

nCounter[®] Mouse Metabolic Pathways Panel - Gene and Probe Details

Official Symbol	Accession	Alias / Previous Symbol	Official Full Name	Other targets or Isoform information
A2m	NM_175628.3	A2m A1875679,KAT1,Kat2,Kyrt2,MGI:2142647,expressed sequence A1875679,kyurenine aminotransferase II, mkat-2	alpha-2-macroglobulin	
Aadat	NM_011834.2	MGD-MRK-12779,MGD-MRK-12781,MGI:97280,N-acetyl transferase 2, pineal gland,N-acetyl transferase 4,N-acetyl transferase 4, pineal gland,Nat-2,Nat4,SNAT	aminoadipate aminotransferase	
Aanat	NM_009591.3	A1325092,E4300082Rik,MGD-MRK-1015,MGI:2138905,MGI:2443781,RIKEN cDNA E430008G22 gene,c-Abi,expressed sequence A1325092	arylalkylamine N-acetyltransferase	
Abi1	NM_009594.4	O6101108Rik,A1255831,A1265397,D18616t2.40c,DNA segment, Chr 18, ERATO Doi 240, expressed,MGI:1915593,MGI:2142702,MGI:2147205,RIKEN cDNA O610011104 gene,expressed sequence A1255831,expressed sequence A1265397	c-abl oncogene 1, non-receptor tyrosine kinase	
Acaa2	NM_177470.2	A530025K5Rik,Acac,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 acyltransferase 2 (mitochondrial 3-oxoacyl-Coenzyme A thiolase)	
Acaca	NM_133360.2	A1597064,AW743042,Acc2,AcCb,MGI:2141247,expressed sequence A1597064,expressed sequence AW743042	acetyl-Coenzyme A carboxylase alpha	
Acacb	NM_133904.2	AA960361,AU018452,C79855,LCAD,MGD-MRK-1023,MGI:2138138,MGI:2138418,MGI:2138684,expressed sequence AA960361,expressed sequence AU018452,expressed sequence C79855	acetyl-Coenzyme A carboxylase beta	
Acadl	NM_007381.3	9530039J15Rik,Cemb2,RIKEN cDNA 9530039J15 gene,centaurin, beta 2	acyl-Coenzyme A dehydrogenase, long-chain	
Acap2	NM_030138.2	6330585C21Rik,Acac,MGD-MRK-1027,MGD-MRK-1028,MGI:2443107,RIKEN cDNA 6330585C21 gene,acetyl Coenzyme A acetyltransferase	ARfGAP with coiled-coil, ankyrin repeat and PH domains 2	
Acat1	NM_144784.3	AW742799,MGD-MRK-1029,MGD-MRK-14817,MGD-MRK-14828,MGI:2147098,MGI:98537,Tcp-1a,Tcp-1s1,expressed sequence AW742799,t-complex protein 1, related sequence 1	acetyl-Coenzyme A acetyltransferase 1	
Acat2	NM_009338.3	1300004O04Rik,4930449F15Rik,AV027244,Cach,MGI:1922149,MGI:2145388,RIKEN cDNA 1300004O04 gene,RIKEN cDNA 4930449F15 gene,cytosolic acetyl-CoA hydrolase,expressed sequence AV027244	acetyl-Coenzyme A acetyltransferase 2	
Acmsd	NM_01033041.2	A1042784,AOX,Acyl-CoA oxidase,D130055E20Rik,MGI:2141377,MGI:2441945,RIKEN cDNA D130055E20 gene,expressed sequence A1042784	amino carboxymuconate semialdehyde decarboxylase	
Acot12	NM_028790.3	BB101783,BC021611,MGC:37904,MGI:2144599,cDNA sequence BC021611,expressed sequence BB101783	acyl-CoA thioesterase 12	
Acox1	NM_015729.2	1110014J22Rik,Acyl-CoA oxidase,D130055E20Rik,MGI:2141377,MGI:2441945,RIKEN cDNA D130055E20 gene,expressed sequence A1042784	acyl-Coenzyme A oxidase 1, palmitoyl	
Acsf3	NM_144932.3	1110014J22Rik,Acyl-CoA oxidase,D130055E20Rik,MGI:2141377,MGI:2441945,RIKEN cDNA D130055E20 gene,expressed sequence A1042784	acyl-CoA synthetase family member 3	
Acyl1	NM_025371.2	ADH-A1,A194826,Adh-1,Adh-1-1,Adh-1a,Adh-1b,Adh-1c,Adh-1d,Adh-1e,Adh-1f,Adh-1g,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 A1194826	aminoacylase 1	
Ada	NM_007398.3	MGD-MRK-1104	adenosine deaminase	
Adal	NM_029475.1	4930578F03Rik,RIKEN cDNA 4930578F03 gene	adenosine deaminase-like	
Adcy2	NM_153534.2	MGD-MRK-16461,mKIAA1060	adenylate cyclase 2	
Adh1	NM_007409.2	A1325182,Adh-3,Adh-3a,Adh-3b,Adh-3c,Adh-3d,Adh-3e,Adh-3f,Adh-3g,Adh-3h,Adh-3i,Adh-3j,Adh-3k,Adh-3l,Adh-3m,Adh-3n,Adh-3o,Adh-3p,Adh-3q,Adh-3r,Adh-3s,Adh-3t,Adh-3u,Adh-3v,Adh-3w,Adh-3x,Adh-3y,Adh-3z,Adh-4,Adh-4a,Adh-4b,Adh-4c,Adh-4d,Adh-4e,Adh-4f,Adh-4g,Adh-4h,Adh-4i,Adh-4j,Adh-4k,Adh-4l,Adh-4m,Adh-4n,Adh-4o,Adh-4p,Adh-4q,Adh-4r,Adh-4s,Adh-4t,Adh-4u,Adh-4v,Adh-4w,Adh-4x,Adh-4y,Adh-4z,Adh-5,Adh-5a,Adh-5b,Adh-5c,Adh-5d,Adh-5e,Adh-5f,Adh-5g,Adh-5h,Adh-5i,Adh-5j,Adh-5k,Adh-5l,Adh-5m,Adh-5n,Adh-5o,Adh-5p,Adh-5q,Adh-5r,Adh-5s,Adh-5t,Adh-5u,Adh-5v,Adh-5w,Adh-5x,Adh-5y,Adh-5z,Adh-6,Adh-6a,Adh-6b,Adh-6c,Adh-6d,Adh-6e,Adh-6f,Adh-6g,Adh-6h,Adh-6i,Adh-6j,Adh-6k,Adh-6l,Adh-6m,Adh-6n,Adh-6o,Adh-6p,Adh-6q,Adh-6r,Adh-6s,Adh-6t,Adh-6u,Adh-6v,Adh-6w,Adh-6x,Adh-6y,Adh-6z,Adh-7,Adh-7a,Adh-7b,Adh-7c,Adh-7d,Adh-7e,Adh-7f,Adh-7g,Adh-7h,Adh-7i,Adh-7j,Adh-7k,Adh-7l,Adh-7m,Adh-7n,Adh-7o,Adh-7p,Adh-7q,Adh-7r,Adh-7s,Adh-7t,Adh-7u,Adh-7v,Adh-7w,Adh-7x,Adh-7y,Adh-7z,Adh-8,Adh-8a,Adh-8b,Adh-8c,Adh-8d,Adh-8e,Adh-8f,Adh-8g,Adh-8h,Adh-8i,Adh-8j,Adh-8k,Adh-8l,Adh-8m,Adh-8n,Adh-8o,Adh-8p,Adh-8q,Adh-8r,Adh-8s,Adh-8t,Adh-8u,Adh-8v,Adh-8w,Adh-8x,Adh-8y,Adh-8z,Adh-9,Adh-9a,Adh-9b,Adh-9c,Adh-9d,Adh-9e,Adh-9f,Adh-9g,Adh-9h,Adh-9i,Adh-9j,Adh-9k,Adh-9l,Adh-9m,Adh-9n,Adh-9o,Adh-9p,Adh-9q,Adh-9r,Adh-9s,Adh-9t,Adh-9u,Adh-9v,Adh-9w,Adh-9x,Adh-9y,Adh-9z,Adh-10,Adh-10a,Adh-10b,Adh-10c,Adh-10d,Adh-10e,Adh-10f,Adh-10g,Adh-10h,Adh-10i,Adh-10j,Adh-10k,Adh-10l,Adh-10m,Adh-10n,Adh-10o,Adh-10p,Adh-10q,Adh-10r,Adh-10s,Adh-10t,Adh-10u,Adh-10v,Adh-10w,Adh-10x,Adh-10y,Adh-10z,Adh-11,Adh-11a,Adh-11b,Adh-11c,Adh-11d,Adh-11e,Adh-11f,Adh-11g,Adh-11h,Adh-11i,Adh-11j,Adh-11k,Adh-11l,Adh-11m,Adh-11n,Adh-11o,Adh-11p,Adh-11q,Adh-11r,Adh-11s,Adh-11t,Adh-11u,Adh-11v,Adh-11w,Adh-11x,Adh-11y,Adh-11z,Adh-12,Adh-12a,Adh-12b,Adh-12c,Adh-12d,Adh-12e,Adh-12f,Adh-12g,Adh-12h,Adh-12i,Adh-12j,Adh-12k,Adh-12l,Adh-12m,Adh-12n,Adh-12o,Adh-12p,Adh-12q,Adh-12r,Adh-12s,Adh-12t,Adh-12u,Adh-12v,Adh-12w,Adh-12x,Adh-12y,Adh-12z,Adh-13,Adh-13a,Adh-13b,Adh-13c,Adh-13d,Adh-13e,Adh-13f,Adh-13g,Adh-13h,Adh-13i,Adh-13j,Adh-13k,Adh-13l,Adh-13m,Adh-13n,Adh-13o,Adh-13p,Adh-13q,Adh-13r,Adh-13s,Adh-13t,Adh-13u,Adh-13v,Adh-13w,Adh-13x,Adh-13y,Adh-13z,Adh-14,Adh-14a,Adh-14b,Adh-14c,Adh-14d,Adh-14e,Adh-14f,Adh-14g,Adh-14h,Adh-14i,Adh-14j,Adh-14k,Adh-14l,Adh-14m,Adh-14n,Adh-14o,Adh-14p,Adh-14q,Adh-14r,Adh-14s,Adh-14t,Adh-14u,Adh-14v,Adh-14w,Adh-14x,Adh-14y,Adh-14z,Adh-15,Adh-15a,Adh-15b,Adh-15c,Adh-15d,Adh-15e,Adh-15f,Adh-15g,Adh-15h,Adh-15i,Adh-15j,Adh-15k,Adh-15l,Adh-15m,Adh-15n,Adh-15o,Adh-15p,Adh-15q,Adh-15r,Adh-15s,Adh-15t,Adh-15u,Adh-15v,Adh-15w,Adh-15x,Adh-15y,Adh-15z,Adh-16,Adh-16a,Adh-16b,Adh-16c,Adh-16d,Adh-16e,Adh-16f,Adh-16g,Adh-16h,Adh-16i,Adh-16j,Adh-16k,Adh-16l,Adh-16m,Adh-16n,Adh-16o,Adh-16p,Adh-16q,Adh-16r,Adh-16s,Adh-16t,Adh-16u,Adh-16v,Adh-16w,Adh-16x,Adh-16y,Adh-16z,Adh-17,Adh-17a,Adh-17b,Adh-17c,Adh-17d,Adh-17e,Adh-17f,Adh-17g,Adh-17h,Adh-17i,Adh-17j,Adh-17k,Adh-17l,Adh-17m,Adh-17n,Adh-17o,Adh-17p,Adh-17q,Adh-17r,Adh-17s,Adh-17t,Adh-17u,Adh-17v,Adh-17w,Adh-17x,Adh-17y,Adh-17z,Adh-18,Adh-18a,Adh-18b,Adh-18c,Adh-18d,Adh-18e,Adh-18f,Adh-18g,Adh-18h,Adh-18i,Adh-18j,Adh-18k,Adh-18l,Adh-18m,Adh-18n,Adh-18o,Adh-18p,Adh-18q,Adh-18r,Adh-18s,Adh-18t,Adh-18u,Adh-18v,Adh-18w,Adh-18x,Adh-18y,Adh-18z,Adh-19,Adh-19a,Adh-19b,Adh-19c,Adh-19d,Adh-19e,Adh-19f,Adh-19g,Adh-19h,Adh-19i,Adh-19j,Adh-19k,Adh-19l,Adh-19m,Adh-19n,Adh-19o,Adh-19p,Adh-19q,Adh-19r,Adh-19s,Adh-19t,Adh-19u,Adh-19v,Adh-19w,Adh-19x,Adh-19y,Adh-19z,Adh-20,Adh-20a,Adh-20b,Adh-20c,Adh-20d,Adh-20e,Adh-20f,Adh-20g,Adh-20h,Adh-20i,Adh-20j,Adh-20k,Adh-20l,Adh-20m,Adh-20n,Adh-20o,Adh-20p,Adh-20q,Adh-20r,Adh-20s,Adh-20t,Adh-20u,Adh-20v,Adh-20w,Adh-20x,Adh-20y,Adh-20z,Adh-21,Adh-21a,Adh-21b,Adh-21c,Adh-21d,Adh-21e,Adh-21f,Adh-21g,Adh-21h,Adh-21i,Adh-21j,Adh-21k,Adh-21l,Adh-21m,Adh-21n,Adh-21o,Adh-21p,Adh-21q,Adh-21r,Adh-21s,Adh-21t,Adh-21u,Adh-21v,Adh-21w,Adh-21x,Adh-21y,Adh-21z,Adh-22,Adh-22a,Adh-22b,Adh-22c,Adh-22d,Adh-22e,Adh-22f,Adh-22g,Adh-22h,Adh-22i,Adh-22j,Adh-22k,Adh-22l,Adh-22m,Adh-22n,Adh-22o,Adh-22p,Adh-22q,Adh-22r,Adh-22s,Adh-22t,Adh-22u,Adh-22v,Adh-22w,Adh-22x,Adh-22y,Adh-22z,Adh-23,Adh-23a,Adh-23b,Adh-23c,Adh-23d,Adh-23e,Adh-23f,Adh-23g,Adh-23h,Adh-23i,Adh-23j,Adh-23k,Adh-23l,Adh-23m,Adh-23n,Adh-23o,Adh-23p,Adh-23q,Adh-23r,Adh-23s,Adh-23t,Adh-23u,Adh-23v,Adh-23w,Adh-23x,Adh-23y,Adh-23z,Adh-24,Adh-24a,Adh-24b,Adh-24c,Adh-24d,Adh-24e,Adh-24f,Adh-24g,Adh-24h,Adh-24i,Adh-24j,Adh-24k,Adh-24l,Adh-24m,Adh-24n,Adh-24o,Adh-24p,Adh-24q,Adh-24r,Adh-24s,Adh-24t,Adh-24u,Adh-24v,Adh-24w,Adh-24x,Adh-24y,Adh-24z,Adh-25,Adh-25a,Adh-25b,Adh-25c,Adh-25d,Adh-25e,Adh-25f,Adh-25g,Adh-25h,Adh-25i,Adh-25j,Adh-25k,Adh-25l,Adh-25m,Adh-25n,Adh-25o,Adh-25p,Adh-25q,Adh-25r,Adh-25s,Adh-25t,Adh-25u,Adh-25v,Adh-25w,Adh-25x,Adh-25y,Adh-25z,Adh-26,Adh-26a,Adh-26b,Adh-26c,Adh-26d,Adh-26e,Adh-26f,Adh-26g,Adh-26h,Adh-26i,Adh-26j,Adh-26k,Adh-26l,Adh-26m,Adh-26n,Adh-26o,Adh-26p,Adh-26q,Adh-26r,Adh-26s,Adh-26t,Adh-26u,Adh-26v,Adh-26w,Adh-26x,Adh-26y,Adh-26z,Adh-27,Adh-27a,Adh-27b,Adh-27c,Adh-27d,Adh-27e,Adh-27f,Adh-27g,Adh-27h,Adh-27i,Adh-27j,Adh-27k,Adh-27l,Adh-27m,Adh-27n,Adh-27o,Adh-27p,Adh-27q,Adh-27r,Adh-27s,Adh-27t,Adh-27u,Adh-27v,Adh-27w,Adh-27x,Adh-27y,Adh-27z,Adh-28,Adh-28a,Adh-28b,Adh-28c,Adh-28d,Adh-28e,Adh-28f,Adh-28g,Adh-28h,Adh-28i,Adh-28j,Adh-28k,Adh-28l,Adh-28m,Adh-28n,Adh-28o,Adh-28p,Adh-28q,Adh-28r,Adh-28s,Adh-28t,Adh-28u,Adh-28v,Adh-28w,Adh-28x,Adh-28y,Adh-28z,Adh-29,Adh-29a,Adh-29b,Adh-29c,Adh-29d,Adh-29e,Adh-29f,Adh-29g,Adh-29h,Adh-29i,Adh-29j,Adh-29k,Adh-29l,Adh-29m,Adh-29n,Adh-29o,Adh-29p,Adh-29q,Adh-29r,Adh-29s,Adh-29t,Adh-29u,Adh-29v,Adh-29w,Adh-29x,Adh-29y,Adh-29z,Adh-30,Adh-30a,Adh-30b,Adh-30c,Adh-30d,Adh-30e,Adh-30f,Adh-30g,Adh-30h,Adh-30i,Adh-30j,Adh-30k,Adh-30l,Adh-30m,Adh-30n,Adh-30o,Adh-30p,Adh-30q,Adh-30r,Adh-30s,Adh-30t,Adh-30u,Adh-30v,Adh-30w,Adh-30x,Adh-30y,Adh-30z,Adh-31,Adh-31a,Adh-31b,Adh-31c,Adh-31d,Adh-31e,Adh-31f,Adh-31g,Adh-31h,Adh-31i,Adh-31j,Adh-31k,Adh-31l,Adh-31m,Adh-31n,Adh-31o,Adh-31p,Adh-31q,Adh-31r,Adh-31s,Adh-31t,Adh-31u,Adh-31v,Adh-31w,Adh-31x,Adh-31y,Adh-31z,Adh-32,Adh-32a,Adh-32b,Adh-32c,Adh-32d,Adh-32e,Adh-32f,Adh-32g,Adh-32h,Adh-32i,Adh-32j,Adh-32k,Adh-32l,Adh-32m,Adh-32n,Adh-32o,Adh-32p,Adh-32q,Adh-32r,Adh-32s,Adh-32t,Adh-32u,Adh-32v,Adh-32w,Adh-32x,Adh-32y,Adh-32z,Adh-33,Adh-33a,Adh-33b,Adh-33c,Adh-33d,Adh-33e,Adh-33f,Adh-33g,Adh-33h,Adh-33i,Adh-33j,Adh-33k,Adh-33l,Adh-33m,Adh-33n,Adh-33o,Adh-33p,Adh-33q,Adh-33r,Adh-33s,Adh-33t,Adh-33u,Adh-33v,Adh-33w,Adh-33x,Adh-33y,Adh-33z,Adh-34,Adh-34a,Adh-34b,Adh-34c,Adh-34d,Adh-34e,Adh-34f,Adh-34g,Adh-34h,Adh-34i,Adh-34j,Adh-34k,Adh-34l,Adh-34m,Adh-34n,Adh-34o,Adh-34p,Adh-34q,Adh-34r,Adh-34s,Adh-34t,Adh-34u,Adh-34v,Adh-34w,Adh-34x,Adh-34y,Adh-34z,Adh-35,Adh-35a,Adh-35b,Adh-35c,Adh-35d,Adh-35e,Adh-35f,Adh-35g,Adh-35h,Adh-35i,Adh-35j,Adh-35k,Adh-35l,Adh-35m,Adh-35n,Adh-35o,Adh-35p,Adh-35q,Adh-35r,Adh-35s,Adh-35t,Adh-35u,Adh-35v,Adh-35w,Adh-35x,Adh-35y,Adh-35z,Adh-36,Adh-36a,Adh-36b,Adh-36c,Adh-36d,Adh-36e,Adh-36f,Adh-36g,Adh-36h,Adh-36i,Adh-36j,Adh-36k,Adh-36l,Adh-36m,Adh-36n,Adh-36o,Adh-36p,Adh-36q,Adh-36r,Adh-36s,Adh-36t,Adh-36u,Adh-36v,Adh-36w,Adh-36x,Adh-36y,Adh-36z,Adh-37,Adh-37a,Adh-37b,Adh-37c,Adh-37d,Adh-37e,Adh-37f,Adh-37g,Adh-37h,Adh-37i,Adh-37j,Adh-37k,Adh-37l,Adh-37m,Adh-37n,Adh-37o,Adh-37p,Adh-37q,Adh-37r,Adh-37s,Adh-37t,Adh-37u,Adh-37v,Adh-37w,Adh-37x,Adh-37y,Adh-37z,Adh-38,Adh-38a,Adh-38b,Adh-38c,Adh-38d,Adh-38e,Adh-38f,Adh-38g,Adh-38h,Adh-38i,Adh-38j,Adh-38k,Adh-38l,Adh-38m,Adh-38n,Adh-38o,Adh-38p,Adh-38q,Adh-38r,Adh-38s,Adh-38t,Adh-38u,Adh-38v,Adh-38w,Adh-38x,Adh-38y,Adh-38z,Adh-39,Adh-39a,Adh-39b,Adh-39c,Adh-39d,Adh-39e,Adh-39f,Adh-39g,Adh-39h,Adh-39i,Adh-39j,Adh-39k,Adh-39l,Adh-39m,Adh-39n,Adh-39o,Adh-39p,Adh-39q,Adh-39r,Adh-39s,Adh-39t,Adh-39u,Adh-39v,Adh-39w,Adh-39x,Adh-39y,Adh-39z,Adh-40,Adh-40a,Adh-40b,Adh-40c,Adh-40d,Adh-40e,Adh-40f,Adh-40g,Adh-40h,Adh-40i,Adh-40j,Adh-40k,Adh-40l,Adh-40m,Adh-40n,Adh-40o,Adh-40p,Adh-40q,Adh-40r,Adh-40s,Adh-40t,Adh-40u,Adh-40v,Adh-40w,Adh-40x,Adh-40y,Adh-40z,Adh-41,Adh-41a,Adh-41b,Adh-41c,Adh-41d,Adh-41e,Adh-41f,Adh-41g,Adh-41h,Adh-41i,Adh-41j,Adh-41k,Adh-41l,Adh-41m,Adh-41n,Adh-41o,Adh-41p,Adh-41q,Adh-41r,Adh-41s,Adh-41t,Adh-41u,Adh-41v,Adh-41w,Adh-41x,Adh-41y,Adh-41z,Adh-42,Adh-42a,Adh-42b,Adh-42c,Adh-42d,Adh-42e,Adh-42f,Adh-42g,Adh-42h,Adh-42i,Adh-42j,Adh-42k,Adh-42l,Adh-42m,Adh-42n,Adh-42o,Adh-42p,Adh-42q,Adh-42r,Adh-42s,Adh-42t,Adh-42u,Adh-42v,Adh-42w,Adh-42x,Adh-42y,Adh-42z,Adh-43,Adh-43a,Adh-43b,Adh-43c,Adh-43d,Adh-43e,Adh-43f,Adh-43g,Adh-43h,Adh-43i,Adh-43j,Adh-43k,Adh-43l,Adh-43m,Adh-43n,Adh-43o,Adh-43p,Adh-43q,Adh-43r,Adh-43s,Adh-43t,Adh-43u,Adh-43v,Adh-43w,Adh-43x,Adh-43y,Adh-43z,Adh-44,Adh-44a,Adh-44b,Adh-44c,Adh-44d,Adh-44e,Adh-44f,Adh-44g,Adh-44h,Adh-44i,Adh-44j,Adh-44k,Adh-44l,Adh-44m,Adh-44n,Adh-44o,Adh-44p,Adh-44q,Adh-44r,Adh-44s,Adh-44t,Adh-44u,Adh-44v,Adh-44w,Adh-44x,Adh-44y,Adh-44z,Adh-45,Adh-45a,Adh-45b,Adh-45c,Adh-45d,Adh-45e,Adh-45f,Adh-45g,Adh-45h,Adh-45i,Adh-45j,Adh-45k,Adh-45l,Adh-45m,Adh-45n,Adh-45o,Adh-45p,Adh-45q,Adh-45r,Adh-45s,Adh-45t,Adh-45u,Adh-45v,Adh-45w,Adh-45x,Adh-45y,Adh-45z,Adh-46,Adh-46a,Adh-46b,Adh-46c,Adh-46d,Adh-46e,Adh-46f,Adh-46g,Adh-46h,Adh-46i,Adh-46j,Adh-46k,Adh-46l,Adh-46m,Adh-46n,Adh-46o,Adh-46p,Adh-46q,Adh-46r,Adh-46s,Adh-46t,Adh-46u,Adh-46v,Adh-46w,Adh-46x,Adh-46y,Adh-46z,Adh-47,Adh-47a,Adh-47b,Adh-47c,Adh-47d,Adh-47e,Adh-47f,Adh-47g,Adh-47h,Adh-47i,Adh-47j,Adh-47k,Adh-47l,Adh-47m,Adh-47n,Adh-47o,Adh-47p,Adh-47q,Adh-47r,Adh-47s,Adh-47t,Adh-47u,Adh-47v,Adh-47w,Adh-47x,Adh-47y,Adh-47z,Adh-48,Adh-48a,Adh-48b,Adh-48c,Adh-48d,Adh-48e,Adh-48f,Adh-48g,Adh-48h,Adh-48i,Adh-48j,Adh-48k,Adh-48l,Adh-48m,Adh-48n,Adh-48o,Adh-48p,Adh-48q,Adh-48r,Adh-48s,Adh-48t,Adh-48u,Adh-48v,Adh-48w,Adh-48x,Adh-48y,Adh-48z,Adh-49,Adh-49a,Adh-49b,Adh-49c,Adh-49d,Adh-49e,Adh-49f,Adh-49g,Adh-49h,Adh-49i,Adh-49j,Adh-49k,Adh-49l,Adh-49m,Adh-49n,Adh-49o,Adh-49p,Adh-49q,Adh-49r,Adh-49s,Adh-49t,Adh-49u,Adh-49v,Adh-49w,Adh-49x,Adh-49y,Adh-49z,Adh-50,Adh-50a,Adh-50b,Adh-50c,Adh-50d,Adh-50e,Adh-50f,Adh-50g,Adh-50h,Adh-50i,Adh-50j,Adh-50k,Adh-50l,Adh-50m,Adh-50n,Adh-50o,Adh-50p,Adh-50q,Adh-50r,Adh-50s,Adh-50t,Adh-50u,Adh-50v,Adh-50w,Adh-50x,Adh-50y,Adh-50z,Adh-51,Adh-51a,Adh-51b,Adh-51c,Adh-51d,Adh-51e,Adh-51f,Adh-51g,Adh-51h,Adh-51i,Adh-51j,Adh-51k,Adh-51l,Adh-51m,Adh-51n,Adh-51o,Adh-51p,Adh-51q,Adh-51r,Adh-51s,Adh-51t,Adh-51u,Adh-51v,Adh-51w,Adh-51x,Adh-51y,Adh-51z,Adh-52,Adh-52a,Adh-52b,Adh-52c,Adh-52d,Adh-52e,Adh-52f,Adh-52g,Adh-52h,Adh-52i,Adh-52j,Adh-52k,Adh-52l,Adh-52m,Adh-52n,Adh-52o,Adh-52p,Adh-52q,Adh-52r,Adh-52s,Adh-52t,Adh-52u,Adh-52v,Adh-52w,Adh-52x,Adh-52y,Adh-52z,Adh-53,Adh-53a,Adh-53b,Adh-53c,Adh-53d,Adh-53e,Adh-53f,Adh-53g,Adh-53h,Adh-53i,Adh-53j,Adh-53k,Adh-53l,Adh-53m,Adh-53n,Adh-53o,Adh-53p,Adh-53q,Adh-53r,Adh-53s,Adh-53t,Adh-53u,Adh-53v,Adh-53w,Adh-53x,Adh-53y,Adh-53z,Adh-54,Adh-54a,Adh-54b,Adh-54c,Adh-54d,Adh-54e,Adh-54f,Adh-54g,Adh-54h,Adh-54i,Adh-54j,Adh-54k,Adh-54l,Adh-54m,Adh-54n,Adh-54o,Adh-54p,Adh-54q,Adh-54r,Adh-54s,Adh-54t,Adh-54u,Adh-54v,Adh-54w,Adh-54x,Adh		

