

# SARS virus PUPM Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6008a

## Product Information

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<b>Primary Accession</b>	<a href="#">P59596</a>
<b>Reactivity</b>	SARS
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB3793/3794
<b>Calculated MW</b>	25061

## Additional Information

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<b>Gene ID</b>	1489672
<b>Other Names</b>	Membrane protein, M protein, E1 glycoprotein, Matrix glycoprotein, Membrane glycoprotein, M
<b>Target/Specificity</b>	This SARS virus PUPM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1~30 amino acids from the N-terminus region of SARS M protein.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	SARS virus PUPM Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	M {ECO:0000255   HAMAP-Rule:MF_04202}
<b>Function</b>	Component of the viral envelope that plays a central role in virus morphogenesis and assembly via its interactions with other viral proteins.
<b>Cellular Location</b>	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

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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 worldwide have 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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- He, R., et al., *Biochem. Biophys. Res. Commun.* 316(2):476-483 (2004).  
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

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- [Chimeric coronavirus-like particles carrying severe acute respiratory syndrome coronavirus \(SCoV\) S protein protect mice against challenge with SCoV.](#)