5A	1	1	0	0
INPP5B	1	1	0	0
INPP5D	1	1	0	0
INPP5F	1	1	0	0
INPP5J	0	1	0	0
INPP5K	1	1	1	0
INS-IGF2	0	1	0	1
INSIG2	1	0	0	0
INSR	1	0	0	0

INSRR	0	1	0	0
INSYN1	1	0	1	0
INSYN2B	1	0	0	0
INTS1	0	1	1	0
INTS11	1	1	1	0
INTS14	0	1	0	0
INTS15	0	1	0	0
INTS2	1	1	1	0
INTS3	0	1	0	0
INTS4	1	0	0	1
INTS6	1	0	1	0
INTS6L	1	0	0	0
INTS7	0	1	0	0
INTS9	1	1	0	1
IP6K1	0	1	0	0
IPCEF1	1	0	0	0
IPO11	0	1	1	0
IPO4	1	1	1	0
IPO9	1	0	0	0
IPP	0	0	0	1
IPPK	1	0	1	0
IQANK1	1	0	0	0
IQCA1	1	1	1	0
IQCA1L	0	1	0	0
IQCB1	0	1	0	0
IQCC	0	1	0	0
IQCE	1	0	1	0
IQCJ	0	1	1	0
IQCJ-SCHIP1	1	1	0	0

IQCK	0	0	0	1
IQGAP1	1	1	1	0
IQGAP3	0	1	0	0
IQSEC1	0	1	1	0
IQSEC2	1	1	0	0
IQSEC3	1	0	1	1
IRAG1	1	1	1	0
IRAK1	1	1	1	0
IRAK1BP1	0	1	0	0
IRAK2	1	0	0	0
IREB2	0	0	0	1
IRF1	1	1	1	1
IRF2BP1	1	0	0	0
IRF3	0	0	1	0
IRF4	1	0	0	1
IRF5	0	1	0	1
IRF6	1	1	0	0
IRF7	0	1	0	1
IRF8	1	0	1	0
IRF9	0	1	0	0
IRGQ	1	0	1	0
IRS4	1	0	0	0
IRX4	1	1	1	0
ISCA1	0	1	1	0
ISL2	0	1	1	0
ISLR2	1	1	0	1
ISM1	0	1	0	0
ISM2	1	1	1	1
ISX	0	1	0	0

ISY1	0	0	1	0
ISY1-RAB43	1	0	1	1
ISYNA1	0	1	1	0
ITFG2	1	0	0	1
ITGA1	1	0	0	0
ITGA11	1	0	1	1
ITGA3	0	1	0	0
ITGA5	1	1	0	0
ITGA7	1	1	1	0
ITGA9	0	1	0	0
ITGAL	1	1	1	0
ITGAM	1	1	0	0
ITGAX	1	1	0	0
ITGB1	0	1	1	0
ITGB1BP1	1	0	0	0
ITGB3	1	0	0	1
ITGB4	0	1	0	0
ITGB8	1	0	1	0
ITGBL1	1	1	0	0
ITIH5	1	0	1	0
ITIH6	0	1	0	0
ITM2C	0	1	0	0
ITPK1	1	1	0	0
ITPKA	0	1	0	0
ITPKB	1	0	0	0
ITPKC	0	1	1	0
ITPR1	0	1	0	0
ITPRID2	0	1	0	0
ITPRIP	1	0	0	0

ITPRIPL1	1	0	0	1
ITSN1	1	1	0	0
IVD	1	0	0	1
IVNS1ABP	0	1	0	0
IYD	0	0	1	0
IZUMO1	1	1	1	0
IZUMO1R	1	1	1	0
IZUMO2	0	1	0	0
IZUMO4	1	1	0	0
JADE1	1	1	0	0
JADE2	1	1	1	1
JAG2	1	1	0	0
JAK1	0	0	1	0
JAK3	1	1	1	1
JAKMIP2	1	0	0	0
JAKMIP3	0	1	1	0
JARID2	1	1	0	1
JCAD	1	0	0	0
JDP2	1	1	1	1
JMJD4	0	1	0	0
JMJD7	0	1	1	0
JMJD7-PLA2G4B	1	1	1	0
JMJD8	0	1	1	0
JOSD1	1	0	0	0
JPH1	1	0	0	0
JPH2	1	1	1	0
JPH3	0	1	1	1
JPH4	0	1	1	0
JPT2	0	1	0	0

JRK	1	1	1	0
JUN	0	1	0	0
JUND	0	1	0	0
JUP	1	1	1	1
KALRN	1	1	0	1
KANK1	0	1	0	0
KANK2	1	1	1	0
KANK4	0	1	0	0
KANSL1	0	1	1	0
KANSL3	1	1	1	0
KARS1	1	1	0	0
KAT2A	0	0	1	0
KAT5	0	1	0	0
KAT6A	1	0	0	0
KAT6B	1	0	0	0
KAT7	1	1	0	0
KAT8	1	1	0	0
KATNAL1	1	0	1	0
KATNAL2	0	1	1	1
KATNB1	0	1	0	0
KATNIP	0	1	0	0
KAZN	1	0	0	1
KBTD12	1	0	1	0
KBTD13	1	1	1	0
KCMF1	1	0	1	1
KCNA2	1	0	0	0
KCNA7	0	0	0	1
KCNAB2	1	1	1	0
KCNAB3	1	0	0	0

KCNB1	1	0	1	0
KCNC1	1	1	1	1
KCNC3	0	1	0	1
KCNC4	1	0	1	0
KCND1	1	1	0	0
KCNE3	1	0	0	0
KCNE4	1	0	1	0
KCNE5	0	1	0	0
KCNF1	0	1	0	0
KCNG2	0	1	0	0
KCNG4	1	1	1	0
KCNH1	1	1	1	0
KCNH3	1	1	1	1
KCNH6	1	1	0	1
KCNH8	1	1	1	1
KCNIP3	1	0	0	0
KCNJ11	1	1	0	0
KCNJ12	0	1	0	0
KCNJ14	0	0	1	0
KCNJ15	1	0	0	0
KCNJ18	0	1	0	0
KCNJ4	1	1	0	0
KCNJ5	1	0	1	1
KCNJ8	0	1	0	0
KCNK10	0	1	0	0
KCNK12	1	0	1	0
KCNK15	1	1	0	0
KCNK2	0	1	1	0
KCNK3	1	0	0	0

KCNK4	1	1	0	1
KCNK5	1	1	0	1
KCNK7	0	1	0	0
KCNK9	0	1	0	0
KCNMA1	1	1	0	1
KCNMB1	1	0	1	1
KCNMB3	0	1	0	0
KCNMB4	1	0	0	0
KCNN1	0	1	0	0
KCNN3	1	0	0	1
KCNN4	0	1	1	0
KCNQ2	1	1	1	0
KCNQ3	0	1	0	0
KCNQ4	1	0	0	0
KCNRG	0	1	0	0
KCNT1	0	1	0	1
KCNV1	1	0	0	0
KCP	1	1	1	1
KCTD10	1	1	0	0
KCTD11	1	1	1	0
KCTD12	1	0	0	0
KCTD13	1	1	1	0
KCTD15	0	1	0	0
KCTD17	0	1	0	0
KCTD2	1	0	0	1
KCTD20	0	1	0	0
KCTD4	0	1	0	0
KCTD5	0	1	1	0
KCTD7	1	0	0	0

KCTD9	1	1	0	0
KDF1	0	1	0	0
KDM1A	0	1	1	1
KDM2A	1	1	0	0
KDM2B	1	0	0	0
KDM3B	1	0	0	0
KDM4A	0	1	0	0
KDM4B	1	1	1	0
KDM5B	0	0	0	1
KDM6A	0	1	0	0
KDM6B	1	1	0	1
KDM8	1	0	0	1
KDSR	0	0	0	1
KEAP1	1	0	0	1
KHDC3L	1	0	0	0
KHDC4	0	0	0	1
KHNYN	0	1	1	0
KHSRP	0	1	0	0
KIAA0319L	0	1	1	1
KIAA0513	1	0	0	1
KIAA0586	1	1	0	0
KIAA0753	0	1	0	0
KIAA0825	1	0	0	0
KIAA0930	1	1	1	0
KIAA1191	0	1	0	0
KIAA1210	1	0	0	0
KIAA1328	0	1	0	0
KIAA1549	0	0	1	0
KIAA1614	1	1	1	0

KIAA1671	1	0	0	0
KIAA1755	1	0	0	0
KIAA1958	1	0	0	1
KIAA2013	1	1	0	0
KIDINS220	1	0	0	0
KIF11	1	0	0	1
KIF12	0	1	0	0
KIF13A	1	1	0	0
KIF16B	0	1	1	0
KIF18B	0	1	0	0
KIF19	0	1	1	0
KIF1A	0	1	1	0
KIF1B	1	1	0	0
KIF21B	0	1	0	0
KIF22	1	1	1	0
KIF25	0	1	1	0
KIF26A	0	1	0	0
KIF2C	1	0	0	0
KIF3A	1	0	0	0
KIF5A	1	1	1	0
KIF6	0	1	1	1
KIFBP	1	1	1	0
KIFC2	0	1	0	0
KIFC3	1	1	1	0
KIN	1	0	1	0
KIRREL1	0	0	1	0
KIRREL3	1	1	1	0
KLB	1	0	1	1
KLC1	1	1	0	0

KLC2	0	1	0	0
KLC4	1	1	1	0
KLF12	0	0	0	1
KLF13	1	0	1	0
KLF15	0	1	0	1
KLF16	1	0	1	0
KLF17	1	0	0	1
KLF2	0	1	0	0
KLF6	1	1	0	0
KLF7	0	0	1	0
KLHDC3	1	1	1	0
KLHDC4	1	1	1	1
KLHDC7A	1	0	1	0
KLHDC7B	0	1	0	0
KLHDC8B	0	1	0	0
KLHL11	1	0	1	0
KLHL17	1	1	1	0
KLHL18	1	1	1	1
KLHL21	1	0	0	0
KLHL24	1	0	0	0
KLHL25	1	1	0	0
KLHL26	1	1	1	0
KLHL28	0	0	0	1
KLHL29	0	1	0	1
KLHL3	1	0	1	0
KLHL30	0	1	0	1
KLHL32	1	1	0	1
KLHL33	1	0	0	0
KLHL38	1	1	1	0

KLHL40	0	1	0	0
KLHL5	0	0	0	1
KLHL6	1	0	1	0
KLHL9	1	0	0	0
KLK1	1	1	0	0
KLK10	1	1	0	0
KLK11	0	1	0	0
KLK15	0	1	0	0
KLK3	1	1	1	0
KLK4	0	1	0	0
KLK6	0	1	0	0
KLK9	0	1	0	0
KLRC4-KLRK1	1	0	0	0
KLRD1	1	0	1	0
KLRG1	0	1	0	0
KLRG2	0	1	1	0
KMT2A	1	1	0	0
KMT2B	1	1	1	1
KMT2C	1	1	1	0
KMT2D	1	1	1	1
KMT5A	1	1	0	1
KMT5B	0	1	0	0
KMT5C	0	1	1	0
KNCN	1	0	0	0
KNDC1	1	1	1	1
KNL1	1	0	0	0
KPNA1	1	1	1	0
KPNA4	1	0	1	0
KPRP	0	1	1	0

KPTN	0	1	0	0
KRAS	1	0	1	0
KRBA1	1	1	0	0
KRBA2	1	1	1	1
KRBOX5	0	1	0	0
KREMEN1	1	0	0	1
KREMEN2	0	1	1	0
KRI1	1	1	0	0
KRR1	1	0	1	0
KRT13	0	1	0	0
KRT15	0	1	0	0
KRT18	0	1	0	0
KRT4	1	0	0	0
KRT6A	1	0	0	0
KRT6C	1	1	1	0
KRT71	0	1	0	0
KRT72	0	1	0	0
KRT77	0	1	0	0
KRT78	1	1	0	0
KRT8	1	0	0	0
KRT80	1	0	0	1
KRT82	0	1	0	0
KRT84	0	1	0	0
KRT85	0	1	0	0
KRT9	0	1	0	0
KRTAP10-1	1	1	0	0
KRTAP10-10	0	1	0	0
KRTAP10-12	0	1	0	0
KRTAP10-2	1	1	0	1

KRTAP10-3	1	0	0	0
KRTAP10-4	0	1	0	0
KRTAP10-9	1	1	0	1
KRTAP5-10	0	1	0	0
KRTAP5-4	1	1	0	0
KRTAP5-5	0	1	0	0
KRTAP5-7	1	1	1	0
KRTAP5-8	0	1	0	0
KRTCAP3	1	0	0	0
KSR1	1	1	1	0
KY	1	1	1	0
KYNU	1	0	0	0
L1CAM	1	1	1	1
L1TD1	0	0	0	1
L2HGDH	1	1	1	0
L3MBTL1	1	1	1	1
L3MBTL2	1	1	0	0
L3MBTL4	0	0	0	1
LACTB	1	1	0	1
LAD1	0	1	0	0
LAIR1	1	1	1	1
LAMA5	1	1	0	1
LAMB2	0	1	0	0
LAMB3	0	1	0	0
LAMC3	1	0	1	0
LAMP1	0	1	0	0
LAMP3	1	1	0	0
LAMTOR1	0	1	0	0
LAMTOR3	1	0	0	0

LAMTOR4	0	1	0	0
LANCL2	0	1	0	0
LANCL3	1	0	0	1
LAPTM4B	0	1	1	0
LAPTM5	1	0	0	0
LARGE1	0	1	1	0
LARP1	1	1	0	0
LARP1B	0	1	0	0
LARP4B	0	1	0	0
LARS1	1	1	0	0
LARS2	1	1	1	0
LAS1L	0	0	1	0
LASP1	1	1	1	0
LAT	1	1	0	1
LAT2	1	1	0	0
LBHD2	1	1	1	0
LBP	0	1	0	0
LBX1	1	1	1	0
LBX2	0	1	0	0
LCAT	0	1	0	0
LCE1F	0	1	0	0
LCE3D	0	1	1	0
LCK	0	1	0	0
LCMT1	0	1	0	0
LCN10	0	1	0	0
LCN2	0	1	0	0
LCN6	0	1	0	0
LCN9	0	1	0	0
LCNL1	0	1	1	0

LCOR	1	0	1	0
LCORL	1	1	0	0
LCTL	0	1	0	0
LDAF1	1	1	0	0
LDB1	1	1	1	1
LDB3	0	1	0	0
LDHA	0	1	0	0
LDHD	1	1	0	0
LDLR	0	0	0	1
LDLRAD1	1	0	0	0
LDLRAD2	1	0	1	0
LDLRAP1	1	1	0	0
LEFTY2	0	1	0	0
LEMD1	1	1	0	0
LEMD2	1	1	1	1
LENG8	1	1	1	0
LEP	0	0	1	0
LEPROT	1	0	0	0
LEPROTL1	0	1	0	1
LETM1	1	0	0	0
LETM2	0	0	0	1
LETMD1	1	1	1	1
LFNG	1	1	1	0
LGALS3BP	0	1	1	1
LGALS8	0	1	0	0
LGALS9B	0	1	0	0
LGALS9C	0	1	0	0
LGI3	0	1	1	0
LGI4	0	1	0	0

LGMN	0	1	0	0
LGR6	1	0	1	0
LGSN	1	1	0	0
LHFPL2	1	0	1	0
LHFPL5	1	1	0	0
LHFPL6	1	0	0	0
LHX1	0	1	0	1
LHX3	0	1	0	0
LHX4	0	0	1	1
LHX5	1	1	0	1
LIAS	1	1	0	1
LIAT1	1	0	0	0
LIF	1	1	0	0
LIG1	1	1	0	0
LIG3	1	0	0	0
LILRA2	0	0	0	1
LILRA5	0	1	0	0
LILRA6	1	0	0	1
LILRB3	1	0	0	1
LIMCH1	1	0	0	0
LIMD1	1	0	0	1
LIMD2	0	1	1	0
LIMK1	1	1	1	0
LIMK2	0	1	0	0
LIMS1	1	1	1	1
LIMS2	0	1	0	0
LIN37	0	1	0	0
LIN54	1	0	0	1
LINC02210-CRHR1	1	1	1	0

LINGO1	0	1	1	0
LINGO3	1	0	1	0
LINGO4	0	1	0	0
LIPE	0	1	0	0
LIPG	1	0	0	0
LIPH	1	1	1	0
LIPN	0	1	1	0
LIPT2	0	1	0	0
LITAF	1	1	0	1
LIX1L	1	0	0	0
LLGL1	0	1	0	0
LLGL2	1	0	0	1
LLPH	1	0	0	1
LMAN1L	0	1	0	0
LMAN2	1	1	0	0
LMAN2L	0	1	0	0
LMBR1	1	1	0	0
LMBR1L	1	1	1	0
LMBRD1	1	0	1	0
LMCD1	1	1	1	0
LMF1	0	1	0	0
LMF2	0	1	0	0
LMNA	1	1	0	1
LMNB2	1	0	1	1
LMNTD1	1	0	0	0
LMNTD2	0	1	0	0
LMO1	1	1	1	0
LMO2	1	1	1	0
LMOD1	0	1	0	0

LMTK2	1	0	1	1
LMX1B	1	0	1	1
LNP1	1	1	1	0
LNPEP	0	1	0	0
LONP1	1	1	1	0
LONP2	1	1	0	0
LONRF2	1	0	1	0
LOXL2	1	1	0	0
LPCAT1	1	0	0	0
LPCAT3	0	1	0	0
LPCAT4	0	1	1	0
LPGAT1	1	0	0	0
LPIN2	0	0	1	0
LPIN3	0	1	0	0
LPO	0	1	0	0
LPP	1	0	0	1
LPXN	0	1	0	0
LRATD1	1	0	0	0
LRBA	0	0	1	0
LRCH1	0	1	0	0
LRCH3	1	0	0	0
LRCH4	0	1	0	0
LRCOL1	0	1	0	0
LRFN1	1	1	0	1
LRFN3	1	0	0	0
LRG1	0	1	0	0
LRGUK	0	1	0	0
LRIG2	1	0	0	0
LRIT2	0	1	0	0

LRP1	1	1	0	1
LRP10	0	0	0	1
LRP2	0	1	0	0
LRP2BP	0	0	0	1
LRP3	0	1	0	0
LRP5	1	0	0	1
LRP8	1	1	0	0
LRPAP1	1	1	0	0
LRPPRC	1	0	0	0
LRRC10	0	1	0	0
LRRC10B	0	1	0	0
LRRC14	1	1	1	0
LRRC14B	0	1	1	0
LRRC18	0	1	0	0
LRRC19	1	0	0	0
LRRC2	0	0	0	1
LRRC23	0	1	1	0
LRRC25	1	1	1	0
LRRC27	1	1	1	1
LRRC28	1	0	0	1
LRRC3	1	0	0	0
LRRC31	0	1	0	0
LRRC32	1	0	0	0
LRRC36	1	0	0	0
LRRC41	0	1	1	0
LRRC45	1	1	0	0
LRRC46	0	1	0	0
LRRC4B	0	1	0	0
LRRC51	1	1	1	0

LRRC55	0	0	1	0
LRRC56	1	1	0	0
LRRC57	1	1	1	1
LRRC58	1	0	0	1
LRRC61	0	1	0	0
LRRC7	1	0	1	1
LRRC73	0	1	1	0
LRRC74B	1	0	0	1
LRRC75B	0	1	1	0
LRRC8A	0	1	0	0
LRRC8E	0	1	0	0
LRRC1	0	0	0	1
LRRD1	0	1	0	0
LRRFIP1	0	1	0	0
LRRK1	1	0	1	1
LRRN2	1	1	1	0
LRRN4	0	1	1	0
LRRN4CL	0	0	0	1
LRRTM1	1	1	1	1
LRRTM2	0	1	1	0
LRSAM1	1	1	1	0
LRTM2	1	1	1	1
LRTOMT	1	1	0	0
LSG1	0	0	0	1
LSM11	1	0	1	1
LSM12	1	1	1	0
LSM14A	1	1	0	0
LSM4	1	1	1	0
LSM5	1	1	0	0

LSM8	0	0	0	1
LSMEM2	0	1	1	0
LSS	0	1	1	0
LTA4H	0	1	0	0
LTB	1	1	1	0
LTB4R2	0	1	0	0
LTBP2	0	1	0	0
LTBP3	1	1	1	1
LTBP4	0	1	1	0
LTBR	0	1	0	0
LTC4S	1	1	0	1
LTK	0	1	0	0
LTO1	0	1	0	0
LUC7L	1	1	1	1
LUC7L3	0	0	0	1
LUZP1	1	1	0	1
LUZP2	1	0	0	0
LVRN	0	1	0	0
LY6E	0	1	1	0
LY6G5B	1	1	0	0
LY6G6F	0	1	0	0
LY6K	0	1	0	0
LY75	1	1	1	0
LY9	0	1	0	0
LYNX1	0	0	1	0
LYPD1	1	0	0	0
LYPD3	0	1	1	0
LYPD5	1	1	0	0
LYPLA2	1	1	1	0

LYRM2	1	1	0	0
LYRM4	1	0	0	1
LYSET	1	1	1	0
LYSMD4	1	0	0	0
LYST	1	1	1	1
LYVE1	1	1	0	0
LYZ	1	1	0	0
LZIC	1	0	0	0
LZTR1	0	1	0	1
LZTS1	1	0	0	0
LZTS2	0	1	1	0
LZTS3	1	1	0	0
M1AP	0	1	0	0
M6PR	0	1	0	0
MAB21L3	0	0	0	1
MACF1	0	1	1	0
MACO1	1	1	0	0
MACROD1	0	1	0	0
MACROH2A2	0	1	0	0
MAD1L1	0	1	0	0
MAD2L2	0	0	1	0
MADD	0	1	0	0
MAEA	1	1	0	0
MAF1	0	1	0	0
MAFA	1	1	1	1
MAFB	1	0	0	1
MAFF	0	1	0	1
MAFG	1	1	1	0
MAFIP	0	1	0	0

MAFK	1	1	1	1
MAG	1	1	1	0
MAGEA10	1	0	0	0
MAGEB10	1	0	0	0
MAGI2	1	1	1	0
MAGIX	0	0	0	1
MAGT1	1	0	0	0
MAK	1	0	0	0
MAL	0	1	0	0
MALL	1	1	0	1
MALT1	0	0	0	1
MAMDC4	1	1	1	1
MAN1B1	1	1	1	1
MAN2B2	1	0	1	0
MAN2C1	1	1	1	1
MANBA	1	1	0	0
MANBAL	0	1	0	1
MANEAL	0	1	0	0
MANSC1	0	0	0	1
MAP1B	0	1	0	0
MAP1LC3A	1	1	1	0
MAP1LC3B	1	0	1	1
MAP1LC3C	0	1	0	0
MAP1S	1	1	1	0
MAP2	0	0	1	0
MAP2K3	0	0	1	0
MAP2K5	0	1	1	0
MAP2K7	1	0	0	0
MAP3K10	0	1	1	0

