



A2M	ABHD5	ACLY	ADAMTS17
A4GALT	ABHD12	ACO2	ADAMTS18
AAAS	ABHD14A-ACY1	ACOX1	ADAMTSL2
AAGAB	ABL1	ACP2	ADAMTSL4
AANAT	ABO	ACP5	ADAR
AARS	AC006486.9	ACSF3	ADAT3
AARS2	AC011530.4	ACSL4	ADCK3
AASS	AC018816.3	ACSL5	ADCK4
ABAT	AC024592.12	ACSM3	ADCY1
ABCA1	AC068533.7	ACTA1	ADCY5
ABCA3	AC093726.4	ACTA2	ADCY10
ABCA4	AC093726.6	ACTB	ADD1
ABCA12	AC129492.6	ACTC1	ADH1B
ABCB1	ACAA1	ACTG1	ADH1C
ABCB4	ACACA	ACTL6A	ADIPOQ
ABCB6	ACACB	ACTL6B	ADK
ABCB7	ACAD8	ACTN1	ADNP
ABCB11	ACAD9	ACTN2	ADRB1
ABCC2	ACADL	ACTN4	ADRB2
ABCC6	ACADM	ACVR1	ADRB3
ABCC8	ACADS	ACVR2B	ADSL
ABCC9	ACADSB	ACVRL1	AF011889.5
ABCC10	ACADV1	ACY1	AF196779.12
ABCC11	ACAN	ADA	AFF2
ABCD1	ACAT1	ADAM9	AFG3L2
ABCD3	ACAT2	ADAM10	AFP
ABCD4	ACD	ADAM17	AGA
ABCG2	ACE	ADAMTS2	AGBL1
ABCG5	ACHE	ADAMTS10	AGGF1
ABCG8	ACKR1	ADAMTS13	AGK



AGL	AKT1	ALOX5	ANLN
AGPAT2	AKT2	ALOX5AP	ANO3
AGPS	AKT3	ALOX12B	ANO5
AGRN	AL021546.6	ALOXE3	ANO6
AGRP	ALAD	ALPL	ANO10
AGT	ALAS2	ALS2	ANTXR1
AGTR1	ALB	ALX1	ANTXR2
AGTR2	ALDH1A3	ALX3	ANXA5
AGXT	ALDH2	ALX4	AOC1
AGXT2	ALDH3A2	AMACR	AOC2
AHCY	ALDH4A1	AMELX	AP1S1
AHCYL1	ALDH5A1	AMER1	AP1S2
AHDC1	ALDH6A1	AMH	AP2S1
AHI1	ALDH7A1	AMHR2	AP3B1
AICDA	ALDH18A1	AMN	AP3B2
AIFM1	ALDOA	AMPD1	AP4B1
AIFM2	ALDOB	AMPD2	AP4E1
AIM2	ALG1	AMPD3	AP4M1
AIMP1	ALG2	AMT	AP4S1
AIP	ALG3	ANG	AP5Z1
AIPL1	ALG6	ANGPTL3	AP000275.65
AIRE	ALG8	ANGPTL4	AP000295.9
AK1	ALG9	ANK1	AP000304.12
AK2	ALG10	ANK2	AP000350.4
AKAP9	ALG11	ANK3	AP000350.10
AKAP10	ALG12	ANKH	AP000721.4
AKR1C2	ALG13	ANKRD1	AP003419.11
AKR1C4	ALG14	ANKRD11	APBB2
AKR1D1	ALK	ANKRD26	APC
AKR7A2	ALMS1	ANKS6	APCDD1



APEX2	ARHGEF6	ASPM	ATP5G2
APLN	ARHGEF9	ASPN	ATP5G3
APOA1	ARHGEF10	ASPSR1	ATP5I
APOA2	ARHGEF15	ASS1	ATP5J
APOA4	ARID1A	ASTE1	ATP5O
APOA5	ARID1B	ASXL1	ATP5SL
APOB	ARID2	ASXL3	ATP6AP2
APOC2	ARL2BP	ATCAY	ATP6V0A2
APOC3	ARL6	ATG16L1	ATP6V0A4
APOC4-APOC2	ARL6IP1	ATIC	ATP6V1B1
APOE	ARL13B	ATL1	ATP6V1G2
APOL1	ARMC4	ATL3	ATP7A
APOL2	ARMC5	ATM	ATP7B
APOL4	ARMS2	ATN1	ATP8A2
APOPT1	ARNT2	ATOH7	ATP8B1
APP	ARSA	ATP1A2	ATP10D
APRT	ARSB	ATP1A3	ATP13A2
APTX	ARSE	ATP1B1	ATPAF1
AQP1	ART4	ATP2A1	ATPAF2
AQP2	ARX	ATP2A2	ATPIF1
AQP3	AS3MT	ATP2B2	ATR
AQP7	ASAH1	ATP2B3	ATRIP
AR	ASB10	ATP2C1	ATRX
ARFGEF2	ASCC1	ATP5A1	ATXN1
ARG1	ASCL1	ATP5B	ATXN2
ARHGAP24	ASIP	ATP5C1	ATXN3
ARHGAP26	ASL	ATP5D	ATXN7
ARHGAP29	ASNS	ATP5E	ATXN10
ARHGAP31	ASPA	ATP5F1	AUH
ARHGDI A	ASPH	ATP5G1	AURKA



AURKC	BBS2	BIN1	BSCL2
AUTS2	BBS4	BIRC5	BSG
AVIL	BBS5	BIVM-ERCC5	BSND
AVP	BBS7	BLK	BTD
AVPR1A	BBS9	BLM	BTK
AVPR2	BBS10	BLMH	BTNL2
AXDND1	BBS12	BLNK	BUB1B
AXIN1	BCAM	BLOC1S1	C1GALT1C1
AXIN2	BCAP31	BLOC1S3	C1QA
B2M	BCAT1	BLOC1S6	C1QB
B3GALNT1	BCAT2	BLVRA	C1QC
B3GALNT2	BCHE	BMP1	C1QTNF5
B3GALT6	BCKDHA	BMP2	C1R
B3GALT7	BCKDHB	BMP4	C1S
B3GAT3	BCKDK	BMP15	C1orf106
B3GNT1	BCL2	BMPEP	C1orf145
B4GALNT1	BCL2L2-PABPN1	BMPR1A	C2
B4GALT1	BCL10	BMPR1B	C2CD3
B4GALT7	BCO1	BMPR2	C2orf71
B9D1	BCOR	BMS1	C3
B9D2	BCR	BOLA3	C4A
BAAT	BCS1L	BPGM	C4B
BAG3	BDNF	BPY2	C4orf26
BANF1	BEAN1	BRAF	C5
BANK1	BEST1	BRAT1	C5orf42
BAP1	BFSP1	BRCA1	C6
BARD1	BFSP2	BRCA2	C7
BAX	BHLHE41	BRD2	C8A
BBIP1	BICC1	BRIP1	C8B
BBS1	BICD2	BRWD3	C8orf37



