Technical Data Sheet

InVivoMAb anti-Dengue virus type 4 E protein DIII

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:	**BE0437**
Clone:	**DV4-E88**
Isotype:	Mouse IgG2c, κ
Recommended Isotype Control(s):	InVivoMAb polyclonal mouse IgG
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	DENV-4 1036, DENV-4 H-241, and DENV-4 DIII
Reported Applications:	*in vivo* neutralization of DENV-4 *in vitro* neutralization of DENV-4 Focus reduction neutralization test (FRNT) ELISA Flow cytometry Western blot
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/µg) Determined by LAL gel clotting 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 G
RRID:	
Molecular Weight:	150 kDa

Description

The DV4-E88 monoclonal antibody reacts with the DIII domain on the E protein of dengue virus serotype 4 (DENV-4). This serotype-specific antibody does not cross-react with DENV-1, DENV-2, or DENV-3, i.e., the other serotypes of dengue virus (DENV). DENV is an Aedes aegypti and A. albopictus mosquito-transmitted flavivirus that causes over 100 million annual infections in tropical and sub-tropical regions. Mild dengue illness is characterized by fever, headache, and myalgia, while severe dengue disease can lead to hemorrhagic and capillary leak syndrome, i.e., dengue hemorrhagic fever (DHF)/dengue shock syndrome (DSS). Structurally, DENV is a single-stranded positive-polarity RNA virus, with its envelop (E) protein having three domains. The DV4-E88 monoclonal antibody binds (conformationally) to the lateral ridge (LR) of Domain III (DIII) on DENV-4 (quaternary epitope on the E dimer). This antibody does not recognize yeast surface expressed or isolated DENV-4 E protein DIII. The DIII-LR region contains host cell surface receptor recognition sites, and it is involved in the induction of virus-neutralizing antibodies. In in vitro studies, the DV4-E88 monoclonal antibody neutralized 1036, TVP-376, and TVP-986 genotype II strains of DENV-4. In experiments involving AG129 mice, a single in vivo injection of DV4-E88 monoclonal antibody (100–500 µg/mouse) prior to viral infection provided modest to significant protection against DENV-4 strains H-241 and TVP-376.

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/be0437?bxcs=9k1b3a#tab_references or scan the QR code below.

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