

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.*

Isotype

Human IgG4/kappa

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.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

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

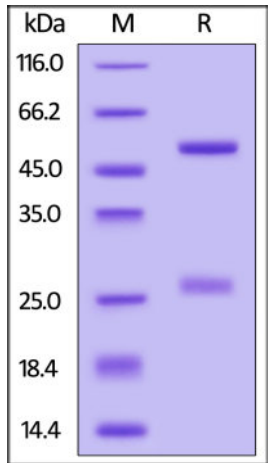
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

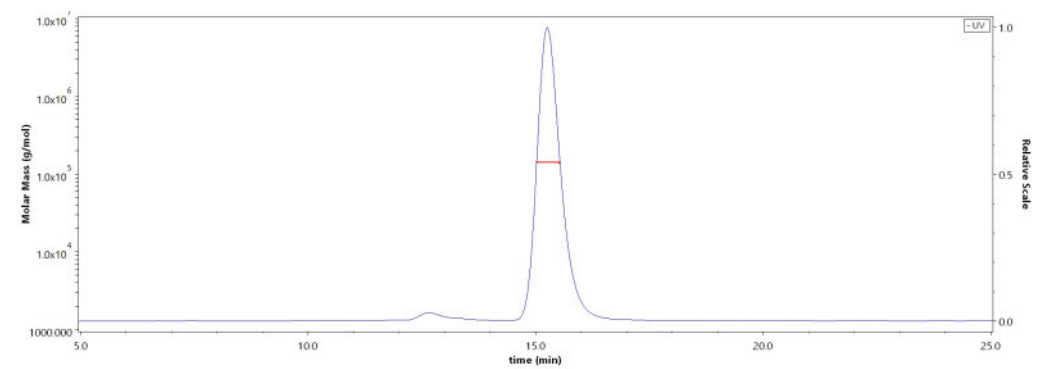
SDS-PAGE



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

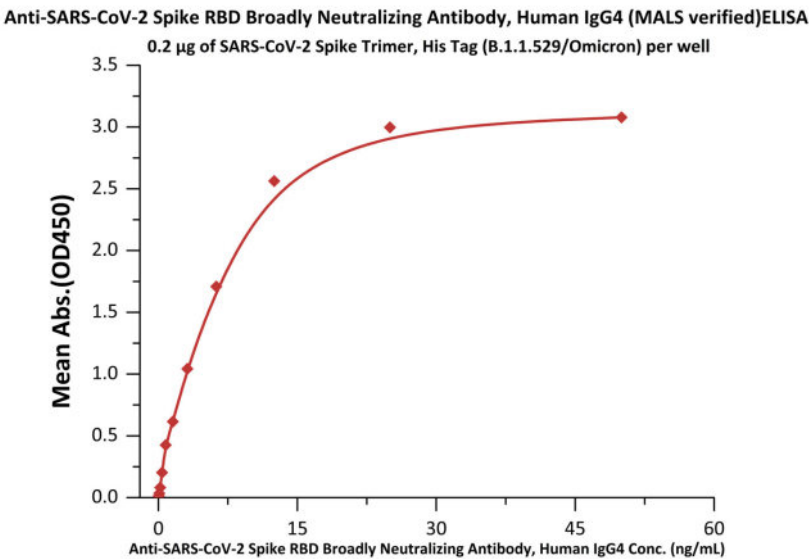
Bioactivity-Elisa

SEC-MALS



The purity of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) (Cat. No. SPD-M402a) is more than 90% and the molecular weight of this protein is around 130-160 kDa verified by SEC-MALS.

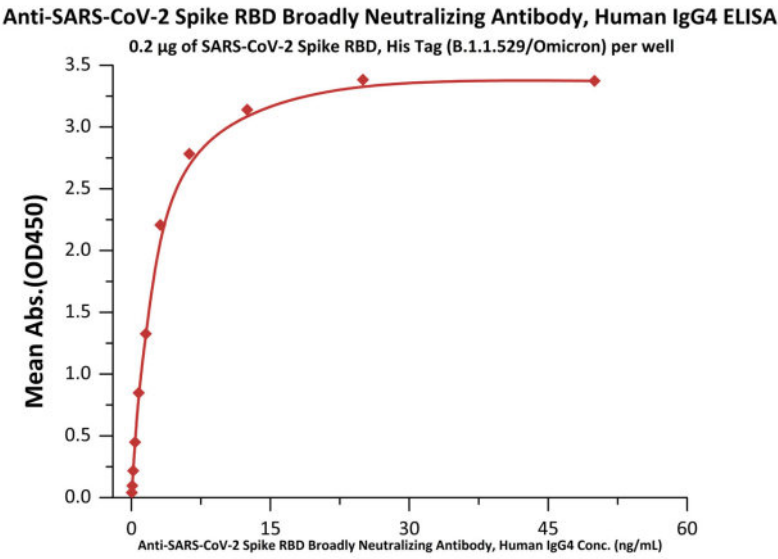
[Report](#)



