

Recombinant SARS-CoV-2 Spike RBD Protein

Catalog No.: RP01258 **Recombinant** **9 Publications**

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

25.94 kDa

Observed MW

35-40 kDa

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.

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.

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.

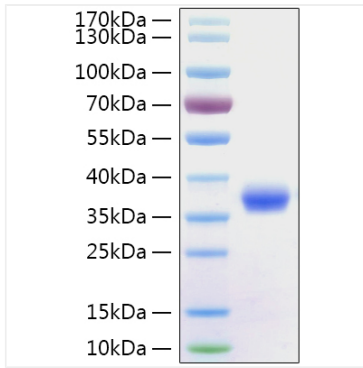
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

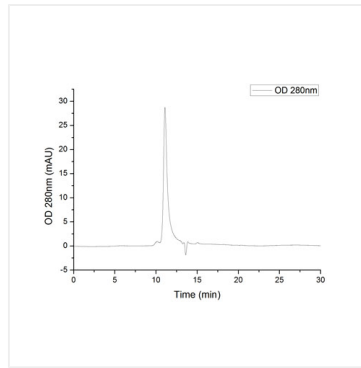
Operational Notes

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

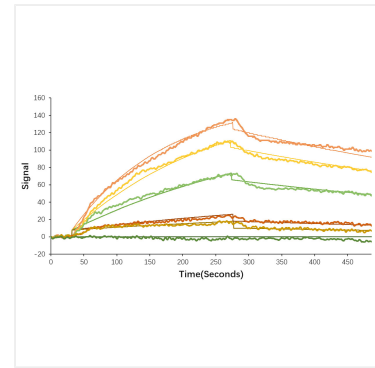
Validation Data



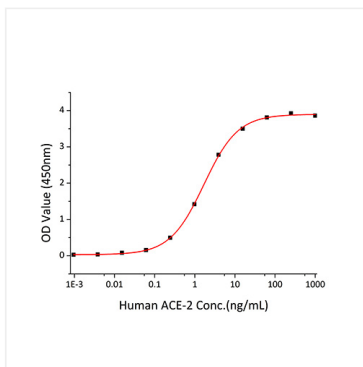
Recombinant SARS-CoV-2 Spike RBD Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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 µg/mL (100 µL/well) can bind Human ACE-2 (Catalog: RP01275) with a linear range of 0.001-1.69 ng/mL.