Biotinylated HCoV-HKU1 (isolate N5) Spike Trimer Protein, His,Avitag™ (MALS verified)

Catalog # SPN-H82E3

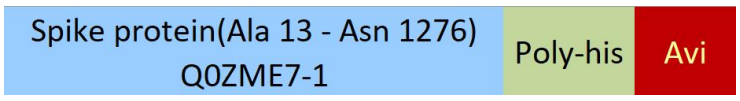
Synonym

Spike,S protein,Spike glycoprotein,S glycoprotein

Source

Biotinylated HCoV-HKU1 (isolate N5) Spike Trimer, His,Avitag (SPN-H82E3) is expressed from human 293 cells (HEK293). It contains AA Ala 13 - Asn 1276 (Accession # Q0ZME7-1). Amino acid substitutions RRKRR 752-756 GGSGS and NL 1067-1068 PP are introduced to abolish the furin cleavage site and stabilize the trimeric prefusion state of the spike protein, respectively.
Predicted N-terminus: Ala 13

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 147.2 kDa. The protein migrates as 200-220 kDa 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.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 0.1 M Sodium citrate, pH5.5 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

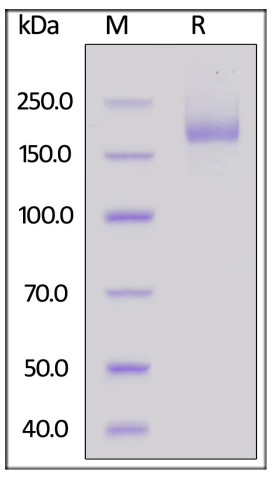
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

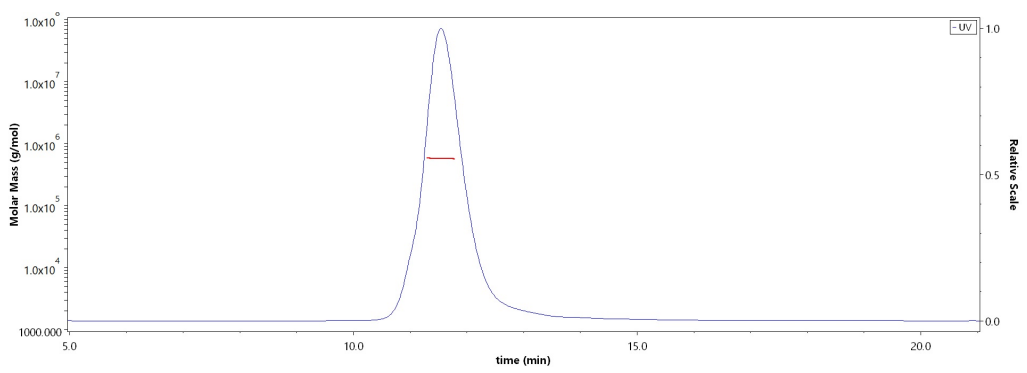
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated HCoV-HKU1 (isolate N5) Spike Trimer, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Biotinylated HCoV-HKU1 (isolate N5) Spike Trimer, His,Avitag (Cat. No. SPN-H82E3) is more than 85% and the molecular weight of this protein is around 590-620 kDa verified by SEC-MALS.
Report

Background

Biotinylated HCoV-HKU1 (isolate N5) Spike Trimer Protein, His,Avitag™ (MALS verified)

Catalog # SPN-H82E3

It's been reported that SARS-CoV-2 can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.