



## Clinical Exome

Amby Lab identifies alterations in the genes and SNPs listed below.

Amby Lab Clinical Exome is designed to explore sequence of 5087 clinically-relevant genes plus 268 SNPs. These elements are known to be altered in hereditary diseases based on recent scientific and clinical literature.

GENE LIST									
A2M	A4GALT	A4GNT	AAAS	AADAC	AADA2L2	AANAT	AARS	AARS2	AASS
ABAT	ABCA1	ABCA10	ABCA12	ABCA13	ABCA2	ABCA3	ABCA4	ABCA7	ABCB1
ABCB11	ABCB4	ABCB6	ABCB7	ABCC1	ABCC11	ABCC2	ABCC3	ABCC4	ABCC6
ABCC8	ABCC9	ABCD1	ABCD3	ABCD4	ABCG1	ABCG2	ABCG5	ABCG8	ABHD12
ABHD5	ABI1	ABI3BP	ABL1	ABL2	ABO	ACACA	ACACB	ACAD8	ACAD9
ACADL	ACADM	ACADS	ACADSB	ACADVL	ACAN	ACAT1	ACAT2	ACBD5	ACBD6
ACCS	ACE	ACHE	ACLY	ACO2	ACOX1	ACP5	ACSF3	ACSL3	ACSL4
ACSL5	ACSM2B	ACSM3	ACTA1	ACTA2	ACTB	ACTC	ACTG1	ACTN2	ACTN3
ACTN4	ACVR1	ACVR1B	ACVR1C	ACVR2B	ACVRL1	ACY1	ADA	ADAM10	ADAM12
ADAM17	ADAM19	ADAM33	ADAM7	ADAM9	ADAMTS10	ADAMTS13	ADAMTS16	ADAMTS17	ADAMTS18
ADAMTS2	ADAMTSL2	ADAMTSL3	ADAMTSL4	ADAR	ADARB1	ADC	ADCK3	ADCY10	ADCY3
ADCY5	ADCY6	ADCY9	ADCYAP1	ADD1	ADH1B	ADH1C	ADH4	ADH5	ADH7
ADIPOQ	ADIPOR1	ADK	ADM	ADNP	ADORA1	ADORA2A	ADORA3	ADRA1A	ADRA2A
ADRA2B	ADRA2C	ADRB1	ADRB2	ADRB3	ADRBK2	ADSL	ADTRP	AFF2	AFF3
AFG3L2	AFP	AGA	AGBL4	AGER	AGGF1	AGK	AGL	AGMO	AGO1
AGO2	AGPAT2	AGPS	AGRN	AGRP	AGT	AGTR1	AGTR2	AGXT	AGXT2
AHCY	AHI1	AHR	AHRR	AHSG	AHSP	AICDA	AIF1	AIFM1	AIMP1
AIP	AIPL1	AIRE	AK1	AK2	AKAP10	AKAP13	AKAP2	AKAP9	AKR1B1
AKR1C2	AKR1C3	AKR1C4	AKR1D1	AKR7A2	AKR7A3	AKT1	AKT2	AKT3	ALAD
ALAS2	ALB	ALCAM	ALDH16A1	ALDH18A1	ALDH1A1	ALDH1A2	ALDH2	ALDH3A2	ALDH4A1
ALDH5A1	ALDH6A1	ALDH7A1	ALDOA	ALDOB	ALG1	ALG10B	ALG11	ALG12	ALG13
ALG2	ALG3	ALG6	ALG8	ALG9	ALK	ALMS1	ALOX12	ALOX12B	ALOX15
ALOX5	ALOX5AP	ALOXE3	ALPL	ALS2	ALS2CL	ALX1	ALX3	ALX4	AMACR
AMELX	AMELY	AMER1	AMG_mid100	AMH	AMHR2	AMN	AMPD1	AMPD3	AMT
ANAPC1	ANG	ANGPT1	ANGPTL3	ANGPTL4	ANGPTL5	ANK1	ANK2	ANK3	ANKH
ANKK1	ANKRD1	ANKRD11	ANKRD26	ANKS1A	ANKS1B	ANO10	ANO5	ANO6	ANO7
ANTXR1	ANTXR2	ANXA11	ANXA5	AOAH	AOC1	AP1S1	AP1S2	AP3B1	AP3B2
AP4B1	AP4E1	AP4M1	AP4S1	APAF1	APBA2	APBB1	APBB3	APC	APCDD1
APEX1	APH1A	APH1B	APLNLR	APOA1	APOA2	APOA4	APOA5	APOB	APOBEC3B
APOBEC3G	APOBEC3H	APOC1	APOC2	APOC3	APOC4	APOD	APOE	APOH	APOL1
APOL3	APOM	APP	APRT	APTX	AQP1	AQP2	AQP3	AQP4	AQP5
AQP7	AR	ARAF	AREL1	ARF4	ARFGF2	ARFRP1	ARG1	ARHGAP24	ARHGAP31
ARHGAP6	ARHGAP9	ARHGEF10	ARHGEF11	ARHGEF12	ARHGEF6	ARHGEF7	ARHGEF9	ARID1A	ARID1B

ARID2	ARL11	ARL13B	ARL6	ARL6IP5	ARMS2	ARNT	ARPC3	ARSA	ARSB
ARSE	ARSF	ART4	ARVCF	ARX	AS3MT	ASAH1	ASAH2	ASB10	ASCC1
ASCC3	ASCL1	ASIC3	ASIP	ASL	ASMT	ASMTL	ASNS	ASPA	ASPM
ASPN	ASPRV1	ASPSCR1	ASS1	ASTN2	ASXL1	ATCAY	ATF1	ATF3	ATF5
ATF6	ATG16L1	ATG7	ATIC	ATL1	ATM	ATM_SNP	ATN1	ATOH7	ATP10A
ATP10D	ATP13A2	ATP13A4	ATP1A1	ATP1A2	ATP1A3	ATP1B1	ATP2A1	ATP2A2	ATP2A3
ATP2B2	ATP2B3	ATP2B4	ATP2C1	ATP5E	ATP5SL	ATP6AP2	ATP6V0A1	ATP6V0A2	ATP6V0A4
ATP6V1B1	ATP7A	ATP7B	ATP8A2	ATP8B1	ATPAF2	ATR	ATRNL1	ATRX	ATXN1
ATXN10	ATXN2	ATXN3	ATXN3L	ATXN7	ATXN8OS	AUH	AURKA	AURKB	AURKC
AUTS2	AVP	AVPR1A	AVPR1B	AVPR2	AXIN1	AXIN2	AXL	B2M	B3GALNT1
B3GALT6	B3GALTL	B3GAT3	B3GNT1	B3GNT3	B4GALT1	B4GALT7	B9D1	B9D2	BAALC
BAAT	BACE1	BAG3	BAG6	BANF1	BANK1	BAP1	BARD1	BAX	BBS1
BBS10	BBS12	BBS2	BBS4	BBS5	BBS7	BBS9	BCAM	BCAP31	BCAT1
BCAT2	BCHE	BCKDHA	BCKDHB	BCL10	BCL11A	BCL11B	BCL2	BCL2A1	BCL2L1
BCL2L11	BCL2L2	BCL3	BCL6	BCL7A	BCL9	BCMO1	BCOR	BCORL1	BCR
BCS1L	BDKRB2	BDNF	BEAN1	BEST1	BEX4	BFSP1	BFSP2	BHLHA9	BHLHE41
BHMT	BICC1	BICD1	BIN1	BIRC3	BIRC5	BLK	BLM	BLMH	BLNK
BLOC1S3	BLVRA	BMI1	BMP1	BMP10	BMP15	BMP2	BMP2K	BMP4	BMP5
BMP7	BMPER	BMPR1A	BMPR1B	BMPR2	BNC2	BOLA3	BPGM	BPI	BPIFA1
BPY2	BRAF	BRAP	BRAT1	BRCA1	BRCA2	BRCC3	BRD1	BRD3	BRD4
BRIP1	BRSK2	BRWD1	BRWD3	BSCL2	BSG	BSND	BST1	BTAFA1	BTBD9
BTC	BTD	BTG1	BTK	BTLA	BTN1A1	BTN2A1	BTNL2	BTRC	BUB1B
C10orf11	C10orf137	C10orf2	C11orf30	C11orf46	C12orf10	C12orf57	C12orf65	C14orf133	C16orf57
C18orf1	C19orf12	C1GALT1	C1QA	C1QB	C1QC	C1QTNF5	C1R	C1S	C2
C20orf54	C20orf7	C2orf44	C2orf56	C2orf71	C3	C3AR1	C4A	C4B	C4BPA
C5	C5orf42	C6	C6orf15	C6orf221	C7	C7orf10	C7orf11	C8A	C8B
C8orf37	C8orf38	C9	C9orf72	C9orf86	CA1	CA12	CA2	CA4	CA6
CA8	CABIN1	CABP4	CACNA1A	CACNA1C	CACNA1D	CACNA1E	CACNA1F	CACNA1G	CACNA1H
CACNA1S	CACNA2D1	CACNA2D3	CACNA2D4	CACNB2	CACNB4	CACNG2	CADM1	CALCA	CALCR
CALHM1	CALM1	CALM3	CALR	CALR3	CAMK4	CAMKK1	CAMKK2	CAMP	CAMTA1
CANT1	CAPN10	CAPN13	CAPN3	CARD11	CARD14	CARD8	CARD9	CARS	CARTPT
CASC16	CASC5	CASK	CASP1	CASP10	CASP12	CASP2	CASP3	CASP5	CASP8
CASP9	CASQ2	CASR	CAST	CAT	CATSPER1	CATSPER2	CATSPER3	CATSPER4	CAV1
CAV3	CBFA2T3	CBFB	CBL	CBLB	CBLC	CBR1	CBR3	CBS	CBX2
CBX4	CC2D1A	CC2D2A	CCBE1	CCDC103	CCDC14	CCDC170	CCDC22	CCDC28B	CCDC39
CCDC40	CCDC50	CCDC6	CCDC8	CCDC88C	CCHCR1	CCK	CCKAR	CCKBR	CCL11
CCL13	CCL17	CCL2	CCL22	CCL26	CCL3L1	CCL4L1	CCL5	CCL7	CCM2
CCNA2	CCNB1IP1	CCND1	CCND2	CCND3	CCNE1	CCPG1	CCR1	CCR2	CCR3
CCR5	CCR6	CCR7	CCRL2	CCT5	CD109	CD14	CD151	CD177	CD19
CD1A	CD1E	CD207	CD209	CD22	CD226	CD24	CD244	CD247	CD27
CD274	CD2AP	CD320	CD36	CD38	CD3D	CD3E	CD3EAP	CD3G	CD4
CD40	CD40LG	CD44	CD46	CD5	CD55	CD58	CD59	CD72	CD74
CD79A	CD79B	CD81	CD86	CD8A	CD96	CDA	CDAN1	CDC42BPB	CDC6
CDC73	CDH1	CDH11	CDH12	CDH13	CDH15	CDH23	CDH3	CDH5	CDH8
CDHR1	CDK11A	CDK12	CDK4	CDK5R1	CDK5RAP2	CDK5RAP3	CDK6	CDK7	CDK8
CDKL3	CDKL5	CDKN1A	CDKN1B	CDKN1C	CDKN2A	CDKN2B	CDKN2B-AS1	CDKN2C	CDON

