

nCounter® Mouse Stem Cell Characterization Panel - Gene and Probe Details

Official Symbol	Accession	Alias / Previous Symbol	Official Full Name	Other targets or Isoform Information
Aaas	NM_153416.2	Aladin,D030041N15RIK, GLO03,RIKEN cDNA D030041N15 gene	achalasia, adrenocortical insufficiency, alacrimia	
Aass	NM_013930.4	LOR/SDH,Lorsdh,lysine oxoglutarate reductase, saccharopine dehydrogenase	aminoadipate-semialdehyde synthase	
Acaca	NM_133360.2	A530025K05RIK, AccA, Acc1, Gm738, LOC327983, MGD-MRK-37495, MGI:2443466, MGI:2685584, RIKEN cDNA A530025K05 gene, acetyl-CoA carboxylase, acetyl-Coenzyme A carboxylase, gene model 738, (NCBI)	acetyl-Coenzyme A carboxylase alpha	
Acad8	NM_025862.2	2310016C19RIK, A1786953, MGI:2143118, RIKEN cDNA 2310016C19 gene, expressed sequence A1786953	acyl-Coenzyme A dehydrogenase family, member 8	
Acadm	NM_007382.5	AU018656, MCAD, MGD-MRK-1024, MGI:2139874, expressed sequence AU018656	acyl-Coenzyme A dehydrogenase, medium chain	
Acbd6	NM_028250.3	0610010G04RIK, 2610100E10RIK, MGI:1915591, RIKEN cDNA 0610010G04 gene, RIKEN cDNA 2610100E10 gene	acyl-Coenzyme A binding domain containing 6	
Acbd7	NM_030063.2	9230116B18RIK, RIKEN cDNA 9230116B18 gene	acyl-Coenzyme A binding domain containing 7	
Acly	NM_001199296.1	A730098H14RIK, AWS38652, MGD-MRK-24127, MGI:2144554, MGI:2443004, RIKEN cDNA A730098H14 gene, expressed sequence AWS38652	ATP citrate lyase	
Acsf5	NM_027976.2	1700030F05RIK, Facf5, RIKEN cDNA 1700030F05 gene, fatty acid Coenzyme A ligase, long chain 5	acyl-CoA synthetase long-chain family member 5	
Actl6a	NM_019673.2	2810432C06RIK, A1851094, ARP4, Actl6, Baf53a, C79802, MGI:1919992, MGI:2139823, MGI:2140068, RIKEN cDNA 2810432C06 gene, expressed sequence A1851094, expressed sequence C79802	actin-like 6A	
Acrv1	NM_001110204.1	ADH-AA, A194826, Adh-1, Adh-1-t, Adh-1e, Adh-1t, Adh-1e, Adh1-t, Adh1t, MGD-MRK-1111, MGD-MRK-1112, MGD-MRK-1113, MGD-MRK-1115, MGD-MRK-1120, MGD-MRK-1121, MGD-MRK-1123, MGD-MRK-1124, MGI:2139643, MGI:87922, MGI:87924, MGI:87925, alcohol dehydrogenase 1 complex, alcohol dehydrogenase 1 temporal, alcohol dehydrogenase 1 temporal, liver, alcohol dehydrogenase 1, electrophoretic class I alcohol dehydrogenase, expressed sequence A194826	activin A receptor, type 1	
Adam10	NM_007399.4	1700031C13RIK, MGD-MRK-39547, MGI:1914564, RIKEN cDNA 1700031C13 gene, kuz, kuzbanian	a disintegrin and metalloproteinase domain 10	
Adam17	NM_001277266.1	CD156b, Tace, tumor necrosis factor-alpha converting enzyme	a disintegrin and metalloproteinase domain 17	
Adam19	NM_009616.4	AL024287, MGD-MRK-33046, MGI:2144353, Mltnb, expressed sequence AL024287, meltrin, beta	a disintegrin and metalloproteinase domain 19 (meltrin beta)	
Add1	NM_001024458.3	A1256389, MGD-MRK-1108, MGI:2140823, expressed sequence A1256389	adducin 1 (alpha)	
Adh1	NM_007409.3	ADH-AA, A194826, Adh-1, Adh-1-t, Adh-1e, Adh-1t, Adh-1e, Adh1-t, Adh1t, MGD-MRK-1111, MGD-MRK-1112, MGD-MRK-1113, MGD-MRK-1115, MGD-MRK-1120, MGD-MRK-1121, MGD-MRK-1123, MGD-MRK-1124, MGI:2139643, MGI:87922, MGI:87924, MGI:87925, alcohol dehydrogenase 1 complex, alcohol dehydrogenase 1 temporal, alcohol dehydrogenase 1 temporal, liver, alcohol dehydrogenase 1, electrophoretic class I alcohol dehydrogenase, expressed sequence A194826	alcohol dehydrogenase 1 (class I)	
Adh4	NM_011996.2	Adh2, mouse class II type ADH	alcohol dehydrogenase 4 (class II), pi polypeptide	
Adh5	NM_007410.3	Adh-5, Adh3, GSNOR, MGD-MRK-1119, MGD-MRK-1128, 5-nitrosoglutathione reductase	alcohol dehydrogenase 5 (class III), chi polypeptide	
Adipor1	NM_028320.3	281003111RIK, RIKEN cDNA 281003111 gene	adiponectin receptor 1	
Ado	NM_001005419.2	Gm237, gene model 237, (NCBI)	2-aminoethanethiol (cysteamine) dioxygenase	
Afp	NM_007423.4	MGD-MRK-1173, alpha-fetoprotein	alpha fetoprotein	
Agmat	NM_001081408.1	5033405N08RIK, RIKEN cDNA 5033405N08 gene	agmatine ureohydrolase (agmatinase)	
Akr1a1	NM_021473.3	2610201A18RIK, Akr1a4, MGI:1914397, RIKEN cDNA 2610201A18 gene, aldo-keto reductase family 1, member A4 (aldehyde reductase)	aldo-keto reductase family 1, member A1 (aldehyde reductase)	
Akt1	NM_001165894.1	Akt, MGD-MRK-1257, PKB, PKB/Akt, PKBalpha	thymoma viral proto-oncogene 1	
Akt2	NM_001110208.1	2410016A19RIK, AW554154, MGD-MRK-28173, MGI:1923730, MGI:2142261, PKB, PKBbeta, RIKEN cDNA 2410016A19 gene, expressed sequence AW554154	thymoma viral proto-oncogene 2	
Akt3	NM_011785.3	A1851531, D930002M15RIK, MGI:2138357, MGI:3628555, Nmf350, PKB gamma, RIKEN cDNA D930002M15 gene, expressed sequence A1851531, neuroscience mutagenesis facility, 350	thymoma viral proto-oncogene 3	
Aldh7a1	NM_001127338.1	Atq1, D18Wsu181e, DNA segment, Chr 18, Wayne State University 181, expressed, MGD-MRK-36424, MGD-MRK-37225, MGI:107847, antiqutin	aldehyde dehydrogenase family 7, member A1	
Aldh9a1	NM_019993.4	AA139417, EST AA139417, ESTM40, MGI:1334434, TMABA-DH, expressed sequence tag mouse EST 40	aldehyde dehydrogenase 9, subfamily A1	
Amd1/2	NM_009665.5	AdoMetDC, Amd-1, SAMDC, Amd3	5-adenosylmethionine decarboxylase 1/2	
Amot	NM_153319.3	C81439, D0Kist1, DNA segment, KIST 1, E230009N18RIK, MGD-MRK-37484, MGI:2148071, MGI:2180948, MGI:2442022, RIKEN cDNA E230009N18 gene, Sli6, Sli6, expressed sequence C81439, mKIAA1071	angiominin	
Anapc1	NM_008569.2	2610021003RIK, A1047775, A1853536, AW547281, Apc1, MGD-MRK-23961, MGI:1923795, MGI:2138834, MGI:2139095, MGI:2139376, Mpcr, RIKEN cDNA 2610021003 gene, expressed sequence A1047775, expressed sequence A1853536, expressed sequence AW547281, meiotic check point regulator, tsg24	anaphase promoting complex subunit 1	
Anapc10	NM_001357234.1	1500026N15RIK, A830003M23RIK, Apc10, MGI:2441829, RIKEN cDNA 1500026N15 gene, RIKEN cDNA A830003M23 gene	anaphase promoting complex subunit 10	
Anapc7	NM_019805.4	APC7, AW545589, MGI:2141217, expressed sequence AW545589, prediabetic NOD sera-reactive autoantigen	anaphase promoting complex subunit 7	
Apbb1ip	NM_019456.2	9930118P07RIK, MGI:2442489, Prp48, RIKEN cDNA 9930118P07 gene, proline-rich protein 48	amyloid beta (A4) precursor protein-binding, family B, member 1	
Apex1	NM_009687.2	HAP1, MGD-MRK-1352, Ref-1	interacting protein	
Aplnr	NM_011784.3	APJ, Agtr1, angiotensin receptor-like 1, msr/apj	apurinic/apyrimidinic endonuclease 1	
Aqp8	NM_001109045.1	A1255744, MGI:2141886, expressed sequence A1255744	aquaporin 8	
Araf	NM_001159645.1	1200013E08RIK, A-Raf, AW495444, Araf1, MGD-MRK-1385, MGI:1914126, MGI:2148014, RIKEN cDNA 1200013E08 gene, expressed sequence AW495444, v-raf murine sarcoma 3611 viral oncogene homolog 1	Araf proto-oncogene, serine/threonine kinase	
Arhgap10	NM_030113.2	A930033B01RIK, P5GAP-m, P5GAP-s, RIKEN cDNA A930033B01 gene	Rho GTPase activating protein 10	
Arhgef9	NM_001033329.2	9630036L12RIK, RIKEN cDNA 9630036L12 gene, colybistin, mKIAA0424	CDC42 guanine nucleotide exchange factor (GEF) 9	
Arid5b	NM_023598.2	5430435G07RIK, A1467247, Desr, MGI:1918621, MGI:2143624, Mrf2, Mrf2alpha, Mrf2beta, RIKEN cDNA 5430435G07 gene, developmentally and sexually retarded with transient immune abnormalities, expressed sequence A1467247	AT rich interactive domain 5B (MRF1-like)	
Arnt1	NM_007489.3	Arnt3, Bmal1, MOP3, bHLHe5	aryl hydrocarbon receptor nuclear translocator-like	
Asf1a	NM_025541.3	2310079C17RIK, C79052, MGI:2143923, RIKEN cDNA 2310079C17 gene, expressed sequence C79052	anti-silencing function 1A histone chaperone	
Asmt	NM_001199212.1	Hiomt, MGD-MRK-10719, hydroxyindole-O-methyltransferase	acetylserotonin O-methyltransferase	
Atf2	NM_001284371.1	ATF-2, CRE-BP, Creb2, D130078H02RIK, D18875, MGD-MRK-23723, MGD-MRK-38394, MGI:2139537, MGI:2441951, MGI:2678345, RIKEN cDNA D130078H02 gene, Tg(Gzma-Kira1)7Wum, cAMP responsive element binding protein 2, expressed sequence D18875, mXPB, transgene insertion 7, Washington University School of Medicine	activating transcription factor 2	
Atf3	NM_007498.3	LRG-21, MGD-MRK-38429	activating transcription factor 3	
Atf4	NM_009716.2	Atf-4, C/ATF, CREB2, MGD-MRK-1444, MGD-MRK-1445, TAXREB67	activating transcription factor 4	
Ati1	NM_178628.5	4930435M24RIK, AD-FSP, FSP1, RIKEN cDNA 4930435M24 gene, SPG3, Spg3a, spastic paraplegia 3A homolog (human)	atlastin GTPase 1	
Atm	NM_007499.2	A1256621, C030026E19RIK, MGD-MRK-35663, MGI:1924666, MGI:2143000, RIKEN cDNA C030026E19 gene, expressed sequence A1256621	ataxia telangiectasia mutated	
Atp6v1a	NM_007508.5	A1647066, ATPase, H+ transporting, lysosomal (vacuolar proton pump), alpha 70 kDa, isoform 1, Atp6a1, MGI:2146472, VA68, VPP2, expressed sequence A1647066, lysosomal 70kDa	ATPase, H+ transporting, lysosomal V1 subunit A	
Atp6v1b2	NM_007509.3	A194269, A1903362, ATPase, H+ transporting, lysosomal (vacuolar proton pump), beta 56/58 kDa, isoform 2, Atp6b2, HOS7, MGD-MRK-39617, MGI:2142474, MGI:2142617, MGI:2142893, R74844, expressed sequence A194269, expressed sequence A1903362, expressed sequence R74844	ATPase, H+ transporting, lysosomal V1 subunit B2	
Atp6v1d	NM_023721.2	1110004P10RIK, ATPase, H+ transporting lysosomal (vacuolar proton pump), Atp6m, RIKEN cDNA 1110004P10 gene, VATD, Vma8, lysosomal 34kDa	ATPase, H+ transporting, lysosomal V1 subunit D	
Atp6v1f	NM_025381.2	1110004G16RIK, RIKEN cDNA 1110004G16 gene	ATPase, H+ transporting, lysosomal V1 subunit F	
Atp6v1g1	NM_024173.1	1810024D14RIK, AA960677, ATP6j, ATPase, H+ transporting, lysosomal (vacuolar proton pump), Atp6g1, MGI:2138817, RIKEN cDNA 1810024D14 gene, VAG1, Vma10, expressed sequence AA960677, lysosomal 13kDa	ATPase, H+ transporting, lysosomal V1 subunit G1	
Bambi	NM_026505.2	2610003H06RIK, RIKEN cDNA 2610003H06 gene	BMP and activin membrane-bound inhibitor	
Batf	NM_016767.2	B-ATF, SFA-2	basic leucine zipper transcription factor, ATF-like	
Bcar1	NM_001198839.1	A1385681, Cas, Crkas, MGD-MRK-37128, MGI:2142520, expressed sequence A1385681, p130Cas, v-ck-associated tyrosine kinase substrate	breast cancer anti-estrogen resistance 1	
Bcat2	NM_009737.2	Bcat-2, Eca40	branched chain aminotransferase 2, mitochondrial	
Bccip	NM_025392.2	1110013J05RIK, RIKEN cDNA 1110013J05 gene, TOK-1	BRCA2 and CDKN1A interacting protein	
Bcl2	NM_009741.3	AW986256, Bcl-2, C430015F12RIK, D630044D05RIK, D830018M01RIK, MGD-MRK-1524, MGD-MRK-1526, MGI:2138629, MGI:2442315, MGI:2444619, MGI:2444682, RIKEN cDNA C430015F12 gene, RIKEN cDNA D630044D05 gene, RIKEN cDNA D830018M01 gene, expressed sequence AW986256	B cell leukemia/lymphoma 2	

Bcl2l1	NM_009743.4	Bcl(XL),Bcl-XL,Bcl-Xs,BclX,MGD-MRK-1527,bcl-x 150006F24Rik,Bcl2 interacting mediator of cell death,Bim,Bod,MGI:1923589,RIKEN cDNA 150006F24 gene	BCL2-like 1	sub-maximal isoform coverage due to non-overlapping transcript variants
Bcl2l11	NM_001284410.1	BCL2-like 11 (apoptosis facilitator)	BCL2-like 11 (apoptosis facilitator)	
Bcl6	NM_009744.3	B-cell leukemia/lymphoma 5,Bcl5,MGD-MRK-35648,MGI:1277984	B cell leukemia/lymphoma 6	
Becn1	NM_019584.4	Atg6,MGC:6843	beclin 1, autophagy related	
Bmp4	NM_007554.2	Bmp-4,Bmp2b,Bmp2s-1,Bmp2b1,MGD-MRK-1596,MGD-MRK-1597,MGD-MRK-1600,MGD-MRK- 1602,bone morphogenetic protein 2b,bone morphogenetic protein 2b 1	bone morphogenetic protein 4	
Bmp5	NM_007555.4	AU023399,MGD-MRK-14349,MGD-MRK-1603,MGI:2143223,expressed sequence AU023399,se,short ear	bone morphogenetic protein 5	
Bmp7	NM_007557.2	MGD-MRK-24186,OP1,osteogenic protein 1	bone morphogenetic protein 7	
Bmpr1a	NM_009758.4	111003712Rik,ALK3,AU045487,BMPR-IA,Bmpr,MGD-MRK- 1605,MGI:1915998,MGI:2145761,MGI:88183,RIKEN cDNA 111003712 gene,bone morphogenetic receptor for Bmp2 and Bmp4,expressed sequence AU045487	bone morphogenetic protein receptor, type 1A	
Bmpr2	NM_007561.3	2610024H2Rik,AL117858,AW546137,BB189135,BMP-2,BMPR- II,BMPRII,MGI:1916460,MGI:2138603,MGI:2138646,MGI:3034681,RIKEN cDNA 2610024H22 gene,expressed sequence AL117858,expressed sequence AW546137,expressed sequence BB189135	bone morphogenetic protein receptor, type II (serine/threonine kinase)	
Boc	NM_172506.2		biregional cell adhesion molecule-related/down-regulated by oncogenes (Cdon) binding protein	
Brd7	NM_012047.2	BP75,CELTIX1,bromodomain protein 75 kDa	bromodomain containing 7	
Brf2	NM_025686.2	2700059M06Rik,5730512K07Rik,AU018504,AU022602,BRFU,MGI:1919827,MGI:2142684,MGI:2142706, RIKEN cDNA 2700059M06 gene,RIKEN cDNA 5730512K07 gene,TFIIB50,expressed sequence AU018504,expressed sequence AU022602	BRF2, RNA polymerase III transcription initiation factor 50kDa subunit	
Bub1	NM_001113179.1	AL022991,Bub1a,C80208,D2Xrf87,DNA segment, Chr 2, XREFdb 87,MGD-MRK- 32317,MGI:105276,MGI:2139128,MGI:2139498,expressed sequence AL022991,expressed sequence C80208	BUB1, mitotic checkpoint serine/threonine kinase	
Bub1b	NM_009773.3	AU045529,BUBR1,MGI:2139222,expressed sequence AU045529	BUB1B, mitotic checkpoint serine/threonine kinase	
Bub3	NM_009774.3	AU019800,AU021329,AU043350,AU146323,C78067,MGI:2142137,MGI:2142160,MGI:2142214,MGI:21 42325,MGI:2146981,expressed sequence AU019800,expressed sequence AU021329,expressed sequence AU043350,expressed sequence AU146323,expressed sequence C78067	BUB3 mitotic checkpoint protein	
Cab39	NM_133781.5	39kDa,AA408805,AA960512,C78372,MGD-MRK- 35909,MGI:2138087,MGI:2138141,MGI:2138670,MO25alpha,expressed sequence AA408805,expressed sequence AA960512,expressed sequence C78372	calcium binding protein 39	
Ca2nd2	NM_020263.3	MGD-MRK-14978,MGD-MRK-8913,MGI:94935,a2d2,du,ducky,nmf299,td,torpid	calcium channel, voltage-dependent, alpha 2/delta subunit 2	
Cacybp	NM_009786.2	2900073G06Rik,3100001I08Rik,AI987920,Igsf4,MGI:1919652,MGI:1920304,MGI:2143168,Nec12,R A175A,RA175B,RA175C,RA175N,RIKEN cDNA 2900073G06 gene,RIKEN cDNA 3100001I08 gene,SgIGSF,SynCam,Tslc1,expressed sequence AI987920,immunoglobulin superfamily, member 4,immunoglobulin superfamily, member 4A	calcyclin binding protein	
Cadml	NM_207675.2	A1505105,CaMKIIalpha,Camk,D6Ert263e,DNA segment, Chr 6, ERATO Doi 263, expressed,MGI:2141437,expressed sequence A1505105	cell adhesion molecule 1	
Camk1	NM_133926.2	2810452G09Rik,AV045235,MGI:2145392,RIKEN cDNA 2810452G09 gene,expressed sequence AV045235	calcium/calmodulin-dependent protein kinase I	
Cap2	NM_026056.4	1700120C01Rik,AI325129,CPB1,CPB2,CPbeta1,CPbeta2,Cappb1,MGD-MRK- 26092,MGI:1923909,MGI:2140240,RIKEN cDNA 1700120C01 gene,capping protein (actin filament) muscle Z-line, beta 1,capping protein beta 1,expressed sequence AI325129	CAP, adenylate cyclase-associated protein, 2 (yeast)	
Capzb	NM_001271406.1	A830040C14Rik,AC-3,Apopain,CC3,PPP32,Caspase-3,MGD-MRK- 36315,MGI:2442726,MGI:3717434,RIKEN cDNA A830040C14 gene,Yama,melody,mldy	capping protein (actin filament) muscle Z-line, beta	
Casp3	NM_009810.2	AI115399,AW493809,Caspase-9,ICE-LAP6,MGI:2140188,MGI:2140578,Mch6,expressed sequence AI115399,expressed sequence AW493809	caspase 3	
Casp9	NM_015733.5	AI115399,expressed sequence AW493809	caspase 9	
Cav1	NM_001243064.1	Cav-1,MGD-MRK-19613,caveolin-1	caveolin 1, caveolae protein	
Cbr4	NM_145595.2	A73008J17Rik,BC009118,MGC:6971,MGI:2443029,RIKEN cDNA A73008J17 gene	carbonyl reductase 4	
Cbx4	NM_007625.2	Mpc2,PC2	chromobox 4	
Cbx6	NM_028763.3		chromobox 6	
Ccdc130	NM_026350.3	4930527D15Rik,C77430,MGI:2142844,RIKEN cDNA 4930527D15 gene,expressed sequence C77430	coiled-coil domain containing 130	
Ccdc88c	NM_026681.5	0610010D24Rik,AV000935,AW324073,Daple,MGI:2144972,MGI:2145023,RIKEN cDNA 0610010D24 gene,expressed sequence AV000935,expressed sequence AW324073	coiled-coil domain containing 88C	
Ccna2	NM_009828.2	AA408589,Ccn-1,Ccn1,Ccna,CycA2,CycA,MGD-MRK-1805,MGD-MRK-1807,MGD-MRK-1809,MGD-MRK- 2264,MGD-MRK-37106,MGI:2139562,cyclin A,expressed sequence AA408589	cyclin A2	
Ccnb1	NM_172301.3	Ccnb1-rs13,Cycb-4,MGC:18763,MGD-MRK-1814,MGD-MRK-2269,cyclin B1, related sequence 13,cyclin B4	cyclin B1	
Ccnb2	NM_007630.2	CycB2,MGD-MRK-1823	cyclin B2	
Ccnc	NM_016746.4	AI451004,AU020987,MGI:2140293,MGI:2140460,expressed sequence AI451004,expressed sequence AU020987	cyclin C	
Ccr7	NM_007719.2	CD197,Cmkbr7,Eb1I,EB1h,Epstein-Barr virus induced gene 1 homolog,MGD-MRK-23848,chemokine (C- C) receptor 7	chemokine (C-C motif) receptor 7	
Ccs	XM_006531645.1	Ccsd	copper chaperone for superoxide dismutase	
Cd2	NM_013486.2	LFA-2,Ly-37,Ly37,MGD-MRK-11978,MGD-MRK-1837,lymphocyte antigen 37	CD2 antigen	
Cd274	NM_021893.2	B7-H1,PD-L1,Pdcd1,IgI,programmed cell death 1 ligand 1	CD274 antigen	
Cd34	NM_001111059.1	AU040960,MGD-MRK-1849,MGI:2138487,expressed sequence AU040960	CD34 antigen	
Cd44	NM_009851.2	AU023126,AW121933,AW146109,HERMES,Ly-24,MGD-MRK-11964,MGD-MRK-13281,MGD-MRK- 1863,MGI:2139311,MGI:2139322,MGI:3035411,Pgp-1,expressed sequence AU023126,expressed sequence AW121933,expressed sequence AW146109,lymphocyte antigen 24,phagocyte glycoprotein 1 2700071J12Rik,2810431D22Rik,MGI:1919860,RIKEN cDNA 2700071J12 gene,RIKEN cDNA 2810431D22 gene	CD44 antigen	
Cdc16	NM_027276.2	2310042N09Rik,C87100,MGI:1913810,MGI:2146726,RIKEN cDNA 2310042N09 gene,expressed sequence C87100,p5SCDC	CD16 cell division cycle 16	
Cdc20	NM_023223.2	D9Ert393e,DNA segment, Chr 9, ERATO Doi 393, expressed,MGD-MRK-24066,MGI:1196333	cell division cycle 20	
Cdc25a	NM_007658.3	CD18(S.pombe),CDC18L,cell division cycle 18 homolog (S.pombe)-like	cell division cycle 25A	
Cdc6	NM_011799.2	AA960649,E-cad,E-cadherin,Ecad,L-CAM,MGD-MRK-15349,MGD-MRK-1881,MGD-MRK- 19360,MGI:2142457,Um,Um,expressed sequence AA960649,uvomorulin	cell division cycle 6	
Cdh1	NM_009864.2	Cad11,MGD-MRK-15974,OB-cadherin,osteoblast-cadherin	cadherin 1	
Cdh11	NM_009866.4	MGD-MRK-12785,MGD-MRK-1882,N-CAD,N-cadherin,Ncad,cadherin, N-	cadherin 11	
Cdh2	NM_007664.4	AW048668,CD2-related kinase 6,Crk6,MGD-MRK-18571,MGD-MRK- 2150,MGI:2141132,MGI:88507,expressed sequence AW048668	cadherin 2	
Cdk5	NM_007668.3	AI323415,AI528512,CD2-related kinase 4,CRK4 PK (CD2-related-kinase-4 protein kinase),Cdkn7,Crk4,MGD-MRK-19684,MGD-MRK-2148,MGD-MRK- 23792,MGI:2145207,MGI:2145266,MGI:88505,cyclin dependent kinase 7 (homolog of Xenopus MO15 cdk-activating kinase),expressed sequence AI323415,expressed sequence AI528512	cyclin-dependent kinase 5	
Cdk7	NM_009874.3	MGC:37111	cyclin-dependent kinase 7	
Cdk8	NM_153599.4	AA408329,AI843786,MGD-MRK-25999,MGI:2141358,MGI:2141489,expressed sequence AA408329,expressed sequence AI843786,p27Kip1	cyclin-dependent kinase 8	
Cdkn1b	NM_009875.4	CAM-related/down-regulated by oncogenes,CDO	cyclin-dependent kinase inhibitor 1B	
Cdon	NM_021339.2	Cdx-2,MGD-MRK-1890,MGD-MRK-1894	cell adhesion molecule-related/down-regulated by oncogenes	
Cdx2	NM_007673.3	C/EBP BETA,C/EBPbeta,CRP2,IL-6DBP,LAP,LIP,MGD-MRK-12827,MGD-MRK-1917,MGI:97310,NF-IL6,NF- M,Nfil6,nuclear protein I16	caudal type homeobox 2	
Cebpb	NM_009883.4	Cerberus-like,Cerl,Cer1,Cerr1,MGI:894319,cer-1,cerberus-related 1	CCAAT/enhancer binding protein (C/EBP), beta	
Cer1	NM_009887.2	2600010P09Rik,AF020312,Chd7,MGI:1919700,MGI:1934942,Mi-2 alpha,Prp7,Prp9-1,RIKEN cDNA 2600010P09 gene,cDNA sequence AF020312,chromodomain helicase DNA binding protein 7	cerberus 1, DAN family BMP antagonist	
Chd3	NM_146019.4	C85740,Chk1,MGI:2143427,expressed sequence C85740	chromodomain helicase DNA binding protein 3	
Chk1	NM_007691.5	CHK2,RAD53 homolog (S.cerevisiae),Rad53	checkpoint kinase 1	
Chk2	NM_016681.3	1190006E07Rik,RIKEN cDNA 1190006E07 gene,chromatin modifying protein 2B	checkpoint kinase 2	
Chmp2b	NM_026879.2	1110001009Rik,AA409036,Chp-1,MGI:2142930,RIKEN cDNA 1110001009 gene,expressed sequence AA409036,morgana	charged multivesicular body protein 2B	
Chordc1	NM_025844.2	AI256658,Chuk1,IKK 1,IKK alpha,IKK-1,IKK-alpha,IKK1,IKK[a],IKKalpha,ikappaB kinase alpha,MGD-MRK- 16258,MGI:2147493,expressed sequence AI256658	cysteine and histidine-rich domain (CHORD)-containing, zinc-binding protein 1	
Chuk	NM_001162410.1		conserved helix-loop-helix ubiquitous kinase	

