

Certificate of Analysis for MRA-1236G

Genomic DNA from Plasmodium falciparum, Strain IPC 3445

Catalog No. MRA-1236G

Product Description: Genomic DNA was extracted from a preparation of *Plasmodium falciparum* (*P. falciparum*), strain IPC 3445.

Lot¹: 62401468 Manufacturing Date: 23APR2014

| TEST | SPECIFICATIONS | RESULTS |
|---|---------------------------------------|--|
| Sequencing of Merozoite Surface Protein 2 (MSP2) gene (~ 690 base pairs) | Consistent with P. falciparum | Consistent with P. falciparum |
| Agarose Gel Electrophoresis | High molecular weight chromosomal DNA | High molecular weight chromosomal DNA (Figure 1) |
| Concentration by NanoDrop™ Measurement | Report results | 10 μg/mL |
| Amount | Report results | ~ 500 ng per vial |
| Functional Activity by PCR Amplification MSP2 locus ² | ~ 600-900 base pair amplicon | ~ 900 base pair amplicon |
| OD ₂₆₀ /OD ₂₈₀ Ratio | 1.6 to 2.1 | 2.23 |
| Protozoan Inactivation Human erythrocytes exposed to 10% of total yield of MRA-1236G ⁴ | No parasitemia observed | No parasitemia observed |
| Mycoplasma Contamination DNA Detection by PCR | None detected | None detected |

¹MRA-1236G was produced from a cell culture of the deposited material. Genomic DNA was extracted using proprietary technology.

Date: 12 JUL 2016

Signature:

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected 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.

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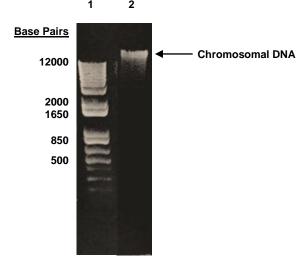
²Primer sequences and conditions for PCR are available upon request.

³The ratio of the absorbances at these wavelengths (260/280) should fall in the range of 1.6 to 2.1 for suitably pure protist DNA. For MRA-1236G lot 62401468 the OD₂₆₀/OD₂₈₀ ratio average of 3 measurements did not meet these specifications, however, the DNA was proven functional via PCR. ⁴15 days in complete RPMI culture medium at 37°C in sealed flasks outgassed with blood-gas atmosphere (90% N₂, 5% CO₂, 5% O₂). Complete RPMI culture medium was changed and parasitemia checked every 1 to 4 days.



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Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ 1 Kb Plus DNA Ladder

Lane 2: ~ 627 ng of MRA-1236G

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