CDSN	CDT1	CDX2	CDY1	CDY2A	CEACAM16	CEBPA	CEBPE	CEL	CELSR1
CENPJ	CEP135	CEP152	CEP290	CEP41	CEP57	CEP63	CEP68	CEP85L	CEP89
CER1	CERKL	CERS6	CES1	CES2	CETP	CFB	CFC1	CFD	CFH
CFHR1	CFHR2	CFHR3	CFHR4	CFHR5	CFI	CFL2	CFLAR	CFP	CFTR
CGA	CGB	CHAT	CHCHD7	CHD1L	CHD2	CHD3	CHD4	CHD6	CHD7
CHD8	CHDH	CHEK1	CHEK2	CHFR	CHGA	CHGB	CHI3L1	CHI3L2	CHIA
CHIC2	CHIT1	CHKB	CHL1	CHM	CHMP2B	CHMP4B	CHN1	CHRD1	CHRFAM7A
CHRM1	CHRM2	CHRM3	CHRNA1	CHRNA2	CHRNA3	CHRNA4	CHRNA5	CHRNA7	CHRNA9
CHRN1	CHRN2	CHRN4	CHRND	CHRNE	CHRNA3	CHST14	CHST3	CHST6	CHST8
CHSY1	CHUK	CIB2	CIC	CIDEA	CIDEC	CIITA	CILP	CIRH1A	CISD2
CISH	CITED2	CKM	CLCA1	CLCA2	CLCF1	CLCN1	CLCN2	CLCN5	CLCN7
CLCNKA	CLCNKB	CLDN1	CLDN14	CLDN16	CLDN19	CLEC11A	CLEC2D	CLEC4M	CLEC7A
CLIC2	CLIP1	CLK2	CLMP	CLN3	CLN5	CLN6	CLN8	CLNK	CLOCK
CLPS	CLPTM1	CLRN1	CLSTN2	CLTC	CLTCL1	CLU	CLUL1	CLYBL	CMA1
CMPK1	CNBP	CNDP1	CNGA1	CNGA3	CNGB1	CNGB3	CNKS1	CNKS2	CNNM2
CNNM4	CNOT3	CNOT4	CNPY3	CNR1	CNR2	CNTF	CNTN1	CNTN4	CNTNAP2
CNTNAP4	CNTNAP5	COA5	COCH	COG1	COG4	COG5	COG6	COG7	COG8
COL10A1	COL11A1	COL11A2	COL12A1	COL17A1	COL18A1	COL1A1	COL1A2	COL25A1	COL2A1
COL3A1	COL4A1	COL4A2	COL4A3	COL4A4	COL4A5	COL4A6	COL5A1	COL5A2	COL6A1
COL6A2	COL6A3	COL6A4P2	COL6A5	COL7A1	COL8A2	COL9A1	COL9A2	COL9A3	COLEC11
COLQ	COMMD1	COMP	COMT	COQ2	COQ4	COQ5	COQ6	COQ9	CORIN
CORO1A	COX10	COX14	COX15	COX4I1	COX4I2	COX6B1	COX6C	COX7A1	COX7A2
CP	CPA4	CPA6	CPB2	CPE	CPLX2	CPN1	CPOX	CPS1	CPT1A
CPT1B	CPT2	CPZ	CR1	CR2	CRADD	CRB1	CRBN	CREB1	CREB3L1
CREB3L2	CREB3L3	CREBBP	CRELD1	CRH	CRHR1	CRISP2	CRK	CRKL	CRLF1
CRLF2	CRP	CRTAP	CRTC3	CRX	CRYAA	CRYAB	CRYBA1	CRYBA4	CRYBB1
CRYBB2	CRYBB3	CRYGB	CRYGC	CRYGD	CRYGEP	CRYGS	CRYM	CSAG1	CSDE1
CSF1	CSF1R	CSF2	CSF2RA	CSF2RB	CSF3R	CSGALNACT1	CSH1	CSMD1	CSMD3
CSNK1A1L	CSNK1D	CSNK1E	CSNK2A2	CSNK2A3	CSRP3	CST3	CSTA	CSTB	CSTF2T
CTC1	CTCF	CTDP1	CTF1	CTGF	CTH	CTHRC1	CTLA4	CTNNA1	CTNNA3
CTN1B	CTNND1	CTNS	CTRC	CTSA	CTSB	CTSC	CTSD	CTSG	CTSK
CTSZ	CTTNBP2	CUBN	CUL3	CUL4B	CUL5	CUL7	CUX1	CX3CR1	CXCL10
CXCL11	CXCL12	CXCL16	CXCL5	CXCR1	CXCR3	CXCR4	CY5A	CY5R3	CYBA
CYBB	CYBRD1	CYCS	CYLD	CYP11A1	CYP11B1	CYP11B2	CYP17A1	CYP19A1	CYP1A1
CYP1A2	CYP1B1	CYP21A2	CYP24A1	CYP26A1	CYP26B1	CYP27A1	CYP27B1	CYP2A13	CYP2A6
CYP2B6	CYP2C18	CYP2C19	CYP2C8	CYP2C9	CYP2D6	CYP2D7P1	CYP2E1	CYP2F1	CYP2G1P
CYP2J2	CYP2R1	CYP2W1	CYP3A4	CYP3A43	CYP3A5	CYP3A5P1	CYP3A7	CYP46A1	CYP4A11
CYP4A22	CYP4B1	CYP4F12	CYP4F2	CYP4F22	CYP4F3	CYP7A1	CYP7B1	CYPV2	CYSLTR1
CYSLTR2	D2HGDH	DAG1	DAO	DAOA	DAPK1	DARC	DARS2	DAXX	DAZ1
DAZ2	DAZ3	DAZL	DBH	DBI	DBT	DCAF13	DCAF17	DCC	DCDC2
DCK	DCLK1	DCLRE1C	DCN	DCP1B	DCTD	DCTN1	DCX	DCXR	DDAH1
DDAH2	DDB2	DDC	DDIT3	DDOST	DDR1	DDR2	DDX10	DDX11	DDX20
DDX25	DDX39B	DDX3Y	DDX5	DDX53	DDX58	DDX6	DEAF1	DEC1	DECR1
DEFB1	DEFB126	DEFB4A	DEK	DES	DFNA5	DFNB31	DFNB59	DGAT1	DGCR14
DGCR2	DGCR5	DGCR6	DGCR8	DGKD	DGUOK	DHCR24	DHCR7	DHDDS	DHFR
DHH	DHODH	DHRS4L1	DHX16	DHX36	DHX37	DIABLO	DIAPH1	DIAPH2	DIAPH3

