

## Recombinant COVID-19 S1 NTD(A222V) protein, His-tagged

**Cat. No.** Spike-383V    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant COVID-19 S1 NTD(A222V) protein(YP_009724390.1)(Ser 13 - Leu 303), fused to His tag at the C-terminus, was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Sars-CoV-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>    | Ser 13 - Leu 303                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | 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. |
| <b>Form</b>             | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Molecular Mass</b>   | The protein has a calculated MW of 34.9 kDa. The protein migrates as 45-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Endotoxin</b>        | Less than 1.0 EU per µg by the LAL method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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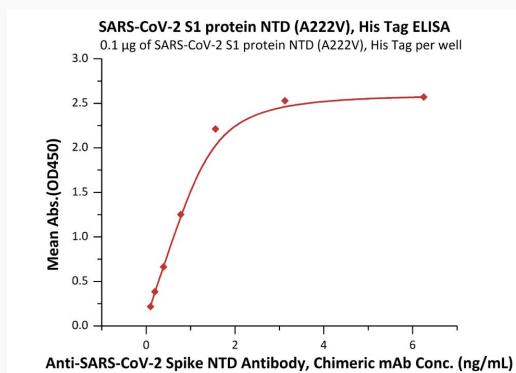
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|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | >90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                        |
| <b>Storage</b>          | <p>For long term storage, the product should be stored at lyophilized state at -20°C or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20°C to -70°C for 12 months in lyophilized state;</p> <p>-70°C for 3 months under sterile conditions after reconstitution.</p> |
| <b>Reconstitution</b>   | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.25 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                                                                                         |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                        |
| <b>Gene Name</b>        | S surface glycoprotein [ Severe acute respiratory syndrome coronavirus 2 ]                                                                                                                                                                                                                                                             |
| <b>Official Symbol</b>  | S                                                                                                                                                                                                                                                                                                                                      |
| <b>Synonyms</b>         | S1 protein NTD; Spike protein S1 NTD; BetaCoV S1-NTD; COVID-19                                                                                                                                                                                                                                                                         |
| <b>Gene ID</b>          | 43740568                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Refseq</b>   | YP_009724390.1                                                                                                                                                                                                                                                                                                                         |
| <b>UniProt ID</b>       | P0DTC2                                                                                                                                                                                                                                                                                                                                 |

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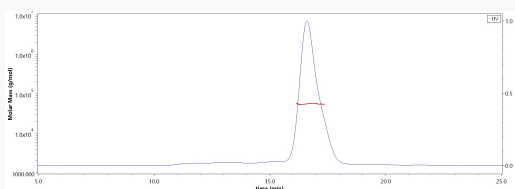
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## Bioactivity-ELISA



Immobilized SARS-CoV-2 S1 protein NTD (A222V), His Tag at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Spike NTD Antibody, Chimeric mAb with a linear range of 0.1-2 ng/mL.

## SEC-MALS

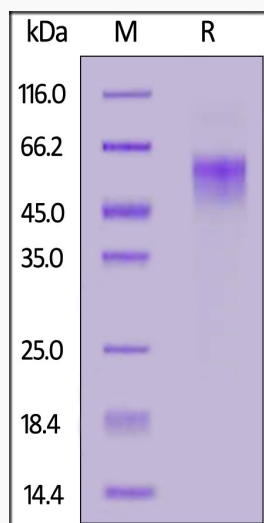


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# SDS-PAGE



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