

RP01262

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Recombinant SARS-CoV-2 Spike S1 Protein

Catalog No.: RP01262

Recombinant

7 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 % as determined by SDS-PAGE;≥ 95 % as determined by HPLC.

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.

Operational Notes

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

Storage

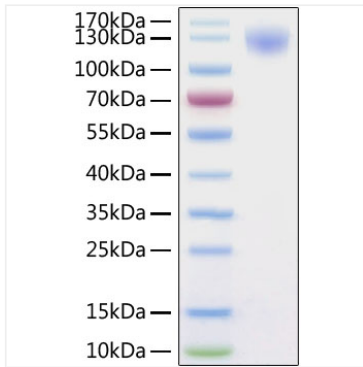
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

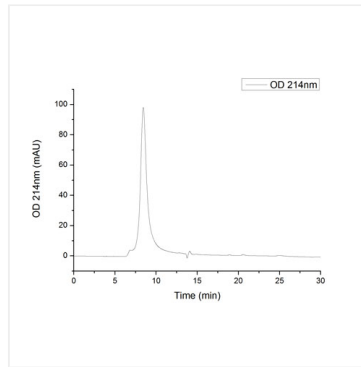


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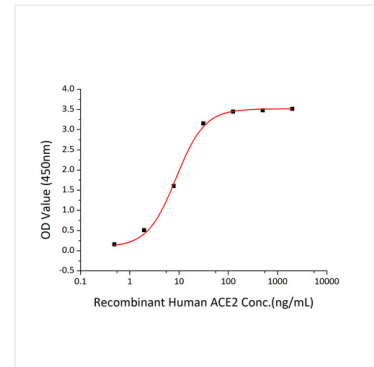
Validation Data



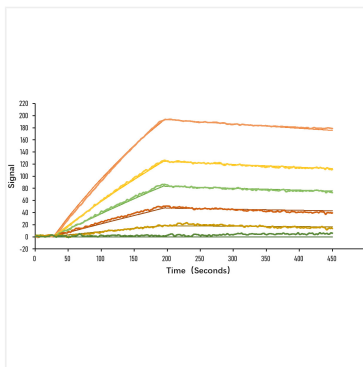
Recombinant SARS-CoV-2 Spike S1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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 μ g/mL (100 μ 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).