Data sheet

IFTA AG
Certified QMS according to
DIN EN ISO 9001
Reg. No. IC 03214 034

Jena Bioscience

SARS-ACSMS(C) (residues 1051-1076, 1121-1154, 1162-1190)

SARS-Associated Coronavirus Spike Mosaic S(C)

recombinant, *E. coli*

Cat. No.	Amount
PR-1105	100 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form
Liquid. Supplied in 25 mM Tris-HCl, 0.4% sarcosyl, 0,25% Triton X-100 and 50% glycerol.

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

Specificity
Immunoreactive with sera of SARSinfected individuals.

Molecular Weight
37 kDa

Purity
>95% by SDS-PAGE

Description
SARS-ACSM contains the C-terminal t section of the Spike protein immunodominant fragments, amino acids: 1051-1076, 1121-1154, 1162-1190.
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.

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 SARScoronavirus 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.