

## TARGETED SEQUENCING GENE LIST

### Familial Targeted Sequencing (3005867) and Familial Targeted Sequencing, Fetal (3005869)

Not all genes/variants are covered by this assay; see below for the list of available genes and regions.

- For **fetal** testing requests, contact an ARUP genetic counselor (800-242-2787 ext. 2141) to determine if prenatal testing is offered for the familial disorder.
- Testing will not proceed if the requested variant/gene is not covered.
  - Contact an ARUP genetic counselor to determine if the variant(s) of interest are detectable by this assay and confirm if there are gene-specific technical considerations.
- Large deletions/duplications/inversions are not assessed.
- The common *CFTR* F508del, 5T/7T/9T or TG repeat variants (IVS8) are not tested by this assay; contact a genetic counselor to determine other testing options.

NOTES: The information in this table is based on files downloaded from HGNC in February 2023. Unless specific transcript(s) are listed in the gene column, coding exons are covered for all RefSeq transcripts except those detailed below (primary transcript in bold).

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
AARS1			AARS, AlaRS, CMT2N
ABAT	NM_001386615.1:6	NM_001386616.1:16	GABA-T, GABAT
ABCB7			ABC7, ASAT, Atm1p, EST140535
ABCC8		NM_001351295.2:14	ABC36, HHF1, HI, HRINS, MRP8, PHHI, SUR, SUR1, TNDM2
ABCC9			CMD10, SUR2
ABCD1			ALD, ALDP, AMN, adrenoleukodystrophy
ABCD3			PMP70, PXMP1, ZWS2
ABCD4		NM_001353592.2:17 NM_001353594.2:16 NM_001353599.2:17 NM_001353600.2:17 NM_001353601.2:16 NM_001353606.2:16 NM_001353607.2:15 NM_001353608.2:16 NM_001353609.2:17 NM_001353610.2:14 NM_020325.3:18	EST352188, P70R, PMP69, PXMP1L
ACAD9			MGC14452, NPD002
ACADM			ACAD1, MCAD, MCADH
ACADS			ACAD3, SCAD
ACADVL			ACAD6, LCACD, VLCAD

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<b>(NM_000018)</b>			
ACAT1		NM_001386677.1:12	ACAT, THIL
ACBD5	NM_001352568.1:6 NM_001352569.1:6 NM_001352570.1:13 NM_001352571.1:5 NM_001352573.1:6 NM_001352574.2:6 NM_001352575.2:6 NM_001352576.1:6 NM_001352581.1:6 NM_001352585.1:5 NM_001352586.1:5	NM_001352568.1:1 NM_001352572.1:1	DKFZp434A2417, KIAA1996
ACD			Pip1, Ptop, Tint1, Tpp1
ACOX1			PALMCOX
ACSF3			
ACTA2			ACTSA
ACTC1			ACTC, CMD1R
ACTN2			
ACVRL1			ACVRLK1, ALK1, HHT, HHT2, ORW2
ADA			ADA1
ADA2			ADGF, CECR1, IDGFL
ADGRG1			GPR56, TM7LN4, TM7XN1
ADK			AK
ADSL	NM_001363840.2:14		
AGL			GDE
AGPS			ADAP-S, ADAS, ADHAPS, ADPS, ALDHPSY
AGXT			AGT, AGT1, AGXT1, PH1, SPAT, SPT, Ser-PyrAT, TLH6
AHCY			AdoHcyase, SAHH
AICDA			AID, ARP2, CDA2, HIGM2
AIFM1			AIF, AUNX1, CMTX4, DFNX5, NAMSD, PDCD8
AK1			
AKT1			AKT, PKB, PRKBA, RAC, RAC-alpha
ALAS2			ALAS-E, ASB
ALDH5A1			SSADH, SSDH
ALDH7A1			ATQ1, EPD, PDE
ALDOA			
ALDOB			
ALG1			CDG1K, HMAT1, HMT-1, Mat-1
ALG13		NM_001099922.3:24 NM_001257231.1:24	CDG1S, CXorf45, FLJ23018, GLT28D1, MDS031, TDRD13, YGL047W
ALG3			CDGS4, D16ErtD36e, NOT56L, Not56
ALG6			

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ALG8			MGC2840
ALG9	NM_001352415.1:16 NM_001352416.1:16 NM_001352417.1:17 NM_001352419.1:16 NM_001352420.2:15 NM_001352421.2:15		DIBD1
ALK			ALK1D246
ALMS1			KIAA0328
ALPK3			KIAA1330, MAK, Midori
ALPL			HOPS, TNALP, TNAP, TNSALP
AMACR			P504S, RACE
AMN			amniotless
AMT			GCST, NKH
ANK1			ANK, SPH1
ANKRD11	<b>NM_013275.6:13</b> NM_001256182.2:14 NM_001256183.2:13	<b>NM_013275.6:9</b> NM_001256182.2:10 NM_001256183.2:9	ANCO-1, ANCO1, LZ16, T13
ANKRD26			KIAA1074, THC2
ANKS6	<b>NM_173551.5:1</b>		ANKRD14, FLJ36928, NPHP16, SAMD6
ANO5			GDD1, LGMD2L, TMEM16E
AP3B2	NM_001348440.1:5		NAPT8
APC (NM_000038, NM_001127511 Exon 1b only)			DP2, DP2.5, DP3, PPP1R46
APOB			
APP	NM_001136016.3:1		AD1, alpha-sAPP
APPL1			APPL
ARFGEF2			BIG2
ARG1			
ARHGEF9	NM_001353923.1:1		KIAA0424, PEM-2
ARL2BP			BART, BART1, RP66
ARSL			ARSE, CDPX, CDPX1
ARV1	NM_001346992.2:4		
ARX	<b>NM_139058.3: polyalanine repeat expansion in exon 2</b>		CT121, EIEE1, ISSX, MRX29, MRX32, MRX33, MRX36, MRX38, MRX43, MRX54, MRX76, MRX87, MRXS1, PRTS
ASAH1			AC, ACDase, ASAH, FLJ21558, PHP32
ASNS			
ASS1			ASS, CTLN1
ASXL1	NM_001363734.1:1		KIAA0978
ATL1			AD-FSP, FSP1, SPG3, SPG3A
ATM			ATA, ATC, ATD, ATDC, TEL1, TELO1
ATN1	<b>NM_001007026.2: (CAG)n repeat expansion in exon 5</b>		B37, D12S755E, DRPLA

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
ATP1A1			
ATP1A3			DYT12
ATP6AP1			16A, ATP6IP1, ATP6S1, Ac45, CF2, ORF, VATPS1, XAP-3, XAP3
ATP6AP2			APT6M8-9, ATP6IP2, ATP6M8-9, M8-9, PRR, RENR
ATP7A			MNK
ATP7B (NM_000053)	NM_000053.4:c.-436_-422del15 (Sardinian founder variant)		WND
ATRX			JMS, MRX52, RAD54, XH2, XNP
AXIN2			DKFZp781B0869, MGC126582
B2M			
B3GALNT1	NM_001349162.1:2-5 NM_001349163.1:2-5	NM_001349162.1:6 NM_001349163.1:6	B3GALANT1, B3GALT3, GLOB, beta3Gal-T3, galT3
B3GAT3			GlcAT-I
B3GLCT			B3GALTL, B3GTL, B3Glc-T
B3GNT2			B3GN-T1, B3GN-T2, B3GNT-2, B3GNT1, BETA3GNT
B4GALNT1			GALGT, SPG26, beta1-4GalNAc-T
B4GALT1	NM_001378497.1:3		GGTB2, beta4Gal-T1
B4GALT7			XGALT-1, beta4Gal-T7
B9D1			B9, EPPB9, MKS9, MKSR-1
B9D2			MGC4093, MKS10, MKSR-2
BAAT			BAT
BACE1			BACE
BAG3			
BANF1			BAF
BAP1			KIAA0272, UCHL2, hucep-6
BARD1			
BAX			BCL2L4
BAZ1A			ACF1, WALp1, WCRF180, hACF1
BBIP1			BBIP10, BBS18, NCRNA00081, bA348N5.3
BBS1			FLJ23590
BBS10			C12orf58, FLJ23560
BBS12			C4orf24, FLJ35630, FLJ41559
BBS2			BBS
BBS4			
BBS5			DKFZp762I194
BBS7			BBS2L1, FLJ10715
BBS9	NM_001348041.4:23 NM_001362679.1:22		B1, PTHB1
BCAM			CD239, LU
BCAT2			BCAM, BCATm, BCT2
BCHE			CHE1, CHE2, E1

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BCKDK			
BCL10			CARMEN, CIPER, CLAP, c-E10, mE10
BCL11A			BCL11A-L, BCL11A-S, BCL11A-XL, CTIP1, EVI9, HBFQTL5, SMARCM1, ZNF856
BCL2L11			BIM, BOD, BimEL, BimL, BimS
BCL7A			BCL7, SMARCB1
BCL9			
BCL9L			B9L, Bcl9-2, DLNB11
BCO1			BCDO, BCD01, BCMO, BCMO1, FLJ10730
BCOR			FLJ20285, KIAA1575
BCORL1			CXorf10, FLJ11362
BDNF			
BDP1			HSA238520, KIAA1241, KIAA1689, TAF3B1, TFC5, TFIIIB150, TFIIIB90, TFNR
BEAN1			SCA31
BFSP1			CP115, CP94, LIFL-H, filensin
BFSP2			CP47, CP49, LIFL-L, phakinin
BGN			DSPG1, SLRR1A
BICC1			
BICD2			KIAA0699
BLK			MGC10442
BLM			BS, RECQ2, RECQL3
BLMH			BH
BLNK			BASH, BLNK-s, Ly57, SLP-65, SLP65, bca
BLOC1S3			BLOS3, HPS8
BLOC1S6			HPS9, PA, PLDN
BLVRA			BLVR
BMP1			BMP-1, PCOLC
BMP15			GDF9B
BMP2			BMP2A
BMP4	NM_001347912.1:1-2		BMP2B
BMP7			OP-1
BMPER			CRIM3, Cv2
BMPR1A			ACVRLK3, ALK3, CD292
BMPR1B			ALK6, CDw293
BMPR2			BMPR-II, BMPR3, BRK-3, PPH1, T-ALK
BMS1	NM_014753.4:5		BMS1L, KIAA0187
BNC2			BSN2, FLJ20043
BOD1			FAM44B
BOLA3			
BPGM			

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
BRAF	NM_004333.6:5, 18 NM_001354609.2:5, 18-19 NM_001374244.1:5, 10, 19 NM_001374258.1:5, 10, 19-20 NM_001378467.1:5, 18-19 NM_001378468.1:5, 18 NM_001378469.1:5, 18 NM_001378470.1:4, 17-18 NM_001378471.1:5, 17-18 NM_001378472.1:5, 18-19 NM_001378473.1:5, 18 NM_001378474.1:5, 18 NM_001378475.1:4, 17-18		BRAF-1, BRAF1
BRAT1		NM_001350626.2:14	BAAT1, C7orf27, MGC22916
BRCA1 (NM_007294)			BRCC1, FANCS, PPP1R53, RNF53
BRCA2 (NM_000059)			BRCC2, FACD, FAD, FAD1, FANCD, FANCD1, XRCC11
BRCC3			BRCC36, C6.1A, CXorf53
BRD2			BRD2-IT1, D6S113E, FSRG1, KIAA9001, NAT, RING3
BRF1			BRF, GTF3B, TAF3B2, TAF3C, TFIIIB90, hBRF
BRIP1			BACH1, FANCI, OF
BRPF1			BR140
BRWD3			FLJ38568, MRX93
BSCL2			GNG3LG, SPG17, seipin
BSND			BART, DFNB73
BTBD9			KIAA1880, dJ322112.1
BTD (NM_000060, NM_001370658)	NM_000060:1		
BTG2			APRO1, MGC126063, MGC126064, PC3, TIS21
BTK			AGMX1, ATK, IMD1, PSCTK1, XLA
BUB1			BUB1A, BUB1L, hBUB1
BUB1B			BUBR1, Bub1A, MAD3L, SSK1
BUB3			BUB3L
BVES			HBVES, POP1, POPDC1
C11orf65	NM_001351110.2:8		MFI, MGC33948
C12orf4			
C12orf57			C10, GRCC10
C19orf12			DKFZP762D096, MGC10922, MPAN, NBIA4, SPG43
C1GALT1C1			C1GALT2, COSMC
C1QA			
C1QB			
C1QBP			HABP1, SF2p32, gC1Q-R, gC1qR, p32
C1QC			C1QG

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
C1QTNF5			CTRP5, DKFZp586B0621, LORD
C1R	NM_001354346.2:1		
C1S			
C2			
C2CD3			DKFZP586P0123
C3			ARMD9, C3a, C3b, CPAMD1
C3AR1			AZ3B, C3AR
C4BPA			C4BP
C4BPB			C4BP
C5			C5a, C5b, CPAMD4
C5AR1			C5A, C5AR, C5R1, CD88
C5AR2			C5L2, GPR77
C6			
C7			
C8A			
C8B			
C8G			
C8orf34			VEST1, vest-1
C9			
CA1			Car1
CA12			HsT18816
CA2			CA-II, CAII, Car2
CA8			CALS, CARP
CAB39			CGI-66, MO25
CABIN1			KIAA0330, PPP3IN
CABP4			CSNB2B
CACNA1A			APCA, CACNL1A4, Cav2.1, EA2, FHM, HPCA, MHP, MHP1, SCA6
CACNA1C			CACH2, CACN2, CACNL1A1, CCHL1A1, Cav1.2, LQT8, TS
CACNA1D			CACH3, CACN4, CACNL1A2, CCHL1A2, Cav1.3
CACNA1E			BII, CACH6, CACNL1A6, Cav2.3
CACNA1G			Cav3.1, NBR13
CACNA1H			Cav3.2
CACNA1S			CACNL1A3, Cav1.1, HOKPP, MHS5, hypoPP
CACNA2D2			KIAA0558, alpha2delta-2
CACNA2D4			alpha2delta-4
CACNB4			EJM4
CACNG2			MGC138502, MGC138504, stargazin
CAD			GATD4
CADM1			BL2, IGSF4, IGSF4A, NECL2, Necl-2, RA175, ST17, SYNCAM, SYNCAM1, TSLC1

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CADPS2			CAPS2
CALCOCO2			MGC17318, NDP52
CALHM1			FAM26C
CALM1	NM_001363670.1:1		CALML2, CAMI, DD132, PHKD, PHKD1
CALM2			CAMII, PHKD, PHKD2
CALM3			PHKD, PHKD3
CALR			CRT, FLJ26680, RO, SSA, cC1qR
CALR3			CRT2, CT93, FLJ25355, MGC26577
CALU			
CAMK2G	NM_001367516.1:20 NM_001367526.1:18		CAMKG
CAMTA1	NM_001349609.2:20 NM_001349610.2:20 NM_001349612.2:19 NM_001349613.1:1 NM_001349614.1:12 NM_001349615.2:10 NM_001349616.2:10 NM_001349619.2:10 NM_001349620.1:12 NM_001349621.1:12 NM_001349622.2:10 NM_001349627.2:2	NM_001349609.2:23 NM_001349613.1:12 NM_001349614.1:15 NM_001349615.2:13 NM_001349621.1:15 NM_001349622.2:13 NM_001349623.1:14 NM_001349624.3:12	KIAA0833
CANT1			SCAN-1, SHAPY
CAPN1			CANP, CANPL1, muCANP, muCL
CAPN10			
CAPN5			ADNIV, HTRA3, VRNI, nCL-3
CARD11			BIMP3, CARMA1
CARD14			BIMP2, CARMA2, PSORS2
CARD8	NM_001351786.2:5 NM_001351787.1:11		CARDINAL, Dakar, KIAA0955, NDPP, TUCAN
CARD9			
CARS2	NM_001352253.2:9		FLJ12118
CARTPT			CART
CASK			CAGH39, FGS4, LIN2, TNRC8
CASP10			FLICE-2, MCH4
CASP14			MGC119078, MGC119079, MICE
CASP2			ICH1, MGC2181, NEDD2, PPP1R57
CASP7			CMH-1, ICE-LAP3, MCH3
CASP8	NM_001400645.1:6		Casp-8, FLICE, MACH, MCH5
CASQ1			CASQ, CSQ1, PDIB1
CASQ2			PDIB2
CASR			FHH, GPRC2A, HHC, HHC1, NSHPT
CAST			
CAT			
CATSPER1			CATSPER



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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CAV1			CAV
CAVIN1			CGL4, PTRF, cavin-1
CAVIN4			MURC, cavin-4
CBL			CBL2, RNF55, c-Cbl
CBLB			Cbl-b, RNF56
CBLC			CBL-3, CBL-SL, RNF57
CBLIF			GIF, IF, IFMH, INF, TCN3
CBR3			SDR21C2
CBS	NM_001321072.1:1		HIP4
CBX2			CDCA6, M33, MGC10561
CC2D1A			Aki-1, FLJ20241, Freud-1, Lgd2, MRT3, TAPE
CC2D2A			JBTS9, KIAA1345, MKS6
CCBE1			FLJ30681, KIAA1983
CCDC103	NM_001258397.1:4		CILD17, FLJ13094, FLJ34211, PR46b
CCDC115			FLJ30131, MGC12981, ccp1
CCDC141			CAMD1, FLJ39502
CCDC170			C6orf97, FLJ23305, bA282P11.1
CCDC18			NY-SAR-41
CCDC22			CXorf37, JM1
CCDC28B			MGC1203, RP4-622L5.5
CCDC39			CFAP59, CILD14, DKFZp434A128, FAP59
CCDC40	NM_001243342.1:18		CFAP172, CILD15, FAP172, FLJ20753, FLJ32021, KIAA1640
CCDC65			CFAP250, CILD27, DRC2, FAP250, FLJ35732, NYD-SP28
CCDC78		NM_001378030.1:14 NM_001378031.1:12 NM_001378033.1:4, 10	C16orf25, FLJ34512
CCDC8			3M3, DKFZp564K0322, PPP1R20
CCDC88A			APE, FLJ10392, GIV, GRDN, HkRP1, KIAA1212
CCDC88C			DAPLE, HkRP2, KIAA1509, SCA40
CCHCR1		NM_001394641.1:1	C6orf18, HCR
CCL11			MGC22554, SCYA11, eotaxin
CCL2			GDCF-2, HC11, MCAF, MCP-1, MCP1, MGC9434, SCYA2, SMC-CF
CCM2	NM_001363458.2:7 NM_001363459.2:6		C7orf22, MGC4607, OSM
CCN1			CYR61, GIG1, IGFBP10
CCN6			WISP-3, WISP3
CCNA2			CCN1, CCNA
CCND1			BCL1, D11S287E, PRAD1, U21B31
CCNF			FBX1, FBXO1

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CCNO			CCNU, FLJ22422, UDG2, UNG2
CCR1			CD191, CKR-1, CMKBR1, MIP1aR, SCYAR1
CCS			
CCT2			Cctb
CCT5			KIAA0098
CCT7			Cctb, Nip7-1
CD109			CPAMD7, DKFZp762L1111, FLJ38569
CD151			PETA-3, RAPH, SFA-1, TSPAN24
CD164			DFNA66, MGC-24, MGC-24v, MUC-24
CD19			
CD2			SRBC
CD207			CLEC4K, Langerin
CD247	NM_001378515.1:2 NM_001378516.1:2		CD3-ZETA, CD3H, CD3Q, CD3Z, CD3ZETA, TCRZ
CD27			S152, TNFRSF7, Tp55
CD2AP			CMS
CD320			8D6, 8D6A, TCII-R, TCN2R, TcbIR, sCD320
CD33			FLJ00391, SIGLEC-3, SIGLEC3, p67
CD36			FAT, GP3B, GP4, GPIIIB, GPIV, SCARB3
CD3D			CD3-DELTA, CD3DELTA, T3D
CD3E			CD3-epsilon, CD3epsilon
CD3G			CD3-GAMMA, CD3GAMMA
CD4			Leu-3, T4
CD40			Bp50, TNFRSF5, p50
CD40LG			CD154, CD40-L, CD40L, HIGM1, HIGM1, IMD3, T-BAM, TNFSF5, TRAP, gp39, hCD40L
CD46			MCP, MGC26544, MIC10, TLX, TRA2.10
CD55			CR, CROM, DAF, TC
CD59			16.3A5, EJ16, EJ30, EL32, G344, HRF20, MACIF, MIC11, MIN1, MIN2, MIN3, MIRL, MSK21, p18-20
CD70			CD27-L, CD27L, CD27LG, TNFSF7
CD79A			IGA, IGAAlpha, Ig-alpha, MB-1, MB1
CD79B			B29, IGB, Ig-beta, Igbeta
CD8A			CD8, CD8alpha, p32
CD93			C1QR1, C1qR(P), C1qRP, CDw93, ECSM3, MXRA4, dJ737E23.1
CD96			TACTILE
CDA			CDD
CDAN1			CDA-I, CDAI
CDC45	NM_001369291.1:1		CDC45L, CDC45L2

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CDC5L			CDC5, CEF1, PCDC5RP, hCDC5
CDC6			CDC18L
CDC73			C1orf28, FIHP, HRPT1, HRPT2, parafibromin
CDCA7			FLJ14736, JPO1
CDCA7L			JPO2, R1, RAM2
CDH1			CD324, UVO, uvomorulin
CDH11			CAD11, OB
CDH13			CDHH
CDH15			CDH14, CDH3
CDH16			
CDH2			CD325, CDHN, NCAD
CDH3			CDHP, PCAD
CDIN1			C15orf41, FLJ22851, HH114, MGC11326
CDK13			CDC2L, CDC2L5, CHED, KIAA1791
CDK16			FLJ16665, PCTAIRE, PCTAIRE1, PCTGAIRE, PCTK1
CDK4			PSK-J3
CDK5			PSSALRE
CDK5R1			Nck5a, p35, p35nck5a
CDK5RAP2			C48, CEP215, FLJ10867, MCPH3
CDK6			PLSTIRE
CDKL5			CFAP247, EIEE2, STK9
CDKN1A	NM_001374510.1:1 NM_001374512.1:3	NM_001374511.1:2	CAP20, CDKN1, CIP1, P21, SDI1, WAF1, p21, p21CIP1, p21Cip1/Waf1
CDKN1B			KIP1, P27KIP1
CDKN2A			ARF, CDK4I, CDKN2, CMM2, INK4, INK4a, MLM, MTS1, P16-INK4A, p14, p14ARF, p16, p16INK4a, p19, p19Arf
CDKN2B			CDK4I, INK4B, MTS2, P15, TP15, p15INK4b
CDKN2C			INK4C, p18
CDON			CDO, CDON1, Ihog, ORCAM
CEBPA			C/EBP-alpha, CEBP
CEBPE			CRP1
CEBPG			GPE1BP, IG/EBP-1
CEL	NM_001807.6:1, 8-9, 11		BSSL, MODY8
CELSR2			ADGRC2, CDHF10, EGFL2, Flamingo1, KIAA0279, MEGF3
CELSR3			ADGRC3, CDHF11, EGFL1, FMI1, HFMI1, MEGF2
CEMIP			HYBID, IR2155535, KIAA1199, TMEM2L
CENPE			KIF10, PPP1R61

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CENPF			hcp-1
CENPJ			BM032, CPAP, LAP, LIP1, MCPH6, SASS4, SCKL4, Sas-4
CEP104			CFAP256, GlyBP, JBTS25, KIAA0562, ROC22, RP1-286D6.4
CEP135			CEP4, FLJ13621, KIAA0635
CEP152			KIAA0912, MCPH9, SCKL5
CEP19	NM_001379468.1:1		C3orf34, MGC14126
CEP250			C-NAP1, CEP2
CEP41			DKFZp762H1311, FLJ22445, JBTS15, TSGA14
CEP57			KIAA0092, TSP57, Transloklin
CEP63	NM_001353118.1:1	NM_001353118.1:2	FLJ13386
CEP83			CCDC41, NPHP18, NY-REN-58
CER1			DAND4
CERS3			LASS3, MGC27091
CERT1	NM_001379004.1:16		CERT, COL4A3BP, GPBP, STARD11
CETP			BPIFF
CFAP298		NM_001350335.1:5 NM_001350337.2:6	C21orf48, C21orf59, CILD26, DNAAF16, FBB18, FLJ20467, Kur
CFAP410			A2, C21orf2, LRRC76, YF5
CFAP53			CCDC11, FLJ32743
CFB			BF, BFD, H2-Bf
CFD			ADN, DF, PFD
CFHR5			CFHL5, FHR-5, FHR5
CFI	NM_001375278.1:14-15 NM_001375279.1:13-14 NM_001375280.1:12-13 NM_001375281.1:13 NM_001375282.1:12		C3b-INA, FI, IF, KAF
CFP			PFC
CFTR (NM_000492)	NM_000492.4:7, 10-11, 25, p.Phe508del (F508del), 5T/7T/9T or TG repeat variants (IVS8)		ABC35, ABCC7, CF, CFTR/MRP, MRP7, TNR-CFTR, dJ760C5.1
CH25H			
CHAF1B			CAF-1, CAF1, CAF1A, CAF1P60, MPHOSPH7, MPP7
CHAMP1			C13orf8, CAMP, CHAMP, ZNF828
CHAT			
CHCHD2			C7orf17, MIX17B, MNRR1
CHD1L			ALC1
CHD2			DKFZp54711315, DKFZp686E01200, DKFZp781D1727, FLJ38614
CHD4			Mi-2b, Mi2-BETA
CHD7			CRG, FLJ20357, FLJ20361, KIAA1416
CHD8			DUPLIN, HELSNF1, KIAA1564

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CHEK2	NM_001005735.2:3 NM_001349956.2:4		CDS1, CHK2, HuCds1, PP1425, RAD53, bA444G7
CHGB			SCG1, Sgl
CHMP2B			CHMP2.5, DKFZP5640123, VPS2B
CHMP4B			C20orf178, SNF7-2, Shax1, VPS32B, dJ553F4.4
CHN1	NM_001371514.1:4		ARHGAP2, CHN, DURS2, RhoGAP2, n-chimerin
CHRDL1			CHL, MGC1, NRLN1
CHRM2			
CHRM3			
CHRNA2			
CHRNA3			
CHRNA4			BFNC, EBN, EBN1
CHRN1			CHRN1
CHRN2			
CHST3			C6ST, C6ST1
CHST6			MCDC1
CHST8			GALNAC4ST-1
CHUK			IKK-alpha, IKK1, IKKA, IkbKA, NFKB1A, TCF16
CIAO1			CIA1, WDR39
CIDEC			CIDE-3, FLJ20871, Fsp27
CIITA			C2TA, MHC2TA, NLRA
CILK1		NM_001375397.1:9	ICK, KIAA0936, LCK2, MGC46090, MRK
CIT			CITK, CRIK, KIAA0949, STK21
CIZ1			LSFR1, ZNF356
CKAP2L			FLJ40629, radmis
CKM			CKMM
CKMT2			SMTCK
CLCA2			CLCRG2
CLCF1			BSF-3, BSF3, CISS2, CLC, NNT-1, NNT1, NR6
CLCN1			CLC1, CIC-1
CLCN2			CLC2, CIC-2, EJM6
CLCN4			CLC4, CIC-4
CLCN5			CLC5, CIC-5, DENTS, NPHL1, NPHL2, XLRH, XRN, hCIC-K2, hCIC-K2
CLCN7			CLC-7, CLC7, CIC-7, OPTA2, PPP1R63
CLDN1			ILVASC, SEMP1
CLDN16			HOMG3, PCLN1
CLDN19			
CLEC16A			Gop-1, KIAA0350
CLEC4C			BDCA2, CD303, CLECSF11, CLECSF7,

