# Monoclonal Anti-DENV 2(strain Thailand/16681/1984)-NS1 Antibody, Human IgG1 (7E12)

Catalog # DE1-M756



#### Source

Monoclonal Anti-DENV 2(strain Thailand/16681/1984)-NS1 Antibody, Human IgG1 (7E12) is a chimeric monoclonal antibody recombinantly expressed from HEK293, which combines the variable region of a mouse monoclonal antibody with Human constant domain.

Clone	Formulation
7E12 Isotype	Lyophilized from 0.22 $\mu$ m filtered solution in PBS, pH7.4 with trehalose as protectant.
Human IgG1   Human Kappa <b>Conjugate</b>	Contact us for customized product form or formulation. Reconstitution
Unconjugated Antibody Type	Please see Certificate of Analysis for specific instructions. For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.
Recombinant Monoclonal	Storage
Reactivity	For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Virus Specificity	Please avoid repeated freeze-thaw cycles.
This product is a specific antibody specifically reacts with NS1. Application	<ul> <li>This product is stable after storage at:</li> <li>-20°C to -70°C for 12 months in lyophilized state;</li> <li>-70°C for 3 months under sterile conditions after reconstitution.</li> </ul>
Application Recommended Usage	
Western Blot 0.1-10 ug/mL	

Purity

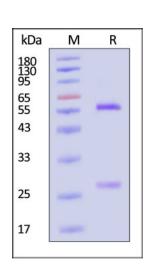
**Purification** 

>95% as determined by SDS-PAGE.

Protein A purified/ Protein G purified

## **SDS-PAGE**

ELISA



4-62.5 ng/mL

Monoclonal Anti-DENV 2(strain Thailand/16681/1984)-NS1 Antibody, Human IgG1 (7E12) on SDS-PAGE under reducing (R) condition. The gel was



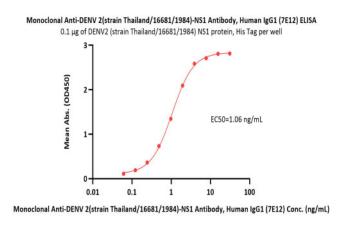




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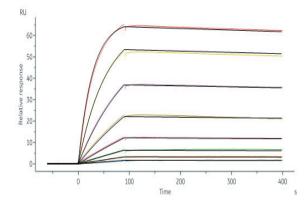
stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**



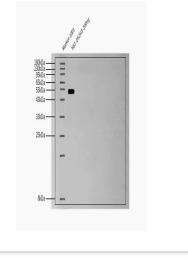
Immobilized DENV2 (strain Thailand/16681/1984) NS1 protein, His Tag (Cat. No. NS1-D52H3) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-DENV 2(strain Thailand/16681/1984)-NS1 Antibody, Human IgG1 (7E12) (Cat. No. DE1-M756) with a linear range of 0.06-2 ng/mL (QC tested).

## **Bioactivity-SPR**



Monoclonal Anti-DENV 2(strain Thailand/16681/1984)-NS1 Antibody, Human IgG1 (7E12) (Cat. No. DE1-M756) captured on Protein A Chip can bind DENV2 (strain Thailand/16681/1984) NS1 protein, His Tag (Cat. No. NS1-D52H3) with an affinity constant of 0.167 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Western Blot



Detection of Anti-DENV 2(strain Thailand/16681/1984)-NS1-7E12,Human,Human IgG1 | Human Kappa,HEK by Western Blot. Anti-DENV 2(strain Thailand/16681/1984)-NS1-7E12,Human,Human IgG1 | Human Kappa,HEK at 1/5000 dilution + DENV2 (strain Thailand/16681/1984) NS1 protein, His Tag (MALS verified) at 200ng. Secondary Antibody: (HFC)-HRP Goat Anti-Human IgG,Fcγ fragment specific (min X Bov,Hrs,Ms Sr Prot) at 1/2000 dilution.

Predicted band size: 45~55 kDa 12% Bis-Tris Protein Gel.



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## Background

Hendra virus (HeV) and Nipah virus (NiV) are henipaviruses discovered in the mid-to late 1990s that possess a broad host tropism and are known to cause severe and often fatal disease in both humans and animals. HeV and NiV infect host cells through the coordinated efforts of two envelope glycoproteins. The G glycoprotein attaches to cell receptors, triggering the fusion (F) glycoprotein to execute membrane fusion. G is a type II homotetrameric transmembrane protein responsible for binding to ephrinB2 or ephrinB3 (ephrinB2/B3) receptors. F is a homotrimeric type I transmembrane protein that is synthesized as a premature F0 precursor and cleaved by cathepsin L during endocytic recycling to yield the mature, disulfide-linked, F1 and F2 subunits. Upon binding to ephrinB2/B3, NiV G undergoes conformational changes leading to F triggering and insertion of the F hydrophobic fusion peptide into the target membrane. Subsequent refolding into the more stable post-fusion F conformation drives merger of the viral and host membranes to form a pore for genome delivery to the cell cytoplasm.

## **Clinical and Translational Updates**



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