

Table 1: Results of the evolutionary analyses for positively selected sites for Mx1 in bats. P-values were achieved by performing chi-squared tests on twice the difference of the computed log likelihood values of the models disallowing (M7) or allowing (M8) $dN/dS > 1$. The BEB column lists rapidly evolving sites with a $dN/dS > 1$ and a posterior probability > 0.95 , determined by the Bayes Empirical Bayes implemented in **Codem1**. Amino acids refer to *Myotis daubentonii*. Note that INDELs and the stop codon were removed from the alignment prior to evolutionary analysis, so shown positions are based on the **alignment without gaps**. Fragments arising from insignificant breakpoints (adjusted p-value > 0.1) are marked with an asterisk.

Region	M7 vs M8 (χ^2)	M7 vs M8 p-value	% sites with $\omega > 1$	avg(ω)	M8 BEB ($PP > 0.95/ > 0.99$)
F61					
full (aa 1–649)	82.85	< 0.001	8.06	2.75	L120; D123; R187; A191; S343; R415; D418 ; F421; R425 ; S541; E544 ; S547; L548 ; Q549; Q550 ; T551 ; S552; S553; A555; D556; T558
frag1* (aa 1–90)	17.01	< 0.001	38.07	1.92	A4 ; T5; D7; P9 ; S12 ; H13; P14; G18; G23; L25 ; E26; L28 ; N30 ; S31; Q35
frag2* (aa 91–183)	0.39	0.821	NA	NA	NA
frag3* (aa 184–649)	82.48	< 0.001	8.1	3.0	A191; D418; R425 ; E544; S547; L548 ; Q550 ; T551; S552; S553; D556; T558
F1X4					
full (aa 1–649)	76.34	< 0.001	7.05	2.79	R187; D418; F421; R425; E544; L548 ; Q550 ; T551; S552; S553; D556; T558
frag1* (aa 1–90)	20.33	< 0.001	31.04	2.12	A4 ; T5; D7 ; P9 ; S12 ; H13; P14; G18; G23; L25; E26; L28 ; N30 ; S31; Q35
frag2* (aa 91–183)	0.09	0.956	NA	NA	NA
frag3* (aa 184–649)	84.88	< 0.001	7.76	3.02	R187; D418; F421; R425; E544; L548 ; Q550 ; T551; S552 ; S553 ; D556; T558
F3X4					
full (aa 1–649)	101.39	< 0.001	6.26	3.45	R187; A191; S343; F421; R425; T476; A531; E544; S547; L548 ; Q550 ; T551; S552; S553 ; D556; T558
frag1* (aa 1–90)	24.05	< 0.001	21.3	2.76	A4 ; T5; D7; P9 ; A10; S12 ; H13; P14; G18 ; G23; L25; L28 ; N30
frag2* (aa 91–183)	0.19	0.908	NA	NA	NA
frag3* (aa 184–649)	112.69	< 0.001	6.59	3.83	R187 ; A191; S343 ; D418; F421; R425; T476; A531; E544; S547; L548 ; Q550 ; T551; S552 ; S553 ; D556; T558