MAP3K11	0	1	0	0
MAP3K12	1	1	1	1
MAP3K13	1	0	0	0
MAP3K14	0	1	1	0
MAP3K20	0	0	0	1
MAP3K3	1	1	1	1
MAP3K7	0	1	0	0
MAP3K9	1	1	0	0
MAP4	1	1	0	0
MAP4K2	0	1	0	0
MAP4K4	1	0	0	0
MAP6	1	0	0	0
MAP6D1	1	1	0	0
MAP7D1	0	1	0	0
MAP7D3	1	1	0	0
MAPK11	0	1	1	1
MAPK12	0	1	1	0
MAPK13	1	1	1	0
MAPK14	1	0	0	1
MAPK15	0	1	0	0
MAPK1IP1L	1	0	0	0
MAPK3	1	1	1	0
MAPK4	0	0	0	1
MAPK7	0	1	0	0
MAPK8IP1	0	1	0	0
MAPK8IP2	1	0	1	1
MAPK8IP3	1	1	1	0
MAPKAP1	0	1	0	0
MAPKAPK2	0	1	0	0

MAPKAPK3	0	1	1	0
MAPKAPK5	1	0	0	0
MAPKBP1	1	0	1	1
MAPRE2	1	0	0	0
MAPRE3	1	1	0	0
MAPT	1	1	0	0
MARCHF10	0	1	0	0
MARCHF11	0	0	0	1
MARCHF4	0	1	0	0
MARCHF7	1	0	0	0
MARCHF8	1	0	1	0
MARCHF9	1	0	0	0
MARCKSL1	1	1	1	0
MARF1	0	1	0	0
MARK2	1	1	1	1
MARK4	0	1	1	0
MARVELD1	0	0	1	0
MARVELD2	1	0	0	0
MARVELD3	0	1	1	0
MAS1	1	0	0	0
MASP1	1	1	1	0
MASP2	0	1	0	0
MAST1	1	1	0	0
MAST3	0	1	1	0
MAST4	1	0	0	0
MASTL	1	1	0	1
MATCAP1	1	1	1	0
MATCAP2	1	1	0	0
MATK	0	1	0	0

MATN4	0	1	0	0
MATR3	1	0	0	0
MAVS	1	0	1	0
MAX	1	1	0	0
MB	1	1	0	0
MBD3	1	1	1	0
MBNL3	1	0	0	0
MBOAT1	1	0	0	1
MBOAT7	0	1	0	0
MBP	0	1	1	0
MBTPS1	0	1	1	0
MBTPS2	0	0	0	1
MC2R	1	0	0	0
MC5R	0	1	0	0
MCAM	1	1	1	0
MCAT	0	1	0	0
MCC	1	0	1	0
MCCC2	1	0	0	0
MCF2L2	1	1	1	1
MCFD2	1	0	1	0
MCHR1	1	1	0	0
MCL1	0	0	1	0
MCM4	1	1	0	1
MCOLN2	1	1	0	0
MCOLN3	1	0	0	0
MCPH1	1	1	0	0
MCRIP1	0	1	1	0
MCRIP2	1	1	0	0
MCTP1	1	1	0	0

MCUR1	1	0	0	0
MDFI	1	1	1	0
MDFIC	1	0	0	0
MDGA1	1	1	1	0
MDH1B	0	1	0	0
MDH2	0	1	1	0
MDK	1	1	0	0
MDM1	0	0	1	0
MDM2	1	1	1	0
MDM4	1	0	1	0
MDN1	0	1	1	0
ME2	0	1	0	0
MEAK7	0	1	0	0
MECP2	1	1	0	1
MED1	0	0	0	1
MED10	0	1	0	0
MED11	1	1	0	0
MED12	1	1	0	0
MED15	1	1	1	0
MED16	1	1	1	0
MED17	1	0	0	1
MED18	1	1	0	1
MED20	0	1	0	0
MED22	1	1	1	1
MED24	1	1	0	0
MED26	1	1	1	1
MED27	0	1	0	1
MED29	1	1	0	1
MED6	0	0	0	1

MED9	0	1	0	0
MEDAG	1	1	0	0
MEF2B	0	1	0	0
MEF2D	1	1	1	1
MEFV	1	1	1	0
MEGF11	1	1	0	0
MEGF6	1	1	1	0
MEGF8	1	0	0	0
MEGF9	0	0	0	1
MEIOC	0	1	0	0
MEIS2	0	1	0	0
MEIS3	1	1	1	0
MELTF	1	1	0	0
MEMO1	0	0	0	1
MEN1	1	1	0	0
MEOX1	0	1	0	0
MEP1A	0	1	0	0
MESP2	1	1	1	0
MET	1	0	0	0
METAP1D	1	0	0	0
METRNL	0	1	0	0
METRNL	0	1	0	0
METTTL14	1	0	0	0
METTTL16	0	1	0	0
METTTL17	1	1	1	0
METTTL21A	1	1	0	1
METTTL22	0	1	0	1
METTTL26	0	1	1	0
METTTL27	0	1	1	0

METTL2B	0	1	0	0
METTL6	1	1	0	1
METTL8	1	0	1	0
MEX3A	1	0	1	0
MEX3B	0	0	1	1
MEX3D	0	1	0	0
MFAP4	1	1	0	0
MFAP5	0	1	0	0
MFGE8	1	1	1	0
MFN1	1	1	0	0
MFN2	0	1	0	0
MFNG	1	1	0	0
MFRP	1	1	0	1
MFSD10	1	1	1	0
MFSD12	1	1	0	0
MFSD13A	0	1	1	0
MFSD2A	0	1	1	0
MFSD2B	1	1	0	0
MFSD4A	0	1	0	0
MFSD4B	1	1	1	1
MFSD6L	1	1	0	1
MFSD8	0	1	1	0
MFSD9	0	1	0	1
MGA	1	0	0	0
MGAT1	1	1	1	0
MGAT3	1	0	0	0
MGAT4A	1	0	1	0
MGAT4B	0	1	1	0
MGAT4C	1	0	0	0

MGAT5B	1	1	0	1
MGMT	1	1	0	0
MGRN1	1	1	0	1
MGST2	1	1	1	1
MIA	0	1	0	0
MIA-RAB4B	0	0	0	1
MIB2	1	1	1	0
MICAL2	0	1	0	0
MICAL3	1	0	1	1
MICALL2	1	1	1	0
MICB	0	1	0	0
MICOS10	1	0	0	0
MICOS10-NBL1	0	1	0	0
MID1	0	0	0	1
MIDEAS	1	1	0	1
MIEF1	1	1	0	0
MIEF2	1	1	1	0
MIEN1	1	1	0	0
MIER2	1	1	1	1
MIF4GD	0	1	0	0
MIGA2	0	1	1	1
MIIP	0	1	0	0
MILR1	1	1	1	0
MINAR2	0	0	0	1
MINDY2	0	1	0	0
MINK1	1	1	1	0
MIOX	0	1	0	1
MIPOL1	0	0	1	0
MIS18A	0	1	0	0

MISFA	1	1	1	0
MKKS	1	0	0	0
MKNK1	1	1	1	0
MKNK2	0	1	0	0
MKRN1	1	1	1	0
MKRN2	0	1	1	0
MKRN3	0	1	0	0
MKS1	0	1	0	0
MLANA	1	1	0	0
MLEC	1	0	0	0
MLH1	1	0	0	1
MLH3	0	1	0	0
MLLT1	1	0	0	0
MLLT10	1	1	0	0
MLLT6	1	0	0	1
MLPH	0	1	0	0
MLST8	1	1	0	0
MLX	0	1	0	0
MLXIP	1	0	1	0
MLXIPL	1	1	0	1
MLYCD	1	0	0	0
MMAB	0	1	1	0
MMACHC	1	0	1	1
MMP11	1	1	1	0
MMP14	1	0	1	0
MMP15	0	0	1	0
MMP17	1	1	0	0
MMP19	1	0	1	0
MMP23B	0	1	1	0

MMP24	1	0	1	0
MMP24OS	1	1	0	0
MMP25	1	0	1	1
MMP28	0	1	0	0
MMP9	0	1	0	0
MMS19	0	0	1	0
MN1	1	0	0	0
MNS1	1	0	0	0
MNT	1	0	0	0
MOAP1	1	0	0	0
MOB2	0	1	1	0
MOB3A	1	0	0	0
MOB3C	1	1	1	0
MOB4	0	0	0	1
MOBP	1	1	0	0
MOCS3	1	0	1	0
MOG	1	1	0	0
MOGAT3	1	1	0	1
MOGS	0	1	0	0
MOK	1	1	0	0
MON1B	0	0	0	1
MORC2	1	1	0	0
MORN1	1	1	1	1
MORN3	1	0	0	0
MORN4	1	1	0	0
MOSPD3	0	1	0	0
MOV10	0	1	0	0
MOV10L1	1	1	1	0
MOXD1	0	1	0	0

MPC2	1	1	0	0
MPDU1	1	1	0	0
MPDZ	1	0	0	1
MPHOSPH10	1	1	0	0
MPHOSPH9	1	1	1	1
MPI	1	0	1	0
MPIG6B	1	0	0	0
MPLKIP	1	0	1	0
MPO	1	1	0	0
MPP2	0	1	0	0
MPP3	0	1	1	0
MPP7	1	0	0	1
MPPE1	1	1	0	0
MPPED1	1	0	1	0
MPRIP	1	0	1	0
MPST	1	1	0	0
MPV17	0	1	0	0
MPV17L	1	1	1	1
MPV17L2	1	1	1	0
MPZL3	1	1	0	0
MR1	1	1	1	1
MRAP2	0	1	1	0
MRC2	1	1	1	1
MRE11	1	0	1	0
MRGBP	1	0	1	1
MRGPPE	1	0	1	0
MRGPRF	0	1	0	0
MRI1	1	1	0	1
MRM2	0	1	0	0

MRNIP	1	1	1	0
MRO	1	0	0	0
MROH1	0	1	0	0
MROH5	1	0	1	0
MROH6	0	1	0	0
MROH7	0	1	0	0
MROH7-TTC4	0	1	1	0
MROH8	0	1	0	0
MRPL10	1	1	0	0
MRPL12	0	1	0	0
MRPL13	0	1	1	0
MRPL15	0	1	0	0
MRPL17	0	1	1	0
MRPL19	1	0	0	0
MRPL2	0	1	0	1
MRPL22	1	0	0	0
MRPL23	0	1	0	0
MRPL28	1	1	0	0
MRPL30	1	0	0	0
MRPL4	0	1	0	0
MRPL42	1	0	1	0
MRPL43	1	1	0	1
MRPL44	1	0	0	0
MRPL45	0	1	0	0
MRPL46	0	1	0	0
MRPL48	1	1	0	0
MRPL49	1	1	0	0
MRPL52	0	0	0	1
MRPL54	0	1	0	0

MRPL57	1	0	0	1
MRPS10	1	1	0	0
MRPS16	1	0	1	1
MRPS17	1	1	0	0
MRPS2	1	1	0	0
MRPS22	1	0	1	1
MRPS25	1	1	1	0
MRPS27	1	1	1	0
MRPS5	0	1	1	0
MRRF	1	1	1	0
MRTFA	0	1	1	0
MRTFB	1	0	0	0
MRT04	1	0	0	0
MS4A10	1	1	0	0
MS4A15	0	1	0	0
MS4A8	0	1	1	0
MSANTD1	1	1	0	1
MSANTD7	1	0	1	1
MSC	0	1	0	0
MSH2	0	1	0	0
MSH5	0	1	0	0
MSH5-SAPCD1	1	1	0	0
MSI1	0	1	0	0
MSI2	1	1	1	1
MSL3	0	1	0	0
MSMP	0	1	0	0
MSRB1	1	1	0	0
MSS51	0	1	0	0
MST1R	0	1	0	0

MSX1	0	1	0	0
MT1F	0	1	0	0
MT1H	1	1	0	0
MT1X	0	1	0	0
MT2A	0	1	0	0
MTA1	0	1	1	0
MTA3	1	1	1	0
MTAP	1	0	0	0
MTCH1	1	1	1	1
MTCL1	1	1	0	0
MTDH	1	0	1	0
MTERF4	1	0	0	0
MTFMT	1	1	1	0
MTFP1	0	1	0	0
MTFR1L	1	1	1	0
MTG2	1	0	0	0
MTHFD1	0	1	0	0
MTHFD1L	0	1	0	0
MTHFD2	1	1	1	0
MTHFR	1	1	0	1
MTHFS	0	1	1	0
MTHFSD	1	1	1	1
MTM1	0	1	0	0
MTMR12	1	1	0	1
MTMR14	0	1	0	0
MTMR2	1	0	0	0
MTMR3	0	1	0	0
MTMR9	0	0	0	1
MTNR1A	1	0	1	0

MTNR1B	0	1	1	0
MTO1	1	1	1	1
MTOR	0	0	1	0
MTPAP	1	0	1	0
MTR	1	0	0	0
MTRFR	1	0	0	1
MTURN	1	0	1	0
MTX1	0	1	0	0
MTX3	1	0	0	0
MUC1	0	1	0	0
MUC13	1	1	0	0
MUC17	1	1	0	0
MUC20	1	0	1	0
MUC21	1	1	0	0
MUC3A	0	1	1	0
MUC5B	1	1	0	0
MUC6	0	1	0	0
MUCL3	0	1	0	0
MUL1	0	1	0	0
MUTYH	1	1	1	0
MVB12A	1	1	1	1
MVB12B	1	1	0	0
MVD	1	1	0	0
MVK	0	1	0	0
MVP	0	1	0	0
MX1	1	1	0	1
MXD1	0	0	1	0
MXD3	0	1	0	0
MXD4	1	1	1	0

MXI1	0	0	0	1
MXRA7	1	0	0	0
MXRA8	1	1	1	0
MYADM	1	0	0	1
MYADML2	1	1	0	1
MYB	1	1	1	0
MYBBP1A	0	1	0	0
MYBL2	0	1	0	0
MYBPC1	1	0	0	0
MYBPC3	0	1	1	0
MYCBP2	1	0	0	0
MYCBPAP	0	1	0	1
MYCL	0	1	0	0
MYD88	0	1	0	0
MYDGF	0	1	0	0
MYEOV	1	1	1	0
MYH10	0	1	1	1
MYH11	1	0	1	0
MYH14	0	1	0	0
MYH15	1	1	0	0
MYH9	1	1	1	0
MYL3	0	1	0	0
MYL4	1	1	0	0
MYL5	0	0	0	1
MYL6	0	1	0	0
MYL7	0	1	1	0
MYL9	1	0	0	0
MYLK	1	1	1	0
MYLK2	0	1	1	0

MYLK3	1	0	0	0
MYNN	1	0	0	0
MYO15A	1	1	1	0
MYO15B	1	1	1	0
MYO18A	1	1	1	1
MYO18B	1	1	0	0
MYO19	1	1	1	1
MYO1C	1	1	1	1
MYO1E	1	0	1	0
MYO1F	1	1	0	0
MYO1G	0	1	1	0
MYO3B	0	0	0	1
MYO5A	1	0	0	1
MYO5C	1	0	0	1
MYO6	1	0	0	0
MYO7A	1	1	1	0
MYO7B	0	1	0	0
MYO9B	0	1	1	0
MYOC	0	1	0	0
MYOCOS	1	0	0	0
MYOD1	0	1	0	0
MYOF	1	1	0	1
MYOG	1	1	1	0
MYOM3	0	1	1	0
MYOZ3	1	1	1	0
MYPN	0	1	0	0
MYRF	1	0	0	0
MYRIP	0	1	0	0
MYSM1	1	0	0	0

MYT1	0	1	0	0
MYT1L	1	1	0	1
MZB1	1	1	0	0
MZF1	1	1	1	1
MZT2A	0	1	0	0
N4BP1	1	0	0	0
N4BP2L1	0	1	0	0
N4BP2L2	1	0	1	0
N6AMT1	0	1	0	0
NAA10	0	1	0	1
NAA30	1	0	1	1
NAA35	1	0	0	0
NAA40	1	1	1	1
NAA60	1	1	1	0
NAAA	0	1	0	0
NABP1	1	0	0	1
NABP2	0	1	0	0
NACC1	1	1	1	0
NACC2	1	0	0	0
NADK	0	1	0	0
NADSYN1	1	1	1	1
NAGA	0	1	0	0
NAGK	1	1	0	0
NAGLU	1	1	1	0
NAGPA	1	1	0	1
NAIF1	1	0	0	0
NALF1	1	0	0	0
NALF2	1	0	0	1
NANOG	1	0	0	0

NANOGP8	1	1	1	0
NANOS1	1	0	0	1
NANOS2	0	1	1	0
NANOS3	0	1	0	0
NANS	0	1	0	0
NAP1L1	1	0	0	0
NAP1L4	1	1	0	1
NAPA	0	1	0	0
NAPEPLD	0	0	0	1
NAPG	1	1	0	0
NAPRT	1	1	1	0
NARF	1	1	1	1
NARS2	1	0	0	1
NASP	0	1	0	0
NAT10	0	1	1	0
NAT14	1	1	0	0
NAT16	0	1	1	1
NAT8L	1	0	1	0
NAT9	1	1	1	0
NATD1	1	0	1	0
NAV1	1	0	1	1
NAXD	1	1	1	0
NAXE	1	1	0	0
NBAS	1	1	0	1
NBEA	1	1	1	0
NBEAL1	0	0	0	1
NBEAL2	0	1	1	0
NBL1	1	1	0	0
NBN	1	1	1	0

NBPF1	0	1	0	0
NBPF3	0	1	0	0
NBPF4	1	1	0	1
NBPF6	1	1	0	1
NCAPD2	0	0	1	0
NCAPD3	1	1	1	0
NCAPG2	1	1	0	1
NCAPH2	0	1	0	1
NCBP2	0	1	0	0
NCBP3	1	0	1	1
NCCRP1	0	1	0	0
NCDN	0	1	0	0
NCF2	1	1	1	0
NCF4	0	1	0	0
NCK1	0	1	0	0
NCK2	0	1	0	0
NCKAP1	1	0	0	1
NCKAP5L	0	1	1	0
NCL	1	1	1	0
NCLN	1	1	0	0
NCMAP	0	0	0	1
NCOR2	0	1	0	0
NCR1	1	0	0	0
NCR3LG1	1	0	1	0
NCS1	1	0	1	0
NCSTN	1	1	0	0
NDE1	1	1	0	1
NDEL1	0	1	0	0
NDOR1	1	1	1	1

NDRG1	0	1	1	0
NDRG2	0	1	0	0
NDRG4	0	1	0	0
NDST1	1	1	1	1
NDST2	0	1	0	0
NDST3	1	0	0	0
NDUFA10	1	1	1	1
NDUFA11	1	1	1	1
NDUFA12	1	0	1	0
NDUFA13	1	1	0	0
NDUFA3	1	1	1	0
NDUFA4	1	0	0	1
NDUFA4L2	0	1	0	0
NDUFAF1	0	1	0	0
NDUFAF2	1	0	1	0
NDUFAF6	0	1	0	0
NDUFAF7	1	0	0	1
NDUFB2	1	1	0	0
NDUFB5	1	0	1	0
NDUFB6	0	1	0	1
NDUFB8	1	1	0	1
NDUFB9	1	0	1	0
NDUFC2	1	1	0	0
NDUFS2	1	0	0	0
NDUFS7	1	1	0	1
NDUFS8	0	1	1	0
NDUFV1	1	1	1	1
NDUFV3	0	0	0	1
NECAB3	1	1	1	0

NECAP2	1	0	0	0
NECTIN2	0	1	0	0
NECTIN4	0	1	1	0
NEDD4	0	1	0	0
NEDD4L	1	1	0	0
NEDD9	1	1	0	1
NEFH	0	1	0	0
NEIL2	1	0	0	0
NEK1	1	1	0	0
NEK6	1	0	0	0
NEK8	1	1	1	1
NEK9	1	0	1	1
NELFA	1	1	0	0
NELFB	0	1	1	0
NEMP2	1	0	0	0
NES	0	1	0	0
NETO2	1	0	0	0
NEU1	1	1	0	0
NEU3	1	0	1	0
NEU4	0	1	0	0
NEURL1	1	0	1	0
NEURL1B	1	0	0	1
NEURL4	1	1	1	0
NEUROD2	0	1	0	0
NEUROG2	0	1	0	0
NEUROG3	1	1	1	1
NEXMIF	1	0	1	0
NF1	1	1	0	1
NF2	1	1	1	0

NFASC	1	1	1	1
NFAT5	1	0	1	0
NFATC1	1	1	1	0
NFATC2IP	1	0	0	0
NFATC4	1	1	1	0
NFE2L1	0	1	1	0
NFIA	0	0	0	1
NFIC	1	0	0	1
NFIL3	1	1	0	0
NFILZ	0	0	0	1
NFIX	1	1	1	0
NFKBIA	1	0	0	0
NFKBIB	0	1	1	0
NFKBID	1	1	1	0
NFKBIE	1	1	1	0
NFKBIZ	0	1	0	0
NFRKB	0	1	0	0
NFS1	1	1	1	1
NFX1	1	0	0	1
NGEF	1	1	0	0
NGFR	1	1	0	0
NHEJ1	1	0	0	0
NHERF1	1	0	0	0
NHERF2	0	1	0	0
NHLRC2	1	0	1	0
NHLRC4	0	1	1	0
NIBAN2	1	1	1	0
NIBAN3	0	1	0	0
NICN1	0	1	0	0

NID1	1	0	0	1
NIP7	0	1	0	0
NIPA1	1	1	0	0
NIPA2	1	1	0	0
NIPAL3	1	0	0	0
NIPAL4	1	1	0	0
NIPSNAP3B	1	0	0	0
NISCH	1	1	1	1
NIT1	0	1	0	0
NIT2	1	1	1	1
NKAIN1	1	1	1	0
NKAIN2	0	1	0	0
NKAIN3	1	1	0	1
NKAIN4	0	1	0	0
NKAP	1	0	1	1
NKD1	1	0	1	0
NKD2	0	1	0	0
NKIRAS2	1	1	1	1
NKX2-2	0	1	0	0
NKX2-3	0	1	1	0
NKX2-5	0	1	0	0
NKX2-8	1	1	1	0
NKX3-1	1	0	0	0
NKX3-2	1	1	0	1
NKX6-1	1	1	1	1
NKX6-2	1	0	0	1
NKX6-3	0	1	0	1
NLE1	0	1	1	0
NLG3	1	1	0	1

