

Supplemental Table 2. Ranking of seven positively selected genes. Ranking information for seven genes hypothesized to evolve under positive selection in *P. falciparum*.

<i>P. vivax</i> locus identifier	<i>P. falciparum</i> locus identifier	Common name in <i>P. falciparum</i>	Dataset	Dataset size	d_{AA} (Pv-Pk) (%rank)	Residual (%rank)
PVX_002900	PFB0570w	secreted protein altered thrombospondin repeat protein	PvPk – PfPy	1018	0.20 (73%)	0.79 (26%)
			PvPk – PfPr	280	0.20 (84%)	6.67 (100%)
PVX_085930	PF14_0102	rhoptry associated protein	PvPk – PfPr	280	0.28 (94%)	1.76 (70%)
PVX_099575	PFI1145w	perforin-like prot	PvPk – PfPy	1018	0.15 (58%)	2.24 (65%)
PVX_111175	PF10_0303	25 kDa ookinete surface antigen precursor, P25	PvPk – PfPy	1018	0.30 (90%)	0.67 (23%)
			PvPk – PyPc	260	0.30 (93%)	0.62 (25%)
			PvPk – PyPb	497	0.30 (93%)	2.48 (75%)
			PvPk – PfPr	280	0.30 (95%)	3.08 (88%)
PVX_111180	PF10_0302	28 kDa ookinete surface protein, P28	PvPk – PfPy	1018	0.39 (98%)	0.75 (25%)
			PvPk – PyPb	497	0.39 (98%)	2.86 (77%)
			PvPk – PfPr	280	0.39 (98%)	1.27 (57%)
PVX_123510	PFL0800c	cell traversal protein for ookinete and sporozoite	PvPk – PfPr	280	0.17 (77%)	1.51 (66%)
PVX_123575	PFL0870w	thrombospondin-related apical membrane prot	PvPk – PfPy	1018	0.13 (50%)	3.28 (81%)
			PvPk – PyPb	497	0.13 (56%)	0.61 (26%)

Note: Dataset, the regression dataset in which the gene is present. The same gene may be present in more than one dataset.

Supplemental Table 3. *P. reichenowi* protein sequence identity between GenBank sequences and those inferred from the draft genome annotation.

GenBank ID	Common name in <i>P. falciparum</i>	Length (amino acids)	Sequence identity (%)
gb AAA63682.1	rhoptry associated protein 1	782	100
gb AAW72737.1	thrombospondin related adhesive protein	565	100
emb CAB89849.1	cytochrome oxidase I	512	100
gb AAX51232.1	chitinase	378	100
emb CAB89850.1	cytochrome b	376	100
gb ADB81385.1	early transcribed membrane protein 10.2	355	100
gb ABO40224.1	gamete surface protein Pfs38	354	100
gb ACR09945.1	membrane protein Pf12 precursor-like protein	347	100
emb CAB65754.1	merozoite surface protein 3	346	100
dbj BAD73968.1	lactate dehydrogenase	316	100
gb ACR09981.1	merozoite-related surface protein 2	282	100
ref NP_057944.1	cytochrome oxidase III	279	100
gb AAA29766.1	sporozoite antigen	160	100
gb ADC94826.1	dihydrofolate reductase-thymidylate synthase	598	99.5
emb CAB66387.1	apical membrane antigen 1	605	99
gb ACR09963.1	MSP7-like prot (merozoite-related surface protein)	382	97
sp P19455.1 OS25_PLARE	25 kDa ookinete surface antigen precursor (pfs25)	217	95.4
gb ACR09752.1	Hypothetical	202	94.6
gb ABU50376.1	glyceraldehyde-3-phosphate dehydrogenase	322	93.9