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Recombinant SARS-CoV Spike S1 Protein

Catalog No.: RP01302 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
SARS-CoV	1489668	P59594

Tags
C-mFc

Synonyms
Spike;Spike RBD;Spike S1

Product Information

Source	Purification
HEK293 cells	≥ 90 % as determined by SDS-PAGE.

Calculated MW	Observed MW
98.50 kDa	120-150 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.

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.

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Background

The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.

Basic Information

Description
Recombinant Recombinant SARS-CoV Spike S1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser14-Arg667) of sars-cov Spike S1 (Accession #NP_828851.1) fused with a mFc tag at the C-terminus.

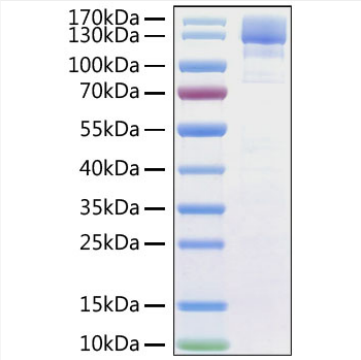
Bio-Activity
Measured by its binding ability in a functional ELISA. Immobilized at Human ACE2 (Catalog: RP01275) 2μg/mL (100μL/well) can bind SARS-CoV Spike S1 with a linear range of 0.05-36.67 ng/mL.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

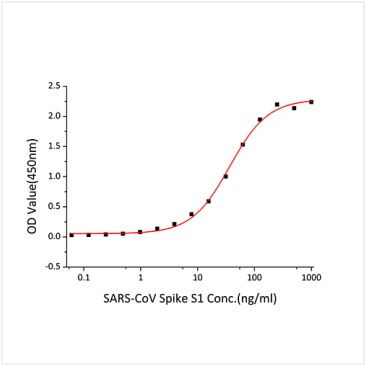
Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

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

Validation Data



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



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