Table S1: Genes overlapping in at least two domesticated species

GENE NAME	*OVERLAPPING SPECIES*	*ENSEMBL ID*	*GENE FUNCTION (UniProt)*	*PATHWAY ANNOTATION*	*RELATED DISORDERS*
ADAMTS13	cattle, cat	ENSG00000160323	Cleaves the vWF multimers in plasma into smaller forms thereby controlling vWF-mediated platelet thrombus formation.	Metabolism of proteins (Reactome)	Thrombotic thrombocytopenic purpura, familial (OMIM)
ATXN7L1	cat, dog	ENSG00000146776	N/A	N/A	N/A
BRAF	cat, horse	ENSG00000157764	Protein kinase involved in the transduction of mitogenic signals from the cell membrane to the nucleus. May play a role in the postsynaptic responses of hippocampal neuron. Phosphorylates MAP2K1, and thereby contributes to the MAP kinase signal transduction pathway.	EGFR tyrosine kinase inhibitor resistance, Endocrine resistance, MAPK signaling pathway, ErbB signaling pathway, Rap1 signaling pathway, cAMP signaling pathway, Chemokine signaling pathway, FoxO signaling pathway, mTOR signaling pathway, Vascular smooth muscle contraction, Dorso-ventral axis formation, Focal adhesion, Natural killer cell mediated cytotoxicity, Long-term potentiation, Neurotrophin signaling pathway, Serotonergic synapse, Long-term depression, Regulation of actin cytoskeleton, Insulin signaling pathway, Progesterone-mediated oocyte maturation, Alcoholism, Hepatitis C, Pathways in cancer, Proteoglycans in cancer, Colorectal cancer, Renal cell carcinoma, Pancreatic cancer, Endometrial cancer, Glioma, Prostate cancer, Thyroid cancer, Melanoma, Bladder cancer, Chronic myeloid leukemia, Acute myeloid leukemia, Non-small cell lung cancer, Breast cancer (KEGG); VEGF signaling pathway, T cell activation, Interleukin signaling pathway, Inflammation mediated by chemokine and cytokine signaling pathway, Integrin signalling pathway, EGF receptor signaling pathway, Ras Pathway, Angiogenesis, CCKR signaling map, PDGF signaling pathway, B cell activation (PANTHER).	Thyroid cancer, Malignant melanoma, Noonan syndrome and related disorders, Langerhans cell histiocytosis (KEGG); Adenocarcinoma of lung, somatic; Cardiofaciocutaneous syndrome; Colorectal cancer, somatic; LEOPARD syndrome; Melanoma, malignant, somatic; Nonsmall cell lung cancer, somatic; Noonan syndrome (OMIM)
CLEC5A	dog, cat	ENSG00000258227	Functions as a positive regulator of osteoclastogenesis. Cell surface receptor that signals via TYROBP. Regulates inflammatory responses. Acts as a key regulator of synovial injury and bone erosion during autoimmune joint inflammation (By similarity). Critical macrophage receptor for dengue virus serotypes 1-4.	Immune System (Reactome)	N/A
DCC	horse, cat	ENSG00000187323	Receptor for netrin required for axon guidance. Mediates axon attraction of neuronal growth cones in the developing nervous system upon ligand binding. Its association with UNC5 proteins may trigger signaling for axon repulsion. It also acts as a dependence receptor required for apoptosis induction when not associated with netrin ligand. Implicated as a tumor suppressor gene.	Axon guidance mediated by netrin, Axon guidance mediated by Slit/Robo (PANTHER)	Colorectal cancer, somatic; Esophageal carcinoma, somatic; Mirror movements (OMIM)
FAM172A	dog, cattle	ENSG00000113391	N/A	N/A	N/A
GRIK3	dog, cattle	ENSG00000163873	Receptor for glutamate that functions as ligand-gated ion channel in the central nervous system and plays an important role in excitatory synaptic transmission. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. The postsynaptic actions of Glu are mediated by a variety of receptors that are named according to their selective agonists.	Neuroactive ligand-receptor interaction; Glutamatergic synapse (KEGG); Huntington disease, Ionotropic glutamate receptor pathway, Metabotropic glutamate receptor group III pathway (PANTHER)	schizophrenia, obsessive-compulsive disorder, alcohol dependence (MalaCards)
NRG2	dog, cat, cattle	ENSG00000158458	Direct ligand for ERBB3 and ERBB4 tyrosine kinase receptors. Concomitantly recruits ERBB1 and ERBB2 coreceptors, resulting in ligand-stimulated tyrosine phosphorylation and activation of the ERBB receptors. May also promote the heterodimerization with the EGF receptor.	EGF receptor signaling pathway (PANTHER), EGFR tyrosine kinase inhibitor resistance, ErbB signaling pathway (KEGG),	Hereditary motor and sensory neuropathy (Charcot-Marie-Tooth disease) (MalaCards)
PLAC8L1	cattle, cat	ENSG00000173261	N/A	N/A	N/A
RNPC3	dog, cat	ENSG00000185946	Participates in pre-mRNA U12-dependent splicing, performed by the minor spliceosome which removes U12-type introns. U12-type introns comprises less than 1% of all non-coding sequences. Binds to the 3'-stem-loop of m7G-capped U12 snRNA.	Gene Expression (Reactome)	growth hormone deficiency, parainfluenza virus type 3, idiopathic inflammatory myopathy, rheumatic disease (MalaCards)
SEC24A	cat, horse	ENSG00000113615	Component of the COPII coat, that covers ER-derived vesicles involved in transport from the endoplasmic reticulum to the Golgi apparatus. COPII acts in the cytoplasm to promote the transport of secretory, plasma membrane, and vacuolar proteins from the endoplasmic reticulum to the Golgi complex.	Protein processing in endoplasmic reticulum (KEGG)	N/A
SMG6	cat, horse	ENSG00000070366	Component of the telomerase ribonucleoprotein (RNP) complex that is essential for the replication of chromosome termini. May have a general role in telomere regulation. Promotes in vitro the ability of TERT to elongate telomeres. Overexpression induces telomere uncapping, chromosomal end-to-end fusions (telomeric DNA persists at the fusion points) and did not perturb TRF2 telomeric localization. Binds to the single-stranded 5'-(GTGTGG)4GTGT-3' telomeric DNA, but not to a telomerase RNA template component (TER). Plays a role in nonsense-mediated mRNA decay. Is thought to provide a link to the mRNA degradation machinery as it has endonuclease activity required to initiate NMD, and to serve as an adapter for UPF1 to protein phosphatase 2A (PP2A), thereby triggering UPF1 dephosphorylation. Degrades single-stranded RNA (ssRNA), but not ssDNA or dsRNA.	mRNA surveillance pathway (KEGG)	tricuspid valve insufficiency (MalaCards)
STK10	dog, cattle	ENSG00000072786	Serine/threonine-protein kinase involved in regulation of lymphocyte migration. Phosphorylates MSN, and possibly PLK1. Involved in regulation of lymphocyte migration by mediating phosphorylation of ERM proteins such as MSN. Acts as a negative regulator of MAP3K1/MEKK1. May also act as a cell cycle regulator by acting as a polo kinase kinase: mediates phosphorylation of PLK1 in vitro; however such data require additional evidences in vivo. (UniProt)	N/A	Testicular germ cell tumor, seminal vescicle tumor, cecal disease, anus disease, biliary dyskinesia (MalaCards)
TMEM132D	dog, cattle	ENSG00000151952	May serve as a cell-surface marker for oligodendrocyte differentiation.	N/A	pthirus pubis infestation, lice infestation, parasitic ectoparasitic infectious disease (MalaCards)
VEZT	dog, cat	ENSG00000028203	Plays a pivotal role in the establishment of adherens junctions and their maintenance in adult life. In case of Listeria infection, promotes bacterial internalization by participating in myosin VIIa recruitment to the entry site.	N/A	N/A

