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SARS-CoV-2 Spike RBD (N501Y) Protein (C-His-Avi)

Catalog Number:	602801, 602802
Size:	25 ug, 100 ug
Target Name:	SARS-CoV2 RBD, Spike RBD Protein, RBD Protein
Regulatory Status:	RUO

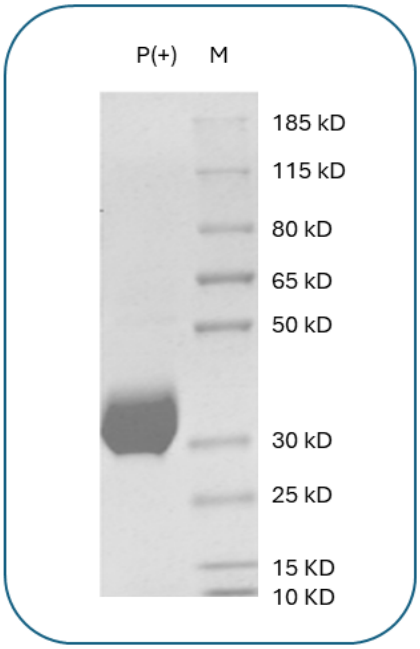
PRODUCT DETAILS

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, N501Y) with C-terminus His-Avi tag was expressed in 293 Cells.
Molecular Weight:	This protein has a predicted molecular weight of 29 kDa. Under DTT-reducing conditions, the protein migrates at approximately 30-40 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. The N501Y mutation enhances the virus's ability to bind to the ACE2 receptor, likely contributing to increased transmissibility.

PRODUCT DATA



SARS-CoV2 RBD (N501Y) Protein with C-His-Avi tag on SDS-PAGE under 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%.

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