

Product Specification Sheet

P. vivax circumsporozoite protein (CSP) Antibodies

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| <input type="checkbox"/> Cat. # CSPV11-M | Mouse Anti-Circumsporozoite (CSP) (<i>P. vivax</i>) IgG, aff pure #1 | SIZE: 100 µg |
| <input type="checkbox"/> Cat. # CSPV12-M | Mouse Anti-Circumsporozoite (CSP) (<i>P. vivax</i>) IgG, aff pure #2 | SIZE: 100 µg |

Malaria is a severe and debilitating disease caused by the parasitic protozoan *Plasmodium*, which is transmitted by many species of anopheline mosquitoes. *P. falciparum* is the most widespread and also the most serious and potentially fatal form of *Plasmodium* species. Recent estimates of the annual number of clinical malaria cases worldwide range from 214 to 397 million. Estimates of annual mortality (nearly all from *P. falciparum* malaria) are thought to be around 1.1 million. The life cycle of the malaria is complex, with phases both in human host and the insect vector, the female anopheline mosquito. There are several *Plasmodium* forms: sporozoites, merozoites, gametocytes, gametes, ookinets, oocysts. Parasite may encode in the order of 2000 proteins, several hundred of which are antigenic.

The circumsporozoite protein-1 (CSP-1), an approximate 60 kDa protein located on the surface of developing and mature sporozoites and present in developing exoerythrocytic forms is the best-characterized protein of sporozoites. It constitutes the major surface protein of the sporozoite and is a multifunctional molecule that plays a crucial role at various points of the malaria life cycle. The CSP-1 is synthesized as a precursor protein of 67 kDa, which is processed by removal of approximately 50-100 residues to generate the mature protein of 58 kDa. The central domain of CSP-1 is composed of an extensive array of tandemly repeated short sequences. For the CSP-1 of the 7G8 cloned line of *P. falciparum*, this region is composed of 37 copies of NANP, interspersed with 4 copies of NVDP. There are the major repeat region and the minor repeat region in the *P. falciparum* CS protein. *P. falciparum* CSP C-Terminus fragment (aa 207-397) contains 16 copies of NANP. CSP-protein as a vaccine candidate is in clinical trials.

Source of Antigen and Antibodies

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| Antigen | Recombinant CSP protein (<i>P. vivax</i>) |
| Ab Host/type | Mouse, Monoclonal Aff pure#1 (cat # CSPV11-M, IgG1 and # 2 (cat# CSPV12-M, IgG1) in PBS, pH 7.5 containing 0.05% azide, |
| 2-ab | Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available) |
| -ve control IgG | Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control |

Isotype controls :

| Catalog# | Product Description |
|---------------|--|
| 20102-101 | Mouse IgG1 isotype control, purified |
| 20102-101-APC | Mouse IgG1-APC conjugate (isotype control) |
| 20102-101-B | Mouse IgG1-Biotin conjugate (isotype control) |
| 20102-101-F | Mouse IgG1-FITC conjugate (isotype control) |
| 20102-101-FP | Mouse IgG1-FITC-PE conjugate (isotype control) |
| 20102-101-HP | Mouse IgG1-HRP conjugate (isotype control) |
| 20102-101-PC5 | Mouse IgG1-PE-Cy5 conjugate (isotype control) |
| 20102-101-PE | Mouse IgG1-PE conjugate (isotype control) |

Form & Storage

Affinity pure IgG
(100 ug/100ul solution) (lyophilized powder)
Buffer: PBS pH 7.4 and 0.05% azide
Reconstitute powder in water

Storage

Short-term: unopened, undiluted liquid vials at -20°C and powder at 4°C or -20°C.

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Suggested Use:

ELISA at 1-10 ug/ml coating
Western: use 100-200 ng/protein/well

Shipping: 4°C for solutions and room temp for powder.

General References: Coppel R.L. et al (1994), in *Immunochemistry*, edited by Van Oss C.J., Van Regenmortel M.H.V., published by CRC Press, 475-532; Lal A.A. et al (2002), in *Malaria Immunology*, edited by Perlmann P., Troye-Blomberg M., published by Karger Publishers, 27-49; Aley S.B. et al (1987) *J. Parasit.* 73, 1241-1245; Frevert U. et al (1998) *The EMBO Journal*, 17, 3816-3826.

**This product is for In vitro research use only.*

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| 970-200-CSR | Rabbit Anti-Circumsporozoite protein (CSP, <i>P. falciparum</i> /RTS,S vaccine) IgG ELISA kit, 2x96 tests |
| 970-210-CSM | Rabbit Anti-Circumsporozoite protein (CSP, <i>P. falciparum</i> /RTS,S vaccine) IgM ELISA kit, 2x96 tests |
| 970-300-MMG | Mouse Anti-Circumsporozoite protein (CSP, <i>P. falciparum</i> /RTS,S vaccine) IgG ELISA kit ELISA kit, 2x96 tests |
| 970-300-SMG | Monkey (simian) Anti-Malaria IgG ELISA kit, 2x96 tests |
| 970-310-MMM | Mouse Anti-Circumsporozoite protein (CSP, <i>P. falciparum</i> /RTS,S vaccine) IgM ELISA kit ELISA kit |
| 970-320-MSG | Mouse Anti-Merozoite surface protein-1 (MSP-1; <i>P. falciparum</i> /malaria vaccine) IgG ELISA kit, 2x96 tests |
| 970-330-MSM | Mouse Anti-Merozoite surface protein-1 (MSP-1; <i>P. falciparum</i> /malrai vaccine) IgM ELISA kit, 2x96 tests |
| 970-340-RMG | Rabbit Anti-Merozoite surface protein-1 (MSP-1; <i>P. falciparum</i> /malaria vaccine) IgG ELISA kit, 2x96 tests |
| 970-350-RMM | Rabbit Anti-Merozoite surface protein-1 (MSP-1; <i>P. falciparum</i> /malaria vaccine) IgM ELISA kit, 2x96 tests |
| 970-360-HMG | Human Anti-Merozoite surface protein-1 (MSP-1; <i>P. falciparum</i> /malaria vaccine) IgG ELISA kit, 2x96 tests |
| 970-370-HMM | Human Anti-Merozoite surface protein-1 (MSP-1; <i>P. falciparum</i> /malaria vaccine) IgM ELISA kit, 2x96 tests |
| 970-400-CHG | Human Anti-Circumsporozoite protein (CSP, <i>P. falciparum</i> /RTS,S vaccine) IgG ELISA kit, 2x96 tests |
| 970-410-CHM | Human Anti-Circumsporozoite protein (CSP, <i>P. falciparum</i> /RTS,S vaccine) IgM ELISA kit, 2x96 tests |

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