Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (MALS verified)

Catalog # SPD-M334

Source

Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (SPD-M334) is a chimeric monoclonal antibody recombinantly expressed from HEK293 cells, which combines the variable region of a mouse monoclonal antibody with human IgG1 constant domain. The mouse monoclonal antibody was obtained from a mouse immunized with recombinant SARS-CoV-2 Spike RBD protein. ***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, the Delta (B.1.617.2) variant and the Omicron (B.1.1.529, BA.2) variant.***

Isotype

Mouse IgG1 | Mouse 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.

>90% as determined by SEC-MALS.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Formulation

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

Contact us for customized product form or formulation.

Shipping

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

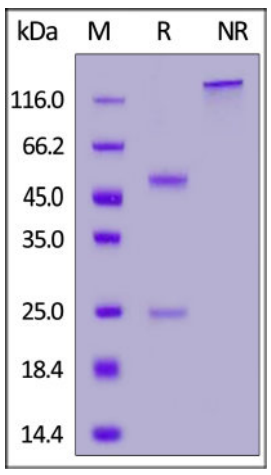
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

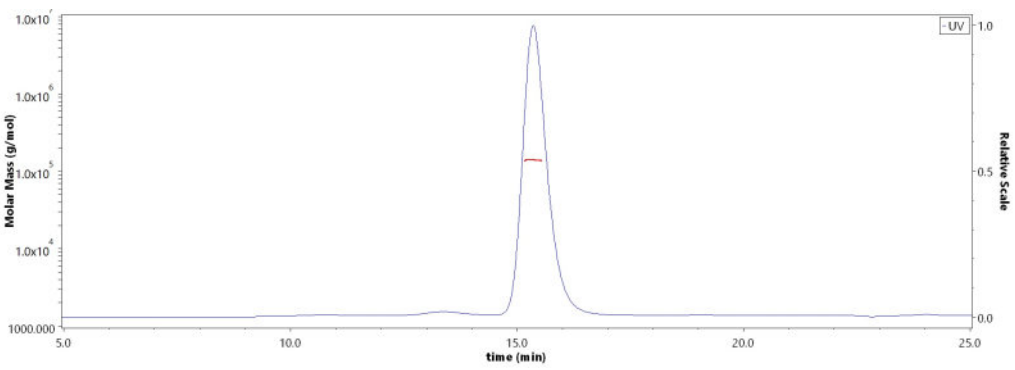
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (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%.

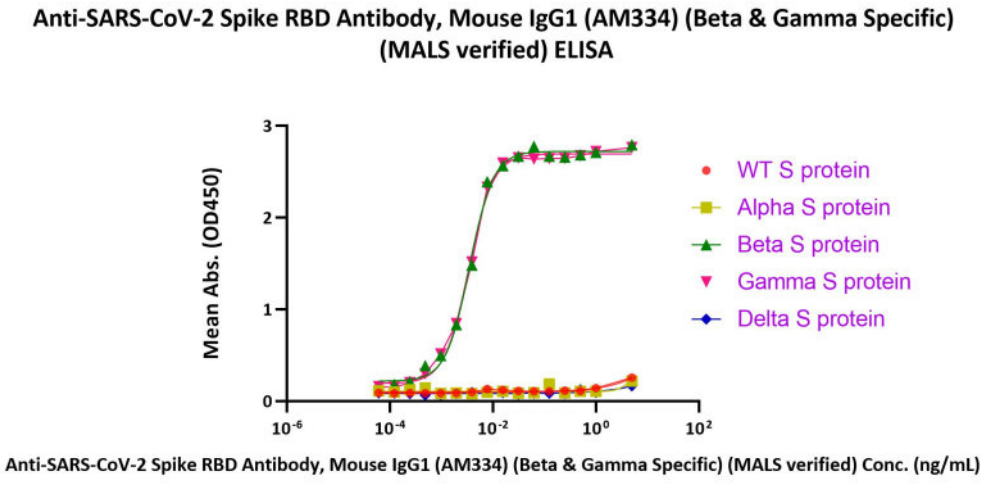
SEC-MALS



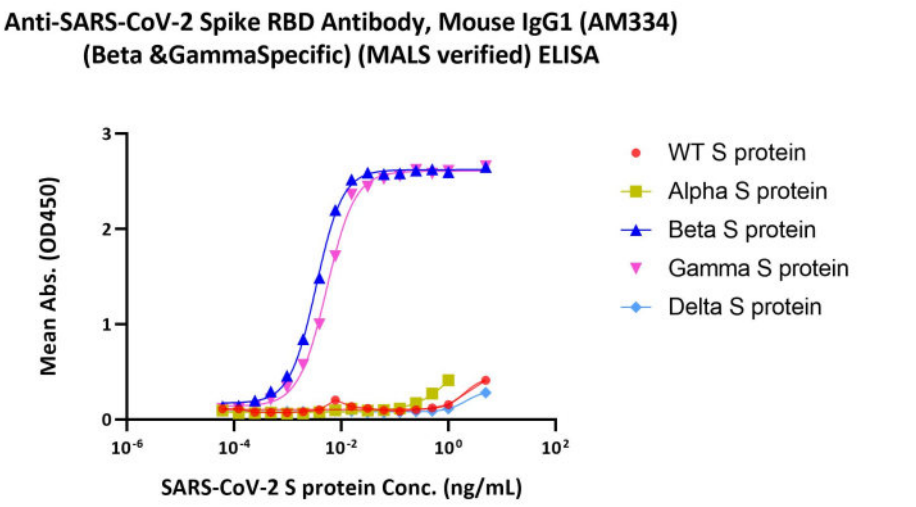
The purity of Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) is more than 90% and the molecular weight of this protein is around 130-155 kDa verified by SEC-MALS.

