

HCV-NS4, Mosaic Hepatitis C Virus Non-Structural protein recombinant, *E. coli*

Cat. No.	Amount
PR-1161-1	1 mg

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 pH 7.5, 1 mM EDTA, 1.5 M urea and 50% glycerol.

Specificity

Immunoreactive with sera of HCV-infected individuals.

Purity

>95% by SDS-PAGE and RP-HPLC

Description

Recombinant HCV-NS4 is an artificial mosaic polypeptide composite constructed from diagnostically relevant antigenic regions derived from the NS4 region of different HCV genotypes. The protein contains the fragments of the NS4 immunodominant region derived from 11 HCV genotypes.

Hepatitis C Virus NS4 is purified by proprietary chromatographic techniques.

Application

Antigen in ELISA and Western blots, excellent antigen for detection of HCV with minimal specificity problems.

Background

The genome of hepatitis C virus (HCV) consists of seven functional regions: the core, E1, E2/NS1, NS2, NS3, NS4, and NS5 regions. Since the discovery of HCV, significant progress in the development of serologic tests for the detection of antibodies to HCV has been made. The earliest tests, developed for blood screening, were enzyme immunoassays (EIAs) that detect antibody to a cloned HCV NS4 protein (C100). The commercial EIAs that have been developed to date have used synthetic peptides or recombinant chimeric polyproteins as antigens.

Selected References:

- Chu *et al.* (2004) Low-level hepatitis C viremia and humoral immune response to NS4 in chronic hepatitis B virus-hepatitis C virus coinfection. *Scand. J. Gastroenterol.* **39**:778.
- Masalova *et al.* (2002) Characterization of monoclonal antibodies and epitope mapping of the NS4 protein of hepatitis C virus. *Immunol. Lett.* **83**:187.
- Okamoto *et al.* (2000) Prospective reevaluation of risk factors in mother-to-child transmission of hepatitis C virus: high virus load, vaginal delivery, and negative anti-NS4 antibody. *J. Infect. Dis.* **182**:1511.
- Chien *et al.* (1999) Use of a Novel Hepatitis C Virus (HCV) Major-Epitope Chimeric Polypeptide for Diagnosis of HCV Infection. *J. Clin. Microbiol.* **37**:1393.