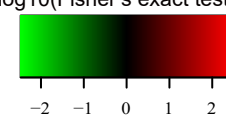


Biological Process

Zscore(-log10(Fisher's exact test P value))



Up-regulated

Down-regulated



- cellular response to reactive oxygen species
- amide biosynthetic process
- glycosyl compound biosynthetic process
- response to dsRNA
- cellular response to metal ion
- viral life cycle
- telomere organization
- protein localization to membrane
- protein localization to organelle
- viral latency
- movement in host environment
- mitochondrial membrane organization
- ribose phosphate metabolic process
- thioester biosynthetic process
- acyl-CoA metabolic process
- nucleobase-containing compound catabolic process
- purine-containing compound biosynthetic process
- cellular respiration
- oxidoreduction coenzyme metabolic process
- mitochondrial transmembrane transport
- glyceraldehyde-3-phosphate metabolic process
- ER-nucleus signaling pathway
- glucose 6-phosphate metabolic process
- positive regulation of telomerase RNA localization to Cajal body
- fructose 6-phosphate metabolic process
- cellular carbohydrate catabolic process
- response to unfolded protein
- chaperone mediated protein folding requiring cofactor
- response to oxygen radical
- cell redox homeostasis
- hydrogen transport
- ATP hydrolysis coupled transmembrane transport
- myeloid cell homeostasis
- sensory perception of mechanical stimulus
- regulation of ATPase activity
- maintenance of protein location in cell
- regulation of signal transduction
- regulation of phosphorus metabolic process
- negative regulation of transport
- positive regulation of cell communication
- proteolysis
- secretion
- regulation of stem cell differentiation
- response to hypoxia
- regulation of organ morphogenesis
- response to amino acid
- regulation of smooth muscle cell proliferation
- G-protein coupled receptor signaling pathway
- negative regulation of catabolic process
- sensory perception of light stimulus
- negative regulation of cell adhesion
- positive regulation of cellular component movement
- cellular response to lipoprotein particle stimulus
- negative regulation of cell activation
- behavioral response to pain
- response to low-density lipoprotein particle
- response to nutrient
- organic hydroxy compound transport
- regulation of fibroblast proliferation
- protein-lipid complex assembly
- isoprenoid metabolic process
- aminoglycan catabolic process
- regulation of lipid metabolic process
- regulation of embryonic development
- cell fate commitment
- response to estradiol
- regulation of cellular response to transforming growth factor beta stimu
- positive regulation of cell differentiation
- positive regulation of cell-substrate adhesion
- morphogenesis of an epithelium
- tube morphogenesis
- regulation of cell projection organization
- regulation of cell motility
- animal organ development
- embryonic morphogenesis
- endocytosis
- regulation of fat cell differentiation
- digestive system development
- response to retinoic acid
- cell part morphogenesis
- cell morphogenesis
- regulation of cell growth
- cell development
- collagen metabolic process
- circulatory system development
- lipid homeostasis
- regulation of synapse organization
- positive regulation of cell proliferation
- regulation of cell morphogenesis
- skeletal system development
- regulation of lipase activity
- embryo implantation
- positive regulation of immune response
- immune system development
- regulation of bone development
- plasma membrane invagination
- negative regulation of ossification
- positive chemotaxis
- regulation of biomineral tissue development
- regulation of receptor binding
- defense response to other organism
- development of primary sexual characteristics
- regulation of epithelial to mesenchymal transition
- regulation of cell size
- stem cell differentiation
- negative regulation of cell communication
- regulation of defense response
- response to fungus
- cell-substrate junction assembly
- negative regulation of tissue remodeling
- limb development
- negative regulation of cellular component movement
- negative regulation of cell differentiation
- female sex differentiation
- protein activation cascade
- bone trabecula morphogenesis
- negative regulation of response to external stimulus
- epithelial cell differentiation
- lipoprotein metabolic process
- regulation of chemotaxis
- extracellular matrix disassembly
- cellular response to growth factor stimulus
- regulation of nervous system development
- regulation of cell development
- negative regulation of hydrolase activity
- positive regulation of response to external stimulus
- aminoglycan biosynthetic process
- positive regulation of developmental growth
- response to fatty acid
- axis elongation
- positive regulation of cell division
- response to monosaccharide
- nervous system development
- cell migration
- extracellular matrix assembly
- ovulation cycle process
- endothelium development
- glycosaminoglycan metabolic process
- cell surface receptor signaling pathway
- regulation of cartilage development
- regulation of humoral immune response
- regulation of carbohydrate metabolic process
- basement membrane organization
- collagen fibril organization
- negative regulation of cytokine production
- regulation of cell-matrix adhesion
- embryo development ending in birth or egg hatching
- blood coagulation
- regulation of kidney development
- regulation of morphogenesis of a branching structure
- positive regulation of immune effector process
- regulation of tumor necrosis factor superfamily cytokine production
- positive regulation of cell activation
- positive regulation of cytokine production
- regulation of osteoblast proliferation
- negative regulation of cellular response to growth factor stimulus
- regulation of vasculature development
- negative regulation of response to cytokine stimulus
- regulation of production of molecular mediator of immune response
- tissue homeostasis
- acute inflammatory response
- antimicrobial humoral response
- negative regulation of developmental growth
- regionalization
- response to BMP
- response to transforming growth factor beta
- urogenital system development
- respiratory system development
- glycoprotein metabolic process
- response to bacterium
- reproductive system development
- plasma lipoprotein particle organization
- regulation of response to wounding
- appendage morphogenesis
- positive regulation of ossification
- regulation of extracellular matrix organization
- negative regulation of coagulation
- negative regulation of hemostasis
- negative regulation of cell proliferation
- protein-lipid complex remodeling
- homophilic cell adhesion via plasma membrane adhesion molecules
- B cell mediated immunity
- exocrine system development
- regulation of osteoblast differentiation
- regulation of epithelial cell proliferation
- macromolecule glycosylation

Figure S1. The differentially expressed proteins between USC-Exos and USCs were biologically interpreted and their involved biological processes were illustrated as a heat map. P-value less than 0.05 and absolute fold change greater than 1.5 were used as a filter to identify the differentially expressed proteins.