
< 5E−4
5E−3
5E−2
0
small molecule metabolic process
innate immune response
viral process
translation
gene expression
transcription, DNA−templated
mRNA metabolic process
RNA metabolic process
mRNA processing
RNA splicing
cellular protein metabolic process
cell proliferation
regulation of transcription, DNA−templated
cytokine−mediated signaling pathway
negative regulation of apoptotic process
type I interferon signaling pathway
in utero embryonic development
response to virus
response to interferon−alpha
regulation of cytokine biosynthetic process
pre−miRNA processing
positive regulation of viral genome replication
negative regulation of viral genome replication
negative regulation of protein kinase activity by regulation of protein phosphorylation
mRNA modification
miRNA loading onto RISC involved in gene silencing by miRNA
defense response to virus
base conversion or substitution editing
adenosine to inosine editing
anatomical structure morphogenesis
negative regulation of cell adhesion
homophilic cell adhesion
embryonic skeletal system morphogenesis
dorsal/ventral pattern formation
dendrite self−avoidance
cell fate determination
central nervous system development
RNA catabolic process
regulation of mRNA stability involved in response to stress
regulation of circadian rhythm
positive regulation of translation
circadian regulation of translation
CRD−mediated mRNA stabilization
tRNA splicing, via endonucleolytic cleavage and ligation
viral transcription
translational elongation
translational termination
positive regulation by host of viral transcription
regulation of mRNA stability
ATP catabolic process
mRNA splicing, via spliceosome
RNA processing
response to UV
biological_process
regulation of translation
tRNA aminoacylation for protein translation
spliceosomal snRNP assembly
regulation of translational initiation
mRNA export from nucleus
ncRNA metabolic process
nuclear−transcribed mRNA catabolic process, nonsense−mediated decay
SRP−dependent cotranslational protein targeting to membrane
transcription from RNA polymerase II promoter
positive regulation of viral transcription
transcription elongation from RNA polymerase II promoter
snRNA export from nucleus
termination of RNA polymerase II transcription
mRNA cis splicing, via spliceosome
mRNA 3'−end processing
histone mRNA metabolic process
gene silencing by RNA
7−methylguanosine mRNA capping
DNA damage response, detection of DNA damage
peptide biosynthetic process
transcription from RNA polymerase III promoter
smoothened signaling pathway
immune system development
cilium morphogenesis
3'−UTR−mediated mRNA stabilization
asparaginyl−tRNA aminoacylation
epidermis development
mRNA cleavage
positive regulation of mRNA 3'−end processing
mRNA 5'−splice site recognition
mRNA splice site selection
negative regulation of mRNA splicing, via spliceosome
maternal process involved in female pregnancy
mitochondrial translation
spermatogenesis
regulation of intracellular pH
angiogenesis
negative regulation of cell adhesion involved in substrate−bound cell migration
proton transport
ATP biosynthetic process
mitochondrial ATP synthesis coupled proton transport
generation of precursor metabolites and energy
cellular metabolic process
respiratory electron transport chain
NLS−bearing protein import into nucleus
lipid metabolic process
camera−type eye development
microtubule−based process
protein polymerization
regulation of ubiquitin−protein ligase activity involved in mitotic cell cycle
regulation of cellular amino acid metabolic process
positive regulation of ubiquitin−protein ligase activity involved in mitotic cell cycle
negative regulation of ubiquitin−protein ligase activity involved in mitotic cell cycle
anaphase−promoting complex−dependent proteasomal ubiquitin−dependent protein catabolic process
G1/S transition of mitotic cell cycle
vitamin E biosynthetic process
viral penetration into host nucleus
viral entry into host cell
lipid transport
sperm motility
positive regulation of cell growth
positive regulation of protein catabolic process
GTP catabolic process
small GTPase mediated signal transduction
endoplasmic reticulum unfolded protein response
retina development in camera−type eye
antigen processing and presentation of exogenous peptide antigen via MHC class I
antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP−dependent
triglyceride biosynthetic process
regulation of immune response
regulation of defense response to virus by virus
positive regulation of T cell mediated cytotoxicity
phospholipid metabolic process
phosphatidylcholine acyl−chain remodeling
interferon−gamma−mediated signaling pathway
immune response
cellular lipid metabolic process
antigen processing and presentation of endogenous peptide antigen via MHC class I via ER pathway, TAP−independent
antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP−independent
ion transport
