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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Publications: 148

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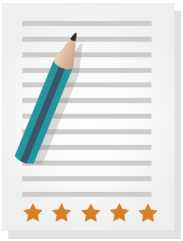
Updated 4/20/2025 v.20.1



NB100-56576

SARS Nucleocapsid Protein Antibody - BSA Free

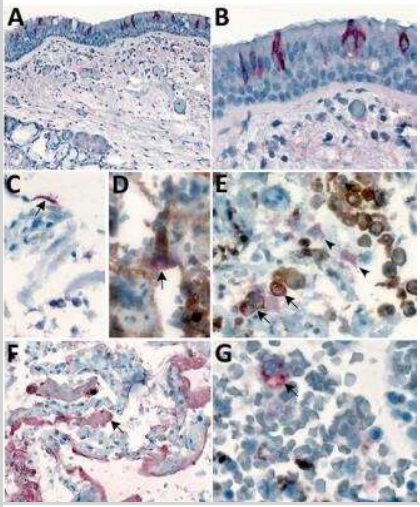
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

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 (DLDDFSKQLQQSM-C) from the N (SARS Nucleocapsid) for the Human SARS coronavirus (Genbank accession no. YP_009724397.2)

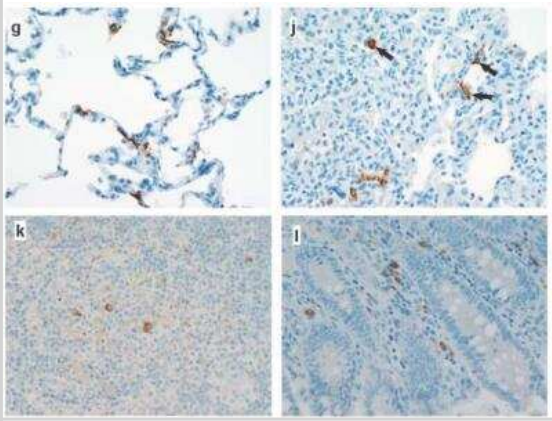
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, SDS-Page, Dual RNAscope ISH-IHC
Recommended Dilutions	Western Blot 1:100-1:2000, Immunohistochemistry reported in scientific 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), Immunohistochemistry-Frozen Validated for Immunohistochemistry-Frozen from a verified customer review., SDS-Page reported in scientific literature (PMID 34880383), Dual RNAscope ISH-IHC

Images

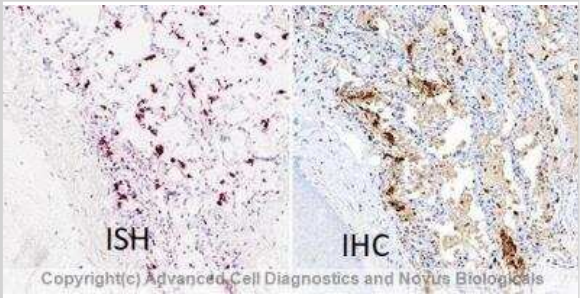
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Immunostaining of severe acute respiratory syndrome coronavirus 2 in pulmonary tissues from fatal coronavirus disease cases. A) P5 (Patient 5): scattered immunostaining of tracheal epithelial cells. B) P5: higher magnification shows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



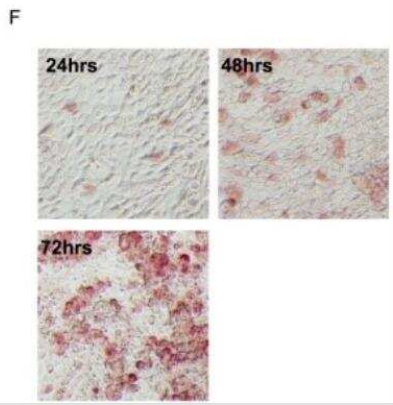
Immunohistochemistry: SARS Nucleocapsid Protein Antibody [NB100-56576] - Pathological changes in rhesus macaques infected with SARS-CoV-2. (g) SARSCoV-2 antigen is detected by immunohistochemistry in type I pneumocytes. Magnification 400x. (j) SARS-CoV-2 antigen is detected by immunohistochemistry in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

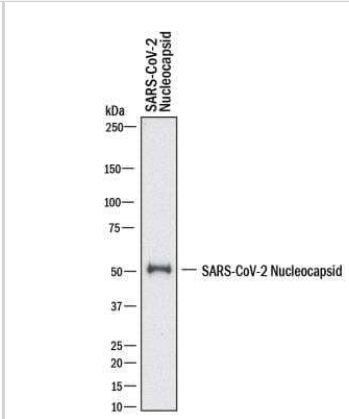
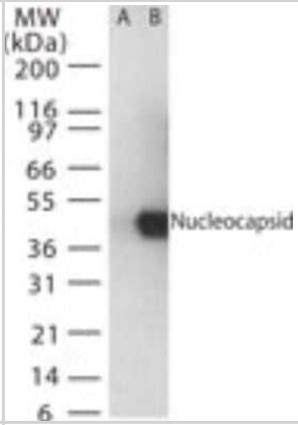
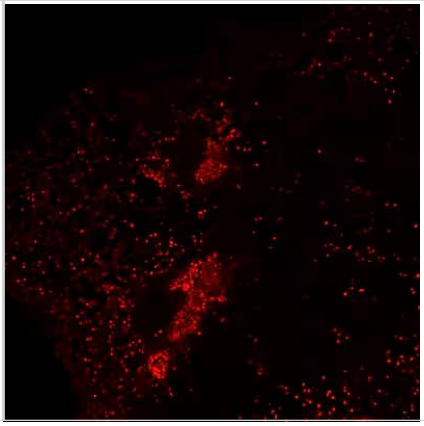


