Anti-SARS-CoV-2 RBD Potent Neutralizing Antibody, Human IgG1 (AM180)

Catalog # SPD-M180

Source

Anti-SARS-CoV-2 RBD Potent Neutralizing Antibody, Human IgG1 (AM180) is isolated from a SARS-CoV-2 infected patient and is recombinantly produced from human 293 cells (HEK293). This antibody recognizes the SARS-CoV-2 Spike Protein RBD domain and inhibits the interaction between SARS-CoV-2 RBD and ACE2 with an IC50 of 0.98 μg/mL using SARS-CoV-2 Inhibitor Screening Kit.Pseudovirus assay shows that this antibody has potent neutralizing activity against pseudovirus bearing SARS-CoV-2 Spike protein.

Clone

AM180

Isotype

Human IgG1 | Human Kappa

Conjugate

Unconjugated

Antibody Type

Recombinant Monoclonal

Reactivity

Virus

Specificity

This product is a specific antibody against SARS-CoV-2 Spike protein RBD domain. Cross-reactivity with RBD of other coronaviruses has not been tested.

Application

Application	Recommended Usage
ELISA	0.2-13 ng/mL

Purity

>95% as determined by SDS-PAGE.

Purification

Protein A purified / Protein G purified

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

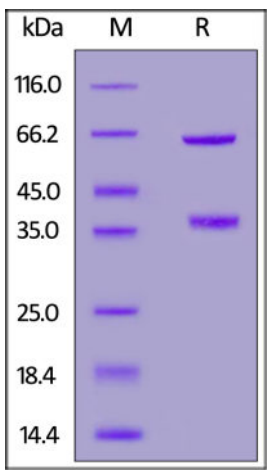
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

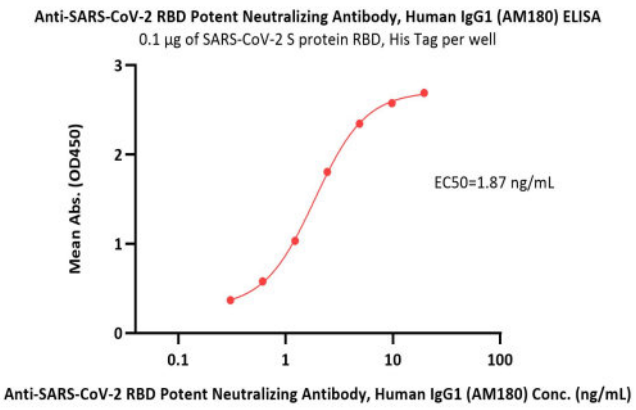
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

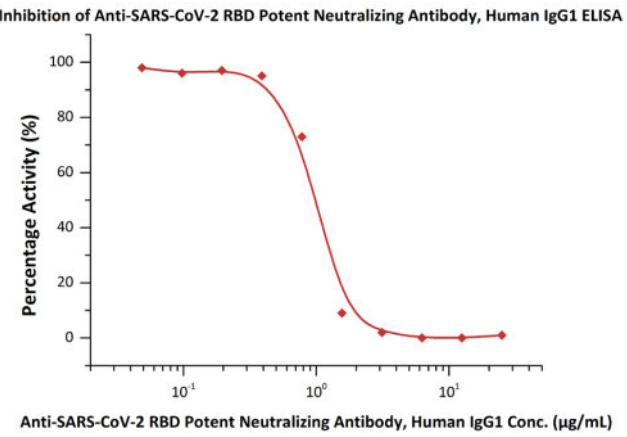


Anti-SARS-CoV-2 RBD Potent Neutralizing Antibody, Human IgG1 (AM180) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

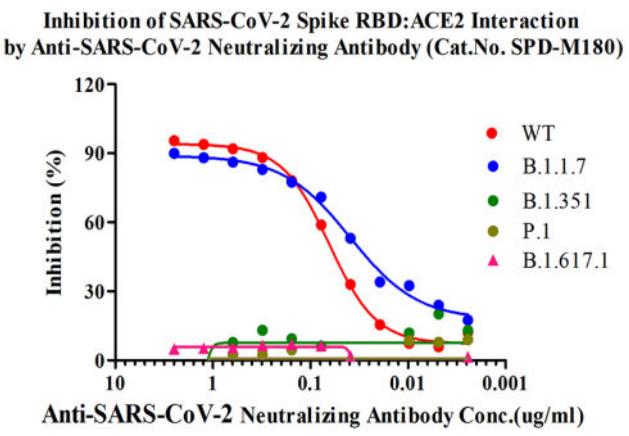
Bioactivity-ELISA



Immobilized SARS-CoV-2 S protein RBD, His Tag (Cat. No. SPD-C52H3) at 1 μg/mL (100 μL/well) can bind Anti-SARS-CoV-2 RBD Potent Neutralizing Antibody, Human IgG1 (AM180) (Cat. No. SPD-M180) with a linear range of 0.2-2 ng/mL (QC tested).



Serial dilutions of Anti-SARS-CoV-2 RBD Potent Neutralizing Antibody, Human IgG1 (AM180) (Cat. No. SPD-M180) were added into SARS-CoV-2 S protein RBD, His Tag (Cat. No. SPD-C52H3): Biotinylated Human ACE2, His,Avitag (Cat. No. AC2-H82E6) binding reactions. The half maximal inhibitory concentration (IC50) is 0.98269 μg/mL (Routinely tested).



Anti-SARS-CoV-2 RBD Potent Neutralizing Antibody, Human IgG1 (AM180) (Cat.No. SPD-M180) neutralizes SARS-CoV-2 Spike RBD by inhibiting RBD:ACE2 interaction. The ACE2-coated plate is incubated with the wild type (WT) RBD or B.1.1.7, B.1.351, P.1, B.1.617.1 mutant and treated with the antibody at increasing concentration. Percent inhibition is calculated based on the OD value.

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