Product Information Sheet for MRA-898

cDNA

MR4 Number: MRA-898

Designation: cDNA of *Plasmodium falciparum* 3D7

Description: Messenger RNA was purified from an asexual blood stage asynchronous culture of *Plasmodium falciparum* clone 3D7 (**MRA-102**) cultured *in vitro*. By reverse transcription using random hexamers, complementary DNA (cDNA) was synthesized from the mRNA population. The cDNA was treated with RNaseH to remove residual RNA, and the cDNA was purified by using a gel filtration column.

Unit size: 50 ng

Concentration: 2ng/µl

Volume: 25 µl/vial

Physical status: Frozen in TE buffer

Purity: Minimum Absorbance A_{260}/A_{280} ratio of 2.0

Authentication: The quality of the cDNA was analyzed by PCR amplification of the coding sequence of PfdnaJ gene. As shown in the figure below (Fig. 1), the cDNA was free of genomic DNA, as evident from the size differential from amplified control gDNA. Lane A, amplified 1.0 kb genomic DNA fragment (containing a 0.2 kb intron). Lane B, Amplification of the expected 0.8 kb fragment which contains only the exon sequence. The mRNA expression levels of Pfmsp1, Pfmsp2 and Pfcsp1 were also analyzed by the PCR amplification of these three genes from <1ng of cDNA (Fig.2).

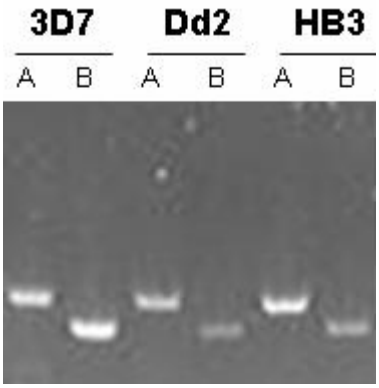

Figure 1. PCR amplified products of PfdnaJ gene from the genomic DNA and cDNA of *Plasmodium falciparum* clones (3D7 (MRA-102), HB3 (MRA-155), Dd2 (MRA-150) were analyzed in 0.9% agarose gels. A. PCR amplicons from the genomic DNA; B. PCR amplicons from cDNA.

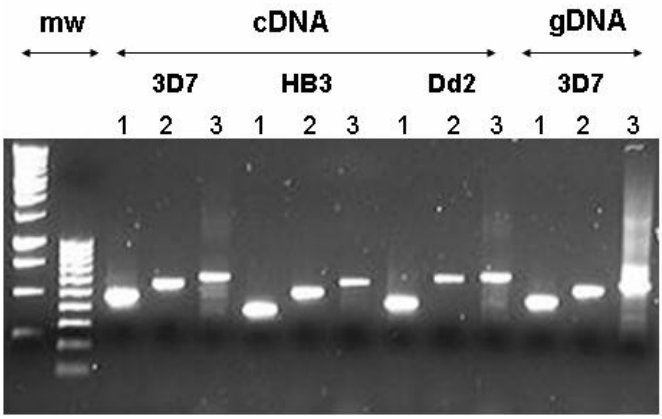

Figure 2. PCR amplified products of PfMSP1, PfMSP2 and PfCSP1 cDNAs of *P. falciparum* clones 3D7, HB3 and Dd2 were analyzed in 0.9 % agarose gels. The amplified cDNA loci do not differ in size from the corresponding amplified gDNA (shown for 3D7, right). 1. MSP1, 2. MSP2 and 3. CSP1.

Depositor: Malaria Research and Reference Reagent Resource Center (MR4), ATCC®, Manassas, VA, USA.

Comments: This reagent is prepared by MR4 and stored frozen.

Important note: This reagent was quality tested by MR4 using spectrophotometry, PCR and gel analysis.
Please contact malaria@atcc.org for any comment.

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. Frozen shipments received thawed or damaged should be reported by the customer to the airline or freight forwarder upon receipt. MR4 should be notified after a claim has been filed to arrange for another shipment.

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Citations regarding use of this material
Please remember to reference both MR4 AND THE DEPOSITOR 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)."

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