protection from natural killer cell mediated cytotoxicity
positive regulation of memory T cell activation
detection of bacterium
positive regulation of interferon−gamma production
amino acid transmembrane transport
arginine transport
long−chain fatty−acyl−CoA biosynthetic process
phosphatidylinositol biosynthetic process
amino acid transport
long−chain fatty acid metabolic process
surfactant homeostasis
phospholipid biosynthetic process
phosphatidylglycerol acyl−chain remodeling
phosphatidic acid biosynthetic process
glycerophospholipid biosynthetic process
negative regulation of phosphatidylcholine biosynthetic process
establishment of protein localization to plasma membrane
cellular response to amino acid stimulus
positive regulation of TOR signaling
protein targeting to mitochondrion
Notch signaling pathway
cilium or flagellum−dependent cell motility
rRNA processing
ER−associated ubiquitin−dependent protein catabolic process
ethanol catabolic process
sphingolipid metabolic process
ceramide biosynthetic process
sphingolipid biosynthetic process
cell redox homeostasis
mitochondrial transport
negative regulation of fibroblast proliferation
DNA duplex unwinding
regulation of small GTPase mediated signal transduction
chaperone cofactor−dependent protein refolding
nucleosome assembly
proteasome−mediated ubiquitin−dependent protein catabolic process
ubiquitin−dependent SMAD protein catabolic process
ubiquitin−dependent protein catabolic process
response to tumor necrosis factor
regulation of type I interferon production
regulation of glucocorticoid metabolic process
protein maturation
protein K63−linked ubiquitination
protein autoubiquitination
positive regulation of type I interferon production
positive regulation of sequence−specific DNA binding transcription factor activity
positive regulation of proteolysis
positive regulation of proteasomal ubiquitin−dependent protein catabolic process
positive regulation of neuron differentiation
positive regulation of neurogenesis
positive regulation of chaperone−mediated protein complex assembly
positive regulation of cell motility
positive regulation of cell migration
positive regulation of cell cycle
negative regulation of viral transcription
negative regulation of viral release from host cell
negative regulation of protein ubiquitination
negative regulation of intrinsic apoptotic signaling pathway in response to DNA damage
misfolded or incompletely synthesized protein catabolic process
cellular response to misfolded protein
fat cell differentiation
blood coagulation
positive regulation of protein insertion into mitochondrial membrane involved in apoptotic signaling pathway
negative regulation of cell growth
response to salt stress
response to gamma radiation
release of cytochrome c from mitochondria
Ras protein signal transduction
positive regulation of release of cytochrome c from mitochondria
positive regulation of reactive oxygen species metabolic process
positive regulation of protein oligomerization
positive regulation of neuron apoptotic process
positive regulation of intrinsic apoptotic signaling pathway
neuron apoptotic process
cellular response to ionizing radiation
intrinsic apoptotic signaling pathway by p53 class mediator
purine ribonucleoside monophosphate biosynthetic process
purine nucleobase metabolic process
'de novo' IMP biosynthetic process
purine nucleobase biosynthetic process
'de novo' posttranslational protein folding
binding of sperm to zona pellucida
positive regulation of extrinsic apoptotic signaling pathway in absence of ligand
axon guidance
positive regulation of cell proliferation
response to hypoxia
actin cytoskeleton organization
renal system development
protein targeting to membrane
posttranslational protein targeting to membrane, translocation
posttranslational protein targeting to membrane
positive regulation of protein secretion
nitrogen compound metabolic process
liver development
multicellular organismal aging
cellular component movement
cellular response to oxidative stress
L−lysine catabolic process to acetyl−CoA via saccharopine
cellular protein modification process
response to alkaloid
response to activity
oxidative phosphorylation
mitochondrial electron transport, ubiquinol to cytochrome c
aerobic respiration
hydrogen ion transmembrane transport
second−messenger−mediated signaling
response to organic substance
regulation of Wnt signaling pathway
regulation of growth
regulation of cell differentiation
protein dephosphorylation
negative regulation of tyrosine phosphorylation of Stat3 protein
mitotic nuclear envelope reassembly
ceramide metabolic process
inactivation of MAPK activity
cholesterol homeostasis
skeletal system development
retina homeostasis
regulation of stress−activated MAPK cascade
regulation of NF−kappaB import into nucleus
erythrocyte homeostasis
natural killer cell mediated cytotoxicity
peptidyl−tyrosine dephosphorylation