Table S2: Overlapping genes in AMH and domesticated animals

GENE NAME	*OVERLAPPING SPECIES*	*ENSEMBL ID*	*GENE FUNCTION (UniProt)*	*PATHWAY ANNOTATION*	*RELATED DISORDERS*
AMBRA1	horse	ENSG00000110497	Regulates autophagy and development of the nervous system. Involved in autophagy in controlling protein turnover during neuronal development, and in regulating normal cell survival and proliferation (By similarity).	Cellular responses to stress (Reactome)	N/A
BRAF	cat, horse	ENSG00000157764	Protein kinase involved in the transduction of mitogenic signals from the cell membrane to the nucleus. May play a role in the postsynaptic responses of hippocampal neuron. Phosphorylates MAP2K1, and thereby contributes to the MAP kinase signal transduction pathway.	EGFR tyrosine kinase inhibitor resistance, Endocrine resistance, MAPK signaling pathway, ErbB signaling pathway, Rap1 signaling pathway, cAMP signaling pathway, Chemokine signaling pathway, FoxO signaling pathway, mTOR signaling pathway, Vascular smooth muscle contraction, Dorso-ventral axis formation, Focal adhesion, Natural killer cell mediated cytotoxicity, Long-term potentiation, Neurotrophin signaling pathway, Serotonergic synapse, Long-term depression, Regulation of actin cytoskeleton, Insulin signaling pathway, Progesterone-mediated oocyte maturation, Alcoholism, Hepatitis C, Pathways in cancer, Proteoglycans in cancer, Colorectal cancer, Renal cell carcinoma, Pancreatic cancer, Endometrial cancer, Glioma, Prostate cancer, Thyroid cancer, Melanoma, Bladder cancer, Chronic myeloid leukemia, Acute myeloid leukemia, Non-small cell lung cancer, Breast cancer (KEGG); VEGF signaling pathway, T cell activation, Interleukin signaling pathway, Inflammation mediated by chemokine and cytokine signaling pathway, Integrin signalling pathway, EGF receptor signaling pathway, Ras Pathway, Angiogenesis, CCKR signaling map, PDGF signaling pathway, B cell activation (PANTHER)	Thyroid cancer; Malignant melanoma; Noonan syndrome and related disorders; Langerhans cell histiocytosis (KEGG); Adenocarcinoma of lung, somatic; Cardiofaciocutaneous syndrome; Colorectal cancer, somatic; LEOPARD syndrome; Melanoma, malignant, somatic; Nonsmall cell lung cancer, somatic; Noonan syndrome (OMIM)
CACNA1D	horse	ENSG00000157388	Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1D gives rise to L-type calcium currents. Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group. They are blocked by dihydropyridines (DHP), phenylalkylamines, benzothiazepines, and by omega-agatoxin-IIIA (omega-Aga-IIIA). They are however insensitive to omega-conotoxin-GVIA (omega-CTx-GVIA) and omega-agatoxin-IVA (omega-Aga-IVA).	Amphetamine addiction, Vascular smooth muscle contraction, MAPK signaling pathway, Calcium signaling pathway, cGMP-PKG signaling pathway, cAMP signaling pathway, Cardiac muscle contraction, Adrenergic signaling in cardiomyocytes, Tight junction, Circadian entrainment, Retrograde endocannabinoid signaling, Glutamatergic synapse, Cholinergic synapse, Serotonergic synapse, GABAergic synapse, Dopaminergic synapse, Insulin secretion, GnRH signaling pathway, Oxytocin signaling pathway, Renin secretion, Aldosterone synthesis and secretion, Type II diabetes mellitus, Carbohydrate digestion and absorption, Alzheimer's disease, Hypertrophic cardiomyopathy, Arrhythmogenic right ventricular cardiomyopathy, Dilated cardiomyopathy (KEGG); Oxytocin receptor mediated signaling pathway, Nicotinic acetylcholine receptor signaling pathway, Beta2 adrenergic receptor signaling pathway, 5HT2 type receptor mediated signaling pathway, Gonadotropin-releasing hormone receptor pathway, Alzheimer disease-amyloid secretase pathway, Beta1 adrenergic receptor signaling pathway (PANTHER)	Primary aldosteronism, seizures, and neurologic abnormalities; Sinoatrial node dysfunction and deafness (OMIM)
COA5	dog	ENSG00000183513	Involved in an early step of the mitochondrial complex IV assembly process.	N/A	Cardioencephalomyopathy, fatal infantile, due to cytochrome c oxidase deficiency 3 (OMIM), Cytochrome c oxidase (COX) deficiency (KEGG)
COL11A1	dog	ENSG00000060718	May play an important role in fibrillogenesis by controlling lateral growth of collagen II fibrils.	Integrin signalling pathway (PANTHER); Extracellular matrix organization (Reactome)	Fibrochondrogenesis 1; Marshall syndrome; Stickler syndrome, type II; Lumbar disc herniation, susceptibility to (OMIM)
COQ10B	dog	ENSG00000115520	Required for the function of coenzyme Q in the respiratory chain. May serve as a chaperone or may be involved in the transport of Q6 from its site of synthesis to the catalytic sites of the respiratory complexes (By similarity).	Metabolism (Reactome)	N/A
DLGAP1	horse	ENSG00000170579	Part of the postsynaptic scaffold in neuronal cells.	Glutamatergic synapse (KEGG)	N/A
ERBB4	cattle	ENSG00000178568	Tyrosine-protein kinase that plays an essential role as cell surface receptor for neuregulins and EGF family members and regulates development of the heart, the central nervous system and the mammary gland, gene transcription, cell proliferation, differentiation, migration and apoptosis. Required for normal cardiac muscle differentiation during embryonic development, and for postnatal cardiomyocyte proliferation. Required for normal development of the embryonic central nervous system, especially for normal neural crest cell migration and normal axon guidance. Required for mammary gland differentiation, induction of milk proteins and lactation. Acts as cell-surface receptor for the neuregulins NRG1, NRG2, NRG3 and NRG4 and the EGF family members BTC, EREG and HBEGF. Ligand binding triggers receptor dimerization and autophosphorylation at specific tyrosine residues that then serve as binding sites for scaffold proteins and effectors. Ligand specificity and signaling is modulated by alternative splicing, proteolytic processing, and by the formation of heterodimers with other ERBB family members, thereby creating multiple combinations of intracellular phosphotyrosines that trigger ligand- and context-specific cellular responses. Mediates phosphorylation of SHC1 and activation of the MAP kinases MAPK1/ERK2 and MAPK3/ERK1. Isoform JM-A CYT-1 and isoform JM-B CYT-1 phosphorylate PIK3R1, leading to the activation of phosphatidylinositol 3-kinase and AKT1 and protect cells against apoptosis. Isoform JM-A CYT-1 and isoform JM-B CYT-1 mediate reorganization of the actin cytoskeleton and promote cell migration in response to NRG1. Isoform JM-A CYT-2 and isoform JM-B CYT-2 lack the phosphotyrosine that mediates interaction with PIK3R1, and hence do not phosphorylate PIK3R1, do not protect cells against apoptosis, and do not promote reorganization of the actin cytoskeleton and cell migration. Proteolytic processing of isoform JM-A CYT-1 and isoform JM-A CYT-2 gives rise to the corresponding soluble intracellular domains (4ICD) that translocate to the nucleus, promote nuclear import of STAT5A, activation of STAT5A, mammary epithelium differentiation, cell proliferation and activation of gene expression. The ERBB4 soluble intracellular domains (4ICD) colocalize with	ErbB signaling pathway, Calcium signaling pathway, Endocytosis, Proteoglycans in cancer (KEGG); Alzheimer disease-presenilin pathway, EGF receptor signaling pathway, Cadherin signaling pathway (PANTHER)	Amyotrophic lateral sclerosis 19 (OMIM)
FAM172A	cattle, dog	ENSG00000113391	N/A	N/A	N/A
GGT7	dog	ENSG00000131067	Cleaves glutathione conjugates.	N/A	N/A
GRIA1	cat	ENSG00000155511	Ionotropic glutamate receptor. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist. In the presence of CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of glutamate.	Amphetamine addiction, Circadian entrainment, Long-term depression, Nicotine addiction, cAMP signaling pathway, Neuroactive ligand-receptor interaction, Long-term potentiation, Retrograde endocannabinoid signaling, Glutamatergic synapse, Dopaminergic synapse, Amyotrophic lateral sclerosis (ALS) (KEGG)	status epilepticus; fragile x syndrome; limbic encephalitis; schizophrenia; amyotrophic lateral sclerosis 1 (MalaCards)
GRIK3	dog, cattle	ENSG00000163873	Receptor for glutamate that functions as ligand-gated ion channel in the central nervous system and plays an important role in excitatory synaptic transmission. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. The postsynaptic actions of Glu are mediated by a variety of receptors that are named according to their selective agonists. This receptor binds domoate > kainate >> L-glutamate = quisqualate >> AMPA = NMDA.	Glutamatergic synapse, Neuroactive ligand-receptor interaction (KEGG); Huntington disease (PANTHER)	schizophrenia; alcohol dependence (MalaCards)
HSD3B7	cat	ENSG00000099377	The 3-beta-HSD enzymatic system plays a crucial role in the biosynthesis of all classes of hormonal steroids. HSD VII is active against four 7-alpha-hydroxylated sterols. Does not metabolize several different C(19/21) steroids as substrates. Involved in bile acid synthesis (PubMed:11067870). Plays a key role in cell positioning and movement in lymphoid tissues by mediating degradation of 7-alpha,25-dihydroxycholesterol (7-alpha,25-OHC): 7-alpha,25-OHC acts as a ligand for the G protein-coupled receptor GPR183/EBI2, a chemotactic receptor for a number of lymphoid cells.	Primary bile acid biosynthesis, Metabolic pathways (KEGG); Androgen/estrogene/progesterone biosynthesis (PANTHER)	Bile acid synthesis defect, congenital, 1 (OMIM)
HSPD1	dog	ENSG00000144381	Implicated in mitochondrial protein import and macromolecular assembly. May facilitate the correct folding of imported proteins. May also prevent misfolding and promote the refolding and proper assembly of unfolded polypeptides generated under stress conditions in the mitochondrial matrix.	Gene Expression, Metabolism of proteins (Reactome)	Leukodystrophy, hypomyelinating, 4; Spastic paraplegia 13, autosomal dominant (OMIM)
HSPE1	dog	ENSG00000115541	Eukaryotic CPN10 homolog which is essential for mitochondrial protein biogenesis, together with CPN60. Binds to CPN60 in the presence of Mg-ATP and suppresses the ATPase activity of the latter.	N/A	exocervical carcinoma; sennetsu fever; Leprosy; carrion's disease (MalaCards)
ITGA9	cat	ENSG00000144668	Integrin alpha-9/beta-1 (ITGA9:ITGB1) is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin.	Cell adhesion molecules, PI3K-Akt signaling, Focal adhesion, ECM-receptor interaction, Regulation of actin cytoskeleton, Hypertrophic cardiomyopathy, Arrhythmogenic right ventricular cardiomyopathy, Dilated cardiomyopathy (KEGG); Integrin signalling pathway, Inflammation mediated by chemokine and cytokine signaling pathway (PANTHER)	congenital muscular dystrophy with hyperlaxity; muir-torre syndrome; lynch syndrome (MalaCards)
LRP1B	cattle	ENSG00000168702	otential cell surface proteins that bind and internalize ligands in the process of receptor-mediated endocytosis.	Alzheimer disease-presenilin pathway (PANTHER)	endocervical carcinoma (MalaCards)
LYST	dog	ENSG00000143669	May be required for sorting endosomal resident proteins into late multivesicular endosomes by a mechanism involving microtubules.	Tropane, piperidine and pyridine alkaloid biosynthesis (KEGG)	Chediak-Higashi syndrome (OMIM)
MOB4	dog	ENSG00000115540	May play a role in membrane trafficking, specifically in membrane budding reactions.	N/A	N/A
MYLK3	cat	ENSG00000140795	Kinase that phosphorylates MYL2 in vitro. Promotes sarcomere formation in cardiomyocytes and increases cardiomyocyte contractility (By similarity).	Inflammation mediated by chemokine and cytokine signaling pathway, Cytoskeletal regulation by Rho GTPase (PANTHER)	N/A

NCOA6	dog	ENSG00000198646	Nuclear receptor coactivator that directly binds nuclear receptors and stimulates the transcriptional activities in a hormone-dependent fashion. Coactivates expression in an agonist- and AF2-dependent manner. Involved in the coactivation of different nuclear receptors, such as for steroids (GR and ERs), retinoids (RARs and RXRs), thyroid hormone (TRs), vitamin D3 (VDR) and prostanoids (PPARs). Probably functions as a general coactivator, rather than just a nuclear receptor coactivator. May also be involved in the coactivation of the NF-kappa-B pathway. May coactivate expression via a remodeling of chromatin and its interaction with histone acetyltransferase proteins.	Circadian Clock, Developmental Biology, Gene Expression, Metabolism, Organelle biogenesis and maintenance (Reactome)	hypertensive retinopathy; malignant melanoma, somatic; breast cancer (MalaCards)
NEK4	cat	ENSG00000114904	Protein kinase that seems to act exclusively upon threonine residues (By similarity). Required for normal entry into proliferative arrest after a limited number of cell divisions, also called replicative senescence. Required for normal cell cycle arrest in response to double-stranded DNA damage.	N/A	N/A
NT5DC2	horse	ENSG00000168268	N/A	N/A	N/A
NTM	horse	ENSG00000182667	Neural cell adhesion molecule.	cellular process, developmental process (PANTHER)	childhood pilocytic astrocytoma; juvenile pilocytic astrocytoma (MalaCards)
PLAC8L1	cat, cattle	ENSG00000173261	N/A	N/A	N/A
PPAP2A	cat	ENSG00000067113	Broad-specificity phosphohydrolase that dephosphorylates exogenous bioactive glycerolipids and sphingolipids. Catalyzes the conversion of phosphatidic acid (PA) to diacylglycerol (DG). Pivotal regulator of lysophosphatidic acid (LPA) signaling in the cardiovascular system. Major enzyme responsible of dephosphorylating LPA in platelets, which terminates signaling actions of LPA. May control circulating, and possibly also regulate localized, LPA levels resulting from platelet activation. It has little activity towards ceramide-1-phosphate (C-1-P) and sphingosine-1-phosphate (S-1-P). The relative catalytic efficiency is LPA > PA > S-1-P > C-1-P. It's down-regulation may contribute to the development of colon adenocarcinoma.	Metabolism (Reactome)	N/A
PPAPDC1B	cat	ENSG00000147535	Displays magnesium-independent phosphatidate phosphatase activity in vitro. Catalyzes the conversion of phosphatidic acid to diacylglycerol. May be a metastatic suppressor for hepatocellular carcinoma.	Immune System (Reactome)	hepatocellular carcinoma (MalaCards)
PRR11	cat	ENSG00000068489	Plays a critical role in cell cycle progression.	N/A	N/A
PVRL3	cattle	ENSG00000177707	Plays a role in cell-cell adhesion through heterophilic trans-interactions with nectin-like proteins or nectins, such as trans-interaction with NECTIN2 at Sertoli-spermatid junctions. Trans-interaction with PVR induces activation of CDC42 and RAC small G proteins through common signaling molecules such as SRC and RAP1. Also involved in the formation of cell-cell junctions, including adherens junctions and synapses. Induces endocytosis-mediated down-regulation of PVR from the cell surface, resulting in reduction of cell movement and proliferation. Plays a role in the morphology of the ciliary body.	Cell adhesion molecules, Adherens junction (KEGG)	N/A
RFTN2	dog	ENSG00000162944	N/A	N/A	N/A
RNPC3	cat, dog	ENSG00000185946	Participates in pre-mRNA U12-dependent splicing, performed by the minor spliceosome which removes U12-type introns. U12-type introns comprises less than 1% of all non-coding sequences. Binds to the 3'-stem-loop of m7G-capped U12 snRNA.	Gene Expression (Reactome)	growth hormone deficiency, parainfluenza virus type 3, idiopathic inflammatory myopathy, rheumatic disease (MalaCards)
SF3B1	dog	ENSG00000115524	Subunit of the splicing factor SF3B required for 'A' complex assembly formed by the stable binding of U2 snRNP to the branchpoint sequence (BPS) in pre-mRNA. Sequence independent binding of SF3A/SF3B complex upstream of the branch site is essential, it may anchor U2 snRNP to the pre-mRNA. May also be involved in the assembly of the 'E' complex. Belongs also to the minor U12-dependent spliceosome, which is involved in the splicing of rare class of nuclear pre-mRNA intron.	Spliceosome (KEGG)	Myelodysplastic syndrome, somatic (OMIM)
SKA2	dog	ENSG00000182628	Component of the SKA1 complex, a microtubule-binding subcomplex of the outer kinetochore that is essential for proper chromosome segregation. Required for timely anaphase onset during mitosis, when chromosomes undergo bipolar attachment on spindle microtubules leading to silencing of the spindle checkpoint. The SKA1 complex is a direct component of the kinetochore-microtubule interface and directly associates with microtubules as oligomeric assemblies. The complex facilitates the processive movement of microspheres along a microtubule in a depolymerization-coupled manner. In the complex, it is required for SKA1 localization. Affinity for microtubules is synergistically enhanced in the presence of the ndc-80 complex and may allow the ndc-80 complex to track depolymerizing microtubules.	Cell Cycle, Signal Transduction (Reactome)	Post-traumatic stress disorder (MalaCards)
SNRPD1	cattle	ENSG00000167088	Core component of the spliceosomal U1, U2, U4 and U5 small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome. Thereby, plays an important role in the splicing of cellular pre-mRNAs. Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP. May act as a charged protein scaffold to promote snRNP assembly or strengthen snRNP-snRNP interactions through nonspecific electrostatic contacts with RNA.	Spliceosome, Systemic lupus erythematosus (KEGG)	systemic lupus erythematosus; lupus erythematosus (MalaCards)
STAB1	horse	ENSG00000010327	Acts as a scavenger receptor for acetylated low density lipoprotein. Binds to both Gram-positive and Gram-negative bacteria and may play a role in defense against bacterial infection. When inhibited in endothelial tube formation assays, there is a marked decrease in cell-cell interactions, suggesting a role in angiogenesis. Involved in the delivery of newly synthesized CHID1/SI-CLP from the biosynthetic compartment to the endosomal/lysosomal system.	Vesicle-mediated transport (Reactome)	histiocytosis; rosai-dorfman disease (MalaCards)
SYTL1	cat	ENSG00000142765	May play a role in vesicle trafficking (By similarity). Binds phosphatidylinositol 3,4,5-trisphosphate. Acts as a RAB27A effector protein and may play a role in cytotoxic granule exocytosis in lymphocytes (By similarity).	Vesicle-mediated transport (Reactome)	N/A
TAS2R16	cattle	ENSG00000128519	Gustducin-coupled receptor implicated in the perception of bitter compounds in the oral cavity and the gastrointestinal tract. Signals through PLCB2 and the calcium-regulated cation channel TRPM5.	Taste transduction (KEGG)	Alcohol dependence, susceptibility to (OMIM)
TEX14	cat	ENSG00000121101	Required both for the formation of intercellular bridges during meiosis and for kinetochore-microtubule attachment during mitosis. Intercellular bridges are evolutionarily conserved structures that connect differentiating germ cells and are required for spermatogenesis and male fertility. Acts by promoting the conversion of midbodies into intercellular bridges via its interaction with CEP55: interaction with CEP55 inhibits the interaction between CEP55 and PDCD6IP/ALIX and TSG101, blocking cell abscission and leading to transform midbodies into intercellular bridges. Also plays a role during mitosis: recruited to kinetochores by PLK1 during early mitosis and regulates the maturation of the outer kinetochores and microtubule attachment. Has no protein kinase activity in vitro (By similarity).	N/A	N/A
TP53BP1	cat	ENSG00000067369	Plays a key role in the response to DNA damage. May have a role in checkpoint signaling during mitosis. Enhances TP53-mediated transcriptional activation.	NOD-like receptor signaling pathway (KEGG)	riddle syndrome; ataxia-telangiectasia; gastric cardia adenocarcinoma; fanconi anemia, complementation group a (MalaCards)
ZMYND10	cat	ENSG00000004838	Required for motile ciliary function. Probably involved in axonemal assembly of inner and outer dynein arms (IDA and ODA, respectively) for proper axoneme building for cilia motility. May act by indirectly regulating transcription of dynein proteins.	N/A	ciliary dyskinesia, primary, 22 (MalaCards)
ZNF521	cattle	ENSG00000198795	Transcription factor that can both act as an activator or a repressor depending on the context. Involved in BMP signaling and in the regulation of the immature compartment of the hematopoietic system. Associates with SMADs in response to BMP2 leading to activate transcription of BMP target genes. Acts as a transcriptional repressor via its interaction with EBF1, a transcription factor involved specification of B-cell lineage; this interaction preventing EBF1 to bind DNA and activate target genes.	N/A	N/A

