Upregulated Differentially Expressed Genes Downregulated Differentially Expressed Genes behavioral response to nicotine negative regulation of Wnt signaling pathway intracellular sulfide ion homeostasis positive regulation of protein oxidation hydrogen sulfide metabolic process regulation of adenylate cyclase-activating G protein-coupled receptor signaling pathway amyloid-beta clearance negative regulation of regulated secretory pathway positive regulation of macrophage derived foam cell differentiation cellular response to gonadotropin-releasing hormone sulfide oxidation, using sulfide:quinone oxidoreductase positive regulation of protein insertion into mitochondrial outer membrane cellular detoxification of cadmium ion GABAergic neuron differentiation in basal ganglia synaptic transmission involved in micturition vitamin B6 metabolic process positive regulation of cholesterol storage specification of proximal tubule identity plasma lipoprotein particle clearance negative regulation of transcription from RNA polymerase II promoter involved in smooth muscle cell differentiation cholesterol transport positive regulation of amacrine cell differentiation cellular response to stimulus negative regulation of cellular response to transforming growth factor beta stimulus circulatory system development cerebral cortex GABAergic interneuron fate commitment fructose transmembrane transport Biological Process regulation of circadian rhythm leukotriene biosynthetic process asexual reproduction negative regulation of interleukin-1 beta production peptidyl-arginine N-methylation protein homooligomerization cellular defense response T cell activation chondrocyte intercalation involved in growth plate cartilage morphogenesis response to food positive regulation of positive chemotaxis to cAMP positive regulation of transcription of nucleolar large rRNA by RNA polymerase dehydroascorbic acid transport chemotaxis to folate negative regulation of interleukin-6 production peptidyl-lysine modification to peptidyl-hypusine lipoprotein transport proximal/distal pattern formation involved in pronephric nephron development regulation of dendrite development negative regulation of Notch signaling pathway telencephalon development activation of phospholipase D activity response to hypoxia negative regulation of chaperone-mediated protein folding glutathione biosynthetic process subpallium development negative regulation of tumor necrosis factor production oocyte dorsal/ventral axis specification insulin receptor signaling pathway positive regulation of TORC2 signaling endocytosis regulation of DNA endoreduplication positive regulation of chemorepellent activity acetylcholine-gated monoatomic cation-selective channel activity sulfide:quinone oxidoreductase activity Wnt-protein binding FAD binding maleylacetoacetate isomerase activity glucose binding D5 dopamine receptor binding acetylcholine receptor activity deoxyhypusine synthase activity amyloid-beta binding ethanolaminephosphotransferase activity extracellular ligand-gated monoatomic ion channel activity guanylate cyclase activator activity sugar transmembrane transporter activity adenylate cyclase activator activity fructose transmembrane transporter activity RNA-3'-phosphate cyclase activity gated channel activity soluble NSF attachment protein activity identical protein binding 3-oxo-5-alpha-steroid 4-dehydrogenase activity cargo receptor activity iron ion binding protein dimerization activity TORC2 complex binding transmembrane transporter activity dehydroascorbic acid transmembrane transporter activity hydroxymethylglutaryl-CoA reductase (NADPH) activity Molecular Function monoatomic ion channel activity oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor low-density lipoprotein particle binding RNA polymerase II cis-regulatory region sequence-specific DNA binding transmembrane signaling receptor activity acetyltransferase activator activity cytochrome-b5 reductase activity, acting on NAD(P)H 8-methylthiopropyl glucosinolate S-oxygenase activity GTPase activity 4-methylthiopropyl glucosinolate S-oxygenase activity protein adenylyltransferase activity enzyme binding 5'-nucleotidase activity C-4 methylsterol oxidase activity guanyl nucleotide binding potassium channel activity oxidoreductase activity leukotriene-A4 hydrolase activity phosphothreonine residue binding insulin-like growth factor II binding G-protein beta/gamma-subunit complex binding glutamate-5-semialdehyde dehydrogenase activity hydroxymethyl-, formyl- and related transferase activity oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxyger protein binding carbonate dehydratase activity acyltransferase activity acetylcholine binding GTP binding low-density lipoprotein particle glutathione transferase activity dopaminergic synapse lipid binding cholinergic synapse acetylcholine-gated channel complex NuA3b histone acetyltransferase complex complement component C1 complex t-UTP complex HCN channel complex SCF ubiquitin ligase complex zymogen granule membrane nucleus mitochondrial inner membrane NuA3a histone acetyltransferase complex collagen trimer intracellular non-membrane-bounded organelle cell cortex chromosome yolk autophagosome insulin receptor complex Cellular Component brush border membrane dendrite membrane nucleolus myosin filament photoreceptor disc membrane extrinsic component of neuronal dense core vesicle membrane MOZ/MORF histone acetyltransferase complex methionine adenosyltransferase complex pole plasm origin recognition complex Parkin-FBXW7-Cul1 ubiquitin ligase complex plasma membrane raft NURF complex extrinsic component of postsynaptic specialization membrane ER to Golgi transport vesicle membrane heterotrimeric G-protein complex muscle myosin complex NuA4 histone acetyltransferase complex nuclear lumen photoreceptor outer segment membrane cone cell pedicle histone acetyltransferase complex potassium channel complex endoplasmic reticulum membrane synaptic vesicle sperm connecting piece large ribosomal subunit -Log10 (pvalue) -Log10 (pvalue)