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SARS virus PUP4 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6004b

Product Information

Application	E
Primary Accession	P59635
Other Accession	NP_828857
Reactivity	SARS
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3809-3810
Calculated MW	13941

Additional Information

Other Names	Protein 7a, Accessory protein 7a, Protein U122, Protein X4, 7a
Target/Specificity	This SARS virus PUP4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the N-terminal region of SARS virus PUP4.
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 PUP4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	7a
Function	Plays a role as antagonist of host tetherin (BST2), disrupting its antiviral effect. Acts by binding to BST2 thereby interfering with its glycosylation. May suppress small interfering RNA (siRNA). May bind to host ITGAL, thereby playing a role in attachment or modulation of leukocytes.
Cellular Location	Virion. Host endoplasmic reticulum membrane; Single-pass membrane protein. Host endoplasmic reticulum-Golgi intermediate compartment

membrane; Single-pass type I membrane protein Host Golgi apparatus membrane; Single-pass membrane protein

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).