DICER1	DIO1	DIO2	DIP2A	DIP2B	DIP2C	DIRC2	DIS3L2	DISC1	DISP1
DKC1	DKK2	DKK3	DLAT	DLD	DLG3	DLG5	DLGAP2	DLGAP3	DLL1
DLL3	DLX3	DLX5	DLX6	DMBT1	DMC1	DMD	DMGDH	DMP1	DMPK
DMRT1	DMXL1	DNAAF1	DNAAF2	DNAAF3	DNAH11	DNAH5	DNAH9	DNAI1	DNAI2
DNAJA4	DNAJB2	DNAJB6	DNAJC19	DNAJC5	DNAJC6	DNAL1	DNASE1	DNASE1L3	DNASE2
DND1	DNM1	DNM1L	DNM2	DNMT1	DNMT3A	DNMT3B	DNMT3L	DOC2A	DOCK3
DOCK4	DOCK6	DOCK8	DOCK9	DOK7	DOLK	DOT1L	DPAGT1	DPM1	DPM3
DPP10	DPP6	DPY19L2	DPYD	DPYS	DPYSL2	DRD1	DRD2	DRD3	DRD4
DRD5	DROSHA	DRP2	DSC2	DSC3	DSCAM	DSCR8	DSG1	DSG2	DSG4
DSP	DSPP	DST	DTNA	DTNBP1	DUOX2	DUOXA2	DUSP23	DUX4	DXO
DYM	DYNC1H1	DYNC2H1	DYRK1A	DYSF	DYX1C1	EARS2	EBAG9	EBF1	EBP
ECE1	ECI1	ECM1	ECM2	ECSIT	ECT2L	EDA	EDA2R	EDAR	EDARADD
EDN1	EDN2	EDN3	EDNRA	EDNRB	EEF1B2	EEF2K	EFCAB5	EFEMP1	EFEMP2
EFHC1	EFHC2	EFNB1	EFR3A	EFTUD2	EGF	EGFR	EGLN1	EGR2	EGR3
EHD2	EHMT1	EHMT2	EIF2AK3	EIF2B1	EIF2B2	EIF2B3	EIF2B4	EIF2B5	EIF3E
EIF3H	EIF4A2	EIF4E	EIF4G1	ELAC2	ELANE	ELAVL2	ELF4	ELK1	ELK4
ELL	ELN	ELOVL4	ELP2	ELP4	EMC4	EMD	EME1	EMG1	EML4
EMX2	EN2	ENAM	ENG	ENO1	ENO3	ENPP1	ENSA	ENTPD1	EOMES
EP300	EPAS1	EPB41	EPB41L1	EPB42	EPC2	EPCAM	EPHA2	EPHA3	EPHA5
EPHA7	EPHB1	EPHB2	EPHB6	EPHX1	EPHX2	EPM2A	EPO	EPOR	EPS15
EPX	ERAP1	ERAP2	ERBB2	ERBB3	ERBB4	ERC1	ERCC1	ERCC2	ERCC3
ERCC4	ERCC5	ERCC6	ERCC8	ERG	ERLIN2	ERMAP	ERRFI1	ESAM	ESCO2
ESPN	ESR1	ESR2	ESRRB	ESRRG	ETFA	ETFB	ETFDH	ETHE1	ETNPPL
ETS1	ETV1	ETV4	ETV5	ETV6	EVC	EVC2	EVI5	EWSR1	EXO1
EXO5	EXOC4	EXOSC3	EXT1	EXT2	EXTL3	EYA1	EYA4	EYS	EZH2
EZR	F10	F11	F12	F13A1	F13B	F2	F2R	F2RL1	F3
F5	F7	F8	F9	FA2H	FAAH	FAAH2	FABP1	FABP2	FABP3
FABP4	FABP6	FABP7	FADD	FADS2	FAH	FAM120A	FAM126A	FAM134B	FAM161A
FAM205A	FAM20A	FAM20C	FAM46C	FAM58A	FAM83H	FAM8A1	FAM91A1	FANCA	FANCB
FANCC	FANCD2	FANCE	FANCF	FANCG	FANCI	FANCL	FANCM	FARS2	FAS
FASLG	FASN	FASTKD2	FAT1	FBLIM1	FBLN1	FBLN5	FBN1	FBN2	FBN3
FBP1	FBXL6	FBXO10	FBXO11	FBXO18	FBXO7	FBXW11	FBXW4	FBXW7	FCAR
FCER1A	FCER2	FCGR1A	FCGR2A	FCGR2B	FCGR3A	FCGR3B	FCGRT	FCN2	FCN3
FCRL3	FDFT1	FECH	FEM1A	FEN1	FERMT1	FERMT3	FEV	FEZF2	FFAR1
FFAR4	FGA	FGB	FGD1	FGD3	FGD4	FGF1	FGF10	FGF14	FGF19
FGF2	FGF20	FGF23	FGF3	FGF4	FGF6	FGF8	FGF9	FGFBP1	FGFR1
FGFR10P	FGFR2	FGFR3	FGFR4	FGFRL1	FGG	FH	FHIT	FHL1	FHL2
FIG4	FIGLA	FIP1L1	FKBP10	FKBP14	FKBP5	FKBP6	FKBPL	FKRP	FKTN
FLCN	FLG	FLI1	FLNA	FLNB	FLNC	FLT1	FLT3	FLT4	FLVCR1
FLVCR2	FMN1	FMN2	FMO1	FMO2	FMO3	FMO4	FMO5	FMO6P	FMR1
FN1	FN3K	FNBP1	FOLH1	FOLR1	FOXA1	FOXA2	FOXA3	FOXC1	FOXC2
FOXD3	FOXD4	FOXE1	FOXE3	FOXF1	FOXF2	FOXG1	FOXH1	FOXI1	FOXL2
FOXN1	FOXO4	FOXP1	FOXP2	FOXP3	FOXRED1	FPGS	FPR1	FPR2	FRA10AC1
FRAS1	FREM1	FREM2	FREM3	FRG1	FRK	FRMD6	FRMD7	FRMPD4	FRS2
FRY	FRZB	FSCB	FSCN2	FSHB	FSHR	FSTL3	FTCD	FTH1	FTHL17
FTL	FTO	FTSJ1	FUBP1	FUCA1	FURIN	FUS	FUT1	FUT2	FUT3
FUT6	FUT7	FUT8	FUZ	FXN	FXYD2	FXYD6	FYCO1	FZD1	FZD3