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			DLEC, HECL
CLEC7A			CD369, CLECSF12, DECTIN-1, SCARE2, hDectin-1
CLHC1			C2orf63, FLJ31438
CLIC2			CLCNL2, XAP121
CLIP1	NM_001389291.1:16		CLIP, CLIP-170, CLIP170, CYLN1, RSN
CLMP			ACAM, ASAM, FLJ22415
CLN3			BTN1, BTS, JNCL
CLN5	NM_001366624.2:4		
CLN6			FLJ20561, HsT18960, nclf
CLN8			C8orf61, EPMR, FLJ39417, TLCD6
CLP1			HEAB, hClp1
CLPB			ANKCLP, FLJ13152, SKD3
CLSTN1	NM_001009566.3:1 NM_001302883.1:1 NM_014944.4:1		CDHR12, CSTN1, KIAA0911
CLTC			CLTCL2, Hc
CLU			APOJ, CLI, CLU1, CLU2, KUB1, SGP-2, SP-40, TRPM-2
CLUAP1			CFAP22, FAP22, FLJ13297, IFT38, KIAA0643
CMYA5			C5orf10, DKFZp451G223, SPRYD2, TRIM76
CNBP			CNBP1, DM2, RNF163, ZCCHC22, ZNF9
CNGA2			CNCA, CNCA1, CNG2, FLJ46312, OCNC1, OCNCALPHA, OCNCa, OCNCalpha
CNGA3			ACHM2, CCNC1, CCNCa, CNCG3, CNG3
CNGB3			ACHM1, ACHM3, RMCH
CNKSR2			CNK2, KIAA0902, KSR2
CNNM1			ACDP1
CNNM2			ACDP2
CNR1			CANN6, CB-R, CB1, CB1A, CB1K5, CNR
CNTN2			AXT, TAG-1, TAX, TAX1
CNTN3			BIG-1, PANG
CNTN4			BIG-2
CNTN6			NB-3
CNTNAP2			Caspr2, KIAA0868, NRXN4
CNTNAP5			FLJ31966, caspr5
CNTROB		NM_001353204.2:6	LIP8, PPI221
COA3			CCDC56, COX25, HSPC009, MITRAC12, hCOA3
COA5			C2orf64, FLJ27524, MGC52110, Pet191

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
COA6			C1orf31
COASY			DPCK, NBP, PPAT
COG1			KIAA1381, LDLB
COG2			LDLC
COG4			COD1, DKFZP586E1519
COG5			GOLTC1, GTC90
COG6			COD2, KIAA1134
COG7			
COG8	NM_001379261.1:5 NM_001379262.1:6 NM_001379265.1:5 NM_001379266.1:4	NM_001374871.1:4 NM_001379263.1:5	DOR1, FLJ22315
COL10A1			
COL11A1			CO11A1, COLL6, DFNA37, STL2
COL11A2			DFNA13, DFNB53, HKE5
COL13A1	NM_001368882.1:21 NM_001368883.1:20, 36 NM_001368885.1:34 NM_001368886.1:35 NM_001368895.1:18 NM_001368896.1:32 NM_001368897.1:32		
COL14A1	NM_001384947.1:48		UND
COL18A1			KNO, KNO1, KS
COL1A1			OI4
COL1A2			OI4
COL22A1			
COL25A1			
COL27A1			FLJ11895, KIAA1870, MGC11337
COL2A1			AOM, SEDC, STL1
COL3A1			EDS4A
COL4A1			
COL4A2			DKFZp686I14213, FLJ22259
COL4A3			
COL4A4			CA44
COL4A5			ASLN, ATS
COL4A6			
COL5A1	NM_000093.5:1 NM_001278074.1:1		
COL5A2			
COL6A6			
COL8A2			FECD, FECD1, PPCD, PPCD2
COL9A1	NM_001377289.1:19 NM_001377291.1:11		
COL9A2			EDM2, MED
COL9A3			DJ885L7.4.1, EDM3, FLJ90759, IDD,

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			MED
COLEC11			CL-11, CL-K1, MGC3279
COMP			EDM1, EPD1, MED, PSACH, THBS5, TSP-5, TSP5
COPA			HEP-COP
COQ4			CGI-92
COQ5			MGC4767
COQ6			CGI-10
COQ7	NM_001370489.1:1 NM_001370491.1:1		CAT5, CLK-1
COQ8B			ADCK4, COQ8, FLJ12229
CORIN			ATC2, CRN, Lrp4, PRSC, TMPRSS10
COX14			C12orf62, MGC14288
COX20	<b>NM_198076.6:3</b> NM_001312871.1:4 NM_001312872.1:4 NM_001312873.1:2 NM_001312874.1:3		FAM36A, FLJ43269
COX6A1			COX6A, COX6AL
COX7B			
COX8A			COX, COX8, COX8-2, COX8L, VIII, VIII-L
CPA1			CPA
CPA6			CPAH
CPB2			CPU, PCPB, TAFI
CPLANE1	NM_001384732.1:41	NM_001384732.1:40	C5orf42, FLJ13231, Hug, JBTS17
CPN1			
CPOX			CPO, CPX, HCP
CPS1	NM_001369256.1:1		GATD6
CPT1A			CPT1, CPT1-L, L-CPT1
CPT1B			CPT1-M, M-CPT1
CPT1C	<b>NM_001136052.3:6-7</b> NM_001199752.3:6-7 NM_001199753.2:6-7 NM_001378482.1:6-7 NM_001378483.1:6-7 NM_001378484.1:5-6 NM_001378485.1:5-6 NM_001378486.1:6-7 NM_001378487.1:6-7 NM_001378488.1:6-7 NM_152359.3:5-6	NM_001378482.1:9	CATL1, CPT1P, CPTIC, FLJ23809
CPT2			CPT1, CPTASE
CR2			C3DR, CD21
CRADD			RAIDD
CRBN			MRT2, MRT2A
CREB1			
CREB3			LZIP, Luman, sLZIP



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CREB3L1			OASIS
CREB3L3			CREB-H, CREBH
CREBBP			CBP, KAT3A, RSTS, RTS
CRELD1			AVSD2, CIRPIN
CRH			CRF, CRH1
CRHR1			CRF-R, CRF1, CRHR
CRHR2			CRF-RB, CRF2, HM-CRF
CRIPT			HSPC139
CRKL			
CRP			PTX1
CRTAP			CASP, LEPREL3, P3H5
CRY2			
CRYAA	NM_001363766.1:1		CRYA1, HSPB4
CRYAB			CRYA2, HSPB5
CRYBA1			CRYB1
CRYBA2			
CRYBA4			
CRYBB1			
CRYBB3			CRYB3
CRYGB			CRYG2
CRYGC			CRYG3
CRYGD			CRYG4
CRYGS			CRYG8
CRYL1			GDH, MGC149525, MGC149526, lambda-CRY
CSF2RB			CD131, IL3RB, IL5RB, betaGMR
CSF3R			CD114, GCSFR
CSNK1D	NM_001363749.2:9		CKID, CKIdelta, HCKID
CSNK2A1			Cka1, Cka2
CSPP1	NM_001363131.2:11 NM_001363132.2:5 NM_001364869.1:5 NM_001382391.1:5, 12		CSPP, CSPP-L, FLJ22490, JBTS21
CSRP3		NM_001369404.1:5	CLP, CMD1M, MLP
CST3			
CSTB	NM_000100.4: (CCCCGCCCGCG)n repeat expansion in 5'UTR		CST6, EPM1, PME, STFB
CTBP1			BARS
CTC1			AAF132, C17orf68, FLJ22170
CTCF			CFAP108, FAP108
CTH			CSE
CTHRC1			
CTLA4			CD, CD152, CELIAC3, CTLA-4, GSE, IDDM12

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CTNNA1			CAP102
CTNNA3			MGC26194, VR22
CTNNB1			CTNNB, armadillo, beta-catenin
CTNND2	NM_001332.4:7 NM_001288715.1:6 NM_001364128.1:13		GT24, NPRAP
CTNS			CTNS-LSB, PQLC4, SLC66A4
CTPS1			CTPS, GATD5A
CTR9			KIAA0155, SH2BP1, TSBP, p150TSP
CTRC (NM_007272)			CLCR, ELA4
CTSA			GSL, PPGB
CTSB			
CTSC			DPP1, PALS, PLS
CTSD			CLN10, CPSD
CTSF			CATSF, CLN13
CTSH			ACC-4, ACC-5, ACC4, ACC5, CPSB
CTSK			CTSO, CTSO2, PKND, PYCD
CUBN			IFCR, MGA1, gp280
CUL3			
CUL4B	NM_001369145.1:1		
CUL7			KIAA0076, dJ20C7.5
CUX2			CDP2, CUTL2, KIAA0293
CXCR1			CD181, CDw128a, CKR-1, CMKAR1, IL8RA
CXCR2			CD182, CMKAR2, IL8RB
CXCR3			CD183, CKR-L2, CMKAR3, GPR9, IP10-R, MigR
CXCR4	NM_001348056.2:2 NM_001348059.2:2		CD184, D2S201E, HM89, HSY3RR, LESTR, NPY3R, NPYR, NPY3R, fusin
CXXC5			HSPC195, RINF, WID
CYB5A			CYB5, MCB5
CYB5R1			NQO3A2, humb5R2
CYB5R2			
CYB5R3			B5R, DIA1
CYB5R4			NCB50R, b5+b5R, dJ676J13.1
CYBA			p22-PHOX
CYBB			CGD, GP91-PHOX, NOX2
CYBRD1			CYB561A2, DCYTb, FLJ23462, FRRS3
CYLD			CYLD1, KIAA0849, USPL2
CYP11A1			CYP11A, P450SCC
CYP17A1			CPT7, CYP17, P450C17, S17AH
CYP19A1			ARO, ARO1, CPV1, CYAR, CYP19, P-450AROM, aromatase
CYP1A2			CP12, P3-450

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
CYP1B1			CP1B, GLC3A
CYP24A1			CP24, CYP24, P450-CC24, lncBCAS1-4_1
CYP26B1			P450RAI-2
CYP27A1			CP27, CTX, CYP27
CYP27B1			CYP1, P450c1, PDDR, VDD1
CYP2C8			CPC8
CYP2C9			CYP2C10, P450IIC9
CYP3A4			CYP3A3
CYP3A43			
CYP3A5			CP35, P450PCN3, PCN3
CYP3A7			CP37, P450-HFLA
CYP4F22			FLJ39501
CYP4V2			CYP4AH1
CYP51A1			CP51, CYP51, CYPL1, LDM, P450-14DM, P450L1
CYP7A1			CYP7
CYP7B1			SPG5A
D2HGDH			D2HGD, FLJ42195, MGC25181
DACT1			DAPPER, DAPPER1, FRODO, HDPR1, THYEX3
DAO			DAAO, DAMOX
DAPK1			DAPK
DAPK3			ZIP, ZIPK
DARS1			DARS
DAZL			DAZH, DAZL1, DAZLA, MGC26406, SPGYLA
DBH			DBM
DCAF17			C2orf37, FLJ13096
DCAF8			FLJ35857, H326, WDR42A
DCC			IGDCC1, NTN1R1
DCDC2			DCDC2A, DFNB66, KIAA1154, NPHP19, RU2
DCLRE1B			APOLLO, FLJ12810, FLJ13998, SNM1B
DCLRE1C	NM_001350966.2:15 NM_001350966.2:13 NM_001350967.2:16		A-SCID, ARTEMIS, FLJ11360, SCIDA, SNM1C
DCN			DSPG2, SLRR1B
DCPS		NM_001350236.2:1	DCS-1, DCS1, HINT-5, HINT5, HSL1, HSPC015
DCSTAMP			DC-STAMP, FIND, TM7SF4
DCTN1			
DCX			DBCN, DC, LISX, SCLH, XLIS
DCXR			DCR, HCR2, KIDCR, P34H, SDR20C1
DDB2			DDBB, FLJ34321, UV-DDB2, XPE

**TARGETED SEQUENCING GENE LIST**

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
DDC			AADC
DDHD1			KIAA1705, PA-PLA1, PAPLA1, SPG28, iPLA1alpha
DDHD2			KIAA0725, SAMWD1, SPG54, iPLA1gamma, p125B
DDIT4			Dig2, FLJ20500, REDD-1, REDD1, RTP801
DDOST			KIAA0115, OST, OST48, WBP1
DDR2			NTRKR3, TKT, TYRO10
DDRGK1			C20orf116, UFBP1, dJ1187M17.3
DDX24			
DDX3X			CAP-Rf, DBX, DDX14, DDX3, HLP2
DDX41			ABS, MGC8828
DDX59		NM_001349802.3:8	DKFZP564B1023, ZNHIT5
DEAF1			NUDR, SPN, ZMYND5
DECR1			DECR, SDR18C1
DEFA4			DEF4, HP-4
DENND2B			HTS1, ST5, p126
DENR			DRP, DRP1, SMAP-3
DEPDC5			DEP.5, KIAA0645
DES	NM_001382712.1:9		CMD1I, CSM1, CSM2, LGMD2R
DGAT2			
DGAT2L6			DC3, FLJ25989
DGKE			DAGK6, DGK
DHCR7			SLOS
DHDDS			DS, FLJ13102, HDS, RP59, hCIT
DHFR	NM_000791.4:6 NM_001290354.2:5 NM_001290357.2:5		DHFR1
DHH			HHG-3, MGC35145
DHTKD1			CMT2Q, DKFZP762M115, KIAA1630, MGC3090
DHX34	NM_014681.6:7		DDX34, KIAA0134
DHX38			DDX38, KIAA0224, PRP16, PRPF16, hPrp16
DIABLO			DFNA64, DIABLO-S, FLJ10537, FLJ25049, SMAC
DIAPH1			DFNA1, LFHL1, hDIA1, mDia1
DICER1	NM_001395699.1:11	NM_001395692.1:25 NM_001395693.1:23 NM_001395694.1:25 NM_001395695.1:24 NM_001395696.1:22	Dicer, HERNA, K12H4.8-LIKE, KIAA0928, MNG1
DIP2B			FLJ34278, KIAA1463
DISC1			
DKC1			Cbf5, DKC, NAP57, NOLA4, XAP101,

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			dyskerin
DLC1			ARHGAP7, DLC-1, HP, STARD12, p122-RhoGAP
DLG2	NM_001351274.2:2 NM_001351275.2:1 NM_001351276.2:1 NM_001377968.1:18 NM_001377973.1:1 NM_001377975.1:14 NM_001377976.1:2 NM_001377977.1:1 NM_001377979.1:6 NM_001377983.1:6	NM_001351274.2:3 NM_001351275.2:2	PPP1R58, PSD-93, PSD93, chapsyn-110
DLG3			KIAA1232, MRX90, NE-Dlg, NEDLG, PPP1R82, SAP-102, SAP102
DLG4	NM_001369566.2:1		PSD-95, PSD95, SAP-90, SAP90
DLGAP2			C8orf68, DAP-2, ERICH1-AS1
DLGAP3			DAP3, SAPAP3
DLL1			
DLL3			SCD01
DLL4			
DLX3			
DLX4			BP1, DLX7, DLX8, DLX9
DLX5			
DMBX1			Atx, MBX, OTX3, PAXB
DMC1			LIM15
DMD			BMD, DXS142, DXS164, DXS206, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272, MRX85
DMGDH			ME2GLYDH
DMPK			DM, DM1, DM1PK, DMK, MDPK, MT-PK
DMRT1			CT154, DMT1
DMXL2	NM_001378457.1:34 NM_001378458.1:34 NM_001378459.1:32	NM_001378463.1:32	DFNA71, KIAA0856, RC3
DNA2			DNA2L, KIAA0083
DNAAF1			CILD13, DAU1, FLJ25330, LRRC50, ODA7, swt
DNAAF11			CILD19, LRRC6, LRTP, TSLRP, tilB
DNAAF2			C14orf104, CILD10, FLJ10563, KTU, PF13
DNAAF3			C19orf51, CILD2, FLJ36139, FLJ40069, PCD, PF22
DNAAF4			CILD25, DYX1C1, EKN1, FLJ37882
DNAAF5	NM_017802.4:1		CILD18, FLJ20397, FLJ25564, FLJ31671, FLJ39381, HEATR2
DNAAF6			CXorf41, MGC35261, NYSAR97, PIH1D3, TWISTER

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
DNAH1			DNAHC1, HDHC7, HL-11, HL11, XLHSRF-1
DNAH10	NM_001372106.1:12	NM_001372106.1:1	FLJ43808
DNAH11			CILD7, DNAHBL, DNAHC11, DNHBL, DPL11, Dnahc11
DNAH14	<b>NM_001367479.1:27, 53-54</b> NM_001367481.1:8		C1orf67, DKFZp781B1548, Dnahc14, HL-18, HL18, MGC27277
DNAH5			CILD3, Dnahc5, HL1, KTGNR, PCD
DNAH6			DNHL1, Dnahc6, FLJ37357, HL-2
DNAH8			hdhc9
DNAI1			CILD1, DIC1, PCD
DNAI2	NM_001353167.2:13		CILD9, DIC2
DNAJB13			RSPH16A, TSARG6
DNAJB2			CMT2T, HSJ1, HSPF3
DNAJC13			KIAA0678, RME8
DNAJC17			FLJ10634
DNAJC21		NM_001348420.2:9	DNAJA5, GS3, JJJ1
DNAJC3			ERdj6, HP58, P58, P58IPK, PRKRI, p58(IPK)
DNAJC5			CLN4, DNAJC5A, FLJ00118, FLJ13070
DNAJC6			KIAA0473, PARK19
DNAL1			1700010H15RiK, C14orf168, CILD16, MGC12435
DNAL4			PIG27, dJ327J16
DNASE1		NM_001387139.1:6 NM_001387140.1:11	DNL1
DNASE1L3			DNAS1L3, LSD
DNM1	NM_001374269.1:22		DNM
DNM1L			DRP1, DVLP, DYMPLE, HDYNIV, VPS1
DNM2			CMT2M, CMTD11, CMTDIB, DI-CMTB, DYN2, DYNII
DNMT1	<b>NM_001130823.3:5</b> NM_001318731.2:5		CXXC9, DNMT, MCMT
DNMT3A			
DNMT3B			
DOCK2			KIAA0209
DOCK7			KIAA1771, ZIR2
DOCK8			FLJ00026, FLJ00152, FLJ00346, ZIR8
DOLK			DK1, KIAA1094, TMEM15
DONSON			B17, C21orf60, C2TA, DKFZP434M035
DPAGT1			ALG7, CDG-lj, D11S366, DGPT, DPAGT, DPAGT2, GPT
DPH1			DPH2L, DPH2L1, OVCA1
DPM1			CDGIE, MPDS
DPM3			MGC125904, MGC125905, MGC34275

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
DPYD			DHPDHase, DPD
DPYS			DHPase
DRAM2	NM_001349886.1:6 NM_001349887.1:5 NM_001349888.1:6		MGC54289, PRO180, RP5-1180E21.1, TMEM77, WWFQ154
DRC1			C2orf39, CCDC164, CILD21, FLJ32660, MGC16372
DRD1			
DRD2			
DRD3			
DRD5			DRD1B, DRD1L2
DROSHA			Etohi2, HSA242976, RN3, RNASE3L, RNASEN
DRP2			
DSC2			CDHF2, DSC3
DSC3			CDHF3, DSC, DSC1, DSC2, DSC4
DSE		NM_001374522.1:5	DS-Epi1, DSEPI, SART2
DSG1			CDHF4, DSG
DSG2			CDHF5
DSG3			CDHF6
DSG4			CDHF13, LAH
DSP			DPI, DPII, KPSS2, PPKS2
DSTYK			DustyPK, KIAA0472, RIP5, RIPK5, SPG23
DTD1	NM_001318043.2:5		C20orf88, DUEB, HARS2, MGC119131, MGC41905, bA379J5.3, bA555E18.1, pqn-68
DTHD1		NM_001170700.3:1-2	FLJ16686
DTNBP1			BLOC1S8, DBND, Dysbindin, HPS7, My031
DUOXA2			
DUSP16			KIAA1700, MKP-7, MKP7
DUSP3			VHR
DUSP4			HVH2, MKP-2, TYP
DUSP6			MKP-3, PYST1
DVL1			
DVL2			
DVL3			KIAA0208
DXO			DOM3Z
DYM	NM_001353212.3:14 NM_001353213.3:14 NM_001353214.3:14 NM_001353215.3:14 NM_001374428.1:15 NM_001374429.1:14 NM_001374430.1:14, 18 NM_001374431.1:14		DMC, FLJ20071, SMC

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001374432.1:13 NM_001374433.1:17 NM_001374441.1:9		
DYNC1H1			CMT20, DHC1, DNCH1, DNCL, DNECL, Dnchc1, HL-3, p22
DYNC2H1			DHC1b, DHC2, DNCH2, DYH1B, hdhc11
DYNC2I1	NM_001350917.2:11 NM_001350918.2:12		CFAP163, DIC6, FAP163, FLJ10300, WDR60
DYNC2I2			CFAP133, DIC5, FAP133, MGC20486, WDR34, ba216B9.3
DYNC2LI1	NM_001348912.1:13 NM_001348913.1:13		CGI-60, D2LIC, DKFZP564A033, LIC3
DYNLT2B		NM_001351628.2:5	MGC33212, TCTEX1D2
DYRK1A			DYRK, DYRK1, MNBH
DYRK1B			MIRK
E2F1			RBBP3, RBP3
EARS2			KIAA1970, MSE1, mtGlnRS
EBF3	NM_001375380.1:16 NM_001375389.1:16 NM_001375390.1:16	NM_001375379.1:8, 15 NM_001375380.1:8, 15 NM_001375389.1:8 NM_001375391.1:8 NM_001375392.1:14	COE3, DKFZp667B0210
EBP			CDPX2, CHO2, CPX, CPXD
ECE1			ECE
ECEL1			DINE, XCE
ECHS1			SCEH
ECI1			DCI
EDA2R			EDA-A2R, EDAA2R, TNFRSF27, XEDAR
EDC3			FLJ21128, LSM16, YJDC, YJEFN2, hYjeF_N2-15q23
EDN1			ET1
EDNRA	NM_001354797.2:4		ET-A, ETA-R, hET-AR
EED			HEED, WAIT-1
EEF1A2			EEF1AL, HS1, STN, STNL
EEF2			EEF-2, EF2
EFCAB13			C17orf57, FLJ40342
EFEMP1			DHRD, FBLN3, FBNL, MTLV, S1-5
EFEMP2			FBLN4, UPH1
EFHC1			EJM, EJM1, FLJ10466, POC9, RIB72
EFHC2			FLJ22843, MRX74
EFNA4			EPLG4, LERK4
EFNA5			AF1, EPLG7, LERK7
EGF			
EGFR			ERBB, ERBB1, ERRP
EGLN1			C1orf12, HIFPH2, PHD2, SM-20, ZMYND6



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
EGLN2			HIFPH1, PHD1
EGR2			KROX20
EHBP1			KIAA0903, NACSIN
EHHADH			ECHD
EHMT1	NM_024757.5:1 NM_001145527.2:1 NM_001354259.2:16 NM_001354263.2:1 NM_001354611.2:1	NM_001354611.2:10 NM_001354612.2:9	EHMT1-IT1, Eu-HMTase1, FLJ12879, FLJ40292, GLP, KIAA1876, KMT1D, bA188C12.1
EIF2AK3			PEK, PERK
EIF2AK4			GCN2, KIAA1338
EIF2B1			EIF-2B, EIF-2Balp, EIF2B, EIF2BA, EIF2Balp
EIF2B2			EIF-2Bbeta, EIF2B, EIF2Bbeta
EIF2B3			EIF-2B, EIF2Bgamma
EIF2B4			DKFZP586J0119, EIF-2B, EIF2B, EIF2Bdelta
EIF2B5			EIF-2B, EIF2Bepsilon
EIF2S3			EIF2, EIF2G, EIF2gamma
EIF4A3			DDX48, EIF4AIII, Fal1, KIAA0111
EIF4E	NM_001130679.2:8 NM_001130678.3:7 NM_001331017.1:8 NM_001968.4:7		EIF4E1, EIF4EL1, EIF4F
EIF4ENIF1			2610509L04Rik, 4E-T, Clast4, FLJ21601
ELAC2			FLJ10530, HPC2
ELANE			ELA2, HLE, HNE, NE, PMN-E
ELF4			ELFR, MEF
ELK1			
ELK3			ERP, NET, SAP2
ELK4			SAP1
ELMO2			CED-12, CED12, ELMO-2, FLJ11656, KIAA1834
ELMOD2			MGC10084
ELMOD3			DFNB88, FLJ21977, RBED1, RBM29
ELN			SVAS, WBS, WS
ELOVL4			CT118, SCA34, STGD2, STGD3
ELOVL5			HELO1, SCA38, dJ483K16.1
ELP1			DYS, IKAP, IKBKAP, IKI3, TOT1
ELP2			FLJ10879, STATIP1, StIP
ELP4			C11orf19, PAXNEB
EMC1	NM_001375820.1:14 NM_001375821.1:14		KIAA0090
EMD			LEMD5, STA
EMG1			C2F, Grcc2f, NEP1

TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
EMILIN1			DKFZp586M121, EMILIN, gp115
EML1	NM_001375411.1:1		ELP79, EMAP, EMAPL, HuEMAP
EMP2			XMP
EMX2			
EN2			
ENAM			AIH2
ENG			CD105, END, HHT1, ORW, ORW1
ENHO			C9orf165, UNQ470
ENO3	NM_001374524.1:1		
ENTPD1			ATPDase, CD39, NTPDase-1, SPG64
EOGT			AER61, C3orf64, FLJ33770
EPAS1			HIF2A, HLF, MOP2, PASD2, bHLHe73
EPB41	NM_001376014.1:15 NM_001376016.1:17-18 NM_001376017.1:17-18 NM_001376018.1:17-18 NM_001376019.1:17-18 NM_001376020.1:17-18 NM_001376021.1:14-15 NM_001376023.1:17-18 NM_001376024.1:17-18 NM_001376025.1:17-18 NM_001376026.1:15-16 NM_001376027.1:14-15 NM_001376028.1:14-15		4.1R, EL1
EPB41L1			4.1N, KIAA0338
EPB41L4A	NM_001347887.2:23-24		NBL4
EPB42			MGC116735, MGC116737, PA
EPG5			KIAA1632, hEPG5
EPHA1			EPH, EPHT, EPHT1
EPHA2			ECK
EPHA4			Hek8, TYRO1
EPHA5			CEK7, EHK1, Hek7, TYRO4
EPHA6			FLJ35246
EPHB2			DRT, EPHT3, ERK, Hek5, Tyro5
EPHB4 (NM_004444)			HTK, Tyro11
EPHX1			EPHX
EPHX2			ABHD20, sEH
EPM2A	NM_001368129.2:3 NM_001368132.1:3	NM_001368130.1:3	LD, LDE
EPO			EP
EPOR			EPO-R
EPRS1			EARS, EPRS, GLUPRORS, PARS, QARS, QPRS
EPS8L2			FLJ21935, FLJ22171, MGC3088
EPS8L3			FLJ21522, MGC16817

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
EPX			EPO, EPP, EPX-PEN
ERBB2	NM_001382784.1:10 NM_001382785.1:15 NM_001382786.1:10	NM_001382787.1:4 NM_001382788.1:13 NM_001382789.1:12	CD340, HER-2, HER2, MLN-19, NEU, NGL, c-ERB-2, c-ERB2, p185(erbB2)
ERBB4			ALS19, HER4
ERBIN			ERBB2IP, LAP2
ERCC1			RAD10
ERCC2			EM9, MAG, MGC102762, MGC126218, MGC126219, XPD
ERCC3			BTF2, RAD25, Ssl2, XPB
ERCC4			FANCO, RAD1, XPF
ERCC5			ERCM2, XPGC
ERCC6L2	NM_001375291.1:19 NM_001375292.1:19 NM_001375293.1:18 NM_001375294.1:18		C9orf102, FLJ37706, HEBO, RAD26L
ERLIN1			C10orf69, Erlin-1, KE04, SPFH1, SPG62
ERLIN2			C8orf2, Erlin-2, NET32, SPFH2, SPG18
ERMAP			BTN5, RD, SC
ERMARD			C6orf70, FLJ11152, dJ266L20.3
ERMP1			FLJ23309, FXNA, KIAA1815
ESCO2			EFO2, RBS
ESR1			ER-alpha, ESR, Era, NR3A1
ESR2			ER-beta, Erb, NR3A2
ETF1			ERF, ERF1, RF1, SUP45L1, TB3-1, eRF1
ETFA			EMA, GA2, MADD
ETFB			
ETFDH			ETFQO
ETV6			TEL
EVC	NM_153717.3:1 NM_001306090.2:1 NM_001306092.2:1		DWF-1, EVC1
EVC2			LBN
EWSR1			EWS
EXO1			HEX1, hExol
EXOC4			KIAA1699, MGC27170, SEC8, SEC8L1, Sec8p
EXOC8			EXO84, Exo84p, SEC84
EXOSC2			RRP4, Rrp4p, hRrp4p, p7
EXOSC8			CIP3, EAP2, OIP2, RRP43, Rrp43p, bA421P11.3, p9
EXT1			LGCR, LGS, ttv
EXT2			SOTV
EXTL3			REGR, botv
EZH2			ENX-1, EZH1, KMT6, KMT6A

