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

Reactivity

Virus

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 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.

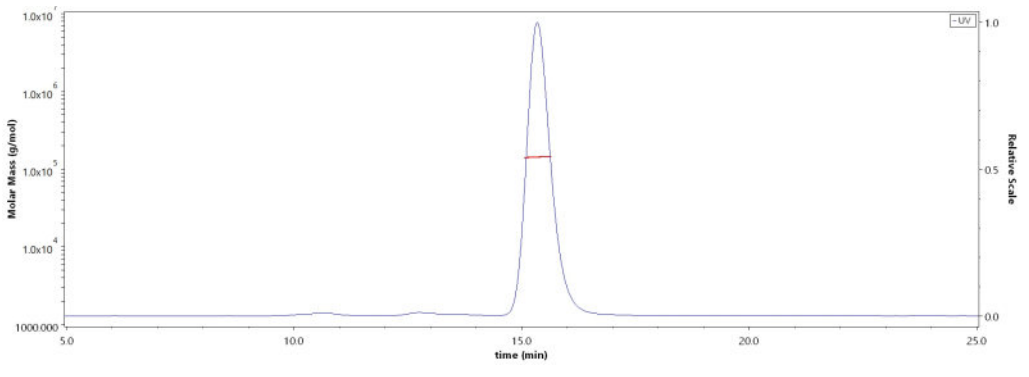
Please avoid repeated freeze-thaw cycles.

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

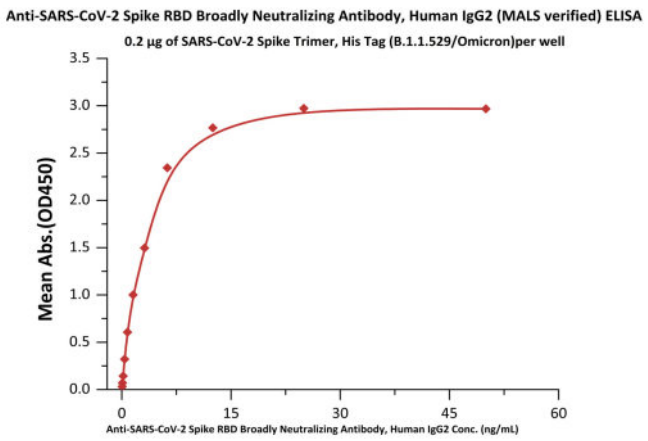
SEC-MALS



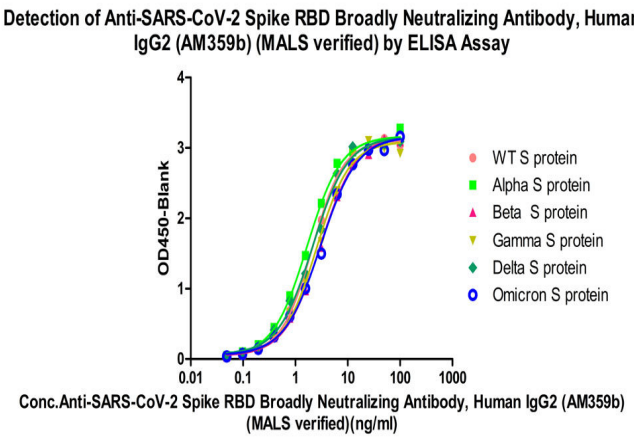
Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

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

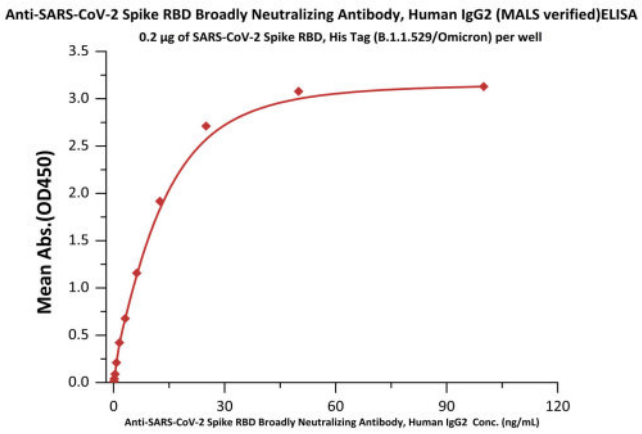
Bioactivity-ELISA



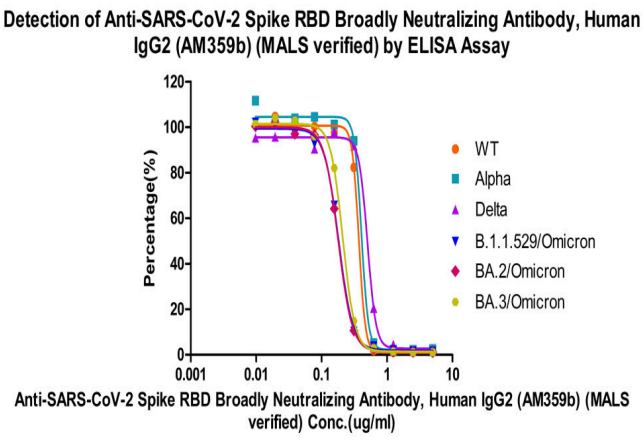
Immobilized SARS-CoV-2 Spike Trimer, His Tag (B.1.1.529/Omicron) (Cat. No. SPN-C52Hz) at 2μg/mL (100μL/well) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG2 (AM359b) (Cat. No. SPD-M400a) with a linear range of 0.2-3 ng/mL (QC tested).



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 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 0.4-6 ng/mL (Routinely tested).



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