KO term	WAF					
	OIL		DISP		OIL/DISP	
	Para	Cattle	Para	Cattle	Para	Cattle
Metabolism						
Metabolic pathways						
01000 Enzymes - Peroxidase PXDN	5	5				
Carbohydrate metabolism						
00010 Glycolysis / Gluconeogenesis						
00053 Ascorbate and aldarate metabolism						
00020 Citrate cycle (TCA cycle)						
00030 Pentose phosphate pathway						
00051 Fructose and mannose metabolism						
00052 Galactose metabolism						
00500 Starch and sucrose metabolism						
00520 Amino sugar and nucleotide sugar metabolism						
00620 Pyruvate metabolism						
00630 Glyoxylate and dicarboxylate metabolism						
00640 Propanoate metabolism						
00650 Butanoate metabolism						
00562 Inositol phosphate metabolism						
Energy metabolism						
00190 Oxidative phosphorylation						
00920 Sulfur metabolism						
Lipid metabolism						
00061 Fatty acid biosynthesis						
00071 Fatty acid degradation						
00140 Steroid hormone biosynthesis						
00072 Synthesis and degradation of ketone bodies						
00561 Glycerolipid metabolism						
00564 Glycerophospholipid metabolism						
00565 Ether lipid metabolism						
00600 Sphingolipid metabolism						
00590 Arachidonic acid metabolism						
00591 Linoleic acid metabolism						
00592 alpha-Linolenic acid metabolism						
Nucleotide metabolism						
00230 Purine metabolism						
00240 Pyrimidine metabolism						
Amino acid metabolism						
00260 Glycine, serine and threonine metabolism						
00270 Cysteine and methionine metabolism						
00280 Valine, leucine and isoleucine degradation						
00290 Valine, leucine and isoleucine biosynthesis						
00310 Lysine degradation						
00330 Arginine and proline metabolism						
00220 Arginine biosynthesis						
00340 Histidine metabolism						
00380 Tryptophan metabolism						
Metabolism of other amino acids						
00410 beta-Alanine metabolism						
00430 Taurine and hypotaurine metabolism						
00450 Selenocompound metabolism						
00460 Cyanoamino acid metabolism						
00480 Glutathione metabolism						
Glycan biosynthesis and metabolism						
00511 Glycosaminoglycan degradation						
00563 Glycosylphosphatidylinositol (GPI)-anchor biosynthesis						
00534 Glycosaminoglycan biosynthesis - heparan sulfate / heparin						
00510 N-Glycan biosynthesis						
00511 Other glycan degradation						
Metabolism of cofactors and vitamins						
00740 Riboflavin metabolism						
00760 Nicotinate and nicotinamide metabolism						
00830 Retinol metabolism						
00770 Pantothenate and CoA biosynthesis						
00790 Folate biosynthesis						
00130 Ubiquinone and other terpenoid-quinone biosynthesis						
00860 Porphyrin and chlorophyll metabolism						
Metabolism of terpenoids and polyketides						
01054 Nonribosomal peptide structures						
00981 Insect hormone biosynthesis						
00903 Limonene and pinene degradation						
00900 Terpenoid backbone biosynthesis						
01051 Biosynthesis of ansamycins						
Biosynthesis of other secondary metabolites						
00940 Phenylpropanoid biosynthesis						
00333 Prodigiosin biosynthesis						
00404 Staurosporine biosynthesis						
00944 Flavone and flavonol biosynthesis						
Xenobiotics biodegradation and metabolism						
00625 Chloroalkane and chloroalkene degradation						
00980 Metabolism of xenobiotics by cytochrome P450						
00982 Drug metabolism - cytochrome P450						
00983 Drug metabolism - other enzymes						
00362 Benzoate degradation						
00791 Atrazine degradation						
Genetic Information Processing						
Transcription						
03020 RNA polymerase						
03022 Basal transcription factors						
03040 Spliceosome						
Translation						
03010 Ribosome						
00970 Aminoacyl-tRNA biosynthesis						
03013 RNA transport						
03015 mRNA surveillance pathway						
03008 Ribosome biogenesis in eukaryotes						
Folding, sorting and degradation						
03060 Protein export						
04141 Protein processing in endoplasmic reticulum						
04120 Ubiquitin mediated proteolysis						
03050 Proteasome						
03018 RNA degradation						
Replication and repair						
03030 DNA replication						
03410 Base excision repair						
03420 Nucleotide excision repair						
03460 Fanconi anemia pathway						
03440 Homologous recombination						
Environmental Information Processing						
Membrane transport						
02010 ABC transporters						
03070 Bacterial secretion system						
Signal transduction						
02020 Two-component system						
04014 Ras signaling pathway						
04015 Rap1 signaling pathway						
04010 MAPK signaling pathway						
04012 ErbB signaling pathway						
04310 Wnt signaling pathway						
04330 Notch signaling pathway						
04340 Hedgehog signaling pathway						
04350 TGF-beta signaling pathway						
04390 Hippo signaling pathway						
04370 VEGF signaling pathway						
04371 Apelin signaling pathway						
04630 JAK-STAT signaling pathway						
04064 NF-kappa B signaling pathway						
04668 TNF signaling pathway						
04066 HIF-1 signaling pathway						
04068 FoxO signaling pathway						
