

Mouse COVID 19 Spike S2 Coronavirus Monoclonal Antibody | anti-COVID-19 antibody

SARS-CoV-2 (COVID-19) Spike S2 Antibody [4F10]

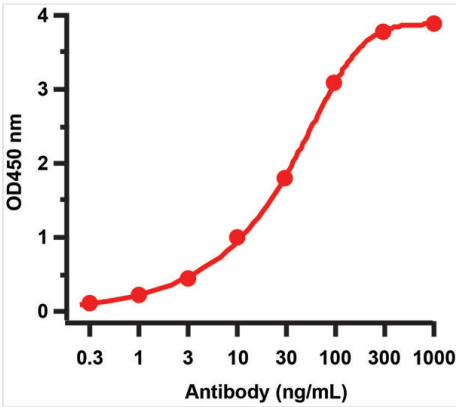
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA40951	Mouse	Virus Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (100%)	Immunofluorescence, Immunohistochemistry, Western Blot, ELISA

PRODUCT SYNONYMS

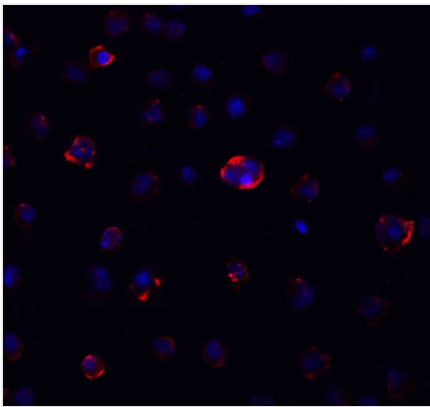
COVID 19 Spike S2 Coronavirus; Monoclonal Antibody; SARS-CoV-2 (COVID-19) Spike S2 Antibody [4F10]; 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; Spike S2SARS-CoV-2 (COVID-19) Spike S2 Antibody; Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2); Surface Glycoprotein; Spike protein; anti-COVID-19 antibody

PRODUCT SPECIFICATIONS

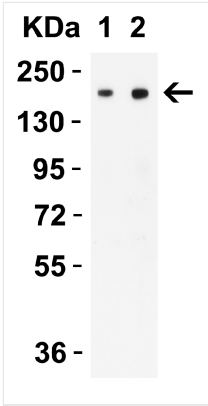
Host	Mouse
Reactivity	Virus Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (100%)
Clonality	Monoclonal
Isotype	IgG1
Clone Number	4F10
Purity/Purification	SARS-CoV-2 (COVID-19) Spike Antibody is Protein G purified.
Form/Format	Liquid; SARS-CoV-2 (COVID-19) Spike Antibody is supplied in PBS containing 0.02% sodium azide.
Concentration	1mg/mL (varies by lot)
Applicable Applications for anti-COVID-19 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot), ELISA
Immunogen	Anti-SARS-CoV-2 (COVID-19) Spike S2 antibody was raised against a peptide corresponding to 20 amino acids near the carboxy terminus of SARS-CoV-2 (COVID-19) Spike glycoprotein. The immunogen is located within the last 50 amino acids of SARS-CoV-2 (COVID-19) Spike protein.
Conjugation	Unconjugated
Protein GI#	1791269090
Isoform	SARS-CoV-2 (COVID-19) Spike has one isoform (1273aa).
NCBI Organism	Wuhan seafood market pneumonia virus
Preparation and Storage	SARS-CoV-2 (COVID-19) Spike S2 antibody can be stored at 4 degree C for three months and -20 degree C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.



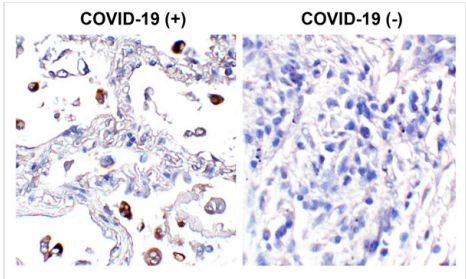
ELISA
Figure 4 ELISA TestAntibodies: SARS-CoV-2 (COVID-19) Spike S2 antibody, (1ug/mL). A direct ELISA was performed using immunogen or control peptide as coating antigen and the anti-SARS-CoV-2 (COVID-19) Spike antibody as the capture antibody. Secondary: Goat anti-mouse IgG HRP conjugate at 1:5,000 dilution. Detection range is from 0.3 ng/mL to 1,000 ng/mL.



IF (Immunofluorescence)
Figure 3 Immunofluorescence Validation of SARS-CoV-2 (COVID-19) Spike in 293T CellsImmunofluorescent analysis of 4% paraformaldehyde-fixed 293T cells labeling SARS-CoV-2 (COVID-19) Spike S2 with at 20ug/mL, followed by goat anti-mouse IgG secondary antibody at 1/500 dilution (red) and DAPI staining (blue).



WB (Western Blot)
Figure 2 Overexpression Validation in Spike Transfected 293 Cells Loading: 5ug per lane of 293 cell lysate. Antibodies: SARS-CoV-2 (COVID-19) Spike S2, 1h incubation at RT in 5% NFDm/TBST.Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10,000 dilution.Lane 1: 0.5ug/mL and Lane 2: 1ug/mL



IHC (Immunohistochemistry)
Figure 1 Immunohistochemistry Validation of SARS-CoV-2 (COVID-19) Spike in COVID-19 Patient LungImmunohistochemical analysis of paraffin-embedded COVID-19 patient lung tissue using anti-SARS-CoV-2 (COVID-19) Spike S2 antibody (PM-9428, 0.5ug/mL). Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4 degree. A goat anti-mouse IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin. Strong spike protein signal was observed in macrophages of COVID-19 patient lung, but not in non-COVID-19 patient lung.

ADDITIONAL INFORMATION

Related Product Information for anti-COVID-19 antibody	Coronavirus disease 2019 (COVID-19), formerly known as 2019-nCoV acute respiratory disease, is an infectious disease caused by SARS-CoV-2, a virus closely related to the SARS virus (1). The disease is the cause of the 2019-20 coronavirus outbreak (2). The structure of 2019-nCoV consists of the following: a Spike protein (S), hemagglutinin-esterase dimer (HE), a membrane glycoprotein (M), an envelope protein (E) a nucleocaplid protein (N) and RNA. Coronavirus invades cells through Spike (S) glycoproteins, a class I fusion protein. It is the major viral surface protein that coronavirus uses to bind to the human cell surface receptor. It also mediates the fusion of host and viral cell membrane, allowing the virus to enter human cells and begin infection (3). The spike protein is the major target for neutralizing antibodies and vaccine development (4). The protein modeling suggests that there is strong interaction between Spike protein receptor-binding domain and its host receptor angiotensin-converting enzyme 2 (ACE2), which regulate both the cross-species and human-to-human transmissions of COVID-19 (5). The recent study has shown that the SARS-CoV-2 spike protein binds ACE2 with higher affinity than SARS-CoV spike protein (6).
Product Categories/Family for anti-COVID-19 antibody	Primary Antibody; Infectious Disease; COVID-19

References

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Hui et al. Int J Infect Dis. 2020;91:264-266.
Belouzard et al. Viruses. 2012;4(6):1011-33.
Lee et al. J Virol. 2006;80(8):4079-87.
Wan et al. J Virol. 2020.
Wrapp et al. Science. 2020.

NCBI AND UNIPROT INFORMATION

NCBI GeneID

[43740568](#)

NCBI Official Full Name

Spike glycoprotein

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/covid-19-spike-s2-coronavirus-antibody-clone-4f10-immunofluorescence-immunohistochemistry-western-blot-elisa/40951>