C9	CACNA1F	CASR	CCL2
C9orf66	CACNA1H	CAT	CCL3
C9orf72	CACNA1S	CATSPER1	CCL3L1
C10orf2	CACNA2D1	CATSPER2	CCL11
C10orf11	CACNA2D4	CAV1	CCM2
C10orf55	CACNB2	CAV3	CCND1
C11orf65	CACNB4	CBFB	CCND2
C11orf91	CACNG2	CBL	CCNO
C12orf57	CALCR	CBR4	CCR5
C12orf65	CALM1	CBS	CCT2
C14orf2	CALM2	CBX2	CCT5
C15orf41	CALM3	CBX3	CD2AP
C17orf66	CALR	CC2D1A	CD3D
C18orf8	CALR3	CC2D2A	CD3E
C18orf56	CAMK1	CCBE1	CD3G
C19orf12	CAMTA1	CCDC6	CD4
C21orf2	CANT1	CCDC8	CD8A
C21orf33	CAPN3	CCDC11	CD19
C21orf59	CAPN5	CCDC22	CD27
CA2	CAPN10	CCDC28B	CD36
CA4	CARD9	CCDC39	CD40
CA5A	CARD11	CCDC40	CD40LG
CA8	CARD14	CCDC41	CD44
CA12	CARS2	CCDC50	CD46
CABP2	CARTPT	CCDC65	CD55
CABP4	CASC5	CCDC78	CD59
CACNA1A	CASK	CCDC88C	CD79A
CACNA1B	CASP8	CCDC103	CD79B
CACNA1C	CASP10	CCDC114	CD81
CACNA1D	CASQ2	CCDC151	CD82



CD96	CDY1	CFHR4	CHRNA3
CD151	CDY2A	CFHR5	CHRNA4
CD207	CEACAM16	CFI	CHRNA5
CD209	CEBPA	CFL2	CHRNA7
CD244	CEBPE	CFP	CHRNA1
CD247	CECR1	CFTR	CHRNA2
CD320	CEL	CHAT	CHRNA3
CDAN1	CENPE	CHCHD10	CHRNA4
CDC6	CENPJ	CHD1	CHRNA5
CDC42BPB	CENPV	CHD2	CHRNA6
CDC73	CENPW	CHD7	CHRNA7
CDCA3	CEP19	CHD8	CHRNA8
CDH1	CEP41	CHDH	CHRNA9
CDH3	CEP57	CHEK1	CHRNA10
CDH15	CEP63	CHEK2	CHRNA11
CDH23	CEP83	CHGB	CHRNA12
CDHR1	CEP135	CHI3L1	CHRNA13
CDK4	CEP152	CHIT1	CHRNA14
CDK5RAP2	CEP164	CHKB	CHRNA15
CDK6	CEP290	CHM	CHRNA16
CDK16	CERKL	CHML	CHRNA17
CDKAL1	CERS3	CHMP1A	CHRNA18
CDKL5	CETP	CHMP2B	CHRNA19
CDKN1B	CFB	CHMP4B	CHRNA20
CDKN1C	CFC1	CHN1	CHRNA21
CDKN2A	CFD	CHPT1	CHRNA22
CDKN2B	CFH	CHRD1	CHRNA23
CDON	CFHR1	CHRM3	CHRNA24
CDSN	CFHR2	CHRNA1	CHRNA25
CDT1	CFHR3	CHRNA2	CHRNA26



CLCN4	CNKSR3	COL6A1	COX4I2
CLCN5	CNNM2	COL6A2	COX5A
CLCN7	CNNM4	COL6A3	COX5B
CLCNKA	CNR1	COL7A1	COX6A1
CLCNKB	CNTN1	COL8A2	COX6A2
CLDN1	CNTN2	COL9A1	COX6B1
CLDN14	CNTNAP2	COL9A2	COX6C
CLDN16	CNTNAP5	COL9A3	COX7A1
CLDN19	COA5	COL10A1	COX7A2
CLEC7A	COASY	COL11A1	COX7A2L
CLIC2	COCH	COL11A2	COX7B
CLIC5	COG1	COL12A1	COX7B2
CLMP	COG4	COL17A1	COX7C
CLN3	COG5	COL18A1	COX8A
CLN5	COG6	COL27A1	COX10
CLN6	COG7	COLEC11	COX11
CLN8	COG8	COLQ	COX14
CLP1	COL1A1	COMP	COX15
CLPP	COL1A2	COMT	COX17
CLRN1	COL2A1	COPB2	COX18
CLU	COL3A1	COQ2	COX19
CLYBL	COL4A1	COQ3	COX20
CMC1	COL4A2	COQ4	CP
CMSS1	COL4A3	COQ5	CPA1
CNBP	COL4A4	COQ6	CPA6
CNGA1	COL4A5	COQ7	CPN1
CNGA3	COL4A6	COQ9	CPOX
CNGB1	COL5A1	CORIN	CPS1
CNGB3	COL5A2	CORO1A	CPSF3
CNKSR2	COL5A3	COX4I1	CPT1A



CPT1B	CRYL1	CTH	CYBB
CPT2	CRYM	CTHRC1	CYC1
CR1	CSF1	CTLA4	CYCS
CR2	CSF1R	CTNNA1	CYLD
CRADD	CSF2RA	CTNNA2	CYP1A2
CRAT	CSF2RB	CTNNA3	CYP1B1
CRB1	CSF3R	CTNNB1	CYP2A6
CRBN	CSHL1	CTNND2	CYP2A7
CREB1	CSNK1D	CTNS	CYP2B6
CREBBP	CSPP1	CTPS1	CYP2C9
CRELD1	CSRP3	CTRC	CYP2C19
CRH	CST3	CTSA	CYP2D6
CRHR1	CSTA	CTSC	CYP2R1
CRIP1	CSTB	CTSD	CYP2U1
CRLF1	CTA-211A9.5	CTSF	CYP3A4
CRLS1	CTA-373H7.7	CTSK	CYP3A5
CRTAP	CTBS	CUBN	CYP4F2
CRX	CTB-102L5.4	CUL3	CYP4F22
CRYAA	CTC1	CUL4B	CYP4V2
CRYAB	CTCF	CUL7	CYP7A1
CRYBA1	CTC-260F20.3	CUX2	CYP7B1
CRYBA2	CTC-360G5.8	CWF19L1	CYP11A1
CRYBA4	CTC-435M10.3	CX3CR1	CYP11B1
CRYBB1	CTDP1	CXADR	CYP11B2
CRYBB2	CTD-2192J16.24	CXCL12	CYP17A1
CRYBB3	CTD-2521M24.10	CXCR1	CYP19A1
CRYGB	CTD-2545M3.6	CXCR4	CYP21A2
CRYGC	CTD-3074O7.11	CYB5A	CYP24A1
CRYGD	CTF1	CYB5R3	CYP26B1
CRYGS		CYBA	CYP26C1



CYP27A1	DDHD1	DHODH	DMPK
CYP27B1	DDHD2	DHTKD1	DMRT1
D2HGDH	DDIT3	DHX8	DMRT2
DACH1	DDOST	DIABLO	DMXL2
DAG1	DDR2	DIAPH1	DNA2
DAO	DDX3Y	DIAPH2	DNAAF1
DAOA	DDX11	DIAPH3	DNAAF2
DARC	DDX25	DICER1	DNAAF3
DARS	DDX59	DIP2B	DNAH5
DARS2	DEAF1	DIRAS3	DNAH9
DAZ1	DEC1	DIRC2	DNAH10
DAZ2	DECR1	DIS3L2	DNAH11
DAZ3	DEK	DISC1	DNAI1
DBH	DEPDC5	DISC2	DNAI2
DBT	DES	DISP1	DNAJB2
DCAF8	DFNA5	DKC1	DNAJB6
DCAF17	DFNB31	DLAT	DNAJC5
DCBLD1	DFNB59	DLD	DNAJC6
DCC	DGAT1	DLEC1	DNAJC19
DCHS1	DGCR2	DLG3	DNAJC25-GNG10
DCK	DGCR6	DLG4	DNAL1
DCLRE1C	DGCR8	DLGAP2	DNAL4
DCN	DGCR14	DLL1	DNASE1
DCSTAMP	DGKE	DLL3	DNASE1L1
DCTN1	DGUOK	DLST	DNASE1L3
DCX	DHCR7	DLX3	DNM1L
DCXR	DHCR24	DLX5	DNM2
DDAH1	DHDDS	DMD	DNMT1
DDB2	DHFR	DMGDH	DNMT3A
DDC	DHH	DMP1	DNMT3B