NLN	1	0	1	1
NLRC3	1	0	0	1
NLRC4	0	1	0	0
NLRC5	1	1	1	1
NLRP1	1	1	0	1
NLRP10	1	0	0	1
NLRP12	0	1	0	0
NLRP2	1	1	0	1
NLRP2B	1	0	0	0
NLRP7	1	1	0	0
NME1	1	1	0	0
NME3	0	1	0	0
NME4	1	0	0	0
NME9	0	0	0	1
NMNAT1	1	1	1	0
NMNAT3	0	1	0	1
NMRAL1	0	1	0	0
NMT1	1	1	1	0
NMT2	1	1	1	1
NMUR1	1	1	0	0
NNMT	0	1	0	0
NNT	0	0	1	0
NOB1	0	1	0	0
NOC2L	0	1	1	0
NOCT	0	0	0	1
NOD1	0	1	0	0
NOD2	0	1	0	0
NODAL	0	1	0	0
NOL10	1	1	1	1

NOL12	0	1	0	1
NOL4L	1	0	0	0
NOL7	1	0	0	0
NOL8	0	1	0	0
NOL9	1	0	1	0
NOMO2	1	1	0	0
NOMO3	1	1	1	0
NOP14	1	0	0	0
NOP16	0	1	0	0
NOPCHAP1	1	0	0	0
NOS1AP	1	1	0	0
NOS2	0	1	1	0
NOTCH1	1	1	1	1
NOTCH2	0	0	1	0
NOTCH2NLA	1	0	0	0
NOTCH2NLB	1	0	0	0
NOTCH2NLC	1	0	0	0
NOTO	1	1	0	0
NOVA2	1	0	0	1
NOX5	1	0	0	0
NOXA1	1	1	0	0
NPAP1	1	0	0	0
NPAS1	1	1	0	0
NPAS2	1	1	0	0
NPAS3	1	1	1	0
NPAS4	0	1	0	0
NPBWR1	1	0	0	0
NPC1L1	0	1	1	0
NPC2	0	1	1	0

NPDC1	0	1	1	0
NPEPL1	0	1	1	0
NPEPPS	1	1	0	0
NPFFR1	1	0	0	0
NPHP1	1	0	0	0
NPHP3	0	0	0	1
NPHP4	1	1	1	0
NPHS1	1	0	0	0
NPIP12	0	1	0	0
NPIP13	0	1	0	0
NPIP4	0	1	0	0
NPIP5	0	1	0	0
NPLOC4	1	1	1	0
NPM1	1	0	0	0
NPR1	1	1	1	0
NPR2	0	1	1	0
NPRL2	1	1	0	0
NPRL3	1	1	1	0
NPSR1	0	1	0	0
NPTX1	1	0	0	1
NPTXR	1	0	1	0
NPY2R	0	1	0	0
NPY4R	0	1	0	0
NPY4R2	0	1	0	0
NQO1	0	1	0	0
NQO2	0	1	0	0
NR1H2	1	1	1	1
NR1H3	0	1	0	0
NR1I3	0	1	0	0

NR2F2	1	0	1	0
NR3C2	1	1	0	1
NR4A2	0	1	0	0
NR5A1	0	1	0	0
NR5A2	1	1	0	0
NR6A1	1	0	1	0
NRARP	1	1	0	1
NRAS	0	0	0	1
NRBP1	1	0	0	0
NRBP2	1	1	1	0
NRDE2	1	0	1	1
NREP	1	1	0	1
NRF1	0	1	0	0
NRG1	1	0	0	1
NRG2	0	1	0	0
NRIP3	1	0	0	0
NRN1L	1	1	1	0
NRP1	1	1	0	0
NRSN1	0	1	0	0
NRSN2	0	0	0	1
NRXN2	0	1	1	0
NRXN3	1	0	0	1
NSD1	1	1	1	0
NSD2	1	0	1	1
NSD3	0	1	0	0
NSFL1C	0	1	0	0
NSG1	1	0	0	0
NSL1	1	0	0	0
NSMCE1	0	1	1	0

NSMCE3	1	0	1	0
NSMF	0	1	1	0
NSRP1	0	0	1	0
NSUN4	1	1	0	0
NSUN5	1	1	0	0
NSUN7	1	0	0	0
NT5C	1	1	0	0
NT5C1A	1	0	0	0
NT5C2	0	1	0	0
NT5C3B	0	1	0	1
NT5DC2	0	1	1	0
NT5DC3	1	0	0	0
NT5M	0	1	0	0
NTHL1	1	1	1	0
NTM	0	1	0	0
NTMT1	1	1	1	1
NTN1	1	0	1	1
NTN3	0	1	0	0
NTNG2	1	0	1	1
NTRK1	1	1	1	0
NTRK2	0	0	1	0
NTRK3	0	1	0	0
NTSR1	1	0	0	0
NUB1	0	1	0	0
NUBP2	1	1	1	0
NUCB1	0	1	0	0
NUDCD2	1	0	0	0
NUDCD3	1	0	0	0
NUDT1	0	0	0	1

NUDT12	1	0	0	0
NUDT16	0	0	1	0
NUDT16L1	1	1	0	0
NUDT18	1	1	0	0
NUDT19	1	1	1	0
NUDT3	1	0	0	0
NUDT4	1	0	0	0
NUDT4B	1	0	0	0
NUDT6	0	1	0	0
NUDT9	0	1	0	0
NUGGC	0	1	0	0
NUMA1	1	1	1	0
NUMBL	1	1	1	1
NUP107	0	0	0	1
NUP188	0	1	0	0
NUP210	1	1	1	0
NUP214	0	1	0	0
NUP43	1	1	0	0
NUP50	1	1	0	0
NUP54	1	0	0	1
NUP58	1	0	0	1
NUP62	1	0	0	0
NUP85	1	1	0	0
NUP88	1	1	0	0
NUP93	1	0	0	1
NUP98	1	1	1	0
NUPR1	1	1	1	0
NUSAP1	1	1	1	0
NUTF2	1	1	1	1

NUTM2A	0	1	0	0
NUTM2B	0	1	0	0
NUTM2D	0	1	0	0
NUTM2E	0	1	0	0
NUTM2F	1	0	0	0
NUTM2G	1	0	0	0
NVL	0	1	1	0
NWD1	1	1	1	0
NXF3	0	1	0	0
NXN	1	1	0	0
NXPE3	1	0	0	0
NXPH1	0	1	0	0
NXPH3	0	0	1	0
NXPH4	1	1	1	1
NYAP1	0	0	0	1
OAF	0	1	0	0
OARD1	0	1	0	0
OAS1	1	1	1	1
OAS2	1	1	0	0
OAS3	1	1	0	1
OASL	1	0	0	0
OAZ1	0	1	0	1
OAZ2	0	1	1	0
OBSCN	1	1	1	1
OBSL1	0	0	0	1
OCIAD2	0	1	0	0
OCLN	1	1	1	0
ODAD2	1	0	0	0
ODAD4	0	1	1	0

ODF2	1	1	0	1
ODR4	0	1	0	0
OFD1	1	0	0	0
OGDH	1	1	1	0
OGDHL	0	1	1	0
OGFOD1	1	0	1	1
OGFOD2	1	1	0	0
OGFOD3	1	1	0	1
OGFR	0	1	0	0
OGFRL1	1	0	1	0
OLA1	1	0	0	0
OLAH	1	0	0	1
OLFM2	0	1	1	1
OLFML1	1	1	1	1
OLFML2A	1	0	0	0
OLIG1	1	1	0	0
OLIG2	1	1	0	0
OLIG3	0	1	0	0
ONECUT1	1	1	0	1
ONECUT3	1	0	0	1
OPA1	0	1	0	0
OPA3	1	0	0	1
OPN1MW	0	1	0	0
OPN4	0	1	1	0
OPRD1	1	0	0	1
OPRK1	1	0	0	0
OPRL1	1	1	1	1
OPTN	0	1	0	0
OR10A2	1	0	1	0

OR10A3	1	0	0	0
OR10G3	0	0	0	1
OR10H5	1	0	0	0
OR10J1	1	0	0	0
OR11G2	0	0	0	1
OR13G1	0	1	0	0
OR1I1	1	0	0	0
OR1M1	0	1	0	0
OR2A1	0	0	0	1
OR2A12	0	0	0	1
OR2A25	0	0	0	1
OR2A42	0	0	0	1
OR2A5	1	0	0	1
OR2AG1	0	0	0	1
OR2AT4	1	0	0	0
OR2B11	0	1	0	0
OR2C3	1	0	0	0
OR2M4	1	0	0	1
OR2T29	0	1	0	0
OR2T5	0	1	0	0
OR2T6	0	0	0	1
OR2V2	1	0	1	1
OR3A2	0	1	0	0
OR3A3	1	0	0	1
OR4D9	1	0	0	1
OR4E2	1	1	0	0
OR4F15	1	1	0	0
OR4K13	1	0	1	0
OR4K2	1	0	1	0

OR4P4	0	1	0	0
OR4S2	0	1	0	0
OR51D1	1	0	0	1
OR51E2	1	0	0	0
OR51M1	1	0	0	1
OR5A1	0	0	1	0
OR5A2	0	0	1	0
OR5AN1	0	0	1	0
OR5AU1	1	0	0	0
OR5H1	1	0	1	0
OR5H14	0	0	0	1
OR6C4	1	0	0	0
OR6J1	1	0	0	1
OR7A17	1	0	0	1
OR7C1	1	1	0	0
OR7D2	1	0	0	0
OR7G2	1	1	1	0
OR8A1	1	0	0	0
OR8B8	1	0	1	0
OR8G1	1	0	0	0
OR8H1	0	1	0	0
OR9G4	1	1	0	0
ORAI1	0	1	0	0
ORAI2	1	0	1	1
ORAI3	0	1	1	0
ORC2	0	0	1	0
ORC6	0	1	0	0
ORMDL1	0	1	0	0
ORMDL3	0	1	1	0

OS9	1	1	0	1
OSBP2	0	1	0	0
OSBPL10	1	1	0	0
OSBPL1A	0	1	0	0
OSBPL2	1	0	1	1
OSBPL5	0	1	1	0
OSBPL6	1	0	0	1
OSBPL7	1	1	1	0
OSCAR	1	1	0	0
OSCP1	0	1	0	0
OSGEPL1	1	0	0	1
OSGIN1	1	1	0	0
OSM	1	1	1	0
OSMR	1	0	1	0
OSR1	0	1	0	1
OTOA	1	0	0	0
OTOF	0	1	0	0
OTOG	0	1	0	0
OTOR	1	1	1	0
OTP	0	1	0	0
OTUB1	0	1	0	0
OTUD3	1	0	1	0
OTUD5	0	1	1	0
OTUD6A	1	0	0	1
OTUD7A	1	0	1	0
OTUD7B	1	0	1	0
OTULINL	1	0	0	1
OTX1	0	1	1	0
OVOL1	0	1	0	0

OXA1L	0	0	0	1
OXLD1	1	1	0	0
OXSRI	1	0	0	0
P2RX1	1	1	0	0
P2RX2	0	1	0	0
P2RX3	1	1	1	0
P2RX4	0	1	0	0
P2RX5-TAX1BP3	1	0	0	0
P2RX6	1	1	0	0
P2RX7	0	1	1	1
P2RY2	1	1	1	0
P2RY6	1	1	1	0
P3H1	0	1	1	0
P3H4	1	1	0	1
P4HA2	1	1	1	1
P4HA3	0	1	0	0
P4HB	1	1	1	1
PAAF1	1	0	0	1
PABIR3	1	1	0	0
PABPC1L	1	1	1	0
PABPC4	0	1	0	0
PABPN1	1	0	0	0
PABPN1L	0	1	0	0
PACRGL	1	1	0	0
PACS1	0	1	1	0
PACS2	1	0	1	1
PACSIN1	1	0	0	0
PACSIN2	1	1	1	0
PADI1	1	1	0	0

PADI2	1	0	1	0
PADI3	0	1	0	0
PADI4	1	1	0	0
PAFAH1B2	1	0	0	0
PAFAH2	1	0	0	0
PAGR1	0	0	1	0
PAICS	1	1	0	1
PAK2	1	0	1	0
PAK4	1	0	0	1
PAK5	1	0	0	0
PAK6	1	1	0	0
PALD1	1	1	1	1
PALM	1	1	1	1
PALM2AKAP2	0	0	1	0
PAMR1	0	1	0	0
PAN2	0	1	1	0
PANK2	1	1	1	1
PANK4	1	1	1	0
PANO1	1	1	0	0
PANX2	0	1	0	0
PAOX	0	1	0	0
PAPLN	1	1	1	0
PAPOLA	1	0	1	0
PAPPA2	1	0	0	0
PAPSS2	0	1	0	0
PAQR4	0	1	0	0
PAQR5	1	0	0	0
PAQR6	1	0	0	0
PAQR7	0	1	0	0

PARD3	1	1	0	0
PARD6B	1	0	0	0
PARD6G	0	0	1	0
PARN	1	1	1	0
PARP10	0	1	0	0
PARP12	0	1	1	0
PARP14	1	0	0	1
PARP16	0	1	0	0
PARP9	1	0	0	0
PARS2	1	0	0	0
PARVG	1	1	0	0
PASK	0	1	0	0
PATE2	0	1	0	0
PATJ	1	0	1	0
PAWR	1	1	0	1
PAX2	1	1	0	0
PAX5	1	1	1	1
PAX7	1	0	0	0
PAX8	1	0	1	0
PAX9	0	0	1	0
PAXIP1	0	1	1	0
PBLD	1	0	0	0
PBOV1	1	0	0	1
PBX2	0	1	0	0
PBX4	0	1	1	0
PBXIP1	1	1	0	0
PC	1	1	0	1
PCARE	1	0	1	1
PCBD2	1	1	0	0

PCBP4	1	1	0	0
PCCB	1	0	0	0
PCDH1	0	1	1	0
PCDH11X	1	0	0	0
PCDH11Y	1	1	1	0
PCDH17	0	0	0	1
PCDH20	1	0	1	0
PCDH7	1	1	0	0
PCDH9	0	0	0	1
PCDHA10	1	0	1	0
PCDHA5	0	1	0	0
PCDHA9	1	0	1	1
PCDHB1	1	0	0	0
PCDHB11	1	1	0	0
PCDHB12	1	1	1	1
PCDHB13	0	0	0	1
PCDHB14	1	1	0	0
PCDHB2	1	1	0	1
PCDHGA1	1	1	0	0
PCDHGA10	1	1	0	0
PCDHGA11	1	1	0	0
PCDHGA12	1	1	0	0
PCDHGA2	1	1	0	0
PCDHGA3	1	1	0	1
PCDHGA4	1	1	0	0
PCDHGA5	1	1	0	1
PCDHGA6	1	1	0	0
PCDHGA7	1	1	0	0
PCDHGA8	1	1	0	0

PCDHGA9	1	1	0	0
PCDHGB1	1	1	0	0
PCDHGB2	1	1	0	0
PCDHGB3	1	1	0	0
PCDHGB4	1	1	0	0
PCDHGB5	1	1	0	0
PCDHGB6	1	1	0	0
PCDHGB7	1	1	0	0
PCDHGC3	1	1	0	0
PCDHGC4	1	1	0	0
PCDHGC5	1	1	0	0
PCGF2	1	0	0	0
PCGF3	0	1	0	0
PCGF6	0	1	0	0
PCK2	1	1	1	0
PCLAF	0	0	0	1
PCMT1	0	1	1	0
PCMTD2	0	1	0	0
PCNT	1	1	1	1
PCNX1	0	0	1	0
PCNX2	1	1	0	0
PCNX4	1	0	1	1
PCSK1	1	0	0	0
PCSK4	0	1	1	0
PCSK5	1	0	0	0
PCSK6	1	1	1	0
PCSK7	1	1	1	1
PCSK9	0	1	1	1
PCTP	1	1	0	0

PCYOX1	1	0	0	0
PCYOX1L	0	0	0	1
PCYT1A	1	0	0	1
PCYT1B	1	0	1	0
PCYT2	1	1	0	1
PDAP1	1	0	0	0
PDCD1	1	1	1	0
PDCD2	0	1	0	0
PDCD5	0	1	1	0
PDCD6	0	1	0	0
PDCD6-AHRR	1	0	1	0
PDCD7	0	1	0	0
PDCL	1	1	1	0
PDE12	1	0	0	0
PDE1B	0	1	0	0
PDE2A	1	1	1	1
PDE3A	1	0	0	0
PDE4A	1	1	0	0
PDE4C	1	1	0	1
PDE4DIP	0	1	1	0
PDE6A	1	0	0	0
PDE6B	1	1	1	0
PDE7A	0	0	1	0
PDE8A	0	1	0	0
PDE9A	0	1	0	0
PDF	1	0	0	1
PDGFRA	0	1	0	0
PDGFRB	0	1	1	0
PDHA1	0	1	1	0

PDIA3	1	1	0	0
PDIA4	0	1	0	0
PDK1	1	0	1	0
PDK2	1	0	0	0
PDK3	1	0	1	0
PDLIM2	0	1	1	0
PDLIM3	0	1	0	0
PDLIM4	0	1	0	0
PDLIM5	0	1	0	0
PDLIM7	1	1	1	0
PDP2	1	0	1	0
PDPK1	1	1	1	0
PDPN	1	0	1	0
PDPR	1	0	1	1
PDXDC1	1	1	0	1
PDXK	1	1	1	0
PDXP	0	1	1	0
PDZD11	0	1	1	0
PDZD4	0	1	0	0
PDZD7	1	1	1	1
PDZD8	1	0	0	0
PDZK1IP1	0	1	0	0
PEA15	0	0	1	0
PEAK1	1	0	1	1
PEAK3	1	1	1	0
PEAR1	0	1	0	0
PECAM1	1	0	1	1
PEDS1	1	1	1	0
PEF1	1	1	0	0

PEG3	1	0	0	0
PELI3	0	1	1	0
PELP1	1	1	1	0
PEMT	0	1	0	0
PEPD	1	1	1	1
PER1	1	1	0	0
PER2	1	0	1	0
PERCC1	0	1	0	1
PERM1	1	1	1	0
PES1	1	1	1	0
PET100	0	1	0	0
PEX10	1	1	1	0
PEX11G	0	1	0	0
PEX13	1	0	0	0
PEX16	0	1	0	0
PEX19	0	1	0	0
PEX26	1	0	1	1
PEX5L	0	0	0	1
PEX6	1	1	1	0
PFAS	1	1	1	0
PFDN1	0	1	0	0
PFDN5	1	1	1	0
PFDN6	0	1	0	0
PFKFB2	1	1	1	0
PFKFB3	1	0	0	0
PFKFB4	1	1	0	1
PFKL	0	1	0	0
PFKM	1	1	0	0
PFKP	0	0	1	0

PFN1	0	1	0	0
PFN2	0	1	0	0
PGAM5	1	1	0	0
PGAP2	1	0	0	0
PGAP3	0	1	0	0
PGAP6	0	1	1	0
PGBD4	1	0	0	0
PGBD5	1	0	1	1
PGD	0	1	0	0
PGF	0	1	0	0
PGGHG	0	1	0	1
PGK1	1	0	0	1
PGLS	0	1	0	0
PGM2L1	0	0	0	1
PGM3	1	1	1	1
PGP	1	1	0	1
PGPEP1	0	1	0	0
PGS1	1	1	0	0
PHACTR1	1	1	0	0
PHACTR4	1	0	0	1
PHAF1	1	1	1	0
PHAX	1	0	0	1
PHB1	0	1	0	0
PHC1	1	0	0	1
PHC2	1	1	0	1
PHC3	1	0	1	0
PHETA1	1	1	1	0
PHETA2	0	1	0	0
PHEX	1	1	1	0

PHF12	1	0	0	0
PHF13	1	0	1	0
PHF19	1	0	0	0
PHF2	1	1	1	0
PHF20	1	0	1	0
PHF20L1	1	0	0	0
PHF21A	1	1	0	1
PHF21B	1	1	0	1
PHF24	1	0	1	0
PHF6	1	0	1	0
PHF8	1	0	1	0
PHGDH	1	1	1	0
PHKB	1	1	0	0
PHKG2	1	0	1	0
PHLDA1	1	0	1	0
PHLDA2	0	1	0	0
PHLDA3	0	1	0	0
PHLDB1	0	1	0	1
PHLDB3	1	0	0	0
PHLPP2	1	0	0	0
PHOX2A	0	1	0	0
PHOX2B	0	1	0	0
PHPT1	0	1	0	0
PHRF1	0	1	0	0
PHYHD1	1	1	0	0
PHYHIP	1	1	1	0
PHYKPL	1	0	0	0
PI16	1	1	0	0
PI4K2A	1	0	0	0

PI4KB	0	1	0	0
PIAS1	1	1	1	0
PIAS2	1	0	0	0
PIAS3	0	1	0	0
PIAS4	1	1	0	1
PICK1	1	1	1	1
PIDD1	1	1	1	0
PIEZO1	0	1	0	0
PIEZO2	0	0	1	0
PIF1	0	1	0	0
PIGG	1	1	0	0
PIGM	1	0	1	1
PIGN	1	1	0	1
PIGO	1	1	0	0
PIGQ	1	1	1	1
PIGR	1	0	0	0
PIGS	0	1	0	0
PIGT	1	1	1	1
PIGV	0	1	1	0
PIGW	1	1	0	0
PIGX	0	1	0	1
PIGZ	1	1	1	0
PIH1D1	0	1	0	0
PIK3C3	1	0	0	0
PIK3CD	1	1	1	1
PIK3IP1	0	1	0	0
PIK3R1	1	0	0	0
PIK3R2	0	1	0	1
PIK3R5	0	1	0	0

PIK3R6	1	0	0	1
PIKFYVE	1	0	0	0
PIM2	0	0	0	1
PIM3	0	1	0	0
PIMREG	0	1	0	0
PIN1	0	1	1	0
PINX1	1	1	1	1
PIP4K2A	0	0	0	1
PIP5K1C	1	1	1	0
PIRT	1	0	1	1
PISD	0	1	1	0
PITHD1	0	1	0	0
PITPNM2	1	0	0	0
PITPNM3	1	0	1	0
PITRM1	1	0	1	0
PITX1	0	1	0	0
PITX2	0	1	0	0
PIWIL2	0	0	0	1
PIWIL4	1	1	0	0
PJVK	1	0	0	0
PKD1	1	1	0	1
PKD1L1	0	1	0	0
PKD1L2	0	1	0	1
PKDCC	0	1	0	0
PKIG	1	0	0	0
PKM	0	1	0	0
PKMYT1	1	0	0	0
PKNOX1	1	0	1	0
PKP1	0	0	0	1

