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SARS virus PUP1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6001b

Product Information

Application	E
Primary Accession	P59632
Reactivity	SARS
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3785-3786
Calculated MW	30903
Antigen Region	245-274

Additional Information

Other Names	Protein 3a, Accessory protein 3a, Protein U274, Protein X1, 3a
Target/Specificity	This SARS virus PUP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 245~274 amino acids from amino acid 250-280 of SARS virus PUP1.
Dilution	E~~Use at an assay dependent concentration.
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 virus PUP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	3a
Function	Forms homotetrameric potassium sensitive ion channels (viroporin) and may modulate virus release. Up-regulates expression of fibrinogen subunits FGA, FGB and FGG in host lung epithelial cells. Induces apoptosis in cell culture. Down-regulates the type 1 interferon receptor by inducing serine phosphorylation within the IFN alpha- receptor subunit 1 (IFNAR1) degradation motif and increasing IFNAR1 ubiquitination.

Cellular Location	Virion. Host Golgi apparatus membrane; Multi-pass membrane protein. Host cell membrane; Multi-pass membrane protein Secreted. Host cytoplasm. Note=The cell surface expressed protein can undergo endocytosis. The protein is secreted in association with membranous structures

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.

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).