DOCK4	DTD1	EEF2	ELMOD3
DOCK6	DTNA	EFEMP1	ELN
DOCK7	DTNBP1	EFEMP2	ELOVL4
DOCK8	DUOX2	EFHC1	ELOVL5
DOK7	DUOXA1	EFHC2	ELP4
DOLK	DUOXA2	EFNB1	EMD
DPAGT1	DUSP6	EFNB2	EMG1
DPM1	DYM	EFTUD2	EMP2
DPM2	DYNC1H1	EGF	EMX2
DPM3	DYNC2H1	EGFR	EN2
DPP6	DYRK1A	EGLN1	ENAM
DPP10	DYRK1B	EGR2	ENG
DPY19L2	DYSF	EHBP1	ENO1
DPYD	DYX1C1	EHHADH	ENO3
DPYS	E2F3	EHMT1	ENPP1
DRC1	EARS2	EIF2AK3	ENTPD1
DRD2	EBP	EIF2AK4	ENTPD5
DRD3	ECE1	EIF2B1	EOGT
DRD4	ECEL1	EIF2B2	EOMES
DRD5	ECI1	EIF2B3	EP300
DSC2	ECM1	EIF2B4	EPAS1
DSC3	ECSIT	EIF2B5	EPB41
DSE	EDA	EIF2S3	EPB41L1
DSG1	EDAR	EIF4A3	EPB42
DSG2	EDARADD	EIF4E	EPCAM
DSG4	EDN1	EIF4G1	EPG5
DSP	EDN3	ELAC2	EPHA2
DSPP	EDNRA	ELANE	EPHB2
DST	EDNRB	ELK1	EPHX1
DSTYK	EEF1A2	ELMOD2	EPHX2



EPM2A	ETFB	F13B	FANCL
EPO	ETFDH	FA2H	FANCM
EPOR	ETHE1	FAAH	FAR1
EPS8	ETV4	FAAH2	FARS2
EPT1	ETV5	FABP5	FAS
EPX	EVC	FADD	FASLG
ERAP2	EVC2	FAH	FASN
ERBB2	EVI5	FAM20A	FASTKD2
ERBB3	EWSR1	FAM20C	FAT4
ERBB4	EXO1	FAM58A	FBLN1
ERCC1	EXOC8	FAM72A	FBLN5
ERCC2	EXOSC3	FAM83H	FBN1
ERCC3	EXOSC4	FAM111A	FBN2
ERCC4	EXOSC8	FAM111B	FBP1
ERCC5	EXPH5	FAM126A	FBXL4
ERCC6	EXT1	FAM134B	FBXO7
ERCC6L2	EXT2	FAM161A	FBXO31
ERCC6-PGBD3	EYA1	FAM161B	FBXO38
ERCC8	EYA4	FAM175A	FBXW4
ERF	EYS	FAM187A	FBXW7
ERI2	EZH2	FAM188B	FBXW11
ERLIN2	F2	FAN1	FCGR1A
ERMAP	F5	FANCA	FCGR2A
ERMARD	F7	FANCB	FCGR2B
ESCO2	F8	FANCC	FCGR2C
ESPN	F9	FANCD2	FCGR3A
ESR1	F10	FANCE	FCGR3B
ESR2	F11	FANCF	FCGRT
ESRRB	F12	FANCG	FCN3
ETFA	F13A1	FANCI	FDXACB1



FECH	FKBP5	FO XK1	FUT6
FERMT1	FKBP10	FOXL2	FUZ
FERMT3	FKBP14	FOXN1	FXN
FEZF1	FKRP	FOXO1	FXYD2
FFAR4	FKTN	FOXP1	FXYD6
FGA	FLCN	FOXP2	FXYD6-FXYD2
FGB	FLG	FOXP3	FYCO1
FGD1	FLNA	FOXRED1	FZD4
FGD4	FLNB	FPGS	FZD6
FGF3	FLNC	FPGT-TNNI3K	FZD9
FGF5	FLRT3	FPR1	G6PC
FGF8	FLT3	FRAS1	G6PC2
FGF9	FLT4	FREM1	G6PC3
FGF10	FLVCR1	FREM2	G6PD
FGF14	FLVCR2	FRG1	GAA
FGF17	FMN1	FRMD7	GABBR2
FGF20	FMO3	FRMPD4	GABRA1
FGF23	FMR1	FRZB	GABRA2
FGFR1	FN1	FSBP	GABRB3
FGFR2	FOLH1	FSCN2	GABRD
FGFR3	FOLR1	FSHB	GABRG1
FGFR4	FOXC1	FSHR	GABRG2
FGG	FOXC2	FTCD	GABRG3
FH	FOXD3	FTH1	GAD1
FHL1	FOXE1	FTL	GAD2
FHL2	FOXE3	FTO	GALC
FICD	FOXF1	FTSJ1	GALE
FIG4	FOXG1	FUCA1	GALK1
FIGLA	FOXH1	FUS	GALNS
FIP1L1	FOXI1	FUT2	GALNT3



GALNT12	GCSH	GJA1	GLYCTK
GALT	GDAP1	GJA3	GM2A
GAMT	GDF1	GJA5	GMPPA
GAN	GDF2	GJA8	GMPPB
GARS	GDF3	GJB1	GNA11
GAS1	GDF5	GJB2	GNA13
GAST	GDF5OS	GJB3	GNA14
GATA1	GDF6	GJB4	GNAI2
GATA2	GDF9	GJB6	GNAI3
GATA3	GDI1	GJC1	GNAL
GATA4	GDNF	GJC2	GNAO1
GATA5	GEMIN2	GK	GNAQ
GATA6	GEN1	GLA	GNAS
GATAD1	GFAP	GLB1	GNAT1
GATAD2B	GFER	GLCCI1	GNAT2
GATM	GFI1	GLDC	GNB1
GATS	GFI1B	GLE1	GNB3
GBA	GFM1	GLI1	GNB4
GBA2	GFM2	GLI2	GNE
GBE1	GFPT1	GLI3	GNG10
GC	GFRA1	GLIS2	GNMT
GCDH	GGCX	GLIS3	GNPAT
GCGR	GH1	GLMN	GNPTAB
GCH1	GHR	GLO1	GNPTG
GCK	GHRHR	GLRA1	GNRH1
GCKR	GHRL	GLRB	GNRHR
GCLC	GHSR	GLRX5	GNS
GCLM	GIF	GLS	GOLGA5
GCM2	GIGYF2	GLUD1	GOPC
GCNT2	GIPC3	GLUL	GORAB



