SARS-COV-2 (ALPHA) S PROTEIN RBD , HFC TAG

Cat.#: 11343

Product Name: SARS-CoV-2 (Alpha) S Protein RBD

Size : 10 µg, 50 µg and 100 µg

Synonyms: SARS-CoV-2 B.1.1.7 (Alpha) Spike RBD Protein

Target: S protein RBD

UNIPROT ID: P0DTC2

Description: Recombinant SARS-CoV-2 S protein RBD(N501Y) protein with C-terminal human Fc tag

Background: SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2) also known as Covid19 (2019 Novel Coronavirus) is a virus that causes illnesses ranging from the common cold to severe diseases. The spike protein is a type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which accounts for recognizing the cell surface receptor, ACE2. S2 contains basic elements needed for the membrane fusion. Recent publications indicate that S1-RBD domain can induce virus neutralizing-antibody and T cell response.

Species/Host: HEK293

Molecular Weight: The protein has a predicted molecular mass of 51.3 kDa after removal of the signal peptide.The apparent molecular mass of RBD(N501Y)-hFc is approximately 55-70 kDa due to glycosylation.

Molecular Characterization: S protein RBD(N501Y)(Arg319-Phe541) hFc(Glu99-Ala330)

Purity: The purity of the protein is greater than 90% as determined by SDS-PAGE and Coomassie blue staining.

Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

Storage & Shipping: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC APPLICATIONS

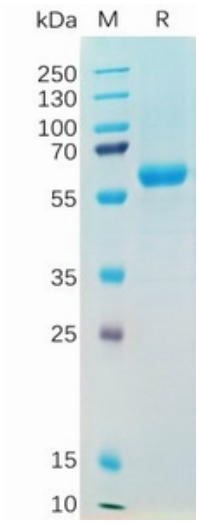

Figure 1. SARS-CoV-2 (2019-nCoV) S protein RBD(N501Y), hFc Tag on SDS-PAGE under reducing condition.

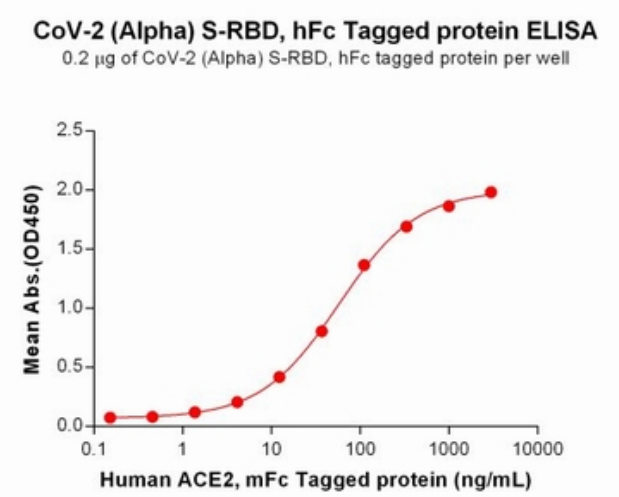

Figure 2. ELISA plate pre-coated by 2 μg/ml (100 μl/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag (11343) can bind Human ACE2 Protein, mFc Tag 11195 in a linear range of 4.115-1000 ng/mL.

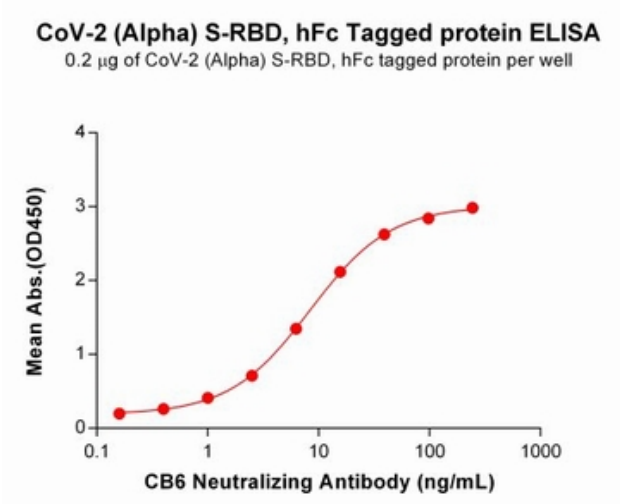

Figure 3. ELISA plate pre-coated by 2 μg/ml (100 μl/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag (11343) can bind Anti-SARS-CoV-2 (CB6 biosimilar) mAb 28020 in a linear range of 1.00-97.66 ng/mL.

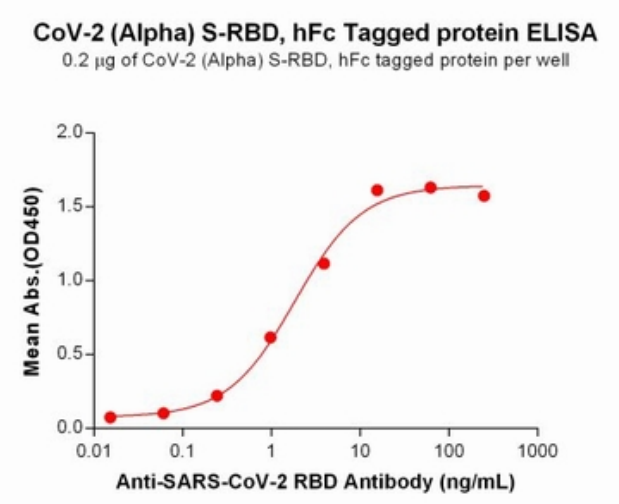

Figure 4. ELISA plate pre-coated by 2 μg/ml (100 μl/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag (11343) can bind Anti-SARS-CoV-2 RBD antibody (DM55), Rabbit mAb 28354 in a linear range of 0.244-15.625 ng/mL.

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