

Datasheet for ABIN6952544

**anti-SARS-Coronavirus Nucleocapsid Protein (SARS-CoV N)
antibody**[Go to Product page](#)

14 Images

96 Publications

Overview

Quantity:	500 µg
Target:	SARS-Coronavirus Nucleocapsid Protein (SARS-CoV N)
Reactivity:	SARS Coronavirus (SARS-CoV), SARS Coronavirus-2 (SARS-CoV-2)
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	Un-conjugated
Application:	ELISA, Western Blotting (WB), Flow Cytometry (FACS), Fluorescence Microscopy (FM), Immunohistochemistry (IHC)

Product Details

Purpose:	Sars Nucleocapsid Protein Antibody
Immunogen:	This protein A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a purified recombinant protein corresponding to full length SARS Coronavirus Nucleocapsid protein. Lifesensors Inc. (www.lifesensors.com) prepared the Nucleocapsid protein as follows: SUMO-Nucleocapsid fusion was expressed in E.coli in LB medium and purified using Ni-NTA resin (Qiagen) affinity chromatography. After the fusion was cleaved by the SUMO Protease (LifeSensors), the SUMO tag and protease were subtracted from the nucleocapsid using MAC and the nucleocapsid was finally purified using Cation Exchange Chromatography with the Macro-Prep High S resin (BioRad) and size exclusion chromatography.
Isotype:	IgG
Specificity:	Detects the Nucleocapsid (N), Omicron, and BA.2 sub-variant.

Product Details

Cross-Reactivity (Details):	This protein A purified antibody is directed against SARS Coronavirus Nucleocapsid (N) protein
Predicted Reactivity:	Predicted reactivity based on immunogen sequence: SARS-CoV2 Nucleocapsid protein: (homology 90%)
Purification:	.The product was purified from monospecific antiserum by protein A affinity purification.

Target Details

Target:	SARS-Coronavirus Nucleocapsid Protein (SARS-CoV N)
Alternative Name:	Sars Nucleocapsid Protein (SARS-CoV N Products)
Target Type:	Viral Protein
Background:	<p>The coronavirus nucleocapsid protein is the major structural component of virions that associates with genomic RNA to form a long, flexible, helical nucleocapsid. Sequence comparison of the N genes of five strains of the coronavirus mouse hepatitis virus suggests a three-domain structure for the nucleocapsid protein.</p> <p>Synonyms: N antibody, N structural protein antibody, NC antibody, Nucleocapsid protein antibody, Nucleoprotein antibody, SARS coronavirus N protein antibody, SARS CoV antibody, SARSCoV antibody, Severe acute respiratory syndrome antibody</p>
Gene ID:	1489678, 30173007
UniProt:	P59595

Application Details

Application Notes:	<p>ELISA_Dilution: 1:10,000 - 1:50,000</p> <p>Immunohistochemistry_Dilution: 1:100-1:6000</p> <p>Flow_Cytometry_Dilution: User Optimized</p> <p>IF_Microscopy_Dilution: User Optimized</p> <p>Western_Blot_Dilution: 1:2,000 - 1:10,000</p>
Comment:	<p>Suggested Applications: FC, FISH, IF, IHC, LFA, Multiplex, Other</p> <p>This protein A purified antibody has been tested for use in ELISA, western blot, Immunohistochemistry, Immunofluorescence, and lateral flow. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 46 kDa in size corresponding to SARS Nucleocapsid (N) protein by western blotting in the appropriate cell lysate or extract. ELISA and lateral flow format has been used to detect virus in extracts from nasal and throat swabs and saliva. IF has been used to determine the presence or absence of</p>

Application Details

virus entering cells especially when anti-viral drugs are applied. IHC studies have been performed on biopsies, included retrospective studies on cadaver tissues after formalin fixation and paraffin embedding, detecting the coronavirus in lung, liver, bile duct, and placenta tissue. Yet other studies have shown this antibody has the ability to neutralize the virus and thereby protect cells from the uptake of live virus. Others have demonstrated the utility of the antibody in flow cytometry studies.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Reconstitution_Buffer: Restore with deionized water (or equivalent)
Reconstitution_Volume: 100 µL

Buffer: Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer: None
Preservative: 0.01 % (w/v) Sodium Azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Storage Comment: Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: 12 months

Publications

Product cited in: Du, Deiter, Bouzidi, Billaud, Simmons, Dabral, Selvarajah, Lingappa, Michon, Yu, Paulvannan, Manicassamy, Lingappa, Boushey, Greenland, Pillai: "A viral assembly inhibitor blocks SARS-CoV-2 replication in airway epithelial cells." in: **Communications biology**, Vol. 7, Issue 1, pp. 486, (2024) ([PubMed](#)).

Weingarten-Gabbay, Chen, Sarkizova, Taylor, Gentili, Hernandez, Pearlman, Bauer, Rice, Clauser,

Hacohen, Carr, Abelin, Saeed, Sabeti: "The HLA-II immunopeptidome of SARS-CoV-2." in: **Cell reports**, Vol. 43, Issue 1, pp. 113596, (2024) ([PubMed](#)).

