Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) (MALS verified)

Catalog # SPD-M265

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 IgG1 | 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	0.1-25 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

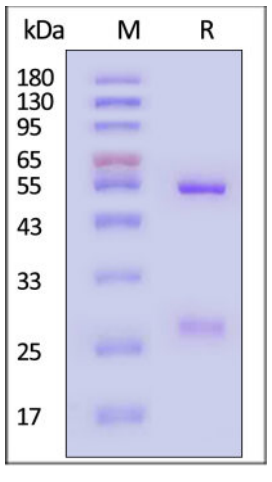
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

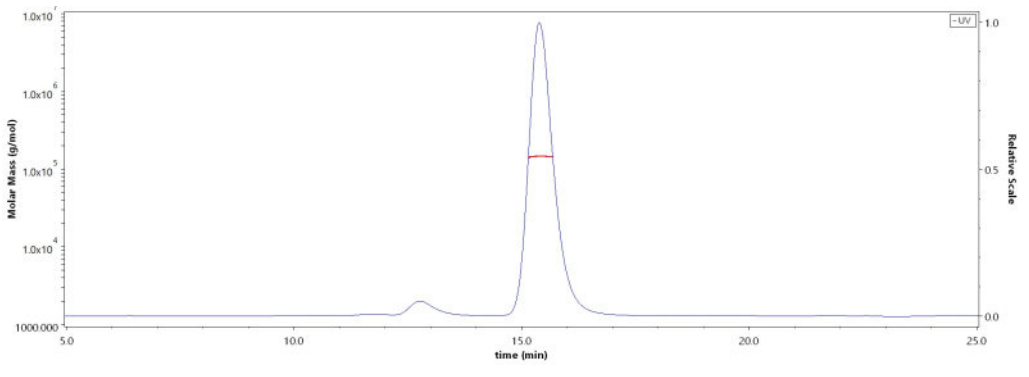
This product is stable after storage at:

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

SDS-PAGE



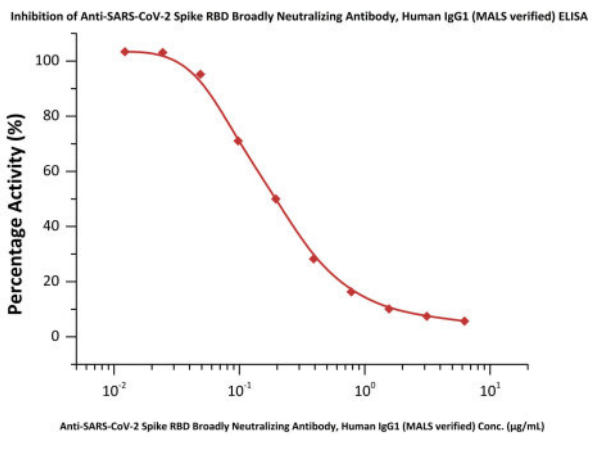
SEC-MALS



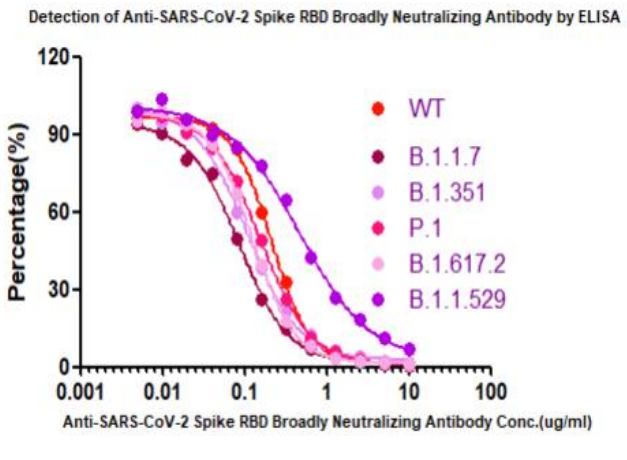
Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

The purity of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) (Cat. No. SPD-M265) is more than 90% and the molecular weight of this protein is around 125-155 kDa verified by SEC-MALS.
Report

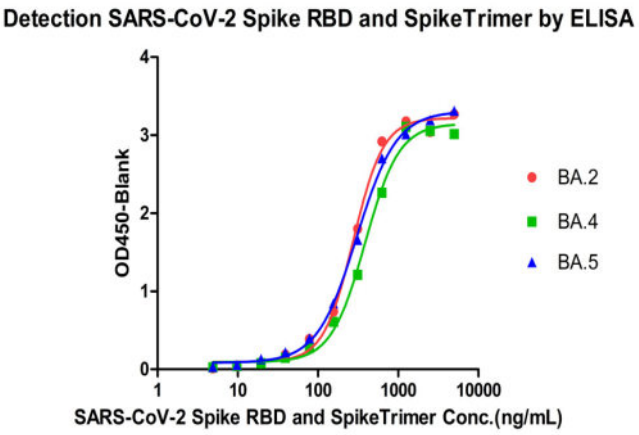
Bioactivity-ELISA



Detection of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (MALS verified) titer by compitive-ELISA Assay. Serial dilutions of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) (Cat. No. SPD-M265) were added into Human ACE2 / ACEH Protein, Fc Tag (Cat. No. AC2-H5257): HRP-SARS-CoV-2 Spike RBD, His Tag (B.1.1.529/Omicron) binding reactions. The half maximal inhibitory concentration (IC50) is 0.1578 μg/mL (QC tested).



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) (Cat.No. SPD-M265) neutralizes SARS-CoV-2 Spike RBD by inhibiting RBD: ACE2 interaction. The ACE2-coated plate is incubated with the wild type (WT) RBD or B.1.1.7, B.1.351, P.1, B.1.617.2, B.1.1.529 mutant and treated with the neutralizing antibody at increasing concentration. Percent inhibition is calculated based on the OD value.



Immobilized Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) (Cat. No. SPD-M265) at 2 μg/mL, add increasing concentrations of SARS-CoV-2 Spike RBD, His Tag (BA.2/Omicron) (Cat. No. SPD-C522g) and SARS-CoV-2 Spike Trimer, His Tag (BA.4/Omicron) (Cat. No. SPN-C5229) and SARS-CoV-2 Spike Trimer, His Tag (BA.5/Omicron) (Cat. No. SPN-C522e), and then add Biotinylated Anti-SARS-CoV-2 Spike RBD Antibody, Human IgG1 (AM130) (Cat. No. S1N-M13L3) at 0.5 μg/mL. Detection was performed using HRP-conjugated streptavidin with sensitivity of 19.53 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