



**Synonym**

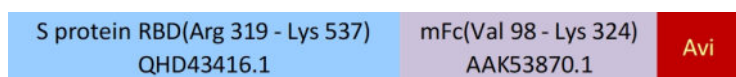
Spike,S protein RBD,Spike glycoprotein Receptor-binding domain,S glycoprotein RBD,Spike protein RBD

**Source**

Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag(SPD-C82Aa) is expressed from human 293 cells (HEK293). It contains AA Arg 319 - Lys 537 (Accession # [QHD43416.1](#)).

Predicted N-terminus: Arg 319

**Molecular Characterization**



This protein carries a mouse IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 52.5 kDa. The protein migrates as 55-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Labeling**

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

**Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

**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.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

**Storage**

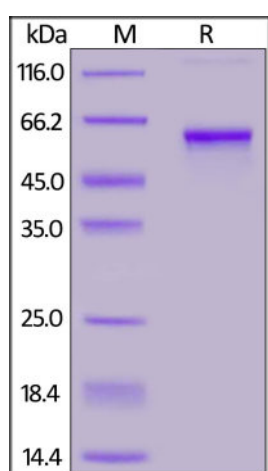
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

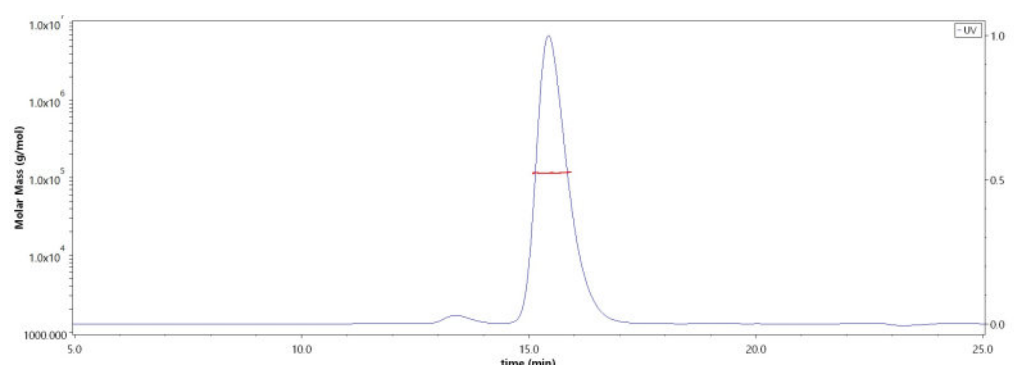
**SDS-PAGE**



Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA**

**SEC-MALS**



The purity of Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag (Cat. No. SPD-C82Aa) is more than 90% and the molecular weight of this protein is around 105-120 kDa kDa verified by SEC-MALS.

[Report](#)

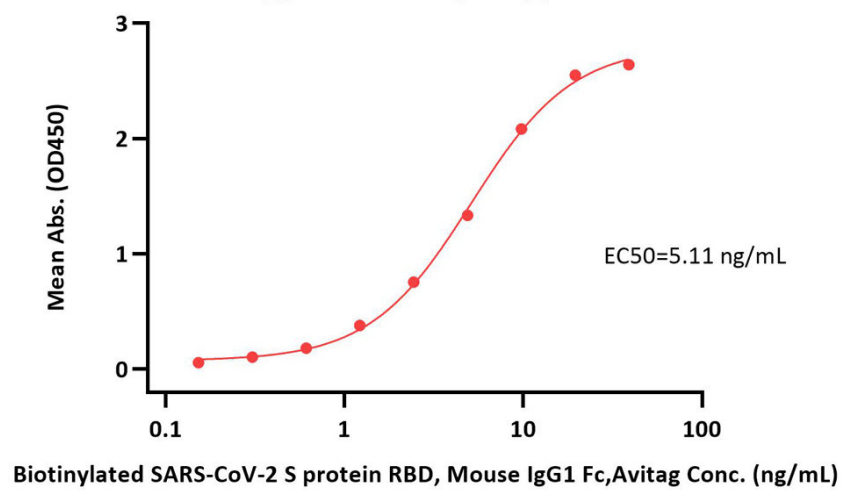
Discounts, Gifts, and more!





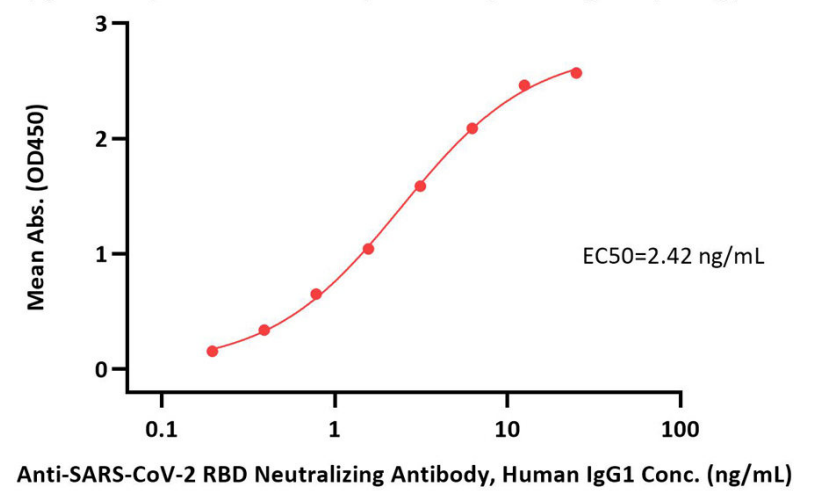
**Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag ELISA**

0.1 µg of Human ACE2, Fc Tag per well



**Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag ELISA**

0.1 µg of Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag per well



Immobilized Human ACE2, Fc Tag (Cat. No. AC2-H5257) at 1 µg/mL (100 µL/well) can bind Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag™(MALS verified) (Cat. No. SPD-C82Aa) with a linear range of 0.2-10 ng/mL (QC tested).

Immobilized Biotinylated SARS-CoV-2 S protein RBD, Mouse IgG1 Fc,Avitag™(MALS verified) (Cat. No. SPD-C82Aa) at 1 µg/mL (100 µL/well) on streptavidin precoated (0.5µg/well) plate, can bind Anti-SARS-CoV-2 RBD Neutralizing Antibody, Human IgG1 (Cat. No. SAD-S35) with a linear range of 0.2-3 ng/mL (Routinely tested).

**Background**

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.

**Clinical and Translational Updates**

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