



## Synonym

Spike,S1 protein,Spike glycoprotein Subunit1,S glycoprotein Subunit1,Spike protein S1

## Source

SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) (S1N-C52Hz) is expressed from human 293 cells (HEK293). It contains AA Val 16 - Arg 685 (Accession # [QHD43416.1](#) (T19I, LPP24-26del, A27S, G142D, K147E, W152R, F157L, I210V, V213G, G257S, G339H, S371F, S373P, S375F, T376A, D405N, R408S, K417N, N440K, G446S, N460K, S477N, T478K, E484A, Q498R, N501Y, Y505H, D614G, H655Y, N679K, P681H)). The spike mutations are identified on the SARS-CoV-2 Omicron variant (Pango lineage: BA.2.75).

Predicted N-terminus: Val 16

## Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 76.8 kDa. The protein migrates as 110-130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, 0.2 M Arginine, 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

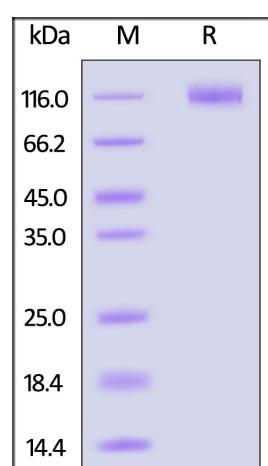
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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



SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) 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

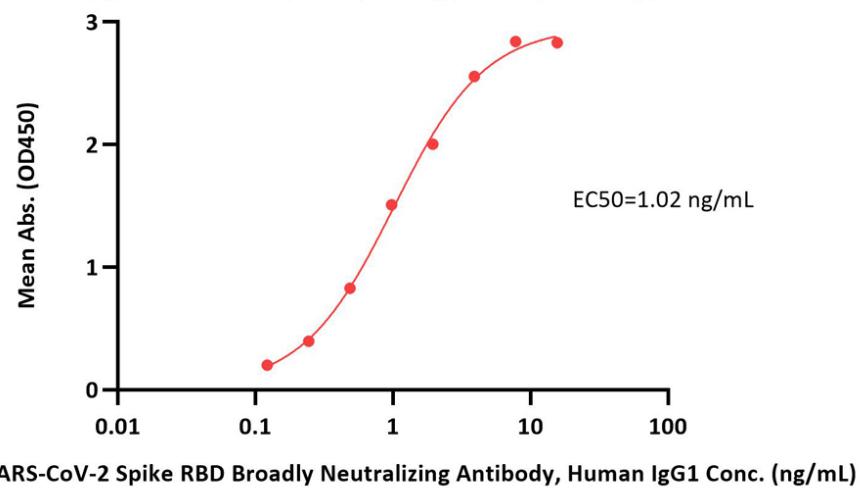
Discounts, Gifts,  
and more!



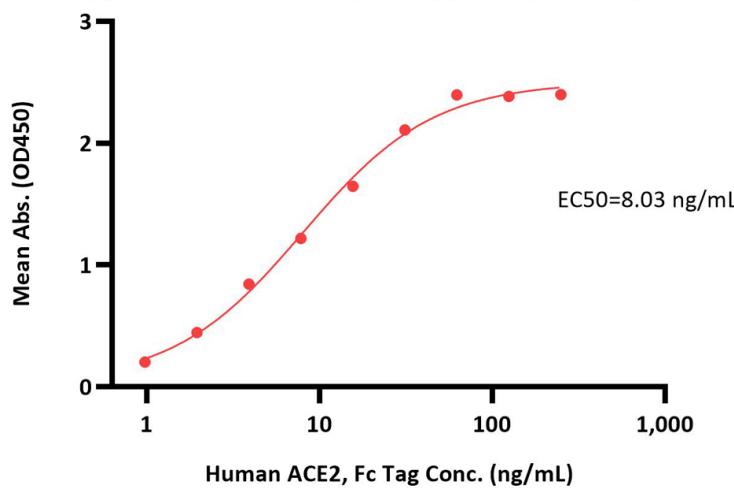
» [www.acrobiosystems.com](http://www.acrobiosystems.com)



**SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) ELISA**  
 0.2  $\mu$ g of SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) per well

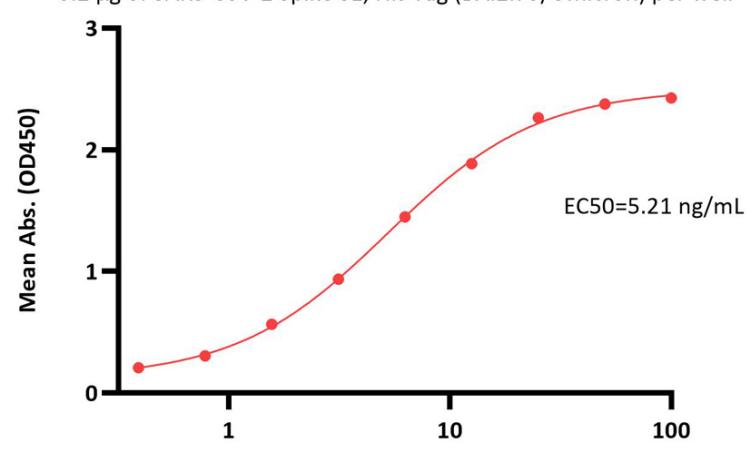


**SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) ELISA**  
 0.2  $\mu$ g of SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) per well



Immobilized SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) (Cat. No. S1N-C52Hz) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (Cat. No. SPD-M265) with a linear range of 0.1-2 ng/mL (QC tested).

**SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) ELISA**  
 0.2  $\mu$ g of SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) per well



Immobilized SARS-CoV-2 Spike S1, His Tag (BA.2.75/Omicron) (Cat. No. S1N-C52Hz) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 (Cat. No. S1N-M122) with a linear range of 0.4-25 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.

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