ontology: BP
potassium ion transport
cellular potassium ion transport
potassium ion transmembrane transport
regulation of synaptic transmission, glutamatergic
synaptic transmission, glutamatergic
regulation of cell morphogenesis
synapse organization
modulation of chemical synaptic transmission
regulation of trans−synaptic signaling
actomyosin structure organization
dendrite morphogenesis
positive regulation of synapse assembly
regulation of membrane potential
regulation of circadian rhythm
regulation of ion transmembrane transport
regulation of transmembrane transport
regulation of dendrite morphogenesis
regulation of dendrite development
regulation of synapse assembly
kidney development
renal system development
cardiac septum morphogenesis
cardiac chamber morphogenesis
urogenital system development
nephron development
kidney epithelium development
cardiac septum development
cardiac chamber development
regulation of hormone levels
axonogenesis
inner ear development
multicellular organismal response to stress
neuron projection guidance
glomerulus development
nephron epithelium development
ear development
axon development
stem cell division
ventricular septum morphogenesis
developmental growth involved in morphogenesis
axon guidance
cardiac ventricle morphogenesis
regulation of signaling receptor activity
somatic stem cell division
response to pain
regulation of kidney development
heart development
regulation of system process
nephron tubule development
kidney morphogenesis
morphogenesis of a branching structure
morphogenesis of a branching epithelium
renal tubule development
heart morphogenesis
positive regulation of cell development
cardiac ventricle development
outflow tract morphogenesis
muscle system process
ureteric bud development
mesonephric epithelium development
mesonephric tubule development
cell differentiation involved in kidney development
epithelial cell differentiation involved in kidney development
positive regulation of neurogenesis
mesonephros development
developmental cell growth
ventricular cardiac muscle tissue morphogenesis
hormone metabolic process
epithelial cell proliferation
appendage morphogenesis
limb morphogenesis
muscle tissue morphogenesis
sensory organ development
inner ear receptor cell differentiation
hindbrain development
gastrulation
cell growth
appendage development
limb development
positive regulation of nervous system development
hormone transport
chondroitin sulfate proteoglycan biosynthetic process
mechanoreceptor differentiation
lipid modification
muscle organ morphogenesis
epithelial cell fate commitment
axon extension involved in axon guidance
neuron projection extension involved in neuron projection guidance
ventricular cardiac muscle tissue development
positive regulation of epithelial cell proliferation
regulation of actomyosin structure organization
digestive tract development
renal system process
regulation of organ morphogenesis
neuron projection extension
metanephros development
regulation of epithelial cell proliferation
epithelial cell differentiation
nerve development
blood circulation
regulation of heart contraction
branching morphogenesis of an epithelial tube
negative chemotaxis
ventricular septum development
circulatory system process
nephron morphogenesis
digestive system development
extracellular structure organization
epidermis development
action potential
regulation of heart morphogenesis
hormone secretion
endocardium development
potassium ion export
proteoglycan biosynthetic process
positive regulation of kidney development
formation of primary germ layer
chemotaxis
motor neuron axon guidance
embryonic morphogenesis
taxis
neuroepithelial cell differentiation
embryonic limb morphogenesis
embryonic appendage morphogenesis
mesenchymal cell development
cardiac muscle tissue morphogenesis
forebrain development
regulation of blood circulation
columnar/cuboidal epithelial cell differentiation
memory
behavior
endocardial cushion formation
cell differentiation involved in metanephros development
serotonin receptor signaling pathway
sympathetic nervous system development
G−protein coupled serotonin receptor signaling pathway
calcium ion homeostasis
skin development