Asmt	NM_001199212.1	Hiomt_MGD-MRK-10719,hydroxyindole-O-methyltransferase	acetylserotonin O-methyltransferase
Asns	NM_012055.3	Acy-2,Acy2-MGD-MRK-1100,MGD-MRK-1102,MGI:2671359,aminocyclase 2,neurological	asparagine synthetase
Aspa	NM_023113.5	7,nu7,small lethargic A53005006Rik,AA429460,Gm690,MGI:2685536,RIKEN cDNA A53005006 gene,expressed	aspartoacylase
Aspg	NM_001081169.1	sequence AI429460, gene model 690, (NCBI)	asparaginase
Ass1	NM_007494.3	AA408052,ASS,Ass-1,MGD-MRK-1430,MGD-MRK-1433,MGI:2143462,MGI:3665141,arginosuccinate synthetase 1,expressed sequence	argininosuccinate synthetase 1
Atf4	NM_009716.2	Atf-4,C/ATF,CREB2,MGD-MRK-1444,MGD-MRK-1445,TAXREB67 1110102130Rik,34300505F09Rik,AIS49878,C3002040Rik,MGI:1915865,MGI:1924604,MGI:2146037,RIKEN cDNA 1110102130 gene,RIKEN cDNA 943005F09 gene,RIKEN cDNA C130020M04 gene,expressed sequence AI549878	activating transcription factor 4
Atf7	NM_146065.1	2610204M12Rik,AtfA,ATFA-associated Modulator,MGI:1919738,Mcaf1,RIKEN cDNA 2610204M12 gene	activating transcription factor 7
Atf7ip	NM_019426.2	9430023L20Rik,AA407441,AU022967,MGI:2145889,MGI:2146146,RIKEN cDNA 9430023L20 gene,expressed sequence AA407441,expressed sequence AU022967	activating transcription factor 7 interacting protein
Atg101	NM_026566.2	2140204R21Rik,AID47755,AI505411,AW55123,C03004M05Rik,C630028L02Rik,MGI:1926114,MGI:2144758,MGI:2144850,MGI:2145049,MGI:2441919,RIKEN cDNA 2410024A21 gene,RIKEN cDNA C03004M05 gene,RIKEN cDNA C630028L02 gene,expressed sequence AI047755,expressed sequence AI503411,expressed sequence AW55123	autophagy related 101
Atg2b	NM_029654.4	A1256639,ATX1,MGI:2144096,expressed sequence AI256639	autophagy related 28
Atx1	NM_009720.2	0610008714Rik,1500000111Rik,AA960090,AB76556,AU020773,C85518,MGI:1024154,MGI:2143512,MGI:2143703,MGI:2143772,MGI:2143943,RIKEN cDNA 0610008714 gene,RIKEN cDNA 1500000111 gene,expressed sequence AA960090,expressed sequence AI876556,expressed sequence AU020773,expressed sequence C85518	antioxidant 1 copper chaperone
Atp5d	NM_025313.2	2610008D24Rik,lrf1,MGD-MRK-11788,MGD-MRK-35093,MGI:1917284,RIKEN cDNA 2610008D24 gene,low fat mammary 1 (may = F1F0-ATPase subunit e)	ATP synthase, H+ transporting, mitochondrial F1 complex, delta subunit
Atp5k	NM_007507.2	1110004G16Rik,RIKEN cDNA 1110004G16 gene	ATP synthase, H+ transporting, mitochondrial F1F0 complex, subunit E
Atp6v1f	NM_025381.2	A430107N12Rik,AIG27028,MGI:1925682,MGI:2145682,RIKEN cDNA A430107N12 gene,Scat7,ataxin-7,expressed sequence AI627028,spinocerebellar ataxia 7 homolog (human)	ATPase, H+ transporting, lysosomal V1 subunit F
Atxn7	NM_139227.4	A1325008,Bcl-2,MGI:2147509,expressed sequence AI325008	ataxin 7
Bad	NM_007522.3	AW586256,Bcl-2,C430015F1Rik,D63004D05Rik,D830018M01Rik,MGD-MRK-1524,MGD-MRK-1526,MGI:2138629,MGI:2442315,MGI:2446419,MGI:2446682,RIKEN cDNA C430015F12 gene,RIKEN cDNA D63004D05 gene,RIKEN cDNA D830018M01 gene,expressed sequence AW586256	BCL2-associated agonist of cell death
Bcl2	NM_009741.3	A1,8B21357,Bcl-2-related protein A1,Bcl2a1,Bfl-1,Hbpa1,MGD-MRK-18735,MGD-MRK-10950,MGI:209742.3,expressed sequence BB218357,hematopoietic Bcl-2-related protein A1	B cell leukemia/lymphoma 2
Bcl2a1a	NM_009742.3	Bcl2l1,Bcl-2-like 1,expressed sequence Bcl2l1	B cell leukemia/lymphoma 2 related protein A1a
Bcl2l1	NM_009743.4	Bcl2l1,Bcl-2-like 1,expressed sequence Bcl2l1	BCL2-like 1
Bhmt	NM_016668.3	C81077,D13Uc4b2,DNA segment, Chr 13, University of California at Los Angeles 2,MGD-MRK-3672,MGI:2145520,MGI:89883,expressed sequence C81077	betaine-homocysteine methyltransferase
Bhmt2	NM_022884.2	AW107670,Ap2,HPA2,MIAP2,MGI:2143290,MIAP2,MIHC,RNF49,apoptosis inhibitor 1,CIAP-2,CIAP2,expressed sequence AW107670	betaine-homocysteine methyltransferase 2
Birc3	NM_007464.3	MGD-MRK-1577	baculoviral IAP repeat-containing 3
Bik	NM_007549.2	9930012E13Rik,AA120551,AA387315,AA473386,Braf transforming gene 2,Braf-2,Braf2,C87398,D6E9T631e,DNA segment, Chr 6, ERATO Doi 631, expressed,MGD-MRK-1618,MGD-MRK-1619,MGD-MRK-1621,MGI:1277149,MGI:2141786,MGI:2442536,MGI:3034546,MGI:3034802,MGI:3034940,RIKEN cDNA 9930012E13 gene,expressed sequence AA120551,expressed sequence AA387315,expressed sequence AA473386,expressed sequence C87398	B lymphoid kinase
Braf	NM_139294.3	MGD-MRK-25968	Braf transforming gene
Brc1a	NM_009764.3	A1256696,AW045498,Fancd1,MGD-MRK-38382,MGI:2140824,MGI:2141125,RA1613,expressed sequence AI256696,expressed sequence AW045498	breast cancer 1, early onset
Brc2	NM_009765.3	CE_1A,CE_1A protein	breast cancer 2, early onset
Brc3	NM_145956.4	3110090N10Rik,803040I03Rik,BACH1,MGI:1920358,RIKEN cDNA 3110090N10 gene,RIKEN cDNA 803040I03 gene	BRCA1/BRCA2-containing complex, subunit 3
Brip1	NM_178309.2	A1528679,Bruton's tyrosine kinase,MGD-MRK-15473,MGD-MRK-1683,MGI:2147899,X-linked immune deficiency,expressed sequence AI528679,xid	BRCA1 interacting protein C-terminal helix 1
Btk	NM_013482.2	AU022991,Bub1a,C80208,D2Xf87,DNA segment, Chr 2, XRE Fdb 87,MGD-MRK-3231,MGI:1052176,MGI:2139128,MGI:2139498,expressed sequence AU022991,expressed sequence C80208	Bruton agammaglobulinemia tyrosine kinase
Bub1	NM_001113179.1	AU045529,BUBR1,MGI:2139222,expressed sequence AU045529	BUB1, mitotic checkpoint serine/threonine kinase
Bub1b	NM_009773.3	39KDa,AA408805,AA960512,C78372,MGD-MRK-35909,MGI:2138087,MGI:2138141,MGI:2138670,M025alpha,expressed sequence AA408805,expressed sequence AA960512,expressed sequence C78372	BUB1B, mitotic checkpoint serine/threonine kinase
Cab39	NM_133781.5	Cacn1L4,Ccha1a,MGD-MRK-11727,MGD-MRK-15048,MGD-MRK-35757,MGD-MRK-39481,MGI:1890949,MGI:3588957,MGI:5008654,SCA6,alpha1A,calcium channel alpha 1a,Ja,leaner,neuroscience mutagenesis facility, 352,nmf352,rkr,rockser,small roller,smr1,tg,ttotter	calcium binding protein 39
Cacna1a	NM_00125059.1	Ca2v3,Ccra1,MGD-MRK-33909,alpha1a,calcium channel, R type, alpha 1	calcium channel, voltage-dependent, P/Q type, alpha 1A subunit
Cacna1e	NM_009782.3	3110080I5Rik,Ccchb4,MGD-MRK-1801,MGD-MRK-24185,MGI:1920370,RIKEN cDNA 3110080I5 gene,calcium channel, B4 subunit,lethargic,ln	calcium channel, voltage-dependent, R type, alpha 1E subunit
Cacnb4	NM_146123.2	AW060990,C230105C07Rik,893004E13Rik,MGD-MRK-14624,MGD-MRK-15425,MGI:1925228,MGI:2146187,MGI:98432,RIKEN cDNA B230105C07 gene,RIKEN cDNA 893004E13 gene,TARP gamma 2,expressed sequence AW060990,stargazer,stargazin,stag,waggler	calcium channel, voltage-dependent, beta 4 subunit
Cacng2	NM_007583.2	TARF gamma 7	calcium channel, voltage-dependent, gamma subunit 2
Cacng3	NM_019430.2	2410008J01Rik,AU018859,MGI:2141042,RIKEN cDNA 2410008J01 gene,expressed sequence AU018859	calcium channel, voltage-dependent, gamma subunit 3
Cacng7	NM_133189.3	2310047E01Rik,AI314958,CA XII,MGI:2143012,RIKEN cDNA 2310047E01 gene,expressed sequence AI314958	calcium channel, voltage-dependent, gamma subunit 7
Cad	NM_023525.1	CAIX,MN/CA9	carbamoyl-phosphate synthetase 2, aspartate transcarbamylase, and N-dihydroorotase
Car12	NM_178396.4	0610008L7Rik,2410011D02Rik,BIMP3,CARMA1,MGI:1915575,RIKEN cDNA 0610008L7 gene,RIKEN cDNA 2410011D02 gene	carbonic anhydrase 12
Car9	NM_139305.2	Cas1,Cac1,Cs-1,MGD-MRK-1766,MGD-MRK-2185,catalase 1	carbonic anhydrase 9
Card11	NM_175362.2	4732447J05Rik,Cas1a3,B-lineage lymphoma 2,Cbl-2,MGD-MRK-1779,MGD-MRK-1780,MGD-MRK-1782,MGI:2443367,RIKEN cDNA 4732447J05 gene,C-Cbl	cardiac myosin-binding protein 1
Cat	NM_009804.2	A730083J17Rik,BC009118,MGC:6971,MGI:2443029,RIKEN cDNA A730083J17 gene	Cas1a3-B-lineage lymphoma
Cbl	NM_007619.2	Ckb11,Scy19,exodus 3,small inducible cytokine A19	carboxyl reductase 4
Cbr4	NM_145595.2	A1323594,HC11,MCFAF,MCPC-1,MCPC1,MGD-MRK-14333,MGD-MRK-14413,MGI:2144120,SMC-CF,Scy2,5lgf6,expressed sequence AI323594,monocyte chemoattractant protein-1,monocyte chemoattractant protein,small inducible cytokine A2,small inducible cytokine IE	chemokine (C-C motif) ligand 19
Cc19	NM_011888.2	AT744_1,Act-2,MGD-MRK-12242,MGD-MRK-14335,MIP-1 beta,MIP-1B,Mip1b,Scy4a,macrophage inflammatory protein-1 beta,small inducible cytokine A4	chemokine (C-C motif) ligand 2
Cc12	NM_011333.3	MGD-MRK-14336,MuRantes,RANTES,SISd,Scy4s,TCP228,small inducible cytokine A5	chemokine (C-C motif) ligand 4
Cc14	NM_013652.1	MGD-MRK-14336,MuRantes,RANTES,SISd,Scy4s,TCP228,small inducible cytokine A5	chemokine (C-C motif) ligand 5
Cc15	NM_013653.1	MGD-MRK-14336,MuRantes,RANTES,SISd,Scy4s,TCP228,small inducible cytokine A5	chemokine (C-C motif) ligand 5
Ccn1	NM_007628.3	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 A1
Ccn2	NM_009828.2	AI327039,CycD1,Cy1-1,MGD-MRK-1825,MGI:2141923,PRAD1,bcl-1,cD1,expressed sequence AI327039	cyclin A2
Ccnb2	NM_007630.2	AI327039	cyclin B2
Ccnd1	NM_007631.1	MGD-MRK-1831	cyclin D1
Cd4	NM_009841.3	4930549J05Rik,AW552088,CD3 antigen, eta polypeptide, CD3 antigen, zeta polypeptide, CD3 zeta, CD3-zeta, CD3-zeta/eta, CD3zeta, Cd3z, Cd3z, MGD-MRK-14699, MGD-MRK-14930, MGD-MRK-1855, MGD-MRK-1856, MGD-MRK-1857, MGI:1922598, MGI:2138612, RIKEN cDNA 4930549J05 gene, T-cell receptor zeta chain, T3-zeta chain, T3zeta, TCRzeta, Tcrz, expressed sequence AW552088	CD14 antigen
Cd247	NM_001113391.2	MGD-MRK-1844,3152,TrnfsF7,TP53,tumor necrosis factor receptor superfamily, member 7	CD247 antigen
Cd274	NM_021893.2	B7-4,PD-1,PD-1ct1,programmed cell death 1 ligand 1	CD274 antigen
Cd276	NM_133983.4	6030411F23 gene,expressed sequence AU016588	CD276 antigen
Cd28	NM_007642.4	MGD-MRK-1845	CD28 antigen
Cd36	NM_007643.3	FAT,MGD-MRK-36478,Scarb3,fatty acid translocase	CD36 molecule
Cd3d	NM_013487.2	MGD-MRK-14696,MGD-MRK-1852,T3-delta chain,T3d	CD3 antigen, delta polypeptide
Cd3e	NM_007648.4	A1504783,CD3,CD3epsilon,MGD-MRK-14697,MGD-MRK-1853,MGI:2143086,T3-epsilon chain,T3e,expressed sequence A1504783	CD3 antigen, epsilon polypeptide
Cd3g	NM_009850.2	Ctp-3,Ctp3,MGD-MRK-14698,MGD-MRK-1854,MGD-MRK-2212,MGD-MRK-2213,T3-gamma chain,T3g	CD3 antigen, gamma polypeptide
Cd4	NM_013488.2	L3T4,Ly-4,MGD-MRK-11981,MGD-MRK-1858,lymphocyte antigen 4	CD4 antigen
Cd40lg	NM_011616.2	CD154,CD40 antigen ligand,Cd40L,Cd40,HIGM1,MD3,Ly-62,Ly-62,MGD-MRK-12004,MGD-MRK-12047,MGD-MRK-1860,T-BAM,Tnfs5,gp39,lymphocyte antigen 62,tumor necrosis factor (ligand) superfamily, member 5	CD40 ligand

Cd6	NM_001037801.2	MGD-MRK-24451	CD6 antigen
Cd63	NM_001042580.1	C75951,ME491,MGD-MRK-16307,MGI:2147391,Tspan30,expressed sequence C75951	CD63 antigen
Cd68	NM_001291058.1	Lamp4,MGD-MRK-1868,Scard1,lgp110,macrosialin	CD68 antigen
Cd84	NM_001252472.1	A130013D2Rik,CN44,MGI:2144472,RIKEN cDNA A130013D22 gene,SIAMF5 BB154331,ly-2,ly-35,ly-8,ly-2,MGD-MRK-11958,MGD-MRK-11976,MGD-MRK-12074,MGD-MRK-1872,MGI:2141733,T-lymphocyte antigen 2,expressed sequence BB154331,lymphocyte antigen	CD84 antigen
Cd8a	NM_001081110.2	2,lymphocyte antigen 35 ly-3,ly-C,lyt-3,MGD-MRK-11970,MGD-MRK-12075,MGD-MRK-1873,T-lymphocyte antigen	CD8 antigen, alpha chain
Cd8b1	NM_009858.2	3,lymphocyte antigen 35	CD8 antigen, beta chain 1
Cd8d	NM_028176.1	2210401N18Rik,RIKEN cDNA 2210401N16 gene 231042109Rik,CST100,MGI:1913810,MGI:2146726,RIKEN cDNA 231042109 gene,expressed sequence C87100,SSDC	cytidine deaminase
Cdc20	NM_023223.2	2610036L13Rik,AL024086,AW536684,C85404,MGI:2147629,MGI:2147737,MGI:2147801,RIKEN cDNA 2610036L13 gene,expressed sequence AL024086,expressed sequence AW536684,expressed sequence C85404,sororin p35	cell division cycle 20
Cdca5	NM_026410.3	4831429J16Rik,AU044747,Borealin,D4Erd4421e,DNA segment, Chr 4, ERATO Doi 421, expressed, dsarab,MGI:1915355,MGI:2140495,RIKEN cDNA 4831429J16 gene,expressed sequence AU044747	cell division cycle associated 5
Cdca8	NM_026560.4	EG384557,MGI:1891356,Psg24,cea12,predicted gene, EG384557, pregnancy-specific glycoprotein	cell division cycle associated 8
Cdk9	NM_130860.3	PITALRE	cyclin-dependent kinase 9 (CDC2-related kinase)
Ceacam3	NM_054059.1	24	carcinoembryonic antigen-related cell adhesion molecule 3
Cenpa	NM_007681.2	Cenp-A,MGD-MRK-1939,centrosomin A	centromere protein A
Chmp2a	NM_026885.3	150001E11Rik,RIKEN cDNA 150001E11 gene,chromatin modifying protein 2A	charged multivesicular body protein 2A
Chmp6	NM_001085498.2	2400004G01Rik,MGI:1916965,RIKEN cDNA 2400004G01 gene,chromatin modifying protein 6	charged multivesicular body protein 6
Clock	NM_007715.5	gene,BHLHe8,MIKIA0334 C85083,E130314M08Rik,MGI:2140694,RIKEN cDNA E130314M08 gene,expressed sequence C85083	circadian locomotor output cycles kaput
Clspn	NM_175554.4	C85083	claspin
Cmkir1	NM_008153.3	ChemR23,G-protein coupled receptor 27,Gpcr27,MGD-MRK-39602	chemokine-like receptor 1
Col4a1	NM_009931.2	Bru,Col4a-1,Del[8]44H,Del[8]Bru44H,MGD-MRK-1671,MGD-MRK-2066,MGD-MRK-2068,MGI:1890530,MGI:1890533,MGI:88206,Raw.Svc.alpha1(IV) collagen,brused,procollagen type IV, alpha 1,retinal anterior wiring,small with vacular cataract	collagen, type IV, alpha 1
Col4a2	NM_009932.3	AU019502,procollagen type IV, alpha 2	collagen, type IV, alpha 2
Col6a1	NM_009942.2	A1747156,Col6a-1,MGD-MRK-2073,MGD-MRK-2076,MGI:2143667,expressed sequence A1747156,procollagen type VI, alpha 1	collagen, type VI, alpha 1
Col6a2	NM_146007.2	Col6a-2,MGD-MRK-2074,MGD-MRK-2077,procollagen type VI, alpha 2	collagen, type VI, alpha 2
Col6a3	XM_897036.2	A1507288,Col6a-3,MGD-MRK-2075,MGD-MRK-2078,MGI:2138284,expressed sequence A1507288,procollagen type VI, alpha 3	collagen, type VI, alpha 3
COP5	NM_012002.3	COP9 complex 56,Segn3,VIP/MOV34 241004F01Rik,AU042636,MGI:2144433,RIKEN cDNA 241004F01 gene,expressed sequence AU042636	COP9 signalosome subunit 6
Cox10	NM_178379.3	2310016M24Rik,AA959804,MGI:2145930,RIKEN cDNA 2310016M24 gene,expressed sequence AA959804	heme A-famylsitransferase cytochrome c oxidase assembly factor 10
Cox14	NM_183256.3	AL024441,COXIV,Cox4,Cox4a,MGD-MRK-2097,MGI:2142667,cytochrome C oxidase, subunit IV,cytochrome c oxidase, subunit IV,expressed sequence AL024441	cytochrome c oxidase assembly protein 14
Cox4i1	NM_009941.2	AL024441	cytochrome c oxidase subunit 4I1
