Recombinant SARS-CoV Spike S1 Protein

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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

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.

Contact

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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 neutralizingantibody 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.

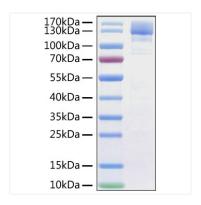
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

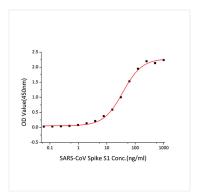
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



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



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