

32-18253: SARS-CoV-2 (Alpha) S protein RBD , hFc Tag

Uniprot ID : P0DTC2

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

Description

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.

Molecular Characterization: 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.

Tag : C-Human Fc Tag

Product Info

Amount : 50 µg / 100 µg

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

Content : Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization.

Storage condition : 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.

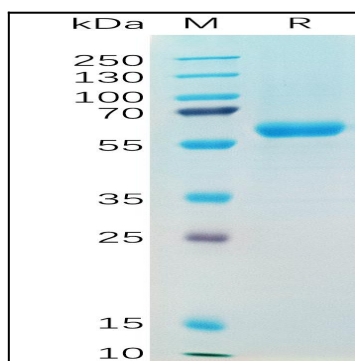


Figure 1. SARS-CoV-2 (2019-nCoV) S protein RBD(N501Y), hFc Tag on SDS-PAGE under reducing condition.

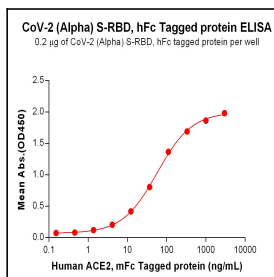


Figure 2. ELISA plate pre-coated by 2 µg/mL (100 µL/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag can bind Human ACE2 Protein, mFc Tag in a linear range of 4.115-1000 ng/mL.

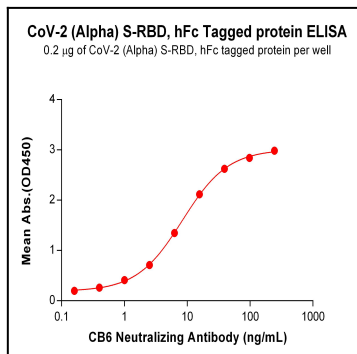


Figure 3. ELISA plate pre-coated by 2 1/4g/mL (100 1/4L/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag can bind Anti-SARS-CoV-2 (CB6 biosimilar) mAb in a linear range of 1.00-97.66 ng/mL.

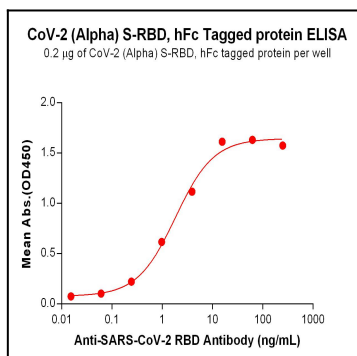


Figure 4. ELISA plate pre-coated by 2 1/4g/mL (100 1/4L/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag can bind Anti-SARS-CoV-2 RBD antibody (DM55), Rabbit mAb in a linear range of 0.244-15.625 ng/mL.