

Product datasheet

Anti-SARS Nucleocapsid Protein antibody [6H3] ab273434

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Overview

Product name	Anti-SARS Nucleocapsid Protein antibody [6H3]
Description	Mouse monoclonal [6H3] to SARS Nucleocapsid Protein
Host species	Mouse
Specificity	No cross-reactivity with MERS-CoV nucleocapsid protein is expected.
Tested applications	Suitable for: ICC, WB, IP, Sandwich ELISA
Species reactivity	Reacts with: SARS-CoV, SARS-CoV-2 Does not react with: MERS-CoV
Immunogen	Recombinant fragment corresponding to Human coronavirus SARS Nucleocapsid Protein aa 121-422.
Positive control	IP: SARS CoV-2 Nucleocapsid Protein-transfected HEK-293T whole cell lysate. WB: SARS-CoV infected HEK-293T cell lysate; HEK-293T cells transfected with SARS CoV-2 Nucleocapsid Protein with DDDDK tag; Vero E6; SARS CoV and SARS CoV-2 infected Caco-2 cells whole cell extract. ICC: VeroE6 cells overexpressing SARS CoV Nucleocapsid Protein. SARS CoV-2 Nucleocapsid Protein transfected 293T cells.

General notes

Applications overview

Tick: Tested and Guaranteed to work X: Will not work —: No data

	WB	IHC	ICC/IF	Flow Cyt	ELISA	IP
SARS-CoV	✓	—	✓	—	—	—
SARS-CoV2	✓	Reviews ①	—	—	✓	✓

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Constituent: 100% PBS
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	6H3
Isotype	IgG1

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab273434 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

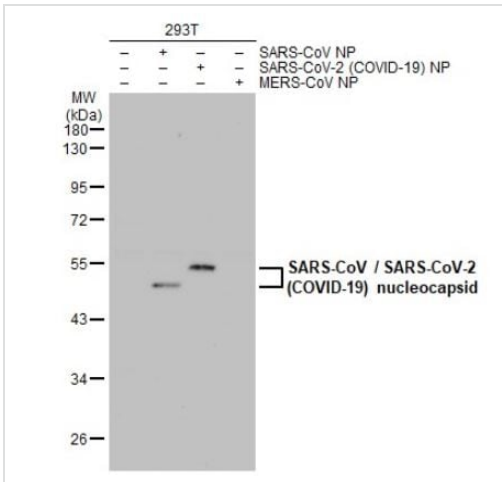
Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.
WB		1/1000 - 1/10000.
IP		Use at an assay dependent concentration.
Sandwich ELISA		Use at an assay dependent concentration.

Target

Relevance Severe Acute Respiratory Syndrome (SARS), an emerging disease characterized by atypical pneumonia, has recently been attributed to a novel coronavirus (SARS-CoV). SARS is caused by a human coronavirus, which are the major cause of upper respiratory tract illness in humans, such as the common cold. Coronaviruses are positive stranded RNA viruses, featuring the largest viral RNA genomes known to date (27-31 kb). The spike protein is the main surface antigen of the coronavirus. The most prominent protein in the culture supernatants infected with SARS virus is a 46 kDa nucleocapsid protein. This suggests that the nucleocapsid protein is a major immunogen that may be useful for early diagnostics. The nucleocapsid protein of SARS shares little homology with nucleocapsid proteins of other members of the coronavirus family. Nucleocapsid proteins of other coronavirus have been reported to be involved in forming the viral core and also in the packaging and transcription of the viral RNA.

Cellular localization Inside the virion, complexed with the viral RNA. May be associated with cellular membranes where it participates in viral RNA synthesis and virus budding.

Images



Western blot - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

All lanes : Anti-SARS Nucleocapsid Protein antibody [6H3]

(ab273434) at 1/5000 dilution

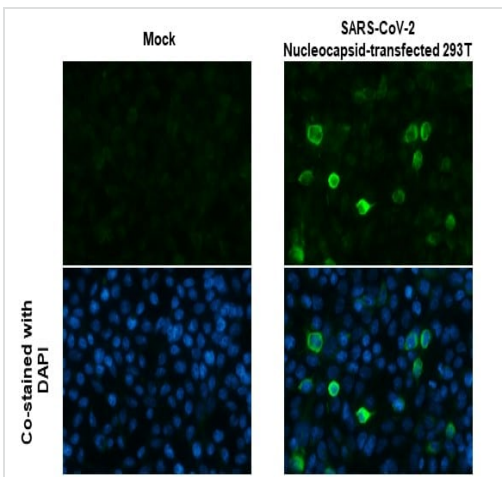
Lane 1 : Non-transfected HEK-293T cells at 30 µg