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
EZR			VIL2
F11			FXI
F12			
F13A1			F13A
F13B			FXIIIB
F2			
F2R			CF2R, PAR-1, PAR1, TR
F7			
F8 (NM_000132)	Intron 22-A and intron 1 inversions.		DXS1253E, F8C, FVIII, HEMA
F9			FIX
FA2H			FAAH, FAXDC1, FLJ25287, SPG35
FAAH			FAAH-1
FAAH2			AMDD, FAAH-2, FLJ31204, RP11-479E16.1
FAAP24			C19orf40, FLJ46828, MGC32020
FABP3			FABP11, H-FABP, MDGI, O-FABP
FABP7			B-FABP, BLBP
FADD			GIG3, MORT1
FAH			
FAM111A			FLJ22794, KIAA1895
FAM111B			CANP
FAM120AOS			C9orf100S
FAM136A			FLJ14668
FAM177A1			C14orf24
FAM20A			DKFZp434F2322
FAM83H			FLJ46072
FAN1			KIAA1018, MTMR15
FANCA	NM_001018112.3:11 NM_001351830.2:10		FA-H, FAA, FACA, FAH, FANCH
FANCB			FAAP95, FAB, FLJ34064
FANCC			FA3, FAC, FACC
FANCD2	<b>NM_033084.6:14, 17, 21-22</b> NM_001018115.3:14, 17, 21-22 NM_001319984.2:14, 17, 21-22 NM_001374253.1:14, 17, 20-21 NM_001374254.1:14, 17, 21-22 NM_001374255.1:10		FA-D2, FACD, FAD, FANCD
FANCE			FACE, FAE
FANCF			FAF
FANCG			FAG, XRCC9
FANCI			FLJ10719, KIAA1794
FANCL	NM_001374615.1:8		FAAP43, FLJ10335, PHF9, Pog
FANCM			FAAP250, KIAA1596
FAR1			FLJ22728, MLSTD2, SDR10E1
FARS2			FARS1, dJ236A3.1, mtPheRS

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
FAS			APO-1, APT1, CD95, FAS1, TNFRSF6
FASLG			APT1LG1, CD178, FasL, TNFSF6
FASN			FAS, SDR27X1
FASTKD3			FLJ23274, MGC5297
FAT1			CDHF7, CDHR8, FAT
FAT3	NM_001367949.2:26-27 NM_001378141.1:4		CDHF15, CDHR10, KIAA1989
FAT4			CDHF14, CDHR11, FAT-J
FBLN1			FBLN
FBLN2			
FBLN5	NM_001384158.1:4 NM_001384159.1:1 NM_001384160.1:11 NM_001384161.1:12		ARMD3, DANCE, EVEC, UP50
FBN1 (NM_000138)			FBN, MASS, MFS1, OCTD, SGS, WMS
FBN2			CCA, DA9
FBP1			FBP
FBX031			FBX14, FBX014, Fbx31, MGC15419
FBX032			ATROGIN1, Fbx32, MAFbx
FBX038		NM_205836.3:15	FLJ13962, Fbx38, MOKA, SP329
FBX07			FBX7, Fbx, PARK15
FBXW4		NM_022039.4:1	Fbw4, SHFM3, dactylin
FCGR2A			CD32, CD32A, CDw32, FCG2, FCGR2, FCGR2A1, Fc-gamma-RIIa, FcgammaRIIa, IGFR2
FCN1			FCNM
FCN2			EBP-37, FCNL, P35, ficolin-2
FCN3			FCNH, HAKA1
FDPS			
FECH			
FERMT3			KIND3, MGC10966, MIG2B, UNC112C, URP2
FEZF1			ZNF312B
FGD4	NM_001370298.3:1 NM_001384126.1:1, 18 NM_001384127.1:18 NM_001384128.1:18	NM_001384131.1:4 NM_001384132.1:4	CMT4H, FRABP, ZFYVE6, frabin
FGF1			AFGF, ECGF, ECGF-beta, ECGFA, ECGFB, FGF-alpha, FGFA, GLIO703, HBGF1
FGF10			
FGF12			FGF12B, FHF1
FGF16			MF4
FGF17			FGF-13
FGF20			
FGF5			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
FGF9			
FGFBP1			FGFBP, HBP17
FGFR1	NM_001354367.1:18 NM_001354369.1:18 NM_001354370.1:17		BFGFR, CD331, CEK, FLG, FLT2, H2, H3, H4, H5, KAL2, N-SAM
FGFR2			BEK, CD332, CEK3, CFD1, ECT1, JWS, K-SAM, KGFR, TK14, TK25
FGFR3		NM_001354810.2:17	ACH, CD333, CEK2, JTK4
FGFR4			CD334, JTK2
FH			
FHL1			FHL1B, FLH1A, KYO-T, MGC111107, SLIM1, XMPMA, bA535K18.1
FHL2			DRAL, SLIM3
FHOD3			FHOS2, FLJ22297, FLJ22717, KIAA1695
FIG4			ALS11, CMT4J, KIAA0274, SAC3, dJ249I4.1, hSac3
FIGLA			Figalpha, bHLHc8
FKBP10			FKBP6, FKBP65, FLJ20683, FLJ22041, FLJ23833, hFKBP65
FKBP5			FKBP51, FKBP54, P54, PPlase, Ptg-10
FKBPL			DIR1, NG7, WISp39
FKTN	NM_001351497.2:6	NM_001351498.2:9	FCMD, LGMD2M
FLAD1			FAD1, PP591
FLCN	NM_001353229.2:7		BHD, DENND8B, MGC17998, MGC23445
FLI1			EWSR2, FLI-1, SIC-1
FLNA			ABP-280, FLN, FLN1, OPD1, OPD2
FLNB			ABP-278, FH1, FLN1L, LRS1, TABP, TAP
FLNC	NM_001458.5:47-48 NM_001127487.2:46-47		ABP-280, ABPL, FLN2
FLRT1			MGC21624, SPG68
FLRT3			
FLT1			FLT, VEGFR1
FLT3			CD135, FLK2, STK1
FLT4	NM_001354989.2:30		PCL, VEGFR-3, VEGFR3
FLVCR1			AXPC1, FLVCR, MFSD7B, PCA, SLC49A1
FMN1			DKFZP686C2281, FLJ45135, FMN, LD, MGC125288, MGC125289
FMN2	NM_020066.5:5 NM_001305424.2:6		
FMO3			FMOII
FMR1			FMRP, FRAXA, MGC87458, POF, POF1
FN1			CIG, FINC, GFND2, LETS, MSF, Inc-

**TARGETED SEQUENCING GENE LIST**

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			ABCA12-8
FN3K			
FNIP1			KIAA1961
FOCAD			FLJ20375, KIAA1797
FOLR1			FOLR, FRα
FOXA2			HNF3B
FOXA3			HNF3G
FOXC1			ARA, FKHL7, FREAC3, IGDA, IHG1, IRID1
FOXC2			FKHL14, MFH-1
FOXE1			FKHL15, FOXE2, HFKH4, TITF2, TTF-2
FOXE3		NM_012186.3:1	FKHL12, FREAC8
FOXG1		NM_005249.5:1	BF1, FKX2, FKHL1, FKHL2, FKHL3, FKHL4, FOXG1A, FOXG1B, FOXG1C, HBF-3, HFK1, HFK2, HFK3, QIN
FOXH1			FAST1
FOXI1			FKHL10, FREAC6
FOXL1			FKH6, FKHL11, FREAC7
FOXN1			FKHL20, RONU, WHN
FOXO1			FKH1, FKHR, FOXO1A
FOXP1			12CC4, HSPC215, QRF1, hFKH1B
FOXP2			CAGH44, SPCH1, TNRC10
FOXP3			AIID, DIETER, IPEX, JM2, PIDX, SCURFIN, XPID
FPGS			
FPR1			FMLP, FPR
FPR2			ALX, ALXR, FMLP-R-II, FMLPX, FPR2A, FPRH2, FPRL1, HM63, LXA4R
FRAS1			FLJ14927, FLJ22031, KIAA1500
FREM1	NM_001370060.1:8 NM_001370063.1:8 NM_001370065.1:8	NM_001370060.1:4	C9orf143, C9orf145, C9orf154, DKFZp686M16108, FLJ25461, TILRR
FREM2			DKFZp686J0811
FRMD4A			FLJ10210, FRMD4, KIAA1294, bA295P9.4
FRMD7			FLJ43346, NYS, NYS1
FRMPD4	NM_001368395.2:2-3 NM_001368398.2:2-3 NM_001368399.2:1 NM_001368401.1:2 NM_001368402.2:2	NM_001368395.2:19 NM_001368396.3:17 NM_001368397.1:17	KIAA0316, PDZD10, PDZK10
FRRS1L			C9orf4, CG-6
FRY			13CDNA73, C13orf14, CG003, bA37E23.1
FRZB			FRE, FRITZ, FRP-3, FRZB-1, FRZB-PEN, FRZB1, FZRB, SFRP3, SRFP3, hFIZ

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
FSHB			
FSHR			FSHRO, LGR1, ODG1
FTH1			FHC, FTH, FTHL6, PIG15, PLIF
FTL			MGC71996, NBIA3
FTMT			MtF
FTO	NM_001363894.1:8 NM_001363896.1:8 NM_001363988.1:9	NM_001363891.1:3 NM_001363898.1:3 NM_001363899.1:3	ALKBH9, KIAA1752, MGC5149
FTSJ1			CDLIV, JM23, MRX44, MRX9, SPB1, TRM7, TRMT7
FUCA1			
FUT1			H, HSC
FUT2			SE, SEC2, Se2, sej
FUT7			
FUZ			CPLANE3, FLJ22688, Fy
FXN			CyaY, FA, FARR, FRDA, X25
FXYD2			ATP1G1, HOMG2, MGC12372
FYB1	NM_018594.2:2		ADAP, FYB, FYB-120/130, SLAP-130
FYC01	NM_001386424.1:17-18 NM_001386425.1:18 NM_001386428.1:18 NM_001386429.1:17		FLJ13335, ZFYVE7
FZD2			
FZD4			CD344, EVR1
FZD5			C2orf31, DKFZP434E2135, HFZ5
FZD6			Hfz6
G6PC1			G6PC, G6PT, GSD1a
G6PC2			IGRP
G6PC3			UGRP
G6PD (NM_001042351)			G6PD1
GAA			
GABARAP			ATG8A, MM46
GABARAPL1		NM_001363598.2:3	APG8L, ATG8B, ATG8L, gec1
GABARAPL2			ATG8, ATG8C, GATE-16, GATE16, GEF2
GABBR1			GPRC3A, hGB1a
GABBR2	NM_005458.8:1		GABABR2, GPR51, GPRC3B, HG20
GABRA1			EJM5
GABRA2		NM_001377155.1:9	
GABRA4			
GABRA5			
GABRA6			
GABRB1			
GABRB2			
GABRB3			



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
GABRD			
GABRE			
GABRG1			
GABRG2	NM_001375344.1:7 NM_001375347.1:1		
GABRG3			
GABRP			
GABRQ			
GABRR1			
GABRR2			
GAD1			GAD
GAD2			GAD65
GAK			DNAJC26
GAL			GAL-GMAP, GALN, GLNN, GMAP
GAL3ST2			GP3ST
GAL3ST4			FLJ12116
GALC			
GALE			SDR1E1
GALK1			GALK
GALNS			GALNAC6S, GAS, GalN6S
GALNT14			FLJ12691, GalNac-T10, GalNac-T14
GALNT2			GalNac-T2
GALNT3			GalNac-T3, HFTC, HHS
GALNTL5			GALNT15, GalNac-T5L
GALP			
GALT (NM_000155)	NM_000155.4: c.-119_-116del (component of Duarte/D2 haplotype)		
GAMT			PIG2, TP53I2
GAN			GAN1, GIG, KLHL16
GANAB			G2AN, GIIA, GluII, KIAA0088
GAP43			B-50, GAP-43, PP46
GARS1			CMT2D, DSMAV, GARS, GlyRS, SMAD1
GAS1			
GAS8			DRC4, GAS11
GATA1			ERYF1, GATA-1, GF1, NF-E1, NFE1
GATA2			NFE1B
GATA4			
GATA5			GATAS, bB379024.1
GATA6			
GATAD2B			P66beta
GATM			AGAT
GBA2			AD035, DKFZp762K054, KIAA1605, SPG46

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
GBE1	NM_000158.4: c.20533358_20533350delinsTGTT TTTTACATGAC AGGT (Ashkenazi Jewish founder variant)		
GCDH			ACAD5, GCD
GCGR			GGR
GCH1			DYT14, DYT5, DYT5a, GCH, GTPCH1
GCHFR			GFRP, HsT16933
GCK	NM_001354800.1:11 NM_001354802.1:4 NM_001354803.1:1		HK4, MODY2
GCKR			
GCLC			GCS, GLCL, GLCLC
GCM2			GCMB, hGCMb
GCNT2			CCAT, GCNT5, IGNT, II, NACGT1, NAGCT1, ULG3, bA360019.2, bA421M1.1
GCSH			
GDAP1	NM_001362931.2:6		CMT2K, CMT4, CMT4A
GDF1			
GDF2			BMP-9, BMP9
GDF3			
GDF5			BMP14, CDMP1
GDF6			BMP13, KFS, KFS1, SGM1
GDF9			
GDI1			FLJ41411, GDIL, MRX41, MRX48, OPHN2, RABGDIA, XAP-4
GDNF			ATF1, ATF2, HFB1-GDNF
GEMIN4			DKFZP434B131, DKFZP434D174, HC56, HCAP1, HHRF-1, p97
GEN1			FLJ40869, Gen
GFAP			FLJ45472
GFI1			GFI-1, GFI1A, ZNF163
GFI1B		NM_001371908.1:6	ZNF163B
GFM2			EF-G2mt, EFG2, FLJ21661
GFPT1			GFA, GFAT, GFAT1, GFPT
GFRA1	NM_001348099.3:1 NM_001382560.2:11 NM_001382561.2:10		GDNFR, GDNFRA, GFR-ALPHA-1, RET1L, RETL1, TRNR1
GGCX			VKCFD1
GH1			GH, GH-N, GHN, hGH-N
GH2			GH-V, GHL, GHV, hGH-V
GHR			GHBP
GHRHR			
GHRL			MTLRP, ghrelin, obestatin
GHSR			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
GIGYF2			GYF2, KIAA0642, PARK11, PERQ2, PERQ3, TNRC15
GIT1			
GJA1			CX43, GJAL, ODD, ODDD, ODOB, SDTY3
GJA3			CX46, CZP3
GJA5			CX40
GJA8			CAE, CAE1, CX50, CZP1
GJB1			CMTX, CMTX1, CX32
GJB2 (NM_004004)			CX26, DFNA3, DFNB1, NSRD1
GJB4			CX30.3
GJC2		NM_020435.4:2	CX46.6, CX47, GJA12, SPG44
GJC3			CX30.2, GJE1
GK	NM_000167.6:19 NM_001128127.2:20 NM_001205019.2:21 NM_001399987.1:5, 20 NM_203391.3:20		GK1, GKD
GLA			GALA
GLB1	NM_001393580.1:16		EBP, ELNR1
GLDC			GCSP, NKH
GLI1			GLI
GLI2			HPE9, THP1, THP2
GLI3			ACLS, GCPS, PAP-A, PAPA, PAPA1, PAPB, PHS, PPDIV
GLIS2			NPHP7
GLIS3			MGC33662, ZNF515
GLMN			FAP48, FAP68, FKBPAP, GLML, GVM, VMGLOM
GLP1R			GLP-1R
GLRA1			STHE
GLRA2			GLR
GLRB			
GLRX5			C14orf87, GRX5, PR01238
GLUD1			GDH, GDH1, GLUD, hGDH1
GLUD2			GLUDP1
GLUL	NM_002065.6:8 NM_001033044.4:7 NM_001033056.3:7		GLNS
GLYCTK			HBEBP2, HBEBP4
GM2A			GM2-AP, GM2AP, SAP-3
GMNN			Gem
GMPPA			
GNA12	NM_007353.3:1 NM_001293092.2:1		gep
GNAI1			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
GNAI2			GIP, GNAI2B
GNAI3			87U6
GNAO1			G-ALPHA-o
GNAS			GNAS1, GNASXL, GPSA, NESP, NESP55, SCG6, SgVI
GNAT1			CSNBAD3
GNAT2			ACHM4
GNB1			
GNB1L			GY2, WDR14
GNB3			
GNB4			
GNB5			GB5
GNG12			
GNL2			HUMAUANTIG, Ngp-1, Nog2, Nug2
GNPAT			DAP-AT, DAPAT, DHAPAT
GNPTAB			GNPTA, KIAA1208, MGC4170
GNPTG			C16orf27, CAB56184, GNPTAG, c316G12.3
GNRH1			GNRH, GRH, LHRH
GNRHR			GRHR, LHRHR
GNS			
GOLGA2	NM_001366244.1:3 NM_001366246.1:3 NM_001389695.2:3 NM_001389696.2:3 NM_001389697.2:3 NM_001389698.2:3 NM_001389699.2:3		GM130, golgin-95
GORAB			FLJ11752, GO, NTKL-BP1, SCYL1BP1
GOSR2			Bos1, GS27
GOT1			AST, AST1, SGOT
GP1BB			CD42c, GPIIbbeta
GP6			GPVI
GP9			CD42a, GPIX
GPATCH3			FLJ12455, GPATC3
GPATCH8			GPATC8, KIAA0553
GPBAR1			BG37, GPCR, GPCR19, GPR131, M-BAR, MGC40597, TGR5
GPC3			DGSX, OCI-5, SDYS, SGB, SGBS, SGBS1
GPC6			
GPD1			
GPD2			
GPHN	NM_001377514.1:5, 10-11 NM_001377515.1:9-10 NM_001377516.1:9-10 NM_001377517.1:9		KIAA1385

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001377518.1:9 NM_001377519.1:5		
GPI			AMF, NLK
GPIHBP1			GPI-HBP1, LOC338328
GPR101			
GPR143			OA1
GPR161			RE2
GPR174			FKSG79, LPS3
GPR179			CSNB1E, GPR158L1
GPR180			ITR
GPR68			OGR1
GPR75			WI-31133
GPR85			SREB2
GPT			ALT, ALT1, GPT1, SGPT
GPT2			ALT2
GPX4			MCSP, PHGPx
GRB2			NCKAP2
GREM1			CKTSF1B1, CRAC1, DAND2, DRM, HMPS, gremlin
GREM2			CKTSF1B2, DAND3, FLJ21195, Prdc
GRHL3			SOM, TFCP2L4
GRHPR			GLXR, PH2
GRIA1	NM_001364166.1:1		GLUR1, GLURA, GluA1
GRIA3			GLUR3, GLURC, GluA3, GluR-3, GluR-C, GluR-K3, MRX94, iGluR3
GRID2			GluD2, GluR-delta-2
GRIK2			EAA4, GLUK6, GLUR6, GluK2, GluR-6, MRT6
GRIK4			GRIK, GluK4, KA1
GRIK5			GRIK2, GluK5, KA2
GRIN1			GluN1, NMDAR1
GRIN2A			GluN2A, NMDAR2A
GRIN2B			GluN2B, NMDAR2B
GRIN2D			EB11, GluN2D, NMDAR2D, NR2D
GRIP1	NM_001366722.1:10 NM_001366723.1:1 NM_001366724.1:1 NM_001379345.1:1, 10 NM_001379346.1:10 NM_001379347.1:1 NM_001379348.1:1 NM_001379349.1:1 NM_001379351.1:1		
GRK1			GPRK1, RHOK, RK
GRK5			GPRK5
GRM1			GPRC1A, MGLUR1, PPP1R85, mGlu1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
GRM6			CSNB1B, GPRC1F, MGLUR6, mGlu6
GRM7			GLUR7, GPRC1G, MGLUR7, PPP1R87, mGlu7
GRXCR2			DFNB101
GSC			
GSK3B			
GSKIP			C14orf129
GSN		NM_001353076.2:4	DKFZp313L0718
GSPT2			FLJ10441, eRF3b
GSR			
GSS			
GSTM3			GST5, GSTM3TV2
GSTO1			GSTTLp28, P28
GSTP1	NM_000852.4:1		FAEES3, GST3, GSTP
GSTT1			
GTF2E2	NM_001348353.1:7		FE, TF2E2, TFII-E
GTF2H5			C6orf175, FLJ30544, TFB5, TFIIH, TTD, TTD-A, TTDA, bA120J8.2
GTF2IRD1			BEN, Cream1, GTF3, MusTRD1, RBAP2, WBSR11, WBSR12
GTPBP2			
GTPBP3			FLJ14700, GTPBG3, MSS1, MTGP1, THDF1
GUCA1A			C6orf131, COD3, CORD14, GCAP, GCAP1, GUCA, GUCA1, dJ139D8.6
GUCA1B			GCAP2, RP48
GUCY1A1			GC-SA3, GUC1A3, GUCY1A3
GUCY2C			GUC2C, STAR
GUF1			FLJ13220
GUSB			
GYG1			GYG
GYG2			GN-2
GYP A	NM_002099.8:1 NM_001308187.2:1 NM_001308190.2:1		CD235a, GPA, MN, MNS, PAS-2
GYP C			CD236, CD236R, GPC, GYPD, Ge
GYS1			GSY, GYS
GYS2			
H19			ASM, ASM1, D11S813E, LINC00008, MIR675HG, NCRNA00008
H3-4			H3.4, H3/g, H3C16, H3FT, H3t, HIST3H3
H6PD			GDH, H6PDH
HABP2			FSAP, HABP, HGFAL, PHBP
HACD1			CAP, PTPLA

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
HACE1			KIAA1320
HADH			HADH1, HADHSC, SCHAD
HADHA			GBP, LCEH, LCHAD, MTPA
HADHB			MTPB
HAL			HIS
HAMP			HEPC, HFE2B, LEAP-1, LEAP1
HAND1			Hxt, Thing1, bHLHa27, eHand
HAND2			Hed, Thing2, bHLHa26, dHand
HAO1			GOX, GOX1
HARS1			HARS, HisRS, USH3B
HAS2			
HAS3			
HAX1			HAX-1, HCLSBP1, HS1BP1
HBB (NM_000518)			CD113t-C, beta-globin
HBD			
HBM			HBAP2, HBK
HBS1L			DKFZp434g247, EF-1a, ERF5, HBS1, HSPC276, KIAA1038, eRF3c
HCCS			CCHL, MLS
HCFC1			CFF, HCF-1, HCF1, HFC1, MGC70925, MRX3, PPP1R89, VCAF
HCN1			BCNG-1, BCNG1, HAC-2
HCN3			KIAA1535
HCN4			
HCRT			OX, PPOX
HCRTR2			ORXR2, OX2R, OXR2
HDAC4			BDMR, HA6116, HD4, HDAC-4, HDAC-A, HDACA, KIAA0288
HDAC6			FLJ16239, HD6, JM21, KIAA0901, PPP1R90
HDAC8			HDACL1, KDAC8, MRXS6, RPD3, WTS
HDC			
HECW2			KIAA1301, NEDL2
HELLS			LSH, Nbla10143, PASG, SMARCA6
HELQ			Hel308
HEPACAM			FLJ25530, GLIALCAM
HEPH			CPL, KIAA0698
HERC1			p532, p619
HES7			bHLHb37
HESX1			ANF, RPX
HEXA (NM_000520)			
HEXB			
HEXD	NM_001369487.1:11		FLJ23825, HEXDC

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
HFE			HFE1, HLA-H
HFM1			FLJ36760, FLJ39011, MER3, SEC63D1
HGD			AKU, HGO
HGSNAT	NM_152419.3:1 NM_001363227.2:1, 15 NM_001363228.2:1		FLJ32731, HGNAT, TMEM76
HHAT			FLJ10724, GUP2, MART-2, MART2, Skn, rasp, sit, ski
HHIP			FLJ20992, HIP
HIBCH			
HIF1A			HIF-1alpha, HIF1, MOP1, PASD8, bHLHe78
HIKESHI			C11orf73, HSPC138, HSPC179, OPI10
HINT1			HINT, PKCI-1, PRKCNH1
HINT2			
HIVEP2			HIV-EP2, MBP-2, MIBP1, Schnurri-2, ZAS2, ZNF40B
HJV			HFE2, HFE2A, JH, RGMC, haemojuvelin, hemojuvelin
HK1			
HK2			
HLCS	NM_001352514.2:1-2	NM_001352514.2:3	HCS
HMBS			PBGD, PORC, UPS
HMCN1			ARMD1, FBLN6, FIBL-6, FIBL6
HMGA1			HMG1Y
HMGA2	NM_001300919.1:4		BABL, HMGIC, LIPO
HMGB3			HMG2A, HMG4, MGC90319
HMGCL			HL
HMGCR			
HMGCS2			
HMOX1			HO-1, bK286B10
HMX1			H6, NKX5-3
HNF1A			HNF1, HNF1a, LFB1, MODY3, TCF1
HNF1B			HNF1beta, HNF1β, LFB3, MODY5, TCF2, VHNF1
HNF4A			HNF4, MODY, MODY1, NR2A1, TCF14
HNMT			
HNRNPA0			HNRPA0
HNRNPA1			ALS20, HNRPA1, hnRNP-A1
HNRNPA2B1			HNRPA2B1
HNRNPH1	NM_001364225.1:15 NM_001364226.1:14 NM_001364227.2:13 NM_001364228.2:13 NM_001364229.2:13 NM_001364230.2:12	NM_001363572.2:10 NM_001364230.2:10 NM_001364232.2:10 NM_001364240.2:10 NM_001364245.2:10 NM_001364248.2:10	HNRPH1, hnRNPH



TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001364232.2:12 NM_001364240.2:12 NM_001364251.2:12 NM_001364252.2:12 NM_001364253.1:12 NM_001395177.1:12 NM_001395178.1:13 NM_001395179.1:13 NM_001395180.1:13 NM_001395181.1:13	NM_001395183.1:10 NM_001395189.1:11 NM_001395192.1:8	
HNRNPH2			FTP3, HNRPH', HNRPH2, hnRNPH'
HNRNPK			CSBP, HNRPK, TUNP
HNRNPU			C1orf199, FLJ30202, FLJ37978, HNRNPU-AS1, HNRPU, NCRNA00201, SAF-A
HOGA1			C10orf65, DHGPS2, DHGPSL, FLJ37472, NPL2
HOMEZ			KIAA1443
HOXA1			HOX1, HOX1F
HOXA10			HOX1, HOX1H
HOXA11			HOX1, HOX1I
HOXA2			HOX1K
HOXA4			HOX1, HOX1D
HOXB1			HOX2, HOX2I
HOXB13			
HOXB6			HOX2, HOX2B
HOXC13			HOX3, HOX3G
HOXD10			HOX4, HOX4D
HOXD13			HOX4I, SPD
HOXD4			HOX4, HOX4B
HPCA			DYT2
HPD			4-HPPD, 4HPPD, GLOD3, PPD
HPGD	NM_001363574.2:5		SDR36C1
HPRT1			HGPRT, HPRT
HPS1			BLOC3S1, HPS
HPS3			BLOC2S1, SUTAL
HPS4	NM_001349900.2:10 NM_001349901.1:10 NM_001349904.2:14 NM_001349905.1:14	NM_001349902.1:12 NM_001349903.2:12	BLOC3S2, KIAA1667, LE
HPS5			AIBP63, BLOC2S2, RU2
HPS6			BLOC2S3, FLJ22501
HPSE2			HPA2, HPR2, UFS
HR			ALUNC, AU
HRAS			HRAS1
HRG			HPRG, HRGP
HSD11B1			HSD11, HSD11B, SDR26C1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
HSD11B2			SDR9C3
HSD17B10			17b-HSD10, ABAD, CAMR, ERAB, HADH2, MHBD, MRPP2, MRXS10, SDR5C1
HSD17B3			SDR12C2
HSD17B4			DBP, MFE-2, SDR8C1
HSD3B2			SDR11E2
HSD3B7			C(27)-3BETA-HSD, SDR11E3
HSF2			
HSF4			CTM
HSPA1L			HSP70-HOM, hum70t
HSPA9			GRP75, HSPA9B, PBP74, mot-2, mthsp75
HSPB1			CMT2F, HSP27, HSP28, Hs.76067, Hsp25
HSPB3			HSPL27
HSPB6			FLJ32389, Hsp20, PPP1R91
HSPB8			CMT2L, E2IG1, H11, HSP22
HSPG2			PRCAN, SJS1, perlecan
HSPH1	NM_001349704.2:19		HSP105A, HSP105B, KIAA0201, NY-CO-25
HTR1A			5-HT1A, ADRB2RL1, ADRBRL1
HTR1B			5-HT1B, 5-HT1DB, HTR1D2, S12
HTR1D			5-HT1D, HT1DA, HTRL, RDC4
HTR1E			5-HT1E
HTR1F			5-HT1F, HTR1EL
HTR2A			5-HT2A, HTR2
HTR2B			5-HT(2B), 5-HT2B
HTR2C			5-HT2C, 5HTR2C, HTR1C
HTR3A			5-HT3A, 5-HT3R, HTR3
HTR3B			5-HT3B
HTR3C			
HTR3D			
HTR3E			
HTR4			5-HT4
HTR5A			5-HT5A
HTR6			5-HT6, 5-HT6R
HTR7			5-HT7
HTRA1			ARMD7, HtrA, IGFBP5-protease, PRSS11
HTRA2			OMI, PARK13, PRSS25
HYCC1	NM_001363466.2:11 NM_001363467.2:11		DRCTNNB1A, FAM126A, HCC, hyccin
ICOS			AILIM, CD278
IDH1			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
IFITM5			BRIL, DSPA1, Hrmp1, fragilis4
IFT80			CFAP167, FAP167, KIAA1374, WDR56
IGHM			MU, AGM1
IGHMBP2			CATF1, CMT2S, HCSA, HMN6, SMARD1, SMUBP2, ZFAND7
IGLL1			14.1, CD179B, IGL5, IGLL, IGVPB
IKZF1			Hs.54452, IKAROS, LyF-1, PPP1R92, ZNFN1A1, hik-1
IL21R			CD360
IL7R			CD127, CDw127, IL-7Ralpha, IL7RA, IL7Ralpha, Inc-IL7R, siL-7R
INF2			C14orf151, C14orf173, MGC13251
INPPL1			SHIP2
INS			IDDM1, IDDM2
INVS			NPHP2
IQSEC2			BRAG1, IQ-ArfGEF, KIAA0522, MRX1, MRX18, MRX78
ITGA2B			CD41, CD41B, GP2B, GPIIb, PPP1R93
ITPA			C20orf37, HLC14-06-P, dJ794i6.3
IVD	NM_001354597.3:1 NM_001354598.3:12-13 NM_001354600.3:12-13 NM_001354601.3:12	NM_001354599.3:2 NM_001354600.3:2	ACAD2, IVDH
JAG1			AGS, AHD, AWS, CD339, HJ1, JAGL1
JAK2			JTK10
JAK3			JAK-3, JAK3_HUMAN, JAKL, L-JAK, LJAK
JPH2			JP-2
JUP			CTNNG, DP3, DPIII, PDGB, PG, PKGB
KANSL1			CENP-36, DKFZP727C091, KIAA1267, MSL1v1, NSL1
KARS1			DFNB89, KARS, KARS2
KCNA1			AEMK, HUK1, Kv1.1, MBK1, RBK1
KCNA2			HK4, Kv1.2
KCNA5			HK2, HPCN1, Kv1.5
KCNB1			Kv2.1
KCNC1			Kv3.1
KCNE1			IsK, JLNS2, LQT5, minK
KCNE2			LQT6, MiRP1
KCNH1			Kv10.1, eag, eag1, h-eag, hEAG
KCNH2			HERG, Kv11.1, LQT2, erg1
KCNJ10			Kir1.2, Kir4.1
KCNJ11			BIR, Kir6.2
KCNJ2			IRK1, Kir2.1, LQT7
KCNK3			K2p3.1, TASK, TASK-1, TASK1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
KCNMA1			KCa1.1, SLO, mSLO1
KCNQ1			JLNS1, KCNA8, KCNA9, KVLQT1, Kv7.1, LQT, LQT1
KCNQ2	NM_001382235.1:15		BFNC, EBN, EBN1, ENB1, HNSPC, KCNA11, Kv7.2
KCNQ3			EBN2, Kv7.3
KCNT1			KCa4.1, KIAA1422, SLACK, Slo2.2
KCTD7	NM_001167961.2:5		CLN14, EPM3, FLJ32069
KDM1A			AOF2, BHC110, KDM1, KIAA0601, LSD1
KDM5C	NM_001353979.2:26 NM_001353981.2:26 NM_001353982.2:26 NM_001353984.1:26		DXS1272E, JARID1C, MRX13, SMCX, XE169
KDM6A			UTX
KIF1A	NM_001379635.1:38 NM_001379636.1:36 NM_001379638.1:38 NM_001379639.1:37 NM_001379646.1:38		ATSV, C2orf20, SPG30, UNC104
KIF1B	NM_001365951.3:10, 14 NM_001365952.1:10, 14	NM_001365951.3:15 NM_001365952.1:15	CMT2, CMT2A, HMSNII, KIAA0591, KLP
KIF5A			D12S1889, MY050, NKHC, SPG10
KIT			C-Kit, CD117, PBT, SCFR
KLF1			EKLF
KLF11			FKLF, MODY7, TIEG2, Tieg3
KMT2D			ALR, CAGL114, MLL2, MLL4, TNRC21
KRAS			K-Ras4B, KRAS1, KRAS2
KRIT1			CAM, CCM1
LAMP2			CD107b
LAS1L	NM_001375329.1:12 NM_001375330.1:12 NM_001375331.1:11 NM_001375334.1:12 NM_001375335.1:12 NM_001375336.1:11 NM_001375337.1:11		FLJ12525, Las1
LBR			DHCR14B, TDRD18
LDB3			CMD1C, KIAA0613, PDLIM6, ZASP
LDHA			
LDLR			LDLCQ2
LDLRAP1			ARH, ARH2, DKFZp586D0624, FHCB1, FHCB2, MGC34705
LG1			EPITEMPIN, EPT, ETL1, IB1099
LIFR			CD118
LIG4	NM_001352604.1:2		
LITAF			FLJ38636, PIG7, SIMPLE, TP53I7

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
LMBRD1			C6orf209, FLJ11240, bA810122.1, cblF
LMNA			CMD1A, HGPS, LGMD1B, LMN1, LMNL1, MADA, PRO1
LOX			
LPIN1	NM_001349200.2:13 NM_001349201.2:12		KIAA0188
LPIN2			KIAA0249
LRBA			BGL, CDC4L, LAB300, LBA
LRP5	<b>NM_002335.4:1</b>		BMND1, EVR1, EVR4, HBM, LR3, LRP7, OPPG, OPS, OPTA1, VBCH2
LRSAM1			CMT2P, FLJ31641, RIFLE, TAL
LZTR1			BTBD29, LZTR-1
MAB21L2			
MACF1	NM_001394062.1:1, 4, 37-41, 95, 97, 99 NM_001397473.1:1		ABP620, ACF7, FLJ45612, FLJ46776, KIAA0465, KIAA0754, KIAA1251, Lnc-PMIF, MACF
MAD1L1			HsMAD1, MAD1, PIG9, TP53I9, TXBP181
MAD2L2			FANCV, MAD2B, POLZ2, REV7
MADD	NM_001376571.1:34 NM_001376572.1:34 NM_001376574.1:33 NM_001376575.1:33 NM_001376576.1:33 NM_001376577.1:33 NM_001376578.1:33 NM_001376579.1:32 NM_001376581.1:34 NM_001376583.1:32 NM_001376585.1:33 NM_001376586.1:33 NM_001376595.1:33 NM_001376597.1:33 NM_001376603.1:32 NM_001376604.1:32 NM_001376627.1:33 NM_001376635.1:32	NM_001376596.1:17	DENN, IG20, KIAA0358, RAB3GEP
MAFB			KRML
MAG			GMA, S-MAG, SIGLEC-4A, SIGLEC4A
MAGED2			11B6, BCG1, HCA10, JCL-1, MAGE-D2, MAGED, MGC8386
MAGI2	<b>NM_012301.4:22</b> NM_001301128.2:21		ACVRIP1, AIP1, ARIP1, KIAA0705, MAGI-2
MAGT1			DKFZp564K142, IAP, MRX95, OST3B, SLC58A1
MAMLD1			CG1, CXorf6, F18
MAN1B1			ERMan1, ERManI, MANA-ER, MRT15
MAN2B1			LAMAN, MANB
MANBA			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MAOA			
MAOB			
MAP2K1			MAPKK1, MEK1, PRKMK1
MAP2K2			MEK2, PRKMK2
MAP3K1			MAPKKK1, MEKK, MEKK1
MAP3K6			ASK2, MAPKKK6, MEKK6
MAP3K7			MEKK7, TAK1
MAP3K8			COT, EST, ESTF, MEKK8, Tpl-2, c-COT
MAP4	NM_001384678.1:4 NM_001384679.1:9 NM_001384731.1:3 NM_001384736.1:3 NM_001384738.1:4 NM_001384744.1:3 NM_001384745.1:4, 10 NM_001384748.1:4 NM_001384788.1:3 NM_001384789.1:3 NM_001384790.1:3 NM_001384791.1:3 NM_001384792.1:3 NM_001384793.1:3 NM_001384794.1:3 NM_001384795.1:3, 5 NM_001384796.1:3 NM_001384797.1:3 NM_001384849.1:4 NM_001384859.1:4 NM_001384863.1:4 NM_001384872.1:4 NM_001384873.1:4 NM_001384875.1:4 NM_001385664.1:8 NM_001385675.1:4 NM_001385681.1:3 NM_001385682.1:9-10 NM_001385686.1:3 NM_001385687.1:3, 10 NM_001385688.1:3, 10 NM_001385689.1:3, 10 NM_001385690.1:4 NM_001385691.1:3 NM_001385692.1:3		
MAPK1			ERK, ERK2, MAPK2, PRKM1, PRKM2, p41mapk
MAPK10			JNK3, PRKM10, p493F12, p54bSAPK
MAPK8IP1	NM_005456.4:3		IB1, JIP-1, JIP1, PRKM8IP
MAPKAP1			MGC2745, MIP1, SIN1
MAPKAPK3			3PK, 3pK, MAPKAP3, MK-3, MK3
MAPKBP1			KIAA0596, NPHP20
MAPRE2			EB1, EB2, RP1
MARK4			FLJ90097, KIAA1860, MARKL1,

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			Nbla00650, PAR-1D
MARS1			CMT2U, MARS, MetRS, SPG70
MARS2			SPAX3, mtMetRS
MASP2			MAP-2, MASP1P1, Map19, sMAP
MAST1			KIAA0973, SAST
MASTL			FLJ14813, Gwl, THC2
MAT1A			MAT, MATA1, SAMS, SAMS1
MATN3			EDM5, HOA
MATN4		NM_001393531.1:9	
MATR3	NM_001400459.1:5	NM_001400441.1:14 NM_001400442.1:16 NM_001400443.1:14 NM_001400444.1:17 NM_001400445.1:13 NM_001400460.1:15 NM_001400461.1:2	KIAA0723, MGC9105, MPD2, VCPDM
MAX			bHLHd4, bHLHd5, bHLHd6, bHLHd7, bHLHd8
MBD1	NM_001399880.1:1 NM_001399906.1:16 NM_001399916.1:1 NM_001399921.1:16 NM_001399926.1:15 NM_001399945.1:15 NM_001399952.1:15 NM_001399953.1:14 NM_001399958.1:14 NM_001399975.1:15	NM_001399880.1:2 NM_001399916.1:2	CXXC3, PCM1
MBD4			MED1
MBD5		NM_001378120.1:9	FLJ11113, KIAA1461
MBL2			COLEC1, MBL, MBP, MBP-C, MBP1
MBNL1	NM_001314057.2:3 NM_001376818.1:3 NM_001376819.1:4 NM_001376837.1:2 NM_001387781.1:4 NM_001387782.1:3 NM_001387783.1:3 NM_001387784.1:3 NM_001387791.1:2 NM_001387797.1:3 NM_001387798.1:2 NM_001387799.1:3 NM_001387800.1:2 NM_001387803.1:2		EXP, EXP35, EXP40, EXP42, KIAA0428, MBNL
MBOAT7			BB1, LENG4, LPIAT1, LPLAT, LPLAT11, hMBOA-7
MBTPS2			KFSD, S2P
MC1R			MSH-R
MC2R			ACTHR

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MC3R			MC3
MC4R			
MCC			
MCCC1			MCCA, MCCCα
MCEE			GLOD2, MCE, MMCE
MCFD2			F5F8D, LMAN1IP, SDNSF
MCHR1			GPR24, MCH1R, SLC1
MCIDAS			IDAS, MCI, MCIN
MCM2			BM28, CCNL1, CDCL1, D3S3194, DFNA70, KIAA0030, cdc19
MCM3AP			GANP, KIAA0572, Map80, SAC3
MCM4			CDC21, CDC54, MGC33310, P1-Cdc21, hCdc21
MCM6			Mis5
MCM7			CDC47, MCM2, PPP1R104
MCM8			C20orf154, MGC119522, MGC119523, MGC12866, MGC4816, REC, dJ967N21.5
MCM9	NM_001378361.1:4 NM_001378362.1:3 NM_001378363.1:4 NM_001378365.1:8 NM_001378367.1:4 NM_001378370.1:3 NM_001378371.1:6 NM_001378372.1:4	NM_001378369.1:6 NM_001378372.1:7	C6orf61, FLJ20170, MCMD1, MGC35304, dJ329L24.3
MCPH1	NM_001322042.2:14 NM_001363979.1:14		BRIT1, FLJ12847
MCTP2	NM_001385007.1:4 NM_001385011.1:4, 19		FLJ11175, FLJ33303
MDH2			
MDM2			HDM2, MGC5370
ME2			
MECOM			EVI1, KMT8E, MDS1, MDS1-EVI1, PRDM3
MECP2			MRX16, MRX79, RTT
MECR	NM_001349715.2:2 NM_001349716.2:2		CGI-63, ETR1, FASN2B, NRBF1
MED12			ARC240, CAGH45, FGS1, HOPA, KIAA0192, Kto, OKS, OPA1, TNRC11, TRAP230
MED13L			KIAA1025, THRAP2, TRAP240L
MED17			CRSP6, CRSP77, DRIP80, SRB4, TRAP80
MED20			DKFZp586D2223, PRO0213, SRB2, TRFP
MED23			CRSP130, CRSP3, DRIP130, MRT18, Sur2



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MED25	NM_001378355.1:18		ACID1, ARC92, DKFZp434K0512, TCBAP0758
MEF2A	NM_001365210.2:8 NM_001365211.2:8 NM_001400070.1:7 NM_001400071.1:7		RSRFC4, RSRFC9
MEF2C			
MEFV (NM_000243)			FMF, MEF, TRIM20
MEGF8			C19orf49, EGFL4, FLJ22365, SBP1
MEIS1			
MEIS2			HsT18361, MRG1
MEN1 (NM_130799)			
MEOX1			MOX1
MEOX2			GAX, MOX2
MESP1			MGC10676, bHLHc5
MESP2			SCDO2, bHLHc6
MET			DFNB97, HGFR, RCCP2
METTL21A	NM_001393568.1:4 NM_001393571.1:4 NM_001393572.1:4		FAM119A, HCA557b, HSPA-KMT, LOC151194
METTL23			C17orf95, LOC124512
MFAP5			MAGP2, MP25
MFF			C2orf33, GL004
MFGE8			BA46, EDIL1, HsT19888, MFG-E8, OAcGD3S, SED1, SPAG10, hP47
MFN2			CMT2A2, CPRP1, KIAA0214, MARF
MFRP			C1QTNF5, FLJ30570, NNO2, rd6
MFSD2A			FLJ14490, MFSD2, SLC59A1
MFSD8			CLN7, MGC33302
MGAT2			GNT-II
MGLL	NM_001388312.1:6 NM_001388313.1:6 NM_001388315.1:4, 7 NM_001388317.1:4 NM_001388318.1:4	NM_001388314.1:7	HU-K5, MAGL, MGL
MGME1			C20orf72, DDK1, bA504H3.4
MGMT			
MGP			
MGST2			MGST-II
MIA			CD-RAP
MIB1			DIP-1, KIAA1323, MIB, ZZANK2, ZZZ6
MICA			PERB11.1
MICOS13			C19orf70, MIC12, MIC13, P117, QIL1
MICU1	NM_001363513.1:6		CALC, CBARA1, EFHA3, FLJ12684

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MID1			FXY, OS, RNF59, TRIM18
MID2			FXY2, MRX101, RNF60, TRIM1
MINPP1			MIPP
MIP			AQP0, LIM1, MP26
MIPEP			MIP
MIR125A			MIRN125A, hsa-mir-125a
MIR17HG			C13orf25, FLJ14178, LINC00048, MIHG1, MIRH1, MIRHG1, NCRNA00048, miR-17-92
MIR184			MIRN184, hsa-mir-184
MIR2861			hsa-mir-2861
MIR30C1			MIRN30C1, hsa-mir-30c-1
MIR96			DFNA50, MIRN96, hsa-mir-96
MITF	NM_001354607.2:2		MI, WS2, WS2A, bHLHe32
MKKS	NM_001394148.1:2 NM_001394149.1:3		BBS6
MKRN3			D15S9, MGC88288, RNF63, ZFP127, ZNF127
MKS1			BBS13, FLJ20345, MKS, POC12
MLC1			KIAA0027, LVM, MLC, VL
MLH1			COCA2, FCC2, HNPCC, HNPCC2, MLH-1
MLH3			
MLLT10	NM_001195627.1:4		AF10
MLPH			Slac-2a, exophilin-3, I(1)-3Rk, I1Rk3, In
MLST8			GBL, GbetaL, Lst8, Pop3
MLYCD			MCD, hMCD
MMAA			cbIA
MMAB			CFAP23, cbIB
MMACHC			DKFZP564I122, cbIC
MMADHC			C2orf25, CL25022, cbID
MME	NM_001354644.1:4		CALLA, CD10, NEP
MMEL1			MMEL2, NEPII, NL1, NL2, SEP
MMGT1			EMC5, TMEM32
MMP1			CLG
MMP13			CLG3
MMP14			MT1-MMP
MMP19			MMP18, RASI-1
MMP2			CLG4, CLG4A, TBE-1
MMP20			
MMP21			
MMP23B	NM_006983.2:2-8		MIFR, MIFR-1, MMP22
MMP25			MMP20, MMPL1, MT6-MMP
MMP9			CLG4B

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MMS22L			C6orf167, dJ39B17.2
MMUT			MCM, MUT
MN1			MGCR, MGCR1, MGCR1-PEN
MNX1	NM_005515.4:1		HB9, HLXB9, HOXHB9, SCRA1
MOB4			2C4D, CGI-95, DKFZP564M112, MOB3, MOBKL3, PHOEN, PREI3
MOBP			
MOCOS			FLJ20733, HMCS, MOS
MOCS1	NM_001358529.2:10 NM_001358530.2:11 NM_001358531.2:10		MOCOD
MOCS2			MOCO1, MOCS2A, MOCS2B
MOG		NM_001363610.2:7	BTN6, BTNL11
MOGS			CWH41, DER7, GCS1
MORC2			AC004542.C22.1, KIAA0852, ZCW3, ZCWCC1
MOV10			MGC2948, fSAP113, gb110
MPC1			BRP44L, CGI-129, SLC54A1, dJ68L15.3
MPDU1			CDGIf, Lec35, PQLC5, SL15, SLC66A5
MPDZ	NM_001375413.1:32		MUPP1
MPI			
MPL			CD110, THPOR, TPOR
MPLKIP			C7orf11, ORF20, TTDN1
MPO			
MPP2			DKFZp761D0712, DLG2
MPP3		NM_001353080.1:7	DLG3
MPZ			CMT1, CMT1B, CMT2I, CMT2J, HMSNIB, PO
MR1		NM_001385163.1:3	HLALS
MRAP			B27, C21orf61, FALP
MRAP2			C6orf117, bA51G5.2
MRAS			M-RAs, R-RAS3, RRAS3
MRI1			MGC3207, MRDI, Ypr118w, mtnA
MRPL10			L10MT, MGC17973, MRP-L10, MRP-L8, MRPL8, RPML8
MRPL12			MRPL7, MRPL7/L12, RPML12
MRPL3			MRL3, RPML3
MRPL33			C2orf1, RPL33L
MRPL44			FLJ12701, FLJ13990
MRPS23			CGI-138, HSPC329, MRP-S23
MRPS7			MRP-S, RP-S7, RPMS7
MS4A1			B1, Bp35, CD20, FMC7
MS4A2			APY, FCER1B, IGER
MS4A6A			CD20L3, MS4A6
MS4A6E			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MS4A7			CD20L4, CFFM4, MS4A8
MSH2			COCA1, HNPCC, HNPCC1, MSH-2
MSH3			DUP, MRP1
MSH4			
MSH5			G7
MSH6			GTBP, MSH-6
MSM01			DESP4, ERG25, SC4MOL
MSN			
MSR1	NM_001363744.1:1		CD204, SCARA1, SR-A, SR-AI, SR-AII, SR-AIII
MST1R			CD136, CDw136, PTK8, RON, SEA
MSTN			GDF8
MSX1			HOX7, HYD1, OFC5
MTAP	NM_001396040.1:1 NM_001396041.1:8 NM_001396042.1:7 NM_001396043.1:8 NM_001396044.1:8-10 NM_001396045.1:7-9		MSAP, c86fus
MTCP1			P13MTCP1, TCL1C, p8MTCP1
MTFMT			FMT1
MTHFD1	NM_001364837.1:27		MTHFC, MTHFD
MTHFD1L	NM_001350490.1:2	NM_001350489.2:7	DKFZP586G1517, FLJ21145, FTHFSDC1
MTHFD2			
MTHFD2L	NM_001351310.1:9 NM_001351311.1:8 NM_001351314.2:5 NM_001351329.1:2 NM_001351331.2:2-3		MGC72244
MTHFR			
MTHFS			HsT19268
MTMR1	<b>NM_001353990.2:3</b>		
MTMR14	NM_001400518.1:2 NM_001400521.1:2 NM_001400526.1:2		C3orf29, FLJ22405, FLJ90311, hEDTP, hJumpy
MTMR2			CMT4B, KIAA1073
MTNR1A			MEL-1A-R
MTNR1B			
MTO1			
MTOR			FLJ44809, FRAP, FRAP1, FRAP2, RAFT1, RAPT1
MTPAP			FLJ10486, PAPD1, SPAX4, TENT6
MTR			cbIG
MTRFR			C12orf65, COXPD7, FLJ38663, SPG55, mtRF-R
MTRR			cbIE

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MTSS2			ABBA, ABBA-1, LOC92154, MTSS1L
MTTP			ABL, MTP
MUC1	NM_001204285.2:3 NM_001204286.1:3	NM_001371720.1:2-3	ADMCKD, ADMCKD1, CD227, Ca15-3, EMA, KL-6, MCD, MCKD, MCKD1, PEM, PUM
MUC5B	NM_002458.3:31		MG1, MUC5
MUTYH (NM_001128425)			MYH
MVD			MPD
MVK			LRBP, MK
MXI1			MAD2, MXD2, MXI, bHLHc11
MYB			c-myb
MYBPC1			ssMyBP-C
MYBPC3			CMH4, FHC, cMyBP-C
MYC			MYCC, bHLHe39, c-Myc
MYCBP2			FLJ10106, KIAA0916, PAM, PHR1
MYF6			MRF4, bHLHc4
MYH10			NMMHCB
MYH11			SMHC, SMMHC, SMMS-1
MYH3			HEMHC, MYHC-EMB, MYHSE1, SMHCE
MYH7B			KIAA1512, MHC14, MYH14, dJ756N5.1, IncMYH7b
MYH8	NM_002472.3:5		MyHC-peri, MyHC-pn
MYH9			DFNA17, EPSTS, FTNS, MHA, NMHC-II-A, NMMHCA
MYL2			CMH10
MYL3			CMH8, MLC1SB, MLC1V, VLC1
MYL4			ALC1, AMLC, GT1, PRO1957
MYL9			LC20, MLC2, MRLC1, MYRL2
MYLIP			IDOL, MIR
MYLK			KRP, MLCK, MLCK1, MLCK108, MLCK210, MYLK-L, MYLK1, Telokin, smMLCK
MYO1A			BBMI, DFNA48, MYHL
MYO1C	NM_001363855.1:1		Myo1C, NMI, myr2
MYO1E			HuncM-1C, MGC104638, MYO1C
MYO1F			
MYO5A	NM_001382347.1:33 NM_001382348.1:2, 34 NM_001382349.1:2		GS1, MYH12, MYO5, MYR12
MYO5B			KIAA1119
MYO9A			FLJ11061, FLJ13244, MGC71859
MYOC			GLC1A, JOAG1, TIGR
MYOCD			MYCD

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
MYOD1			MYF3, MYOD, PUM, bHLHc1
MYOM1			
MYT1			MTF1, MYT1, NZF2, PLPB1, ZC2H2C1, ZC2HC4A
MYT1L			KIAA1106, NZF1, ZC2H2C2, ZC2HC4B
NAA10			ARD1, ARD1A, DXS707, TE2
NAA15			FLJ13340, NARG1, NATH, TBDN100
NADK2			C5orf33, FLJ30596, MNADK, NADKD1
NAGA			D22S674
NAGLU			NAG
NAGPA			APAA, UCE
NAGS			AGAS, ARG, NAT7
NALCN	NM_001350748.2:19		Canlon, VGCNL1, ba430M15.1
NAMPT	NM_005746.3:11		PBEF, PBEF1
NANOS1			NOS1, ZC2HC12A
NANOS3			NANOS1L, NOS3, ZC2HC12C
NANS			SAS
NARS2			DFNB94, FLJ23441, SLM5
NAT10			FLJ10774, FLJ12179, KIAA1709, Kre33, NET43, hALP
NAT2			AAC2
NAT8			ATase2, GLA, Hcml1, TSC501
NAT8L			FLJ37478, Hcml3, Shati
NAXE			AIBP, APOA1BP, MGC119143, MGC119144, MGC119145, YJEFN1
NBAS			NAG
NBEAL2	NM_001365116.2:1		KIAA0540
NBN			AT-V1, AT-V2, ATV, NBS, NBS1
NCAPD2			CAP-D2, CNAP1, KIAA0159, hCAP-D2
NCAPD3	NM_001372065.1:34		CAP-D3, FLJ42888, KIAA0056, hCAP-D3, hHCP-6, hcp-6
NCAPH			BRRN1, CAP-H, hCAP-H
NCF2			NOXA2, p67phox
NCF4			SH3PXD4, p40phox
NCOA6			AIB3, ASC2, KIAA0181, NRC, PRIP, RAP250, TRBP
NCSTN			APH2, KIAA0253
NDE1			FLJ20101, NDE, nudE
NDN			HsT16328, PWCR
NDRG1		NM_001374844.1:8	CAP43, DRG1, NDR1, RTP, TDD5
NDRG4	NM_001378337.1:1 NM_001378341.1:1 NM_001378343.1:1		KIAA1180, SMAP-8
NDST1			HSST, NST1
NDUFA10			CI-42k

