Source

The mouse monoclonal antibody is produced from a hybridoma resulting from fusion of SP2/0 myeloma and B-lymphocytes obtained from a mouse immunized with Spike RBD. The antibody is specific against the Beta (B.1.351) and Gamma (P.1) variant of SARS-CoV-2, and has no binding with the spike RBD of the wild type virus, the Alpha (B.1.1.7) variant and the Delta (B.1.617.2) variant.

Isotype

Mouse IgG1/kappa

Specificity

This product is a specific antibody against SARS-CoV-2 Spike protein RBD domain. No cross-reactivity is detected with Spike protein RBD domain of other coronaviruses, including SARS-CoV, MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-OC43 and HCoV-HKU1.

Purity

>95% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Storage

Please avoid repeated freeze-thaw cycles.

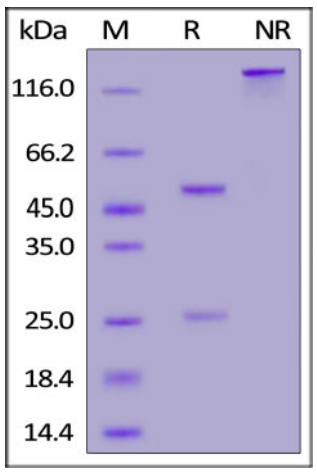
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

Shipping

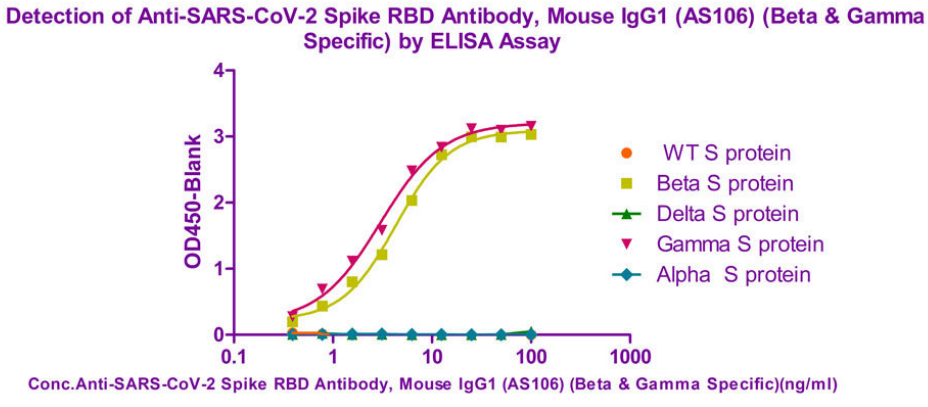
This product is supplied and shipped as sterile liquid solution with dry ice, please inquire the shipping cost.

SDS-PAGE



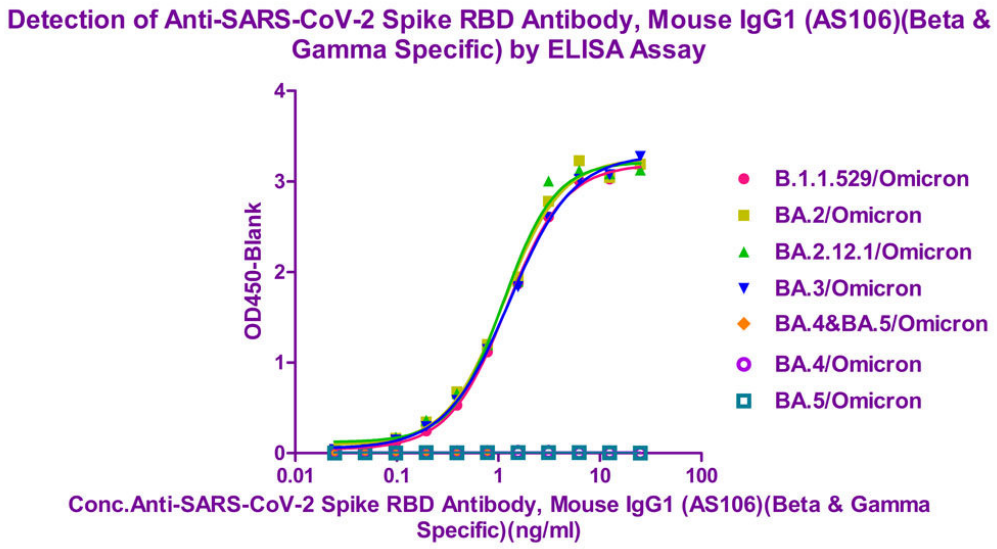
Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



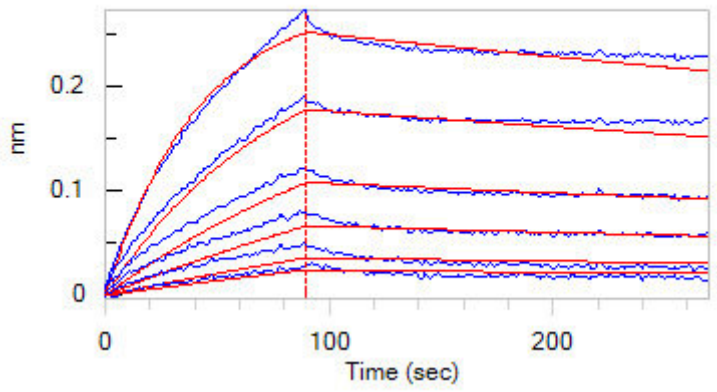
Immobilized SARS-CoV-2 spike protein (Beta, Cat. No. SPN-C52Hk and Gamma, Cat. No. SPN-C52Hg) can bind Anti-SARS-CoV-2 Spike RBD

Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) (Cat. No. SPD-M416) with a linear range of 6-8 ng/mL. The antibody does not bind spike protein of WT (Cat. No. SPN-C52H7), Alpha (Cat. No. SPN-C52H6) and Delta (Cat. No. SPN-C52He) (QC tested).