		1700023802Rik,2810021A19Rik,CIR,MGI:1922067,RIKEN cDNA 1700023802 gene,RIKEN cDNA	
Cir1	NM_025854.3	2810021A19 gene	corepressor interacting with RBP1, 1
Ckb	NM_021273.4	B-CK,Ck-3,MGD-MRK-1990,MGD-MRK-1997,creatine kinase 3	creatine kinase, brain
Ckmt1	NM_009897.2	MGD-MRK-16205,Mt-CK,UbCKmit,mi-CK	creatine kinase, mitochondrial 1, ubiquitous
Cntrf	NM_016673.2	Cntrfalpha,MGD-MRK-16390	ciliary neurotrophic factor receptor
Col1a1	NM_007742.3	Col1a-1,Cola-1,Col1a,MGD-MRK-12362,MGD-MRK-12380,MGD-MRK-2059,MGD-MRK-2087,MGD-MRK-2089,Moloney leukemia virus 13,Mov-13	collagen, type I, alpha 1
Col1a2	NM_007743.2	AA960264,AI325291,Col1a-2,Cola-2,Col2,MGD-MRK-13027,MGD-MRK-2060,MGD-MRK-2088,MGD-MRK-2090,MGI:2141374,MGI:2141395,expressed sequence AA960264,expressed sequence	collagen, type I, alpha 2
Col3a1	NM_009930.1	A1325291,aim,ostegenesis imperfecta,procollagen type I, alpha 2 AW550625,Col3a-1,MGD-MRK-15277,MGD-MRK-15278,MGD-MRK-2064,MGD-MRK-2065,MGI:2138608,MGI:98851,Tsk-2,Tsk2,expressed sequence AW550625,procollagen type III, alpha 1,tight skin 2	collagen, type III, alpha 1
Col4a2	NM_009932.4	AU019502,Col4a-2,MGC:7371,MGD-MRK-2067,MGD-MRK-2069,MGI:2142691,expressed sequence	collagen, type IV, alpha 2
Col5a1	NM_015734.2	AU019502,procollagen type IV, alpha 2	collagen, type V, alpha 1
Col5a2	NM_007737.2	A1413331,MGD-MRK-2071,MGI:2138923,expressed sequence A1413331 1110014L14Rik,MGD-MRK-2072,MGI:1920990,RIKEN cDNA 1110014L14 gene	collagen, type V, alpha 2
Col6a3	XM_897036.2	A1507288,Col6a-3,MGD-MRK-2075,MGD-MRK-2078,MGI:2138284,expressed sequence	collagen, type VI, alpha 3
Coro1b	NM_011778.2	A1507288,procollagen type VI, alpha 3	coronin, actin binding protein 1B
Cpeb2	NM_175937.3	A630055H10Rik,RIKEN cDNA A630055H10 gene	cytoplasmic polyadenylation element binding protein 2
Cpt1a	NM_013495.2	CPT1,CPT1,MGD-MRK-2118,MGI:2147452,MGI:2147463,carnitine palmitoyltransferase 1	carnitine palmitoyltransferase 1a, liver
Cpt2	NM_009949.2	A1323697,CPT II,CPTII,MGD-MRK-38220,MGI:2140234,expressed sequence A1323697	carnitine palmitoyltransferase 2
Crebbp	NM_001025432.1	AW558298,CBP,KAT3A,MGI:2146668,expressed sequence AW558298	CREB binding protein
Crk	NM_133656.5	Crk-I,Crk-II,Crk-III,Crko,MGD-MRK-2151,proto-oncogene c-crk-v-crk sarcoma virus CT10 oncogene homolog (avian)	v-crk avian sarcoma virus CT10 oncogene homolog
Crkl	NM_001277231.1	1110025F07Rik,AA589403,AI325100,Crkl,MGD-MRK-27049,MGI:1915874,MGI:2146355,MGI:2146414,MGI:5448844,RIKEN cDNA 1110025F07 gene,expressed sequence AA589403,expressed sequence AI325100,snoop,snoopy,v-crk sarcoma virus CT10 oncogene homolog (avian)-like	v-crk avian sarcoma virus CT10 oncogene homolog-like
Cryab	NM_009964.2	Crya-2,Crya2,HspB5,MGD-MRK-2161,MGD-MRK-2163,alpha B-crystallin,crystallin, alpha 2	crystallin, alpha B
Csf1	NM_001113530.1	C87615,CSF-1,Csfm,M-CSF,MGD-MRK-13034,MGD-MRK-2191,MGI:2140102,MGI:88534,colony stimulating factor, macrophage,colony-stimulating factor-1,expressed sequence	colony stimulating factor 1 (macrophage)
Csk	NM_007783.2	C87615,op,osteopetrosis	c-src tyrosine kinase
Csnk1a1	NM_146087.2	AW212630,MGD-MRK-2195,MGI:2143301,expressed sequence AW212630 2610208K14Rik,4632404G05Rik,5430427P18Rik,CK1a,MGI:1914042,MGI:1915311,MGI:1926085,RIKEN cDNA 2610208K14 gene,RIKEN cDNA 4632404G05 gene,RIKEN cDNA 5430427P18 gene	casein kinase 1, alpha 1
Csnk1g3	NM_152809.2	3300002K07Rik,C330049021Rik,MGI:2444154,RIKEN cDNA 3300002K07 gene,RIKEN cDNA C330049021 gene	casein kinase 1, gamma 3
Csnk2a2	NM_009974.3	1110035J23Rik,C77789,CK2,MGD-MRK-2205,MGI:1915939,MGI:2142847,RIKEN cDNA 1110035J23 gene,expressed sequence C77789	casein kinase 2, alpha prime polypeptide
Csnk2b	NM_009975.2	MGD-MRK-2206	casein kinase 2, beta polypeptide
Ctbp1	NM_013502.3	BAR5,CtBP1-L,CtBP1-S,CtBP3/BARS,D45115h,D5H45115,D5H45115E,DNA segment, Chr 5, human D45115,DNA segment, Chr 5, human D45115, expressed,MGD-MRK-16717,MGD-MRK-6985,MGD-MRK-7054,MGI:93155	C-terminal binding protein 1
Ctcf	NM_181322.3	AW108038,MGD-MRK-38492,MGI:2142760,expressed sequence AW108038	CCCTC-binding factor
Ctnna1	NM_009818.1	2010010M04Rik,AA517462,AI988031,Catna1,MGD-MRK-1773,MGI:1913796,MGI:2147175,MGI:2147284,RIKEN cDNA 2010010M04 gene,alpha E catenin,alpha(E)-catenin,catenin alpha 1,expressed sequence AA517462,expressed sequence AI988031	catenin (cadherin associated protein), alpha 1
Ctnnb1	NM_007614.3	Bfc,Catnb,MGD-MRK-1775,MGI:2656732,bataface,beta catenin,beta-catenin,catenin beta	catenin (cadherin associated protein), beta 1
Ctnd1	NM_001085449.1	AA409437,AU019353,Catns,Ctndd,MGD-MRK-28063,MGD-MRK-32140,MGI:2138768,MGI:2139175,P120,catenin src,catenin, delta,expressed sequence	catenin (cadherin associated protein), delta 1
Ctnd2	NM_008729.3	AA409437,expressed sequence AU019353,mKIAA0384,p120-catenin	catenin (cadherin associated protein), delta 2
Cul1	NM_012042.3	Catnd2,Nrap,catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein),neural plakophilin-related arm-repeat protein,neurojugin	culin 1
Dab2	NM_023118.2	5730435J12Rik,AA960054,AI957090,D15Wsu122e,D630005B22Rik,DNA segment, Chr 15, Wayne State University 122, expressed,MGD-MRK-35708,MGD-MRK-38219,MGI:1072438,MGI:1917805,MGI:2145932,MGI:2146101,MGI:3045240,RIKEN cDNA 5730435J12 gene,RIKEN cDNA D630005B22 gene,expressed sequence AA960054,expressed sequence AI957090,p96	disabled 2, mitogen-responsive phosphoprotein
Dcn	NM_007833.4	DC,MGD-MRK-8811,SLRR1B	decorin
Ddit3	NM_007837.3	C/EBP homologous protein 10,CHOP-10,CHOP10,MGD-MRK-38292,chop,gadd153	DNA-damage inducible transcript 3
Dgkk	NM_177914.3		diacylglycerol kinase kappa
Diablo	NM_023232.3	0610041G12Rik,1700006L01Rik,AU040403,MGI:1923950,MGI:2141076,RIKEN cDNA 0610041G12 gene,RIKEN cDNA 1700006L01 gene,Smac,expressed sequence AU040403	diablo, IAP-binding mitochondrial protein
Dkk1	NM_010051.3	mkkk-1	dickkopf WNT signaling pathway inhibitor 1
Dld	NM_007861.4	A1315664,A1746344,MGD-MRK-35921,MGI:2144786,MGI:2144881,branched chain alpha-keto acid dehydrogenase complex subunit E3,dihydrolipoyl dehydrogenase,expressed sequence	dihydrolipoamide dehydrogenase
Dlg3	NM_001177778.1	A1315664,expressed sequence A1746344	discs large MAGUK scaffold protein 3
Dlk1	NM_010052.4	Dlgh3,SAP102,dlcs,large homolog 3 (Drosophila),mKIAA1232 AW742678,Dlk1,FA1,MGD-MRK-8856,MGI:2140555,Peg9,SCP1,ZOG,expressed sequence	delta like non-canonical Notch ligand 1
Dll1	NM_007865.3	AW742678,pG2,pref-1	delta like canonical Notch ligand 1
Dlx5	NM_198854.1	A1385752,MGD-MRK-18757,MGI:2141401,expressed sequence A1385752	distal-less homeobox 5
Dmd	NM_007868.5	Dp427,Dp71,Duchenne muscular dystrophy,MGD-MRK-12180,MGD-MRK-13336,MGD-MRK-8869,X-linked muscular dystrophy,dys,mdx,pke,pyruvate kinase expression	dystrophin, muscular dystrophy
Dnmt1	NM_010066.3	Cxc9,Dnmt10,MGD-MRK-12204,MGD-MRK-12206,MGD-MRK-8877,MGI:3586536,MTase,MommeD2,modifier of murine metastable epialleles, D2	DNA methyltransferase (cytosine-5) 1
Dnmt3a	NM_007872.4	AU015806,MGI:2144939,MGI:2145138,W91664,expressed sequence AU015806,expressed sequence W91664	DNA methyltransferase 3A
Dnmt3b	NM_001003960.3		DNA methyltransferase 3B
Dnmt3l	NM_001081695.2	D6Ert14e,DNA segment, Chr 6, ERATO Doi 14, expressed,MGI:1098798,ecat7	DNA (cytosine-5)-methyltransferase 3-like
Dppa3	NM_139218.1	2410075G02Rik,PGCF,RIKEN cDNA 2410075G02 gene, stella	developmental pluripotency-associated 3
Dppa4	NM_001018002.1	2410091M23Rik,C76608,FCAT15-1,MGI:1920943,MGI:2146696,RIKEN cDNA 2410091M23 gene,expressed sequence C76608	developmental pluripotency associated 4
Dppa5a	NM_025274.3	AA536857,Dppa5,Esg1,MGD-MRK-18610,MGI:2142955,MGI:2157526,developmental pluripotency associated 5,ecat2,embryonal stem cell specific gene 1,expressed sequence AA536857	developmental pluripotency associated 5A
Dusp6	NM_026268.3	1300019I03Rik,MKP-3,MKP3,PYST1,RIKEN cDNA 1300019I03 gene	dual specificity phosphatase 6
Dusp7	NM_153459.4	AU015694,MGI:2143192,MKP-X,PYST2,expressed sequence AU015694	dual specificity phosphatase 7
Dvl2	NM_007888.3	MGD-MRK-35070	dishevelled segment polarity protein 2
Dvl3	NM_007889.2	Bench to Bassinet Program (B2B/CVDC), mutation 2866 Cecilia Lo,MGD-MRK-37137,MGI:5618435,Mutant line 2866,b2b2866Clo 9930018I23Rik,AI894280,Dnchc1,Dnec1,Loa,MAP1C,MGD-MRK-14670,MGD-MRK-24013,MGD-MRK-8874,MGI:1891075,MGI:2144918,MGI:2442954,MGI:98455,RIKEN cDNA 9930018I23 gene,Swl,dynein heavy chain, retrograde transport,dynein, cytoplasmic 1,dynein, cytoplasmic, heavy chain 1,expressed sequence AI894280,legs at odd angle,mKIAA0325,sprawling	dishevelled segment polarity protein 3
Dync1h1	NM_030238.2	8kDa LC,DLc8,Dncl1,Pin,dynein, cytoplasmic, light chain 1	dynein cytoplasmic 1 heavy chain 1
Dynll1	NM_019682.4	1700064A15Rik,6720463E02Rik,C87222,MGI:1920652,MGI:2144689,RIKEN cDNA 1700064A15 gene,RIKEN cDNA 6720463E02 gene,expressed sequence C87222	dynein light chain LC8-type 1
Dynll2	NM_026556.4	2010111M04Rik,AI427446,MGD-MRK-23849,MGI:1919312,MGI:2142532,RIKEN cDNA 2010111M04 gene,expressed sequence AI427446	dynein light chain LC8-type 2
E2f4	NM_148952.1	AU024671,E2F-5,MGD-MRK-32131,MGI:2139902,expressed sequence AU024671	E2F transcription factor 4
E2f5	NM_007892.2	DCj,MGD-MRK-8810,dodecenoyl-Coenzyme A delta isomerase (3,2 trans-enoyl-Coenzyme A isomerase),eci	E2F transcription factor 5
Eci1	NM_010023.4	MGC:18758,MGC:27859,MGC:7551,MGC:8115,MGC:8209	enoyl-Coenzyme A delta isomerase 1
Eef1a1	NM_010106.2	A1325262,B61,EFL-1,Epl1,Eplg1,LERK-1,Lerk1,MGD-MRK-24110,MGI:2139679,eph-related receptor	eukaryotic translation elongation factor 1 alpha 1
EfnA1	NM_010107.4	tyrosine kinase ligand 1,expressed sequence A1325262	efrin A1