PKP2	1	1	0	1
PKP4	1	1	0	1
PLA2G10	1	0	0	0
PLA2G12B	1	1	0	0
PLA2G15	0	1	0	0
PLA2G2C	0	1	0	0
PLA2G2D	1	1	0	0
PLA2G2F	1	1	0	1
PLA2G4B	1	1	0	0
PLA2G4C	0	1	0	0
PLA2G4D	0	1	0	0
PLA2G4E	1	0	1	0
PLA2G4F	0	1	1	0
PLA2G6	1	1	0	0
PLAAT3	0	1	0	1
PLAC8L1	0	1	0	0
PLAGL2	0	0	1	0
PLAT	0	1	0	0
PLAUR	1	1	0	0
PLB1	0	1	1	0
PLBD2	1	1	0	0
PLCB2	0	1	0	0
PLCB3	0	1	1	0
PLCB4	0	0	0	1
PLCD1	0	1	0	0
PLCD3	1	0	1	0
PLCG1	1	1	0	0
PLCG2	1	1	1	0
PLCH1	1	0	0	1

PLCH2	1	1	1	1
PLCL1	1	0	1	0
PLCXD1	1	0	1	1
PLD2	0	1	1	0
PLD3	1	1	0	1
PLD4	0	1	0	0
PLD5	0	1	0	0
PLD5P1	1	0	0	0
PLD6	1	1	1	0
PLEC	1	1	0	0
PLEKHA2	0	1	0	1
PLEKHA4	1	1	1	0
PLEKHA5	1	0	0	0
PLEKHA6	0	1	1	0
PLEKHA7	0	1	1	0
PLEKHA8	0	1	0	0
PLEKHB2	0	1	0	0
PLEKHD1	1	0	1	0
PLEKHF1	1	1	1	1
PLEKHG1	1	0	1	0
PLEKHG2	1	0	1	0
PLEKHG3	0	1	1	0
PLEKHG4	1	1	1	0
PLEKHG4B	1	0	1	1
PLEKHG5	1	1	0	1
PLEKHG6	1	1	0	0
PLEKHG7	0	1	0	0
PLEKHM1	1	1	1	1
PLEKHM2	1	1	0	0

PLEKHM3	1	1	0	1
PLEKHN1	1	1	1	0
PLEKHO2	1	0	0	0
PLIN3	0	0	0	1
PLIN4	1	0	1	0
PLIN5	1	0	0	1
PLK1	0	1	0	0
PLK3	0	1	0	0
PLLP	1	0	1	0
PLPP7	1	1	0	0
PLPPR3	0	1	0	0
PLSCR3	0	1	0	0
PLTP	0	1	0	0
PLVAP	1	0	0	1
PLXDC2	1	0	0	0
PLXNA1	1	0	0	1
PLXNA3	1	0	1	0
PLXNA4	0	0	1	0
PLXNB1	1	1	0	0
PLXNB2	0	1	0	0
PLXND1	1	1	0	0
PM20D2	1	0	0	0
PMEPA1	0	0	0	1
PMF1	0	1	0	0
PMF1-BGLAP	0	1	1	0
PMFBP1	1	1	0	0
PML	0	1	1	0
PMM1	1	1	0	0
PMM2	1	1	1	0

PMP22	1	0	0	0
PMPCA	1	1	1	0
PMS2	1	1	0	0
PMVK	0	1	0	0
PNCK	1	1	0	1
PNKD	1	1	1	0
PNKP	1	1	1	1
PNLDC1	0	1	1	0
PNMA2	1	0	0	0
PNMA5	0	1	0	0
PNMA6E	0	1	0	0
PNMA6F	0	1	0	0
PNMA8A	1	0	0	0
PNMA8B	1	0	1	0
PNMA8C	1	0	0	0
PNOC	0	1	0	0
PNPLA1	0	1	0	0
PNPLA5	1	1	1	0
PNPO	1	1	0	0
PNPT1	1	0	0	1
PNRC1	1	1	1	0
POC1A	1	1	0	1
POC1B-GALNT4	0	1	0	0
PODNL1	0	1	1	0
POFUT1	1	0	1	0
POFUT2	1	1	0	1
POGK	0	0	0	1
POLA1	0	0	0	1
POLA2	1	1	0	1

POLD1	0	1	0	1
POLD2	0	1	0	0
POLD4	1	1	1	0
POLDIP3	1	0	0	1
POLE	0	0	1	1
POLE3	0	1	0	0
POLE4	1	0	0	0
POLG	1	1	1	1
POLG2	1	0	0	0
POLH	1	0	1	1
POLI	1	0	1	0
POLL	0	1	0	0
POLM	0	1	0	0
POLR1A	1	1	0	0
POLR1C	1	1	0	0
POLR1D	1	1	1	1
POLR1G	1	1	1	0
POLR2C	0	1	0	0
POLR2E	1	1	0	1
POLR2F	1	1	1	0
POLR2G	0	1	0	0
POLR2H	0	1	0	0
POLR2J2	1	1	0	0
POLR2J3	1	1	1	0
POLR2L	1	1	0	0
POLR2M	0	0	1	0
POLR3D	0	1	0	0
POLR3F	0	1	0	0
POLR3H	1	1	1	1

POLR3K	1	0	0	0
POLRMT	1	1	0	0
POM121	1	0	1	0
POM121C	1	0	0	0
POMGNT1	1	1	1	0
POMK	1	1	0	0
POMP	1	0	0	0
POMT1	1	1	0	0
POMT2	1	1	1	1
POMZP3	0	1	0	0
POP4	0	1	0	0
POR	1	1	1	0
PORCN	1	1	1	0
POTEG	0	1	0	0
POTEI	1	0	0	0
POTEM	1	1	1	0
POU2AF1	1	0	0	0
POU2F1	1	0	1	1
POU2F2	1	1	1	1
POU2F3	1	1	0	0
POU3F1	0	1	0	0
POU3F4	1	0	0	0
POU4F3	0	1	0	1
POU5F1B	1	0	0	0
POU5F2	1	0	0	1
POU6F1	1	0	0	0
POU6F2	1	0	0	0
PPA2	0	1	0	0
PPAN-P2RY11	0	1	1	0

PPARA	1	0	0	1
PPARD	0	1	0	0
PPARG	0	1	0	0
PPARGC1A	0	0	0	1
PPARGC1B	0	1	0	0
PPCDC	0	1	1	0
PPEF2	1	1	1	0
PPFIA1	1	1	1	0
PPFIA3	1	1	1	0
PPHLN1	0	1	0	0
PPIA	1	1	1	0
PPIB	1	1	0	1
PPID	0	1	0	0
PPIE	1	1	0	0
PPIF	0	1	0	0
PPIH	0	1	0	0
PPIL2	0	1	1	0
PPIL6	1	0	0	0
PPL	1	1	0	0
PPM1D	1	1	0	0
PPM1F	1	0	0	0
PPM1G	1	0	0	1
PPM1H	1	0	1	0
PPM1J	0	1	0	0
PPM1K	1	1	0	0
PPM1L	1	0	1	0
PPM1M	0	1	0	0
PPM1N	1	1	0	0
PPME1	0	1	1	0

PPOX	1	1	1	1
PPP1CA	1	1	1	0
PPP1R12B	1	0	1	0
PPP1R13B	1	1	1	1
PPP1R13L	0	0	0	1
PPP1R14B	0	1	0	0
PPP1R14C	0	1	1	0
PPP1R15A	0	1	0	0
PPP1R15B	1	1	1	0
PPP1R16B	0	0	1	0
PPP1R1A	0	1	0	0
PPP1R21	0	1	1	0
PPP1R26	0	1	0	0
PPP1R3B	1	0	1	0
PPP1R3E	1	0	1	1
PPP1R3G	1	0	1	1
PPP1R9B	0	1	0	0
PPP2CA	1	0	0	1
PPP2R1A	1	1	0	1
PPP2R1B	1	1	1	0
PPP2R2A	0	1	0	0
PPP2R2B	1	0	1	0
PPP2R2C	0	0	1	0
PPP2R2D	1	0	1	0
PPP2R3A	1	0	0	0
PPP2R3B	0	1	0	0
PPP2R5B	1	0	0	0
PPP2R5C	0	1	1	0
PPP2R5D	0	1	0	0

PPP3R1	0	0	0	1
PPP3R2	1	0	0	0
PPP4C	0	1	0	0
PPP4R1	0	1	0	0
PPP4R2	0	1	0	0
PPP4R3B	1	0	0	0
PPP5C	0	1	1	0
PPP6R1	0	1	0	0
PPP6R2	0	1	0	1
PPP6R3	0	1	0	0
PPT2	0	1	1	0
PPT2-EGFL8	1	1	1	0
PPTC7	1	0	0	0
PPWD1	0	1	0	0
PQBP1	1	1	0	0
PRAF2	0	1	0	0
PRAMEF13	1	1	0	0
PRAMEF14	1	1	0	0
PRAP1	0	0	0	1
PRCC	0	1	0	0
PRCD	1	1	0	0
PRDM11	1	1	1	1
PRDM12	1	1	1	1
PRDM13	1	0	1	0
PRDM15	1	1	0	0
PRDM16	1	1	1	1
PRDM2	0	1	0	0
PRDM7	1	1	0	0
PREB	0	1	0	0

PRELID2	0	1	0	0
PRELID3A	0	1	1	0
PRELP	1	0	0	1
PREX1	1	1	0	0
PRF1	0	1	0	0
PRICKLE3	0	1	0	0
PRIMA1	1	1	1	0
PRIMPOL	0	1	0	0
PRKAG2	0	0	0	1
PRKAG3	0	1	0	0
PRKAR1A	1	0	0	0
PRKAR1B	1	1	0	1
PRKCA	1	0	0	1
PRKCD	1	1	1	1
PRKCE	1	0	1	0
PRKCSH	1	1	1	1
PRKCZ	0	1	1	0
PRKD2	1	1	0	0
PRKG1	1	0	0	0
PRKN	0	1	0	0
PRKRIP1	1	1	0	0
PRKX	1	0	0	1
PRLR	0	1	0	0
PRMT1	1	1	0	0
PRMT2	0	1	0	0
PRMT6	0	1	0	0
PRMT7	1	1	1	0
PRMT9	0	0	1	0
PRND	1	0	0	0

PROB1	0	1	0	0
PROC	1	1	1	0
PROCA1	0	1	0	1
PROK2	0	1	1	0
PROM1	1	1	0	0
PROM2	1	1	1	0
PRORP	1	1	1	0
PROS1	1	0	0	0
PROSER3	1	0	1	1
PROX2	1	0	0	0
PRPF3	1	1	0	0
PRPF4	0	1	0	0
PRPF40B	0	1	0	0
PRPS1	1	1	1	1
PRPSAP1	0	0	1	1
PRR11	1	1	1	1
PRR12	1	1	0	0
PRR14L	1	0	0	1
PRR18	0	1	0	0
PRR19	1	1	0	0
PRR22	0	1	1	1
PRR23A	1	0	0	1
PRR23C	1	0	0	0
PRR27	1	0	1	1
PRR29	0	1	0	0
PRR33	0	1	0	0
PRR36	0	1	0	0
PRR5	0	1	1	0
PRRC1	0	1	0	0

PRRC2B	1	0	0	0
PRRG2	1	0	0	0
PRRG3	1	1	1	0
PRRT1	1	1	0	1
PRRT1B	1	1	0	0
PRRT2	0	1	0	1
PRRT3	0	1	0	0
PRRT4	0	1	0	0
PRRX2	0	0	0	1
PRSS21	1	1	0	0
PRSS22	1	1	0	0
PRSS27	1	1	0	0
PRSS33	1	1	0	0
PRSS36	1	1	0	1
PRSS37	1	1	1	0
PRSS41	0	1	0	0
PRSS55	1	1	0	1
PRUNE2	0	0	0	1
PRX	1	0	0	1
PRXL2A	0	0	0	1
PRXL2B	1	1	0	0
PRXL2C	1	0	0	0
PSAP	0	1	0	0
PSAPL1	1	0	1	1
PSD	0	1	0	0
PSD2	0	1	0	0
PSD3	0	1	0	0
PSD4	1	0	1	1
PSEN1	1	1	0	0

PSEN2	1	1	1	1
PSG5	0	1	0	0
PSG6	0	1	0	0
PSG9	0	1	1	0
PSKH1	1	0	1	0
PSMA2	0	1	0	0
PSMC2	1	1	1	0
PSMC6	0	1	0	0
PSMD1	0	1	0	1
PSMD11	0	1	0	0
PSMD13	0	1	0	0
PSMD2	0	1	0	0
PSMD3	1	1	0	0
PSMD5	0	1	0	0
PSMD8	0	1	0	0
PSMD9	0	1	0	0
PSME3	1	0	1	0
PSMF1	0	1	1	0
PSMG1	0	1	0	0
PSMG4	1	1	1	0
PSPH	1	0	0	0
PSPN	0	1	1	0
PSTPIP1	0	1	0	0
PSTPIP2	1	1	1	0
PTAFR	1	1	0	1
PTAR1	1	0	0	0
PTBP1	1	1	1	1
PTBP2	1	1	1	0
PTCD3	1	0	0	0

PTCH1	1	0	1	1
PTCHD1	1	0	1	0
PTCHD4	1	0	1	0
PTDSS1	1	1	1	1
PTDSS2	1	1	1	0
PTGDR	1	1	0	0
PTGES	1	1	0	0
PTGES2	0	1	0	0
PTGIS	1	0	0	0
PTGR1	0	0	1	1
PTGR2	0	0	0	1
PTGR3	1	0	0	1
PTGS1	1	0	0	0
PTH1R	0	1	1	0
PTK2B	0	1	0	0
PTK6	1	1	1	0
PTK7	1	1	1	1
PTMS	0	1	0	0
PTP4A3	1	1	1	0
PTPA	0	1	0	0
PTPDC1	0	1	0	0
PTPN1	1	0	0	1
PTPN11	1	0	0	0
PTPN12	1	1	0	0
PTPN14	0	0	0	1
PTPN18	1	1	0	0
PTPN2	1	0	0	0
PTPN21	1	1	1	0
PTPN22	0	0	0	1

PTPN23	0	1	0	0
PTPN3	1	0	1	1
PTPN4	1	0	0	0
PTPN5	0	1	0	0
PTPN6	0	1	0	0
PTPRE	1	1	0	0
PTPRF	0	1	0	0
PTPRH	0	1	0	0
PTPRK	0	1	0	0
PTPRN	0	1	0	0
PTPRO	1	0	1	0
PTPRT	0	0	1	0
PTPRU	0	1	0	0
PTRH1	0	1	0	0
PTRHD1	0	1	0	0
PTTG1IP	0	1	0	1
PUM1	1	0	0	0
PURB	1	0	1	1
PUS1	1	0	0	0
PUS10	1	1	0	0
PUS7	1	1	1	0
PVR	1	1	1	1
PVRIG	0	1	0	0
PWWP2B	1	1	1	0
PWWP3A	1	1	1	0
PXDC1	0	1	1	0
PXDN	0	1	0	0
PXK	0	1	1	0
PXMP2	0	1	0	0

PXMP4	1	0	0	1
PXN	0	1	0	1
PXYLP1	1	1	0	0
PYCR1	0	1	0	0
PYCR2	1	0	0	0
PYCR3	0	1	1	0
PYGB	1	1	1	0
PYGO1	1	0	1	0
PYGO2	0	1	0	0
PYY	0	1	1	0
QARS1	1	1	1	0
QDPR	1	0	0	0
QPCTL	0	1	0	0
QPRT	1	0	0	1
QRFP	0	1	0	0
QRFPR	1	1	0	1
QRICH2	0	1	0	0
QRSL1	1	0	0	0
QSOX1	1	0	1	0
QTRT1	0	1	0	0
QTRT2	1	1	0	0
R3HCC1	0	1	0	0
R3HDM4	1	1	0	0
RAB11A	1	0	0	0
RAB11B	1	0	0	0
RAB11FIP3	1	1	1	0
RAB11FIP4	1	1	0	1
RAB11FIP5	0	0	1	0
RAB15	0	1	0	1

RAB17	0	1	0	0
RAB19	1	0	0	0
RAB20	0	1	0	0
RAB21	1	0	1	1
RAB22A	1	0	1	0
RAB26	0	1	0	0
RAB27A	1	1	0	0
RAB29	1	1	0	1
RAB2B	1	0	0	0
RAB30	0	1	0	0
RAB31	1	0	0	0
RAB32	0	1	0	0
RAB33B	1	0	1	0
RAB34	0	1	1	0
RAB35	0	1	1	0
RAB36	1	0	0	0
RAB37	1	1	1	0
RAB3A	0	1	1	0
RAB3B	1	0	1	1
RAB3D	1	0	0	0
RAB3GAP1	1	1	0	0
RAB3GAP2	0	1	1	0
RAB3IL1	0	1	0	0
RAB3IP	1	1	0	0
RAB40B	1	1	0	0
RAB40C	1	1	1	1
RAB43	1	1	1	1
RAB44	0	1	1	0
RAB4B-EGLN2	1	0	1	0

RAB5B	0	0	1	1
RAB6A	0	1	0	0
RAB7B	0	1	0	0
RAB8A	1	1	0	1
RABAC1	0	1	0	0
RABEP2	0	1	0	0
RABEPK	1	1	0	0
RABGAP1	0	1	0	0
RABGAP1L	1	0	0	1
RABGGTA	0	1	1	0
RABIF	1	0	0	0
RABL2B	0	1	0	0
RABL3	0	1	0	0
RABL6	1	1	1	1
RACGAP1	0	1	1	0
RACK1	1	1	0	0
RAD18	0	0	1	0
RAD21L1	1	1	0	0
RAD23A	1	1	0	0
RAD50	0	1	0	0
RAD51B	0	1	0	0
RAD51C	1	1	0	0
RAD51D	1	1	0	1
RAD52	1	1	0	0
RAD54L	0	1	0	0
RAD54L2	0	0	0	1
RAD9A	0	1	1	0
RAD9B	1	0	1	0
RADIL	1	0	1	1

RAET1E	1	1	0	1
RAF1	0	1	0	0
RAI1	1	1	0	1
RAI14	0	1	0	0
RALBP1	1	0	1	0
RALGAPB	1	0	0	0
RALGDS	1	1	0	0
RALY	1	0	0	1
RAMP3	0	1	0	0
RANBP1	0	1	0	0
RANBP10	1	1	1	1
RANBP17	1	0	0	0
RANBP2	1	0	1	0
RANBP3	0	1	0	0
RANBP3L	1	0	1	0
RANGAP1	0	1	1	0
RAP1GAP	1	1	1	1
RAP1GAP2	1	1	1	0
RAP2B	1	0	0	0
RAPGEF1	1	0	1	1
RAPGEF3	1	1	1	1
RAPGEF4	0	1	0	0
RAPGEF5	0	1	0	0
RAPGEFL1	0	1	0	0
RAPH1	0	1	1	0
RAPSN	0	1	0	0
RARA	0	1	0	0
RARB	1	0	1	0
RARS2	1	1	1	0

RASA3	0	1	0	0
RASA4	0	1	1	0
RASA4B	1	0	0	0
RASAL3	1	1	0	0
RASD2	0	1	1	0
RASEF	1	1	0	0
RASGEF1A	0	1	0	0
RASGEF1C	0	1	0	0
RASGRF2	1	0	0	0
RASGRP2	1	1	1	0
RASGRP3	0	1	0	0
RASIP1	0	1	0	0
RASL10A	0	1	0	0
RASL10B	1	0	1	0
RASL11B	0	1	0	0
RASL12	0	1	0	0
RASSF1	0	1	0	0
RASSF10	0	1	0	0
RASSF2	1	0	0	0
RASSF5	1	0	0	0
RASSF6	0	0	0	1
RASSF7	1	1	1	1
RASSF9	1	0	0	0
RAVER1	0	1	0	0
RAX	1	1	1	0
RAX2	0	1	0	0
RBAK-RBAKDN	0	1	0	1
RBBP4	1	1	1	0
RBBP5	1	0	0	1

RBCK1	0	1	0	0
RBFOX2	0	1	0	0
RBFOX3	0	1	1	0
RBKS	0	1	0	0
RBL1	0	0	0	1
RBM12B	1	0	0	0
RBM19	1	1	1	1
RBM23	1	0	1	0
RBM24	0	0	0	1
RBM28	1	0	1	0
RBM3	1	0	0	0
RBM33	1	1	1	0
RBM38	0	1	0	0
RBM43	1	0	0	1
RBM47	1	0	0	1
RBM48	1	0	0	0
RBM4B	0	1	0	0
RBM7	1	0	0	1
RBM8A	1	1	1	1
RBP1	1	1	1	0
RBP2	0	1	0	0
RBPJL	1	1	0	0
RBPMS	1	0	0	0
RC3H1	1	0	1	0
RC3H2	0	1	1	0
RCAN3	1	1	1	0
RCC1	1	0	0	0
RCC1L	0	1	0	0
RCCD1	0	1	1	0

RCE1	0	1	1	0
RCN1	0	1	0	0
RCN2	1	0	0	0
RCN3	1	0	0	0
RCOR1	0	1	0	0
RCOR2	1	1	0	0
RCVRN	0	1	0	0
RD3	0	0	1	0
RDH11	0	1	0	0
RDH12	0	1	0	0
RDH13	1	1	0	1
RDH16	0	1	0	0
RDX	1	1	1	0
RECQL4	0	1	0	1
RECQL5	0	1	0	0
REELD1	0	1	0	0
REEP1	1	1	0	0
REEP2	0	1	0	0
REEP4	1	1	0	0
REEP5	1	0	0	0
REEP6	0	1	0	0
RELA	0	1	0	0
RELB	1	1	1	1
RELCH	0	0	0	1
RELL1	1	0	1	0
RELL2	1	1	1	0
RELT	1	1	0	0
REM1	0	1	0	0
REM2	0	1	0	0

RENBP	1	1	0	0
REPIN1	0	1	0	0
REPS2	1	0	0	0
RER1	0	0	1	0
RERGL	0	1	0	0
RET	1	1	1	0
RETREG1	0	1	0	0
RETREG2	1	1	0	1
RETREG3	1	1	1	1
RETSAT	0	1	0	0
REX1BD	0	1	0	0
REXO1	0	1	1	0
REXO4	1	1	1	0
RFC2	0	1	1	0
RFFL	1	0	0	1
RFLNA	1	1	1	1
RFLNB	1	0	0	0
RFNG	1	1	1	0
RFPL2	0	1	0	0
RFT1	1	0	1	0
RFTN2	1	0	0	0
RFX1	0	1	1	1
RFX2	0	1	0	0
RFX3	1	0	1	0
RFX4	1	1	0	0
RFX7	0	1	0	0
RFXANK	0	1	0	0
RGL1	0	0	0	1
RGL3	1	1	1	1

