

Technical Data Sheet

SARS-CoV-2 Spike RBD Protein (C-His)

Catalog Number: 602301, 602302

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, Purified

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 tag was expressed in 293 Cells.

Molecular Weight: This protein has a predicted molecular weight of 26.6 kDa. Under DTT-reducing conditions, the protein migrates at approximately 30-35 kDa on SDS-PAGE.

Affinity Tag: C-His

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

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

Endotoxin level: Not tested

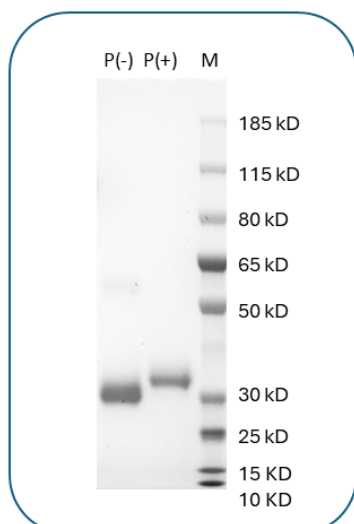
Protein Concentration: 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

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.

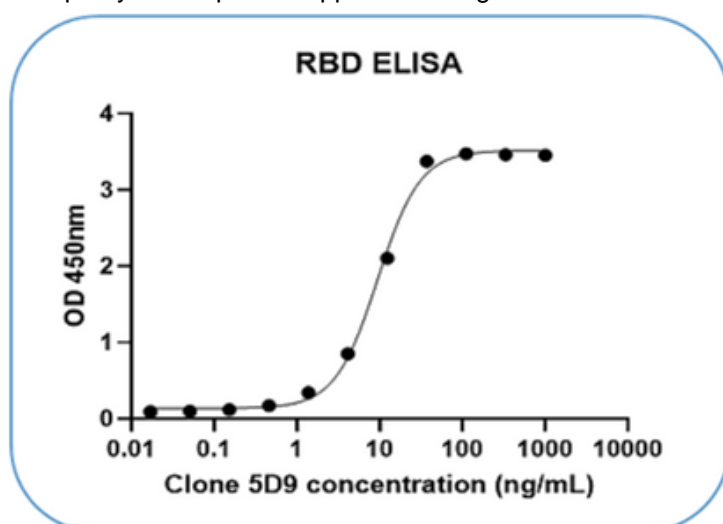
Background Information

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.

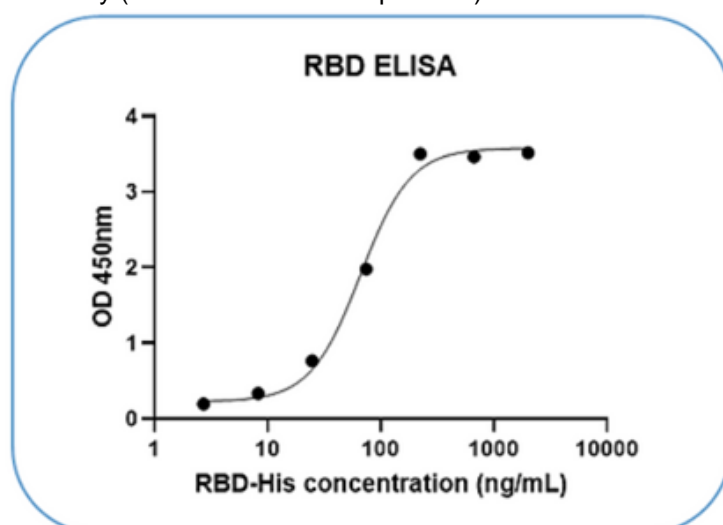
Product Data



SARS-CoV2 RBD Protein with C-His tag on SDS-PAGE under non-reducing and reducing conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 95%.



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



Recombinant Human ACE2-Fc Tag protein (catalog # 600101) is coated at 2ug/mL (200ng/well). SARS-CoV-2 Spike RBD Protein (C-His) can bind human ACE2 in the dose-dependent manner (Quality tested). The EC₅₀ of this effect is around 50-150 ng/mL.