

SARS-ACN/1 (residues 340-390)

SARS-Associated Coronavirus Nucleocapsid recombinant, *E. coli*

Cat. No.	Amount
PR-1102	100 µg

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

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 50 mM Tris-HCl, 60 mM NaCl, and 50% glycerol.

Molecular Weight

32 kDa

Application

Recombinant SARS-ACN 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.

Purity

>95% by SDS-PAGE

Description

The protein contains the Nucleocapsid protein immunodominant fragments, amino acids: 340-390. SARS-ACN is purified by proprietary chromatographic techniques.

Background

SARS (Severe Acute Respiratory Syndrome) Coronavirus is an enveloped virus containing three outer structural proteins, namely the membrane (M), envelope (E), and spike (S) proteins. The nucleocapsid (N) protein together with the viral RNA genome presumably form a helical core located within the viral envelope. The SARS-CoV nucleocapsid (N) protein is a 423 amino-acid, predicted phosphoprotein of 46 kDa that shares little homology with other members of the coronavirus family. A short serine-rich stretch, and a putative bipartite nuclear localization signal are unique to it, thus suggesting its involvement in many important functions during the viral life cycle.

Selected References:

- Liu *et al.* (2004) High-yield expression of recombinant SARS coronavirus nucleocapsid protein in methylotrophic yeast *Pichia pastoris*. *World J. Gastroenterol.* **10**:3602.
- Luo *et al.* (2004) Nucleocapsid protein of SARS coronavirus tightly binds to human cyclophilin A. *Biochem. Biophys. Res. Commun.* **321**:557.
- Wang *et al.* (2004) Low stability of nucleocapsid protein in SARS virus. *Biochemistry.* **43**:11103.
- Lau *et al.* (2004) Detection of severe acute respiratory syndrome (SARS) coronavirus nucleocapsid protein in sars patients by enzyme-linked immunosorbent assay. *J. Clin. Microbiol.* **42**:2884.
- Woo *et al.* (2004) Longitudinal profile of immunoglobulin G (IgG), IgM, and IgA antibodies against the severe acute respiratory syndrome (SARS) coronavirus nucleocapsid protein in patients with pneumonia due to the SARS coronavirus. *Clin. Diagn. Lab. Immunol.* **11**:665.
- Leung *et al.* (2004) Antibody response of patients with severe acute respiratory syndrome (SARS) targets the viral nucleocapsid. *J. Infect. Dis.* **190**:379.