

SARS virus Sm Antibody Blocking Peptide
Synthetic peptide
Catalog # BP6000b**Specification****SARS virus Sm Antibody Blocking Peptide -
Product Information**Primary Accession [P59594](#)**SARS virus Sm Antibody Blocking Peptide -
Additional Information****Gene ID** 1489668**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 [AP6000b](/product/products/AP6000b) was selected from the region of human SARS virus Sm. 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 Sm Antibody Blocking Peptide -
Protein Information****Name** S

{ECO:0000255|HAMAP-Rule:MF_04099}

**SARS virus Sm Antibody 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 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.

**SARS virus Sm Antibody 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

Function

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

300(5624):1399-1404 (2003).Krokhin, O., et al., Mol Cell Proteomics 2(5):346-356 (2003).

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 Sm Antibody Blocking Peptide
- Protocols**

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

- [Blocking Peptides](#)