

Synonym

Spike,S protein,Spike glycoprotein,S glycoprotein,COVID-19

Source

SARS-CoV-2 S protein, His Tag, Super stable trimer (SPN-C52H7) is the ectodomain of SARS-CoV-2 S protein which contains AA Val 16 - Pro 1213 (Accession # 出错). The recombinant protein is expressed from human 293 cells (HEK293) with T4 fibritin trimerization motif and a polyhistidine tag at the C-terminus. Proline substitutions (F817P, A892P, A899P, A942P, K986P, V987P) and alanine substitutions (R683A and R685A) are introduced to stabilize the trimeric prefusion state of SARS-CoV-2 S protein and abolish the furin cleavage site, respectively.

Predicted N-terminus: Val 16

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 138.0 kDa. The protein migrates as 170-250 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

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

Delivered as bulk protein in a 0.2 µm filtered solution of PBS.

Contact us for customized product form or formulation.

Storage

Please avoid repeated freeze-thaw cycles.

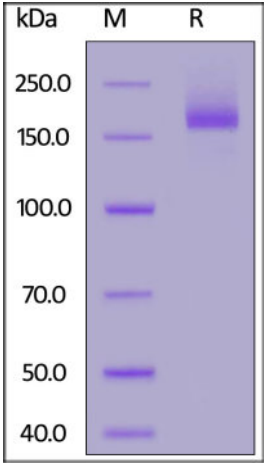
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

Shipping

This product is supplied as sterile liquid solution and shipped frozen with dry ice, please inquire the shipping cost.

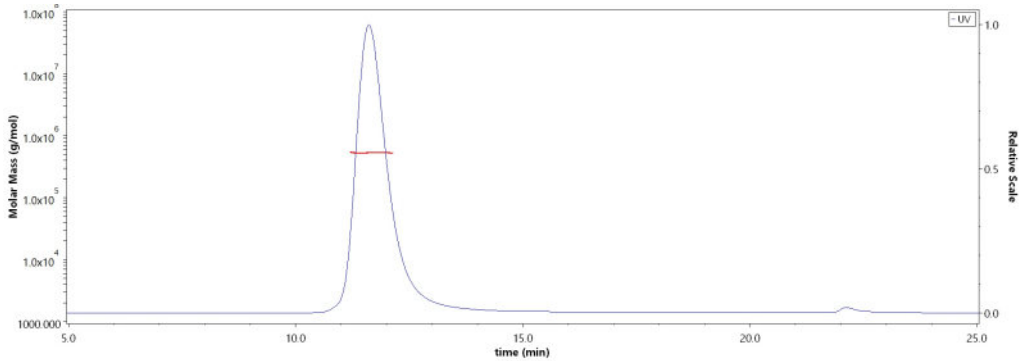
SDS-PAGE



SARS-CoV-2 S protein, His Tag, Super stable trimer on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

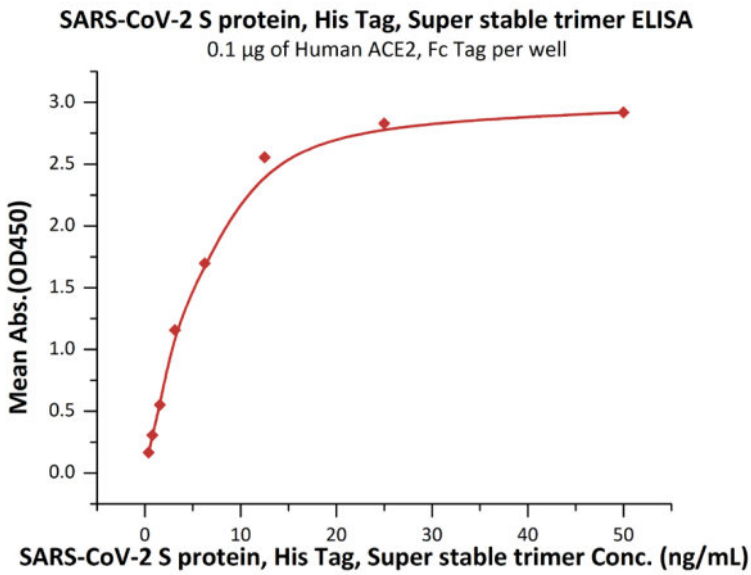
Bioactivity-ELISA

SEC-MALS

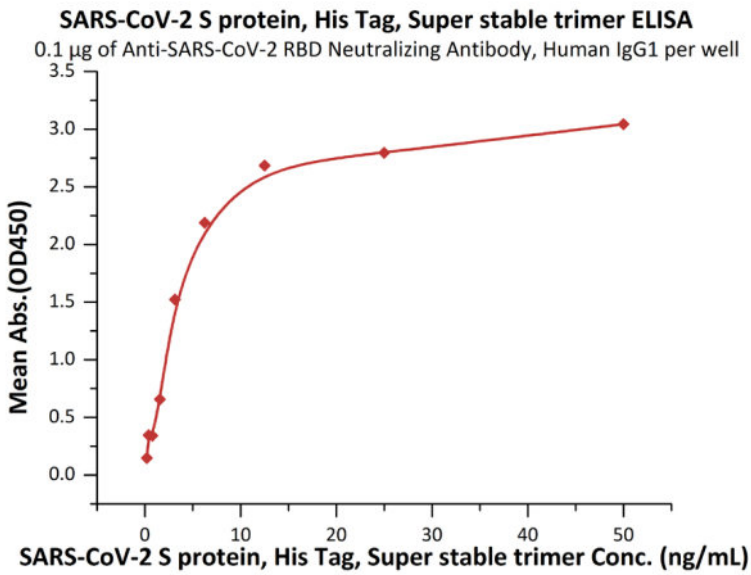


The purity of SARS-CoV-2 S protein, His Tag, Super stable trimer (Cat. No. SPN-C52H7) was more than 90% and the molecular weight of this protein is around 480-550 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human ACE2, Fc Tag (Cat. No. [AC2-H5257](#)) at 1 µg/mL (100 µL/well) can bind SARS-CoV-2 S protein, His Tag, Super stable trimer (Cat. No. [SPN-C52H7](#)) with a linear range of 0.2-6 ng/mL (QC tested).



Immobilized Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 (Cat. No. [SAD-S35](#)) at 1 µg/mL (100 µL/well) can bind SARS-CoV-2 S protein, His Tag, Super stable trimer (Cat. No. [SPN-C52](#)) with a linear range of 0.2-3 ng/mL (Routinely tested).

Background

It's been reported that Coronavirus 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.

References

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