Recombinant SARS-CoV-2 Spike S1 Protein

Catalog No.: RP01262

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Sequence Information

Species
SARS-CoV-2

Gene ID
43740568

Swiss Prot

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.

Calculated MW
75.85 kDa

Observed MW
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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS

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 thisinteraction.The S protein plays key parts in the induction of neutralizing-antibody and T-cellresponses, 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.

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
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

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

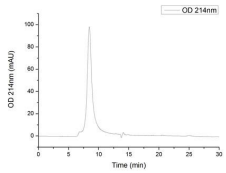
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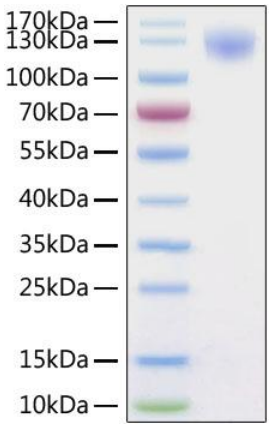
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or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

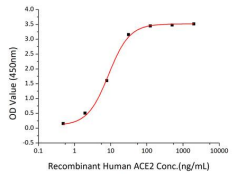
Validation Data



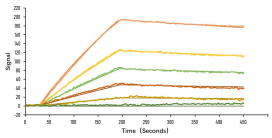
The purity of SARS-COV-2 Spike S1 Protein with His tag (Cat.RP01262) was greater than 95% as determined by SEC-HPLC.



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



Immobilized Recombinant SARS-COV-2 Spike S1 at 2μg/mL (100 μL/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).