

Supplementary Table S1 Primers designed and used to amplify genes of proteins expressed at the *P. vivax* ookinete stage

Accession number (Gen Bank)	Primer name	Oligonucleotide
<i>pvs25</i> ; Chr 6 (XM_001608410.1)	Pvs25-F23 Pvs25-R214	5' GTG TAT GTG TAA CGA AGG GCT 3' CAG TTT CTC CCG TTT TGG TA
<i>Pvsoap</i> ; Chr 13 (XM_001616857)	SOAP-F SOAP-R	AGA AGC TTA AGC TCT GAC ATA ACC TCA TGA ATT CTT ACA ATA ACA GGA GCA GCT G
<i>Pvchitinase</i> ; Chr 1 (XM_001613347)	PvChit-F1 PvChit-R1 PvChit-F2 PvChit-R2 Rep-Chit-F Rep-Chit-R	TTC GCC AAC CTG TCT GCC TT CCC ATT TGT TGA GAC AAG TAG TTC G CGG AGT GAT GCT AAA CGA AAT CAG CTG CAC ACC TGC TCG CTT CTC GGC TTA TAC ACG GAC GAG TCC A CTC TTG GAG GTT TTC TAT CAT GGC TA
<i>Pvctrp</i> ; Chr 8 (AB47369.1)	CTRP-4100-F CTRP-4099-R CT-1F CT-1R CT-2F CT-2R CT-3F CT-3R CT-4F CT-4R CT1754-F nt 5040-5063 CT1754-R nt 5472-5495 CT18rF nt1520-1538 CT18rR nt2077-2098	CAG GAT CCA CAG CGT AGC CAA GAT G GAA CTC GAG ACT GCC GCT ACC ACT T CGA CGA ATC TGG AAG CAT AGG AAT CAG GGC TTG CAC AAT GAA GGT T GCGTTTCGATGGCTGATGAGA CACCATCACATACGTTTCCTGCCTA TAG GCA GGA ACG TAT GTG ATG GT CTC CCC AGT CTT CCC ACT CGT TCC GGA AGC ATT ACC CTG AAC AAG TCC CAG TCG CAC TTG ATG ACC ATA CTC CAC GAG AAG CAG GAC GTT ATC CTC ATT CCG ACG TTG CAC TTG ACC AGC TCA CCA GCA TAA C ATA CCA GGG CTT GCA CAA TGA