

Supplementary table 1: RT-PCR and nested PCR primer sequences

Gene	Primer	Sequence 5'-3'	Bases	Reference
<i>18s RNA</i>	18s Pf F	GTAATTGGAATGATAGGAATTTACAAGGT	29	Hermsen et al.2001
	18s Pf R	TCAACTACGAACGTTTTAACTGCAAC	26	
	18s Pf probe	AACAATTGGAGGGCAAG	17	
<i>dhps</i>	dhps_extF	CTAAACGTGCTGTTCAAAGAATG	23	Designed in this study
	dhps_extR	GTGGATACTCATCATATACATG	22	
	dhps_intF	[MID tag]-GATAAATGAAGGTGCTAGTGT	21	
	dhps_intR	GAGTTTAATAGATTGATCATG	21	
<i>k13</i>	k13_extF	CTTAACTTCTTAAGAAATCCG	21	Designed in this study
	k13_extR	AGGCATATGGAAATTGTTCCC	21	
	k13_intF	[MID tag]-GAAGCCTTGTTGAAAGAAGCAG	22	
	k13_intR	CACCATTAGTTCACCAATGAC	22	
<i>dhfr</i>	dhfr_extF	CTCCTTTTTATGATGGAACAAGT	23	Designed in this study
	dhfr_extR	CTTTTCTAAAAATTCTTGATAAAC	24	
	dhfr_intF	[MID tag]-GAACAAGTCTGCGACGTTTC	21	
	dhfr_intR	CTTGATAAACACGGAACCTCC	22	
<i>mdr1</i>	mdr1_extF	GAGTTGAACAAAAAGAGTACCG	22	Designed in this study
	mdr1_extR	CCATTAAAGCCTTCTATAATGG	24	
	mdr1_intF	[MID tag]-GTATGTGCTGTATTATCAGG	20	
	mdr1_intR	GTATTGTTATTATATAACAAAG	22	
<i>crt</i>	crt76_F	GGTGGAGGTTCTTGCTTGG	20	Okombo et al. 2014
	Crt76_R	ATAAAGTTGTGAGTTTCGGATG	22	
	crt145_extF	CTTATGACCTTTTTAGGAACG	21	Designed in this study
	crt145_extR	CTTAATATTA AAAAGCAGAAGAAC	24	
	crt145_intF	AGGAACGACACCGAAGCT	18	
	crt145_intR	GCAGAAGAACATATTAATAGG	21	
<i>ama1</i>	ama1_ext_F	GGAGAAGATGCTGAAGTAGCTGG	23	Designed in this study
	ama1_ext_R	GGTATATCTTCACAATTTCCATCG	24	
	ama1_int_F	[MID tag]-GAAATGTCCAGTATTTGGTAAAGG	24	
	ama1_int_R	CCCATAATCCGAATTTGCATTC	23	

Supplementary Table 2: Multiplex identifier (MID) 10bp sequence sets

MID tag	sequence	MID tag	sequence
MID-1	ACGAGTGCGT	MID-9	TCTCTATGCG
MID-2	ACGCTCGACA	MID-10	TGATACGTCT
MID-3	AGACGCACTC	MID-11	CATAGTAGTG
MID-4	AGCACTGTAG	MID-12	CGAGAGATAC
MID-5	ATCAGACACG	MID-13	ATACGACGTA
MID-6	ATATCGCGAG	MID-14	TCACGTAATA
MID-7	CGTGTCTCTA	MID-15	CGTCTAGTAC
MID-8	CTCGCGTGTC	MID-16	TCTACGTAGC

Amplicons were generated using forward primers tagged on the 5' end with the above listed MIDs. This enabled the unique identification of sequences from each sample during sequence data demultiplexing.

References

Okombo J, Kamau AW, Marsh K, Sutherland CJ, Ochola-Oyier LI. Temporal trends in prevalence of *Plasmodium falciparum* drug resistance alleles over two decades of changing antimalarial policy in coastal Kenya. *Int J Parasitol Drugs Drug Resist.* 2014. 4(3):152-63.

Hermesen CC, Telgt DSC, Linders EHP, Van De Locht LATF, Eling WMC, Mensink EJBM, et al. Detection of *Plasmodium falciparum* malaria parasites in vivo by real-time quantitative PCR. *Mol Biochem Parasitol.* 2001. 118(2):247–51.