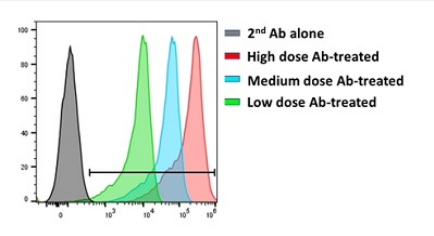
SARS-CoV-2 RecomAb™

SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7

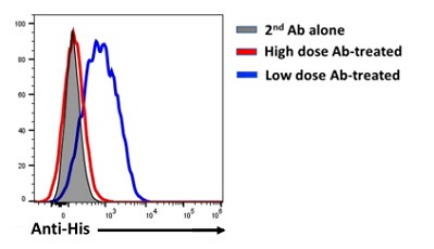
Catalog # RAB01068-M01J Size 50 ug

Applications



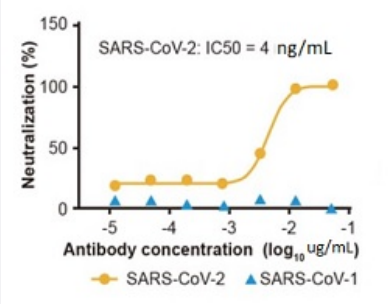
Flow Cytometry (Transfected cell)

Flow cytometry (transfected cell) analysis of 293T-SARS-CoV-2 spike cells were treated with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J). This antibody efficiently bound to 293T-SARS-CoV-2 spike cells.



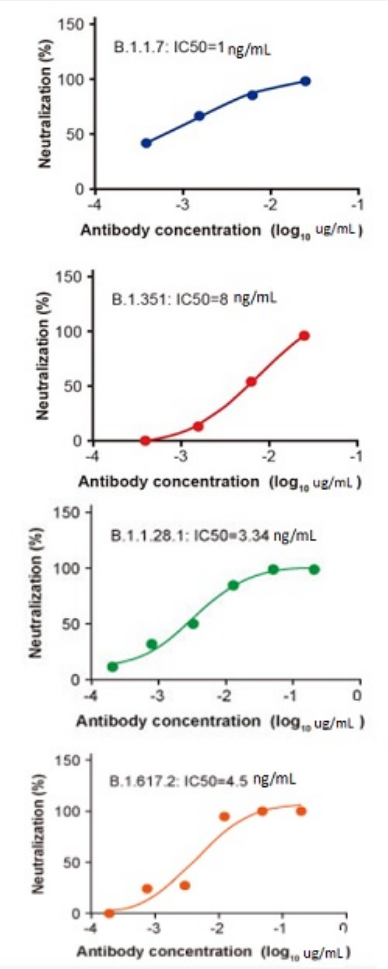
Inhibition Assay

Protein receptor-binding inhibition assay of spike-His protein was treated with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J), and then added into 293T-ACE2 cells. Data were analyzed by flow cytometer. Binding affinity of spike-His protein to ACE2 is totally blocked by this antibody.



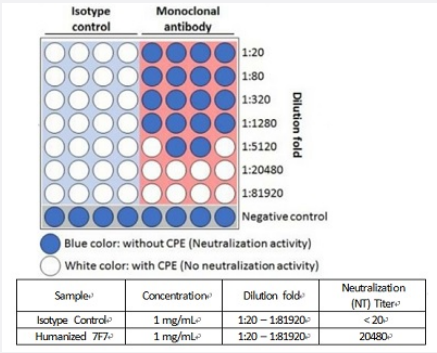
Neutralization

Neutralization analysis of pseudovirus was treated with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J), and then added into 293T-ACE2 cells. Luciferase activity was measured 48 hours post infection.



Neutralization

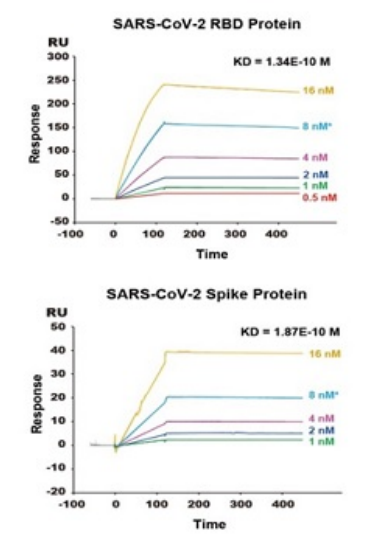
Neutralization analysis of variant pseudovirus was treated with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J), and then added into 293T-ACE2 cells. Luciferase activity was measured 48 hour post infection.



Sample	Concentration	Dilution fold	Neutralization (NT) Titer
Isotype Control	1 mg/mL	1:20 – 1:81920	< 20
Humanized 7F7	1 mg/mL	1:20 – 1:81920	20480

Neutralization

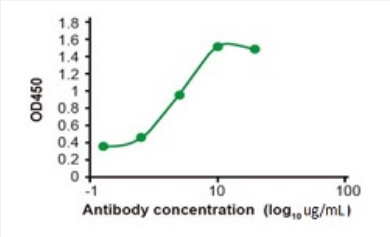
Cytopathic effect (CPE) based live virus neutralization analysis with human IgG1 isotype control and SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J). The antibody solutions (100 uL) were mixed in 1:1 (v/v) with suspension containing 200 $TCID_{50}$ of SARS-CoV-2 virus.