RGMA	1	1	1	0
RGP1	1	0	0	1
RGPD3	0	1	0	0
RGPD5	0	1	0	0
RGPD6	0	1	0	0
RGPD8	0	1	0	0
RGR	0	1	0	0
RGS12	0	1	0	0
RGS16	0	0	0	1
RGS17	0	0	0	1
RGS19	1	1	0	0
RGS3	1	0	0	0
RGS6	1	1	0	0
RGS7	0	1	0	0
RGS8	1	0	1	0
RGS9	0	1	0	0
RGS9BP	0	1	0	0
RHBDD2	0	1	0	0
RHBDD3	1	1	1	0
RHBDF1	1	1	1	0
RHBDF2	0	1	1	0
RHBDL1	0	1	0	0
RHBDL2	0	0	0	1
RHBDL3	1	1	1	0
RHBG	1	1	1	0
RHCE	1	1	1	0
RHCG	0	0	1	1
RHEB	0	0	0	1
RHEBL1	1	1	0	1

RHNO1	0	1	0	0
RHO	0	1	0	0
RHOA	1	0	0	0
RHOB	1	1	1	1
RHOC	1	0	0	0
RHOD	1	1	1	0
RHOF	1	1	1	0
RHOG	0	1	0	0
RHOJ	0	1	0	0
RHOT1	0	1	0	0
RHOT2	1	1	1	0
RHOV	0	1	0	0
RHOXF1	0	1	0	0
RHPN2	1	1	1	1
RIBC1	1	1	1	0
RIC3	1	1	0	0
RIC8A	0	1	0	0
RIF1	0	0	1	0
RILAD1	0	1	1	0
RILPL1	1	0	0	0
RIMBP2	0	0	0	1
RIMBP3	1	1	1	0
RIMBP3B	1	1	1	0
RIMS3	1	1	0	0
RIMS4	1	0	0	0
RIN1	1	1	1	1
RIN3	1	1	1	1
RINL	1	0	0	1
RIOK2	0	1	0	0

RIOK3	0	0	0	1
RIOX1	1	0	0	0
RIPK1	1	1	1	0
RIPK3	1	1	1	1
RIPOR2	1	0	0	0
RIPOR3	0	1	0	0
RIPPLY3	1	1	0	0
RLBP1	0	1	0	0
RLN3	1	0	0	0
RMDN1	1	1	0	0
RMDN2	0	1	0	0
RMDN3	0	1	0	0
RMI1	0	1	0	0
RMND5B	1	1	1	0
RNASE10	0	0	1	0
RNASEH1	1	1	0	0
RNASEH2A	0	0	0	1
RNASEH2C	0	1	0	0
RNASEK	0	1	1	0
RNASEK-C17orf49	0	1	0	0
RNASET2	1	0	1	1
RND1	0	1	0	0
RND2	1	0	0	0
RNF112	1	1	1	0
RNF113A	0	1	0	0
RNF114	0	1	0	0
RNF115	1	0	0	0
RNF121	1	1	1	0
RNF125	1	0	0	0

RNF130	1	0	0	0
RNF135	0	1	0	0
RNF144B	1	0	0	0
RNF146	0	1	0	0
RNF151	0	1	1	0
RNF152	1	0	1	0
RNF157	1	1	1	0
RNF166	1	1	1	1
RNF168	1	0	0	0
RNF170	0	1	0	0
RNF187	1	0	0	1
RNF19A	0	0	0	1
RNF207	1	0	0	0
RNF213	1	1	0	0
RNF215	1	0	0	0
RNF216	1	1	1	0
RNF217	1	0	1	0
RNF220	0	1	0	0
RNF222	1	0	1	0
RNF223	0	1	0	0
RNF224	0	1	0	0
RNF227	1	0	0	0
RNF24	1	0	0	0
RNF32	0	1	0	0
RNF34	1	1	0	0
RNF4	1	0	0	0
RNF40	0	1	0	0
RNF41	0	1	0	1
RNF43	0	0	0	1

RNF44	1	1	1	0
RNF7	1	0	0	0
RNFT2	1	1	0	1
RNH1	1	1	1	1
RNLS	0	1	0	0
RNMT	0	0	1	0
RNPC3	1	0	0	0
RNPEP	1	0	0	0
RNPEPL1	0	1	1	0
RNPS1	1	0	0	1
RO60	0	0	1	0
ROBO2	0	0	0	1
ROBO4	0	1	0	0
ROCK1	1	0	0	0
ROCK2	1	0	0	1
ROGDI	0	1	0	1
ROPN1	1	1	0	1
ROPN1B	1	1	0	1
RORB	1	0	1	0
ROS1	1	1	0	0
RP1	0	0	0	1
RP2	1	0	1	0
RP9	0	1	0	0
RPA1	1	0	0	0
RPA2	0	1	1	0
RPAP1	1	1	0	0
RPAP2	1	0	0	1
RPF2	1	0	0	0
RPGR	0	1	0	0

RPGRIP1	0	1	0	0
RPGRIP1L	1	0	0	0
RPH3A	0	1	0	0
RPH3AL	1	0	0	0
RPL13	0	1	0	0
RPL13A	0	1	0	0
RPL14	1	1	1	0
RPL15	1	0	0	0
RPL18	1	1	1	1
RPL18A	0	1	0	0
RPL22	0	1	0	0
RPL23	1	0	0	0
RPL24	1	1	0	0
RPL27	0	1	0	0
RPL27A	0	1	0	0
RPL28	1	1	1	0
RPL29	0	1	1	0
RPL32	0	1	1	0
RPL35	0	1	0	0
RPL36	0	0	1	0
RPL37	1	1	0	0
RPL37A	1	0	1	0
RPL3L	0	1	0	0
RPL5	0	1	0	0
RPL7L1	1	1	1	1
RPL8	1	1	1	0
RPL9	0	1	0	0
RPP25	1	1	0	0
RPP30	1	1	1	0

RPP38	1	1	0	0
RPRM	1	1	0	0
RPRML	0	1	1	0
RPS14	0	1	0	0
RPS15A	1	1	1	0
RPS19	1	1	1	0
RPS19BP1	0	1	0	0
RPS2	0	1	0	0
RPS20	1	1	1	0
RPS21	1	1	1	0
RPS24	0	1	0	1
RPS25	0	1	0	0
RPS26	1	1	0	0
RPS27L	1	1	0	0
RPS28	0	1	0	0
RPS29	1	0	1	1
RPS3	1	1	1	0
RPS6KA1	1	1	1	0
RPS6KA2	0	1	1	0
RPS6KA4	1	1	1	0
RPS6KA5	1	0	1	1
RPS6KA6	1	0	0	0
RPS6KB2	1	1	1	1
RPS6KL1	1	0	0	0
RPS9	0	1	1	0
RPSA	1	1	0	0
RPTOR	1	1	1	0
RPUSD1	1	1	0	0
RPUSD3	0	1	0	0

RPUSD4	1	1	0	0
RRBP1	0	1	0	0
RREB1	1	0	0	0
RRM2	1	1	0	0
RRP1	1	1	0	0
RRP7A	1	0	1	1
RS1	0	0	1	0
RSAD1	1	1	0	0
RSAD2	0	0	1	0
RSKR	0	1	0	0
RSPH1	1	1	0	1
RSPH10B	0	1	0	0
RSPH10B2	0	1	0	0
RSPO2	0	1	0	0
RSPO4	0	1	0	0
RSRP1	0	1	0	0
RSU1	1	0	0	1
RTBDN	1	0	0	0
RTCA	1	0	0	0
RTCB	1	1	0	0
RTSL1	1	1	0	1
RTSL1-TNFRSF6B	1	0	0	0
RTF1	1	0	0	1
RTKN	0	1	0	0
RTL1	0	1	0	0
RTL10	0	0	1	0
RTL5	1	0	0	0
RTL6	0	0	1	1
RTL8A	0	1	0	0

RTL8B	0	1	0	0
RTL8C	1	1	0	0
RTN2	0	1	0	0
RTN4R	1	1	1	1
RTN4RL1	1	1	1	0
RTN4RL2	0	1	0	0
RTP1	0	1	0	0
RTP5	0	1	1	0
RTTN	0	1	0	0
RUBCN	1	1	0	1
RUBCNL	1	0	0	0
RUFY1	0	1	0	0
RUFY3	0	1	0	0
RUFY4	0	1	0	0
RUNDC1	1	0	0	0
RUNDC3A	1	1	0	0
RUNX1	1	1	1	0
RUNX2	0	1	1	0
RUNX3	0	1	0	0
RUSC1	1	1	1	0
RUSC2	0	1	0	0
RUSF1	0	1	0	0
RUVBL2	1	1	0	1
RWDD2A	0	0	1	0
RWDD2B	0	0	1	0
RXFP1	0	0	1	1
RXFP3	0	1	0	0
RXRA	1	0	1	1
RXYLT1	1	1	0	0

RYBP	1	0	0	0
RYR1	1	1	1	1
RYR3	0	0	0	1
S100A13	0	1	0	0
S100A14	0	1	0	0
S100A2	1	1	0	0
S100A3	0	1	1	0
S100B	1	1	0	0
S1PR2	1	0	1	0
S1PR5	0	1	1	0
SAA1	0	1	0	0
SAA2	0	1	0	0
SACM1L	1	1	0	0
SACS	0	1	0	0
SAE1	0	1	0	0
SAFB	1	0	1	1
SALL3	0	1	0	0
SALL4	1	1	0	0
SAMD1	1	1	0	0
SAMD10	0	1	1	0
SAMD11	0	1	0	0
SAMD14	1	1	1	0
SAMD15	1	1	0	1
SAMD5	1	0	0	0
SAMD8	1	0	0	1
SAMHD1	1	1	0	1
SAP30BP	0	1	0	0
SAPCD2	1	0	1	1
SAR1B	1	0	1	0

SARDH	0	1	0	0
SARM1	1	1	0	1
SART3	0	1	1	0
SASH1	1	0	0	0
SAV1	0	0	0	1
SBF1	1	1	1	1
SBF2	1	1	1	1
SBK1	1	0	1	0
SBK2	1	1	0	0
SBNO1	0	0	0	1
SBNO2	0	1	1	0
SC5D	1	0	0	0
SCAF11	1	0	0	0
SCAF4	0	1	0	0
SCAMP2	0	1	1	0
SCAMP4	0	1	0	0
SCAMP5	1	1	0	0
SCAND1	0	1	0	0
SCAP	1	0	1	1
SCARA3	0	1	0	0
SCARA5	0	1	0	0
SCARB1	1	1	1	1
SCARF1	1	1	1	1
SCARF2	0	1	0	0
SCD5	1	0	0	0
SCFD1	1	0	1	0
SCFD2	0	1	0	0
SCGB2B2	0	0	1	1
SCIMP	1	1	0	0

SCLT1	0	1	1	0
SCLY	0	1	1	0
SCMH1	1	0	0	0
SCN11A	0	1	0	0
SCN1B	1	1	1	0
SCN2B	1	1	0	0
SCN3A	0	1	0	0
SCN3B	1	0	1	0
SCN4A	0	0	0	1
SCN4B	1	1	0	0
SCN5A	1	0	1	0
SCN7A	0	1	0	0
SCN8A	0	1	0	1
SCNM1	1	1	1	0
SCNN1A	0	1	0	0
SCNN1B	0	1	0	0
SCNN1D	1	1	1	0
SCNN1G	1	0	0	0
SCO1	1	0	0	1
SCP2	1	1	0	1
SCPEP1	0	1	0	0
SCRG1	1	0	1	0
SCRN1	0	0	0	1
SCRN2	1	1	1	0
SCRT1	1	0	0	0
SCRT2	1	0	1	0
SCUBE1	1	1	1	0
SCUBE2	0	1	1	0
SCYL1	0	1	0	0

SDC1	0	1	1	0
SDC2	1	0	1	0
SDC3	1	0	0	0
SDC4	0	1	1	0
SDCBP2	0	1	0	0
SDCCAG8	1	1	0	0
SDE2	1	0	0	0
SDF4	0	1	0	0
SDHAF1	0	1	0	0
SDHAF2	0	1	0	0
SDHAF4	1	1	1	0
SDHC	1	1	1	0
SDHD	1	1	0	1
SDK2	0	1	0	0
SDR42E2	0	1	0	0
SDS	0	1	1	0
SEC14L2	0	1	1	0
SEC14L3	0	1	0	0
SEC14L4	1	0	0	1
SEC16A	0	1	0	0
SEC16B	1	0	0	1
SEC22A	1	0	0	0
SEC22B	1	0	1	0
SEC24C	1	1	1	0
SEC31B	0	1	0	0
SEC61A1	1	1	1	0
SEC61A2	0	1	0	0
SEC62	1	0	0	0
SEC63	1	0	0	0

SECTM1	1	1	0	0
SELENBP1	0	1	0	0
SELENOH	1	0	0	0
SELENOK	0	1	0	0
SELENOM	0	0	1	0
SELENON	1	0	0	0
SELENOO	0	1	0	0
SELENOW	0	1	0	0
SELPLG	0	1	1	0
SEM1	1	0	0	0
SEMA3B	0	1	0	0
SEMA3E	1	0	0	1
SEMA4A	0	1	1	0
SEMA4B	1	1	0	0
SEMA4D	1	1	0	0
SEMA4F	1	1	1	1
SEMA4G	1	1	1	1
SEMA5B	0	1	0	0
SEMA6B	1	1	1	0
SEMA6C	0	1	1	0
SEMA7A	1	1	1	1
SENP3-EIF4A1	1	1	1	0
SENP8	1	0	0	1
SEPTIN1	0	1	1	0
SEPTIN12	0	1	0	0
SEPTIN14	1	0	0	1
SEPTIN4	0	1	0	0
SEPTIN5	0	1	1	0
SEPTIN6	0	1	0	0

SEPTIN7	1	0	0	0
SEPTIN8	1	1	0	1
SEPTIN9	1	1	0	0
SERAC1	1	0	1	0
SERBP1	1	0	0	0
SERF1A	1	1	1	0
SERF1B	1	1	1	0
SERF2	0	1	1	0
SERGEF	0	1	0	0
SERHL2	1	1	1	0
SERINC2	1	1	0	1
SERINC4	0	1	0	0
SERINC5	0	0	0	1
SERPINA1	0	1	1	0
SERPINA10	1	0	0	0
SERPINA4	0	1	0	0
SERPINA6	0	1	0	1
SERPINB1	1	1	1	0
SERPINB12	1	0	0	1
SERPINB5	0	1	0	0
SERPINB6	1	1	0	0
SERPINB8	0	0	1	0
SERPINB9	1	0	0	0
SERPINF2	1	1	1	1
SERPING1	1	0	0	0
SERPINH1	1	1	1	0
SERTAD1	1	1	0	0
SERTAD3	0	1	0	0
SESN2	0	1	0	1

SET	0	1	1	0
SETBP1	0	1	0	1
SETD1A	0	1	0	0
SETD3	0	1	0	0
SETD4	1	1	0	0
SETD5	0	0	0	1
SETD6	1	0	0	0
SETD7	1	0	0	1
SEZ6	0	1	0	0
SF1	1	0	0	0
SF3A3	0	1	0	0
SF3B5	0	1	0	0
SFI1	1	1	1	1
SFMBT2	0	1	1	0
SFN	0	1	0	0
SFR1	0	1	0	0
SFRP5	0	1	0	0
SFSWAP	1	0	1	1
SFTA2	1	0	0	0
SFTPA2	1	1	0	0
SFTPB	1	0	0	0
SFTPC	0	1	0	0
SFXN2	1	1	1	0
SFXN3	0	1	1	0
SFXN5	1	1	1	1
SGCD	0	0	1	0
SGCE	0	1	0	0
SGIP1	0	1	0	0
SGO1	1	1	0	0

SGPL1	1	1	1	0
SGPP2	1	0	0	0
SGSH	1	1	0	1
SGSM1	0	1	0	0
SGSM2	1	1	0	0
SGTA	1	1	1	0
SGTB	1	0	1	0
SH2B1	0	1	1	0
SH2D3C	0	1	0	0
SH2D4A	0	1	1	0
SH2D5	1	0	0	0
SH2D6	0	1	0	1
SH2D7	0	1	0	0
SH3BP1	0	1	0	0
SH3BP2	1	1	1	0
SH3BP5	0	1	0	0
SH3BP5L	0	1	0	0
SH3D21	1	1	1	1
SH3GL1	0	1	0	0
SH3GLB1	1	0	1	1
SH3GLB2	1	1	0	0
SH3KBP1	1	0	0	1
SH3PXD2A	1	0	0	0
SH3RF1	1	1	1	0
SH3RF2	1	0	0	0
SH3RF3	1	0	0	1
SH3TC1	1	1	1	1
SH3TC2	1	0	1	0
SH3YL1	0	0	1	0

SHANK2	1	0	0	0
SHANK3	1	1	1	1
SHARPIN	1	1	1	0
SHB	1	0	1	0
SHBG	1	0	0	0
SHC1	1	1	0	0
SHC2	1	1	0	0
SHC3	1	0	0	1
SHC4	0	0	0	1
SHCBP1	1	0	0	0
SHF	0	1	0	0
SHFL	0	1	0	0
SHH	1	0	0	0
SHISA5	1	1	0	0
SHISA6	0	0	1	0
SHISA9	1	0	1	0
SHISAL1	1	0	1	1
SHKBP1	1	1	0	1
SHMT1	1	1	0	0
SHMT2	1	1	0	0
SHOC2	1	0	1	0
SHOX	1	1	0	0
SHPK	1	0	1	1
SHROOM1	0	0	0	1
SHROOM2	0	0	1	0
SHROOM4	1	0	1	0
SIAH3	1	0	1	1
SIDT2	0	1	0	0
SIGLEC1	1	1	1	0

SIGLEC10	0	0	1	0
SIGLEC11	1	0	0	1
SIGLEC12	0	1	0	0
SIGLEC15	1	1	0	1
SIGLEC16	1	0	1	1
SIGLEC7	0	1	1	0
SIGLEC8	0	1	0	0
SIGLEC9	1	1	0	0
SIGMAR1	1	0	0	0
SIK1	1	0	1	0
SIK2	1	0	1	1
SIK3	0	0	1	0
SIL1	0	1	1	0
SIM2	0	1	1	0
SIN3B	1	1	1	1
SINHCAF	1	1	0	0
SIPA1L2	1	0	0	1
SIRPB1	1	1	1	0
SIRPG	0	1	0	0
SIRT2	1	1	0	1
SIRT3	1	1	0	0
SIRT5	1	1	1	1
SIRT6	0	1	1	0
SIRT7	0	1	1	0
SIVA1	0	1	0	0
SIX2	0	1	0	1
SIX4	1	0	0	0
SIX5	1	1	0	1
SKA1	1	1	0	0

SKAP1	0	1	0	0
SKI	1	0	0	0
SKIC2	1	1	0	0
SKIC3	1	0	0	0
SKIDA1	1	1	0	0
SKIL	1	0	0	0
SKP2	1	1	0	0
SLA	0	1	0	0
SLA2	0	1	0	0
SLAIN1	0	1	0	0
SLAMF8	1	1	0	0
SLBP	0	1	0	0
SLC10A3	0	1	0	0
SLC10A7	0	1	1	0
SLC11A1	1	1	1	0
SLC11A2	1	1	0	0
SLC12A3	1	0	1	0
SLC12A4	0	1	0	0
SLC12A5	1	1	0	0
SLC12A7	0	1	0	0
SLC12A8	1	1	1	0
SLC12A9	0	1	0	1
SLC13A2	1	1	0	1
SLC13A5	1	1	0	0
SLC14A1	0	1	0	0
SLC15A2	1	1	1	0
SLC15A4	0	1	0	0
SLC16A10	1	0	1	1
SLC16A13	0	1	0	0

SLC16A2	1	1	0	0
SLC16A3	0	1	1	0
SLC16A4	0	1	0	0
SLC16A5	1	1	1	0
SLC16A7	1	1	0	0
SLC17A2	0	1	0	0
SLC17A4	0	1	0	0
SLC17A5	1	1	1	0
SLC18A1	0	1	0	0
SLC18A3	0	1	0	0
SLC18B1	0	0	0	1
SLC19A1	1	1	1	1
SLC19A3	1	0	0	1
SLC1A2	1	1	0	0
SLC1A4	1	1	0	0
SLC1A5	0	1	0	0
SLC1A6	0	1	1	0
SLC1A7	1	1	1	1
SLC20A1	1	0	0	0
SLC20A2	0	1	0	0
SLC22A1	1	1	1	0
SLC22A11	1	1	0	0
SLC22A13	0	1	0	0
SLC22A17	1	1	1	0
SLC22A23	0	1	1	0
SLC22A25	1	0	0	0
SLC22A6	0	1	0	0
SLC22A7	0	1	0	0
SLC22A8	1	1	0	0

SLC23A2	1	0	1	0
SLC23A3	0	1	0	0
SLC24A2	1	0	0	0
SLC24A4	1	1	0	0
SLC24A5	0	0	1	0
SLC25A10	1	1	1	0
SLC25A12	0	1	0	0
SLC25A15	1	1	1	0
SLC25A16	1	0	0	1
SLC25A17	0	1	0	0
SLC25A20	1	0	1	0
SLC25A22	0	1	1	0
SLC25A25	1	1	1	0
SLC25A26	1	1	1	1
SLC25A29	1	1	1	1
SLC25A3	0	1	0	0
SLC25A32	1	1	1	0
SLC25A33	1	0	0	0
SLC25A34	1	1	1	0
SLC25A35	1	1	0	1
SLC25A37	1	1	1	1
SLC25A39	1	1	0	0
SLC25A41	0	1	0	0
SLC25A42	1	0	0	0
SLC25A45	0	1	0	0
SLC25A47	0	1	0	0
SLC25A48	0	1	1	0
SLC26A1	1	1	0	0
SLC26A11	0	1	1	0

