

Datasheet for ABIN7581775

Recombinant anti-SARS-CoV-2 Spike antibody (AA 319-541)



[Go to Product page](#)

4 Images

Overview

Quantity:	100 µg
Target:	SARS-CoV-2 Spike
Binding Specificity:	AA 319-541
Reactivity:	SARS Coronavirus-2 (SARS-CoV-2)
Host:	Mouse
Expression System:	Phage display
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This SARS-CoV-2 Spike antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (IF)

Product Details

Purpose:	recombinant anti-SARS-CoV-2 spike antibody
Immunogen:	No immunization, animal-free antibody development. Antigen: Spike Protein SARS-CoV2 RVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNKRISNCVADYSVLVNSASFSTFKCYGVSP TKLNDLCFTNVYADSFVIRG
Clone:	AB68-A09
Isotype:	IgG2a
Specificity:	This is an antibody developed by antibody phage display technology using a human naive antibody gene library and SAR
Cross-Reactivity:	No known cross reactivity. No cross-reactivity to other human coronaviruses.

Product Details

(Details):

Characteristics: This antibody can be detected with anti-mouse Fc secondary antibodies.

Purification: Protein A purification

Grade: Animal-Free

Target Details

Target: SARS-CoV-2 Spike

Alternative Name: SARS-CoV-2 spike protein (RBD) ([SARS-CoV-2 Spike Products](#))

Background: Coronaviruses (CoVs) are enveloped non-segmented positive-sense single-stranded RNA viruses and can infect respiratory, gastrointestinal, hepatic and central nervous system of human and many other wild animals. Recently, a new severe acute respiratory syndrome β -coronavirus called SARS-CoV-2 (or 2019-nCoV) has emerged, which causes an epidemic of acute respiratory syndrome (called coronavirus human disease 2019 or COVID-19). SARS-CoV-2 shares 79.5 % sequence identity with SARS-CoV and is 96.2 % identical at the genome level to the bat coronavirus BatCoV RaTG133, suggesting it had originated in bats. SARS-CoV-2 contains 4 structural proteins, including Envelope (E), Membrane (M), Nucleocapsid (N) and Spike (S), which is a transmembrane protein, composed of two subunits S1 and S2. The S protein plays a key role in viral infection and pathogenesis. The S1 subunit contains the N-terminal domain (NTD) and a receptor binding domain (RBD), which binds to the cell surface receptor Angiotensin-Converting Enzyme 2 (ACE2) present at the surface of epithelial cells, causing mainly infection of human respiratory cells, whereas S2 harbors heptad repeat 1 (HR1) and HR2. The RBD domain first binds its receptor to form an RBD/ACE2 complex. This triggers conformational changes in the S protein, leading to membrane fusion mediated via HR1 and HR2 and consequently in viral entry into target cells. Antibodies targeting various regions of S protein have different mechanisms in inhibiting SARS-CoV-2 infection. For example, NTD-targeting antibodies bind the NTD to form an NTD/mAb complex, thereby preventing conformational changes in the S protein and blocking membrane fusion and viral entry. RBD-targeting antibodies form RBD/mAb or RBD/Nb complexes that could inhibit binding of the RBD to ACE2, thereby preventing entry of SARS-CoV-2 into target cells.

Molecular Weight: 76 kDa

NCBI Accession: [YP_009724390](#)

UniProt: [P0DTC2](#)

Application Details

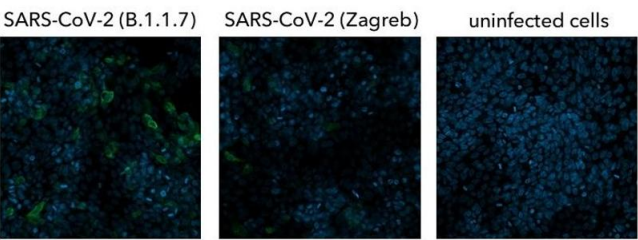
Application Notes:	Western Blot: 0.2-5 µg/mL ELISA: 1-12 µg/mL as coating antibody 0.5-5 µg/mL as detection antibody IF: 0.1 - 10 µg/mL Optimal working dilution should be determined by the investigator
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS, pH 7.4,
Storage:	-20 °C

Images

to stain SARS-CoV-2 infected Calu-3 cells

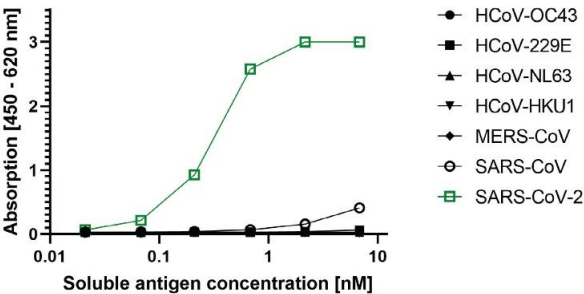


green: anti-mouse Alexa488
blue: nuclei staining

Immunofluorescence

Image 1. Calu-3 cells were infected with SARS-CoV-2 (B.1.1.7 or Zagreb), fixed with formaldehyde and stained with (ABIN7581775) followed by anti-mouse-Alexa488 staining and a nuclear marker.

recAb binding to soluble S1 protein from different human coronaviruses

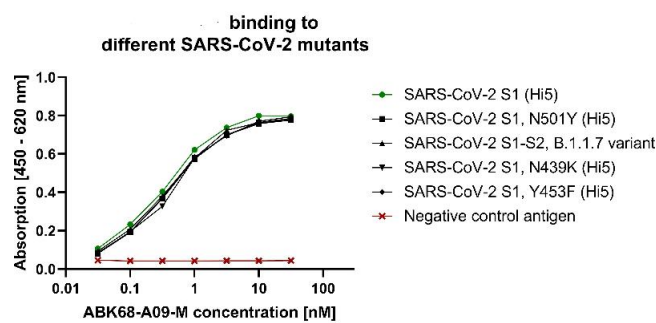


ELISA

Image 2. S1 Protein of different beta-corona strains were coated on an ELISA plate at 100 ng. Anti-SARS-CoV-2 S1 Antibody, (ABIN7581775), was titrated on top. Detection with anti-mouse HRP conjugated antibody. Binding reactions were visualized using TMB. Absorbance was measured in an ELISA plate reader at 450 nm using the signal at 620 nm as reference.

ELISA

Image 3. S1 Protein of different corona strain mutants (produced in Hi5 cells) were coated on an ELISA plate at 100 ng. Anti-SARS-CoV-2 S1 Antibody, (ABIN7581775), was titrated on top. Detection with anti-mouse HRP conjugated antibody. Binding reactions were visualized using TMB. Absorbance was measured in an ELISA plate reader at 450 nm using the signal at 620 nm as reference.



Please check the [product details page](#) for more images. Overall 4 images are available for ABIN7581775.