

# Product Datasheet

## SARS Nucleocapsid Protein Antibody - BSA Free NB100-56576

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Publications: 161**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB100-56576](http://www.novusbio.com/NB100-56576)

Updated 10/23/2024 v.20.1

**Earn rewards for product  
reviews and publications.**

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB100-56576](http://www.novusbio.com/reviews/destination/NB100-56576)

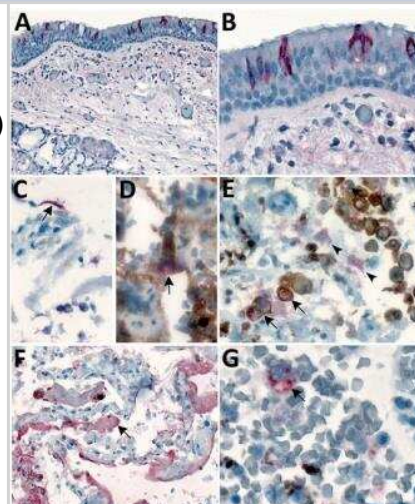


**NB100-56576****SARS Nucleocapsid Protein Antibody - BSA Free**

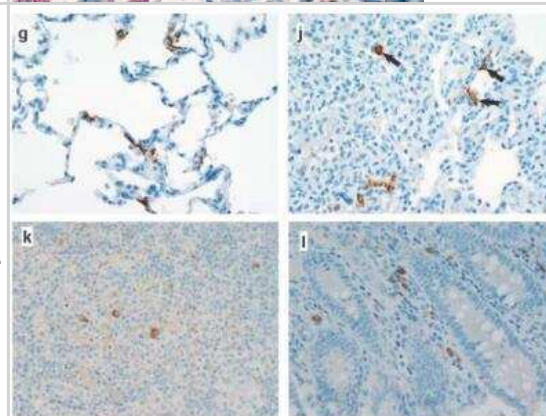
<b>Product Information</b>	
<b>Unit Size</b>	0.1 mg
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS
<b>Product Description</b>	
<b>Host</b>	Rabbit
<b>Gene ID</b>	1489678
<b>Gene Symbol</b>	N
<b>Species</b>	SARS-CoV-2, SARS-CoV, Virus
<b>Reactivity Notes</b>	Use in SARS-CoV-2 reported in scientific literature (PMID:33807059).
<b>Specificity/Sensitivity</b>	Dot Blot results using recombinant proteins for cross-reactivity testing revealed high reactivity to SARS-CoV-2 Nucleocapsid protein (NBP2-90975) and low/no reactivity towards H1N1 (NBP1-99041). No cross-reactivity observed with influenza A(H1N1) virus, influenza B virus, respiratory syncytial virus, parainfluenza virus type 3, human coronavirus (HCoV) 229E, or MERS-CoV in PCR-confirmed tissue samples [PMID:32437316].
<b>Immunogen</b>	The antibody was developed by immunizing Rabbit with a synthetic peptide corresponding to amino acids 399-411 (DLDDFSKQLQQSM-C) from the N (SARS Nucleocapsid) for the Human SARS coronavirus (Genbank accession no. YP_009724397.2)
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, SDS-Page, Dual RNAscope ISH-IHC
<b>Recommended Dilutions</b>	Western Blot 1:100-1:2000, Immunohistochemistry reported in scientific literature (PMID 32396922), Immunocytochemistry/ Immunofluorescence 1:10-1:500. Use reported in scientific literature (Mossel et al (2008)), Immunohistochemistry-Paraffin reported in scientific literature (PMID 24725942), SDS-Page reported in scientific literature (PMID 34880383), Dual RNAscope ISH-IHC

## Images

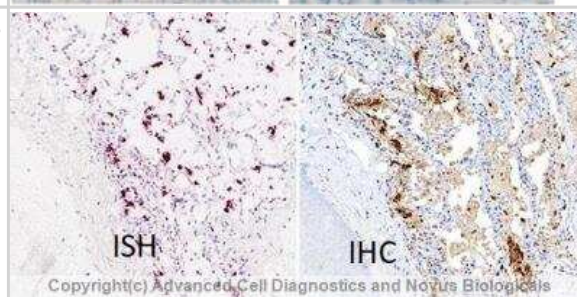
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Immunostaining of severe acute respiratory syndrome coronavirus 2 in pulmonary tissues from fatal coronavirus disease cases. A) P5 (Patient 5): scattered immunostaining of tracheal epithelial cells. B) P5: higher magnification shows immunostaining of ciliated cells. C) P8: immunostaining of desquamated type I pneumocyte in an alveolar lumen. D) P4: colocalization of SARS-CoV-2 viral antigen (red) with type II pneumocyte stained by surfactant (brown; arrow). E) P4: colocalization of SARS-CoV-2 viral antigen (red) with macrophages stained by CD163 (brown; arrows); virus immunostaining within type II pneumocytes is also seen (arrowheads). F) P4: extensive immunostaining of hyaline membranes in a region of exudative DAD. G) P3: scattered immunostaining within macrophage in hilar lymph node; anthracosis is also present. *Emerg Infect Dis.* 2020 May 21;26(9) 10.3201/eid2609.202095, PMID: 32437316



