

Heterogeneous genetic diversity pattern in *Plasmodium vivax* genes encoding merozoite surface proteins (MSP) -7E, -7F and -7L

Additional file 8 Intra-species positively and negatively selected sites detected for *pvmsp-7* genes.

Positively selected sites			
Gene	5'-end	central	3'-end
<i>msp-7E</i>	-	132, 147, 151, 164, 171, 178, 200, 239	369
<i>msp-7F</i>	-	-	424
<i>msp-7L</i>	-	159, 260	357
Negatively selected sites			
Gene	5'-end	central	3'-end
<i>msp-7E</i>	46, 48, 52, 56, 63, 64, 72, 100, 127	149, 236, 245	252, 261, 262, 263, 264, 273, 282, 302, 309, 357, 358, 368, 377, 379
<i>msp-7F</i>	-	-	-
<i>msp-7L</i>	-	-	-

5'-end (*pvmsp-7E*: nucleotide 1–390, *pvmsp-7F*: nucleotide 1–432, *pvmsp-7L*: nucleotide 1–381), central (*pvmsp-7E*: nucleotide 391–747, *pvmsp-7F*: nucleotide 433–1,053, *pvmsp-7L*: nucleotide 382–816) and 3'-end (*pvmsp-7E*: nucleotide 748–1,158, *pvmsp-7F*: nucleotide 1,054–1,449, *pvmsp-7L*: nucleotide 817–1,275). Numbers based on Additional files 4, 9 and 10.