# Product Information Sheet for MRA-976

## Rodent Malaria Parasite

**MR4 Number:** MRA-976

**Organism:** *Plasmodium berghei*

**Strain designation of material:** Pf25DR (ANKA 2.34 Pbs25-/Pbs28-)

**Description:** Transgenic *P. berghei* expressing *P. falciparum* Pfs25 on a Pb25-/Pb28- double knockout background.

**Parental strain:** *Plasmodium berghei* ANKA 2.34

**Selection marker/method:** TgDHFR/ 0.07 mg/ml pyrimethamine, $dH_2O$ pH 5.0

**Unit size:** 0.5 ml

**Depositor:** Robert Sinden/Andrew Blagborough

**Source of isolation**: mouse

**Cultivation protocol**:

1. Thawing cryopreserved *Plasmodium berghei*:
Place the frozen cryovial in 37°C water bath 2-3 min until thawed and wipe the outside of the vial with 70% ethanol. Do not allow the vial to immerse near the cap line seal while thawing

2. Propagation: Cryopreserved material injected into mice via i.p route. (Inject 50-100 ul/mouse). To maintain strain in vivo, passage infected blood from donor mouse to recipient mouse via i.p route. See ref: Peters W & Robinson BL (1999), Chapter 92. Malaria. In " Handbook of Animal Models of infection". (eds O Zak & M Sande), pp 757-773. Academic Press, London. Online protocols for rodent malaria models are also available by registering with the Leiden University Medical Center Malaria Research Group at: http://www.lumc.nl/1040/research/malaria/model.html

**Cryopreservation Protocol:**

1. Centrifuge the culture (2,000 RPM X 5 min) and measure the volume of the blood.
2. Remove the supernatant and measure the pellet volume
3. Add equal volume of 100% glycerolyte. Add the glycerolyte slowly, drop by drop at room temperature and leave it at room temperature for 5 min
4. Add one more pellet volume of glycerolyte as described in step 3
5. Aliquot 0.5 ml volume into sterile pre-labeled cryovials
6. Place the vials in a cryocontainer (Mr. Frosty) and leave the container at -80°C overnight (16-24 hr).
7. Transfer the vials to liquid nitrogen.

**References**:
For Pfs25, Unpublished (2010)
Related:
Ramjanee S, Robertson JS, Franke-Fayard B, Sinha R, Waters AP, Janse CJ, Wu Y, Blagborough AM, Saul A, Sinden RE. The use of transgenic *Plasmodium berghei* expressing the Plasmodium vivax antigen P25 to determine the transmission-blocking activity of sera from malaria vaccine trials. Vaccine. 2007 Jan 15;25(5):886-94. Epub 2006 Sep 20.
PMID: 17049690
Tomas AM, Margos G, Dimopoulos G, et al.: P25 and P28 proteins of the malaria ookinete surface have multiple and partially redundant functions. EMBO J 20:3975-3983, 2001. PMID: 11483501

**Important notes:**
This reagent was authenticated by the depositor.
Please contact malaria@atcc.org for comment.

ALL BLOOD CULTURES SHOULD BE HANDLED WITH APPROPRIATE SAFETY PRECAUTIONS NECESSARY FOR THE HANDLING OF BLOOD BORNE PATHOGENS. PERSONNEL MUST BE TRAINED IN ACCORDANCE WITH THEIR INSTITUTIONAL POLICY REGARDING BLOOD BORNE PATHOGENS.

**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.

**Disclaimers**
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 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)."

**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.



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