

Level	GO Term	Seq	Score	Parents
2	cellular process	82	51,06	biological_process
3	multicellular organismal development	38	22,41	multicellular organismal process, developmental process
2	multicellular organismal process	43	20,63	biological_process
6	cellular protein metabolic process	38	19,8	protein metabolic process, cellular macromolecule metabolic process
2	developmental process	46	19,15	biological_process
3	cellular metabolic process	56	18,81	metabolic process, cellular process
7	translation	21	18,5	gene expression, cellular protein metabolic process, cellular biosynthetic process, macromolecule biosynthetic process
5	organ development	25	17,48	system development, anatomical structure development
3	primary metabolic process	55	16,78	metabolic process
2	response to stimulus	29	16,62	biological_process
4	gene expression	31	15,11	cellular process
4	system development	27	15,03	multicellular organismal development, anatomical structure development
2	metabolic process	59	15	biological_process
3	anatomical structure development	30	13,97	developmental process
4	regulation of cellular process	29	13,95	cellular process, regulation of biological process
3	regulation of biological process	36	13,37	biological_process, biological regulation
3	macromolecule metabolic process	49	13,24	metabolic process
4	transport	28	13,18	establishment of localization
5	protein metabolic process	39	13,08	primary metabolic process, macromolecule metabolic process
2	biological regulation	41	12,48	biological_process
4	cellular biosynthetic process	25	12,48	biosynthetic process, cellular metabolic process

4	cellular macromolecule metabolic process	39	12,23	macromolecule metabolic process, cellular metabolic process
5	embryonic development ending in birth or egg hatching	14	11,6	embryonic development
4	macromolecule biosynthetic process	23	11,54	macromolecule metabolic process, biosynthetic process
3	response to stress	16	10,72	response to stimulus
6	nematode larval development	11	10,6	larval development
5	signal transduction	20	10,46	cell communication
3	cellular component organization and biogenesis	36	10,14	cellular process
4	biopolymer metabolic process	31	10	macromolecule metabolic process
4	embryonic development	16	9,51	multicellular organismal development, developmental process
4	cell motility	13	9,18	localization of cell, cellular process
2	localization	36	8,99	biological_process
3	establishment of localization	29	8,69	biological_process, localization
4	positive regulation of biological process	17	8,68	regulation of biological process, biological_process
4	anatomical structure morphogenesis	14	8,66	anatomical structure development, developmental process
3	cell proliferation	11	8,64	cellular process
6	intracellular signaling cascade	16	8,59	signal transduction
4	negative regulation of biological process	19	8,45	regulation of biological process, biological_process
5	positive regulation of cellular process	12	8,19	cellular process, regulation of cellular process, positive regulation of biological process
5	negative regulation of cellular process	17	8,05	cellular process, regulation of cellular process, negative regulation of biological process
3	response to chemical stimulus	8	7,8	response to stimulus
3	biosynthetic process	26	7,8	metabolic process

4	nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	25	7,53	primary metabolic process, cellular metabolic process
6	DNA metabolic process	14	7,26	nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, biopolymer metabolic process
3	cell communication	22	7,13	cellular process
5	intracellular transport	16	6,87	establishment of cellular localization, transport
7	intracellular protein transport	10	6,71	protein transport, intracellular transport
2	growth	14	6,64	biological_process
5	larval development	12	6,64	post-embryonic development
6	cell migration	7	6,64	cell motility
5	cell development	20	6,44	cell differentiation, cellular process
8	post-translational protein modification	11	6,23	protein modification process
4	organelle organization and biogenesis	20	6,15	cellular component organization and biogenesis
6	apoptosis	12	6,12	programmed cell death
7	red or far red light signaling pathway	6	6	response to red or far red light, intracellular signaling cascade
7	regulation of apoptosis	10	5,98	regulation of programmed cell death, apoptosis
4	cell differentiation	21	5,87	cellular developmental process
5	vesicle-mediated transport	8	5,75	transport
9	regulation of transcription, DNA-dependent	10	5,7	regulation of RNA metabolic process, regulation of transcription, transcription, DNA-dependent
3	regulation of biological quality	14	5,68	biological regulation
3	localization of cell	13	5,51	localization
6	cell surface receptor linked signal transduction	8	5,51	signal transduction
4	regulation of developmental process	13	5,06	regulation of biological process, developmental process