SLC26A5	0	1	0	0
SLC26A6	0	1	0	0
SLC26A9	1	0	0	0
SLC27A1	1	1	0	0
SLC27A4	0	1	1	1
SLC27A5	1	1	1	0
SLC28A2	0	0	0	1
SLC29A1	1	1	0	0
SLC29A2	1	1	0	1
SLC29A3	1	1	1	1
SLC29A4	1	1	0	1
SLC2A1	1	1	0	1
SLC2A10	1	0	0	0
SLC2A11	0	1	0	0
SLC2A4	1	1	1	0
SLC2A4RG	0	1	0	0
SLC2A5	1	1	1	0
SLC2A6	1	1	0	0
SLC2A8	0	1	0	0
SLC30A10	1	0	0	0
SLC30A2	1	1	0	0
SLC30A3	1	1	1	0
SLC30A4	0	0	1	0
SLC30A5	1	1	0	0
SLC30A6	1	1	1	0
SLC30A7	1	0	0	0
SLC31A1	0	0	0	1
SLC31A2	1	0	1	0
SLC32A1	0	1	0	0

SLC33A1	1	1	1	1
SLC34A2	0	1	0	0
SLC35A2	0	1	1	0
SLC35A3	1	1	1	0
SLC35B2	1	1	1	0
SLC35B4	1	1	1	1
SLC35C2	1	1	0	0
SLC35D2	0	1	0	0
SLC35E1	1	1	1	1
SLC35E2B	1	1	0	1
SLC35E3	1	1	0	1
SLC35E4	1	1	0	1
SLC35F1	1	0	0	0
SLC35F2	0	1	0	0
SLC35F4	0	1	0	0
SLC35F5	1	0	0	1
SLC35F6	1	0	0	0
SLC36A1	1	0	0	1
SLC36A2	1	1	0	0
SLC37A2	1	0	0	0
SLC38A10	1	1	0	1
SLC38A2	0	0	1	0
SLC38A3	0	1	1	0
SLC38A5	0	1	0	0
SLC38A6	0	1	0	0
SLC38A7	0	1	0	0
SLC38A9	1	0	0	0
SLC39A1	0	1	1	0
SLC39A13	0	1	1	0

SLC39A14	0	1	1	0
SLC39A2	1	1	1	0
SLC39A3	1	1	1	1
SLC39A7	0	1	0	0
SLC39A8	1	1	1	1
SLC3A1	0	1	0	0
SLC3A2	0	1	0	0
SLC41A2	1	0	0	0
SLC43A1	0	1	0	0
SLC43A2	1	1	1	0
SLC44A1	1	0	1	0
SLC44A2	1	1	1	0
SLC44A3	0	1	0	0
SLC45A2	0	1	0	0
SLC45A3	1	1	1	0
SLC45A4	1	1	0	0
SLC46A1	1	0	0	0
SLC47A2	0	1	0	0
SLC48A1	0	1	1	0
SLC4A1	0	0	1	0
SLC4A11	0	1	0	0
SLC4A2	0	1	1	0
SLC4A3	1	1	1	0
SLC4A5	0	0	0	1
SLC4A7	0	1	0	0
SLC4A8	1	0	1	0
SLC50A1	0	1	1	0
SLC52A1	0	1	0	0
SLC52A2	0	1	1	0

SLC52A3	1	1	0	1
SLC5A10	0	0	1	0
SLC5A11	0	0	1	0
SLC5A5	1	1	0	0
SLC5A6	0	1	1	0
SLC5A8	0	1	0	0
SLC5A9	1	1	1	1
SLC66A1	1	1	1	0
SLC66A2	1	1	1	0
SLC6A1	1	1	0	0
SLC6A12	0	1	0	1
SLC6A13	0	1	1	0
SLC6A14	1	0	0	0
SLC6A15	0	0	0	1
SLC6A17	1	0	1	0
SLC6A18	0	1	0	0
SLC6A19	1	0	0	0
SLC6A2	1	1	1	0
SLC6A4	1	0	0	0
SLC6A6	1	1	1	0
SLC6A7	0	1	1	0
SLC6A9	0	1	1	0
SLC7A10	1	1	0	1
SLC7A11	1	1	0	1
SLC7A14	1	0	0	0
SLC7A4	0	1	0	0
SLC7A5	1	0	1	1
SLC7A6	1	0	0	0
SLC7A8	0	1	0	0

SLC7A9	0	1	0	1
SLC8A1	1	1	0	0
SLC8A2	0	1	0	0
SLC8A3	0	1	0	0
SLC8B1	1	1	0	1
SLC9A1	1	1	0	0
SLC9A2	1	0	0	0
SLC9A3	1	0	1	1
SLC9A7	1	1	1	0
SLC9A8	1	0	1	0
SLC9C1	0	1	0	0
SLCO2A1	1	1	0	0
SLCO2B1	0	1	0	0
SLCO3A1	0	1	0	0
SLCO5A1	0	1	0	0
SLF2	1	1	0	0
SLFN12L	1	0	1	0
SLIT1	1	0	0	0
SLK	1	0	0	0
SLMAP	0	0	0	1
SLN	0	1	0	0
SLTM	1	0	0	0
SLU7	0	1	0	0
SLX4	0	1	0	0
SMAD3	0	0	1	0
SMAD4	0	1	0	0
SMAD6	0	1	0	0
SMAD7	1	0	0	0
SMAGP	1	0	0	0

SMAP2	0	1	0	0
SMARCA2	0	0	1	0
SMARCA4	1	1	0	1
SMARCAL1	0	1	0	1
SMARCB1	1	1	0	0
SMARCC2	0	0	1	0
SMARCD1	0	1	0	0
SMARCD2	0	1	0	0
SMARCD3	0	1	0	1
SMARCE1	1	0	1	0
SMC1A	0	0	1	1
SMC6	0	1	0	0
SMCHD1	0	1	1	0
SMCO4	0	1	0	0
SMCR8	1	0	0	0
SMG1	0	0	0	1
SMG5	0	1	0	0
SMG6	0	1	1	0
SMG7	0	1	1	0
SMIM10L1	1	0	0	0
SMIM10L2A	1	0	0	1
SMIM12	1	0	1	0
SMIM19	1	0	1	0
SMIM21	0	1	0	0
SMIM22	0	1	0	0
SMIM23	0	1	0	0
SMIM24	0	1	1	0
SMIM27	1	1	1	0
SMIM29	0	1	1	0

SMIM32	0	1	0	0
SMIM36	1	0	0	0
SMIM38	1	1	1	0
SMIM45	0	1	0	0
SMIM5	0	1	0	0
SMIM7	1	1	0	0
SMIM8	1	1	1	0
SMN2	1	1	0	0
SMO	1	1	0	0
SMOC1	0	0	1	0
SMOC2	1	1	0	1
SMOX	0	1	1	0
SMPD1	0	1	0	0
SMPD3	0	1	0	0
SMPD4	1	1	0	0
SMPDL3B	0	1	1	0
SMU1	1	0	0	1
SMUG1	0	1	1	0
SMURF1	1	0	0	0
SMURF2	0	0	0	1
SMYD1	1	0	1	0
SMYD4	0	1	0	0
SMYD5	0	1	1	0
SNAI3	0	1	0	0
SNAP23	1	1	1	0
SNAP25	0	1	0	0
SNAP47	1	1	1	0
SNAPC2	0	1	0	0
SNAPC3	1	1	0	0

SNAPC4	1	1	0	1
SNAPC5	0	1	0	0
SNCAIP	1	1	0	1
SNCB	1	1	1	0
SND1	0	0	1	0
SNED1	1	1	0	1
SNF8	0	1	0	0
SNIP1	1	0	0	0
SNN	1	0	0	1
SNORC	1	0	0	0
SNPH	1	1	1	1
SNRNP70	1	0	0	1
SNRPA	1	1	0	0
SNRPB	1	1	0	0
SNRPB2	0	1	0	0
SNRPD3	1	0	0	1
SNTA1	0	1	0	0
SNTB1	1	0	0	0
SNTB2	1	1	0	0
SNTG1	0	1	1	0
SNTN	1	1	1	0
SNU13	0	1	0	0
SNUPN	0	1	0	0
SNURF	0	1	0	0
SNX1	1	1	0	0
SNX11	0	1	1	0
SNX12	0	1	0	0
SNX14	1	0	0	0
SNX17	0	0	1	0

SNX19	1	0	0	0
SNX20	1	1	1	0
SNX21	1	1	1	1
SNX22	1	0	1	1
SNX24	0	1	0	0
SNX27	1	0	1	0
SNX29	1	0	0	0
SNX33	1	0	0	0
SNX8	1	0	1	0
SNX9	1	1	0	0
SOAT1	1	0	0	1
SOAT2	0	1	0	0
SOCS2	1	1	0	0
SOCS3	0	1	1	0
SOD2	1	0	0	0
SOGA1	1	0	1	1
SOHLH1	0	1	0	0
SORBS3	1	1	0	0
SORCS2	1	0	0	0
SORD	1	1	0	1
SORT1	1	0	0	0
SOST	0	1	0	0
SOWAHA	0	1	0	0
SOWAHB	1	0	0	0
SOWAHD	1	0	0	0
SOX10	0	0	1	0
SOX11	1	0	1	0
SOX12	1	0	0	0
SOX13	0	1	0	0

SOX14	0	0	0	1
SOX8	1	1	0	0
SP100	1	0	0	0
SP110	1	0	0	0
SP140L	1	1	0	1
SP2	0	1	0	0
SP4	1	0	0	0
SP6	1	0	0	0
SP9	0	1	0	0
SPAAR	1	0	0	0
SPACA4	0	1	0	0
SPACA9	1	1	0	0
SPADH	1	0	0	0
SPAG11A	1	0	0	0
SPAG11B	1	1	0	0
SPAG16	0	1	1	1
SPAG5	0	1	1	0
SPAG7	0	1	0	0
SPAG8	1	1	0	0
SPARC	1	0	1	0
SPAST	1	0	0	0
SPATA13	0	1	0	0
SPATA19	0	1	0	0
SPATA20	1	1	1	0
SPATA32	1	1	0	1
SPATA33	1	1	0	0
SPATA7	0	1	0	0
SPATA9	0	1	0	0
SPATC1	1	1	1	0

SPATS2	0	1	1	1
SPATS2L	1	0	0	0
SPC24	1	1	1	1
SPCS1	0	0	0	1
SPCS3	1	0	0	0
SPDEF	1	1	0	0
SPDYE16	0	1	0	0
SPECC1	1	1	1	0
SPECC1L	1	1	0	0
SPECC1L-ADORA2A	1	0	1	0
SPEF2	1	1	0	0
SPEG	0	1	0	0
SPEM2	0	1	0	0
SPG11	0	1	0	0
SPG7	1	1	1	1
SPHK1	0	1	0	0
SPHK2	1	1	1	0
SPI1	1	1	1	0
SPIB	1	1	0	0
SPIDR	0	1	0	0
SPIN1	1	0	1	0
SPIN2A	0	1	0	0
SPIN3	1	1	1	0
SPINDOC	0	1	0	0
SPINK1	0	0	0	1
SPINT1	1	1	0	0
SPIRE1	1	1	0	1
SPIRE2	1	1	1	1
SPMIP1	1	0	1	0

SPMIP8	0	1	0	0
SPN	1	0	0	1
SPNS1	0	1	1	0
SPNS2	1	1	0	0
SPNS3	1	1	0	0
SPOCK2	1	1	1	1
SPON2	0	1	1	0
SPPL2B	1	1	1	0
SPPL3	1	0	0	0
SPRING1	1	1	1	1
SPRR1A	0	1	1	0
SPRR4	0	1	0	0
SPRY3	1	0	0	0
SPRY4	0	0	1	0
SPRYD3	0	1	0	0
SPRYD4	1	0	0	0
SPSB1	0	1	0	0
SPSB2	0	1	0	0
SPSB3	0	1	1	0
SPSB4	0	1	0	0
SPTAN1	0	1	0	0
SPTB	1	0	1	0
SPTBN2	1	1	0	1
SPTBN4	1	1	1	1
SPTBN5	0	1	0	0
SPTLC1	1	1	0	1
SPTLC2	1	0	0	1
SPTSSA	1	0	0	0
SPTY2D1	0	0	0	1

SQSTM1	1	1	1	0
SRBD1	0	1	0	0
SRCAP	0	1	0	0
SRCIN1	1	1	0	0
SRD5A1	1	1	1	1
SRD5A2	0	0	1	1
SRD5A3	0	1	0	0
SREBF1	1	1	1	1
SREBF2	1	1	0	0
SRF	1	0	1	1
SRFBP1	0	1	0	1
SRGAP1	1	0	0	1
SRGAP2	0	1	0	0
SRGAP2B	1	0	0	0
SRGAP3	1	0	0	0
SRL	1	0	1	0
SRM	0	1	0	0
SRMS	1	0	1	1
SRP19	1	0	1	1
SRPRB	0	1	1	0
SRPX2	1	0	0	0
SRRM3	0	1	0	0
SRRM4	1	0	1	1
SRRT	0	1	0	0
SRSF10	0	0	1	0
SRSF4	1	0	0	0
SRSF5	1	1	0	0
SRSF8	1	0	0	1
SRXN1	1	0	0	0

SS18	1	0	1	0
SS18L1	0	1	1	0
SSB	1	1	0	0
SSBP2	1	0	0	0
SSBP3	0	1	1	0
SSC5D	0	1	0	0
SSH3	0	1	0	0
SSNA1	0	1	0	0
SSPN	1	0	0	1
SSR1	1	1	0	1
SSR2	0	1	1	0
SSR3	1	0	1	0
SSRP1	0	1	0	0
SSTR2	1	0	0	0
SSTR3	1	0	0	0
SSTR5	1	1	0	0
SSU72	1	0	1	1
SSUH2	0	1	0	0
ST13	0	1	0	0
ST14	0	1	1	0
ST18	1	0	1	0
ST3GAL1	1	0	1	0
ST3GAL2	1	0	1	1
ST3GAL3	1	1	0	0
ST3GAL4	0	1	0	0
ST3GAL5	1	1	0	0
ST3GAL6	1	0	0	0
ST6GAL1	1	0	1	0
ST6GAL2	1	0	1	0

ST6GALNAC2	0	1	0	0
ST6GALNAC6	0	1	1	0
ST8SIA1	1	0	1	0
ST8SIA2	0	0	1	0
ST8SIA5	1	0	1	1
ST8SIA6	0	1	0	0
STAB2	0	1	0	0
STAC	0	1	0	0
STAC2	0	1	0	0
STAG1	1	0	0	0
STAG2	1	0	0	1
STAG3	1	0	0	1
STAMBP	1	1	0	0
STAP2	1	1	1	1
STARD3	0	1	1	0
STARD8	1	1	0	0
STARD9	0	0	0	1
STAT1	1	1	0	1
STAT2	0	1	0	0
STAT3	0	1	0	1
STAT5B	1	0	1	1
STAT6	1	1	1	0
STAU2	1	0	0	0
STC2	0	0	1	0
STEAP2	1	0	0	0
STEAP3	0	1	1	0
STEAP4	1	0	0	0
STEEP1	1	1	1	0
STING1	0	1	0	1

STIP1	0	1	0	0
STK11	1	1	1	0
STK16	0	1	1	0
STK17B	1	0	0	0
STK19	1	1	1	0
STK24	1	0	1	0
STK25	0	1	0	0
STK32A	1	0	0	0
STK32B	0	1	0	0
STK32C	1	1	0	0
STK35	0	0	1	1
STK36	0	1	0	0
STK38	0	1	0	0
STK4	1	1	0	0
STK40	1	0	1	1
STMN3	1	1	0	0
STMN4	0	1	0	0
STMP1	1	1	0	0
STN1	1	1	0	0
STOML1	1	1	1	0
STOML2	0	1	0	0
STON2	1	0	1	0
STPG1	1	1	0	0
STPG3	1	1	0	0
STPG4	0	1	0	0
STRA6	1	1	1	1
STRADA	0	1	0	0
STRBP	1	0	0	0
STRIP1	1	0	1	0

STRN3	1	1	0	0
STRN4	1	1	1	1
STUB1	0	1	0	0
STUM	0	0	1	1
STX10	0	0	0	1
STX11	1	0	0	1
STX16	0	0	0	1
STX16-NPEPL1	1	1	1	0
STX1A	1	1	0	1
STX2	1	0	0	0
STX3	1	1	0	0
STX4	1	1	0	0
STX5	1	1	0	0
STX7	1	0	0	0
STXBP1	1	0	1	0
STXBP2	1	1	0	0
STXBP4	1	0	0	0
SUFU	1	1	1	0
SUGP1	0	1	0	0
SUGP2	1	0	1	1
SUGT1	1	0	0	0
SULF1	0	1	0	0
SULF2	1	0	1	0
SULT1A1	0	1	0	0
SULT1A2	0	1	0	0
SULT1A3	0	1	0	0
SULT1A4	0	1	0	0
SULT1C4	0	1	0	0
SULT2A1	0	0	0	1

SULT4A1	0	1	0	0
SUMF1	0	1	0	1
SUMF2	1	1	0	1
SUMO2	1	0	0	0
SUMO3	0	1	0	0
SUN1	0	1	0	0
SUN2	1	1	1	0
SUN3	0	1	0	0
SUOX	1	1	0	0
SUPT20H	0	0	1	0
SUPT3H	0	1	0	0
SUPT5H	0	1	0	0
SUPT6H	0	1	0	0
SUPT7L	1	0	1	0
SURF4	0	1	1	0
SURF6	0	0	1	0
SUSD1	0	1	1	0
SUSD3	0	1	0	0
SUSD6	1	0	0	0
SUV39H1	0	1	1	0
SUV39H2	1	1	0	1
SV2A	1	1	1	0
SV2B	0	1	0	0
SV2C	1	0	1	0
SVIL	0	1	0	0
SVOP	1	1	0	0
SWAP70	1	1	0	0
SWI5	0	1	0	0
SYAP1	1	0	0	1

SYCE1L	0	1	1	0
SYCE2	0	1	0	0
SYDE1	0	1	0	0
SYK	1	0	0	1
SYMPK	1	1	0	1
SYN1	1	0	0	0
SYN2	0	1	1	0
SYN3	1	0	0	1
SYNDIG1	0	1	0	0
SYNDIG1L	0	1	0	0
SYNE1	1	1	0	1
SYNE2	1	1	1	0
SYNE3	1	1	1	0
SYNGAP1	1	1	1	1
SYNGR1	0	1	0	0
SYNGR2	0	1	0	0
SYNGR3	0	1	0	0
SYNJ2	0	0	1	0
SYNPO	1	1	1	0
SYNPO2	1	0	1	0
SYNPO2L	0	1	0	0
SYNRG	1	0	0	1
SYP	1	1	0	1
SYS1	1	0	0	0
SYS1-DBNDD2	0	1	0	0
SYT10	1	1	0	0
SYT11	1	0	0	0
SYT12	1	1	1	1
SYT13	1	1	0	0

SYT15	1	0	0	0
SYT15B	1	0	0	0
SYT16	1	0	1	1
SYT17	0	1	0	0
SYT2	0	0	1	0
SYT3	0	1	0	0
SYT5	1	0	0	0
SYT6	0	1	0	0
SYT7	1	1	1	1
SYT8	0	1	0	0
SYT9	0	1	0	0
SYTL4	1	0	0	0
SYVN1	0	1	0	0
SZRD1	1	0	1	0
SZT2	1	1	1	0
TAB3	1	0	0	0
TAC4	0	1	0	0
TACC1	1	0	0	0
TACC3	1	1	1	1
TADA2A	1	1	0	0
TADA2B	0	1	0	0
TADA3	0	1	0	0
TAF1	0	1	0	0
TAF10	0	0	0	1
TAF12	1	1	0	0
TAF13	1	0	0	1
TAF15	0	0	0	1
TAF1C	1	1	1	0
TAF2	1	0	0	0

TAF4	1	1	0	1
TAF5L	0	1	0	0
TAF6	1	1	0	0
TAF7L	1	1	0	0
TAF8	1	1	1	1
TAF4A5	1	1	0	0
TAF4ZZIN	0	1	0	0
TAGAP	1	0	1	1
TAGLN	1	1	1	0
TAGLN2	0	1	0	0
TAGLN3	0	1	0	0
TAL1	1	0	1	0
TANC2	1	1	1	0
TANGO2	1	1	0	0
TAOK2	0	1	1	0
TAP1	1	0	0	0
TAPBP	1	1	0	1
TAPT1	0	1	0	0
TARBP2	0	1	1	0
TARDBP	1	1	0	0
TARS2	1	1	0	1
TAS1R1	0	1	0	0
TAS2R20	1	1	0	0
TASP1	0	1	0	0
TATDN2	1	0	0	0
TAX1BP3	0	1	0	0
TBC1D10A	1	1	1	0
TBC1D10B	1	0	0	0
TBC1D10C	0	1	1	0

TBC1D12	1	0	0	0
TBC1D13	0	0	0	1
TBC1D14	1	0	0	0
TBC1D15	1	0	0	1
TBC1D16	1	1	1	0
TBC1D17	0	1	0	0
TBC1D2	0	1	0	0
TBC1D20	1	1	0	0
TBC1D22A	0	1	1	0
TBC1D22B	1	1	0	0
TBC1D24	1	1	1	0
TBC1D25	0	1	0	0
TBC1D28	1	1	1	1
TBC1D2B	1	0	1	0
TBC1D31	1	1	0	0
TBC1D32	1	1	1	0
TBC1D3I	0	1	0	0
TBC1D4	1	0	0	0
TBC1D5	1	0	1	1
TBC1D7	1	1	0	0
TBC1D8B	0	0	0	1
TBC1D9B	0	1	0	0
TBCC	0	1	0	0
TBCCD1	1	1	1	0
TBCD	1	1	1	1
TBCE	1	1	1	1
TBK1	1	1	1	1
TBKBP1	1	1	1	0
TBL3	1	1	1	0

TBP	0	1	0	0
TBRG4	0	1	0	0
TBX1	1	1	0	0
TBX15	0	1	0	0
TBX2	1	1	0	1
TBX21	0	1	0	0
TBX22	0	1	0	0
TBX6	0	1	0	0
TBXA2R	1	1	1	0
TBXAS1	1	1	0	0
TCAIM	1	0	0	0
TCAP	0	1	0	0
TCEA2	0	1	0	0
TCEANC2	1	1	0	1
TCF19	0	1	0	0
TCF20	0	1	0	0
TCF23	1	0	0	0
TCF25	1	1	1	1
TCF3	1	1	1	1
TCF4	0	1	0	0
TCFL5	0	1	0	1
TCHP	1	1	1	0
TCIRG1	0	1	0	0
TCL1A	0	1	0	0
TCL1B	1	1	0	0
TCN2	1	1	0	0
TCP10L	1	0	0	0
TCP11L1	1	1	0	0
TCP11L2	0	0	0	1

