

Supplementary Table 1: List of primers (A) used for generating transgenic *P. berghei* chimeric parasite line expressing *PfCHT1* and product size (B)

A

Primer code	Sequence	Enzymes	Product (bp)	Description
Primers used to generate construct pL2321				
9450	ACTGGGCCCGTAAGGGCGTAAAAATAACCAAAGG	<i>Apal</i>	1049	Forward <i>Pbcht1</i> HR1
9451	GAGCCGCGGTTTTCTAAATTTTGTAAAGTATATTA	<i>SacII</i>		Reverse <i>Pbcht1</i> HR1
9452	CGAGGTACCGGATAAATACAAATTTTCTCACA	<i>KpnI</i>	973	Forward <i>Pbcht1</i> HR2
9453	CATGCGGCCGCTATTATTTAACGATGTTTTAGTTACAAAAAC	<i>NotI</i>		Reverse <i>Pbcht1</i> HR2
Primers used to generate construct pL2322				
9454	GAGCCGCGGATGAATTTTACTGTGAAATATTCATTTTTAG	<i>SacII</i>	1137	Forward <i>Pfcht1</i> ORF
9455	CGAGGTACCTTAATGTAAGATTCTACGAAATATTC	<i>KpnI</i>		Reverse <i>Pfcht1</i> ORF
Primers used for genotyping <i>PbΔcht1</i> (3152cl1)				
9489	GTTGTAAAATTTAATAGTTCATACCATTACC		1316	5' integration
7289	TAAAGCACAATATCTAGGATACTAC			
7922	GTCTCTCAATGATTCATAAATAGTTGG		1320	3' integration
9490	TATTATGAAAATGGTGAATTGACGCTTTAACC			
4698	GTTGCTAAACTGCATCGTC		1108	SM
4699	GTTTGAGGTAGCAAGTAGACG			
9532	ATCCCTATCACATGTTGACGCACTCTGC		1506	<i>PbΔcht1</i> confirmation
9533	CTTGTTACCCATATAGCATCATTGTGTTTAGC			
Primers used for genotyping <i>Pb-PfCHT1(r)</i> (3165cl1)				
9454	GAGCCGCGGATGAATTTTACTGTGAAATATTCATTTTTAG		1155	<i>Pfcht1</i> ORF confirmation
9455	CGAGGTACCTTAATGTAAGATTCTACGAAATATTC			
9489	GTTGTAAAATTTAATAGTTCATACCATTACC		1281	5' integration
9536	CTCGATGTCCTCAATGACACTTAC			
9537	TGTTTCCTCAACCCCTTTAATCCGAATGA		1369	3' integration
9490	TATTATGAAAATGGTGAATTGACGCTTTAACC			
4698	GTTGCTAAACTGCATCGTC		1108	SM
4699	GTTTGAGGTAGCAAGTAGACG			

B

Template	Product	Primers	Amplicon size
<i>PbΔcht1</i> (3152cl1)	5'int	9489 & 7289	1316 bp
	3'int	7922 & 9490	1320 bp
	SM	4698 & 4699	1108 bp
	ORF	9530 & 9531	1506 bp
Pb-PfCHT1 (r) (3165cl1)	ORF	9454 & 9455	1155 bp
	5'int	9489 & 9536	1281bp
	3'int	9537 & 9490	1369bp
	SM	4698 & 4699	1108bp