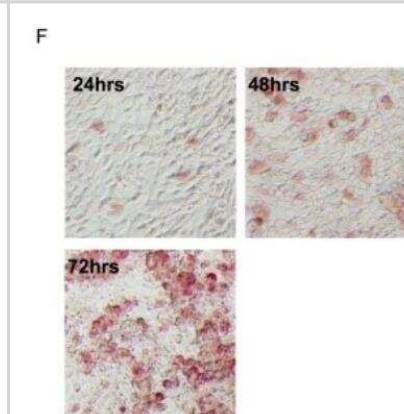
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Pathological changes in rhesus macaques infected with SARS-CoV-2. (g) SARSCoV-2 antigen is detected by immunohistochemistry in type I pneumocytes. Magnification 400x. (j) SARS-CoV-2 antigen is detected by immunohistochemistry in type I pneumocytes (asterisk) and type II pneumocytes (arrow) as well as alveolar macrophages (arrowheads). Magnification 400x. (k) SARS-CoV-2 antigen is detected by immunohistochemistry in mediastinal lymph node. Magnification 400x. (l) SARSCoV-2 antigen is detected by immunohistochemistry in macrophages and lymphocytes in the lamina propria of the cecum. Magnification 400x. *bioRxiv* March 21, 2020 <https://doi.org/10.1101/2020.03.21.001628>



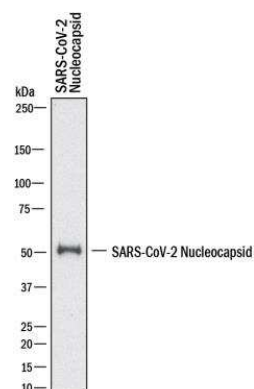
Dual RNAscope ISH-IHC: SARS Nucleocapsid Protein Antibody [NB100-56576] - Formalin-fixed paraffin-embedded tissue sections of SARS-CoV-2 infected human lung tissue were probed for SARS-CoV-2 viral RNA (ACD anti-sense specific probe v-nCoV2019-S (848561); Fast Red chromogen, ACD [322360]). Adjacent tissue section was processed for immunohistochemistry using rabbit polyclonal anti-SARS Nucleocapsid Antibody [NB100-56576] at 15ug/mL with 1 hr incubation at 25 degrees Celsius followed by incubation with anti-rabbit IgG VisUCyte HRP Polymer Antibody [VC003] and DAB chromogen (yellow-brown). Tissue was counterstained with hematoxylin (blue). Specific staining was localized to SARS-CoV-2 infected cells.



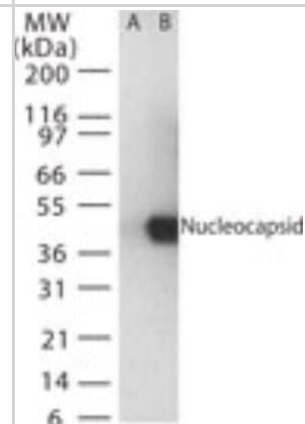
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Characteristics of 2B4 cells clonally derived from human bronchial epithelial Calu-3 cells. Finally, 2B4 cells (passage 6) were infected with SARS-CoV (MOI = 0.1) for 24, 48, and 72 hrs before being fixed with 4% paraformaldehyde for monitoring the morphological changes of infected cells, as visualized by the expression of SARS-CoV NP protein (red) by using the standard IHC (F). Image collected and cropped by CiteAb from the following publication ([//dx.plos.org/10.1371/journal.pone.0008729](https://dx.plos.org/10.1371/journal.pone.0008729)) licensed under a CC-BY license.



Western Blot: SARS Nucleocapsid Protein Antibody [NB100-56576] - Western blot shows recombinant SARS-CoV-2 Nucleocapsid protein. PVDF membrane was probed with 1 ug/mL of Rabbit Anti-SARS-CoV-2 Nucleocapsid Polyclonal Antibody (Catalog # NB100-56576) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (HAF008). A specific band was detected for SARS-CoV-2 Nucleocapsid at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1



Western Blot: SARS Nucleocapsid Protein Antibody [NB100-56576] - analysis of SARS Nucleocapsid in (A) untransfected mouse melanoma cell lysate and (B) transfected cell lysate using this antibody.





