
p < 0.01
p < 0.05
p < 0.1
5/5 glutathione binding
5/6 selenium binding
39/57 antioxidant
8/10 glutathione peroxidase
6/7 oxidoreductase, acting on superoxide radicals as acceptor
35/48 transferase, transferring alkyl or aryl (other than methyl) groups
17/21 glutathione transferase
7/12 prenyltransferase
46/56 NAD binding
139/202 coenzyme binding
5/5 FAD binding
15/21 quinone binding
210/289 cofactor binding
5/7 ubiquinone binding
585/809 oxidoreductase
12/16 NADH dehydrogenase (ubiquinone)
35/48 oxidoreductase, acting on NAD(P)H
16/23 oxidoreductase, acting on NAD(P)H, quinone or similar compound as accep
27/40 4 iron, 4 sulfur cluster binding
39/49 oxidoreductase, acting on the CH−CH group of donors
11/14 acyl−CoA dehydrogenase
17/19 oxidoreductase, acting on the CH−CH group of donors, NAD or NADP as acceptor
17/24 oxidoreductase, acting on the CH−NH group of donors, NAD or NADP as acceptor
27/29 oxidoreductase, acting on the aldehyde or oxo group of donors
16/25 oxidoreductase, acting on the CH−NH2 group of donors
36/44 oxidoreductase, acting on a sulfur group of donors
20/24 disulfide oxidoreductase
3/5 oxidoreductase, acting on a sulfur group of donors, oxygen as acceptor
48/55 electron carrier
122/163 oxidoreductase, acting on CH−OH group of donors
15/18 retinol dehydrogenase
8/8 aldo−keto reductase (NADP)
12/16 steroid dehydrogenase
8/11 estradiol 17−beta−dehydrogenase
30/35 intramolecular oxidoreductase
18/18 intramolecular oxidoreductase, transposing S−S bonds
87/106 isomerase
25/28 cis−trans isomerase
5/7 racemase and epimerase, acting on carbohydrates and derivatives
9/13 racemase and epimerase
7/7 intramolecular transferase, phosphotransferases
12/15 intramolecular transferase
5/5 alpha−glucosidase
90/136 hydrolase, acting on glycosyl bonds
9/10 glucosidase
6/9 mannosidase
61/84 vitamin binding
7/9 procollagen−proline dioxygenase
25/37 L−ascorbic acid binding
10/13 peptidyl−proline dioxygenase
89/121 dioxygenase
172/251 carbohydrate binding
9/14 mannose binding
45/63 monosaccharide binding
160/247 transferase, transferring glycosyl groups
13/16 glucuronosyltransferase
8/11 hydrolase, acting on carbon−nitrogen (but not peptide) bonds, in linear amidines
66/98 hydrolase, acting on carbon−nitrogen (but not peptide) bonds
4/5 cyclohydrolase
11/17 deaminase
16/23 transferase, transferring nitrogenous groups
80/120 S−adenosylmethionine−dependent methyltransferase
161/242 transferase, transferring one−carbon groups
456/654 enzyme binding
21/36 Rho GTPase binding
66/94 phosphatase binding
58/80 small conjugating protein binding
29/34 polyubiquitin binding
31/39 thioesterase binding
768/1208 zinc ion binding
70/105 small conjugating protein ligase binding
20/27 WW domain binding
22/33 tumor necrosis factor receptor superfamily binding
33/51 cytokine receptor binding
29/45 PDZ domain binding
188/279 protein domain specific binding
12/16 Wnt−activated receptor
261/430 ligase, forming carbon−nitrogen bonds
5/5 biotin carboxylase
8/9 ligase, forming carbon−carbon bonds
10/16 carbon−nitrogen ligase, with glutamine as amido−N−donor
45/63 Ras guanyl−nucleotide exchange factor
73/111 guanyl−nucleotide exchange factor
30/37 Rho guanyl−nucleotide exchange factor
18/21 spectrin binding
8/11 cytoskeletal adaptor
341/467 cytoskeletal protein binding
187/241 actin binding
6/8 actin−dependent ATPase
43/50 actin filament binding
111/166 motor
9/12 microfilament motor
512/754 hydrolase, acting on acid anhydrides
230/352 ATPase
57/96 DNA−dependent ATPase
156/245 ATPase, coupled
133/215 helicase
5/6 DNA topoisomerase
6/8 gamma−tubulin binding
22/43 deoxyribonuclease
24/38 single−stranded DNA binding
12/13 proteoglycan binding
539/759 calcium ion binding
5/6 vinculin binding
13/19 actinin binding
8/12 structural constituent of muscle
248/323 structural molecule
104/124 structural constituent of ribosome
6/8 structural constituent of eye lens
73/106 cell adhesion molecule binding
35/56 integrin binding
7/10 phosphatidylethanolamine binding
23/36 ion channel binding
7/12 catecholamine binding
10/16 beta−adrenergic receptor
23/31 adrenergic receptor
296/444 G−protein coupled receptor
9/10 alpha−adrenergic receptor
52/68 G−protein coupled amine receptor
41/62 channel regulator
5/7 adenylate cyclase binding
12/17 potassium channel regulator
8/9 serotonin receptor
85/120 neurotransmitter receptor
11/14 tachykinin receptor
725/1064 receptor
74/106 peptide receptor
13/17 neuropeptide Y receptor
56/79 neuropeptide receptor
335/489 receptor binding
64/86 G−protein coupled receptor binding
19/28 opioid receptor binding
16/27 protein−hormone receptor
25/43 growth factor
6/10 fibroblast growth factor receptor binding
48/74 protein tyrosine phosphatase
77/120 phosphoprotein phosphatase
11/16 transmembrane receptor protein phosphatase
11/14 transition metal ion transmembrane transporter
