PRODUCT INFORMATION

Target	S protein RBD
Synonyms	SARS-CoV-2 B.1.1.7 (Alpha) Spike RBD Protein
Description	Recombinant SARS-CoV-2 S protein RBD(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(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(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

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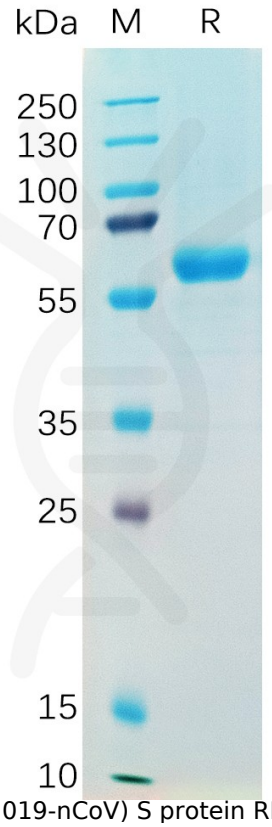

Figure 1. SARS-CoV-2 (2019-nCoV) S protein RBD(N501Y), hFc Tag on SDS-PAGE under reducing condition.

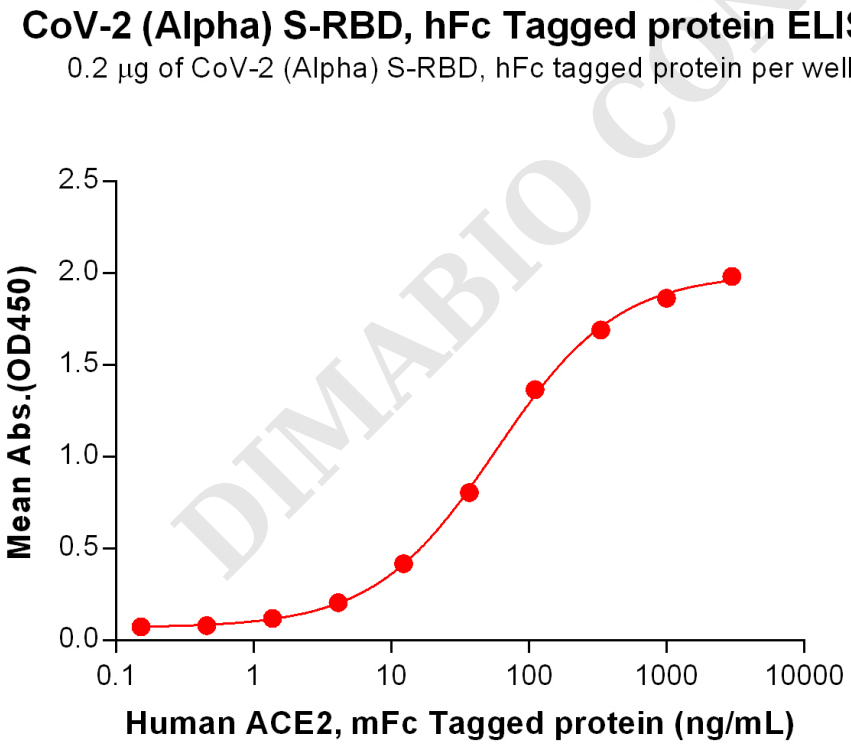

Figure 2. ELISA plate pre-coated by 2 μg/mL (100 μL/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag (PME100543) can bind Human ACE2 Protein, mFc Tag PME100072 in a linear range of 4.115–1000 ng/mL.

