Technical Data Sheet

InVivoMAb anti-Chikungunya E2 Protein (CHIKV E2)

Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

Lot Specific Information

Lot Number: **Lot Specific***
Volume: **Lot Specific***
Concentration: **Lot Specific* (generally 4 to 11 mg/ml) ***
Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number:	**BE0495**
Clone:	**CHK-152**
Isotype:	Mouse IgG2c, κ
Recommended Isotype Control(s):	InVivoMAb mouse IgG2c isotype control, anti-dengue virus
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	The La Reunion 2006 OPY-1 strain of CHIKV (CHIKV-LR)
Reported Applications:	*in vivo* neutralization of CHIKV E2 *in vitro* neutralization of CHIKV E2 Antibody-dependent cellular phagocytosis (ADCP) Antibody-dependent neutrophil phagocytosis (ADNP) Immunohistochemistry (frozen) Immunofluorescence Flow cytometry ELISA
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein A
RRID:	
Molecular Weight:	150 kDa

Description

The CHK-152 monoclonal antibody reacts with the wings of the A domain on E2 protein of the chikungunya virus (CHIKV), an enveloped positive-strand RNA alphavirus from the Togaviridae family. The genome of alphaviruses encodes six structural proteins, namely capsid, E1, E2, E3, 6K, and TF, and four non-structural proteins (NSPs). The capsid enclosed RNA genome is surrounded by a lipid envelope containing heterodimers of E2 and E1 proteins. Upon infection, receptor binding induces clathrin-mediated endocytosis of virus, and the endosomal acidic pH triggers E1-mediated membrane fusion. The released nucleocapsid drives the replication of the viral genome and translation of viral proteins in the cytoplasm. Structural proteins are synthesized as a polyprotein, with the capsid released via autoproteolysis, and the E2/E1 proteins are transported through the secretory pathway to the plasma membrane for viral assembly, budding, and release. These viruses produce high titers of infectious particles both in vitro and in vivo. Mosquitoes are the vectors for CHIKV, and they spread the virus to humans, causing an acute infection with high viremia, fever, rash, and severe muscle and joint pain. Chronic symptoms, such as debilitating arthritis, may endure for several months. CHIKV outbreaks affect all major continents, and no

approved vaccines or therapeutics further warrant therapeutic and vaccine development. Neutralizing antibodies such as CHK152 and CHK-166 serve as excellent tools for researchers, particularly in understanding the immune response to CHIKV and developing experimental therapeutics or vaccines.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/be0495?bxcs=9k1b3a#tab_references or scan the QR code below.

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