FZD4	FZD6	FZD9	G6PC	G6PC2	G6PC3	G6PD	GAA	GAB2	GABBR1
GABRA1	GABRA5	GABRA6	GABRB3	GABRD	GABRG1	GABRG2	GABRG3	GABRR2	GAD1
GAD2	GADD45B	GAK	GAL3ST3	GALC	GALE	GALK1	GALNS	GALNT12	GALNT18
GALNT2	GALNT3	GALNT9	GALNTL5	GALP	GALT	GAMT	GAN	GAP43	GARS
GAS1	GAS2L2	GAS6	GAS7	GATA1	GATA2	GATA3	GATA4	GATA6	GATAD1
GATM	GBA	GBA3	GBE1	GBGT1	GC	GCDH	GCGR	GCH1	GCK
GCKR	GCLC	GCLM	GCM2	GCNT2	GCSH	GDAP1	GDF1	GDF15	GDF3
GDF5	GDF6	GDF9	GDI1	GDNF	GEMIN2	GEMIN4	GFAP	GFER	GFI1
GFI1B	GFM1	GFPT1	GFPT2	GFRA1	GGCX	GGH	GGT5	GH1	GH2
GHR	GHRH	GHRHR	GHRL	GHSR	GID4	GIF	GIGYF2	GIMAP8	GIP
GIPC3	GIPR	GIT1	GJA1	GJA3	GJA4	GJA5	GJA8	GJB1	GJB2
GJB3	GJB4	GJB6	GJC2	GJC3	GJD2	GK	GLA	GLB1	GLCCI1
GLDC	GLE1	GLI1	GLI2	GLI3	GLIS2	GLIS3	GLMN	GLO1	GLP1R
GLRA1	GLRB	GLRX5	GLS	GLTSCR1	GLUD1	GLUD2	GLUL	GLYCTK	GM2A
GMIP	GMPS	GNA11	GNA13	GNA14	GNAI2	GNAQ	GNAS	GNAS-AS1	GNAT1
GNAT2	GNB1L	GNB3	GNB5	GNE	GNMT	GNPAT	GNPTAB	GNPTG	GNRH1
GNRHR	GNS	GOLGA3	GOLGA5	GON4L	GOPC	GORAB	GOSR2	GOT1	GP1BA
GP1BB	GP2	GP6	GP9	GPAM	GPANK1	GPATCH8	GPBAR1	GPC3	GPC4
GPC6	GPD1	GPD1L	GPD2	GPHN	GPI	GPIHBP1	GPR1	GPR12	GPR124
GPR139	GPR143	GPR179	GPR33	GPR55	GPR56	GPR68	GPR77	GPR98	GPS1
GPSM2	GPT	GPX1	GPX4	GRB10	GREM1	GRHL2	GRHPR	GRIA3	GRID1
GRIK1	GRIK2	GRIK3	GRIK4	GRIN1	GRIN2A	GRIN2B	GRIN3A	GRIP1	GRK1
GRK4	GRK5	GRM1	GRM3	GRM5	GRM6	GRM7	GRM8	GRN	GRPR
GRXCR1	GSC	GSDMA	GSDMB	GSE1	GSK3B	GSN	GSPT1	GSPT2	GSR
GSS	GSTA1	GSTA2	GSTA3	GSTK1	GSTM1	GSTM3	GSTM4	GSTO1	GSTO2
GSTP1	GSTT1	GSTT2	GSTT2B	GSTZ1	GTDC2	GTF2E1	GTF2H1	GTF2H5	GTF2IRD1
GTF2IRD2	GUCA1A	GUCA1B	GUCY2C	GUCY2D	GUSB	GYG1	GYLTL1B	GYP A	GYPB
GYPE	GYPE	GYS1	GYS2	GZMB	H19	H2BFWT	H3F3A	H3F3B	H6PD
HABP2	HACE1	HADH	HADHA	HADHB	HAL	HAMP	HAND1	HAND2	HARS
HARS2	HAS1	HAVCR1	HAX1	HBA1	HBA2	HBB	HBD	HBE1	HBEGF
HBG1	HBG2	HBM	HBS1L	HBZ	HCCS	HCK	HCLS1	HCN1	HCN2
HCN4	HCP5	HCRT	HCRTR1	HCRTR2	HDAC4	HDAC8	HDAC9	HDC	HDLBP
HDX	HEATR2	HELQ	HEPACAM	HERC2	HERPUD1	HES6	HES7	HESX1	HEXA
HEXB	HEY1	HFE	HFE2	HGD	HGF	HGSNAT	HHEX	HHIP	HIBCH
HIF1A	HIF1AN	HIGD2A	HIP1	HIST1H2AE	HIST1H3B	HIST1H4I	HIST3H3	HK1	HK2
HLA-A	HLA-B	HLA-C	HLA-DMB	HLA-DOA	HLA-DPB1	HLA-DPB2	HLA-DQA1	HLA-DQB1	HLA-DRA
HLA-DRB1	HLA-DRB5	HLA-E	HLA-G	HLCS	HLF	HLX	HMBS	HMCN1	HMGA1
HMGA2	HMGCL	HMGCR	HMGCS2	HMHA1	HMOX1	HMOX2	HMSD	HMX1	HMX2
HNF1A	HNF1B	HNF4A	HNMT	HNRNPA2B1	HNRNPH3	HNRNPU	HOGA1	HOMER2	HOOK3
HOXA1	HOXA10	HOXA11	HOXA13	HOXA2	HOXA4	HOXA9	HOXB13	HOXB6	HOXC11
HOXC13	HOXD10	HOXD11	HOXD13	HOXD4	HP	HPD	HPGD	HPRT1	HPS1
HPS3	HPS4	HPS5	HPS6	HPSE2	HR	HRAS	HRC	HRG	HRH2
HRH3	HS1BP3	HS6ST1	HSD11B1	HSD11B2	HSD17B1	HSD17B10	HSD17B2	HSD17B3	HSD17B4
HSD3B1	HSD3B2	HSD3B7	HSF4	HSFY1	HSN2	HSP90AA1	HSP90B1	HSPA1A	HSPA1B
HSPA1L	HSPA5	HSPA8	HSPA9	HSPB1	HSPB3	HSPB6	HSPB7	HSPB8	HSPD1
HSPG2	HTN3	HTR1A	HTR1B	HTR2A	HTR2B	HTR2C	HTR3A	HTR3B	HTR3C
HTR3E	HTR5A	HTR6	HTR7	HTRA1	HTRA2	HTT	HUS1B	HUWE1	HVCN1

HYAL1	HYDIN	HYLS1	HYMAI	IAPP	IBSP	ICAM1	ICAM4	ICAM5	ICK
ICOS	ID3	IDE	IDH1	IDH2	IDH3B	IDO1	IDS	IDUA	IER3IP1
IFI30	IFI44L	IFIH1	IFITM3	IFITM5	IFNA10	IFNA17	IFNA2	IFNAR1	IFNAR2
IFNG	IFNGR1	IFNGR2	IFNL3	IFRD1	IFT122	IFT140	IFT43	IFT80	IGBP1
IGF1	IGF1R	IGF2	IGF2R	IGFALS	IGFBP1	IGFBP3	IGFBP5	IGFBP7	IGHA1
IGHG2	IGHM	IGHMBP2	IGKV	IGLL1	IHH	IKBIP	IKBKAP	IKBKE	IKBKG
IKZF1	IL10	IL10RA	IL10RB	IL11RA	IL12A	IL12B	IL12RB1	IL12RB2	IL13
IL16	IL17A	IL17F	IL17RA	IL17RB	IL17REL	IL18	IL18R1	IL18RAP	IL19
IL1A	IL1B	IL1R1	IL1RAPL1	IL1RL1	IL1RN	IL2	IL20RA	IL20RB	IL21
IL21R	IL23R	IL2RA	IL2RG	IL3	IL31RA	IL36RN	IL4	IL4R	IL5
IL6	IL6R	IL6ST	IL7	IL7R	IL8	IL9	IL9R	ILDR1	ILK
IMMP2L	IMMT	IMPA2	IMPAD1	IMPDH1	IMPDH2	IMPG2	INF2	INHA	INHBA
INMT	INPP4A	INPP4B	INPP5E	INS	INSIG1	INSIG2	INSL3	INSL6	INSR
INVS	IQCB1	IQGAP1	IQGAP2	IQGAP3	IQSEC2	IRAK1	IRAK3	IRAK4	IRF1
IRF2	IRF4	IRF5	IRF6	IRF7	IRF8	IRGM	IRS1	IRS2	IRS4
IRX4	IRX5	ISCA_nsv49 1521	ISCA_nsv49 1533	ISCA_nsv49 1548	ISCU	ISL1	ISPD	ISYNA1	ITCH
ITGA11	ITGA2	ITGA2B	ITGA3	ITGA4	ITGA6	ITGA7	ITGA9	ITGAE	ITGAM
ITGB2	ITGB3	ITGB4	ITIH1	ITIH3	ITIH4	ITIH6	ITK	ITM2B	ITPA
ITPKC	ITPR1	ITPR3	ITSN2	IVD	IYD	JAG1	JAG2	JAK1	JAK2
JAK3	JAM3	JAZF1	JMJD1C	JPH2	JPH3	JRK	JUN	JUP	KAL1
KALRN	KANK1	KANSL1	KARS	KAT6A	KAT6B	KATNAL2	KBTBD13	KCN_3	KCNA1
KCNA3	KCNA5	KCNAB2	KCNC3	KCND2	KCND3	KCNE1	KCNE1L	KCNE2	KCNE3
KCNE4	KCNH2	KCNIP4	KCNJ1	KCNJ10	KCNJ11	KCNJ13	KCNJ15	KCNJ18	KCNJ2
KCNJ3	KCNJ5	KCNJ6	KCNJ8	KCNJ9	KCNK18	KCNK6	KCNK9	KCNMA1	KCNMB1
KCNMB3	KCNN3	KCNQ1	KCNQ2	KCNQ3	KCNQ4	KCNS1	KCNS3	KCTD13	KCTD7
KDM4C	KDM5A	KDM5C	KDM5D	KDM6A	KDM6B	KDR	KEAP1	KEL	KERA
KHK	KIAA0100	KIAA0196	KIAA0226	KIAA0232	KIAA0319	KIAA0415	KIAA0513	KIAA1033	KIAA1199
KIAA1279	KIAA1377	KIAA1432	KIAA1462	KIAA1549	KIAA1598	KIAA2022	KIF11	KIF17	KIF18A
KIF1A	KIF1B	KIF21A	KIF22	KIF5A	KIF5B	KIF6	KIF7	KIFAP3	KIR2DL1
KIR2DL3	KIR2DL4	KIR3DL1	KIR3DL2	KIRREL3	KISS1	KISS1R	KIT	KITLG	KL
KLB	KLF1	KLF10	KLF11	KLF4	KLF5	KLF6	KLF7	KLHDC8B	KLHL10
KLHL3	KLHL6	KLHL7	KLHL9	KLK1	KLK12	KLK15	KLK2	KLK3	KLK4
KLK7	KLKB1	KLRK1	KMT2A	KMT2C	KMT2D	KMT2E	KNG1	KPNA1	KRAS
KRIT1	KRT1	KRT10	KRT12	KRT13	KRT14	KRT16	KRT17	KRT18	KRT2
KRT3	KRT31	KRT37	KRT38	KRT4	KRT5	KRT6A	KRT6B	KRT6C	KRT74
KRT75	KRT8	KRT81	KRT83	KRT85	KRT86	KRT9	KRTAP1-1	KTN1	KYNU
L1CAM	L2HGDH	L3MBTL1	LAMA1	LAMA2	LAMA3	LAMA4	LAMA5	LAMB1	LAMB2
LAMB3	LAMC1	LAMC2	LAMC3	LAMP2	LAMTOR2	LARGE	LARS2	LASP1	LBP
LBR	LCA5	LCAT	LCE3B	LCE3C	LCE5A	LCK	LCN10	LCP1	LCT
LDB3	LDHA	LDHB	LDLR	LDLRAP1	LEFTY2	LEMD3	LEP	LEPR	LEPRE1
LEPREL1	LETM1	LFNG	LGALS13	LGALS2	LGALS3	LGI1	LHB	LHCGR	LHFP
LHFPL5	LHX1	LHX3	LHX4	LHX8	LIAS	LIF	LIFR	LIG1	LIG3
LIG4	LILRA3	LIM2	LIMK1	LIN28A	LIN28B	LINS	LIPA	LIPC	LIPE
LIPG	LIPH	LIPI	LIPN	LITAF	LLGL1	LMAN1	LMBR1	LMBRD1	LMF1
LMNA	LMNB1	LMNB2	LMO1	LMO2	LMTK3	LMX1B	LNX2	loc344967	LOR
LOX	LOXHD1	LOXL1	LOXL2	LPA	LPAR1	LPAR6	LPIN1	LPIN2	LPIN3