GOSR2	GRHL3	GUCY2C	HBG2
GOT1	GRHPR	GUCY2D	HCCS
GP1BA	GRIA3	GUSB	HCFC1
GP1BB	GRIK2	GYG1	HCN1
GP5	GRIN1	GYP A	HCN3
GP6	GRIN2A	GYPB	HCN4
GP9	GRIN2B	GYP C	HCP5
GPAM	GRIP1	GYS1	HCRT
GPC1	GRK1	GYS2	HDAC4
GPC3	GRK4	H6PD	HDAC6
GPC4	GRM1	H19	HDAC8
GPC5	GRM6	H19_1	HDC
GPC6	GRN	H19_2	HEATR2
GPD1	GRPR	HABP2	HEATR9
GPD1L	GRXCR1	HADH	HEPACAM
GPD2	GRXCR2	HADHA	HERC2
GPHN	GSC	HADHB	HES7
GPI	GSN	HAGH	HESX1
GPIHBP1	GSPT2	HAL	HEXA
GPR56	GSR	HAMP	HEXB
GPR98	GSS	HARS	HFE
GPR113	GSTM1	HARS2	HFE2
GPR143	GSTP1	HAVCR1	HFM1
GPR179	GSTZ1	HAX1	HGD
GPSM2	GTDC2	HBA1	HGF
GPX1	GTF2H5	HBA2	HGSNAT
GPX4	GUCA1A	HBB	HIBCH
GRB10	GUCA1B	HBD	HIGD2A
GREM1	GUCA2B	HBE1	HINT1
GRHL2	GUCY1A3	HBG1	HIP1



HIRA	HNRNPU	HSD11B1	HUWE1
HK1	HNRNPUL1	HSD11B2	HYAL1
HK2	HOGA1	HSD17B3	HYDIN
HLA-A	HOXA1	HSD17B4	HYLS1
HLA-B	HOXA2	HSD17B10	IARS2
HLA-C	HOXA3	HSF4	IBA57
HLA-DOB	HOXA11	HSFY1	ICAM1
HLA-DQA1	HOXA13	HSPA9	ICAM4
HLA-DQB1	HOXB1	HSPB1	ICK
HLA-DQB2	HOXB13	HSPB3	ICOS
HLA-DRB1	HOXC13	HSPB7	IDE
HLA-G	HOXD10	HSPB8	IDH1
HLCS	HOXD13	HSPD1	IDH2
HMBS	HP	HSPG2	IDH3B
HMCN1	HPD	HTR1A	IDH3G
HMGA1	HPGD	HTR1B	IDS
HMGA2	HPRT1	HTR2A	IDUA
HMGB3	HPS1	HTR2B	IER3IP1
HMGCL	HPS3	HTR2C	IFI16
HMGCS2	HPS4	HTR3A	IFIH1
HMMR	HPS5	HTR3B	IFITM3
HMOX1	HPS6	HTR3C	IFITM5
HMX1	HPSE2	HTR3E	IFNAR2
HNF1A	HR	HTR5A	IFNG
HNF1B	HRAS	HTR5AOS	IFNGR1
HNF4A	HRG	HTR6	IFNGR2
HNMT	HS6ST1	HTR7	IFNL3
HNRNPA1	HSD3B1	HTRA1	IFRD1
HNRNPA2B1	HSD3B2	HTRA2	IFT27
HNRNPDL	HSD3B7	HTT	IFT43



IFT80	IGSF1	IL23R	IRF6
IFT88	IHH	IL31RA	IRF8
IFT122	IK	IL36RN	IRGM
IFT140	IKBKAP	ILDR1	IRS1
IFT172	IKBKB	ILF3	IRS2
IGBP1	IKBKG	ILK	IRX5
IGF1	IKZF1	IMMP2L	ISCA2
IGF1R	IL1B	IMMT	ISCU
IGF2	IL1RAPL1	IMPAD1	ISG15
IGF2BP2	IL1RN	IMPDH1	ISPD
IGF2R	IL2RA	IMPG2	ITCH
IGFALS	IL2RG	INF2	ITGA2
IGFBP7	IL4R	ING1	ITGA2B
IGHD3-10	IL6	INPP5E	ITGA3
IGHG1	IL6R	INPPL1	ITGA6
IGHJ5	IL7R	INS	ITGA7
IGHM	IL10	INSL3	ITGA8
IGHMBP2	IL10RA	INSR	ITGAM
IGHV3-11	IL10RB	INSRR	ITGB2
IGHV3-21	IL11RA	INS-IGF2	ITGB3
IGHV6-1	IL12B	INVS	ITGB4
IGKC	IL12RB1	IPCEF1	ITIH4
IGKJ3	IL13	IPW	ITK
IGKJ4	IL17F	IQCB1	ITM2B
IGKV1-8	IL17RA	IQSEC2	ITPA
IGKV1-9	IL17RD	IRAK3	ITPKC
IGKV1-12	IL18	IRAK4	ITPR1
IGKV3-11	IL18RAP	IRF1	ITPR3
IGKV3-15	IL21	IRF4	ITPRIP
IGLL1	IL21R	IRF5	IVD



IYD	KCNE4	KDM6A	KIRREL3
JAG1	KCNH2	KDR	KISS1
JAGN1	KCNH5	KEL	KISS1R
JAK2	KCNJ1	KERA	KIT
JAK3	KCNJ2	KHDC3L	KITLG
JAM3	KCNJ3	KHK	KIZ
JPH2	KCNJ5	KIAA0196	KL
JPH3	KCNJ8	KIAA0226	KLC1
JRK	KCNJ10	KIAA0319	KLF1
JUP	KCNJ11	KIAA0895	KLF6
KAL1	KCNJ12	KIAA1279	KLF8
KALRN	KCNJ13	KIAA2022	KLF10
KANK1	KCNJ18	KIF1A	KLF11
KANK2	KCNK3	KIF1B	KLHDC8B
KANSL1	KCNK9	KIF1C	KLHL3
KARS	KCNK18	KIF2A	KLHL7
KAT6B	KCNMA1	KIF4A	KLHL10
KATNAL2	KCNMB1	KIF5A	KLHL40
KBTBD13	KCNQ1	KIF5C	KLHL41
KCNA1	KCNQ2	KIF7	KLK1
KCNA4	KCNQ3	KIF11	KLK4
KCNA5	KCNQ4	KIF14	KLKB1
KCNAB1	KCNT1	KIF20B	KLLN
KCNB1	KCNV2	KIF21A	KMT2A
KCNC3	KCTD1	KIF22	KMT2D
KCND3	KCTD7	KIF23	KNG1
KCNE1	KCTD13	KIR2DL3	KPTN
KCNE1L	KCTD14	KIR3DL1	KRAS
KCNE2	KDM5C	KIR3DL2	KRIT1
KCNE3	KDM5D	KIR3DL3	KRT1