Report

Bioactivity-Elisa

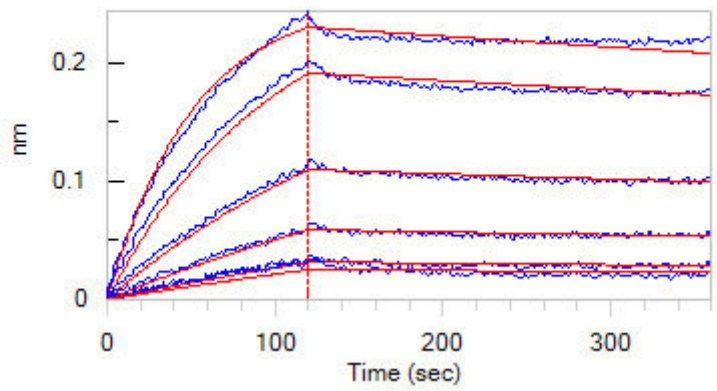


Immobilized SARS-CoV-2 spike protein (Beta, Cat. No. SPN-C52Hk and Gamma, Cat. No. SPN-C52Hg) can bind Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) with a linear range of 0.1-8 ng/mL. The antibody does not bind spike protein of WT (Cat. No. SPN-C52H7), Alpha (Cat. No. SPN-C52H6) and Delta (Cat. No. SPN-C52He) (QC tested).

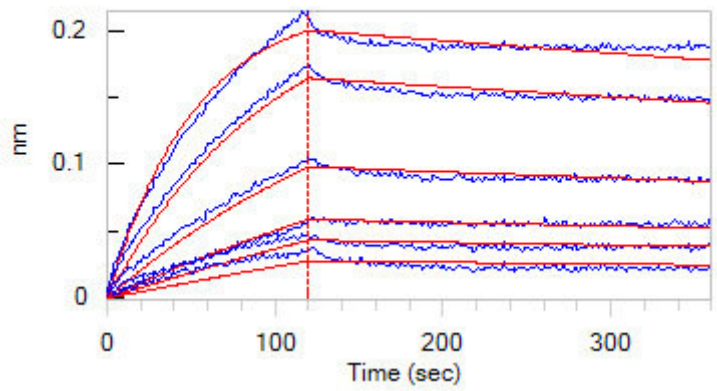


Immobilized Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) can bind SARS-CoV-2 spike protein (Beta, Cat. No. SPN-C52Hk and Gamma, Cat. No. SPN-C52Hg) with a linear range of 0.5-8 ng/mL. The antibody does not bind spike protein of WT (Cat. No. SPN-C52H7), Alpha (Cat. No. SPN-C52H6) and Delta (Cat. No. SPN-C52He) (Routinely tested).

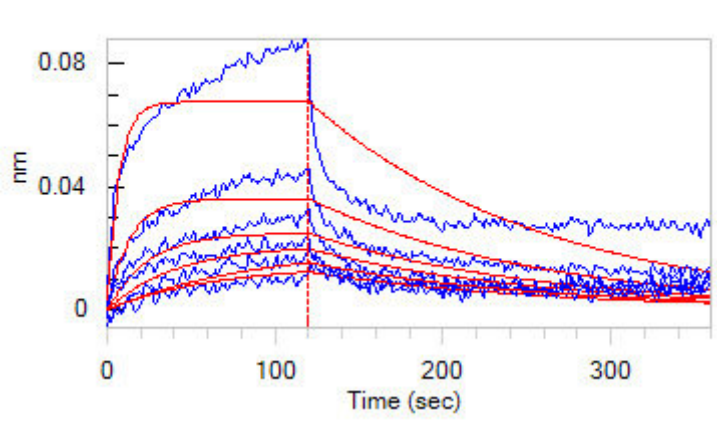
Bioactivity-BLI



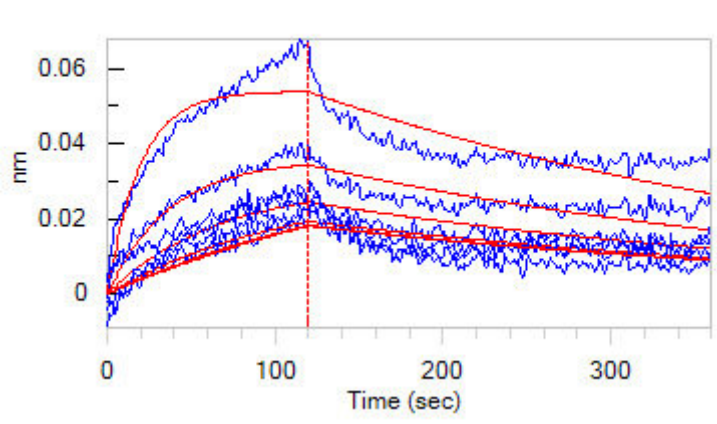
Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) loaded on AMC Biosensor can bind SARS-CoV-2 S protein, His Tag (Beta, Cat. No. SPN-C52Hk) with an affinity constant of 11.1 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) loaded on AMC Biosensor can bind SARS-CoV-2 S protein, His Tag (Gamma, Cat. No. SPN-C52Hg) with an affinity constant of 13.1 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) 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).



Anti-SARS-CoV-2 Spike RBD Antibody, Mouse IgG1 (AM334) (Beta & Gamma Specific) (Cat. No. SPD-M334) loaded on AMC Biosensor does not bind SARS-CoV-2 S protein, His Tag (Alpha, Cat. No. SPN-C52H6) as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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.