6	regulation of gene expression	14	5,03	gene expression, regulation of cellular process
6	protein transport	11	5,03	establishment of protein localization, transport
4	establishment of cellular localization	17	4,96	establishment of localization, cellular localization
9	induction of apoptosis	6	4,96	positive regulation of apoptosis, induction of programmed cell death
2	reproduction	18	4,74	biological_process
8	transcription, DNA-dependent	11	4,71	transcription, RNA biosynthetic process
8	regulation of transcription	12	4,62	regulation of gene expression, transcription, regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process
7	DNA repair	6	4,56	response to DNA damage stimulus, DNA metabolic process
10	negative regulation of transcription, DNA-dependent	6	4,56	negative regulation of RNA metabolic process, regulation of transcription, DNA-dependent, negative regulation of transcription, transcription, DNA-dependent
4	regulation of growth	10	4,51	regulation of biological process, growth
4	post-embryonic development	13	4,47	multicellular organismal development, developmental process
6	spermatogenesis	5	4,36	male gamete generation
7	protein modification process	12	4,34	cellular protein metabolic process, biopolymer modification
4	defense response	7	4,22	response to stimulus
3	response to endogenous stimulus	9	4,16	response to stimulus
3	cellular developmental process	21	4,12	developmental process, cellular process

6	RNA metabolic process	13	4,07	nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, biopolymer metabolic process
5	programmed cell death	13	4,03	cell death
6	positive regulation of growth rate	4	4	regulation of growth rate, positive regulation of growth
6	genitalia development	6	4	organ development, sex differentiation
7	protein folding	4	4	cellular protein metabolic process
7	hermaphrodite genitalia development	4	4	genitalia development
5	nervous system development	10	3,98	system development
7	generation of neurons	7	3,94	neurogenesis
7	regulation of RNA metabolic process	11	3,76	RNA metabolic process, regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process
7	cell projection organization and biogenesis	7	3,73	cell projection morphogenesis, cell morphogenesis
5	cytoskeleton organization and biogenesis	12	3,68	organelle organization and biogenesis
5	positive regulation of growth	5	3,6	growth, positive regulation of biological process, regulation of growth
6	response to red or far red light	6	3,6	response to light stimulus
6	regulation of programmed cell death	10	3,59	regulation of cellular process, programmed cell death, regulation of developmental process
8	positive regulation of apoptosis	7	3,58	regulation of apoptosis, positive regulation of programmed cell death, apoptosis
7	brain development	5	3,56	organ development, central nervous system development
9	protein amino acid phosphorylation	5	3,56	post-translational protein modification, phosphorylation

7	transcription	13	3,54	nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, gene expression
3	system process	13	3,52	multicellular organismal process
12	axonogenesis	5	3,52	neurite morphogenesis
3	response to external stimulus	7	3,47	response to stimulus
4	cell death	14	3,42	death, cell development, cellular developmental process
5	blood circulation	5	3,42	circulatory system process
6	muscle development	8	3,39	organ development
5	response to light stimulus	8	3,38	response to radiation
4	response to wounding	5	3,36	response to stress, response to external stimulus
5	negative regulation of developmental process	7	3,33	negative regulation of biological process, regulation of developmental process, developmental process
8	cell projection morphogenesis	7	3,28	cell morphogenesis, cell part morphogenesis
5	regulation of cellular metabolic process	17	3,26	regulation of metabolic process, regulation of cellular process, cellular metabolic process
5	sex differentiation	9	3,25	reproductive developmental process
4	cellular component assembly	10	3,2	cellular component organization and biogenesis
5	biopolymer modification	12	3,2	biopolymer metabolic process
13	axon guidance	4	3,2	axonogenesis, cell migration
5	regionalization	4	3,14	pattern specification process
5	muscle contraction	5	3,11	muscle system process
6	regulation of signal transduction	4	3,11	signal transduction, regulation of cellular process
7	DNA replication	5	3,08	DNA metabolic process
5	establishment of protein localization	11	3,02	establishment of localization, protein localization

6	organ morphogenesis	7	3,02	organ development, anatomical structure morphogenesis
6	regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	13	2,98	regulation of cellular metabolic process, nucleobase, nucleoside, nucleotide and nucleic acid metabolic process
6	tissue development	4	2,98	organ development, anatomical structure development
8	induction of programmed cell death	6	2,98	positive regulation of programmed cell death
9	positive regulation of transcription	4	2,96	regulation of transcription, transcription, positive regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process
8	negative regulation of RNA metabolic process	7	2,95	regulation of RNA metabolic process, negative regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, RNA metabolic process
3	reproductive process	13	2,92	biological_process, reproduction
8	MAPKKK cascade	4	2,92	protein kinase cascade
8	neuron differentiation	6	2,92	generation of neurons, cell differentiation
3	response to abiotic stimulus	11	2,9	response to stimulus
5	regulation of cellular component organization and biogenesis	6	2,88	cellular component organization and biogenesis, regulation of cellular process
3	cellular localization	17	2,86	cellular component organization and biogenesis, localization
7	RNA biosynthetic process	11	2,82	RNA metabolic process
4	protein localization	12	2,81	macromolecule localization
8	negative regulation of apoptosis	4	2,8	negative regulation of programmed cell death, regulation of apoptosis, apoptosis

