

**Genomic DNA from *Plasmodium falciparum*, Strain 3D7**

**Catalog No. MRA-102G**

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

**Product Description:**

Genomic DNA was extracted from a preparation of *Plasmodium falciparum* (*P. falciparum*), Strain 3D7. MRA-102G was produced from a cell culture of BEI Resources seed lot 70067055. Genomic DNA was extracted using proprietary technology. MRA-102G was vialled in TE buffer (10 mM Tris-HCl and 0.5 mM EDTA, pH 9). Testing was completed on bulk material prior to freezing.

**Lot: 70065663**

**Manufacturing Date: 15AUG2024**

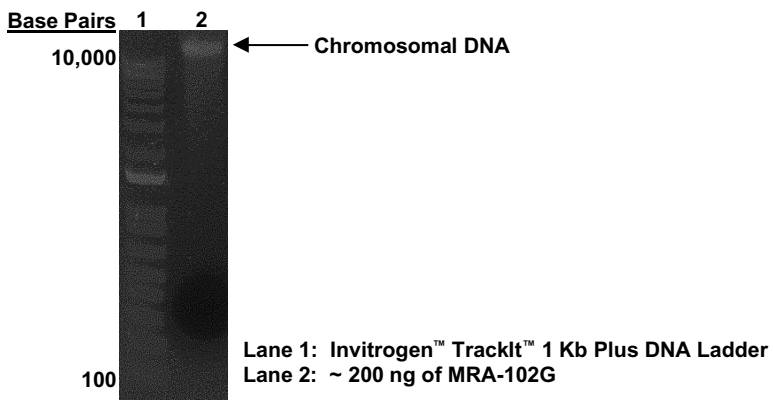
TEST	SPECIFICATIONS	RESULTS
<b>Sequencing of Merozoite Surface Protein 2 (MSP2) gene (~ 790 base pairs)</b>	Consistent with <i>P. falciparum</i>	Consistent with <i>P. falciparum</i>
<b>Agarose Gel Electrophoresis</b>	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
<b>Concentration by PicoGreen® Measurement</b>	Report results	~ 0.5 µg in 50 µL/vial (10 µg/mL)
<b>Amount per Vial</b>	Report results	~ 0.5 µg
<b>Functional Activity by PCR Amplification MSP2 locus<sup>1</sup></b>	~ 600 to 900 base pair amplicon	~ 900 base pair amplicon
<b>OD<sub>260</sub>/OD<sub>280</sub> Ratio</b>	1.6 to 2.1	2.0
<b>Protozoan Inactivation</b> Human erythrocytes exposed to 10% of total yield of MRA-102G <sup>2,3</sup>	No parasitemia observed	No parasitemia observed
<b>Mycoplasma Contamination</b> DNA Detection by PCR	None detected	None detected

<sup>1</sup>Primer sequences and conditions for PCR are available upon request.

<sup>2</sup>15 days in complete RPMI culture medium at 37°C in sealed flasks outgassed with blood-gas atmosphere (90% N<sub>2</sub>, 5% CO<sub>2</sub>, 5% O<sub>2</sub>). Complete RPMI culture medium was changed and parasitemia checked every 1 to 3 days.

<sup>3</sup>An extraction procedure was used that has been shown to consistently inactivate 100% of *Plasmodium* parasites.

**Figure 1: Agarose Gel Electrophoresis**



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