Rabbit COVID 19 Nucleocapsid (NP) Coronavirus Polyclonal Antibody | anti-COVID-19 antibody

SARS-CoV-2 (COVID-19) Nucleocapsid Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA40906	**Rabbit**	**Virus**	**Western Blot, ELISA**

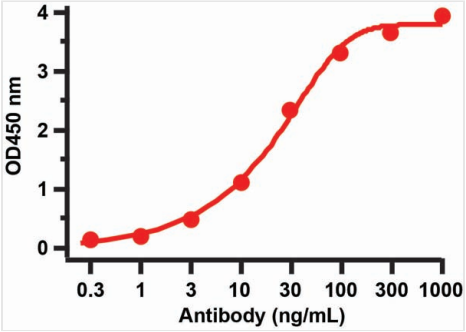
PRODUCT SYNONYMS

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

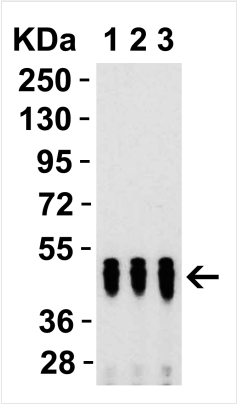
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Virus
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Affinity chromatography purified via peptide column.
Form/Format	Liquid. Supplied in PBS containing 0.02% sodium azide.
Concentration	1mg/mL (varies by lot)
Sequence Length	419
Applicable Applications for anti-COVID-19 antibody	WB (Western Blot), ELISA
Immunogen	Anti-SARS-CoV-2 (COVID-19, 2019-nCoV) Nucleocapsid antibody was raised against a peptide corresponding to 17 amino acids near the carboxy terminus of SARS-CoV-2 (COVID-19, 2019-nCoV) Nucleocapsid protein. The immunogen is located within 350-400 amino acids of SARS-CoV-2 (COVID-19, 2019-nCoV) Nucleocapsid protein.
Homology	Predicted reactivity based on immunogen sequence: SARS-CoV Nucleocapsid proteins: (100%)
Isoforms	SARS-CoV-2 (COVID-19, 2019-nCoV) Nucleocapsid has one isoform (419aa).
Conjugation	Unconjugated
Preparation and Storage	Can be stored at 4 degree C for three months. Store at -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.

IMAGES



ELISA
Figure 2 ELISA Validation with SARS-CoV-2 Nucleocapsid Recombinant ProteinAntibodies: SARS-CoV-2 (COVID-19) Nucleocapsid antibody 9103. A direct ELISA was performed using Nucleocapsid recombinant protein as coating antigen and the anti-SARS-CoV-2 (COVID-19) Nucleocapsid antibody as the capture antibody. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:20000 dilution. Detection range is from 0.3 ng/mL to 1000ng/mL.



WB (Western Blot)
Figure 1 Western Blot Validation with SARS-CoV-2 Nucleocapsid Recombinant ProteinLoading: 50 ng per lane of SARS-CoV-2 Nucleocapsid recombinant protein. Antibodies: SARS-CoV-2 Nucleocapsid 9103, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: 0.5 μg/mL, Lane 2: 1 μg/mL, Lane 3: 2 μg/mL

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. The disease is the cause of the 2019-20 coronavirus outbreak (1). SARS-CoV-2 is the seventh member of the enveloped, positive-stranded RNA viruses that are able to infect humans. The SARS-CoV-2 genome, like other coronaviruses, encodes for multiple structural and nonstructural proteins. The structural proteins include spike protein (S), envelope protein (E), membrane glycoprotein (M), nucleocapsid phosphoprotein (N), and the nonstructural proteins include open reading frame 1ab (ORF1ab), ORF3a, ORF6, ORF7a, ORF8, and ORF10 (2). Nucleocapsid (N) protein is the most abundant protein of coronavirus. It is also one of the major structural proteins and is involved in the transcription and replication of viral RNA, packaging of the encapsidated genome into virions (3), and interference with cell cycle processes of host cells (4). Moreover, in many coronaviruses, including SARS-CoV, the N protein has high immunogenic activity and is abundantly expressed during infection (5). It can be detected in various patient samples including nasopharyngeal aspirate, urine, and fecal. Both S and N proteins may be potential antigens for seroidentification of COVID-19, just as many identification methods have been developed for identifying SARS based on S and/or N proteins (6).
Product Categories/Family for anti-COVID-19 antibody	Infectious Disease
References	1) Zhu et al. N Engl J Med. 2020 Feb 20;382(8):727-733. 2) Kiyotani et al. J Hum Genet. 2020 Jul;65(7):569-575. 3) Chang et al. J Biomed Sci. 2006 Jan;13(1):59-72. 4) Cui et al. J Virol. 2015 Sep;89(17):9029-43. 5) Chen et al. Eur J Clin Microbiol Infect Dis. 2005 Aug;24(8):549-53. 6) Emerg Infect Dis. 2004 Sep;10(9):1558-62.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1820552696
NCBI GeneID	43740575
NCBI Official Full Name	nucleocapsid phosphoprotein
NCBI Official Symbol	N
NCBI Protein Information	nucleocapsid phosphoprotein

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.