Table S3: Overlapping genes between AMH and 2 or more domesticated animals

GENE NAME	*SPECIES OVERLAP*	*ENSEMBL ID*	*GENE FUNCTION (UniProt)*	*PATHWAY ANNOTATION*	*RELATED DISORDERS*
BRAF	cat, horse, human	ENSG00000157764	Protein kinase involved in the transduction of mitogenic signals from the cell membrane to the nucleus. May play a role in the postsynaptic responses of hippocampal neuron. Phosphorylates MAP2K1, and thereby contributes to the MAP kinase signal transduction pathway.	EGFR tyrosine kinase inhibitor resistance, Endocrine resistance, MAPK signaling pathway, ErbB signaling pathway, Rap1 signaling pathway, cAMP signaling pathway, Chemokine signaling pathway, FoxO signaling pathway, mTOR signaling pathway, Vascular smooth muscle contraction, Dorso-ventral axis formation, Focal adhesion, Natural killer cell mediated cytotoxicity, Long-term potentiation, Neurotrophin signaling pathway, Serotonergic synapse, Long-term depression, Regulation of actin cytoskeleton, Insulin signaling pathway, Progesterone-mediated oocyte maturation, Alcoholism, Hepatitis C, Pathways in cancer, Proteoglycans in cancer, Colorectal cancer, Renal cell carcinoma, Pancreatic cancer, Endometrial cancer, Glioma, Prostate cancer, Thyroid cancer, Melanoma, Bladder cancer, Chronic myeloid leukemia, Acute myeloid leukemia, Non-small cell lung cancer, Breast cancer (KEGG); VEGF signaling pathway, T cell activation, Interleukin signaling pathway, Inflammation mediated by chemokine and cytokine signaling pathway, Integrin signalling pathway, EGF receptor signaling pathway, Ras Pathway, Angiogenesis, CCKR signaling map, PDGF signaling pathway, B cell activation (PANTHER)	Thyroid cancer; Malignant melanoma; Noonan syndrome and related disorders; Langerhans cell histiocytosis (KEGG); Adenocarcinoma of lung, somatic; Cardiofaciocutaneous syndrome; Colorectal cancer, somatic; LEOPARD syndrome; Melanoma, malignant, somatic; Nonsmall cell lung cancer, somatic; Noonan syndrome (OMIM)
FAM172A	cattle, dog, human	ENSG00000113391	N/A	N/A	N/A
GRIK3	dog, cattle, human	ENSG00000163873	Receptor for glutamate that functions as ligand-gated ion channel in the central nervous system and plays an important role in excitatory synaptic transmission. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. The postsynaptic actions of Glu are mediated by a variety of receptors that are named according to their selective agonists. This receptor binds domoate > kainate >> L-glutamate = quisqualate >> AMPA = NMDA.	Glutamatergic synapse, Neuroactive ligand-receptor interaction (KEGG); Huntington disease (PANTHER)	schizophrenia; alcohol dependence (MalaCards)
PLAC8L1	cat, cattle, human	ENSG00000173261	N/A	N/A	N/A
RNPC3	cat, dog, human	ENSG00000185946	Participates in pre-mRNA U12-dependent splicing, performed by the minor spliceosome which removes U12-type introns. U12-type introns comprises less than 1% of all non-coding sequences. Binds to the 3'-stem-loop of m7G-capped U12 snRNA.	Gene Expression (Reactome)	growth hormone deficiency, parainfluenza virus type 3, idiopathic inflammatory myopathy, rheumatic disease (MalaCards)