Cox5a	NM_007747.2	AA959788,CXOX,MGD-MRK-2098,MGI:2144051,expressed sequence AA959788	cytochrome c oxidase subunit 5A
Cox5b	NM_009942.2	MGD-MRK-2099	cytochrome c oxidase subunit 5B
Cox6a1	NM_007748.3	MGD-MRK-2096,VIaL,subunit VIaL (liver-type)	cytochrome c oxidase subunit 6A1
Cox6b1	NM_025628.3	2010000G05Rik,MGD-MRK-35931,MGI:1913792,RIKEN cDNA 2010000G05 gene	cytochrome c oxidase, subunit 6B1
Cox7b	NM_025379.2	1110004F07Rik,C80563,MGI:2138693,RIKEN cDNA 1110004F07 gene,expressed sequence C80563	cytochrome c oxidase subunit 7B
Cox7c	NM_007749.3	COXVII,COX7C1,MGD-MRK-24097	cytochrome c oxidase subunit 7C
Cox8a	NM_007750.2	COX VIII L,COX8L,MGD-MRK-33638	cytochrome c oxidase subunit 8A
Cpa3	NM_007753.2	MC-CPA,MGD-MRK-2103,IMMC-CPA,mast cell carboxypeptidase A 4732433M03Rik,CPS,CPase 1,DIUc1a3,DNA segment, Chr 1, University of California at Los Angeles	carboxypeptidase A3, mast cell
Cps1	NM_001080809.1	3,MGD-MRK-5718,MGI:3036229,MGI:91859,RIKEN cDNA 4732433M03 gene	carbamoyl-phosphate synthetase 1
Cpt1a	NM_013495.1	CPT1,Cpt1L,CPT1,MGD-MRK-2118,MGI:2147452,MGI:2147463,carnitine palmitoyltransferase 1 BC010786,CBE-R,H1D101u1e,DNA segment, Chr 10, Burmeister 1, expressed,MGI:1346038,CNA sequence BC010786	carnitine palmitoyltransferase 1A, liver
Creb3l3	NM_145365.3	2610511A05Rik,903060SP22Rik,AH4,BB23005,Cis,MGD-MRK-1986,MGD-MRK-2184,MGI:1915151,MGI:1918798,MGI:2143907,MGI:3514039,RIKEN cDNA 2610511A05 gene,RIKEN cDNA 903060SP22 gene,age related hearing loss 4,AH4,expressed sequence BB234005	cAMP responsive element binding protein 3-like 3
Cs	NM_026444.3	88234005	citrate synthase
Csf3r	NM_001252451.1	Cd114,Csf3r,G-CSFR,MGD-MRK-2190,MGI:88533,colony stimulating factor, granulocyte receptor	colony stimulating factor 3 receptor (granulocyte)
Ctcf	NM_181322.3	AW108038,MGD-MRK-38492,MGI:2142760,expressed sequence AW108038 CD152 antigen,CD152,Ctla-4,ly-56,MGD-MRK-2224,MGD-MRK-2234,cytotoxic T lymphocyte-associated protein 4	CCCTC-binding factor
Ctla4	NM_009843.3	AU019505,MGD-MRK-13590,MGI:2139179,PPCA,Ppbg,expressed sequence AU019505,protective protein for beta-galactosidase	cytotoxic T-lymphocyte-associated protein 4
Ctps	NM_016748.2	CD,catd,MGD-MRK-2246	cytidine 5'-triphosphate synthase
Ctsa	NM_001038492.2	1190035F06Rik,Cat L,MEP,MGD-MRK-2248,MGD-MRK-9874,MGI:1338075,MGI:2448888,MGI:95581,RIKEN cDNA 1190035F06 gene,fs,fullness,major excreted protein,nactk,nkt	cathepsin A
Ctsb	NM_009983.2	Cat S,MGD-MRK-35807	cathepsin D
Ctsl	NM_009984.3	lymphopain	cathepsin L
Ctss	NM_021281.2	A1787083,AU019819,CTSK,D2Wsu143a,DNA segment, Chr 2, Wayne State University 143, expressed,MGD-MRK-35814,MGI:107348,MGI:2139048,MGI:2139182,cathepsin X,expressed sequence A1787083,expressed sequence AU019819	cathepsin S
Ctsw	NM_009985.4	88139920,CMG,MGD-MRK-33048,MGI:105379,MGI:2141267,Mig.Scy9,crig-10,expressed sequence BB139920,monokine induced by gamma interferon,small inducible cytokine B subfamily (Cys-X-Cys), member 9	cathepsin W
Ctze	NM_022325.4	A1787083,AU019819,CTSK,D2Wsu143a,DNA segment, Chr 2, Wayne State University 143, expressed,MGD-MRK-35814,MGI:107348,MGI:2139048,MGI:2139182,cathepsin X,expressed sequence A1787083,expressed sequence AU019819	cathepsin Z
Cxcl9	NM_008599.2	88217514,8BONZ0,MGI:2143373,STRL33,expressed sequence BB217514	chemokine (C-X-C motif) ligand 9
Cxcr6	NM_030712.4	C88302,CGD,MGD-MRK-1965,MGD-MRK-2263,MGI:2148082,nox2,expressed sequence C88302,gp91-phox,gp1phox	chemokine (C-X-C motif) receptor 6
Cybb	NM_007807.2	MGD-MRK-13109,MGD-MRK-2302,P450-1,cytochrome P450 subfamily 1, polypeptide 1	cytochrome b-245, beta polypeptide
Cyp11a1	NM_009992.3	CP12,MGD-MRK-13112,MGD-MRK-2303,P450-3,aromatic compound inducible	cytochrome P450, family 1, polypeptide 1
Cyp11a2	NM_009993.3	MGD-MRK-2304	cytochrome P450, family 1, subfamily a, polypeptide 2
Cyp11b1	NM_009994.1	A1647584,Cyp4a,D4Rp1,DNA segment, Chr 4, Roswell Park 1,MGD-MRK-14013,MGD-MRK-2333,MGD-MRK-2334,MGD-MRK-6882,MGI:2140317,Msp-3,RP1,Roswell Park 1, DNA polymorphism,cytochrome P450, 4a, expressed sequence A1647584	cytochrome P450, family 4, subfamily a, polypeptide 10
Cyp4a10	NM_010011.3	BC025936,Cyp4a12,MGD-MRK-2335,MGI:3611576,cDNA sequence BC025936,cytochrome P450, family 4, subfamily a, polypeptide 12	Cyp4a32 (NM_001100181)
Cyp4a12a	NM_177406.3	sterol 12-alpha-hydroxylase	Cyp4a12b (NM_177306)
Cyp8b1	NM_010012.2	AA408776,AA408778,A1325464,MGI:2138084,MGI:2138085,expressed sequence AA408776,expressed sequence AA408778,expressed sequence A1325464	cytochrome P450, family 8, subfamily b, polypeptide 1
D2hgdh	NM_178882.3	A1987963,D-amino acid oxidase 1,Daa-1,Daa1,MGD-MRK-8794,MGD-MRK-8795,MGI:2141010,expressed sequence A1987963	D-2-hydroxyglutarate dehydrogenase
Daa	NM_010018.3	MGD-MRK-19630	D-amino acid oxidase
Dck	NM_007832.4	Aadc,MGD-MRK-8818,aromatic L-amino acid decarboxylase	deoxyctyidine kinase
Ddc	NM_016672.4	4731402B04Rik,9130412E02Rik,D15Erd336e,D15Erd597e,DEP domain containing 6,DNA segment, Chr 15, ERATO Doi 336, expressed,DNA segment, Chr 15, ERATO Doi 597, expressed,Depd65,MGI:1195436,MGI:1289169,MGI:1918827,MGI:1921823,R75183,RIKEN cDNA 4731402B04 gene,RIKEN cDNA 9130412E02 gene,expressed sequence R75183	dopa decarboxylase
Deptor	NM_145470.2	2010002D22Rik,2500002K03Rik,MGI:1917108,RIKEN cDNA 2010002D22 gene,RIKEN cDNA	DEP domain containing MTOR-interacting protein
Dera	NM_172733.1	2500002K03 gene	deoxyribose-phosphate aldolase (putative)
Dglucy	NM_145448.4	9030617003Rik,RIKEN cDNA 9030617003 gene	D-glutamate cyclase
Dguok	NM_001162521.1	dGK	deoxyguanosine kinase
Dmgdh	NM_028772.3	1200014D15Rik,A1787269,MGI:2145286,RIKEN cDNA 1200014D15 gene,expressed sequence A1787269	dimethylglycine dehydrogenase precursor
Dtl	NM_029766.2	2810047L02Rik,5730564G15Rik,MGI:1917907,RIKEN cDNA 2810047L02 gene,RIKEN cDNA 5730564G15 gene	denticleless E3 ubiquitin protein ligase
Duox1	NM_001099297.1	9930101G15Rik,AW987690,LNOX1,NOXEF1,RIKEN cDNA 9930101G15 gene,THOX1,expressed sequence AW987690	dual oxidase 1
Duox2	NM_177610.2	A430065P05Rik,RIKEN cDNA A430065P05 gene	dual oxidase 2
Echs1	NM_053119.2	C80529,MGI:2142345,expressed sequence C80529 A430109M19Rik,823035SH09Rik,MGI:1925185,RIKEN cDNA A430109M19 gene,RIKEN cDNA	emoyl Coenzyme A hydratase, short chain, 1, mitochondrial
Eea1	NM_00101932.3	823035SH09 gene,ZFYVE2	early endosome antigen 1
EfnA4	NM_007910.2	EFL-4,EFl4,LERK-4,MGD-MRK-35100,eph-related receptor tyrosine kinase ligand 4 9030024J1Rik,A1552599,Erbb,Erbb1,MGD-MRK-15422,MGD-MRK-15424,MGD-MRK-9322,MGD-MRK-9570,MGI:1890525,MGI:2144221,RIKEN cDNA 9030024J15 gene,Wa5,avian erythroblastic leukemia viral (v-erb-b) oncogene homolog,avian erythroblastosis oncogene B,expressed sequence A1552599,wa5,wa2,waevb2,waevb5	ephrin A4
Egfr	NM_207655.2	1300002P22Rik,HD,L-PBE-L-bifunctional enzyme,MFP,MFP1,MGI:1921397,RIKEN cDNA	epidermal growth factor receptor
Ehhadh	NM_023737.3	1300002P22 gene	enoyl-Coenzyme A, hydratase/3-hydroxyacyl Coenzyme A dehydrogenase
Eme1	NM_177752.4	2-phospho-D-glycerate hydratase,AL022784,Eno-1,MBP-1,MGD-MRK-9503,MGD-MRK-9506,MGI:2143710,alpha-enolase,c-Myc promoter binding protein,expressed sequence AL022784	essential meiotic structure-specific endonuclease 1
Eno1	NM_023119.2	2-phospho-D-glycerate hydratase,AL022784,Eno-1,MBP-1,MGD-MRK-9503,MGD-MRK-9506,MGI:2143710,alpha-enolase,c-Myc promoter binding protein,expressed sequence AL022784	enolase 1, alpha non-neuron
			Eno1b (NM_001025388)

Eno3	NM_007933.2	Eno-3,MGD-MRK-9505,MGD-MRK-9508	enolase 3, beta muscle
Eomes	NM_010136.2	C77258,MGI:1313283,MGI:2143384,T-box brain gene 2,Tbr2,expressed sequence C77258	eomesodermin
Epc1	NM_007935.2	2400007E14Rik;5730566F07Rik;A930320N2Rik;MGI:1916980,MGI:1917905,MGI:1924445,RIKEN cDNA 2400007E14 gene,RIKEN cDNA 5730566F07 gene,RIKEN cDNA A930320N2 gene	enhancer of polycomb homolog 1
Erc6b	NM_001881221.1	C13005622Rik;CS group B connecting gene,CSB,MGI:2443053,RIKEN cDNA C13005622 gene 903041481Rik;A1225830,C85377,ire1a,ire1alpha,ire1p,MGI:19181791,MGI:2144086,MGI:2144679,RIKEN cDNA 903041481 gene,expressed sequence A1225830,expressed sequence C85377,inositol-requiring 1 alpha (yeast)	sub-maximal isoform coverage due to non-overlapping transcript variants
Ern1	NM_023913.2	C85377,inositol-requiring 1 alpha (yeast)	endoplasmic reticulum (ER) to nucleus signalling 1
Eso1	NM_012012.4	5730442G03Rik;MGI:1917804,Msa,RIKEN cDNA 5730442G03 gene	exonuclease 1
Ezh2	NM_007971.2	Enk-1,Enx1h,KMT6,MGD-MRK-35129,MGD-MRK-36520,MGI:106670,enhancer of zeste homolog (Drosophila)	enhancer of zeste 2 polycomb repressive complex 2 subunit
Fabp5	NM_010634.3	Fabpe E-FABP,Klbp,MGD-MRK-18598,Unknown Klbp,keratinocyte lipid binding protein,keratinocyte lipid binding protein,mal1	fatty acid binding protein 5, epidermal
Fah	NM_010176.4	MGD-MRK-9709,MGI:3611216,swingshift,swst 1110025H10Rik;AV002085,MGI:2147009,RIKEN cDNA 1110025H10 gene,expressed sequence AV002085	fumarylacetoacetate hydrolase
Fahd1	NM_023480.2	AV002085	fumarylacetoacetate hydrolase domain containing 1
Fanca	NM_016925.3	AW220693,MGI:2142773,expressed sequence AW220693 2410150007Rik;AU015151,B8137857,MGI:1925497,MGI:2141547,MGI:2141730,RIKEN cDNA 2410150007 gene,expressed sequence AU015151,expressed sequence B8137857	Fanconi anemia, complementation group A
Fancd1	NM_001033244.3	2410150007 gene,expressed sequence AU015151,expressed sequence B8137857	Fanconi anemia, complementation group D2
Fancf	NM_145946.2	BC025462,MGC:38195,MGC:38407,cDNA sequence BC025462 APT1LG1,CD178,CD95L,Fas antigen ligand,Fas-L,MGD-MRK-10104,MGD-MRK-16013,Tnfrsf6,generalized lymphoproliferative disease,gld,tumor necrosis factor (ligand) superfamily, member 6	Fanconi anemia, complementation group I
Fasf	NM_010177.3	superfamily, member 6	Fas ligand (TNF superfamily, member 6)
Fasn	NM_007988.3	AA502308Rik;FAS,MGD-MRK-9712,MGI:2443287,RIKEN cDNA A63002H08 gene	fatty acid synthase
Fbp1	NM_019395.2	F8Pase brain isoform,F8Pase liver,Fbp-2,Fbp3,MGD-MRK-9720,MGD-MRK-9722,MGI:1330236,fructose biphosphatase 2,fructose biphosphatase 3	fructose biphosphatase 1
Fcgr1a	NM_010184.1	Fc epsilon high affinity receptor alpha,FcR1,FC1a,FcR-5,MGD-MRK-9724,MGD-MRK-9728,MGD-MRK-9741	Fc receptor, IgE, high affinity I, alpha polypeptide
Fcgr4	NM_144559.1	4833442P21Rik,CD16-2,Fc Fragment of IgG, low affinity IIIa,	Fc receptor, IgG, low affinity IV
Fcrlb	NM_00102984.4	receptor,FcgammaRIIV,Fcgr3a,MGI:2443436,RIKEN cDNA 4833442P21 gene 2,FRE2,Fc receptor related 2,Fcrl2,Fcrl2,Fcrl2	Fc receptor-like B
Fcrls	NM_030707.3	2810439C17Rik;Fchr2,FcR2,MGI:1920010,Mv2,RIKEN cDNA 2810439C17 gene,macrophage scavenger receptor 2,mofcR1h2c	Fc receptor-like S, scavenger receptor
Fdx1	NM_007996.1	ADRENODOXIN,MGD-MRK-24095	ferredoxin 1
Fdxr	NM_007997.1	MGD-MRK-27087	ferredoxin reductase
Fgf1	NM_010197.3	Fgf-1,FgfA,MGD-MRK-9760,MGD-MRK-9766,MGD-MRK-9773,fibroblast growth factor 1 (acidic),fibroblast growth factor, acidic	fibroblast growth factor 1
Fhl1	NM_010209.2	MGD-MRK-9792,MGD-MRK-9793,fumarase	fumarate hydratase 1
Fh1	NM_010228.3	A1323757,Fh-1,MGD-MRK-9832,MGD-MRK-9836,MGI:2140833,VEGFR-1,VEGFR1,expressed sequence A1323757,sFh1,vascular endothelial growth factor receptor-1	FMS-like tyrosine kinase 1
Fh3	NM_010229.2	CD135,Fik-2,Fik-3,MGD-MRK-9827,MGD-MRK-9834,MGD-MRK-9837,MGI:3626355,fetal liver kinase 2,warmflash,wfmlf	FMS-like tyrosine kinase 3
Fhpl1	NM_173753.3	A173002A03Rik;A1838773,RIKEN cDNA A173002A03 gene,expressed sequence A1838773,expressed sequence AW557298,mKIAA1361	folliculin interacting protein 1
Fhpl2	NM_001162999.2	D630023B12Rik;RIKEN cDNA D630023B12 gene,mKIAA1450	folliculin interacting protein 2
Fhlh1	NM_016770.3	GCP2,glutamate carboxypeptidase II,mopsm,prostate-specific membrane antigen	folate hydrolase 1
Folr1	NM_001252552.1	FBP1,Folbp1,MGD-MRK-9854,MGD-MRK-9856,folate binding protein 1,folate receptor [a],folate-binding protein 1	folate receptor 1 (adult)
Foxm1	NM_008021.4	AW554517,B823885A,Fh1h16,Foxm1b,HFH-118,MGI:2141700,MGI:2141741,MGI:984690,Mpm2,Trident,WIN,expressed sequence AW554517,expressed sequence B823885A,forhead homolog 16 (Drosophila)	forhead box M1
Foxp3	NM_054039.2	JM2,MGD-MRK-14368,MGI:98281,scurfin,scurfy,sf	forhead box P3
Fpr1	NM_013521.2	FPR,MGD-MRK-35914,IMFL-R	formyl peptide receptor 1
Ftcd	NM_080845.2	glutamate formiminotransferase	formiminotransferase cyclodeaminase
G6pc	NM_008061.3	AW107337,G6Pase,G6p,Glc-6-Pase,Glc-6-Pase-alpha,MGD-MRK-9916,MGI:2144495,expressed sequence AW107337,glucose-6-phosphatase	glucose-6-phosphatase, catalytic
Gabarap	NM_019749.4		gamma-aminobutyric acid receptor associated protein
Gad1	NM_008077.4	EP10,GAD25,GAD4,GAD67,Gad-1,MGD-MRK-9953,MGD-MRK-9957,MGI:2152825,249976	glutamate decarboxylase 1
Gad1l	NM_028638.1	1110027M19Rik;RIKEN cDNA 1110027M19 gene	glutamate decarboxylase-like 1
Gapdh	NM_001001303.1	AK190093,Gapd,MGD-MRK-9967,MGI:3579984,cDNA sequence AK190093	glyceraldehyde-3-phosphate dehydrogenase
Gapdhs	NM_008085.1	Gapd-s,Gapds,MGD-MRK-9980,MGD-MRK-9981	glyceraldehyde-3-phosphate dehydrogenase, spermatogenic
Gartpvd1	NM_025709.2	2010005809Rik;4432404J10Rik;AW108497,MGI:1917078,MGI:2139305,RIKEN cDNA 2010005809 gene,RIKEN cDNA 4432404J10 gene,expressed sequence AW108497,expressed sequence 221	GTase activating protein and VP59 domains 1
Gapv	NM_010256.2	Gapv,MGD-MRK-13607,MGD-MRK-9982,MGD-MRK-9984,Prxs,phosphoribosyl glycylamide synthetase	phosphoribosylglycylamide formyltransferase
1810003P21Rik;A1314789,MGI:2138882,RIKEN cDNA 1810003P21 gene,expressed sequence A1314789			glycine amidinotransferase (L-arginine:glycine amidinotransferase)
Gba	NM_001077411.1	GBA1,GC,GCase,MGD-MRK-10007,betaGC,glucocerebrosidase	glucosidase, beta, acid
Gcdh	NM_008097.2	A126690,D17825,MGD-MRK-261923,MGI:2142490,MGI:2142887,expressed sequence A126690,expressed sequence D17825	glutaryl-Coenzyme A dehydrogenase
Gck	NM_010292.4	Glu006,HK4,Hb262,MGI:2678682,MGI:4357923,MODY2,glucose mutant 006,heart, lung and blood, 62,hexokinase 4	glucokinase
Gclc	NM_010295.2	D9Wsu168e,DNA segment, Chr 9, Wayne State University 168, expressed,GLCL-H,Glcck,MGD-MRK-31063,MGD-MRK-36456,MGI:107879,gamma GCS-H5,glutamate cysteine ligase (gamma-glutamylcysteine synthetase), catalytic	glutamate-cysteine ligase, catalytic subunit
