

Polyclonal Anti-*Plasmodium falciparum* Haloacid Dehalogenase-Like Sugar Phosphatase (PfHAD1) (antiserum, Rabbit)

Catalog No. MRA-1256

For research use only. Not for human use.

Contributor and Manufacturer:

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Product Description:

Antiserum to the haloacid dehalogenase-like sugar phosphatase from *Plasmodium falciparum* (*P. falciparum*) 3D7 (PfHAD1) was produced by immunization of rabbits with a recombinant N-terminal 6xHis-tagged PfHAD1 protein.¹

PfHAD1 is a sugar phosphatase that dephosphorylates a variety of sugar phosphates, including glycolytic intermediates, and regulates isoprenoid biosynthesis. *P. falciparum* depends on *de novo* isoprenoid biosynthesis through the methylerythritol phosphate (MEP) pathway. Loss of PfHAD1 function in *P. falciparum* causes upregulation of isoprenoid synthesis by increasing substrate availability and confers resistance to the antimalarial drug fosmidomycin that inhibits the MEP pathway.¹

Material Provided:

Each vial of MRA-1256 contains approximately 50 µL of polyclonal anti-*P. falciparum* PfHAD1 rabbit antiserum.

Packaging/Storage:

MRA-1256 is packaged aseptically in screw-capped plastic cryovials and is provided frozen on dry ice. MRA-1256 should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

MRA-1256 is active in indirect immunofluorescence assays and western blot analysis using *P. falciparum* 3D7 (BEI Resources MRA-102). See the Certificate of Analysis for results of immunofluorescence assay and western blot analysis performed at BEI Resources.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Polyclonal Anti-*Plasmodium falciparum* Haloacid Dehalogenase-Like Sugar Phosphatase (PfHAD1) (antiserum, Rabbit), MRA-1256, contributed by Audrey Odom.”

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/bmb15/index.htm.

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References:

- Guggisberg, A. M., et al. “A Sugar Phosphatase Regulates the Methylerythritol Phosphate (MEP) Pathway in Malaria Parasites.” Nat. Commun. 5 (2014): 4467. PubMed: 25058848.

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