Table S4a: Gene lists from the sources for AMH, domesticates, and great apes

AMH POOL				DOMESTICATES POOL						GREAT APE POOL (Cagan et al. 2016)		
Peyrégne et al. 2016 (SF1, SF2, Table 2 and Table S7) [375]	*Racimo 2016 (Table 3) [326]*	*Prüfer et al. 2014 (Table S19b.1) [108]*	*TOTAL AMH (no duplicates) [742]*	*DOG [229]*	*CAT [291]*	*CATTLE [78]*	*HORSE [109]*	*TOTAL DOMESTICATES (no duplicates) [691]*		Chimp (*P.t. troglodytes*) [415]	Orango (*P. abelii*) [500]	(Gorilla) *G.g. gorilla* [426]
ABCE1	ABCE1	ABCE1	ABCE1	ABAT	ABHD1	ABCC4-like	ABCA10	ABAT	dog	ABLIM2	ABCC6	AADACL3
ABHD3	ABHD14A	ABHD3	ABHD14A	ACA64	ACOT11	ADAM2	ABCA5	ABCA10	horse	ACOT2	ACOX3	ABCA13
ACTG1P4	ABHD14B	AIG1	ABHD14B	ACMSD	ACOT13	ADAMTS13	ABCB10	ABCA5	horse	ACSL6	ACTBP13	ACAN
ADRA2A	ABHD3	AMBRA1	ABHD3	ACSM5	ACOT8	ANK1	ACAD8	ABCB10	horse	ADAM18	ADAM12	ACTBP13
ADSL	ACE	ANAPC10	ACE	ACSS2	ACOX2	ASTN2	ACSF3	ABCC4-like	cattle	ADAM20P3	ADAMDEC1	ACTN3
AGO1	ACTG2	ARHGAP1	ACTG1P4	ADRB2	ACOX3	ATL1	ACTA1	ABHD1	cat	ADAMTSL4	ADAMTS18	ADAM20P3
AGO3	ACY1	ATG13	ACTG2	AHCY	ADAMDEC1	CACNA1C	AKAP1	ACA64	dog	ADGB	ADAMTS8	ADAM24P
AIDA	ADAL	BAG4	ACY1	AHCYL2	ADAMTS13	CAV1	ALDH1L2	ACAD8	horse	ADK	ADAMTSL3	ADAMTSL1
AKAP8	ADRA2B	BCAP29	ADAL	ALDH18A1	ADAMTSL3	CAV2	ALK	ACMSD	dog	ADORA2B	AGL	ADCY8
AKAP8L	ADSL	BEAN1	ADRA2A	ANKS4B	AK1	CDH1	AMBRA1	ACOT11	cat	AGBL4	AGMO	ADRBK1
AKR7A2P1	AHDC1	BIRC2	ADRA2B	APOPT1	ALDH16A1	CLCA3	ANKDD1A	ACOT13	cat	AGGF1P4	AGO4	AF241725.1
AL122050	AHSA2	C11orf80	ADSL	ARID1B	ALS2CR12	COBL	ARL6IP1	ACOT8	cat	AIDA	AK7	AF241725.6
ALG9	ALAS1	C1orf190	AGO1	ARL9	AMACR	CUL1	ASAP1	ACOX2	cat	AKR1C6P	AKAP6	AFM
AMPH	ALMS1	CBL	AGO3	ART3	ANKRD2	DBI	ASTN1	ACOX3	cat	AKR1E2	AKNAD1	AGMO
AMY1A	ANAPC10	CCDC153	AHDC1	ASIP	ANKRD49	DCST1	B3GALTL	ACSF3	horse	ALK	ALDH4A1	ANKRD44
AMY1B	ANKRD30A	CEBPD	AHSA2	ATXN7L1	ANKRD50	DSCAM	BRAF	ACSM5	dog	AMBRA1	ALK	ANO4
AMY1C	ANKRD30B	CHRM4	AIDA	BAG5	APEH	EMC2	C15orf60	ACSS2	dog	AMT	ANKRD17	APP
AMY2A	ANKRD32	CKLF	AIG1	BTAF1	APOBEC4	ERBB4	C17orf67	ACTA1	horse	ANKRD26P3	ANO10	AQP2
AMY2B	ANKRD55	CLASP2	AKAP8	C7orf72	ARHGAP26	EYA1	C4orf33	ADAM2	cattle	APOOP2	ANO5	AQP5
ANAPC10	ARHGAP15	CMTM1	AKAP8L	CADM2	ARID3B	FAM172A	C5orf15	ADAMDEC1	cat	AQP10	ANPEP	ARHGAP27
ANK2	ARID1A	COG5	AKR7A2P1	CALCB	ASB11	FCRL4	C9orf89	ADAMTS13	cat, cattle	ARNT2	AP3S1	ARHGAP39
ANO10	ASTL	COQ10B	AL122050	CBD118	ATXN7L1	GRIK3	CACNA1D	ADAMTSL3	cat	ARPC3	ARHGAP24	ARL4A
ANO3	B2M	CTPS	ALAS1	CBD121	BARD1	HMGA2	CDK5RAP1	ADRB2	dog	ASH1L	ARL2BPP10	ARMC4
ANXA2	BAP1	DDHD2	ALG9	CBD122	BCAP31	HS3ST4	CDKL3	AHCY	dog	ATG13	ARSJ	ARNT
ARSJ	BCAP29	DGKZ	ALMS1	CCDC67	BPI	KDR	CNTN6	AHCYL2	dog	ATG4C	AS1	ATP5J2
ASAP2	BMS1	DNAJA2	AMBRA1	CCDC82	BRAF	KIF6-like	COIL	AK1	cat	ATP6V0E2	ATP2A2	ATRNL1
ASIC2	BZRAP1	DPYSL5	AMPH	CCNJ	BRCA1	KIT	COL22A1	AKAP1	horse	ATP8B2	ATP8A2P3	AUTS2
ATG10	C17orf47	DUS4L	AMY1A	CCNT2	C11orf54	LAMC3	COMMD1	ALDH16A1	cat	ATRNL1	ATRNL1	BAD
ATP1A3	C19orf44	EHBP1	AMY1B	CDRT1	C11orf63	LILRA6	CRTC3	ALDH18A1	dog	AUTS2	ATXN2	BAI3
ATXN10	C1orf172	ESCO1	AMY1C	CDRT4	C16orf71	LIN28B	C-SKI	ALDH1L2	horse	BAI3	AUTS2	BANK1
BAI3	C2orf47	FAM150A	AMY2A	CETN3	C1orf109	LRP1B	DCC	ALK	horse	BCAS2	BARD1	BBS1
BAP1	C2orf69	FLJ35017	AMY2B	CKB	C22orf31	LTF	DLGAP1	ALS2CR12	cat	BCL9	BCAT1	BCAR4
BBIP1	C2orf78	FLJ39294	ANAPC10	CLEC5A	C2orf40	MAFK	DNAH9	AMACR	cat	BSN	BCR	BICC1
BCAP29	C3orf18	GPR22	ANK2	COA5	C2orf62	MAGEA13P-like	EEA1	AMBRA1	horse	BTNL2	BCYRN1	BTBD9
BCAR3	C3orf35	GPT2	ANKRD30A	COG6	C3orf62	MC1R	FAF1	ANK1	cattle	C10orf137	BIVM	C10orf90
BCL2	CACNA1D	GREB1L	ANKRD30B	COL11A1	C8B	MGC12345	FANCA	ANKDD1A	horse	C10orf53	BMP6P1	C11orf68
BIRC2	CACNA2D2	GRID2	ANKRD32	COQ10B	C9orf96	MITF	FBXO31	ANKRD2	cat	C16orf87	BNIP3P1	C11orf80
BRAF	CALR3	HARBI1	ANKRD55	CPEB3	CAGE1	NCAPG	FCHSD2	ANKRD49	cat	C1orf123	BNIPL	C11orf86
BRD4	CAPN3	HBP1	ANO10	CRYM	CASP7	NDUFB1	FOXJ3	ANKRD50	cat	C1orf63	BSN	C12orf35
BROX	CASC4	HIVEP2	ANO3	CUX2	CBX2	NPAS3	GAK	ANKS4B	dog	C21orf59	BTNL2	C16orf52
C11orf1	CATSPER2	HSDL2	ANXA2	CXCL10	CCDC38	NPTX1	GNPTAB	APEH	cat	C2orf78	C10orf115	C16orf58
C16orf87	CBLL1	HSPD1	ARHGAP1	CYFIP1	CCDC64B	NR2F2	GRID1	APOBEC4	cat	C3orf52	C10orf68	C16orf59
C18orf42	CCDC53	HSPE1	ARHGAP15	CYP26A1	CCDC70	NRG2	IGSF3	APOPT1	dog	C3orf62	C12orf60	C1orf63
C1orf112	CCNDBP1	IL7	ARID1A	CYP26C1	CD27	NRG4	IGSF9B	ARHGAP26	cat	C3orf84	C14orf23	C1orf68
C1QTNF5	CCNH	INA	ARSJ	DDC	CD48	NRXN1	JAM3	ARID1B	dog	C7orf61	C16orf95	C2orf78
CACNA2D1	CCNO	INPP5F	ASAP2	DEFB119	CD93	OLIG1	JPH3	ARID3B	cat	C9orf135	C18orf34	C3orf15
CADPS	CCT7	ITFG1	ASIC2	DEFB122	CDH6	OR13C8	KCNK10	ARL6IP1	horse	CACNA2D3	C1DP2	C4BPAP1
CADPS2	CD164L2	LRFN4	ASTL	DNAH3	CELA1	OR51A7	KIAA0556	ARL9	dog	CASP14	C1DP4	C5orf60
CALN1	CDAN1	LRRC41	ATG10	DNAJA1	CENPE	family cluster (Chromo	KIAA1549	ART3	dog	CASQ2	C1orf129	C7orf50
CAMK1G	CDC20B	LSM1	ATG13	DOCK2	CENPM	family cluster (Chromo	KLHDC4	ASAP1	horse	CCDC102B	C1orf132	C8orf82
CAPN5	CDC42EP3	LSR7	ATP1A3	DTD1	CEP68	family cluster (Chromo	LCLAT1	ASB11	cat	CCDC34	C1orf170	CABS1
CAPS	CHERP	MAP7	ATXN10	EIF2S2	CEP97	family cluster (Chromo	LEPREL1	ASIP	dog	CCDC36	C3orf20	CACNA1E
CASP16P	CISH	MCAM	B2M	ELF2	CHMP4B	PCDH18	LMF1	ASTN1	horse	CCDC58P3	C4orf22	CACNA2D2
CBLN4	CKMT1A	MCM4	BAG4	ENSCAFG00000018986	CIB4	PEX7	MAP3K4	ASTN2	cattle	CCDC69	C6orf10	CAMKV
CCDC188	CKMT1B	MCMBP	BAI3	ENSCAFG00000023285	CLDN17	PLAC8L1	MAPK10	ATL1	cattle	CCDC71	C7orf57	CBFB
CCDC192	CLDN10	MDK	BAP1	ENTPD1	CLEC5A	PLAG1	MARCH10	ATXN7L1	dog, cat	CCDC91	C8orf56	CCDC129
CCNJL	CNGA3	MEGF10	BBIP1	EPS15	CLK3	Pol	MATN2	B3GALTL	horse	CDH12	C9orf11	CCDC146
CDC27	COA5	MIB1	BCAP29	ETNPPL	CNGA2	PVRL3	MSI2	BAG5	dog	CDHR4	C9orf153	CCDC85B
CDH10	COG5	MKLN1	BCAR3	F9	COL6A3	RNF144B	MYBPC1	BARD1	cat	CDK8	C9orf3	CCDC87
CEBPD	CSGALNACT2	MOB4	BCL2	FABP5	COL9A3	ROBO1	NCAPD3	BCAP31	cat	CDKAL1	CAND2	CCNF
CELF4	CTDSPL2	NCOA5	BEAN1	FAM107B	CROCC	SEMA6A	NID2	BPI	cat	CENPQ	CAPRIN2	CCS
CEP41	CYB561	NETO2	BIRC2	FAM172A	CSPP1	SETMAR	NINJ1	BRAF	cat, horse	CGNL1	CAPZB	CD1B
CEP57L1	CYB561D2	NFG3	BMS1	FAM40B	CTTN	SLC35D1	NIPBL	BRCA1	cat	CHAT	CARD16	CD2BP2
CHODL	DDX4	NLK	BRAF	FBXO10	CYB5R1	SLC41A2	NR3C2	BTAF1	dog	CHRM4	CATSPERG	CD300LB
CLSTN1	DGUOK	NLRX1	BRD4	FBXW10	CYP1A1	SLC6A1	NT5DC2	C11orf54	cat	CLC	CCDC15	CD320
CNTNAP4	DHDDS	NUFIP1	BROX	FBXW11	CYP1A2	SNRPD1	NTM	C11orf63	cat	CLN8	CCDC174	CDH13
COG5	DHX29	OTUD4	BZRAP1	FGD6	CYP27B1	SPTAN1	NUMB	C15orf60	horse	CNTNAP4	CCT7P2	CDH9
COL11A1	DNAH1	OTX1	C11orf1	FGF13	DACT1	STK10	NUP133	C16orf71	cat	COL11A2P1	CD163	CDK19
CORO2B	DNAJC3	PC	C11orf80	FGF18	DAPK1	TAOK1	OPCML	C17orf67	horse	CPNE4	CD163L1	CDK20
CR2	DOCK3	PCDH17	C16orf87	FGFBP3	DCC	TAS2R16	PCSK5	C1orf109	cat	CPSF3L	CD1A	CENPQ
CSMD2	DRAM1	PCGF6	C17orf47	FHL1	DNAJB9	TFCP2L1	PDE4DIP	C22orf31	cat	CPT2	CD46	CENPT
CSPG5	DUS4L	PDZD3	C18orf42	FOXI1	DNTTIP2	TMEM132D	PDE5A	C2orf40	cat	CTCF	CD5L	CERS5
CTNNBL1	DUSP11	PHKB	C19orf44	FRMD6	DPEP3	TNFRSF9	PDRG1	C2orf62	cat	CTRL	CDC27	CHIAP1
CTNND2	DUSP7	PODXL	C1orf112	FRMPD1	DUSP19	ULBP3	PHF2	C3orf62	cat	CTTNBP2NL	CDC42BPA	CHIAP2
CTXN3	DZIP1	POMGNT1	C1orf172	GALR1	ECHDC1	UNC93A	PHF20	C4orf33	horse	CXCL13	CDH12	CHTF18
CXCL13	EGR4	PPAPDC1B	C1orf190	GAPDHS	EDC3	VWDE	PIK3C3	C5orf15	horse	CXXC11	CDH17	CICP17
CXCL3	EHBP1	PRDM2	C1QTNF5	GGT7	EHBP1L1	XPO6	PLXNA4	C7orf72	dog	CYP21A2	CDH19	CLEC18A
DAPP1	EIF3J	PRKDC	C2orf47	GLRA1	ENKUR	ZNF521	POP1	C8B	cat	DAG1	CDK8	CLSTN3
DBIL5P2	ELL3	QSER1	C2orf69	GNG10	ENTPD7		PPM1D	C9orf89	horse	DAP3P1	CECR7	CNIH2
DGCR8	EPB42	RAD54L	C2orf78	GNG4	EPHB4		PPP2CA	C9orf96	cat	DCP2	CETN1	CNTN4
DHRS12	EPM2AIP1	RB1CC1	C3orf18	GP2	ETV4		PRKCZ	CACNA1C	cattle	DENND2C	CHCHD6	CNTNAP5
DLGAP1	EPS15L1	RBM14	C3orf35	GPR139	FAIM3		PRMT3	CACNA1D	horse	DGKZ	CHRNA6	COL14A1
DNAH1	ESCO1	RBM4	CACNA1D	GPRC5B	FAM114A2		PSMB7	CADM2	dog	DHFRP2	CHST11	COL19A1
DNAJB4	ESM1	RBM4B	CACNA2D1	GRIK3	FAM131B		PTPN4	CAGE1	cat	DHX57	CHST9	COL24A1
DTNA	FAHD2A	RCE1	CACNA2D2	HERC2	FAM179A		RHPN1	CALCB	dog	DIAPH3	CLCC1	COX14
DUS4L	FAM172A	RFTN2	CADPS	HIPK2	FAM69A		SCPEP1	CASP7	cat	DIO2	CLEC2D	CPNE7
DYNC1H1	FAM46B	RSPO3	CADPS2	HOPX	FANCB		SEC24A	CAV1	cattle	DISC1FP1	CLECL1	CPSF4
DYSF	FAM83F	SCMH1	CALN1	HSPD1	FAT4		SEC63	CAV2	cattle	DISP1	CLUL1	CRP
E2F6	FBXO41	SEC23IP	CALR3	HSPE1	FBN3		SGCD	CBD118	dog	DLG1	CNBD1	CRPP1
EFCC1	FCN3	SEC24D	CAMK1G	HTR4	FBXL22		SKP1	CBD121	dog	DLGAP4	CNGB3	CTDSPL
EHBP1	FRMD5	SF3B1	CAPN3	IFT80	FBXO28		SLC22A15	CBD122	dog	DMRTA2	CNTN1	CTNNA3
ELAVL4	FXYD4	SLC12A5	CAPN5	IKZF1	FER		SLC43A1	CBX2	cat	DNAI2	COBLL1	CTSF
ELN	GALNT11	SLFNL1	CAPS	IMMP2L	FGA		SMG6	CCDC38	cat	DNASE1L3	COL11A2P1	CTSK
ELP6	GALNTL5	SLITRK3	CASC4	JRKL	FN3K		SPATA19	CCDC64B	cat	DOCK3	COL5A2	CUX2
ENTHD1	GANC	SNAI2	CASP16P	KDM3A	FRMD7		STAB1	CCDC67	dog	DOK5	COL8A1	CYB561D2
EPSTI1	GATA6	SNRPD1	CATSPER2	LHFPL3	GCNT7		STXBP6	CCDC70	cat	DPYS	CPD	CYB5P4
ERBB4	GDPD1	SPTBN2	CBL	LINC01927	GEMIN7		SUSD3	CCDC82	dog	DUSP11	CPEB4	DAOA
ESCO1	GLT8D1	STAC	CBLL1	LINGO2	GGT6		TCTN1	CCNJ	dog	DVL1	CPNE3	DCTPP1
EXOC6B	GLYCTK	STK3	CBLN4	LRIG3	GOLGA1		THYN1	CCNT2	dog	EEF1A1P14	CPNE8	DDN
EXTL1	GNAI2	TAF5	CCDC153	LRRN3	GPATCH8		TRAPPC8	CD27	cat	EHBP1L1	CR1	DDR2
FAAH	GNAT1	TDRD3	CCDC188	LYST	GPR133		TRIO	CD48	cat	EMCN	CR2	DDX39BP2
FAF2	GNL3	TK2	CCDC192	MAOA	GPR15		UBE2B	CD93	cat	ENOX1	CRISP3	DDX55
FAM117A	GOLGA4	UBE2V2	CCDC53	MAOB	GPR174		URB2	CDH1	cattle	EPB41L4A	CSMD1	DENND6A
FAM177B	GPAT2	UQCRH	CCNDBP1	MAP3K1	GPRASP2		VDAC1	CDH6	cat	ESRG	CSMD3	DHFRP2
FAM19A3	GPATCH3	UQCRHL	CCNH	MAP7D3	GPRC5A		VPS26B	CDK5RAP1	horse	EXOC4	CTNNAL1	DLG2
FAM49B	GPN2	WHSC1L1	CCNJL	MARCH7	GPRIN2		VRK1	CDKL3	horse	FAF1	CYSTM1	DMXL2
FAU	GPR22	ZNF638	CCNO	MARK2	GRHL3		WASF3	CDRT1	dog	FAM117B	DACH1	DNAH9
FBXL19	GPR3	ZNF852	CCT7	MARK3	GRIA1		WNK2	CDRT4	dog	FAM150B	DAG1	DPP3
FBXW7	GPR39		CD164L2	MBD2	GRIA2		ZC3H3	CELA1	cat	FAM162B	DCAF10	DRAP1
FDXACB1	GPR62		CDAN1	MBP	HADH			CENPE	cat	FAM83G	DCHS2	DSG4
FERMT2	GPX8		CDC20B	MCF2	HEATR5B			CENPM	cat	FAM89B	DDAH1	DUSP11
FGF12	GRAP2		CDC27	MCHR2	HECA			CEP68	cat	FAM98B	DDX31	DYNC2H1
FGF14	GREB1L		CDC42EP3	MED23	HEPACAM2			CEP97	cat	FBN2	DDX39BP1	EAF1
FHL3	GRM2		CDH10	METAP2	HEPH			CETN3	dog	FBXW2	DDX39BP2	EDNRA
FHOD3	GTDC1		CEBPD	METTL22	HMMR			CHMP4B	cat	FBXW7	DDX42	EFCAB4B
FIBCD1	GYPA		CELF4	MGAM	HPS5			CIB4	cat	FCF1P6	DEFA1B	EFTUD1P2
FKSG51	GYPB		CEP41	MIER3	HSD3B7			CKB	dog	FCGBP	DENND5A	EGFLAM
FLJ45513	GZMA		CEP57L1	MIF4GD	HSPA13			CLCA3	cattle	FER1L5	DENND6B	EIF2B1
FNBP1L	GZMK		CHERP	MINOS1	IFT81			CLDN17	cat	FGFR3	DFNB59	EIF4BP8
FOXO1	HAUS2		CHODL	MKKS	IGHMBP2			CLEC5A	dog, cat	FGFR3P1	DHFRP2	EME1
FRMD8	HBP1		CHRM4	MMP16	INHBC			CLK3	cat	GABRB1	DIP2B	EML5
FSTL5	HEMK1		CISH	MOB4	INPP4B			CNGA2	cat	GALNT14	DLEU2	EVPL

