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SARS virus PUP3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6003a

Product Information

Application	E
Primary Accession	P59634
Other Accession	NP_828856
Reactivity	SARS
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3797-3798
Calculated MW	7527

Additional Information

Other Names	Non-structural protein 6, ns6, Accessory protein 6, Protein X3
Target/Specificity	This SARS virus PUP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of SARS virus PUP3.
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 PUP3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	6
Function	Disrupts bidirectional nucleocytoplasmic transport by interacting with host RAE1-NUP98 complex (PubMed:33849972). Disrupts cell nuclear import complex formation also by tethering karyopherin alpha 2 and karyopherin beta 1 to the membrane (PubMed:17596301). Retention of import factors at the ER/Golgi membrane leads to a loss of transport into the nucleus (PubMed:17596301). Thereby prevents STAT1 nuclear translocation in response to interferon signaling, thus blocking the expression of interferon

	stimulated genes (ISGs) that display multiple antiviral activities (PubMed:17596301).
Cellular Location	Host endoplasmic reticulum membrane. Host Golgi apparatus membrane. Host cytoplasm. Note=Localizes to virus- induced vesicular structures called double membrane vesicles

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).

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