# Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (MALS verified)

Catalog # SPD-M400a





#### Source

The antibody is isolated from the serum of COVID-19 vaccine recipient and is recombinantly produced from human 293 cells (HEK293). *This antibody can broadly neutralize SARS-CoV-2 Variants of Concerns (VOCs) including Alpha, Beta, Gamma, Delta and Omicron.* 

#### Clone

AM359b

#### Isotype

Human IgG2 | Human Kappa

#### Conjugate

Unconjugated

#### **Antibody Type**

Recombinant Monoclonal

#### **Specificity**

This product is a specific antibody against SARS-CoV-2 Spike protein RBD domain. 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	0.2-100 ng/mL

#### **Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **Purification**

Protein A purified / Protein G purified

#### Formulation

Lyophilized from 0.22  $\mu m$  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

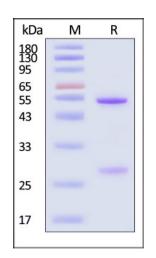
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

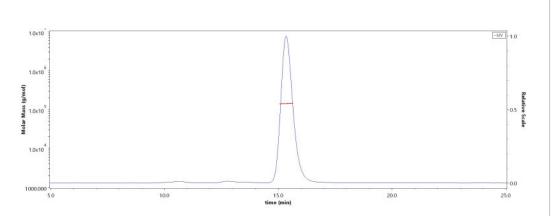
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

## **SEC-MALS**



The purity of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (Cat. No. SPD-M400a) is more than 90% and the molecular weight of this protein is around 130-160 kDa verified by SEC-MALS.

Report

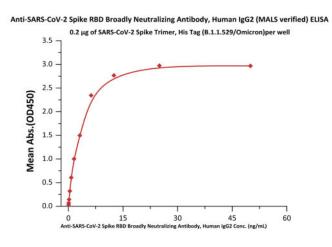


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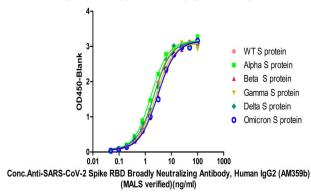


### **Bioactivity-ELISA**

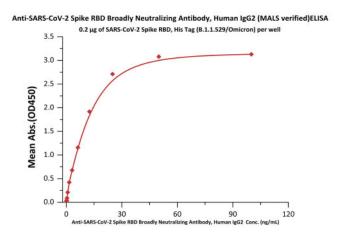


Immobilized SARS-CoV-2 Spike Trimer, His Tag (B.1.1.529/Omicron) (Cat. No. SPN-C52Hz) at 2μg/mL (100μL/well) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (Cat. No. SPD-M400a) with a linear range of 0.2-3 ng/mL (QC tested).

Detection of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (MALS verified) by ELISA Assay

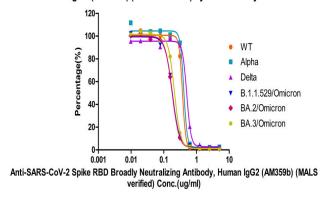


Immobilized SARS-CoV-2 Spike protein WT (Cat. No. SPN-C52H9), Alpha (Cat. No. SPN-C52H6), Beta (Cat. No. SPN-C52Hk), Gamma (Cat. No. SPN-C52Hg), Delta (Cat. No. SPN-C52He) and Omicron (Cat. SPN-C52Hz) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (Cat. No. SPD-M400a) with a linear range of 0.20-6.25 ng/mL (Routinely tested).



Immobilized SARS-CoV-2 Spike RBD, His Tag (B.1.1.529/Omicron) (Cat. No. SPD-C522e) at  $2\mu g/mL$  ( $100\mu L/well$ ) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (Cat. No. SPD-M400a) with a linear range of 0.4-6 ng/mL (Routinely tested).

# Detection of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (MALS verified) by ELISA Assay



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (Cat.No. SPD-M400a) neutralizes SARS-CoV-2 Spike Trimer by inhibiting Spike: ACE2 interaction. The Wild type (WT) Spike Trimer or Alpha, Delta, B.1.1.529/Omicron, BA.2/Omicron, BA.3/Omicron mutant-coated plate is incubated with the Biotinylated Human ACE2 / ACEH Protein and treated with the neutralizing antibody at increasing concentration . Percent inhibition is calculated based on the OD value.

#### **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**