LPL	LPP	LRAT	LRCH1	LRFN5	LRIG3	LRP1	LRP1B	LRP2	LRP4
LRP5	LRP6	LRP8	LRPAP1	LRPPRC	LRRC4	LRRC6	LRRC8A	LRRK2	LRSAM1
LRTOMT	LSM14A	LTA	LTBP1	LTBP2	LTBP3	LTBP4	LTC4S	LTF	LTK
LTN1	LUM	LY96	LYL1	LYN	LYST	LYZ	LZTFL1	LZTR1	LZTS1
MACROD2	MAD1L1	MAD2L1	MADD	MAF	MAFB	MAGEE2	MAGEL2	MAGI2	MAGT1
MAK	MALAT1	MALT1	MAML2	MAMLD1	MAN1A2	MAN1B1	MAN2B1	MANBA	MAOA
MAOB	MAP2	MAP2K1	MAP2K2	MAP2K3	MAP2K4	MAP3K1	MAP3K15	MAP4K5	MAP6
MAP7D3	MAPK10	MAPK8IP1	MAPT	MARS2	MARVELD2	MASP1	MASP2	MAST4	MASTL
MAT1A	MATN3	MATR3	MAVS	MAX	MBD1	MBD3	MBD4	MBD5	MBL2
MBTPS2	MC1R	MC2R	MC3R	MC4R	MCCC1	MCCC2	MCEE	MCF2L2	MCFD2
MCHR1	MCL1	MCM3AP	MCM4	MCM5	MCM6	MCOLN1	MCPH1	MDH1	MDM2
MDM4	MDN1	MDS2	MECP2	MED12	MED13	MED13L	MED17	MED23	MED25
MEF2A	MEF2B	MEF2C	MEFV	MEGF10	MEGF11	MEIS1	MEIS2	MEN1	MEP1B
MERTK	MESDC2	MESP2	MEST	MET	MFF	MFGE8	MF12	MFN2	MFRP
MFSD2A	MFSD8	MGAT1	MGAT2	MGAT4C	MGEA5	MGLL	MGMT	MGP	MGST2
MGST3	MIA3	MIAT	MICA	MICB	MID1	MIF	MIIP	MINPP1	MIP
MIPOL1	MIR106B	MIR124-1	MIR125A	MIR126	MIR140	MIR146A	MIR16-1	MIR17	MIR17HG
MIR182	MIR184	MIR191	MIR196A2	MIR206	MIR24-1	MIR27A	MIR2861	MIR30C1	MIR34B
MIR499A	MIR502	MIR510	MIR890	MIR892B	MIR934	MIR96	MIRLET7E	MITF	MKKS
MKL1	MKRN3	MKS1	MLC1	MLF1	MLH1	MLH3	MLLT1	MLLT10	MLLT3
MLLT4	MLLT6	MLPH	MLXIPL	MLYCD	MMAA	MMAB	MMACHC	MMADHC	MME
MMEL1	MMP1	MMP10	MMP12	MMP13	MMP14	MMP2	MMP20	MMP3	MMP7
MMP8	MMP9	MN1	MNX1	MOCOS	MOCS1	MOCS2	MOG	MOGS	MOK
MPDU1	MPDZ	MPG	MPHOSPH8	MPI	MPL	MPO	MPP3	MPP4	MPP6
MPP7	MPST	MPV17	MPZ	MR1	MRAP	MRC1	MRE11A	MRPL3	MRPL48
MRPS16	MRPS22	MRRF	MS4A1	MS4A12	MS4A2	MS4A3	MS4A6A	MS4A6E	MSH2
MSH3	MSH4	MSH5	MSH6	MSI2	MSMB	MSMO1	MSN	MSR1	MSRB3
MST1	MST1R	MSTN	MSX1	MSX2	MT1A	MT2A	MTAP	MTCH2	MTCP1
MTFMT	MTHFD1	MTHFD1L	MTHFR	MTHFS	MTM1	MTMR14	MTMR2	MTMR9	MTNR1A
MTNR1B	MTO1	MTOR	MTPAP	MTR	MTRR	MTPP	MTUS1	MUC1	MUC13
MUC2	MUC3A	MUC4	MUC5B	MUC6	MUC7	MURC	MUSK	MUT	MUTYH
MVK	MX1	MYB	MYBL2	MYBPC1	MYBPC3	MYC	MYCL	MYCN	MYD88
MYF6	MYH11	MYH13	MYH14	MYH15	MYH2	MYH3	MYH6	MYH7	MYH8
MYH9	MYL2	MYL3	MYLIP	MYLK	MYLK2	MYO15A	MYO18B	MYO1A	MYO1C
MYO1E	MYO1F	MYO3A	MYO5A	MYO5B	MYO6	MYO7A	MYO7B	MYO9B	MYOC
MYOCD	MYOM1	MYOT	MYOZ2	MYPN	MYT1	MYT1L	NAA10	NAB2	NACA
NAGA	NAGLU	NAGPA	NAGS	NAIP	NAMPT	NAPRT1	NARS2	NAT1	NAT2
NAT8L	NAV2	NBAS	NBEA	NBEAL2	NBN	NBPF1	NCALD	NCAM1	NCAN
NCAPD2	NCF1	NCF2	NCF4	NCKAP1	NCOA1	NCOA2	NCOA3	NCOA4	NCR3
NCS1	NCSTN	NDE1	NDN	NDOR1	NDP	NDRG1	NDST1	NDUFA1	NDUFA10
NDUFA11	NDUFA12	NDUFA13	NDUFA2	NDUFA4	NDUFA6	NDUFA7	NDUFA8	NDUFA9	NDUFAF1
NDUFAF2	NDUFAF3	NDUFAF4	NDUFAF5	NDUFAF6	NDUFB1	NDUFB3	NDUFB6	NDUFB9	NDUFC2
NDUFS1	NDUFS2	NDUFS3	NDUFS4	NDUFS5	NDUFS6	NDUFS7	NDUFS8	NDUFV1	NDUFV2
NDUFV3	NEB	NEBL	NEDD4L	NEDD9	NEFH	NEFL	NEFM	NEGR1	NEIL1
NEIL2	NEK1	NEK8	NELF	NELFA	NELL1	NEU1	NEU2	NEUROD1	NEUROG3
NEXN	NF1	NF2	NFATC2	NFATC4	NFE2L2	NFIA	NFIB	NFIX	NFKB1
NFKB2	NFKBIA	NFKBIL1	NFU1	NGF	NGFR	NHEJ1	NHLRC1	NHP2	NHS

