Genomic DNA from *Plasmodium falciparum*, Strain TM90C2A

Catalog No. MRA-202G

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For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Genomic DNA was extracted from a preparation of *Plasmodium falciparum* (*P. falciparum*), strain TM90C2A.

P. falciparum, strain TM90C2A was isolated in 1990 from a patient in an atovaquone clinical trial in Thailand upon admission; strain TM90C2A is the first documented failure of atovaquone (alone) in Thailand.[1,2] *P. falciparum,* strain TM90C2B was co-isolated with strain TM90C2A, but was isolated following recrudescence.[1,2] Strain TM90C2A is reported as resistant to chloroquine and mefloquine.[1,3-5]

MRA-202G 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-202G contains approximately 0.5 µg of genomic DNA in TE buffer (10 mM Tris-HCl and 0.5 mM EDTA, pH 9). The vial should be centrifuged prior to opening.

Packaging/Storage:

MRA-202G 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 TM90C2A, MRA-202G, contributed by Dennis E. Kyle."

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. Kyle, D. E., Personal Communication.
2. Looareesuwan, S., et al. "Clinical Studies of Atovaquone, Alone or in Combination with Other Antimalarial Drugs, for Treatment of Acute Uncomplicated Malaria in Thailand." Am. J. Trop. Med. Hyg. 54 (1996): 62-66. PubMed: 8651372.
3. Obaldía, N., III, W. Milhous and D. Kyle. "Adaptation of a Thai Multidrug-Resistant C2A Clone of *Plasmodium falciparum* to *Aotus* Monkeys and Its Preliminary *in vivo* Antimalarial Drug Efficacy-Resistance Profile." Am. J. Trop. Med. Hyg. 81 (2009): 587-594. PubMed: 19815871.
4. Delves, M., et al. "The Activities of Current Antimalarial Drugs on the Life Cycle Stages of *Plasmodium*: A Comparative Study with Human and Rodent Parasites." PLoS Med. 9 (2012): e1001169. PubMed: 22363211.
5. Obaldía, N., III, et al. "Altered Drug Susceptibility during Host Adaptation of a *Plasmodium falciparum* Strain in a Non-Human Primate Model." Sci. Rep. 6 (2016): 21216. PubMed: 26880111.

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