

Recombinant COVID-19 Spike RBD (L18F, D80A, D215G, R246I, K417N, E484K, N501Y, D614G, A701V) protein, His-tagged

Cat. No. Spike-380V Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant COVID-19 Spike RBD (L18F, D80A, D215G, R246I, K417N, E484K, N501Y, D614G, A701V) protein(YP_009724390.1)(Val 16 - Pro 1213), fused to a His tag at the C-terminus, was expressed in HEK293.

Species Sars-CoV-2

Source HEK293

ProteinLength Val 16 - Pro 1213

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.

Form Lyophilized from 0.22 µm filtered solution in PBS. Normally trehalose is added as protectant before lyophilization.

Molecular Mass The protein has a calculated MW of 138.0 kDa. The protein migrates as 170-200 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°C or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20°C to -70°C for 12 months in lyophilized state; -70°C 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 0.25 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

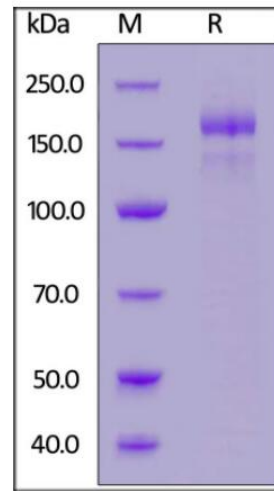
Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Synonyms	Spike; S protein; Spike glycoprotein; S glycoprotein; COVID-19
Gene ID	43740568
Protein Refseq	YP_009724390.1
UniProt ID	P0DTC2

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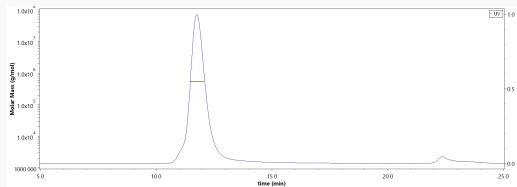
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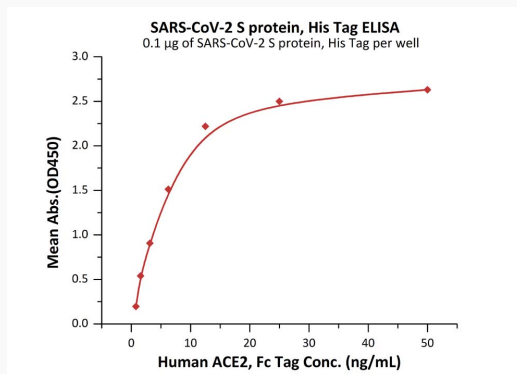
SDS-PAGE



SEC-MALS



Bioactivity-ELISA



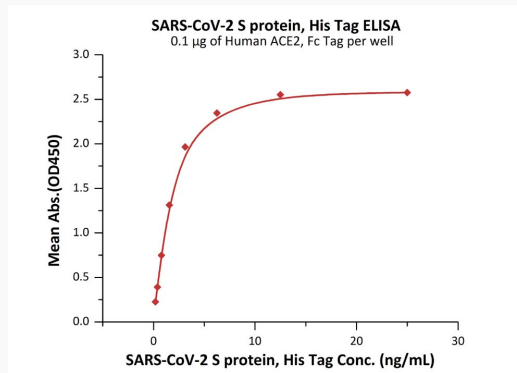
Immobilized SARS-CoV-2 S protein, His Tag at 1 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Human ACE2, Fc Tag with a linear range of 0.8-6 ng/mL.

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Bioactivity-ELISA



Immobilized Human ACE2, Fc Tag at 1 µg/mL (100 µL/well) can bind SARS-CoV-2 S protein, His Tag with a linear range of 0.2-3 ng/mL.

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