

Recombinant SARS-CoV-2 Spike protein(D614G), His-Avi-tagged, Biotinylated

Cat. No. Spike-219VB **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Biotinylated SARS-CoV-2 S protein (D614G), His,Avitag, Super stable trimer is the ectodomain of SARS-CoV-2 S protein that contains AA Val 16-Pro 1213 (Accession # QHD43416.1(D614G)) and D614G mutation, which has become increasingly common in SARS-CoV-2 viruses from around the world. The recombinant protein is expressed from human 293 cells (HEK293) with T4 fibrin trimerization motif and a polyhistidine tag at the C-terminus. Proline substitutions (F817P, A892P, A899P, A942P, K986P, V987P) and alanine substitutions (R683A and R685A) are introduced to stabilize the trimeric prefusion state of SARS-CoV-2 S protein and abolish the furin cleavage site, respectively. It is the biotinylated form of SARS-CoV-2 S protein (D614G), His Tag, Super stable trimer (MALS verified).

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

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	as protective immunity.
Predicted N Terminal	Val 16
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 139.7 kDa. The protein migrates as 150-200 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>95% 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 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.
Conjugation	Biotin

GENE INFORMATION

Gene Name [S surface glycoprotein \[Severe acute respiratory syndrome coronavirus 2 \]](#)

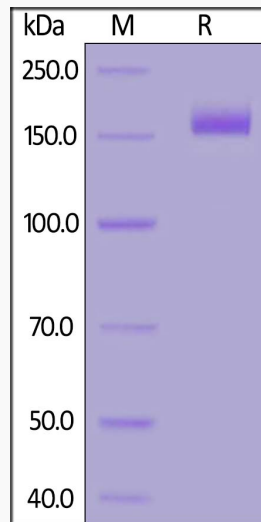
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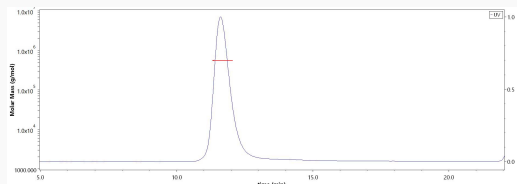
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Official Symbol	S
Synonyms	Spike; S protein; Spike glycoprotein; S glycoprotein; COVID-19
Gene ID	43740568
Protein Refseq	YP_009724390.1
UniProt ID	P0DTC2

SDS-PAGE of Spike-219VB



SEC-MALS of Spike-219VB



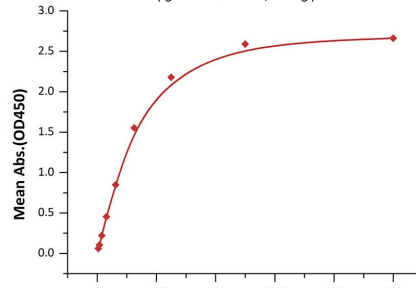
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**Bioactivity-ELISA of
Spike-219VB**

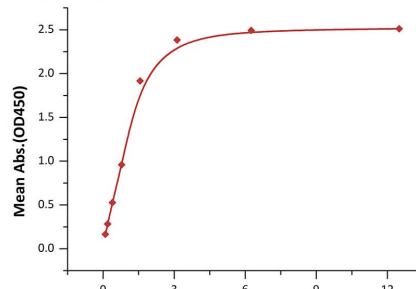
Biotinylated SARS-CoV-2 S protein (D614G, R683A, R685A), His,Avitag ELISA
0.1 µg of Human ACE2, Fc Tag per well



Biotinylated SARS-CoV-2 S protein (D614G, R683A, R685A), His,Avitag Conc. (ng/mL)

**Bioactivity-ELISA of
Spike-219VB**

Biotinylated SARS-CoV-2 S protein (D614G, R683A, R685A), His,Avitag ELISA
0.1 µg of Biotinylated SARS-CoV-2 S protein (D614G, R683A, R685A), His,Avitag per well



Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 Conc. (ng/mL)

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