KRT2	LAMB2	LGALS2	LMNB2
KRT3	LAMB3	LGI1	LMX1B
KRT4	LAMC2	LGR4	LOC101927322
KRT5	LAMC3	LHB	LOC101927403
KRT6A	LAMP2	LHCGR	LOC101928170
KRT6B	LAMTOR2	LHFPL5	LOC101928352
KRT6C	LARGE	LHX3	LOC101928728
KRT9	LARP7	LHX4	LOC102723566
KRT10	LARS	LIAS	LOC102724043
KRT12	LARS2	LIFR	LOC102724371
KRT13	LAS1L	LIG4	LOR
KRT14	LBR	LIM2	LOXHD1
KRT16	LCA5	LIMK1	LOXL1
KRT17	LCAT	LIMS2	LPAR6
KRT71	LCK	LINC01016	LPIN1
KRT74	LCT	LINS	LPIN2
KRT75	LDB3	LIPA	LPL
KRT81	LDHA	LIPC	LRAT
KRT83	LDHB	LIPE	LRBA
KRT85	LDLR	LIPH	LRIG2
KRT86	LDLRAP1	LIPI	LRIT3
KYNU	LEFTY2	LIPN	LRP2
L1CAM	LEMD3	LIPT1	LRP4
L2HGDH	LEP	LITAF	LRP5
LAD1	LEPR	LMAN1	LRP6
LAMA1	LEPRE1	LMBR1	LRP8
LAMA2	LEPREL1	LMBRD1	LRPAP1
LAMA3	LETM1	LMF1	LRPPRC
LAMA4	LFNG	LMNA	LRRC6
LAMB1	LGALS1	LMNB1	LRRC8A



LRRRC41	MANBA	MCCC1	METTL8
LRRK2	MAOA	MCCC2	METTL23
LRSAM1	MAOB	MCEE	MFF
LRTOMT	MAP2K1	MCFD2	MFN2
LTA	MAP2K2	MCM4	MFRP
LTBP1	MAP3K1	MCM6	MFSD8
LTBP2	MAP3K8	MCOLN1	MGAT2
LTBP3	MAPK1	MCPH1	MGLL
LTBP4	MAPK8IP1	MDH1	MGME1
LTC4S	MAPK10	MDM2	MGP
LXN	MAPT	ME2	MGST3
LYRM4	MARS	MECOM	MIAT
LYRM7	MARS2	MECP2	MIATNB
LYST	MARVELD2	MED12	MIAT_exon1
LYZ	MASP1	MED13L	MIAT_exon5_1
LZTFL1	MASP2	MED17	MIAT_exon5_2
LZTR1	MASTL	MED23	MIAT_exon5_3
LZTS1	MAT1A	MED25	MIB1
MAB21L2	MATN3	MED28	MICALCL
MAD1L1	MATR3	MEF2A	MICU1
MAF	MAVS	MEF2C	MID1
MAFB	MAX	MEFV	MID2
MAGEL2	MBD1	MEGF8	MIF
MAGI2	MBD5	MEGF10	MINPP1
MAGT1	MBL2	MEN1	MIP
MAK	MBTPS2	MEOX1	MIPOL1
MALT1	MC1R	MERTK	MITF
MAMLD1	MC2R	MESP2	MKKS
MAN1B1	MC3R	MEST	MKRN3
MAN2B1	MC4R	MET	MKS1



MLC1	MPL	MTCH2	MYCN
MLF1	MPLKIP	MTFMT	MYD88
MLH1	MPO	MTHFD1	MYF6
MLH3	MPV17	MTHFD1L	MYH2
MLPH	MPZ	MTHFR	MYH3
MLXIPL	MR1	MTHFS	MYH6
MLYCD	MRAP	MTM1	MYH7
MMAA	MRAP2	MTMR1	MYH8
MMAB	MRE11A	MTMR2	MYH9
MMACHC	MROH8	MTMR14	MYH10
MMADHC	MRPL3	MTNR1B	MYH11
MMP1	MRPL44	MTO1	MYH14
MMP2	MRPL48	MTOR	MYL2
MMP3	MRPS2	MTPAP	MYL3
MMP9	MRPS16	MTR	MYL5
MMP12	MRPS22	MTRR	MYLK
MMP13	MRRF	MTTP	MYLK2
MMP14	MS4A1	MUC1	MYO1A
MMP20	MS4A2	MUC5B	MYO1C
MN1	MSH2	MUC7	MYO1E
MNX1	MSH3	MURC	MYO1F
MOCOS	MSH6	MUSK	MYO3A
MOCS1	MSMB	MUT	MYO5A
MOCS2	MSMO1	MUTYH	MYO5B
MOG	MSR1	MVK	MYO6
MOGS	MSRB3	MXD1	MYO7A
MPC1	MSTN	MXI1	MYO9B
MPDU1	MSX1	MYBPC1	MYO15A
MPDZ	MSX2	MYBPC3	MYOC
MPI	MTAP	MYC	MYOM1



MYOT	NDST1	NDUFB9	NEUROD1
MYOZ1	NDUFA1	NDUFB10	NEUROG3
MYOZ2	NDUFA2	NDUFB11	NEXN
MYPN	NDUFA3	NDUFC1	NF1
NAA10	NDUFA4	NDUFC2	NF2
NADK	NDUFA5	NDUFC2-KCTD14	NFIX
NADK2	NDUFA6	NDUFS1	NFKB2
NAGA	NDUFA7	NDUFS2	NFKBIA
NAGLU	NDUFA8	NDUFS3	NFKBIL1
NAGPA	NDUFA9	NDUFS4	NFU1
NAGS	NDUFA10	NDUFS5	NGF
NALCN	NDUFA11	NDUFS6	NGLY1
NANOS1	NDUFA12	NDUFS7	NHEJ1
NARS2	NDUFA13	NDUFS8	NHLRC1
NAT2	NDUFAB1	NDUFV1	NHP2
NAT8L	NDUFAF1	NDUFV2	NHS
NBAS	NDUFAF2	NDUFV3	NIM1
NBEAL2	NDUFAF3	NEB	NIN
NBN	NDUFAF4	NEBL	NIPA1
NCF1	NDUFAF5	NECAP1	NIPAL4
NCF2	NDUFAF6	NEDD4	NIPBL
NCF4	NDUFAF7	NEDD4L	NIPSNAP1
NCOA4	NDUFB1	NEFH	NIPSNAP3A
NCR3	NDUFB2	NEFL	NKX2-1
NCSTN	NDUFB3	NEGR1	NKX2-2
NDE1	NDUFB4	NEK1	NKX2-5
NDEL1	NDUFB5	NEK2	NKX2-6
NDN	NDUFB6	NEK4	NKX3-2
NDP	NDUFB7	NEK8	NLGN3
NDRG1	NDUFB8	NEU1	NLGN4X



NLRC4	NPC2	NRG1	OCA2
NLRP1	NPHP1	NRL	OCLN
NLRP3	NPHP3	NRTN	OCRL
NLRP7	NPHP3-ACAD11	NRXN1	OFD1
NLRP12	NPHP4	NRXN2	OGDH
NLRP14	NPHS1	NSD1	OGG1
NLRX1	NPHS2	NSDHL	OGT
NME1	NPL	NSMF	OLR1
NME1-NME2	NPM1	NSUN2	OPA1
NME2	NPPA	NT5C2	OPA3
NME8	NPR1	NT5C3A	OPCML
NMNAT1	NPR2	NT5E	OPHN1
NNT	NPSR1	NTF4	OPLAH
NOBOX	NQO2	NTHL1	OPN1LW
NOD2	NR0B1	NTNG1	OPN1MW
NODAL	NR0B2	NTRK1	OPN1SW
NOG	NR1D1	NTRK2	OPRM1
NOL3	NR1H4	NUB1	OPTN
NOL11	NR1I3	NUBPL	OR2J3
NOP10	NR2E1	NUMA1	ORAI1
NOP56	NR2E3	NUP62	ORC1
NOS1AP	NR2F1	NUP155	ORC4
NOS2	NR2F2	NXF5	ORC6
NOS3	NR3C1	NXNL1	OSMR
NOTCH1	NR3C2	NXPE3	OSTM1
NOTCH2	NR4A2	NYX	OTC
NOTCH3	NR4A3	OAS1	OTOA
NPAP1	NR5A1	OAT	OTOF
NPAT	NR5A2	OBSCN	OTOG
NPC1	NRAS	OBSL1	OTOGL



