FITC-Labeled SARS-CoV-2 Spike NTD Protein, His Tag

Catalog # SPD-CF2H3

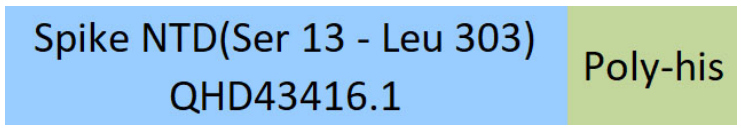
Synonym

S1 protein NTD,Spike protein S1 NTD,BetaCoV S1-NTD

Source

FITC-Labeled SARS-CoV-2 Spike NTD, His Tag(SPD-CF2H3) is expressed from human 293 cells (HEK293). It contains AA Ser 13 - Leu 303 (Accession # QHD43416.1).
Predicted N-terminus: Ser 13

Molecular Characterization



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

The protein has a calculated MW of 34.9 kDa. The protein migrates as 53-63 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is *2-4*.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 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

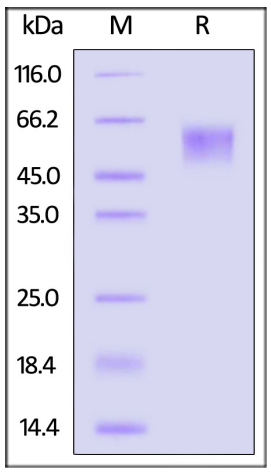
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and 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.

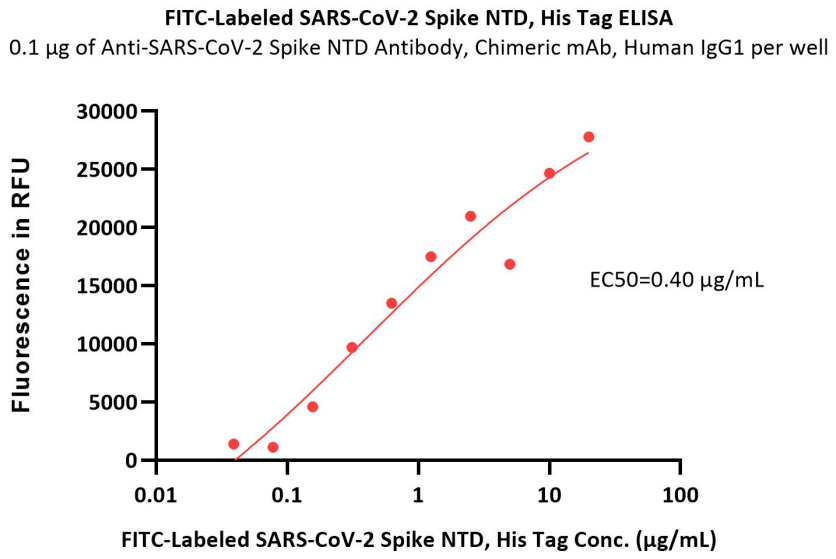
SDS-PAGE



FITC-Labeled SARS-CoV-2 Spike NTD, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity

of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Anti-SARS-CoV-2 Spike NTD Antibody, Chimeric mAb, Human IgG1 (Cat. No. SPD-M121) at 1 μg/mL (100 μL/well) can bind FITC-Labeled SARS-CoV-2 Spike NTD, His Tag (Cat. No. SPD-CF2H3) with a linear range of 0.039-2.5 μg/mL (QC 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.