

**SARS-COV-2 (2019-NCOV) S PROTEIN RBD, HFC TAG**

**Cat.#:** 11295

**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 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 51.2 kDa after removal of the signal peptide.

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

**Purity:** The purity of the protein is greater than 95% 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.

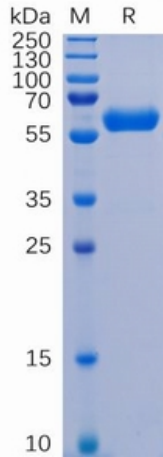


Figure 1. SARS-CoV-2 (2019-nCoV) S protein RBD, hFc Tag on SDS-PAGE under reducing condition.

## S-RBD, hFc Tagged protein ELISA

0.2 µg of S-RBD, hFc Tagged protein per well

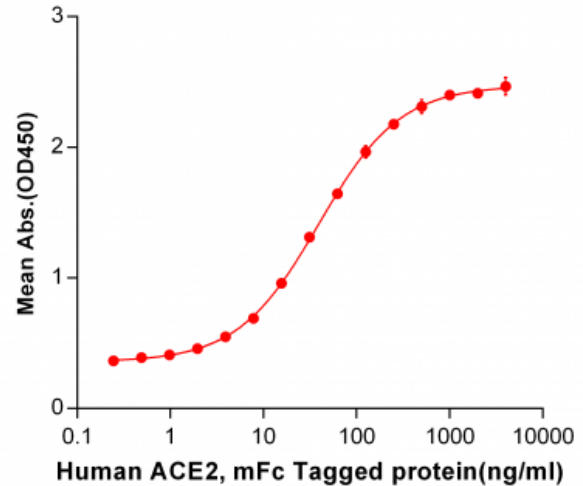


Figure 2. ELISA plate pre-coated by 2 µg/ml (100 µl/well) S-RBD, hFc tagged protein (11295) can bind Human ACE2, mFc Tagged protein 11195 in a linear range of 0.976-39.35 ng/ml.

## Human RBD, hFc Tagged protein ELISA

0.2 µg of ACE2, His Tagged protein per well

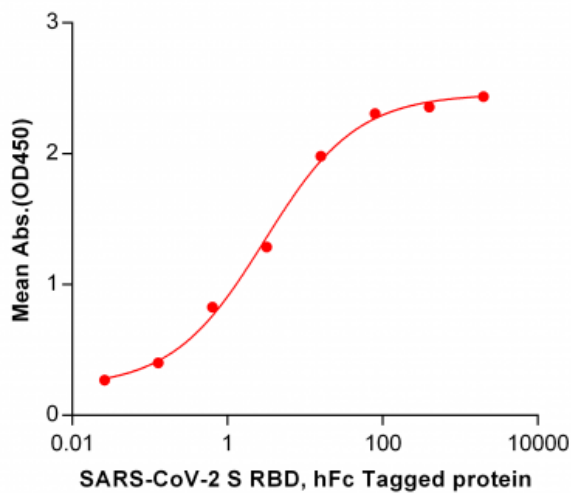


Figure 3. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human ACE2, His Tagged protein 11296 can bind S-RBD, hFc tagged protein (11295) in a linear range of 0.128-80.0 ng/ml.