NID1	NIN	NINJ1	NIPA1	NIPAL4	NIPBL	NIPSNAP1	NIPSNAP3A	NKAIN2	NKX2-1
NKX2-3	NKX2-5	NKX2-6	NKX3-1	NKX3-2	NLGN1	NLGN2	NLGN3	NLGN4X	NLGN4Y
NLRP1	NLRP12	NLRP14	NLRP2	NLRP3	NLRP7	NLRX1	NMB	NME1	NMNAT1
NMT2	NMU	NOBOX	NOD1	NOD2	NODAL	NOG	NONO	NOP10	NOP56
NOS1	NOS1AP	NOS2	NOS3	NOTCH1	NOTCH2	NOTCH3	NOTCH4	NPAP1	NPAS2
NPAS3	NPAT	NPC1	NPC1L1	NPC2	NPFFR2	NPHP1	NPHP3	NPHP4	NPHS1
NPHS2	NPL	NPM1	NPPA	NPPB	NPPC	NPR1	NPR2	NPR3	NPSR1
NPTN	NPY	NPY1R	NPY2R	NQO1	NQO2	NR0B1	NR0B2	NR1H2	NR1H3
NR1H4	NR1I2	NR1I3	NR2E1	NR2E3	NR2F1	NR3C1	NR3C2	NR4A2	NR4A3
NR5A1	NRAS	NRG1	NRG3	NRIP1	NRL	NRP2	NRTN	NRXN1	NRXN2
NRXN3	NSD1	NSDHL	NSUN2	NSUN7	NT5C1B	NT5C2	NT5C3	NT5E	NTF3
NTF4	NTHL1	NTNG1	NTRK1	NTRK2	NTRK3	NUAK1	NUBPL	NUDC	NUDT1
NUDT6	NUMA1	NUMBL	NUP155	NUP214	NUP62	NUP93	NUP98	NUTM2A	NUTM2B
NXF3	NXF5	NXNL1	NYX	OAS1	OAS2	OAT	OAZ1	OBSCN	OBSL1
OCA2	OCLN	OCRL	ODC1	OFD1	OGG1	OLFM2	OLIG2	OLR1	OMD
OMG	OPA1	OPA3	OPCML	OPHN1	OPN1LW	OPN1MW	OPN1SW	OPN4	OPRD1
OPRK1	OPRL1	OPRM1	OPTC	OPTN	OR13G1	OR7D4	ORAI1	ORC1	ORC4
ORC6	ORMDL3	OSMR	OSR1	OSTM1	OTC	OTOA	OTOF	OTOR	OTX2
OVGP1	OXCT1	OXTR	P2RX1	P2RX4	P2RX5	P2RX7	P2RY11	P2RY12	P2RY4
P2RY8	PABPC4L	PABPN1	PACRG	PAFAH1B1	PAFAH1B2	PAFAH1B3	PAH	PAK3	PAK7
PALB2	PALLD	PANK2	PAPD7	PAPSS2	PARD3B	PARD6A	PARK2	PARK7	PARL
PARP1	PARP2	PASK	PAWR	PAX1	PAX2	PAX3	PAX4	PAX5	PAX6
PAX7	PAX8	PAX9	PBRM1	PBX1	PC	PCBD1	PCCA	PCCB	PCDH11X
PCDH15	PCDH18	PCDH19	PCDH9	PCDHA10	PCDHA13	PCDHB4	PCK1	PCK2	PCM1
PCMT1	PCNT	PCOLCE	PCSK1	PCSK2	PCSK7	PCSK9	PDCD1	PDCD10	PDCD1LG2
PDCD5	PDE10A	PDE11A	PDE4B	PDE4D	PDE4DIP	PDE6A	PDE6B	PDE6C	PDE6G
PDE6H	PDE7B	PDE8B	PDGFB	PDGFC	PDGFRA	PDGFRB	PDHA1	PDHB	PDHX
PDK1	PDLIM3	PDLIM5	PDP1	PDPK1	PDSS1	PDSS2	PDX1	PDXK	PDYN
PDZD7	PEAR1	PECAM1	PECR	PEMT	PENK	PEPD	PER1	PER2	PER3
PEX1	PEX10	PEX11B	PEX12	PEX13	PEX14	PEX16	PEX19	PEX2	PEX26
PEX3	PEX5	PEX6	PEX7	PFAS	PFKM	PFN1	PGAM1	PGAM2	PGAM5
PGBD1	PGC	PGD	PGK1	PGM1	PGR	PGRMC1	PHB	PHEX	PHF11
PHF2	PHF3	PHF6	PHF8	PHGDH	PHIP	PHKA1	PHKA2	PHKB	PHKG2
PHLDA2	PHLPP2	PHOX2A	PHOX2B	PHYH	PI3	PICALM	PICK1	PIEZO2	PIF1
PIGA	PIGL	PIGM	PIGN	PIGO	PIGR	PIGV	PIK3C2B	PIK3C2G	PIK3C3
PIK3CA	PIK3CB	PIK3CD	PIK3CG	PIK3R1	PIK3R2	PIK3R4	PIK3R5	PIKFYVE	PIM1
PIN1	PINK1	PIP4K2A	PIP5K1B	PIP5K1C	PITPNM3	PITX1	PITX2	PITX3	PIWIL3
PKD1	PKD1L1	PKD2	PKHD1	PKLR	PKM2	PKN3	PKP1	PKP2	PLA2G10
PLA2G2A	PLA2G2D	PLA2G4A	PLA2G4C	PLA2G5	PLA2G6	PLA2G7	PLAG1	PLAGL1	PLAT
PLAU	PLAUR	PLCB1	PLCB4	PLCD1	PLCE1	PLCG1	PLCG2	PLCZ1	PLD2
PLDN	PLEC	PLEKHG4	PLEKHG5	PLEKHM1	PLG	PLIN1	PLIN4	PLN	PLOD1
PLOD2	PLOD3	PLP1	PLP2	PLTP	PLXND1	PMAIP1	PML	PMM2	PMP22
PMS1	PMS2	PMS2P3	PNKD	PNKP	PNMT	PNP	PNPLA1	PNPLA2	PNPLA3
PNPLA6	PNPO	POF1B	POGZ	POLB	POLD1	POLE	POLE2	POLG	POLG2
POLH	POLL	POLR1C	POLR1D	POLR2E	POLR2M	POLR3A	POLR3B	POLRMT	POMC
POMGNT1	POMP	POMT1	POMT2	PON1	PON2	PON3	POP1	POR	PORCN
POT1	POU1F1	POU2AF1	POU3F4	POU4F3	POU5F1	POU5F1B	POU6F2	PPARA	PPARD



PPARG	PPARGC1A	PPARGC1B	PPAT	PPFIBP1	PPIA	PPIB	PPIG	PPM1D	PPOX
PPP1R1A	PPP1R3A	PPP1R3C	PPP2R1A	PPP2R1B	PPP2R2B	PPP2R2C	PPT1	PQBP1	PRB1
PRB3	PRB4	PRCC	PRCD	PRCP	PRDM1	PRDM16	PRDM2	PRDM5	PRDM9
PREPL	PREX2	PRF1	PRG4	PRICKLE1	PRICKLE2	PRKAA2	PRKACA	PRKAG2	PRKAG3
PRKAR1A	PRKCB	PRKCG	PRKCH	PRKCI	PRKCSH	PRKD3	PRKDC	PRKRA	PRL
PRLHR	PRLR	PRM1	PRM2	PRMT10	PRMT3	PRMT7	PRND	PRNP	PROC
PROCR	PRODH	PROK1	PROK2	PROKR1	PROKR2	PROM1	PROP1	PROS1	PROZ
PRPF3	PRPF31	PRPF6	PRPF8	PRPH	PRPH2	PRPS1	PRRC2A	PRRT2	PRRX1
PRSS1	PRSS12	PRSS3P2	PRSS56	PRSS8	PRX	PRY	PRY2	PSAP	PSAT1
PSCA	PSEN1	PSEN2	PSENE	PSIP1	PSMA6	PSMB8	PSMB9	PSMC3IP	PSMD7
PSPH	PSPN	PSTPIP1	PTAFR	PTCD1	PTCH1	PTCH2	PTCHD1	PTCHD3	PTCSC3
PTEN	PTF1A	PTGDR	PTGDR2	PTGDS	PTGER2	PTGER4	PTGES2	PTGIR	PTGIS
PTGS1	PTGS2	PTH	PTH1R	PTHLH	PTK7	PTPN1	PTPN11	PTPN13	PTPN14
PTPN2	PTPN21	PTPN22	PTPN6	PTPRB	PTPRC	PTPRCAP	PTPRD	PTPRF	PTPRJ
PTPRK	PTPRO	PTPRQ	PTPRT	PTRF	PTS	PUS1	PVR	PVRL1	PVRL3
PVRL4	PVT1	PWRN1	PWWP2A	PXDN	PYCR1	PYCRL	PYGL	PYGM	PYY
PZP	QDPR	QKI	RAB11FIP5	RAB18	RAB23	RAB27A	RAB28	RAB2A	RAB39B
RAB3GAP1	RAB3GAP2	RAB40AL	RAB7A	RAB7L1	RABGGTA	RAC1	RAC2	RAD21	RAD21L1
RAD23B	RAD50	RAD51	RAD51C	RAD51D	RAD52	RAD54B	RAD54L	RAD9A	RAET1L
RAF1	RAG1	RAG2	RAI1	RALGAPA1	RALGDS	RANBP17	RANBP2	RANGRF	RAP1GDS1
RAPSN	RARA	RARS2	RASA1	RASGRP2	RASSF1	RAX	RAX2	RB1	RB1CC1
RBBP8	RBFOX1	RBM10	RBM15	RBM20	RBM28	RBM8A	RBMXL2	RBMX1A1	RBP3
RBP4	RCAN1	RD3	RDH12	RDH5	RDX	RECQL4	REEP1	REL	RELN
REN	REPS2	RET	RETN	REV3L	RFC2	RFT1	RFWD2	RFX2	RFX5
RFX6	RFX8	RFXANK	RFXAP	RGMA	RGR	RGS2	RGS6	RGS7	RGS9
RGS9BP	RHAG	RHBDF2	RHCE	RHD	RHO	RHOB	RHOG	RHPN2	RICTOR
RIMS1	RIMS3	RIN2	RIPK3	RIPK4	RLBP1	RMI1	RMRP	RNASE3	RNASEH2A
RNASEH2B	RNASEH2C	RNASEL	RNASET2	RNF113A	RNF114	RNF135	RNF139	RNF168	RNF170
RNF213	RNF43	RNLS	RNU4ATAC	ROBO1	ROBO2	ROBO3	ROCK1	ROCK2	ROGDI
ROM1	ROPN1L	ROR2	RORA	ROS1	RP1	RP1L1	RP2	RP9	RPA1
RPA4	RPE65	RPGR	RPGRIP1	RPGRIP1L	RPH3AL	RPIA	RPL10	RPL11	RPL21
RPL22	RPL35A	RPL36	RPL5	RPN1	RPN2	RPS10	RPS15	RPS17	RPS19
RPS24	RPS26	RPS27A	RPS3	RPS4Y2	RPS6KA3	RPS6KB1	RPS6KL1	RPS7	RPTOR
RRH	RRM1	RRM2B	RRP1B	RS1	RSPH4A	RSPH9	RSPO1	RSPO2	RSPO3
RSPO4	RSRC1	RTN2	RTN4R	RUNX1	RUNX1T1	RUNX2	RUNX3	RUVBL1	RXFP2
RXRG	RYK	RYR1	RYR2	RYR3	S100A14	S100B	S1PR1	SAA1	SAA2
SACS	SAG	SAGE1	SALL1	SALL4	SAMD9	SAMHD1	SAR1B	SARDH	SARS2
SART1	SART3	SAT1	SATB2	SATL1	SBDS	SBF2	SBNO1	SC5DL	SCAP
SCARB1	SCARB2	SCARF2	SCG2	SCG3	SCGB1A1	SCGB1D2	SCGB3A2	SCN10A	SCN1A
SCN1B	SCN2A	SCN2B	SCN3A	SCN3B	SCN4A	SCN4B	SCN5A	SCN8A	SCN9A
SCNN1A	SCNN1B	SCNN1G	SCO1	SCO2	SCP2	SCRIB	SCT	SCUBE2	SDC3
SDC4	SDCCAG8	SDHA	SDHAF1	SDHAF2	SDHB	SDHC	SDHD	SEC23A	SEC23B
SEC63	SECISBP2	SEL1L	SELE	SELL	SELP	SELPLG	SEMA3A	SEMA3E	SEMA4A
SEMA4C	SEMA4G	SEMA6D	SEMG1	SEP15	SEPN1	SEPP1	SEPSECS	SEPT12	SEPT6
SEPT9	SERPINA1	SERPINA10	SERPINA3	SERPINA6	SERPINA7	SERPINB11	SERPINB3	SERPINB5	SERPINB6
SERPINC1	SERPIND1	SERPINE1	SERPINF1	SERPINF2	SERPING1	SERPINH1	SERPINI1	SERPINI2	SERTAD1
SESN2	SET	SETBP1	SETD2	SETD8	SETDB2	SETX	SEZ6	SEZ6L2	SF3B1