6/9 zinc ion transmembrane transporter
106/155 divalent inorganic cation transmembrane transporter
19/26 voltage−gated calcium channel
5/5 high voltage−gated calcium channel
9/10 ATPase, coupled to transmembrane movement of ions, rotational mechanism
21/29 ATPase, coupled to transmembrane movement of ions
7/7 proton−transporting ATP synthase, rotational mechanism
664/981 transporter
14/15 heme−copper terminal oxidase
361/521 cation transmembrane transporter
602/883 transmembrane transporter
183/260 monovalent inorganic cation transmembrane transporter
43/51 hydrogen ion transmembrane transporter
290/412 inorganic cation transmembrane transporter
25/44 sodium channel
6/11 voltage−gated sodium channel
62/97 sodium ion transmembrane transporter
17/29 ligand−gated sodium channel
12/22 ion gated channel
75/114 potassium ion transmembrane transporter
4/6 A−type (transient outward) potassium channel
13/16 outward rectifier potassium channel
99/149 voltage−gated ion channel
6/9 inward rectifier potassium channel
57/82 voltage−gated potassium channel
29/37 delayed rectifier potassium channel
8/11 calcium:cation antiporter
5/5 calcium:sodium antiporter
68/114 calmodulin binding
46/63 inorganic anion transmembrane transporter
9/10 extracellular−glycine−gated ion channel
34/49 chloride transmembrane transporter
16/19 GABA−A receptor
106/165 anion transmembrane transporter
9/10 transmitter−gated ion channel
23/29 GABA receptor
7/10 G−protein coupled GABA receptor
15/21 toxic substance binding
21/26 beta−amyloid binding
28/37 neurotransmitter binding
275/408 passive transmembrane transporter
27/36 acetylcholine−activated cation−selective channel
65/89 extracellular ligand−gated ion channel
46/65 excitatory extracellular ligand−gated ion channel
106/150 ligand−gated ion channel
198/286 gated channel
21/28 acetylcholine receptor
17/29 glutamate receptor
11/20 ionotropic glutamate receptor
9/15 cAMP binding
20/29 cyclic nucleotide binding
9/15 cGMP binding
5/7 cyclic nucleotide−gated ion channel
10/13 intracellular ligand−gated ion channel
4/5 3',5'−cyclic−GMP phosphodiesterase
9/13 cyclic−nucleotide phosphodiesterase
10/15 MAP kinase kinase kinase
209/326 protein serine/threonine kinase
13/24 protein serine/threonine/tyrosine kinase
404/622 kinase
7/9 protein histidine kinase
756/1231 transferase, transferring phosphorus−containing groups
9/15 phosphotransferase, nitrogenous group as acceptor
9/11 RNA polymerase II carboxy−terminal domain kinase
8/10 carbohydrate kinase
27/35 fibroblast growth factor−activated receptor
120/174 protein tyrosine kinase
78/111 transmembrane receptor protein kinase
37/52 growth factor binding
15/22 fibroblast growth factor binding
58/85 heparin binding
87/127 glycosaminoglycan binding
4/5 cyclin binding
35/45 RNA polymerase
6/9 RNA polymerase III
334/588 nucleotidyltransferase
36/50 manganese ion binding
10/14 phosphotransferase, for other substituted phosphate groups
5/5 diphosphotransferase
88/120 magnesium ion binding
5/6 AMP binding
22/30 carboxy−lyase
141/191 lyase
5/7 oxo−acid−lyase
31/35 hydro−lyase
41/49 carbon−oxygen lyase
18/27 cyclase
11/16 guanylate cyclase
5/7 natriuretic peptide receptor
9/15 SNAP receptor
148/203 transferase, transferring acyl groups
4/5 diacylglycerol O−acyltransferase
30/40 histone acetyltransferase
5/5 carnitine O−acyltransferase
33/46 thiolester hydrolase
9/12 CoA hydrolase
59/93 transcription regulatory region sequence−specific DNA binding
113/176 regulatory region DNA binding
42/61 RNA polymerase II regulatory region DNA binding
235/340 sequence−specific DNA binding
30/45 RNA polymerase II core promoter proximal region sequence−specific DNA binding transcription fac
48/78 sequence−specific DNA binding RNA polymerase II transcription factor
259/401 sequence−specific DNA binding transcription factor
7/11 bHLH transcription factor binding
118/176 protein binding transcription factor
93/158 aspartic−type peptidase
394/576 endopeptidase
559/814 peptidase
16/16 threonine−type endopeptidase
145/192 serine hydrolase
176/262 metallopeptidase
114/170 metalloendopeptidase
86/121 exopeptidase
27/42 aminopeptidase
24/29 omega peptidase
6/7 hydrolase, acting on ether bonds
217/283 poly(A) RNA binding
6/8 snoRNA binding
5/6 nucleoside−triphosphate diphosphatase
11/12 signal sequence binding
7/11 tRNA−specific ribonuclease
5/6 ribonuclease P
57/68 translation factor, nucleic acid binding
41/49 translation initiation factor
11/12 translation elongation factor
9/10 translation initiation factor binding
18/24 ribosome binding
30/42 ribonucleoprotein complex binding
42/52 unfolded protein binding
64/82 carboxylic ester hydrolase
4/5 aminoacyl−tRNA editing
21/29 aminoacyl−tRNA ligase
4/6 GDP−dissociation inhibitor
5/7 ATPase regulator
13/19 acid phosphatase
12/17 sulfuric ester hydrolase
5/5 N−acetylgalactosamine−4−sulfatase