

Recombinant SARS-CoV S protein RBD, His-tagged (MALS verified)

Cat. No. Spike-217V **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant SARS-CoV S protein RBD (MALS verified)(Arg306-Phe527) was fused to His-tag at the C-terminus and expressed in human 293 cells (HEK293).

Species

SARS-CoV

Source

HEK293

ProteinLength

Arg306-Phe527

Description

It's been reported that Coronavirus can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. 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.

Predicted N Terminal

Arg306

Form

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.

Molecular Mass

The protein has a calculated MW of 26.9 kDa. The protein migrates as 33-40 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

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Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>90% as determined by SDS-PAGE. >90% as determined by SEC-MALS.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

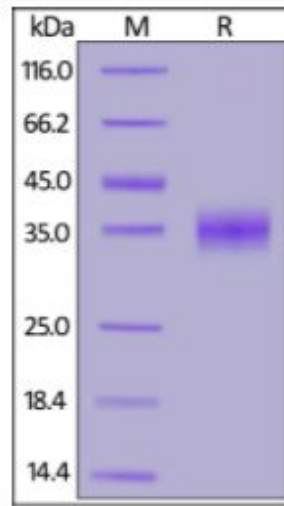
GENE INFORMATION

Gene Name	S
Official Symbol	S
Synonyms	spike glycoprotein
Gene ID	43740568
Protein Refseq	YP_009724390.1
UniProt ID	P0DTC2

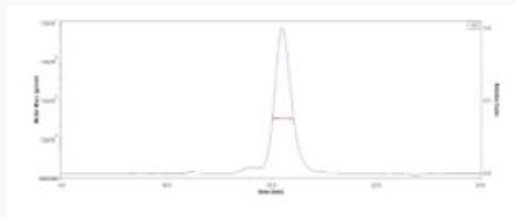
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SDS-PAGE of Spike-217V

SARS S protein RBD, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS of Spike-217V

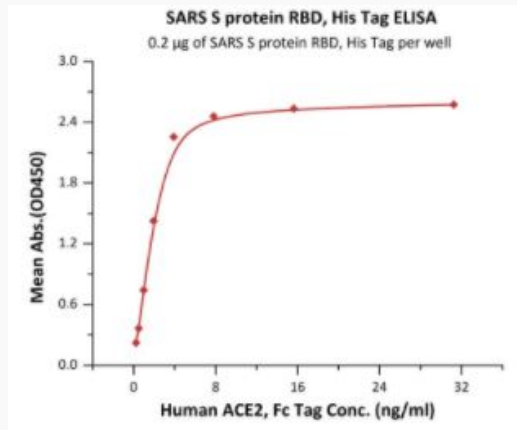
The purity of SARS S protein RBD, His Tag was more than 90% and around 30-40 kDa verified by SEC-MALS.

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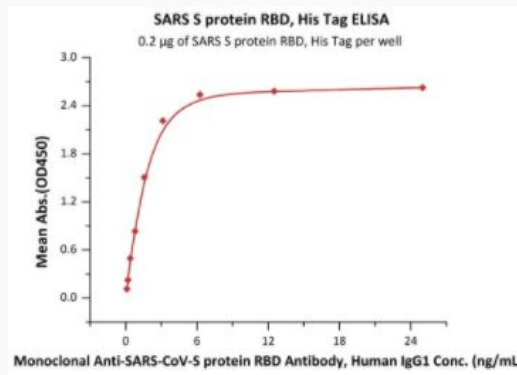
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**Bioactivity-ELISA of
Spike-217V**



Immobilized SARS S protein RBD, His Tag at 2 µg/mL (100 µL/well) can bind Human ACE2, Fc Tag with a linear range of 0.2-4 ng/mL (QC tested).

**Bioactivity-ELISA of
Spike-217V**

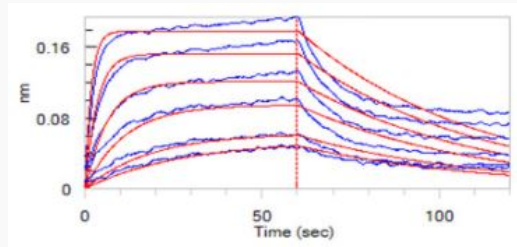


Immobilized SARS S protein RBD, His Tag at 2 µg/mL (100 µL/well) can bind Monoclonal Anti-SARS-CoV-S protein RBD Antibody, Human IgG1 with a linear range of 0.1-3 ng/mL (Routinely tested).

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**Bioactivity-BLI of
Spike-217V**

Loaded Human ACE2, Fc Tag on Protein A Biosensor, can bind SARS S protein RBD, His Tag with an affinity constant of 17.3 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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