

PRODUCT INFORMATION

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| Target | S protein RBD |
| Synonyms | SARS-CoV-2 B.1.351 (Beta) Spike RBD Protein |
| Description | Recombinant SARS-CoV-2 S protein RBD(K417N, E484K,N501Y) protein with C-terminal human Fc tag |
| Delivery | In Stock |
| Uniprot ID | P0DTC2 |
| Expression Host | HEK293 |
| Tag | C-Human Fc Tag |
| Molecular Characterization | S protein RBD(K417N, E484K,N501Y)(Arg319-Phe541) hFc(Glu99-Ala330) |
| 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(K417N, E484K,N501Y)-hFc is approximately 55-70 kDa due to glycosylation. |
| Purity | The purity of the protein is greater than 90% as determined by SDS-PAGE and Coomassie blue staining. |
| Formulation & Reconstitution | Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution. |
| 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. |
| 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. |
| Usage | Research use only |
| Conjugate | Unconjugated |



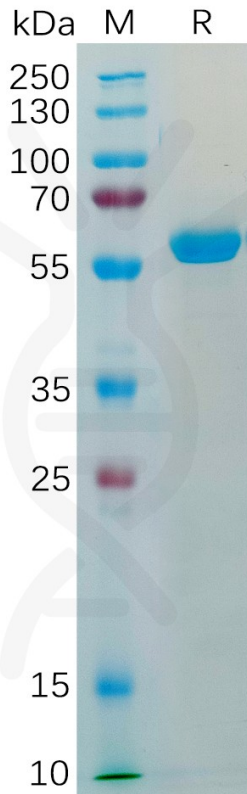


Figure 1. Human TM4SF1 Protein, hFc Tag on SDS-PAGE under reducing condition.

CoV-2 (Beta) S-RBD, hFc Tagged protein ELISA

0.2 μg of CoV-2 (Beta) S-RBD, hFc tagged protein per well

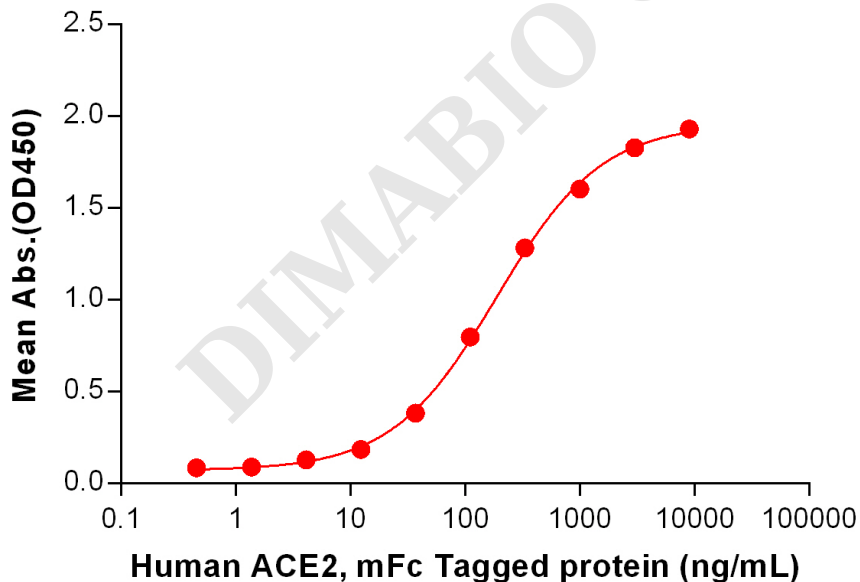


Figure 2. ELISA plate pre-coated by 2 $\mu\text{g}/\text{mL}$ (100 $\mu\text{L}/\text{well}$) SARS-CoV-2 (Beta) S protein RBD, hFc Tag (PME100539) can bind Human ACE2 Protein, mFc Tag (PME100072) in a linear range of 12.346–3000 ng/mL.



CoV-2 (Beta) S-RBD, hFc Tagged protein ELISA

0.2 μg of CoV-2 (Beta) S-RBD, hFc tagged protein per well

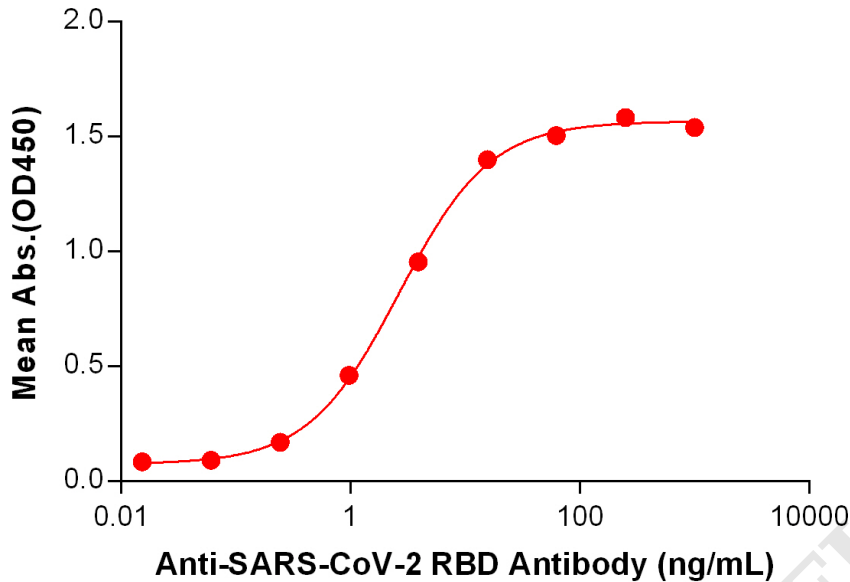


Figure 3. ELISA plate pre-coated by 2 $\mu\text{g}/\text{mL}$ (100 $\mu\text{L}/\text{well}$) SARS-CoV-2 (Beta) S protein RBD, hFc Tag (PME100539) can bind Anti-SARS-CoV-2 RBD antibody (DM55), Rabbit mAb (DME100055) in a linear range of 0.244–15.625 ng/mL.

