SARS-COV-2 (2019-NCOV) S PROTEIN RBD, MFC-HIS TAG

Cat.#: 11272
Product Name: SARS-CoV-2 (2019-NCoV) S Protein RBD
Size : 10 µg, 50 µg and 100 µg
Synonyms: S protein RBD;Spike glycoprotein Receptor-binding domain;S glycoprotein RBD;Spike protein RBD;COVID-19
Target: S protein RBD
UNIPROT ID: P0DTC2
Description: Recombinant SARS-CoV-2 (2019-nCoV) S protein RBD with C-terminal mouse Fc and 6xHis 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 52.2 kDa after removal of the signal peptide.
Molecular Characterization: S protein RBD(Arg319-Phe541) mFc(Pro99-Lys330) 6×His tag
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.

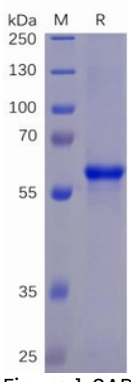

Figure 1. SARS-CoV-2 (2019-nCoV) S protein RBD, mFc-His Tag on SDS-PAGE under reducing condition.

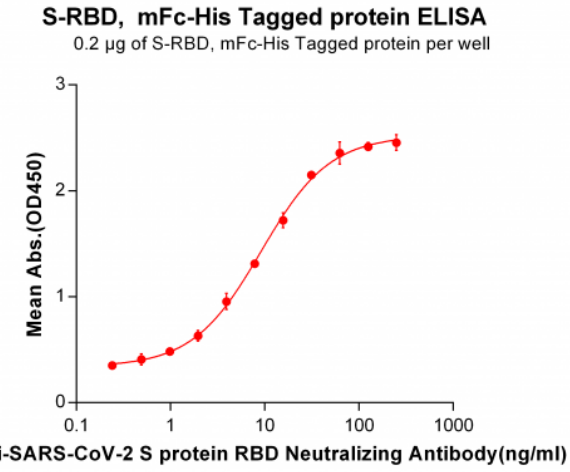

Figure 2. ELISA plate pre-coated by 2 μg/ml (100 μl/well) SARS-CoV-2 (2019-nCoV) S protein RBD, mFc-His tagged protein (11272) can bind Anti-SARS-CoV-2 S protein RBD Neutralizing Antibody (A neutralizing monoclonal antibody clone currently under clinical investigation from collaboration company) in a linear range of 0.24-9.141 ng/ml.

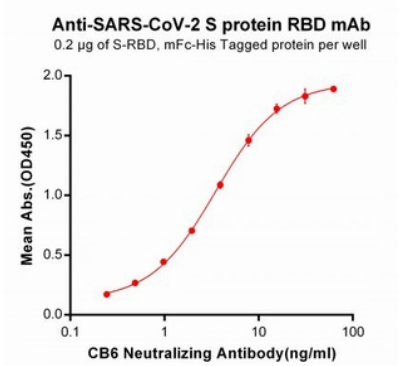

Figure 3. ELISA plate pre-coated by 2 μg/ml (100 μl/well) S-RBD, mFc-His tagged protein (11272) can bind Anti-SARS-CoV-2 Neutralizing antibody CB6 28020 in a linear range of 0.24-15.62 ng/ml.

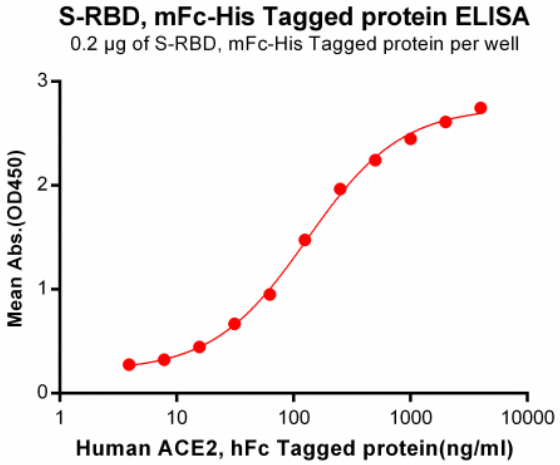

Figure 4. ELISA plate pre-coated by 2 μg/ml (100 μl/well) S-RBD, mFc-His tagged protein (11272) can bind Human ACE2, hFc Tagged protein 11196 in a linear range of 0.488-49.83 ng/ml.