

MSP-1 (PEM-1): sc-52077

BACKGROUND

Malaria is an infectious disease caused by a protistan parasite of the genus *Plasmodium* and is mainly transmitted by mosquitoes. *Plasmodium* invades the red blood cells of its host, which causes symptoms such as fever, anemia and in severe cases, coma potentially leading to death. In the blood-stage forms of the malarial parasite *Plasmodium falciparum*, the merozoite surface protein 1 (MSP-1) is a major surface component. In preparation for erythrocyte invasion, MSP-1 undergoes selective proteolytic processing and reassembly. A glycosylphosphatidylinositol (GPI) anchor links MSP-1 to the parasite plasma membrane. MSP-1 contains mono- or oligosaccharides in O-linkage to serines or threonines. N-linked carbohydrates also associate with asparagines on MSP-1, despite the lack of N-glycosylating machinery in *P. falciparum* parasites. The peptide ligand T cell epitopes of MSP-1 mutually inhibit IFN- γ secretion as well as proliferation of CD4⁺ T cells in a majority of malaria cases, making it a good vaccine candidate antigen.

REFERENCES

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SOURCE

MSP-1 (PEM-1) is a mouse monoclonal antibody raised against recombinant *Plasmodium falciparum* merozoite surface protein 1.

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MSP-1 (PEM-1) is recommended for detection of MSP-1 of *Plasmodium falciparum* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of MSP-1: 195 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.