

Synonym

Envelope protein,Env polyprotein,Envelope glycoprotein,env

Source

DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag(ENN-D5243) is expressed from human 293 cells (HEK293). It contains AA Phe 115 - Thr 280 & 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 65.0 kDa. The protein migrates as 60 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 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

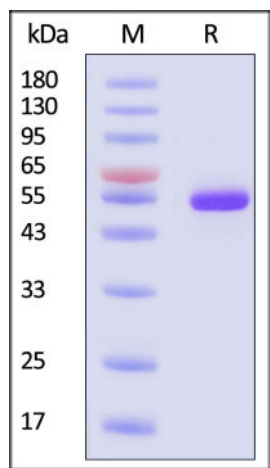
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

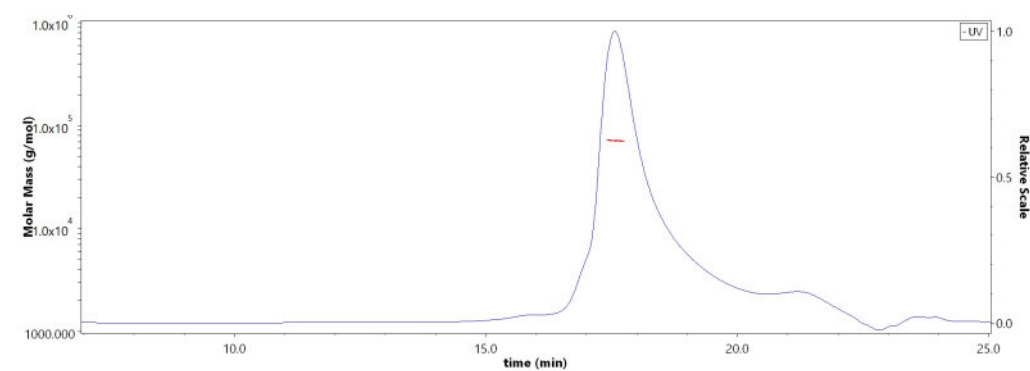
SDS-PAGE



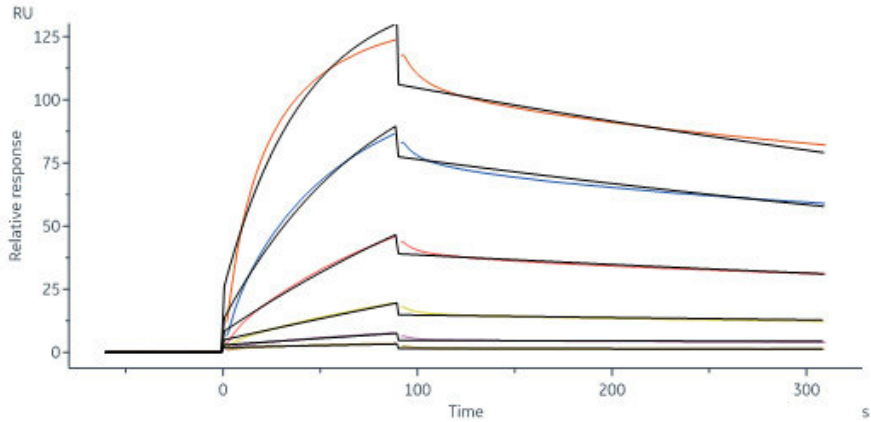
DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-SPR

SEC-MALS



The purity of DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (Cat. No. ENN-D5243) is more than 90% and the molecular weight of this protein is around 60-80 kDa verified by SEC-MALS. [Report](#)



Anti-E(DENV) Antibody EDE2 A11 captured on Protein G-Series S sensor chip can bind DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag (Cat. No. ENN-D5243) with an affinity constant of 58.4 nM as determined in a SPR assay (Biacore 8K) (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 TechSupport@acrobiosystems.com if you have any question on this product.