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
NDUFA12			B17.2, DAP13
NDUFA13			B16.6, CDA016, CGI-39, GRIM-19, GRIM19
NDUFA4			CI-9k, COXFA4, MISTR1, MLRQ, MRCAF1
NDUFA7			B14.5a
NDUFA8			MGC793, PGIV
NDUFA9			CI-39k, COQ11, NDUFS2L, SDR22E1
NDUFAF6	NM_001354516.1:3 NM_001354534.1:9		C8orf38, MGC40214
NDUFAF7			C2orf56, MidA, PRO1853
NDUFB11			ESSS, NP17.3, Np15
NDUFB3			B12
NDUFB8			ASHI, CI-ASHI
NDUFB9			B22, LYRM3, UQOR22
NDUFV3			CI-10k
NECAP1			DKFZP566B183
NECTIN1			CD111, CLPED1, ED4, HlgR, HVEC, Nectin-1, OFC7, PRR, PRR1, PVRL1, PVRR1, SK-12
NECTIN4			LNIR, PRR4, PVRL4, nectin-4
NEDD4L			KIAA0439, NEDD4-2, RSP5
NEDD9			CAS-L, CASS2, HEF1
NEFH			NF-H, NFM
NEFL			CMT1F, CMT2E, NF68, NFL, PPP1R110
NEFM			NEF3, NF-M, NFM
NEIL2			FLJ31644, MGC2832, MGC4505, NEH2
NEK1	NM_001374422.1:17 NM_001374423.1:16		KIAA1901, NY-REN-55
NEK11	NM_001321221.2:5 NM_001353022.2:5 NM_001353026.2:4 NM_001353033.2:6 NM_001353034.2:5		FLJ23495
NEK2	NM_001204182.1:8		NEK2A, NLK1, PPP1R111, RP67
NEK8			NPHP9
NELL1			FLJ45906, IDH3GL
NEU1			NEU
NEUROD1			BETA2, BHF-1, MODY6, NEUROD, NeuroD, bHLHa3
NEUROG3			Atoh5, Math4B, bHLHa7, ngn3
NEXMIF			KIAA2022, KIDLIA, MRX98, XPN
NEXN			NELIN, nexilin
NF1 (NM_001042492)			
NF2			ACN, BANF, SCH, merlin, merlin-1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
NFAT5			KIAA0827, NF-AT5, NFATL1, NFATZ, OREBP, TONEBP
NFATC1			NF-ATC, NFAT2, NFATc
NFIA			KIAA1439, NFI-L
NFIX	NM_001365902.3:1 NM_001365982.2:1 NM_002501.4:1	NM_001365984.2:1 NM_001365985.2:1 NM_001378405.1:1	NF1A
NFKB1			KBF1, NF-kB1, NF-kappaB, NFKB-p50, NFkappaB, p105, p50
NFKB2			LYT-10, NF-kB2, p105, p49/p100, p52
NFKBIA			IKBA, I kappa B alpha, MAD-3, NFKBI
NFS1			IscS, NifS
NFU1			CGI-33, HIRIP5, NIFUC, NifU
NGF			NGFB
NGFR			CD271, TNFRSF16, p75NTR
NGLY1			FLJ11005, PNG-1, PNG1
NHEJ1			Cernunnos, FLJ12610, XLF
NHERF1			EBP50, NHE-RF, NHERF, NHERF-1, SLC9A3R1
NHLRC1			EPM2B, bA204B7.2
NHP2	NM_001396110.1:4		FLJ20479, NOLA2
NHS			
NID1			NID, entactin
NIPA2			SLC57A2
NIPAL4			ICHYN, SLC57A6
NIPBL			DKFZp434L1319, FLJ11203, FLJ12597, FLJ13354, FLJ13648, IDN3, Scc2
NKX2-2			NKX2.2, NKX2B
NKX2-5			CSX, CSX1, NKX2.5, NKX2E, NKX4-1
NKX2-6			CSX2, NKX4-2
NKX3-2			BAPX1, NKX3.2, NKX3B
NLGN1	NM_001365923.2:3 NM_001365924.2:3 NM_001365925.2:3 NM_001365926.2:3 NM_001365927.2:3 NM_001365928.2:3		KIAA1070
NLGN2			KIAA1366
NLGN3			ASPGX1, AUTSX1, HNL3, KIAA1480
NLGN4Y	<b>NM_014893.4:5</b> NM_001206850.2:5 NM_001365584.1:6 NM_001365586.1:6 NM_001365588.1:6 NM_001365590.1:7 NM_001365591.1:5 NM_001365592.1:5		KIAA0951



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001365593.1:5 NM_001394830.1:6 NM_001394831.1:5		
NLRC4	<b>NM_021209.4:2</b> NM_001199138.2:2 NM_001199139.1:2 NM_001302504.1:2		CARD12, CLAN, CLAN1, CLANA, CLANB, CLANC, CLAND, CLR2.1, ipaf
NLRP1			CARD7, CLR17.1, DEFCAP, DKFZp58601822, KIAA0926, NAC, NALP1, SLEV1, VAMAS1
NLRP12			CLR19.3, Monarch1, NALP12, PAN6, PYPAF7, RNO2
NLRP14			CLR11.2, GC-LRR, NALP14, NOD5, Nalp-iota, PAN8
NLRP3			AGTAVPRL, AII, AVP, C1orf7, CIAS1, CLR1.1, DFNA34, FCAS, FCU, MWS, NALP3, PYPAF1
NME1			NDPKA, NM23, NM23-H1
NME7			CFAP67, FLJ37194, NM23-H7
NME8			CILD6, DNAI8, NM23-H8, SPTRX2, TXNDC3
NNT			
NOBOX			OG2, Og2x
NOD1			CARD4, CLR7.1, NLRC1
NOD2			BLAU, CARD15, CD, CLR16.3, IBD1, NLRC2, PSORAS1
NODAL			
NOG			SYM1, SYNS1
NOL3			ARC, CARD2, MYP, NOP30
NONO			NMT55, NRB54, P54, P54NRB, PPP1R114
NOP10			MGC70651, NOLA3, NOP10P
NOP56			NOL5A, SCA36
NOS1			NOS, nNOS
NOS1AP			CAPON, KIAA0464
NOS3			ECNOS, eNOS
NOTCH1			TAN1
NOTCH2	<b>NM_024408.4:1-4</b> NM_001200001.1:1-4		
NOTCH3 (NM_000435)	<b>NM_000435.3:1</b>		CADASIL, CASIL
NOX1			GP91-2, MOX1, NOH-1, NOH-1L, NOH1
NPAS2			MOP4, PASD4, bHLHe9
NPAT			E14, p220
NPC1			SLC65A1
NPC1L1			SLC65A2
NPC2		NM_001363688.1:4	EDDM1, HE1, NP-C2

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
NPEPPS	NM_006310.4:1-12 NM_001330257.2:1-13		MP100, PSA
NPHP1	NM_001374257.1:20		JBTS4, NPH1, SLSN1
NPHP3			CFAP31, FLJ30691, FLJ36696, KIAA2000, MKS7, NPH3, SLSN3
NPHP4			KIAA0673, POC10, SLSN4
NPHS1			CNF, NPHN
NPHS2			PDCN, SRN1
NPM1			B23, NPM
NPPA			ANP, PND
NPR2			AMDM, ANPRB, ANPb, GC-B, GUCY2B, NPRB
NPRL2			NPR2, NPR2L, TUSC4
NPRL3			C16orf35, CGTHBA, HS-40, MARE, NPR3, RMD11
NQO1			DHQU, DIA4, DTD, NMOR1, QR1
NR0B1			AHC, AHCH, DAX1, DSS
NR0B2			SHP
NR1D2			BD73, EAR-1r, HZF2, Hs.37288, REVERBB, REVERBbeta, RVR
NR1H3			LXR-a, LXRa, RLD-1
NR1H4			FXR, HRR-1, HRR1, RIP14
NR1I2			BXR, ONR1, PAR2, PXR, SXR
NR1I3			CAR, CAR1, MB67
NR2E1			TLL, TLX, XTLL
NR2F1		NM_005654.6:1	COUP-TF1, COUPTF1, EAR-3, ERBAL3, SVP44, TCFCOUP1, TFCOUP1
NR2F2			ARP1, COUP-TFII, COUPTF2, COUPTFB, NF-E3, SVP40, TFCOUP2
NR3C1			GR, GRL
NR4A2			HZF-3, NOT, NURR1, RNR1, TINUR
NR4A3			CHN, CSMF, MINOR, NOR1
NR5A1			AD4BP, ELP, FTZ1, FTZF1, SF-1, SF1, hSF-1
NRAS			N-ras
NRG1			GGF, HGL, HRG, NDF, NRG1-IT2
NRGN			RC3
NRP1			CD304, NRP, VEGF165R
NRTN			NTN
NRXN1			Hs.22998, KIAA0578
NRXN2			
NRXN3	NM_001366426.1:5		C14orf60, KIAA0743
NSD1			ARA267, FLJ22263, KMT3B, STO
NSD2			KMT3G, MMSET, WHSC1
NSD3			FLJ20353, KMT3F, WHISTLE,

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			WHSC1L1
NSDHL			H105e3, SDR31E1, XAP104
NSMCE2		NM_001349487.1:5	C8orf36, FLJ32440, MMS21, NSE2, ZMIZ7
NSMCE3			HCA4, MAGEG1, MAGEL3, NDNL2, NSE3
NSMF			NELF
NSUN2			FLJ20303, MRT5, Misu, SAKI, TRM4
NSUN3			FLJ22609
NSUN7			FLJ14001
NT5C2	NM_001351170.1:6 NM_001351171.1:7 NM_001351172.1:7 NM_001351173.1:6 NM_001351174.1:1 NM_001351175.1:5		GMP, NT5B, PNT5, SPG45, SPG65, cN-II
NT5C3A			NT5C3, P5'N-1, PN-I, POMP, PSN1, UMPH, UMPH1, cN-III, hUMP1, p36
NT5E			CALJA, CD73, NT5, eN, eNT
NTF4			GLC10, NT-4/5, NTF5
NTHL1			NTH1, OCTS3
NTNG1			KIAA0976, Lmnt1
NTRK1			MTC, TRK, TRKA
NTRK2	NM_001369547.1:13		TRKB
NTRK3			TRKC
NUB1			BS4, NUB1L, NYREN18
NUDC			
NUDT15			FLJ10956, MTH2
NUMA1			NUMA
NUP107			NUP84
NUP155			KIAA0791, N155
NUP205			C7orf14, KIAA0225
NUP214			CAIN, CAN, D9S46E, N214
NUP62			DKFZp547L134, FLJ20822, FLJ43869, IBSN, MGC841, SNDI, p62
NUP93			KIAA0095
NUS1	NM_138459.5:1, 5		C6orf68, MGC7199, NgBR, TANGO14
NXF5	NM_032946.2:7, 10-13		
NXPH2			NPH2
NXPH3			NPH3
NYX			CLRP, CSNB1, CSNB1A, CSNB4
OARD1			C6orf130, MGC19570, TARG1, dJ34B21.3
OAT			HOGA
OBSL1			KIAA0657

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
OCA2			BEY, BEY1, BEY2, D15S12, EYCL, EYCL2, EYCL3, P
OCLN	<b>NM_002538.4:5-9</b> NM_001205254.2:5-9 NM_001205255.1:3-7		PPP1R115
OCRL			Dent-2, OCRL1
ODAD1	NM_001364171.2:3	NM_001364171.2:4	CCDC114, CILD20, FLJ32926
ODAD2	<b>NM_018076.5:9</b> NM_001290020.2:9 NM_001290021.2:13 NM_001312689.2:4		ARMC4, CILD23, DKFZP434P1735, FLJ10376, FLJ10817, gudu
ODAD3			CCDC151, MGC20983, ODA10
ODAPH			AI2A4, C4orf26, FLJ23657
ODC1			ODC
OFD1			71-7A, CXorf5, JBTS10, RP23
OGDHL			FLJ10851
OGG1			HMMH, HOGG1, MUTM, OGH1
OGT			FLJ23071, HRNT1, MGC22921, O-GLCNAC, OGT1
OLFM2			NOE2, OlfC
OLR1			CLEC8A, LOX-1, SCARE1
OMG			OMGP
OPCML			IGLON1, OBCAM, OPCM
OPHN1			ARHGAP41, MRX60, OPN1
OPN1SW			BCP, BOP, CBT
OPRD1			
OPRK1			KOR, OPRK
OPRM1			MOP, MOR1
OPTC			
OPTN			FIP-2, FIP2, GLC1E, HIP7, HYPL, NRP, TFIIIA-INTP
OR2W3			OR2W3P, OR2W8P, OST718
ORAI1			CRACM1, FLJ14466, TMEM142A
ORC1			HSORC1, ORC1L, PARC1
ORC4			HsORC4, ORC4L, Orc4p
ORC6			ORC6L
OSMR			OSMRB, OSMRbeta
OSTM1			GL, HSPC019
OTC			OTC1, OTCD, OTCase
OTOR			FDP, MIAL, MIAL1
OTULIN			FAM105B, FLJ34884
OTX2			
OVOL2			CHED, CHED1, HOVO2, ZNF339, bA504H3.3
OXCT1	NM_001364299.2:5		OXCT, SCOT

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001364300.2:1 NM_001364303.1:1		
OXTR			OTR
P2RX7			MGC20089, P2X7
P2RY11			P2Y11
P2RY12			HORK3, P2Y12, SP1999
P3H1			GROS1, LEPRE1, LEPRECAN, MGC117314
P3H2			FLJ10718, LEPREL1, MLAT4
P4HA2			C-P4Halpha(II), lncRNA-PE
P4HB			DSI, ERBA2L, GIT, P4Hbeta, PDI, PDIA1, PO4DB, PO4HB, PROHB
PABPN1			OPMD, PAB2, PABP2
PACRG	NM_152410.2:6		FLJ32724, Glup, HAK005771, PARK2CRG
PACS1			FLJ10209, KIAA1175
PADI3			PDI3
PAFAH1B1			LIS1, MDCR, MDS, NudF, PAFAH
PAFAH1B2			
PAH			PH
PAK3			MRX30, MRX47, bPAK, hPAK3
PALB2			FANCN, FLJ21816
PAM16			Magmas, TIMM16, Tim16
PANK2			C20orf48, FLJ11729, HARP, HSS, NBIA1, PKAN
PANX1			MRS1, PX1, UNQ2529
PARK7			DJ-1, DJ1, GATD2
PARN			DAN
PARP1			ADPRT, ARTD1, PARP, PARS, PPOL, Poly-PARP
PARP10			ARTD10, FLJ14464
PARS2			DKFZp727A071
PASK			KIAA0135, PASKIN, STK37
PAX1			
PAX2	NM_001374303.1:3		PAX-2
PAX4	NM_001366110.1:3 NM_001366111.1:1, 10		MODY9
PAX5			BSAP, PAX-5
PAX6	NM_001368910.2:5	NM_001368910.2:3-4 NM_001368911.2:1, 10 NM_001368912.2:13 NM_001368913.2:12 NM_001368914.2:13 NM_001368915.2:12 NM_001368916.2:11 NM_001368917.2:12 NM_001368918.2:4	AN, AN1, AN2, D11S812E, WAGR

**TARGETED SEQUENCING GENE LIST**

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
		NM_001368919.2:5 NM_001368920.2:4 NM_001368921.2:13 NM_001368929.2:9	
<b>PAX8</b>			PAX-8
<b>PAX9</b>			
<b>PBRM1</b>	NM_001350074.2:3, 17 NM_001350076.2:3, 17 NM_001350077.2:4, 18 NM_001350078.2:3, 17 NM_001350079.2:3 NM_001366070.2:2, 16 NM_001366071.2:2, 28 NM_001366072.2:2 NM_001366073.2:2 NM_001366074.2:3 NM_001366075.2:2, 16 NM_001366076.2:2, 15 NM_001394867.1:28 NM_001394868.1:27 NM_001394869.1:28 NM_001394870.1:2 NM_001394871.1:27 NM_001394878.1:3 NM_001394879.1:26 NM_001394880.1:2 NM_001400470.1:27 NM_001400471.1:15, 28 NM_001400473.1:27	NM_001400472.1:14	BAF180, PB1, SMARCH1
<b>PCBD1</b>			DCOH, PCBD, PCD
<b>PCCA</b>	NM_001352609.2:22		
<b>PCCB</b>			
<b>PCDH12</b>			
<b>PCDH19</b>			EFMR, EIEE9, KIAA1313
<b>PCDHA3</b>			PCDH-ALPHA3
<b>PCDHB4</b>			PCDH-BETA4
<b>PCLO</b>			ACZ, DKFZp779G1236, KIAA0559
<b>PCM1</b>	NM_001352632.2:7 NM_001352633.2:9 NM_001352636.2:7 NM_001352637.2:7 NM_001352638.2:8 NM_001352643.2:7, 28 NM_001352650.2:9 NM_001352651.2:6 NM_001352654.2:26 NM_001352655.2:27 NM_001352656.2:28 NM_001352657.2:29 NM_001352658.2:27 NM_001352659.1:7 NM_001352660.1:9	NM_001352633.2:27	PTC4
<b>PCNA</b>			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PCNT			KEN, KIAA0402, PCN, PCNT2, PCNTB, SCKL4
PCOLCE2			PCPE2
PCSK1			NEC1, PC1, PC1/3, PC3, SPC3
PCSK7	NM_004716.4:13-17		LPC, PC7, PC8, SPC7
PCSK9			FH3, HCHOLA3, NARC-1
PCYT1A			CCTalpha, CT, CTPCT, PCYT1
PDCD1			CD279, PD-1, PD1, SLEB2, hSLE1
PDCD10			CCM3, TFAR15
PDE10A		NM_001385079.1:1	
PDE11A			
PDE3A	NM_001378408.1:17 NM_001378409.1:15		CGI-PDE
PDE4D	NM_001349241.2:3 NM_001349242.1:3 NM_001364600.2:8 NM_001364602.2:6		DPDE3
PDE5A			
PDE6C			ACHM5, COD4, PDEA2
PDE6D			JBTS22
PDE6G			PDEG, RP57
PDE6H			
PDE8B	NM_001349749.3:2 NM_001349750.3:1-2 NM_001349752.3:1 NM_001376062.1:1 NM_001376066.1:1 NM_001376069.1:1-2 NM_001376070.1:1 NM_001376071.1:1 NM_001376072.1:1 NM_001376073.1:1 NM_001376074.1:1		
PDGFB			SIS, SSV
PDGFRA	NM_001347827.2:17 NM_001347828.2:2 NM_001347830.1:1		CD140a, GAS9, PDGFR2
PDGFRB		NM_001355017.2:4	CD140b, JTK12, PDGFR, PDGFR1
PDGFRL			PRLTS
PDK3			
PDLIM3			ALP
PDPK1	NM_002613.5:1-10 NM_001261816.2:1-10 NM_031268.6:1-7		PDK1
PDPR	NM_017990.5:3-17 NM_001322117.1:3-17 NM_001322118.1:2-15 NM_001322119.1:9-15		PDP3

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PDX1			GSF, IDX-1, IPF1, IUF-1, MODY4, PDX-1, STF-1
PDXK			C21orf124, C21orf97, FLJ21324, FLJ31940, MGC15873, PKH, PNK, PRED79
PDYN			ADCA, PENKB, SCA23
PEAR1	NM_001353682.2:3 NM_001353683.2:4		FLJ00193, JEDI, MEGF12
PECR			HSA250303, SDR29C1, TERP
PEPD			
PER2			KIAA0347
PET100			C19orf79
PEX1			ZWS, ZWS1
PEX10			RNF69
PEX11B			PEX11beta, PEX11β
PEX12			
PEX13			
PEX14			
PEX16			
PEX19			D1S2223E, HK33, PMP1, PMPI, PXF, PXMP1
PEX2			PAF-1, PMP35, PXMP3, RNF72, ZWS3
PEX26			FLJ20695
PEX3			
PEX5			PTS1R, PXR1
PEX6			PAF-2, PXAAA1
PEX7			PTS2R, RD
PFKL			
PFKM	NM_001354735.1:4 NM_001354736.1:4 NM_001354740.1:1 NM_001354741.1:2		PFK-1, PFKX, PPP1R122
PFN1		NM_001375991.1:2	
PGAM1	<b>NM_002629.4:2-4</b> NM_001317079.1:2-4		PGAM-B, PGAMA
PGAM2			PGAM-M
PGAP1			Bst1, FLJ12377, SPG67
PGAP2			CWH43-N, FRAG1, MRT17, MRT21
PGAP3			CAB2, MGC9753, PER1, PERLD1, PP1498
PGBD1			HUCEP-4, SCAND4, dJ874C20.4
PGC			
PGK1			
PGM1			
PGM3			AGM1, DKFZP434B187, PAGM



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PGR			NR3C3, PR
PGRMC1			HPR6.6
PHB1			PHB
PHF21A			BHC80, BM-006, KIAA1696
PHF6			BFLS, BORJ, CENP-31, KIAA1823, MGC14797
PHF8			JHDM1F, KDM7B, KIAA1111, ZNF422
PHGDH			PDG, PGDH, SERA
PHIP	NM_017934.7:3		BRWD2, DCAF14, FLJ20705, WDR11, ndr p
PHKA1			PHKA
PHKA2			PHK, PYK
PHKB			
PHKG1			PHKG
PHKG2			
PHYH			PAHX, PHYH1, RD
PHYKPL			AGXT2L2, MGC15875
PI4KA	NM_058004.4:33-36, 44-55 NM_001362862.1:32-35, 43-54 NM_001362863.1:32-35, 43-54		PI4K-ALPHA, PIK4CA, pi4K230
PICALM			CALM, CLTH
PICK1			MGC15204, PRKCABP, dJ1039K5
PIEZO1			FAM38A, KIAA0233
PIEZO2	NM_022068.4:4 NM_001378183.1:4, 18-19, 35, 40		C18orf30, C18orf58, FAM38B, FAM38B2, FLJ23144, FLJ23403, FLJ34907, HsT748, HsT771
PIF1			C15orf20, FLJ22692
PIGA			GPI3, PIG-A
PIGG			FLJ20265, GPI7, LAS21
PIGL			PIG-L
PIGM			GPI-MT-I, PIG-M
PIGN			MCD4, PIG-N
PIGO			DKFZp434M222, FLJ00135, PIG-O
PIGQ			GPI1, hGPI1
PIGT			PIG-T
PIGV			FLJ20477, GPI-MT-II, PIG-V
PIGW			FLJ37433, Gwt1, PIG-W
PIGY			MGC14156, PIG-Y
PIK3C2A			PI3K-C2alpha
PIK3C2B			C2-PI3K, PI3K-C2beta
PIK3C2G			
PIK3C3			Vps34, hVps34
PIK3CB			PIK3C1
PIK3CD			p110D
PIK3R1			GRB1, p85, p85-ALPHA, p85alpha

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PIK3R3			p55
PIK3R4			VPS15, p150
PIK3R5			P101-PI3K, p101
PIKFYVE			FAB1, KIAA0981, MGC40423, PIP5K, PIP5K3, ZFYVE29, p235
PIN1			dod
PINK1			BRPK, PARK6
PIP5K1C			KIAA0589, LCCS3, PIP5Kgamma
PITPNM3			ACKR6, CORD5, NIR1, RDGBA3
PITX1			BFT, POTX, PTX1
PITX2			ARP1, Brx1, IGDS, IHG2, IRID2, Otlx2, RGS, RIEG, RIEG1, RS
PITX3			ASMD
PKD1L1		NM_138295.5:8	PRO19563
PKD2			PC2, PKD4, Pc-2, TRPP2
PKHD1			ARPKD, FCYT, FPC, TIGM1
PKLR			
PKM			OIP3, PK3, PKM2, THBP1
PKP2			
PLA2G2A			PLA2B, PLA2L
PLA2G4A			PLA2G4, cPLA2-alpha
PLA2G5			
PLA2G6			NBIA2, PARK14, PNPLA9, iPLA2, iPLA2beta
PLA2G7			LDL-PLA2, PAFAH
PLAG1			ZNF912
PLAGL1			LOT1, ZAC
PLAT			
PLAU			UPA, URK
PLB1			FLJ30866, PLB
PLCB1			KIAA0581, PLC-I, PLC154
PLCB4			
PLCD1			
PLCE1			KIAA1516, NPHS3, PLCE
PLCG2			
PLCZ1			NYD-SP27, PLCzeta
PLD3			HU-K4
PLEKHG2		NM_001351693.2:20	ARHGEF42, CLG, FLJ00018
PLEKHG4			ARHGEF44, DKFZP434I216, SCA4
PLEKHG5			GEF720, KIAA0720, Syx, Tech
PLEKHM2			KIAA0842
PLIN1			PLIN
PLK4			STK18, Sak
PLN			CMD1P, PLB

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PLOD1			LH1, LLH, PLOD
PLOD2			LH2, TLH
PLP1			GPM6C, PLP, SPG2
PLPBP	NM_001349349.1:5	NM_001349346.2:6 NM_001349349.1:1	PROSC
PLS3			T-plastin
PLVAP			FELS, PV-1, PV1, gp68
PLXND1			KIAA0620
PML			MYL, RNF71, TRIM19
PMM2	<b>NM_000303.3: c.-167G&gt;T</b>		CDG1, CDG1a, CDGS, PMI, PMI1
PMP2			FABP8, M-FABP, MP2
PMP22			CMT1A, GAS3, HMSNIA, HNPP, Sp110
PMPCA			Alpha-MPP, CLA1, INPP5E, KIAA0123, MAS2, SCAR2
PMS1	NM_001321051.1:5		MLH2, PMSL1
PMS2	<b>NM_000535.7:7, 11-15</b> NM_001322003.2:7, 11-15 NM_001322004.2:6, 10-14 NM_001322005.2:7, 11-15 NM_001322006.2:7, 10-14 NM_001322007.1:6, 10-14 NM_001322008.2:5, 9-13 NM_001322009.2:7, 11-15 NM_001322010.2:6, 9-13 NM_001322011.2:11-15 NM_001322012.2:11-15 NM_001322013.2:6, 10-14 NM_001322014.2:7, 11-15 NM_001322015.2:7, 11-15		HNPCC4, H_DJ0042M02.9, MLH4, PMS-2, PMSL2
PMVK			HUMPMKI, PMK, PMKA
PNKD			BRP17, DKFZp564N1362, DYT8, FKSG19, FPD1, KIAA1184, KIPP1184, MGC31943, MR-1, MR-1S, PDC, PKND1, TAHCCP2
PNKP			PNK
PNLIP			PL
PNMT			PENT
PNP			NP, PUNP
PNPLA1	NM_001374623.1:9		FLJ38755, dJ50J22.1
PNPLA3			ADPN, C22orf20, FLJ22012, adiponutrin, dJ796117.1, iPLA2epsilon
PNPLA4			DXS1283E, GS2, iPLA2eta
PNPLA6			NTE, SPG39, iPLA2delta, sws
PNPLA8			IPLA2-2, IPLA2G, iPLA2gamma
PNPO			PDXPO
PNPT1			DFNB70, OLD35, PNPase, old-35
POC1A			DKFZP434C245, WDR51A
POC1B			FLJ14923, TUWD12, WDR51B

