

Table S11 Summary of model fitting in a McDonald-Kreitman framework for all amplicons that were annotated and had *Pinus radiata* as an outgroup ($I = 1,623$).

Model	k	$\ln L$	AICc
$\theta = \text{constant}, ut = \text{constant}, f = 0, \alpha = 0$	2	-12064.81	24133.62
$\theta = \text{constant}, ut = \text{constant}, f = \text{constant}, \alpha = 0$	3	-10067.49	20140.99
$\theta = \text{constant}, ut = \text{constant}, f = \text{unique}, \alpha = 0$	1625	-7548.09	19432.19
$\theta = \text{unique}, ut = \text{constant}, f = 0, \alpha = 0$	1624	-9320.81	22974.07
$\theta = \text{unique}, ut = \text{constant}, f = \text{constant}, \alpha = 0$	1625	-7330.06	18996.13
$\theta = \text{unique}, ut = \text{constant}, f = \text{unique}, \alpha = 0$	3247	-5725.23	24446.46
$\theta = \text{constant}, ut = \text{constant}, f = 0, \alpha = \text{constant}$	3	-11203.01	22412.02
$\theta = \text{constant}, ut = \text{constant}, f = \text{constant}, \alpha = \text{constant}$	4	-10061.02	20130.04
$\theta = \text{constant}, ut = \text{constant}, f = \text{unique}, \alpha = \text{constant}$	1626	-7522.02	19383.60
$\theta = \text{unique}, ut = \text{constant}, f = 0, \alpha = \text{constant}$	1625	-8668.88	21673.77
$\theta = \text{unique}, ut = \text{constant}, f = \text{constant}, \alpha = \text{constant}$	1626	-7298.35	18936.13
$\theta = \text{unique}, ut = \text{constant}, f = \text{unique}, \alpha = \text{constant}$	3248	-5716.25	24436.52
$\theta = \text{constant}, ut = \text{constant}, f = 0, \alpha = \text{beta}$	4	-11949.69	23907.38
$\theta = \text{constant}, ut = \text{constant}, f = \text{constant}, \alpha = \text{beta}$	5	-9834.78	19679.57
$\theta = \text{constant}, ut = \text{constant}, f = \text{unique}, \alpha = \text{beta}$	1627	-7510.3	19363.73
$\theta = \text{unique}, ut = \text{constant}, f = 0, \alpha = \text{beta}$	1626	-9309.12	22957.81
$\theta = \text{unique}, ut = \text{constant}, f = \text{constant}, \alpha = \text{beta}$	1627	-7270.93	18884.98
$\theta = \text{unique}, ut = \text{constant}, f = \text{unique}, \alpha = \text{beta}$	3249	-5714.08	24440.19
$\theta = \text{constant}, ut = \text{constant}, f = 0, \alpha = \text{two-spike}$	5	-11006.98	22023.97
$\theta = \text{constant}, ut = \text{constant}, f = \text{constant}, \alpha = \text{two-spike}$	6	-9869.41	19750.84
$\theta = \text{constant}, ut = \text{constant}, f = \text{unique}, \alpha = \text{two-spike}$	1628	-7494.66	19336.01
$\theta = \text{unique}, ut = \text{constant}, f = 0, \alpha = \text{two-spike}$	1627	-8591.69	21526.51
$\theta = \text{unique}, ut = \text{constant}, f = \text{constant}, \alpha = \text{two-spike}$	1628	-7274.38	18895.45
$\theta = \text{unique}, ut = \text{constant}, f = \text{unique}, \alpha = \text{two-spike}$	3250	-5705.77	24431.60
$\theta = \text{constant}, ut = \text{unique}, f = 0, \alpha = 0$	1624	-10830.79	25994.03
$\theta = \text{constant}, ut = \text{unique}, f = \text{constant}, \alpha = 0$	1625	-8836.12	22008.24
$\theta = \text{constant}, ut = \text{unique}, f = \text{unique}, \alpha = 0$	3247	-6828.13	26652.26
$\theta = \text{unique}, ut = \text{unique}, f = 0, \alpha = 0$	3246	-8541.03	30070.05
$\theta = \text{unique}, ut = \text{unique}, f = \text{constant}, \alpha = 0$	3247	-6551.34	26098.68
$\theta = \text{unique}, ut = \text{unique}, f = \text{unique}, \alpha = 0$	4869	-5098.53	49173.07
$\theta = \text{constant}, ut = \text{unique}, f = 0, \alpha = \text{constant}$	1625	-9865.29	24066.59
$\theta = \text{constant}, ut = \text{unique}, f = \text{constant}, \alpha = \text{constant}$	1626	-8836.08	22011.72
$\theta = \text{constant}, ut = \text{unique}, f = \text{unique}, \alpha = \text{constant}$	3248	-6820.54	26645.10
$\theta = \text{unique}, ut = \text{unique}, f = 0, \alpha = \text{constant}$	3247	-7662.37	28320.75
$\theta = \text{unique}, ut = \text{unique}, f = \text{constant}, \alpha = \text{constant}$	3248	-6548.89	26101.79
$\theta = \text{constant}, ut = \text{unique}, f = \text{unique}, \alpha = \text{constant}$	4870	-5093.23	49194.52

$\theta = \text{constant}, ut = \text{unique}, f = 0, \alpha = \text{beta}$	1626	-10830.79	26001.15
$\theta = \text{constant}, ut = \text{unique}, f = \text{constant}, \alpha = \text{beta}$	1627	-8835.43	22013.99
$\theta = \text{constant}, ut = \text{unique}, f = \text{unique}, \alpha = \text{beta}$	3249	-6820.56	26653.16
$\theta = \text{unique}, ut = \text{unique}, f = 0, \alpha = \text{beta}$	3248	-8541.03	30086.07
$\theta = \text{unique}, ut = \text{unique}, f = \text{constant}, \alpha = \text{beta}$	3249	-6550.46	26112.96
$\theta = \text{unique}, ut = \text{unique}, f = \text{unique}, \alpha = \text{beta}$	4871	-5093.25	49226.66
$\theta = \text{constant}, ut = \text{unique}, f = 0, \alpha = \text{two-spiked}$	1627	-9863.55	24070.22
$\theta = \text{constant}, ut = \text{unique}, f = \text{constant}, \alpha = \text{two-spike}$	1628	-8833.74	22014.17
$\theta = \text{constant}, ut = \text{unique}, f = \text{unique}, \alpha = \text{two-spike}$	3250	-6820.54	26661.14
$\theta = \text{unique}, ut = \text{unique}, f = 0, \alpha = \text{two-spike}$	3249	-7660.96	28333.96
$\theta = \text{unique}, ut = \text{unique}, f = \text{constant}, \alpha = \text{two-spike}$	3250	-6547.15	26114.35
$\theta = \text{unique}, ut = \text{unique}, f = \text{unique}, \alpha = \text{two-spike}$	4872	-5093.23	49258.75

Abbreviations: AICc, corrected Akaike Information Criterion; α , fraction new mutations driven to fixation by positive selection; beta, the Beta distribution; constant, a constant value of a parameter across all amplicons; f , the fraction of amplicons not under strong purifying selection; k , number of model parameters; l , number of loci or amplicons; $\ln L$, log-likelihood; θ , expected neutral diversity; two-spike, two-spiked multimodal distribution; unique, unique value of a parameter for each amplicon; ut , expected neutral divergence.