

***Plasmodium falciparum* SenTh021.09**

Catalog No. MRA-1182

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

Lot: 61743208

Manufacturing Date: 12AUG2013

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 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 @ 3.12% ring stage.
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-1182 Lot 61743208 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 96 Hr post inoculation	Report parasitemia 1.08% parasitemia @ 96 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 Sept. 2013 **Signature:** 

Title: Technical Manager, BEI Authentication or designee

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MRA-1182 *P. falciparum* SenTh021.09 msp2 signature

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>MRA-1182_61743208
TGCTGMAATTAACAACAATAATTTATTTATTGAAGCAATATTACTAGAGTTATTTAAGAGGGATGTTGCTGCTCCACAGT
TTTCTTTGTTACCATCGGTACATTCTTTTTGACTATCAGAAGTATTTTGTGGATGATTATTTCTAGAACCATGCATATGT
CCATGTTGTCCTGTACCTTTATTCTCTGGTGCAGCAGGATTTTCATTTTCTGCCGTTTGAGGTTCTTGTGGAGCTTTGGG
TCCTTCTTCAGTTGATTCATTTAATTCATTTTGTTTTTTCACTCTCTTCTCCTTTACCGTCTGTTTTATTTGGTGCATTGC
CAGAACTTGAACCTTCTGTAGTAGTGATGGGTGGTGAAGGTGAATTAATTTTGTAGTAGTGATGGGTGGTGAAGGTGAA
TTACTTTCTGTAGTAGTGATGGGTGGTGAAGGTGATTTACTTTCTGTAGCAGTAGGGGTATCAGCAGCGGTAGGAGTAGT
AGTTTGTGATTCTCCATTATTAGTAGTACTAGTACTTGCCTATTTGTACTACTTTGACTTACACTAGCAATAGTATCAG
CTTTTGGAGCATCTGCACCTACACTATTAGTATTAGAACCCTTCATTTGCCATACTTCTCCTTATACTCATATTATAAGCA
TTGTTTATGAATGTGTTGCTATATTTACTTTTCAATTTTAAATATTAAGGTAACAAAAATAA
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MRA-1182 *P. falciparum* SenTh021.09 Antimalarial susceptibility

DATE	MR4 ID	LOT #	STRAIN NAME	ANTIMALARIALS					
				$IC_{50} \pm SEM$ (nM); n=6					
				CQ	ART	QN	CYC	PYR	SDX
7/18/13	1182	61743208	SenTh021.09	23.7 ± 2.2	8.31 ± 0.6	76.5 ± 5.3	647.6 ± 29.8	2836.0 ± 261	438700 ± 70176.6