6	neurogenesis	8	2,77	nervous system development, cell development
8	regulation of translation	4	2,76	regulation of macromolecule biosynthetic process, regulation of gene expression, regulation of cellular biosynthetic process, translation, regulation of cellular protein metabolic process
4	gamete generation	6	2,75	sexual reproduction
3	microtubule-based process	5	2,74	cytoskeleton organization and biogenesis
4	response to DNA damage stimulus	6	2,74	response to stress, response to endogenous stimulus
9	negative regulation of transcription	6	2,74	regulation of transcription, negative regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, transcription
11	neurite morphogenesis	5	2,71	cell projection morphogenesis, neurite development, neuron morphogenesis during differentiation
3	cell cycle	7	2,7	cellular process
3	actin filament-based process	5	2,68	cytoskeleton organization and biogenesis
6	phosphorylation	6	2,63	phosphate metabolic process
5	male gamete generation	5	2,62	gamete generation
6	cell morphogenesis	8	2,54	cellular structure morphogenesis
8	protein targeting	6	2,52	intracellular protein transport
null	apoptotic program	4	2,52	intracellular signaling cascade, apoptosis
4	ribonucleoprotein complex biogenesis and assembly	6	2,51	cellular component organization and biogenesis
4	reproductive developmental process	10	2,51	developmental process, reproductive process

7	protein kinase cascade	4	2,47	intracellular signaling cascade
3	death	15	2,41	developmental process
5	regulation of cell proliferation	4	2,4	cell proliferation, regulation of cellular process
5	regulation of growth rate	4	2,4	regulation of growth
5	macromolecular complex assembly	7	2,34	macromolecule metabolic process, cellular component assembly
7	striated muscle development	5	2,27	muscle development
4	lipid metabolic process	4	2,26	primary metabolic process
9	cellular di-, tri-valent inorganic cation homeostasis	4	2,16	di-, tri-valent inorganic cation homeostasis, cellular cation homeostasis
10	regulation of transcription from RNA polymerase II promoter	4	2,16	regulation of transcription, DNA-dependent, transcription from RNA polymerase II promoter
4	regulation of multicellular organismal process	7	2,15	regulation of biological process, multicellular organismal process
7	positive regulation of programmed cell death	7	2,15	positive regulation of developmental process, regulation of programmed cell death, positive regulation of cellular process, programmed cell death
6	central nervous system development	5	2,14	nervous system development, system development
4	pattern specification process	5	2,1	multicellular organismal development, developmental process
7	proteolysis	4	2,08	cellular protein metabolic process
6	positive regulation of cellular metabolic process	6	2,07	positive regulation of cellular process, positive regulation of metabolic process, regulation of cellular metabolic process, cellular metabolic process
4	circulatory system process	5	2,05	system process

5	embryonic morphogenesis	4	2,04	anatomical structure morphogenesis, embryonic development
4	response to radiation	8	2,03	response to abiotic stimulus
3	macromolecule localization	12	2,02	localization
6	sensory perception	6	2,02	neurological system process
9	transcription from RNA polymerase II promoter	4	2,02	transcription, DNA-dependent
6	cytoskeleton-dependent intracellular transport	5	1,99	intracellular transport
10	neurite development	5	1,99	cell projection organization and biogenesis, neuron development
6	cell part morphogenesis	7	1,97	cellular structure morphogenesis
4	regulation of metabolic process	17	1,95	regulation of biological process, metabolic process
5	phosphate metabolic process	6	1,94	phosphorus metabolic process
6	positive regulation of hydrolase activity	4	1,92	regulation of hydrolase activity, positive regulation of catalytic activity
8	regulation of caspase activity	4	1,92	regulation of endopeptidase activity, regulation of apoptosis
5	positive regulation of developmental process	7	1,89	developmental process, regulation of developmental process, positive regulation of biological process
7	regulation of cellular protein metabolic process	4	1,87	cellular protein metabolic process, regulation of protein metabolic process, regulation of cellular metabolic process
3	sexual reproduction	7	1,86	reproduction
4	muscle system process	5	1,86	system process
4	homeostatic process	7	1,83	regulation of biological quality
8	skeletal muscle development	4	1,83	striated muscle development

5	positive regulation of multicellular organismal process	4	1,82	multicellular organismal process, regulation of multicellular organismal process, positive regulation of biological process
5	reproductive structure development	4	1,78	reproductive developmental process, anatomical structure development
6	development of primary sexual characteristics	4	1,78	reproductive developmental process, multicellular organismal development, sex differentiation
6	negative regulation of cellular metabolic process	8	1,78	regulation of cellular metabolic process, negative regulation of metabolic process, cellular metabolic process, negative regulation of cellular process
7	positive regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	4	1,78	regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, positive regulation of cellular metabolic process
7	negative regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	7	1,77	negative regulation of cellular metabolic process, regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process, nucleobase, nucleoside, nucleotide and nucleic acid metabolic process
7	negative regulation of programmed cell death	4	1,68	regulation of programmed cell death, negative regulation of developmental process, programmed cell death, negative regulation of cellular process

