RP01271

Leader in Biomolecular Solutions for Life Science

www.abclonal.com

# Recombinant SARS-CoV-2 Spike RBD Protein

**Catalog No.: RP01271** Recombinant

## Sequence Information

| Species | Gene ID | Swiss Prot |
|---|---|---|
| SARS-CoV-2 | 43740568 | |

**Tags**
C-mFc

**Synonyms**
Envelope;SARS-CoV-2 Spike RBD (N501Y);Spike;Spike ECD;Spike RBD;Spike S1;Spike S2;Spike S2 ECD;S1-RBD protein;NCP-CoV RBD Protein;novel coronavirus RBD Protein;2019-nCoV RBD Protein;S glycoprotein Subunit1 RBD Protein

## Product Information

| Source | Purification |
|---|---|
| HEK293 cells | > 95% by SDS-PAGE. |

**Endotoxin**
< 0.1 EU/μg of the protein by LAL method.

**Formulation**
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. or Supplied as a 0.22 μm filtered solution in PBS, pH 7.4.Contact us for customized product form or formulation.

**Reconstitution**
Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

www.abclonal.com

## Background

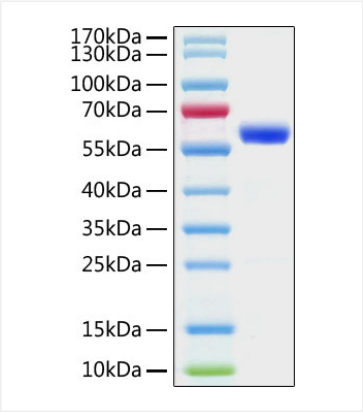
## Basic Information

**Description**
Recombinant SARS-CoV-2(2019-nCoV) Spike RBD Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Arg319-Phe541) of SARS-COV-2(2019-nCoV) Spike RBD (Accession #YP_009724390.1) fused with a mFc tag at the C-terminus.

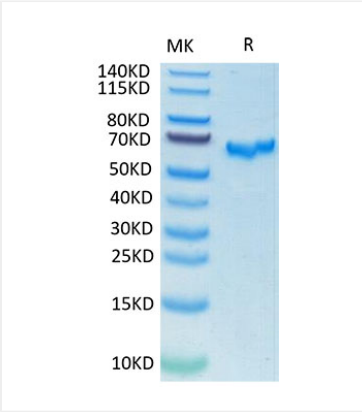
**Bio-Activity**
Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human ACE2 Protein at 2 μg/mL (100 μL/well) can bind Recombinant SARS-COV-2 Spike RBD-mFc Protein, the EC<sub>50</sub> of Recombinant SARS-COV-2 Spike RBD-mFc Protein is 2.58 ng/mL.

**Storage**
Store the lyophilized protein at -20°C to -80°C for long term.<br/>After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.<br/>or This product is stable at ≤ -70°C for up to 6 months from the date of receipt. <br/>For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.
Avoid repeated freeze/thaw cycles.

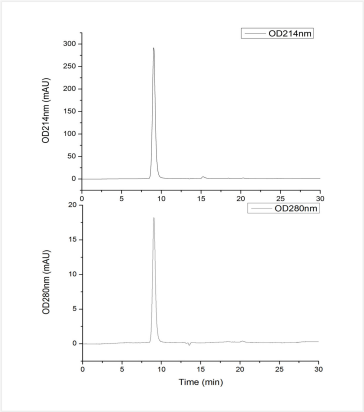
## Validation Data



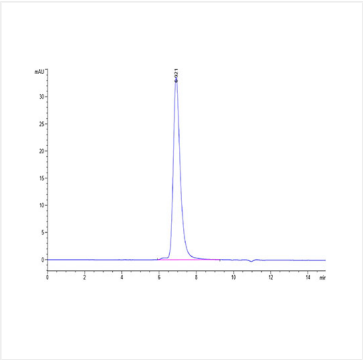

Recombinant SARS-CoV-2 Spike RBD Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 60 kDa.



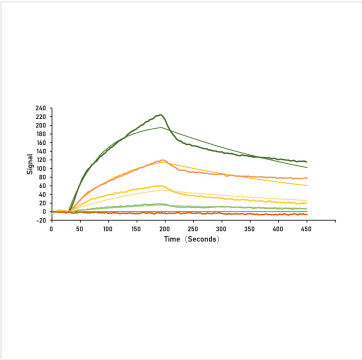

SARS-COV-2 Spike RBD on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



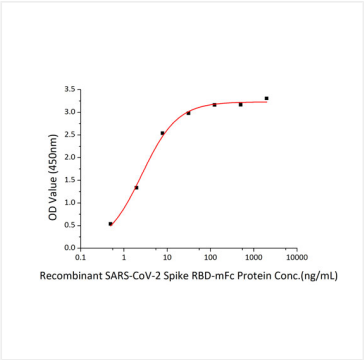

The purity of SARS-COV-2 Spike RBD Protein with mFc tag (Cat.RP01271) was greater than 95% as determined by SEC-HPLC.



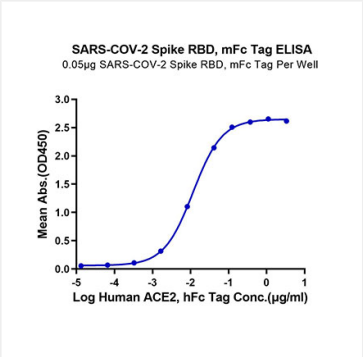
The purity of SARS-COV-2 Spike RBD is greater than 95% as determined by SEC-HPLC.




Immobilized Human ACE2 on COOH Chip, can bind SARS-COV-2 Spike S1 with an affinity constant of 6.58 nM as determined in a SPR assay (Nicoya OpenSPR).




Immobilized Recombinant Human ACE2 Protein at 2μg/mL (100 μL/well) can bind Recombinant SARS-COV-2 Spike RBD-mFc Protein the $EC_{50}$ of Recombinant SARS-COV-2 Spike RBD-mFc Protein is 2.58 ng/mL.




Immobilized SARS-COV-2 Spike RBD at 0.5μg/ml (100μl/Well). Dose response curve for Human ACE2, hFc Tag with the $EC_{50}$ of 11.6ng/ml determined by ELISA.