

S4A Table. Positively selected sites on the neuraminidase of influenza A/H1N1 pdm09 among strains isolated in Thailand, 2009-2015.

Codon	SLAC dN-dS	SLAC <i>p</i>-value	FEL dN-dS	FEL <i>p</i>-value	MEME ω^+	MEME <i>p</i>-value
13	6.329	0.133	3.959	0.039	>100	0.056
34	6.201	0.148	4.239	0.057	>100	0.078
48	6.344	0.132	4.27	0.074	>100	0.098
188	4.888	0.23	3.542	0.059	>100	0.079
270	5.86	0.2	3.981	0.093	>100	0.118
366	2.727	0.479	1.531	0.62	>100	0.009
451	4.691	0.271	2.776	0.098	>100	0.124
463	8.239	0.033	5.886	0.013	>100	0.000

S4B Table. Positively selected sites on the neuraminidase of seasonal influenza A/H1N1 among strains isolated in Thailand, 2009-2015.

Codon	SLAC dN-dS	SLAC <i>p</i>-value	FEL dN-dS	FEL <i>p</i>-value	MEME ω^+	MEME <i>p</i>-value
7	-7.864	0.998	-27.072	0.084	>100	0.012
77	3.657	0.088	11.702	0.079	>100	0.036
222	8.798	0.006	33.293	0.006	>100	0.01
249	2.451	0.199	7.726	0.074	>100	0.097
266	1.93	0.274	9.57	0.121	>100	0.045
344	2.767	0.193	9.633	0.055	>100	0.075
452	5.606	0.033	19.616	0.018	>100	0.024

S4C Table. Positively selected sites on the neuraminidase of influenza A/H3N2 among strains isolated in Thailand

Codon	SLAC dN-dS	SLAC <i>p</i>-value	FEL dN-dS	FEL <i>p</i>-value	MEME ω^+	MEME <i>p</i>-value
4	-5.582	0.988	-3.225	0.047	>100	0
43	3.88	0.179	2.196	0.082	41.261	0.02
93	4.092	0.078	1.601	0.038	>100	0.055
141	3.263	0.166	1.649	0.038	>100	0.054
150	2.369	0.214	1.157	0.096	>100	0.12
181	-0.529	0.87	-0.337	0.672	>100	0
215	3.586	0.094	1.72	0.039	>100	0.056
267	1.097	0.492	0.221	0.87	66.257	0.023
271	2.72	0.223	1.264	0.106	>100	0.009
401	3.602	0.091	1.53	0.049	>100	0.068
402	2.175	0.302	1.059	0.137	>100	0.088
464	2.972	0.143	1.562	0.032	>100	0.001
468	3.623	0.088	1.837	0.032	>100	0.046

S4D Table. Positively selected sites on the neuraminidase of influenza B among strains isolated in Thailand

Codon	SLAC dN-dS	SLAC <i>p</i> -value	FEL dN-dS	FEL <i>p</i> -value	IFEL dN-dS	IFEL <i>p</i> -value	MEME ω^+	MEME <i>p</i> -value
15	-	-	-	-	0.313	0.024	>100	0.005
27	-	-	-	-	0.321	0.018	>100	0.04
41	-	-	-	-	0.151	0.073	>100	0.007
51	-	-	-	-	0.244	0.067	>100	0.077
68	-	-	0.162	0.096	0.228	0.078	-	-
73	0.447	0.036	0.483	0.058	-	-	14.964	0.033
106	-	-	0.365	0.055	0.387	0.090	5.167	0.075
107	-	-	-	-	0.280	0.064	>100	0.085
219	-	-	-	-	0.144	0.066	>100	0.011
220	-	-	0.113	0.051	0.216	0.027	>100	0.092
248	-	-	0.153	0.056	0.220	0.047	-	-
358	-	-	0.363	0.04	0.446	0.035	>100	0.052
395	0.633	0.002	0.615	0.002	0.646	0.008	>100	0.004
404	0.284	0.092	0.255	0.085	0.690	0.009	>100	0.035
465	-	-	0.237	0.093	-	-	>100	0.099

dN/dS or ω is the ratio of synonymous to non-synonymous substitutions.

p-value from the SLAC, FEL, and MEME results (for positive selective pressure).

Statistically significant values are reported in bold.