Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Chimeric mAb, Human IgG1 (AM122) (MALS verified)

Catalog # S1N-VM226

Source

Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Human IgG1 (AM122) (S1N-VM226) 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 S1 Protein. ***As verified in competitive ELISA-based and pseudovirus-based neutralization assay, this chimeric monoclonal can potently neutralize all SARS-CoV-2 Variants of Concern (VOCs), including Alpha (B.1.1.7), Beta (B.1.351), Gamma (P.1) and Delta (B.1.617.2).***

Isotype

Human IgG1/kappa

Specificity

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

Application

This antibody can be paired with other Anti-SARS-CoV-2 Spike S1 antibodies to detect SARS-CoV-2 Spike S1 protein in sandwich ELISA or LFA assay.

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

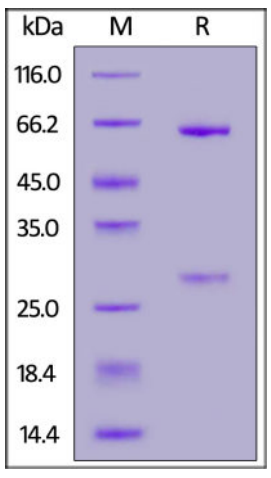
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

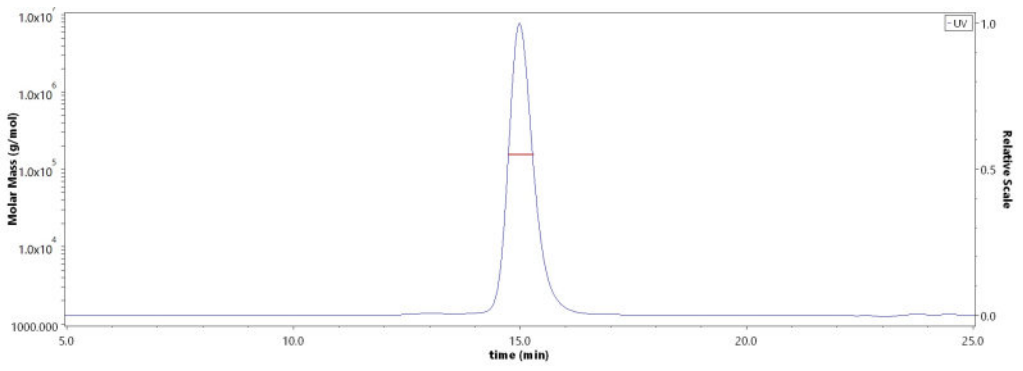
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Human IgG1 (AM122) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

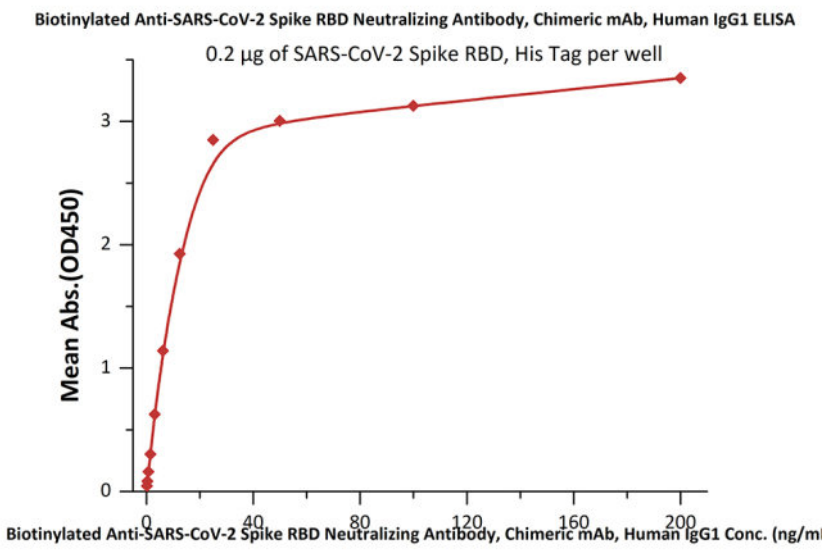


The purity of Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Human IgG1 (AM122) (Cat. No. S1N-VM226) is more than 90% and the molecular weight of this protein is around 145-160 kDa verified by SEC-MALS.
Report