Gda	NM_010266.2	AU015411,AV047581,MGD-MRK-10024,MGI:2147637,MGI:2147689,expressed sequence AU015411,expressed sequence AW047581	guanine deaminase
Girx	NM_053108.4	C86710,D13Wsu156e,DNA segment, Chr 13, Wayne State University 156, expressed,Grx1,MGD-MRK-36165,MGI:107593,MGI:2145532,TTase,expressed sequence C86710	glutaredoxin
Gis	NM_001113883.1	A1314027,B230365M23Rik;MGD-MRK-10135,MGI:2138193,MGI:2444416,RIKEN cDNA B230365M23 gene,expressed sequence A1314027	glutaminase
Glt2	NM_001033264.1	A33007480Rik;A129532,lgp,RIKEN cDNA A33007480 gene,expressed sequence A129532	glutaminase 2 (liver, mitochondrial)
Glud1	NM_008133.4	A1181817,Gdh-x,Glud,Glud1,MGD-MRK-10046,MGD-MRK-10136,MGD-MRK-10139,MGI:2145599,anonymous DNA segment, Chr 14,expressed sequence A1181817,glutamate dehydrogenase like sequence	glutamate dehydrogenase 1
Glul	NM_008131.3	GS,Glns,MGD-MRK-10117,glutamine synthetase	glutamate-ammonia ligase (glutamine synthetase)
Glyat	NM_145925.3	A330009E03Rik;A1952949,A1315345,MGI:2147486,RIKEN cDNA A330009E03 gene,expressed sequence A1952949,expressed sequence A1315345	glycine-N-acetyltransferase
Glytk	NM_001039586.1	6230410P1Rik;RIKEN cDNA 6230410P16 gene 2310004P21Rik;AV028449,MGI:2145389,RIKEN cDNA 2310004P21 gene,expressed sequence AV028449	glycerate kinase
Gmpr	NM_025508.4	AV028449	guanosine monophosphate reductase
Gmpr2	NM_177992.2	1810008P16Rik;5730544D12Rik;AA959850,MGI:1916331,MGI:2145585,RIKEN cDNA 1810008P16 gene,RIKEN cDNA 5730544D12 gene,expressed sequence AA959850	guanosine monophosphate reductase 2
Gmps	NM_001033300.2	670032,AA591640,AID47208,Gm9479,MGI:3034331,MGI:3034880,MGI:3779888,expressed sequence AA591640,expressed sequence AID47208,predicted gene 9479,predicted gene, 670032 2010305F15Rik;AA536815,A1115529,A1314170,A1842738,EST AA536815,EST A1115529,EST A1314170,MGI:1889368,MGI:1889384,MGI:1889807,MGI:1919361,MGI:2141487,RIKEN cDNA 2010305F15 gene,expressed sequence A1842738	guanine nucleotide binding protein (G protein), gamma 12
Gng12	NM_001177559.1	2610016K11Rik;AU042285,C87209,G65,MGI:2143761,MGI:2143948,MGI:2143956,N28088,RIKEN cDNA 2610016K11 gene,expressed sequence AU042285,expressed sequence C87209,expressed sequence N28088	glucosamine (N-acetyl)-6-sulfatase
Gns	NM_029364.3	A1789014,Got-1,MGD-MRK-10213,MGD-MRK-10215,MGI:2147593,cAspAT,cytosolic aspartate aminotransferase,expressed sequence A1789014	glutamic-oxaloacetic transaminase 1, soluble
Got1	NM_010324.1	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	glutamic-oxaloacetic transaminase 2, mitochondrial
Got2	NM_010325.2	AMF,Gpl-1,Gpl-1r,Gpl-1s,Gpl-1t,Gpl1-r,Gpl1-s,Gpl1-t,MF,MGD-MRK-10227,MGD-MRK-10228,MGD-MRK-10229,MGD-MRK-10230,MGD-MRK-10231,MGD-MRK-10232,MGD-MRK-10233,MGD-MRK-10234,MGD-MRK-13047,MGI:95798,MGI:95799,MGI:95800,NK,NK/GPI,Org,autocrine motility factor,glucose phosphate isomerase 1, regulatory,glucose phosphate isomerase 1, structural,glucose phosphate isomerase 1, temporal,maturation factor,neuroleukin	glucose phosphate isomerase 1
Gpi1	NM_008155.3	130007J06Rik;2310022803Rik;ALT-Gpl-1,Gpl1-MF,MGD-MRK-10236,MGD-MRK-10237,MGI:1915263,MGI:1923532,RIKEN cDNA 130007J06 gene,RIKEN cDNA 2310022803 gene,glutamic pyruvic transaminase 1, soluble	glutamic pyruvic transaminase, soluble
Gpt	NM_182805.2	A1195024,AL033363,CGPx,GPx-1,GSHPx-1,Gpx,MGD-MRK-10238,MGD-MRK-29040,MGI:2142986,MGI:2143185,cellular GPx,expressed sequence A1195024,expressed sequence AL033363,glutathione peroxidase	glutathione peroxidase 1
Gpx1	NM_008160.5	1700027O09Rik;MGD-MRK-28058,mHGPx,mHGPx,phospholipid hydroperoxide glutathione peroxidase,snGPx,sperm nuclei glutathione peroxidase	glutathione peroxidase 4
Gpx4	NM_008162.3	GRAP-2,GRB2L,GRID,Gads,Grb2-related adaptor downstream of	GRB2-related adaptor protein 2
Grap2	NM_010815.2	Sch,GrbX,Grf4,Grlp,Mona,P38,monocytic adaptor	
Grin1	NM_008169.2	GluRzeta1,M100174,MGD-MRK-10257,MGD-MRK-12899,MGI:3798376,NMDAR1,NR1,Nmdar,RIKEN Genomic Scences Center, 174,Grsc174	glutamate receptor, ionotropic, NMDA1 (zeta 1)
Grin2	NM_008170.2	733014F15Rik;8430431H8Rik;C86142,GSK-3,GSK3beta,GSK3,MGI:1914056,MGI:1925394,MGI:2146571,RIKEN cDNA 733014F15 gene,RIKEN cDNA 8430431H8 gene,expressed sequence C86142	glycogen synthase kinase 3 beta
Gsk3b	NM_019827.3	8430431H8 gene,expressed sequence C86142	
Gtse1	NM_013882.1	899,Gtse-1	G two 5 phase expressed protein 1

		A1747421,Gur,Gus,Gus-r,Gus-s,Gus-t,Gus-u,Gut,MGD-MRK-10333,MGD-MRK-10334,MGD-MRK-10335,MGD-MRK-10336,MGD-MRK-10337,MGD-MRK-1413,MGD-MRK-18421,MGD-MRK-19422,MGD-MRK-9912,MGI:2140959,MGI:95873,MGI:95874,MGI:95875,MGI:95876,adipose storage deficiency,acid,beta-glucuronidase regulator,beta-glucuronidase structural,beta-glucuronidase systemic regulator,beta-glucuronidase temporal,expressed sequence A1747421.g	glucuronidase, beta glycogen synthase 2
Gusb	NM_010368.1	BC021322,IGS,MGC:29379,cDNA sequence BC021322,glycogen synthase, liver	
Gyz2	NM_145572.2	AW494114,BLT esterase,Ctla-3,Ctla3,H factor,Hanukah factor,Hf,MGD-MRK-10699,MGD-MRK-2223,MGD-MRK-2233,MGD-MRK-38311,MGI:2145434,SE1,TSP-1,TSP-1,cytotoxic T lymphocyte-associated protein 3,expressed sequence AW494114,serine esterase 1	granzyme A
Gzma	NM_010370.2		
Gzmb	NM_013542.2	A1553453,CCP-1/C11,CCP1,Ctla-1,Ctla1,GZ8,MGD-MRK-2219,MGD-MRK-2229,MGD-MRK-38312,MGI:2145670,cytotoxic T lymphocyte-associated protein 1,expressed sequence A1553453	granzyme B
Gzmd	NM_010372.2	CCPS,Ctla-5,Ctla5,MGD-MRK-2235,MGD-MRK-38300,cytotoxic T lymphocyte-associated protein 5	granzyme D
H2-Aa	NM_010378.2	A alpha,Alpaha,H-2Aa,I region-associated antigen 1,I-Alpha,la-1,la-1,MGD-MRK-10377,MGD-MRK-10450,MGD-MRK-11044,MGD-MRK-11049,histocompatibility 2, class II antigen A alpha	histocompatibility 2, class II antigen A, alpha
H2-D1	NM_010380.3	H-2D,MGD-MRK-10379,MGD-MRK-10492	histocompatibility 2, D region locus 1
H2-DMa	NM_010386.3	H-2Ma,H-2M alpha,H2Ma,MGD-MRK-10405,MGD-MRK-10517,histocompatibility 2, class II, locus	histocompatibility 2, class II, locus Dma
H2-Eb1	NM_010382.2	H-2Eb,1 region-associated antigen 4,la-4,Ja4,MGD-MRK-10384,MGD-MRK-10497,MGD-MRK-11047,MGD-MRK-11052	histocompatibility 2, class II antigen E beta
H2-K1	NM_0101892.2	H-2K,MGD-MRK-10388,MGD-MRK-10500	histocompatibility 2, K1, K region
H2-K6	NM_013543.2	D17H5112E,DNA segment, Chr 17, human D6S112E,H-2K region expressed gene 6,H-2K6,MGD-	H2-K region expressed gene 6
H2-M3	NM_01819.2	MRK-10396,MGD-MRK-10507,MGD-MRK-10596,MGI:99239, Ring2	histocompatibility 2, M region locus 3
		H-2M3,Hmt,MGD-MRK-10400,MGD-MRK-10511,MGD-MRK-10801,R482	
H2-Ob	NM_010389.3	A-beta-2A-beta2,H-2J,H-2Ob,H2-Ab,H2-Ab2,H2-IaB2,MGD-MRK-10378,MGD-MRK-10409,MGD-MRK-10491,MGD-MRK-10521,MGD-MRK-23933,MGI:3573871,Ob,histocompatibility 2, class II antigen A, beta,histocompatibility 2, class II antigen A beta 2,ncl1,virus infectivity controller 1	histocompatibility 2, O region beta locus
H2-Q1	NM_010390.3	15006,H-2Q1,MGD-MRK-10412,MGD-MRK-10524,MGD-MRK-13708,MGD-MRK-13718,MGD-MRK-13736,MGI:3779428,Q1,Q1b,Q1d,Q1k,predicted gene, 15006	histocompatibility 2, Q region locus 1
H2-Q10	NM_010391.4	H-2Q10,MGD-MRK-10413,MGD-MRK-10525,MGD-MRK-13707,MGD-MRK-13719,Q region gene 10,Q10,Qa lymphocyte antigen 10,Qa10	histocompatibility 2, Q region locus 10
H2-Q2	NM_010392.2	BE1136769,ENSMUSG00000079507,Gm11132,H-2Q2,MGD-MRK-10414,MGD-MRK-10527,MGI:3035350,MGI:3779387,expressed sequence BE1136769,predicted gene 11132,predicted gene, ENSMUSG00000079507	histocompatibility 2, Q region locus 2
H2-T23	NM_010398.3	37b,37c,H-2T23,MGD-MRK-10439,MGD-MRK-10553,QA-1,Qed-1,T18c,T18c(37),T23b,T23d A1785303,G6pd1,Gpd-1,Gpd1,MGD-MRK-10221,MGD-MRK-10223,MGD-MRK-	histocompatibility 2, T region locus 23
H6pd	NM_173371.3	33658,MGI:105978,expressed sequence A1785303,glucose-6-phosphate dehydrogenase 1	hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase)
Haao	NM_025325.2	0616007422,RIK,0616007422,RIK,3-HA,3-HA,OXase,3HAD,3HAD,MGI:1913307,MGI:1913307,RIKEN CDNA 061007421 gene,RIKEN CDNA 061001207 gene	3-hydroxyanthranilate 3,4-dioxygenase
		6330408120R1,A1255777,A1481689,MGI:2145964,MGI:2146447,Pt1b,RIKEN CDNA 6330408120 gene,expressed sequence A1255777,expressed sequence A1481689,protein tyrosine phosphatase-like (proline instead of catalytic arginine), member b	3-hydroxyacyl-CoA dehydratase 2
Hacd2	NM_023587.2		
		AA409008,AA019341,AW742602,Hadhc,L-3-hydroxyacyl-Coenzyme A dehydrogenase, short chain,MGD-MRK-10609,MGI:2139565,MGI:2139879,MGI:2140013,Schad,expressed sequence AA409008,expressed sequence AA019341,expressed sequence AW742602,hydroxyacyl-Coenzyme A dehydrogenase,hydroxyacyl-Coenzyme A dehydrogenase-dehydrogenase	hydroxyacyl-Coenzyme A dehydrogenase
Hadh	NM_008212.3	AW108189,Hdc-a,Hdc-c,Hdc-e,Hdc-s,L-histidine decarboxylase,MGD-MRK-10682,MGD-MRK-10683,MGD-MRK-10684,MGD-MRK-10685,MGD-MRK-10686,MGI:2139302,MGI:96063,MGI:96064,MGI:96065,MGI:96066,expressed sequence AW108189,histidine decarboxylase concentration (kidney),histidine decarboxylase estrogen response,histidine decarboxylase testosterone response,histidine decarboxylase, structural (kidney)	histidine decarboxylase
Hdc	NM_008230.4	2810449H1R1,D130015N03R1,MGC:7618,MGI:1925757,MGI:2442235,MGI:3613032,RIKEN CDNA 2810449H11 gene,RIKEN CDNA D130015N03 gene,tambaleante,tbl	HECT and RLD domain containing E3 ubiquitin protein ligase family member 1
Herc1	NM_145617.3		
Hexa	NM_010421.4	Hex-1,MGD-MRK-10696,MGD-MRK-10697	hexosaminidase A
Hexb	NM_010422.2	MGD-MRK-10698	hexosaminidase B
Hf1a	NM_010431.2	AA95975,Hf1-alpha,Hf1alpha,MGD-MRK-35379,MGI:2144750,MOP1,bHLHe78,expressed sequence AA95975	hypoxia inducible factor 1, alpha subunit
Hf1a	NM_00162950.1	MOP7,Nepas,bHLHe17	hypoxia inducible factor 3, alpha subunit
		6430706D22R1,A730008H23R1,C33001F01R1,Gm975,MGI:1925855,MGI:3612871,RIKEN CDNA 6430706D22 gene,RIKEN CDNA A730008H23 gene,RIKEN CDNA C33001F01 gene,model 975,(NCBI)	
Hjup	NM_198652.2		Holliday junction recognition protein
		8B404130,Hk-1,Hk1-s,MGD-MRK-10735,MGD-MRK-	
Hk1	NM_001146100.1	10736,MGI:1891296,MGI:3035452,dea,downeast anemia,expressed sequence BB404130,hk1-s	hexokinase 1
Hk2	NM_013820.3	A1642394,HKII,MGI:2141455,expressed sequence A1642394	hexokinase 2
Hk3	NM_001033245.4	D8Wsu38e,DNA segment, Chr 8, Wayne State University 38, expressed,HO-1,H01,Hmox,Hs32,MGD-MRK-10800,MGD-MRK-34114,MGD-MRK-38247,MGI:106420,MGI:109203,hemoxygenase	hexokinase 3
Hmox1	NM_010442.2		heme oxygenase 1
Hnf4a	NM_008261.2	HNF-4,HNF4 alpha,Hnf4,MGD-MRK-38172,MODY1,Nr2a1,Nuclear receptor 2A1,Tcf14,Tcf4,hepatic nuclear factor 4,transcription factor 14	hepatic nuclear factor 4, alpha
Hpd	NM_008277.2	F liver antigen,F,liver protein,F1a,F1p,Hpd,Laf,MGD-MRK-10914,MGD-MRK-10921,MGD-MRK-11728,MGD-MRK-9821,MGD-MRK-9831,MGI:95551,liver antigen F	4-hydroxyphenylpyruvic acid dioxygenase
Hprt	NM_013556.2	C81579,Hprt1,MGD-MRK-10922,MGI:2148073,expressed sequence C81579,hyposanthine guanine phosphoribosyl transferase 1	hyposanthine guanine phosphoribosyl transferase
Hras	NM_001130443.1	H-ras,Hras,Harvey rat sarcoma virus oncogene 1,Harvey-ras,Hras-1,Hras1,MGD-MRK-10930,MGD	Harvey rat sarcoma virus oncogene
Hsd11b1	NM_008288.2	MRK-10931,c-Hras,c-rasHa	
		11beta-HSD-1,11beta-hydroxysteroid dehydrogenase type 1,MGD-MRK-24447	hydroxysteroid 11-beta dehydrogenase 1
Hsf1	NM_008296.3	AA960185,MGD-MRK-10952,MGI:2145933,expressed sequence AA960185,heat shock transcription factor 1	heat shock factor 1
Hsf2	NM_008297.3	A1661205,MGD-MRK-10953,MGI:2143663,expressed sequence A1661205	heat shock factor 2
Hspa2	NM_008301.4	70kDa,Hsp70-2,MGD-MRK-10959,MGI:109433,heat shock protein, 70 kDa 2	heat shock protein 2
		70kDa,AE13153,APG-2,Hsp110,Hsp70R,MGI:1096373,MGI:2144116,expressed sequence	
Hspa4	NM_008300.3	A1317151,heat shock protein, 110 kDa	heat shock protein 4
Hspe1	NM_008303.4	Hsp10,MGD-MRK-27043,mitochondrial chaperonin 10	heat shock protein 1 (chaperonin 10)
Icos	NM_017480.1		inducible T cell co-stimulator
		A1314845,A1788952,E03002403R1,IdPc,Id-1,Idh-1,MGD-MRK-11152,MGD-MRK-11180,MGD-MRK-11183,MGI:2138196,MGI:2138222,RIKEN CDNA E03002403 gene,expressed sequence A1314845,expressed sequence A1788952,isocitrate dehydrogenase 1	isocitrate dehydrogenase 1 (NAD+), soluble
Idh1	NM_010407.2	IDPm,Idh-2,MGD-MRK-11181,MGD-MRK-11184,isocitrate dehydrogenase 2	isocitrate dehydrogenase 2 (NAD+), mitochondrial
Idh2	NM_173011.2	1110003P10R1,1500012E04R1,AA407078,A1316514,MGI:1923550,MGI:2142905,MGI:2143014,RIKEN CDNA 1110003P10 gene,RIKEN CDNA 1500012E04 gene,expressed sequence	
Idh3a	NM_029573.2	AA407078,expressed sequence A1316514	isocitrate dehydrogenase 3 (NAD+) alpha
Idh3b	NM_130884.4	C78231,MGI:2139470,expressed sequence C78231	isocitrate dehydrogenase 3 (NAD+) beta
Idh3g	NM_008323.1		isocitrate dehydrogenase 3 (NAD+), gamma
Idk	NM_198004.3	S133401N09R1,RIKEN CDNA S133401N09 gene	indk glucokinase homolog (E. coli)
Ido1	NM_008324.1	Ido,indo,MGD-MRK-11186,indole 2,3-dioxygenase,indole 2,4-dioxygenase,indoleamine-pyrrole 2,3-dioxygenase	indoleamine 2,3-dioxygenase 1
Ido2	NM_145949.2	A1265623,C230043N17R1,indo1,MGC:31194,RIKEN CDNA C230043N17 gene,expressed sequence	indoleamine 2,3-dioxygenase 2
Ifng	NM_008337.1	IFN-gamma,Ifg,MGD-MRK-11214,MGD-MRK-36231	interferon gamma
Il10	NM_010548.1	IL-10,IL-10,MGD-MRK-11347,MGD-MRK-11351,cytokine synthesis inhibitory factor	interleukin 10
Il2	NM_008366.3	IL-2,I-2,MGD-MRK-11353,MGD-MRK-11374	interleukin 2
Il2r1	NM_021887.1	NILR	interleukin 21 receptor
Il2ra	NM_008367.2	CD25,IL-2R alpha chain,Il2r,ly-43,MGD-MRK-11375,MGD-MRK-11376,MGD-MRK-11985,interleukin 2 receptor,lymphocyte antigen 43	interleukin 2 receptor, alpha chain
Il4	NM_021283.1	Il-4,MGD-MRK-11355,MGD-MRK-11385	interleukin 4
		Fig1,Fig-ps,Il-4,IL-4,IL-4,HL6,MGD-MRK-10450,MGD-MRK-10467,MGD-MRK-10580,MGD-MRK-39551,MGI:892974,MGI:95993,histocompatibility 4, histocompatibility 46,interleukin-four induced gene 1,interleukin-four induced gene 1, pseudogene	interleukin 4 induced 1
Il6	NM_031168.1	Il-6,MGD-MRK-11357,MGD-MRK-11391	interleukin 6
		A6300260R1,Il-7,MGD-MRK-11358,MGD-MRK-11394,MGI:2441812,MGI:3575125,RIKEN CDNA A6300260R1 gene,expressed sequence	
