

PRODUCT INFORMATION



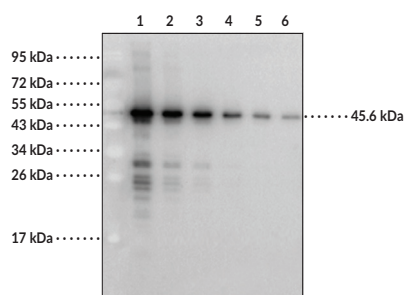
SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 019)

Item No. 31985

Overview and Properties

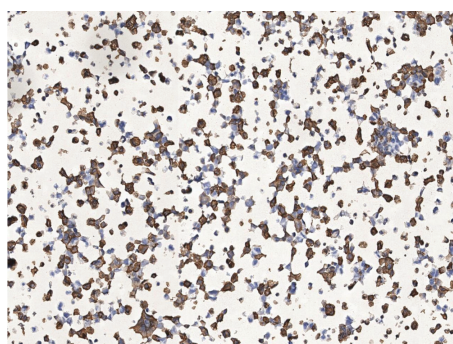
Contents: This vial contains 100 µl of protein A-purified recombinant monoclonal antibody.
Synonyms: 2019-nCoV NP, 2019-nCoV Nucleoprotein, 2019-nCoV Nucleocapsid Protein, COVID-19 NP, COVID-19 Nucleoprotein, COVID-19 Nucleocapsid Protein, SARS-CoV-2 NP, SARS-CoV-2 Nucleoprotein, Severe Acute Respiratory Syndrome Coronavirus 2 Nucleocapsid Protein
Immunogen: Recombinant SARS-CoV nucleocapsid protein
Cross Reactivity: (+) Nucleocapsid protein
Species Reactivity: (+) SARS-CoV, SARS-CoV-2, SARS-CoV-2 Omicron (B.1.1.529), SARS-CoV-2 Omicron (BA.2), SARS-CoV-2 Omicron XE (BA.1 x BA.2), SARS-CoV-2 Omicron (BA.4), SARS-CoV-2 Delta (B.1.617.2); (-) MERS-CoV, HCoV-229E, HCoV-NL63, HCoV-HKU1, HCoV-OC43
Molecular Weight: 45.6 kDa
Form: Liquid
Storage: -80°C (as supplied)
Stability: ≥1 year
Storage Buffer: 0.2 µm filtered solution in PBS
Clone: 019
Host: Rabbit
Isotype: IgG
Applications: ELISA, Immunohistochemistry (IHC; paraffin), and Western blot (WB); the recommended starting dilution is 1:5,000-1:10,000 for ELISA and 1:1,000-1:10,000 for WB. IHC; paraffin and other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

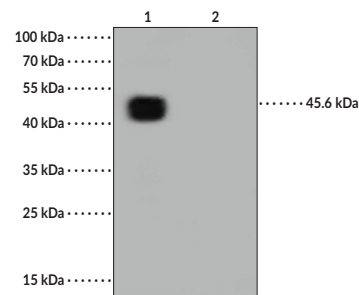


Lane 1: 2019-nCoV NP Protein (30 ng)
Lane 2: 2019-nCoV NP Protein (10 ng)
Lane 3: 2019-nCoV NP Protein (5 ng)
Lane 4: 2019-nCoV NP Protein (2 ng)
Lane 5: 2019-nCoV NP Protein (1 ng)
Lane 6: 2019-nCoV NP Protein (0.5 ng)

WB of SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 019) at 1:1,000 dilution.



Immunohistochemical analysis of nucleocapsid overexpressed in HEK293 cells. Cells were stained with purified SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 019) (Item No. 31985), followed by a HRP-conjugated second step antibody.



Lane 1: SARS-CoV/SARS-CoV-2 Nucleocapsid protein overexpressed HEK293 whole cell lysate (10 µg)
Lane 2: HEK293 whole cell lysate (10 µg)

WB of SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 019) at 1:5,000 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Severe acute respiratory syndrome coronavirus (SARS-CoV) and SARS-CoV-2 nucleocapsid proteins are encoded by the *N* gene in SARS-CoV and SARS-CoV-2 RNA.^{1,2} SARS-CoV and SARS-CoV-2 are members of the *Betacoronavirus* genus of viruses that have approximately 79% sequence identity and share 27 T cell epitopes in common.³⁻⁵ The SARS-CoV-2 nucleocapsid protein has greater than 90% similarity to the SARS-CoV nucleocapsid protein and contains two unique B cell epitopes and two T cell epitopes that are structurally stable, non-allergenic, and induce production of IFN- γ .^{2,5} SARS-CoV and SARS-CoV-2 nucleocapsid proteins package the viral RNA into a helical ribonucleoprotein complex (RNP), which is a template for viral replication, and are integral for viral self-assembly and involved in regulation of the host cell cycle.^{2,6} SARS-CoV and SARS-CoV-2 are the causative agents of SARS and COVID-19, respectively, both of which are primarily respiratory illnesses characterized by fever, cough, and shortness of breath that can lead to life-threatening complications.^{4,7,8} Cayman's SARS-CoV/SARS-CoV-2 Nucleocapsid Protein Rabbit Monoclonal Antibody (Clone 019) can be used for ELISA, immunohistochemistry (IHC; paraffin), and Western blot (WB) applications. This recombinant antibody recognizes nucleocapsid protein at 45.6 kDa from SARS-CoV, SARS-CoV-2, and several SARS-CoV-2 Omicron and Delta subvariants.

References

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM