



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Anti-Domain I of the DENV-4 envelope protein (E) [5H2] Ab03612-10.0-BT

This chimeric human antibody was made using the variable domain sequences of the original Fab format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Human IgG1, Kappa

**Clone Number:** 5H2

**Alternative Name(s) of Target:** Envelope protein E

**UniProt Accession Number of Target Protein:** P09866

**Published Application(s):** neutralization, ELISA

**Published Species Reactivity:** Dengue Virus

**Immunogen:** This antibody was generated by panning a  $\gamma$ 1/k chimpanzee Fab antibody library against DENV-4.

**Specificity:** This antibody is specific for domain I of the DENV-4 envelope protein. Substitution of Gly106Val or His317Gln decreases the binding efficiency of the antibody. The dengue virus causes the disease known as dengue fever.

**Application Notes:** To determine how strongly this antibody binds to its antigen a competition ELISA was performed using the fab version of this antibody, The binding site on E for this antibody was unique, as binding competition with other Fabs was not observed. Furthermore, a neutralization assay was performed by incubating DENV-4 with this antibody and then infecting a vero cell monolayer, this antibody showed a strong decrease in the infectibility of DENV-4 (Men et al, 2004; pmid:15078949). The affinity of both the fab and IgG version of this antibody for DENV-4 was determined using equilibrium ELISA. Furthermore, the IgG version of this antibody was used for a neutralization study on vero cells, in higher concentrations it shows strong neutralization. Additionally, an infection study was performed in vivo on mice using the IgG version of this antibody, 20ug of antibody protected 50% of mice from death. Finally, the same infection study was performed on rhesus monkeys using this antibody, the showed that 2mg of this antibody per kg of weight can protect the animal from DENV-4 infection (Lai et al, 2007; pmid:17881450).

**Antibody First Published in:** Men et al. Identification of Chimpanzee Fab Fragments by Repertoire Cloning and Production of a Full-Length Humanized Immunoglobulin G1 Antibody That Is Highly Efficient for Neutralization of Dengue Type 4 Virus. J Virol. 2004 May; 78(9): 4665–4674. [PMID:15078949](#)

**Note on publication:** Fab monoclonal antibodies to dengue type 4 virus (DENV-4) were recovered by

repertoire cloning of bone marrow mRNAs from an immune chimpanzee and analysed for antigen binding specificity, VH and VL sequences, and neutralizing activity against DENV-4 in vitro.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.