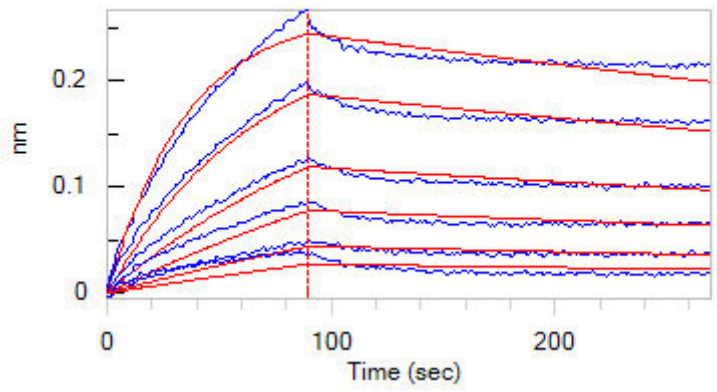


Immobilized SARS-CoV-2 Spike RBD protein B.1.1.529/Omicron (Cat. No. SPD-C522e), BA.2/Omicron (Cat. No. SPD-C522g), BA.2.12.1/Omicron (Cat. No. SPD-C522q) and BA.3/Omicron (Cat. No. SPD-C522i) can bind Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) (Cat. No. SPD-M416) with a linear range of 0.05-1.56 ng/mL. The antibody does not bind Spike RBD protein BA.4&BA.5/Omicron (Cat. No. SPD-C522r), Spike protein BA.4/Omicron (Cat. No. SPN-C5229) and BA.5/Omicron (Cat. No. SPN-C522e) (Routinely tested).

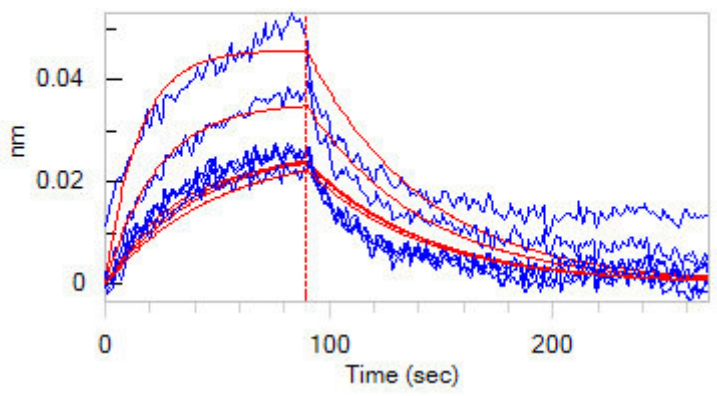
Bioactivity-BLI



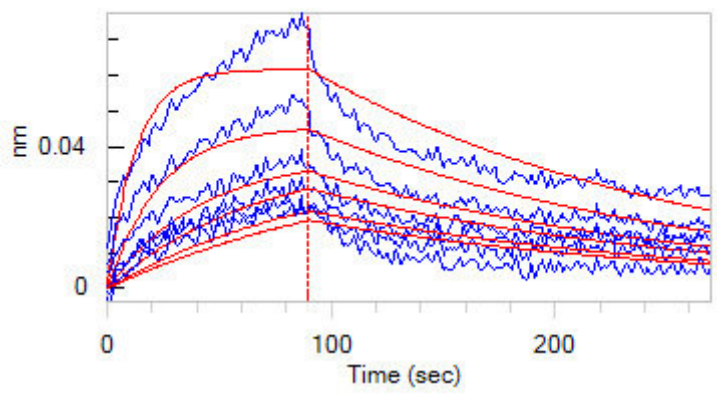
Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) (Cat. No. SPD-M416) loaded on AMC Biosensor can bind SARS-CoV-2 S protein, His Tag (Beta, Cat. No. SPN-C52Hk) with an affinity constant of 19.1 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) (Cat. No. SPD-M416) loaded on AMC Biosensor can bind SARS-CoV-2 S protein, His Tag (Gamma, Cat. No. SPN-C52Hg) with an affinity constant of 20.6 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) (Cat. No. SPD-M416) loaded on AMC Biosensor does not



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AS106) (Beta & Gamma Specific) (Cat. No. SPD-M416) loaded on AMC Biosensor does not

bind SARS-CoV-2 S protein, His Tag (WT, Cat. No. SPN-C52H7) as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

bind SARS-CoV-2 S protein, His Tag (Alpha, Cat. No. SPN-C52H6) as determined in BLI assay (ForteBio Octet Red96e) (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

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