



- 10/24 positive regulation of DNA-templated transcription, elongation
15/36 regulation of DNA-templated transcription, elongation
8/16 positive regulation of transcription elongation from RNA polymerase II promoter
4/6 regulation of RNA polymerase II transcription preinitiation complex assembly
171/626 macromolecule biosynthetic process
7/24 mitochondrial translation
84/263 peptidic metabolic process
7/14 cytoplasmic translation
50/149 peptide biosynthetic process
6/8 ribosome assembly
12/34 translational initiation
11/24 mitochondrial respiratory chain complex I assembly
7/19 formation of cytoplasmic translation initiation complex
141/474 cellular protein-containing complex assembly
4/13 spliceosomal tri-snRNP complex assembly
46/163 ribonucleoprotein complex subunit organization
3/8 ribosomal small subunit assembly
39/140 protein-containing complex subunit organization
11/39 nucleosome assembly
4/5 tubulin complex assembly
13/33 mitochondrial respiratory chain complex assembly
11/24 mitochondrial respiratory chain complex I assembly
112/390 ncRNA metabolic process
47/169 rRNA metabolic process
80/279 ncRNA processing
8/22 cleavage involved in rRNA processing
2/0/1 rRNA modification
45/131 tRNA metabolic process
28/64 tRNA processing
34/108 RNA modification
176/600 RNA processing
32/143 RNA splicing, via transesterification reactions
85/295 mRNA processing
295/1003 rRNA metabolic process
6/20 mRNA cis splicing, via spliceosome
61/224 RNA splicing
116/414 mRNA metabolic process
4/10 DNA unwinding involved in DNA replication
35/126 carboxylate derivative catabolic process
4/11 glycosylceramide catabolic process
23/81 sphingolipid metabolic process
29/112 membrane lipid metabolic process
16/53 ceramide metabolic process
6/22 glycosylceramide metabolic process
4/10 glucosylceramide metabolic process
3/5 glucosylceramide catabolic process
8/41 glycoside metabolic process
10/22 thioester biosynthetic process
76/213 amide biosynthetic process
6/17 fatty-acyl-CoA biosynthetic process
6/19 fatty-acyl-CoA metabolic process
9/31 fatty acid derivative metabolic process
201/604 organonitrogen compound biosynthetic process
12/42 sphingolipid biosynthetic process
85/329 lipid biosynthetic process
7/18 unsaturated fatty acid biosynthetic process
202/753 lipid metabolic process
3/5 embryonic process involved in female pregnancy
70/259 glycerolipid metabolic process
101/306 cellular amino acid metabolic process
18/42 amino acid activation
219/694 organic acid metabolic process
8/14 arginine metabolic process
51/197 organic acid catabolic process
74/298 small molecule catabolic process
7/13 oxidative phosphorylation
49/162 generation of precursor metabolites and energy
25/71 ATP metabolic process
18/64 energy derivation by oxidation of organic compounds
11/23 aerobic respiration
15/34 cellular respiration
22/47 electron transport chain
13/39 nucleotide phosphorylation
18/47 nucleoside diphosphate metabolic process
29/67 nucleoside triphosphate metabolic process
5/9 ATP metabolic process
7/15 pyrimidine nucleoside triphosphate metabolic process
23/54 purine nucleoside triphosphate metabolic process
19/42 nucleoside triphosphate biosynthetic process
8/19 ATP biosynthetic process
16/55 ribonucleoside triphosphate biosynthetic process
6/11 ATP synthesis coupled proton transport
268/806 cellular nitrogen compound biosynthetic process
8/14 guanosine-containing compound biosynthetic process
4/7 GMP metabolic process
12/30 nucleoside-containing small molecule metabolic process
10/23 nucleoside biosynthetic process
225/689 organic cyclic compound biosynthetic process
32/94 transcription by RNA polymerase II
17/44 nucleoside monophosphate metabolic process
4/7 de novo IMP biosynthetic process
13/27 purine ribonucleoside monophosphate metabolic process
9/18 purine ribonucleoside monophosphate biosynthetic process
16/40 pigment biosynthetic process
22/56 pigment metabolic process
11/31 porphyrin-containing compound metabolic process
7/18 heme biosynthetic process
36/161 neuron differentiation
307/1036 cell differentiation
3/6 inner ear auditory receptor cell differentiation
5/14 mechanoreceptor differentiation
11/26 neural precursor cell proliferation
10/45 forebrain development
28/78 heterophilic cell-cell adhesion via plasma membrane cell adhesion molecules
224/704 biological adhesion
