	name	n	avg_len	dis	\mathbf{z}	p	top20
AC							
238	DNA-binding	6518	546.53	0.87	45.42	1.00	
217	Developmental protein	3897	655.21	0.86	31.09	1.00	True
10	Activator	2574	600.51	0.88	27.91	1.00	True
678	Repressor	1988	589.29	0.85	22.55	1.00	True
694	RNA-binding	2728	575.76	0.76	17.46	1.00	
156	Chromatin regulator	1038	847.06	0.90	13.81	1.00	True
687	Ribonucleoprotein	1886	272.29	0.60	13.27	1.00	True
723	Serine/threonine-protein kinase	1782	802.24	0.84	12.53	1.00	
143	Chaperone	937	430.43	0.71	10.22	1.00	
689	Ribosomal protein	1408	186.38	0.53	9.29	1.00	True
339	Growth factor	398	299.63	0.70	8.74	1.00	True
649	Protein kinase inhibitor	49	337.20	0.96	8.03	1.00	
112	Calmodulin-binding	520	1229.00	0.90	7.73	1.00	
195	Cyclin	133	422.71	0.87	7.42	1.00	True
372	Hormone	337	221.67	0.59	6.99	1.00	True
734	Signal transduction inhibitor	115	408.43	0.84	6.54	1.00	
344	Guanine-nucleotide releasing factor	319	1144.39	0.96	6.40	1.00	
343	GTPase activation	424	867.35	0.88	6.36	1.00	True
340	Growth factor binding	50	593.98	1.00	6.24	1.00	
527	Neuropeptide	105	234.96	0.68	5.82	1.00	True
650	Protein phosphatase inhibitor	64	352.86	0.81	5.18	1.00	True
829	Tyrosine-protein kinase	376	863.00	0.89	5.09	1.00	
107	Calcium channel	193	1397.77	0.93	5.06	1.00	
631	Potassium channel	191	621.52	0.85	5.06	1.00	
497	Mitogen	137	286.03	0.68	4.78	1.00	
838	Vasoactive	46	267.00	0.76	4.36	1.00	True
514	Muscle protein	193	920.01	0.73	3.96	1.00	
358	Heparin-binding	221	650.97	0.73	3.96	1.00	
9	Actin-binding	837	974.92	0.77	3.76	1.00	
347	Helicase	739	1086.05	0.87	3.23	1.00	
878	Amphibian defense peptide	49	85.80	0.53	3.19	1.00	True
640	Prion	22	497.05	0.91	2.95	1.00	
851	Voltage-gated channel	386	816.98	0.78	2.95	1.00	
407	Ion channel	1027	861.88	0.76	2.90	1.00	
543	Viral nucleoprotein	39	1202.79	0.90	2.56	1.00	
709	Segmentation polarity protein	24	712.75	0.92	2.28	1.00	
825	Tumor antigen	26	428.81	0.77	2.20	0.99	
269	Exonuclease	239	725.99	0.75	2.02	0.98	
505	Motor protein	467	1227.67	0.83	1.99	0.99	
699	rRNA-binding	319	220.01	0.47	1.89	0.98	
396	Initiation factor	248	489.76	0.65	1.86	0.98	

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	name	n	avg_len	dis	Z	р	top20
AC							
652	Protein synthesis inhibitor	36	419.33	0.69	1.74	0.98	
799	Topoisomerase	60	910.32	0.92	1.73	0.97	
695	RNA-directed DNA polymerase	62	1565.08	0.98	1.48	0.98	
49	Antioxidant	111	203.40	0.34	-1.82	0.04	
789	Thiol protease inhibitor	63	411.06	0.35	-1.92	0.04	
820	tRNA-binding	119	575.46	0.56	-2.02	0.03	
1199	Hemostasis impairing toxin	55	297.55	0.35	-2.04	0.03	
64	Aspartyl protease	120	942.30	0.64	-2.25	0.02	
872	Ion channel impairing toxin	60	74.92	0.15	-2.37	0.01	
255	Endonuclease	443	728.14	0.60	-2.47	0.01	
738	Voltage-gated sodium channel impairing toxin	22	79.55	0.05	-2.49	0.01	
800	Toxin	214	412.51	0.39	-2.52	0.01	
540	Nuclease	703	668.54	0.60	-2.57	0.00	
81	Bacteriolytic enzyme	35	434.66	0.31	-2.72	0.00	
637	Prenyltransferase	39	376.21	0.31	-2.72	0.01	
251	Elongation factor	106	467.68	0.48	-2.72	0.00	
600	Photoreceptor protein	77	540.68	0.47	-2.98	0.00	
681	Retinal protein	47	384.06	0.28	-3.28	0.00	
348	Hemagglutinin	23	281.22	0.13	-3.43	0.00	
518	Myosin	185	1275.20	0.72	-3.46	0.00	
528	Neurotoxin	66	209.62	0.17	-3.54	0.00	
696	RNA-directed RNA polymerase	62	2506.11	0.87	-3.95	0.00	
646	Protease inhibitor	284	446.29	0.41	-4.00	0.00	
224	Dipeptidase	22	522.27	0.23	-4.25	0.00	
401	Integrin	71	1038.25	0.70	-4.35	0.00	
626	Porin	63	318.84	0.21	-4.69	0.00	
722	Serine protease inhibitor	182	497.66	0.38	-4.90	0.00	
575	Peroxidase	221	457.61	0.40	-5.39	0.00	
548	Nucleotidyltransferase	600	969.68	0.63	-6.17	0.00	
675	Receptor	3424	647.92	0.59	-7.00	0.00	
888	Threonine protease	138	246.88	0.18	-7.00	0.00	
223	Dioxygenase	366	622.32	0.48	-7.07	0.00	True
719	Serine esterase	141	423.09	0.28	-7.24	0.00	
121	Carboxypeptidase	116	631.16	0.37	-7.90	0.00	
482	Metalloprotease	507	688.25	0.56	-8.47	0.00	True
720	Serine protease	460	700.07	0.50	-8.49	0.00	
489	Methyltransferase	874	611.22	0.47	-8.78	0.00	True
31	Aminopeptidase	130	668.72	0.37	-9.29	0.00	True
32	Aminotransferase	202	451.05	0.24	-10.37	0.00	True
210	Decarboxylase	195	488.21	0.25	-10.56	0.00	True
12	Acyltransferase	867	531.58	0.42	-11.19	0.00	True

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	name	n	avg_len	dis	\mathbf{z}	р	top20
AC							
807	Transducer	1703	482.28	0.41	-12.20	0.00	
297	G-protein coupled receptor	1385	465.62	0.39	-12.80	0.00	
645	Protease	1863	674.42	0.54	-12.85	0.00	True
413	Isomerase	931	422.72	0.35	-13.83	0.00	True
326	Glycosidase	697	570.50	0.37	-17.25	0.00	True
328	Glycosyltransferase	1134	551.26	0.40	-17.28	0.00	True
436	Ligase	995	693.30	0.46	-17.30	0.00	True
808	Transferase	8846	631.95	0.55	-20.12	0.00	
503	Monooxygenase	555	503.36	0.20	-20.77	0.00	True
456	Lyase	1431	481.37	0.30	-24.25	0.00	True
378	Hydrolase	7564	614.81	0.51	-27.41	0.00	
560	Oxidoreductase	4126	472.25	0.28	-40.99	0.00	True