Dual RNAscope ISH-IHC: SARS Nucleocapsid Protein Antibody [NB100-56576] - Formalin-fixed paraffin-embedded tissue sections of SARS-CoV-2 infected human lung tissue were probed for SARS-CoV-2 viral RNA (ACD anti-sense specific probe v-nCoV2019-S (848561); Fast Red chromogen, ACD [322360]). Adjacent tissue 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) 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.	
Immunohistochemistry-Frozen: Rabbit Polyclonal SARS Nucleocapsid Protein Antibody [NB100-56576] - Immunostaining of mouse adult lung infected with SARS-CoV-2. Image from a verified customer review.	

Publications

Zhou NE, Tang S, Bian X, Parai MK et Al. An oral non-covalent non-peptidic inhibitor of SARS-CoV-2 Mpro ameliorates viral replication and pathogenesis in vivo Cell Rep 2024-11-06 [PMID: 39504242]

DJ Kenney, AK O'Connell, J Turcinovic, P Montanaro, RM Hekman, T Tamura, AR Berneshawi, TR Cafiero, S Al Abdulla, B Blum, SI Goldstein, BL Heller, HP Gertje, E Bullitt, AJ Trachtenbe, E Chavez, ET Nono, C Morrison, AE Tseng, A Sheikh, S Kurnick, K Grosz, M Bosmann, M Ericsson, BR Huber, M Saeed, AB Balazs, KP Francis, A Klose, N Paragas, JD Campbell, JH Connor, A Emili, NA Crossland, A Ploss, F Douam Humanized mice reveal a macrophage-enriched gene signature defining human lung tissue protection during SARS-CoV-2 infection Cell Reports, 2022-04-04;39(3):110714. 2022-04-04 [PMID: 35421379]

Martinez DR, Moreira FR, Catanzaro NJ, Diefenbacher MV et Al. The oral nucleoside prodrug GS-5245 is efficacious against SARS-CoV-2 and other endemic, epidemic, and enzootic coronaviruses Sci Transl Med 2024-05-22 [PMID: 38776389]

Wang Z, Hu S, Popowski KD et Al. Inhalation of ACE2-expressing lung exosomes provides prophylactic protection against SARS-CoV-2 Nat Commun 2024-03-12 [PMID: 38472181]

Dinnon, KH;Leist, SR;Okuda, K;Dang, H;Fritch, EJ;Gully, KL;De la Cruz, G;Evangelista, MD;Asakura, T;Gilmore, RC;Hawkins, P;Nakano, S;West, A;Schäfer, A;Gralinski, LE;Everman, JL;Sajuthi, SP;Zweigart, MR;Dong, S;McBride, J;Cooley, MR;Hines, JB;Love, MK;Groshong, SD;VanSchoiack, A;Phelan, SJ;Liang, Y;Hether, T;Leon, M;Zumwalt, RE;Barton, LM;Duval, EJ;Mukhopadhyay, S;Stroberg, E;Borczuk, A;Thorne, LB;Sakthivel, MK;Lee, YZ;Hagood, JS;Mock, JR;Seibold, MA;O'Neal, WK;Montgomery, SA;Boucher, RC;Baric, RS; SARS-CoV-2 infection produces chronic pulmonary epithelial and immune cell dysfunction with fibrosis in mice Science translational medicine 2022-07-07 [PMID: 35857635]

Lengacher NA, Tomlinson JJ, Jochum AK et Al. Neuropathological assessment of the olfactory bulb and tract in individuals with COVID-19 Acta Neuropathol Commun 2024-05-03 [PMID: 38698465]

Mirza Muhammad Fahd Qadir, Manika Bhondeley, Wandy Beatty, Dina D. Gaupp, Lara A. Doyle-Meyers, Tracy Fischer, Ishitri Bandyopadhyay, Robert V. Blair, Rudolf Bohm, Jay Rappaport, Eric Lazartigues, Richard S. Vander Heide, Jay K. Kolls, Xuebin Qin, Franck Mauvais-Jarvis SARS-CoV-2 infection of the pancreas promotes thrombofibrosis and is associated with new-onset diabetes JCI Insight 2021-08-23 [PMID: 34241597]

Diana Cadena Castaneda, Sonia Jangra, Marina Yurieva, Jan Martinek, Megan Callender, Matthew Coxe et al. Spatiotemporally organized immunomodulatory response to SARS-CoV-2 virus in primary human broncho-alveolar epithelia iScience 2023-08-18 [PMID: 37520727]

Baker CN, Duso D, Kothapalli N et al. Characterization of Collaborative Cross mouse founder strain CAST/EiJ as a novel model for lethal COVID-19 Scientific Reports 2024-10-24 [PMID: 39448712]

Peng J, Tang W, Rawson J et al. One-Step Automatic Radiosynthesis and Evaluation of [18 F]TM-30089 as GPR44 Radiotracer Pharmaceuticals 2023-10-17 [PMID: 37895951]

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]

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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