

Rabbit COVID 19 Spike S1 Coronavirus Polyclonal Antibody | anti-COVID-19 antibody

SARS-CoV-2 (COVID-19) Spike S1 Antibody (biotin)

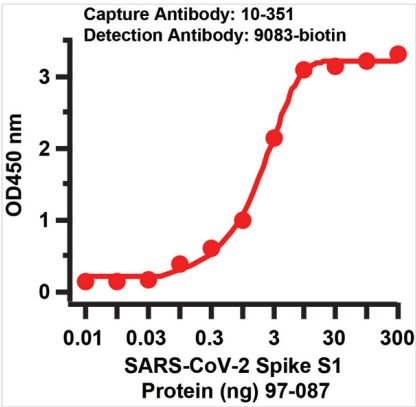
CATALOG # AAA40916	HOST Rabbit	REACTIVITY Virus	APPLICATIONS ELISA
------------------------------	-----------------------	----------------------------	------------------------------

PRODUCT SYNONYMS

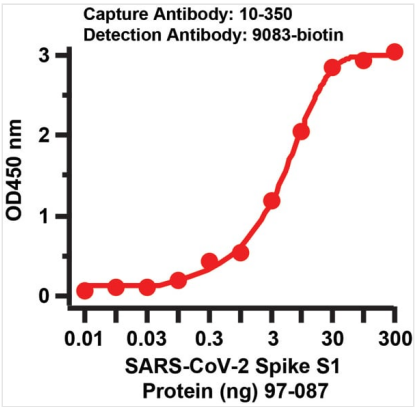
COVID 19 Spike S1 Coronavirus; Polyclonal Antibody; SARS-CoV-2 (COVID-19) Spike S1 Antibody (biotin); 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; Spike S1; anti-COVID-19 antibody

PRODUCT SPECIFICATIONS

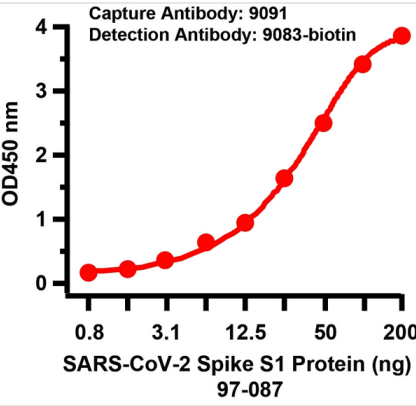
Host	Rabbit
Reactivity	Virus
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	SARS-CoV-2 (COVID-19) Spike S1 Antibody (biotin) is affinity chromatography purified via peptide column
Form/Format	Liquid SARS-CoV-2 (COVID-19) Spike S1 Antibody (biotin) is supplied in PBS containing 0.02% sodium azide.
Concentration	1mg/mL (varies by lot)
Applicable Applications for anti-COVID-19 antibody	ELISA
Source	SARS-CoV-2
Immunogen	Anti-SARS-CoV-2 (COVID-19) Spike S1 Antibody (biotin) (9083-biotin) was raised against a peptide corresponding to 16 amino acids near the amino terminus of SARS-CoV-2 (COVID-19) Spike S1 glycoprotein. The immunogen is located within the first 50 amino acids of SARS-CoV-2 (COVID-19) Spike S1 protein.
Homology	Predicted reactivity based on immunogen sequence: SARS-CoV Spike proteins: (44%)
Isoforms	SARS-CoV-2 (COVID-19) Spike S1 has one isoform (1273aa)
Conjugation	Biotin
Preparation and Storage	SARS-CoV-2 (COVID-19) Spike S1 Antibody (biotin) 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 3 Sandwich ELISA for SARS-CoV-2 (COVID-19) Matched Pair Spike S1 AntibodiesAntibodies: SARS-CoV-2 (COVID-19) Spike Antibodies, 10-351 and 9083-biotin. A sandwich ELISA was performed using SARS-CoV-2 Spike S1 antibody (10-351, 2ug/ml) as capture antibody, the Spike S1 recombinant protein as the binding protein (97-087), and the anti-SARS-CoV-2 Spike S1 antibody (9083-biotin, 1ug/ml) as the detection antibody. Secondary: Streptavidin-HRP at 1:10000 dilution. Detection range is from 0.03 ng to 300 ng. EC50 = 1.96 ng



ELISA
Figure 2 Sandwich ELISA for SARS-CoV-2 (COVID-19) Matched Pair Spike S1 AntibodiesAntibodies: SARS-CoV-2 (COVID-19) Spike Antibodies, 10-350 and 9083-biotin. A sandwich ELISA was performed using SARS-CoV-2 Spike S1 antibody (10-350, 2ug/ml) as capture antibody, the Spike S1 recombinant protein as the binding protein (97-087), and the anti-SARS-CoV-2 Spike S1 antibody (9083-biotin, 1ug/ml) as the detection antibody. Secondary: Streptavidin-HRP at 1:10000 dilution. Detection range is from 0.03 ng to 300 ng. EC50 = 5.1 ng



ELISA
Figure 1 ELISA Validation of SARS-CoV-2 Spike Antibody PairA sandwich ELISA was performed using the anti-SARS-COV-2 Spike S1 antibodies 9091 (10 μg/mL) as the capture antibody. Biotin-labeled anti-SARS-COV-2 Spike S1 antibodies 9083-biotin (1 μg/mL) and streptavidin-HRP (0.1 μg/mL) were used for detection. Detection range is from 0.8 ng to 200 ng (SARS-CoV-2 Spike S1 Protein, 97-087).

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 nucleocapid 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	Infectious Disease; COVID-19

References

Gorbalenya. bioRxiv: 2020.
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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1791269090
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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/covid-19-spike-s1-coronavirus-antibody-elisa/40916>