OTUD4	PAX6	PDE6H	PEX6
OTX2	PAX7	PDE8B	PEX7
OXA1L	PAX8	PDE10A	PEX10
OXCT1	PAX9	PDE11A	PEX11A
OXSRI	PAXIP1	PDGFB	PEX11B
P2RX2	PAXIP1OS	PDGFRA	PEX11G
P2RY12	PBRM1	PDGFRB	PEX12
PABPN1	PC	PDGFRL	PEX13
PACRG	PCBD1	PDHA1	PEX14
PACS1	PCCA	PDHB	PEX16
PADI4	PCCB	PDHX	PEX19
PAFAH1B1	PCDH9	PDK1	PEX26
PAH	PCDH15	PDK2	PFKM
PAK3	PCDH19	PDK3	PFN1
PAK7	PCK1	PDLIM3	PGAM2
PALB2	PCK2	PDLIM4	PGAP1
PALLD	PCM1	PDP1	PGAP2
PANK2	PCNA	PDSS1	PGAP3
PAPSS2	PCNT	PDSS2	PGK1
PARK2	PCOLCE2	PDX1	PGM1
PARK7	PCSK1	PDYN	PGM3
PARL	PCSK9	PDZD7	PGR
PARN	PCYT1A	PEAR1	PHB
PARP1	PDCD10	PEPD	PHC1
PARS2	PDE4D	PER2	PHEX
PAX1	PDE6A	PET100	PHF3
PAX2	PDE6B	PEX1	PHF6
PAX3	PDE6C	PEX2	PHF8
PAX4	PDE6D	PEX3	PHF11
PAX5	PDE6G	PEX5	PHGDH



PHIP	PITX1	PLG	POC1B-GALNT4
PHKA1	PITX2	PLIN1	POF1B
PHKA2	PITX3	PLK1S1	POFUT1
PHKB	PKD1	PLN	POGLUT1
PHKG2	PKD2	PLOD1	POLA1
PHOX2A	PKHD1	PLOD2	POLD1
PHOX2B	PKLR	PLOD3	POLE
PHYH	PKP1	PLP1	POLG
PHYKPL	PKP2	PLS3	POLG2
PICALM	PKP4	PML	POLH
PIEZO1	PLA2G2A	PMM2	POLR1C
PIEZO2	PLA2G5	PMP22	POLR1D
PIGA	PLA2G6	PMPCA	POLR3A
PIGL	PLA2G7	PMS1	POLR3B
PIGM	PLA2R1	PMS2	POLRMT
PIGN	PLAG1	PNKD	POMC
PIGO	PLAGL1	PNKP	POMGNT1
PIGT	PLAT	PNLIP	POMGNT2
PIGV	PLAU	PNMT	POMK
PIGW	PLCB1	PNN	POMP
PIK3CA	PLCB4	PNP	POMT1
PIK3CD	PLCD1	PNPLA1	POMT2
PIK3R1	PLCE1	PNPLA2	PON1
PIK3R2	PLCG2	PNPLA3	PON3
PIK3R5	PLD3	PNPLA4	POR
PIKFYVE	PLEC	PNPLA6	PORCN
PINK1	PLEKHA1	PNPO	POT1
PIP5K1B	PLEKHG4	PNPT1	POU1F1
PIP5K1C	PLEKHG5	POC1A	POU3F4
PITPNM3	PLEKHM1	POC1B	POU4F3



POU6F2	PRKCD	PRRX1	PTH
PPARG	PRKCG	PRSS1	PTH1R
PPARGC1A	PRKCH	PRSS2	PTHLH
PPARGC1B	PRKCSH	PRSS12	PTPN1
PPIB	PRKDC	PRSS23	PTPN11
PPM1B	PRKG1	PRSS56	PTPN14
PPM1D	PRKRA	PRX	PTPN22
PPM1K	PRLR	PRY	PTPRC
PPOX	PRM1	PRY2	PTPRF
PPP1R3A	PRM2	PSAP	PTPRO
PPP1R17	PRM3	PSAT1	PTPRQ
PPP2R1B	PRNP	PSEN1	PTPRZ1
PPP2R2B	PROC	PSEN2	PTRF
PPT1	PROCR	PSENE1	PTS
PPT2	PRODH	PSMA6	PUF60
PQBP1	PROK2	PSMB8	PUS1
PRCC	PROKR2	PSMC3IP	PVRL1
PRCD	PROM1	PSMD4	PVRL4
PRDM5	PROP1	PSPH	PWAR1
PRDM9	PROS1	PSTPIP1	PWARSN
PRDM16	PROZ	PTCH1	PWRN1
PREPL	PRPF3	PTCH2	PXDN
PRF1	PRPF4	PTCHD1	PYCR1
PRG4	PRPF6	PTDSS1	PYGL
PRICKLE1	PRPF8	PTEN	PYGM
PRICKLE2	PRPF31	PTF1A	PYY
PRIMPOL	PRPH	PTGDR	QARS
PRKACA	PRPH2	PTGER2	QDPR
PRKAG2	PRPS1	PTGES2	RAB3GAP1
PRKAR1A	PRRT2	PTGIS	RAB3GAP2



RAB7A	RARS	RECQL4	RMRP
RAB11FIP5	RARS2	REEP1	RNASE4
RAB18	RASA1	REEP2	RNASEH2A
RAB23	RASGRP2	RELN	RNASEH2B
RAB27A	RASSF1	REN	RNASEH2C
RAB28	RAX	RET	RNASEL
RAB33B	RAX2	RETN	RNASET2
RAB39B	RB1	RFC4	RNF6
RAB40AL	RB1CC1	RFT1	RNF135
RAC2	RBBP8	RFX5	RNF139
RAD18	RBCK1	RFX6	RNF168
RAD21	RBFOX1	RFXANK	RNF170
RAD50	RBM8A	RFXAP	RNF212
RAD51	RBM10	RGR	RNF213
RAD51B	RBM15	RGS5	RNF216
RAD51C	RBM20	RGS9	RNase_MRP
RAD51D	RBM28	RGS9BP	ROBO1
RAD51L3-RFFL	RBMXL2	RHAG	ROBO2
RAD54B	RBMY1A1	RHBDF2	ROBO3
RAD54L	RBMY1B	RHCE	ROGDI
RAF1	RBP3	RHD	ROM1
RAG1	RBP4	RHO	ROR2
RAG2	RBPJ	RHOH	ROS1
RAI1	RCBTB1	RILP	RP1
RAN	RD3	RIMS1	RP1L1
RANBP2	RDH5	RIN2	RP1-187N21.4
RANGRF	RDH10	RIPK4	RP2
RAPSN	RDH11	RIT1	RP4-608O15.3
RARA	RDH12	RLBP1	RP4-635E18.9
RARB	RDX	RMND1	RP5-877J2.1



