

Description of Cells Used in this Study

Cell name	Cell type	Source	Medium	Reference
Human keratinocyte (HKC)	Primary keratinocyte	Cambrex CC-2503	KGM	
HFF	Primary fibroblast	Cambrex CC-2509	DMEM	
WI-38	Primary fibroblast	ATCC CCL-75	MEM	
WI-38 AV	Fibroblast, integrated SV40	ATCC CCL-75x	MEM	
Human umbilical vein endothelial cells (HUVEC)	Primary endothelial	Cambrex CC-2517	EGM MV	
Peripheral blood mononuclear cells (PBMC)	Primary lymphocyte	Materials & Methods	RPMI 1640, 20% FBS	Ferris, R. G., et al. 2005. Antimicrob. Agents Chemother. 49:4046-4051.
B cells	Primary lymphocyte	Materials & Methods	RPMI 1640, 20% FBS	
CD4 T cells	Primary lymphocyte	Materials & Methods	RPMI 1640, 20% FBS	
Erythroid	Bone marrow progenitor cells	Materials & Methods		Eaves, C. J. 1995. In: E. Beutler et al. (eds.), Williams Hematology, p. L22-L26.
Granulocyte / Macrophage	Bone marrow progenitor cells	Materials & Methods		Eaves, C. J. 1995. In: E. Beutler et al. (eds.), Williams Hematology, p. L22-L26.
W12 (W12-20850)	Keratinocyte, episomal HPV 16, CIN 1	Dr Paul Lambert	W12	Jeon, S. et al. 1995. J. Virol. 69:2989-2997. Stanley, M. A. et al. 1989. Int. J. Cancer: 43:672-676.
W12 20861	Keratinocyte, integrated HPV 16	Dr Paul Lambert	W12	Jeon, S. et al. 1995. J. Virol. 69:2989-2997.
CIN612	Keratinocyte, episomal HPV 31, CIN 1	Dr Lou Laimins	E	Bedell, M. A., et al. 1991. J. Virol. 65:2254-2260.
HKC/HPV16	Keratinocyte, episomal HPV 16	Dr John Lee	E	Lee, J. H., et al. 2004. PNAS 101:2094-2099.
SiHa	Keratinocyte, cervical carcinoma, integrated HPV16	ATCC HTB-35	W12	
Caski	Keratinocyte, cervical carcinoma, integrated HPV16	ATCC CRL-1550	W12	

HeLa	Keratinocyte, cervical carcinoma, integrated HPV18	ATCC CCL-2	W12	
Vero	Kidney epithelial, African Green monkey	ATCC CCL-81	MEM	
HEK293	Kidney epithelial, transformed with adenovirus 5	ATCC-CRL-1573	DMEM	Louis, N., et al. 1997. Virology 233:423-429.
HEK293-IFIT1	HEK293 stably transfected with IFIT1 promoter controlling luciferase	Derrick Maley, GSK	DMEM	
Huh7	Liver epithelial	Jane Rosemund, GSK	DMEM	
Jurkat	T lymphoblast, leukemia	ATCC TIB-152	RPMI 1640	
Molt4	T lymphoblast, leukemia	ATCC CRL-1582	RPMI 1640	
U937	Monocyte, histiocytic lymphoma	ATCC CRL-1593.2	RPMI 1640	
BJAB	B lymphoblast, Burkitt's lymphoma, EBV -ve	Ruth J Mayer, GSK	RPMI 1640	
Namalwa	B lymphoblast, integrated EBV	ATCC CRL-1432	RPMI 1640	Lawrence, J. B. et al. 1988. Cell 52:51-61.
IM9	B lymphoblastoid, episomal EBV	ATCC CCL-159	RPMI 1640	
B-LCL 5/2/1	B lymphoblastoid, episomal EBV	Materials & Methods	RPMI 1640	
MT4	T lymphoblast, leukemia, HTLV-1 +ve	NIH AIDS Research & Reference Program Cat# 120	RPMI 1640	Miyoshi, I., et al. 1981. Nature 294:770-771.

PRIMERS FOR DNA PCR

Organism	Gene Symbol	Gene Description	Forward Primer	Reverse Primer	Probe
Human papillomavirus 16	E1		5'-TAC AGG TTC TAA AAC GAA AGT-3'	5'-TTC CAC TTC AGT ATT GCC ATA-3'	5'-ATA ATC TCC TTT TTG CAG CTC TAC TTT GTT TTT-3'
Human papillomavirus 31	E1		5'-CAG AGA CAG CAC AGG CAT TGT T-3'	5'-TGC ACA GCC TCT GCATGT TC-3'	5'-TGC ACA GGA AGC GGA GG-3'
Homo sapiens	ACTA1	Actin, alpha 1	5'-TCA CCC ACA CTG TGC CCA TCT ACG A-3'	5'-CAG CGG AAC CGC TCA TTG CCA ATG G-3'	5'-ATG CCC TCC CCC ATG CCA TCC TGC G-3'
Epstein Barr virus	EBNA-1		5'-GCC GGT GTG TTC GTA TAT GG-3'	5'-CAA AAC CTC AGC AAA TAT ATG GA-3'	5'-TCT CCC CTT TGG AAT GGC CCC TG-3'
Simiam virus 40	LTAg		5'-GTC TTC TAC CTT TCT CTT CTT T-3'	5'-GGA GCA GTG GTG GAA-3'	5'-TGG AGG AGT AGA ATG TTG AGA GTC A-3'
Adenovirus 5	Hexon		5'-CTT CTC TAC GCC AAC TCC GC-3'	5'-CTT CTC TAC GCC AAC TCC GC-3'	5'-TTG AGG TGG ATC CCA TGG ACG AGC-3'

Complete Pathway Gene Set († Gene Description, PCR primers and probes)

Gene ID	HUGO Name	Gene Aliases	Gene Description	GenBank Accession	Forward Primer	Reverse Primer	Probe
19	ABCA1	TGD, ABC1, CERP, HDLDT1, Tangier	ATP-binding cassette, sub-family A (ABC1), member 1	NM_005502	TGCCAAGGACCAAAGTG ATG	TGTGAGAACTGCAACGT CCAC	GACCTCTCATTACACAAA AACCAGACA
20	ABCA2	ABC2, KIAA1062	ATP-binding cassette, sub-family A (ABC1), member 2	NM_001606	ACTTGTGGCAGACGAGC CC	CGTGTGAAGGACAGCT GGG	GAGGGCCTCATCAGCTT CGAGGAGGAG
21	ABCA3	ABC3, ABC-C, EST111653	ATP-binding cassette, sub-family A (ABC1), member 3	NM_001089	TGGAAGATGAGCACCAA GGC	GGAGTAGTCGTCCACGC CG	ACCTCAGCTGGGCGAAG GTTTTCGGTA
24	ABCA4	FFM, ABCR, RP19, STGD, ABC10, STGD1, Stargardt	ATP-binding cassette, sub-family A (ABC1), member 4	NM_000350	CCTCTCCCACAAGGACA GCC	CTCGAGGGTGCAGAGG GAG	TCAGTCACACAGACCAC ACTGGACCAGG
5243	ABCB1	MDR1, P-GP, PGY1, ABC20, GP170	ATP-binding cassette, sub-family B (MDR/TAP), member 1	NM_000927	AGCCCTGGACAAAGCCA GAG	CGTGCCATGCTCCTTGA CTC	CATTGTGATTGCTCACC GCCTGTCCAC
8647	ABCB11	BSEP, PGY4, SPGP, ABC16, PFIC2, PFIC-2	ATP-binding cassette, sub-family B (MDR/TAP), member 11	NM_003742	ACAAAGCCAGAGAGGGT CGG	CCTGTGCCATGACAGCA ATG	CATTGTCATTGCCCATC GCTTGTCCAC
5244	ABCB4	MDR3, PGY3, ABC21, MDR2/3, PFIC-3	ATP-binding cassette, sub-family B (MDR/TAP), member 4	NM_000443, NM_018849, NM_018850	AGCCCTGGACAAAGCCA GAG	CGTGCCATGCTCCTTGA CTC	CATTGTGATTGCTCACC GCCTGTCCAC
22	ABCB7	ABC7, ASAT, ATM1P, EST140535	ATP-binding cassette, sub-family B (MDR/TAP), member 7	NM_004299	CCCACCATGGTTTGCTT GC	ATCATGGTTCTGCACAC GGC	ATTCAGAAATGTGGCATA CACAGAGCA
4363	ABCC1	MRP, ABCC, GS-X, MRP1, ABC29	ATP-binding cassette, sub-family C (CFTR/MRP), member 1	NM_004996, NM_019862, NM_019898, NM_019899, NM_019900, NM_019901, NM_019902	GAACCTGGACCCATTCA GCC	CGCCTTCTGCACATTCAT GG	CGGATGAAGAAGTCTGG ACGTCCCTGG
1244	ABCC2	DJS, MRP2, cMRP, ABC30, CMOAT	ATP-binding cassette, sub-family C (CFTR/MRP), member 2	NM_000392	GGCTGCACACCATCATG GAC	TCAATGCCAGCTTCCTTA GCC	GCGGCAGCCCTGAAGAA CTGCTACAAA
8714	ABCC3	MLP2, MRP3, ABC31, CMOAT2, MOAT-D, EST90757	ATP-binding cassette, sub-family C (CFTR/MRP), member 3	NM_003786, NM_020037, NM_020038	TACCATCCGCACCCAGT TTG	TGCAATGAGGTTGGCTG GAG	TACCTGCACTGTCTGTA CCATCGCACA
368	ABCC6	ARA, PXE, MLP1, MRP6, ABC34, MOATE, EST349056	ATP-binding cassette, sub-family C (CFTR/MRP), member 6	NM_001171	AGCTCCTGTGTCTGGCA CG	CAGCTCCCGAGCATGGC	ACCCAGATCCTCATCCT GGACGAGGCT

6833	ABCC8	HI, SUR, MRP8, PHHI, SUR1, ABC36, HRINS	ATP-binding cassette, sub-family C (CFTR/MRP), member 8	NM_000352	GGTGGTGATGACAGCCTTCG	CGCTTCAGGACGATCACAG	CGAGTGCACACCATCCTGAGTGCAGAC
10060	ABCC9	SUR2, ABC37	ATP-binding cassette, sub-family C (CFTR/MRP), member 9	NM_005691, NM_020297, NM_020298	TGACAATGGCTCACCGTGTC	GGCGAACAAATTTGGGACAG	TGCAGGCCTTGTTTTAGTCTTTTCTGAGGG
215	ABCD1	ALD, AMN, ALDP, ABC42, adrenoleukodystrophy	ATP-binding cassette, sub-family D (ALD), member 1	NM_000033	CATTCCCAAGATGCAGCGG	AGGTGGAGGCACCCTGGAG	CTCCAGGAGCTCTGCCAGATCCTGGG
225	ABCD2	ALDR, ABC39, ALDL1, ALDRP	ATP-binding cassette, sub-family D (ALD), member 2	NM_005164	AGGAGGTTGGCGCTTTGAAC	CATAGTTCATTGAGTCTCTGCTGC	AATCTCAGCTAGCTGGATTCCCAAAA
5825	ABCD3	ABC43, PMP70, PXMP1	ATP-binding cassette, sub-family D (ALD), member 3	NM_002858	TTGTGCGAAAGGTTGGCAATCAC	TTCATAGTTGCCTCTGCCATCC	TTGGAAACATCATGAGTACTACCTGCA
5826	ABCD4	P70R, P79R, ABC41, PMP69, PXMP1L, EST352188	ATP-binding cassette, sub-family D (ALD), member 4	NM_005050, NM_020323, NM_020324, NM_020325, NM_020326	AAGCCACCAGTGCCCTGAC	TTCTCAAGGCTCTGCCGATG	AGCAGCTGGGGATGACGTTCATCAGTG
9619	ABCG1	ABC8, WHITE1	ATP-binding cassette, sub-family G (WHITE), member 1	NM_004915, NM_016818	GTGACATCGACGAGACGTGC	AATAGGCAATGAGGCGGAGG	CACTTCCAGAAGTCGGAGGCCATCCTG
64137	ABCG4	WHITE2	ATP-binding cassette, sub-family G (WHITE), member 4	NM_022169	CATGGACTTCCTGGTCTTGGG	ACTTGACCCGGTAACGCAGC	ATCTTCTTCTAGCCCTGCGGCTGCTG
64240	ABCG5		ATP-binding cassette, sub-family G (WHITE), member 5 (sterolin 1)	NM_022436	TGTGGCAGCTCAAATGTTCTG	TCTAGATGTTGCACCTGGGC	TCCAATGTGTGCCTTCACTCAAGGAATTCA
64241	ABCG8		ATP-binding cassette, sub-family G (WHITE), member 8 (sterolin 2)	NM_022437	ATGCCTCTCGGGAACCTCAC	GCTGAGGCCAATGACGATG	TCCTCAGTGTGATGGAGCTGGACTCGT
31	ACACA	ACC, ACAC, ACC1	acetyl-Coenzyme A carboxylase alpha	NM_000664	TCAAGCAAATCCGCAGCTTG	CCCCTGAGTGGGTGATATG	AGGCCAATCCAGAGGTTGCCATGGATT
32	ACACB	ACC2, ACCB, HACC275	acetyl-Coenzyme A carboxylase beta	NM_001093	GCTCCACCATCCGTGAGAAC	ATCACACAGTCCACGGCAC	CATCCGAGGCCTGGTTGAAGAAAACCC
34	ACADM	MCAD	acyl-Coenzyme A dehydrogenase, C-4 to C-12 straight chain	NM_000016	TGCAGATACTTGGAGGCAATGG	TTGTCAATGTGTTACAGGGC	TCCTGTAGAAAACTAATGAGGGATGCCA
35	ACADS	SCAD	acyl-Coenzyme A dehydrogenase, C-2 to C-3 short chain	NM_000017	GGGCTACGTGACAGAGATGCC	CCGGTAGCTCCTGAGCAGATG	GATCTACGAGGGCACCA GCGAAATCCA
38	ACAT1	T2, MAT, ACAT, THIL	acetyl-Coenzyme A acetyltransferase 1 (acetoacetyl Coenzyme A thiolase)	NM_000019	TCTGGAGCCAGGATTGTG	ATGGCAGAAGCACCTCTCC	TGAAGCAAGGAGAATACGGTCTTGCCA

39	ACAT2		acetyl-Coenzyme A acetyltransferase 2 (acetoacetyl Coenzyme A thiolase)	NM_005891	CTTGGAGCATCTGGCTGTCG	TTGCTATTCCCATCCCACCC	GAATGGGCAGAAGTCGTGGTGTTCAG
47	ACLY	ATPCL, CLATP	ATP citrate lyase	NM_001096	TGGGTCTTTACTCGGGAGG	CACGGATGACGATACAGCCC	TCAATGGCATCTTTGTGCTGGGAAGGA
8309	ACOX2	BRCOX, BRCACOX	acyl-Coenzyme A oxidase 2, branched chain	NM_003500	GCCCTTGGCTGTTATGATGG	TTCTCATAGGCAGGGTTCTCC	ACGTCTACGAACGCCTGTTCCAGTGGG
71	ACTG1	ACTG	actin, gamma 1	NM_001614	TACTCGGTGTGGATCGGTGG	CCGACTCGTCGTACTCCGTC	GGCCTCACTGTCCACCTTCCAGCAGAT
72	ACTG2	ACTE, ACTA3, ACTSG	actin, gamma 2, smooth muscle, enteric	NM_001615	TCCTGGCCTCTCTCTCCACC	GCACTTCTGTGGACAAATGGAG	GCAAGCCTGAGTATGATGAGGCAGGGC
102	ADAM10	kuz, MADM, kuzbanian	a disintegrin and metalloproteinase domain 10	NM_001110	AGGAGGAGACCTCCACAGCC	GCGTCTCATGTGTCCCAATTTG	AGCGTCAGCGGCCCCGAGAGAGTTAT
4185	ADAM11	MDC	a disintegrin and metalloproteinase domain 11	NM_002390, NM_021612	CGGCACCAACATCATCATTTG	CGGACCTTCTCGGGCG	CGGCACGGGCTGGGGATTTAAAAACAT
8038	ADAM12	MCMP, MLTN, MLTNA, MCMPMltna	a disintegrin and metalloproteinase domain 12 (meltrin alpha)	NM_003474, NM_021641	GGGTTACGAGTGTGCAATG	GTCACAGAAGGGAGGGTCCC	GCAACAACAGGAAGAAGCTGCCACTGCG
8751	ADAM15	MDC15	a disintegrin and metalloproteinase domain 15 (metargidin)	NM_003815	CCCAAGGAAGCCACTGCGC	GAGCGAGGACACTGTGCGGAG	TAGTGGTACCCTCCAGACCAGCGCCAC
6868	ADAM17	CSVP, TACE, CD156b	a disintegrin and metalloproteinase domain 17 (tumor necrosis factor, alpha, converting enzyme)	NM_003183, NM_021832	TGGACGAGGATGGGTTTGAG	CGCTGCAGTTTAAAGGAGGC	GCAGCACAGCTGCCAAGTCATTTGAGG
8728	ADAM19	MLTNB, FKSG34, MADDAM	a disintegrin and metalloproteinase domain 19 (meltrin beta)	NM_023038, NM_033274	TTCCCAGGACTTCTCCAGGC	GAGGCCGGGACTGCTGAG	AGAAGGCACTCCCGGCAACCCAGT
8757	ADAM5	TMDCII	a disintegrin and metalloproteinase domain 5	AA918208	TGAGAGAGCTATGCTATAGAGGG	TGGTGCTTTCACTGAGGATG	TGAGAGCTCTGTGTCAGAAGAAAGCAGCA
8755	ADAM6			AI024595	TTGCTGGCTTTGTTTGACGG	TGTGCCTAAGAAGAGGTGCTGG	GTGTTCTTTTTGGAGGTGCCCGCTGT
8756	ADAM7	EAPI, GP-83	a disintegrin and metalloproteinase domain 7	AF090327	AGGACTGAGCCAATCCTGCC	GGCACTTTGATTGGGATCTGC	AACCTGCAAGTAAAGATTCAAGAGGAA
101	ADAM8	MS2, CD156, CD156	a disintegrin and metalloproteinase domain 8	NM_001109	AGCAGGTCATCAAGCCACCG	CAGCACCTCAGCTGGACC	CACCCCAGTGCCCCCAGTCAAA
8754	ADAM9	MCMP, MDC9, MLTNG, KIAA0021	a disintegrin and metalloproteinase domain 9 (meltrin gamma)	NM_003816	ATGCAGCCAAGCAACCTCAG	AAAGGAGGTGCAGGAGCAGG	AAGGCCACCTCCACCACAACCGAAAGT

