

## Technical Data Sheet

### Biotinylated SARS-CoV-2 Spike S1 Protein (C-His-Avi)

**Catalog Number:** 603003, 603004

**Size:** 25 ug, 100 ug

**Target Name:** SARS-CoV2 Spike S1 Protein, S1 Protein

**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI

**Format:** Liquid, Biotinylated

**Expression Host:** CHO

**Species:** SARS-CoV-2

**Accession Number:** QHD43416.1

**Sources:** Recombinant SARS-CoV-2 S protein S1 domain (Val16-Arg685) with C-terminus His-Avi tag was expressed in CHO Cells. This protein was site-specifically labeled with Biotin by BirA ligase.

**Molecular Weight:** This protein has a predicted molecular weight of 78.4 kDa. Under DTT-reducing conditions, the protein migrates at approximately 90-120 kDa on SDS-PAGE.

**Affinity Tag:** C-His-Avi

**Purity:** >95% based on SDS-PAGE under reducing condition

**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered

**Endotoxin level:** Not tested

**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

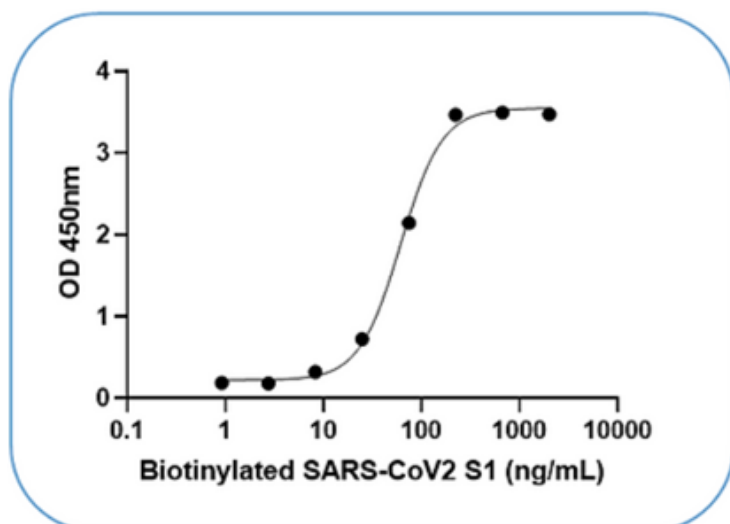
#### Background Information

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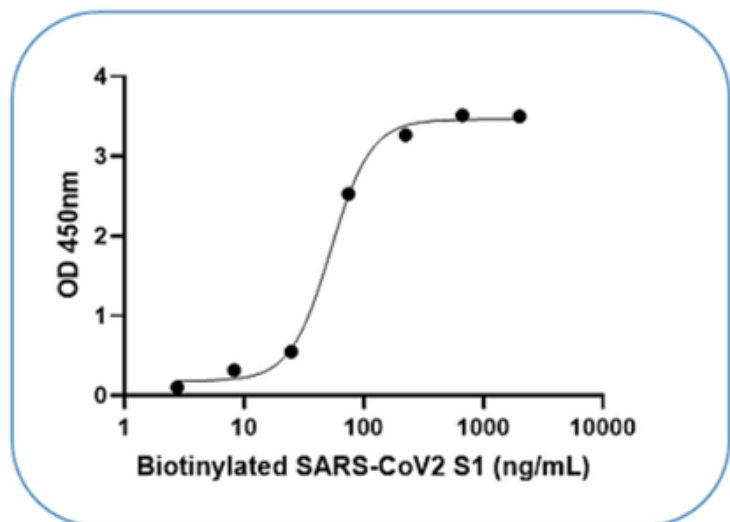
The S1 domain of the SARS-CoV-2 spike (S) protein is the N-terminal portion responsible for host cell recognition. It is one of two major subunits of the spike protein—the other being the S2 domain, which mediates membrane fusion. The S1 domain contains two key regions N-terminal domain (NTD) and Receptor-binding domain (RBD). Due to its central role in viral attachment and its immunogenicity, the S1 domain is a key target for neutralizing antibodies, vaccines, and diagnostic assays.

#### Product Data

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Anti-Spike RBD (clone 8A5 from Novoproteins) is coated at 2  $\mu$ g/mL (200 ng/well). Biotinylated SARS-CoV2 Spike S1 protein can bind this antibody in the dose dependent manner.



Human ACE2 (C-Fc, catalog # 600101) is coated at 2  $\mu$ g/mL (200 ng/well). Biotinylated SARS-CoV2 Spike S1 protein can bind human ACE2 in the dose dependent manner.