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SARS virus Spike Antibody (C-term D1135) Blocking Peptide

Synthetic peptide
Catalog # BP6009h

Specification

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - Product Information

Primary Accession	P59594
Other Accession	NP_828851

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - Additional Information

Other Names
Spike glycoprotein, S glycoprotein, E2, Peplomer protein, Spike protein S1, Spike protein S2, S

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6009h was selected from the C-term region of human SARS virus Spike . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - Protein Information

Name S {ECO:0000255|HAMAP-Rule:MF_04099}

Function
[Spike glycoprotein]: May down-regulate host tetherin (BST2) by lysosomal degradation, thereby counteracting its antiviral activity.

Cellular Location
Virion membrane {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}. Host endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:20861307}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}. Host cell membrane {ECO:0000255|HAMAP- Rule:MF_04099, ECO:0000269|PubMed:15831954}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:15831954}. Note=Accumulates in the endoplasmic reticulum-Golgi intermediate compartment, where it participates in virus particle

assembly. Colocalizes with S in the host endoplasmic reticulum-Golgi intermediate compartment (PubMed:20861307). Some S oligomers are transported to the host plasma membrane, where they may mediate cell-cell fusion. {ECO:0000255|HAMAP-Rule:MF_04099, ECO:0000269|PubMed:20861307}

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - Images

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - 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 AfricanGreen 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.

SARS virus Spike Antibody (C-term D1135) Blocking Peptide - 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).Krokhin, O., et al., Mol Cell Proteomics 2(5):346-356 (2003).