Biotinylated Nipah virus Post-Fusion glycoprotein, His,Avitag™ (MALS verified)

Catalog # PON-V82E3

Synonym

Post-Fusion glycoprotein

Source

Biotinylated Nipah virus Post-Fusion glycoprotein, His,Avitag(PON-V82E3) is expressed from human 293 cells (HEK293). It contains AA Ile 27 - Asn 99 & Gly 117 - Ser 488 (Accession # Q9IH63-1).
Predicted N-terminus: Ile 27

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 56.2 kDa. The protein migrates as 58-63 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS 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

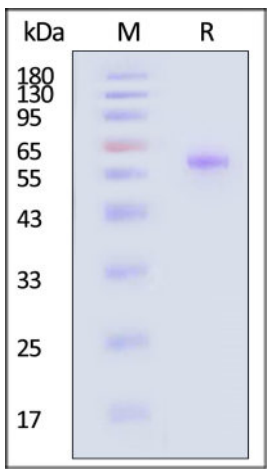
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

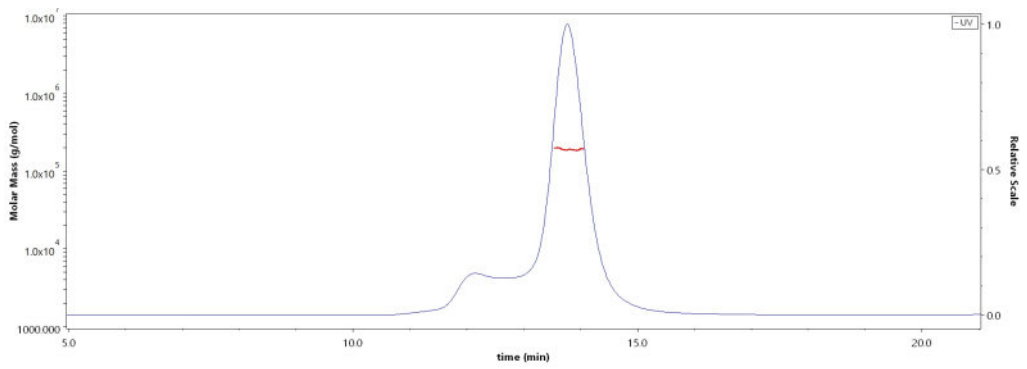
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



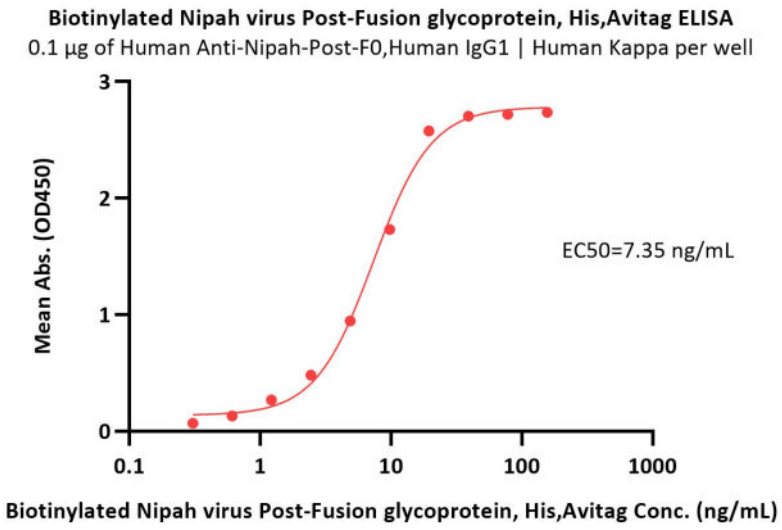
Biotinylated Nipah virus Post-Fusion glycoprotein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Biotinylated Nipah virus Post-Fusion glycoprotein, His,Avitag (Cat. No. PON-V82E3) is more than 85% and the molecular weight of this protein is around 180-200 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human Anti-Nipah-Post-F0,Human IgG1 | Human Kappa at 1 μg/mL (100 μL/well) can bind Biotinylated Nipah virus Post-Fusion glycoprotein, His,Avitag (Cat. No. PON-V82E3) with a linear range of 0.3-20 ng/mL (QC tested).

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

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