

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.

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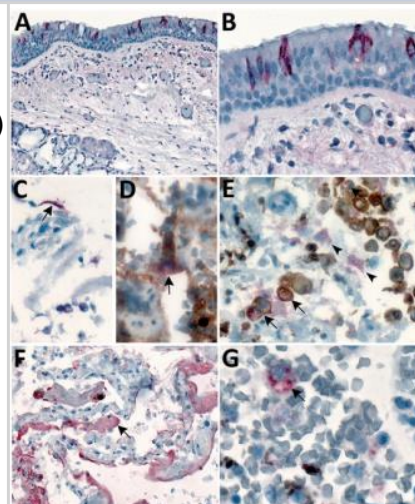


NB100-56576**SARS Nucleocapsid Protein Antibody - BSA Free**

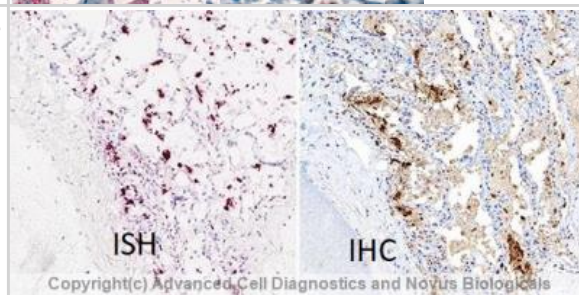
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Product Description	
Host	Rabbit
Gene ID	1489678
Gene Symbol	N
Species	SARS-CoV-2, SARS-CoV, Virus
Reactivity Notes	Use in SARS-CoV-2 reported in scientific literature (PMID:33807059).
Specificity/Sensitivity	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].
Immunogen	The antibody was developed by immunizing Rabbit with a synthetic peptide corresponding to amino acids 399-411 (DLDDFSKQLQSM-C) from the N (SARS Nucleocapsid) for the Human SARS coronavirus (Genbank accession no. YP_009724397.2)
Product Application Details	
Applications	Western Blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, SDS-Page, Dual RNAscope ISH-IHC
Recommended Dilutions	Western Blot 1:100-1:2000, Immunohistochemistry, Immunocytochemistry/Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin, SDS-Page, Dual RNAscope ISH-IHC
Application Notes	Use in SDS-Page reported in scientific literature (PMID:34880383). Immunocytochemistry/Immunofluorescence: see Mossel et al (2008) for details. Use in Immunohistochemistry-Paraffin reported in scientific literature (PMID 24725942). Use in Immunohistochemistry reported in multiple pieces of scientific literature including Sars-CoV-2 in bioRxiv March 21, 2020 doi: https://doi.org/10.1101/2020.03.21.001628 and (PMID: 32396922).

Images

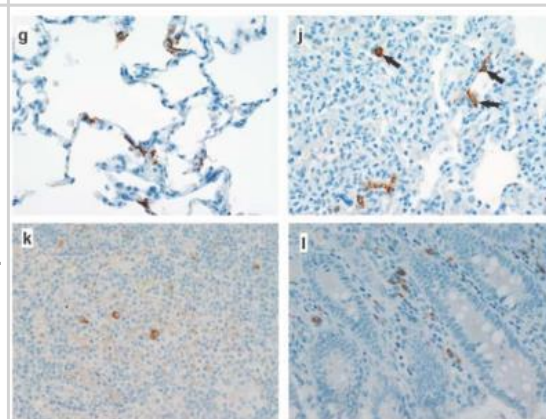
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Immunostaining of severe acute respiratory syndrome coronavirus 2 in pulmonary tissues from fatal coronavirus disease cases. A) P5 (Patient 5): scattered immunostaining of tracheal epithelial cells. B) P5: higher magnification shows 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



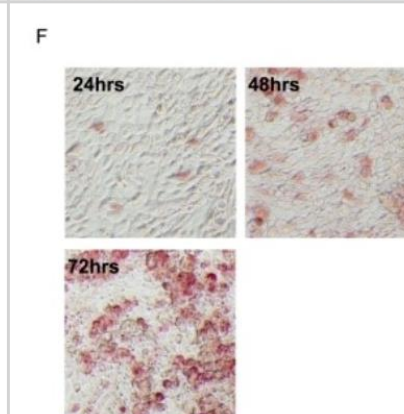
Dual RNAscope ISH-IHC: SARS Nucleocapsid Protein Antibody [NB100-56576] - Formalin-fixed paraffin-embedded tissue sections of SARS-CoV-2 infected human lung tissue were probed for SARS-CoV-2 viral RNA (ACD anti-sense specific probe v-nCoV2019-S (848561); Fast Red chromogen, ACD [322360]). Adjacent tissue 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.