metal ion homeostasis
negative regulation of striated muscle cell differentiation
chondroitin sulfate metabolic process
positive regulation of neuron differentiation
signal release
regulation of hormone secretion
respiratory tube development
axon extension
innervation
membrane repolarization during cardiac muscle cell action potential
neural crest cell differentiation
vascular process in circulatory system
response to fungus
inner ear auditory receptor cell differentiation
nephron tubule morphogenesis
regulation of small GTPase mediated signal transduction
determination of bilateral symmetry
branching involved in ureteric bud morphogenesis
chondroitin sulfate proteoglycan metabolic process
cellular calcium ion homeostasis
negative regulation of muscle cell apoptotic process
morphogenesis of an epithelium
endothelial cell chemotaxis
specification of symmetry
embryonic digit morphogenesis
nephron epithelium morphogenesis
positive regulation of supramolecular fiber organization
cardiac muscle cell membrane repolarization
negative regulation of myotube differentiation
high−density lipoprotein particle remodeling
regulation of exocytosis
hormone biosynthetic process
cardiac atrium morphogenesis
regulation of striated muscle cell differentiation
positive regulation of stress fiber assembly
pattern specification process
regulation of neuron projection development
positive regulation of synaptic transmission
regulation of synapse organization
regulation of synapse structure or activity
synaptic vesicle cycle
positive regulation of neuron projection development
positive regulation of cell projection organization
regulation of calcium ion−dependent exocytosis
monovalent inorganic cation transport
neurotransmitter transport
synaptic vesicle exocytosis
regulation of GTPase activity
calcium ion−regulated exocytosis of neurotransmitter
regulation of cell morphogenesis involved in differentiation
positive regulation of GTPase activity
dendrite development
regulation of regulated secretory pathway
calcium ion regulated exocytosis
presynaptic process involved in chemical synaptic transmission
vesicle−mediated transport in synapse
regulation of synaptic plasticity
multicellular organismal signaling
regulation of cation transmembrane transport
neuromuscular junction development
locomotory behavior
neurotransmitter secretion
signal release from synapse
regulation of dendritic spine development
regulation of cation channel activity
dendritic spine development
regulation of ion transmembrane transporter activity
synaptic vesicle localization
synaptic vesicle transport
establishment of synaptic vesicle localization
learning
regulation of synaptic vesicle exocytosis
regulation of metal ion transport
regulation of transmembrane transporter activity
synapse assembly
neuron recognition
regulation of dendrite extension
acid secretion
positive regulation of synaptic transmission, glutamatergic
regulation of postsynaptic membrane potential
positive regulation of dendritic spine development
regulation of synaptic vesicle transport
adherens junction organization
positive regulation of dendrite morphogenesis
actin filament−based movement
regulation of potassium ion transport
regulation of dendritic spine morphogenesis
regulation of transporter activity
protein localization to cell periphery
transmission of nerve impulse
response to ammonium ion
regulation of synaptic vesicle cycle
cellular response to organonitrogen compound
regulation of excitatory postsynaptic potential
cellular component assembly involved in morphogenesis
actin filament bundle assembly
regulation of relaxation of muscle
Rho protein signal transduction
temperature homeostasis
postsynapse organization
acidic amino acid transport
regulation of peptide hormone secretion
cell junction assembly
positive regulation of glucose import in response to insulin stimulus
regulation of neurotransmitter secretion
positive regulation of cell morphogenesis involved in differentiation
positive regulation of dendrite development
chemical synaptic transmission, postsynaptic
peptide hormone secretion
regulation of neurotransmitter transport
actin filament bundle organization
sodium ion transmembrane transport