RP5-972B16.2	RP11-724O16.1	RPSA	SARS2
RP9	RP11-903H12.5	RRM1	SART3
RP11-20I23.1	RP11-1012A1.4	RRM2B	SAT1
RP11-47I22.4	RP11-1035H13.3	RS1	SATB2
RP11-73M18.2	RPE65	RSPH1	SBDS
RP11-108O10.8	RPGR	RSPH4A	SBF1
RP11-162P23.2	RPGRIP1	RSPH9	SBF2
RP11-178L8.4	RPGRIP1L	RSPO1	SC5D
RP11-195F19.29	RPIA	RSPO4	SCARB1
RP11-196G11.1	RPL5	RTEL1	SCARB2
RP11-201K10.3	RPL10	RTN2	SCARF2
RP11-286N22.8	RPL11	RTN4R	SCGB1A1
RP11-295K3.1	RPL15	RTTN	SCGB3A2
RP11-315D16.2	RPL19	RUNX1	SCGN
RP11-318A15.7	RPL26	RUNX2	SCN1A
RP11-343C2.9	RPL35A	RUVBL1	SCN1B
RP11-343C2.12	RPN2	RXFP2	SCN2A
RP11-366L20.2	RPP30	RXRA	SCN2B
RP11-449H3.3	RPS4Y2	RYR1	SCN3A
RP11-505K9.4	RPS6KA3	RYR2	SCN3B
RP11-514O12.4	RPS7	SAA1	SCN4A
RP11-545J16.1	RPS10	SACS	SCN4B
RP11-548K23.11	RPS10-NUDT3	SAG	SCN5A
RP11-565P22.6	RPS11	SALL1	SCN7A
RP11-566K11.2	RPS14	SALL2	SCN8A
RP11-571M6.15	RPS17	SALL4	SCN9A
RP11-574F21.3	RPS19	SAMD9	SCN10A
RP11-603J24.9	RPS24	SAMHD1	SCN11A
RP11-618P17.4	RPS26	SAR1B	SCNN1A
RP11-644F5.10	RPS29	SARDH	SCNN1B



SCNN1G	SERPINA3	SGSH	SKIV2L
SCO1	SERPINA6	SH2B3	SLC1A1
SCO2	SERPINA7	SH2D1A	SLC1A3
SCP2	SERPINA10	SH3BP2	SLC2A1
SDC3	SERPINB6	SH3PXD2A	SLC2A2
SDCCAG8	SERPINB7	SH3PXD2B	SLC2A4
SDHA	SERPINC1	SH3TC2	SLC2A9
SDHAF1	SERPIND1	SHANK2	SLC2A10
SDHAF2	SERPINE1	SHANK3	SLC3A1
SDHB	SERPINF1	SHBG	SLC4A1
SDHC	SERPINF2	SHH	SLC4A4
SDHD	SERPING1	SHMT1	SLC4A5
SEC23A	SERPINH1	SHOC2	SLC4A10
SEC23B	SERPINI1	SHOX	SLC4A11
SEC61A1	SETBP1	SHOX2	SLC5A1
SEC63	SETD5	SHROOM4	SLC5A2
SECISBP2	SETX	SI	SLC5A5
SELE	SF3B1	SIAE	SLC5A7
SELP	SF3B4	SIGMAR1	SLC6A2
SEMA3A	SFTPA1	SIL1	SLC6A3
SEMA3E	SFTPA2	SIM1	SLC6A4
SEMA4A	SFTPB	SIRT1	SLC6A5
SEMA7A	SFTPC	SIRT3	SLC6A8
SEPN1	SFTPD	SIRT5	SLC6A14
SEPSECS	SFXN4	SIX1	SLC6A19
SEPT6	SGCA	SIX2	SLC6A20
SEPT9	SGCB	SIX3	SLC7A7
SEPT12	SGCD	SIX5	SLC7A9
SERAC1	SGCE	SIX6	SLC7A14
SERPINA1	SGCG	SKI	SLC8A1



SLC9A3R1	SLC24A1	SLC34A2	SMAD3
SLC9A6	SLC24A4	SLC34A3	SMAD4
SLC9A9	SLC24A5	SLC35A1	SMAD6
SLC9B1	SLC25A1	SLC35A2	SMAD7
SLC10A2	SLC25A3	SLC35A3	SMAD9
SLC11A1	SLC25A4	SLC35C1	SMARCA2
SLC11A2	SLC25A12	SLC35D1	SMARCA4
SLC12A1	SLC25A13	SLC36A2	SMARCAD1
SLC12A2	SLC25A15	SLC37A4	SMARCAL1
SLC12A3	SLC25A16	SLC38A8	SMARCB1
SLC12A5	SLC25A19	SLC39A4	SMARCC1
SLC12A6	SLC25A20	SLC39A5	SMARCC2
SLC12A7	SLC25A22	SLC39A13	SMARCD1
SLC13A5	SLC25A35	SLC40A1	SMARCD2
SLC14A1	SLC25A38	SLC45A2	SMARCD3
SLC16A1	SLC25A39	SLC46A1	SMARCE1
SLC16A2	SLC26A2	SLC48A1	SMC1A
SLC16A12	SLC26A3	SLC51A	SMC3
SLC17A3	SLC26A4	SLC52A1	SMCHD1
SLC17A5	SLC26A5	SLC52A2	SMG6
SLC17A8	SLC26A6	SLC52A3	SMIM1
SLC17A9	SLC26A8	SLC01B1	SMN1
SLC19A1	SLC27A4	SLC01B3	SMN2
SLC19A2	SLC27A5	SLC01B7	SMNDC1
SLC19A3	SLC29A3	SLC02A1	SMO
SLC20A2	SLC30A2	SLITRK1	SMOC1
SLC22A4	SLC30A8	SLITRK6	SMOC2
SLC22A5	SLC30A10	SLMAP	SMPD1
SLC22A12	SLC33A1	SLURP1	SMPX
SLC22A18	SLC34A1	SLX4	SMS



SNAI2	SOX18	SRD5A3	STK3
SNAP29	SP7	SRGAP2	STK4
SNCA	SP110	SRP72	STK11
SNCAIP	SPAG1	SRPX2	STK39
SNCB	SPAG8	SRY	STOM
SNIP1	SPAST	SS18L1	STOX1
SNORD107	SPATA7	SSR4	STRA6
SNRNP200	SPATA16	SSTR5	STRADA
SNRPE	SPECC1L	SSX1	STRC
SNRPN	SPEG	SSX2	STS
SNTA1	SPG7	SSX7	STT3A
SNX5	SPG11	ST3GAL3	STT3B
SNX10	SPG20	ST3GAL4	STUB1
SOAT1	SPG21	ST3GAL5	STX11
SOBP	SPINK1	ST7	STX16
SOD1	SPINK5	ST14	STXBP1
SOD2	SPINT2	ST20-MTHFS	STXBP2
SOHLH1	SPR	STAC3	SUCLA2
SORL1	SPRED1	STAG1	SUCLG1
SORT1	SPRY4	STAG3	SUCLG2
SOS1	SPTA1	STAMBP	SUFU
SOST	SPTAN1	STAR	SUGCT
SOX1	SPTB	STAT1	SULF1
SOX2	SPTBN2	STAT2	SULT2A1
SOX3	SPTLC1	STAT3	SULT2B1
SOX5	SPTLC2	STAT4	SUMF1
SOX9	SQSTM1	STAT5B	SUMO1
SOX10	SRC	STEAP3	SUMO4
SOX11	SRCAP	STIL	SUOX
SOX17	SRD5A2	STIM1	SURF1