FUBP1	HHIP	CKLF	MPV17L	INPP5J	CNTN6	horse	GALNTL6	DLG2	EYS
FUT5	HMGN2	CKMT1A	MT1F	IPO4	COA5	dog	GAPDHP23	DNAH12	FAM46A
FZD3	HNRNPF	CKMT1B	MT1L	IQCB1	COBL	cattle	GAPDHP70	DNAJB14	FASTKD3
GABRB3	HS6ST3	CLASP2	MT2A	ISG15	COG6	dog	GFOD2	DNAJB9	FBN2
GALNT10	HSF5	CLDN10	MYOF	ITGA2B	COIL	horse	GFRA2	DNAJC13	FBXL17
GALNT2	HYAL1	CLSTN1	NCOA6	ITGA9	COL11A1	dog	GINS3	DOC2B	FER
GBP2	HYAL2	CMTM1	NIPA2	ITGBL1	COL22A1	horse	GLTPD1	DOK6	FER1L6
GBP4	HYAL3	CNGA3	NKAIN2	ITPR3	COL6A3	cat	GLYATL1	DYNLRB2	FGFR3P1
GBP5	IFRD2	CNTNAP4	NOCT	JMJD1C	COL9A3	cat	GLYATL1P2	EEFSEC	FHIT
GBP7	IGF1	COA5	NOL4	KIAA0226	COMMD1	horse	GLYATL2	EFCAB5	FKBP2
GCNT2	IL31RA	COG5	NRF1	KIF1C	COQ10B	dog	GM2A	EHBP1	FNDC3B
GDAP1	IL6ST	COL11A1	NRG2	KIF22	CPEB3	dog	GNAQ	EIF4A3	FOSL1
GDF6	INPP4A	COQ10B	NTAN1	KIF27	CROCC	cat	GPN3	ELAC2	FSTL4
GGT7	IQCF1	CORO2B	NUP54	KIRREL2	CRTC3	horse	GPRC6A	EMID1	FTLP6
GINM1	IQCF2	CR2	NXPE3	KRIT1	CRYM	dog	GPX1	EMR3	GAL3ST3
GK2	IQCF3	CSGALNACT2	OMA1	KYNU	C-SKI	horse	GRAP	EPB41	GALC
GLI3	IQCF5	CSMD2	OR9A4	LAMC2	CSPP1	cat	GRIK1	EPHA3	GALNT13
GLYCTK	IQCF6	CSPG5	PARP12	LAP3	CTTN	cat	GRIN3A	ERCC5	GALNT14
GP9	ITGA9	CTDSPL2	PDE4D	LATS2	CUL1	cattle	GSTP1	ERG	GAPDHP36
GPM6A	ITIH1	CTNNBL1	PDE7B	LCAT	CUX2	dog	HADH	EWSR1	GAS2L3
GPR22	ITIH3	CTNND2	PDILT	LIAS	CXCL10	dog	HCG23	EXOC4	GBP1
GPT2	ITIH4	CTPS	PDXDC1	LIMD1	CYB5R1	cat	HCG4	EXOSC3	GNG13
GRIA1	KCNIP3	CTXN3	PKD1L1	LRRC32	CYFIP1	dog	HCG4P11	EYS	GOLPH3L
GRIK3	KCNJ3	CXCL13	PLCE1	LRRC36	CYP1A1	cat	HCG9P5	FAM172A	GPD1
GRIK5	KIAA0825	CXCL3	PLEKHM3	LSM3	CYP1A2	cat	HDAC9	FAM190A	GPR137
GRM3	KIAA1841	CYB561	POLI	MAP7D2	CYP26A1	dog	HEATR1	FAM5C	GRIA4
GTF3C5	KLF2	CYB561D2	POLR1E	MARVELD3	CYP26C1	dog	HEATR4	FAM71A	GRID2
HEG1	KMT2C	DAPP1	Q2ABD2	MERTK	CYP27B1	cat	HEMK1	FAN1	GRIK2
HERC5	LCMT2	DBIL5P2	RAB3GAP1	METTL8	DACT1	cat	HIST1H2BK	FASTKD1	GSK3B
HHIP	LGALSL	DDHD2	RABGAP1L	MFAP3	DAPK1	cat	HIVEP3	FBLN2	GSPT1
HIVEP2	LIN28A	DDX4	RALY	MIIP	DBI	cattle	HLA-B	FBXW4P1	GTF2H3
HMGB3P1	LRRC57	DGCR8	RANBP17	MORC1	DCC	cat, horse	HLA-C	FCHO2	GTF2IP3
HRASLS2	LRRFIP2	DGKZ	RAPH1	MRPL11	DCST1	cattle	HLA-DPA1	FCRL1	HARS2
HS6ST3	LSMEM2	DGUOK	REEP1	MRPL52	DDC	dog	HLA-DPA2	FGD5P1	HBE1
HSD3B7	MAL	DHDDS	RELT	MTIF2	DEFB119	dog	HLA-DPB1	FGF7P1	HCG4P3
HSDL2	MANF	DHRS12	RFTN2	MTRF1	DEFB122	dog	HLA-DPB2	FGFR3P1	HCG4P5
HTR1E	MAP1A	DHX29	RG9MTD3	MURC	DLGAP1	horse	HLA-DQA1	FKBP6	HCG9
IGFL2	MAP3K6	DLGAP1	RNF103	MVK	DNAH3	dog	HLA-DQB1	FKBP7	HCP5
IGFL3	MAPKAPK3	DNAH1	RNPC3	MYLK3	DNAH9	horse	HLA-DRB1	FLJ39534	HDGFRP3
IGFL4	MCHR1	DNAJA2	RPL3	MYO15A	DNAJA1	dog	HLA-E	FNBP4	HECW1
IL7	MCIDAS	DNAJB4	RPL31	MYO9A	DNAJB9	cat	HLA-F	FTO	HECW1-IT1
INPP5F	MCTP1	DNAJC3	RRN3	NAPRT1	DNTTIP2	cat	HLA-V	FTSJ3	HERC5
JMJD6	MDH1	DOCK3	RRN3P1	NEK1	DOCK2	dog	HMCN1	FYB	HLA-A
KAT7	MED26	DPYSL5	RRNRP2	NEK4	DPEP3	cat	HMGA1P3	GAA	HLA-C
KATNA1	MFAP1	DRAM1	SAE1	NFAM1	DSCAM	cattle	HNRNPA1P60	GABRB1	HLA-DPA1
KCNA4	MGAT4A	DTNA	SCARB2	NFKBIZ	DTD1	dog	HSD3BP1	GABRP	HLA-DPB1
KCND2	MIB1	DUS4L	SCP2D1	NOLC1	DUSP19	cat	HSD3BP2	GAS2L1	HLA-DQA1
KCNH7	MKL1	DUSP11	SDAD1	NOSTRIN	ECHDC1	cat	HSFY1P1	GBE1	HLA-DQA2
KCNJ3	MLH1	DUSP7	SEMA3D	NOTCH2	EDC3	cat	HVCN1	GCSAML	HLA-DQB1
KIAA1143	MRPS5	DYNC1H1	SETBP1	NPFFR2	EEA1	horse	ICA1L	GDPD4	HLA-DQB2
KIAA1958	MTMR4	DYSF	SETD9	NRG2	EHBP1L1	cat	IFITM4P	GHR	HLA-DQB3
KIF15	MTRNR2L7	DZIP1	SF3B1	NUDT15	EIF2S2	dog	IGKV1D-17	GIMAP7	HLA-DRA
KIF18A	MUSTN1	E2F6	SH3GL2	OPTC	ELF2	dog	IGKV6D-41	GLYATL2	HLA-DRB1
KIFAP3	NAT6	EFCC1	SKA2	OR10K1	EMC2	cattle	IGLVIV-64	GPR113	HLA-DRB9
KLHL18	NAT8	EGR4	SLC5A1	OR2B11	ENKUR	cat	IGLVIV-65	GPSM2	HLA-J
LARGE1	NEDD1	EHBP1	SLC5A4	OR4D6	ENSCAFG00000018988	dog	IGLVIV-66-1	GTF2E1	HLA-S
LDHD	NEK4	EIF3J	SLC6A17	OTOF	ENSCAFG00000023285	dog	IGLVV-66	GTF3C4	HLA-W
LEMD3	NISCH	ELAVL4	SLC9A6	PAFAH2	ENTPD1	dog	IL26	H2AFZ	HMCN2
LIMK1	NOTO	ELL3	SMC4	PARVG	ENTPD7	cat	INPP4B	HCG23	HNRNPH1
LOH11CR1I	NPRL2	ELN	SMIM23	PCDHA1	EPHB4	cat	IP6K1	HCG4B	HORMAD1
LPHN3	NR0B2	ELP6	SMO	PCDHB4	EPS15	dog	KCNH7	HCG4P3	HSBP1P2
LRIG2	NR2F1	ENTHD1	SMYD2	PHLDB3	ERBB4	cattle	KCNIP4	HCG4P7	HSD17B7
LRP1B	NT5DC2	EPB42	SNAP29	PITRM1	ETNPPL	dog	KCNK7	HCG4P8	HYAL1
LYST	NUDC	EPM2AIP1	SRP72	PJA2	ETV4	cat	KCTD7	HCG9	HYAL2
MAGI2	NUP37	EPS15L1	STARD6	PLA2G2E	EYA1	cattle	KHDRBS2	HCP5	HYAL3
MAL	NWD1	EPSTI1	STK10	PLA2G3	F9	dog	KIAA0146	HDGFRP3	IGF2R
MAP2	OTUD4	ERBB4	STX7	PLAC1	FABP5	dog	KIAA1217	HES4	IGLV2-33
MATR3	OTX1	ESCO1	TAS2R38	PLAC8L1	FAF1	horse	KIF19	HHLA2	IGLV3-31
MCM4	PARP3	ESM1	TBC1D9	PLEKHH1	FAIM3	cat	KLHDC8B	HLA-DPA1	IGLV3-32
MCMBP	PARPBP	EXOC6B	TBXAS1	PLIN3	FAM107B	dog	KLHL7	HLA-DPA2	IL36B
MDM1	PATL2	EXTL1	TCTN3	PML	FAM114A2	cat	KLHL8	HLA-DPA3	IMMP2L
METTL15	PBRM1	FAAH	TEKT3	PPAP2A	FAM131B	cat	KRT8P26	HLA-DPB1	IMMTP1
METTL23	PC8P4	FAF2	TH	PPAPDC1B	FAM172A	dog, cattle	KRTAP5-10	HLA-DPB2	INTU
MFRP	PCNX	FAHD2A	THEGL	PPFIBP1	FAM179A	cat	KRTAP5-9	HLA-DQA1	IQCF6
MFSD11	PDE4B	FAM117A	TLX3	PPP1R13B	FAM40B	dog	LCAT	HLA-DQB1	IQGAP2
MIB1	PDIA3	FAM150A	TMEM114	PRICKLE4	FAM69A	cat	LDB2	HLA-DRA	IQUB
MIGA1	PELI1	FAM172A	TMEM132D	PRKAG1	FANCA	horse	LETM1	HLA-DRB1	ITGAL
MMP9	PEX13	FAM177B	TMEM159	PRKG2	FANCB	cat	LGALS8	HLA-DRB9	KCNH8
MPND	PHF7	FAM19A3	TMEM242	PRR11	FAT4	cat	LGR4	HLA-G	KDM2A
MRPL49	PIGV	FAM46B	TNKS2	PRX	FBN3	cat	LHFPL3	HLA-H	KDM4C
MRPS5	PIK3CG	FAM49B	TRBV25OR9-2	PSPH	FBXL22	cat	LIMCH1	HLA-J	KIAA1644
MYH3	PLA2G4D	FAU	TRIM16	PSTK	FBXO10	dog	LL22NC03-23C6.15	HLA-K	KLC2
MYHAS	PLA2G4E	FBXL19	TRIM59	PTPRR	FBXO28	cat	LNPEP	HLA-S	KMT2D
MYL4	PLA2GDF	FBXO41	TRMT61A	PTPRS	FBXO31	horse	LOC124685	HLA-T	KPRP
MYLK3	PMCH	FBXW7	TRY1	PUSL1	FBXW10	dog	LOC444100	HLA-U	KRTAP12-1
NADK2	POC1A	FCN3	TRY2	RABL3	FBXW11	dog	LPHN3	HLA-W	KRTAP12-2
NAV3	POTEC	FDXACB1	TRY3	RBM11	FCHSD2	horse	LRBA	HMG20A	KRTAP22-1
NCOA6	POU5F2	FERMT2	TTC39A	RBP5	FCRL4	cattle	LRP5	HNRNPA2B1	KRTAP22-2
NDUFA11	PPAP2A	FGF12	TUBGCP5	RCSD1	FER	cat	LRWD1	HSFY1P1	KRTAP6-2
NEAT1	PPIP5K1	FGF14	TVP23B	RELL1	FGA	cat	LTBP3	HTATSF1P2	KRTAP6-3
NEB	PPM1E	FHL3	TVP23C	RHBDD1	FGD6	dog	MACROD2	HTN1	KRTAP9-1
NEXN	PPM1M	FHOD3	U2	RIMKLA	FGF13	dog	MANF	HTN3	KRTAP9-12P
NMUR2	PRADC1	FIBCD1	UMOD	RNASE6	FGF18	dog	MAP3K11	HTR3E	LCE1E
NTM	PRKAR2B	FKSG51	V1R	RNPC3	FGFBP3	dog	MCC	IFFO2	LCE1F
NTRK2	PRKCD	FLJ35017	VEZT	RSL1D1	FHL1	dog	MCL1	IFI16	LCE4A
NWD2	PROM2	FLJ39294	VWC2	RTP3	FN3K	cat	MDGA2	IFT52	LDHAL6EP
NXPH1	PRR11	FLJ45513	XPBP	S100A12	FOXI1	dog	MDK	IGFL1P1	LEF1
NYAP2	PUS10	FNBP1L	YSK4	SCN9A	FOXJ3	horse	MEI4	IGLC5	LGALSL
ORAI3	PVRL3	FOXO1	YWHAH	SCRIB	FRMD6	dog	MEPCE	IGLC6	LIPJ
OTUD4	RAB11FIP5	FRMD5	ZNF236	SDK2	FRMD7	cat	MGAM	IGLC7	LM8R1L
OTX1	RAB28	FRMD8	ZNF286A	SEC24A	FRMPD1	dog	MICC	IGLJ5	LMTK2
PACSIN1	RAD51C	FSTL5	ZNF286B	SENP5	GAK	horse	MICE	IGLJ6	LPHN3
PAIP2	RAD54L2	FUBP1	ZNF492	SENP7	GALR1	dog	MIPEP	IGLJ7	LRRC66
PCCB	RASA1	FUT5	ZNF516	SEPTP10	GAPDHS	dog	MIPEPP1	IGLV4-60	LRWD1
PCDH9	RASGEF1A	FXYD4	ZNF679	SERINC3	GCNT7	cat	MKNK2P1	IGLVIV-59	LST3
PDCD4	RASSF1	FZD3	ZP2	SH2D5	GEMIN7	cat	MMP21	IGLVV-58	LUZP2
PDZD2	RBM15B	GABRB3	ZPBP	SHC4	GGT6	cat	MRO	IP6K2	MAK
PHACTR1	REL	GALNT10		SIAE	GGT7	dog	MROH8	IPO11	MAP4
PHF7	RET	GALNT11		SLC22A13	GLRA1	dog	MRPL3P1	IQSEC1	MBD3L2
PLA2G16	RFT1	GALNT2		SLC22A18	GNG10	dog	MRPS5	ISG15	MBD3L3
PLAC8L1	RGS6	GALNTL5		SLC25A38	GNG4	dog	MSH4	ITFG1	MBD3L4
PLXDC2	RNF43	GANC		SLC35F5	GNPTAB	horse	MTHFD2P1	KANK1	MCCD1P2
POU2F2	ROCK1	GATA6		SLC39A7	GOLGA1	cat	MTND1P3	KANSL2	MEGF11
POU3F1	RPL29	GBP2		SLC39A8	GP2	dog	MUC13	KCNK3	METTL6
PPAPDC1A	RPS6KA1	GBP4		SLC6A1	GPATCH8	cat	MUC16	KCNN2	MICA
PPIL4	RRP9	GBP5		SLCO1A2	GPR133	cat	MUT	KCTD7	MICD
PPM1M	SEMA3F	GBP7		SMG1	GPR139	dog	MYL6P4	KDM3A	MLKL
PPP2R1B	SEMA3G	GCNT2		SMG6	GPR15	cat	MYO3B	KIAA1009	MRPL11
PRDM10	SEPT4	GDAP1		SPATA21	GPR174	cat	NCOR1	KIAA1430	MSH4
PRDM2	SERF2	GDF6		SPATA7	GPRASP2	cat	NDFIP1	KIAA1731	MSLNL
PRKDC	SERINC4HYPK	GDPD1		SPERT	GPRC5A	cat	NEK5	KIF13B	MTCO3P1
PROM2	SFMBT1	GGT7		SPHKAP	GPRC5B	dog	NFIX	KLHL1	MTND1P19
PSTPIP2	SFXN5	GINM1		SPINT1	GPRIN2	cat	NICN1	KNTC1	MTND4P1
PTPN23	SGSM3	GK2		SPTBN5	GRHL3	cat	NIPBL	KRT79	MTND5P3
PTPRD	SIN3B	GLI3		SREBF1	GRIA1	cat	NREP	KRTAP5-10	MTRR
RABAC1	SIPA1L1	GLT8D1		SRRM2	GRIA2	cat	NRXN3	KRTAP5-9	MUC21
RANBP1	SKA2	GLYCTK		STARD5	GRID1	horse	NT5CP1	KRTCAP3	MUT
RANBP3	SKIV2L2	GNAI2		STK11IP	GRIK3	dog, cattle	NUS1P4	KYNU	MX1
RARRES3	SLC25A17	GNAT1		STS	HADH	cat	NXPE3	LAMC1	MYH14
RASSF3	SLC26A3			SUN3	HEATR5B	cat	NYAP1	LDHAL6A	NABP1