9507	ADAMTS4	ADMP-1, ADAMTS-2, ADAMTS-4, KIAA0688	a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 4	NM_005099	ACACACGCCTCCGATACAGC	TCTTCGGTGCAGCCAGTCC	CTTCAACGCCACGCCCCACTCC
11096	ADAMTS5	ADMP-2, ADAMTS11	a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2)	NM_007038	GGATCACACACTTCGCA GCC	CACTGCACCGTTCTGGTGTG	ATGGCTCGCCTGCTCTAGGACCTGTGA
107	ADCY1		adenylate cyclase 1 (brain)	L05500	GGAAACGGCTCCCAAATCAG	CCCAGCCCTGACTGAGACG	TGGGCTTGGATCGGAAATGTGTCCAT
108	ADCY2	HBAC2, KIAA1060	adenylate cyclase 2 (brain)	L21993	TGGCCAGTAGGATGGACAGC	TGCACGTGTATCCGAGGTGTC	GGTTACCGAGGAGACGAGCCTCGTCT
109	ADCY3	AC3, KIAA0511	adenylate cyclase 3	NM_004036	CTCCGAGAGTACGGCTTCCG	AAGAAGAAGGTCAGCAGCTCCC	CTTTGTGAGGCGAGGCCCATCTTTGT
112	ADCY6	KIAA0422	adenylate cyclase 6	NM_015270, NM_020983	AATCCAGGTGACCACGGACC	CCTTGCCCTTACCTTGACC	CAAGGGCTACCAGCTGGAGTGTGCGAGG
113	ADCY7	KIAA0037	adenylate cyclase 7	NM_001114	CAGCCGAATGGAAAGCACTG	AGCTCGCCTTTGCCTTTGAC	ACTCTTGTGAATGCCGTGGCCTGATCA
114	ADCY8	ADCY3, HBAC1	adenylate cyclase 8 (brain)	NM_001115	TCCCTCAATAGGCAAAGGCAG	TGGGTGACAACAAAGTCGCG	CAACAACACAGGAATCATCAAGGGTCA
115	ADCY9		adenylate cyclase 9	NM_001116	CCTGTACCCAAAGTGCA CGG	TTGGCAATCTCGTCTGTGGG	ACCAGCTGTCCATCTCCCCAGACATCC
9370	ADIPOQ	APM1, APM-1, GBP28, ACRP30	adipose most abundant gene transcript 1	NM_004797	ACCAAGTCTGGCTCCAGGTG	GCCTGTGAAGGTGGAGTCATTG	TGGGGAAGGAGAGCGTATGGACTCTATGC
176	AGC1	CSPG1, MSK16, CSPGCP	aggrecan 1 (chondroitin sulfate proteoglycan 1)	NM_001135, NM_013227	TCCGCTGGTCAGATGGACAC	GGGAGGTGGTAATTGCA GGG	GGACTGTGTGGTGATGATCTGGCACGA
183	AGT	SERPINA8	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)	NM_000029	GCGGATGAGAGAGAGCCAC	AACAGGAATGGGCGGTT CAG	AACAAGCCTGAGGTCTTGGAGGTGACC
207	AKT1	PKB, RAC, PRKBA, RAC-ALPHA	v-akt murine thymoma viral oncogene homolog 1	NM_005163	CGTCGGAGACTGACACCAGG	GCTCGCTGTCCACACACATCC	TTGATGAGGAGTTCAGGCCCAGATGA
208	AKT2	PRKBB, PKBBETA, RAC-BETA	v-akt murine thymoma viral oncogene homolog 2	NM_001626	CCTGCCACCCTTCAAACCTC	CCAGCTCCAGTAAGCCCAGG	CAATCACACCCCCTGACCGCTATGACA
249	ALPL	HOPS, TNSALP, AP-TNAP	alkaline phosphatase, liver/bone/kidney	NM_000478	ACGTGATGGCGTATGACAGC	TCAGAACAGGACGCTCAGGG	CTGCTGCTCGCTCTGGCCCTCTACC
335	APOA1		apolipoprotein A-I	NM_000039	CAGACTGGCCGAGTACCACG	CTTGAAGCTCTCCAGCAGCGG	GAGCATCTGAGCACGCTCAGCGAGAAG
116519	APOA5	RAP3, APOAV	apolipoprotein A-V	NM_052968	TGGCAAGTTCTGAGCAAGC	GGCCCTGGTCATGAAGGC	CCGTCTGGATGACCTGTGGGAAGACATC
338	APOB	FLDB	apolipoprotein B (including Ag(x) antigen)	NM_000384	CATTTCTGATATACATCACGGAGTTACTG	TGGAGCAAGCTTCATGTAGGG	AAAGCTGCAATCAACCA CAGTCATGAA

344	APOC2		apolipoprotein C-II	NM_000483	ATGAGATGCCTAGCCCG ACC	TCTCGTACAGGTTCTGG GCG	CCTCACCCAGGTGAAGG AATCTCTCTCCA
345	APOC3		apolipoprotein C-III	NM_000040	GACCGATGGCTTCAGTT CCC	CCACGGCTGAAGTTGGT CTG	TCTGAGTTCTGGGATTTG GACCCTGAGG
346	APOC4		apolipoprotein C-IV	NM_001646	ACAGGACCAGAGACGG GTGG	AGGTCCCTCAGGTGGTC GTC	CCTTCCGGGGCTTCATG CAGACCTACT
347	APOD		apolipoprotein D	NM_001647	TGGCAAGAAACCCTAAT CTCCC	GGCAGTTCACCTGGTCT GTG	TAACATTGATGTCAAGAA AATGACGGT
348	APOE		apolipoprotein E	NM_000041	GGAGCAGGCCAGCAG ATAC	CTGCATGTCTTCCACCA GGG	CAGGCCCGCCTCAAGAG CTGGTTC
319	APOF		apolipoprotein F	NM_001638	GGGTTTGAGGGCCATCT CAG	CCCAGTAGGGAGCTGAA CTTAC	TGTGAGTGACTTGGAAG AAACAACACTCTGGC
387	ARHA	ARH12, RHOH12	ras homolog gene family, member A	NM_001664	TATGGCAAACAGGATTG GCG	TCTTCCCACGTCTAGCTT GCAG	TGGGTACATGGAGTGT CAGCAAAGACCA
388	ARHB	ARH6, RHOH6	ras homolog gene family, member B	NM_004040	TCGAGTGCTCTGCCAAG ACC	AGCAGTTGATGCAGCCG TTC	AAGGAAGGCGTGCGCG AGGTCTTC
468	ATF4	CREB2, TXREB, CREB-2, TAXREB67	activating transcription factor 4 (tax-responsive enhancer element B67)	NM_001675	TGGCATCTGTATGAGCC CAG	GTAAGGTTTGGGACGGG CAG	GGGTCTCCTCAGCACAG CCCCTCTACC
22926	ATF6		activating transcription factor 6	NM_007348	TCGGTTCCTCCTTACCTC CG	CTGACAACGTGGGTTGC CTC	ACCAACACCTTCTTTGG CTCCCCTCCC
487	ATP2A1	ATP2A, SERCA1	ATPase, Ca ⁺⁺ transporting, cardiac muscle, fast twitch 1	NM_004320	CCCTGGACCTCACCCAG TG	TCCGAGCAACGAACTTG AGG	GATCTCACTGCCAGTCA TTGGGCTCGA
551	AVP	VP, ADH, ARVP, AVRP, AVP-NPII	arginine vasopressin (neurophysin II, antidiuretic hormone, diabetes insipidus, neurohypophyseal)	NM_000490	CGTTTGCTGCAACGACG AG	GTGGCGTTGCTCCGGTC	CGAGTGCCGCGAGGGC TTTCAC
23621	BACE	BACE1	beta-site APP-cleaving enzyme	NM_012104	TCAACCCTCATGACCATA GCC	CGCCACTGACACACCAT GAG	ATCTGCGCCCTCTTCAT GCTGCCAC
572	BAD	BCL2L8	BCL2-antagonist of cell death	NM_004322, NM_032989	AAGAAGGGACTTCCTCG CCC	AGTCCGATCCCACCAG GAC	CAAAGCTCCAGCTGGAC GCGAGTCTTC
578	BAK1	CDN1, BCL2L7	BCL2-antagonist/killer 1	NM_001188	CTGGCTTCTAGGCCAG GTG	CAGCACGTTCAGGATGG GAC	CGACTTCATGCTGCATC ACTGCATTGC
581	BAX		BCL2-associated X protein	NM_004324	GGGTGGTTGGGTGAGAC TCC	GCACCACTGTGACCTGC TCC	CACTCCTCTGGGACCCT GGGCCTTCT
596	BCL2		B-cell CLL/lymphoma 2	NM_000633, NM_000657	GAGGAGCTCTTCAGGGA CGG	ACTCAGTCATCCACAGG GCG	GTTTCGGTGGGGTCATGT GTGTGGAGAG
598	BCL2L1	BCLX, BCL2L	BCL2-like 1	NM_001191	ATCCCAGCTCCACATCA CCC	TCTCGGCTGCTGCATTG TTC	CAGGGACAGCATATCAG AGCTTTGAACAGGA
10018	BCL2L11	BIM, BOD, BIML, BIMEL	BCL2-like 11 (apoptosis facilitator)	NM_006538	GCCAGAGATATGGATC GCC	GGTGGTCTTCGGCTGCT TG	TGCGGCGTATCGGAGAC GAGTTTAACG

599	BCL2L2	BCLW, BCL-W, KIAA0271	BCL2-like 2	NM_004050	TGGGCGGAGTTCACAGC TC	CTCACTGATGCCAGTT CCC	TATACGGGGACGGGGC CCTGGAG
627	BDNF		brain-derived neurotrophic factor	NM_001709	ATTGGAACTCCAGTGC CG	TGAATCGCCAGCCAATT CTC	GCGGGCCCTTACCATGG ATAGCAAAAA
632	BGLAP	BGP	bone gamma-carboxyglutamate (gla) protein (osteocalcin)	NM_000711	AGGAGGGCAGCGAGGT AGTG	CCGATGTGGTCAGCCAA CTC	CAGGCGCTACCTGTATC AATGGCTGGG
637	BID		BH3 interacting domain death agonist	NM_001196	GCTGCAGGCCTACCCTA GAGAC	GACATCACGGAGCAAGG ACG	GAAGGAGAAGACCATGC TGGTGCTGGC
638	BIK	BP4, NBK, BIP1	BCL2-interacting killer (apoptosis-inducing)	NM_001197	TTTCATGGACGGTTTCAC CAC	CTGTTCGCAGGACACCC AG	ATGAGGTTCTGGAGATC CCCGAACCCC
331	BIRC4	API3, ILP1, MIHA, XIAP, hILP, ILP-1	baculoviral IAP repeat-containing 4	NM_001167	CTAAGGCGCCTGCAAGA GG	GCACATGGGACACTTGT CAAC	TGCTATCGTTTTTGTTC TTTGTGGACA
332	BIRC5	API4	baculoviral IAP repeat-containing 5 (survivin)	NM_001168	CTGACAGCTTTGTTCGC GTG	CAACAGGCACCTGCCAA GTC	TGGACCTCATGTTGTTG AGGCTGTCACA
649	BMP1		bone morphogenetic protein 1	NM_001199, NM_006128, NM_006129, NM_006130, NM_006131, NM_006132	GAGGTGCGCAGTGGACT CAC	CGCGCATGTTGTTGTAC TGG	CTCCAAGCTGCATGGCA AGTTCTGTGG
650	BMP2	BMP2A	bone morphogenetic protein 2	NM_001200	CTAAGGCATGCTGTGTG CCG	CCCTCCACAACCATGTG C TG	TGCTATCTCGATGCTGTA CCTTGACGA
651	BMP3		bone morphogenetic protein 3 (osteogenic)	NM_001201	CGTTCCTGGGATTCCTG AGC	TGCAAGCGCAAGACTCT ACTG	TGCTGTGTACCAGAAAA GATGTCCTCACTCA
652	BMP4	ZYME, BMP2B, BMP2B1	bone morphogenetic protein 4	NM_001202	AACCAACCATGCCATTG TGC	TGGCACTCAGTTCAGTG GGC	TGTCAATTCCAGTATCCC CAAAGCCTG
653	BMP5		bone morphogenetic protein 5	NM_021073	AACGCCCATATGAATGC CAC	TGGTTGGAGCACAACAA GGC	TGGTTCATCTGATGTTTC CTGACCACG
654	BMP6	VGR1	bone morphogenetic protein 6	NM_001718	ATGAATGCAACCAACCA CGC	GCTTAGTTGGCGCACAG CAC	GCAGACCTTGGTTCACC TTATGAACCCCG
655	BMP7	OP-1	bone morphogenetic protein 7 (osteogenic protein 1)	NM_001719	ACATGAACGCCACCAAC CAC	ACGGAGATGGCATTGAG CTG	ATCGTGCAGACGCTGGT CCACTTCATC
657	BMPR1A	ALK3, ACVRLK3	bone morphogenetic protein receptor, type IA	NM_004329	CGGCCAATTGTGTCTAA TCGG	CCATCTTGGCAAGCGTC TTC	AATGTCAGAATGCTGGG CCCACAATCC
658	BMPR1B	ALK6, ALK-6	bone morphogenetic protein receptor, type IB	NM_001203	ACCGGTGGAGCAGTGAT GAG	TCTTAACCCGCAGGGCT GTC	ACAGAATGCTGGGCTCA CAATCCTGCA
659	BMPR2	BMR2, PPH1, BMPR3, BRK-3, T-ALK, BMPR-II	bone morphogenetic protein receptor, type II (serine/threonine kinase)	NM_001204, NM_033346	TCCACCTGGGTCATCTC CAC	GCAGTGCCTCCTTCTGC AAG	GGCAGTTCATTCCAAAT CCAGCACTGC
666	BOK	BOKL, BCL2L9, MGC4631	BCL2-related ovarian killer	NM_032515	GTGGTCAGCACAGACCC TGG	ATCTCTCTGGCAGCAGC ACG	GCTGGTGGCTGCACTCT GCAGCTTC
718	C3		complement component 3	NM_000064	TCATCGGGAAGGACACT TGG	ACCATGCTCTCGGTGAA GGC	CCTGAGGAGGACGAATG CCAAGACGAA

779	CACNA1S	MHS5, HOKPP, hypoPP, CCHL1A3, CACNL1A3	calcium channel, voltage-dependent, L type, alpha 1S subunit	NM_000069	GATGCCTGCCAAATGGA ACC	GGAGGACCCGAGGTTCA GG	TACTGAAAGGACGAGAG GCCCCAGACG
800	CALD1	CDM, NAG22	caldesmon 1	NM_004342, NM_033138, NM_033139, NM_033140, NM_033157	TCTAGCCGCATCAATGA ATGG	TTCCGCTTGCTGGATAC GTC	CCAGATGGAAACAAGTC ACCTGCTCCCA
11132	CAPN10		calpain 10	NM_021251, NM_023083, NM_023084, NM_023085, NM_023086, NM_023087, NM_023088, NM_023089	ACCGGCTGCAGATGGGAG	CAAGTCGCAGAAGAGCG AGG	CTGTTCCGGGACGCCGC CTTC
834	CASP1	ICE, P45, IL1BC	caspase 1, apoptosis-related cysteine protease (interleukin 1, beta, convertase)	NM_001223, NM_033292, NM_033293, NM_033294, NM_033295	TGCCTGTTCTGTGATGT GG	GGCATCTGCGCTCTACC ATC	TCCGCAAGGTTTCGATTTT CATTGAGCA
844	CASQ1	CASQ	calsequestrin 1 (fast-twitch, skeletal muscle)	NM_001231	TTGACATCGACTTGTCAGCCC	AAGGCAGGTCCTCCTCA TCG	TGCGGATAGGCTATGGA TGGAATGGA
845	CASQ2		calsequestrin 2 (cardiac muscle)	NM_001232	ATGTCACAGATGCTGAC AGTG	TCCAGTCCTCCAGCTCC TCAG	TCTGGATGGAGATTCCA GATGATGACGA
847	CAT		catalase	NM_001752	ACCCTGACTACGGGAGCAC	ATCCGGACTGCACAAAG GTG	TGCTGAGAAGCCTAAGA ATGCGATTCA
891	CCNB1	CCNB	cyclin B1	NM_031966	CCAGTTATGCAGCACCT GGC	TTAGCATGCTTCGATGT GGC	TCAAGGACTTACAAAGC ACATGACTGTCA
595	CCND1	BCL1, PRAD1, U21B31, D11S287E	cyclin D1 (PRAD1: parathyroid adenomatosis 1)	NM_053056	GTGTGACCCAGACTGCC TCC	GGTCCATGTTCTGCTGG GC	CAGATCGAAGCCCTGCT GGAGTCAAGC
948	CD36		CD36 antigen (collagen type I receptor, thrombospondin receptor)	NM_000072	GACTGGGACCATTGGTG ATGAG	TCATTTCTATCAGGCCAA GGAGG	GGCAAACATGTTTCAGAA GTCAAGTAACTGGA
949	CD36L1	CLA1, SRB1, CLA-1, SR-BI	CD36 antigen (collagen type I receptor, thrombospondin receptor)-like 1	NM_005505	TCCGGAGCCAAGAGAAA TGC	AGAGCCCTTGGGAGCTG ATG	TCAAAGGATAAAGGAGGC CATTGAGGCC
920	CD4		CD4 antigen (p55)	NM_000616	CAATGGCCCTGATTGTG CTG	GAGACATCCGCTCTGCT TGG	GCCTCCTGCTTTTCATTG GGCTAGGCA
960	CD44	IN, MC56, MDU2, MDU3, MIC4, CD44R	CD44 antigen (homing function and Indian blood group system)	NM_000610	AACGGAGAGGCCAGCAAGTC	TGTCCACATTCTGCAGG TTCC	GGTGCATTTGGTGAACA AGGAGTCGTCA

