

Recombinant SARS-CoV-2 Spike RBD Protein

Catalog No.: RP01271 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
SARS-CoV-2	43740568	

Tags

C-mFc

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	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
50.67 kDa	60 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 tube 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

 | 400-999-6126

Background

Basic Information

Description

Recombinant SARS-CoV-2(2019-nCoV) Spike RBD 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 (Accession #YP_009724390.1) fused with a mFc tag at the C-terminus.

Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human ACE2 Protein at 2 μg/mL (100 μL/well) can bind Recombinant SARS-COV-2 Spike RBD-mFc Protein, the EC₅₀ of Recombinant SARS-COV-2 Spike RBD-mFc Protein is 2.58 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.

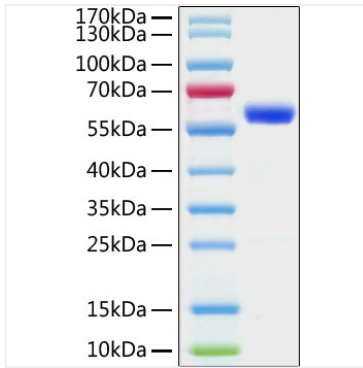
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

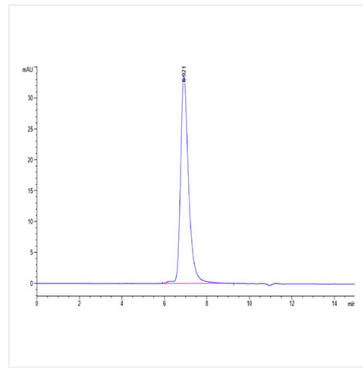
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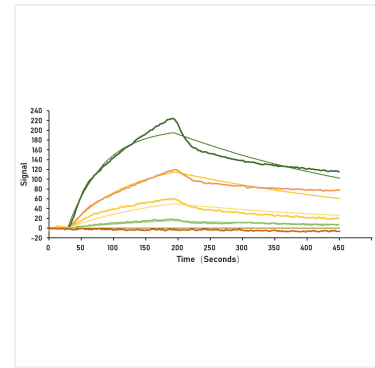
Validation Data



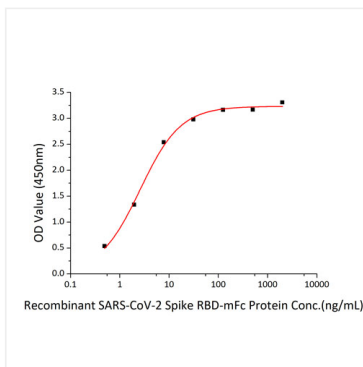
Recombinant SARS-CoV-2 Spike RBD Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 60 kDa.



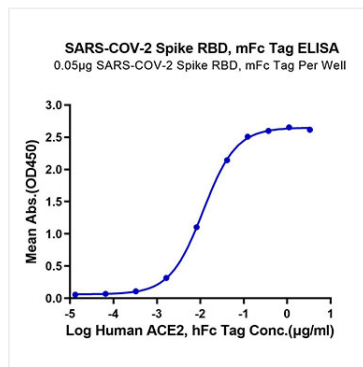
The purity of SARS-COV-2 Spike RBD is greater than 95% as determined by SEC-HPLC.



Immobilized Human ACE2 on COOH Chip, can bind SARS-COV-2 Spike S1 with an affinity constant of 6.58 nM as determined in a SPR assay (Nicoya OpenSPR).



Immobilized Recombinant Human ACE2 Protein at 2µg/mL (100 µL/well) can bind Recombinant SARS-COV-2 Spike RBD-mFc Protein. The EC_{50} of Recombinant SARS-COV-2 Spike RBD-mFc Protein is 2.58 ng/mL.



Immobilized SARS-COV-2 Spike RBD at 0.5µg/ml (100µl/Well). Dose response curve for Human ACE2, hFc Tag with the EC_{50} of 11.6ng/ml determined by ELISA.