96/312 cell-cell adhesion
62/81 cell-cell adhesion via plasma-membrane adhesion molecules
3/14 axon midline choice point recognition
180/605 locomotion
28/77 neuron migration
287/931 movement of cell or subcellular component
35/126 amoeboid-type cell migration
4/7 cell migration in hindbrain
118/440 system development
14/52 response to retinoic acid
117/357 tissue development
4/10 embryonic placenta development
4/6 metanephric collecting duct development
67/207 tube development
39/107 morphogenesis of a branching structure
104/301 tissue morphogenesis
7/16 mesenchymal cell proliferation
107/355 animal organ morphogenesis
15/38 heart morphogenesis
8/20 hippo signaling
107/334 embryonic morphogenesis
7/19 embryonic body morphogenesis
23/69 regulation of neural precursor cell proliferation
114/365 enzyme linked receptor protein signaling pathway
329/1022 cell surface receptor signaling pathway
85/273 transmembrane receptor protein tyrosine kinase signaling pathway
28/74 fibroblast growth factor receptor signaling pathway
6/15 Fc-epsilon receptor signaling pathway
22/80 limb morphogenesis
29/95 appendage morphogenesis
91/272 pattern specification process
5/8 periodic partitioning
15/54 canonical Wnt signaling pathway
16/623 cell surface receptor signaling pathway involved in cell-cell signaling
80/250 regulation of Wnt signaling pathway
30/68 regulation of establishment of planar polarity
185/545 regulation of anatomical structure morphogenesis
44/92 regulation of animal organ morphogenesis
25/56 non-canonical Wnt signaling pathway
310/974 anatomical structure morphogenesis
25/61 establishment of planar polarity
5/6 establishment of body hair planar orientation
27/63 positive regulation of osteoblast differentiation
245/797 regulation of cell differentiation
41/107 ossification
24/58 inner ear receptor cell stereocilium organization
11/32 positive regulation of dendritic spine development
219/678 positive regulation of developmental process
58/188 regulation of synapse organization
118/698 regulation of multicellular organismal development
9/39 positive regulation of ossification
5/12 negative regulation of dendritic spine development
4/10 ciliary basal body organization
73/263 positive regulation of cell projection organization
7/14 axon development
7/12 negative regulation of fibroblast growth factor receptor signaling pathway
8/17 regulation of fibroblast growth factor receptor signaling pathway
4/6 regulation of blood vessel endothelial cell proliferation involved in sprouting angiogenesis
55/202 regulation of small GTPase mediated signal transduction
16/623 cell surface receptor signaling pathway
316/983 regulation of intracellular signal transduction
34/97 positive regulation of ERK1 and ERK2 cascade
50/142 regulation of ERK1 and ERK2 cascade
35/33 positive regulation of epithelial cell migration
58/162 regulation of epithelial cell migration
172/575 regulation of locomotion
20/67 cell growth
8/26 intermediate filament cytoskeleton organization
4/12 hemidesmosome assembly
5/15 retrograde axonal transport
22/62 establishment of cell polarity
39/125 establishment or maintenance of cell polarity
10/30 establishment of epithelial cell polarity
15/43 membrane invagination
77/246 second-messenger-mediated signaling
37/123 cAMP-mediated signaling
46/155 cyclic-nucleotide-mediated signaling
299/1002 intracellular signal transduction
5/16 adrenergic receptor signaling pathway
44/143 G protein-coupled receptor signaling pathway, coupled to cyclic nucleotide second messenger
101/347 G protein-coupled receptor signaling pathway
5/24 adenylate cyclase-inhibiting G protein-coupled receptor signaling pathway
147/442 negative regulation of multicellular organismal process
7/21 negative regulation of muscle contraction
14/40 regulation of smooth muscle contraction
31/90 regulation of muscle contraction
44/127 regulation of muscle system process
41/119 muscle system process
236/734 system process
4/13 relaxation of smooth muscle
4/18 relaxation of muscle
4/42 cyclic nucleotide metabolic process
27/76 regulation of protein-containing complex disassembly
10/18 cardiac muscle cell action potential
115/284 regulation of transmembrane transport
8/19 regulation of heart rate by cardiac conduction
6/19 regulation of heart contraction
15/33 regulation of heart rate
101/317 regulation of system process
