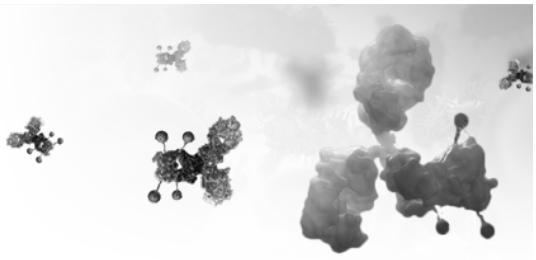

Mouse Anti-CHIKV E2 monoclonal antibody, clone 2.4B3 (CABT-RM141)

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

PRODUCT INFORMATION

Specificity	Specifically detects E2 glycoprotein in Chikungunya virus. May recognize multiple epitopes on E2 protein.
Target	CHIKV E2
Immunogen	Sucrose gradient-purified, gamma-irradiated CHIKVMAU E2 protein (Mauritius strain 06113879) with Quil-A saponin as adjuvant followed by a second application and later a boost with binary-ethyleneimine inactivated CHIKVASIAN.
Isotype	IgG2a, κ
Source/Host	Mouse
Species Reactivity	Chikungunya virus
Clone	2.4B3
Purification	Protein G purified
Conjugate	unconjugated
Applications	ELISA, Neut, WB
Molecular Weight	~50 kDa observed. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	100 µg
Buffer	PBS

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Preservative	None
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	Chikungunya virus (CHIKV) that causes distinctive polyarthritis or polyarthralgia with clinical features such as fever, maculopapular rash, and myalgia is transmitted by Aedes spp of mosquitoes. Immune compromised individuals may face serious complications, including encephalitis and mortality. CHIKV genome contains a single-stranded positive-sense RNA that encodes four non-structural proteins known as nsP1, nsP2, nsP3, and nsP4 and also five structural proteins that include a capsid protein, three envelope glycoproteins known as (E1, E2, and E3, and a small molecule known as 6K. The mature alphavirus particles express E1 and E2 heterodimers that form 80 trimeric spikes on the surface of the virion. The ectodomain E1 protein consists of three domains known as D1, DII, and DIII. The DIII domain is an immunoglobulin-like domain connected to D1 and DII by a flexible linker. Both E1 and E2 proteins are responsible for virus entry into host cells. The E2 glycoprotein interacts with a cellular receptor, resulting in the virus internalization and the E1 glycoprotein mediates virus fusion to host cell under low pH conditions. Following the fusion of the viral envelope with the endosomal membrane, the viral genomic RNA is released into the cytoplasm and starts replicating. This monoclonal antibody can recognize E2 protein in unreduced samples, but not in DTT-reduced/carboxymethylated samples. It can also effectively neutralize different CHIKV isolates (CHIKV- MAU and CHIKV-ASIAN).
Keywords	CHIKV E2; Chikungunya Virus E2 glycoprotein; Chikungunya virus; CHIKV; E2 glycoprotein; E2

GENE INFORMATION

UniProt ID	Q8JUX5

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