## DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (MALS verified)

Catalog # ENN-D5244



### **Synonym**

Envelope protein, Env polyprotein, Envelope glycoprotein, env

#### Source

DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag(ENN-D5244) is expressed from human 293 cells (HEK293). It contains AA Met 281 - Ser 677 (Accession # P29990).

## **Molecular Characterization**

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 46.2 kDa. The protein migrates as 55-60 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

### **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4, 0.5M Arginine with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

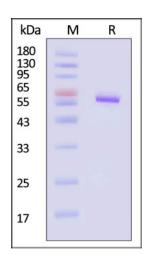
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

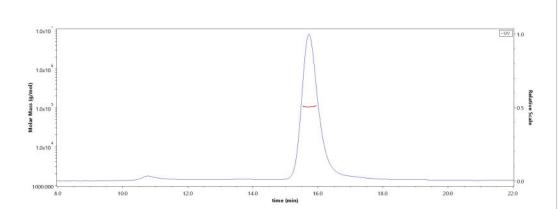
## **SDS-PAGE**



DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# **Bioactivity-ELISA**

## SEC-MALS



The purity of DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (Cat. No. ENN-D5244) is more than 85% and the molecular weight of this protein is around 90-110 kDa verified by SEC-MALS.

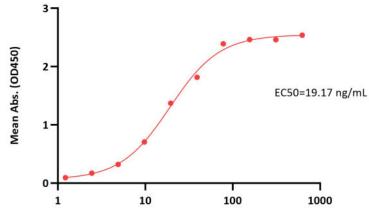
Report

# DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (MALS verified)





DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag ELISA 0.1  $\mu$ g of DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag per well



Human Anti-E(DENV) Antibody EDE2 A11, Human IgG1 | Human Kappa Conc. (ng/mL)

Immobilized DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (Cat. No. ENN-D5244) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Human Anti-E(DENV) Antibody EDE2 A11,Human IgG1 | Human Kappa with a linear range of 1-39 ng/mL (QC tested).

### Background

Dengue is a mosquito-borne viral disease widely spread all over the world transmitted by 4 serotypes of dengue virus (DENV). The symptoms range from mild dengue fever to dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS) with high mortality. Currently, most of the studies on DENV vaccines emphasize on its envelope protein which is essential for viral attachment and fusion (i.e., Sanofi's tetravalent dengue vaccine Dengvaxia). However, the vaccine of envelope protein still needs to be improved to maximize its efficiency on people never infected with DENV before, which requires more research to be conducted on the DENV envelope protein.

# **Clinical and Translational Updates**

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

