Product Information Sheet for MRA-1236G

Genomic DNA from *Plasmodium falciparum*, Strain IPC 3445

Catalog No. MRA-1236G

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

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

Plasmodium falciparum (*P. falciparum*), strain IPC 3445 was isolated in 2010 from the blood of a human patient with malaria in Pailin province, western Cambodia.[1,2] *P. falciparum*, strain IPC 3445 has shown resistance to artemisinin[3] and when exposed to dihydroartemisinin gave a ring-stage survival assay (RSA_{0-3h}) value of 27.3%.[2]

MRA-1236G has been qualified for PCR applications by amplification of approximately 900 base pairs of the merozoite surface protein 2 (MSP2) gene.

Material Provided:
Each vial of MRA-1236G contains approximately 500 ng of genomic DNA in TE buffer (10 mM Tris-HCl and 0.5 mM EDTA, pH 9). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:
MRA-1236G was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Genomic DNA from *Plasmodium falciparum*, Strain IPC 3445, MRA-1236G, contributed by Didier Ménard."

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:
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References:
1. Ariey, F., et al. "A Molecular Marker of Artemisinin-Resistant *Plasmodium falciparum* Malaria." Nature 505 (2014): 50-55. PubMed: 24352242.
2. Ménard, D., Personal Communication.
3. Straimer, J., et al. "Drug Resistance. K13-Propeller Mutations Confer Artemisinin Resistance in *Plasmodium falciparum* Clinical Isolates." Science 347 (2015): 428-431. PubMed: 25502314.
4. Witkowski, B., et al. "Novel Phenotypic Assays for the Detection of Artemisinin-Resistant *Plasmodium falciparum* Malaria in Cambodia: *in-vitro* and *ex-vivo* Drug-Response Studies." Lancet Infect. Dis. 13 (2013): 1043-1049. PubMed: 24035558.

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