941	CD80	LAB7, CD28LG, CD28LG1	CD80 antigen (CD28 antigen ligand 1, B7-1 antigen)	NM_005191	CTCCCATCCTGGGCCAT TAC	CAGGGCGTACACTTTCC CTTC	CTGCCTGACCTACTGCT TTGCCCAAG
942	CD86	B70, B7-2, LAB72, CD28LG2	CD86 antigen (CD28 antigen ligand 2, B7-2 antigen)	NM_006889	GGAAATGGAAGAAGAAG AAGCG	AACACGCTGGGCTTCAT CAG	GCCTCGCAACTCTTATAA ATGTGGAAC
925	CD8A	CD8	CD8 antigen, alpha polypeptide (p32)	NM_001768	CCACAGGAACCGAAGAC GTG	GACGTATCTCGCCGAAA GGC	CTGTGGTCAAATCGGGA GACAAGCCCA
983	CDC2	CDK1	cell division cycle 2, G1 to S and G2 to M	NM_001786, NM_033379	TCCCAAATGGAACCGAG GAAG	TTGCCAGAAATTCGTTTGC	TGGATGAAAATGGCTTG GATTGCTCTCG
1019	CDK4	CMM3, PSK-J3, MGC14458	cyclin-dependent kinase 4	NM_000075, NM_052984	CCTGAGATGGAGGAGTC GGG	GTGCTGCAGAGCTCGAA AGG	GCACAGCTGCTGCTGGA AATGCTGACT
1021	CDK6	PLSTIRE	cyclin-dependent kinase 6	NM_001259	CAGTGCCCTGTCTCACC CATAAC	GGCTGTATTCAGCTCCG AGG	AAAGAAAACCTGGATTC CCACCTGCCG
1026	CDKN1A	P21, CIP1, SDI1, WAF1, CAP20, CDKN1, MDA-6	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	NM_000389, NM_078467	TACCCTTGTGCCTCGCT CAG	AGAAGATCAGCCGGCGT TTG	TCCCAGGTGACCTGGG AGACTCTCAG
1027	CDKN1B	KIP1, CDKN4, P27KIP1	cyclin-dependent kinase inhibitor 1B (p27, Kip1)	NM_004064	GGAGCAATGCGCAGGAA TAAG	CTCCACAGAACCGGCAT TTG	GAAGCGACCTGCAACCG ACGATTCTTC
1056	CEL	BAL, BSSL	carboxyl ester lipase (bile salt-stimulated lipase)	NM_001807	CACGGGTGACTCCGAGAC C	GACTGCAGGCATCTGAG CTTC	GGGTGACTCTGAGGCTG CCCCTGTG
10390	CEPT1	DKFZp313G0615, MGC45223	choline/ethanolaminephosphotransferase	NM_006090	TTGTACTTTGGATTGCC TGG	TGCAGGTGAGACGCAAT CTG	TGATCCGCTACTGTGTC AGTGTTTGCA
23491	CES3	BR3	carboxylesterase 3 (brain)	NM_012122	CAGCCCAGAGGCTGAAG GAC	ACATGTTCCCTGTGGGA TGG	AGTTTTTGGGCTGAGCT CAGGGCCAAG
1071	CETP		cholesteryl ester transfer protein, plasma	NM_000078	CCTCATGAACAGCAAAG GCG	ATCCACCAGCAGGTGCT CAG	ATGGCTTCTGCTGCTG CAGATGGACT
1080	CFTR	CF, MRP7, ABC35, ABCC7	cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7)	NM_000492	TGCGGCAGTACGATTCC ATC	GAGCTTACCCTGTCCG AGG	ACTGCTGAACGAGAGGA GCCTTTCCG
1154	CISH	CIS, G18	cytokine inducible SH2-containing protein	NM_013324	CTGGTGCAGCCCTTTGT ACG	GGTACTGTCCGAGGTA GTCCG	CAACACCTGTGCCGCCT TGTCATCAAC
1300	COL10A1		collagen, type X, alpha 1(Schmid metaphyseal chondrodysplasia)	NM_000493	ATCAGGCTTCAGGGAGT GCC	ATTTGACTCGGCATTGG GAAG	TCACAGAAAATGACCAG GTGTGGCTCCA
1278	COL1A2	OI4	collagen, type I, alpha 2	NM_000089	GAGGGCAACAGCAGGTT CAC	AGCACCACCGATGTCCA AAG	TTACACTGTTCTTGTAGA TGGCTGCTC
1280	COL2A1	SEDC, COL11A3	collagen, type II, alpha 1 (primary osteoarthritis, spondyloepiphyseal dysplasia, congenital)	NM_001844, NM_033150	CAGAAGACCTCACGCCT CCC	AGAAGCAGACCGGCCCT ATG	ACATTGCACCCATGGAC ATAGGAGGGC

1311	COMP	MED, EDM1, EPD1, PSACH	cartilage oligomeric matrix protein (pseudoachondroplasia, epiphyseal dysplasia 1, multiple)	NM_000095	GGGTGCGATTCTATGAG GGC	TGCCCCAGATGATGTTCC	GCAACGTGGTCTTGAC ACAACCATGC
1312	COMT		catechol-O-methyltransferase	NM_000754, NM_007310	GGTGCGCCAGACTTCTT AGC	TCCACCACCTCCCTGTA TTCC	GGGAGCAGCTGCTTTGA GTGCACACAC
10814	CPLX2	CPX2, 921-L	complexin 2	NM_006650	CTGACCCG GCCCAAGAA G	GCCCGGGCAGGTATTTG AG	AGCATCCTGGACACGGT G
1374	CPT1A	CPT1, CPT1-L, L-CPT1	carnitine palmitoyltransferase I, liver	NM_001876	TGCTGATGACGGCTATG GTG	TCCAAAGCGATGAGAAT CCG	TGTGGGAGAGAACCTCA TCAATTTCCACA
1375	CPT1B	CPT1-M, M-CPT1, KIAA1670	carnitine palmitoyltransferase I, muscle	NM_004377	AGGTGGCTTTGGCCCTG TAG	TGCGGATGTGTTTCCA AAG	TGCAGGCGAGAACACGA TCTTCTTCCA
1376	CPT2	CPT1, CPTASE	carnitine palmitoyltransferase II	NM_000098	CAGCCCAGCAGTGAACC TTG	CGGCCTGGGTAGGAAGA GAC	TTTGCCCTGTGGTCTCT GATGGCTTT
1385	CREB1		cAMP responsive element binding protein 1	NM_004379	GGGAAGCAGCTCGAGA GTGTC	TCTGATTTGTGGCAGTAA AGGTCC	TGGCAGTGCTTGAAAAT CAAAACAAGACA
1390	CREM		cAMP responsive element modulator	NM_001881	TGGCAGAAGAAGCAACA CGC	TCTTCTTCTGCGACACT CCC	GCTGAGGCTAATGAAAA ACAGAGAAGCTGCCC
1401	CRP	PTX1	C-reactive protein, pentraxin-related	NM_000567	CCCTGGTGGGAGACATT GG	TGGTGAACACTTCGCCT TGC	ATGTCCTGAAGTGGCGG GCACTGAAGT
1431	CS		citrate synthase	NM_004077	CGAGCATTGGGTGTACT GGC	TCAGACCCTCTGTGCTC ATGG	CTGGAGCCGAGCCTTAG GCTTCCCTCT
1437	CSF2	GMCSF, GM-CSF	colony stimulating factor 2 (granulocyte-macrophage)	NM_000758	TACAAGCAGCACTGCCC TCC	GGCTCCCAGCAGTCAAA GG	CCGAAACTTCTGTGCA AACCAGACT
1445	CSK		c-src tyrosine kinase	NM_004383	CTCGGGTGGAGAAGGG CTAC	CGGAGCTGTAGGAAGGA GGG	TCATGAAGAACTGCTGG CACCTGGACG
1499	CTNNB1	CTNNB	catenin (cadherin-associated protein), beta 1 (88kD)	NM_001904	TGGAACATGAGATGGGT GGC	CAAACCAGGCCAGCTGA TTG	ATCCAGTTGATGGGCTG CCAGATCTGG
1513	CTSK	CTSO, PKND, PYCD, CTSO2, CTSO1, CTSO2	cathepsin K (pseudodysostosis)	NM_000396	GCGATAATCTGAACCAT GCGG	CAATGCCACAGGCGTTG TTC	CAGCTGGGGAGAAAAC TGGGAAACAA
1585	CYP11B2	CPN2, CYP11B, CYP11BL, P-450C18, P450aldo	cytochrome P450, subfamily X1B (steroid 11-beta-hydroxylase), polypeptide 2	NM_000498	CGTGCTGAAGCACTTCC TGG	ACGTGCCAGGCCTCAAT ATG	TCAAGAGGACATAAAGA TGGTCTACAGC
1555	CYP2B6	CPB6, IIB1, P450, CYP11B6	cytochrome P450, subfamily IIB (phenobarbital-inducible), polypeptide 6	NM_000767	TGTCTTGGTGAAGGCAT CGC	TGCCACACCACACTCC TG	GCCCCAGAAGACATCGA TCTGACACCC
1559	CYP2C9	CPC9, CYP2C10, P450IIC9, P450, P450	cytochrome P450, subfamily IIC (mephenytoin 4-hydroxylase), polypeptide 9	NM_000771	TTTGTGTGGGAGAAGCC CTG	GTAGAAGGGCGGCACA GAGG	GCCGGCATGGAGCTGTT TTTATTCTGA

1576	CYP3A4	CP34, NF-25, P450C3, P450PCN1	cytochrome P450, subfamily IIIA (niphedipine oxidase), polypeptide 4	NM_017460	GACCCAGAAACTGCATT GGC	TCTGGTTGAAGAAGTCC TCCTAAGC	TGAGGTTTGCTCTCATG AACATGAAACTTGC
1579	CYP4A11	CP4Y, CYP4A2, CYP4AII	cytochrome P450, subfamily IVA, polypeptide 11	NM_000778	TGCATCGGGAAACAATT TGC	ATCAGGCAGCAGCTCAA AGC	CATGAACGAGCTGAAGG TGGCCACG
1580	CYP4B1	P-450HP	cytochrome P450, subfamily IVB, polypeptide 1	NM_000779	TCACAGCCATGTGCTTG CTC	TGAAAGCCATTCTTGG GCG	TTGAGTTCTCTCTGGAC CCCTCACGGC
1595	CYP51	LDM, CP51, CYPL1, P450L1, P450-14DM	cytochrome P450, 51 (lanosterol 14-alpha-demethylase)	NM_000786	GACAATTTGGTCCACTAT GCTTCG	CGGATAACTGGGTTCTC AGGG	TCATTGATGGATACTTTC CCACTGTGA
1581	CYP7A1	CP7A, CYP7	cytochrome P450, subfamily VIIA (cholesterol 7 alpha-monooxygenase), polypeptide 1	NM_000780	TTCGCTATCCACGAAATC AAGC	CGGGACTGGTCCAAAGG TG	TGAATTGGAGCTTATAGA GGGCCAAGC
1582	CYP8B1	CP8B, CYP12	cytochrome P450, subfamily VIIB (sterol 12-alpha-hydroxylase), polypeptide 1	NM_004391	GGTGGACCCTGACACAC CAC	TGTAGGATGCAGGCGGT AGC	ACCATGCAGCCCAGCCA CGATGT
1634	DCN	PG40, PGII, PGS2, DSPG2	decorin	NM_001920	TCTGCCACCTGGACAC AAC	ATGGCAGAGCGCACGTA GAC	TTCAGCAACCCGGTCCA GTACTGGGAG
1649	DDIT3	CHOP, CHOP10, GADD153	DNA-damage-inducible transcript 3	NM_004083	CTGGAAAGCAGCGCATG AAG	GCGAGTCGCCTCTACTT CCC	ATGAACGGCTCAAGCAG GAAATCGAGC
1666	DECR1	DECR, NADPH	2,4-dienoyl CoA reductase 1, mitochondrial	NM_001359	CGCAAATCTTGCTGCTTT CC	TCCCCTGCTCCTTGGT GAC	TTCAGGGGAATTCAACG ACCTGAGAAA
1675	DF		D component of complement (adipsin)	NM_001928	ATGTGCGCGGAGAGCAA TC	GTAGATCCCGGGCTTCT TGC	GACAGCTGCAAGGGTGA CTCCGGG
8694	DGAT1	DGAT, ARGP1	diacylglycerol O-acyltransferase homolog 1 (mouse)	NM_012079	AGATCCCCTGGCCTGG TTC	TGGACGTACATGAGGAC GGC	ACTATGGCAACGCAGCT GTGTGGCTGT
1760	DMPK	DM, DM1, DMK	dystrophia myotonica-protein kinase	NM_004409	GCTTCCCTGCTCCTGTT CG	GCCAGACTGCGGTGAGT TG	GTTGTTCTGTCTCGTGC CGCCGC
1869	E2F1	RBP3, E2F-1, RBBP3	E2F transcription factor 1	NM_005225	AGCATGTGCGGGAGGAC TTC	GCCGAAGTGGTAGTCGA GGG	GCCTCCTCCCTGAGGAG TTCATCAGCC
1892	ECHS1	SCEH	enoyl Coenzyme A hydratase, short chain, 1, mitochondrial	NM_004092	AGCGATGGCCAAAGAAT CAG	TTTCCACAAACGCGGTC ATC	TCAACCTTTGCCACTGAT GACCCGAAA
1906	EDN1	ET1	endothelin 1	NM_001955	AACCAGGTCGAGACCA TGAG	ACCAATGTGCTCGGTTG TGG	TCATGATCCCAAGCTGA AAGGCAAGCC
1909	EDNRA		endothelin receptor type A	NM_001957	TTTCCAGTCATGCCTCTG CTG	TCCACTGGATGCTTGT CCG	CCAAAAGTCTGATGACC TCGGTCCCA

1956	EGFR	ERBB	epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian)	NM_005228	AACAGCACATTCGACAGCCC	ATTTGGCTTGGCTTCCTTGG	GCCTGGACAACCCTGACTACCAGCAGG
1958	EGR1	TIS8, NGFI-A, KROX24, ZIF-268	early growth response 1	NM_001964	GCTCCTCGACCTACCCATCC	AAGGGAAGCTGCTGACCTGG	GCCACCACGTACTCCTCTGTTCCCCCT
1959	EGR2	KROX20	early growth response 2 (Krox-20 homolog, Drosophila)	NM_000399	CGCCACACCAAGATCCACC	CCGCCAAGACTGCTGCTG	ACAGAAAGAGCGGAAAA GCAGTGCCCC
1960	EGR3		early growth response 3	NM_004430	ACTCATACGGGCGAGAA GCC	CTTGGCGTGGCGCTTG	GCGAGTTCTGCGGGCGC AAGTTT
1961	EGR4	NGFIC, NGFI-C, PAT133	early growth response 4	NM_001965	AGAAACGGCACAGCAAG GTG	GAGAAGCGAAGGAGAG GCCC	GCTCAAGGGCCTCGGCT TTTACTCGCT
1962	EHHADH	PBFE	enoyl-Coenzyme A, hydratase/3-hydroxyacyl Coenzyme A dehydrogenase	NM_001966	TGCTTCCACAGTTGGGT TGC	GGGTTTCCCTGAGAAGC CAG	GAACCCTGATATTCCCC AACTGGAGCCA
9451	EIF2AK3	PEK, WRS, PERK	eukaryotic translation initiation factor 2-alpha kinase 3	NM_004836	CAGTGCTCAGACAGAGG TCTCG	TTGGCAAAGGGCTATGG GAG	TCGGGAACAAAACATTC AAGACAGTCCA
2002	ELK1		ELK1, member of ETS oncogene family	NM_005229	CGCTGCCTCCTAGCATT CAC	TGCCACTGGATGGA AAC TGG	TTCTGGAGCACCCCTGAG TCCCATTGC
2022	ENG	END, ORW, HHT1, ORW1, CD105	endoglin (Osler-Rendu-Weber syndrome 1)	NM_000118	CGCTTGAACATCATCAG CCC	GAGTGCAGCAGTGAGCA GGG	ACCTGTCTGGTTGCACA AGCAAAGGCC
2064	ERBB2	NEU, NGL, HER2, HER-2	v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)	NM_004448	AGCCCAGCCTTCGACAA CC	GTCCCTTTGAAGGTGCT GGG	ATTACTGGGACCAGGAC CCACCAGAGC
2081	ERN1	IRE1, IRE1P	ER to nucleus signalling 1	NM_001433	CTCCTCGCACACACCTA CCG	GAGGGCGTCTGGAGTCA CTG	TACTACTTCCACGAGCC CCCAGAGCCC
10595	ERN2	IRE1b	ER to nucleus signalling 2	NM_033266	AGTTGAGGTGCGACAGG CAC	GGGCAGGAAGAGGCTCT CAG	CTCCACACGCACCGAGT CATGAGGAGT
2149	F2R	TR, CF2R, PAR1	coagulation factor II (thrombin) receptor	NM_001992	ACGCTTCCTCTGAGTGC CAG	TTTACTTGCCATCAACTG CCC	GCTGCAAAGAAAGTTCC GATCCAGCA
2150	F2RL1	PAR2, GPR11	coagulation factor II (thrombin) receptor-like 1	NM_005242	CCCTTAACAGCTGCATC GACC	TACAGTGCGGACACTTC GGC	TCAGGGATCATGCAAAG AACGCTCTCC
2152	F3	TF, TFA, CD142	coagulation factor III (thromboplastin, tissue factor)	NM_001993	CAGCCCGGTAGAGTGTA TGGG	TGACCACAAATACCACA GCTCC	CCAGGAGAAAGGGGAAT TCAGAGAAAT
2168	FABP1	L-FABP	fatty acid binding protein 1, liver	NM_001443	GGGAGGAATGTGAGCTG GAGAC	GCCGTTGAGTTCGGTCA CAG	TGACAGGGGAGAAAGTC AAGACAGTGG

2170	FABP3	MDGI	fatty acid binding protein 3, muscle and heart (mammary-derived growth inhibitor)	NM_004102	TCACCTGCAGAAATGGGACG	CGTGGGTGAGTGTCAGGATG	GCAAGAGACCACACTGTGCGGGAGCT
2167	FABP4	A-FABP	fatty acid binding protein 4, adipocyte	NM_001442	GGGCCAGGAATTTGACGAAG	TGCACATGTACCAGGACACCC	TGCAGATGACAGGAAAGTCAAGAGCACCA
2172	FABP6	ILBP, I-15P, ILBP3, ILLBP, I-BABP	fatty acid binding protein 6, ileal (gastrotropin)	NM_001445	AGGCCACTGTGCAGATGGAG	CTTGCTCACGCGCTCATAGG	GGGAAGCTGGTGGTGAAATTTCCCAAC
2179	FACL1	LACS, LACS	fatty-acid-Coenzyme A ligase, long-chain 1	NM_001995	AGGCATCACATTGCACCCTG	AAATAGTTCCGCAGCTCTGGC	GGCCTTCTGACTCCAACAATGAAGGCG
2180	FACL2	LACS, FACL1, LACS2	fatty-acid-Coenzyme A ligase, long-chain 2	NM_021122	AGGCATCACATTGCACCCTG	AAATAGTTCCGCAGCTCTGGC	GGCCTTCTGACTCCAACAATGAAGGCG
8523	FACVL1	VLCS, VLACS	fatty-acid-Coenzyme A ligase, very long-chain 1	NM_003645	CGGTTTCTAAGAATACAGGACACC	TAAAGCCCTCCTCCACCAGG	TGAGATCACTGGAACTTTAAACACCGCA
2194	FASN		fatty acid synthase	NM_004104	CGCGGACTACAACCTCTCCC	CCAGGGAGCTGTGGATGATG	CCGTCCATATCATCGAGGGTGACCACC
2203	FBP1	FBP	fructose-1,6-bisphosphatase 1	NM_000507	CGTCATGGAGAAGGCTGGG	GCGCCCTCTGGTGAATGTC	CACCACTGGGAAGGAGGCCGTGTTAGA
2208	FCER2	CD23, FCE2, CD23A	Fc fragment of IgE, low affinity II, receptor for (CD23A)	NM_002002	CTTCTGCGACCGTAAGCTGG	GGCCGTCAGGGTCTGGTC	GAAGGTTCCGCGGAGTCCATGGGAC
9965	FGF19		fibroblast growth factor 19	NM_005117	GAATCTGACATGTTCTCTTCGCC	AAAGCTGGGACTCCTCACGG	CTGGAGACCGACAGCATGGACCCATTT
2249	FGF4	HST, KFGF, HST-1, HSTF1, K-FGF, HBGF-4	fibroblast growth factor 4 (heparin secretory transforming protein 1, Kaposi sarcoma oncogene)	NM_002007	GCAAGGGCAAGCTCTATGGC	TTCCATTCTTGCTCAGGAGC	GCCCTTCTTACCGATGAGTGACAGTT
2260	FGFR1	H2, H3, H4, H5, CEK, FLG, FLT2, BFGFR, C-FGR, N-SAM	fibroblast growth factor receptor 1 (fms-related tyrosine kinase 2, Pfeiffer syndrome)	NM_000604, NM_015850, NM_023105, NM_023106, NM_023107, NM_023108, NM_023109, NM_023110, NM_023111	TACGGCAGCATCAACCACAC	AACTCCACGTTGCTACCAGG	ATACCAGCTGGATGTCTGGAGCGGTC
2277	FIGF	VEGFD, VEGF-D	c-fos induced growth factor (vascular endothelial growth factor D)	NM_004469	CTGCTGCCAGAAGCACAGC	TTTCTCCTTTGAAAGCGGC	GTGCAAGTGGCAAACAACATGTGCAA
2281	FKBP1B	OTK4, FKBP9, FKBP1L, PKBP1L, PPIase, FKBP12.6	FK506 binding protein 1B (12.6 kD)	NM_004116, NM_054033	GCCTGTGGGACCGCTATG	CACACGTTTGGCCCTTCTTG	GAGATCGAGACCATCTCCCCGGAGAC
2331	FMOD		fibromodulin	NM_002023	CCATCAGCAGCTTCTGCACC	GCTTGATCTCGTTCCCGTCC	TGAACTTCTCCAAGCTGCAGGTCGTGC

