

**Table S10.**  $d_n/d_s$  analysis using codeml.

Model	$\omega$	Likelihood	X-squared	p-value
Neutral	1	-3944.34	-----	-----
Model1	0.02689	-3347.11	48.9181	2.67E-12
Model2	<i>Co. hominivorax</i> : 0.111 Others: 0.023	-3340.86	49.9896	1.55E-12
Model3	Obligate parasites: 0.027 Others: 0.027	-3347.1	48.9182	2.67E-12
Model4	Blood related: 0.027 Others: 0.027	-3347.1	48.9184	2.67E-12