5/7 AV node cell action potential
38/124 regulation of blood circulation
8/18 cell communication involved in cardiac conduction
14/46 regulation of striated muscle contraction
12/17 membrane depolarization during action potential
14/34 membrane depolarization
21/41 neuronal action potential
35/68 action potential
107/277 regulation of membrane potential
11/21 multicellular organismal signaling
106/308 signaling
73/227 trans-synaptic signaling
156/468 cell communication
10/31 synaptic transmission, cholinergic
111/316 inorganic ion transmembrane transport
36/114 calcium ion transmembrane transport
21/59 cytosolic calcium ion transport
61/196 divalent inorganic cation transport
166/479 cation transport
5/7 potassium ion export across plasma membrane
8/16 export across plasma membrane
11/29 sodium ion transmembrane transport
24/69 sodium ion transport
3/5 sodium ion export across plasma membrane
10/46 inorganic ion import across plasma membrane
26/99 import into cell
26/83 monovalent inorganic cation homeostasis
5/10 monocyte activation
147/427 positive regulation of cell population proliferation
8/17 regulation of calcium ion import
8/12 macrophage activation
6/9 macrophage activation involved in immune response
7/17 positive regulation of neutrophil migration
100/311 positive regulation of locomotion
32/81 plasma membrane organization
7/14 plasma membrane repair
11/15 regulation of voltage-gated calcium channel
41/109 regulation of transporter
8/10 negative regulation of voltage-gated calcium channel
34/80 regulation of cation channel
7/12 T-tubule organization
57/134 regulation of cation transmembrane transport
10/29 positive regulation of potassium ion transport
67/178 regulation of metal ion transport
17/48 regulation of sodium ion transport
303/922 regulation of transport
32/93 regulation of regulated secretory pathway
10/33 regulation of calcium ion-dependent exocytosis
122/359 regulation of secretion
132/5 positive regulation of regulated secretory pathway
73/256 modulation of chemical synaptic transmission
2/9 synaptic vesicle recycling
2/5 maternal process involved in parturition
48/163 regulation of peptide secretion
7/21 positive regulation of secretion involved in cellular response to glucose stimulus
88/278 regulation of hormone levels
44/138 regulation of hormone secretion
33/113 regulation of peptide hormone secretion
8/15 entrainment of circadian clock
9/64 regulation of circadian rhythm
7/14 regulation of glucocorticoid receptor signaling pathway
4/8 regulation of glucocorticoid secretion
4/10 regulation of steroid hormone secretion
14/26 lipid storage
102/4 negative regulation of G protein-coupled receptor signaling pathway
12/35 regulation of carbohydrate biosynthetic process
8/16 cochlea development
112/369 cellular response to endogenous stimulus
8/38 inorganic anion transmembrane transport
20/66 inorganic anion transport
7/28 chloride transmembrane transport
27/83 response to carbohydrate
4/18 exploration behavior
38/139 locomotory behavior
27/100 learning
112/364 behavior
52/162 cognition
81/249 cell junction organization
23/77 neuromuscular junction development
44/150 synapse organization
18/45 epithelial structure maintenance
34/107 tissue homeostasis
312/898 homeostatic process
70/222 anatomical structure homeostasis
27/62 regulation of signaling receptor
36/112 cell-substrate adhesion
23/75 cell-matrix adhesion
24/61 cell redox homeostasis
72/3 O-glycan processing
48/123 detection of abiotic stimulus
18/39 detection of light stimulus
6/7 detection of visible light
59/163 detection of stimulus
15/56 detection of stimulus involved in sensory perception
28/75 detection of mechanical stimulus
50/145 response to mechanical stimulus
3/5 cell-cell signaling by wnt
34/108 sensory perception of light stimulus
88/285 sensory perception
162/504 nervous system process
35/108 sensory perception of mechanical stimulus
134/0 sensory perception of chemical stimulus
3/6 positive regulation of cyclin-dependent protein kinase
50/147 heart development
11/46 response to pH
6/9 cellular amide catabolic process
15/27 cellular response to drug
10/57 cellular response to calcium ion
53/157 cellular response to inorganic substance
17/38 sterol transport
57/196 lipid transport
23/60 organic hydroxy compound transport
25/64 lipid homeostasis