## Publications

Zhang ML, Jacobsen F, Pepe-Mooney BJ et al. Clinicopathological findings in patients with COVID-19-associated ischaemic enterocolitis *Histopathology* 2021-07-22 [PMID: 34292620]

Alba Escalera, Manon Laporte, Sam Turner, Umut Karakus, Ana S. Gonzalez-Reiche, Adriana van de Guchte, Keith Farrugia, Zain Khalil, Harm van Bakel, Derek Smith, Adolfo García-Sastre, Teresa Aydillo The impact of S2 mutations on Omicron SARS-CoV-2 cell surface expression and fusogenicity *Emerging Microbes & Infections* 2023-12-19 [PMID: 38112266]

Giovanna S. Manzano, Jared K. Woods, Anthony A. Amato Covid-19–Associated Myopathy Caused by Type I Interferonopathy *The New England Journal of Medicine* 2020-11-20 [PMID: 33216474]

0 Abstracts from USCAP 2021: Infectious Disease Pathology (757-770). *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc* 2021-03-13 [PMID: 33707672]

Migara K Jayasinghe, Chang Gao, Gracemary Yap, Brendon Zhi Jie Yeo, Luyen Tien Vu, Douglas Jie Wen Tay, Wen Xiu Loh, Zhen Qin Aw, Huixin Chen, Dai Cao Phung, Dong Van Hoang, Rebecca Carissa Prajogo, Lissa Hooi, Fang Qing Lim, Marco Pirisinu, Chee Keng Mok, Kah Wai Lim, Sze Jing Tang, Kai Sen Tan, Edward Kai-Hua Chow, Leilei Chen, Anh Tuan Phan, Justin Jang Hann Chu, Minh Tn Le Red Blood Cell-Derived Extracellular Vesicles Display Endogenous Antiviral Effects and Enhance the Efficacy of Antiviral Oligonucleotide Therapy. *ACS nano* 2023-11-27 [PMID: 37852618]

Robert M. Johnson, Jeremy Ardanuy, Holly Hammond, James Logue, Lian Jackson, Lauren Baracco, Marisa McGrath, Carly Dillen, Nita Patel, Gale Smith, Matthew Frieman Diet-induced obesity and diabetes enhance mortality and reduce vaccine efficacy for SARS-CoV-2 *Journal of Virology* 2023-11-01 [PMID: 37846985]

Shiho Chiba, Peter J. Halfmann, Masato Hatta, Tadashi Maemura, Shufang Fan, Tammy Armbrust, Olivia M. Swartley, LaTasha K. Crawford, Yoshihiro Kawaoka Protective Immunity and Persistent Lung Sequelae in Domestic Cats after SARS-CoV-2 Infection *Emerging Infectious Diseases* 2021-02-01 [PMID: 33496650]

Desai N, Neyaz A, Szabolcs A et al. Temporal and Spatial Heterogeneity of Host Response to SARS-CoV-2 Pulmonary Infection *medRxiv* 2020-08-02 [PMID: 32766600]

### Details:

Citation using the Azide and BSA Free format of this antibody.

Alexander Muacevic, John R Adler, Rei Asano, Koji Hayashi, Ei Kawahara, Mamiko Sato, Toyoaki Miura Three Types of Demyelination, Perivenous, Confluent, and Perineuronal Nets-Rich in a COVID-19 Patient With Meningoencephalomyelitis *Cureus* 2023-12-24 [PMID: 38269235]

Marcello Baroni, Silvia Beltrami, Giovanna Schiuma, Paolo Ferraresi, Sabrina Rizzo, Angelina Passaro, Juana Maria Sanz Molina, Roberta Rizzo, Dario Di Luca, Daria Bortolotti In Situ Endothelial SARS-CoV-2 Presence and PROS1 Plasma Levels Alteration in SARS-CoV-2-Associated Coagulopathies. *Life (Basel, Switzerland)* 2024-02-08 [PMID: 38398746]

Or Alfi, Arkadi Yakirevitch, Ori Wald, Ori Wandel, Uzi Izhar, Esther Oiknine-Djian, Yuval Nevo, Sharona Elgavish, Elad Dagan, Ory Madgar, Gilad Feinmesser, Eli Pikarsky, Michal Bronstein, Olesya Vorontsov, Wayne Jonas, John Ives, Joan Walter, Zichria Zakay-Rones, Menachem Oberbaum, Amos Panet, Dana G. Wolf Human Nasal and Lung Tissues Infected Ex Vivo with SARS-CoV-2 Provide Insights into Differential Tissue-Specific and Virus-Specific Innate Immune Responses in the Upper and Lower Respiratory Tract *Journal of Virology* 2021-07-01 [PMID: 33893170]

Rosalía Lira, César Luna-Rivero, Francina Valezka Morales-Bolaños, José Luis Sandoval-Gutiérrez, Elsa Romelia Moreno-Verduzco, Angélica Maldonado-Rodríguez, Jesús Miguel Torres-Flores, Martha Yocupicio-Monroy, Edgar E. Sevilla-Reyes Case Report of a Young Adult with Fatal COVID-19 and Abundant SARS-CoV-2 Nucleocapsid Protein and Lipofuscin Accumulation in Tissues *Heliyon* 2023-12-10 [PMID: 38173536]

More publications at <http://www.novusbio.com/NB100-56576>





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB100-56576**

---

NBP2-90975	Recombinant SARS-CoV-2 Nucleocapsid His (C-Term) Protein
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

---

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB100-56576](http://www.novusbio.com/reviews/submit/NB100-56576)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

