Extended Data Table 2 | Analysis of immune gene families across species

Panel A

Change Type	gene family	function	SM	AGM	RM	Human	Chimp	Baboon
Expansion (+5)	ADAM metalloproteinases	cytokine regulation	30	20	27	22	18	24
Expansion (+6)	scavenger receptors	LDL binding	17	9	11	9	10	10
Expansion (+6)	butyrophilin	lymphocyte deactivation	16	10	9	9	7	10
Expansion (+3)	TNFRSF10/TRAIL	apoptosis induction	6	4	3	4	5	3
Expansion (+2)	CD300	lipid-binding, immunomodulation	5	3	2	3	3	3
Contraction (-3)	C-C-motif chemokines	chemoattractant for immune cells	6	9	10	20	9	10

Panel B

	λ (No Error Model)	ε (Estimated error)	λ (Error Model = ε)
10 species in this study	0.00268	0.04268	0.00204
11 species Gibbon Genome Project [50]	0.00258	0.04101	0.00141
10 mammal dataset [49]	0.00238	0.07324	0.00186

Panel C

	Expansions			Contractions			No Change	Avg. Expansion
	Families	Genes gained	genes/ expansion	Families	Genes lost	genes/ contraction		
Sooty	535 (96)	1153	2.16	340 (48)	494	1.45	10106	0.024528
Human	1042 (276)	3471	3.33	192 (10)	210	1.09	9747	0.200967
Marmoset	1027 (122)	2213	2.15	668 (23)	841	1.26	9286	0.107504
Chimp	161 (23)	384	2.39	874 (69)	1137	1.3	9946	-0.081244
Gibbon	354 (13)	552	1.56	1089 (92)	1466	1.35	9538	-0.085529
Baboon	290 (61)	660	2.28	624 (41)	737	1.18	10067	-0.028084
Orang	548 (65)	1032	1.88	749 (14)	820	1.09	9684	-0.003921
Macaque	1101 (203)	2904	2.64	783 (22)	835	1.07	9097	0.100666
Mouse	631 (38)	2719	4.31	855 (9)	1027	1.2	9495	0.013404
Vervet	294 (19)	658	2.24	674 (59)	921	1.37	10013	-0.039209

a, Expansion and contraction of immune gene families across six primate species. **b**, Assembly and annotation error estimations and gene gain and loss rates in a single λ model in 13 mammals. **c**, Summary of gene gain and loss events inferred after correcting for annotation and assembly errors across all 13 species. The number of rapidly evolving families is shown in parentheses for each type of change. AGM, African green monkey.