5/11 calcium activated galactosylceramide scrambling
13/66 organophosphate ester transport
32/118 signal release
50/44 platelet degradation
15/26 neurotransmitter metabolic process
10/54 regulation of neurotransmitter levels
9/17 catecholamine biosynthetic process
102/297 organic hydroxy compound metabolic process
22/15 alcohol metabolic process
3/6 polyketide metabolic process
8/67 reactive oxygen species metabolic process
10/19 superoxide metabolic process
8/18 detoxification
94/279 Golgi vesicle transport
44/110 endoplasmic reticulum to Golgi vesicle-mediated transport
22/49 retrograde vesicle-mediated transport, Golgi to endoplasmic reticulum
5/7 Golgi vesicle budding
10/27 endoplasmic reticulum organization
3/5 SNARE complex disassembly
29/103 protein-containing complex disassembly
19/44 Rab protein signal transduction
79/231 establishment of protein localization to organelle
119/406 protein localization to organelle
31/96 protein import
14/34 protein localization to mitochondrion
23/44 protein targeting to membrane
53/148 protein targeting
10/12 cotranslational protein targeting to membrane
189/553 intracellular protein transport
10/29 intracellular protein transmembrane transport
183/566 transmembrane transport
49/163 anion transmembrane transport
5/10 protein import into mitochondrial matrix
28/69 mitochondrial transport
17/41 mitochondrial transmembrane transport
31/94 rRNA transport
50/158 nucleoside-containing compound transport
22/76 RNA export from nucleus
7/15 ribosome localization
48/153 nuclear transport
314/956 intracellular transport
33/102 nuclear export
32/85 amino acid transport
16/44 amino acid transmembrane transport
403/1261 nitrogen compound transport
6/11 L-ornithine transmembrane transport
25/67 organic acid transmembrane transport
8/17 basic amino acid transport
51/181 organic anion transport
39/134 carboxylic acid transport
2/6 glycine transport
17/17 organic acid transport
48/137 organic acid transport
3/5 leucine transport
6/13 inner mitochondrial membrane organization
13/38 mitochondrial membrane organization
6/12 mitochondrial protein processing
3/10 maintenance of organelle location
6/24 centrosome localization
15/41 positive regulation of protein localization to cell periphery
20/41 regulation of response to endoplasmic reticulum stress
8/15 regulation of endoplasmic reticulum unfolded protein response
24/50 response to topologically incorrect protein
61/151 response to endoplasmic reticulum stress
27/69 ERAD pathway
8/14 protein exit from endoplasmic reticulum
116/368 protein catabolic process
13/19 proteasomal ubiquitin-dependent protein catabolic process
180/573 proteolysis involved in cellular protein catabolic process
9/25 transcription-coupled nucleotide-excision repair
100/430 DNA repair
11/51 nucleotide-excision repair
318/1077 cellular response to stress
4/7 DNA topological change
24/38 chaperone-mediated protein folding
10/19 de novo protein folding
9/15 protein refolding
69/145 protein folding
6/18 glycosaminoglycan catabolic process
14/32 aminoglycan catabolic process
19/75 aminoglycan metabolic process
231/787 macromolecule catabolic process
8/25 aminoglycan catabolic process
12/26 digestion
225/718 positive regulation of multicellular organismal process
3/9 cytoplasmic pattern recognition receptor signaling pathway in response to virus
3/13 cellular response to exogenous dsRNA
3/6 dsRNA signaling pathway
184/678 protein modification by small protein conjugation or removal
276/929 proteolysis
4/7 protein deneddylation
29/135 protein modification by small protein removal
9/33 toll-like receptor signaling pathway
14/54 pattern recognition receptor signaling pathway
11/20 complement activation
117/323 immune response
7/10 complement activation, alternative pathway
19/40 humoral immune response
8/12 complement activation, classical pathway
8/14 positive regulation of G protein-coupled receptor signaling pathway
6/10 cytotoxicity
9/30 negative regulation of nuclear division
23/75 regulation of nuclear division
8/34 degradation of mitochondrial protein segregation
134/458 peptidyl-amino acid modification
5/17 N-terminal protein amino acid acetylation
5/11 N-terminal protein amino acid modification
4/6 nuclear envelope reassembly
4/10 protein maturation by iron-sulfur cluster transfer
8/23 iron-sulfur cluster assembly

p < 0.01
p < 0.05
p < 0.1