www.innocyto.com

InnoCyto Inc.

15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618
Email: info@innocyto.com
Phone: 1-949-418-7543

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

Catalog Number:	602803, 602804
Size:	25 ug, 100 ug
Target Name:	SARS-CoV2 RBD, Spike RBD Protein, RBD Protein
Regulatory Status:	RUO

PRODUCT DETAILS

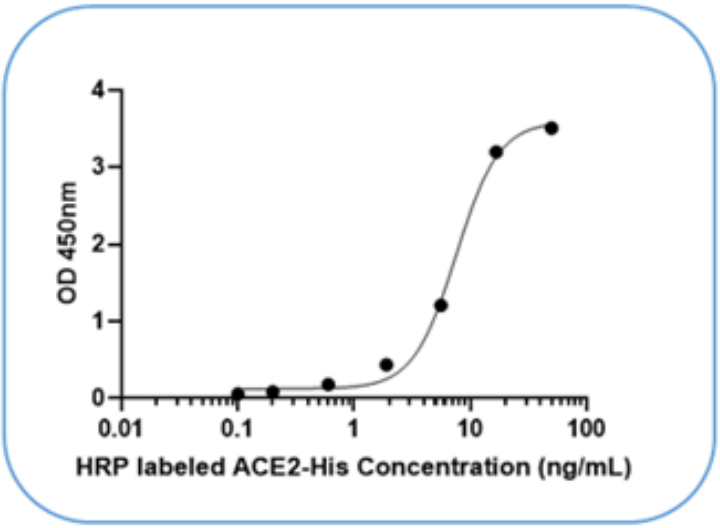
Application:	ELISA, BLI
Format:	Liquid, Biotinylated
Expression Host:	HEK293
Species:	SARS-CoV-2
Accession Number:	QHD43416.1
Sources:	Recombinant SARS-CoV-2 S protein RBD (Arg319-Phe541, N501Y) with C-terminus His-Avi tag was expressed in 293 Cells. This protein was site-specifically labeled with Biotin by BirA ligase.
Molecular Weight:	This protein has a predicted molecular weight of 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.
Recommended Usage:	For detection, use a secondary reagent with this product.

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



Biotinylated SARS-CoV2 spike RBD (N501Y, C-His-Avi) is coated at 2 µg/mL (200 ng/well). HRP labeled human ACE2-His (catalog# 600005) can bind this RBD protein in the dose dependent manner. ED50 is around 5-20 ng/mL.

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