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
POC5			C5orf37, FLJ35779, MGC120442, MGC120443, MGC120444, hPOC5
POF1B			FLJ22792, POF
POFUT1			FUT12, KIAA0180, O-FUT, O-Fuc-T
POGLUT1			9630046K23Rik, C3orf9, KDELCL1, KTELC1, MDS010, MDSRP, MGC32995, Rumi, hCLP46
POGZ			KIAA0461, ZNF280E, ZNF635
POLA1			NSX, POLA, p180
POLD1			CDC2, POLD
POLD3			KIAA0039, P66, P68, PPP1R128
POLE			POLE1
POLE2			DPE2
POLG			POLG1, POLGA
POLH			RAD30A, XP-V
POLK	NM_001387111.3:6 NM_001395894.1:8	NM_001395897.1:6	DINB1, DINP, POLQ
POLR3A			C160, RPC1, RPC155, hRPC155
POLR3B			C128, FLJ10388, RPC2
POMC			ACTH, CLIP, LPH, MSH, NPP, POC
POMP			C13orf12, HSPC014, UMP1
PON1			ESA, PON
PON2			
PON3			
POP1			
POR	NM_001382655.1:3		CYPOR, FLJ26468
PORCN			DHOF, MG61, PORC, PPN, por
POT1			DKFZp586D211, hPot1
POU1F1			GHF-1, PIT-1, PIT1, POU1F1a
PPA2			FLJ20459
PPARA			NR1C1, PPAR, hPPAR
PPARG		NM_001354668.2:5 NM_001354670.2:6	NR1C3, PPARG1, PPARG2, PPARgamma
PPARGC1B			PERC, PGC1B, PPARAGC1β
PPIB			B, CYP-S1, CYPB, OI9, PPIase, SCYLP
PPM1B			PP2CB, PP2CBETA, PPC2BETAX
PPM1D			PP2C-DELTA, Wip1
PPM1K			BDP, DKFZp761G058, PP2Ckappa, PP2Cm, hPTMP
PPOX			PPO, VP
PPP1CB			MP, PP-1B, PP1B, PP1beta, PP1c, PPP1beta
PPP1R15B			FLJ14744
PPP1R17			C7orf16, GSBS
PPP1R3A			GM, PPP1R3

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PPP1R3C			PPP1R5, PTG
PPP2R1A			PP2A-Aalpha, PP2AA, PR65A
PPP2R1B			PP2A-Abeta, PR65B
PPP2R2B	NM_181677.2:3		B55beta, PR52B, PR55-BETA, SCA12
PPP2R5B			B56B, B56beta, FLJ35411, PR61B
PPP2R5C	NM_001352914.2:1		B56G, B56gamma, PR61G
PPP2R5D			B56D, B56delta
PPT1			CLN1, INCL, PPT
PPT2			
PQBP1			MRX2, MRX55, MRXS3, MRXS8, RENS1, SHS
PRCC			RCCP1
PRDM1			BLIMP1, PRDI-BF1
PRDM12	NM_021619.3:5		PFM9
PRDM13			PFM10
PRDM16			KIAA1675, KMT8F, MEL1, MGC166915, PFM13
PRDM5		NM_001379104.1:10	PFM2
PRDM6			KMT8C, PRISM
PRDM8			KMT8D
PRDM9	NM_020227.4:11 NM_001310214.2:11 NM_001376900.1:11		KMT8B, MSBP3, Meisetz, PFM6, ZNF899
PRF1			HPLH2, P1, PFP
PRICKLE1			EPM1B, FLJ31937, RILP
PRICKLE2			DKFZp686D143
PRICKLE3			LMO6
PRIMPOL			CCDC111, FLJ33167
PRKAA1	NM_001355028.2:2 NM_001355034.1:6		AMPKa1
PRKAA2			AMPK, AMPKa2, PRKAA
PRKAB1			
PRKAB2			
PRKACA			PKACa
PRKACG			PKACg
PRKAG1			
PRKAG2			AAKG, AAKG2, CMH6, H91620p, WPWS
PRKAR1A			CNC1, PRKAR1, TSE1
PRKCA			PKCA, PKCa
PRKCB			PKCB, PKCβ, PRKCB1, PRKCB2
PRKCD	NM_001354676.2:1 NM_001354678.2:1		
PRKCG			MGC57564, PKCC, PKCG, PKCy, SCA14
PRKCQ			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PRKCSH			G19P1, G1IB, PCLD, PLD1, VASAP-60
PRKDC			DNA-PKC, DNA-PKcs, DNAPK, DNAPKc, DNPK1, HYRC, HYRC1, XRCC7, p350, p460
PRKG1			PGK, PKG, PKG1, PRKG1B, PRKGR1B
PRKN			AR-JP, PARK2, PDJ, parkin
PRKRA			DYT16, HSD14, PACT, RAX
PRLR			
PRM2			CT94.2
PRMT7	NM_001351143.2:20	NM_001351144.2:16	FLJ10640, KIAA1933
PRMT9			FLJ46629, PRMT10
PRND			DOPPEL, DPL, PrPLP, dJ1068H6.4
PRNP			AltPrP, CD230, CJD, GSS, PRIP, PRP
PROC		NM_001375602.1:1-2 NM_001375603.1:1, 5 NM_001375604.1:1 NM_001375605.1:5 NM_001375606.1:1, 4 NM_001375607.1:1-2, 5 NM_001375609.1:1	
PROCR			CCD41, CD201, EPCR
PRODH2			HSPOX1
PROK2			BV8, KAL4, MIT1, PK2
PROKR2			GPR73L1, GPR73b, GPRg2, KAL3, PKR2, dJ680N4.3
PROZ			PZ
PRPF4			HPRP4, HPRP4P, PRP4, Prp4p, SNRNP60
PRPF6			ANT-1, C20orf14, Prp6, RP60, SNRNP102, TOM, U5-102K, bB152015.1, hPrp6
PRPF8			PRPC8, Prp8, RP13, SNRNP220, hPrp8
PRPH			NEF4, PRPH1
PRPS1			CMTX5, DFN2, DFNX1, PPRibP, PRS-I
PRRT2			DKFZp547J199, DSPB3, DYT10, EKD1, FICCA, FLJ25513, ICCA, IFITMD1, PKC
PRRX1			PHOX1, PMX1
PRSS1 (NM_002769)			TRY1
PRSS12			BSSP-3, MRT1
PRSS56			
PRUNE1			DRES-17, H-PRUNE, HTCD37, PRUNE
PRX			KIAA1620
PSAP			GLBA, SAP1, SAP2
PSEN1			AD3, FAD, PS-1, PS1, PSNL1, S182
PSEN2			AD3L, AD4, E5-1, PS-2, PS2, STM2

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
PSEEN			PEN2
PSMA3			HC8
PSMB4			HN3, PROS26
PSMB8			D6S216E, LMP7, PSMB5i, RING10, beta5i
PSMB9			LMP2, PSMB6i, RING12, beta1i
PSMC3IP			GT198, HUMGT198A, Hop2, TBPIP
PSMD1			P112, Rpn2, S1
PSPN			PSP
PSTPIP1			CD2BP1, CD2BP1L, CD2BP1S, H-PIP, PAPAS, PSTPIP
PTCH1			BCNS, NBCCS, PTCH
PTCH2			
PTCHD1			FLJ30296
PTDSS1			KIAA0024, PSS1, PSSA
PTEN	NM_000314.8:9 NM_001304717.5:10 NM_001304718.2:9		BZS, MHAM, MMAC1, PTEN1, TEP1
PTF1A			PTF1-p48, bHLHa29, p48
PTGFR			FP
PTGIS			CYP8A1, PGIS
PTGS1			COX1, PGHS-1, PTGHS
PTGS2			COX2
PTH			PTH1
PTH1R			PTHR, PTHR1
PTHLH			HHM, PLP, PTHR, PTHRP
PTPN11			BTP3, NS1, PTP2C, SH-PTP2, SHP-2, SHP2
PTPN12			PTP-PEST, PTPG1
PTPN13			PTP-BAS, PTP-BL, PTP1E, PTPL1
PTPN14			PEZ, PTPD2
PTPN21			PTPD1, PTPRL10
PTPN22			Lyp, Lyp1, Lyp2, PTPN8
PTPN23			DKFZP564F0923, HD-PTP, KIAA1471
PTPRC			CD45, GP180, LCA, T200
PTPRD			HPTP, PTPD
PTPRF			LAR
PTPRJ			CD148, DEP1, HPTPeta
PTPRO			GLEPP1, NPHS6, PTP-U2, PTP-oc, PTPU2
PTPRT	NM_001394024.1:22	NM_001394026.1:27	KIAA0283, RPTPrho
PTRH2			BIT1, CFAP37, CGI-147, PTH2
PTS			PTPS
PTX3			TNFAIP5, TSG-14
PUF60	NM_001362895.2:2		FIR, RoBPI, SIAHBP1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001362896.2:2 NM_001362897.2:2		
PURA			PUR-ALPHA, PUR1, PURALPHA
PUS1			MLASA1
PUS3			DEG1, FKSG32
PXDNL			FLJ25471, PMR1
PYCR1			P5C
PYCR2			P5CR2
PYGL			GSD6
PYGM			GSD5
PYGO2			
PYY			PYY1
QARS1			QARS
QDPR			DHPR, PKU2, SDR33C1
QRSL1			DKFZP564C1278, FLJ10989, FLJ12189, FLJ13447, GATA, GatA
RAB10			
RAB18			
RAB27A			GS2, HsT18676, RAB27, RAM
RAB28			
RAB33B			DKFZP434G099
RAB39B			MRX72, WSN
RAB3A			
RAB3GAP1			KIAA0066, RAB3GAP, RAB3GAP130, WARBM1
RAB3GAP2			DKFZP434D245, KIAA0839, RAB3-GAP150, SPG69
RAB7A			CMT2B, RAB7
RAC1			Rac-1, TC-25, p21-Rac1
RAC2			EN-7
RAD18			RNF73
RAD21			KIAA0078, SCC1, hHR21
RAD50			RAD50-2, hRad50
RAD51	NM_001164269.2:4 NM_133487.4:4		BRCC5, FANCR, HsRad51, HsT16930, RAD51A, RECA
RAD51B			R51H2, RAD51L1, REC2, hREC2
RAD51C			FANCO, RAD51L2
RAD51D			HsTRAD, R51H3, RAD51L3, Trad
RAD54B			RDH54
RAD54L			RAD54A, hHR54, hRAD54
RAF1	NM_001354689.3:8 NM_001354694.3:7		CRAF, Raf-1, c-Raf
RAG1			MGC43321, RNF74
RAG2			
RAI1			DKFZP434A139, KIAA1820,



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			MGC12824, SMCR, SMS
RALGDS			RGDS, RGF, RalGEF
RANGAP1			Fug1, KIAA1835, SD
RANGRF			HSPC165, HSPC236, MOG1, RANGNRF
RAP1A			KREV-1, SMGP21
RAP1B			DKFZp586H0723, K-REV, RAL1B
RAP1GDS1			SmgGDS
RARB			HAP, NR1B2, RAR-beta, RARbeta, RRB2
RARRES1			LXNL, TIG1
RARS1			DALRD1, RARS
RASA1 (NM_002890)			CM-AVM, GAP, RASA, p120, p120GAP, p120RASGAP
RASA2			GAP1M
RASA3			GAP1IP4BP, GAPIII
RASAL1			RASAL
RASAL2			nGAP
RASAL3	NM_001400381.1:12	NM_001400377.1:12	FLJ21438
RASGEF1A			CG4853, FLJ37817
RASGEF1B			FLJ31695, GPIG4
RASGRF1			CDC25, CDC25L, GNRP, GRF1, GRF55, H-GRF55, PP13187
RASGRF2			GRF2, Ras-GRF2
RASGRP1			CalDAG-GEFII, RASGRP
RASGRP2			CALDAG-GEFI
RASGRP3			CalDAG-GEFIII, GRP3, KIAA0846
RASGRP4			
RAX			RAX1, RX
RAX2			ARMD6, CORD11, MGC15631, RAXL1
RB1	NM_000321:22		OSRC, PPP1R130, RB
RB1CC1			ATG17, Cc1, DRAGOU14, FIP200, KIAA0203, PPP1R131
RBBP6			P2P-R, PACT, SNAMA
RBBP8			COM1, CtiP, RIM, SCKL2
RBCK1			C20orf18, HOIL1, RBCK2, RNF54, UBCE7IP3, XAP4, ZRANB4
RBFOX1			A2BP1, FOX-1, HRNBP1
RBFOX2	NM_001349982.2:1, 12 NM_001349983.2:11 NM_001349989.2:1 NM_001349990.2:1 NM_001349991.2:1, 12 NM_001349992.2:1 NM_001349994.2:1 NM_001349995.2:1 NM_001349996.2:1		FOX-2, HNRBP2, HRNBP2, RBM9

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001349998.2:11		
RBL1			PRB1, cp107, p107
RBM10			DXS8237E, GPATC9, GPATCH9, KIAA0122, S1-1, ZRANB5
RBM20			
RBM28			FLJ10377, NOP4
RBM7			
RBMX			HNRNPG, RNMX, hnRNP-G
RBP1			CRABP-I, CRBP, CRBP-I, CRBP1, CRBPI, RBPC, hCRBP1
RBP3			D10S64, D10S65, D10S66, RP66
RBP4			
RBPJ			CBF1, IGKJRB, IGKJRB1, KBF2, RBP-J, RBPJK, RBPSUH, SUH
RBSN			ZFYVE20
RCBTB1	NM_001352505.2:10		CLLD7, CLLL7, FLJ10716
RCOR1			COREST, KIAA0071, RCOR
RD3			C1orf36, LCA12
RDH11			ARSDR1, MDT1, SDR7C1
RDH5			HSD17B9, RDH1, SDR9C5
RECQL	NM_002907.4:14-15 NM_032941.2:15-16		RecQ1, RecQL1
RECQL5			FLJ90603, RecQ5
REEP1	NM_001371279.1:7-8		C2orf23, FLJ13110, SPG31, Yip2a
REEP2			C5orf19, SGC32445, SPG72, Yip2d
REL			HIVEN86A, I-Rel, c-Rel
RELA			NFKB3, p65
RELN			PRO1598, RL
REN			
REPS1			
RERE			ARG, ARP, ATN1L, ATN2, DNB1, KIAA0458
REST			DFNA27, NRSF, XBR
RET (NM_020975)			CDHF12, CDHR16, HSCR1, MEN2A, MEN2B, MTC1, PTC, RET51
RETREG1			FAM134B, FLJ20152, JK1
REV3L			POLZ, REV3
RFC1			A1, MHCBBF, PO-GA, RFC140
RFT1			CDG1N
RFX5			
RFX6			MGC33442, RFXDC1, dJ955L16.1
RFXANK	NM_001370237.1:9 NM_001370238.1:9		ANKRA1, BLS, F14150_1, MGC138628, RFX-B
RFXAP			
RGS2			GOS8

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
RGS4			SCZD9
RGS6	NM_001370270.1:18 NM_001370271.1:18 NM_001370272.1:18 NM_001370273.1:18 NM_001370274.1:18 NM_001370275.1:18 NM_001370276.1:18 NM_001370277.1:18-19 NM_001370278.1:18 NM_001370279.1:18 NM_001370280.1:17 NM_001370281.1:18 NM_001370282.1:18 NM_001370283.1:17 NM_001370286.1:16	NM_001370270.1:19 NM_001370271.1:19 NM_001370272.1:19 NM_001370273.1:19 NM_001370274.1:19 NM_001370275.1:19-20 NM_001370276.1:19-20 NM_001370278.1:19 NM_001370279.1:19 NM_001370280.1:18 NM_001370283.1:18 NM_001370286.1:17	
RGS7			
RGS9			MGC111763, MGC26458, PERRS, RGS9L
RGS9BP			FLJ45744, PERRS, R9AP
RHAG			CD241, RH50A, SLC42A1
RHBDF2			FLJ22341, RHBDL5, RHBDL6, TOC, TOCG, iRhom2
RHEB			RHEB2
RHNO1			C12orf32, HKMT1188, MGC13204, RHINO
RHOH			ARHH, TTF
RIC3			AYST720, FLJ11608, PRO1385
RICTOR			AVO3, KIAA1999, MGC39830, PIA
RIGI			DDX58, DKFZp434J1111, FLJ13599, RIG-1, RIG-I, RIG1
RILP			FLJ31193
RIMS1	NM_001350414.2:17 NM_001350416.2:18 NM_001350421.2:2 NM_001350424.2:2 NM_001350425.2:17 NM_001350428.2:2 NM_001350430.2:2 NM_001350437.2:2 NM_001350450.2:2 NM_001350452.2:17-18 NM_001350459.2:2 NM_001350460.2:16 NM_001350462.2:2 NM_001350466.2:17 NM_001350471.2:2	NM_001350411.1:4 NM_001350412.1:3 NM_001350413.1:4	CORD7, KIAA0340, RAB3IP2, RIM, RIM1
RINT1			FLJ11785, RINT-1
RIPK4			ANKK2, ANKRD3, DIK, PKK, RIP4
RIPPLY1			
RIPPLY2		NM_001400899.1:1	C6orf159, dJ237115.1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
RIT1			MGC125864, MGC125865, RIBB, RIT, ROC1
RIT2			RIBA, RIN
RMND1			C6orf96, FLJ20627, RMD1, bA351K16.3
RMRP			CHH, NME1, RMRPR, RRP2
RNASEH1			
RNASEH2A			AGS4, RNASEHI, RNHIA, RNHL
RNASEH2B			AGS2, DLEU8, FLJ11712
RNASEH2C			AGS3, AYP1
RNASEL			PRCA1, RNS4
RNASET2			FLJ10907, RNASE6PL, bA514012.3
RNF113A			Cwc24, RNF113, ZNF183
RNF125			FLJ20456
RNF139			HRCA1, RCA1, TRC8
RNF168			FLJ35794
RNF170			ADSA, DKFZP564A022, SNAX1
RNF186			FLJ20225
RNF19A			DKFZp566B1346, RNF19, dorfin
RNF20			BRE1, BRE1A, FLJ11189, FLJ20382, KAIA2779, hBRE1
RNF212	NM_001366918.1:10-11 NM_001366919.1:10-12		FLJ38841, LOC285498
RNF213			ALO17, C17orf27, KIAA1554, KIAA1618, MYMY2, NET57
RNF31			FLJ10111, FLJ23501, HOIP, Paul, ZIBRA
RNF43			DKFZp781H0392, FLJ20315, URCC
RNF6			DKFZp686P0776
RNLS			C10orf59, FLJ11218, renalase
RNPC3			FLJ20008, KIAA1839, RBM40, SNRNP65
RNU4ATAC			RNU4ATAC1, U4atac
ROBO1			DUTT1, FLJ21882, SAX3
ROBO2	NM_001378190.1:25 NM_001378191.1:21, 26 NM_001378192.1:1, 26 NM_001378193.1:25 NM_001378194.1:1, 22 NM_001378195.1:21 NM_001378196.1:21 NM_001378197.1:21 NM_001378198.1:1 NM_001378199.1:1 NM_001394212.1:1, 21, 26 NM_001394213.1:1, 22 NM_001394214.1:1 NM_001395656.1:26		KIAA1568

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001395657.1:1, 21		
ROGDI			FLJ22386, RAV2, ROGDI
ROR2			BDB, BDB1, NTRKR2
RORB	NM_001365023.1:1		NR1F2, ROR-BETA, RZRB
RORC			NR1F3, RORG, RZRG, TOR
RP9	NM_203288.2:6		PAP-1
RPGRIPL		NM_015272.5:23 NM_001330538.2:22	CORS3, FTM, JBTS7, KIAA1005, MKS5, NPHP8, PPP1R134
RPIA			
RPL10			DXS648, DXS648E, FLJ23544, L10, NOV, QM, uL16
RPL11			L11, uL5
RPL15			EC45, L15, RPL10, RPLY10, RPYL10
RPL19			DKFZp779D216, FLJ27452, L19, MGC71997
RPL23			L23, rpL17
RPL26			L26
RPL27			L27
RPL31			L31
RPL35A			GIG33, L35A, eL33
RPL36			DKFZp566B023, L36
RPL5			L5, PPP1R135, uL18
RPS10			MGC88819, S10
RPS14			EMTB, S14
RPS19			DBA, LOH19CR1, S19, eS19
RPS20			S20, uS10
RPS24			S24, eS24
RPS26			S26, eS26
RPS27			MPS-1, MPS1, S27
RPS27A			S27A, UBCEP80, Uba80
RPS28			S28, eS28
RPS29	NM_001351375.1:1		S29, uS14
RPS6KA1			HU-1, MAPKAPK1, RSK1, p90Rsk
RPS6KA2			HU-2, RSK3
RPS6KA3			CLS, HU-3, MRX19, RSK2
RPS7			S7, eS7
RPTOR			KIAA1303, KOG1, Mip1, raptor
RRAGA			FIP-1, RAGA
RRAGC			FLJ13311, GTR2
RRAS2	NM_012250.6:6 NM_001102669.2:6 NM_001177314.1:6 NM_001177315.1:6		TC21
RREB1			HNT
RRM1			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
RRP8			KIAA0409, NML
RS1			RS, XLRS1
RSPH1			CILD24, FLJ32753, RSP44, RSPH10A, TSGA2
RSPH3			RSHL2, RSP3, dJ111C20.1
RSPH4A			CILD11, FLJ37974, RSHL3, RSPH6B, dJ412I7.1
RSPH9			C6orf206, CILD12, FLJ30845, MRPS18AL1
RSP01			FLJ40906, RSPONDIN
RSP04			C20orf182, dJ824F16.3
RSPRY1			KIAA1972
RTEL1			C20orf41, DKFZP434C013, KIAA1088, NHL, RTEL, bK3184A7.3
RTN2			NSP2, NSPL1, SPG12
RTN4IP1			NIMP
RTTN			DKFZP434G145
RUBCN			KIAA0226, rubicon, rundataxin
RUNX1			AML1, AMLCR1, CBFA2, PEBP2A2
RUNX2			AML3, CBFA1, CCD, CCD1, PEBP2A1, PEBP2aA1
RUSC2			KIAA0375
RUVBL2			ECP51, INO80J, RVB2, Reptin52, Rvb2, TIH2, TIP48, TIP49b
RYR1	NM_000540.3:91 NM_001042723.2:90		CCO, MHS, MHS1, PPP1R137, RYR
RYR2			ARVC2, ARVD2, VTSIP
S100A8			60B8AG, CAGA, CFAG, CGLA, MRP-8, MRP8, P8, S100-A8
S1PR3			C9orf108, C9orf47, EDG-3, EDG3, FLJ37523, bA791O21.3
SAA4			C-SAA, CSAA
SACS			ARSACS, DKFZp686B15167, DNAJC29, KIAA0730, PPP1R138, SPAX6
SALL1			Hsal1, TBS, ZNF794
SALL2			Hsal2, KIAA0360, ZNF795
SALL4			ZNF797, dJ1112F19.1
SAMD11	NM_001385640.1:1 NM_001385641.1:1		MGC45873
SAMD9			C7orf5, FLJ20073, KIAA2004
SAMD9L			C7orf6, FLJ39885, KIAA2005
SAMHD1	NM_001363733.2:16		AGS5, HDDC1, MOP-5, Mg11, SBBI88
SAR1B			SARA2
SARDH			DMGDHL1, SDH
SARS2			FLJ20450, SARS, SARSM, SERS, SYS, SerRSmt, mtSerRS

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SART3			KIAA0156, RP11-13G14, TIP110, p110
SASH1			KIAA0790, SH3D6A, dJ323M4.1
SASS6			DKFZp761A078, FLJ22097, SAS-6, SAS6
SATB2			FLJ21474, KIAA1034
SBF1			DENND7A, MTMR5
SBF2	NM_001386339.1:29		CMT4B2, DENND7B, KIAA1766, MTMR13
SC5D			SC5DL
SCARB1	NM_001367982.1:1	NM_001367981.1:11 NM_001367982.1:11	CD36L1, CLA-1, CLA1, SR-BI, SRB1
SCARB2			CD36L2, HLG85, LIMP-2, LIMPII, SR-BII
SCG5			7B2, SGNE1, SgV
SCN10A			Nav1.8, PN3, SNS, hPN3
SCN11A			NaN, Nav1.9, SCN12A, SNS-2
SCN1A			FEB3, GEFSP2, HBSCI, NAC1, Nav1.1, SCN1, SMEI
SCN1B			
SCN2A			HBSCI, HBSCII, Nav1.2, SCN2A1, SCN2A2
SCN3A			Nav1.3
SCN5A			CDCD2, CMD1E, CMPD2, HB1, HB2, HBBB, HH1, ICCD, IVF, LQT3, Nav1.5, PFHB1, SSS1
SCN7A			NaG, Nav2.1, Nav2.2, SCN6A
SCN8A			CIAT, CerIII, MED, NaCh6, Nav1.6, PN4
SCN9A		NM_001365536.1:12	ETHA, NE-NA, NENA, Nav1.7, PN1
SCNM1			MGC3180
SCNN1A			ENaCalpha, SCNN1
SCNN1B			ENaCbета
SCNN1G			ENaCgamma, SCNEG
SCP2	NM_001007098.2:11 NM_001330587.1:12		
SCRIB			KIAA0147, SCRIB1, Vartul
SCYL1			GKLP, HT019, MGC78454, NKTL, NTKL, P105, TAPK, TEIF, TRAP
SDC3	NM_014654.4:1		N-syndecan, SYND3
SDCCAG8	NM_001350248.1:7		BBS16, CCCAP, NPHP10, NY-CO-8, SLSN7
SDHA (NM_004168)	NM_004168:14		FP, SDH2, SDHF
SDHAF2			C11orf79, FLJ20487, PGL2, SDH5
SDHB (NM_003000)			SDH, SDH1
SDHC			CYB560, PGL3, cybL

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
(NM_003001)			
SDHD (NM_003002)			PGL, PGL1, cybS
SDR9C7			RDHS, SDR-O
SEC13			D3S1231E, SEC13L1, SEC13R, npp-20
SEC23A			
SEC23B			CDA-II, CDAII, CDAN2, HEMPAS
SEC24B			
SEC24D			KIAA0755
SEC61A1	NM_001400328.1:1		
SECISBP2			SBP2
SELP			CD62, CD62P, GMP140, GRMP, PADGEM, PSEL
SEM1	NM_001393898.1:3 NM_001393899.1:3 NM_001393900.1:3 NM_001393901.1:3 NM_001393902.1:3 NM_001393903.1:3 NM_001393904.1:2-3 NM_001393905.1:2		C7orf76, DSS1, ECD, FLJ42280, PSMD15, SHFD1, SHFM1, SHSF1, Shfdg1
SEMA3A			Hsema-I, SEMA1, SEMAD, SemD, coll-1
SEMA3C	NM_001350120.2:1	NM_001350120.2:2	SEMAE, SemE
SEMA3D			Sema-Z2, coll-2
SEMA3E			KIAA0331, M-SemaK, SEMAH, coll-5
SEMA3F			SEMAK, Sema4
SEMA5A			SEMAF, semF
SEMA7A			CD108, H-Sema-L, SEMAL
SEPSECS			SLA, SLA-p35, SLA/LP, SecS
SERPINA1			A1A, A1AT, AAT, PI, PI1, alpha-1-antitrypsin, alpha1AT
SERPINA3			AACT, ACT
SERPINA6			CBG
SERPINA7			TBG
SERPINB7			
SERPINB8	NM_001348367.2:7		CAP2, PI8
SERPINC1	NM_001386303.1:2	NM_001386302.1:4	AT3, ATIII, MGC22579
SERPIND1			D22S673, HC-II, HC2, HCF2, HLS2
SERPINE1	NM_001386459.1:10 NM_001386460.1:9 NM_001386461.1:8 NM_001386464.1:9	NM_001386458.1:8 NM_001386466.1:2	PAI, PAI1, PLANH1
SERPINF1			EPC-1, PEDF, PIG35
SERPINF2			A2AP, AAP, ALPHA-2-PI, API, PLI, alpha2AP
SERPINH1			CBP1, CBP2, HSP47, SERPINH2



