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Recombinant SARS-CoV-2 Spike S1 Protein

Catalog No.: RP01261 Recombinant 1 Publications

Sequence Information

Species	Gene ID	Swiss Prot
SARS-CoV-2	43740568	

Tags
C-His&Avi

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

Calculated MW	Observed MW
77.67 kDa	110-120 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 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 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 (Gln14-Arg683) of SARS-COV-2(2019-nCoV) Spike S1 (Accession #YP_009724390.1) fused with a 6×His tag and Avi 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 0.15-6.85 ng/mL.|2.Immobilized Human ACE2 on COOH Chip can bind SARS-COV-2 Spike S1 with an affinity constant of 24.5 nM as determined in a SPR assay (Nicoya OpenSPR).

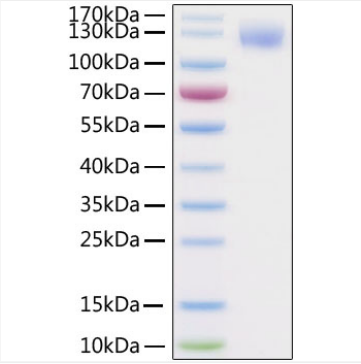
Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Contact

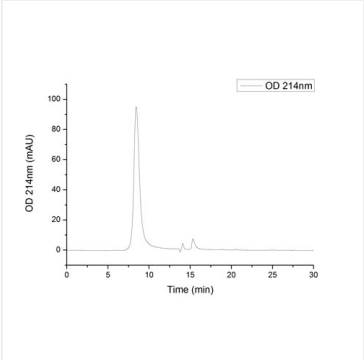
☎	400-999-6126
✉	cn.market@abclonal.com.cn
🌐	www.abclonal.com.cn

* 为了您的安全和健康，请穿实验服并戴一次性手套操作。

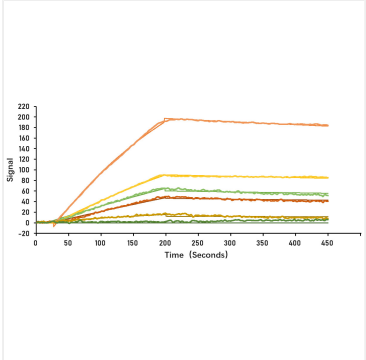
Validation Data



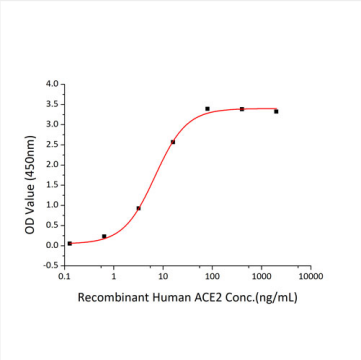
Recombinant SARS-CoV-2 Spike S1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



The purity of SARS-COV-2 Spike S1 Protein with His and Avi tag (Cat.RP01261) was 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 24.5 nM as determined in a SPR assay (Nicoya OpenSPR).



Immobilized Recombinant SARS-CoV-2 Spike S1 at 2μg/mL (100 μL/well) can bind recombinant Human ACE2 with a linear range of 0.15-6.85 ng/mL.