RBFOX2	SLC26A4	GNL3	SURF2	HECA	cat	OR10C1	LGALS4	NAT6
RBL1	SLC35E1	GOLGA4	SYNM	HEPACAM2	cat	OR11A1	LIMD2	NBPF10
RBSG3	SLC38A9	GP9	SYTL1	HEPH	cat	OR1I1	LIPM	NBPF22P
RIF1	SLC9A1	GPAT2	TAS2R1	HERC2	dog	OR2H1	LIPN	NDUFA5
RNF133	SMAD1	GPATCH3	TAS2R3	HIPK2	dog	OR2W3	LRBA	NDUFA7
RNF148	SMG8	GPM6A	TEX14	HMGA2	cattle	OR4K2	MAP2	NEGR1
RNF220	SMIM4	GPN2	TF	HMMR	cat	OR4K4P	MAP3K3	NLGN1
RNF26	SMIM7	GPR22	THBS2	HOPX	dog	OR5AC2	MAPKAPK5	NPCDR1
RNF44	SMYD5	GPR3	THUMPD1	HPS5	cat	OR5AC4P	MAPKAPK5P1	NPRL2
RNPC3	SNAP23	GPR39	TMEM59L	HS3ST4	cattle	OR5P2	MCCD1P1	NR1I2
ROBO2	SNF	GPR62	TMEM71	HSD3B7	cat	OR5P3	MCCD1P2	NRXN3
RPL13AP6	SNRPD1	GPT2	TOE1	HSPA13	cat	OR5V1	MCPH1	NTN3
RPS18P9	SPATS2L	GPX8	TP53BP1	HSPD1	dog	OXR1	METTL7B	NUTF2
SAMHD1	SPCS1	GRAP2	TRPV6	HSPE1	dog	P4HTM	MICA	OLAH
SCAP	SPG11	GREB1L	TSTD2	HTR4	dog	PAH	MICD	OPCML
SCYL3	STAB1	GRIA1	TXN2	IFT80	dog	PC	MICF	OR10A2
SEC23IP	STAMBP	GRID2	TXNRD2	IFT81	cat	PCDH7	MKI67IPP3	OR10A4
SEC24D	STARD9	GRIK3	TYK2	IGHMBP2	cat	PCNP	MKRN2	OR10A5
SEMA3G	STRC	GRIK5	UBXN10	IGSF3	horse	PCNXL3	MRPL32	OR10J5
SEMA6D	SUPT4H1	GRM2	USP45	IGSF9B	horse	PDZRN4	MRPS21P2	OR2D2
SESN1	SYTL1	GRM3	UVRAG	IKZF1	dog	PGLYRP3	MRPS5	OR2L1P
SETD1A	TANC2	GTDC1	VEZT	IMMP2L	dog	PGLYRP4	MST1R	OR2L6P
SF3A3	TEX14	GTF3C5	WDR17	INHBC	cat	PHBP12	MTCO3P1	OR4K2
SGMS2	TEX264	GYPA	WDR62	INPP4B	cat	PHF14	MTL5	OR51AB1P
SGSM3	TGM5	GYPB	WDR90	INPP5J	cat	PIAS1	MTMR2	OR51B3P
SH3GL1	TGM7	GZMA	WFDC8	IPO4	cat	PIGL	MTPAP	OR51B4
SH3RF2	TKT	GZMK	WIPF2	IQCB1	cat	PKD1	MTRNR2L13	OR51B6
SHOC2	TLR9	HARBI1	WIPF3	ISG15	cat	PKN2	MTX2	OR52J2P
SIK2	TMEM110	HAUS2	WWC1	ITGA2B	cat	PLCL1	MX2	OR52J3
SIPA1L1	TMEM115	HBP1	XCR1	ITGA9	cat	PLEK	MYOM2	OR52M1
SKP2	TMEM17	HEG1	XPC	ITGBL1	cat	POLH	NAALADL2	OR52M2P
SLC12A5	TMEM222	HEMK1	ZFAT	ITPR3	cat	POLR2J	NACAD	OR5H14
SLC16A1	TMEM38A	HERC5	ZFYVE19	JAM3	horse	PON3	NBN	OR5H15
SLC1A1	TMEM62	HHIP	ZMYND10	JMJD1C	cat	POT1	NEB	OR5H5P
SLC2A5	TMEM87A	HIVEP2	ZNF436	JPH3	horse	PPP1R35	NECAB2	OR7E14P
SLC30A2	TNNC1	HMGB3P1	ZNF555	JRKL	dog	PPP3CA	NETO2	PACS1
SLC35B1	TNRC6B	HMGN2	ZNF622	KCNK10	horse	PRDM5	NFE2L3	PARN
SLC4A10	TP53BP1	HNRNPF	ZNF780B	KDM3A	dog	PRKAR2A	NLRP11	PARP14
SLC4A4	TPRKB	HRASLS2	ZZEF1	KDR	cattle	PSKH1	NLRP4	PARVG
SLIT2	TRANK1	HS6ST3		KIAA0226	cat	PSMB10	NLRP7	PAWR
SLITRK1	TRIM37	HSD3B7		KIAA0556	horse	PSMD5	NMD3P1	PC
SMAD9	TRIM43	HSDL2		KIAA1549	horse	PTCHD3P1	NMNAT1P5	PCDH15
SNHG4	TRIM69	HSF5		KIF1C	cat	PTENP1	NMUR2	PCDH20
SNRPD1	TRNP1	HSPD1		KIF22	cat	PTPRQ	NNT	PDZD9
SORCS1	TTBK2	HSPE1		KIF27	cat	PYHIN1	NONOP2	PELI3
SORCS2	TUBGCP4	HTR1E		KIF6-like	cattle	R3HCC1L	NOP58	PGAP1
SORCS3	TUSC2	HYAL1		KIRREL2	cat	RAB42	NOS1	PHGDH
SPIDR	TWF2	HYAL2		KIT	cattle	RAB43	NQO2	PKD1
SPOP	TYW5	HYAL3		KLHDC4	horse	RABGAP1L	NR2F1	PLA2G5
SRSF2	UBR1	IFRD2		KRIT1	cat	RABGEF1	NRG3	PLCB1
ST7	UGGT2	IGF1		KYNU	cat	RAD54L2	NRXN1	PLCB3
STAC	UGP2	IGFL2		LAMC2	cat	RANBP10	NRXN3	PLEKHM1
STAG1	UNC50	IGFL3		LAMC3	cattle	RANP1	NTF3	POC1A
STMN2	USP34	IGFL4		LAP3	cat	RASA3	NUP153	POLQ
STX1A	VPS39	IL31RA		LATS2	cat	RASA4B	OBP2B	POLR2J
STX1B	VPS54	IL6ST		LCAT	cat	RBFOX1	OBSCN	PPM1L
SYNPO2	WASF2	IL7		LCLAT1	horse	RBM15B	OR10H1	PPP1R14B
SYT1	WDPCP	INA		LEPREL1	horse	RELA	OR10H5	PRKAG1
SYT6	WDR76	INPP4A		LHFPL3	dog	RHCE	OR10V1	PRKG1
SYVN1	WDR82	INPP5F		LIAS	cat	RHD	OR11G2	PTCD1
TAC4	WDTC1	IQCF1		LILRA6	cattle	RHOA	OR11H5P	PTPRO
TAS2R16	XPO1	IQCF2		LIMD1	cat	RNGTT	OR11H6	PWP1
TBC1D23	ZDHHC18	IQCF3		LIN28B	cattle	RPL23AP1	OR11H7	RAB1B
TBX1	ZEB2	IQCF5		LINC01927	dog	RPL32P1	OR1B1	RAB27A
TDRD3	ZMYND10	IQCF6		LINGO2	dog	RPL3P2	OR1H1P	RASA4B
TDRD7	ZNF106	ITFG1		LMF1	horse	RPL5P18	OR1Q1	RBM14
TFAP2D	ZNF2	ITGA9		LRIG3	dog	RPL7AP7	OR2G2	RBM4
TGM4	ZNF248	ITIH1		LRP1B	cattle	RPLP1P11	OR4K1	RBM4B
THSD7B	ZNF25	ITIH3		LRRC32	cat	RPS4XP6	OR4K15	RERGL
THTPA	ZNF33A	ITIH4		LRRC36	cat	SCARNA20	OR4K16P	RHCE
TLE3	ZNF33B	JMJD6		LRRN3	dog	SCEL	OR4K5	RHD
TLR9	ZNF37A	KAT7		LSM3	cat	SCRN1	OR5AK3P	RHEBL1
TM7SF2	ZNF514	KATNA1		LTF	cattle	SCYL1	OR5AN2P	RIPK2
TMEM123	ZSCAN29	KCNA4		LYST	dog	SDHAP3	OR6Q1	ROR2
TMEM235		KCND2		MAFK	cattle	SDHCP1	OR7E116P	RPL13
TMEM262		KCNH7		MAGEA13P-like	cattle	SETP22	OR7E31P	RPL32P1
TMEM42		KCNIP3		MAOA	dog	SGCB	OR8G1	RPL37P10
TMOD1		KCNJ3		MAOB	dog	SGMS2	OR8G2P	RPL3P2
TNFRSF21		KIAA0825		MAP3K1	dog	SIPA1	OR8G7P	RPRD2
TNRC6B		KIAA1143		MAP3K4	horse	SLC12A4	OR9G2P	RPUSD1
TNS1		KIAA1841		MAP7D2	cat	SLC1A3	OR9G3P	RSL1D1
TP53INP2		KIAA1958		MAP7D3	dog	SLC22A3	OR9G4	RUNDC3B
TPD52		KIF15		MAPK10	horse	SLC4A7	OR9Q1	SCN11A
TRIM71		KIF18A		MARCH10	horse	SLC5A10	OVOL3	SCN9A
TRMT2A		KIFAP3		MARCH7	dog	SLC7A14	PAH	SEC11C
TTC6		KLF2		MARK2	dog	SLC9A9	PAK7	SEC23A
U6		KLHL18		MARK3	dog	SLCO4C1	PAM	SEC24D
U7		KMT2C		MARVELD3	cat	SLIT1	PAQR9	SF3B2
UBE2V2		LARGE1		MATN2	horse	SLIT3	PBRM1	SGCB
UGT8		LCMT2		MBD2	dog	SMIM14	PCDH15	SGCD
USP33		LDHD		MBP	dog	SNX29	PCYOX1	SLC25A13
USP54		LEMD3		MC1R	cattle	SOX5	PEAK1	SLC2A13P1
UTP11		LGALSL		MCF2	dog	SP7	PEBP1P3	SLC4A4
VAPA		LIMK1		MCHR2	dog	SPEF2	PEX26	SLC7A2
VMAC		LIN28A		MED23	dog	SPOCK3	PHKB	SLC8A1
VOPP1		LOH11CR1I		MERTK	cat	SPRR2B	PITRM1	SLCO1B3
VPS51		LPHN3		METAP2	dog	SPRR2G	PLA2G5	SLCO1B7
WBSCR22		LRFN4		METTL22	dog	SSSCA1	PLCE1	SLFN13
WDPCP		LRIG2		METTL8	cat	STAG1	PLEKHA3	SMARCC1
WDR59		LRP1B		MFAP3	cat	STK33	PLEKHN1	SMARCD1
WDR82		LRRC41		MGAM	dog	STXBP6	PLXNB2	SNTG1
WIZ		LRRC57		MGC12345	cattle	SUCLA2P1	PMS1	SNX29
ZBBX		LRRFIP2		MIER3	dog	SUMO1	PNKD	SOD1P3
ZBTB20		LSM1		MIF4GD	dog	SUSD2	PNLDC1	SOGA1
ZBTB34		LSMEM2		MIIP	cat	SVIL	PNPLA5	SP140
ZDHHC8		LSR7		MINOS1	dog	SYNDIG1	POLI	SPAM1
ZFHX4		LYST		MITF	cattle	TACC1P1	POT1	SPATS2L
ZFPL1		MAGI2		MKKS	dog	TAF12	PPARD	SPDL1
ZIC4		MAL		MMP16	dog	TARSL2	PPP2R2B	SPIRE1
ZNF197		MANF		MOB4	dog	TAS1R3	PRICKLE2	SPTBN2
ZNF2		MAP1A		MORC1	cat	TBC1D5	PRKDC	SRIP1
ZNF205		MAP2		MPV17L	dog	TCP10	PRKRA	SRP68
ZNF213		MAP3K6		MRPL11	cat	TCP10L	PRKRIRP6	SSPO
ZNF35		MAP7		MRPL52	cat	TCTA	PRMT8	ST8SIA6
ZNF407		MAPKAPK3		MSI2	horse	TDRD1	PROSER1	STK32B
ZNF501		MATR3		MT1F	dog	TEKT5	PRR4	SYCP2L
ZNF502		MCAM		MT1L	dog	TFAMP2	PRUNE	SYNE1
ZNF514		MCHR1		MT2A	dog	THSD7A	PRUNEP1	SYNPR
ZNF521		MCIDAS		MTIF2	cat	TMC1	PSD3	SYT12
ZNF574		MCM4		MTRF1	cat	TMEM245	PSMC5	TBC1D12
ZNF638		MCMBP		MURC	cat	TMEM50A	PTCD2	TBC1D24
ZNHIT2		MCTP1		MVK	cat	TMPOP1	PTF1A	TBX20
ZNRF1		MDH1		MYBPC1	horse	TNIK	PTPRC	TEC
		MDK		MYLK3	cat	TNR	PWRN4	TERF2IP
		MDM1		MYO15A	cat	TNXB	PYHIN1	THADA
		MED26		MYO9A	cat	TOMM7	PZP	THAP11
		MEGF10		MYOF	dog	TRAF5	RABGAP1L	THSD4
		METTL15		NAPRT1	cat	TRBV25OR9-2	RABGEF1	TMC7
		METTL23		NCAPD3	horse	TRBV26OR9-2	RAD23B	TMEM115
		MFAP1		NCAPG	cattle	TRIM58	RAET1K	TMEM14B