SURF2	TAPBP	TCF4	TFE3
SYCP3	TARDBP	TCF7L2	TFG
SYN1	TARP	TCF12	TFR2
SYN2	TARS2	TCF21	TG
SYNE1	TAS2R16	TCIRG1	TGFB1
SYNE2	TAS2R38	TCN1	TGFB2
SYNE4	TAT	TCN2	TGFB3
SYNGAP1	TAZ	TCOF1	TGFBI
SYNJ1	TBC1D4	TCTN1	TGFBR1
SYP	TBC1D7	TCTN2	TGFBR2
SYT2	TBC1D20	TCTN3	TGFBR3
SYT14	TBC1D24	TDGF1	TGIF1
SZT2	TBCB	TDP1	TGM1
T	TBCE	TDRD7	TGM5
TAB2	TBK1	TEAD1	TGM6
TAC3	TBL1X	TECPR2	TH
TACC3	TBP	TECR	THAP1
TACO1	TBX1	TECTA	THBD
TACR3	TBX3	TEK	THBS2
TACSTD2	TBX4	TEKT2	THOC2
TAF1	TBX5	TENM1	THOC6
TAF2	TBX6	TENM3	THPO
TAF4B	TBX15	TERC	THRA
TAF6	TBX19	TERT	THRB
TAF13	TBX20	TET2	TIA1
TAF15	TBX21	TF	TICAM1
TAGLN2	TBX22	TFAM	TICRR
TALDO1	TBXA2R	TFAP2A	TIMM8A
TAP1	TBXAS1	TFAP2B	TIMM44
TAP2	TCAP	TFB1M	TIMP3



TINF2	TMEM216	TNNT2	TRAJ54
TIRAP	TMEM231	TNNT3	TRAPPC2
TJP2	TMEM237	TNPO3	TRAPPC4
TK2	TMEM240	TNXB	TRAPPC9
TLL1	TMIE	TOE1	TRAPPC10
TLR1	TMLHE	TOMM40	TRAPPC11
TLR2	TMPO	TOP1MT	TRAV38-2DV8
TLR3	TMPRSS3	TOPBP1	TRDC
TLR4	TMPRSS5	TOPORS	TRDN
TLR5	TMPRSS6	TOR1A	TRDV2
TM4SF2	TMPRSS15	TOR1AIP1	TREH
TM4SF20	TNC	TP53	TREM2
TMC1	TNF	TP63	TREX1
TMC6	TNFRSF1A	TPCN2	TRGC1
TMC8	TNFRSF4	TPH1	TRGC2
TMCO1	TNFRSF10B	TPH2	TRGJ1
TMED1	TNFRSF11A	TPI1	TRGJP
TMEM5	TNFRSF11B	TPK1	TRGV1
TMEM38B	TNFRSF13B	TPM1	TRGV8
TMEM43	TNFRSF13C	TPM2	TRGV9
TMEM67	TNFSF4	TPM3	TRH
TMEM70	TNFSF11	TPMT	TRHR
TMEM98	TNFSF12	TPO	TRIM2
TMEM126A	TNFSF12- TNFSF13	TPP1	TRIM13
TMEM127		TPRN	TRIM24
TMEM138	TNNC1	TRAC	TRIM32
TMEM151B	TNNI2	TRAF3	TRIM33
TMEM165	TNNI3	TRAF3IP2	TRIM37
TMEM167B	TNNI3K	TRAJ29	TRIM63
TMEM173	TNNT1	TRAJ32	TRIOBP



TRIP11	TSPEAR	TXN2	UGT1A8
TRIP13	TSPO	TXNRD2	UGT1A9
TRMT10A	TSPYL1	TYK2	UGT1A10
TRMU	TST	TYMP	UGT2B17
TRNT1	TTBK2	TYMS	UMOD
TRPA1	TTC7A	TYMSOS	UMPS
TRPC1	TTC8	TYR	UNC13D
TRPC6	TTC19	TYROBP	UNC93B1
TRPM1	TTC21B	TYRP1	UNC119
TRPM2	TTC37	Telomerase-vert	UNG
TRPM4	TTI2	UBA1	UPB1
TRPM6	TLL5	UBB	UPF3B
TRPM7	TTN	UBE2A	UPK2
TRPS1	TTPA	UBE2I	UPK3A
TRPV3	TTR	UBE2R2	UQCC2
TRPV4	TUBA1A	UBE3A	UQCC3
TSC1	TUBA8	UBE3B	UQCR10
TSC2	TUBB	UBIAD1	UQCR11
TSEN2	TUBB1	UBQLN2	UQCRB
TSEN34	TUBB2A	UBR1	UQCRC1
TSEN54	TUBB2B	UCHL1	UQCRC2
TSFM	TUBB3	UCP1	UQCRFS1
TSG101	TUBB4A	UCP2	UQCRH
TSHB	TUBG1	UCP3	UQCRQ
TSHR	TUBGCP6	UGT1A1	UROC1
TSHZ1	TUFM	UGT1A3	UROD
TSIX	TULP1	UGT1A4	UROS
TSNAX-DISC1	TUSC3	UGT1A5	USB1
TSPAN7	TWIST1	UGT1A6	USF1
TSPAN12	TWIST2	UGT1A7	USH1C



USH1G	VKORC1	WDR81	XPNPEP2
USH2A	VLDLR	WEE1	XPNPEP3
USMG5	VMA21	WFS1	XRCC2
USP9X	VPS13A	WHSC1	XRCC3
USP9Y	VPS13B	WIPF1	XRCC4
USP24	VPS33B	WISP3	XXbac- BPG116M5.17
USP26	VPS35	WNK1	
UTP14C	VPS37A	WNK4	XXbac- BPG246D15.9
UTP23	VPS45	WNT1	XYLT1
UTRN	VPS53	WNT3	XYLT2
UVSSA	VPS54	WNT4	Xist_exon1
VAMP1	VRK1	WNT5A	Xist_exon4
VANGL1	VSX1	WNT7A	YAP1
VANGL2	VSX2	WNT10A	YARS
VAPB	VWF	WNT10B	YARS2
VARS2	WARS2	WRAP53	YWHAE
VAV1	WAS	WRN	YWHAZ
VAX1	WASF3	WT1	ZACN
VCAN	WDPCP	WWC1	ZAP70
VCL	WDR11	WWOX	ZBTB12
VCP	WDR13	WWTR1	ZBTB16
VCY	WDR19	XBP1	ZBTB18
VDAC1	WDR34	XDH	ZBTB20
VDR	WDR35	XIAP	ZBTB24
VEGFA	WDR36	XIST	ZBTB25
VEGFC	WDR45	XIST_intron	ZC3H14
VEZT	WDR60	XK	ZC4H2
VHL	WDR62	XKRY	ZCCHC12
VIM	WDR65	XPA	ZDHHC9
VIPAS39	WDR72	XPC	ZDHHC15



ZEB1	ZNF575
ZEB2	ZNF592
ZFAT	ZNF644
ZFHX3	ZNF674
ZFHX4	ZNF711
ZFP57	ZNF750
ZFPM2	ZNF804A
ZFY	ZNF829
ZFYVE26	ZNHIT6
ZFYVE27	ZP1
ZIC1	ZRANB3
ZIC2	ZSWIM6
ZIC3	hsa-mir-96
ZIC4	hsa-mir-182
ZMPSTE24	hsa-mir-183
ZMYM3	hsa-mir-184
ZMYND10	hsa-mir-2861
ZMYND11	hsa-mir-3960
ZMYND15	
ZNF41	
ZNF81	
ZNF141	
ZNF335	
ZNF365	
ZNF407	
ZNF423	
ZNF469	
ZNF507	
ZNF513	
ZNF526	