regulation of Rab GTPase activity
RNA splicing, via transesterification reactions
regulation of miRNA metabolic process
regulation of endocytosis
mRNA catabolic process
activation of signaling protein activity involved in unfolded protein response
lamellipodium assembly
prenylated protein catabolic process
virion assembly
viral protein processing
vagina development
ubiquitin−dependent protein catabolic process via the multivesicular body sorting pathway
transformed cell apoptotic process
thymocyte apoptotic process
T cell homeostatic proliferation
T cell costimulation
succinate metabolic process
spermatid differentiation
signal transduction in response to DNA damage
Sertoli cell proliferation
S−adenosylhomocysteine catabolic process
retinal cell programmed cell death
retinal cell apoptotic process
response to toxic substance
response to nutrient
response to axon injury
release of matrix enzymes from mitochondria
regulation of protein homodimerization activity
regulation of protein heterodimerization activity
regulation of nitrogen utilization
regulation of mitochondrial membrane potential
regulation of mitochondrial membrane permeability involved in programmed necrotic cell death
regulation of MAPK cascade
regulation of mammary gland epithelial cell proliferation
regulation of cell cycle
receptor internalization
protein insertion into mitochondrial membrane involved in apoptotic signaling pathway
protein homooligomerization
protein heterooligomerization
post−embryonic camera−type eye morphogenesis
positive regulation of signal transduction
positive regulation of release of sequestered calcium ion into cytosol
positive regulation of mitochondrial outer membrane permeabilization involved in apoptotic signaling pathway
positive regulation of endoplasmic reticulum unfolded protein response
positive regulation of developmental pigmentation
positive regulation of B cell apoptotic process
positive regulation of apoptotic process involved in mammary gland involution
positive regulation of apoptotic DNA fragmentation
positive regulation of actin filament polymerization
phosphatidylinositol−mediated signaling
odontogenesis of dentin−containing tooth
neuron migration
negative regulation of protein binding
negative regulation of peptidyl−serine phosphorylation
negative regulation of epidermal growth factor receptor signaling pathway
negative regulation of endoplasmic reticulum calcium ion concentration
negative regulation of apoptotic signaling pathway
myeloid cell homeostasis
mitochondrion morphogenesis
mitochondrial fragmentation involved in apoptotic process
leukocyte migration
kidney development
intrinsic apoptotic signaling pathway in response to endoplasmic reticulum stress
hypothalamus development
homocysteine biosynthetic process
homeostasis of number of cells within a tissue
glycosphingolipid metabolic process
germ cell development
fertilization
Fc−gamma receptor signaling pathway involved in phagocytosis
Fc−epsilon receptor signaling pathway
extrinsic apoptotic signaling pathway via death domain receptors
extrinsic apoptotic signaling pathway in absence of ligand
extrinsic apoptotic signaling pathway
establishment or maintenance of transmembrane electrochemical gradient
epidermal growth factor receptor signaling pathway
endosomal transport
endoplasmic reticulum calcium ion homeostasis
ectopic germ cell programmed cell death
development of secondary sexual characteristics
circadian sleep/wake cycle
chronic inflammatory response to antigenic stimulus
cerebral cortex development
cellular response to organic substance
cell−cell signaling
branching involved in labyrinthine layer morphogenesis
blood vessel remodeling
B cell receptor apoptotic signaling pathway
B cell negative selection
B cell homeostatic proliferation
B cell homeostasis
B cell apoptotic process
apoptotic signaling pathway
apoptotic process involved in patterning of blood vessels
apoptotic process involved in embryonic digit morphogenesis
apoptotic mitochondrial changes
anatomical structure formation involved in morphogenesis
aging
activation of cysteine−type endopeptidase activity involved in apoptotic process by cytochrome c
activation of cysteine−type endopeptidase activity involved in apoptotic signaling pathway
negative regulation of neuron apoptotic process
hydrogen peroxide catabolic process
removal of superoxide radicals
fibroblast growth factor receptor signaling pathway
positive regulation of Rab GTPase activity
activation of cysteine−type endopeptidase activity involved in apoptotic process
platelet activation
response to oxidative stress
membrane organization
tricarboxylic acid cycle
Wnt signaling pathway
tight junction assembly
dendrite development
locomotory behavior
negative regulation of intracellular estrogen receptor signaling pathway
response to estradiol
T cell proliferation involved in immune response
T cell lineage commitment
