

## PRODUCT INFORMATION

<b>Target</b>	S protein RBD
<b>Synonyms</b>	SARS-CoV-2 B.1.351 (Beta) Spike RBD Protein
<b>Description</b>	Recombinant SARS-CoV-2 S protein RBD(K417N, E484K,N501Y) protein with C-terminal human Fc tag
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P0DTC2
<b>Expression Host</b>	HEK293
<b>Tag</b>	C-Human Fc Tag
<b>Molecular Characterization</b>	S protein RBD(K417N, E484K,N501Y)(Arg319-Phe541) hFc(Glu99-Ala330)  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.
<b>Molecular Weight</b>	
<b>Purity</b>	The purity of the protein is greater than 90% as determined by SDS-PAGE and Coomassie blue staining.
<b>Formulation &amp; Reconstitution</b>	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.
<b>Storage&amp;Shipping</b>	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.
<b>Background</b>	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.
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated



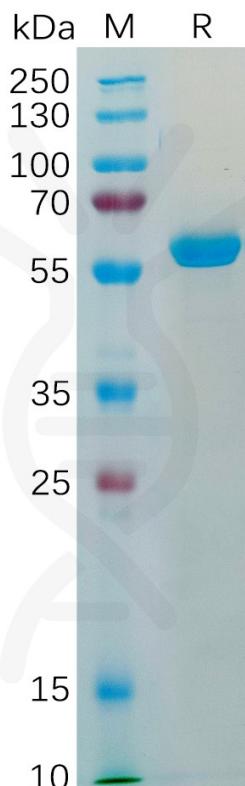


Figure 1. Human TM4SF1 Protein, hFc Tag on SDS-PAGE under reducing condition.

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

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

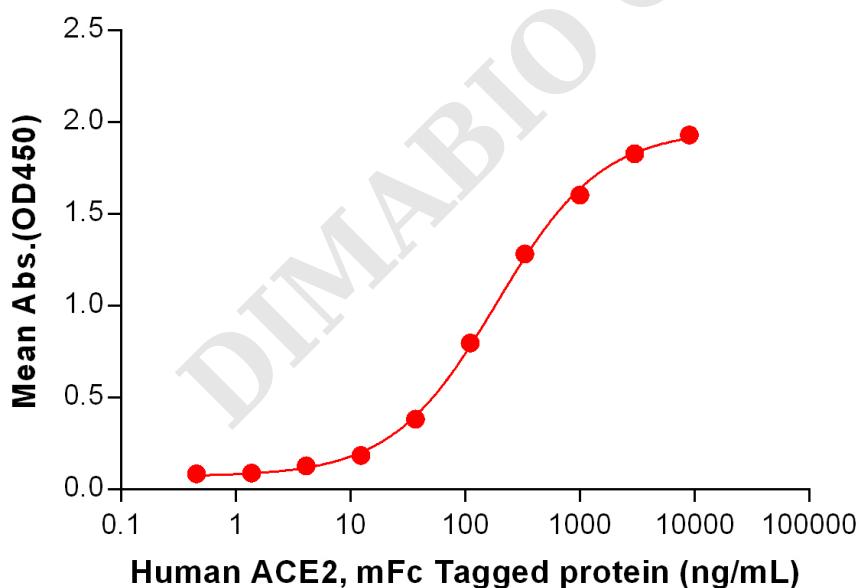


Figure 2. ELISA plate pre-coated by 2 µg/mL (100 µL/well) SARS-CoV-2 (Beta) S protein RBD, hFc Tag (PME100539) can bind Human ACE2 Protein, mFc Tag (PME100072) in a linear range of 12.346–3000 ng/mL.



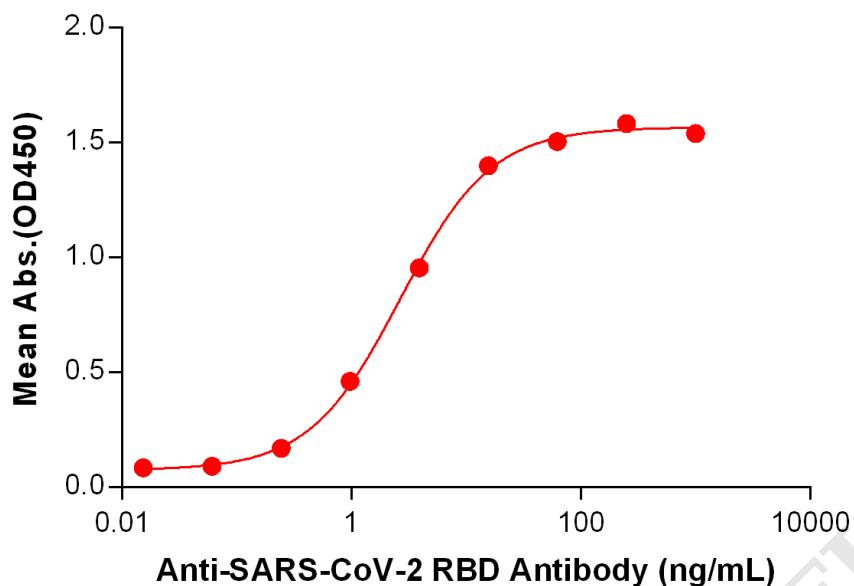
**CoV-2 (Beta) S-RBD, hFc Tagged protein ELISA**0.2  $\mu$ g of CoV-2 (Beta) S-RBD, hFc tagged protein per well

Figure 3. ELISA plate pre-coated by 2  $\mu$ g/mL (100  $\mu$ L/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.