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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SERPINI1			PI12
SETBP1			KIAA0437, SEB
SETD1A			KIAA0339, KMT2F, SET1A, Set1
SETD2			FLJ23184, HIF-1, HYPB, KIAA1732, KMT3A
SETD5			FLJ10707, SETD5A
SETX	NM_001351528.2:26		ALS4, AOA2, KIAA0625, SCAR1, STEX, Sen1
SF3B1			Hsh155, PRPF10, Prp10, SAP155, SF3b155
SFRP4			FRP-4, FRPHE, FRZB-2, frpHE
SFTPA1	<b>NM_005411.5:6</b> NM_001093770.3:6 NM_001164644.2:6 NM_001164645.2:6 NM_001164646.2:6 NM_001164647.1:5		COLEC4, SFTP1, SP-A, SP-A1
SFTPA2	<b>NM_001098668.4:6</b> NM_001320813.2:6 NM_001320814.1:5		COLEC5, SP-A2
SFXN4			SLC56A4
SGCD			CMD1L, DAGD, LGMD2F
SGCE	NM_001099401.2:10		DYT11
SGO1			NY-BR-85, SGOL1
SGPL1			SPL
SGSH	NM_001352921.2:8 NM_001352922.2:8		HSS, MPS3A, SFMD
SGSM3	NM_001350040.2:22 NM_001350041.2:22 NM_001350047.2:21	NM_001350039.2:20 NM_001350040.2:20 NM_001350042.2:20 NM_001350043.2:19	DJ1042K10.2, RABGAP5, RUSC3, RUTBC3, RabGAP-5
SH2B3			IDDM20, LNK
SH2D1A			DSHP, EBVS, IMD5, LYP, MTCP1, SAP, XLP, XLPD
SH3BP2	NM_001145856.2:1		CRBM, RES4-23
SH3GL1			CNSA1, EEN, MGC111371, SH3D2B, SH3P8
SH3PXD2B			FLJ20831, KIAA1295
SH3TC2			CMT4C, KIAA1985
SHANK1			SPANK-1, SSTRIP, synamon
SHANK2	NM_001379226.1:1		CORTBP1, CTTNBP1, ProSAP1, SHANK, SPANK-3
SHBG			ABP, MGC126834, MGC138391, TEBG
SHC1			SHC, ShcA, p66
SHH			HHG1, HLP3, HPE3, MCOPCB5, SMMCI, TPT, TPTPS
SHMT1			MGC15229, MGC24556, SHMT, cSHMT

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SHOC2			KIAA0862, SOC-2, SOC2, SUR-8, SUR8
SHOX (NM_000451)	NM_006883:6, also known as exon 6b		GCFX, PHOG, SHOXY, SS
SHOX2			OG12, OG12X, SHOT
SHPK			CARKL, SHK
SHROOM3			APXL3, KIAA1481, SHRM, ShrmL
SHROOM4			KIAA1202
SI			
SIAE			CSE-C, LSE, MGC87009, YSG2
SIGIRR			IL-1R8, TIR8
SIGLEC1		NM_001367089.1:20	CD169, FLJ00051, FLJ00055, FLJ00073, FLJ32150, SIGLEC-1, SN, dJ1009E24.1, sialoadhesin
SIGMAR1			OPRS1, SR-BP1
SIK1			SNF1LK, msk
SIL1			BAP, MSS, ULG5
SIM1			bHLHe14
SIN3A			DKFZP434K2235, KIAA0700
SIPA1L1	NM_001354289.2:5		E6TP1, KIAA0440, SPAR1
SIRT3		NM_001370310.1:6 NM_001370312.1:5 NM_001370321.1:6 NM_001370322.1:6 NM_001370323.1:6	SIR2L3
SIX2			
SIX3			HPE2
SIX5			DMAHP
SIX6			OPTX2, Six9
SKI			
SKIC2			170A, DDX13, HLP, SKI2, SKI2W, SKIV2, SKIV2L, SKIV2L1
SKIC3			KIAA0372, SKI3, THES, TTC37
SLBP			HBP
SLC10A1			NTCP, NTCP1
SLC10A2			ASBT, IBAT, ISBT, NTCP2
SLC11A2			DCT1, DMT-1, DMT1, FLJ37416, NRAMP2
SLC12A1	NM_001384136.1:5		BSC, BSC-1, BSC1, CCC2, NKCC2
SLC12A2			BSC-2, BSC2, CCC1, NKCC1, PPP1R141
SLC12A3			NCC, NCCT, TSC
SLC12A5			KCC2, KIAA1176, hKCC2
SLC12A6			ACCPN, KCC3, KCC3A, KCC3B
SLC13A5			INDY, NACT, mINDY
SLC14A1			HsT1341, JK, RACH1, RACH2

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SLC16A1			MCT, MCT1
SLC16A12			CRT2, MCT12
SLC16A2			AHDS, DXS128, DXS128E, MCT7, MCT8, MRX22, XPCT
SLC17A3			NPT4
SLC17A5	NM_001382631.1:2 NM_001382633.1:11		AST, ISSD, NSD, SD, SIALIN, SIASD, SLD
SLC17A9			C20orf59, FLJ23412, VNUT
SLC18A2			SVAT, SVMT, VAT2, VMAT2
SLC18A3			VACHT
SLC19A1			FOLT, IFC-1, RFC, RFC1, RFT-1, hRFC
SLC19A2			THTR1, TRMA, ThT1
SLC19A3	NM_001371413.1:3 NM_001371414.1:3		THTR2, hTHTR2, thTr-2
SLC1A1			EAC1, EAAT3, hEAC1
SLC1A2			EAAT2, GLT-1, GLT1, HBGT
SLC1A3			EA6, EAAT1, GLAST, GLAST-1, GLAST1
SLC1A4			ASCT-1, ASCT1, SATT
SLC20A2			GLVR2, Glvr-2, MLVAR, PIT2, Pit-2, Ram-1
SLC22A1			OCT1
SLC22A12			OAT4L, RST, UAT, URAT1, hURAT1
SLC22A18			BWR1A, BWSCR1A, IMPT1, ITM, ORCTL2, SLC22A1L, TSSC5
SLC22A3			EMT, OCT3
SLC22A4			DFNB60, MGC34546, OCTN1
SLC22A5	NM_003060.3: c.-149G>A		CDSP, OCTN2, SCD
SLC24A1			CSNB1D, HsT17412, KIAA0702, NCKX, NCKX1, RODX
SLC24A2			NCKX2
SLC24A4			NCKX4
SLC24A5			JSX, NCKX5, OCA6
SLC25A1			CIC, CTP, SLC20A3
SLC25A10			DIC
SLC25A12			AGC1, Aralar, aralar1
SLC25A13			ARALAR2, CITRIN, CTLN2
SLC25A20			CAC, CACT
SLC25A22			EIEE3, FLJ13044, GC-1, GC1, NET44
SLC25A26	NM_001400705.1:10 NM_001400709.1:9		SAMC
SLC25A32			MFTC
SLC25A38			FLJ20551
SLC25A40			MCFP
SLC25A42			MGC26694
SLC25A46			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SLC26A1			EDM4, SAT-1
SLC26A2			DTD, DTDST
SLC26A3			CLD, DRA
SLC26A8			TAT1
SLC27A4			ACSVL4, FATP-4, FATP4
SLC27A5			ACSB, ACSVL6, FACVL3, FATP5, FLJ22987, VLACSR, VLCS-H2, VLCSH2
SLC28A1			CNT1
SLC28A3			CNT3
SLC29A1			ENT1
SLC29A2			DER12, ENT2, HNP36
SLC29A3			ENT3, FLJ11160, hENT3
SLC29A4			ENT4, FLJ34923
SLC2A1			CSE, DYT18, DYT9, GLUT, GLUT-1, GLUT1, HTLVR
SLC2A10			GLUT-10, GLUT10
SLC2A2			GLUT-2, GLUT2
SLC2A4			GLUT4
SLC2A9			GLUTX, Glut9, URATv1
SLC30A10	NM_001376929.1:1		DKFZp547M236, ZNT10, ZNT8, ZRC1, ZnT-10
SLC30A2			ZNT2
SLC30A3			ZNT3
SLC31A1			COPT1, CTR1, hCTR1
SLC33A1			ACATN, AT-1, AT1, SPG42
SLC34A1			NAPI-3, NPT2, NPTIIa, SLC11, SLC17A2
SLC34A2			NAPI-3B, NAPI-Ib, NPTIIb, NaPi-2b, NaPi2b
SLC34A3			FLJ38680, NPT2C, NPTIIc, NaPi-2c
SLC35A1			CMP-Sia-Tr, CMPST, hCST
SLC35A2			UDP-Gal-Tr, UGALT, UGAT, UGT, UGT1, UGT2, UGTL
SLC35C1			FLJ11320, FUCT1
SLC35D1			KIAA0260, UGTREL7
SLC35D3			FRCL1
SLC36A2			PAT2, TRAMD1, tramdorin
SLC37A4			G6PT, G6PT1, G6PT2, G6PT3, GSD1b, GSD1c, GSD1d, SPX4
SLC38A8			SNAT8
SLC39A13			FLJ25785, LZT-Hs9, ZIP-13, ZIP13
SLC39A14	NM_001351657.2:3 NM_001351658.2:2 NM_001351659.2:1		KIAA0062, NET34, ZIP-14, ZIP14
SLC39A4			AEZ, AWMS2, ZIP-4, ZIP4
SLC39A5			ZIP5

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SLC39A8	NM_001135148.1:1		BIGM103, ZIP-8, ZIP8
SLC40A1			FPN, FPN1, HFE4, IREG1, MTP1, SLC11A3
SLC41A1			MgtE
SLC41A2	NM_001387128.1:11 NM_001387129.1:11 NM_001387130.1:11	NM_001387131.1:7 NM_001387132.1:8 NM_001387133.1:7	DKFZP434K0427
SLC41A3			FLJ20473
SLC45A2			AIM-1, MATP, OCA4
SLC46A1			HCP1, HsPCFT, MGC9564, PCFT, hPCFT
SLC47A2			FLJ31196, MATE2, MATE2-K
SLC4A1			AE1, CD233, DI, EMPB3, EPB3, FR, RTA1A, SW, WD, WR
SLC4A10	NM_001354440.2:26 NM_001354443.2:2, 26 NM_001354445.2:26 NM_001354446.2:25 NM_001354447.2:3 NM_001354460.2:2 NM_001354461.2:3		NBCn2, NCBE
SLC4A11			BTR1, CDPD1, CHED2, FECD4, NaBC1, dJ794I6.2
SLC4A4			HNBC1, KNBC, NBC1, NBC2, NBCe1, SLC4A5, hhNMC, kNBC1, pNBC
SLC52A1			FLJ10060, GPCR42, GPR172B, PAR2, RFVT1, hRFT1
SLC52A2			D15Erd747e, FLJ11856, GPCR41, GPR172A, HuPAR-1, PAR1, RFT3, RFVT2, hRFT3
SLC52A3			C20orf54, RFT2, RFVT3, ba371L19.1, hRFT2
SLC5A1			D22S675, NAGT, SGLT-1, SGLT1
SLC5A2			SGLT2
SLC5A5			NIS
SLC5A7			CHT1, ChT, hCHT
SLC6A1			GABATHG, GABATR, GAT-1, GAT1, hGAT-1
SLC6A11			GAT3
SLC6A12			BGT-1
SLC6A13			GAT2
SLC6A17			NTT4
SLC6A19			B0AT1
SLC6A2			NAT1, NET, NET1, SLC6A5
SLC6A20		NM_001385683.1:6	IMINO, SIT1, XT3, Xtrp3
SLC6A3			DAT, DAT1
SLC6A4			5-HTT, HTT, OCD1, SERT1

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SLC6A5			GLYT2, GlyT-2, NET1
SLC6A9			GLYT1, GlyT-1
SLC7A14			KIAA1613, PPP1R142
SLC7A2			ATRC2, CAT-2, HCAT2
SLC7A3			ATRC3, CAT-3, FLJ14541
SLC7A7			LPI, Y+LAT1, y+LAT-1
SLC7A9			BAT1, CSNU3
SLC9A1			APNH, NHE-1, NHE1, PPP1R143
SLC9A3			NHE-3, NHE3
SLC9A6	NM_001379110.1:14		KIAA0267, NHE-6, NHE6
SLC9A9			FLJ35613, NHE9
SLC01B1			LST-1, OATP-C, OATP1B1, SLC21A6
SLC01B3			OATP1B3, OATP8, SLC21A8
SLC02A1			MATR1, OATP2A1, PGT, SLC21A2
SLC03A1			OATP-D, OATP3A1, SLC21A11
SLFN14			
SLIT2			SLIL3, Slit-2
SLITRK1			KIAA1910, LRRC12
SLITRK5			KIAA0918, LRRC11, bA364G4.2
SLMAP	NM_001377538.1:13 NM_001377539.1:13 NM_001377540.1:13 NM_001377542.1:12 NM_001377545.1:13 NM_001377555.1:13 NM_001377921.1:12 NM_001377922.1:13	NM_001377538.1:19 NM_001377928.1:6	KIAA1601, SLAP
SLURP1			ANUP, ARS, ArsB, LY6-MT, LY6LS, MDM
SLX4			BTBD12, FANCP, KIAA1784, KIAA1987
SMAD1			JV4-1, MADH1, MADR1
SMAD2			JV18-1, MADH2, MADR2
SMAD3			HsT17436, JV15-2, MADH3
SMAD4			DPC4, MADH4
SMAD6			HsT17432, MADH6, MADH7
SMAD9			MADH6, MADH9, SMAD8, SMAD8/9
SMARCA2	NM_003070.5:5 NM_001289396.1:5 NM_001289397.2:5 NM_139045.4:5		BAF190, BRM, SNF2, SNF2L2, SNF2LA, SWI2, Sth1p, hBRM, hSNF2a
SMARCA4			BAF190, BRG1, FLJ39786, SNF2, SNF2-BETA, SNF2L4, SNF2LB, SWI2, hSNF2b
SMARCAD1			DKFZP762K2015, DKFZp762K2015, ETL1, KIAA1122
SMARCAL1			HARP, HHARP

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SMARCB1			BAF47, INI-1, Ini1, PPP1R144, RDT, SNF5, SNF5L1, Sfh1p, Snr1, hSNFS
SMARCE1			BAF57
SMC1A			DXS423E, KIAA0178, SB1.8, SMC1L1, Smcb
SMC3			BAM, CSPG6, HCAP, SMC3L1, bamacan
SMCHD1			FSHD2, KIAA0650
SMG5			EST1B, KIAA1089, LPTS-RP1, LPTS-RP1, RP11-54H19.7, SMG-5
SMG6			C17orf31, EST1A, KIAA0732, SMG-6
SMG7	NM_001394144.1:4		C1orf16, EST1C, KIAA0250, SGA56M, SMG-7
SMG8			C17orf71, FLJ10587, FLJ23205
SMG9			C19orf61, FLJ12886
SMOC1			
SMOC2			SMAP2
SMS			MRSR, SPMSY, SRS, SpS
SNAI2			SLUG, SLUGH, SLUGH1, SNAIL2
SNAP25			RIC-4, RIC4, SEC9, SNAP, SNAP-25, bA416N4.2, dJ1068F16.2
SNAP29			CEDNIK, SNAP-29
SNCAIP			SYPH1
SNCB			
SNIP1			PML1
SNRPB			COD, SNRPB1, Sm-B/B', SmB/SmB', snRNP-B
SNRPE			Sm-E
SNRPN	NM_001378251.1:8 NM_001378252.1:5 NM_001378253.1:4 NM_001378254.1:6 NM_001378255.1:4		HCERN3, PWCR, RT-LI, SM-D, SMN, SNRNP-N, SNURF-SNRPN
SNX10			
SNX14	NM_001350532.1:2		RGS-PX2
SNX27			KIAA0488, MGC20471, MY014
SOBP			FLJ10159
SOCS3			CIS3, Cish3, SOCS-3, SSI-3
SOCS4			SOCS7
SOCS6			CIS4, Cish4, HSPC060, SOCS4, SSI4, STAI4, STATI4
SOD2			GC1, GClnc1, IPOB, MnSOD
SOD3			EC-SOD
SOHLH1			C9orf157, NOHLH, SPATA27, TEB2, bA100C15.3, bHLHe80
SOHLH2			FLJ20449, SPATA28, TEB1, bHLHe81

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SON			BASS1, C21orf50, DBP-5, FLJ21099, FLJ33914, KIAA1019, NREBP
SORL1			C11orf32, LR11, LRP9, SorLA, SorLA-1, gp250
SORT1			Gp95, NT3
SOS1	NM_001382394.1:1		GF1, GINGF, HGF
SOS2			
SOST			DAND6, VBCH
SOX11			
SOX17			
SOX18		NM_018419.3:1	
SOX2			
SOX3			PHP
SOX5			L-SOX5, MGC35153
SOX6			
SOX9		NM_000346:3	CMD1, CMPD1, SRA1
SP110	NM_001378442.1:18 NM_001378443.1:17		IFI41, IFI75
SP7			OSX, osterix
SPACA6			LET7EH, LINC00085, NCRNA00085, SPACA6P
SPAG1		NM_172218.3:11 NM_001374321.1:11 NM_003114.5:11	CILD28, CT140, DNAAF13, FLJ32920, HSD-3.8, SP75, TPIS
SPARC			BM-40, ON, ONT
SPART			KIAA0610, SPG20, TAHCCP1
SPAST			ADPSP, FSP2, KIAA1083, SPG4
SPATA16			NYD-SP12
SPATA5			AFG2, SPAF
SPDL1			CCDC99, FLJ20364, hSpindly
SPECC1L			CYTSA, KIAA0376
SPG11			ALS5, FLJ21439, KIAA1840
SPG21			ABHD21, ACP33, BM-019, GL010, MAST
SPINK1 (NM_003122)			PCTT, PSTI, Spink3, TATI
SPINK5			DKFZp686K19184, FLJ21544, FLJ97536, FLJ97596, FLJ99794, LEKTI, LETKI, NETS, NS, VAKTI
SPINT2			HAI-2, HAI2, Kop
SPOCK1			SPOCK, TIC1, testican-1
SPOP			BTBD32, TEF2
SPP1			BNSP, BSPI, ETA-1, OPN, Inc-PKD2-2-3
SPP2			SPP24
SPR			SDR38C1



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SPRED1 (NM_152594)			FLJ33903, PPP1R147
SPRED2			FLJ21897, FLJ31917, Spred-2
SPRED3			
SPRTN			C1orf124, DKFZP547N043, DVC1, Spartan
SPRY2			hSPRY2
SPRY4			
SPTA1			EL2
SPTAN1	NM_001363759.2:52 NM_001375310.1:50 NM_001375312.2:2 NM_001375318.1:2, 53		
SPTB			
SPTBN2			SCA5
SPTBN5			BSPECV, HUBSPECV, HUSPECV
SPTLC1	<b>NM_006415.4:3</b> NM_001281303.2:3 NM_001368272.1:6 NM_178324.3:3		HSAN1, HSN1, LCB1, SPTI, hLCB1
SPTLC2			KIAA0526, LCB2, LCB2A, hLCB2a
SPTLC3			C20orf38, FLJ11112, LCB2B, SPTLC2L, hLCB2b
SRA1			SRA, STRAA1
SRC			ASV, SRC1, c-src
SRCAP			DOMO1, KIAA0309, SWR1
SRD5A2			
SRD5A3			FLJ13352, SRD5A2L, SRD5A2L1
SREBF1	NM_001388387.1:8	NM_001388385.1:14 NM_001388386.1:18 NM_001388388.1:18	SREBP-1c, SREBP1, SREBP1a, bHLHd1
SREBF2			SREBP2, bHLHd2
SRGAP3			ARHGAP14, KIAA0411, MEGAP, SRGAP2, WRP
SRI			
SRP68			
SRP72			
SRPK2	NM_001350739.1:14 NM_001350740.1:1 NM_001350741.1:16 NM_001350742.1:1 NM_001350743.1:17 NM_001350744.1:15 NM_001350746.1:1	NM_001350742.1:3 NM_001350746.1:3	SFRSK2
SRPK3			MSSK1, STK23
SRPX2			SRPUL
SRRM2			Cwc21, KIAA0324, SRL300, SRm300

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SS18L1			CREST, KIAA0693, SMARCL2
SSH1			KIAA1298, SSH1L
SSR4			TRAPD
SSTR5			
SSX1			CT5.1
ST14			CAP3, HAI, MT-SP1, PRSS14, SNC19, TMPRSS14
ST3GAL3	NM_001350619.2:12 NM_001350620.2:12 NM_001350621.2:6, 13		MRT12, SIAT6
ST3GAL5			SIAT9, SIATGM3S, ST3GalV
ST6GALNAC5			MGC3184, SIAT7E, ST6GalNAcV
ST7	NM_001369599.1:1 NM_001369600.1:1 NM_001369602.1:1 NM_001369603.1:1 NM_001369606.1:2 NM_001369607.1:2		ETS7q, FAM4A, FAM4A1, HELG, RAY1, SEN4, TSG7
STAG1			SA-1, SA1, SCC3A
STAMBP	NM_001353969.1:10 NM_001353970.1:11 NM_001353976.1:10		AMSH
STAP1			BRDG1, STAP-1
STAR			STARD1
STAT1	NM_001384881.1:3 NM_001384884.1:3	NM_001384886.1:23 NM_001384891.1:4	ISGF-3, STAT91
STAT2			STAT113
STAT3			APRF
STAT4			
STAT5B	<b>NM_012448.4:6-8</b>		
STEAP3			STMP3, TSAP6, dudlin-2
STH			MAPTIT
STIL			MCPH7, SIL
STIM1	NM_001382567.1:11 NM_001382572.1:8 NM_001382574.1:8	NM_001382568.1:10	D11S4896E, GOK
STING1			ERIS, FLJ38577, MITA, MPYS, NET23, STING, TMEM173
STK11			LKB1, PJS
STK4	NM_001352385.2:11		KRS2, MST1, YSK3
STN1			FLJ22559, OBFC1, ba541N10.2
STOX1	<b>NM_152709.5:1</b> NM_001130159.2:1 NM_001130160.2:1 NM_001130161.3:1		C10orf24, FLJ25162
STRA6			FLJ12541
STRADA			LYK5, NY-BR-96, STRAD, Stlk

TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
STS			ARSC, ARSC1
STT3A			ITM1, MGC9042, STT3-A, TMC
STT3B			FLJ90106, SIMP, STT3-B
STUB1			CHIP, HSPABP2, NY-CO-7, SDCCAG7, UBOX1
STX11			
STX16			SYN-16, SYN16, hsyn16
STX1A			HPC-1, STX1, p35-1
STX1B			STX1B1, STX1B2
STX3			STX3A
STX6			
STX7			
STXBP1	NM_001374313.2:19 NM_001374314.1:19		MUNC18-1, UNC18, hUNC18, nSec1, rbSec1
STXBP5L			KIAA1006, LLGL4, tomosyn-2
STYXL1			DUSP24, MK-STYX
SUCLA2		NM_003850.3:8	LINC00444
SUCLG1			
SUCLG2			
SUCO			C1orf9, CH1, OPT, SLP1
SUFU	NM_016169:1 NM_001178133:1		PR01280, SUFUH, SUFUXL
SUGCT			C7orf10, DERP13, FLJ11808, ORF19
SULF1			KIAA1077, SULF-1, hSulf-1
SUMF1			FGE, UNQ3037
SUMO1	NM_001371394.1:5		GMP1, OFC10, PIC1, SMT3C, SMT3H3, SUMO-1, UBL1
SUN1	NM_001367635.1:7 NM_001367636.1:6-8 NM_001367637.1:4 NM_001367638.1:7 NM_001367639.1:5 NM_001367640.1:7-8 NM_001367641.1:7-8 NM_001367642.1:7 NM_001367643.1:7-8 NM_001367644.1:6 NM_001367645.1:6, 13 NM_001367646.1:6-7 NM_001367647.1:6-7 NM_001367648.1:6 NM_001367649.1:6-7 NM_001367651.1:2, 7-8 NM_001367655.1:6-8 NM_001367658.1:6 NM_001367664.1:7 NM_001367666.1:6-8 NM_001367667.1:6 NM_001367668.1:6-7	NM_001367669.1:6	FLJ12407, KIAA0810, UNC84A

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001367673.1:6-7		
	NM_001367674.1:7		
	NM_001367675.1:7-8		
	NM_001367676.1:7-8		
	NM_001367677.1:7-8		
	NM_001367678.1:7-9		
	NM_001367679.1:6		
	NM_001367680.1:6		
	NM_001367681.1:6		
	NM_001367682.1:7-8		
	NM_001367683.1:7		
	NM_001367684.1:6-7		
	NM_001367685.1:7		
	NM_001367686.1:6		
	NM_001367687.1:7-9, 17		
	NM_001367688.1:7		
	NM_001367689.1:6		
	NM_001367690.1:7-9		
	NM_001367691.1:6-8		
	NM_001367692.1:7-8		
	NM_001367693.1:7-8		
	NM_001367695.1:6		
	NM_001367696.1:7		
	NM_001367697.1:7-8		
	NM_001367698.1:7-8		
	NM_001367699.1:7-9		
	NM_001367700.1:7-8		
	NM_001367701.1:6		
	NM_001367702.1:7		
	NM_001367703.1:7-9		
	NM_001367704.1:7		
	NM_001367705.1:7-9		
	NM_001367706.1:6-7		
SUN2	NM_001394427.1:8	NM_001394429.1:5 NM_001394430.1:4 NM_001394431.1:18	UNC84B
SUN5			SPAG4L, TSARG4, dJ726C3.1
SUOX			
SUPT5H			FLJ34157, SPT5, SPT5H
SYCE1			C10orf94, CT76, bA108K14.6
SYCP3			
SYN1			MRX50
SYN2	NM_133625.6:1-2 NM_003178.5:1-2		SYNII, SYNIIa, SYNIIb
SYN3			
SYNCRIP			GRY-RBP, HNRNPQ, HNRPQ1, NSAP1, dJ3J17.2, hnRNP-Q
SYNE1	NM_001347702.1:1		8B, ARCA1, C6orf98, CPG2, KIAA0796, MYNE1, Nesp1, Nesprin-1, SCAR8, SYNE-1B, dJ45H2.2, enaptin
SYNE2			DKFZP434H2235, KIAA1011, NUA, NUANCE, Nesp2, Nesprin-2, SYNE-2
SYNGAP1		NM_006772.3:19	KIAA1938, RASA5, SYNGAP

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
SYNGR1			
SYNJ1			INPP5G, PARK20
SYNPO			KIAA1029
SYP			MRX96
SYT1			P65, SVP65, SYT
SYT14	NM_001146261.2:3 NM_001146264.3:3 NM_001397544.1:4 NM_001397545.1:5		FLJ34198, sytXIV
SYT2			
SZT2	NM_001365999.1:22		C1orf84, FLJ10387, FLJ34502, KIAA0467, KICS1, RP11-506B15.1, SZT2A, SZT2B
TAB2			KIAA0733, MAP3K7IP2
TAC3			LncZBTB39, LncZBTB39-1:2, NK3, NKB, NKNB, ZNEUROK1
TAC01			CCDC44
TACR3			NK3R, NKR, TAC3R
TACSTD2			EGP-1, GA733-1, M1S1, TROP2
TADA2A			ADA2, ADA2A, TADA2L, hADA2
TAF15			Npl3, RBP56, TAF2N, hTAFII68
TAF2			CIF150, TAF2B, TAFII150
TAF4B			TAF2C2, TAFII105
TAF6	NM_001365004.1:2		MGC:8964, TAF2E, TAFII70, TAFII80, TAFII85
TFAZZIN			BTHS, CMD3A, EFE, EFE2, G4.5, TAZ, TAZ1
TAL2			bHLHa19
TALD01			
TANC1			KIAA1728, ROLSB
TANC2	NM_001394998.1:5, 24	NM_001394998.1:4	DKFZP564D166, FLJ10215, FLJ11824, KIAA1148, KIAA1636, ROLSA, rols
TAP1			ABCB2, D6S114E, PSF1, RING4
TAP2			ABCB3, D6S217E, PSF2, RING11
TAPBP			TAPA
TARS2			FLJ12528, TARSL1
TAS2R16			T2R16
TAS2R38			PTC, T2R61
TAT			
TAX1BP3			TIP-1
TBC1D20			C20orf140, dJ852M4.2
TBC1D24			DFNA65, DFNB86, KIAA1171, TLDC6
TBC1D4			AS160, DKFZp779C0666, KIAA0603
TBC1D7			FLJ32666, TBC7, dJ257A7.3
TBCD			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TBCK			HSPC302, MGC16169
TBL1X			EBI, TBL1
TBL1XR1			C21, DC42, FLJ12894, IRA1, TBLR1
TBP			GTF2D1, SCA17, TBP1, TFIID
TBR1			
TBX1	NM_080647.1:3 NM_001379200.1:1 NM_005992.1:3 NM_080646.1:3		CATCH22, VCF
TBX15			TBX14
TBX18			
TBX20	NM_001077653.2:8		
TBX21			T-bet, TBLYM
TBX22			CLPA, CPX
TBX3			TBX3-ISO, UMS, XHL
TBX4			
TBX5			HOS
TBX6			
TBXAS1	NM_001366538.2:5		CYP5, CYP5A1, THAS, TS, TXAS, TXS
TBXT			T
TCAP			CMD1N, LGMD2G, T-cap, TELE, telethonin
TCF20			AR1, SPBP
TCF21			POD1, bHLHa23
TCF3			E2A, E47, ITF1, MGC129647, MGC129648, VDIR, bHLHb21, p75
TCF4			E2-2, ITF2, SEF2-1B, bHLHb19
TCIRG1			ATP6N1C, ATP6V0A3, Atp6i, OC-116, OC116, TIRC7, a3
TCN2			D22S676, D22S750, TC2
TCTN1	NM_001173976.2:2		FLJ21127, JBTS13, TECT1
TCTN2			C12orf38, FLJ12975, JBTS24, MKS8, TECT2
TCTN3			C10orf61, DKFZP564D116, JBTS18, TECT3
TDGF1	NM_003212.4:6 NM_001174136.2:6		CR, CR-1, CRIPTO, Cripto-1
TDP1			FLJ11090, SCAN1
TDP2			TTRAP
TDRD7			PCTAIRE2BP
TEAD1			AA, TCF13, TEF-1
TECPR2			KIAA0329
TECR	NM_138501.6:13 NM_001321170.1:14		GPSN2, MRT14, SC2, TER
TECRL	NM_001363796.1:12		DKFZp313B2333, DKFZp313D0829, GPSN2L, SRD5A2L2, TERL

