

### 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 IgG3/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  $\mu\text{g}$  by the LAL method.

### Formulation

Lyophilized from 0.22  $\mu\text{m}$  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

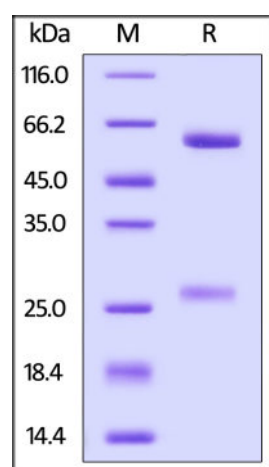
For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

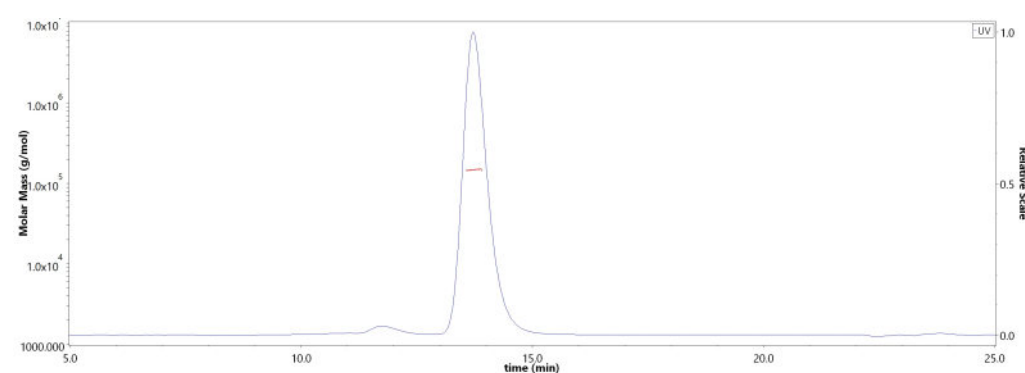
### SDS-PAGE



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG3 (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

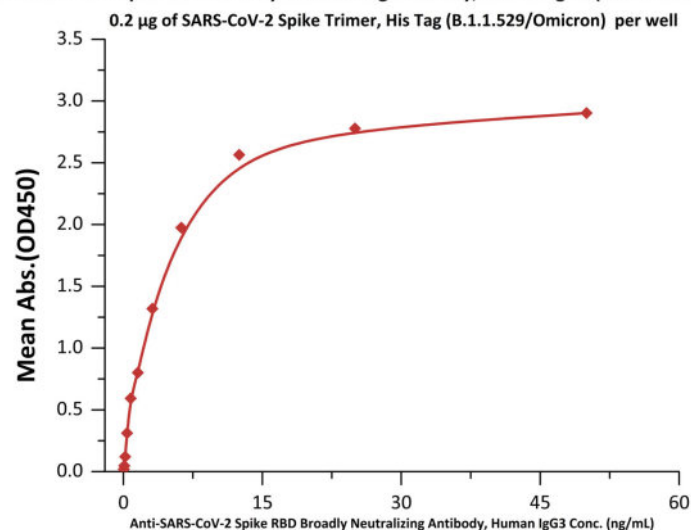
### SEC-MALS



The purity of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG3 (AM359b) (Cat. No. SPD-M401a) is more than 90% and the molecular weight of this protein is around 130-160 kDa verified by SEC-MALS.

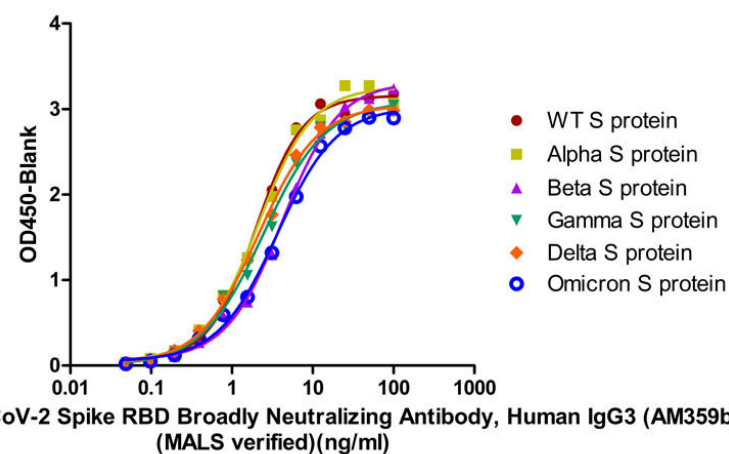
[Report](#)

Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG3 (MALS verified) ELISA



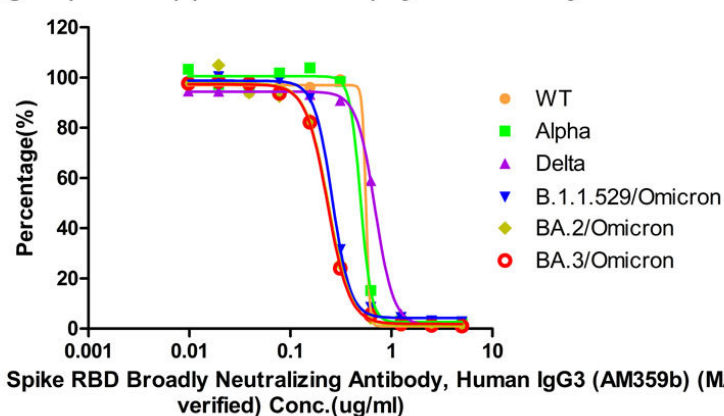
Immobilized SARS-CoV-2 Spike Trimer, His Tag (B.1.1.529/Omicron) (Cat. No. SPN-C52Hz) at 2µg/mL (100µL/well) can bind Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG3 (AM359b) (Cat. No. SPD-M401a) with a linear range of 0.2-6 ng/mL (QC tested).

Detection of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG3 (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 IgG3 (AM359b) (Cat. No. SPD-M401a) 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 IgG3 (AM359b) (MALS verified) by ELISA Assay



Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG3 (AM359b) (Cat.No. SPD-M401a) 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](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.