Egln1	NM_053207.2	open reading frame 13, AI503754, Hif-p4h-2, MGI:1929952, MGI:2142578, ORF13, Phd2, SM-20, expressed sequence AI503754, open reading frame 13	egl-9 family hypoxia-inducible factor 1
Egln2	NM_053208.4	0610011A13RIK, Hif-p4h-1, ler4, MGD-MRK-36364, MGI:107787, MGI:1915611, MGI:2142358, Phd1, RIKEN cDNA O610011A13 gene, SM-20, immediate early response 4	egl-9 family hypoxia-inducible factor 2
Ehbp11	NM_001114597.1	G430002G23RIK, RIKEN cDNA G430002G23 gene	EH domain binding protein 1-like 1
Ehmt1	NM_001012518.2	9230102N17RIK, KMT1D, RIKEN cDNA 9230102N17 gene, mKIAA1876	euchromatic histone methyltransferase 1
Ehmt2	NM_145830.1	8, KMT1C, MGD-MRK-1513, MGI:1289297, MGI:1925626, MGI:88132, NG36	euchromatic histone lysine N-methyltransferase 2
Eif2s1	NM_026114.3	0910001023RIK, 2410026C18RIK, Eif2a, MGD-MRK-9332, MGI:1914622, MGI:1923524, RIKEN cDNA 0910001023 gene, RIKEN cDNA 2410026C18 gene, eIF2alpha, eukaryotic translation initiation factor 2A	eukaryotic translation initiation factor 2, subunit 1 alpha
Eif4e	NM_007917.4	EG668879, H4e, MGD-MRK-11199, MGD-MRK-9339, MGI:3649046, eIF-4E, predicted gene, EG668879 2700069E09RIK, AI036339, AV129531, DOH056743E, DNA segment, human D056743E, Eif4e3, MGD-MRK-31050, MGI:104977, MGI:2138147, MGI:2138520, RIKEN cDNA 2700069E09 gene, eukaryotic translation initiation factor 4E like 3, expressed sequence AI036339, expressed sequence AV129531	eukaryotic translation initiation factor 4E member 2
Eif4e2	NM_001039169.1	E030015G23RIK, MGC:37551, MGI:2443563, RIKEN cDNA E030015G23 gene	eukaryotic translation initiation factor 4, gamma 1
Eif4g1	NM_145941.3	AA407424, BB151133, MGI:2140119, MGI:2140640, Ssc1, expressed sequence AA407424, expressed sequence BB151133	elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like 1
Elov1	NM_019422.2	1110059L23RIK, AI747313, AU043003, MGI:2143114, MGI:2143235, RIKEN cDNA 1110059L23 gene, expressed sequence AI747313, expressed sequence AU043003	ELOVL family member 5, elongation of long chain fatty acids (yeast)
Elov6	NM_130450.2	C77826, FEN1/Elo2, SUR4/Elo3-like, LCE, MGI:2140052, expressed sequence C77826	ELOVL family member 6, elongation of long chain fatty acids (yeast)
Enah	NM_001083120.2	AI464316, AW045240, MGD-MRK-12800, MGD-MRK-37400, MGI:2138266, MGI:2138537, MGI:97291, Mena, NPC derived proline rich protein 1, Ndp1, expressed sequence AI464316, expressed sequence AW045240	ENAH actin regulator
Eno2	NM_013509.2	AI837106, D6Ert375e, DNA segment, Chr 6, ERATO Doi 375, expressed, Eno-2, MGD-MRK-9504, MGD-MRK-9507, MGI:1196312, MGI:2141477, NFE, expressed sequence AI837106	enolase 2, gamma neuronal
Enoph1	NM_001163035.1	2310057D15RIK, BB183658, C81437, MGI:2141269, MGI:2141324, RIKEN cDNA 2310057D15 gene, expressed sequence BB183658, expressed sequence C81437	enolase-phosphatase 1
Eomes	NM_010136.3	C77258, MGI:1313283, MGI:2143384, T-box brain gene 2, Tbr2, expressed sequence C77258	eomesodermin
Ep300	NM_177821.6	KAT3B, p300	E1A binding protein p300
Epas1	NM_010137.3	HIF-2alpha, HIF2A, HLF, HRF, Hif like protein, MGD-MRK-38213, MOP2, bHLHe73, hypoxia inducible transcription factor 2alpha	endothelial PAS domain protein 1
Epb415	NM_001113416.1	1700030C16RIK, AI022914, E230025E14RIK, Epb4.15, Lulu1, MGD-MRK-23843, MGI:1922900, MGI:2138387, MGI:2445067, NBL5, RIKEN cDNA 1700030C16 gene, RIKEN cDNA E230025E14 gene, erythrocyte protein band 4.1 like 5, erythrocyte protein band 4.1-like 5, expressed sequence AI022914	erythrocyte membrane protein band 4.1 like 5
Epcam	NM_008532.2	CD326, EGP-2, Egp314, Ep-CAM, EpCAM1, GA733-2, Ly74, MGD-MRK-35111, MGD-MRK-35182, TROP1, Tacstd1, epithelial glycoprotein 314, gp40, lymphocyte antigen 74, panepithelial glycoprotein 314, tumor-associated calcium signal transducer 1	epithelial cell adhesion molecule
Ercc3	NM_133658.1	Ercc-3, MGD-MRK-9577, MGD-MRK-9580, XPB, excision repair 3	excision repair cross-complementing rodent repair deficiency, complementation group 3
Esrrb	XM_006515881.2	ERR2, ERRB, Err2, Estrrb, MGD-MRK-35849, MGI:107382, estrogen receptor related 2	estrogen related receptor, beta
Ets1	NM_001038642.1	AI196000, AI448617, Ets-1, MGC:18571, MGD-MRK-15175, MGD-MRK-15200, MGD-MRK-15415, MGD-MRK-9663, MGD-MRK-9665, MGI:2142990, MGI:2143054, MGI:98794, MGI:98939, Tpl1, expressed sequence AI196000, expressed sequence AI448617, p42Ets1, p15Ets1, tumor progression locus 1, variable spotting, vs	E26 avian leukemia oncogene 1, 5' domain
Ext1	NM_010162.2	AA409028, MGI:2145899, expressed sequence AA409028	exostosin glycosyltransferase 1
F11r	NM_172647.2	AA638916, BV11 antigen, EST AA638916, ESTM33, JAM-1, JAM-A, Jcam1, Ly106, MGI:1334465, expressed sequence tag mouse EST 33, junction cell adhesion molecule, junction cell adhesion molecule1	F11 receptor
Fbn2	NM_010181.2	BC063774, Fib-2, MGD-MRK-9718, MGI:1890570, MGI:3039617, Sne, cDNA sequence BC063774, sne, sny, syndatlyl ems	fibrillin 2
Fbxo5	NM_025995.2	2510044I0RIK, C85305, Emil1, Fbxo31, MGI:2143939, RIKEN cDNA 2510044I0 gene, expressed sequence C85305	F-box protein 5
Fbxw11	NM_134015.2	2310065A07RIK, AA536858, BTRC2, BTRCP2, F-box and WD-40 domain protein 1B, Fbxw1b, HOS, MGI:1919630, RIKEN cDNA 2310065A07 gene, expressed sequence AA536858, mKIAA0696	F-box and WD-40 domain protein 11
Fer	NM_001037997.3	AV082135, C330004K01RIK, Fer protein (kinase), testis specific, Fert, Fert2, MGD-MRK-33594, MGD-MRK-9756, MGD-MRK-9757, MGI:1924790, MGI:2147017, RIKEN cDNA C330004K01 gene, expressed sequence AV082135, fer (fms/fps related) protein kinase, testis specific, fer (fms/fps related) protein kinase, testis specific 2	fer (fms/fps related) protein kinase
Fga	NM_010196.3	AI303526, ENSMUSG00000059807, Fib, MGI:2139659, MGI:3642492, expressed sequence	fibrinogen alpha chain
Fgb	NM_181849.2	AI303526, predicted gene, ENSMUSG00000059807	fibrinogen beta chain
Fgf2	NM_008006.2	2510049G14RIK, MGD-MRK-16277, MGI:1915158, RIKEN cDNA 2510049G14 gene	fibroblast growth factor 2
Fgf4	NM_010202.6	Fgf-2, FgfB, MGD-MRK-9761, MGD-MRK-9767, MGD-MRK-9774, bFGF, fibroblast growth factor, basic Fgf-4, Fgfr, Hst1, MGD-MRK-10987, MGD-MRK-9763, MGD-MRK-9769, MGD-MRK-9775, heparin secretory transforming protein 1, kFGF	fibroblast growth factor 4
Fgf7	NM_008008.4	Keratinocyte growth factor, Kgf, MGD-MRK-9772	fibroblast growth factor 7
Fgfr2	NM_010207.2	AU043015, AW556123, Bek, Fgr-2, Fgr2b, Fgr7, KGFRTR, MGD-MRK-14668, MGD-MRK-1537, MGD-MRK-9777, MGD-MRK-9780, MGD-MRK-9782, MGD-MRK-9785, MGI:2142159, MGI:2142264, MGI:98454, bacterially expressed kinase, expressed sequence AU043015, expressed sequence AW556123, fibroblast growth factor receptor 7, seminal vesicle shape, sv	fibroblast growth factor receptor 2
Fgg	NM_133862.1	3010002H13RIK, AI256424, MGD-MRK-9786, MGI:1924212, MGI:2139652, RIKEN cDNA 3010002H13 gene, expressed sequence AI256424, gamma-fibrinogen	fibrinogen gamma chain
Fkbp6	NM_001277892.1	1700008G22RIK, AU012774, D5Ert372e, DNA segment, Chr 5, ERATO Doi 724, expressed, MGI:1289148, MGI:1922705, MGI:2141034, RIKEN cDNA 1700008G22 gene, expressed sequence AU012774	FKBP6 binding protein 6
Flii	NM_022009.1	3632430F08RIK, Fliih, MGI:1921278, RIKEN cDNA 3632430F08 gene, flightless I homolog (Drosophila)	flightless I actin binding protein
Flnb	NM_134080.1	AL024016, MGI:2145716, expressed sequence AL024016	filamin, beta
Flnc	NM_001081185.1	1110055E19RIK, Fln2, MGD-MRK-9830, MGI:1916044, RIKEN cDNA 1110055E19 gene, actin binding protein 280, filamin 2	filamin C, gamma
Fmod	NM_021355.4	AI131919, AU041740, MGI:2138163, MGI:2138492, SLRR2E, expressed sequence AI131919, expressed sequence AU041740	fibromodulin
Fn1	NM_010233.1	Fn, Fn-1, MGD-MRK-9847, MGD-MRK-9848	fibronectin 1
Fnta	NM_008033.3	FTA, MGD-MRK-27046	farnesyltransferase, CAAX box, alpha
Fos	NM_010234.2	D12Rf1, DNA segment, Chr 12, Russel F. Jacoby 1, MGD-MRK-19548, MGD-MRK-9866, c-fos, cFos	FBI osteosarcoma oncogene
Fosb	NM_008036.2	MGD-MRK-9867	FBI osteosarcoma oncogene B
Fosl2	NM_008037.4	Fra-2, MGD-MRK-23691	fos-like antigen 2
Foxa1	NM_008259.4	Hnf-3a, Hnf3a, MGD-MRK-10804, MGD-MRK-14749, MGD-MRK-14755, MGD-MRK-16685, MGI:99890, Tcf-3a, Tcf3a, hepatocyte nuclear factor 3 alpha (winged helix transcription factor), transcription factor 3 alpha, transcription factor 3 alpha (winged helix)	forkhead box A1
Foxa2	NM_001291065.1	HNF3-beta, HNF3beta, Hnf-3b, Hnf3b, MGD-MRK-10805, MGD-MRK-14750, MGD-MRK-14756, MGD-MRK-16684, MGI:99889, Tcf-3b, Tcf3b, hepatocyte nuclear factor 3 beta (winged helix transcription factor), transcription factor 3 beta, transcription factor 3 beta (winged helix)	forkhead box A2
Foxd3	NM_010425.3	CWH3, Genesis, HNF-3/ forkhead homolog 2, Hfh2, MGD-MRK-16699, MGI:99903	forkhead box D3
Foxf1	NM_010426.1	AI450827, FREAC1, Foxf1a, Freac-1, HFH-8, HNF-3/ forkhead homolog 8, Hfh8, MGD-MRK-16693, MGI:2142552, MGI:99897, expressed sequence AI450827, forkhead box F1a	forkhead box F1
Fyn	NM_008054.2	AI448320, AW552119, MGD-MRK-9909, MGI:2143602, MGI:2143864, Src kinase p59, expressed sequence AI448320, expressed sequence AW552119	Fyn proto-oncogene
Fzd1	NM_021457.3	AW227548, Fz-1, Fz1, MGI:2141181, expressed sequence AW227548	frizzled class receptor 1
Fzd4	NM_008055.4	Fz4, MGD-MRK-37564	frizzled class receptor 4
Fzd7	NM_008057.3	Fz7, MGD-MRK-37614	frizzled class receptor 7
Fzd9	NM_010246.1	Fz9, frizzled 9, mFz9	frizzled class receptor 9
Fzr1	NM_019757.1	AW108046, Cdh1, Fyr, MGI:2143808, expressed sequence AW108046	fizzy and cell division cycle 20 related 1
G6pc3	NM_175935.3	0710001K01RIK, AU019276, AU05429, AV128920, AW545836, MGI:2144389, MGI:2144442, MGI:2144461, MGI:2144559, RIKEN cDNA 0710001K01 gene, expressed sequence AU019276, expressed sequence AU05429, expressed sequence AV128920, expressed sequence AW545836	glucose 6 phosphatase, catalytic, 3

G6pdx	NM_008062.3	G28A,G6pdx,Gpdx,MGD-MRK-10225,MGD-MRK-33659,MGD-MRK-9915,glucose-6-phosphate dehydrogenase 1 X-linked	glucose-6-phosphate dehydrogenase X-linked
Gabarap	NM_019749.4		gamma-aminobutyric acid receptor associated protein
Gabarapl2	NM_026693.5	0610012F20Rik,2900019008Rik,A1173605,GATE-16,Gef2,MGI:1861743,MGI:1915608,MGI:1920098,MGI:2142469,RIKEN cDNA 0610012F20 gene,RIKEN cDNA 2900019008 gene,expressed sequence A1173605	gamma-aminobutyric acid (GABA) A receptor-associated protein-like 2
Gadd45a	NM_007836.1	AA545191,DNA-damage inducible transcript 1,Ddit1,MGD-MRK-36376,MGI:2141368,expressed sequence AA545191	growth arrest and DNA-damage-inducible 45 alpha
Gas1	NM_008086.2	AW554192,Gas-1,MGD-MRK-9985,MGD-MRK-9992,MGI:2145453,expressed sequence AW554192	growth arrest specific 1
Gata3	NM_008091.3	Gata-3,MGD-MRK-10000,MGD-MRK-10004,MGI:2181648,ja,juvenile alopecia	GATA binding protein 3
Gata4	NM_008092.4	Gata-4,MGD-MRK-10001,MGD-MRK-10005	GATA binding protein 4
Gata6	NM_010258.3	AA410133,MGD-MRK-36086,MGI:2147171,expressed sequence AA410133	GATA binding protein 6
Gbx2	NM_010262.3	Gbx-2,MGD-MRK-10011,MGD-MRK-10013,MGD-MRK-36498,MGI:107918,MMoxA,Stra7,stimulated by retinoic acid gene 7	gastrulation brain homeobox 2 glycine C-acetyltransferase (2-amino-3-ketobutyrate-coenzyme A ligase)
Gcat	NM_001161712.1	A1526977,Kbj,MGI:2146035,aminoacetone synthase,expressed sequence A1526977 A1266902,D17825,MGD-MRK-25973,MGI:2142490,MGI:2142887,expressed sequence A1266902,expressed sequence D17825	glutaryl-Coenzyme A dehydrogenase
Gcdh	NM_008097.2	GCMa,Gcm 1,Gcm a,Gcm1-rs1,MGD-MRK-37081,glial cell deficient,glial cells missing homolog (Drosophila), related sequence 1,glide	
Gcm1	NM_008103.3	C78318,Gdf-3,MGD-MRK-10034,MGD-MRK-10039,MGD-MRK-15389,MGD-MRK-15391,MGI:2141745,Vg-1 related protein 2,Vgr-2,Vgr2,ecat9,expressed sequence C78318	glial cells missing homolog 1
Gdf3	NM_008108.4	BMP13,MGD-MRK-10042	growth differentiation factor 3
Gdf6	NM_013526.1	A1836096,MGD-MRK-10055,MGI:2144272,expressed sequence A1836096	growth differentiation factor 6
Gfap	NM_001131020.1	Cat-1,p95Cat	glial fibrillary acidic protein
Git1	NM_001004144.1	AU042049,AW546267,Cnx43,Cx43,Cx43alpha1,Gja-1,MGD-MRK-10079,MGD-MRK-10085,MGI:2143760,MGI:2143856,alpha 1 connexin,connexin 43,connexin43,expressed sequence AU042049,expressed sequence AW546267	GIT ARF GAP 1
Gja1	NM_010288.3	A1854843,AU023367,Bph,MGD-MRK-10107,MGD-MRK-1107,MGD-MRK-13222,MGD-MRK-15835,MGD-MRK-1615,MGI:2145311,MGI:2145364,Pdn,Xt,add,anterior digit pattern deformity,brachyphalangy,expressed sequence A1854843,expressed sequence AU023367,extra toes,polydactyly Nagoya	gap junction protein, alpha 1
Gli3	NM_008130.3	A1314027,B230365M23Rik,MGD-MRK-10135,MGI:2138193,MGI:2444416,RIKEN cDNA B230365M23 gene,expressed sequence A1314027	GLI-Kruppel family member GLI3
Gls	NM_001113383.1	A330074806Rik,A1195532,Lga,RIKEN cDNA A330074806 gene,expressed sequence A1195532	glutaminase
Gls2	NM_001033264.3	A118167,Gdlh-X,Gludl,MGD-MRK-10046,MGD-MRK-10136,MGD-MRK-10139,MGI:2145599,anonymous DNA segment, Chr 14,expressed sequence A118167,glutamate dehydrogenase like sequence	glutaminase 2 (liver, mitochondrial)
Glud1	NM_008133.4	G5,Glns,MGD-MRK-10117,glutamine synthetase	glutamate dehydrogenase 1
Glul	NM_008131.3	A1414047,A1504261,Galphi12,MGD-MRK-10176,MGI:2140857,MGI:2140922,expressed sequence A1414047,expressed sequence A1504261	glutamate-ammonia ligase (glutamine synthetase)
Gna12	NM_010302.2	AA409223,C77571,Gnb-1,MGD-MRK-10195,MGD-MRK-10200,MGI:2140144,MGI:2140659,expressed sequence AA409223,C77571,expressed sequence C77571	guanine nucleotide binding protein, alpha 12
Gnb1	NM_008142.3	Gnb-2,MGD-MRK-10197,MGD-MRK-10203	guanine nucleotide binding protein (G protein), beta 1
Gnb2	NM_010312.4		guanine nucleotide binding protein (G protein), beta 2
Gnmt	NM_010321.1	AL022787,FABP-pm,Got-2,Kyat4,MGD-MRK-10214,MGD-MRK-10216,MGI:2142656,expressed sequence AL022787,mAspAT,mitochondrial aspartate aminotransferase,plasma membrane fatty acid binding protein	glycine N-methyltransferase
Got2	NM_010325.2	A930008A22Rik,A1593249,MGI:2143098,RIKEN cDNA A930008A22 gene,expressed sequence A1593249,mKIAA1201	glutamatic-oxaloacetic transaminase 2, mitochondrial
Gramd1b	NM_172768.1	573051D09Rik,A1325020,MGD-MRK-24105,MGI:1915227,MGI:2144128,Meg1,RIKEN cDNA 573051D09 gene,expressed sequence A1325020,mKIAA0207,maternally expressed gene 1	GRAM domain containing 1B
Grb10	NM_010345.4	AA408164,MGD-MRK-10242,MGI:2143976,expressed sequence AA408164	growth factor receptor bound protein 10
Grb2	NM_008163.4	MGD-MRK-10283,gooseoid	growth factor receptor bound protein 2
Gsc	NM_010351.1	27000806H06Rik,MGI:1924078,RIKEN cDNA 27000806H06 gene	gooseoid homeobox
Gsk3a	NM_001031667.1	maleylacetoacetate isomerase	glycogen synthase kinase 3 alpha
Gstz1	NM_010363.4		glutathione transferase zeta 1 (maleylacetoacetate isomerase)
Hand1	NM_008213.2	Ehand1,HLH transcription factor expressed in extraembryonic mesoderm and trophoblast,Hxt,MGD-MRK-24462,MGD-MRK-25634,MGI:104306,Th1,Thing1,bHLHa27,eHAND,extraembryonic tissues, heart and neural crest derivatives expressed transcript 1 A1225906,A1661148,Ehand2,HLH transcription factor expressed in embryo and deciduum,Hed,MGD-MRK-24465,MGD-MRK-25633,MGI:104305,MGI:2142483,MGI:2142607,Thing2,bHLHa26,dHAND,expressed sequence A1225906,expressed sequence A1661148,extraembryonic tissues, heart and neural crest derivatives expressed transcript 2	heart and neural crest derivatives expressed 1
Hand2	NM_010402.4		heart and neural crest derivatives expressed 2
Hdac1	NM_008228.2	HD1,MGD-MRK-37123,MGI:3586542,MommeD5,RPD3,modifier of murine metastable epialleles, D5	histone deacetylase 1
Hdac10	NM_199198.2	AW548891,MGI:2146231,expressed sequence AW548891	histone deacetylase 10
Hdac2	NM_008229.2	D10Wsu179e,DNA segment, Chr 10, Wayne State University 179, expressed,MGD-MRK-36452,MGI:107875,Yy1 transcription factor binding protein,Yy1bp	histone deacetylase 2
Hdac3	NM_010411.2	AW537363,MGI:2140771,expressed sequence AW537363	histone deacetylase 3
Hdac6	NM_010413.3	MGI:1343096,Sf6c,mHDA2,scurl candidate 6 4632417D23Rik,5530401I02Rik,9530025L16Rik,BC038614,Gm629,LOC268884,MGI:1918609,MGI:2685475,MGI:3039595,MGI:3606087,MGI:3801754,OTTMUSG00000027315,RIKEN cDNA 4632417D23 gene,RIKEN cDNA 5530401I02 gene,RIKEN cDNA 9530025L16 gene,cDNA sequence BC038614, gene model 629, (NCBI),predicted gene, OTTMUSG00000027315	histone deacetylase 6
Heg1	NM_175256.5	A1316788,A1414254,CHF2,HRT1,Herp2,Hesr1,MGI:2139670,MGI:2139691,bHLHb31,expressed sequence A1316788,expressed sequence A1414254,hesr-1	heart development protein with EGF-like domains 1
Hey1	NM_010423.2		hairly/enhancer-of-split related with YRPW motif 1
Heyl	NM_013905.3	Hesr3,Hesr3,Hrt3,MGI:1353482,bHLHb33	hairly/enhancer-of-split related with YRPW motif-like
Hlcs	NM_139145.4	410I21.SP6.D16Jhu34,DNA segment, Chr 16, Johns Hopkins University 34,MGI:1338005 AL023995,HMG-I(Y),HMGII(Y),HMGY,Hmga1a,Hmga1b,Hmgi,Hmgly,MGD-MRK-10796,MGI:2144347,expressed sequence AL023995,high mobility group protein I	holocarboxylase synthetase (biotin- [propionyl-coenzyme A-carboxylase (ATP-hydrolysing)] ligase)
Hmga1b	NM_001025427.3	DEF,HMG-1,Hmg1,MGD-MRK-10748,SBP-1,amphoterin,high mobility group protein 1,p30	Hmga1b (NM_001166477;NM_001166476)
Hmgb1	NM_010439.4	Hox-1.5,MGD-MRK-10821,MGD-MRK-10876,Mo-10,homeo box-1 cluster, gene 5	high mobility group AT-hook 1
Hoxa3	XM_011241225.2	A1894218,Hox-2.8,Hoxbes2,MGD-MRK-10836,MGD-MRK-10884,MGI:2144329,expressed sequence A1894218,homeo box-2 cluster, gene 8	high mobility group box 1 homeobox A3
Hoxb2	NM_134032.2	Hox-2.7,MGD-MRK-10835,MGD-MRK-10885,homeo box-2 cluster, gene 7	homeobox B2
Hoxb3	NM_001079869.1	Hox-2.6,MGD-MRK-10834,MGD-MRK-10886,homeo box-2 cluster, gene 6	homeobox B3
Hoxb4	NM_010459.7	D130011F21Rik,Hox-3.1,MGD-MRK-10839,MGD-MRK-10899,MGI:2445105,RIKEN cDNA D130011F21 gene,homeo box-3 cluster, gene 1	homeobox B4
Hoxc8	NM_010466.1	F liver antigen,F liver protein,Fla,Flp,Hppd,Laf,MGD-MRK-10914,MGD-MRK-10921,MGD-MRK-11728,MGD-MRK-9821,MGD-MRK-9831,MGI:95551,liver antigen F	homeobox C8
Hpd	NM_008277.2	H-ras,Ha-ras,Harvey rat sarcoma virus oncogene 1,Harvey-ras,Hras-1,Hras1,MGD-MRK-10930,MGD-MRK-10931,c-H-ras,c-rasHa	4-hydroxyphenylpyruvic acid dioxygenase
Hras	NM_001130443.1	2610510005Rik,A1172963,KIK-I,MGI:1923794,MGI:2138848,RIKEN cDNA 2610510005 gene,expressed sequence A1172963,keratoadhesin,keratonectin	Harvey rat sarcoma virus oncogene
Hsd17b12	NM_019657.4	A1255428,C78922,ldb2,MGD-MRK-11154,MGI:2144775,MGI:2145094,bHLHb26,expressed sequence A1255428,expressed sequence C78922,inhibitor of differentiation 2	hydroxysteroid (17-beta) dehydrogenase 12
Id2	NM_010496.3	ldb4,MGD-MRK-16175,bHLHb27	inhibitor of DNA binding 2
Id4	NM_031166.2	Ido,Indo,MGD-MRK-11186,indole 2,3-dioxygenase,indole 2,4-dioxygenase,indoleamine-pyrrole 2,3-dioxygenase	inhibitor of DNA binding 4
Ido1	NM_008324.1	IFN-alpha/betaR,Ifr,Ifrc,MGD-MRK-11211,MGD-MRK-11223,MGD-MRK-36233	indoleamine 2,3-dioxygenase 1
Ifrnr1	NM_010508.1	CD119,IFN-gamma R,IFN-gammaR,Ifr,Ifrng,MGD-MRK-11215,MGD-MRK-36230,Nktar	interferon (alpha and beta) receptor 1
Ifrng2	NM_008338.3	Ifrg2,Ifrg,MGD-MRK-11216,MGD-MRK-25614,MGD-MRK-36229,interferon-gamma transducer	interferon gamma receptor 1
Ifrnr2	NM_008338.3	A1661311,MGI:1930191,T-complex expressed gene 5,Tce5,WD and tetra-tricopeptide repeats	interferon gamma receptor 2
Ifr140	NM_134126.3	2,Wdtdc2,expressed sequence A1661311,mKIAA0590	intraflagellar transport 140
Igf3	NM_008343.2	A1649005,IGFBP-3,MGD-MRK-11235,MGI:2144251,expressed sequence A1649005	insulin-like growth factor binding protein 3