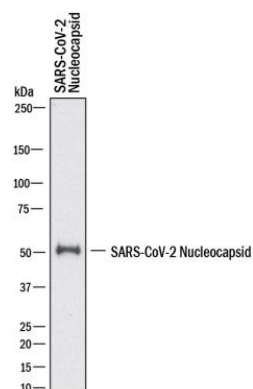
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Pathological changes in rhesus macaques infected with SARS-CoV-2. (g) SARSCoV-2 antigen is detected by immunohistochemistry in type I pneumocytes. Magnification 400x. (j) SARS-CoV-2 antigen is detected by immunohistochemistry in 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>



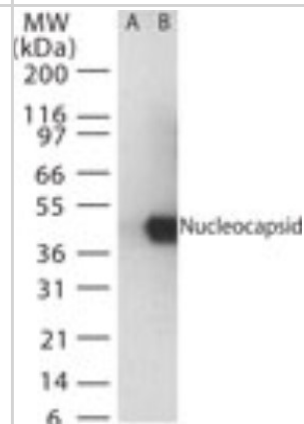
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Characteristics of 2B4 cells clonally derived from human bronchial epithelial Calu-3 cells. Finally, 2B4 cells (passage 6) were infected with SARS-CoV (MOI = 0.1) for 24, 48, and 72 hrs before being fixed with 4% paraformaldehyde 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 licence.



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

Goh D, Lim J, Fernandez S et al. Persistence of residual SARS-CoV-2 viral antigen and RNA in tissues of patients with long COVID-19 Research Square 44594 (IHC, SARS-CoV-2)

Maung NC, Liew ZHS, Leow WQ et al. Severe de novo liver injury after Moderna vaccination - not always autoimmune hepatitis Journal of hepatology Apr 16 2022 12:00AM [PMID: 35439566] (IHC)

Rutigliani M, Bozzo M, Barberis A et al. Case Report: A Peculiar Case of Inflammatory Colitis After SARS-CoV-2 Infection Frontiers in immunology Feb 9 2022 12:00AM [PMID: 35222440] (IHC, Human)

Hartard C, Chaqroun A, Settembre N et al. Multiorgan and Vascular Tropism of SARS-CoV-2 Viruses Mar 3 2022 12:00AM [PMID: 35336922] (IHC, Human)

Jarrah SA, Kmetiuk LB, de Carvalho OV et al. Persistent SARS-CoV-2 antigen presence in multiple organs of a naturally infected cat from Brazil The journal of venomous animals and toxins including tropical diseases Mar 7 2022 12:00AM [PMID: 35310131] (IHC)

Rabbani MY, Rappaport J, Gupta MK Activation of Immune System May Cause Pathophysiological Changes in the Myocardium of SARS-CoV-2 Infected Monkey Model Cells Feb 10 2022 12:00AM [PMID: 35203260] (IHC, SARS-CoV-2)

Liu Y, Zhang X, Liu J et al. A live-attenuated SARS-CoV-2 vaccine candidate with accessory protein deletions bioRxiv : the preprint server for biology Feb 15 2022 12:00AM [PMID: 35194609] (WB, SARS-CoV-2)

Carossino M, Kenney D, O'Connell AK et al. Fatal Neurodissemination and SARS-CoV-2 Tropism in K18-hACE2 Mice Is Only Partially Dependent on hACE2 Expression Viruses Mar 5 2022 12:00AM [PMID: 35336942] (IHC, SARS-CoV-2)

Escalera A, Gonzalez-Reiche A, Aslam S et al. Mutations in SARS-CoV-2 variants of concern link to increased spike cleavage and virus transmission Cell Host & Microbe Jan 1 2022 12:00AM [PMID: 35150638] (SARS-CoV-2)

Rotstein DS, Peloquin S, Proia K et al. Investigation of SARS-CoV-2 infection and associated lesions in exotic and companion animals Veterinary pathology Jan 18 2022 12:00AM [PMID: 35038930] (IHC)

Dong W, Mead H, Tian L et al. The K18-Human ACE2 Transgenic Mouse Model Recapitulates Non-severe and Severe COVID-19 in Response to an Infectious Dose of the SARS-CoV-2 Virus Journal of virology Jan 12 2022 12:00AM [PMID: 34668775] (IHC, SARS-CoV-2)

Gawish R, Starkl P, Pimenov L et al. ACE2 is the critical in vivo receptor for SARS-CoV-2 in a novel COVID-19 mouse model with TNF- and IFN gamma-driven immunopathology eLife Jan 13 2022 12:00AM [PMID: 35023830] (IHC-P)

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



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Products Related to NB100-56576

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

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