2335	FN1	FN, CIG, FINC	fibronectin 1	NM_002026, NM_054034	CAAGCTCAAGTGGTCCT GTCC	AGATGGCTGTGGTGCAT TCC	CTGAGACTCCGAGTCAG CCCAACTCCC
2353	FOS		v-fos FBJ murine osteosarcoma viral oncogene homolog	NM_005252	CCAGCTGCACTGCTTAC ACG	GTGGGTGAGCTGAGCGA GTC	TTCTTCGTCTTCACCTA CCCCGAGGC
2354	FOSB	GOS3	FBJ murine osteosarcoma viral oncogene homolog B	NM_006732	TGAAGTTCAAGTCCTCG GCG	GATCGGAAGGCTGGTCA CTG	ACCCTTCCCCGTTGTT AACCTTCGT
8061	FOSL1	FRA1, FRA-1	FOS-like antigen 1	NM_005438	TGAGCCTTGTGCCTCAG CTC	CAAAGCGAGGAGGGTTG GAG	AAGAGTAGCAGCAGCAG CGGAGACCCA
2355	FOSL2	FRA2	FOS-like antigen 2	NM_005253	GGTACCTCCACACCTG CTG	TACTGCTTCTGCGGTGA GCC	TCCTAGCGTCTCTGGAGC AGGAGTCACC
2475	FRAP1	FRAP, MTOR, FRAP2, RAFT1	FK506 binding protein 12- rapamycin associated protein 1	NM_004958	TTTGGTGAAACCAGAGG CCC	TGGGATGTCGCTTGT GATG	TGGATGTTCCAACGCAA GTTGAGCTGC
2487	FRZB	FRP-3, FRZB1, SFRP3, FRZB-PEN	frizzled-related protein	NM_001463	CCAGATTACTCTTGGTG GAAGGC	CGAAGCTTCATATCCCA GCG	AGCTGAGAAGTGGAAGG ATCGACTCGG
2538	G6PC	G6PT, GSD1a	glucose-6-phosphatase, catalytic (glycogen storage disease type I, von Gierke disease)	NM_000151	TGTAGCCTCCCTCGTCC TCC	GGATGACACTGACGGAT GCC	CTTGAAACCCCATCCC AAGTCGAGCT
1647	GADD45A	DDIT1, GADD45	growth arrest and DNA- damage-inducible, alpha	NM_001924	TCCTGCTCTTGGAGACC GAC	TGTGGATTCGTCACCAG CAC	GAGCAGCCCCGGACCT GCACT
4616	GADD45B	MYD118, GADD45BETA, DKFZP566B133	growth arrest and DNA- damage-inducible, beta	NM_015675	CGAGACCTCCACTGTCT TCCC	AGTAGCTGGCCACCTCC ACC	TCCTACAGAACCCTCAC ACGGACGCT
2586	GAL	GALN, GLNN	galanin	M77140	CCAGGAAGCTTTGACAG GTCC	TGTCTTCTGAGGAGGCT GCG	TTTCTTGCATCTCAAAGA GGCCGGTGC
2597	GAPD	GAPDH	glyceraldehyde-3-phosphate dehydrogenase	NM_002046	GGGCTACACTGAGCACC AGG	CCCTGTTGCTGTAGCCA AATTC	CCCTCAACGACCACTTT GTCAAGCTCA
2645	GCK	GK, GLK, HK4, HKIV, HXKP, MODY2, NIDDM	glucokinase (hexokinase 4, maturity onset diabetes of the young 2)	NM_000162, NM_033507, NM_033508	CCAGCTGCGAGATCACC TTC	AGGCCTTCTTACAGGCC ACC	ATCGAGTCGGAGGAGG GCAGTGCC
2660	GDF8	MSTN	growth differentiation factor 8	NM_005259	AGAGGTTTCAGCAGGCC TTG	GAGCACCCACAGCGGTC TAC	AATATATGGGAAAATTCC AGCGATGGT
2770	GNAI1		guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 1	NM_002069	TCAAACACATATGAAGA GGCAGC	TGGCACATGTGAAGTGG GTG	CCTCAATAAAAGAAAGG ACACAAAGGA
2771	GNAI2	GIP, GNAI2B	guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2	NM_002070	CAAGTGGTTCACAGACA CGTCC	AGGGAAGCAGATGGTCA GGG	TCCTCAACAAGAAGGAC CTGTTTGAGGA

2773	GNAI3		guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 3	NM_006496	GCAGCTGCCTATATTCAATGCC	TGCACATTCTTCGTGTCTGTGG	CCAAGGAGATCTATACTCACTTCACCTGTG
2776	GNAQ		guanine nucleotide binding protein (G protein), q polypeptide	NM_002072	GTTCGTGGACCTGAACCAG	GATGGTGTCTTGACGGCAG	CACGTGCGCCACAGACACCGAGAATAT
2778	GNAS	GSA, GSP, POH, GPSA, GNAS1, NESP55	GNAS complex locus	NM_000516, NM_016592	GCTACCCTCATTTCACCTGCG	TGCATGCGCTGAATGATGTC	GAGAACATCCGCCGTGTGTTCAACGAC
2793	GNGT2	GNG8, GNGT8, G-GAMMA-8, G-GAMMA-C	guanine nucleotide binding protein (G protein), gamma transducing activity polypeptide 2	NM_031498	TGCATTGTGAACCCATTC	GTTCCCAGCAAGGTCAGCAG	TCTCCCATTATTTCTCCACCTGCTGGG
57678	GPAM	KIAA1560	glycerol-3-phosphate acyltransferase, mitochondrial	AB046780	TTGCAGTATATGCTGAGAGTGCC	TTTGTTCGGTTGCATTGAGGTAG	TGGGGTTTTCAAGGAGACC
2821	GPI	AMF, NLK, PGI, PHI, GNPI, SA-36	glucose phosphate isomerase	NM_000175	AGTGGAGCTGGGAAAGCAGC	TGAGCCCATTGGTAGAAGCG	GAGCCTGAGCTTGATGGCAGTGCTCAA
2875	GPT	AAT1, ALT1, GPT1	glutamic-pyruvate transaminase (alanine aminotransferase)	NM_005309	TATGTTCTTCTGCCTGCGCC	AAGTGGTAGGTGCCTTCCCG	GAGGAGACCGGCATCTGCGTGGTG
2890	GRIA1	GLUH1, GLUR1, GLURA, HBGR1	glutamate receptor, ionotropic, AMPA 1	NM_000827	AGCAATCCATCAACGAAGCC	GTGGCTCATGCAAGGAATCG	GTGGTCAGCCATGACTTCCCAAGTCC
2931	GSK3A		glycogen synthase kinase 3 alpha	NM_019884	CGCCATTCTCATCCCTCTC	TGAGGGTAGGTGTGGCAATCG	CTACCACCCTCACCCCGTCC
2932	GSK3B		glycogen synthase kinase 3 beta	NM_002093	TCCACCTCTGGCTACCATCC	GACGCTGCTGTGGCATTG	TCATGCTCGGATTCAGCAGCTGCTTC
2936	GSR		glutathione reductase	NM_000637	TGGGATCCATATGCAGGAGAC	AGTCTGCCTTCGTTGCTCCC	GAAATGCTGCAGGGTTTTGCTGTTGCA
2937	GSS	GSHS	glutathione synthetase	NM_000178	GCATTTCCAGAGCTGGGCATC	GCTCGATGGCTTTGGTTCCG	ACACTCGTGATGAACAAACGACGTGGGG
2997	GYS1	GYS	glycogen synthase 1 (muscle)	NM_002103	ACATCCGTGCACCAGAGTGG	CCGTGTCCACAGAGTTGCG	GAGCGTCCTGCACCTCTCCACCAG
2998	GYS2		glycogen synthase 2 (liver)	NM_021957	CTTCAGGGTCTCAGGCCATCC	CGATCCCTTTCAGCCTCTC	GCAGTGATGTGGAAGATGAAGTGGAGGA
8358	H3FL	H3/L	H3 histone family, member L	NM_003537	AGAGCTCTGCGGTAATGGCG	TTAGCATGGATGGCGCAAAG	TGCAGGAGGCTTGTGAGCCCTACTTGG
3030	HADHA	GBP, MTPA	hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), alpha subunit	NM_000182	CCTTTCCGCTTTGTGGATCTG	GGGCTGTTAGCATGGTCAAGC	ATGGAAAACAGTTCACC

3032	HADHB	HADH	hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit	NM_000183	GGGTGGATCTCTGTCCC TGG	CTGCACACGCAGCCACT AAG	CATGGCTGCTGCCAACA GATTACGGAA
3033	HADHSC	SCHAD	L-3-hydroxyacyl-Coenzyme A dehydrogenase, short chain	NM_005327	CGAAGTTCATCGTGGAT GGG	TCCAGTCTTCTTGCCGA ACTTG	ACCCATTACATCAGCCC AGCCCATCCT
3082	HGF	HPTA	hepatocyte growth factor (hepapoietin A; scatter factor)	L02931	ATCAGACACCACACCGG CAC	TTGCACAGTACTCCCAG CGG	ATAATTATTGCCGCAATC CCGATGGCC
3098	HK1	HKI, HXK1	hexokinase 1	NM_000188, NM_033496, NM_033497, NM_033498, NM_033500	TGTGACTGTGGGAGTGG ACG	TGCCATCCTCAGACAGG AGG	CCAGAATCATGCACCAG ACGGTGAAGG
3099	HK2	HKII, HXK2	hexokinase 2	NM_000189	CCTGGCTCCGAAATGTG ATG	AGGCCACAGCAGTGATG AGC	TCTTTCCTGCAGTCAGA GGATGGCAGC
3101	HK3	HXK3, HKIII	hexokinase 3 (white cell)	NM_002115	GAGCTGGCAGTGTCTGT GGG	GAACGTGACCACACAGC GAG	GGATGGAACGCTCTACA AGCTGCACCC
3155	HMGCL	HL	3-hydroxymethyl-3-methylglutaryl-Coenzyme A lyase (hydroxymethylglutaricaciduria)	NM_000191	ACATGCTAGAGGGCTTG GGC	AGCCTGAGCCACTTTGG AGC	TTCACACGGGTGTGAAT CTCCAGAAGC
3156	HMGCR		3-hydroxy-3-methylglutaryl-Coenzyme A reductase	NM_000859	GTGTGGGACCGTAATGG CTG	TCTTGGTGAAGCTCCT TGG	TTATGGCAGCATTGGCA GCAGGACATC
3157	HMGCS1	HMGCS	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble)	NM_002130	AGAACTTACGCTCGGCG TCC	ACTTTCCTTGGCAGGGCT TGG	TGTGCATTCAAACATAGC AACTGAGCA
3158	HMGCS2		3-hydroxy-3-methylglutaryl-Coenzyme A synthase 2 (mitochondrial)	NM_005518	CCCACCTGGTGACACAA ACAG	CATACTTTCGGCGATGC TGC	GGTACTTGGTACCTGGA GCGAGTGGACGA
3162	HMOX1	HO-1, bK286B10	heme oxygenase (decycling) 1	NM_002133	AGACTCCCAGAGGGAAG CCC	CTGTCCGCCACCAGAAAG CTG	GCTCCGCTTCTCCGATG GGTCCTTACA
3172	HNF4A	TCF, HNF4, MODY, MODY1, NR2A1, TCF14, NR2A21	hepatocyte nuclear factor 4, alpha	NM_000457	CGGACAGATGTGTGAGT GGC	CTTGACGATTGTGGCGA CG	TCTGAGCCCTATAAGCT CCTGCCGGGA
9456	HOMER1	SYN47, HOMER-1B	Homer, neuronal immediate early gene, 1B	NM_004272	CGGAACAAAGACCTGGA GGG	AAGAGTGTCTTCAGGTT ATTGCG	GCAACGTCTGGAGAAAA GTCAGAATGA
9455	HOMER2	HOMER-2B, HOMER-2, HOMER-2A	Homer, neuronal immediate early gene, 2	NM_004839	GGAGAGCAAATACCGAC AGCG	TGCAGGTCGTCAATCTT CCC	TTGAAGAGCTTCTGGA GGTGTGGAC

9454	HOMER3	HOMER-3	Homer, neuronal immediate early gene, 3	NM_004838	AGCAGAAGGTGCAGACC CG	TCAGCTCAAACAGGCTG ACG	CAATGCGGAGTTGGAGC ACCAGCTG
3267	HRB	RAB, RIP	HIV-1 Rev binding protein	NM_004504	TTTCTCAACAGCCCAATG GTG	CCAGCAGCTGCAACTTG ACC	TTTGCAGCATTTGGACAA ACAAAGCCA
8739	HRK	DP5, HARAKIRI	harakiri, BCL2 interacting protein (contains only BH3 domain)	NM_003806	CAAGGCGCTAGGCGAC G	ACAGCCAAGGCCAGTAG GTG	AGCTGCACCAGCGCACC ATGT
3290	HSD11B1	HSD11, HSD11B, HSD11L	hydroxysteroid (11-beta) dehydrogenase 1	NM_005525	AGGAGGAATGTGCCCTG GAG	CAGAAGAGTGGTCCAGA GTGAGC	GGGGAGCTCTGCGCCAA GAAGAAGTGT
3309	HSPA5	BIP, MIF2, GRP78	heat shock 70kD protein 5 (glucose-regulated protein, 78kD)	NM_005347	GCCACCAAGATGCTGAC ATTG	GGGCTGCACTTCCATA GAG	GAAGGAAGTGAAGAAA TTGTTCAACCA
3381	IBSP	BSP, BNSP, SP-II, BSP-II	integrin-binding sialoprotein (bone sialoprotein, bone sialoprotein II)	NM_004967	CGGGCGTCAATGAATAC GAC	TTCATAGGCTCGTAATT GTCCC	ATGAAAGTGAGAACGGG GAACCTCGTG
3383	ICAM1	BB2, CD54	intercellular adhesion molecule 1 (CD54), human rhinovirus receptor	NM_000201	CTGTGGTAGCAGCCGCA GTC	GAGGCGTGGCTTGTGTG TTC	CTACAACAGGCCCAAAA AGGGACCCCC
3398	ID2		inhibitor of DNA binding 2, dominant negative helix-loop-helix protein	NM_002166	GTCAGCCTGCATCACCA GAG	TCAGCCACACAGTGCTT TGC	CGCTGACCACCCTCAAC ACGGATATCA
3434	IFIT1	G10P1, IFI56, ISG56, IFNAI1, GARG-16	interferon-induced protein with tetratricopeptide repeats 1	NM_001548	CTTGAGCCTCCTTGGGT TCG	GTCTCAGGGCCCCTCA TAG	TGGAAGGAAATATGAAT GAAGCCCTGGA
3439	IFNA1	IFNA@	interferon, alpha 1	NM_024013	CGGACTCCATCTTGGCT GTG	TGCTCTGACAACCTCCC AGG	TGACAGAGAAGAAATAC AGCCCTTGTG
3456	IFNB1	IFNB	interferon, beta 1, fibroblast	NM_002176	TGCATTACCTGAAGGCC AAGG	TTTCGGAGGTAACCTGT AAGTCTG	TCACTGTGCCTGGACCA TAGTCAGAGTGGA
3458	IFNG		interferon, gamma	NM_000619	TTGAATGTCCAACGCAA AGC	TGGGATGCTCTTCGACC TTG	TGTGCGCCAGCAGCTAAA ACAGGGAAGC
3467	IFNW1		interferon, omega 1	NM_002177	TTAGCAGCCCTGCACTG ACC	AACTTCCCAGGCACAGT CGC	TGAGGAGGTACTTCCAG GGAATCCGTG
3479	IGF1		insulin-like growth factor 1 (somatomedin C)	NM_000618	TGGAGATGTATTGCGCA CCC	CTTCTTCTGGGTCTTG GGC	AAGCCTGCCAAGTCAGC TCGCTCTGTC
3480	IGF1R	JTK13	insulin-like growth factor 1 receptor	NM_000875	CTGCCCGACAGACTC AGG	TGTCTCTCGTCGAAGCT GGC	ACACAAGGCCGAGAACG GCCCC
3481	IGF2		insulin-like growth factor 2 (somatomedin A)	NM_000612	GACACCTGGAAGCAGTC CACC	GACGTTTGGCCTCCCTG AAC	GGTCACGTGCTCGCCAA GGAGCTC
3485	IGFBP2	IBP2	insulin-like growth factor binding protein 2 (36kD)	NM_000597	TGACAAGCATGGCCTGT ACAAC	CTGGATCAGCTTCCCGG TG	AGTGCAAGATGTCTCTG AACGGGCAGC
3487	IGFBP4		insulin-like growth factor binding protein 4	NM_001552	GTGGCAAGTGCTGGTGT GTG	CTGGTGGCAGTCCAGCT CC	GACCGGAAGACGGGGG TGAAGCTTC
3488	IGFBP5	IBP5	insulin-like growth factor binding protein 5	NM_000599	AAGCAGTGCAAACCTTC CCG	CCGTCAACGTACTION GCC	TGGTGCCTGGACAAGTA CGGGATGAAG