		1110037D23Rik,AI848108,AI851264,AW124339,IKK[g],MGI:1923574,MGI:2147920,MGI:2147925,MGI:2148001,NEMO,RIKEN cDNA 1110037D23 gene,expressed sequence AI848108,expressed sequence AI851264,expressed sequence AW124339	inhibitor of kappaB kinase gamma
Ikbkg	NM_178590.2		
Il15	NM_008357.2	AI503618,MGD-MRK-23851,MGI:2142577,expressed sequence AI503618	interleukin 15
Il4ra	NM_001008700.3	CD124,IL-4 receptor alpha chain,Il4r,MGD-MRK-11386,MGD-MRK-33035,interleukin 4 receptor 5133400A03Rik,AA389424,BB405851,CD130,D13ErtD699e,DNA segment, Chr 13, ERATO Doi 699, expressed,MGD-MRK-11393,MGI:1277187,MGI:1918567,MGI:3034594,MGI:3034705,RIKEN cDNA 5133400A03 gene,expressed sequence AA389424,expressed sequence BB405851,gp130	interleukin 4 receptor, alpha
Il6st	NM_010560.2	AA511515,EST AA511515,ESTM24,MGI:1201384,expressed sequence tag mouse EST 24	interleukin 6 signal transducer
Ilk	NM_010562.2	2310079N19Rik,4632409L19Rik,INO80 complex homolog 1 (S. cerevisiae),Inoc1,MGI:1923726,RIKEN cDNA 2310079N15 gene,RIKEN cDNA 4632409L19 gene	integrin linked kinase
Ino80	NM_026574.3	Ins-1,Ins2-rs1,MGD-MRK-11410,MGD-MRK-11413,MGD-MRK-11415,insulin 2, related sequence	INO80 complex subunit
Ins1	NM_008386.4	AA986540,Ins-2,InsII,MGD-MRK-11411,MGD-MRK-11414,MGD-MRK-39550,MGI:109551,MGI:2141856,Mody4,expressed sequence AA986540,maturity onset diabetes of the young,maturity onset diabetes of the young 4	insulin I
Ins2	NM_008387.3	AA408924,IRAK-1,Il1rak,MGD-MRK-35890,MGI:2147821,Plpk,expressed sequence	insulin II
Irak1	NM_008363.2	AA408924,interleukin 1 receptor-associated kinase,mPLK,pelle-like protein kinase	interleukin-1 receptor-associated kinase 1
Isl1	NM_021459.4	Isl1,MGD-MRK-18599	ISL1 transcription factor, LIM/homeodomain
Itpa2b	NM_010575.2	A1172977,CD41,GP Iib,GP1Ib,MGD-MRK-11480,MGI:2144076,alphalIb,expressed sequence	integrin alpha 2b
Itpa5	NM_001314041.1	Cd49e,Fnra,MGD-MRK-11483,MGD-MRK-9851,fibronectin receptor alpha (Itpa5) 4633401G24Rik,AA409975,AA960159,CD29,ENSMUSG00000051907,FnrB,Gm9863,MGD-MRK-11489,MGD-MRK-9852,MGI:1918062,MGI:2142419,MGI:2142452,MGI:3708799,RIKEN cDNA 4633401G24 gene,beta1 integrin,expressed sequence AA409975,expressed sequence AA960159, fibronectin receptor beta (integrin),predicted gene 9863,predicted gene, ENSMUSG00000051907	integrin alpha 5 (fibronectin receptor alpha)
Itpb1	NM_010578.1	CD61,MGD-MRK-11491,platelet glycoprotein IIIa (GP3A)	integrin beta 1 (fibronectin receptor beta)
Itpb3	NM_016780.2	1300016K07Rik,6720455E18Rik,AI463340,MGI:1914156,MGI:1925136,MGI:2138971,RIKEN cDNA 1300016K07 gene,RIKEN cDNA 6720455E18 gene,expressed sequence AI463340	integrin beta 3
Ivd	NM_019826.3	AA960307,BAP004,C130039L05Rik,MGD-MRK-11516,MGI:2140180,MGI:2443062,MGI:5425487,RIKEN cDNA C130039L05 gene,bone alkaline phosphatase mutant 004,expressed sequence AA960307	isovaleryl coenzyme A dehydrogenase
Jak1	NM_146145.2	A1504024,C81284,MGD-MRK-11517,MGI:2147569,MGI:2147795,expressed sequence	Janus kinase 1
Jak2	NM_008413.2	A1504024,expressed sequence C81284	Janus kinase 2
Jarid2	NM_021878.2	A1317256,AU045941,C79929,C79931,mj,j,MGD-MRK-28107,MGI:2139495,MGI:2145204,MGI:2145380,MGI:2145512,expressed sequence	jumonji, AT rich interactive domain 2
Jun	NM_010591.2	MGD-MRK-11539	jun proto-oncogene
Junb	NM_008416.1	Jun-D oncogene,MGD-MRK-11541,MGD-MRK-11542	jun B proto-oncogene
Jund	NM_010592.5	AL022715,AW545708,Ctnng,D930025P04Rik,MGD-MRK-11544,MGI:2144342,MGI:2144558,PG,RIKEN cDNA D930025P04 gene,expressed sequence AL022715,expressed sequence AW545708,gamma-catenin,plakoglobin	jun D proto-oncogene
Jup	NM_010593.2	1810043007Rik,AA408884,Aof2,D4ErtD478e,DNA segment, Chr 4, ERATO Doi 478, expressed,Kdm1a,LSDI,1917041,MGI:2140140,RIKEN cDNA 1810043007 gene,amine oxidase (flavin containing) domain 2,expressed sequence AA408884,lysine (K)-specific demethylase 1A	junction plakoglobin
Kdm1a	NM_001356567.1	Eg5,Kif11,Kns1I,MGI:1306820,kinesin-like 1	lysine (K)-specific demethylase 1A
Kif11	NM_010615.1	3110001D19Rik,C87313,CHO1,Kns1S,MGI:2143440,MKLP-1,MKLP1,RIKEN cDNA 3110001D19 gene,expressed sequence C87313,kinesin-like 5 (mitotic kinesin-like protein 1)	kinesin family member 11
Kif23	NM_024245.3	A1325457,BB123200,MGD-MRK-38246,MGI:2142509,MGI:2142831,expressed sequence	kinesin family member 23
Kifc3	NM_001145831.1	A1325457,expressed sequence BB123200	kinesin family member C3
Kitl	NM_013598.1	Clo,Con,Gb,Kitlg,MGD-MRK-10006,MGD-MRK-12219,MGD-MRK-14435,MGD-MRK-2018,MGD-MRK-2093,MGI:5304521,Mgf,SCF,SF,SIF,Sl,Steel,Steel factor,blaze,blz,cloud gray,contrasted,grizzle-belly,mast cell growth factor,steel,stem cell factor	kit ligand
Klf2	NM_008452.2	Lkf,MGD-MRK-27042,MGI:104679,lung Kruppel-like factor	Kruppel-like factor 2 (lung)
Klf4	NM_010637.3	EZF,Gkif,MGD-MRK-36140,MGD-MRK-37337,MGI:107568,Zie,gut enriched Kruppel-like factor,zinc finger protein epithelial	Kruppel-like factor 4 (gut)
Klf5	NM_009769.4	4930520J07Rik,Bteb2,CKLF,IKLF,MGI:1922343,RIKEN cDNA 4930520J07 gene,basic transcription element binding protein 2	Kruppel-like factor 5
Kpna4	NM_008467.4	1110058D08Rik,IPOA8,MGI:1926016,RIKEN cDNA 1110058D08 gene,importin alpha 3	karyopherin (importin) alpha 4
Kpnb1	NM_008379.3	AA409963,Impnb,MGD-MRK-36102,MGI:2144006,expressed sequence AA409963,importin beta	karyopherin (importin) beta 1
Kras	NM_021284.6	A1929937,K-ras,Ki-ras,Kirsten rat sarcoma oncogene 2, expressed,Kras-2,Kras2,MGD-MRK-11597,MGD-MRK-11601,MGI:2141518,expressed sequence A1929937	Kirsten rat sarcoma viral oncogene homolog
Lamb1	NM_008482.2	C77966,C80098,C81607,D130003D08Rik,Lamb-1,Lamb1-1,MGD-MRK-11734,MGD-MRK-11737,MGI:2145087,MGI:2145103,MGI:2145114,RIKEN cDNA D130003D08 gene,expressed sequence C77966,expressed sequence C80098,expressed sequence C81607,laminin B1 polypeptide,laminin B1 subunit 1	laminin B1
Lamc1	NM_010683.2	A1196048,CD107a,Lamp-1,MGD-MRK-11740,MGD-MRK-11742,MGI:2142479,Perk,expressed sequence A1196048	laminin, gamma 1
Lamp1	NM_010684.2	2400001E08Rik,RIKEN cDNA 2400001E08 gene,p18	lysosomal-associated membrane protein 1
Lamtor1	NM_025605.3	CLIM2	late endosomal/lysosomal adaptor, MAPK and MTOR activator 1
Ldb1	NM_010697.1	AI451430,Lef-1,MGD-MRK-11782,MGD-MRK-11783,MGI:2139722,expressed sequence	LIM domain binding 1
Lef1	NM_001276402.1	AI451430,lymphoid enhancer factor 1	lymphoid enhancer binding factor 1
Lefty1	NM_010094.4	AI450052,Ebaf,Leftb,Lefty,MGD-MRK-35873,MGD-MRK-36501,MGI:107921,MGI:2138250,Stra3,Tgfb4,expressed sequence AI450052,left-right determination, factor B,Lefty-1,stimulated by retinoic acid gene 3,transforming growth factor, beta 4 6030463A22Rik,AV214969,Ebaf,Leftb,MGI:2138525,RIKEN cDNA 6030463A22 gene,expressed sequence AV214969	left right determination factor 1
Lefty2	NM_177099.4	Gm185,LOC235497, gene model 185, (NCBI)	left-right determination factor 2
Leo1	NM_001039522.1	LEPROT,Leprb,MGD-MRK-12969,MGD-MRK-31066,MGD-MRK-8799,Modb1,OB-RGR,Ob_r,db,diabetes,leptin receptor gene-related protein,obese-like,obI	Leo1, Paf1/RNA polymerase II complex component
Lepr	NM_010704.2	Lim1,MGD-MRK-16569	leptin receptor
Lhx1	NM_008498.2	MGD-MRK-11807	LIM homeobox protein 1
Lif	NM_008501.2	A230075M04Rik,AW061234,MGD-MRK-11808,MGI:2146188,MGI:2442497,RIKEN cDNA A230075M04 gene,expressed sequence AW061234,soluble differentiation-stimulating factor receptor	leukemia inhibitory factor
Lifr	NM_001113386.1	AW822033,D9ErtD192e,DNA segment, Chr 9, ERATO Doi 192, expressed,MGI:1098702,MGI:2143352,expressed sequence AW822033	LIF receptor alpha
Limd1	NM_013860.2	AL024421,Lin-28,Lin28,MGI:2140415,Text17,expressed sequence AL024421,lin-28 homolog (C. elegans),testis expressed gene 17	LIM domains containing 1
Lin28a	NM_145833.1	2700022J23Rik,AA537062,AA545216,MGI:2138112,MGI:2138113,RIKEN cDNA 2700022J23 gene,expressed sequence AA537062,expressed sequence AA545216	lin-28 homolog A (C. elegans)
Lin9	NM_175186.4	AI893619,MGD-MRK-11866,MGI:2147282,TSC-160,expressed sequence AI893619,ras reversion gene (rrg)	lin-9 homolog (C. elegans)
Lox	NM_010728.3	Ldc,MGD-MRK-23785,MGD-MRK-38392,SLRR2D	lysyl oxidase
Lum	NM_008524.2	2310033C13Rik,G1-453-4,MAD2B,MGI:3512803,REV7,RIKEN cDNA 2310033C13 gene,repo22, reproductive mutant 22, JAX Reproductive Mutagenesis Program	lumican
Mad2l2	NM_027985.2	2810401A20Rik,A230108G15Rik,AW047063,MGD-MRK-12101,MGI:1925586,MGI:2142746,MGI:2444997,RIKEN cDNA 2810401A20 gene,RIKEN cDNA A230108G15 gene,c-maf,expressed sequence AW047063	MAD2 mitotic arrest deficient-like 2
Maf	NM_001025577.2	RIPE3b1	avian musculoaponeurotic fibrosarcoma oncogene homolog
Mafa	NM_194350.1	MGD-MRK-12102	v-maf musculoaponeurotic fibrosarcoma oncogene family, protein A (avian)
Maff	NM_010755.4		v-maf musculoaponeurotic fibrosarcoma oncogene family, protein F (avian)

Magi2	NM_015823.3	Acvripin1,Magi-2,S-SCAM,activin receptor interacting protein 1,mKIAA0705 1010001H21Rik,492501H04Rik,LC3,LC3a,MGI:1913984,RIKEN cDNA 1010001H21 gene,RIKEN cDNA 492251H04 gene	membrane associated guanylate kinase, WW and PDZ domain containing 2
Map1lc3a	NM_025735.3	1010001C15Rik,Atg8,LC3b,Map1lc3,RIKEN cDNA 1010001C15 gene	microtubule-associated protein 1 light chain 3 alpha
Map1lc3b	NM_026160.4	G1-397-34,MAP-2,MGD-MRK-12580,MGD-MRK-12585,MGI:3512774,Mtap2,repo4,reproductive mutant 4, JAX Reproductive Mutagenesis Program	microtubule-associated protein 1 light chain 3 beta
Map2	NM_008632.2	MAP kinase kinase 1,MGD-MRK-19441,MGD-MRK-19443,MGI:102562,Mek1,Prkm1,protein kinase, mitogen activated, kinase 1, p45	microtubule-associated protein 2
Map2k1	NM_008927.4	JNKK1,MGD-MRK-35660,MGI:107199,MKK4,SAPK/Erk/kinase 1,SeK1,SerK1	mitogen-activated protein kinase kinase 1
Map2k4	NM_009157.4	DLK,MGD-MRK-19592,MGI:102689,MUK,Zpk,zipper (leucine) protein kinase	mitogen-activated protein kinase kinase 4
Map3k12	NM_001163643.1	C87327,EST C87327,MGI:1203726,MGI:2135559,TAK1,TGF-beta activated kinase 1,TGF-beta-activated kinase 1,TaK1,transforming growth factor beta-activated kinase 1,transforming growth factor-beta-activated kinase 1	mitogen-activated protein kinase kinase kinase 12
Map3k7	NM_009316.1	4833416M07Rik,9530052P13Rik,MGI:1926112,RIKEN cDNA 9530052P13 gene	mitogen-activated protein kinase kinase kinase 7
Map4k3	NM_001081357.1	9430080K19Rik,AU043147,AU045934,AU046177,MGD-MRK-39589,MGI:109590,MGI:1915370,MGI:2138498,MGI:2138507,MGI:2138541,NCK interacting kinase,Nik,RIKEN cDNA 9430080K19 gene,expressed sequence AU043147,expressed sequence AU045934,expressed sequence AU046177	mitogen-activated protein kinase kinase kinase 3
Map4k4	NM_008696.2	9030612K14Rik,AA407128,AU018647,C78273,Erk2,MAPK2,MGD-MRK-33596,MGD-MRK-9584,MGI:105919,MGI:1921796,MGI:2146330,MGI:2146551,MGI:2146700,Prkm1,RIKEN cDNA 9030612K14 gene,erk related tyrosine kinase 2,expressed sequence AA407128,expressed sequence AU018647,expressed sequence C78273,p42mapk,protein kinase, mitogen activated kinase 1 C230008H04Rik,JNK3,MGD-MRK-36125,MGI:107554,MGI:2442453,RIKEN cDNA C230008H04 gene,SAPK/Erk/kinase 2,SerK2,p493f12	mitogen-activated protein kinase kinase kinase 4
Mapk1	NM_011949.3	P38b,Prkm11,SapK2,p38beta,protein kinase, mitogen activated kinase, 11, p38beta	mitogen-activated protein kinase 1
Mapk10	NM_001081567.1	CD2-related kinase 1,CSP2,Crk1,Csbp1,MGD-MRK-2145,MGI:1338028,MGI:88502,Mxi2,cytokine suppressive anti-inflammatory drug binding protein 1,p38,p38 MAP Kinase,p38 MAP kinase alpha,p38	mitogen-activated protein kinase 10
Mapk11	NM_011161.5	MAPK,p38 alpha,p38-alpha,p38MAPK,p38a,p38alpha	mitogen-activated protein kinase 11
Mapk14	NM_011951.3	Erk-1,Erk1,Esrk1,MGD-MRK-12586,MGD-MRK-33597,MGD-MRK-9583,MGD-MRK-9654,MGI:105920,MGI:95451,MGI:97176,Mtap2,K,Prkm3,erk related tyrosine kinase 1,extra cellular signal regulated kinase 1,microtubule-associated protein 2 kinase,microtubule-associated protein-2 kinase,p44 MAP kinase,p44erk1,p44mapk,protein kinase, mitogen activated kinase 3	mitogen-activated protein kinase 14
Mapk3	NM_011952.2	BMK1,ERK5,Erk5-T,MGI:5554536,Mutant line 2346,b2b2346Clo,big MAP kinase 1	mitogen-activated protein kinase 3
Mapk7	NM_011841.1	A1849689,JNK1,MGI:1328367,MGI:2145699,Prkm8,c-Jun N-terminal kinase,expressed sequence A1849689,protein kinase mitogen-activated 8	mitogen-activated protein kinase 7
Mapk8	NM_016700.3	A1851083,JNK/SAPK alpha,JNK2,MGI:1202396,MGI:2144306,Prkm9,c-Jun N-terminal kinase,expressed sequence A1851083,protein kinase, mitogen-activated 9	mitogen-activated protein kinase 8
Mapk9	NM_207692.2	A1591529,D230039K05Rik,MGI:2139008,RIKEN cDNA D230039K05 gene,Sin1,expressed sequence A1591529	mitogen-activated protein kinase 9
Mapkap1	NM_177345.3	AA960234,MAPKAP kinase 2,MGD-MRK-38343,MGI:2138137,MK2,Rps6kc1,expressed sequence AA960234,ribosomal protein S6 kinase, 60 kDa, polypeptide 1	mitogen-activated protein kinase associated protein 1
Mapkapk2	NM_008551.2	MK5,PRAK	MAP kinase-activated protein kinase 2
Mapkapk5	XM_990515.1	1600015G02Rik,A430080F22Rik,C-TAK1,ETK-1,MGI:1913749,MGI:2441800,RIKEN cDNA 1600015G02 gene,RIKEN cDNA A430080F22 gene,mKIAA1860	MAP kinase-activated protein kinase 5
Mark3	NM_022801.4	A1046368,AdoMet,AMS,MAT,MATA1,MGD-MRK-1311,MGI:2145596,S-adenosylmethionine synthetase,SAMS,SAMS1,expressed sequence A1046368	MAP/microtubule affinity regulating kinase 3
Mat1a	NM_133653.3	1110007A04Rik,RIKEN cDNA 1110007A04 gene	methionine adenosyltransferase 1, alpha methylmalonyl CoA epimerase
Mcee	NM_028626.1	AL033361,C80350,MGD-MRK-18667,MGI:2138404,MGI:2138691,Mcmd,P1,expressed sequence AL033361,expressed sequence C80350,mini chromosome maintenance deficient (S. cerevisiae),p1.m D1Wsu22e,DNA segment, Chr 1, Wayne State University 22, expressed,MGD-MRK-34267,MGI:106573,Mcmd6,mini chromosome maintenance deficient 6 (S. cerevisiae)	
Mcm3	NM_008563.2	B230377803Rik,D17921,DNA segment, D17921,MDH-s,MGD-MRK-12354,MGD-MRK-12356,MGI:1337125,MGI:2443968,Mor-2,Mor2,RIKEN cDNA B230377803 gene,malate dehydrogenase, soluble	minichromosome maintenance complex component 3
Mcm6	NM_008567.1	MGD-MRK-12166,MGD-MRK-12189,MK,Mek,mdigestation embryo & kidney gene	minichromosome maintenance complex component 6
Mdh1	NM_008618.3	1500041B07Rik,BB130002,D630021H01Rik,MGD-MRK-16719,MGI:2148036,MGI:2442482,MGI:2442970,Mbd5,RIKEN cDNA 1500041B07 gene,RIKEN cDNA D630021H01 gene,WBP10,expressed sequence BB130002	malate dehydrogenase 1, NAD (soluble)
Mdk	NM_001012335.1	A430079H05Rik,MGD-MRK-16310,MGI:2445167,RIKEN cDNA A430079H05 gene	midkine
Mecp2	NM_010788.2	C530044H18Rik,MGD-MRK-27080,MGI:2443806,RIKEN cDNA C530044H18 gene	methyl CpG binding protein 2
Mei2a	NM_001033713.1	A1385561,D330041M02Rik,MGD-MRK-12394,MGD-MRK-12396,MGD-MRK-24090,MGI:2144139,Mox-1,Mox1,RIKEN cDNA D330041M02 gene,expressed sequence A1385561	myocyte enhancer factor 2A
Meis1	NM_001193271.1	MGD-MRK-36362,BHLH5	Meis homeobox 1
Meox1	NM_010791.3	MAGP-2	mesenchyme homeobox 1
Mesp1	NM_008588.2	2610042J20Rik,MGD-MRK-12160,MGD-MRK-12784,MGI:1923814,MGI:2146731,MGI:96946,N28182,RIKEN cDNA 2610042J20 gene,expressed sequence N28182,mKIAA0544,mahoganoid,md,nc,non-agouti curly,non-agouti-curly	mesoderm posterior 1
Mfpap5	NM_015776.2	4933425I2Rik,5830411K19Rik,MGI:1923268,RIKEN cDNA 4933425I22 gene,RIKEN cDNA 5830411K19 gene,mKIAA1610	microfibrillar associated protein 5
Mgrn1	NM_001252437.1	MGI:1203526,MINK,Map4k6,Misshapen/NIKS-related kinase,Yeast Sps1/Ste20-related kinase 2 (S. cerevisiae),Ysk2,mitogen-activated protein kinase kinase kinase 6	mahogunin, ring finger 1
Mier1	NM_001039081.2	AI325305,MGD-MRK-18727,MGI:2145621,MGI:3717409,MT1-MMP,Membrane type 1-MMP,expressed sequence AI325305,sabe,small and bugged-eyed	MEIR1 transcription regulator
Mink1	NM_001045959.1	Mcol-A	misshapen-like kinase 1 (zebrafish)
Mix1	NM_013729.3	Mcol-B	Mix1 homeobox-like 1 (Xenopus laevis)
Mmp14	NM_008608.3	72kDa gelatinase,72kDa type IV collagenase,C1g4a,GelA,MGD-MRK-12279,MGD-MRK-2013,MMP-2,collagenase IVA, basement membrane, 72 kDa gelatinase A	matrix metalloproteinase 14 (membrane-inserted)
Mmp1a	NM_032006.3	MORFRG15,MRG15,TEG-189,TEX189,testis expressed gene 189	matrix metalloproteinase 1a (interstitial collagenase)
Mmp1b	NM_032007.3	CHAMP, Csm	matrix metalloproteinase 1b (interstitial collagenase)
Mmp2	NM_008610.2	BB122635,Hox8,Hox8.1,MGD-MRK-10868,MGD-MRK-12571,MGI:2145474,expressed sequence BB122635,homeo box-8 cluster, msh-like	matrix metalloproteinase 2
Morf4l1	NM_024431.2	MGD-MRK-12575,MGD-MRK-12578,MT-3,Mt-3	matrix metalloproteinase 2
Mov10l	NM_031260.2	MGD-MRK-18594,MGI:2151619,MTF-1,Thy1s,metal response element-binding transcription factor 1,metalloregulatory transcription factor,thymic lymphoma susceptibility	matrix metalloproteinase 2
Mov10l	NM_031260.2	AA596759,EST AA596759,ESTM44,FYVE zinc finger phosphatase,FYVE-DSP2,MGI:1334430,ZFYVE11,expressed sequence tag mouse EST 44,mKIAA0647	matrix metalloproteinase 2
Mov10l	NM_031260.2	AU016757,MGD-MRK-12736,MGI:2146128,Myc2,Niard,Nird,bHLHE39,c-myc,expressed sequence AU016757,non-immunoglobulin rearranging DNA sequence	matrix metalloproteinase 2
Mov10l	NM_031260.2	B-MyHC,MGD-MRK-12742,MGD-MRK-12744,MGI:97256,MYH-beta/slow,MyHC-I,Myhc-b,Myhcb,beta-MHC,betaMHC,myosin heavy chain, cardiac muscle, fetal	matrix metalloproteinase 2
Mov10l	NM_031260.2	Gm32672,MGD-MRK-12770,MGI:5591831,MLC-2,MLC-2v,Mlc2v,MyIpc,myosin light chain, phosphorylatable, cardiac ventricles,predicted gene, 32672	matrix metalloproteinase 2
Mov10l	NM_031260.2	2410002E02Rik,ENK,RIKEN cDNA 2410002E02 gene,ecat4	matrix metalloproteinase 2
Mov10l	NM_031260.2	9930003A20Rik,BC028801,C230080M11Rik,MGI:2443315,MGI:2444573,MGI:3040671,POMFIL3,RIKEN cDNA 9930003A20 gene,RIKEN cDNA C230080M11 gene,cDNA sequence BC028801,mKIAA1151,steerin-1,unc53H1	matrix metalloproteinase 2
Mov10l	NM_031260.2	CD56,E-NCAM,MGD-MRK-12786,NCAM,NCAM-1,NCAM-120,NCAM-140,NCAM-180	matrix metalloproteinase 2
Mov10l	NM_031260.2	5730405M06Rik,A230020K14Rik,MGD-MRK-24052,MGI:103184,MGI:2441784,MGI:2444535,N-CoR,RIKEN cDNA 5730405M06 gene,RIKEN cDNA A230020K14 gene,Xrrip13,mKIAA1047,retinoid X receptor interacting protein 13	matrix metalloproteinase 2
Mov10l	NM_031260.2	2210401F17Rik,2310039H15Rik,2610003B19Rik,8kDa,9130423F15Rik,MGI:1913636,MGI:1918864,MGI:1919520,RIKEN cDNA 2210401F17 gene,RIKEN cDNA 2310039H15 gene,RIKEN cDNA 2610003B19 gene,RIKEN cDNA 9130423F15 gene	matrix metalloproteinase 2
Mov10l	NM_031260.2	AL033311,MGC:27667,MGI:2138402,expressed sequence AL033311	matrix metalloproteinase 2
Ndufab1	NM_001360743.1		NADH:ubiquinone oxidoreductase subunit A1
Ndufs2	NM_153064.4		NADH:ubiquinone oxidoreductase core subunit 52

