

Source

Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 (Delta Specific) 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 Delta (B.1.617.2/AY.4) variant of SARS-CoV-2, and has no binding with the spike RBD of the wild type virus and the Alpha (B.1.1.7), Beta (B.1.351), Gamma (P.1), Omicron (B.1.1.529/BA.1) variant.*

Isotype

Human IgG1/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.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 . Normally trehalose is added as protectant before lyophilization.

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

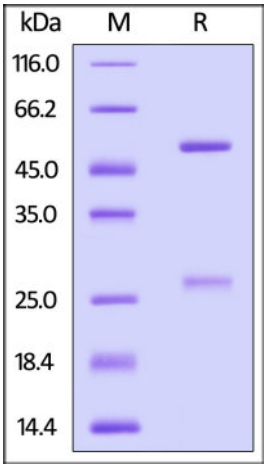
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

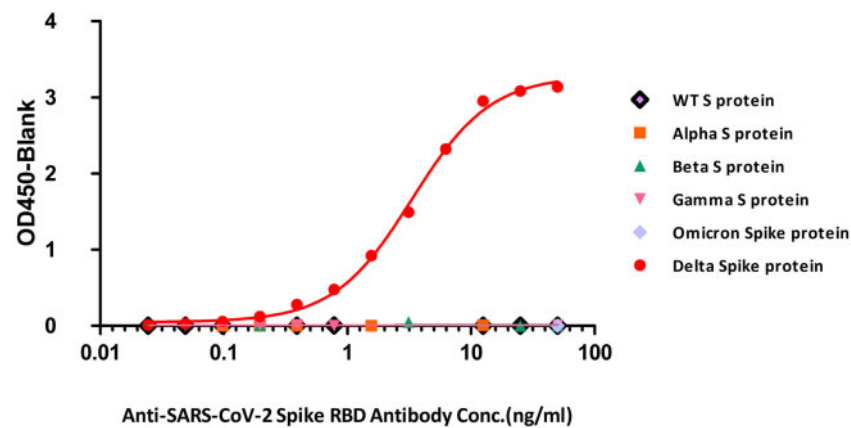
SDS-PAGE



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

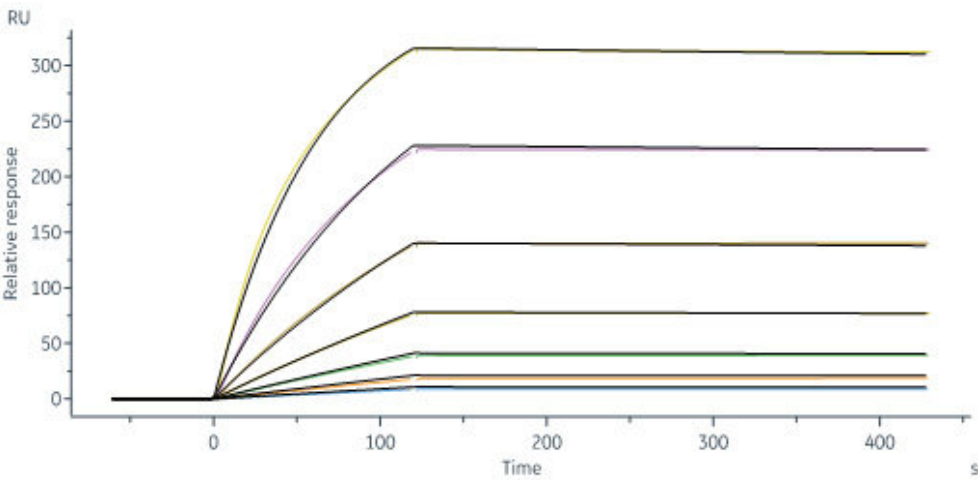
Bioactivity-ELISA

Detection of Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 (Delta Specific)
ELISA Assay

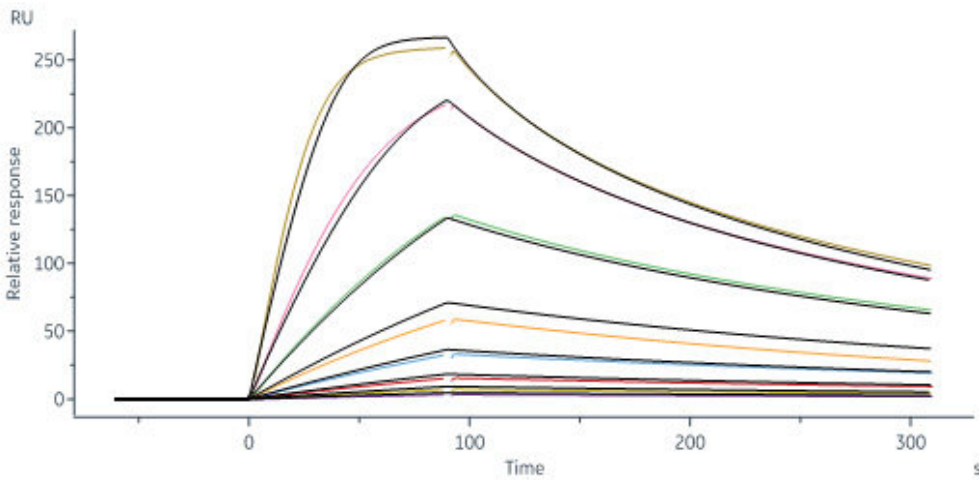


Immobilized SARS-CoV-2 Spike Trimer (T19R, G142D, EF156-157del, R158G, L452R, T478K, D614G, P681R, D950N) His Tag (Cat. No. SPN-C52He) at 2μg/mL (100μL/well) can bind Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 (Delta Specific) (Cat. No. SPD-M370) with a linear range of 0.2-3 ng/mL. The antibody does not bind S protein of WT (Cat. No. SPN-C52H9), Alpha (Cat. No.SPN-C52H6), Beta (Cat. No.SPN-C52Hk), Delta (Cat. No. SPD-C52Hh), Gamma (Cat. No. SPN-C52Hg) and Omicron (Cat. No. SPN-C52Hz) (Routinely tested).

Bioactivity-SPR



Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 (Delta Specific) (Cat. No. SPD-M370) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind SARS-CoV-2 Spike Trimer, His Tag (Cat. No. SPN-C52He) with an affinity constant of 0.211 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 (Delta Specific) (Cat. No. SPD-M370) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind SARS-CoV-2 Spike RBD (L452R, T478K), His Tag (Cat. No. SPD-C52Hh) with an affinity constant of 3.14 nM as determined in a SPR assay (Biacore 8K) (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.