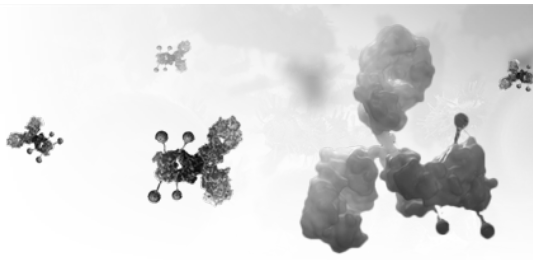

Mouse Anti-PvRBP2b monoclonal antibody, clone 7I2 (CABT-RM138)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Specifically detects Reticulocyte-binding protein 2 (PvRBP2b) in Plasmodium vivax.
Target	PvRBP2b
Immunogen	His-tagged recombinant fragment corresponding to 1294 amino acids from the N-terminal half of Plasmodium vivax Reticulocyte-binding protein 2 (PvRBP2b).
Isotype	IgG1, κ
Source/Host	Mouse
Species Reactivity	Plasmodium vivax
Clone	7I2
Purification	Protein G purified
Conjugate	unconjugated
Applications	ELISA, FC, IP, WB, FuncS
Molecular Weight	~120-150 kDa observed; 331.44 kDa calculated (for full length 2pVRBP2b). Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	100 µl
Buffer	PBS
Preservative	None

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

Storage	Stable for 1 year at -20°C from date of receipt. Handling Recommendations: Upon receipt and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance.

BACKGROUND

Introduction	Reticulocyte-binding protein 2 is encoded by the RBP-2 gene in Plasmodium species. PvRBP2b is an alpha-helical protein, comprising 10 alpha-helices and two very short antiparallel beta-sheets, each comprising two beta-strands. It plays a critical role in reticulocyte recognition and invasion by Plasmodium vivax. It is synthesized with a signal peptide (aa 1-21), a large extracellular domain (aa 22-2805), a short transmembrane domain (aa 2806-2826), and a cytoplasmic tail (aa 2827-2867). Plasmodium vivax is shown to preferentially invade reticulocytes that express high levels of transferrin receptor 1 (TfR1). PvRBP2b is expressed during the late-stage of Plasmodium vivax and its binding has been shown to directly correlate with the levels of TfR1 on reticulocyte surface. Treatment of reticulocytes with trypsin or chymotrypsin can cleave TfR1 from reticulocyte surface and prevent PvRBP2b binding.
Keywords	Reticulocyte-binding protein 2; RBP2b; Plasmodium; Plasmodium vivax; P. vivax; PvRBP2b

GENE INFORMATION

UniProt ID	Q00799

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221