Nedd8	NM_008683.3	MGD-MRK-12814,Rub1 AA166324,C78523,EST AA166324,ESTM46,Ifaprc2,MGD-MRK-18592,MGI:1334428,MGI:1345191,MGI:1929610,MGI:2140057,Marc2,RC2,antigen identified by monoclonal antibody RC2,expressed sequence C78523,expressed sequence tag mouse EST 46,intermediate filament-associated protein RC2	neural precursor cell expressed, developmentally down-regulated gene 8
Nes	NM_016701.3	MGD-MRK-36330,Math4C,Neurod3,bHLHa6,neurogenic differentiation 3,neurogenin,ngn1	nestin
Neurog1	NM_010896.3	MGD-MRK-36330,Math4C,Neurod3,bHLHa6,neurogenic differentiation 3,neurogenin,ngn1	neurogenin 1
Neurog3	NM_009719.6	At5h5,Math4b,atonal homolog 5 (Drosophila),bHLHa7,ngn3	neurogenin 3
Nfr2	NM_001252252.1	MGD-MRK-12823,merlin,moesin-ezrin-radixin-like protein,chwannomin C80703,D8Erdt281e,DNA segment, Chr 8, ERATO Doi 281, expressed,MGD-MRK-24179,MGI:1098734,MGI:2142861,NFAT4,NFATx,expressed sequence C80703	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 3
Nfcat3	NM_010901.2	3110041H08RIK,AW107667,AW546455,MGI:2145795,MGI:2145827,RIKEN cDNA 3110041H08	nuclear factor of activated T cells, cytoplasmic, calcineurin dependent 4
Nfcat4	NM_023699.3	gene,expressed sequence AW107667,expressed sequence AW546455 AA408798,AW212678,LCR-F1,Lcrf1,MGD-MRK-16184,MGI:2144512,NRF1,TCF-11,TCF11,expressed sequence AA408798,expressed sequence AW212678	nuclear factor, erythroid derived 2, -like 1
Nfe2l1	NM_001130450.1	AI194320,MGD-MRK-37463,MGI:2138857,Nrf2,expressed sequence AI194320	nuclear factor, erythroid derived 2, like 2
Nfe2l2	NM_010902.3		nuclear factor of kappa light polypeptide gene enhancer in B cells 2, p49/p100
Nfkb2	NM_019408.2	NF kappaB2,p52	nuclear transcription factor-Y alpha
Nfya	NM_001110832.1	AA407810,Cbf-b,MGD-MRK-12835,MGI:2146744,Sez10,expressed sequence AA407810	nidogen 2
Nid2	NM_008695.2	AW547149,MGI:2145830,entactin 2,entactin-2,expressed sequence AW547149 4921518A06RIK,4933421G18RIK,C79399,MGI:1918425,MGI:2146291,RIKEN cDNA 4921518A06	NIPBL cohesin loading factor
Nipbl	NM_027707.3	gene,RIKEN cDNA 4933421G18 gene,expressed sequence C79399 1200007D05RIK,3202002H23RIK,AW494485,MGI:1921365,MGI:1924216,MGI:2145818,MGI:3653500,RIKEN cDNA 1200007D05 gene,RIKEN cDNA 3202002H23 gene,edison,edsn,expressed sequence AW494485	nischarin
Nisch	NM_022656.2		NK2 homeobox 5
Nkx2-5	NM_008700.2	Csx,MGD-MRK-12892,MGD-MRK-2209,Nkx-2.5,Nkx2.5,cardiac specific homeobox,tinman	nemo like kinase
Nlk	NM_008702.3	AI194375,MGI:2144078,expressed sequence AI194375	neurolysin (metallopeptidase M3 family)
Nln	NM_029447.2	4930472G13RIK,C79345,MGI:2145509,RIKEN cDNA 4930472G13 gene,expressed sequence C79345	nicotinamide N-methyltransferase
Nnmt	NM_010924.3		nodal
Nodal	NM_013611.4	MGD-MRK-12907,MGD-MRK-15051,MGI:98714,Tg.413d,transgenic lethal 413.d	noggin
Nog	NM_008711.2	MGD-MRK-25655	nephronophthisis 1 (juvenile) homolog (human)
Nphp1	NM_001291012.1	nephrocystin	
Nr0b1	NM_007430.4	AHX,Ahc,Ahch,DAX-1,Dax1,MGD-MRK-33777,MGD-MRK-37435,MGI:108393,adrenal hypoplasia, congenital,adrenal hypoplasia, congenital homolog (human)	nuclear receptor subfamily 0, group B, member 1
Nr2f2	NM_009697.3	9430015G03RIK,ARP-1,Aporp1,COUP-TF2,COUP-TFII,EAR3,MGD-MRK-18615,MGD-MRK-32408,MGI:101803,MGI:2444514,RIKEN cDNA 9430015G03 gene,Tcfoup2,apolipoprotein regulatory protein 1,transcription factor COUP 2	nuclear receptor subfamily 2, group F, member 2
Nr5a2	NM_001159769.2	AU020803,D1Erdt308e,DNA segment, Chr 1, ERATO Doi 308, expressed,Ff,LRH-1,MGI:1098732,MGI:1203501,MGI:2684066,Uf2-H38,expressed sequence AU020803,fetoprotein transcription factor	nuclear receptor subfamily 5, group A, member 2
Nras	NM_010937.2	AV095280,MGD-MRK-12932,MGI:2139934,N-ras,expressed sequence AV095280	neuroblastoma ras oncogene
Nrbf2	NM_001036293.2		nuclear receptor binding factor 2
Nrf1	NM_010938.3	C87038,D6Erdt415e,DNA segment, Chr 6, ERATO Doi 415, expressed,MGI:1196416,MGI:2141782,expressed sequence C87038 AW492574,D14H14546e,DNA segment, Chr 14, human D14546e,MGD-MRK-19449,MGD-MRK-3718,MGI:2145817,expressed sequence AW492574	nuclear respiratory factor 1
Nrl	NM_008736.3		neural retina leucine zipper gene
Nsf11c	NM_198326.2	MGC:61403,p47 AI848316,C030027L06RIK,MGD-MRK-12943,MGD-MRK-15126,MGI:1924721,MGI:2145299,RIKEN cDNA C030027L06 gene,Trkb,expressed sequence AI848316,TrkB,tyrosine kinase receptor	NSFL1 (p97) cofactor (p47)
Ntrk2	NM_001025074.1		neurotrophic tyrosine kinase, receptor, type 2
Nudc	NM_010948.3	MGD-MRK-33696,Silg92,silica-induced gene 92	nucC nuclear distribution protein
Nup133	NM_172288.2	4832420O05RIK,MGI:3578197,RIKEN cDNA 4832420O05 gene,mermaid	Nucleoporin 133
Nup98	NM_001287167.1	AI849286,MGD-MRK-38449,MGI:2142051,Nup96,expressed sequence AI849286 AI194874,MGD-MRK-12964,MGD-MRK-13865,MGI:2141877,MGI:97913,expressed sequence AI194874,retarded hair growth,rhg	nucleoporin 98
Oat	NM_016978.2	AI194874,retarded hair growth,rhg	ornithine aminotransferase
Odam	NM_027128.2	2310011G06RIK,RIKEN cDNA 2310011G06 gene 1110038P24RIK,4831420N21RIK,AI115525,MGD-MRK-39587,MGI:109588,MGI:1923575,MGI:1924387,MGI:2147844,O linked N-acetylglucosamine transferase like,O linked N-acetylglucosamine transferase like,Ogtl,RIKEN cDNA 1110038P24 gene,RIKEN cDNA 4831420N21 gene,expressed sequence AI115525	odontogenic, ameloblast associated
Ogt	NM_139144.3		O-linked N-acetylglucosamine (GlcNAc) transferase (UDP-N-acetylglucosamine:polypeptide-N-acetylglucosaminyl transferase)
Oma1	NM_025909.3	2010001O09RIK,RIKEN cDNA 2010001O09 gene	OMA1 zinc metallopeptidase
Orc3	NM_001159563.1	Orc3,origin of replication 3 homolog (S. cerevisiae),origin recognition complex, subunit 3-like (S. cerevisiae)	origin recognition complex, subunit 3
Otx2	NM_144841.3	E130306O5RIK,MGD-MRK-13087,MGI:2444724,RIKEN cDNA E130306O5 gene	orthodenticle homeobox 2
Oxsm	NM_027695.3	4933425A18RIK,C80494,MGI:2145866,RIKEN cDNA 4933425A18 gene,expressed sequence C80494 LIS-1,Lis1,MGD-MRK-16183,MGD-MRK-39519,Mdsh,Miller-Dieker syndrome homolog,PAF-AH45,PaFaha,lissencephaly-1 protein,platelet-activating factor acetylhydrolase, alpha subunit	3-oxoacyl-ACP synthase, mitochondrial
Pafah1b1	NM_013625.4	AW106920,MGD-MRK-13126,MGI:2143804,expressed sequence AW106920	platelet-activating factor acetylhydrolase, isoform 1b, subunit 1
Pah	NM_008777.3	1200014O24RIK,AI047843,AW742773,MGI:2143521,MGI:2143882,RIKEN cDNA 1200014O24 gene,Usp52,expressed sequence AI047843,expressed sequence AW742773,ubiquitin specific peptidase 52	phenylalanine hydroxylase
Pan2	NM_001252326.1	AA960621,AI256638,ASIP,D8Erdt580e,DNA segment, Chr 8, ERATO Doi 580, expressed,MGI:1261826,MGI:2142456,MGI:2142486,PAR-3,Par3,Pard3a,expressed sequence AA960621,expressed sequence AI256638	PAN2 poly(A) specific ribonuclease subunit
Pard3	NM_001013581.2	DJ-1	par-3 family cell polarity regulator
Park7	NM_020569.3	5830444G22RIK,ADP-ribosyltransferase (NAD+, poly (ADP-ribose) polymerase) 1,AI893648,Adprp,Adprt1,C80510,MGD-MRK-1132,MGI:2138374,MGI:2138692,MGI:87933,PARP,RIKEN cDNA 5830444G22 gene,expressed sequence AI893648,expressed sequence C80510,parp-1,poly (ADP-ribose) polymerase,sPARP-1	Parkinson disease (autosomal recessive, early onset) 7
Parp1	NM_007415.3		poly (ADP-ribose) polymerase family, member 1
Paxip1	NM_018878.2	D5Erdt149e,DNA segment, Chr 5, ERATO Doi 149, expressed,MGI:1098588,PTIP	PAX interacting (with transcription-activation domain) protein 1
Pcca	NM_144844.2	C79630,MGD-MRK-13172,MGI:2145863,expressed sequence C79630	propionyl-Coenzyme A carboxylase, alpha polypeptide
Pccb	NM_025835.2	1300012P06RIK,AI314687,MGI:2143011,MGI:2143446,R74805,RIKEN cDNA 1300012P06 gene,expressed sequence AI314687,expressed sequence R74805 4933407A11RIK,AI604840,MBLR,MGI:2147582,MeI18 and Bmi1-like RING finger protein,RIKEN cDNA 4933407A11 gene,Rnf134,expressed sequence AI604840,ring finger protein 134	propionyl Coenzyme A carboxylase, beta polypeptide
Pcgef6	NM_027654.3		polycarb group ring finger 6
Pcna	NM_011045.2	MGD-MRK-13178 2410003B13RIK,CCM3,MGI:1913767,RIKEN cDNA 2410003B13 gene,TF-1 cell apoptosis related protein-15,Tfa15	proliferating cell nuclear antigen
Pcdcd10	NM_019745.4	AU015378,AW047537,MGI:2139861,MGI:2139950,expressed sequence AU015378,expressed sequence AW047537	programmed cell death 10
Pde7a	NM_001122759.2	AI115593,CD140a,MGD-MRK-13215,MGD-MRK-13216,MGI:2144805,Pdgfr-2,expressed sequence AI115593	phosphodiesterase 7A
Pdgfra	NM_011058.2	AI528809,CD140b,MGD-MRK-13214,MGD-MRK-13217,MGI:2147240,Pdgfr,expressed sequence AI528809,platelet derived growth factor receptor	platelet derived growth factor receptor, alpha polypeptide
Pdgfrb	NM_008809.1	2610103L06RIK,AL024199,C81408,MGI:2145717,MGI:2145868,RIKEN cDNA 2610103L06 gene,expressed sequence AL024199,expressed sequence C81408	platelet derived growth factor receptor, beta polypeptide
Pdhb	NM_024221.3		pyruvate dehydrogenase (lipoamide) beta
Pdpk1	NM_001080773.2	Pdk1,Pkb kinase	3-phosphoinositide dependent protein kinase 1
Pfkfb1	NM_008824.2	MGD-MRK-36393,PFK-2/FBPase-2 gene A	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1
Pfn1	NM_011072.4	MGD-MRK-13248,MGD-MRK-13249,Pfn,actin binding protein,profilin	profilin 1
Pgam2	NM_018870.3	2610020G18RIK,AA407108,AI098105,MGD-MRK-13276,MGD-MRK-13279,MGI:1919407,MGI:2140115,MGI:2140187,Pgm-2,Pgm1a,Pgm2,RIKEN cDNA 2610020G18 gene,expressed sequence AA407108,expressed sequence AI098105,phosphoglucomutase 1a,phosphoglucomutase 2	phosphoglycerate mutase 2
Pgm1	NM_028132.3	AW557215,D17Erd455e,DNA segment, Chr 17, ERATO Doi 455, expressed,MGD-MRK-14954,MGD-MRK-14968,MGI:1196283,MGI:2147091,PHF2,Tctex-3,Tctex3,expressed sequence AW557215,mPcl1,t-complex testis-expressed 3	phosphoglucomutase 1
Phf1	NM_009343.2	1110001C23RIK,4932409F1RIK,5730446A07RIK,AA623952,AV297001,MGI:1922961,MGI:1922975,MGI:3034353,MGI:3035067,RIKEN cDNA 1110001C23 gene,RIKEN cDNA 4932409F1 gene,RIKEN cDNA 5730446A07 gene,expressed sequence AA623952,expressed sequence AV297001	PHD finger protein 1
Phf14	NM_001168382.1		PHD finger protein 14

