



Product Information Sheet for MRA-857

A. gambiae & *A. arabiensis* rDNA IGS identification control papers

MR4 Number: MRA-857

Product name: *Anopheles gambiae* and *arabiensis* rDNA IGS identification control papers

Unit size: 100 reactions per kit, 50 each type

Storage condition: Room temperature or cooler, dry, away from light in the tubes supplied. -20°C or colder recommended for longest life.

Original Preparation Contributed By: MR4 Vector Activity

References: Scott et al. 1993. Identification of single specimens of the *Anopheles gambiae* complex by the polymerase chain reaction. *Am. J. Trop. Med. & Hyg.* **49**(4):520-529.

Description: DNA control set for use in PCR identification of two members of the *Anopheles gambiae* family using the protocol of Scott et al. or based on the same region. PCR primers are also available through the MR4, MRA-336. Kit contains 50 papers each group (S&S, 903 cards) spotted with plasmid controls (0.5ng/ul plasmid) containing an 815 bp fragment of the rDNA IGS defined by primers CCTAACAACCCTCTGAGATCC and CATGCACAAGACATCCTACTACC including bases 177-981 (Genbank U10135). The *Gambiae* rDNA was cloned from ZAN/U (MRA-594) and *arabiensis* from KGB (MRA-339). Both were cloned into pGEM-T Easy Vector (Promega®) and purified using the Qiagen tip 500® according to manufacturers' specifications.

Use: Tap paper to the bottom of the tube. Apply PCR reaction directly to paper, or transfer one paper using clean forceps to a PCR reaction tube. Two papers may be placed in one tube. Sample should be either placed on ice or in the PCR machine immediately. It is not necessary to remove paper from final reaction before loading the gel for visualization. One band of either 390bp (*Gambiae*) or 315bp (*arabiensis*) should appear in the control paper lane. Papers have been tested only with 25 µl PCR reactions.

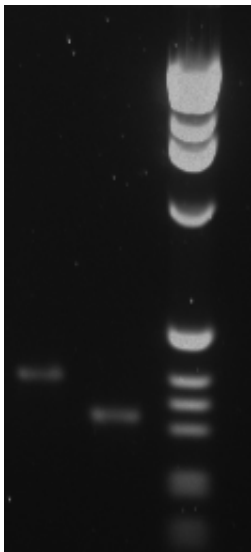


Figure 1. Visualization of PCR results using *A. gambiae* s.l. identification primer set (MRA-336) with plasmid controls. Lane 1: *Gambiae* plasmid control PCR product; Lane 2: *arabiensis* plasmid control PCR product; Lane 3: 1 Kb ladder marker.

Control papers also function using the *Gambiae* ID primer/PCR assay described by Wilkins, E. E., P. I. Howell, et al. (2006). "IMP PCR primers detect single nucleotide polymorphisms for *Anopheles gambiae* species identification, Mopti and Savanna rDNA types, and

resistance to dieldrin in *Anopheles arabiensis*." *Malaria Journal* **5**(1): 125.

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: Biosafety in Microbiological and Biomedical Laboratories, 4th ed. HHS Publication No. (CDC) 93-8395. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Washington DC: U.S. Government Printing Office; 1999. The text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm.

MR4 Replacement Policy

MR4 shall replace reagent if the customer reports it was received damaged. Shipments with problems must be reported within 30 days of receipt.

Disclaimers

The shelf life of these papers has not been determined.

This product is intended for laboratory research purposes only. It is not intended for use in humans.

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Citations regarding use of this material

Please remember to reference the MR4 in all publications resulting from the use of this reagent.

Example of how to reference MR4 reagents:

In Materials and Methods "*P. falciparum* line Dd2 (MRA-156, MR4, ATCC® Manassas Virginia)...". In the acknowledgment portion: "We thank MR4 for providing us with malaria parasites contributed by (name of depositor)."

Consider Depositing to the MR4!

The generosity of other researchers made it possible for you to use this reagent. We invite you to share your reagents with the malaria community. One of the missions of MR4 is to facilitate technology transfer. MR4 will acknowledge your contribution in its publications. Contact us for more information.