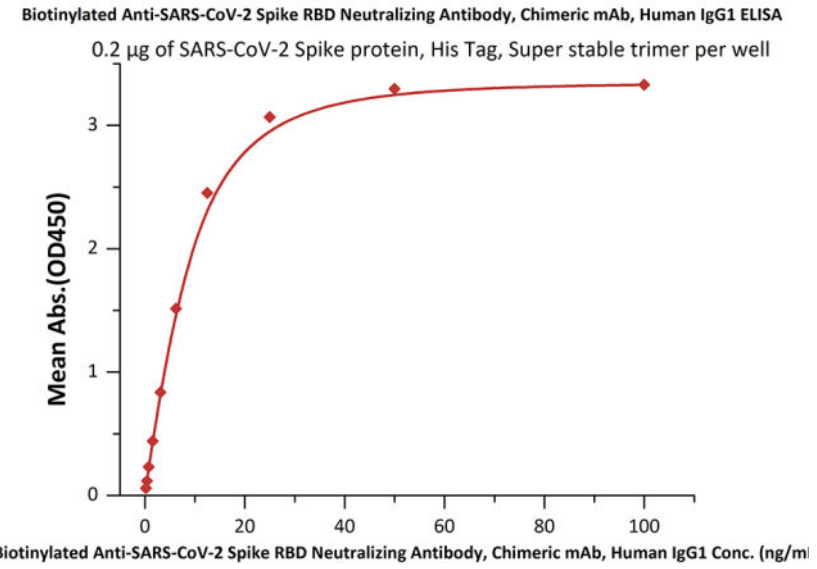
Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Chimeric mAb, Human IgG1 (AM122) (MALS verified)

Catalog # S1N-VM226

Bioactivity-Elisa

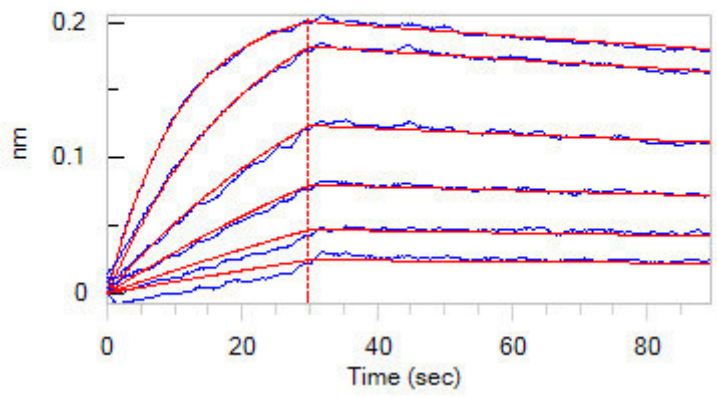


Immobilized SARS-CoV-2 Spike RBD, His Tag (Cat. No. SPD-C52H3) at 2 μg/mL (100 μL/well) can bind Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Human IgG1 (AM122) (Cat. No. S1N-VM226) with a linear range of 0.2-13 ng/mL (QC tested).

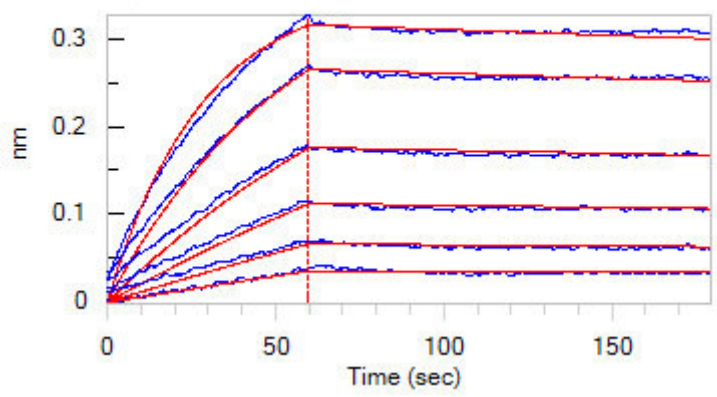


Immobilized SARS-CoV-2 Spike Protein, His Tag, Super stable trimer (Cat. No. SPN-C52H9) at 2 μg/mL (100 μL/well) can bind Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Human IgG1 (AM122) (Cat. No. S1N-VM226) with a linear range of 0.2-13 ng/mL (Routinely tested)

Bioactivity-BLI



Loaded Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Human IgG1 (AM122) (Cat. No. S1N-VM226) on AHC Biosensor, can bind SARS-CoV-2 Spike RBD, His Tag (Cat. No. SPD-C52H3) with an affinity constant of 1.97 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Biotinylated Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Chimeric mAb, Human IgG1 (Cat. No. S1N-VM226) on AHC Biosensor, can bind SARS-CoV-2 Spike Protein, His Tag, Super stable trimer (Cat. No. SPN-C52H9) with an affinity constant of 2.47 nM 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.