

Additional Table 3. *Codeml* log-likelihood values and parameter estimates for four models applied to the M and F *COX2-COX1* regions.

Male sequences (*COX2h+COX2e+COX1*):

Model	No. of parameters	χ^2	$\ln L$	Parameter estimates
M1a (nearly neutral)	2	6.48	-12935.84	$\hat{p}_0 = 0.853$; $\hat{p}_1 = 0.147$; $\hat{\omega}_0 = 0.046$; $\hat{\omega}_1 = 1$
M2a (selection)	4	6.48	-12935.84	$\hat{p}_0 = 0.853$; $\hat{p}_1 = 0.054$; $\hat{p}_2 = 0.093$ $\hat{\omega}_0 = 0.045$; $\hat{\omega}_1 = 1$; $\hat{\omega}_2 = 1$
M7(beta)	2	6.02	-12609.68	$\hat{p} = 0.294$; $\hat{q} = 2.823$
M8 (beta & $w > 1$)	4	11.76	-12604.03	$\hat{p}_0 = 0.981$; $\hat{p} = 0.329$; $\hat{q} = 3.987$ $\hat{p}_1 = 0.019$; $\hat{\omega} = 1.000$

Female sequences (*COX2h+COX1*):

Model	No. of parameters	χ^2	$\ln L$	Parameter estimates
M1a (nearly neutral)	2	11.49	-5727.65	$\hat{p}_0 = 0.979$; $\hat{p}_1 = 0.021$; $\hat{\omega}_0 = 0.007$; $\hat{\omega}_1 = 1$
M2a (selection)	4	11.49	-5727.65	$\hat{p}_0 = 0.979$; $\hat{p}_1 = 0.021$; $\hat{p}_2 = 0.000$ $\hat{\omega}_0 = 0.007$; $\hat{\omega}_1 = 1$; $\hat{\omega}_2 = 35.887$
M7(beta)	2	11.81	-5700.71	$\hat{p} = 0.081$; $\hat{q} = 3.033$
M8 (beta & $w > 1$)	4	11.76	-5690.24	$\hat{p}_0 = 0.994$; $\hat{p} = 0.110$; $\hat{q} = 8.522$ $\hat{p}_1 = 0.007$; $\hat{\omega} = 1.000$