T cell differentiation in thymus
somitogenesis
rRNA transcription
response to X−ray
response to ischemia
response to antibiotic
regulation of tissue remodeling
regulation of mitochondrial membrane permeability involved in apoptotic process
regulation of mitochondrial membrane permeability
protein tetramerization
protein localization
protein import into nucleus, translocation
positive regulation of thymocyte apoptotic process
positive regulation of peptidyl−tyrosine phosphorylation
positive regulation of mitochondrial membrane permeability
positive regulation of histone deacetylation
positive regulation of cell cycle arrest
positive regulation of cell aging
positive regulation of cardiac muscle cell apoptotic process
oxidative stress−induced premature senescence
oligodendrocyte apoptotic process
negative regulation of reactive oxygen species metabolic process
negative regulation of neuroblast proliferation
negative regulation of macromitophagy
negative regulation of helicase activity
necroptotic process
multicellular organism growth
mitotic G1 DNA damage checkpoint
mitotic cell cycle arrest
intrinsic apoptotic signaling pathway in response to DNA damage by p53 class mediator
gastrulation
ER overload response
embryonic organ development
double−strand break repair
DNA strand renaturation
DNA damage response, signal transduction by p53 class mediator resulting in transcription of p21 class mediator
chromatin assembly
cerebellum development
cellular response to glucose starvation
cellular protein localization
cell aging
B cell lineage commitment
base−excision repair
DNA damage response, signal transduction by p53 class mediator
branched−chain amino acid catabolic process
cell cycle arrest
DNA damage response, signal transduction by p53 class mediator resulting in cell cycle arrest
regulation of apoptotic process
metabolic process
microtubule−based movement
response to endoplasmic reticulum stress
protein transport
antigen processing and presentation of peptide antigen via MHC class I
brain development
vesicle−mediated transport
transmembrane transport
transport
S−adenosylmethionine biosynthetic process
galactose metabolic process
galactitol metabolic process
galactose catabolic process
xenobiotic metabolic process
sulfur amino acid metabolic process
methylation
one−carbon metabolic process
carbohydrate metabolic process
carbohydrate phosphorylation
positive regulation of GTPase activity
protein folding
DNA repair
protein polyubiquitination
protein ubiquitination
negative regulation of transforming growth factor beta receptor signaling pathway
transforming growth factor beta receptor signaling pathway
positive regulation of NF−kappaB transcription factor activity
positive regulation of I−kappaB kinase/NF−kappaB signaling
protein ubiquitination involved in ubiquitin−dependent protein catabolic process
DNA replication
positive regulation of protein ubiquitination
viral life cycle
mRNA transport
protein export from nucleus
positive regulation of transcription, DNA−templated
axonogenesis
spliceosomal complex assembly
negative regulation of translation
protein import into nucleus
protein complex assembly
translational initiation
ATP hydrolysis coupled proton transport
osteoblast differentiation
nucleotide−excision repair
cellular response to drug
replicative senescence
negative regulation of DNA replication
multicellular organismal development
determination of adult lifespan
cellular response to hypoxia
cell differentiation
cellular response to DNA damage stimulus
mitotic spindle organization
negative regulation of DNA endoreduplication
arginyl−tRNA aminoacylation
regulation of glucose transport
nuclear pore complex assembly
glucose transport
hexose transport
leucyl−tRNA aminoacylation
regulation of exit from mitosis
transmembrane receptor protein serine/threonine kinase signaling pathway
response to peptidoglycan
response to lipopolysaccharide
response to interleukin−1
regulation of cytokine−mediated signaling pathway
positive regulation of smooth muscle cell proliferation
nucleotide−binding oligomerization domain containing signaling pathway
nucleotide−binding domain, leucine rich repeat containing receptor signaling pathway
negative regulation of NF−kappaB transcription factor activity
lipopolysaccharide−mediated signaling pathway
JNK cascade
activation of NF−kappaB−inducing kinase activity
interleukin−1−mediated signaling pathway
protein localization to kinetochore
mitotic sister chromatid segregation
negative regulation of mitochondrial RNA catabolic process
regulation of transcription from RNA polymerase II promoter
meiotic nuclear division
nucleobase−containing small molecule interconversion
nucleobase−containing compound metabolic process
glutamine metabolic process
'de novo' CTP biosynthetic process
CTP biosynthetic process
methionyl−tRNA aminoacylation
poly(A)+ mRNA export from nucleus
fructose 6−phosphate metabolic process
