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

SARS virus PUP5 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP6005a

Specification

SARS virus PUP5 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P59595

SARS virus PUP5 Antibody (N-term) Blocking Peptide - Additional Information

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6005a was selected from the N-term region of human SARS virus PUP5 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SARS virus PUP5 Antibody (N-term) Blocking Peptide - 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 virus PUP5 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

SARS virus PUP5 Antibody (N-term) Blocking Peptide - Images

SARS virus PUP5 Antibody (N-term) Blocking Peptide - 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 AfricanGreen 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 virus PUP5 Antibody (N-term) Blocking Peptide - 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).