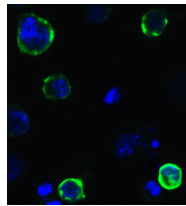




SARS-CoV-2 (COVID-19) Spike (cleavage site) Antibody

Cat. No.: 9095



SARS-CoV-2 (COVID-19) Spike (cleavage site) Antibody

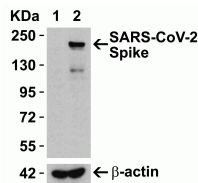


Figure 2 Overexpression Validation in Spike Transfected 293 Cells

Loading: 15 µg per lane of 293 cell lysate.
Antibodies: SARS-CoV-2 (COVID-19) Spike (cleavage site), 9095 (4 µg/mL), 1h incubation at RT in 5% NFDN/TBST.
Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: WT 293 cells and Lane 2: SARS-CoV-2 Spike overexpressed 293 cells

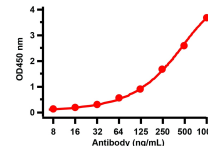


Figure 3 ELISA Validation with SARS-CoV-2 (COVID-19) Spike Recombinant Protein

Antibodies: SARS-CoV-2 (COVID-19) Spike antibody (cleavage site), 9095 (1 µg/mL). A direct ELISA was performed using SARS-CoV-2 (COVID-19) Spike S1 recombinant protein (97-087) as coating antigen and the anti-SARS-CoV-2 (COVID-19) Spike antibody (cleavage site) as the capture antibody. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:20000 dilution. Detection range is from 8 ng/mL to 1000ng/mL.

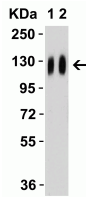


Figure 4 Western Blot Validation with SARS-CoV-2 (COVID-19) Spike Recombinant Protein

Loading: 50 ng per lane of SARS-CoV-2 (COVID-19) Spike S1 recombinant protein (97-087. Antibodies: SARS-CoV-2 (COVID-19) Spike (cleavage site), 9095, 1h incubation at RT in 5% NFDN/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: 2.5 µg/mL and Lane 2: 5 µg/mL.

Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Virus
HOMOLOGY:	Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (15%)
IMMUNOGEN:	Anti-SARS-CoV-2 (COVID-19) Spike Antibody (cleavage site) (9095) was raised against a peptide corresponding to 13 amino acids near the center of SARS-CoV-2 (COVID-19) Spike glycoprotein. The immunogen is located within 650-700 amino acids of SARS-CoV-2 (COVID-19) Spike protein.
TESTED APPLICATIONS:	ELISA, IF, WB
APPLICATIONS:	WB: 2.5-5 µg/mL; IF: 20 µg/mL. Antibody validated: Western Blot in human samples; Immunofluorescence in human samples. SARS-CoV-2 (COVID-19) Spike Antibody (cleavage site) can be used for the detection of SARS-CoV-2 (COVID-19) Spike protein in ELISA. It will detect 4 ng of free peptide at 1 µg/mL. All other applications and species not yet tested.

Ψ Properties

PURIFICATION:	SARS-CoV-2 (COVID-19) Spike Antibody (cleavage site) is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

PHYSICAL STATE:	Liquid
BUFFER:	SARS-CoV-2 (COVID-19) Spike Antibody (cleavage site) is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	SARS-CoV-2 (COVID-19) Spike antibody (cleavage site) can be stored at 4 °C for three months and -20 °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.

Additional Info

OFFICIAL SYMBOL:	S
ALTERNATE NAMES:	SARS-CoV-2 (COVID-19) Spike Antibody (cleavage site); Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), Surface Glycoprotein, Spike protein
ACCESSION NO.:	QHD43416
PROTEIN GI NO.:	1791269090
GENE ID:	43740568
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Background and References

BACKGROUND:	<p>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 nucleocapsid 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).</p>
REFERENCES:	<p>1) Gorbalenya. bioRxiv. 2020.</p> <p>2) Hui et al. Int J Infect Dis. 2020;91:264-266.</p> <p>3) Belouzard et al. Viruses. 2012;4(6):1011-33.</p> <p>4) Lee et al. J Virol. 2006;80(8):4079-87.</p> <p>5) Wan et al. J Virol. 2020.</p> <p>6) Wrapp et al. Science. 2020.</p>

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