3551	IKBKB	IKK2, NFKB1KB, IKK-beta	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta	AF029684	ACGGCCTCCAACAGCTT ACC	AGCTCCAGTCTAGGGCC GTG	TGGCTGAAGCACATAAC CTCTGCACCC
3586	IL10	CSIF, TGIF, IL10A	interleukin 10	NM_000572	CGCTGTCATCGATTTCTT CCC	TCACTCATGGCTTTGTAG ATGCC	GAAAACAAGAGCAAGGC CGTGGAGCAG
3587	IL10RA	IL10R, HIL-10R, IL-10R1	interleukin 10 receptor, alpha	NM_001558	TCACTCCTGGCCTTGAG CAG	GCAGGGTGACCAGGTCT GAG	CTTTGCCCATGACCTTG CCCCTCTAGG
3592	IL12A	CLMF, NKSF1	interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)	NM_000882	CATGCTGGCAGTTATTG ATGAGC	AATCCGGTTCTTCAAGG GAGG	TGATGCAGGCCCTGAAT TTCAACAGTGA
3593	IL12B	CLMF, NKSF2	interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)	NM_002187	TCACCGACAAGACCTCA GCC	AGATGCCCATTCGCTCC AAG	TCATCTGCCGCAAAAAT GCCAGCATTA
3606	IL18	IGIF	interleukin 18 (interferon-gamma-inducing factor)	NM_001562	CCTTTAAGGAAATGAATC CTCCTG	TCATGTCCTGGGACACT TCTCTG	ACATCAAGGATACAAAA AGTGACATCA
3552	IL1A	IL1	interleukin 1, alpha	NM_000575	TTCTGGGAAACTCACGG CAC	TGCCAAGCACACCCAGT AGTC	TGCCCATCCAAACTTGT TATTGCCACA
3553	IL1B		interleukin 1, beta	NM_000576	TTTGAGTCTGCCAGTT CCC	TATATCCTGGCCGCCTT GG	AGAAAACATGCCCGTCT TCCTGGGAGG
3554	IL1R1	IL1R, IL1RA, D2S1473	interleukin 1 receptor, type I	NM_000877	CAGCGACGGTCACCTTC ATC	GGCACGTGAGCCTCTCT TTG	CACCAGTTACTGTCACC AGCCACTAAGGA
7850	IL1R2	IL1RB	interleukin 1 receptor, type II	NM_004633	CGCACCACAGTCAAGGA AGC	CGTCTGTGCATCCATATT CCC	GCCCCACTTTCCTGGC CTCTTTGGTT
3558	IL2		interleukin 2	NM_000586	CCCAGGGACTTAATCAG CAATATC	CAATGGTTGCTGTCTCAT CTGC	GGGATCTGAAACAACAT TCATGTGTGA
3562	IL3		interleukin 3 (colony-stimulating factor, multiple)	NM_000588	ACCCACGCGACATCCAA TC	AGTCGTCTGTTGAGCCT GCG	CGGTGACTGGAATGAAT TCCGGAGGAA
3565	IL4		interleukin 4	NM_000589	GTTCCACAGGCACAAGC AGC	ACAGGAATTCAAGCCCG CC	CTGAAACGGCTCGACAG GAACCTCTGG
3569	IL6	BSF2, IFNB2	interleukin 6 (interferon, beta 2)	NM_000600	AGCTGCAGGCACAGAAC CAG	ATTTGCCGAAGAGCCCT CAG	TCTGCGCAGCTTTAAGG AGTTCCTGCA
3572	IL6ST	CD130, GP130	interleukin 6 signal transducer (gp130, oncostatin M receptor)	NM_002184	CCTGTGGATCTGGGCAA ATG	ATGCCTTCATCAGTCGC AGC	TTCTGCAGCAGATGCTTT TGGTCCAGG
3576	IL8	LECT, LUCT, MDNCF, SCYB8, TSG-1	interleukin 8	NM_000584	GACCACACTGCGCCAAC AC	CACAACCCTCTGCACCC AG	TGGAAGAGAGCTCTGTC TGGACCCCAA
3611	ILK	P59	integrin-linked kinase	NM_004517	TGGAATGAAGGTGGCAT TGG	GGTCGCTTTGCAGGGTC TTC	CGGCCTACCATCCCACC AGGTATTTCC
55522	ILK-2		integrin-linked kinase-2	AJ277481	AGAGGTGCCCTTTGCTG ACC	CCTGGTGAATTGTAGG CCG	GGAATGAAGGTGGCACT GGAAGGCCTT
3643	INSR		insulin receptor	NM_000208	ACTGTCAGAGGGAGGAG GCG	TGCCTCCGTTTCATGTGT GTG	CAAGCGGAGCTACGAGG AACACATCCC

3654	IRAK1	IRAK, pelle	interleukin-1 receptor-associated kinase 1	NM_001569	GCATCATCGTCGTCAGAGCC	TCGTACAGGGCCAGCTTCTG	CGCAGATTATCATCAACCTGCCCCGAC
3656	IRAK2	IRAK-2	interleukin-1 receptor-associated kinase 2	NM_001570	TGCCTCCTCCTCCATGAGTG	AGGCTCCAGGCCAACACAG	GGGAAGGGAGGCTGACTCCTCCTCTGA
11213	IRAK3	IRAK-M	interleukin-1 receptor-associated kinase M	NM_007199	TTGCAACATGCCAGTTCCTC	GCTCTCCACTGGCCTGCTC	TCTTCAGAAGCTCCAGGCGATTCTTGCA
3667	IRS1	HIRS-1	insulin receptor substrate 1	NM_005544	TGAGAGCAGCTCCACCCG	GGTCTCTGGCTGCTTCG	GTGAGGATTTAAGCGCCGATGCCAGCA
8660	IRS2		insulin receptor substrate 2	NM_003749	GGCTTGGTCGGTTGTCCG	CGTCGATGGCGATGTACTG	GCAGAGAGACCTCTGCCGTTTCCAGA
9636	ISG15	G1P2, IFI15, UCRP	interferon-stimulated protein, 15 kDa	NM_005101	CTGAAGCAGCAAGTGAGCGG	GGGCTTGAGGCCGCTACTCC	GCAGGACGACCTGTTCTGGCTGACCTT
3681	ITGAD	CD11d	integrin, alpha D	U37028	TCATCATGGGCAGCTCTGTG	GGCGTTTGAAGAAGCCAGC	GGCGCTCATCACAGCCACTGTACAA
3683	ITGAL	CD11A, CD11a, LFA-1, LFA1A	integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide)	NM_002209	GGCAGAGGTGTCCCGAATG	TCAGTCCTTGCCACCACAC	AAGACTCTGAGCAGCTGCGATCTGGGC
3684	ITGAM	CR3A, CD11B, CD11b, MAC-1, MAC1A	integrin, alpha M (complement component receptor 3, alpha; also known as CD11b (p170), macrophage antigen alpha polypeptide)	NM_000632	GTTTGTGAGGTCCCAGACGG	ACAGAGCTGCCACGATGAG	AGACCAAAGTGGAGCCGTTGAGGTCC
3687	ITGAX	CD11C, CD11c	integrin, alpha X (antigen CD11C (p150), alpha polypeptide)	NM_000887	TTGCTGCTGGCACTCATCAC	TCATTTCTCACTGGGCGGG	CAAATTGCCCCAGAAAA CGGGACACAG
3725	JUN		v-jun sarcoma virus 17 oncogene homolog (avian)	NM_002228	GAAGCTGGAGAGAATCGCCC	TGTTCCCTGAGCATGTTGGC	TGAAAGCTCAGAACTCGGAGCTGGCGT
3726	JUNB		jun B proto-oncogene	NM_002229	AGGTGGCCCAGCTCAAA CAG	AGAAGGCGTGTCCCTTGACC	AAGGTCATGACCCACGT CAGCAACGG
3727	JUND		jun D proto-oncogene	NM_005354	TCGCGCCTGGAAGAGAAAG	CGCTGTTGACGTGGCTGAG	AAGAGTCAGAACACGGAGCTGGCGTCC
3914	LAMB3	LAMNB1	laminin, beta 3 (nicein (125kD), kalinin (140kD), BM600 (125kD))	NM_000228	CGGACCTGACAGGACTGGAG	GCAGGTGGCATAGTAGAGC	GTGTGGAGCAGATCCGTGACCACATCA
3918	LAMC2	EBR2, BM600, EBR2A, LAMB2T, LAMNB2	laminin, gamma 2 (nicein (100kD), kalinin (105kD), BM600 (100kD), Herlitz junctional epidermolysis bullosa))	NM_005562, NM_018891	GAGCTGGAAAGGAAGGAGCTG	CCCAGCGTTCTTGGCTCTG	TGGTGATTACAGAAGCC CAGAAGGTTGA
3931	LCAT		lecithin-cholesterol acyltransferase	NM_000229	AGCTCTGTGGCCTGTGGC	TGTGCTCCAGGGTCAGGTTG	CCCTGCACGGGATACAGCATCTCAACA

3949	LDLR	FH, FHC	low density lipoprotein receptor (familial hypercholesterolemia)	NM_000527	CTCGTCTTCCTTTGCCTGGG	TGTAGCCGTCCTGGTTGTGG	TCAACAGCATCAACTTTGACAACCCCG
3952	LEP	OB, OBS	leptin (obesity homolog, mouse)	NM_000230	CCTCCGGGATCTTCTTCACG	CCCAGGCTGTCCAAGGCTCTC	TCTCTAAGAGCTGCCAC TTGCCCTGGG
3977	LIFR		leukemia inhibitory factor receptor	NM_002310	TCCATGCTCCATTAATTC CCG	TTGTAAAGGACCACCCTCTCC	TGATTCTCCTAAAGATG AAGACTCTCC
3990	LIPC	HL	lipase, hepatic	NM_000236	ATCATCCCATGGAGCACAGG	TCCTGGGTTGGGCGAAGTAG	GCCACTCAGGCCTCGTTCTGAAGACGA
3991	LIPE	HSL, LHS	lipase, hormone-sensitive	NM_005357	CAGCCGGTGACGCTGC	CTCTGCGGCCTGGCG	GCTTCCTGACCCTAGCG GCGCTGT
4018	LPA	LP	lipoprotein, Lp(a)	NM_005577	AGTGGAGGGCCTCTGGTTTG	GGCGTGCACAGCCAAGAC	ACATTTTACAAGGAGTCACTTCTTGGG
4023	LPL	LIPD	lipoprotein lipase	NM_000237	GCTGGTCAGACTGGTGGAGC	TCACAAATACCGCAGGTGCC	AGTCCCGGCTTCGCCATTCAGAAGATC
4035	LRP1	APR, LRP, A2MR	low density lipoprotein-related protein 1 (alpha-2-macroglobulin receptor)	NM_002332	TGATGTGGGAGGCCTACTGG	GTTCTCGCTTCTCGTCCGTG	CTGACTTTGCCCTGGACCCTGACAAGC
7804	LRP8	APOER2, HSZ75190	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor	NM_004631, NM_017522, NM_033300	GGCTCAATGGCCTGGAAATC	AGGCATCTGGAGCTCTTGGC	CCTGGCTGAGAACCTCAACAACCCACA
4099	MAG	GMA, S-MAG, SIGLEC-4A	myelin associated glycoprotein	NM_002361	GCCTGGGATCTGAGAGGAGG	CCGTCAGCGTGTAGCTGTCC	GCCCCAGAGCTGGACCTGAGCTATTC
9479	MAPK8IP1	IB1, JIP-1, PRKM8IP	mitogen-activated protein kinase 8 interacting protein 1	NM_005456	GTTTGCCTGCCACGTCTTTG	AGAAGTCTGGAATGCTCTCCC	CTGAAGACTCCACCAAA GCCCTGGCAG
23542	MAPK8IP2	IB2, JIP2, PRKM8IPL	mitogen-activated protein kinase 8 interacting protein 2	NM_012324, NM_016431	GCCTGCCACGTCTTTGTCTC	CAGGTAGATGTCCTCCGTGGG	GCCGCGCCTTCTGGAGTACTACCAAG
4143	MAT1A	MAT, SAMS, MATA1, SAMS1	methionine adenosyltransferase I, alpha	NM_000429	AGAGCTGCTGGATGTGGTGC	ATGGGAAGTCTGCTTCTTCCG	GGGCGTCATTGTCAGGG ATTTGGACTT
4144	MAT2A	MATA2, MATII, SAMS2	methionine adenosyltransferase II, alpha	NM_005911	GAATTTGATCTCCGCCCTG	ACCAAAGTGGCCATAGGCTG	TGTCAGGGATCTGGATCTGAAGAAGCCA
27430	MAT2B	TGR, MAT-II	methionine adenosyltransferase II, beta	NM_013283	TCCTAGGAGCACAACGTCCG	TCGAAATGGTGTTCGTTGGC	ACTGCTCCAAATTGGAGACCTTGGGCA
4146	MATN1	CMP, CRTM	matrilin 1, cartilage matrix protein	NM_002379	TCTGTGTGGAGGAAGACCCG	TCCAGTTTCTGGTCAGGGC	CGAGTCCCTGGTGAAT TCCAAGCCAA
8720	MBTPS1	S1P, SKI-1, KIAA0091	membrane-bound transcription factor protease, site 1	NM_003791	GATCATGCCTGGCCGCTAC	CAAAGAAGGCCAGGACCACC	AGGAGGTGGGCCAGACCATTCTGTCT
51360	MBTPS2	S2P	membrane-bound transcription factor protease, site 2	NM_015884	TGGATGCCACCCTTACCTCAG	AGTCCCAGGGTACATTGGC	AGGGTTTTTCATCTTGCTGGGTGGCAG

4193	MDM2	hdm2	Mdm2, transformed 3T3 cell double minute 2, p53 binding protein (mouse)	NM_002392, NM_006878, NM_006879, NM_006880, NM_006881, NM_006882	TGCCTCAATTCACATAGATTTCTTCTC	GGAGTTGGTGTAAGGATGAGCTAC	TGACCTACTTTGGTAGTGAATAGTGA
4199	ME1	HUMNDME	malic enzyme 1, NADP(+)-dependent, cytosolic	NM_002395	AGAAGCATTTGTCCGCTCCC	CTGCACCTCTTCAGGCCAAG	TGATTATGACCAGATTCTACCTGATTG
4233	MET	HGFR	met proto-oncogene (hepatocyte growth factor receptor)	NM_000245	GGAGCACTATGTCCATGTGAACG	GTCTCCCAGAAGGAGGCTGG	ATGTGAACGTAAAATGTGTCGCTCCGT
4256	MGP		matrix Gla protein	NM_000900	TCCGAGAACGCTCTAAGCCTG	AACCATGGCGTAGCGTTCCG	TCCACGAGCTCAATAGGGAAGCCTGTGA
23417	MLYCD	MCD, hMCD	malonyl-CoA decarboxylase	NM_012213	TGGCATCTGTATGAGCCCAG	GTAAGGTTTGGGACGGGCAG	GGGTCTCCTCAGCACAGCCCCTCTACC
4312	MMP1	CLG	matrix metalloproteinase 1 (interstitial collagenase)	NM_002421	TCCTGGAATTGGCCACAAG	TTTCCTGCAGTTGAACCAAGC	TGATGCAGTTTTTCATGAAAGATGGATT
4322	MMP13	CLG3	matrix metalloproteinase 13 (collagenase 3)	NM_002427	GAAGAAGACTTCCCAGGAATTGG	GGCATGACGCGAACAATACG	CGGACCCATACAGTTTGAATACAGCATCTGG
4313	MMP2	CLG4, CLG4A, TBE-1	matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase)	NM_004530	AAGCTCATCGCAGATGCTG	AGAAGTAGCTGTGACCGCCG	GATAACCTGGATGCCGTGCGTGGACCTG
4314	MMP3	SL-1, STMY, STR1, STMY1	matrix metalloproteinase 3 (stromelysin 1, progelatinase)	NM_002422	TTCCATGGAGCCAGGCTTTC	TGCATTTGGGTCAAACCTCAAC	TCCAGGGATTGACTCAAGATTGATGCTG
4318	MMP9	GELB, CLG4B	matrix metalloproteinase 9 (gelatinase B, 92kD gelatinase, 92kD type IV collagenase)	NM_004994	CGAGGTGGACCGGATGTC	GCGGTCTGGCAGAAATAGG	CGCACGACGTCTTCCAGTACCGAGAGA
4350	MPG	MDG	N-methylpurine-DNA glycosylase	NM_002434	AGCTGTATGGCTGGAGCGTG	GTCGACCACACTGACCCAGG	GAAACCCCTCCGCTTCTATGTCCGGG
4481	MSR1		macrophage scavenger receptor 1	NM_002445	GAACAAGTGCATTTGGAACAGG	TGAGAATGTTCCCAATCTTTCAGTC	GGAGAAGTGAAAGTACTGAATAACATCA
4487	MSX1	HOX7, HYD1	msh homeo box homolog 1 (Drosophila)	NM_002448	CTCGCTCTACGGTGCCTCTG	TGGTACATGCTGTAGCCCAC	CCCGTGGGACTCTACACGGCCAT
4524	MTHFR		5,10-methylenetetrahydrofolate reductase (NADPH)	NM_005957	TCCCACTGGACAACCTGCTC	CCGTTTCTCTCGCATTCTGG	TGGCAGGTGGTGGGAAGACACATTGGAG
4547	MTP		microsomal triglyceride transfer protein (large polypeptide, 88kD)	NM_000253	AAAGGCTGTCCACAGGCAGAG	GAGTTCTCTTGATGGAGCGGG	GAAAAGAAAGCGTATTAGCAGGATGTGA

4599	MX1	MX, MXA, IFI78, IFI-78K	myxovirus (influenza virus) resistance 1, interferon-inducible protein p78 (mouse)	NM_002462	CTCCAGACGTACGGCCAGC	CCTTCAGGAACCTCCGCTTG	CACCTACAGCTGGCTCC TGAAGGAGCG
4609	MYC		v-myc myelocytomatosis viral oncogene homolog (avian)	NM_002467	CATCCTGTCCGTCCAAGCAG	CGCACAAGAGTTCCGTA GCTG	TGAAGAGGACTTGTGCG GAAACGACG
4617	MYF5		myogenic factor 5	NM_005593	GGACCGGATCACCTCCTCAG	GAATCGGTGCTGGCAAC TG	CAACCTGGGTTGCCTCT CCAGGATCTG
4618	MYF6	MRF4	myogenic factor 6 (herculin)	NM_002469	TCAGCCTCGAGTAGCCTTCG	TCTCCACCACTTCCCTCCACG	ATTTCTCGGAGGAACG CAAACCCCC
4654	MYOD1	PUM, MYF3, MYOD	myogenic factor 3	NM_002478	ACGTGCCTTCTGAGTCGCC	CACCTGGTATATCGGGT TGGG	AGGGAGAGAGCAGCGG CGACCC
4656	MYOG	MYF4	myogenin (myogenic factor 4)	NM_002479	GATGCCCAACCTGCACTC	TTGGGCATGGTTTCATCT GG	CTCCATCGTGGACAGCA TCACAGTGGAA
4684	NCAM1	CD56, NCAM	neural cell adhesion molecule 1	NM_000615	GGGAAACACACAGAGCCCAAC	TGTCTGTGTGGCGTCAT TGG	GTGCCAGGAGACAGAAA CGAAGCCAGC
4790	NFKB1	KBF1	nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (p105)	NM_003998	CTCTCTCGCCTGCCTCCAC	TTGCGGAAGGATGTCTC CAC	GCTCCGAGACAGTGACA GTGTCTGCGA
4791	NFKB2	LYT10, LYT-10	nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)	NM_002502	AGGGAGTGAGGCTGCTGAGG	CTGCCTCCTGCTCCACT GAC	AGCTGCCCAGCACAGAG GTGAAGGAAG
4792	NFKBIA	IKBA, MAD-3, NFKBI	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha	NM_020529	CAAGCACCCGGATACAGCAG	GGGCAGCTCGTCCTCTG TG	TGCTGCCAGAGAGTGAG GATGAGGAGA
4793	NFKBIB	IKBB, TRIP9	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, beta	NM_002503	CTTCATTTGGCAGTGGA GGC	CACCGTACATGCGGGCA G	ATGTGCTGGAGCTTCTC CTGAGGGCAG
4794	NFKBIE	IKBE	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, epsilon	NM_004556	ATGTGGAGGATGAGACGCC	CACAGCAGCAGTTTCCC TGAG	TCCCTTGTCTTTTGCCC TTTGATGACC
4842	NOS1	NOS	nitric oxide synthase 1 (neuronal)	NM_000620	GAAGCTCTCGGCAGAGGACG	CTTCGTACGTTTCGCAGG GTG	GCGTATTCATCAGCCGG ATGAGGGATG
4843	NOS2A	NOS2	nitric oxide synthase 2A (inducible, hepatocytes)	NM_000625	TGGCTGCCAAGCTGAAATG	ACCCTGTCTTCTTCGC CTC	GCTCAAGAGCCAGAAGC GCTATCACGA
4844	NOS2B		nitric oxide synthase 2B	U18332	CAGCGGCTTCCGGCTC	ACTGAGGAAGGGAGCGA TGC	GACCCCTCCATCCTCG TGTCCTCATC
4845	NOS2C		nitric oxide synthase 2C	U18334	ATCCTCGCATCCTTGTCAGG	CTTCCGCTGGGAGTCAT GG	CTCCCTTCCACAGTTTCT GGCAGCAGC
4846	NOS3	eNOS, ECNOS	nitric oxide synthase 3 (endothelial cell)	NM_000603	GGATCAGCAACGCTACCACG	CCGCAACTGACGCTCCT G	CGCATACGCACCCAGAG CTTTTCTTG
4858	NOVA2	ANOVA, NOVA3	neuro-oncological ventral antigen 2	NM_002516	AGTACCAGGAGCTGACGGC	CGTAGGTGACCCGCTGA CTG	GATCTCCAAGAAGGGCG AGTTCCTGCC

