

Synonym

Envelope Protein/E Protein (DENV)

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 [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 0.5 M Arginine, pH7.4 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

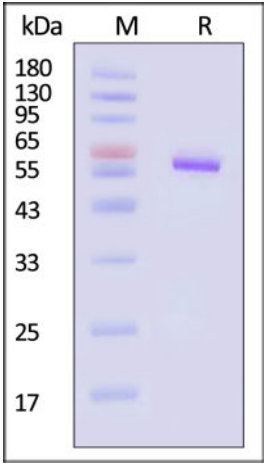
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

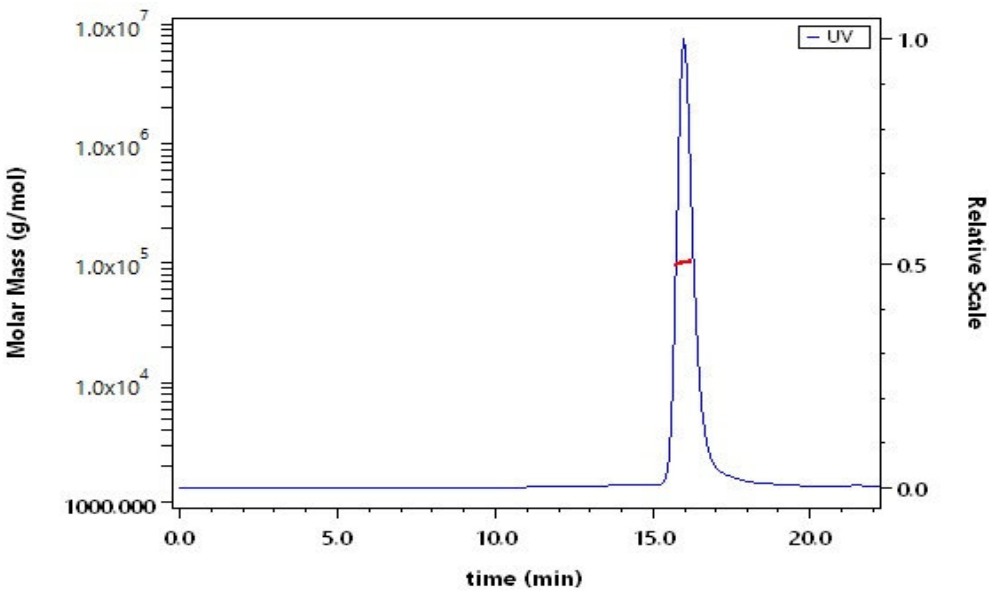
SDS-PAGE



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 [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

SEC-MALS



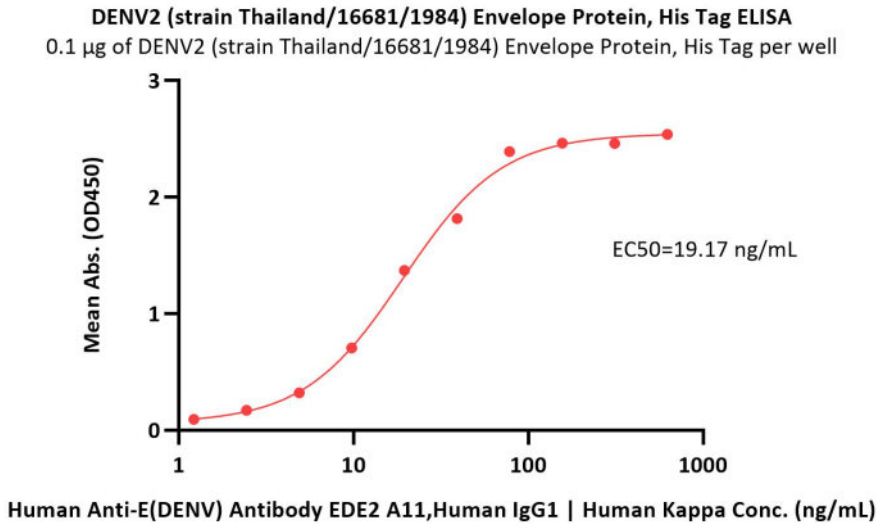
The purity of DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (Cat. No. ENN-D5244) is more than 85% and the molecular weight of this protein is around 90-110 kDa verified by SEC-MALS.

[Report](#)



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

Catalog # ENN-D5244



Immobilized DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (Cat. No. ENN-D5244) at 1 µg/mL (100 µL/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.