regulation of potassium ion transmembrane transport
cell junction organization
neuron migration
cellular response to ammonium ion
protein localization to plasma membrane
glucose import
establishment of vesicle localization
cerebral cortex morphogenesis
forelimb morphogenesis
insulin secretion
regulation of potassium ion transmembrane transporter activity
heart process
glutamate secretion
vesicle localization
cardiac conduction
cell−cell junction organization
cilium movement
axoneme assembly
microtubule bundle formation
ameboidal−type cell migration
second−messenger−mediated signaling
epithelial cell migration
epithelium migration
axonemal dynein complex assembly
embryonic organ development
tissue migration
regulation of supramolecular fiber organization
endothelial cell migration
microtubule−based movement
wound healing
extracellular matrix organization
regulation of epithelial cell migration
cGMP−mediated signaling
determination of left/right symmetry
regulation of Ras protein signal transduction
epithelial tube morphogenesis
muscle cell differentiation
regulation of endothelial cell migration
cyclic−nucleotide−mediated signaling
regulation of actin filament−based process
embryonic organ morphogenesis
positive regulation of MAPK cascade
positive regulation of endothelial cell migration
epidermal cell differentiation
lung development
prostate gland epithelium morphogenesis
positive regulation of ossification
embryo implantation
cell−matrix adhesion
Ras protein signal transduction
glutamate receptor signaling pathway
gland morphogenesis
prostate gland morphogenesis
morphogenesis of an epithelial sheet
hair cell differentiation
outer dynein arm assembly
stem cell development
positive regulation of reproductive process
respiratory system development
actin filament organization
regulation of axonogenesis
cell−substrate adhesion
Wnt signaling pathway
regulation of actin filament organization
regulation of actin cytoskeleton organization
regulation of Rho protein signal transduction
cell−cell signaling by wnt
positive regulation of epithelial cell migration
positive regulation of cellular component biogenesis
telencephalon development
neural crest cell development
positive regulation of cytoskeleton organization
regulation of fibroblast growth factor receptor signaling pathway
positive regulation of morphogenesis of an epithelium
flagellated sperm motility
regulation of Wnt signaling pathway
response to fibroblast growth factor
negative regulation of axonogenesis
regulation of morphogenesis of an epithelium
cilium assembly
cilium organization
positive regulation of axonogenesis
positive regulation of osteoblast differentiation
multicellular organismal homeostasis
muscle contraction
digestive system process
phagocytosis
regulation of reproductive process
sperm motility
glycogen catabolic process
fibroblast growth factor receptor signaling pathway
response to nutrient
mesenchymal cell differentiation
negative regulation of cellular component movement
filopodium assembly
epithelial cell development
muscle tissue development
negative regulation of neuron differentiation
regulation of anatomical structure size
regulation of cellular response to growth factor stimulus
regulation of digestive system process
cilium−dependent cell motility
positive regulation of steroid metabolic process
glucan catabolic process
neural tube development
renal tubule morphogenesis
peptidyl−threonine modification
contractile actin filament bundle assembly
stress fiber assembly
regulation of body fluid levels
vascular endothelial growth factor receptor signaling pathway
positive regulation of actin filament bundle assembly
cilium or flagellum−dependent cell motility
mesenchyme development
regulation of neuronal synaptic plasticity
cellular polysaccharide catabolic process
embryonic placenta morphogenesis
cell surface receptor signaling pathway involved in heart development
Fc receptor mediated stimulatory signaling pathway
cellular divalent inorganic cation homeostasis
non−canonical Wnt signaling pathway
calcium ion transport
syncytium formation by plasma membrane fusion
neural crest cell migration
hippo signaling
regulation of MAP kinase activity
