

Supplementary information 17 Representative examples of known gene families.

Family	Total	Known	New to mouse
1 ATP-binding cassette	47	42	5
2 BAG	6	3	3
3 bHLH	102	99	3
4 Bcl-2	27	27	0
5 BIRs (of IAP)	7	6	1
6 BRCT	26	23	3
7 CARDs	18	13	5
8 Caspases	10	10	0
9 CDK	18	17	1
10 Centrins	4	3	1
11 CIDE	5	5	0
12 Cyclins	21	19	2
13 Cytokine-related	123	107	16
14 Death Effectors Domains (DED)	10	10	0
15 Death Domains (DD)	33	29	4
16 De-ubiquitinating enzymes	60	32	28
17 E1 Ubiquitin-activating enzymes	14	10	4
18 E2 Ubiquitin-conjugating enzymes	50	18	32
19 E3 Ubiquitin-protein ligases	344	160	184
20 FtsJ	5	2	3
21 GPCR	213	165	48
22 HDAC	10	7	3
23 Homeobox	212	191	21
24 IAP antagonist	3	2	1
25 IκB	6	6	0
26 Immunoglobulin superfamily	2,322	2,172	150
27 Kinesins	45	45	0
28 MCM	9	7	2
29 Myb	34	20	14
30 NACHT	16	10	6
31 NIMA	9	7	2
32 PAAD (pyrin)	12	6	6
33 Protein Kinases	626	512	114
34 Protein Phosphatases	194	147	47
35 REL	5	5	0
36 SNF2	23	12	11
37 Spindlins (Spin_Ssty)	6	5	1
38 TIR	13	13	0
39 TNF Ligands	17	17	0
40 TNF Receptors	27	26	1
41 TRAF/TEF	18	17	1
42 Zinc fingers C2H2-type	494	306	188
Total	5,244	4,333	911

Total (mouse transcriptome): Representative examples of known protein families

Known (public mouse): Families define by motif and/or biology

New to mouse (RIKEN clones): Novel genes found in the FANTOM data set