Lane 2 : SARS-CoV NP transfected HEK-293T cells at 30 µg

Lane 3 : SARS-CoV2 (COVID-19) NP transfected HEK-293T cells

Lane 4 : MERS-CoV NP transfected HEK-293T cells at 30 µg

10% SDS-PAGE

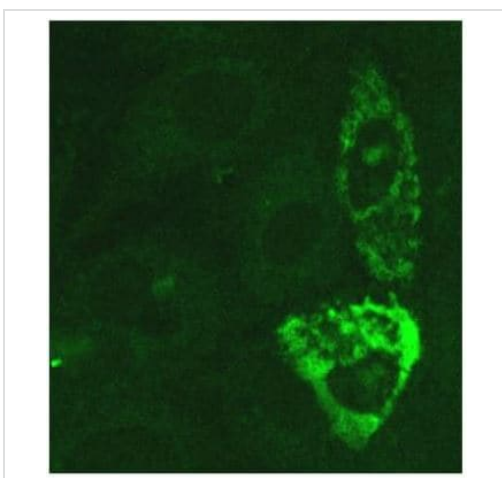


Immunocytochemistry - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

Immunocytochemistry analysis of Mock and SARS-CoV-2

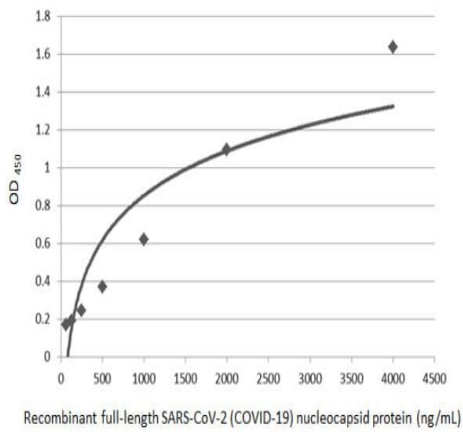
Nucleocapsid transfected 293T cells labeling SARS Nucleocapsid Protein with ab273434 at 1/1000 dilution (green). Cells were fixed in 4% paraformaldehyde at room temperature for 15 minutes.

Nuclei counterstained with DAPI (blue).



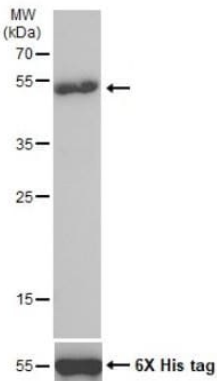
Immunocytochemistry - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

VeroE6 cells over-expressing SARS-CoV Nucleocapsid protein labeling SARS Nucleocapsid Protein (green) using ab273434 in ICC.



Sandwich ELISA - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

Sandwich ELISA detection of recombinant full-length SARS-CoV-2 nucleocapsid protein using a different anti-SARS-CoV-2 capture antibody at concentration of 5 µg/mL and ab273434 as detection antibody at concentration of 1 µg/mL. Mouse IgG antibody (HRP) was used at 1/10000 to detect the primary antibody.



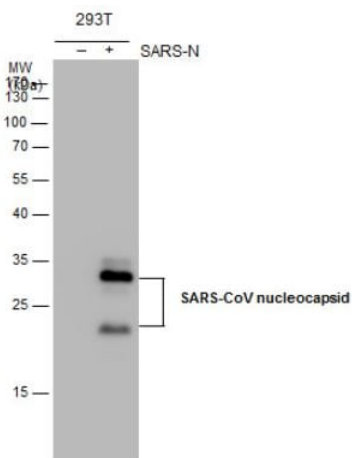
Western blot - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434) at 1/5000 dilution + SARS-CoV-2 (COVID-19) nucleocapsid protein at 0.5 µg

Secondary

HRP-conjugated anti-Mouse IgG

12% SDS-PAGE



Western blot - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

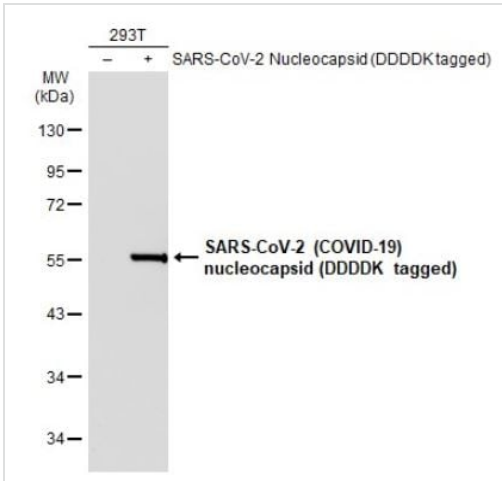
All lanes : Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434) at 1/5000 dilution

Lane 1 : Non-transfected HEK-293T whole cell extract

Lane 2 : SARS-CoV nucleocapsid-transfected (a partial fragment) HEK-293T whole cell extracts

Lysates/proteins at 30 µg per lane.

