

Hybridoma 9H11/53 Anti-*Plasmodium falciparum* Merozoite Surface Protein 1, 19-kDa Fragment (MSP1₁₉)

Catalog No. MRA-816

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

For research use only. Not for human use.

Contributor:

Allan Saul, Ph.D., Facility Head, Malaria Vaccine Development Branch, National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), Rockville, Maryland, USA

Manufacturer:

BEI Resources

Product Description:

The murine hybridoma cell line, 9H11/53, was generated by the fusion of P3/NS1/1/AG4/1 mouse myeloma cells with splenocytes from immunized BALB/c mice. The monoclonal antibody produced specifically binds to the 19-kDa fragment of the Merozoite Surface Protein 1 (MSP1₁₉) of *Plasmodium falciparum* FCQ27/PNG.^{1,2}

Material Provided:

Each vial contains approximately 0.5 mL of hybridoma cells in cell culture medium supplemented with 10% dimethylsulfoxide (DMSO) at a concentration of 10⁷ cells per mL. Please see Appendix I for media preparation. Sufficient cells are provided to initiate at least one new culture.

Packaging/Storage:

This product was packaged aseptically in cryovials. It should be stored at -100°C or colder, preferably in the vapor phase of a liquid nitrogen freezer. Storage at -70°C will result in loss of viability. To insure the highest level of viability, the vial should be thawed and the culture initiated as soon as possible upon receipt. Any warming of the product during shipping and transfer must be avoided, as this will adversely affect the viability of the product after thawing. For transfer between freezers and shipping, the cells may be placed on dry ice for brief periods, although use of a portable liquid nitrogen carrier is preferred. Please read the following recommendations prior to reconstituting this material.

Functional Activity:

Hybridoma 9H11/53 is reported to produce monoclonal antibody of the IgM isotype and function in western blot analysis.^{1,2}

Safety Precautions:

When handling frozen vials it is highly recommended that protective gloves, lab coat and full face mask be worn. Even brief exposure to the ultra-cold temperature can cause tissue damage from frostbite. Also, some vials may slowly fill with liquid nitrogen if they have been immersed during cryogenic storage. When thawing, the liquid nitrogen may rapidly

expand as it changes to gas, breaking the vial or cap with explosive force, sending debris flying with enough velocity to cause injury. Store and use in areas with adequate ventilation.

Subcultivation Procedure:

Prior to thawing the hybridoma cells, prepare cell culture medium according to Appendix I. Thaw one vial in a 37°C water bath and transfer the contents into a 25-cm cell culture flask with 10 mL of cell culture medium. Keep the flask loosely capped in a 37°C incubator with 5% CO₂. Change media at 12-16 hours post-seeding. Feed cells at least every 48 hours and split cells when 70% confluent.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Hybridoma 9H11/53 Anti-*Plasmodium falciparum* Merozoite Surface Protein 1, 19-kDa Fragment (MSP1₁₉), MRA-816, contributed by Allan Saul."

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.

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.

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. Saul, A., Personal Communication.
2. Cooper, J. A., L. T. Cooper and A. J. Saul. "Mapping of the Region Predominantly Recognized by Antibodies to the *Plasmodium falciparum* Merozoite Surface Antigen MSA 1." Mol. Biochem. Parasitol. 51 (1992): 301-312. PubMed: 1574088.
3. Malkin, E., et al. "Phase 1 Study of Two Merozoite Surface Protein 1 (MSP1₄₂) Vaccines for *Plasmodium falciparum* Malaria." PLoS Clin. Trials 2 (2007): e12. PubMed: 17415408.

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

**APPENDIX I: MEDIA PREPARATION**Cell Culture Medium

Advanced RPMI 1640 medium (Gibco™ 12633; 1×)

Supplemented with:

Fetal Bovine Serum (FBS, hybridoma-tested; 10%)

L-glutamine (4 mM)

Gentamicin (optional; 50 µg/mL)

Freezing Medium

Cell culture medium (as above)

10% DMSO

Freeze cells at 10⁷ per mL