

S6 Table: Summary of parameters used for the coalescent simulations.

Species pair	Shape	Scale	μ (average) ^a	N_a	t-split (generations)
Human-chimp GERP 10	16.82	1.7×10^{-10}	2.9×10^{-9}	70000	240000
Human-chimp GERP 25	15.68	1.8×10^{-10}	2.8×10^{-9}	71000	280000
Human-mouse GERP 10	4.0×10^3	5.0×10^{-12}	2.0×10^{-8}	940000	N/A
Human-mouse GERP 25	1.6×10^3	1.7×10^{-11}	2.7×10^{-8}	375000	N/A

Note that shape and scale refer to the shape and scale parameters used for the gamma distribution of mutation rates.

^aWe filtered all AT→GC changes between the human and chimp sequences as they could be affected by biased gene conversion. Thus, the mutation rates used here are substantially lower than commonly used values.