regulation of cholesterol storage
negative regulation of fibroblast growth factor receptor signaling pathway
positive regulation of branching involved in ureteric bud morphogenesis
regulation of cell−substrate adhesion
negative regulation of cell morphogenesis involved in differentiation
polysaccharide catabolic process
divalent inorganic cation homeostasis
cellular response to fibroblast growth factor stimulus
labyrinthine layer morphogenesis
syncytium formation
gland development
negative regulation of nervous system development
digestion
ureteric bud morphogenesis
immune response−regulating cell surface receptor signaling pathway involved in phagocytosis
Fc−gamma receptor signaling pathway involved in phagocytosis
cellular hormone metabolic process
negative regulation of neurogenesis
regulation of ossification
ionotropic glutamate receptor signaling pathway
cellular carbohydrate catabolic process
regulation of actin filament bundle assembly
positive regulation of oxidoreductase activity
striated muscle tissue development
negative regulation of cell development
cellular metal ion homeostasis
positive regulation of mesonephros development
regulation of branching involved in ureteric bud morphogenesis
neuron projection organization
retina homeostasis
mesonephric tubule morphogenesis
regulation of neurotransmitter levels
establishment of organelle localization
excitatory postsynaptic potential
regulation of intracellular transport
localization within membrane
learning or memory
adult behavior
regulation of cellular protein localization
regulation of vesicle−mediated transport
histone monoubiquitination
amino acid transport
amine transport
cognition
dicarboxylic acid transport
mechanosensory behavior
ephrin receptor signaling pathway
regulation of G−protein coupled receptor protein signaling pathway
receptor localization to synapse
catecholamine secretion
regulation of protein localization to cell periphery
cerebellar granular layer development
dendritic spine organization
dendritic spine morphogenesis
axonal fasciculation
neuron projection fasciculation
positive regulation of cation channel activity
histone ubiquitination
neuron maturation
regulation of dendritic spine morphogenesis
synaptic vesicle priming
regulation of phosphatase activity
regulation of catecholamine secretion
spindle localization
Fc−gamma receptor signaling pathway
negative regulation of neuron projection development
regulation of cytoskeleton organization
sensory perception of sound
negative regulation of cell projection organization
nitric oxide mediated signal transduction
regulation of extracellular matrix organization
regulation of cell−matrix adhesion
regulation of cell growth
positive regulation of extracellular matrix organization
sensory perception of mechanical stimulus
positive regulation of bone mineralization
positive regulation of biomineral tissue development
regulation of bone mineralization
long−term memory
regulation of muscle system process
integrin−mediated signaling pathway
positive regulation of actin filament polymerization
regulation of biomineral tissue development
extracellular matrix disassembly
Fc receptor signaling pathway
ERK1 and ERK2 cascade
ARF protein signal transduction
regulation of ARF protein signal transduction
muscle adaptation
sensory perception
response to xenobiotic stimulus
cellular response to transforming growth factor beta stimulus
regulation of cellular component size
positive regulation of protein polymerization
positive regulation of cell−substrate adhesion
camera−type eye development
actin nucleation
regulation of ERK1 and ERK2 cascade
glomerular epithelial cell differentiation
response to transforming growth factor beta
myeloid leukocyte cytokine production
positive regulation of endocytosis
actin cytoskeleton reorganization
positive regulation of cell migration
regulation of lipase activity
regulation of muscle hypertrophy
myotube differentiation
positive regulation of cell adhesion
lung cell differentiation
pallium development
negative regulation of cell growth
glomerular epithelial cell development
positive regulation of cellular component movement
limbic system development
phospholipid catabolic process