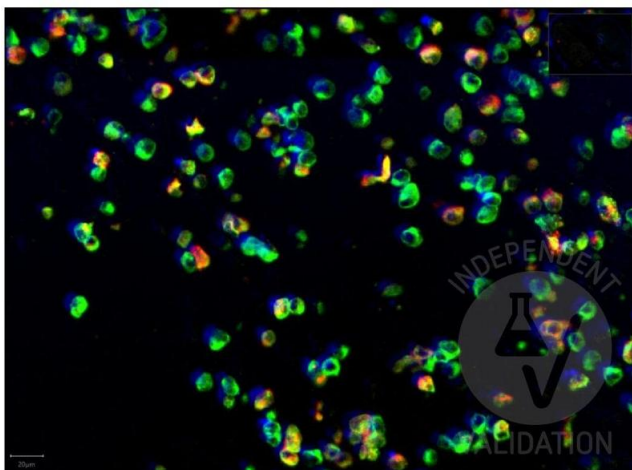
Brogna, Bisaccia, Costanzo, Lettieri, Montano, Viduto, Fabrowski, Cristoni, Prisco, Piscopo: "Who Is the Intermediate Host of RNA Viruses? A Study Focusing on SARS-CoV-2 and Poliovirus." in: **Microorganisms**, Vol. 12, Issue 4, (2024) ([PubMed](#)).

Gallucci, Bazire, Davidson, Shytaj: "Broad-spectrum antiviral activity of two structurally analogous CYP3A inhibitors against pathogenic human coronaviruses in vitro." in: **Antiviral research**, Vol. 221, pp. 105766, (2024) ([PubMed](#)).

Bagato, Balkema-Buschmann, Todt, Weber, Gömer, Qu, Miskey, Ivics, Mettenleiter, Finke, Brown, Breithaupt, Ushakov: "Spatiotemporal analysis of SARS-CoV-2 infection reveals an expansive wave of monocyte-derived macrophages associated with vascular damage and virus clearance in hamster lungs." in: **Microbiology spectrum**, Vol. 12, Issue 1, pp. e0246923, (2024) ([PubMed](#)).

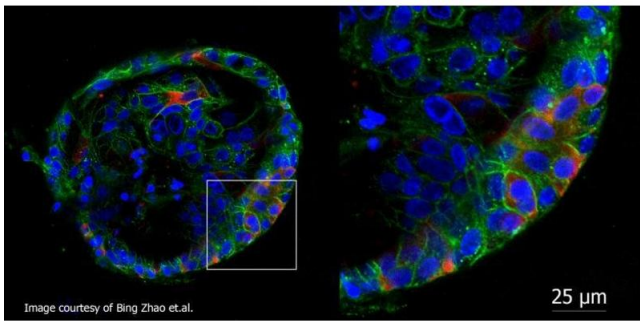
There are more publications referencing this product on: [Product page](#)

Images



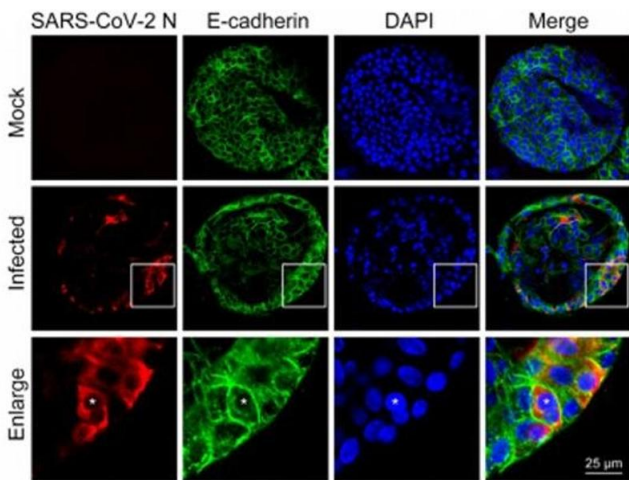
Multiplex Immunohistochemistry

Image 1. Immunofluorescence of SARS-CoV-2 infection in FFPE cell pellets from in vitro cultured human lung cells infected with SARS-CoV-2. Costaining with anti-SARS-CoV-2 Nucleocapsid Protein antibody ABIN6952544 (red) and anti-SARS-CoV-2 Spike S1 antibody RBD antibody ABIN6952546 (green). Image provided by Akoya Biosciences.



Immunofluorescence

Image 2. This immunofluorescence microscopy image shows localization of SARS-CoV-2 infection in human liver ductal organoids. SARS-CoV-2 N is indicated in red using our Anti-SARS CoV Nucleocapsid Antibody, while E-cadherin is in green and DAPI staining of chromatin in blue.



Immunofluorescence

Image 3. Immunofluorescence of Rabbit Anti-SARS-CoV Nucleocapsid (N) Antibody. Tissue: human Liver ductal organoids. Fixation: 4% PFA. Permeabilization: 0.25% Triton X-100. Antigen retrieval: not required. Primary antibody: Rabbit Anti-SARS-CoV (N) Antibody and Mouse Anti-E-Cadherin Antibody at 1:500 overnight at 2-8°C. Secondary antibody: Donkey Anti-Rabbit IgG CY3 Conjugated; Donkey Anti-Mouse IgG AlexaFluor 488 Conjugated for 1hr at RT. Nuclear Counterstain: DAPI. Staining showing Mock and Infected tissue: SARS-CoV Red signal, E-Cadherin green signal, with DAPI (blue) nuclear counterstain. [Zhao et al. (2020)]

Please check the [product details page](#) for more images. Overall 14 images are available for ABIN6952544.