Diagnostic Plasmid Containing the Small Subunit Ribosomal RNA Gene (18S) from *Plasmodium ovale*

Catalog No. MRA-180

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:
The small subunit ribosomal RNA gene (18S rRNA gene; GenBank: AF145337) from *Plasmodium ovale (P. ovale)*, strain Nigerian I was amplified from genomic DNA by nest 1 PCR primers and cloned into vector pCR2.1-TOPO (Invitrogen™). The size of the plasmid is approximately 5000 base pairs and contains the genes required for ampicillin and kanamycin resistance. The complete plasmid sequence and map are provided on the Certificate of Analysis. MRA-179 was produced in *E. coli* and extracted.

MRA-180 (clone 54) may be used in PCR assays for the diagnosis of mixed species malaria infections.[1,2]

Material Provided:
Each vial of MRA-180 contains approximately 0.2 to 0.5 µg of plasmid DNA in TE buffer (10 mM Tris-HCl and 0.5 mM EDTA). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:
MRA-180 was packaged aseptically in cryovials. The product is provided frozen on dry ice 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: Diagnostic Plasmid Containing the Small Subunit Ribosomal RNA Gene (18S) from *Plasmodium ovale*, MRA-180, contributed by Peter A. Zimmerman."

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 (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

Disclaimers:
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References:
1. Zimmerman, P. A., Personal Communication.
2. Mehlotra, R. K., et al. "Random Distribution of Mixed Species Malaria Infections in Papua New Guinea." Am. J. Trop. Med. Hyg. 62 (2000): 225-231. PubMed: 10813477.
3. Snounou, G., et al. "High Sensitivity of Detection of Human Malaria Parasites by the Use of Nested Polymerase Chain Reaction." Mol. Biochem. Parasitol. 61 (1993): 315-320. PubMed: 8264734.
4. Phuong, M., et al. "Sequence-Based Optimization of a Quantitative Real-Time PCR Assay for Detection of *Plasmodium ovale* and *Plasmodium malariae*." J. Clin. Microbiol. 52 (2014): 1068-1073. PubMed: 24430459.

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