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SARS-CoV-2 (COVID-19, 2019-nCoV) Spike Antibody

Cat. No.: 3525

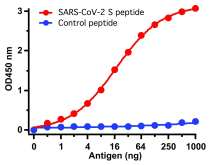

Figure 2 ELISA Test
Antibodies: SARS-CoV-2 (COVID-19, 2019-nCoV) Spike antibody, 3525 (1 µg/mL). A direct ELISA was performed using antigen or control peptide as coating antigen and the anti-SARS-CoV-2 (COVID-19, 2019-nCoV) Spike ant

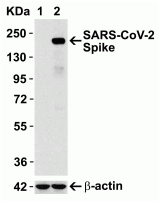

Figure 1 Overexpression Validation in Spike Transfected 293 Cells
Loading: 15 µg per lane of 293 cell lysate. Antibodies: SARS-CoV-2 Spike (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: WT 293 cells Lane 2: Spike overexpressed 293 cells

Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Virus
HOMOLOGY:	Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (100%)
IMMUNOGEN:	Anti-SARS-CoV-2 (COVID-19, 2019-nCoV) Spike antibody (**3525**) was raised against a peptide corresponding to 20 amino acids near the carboxy terminus of SARS-CoV-2 (COVID-19, 2019-nCoV) Spike glycoprotein. The immunogen is located within the last 50 amino acids of SARS-CoV-2 (COVID-19, 2019-nCoV) Spike protein.

TESTED APPLICATIONS:	ELISA
APPLICATIONS:	SARS-CoV-2 (COVID-19, 2019-nCoV) Spike antibody can be used for the detection of SARS-CoV-2 (COVID-19, 2019-nCoV) Spike protein in ELISA. It will detect 4 ng of free peptide at 1 µg/mL.

Properties

PURIFICATION:	SARS-CoV-2 (COVID-19, 2019-nCoV) Spike Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	SARS-CoV-2 (COVID-19, 2019-nCoV) Spike Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	SARS-CoV-2 (COVID-19, 2019-nCoV) Spike antibody 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, 2019-nCoV) Spike Antibody: 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:	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-esterease dimer (HE), a membrane glycoprotein (M), an envelope protein (E) a nucleoclapid 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).
REFERENCES:	1) Gorbalenya. bioRxiv: 2020.
	2) Hui et al. Int J Infect Dis. 2020;91:264-266.
	3) Belouzard et al. Viruses. 2012;4(6):1011-33.
	4) Lee et al. J Virol. 2006;80(8):4079-87.
	5) Wan et al. J Virol. 2020.
	6) Wrapp et al. Science. 2020.