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 IgG4 (AM359b) (Cat. No. SPD-M402a) with a linear range of 0.2-6 ng/mL (QC tested).

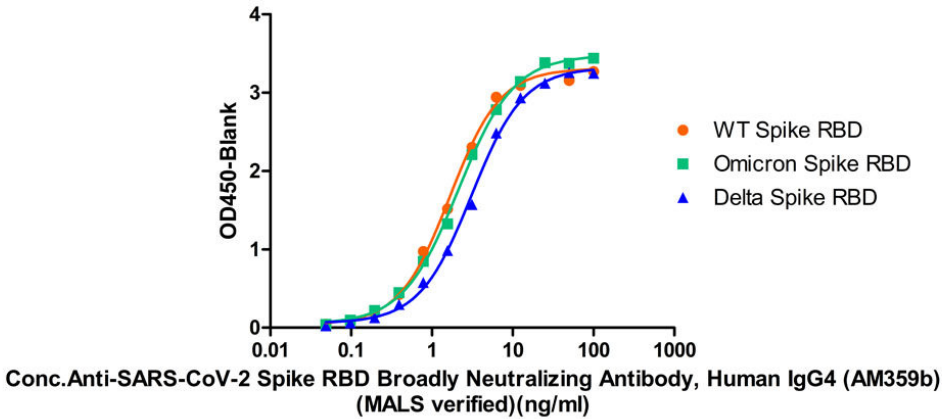
Spike RBD ELISA

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 IgG4 (AM359b) (Cat. No. SPD-M402a) with a linear range of 0.20-6.25 ng/mL (Routinely tested).



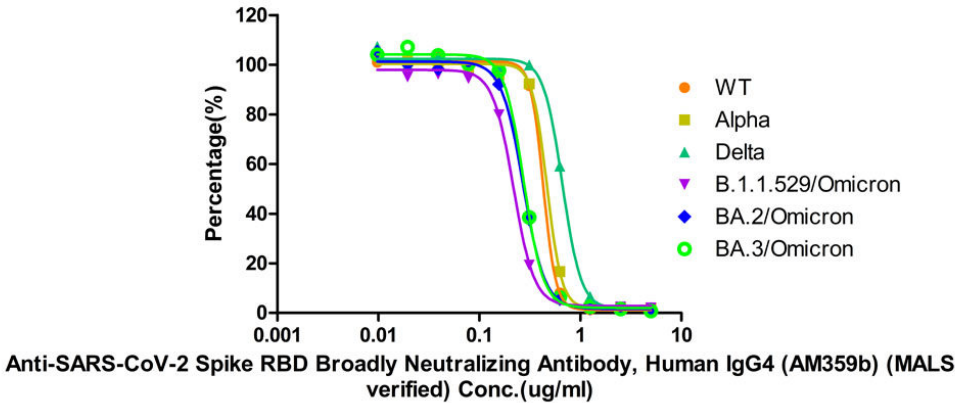
Immobilized SARS-CoV-2 Spike RBD, His Tag (B.1.1.529/Omicron) (Cat. No. SPD-C522e) at 2µg/mL (100µL/well) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) (Cat. No. SPD-M402a) with a linear range of 0.1-3 ng/mL (Routinely tested).

Detection of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) (MALS verified) by ELISA Assay



Immobilized SARS-CoV-2 Spike RBD WT (Cat. No. SPD-C52H1), Delta (Cat. No. SPD-C52Hh) and Omicron (Cat. SPD-C522e) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) (Cat. No. SPD-M402a) with a linear range of 0.20-6.25 ng/mL (Routinely tested).

Detection of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) (MALS verified) by ELISA Assay



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG4 (AM359b) (Cat.No. SPD-M402a) 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

Its 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

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.