Phf2	NM_011078.3		PHD finger protein 2
Pias1	NM_019663.3	2900068C24Rik,DEAD/H (Asp-Glu-Ala-Asp/His) box binding protein 1,Ddxbp1,GBP,MGI:1920216,RIKEN cDNA 2900068C24 gene	protein inhibitor of activated STAT 1
Pias2	NM_001164167.1	6330408K17Rik,AI462206,ARIP3,AU018068,Dib,MGI:1917978,MGI:2147235,MGI:2147299,Miz1,Msx-interacting-zinc finger,PIASXalpha,PIASXb,PIASXbeta,RIKEN cDNA 6330408K17 gene,expressed sequence AI462206,expressed sequence AU018068	protein inhibitor of activated STAT 2
Pik3ca	NM_008839.1	6330412C24Rik,MGI:1917992,RIKEN cDNA 6330412C24 gene,cAPI3k,p110alpha	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha
Pik3cb	NM_029094.3	1110001J02Rik,AI447572,MGI:2143049,RIKEN cDNA 1110001J02 gene,expressed sequence AI447572,p110beta	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta
Pik3cd	NM_001029837.2	2410099E07Rik,2610208K16Rik,AWS45373,MGI:1917688,MGI:1925744,MGI:2140589,RIKEN cDNA 2410099E07 gene,RIKEN cDNA 2610208K16 gene,expressed sequence AWS45373,p110delta	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta
Pik3r1	NM_001024955.2	AA414921,MGD-MRK-13305,MGI:2145159,PI3K,expressed sequence	phosphoinositide-3-kinase regulatory subunit 1
Pik3r3	NM_001355585.1	AA414954,MGD-MRK-38322,MGI:2140152,expressed sequence AA414954,p55,p55pik	phosphoinositide-3-kinase regulatory subunit 3
Pik3r4	NM_001081309.1	2210010015Rik,C730038E05Rik,C85833,D9Ert418e,DNA segment, Chr 9, ERATO Doi 418, expressed,MGI:1196267,MGI:2143428,MGI:2442102,RIKEN cDNA 2210010015 gene,RIKEN cDNA C730038E05 gene,Vps15,expressed sequence C85833,p150	phosphoinositide-3-kinase regulatory subunit 4
Pim1	NM_008842.3	MGD-MRK-13306,MGD-MRK-13310,Pim-1	proviral integration site 1
Pitx2	NM_001042502.1	9430085M16Rik,Brx1,Brx1a,Brx1b,MGD-MRK-37449,MGD-MRK-38385,MGI:108406,MGI:2443452,Muncn3,Otx2,Pitx2a,Pitx2b,Pitx2c,Pitx2,RIKEN cDNA 9430085M16 gene,Rieger syndrome protein,solurshin	paired-like homeodomain transcription factor 2
Pkd2	NM_008861.3	C030034P18Rik,MGI:1924630,PC2,RIKEN cDNA C030034P18 gene,TRPP2,polycystin-2	polycystin 2, transient receptor potential cation channel
Plcg1	NM_021280.3	A189410,Cded,MGD-MRK-13350,MGD-MRK-13353,MGI:1329022,MGI:2139113,Plc-1,Plc-gamma1,Plcg-1,cell differentiation and embryonic development,expressed sequence	phospholipase C, gamma 1
Plcg2	NM_172285.1	A189410,phospholipase C, subtype 148	phospholipase C, gamma 2
Pmp22	NM_008885.2	MGC:38590,MGD-MRK-13354,MGD-MRK-13356,PLGamma2,Plcg-2	peripheral myelin protein 22
Polr1c	NM_009085.2	Gas-3,MGD-MRK-13371,MGD-MRK-15215,MGD-MRK-9988,MGI:5426059,TRE002,Tr, growth arrest specific 3,trembler,tremor mutant 002	polymerase (RNA) I polypeptide C
Polr2d	NM_027002.4	40kDa,AA409007,AA59927,AL024089,MGD-MRK-24170,MGI:2146755,MGI:2146784,MGI:2146961,RNA polymerase 1-1,RPA40,Rpo1-1,expressed sequence AA409007,expressed sequence AA59927,expressed sequence AL024089	polymerase (RNA) II (DNA directed) polypeptide D
Postn	NM_015784.2	2310002G05Rik,2610028L19Rik,HSRBP4,MGI:1916771,RBP4,RIKEN cDNA 2310002G05 gene,RIKEN cDNA 2610028L19 gene	periostin, osteoblast specific factor
Pou5f1	NM_013633.2	A630052E07Rik,AI747096,MGI:2139789,MGI:2444610,OSF-2,OSf2,Periostin,RIKEN cDNA A630052E07 gene,expressed sequence AI747096,peri	POU domain, class 5, transcription factor 1
Ppar	NM_011145.3	MGD-MRK-12976,MGD-MRK-12977,MGD-MRK-13063,MGD-MRK-13065,MGD-MRK-13070,MGD-MRK-13077,MGD-MRK-13080,MGD-MRK-18720,MGD-MRK-19416,Oct-3,Oct-3/4,Oct-4,Oct3/4,Oct4,Octf-3,Octf-4,Octf3-rs7,Octf3g,Octf4,octamer binding transcription factor 3,octamer binding transcription factor 3 related sequence 7,octamer binding transcription factor 4	peroxisome proliferator activator receptor delta
Pparg	NM_011146.1	MGD-MRK-13589,Nr1c3,PPAR-gamma,PPARgamma,PPARgamma2,Ppar-gamma2	peroxisome proliferator activated receptor gamma
Ppargc1a	NM_008904.2	A830037N07Rik,ENSMUSG0000079510,Gm11133,MGI:1203734,MGI:2443650,MGI:3779388,PPAR Coactivator-1,PPAR gamma coactivator 1,Pgc-1alpha,Pgc-1alppha,Pgc1,Pgco1,RIKEN cDNA A830037N07 gene,predicted gene 11133,predicted gene, ENSMUSG0000079510	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha
Ppm1a	NM_008910.3	2310003C21Rik,2900017D14Rik,AI427932,AU017636,MGD-MRK-16669,MGI:1916736,MGI:1920167,MGI:2144816,MGI:2144943,MMPa-2,MPPa-1,Mpp alpha,RIKEN cDNA 2310003C21 gene,RIKEN cDNA 2900017D14 gene,expressed sequence AI427932,expressed sequence AU017636	protein phosphatase 1A, magnesium dependent, alpha isoform
Ppp1ca	NM_031868.2	MGD-MRK-23853,Ppp1c,dism2	protein phosphatase 1 catalytic subunit alpha
Ppp1cb	NM_172707.3	MGD-MRK-28170	protein phosphatase 1 catalytic subunit beta
Ppp1cc	NM_013636.4	MGD-MRK-28171,PP1C gamma,PP1C gamma 1,PP1C gamma 2	protein phosphatase 1 catalytic subunit gamma
Ppp2ca	NM_019411.4	MGI:2144711,PP2A,R75353,expressed sequence R75353	protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform
Ppp2r1a	NM_016891.3	6330556D22Rik,MGI:1923432,PP2A,PR65,RIKEN cDNA 6330556D22 gene,protein phosphatase PP2A	protein phosphatase 2, regulatory subunit A, alpha
Ppp2r1b	NM_028614.3	2410091N08Rik,AI790395,MGI:2143121,RIKEN cDNA 2410091N08 gene,expressed sequence AI790395	protein phosphatase 2, regulatory subunit A, beta
Ppp2r2a	NM_028032.3	2410004D02Rik,RIKEN cDNA 2410004D02 gene	protein phosphatase 2, regulatory subunit B, alpha
Ppp2r2c	NM_172994.3	6330548O06Rik,IMYPNO1,PRS2,RIKEN cDNA 6330548O06 gene	protein phosphatase 2, regulatory subunit B, gamma
Ppp2r2d	NM_026391.2	1300017E19Rik,DT7Ert4753e,DNA segment, Chr 7, ERATO Doi 753, expressed,MDS026,MGI:1915063,RIKEN cDNA 1300017E19 gene,mKIAA1541	protein phosphatase 2, regulatory subunit B, delta
Ppp2r5b	NM_198168.3	B'beta,BC026670,MGI:2446182,cDNA sequence BC026670	protein phosphatase 2, regulatory subunit B', beta
Ppp2r5c	NM_001135001.1	2610043M05Rik,2700063L20Rik,AI060890,AWS45884,B56/PP2A gamma,Band 8A,C85228,D12Bwg0916e,DNA segment, Chr 12, Brigham & Women's Genetics 0916 expressed,MGD-MRK-34036,MGI:106344,MGI:1917494,MGI:1922861,MGI:2144759,MGI:2145038,MGI:3034420,RIKEN cDNA 2610043M05 gene,RIKEN cDNA 2700063L20 gene,expressed sequence AI060890,expressed sequence AWS45884,expressed sequence C85228,mKIAA0044	protein phosphatase 2, regulatory subunit B', gamma
Ppp2r5e	NM_012024.3	4633401M22Rik,AI449017,B56beta,MGI:1913952,MGI:2144826,RIKEN cDNA 4633401M22 gene,expressed sequence AI449017,protein phosphatase 2A subunit beta	protein phosphatase 2, regulatory subunit B', epsilon
Ppp3cb	NM_008914.1	111006316Rik,CalnB,CnAbeta,Cnab,MGD-MRK-1737,MGD-MRK-35624,MGI:1913465,PP2BA beta,RIKEN cDNA 111006316 gene,calineurin, beta subunit	protein phosphatase 3, catalytic subunit, beta isoform
Ppp3r1	NM_024459.2	CaN81,Cnb1,MGD-MRK-35633,PP2B beta 1	protein phosphatase 3, regulatory subunit B, alpha isoform (calineurin B, type I)
Ppp5c	NM_011155.2	ANP receptor,AU020526,MGD-MRK-19567,MGI:2142135,PP5,expressed sequence AU020526	protein phosphatase 5, catalytic subunit
Ppt1	NM_008917.3	9530043G02Rik,AA960502,C77813,CLN1,D4Ert4184e,DNA segment, Chr 4, ERATO Doi 184, expressed,MGI:1196214,MGI:1925934,MGI:2140181,MGI:2140662,RIKEN cDNA 9530043G02 gene,expressed sequence AA960502,expressed sequence C77813	palmitoyl-protein thioesterase 1
Ppt2	NM_019441.4	0610007M19Rik,AA672937,MGI:1918916,MGI:2146778,RIKEN cDNA 0610007M19 gene,expressed sequence AA672937	palmitoyl-protein thioesterase 2
Prap1	NM_009475.2	Upa,uterine-specific proline-rich acidic protein	proline-rich acidic protein 1
Prdm14	NM_001081209.2		PR domain containing 14
Prdx3	NM_007452.2	AW822249,Aop1,D07ohi1,EF21,MGD-MRK-1339,MGD-MRK-2429,MGD-MRK-9312,MGI:2147761,Mer5,Prx III,SP22,TDXM anti-oxidant protein 1,expressed sequence AW822249	peroxiredoxin 3
Prkab1	NM_031869.2	1300015D22Rik,AU021155,MGI:1923533,MGI:2141055,RIKEN cDNA 1300015D22 gene,expressed sequence AU021155	protein kinase, AMP-activated, beta 1 non-catalytic subunit
Prkag1	NM_016781.2	AA571379,BB036179,MGD-MRK-37454,MGI:2145917,MGI:2146255,Prkaac,expressed sequence AA571379,expressed sequence BB036179,protein kinase, AMP-activated, gamma	protein kinase, AMP-activated, gamma 1 non-catalytic subunit
Prkag2	NM_145401.2	2410051C13Rik,AI854673,MGI:1920950,MGI:2141005,RIKEN cDNA 2410051C13 gene,expressed sequence AI854673	protein kinase, AMP-activated, gamma 2 non-catalytic subunit
Prkar1a	NM_001313973.2	1300018C22Rik,MGD-MRK-15266,MGD-MRK-15269,MGD-MRK-29031,MGI:1914726,RIKEN cDNA 1300018C22 gene,RtalpHa,Tse-1,Tse1,tissue specific extinction 1, of TAT	protein kinase, cAMP dependent regulatory, type I, alpha
Prkca	NM_011101.3	A1875142,MGD-MRK-13327,MGI:2144325,Pkca,expressed sequence A1875142	protein kinase C, alpha
Prkch	NM_008856.3	MGD-MRK-13332,Pkch	protein kinase C, eta
Prkci	NM_008857.3	2310021H13Rik,AI427505,MGD-MRK-16019,MGD-MRK-26062,MGI:104625,MGI:1919155,MGI:2139701,PKClambda,Pkci,Pkcl,Prkcl,RIKEN cDNA 2310021H13 gene,aPKClambda,expressed sequence AI427505,protein kinase C, lambda	protein kinase C, iota
Prkck	NM_008859.2	A130035A12Rik,AW494342,MGD-MRK-13333,MGI:2139356,MGI:2442369,PKC theta,PKC-0,PKC-theta,PKCtheta,PKcQ,RIKEN cDNA A130035A12 gene,expressed sequence AW494342	protein kinase C, theta
Psenen	NM_025498.3	1700023M09Rik,RIKEN cDNA 1700023M09 gene	presenilin enhancer gamma secretase subunit
Psm5	NM_011186.1	2310035O07Rik,A130070J02Rik,AI463227,B430203M17Rik,MGD-MRK-39582,MGI:1917411,MGI:2147557,MGI:2443558,MMAC1,RIKEN cDNA 2310035O07 gene,RIKEN cDNA A130070J02 gene,RIKEN cDNA B430203M17 gene,TEP1,expressed sequence AI463227	proteasome (prosome, macropain) subunit, beta type 5
Pten	NM_008960.2		phosphatase and tensin homolog
Ptk2	NM_007982.2	FAK,FRNK,Fadk,MGD-MRK-9708,focal adhesion kinase	PTK2 protein tyrosine kinase 2
Ptpn1	NM_011201.3	MGD-MRK-13674,PTP-1B,PTP1B	protein tyrosine phosphatase, non-receptor type 1

Ptpn11	NM_011202.3	2700084A17Rik,AW536184,MGD-MRK-16288,MGI:1919896,MGI:2141206,PTP1D,PTP2C,RIKEN cDNA 2700084A17 gene,SH-PTP2,SH2 domain-containing protein tyrosine phosphatase-2,SHP-2,Shp2,Syp,expressed sequence AW536184	protein tyrosine phosphatase, non-receptor type 11
Ptpn13	NM_011204.2	A1324989,MGD-MRK-24175,MGD-MRK-24182,MGI:2140837,PTP-BL,PTPL1,PTpri,expressed sequence A1324989,protein tyrosine phosphatase, receptor induced	protein tyrosine phosphatase, non-receptor type 13
Ptpn2	NM_001127177.1	A1325124,MGD-MRK-13675,MGD-MRK-13686,MGI:2147211,PTpt,TC-PTP,expressed sequence A1325124,protein tyrosine phosphatase, T-cell	protein tyrosine phosphatase, non-receptor type 2
Ptpn6	NM_013545.2	Hcph,MGD-MRK-10672,MGD-MRK-12181,PTpIC,SHP-1,Spin,hcp,hemopoietic cell phosphatase,me,motheaten	protein tyrosine phosphatase, non-receptor type 6
Ptpnc	NM_011210.3	B220,CD45,CD45 antigen, Cd45, Ly-5, Lyt-4, MGD-MRK-11992, MGD-MRK-12076, MGD-MRK-13679, MGD-MRK-1864, MGI:3584395, T-lymphocyte antigen 4.T200, lymphocyte antigen 5	protein tyrosine phosphatase, receptor type, C
Pttg1	NM_001131054.1	AW555095,C87862,MGI:2144572,MGI:2147417,PTTG,expressed sequence AW555095,expressed sequence C87862,securin	pituitary tumor-transforming gene 1
Pycr1	NM_144795.3	MGC:11688	pyrroline-5-carboxylate reductase 1
Pycr2	NM_133705.2	1810018M05Rik,MGI:1916301,P5cr2,RIKEN cDNA 1810018M05 gene,pyrroline-5-carboxylate reductase AL023026,D5Erttd559e,DNA segment, Chr 5, ERATO Doi 559, expressed,MGD-MRK-13748,MGI:1261850,MGI:2141016,expressed sequence AL023026	pyrroline-5-carboxylate reductase family, member 2
Rac1	NM_009007.2	A1323801,A1452260,MGD-MRK-13749,MGI:2145980,MGI:2146018,expressed sequence A1323801,expressed sequence A1452260	Rac family small GTPase 1
Rac2	NM_009008.3		Rac family small GTPase 2
Rad1	NM_011232.2		RAD1 checkpoint DNA exonuclease
Rad9a	NM_011237.2	RAD9 homolog (S. pombe),Rad9	RAD9 checkpoint clamp component A
Rae1	NM_175112.5	323040112Rik,41,D2Erttd342e,DNA segment, Chr 2, ERATO Doi 342, expressed,MGI:1196371,MNRp,MNRp41,RIKEN cDNA 323040112 gene	ribonucleic acid export 1
Raf1	NM_001356333.2	6430402F14Rik,AA990557,BB129353,Craf1,Craf1 transforming gene,MGD-MRK-13751,MGD-MRK-13752,MGI:1277195,MGI:1924126,MGI:2141729,MGI:2146790,RIKEN cDNA 6430402F14 gene,Raf-1,c-Raf,expressed sequence AA990557,expressed sequence BB129353,murine sarcoma 3611 oncogene 1,sarcoma 3611 oncogene,v-Raf	v-raf-leukemia viral oncogene 1
Rala	NM_019491.5	3010001015Rik,AW322615,MGD-MRK-13757,MGD-MRK-13771,MGI:1917666,MGI:2145427,MGI:97861,RAS-like protein,RAS-like, family 1,RIKEN cDNA 3010001015 gene,Ral,Ras1,expressed sequence AW322615	v-ral simian leukemia viral oncogene A (ras related)
Ranbp2	NM_011240.3	A430087B05Rik,A1256741,MGI:2143551,MGI:2443460,RIKEN cDNA A430087B05 gene,expressed sequence A1256741	RAN binding protein 2
Rap1a	NM_145541.5	A184859,Kirsten sarcoma revertant 1,Krev-1,MGD-MRK-11607,MGD-MRK-13761,MGI:2139815,Rap1,expressed sequence A184859	RAS-related protein 1a
Rap1b	NM_024457.2	2810443E11Rik,MGI:1919983,RIKEN cDNA 2810443E11 gene	RAS related protein 1b
Rapgef2	NM_001099624.2	5830453M24Rik,CNRasGEF,MGI:1923339,PDZ domain containing guanine nucleotide exchange factor (GEF) 1,PDzgef1,RA-GEF-1,RIKEN cDNA 5830453M24 gene,mKIAA0313,nRapGEF	Rap guanine nucleotide exchange factor (GEF) 2
Rapgef3	NM_144850.2	2310016P22Rik,9330170P05Rik,Epac1,MGI:1917354,RIKEN cDNA 2310016P22Rik gene,RIKEN cDNA 9330170P05 gene	Rap guanine nucleotide exchange factor (GEF) 3
Rapgef4	NM_019688.1	1300003D15Rik,5730402K07Rik,6330581N18Rik,Epac2,MGI:1918994,MGI:2442054,RIKEN cDNA 1300003D15 gene,RIKEN cDNA 5730402K07 gene,RIKEN cDNA 6330581N18 gene,cAMP-GEFII	Rap guanine nucleotide exchange factor (GEF) 4
Rarb	NM_011243.2	Hap,MGD-MRK-10620,MGD-MRK-13767,RAR beta 2,RARbeta2	retinoic acid receptor, beta
Rasa1	NM_145452.3	GTPase activating protein,Gap,MGC:7759,MGD-MRK-13770,MGD-MRK-9965,p120-rasGAP	RAS p21 protein activator 1
Rasgrp1	NM_011246.2		RAS guanyl releasing protein 1
Rasgrp2	NM_011242.2	CalDAG-GEFI,Caldaggef1	RAS, guanyl releasing protein 2
Rasip1	NM_028544.1	1110025D03Rik,2610025P08Rik,A1853551,MGI:1915870,MGI:2142067,RIKEN cDNA 1110025D03 gene,RIKEN cDNA 2610025P08 gene,Rain,expressed sequence A1853551	Ras interacting protein 1
Rb1cc1	NM_009826.4	2900055E04Rik,5930404L04Rik,Cc1,Fip200,LaXp180,MGI:1920276,MGI:1924359,RIKEN cDNA 2900055E04 gene,RIKEN cDNA 5930404L04 gene,coiled coil forming protein 1,mKIAA0203	RB1-inducible coiled-coil 1
Rbbp4	NM_009030.3	CAF-1 p48 subunit,RBAP48	retinoblastoma binding protein 4, chromatin remodeling factor
Rbl2	NM_011250.4	MGD-MRK-32125,Rb2,p130,retinoblastoma-like 2	RB transcriptional corepressor like 2
Rbm14	NM_019869.3	1300007E16Rik,MGI:1919021,PSP2,RIKEN cDNA 1300007E16 gene,p16	RNA binding motif protein 14
Rbm3	NM_001166409.1	2600016C11Rik,MGI:1919317,RIKEN cDNA 2600016C11 gene	RNA binding motif (RNP1, RRM) protein 3
Rela	NM_009045.4	MGD-MRK-24172,p65,p65 NF kappaB	v-rel reticuloendotheliosis viral oncogene homolog A (avian)
Rest	NM_011263.1	2610008I04Rik,MGD-MRK-29050,MGI:1919377,NRSF,RIKEN cDNA 2610008I04 gene	RE1-silencing transcription factor
Rgn	NM_009060.2	A1265316,MGD-MRK-37060,MGI:2147859,SMP30,expressed sequence A1265316	regucalcin
Rgs4	NM_009062.3	AA004315,AA597169,EST AA004315,EST AA597169,ESTM48,ESTM50,MGD-MRK-37452,MGI:1334420,MGI:1334426,expressed sequence tag mouse EST 48,expressed sequence tag mouse EST 50	regulator of G-protein signaling 4
Rheb	NM_053075.3	MGD-MRK-13864,Rheb1	Ras homolog enriched in brain
Rhoa	NM_016802.4	Arha,Arha1,Arha2,MGI:1355308,aplysia ras homolog A,ras homolog gene family, member A,ras homolog gene family, member A1,ras homolog gene family, member A2	ras homolog family member A
Rhoc	NM_007483.3	AA017882,Arhb,MGD-MRK-36529,MGI:2144717,expressed sequence AA017882,ras homolog gene family, member B	ras homolog family member B
Rhoc	NM_007484.2	A1324259,Arh9,Arhc,MGD-MRK-33711,MGI:2139675,aplysia ras homolog 9 (RhoC),expressed sequence A1324259,ras homolog gene family, member C	ras homolog family member C
Rimk1a	NM_177572.4	BC057371,NAAGS-II,Rimk,cDNA sequence BC057371	ribosomal modification protein rimK-like family member A
Rimk1b	NM_027664.1	4931417E21Rik,4933426K21Rik,AA097693,A1325948,AU015629,EST A1325948,MGI:1889811,MGI:1913991,MGI:2141551,MGI:3034764,NAAGS,RIKEN cDNA 4931417E21 gene,RIKEN cDNA 4933426K21 gene,expressed sequence AA097693,expressed sequence AU015629	ribosomal modification protein rimK-like family member B
Rnf111	NM_033604.2	Arkadia	ring finger 111
Rnf2	NM_011277.1	A1326319,A1450156,AU019207,MGI:2138212,MGI:2138251,MGI:2138432,Ring1B,dinG,expressed sequence A1326319,expressed sequence A1450156,expressed sequence AU019207	ring finger protein 2
Rnf4	NM_011278.5	AU018689,Gtrgeo8,MGI:2141039,MGI:894658,expressed sequence AU018689, gene trap ROSA b-geo 8	ring finger protein 4
Rnf8	NM_021419.1	3830404E21Rik,AIP37,MGI:1917939,RIKEN cDNA 3830404E21 gene	ring finger protein 8
Rock1	NM_009071.2	1110055K06Rik,MGD-MRK-36507,MGI:1916035,RIKEN cDNA 1110055K06 gene,Rock-I	Rho-associated coiled-coil containing protein kinase 1
Rock2	NM_009072.2	B230113H15Rik,MGD-MRK-36506,MGI:1925098,RIKEN cDNA B230113H15 gene,ROKalpha,Rho-kinase,Rock-II,Rock2m	Rho-associated coiled-coil containing protein kinase 2
Ror2	NM_013846.3	Ntrkr2,neurotrophic tyrosine kinase, receptor related 2	receptor tyrosine kinase-like orphan receptor 2
Rps6ka2	NM_011299.4	90kDa,D17Wsu134e,DNA segment, Chr 17, Wayne State University 134, expressed,MGD-MRK-35693,MGI:107228,MGI:1098261,Rps6ka-rs1,Rsk3,p90rsk,pp90rsk,ribosomal protein S6 kinase, related sequence 1	ribosomal protein S6 kinase, polypeptide 2
Rps6ka3	NM_148945.1	MGD-MRK-25991,Rsk2	ribosomal protein S6 kinase polypeptide 3
Rps6kb1	NM_001114334.1	2610318I15Rik,AA959758,A1256796,A1314060,MGI:1919758,MGI:2144050,MGI:2144103,MGI:2144107,RIKEN cDNA 2610318I15 gene,S6K1,expressed sequence AA959758,expressed sequence A1256796,expressed sequence A1314060,p70/S6K6,p70S6K1,p70S6K	ribosomal protein S6 kinase, polypeptide 1
Rragc	NM_017475.2	AU041672,Gtr2,MGI:2140480,TiB929,YGR163W,expressed sequence AU041672,small GTPase, homolog (S. cerevisiae)	Ras-related GTP binding C
Rras2	NM_025846.2	2610016H24Rik,C86394,MGI:2142366,RIKEN cDNA 2610016H24 gene,TC21,expressed sequence C86394	related RAS viral (r-ras) oncogene 2
Rwdd1	NM_025614.3	2610002D06Rik,2700069A07Rik,MGI:1919836,RIKEN cDNA 2610002D06 gene,RIKEN cDNA 2700069A07 gene	RWD domain containing 1
Sall4	NM_175303.4	5730441M18Rik,AA407717,AL022809,AW536104,C330011P20Rik,C78083,C78563,MGI:1922958,MGI:2138745,MGI:2139124,MGI:2139468,MGI:2139473,RIKEN cDNA 5730441M18 gene,RIKEN cDNA C330011P20 gene,Text20,expressed sequence AA407717,expressed sequence AL022809,expressed sequence AW536104,expressed sequence C78083,expressed sequence C78563,testis expressed gene 20	spalt like transcription factor 4
Sav1	NM_022028.2	1700040G09Rik,MGI:1920575,RIKEN cDNA 1700040G09 gene,Salv,WV45	salvador family WW domain containing 1
Scd1	NM_009127.4	AA589638,A1265570,MGD-MRK-1014,MGD-MRK-14305,MGD-MRK-14307,MGI:2147455,MGI:2147495,MGI:87858,SCD,Scd-1,ab,asabia,expressed sequence AA589638,expressed sequence A1265570,stearyl-CoA desaturase	stearyl-Coenzyme A desaturase 1
Sclly	NM_016717.3	A930015N15Rik,MGI:1925207,RIKEN cDNA A930015N15 gene,SCL,SclY1,SclY2,Selenocysteine reductase	selenocysteine lyase
Sdc2	NM_008304.2	4833414L08Rik,AA960457,Hspg1,MGD-MRK-10975,MGD-MRK-14687,MGI:1921849,MGI:2145934,MGI:96256,RIKEN cDNA 4833414L08 gene,Synd2,expressed sequence AA960457,fibroglycan,heparan sulfate proteoglycan 1, cell surface-associated (fibroglycan)	syndecan 2

