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39/57 antioxidant
                                                                                                          p < 0.05
8/10 glutathione peroxidase
                                                                                                          p < 0.1
6/7 superoxide dismutase
35/48 transferase, transferring alkyl or aryl (other than methyl) groups
17/21 glutathione transferase
46/56 NAD binding
139/202 coenzyme binding
5/5 FAD binding
15/21 quinone binding
210/289 cofactor 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
       doreductase, 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 protein disulfide isomerase
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
161/247 transferase, transferring glycosyl groups
13/16 glucuronosyltransferase
   1 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
455/654 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
767/1207 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
44/63 Ras guanyl-nucleotide exchange factor
72/111 guanyl-nucleotide exchange factor
29/37 Rho guanyl-nucleotide exchange factor
18/21 spectrin binding
8/11 cytoskeletal adaptor
342/467 cytoskeletal protein binding
188/241 actin binding
6/8 actin-dependent ATPase
43/50 actin filament binding
112/166 motor
9/12 microfilament motor
513/754 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
    3 deoxyribonuclease
24/38 single-stranded DNA binding
12/13 proteoglycan binding
541/757 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
297/443 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
726/1063 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 tyrosine 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 665/981 transporter
14/15 cytochrome-c oxidase
361/521 cation transmembrane transporter
603/883 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
69/114 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 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
276/408 channel
27/36 acetylcholine-activated cation-selective channel 66/89 extracellular ligand-gated ion channel 47/65 excitatory extracellular ligand-gated ion channel
107/150 ligand-gated ion channel 199/286 gated channel
21/28 acetylcholine receptor
18/29 glutamate receptor
12/20 ionotropic glutamate receptor
9/15 cAMP binding
20/29 cyclic nucleotide binding
9/15 cGMP binding
5/7 intracellular cyclic nucleotide activated cation 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
754/1230 transferase, transferring phosphorus-containing groups
9/15 phosphotransferase, nitrogenous group as acceptor
9/11 RNA polymerase II carboxy-terminal domain 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
332/587 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 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
6/11 tRNA-specific ribonuclease
4/6 ribonuclease F
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
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30/42 ribonucleoprotein complex binding 42/52 unfolded protein binding 65/82 carboxylic ester hydrolase

4/6 GDP-dissociation inhibitor

5/5 N-acetylgalactosamine-4-sulfatase

5/7 ATPase regulator 13/19 acid phosphatase 12/17 sulfuric ester hydrolase

4/5 aminoacyl–tRNA editing 21/29 ligase, forming aminoacyl–tRNA and related compounds

5/5 glutathione binding 5/6 selenium binding

p < 0.01