SARS CoV-2 Spike Internal Branches Only

Codon	Partition	alpha	beta+	p+	LRI	Episodic selection detected?	# branches	Most common codon substitutions at this site
::	::	::	::	::	::	::	::	::
367	1	0.000	98.114	0.459	9.062	Yes, p = 0.0047	2	[2]Gtc>Ttc
439	1	0.000	35.271	1.000	4.990	Yes, p = 0.0379	1	[1]aaC>aaA
452	1	0.000	30.877	1.000	5.520	Yes, $p = 0.0288$	1	[4] cTg>cGg [1] Ctg>Atg
477	1	0.000	51.490	0.460	4.334	Yes, $p = 0.0532$	1	[1]aGc>aAc
501	1	0.000	271.405	0.145	3.460	Yes, $p = 0.0839$	1	[3]Aat>Tat [1]aAt>aCt,Tat>Aat
614	1	0.000	49.307	0.464	3.187	Yes, $p = 0.0968$	1	[1]Gat>Aat,gGt>gAt

hyphy meme --alignment data/spike.fas --tree data/spike.tree --branches Internal

MEME results

West Nile Virus NS3 protein

- Four sites (incl. 249, previously reported) with significant evidence of episodic (or pervasive) diversifying selection.
- HIV-1 transmission pair
 - Nine sites with significant evidence of episodic (or pervasive) diversifying selection. HIV-1 transmission pair

- SARS-CoV-2 spike (all)
 - Six sites with significant evidence of **episodic** (or pervasive) diversifying selection.
- SARS-CoV-2 spike (internal)
 - Six sites with significant evidence of **episodic** (or pervasive) diversifying selection.