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TEK			CD202b, TIE-2, TIE2, VMCM, VMCM1
TELO2			KIAA0683, TEL2, hCLK2
TENM1			ODZ1, ODZ3, TEN-M1, TEN1, TNM
TENM3			KIAA1455, ODZ3, TEN3, Ten-M3
TERC			SCARNA19, TER, TR, TRC3, hTR
TERF2IP			RAP1
TERT			EST2, TCS1, TP2, TRT, hEST2
TESK2			
TET2			FLJ20032, KIAA1546
TEX15	NM_001350162.2:3-7	NM_001350162.2:8	CT42
TF			PRO1557, PRO2086
TFAM			TCF6, TCF6L2
TFAP2A			AP-2, AP-2alpha, AP2TF, TFAP2
TFAP2B			AP-2beta, AP2-B
TFCP2			CP2, LBP-1C, LSF, TFCP2C
TFE3			TFEA, bHLHe33
TFG			FLJ36137, SPG57, TF6
TFR2			HFE3, TFRC2
TFRC			CD71, TFR1, p90
TGDS			SDR2E1, TDPGD
TGFB1			CED, DPD1, TGFB, TGFBeta
TGFB2			
TGFB3			ARVD, ARVD1
TGFBI			BIGH3, CDB1, CDGG1, CSD1, CSD2, CSD3, LCD1
TGFBR1			ACVRLK4, ALK-5, ALK5, ESS1, MSSE, TBR-i, TBRI
TGFBR2			MFS2, TBR-ii, TBRII
TGFBR3			BGCAN, betaglycan
TGIF1			HPE4, TGIF
TGM1			ICR2, LI, LI1, TGASE, TGK
TGM2			TGC
TGM3			TGE
TGM6			SCA35, TGM3L, TGY, dJ734P14.3
TH			DYT5b
THAP1			4833431A01Rik, DYT6, FLJ10477
THBD			BDCA-3, CD141, THRM
THBS1			THBS, THBS-1, TSP, TSP-1, TSP1
THG1L			FLJ11601, FLJ20546, ICF45, IHG-1, hTHG1
THOC2			CXorf3, MRX12, MRX35, THO2, dJ506G2.1
THOC6			MGC2655, WDR58, fsAP35
THPO			MGDF, MPLLG, TPO

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
THRA			AR7, EAR-7.1/EAR-7.2, ERBA, ERBA1, NR1A1, THRA1, THRA2, THRA3, THRA3, THRalpha, THRalpha1, THRalpha2, TRalpha, TRalpha1, TRalpha2, c-ERBA-1, c-erbA
THSD1			TMTSP
TIA1	NM_001351515.2:5 NM_001351520.2:6 NM_001351522.2:7	NM_001351518.1:8 NM_001351519.2:7 NM_001351521.2:6 NM_001351523.2:5	TIA-1
TIAM1	NM_001353684.1:1 NM_001353685.1:1		
TICAM1	NM_001385678.1:2		MGC35334, PRVTIRB, TICAM-1, TRIF
TIMM44			TIM44
TIMP3			SFD
TINF2			TIN2
TIRAP			Mal, wyatt
TJP2			DFNA51, X104, ZO-2, ZO2
TKT	NM_001258028.1:5		
TLE6			FLJ14009, GRG6
TLL1			
TLR2			CD282, TIL4
TLR3			CD283
TLR4			ARMD10, CD284, TLR-4, hToll
TLR9			CD289
TM2D3			BLP2, FLJ22604
TM4SF20			FLJ22800, TCCE518
TMC2			C20orf145, dJ686C3.3
TMC6			EVER1, EVIN1, LAK-4P, TNRC6C-AS1
TMC8			EVER2, EVIN2
TMCO1			HP10122, TMCC4
TMCO3		NM_001349741.2:9	C13orf11, FLJ20623
TMEM107			JBTS29, MGC10744, MKS13
TMEM126A			DKFZp586C1924, OPA7
TMEM126B		NM_001350394.1:3 NM_001350395.1:4 NM_001350396.1:4	HT007
TMEM127			FLJ20507, FLJ22257
TMEM132D			KIAA1944, MOLT, PPP1R153
TMEM132E			DFNB99
TMEM135			FLJ22104
TMEM138			HSPC196, JBTS16
TMEM165			GDT1, SLC64A1, TMPT27, TPARL
TMEM187			CXorf12, DXS9878E, ITBA1
TMEM199			C17orf32, MGC45714, VMA12, VPH2



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TMEM230	NM_001009923.2:2		C20orf30, HSPC274
TMEM231	NM_001077416.2:2-3 NM_001077418.3:3-4		ALYE870, FLJ22167, JBTS20, MKS11, PRO1886
TMEM237			ALS2CR4, JBTS14
TMEM240			C1orf70, SCA21
TMEM38B			C9orf87, D4Erttd89e, FLJ10493, TRIC-B, bA219P18.1
TMEM43			ARVD5, DKFZp586G1919, LUMA, MGC3222
TMEM67			JBTS6, MGC26979, MKS3, NPHP11
TMEM92			FLJ33318
TMEM98			DKFZP564K1964
TMLHE	NM_018196.4:7-8 NM_001184797.2:7		BBOX2, FLJ10727, TMLH, XAP130
TMPO			LAP2, LEMD4, TP
TMPRSS15			ENTK, MGC133046, PRSS7
TMPRSS4			CAP2, MT-SP2, TMPRSS3
TMPRSS5			MGC141886, MGC148044
TMTC3			FLJ90492, SMILE
TMX3		NM_001350513.1:8	FLJ20793, KIAA1830, PDIA13, TXNDC10
TNC			DFNA56, HXB, MGC167029, TN
TNF			DIF, TNF-alpha, TNFA, TNFSF2
TNFAIP3			A20, OTUD7C
TNFRSF10B			CD262, DR5, KILLER, TRAIL-R2, TRAILR2, TRICK2A, TRICKB
TNFRSF11A	NM_003839.4:1 NM_001270949.1:1 NM_001270950.1:1 NM_001270951.2:1 NM_001278268.2:1		CD265, FEO, LOH18CR1, ODFR, PDB2, RANK, TRANCE-R
TNFRSF11B			OCIF, OPG, TR1
TNFRSF13B			CD267, IGAD2, TACI
TNFRSF1A	NM_001346092.2:6		CD120a, TNF-R, TNF-R-I, TNF-R55, TNFAR, TNFR1, TNFR60
TNFRSF4			ACT35, CD134, OX40, TXGP1L
TNFRSF6B			DCR3, DcR3, M68, TR6
TNFSF11			CD254, ODF, OPL, RANKL, TRANCE
TNFSF4			CD252, OX-40L, TXGP1, gp34
TNFSF8			CD153, CD30LG
TNIK			KIAA0551
TNK2			ACK, ACK1, p21cdc42Hs
TNNC1			TNNC
TNNI2			AMCD2B, DA2B, FSSV, fsTnl
TNNI3			CMD2A, CMH7, TNNC1, cTNI
TNNI3K			CARK

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TNNT2			CMD1D, CMH2, CMPD2
TNNT3			AMCD2B, DA2B, DKFZp779M2348, FSSV
TNR			
TOE1			TOE-1, hCaf1z
TOMM20			KIAA0016, MAS20, MOM19, TOM20
TOMM40			C19orf1, D19S1177E, PER-EC1, PEREC1, TOM40
TONSL			IKBR, NFKBIL2
TOP1			
TOP2A			TOP2, TOP2alpha, TOPIIA
TOPBP1			Dpb11, KIAA0259, TOP2BP1
TOR1A			DQ2, DYT1
TP53			LFS1, p53
TP63			EEC3, KET, NBP, OFC8, SHFM4, TP53CP, TP53L, TP73L, p40, p51, p53CP, p63, p73H, p73L
TPH1			TPH, TPRH
TPH2			FLJ37295, NTPH
TPI1			
TPK1	NM_001350881.1:9 NM_001350882.1:5 NM_001350883.1:4 NM_001350884.2:3 NM_001350895.1:7		HTPK1, PP20
TPM1		NM_001365777.1:9 NM_001365780.1:8	C15orf13, CMH3
TPM2			AMCD1, DA1, NEM4
TPMT			
TPO			TPX
TPP1			CLN2, LPIC, SCAR7, TPP-1
TPP2	NM_001367947.1:27		TPPII
TRAF1			EBI6
TRAF3			CAP-1, CD40bp, CRAF1, LAP1, RNF118
TRAF3IP1			CFAP116, DKFZP434F124, FAP116, IFT54, MIP-T3, MIPT3
TRAF3IP2			ACT1, C6orf2, C6orf4, C6orf5, C6orf6, CIKS, DKFZP586G0522
TRAIP			RNF206, TRIP
TRAK2			ALS2CR3, CALS-C, GRIF-1, KIAA0549, MILT2, OIP98
TRAP1			HSP75, HSP90L
TRAPPC2			MIP-2A, SEDL, SEDT, TRS20, ZNF547L, hYP38334
TRDN			TRISK
TREM2			TREM-2, Trem2a, Trem2b, Trem2c

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TREML4			TLT4
TREX1			AGS1, DRN3
TRHR			
TRIB3			C20orf97, TRB3, dJ1103G7.3
TRIM2	NM_001375488.1:4 NM_001375489.1:4		CMT2R, KIAA0517, RNF86
TRIM22			GPSTAF50, RNF94, STAF50
TRIM37		NM_001353082.2:22 NM_001353084.2:23	KIAA0898, MUL, POB1, TEF3
TRIM44			DIPB, MC7
TRIM55			MURF-2, RNF29
TRIM63			IRF, MURF-1, RNF28, SMRZ
TRIM8			GERP, RNF27
TRIML2			FLJ25801, SPRYD6
TRIO	NM_007118.4:1		ARHGEF23
TRIP11			CEV14, GMAP-210, GMAP210, Trip230
TRIP12		NM_001348334.1:7 NM_001348335.1:6 NM_001348336.1:6	KIAA0045, TRIPC, ULF
TRIP4			ASC-1, HsT17391, ZC2HC5
TRIT1			FLJ20061, IPT
TRMT1			FLJ20244, TRM1
TRMT10C			FLJ20432, MRPP1, RG9MTD1
TRMT5	NM_001350253.1:1 NM_001350254.1:1		KIAA1393, TRM5
TRNT1			CCA1, CGI-47, MtCCA
TRPC6			FSGS2, TRP6
TRPM1			CSNB1C, LTRPC1, MLSN1
TRPM2			EREG1, KNP3, LTRPC2, NUDT9H, NUDT9L1, TRPC7
TRPM3	NM_001366141.2:1 NM_001366142.2:1, 27 NM_001366143.2:1, 26 NM_001366144.1:1 NM_001366146.2:27 NM_001366148.2:27 NM_001366150.2:25 NM_001366151.2:26 NM_001366152.2:28 NM_001366154.2:27		GON-2, KIAA1616, LTRPC3
TRPM6			CHAK2, FLJ22628, HOMG, HSH
TRPS1			GC79, LGCR
TRPV3			VRL3
TRPV4			CMT2C, OTRPC4, TRP12, VR-OAC, VRL-2, VROAC
TSC1			KIAA0243, LAM, TSC, hamartin
TSC2			LAM, PPP1R160, TSC4, tuberin

TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TSEN15	NM_001363643.2:4		C1orf19
TSEN2	NM_001321278.2:12		MGC2776, SEN2, SEN2L
TSEN34			LENG5, SEN34, SEN34L
TSEN54	<b>NM_207346.3:1</b>		SEN54, SEN54L
TSG101			TSG10, VPS23
TSHB			
TSHR			LGR3
TSPAN12			NET-2, TM4SF12
TSPAN7			A15, CD231, DXS1692E, MRX58, MXS1, TALLA-1, TM4SF2
TSPEAR			C21orf29, DFNB98, MGC11251, TSP-EAR
TSPYL1			TSPYL
TSR2			DT1P1A10, RP1-112K5.2, WGG1
TTBK1			KIAA1855
TTC19			FLJ20343, MGC19520
TTC21B			CFAP60, FAP60, FLA17, FLJ11457, IFT139, IFT139B, JBTS11, NPHP12, THM1
TTC3			DCRR1, RNF105, TPRD, TPRDI, TPRDII, TPRDIII
TTC7A			KIAA1140, TTC7
TTI1			KIAA0406, smg-10
TTI2			C8orf41, FLJ23263
TTLL10			FLJ36119, TTLL5
TTN	<b>NM_001267550.2:172-197</b> NM_001256850.1:154-156 NM_133378.4:153-155		CMD1G, CMH9, CMPD4, FLJ32040, LGMD2J, MYLK5, TMD
TTPA			AVED
TTR (NM_000371)			CTS, CTS1, HsT2651, PALB
TUB			rd5
TUBA4A			FLJ30169, H2-ALPHA, TUBA1
TUBA8			TUBAL2
TUBB			M40, MGC16435, OK/SW-cl.56, Tubb5
TUBB1			dJ543J19.4
TUBB2A	<b>NM_001069.3:2, 4</b> NM_001310315.2:4		TUBB, TUBB2, dJ40E16.7
TUBB2B	<b>NM_178012.5:4</b>		DKFZp566F223, MGC8685, bA506K6.1
TUBB3			CFEOM3, CFEOM3A, FEOM3, beta-4
TUBB4A			DYT4, TUBB4, beta-5
TUBGCP4			76P, FLJ14797
TUBGCP6			DJ402G11.6, GCP6, KIAA1669
TUSC3			MGC13453, MRT22, MRT7, MagT2, N33, OST3A, SLC58A2
TWIST2			DERMO1, Dermo-1, bHLHa39

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
TXN2			MT-TRX
TXNDC15			2310047H23Rik, C5orf14, FLJ22625
TXNL4A			DIB1, DIM1, HsT161, SNRNP15, TXNL4, U5-15kD
TXNRD2	NM_001352301.1:1 NM_001352303.1:1		SELZ, TR, TR3, TRXR2
TYK2	NM_001385203.1:19	NM_001385204.1:17	JTK1
TYR	<b>NM_000372.5:5</b>		OCA1, OCA1A, OCAIA
TYROBP			DAP12, KARAP, PLO-SL, PLOSL
TYRP1			CAS2, CATB, GP75, OCA3, TRP, TYRP, b-PROTEIN
UACA			FLJ10128, KIAA1561
UBA1			A1S9T, CFAP124, GXP1, POC20, UBE1, UBE1X
UBA5			FLJ23251, UBE1DC1
UBE2A			HHR6A, HR6A, RAD6A, UBC2
UBE2B			HHR6B, RAD6B, UBC2
UBE2T			FANCT, HSPC150
UBE3A	NM_001354523.2:5		ANCR, AS, E6-AP, EPVE6AP, FLJ26981, HPVE6A
UBE3B			
UBE3C			KIAA0010, KIAA10
UBIAD1			SCCD, TERE1
UBR4			KIAA0462, KIAA1307, RBAF600, ZUBR1, p600
UBR5			DD5, EDD, EDD1, HYD, KIAA0896
UBR7			C14orf130
UCHL1			PARK5, PGP9.5, UCHL-1, Uch-L1
UCP1			SLC25A7, UCP
UCP2			BMIQ4, SLC25A8
UCP3			SLC25A9
UFD1			UFD1L
UFSP2			C4orf20, FLJ11200
UGT1A1 (NM_000463), promoter (NC_000002)			GNT1, UGT1, UGT1A
UGT1A4			HUG-BR2, UGT1D
UGT1A6			GNT1, HLUGP, UGT1F
UGT1A7			UGT1G
UGT1A9			HLUGP4, LUGP4, UGT1AI
UGT2B10			
UGT2B7			UGT2B9
ULK4			FAM7C1, FLJ20574, REC01035
UMPS			

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
UNC119			HRG4, POC7, POC7A
UNC13A			KIAA1032, Munc13-1
UNC13D			Munc13-4
UNC45B			CMYA4, UNC45
UNC5C			
UNC80	NM_001371986.1:27		C2orf21, FLJ33496, KIAA1843, UNC-80
UNC93B1			UNC93
UNG			DGU, HIGM4, UDG, UNG1, UNG2
UPB1			BUP1
UPF1	NM_002911.4:1 NM_001297549.2:1		HUPF1, KIAA0221, NORF1, RENT1, pNORF1, smg-2
UPF2			DKFZP434D222, KIAA1408, RENT2, smg-3
UPF3A	NM_023011.4:9-10 NM_001353644.2:7-8 NM_001353645.1:9-10 NM_001353646.1:7-8 NM_001353647.1:8-9 NM_001353648.2:8-9 NM_001353649.1:7-8 NM_001353650.1:9-10 NM_001353651.2:5 NM_001353652.2:6 NM_080687.3:8-9		HUPF3A, RENT3A, UPF3
UPF3B			HUPF3B, MRX62, MRX82, RENT3B, UPF3BP1, UPF3BP2, UPF3BP3, UPF3X
UPK3A			UPK3
UQCC2			C6orf125, Cbp6, M19, MGC14833, MNF1, bA6B20.2
UQCC3			C11orf83, UNQ655
UQCRC2			QCR2, UQCR2
UROC1			FLJ31300, HMFN0320
UROD			
UROS			
USB1			C16orf57, FLJ13154, HVSL1, Mpn1
USF1			MLTF1, UEF, bHLHb11
USP26			
USP27X			USP27
USP34			KIAA0570, KIAA0729
USP44			FLJ14528
USP8			HumORF8, KIAA0055, SPG59, UBPY
USP9Y			AZFA, DFFRY
UTP4			CIRH1A, CIRHIN, FLJ14728, KIAA1988, NAIC, TEX292
UTRN	NM_001375323.1:1		DMDL, DRP, DRP1
UVSSA			KIAA1530
VAC14			ArPIKfyve, FLJ10305, TAX1BP2

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
VAMP1			SYB1, VAMP-1
VAMP2			SYB2, VAMP-2
VAMP7			SYBL1, TI-VAMP, VAMP-7
VANGL1			STB2
VANGL2			KIAA1215, LPP1, LTAP, MGC119403, MGC119404, STB1, STBM, STBM1
VAPB			ALS8, VAP-B, VAP-C
VARS1			VARS, VARS2
VARS2			DKFZP434L1435, G7a, KIAA1885, VARS2L, VARSL
VAV3			
VCAN			CSPG2, PG-M
VCL			
VEGFA			VEGF, VEGF-A, VPF
VEGFC			VEGF-C, VRP
VHL	NM_001354723.2:2		VHL1
VLDLR			CARMQ1, CHRMQ1, VLDLRCH
VMA21	NM_001363810.1:1		MEAX, XMEA
VPREB1			CD179A, VpreB
VPS11			PEP5, RNF108
VPS13A			BLTP5A, CHAC, KIAA0986
VPS13B			BLTP5B, CHS1, COH1
VPS33A	NM_001351018.2:1 NM_001351019.2:1 NM_001351021.2:5		
VPS37A			FLJ32642, HCRP1, PQBP2, SPG53
VPS45			H1, VPS45A, VPS45B, h-mps45
VPS4B			SKD1, SKD1B, VPS4-2
VPS53	NM_001366254.2:8		FLJ10979, HCCS1
VRK1			
VSIG4			CRlg, Z39IG
VSX2			CHX10, HOX10, RET1
VTN			VN
VWF (NM_000552)	NM_000552.5:26, 34		F8VWF
WAS			IMD2, THC, WASP, WASPA
WASHC4			KIAA1033, SWIP
WASHC5			KIAA0196, SPG8
WBP2			GRAMD6, WBP-2
WDPCP	NM_001354044.2:2 NM_001354045.2:13		BBS15, C2orf86, CPLANE5, fritz, hFrtz
WDR1			AIP1
WDR11			BRWD2, DR11, FLJ10506, HH14, KIAA1351, SRI1, WDR15
WDR13			
WDR19			CFAP66, DYF-2, FAP66, FLJ23127,

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
			IFT144, KIAA1638, NPHP13, ORF26, Oseg6, Pwdmp
WDR26		NM_001379403.1:1	FLJ21016, GID7
WDR35			CFAP118, FAP118, IFT121, IFTA1, KIAA1336, MGC33196
WDR36			GLC1G, TA-WDRP, UTP21
WDR4			TRM82, TRMT82, Wuho
WDR45			JM5, NBIA5, WDRX1, WIPI4
WDR45B			WDR45L, WIPI3
WDR48			Bun62, KIAA1449, P80, SPG60
WDR5			CFAP89, SWD3
WDR73			FLJ14888, HSPC264
WDR81			CAMRQ2, FLJ33817, PPP1R166, SORF-2
WDR87			NYD-SP11
WDR93			C1d-87, CFAP297, FAP297
WFS1			DFNA14, DFNA38, DFNA6, DIDMOAD, WFS
WIF1			
WIPF1	NM_001375835.1:9	NM_001375836.1:5 NM_001375837.1:5 NM_001375838.1:5	WASPIP, WIP
WNK1			HSAN2, HSN2, PPP1R167, PRKWNK1
WNT1			INT1
WNT10B			SHFM6, WNT-12
WNT3			INT4, MGC131950, MGC138321, MGC138323
WNT4			WNT-4
WNT5A			hWNT5A
WNT6			
WNT7A			Wnt-7a
WNT8A			WNT8D
WNT9B			WNT14B, WNT15
WRAP53			FLJ10385, TCAB1, WDR79
WRN			RECQ3, RECQL2
WT1			AWT1, GUD, NPHS4, WAGR, WIT-2, WT-1
WWOX			FOR, SDR41C1, WOX1
XAF1	NM_001353134.2:5 NM_001353137.2:4 NM_001353138.2:5		BIRC4BP, HSXIAPAF1, XIAPAF1
XBP1	NM_001393999.1:1 NM_001394000.1:1		XBP2
XDH			XO, XOR
XIAP	NM_001167.4:4 NM_001204401.2:4		API3, BIRC4, ILP-1, hILP



## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
	NM_001378590.1:4 NM_001378591.1:5 NM_001378592.1:4		
XIRP1			CMYA1, DKFZp451D042, Xin
XIRP2			CMYA3
XK			Kx, NA, NAC, X1k, XKR1
XPA	NM_001354975.1:1		XP1, XPAC
XPC	NM_001354727.2:10		RAD4, XPCC
XPR1			SLC53A1, SYG1, X3
XRCC1			RCC
XRCC2			FANCU
XRCC3			
XRCC4			
XYLT2			PXYLT2, XT-II
YAP1			YAP-1, YAP65
YARS1			YARS, YRS, YTS, tyrRS
YARS2			CGI-04, FLJ13995, mt-TyrRS
YEATS4			GAS41, NuBI-1, YAF9
YME1L1			YME1L
YWHAE			FLJ45465
YY1			DELTA, INO80S, NF-E1, UCRBP, YIN-YANG-1
ZAP70			SRK, STD, ZAP-70
ZBTB16			PLZF, ZNF145
ZBTB18			C2H2-171, RP58, TAZ-1, ZNF238
ZBTB20			DKFZp566F123, DPZF, ODA-8S, ZNF288
ZBTB24			BIF1, KIAA0441, PATZ2, ZNF450
ZBTB33			KAISO, WUGSC:H_DJ525N14.1, ZNF-kaiso, ZNF348, kaiso
ZBTB40			KIAA0478, ZNF923
ZBTB42			ZNF925
ZC3H14			FLJ11806, NY-REN-37, UKp68
ZCCHC12			FLJ16123, PNMA7A, SIZN, SIZN1
ZCCHC8			DKFZp434E2220
ZDBF2			FLJ45338, KIAA1571
ZDHHC9			CGI-89, CXorf11, DHHC9, ZDHHC10, ZNF379, ZNF380
ZEB1			AREB6, BZP, FECD6, NIL-2-A, PPCD3, TCF8, ZEB, Zfhpf, Zfhx1a
ZEB2			KIAA0569, SIP-1, SIP1, ZFHX1B
ZFP36L1			BRF1, Berg36, ERF1, RNF162B, TIS11B, cMG1
ZFP57			C6orf40, ZNF698, bA145L22, bA145L22.2

## TARGETED SEQUENCING GENE LIST

Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
ZFPM2			FOG2, ZC2HC11B, ZNF89B, hFOG-2
ZFR			SPG71, ZFR1
ZFYVE26			KIAA0321, SPG15
ZFYVE27	NM_001385876.1:4 NM_001385882.1:12 NM_001385883.1:12 NM_001385884.1:12		FLJ32919, SPG33
ZHX3	NM_001384325.1:4	NM_001384324.1:5	KIAA0395, TIX1
ZIC1			ZIC, ZNF201
ZIC2		NM_007129.5:3	HPE5
ZIC3			HTX, HTX1, ZNF203
ZMYND10			BLU, CILD22, DNAAF7
ZMYND11	NM_001370116.2:1 NM_001370120.2:1		BRAM1, BS69
ZMYND15			DKFZp434N127
ZNF143			SBF, STAF, pHZ-1
ZNF148	NM_001348436.2:9		BERF-1, BFCOL1, HT-BETA, ZBP-89, ZFP148, pHZ-52
ZNF224			BMZF-2, KOX22, ZNF255, ZNF27
ZNF335			NIF-1, bA465L10.2
ZNF34			KOX32
ZNF365			KIAA0844, Su48, UAN
ZNF407			FLJ13839, FLJ20307, KIAA1703
ZNF408			FLJ12827
ZNF41			MGC8941, MRX89
ZNF423	NM_001379286.1:1		Ebfaz, JBTS19, KIAA0760, NPHP14, OAZ, Zfp104, hOAZ
ZNF469		NM_001367624.2:3	KIAA1858, Zfp469
ZNF513			FLJ32203, RP58, Zfp513
ZNF528			KIAA1827
ZNF543			DKFZp434H055
ZNF589			SZF1
ZNF592	NM_014630.3:11		CAMOS, KIAA0211, SCAR5
ZNF644			BM-005, KIAA1221, MGC60165, MGC70410
ZNF674			MRX92, ZNF673B
ZNF687			KIAA1441
ZNF711			CMPX1, MRX65, MRX97, ZNF4, ZNF5, ZNF6, Zfp711, dJ75N13.1
ZNF750			FLJ13841, Zfp750
ZNF81	NM_001378154.1:6 NM_001378155.1:5		HFZ20, MRX45
ZNHIT6			BCD1, C1orf181, FLJ20729, NY-BR-75
ZP1			ZPB1
ZPBP			SP38, ZPBP1

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## TARGETED SEQUENCING GENE LIST

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Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases
ZSWIM6	NM_020928.2:1		KIAA1577
Gene	Coding Exons and Common Variants Not Covered RefSeq: exon(s)	Coding Exons Partially Covered RefSeq: exon(s)	Gene Aliases