6	regulation of macromolecule biosynthetic process	4	1,66	macromolecule biosynthetic process, regulation of biosynthetic process
6	regulation of cellular biosynthetic process	4	1,66	cellular biosynthetic process, regulation of cellular metabolic process, regulation of biosynthetic process
4	neurological system process	9	1,64	system process
10	neuron morphogenesis during differentiation	5	1,63	neuron development, cellular morphogenesis during differentiation
5	positive regulation of catalytic activity	7	1,62	regulation of catalytic activity
4	mitotic cell cycle	4	1,57	cell cycle
3	catabolic process	8	1,53	metabolic process
5	cellular structure morphogenesis	8	1,53	cellular component organization and biogenesis, anatomical structure morphogenesis
5	coenzyme metabolic process	5	1,52	cofactor metabolic process
6	cation transport	5	1,52	ion transport
5	chromosome organization and biogenesis	4	1,51	organelle organization and biogenesis
5	secretion	4	1,5	establishment of localization
7	nucleocytoplasmic transport	4	1,45	nuclear transport
4	cell-cell signaling	6	1,43	cell communication
5	carboxylic acid metabolic process	5	1,41	organic acid metabolic process
5	cellular homeostasis	5	1,38	homeostatic process, cellular process
5	chemical homeostasis	6	1,38	homeostatic process
5	energy derivation by oxidation of organic compounds	5	1,37	generation of precursor metabolites and energy
5	regulation of hydrolase activity	5	1,37	regulation of catalytic activity
4	cell cycle process	4	1,35	cell cycle, cellular process

7	positive regulation of kinase activity	4	1,31	regulation of kinase activity, positive regulation of transferase activity
7	regulation of protein kinase activity	4	1,31	regulation of kinase activity
8	cellular cation homeostasis	4	1,3	cation homeostasis, cellular ion homeostasis
8	di-, tri-valent inorganic cation homeostasis	4	1,3	cation homeostasis
6	cellular chemical homeostasis	5	1,29	chemical homeostasis, cellular homeostasis
4	cofactor metabolic process	6	1,27	cellular metabolic process
2	immune system process	4	1,25	biological_process
4	membrane organization and biogenesis	4	1,24	cellular component organization and biogenesis
5	positive regulation of metabolic process	6	1,24	regulation of metabolic process, metabolic process, positive regulation of biological process
4	cellular catabolic process	7	1,23	catabolic process, cellular metabolic process
4	regulation of catalytic activity	8	1,23	regulation of molecular function
9	neuron development	5	1,19	cell development, neuron differentiation
4	phosphorus metabolic process	6	1,16	cellular metabolic process
7	regulation of endopeptidase activity	4	1,15	regulation of peptidase activity
7	cellular ion homeostasis	4	1,15	ion homeostasis, cellular chemical homeostasis
6	synaptic transmission	4	1,14	transmission of nerve impulse, cell-cell signaling
6	regulation of kinase activity	4	1,14	regulation of transferase activity
5	regulation of biosynthetic process	5	1,12	biosynthetic process, regulation of metabolic process
6	regulation of protein metabolic process	4	1,12	protein metabolic process, regulation of metabolic process

5	negative regulation of metabolic process	8	1,07	regulation of metabolic process, negative regulation of biological process, metabolic process
4	generation of precursor metabolites and energy	5	1,04	cellular metabolic process
5	ion transport	5	0,99	transport
7	cellular morphogenesis during differentiation	5	0,98	cell morphogenesis, cell development
5	biopolymer catabolic process	5	0,97	macromolecule catabolic process, biopolymer metabolic process
6	nuclear transport	4	0,87	intracellular transport
4	organic acid metabolic process	5	0,85	cellular metabolic process
6	regulation of peptidase activity	4	0,84	regulation of hydrolase activity
3	regulation of molecular function	8	0,82	biological regulation
6	positive regulation of transferase activity	4	0,78	regulation of transferase activity, positive regulation of catalytic activity
7	cation homeostasis	4	0,78	ion homeostasis
5	transmission of nerve impulse	5	0,71	neurological system process, cell-cell signaling
5	regulation of transferase activity	4	0,69	regulation of catalytic activity
6	ion homeostasis	4	0,69	chemical homeostasis
4	macromolecule catabolic process	5	0,63	macromolecule metabolic process, catabolic process