positive regulation of locomotion
positive regulation of cell motility
regulation of muscle adaptation
negative regulation of cell adhesion
peptidyl−threonine phosphorylation
retina development in camera−type eye
Arp2/3 complex−mediated actin nucleation
muscle hypertrophy
regulation of plasma lipoprotein particle levels
collateral sprouting
regulation of endocytosis
eye development
collagen−activated signaling pathway
neuron cellular homeostasis
G.D (609)
G.H (571)
E.D (3100)
E.H (1087)
J.D (850)
J.H (823)
GeneRatio
0.02
0.04
0.06
p.adjust
0.05
0.04
0.03
0.02
0.01


ontology: MF
potassium channel activity
voltage−gated potassium channel activity
voltage−gated cation channel activity
potassium ion transmembrane transporter activity
voltage−gated ion channel activity
voltage−gated channel activity
ion gated channel activity
cation channel activity
gated channel activity
delayed rectifier potassium channel activity
G−protein coupled neurotransmitter receptor activity
neurotransmitter receptor activity
substrate−specific channel activity
metal ion transmembrane transporter activity
ion channel activity
channel activity
passive transmembrane transporter activity
MAP kinase activity
G−protein coupled amine receptor activity
phosphatidylinositol binding
RNA polymerase II transcription factor activity, sequence−specific transcription regulatory region DNA binding
transcription factor activity, sequence−specific DNA binding transcription factor recruiting
phosphatidylinositol phosphate binding
kinesin binding
G−protein coupled serotonin receptor activity
serotonin receptor activity
hormone activity
receptor regulator activity
sulfur compound binding
receptor ligand activity
growth factor binding
transmembrane receptor protein kinase activity
ion channel binding
microtubule binding
GTPase activator activity
tubulin binding
GTPase regulator activity
calmodulin binding
nucleoside−triphosphatase regulator activity
signal transducer activity, downstream of receptor
protein serine/threonine kinase activity
enzyme activator activity
monovalent inorganic cation transmembrane transporter activity
protein−containing complex scaffold activity
clathrin binding
structural constituent of cytoskeleton
ligand−dependent nuclear receptor transcription coactivator activity
actin filament binding
Ras GTPase binding
signal transducer, downstream of receptor, with serine/threonine kinase activity
phospholipid binding
Ras guanyl−nucleotide exchange factor activity
Rho guanyl−nucleotide exchange factor activity
syntaxin binding
phosphoric ester hydrolase activity
guanyl−nucleotide exchange factor activity
phosphoric diester hydrolase activity
calcium−dependent phospholipid binding
ion channel regulator activity
channel regulator activity
Rho GTPase binding
actin binding
calmodulin−dependent protein kinase activity
cell adhesion molecule binding
transcription coactivator binding
dynein light chain binding
transcriptional activator activity, RNA polymerase II transcription factor binding
spectrin binding
SNARE binding
cadherin binding
potassium channel regulator activity
syntaxin−1 binding
1−phosphatidylinositol binding
phosphatidylserine binding
SH3 domain binding
integrin binding
glycosaminoglycan binding
transmembrane receptor protein tyrosine kinase activity
extracellular ligand−gated ion channel activity
collagen binding
ligand−gated ion channel activity
ligand−gated channel activity
p.adjust
0.05
0.04
0.03
0.02
0.01
GeneRatio
0.02
0.04
0.06


ontology: CC
postsynapse
postsynaptic membrane
synaptic membrane
potassium channel complex
cation channel complex
voltage−gated potassium channel complex
asymmetric synapse
neuron to neuron synapse
postsynaptic density
postsynaptic specialization
ion channel complex
transmembrane transporter complex
transporter complex
cell division site
distal axon
axon part
receptor complex
axoneme part
presynapse
cell−cell junction
main axon
neuronal cell body
transport vesicle membrane
cell body
presynaptic membrane
exocytic vesicle
growth cone
synaptic vesicle
transport vesicle
site of polarized growth
dendritic spine
cell cortex
neuron spine
cell leading edge
T−tubule
cell−cell contact zone
cytoplasmic region
A band
axolemma
