



Synonym

Spike,S protein,Spike glycoprotein,S glycoprotein

Source

Biotinylated SARS Spike protein, His,Avitag(SPN-S82E3) is expressed from human 293 cells (HEK293). It contains AA Ser 14 - Pro 1195 (Accession # [AAP13567.1](#) (R667A, K968P, V969P)).

Predicted N-terminus: Ser 14

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 138.0 kDa. The protein migrates as 160-200 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.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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

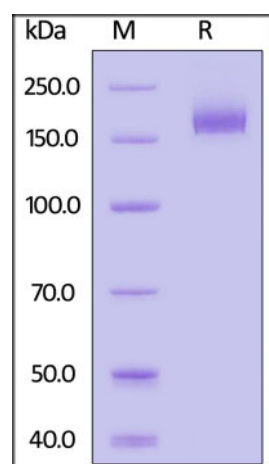
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

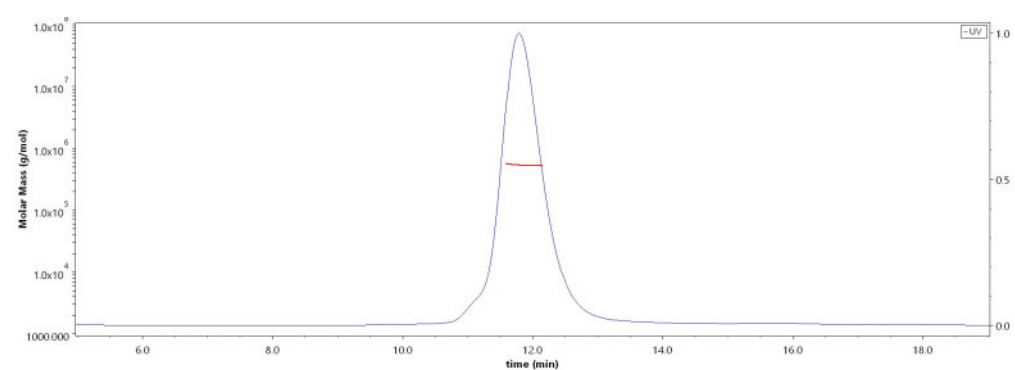
SDS-PAGE



Biotinylated SARS Spike protein, 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%.

Bioactivity-ELISA

SEC-MALS

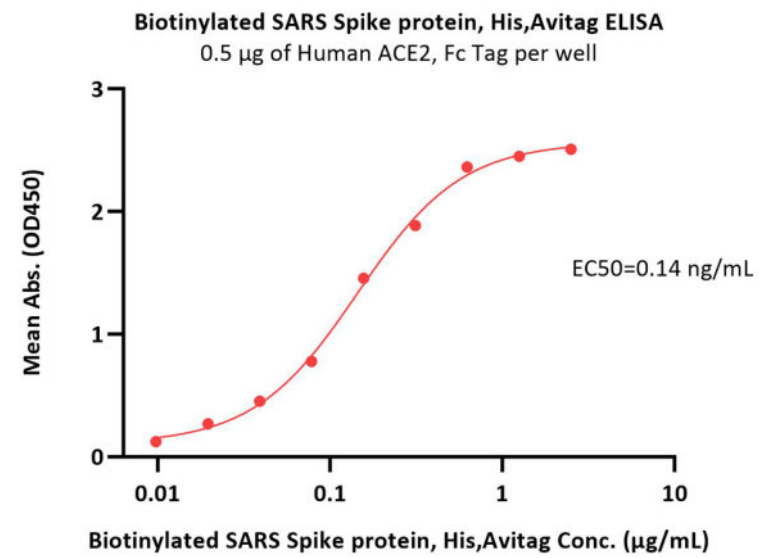
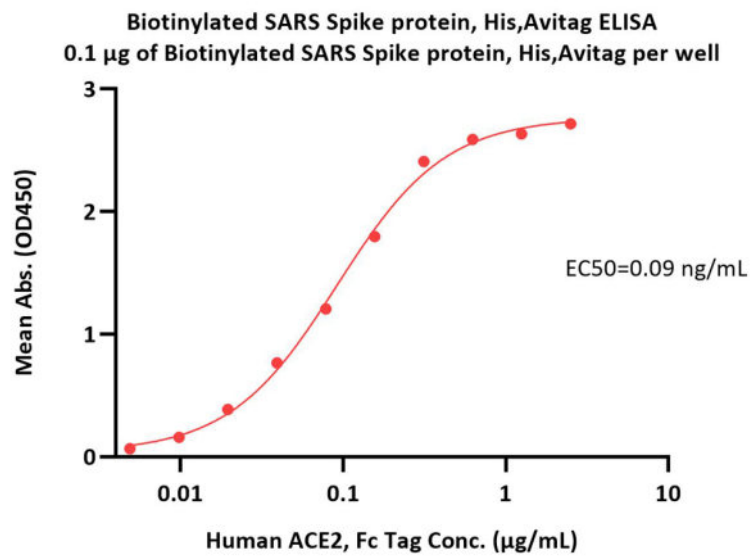


The purity of Biotinylated SARS Spike protein, His,Avitag (Cat. No. SPN-S82E3) is more than 90% and the molecular weight of this protein is around 518-572 kDa verified by SEC-MALS.

[Report](#)

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Immobilized Biotinylated SARS Spike protein, His,Avitag (Cat. No. SPN-S82E3) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human ACE2, Fc Tag (Cat. No. AC2-H5257) with a linear range of 0.005-0.313 µg/mL (QC tested).

Immobilized Human ACE2, Fc Tag (Cat. No. AC2-H5257) at 5 µg/mL (100 µL/well) can bind Biotinylated SARS Spike protein, His,Avitag (Cat. No. SPN-S82E3) with a linear range of 0.01-0.625 µg/mL (Routinely tested).

Background

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.

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