10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SARS Coronavirus Nucleoprotein Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6005b

Specification

SARS Coronavirus Nucleoprotein Antibody (C-term) - Product Information

Primary Accession	P59595
Reactivity	SARS
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	393-422

SARS Coronavirus Nucleoprotein Antibody (C-term) - Additional Information

Other Names
Nucleoprotein, Nucleocapsid protein, NC, Protein N, N

Target/Specificity
This SARS virus PUP5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 393~422 amino acids from the C-terminus region of SARS nucleocapsid protein.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SARS Coronavirus Nucleoprotein Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SARS Coronavirus Nucleoprotein Antibody (C-term) - Protein Information

Name N {ECO:0000255|HAMAP-Rule:MF_04096}

Function Packages the positive strand viral genome RNA into a helical ribonucleocapsid (RNP) and plays a fundamental role during virion assembly through its interactions with the viral genome and membrane protein M. Plays an important role in enhancing the efficiency of subgenomic viral RNA transcription as well as viral replication (PubMed:17210170). May modulate transforming growth factor-beta signaling by binding host SMAD3 (PubMed:18055455).

Cellular Location
Virion {ECO:0000255|HAMAP-Rule:MF_04096, ECO:0000269|PubMed:17210170, ECO:0000269|PubMed:19106108}. Host endoplasmic reticulum-Golgi intermediate compartment

{ECO:0000255|HAMAP-Rule:MF_04096, ECO:0000269|PubMed:17210170}. Host Golgi apparatus {ECO:0000255|HAMAP-Rule:MF_04096, ECO:0000269|PubMed:17210170}. Host cytoplasm, host perinuclear region. Host nucleus. Note=Located inside the virion, complexed with the viral RNA. Probably associates with ER-derived membranes where it participates in viral RNA synthesis and virus budding. {ECO:0000255|HAMAP-Rule:MF_04096}

SARS Coronavirus Nucleoprotein Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SARS Coronavirus Nucleoprotein Antibody (C-term) - Images

SARS Coronavirus Nucleoprotein Antibody (C-term) - Background

An outbreak of atypical pneumonia, referred to as severe acute respiratory syndrome (SARS) and first identified in Guangdong Province, China, has spread to several countries. The severity of this disease is such that the mortality rate appears to be ~3 to 6%. A number of laboratories worldwidehave undertaken the identification of the causative agent. The National Microbiology Laboratory in Canada obtained the Tor2 isolate from a patient in Toronto, and succeeded in growing a coronavirus-like agent in African
Green Monkey Kidney (Vero E6) cells. This coronavirus has been named publicly by the World Health Organization and member laboratories as ?SARS virus?
The SARS membrane proteins, including the major proteins S (Spike) and M (Membrane), are inserted into the endoplasmic reticulum Golgi intermediate compartment (ERGIC) while full length replicated RNA (+ strands) assemble with the N (nucleocapsid) protein. The virus then migrates through the Golgi complex and eventually exits the cell, likely by exocytosis. The site of viral attachment to the host cell resides within the S protein.
Oligomeric spike (S) glycoproteins extend from SARS membranes. These integral membrane proteins assemble within the endoplasmic reticulum of infected cells and are subsequently endoproteolyzed in the Golgi, generating noncovalently associated S1 and S2 fragments. Once on the surface of infected cells and virions, peripheral S1 fragments bind carcinoembryonic antigen-related cell adhesion molecule (CEACAM) receptors, and this triggers membrane fusion reactions mediated by integral membrane S2 fragments.

SARS Coronavirus Nucleoprotein Antibody (C-term) - References

He, R., et al., Biochem. Biophys. Res. Commun. 316(2):476-483 (2004).
Snijder, E.J., et al., J. Mol. Biol. 331(5):991-1004 (2003).
Marra, M.A., et al., Science 300(5624):1399-1404 (2003).
Krokhin, O., et al., Mol Cell Proteomics 2(5):346-356 (2003).

SARS Coronavirus Nucleoprotein Antibody (C-term) - Citations

- Ciprofloxacin impairs mitochondrial DNA replication initiation through inhibition of Topoisomerase 2.
- Establishment of Vero E6 cell clones persistently infected with severe acute respiratory syndrome coronavirus.
- Susceptibility of human and rat neural cell lines to infection by SARS-coronavirus.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999