



## Source

The mouse monoclonal antibody is produced from a hybridoma resulting from fusion of SP2/0 myeloma and B-lymphocytes obtained from a mouse immunized with Spike RBD. The antibody is specific against the Omicron (B.1.1.529/BA.1) variant of SARS-CoV-2, and has no binding with the spike RBD of the wild type virus and other viral lineages.

## Clone

AS113

## Species

Mouse

## Isotype

Mouse IgG1 | Mouse Kappa

## Conjugate

Unconjugated

## Reactivity

Virus

## Immunogen

Recombinant SARS-CoV-2 Spike RBD (B.1.1.529/Omicron) erived from human 293 cells.

## Specificity

This product is a specific antibody against Spike RBD of Omicron (B.1.1.529/BA.1) variant of SARS-CoV-2. Cross-reactivity with Spike protein RBD domain of other coronaviruses, including SARS-CoV, MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-OC43 and HCoV-HKU1, has not been tested.

## Application

Application	Recommended Usage
ELISA	0.4-200 ng/mL

## Purity

>95% as determined by SDS-PAGE.

## Purification

Protein A purified/ Protein G purified

## 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.*

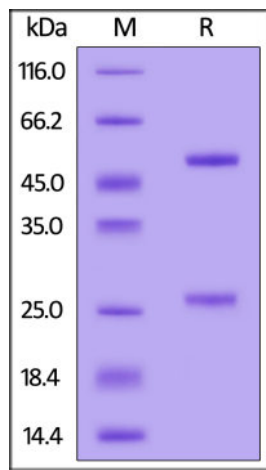
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

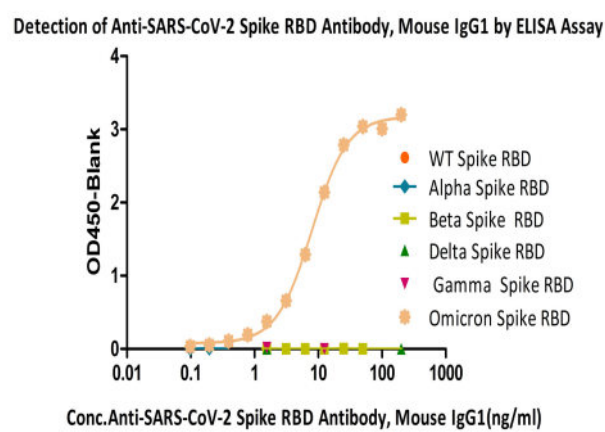
Discounts, Gifts,  
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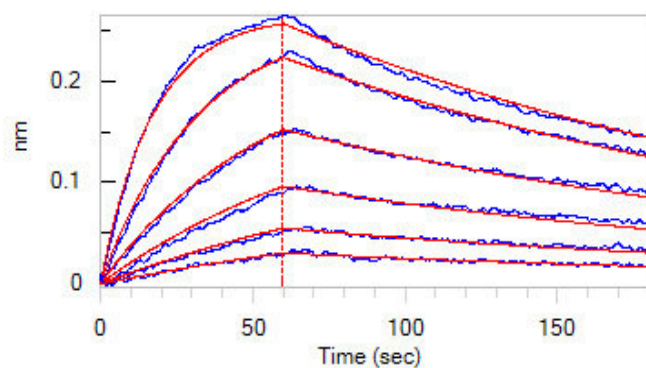
Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS113) (Omicron Specific) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA



Immobilized SARS-CoV-2 Spike RBD, His Tag (B.1.1.529/Omicron) (Cat. No. SPD-C522e) can bind Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS113) (Omicron Specific) (Cat. No. SPD-M305) with a linear range of 0.4-12.5 ng/mL (QC tested). The antibody does not bind Spike RBD of WT (Cat. No. SPD-C52H1), Alpha (Cat. No. SPD-C52Hn), Beta (Cat. No. SPD-C52Hp), Delta (Cat. No. SPD-C52Hh) and Gamma (Cat. No. SPD-C52Hr).

## Bioactivity-BLI



Loaded Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS113) (Omicron Specific) (Cat. No. SPD-M305) on AMC Biosensor, can bind SARS-CoV-2 Spike RBD, His Tag (B.1.1.529/Omicron) (Cat. No. SPD-C522e) with an affinity constant of 9.07 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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## 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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