4864	NPC1	NPC	Niemann-Pick disease, type C1	NM_000271	TTGGCCATGGTCTTACT GGG	GTTTCGCGCTCTGTTCCCTT TG	GCCAAAAGTTGTGCCAC TGAAGAGCGA
7376	NR1H2	NER, UNR, LXR-B, NER-I, RIP15	nuclear receptor subfamily 1, group H, member 2	NM_007121	CCTACACGCGCATCAAG AGG	AGAGGCGGCAGCTTCTT GTC	TGAGCTCTGTGCACTCG GAGCAGGTCT
10062	NR1H3	LXRA, LXR-A, RLD-1	nuclear receptor subfamily 1, group H, member 3	NM_005693	GACCGACTGATGTTCCC ACG	TTTGTCTGCAGACGCA GTG	AATGAAACTGGTGAGCC TCCGGACCCT
2908	NR3C1	GR, GCR, GRL	nuclear receptor subfamily 3, group C, member 1	NM_000176	TGGATTCTATGCATGAA GTGGTTG	TGATTTTCAAGCTAACATCT CGGG	TGCTTCCAAACATTTTTG GATAAGACCA
3164	NR4A1	HMR, N10, TR3, NP10, GFRP1, NAK-1, NGFIB, NUR77	nuclear receptor subfamily 4, group A, member 1	NM_002135	AGCTGTGGCGGGCGAG	TGTC AATGATGGGTGGA GGG	TCTACCTCAAGCTGGAG GACTTGGTGCC
4929	NR4A2	NOT, RNR1, HZF-3, NURR1, TINOR, TINUR	nuclear receptor subfamily 4, group A, member 2	NM_006186	CCCAGAACTTCGTACCC TTTGC	TCAATTATTGCTGGCGG TGG	CAGGGGCTACAGCGCAT TTTCTACCTGA
8013	NR4A3	CHN, CSMF, NOR1, MINOR	nuclear receptor subfamily 4, group A, member 3	NM_006981	GGAACCCAACGAGTCCA AGG	GTAGAAGATGCGCTGGA GGC	TCCTGGTTGCCCTGGTA GAACTGAGGA
4914	NTRK1	MTC, TRK, TRKA	neurotrophic tyrosine kinase, receptor, type 1	NM_002529	TCTCCAACACGGAGGCA ATC	CGCATGATGGCGTAGAC CTC	ACTGCATCACGCAGGGA CGTGAGTTG
4915	NTRK2	TRKB	neurotrophic tyrosine kinase, receptor, type 2	NM_006180	TATCACTCAGGGCCGAG TCC	GGCCAAGTTCTGAAGGA GGG	GTGTATGAGCTGATGCT GGGGTGCTGG
4916	NTRK3	TRKC	neurotrophic tyrosine kinase, receptor, type 3	NM_002530	TGAGTGCATTACCCAAG GTCCG	GATGTTCAACCGCTGCT GTG	GAGGTGTACGATGTCAT GCTGGGGTGC
4938	OAS1	OIAS, IFI-4, OIASI	2',5'-oligoadenylate synthetase 1 (40-46 kD)	NM_002534, NM_016816	GAAGGCAGCTCACGAAA CCC	GGTAATTCAGCCAGGCC TCAG	CAGGAAACTTGGGTGGT GGAGACCCAA
4939	OAS2	P69	2'-5'-oligoadenylate synthetase 2 (69-71 kD)	NM_002535, NM_016817	GATCTTGGACCCAGGCG AAC	TTGGGTTTCCAGTCCCA TCC	CCGTTGGTGTGGCATC TTCTGGACAA
8638	OASL	TRIP14	2'-5'-oligoadenylate synthetase-like	NM_003733	CCAACAGCTTCATCCTG GGTC	CTGCAGGACTTGGCCTT GG	CCAGCAGGGGCTTCCTA AAAAGCAGCA
5081	PAX7	HUP1	paired box gene 7	NM_002584, NM_013945	CAGAGTGAGTGCCTGGT GCC	CACCCTGACACCACCTT GTAGC	CCCAGGGCCTCCTGCTT GTTTATGGAG
5091	PC	PCB	pyruvate carboxylase	NM_000920, NM_022172	ACATCAAAGTGGTGGCA GGG	TTGGTCACATGAACCTT GCG	CCCTGTGTGTGCTCAGT GCCATGAAGA
5105	PCK1		phosphoenolpyruvate carboxykinase 1 (soluble)	NM_002591	CAAGGAGGATGCCCTGA ACC	CGGCATTGACTTGATCC ACC	GAAAGGCCTGGGGCACA TCAACATGAT
5106	PCK2	PEPCK	phosphoenolpyruvate carboxykinase 2 (mitochondrial)	NM_004563	AGGAGCCTTGATCTCA GCG	TCCGAATGTCACGAACC TCC	CTCCCTCCCCAAGGACT TCTGGGAACA
5111	PCNA		proliferating cell nuclear antigen	NM_002592	CGGTGACACTCAGTATG TCTGC	CATCCTCGATCTTGGA GCC	CCCCTTGTTGTAGAGTAT AAAATTGCGGA
5139	PDE3A	CGI-PDE	phosphodiesterase 3A, cGMP inhibited	NM_000921	TCAATCCCTGGACCAGA CCC	TGGGTTGGTATCTCCTC GCC	CAGTCGCACTCTTCAGA ACAGATCCAGGC
5140	PDE3B		phosphodiesterase 3B, cGMP inhibited	NM_000922	CAGCTAATGCACCACCT CACTG	CCTGCAGTTTATTCCCAT CAGC	CCACAAGATATGGAAGG AAATCGTAGAGGA

5141	PDE4A	DPDE2	phosphodiesterase 4A, cAMP-specific (phosphodiesterase E2 dunce homolog, Drosophila)	NM_006202	TGCTTGGAGGACCCTGTCTG	AGCCTGGTGCTCTCGTTGG	TTTCAGAGCATGCCCGG GGCCT
5142	PDE4B	DPDE4, PDEIVB	phosphodiesterase 4B, cAMP-specific (phosphodiesterase E4 dunce homolog, Drosophila)	NM_002600	GCCAGGGTCTGATGGAG AAG	CAAAGCGTCTTTGTGCT GCTG	CCTGAGAAGGAGGGAGA GGGACACAGC
5143	PDE4C	DPDE1	phosphodiesterase 4C, cAMP-specific (phosphodiesterase E1 dunce homolog, Drosophila)	NM_000923	ACGGGCCTGACAGATTC CAG	GGGACAGGAGTTCAGTG TCAGG	CAGCTTTAGCCAAAGAG GCCTTGGAGTTG
5144	PDE4D	DPDE3	phosphodiesterase 4D, cAMP-specific (phosphodiesterase E3 dunce homolog, Drosophila)	NM_006203	CAGTGGCAGTCAAGTGG AAGAAG	CACAGGCTTCAGGCTGG C	AGCTGCAGTGACTION GACTCTTTGT
8654	PDE5A	CN5A, PDE5, PDE5A1, CGB-PDE	phosphodiesterase 5A, cGMP-specific	NM_001083, NM_033430, NM_033431, NM_033437	TGTATGAGGCCCTGACC CAC	CAAGGGCCTGCCATTT TG	GGACTGTTTCCCTTTGCT AGATGGCTGCA
5150	PDE7A	HCP1	phosphodiesterase 7A	L12052	ACAATGCTTGGACACGT GGG	TGCAGCATCAGTGTCT CAC	GCCAGCTGGAAGGGACT GCAGAGAGAA
27115	PDE7B		phosphodiesterase 7B	NM_018945	GCCCATTTACGGGTAA CAG	AACAGGCTCTTCCACTG GGC	GTCGGAGAACATGCTGG GCCACCTC
5160	PDHA1	PDHA, PHE1A	pyruvate dehydrogenase (lipoamide) alpha 1	NM_000284	GGAGATTGAGGATGCTG CCC	ATCCACTGATTGGCACC ACG	TGAGCCACCTTTGGAAG AGCTGGGCTA
5166	PDK4		pyruvate dehydrogenase kinase, isoenzyme 4	NM_002612	AGTCAGCCTTCAAACATT ATCAGATGAG	TGCCAGGTTCTTTGGTTC CC	TGAGGCTGATGACTGGT GTATCCAAGCA
8682	PEA15	PED, MAT1, HMAT1, MAT1H, PEA-15, HUMMAT1H	phosphoprotein enriched in astrocytes 15	NM_003768	ATCTTTGAGATCTCCCG CCG	TGGTGTCCAGCTCATCC TCC	TGGTGGTTGACTACAGA ACCCGTGTGC
5196	PF4	SCYB4	platelet factor 4	NM_002619	ACCTGCAGTGCCTGTGT GTG	CAGCGTGGCTATCAGTT GGG	GCACATCACCAGCCTGG AGGTGATCAA
5211	PFKL		phosphofructokinase, liver	NM_002626	AGATGCTGGCACAATAC CGC	CCTTGTCCATGCTCAGG GTG	ATCAGTATGGCCGCCTA CGTGTCAGGG
5213	PFKM		phosphofructokinase, muscle	NM_000289	CCAAGGAACAGTGGTGG CTG	GGTGGGCATGGTCTGAA GTG	TGAGGCCCATCCTCAA ATCCTAGCCA
5295	PIK3R1	GRB1	phosphoinositide-3-kinase, regulatory subunit, polypeptide 1 (p85 alpha)	M61906	CAGAGTACTTGCTGTTA GCCCAAGG	GCAGCTTTGAAGCTTAT CAGGC	TTTTTGGACTGTTTTGTT GGCAGT

5313	PKLR	PK1	pyruvate kinase, liver and RBC	NM_000298	ACCGTGAACCTCCAGAA GCC	GCCAGCCTGTCACCACA ATC	ATCTGGGCAGATGATGT AGATCGCCGG
5315	PKM2	PK3, OIP3, THBP1	pyruvate kinase, muscle	NM_002654	GTGGCATCTTCCCTGTG CTG	TTCATGGCAAAGTTCAC CCG	AGTCCAGGAGGCCTGG GCTGAGGAC
30814	PLA2G2E		phospholipase A2, group IIE	NM_014589	GGCTGACCTGCGAGTGT GAC	AATGGGCATATTTGCGG TTG	CTCTGCTTTTCGCCGCAA CCTGGG
5321	PLA2G4A	PLA2G4, CPLA2-ALPHA	phospholipase A2, group IVA (cytosolic, calcium-dependent)	M68874	TCCATCTCGTTGCTCTGT TTCC	GCTTTGGGTTTACTTAGA AACTCCTTG	TAATGTTGAGGCAAGAA GATTTTTCAA
8681	PLA2G4B	CPLA2-BETA	phospholipase A2, group IVB (cytosolic)	NM_005090	CACGAAGGTGACCTACA GCCAG	GCTGCTCCTGTTGTTG CAG	TGGACAAGCTGCTGCAC CTGACACATT
8605	PLA2G4C	CPLA2-GAMMA	phospholipase A2, group IVC (cytosolic, calcium-independent)	NM_003706	TGTGGTGGTGCTACTCT TGCC	CTTCGGGCACTATCCTT CGG	TTAGAGAGTTGATGAAC GTGGCCGGGC
8398	PLA2G6	IPLA2	phospholipase A2, group VI (cytosolic, calcium-independent)	NM_003560	ACACAGTGCTGGTCAAC GCC	GCAGCAGGTGGATGAGC TTC	CATCTATGAGCACCGCG AGGAGTTCCA
5327	PLAT	TPA, T-PA	plasminogen activator, tissue	NM_000930, NM_000931, NM_033011	CTTTGGTGGGCATCATC AGC	TCACGGTCCGATGTTGT CAC	AGGATGTCCCGGGTGTG TACACCAAGG
5328	PLAU	URK	plasminogen activator, urokinase	NM_002658	CAAGGCCGCATGACTTT GAC	CTTCCTTGGTGTGACTG CGG	TGAAGGACAAGCCAGGC GTCTACACGA
5340	PLG		plasminogen	NM_000301	TTGCCAGGGTGACAGTG GAG	CGTGACAGCCAAGACC C	TCCTCTGGTTTGCTTCGA GAAGGACAA
5350	PLN	PLB	phospholamban	NM_002667	GCCTCAACCATTGAAAT GCC	CGATGATACAGATCAGC AAGAGAC	TCAACAAGCACGTCAAA AGCTACAGAA
5360	PLTP		phospholipid transfer protein	NM_006227	GAGGTGGTGACGAACCA TGC	CTCAATCACCTCTCGCA GCC	CTCACCATCGGGGCTGA TCTCCACTTT
5371	PML	MYL, TRIM19	promyelocytic leukemia	NM_002675, NM_033238, NM_033239, NM_033240, NM_033242, NM_033244, NM_033245, NM_033246, NM_033247, NM_033249, NM_033250	TGGCTTCGACGAGTTCA AGG	TAGGGTCCCTGGGAGTG CTG	GCAGCTGTATCCAAGAA AGCCAGCCCA
5468	PPARG	HUMPPARG, NR1C3, PPARG1, PPARG2	peroxisome proliferative activated receptor, gamma	NM_005037, NM_015869	GCTGAAGCTGAACCACC CTG	GCAGGAGCGGGTGAAG ACTC	TCCTCACAGCTGTTTGC CAAGCTGCTC
10891	PPARGC1	PGC1	peroxisome proliferative activated receptor, gamma, coactivator 1	NM_013261	TTGACCCTGCTTCCACC AAG	CTGCGCAAGCTTCTCTG AGC	AGCAAGTATGACTCTCT GGATTTTGTAT

5501	PPP1CC		protein phosphatase 1, catalytic subunit, gamma isoform	NM_002710	TGCAGGTGCCATGATGATG	TGGAGGCGTTACAGGTC TCG	GCCTGCAGAGAAAAAGA AGCCAAATGCC
23645	PPP1R15A	GADD34	protein phosphatase 1, regulatory (inhibitor) subunit 15A	NM_014330	GGAGCAGCTTGCTCGGG	TTCTGAGGCGTGCCC	AGGAGGAGCTGAGCCC CTGCCTCAC
5530	PPP3CA	CALN, CCN1, CNA1, CALNA, PPP2B	protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform (calcineurin A alpha)	NM_000944	GCTTCGAGGAAGCCAAG GG	TAAGGTTGGCGTCAGAG GGC	TTAATGAGAGGATGCCG CCTCGCAGAG
5532	PPP3CB	CALNB	protein phosphatase 3 (formerly 2B), catalytic subunit, beta isoform (calcineurin A beta)	NM_021132	GAATGCCACCTCGGAAA GATG	CACTGGGCAGTATGGTT GCC	TCAATTCTCTGAACACCG CACATGCCA
5553	PRG2	MBP, BMPG	proteoglycan 2, bone marrow (natural killer cell activator, eosinophil granule major basic protein)	NM_002728	TGGATTGGAGGCAGGAT CAC	CTGGTGAGCAGCCCAGT ACG	GTCGCTGCAGACGCTTT CAGTGGGTT
5563	PRKAA2	AMPK, PRKAA	protein kinase, AMP-activated, alpha 2 catalytic subunit	NM_006252	GTTCTGTTCTGCTGCT GGC	TGTGCTTCCGGTCAAAG AGC	TGCAGAGAGCCATTCAC TTTCTGGCTC
5564	PRKAB1		protein kinase, AMP-activated, beta 1 non-catalytic subunit	NM_006253	TGCTTCCTGAGCCCAAT CAC	TTCTTGACCGGTGGGT TGC	TCATGCTGAACCACCTAT ACGCGCTGTC
5566	PRKACA		protein kinase, cAMP-dependent, catalytic, alpha	NM_002730	TGGTTTGCCACA ACTGA CTGG	TGGAGACCCGGATTCT TCTTC	ACCAGAGGAAGGTGGAA GCTCCCTTCA
5567	PRKACB		protein kinase, cAMP-dependent, catalytic, beta	NM_002731	GCCACGACAGATTGGAT TGC	CAAAGTTGCTGGTATCT CCAGAGC	ACCAGAGGAAGGTTGAA GCTCCATTCA
5568	PRKACG	KAPG	protein kinase, cAMP-dependent, catalytic, gamma	NM_002732	GTGGAAGCTCCCTTCAT CCC	CCGGAGCTCTCCTCCT CG	GGCCCTGGGGATGCCA GTAACCTTGAC
5571	PRKAG1		protein kinase, AMP-activated, gamma 1 non-catalytic subunit	NM_002733	GTGGAAGCAGAGGTTCA CCG	TTCTCTCCACCTGTGAG CACC	ATCACTGTCTGACATCCT GCAGGCCCT
5573	PRKAR1A	CAR, CNC1, TSE1, PRKAR1	protein kinase, cAMP-dependent, regulatory, type I, alpha (tissue specific extinguisher 1)	NM_002734	ATGAATCGTCCTCGTGC TGC	TCTGAGCATGGCCAAG AAC	AGTTGTTGCTCGTGCC CCTTGAAGTG
5578	PRKCA	PKCA	protein kinase C, alpha	NM_002737	GGGAGATCCAGCCACCA TTC	TAAGACGGGCTGTCCTC GTG	AGCCCAAAGTGTGTGGC AAAGGAGCAG
5579	PRKCB1	PKCB, PRKCB, PRKCB2	protein kinase C, beta 1	NM_002738	GAACGCAAAGAGATCCA GCC	TCCACAGGCTGTCTGGT GAAC	CAAGAGAGACACCTCCA ACTTCGACAA
5581	PRKCE	PKCE	protein kinase C, epsilon	NM_005400	AAGCCACCTTCAAACC ACG	GTGAGTACCGCTCTTC CCG	CCAAAAGAGACGTCAAT AATTTTGACCA