Il7	NM_008371.2	A6300260I6 gene,heart, lung and blood 368,hb368	interleukin 7
Impdh1	NM_011829.2	B930086D20R1,MGD-MRK-11401,MGI:2444863,RIKEN CDNA B930086D20 gene	inosine monophosphate dehydrogenase 1
Impdh2	NM_011830.3	NMP dehydrogenase type II,MGD-MRK-38412	inosine monophosphate dehydrogenase 2
Immt	NM_009349.3	MGD-MRK-23800,Temt,thioether-methyltransferase	indolethylamine N-methyltransferase
		4932439J01R1,CD220,D630014A15R1,IR,IR-A,IR-B,MGD-MRK-11417,MGI:2442502,MGI:2443766,RIKEN CDNA 4932439J01 gene,RIKEN CDNA D630014A15 gene	insulin receptor
Insr	NM_010568.2		
Irf1	NM_008390.1	AU020929,Irf-1,MGD-MRK-11464,MGD-MRK-11465,MGI:2144403,expressed sequence AU020929	interferon regulatory factor 1
		A1385587,Irf-4,MGD-MRK-29048,MGI:104895,MGI:2145221,Sfp1/PU.1 interaction	
Irf4	NM_013674.1	partner,Sfp1,expressed sequence A1385587	interferon regulatory factor 4
		6720481N21R1,8030492D04R1,AIP4,C230047C07R1,MGI:1924982,MGI:2441729,MGI:2443666,RIKEN CDNA 6720481N21 gene,RIKEN CDNA 8030492D04 gene,RIKEN CDNA C230047C07 gene	itchy, E3 ubiquitin protein ligase
Itch	NM_008395.2		

Msa41	NM_007641.5	AA960661,CD20 antigen,CD20,ly-44,MGD-MRK-11986,MGD-MRK-1838,MGI:2147465,expressed sequence AA960661,Lymphocyte antigen 44	membrane-spanning 4-domains, subfamily A, member 1
Msh2	NM_001276330.1	Fc epsilon high affinity receptor beta,Fc receptor, IgE, high affinity I, beta polypeptide,FcRb,Fc epsilon 1b,Fc epsilon 1b beta,MGD-MRK-9725,MGD-MRK-9729	membrane-spanning 4-domains, subfamily A, member 2
Msh4a	XM_003968224.1	EG565907, predicted gene, EG565907	membrane-spanning 4-domains, subfamily A, member 4A
Msh2	NM_008628.2	A178890,MGD-MRK-18634,MGI:2146922,expressed sequence A178890	mu5 homolog 2
Msr2	NM_029619.2	Z310050L6Rik,Mrb,RIKEN cDNA Z310050L6 gene,methionine sulfoxide reductase B MGD-MRK-18594,MGI:2151619,MTF-1,Thy1,metal response element-binding transcription factor 1,metalloregulatory transcription factor,thy1,lymphoma susceptibility	methionine sulfoxide reductase B2
Mtf1	NM_008636.4	2610315D21Rik,A1237068,FK506 binding protein 12-rapamycin associated protein 1,FKBP-rapamycin-associated protein FRAP,Frmp1,MGI:1332655,MGI:1919780,MGI:2140250,RAFT1,RAPT1,RIKEN cDNA 2610315D21 gene,expressed sequence A1237068,flat,flat-top,mechanistic target of rapamycin (serine/threonine kinase)	metal response element binding transcription factor 1
Mtor	NM_020009.2	A1550390,M16449,MGD-MRK-12735,MGI:2143640,MGI:2143955,c-myc,expressed sequence A1550390,expressed sequence M16449	mechanistic target of rapamycin kinase
Myb	NM_010848.3	A-myb,G1-451-45,MGD-MRK-16727,MGI:3512779,rep99, reproductive mutant 9, IAK Reproductive Mutagenesis Program	myeloblastosis oncogene
Myb1	NM_008651.2	8-Myb, Bmyb,MGD-MRK-18593	myeloblastosis oncogene-like 1
Myb2	NM_008652.2	AU016757,MGD-MRK-12736,MGI:2146128,Myc2,Niard,Nird,bHLHe39,c-myc,expressed sequence AU016757,non-immunoglobulin rearranging DNA sequence	myeloblastosis oncogene-like 2
Myc	NM_010849.4	AWS56278,L-myc,Lmyc1,Lmyc1,MGD-MRK-11830,MGD-MRK-11832,MGI:2140561,Myc1,bHLHe38,expressed sequence AWS56278,lung carcinoma myc related oncogene 1,v-myc myelocytomatosis viral oncogene homolog 1, lung carcinoma derived (avian) MGD-MRK-12903,MGD-MRK-12905,N-myc,Nmyc,1,Nmyc1,bHLHe37,neuroblastoma myc-related oncogene 1	v-myc avian myelocytomatosis viral oncogene lung carcinoma derived
Mycn	NM_008709.3	MGD-MRK-37039	v-myc avian myelocytomatosis viral related oncogene, neuroblastoma derived
Myd88	NM_010851.2	2700022G20Rik,D9Erd285e,DNA segment, Chr 9, ERATO Doi 285, expressed,Foh1b,GCP3,GCP3,MGI:1097871,NAADALASE2,NAADALASE2,RIKEN cDNA 2700022G20 gene	myeloid differentiation primary response gene 88
Naalad2	NM_028279.3	443240C20Rik,BC004012,MGC:7589,MGI:1919027,RIKEN cDNA 443240C20 gene,cDNA	N-acetylated alpha-linked acidic dipeptidase 2
Nadk	NM_001159637.1	1110020G09Rik,4933430808Rik,MGI:1918451,MNADK,NAD kinase domain containing	NAD kinase
Nadk2	NM_001085410.2	1110020G09Rik,4933430808Rik,MGI:1918451,MNADK,NAD kinase domain containing	NAD kinase 2, mitochondrial
Nagu	NM_013792.2	1110038008Rik,MGI:1916012,RIKEN cDNA 1110038008 gene,Shari	alpha-N-acetylglucosaminidase (Sanfilippo disease IIIB)
Nat8l	NM_001001985.3	A730011011Rik,Brrn1,HCAP-H,RIKEN cDNA A730011011 gene,barren homolog (Drosophila),mKIAA0074	N-acetyltransferase 8-like
Ncaph	NM_144818.3	D1Ertd433e,DNA segment, Chr 1, ERATO Doi 433, expressed,Grip1,KAT13C,MGD-MRK-35900,MGI:107429,MGI:1196270,SRC-2,TIF-2,TIF2,GRIP-1,bHLHe75,glucocorticoid receptor	non-SMC condensin I complex, subunit H
Ncoa2	XM_017319230.1	interacting protein 1,glucocorticoid receptor-interacting protein 1 573845MSRik,A12300394Rik,MGD-MRK-24052,MGI:103184,MGI:2441784,MGI:2441535,N-CoR,RIKEN cDNA 573845MSRik gene,RIKEN cDNA A12300394 gene,Rxrip13,mKIAA1047,retinoid X receptor interacting protein 13	nuclear receptor coactivator 2
Ncor1	NM_011308.2	LY94,MAR1 (mouse activating receptor 1),Nkp46,lymphocyte antigen 94	nuclear receptor co-repressor 1
Ncr1	NM_010746.3	2810475A17Rik,A1450313,MGD-MRK-14433,MGI:2140289,MGI:98313,RIKEN cDNA 2810475A17 gene,Tmem48,expressed sequence A1450313,skeletal fusions with sterility,txs,transmembrane protein 48	natural cytotoxicity triggering receptor 1
Ndc1	NM_028355.3	1810089F12Rik,MGI:1923962,MWFE,RIKEN cDNA 1810089F12 gene	NDC1 transmembrane nucleoporin
Ndfu1	NM_019443.2	11,14,7Dns,2010012C24Rik,AV006275,B14.7,MGI:2147010,RIKEN cDNA 2010012C24 gene,expressed sequence AV006275	NADH:ubiquinone oxidoreductase subunit A1
Ndfu11	NM_027244.1	2410011G03Rik,AW112974,MGC:7999,MGI:2141156,RIKEN cDNA 2410011G03 gene,expressed sequence AW112974	NADH:ubiquinone oxidoreductase subunit A11
Ndfu12	NM_025551.3	2700054G14Rik,AU022060,CD4016,CGI-39,GRIM-19,Grim19,MGI:2142700,RIKEN cDNA 2700054G14 gene,expressed sequence AU022060,genes associated with retinoid-IFN-induced mortality 19	NADH:ubiquinone oxidoreductase subunit A12
Ndfu13	NM_023312.2	AV000592,B8,C1-B8,MGI:2147331,expressed sequence AV000592	NADH:ubiquinone oxidoreductase subunit A13
Ndfu12	NM_010885.5	1010001M12Rik,1700022J01Rik,MGI:1919463,RIKEN cDNA 1010001M12 gene,RIKEN cDNA	NADH:ubiquinone oxidoreductase subunit A12
Ndfu3	NM_025348.2	1700022J01 gene	NADH:ubiquinone oxidoreductase subunit A3
Ndfu4	NM_010886.2	MGD-MRK-36261,MLRQ	Ndfu4, mitochondrial complex associated
Ndfu6	NM_025987.3	14kDa,2700038015Rik,B230217P19Rik,MGI:1926087,RIKEN cDNA 2700038015 gene,RIKEN cDNA	NADH:ubiquinone oxidoreductase subunit A6
Ndfu7	NM_023202.4	14,5kDa,2400007M02Rik,NADH oxidoreductase,RIKEN cDNA 2400007M02 gene	NADH:ubiquinone oxidoreductase subunit A7
Ndfu10	NM_026684.2	0610011B04Rik,22kDa,RIKEN cDNA 0610011B04 gene	sub-maximal isoform coverage due to non-overlapping transcript variants
Ndfub1	NM_019435.4	DSBwg0566e,DSBwg0577e,DNA segment, Chr 5, Brigham & Women's Genetics 0566 expressed,DNA segment, Chr 5, Brigham & Women's Genetics 0577 expressed,MGD-MRK-34182,MGD-MRK-34183,MGI:106488,MGI:106489,MGI:2136540,Np15,nuclear protein 15.6	NADH:ubiquinone oxidoreductase subunit B11
Ndfub2	NM_026612.3	1810011D01Rik,RkDa,A1252567,MGI:2138908,RIKEN cDNA 1810011D01 gene,expressed sequence A1252567	NADH:ubiquinone oxidoreductase subunit B2
Ndfub4	NM_026610.1	0610006N12Rik,1300010H20Rik,MGI:1915692,RIKEN cDNA 0610006N12 gene,RIKEN cDNA	NADH:ubiquinone oxidoreductase subunit B4
Ndfub3	NM_025843.3	1300010H20 gene	NADH:ubiquinone oxidoreductase subunit B7
Ndfub7	NM_025843.3	1110002H15Rik,RIKEN cDNA 1110002H15 gene	NADH:ubiquinone oxidoreductase subunit B7
Ndfub8	NM_026061.2	2900010I05Rik,A1987932,MGI:2147623,RIKEN cDNA 2900010I05 gene,expressed sequence A1987932	NADH:ubiquinone oxidoreductase subunit B8
Ndfu7	NM_029722.4	1010001M04Rik,RIKEN cDNA 1010001M04 gene	NADH:ubiquinone oxidoreductase core subunit 57
Ndfu8	NM_144870.5	BC021616,cDNA sequence BC021616	NADH:ubiquinone oxidoreductase core subunit 58
Nedd8	NM_008683.3	MGD-MRK-12814,Rub1	neural precursor cell expressed, developmentally down-regulated gene 8
Neu1	NM_010893.2	AA407268,AA407316,Aglp,Api,Bat-7,Bat7,G9,HLA-B-associated transcript 7,MGD-MRK-1182,MGD-MRK-12114,MGD-MRK-12819,MGD-MRK-12820,MGD-MRK-1358,MGD-MRK-1504,MGD-MRK-1512,MGI:2146738,MGI:2146740,MGI:88131,Map-2,Neu-1,acid phosphatase, liver,alpha glucosidase processing,expressed sequence AA407268,expressed sequence AA407316,lysosomal sialidase,mannosidase processing,3,sialidase 1	neuraminidase 1
Nfat5	NM_133957.3	gene,TonE8P,expressed sequence A1225870,mKIAA0827,nfat2	nuclear factor of activated T cells 5
Nfat2	NR_132727.1	A1194320,MGD-MRK-37463,MGI:2138857,Nrf2,expressed sequence A1194320	nuclear factor, erythroid derived 2, like 2
Nfkab1	NM_008689.2	MGD-MRK-12829,NF kappaB1,NF-kappaB,p50,nuclear factor kappaB p50,p50,p50	nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105
Nfkab2	NM_019408.2	NF kappaB,p52	nuclear factor of kappa light polypeptide gene enhancer in B cells 2, p49/p100
Nfs1	NM_010911.2	AA987187,MGI:2138826,expressed sequence AA987187,m-Nfs1	nitrogen fixation gene 1 (S. cerevisiae)
Ngfr	NM_03217.3	LNFR,MGD-MRK-12842,Tnfrsf16,p75,p75,nerve growth factor receptor,p75NGFR,p75NTR	nerve growth factor receptor (TNFR superfamily, member 16)
Nkg7	NM_024253.4	Z50004F03Rik,MGI:1919560,RIKEN cDNA Z50004F03 gene	natural killer cell group 7 sequence
Nme1	NM_008704.2	AL024257,MGD-MRK-12901,MGI:2144352,NDPK-A,NM23-M1,expressed sequence AL024257,non-metastatic cells 1, protein (NM23A) expressed in	NME/NM23 nucleoside diphosphate kinase 1
Nme2	NM_008705.5	MGD-MRK-12902,M23-H2,mm23-M2,non-metastatic cells 2, protein (NM23B) expressed in Card15,F83003C23Rik,MGI:2443828,Nirc2,RIKEN cDNA F83003C23 gene,caspase recruitment domain family, member 15	NME/NM23 nucleoside diphosphate kinase 2
Nod2	NM_145872.2	Z31005C01Rik,MGD-MRK-12909,MGD-MRK-12912,MGI:1923980,Nos-1,RIKEN cDNA	nucleotide-binding oligomerization domain containing 2
Nos1	NM_008712.2	Z31005C01 gene,bNOS,nNOS,nitric oxide synthase 1 (macrophage)	nitric oxide synthase 1, neuronal
Nos2	NM_010927.3	MGD-MRK-12910,MGD-MRK-12913,NOS-1,Nos-2,Nos2a,nNOS,nitric oxide synthase-2 (brain)	nitric oxide synthase 2, inducible
Nos3	NM_008713.4	Z31006A03Rik,MGD-MRK-12911,MGD-MRK-12914,MGI:1919183,Nos-3,RIKEN cDNA Z31006A03 gene,nNOS,eNOS,nitric oxide synthase 3 (inducible)	nitric oxide synthase 3, endothelial cell
Nox1	NM_172023.1	IP91 phox homolog,Nox-1	NADPH oxidase 1
Nox3	NM_198958.2	MGD-MRK-10695,MGI:3511427,MGI:96072,head-tail,het,neuroscience mutagenesis facility, 250,nmf250	NADPH oxidase 3
Nox4	NM_015760.4	A1648021,MGI:2142019,expressed sequence A1648021	NADPH oxidase 4
Npm1	NM_008722.2	B23,MGD-MRK-33874,NO38,nucleolar protein NO38	nucleophosmin 1
Npr1	NM_008727.5	A1893888,GC-A,MGD-MRK-12925,MGD-MRK-13537,MGI:2139841,NPR-A,NPRA,Pndr,expressed sequence A1893888,guanylyl cyclase-A	natriuretic peptide receptor 1
Npr2	NM_173788.3	MGD-MRK-12926,MGD-MRK-2032,MGI:1933832,MGI:88430,achondroplasia, cn,guanylyl cyclase-B,pewee,pwe	natriuretic peptide receptor 2
Nqo1	NM_008706.5	AV001255,Dia4,MGD-MRK-13090,MGD-MRK-13092,MGD-MRK-19559,MGD-MRK-24055,MGI:2142727,NAD(P)H dehydrogenase (quinone),NAD(P)H menadiol oxidoreductase 1, cDNA inducible,NAD(P)H dehydrogenase (quinone),NAD(P)H menadiol oxidoreductase 4 (NADH) diaphorase 4 (NADH) diaphorase 3,expressed sequence AV001255,menadiol oxidoreductase 1	NAD(P)H dehydrogenase, quinone 1
Nr2f1	NM_010151.2	COUP-TF1,COUP-TF1,Erba1,MGD-MRK-18611,MGD-MRK-33774,MGI:101801,Tcfoup1,avian erythroblastic leukemia viral (v-erb-a) oncogene homolog-like 3,transcription factor COUP 1	nuclear receptor subfamily 2, group F, member 1
Nras	NM_010937.2	AV095280,MGD-MRK-12932,MGI:2139934,N-ras,expressed sequence AV095280	neuroblastoma ras oncogene
Nr1	NM_010938.3	C87038,D6Erd415e,DNA segment, Chr 6, ERATO Doi 415, expressed,MGI:1196416,MGI:2141782,expressed sequence C87038	nuclear respiratory factor 1
Nsd1	NM_008739.3	A1528500,KM1F38,MGI:2145265,expressed sequence A1528500	nuclear receptor-binding SET-domain protein 1
Nt5e	NM_011851.3	2210401F01Rik,S' nucleotidase,A147961,CD73,MGD-MRK-16568,MGI:1921492,MGI:2143050,N1S,RIKEN cDNA 2210401F01 gene,ecto-5'-nucleotidase,expressed sequence A1447961	5' nucleotidase, ecto
Nup153	NM_175749.2	B130015D15Rik,C88147,MGI:2145538,MGI:2443046,RIKEN cDNA B130015D15 gene,expressed sequence C88147	nucleoporin 153
Nup205	NM_027513.1	383840A005Rik,A1248391,MGI:1917949,RIKEN cDNA 383840A005 gene,expressed sequence A1248391,mKIAA0225	nucleoporin 205
Nup62	NM_053074.1	AA589433,A1426861,A1790512,AU048598,D7Erd4649e,DNA segment, Chr 7, ERATO Doi 649, expressed,MGD-MRK-35636,MGI:107175,MGI:1277198,MGI:2141843,MGI:2141941,MGI:2142031,MGI:2142164,Nupc1, expressed sequence AA589433,expressed sequence A1426861,expressed sequence A1790512,expressed sequence AU048598,nuclear pore complex 1,p62	nucleoporin 62

Oat	AI194874,MGD-MRK-12964,MGD-MRK-13865,MGI:2141877,MGI:97913,expressed sequence	ornithine aminotransferase
Odc1	MM_016978.2 MM_013614.2 MGD-MRK-12979,ODC 22104304RIK,2210412K19RIK,AA409584,MGI:1917392,MGI:1922924,MGI:2143998,RIKEN cDNA 22104304RIK,RIKEN cDNA 2210412K19 gene,aloha-ketoglutarate	ornithine decarboxylase, structural 1
Ogdh	MM_010956.3 MM_001081130.1 MGD-MRK-13059,MGD-MRK-14367,MGD-MRK-14517,MGI:2147860,SfSparse- fur,expressed sequence AI265390,sparse fur,spf	oxoglutarate (alpha-ketoglutarate) dehydrogenase (lipomaide)
Otc	MM_008769.3 MM_008777.3 AW106920,MGD-MRK-13126,MGI:2143804,expressed sequence AW106920 AI265463,MGD-MRK-13174,MGD-MRK-13175,MGI:2138871,PEPCk,Pck-1,expressed sequence	ornithine transcarbamylase phenylalanine hydroxylase
Pck1	MM_011044.2 1810010014RIK,9130022802RIK,MGI:1916307,MGI:1921801,RIKEN cDNA 1810010014 gene,RIKEN cDNA 9130022802 gene	phosphoenolpyruvate carboxylase 1, cytosolic
Pck2	MM_028994.2 2810417H13RIK,AA409629,MGI:2147825,RIKEN cDNA 2810417H13 gene,expressed sequence	phosphoenolpyruvate carboxylase 2 (mitochondrial)
Pclaf	MM_026515.2 AA409629,mkAA0101,p15[PAF]	PCNA clamp associated factor
Pcdcl1	MM_008798.1 MM_011396.2 MGD-MRK-13206,MGD-MRK-29632,PD-1,Pcdcl,programmed cell death 87-OC,87c,F730015022RIK,MGI:2442044,PD-1,RIKEN cDNA F730015022 gene	programmed cell death 1 programmed cell death 1 ligand 2
