

# Product Information Sheet for MRA-712A

## Monoclonal Antibody R218 Anti-*Plasmodium falciparum* Erythrocyte Binding Antigen-175 RII (produced *in vitro*)

### Catalog No. MRA-712A

This reagent is the tangible property of the U.S. Government.

### For research use only. Not for human use.

#### Contributor:

B. Kim Lee Sim, EntreMed, Inc., Rockville, Maryland, and National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), Maryland, USA

#### Manufacturer:

BEI Resources

#### Product Description:

Antibody Class: IgG1k

Monoclonal antibody R218 prepared against the erythrocyte binding antigen (EBA)-175 of *Plasmodium falciparum* (P. falciparum) 3D7 was purified from mouse hybridoma supernatant by protein G affinity chromatography. The monoclonal antibody R218 recognizes a conformation-dependent epitope located within the F1 domain of region II (RII), more strongly under non-reducing conditions.<sup>1,2</sup> EBA-175 is a 175 kDa, P. falciparum parasite ligand at the apical end of the merozoite that binds to its receptor glycophorin A on the surface of erythrocytes in a sialic acid-dependent manner.<sup>1-3</sup>

#### Material Provided:

Each vial contains approximately 50 µL of purified monoclonal antibody in PBS pH 7.2. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

#### Packaging/Storage:

MRA-712A was packaged aseptically in cryovials and is provided frozen on dry ice. The product should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

#### Functional Activity:

MRA-712A is functional in western blot, immunofluorescence and ELISA assays.<sup>1</sup>

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Antibody R218 Anti-*Plasmodium falciparum* Erythrocyte Binding Antigen-175 RII (produced *in vitro*), MRA-712A, contributed by B. Kim Lee Sim and NIAID/NIH."

#### 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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

#### Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](http://www.beiresources.org).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

#### Use Restrictions:

**This material is distributed for internal research, non-commercial purposes only.** This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

#### References:

1. Sim, B. K. L., et al. "Delineation of Stage Specific Expression of *Plasmodium falciparum* EBA-175 by Biologically Functional Region II Monoclonal Antibodies." *PLoS One* 6 (2011): e18393. PubMed: 21533224.
2. Chen, E., et al. "Structural and Functional Basis for Inhibition of Erythrocyte Invasion by Antibodies that Target *Plasmodium falciparum* EBA-175." *PLoS Pathog.* 9 (2013): e1003390. PubMed: 23717209.
3. Grüner, A. C., et al. "Expression of the Erythrocyte-Binding Antigen 175 in Sporozoites and in Liver Stages of *Plasmodium falciparum*." *J. Infect. Dis.* 184 (2001): 892-897. PubMed: 11528591.

ATCC® is a trademark of the American Type Culture Collection.

