HCoV-HKU1 (isolate N5) Spike Trimer Protein, His Tag (MALS verified)

Catalog # SPN-H52H5



Synonym

Spike,S protein,Spike glycoprotein,S glycoprotein

Source

HCoV-HKU1 (isolate N5) Spike Trimer, His Tag (SPN-H52H5) is the ectodomain of HCoV-HKU1 (isolate N5) spike protein which contains AA Ala 13 - Asn 1276 (Accession # Q0ZME7-1). The recombinant protein is expressed from human 293 cells (HEK293) with T4 fibritin trimerization motif and a polyhistidine tag at the C-terminus. The S1/S2 furin-recognition site 752-RRKRR-756 is mutated to GGSGS to generate the uncleaved protein. Proline substitutions (N1067P, L1068P) are introduced to stabilize the trimeric prefusion state of the spike protein.

Predicted N-terminus: Ala 13

Molecular Characterization

Spike protein(Ala 13 - Asn 1276) Q0ZME7-1

Poly-his

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

The protein has a calculated MW of 145.5 kDa. The protein migrates as 180-210 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> 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.

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

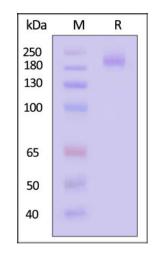
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

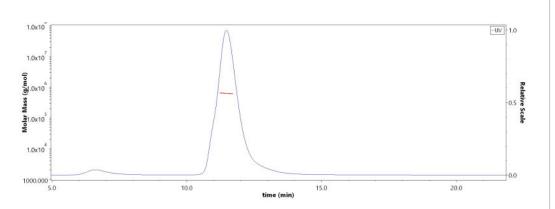
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



HCoV-HKU1 (isolate N5) Spike Trimer, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

SEC-MALS



The purity of HCoV-HKU1 (isolate N5) Spike Trimer, His Tag (Cat. No. SPN-H52H5) is more than 85% and the molecular weight of this protein is around 600-660 kDa verified by SEC-MALS.

Report

Background



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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.

Clinical and Translational Updates