Pdgfrb	MM_011057.3 MGD-MRK-13212,MGD-MRK-14423,PDGFR,6,Slc,simian sarcoma oncogene A1528809,CD140b,MGD-MRK-13214,MGD-MRK-13217,MGI:2147240,PDgfr,expressed sequence	platelet derived growth factor, B polypeptide
Pdgrfb	MM_008809.1 A1528809,platelet derived growth factor receptor	platelet derived growth factor receptor, beta polypeptide
Pdha1	MM_008810.2 MGD-MRK-13218,MGD-MRK-13219,Pdha-1,pyruvate dehydrogenase E1alpha subunit	pyruvate dehydrogenase E1 alpha 1
Pdk1	MM_172665.3 D530020C15RIK,RIKEN cDNA D530020C15 gene	pyruvate dehydrogenase kinase, isoenzyme 1
Pdk2	MM_133667.2 2610001M10RIK,AI035637,MGC-6383,MGI:1914874,MGI:2147840,RIKEN cDNA 2610001M10 gene,expressed sequence AI035637	pyruvate dehydrogenase kinase, isoenzyme 2
Pdk3	MM_145630.2 AV005916,MGI:2141608,expressed sequence AV005916	pyruvate dehydrogenase kinase, isoenzyme 3
Pdk4	MM_013743.2 Gm102,LOC181511,Ppm2c, gene model 1024, (NCBI),protein phosphatase 2C, magnesium dependent, catalytic subunit	pyruvate dehydrogenase kinase, isoenzyme 4
Pdp1	MM_00108231.1 dependent, catalytic subunit	pyruvate dehydrogenase phosphatase catalytic subunit 1
Pdpk1	MM_001080773.2 Pdpk1,PKA kinase MGD-MRK-36368,MGI:107791,Php1,Pbp,r,PKIP,Raf-1 inhibitor protein,phosphatidylethanolamine	3-phosphoinositide dependent protein kinase 1
Pebp1	MM_018858.2 MGD-MRK-25966,Pempt,Pempt2,phosphatidylethanolamine N-methyltransferase 2	binding protein related
Pemt	MM_008819.3 MGD-MRK-36393,PK-2/FBPase-2, gene A	phosphatidylethanolamine binding protein 1
Pfkb1	MM_008824.2 AA407869,MGD-MRK-13246,MGI:2143459,expressed sequence AA407869	phosphatidylethanolamine N-methyltransferase
Pfk1	MM_008826.4 AI131669,MGD-MRK-13244,MGD-MRK-13245,MGD-MRK-13247,MGI:2145952,MGI:97546,PFK- A,PK1,M,PK-4,PKA,PKA,expressed sequence AI131669,phosphofructokinase	6-phosphofructo-2-kinase/fructose-2,6-bisphosphate 1 phosphofructokinase, liver, B-type
Pfkm	MM_001163487.1 4,phosphofructokinase, polypeptide X	phosphofructokinase, muscle
Pgam2	MM_018870.3 0610042A05RIK,AU019875,C78335,MGD-MRK- 13255,MGI:1914101,MGI:2140453,MGI:2140666,RIKEN cDNA 0610042A05 gene,expressed sequence AU019875,expressed sequence C78335	phosphoglycerate dehydrogenase
Pgd	MM_001081274.1 1 MGD-MRK-13258,MGD-MRK-13262,PGC-1	phosphoglycerate kinase 1
Pgk1	MM_008828.2 2610002G18RIK,AA407108,AI098105,MGD-MRK-13276,MGD-MRK- 13279,MGI:1919407,MGI:2140115,MGI:2140187,Pgm-2,Pgm1a,Pgm2,RIKEN cDNA 2610002G18 gene,expressed sequence AA407108,expressed sequence AI098105,phosphoglucomutase 1a,phosphoglucomutase 2	phosphoglucomutase 1 3-phosphoglycerate dehydrogenase
Pgm1	MM_025700.2 3-PGDH,3PGDH,A10,PGAD,PGD,PGDH,SERA	phosphoglucomutase 2
Pghdh	MM_016966.3 P3K/C2	3-phosphoglycerate dehydrogenase
Pik3ca	MM_011083.2 E330412C24RIK,MGI:1917992,RIKEN cDNA E330412C24 gene,Pi3K,p110alpha	phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 alpha
Pik3cb	MM_008839.1 111000102RIK,AI447572,MGI:2143049,RIKEN cDNA 111000102 gene,expressed sequence	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha
Pik3cd	MM_029094.3 AI447572,p110beta	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta
Pik3cd	MM_003945690.1 2410099E07RIK,2610208K16RIK,AWS45373,MGI:1917688,MGI:1925744,MGI:2140589,RIKEN cDNA 2410099E07 gene,RIKEN cDNA 2610208K16 gene,expressed sequence AWS45373,p110delta AA414921,MGD-MRK-13305,MGI:2145159,PI3K,expressed sequence	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta
Pik3r1	MM_001024955.1 AA414921,p50alpha,p55alpha,p85alpha	phosphoinositide 3-kinase regulatory subunit 1
Pik3r2	MM_008841.2 p85beta	phosphoinositide 3-kinase regulatory subunit 2
Pik3r3	MM_181585.5 AA414954,MGD-MRK-38322,MGI:2140152,expressed sequence AA414954,p55,p55pk 2210010015RIK,C730038E05RIK,C85833,D9Ert418e,DNA segment, Chr 9, ERATO Doi 418, expressed,MGI:1196267,MGI:2143428,MGI:2442102,RIKEN cDNA 2210010015 gene,RIKEN cDNA	phosphoinositide 3-kinase regulatory subunit 3
Pik3r4	MM_001081309.1 C7308E05 gene,p55,expressed sequence C85833,p150	phosphoinositide 3-kinase regulatory subunit 4
Pkir	MM_013631.2 MGD-MRK-13318,MGD-MRK-13321,MGD-MRK-13327,PK-1,PK-1,R,P-K AA414905,ALD24370,ALD24424,MGD-MRK-13319,MGD-MRK-13320,MGD-MRK- 13322,MGI:2143183,MGI:2143184,MGI:2144733,PK-2,PK-3,PK3,Pkm2,expressed sequence AA414905,expressed sequence ALD24370,expressed sequence ALD24424,pyruvate kinase,pyruvate kinase 3	pyruvate kinase liver and red blood cell
Pkm	MM_011099.2 kinase,pyruvate kinase 3	pyruvate kinase, muscle
Pi2g15	MM_133792.2 C87498,LPL,Lpl42,Lpl48,MGI:2142884,expressed sequence C87498,lysophospholipase 3 AA894814C16,MGD-MRK-13352,MGD-MRK-13353,MGD-MRK- 13355,MGI:1329022,MGI:2139113,Plc-1,PK-gamma1,Plc-g-1,c,cell differentiation and embryonic development,expressed sequence AI894410,phospholipase C, subtype 148	phospholipase A2, group XV
Picg1	MM_021280.3 MGD-MRK-13361,Plk,STPK13,polo-like kinase (Drosophila)	phospholipase C, gamma 1
Pik1	MM_011121.3 MGD-MRK-13361,Plk,STPK13,polo-like kinase (Drosophila)	polo like kinase 1
Pnoc	MM_001205075.1 MGD-MRK-32349,N/OFQ,N23K,Npnc1,OFQ,N,neuropeptide nociceptin 1,proorphanin ALD24301,AU015798,MGD-MRK-12917,MGD-MRK-12918,MGD-MRK- 12919,MGI:2145718,MGI:2145723,Np,Np-1,Np-2,Pnp1,expressed sequence ALD24301,expressed sequence AU015798,nucleoside phosphorylase,pyruvate nucleoside phosphorylase,pyruvate nucleoside phosphorylase 1	prepronociceptin
Pnp	MM_013632.4 pol-epsilon	purine-nucleoside phosphorylase
Pole	MM_011132.2 MGD-MRK-13589,Nr1c3,PPAR-gamma,PPARgamma,PPARgamma2,PPar-gamma2	polymerase (DNA directed), epsilon
Pparg	MM_011146.1 MGD-MRK-13589,Nr1c3,PPAR-gamma,PPARgamma,PPARgamma2,PPar-gamma2	peroxisome proliferator activated receptor gamma
Pparg1a	MM_008904.2 A830037N07RIK,ENSMUSG0000079510,Gm11133,MGI:1203734,MGI:2443650,MGI:3779388,PPA Gamma Coactivator 1,PPAR gamma coactivator 1, Pgc-1alpha,Pgc-1alpha,Pgc1,Pgc1,RIKEN cDNA A830037N07 gene,predicted gene 11133,predicted gene, ENSMUSG0000079510 5730454C12RIK,AA406889,AA675351,AI507113,C79945,MGC:38417,MGI:1917832,MGI:2140739, MGI:2140788,MGI:2140930,MGI:2141313,RIKEN cDNA 5730454C12 gene,expressed sequence AA406889,expressed sequence AA675351,expressed sequence AI507113,expressed sequence C79945	peroxisome proliferative activated receptor, gamma, coactivator 1 alpha
Ppat	MM_172146.2 2310003C21RIK,2900017D1RIK,AM27932,AU017636,MGD-MRK- 16669,MGI:1916736,MGI:1920167,MGI:2144816,MGI:2144943,MMPa-2,MPPa-1,Mpp,aloha,RIKEN cDNA 2310003C21 gene,RIKEN cDNA 2900017D14 gene,expressed sequence AI427932,expressed sequence AU017636	phosphoribosyl pyrophosphate amidotransferase
Ppm1a	MM_008910.3 MGD-MRK-16300,MSP23,OSF-3,PAG,Paga,Prg1,Pxi1,TDX2,Tdx2,Trx dependent peroxide reductase 2,macrophage 23kDa stress protein,macrophage stress protein 23kDa,osteoblast specific factor 3,proliferation-associated gene A,pri1,thioredoxin dependent peroxide reductase 2 AOE8166,AOPP,MGI:1349456,PMP20,Pmp20,Prdx6,Prdx6,PrdxV,peroxiredoxin V,peroxisomal membrane protein 20	protein phosphatase 1A, magnesium dependent, alpha isoform
Prdx1	MM_011034.4 AOE8166,AOPP,MGI:1349456,PMP20,Pmp20,Prdx6,Prdx6,PrdxV,peroxiredoxin V,peroxisomal membrane protein 20	peroxiredoxin 1
Prdx5	MM_012021.2 MGD-MRK-13251,MGD-MRK-13605,Pfn,Pfp,Pf-1,perforin,perforin 1,pore forming protein	peroxiredoxin 5
Prf1	MM_011073.2 MGD-MRK-13251,MGD-MRK-13605,Pfn,Pfp,Pf-1,perforin,perforin 1,pore forming protein	perforin 1 (pore forming protein)
Prim1	MM_008921.2 AI324982,MGD-MRK-13608,MGI:2143579,expressed sequence AI324982	DNA primase, p49 subunit
Prim2	MM_008922.2 AI323589,MGD-MRK-13609,MGI:2138206,expressed sequence AI323589 AI194361,AI450832,ALD24255,AMPKalpha1,C138083N04RIK,MGI:2146014,MGI:2146120,RIKEN cDNA C138083N04 gene,expressed sequence AI194361,expressed sequence AI450832,expressed sequence ALD24255	DNA primase, p58 subunit
Prikaa1	MM_00101367.3 sequence AI024255	protein kinase, AMP-activated, alpha 1 catalytic subunit
Prikaa2	MM_178143.1 231000811RIK,AMPKalpha2,MGI:1913766,RIKEN cDNA 231000811 gene 1300015D22RIK,AU021155,MGI:1923533,MGI:2141055,RIKEN cDNA 1300015D22 gene,expressed sequence AU021155	protein kinase, AMP-activated, alpha 2 catalytic subunit
Prikab1	MM_031869.2 5730553K21RIK,AW049591,BB124140,MGI:1922036,MGI:2139959,MGI:2140024,RIKEN cDNA 5730553K21 gene,expressed sequence AW049591,expressed sequence BB124140	protein kinase, AMP-activated, beta 1 non-catalytic subunit
Prikab2	MM_182997.2 AA571379,BB036179,MGD-MRK-37454,MGI:2145917,MGI:2146255,Prikaac,expressed sequence	protein kinase, AMP-activated, beta 2 non-catalytic subunit
Prikag1	MM_016781.2 AA571379,expressed sequence BB036179,protein kinase, AMP-activated, gamma 2410051C13RIK,AI854673,MGI:1920950,MGI:2141005,RIKEN cDNA 2410051C13 gene,expressed sequence AI854673	protein kinase, AMP-activated, gamma 1 non-catalytic subunit
Prikag2	MM_001170555.1 sequence AI854673	protein kinase, AMP-activated, gamma 2 non-catalytic subunit
Pkric	MM_011102.3 MGD-MRK-13329,PKCgamma,PKcc,PKcc	protein kinase C, gamma
Pkin	MM_016694.3 Pkin2,Parkin,Parkinson disease (autosomal recessive, juvenile) 2, parkin 2510028N04RIK,2510038811RIK,MGI:1917780,MGI:1919703,MmPOX1,POX1,RIKEN cDNA	parkin RBR E3 ubiquitin protein ligase
Prodh2	MM_006540222.1 2510028N04 gene,RIKEN cDNA 2510038811 gene 2310010D17RIK,C76571,C76678,MGD-MRK-13629,MGD-MRK- 13631,MGI:1913803,MGI:2145078,MGI:2148046,Prps-1,RIKEN cDNA 2310010D17 gene,expressed sequence C76571,expressed sequence C76678 AU043908,Amhgap8,C030017C09RIK,C78947,MGI:2146155,MGI:2146287,Protor-1,RIKEN cDNA C030017C09 gene,Rho GTPase activating protein 8,expressed sequence AU043908,expressed sequence C78947	proline dehydrogenase (oxidase) 2
Prps1	MM_021463.4 MGD-MRK-13631,MGI:1913803,MGI:2145078,MGI:2148046,Prps-1,RIKEN cDNA 2310010D17 gene,expressed sequence C76571,expressed sequence C76678 AU043908,Amhgap8,C030017C09RIK,C78947,MGI:2146155,MGI:2146287,Protor-1,RIKEN cDNA C030017C09 gene,Rho GTPase activating protein 8,expressed sequence AU043908,expressed sequence C78947	phosphoribosyl pyrophosphate synthetase 1
Prp5	MM_146061.4 ALD24078,ALD24083,AU040266,D8Erd814e,DNA segment, Chr 8, ERATO Doi 814, expressed,EPIP,MGI:1289292,MGI:2147628,MGI:2147656,MGI:3034454,PSA,expressed sequence	proline rich 5 (renal)
Psat1	MM_177420.1 ALD24078,expressed sequence ALD24083,expressed sequence AU040266	phosphoserine aminotransferase 1
Psm3a	MM_011184.4 Imp8,MGD-MRK-11827,MGD-MRK-29036,large multifunctional protease, subunit C8	proteasome (prosome, macropain) subunit, alpha type 3
Psm7	MM_011969.1 C64 AA409053,C81484,Imp5c,MGD-MRK-11826,MGD-MRK- 29037,MGI:2146756,MGI:2147147,expressed sequence AA409053,expressed sequence C81484,large multifunctional protease, subunit C5	proteasome (prosome, macropain) subunit, alpha type 7
Psmb1	MM_011185.3 Mecl-1,Mecl1	proteasome (prosome, macropain) subunit, beta type 1
Psmb10	MM_013640.3 Mecl-1,Mecl1	proteasome (prosome, macropain) subunit, beta type 10
Psmb3	MM_011971.4 C10-II	proteasome (prosome, macropain) subunit, beta type 3
Psmc1	MM_008947.3 AI325227,MGD-MRK-33738,MGI:2144794,P26a4,Rpt12/S4,54,expressed sequence AI325227,rpt2	protease (prosome, macropain) 26S subunit, ATPase 1

Psmid13	NM_011875.4	265 proteasome subunit p40.5,S11 AA589371,A178882,MGI:2144028,MGI:2145690,PA28b,expressed sequence AA589371,expressed	proteasome (prosome, macropain) 26S subunit, non-ATPase, 13	
Psme2	NM_001029855.1	sequence AI478882	proteasome (prosome, macropain) activator subunit 2 (PA28 beta)	Psm2b (NM_001281472)
PspH	NM_133900.4	A1480570,MGD-MRK-13654,MGI:2140913,PSpase,expressed sequence A1480570	phosphoserine phosphatase	
Pten	NM_008960.2	2310035007RIK,A130070I02RIK,A1463227,B430203M17RIK,MGD-MRK-39582,MGI:1917411,MGI:2147557,MGI:2443558,MMAC1,RIKEN cDNA 2310035007 gene,RIKEN cDNA A130070I02 gene,RIKEN cDNA B430203M17 gene,TEP1,expressed sequence A1463227	phosphatase and tensin homolog prostaglandin E receptor 4 (subtype EP4)	
Ptger4	NM_008965.1	EP4,MGD-MRK-25639,Ptger4,prostaglandin E receptor EP4 subtype	prostaglandin E receptor 4 (subtype EP4)	
Ptger5	NM_022415.2	241009923RIK,D21616596.DNA segment, Chr 2, ERATO D01 369, expressed,MGI:1196242,MGI:1202952,RIKEN cDNA 241009923 gene,mPGE5-1	prostaglandin E synthase	
Ptgs1	NM_008969.3	COX1,Cox-1,Cox-3,MGD-MRK-13664,Pgh1,Lycloooxygenase 1	prostaglandin-endoperoxide synthase 1	
Ptgs2	NM_011198.3	COX2,Cox-2,MGD-MRK-13665,Pghs-2,Pghs-2,Pghs2,Tis10,cyclooxygenase 2,cyclooxygenase-2,prostaglandin G/H synthase	prostaglandin-endoperoxide synthase 2	
Ptk2	NM_007982.2	FAK,FRNK,Fadk,MGD-MRK-9708,focal adhesion kinase	PTK2 protein tyrosine kinase 2	
Ptk6	NM_009184.2	MGD-MRK-16468,MGD-MRK-37439,MGI:108397,Slk,Tksk,src-related intestinal kinase,tyrosine kinase identified from skin	PTK6 protein tyrosine kinase 6	
Ptpn5	NM_001163565.1	MGD-MRK-13676,Shp2	protein tyrosine phosphatase, non-receptor type 5	
Ptptrc	NM_011210.3	8220,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 17001211L2RIK,G51,Hdhda1,RIKEN cDNA 17001211L2 gene,haloacetal dehalogenase-like hydrolase domain containing 1A	protein tyrosine phosphatase, receptor type, C	
Pudp	NM_026108.3	8220,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 17001211L2RIK,G51,Hdhda1,RIKEN cDNA 17001211L2 gene,haloacetal dehalogenase-like hydrolase domain containing 1A	pseudouridine 5-phosphatase	
Pycr1	NM_144795.3	MGC:11688	pyrroline-5-carboxylate reductase 1	
Pycr2	NM_133705.2	1810018M5RIK,MGI:19116301,P5cr2,RIKEN cDNA 1810018M05 gene,pyrroline-5-carboxylate reductase	pyrroline-5-carboxylate reductase family, member 2	
Pycr1	NM_025412.2	1110058813RIK,2700073G2RIK,MGI:1914445,RIKEN cDNA 1110058813 gene,RIKEN cDNA 2700073G24 gene	pyrroline-5-carboxylate reductase-like	
Rad51	NM_011234.4	AV304093,MGD-MRK-13824,MGI:2139265,RAD51A homolog (S. cerevisiae),Rad51a,Reca,expressed sequence AV304093,recombination and repair of radiation damage, RAD51 homolog	RAD51 recombinase	
Rad51ap1	NM_009013.3	251000610RIK,MGI:2148250,RAB22,RIKEN cDNA 251000610 gene	RAD51 associated protein 1	
Ranbp2	NM_011240.3	A430087805RIK,AI256741,MGI:2143551,MGI:2443460,RIKEN cDNA A430087805 gene,expressed sequence AI256741	RAN binding protein 2	
