

Table S3. The likelihood ratio test for the branch site A model.

GTA gene	LRT	p-value	Corrected p-value
<i>g2</i> [§]	52.23	4.94E-13	6.91E-12
<i>g3</i>	58.29	2.26E-14	3.17E-13
<i>g4</i>	28.52	9.27E-08	1.30E-06
<i>g5</i>	33.89	5.83E-09	8.16E-08
<i>g6</i>	19.49	1.01E-05	0.00014112
<i>g7</i>	11.34	0.000759	0.0106204
<i>g8</i>	1.14	0.2857	1
<i>g9</i>	14.98	0.000109	0.0015218
<i>g10</i>	9.16	0.002474	0.034636
<i>g11</i>	6.09	0.01359	0.19026
<i>g12</i> [*]	49.76	1.74E-12	2.43E-11
<i>g13</i>	51.84	6.02E-13	8.43E-12
<i>g14</i>	5.4	0.02014	0.28196
<i>g15</i> [*]	153.36	3.20E-35	4.47E-34

*To reduce computation time, for *g12* and *g15* genes the alignments were trimmed by removing sites that had > 50% and >20% gaps, respectively.

§Genes in bold font have corrected p-values < 0.01