


SARS-ACSM(M) (residues 408-470/540-573)

SARS-Associated Coronavirus Spike Mosaic S(M)
recombinant, *E. coli*

Cat. No.	Amount
PR-1106	100 µg

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Additional Storage Conditions: avoid freeze/thaw cycles

Shelf Life: 12 months

Molecular Weight: 38 kDa

Purity: > 95 % (SDS-PAGE)

Form: liquid (Supplied in 25 mM Tris-HCl, 0.4% sarcosyl, 0,25% Triton X-100 and 50% glycerol)

Applications:

Recombinant SARS-ACSM Antigen may be used in ELISA and Western blots, excellent for detection of SARS with minimal specificity problems.

Description:

SARS-ACSM contains the middle section of the Spike protein immunodominant fragments, amino acids: 408-470, 540-573. SARS-ACSM is purified by proprietary chromatographic techniques.

Background: The spike (S) glycoprotein of coronaviruses mediates viral entry into host cells. Spike (S)-glycoprotein of the virus interacts with a cellular receptor and mediates membrane fusion to allow viral entry into susceptible target cells. It is a type 1 viral fusion protein that characteristically contains two heptad repeat regions, denoted HR-N and HR-C, that form coiled-coil structures within the ectodomain of the protein. Previous studies have shown that the two heptad repeat regions can undergo a conformational change from their native state to a 6-helix bundle (trimer of dimers), which mediates fusion of viral and host cell membranes.

Specificity: Immunoreactive with sera of SARSinfected individuals.

Selected References:

Xu *et al.* (2004) Characterization of the heptad repeat regions, HR1 and HR2, and design of a fusion core structure model of the spike protein from severe acute respiratory syndrome (SARS) coronavirus. *Biochemistry* **43**:14064.

Hsu *et al.* (2004) Immunological, structural, and preliminary Xray diffraction characterizations of the fusion core of the SARS coronavirus spike protein. *Biochem. Biophys. Res. Commun.* **324**:761.

He *et al.* (2004) Identification of immunodominant sites on the spike protein of severe acute respiratory syndrome (SARS) coronavirus: implication for developing SARS diagnostics and vaccines. *J. Immunol.* **173**:4050.

Bukreyev *et al.* (2004) Mucosal immunisation of African green monkeys (*Cercopithecus aethiops*) with an attenuated parainfluenza virus expressing the SARS coronavirus spike protein for the prevention of SARS. *Lancet.* **363**:2122.

Hua *et al.* (2004) Identification of two antigenic epitopes on SARS-CoV spike protein. *Biochem. Biophys. Res. Commun.* **319**:929.

Bosch *et al.* (2004) Severe acute respiratory syndrome coronavirus (SARS-CoV) infection inhibition using spike protein heptad repeat-derived peptides. *Proc. Natl. Acad. Sci. USA.* **101**:8455.