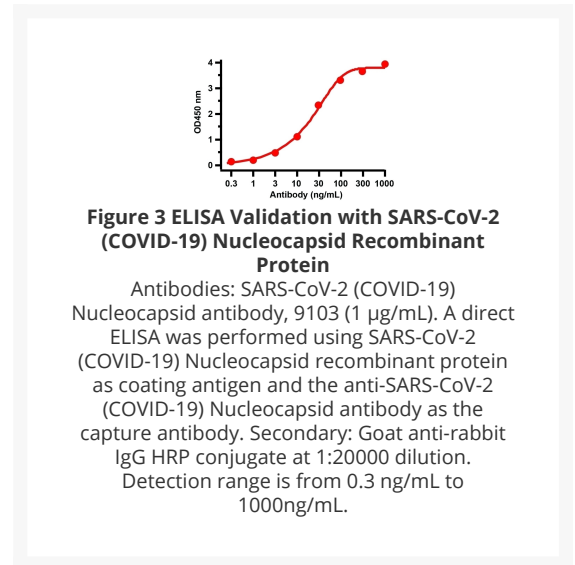
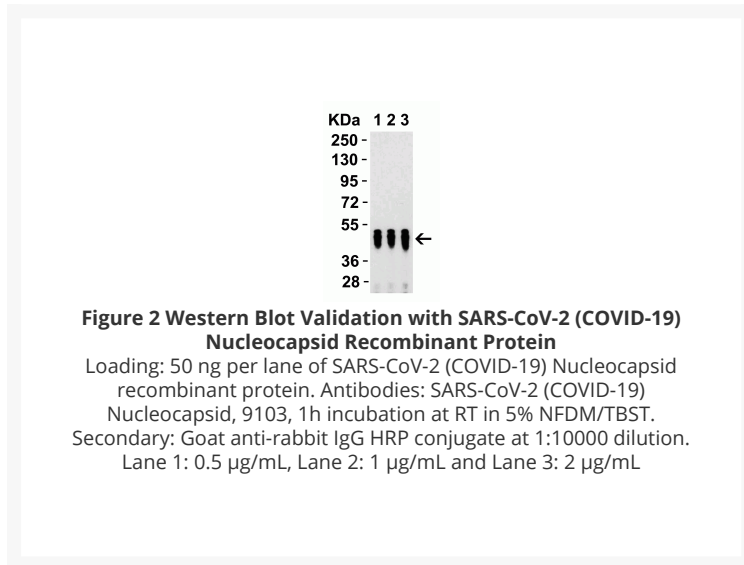
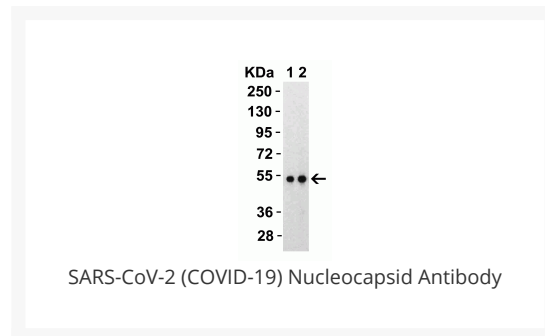




SARS-CoV-2 (COVID-19) Nucleocapsid Antibody

Cat. No.: 9103



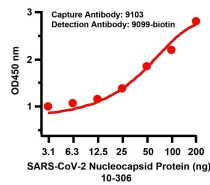


Figure 4 ELISA Validation of SARS-CoV-2 Nucleocapsid Antibody Pair

A sandwich ELISA was performed using the anti-SARS-COV-2 Nucleocapsid antibodies 9103 (10 µg/mL) as the capture antibody. Biotin-labeled anti-SARS-COV-2 Nucleocapsid antibodies 9099-biotin (1 µg/mL) and streptavidin-HRP (0.1 µg/mL) were used for detection. Detection range is from 3 ng to 200 ng (SARS-CoV-2 Nucleocapsid Protein, 10-306).

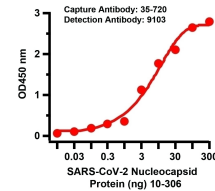


Figure 5 Sandwich ELISA for SARS-CoV-2 (COVID-19) Matched Pair Nucleocapsid Antibodies

Antibodies: SARS-CoV-2 (COVID-19) Nucleocapsid Antibodies, 35-720 and 9103. A sandwich ELISA was performed using SARS-CoV-2 Nucleocapsid antibody (35-720, 5ug/ml) as capture antibody, the Nucleocapsid recombinant protein as the binding protein (10-306), and the anti-SARS-CoV-2 Nucleocapsid antibody (9103, 1ug/ml) as the detection antibody. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:20000 dilution. Detection range is from 0.03 ng to 300 ng. EC50 = 6.9 ng

Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Virus
HOMOLOGY:	Predicted reactivity based on immunogen sequence: SARS-CoV Nucleocapsid proteins: (100%)
IMMUNOGEN:	Anti-SARS-CoV-2 (COVID-19) Nucleocapsid antibody (9103) was raised against a peptide corresponding to 17 amino acids near the carboxy terminus of SARS-CoV-2 (COVID-19) Nucleocapsid protein. The immunogen is located within 350-400 amino acids of SARS-CoV-2 (COVID-19) Nucleocapsid protein.
TESTED APPLICATIONS:	ELISA, WB
APPLICATIONS:	WB: 0.5-2 µg/mL SARS-CoV-2 (COVID-19) Nucleocapsid antibody can be used for the detection of SARS-CoV-2 (COVID-19) Nucleocapsid protein in ELISA. It will detect 4 ng of free peptide at 1 µg/mL. Antibody can also be used for as capture antibody in Sandwich Elisa at 10 µg/mL. All other applications and species not yet tested.

Ψ Properties

PURIFICATION:	SARS-CoV-2 (COVID-19) Nucleocapsid Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal

ISOTYPE:	IgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	SARS-CoV-2 (COVID-19) Nucleocapsid Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	SARS-CoV-2 (COVID-19) Nucleocapsid 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.

Ψ Additional Info

OFFICIAL SYMBOL:	N
ALTERNATE NAMES:	SARS-CoV-2 (COVID-19) Nucleocapsid Antibody: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), Nucleocapsid protein, N protein, Nucleocapsid Phosphoprotein
ACCESSION NO.:	QHD43423
PROTEIN GI NO.:	1820552696
GENE ID:	43740575
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Ψ 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. 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 serodiagnosis of COVID-19, just as many diagnostic methods have been developed for diagnosing SARS based on S and/or N proteins (6).</p>
REFERENCES:	<p>1) Zhu et al. N Engl J Med. 2020 Feb 20;382(8):727-733.</p> <p>2) Kiyotani et al. J Hum Genet. 2020 Jul;65(7):569-575.</p>

	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.

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