

RP01258

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# Recombinant SARS-CoV-2 Spike RBD Protein

Catalog No.: RP01258

Recombinant

8 Publications

## Sequence Information

**Species**    **Gene ID**    **Swiss Prot**

HEK293 cells43740568

### Tags

C-His

### 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

HEK293 cells

### Purification

>95% by SDS-PAGE;> 95% by HPLC

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

## Contact

## Background

### Basic Information

#### Description

Recombinant SARS-CoV-2(2019-nCoV) Spike RBD-His 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-His (Accession #YP\_009724390.1) fused with a 6×His tag at the C-terminus.

#### Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV-2 Spike RBD (Catalog: RP01258) at 2 μg/mL (100 μL/well) can bind Human ACE-2 (Catalog: RP01275) with a linear range of 0.001-2.96 ng/mL. | 2. Immobilized human ACE2 on COOH Chip, can bind SARS-COV-2 Spike RBD Protein with an affinity constant of 35.3 nM as determined in a SPR assay (Nicoya OpenSPR). | 3. Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV-2 Spike RBD (Catalog: RP01258) at 2 μg/mL (100 μL/well) can bind Human ACE-2 (Catalog: RP01275) with a linear range of 0.001-1.69 ng/mL.

#### Storage

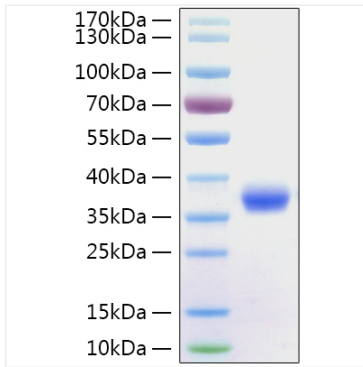
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. <br/>After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.



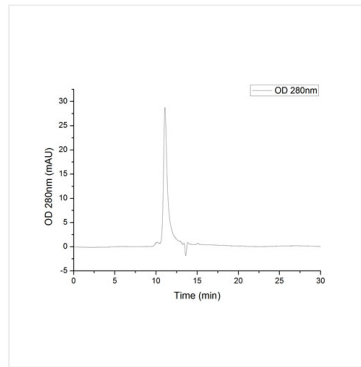
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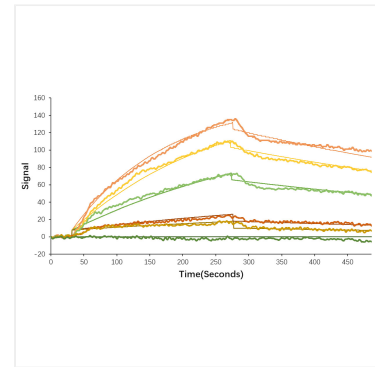
## Validation Data



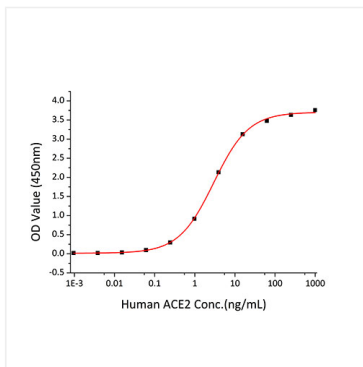
Recombinant SARS-CoV-2 Spike RBD Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 36 kDa.



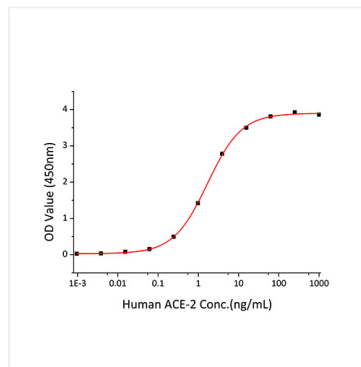
The purity of SARS-COV-2 Spike RBD Protein with His tag (Cat.RP01258) was greater than 95% as determined by SEC-HPLC.



Immobilized human ACE2 on COOH Chip, can bind SARS-COV-2 Spike RBD Protein with an affinity constant of 35.3 nM as determined in a SPR assay (Nicoya OpenSPR).



Immobilized SARS-CoV-2 Spike RBD (Catalog: RP01258) at 2  $\mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) can bind Human ACE-2 (Catalog: RP01275) with a linear range of 0.001-2.96 ng/mL.



Immobilized SARS-CoV-2 Spike RBD (Catalog: RP01258) at 2  $\mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) can bind Human ACE-2 (Catalog: RP01275) with a linear range of 0.001-1.69 ng/mL.