Rbicc1	NM_009826.4	2900055E04RIK,5930404L04RIK,Cc1,Fip200,Laxp180,MGI:1920276,MGI:1924359,RIKEN cDNA 2900055E04 gene,RIKEN cDNA 5930404L04 gene,colled coil forming protein 1,mKIAA0203	RB1-inducible coiled-coil 1	
Rbbp5	NM_172517.2	493341124RIK,RIKEN cDNA 493341124 gene	retinoblastoma binding protein 5, histone lysine methyltransferase complex subunit	
Rbks	NM_153196.1	523840011RIK,AI326806,MGI:2140842,RIKEN cDNA 523840011 gene,expressed sequence AI326806	ribokinase	
Rbp4	NM_011255.3	MGD-MRK-13790,MGD-MRK-13795,Rbp-4,retinol binding protein 4, cellular	retinol binding protein 4, plasma	
Rela	NM_009045.4	MGD-MRK-24172,p65,p65,NF kappaB	v-rel reticuloendotheliosis viral oncogene homolog A (avian)	
Rest	NM_011263.1	2610008J04RIK,MGD-MRK-29050,MGI:1919377,NRSF,RIKEN cDNA 2610008J04 gene	RE1-silencing transcription factor	
Rgn	NM_009060.2	A1265316,MGD-MRK-37060,MGI:2147859,SMIP30,expressed sequence A1265316	regucalcin	
Rictor	NM_030168.3	49215212RIK,6030405M08RIK,AI492497,DS30039E1RIK,MGI:1924409,MGI:1925833,MGI:2146218,RIKEN cDNA 49215212 gene,RIKEN cDNA 6030405M08 gene,RIKEN cDNA DS30039E1 gene,expressed sequence AW492497	RICTOR independent companion of MTOR, complex 2	
Rimk1a	NM_177572.4	BC057371,NAAGS-II,Rimk,cDNA sequence BC057371 4931417E2RIK,4933426K2RIK,AA097693,AI325948,AAU015629,EST AI325948,MGI:1898911,MGI:1913991,MGI:2141551,MGI:3034764,NAAGS,RIKEN cDNA 4931417E1 gene,RIKEN cDNA 4933426K2 gene,expressed sequence AA097693,expressed sequence AU015629	ribosomal modification protein rimk-like family member A	
Rimk1b	NM_027664.1	4931417E1 gene,RIKEN cDNA 4933426K2 gene,expressed sequence AA097693,expressed sequence AU015629	ribosomal modification protein rimk-like family member B	
Rpia	NM_009075.2	MGD-MRK-24130	ribose 5-phosphate isomerase A	
Rpl23	NM_022891.3	2810009A01RIK,MGI:1915154,RIKEN cDNA 2810009A01 gene	ribosomal protein L23	
Rplp0	NM_007475.5	3684,Arbp,MGD-MRK-1386,MGI:88065,acidic ribosomal phosphoprotein P0	ribosomal protein, large, P0	
Rps6ka1	NM_009097.4	MGD-MRK-25992,Rsk1	ribosomal protein S6 kinase polypeptide 1	
Rps6kb1	NM_00114334.1	2610318I1RIK,AA959758,AI256796,AI314060,MGI:1919758,MGI:2144050,MGI:2144103,MGI:2144107,RIKEN cDNA 2610318I5 gene,SRK1,expressed sequence AA0859738,expressed sequence AI256796,expressed sequence AI314060,p70S6k,p70S6k1,p70S6k	ribosomal protein S6 kinase, polypeptide 1	
Rps6kb2	NM_021485.2	S6k2	ribosomal protein S6 kinase, polypeptide 2	
Raptor	NM_028898.2	4932417H02RIK,RIKEN cDNA 4932417H02 gene,Rap,mKIAA1303,raptor AU041672,ctr2,MGI:2140480,TI8929,YGR163W,expressed sequence AU041672,small GTPase,	regulatory associated protein of MTOR, complex 1	
Rragc	NM_017475.2	homolog (S. cerevisiae)	Ras-related GTP binding C	
Rrm1	NM_009103.2	MGD-MRK-4230,Rrm1	ribonucleotide reductase M1	
Rrm2	NM_009104.1	AA407299,MGD-MRK-14210,MGI:2145142,R2,expressed sequence AA407299	ribonucleotide reductase M2	
Runx1	NM_00111021.1	A1462102,AML1,Cbfa2,MGD-MRK-16643,MGD-MRK-33691,MGI:2146437,Pepp2a2,core binding factor alpha 2,expressed sequence A1462102,runt domain, alpha subunit 2	runt related transcription factor 1	
Runx2	NM_009820.5	1,poiyomavirus enhancer binding factor 2 (PEBP2)	runt related transcription factor 2	
S100a1	NM_011309.3	A126795,MGI:2139656,S100,S100a,expressed sequence AI266795	S100 calcium binding protein A1	
Sardh	NM_138665.2	MGC:6279	sarcosine dehydrogenase	
Scd1	NM_009127.3	AA589638,AI265570,MGD-MRK-1014,MGD-MRK-14305,MGD-MRK-14307,MGI:2147455,MGI:2147495,MGI:87858,Scd-1,ab,asebia,expressed sequence AA589638,expressed sequence AI265570,stearyl-CoA desaturase	stearyl-Coenzyme A desaturase 1	
Sdhb	NM_023374.3	0710008N11RIK,RIKEN cDNA 0710008N11 gene	succinate dehydrogenase complex, subunit B, iron sulfur (lp)	
Sdhc	NM_025321.3	0610010E03RIK,AI316496,AU019277,MGI:2138200,MGI:2138435,RIKEN cDNA 0610010E03 gene,expressed sequence AI316496,expressed sequence AU019277	succinate dehydrogenase complex, subunit C, integral membrane protein	
Sds	NM_145565.1	MGD-MRK-14347,SDH	serine dehydratase	
Sds1	NM_133902.2	4432411H13RIK,AI504310,MGI:1918045,MGI:2140923,RIKEN cDNA 4432411H13 gene,SDH1,SDS-RS1,expressed sequence AI504310	serine dehydratase-like	
Sec13	NM_024206.4	1110030H02RIK,MGD-MRK-16619,MGI:1915067,RIKEN cDNA 1110030H02 gene,SEC13 related gene (S. cerevisiae),SEC13-like 1 (S. cerevisiae),Sec13l1,Sec13r1	SEC13 homolog, nuclear pore and COPII coat complex component	
Selenok	NM_019979.2	11100103RIK,30K2,AA512353,HSP200,MGI:1913387,MGI:2145576,RIKEN cDNA 11100103 gene,Selk,expressed sequence AA673253	selenoprotein K	
Sem1	NM_009169.1	DSS1,MGD-MRK-36045,MGD-MRK-38283,Shfg1,Shf,Shm1,split hand/foot deleted gene 1,split hand/foot gene,split hand/foot malformation (ectrodactyly) type 1	SEM1, 26S proteasome complex subunit	
Serinc1	NM_019760.3	1500011D18RIK,AI315070,MGI:1914329,MGI:2143567,RIKEN cDNA 1500011D18 gene,TMS-2,17de1,2,expressed sequence AI315070,mKIAA1253,tumor differentially expressed 1, like,tumor differentially expressed 2	serine incorporator 1	
Serinc2	NM_172702.3	2310004Z02RIK,AW121759,FKSG684,MGI:2140556,RIKEN cDNA 2310004K20 gene,TDE2,17de2,expressed sequence AW121759,tumor differentially expressed 2-like	serine incorporator 2	
Serinc3	NM_012032.4	AA959945,AA960047,AIGP1,DIFF3,MGI:2138812,MGI:2138813,TMS-1,17de1,expressed sequence AA959945,expressed sequence AA960047,tumor differentially expressed 1	serine incorporator 3	
Serinc5	NM_172588.2	A130038L21RIK,AIGP3,RIKEN cDNA A130038L21 gene,TP01	serine incorporator 5	
Sh2d1a	NR_132588.1	Duncan disease homolog,SAP	SH2 domain containing 1A	
Shmt1	NM_009171.2	A1324848,A1385541,C81125,MGD-MRK-14405,MGI:2144126,MGI:2144138,MGI:2144665,Shmt,expressed sequence A1324848,expressed sequence A1385541,expressed sequence C81125,mshmt,mshmt1,mshmt2,serine hydroxymethyl transferase,serine hydroxymethyl transferase (soluble)	serine hydroxymethyltransferase 1 (soluble)	
Shmt2	NM_028230.3	2700043D08RIK,AA408223,AA98903,MGI:1919660,MGI:2143464,MGI:2143516,RIKEN cDNA 2700043D08 gene,expressed sequence AA408223,expressed sequence AA98903	serine hydroxymethyltransferase 2 (mitochondrial)	
Shglf	NM_145581.1	Shglc5,ShglcF,shalic acid binding lg-like lectin 5	shalic acid binding lg-like lectin F	
Sic16a1	NM_009196.3	AL022710,MCT1,MGD-MRK-33695,MGI:2139849,expressed sequence AL022710	solute carrier family 16 (monocarboxylic acid transporters), member 1	
Sic16a11	NM_153081.3	AB041591,MNCC-2717,cDNA sequence AB041591	solute carrier family 16 (monocarboxylic acid transporters), member 11	
Sic16a13	NM_172371.3	1700007D07RIK,RIKEN cDNA 1700007D07 gene	solute carrier family 16 (monocarboxylic acid transporters), member 13	
Sic16a2	NM_009197.2	AW105741,MCT8,MGI:2147994,XPC1,expressed sequence AW105741	solute carrier family 16 (monocarboxylic acid transporters), member 2	
Sic16a3	NM_001038651.1	MCT3,MCT4,monocarboxylate transporter 4	solute carrier family 16 (monocarboxylic acid transporters), member 3	
Sic16a6	NM_134038.2	AW174311,MCT2,27c28,expressed sequence AW174311 4921534N07RIK,9030411M13RIK,AA28890,DS3000410RIK,MCT2,MGI:1918785,MGI:2143596,MGI:2444072,RIKEN cDNA 4921534N07 gene,RIKEN cDNA 9030411M13 gene,RIKEN cDNA D630004K10 gene,expressed sequence AI428890	solute carrier family 16 (monocarboxylic acid transporters), member 6	
Sic16a7	NM_011391.1	D630004K10 gene,expressed sequence AI428890	solute carrier family 16 (monocarboxylic acid transporters), member 7	
Sic16a8	NM_020516.2	Mct3,proton-coupled monocarboxylate transporter 3	solute carrier family 16 (monocarboxylic acid transporters), member 8	
Sic1a5	NM_009201.2	ASCT2,MGD-MRK-32346,Sic1a7,solute carrier family 1, member 7 1300019P08RIK,2610106G1RIK,AI194714,Dgs1,DiGeorge syndrome gene (MGI:120504,MGI:1915693,MGI:1924027,MGI:2146385,MGI:892207,RIKEN cDNA 1300019P08 gene,RIKEN cDNA 2610106G1 gene,Sic20a3,expressed sequence AI194714,solute carrier family 20, member 3	solute carrier family 1 (neutral amino acid transporter), member 5	
Sic25a1	NM_153150.2	FATP1,Fatp,MGD-MRK-19704,MGI:102796,fatty acid transport protein	solute carrier family 27 (fatty acid transporter), member 1	
Sic27a1	NM_011977.3	Glut-1,MGD-MRK-10155,MGD-MRK-10159,glucose transporter 1, erythrocyte	solute carrier family 2 (facilitated glucose transporter), member 1	
Sic2a1	NM_011400.3	AA408729,AL023014,AL024341,AU040424,C78366,EST AA408729,EST C78366,Glut-3,Glut3,MGD-MRK-10157,MGD-MRK-10161,MGI:1355648,MGI:1889340,MGI:2141536,MGI:2141541,MGI:2141583,expressed sequence AL023014,expressed sequence AL024341,expressed sequence AU040424,glucose transporter 3, brain	solute carrier family 2 (facilitated glucose transporter), member 3	
Sic2a5	NM_019741.3	A1526984,GLUT5,MGI:2140325,expressed sequence A1526984	solute carrier family 2 (facilitated glucose transporter), member 5	
Sic2a6	NM_172659.2	F630103112RIK,Glut6,RIKEN cDNA F630103112 gene	solute carrier family 2 (facilitated glucose transporter), member 6	
Sic2a8	NM_019486.4	DZE1646g,DNA segment, Chr 2, ERATO D01 44, expressed,GLUT8,Glutx1,MGI:1098576	solute carrier family 2 (facilitated glucose transporter), member 8	
Sic3a1	NM_009205.2	D2H,NTAA	solute carrier family 3, member 1	
Sic3a2	NM_008577.3	4F2C,AI314110,CD98 antigen,Cd98,Ly-10,Ly-10,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	solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2	
Sic6a12	NM_133661.3	4F2,expressed sequence AI314110,lymphocyte antigen 10,lymphocyte antigen m10 BG71,Gabz2,MGD-MRK-9948,gamma-aminobutyric acid (GABA A) transporter 2	solute carrier family 6 (neurotransmitter transporter, betaine/GABA), member 12	

Slc6a18	NM_001168644.1	D630001.618Rik, MGI:2444902, RIKEN cDNA D630001K16 gene, X transporter protein 2, XT2, Xtrp2	solute carrier family 6 (neurotransmitter transporter), member 18
Slc6a19	NM_028878.3	4632401.C08Rik, B-coA11, RIKEN cDNA 4632401.C08 gene	solute carrier family 6 (neurotransmitter transporter), member 19
Slc7a11	NM_011990.2	9930009.M05 gene, System xc _c , expressed sequence AW5155, MGI:98448, RIKEN cDNA AW5155, subtle gray, sut, xc _c , xCT	solute carrier family 7 (cationic amino acid transporter, y _c system), member 11
Slc7a5	NM_011404.3	D0H165474E.DNA segment, human S474E.LAT1, TA1	solute carrier family 7 (cationic amino acid transporter, y _c system), member 5
Slc7a9	NM_001199016.1	CSNU3, bco ₊ , + amino acid transporter, bco ₊ , +AT 7120426M23Rik, MAD homolog 2, (Drosophila), MGD-MRK-37087, MGI:2442937, Madh2, Madr2, RIKEN cDNA 7120426M23 gene, Smad 2	solute carrier family 7 (cationic amino acid transporter, y _c system), member 9
Smad2	NM_010754.4	AU022421, MGI:2143216, Madh3, Smad 3, expressed sequence AU022421	SMAD family member 2
Smad3	NM_016769.3	AW143858, D18Wku70b, DNA segment, Chr 18, Wayne State University 70, expressed, DPCA, DPCA, MGD-MRK-33955, MGI:106263, MGI:2147379, Madh4, Smad 4, expressed sequence AW743858	SMAD family member 3
Smad4	NM_008540.2	D11Moh34, DNA segment, Chr 11, KL Mohleke 34, MGC:7335	SMAD family member 4
Snf8	NM_033568.2	B430204E11Rik, Cu(2+)-Zn2+ superoxide dismutase, Cu,Zn-SOD, CuZnSOD, Jpo-1, Jpo1, MGD-MRK-11443, MGD-MRK-11444, MGD-MRK-14483, MGD-MRK-14485, MGI:2441859, RIKEN cDNA B430204E11 gene, SOD, Sod-1, indogapten oxidase	SNF8, ESCRT-II complex subunit, homolog (S. cerevisiae)
Sod1	NM_011434.1	MGC:6144, MGD-MRK-14484, MGD-MRK-14486, MnSOD, Sod-2, manganese SOD, manganese superoxide dismutase 1, soluble	superoxide dismutase 1, soluble
Sod2	NM_013671.3	A1314465, EC-SOD, MGC:13799, MGD-MRK-24049, MGI:2140829, expressed sequence A1314465	superoxide dismutase 2, mitochondrial
Sod3	NM_011435.3	4430401.P03Rik, A1449023, MGD-MRK-14489, MGI:1918028, MGI:2146862, RIKEN cDNA 4430401.P03 gene, expressed sequence A1449023	superoxide dismutase 3, extracellular
Sos1	NM_009231.2	MGD-MRK-14490	SOS Ras/Rac guanine nucleotide exchange factor 1
Sos2	NM_001135559.1	MGD-MRK-14493, MGD-MRK-14503, MGI:1891165, MGI:2181707, Sox-2, lcc, light coat and circling yellow submarine, ysb	SOS Ras/Rho guanine nucleotide exchange factor 2
Sox2	NM_011443.3	Spi-8	SRY (sex determining region Y)-box 2
Spib	NM_019861.2	A170, MGD-MRK-36511, OSF-6, Osf, STAP, oxidative stress induced, p62	Spi-B transcription factor (Spi-1/Pu.1 related)
Sqstm1	NM_011018.2	ADD-1, MGD-MRK-36180, SREBP-1, SREBP-1a, SREBP-1c, SREBP1, SREBP1c, bHLHD1	sequestosome 1
Srebf1	NM_011480.4	A1608257, MGD-MRK-11854, SREBP-2, SREBP-2c, bHLHD2, expressed sequence A1608257, lens opacity 13, lop13, nuc, nuclear cataract	sterol regulatory element binding transcription factor 1
Srebf2	NM_033218.1	AA407669, MGD-MRK-19593, RIKEN cDNA 2140122, Spd57, Spd57, expressed sequence AA407669	steroid regulatory element binding factor 2
Srm	NM_009272.4	M100034, MGI:3798494, RIKEN Genomic Sciences Center, 34, Rgs34	spermidine synthase
Srr	NM_013761.5	1200004012Rik, 5730456G07Rik, BB145015, Hbp, MGI:1917833, MGI:1918967, MGI:2139437, RIKEN cDNA 1200004012 gene, RIKEN cDNA 5730456G07 gene, expressed sequence BB145015	serine racemase
Stam2	NM_019667.2	2010005J02Rik, AA408197, MGD-MRK-23925, MGI:1923977, MGI:2138078, RIKEN cDNA 2010005J02 gene, expressed sequence AA408197	signal transducing adaptor molecule (SH3 domain and ITAM motif) 2
Stat1	NM_009283.3	1110034C02Rik, AW109958, Aprt, MGD-MRK-23900, MGI:1915983, MGI:2144497, RIKEN cDNA 1110034C02 gene, expressed sequence AW109958	signal transducer and activator of transcription 1
Stat3	NM_013659.2	AA959963, MGD-MRK-23874, STAT5, STAT5, expressed sequence AA959963	signal transducer and activator of transcription 3
Stat5a	NM_011488.2	MGD-MRK-23873	signal transducer and activator of transcription 5A
Stat5b	NM_001113563.1	MGD-MRK-23872	signal transducer and activator of transcription 5B
Stat6	NM_009284.2	AA408040, Ab1, MGI:2143460, MGI:2143059, Par-4, R75140, expressed sequence	signal transducer and activator of transcription 6
SH11	NM_011492.3	AA408040, expressed sequence R75140	serine/threonine kinase 11
Shk3	NM_019635.2	061004206Rik, MGI:1914102, MST, Mst12, RIKEN cDNA 061004206 gene, Ste20, mess1	serine/threonine kinase 3