MFRP	NCOA6	dog	TRPC7	RAET1L	TMEM151A
MFSD11	NDUFB1	cattle	TSC22D1	RAF1	TMEM50A
MGAT4A	NEK1	cat	TSC22D4	RASSF6	TMEM87A
MIB1	NEK4	cat	TSGA10	RBMS3	TMPRSS11A
MIGA1	NFAM1	cat	TTC19	RCBTB2P1	TRAIP
MKL1	NFKBIZ	cat	UBE2D2	REL	TRIM42
MKLN1	NID2	horse	UGDH	RGS3	TSC2
MLH1	NINJ1	horse	UQCRHP4	RHBDD3	TSNAXIP1
MMP9	NIPA2	dog	USP32	RHOA	TTC39CP1
MOB4	NIPBL	horse	USP4	RIMS2	TTC8
MPND	NKAIN2	dog	USP8P1	RNF213	TTI2
MRPL49	NOCT	dog	VAV3	RNF6	TUSC2
MRPS5	NOL4	dog	VN1R66P	RPL12P41	U3
MTMR4	NOLC1	cat	VN1R67P	RPL27AP	UBE2D3P3
MTRNR2L7	NOSTRIN	cat	VPRBP	RPL32	UBL5P4
MUSTN1	NOTCH2	cat	VPS41	RPL32P1	USP24P1
MYH3	NPAS3	cattle	WASF5P	RPL35P6	USP43
MYHAS	NPFFR2	cat	XKR3	RPL36AP40	USP46
MYL4	NPTX1	cattle	XPNPEP3	RPS6P7	USP8P1
MYLK3	NR2F2	cattle	XPO5	RSPO2	VCAN
NADK2	NR3C2	horse	YWHAZP4	RTTN	VDAC1P5
NAT6	NRF1	dog	ZCWPW1	RWDD4P2	VPS13B
NAT8	NRG2	dog, cat, cattle	ZNF514	SBF2	VPS26BP1
NAV3	NRG4	cattle	ZNF568	SCARA3	VPS39
NCOA5	NRXN1	cattle	ZNF670	SCN10A	VPS8
NCOA6	NT5DC2	horse	ZNF675	SCUBE2	VWF
NDUFA11	NTAN1	dog	ZNF695	SDHAP3	WASF5P
NEAT1	NTM	horse	ZNF720	SDK1	WDPCP
NEB	NUDT15	cat	ZNF725P	SEC11A	WDR95P
NEDD1	NUMB	horse	ZNF815P	SEC63	WWP2
NEK4	NUP133	horse	ZNF92	SEMA5B	YIF1A
NETO2	NUP54	dog	ZPBP	SENP7	ZDHHC20P2
NEXN	NXPE3	dog	ZSWIM7	SERPINA3	ZDHHC24
NFG3	OLIG1	cattle		SH2D4A	ZMYM1
NISCH	OMA1	dog		SLC17A6	ZMYND10
NLK	OPCML	horse		SLC25A1P2	ZNF394
NLRX1	OPTC	cat		SLC25A26	ZNF48
NMUR2	OR10K1	cat		SLC38A8	ZNF493
NOTO	OR13C8	cattle		SLC6A16	ZNF675
NPRL2	OR2B11	cat		SLC9C2	ZNF682
NR0B2	OR4D6	cat		SLFN12	ZNF747
NR2F1	OR51A7	cattle		SMARCD2	ZNF768
NT5DC2	OR9A4	dog		SMC3	ZNF771
NTM	ORF olfactory receptor family cluster (Chromo	cattle		SNRPG	ZNF789
NTRK2	ORF olfactory receptor family cluster (Chromo	cattle		SOCS2P2	
NUDC	ORF olfactory receptor family cluster (Chromo	cattle		SOD2	
NUFIP1	ORF olfactory receptor family cluster (Chromo	cattle		SORBS1	
NUP37	OTOF	cat		SORBS2	
NWD1	PAFAH2	cat		SP140	
NWD2	PARP12	dog		SPATS2L	
NXPH1	PARVG	cat		SPDL1	
NYAP2	PCDH18	cattle		SPECC1L	
ORAI3	PCDHA1	cat		SPINT3	
OTUD4	PCDHB4	cat		SPOCK3	
OTX1	PCSK5	horse		SPTLC3	
PACSIN1	PDE4D	dog		ST6GAL2	
PAIP2	PDE4DIP	horse		ST6GALNAC3	
PARP3	PDE5A	horse		STAB2	
PARPBP	PDE7B	dog		STAT4	
PATL2	PDILT	dog		STK31	
PBRM1	PDRG1	horse		STXBP5L	
PC	PDXDC1	dog		TBC1D22A	
PCBP4	PEX7	cattle		TBC1D27	
PCCB	PHF2	horse		TBRG4	
PCDH17	PHF20	horse		TDP1	
PCDH9	PHLDB3	cat		TDRKH	
PCGF6	PIK3C3	horse		TF	
PCNX	PITRM1	cat		TFG	
PDCD4	PJA2	cat		TMEM117	
PDE4B	PKD1L1	dog		TMEM200B	
PDIA3	PLA2G2E	cat		TMEM40	
PDZD2	PLA2G3	cat		TMEM5	
PDZD3	PLAC1	cat		TMPRSS2	
PELI1	PLAC8L1	cat, cattle		TMPRSS3	
PEX13	PLAG1	cattle		TNFRSF13B	
PHACTR1	PLCE1	dog		TNFRSF1B	
PHF7	PLEKHH1	cat		TNKS1BP1	
PHKB	PLEKHM3	dog		TNPO1	
PIGV	PLIN3	cat		TP53BP1	
PIK3CG	PLXNA4	horse		TPRXL	
PLA2G16	PML	cat		TPX2	
PLA2G4D	Pol	cattle		TRAT1	
PLA2G4E	POLI	dog		TRIM25	
PLA2GDF	POLR1E	dog		TRIM34	
PLAC8L1	POP1	horse		TRIM6	
PLXDC2	PPAP2A	cat		TSG101	
PMCH	PPAPDC1B	cat		TTC23L	
POC1A	PPFIBP1	cat		TTN	
PODXL	PPM1D	horse		TUBA8	
POMGNT1	PPP1R13B	cat		TUBB4BP5	
POTEC	PPP2CA	horse		U2SURP	
POU2F2	PRICKLE4	cat		U3	
POU3F1	PRKAG1	cat		UBASH3A	
POU5F2	PRKCZ	horse		UTP20	
PPAP2A	PRKG2	cat		VN1R20P	
PPAPDC1A	PRMT3	horse		VN1R31P	
PPAPDC1B	PRR11	cat		VN1R32P	
PPIL4	PRX	cat		VN1R33P	
PPIP5K1	PSMB7	horse		VN2R9P	
PPM1E	PSPH	cat		VWA5A	
PPM1M	PSTK	cat		WDFY4	
PPP2R1B	PTPN4	horse		WDR47	
PRADC1	PTPRR	cat		WDR62	
PRDM10	PTPRS	cat		WDR87	
PRDM2	PUSL1	cat		XKR3	
PRKAR2B	PVRL3	cattle		YTHDF2	
PRKCD	Q2ABD2	dog		ZDHHC13	
PRKDC	RAB3GAP1	dog		ZDHHC20P2	
PROM2	RABGAP1L	dog		ZNF280D	
PRR11	RABL3	cat		ZNF33BP1	
PSTPIP2	RALY	dog		ZNF592	
PTPN23	RANBP17	dog		ZNF605	
PTPRD	RAPH1	dog		ZNF7	
PUS10	RBM11	cat		ZNF718	
PVRL3	RBP5	cat		ZNF804B	
QSER1	RCSD1	cat		ZNF850	
RAB11FIP5	REEP1	dog		ZNF861P	
RAB28	RELL1	cat		ZSWIM5	
RABAC1	RELT	dog			
RAD51C	RFTN2	dog			
RAD54L	RG9MTD3	dog			
RAD54L2	RHBDD1	cat			
RANBP1	RHPN1	horse			
RANBP3	RIMKLA	cat			
RARRES3	RNASE6	cat			
RASA1	RNF103	dog			
RASGEF1A	RNF144B	cattle			
RASSF1	RNPC3	dog, cat			
RASSF3	ROBO1	cattle			
RB1CC1	RPL3	dog			