intercalated disc
synaptic vesicle membrane
exocytic vesicle membrane
axon terminus
perikaryon
M band
sarcolemma
phagophore assembly site
septin cytoskeleton
cell cortex region
neuron projection terminus
neurotransmitter receptor complex
cortical cytoskeleton
presynaptic active zone
catenin complex
apical junction complex
extrinsic component of membrane
cell cortex part
axoneme
ciliary plasm
plasma membrane bounded cell projection cytoplasm
plasma membrane receptor complex
extracellular matrix
ionotropic glutamate receptor complex
proteinaceous extracellular matrix
cluster of actin−based cell projections
brush border
cilium
actin−based cell projection
basement membrane
cell−substrate junction
dynein complex
focal adhesion
cell projection membrane
cell−substrate adherens junction
lamellipodium
ciliary part
extracellular matrix component
AMPA glutamate receptor complex
actin cytoskeleton
axonemal dynein complex
motile cilium
filopodium
apical part of cell
endoplasmic reticulum lumen
excitatory synapse
actomyosin
apical dendrite
stress fiber
contractile actin filament bundle
recycling endosome membrane
side of membrane
integrin complex
protein complex involved in cell adhesion
terminal bouton
endoplasmic reticulum tubular network
sarcoplasm
filopodium tip
growth cone part
juxtaparanode region of axon
dendrite terminus
nuclear membrane
leading edge membrane
non−motile cilium
clathrin coat of trans−Golgi network vesicle
nuclear inclusion body
axon initial segment
nuclear envelope
mRNA cap binding complex
neuron projection cytoplasm
sarcoplasmic reticulum
Z disc
trans−Golgi network transport vesicle membrane
node of Ranvier
RNA cap binding complex
blood microparticle
endocytic vesicle
actin filament bundle
collagen trimer
photoreceptor outer segment
ruffle
basolateral plasma membrane
DNA−directed RNA polymerase I complex
cytoplasmic side of membrane
cytoplasmic side of plasma membrane
ruffle membrane
9+0 non−motile cilium
photoreceptor cell cilium
stereocilium
G.D (638)
G.H (609)
E.D (1154)
E.H (1150)
J.D (880)
J.H (865)
GeneRatio
0.025
0.050
0.075
p.adjust
0.05
0.04
0.03
0.02
0.01


ontology: KEGG
Neuroactive ligand−receptor interaction
Calcium signaling pathway
Axon guidance
Serotonergic synapse
Dopaminergic synapse
Glutamatergic synapse
cAMP signaling pathway
GABAergic synapse
Cholinergic synapse
Insulin secretion
Adrenergic signaling in cardiomyocytes
MAPK signaling pathway
Inflammatory mediator regulation of TRP channels
Taste transduction
Phosphatidylinositol signaling system
Retrograde endocannabinoid signaling
Type II diabetes mellitus
ErbB signaling pathway
Morphine addiction
Ras signaling pathway
Oxytocin signaling pathway
Renin secretion
Circadian entrainment
Longevity regulating pathway
Amphetamine addiction
Aldosterone synthesis and secretion
Proteoglycans in cancer
Autophagy − animal
Long−term potentiation
Carbohydrate digestion and absorption
Gastric acid secretion
Cushing's syndrome
Prolactin signaling pathway
Wnt signaling pathway
Neurotrophin signaling pathway
Relaxin signaling pathway
Salivary secretion
Platelet activation
C−type lectin receptor signaling pathway
Sphingolipid signaling pathway
HIF−1 signaling pathway
Human papillomavirus infection
Arrhythmogenic right ventricular cardiomyopathy (ARVC)
ECM−receptor interaction
Regulation of actin cytoskeleton
Focal adhesion
Vibrio cholerae infection
Leukocyte transendothelial migration
Hippo signaling pathway
Endocrine and other factor−regulated calcium reabsorption
Synaptic vesicle cycle
Rap1 signaling pathway
Bacterial invasion of epithelial cells
Insulin signaling pathway
Progesterone−mediated oocyte maturation
Vascular smooth muscle contraction
GnRH signaling pathway
Pancreatic secretion
Circadian rhythm
Chemokine signaling pathway
Parathyroid hormone synthesis, secretion and action
Regulation of lipolysis in adipocytes
Chagas disease (American trypanosomiasis)
Endocrine resistance
Inositol phosphate metabolism
Estrogen signaling pathway
Hypertrophic cardiomyopathy (HCM)
Amoebiasis
Dilated cardiomyopathy (DCM)
Thyroid hormone signaling pathway
G.D (228)
G.H (268)
E.D (446)
E.H (503)
J.D (357)
J.H (403)
p.adjust
0.06
0.04
0.02
GeneRatio
0.02
0.04
0.06
0.08