04020 Calcium signaling pathway						
04070 Phosphatidylinositol signaling system						
04072 Phospholipase D signaling pathway						
04071 Sphingolipid signaling pathway						
04024 cAMP signaling pathway						
04022 cGMP-PKG signaling pathway						
04151 PI3K-Akt signaling pathway						
04152 AMPK signaling pathway						
04150 mTOR signaling pathway						
Signaling molecules and interaction						
04080 Neuroactive ligand-receptor interaction						
04512 ECM-receptor interaction						
04060 Cytokine-cytokine receptor interaction						
04514 Cell adhesion molecules (CAMs)						
Cellular Processes						
Transport and catabolism						
04144 Endocytosis						
04145 Phagosome						
04142 Lysosome						
04146 Peroxisome						
04140 Autophagy - animal						
04137 Mitophagy - animal						
Cell growth and death						
04110 Cell cycle (9)						
04114 Oocyte meiosis (9)						
04210 Apoptosis						
04216 Ferroptosis						
04217 Necroptosis						
04115 p53 signaling pathway						
04218 Cellular senescence						
Cellular community - eukaryotes						
04510 Focal adhesion (9)						
04520 Adherens junction						
04530 Tight junction						
04540 Gap junction						
04550 Signaling pathways regulating pluripotency of stem cells						
02025 Biofilm formation - Pseudomonas aeruginosa						
02024 Quorum sensing						
Cell motility						
04810 Regulation of actin cytoskeleton						
Organismal Systems						
Immune system						
04640 Hematopoietic cell lineage						
04610 Complement and coagulation cascades						
04611 Platelet activation						
04620 Toll-like receptor signaling pathway						
04624 Toll and Imd signaling pathway						
04621 NOD-like receptor signaling pathway						
04622 RIG-I-like receptor signaling pathway						
04623 Cytosolic DNA-sensing pathway						
04625 C-type lectin receptor signaling pathway						
04612 Antigen processing and presentation						
04650 Natural killer cell mediated cytotoxicity						
04660 T cell receptor signaling pathway						
04658 Th1 and Th2 cell differentiation						
04659 Th17 cell differentiation						
04657 IL-17 signaling pathway						
04662 B cell receptor signaling pathway						
04664 Fc epsilon RI signaling pathway						
04666 Fc gamma R-mediated phagocytosis						
04670 Leukocyte transendothelial migration						
04062 Chemokine signaling pathway						
Endocrine system						
04911 Insulin secretion						
04910 Insulin signaling pathway						
04922 Glucagon signaling pathway						
04923 Regulation of lipolysis in adipocytes						
04920 Adipocytokine signaling pathway						
03320 PPAR signaling pathway						
04929 GnRH secretion						
04912 GnRH signaling pathway						
04913 Ovarian steroidogenesis						
04915 Estrogen signaling pathway						
04914 Progesterone-mediated oocyte maturation (9)						
04917 Prolactin signaling pathway						
04921 Oxytocin signaling pathway						
04926 Relaxin signaling pathway						
04935 Growth hormone synthesis, secretion and action						
04918 Thyroid hormone synthesis						
04919 Thyroid hormone signaling pathway						
04928 Parathyroid hormone synthesis, secretion and action						
04916 Melanogenesis						
04924 Renin secretion						
04614 Renin-angiotensin system						
04925 Aldosterone synthesis and secretion						
04927 Cortisol synthesis and secretion						
Circulatory system						
04260 Cardiac muscle contraction						
04261 Adrenergic signaling in cardiomyocytes						
04270 Vascular smooth muscle contraction						
Digestive system						
04970 Salivary secretion						
04971 Gastric acid secretion						
04972 Pancreatic secretion						
04976 Bile secretion						
04973 Carbohydrate digestion and absorption						
04974 Protein digestion and absorption						
04975 Fat digestion and absorption						
04979 Cholesterol metabolism						
04977 Vitamin digestion and absorption						
04978 Mineral absorption						
Excretory system						
04960 Aldosterone-regulated sodium reabsorption						
04961 Endocrine and other factor-regulated calcium reabsorption						
04964 Proximal tubule bicarbonate reclamation						
Nervous system						
04724 Glutamatergic synapse						
04727 GABAergic synapse						
04725 Cholinergic synapse						
04728 Dopaminergic synapse						
04726 Serotonergic synapse						
04720 Long-term potentiation						
04730 Long-term depression						
04723 Retrograde endocannabinoid signaling						
04721 Synaptic vesicle cycle						
04722 Neurotrophin signaling pathway						
Sensory system						
04745 Phototransduction - fly						
04740 Olfactory transduction						
04742 Taste transduction						
04750 Inflammatory mediator regulation of TRP channels						
Development and regeneration						
04320 Dorso-ventral axis formation						
04360 Axon guidance						
04361 Axon regeneration						
04380 Osteoclast differentiation						
Aging						
04211 Longevity regulating pathway						
Environmental adaptation						
04713 Circadian entrainment						
04712 Circadian rhythm - plant						
04714 Thermogenesis						
04626 Plant-pathogen interaction						