



## Synonym

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

## Source

SARS-CoV-2 S1 protein NTD, His Tag(S1D-C52H6) is expressed from human 293 cells (HEK293). It contains AA Ser 13 - Leu 303 (Accession # [QHD43416.1](#)).

Predicted N-terminus: Ser 13

## Molecular Characterization

S1 protein NTD(Ser 13 - Leu 303)  
QHD43416.1 Poly-his

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

The protein has a calculated MW of 34.9 kDa. The protein migrates as 45-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.3 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

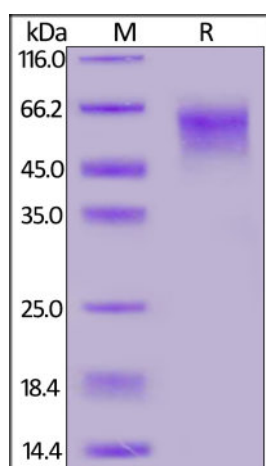
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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

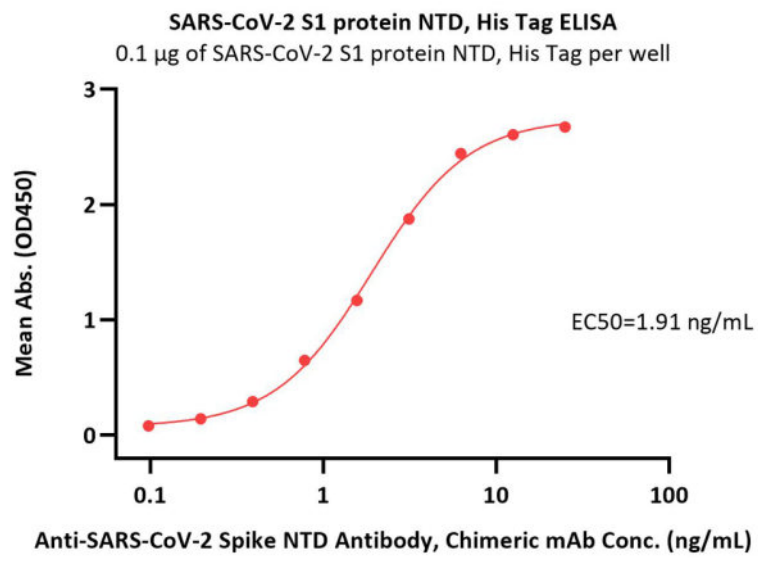


SARS-CoV-2 S1 protein NTD, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

## Bioactivity-ELISA

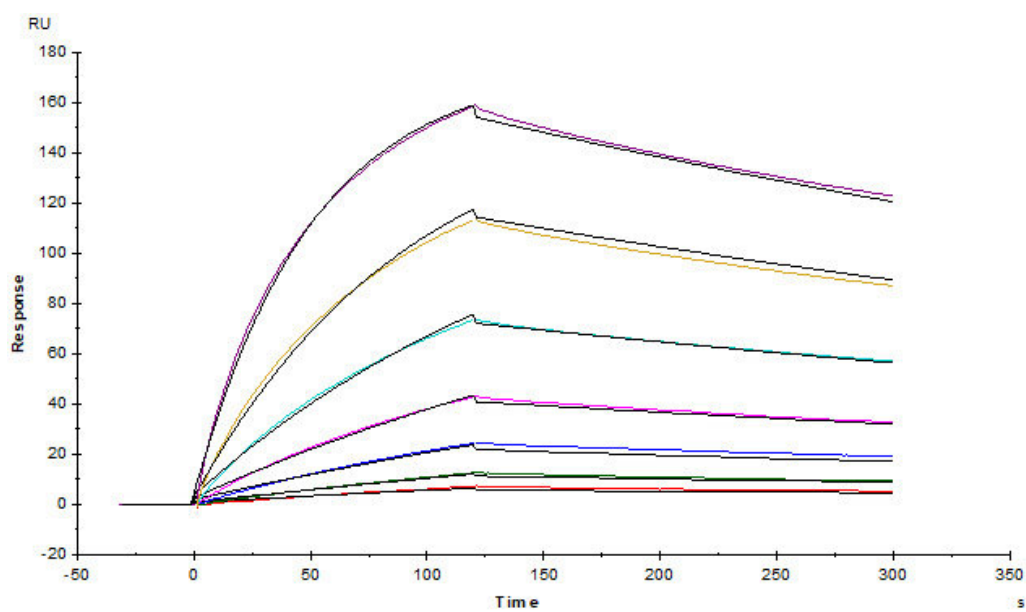
Discounts, Gifts,  
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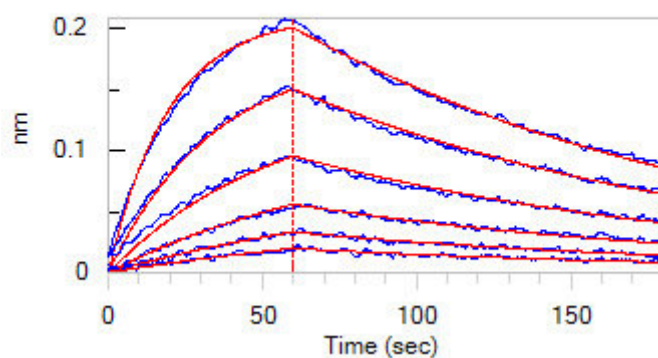
Immobilized SARS-CoV-2 S1 protein NTD, His Tag (Cat. No. S1D-C52H6) at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 S1 protein Antibody, human IgG1 with a linear range of 0.1-3 ng/mL (QC tested).

**Bioactivity-SPR**



Anti-SARS-CoV-2 S1 protein Antibody captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind SARS-CoV-2 S1 protein NTD, His Tag (Cat. No. S1D-C52H6) with an affinity constant of 74.6 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

**Bioactivity-BLI**



Loaded Anti-SARS-CoV-2 Spike NTD Antibody, Chimeric mAb (Cat. No. SPD-M121) on AHC Biosensor, can bind SARS-CoV-2 S1 protein NTD, His

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# SARS-CoV-2 (COVID-19) S1 protein NTD, His Tag

Catalog # S1D-C52H6



BIOSYSTEMS  
**Acro**

Tag (Cat. No. S1D-C52H6) with an affinity constant of 39.8 nM as determined in BLI assay (ForteBio Octet Red96e) (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.

## Clinical and Translational Updates

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