TCP11X1	0	1	0	0
TCP11X2	0	1	0	0
TCTA	0	1	0	1
TCTN1	0	1	0	0
TCTN2	1	1	0	0
TCTN3	1	1	1	0
TDRD12	1	0	1	0
TDRKH	0	1	0	0
TEAD1	1	0	0	0
TEAD3	0	0	0	1
TEC	1	1	0	0
TECPR1	1	0	0	0
TECR	0	1	0	0
TEDC1	0	1	1	0
TEDC2	0	1	0	0
TEF	1	0	1	1
TEKT1	0	1	0	0
TEKT2	0	1	1	0
TEKT3	0	1	0	0
TEKTL1	1	1	0	0
TELO2	0	1	0	0
TEN1	0	1	0	0
TEN1-CDK3	0	1	0	0
TENM1	1	0	0	0
TENM2	0	0	1	0
TENM3	1	0	0	1
TENT2	1	0	0	0
TENT4A	1	0	0	1
TENT5C	1	0	1	0

TEP1	1	1	1	1
TEPSIN	0	1	0	0
TERB1	1	0	0	0
TERB2	0	0	1	0
TERF1	1	1	1	0
TERF2	1	1	0	0
TERT	1	0	1	1
TES	1	1	0	0
TESC	0	1	0	0
TESK1	0	1	0	0
TESK2	0	1	1	0
TET3	0	0	1	0
TEX19	0	1	0	0
TEX22	1	0	1	1
TEX261	1	0	0	0
TEX35	1	1	1	0
TEX36	0	1	0	0
TEX48	1	1	0	0
TEX51	1	1	1	0
TEX53	0	1	1	0
TF	1	0	0	1
TFAM	1	0	0	0
TFAP2A	0	1	1	0
TFB1M	0	1	0	1
TFCP2L1	1	0	1	0
TFDP1	1	1	0	0
TFDP2	1	1	0	1
TFE3	0	0	1	0
TFEB	0	1	1	0

TFEC	0	1	0	0
TFF3	0	1	0	0
TFPT	0	1	1	0
TFR2	0	1	0	0
TFRC	1	1	1	0
TG	0	0	1	0
TGFB1I1	1	1	0	1
TGFB3	0	1	0	0
TGFBI	1	0	0	0
TGFBR3	0	1	0	0
TGIF2	1	0	0	0
TGM2	0	0	1	0
TGM4	0	1	0	0
TGOLN2	1	1	1	1
TH	0	1	1	0
THADA	1	0	0	1
THAP3	1	1	1	0
THAP6	1	1	1	1
THAP7	1	1	0	0
THAP8	0	1	0	0
THBS1	0	0	1	0
THBS2	0	0	1	0
THBS3	0	1	0	0
THEM4	0	0	1	0
THEM6	1	1	1	0
THEMIS2	1	0	0	0
THNSL1	1	0	0	0
THNSL2	1	1	0	0
THOC2	1	1	0	0

THOC3	0	1	0	1
THOP1	0	1	0	0
THPO	0	1	0	0
THRA	1	1	0	0
THSD4	1	1	0	0
THSD8	1	1	0	0
THUMPD1	0	1	1	0
THUMPD2	0	1	1	1
TIA1	1	0	0	0
TIAL1	1	0	1	1
TICRR	1	1	0	0
TIE1	0	1	0	0
TIFAB	1	0	1	0
TIGAR	1	1	1	0
TIGD1	1	0	1	1
TIGD3	0	1	0	0
TIGD5	1	0	1	0
TIMELESS	0	1	0	0
TIMM13	0	1	1	0
TIMM17B	0	1	0	0
TIMM21	1	1	0	0
TIMM23B	0	1	0	0
TIMM23B-AGAP6	0	0	1	0
TIMM29	1	1	0	0
TIMM44	0	1	0	0
TIMM50	0	1	0	0
TIMMDC1	0	1	0	0
TIMP2	0	1	1	1
TINAGL1	0	1	1	0

TINCR	1	1	0	1
TINF2	1	1	0	0
TIPIN	1	0	0	0
TIRAP	1	1	0	0
TJAP1	1	1	0	0
TJP2	1	0	0	0
TK1	1	1	0	0
TK2	0	1	1	0
TKFC	1	1	1	0
TKT	1	1	0	0
TLCD2	1	0	1	1
TLCD3A	0	1	0	0
TLCD3B	1	1	1	0
TLCD5	1	0	0	0
TLE3	1	1	1	0
TLE4	0	1	0	0
TLE5	0	1	0	0
TLE6	0	1	0	0
TLL1	0	1	0	0
TLL2	1	0	1	0
TLN2	0	1	1	0
TLR3	1	0	0	1
TLR4	1	0	0	0
TLR6	1	0	0	1
TLR7	1	1	0	0
TLR8	0	1	0	0
TLX1	0	1	0	0
TLX2	1	1	0	1
TLX3	0	0	0	1

TM2D1	1	0	1	0
TM2D2	0	0	0	1
TM2D3	0	1	0	0
TM4SF18	1	0	1	0
TM6SF1	0	1	0	0
TM7SF2	0	1	0	0
TM9SF4	0	1	0	0
TMBIM1	0	1	0	0
TMBIM4	0	1	0	0
TMBIM6	0	1	1	0
TMC1	0	1	0	0
TMC2	1	1	0	0
TMC3	0	1	0	0
TMC5	1	1	0	0
TMC6	1	1	1	1
TMC7	0	1	0	0
TMC8	1	1	0	0
TMCC1	1	0	0	0
TMCC2	0	1	0	1
TMCC3	0	0	0	1
TMCO3	1	1	0	0
TMCO6	0	1	0	0
TMED1	0	1	1	0
TMED10	1	0	1	0
TMED2	0	1	0	0
TMED3	1	1	1	1
TMED4	1	1	1	0
TMED9	0	1	0	0
TMEM101	0	1	0	0

TMEM104	1	1	1	1
TMEM106A	0	0	1	0
TMEM106B	0	0	0	1
TMEM108	1	1	1	0
TMEM109	0	1	0	0
TMEM117	1	0	0	0
TMEM119	1	0	0	0
TMEM120A	1	1	0	1
TMEM120B	1	1	1	0
TMEM121	0	1	0	0
TMEM121B	1	0	1	0
TMEM125	0	1	0	0
TMEM127	1	0	1	0
TMEM129	1	1	1	0
TMEM130	0	1	0	1
TMEM132A	1	1	1	0
TMEM132C	0	1	0	0
TMEM132D	1	0	0	0
TMEM132E	0	0	0	1
TMEM134	1	1	1	1
TMEM138	1	1	1	0
TMEM139	0	1	0	0
TMEM140	1	1	0	0
TMEM143	1	1	1	0
TMEM145	1	1	0	1
TMEM147	1	1	1	0
TMEM14B	1	1	0	1
TMEM150A	1	1	1	0
TMEM150B	0	1	0	0

TMEM150C	0	0	1	0
TMEM151A	0	1	0	0
TMEM151B	1	0	1	0
TMEM154	0	0	1	0
TMEM158	1	0	0	0
TMEM161A	0	1	0	0
TMEM161B	0	1	0	0
TMEM163	0	1	0	0
TMEM165	0	1	0	0
TMEM170A	1	0	0	0
TMEM175	0	1	1	0
TMEM176A	0	1	0	0
TMEM177	0	1	0	0
TMEM178B	1	0	1	0
TMEM179	1	1	1	0
TMEM18	1	1	1	0
TMEM184B	0	1	1	0
TMEM185B	1	0	1	1
TMEM19	0	1	0	0
TMEM191C	1	0	0	0
TMEM198	0	1	0	0
TMEM199	0	1	0	0
TMEM200B	0	1	0	0
TMEM200C	1	0	0	0
TMEM201	1	1	1	1
TMEM203	0	1	0	0
TMEM208	1	1	0	0
TMEM209	1	1	1	0
TMEM210	1	1	0	0

TMEM213	1	0	0	0
TMEM214	1	1	1	0
TMEM221	0	1	1	0
TMEM222	0	1	0	0
TMEM223	1	1	1	0
TMEM231	0	1	0	0
TMEM233	1	0	0	0
TMEM234	0	1	1	0
TMEM235	0	1	1	0
TMEM238L	0	1	0	0
TMEM239	1	0	0	0
TMEM240	1	1	0	0
TMEM241	1	1	0	0
TMEM245	1	0	0	0
TMEM248	1	1	0	0
TMEM25	1	1	0	1
TMEM250	0	1	0	0
TMEM254	0	1	0	0
TMEM255B	1	0	1	0
TMEM256	0	1	0	0
TMEM256-PLSCR3	1	1	1	0
TMEM259	1	1	1	1
TMEM260	0	1	0	0
TMEM265	1	0	0	0
TMEM266	0	1	0	0
TMEM268	1	0	0	0
TMEM269	0	1	0	1
TMEM270	1	1	0	0
TMEM271	0	1	0	0

TMEM272	1	0	0	0
TMEM275	0	1	0	0
TMEM276	0	1	0	0
TMEM276-ZFTRAF1	0	1	0	0
TMEM33	1	0	0	0
TMEM37	0	1	0	0
TMEM38A	0	1	0	0
TMEM39B	0	1	0	0
TMEM40	0	1	0	0
TMEM41A	0	1	1	0
TMEM41B	1	0	0	0
TMEM43	0	1	0	0
TMEM44	1	1	1	0
TMEM45B	1	1	0	1
TMEM50B	0	1	0	0
TMEM52	0	1	0	1
TMEM52B	1	0	0	0
TMEM53	0	1	0	0
TMEM54	0	1	0	0
TMEM62	1	1	0	0
TMEM63A	1	1	0	0
TMEM63B	1	1	1	0
TMEM63C	1	0	1	1
TMEM65	1	0	1	0
TMEM67	1	1	1	0
TMEM68	0	1	0	0
TMEM72	1	1	1	1
TMEM80	1	1	0	0
TMEM81	0	1	0	0

TMEM86A	1	0	0	0
TMEM87B	1	0	1	0
TMEM88B	1	0	1	1
TMEM8B	1	1	1	0
TMEM9	1	1	0	0
TMEM91	1	1	0	0
TMEM94	1	1	0	0
TMEM98	1	0	0	0
TMEM9B	0	1	1	0
TMIE	1	1	1	0
TMIGD3	0	1	0	0
TMOD2	1	0	0	0
TMOD4	0	1	0	0
TMPRSS13	1	1	1	0
TMPRSS2	0	1	0	0
TMPRSS4	1	0	0	0
TMPRSS5	1	1	1	0
TMPRSS7	1	0	0	0
TMSB15C	0	1	0	1
TMTC1	0	1	1	0
TMUB1	1	1	1	1
TMUB2	1	1	1	1
TMX2	0	1	0	0
TMX4	1	0	0	0
TNF	1	1	1	0
TNFAIP1	1	1	1	0
TNFAIP2	0	1	1	0
TNFAIP8	1	0	0	1
TNFAIP8L1	1	0	0	1

TNFRSF10B	1	1	1	0
TNFRSF10C	0	1	0	0
TNFRSF10D	1	0	0	0
TNFRSF11A	1	0	1	0
TNFRSF12A	0	0	0	1
TNFRSF13C	1	0	0	0
TNFRSF14	1	1	0	0
TNFRSF18	1	1	1	0
TNFRSF1A	0	1	0	0
TNFRSF1B	1	0	1	1
TNFRSF25	1	1	1	1
TNFRSF4	0	1	1	0
TNFRSF8	1	1	1	0
TNFRSF9	1	0	0	1
TNFSF10	1	1	0	0
TNFSF12	0	1	1	0
TNFSF15	1	0	0	1
TNFSF8	1	0	0	0
TNFSF9	1	0	0	0
TNIK	0	1	0	0
TNIP1	0	1	0	0
TNIP2	0	1	0	0
TNK1	1	1	0	1
TNK2	0	1	1	0
TNKS1BP1	1	0	0	1
TNNI1	1	0	1	1
TNNI2	0	1	0	0
TNNT1	1	0	0	0
TNPO2	0	1	0	0

TNPO3	0	1	0	0
TNR	1	0	0	0
TNRC18	1	1	0	1
TNRC6A	0	0	1	0
TNRC6B	1	1	0	1
TNRC6C	0	1	0	0
TNS1	1	0	1	0
TNS3	1	0	1	0
TOLLIP	1	1	1	1
TOM1	1	1	0	0
TOM1L2	1	0	1	0
TOMM22	0	1	0	0
TOMM34	1	1	0	0
TOMM40	0	0	0	1
TOMM40L	0	1	0	0
TONSL	1	1	0	1
TOP1	1	0	1	0
TOP1MT	0	1	0	0
TOP2B	1	0	0	0
TOP3A	1	1	0	0
TOP3B	0	1	1	0
TOR1AIP2	1	0	0	1
TOR1B	1	1	0	0
TOR2A	1	1	1	0
TOR3A	1	1	0	1
TOR4A	1	0	1	0
TP53	1	0	0	0
TP53AIP1	1	1	0	0
TP53BP1	1	0	1	0

TP53BP2	0	1	0	0
TP53I11	0	1	1	0
TP53I13	0	1	0	0
TP53RK	0	1	1	0
TP53TG5	1	0	0	0
TP63	0	1	0	0
TP73	0	0	1	0
TPCN2	1	1	0	1
TPD52L2	1	1	1	0
TPGS2	1	0	0	0
TPH1	1	0	1	0
TPM1	0	1	0	1
TPM3	1	1	1	1
TPM4	1	0	0	0
TPMT	1	0	1	0
TPO	0	1	1	0
TPP1	1	1	1	0
TPP2	0	1	0	0
TPPP	1	0	1	0
TPPP3	0	1	1	0
TPRA1	1	1	0	0
TPRG1L	0	1	0	0
TPRN	0	1	0	0
TPRX1	0	1	0	0
TPRX2	1	0	0	1
TPSB2	0	1	0	0
TPST1	0	1	0	0
TPST2	1	0	0	0
TRABD	1	1	1	0

TRABD2B	1	0	0	1
TRAF1	1	0	0	0
TRAF2	0	1	0	0
TRAF3	1	0	0	1
TRAF3IP1	1	0	0	0
TRAF3IP2	0	1	0	0
TRAF4	0	1	0	0
TRAF5	1	0	1	0
TRAF6	1	0	0	0
TRAF7	1	1	1	0
TRAIP	0	1	0	0
TRAK1	1	1	0	0
TRAM2	1	0	1	0
TRANK1	1	0	1	0
TRAP1	0	1	1	0
TRAPPC1	0	1	0	0
TRAPPC10	1	0	1	0
TRAPPC11	0	1	0	0
TRAPPC12	0	1	0	0
TRAPPC13	0	1	0	0
TRAPPC14	0	1	0	0
TRAPPC2L	0	1	0	0
TRAPPC4	0	1	0	0
TRAPPC5	1	0	0	1
TRAPPC6A	0	1	0	0
TRAPPC9	0	1	0	0
TRARG1	1	0	1	0
TRBV20OR9-2	1	1	0	0
TRDMT1	1	0	1	1

TREH	1	1	1	0
TREML4	0	0	1	0
TRERF1	0	0	0	1
TREX2	0	1	1	0
TRGC1	1	0	0	0
TRGC2	1	0	0	0
TRIB1	0	1	0	0
TRIB2	0	1	0	0
TRIM10	1	0	0	0
TRIM11	1	1	0	0
TRIM13	1	1	0	0
TRIM14	1	1	1	1
TRIM15	0	1	0	0
TRIM16	1	0	0	0
TRIM2	0	0	0	1
TRIM22	1	1	1	1
TRIM25	1	1	1	0
TRIM27	1	1	0	0
TRIM29	0	1	0	0
TRIM3	1	1	1	0
TRIM32	1	0	0	0
TRIM35	1	1	0	0
TRIM38	1	0	0	1
TRIM40	1	1	1	0
TRIM41	1	1	1	0
TRIM45	1	0	0	0
TRIM46	1	1	0	0
TRIM47	1	1	0	0
TRIM52	0	1	0	0

TRIM55	0	1	1	0
TRIM58	0	0	0	1
TRIM59	1	0	0	0
TRIM65	1	1	1	1
TRIM66	1	1	1	0
TRIM67	1	0	1	1
TRIM68	1	0	1	0
TRIM7	1	1	1	0
TRIM72	1	0	1	1
TRIM73	0	1	0	0
TRIM74	0	1	0	0
TRIM8	0	1	0	0
TRIO	0	1	1	0
TRIOBP	0	1	1	1
TRIP10	0	1	0	0
TRIP12	1	0	1	0
TRIP4	0	1	0	0
TRMT1	1	1	0	1
TRMT10B	1	0	0	0
TRMT112	0	1	0	0
TRMT2A	0	1	0	0
TRMT61A	0	0	0	1
TRMT9B	1	0	1	0
TRMU	1	1	1	1
TRNP1	0	1	0	0
TRNT1	1	1	0	0
TRO	0	1	0	0
TROAP	1	0	0	0
TRPC3	0	0	0	1

TRPC4AP	0	1	0	0
TRPM1	1	1	0	0
TRPM2	0	1	1	0
TRPM3	1	1	0	0
TRPM4	1	1	1	0
TRPM6	1	0	0	0
TRPM7	1	0	0	0
TRPM8	0	0	0	1
TRPV1	1	0	0	0
TRPV3	1	1	1	0
TRPV4	0	1	0	0
TRPV5	0	1	0	0
TRPV6	0	1	0	0
TRRAP	0	0	1	0
TRUB2	1	0	0	1
TSC2	1	1	1	1
TSC22D2	1	0	1	0
TSC22D3	0	1	0	0
TSEN15	0	1	0	0
TSEN2	1	1	1	0
TSEN54	1	1	1	1
TSFM	1	0	0	0
TSG101	0	1	0	1
TSGA13	1	1	1	1
TSKU	1	1	0	0
TSNARE1	0	1	0	0
TSNAX-DISC1	1	1	1	1
TSNAXIP1	0	1	0	0
TSPAN1	0	1	0	0

TSPAN10	0	1	0	0
TSPAN11	1	1	1	0
TSPAN12	1	1	0	1
TSPAN14	1	0	1	1
TSPAN15	1	1	0	0
TSPAN16	1	1	0	0
TSPAN17	0	1	1	0
TSPAN2	1	0	0	0
TSPAN31	1	0	1	0
TSPAN32	0	1	0	0
TSPAN33	1	1	0	0
TSPAN4	1	1	1	1
TSPAN7	1	1	1	1
TSPAN9	0	1	1	0
TSPEAR	1	1	0	0
TSPO	0	1	0	0
TSPOAP1	0	1	0	0
TSPYL1	1	0	1	0
TSPYL2	0	1	0	0
TSPYL5	0	0	1	0
TSPYL6	0	1	0	0
TSR2	1	0	1	1
TSR3	1	1	1	0
TSSK1B	0	1	0	0
TSTD2	0	1	0	0
TTC21A	0	1	0	0
TTC21B	1	0	1	1
TTC22	1	1	0	0
TTC23	0	1	0	0

TTC23L	1	1	0	0
TTC24	0	1	0	0
TTC27	1	0	0	1
TTC3	1	1	0	0
TTC31	0	1	0	0
TTC36	1	1	1	1
TTC38	0	1	0	0
TTC39A	1	1	0	0
TTC39B	1	0	0	0
TTC39C	1	0	0	0
TTC5	1	0	0	0
TTC7A	1	1	1	1
TTC7B	0	1	1	0
TTC8	1	1	0	0
TTF1	0	0	0	1
TTF2	0	0	1	0
TTL	1	0	1	1
TTLL1	0	1	0	0
TTLL10	0	1	0	0
TTLL11	1	1	1	0
TTLL12	0	1	0	0
TTLL13	1	1	0	0
TTLL2	1	1	1	0
TTLL3	0	1	0	0
TTLL4	1	1	1	0
TTLL5	1	0	0	0
TTLL9	1	1	0	0
TTPAL	1	0	0	0
TTYH1	1	1	1	1

TTYH2	1	1	1	1
TTYH3	1	0	0	1
TUB	1	0	0	0
TUBA1C	1	1	1	0
TUBA4A	1	1	1	0
TUBA8	0	1	0	0
TUBB	0	1	0	0
TUBB2B	0	1	0	0
TUBB3	1	1	0	0
TUBB4A	1	1	0	0
TUBB6	1	1	0	0
TUBB8	1	1	1	1
TUBGCP2	1	1	1	0
TUBGCP3	0	1	0	0
TUBGCP4	0	1	1	0
TUBGCP6	1	1	1	0
TUFM	0	1	1	0
TUFT1	1	0	0	0
TULP1	0	1	0	0
TULP3	1	1	0	0
TUT4	1	1	1	0
TVP23A	1	1	1	0
TVP23C	1	0	0	0
TWF2	0	1	0	0
TWNK	1	1	0	0
TWSG1	0	1	0	1
TXN2	0	1	0	0
TXNDC11	1	1	0	0
TXNDC12	0	1	0	0

TXNDC15	1	1	0	0
TXNL4A	0	1	0	0
TXNL4B	1	1	1	0
TXNRD1	1	0	0	0
TXNRD2	1	1	1	0
TXNRD3	0	1	0	0
TYK2	1	1	1	1
TYMP	0	1	0	0
TYRO3	1	1	1	0
TYROBP	0	1	0	0
TYSND1	1	1	1	0
TYW5	0	1	0	0
U2AF1L4	0	1	0	0
U2AF2	0	1	0	1
UAP1L1	0	1	0	0
UBA2	1	0	0	1
UBA5	0	0	0	1
UBA52	1	0	1	0
UBAC2	0	1	0	0
UBALD1	0	1	0	0
UBALD2	1	1	0	1
UBAP1	1	1	0	0
UBAP2	0	0	1	0
UBAP2L	0	1	0	0
UBASH3A	1	1	0	0
UBE2A	1	1	1	0
UBE2D4	0	1	0	0
UBE2F	0	1	0	0
UBE2F-SCLY	0	0	1	0

UBE2G1	1	0	0	0
UBE2G2	1	1	0	1
UBE2I	0	1	0	0
UBE2J2	1	1	1	0
UBE2L5	0	1	0	1
UBE2M	1	1	0	0
UBE2N	1	0	0	0
UBE2O	1	1	0	0
UBE2Q2	0	1	1	0
UBE2QL1	0	0	1	0
UBE2R2	1	0	0	0
UBE2W	1	1	0	0
UBE3A	1	0	0	0
UBE3B	1	1	0	0
UBE3C	1	1	0	0
UBE3D	0	1	0	0
UBIAD1	0	1	0	0
UBL4A	0	1	0	0
UBN1	1	1	1	1
UBN2	1	1	0	0
UBOX5	1	0	1	0
UBQLN1	0	1	0	0
UBR1	1	0	0	0
UBR2	1	0	0	0
UBR3	1	0	0	0
UBTF	1	0	1	0
UBXN10	1	0	0	0
UBXN2A	1	0	0	0
UBXN6	0	1	1	0

