

**PRODUCT INFORMATION**

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| <b>Target</b>                           | S protein RBD  |
| <b>Synonyms</b>                         | S protein RBD;Spike glycoprotein Receptor-binding domain;S glycoprotein RBD;Spike protein RBD;COVID-19   |
| <b>Description</b>                      | Recombinant SARS-CoV-2 (2019-nCoV) S protein RBD with C-terminal 6×His tag   |
| <b>Delivery</b>                         | In Stock   |
| <b>Uniprot ID</b>                       | P0DTC2   |
| <b>Expression Host</b>                  | HEK293   |
| <b>Tag</b>                              | C-6×His Tag  |
| <b>Molecular Characterization</b>       | S protein RBD(Arg319-Phe541) 6×His tag   |
| <b>Molecular Weight</b>                 | The protein has a predicted molecular mass of 37-38 kDa after removal of the signal peptide.   |
| <b>Purity</b>                           | The purity of the protein is greater than 95% 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  |



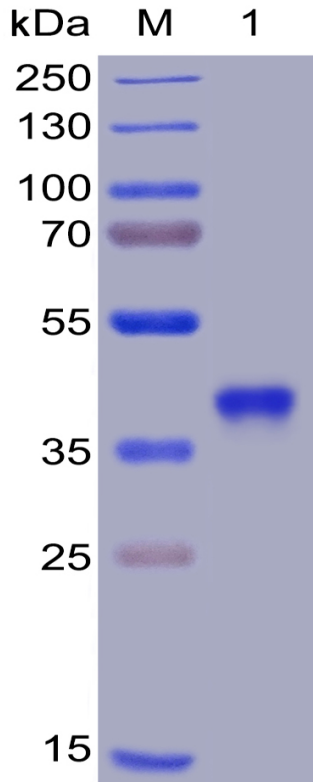


Figure 1. SARS-CoV-2 (2019-nCoV) S protein RBD, His Tag on SDS-PAGE under reducing condition.

### S-RBD, His Tagged protein ELISA

0.2  $\mu$ g S-RBD, His Tagged protein per well

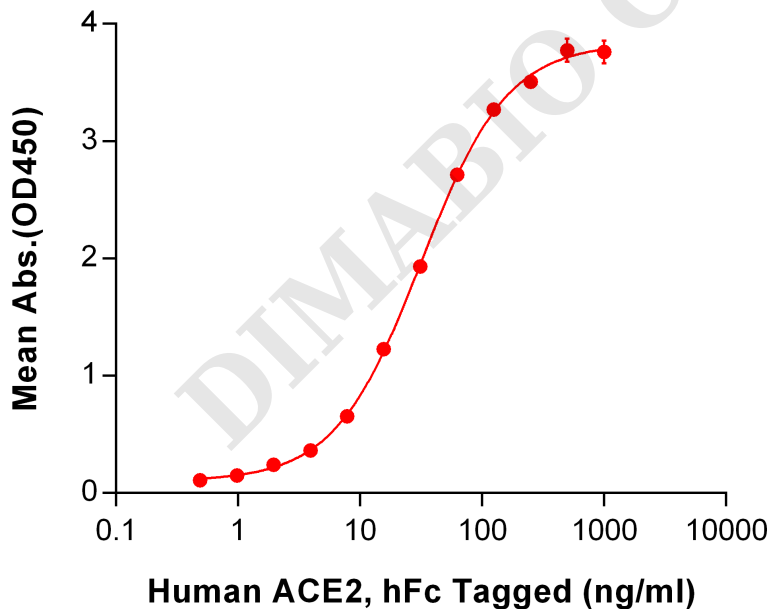


Figure 2. ELISA plate pre-coated by 2  $\mu$ g/ml (100  $\mu$ l/well) SARS-CoV-2 (2019-nCoV) S protein RBD, His tagged protein (PME100036) can bind its native ligand Human ACE2, hFc tagged protein PME100073 in a linear range of 1.96-31.72 ng/ml.