Sdcbp	NM_001098227.1	MDA-9,Sydl,syndecan interacting protein,syntenin,syntenin-1	syndecan binding protein
Sds1	NM_133902.2	4432411H13Rik,A1504310,MGI:1918045,MGI:2140923,RIKEN cDNA 4432411H13 gene,SDH1,SDS-RS1,expressed sequence A1504310	serine dehydratase-like
Sec13	NM_024206.4	1110003H02Rik,MGD-MRK-16619,MGI:1915067,RIKEN cDNA 1110003H02 gene,SEC13 related gene (S.cerevisiae),SEC13-like 1 (S.cerevisiae),Sec13l1,Sec13r	SEC13 homolog, nuclear pore and COPII coat complex component
Seh1l	NM_001039088.1	2610007A16Rik,AW540070,MGI:2147368,RIKEN cDNA 2610007A16 gene,expressed sequence AW540070	SEH1-like (S.cerevisiae)
Setd2	NM_001081340.2	4921524K10Rik,BC031601,KMT3A,MGI:2446266,RIKEN cDNA 4921524K10 gene,cDNA sequence BC031601	SET domain containing 2
Sf3b1	NM_031179.2	2810001M05Rik,AA409119,MGI:1100839,MGI:1923833,MGI:2138089,Prp10,RIKEN cDNA 2810001M05 gene,SAP155,SF3b155,Targ4,expressed sequence AA409119,transforming growth factor alpha regulated gene 4	splicing factor 3b, subunit 1
Sfn	NM_018754.2	14-3-3,14-3-3 sigma,Er,MGD-MRK-9568,MGI:95409,MME1,Ywhas,repeated epilation,tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, sigma polypeptide	stratifin
Sfpq	NM_023603.3	1110004P21 gene,RIKEN cDNA 2810416M14Rik,5730453G22Rik,9030402K04Rik,AU021830,D4ErtD314e,DNA segment,Chr 4, ERATO Doi 314,expressed,MGI:1196226,MGI:1915728,MGI:1917845,MGI:1925565,MGI:2140463,PSF,REP1,RIKEN cDNA 1110004P21 gene,RIKEN cDNA 2810416M14 gene,RIKEN cDNA 5730453G22 gene,RIKEN cDNA 9030402K04 gene,expressed sequence AU021830	splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated)
Sgcg	NM_011892.3	5430420E18Rik,A1642964,MGI:1921755,MGI:2145683,RIKEN cDNA 5430420E18 gene,expressed sequence A1642964,gamma-5G	sarcoglycan, gamma (dystrophin-associated glycoprotein)
Shc1	NM_011368.4	MGD-MRK-14402,ShcA,p66,p66shc	src homology 2 domain-containing transforming protein C1
Sirt1	NM_019812.2	AA673258,MGI:2143506,Sir2,Sir2alpha,expressed sequence AA673258	sirtuin 1
Sirt2	NM_022432.4	5730427M03Rik,MGI:1915014,RIKEN cDNA 5730427M03 gene,SIR2L2,Sir2,silent mating type information regulation 2, (S.cerevisiae, homolog)-like	sirtuin 2
Six2	NM_011380.2	MGD-MRK-19686	sine oculis-related homeobox 2
Ski	NM_011385.2	2310012I02Rik,2610001A11Rik,AA062172,AA589460,BC004088,MGC:8300,MGD-MRK-14428,MGI:1915543,MGI:1916864,MGI:2136877,MGI:2140114,MGI:2140167,RIKEN cDNA 2310012I02 gene,RIKEN cDNA 2610001A11 gene,cDNA sequence BC004088,expressed sequence AA062172,expressed sequence AA589460	ski sarcoma viral oncogene homolog (avian)
Skp1	NM_011543.4	2610043E24Rik,2610206H23Rik,MGD-MRK-24460,MGI:1917574,MGI:1923841,RIKEN cDNA 2610043E24 gene,RIKEN cDNA 2610206H23 gene,S-phase kinase-associated protein	S-phase kinase-associated protein 1
Skp2	NM_013787.2	1A,Skp1a,Teelb1,p19Skp1,transcription elongation factor B (SII), polypeptide 1-like	S-phase kinase-associated protein 2
Slc25a11	NM_024211.2	4930500A04Rik,FBXL1,MGI:1922284,RIKEN cDNA 4930500A04 gene	solute carrier family 25 (mitochondrial carrier oxoglutarate carrier), member 11
Slc25a13	NM_001177572.1	2310022P18Rik,Zoxoc,RIKEN cDNA 2310022P18 gene	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 13
Slc25a4	NM_007450.4	A1785475,Ctrn,MGI:2141468,citrin,expressed sequence A1785475	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 4
Slc3a2	NM_008577.4	AU019225,Ant1,MGD-MRK-16246,MGI:2142690,MGI:99472,adenine nucleotide translocase-1,adenine nucleotide translocator 1, skeletal muscle,expressed sequence AU019225	solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 4
Slc44a1	NM_001159633.1	4F2HC,A1314110,CD98 antigen,Cd98,Ly-10,Ly-m10,Ly10,MGD-MRK-11948,MGD-MRK-12009,MGD-MRK-12016,MGD-MRK-12179,MGD-MRK-12223,MGD-MRK-35053,MGI:106597,MGI:2147500,Mdu1,Mgp-2hc,antigen identified by monoclonal antibodies 4F2,expressed sequence A1314110,lymphocyte antigen 10,lymphocyte antigen m10	solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2
Slc7a5	NM_011404.3	2210409B22Rik,4833416H08Rik,AW547365,CDW92 antigen,CHTL1,CTL1,cdw92,MGI:1917424,MGI:1921010,RIKEN cDNA 2210409B22 gene,RIKEN cDNA 4833416H08 gene,expressed sequence AW547365	solute carrier family 4, member 1 solute carrier family 7 (cationic amino acid transporter, y+ system), member 5
Slit2	NM_178804.3	DOH165474E,DNA segment, human S474E,Gm42049,LAT1,MGI:5624934,TA1,predicted gene, 42049	slit guidance ligand 2
Slit3	NM_011412.3	Drad-1,E030015M03Rik,E130320P19Rik,MGI:1333781,MGI:2442301,MGI:2443562,MGI:5437089,Mutant line 1200.1,RIKEN cDNA E030015M03 gene,RIKEN cDNA E130320P19 gene,Slit3,b2b1200.1,C1c1o	slit guidance ligand 3
Smad2	NM_010754.4	MGI:5560151,Mutant line 2362.1,Slit1,b2b2362.1,C1c1o	SMAD family member 2
Smad3	NM_016769.4	7120426M23Rik,MAD homolog 2, (Drosophila),MGD-MRK-37087,MGI:2442937,Madh2,Madr2,RIKEN cDNA 7120426M23 gene,Smad 2	SMAD family member 3
Smad4	NM_008540.2	AU022421,MGI:2143216,Madh3,Smad 3,expressed sequence AU022421	SMAD family member 4
Smad9	NM_019483.5	AW743858,D18Wsu70e,DNA segment, Chr 18, Wayne State University 70, expressed,DPC4,Dpc4,MGD-MRK-33955,MGI:106263,MGI:2147379,Madh4,Smad 4,expressed sequence AW743858	SMAD family member 9
Smarcd1	NM_007958.1	MADH6,Madh9,SMAD8A,SMAD8B	SWI/SNF-related, matrix-associated actin-dependent regulator of chromatin, subfamily a, containing DEAD/H box 1
Snai1	NM_011427.3	AV081750,AW226546,D6Pas1,DNA segment, Chr 6, Pasteur Institute 1,Etl1,MGD-MRK-7699,MGD-MRK-9660,MGI:2141618,MGI:2141670,MGI:93794,enhancer trap locus 1,expressed sequence	snail family zinc finger 1
Snai2	NM_011415.2	AV081750,expressed sequence AW226546,mKIAA1122	snail family zinc finger 2
Socs1	NM_009896.2	A1194338,MGD-MRK-14460,MGI:2138858,Sna,Sna1,Sna1l,expressed sequence A1194338,snail homolog, (Drosophila)	suppressor of cytokine signaling 1
Socs2	NM_001168655.1	Slug,Slugh,Snail2,slug, chicken homolog	suppressor of cytokine signaling 2
Socs3	NM_007707.2	Cish1,Cish7,JAB,JAK-binding protein,JAK2-binding protein,MGI:1276585,SOC5-1,SSI-1,STAT-induced STAT inhibitor 1,cytokine inducible SH2-containing protein 1	suppressor of cytokine signaling 3
Socs5	NM_019654.2	A1527257,AW108012,CIS2,Cish2,D130043N08Rik,JAB,MGD-MRK-10702,MGI:2143636,MGI:2143807,MGI:96077,RIKEN cDNA D130043N08 gene,SOC5-2,SSI-2,STAT-induced STAT inhibitor 2,cytokine inducible SH2-containing protein 2,cytokine-inducible SH2 protein 2,expressed sequence A1527257,expressed sequence AW108012,hg,high growth	suppressor of cytokine signaling 5
Socs6	NM_018821.2	CIS3,Cish3,E2a-Pbx1 target gene in fibroblasts 10,EF-10,SOC5-3,SSI-3,STAT-induced STAT inhibitor 3,cytokine inducible SH2-containing protein 3,cytokine-inducible SH2 protein 3	suppressor of cytokine signaling 6
Sod2	NM_013671.3	1810018L08Rik,Cish5,MGI:1916302,RIKEN cDNA 1810018L08 gene,SOC5-5,cytokine inducible SH2-containing protein 5	superoxide dismutase 2, mitochondrial
Son	NM_019973.1	1500012M23Rik,5830401B18Rik,A1447482,CIS4,Cish4,HSPC60,MGI:1916217,MGI:2147224,RIKEN cDNA 1500012M23 gene,RIKEN cDNA 5830401B18 gene,SOC5-4,SOC5-6,SSI4,STAI4,STAT4,STAT14,Socs4,cytokine inducible SH2-containing protein 4,expressed sequence A1447482, suppressor of cytokine signaling 4	Son DNA binding protein
Sorbs1	NM_009166.3	MGC:6144,MGD-MRK-14484,MGD-MRK-14486,MnSOD,Sod-2,manganese SOD,manganese superoxide dismutase	sorbin and SH3 domain containing 1
Sos1	NM_009231.2	2900011L12Rik,AA409051,AU067731,C81487,MGD-MRK-14487,MGI:1915461,MGI:2146338,MGI:2146586,MGI:2146715,RIKEN cDNA 2900011L12 gene,expressed sequence AA409051,expressed sequence AU067731,expressed sequence C81487,mKIAA1019	SOS Ras/Rac guanine nucleotide exchange factor 1
Sox1	NM_011441.4	2310065E01Rik,9530001P15Rik,CAP,MGI:1922938,MGI:2443814,Ponsin,RIKEN cDNA 2310065E01 gene,RIKEN cDNA 9530001P15 gene,SH3 domain protein 5,SH3s,c-Cbl-associated protein,mKIAA1296	SRY (sex determining region Y)-box 17
Sox2	NM_011443.3	4430401P03Rik,A1449023,MGD-MRK-14489,MGI:1918028,MGI:2146862,RIKEN cDNA 4430401P03 gene,expressed sequence A1449023	SRY (sex determining region Y)-box 2
Sp1	NM_013672.2	MGD-MRK-36114	trans-acting transcription factor 1
Sparc	NM_001290817.1	MGD-MRK-14493,MGD-MRK-14503,MGI:1891165,MGI:2181707,Sox-2,lcc,light coat and circling,yellow submarine,ysb	secreted acidic cysteine rich glycoprotein
Spast	NM_001162870.1	1110003E12Rik,AA450830,A1845540,MGD-MRK-14512,MGI:1915735,MGI:2146073,MGI:3034478,RIKEN cDNA 1110003E12 gene,Sp1-1,expressed sequence AA450830,expressed sequence A1845540	spastin
Spopl	NM_029773.2	AA517111,BM-40,MGD-MRK-14514,MGI:2144017,expressed sequence AA517111,osteonectin	speckle-type BTB/POZ protein-like
Srf	NM_020493.2	Spg4,mKIAA1083,spastic paraplegia 4 homolog (human)	Rous sarcoma oncogene
Sst	NM_009215.1	4921517N04Rik,AU014935,BB233739,E430033K04Rik,MGI:2139149,MGI:2139449,MGI:2444012,RIKEN cDNA 4921517N04 gene,RIKEN cDNA E430033K04 gene,expressed sequence AU014935,expressed sequence BB233739	serum response factor
St3gal6	NM_018784.2	AW259666,MGD-MRK-14556,MGI:2139334,expressed sequence AW259666,pp60c-src	somatostatin
		AW049942,AW240594,MGD-MRK-35116,MGI:2147041,MGI:2147058,expressed sequence	
		AW049942,expressed sequence AW240594	
		MGD-MRK-14453,SOM,SRIIF,Smst,preprosomatostatin	
		1700023B24Rik,A1930218,AWS52396,MGI:1922763,MGI:2146521,MGI:2146659,RIKEN cDNA	
		1700023B24 gene,ST3Gal VI,Siat10,expressed sequence A1930218,expressed sequence	
		AWS52396,sialyltransferase 10 (alpha-2,3-sialyltransferase VI)	ST3 beta-galactoside alpha-2,3-sialyltransferase 6

