

***Plasmodium falciparum* SenTh029.09**

**Catalog No. MRA-1185**

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

**Lot:** 62141986

**Manufacturing Date:** 27FEB2014

TEST	SPECIFICATIONS	RESULTS
<b>Identification by Giemsa stain microscopy of cultured blood smears</b>	Blood stage malaria parasites present in infected human erythrocytes (rings, trophozoites, schizonts +/- gametocytes)	Report presence Parasites present
<b>Cell Viability pre-cryopreservation</b>	Report ring stage 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 @ 2.87% ring stage.
<b>Speciation and Genotype</b>	<b>Speciation by <i>Plasmodium falciparum</i> specific MSP2 PCR; strain-specific MSP2 genotype by MSP2 signature sequence analysis</b> 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.
<b>Antimalarial Susceptibility Test</b>	Determine half-maximal inhibitory concentration (IC <sub>50</sub> ) in <i>Plasmodium falciparum</i> <i>in vitro</i> culture	Report results and method used to determine the concentration. MRA-1185 Lot 62141986 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 <sup>th</sup> edition, 2013). IC <sub>50</sub> results are attached.
<b>Cell viability post-cryopreservation</b>	Report parasitemia in <i>in vitro</i> blood culture 96 Hr post inoculation	Report total parasitemia 1.97% parasitemia @ 96 Hr.

<p><b>Sterility (21-day incubation)</b>          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><b>Mycoplasma Contamination</b>          DNA detection by PCR of extracted Test Article nucleic acid</p>	<p>None detected</p>	<p>Report results          None detected</p>

**Date:** 10 March 2013 **Signature:** 

**Title:** Technical Manager, BEI Authentication or designee

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**MRA-1185 *P. falciparum* SenTh029.09 msp2 signature**

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>MRA-1185_62141986
TAAAACATTGTCTATTATAAATTTCTTTATTTTTGTTACCTTTAATATTTAAAAATGAAAGTAAATATAGCAACACATTCA
TAAACAATGCTTATAATATGAGTATAAGGAGAAGTATGGCAGAAAGTAATCCTTCTACTGGTGCTGGTGGTAGTGGTAGT
GCTGGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGTGGTAGT
TGGTAATGGTGCTAATCCTGGTGCAGATGCTAAGAGAAGTCCAAGTACTCCCGCTACTACCACAACACTACCACAACACTACTA
ATGATGCAGAAGCATCTACCAGTACCTCTTCAGAAAAATCCAAATCATAATAATGCCAAAAACAAATCCAAAAGGTAATGGA
GAAGTTCAACCAAATCAAGCAAATAAAGAAAACCTCAAAATAAATCAAAATGTTCAACAAGACTCTCAAACTAAATCAAAATGT
TCCACCCACTCAAGATGCAGACACTAAAAGTCTACTGCACAACCTGAACAAGCTGAAAAATTTCTGCTCCAACAGCCGAAC
AAACTGAATCCCCGAATTACAATCTGCACCAGAGAATAAAGGTACAGGACAACATGGACATATGCATGGTTCTAGAAAT
AATCATCCACAAAATACTTCTGATAGTCAAAAAGAATGTACCGATGGTAACAAAGAAAACCTGTGGAGCAGCAACATCCCT
CTTAAATAACTCTAGTAATATTGCTTCAATAAATAAATTTGTTGTTTTAATTTTCAGCAACACTTGTTTTTATCTTTT
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**MRA-1185 *P. falciparum* SenTh029.09 Antimalarial susceptibility**

DATE	MR4 ID	LOT #	STRAIN NAME	ANTIMALARIALS					
				IC <sub>50</sub> ± SEM (nM); n=6					
				CQ	ART	QN	CYC	PYR	SDX
2/5/14	1185	62141986	SenTh029.09	12.1 ± 1.1	6.9 ± 0.2	37.8 ± 3.5	595.5 ± 41.2	28130 ± 2594.5	377100 ± 52264.2