SF3B4	SFPQ	SFTPA1	SFTPA2	SFTPB	SFTPC	SFTPD	SGCA	SGCB	SGCD
SGCE	SGCG	SGK1	SGK110	SGK223	SGSH	SH2B1	SH2B3	SH2D1A	SH3BP2
SH3GL1	SH3PXD2B	SH3TC2	SHANK2	SHANK3	SHBG	SHFM1	SHH	SHMT1	SHOC2
SHOX	SHROOM3	SHROOM4	SI	SIAE	SIGLEC12	SIGLEC14	SIGLEC16	SIGMAR1	SIL1
SIM1	SIPA1	SIRT1	SIRT3	SIRT5	SIX1	SIX2	SIX3	SIX5	SIX6
SKI	SKIV2L	SLBP	SLC10A1	SLC10A2	SLC11A1	SLC11A2	SLC12A1	SLC12A3	SLC12A6
SLC13A2	SLC14A1	SLC14A2	SLC15A1	SLC16A1	SLC16A12	SLC16A2	SLC16A3	SLC17A1	SLC17A3
SLC17A5	SLC17A8	SLC18A1	SLC19A1	SLC19A2	SLC19A3	SLC1A1	SLC1A2	SLC1A3	SLC20A2
SLC22A1	SLC22A11	SLC22A12	SLC22A14	SLC22A2	SLC22A3	SLC22A4	SLC22A5	SLC22A6	SLC22A9
SLC23A1	SLC24A1	SLC24A2	SLC24A5	SLC25A12	SLC25A13	SLC25A15	SLC25A19	SLC25A20	SLC25A22
SLC25A3	SLC25A38	SLC25A39	SLC25A4	SLC26A1	SLC26A10	SLC26A2	SLC26A3	SLC26A4	SLC26A5
SLC26A6	SLC26A9	SLC27A4	SLC27A5	SLC28A1	SLC28A2	SLC28A3	SLC29A1	SLC29A2	SLC29A3
SLC29A4	SLC2A1	SLC2A10	SLC2A2	SLC2A4	SLC2A9	SLC30A10	SLC30A2	SLC30A5	SLC30A8
SLC31A1	SLC33A1	SLC34A1	SLC34A2	SLC34A3	SLC35A1	SLC35C1	SLC35D1	SLC35G2	SLC36A2
SLC37A4	SLC39A13	SLC39A4	SLC3A1	SLC40A1	SLC41A1	SLC44A2	SLC45A2	SLC45A3	SLC46A1
SLC47A1	SLC47A2	SLC4A1	SLC4A10	SLC4A11	SLC4A3	SLC4A4	SLC52A1	SLC5A1	SLC5A11
SLC5A2	SLC5A5	SLC5A7	SLC6A1	SLC6A11	SLC6A12	SLC6A13	SLC6A14	SLC6A18	SLC6A19
SLC6A2	SLC6A20	SLC6A3	SLC6A4	SLC6A5	SLC6A8	SLC7A1	SLC7A10	SLC7A2	SLC7A5
SLC7A7	SLC7A9	SLC8A1	SLC9A3R1	SLC9A6	SLC9A9	SLC01A2	SLC01B1	SLC01B3	SLC01C1
SLCO2A1	SLCO2B1	SLFN5	SLIT2	SLIT3	SLITRK1	SLURP1	SLX4	SMAD1	SMAD2
SMAD3	SMAD4	SMAD6	SMAD7	SMAD9	SMARCA2	SMARCA4	SMARCAD1	SMARCAL1	SMARCB1
SMARCE1	SMC1A	SMC1B	SMC3	SMG1	SMG6	SMN1	SMN2	SMNDC1	SMO
SMOC1	SMOC2	SMPD1	SMPX	SMS	SMUG1	SMYD3	SNAI2	SNAP29	SNAPC4
SNAPC5	SNCA	SNCAIP	SNCB	SNIP1	SNORD115-1	SNORD116-1	SNORD116-10	SNORD50A	SNRK
SNRNP200	SNRPN	SNTA1	SNTG2	SNURF	SNX10	SNX19	SNX3	SOBP	SOCS1
SOCS3	SOD1	SOD2	SOD3	SOGA3	SOHLH1	SORBS1	SORCS1	SORL1	SORT1
SOS1	SOST	SOX10	SOX17	SOX18	SOX2	SOX3	SOX5	SOX6	SOX8
SOX9	SP100	SP110	SP7	SP8	SPAG16	SPAG17	SPANXN5	SPAST	SPATA13
SPATA16	SPATA21	SPATA31C1	SPATA7	SPECC1L	SPEN	SPG11	SPG20	SPG21	SPG7
SPI1	SPINK1	SPINK5	SPINT2	SPOP	SPP1	SPR	SPRED1	SPRN	SPRR3
SPRY2	SPRY3	SPTA1	SPTAN1	SPTB	SPTBN2	SPTBN5	SPTLC1	SPTLC2	SQSTM1
SRC	SRCAP	SRD5A2	SRD5A3	SREBF1	SREBF2	SREK1	SRGAP2	SRGAP3	SRI
SRP72	SRPX	SRPX2	SRR	SRSF2	SRY	SS18	SS18L1	SSH1	SST
SSTR2	SSTR5	SSX1	SSX2	SSX4	SSX7	ST14	ST3GAL3	ST3GAL5	ST5
ST7	ST8SIA2	STAG2	STAR	STAT1	STAT3	STAT4	STAT5B	STAT6	STEAP3
STEAP4	STH	STIL	STIM1	STK10	STK11	STK19	STK3	STK32A	STK33
STK39	STK4	STMN1	STOX1	STRA6	STRADA	STRC	STS	STX11	STX16
STX1A	STXBP1	STXBP2	STXBP5	SUCLA2	SUCLG1	SUFU	SULF1	SULT1A1	SULT1A3
SULT1C2	SULT1E1	SULT2A1	SULT2B1	SULT4A1	SUMF1	SUMO1	SUMO4	SUN2	SUOX
SUPT16H	SURF1	SUV420H1	SUZ12	SV2B	SYCP3	SYK	SYN1	SYN3	SYNE1
SYNE2	SYNGAP1	SYNGR1	SYNM	SYNPO	SYP	SYT11	SYT14	SYT2	SYTL3
SYTL5	T	TAAR6	TAAR9	TAB2	TAC3	TACO1	TACR3	TACSTD2	TAF1
TAF15	TAF1C	TAF1L	TAF2	TAF7L	TAL1	TAL2	TALDO1	TAP1	TAP2
TAPBP	TARDBP	TAS1R1	TAS1R2	TAS1R3	TAS2R16	TAS2R19	TAS2R3	TAS2R38	TAS2R43
TAS2R46	TAS2R50	TAS2R9	TAT	TAZ	TBC1D1	TBC1D23	TBC1D24	TBC1D4	TBCE
TBK1	TBL1X	TBL1XR1	TBL1Y	TBP	TBX1	TBX10	TBX15	TBX19	TBX2