Taldol1	NM_011528.4	120008805Rik, A1462036, AWD48562, MGI:1914699, MGI:2143617, MGI:2143800, RIKEN cDNA 120008805 gene, expressed sequence A1462036, expressed sequence AWD48562	transaldolase 1
Tbk1	NM_019786.4	T-bet, TB1, Tbet, Tblym	TANK-binding kinase 1
Tbx21	NM_019507.2	CY95, CY95A1, MGD-MRK-14734, TXAS, TXS	T-box 21
Tbxas1	NM_011539.3	T cell lymphoma breakpoint 1	thrombospondin A synthase 1, platelet
Tcl1	NM_009337.3	AA407491, MGI:2139552, MGI:3617202, TDO, TQ, chick yellow, chky, expressed sequence AA407491	T cell lymphoma breakpoint 1
Tdo2	NM_019911.2	2410016D23Rik, A230102P12Rik, A1173355, D17Erd178e, DNA segment, Chr 17, ERATO Do 178, expressed, gpnv, MGI:1098578, MGI:1916958, MGI:2146802, RIKEN cDNA 2410016D23 gene, RIKEN cDNA A230102P12 gene, SC2, expressed sequence A1173355, glycoprotein, synaptic 2	tryptophan 2,3-dioxygenase
Tecr	NM_027179.1	1200003M09Rik, A1415602, MGI:2146847, RIKEN cDNA 1200003M09 gene, expressed sequence	trans-2,3-enoyl-CoA reductase
Telo2	NM_001166361.1	A1415602	telomere maintenance 2
Tet2	NM_001040400.2	Ayu17-449, E130014J05Rik, RIKEN cDNA E130014J05 gene, mKIAA1546	tet methylcytosine dioxygenase 2
Tfam	NM_009360.4	A1661103, Hmgt3, MGD-MRK-29055, MGD-MRK-36387, MGI:2143662, expressed sequence	transcription factor A, mitochondrial
Tfr	NM_011638.3	A1661103, high mobility group protein, testis specific, mtTFA, tshMG	transferrin receptor
Tfs	NM_009377.1	2610028K2Rik, A195335, A426448, 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 2610028K2 gene, RIKEN cDNA E430033M20 gene, TFR1, Tfrf, expressed sequence A195335, expressed sequence A426448, expressed sequence AU015758, mammary tumor virus receptor 1, p90	transferrin receptor
Tfs1	NM_011580.3	MGD-MRK-15078	thymidine hydrolase
Tfhs1	NM_011581.2	MGD-MRK-15083, MGD-MRK-15086, TSP-1, TSP1, Tbs-1, tbsp1	thrombospondin 1
Tfhs2	NM_011581.2	MGD-MRK-15084, MGD-MRK-15087, TSP-2, Tbs-2, Thrombospondin-2	thrombospondin 2
Tfhs3	NM_011581.2	9630033F20Rik, AA793651, A195337, C79710, C85509, MGI:2141452, MGI:2141756, MGI:3035180, MGI:3035247, RIKEN cDNA 9630033F20 gene, expressed sequence AA793651, expressed sequence A195337, expressed sequence C79710, expressed sequence C85509	thrombospondin 3
Tfhs4	NM_011581.2	ENSMUSG0000071552, V-set and transmembrane domain containing 3, Vstm3, predicted gene, 1	thrombospondin 4
Tfhs5	NM_011581.2	C77407, MGI:2143916, expressed sequence C77407, tim	T cell immunoreceptor with Ig and ITIM domains
Timeless	NM_011589.1	D530002A18Rik, MGD-MRK-15121, MGD-MRK-15124, MGI:2444019, RIKEN cDNA D530002A18 gene, Tk-1	timeless circadian clock 1
Tk1	NM_009387.2	AU024611, MGI:2142713, expressed sequence AU024611	thymidine kinase 1
Tk2	NM_021028.2	MGD-MRK-3672, p68	thymidine kinase 2, mitochondrial
Tkt	NM_009388.5	MGD-MRK-3672, p68	transketolase
Tlr1	NM_030682.1	Ly105	tolllike receptor 1
Tlr2	NM_011905.2	Lps, MGD-MRK-11879, MGD-MRK-26042, RAS-like, family 2, locus 8, Ras12, 8, lipopolysaccharide response	tolllike receptor 2
Tlr4	NM_021297.2	DfJ, MGD-MRK-15151, MGD-MRK-28090, TNF alpha, TNF alpha, TNfa, TNfs1a, tumor necrosis factor, alpha, tumor necrosis factor alpha	tolllike receptor 4
Tlr7	NM_133211.3	BCM, BCMA, TNfrsf13, TNfrsf13a	tolllike receptor 7
Tnf	NM_013693.2	ACT35, CD134, MGD-MRK-13094, MGD-MRK-25943, OX-40 T-cell antigen, OX40, Txgp1, tax-transcriptionally activated glycoprotein 1	tumor necrosis factor
Tnfrsf17	NM_011608.1	MGD-MRK-15178	tumor necrosis factor receptor superfamily, member 17
Tnfrsf4	NM_011659.2	2610029M07Rik, C77892, MGI:2138665, RIKEN cDNA 2610029M07 gene, expressed sequence	tumor necrosis factor receptor superfamily, member 4
Tph1	NM_001136084.2	2610029M07Rik, C77892, MGI:2138665, RIKEN cDNA 2610029M07 gene, expressed sequence	tryptophan hydroxylase 1
Tpsr	NM_133780.2	C77892	translocated promoter region, nuclear basket protein
Tpsb1	NM_031187.4	MGD-MRK-12149, MGD-MRK-12157, MMCP-7, Mcp-7, Mcpt7, mast cell protease 7	tryptase alpha/beta 1
Tpsb2	NM_010781.3	AV011504, MGD-MRK-12148, MGD-MRK-12156, MGI:2147011, MMCP-6, Mcp-6, Mcp-6, Mcp6, Mcp6, expressed sequence AV011504, mast cell protease 6	tryptase beta 2
Tpx2	NM_028109.4	2610005B21Rik, DIL2, REPP86, RIKEN cDNA 2610005B21 gene, p100	TPX2, microtubule-associated
Traf1	NM_009421.3	4732496E14Rik, MGD-MRK-18657, MGI:2443877, RIKEN cDNA 4732496E14 gene	TNF receptor-associated factor 1
Traf6	NM_009424.2	2310003F17Rik, A1851288, C630032020Rik, MGD-MRK-37109, MGI:1919554, MGI:2139081, RIKEN cDNA 2310003F17 gene, RIKEN cDNA C630032020 gene, expressed sequence A1851288	TNF receptor-associated factor 6
Traf11	NM_198297.3	C030046M14Rik, RIKEN cDNA C030046M14 gene, T-cell receptor interacting molecule, Tcrim, Trim A1266983, HP, MGD-MRK-10926, MGD-MRK-15224, MGI:2143006, MGI:96221, Tfn, expressed sequence A1266983, hypoxanthine phosphotransferinemia with hemochromatosis	T cell receptor associated transmembrane adaptor 1
Trf	NM_133977.2	MGD-MRK-15247, MGI:3584375, MGI:3584378, MGI:3584379, p44, p53	transferrin
Trp53	NM_011640.1	A1462811, KET protein, MGI:1196329, MGI:1332227, MGI:2146440, TAp63, Trp53rp1, delta, Np63, expressed sequence A1462811, p51, p63, p53-related protein 1, p63, p73L	transformation related protein 53
Trp63	NM_011641.2	MGD-MRK-12149, MGD-MRK-12157, MMCP-7, Mcp-7, Mcpt7, mast cell protease 7	transformation related protein 63
Tpa	NM_015767.4	AA408768, A1787086, D17860, MGD-MRK-15296, MGI:2147169, MGI:2147263, MGI:2147418, expressed sequence AA408768, expressed sequence A1787086, expressed sequence D17860, prealbumin	tocopherol (alpha) transfer protein
Trt	NM_013697.4	AW5080, MGD-MRK-15300, MGI:2140594, Trx, expressed sequence AW5080	transthyretin
Tsn1	NM_011660.3	251000611Rik, A1788873, MGI:1915214, MGI:2146059, RIKEN cDNA 251000611 gene, Trx2, expressed sequence A1788873	thioredoxin 1
Txn2	NM_019913.5	TR, TR alpha, TR1, TrxR1	thioredoxin 2
Txnrd1	NM_015762.2	2900072D10Rik, Ecgf1, MGD-MRK-13213, MGI:97529, PD-ECGF, PDECF, Pdgef, RIKEN cDNA 2900072D10 gene, endothelial cell growth factor 1 (platelet-derived), gliostatin, platelet derived growth factor, endothelial cell	thioredoxin reductase 1
Tyms	NM_138302.1	MGD-MRK-15313, TS	thymidine phosphorylase
Typp	NM_021288.3	1110015A16Rik, D2Ert695e, DNA segment, Chr 2, ERATO Doi 695, expressed, MGI:1277160, RIKEN cDNA 1110015A16 gene	thymidylate synthase
Ube2c	NM_026785.2	2310003F17Rik, A1851288, C630032020Rik, MGD-MRK-37109, MGI:1919554, MGI:2139081, RIKEN cDNA 2310003F17 gene, RIKEN cDNA C630032020 gene, expressed sequence A1851288	ubiquitin-conjugating enzyme E2C
Ube2t	NM_001278115.1	2700084L2Rik, C80607, MGI:2138694, RIKEN cDNA 2700084L2 gene, expressed sequence C80607	ubiquitin-conjugating enzyme E2T
Uck1	NM_011675.2	MGD-MRK-15354, URK1	uridine-cytidine kinase 1
Uck2	NM_030724.3	AA407809, A1481316, AU018180, AU020720, MGI:2138075, MGI:2138278, MGI:2138414, MGI:2138459, 9, TSA903, Umpk, expressed sequence AA407809, expressed sequence A1481316, expressed sequence AU018180, expressed sequence AU020720, uridine monophosphate kinase	uridine-cytidine kinase 2
Uck11	NM_026765.3	1110007H10Rik, RIKEN cDNA 1110007H10 gene, Urk11, uridine kinase-like 1	uridine-cytidine kinase 1-like 1

		170095D23Rik,AA408257,AL033308,BB164745,MGI:1920822,MGI:2146334,MGI:2146531,MGI:2146687,RIKEN cDNA 170095D23 gene,expressed sequence	
Umps	NM_009471.2	AL033308,expressed sequence BB164745	uridine monophosphate synthetase
Upp1	NM_001159401.1	A1325217,MGI:2144130,UPase,Uppase,Uppase,Uppase,expressed sequence A1325217	uridine phosphorylase 1
Upp2	NM_029692.2	1700124F02Rik,AL266885,MGI:2138873,RIKEN cDNA 1700124F02 gene,UDRPASE2,UJP2,UPASE2,expressed sequence AL266885	uridine phosphorylase 2
Uqcr10	NM_197979.2	1110020P15Rik,AA960494,MGI:2144057,RIKEN cDNA 1110020P15 gene,expressed sequence AA960494	ubiquinol-cytochrome c reductase, complex III subunit X
Uqcr11	NM_025650.2	0710008D09Rik,AL022707,MGI:2144341,RIKEN cDNA 0710008D09 gene,Uqcr,expressed sequence AL022707,ubiquinol-cytochrome c reductase (6.4kD) subunit	ubiquinol-cytochrome c reductase, complex III subunit XI
Uqcrq	NM_025352.2	1110001F06Rik,1500040F11Rik,5830407L7Rik,AA959903,MGD-MRK-36384,MGI:1913349,MGI:1915190,MGI:1923247,MGI:2138135,QP-C,Qpc,RIKEN cDNA 110001F06 gene,RIKEN cDNA 1500040F11 gene,RIKEN cDNA 5830407L7 gene,c1502,expressed sequence AA959903	ubiquinol-cytochrome c reductase, complex III subunit VII
Usp8	NM_019729.2	A1574262,AW557536,MGI:2139005,MGI:2139401,Ubpy,expressed sequence A1574262,expressed sequence AW557536,mKIAA0055	ubiquitin specific peptidase 8
Vegfa	NM_001025250.3	MGD-MRK-24046,VEGF-A,VEGF120,VEGF164,VEGF188,VPF,Vegf,vascular endothelial growth factor	vascular endothelial growth factor A
Vhl	NM_009507.3	MGD-MRK-24093,Vh1h,pVh1,von Hippel-Lindau syndrome homolog	von Hippel-Lindau tumor suppressor
Vps28	NM_025842.3	111001403Rik,AL847241,D730005C08Rik,MGI:1915536,MGI:2146076,RIKEN cDNA 111001403 gene,RIKEN cDNA D730005C08 gene,expressed sequence AL847241	vacuolar protein sorting 28
Washc4	NM_01033375.2	A230046K03Rik,AA589518,MGI:2143496,RIKEN cDNA A230046K03 gene,expressed sequence AA589518,mKIAA1033	WASH complex subunit 4
Wdr45	NM_172372.1	C79260,DNA segment, Chr X, Immunex 38, expressed,DXimx38e,JMS,MGI:2148058,Sfc19,WD repeat domain, X-linked 1,Wdr1,expressed sequence C79260	WD repeat domain 45
Wnt1	NM_021279.4	Int-1,MGD-MRK-11418,MGD-MRK-14669,MGD-MRK-15438,MGD-MRK-15448,Wnt-1,mammary tumor integration site Lsw,swaying	wingless-type MMTV integration site family, member 1
Wnt2	NM_023653.4	2610510E18Rik,Int-1-related protein,Int11,Irp,MGD-MRK-11475,MGD-MRK-15439,MGD-MRK-15449,MGI:1919406,Mirp,RIKEN cDNA 2610510E18 gene,Wnt-2,Wnt2a,m-irp	wingless-type MMTV integration site family, member 2
Wrn	NM_001122822.1	AI846146,MGD-MRK-39634,MGI:2142626,expressed sequence AI846146	Werner syndrome RecQ like helicase
Xcl1	NM_008510.1	AI661682,ATACLTN,Iptn,MGD-MRK-26027,MGI:2138317,SCM-1,SCM-1a,Scyc1,expressed sequence AI661682,lymphotactin,small inducible cytokine subfamily C, member 1 (lymphotactin)	chemokine (C motif) ligand 1
Xdh	NM_011723.2	MGD-MRK-15471,MGD-MRK-15798,MGD-MRK-15799,XO,Xor,Xox-1,Xox1,xanthine oxidase	xanthine dehydrogenase
Xrcc2	NM_020570.2	gene,RIKEN cDNA 8030409M04Rik,MGI:1918160,MGI:1925986,RIKEN cDNA 4921524D04 gene,RIKEN cDNA 8030409M04 gene,RecA	X-ray repair complementing defective repair in Chinese hamster cells 2
Ywhaz	NM_011740.2	1110013111Rik,14-3-3 seta,AI596267,AL022924,AL020854,MGD-MRK-39483,MGI:1915893,MGI:2146042,MGI:2146113,MGI:2146160,RIKEN cDNA 1110013111 gene,expressed sequence AI596267,expressed sequence AL022924,expressed sequence AU020854	tyrosine 3-monoxygenase/tryptophan 5-monoxygenase activation protein, zeta polypeptide
Zap70	NM_009539.2	A1327364,MGD-MRK-16398,MGI:2138217,MGI:3584397,MGI:3584398,Srk,TZK,ZAP-70,expressed sequence A1327364,mr-less,mrtle,mur,modoch,zyk related kinase	zeta-chain (TCR) associated protein kinase
Zfp457	NM_001003666.2	Rilcan-6	zinc finger protein 457
Zfp458	NM_001001152.2	BC023958,Rilcan-7,cDNA sequence BC023958	zinc finger protein 458
Zfp65	NM_145622.2	KRAB5,MGD-MRK-36346,Zfp71-rs1,zinc finger protein 71, related sequence 1	zinc finger protein 65
Zfp869	NM_001039965.1	120003I07Rik,RIKEN cDNA 120003I07 gene,U 2-7-1	zinc finger protein 869
Zfp975	NM_001008427.1	EG434179.Gm5595,predicted gene 5595,predicted gene, EG434179	zinc finger protein 975
Internal Reference Genes			
Abcf1	NM_013854.1	AU041969,Abc50,D17Wsu1666,DNA segment, Chr 17, Wayne State University 166, expressed,GCN20,MGD-MRK-36426,MGI:107849,MGI:2147001,expressed sequence AU041969	ATP-binding cassette, sub-family F (GCN20), member 1
Agk	NM_023538.2	2610037M15Rik,AI465370,EST AI465370,MGI:1889847,MuLk,MuIk,RIKEN cDNA 2610037M15 gene,multiple substrate lipid kinase	acylglycerol kinase
Cog7	NM_001033318.3	5630400E24Rik,Gm167,RIKEN cDNA 5630400E24 gene,gene model 167, (NCBI)	component of oligomeric golgi complex 7
Dhxl6	NM_026987.2	241006N22Rik,DBP2,DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 16,Ddx16,RIKEN cDNA 241006N22 gene	DEAH (Asp-Glu-Ala-His) box polypeptide 16
Dnajc14	NM_028873.3	S730551F12Rik,DRIP78,HDJ3,LUP6,RIKEN cDNA S730551F12 gene	Dnal heat shock protein family (Hsp40) member C14
Edc3	NM_153799.3	AA517853,LSM15 homolog (EDC3, S. cerevisiae),Lsm16,Vjd,expressed sequence AA517853,yjef domain containing (E.coli)	enhancer of mRNA decapping 3
Fcf1	NM_028632.2	1110008B24Rik,RIKEN cDNA 1110008B24 gene	FCF1 rRNA processing protein
G6pdx	NM_008062.2	G28A,G6pd,Gpdx,MGD-MRK-10225,MGD-MRK-33659,MGD-MRK-9915,glucose-6-phosphate dehydrogenase 1 X-linked	glucose-6-phosphate dehydrogenase X-linked
Mrps5	NM_029963.2	1670401116Rik,AI850294,MGI:2139078,RIKEN cDNA 1620401116 gene,expressed sequence AI850294	mitochondrial ribosomal protein 55
Nrde2	NM_183155.2	6720454P05Rik,BC002230,MGI:2443747,RIKEN cDNA 6720454P05 gene,cDNA sequence BC002230	nrde-2 necessary for RNA interference, domain containing
Oaz1	NM_008753.4	AZ-1,AZ1,Antizyme,MGD-MRK-38478,antizyme 1	ornithine decarboxylase antizyme 1
Poli2a	NM_001291068.1	220kDa,MGD-MRK-14111,RNA polymerase II 1,Rpo2-1	polymerase (RNA) II (DNA directed) polypeptide A
Sap130	NM_172965.2	2610304F09Rik,RIKEN cDNA 2610304F09 gene	Sin3A associated protein
Sdha	NM_023281.1	2310034D06Rik,CB1073,FP,MGI:2145519,RIKEN cDNA 2310034D06 gene,SDH2,SDHF,expressed sequence CB1073	succinate dehydrogenase complex, subunit A, flavoprotein (Fp)
Skh11p	NM_027886.3	1200014D22Rik,BB131189,LIP1,LXK1IP,MGI:2138637,RIKEN cDNA 1200014D22 gene,expressed sequence BB131189	serine/threonine kinase 11 interacting protein
Tbcl10b	NM_144522.5	1110003P22Rik,C87963,MGI:2142375,RIKEN cDNA 1110003P22 gene,expressed sequence C87963	TBC1 domain family, member 10b
Tbp	NM_013684.3	Gt2D,MGD-MRK-18659,MGD-MRK-24009,general transcription factor IID	TATA box binding protein
Tlk2	NM_011903.3	4933403M19Rik,MGI:1918299,PKUalpha,RIKEN cDNA 4933403M19 gene,protein kinase U-alpha	tousled-like kinase 2 (Arabidopsis)
Ubb	NM_011664.4	AA033289,ubiquitin 2	ubiquitin B
Usp39	NM_138592.4	AA408960,AI894154,GI-21,D6Wsu157e,DNA segment, Chr 6, Wayne State University 157, expressed,MGD-MRK-36196,MGI:2141516,SAD1,expressed sequence AA408960,expressed sequence AI894154	ubiquitin specific peptidase 39