5582	PRKCG	PKCC, PKCG	protein kinase C, gamma	NM_002739	GCGGCGAGAACTTTGAC AAG	AGGTGAAGCCCTGGAAA TCG	CTGACCCCTCCAGACCG CCTAGTCCTG
5592	PRKG1	PGK, PRKG1B, PRKGR1B	protein kinase, cGMP- dependent, type I	NM_006258	AAGCACAAATGGTTTGA GGGC	GGTTCATCGTTGTCCTC AGGG	CCAAGTGTTCATCACC CACAGACACA
5610	PRKR	PKR, EIF2AK1	protein kinase, interferon- inducible double stranded RNA dependent	NM_002759	TTTCACAGACCTACGGG ATG	GGTCGATCCTCAGGTTT CTTTG	GCATCATCTCAGATATAT TTGATAAAAA
11168	PSIP2	P75, LEDGF	PC4 and SFRS1 interacting protein 2	NM_033222	CAGGGTCAAAGACTCTA AATGGAGG	TGGCTTCATGGTTGTCTT TGC	TCAGCCACAACATAACG GGGAGAGCAA
5728	PTEN	BZS, MHAM, TEP1, MMAC1	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	NM_000314	AGAGGAGCCGTCAAATC CAG	TCATTCTCTGGATCAGA GTCAGTGG	GGCTAGCAGTTCAAATT CTGTAACACCA
5742	PTGS1	COX1, PHS, PTGHS, PGG/HS, PGHS-1	prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)	NM_000962	CGGAGTACTGGAAGCCG AGC	CAGGCCCATCATCCTGA CTG	GGCCACACTGAAGAAGC TGGTCTGCCT
5743	PTGS2	COX2, COX-2, PHS- 2, PGG/HS, PGHS- 2, hCox-2	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	NM_000963	CATCTGCAATAACGTGA AGGGC	ATCATCTAGTCCGGAGC GGG	TCATTCAAGTGTCCAGAT CCAGAGCTCA
5747	PTK2	FAK, FADK, pp125FAK	PTK2 protein tyrosine kinase 2	NM_005607	CATGACCAGCCTCCAGC AAG	CAGTGTGGTCTCGTCTG CCC	CAAAAAGCAAATGCTGA CTGCCGCTCA
2185	PTK2B	PKB, PTK, CAKB, FAK2, PYK2, CADTK, RAFTK, CAK	protein tyrosine kinase 2 beta	NM_004103	GTCATCAACAAGATGC GGC	AGAACCTTGGCCTGGTC CAC	CGTGACCTCCCTGAGTG AGGAGTGCAA
5770	PTPN1	PTP1B, PTP-1B	protein tyrosine phosphatase, non-receptor type 1	NM_002827	AAGTCTTCGAGGTGCC AGG	TCAGTGCATGGTCCTCG TCC	CTGCCTCCCCAGCCAAA GGGGAG
5788	PTPRC	LCA, LY5, CD45, T200, GP180	protein tyrosine phosphatase, receptor type, C	NM_002838	TGTGTTAATCCACTTGGT GCCC	AGTGCCACTCGTGGGTT CAG	GCTCCCTGAAGCAAAGG AACAGGCTGA
5834	PYGB		phosphorylase, glycogen; brain	NM_002862	GACCAGCTGTACCGGAA CCC	GCATACTCCGTGATGGT CCG	AAGGTCATCAGGAACAT CGCCTGCTCG
5836	PYGL		phosphorylase, glycogen; liver (Hers disease, glycogen storage disease type VI)	NM_002863	AAAGGCCTGGAACACAA TGG	TGAAGGTTCCACGTTCC AGATG	CGGGGAAATTCTCCAGT GACCGAACAA
5837	PYGM		phosphorylase, glycogen; muscle (McArdle syndrome, glycogen storage disease type V)	NM_005609	AAGAGAGTGGACGCGGA TGG	AGATCTCCCGGCATAC TGG	CAAGTTCTCCAGTGACC GCACCATTGC
5864	RAB3A		RAB3A, member RAS oncogene family	NM_002866	AGTTCTTTGAGGCAAGC GCC	CGACTCGGACATCTTCT CGC	ACCTTTGAGCGCCTGGT GGATGTCATC

10527	RANBP7		RAN binding protein 7	NM_006391	TCAGGCACTGACTCAGGTC	TTGGCACAACCTGGAGCACTG	TGGCTGATCAAAGAAGAGCAGCCCATG
5966	REL	I-Rel	v-rel reticuloendotheliosis viral oncogene homolog (avian)	NM_002908	TGAGTCGGGACCATCAACAG	TTTGCATACTGCCAATACCTG	TCCAAACAGTCATGGTTTGTTC AAGA
5970	RELA	NFKB3	v-rel reticuloendotheliosis viral oncogene homolog A, nuclear factor of kappa light polypeptide gene enhancer in B-cells 3, p65 (avian)	NM_021975	CTGAGCCCATGCTGATGGAG	AGTGGAGCAGGAGCTGGGTC	AACTCGCCTAGTGACAGCCCAGAGGCC
5971	RELB	I-REL	v-rel reticuloendotheliosis viral oncogene homolog B, nuclear factor of kappa light polypeptide gene enhancer in B-cells 3 (avian)	NM_006509	CCCTGAACCACTGACACTGGAC	ACATGTTGCTGCCCACAGG	GGGGATGGAGGCACCGCCAG
5972	REN		renin	NM_000537	GTGCACACTGGCCATCCAC	AAGCCAATGCGGTTGTTACG	GGGGGCCACCTTCATCCGAAAGTTCTA
56729	RETN	FIZZ3, RSTN	resistin; found in inflammatory zone 3	NM_020415	TAAGCAGCATTGGCCTGGAG	AGTGACATGTGGTCTCGGCG	ACCTGGCTACTTGCCCCCGAGGCTT
5996	RGS1	BL34, IER1, IR20	regulator of G-protein signalling 1	NM_002922	TCCGCACTCGAGAATCTACAGC	TTGAGGAACCTGGGATAAGAGTCC	AAGCACCAACCCCCACGTGTTTTGATG
5997	RGS2	GOS8	regulator of G-protein signalling 2, 24kD	NM_002923	TGGAGAACAACCTTTATCTCGTTTTC	GAGGCTCTGTGGTGATTGTGG	TGGAGTCAGAATTCTAC CAGGACTTGTG
5999	RGS4		regulator of G-protein signalling 4	NM_005613	ATTTGGTCAACCCGTCCAGC	AGGCACACTGAGGGACAGG	GGGGCAGAAAAGCAGAAAGGAGCCAAG
6041	RNASEL	HPC1, RNS4, PRCA1	ribonuclease L (2',5'-oligoadenylate synthetase-dependent)	NM_021133	AAATTGGAGACCCTTCCCTG	CCAGCTCCATCACACTGAGG	TTCCCCCAAACCCACAGTCCAAACAAA
6093	ROCK1	P160ROCK	Rho-associated, coiled-coil containing protein kinase 1	NM_005406	TGCTGCTGTTAGCATGTTCTC	CCGGAAGACTGATTTGCAGTG	GTTCTGCTTCCCCTCGAACGCTTCT
9475	ROCK2	KIAA0619	Rho-associated, coiled-coil containing protein kinase 2	NM_004850	GCAGAAGTGGGTTAGTCGGTTG	AGCTGTGCACTTGCCCGTC	GCTCCAGACCCTTTTGC CCGATCATCT
6195	RPS6KA1	RSK, HU-1, RSK1, MAPKAPK1A	ribosomal protein S6 kinase, 90kD, polypeptide 1	NM_002953	CTGCCACGTACTCCGCACTC	TGGTGGATGGCAACTTCTC	CCAGCTGAAGCCCATCGAGTCATCCAT
6196	RPS6KA2	RSK, HU-2, RSK3, MAPKAPK1C	ribosomal protein S6 kinase, 90kD, polypeptide 2	NM_021135	CAAACCAGCTCAGCCGACAG	GCCAGGTTGGATGACAGCAC	CGATGGCCGCCACCTACTTTGCTCTAA
6197	RPS6KA3	RSK, HU-2, HU-3, RSK2, MRX19, ISPK-1, MAPKAPK1B	ribosomal protein S6 kinase, 90kD, polypeptide 3	NM_004586	GGGACCAACTGCCACAACTACC	GCTGAGCAAGAGTAGAGCGGC	GGGTGCCATGGCAGCTACATATTCTGC
8986	RPS6KA4	MSK2, RSKB, RSK-B	ribosomal protein S6 kinase, 90kD, polypeptide 4	NM_003942	TGGCATTCAACCGGG	AGCTTCTGCTTCCGCCG	CAAGCGGGAGGGCTTCTTCCTGAAGAG

9252	RPS6KA5	MSK1, RLPK, MSPK1	ribosomal protein S6 kinase, 90kD, polypeptide 5	NM_004755	CAGTACCGAGACGCGCAGAG	GATTGCTGGGCTGCAGTGTC	TCCATTCTTCTTCCTCTCATTCTCACGG
27330	RPS6KA6	RSK4	ribosomal protein S6 kinase, 90kD, polypeptide 6	NM_014496	TTGCCAAATGATCAGCCAAAG	TGGGCTAAGCTTGAAGCAGC	GGAGCAATGGTTGCAACATACTCTGCCC
6236	RRAD	RAD1	Ras-related associated with diabetes	NM_004165	CAAAGAAGCCAACGCACGAC	GTTACGAGCTACGATGCGGC	CGAGAGAGCCTTGGCAA AAAGGCGAAG
57142	RTN4	ASY, NOGO, NSP-CL, KIAA0886	reticulon 4	NM_007008	ATGAACGGCATCAGGCCAG	TCAGCTTTGCGCTTCAATCC	TGCTATGGCTAAAATCCAGCAAAAATCCC
860	RUNX2	CCD, AML3, CCD1, OSF2, CBFA1, PEBP2A1, PEBP2A2, PEBP2aA, PEBP2aA1	runt-related transcription factor 2	NM_004348	ATGCACCACCACCTCGAATG	GGTCGCCAAACAGATTCATCC	GATGGTGTGACGCTGATGGAAGCCAC
6261	RYR1	CCO, MHS, RYR, MHS1	ryanodine receptor 1 (skeletal)	NM_000540	ACACGCTGGAGGAGCACAAC	ACCAGCTGGGAAGAAATCCC	GGATGAGACAGAACACACCGGGTCAGGA
6288	SAA1	SAA	serum amyloid A1	NM_000331	GAGATTCTTTGGCCATGTGC	AGCAGGTCGGAAGTGATGCG	CAATGAATGGGGCAGGAGTGGCAAAGA
22937	SCAP	KIAA0199	SREBP Chaperone	D83782	GGCCAGGGCTGTGTCTCC	AGTTGCAGACAATGGCAGCG	TACCTGGGGAAGAACAGTGAGGCCAG
8578	SCARF1	SREC, KIAA0149	acetyl LDL receptor; SREC=scavenger receptor expressed by endothelial cells	NM_003693	GGGCCTATGGCAGTCAGACC	GCCTTTCCTCTTCAGCCTGC	AAGGAGAGCCCAGGAGCCAGTCTCTGG
6319	SCD		stearoyl-CoA desaturase (delta-9-desaturase)	NM_005063	ACCGCTGGCACATCAACTTC	GGCGGCCTTGGAGACTTTC	ATTCTTCATTGATTGGATGGCCGCCCT
6361	SCYA17	TARC	small inducible cytokine subfamily A (Cys-Cys), member 17	NM_002987	ACTTCAAGGGAGCCATCCC	GTCCGAACAGATGGCCCTG	ACATCTGAGGACTGCTCAGGGATGCC
6347	SCYA2	MCP1	small inducible cytokine A2 (monocyte chemotactic protein 1)	NM_002982	CAAGACCATTGTGGCCAGG	TGGGTTTGCTTGTCCAGGTG	GCTGACCCCAAGCAGAA GTGGGTTCCAG
6367	SCYA22	MDC, STCP-1	small inducible cytokine subfamily A (Cys-Cys), member 22	NM_002990	TACGTCCGTTACCGTCTGCC	GGTTAGCAACACCACGTCAG	TACTGGACCTCAGACTCTGCCCCGAGG
6352	SCYA5	CCL5, RANTES, TCP228, D17S136E	small inducible cytokine A5 (RANTES)	NM_002985	ATTCCTCGGACACCACACCC	CACACTTGCGGTTCTTTCG	GCCCCGTGCCACATCAAGGAGTATTT
6355	SCYA8	MCP-2	small inducible cytokine subfamily A (Cys-Cys), member 8 (monocyte chemotactic protein 2)	NM_005623	CATCCAATGTCCCAAGGAAGC	CATGGAATCCCTGACCCATC	ATCTTCAAGACCCAACGGGCAAGGAG

3627	SCYB10	IFI10, INP10, IP-10	small inducible cytokine subfamily B (Cys-X-Cys), member 10	NM_001565	TTGTCCACGTGTTGAGATCATTG	TTGATGGCCTTCGATTCTGG	TGAAAAAGAAGGGTGAG AAGAGATGTCTGA
6376	SCYD1	NTN, NTT, CX3CL1, CX3CR1, C3XKINE, C3Xkine	small inducible cytokine subfamily D (Cys-X3-Cys), member 1 (fractalkine, neurotactin)	NM_002996	TTCTTGGCCTCCTCTTCG	CTCCTGCCATCTTTCGAGGG	GGCCATGTTACCTACC AGAGCCTCCA
6401	SELE	ELAM, ESEL, CD62E, ELAM1, LECAM2	selectin E (endothelial adhesion molecule 1)	NM_000450	GCTGGACTTTCTGCTGCTGG	TGATTCAAGGCTTTGGCAGC	TGGCTTCGGAAATGCTTACGGAAAGCA
5104	SERPINA5	PCI, PAI3, PROCI, PLANH3	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 5	NM_000624	CAAAGCTGTGGTGGAGGTGG	CCTCTGAGAGTTCAGGCGGG	CGGCAGCCACGGGGACAATATTCACTT
5054	SERPINE1	PAI, PAI1, PAI-1, PLANH1	serine (or cysteine) proteinase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1	NM_000602	TCGAGGTGAACGAGAGTGGC	CGGACCACAAAGAGGAAAGGG	CAGCTGTCATAGTCTCA GCCCGCATGG
5270	SERPINE2	GDN, PI7, PN1, PNI	serine (or cysteine) proteinase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2	A03911	AAGATCATCGCCTCCCTGG	CCCATGAATAACACAGCACCTG	CAGACCTTTTCTGTTTTT CATCCGACA
6446	SGK		serum/glucocorticoid regulated kinase	NM_005627	GAGTGGGCCCAACGAGCTAC	CTTCCTTGACGCTGGCTGTG	AGCCTGTCCCCAACTCC ATTGGCAAGT
6554	SLC10A1	NTCP, NTCP1	solute carrier family 10 (sodium/bile acid cotransporter family), member 1	NM_003049	AAGGGCTTCTCCTCATTGCC	TCCCAGAGCTCCTGGAAATG	TGATCTACACAGCTGCC ACAACTGAAGA
6555	SLC10A2	ASBT, ISBT, NTCP2	solute carrier family 10 (sodium/bile acid cotransporter family), member 2	NM_000452	CCTTCCCCTCATCTACAGC	CGATGACTCTGGCTCCGTTC	CCAGCTCGCCTTTGCCG CAATATTCTT
6506	SLC1A2	EAAT2, GLT-1	solute carrier family 1 (glial high affinity glutamate transporter), member 2	NM_004171	CATGAAGAACCACAGGGAAGC	TCCTCAACTGCAGTCGGC	TGCAAGGTAACCTCTGGCAGCCAATGGA
6507	SLC1A3	EAAT1, GLAST	solute carrier family 1 (glial high affinity glutamate transporter), member 3	NM_004172	TGGGATTGTGGAGCACTTGTC	TTGGTTTTCACTGTGATGG	TCAACTGATTGCACAGGACAATGAACTGA
28232	SLC21A11	OATP-D	solute carrier family 21 (organic anion transporter), member 11	NM_013272	GGGCTGAGCACCAGTAGTTC	TCCTATGTGTCTGGTTTGGC	TGACCCTAGACAACCTGGGAGGGACC

53919	SLC21A14	OATP-F	solute carrier family 21 (organic anion transporter), member 14	NM_017435	AAGAACAATGGTGTCTA CAAGATTCC	CCTTGCCTGGCCAGTAG TTG	CACTACAAGTGATCATCT GCTACAACC
6578	SLC21A2	PGT	solute carrier family 21 (prostaglandin transporter), member 2	NM_005630	GGTGGAACTCGCTGTGC TTG	CTTGTAGCCCATCTGCA GGC	GGCCTGCGCCTACTAT GACAACGATG
6579	SLC21A3	OATP, OATP-A	solute carrier family 21 (organic anion transporter), member 3	NM_005075, NM_021094	GAGACATCCATTGGAAC GGG	CAGGTCCTTTGTGCGCAC AGC	AAACATGGTGTTCAAAA TTGCAGCTG
10599	SLC21A6	LST-1, OATP2, OATP-C	solute carrier family 21 (organic anion transporter), member 6	NM_006446	TGGGCTTGTCTTCAATGT TAAGAGTC	TTTGCTTCATCCATGACA CTTCC	TCAAGAGAAAGATATCA ATGCATCAGA
11309	SLC21A9	OATPB, OATP-B, KIAA0880	solute carrier family 21 (organic anion transporter), member 9	NM_007256	CTCCGAAACCGGTTTCAT CG	TTGCCTCTTTGTCCTGCT GC	TGCTTCGCCTTAGTTTTG GCTGTCCTGA
9356	SLC22A6	OAT1, PAHT, ROAT1	solute carrier family 22 (organic anion transporter), member 6	NM_004790	CAGCGCTGTCACTGTCC TCC	CTGAGGCCTGCAGTGGG AC	AGAGACCCTGGGCCAGC CACTGC
10864	SLC22A7	NLT, OAT2	solute carrier family 22 (organic anion transporter), member 7	NM_006672	CGGCCTTGCTAGATGGA GTG	TCCACGTCTGGATGGT CTC	TGTCAGTGCCTAAGCTT ACTTATGGGGG
9376	SLC22A8	OAT3	solute carrier family 22 (organic anion transporter), member 8	NM_004254	GGTCAGTCACTGCCTCT GGC	CTGCTTTGGCTTCTTTGC CC	CTGGGCCAGGGCTTTT CCTTAGCTCT
788	SLC25A20	CAC, CACT	solute carrier family 25 (carnitine/acylcarnitine translocase), member 20	NM_000387	GCTGATCCGGGATGAAG GAG	TGGCAACTTCAAAGCCA AGG	ATGCAGTGATGATCCGA GCCTTCCCAG
6531	SLC6A3	DAT1	solute carrier family 6 (neurotransmitter transporter, dopamine), member 3	NM_001044	GGGTCATCGCCACATCC TC	TCTCTCGAAAGGACCCA GGC	TGGTGCCCATCTATGCG GCCTACAAGT
6616	SNAP25	SNAP, SNAP-25, FLJ23079, bA416N4.2, dJ1068F16.2	synaptosomal-associated protein, 25kD	NM_003081	TAGAGCAGGTGAGCGGC ATC	TCCTGTGATCTGGCGA TTC	ACATGGCCCTGGATATG GGCAATGAGA
6622	SNCA	PD1, NACP, PARK1	synuclein, alpha (non A4 component of amyloid precursor)	NM_000345, NM_007308	AAGGAGGGAGTTGTGGC TGC	TTGGAGCCTACATAGAG AACACCC	GGGTGTGGCAGAAGCA GCAGGAAAGAC
6646	SOAT1	ACAT, SOAT, STAT, ACACT, ACAT1	sterol O-acyltransferase (acyl-Coenzyme A: cholesterol acyltransferase) 1	NM_003101	AATGGTATGCACGTCGG CAC	CGTAACGACAAGTCCAG GAACG	CCCACATTTTTGGATTAT GTCCGGCCA
8435	SOAT2	ACAT2, ARGP2	sterol O-acyltransferase 2	NM_003578	TTCATGATGCATGACCA GCG	AGGCTGACCTGGATTCC CTG	ATGGAACGTGCTGATGT GGACCATGCT