TBX20	TBX21	TBX22	TBX3	TBX4	TBX5	TBX6	TBXA2R	TBXAS1	TCAP
TCEA1	TCF12	TCF21	TCF3	TCF4	TCF7	TCF7L1	TCF7L2	TCIRG1	TCL1A
TCL6	TCN1	TCN2	TCOF1	TCP1	TCTE1	TCTE3	TCTN1	TCTN2	TDFG1
TDO2	TDP1	TDRD7	TEAD1	TECR	TECTA	TEK	TEKT2	TENM4	TEP1
TERC	TERT	TET1	TET2	TEX14	TF	TFAM	TFAP2A	TFAP2B	TFB1M
TFCP2	TFE3	TFEB	TFE1	TFG	TFPI	TFPT	TFR2	TFRC	TG
TGFB1	TGFB2	TGFB3	TGFBI	TGFBR1	TGFBR2	TGFBR3	TGFBRAP1	TGIF1	TGM1
TGM2	TGM5	TGM6	TH	THADA	THAP1	THBD	THBS1	THBS2	THBS4
THPO	THRA	THRAP3	THRB	THSD7A	TICAM1	TIMM44	TIMM8A	TIMP1	TIMP2
TIMP3	TINAG	TINF2	TIRAP	TJP2	TK2	TLK1	TLL1	TLR1	TLR10
TLR2	TLR3	TLR4	TLR5	TLR6	TLR7	TLR8	TLR9	TLX1	TLX3
TM4SF19	TMC1	TMC6	TMC8	TMCO1	TMEM114	TMEM126A	TMEM127	TMEM135	TMEM138
TMEM165	TMEM173	TMEM185A	TMEM187	TMEM2	TMEM216	TMEM237	TMEM39A	TMEM43	TMEM67
TMEM70	TMEM8A	TMEM9	TMIE	TMLHE	TMPO	TMPRSS11A	TMPRSS15	TMPRSS2	TMPRSS3
TMPRSS4	TMPRSS5	TMPRSS6	TNC	TNF	TNFAIP2	TNFAIP3	TNFRSF10A	TNFRSF10B	TNFRSF11A
TNFRSF11B	TNFRSF13B	TNFRSF13C	TNFRSF14	TNFRSF17	TNFRSF1A	TNFRSF1B	TNFRSF25	TNFRSF4	TNFSF10
TNFSF11	TNFSF13B	TNFSF14	TNFSF15	TNFSF4	TNFSF8	TNKS	TNNC1	TNNI2	TNNI3
TNNI3K	TNNT1	TNNT2	TNNT3	TNP1	TNR	TNS3	TNXB	TOMM40	TOP1
TOP1MT	TOP2A	TOPBP1	TOPORS	TOR1A	TOX3	TP53	TP53AIP1	TP53BP1	TP53I3
TP53RK	TP63	TP73	TPCN2	TPH1	TPH2	TPI1	TPK1	TPM1	TPM2
TPM3	TPM4	TPMT	TPO	TPP1	TPP2	TPR	TPRN	TPSB2	TPTE
TRAC	TRADD	TRAF3	TRAF3IP1	TRAF3IP2	TRAF6	TRAF7	TRAK2	TRAPPC10	TRAPPC2
TRAPPC9	TRB	TRBV9	TRD	TRDN	TREM2	TRERF1	TREX1	TRHR	TRIB1
TRIB3	TRIL	TRIM17	TRIM21	TRIM22	TRIM27	TRIM32	TRIM33	TRIM37	TRIM5
TRIO	TRIOBP	TRIP11	TRIP12	TRMT1	TRMU	TROAP	TROVE2	TRPA1	TRPC3
TRPC4	TRPC5	TRPC6	TRPM1	TRPM2	TRPM3	TRPM4	TRPM6	TRPM7	TRPS1
TRPV1	TRPV3	TRPV4	TRPV5	TRRAP	TSC1	TSC2	TSEN2	TSEN34	TSEN54
TSFM	TSHB	TSHR	TSHZ1	TSLP	TSPAN12	TSPAN17	TSPAN7	TSPO	TSPYL1
TSSC4	TSSK2	TSSK3	TSSK4	TST	TTBK2	TTC19	TTC21B	TTC37	TTC8
TTI2	TTL	TLL11	TTN	TTPA	TTR	TTY13	TUBA1A	TUBA8	TUBB1
TUBB2B	TUBB3	TUBGCP4	TUBGCP5	TUBGCP6	TUFM	TULP1	TULP3	TUSC3	TWIST1
TWIST2	TXN2	TXNDC3	TXNRD2	TYK2	TYMP	TYMS	TYR	TYROBP	TYRP1
U2AF1	UBA1	UBA3	UBAC2	UBD	UBE2A	UBE2B	UBE2I	UBE2NL	UBE3A
UBE3C	UBIAD1	UBN2	UBQLN2	UBR1	UBR3	UBR5	UBR7	UCHL1	UCP1
UCP2	UCP3	UFD1L	UGT1A1	UGT1A10	UGT1A3	UGT1A4	UGT1A5	UGT1A6	UGT1A7
UGT1A8	UGT1A9	UGT2A1	UGT2A3	UGT2B10	UGT2B15	UGT2B17	UGT2B28	UGT2B7	UHRF1BP1
UIMC1	UMOD	UMPS	UNC119	UNC13D	UNC5C	UNC5CL	UNC80	UNC93A	UNC93B1
UNG	UNKL	UPB1	UPF3B	UPK3A	UQCRB	UQCRQ	UROC1	UROD	UROS
USB1	USF1	USH1C	USH1G	USH2A	USP15	USP24	USP26	USP46	USP6
USP7	USP9X	USP9Y	UTF1	UTRN	UTS2	UVSSA	VAMP7	VANGL1	VANGL2
VAPB	VAX1	VCAM1	VCAN	VCL	VCP	VCX3A	VCY	VDR	VEGFA
VHL	VIM	VIMP	VIP	VIPR2	VKORC1	VLDLR	VMA21	VNN1	VPREB1
VPS13A	VPS13B	VPS33B	VPS35	VRK1	VSIG4	VSX1	VSX2	VTI1A	VTN
VWF	WAS	WASF3	WDFY3	WDFY4	WDPCP	WDR11	WDR13	WDR19	WDR35
WDR36	WDR4	WDR45	WDR45L	WDR62	WDR65	WDR72	WDR81	WFS1	WHSC1
WHSC1L1	WIF1	WIPF1	WISP3	WNK1	WNK4	WNT10A	WNT10B	WNT3	WNT4
WNT5A	WNT5B	WNT7A	WRAP53	WRN	WT1	WT1-AS	WWC1	WVOX	WWTR1

XBP1	XDH	XIAP	XIST	XK	XKR4	XKRY	XPA	XPC	XPNPEP2
XPNPEP3	XPO1	XRCC1	XRCC2	XRCC3	XRCC4	XRCC5	XRCC6	XYLT1	XYLT2
YAP1	YARS	YARS2	YBX2	YTHDF2	YWHAE	YY1	ZAN	ZAP70	ZBTB16
ZBTB18	ZBTB2	ZBTB24	ZBTB40	ZBTB41	ZC3H14	ZC3H3	ZC3HAV1	ZCCHC12	ZCCHC13
ZCCHC8	ZDHH15	ZDHH8	ZDHH9	ZEB1	ZEB2	ZFAT	ZFH3	ZFH4	ZFP36
ZFP36L1	ZFP57	ZFP90	ZFPM2	ZFY	ZFYVE26	ZFYVE27	ZHX3	ZIC1	ZIC2
ZIC3	ZMPSTE24	ZMYND11	ZNF202	ZNF213	ZNF217	ZNF224	ZNF24	ZNF331	ZNF335
ZNF350	ZNF365	ZNF384	ZNF385B	ZNF41	ZNF469	ZNF480	ZNF507	ZNF513	ZNF521
ZNF526	ZNF592	ZNF627	ZNF644	ZNF674	ZNF703	ZNF711	ZNF750	ZNF75D	ZNF80
ZNF804A	ZNF81	ZNHIT6	ZNRF1	ZPBP	ZPBP2	ZRSR2			

SNP LIST									
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