

Recombinant SARS-CoV Spike S1 Protein

Catalog No.: RP01302

Sequence Information

Species **Gene ID**
SARS-CoV 1489668

Swiss Prot **Tags**
P59594 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 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

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.

Activity

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

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°C

Operational Notes

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

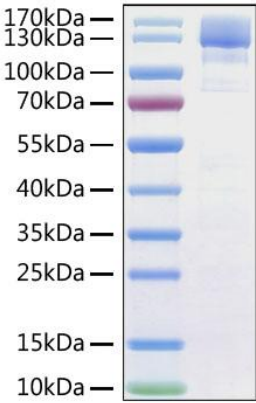
Contact

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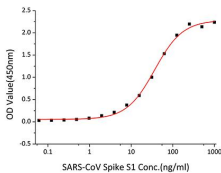
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Validation Data



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



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