12% SDS-PAGE



Western blot - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

All lanes : Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434) at 1/5000 dilution

Lane 1 : Non-transfected HEK-293T whole cell extract

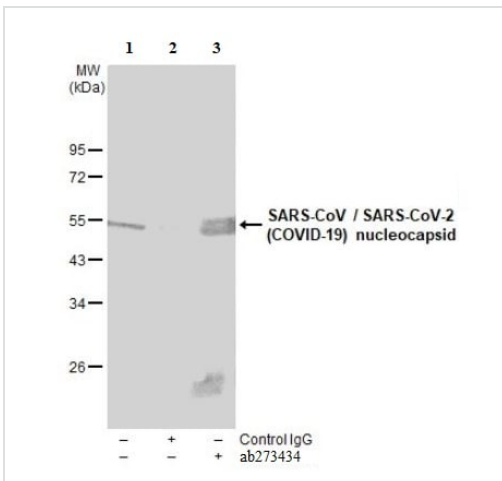
Lane 2 : Transfected HEK-293T whole cell extract

Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-Mouse IgG

10% SDS-PAGE

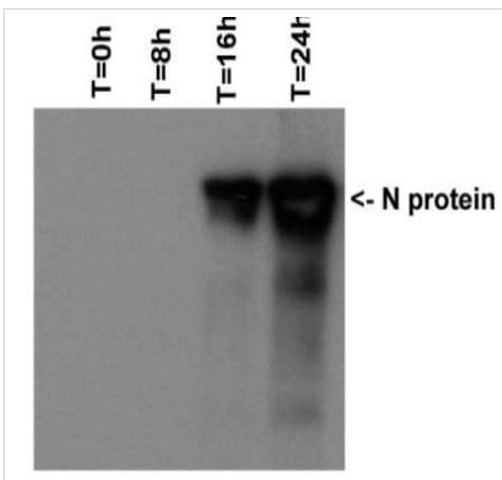


Immunoprecipitation - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

SARS Nucleocapsid Protein was immunoprecipitated from 2µg of SARS-CoV2 Nucleocapsid Protein transfected HEK-293T whole cell lysate with either ab273434 (Lane 3) or a control IgG (Lane 2).

Western blot was performed from the immunoprecipitate using ab273434. An

HRP-conjugated anti mouse IgG antibody, was used as secondary antibody.



Western blot - Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

All lanes : Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

Lane 1 : SARS-CoV infected Vero E6 cells post infection after 0 hours

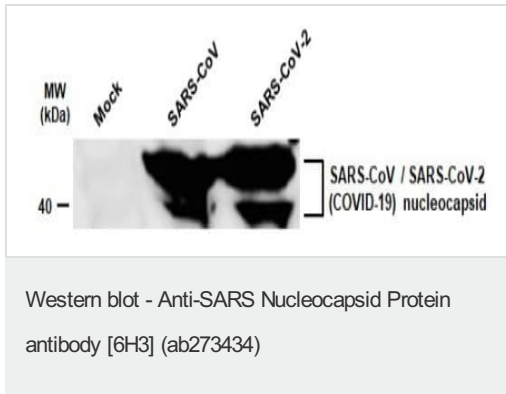
Lane 2 : SARS-CoV infected Vero E6 cells post infection after 8 hours

Lane 3 : SARS-CoV infected Vero E6 cells post infection after 16 hours

Lane 4 : SARS-CoV infected Vero E6 cells post infection after 24 hours

Vero E6 cells were analysed at the indicated time-points post-

infection with SARS-CoV.



Lanes 1-2 : Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434) at 1/1000 dilution

Lane 3 : Anti-SARS Nucleocapsid Protein antibody [6H3] (ab273434)

Lane 1 : Non-infected Caco-2 whole cell extract

Lane 2 : SARS-CoV infected Caco-2 whole cell extract

Lane 3 : SARS-CoV-2 infected Caco-2 whole cell extract

Cell lysates were analysed by WB 48 hours post-infection with SARS-CoV or SARS Cov-2 at a MOI of 0.01.

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