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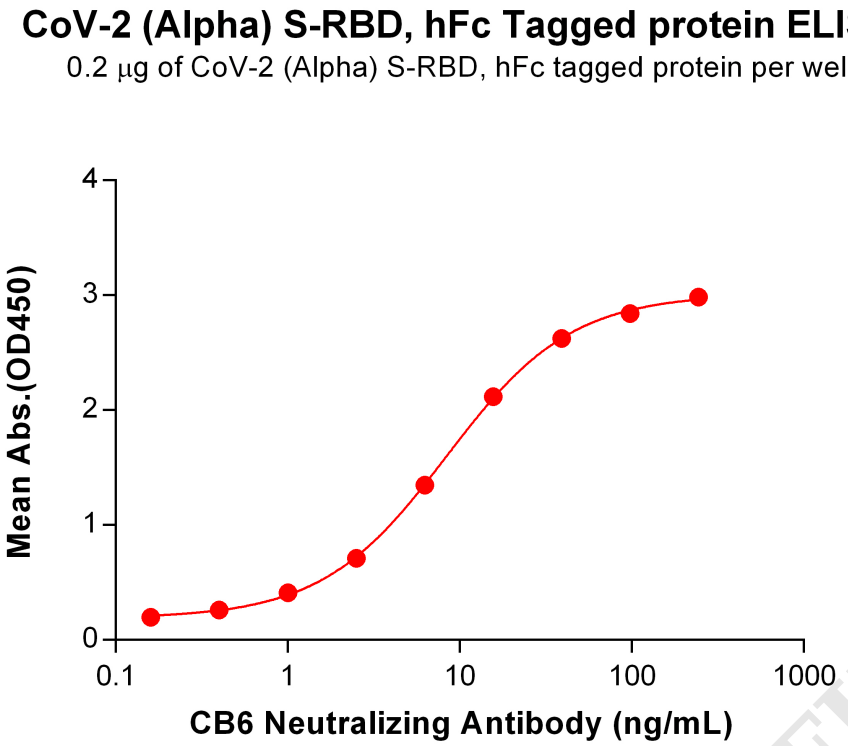

Figure 3. ELISA plate pre-coated by 2 μg/mL (100 μL/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag (PME100543) can bind Anti-SARS-CoV-2 (CB6 biosimilar) mAb BME100011 in a linear range of 1.00–97.66 ng/mL.

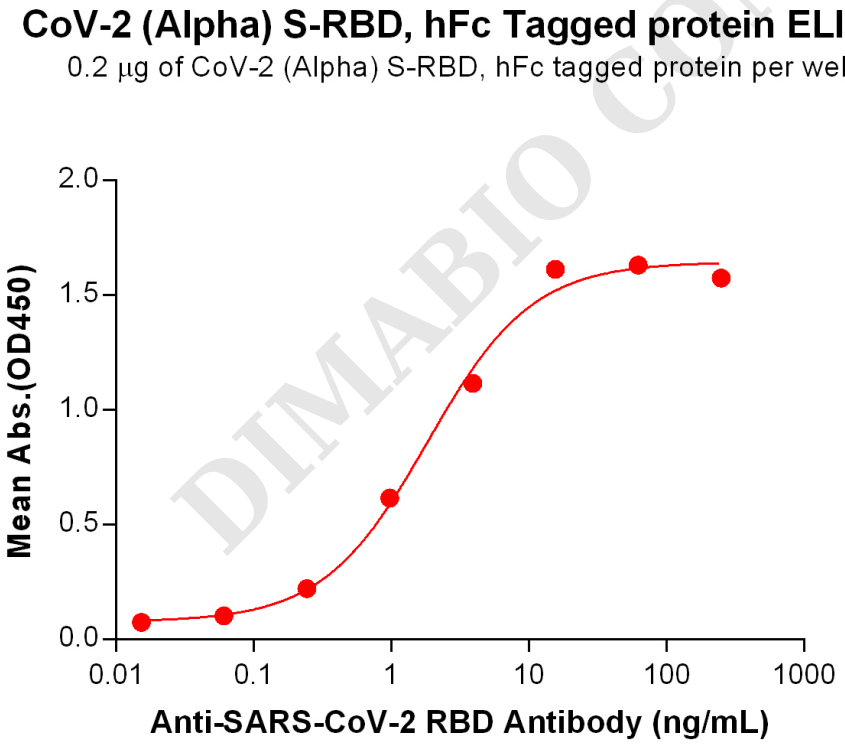

Figure 4. ELISA plate pre-coated by 2 μg/mL (100 μL/well) SARS-CoV-2 (Alpha) S protein RBD, hFc Tag (PME100543) can bind Anti-SARS-CoV-2 RBD antibody (DM55), Rabbit mAb DME100055 in a linear range of 0.244–15.625 ng/mL.

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