6647	SOD1	ALS, ALS1	superoxide dismutase 1, soluble (amyotrophic lateral sclerosis 1 (adult))	NM_000454	AAGATGGTGTGGCCGATGTG	TTCATGGACCACCAGTGTGC	TCTCAGGAGACCATTGCATCATTGGCC
6648	SOD2	MNSOD	superoxide dismutase 2, mitochondrial	NM_000636	TTGCTGCTTGTCCAAATCAGG	CGTGCTCCCACACATCAATC	GGAACAACAGGCCTTAT TCCACTGCTGGG
6649	SOD3		superoxide dismutase 3, extracellular	NM_003102	AACCAGGCCAGCGTGGA G	TGCGCTCTGAGTGCTCC C	CTGCTGCGTGGTGGGCG TGTG
25928	SOSTDC1	CDA019, DKFZp564D206, ECTODIN, USAG1	sclerostin domain containing 1	AL050024	AATCCAGCTGCAGTGCC AAG	ACTGGACTCGTTGTGCT GCC	GGCAGCACACGCACCTA CAAAATCACA
6678	SPARC	ON	secreted protein, acidic, cysteine-rich (osteonectin)	NM_003118	ACGGGTACCTCTCCAC ACC	TTGTCCAGGTCACAGGT CTCG	ATGAGCATTGCACCAC CCGCTTTTT
6696	SPP1	OPN, BNSP, BSPI, ETA-1	secreted phosphoprotein 1 (osteopontin, bone sialoprotein I, early T-lymphocyte activation 1)	NM_000582	GCAATGAGCATTCCGAT GTG	GGCTGTGAAATTCATGG CTG	TCAGGAACTTTCCAAAGT CAGCCGTGA
6713	SQLE		squalene epoxidase	NM_003129	TGCTGTTGCAATCTATGC CG	GCACTACTACTGAGAAG GGCTCG	TTTTGCTTTAAGTCAGAA CCTTGATT
6715	SRD5A1		steroid-5-alpha-reductase, alpha polypeptide 1 (3-oxo-5 alpha-steroid delta 4-dehydrogenase alpha 1)	NM_001047	AGTGGTGTGGCTATGCC CTG	TTTGGATACTCTTCAAAT TTCCG	GC GCGGCTTTTGCTTTC TTCACGTTTT
6720	SREBF1	SREBP1	sterol regulatory element binding transcription factor 1	NM_004176	GCTGCTGGCCTCCTGCT AC	CCAAGCTTCTCGAGTGT GCG	GTGGGCATGCTGGCTGA GGCG
6805	STX1B		syntaxin 1B	NM_003163	CGCCGTATCCGACACCA AG	TATAGGCCCAAAGTGCA CCC	AAAGCCGTTAAGTACCA AAGCAAAGCC
9899	SV2B	HsT19680, KIAA0735	synaptic vesicle protein 2B homolog	NM_014848	CCAACCAGAGAGCAACA GCC	GCAGCAGCCAGAAGGAT GG	ATTATGCAAATTTGGCGC CATCCTGGG
6853	SYN1	SYN1, SYN1a, SYN1b	synapsin I	NM_006950	CCCAGCTCAACAAATCC CAG	GGCGAAAGACTTCTCA GGC	TCTCTGACCAATGCCTTC AACCTT
6890	TAP1	APT1, PSF1, ABC17, ABCB2, RING4, D6S114E	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)	NM_000593	CTGTACGAAAGCCCTGA GCG	CATGAGCTGCTGGTGGG TTC	GCTTCTCATCACCCAGC ACCTCAGCCT
6891	TAP2	APT2, PSF2, ABC18, ABCB3, RING11, D6S217E	transporter 2, ATP-binding cassette, sub-family B (MDR/TAP)	NM_000544, NM_018833	CTGCCACGCAGATGAC TTC	ACGTTGTTTCTGTCCCG CAG	ATGTAGGGGAGAAGGGA AGCCAGCTGG
7035	TFPI	LACI	tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor)	NM_006287	GGAAATGCCGCCCATTT AAG	CATGCCCTCAGACATTC TTG	CAGTGGATGTGGGGGAA ATGAAAACAA
7039	TGFA		transforming growth factor, alpha	NM_003236	CTTGGTGGTGGTCTCCA TCG	GCGGTTCTTCCCTTCAG GAG	ACTGCTGCCAGGTCCGA AAACACTGTG

7046	TGFBR1	ALK-5, ACVRLK4	transforming growth factor, beta receptor I (activin A receptor type II-like kinase, 53kD)	NM_004612	TCCCAAACAGATGGCAG AGC	AATCCGCAATGCTGTAA GCC	GAGAATGTTGGTATGCC AATGGAGCAGC
7048	TGFBR2	HNPCC6	transforming growth factor, beta receptor II (70-80kD)	NM_003242	GACTGAGTGCTGGGACC ACG	GGGAGCCGTCTTCAGGA ATC	CCAGTGTGTGGCAGAAC GCTTCAGTGA
7054	TH	TYH	tyrosine hydroxylase	NM_000360	TCAGGAGCTATGCCTCA CGC	GCAAGGGTGTCCAGCTC ATC	CTCCGTGAAGTTCGACC CGTACACGCT
7076	TIMP1	EPA, EPO, HCl, CLGI, TIMP	tissue inhibitor of metalloproteinase 1 (erythroid potentiating activity, collagenase inhibitor)	NM_003254	GACCAGCTCCTCCAAGG CTC	CTATCTGGGACCGCAGG GAC	AAAAGGGCTTCCAGTCC CGTACACCTTG
7077	TIMP2		tissue inhibitor of metalloproteinase 2	NM_003255	CCCGTGCTACATCTCCT CCC	TCACTTCTCTTGATGCAG GCG	GTGCCTCTGGATGGACT GGTACACAGA
7078	TIMP3	SFD, HSMRK222	tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory)	NM_000362	CCAATTTTCGGTTACCCT GGC	GGGTCTGTGGCATTGAT GATG	AGAAGGGCGGCTACTGC AGCTGGTACC
7079	TIMP4		tissue inhibitor of metalloproteinase 4	NM_003256	CCCTAACGAGTGCCTCT GGAC	AGGTGCCGTCAACATGC TTC	CTGGCTGTTGGAACGAA AGCTCTATGG
81793	TLR10		toll-like receptor 10	NM_030956	TGGAATGGCCCAAGGAT AGG	TGCAGTTCATACATTTCT CTGGTG	GTGGGCTTTTCTGGGCA AACCTTCGAG
7097	TLR2	TIL4	toll-like receptor 2	NM_003264	TCATTCTTCTGGAGCCC ATTG	TGGGCCACTCCAGGTAG GTC	AGCGCTTCTGCAAGCTG CGGAAGATAA
7098	TLR3		toll-like receptor 3	NM_003265	GAACCATGCACTCTGTTT GCG	CGAAAGGCACCTATCCG TTC	TCTCACTGCATCTTGAAC TGGCCAGTT
7099	TLR4	hToll	toll-like receptor 4	NM_003266	GAAGACCCTGCTCAGGC AGC	CGTCTCCAGAAGATGTG CCG	ACCTGGAGTGGGAGGAC AGTGTCCCTGG
7100	TLR5	TIL3	toll-like receptor 5	NM_003268	GGTCCTTGTCCCAGTAC CAGTTG	CCTGGAGATCCTCAGGC CAC	TCCATCAGAGGCTTTGT ACAGAAACAGCA
10333	TLR6		toll-like receptor 6	NM_006068	CATTCCACAGAACAGCA TTCCC	CCTTGGGCCACTGCAAA TAAG	CCACAAGCTGAAGGCTC TCATGACGCA
51284	TLR7		toll-like receptor 7	NM_016562	TCCAAGTTCCTCCAGCT CCG	GTGGCCAGGGCGTTCTT TAG	CCAACAAACCCGCAAGC TCACCCATAC
51311	TLR8		toll-like receptor 8	NM_016610	CCTGCTGGAGCCAGTGT TACAG	AACAAGCCTTCTGCCTT CGG	CGGACGCGATCTGTAA GAGCTCCATC
54106	TLR9		toll-like receptor 9	NM_017442	TGGTGATCCTGAGCCCT GAC	AGAGGAGGACACTCTGG CCG	CGCTCCCGCTACGTGCG GCT
9168	TMSB10		thymosin, beta 10	NM_021103	GCTTCGATAAGGCCAAG CTG	TTTCACTCCGCTTCTCCT GC	ACACCCTGCCACCAAA GAGACCATTG
7114	TMSB4X	TB4X, PTMB4, TMSB4	thymosin, beta 4, X chromosome	NM_021109	TGACAAACCCGATATGG CTG	ATTGCGCTGCTTGCTTCT CC	CGCAAGAGAAAAATCCA CTGCCTTCCA
7124	TNF	DIF, TNFA, TNFSF2	tumor necrosis factor (TNF superfamily, member 2)	NM_000594	TCCTCTTGCCATCAAG AGCC	GTGGTCCACCCTTCTCC AGC	GCCCATCTATCTGGGAG GGTCTTCCA

7128	TNFAIP3	A20, TNFA1P2	tumor necrosis factor, alpha-induced protein 3	NM_006290	TGCATGGAGTGTGAGCA TCC	TGCAGTAGCCGTTGCAC TTG	CCCCGCCTGTGATCATT TTGGCAAT
8797	TNFRSF10A	DR4, APO2, TRAILR1, TRAILR-1	tumor necrosis factor receptor superfamily, member 10a	NM_003844	GGATGCCTTGGAGAGGA TGG	TCACTCCAAGGACACGG CAG	TCAGGACCTCTTGGTGG ACTCTGGAAA
8795	TNFRSF10B	DR5, KILLER, TRICKB, TRAILR2, TRICK2A, TRICK2B, TRAIL-R2, KILLER/DR5	tumor necrosis factor receptor superfamily, member 10b	NM_003842	CGAGATGCCTCTGTCCA CAC	TCCAGAGCTCAACAAGT GGTCC	GGAGACGCTGGGAGAG AGACTTGCCAA
8793	TNFRSF10D	DCR2, DcR2, TRUNDD, TRAILR4	tumor necrosis factor receptor superfamily, member 10d, decoy with truncated death domain	NM_003840	TCGGCAACACTGGAAGA AGG	AGGCAGGACGTAGCAGA GCC	CCAACTGGTGGGCTCCG AAAAGCTCTT
4982	TNFRSF11B	OPG, TR1, OCIF	tumor necrosis factor receptor superfamily, member 11b (osteoprotegerin)	NM_002546	CTTGAAGGGCCTAATGC ACG	TGTGAAGGAACCTGATG GTC	GCACTCAAAGACGTACC ACTTTCCCAA
8718	TNFRSF12	DR3, TR3, APO3, DDR3, LARD, WSL1, APO-3, TRAMP, WSL-1, WSL-LR	tumor necrosis factor receptor superfamily, member 12 (translocating chain-association membrane protein)	NM_003790	AGATCGAAGCCGTGGAG GTG	AGTCTTCCACGCAGCCG TC	CAGCAGTACGAGATGCT CAAGCGCTGG
7132	TNFRSF1A	FPP, p55, TNF-R, TNFAR, TNFR1, p55- R, CD120a, TNFR60, TNF-R-I, TNF-R55	tumor necrosis factor receptor superfamily, member 1A	NM_001065	CGCGAGGCGCAATACAG	AGCCCAGCAGGTCCATG TC	GCCACGCTGGAGCTGCT GGGAC
7133	TNFRSF1B	P75, TNFBR, TNFR2, CD120b, TNFR80, TNF-R75, p75TNFR, TNF-R-II	tumor necrosis factor receptor superfamily, member 1B	NM_001066	AGGAGGAATGTGCCTTT CGG	CATCCCAGCATCAGGCA CTC	TCACAGCTGGAGACGCC AGAGACCCT
27242	TNFRSF21	DR6	tumor necrosis factor receptor superfamily, member 21	NM_014452	GAGGAGCTGCGGGTGAT TG	AGAGTCCAGGAGGGTCT GGC	CCCCAGGCTGAGGACAA ACTAGACCGG
958	TNFRSF5	p50, Bp50, CD40	tumor necrosis factor receptor superfamily, member 5	NM_001250	CTTCCTGGCTCCAACAC TGC	CTCTTTGCCATCCTCCTG GG	GCAGGAGACTTTACATG GATGCCAACCG
355	TNFRSF6	FAS, APT1, CD95, APO-1	tumor necrosis factor receptor superfamily, member 6	NM_000043	TCAACTGCTTCGTAATTG GCATC	CTGCAAGAGTACAAAGA TTGGC	TCATGGAAAGAAAGAAG CGTATGACACA
8743	TNFSF10	TL2, APO2L, TRAIL, APO-2L	tumor necrosis factor (ligand) superfamily, member 10	NM_003810	TGGTCTAAAGATGCAGA ATATGGACTC	TGGTCCATGTCTATCAA GTGCTC	TCCATCTATCAAGGGGG AATATTTGAGC

8600	TNFSF11	ODF, OPGL, RANKL, TRANCE, hRANKL2	tumor necrosis factor (ligand) superfamily, member 11	NM_003701, NM_033012	CCTGATGAAAGGAGGAA GCACC	TCCGGATCCAGTAAGGA GGG	CGGTCTGGAGAGGAAAT CAGCATCGAG
356	TNFSF6	FASL, APT1LG1	tumor necrosis factor (ligand) superfamily, member 6	NM_000639	GTGGGCCCCGAGCAG	CCAGAGAGAGCTCAGAT ACGTTGAC	TGGGGGCAGTGTTCAAT CTTACCAGTGC
7157	TP53	P53, p53	tumor protein p53 (Li-Fraumeni syndrome)	NM_000546	TGAGCGCTTCGAGATGT TCC	TTCAGGTGGCTGGAGTG AGC	ATGAGGCCTTGGAACTC AAGGATGCC
7158	TP53BP1	53BP1	tumor protein p53 binding protein, 1	NM_005657	TTGATGTGGTGGTGACG GAC	TGAGGCACTGGATCACC CAC	TGAAGTGTGCTGAAGCA TTGCAGCTGC
7177	TPSB1	TPS1, TPS2	tryptase beta 1	NM_003294	GGAACACCCGGAGGGA CTC	ACACGGGTGTAGATGCC AGG	CTGGTGTGCAAGGTGAA TGGCACCTG
7186	TRAF2	TRAP, TRAP3	TNF receptor-associated factor 2	NM_021138	GACATGAACATCGCAAG CGG	CCTGTCAGGTCCACAAT GGC	AGGCAAAGAATTCCTAC GTGCGGGACG
9618	TRAF4	CART1, MLN62	TNF receptor-associated factor 4	NM_004295	CACCAGGACATTCGAAA GCG	TCAGCTGAGGATCTTCC GGG	GGGATGATGCAGTCTTC ATCCGTGCTG
7189	TRAF6	MGC:3310 , RNF85	TNF receptor-associated factor 6	NM_004620	CTTTCAGCGACCCACA ATC	TACCCATGTCAAAGCGG GTG	CCACGGAACCCAAAAGG TTTTGGCTATG
7201	TRHR	MGC141920	thyrotropin-releasing hormone receptor	NM_003301	TGTGGCCCTAAATTACA GCGTC	CCTCAGAAGCCAAGCAG GTG	GGAGTCAGACCATTTCA GCACAGAGCTTGA
7276	TTR	PALB	transthyretin (prealbumin, amyloidosis type I)	NM_000371	CACCAAATCTTACTGGAA GGCAC	CGGAGTCGTTGGCTGTG AATAC	CTCCCCATTCCATGAGC ATGCAGAGGT
7350	UCP1	UCP, SLC25A7	uncoupling protein 1 (mitochondrial, proton carrier)	NM_021833	GTGTGCCCAACTGTGCA ATG	TCCAGGATCCAAGTCGC AAG	GACCAACGGCTTTCTTC AAGGGGTTGG
7351	UCP2	UCPH, SLC25A8	uncoupling protein 2 (mitochondrial, proton carrier)	NM_003355	TCCTTTCTCCGCTTGGGT TC	GAAGTGCAGGCAGCCAT GAG	CGTCACCTATGAGCAGC TGAACGAGCC
7352	UCP3	SLC25A9	uncoupling protein 3 (mitochondrial, proton carrier)	NM_003356, NM_022803	GCTGCTGGACTATCACC TGCTC	TACCGGGTCTTCACCAC GTC	CTTTGTCTCTGCCTTTGG AGCCGGCTT
6844	VAMP2	SYB2, VAMP-2	vesicle-associated membrane protein 2 (synaptobrevin 2)	NM_014232	TGGAGCGAGACCAGAAG CTG	TATTTGCGCTTGAGCTTG GC	AGCTGGACGACCCTGCA GATGCACT
7412	VCAM1	INCAM-100	vascular cell adhesion molecule 1	NM_001078	TTCTCCTGAGCTTCTCGT GCTC	TCTGTGCTTCTACAAGAC TATATGACCC	TGCATCCTCCTTAATAAT ACCTGCCATTGGA
7422	VEGF	VEGFA	vascular endothelial growth factor	NM_003376	ATCCCTGTGGGCCTTGC TC	CCTCGGCTTGTACATC TGC	TCCTGCAAAAACACAGA CTCGCGTTGC
7448	VTN	V75, VNT	vitronectin (serum spreading factor, somatomedin B, complement S-protein)	NM_000638	CTGCCACCTGTGAACCC ATC	GGTCCACAGTGTCCACT CGC	GTACTACCGAGTCAATC TTCGCACACG
7474	WNT5A	hWNT5A	wingless-type MMTV integration site family, member 5A	NM_003392	CGACCAGTTCAAGACCG TGC	CCACGATCTCCGTGCAC TTC	TCCACTGGTGCTGCTAC GTCAAGTGCA

7494	XBP1	XBP2, TREB5	X-box binding protein 1	NM_005080	GGGCATTCTGGACAACT TGG	AAGGAACTGGGTCCTTC TGGG	TTCTTCAAATGCCCTTCC CCAGAGCCT
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ADDITIONAL INTERFERON-STIMULATED GENES (HUMAN)

Gene ID	Gene Symbol	Gene Aliases	Gene Description	Forward Primer	Reverse Primer	Probe
2537	IFI6	6-16, FAM14C, G1P3, IFI-6-16, IFI616	interferon alpha-inducible protein 6	CGCTGCTGTGCCCATC TATC	AAAGCGATACCGCCTT CTGC	TCTCCTCCAAGGTCTA GTGACGGAGCCC
3428	IFI16	IFNGIP1, MGC9466, PYHIN2	interferon, gamma-inducible protein 16	TACAGGGAAGATGGAA GTGGTGG	TTTCGGTGCCAATTCA AAGC	TGCATGGACGACTGAA CACAATCAACTG
10561	IFI44	MTAP44, p44	interferon-induced protein 44	CAATTATTCCTCTGAGT GGGAGCTG	ATCCTCTAAGAAGTCAT CTGCAGCC	TGTTCTAATTCTTTCTG CTCTGAGACGAATGC
3661	IRF3		interferon regulatory factor 3	CTCAGGGCCTTGGTAG AAATGG	AGGTGAGGGAGAGTG GGTGG	CCCTGGAGAATACTGT GGACCTGCACA
10379	IRF9	ISGF3, ISGF3G, p48	interferon regulatory factor 9	CCATCTCCTGGAATGC ACCC	CTGCAGAAGTAGGCGG TTCTG	AAGAGCTCCACGCACT CGTTGCTGG