Monoclonal Anti-*Plasmodium falciparum* Erythrocyte Binding Antigen-175 RII, Clone R217 (produced *in vitro*)

Catalog No. MRA-711A

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

For research use only. Not for use in humans.

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: IgG1κ

Monoclonal antibody prepared against the erythrocyte binding antigen (EBA)-175 of *Plasmodium falciparum (P. falciparum)* 3D7 was purified from clone R217 hybridoma supernatant by protein G affinity chromatography. 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.[1,2,3] The monoclonal antibody R217 recognizes a conformational, disulfide-constrained epitope within the F2 domain of region II (RII), under non-reducing conditions only.[1,2] The B cell hybridoma was generated by the fusion of Sp2/0-Ag14 mouse myeloma cells with splenocytes from BALB/c mice immunized with purified baculovirus recombinant EBA-175 RII protein (3D7).[1]

Material Provided:

Each vial contains 50 µL to 100 µL of purified monoclonal antibody in PBS. The concentration, expressed as milligrams per milliliter, is shown on the Certificate of Analysis.

Packaging/Storage:

MRA-711A was packaged aseptically in screw-capped plastic 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-711A is functional in western blot, immunofluorescence and ELISA assays. Monoclonal antibody R217 only recognizes late (6-day) hepatocyte stage parasites and mature schizonts.[1]

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-*Plasmodium falciparum* Erythrocyte Binding Antigen-175 RII, Clone R217 (produced *in vitro*), MRA-711A, 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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see 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 use in humans.

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.

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.

MR4 Support Provided by NIAID

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898