UCK1	0	1	1	0
UCK2	1	0	0	0
UCKL1	0	1	0	0
UCN2	0	1	0	0
UCP2	1	1	0	1
UCP3	1	1	0	0
UEVLD	1	0	0	0
UFM1	1	0	0	0
UGDH	1	0	0	0
UGGT1	1	1	1	1
UGT1A6	1	1	0	0
UGT1A7	0	1	0	0
UGT3A2	0	1	0	0
UHRF1	0	1	0	0
ULBP1	0	0	1	0
ULBP3	1	0	0	0
ULK1	0	1	0	0
ULK2	1	0	0	1
ULK3	1	1	1	0
ULK4	0	1	0	0
UMAD1	0	1	0	0
UMOD	0	1	0	0
UMODL1	0	1	1	0
UMPS	1	1	1	0
UNC119	1	1	1	0
UNC13A	1	1	0	0
UNC13B	0	1	1	0
UNC13D	0	1	1	0
UNC45A	1	0	1	0

UNC5A	0	1	0	0
UNC5B	1	0	0	1
UNC5CL	0	1	0	0
UNG	1	1	0	0
UNK	1	1	1	0
UNKL	1	1	1	1
UPB1	1	1	0	1
UPF1	0	1	0	0
UPF3A	0	1	0	0
UPF3B	0	1	0	0
UPK1A	0	1	0	0
UPK3B	1	1	1	0
UPK3BL1	1	1	1	0
UPK3BL2	1	1	1	0
UPP1	0	1	0	0
UQCC1	1	0	1	0
UQCC2	0	1	0	0
UQCC3	1	1	0	1
UQCR11	1	1	0	1
UQCRC1	1	1	0	0
UQCRQ	1	1	0	0
URGCP	0	1	1	0
URGCP-MRPS24	0	1	0	0
URM1	0	1	1	0
UROC1	1	1	1	1
UROD	0	1	0	0
UROS	1	1	0	1
USB1	0	1	0	0
USE1	0	0	0	1

USF3	1	1	0	0
USH1C	0	1	0	0
USH1G	1	1	1	1
USHBP1	1	1	1	0
USP15	1	0	0	1
USP19	0	1	0	0
USP2	1	1	1	1
USP20	1	1	0	0
USP21	0	1	0	0
USP22	1	1	1	0
USP24	1	1	0	0
USP28	0	1	1	0
USP3	1	1	0	0
USP30	1	1	1	0
USP31	1	0	0	0
USP33	1	0	0	0
USP35	0	1	0	0
USP36	0	1	1	0
USP39	0	1	0	0
USP4	1	1	0	1
USP40	0	1	0	0
USP42	1	0	1	0
USP45	0	1	0	0
USP47	0	0	1	0
USP49	1	1	0	1
USP5	0	1	0	0
USP54	1	0	1	0
USP7	0	0	1	0
USP8	1	0	1	1

USPL1	0	1	1	0
UTP11	1	1	0	0
UTP15	1	0	1	0
UTP25	1	0	0	0
UTP6	1	0	0	0
UTS2B	1	1	0	0
UTS2R	1	1	1	0
UVRAG	1	1	0	0
UVSSA	1	1	1	1
VAC14	1	1	1	0
VAMP1	0	1	0	0
VAMP5	0	1	0	0
VANGL1	0	0	1	0
VANGL2	1	0	0	0
VAPA	1	0	1	0
VAPB	1	0	0	1
VASH1	1	1	1	0
VASN	0	1	0	0
VASP	1	1	0	0
VAT1	0	1	1	0
VAV1	0	1	0	0
VAV2	1	0	0	0
VAV3	0	1	0	0
VAX2	0	1	0	1
VCL	1	0	0	1
VCPIP1	1	0	1	0
VDR	1	1	0	1
VEGFB	0	1	0	0
VEZF1	0	0	1	0

VGLL3	1	0	0	0
VHL	1	0	1	0
VILL	1	1	1	0
VIPR1	0	1	1	0
VIPR2	0	1	0	0
VKORC1	0	1	0	0
VLDLR	1	0	0	0
VMAC	1	1	0	1
VMO1	1	1	0	0
VMP1	0	1	0	1
VN1R1	1	1	0	0
VOPP1	1	1	1	0
VPS13B	0	1	0	0
VPS13C	1	0	0	0
VPS13D	1	1	0	0
VPS18	0	1	0	0
VPS28	1	1	0	0
VPS33A	1	1	1	0
VPS33B	1	1	1	1
VPS35	1	0	0	0
VPS35L	1	1	0	0
VPS37B	1	1	0	0
VPS37D	1	1	0	0
VPS41	1	1	0	1
VPS51	0	1	0	0
VPS52	0	1	1	0
VPS53	1	1	1	1
VRK1	1	1	0	1
VRK3	0	1	0	1

VSIG1	1	1	0	0
VSIG10L	0	1	0	0
VSIG4	0	1	0	0
VSIG8	1	1	0	0
VSIR	1	0	1	0
VSTM2L	0	0	0	1
VSTM4	0	0	0	1
VSX1	1	1	0	0
VSX2	1	1	0	0
VTI1A	0	0	1	0
VWA1	1	1	1	1
VWA2	1	0	1	1
VWA3B	1	1	1	1
VWA5B1	1	1	1	0
VWA5B2	0	1	0	0
VWCE	0	1	0	0
VWF	0	1	0	0
WAC	1	0	0	0
WAS	1	0	0	0
WASF2	0	0	1	0
WASF3	1	0	1	0
WASHC1	0	1	1	0
WASHC4	0	1	0	0
WBP1	0	1	0	0
WBP1L	1	0	1	0
WBP2	1	1	0	0
WDFY1	1	0	0	0
WDFY2	0	0	1	0
WDR1	1	1	0	1

WDR11	1	0	0	0
WDR12	1	0	0	1
WDR13	1	1	1	0
WDR18	0	1	0	0
WDR20	1	0	0	0
WDR24	0	1	0	0
WDR25	1	1	0	0
WDR27	1	1	1	0
WDR3	1	0	0	0
WDR31	1	0	0	0
WDR33	1	1	0	0
WDR37	1	1	0	1
WDR4	1	1	0	0
WDR45	0	1	0	0
WDR45B	0	1	0	0
WDR5	0	1	0	0
WDR55	1	1	0	1
WDR6	1	0	0	0
WDR62	1	1	0	1
WDR7	1	0	0	0
WDR73	1	1	0	0
WDR81	1	1	1	0
WDR82	1	0	0	1
WDR83	0	1	0	1
WDR86	0	1	0	0
WDR88	0	1	1	0
WDR90	1	1	0	0
WDR91	1	0	1	0
WDR93	0	1	0	0

WDR97	1	0	1	0
WDTC1	0	1	0	0
WFDC2	1	1	1	0
WFDC3	0	1	0	0
WFS1	0	0	0	1
WHAMM	1	0	0	0
WHRN	0	1	0	0
WIPF1	0	1	1	0
WIPF2	1	0	0	1
WIP12	0	1	0	0
WIZ	1	1	0	1
WNK3	1	0	1	0
WNT10A	1	1	0	0
WNT10B	0	1	0	0
WNT11	0	1	0	0
WNT2	0	1	1	1
WNT2B	1	0	0	1
WNT3	1	0	1	1
WNT3A	0	1	1	0
WNT5B	1	1	0	0
WNT7A	1	0	1	1
WNT7B	1	1	1	0
WNT8A	0	1	0	0
WNT9A	1	0	1	1
WNT9B	1	1	1	0
WRAP53	1	1	1	1
WRAP73	0	1	0	0
WRN	1	0	0	0
WRNIP1	0	1	1	0

WSB1	1	1	0	0
WSCD1	1	1	1	1
WTIP	1	0	1	1
WWC1	0	1	0	0
WWC2	1	1	1	0
WWOX	0	1	0	1
WWP2	0	1	0	0
WWTR1	1	0	0	0
XAF1	1	0	0	0
XIAP	1	1	1	1
XIRP2	0	1	0	0
XKR5	1	0	0	0
XKR7	1	0	1	0
XKR8	1	1	0	0
XKRX	0	1	1	1
XNDC1N	1	0	0	1
XNDC1N-ZNF705EP- ALG1L9P	1	1	0	1
XPNPEP3	1	0	1	0
XPO1	1	1	1	0
XPO5	0	1	0	0
XPO6	0	1	1	0
XPO7	0	1	0	0
XRCC3	1	1	1	1
XRN1	0	0	0	1
XRRA1	1	1	0	0
XXYLT1	0	1	0	0
XYLT2	1	1	0	0
YAF2	1	0	1	0

YARS1	1	1	0	0
YBEY	0	0	0	1
YDJC	0	1	0	0
YES1	1	0	0	0
YIF1A	0	1	1	0
YIF1B	0	1	0	0
YIPF2	0	1	0	0
YIPF3	0	1	0	1
YIPF4	1	0	0	1
YIPF7	0	1	0	0
YJEFN3	1	0	0	1
YKT6	0	1	1	0
YLPM1	1	1	0	0
YPEL1	1	0	0	1
YPEL2	1	0	0	0
YPEL3	1	1	1	0
YPEL5	1	1	0	0
YTHDC1	1	0	0	0
YTHDF1	0	1	0	0
YWHAG	1	0	1	0
YWHAH	0	1	0	0
YY1AP1	0	0	1	0
ZACN	1	1	1	0
ZAN	0	1	0	0
ZAP70	1	1	0	0
ZBED1	1	0	0	0
ZBED3	0	0	1	0
ZBED4	0	0	1	0
ZBP1	0	0	0	1

ZBTB16	1	1	1	0
ZBTB18	0	1	0	0
ZBTB20	1	0	1	1
ZBTB25	1	1	1	1
ZBTB3	1	1	0	0
ZBTB32	1	1	0	0
ZBTB39	1	0	0	0
ZBTB4	0	0	1	0
ZBTB40	1	0	0	0
ZBTB42	1	0	1	0
ZBTB44	0	1	0	1
ZBTB45	0	1	0	0
ZBTB46	1	1	1	1
ZBTB47	0	1	0	0
ZBTB48	0	1	0	0
ZBTB49	1	0	0	0
ZBTB5	0	0	1	0
ZBTB7A	1	0	1	1
ZBTB7B	1	1	0	1
ZBTB7C	1	0	0	0
ZBTB8A	1	0	1	1
ZBTB8B	1	0	1	0
ZBTB9	0	1	0	0
ZC2HC1C	0	1	0	0
ZC3H10	1	0	0	0
ZC3H12A	1	1	0	1
ZC3H12B	1	0	0	0
ZC3H12D	1	1	1	1
ZC3H3	0	1	0	0

ZC3H4	1	0	1	0
ZC3H6	1	0	1	0
ZC3H7A	0	0	0	1
ZC3H8	0	0	0	1
ZC3HAV1L	1	1	0	0
ZC3HC1	0	1	0	0
ZCCHC2	1	1	1	0
ZCCHC24	1	0	1	0
ZCCHC4	1	1	0	0
ZCCHC8	1	0	0	0
ZCWPW1	1	1	0	0
ZDBF2	1	0	0	0
ZDHHC1	1	1	0	0
ZDHHC11B	1	1	1	0
ZDHHC14	0	1	0	0
ZDHHC17	1	1	1	0
ZDHHC18	1	1	1	0
ZDHHC19	1	0	0	0
ZDHHC20	1	0	0	0
ZDHHC22	1	0	0	0
ZDHHC23	0	1	0	0
ZDHHC24	1	1	1	0
ZDHHC3	1	0	1	1
ZDHHC6	0	0	0	1
ZDHHC8	0	1	0	0
ZEB2	0	1	0	0
ZER1	0	1	0	0
ZFAND1	1	1	0	0
ZFAND2B	1	1	1	1

ZFAND3	1	0	1	0
ZFAND4	1	0	0	0
ZFAND5	1	0	0	0
ZFAT	0	1	1	0
ZFHX2	0	1	0	0
ZFHX3	1	0	0	1
ZFP3	0	0	1	0
ZFP36	0	1	1	0
ZFP41	1	1	0	1
ZFP64	1	1	1	0
ZFPL1	0	1	0	0
ZFPM1	0	0	1	0
ZFR2	1	1	0	1
ZFTA	1	1	0	1
ZFTRAF1	0	1	0	0
ZFX	1	1	1	0
ZFYVE16	1	0	0	0
ZFYVE21	0	0	0	1
ZFYVE26	0	1	0	1
ZFYVE27	0	1	1	0
ZFYVE28	0	1	1	0
ZFYVE9	1	0	0	0
ZG16	1	0	1	1
ZG16B	1	1	0	0
ZGPAT	0	1	0	0
ZGRF1	1	1	0	0
ZHX2	0	1	1	0
ZHX3	0	1	1	1
ZIK1	1	1	1	0

ZKSCAN1	1	0	1	1
ZKSCAN3	1	0	1	0
ZKSCAN5	1	1	0	0
ZKSCAN7	1	1	0	0
ZMAT3	1	0	0	1
ZMIZ2	1	1	1	0
ZMYM3	0	1	0	0
ZNF101	0	1	1	0
ZNF106	1	1	1	1
ZNF114	0	1	0	0
ZNF12	0	0	1	0
ZNF121	1	0	0	1
ZNF124	1	1	1	1
ZNF132	0	1	0	0
ZNF133	0	1	0	0
ZNF135	0	0	1	0
ZNF141	1	0	0	0
ZNF142	1	0	0	0
ZNF154	1	0	0	1
ZNF160	0	0	0	1
ZNF169	1	1	0	0
ZNF175	1	0	0	0
ZNF19	1	0	0	0
ZNF195	0	1	0	0
ZNF2	1	0	0	0
ZNF207	1	0	0	1
ZNF208	1	0	0	1
ZNF211	0	0	1	0
ZNF212	1	1	1	0

ZNF213	0	1	0	0
ZNF215	0	1	0	0
ZNF217	0	1	0	0
ZNF219	0	1	0	0
ZNF22	1	1	1	0
ZNF221	1	0	0	0
ZNF223	0	1	1	0
ZNF225	0	0	0	1
ZNF230	0	0	0	1
ZNF232	0	1	0	0
ZNF233	1	1	1	0
ZNF234	1	1	1	0
ZNF236	1	0	0	0
ZNF254	1	1	0	0
ZNF257	1	0	0	0
ZNF260	1	0	0	0
ZNF263	0	1	0	1
ZNF268	1	0	1	1
ZNF276	1	0	0	1
ZNF277	1	1	1	0
ZNF28	1	0	0	0
ZNF280B	1	0	0	0
ZNF282	1	1	1	1
ZNF283	0	1	1	1
ZNF284	1	0	0	0
ZNF285	1	0	0	0
ZNF286A-TBC1D26	1	0	0	0
ZNF287	1	0	0	0
ZNF304	0	1	0	0

ZNF316	1	0	1	1
ZNF317	1	0	0	0
ZNF319	1	1	0	0
ZNF320	1	0	1	0
ZNF324B	0	1	0	0
ZNF331	1	1	1	0
ZNF333	0	1	0	1
ZNF334	0	1	0	0
ZNF337	0	1	0	0
ZNF33A	0	1	0	0
ZNF33B	1	1	0	1
ZNF341	0	1	0	0
ZNF345	0	1	0	0
ZNF346	1	1	0	1
ZNF347	1	1	0	0
ZNF362	0	1	0	0
ZNF366	1	0	1	0
ZNF37A	1	0	0	1
ZNF382	1	0	0	0
ZNF383	1	0	1	1
ZNF385A	1	1	1	1
ZNF385C	1	1	0	0
ZNF385D	0	1	0	1
ZNF394	0	0	0	1
ZNF395	0	1	0	0
ZNF397	0	1	0	0
ZNF410	1	1	0	0
ZNF417	1	0	0	0
ZNF425	1	1	0	0

ZNF426	1	0	0	0
ZNF429	1	1	1	0
ZNF43	1	0	0	0
ZNF430	1	0	1	0
ZNF44	1	0	0	1
ZNF442	1	0	0	0
ZNF444	0	1	0	0
ZNF445	1	0	0	1
ZNF446	0	1	0	0
ZNF451	1	0	0	0
ZNF461	1	0	1	0
ZNF469	0	1	0	0
ZNF470	1	0	0	0
ZNF471	1	0	0	1
ZNF48	1	1	0	0
ZNF488	0	0	1	0
ZNF493	1	1	0	1
ZNF497	0	1	0	0
ZNF500	1	1	0	0
ZNF503	0	1	0	0
ZNF506	1	1	0	1
ZNF511	0	0	1	0
ZNF512B	1	0	0	0
ZNF514	1	1	1	1
ZNF516	0	0	0	1
ZNF517	1	1	1	1
ZNF524	1	1	1	0
ZNF526	1	1	0	0
ZNF527	1	1	1	1

ZNF528	1	1	1	0
ZNF529	1	0	1	0
ZNF532	1	0	0	0
ZNF534	1	1	0	0
ZNF536	1	0	0	0
ZNF543	1	0	0	1
ZNF544	0	0	0	1
ZNF546	1	0	0	1
ZNF548	1	0	1	0
ZNF549	1	0	1	0
ZNF550	1	0	0	0
ZNF552	0	1	0	0
ZNF554	0	0	0	1
ZNF555	1	0	0	0
ZNF556	1	0	0	1
ZNF557	1	0	0	1
ZNF558	1	0	1	0
ZNF561	1	0	1	0
ZNF562	1	0	1	0
ZNF570	1	0	0	1
ZNF571	1	1	0	0
ZNF572	0	1	0	0
ZNF575	0	1	0	0
ZNF576	0	1	0	1
ZNF577	1	0	0	0
ZNF578	1	0	0	1
ZNF579	1	1	0	0
ZNF584	1	1	0	0
ZNF585A	0	0	1	0

ZNF585B	1	0	1	0
ZNF586	1	1	1	0
ZNF587	1	0	1	0
ZNF587B	1	0	0	1
ZNF592	0	0	1	0
ZNF593OS	0	1	0	0
ZNF595	0	1	0	0
ZNF598	0	1	0	0
ZNF600	1	1	1	1
ZNF605	1	0	0	1
ZNF606	0	1	0	0
ZNF607	1	1	1	0
ZNF609	1	0	0	1
ZNF610	1	1	1	0
ZNF611	1	1	0	1
ZNF614	1	1	0	0
ZNF616	0	1	0	0
ZNF618	1	0	0	0
ZNF619	1	1	0	0
ZNF621	1	0	0	0
ZNF623	1	1	0	0
ZNF625	0	1	0	0
ZNF625-ZNF20	0	0	0	1
ZNF628	1	1	0	1
ZNF630	1	0	0	0
ZNF639	1	0	0	0
ZNF646	1	0	0	0
ZNF648	1	1	1	0
ZNF652	1	0	0	1

ZNF653	1	1	0	0
ZNF655	1	0	0	1
ZNF660	1	0	0	0
ZNF662	0	1	0	0
ZNF667	1	0	1	0
ZNF672	0	1	0	0
ZNF674	1	0	0	0
ZNF675	1	1	0	0
ZNF677	1	1	0	1
ZNF681	1	0	0	0
ZNF684	0	1	0	0
ZNF687	0	1	0	0
ZNF689	1	1	1	0
ZNF69	1	1	1	0
ZNF692	1	1	1	0
ZNF699	1	0	0	0
ZNF7	1	1	1	1
ZNF70	1	0	1	1
ZNF701	1	0	0	0
ZNF703	1	1	0	0
ZNF707	1	1	1	0
ZNF708	1	0	1	1
ZNF709	1	0	0	0
ZNF71	0	1	0	0
ZNF713	1	1	1	0
ZNF714	1	0	0	0
ZNF716	1	0	0	0
ZNF718	1	0	0	1
ZNF722	1	0	0	0

ZNF723	0	0	0	1
ZNF724	0	1	0	0
ZNF726	1	1	1	0
ZNF727	1	0	0	0
ZNF728	0	1	0	0
ZNF736	0	0	1	0
ZNF737	1	0	0	0
ZNF738	0	1	0	0
ZNF74	1	1	1	1
ZNF746	0	1	1	0
ZNF747	0	1	1	0
ZNF749	1	0	0	1
ZNF761	0	0	0	1
ZNF764	0	1	1	0
ZNF765	1	1	0	0
ZNF766	1	0	0	0
ZNF770	1	0	1	0
ZNF771	1	1	1	0
ZNF774	1	1	0	0
ZNF776	0	1	0	0
ZNF778	0	1	0	0
ZNF780B	1	0	0	1
ZNF783	1	1	1	0
ZNF784	1	1	1	1
ZNF785	1	1	0	0
ZNF786	0	1	0	0
ZNF787	0	1	1	0
ZNF789	1	0	0	0
ZNF790	0	0	0	1

ZNF791	0	0	0	1
ZNF793	1	0	0	1
ZNF8	1	0	1	0
ZNF805	1	0	0	0
ZNF808	1	0	0	1
ZNF81	1	0	0	0
ZNF813	1	0	0	0
ZNF814	1	1	1	0
ZNF816	1	1	0	0
ZNF821	1	1	1	1
ZNF827	0	1	0	0
ZNF829	0	0	0	1
ZNF83	1	1	0	0
ZNF831	1	0	1	0
ZNF835	1	1	0	0
ZNF836	1	0	0	0
ZNF839	1	1	0	0
ZNF84	1	0	0	1
ZNF841	0	1	0	0
ZNF843	0	1	0	1
ZNF844	1	0	0	0
ZNF845	1	1	0	0
ZNF846	1	0	0	1
ZNF850	1	0	1	1
ZNF853	1	1	0	0
ZNF862	1	0	1	0
ZNF891	1	0	1	1
ZNF892	1	0	0	0
ZNF90	1	1	0	0

ZNG1A	1	1	0	0
ZNG1E	1	1	0	0
ZNHIT3	1	1	1	0
ZNRD2	1	1	1	0
ZNRF1	0	0	1	0
ZPR1	1	1	1	0
ZRANB3	1	0	0	1
ZSCAN12	1	0	0	0
ZSCAN2	1	0	0	0
ZSCAN20	1	0	1	0
ZSCAN22	1	0	0	1
ZSCAN25	1	0	0	0
ZSCAN29	1	0	0	0
ZSCAN32	0	1	1	0
ZSCAN5A	1	1	1	0
ZSCAN9	0	1	0	0
ZSWIM1	0	1	0	0
ZSWIM5	1	0	1	0
ZSWIM7	1	1	1	0
ZSWIM8	1	1	1	0
ZXDC	1	1	0	0
ZYG11A	1	0	1	0
ZZEF1	0	1	0	1
