



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Mouse Anti Plasmodium falciparum HRP2

With HRP-conjugated secondary antibody

Catalog No.
DS-MB-02135

Species:
protozoan

Isotype:
Mouse Ig M

Description

Plasmodium falciparum is a protozoan parasite that causes malaria in humans. P. falciparum malaria is transmitted to humans by Anopheles mosquitoes, and this type of malaria has the highest rate of complications and mortality, accounting for 80 percent of all human malarial infections and 90 percent of the deaths. Only the early trophozoites and gametocytes are seen in the peripheral blood during a P. falciparum infection. Sometimes, faint commashaped red dots are seen on the erythrocyte surface. The P. falciparum genome is very rich in A and T bases (approximately 80%) and is organized into 14 chromosomes that hold just over 5300 genes. P. falciparum contains a plastid similar to plant chloroplasts, which was acquired by engulfing a eukaryotic alga and retaining the algal plastid. The P. falciparum Apicomplexan plastid is an essential organelle that may be involved in lipid synthesis. This plastid is a potential target for anti-malarial drug development.

Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•			1:20 - 1:200
Western Blotting	•			1:10 - 1:50
Immunohistology - frozen			•	
Immunohistology - paraffin			•	
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorescence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Preparation

Immunogen was recombinant protein derived from *Plasmodium falciparum* histidine rich protein-2. This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with the immunogen. The IgM fraction of tissue culture supernatant was purified by Protein A affinity chromatography.

Specificity

DS-MB-02135 recognizes *Plasmodium falciparum* histidine rich protein-2, a 33 kDa member of the histidine rich protein family found in the malaria parasite. Histidine rich protein-2 is secreted by *Plasmodium falciparum* into the host erythrocyte cytosol and is expressed on the cell membrane or associated with the cytoskeleton of infected erythrocytes. Histidine rich protein-2 is thought to polymerise free haem to form haemozoin. It is also thought to play a role in the polymerization of ferriprotoporphyrin IX, a by-product of haemoglobin degradation. Clone 3565 has been reported to work in western blotting applications.

Reconstitution

Supplied as 100 µg of purified antibody, and is reconstituted with 1ml of sterile PBS. Its final concentration is 0.1 mg/ml. **Please avoid freeze-thaw cycles.**

Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Storage

Store at -20°C undiluted if not intended for use within a month. Keep it at 4°C and minimize freezing and thawing when use.

Reference

Reddy, G.R., Chakrabarti, D., Schuster, S.M., Ferl, R.J., Almira, E.C. and Dame, J.B. 1993. Gene sequence tags from *Plasmodium falciparum* genomic DNA fragments prepared by the genease activity of mung bean nuclease. Proc. Natl. Acad. Sci. USA 90: 9867-9871.

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