



- 9/23 monosaccharide catabolic process
- 41/82 *carbohydrate catabolic process*
- 23/53 single-organism carbohydrate catabolic process
- 21/54 glucose metabolic process
- 45/95 monosaccharide metabolic process**
- 7/17 *glucose catabolic process*
- 5/10 *pentose-phosphate shunt*
- 21/34 oxidoreduction coenzyme metabolic process**
- 78/144 cofactor metabolic process
- 9/16 NADP metabolic process
- 21/30 pyridine-containing compound metabolic process
- 30/76 *generation of precursor metabolites and energy*
- 8/13 peptidyl-proline hydroxylation
- 11/19 *protein hydroxylation*
- 406/733 oxidation-reduction process**
- 24/39 peptidyl-proline modification**
- 15/25 *protein peptidyl-prolyl isomerization*
- 25/41 monocarboxylic acid catabolic process**
- 71/154 small molecule catabolic process
- 22/38 fatty acid catabolic process**
- 13/24 fatty acid beta-oxidation
- 133/245 monocarboxylic acid metabolic process**
- 37/59 cellular lipid catabolic process**
- 10/14 *membrane lipid catabolic process*
- 392/779 single-organism catabolic process
- 26/40 unsaturated fatty acid metabolic process
- 13/16 leukotriene metabolic process**
- 295/556 lipid metabolic process**
- 16/32 long-chain fatty acid metabolic process
- 83/150 fatty acid metabolic process**
- 12/18 arachidonic acid metabolic process
- 191/378 cellular lipid metabolic process**
- 300/557 organic acid metabolic process**
- 28/50 *sulfur amino acid metabolic process*
- 100/201 alpha-amino acid metabolic process
- 78/162 sulfur compound metabolic process
- 135/255 small molecule biosynthetic process
- 61/113 *cellular modified amino acid metabolic process*
- 534/1063 organonitrogen compound metabolic process
- 6/11 *pyrimidine nucleobase metabolic process*
- 145/305 *organonitrogen compound biosynthetic process*
- 293/582 single-organism biosynthetic process**
- 110/229 *lipid biosynthetic process*
- 70/119 steroid metabolic process
- 34/60 steroid biosynthetic process
- 22/41 *isoprenoid metabolic process*
- 14/17 *cellular response to calcium ion*
- 9/12 antibiotic metabolic process
- 8/15 neurotransmitter metabolic process
- 4/7 *acetylcholine metabolic process*
- 7/11 neurotransmitter catabolic process
- 86/223 DNA integration
- 117/295 RNA-dependent DNA replication**
- 120/288 nucleic acid phosphodiester bond hydrolysis
- 6/9 *bradykinin catabolic process*
- 389/823 proteolysis**
- 10/19 *peptide catabolic process*
- 23/23 tRNA aminoacylation for protein translation**
- 118/212 translation**
- 10/23 translational elongation
- 13/27 maintenance of organ identity
- 18/39 *photoreceptor cell maintenance*
- 27/55 lung development
- 43/87 *regulation of cyclic nucleotide metabolic process*
- 9/13 establishment of planar polarity of embryonic epithelium
- 526/1092 *cell surface receptor signaling pathway*
- 34/61 *negative regulation of canonical Wnt signaling pathway*
- 14/17 regulation of osteoblast proliferation
- 37/59 ossification
- 6/11 *regulation of bone remodeling*
- 416/844 regulation of protein metabolic process**
- 125/241 *regulation of protein processing*
- 27/45 positive regulation of apoptotic signaling pathway
- 178/332 *regulation of response to stress*
- 9/14 positive regulation of blood coagulation
- 4/7 *macroautophagy*
- 509/1038 *regulation of cell communication*
- 7/13 *regulation of interleukin-2 production*
- 32/48 regulation of immune effector process
- 36/59 positive regulation of defense response
- 282/545 positive regulation of response to stimulus
- 59/95 positive regulation of immune response**
- 28/46 *activation of innate immune response*
- 135/249 *regulation of immune system process*
- 78/130 positive regulation of immune system process
- 89/148 regulation of immune response**
- 50/85 *immune response-regulating signaling pathway*
- 47/75 regulation of innate immune response
- 7/9 necrotic cell death
- 217/442 *death*
- 5/6 *programmed necrotic cell death*
- 55/102 defense response to other organism**
- 173/344 defense response**
- 37/60 response to bacterium
- 122/238 response to biotic stimulus**
- 42/91 response to virus
- 82/162 response to other organism**
- 4/5 *germinal center formation*
- 10/16 adaptive immune response
- 207/442 immune system process**
- 4/5 *defense response to protozoan*
- 125/255 immune response**
- 8/14 *leukocyte mediated immunity*
- 61/114 immune effector process
- 4/5 *B cell mediated immunity*
- 28/49 positive regulation of cytokine production
- 5/6 *negative regulation of cytokine biosynthetic process*
- 10/14 regulation of cytokine biosynthetic process**
- 193/380 *positive regulation of protein metabolic process*
- 451/908 *positive regulation of metabolic process*
- 5/6 *T-helper 1 type immune response*
- 7/10 positive regulation of cytokine biosynthetic process
- 8/14 alpha-beta T cell activation
- 52/97 leukocyte activation
- 7/12 alpha-beta T cell differentiation
- 24/48 lymphocyte differentiation
- 38/73 leukocyte differentiation
- 13/27 T cell differentiation
- 37/77 protein autoubiquitination
- 225/543 protein modification by small protein conjugation or removal**
- 114/258 *posttranscriptional regulation of gene expression*
- 325/741 *establishment of localization in cell*
- 44/105 endosomal transport
- 274/610 *vesicle-mediated transport*
- 289/676 *establishment of protein localization*
- 7/15 *protein targeting to ER*
- 5/9 ubiquitin-dependent protein catabolic process via the multivesicular body sorting pathway
- 7/11 corpus callosum development
- 68/139 peptidyl-tyrosine modification**
- 31/64 peptidyl-tyrosine dephosphorylation
- 48/101 protein dephosphorylation
- 390/793 *cellular component assembly*
- 19/42 protein-DNA complex assembly
- 117/263 cellular macromolecular complex assembly
- 35/67 *regulation of microtubule-based process*
- 274/513 *cell cycle*
- 45/96 mitotic cell cycle**
- 8/8 *spindle checkpoint*
- 29/51 *chromosome segregation*
- 25/58 meiotic nuclear division**
- 167/315 organelle fission
- 47/78 regulation of cell division
- 24/38 *regulation of nuclear division*
- 10/10 trypsinogen activation
- 7/8 *negative regulation of inclusion body assembly*
- 8/11 *regulation of inclusion body assembly*
- 35/58 *response to topologically incorrect protein*
- 10/15 *pathogenesis*
- 17/28 *cell killing*
- 84/195 anion transport
- 414/871 ion transport
- 17/37 chloride transport
- 26/53 inorganic anion transport**
- 10/15 *organic cation transport*

**p < 0.01**  
p < 0.05  
*p < 0.1*