Stag1	NM_009282.3	AU045003,MGI:2143240,SA-1,Sc3,expressed sequence AU045003	stromal antigen 1
Stam	NM_011484.2	STAM1	signal transducing adaptor molecule (SH3 domain and ITAM motif) 1
Stam2	NM_019667.2	1200004012Rik,5730456G07Rik,BB145015,Hbp,MGI:1917833,MGI:1918967,MGI:2139437,RIKEN cDNA 1200004012 gene,RIKEN cDNA 5730456G07 gene,expressed sequence BB145015	signal transducing adaptor molecule (SH3 domain and ITAM motif) 2
Star	NM_011485.5	AV363654,D8Ert419e,DNA segment, Chr 8, ERATO Doi 419, expressed,MGD-MRK-19665,MGI:1196454,MGI:2142741,expressed sequence AV363654	steroidogenic acute regulatory protein
Stat1	NM_009283.3	2010005J02Rik,AA408197,MGD-MRK-23925,MGI:1923977,MGI:2138078,RIKEN cDNA 2010005J02 gene,expressed sequence AA408197	signal transducer and activator of transcription 1
Stat3	NM_213659.2	1110034C02Rik,AW109958,Apri,MGD-MRK-23900,MGI:1915983,MGI:2144497,RIKEN cDNA 1110034C02 gene,expressed sequence AW109958	signal transducer and activator of transcription 3
Stmn4	NM_019675.2	MGI:2145883,R75359,RB3,expressed sequence R75359	stathmin-like 4
Strap	NM_011499.3	AW557906,C78091,C79202,EST C78091,MGI:1353565,MGI:2141711,MGI:2141747,Unrip,expressed sequence AW557906,expressed sequence C79202	serine/threonine kinase receptor associated protein
Stub1	NM_019719.3	061003N24Rik,2210017D18Rik,2310040B03Rik,AW046544,CHIP,MGI:1913330,MGI:1916886,MGI:1917365,MGI:2147033,RIKEN cDNA 061003N24 gene,RIKEN cDNA 2210017D18 gene,RIKEN cDNA 2310040B03 gene,expressed sequence AW046544	STIP1 homology and U-Box containing protein 1
Stx17	NM_026343.2	4833418I03Rik,6330411F21Rik,9030425C21Rik,AW048351,MGI:1917982,MGI:1921845,MGI:2140547,RIKEN cDNA 4833418I03 gene,RIKEN cDNA 6330411F21 gene,RIKEN cDNA 9030425C21 gene,expressed sequence AW048351	syntaxin 17
Suv39h2	NM_022724.3	4930507K23Rik,AA536750,D2Ert544e,DNA segment, Chr 2, ERATO Doi 544, expressed,KMT1B,MGI:1261878,MGI:1922296,MGI:2138788,RIKEN cDNA 4930507K23 gene,Suv39h	suppressor of variegation 3-9 2
Syk	NM_001198977.1	MGD-MRK-16292,Sykb	spleen tyrosine kinase
Synpo2	NM_001388502.1	1110069I04Rik,2310068J10Rik,9530006G20Rik,A1848603,MGI:1916137,MGI:1922069,MGI:2139816,MGI:2443851,Myo,RIKEN cDNA 1110069I04 gene,RIKEN cDNA 2310068J10 gene,RIKEN cDNA 9530006G20 gene,expressed sequence A1848603,myopodin	synaptopodin 2
Tab2	NM_001359534.1	1110030N06Rik,A530078N03Rik,MGI:2442803,Map3k7ip2,RIKEN cDNA 1110030N06 gene,RIKEN cDNA A530078N03 gene,Tak1 binding protein 2,mKIAA0733,mitogen-activated protein kinase kinase kinase 7 interacting protein 2	TGF-beta activated kinase 1/MAP3K7 binding protein 2
Tacc3	NM_001040435.2	Aint,Arnt interacting protein,C86661,MGI:2141334,expressed sequence C86661	transforming, acidic coiled-coil containing protein 3
Taf5	NM_177342.3	6330528C20Rik,AV117817,MGI:2147674,RIKEN cDNA 6330528C20 gene,expressed sequence AV117817	TATA-box binding protein associated factor 5
Tank	NM_011529.2	C86182,E430026I09Rik,I-TRAF,MGD-MRK-36251,MGI:2139525,MGI:2443907,RIKEN cDNA E430026I09 gene,expressed sequence C86182	TRAF family member-associated Nf-kappa B activator
Tbce	NM_178337.2	2610206D02Rik,C530005D02Rik,MGD-MRK-13370,MGI:1924940,MGI:97630,RIKEN cDNA 2610206D02 gene,RIKEN cDNA C530005D02 gene,pmm,progressive motor neuropathy	tubulin-specific chaperone E
Tbk1	NM_019786.4	1200008B05Rik,A1462036,AW048562,MGI:1914699,MGI:2143617,MGI:2143800,RIKEN cDNA 1200008B05 gene,expressed sequence A1462036,expressed sequence AW048562	TANK-binding kinase 1
Tbtlx	NM_020601.2	Tbtl,transducin (beta)-like 1	transducin (beta)-like 1 X-linked
Tbx3	NM_198052.1	D5Ert189e,DNA segment, Chr 5, ERATO Doi 189, expressed,MGD-MRK-14732,MGI:1098785	T-box 3
Tdo2	NM_019911.2	AA407491,MGI:2139552,MGI:3617202,TD0,TO,chick yellow,chy,expressed sequence AA407491	tryptophan 2,3-dioxygenase
Tead1	NM_001166584.1	2610024B07Rik,B230114H05Rik,Gtgeo5,MGD-MRK-18702,MGD-MRK-18736,MGI:1917551,MGI:2444852,RIKEN cDNA 2610024B07 gene,RIKEN cDNA B230114H05 gene,TEAD-1,TEF-1,Tcf13, gene trap ROSA b-goe 5,mTEF-1,transcription factor 13	TEA domain family member 1
Tead2	NM_011565.2	Etdf,MGD-MRK-29058,TEAD-2,TEF-4,embryonic TEA domain containing factor	TEA domain family member 2
Tead3	NM_001098226.3	AW125760,DTEF-1,ETFR-1,MGD-MRK-38286,MGI:2147049,TEAD-3,TEF-5,Tcf13r2,expressed sequence AW125760,transcription factor 13 related protein 2	TEA domain family member 3
Tert	NM_009354.1	TR	telomerase reverse transcriptase
Tet1	NM_027384.1	2510010B09Rik,AA517754,BB001228,CXCC finger 6,Cxxc6,D10Ert17e,DNA segment, Chr 10, ERATO Doi 17, expressed,MGI:1917568,MGI:2143481,MGI:2143889,RIKEN cDNA 2510010B09 gene,expressed sequence AA517754,expressed sequence BB001228,mKIAA1676	tet methylcytosine dioxygenase 1
Tet2	NM_001040400.2	Ayu17-449,E130014I05Rik,RIKEN cDNA E130014I05 gene,mKIAA1546	tet methylcytosine dioxygenase 2
Tfcip2l1	NM_023755.2	1810030F05Rik,4932442M07Rik,AA575098,Cp2l1,Ctr-1,D930018N21Rik,LBP-9,MGI:1916402,MGI:1921686,MGI:1932302,MGI:2138114,RIKEN cDNA 1810030F05 gene,RIKEN cDNA 4932442M07 gene,RIKEN cDNA D930018N21 gene,Tfcip2l1,expressed sequence AA575098	transcription factor CP2-like 1
Tfdp2	NM_178667.4	1110029I05Rik,A33008J22Rik,DP-3,DP3,MGD-MRK-35628,MGI:2442132,MGI:2442257,RIKEN cDNA 1110029I05 gene,RIKEN cDNA A33008J22 gene	transcription factor Dp 2
Tfpi	NM_001177319.1	A630013F22Rik,AW552122,MGI:2139389,MGI:2443242,RIKEN cDNA A630013F22 gene,expressed sequence AW552122	tissue factor pathway inhibitor
Tgfb1	NM_011577.1	MGD-MRK-15063,MGD-MRK-15064,MGD-MRK-15067,TGF-beta 1,TGF-beta1,Tgfbeta1,Tgfb,Tgfb-1	transforming growth factor, beta 1
Tgfb2	NM_009367.1	BB105277,MGD-MRK-15065,MGD-MRK-15068,MGI:2138633,Tgf-beta2,Tgfb-2,expressed sequence BB105277	transforming growth factor, beta 2
Tgfb3	NM_009368.3	MGD-MRK-15066,MGD-MRK-15069,Tgfb-3	transforming growth factor, beta 3
Tgfbf1	NM_009369.4	68kDa,A181842,A1747162,Beta-ig,MGD-MRK-16764,MGI:2145190,MGI:2145285,big-h3,expressed sequence A181842,expressed sequence A1747162	transforming growth factor, beta induced
Tgfbf3	NM_011578.2	1110036H20Rik,AU015626,AW215636,MGD-MRK-26074,MGI:1921003,MGI:2141029,MGI:2141178,RIKEN cDNA 1110036H20 gene,TBRll1,taglycan,expressed sequence AU015626,expressed sequence AW215636	transforming growth factor, beta receptor III
Tgif2	NM_173396.3	5730599O09Rik,C80753,C81206,MGI:2139509,MGI:2139513,RIKEN cDNA 5730599O09 gene,TALE family homeobox,expressed sequence C80753,expressed sequence C81206	TGF-beta-induced factor homeobox 2
Tgm2	NM_009373.3	Gja1h,MGD-MRK-15073,TG C,TG2,TGase2,protein-glutamine gamma-glutamyltransferase,TGT,Gas,tissue transglutaminase	transglutaminase 2, C polypeptide
Th	NM_009377.1	MGD-MRK-15078	tyrosine hydroxylase
Thy1	NM_009382.3	CD90,MGD-MRK-15100,MGD-MRK-15102,T25,Thy 1.2,Thy-1.2,Thy1.1,Thy1.2,theta	thymus cell antigen 1, theta
Timp3	NM_011595.2	MGD-MRK-15112,MGD-MRK-15114,Timp-3	tissue inhibitor of metalloproteinase 3
Tjp1	NM_009386.1	MGD-MRK-15119,ZO-1,ZO1	tight junction protein 1
Tle3	NM_009389.2	2610103N05Rik,ESG,Grg3b,MGD-MRK-26071,MGI:1917582,RIKEN cDNA 2610103N05 gene,mKIAA1547	transducin-like enhancer of split 3
Tln1	NM_011602.5		talin 1
Tm4sf1	NM_008536.3	12A8 target antigen,L6,L6 antigen,M3s1,MGD-MRK-27041,membrane component, surface marker 1	transmembrane 4 superfamily member 1
Tnfrsf3	NM_009397.2	A20,Tnfrsf3,tumor necrosis factor induced protein 3,zinc finger protein A20	tumor necrosis factor, alpha-induced protein 3
Tnnt2	NM_001130174.1	MGD-MRK-26031,Tnt,ctnT,cardiac Tnt	troponin T2, cardiac
Tnrc6a	NM_144925.3	2010321I05Rik,3110054G10Rik,AW557223,CAGH26,D130023A07Rik,MGC:11932,MGI:1914559,MGI:1923945,MGI:2142265,MGI:2443163,RIKEN cDNA 2010321I05 gene,RIKEN cDNA 3110054G10 gene,RIKEN cDNA D130023A07 gene,Tnrc6,expressed sequence AW557223,trinucleotide repeat containing 6	trinucleotide repeat containing 6a
Tomm20	NM_024214.2	1810060K07Rik,BB284719,MGC:6333,MGI:3034507,RIKEN cDNA 1810060K07 gene,TOM20,expressed sequence BB284719,mKIAA0016	translocase of outer mitochondrial membrane 20
Tor1a	NM_144884.2	DQ2,Dyt1,dystonia 1,torsin family 1, member A,torsin A	torsin family 1, member A (torsin A)
Trf	NM_133977.2	A1266983,HP,MGD-MRK-10926,MGD-MRK-15224,MGI:2143006,MGI:962211,Tfn,expressed sequence A1266983,hpx,hypotransferrinemia with hemochromatosis	transferrin
Trim33	NM_001079830.2	8030451N04Rik,A1413936,Ecto,MGI:2139690,MGI:2444632,RIKEN cDNA 8030451N04 gene,Tiflg,ectoderm,expressed sequence A1413936,mKIAA1113	tripartite motif-containing 33
Trp53	NM_011640.3	MGD-MRK-15247,MGI:3584375,MGI:3584378,MGI:3584379,p44,p53	transformation related protein 53
Tsc22d1	NM_207652.2	AA589566,AW105905,Egr5,MGD-MRK-36343,MGD-MRK-38171,MGI:107766,MGI:2145575,MGI:2145793,TSC-22,Tgfb14,early growth response 5,expressed sequence AA589566,expressed sequence AW105905,transforming growth factor beta 1 induced transcript 4	TSC22 domain family, member 1
Tsg101	NM_021884.3	A1255943,CC2,MGD-MRK-35037,MGI:2141888,expressed sequence A1255943	tumor susceptibility gene 101
Ttc14	NM_001290500.1	2700016E08Rik,4930434D01Rik,4931403I22Rik,4933402I15Rik,A1662468,AU014779,AW561908,MGI:1918203,MGI:1921310,MGI:1923040,MGI:1930798,MGI:2139779,MGI:2142109,RIKEN cDNA 2700016E08 gene,RIKEN cDNA 4930434D01 gene,RIKEN cDNA 4931403I22 gene,RIKEN cDNA 4933402I15 gene,cDNA sequence,clone 3-59,cl-44,expressed sequence A1662468,expressed sequence AU014779	tetratricopeptide repeat domain 14
Ttk	NM_009445.2	AL022661,Es1k1,MGI:2143170,Mps1,expressed sequence AL022661	Ttk protein kinase
Tuba4a	NM_009447.3	M[a]4,Tub4,tubulin, alpha 4	tubulin, alpha 4A
Tubb2a	NM_009450.2	MGD-MRK-36438	tubulin, beta 2A class IIA

Txn2	NM_019913.5	251000611Rik,Al788873,MGI:1915214,MGI:2146059,RIKEN cDNA 251000611 gene,Trx2,expressed sequence Al788873	thioredoxin 2
Tyk2	NM_001205312.1	JTK1	tyrosine kinase 2
Ubpap1	NM_023305.3	2700092A01Rik,MGI:1914373,NAG20,RIKEN cDNA 2700092A01 gene	ubiquitin-associated protein 1
Ube2c	NM_026785.2	1110015A16Rik,D2Erd695e,DNA segment, Chr 2, ERATO Doi 695, expressed,MGI:1277160,RIKEN cDNA 1110015A16 gene	ubiquitin-conjugating enzyme E2C
Ube2d1	NM_145420.2	MGC:28550,UBCH5	ubiquitin-conjugating enzyme E2D 1
Ube2d3	NM_001356594.1	1100001F19Rik,9430029A22Rik,AA414951,MGI:1924549,MGI:2139576,RIKEN cDNA 1100001F19 gene,RIKEN cDNA 9430029A22 gene,expressed sequence AA414951	ubiquitin-conjugating enzyme E2D 3
Ube2m	NM_145578.1	2510040H03Rik,MGC:25453,MGC:37197,MGD-MRK-37317,MGI:1917500,RIKEN cDNA 2510040H03 gene,UBC12,Ubc-rs2,ubiquitin C, related sequence 2	ubiquitin-conjugating enzyme E2M
Ubqin1	NM_026842.4	1110046H03Rik,1810030E05Rik,AU019746,C77538,D13Erd372e,DA41,DNA segment, Chr 13, ERATO Doi 372, expressed,Dsk2,MGI:1196410,MGI:1916055,MGI:1917327,MGI:2145351,MGI:2145489,Plc-1,RIKEN cDNA 1110046H03 gene,RIKEN cDNA 1810030E05 gene,XDRP1,expressed sequence AU019746,expressed sequence C77538	ubiquilin 1
Usp21	NM_013919.4	EST W53272,ESTM28,MGI:1334424,Usp16,Usp23,W53272,expressed sequence tag mouse EST 28,ubiquitin specific protease 23	ubiquitin specific peptidase 21
Usp7	NM_001003918.2	2210010009Rik,AA409944,AA617399,AU019296,AW548146,C80752,Hausp,MGI:1917314,MGI:2146342,MGI:2146361,MGI:2146552,MGI:2146656,MGI:2146709,RIKEN cDNA 2210010009 gene,expressed sequence AA409944,expressed sequence AA617399,expressed sequence AU019296,expressed sequence AW548146,expressed sequence C80752	ubiquitin specific peptidase 7
Utf1	NM_009482.2	A1505934,MGI:2141991,expressed sequence A1505934	undifferentiated embryonic cell transcription factor 1
Vcp	NM_009503.3	AAA ATPase p97,CD48,MGD-MRK-16720,p97,p97/VCP	valosin containing protein
Vdac1	NM_011694.4	AL033343,MGD-MRK-35380,MGI:2144363,Vdac5,expressed sequence AL033343	voltage-dependent anion channel 1
Vdac2	NM_011695.2	MGD-MRK-35376,Vdac6	voltage-dependent anion channel 2
Vdac3	NM_001198998.1	MGD-MRK-35383	voltage-dependent anion channel 3
Vegfa	NM_009505.4	MGD-MRK-24046,VEGF-A,VEGF120,VEGF164,VEGF188,VFg,Vegf,vascular endothelial growth factor	vascular endothelial growth factor A
Vegfc	NM_009506.2	AW228853,MGD-MRK-38168,MGI:2142780,VEGF-C,expressed sequence AW228853	vascular endothelial growth factor C
Vhl	NM_009507.3	MGD-MRK-24093,Vhnh,pVHL,von Hippel-Lindau syndrome homolog	von Hippel-Lindau tumor suppressor
Vim	NM_011701.4	MGD-MRK-15395	vimentin
Vps29	NM_019780.1	2010015D08Rik,AW049835,MGI:1913694,MGI:2141136,PEP11,RIKEN cDNA 2010015D08 gene,expressed sequence AW049835	VPS29 retromer complex component
Vtn	NM_011707.2	A1256434,MGD-MRK-15418,MGI:2144094,Vn,expressed sequence A1256434	vitronectin
Vwf	NM_011708.3	6820430P06Rik,A1551257,B130011006Rik,MGD-MRK-15419,MGI:2141444,MGI:2443130,RIKEN cDNA 6820430P06 gene,RIKEN cDNA B130011006 gene,expressed sequence A1551257	Von Willebrand factor
Was	NM_009515.2	MGD-MRK-32098,MGI:2144716,U42471,Wasp,Wiskott-Aldrich syndrome protein,expressed sequence U42471	Wiskott-Aldrich syndrome
Wdr19	NM_153391.2	C330027H04Rik,D330023L08Rik,DFY2,Ifh144,MGI:1924484,RIKEN cDNA C330027H04 gene,RIKEN cDNA D330023L08 gene	WD repeat domain 19
Wdr5	NM_080848.2	241008007Rik,AA408785,AA960360,Big-3,Bmp2-induced gene,MGI:1922060,MGI:2138759,MGI:2138815,RIKEN cDNA 241008007 gene,expressed sequence AA408785,expressed sequence AA960360	WD repeat domain 5
Wdr61	NM_001025375.2	2700038L12Rik,2810418I05Rik,MGI:1913567,RIKEN cDNA 2700038L12 gene,RIKEN cDNA 2810418I05 gene	WD repeat domain 61
Wdr70	NM_001081402.1	4833422F06Rik,RIKEN cDNA 4833422F06 gene	WD repeat domain 70
Wdtc1	NM_199306.4	Gm695,LOC230796,adipose,adp, gene model 695, (NCBI)	WD and tetratricopeptide repeats 1
Wnt10b	NM_011718.2	MGD-MRK-18790,MGD-MRK-37098,Wnt12,wingless-related MMTV integration site 12	wingless-type MMTV integration site family, member 10B
Wnt11	NM_009519.2	MGD-MRK-18782	wingless-type MMTV integration site family, member 11
Wnt3	NM_009521.2	Int-4,MGD-MRK-11421,MGD-MRK-15440,MGD-MRK-15450,Wnt-3,mammary tumor integration site 4	wingless-type MMTV integration site family, member 3
Wnt3a	NM_009522.2	MGD-MRK-15417,MGD-MRK-15441,MGD-MRK-15451,Wnt-3a,vestigial tail,vt	wingless-type MMTV integration site family, member 3A
Wnt4	NM_009523.1	MGD-MRK-15442,MGD-MRK-15452,Wnt-4	wingless-type MMTV integration site family, member 4
Wnt5a	NM_001256224.2	8030457G12Rik,MGD-MRK-15443,MGD-MRK-15453,MGI:1924815,RIKEN cDNA 8030457G12 gene,Wnt-5a	wingless-type MMTV integration site family, member 5A
Wnt6	NM_009526.3	AA409270,MGD-MRK-15445,MGD-MRK-15455,MGI:2138090,Wnt-6,expressed sequence AA409270	wingless-type MMTV integration site family, member 6
Wwtr1	NM_133784.3	2310058J06Rik,2610021I22Rik,C78399,MGI:1917177,MGI:2140055,RIKEN cDNA 2310058J06 gene,RIKEN cDNA 2610021I22 gene,TAZ,expressed sequence C78399,transcriptional coactivator with PDZ binding motif	WW domain containing transcription regulator 1
Xist	NR_001570.2	A1314753,MGD-MRK-15474,MGI:2147863,expressed sequence A1314753	inactive X specific transcripts
Xpo1	NM_134014.3	AA420417,Crm1,expressed sequence AA420417	exportin 1
Yap1	NM_001171147.1	A1325207,MGD-MRK-24140,MGI:2143022,Yap,Yki,expressed sequence A1325207,yorkie C79409,DNA binding protein B,EF1A,MGD-MRK-15843,MGI:2140677,MSY1,Nsep1,YB-1,dbpB,expressed sequence C79409,nuclease sensitive element binding protein 1	yes-associated protein 1
Ybx1	NM_011732.2		Y box protein 1
Ywhab	NM_018753.6	1300003C17Rik,14-3-3 beta,14-3-3b,MGI:1914136,RIKEN cDNA 1300003C17 gene	tyrosine 3-monoxygenase/tryptophan 5-monoxygenase activation protein, beta polypeptide
Ywhae	NM_009536.4	14-3-3 epsilon,AU019196,MGI:2144388,expressed sequence AU019196	tyrosine 3-monoxygenase/tryptophan 5-monoxygenase activation protein, epsilon polypeptide
Ywhag	NM_018871.3	14-3-3 gamma,D7Bwg1348e,DNA segment, Chr 7, Brigham & Women's Genetics 1348 expressed,MGD-MRK-34146,MGD-MRK-37146,MGI:106452	tyrosine 3-monoxygenase/tryptophan 5-monoxygenase activation protein, gamma polypeptide
Ywhah	NM_011738.2	14-3-3 eta,MGD-MRK-38238	tyrosine 3-monoxygenase/tryptophan 5-monoxygenase activation protein, eta polypeptide
Ywhaq	NM_011739.3	14-3-3 tau,14-3-3 theta,2700028P07Rik,AA409740,AU021156,MGI:1924055,MGI:2144732,MGI:2144953,MGI:2145131,R74690,RIKEN cDNA 2700028P07 gene,expressed sequence AA409740,expressed sequence AU021156,expressed sequence R74690	tyrosine 3-monoxygenase/tryptophan 5-monoxygenase activation protein theta
Yy1	NM_009537.3	AW488674,MGD-MRK-15848,MGI:2145026,NF-E1,UCRBP transcription factor,Yin Yang 1,delta transcription factor,expressed sequence AW488674	YY1 transcription factor
Zbtb16	NM_001033324.3	A1467657,Green's luxoid,MGD-MRK-11929,MGD-MRK-24092,MGI:2143075,MGI:96851,PLZF,Zfp145,expressed sequence A1467657,Ju,luxoid,zinc finger protein 145	zinc finger and BTB domain containing 16
Zfxh3	NM_007496.2	A230102L03Rik,AT motif binding factor 1,Atbf1,MGD-MRK-16751,MGI:1915410,MGI:2679553,RIKEN cDNA A230102L03 gene,Sci,WBP9,short circuit	zinc finger homeobox 3
Zfp3	NM_177565.3	A1854635,Fnp-1,MGD-MRK-15874,MGD-MRK-15929,MGI:2144322,Zfp-3,expressed sequence A1854635	zinc finger protein 3
Zfp42	NM_009556.3	MGD-MRK-13848,MGD-MRK-13849,MGD-MRK-15884,MGD-MRK-15939,Rex-1,Rex1,Zfp-42,reduced expression 1	zinc finger protein 42
Zfp622	NM_144523.3	1110033805Rik,D15Erd806e,DNA segment, Chr 15, ERATO Doi 806, expressed,MGI:1915924,RIKEN cDNA 1110033805 gene,ZPR9	zinc finger protein 622
Zfp750	NM_178763.4	A030007D23Rik,RIKEN cDNA A030007D23 gene	zinc finger protein 750
Zfy1	NM_009570.4	MGD-MRK-15964,MGD-MRK-15966,Y linked zinc finger protein 1,Zfy-1	zinc finger protein 1, Y-linked
Zic2	NM_009574.3	GENA 29,Ku,MGD-MRK-35138,MGI:1861983,kumba,odd-paired homolog	zinc finger protein of the cerebellum 2
Zic3	NM_009575.2	Bn.Ka,MGD-MRK-1607,MGD-MRK-35135,MGI:3043027,MGI:88185,bent tail,katun	zinc finger protein of the cerebellum 3
Internal Reference Genes			
Actb	NM_007393.1	A-X actin-like protein,Actx,E430023M04Rik,MGD-MRK-1087,MGD-MRK-1096,MGI:2443247,MGI:87910,RIKEN cDNA E430023M04 gene,beta-actin,melanoma X-actin 3110065L21Rik,CHC,MGI:1914550,MGI:2144696,R74732,RIKEN cDNA 3110065L21 gene,expressed sequence R74732	actin, beta
Cltc	NM_001003908.1	AK190093,Gapd,MGD-MRK-9967,MGI:3579984,cDNA sequence AK190093	clathrin, heavy polypeptide (Hc)
Gapdh	NM_001001303.1	MGD-MRK-13258,MGD-MRK-13266,Pgk-1	glyceraldehyde-3-phosphate dehydrogenase
Pgk1	NM_008828.2	128kDa,D630020H17Rik,MGD-MRK-37048,MGI:2443763,RIKEN cDNA D630020H17 gene,RNA polymerase 1-2,RPA116,RPA2,Rpo1-2	phosphoglycerate kinase 1
Poir1b	NM_009086.2	Cphn,CyP-18,CyP4,MGD-MRK-13591,MGD-MRK-2108,cyclophilin,cyclophilin A	polymerase (RNA) I polypeptide B
Ppia	NM_008907.1	1810026N22Rik,MGD-MRK-15284,MGI:1916425,MGI:98856,RIKEN cDNA 1810026N22 gene,Tstap198-7,tissue specific transplantation antigen P198-7,tum-antigen,tum-transplantation antigen P198	peptidylprolyl isomerase A
Rpl13a	NM_009438.5	36B4,Arbp,MGD-MRK-1386,MGI:88066,acidic ribosomal phosphoprotein P0	ribosomal protein L13A
Rplp0	NM_007475.5	Gtfd2,MGD-MRK-18659,MGD-MRK-24009,general transcription factor IID	ribosomal protein, large, P0
Tbp	NM_013684.3		TATA box binding protein

Tfrc	NM_011638.3	2610028K12Rik,AI195355,AI426448,AU015758,CD71,E430033M20Rik,MGD-MRK-12700,MGD-MRK-12701,MGD-MRK-15225,MGI:1923611,MGI:2146387,MGI:2146425,MGI:2146541,MGI:2442494,MGI:97229,Mtvr-1,Mtvr1,RIKEN cDNA 2610028K12 gene,RIKEN cDNA E430033M20 gene,TfR1,TfRr,expressed sequence AI195355,expressed sequence AI426448,expressed sequence AU015758,mammary tumor virus receptor 1,p90	transferrin receptor
Tubb5	NM_011655.5	AA408537,AI596182,B130022C14Rik,MGD-MRK-36389,MGI:2146752,MGI:2146893,MGI:2442353,RIKEN cDNA B130022C14 gene,expressed sequence AA408537,expressed sequence AI596182	tubulin, beta 5 class I
Ywhaz	NM_011740.2	1110013I1Rik,14-3-3 zeta,AI596267,AL022924,AU020854,MGD-MRK-39483,MGI:1915893,MGI:2146042,MGI:2146113,MGI:2146160,RIKEN cDNA 1110013I11 gene,expressed sequence AI596267,expressed sequence AL022924,expressed sequence AU020854	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide

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