

Table S2. Evolutionary models fitted to empirical and synthetic data.			
	Empirical data	Synthetic data	
<i>Relative Frequencies</i>			
adenine (A)	0.3906	0.3929	
cytosine (C)	0.1752	0.1726	
guanine (G)	0.2201	0.2234	
thymine (T)	0.2142	0.2111	
<i>Rate heterogeneity</i>			
shape parameter	0.6250	0.6244	
<i>Relative substitution rates</i>			
$r(A \rightarrow G) = r(G \rightarrow A)$	1.9803	2.0421	
$r(A \rightarrow C) = r(C \rightarrow A)$	9.4404	9.5318	
$r(A \rightarrow T) = r(T \rightarrow A)$	0.9423	0.9674	
$r(G \rightarrow C) = r(C \rightarrow G)$	0.8770	0.8840	
$r(G \rightarrow T) = r(T \rightarrow G)$	11.6367	12.0604	
$r(C \rightarrow T) = r(T \rightarrow C)$	1.0000	1.0000	
<i>Fraction of invariant sites</i>			
I parameter	0.2130	0.3091	