

## Technical Data Sheet

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

**Catalog Number:** 602403, 602404

**Size:** 25 ug, 100 ug

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

**Regulatory Status:** RUO

#### Product Details

---

**Application:** ELISA, BLI

**Format:** Liquid, Biotinylated

**Expression Host:** HEK293

**Species:** SARS-CoV-2

**Accession Number:** QHD43416.1

**Sources:** Recombinant SARS-CoV-2 S protein RBD (Arg319-Phe541) with C-terminus His-Avi tag was expressed in 293 Cells. This protein was site-specifically labeled with Biotin by BirA ligase.

**Molecular Weight:** This protein has a predicted molecular weight of 28.6 kDa. Under DTT-reducing conditions, the protein migrates at approximately 30-35 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.

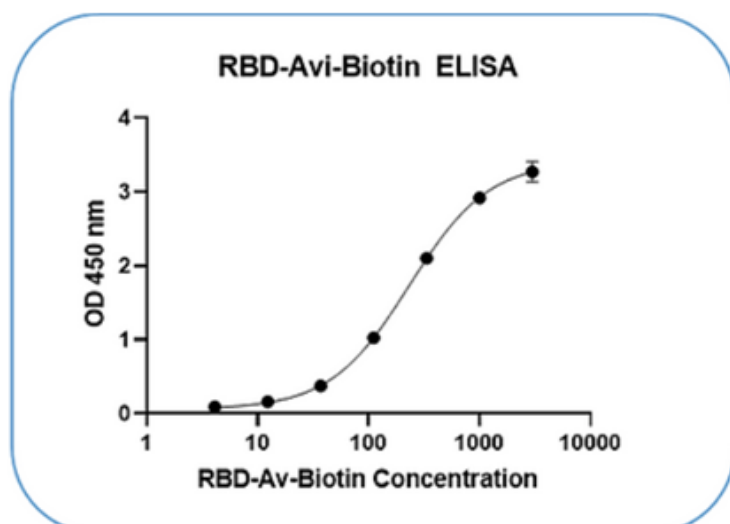
#### Background Information

---

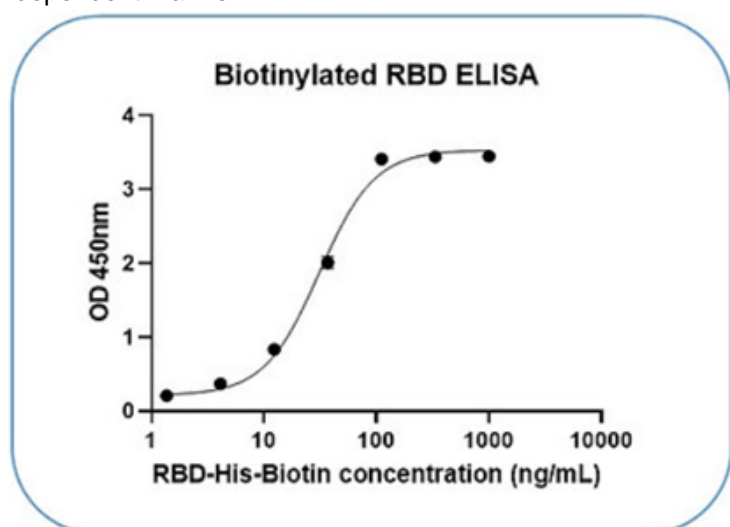
The receptor-binding domain (RBD) of SARS-CoV-2 is a critical region of the spike (S) protein that directly interacts with the human ACE2 receptor to facilitate viral entry into host cells. It is located within the S1 subunit of the spike protein and adopts a compact, globular structure stabilized by disulfide bonds. Due to its essential role in viral entry, the RBD is a primary target for neutralizing antibodies, vaccines, and therapeutic interventions. Mutations in the RBD—seen in various SARS-CoV-2 variants—can increase binding affinity to ACE2 or help evade immune responses.

#### Product Data

---



Anti-SARS-CoV2 spike antibody (clone 5D9 from Novoproteins ) is coated at 2  $\mu$ g/mL (200 ng/well). Biotinylated SARS-CoV-2 Spike RBD Protein (C-His-Avi) can bind this antibody in the dose dependent manner.



Recombinant Human ACE2-His Tag protein (catalog # 600001) is coated at 2 $\mu$ g/mL (200ng/well). Biotinylated SARS-CoV-2 Spike RBD Protein (C-His-Avi) can bind human ACE2 in the dose-dependent manner (Quality tested).