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SARS virus PUPM Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6008b

Product Information

Application	E
Primary Accession	P59596
Reactivity	SARS
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3795/3796
Calculated MW	25061
Antigen Region	192-221

Additional Information

Other Names	Membrane protein, M protein, E1 glycoprotein, Matrix glycoprotein, Membrane glycoprotein, M
Target/Specificity	This SARS virus PUPM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 192~221 amino acids from the C-terminus region of SARS M protein.
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 PUPM Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	M {ECO:0000255|HAMAP-Rule:MF_04202}
Function	Component of the viral envelope that plays a central role in virus morphogenesis and assembly via its interactions with other viral proteins.
Cellular Location	Virion membrane {ECO:0000255|HAMAP- Rule:MF_04202}; Multi-pass membrane protein {ECO:0000255|HAMAP- Rule:MF_04202}. Host Golgi apparatus membrane {ECO:0000255|HAMAP- Rule:MF_04202}; Multi-pass

membrane protein {ECO:0000255|HAMAP- Rule:MF_04202}. Note=Largely embedded in the lipid bilayer {ECO:0000255|HAMAP-Rule:MF_04202}

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

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Zhang, X.L., et al., Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao 35(12):1140-1144 (2003).
Snijder, E.J., et al., J. Mol. Biol. 331(5):991-1004 (2003).
Marra, M.A., et al., Science 300(5624):1399-1404 (2003).

Citations

- Chimeric coronavirus-like particles carrying severe acute respiratory syndrome coronavirus (SCoV) S protein protect mice against challenge with SCoV.
- Induction of apoptosis by the severe acute respiratory syndrome coronavirus 7a protein is dependent on its interaction with the Bcl-XL protein.
- Severe acute respiratory syndrome coronavirus accessory protein 6 is a virion-associated protein and is released from 6 protein-expressing cells.
- Expression of the severe acute respiratory syndrome coronavirus 3a protein and the assembly of coronavirus-like particles in the baculovirus expression system.
- Severe acute respiratory syndrome coronavirus 7a accessory protein is a viral structural protein.
- Severe acute respiratory syndrome coronavirus 3a protein is released in membranous structures from 3a protein-expressing cells and infected cells.
- The severe acute respiratory syndrome coronavirus 3a is a novel structural protein.