Antibody Kinetics

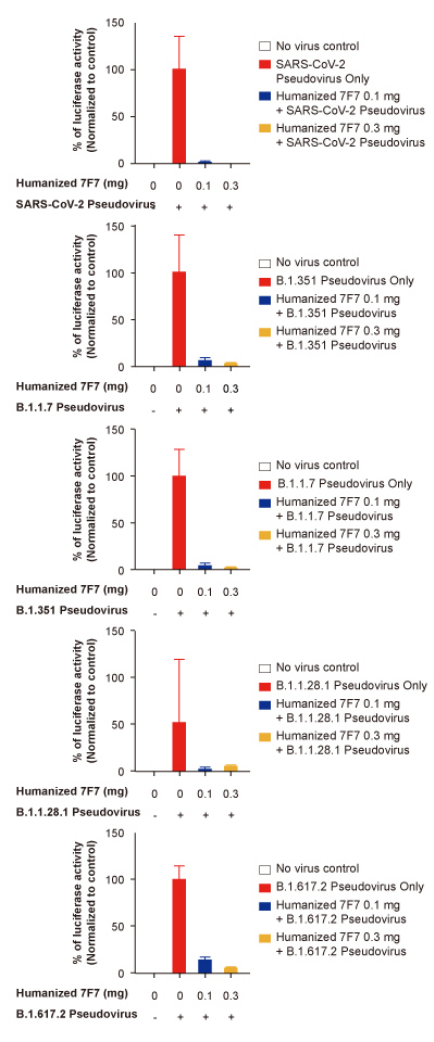
Antibody kinetics with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J) and data were analyzed by biacore surface plasmon resonance.

Enzyme-linked Immunoabsorbent Assay



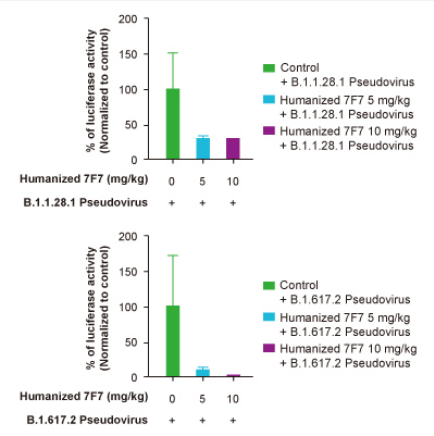
ELISA analysis coated mucin (100 ug/mL) with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J).

Neutralization



In *in vivo* neutralization analysis, hamsters received 2 doses of SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J) by intraperitoneal injection and then were infected with 3 doses pseudovirus through intanasal injection. Lung tissues were collected one day post last dose pseudovirus treatment. Luciferase gene expression level was detected by QPCR.

Neutralization



In *in vivo* nasal prophylaxis neutralization analysis. Hamsters were infected with either B.1.1.28.1 (upper panel) or B.1.617.2 (lower panel) variant spike pseudovirus 2 hours after receiving SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J). Lung tissues were collected one day after the last dose of pseudovirus treatment. Luciferase gene expression level was detected by qPCR.

Specification

Product Description	Human recombinant monoclonal antibody raised against SARS-CoV-2 S.
Antibody Species	Human
Immunogen	SARS-CoV-2 S recombinant protein
Reactivity	SARS-CoV-2
Specificity	Reacts with RBD domain of spike protein of SARS-CoV-2, including B.1.1.7, B.1.351 and B.1.1.28.1 variants.
Form	Liquid
Purification	Protein A sepharose
Isotype	Human IgG1
Storage Buffer	In PBS, pH 7.4
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- ### Flow Cytometry (Transfected cell)

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- Neutralization

Cytopathic effect (CPE) based live virus neutralization analysis with human IgG1 isotype control and SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J). The antibody solutions (100 uL) were mixed in 1:1 (v/v) with suspension containing 200 $TCID_{50}$ of SARS-CoV-2 virus.

- Antibody Kinetics

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- Epitope Mapping

SARS-CoV-2 S1+S2 domain (residues 16-1213): positive
SASRS-CoV-2 S1 domain (residues 1-674): positive
SARS-CoV-2 receptor binding domain (residues 319-541): positive
SARS-CoV-2 core domain + receptor binding subdomain (residues 387-516): positive
SARS-CoV-2 receptor-binding motif (residues 438-505): positive
Data were analyzed by indirect ELISA.

- Enzyme-linked Immunoabsorbent Assay

ELISA analysis coated mucin (100 ug/mL) with SARS-CoV-2 S recombinant human monoclonal antibody, clone 7F7 (Cat # RAB01068-M01J).

- Neutralization

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