RBFOX2	
RBL1	
RBM14	
RBM15B	
RBM4	
RBM4B	
RBSG3	
RCE1	
REL	
RET	
RFT1	
RFTN2	
RGS6	
RIF1	
RNF133	
RNF148	
RNF220	
RNF26	
RNF43	
RNF44	
RNPC3	
ROBO2	
ROCK1	
RPL13AP6	
RPL29	
RPS18P9	
RPS6KA1	
RRP9	
RSPO3	
SAMHD1	
SCAP	
SCMH1	
SCYL3	
SEC23IP	
SEC24D	
SEMA3F	
SEMA3G	
SEMA6D	
SEPT4	
SERF2	
SERINC4HYPK	
SESN1	
SETD1A	
SF3A3	
SF3B1	
SFMBT1	
SFXN5	
SGMS2	
SGSM3	
SH3GL1	
SH3RF2	
SHOC2	
SIK2	
SIN3B	
SIPA1L1	
SKA2	
SKIV2L2	
SKP2	
SLC12A5	
SLC16A1	
SLC1A1	
SLC25A17	
SLC26A3	
SLC26A4	
SLC2A5	
SLC30A2	
SLC35B1	
SLC35E1	
SLC38A9	
SLC4A10	
SLC4A4	
SLC9A1	
SLFNL1	
SLIT2	
SLITRK1	
SLITRK3	
SMAD1	
SMAD9	
SMG8	
SMIM4	
SMIM7	
SMYD5	
SNAI2	
SNAP23	
SNF	
SNHG4	
SNRPD1	
SORCS1	
SORCS2	
SORCS3	
SPATS2L	
SPCS1	
SPG11	
SPIDR	
SPOP	
SPTBN2	
SRSF2	
ST7	
STAB1	
STAC	
STAG1	
STAMBP	
STARD9	
STK3	
STMN2	
STRC	
STX1A	
STX1B	
SUPT4H1	
SYNPO2	
SYT1	
SYT6	
SYTL1	
SYVN1	
TAC4	
TAF5	
TANC2	
TAS2R16	
TBC1D23	
TBX1	
TDRD3	
TDRD7	
TEX14	
TEX264	
TFAP2D	
TGM4	
TGM5	
TGM7	
THSD7B	
THTPA	

RPL31	dog
RRN3	dog
RRN3P1	dog
RRNRP2	dog
RSL1D1	cat
RTP3	cat
S100A12	cat
SAE1	dog
SCARB2	dog
SCN9A	cat
SCP2D1	dog
SCPEP1	horse
SCRIB	cat
SDAD1	dog
SDK2	cat
SEC24A	cat, horse
SEC63	horse
SEMA3D	dog
SEMA6A	cattle
SENP5	cat
SENP7	cat
SEPT10	cat
SERINC3	cat
SETBP1	dog
SETD9	dog
SETMAR	cattle
SF3B1	dog
SGCD	horse
SH2D5	cat
SH3GL2	dog
SHC4	cat
SIAE	cat
SKA2	dog
SKP1	horse
SLC22A13	cat
SLC22A15	horse
SLC22A18	cat
SLC25A38	cat
SLC35D1	cattle
SLC35F5	cat
SLC39A7	cat
SLC39A8	cat
SLC41A2	cattle
SLC43A1	horse
SLC46A1	cat
SLC5A1	dog
SLC5A4	dog
SLC6A1	cattle
SLC6A17	dog
SLC9A6	dog
SLCO1A2	cat
SMC4	dog
SMG1	cat
SMG6	cat, horse
SMIM23	dog
SMO	dog
SMYD2	dog
SNAP29	dog
SNRPD1	cattle
SPATA19	horse
SPATA21	cat
SPATA7	cat
SPERT	cat
SPHKAP	cat
SPINT1	cat
SPTAN1	cattle
SPTBN5	cat
SREBF1	cat
SRP72	dog
SRRM2	cat
STAB1	horse
STARD5	cat
STARD6	dog
STK10	dog, cattle
STK11IP	cat
STS	cat
STX7	dog
STXBP6	horse
SUN3	cat
SURF2	cat
SUSD3	horse
SYNM	cat
SYTL1	cat
TAOK1	cattle
TAS2R1	cat
TAS2R16	cattle
TAS2R3	cat
TAS2R38	dog
TBC1D9	dog
TBXAS1	dog
TCTN1	horse
TCTN3	dog
TEKT3	dog
TEX14	cat
TF	cat
TFCP2L1	cattle
TH	dog
THBS2	cat
THEGL	dog
THUMPD1	cat
THYN1	horse
TLX3	dog
TMEM114	dog
TMEM132D	dog, cattle
TMEM159	dog
TMEM242	dog
TMEM59L	cat
TMEM71	cat
TNFRSF9	cattle
TNKS2	dog
TOE1	cat
TP53BP1	cat
TRAPPC8	horse
TRBV25OR9-2	dog
TRIM16	dog
TRIM59	dog
TRIO	horse
TRMT61A	dog
TRPV6	cat
TRY1	dog
TRY2	dog
TRY3	dog
TSTD2	cat
TTC39A	dog
TUBGCP5	dog
TVP23B	dog
TVP23C	dog
TXN2	cat
TXNRD2	cat
TYK2	cat

TK2	U2	dog
TKT	UBE2B	horse
TLE3	UBXN10	cat
TLR9	ULBP3	cattle
TM7SF2	UMOD	dog
TMEM110	UNC93A	cattle
TMEM115	URB2	horse
TMEM123	USP45	cat
TMEM17	UVRAG	cat
TMEM222	V1R	dog
TMEM235	VDAC1	horse
TMEM262	VEZT	dog, cat
TMEM38A	VPS26B	horse
TMEM42	VRK1	horse
TMEM62	VWC2	dog
TMEM87A	VWDE	cattle
TMOD1	WASF3	horse
TNFRSF21	WDR17	cat
TNNC1	WDR62	cat
TNRC6B	WDR90	cat
TNS1	WFDC8	cat
TP53BP1	WIPF2	cat
TP53INP2	WIPF3	cat
TPD52	WNK2	horse
TPRKB	WWC1	cat
TRANK1	XCR1	cat
TRIM37	XPBP	dog
TRIM43	XPC	cat
TRIM69	XPO6	cattle
TRIM71	YSK4	dog
TRMT2A	YWHAH	dog
TRNP1	ZC3H3	horse
TTBK2	ZFAT	cat
TTC6	ZFYVE19	cat
TUBGCP4	ZMYND10	cat
TUSC2	ZNF236	dog
TWF2	ZNF286A	dog
TYW5	ZNF286B	dog
U6	ZNF436	cat
U7	ZNF492	dog
UBE2V2	ZNF516	dog
UBR1	ZNF521	cattle
UGGT2	ZNF555	cat
UGP2	ZNF622	cat
UGT8	ZNF679	dog
UNC50	ZNF780B	cat
UQCRH	ZP2	dog
UQCRHL	ZPBP	dog
USP33	ZZEF1	cat
USP34		
USP54		
UTP11		
VAPA		
VMAC		
VOPP1		
VPS39		
VPS51		
VPS54		
WASF2		
WBSCR22		
WDPCP		
WDR59		
WDR76		
WDR82		
WDTC1		
WHSC1L1		
WIZ		
XPO1		
ZBBX		
ZBTB20		
ZBTB34		
ZDHHC18		
ZDHHC8		
ZEB2		
ZFHX4		
ZFPL1		
ZIC4		
ZMYND10		
ZNF106		
ZNF197		
ZNF2		
ZNF205		
ZNF213		
ZNF248		
ZNF25		
ZNF33A		
ZNF33B		
ZNF35		
ZNF37A		
ZNF407		
ZNF501		
ZNF502		
ZNF514		
ZNF521		
ZNF574		
ZNF638		
ZNF852		
ZNHIT2		
ZNRF1		
ZSCAN29		

Table S4b: Contrasts between domesticates, between AMH and each domesticate, and between great apes and domesticates (for further statistical analysis, see Table S4c)

	dog = **229**	cat = **291**	cattle = **78**	horse = **109**	AMH = **742**
dog = **229**		v = 5; p = 0.2575646	**v = 5; p = 0.002250835**	v = 0	**v = 15; p = 0.02934342**
cat = **291**	v = 5; p = 0.2575646		v = 3; p = 0.1111013	v = 4; p = 0.0805177	v = 15; p = 0.1454225
cattle = **78**	**v = 5; p = 0.002250835**	v = 3; p = 0.1111013		v = 0	**v = 9; p = 0.002784603**
horse = **109**	v = 0	v = 4; p = 0.0805177	v = 0		v = 7; p = 0.1219762

p < 0.05
p < 0.01

Intersections between domesticates

DOG-CAT [5]	DOG-CATTLE [5] **	CAT-CATTLE [3]	CAT-HORSE [4]
ATXN7L1	FAM172A	ADAMTS13	BRAF
CLEC5A	GRIK3	NRG2	DOC
NRG2	NRG2	PLAC8L1	SEC24A
RNPC3	STK10		SMG6
VEZT	TMEM132D		

Intersections between total AMH and each domesticate

AMH-DOG [15] *	AMH-CAT [15]	AMH-CATTLE [9] **	AMG-HORSE [7]
COA5	BRAF	ERBB4	AMBRA1
COL11A1	GRIA1	FAM172A	BRAF
COQ10B	HSD3B7	GRIK3	CACNA1D
FAM172A	ITGA9	LRP1B	DLGAP1
GGT7	MYLK3	PLAC8L1	NT5DC2
GRIK3	NEK4	PVRL3	NTM
HSPD1	PLAC8L1	SNRPD1	STAB1
HSPE1	PPAP2A	TAS2R16	
LYST	PPAPDC1B	ZNF521	
MOB4	PRR11		
NCOA6	RNPC3		
RFTN2	SYTL1		
RNPC3	TEX14		
SF3B1	TP53BP1		
SKA2	ZMYND10		

Intersections between great apes and domesticates

DOM-CHIMP [16]		DOM-ORANGO [20]		DOM-GORILLA [12]	
ALK	horse	ACOX3	cat	CUX2	dog
AMBRA1	horse	ADAMDEC1	cat	DNAH9	horse
C3orf62	cat	ADAMTSL3	cat	FER	cat
EHBP1L1	cat	ALK	horse	IMMP2L	dog
FAF1	horse	BARD1	cat	MRPL11	cat
HADH	cat	DNAJB9	cat	OPCML	horse
INPP4B	cat	FAM172A	cattle, dog	PARVG	cat
LCAT	cat	ISG15	cat	PRKAG1	cat
LHFPL3	dog	KDM3A	dog	RSL1D1	cat
MGAM	dog	KYNU	cat	SCN9A	cat
NIPBL	horse	NRXN1	cattle	SGCD	horse
NXPE3	dog	PITRM1	cat	ZMYND10	cat
RABGAP1L	dog	PLCE1	dog		
STXBP6	horse	POLI	dog		
TRBV25OR9-2	dog	RABGAP1L	dog		
ZPBP	dog	SEC63	horse		
		SENP7	cat		
		TF	cat		
		TP53BP1	cat		
		WDR62	cat		

* p < 0.05
** p < 0.01

Table S4c: Results of the hypergeometric intersection tests

		Domesticates				
		Dog = **229**	Cat = **291**	Cattle = **78**	Horse = **109**	Total domesticates = **691**
AMH	Peyrégne et al. 2016 = **375**	-	-	-	-	$v = 18; p = 0.1199135$
	Racimo 2016 = **326**	-	-	-	-	$v = 16; p = 0.1191519$
	Prüfer et al. 2014 = **108**	-	-	-	-	$v = 9; p = 0.01456058$ *
	Prüfer et al. 2014 + Racimo 2016 = **419**	-	-	-	-	$v = 24; p = 0.01478488$ *
	Total AMH (Peyrégne et al. 2016, Racimo 2016, Prüfer et al. 2014) = **742**	$v = 15; p = 0.02934342$ *	$v = 15; p = 0.1454225$	$v = 9; p = 0.002784603$ **	$v = 7; p = 0.1219762$	$v = 41; p = 0.003407041$ **
Great apes (Cagan et al. 2016)	Chimpanzee (*Pan t. troglodytes*) = **415**	$v = 6; p = 0.3614671$	$v = 5; p = 0.7449666$	$v = 0$	$v = 5; p = 0.08336393$	$v = 16; p = 0.4008807$
	Orango (*Pongo abelii*) = **500**	$v = 5; p = 0.7023469$	$v = 12; p = 0.07285972$	$v = 2; p = 0.598045$	$v = 2; p = 0.7728682$	$v = 20; p = 0.3207204$
	Gorilla (*G. g. gorilla*) = **426**	$v = 2; p = 0.9619034$	$v = 7; p = 0.4519085$	$v = 0$	$v = 3; p = 0.4267467$	$v = 12; p = 0.8291688$