glutaminyl−tRNA aminoacylation
isoleucyl−tRNA aminoacylation
meiotic chromosome segregation
kinetochore organization
meiotic chromosome condensation
viral mRNA export from host cell nucleus
transferrin transport
toll−like receptor 2 signaling pathway
spliceosomal tri−snRNP complex assembly
somatic recombination of immunoglobulin gene segments
somatic hypermutation of immunoglobulin genes
righting reflex
retrograde vesicle−mediated transport, Golgi to ER
response to peptide hormone
response to heat
response to glucose
regulation of translational fidelity
regulation of steroid biosynthetic process
regulation of protein binding
regulation of multicellular organism growth
reciprocal meiotic recombination
protein glycosylation
protein autophosphorylation
prolyl−tRNA aminoacylation
positive regulation of helicase activity
positive regulation of DNA damage response, signal transduction by p53 class mediator
phagosome maturation
peptidyl−serine phosphorylation
oogenesis
oligodendrocyte development
neuromuscular junction development
nerve development
negative regulation of translational initiation in response to stress
negative regulation of DNA recombination
negative regulation of chromatin binding
myelination
muscle fiber development
mitotic nuclear division
mitotic chromosome condensation
mitotic cell cycle checkpoint
mitochondrial protein processing
mismatch repair
meiotic mismatch repair
isotype switching
intracellular protein transport
intra−Golgi vesicle−mediated transport
interaction with host
glycolytic process
glutamyl−tRNA aminoacylation
ER to Golgi vesicle−mediated transport
DNA damage checkpoint
cristae formation
cellular response to stimulus
cellular response to interferon−gamma
cellular response to gamma radiation
cellular iron ion homeostasis
cell death
ATP metabolic process
cell cycle
chromosome segregation
glucose metabolic process
regulation of catalytic activity
visual perception
regulation of TOR signaling
oocyte maturation
muscle organ development
chaperone−mediated protein folding
mRNA polyadenylation
tryptophan metabolic process
fatty acid oxidation
fatty−acyl−CoA biosynthetic process
splicing factor protein import into nucleus
oligosaccharide biosynthetic process
positive regulation of translational initiation
astrocyte development
astrocyte differentiation
substrate adhesion−dependent cell spreading
regulation of Rap protein signal transduction
regulation of cell migration
negative regulation of integrin activation
cytoskeleton−dependent intracellular transport
establishment of protein localization
protein localization to organelle
protein stabilization
mitotic nuclear envelope disassembly
iron−sulfur cluster assembly
DNA replication−dependent nucleosome assembly
DNA replication−independent nucleosome assembly
stem cell maintenance
ribosomal small subunit export from nucleus
ribosomal large subunit export from nucleus
regulation of protein export from nucleus
regulation of protein catabolic process
protein localization to nucleus
regulation of centrosome duplication
negative regulation of androgen receptor signaling pathway
mitotic sister chromatid cohesion
TRIF−dependent toll−like receptor signaling pathway
toll−like receptor TLR6:TLR2 signaling pathway
toll−like receptor TLR1:TLR2 signaling pathway
toll−like receptor signaling pathway
toll−like receptor 9 signaling pathway
toll−like receptor 5 signaling pathway
toll−like receptor 4 signaling pathway
toll−like receptor 3 signaling pathway
toll−like receptor 10 signaling pathway
stress−activated MAPK cascade
sister chromatid cohesion
MyD88−independent toll−like receptor signaling pathway
MyD88−dependent toll−like receptor signaling pathway
activation of MAPK activity
GDP−mannose biosynthetic process
aspartyl−tRNA aminoacylation
protein phosphorylation
positive regulation of transcription from RNA polymerase II promoter
negative regulation of cell proliferation
negative regulation of transcription from RNA polymerase II promoter
negative regulation of transcription, DNA−templated
cellular nitrogen compound metabolic process
apoptotic process
mitotic cell cycle
intrinsic apoptotic signaling pathway
cellular response to UV
positive regulation of apoptotic process
nucleobase−containing small molecule metabolic process
regulation of DNA replication
proteolysis
Golgi organization
response to drug
ovarian follicle development
intrinsic apoptotic signaling pathway in response to DNA damage
mitochondrial fusion
lysine catabolic process
regulation of cell adhesion
intracellular transport of virus
G2/M transition of mitotic cell cycle
nervous system development
neurotrophin TRK receptor signaling pathway
protein oligomerization
insulin receptor signaling pathway
oxidation−reduction process
post−translational protein modification
protein N−linked glycosylation via asparagine
signal transduction
M2
PB1F2
HA
NP
NS1
PB1
negative
PB2
NAp
PA
M1
NEP