

***Plasmodium falciparum* SenTh090.09**

Catalog No. MRA-1190

This reagent is the tangible property of the U.S. government.

Product Description: Human patient *P. falciparum* isolate, Thiès, Senegal

Lot: 61825584

Manufacturing Date: 26NOV2013

TEST	SPECIFICATIONS	RESULTS
Identification by Giemsa stain microscopy of cultured blood smears	Blood stage malaria parasites present in infected human erythrocytes (rings, trophozoites, schizonts +/- gametocytes)	Report presence Parasites present
Cell Viability pre-cryopreservation	Report parasitemia (% infected erythrocytes) in <i>in vitro</i> cultured erythrocytes at time of cryopreservation as assessed by microscopy of Giemsa stained blood smears.	Report results Parasitemia @ 3.38%.
Speciation and Genotype	Speciation by <i>Plasmodium falciparum</i> specific MSP2 PCR; strain-specific MSP2 genotype by MSP2 signature sequence analysis MSP2 amplicon present within range 600-900 bp diagnostic for <i>P. falciparum</i> species; MSP2 sequence unique to each parasite strain lineage (report only)	Report PCR result, attach sequence file Single band amplicon observed, msp2 signature sequence attached.
Antimalarial Susceptibility Test	Determine half-maximal inhibitory concentration (IC ₅₀) in <i>Plasmodium falciparum</i> <i>in vitro</i> culture	Report results and method used to determine the concentration. MRA-1190 Lot 61825584 was screened for susceptibility to Chloroquine (CQ), Artemisinin (ART), Quinine (QN), Cycloguanil (CYC), Pyrimethamine (PYR) and Sulfadoxine (SDX) using a SYBR Green I® anti-malarial drug sensitivity assay in 96 well plate <i>in vitro</i> culture (Hartwig et al. Methods in Malaria Research 5 th edition, 2013). IC ₅₀ results are attached.
Cell viability post-cryopreservation	Report parasitemia in <i>in vitro</i> blood culture 72-96 Hr post inoculation	Report parasitemia 1.21% parasitemia @ 72 Hr.

<p>Sterility (21-day incubation) Harpo's HTYE broth, 37°C and 26°C, aerobic Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C and 5% CO2</p>	<p>No growth No growth No growth No growth No growth No growth No growth</p>	<p>Report results No growth No growth No growth No growth No growth No growth</p>
<p>Mycoplasma Contamination DNA detection by PCR of extracted Test Article nucleic acid</p>	<p>None detected</p>	<p>Report results None detected</p>

Date: 17 Dec. 2013 **Signature:** 

Title: Technical Manager, BEI Authentication or designee

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the contractor to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.
 You are authorized to use this product for research use only. It is not intended for human use.



MRA-1190 *P. falciparum* SenTh090.09 msp2 signature

```
>MRA-1190_61825584
ATTAAAAATGAAAGTAAATATAGCAACACATTCATAAAACAATGCTTATAA
TATGAGTATAAGGAGAAGTATGGCAGTAAGTAATCCTTCTACTGGTGCTG
GTGCTGGTGGTAGTGGTAGTGCWGGTGGTAGTGGTAGTGGTGCTGGTGGT
GGTAGTGGTAGTGGTGCTGGTGCCGGTGGTAGTGGTAGGGCTGGTGCTGGTGG
TAGTGGTAGTGGTGCTGGTGCTGGTGGTAGTGGTAGTGGTGCTGGTGCTGGTGGTA
GTGGTAGTGGTGCTGGTGCTGGTGGTAGTGGTAGTGGTGCTGGTGCTGGTGGTAGT
GGTAGTGGTGCTGGTGCTGGTGGTAGTGGTAGTGGTGCTGGTTCTGGTGACAGATGC
TAAGAGAAGTCCAAGTACTCCCGCTACTACCACAACACTACCACAACACTACTA
ATGATGCAGAAGCATCTACCAGTACCTCTTCAGAAAATCCAAATCATAAT
AATGCCGAAACAAATCAAGCAAATAAAGAAACTCAAAATAACTCAAATGT
TCAACAAGACTCTCAAATAAATCAAATGTTCCACCCACTCAAGATGCAG
ACACTAAAAGTCTACTGCACAACCTGAACAAGCTGAAAATTCTGCTCCA
ACAGCCGAACAAACTGAATCCCCCGAATTACAATCTGCACCAGAGAATAA
AGGTACAGGACAACACGGACATATGCATGGTTCTAGAAAATAATCATCCAC
AAAATACTTCTGATAGTCAAAAAGAATGTACCGATGGTAACAAAGAAAAC
TGTGGAGCAGCAACATCCCTCTTAAATAACTCTAGTAATATTGCTTCAAT
AAATAAAT
```

MRA-1190 *P. falciparum* SenTh090.09 Antimalarial susceptibility

DATE	MR4 ID	LOT #	STRAIN NAME	ANTIMALARIALS					
				IC ₅₀ ± SEM (nM); n=6					
				CQ	ART	QN	CYC	PYR	SDX
10/16/13	1190	61825584	SenTh090.09	7.1 ± 0.3	7.5 ± 0.5	45.4 ± 3.1	403.2 ± 27.9	26390 ± 1824.4	31800 ± 50312.2