

# Recombinant SARS-CoV-2 Spike S1 Protein

Catalog No.: RP01262    Recombinant    7 Publications

## Sequence Information

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

### 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

<b>Source</b>	<b>Purification</b>
HEK293 cells	≥ 95 % as determined by SDS-PAGE;≥ 95 % as determined by HPLC.

<b>Calculated MW</b>	<b>Observed MW</b>
75.85 kDa	110-130 kDa

### Endotoxin

< 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.

## Background

The spike protein (S) of coronavirus (CoV) attaches the virus to its cellular receptor, angiotensin-converting enzyme 2 (ACE2). A defined receptor-binding domain (RBD) on S mediates this interaction. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

## Basic Information

### Description

Recombinant SARS-CoV-2(2019-nCoV) Spike S1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Val16-Arg685) of SARS-CoV-2(2019-nCoV) Spike S1 (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 Recombinant SARS-CoV-2 Spike S1 at 2 μg/mL (100 μL/well) can bind Recombinant Human ACE2 with a linear range of 0.5-8.7 ng/mL. 2. Immobilized Human ACE2 on COOH Chip can bind SARS-CoV-2 Spike S1 with an affinity constant of 11.4 nM as determined in a SPR assay (Nicoya OpenSPR).

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. 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.

### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

## Contact

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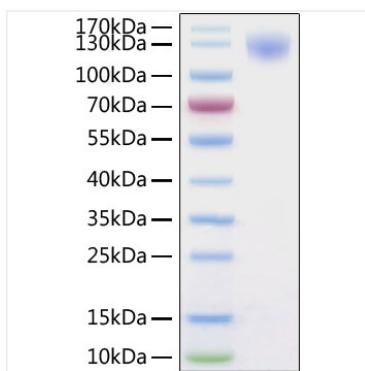
✉ | [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn)

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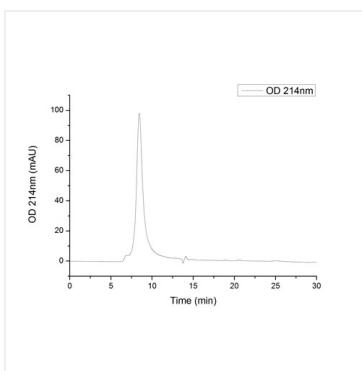
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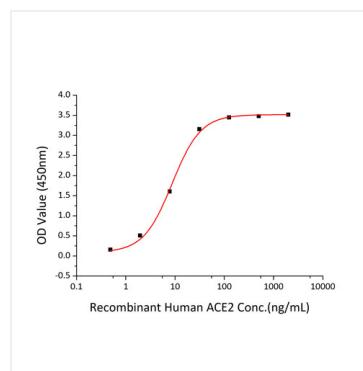
## Validation Data



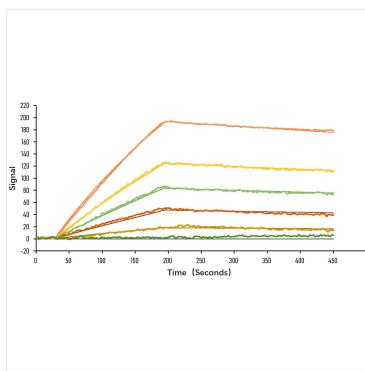
Recombinant SARS-CoV-2 Spike S1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



The purity of SARS-CoV-2 Spike S1 Protein with His tag (Cat.RP01262) was greater than 95% as determined by SEC-HPLC.



Immobilized Recombinant SARS-CoV-2 Spike S1 at 2 $\mu$ g/mL (100  $\mu$ L/well) can bind Recombinant Human ACE2 with a linear range of 0.5-8.7 ng/mL.



Immobilized Human ACE2 on COOH Chip, can bind SARS-CoV-2 Spike S1 with an affinity constant of 11.4 nM as determined in a SPR assay (Nicoya OpenSPR).