



### HCV-N-G1b (residues 2-119)

Hepatitis C Virus Nucleocapsid Genotype 1b recombinant, *E. coli*

Cat. No.	Amount
PR-1132	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:** 40 kDa

**Purity:** > 95 % (SDS-PAGE)

**Form:** liquid (Supplied in 25 mM Tris-HCl pH 8.0, 1.5 M urea, 0.2 % Triton-X and 50 % glycerol)

#### Applications:

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

#### Description:

The protein contains the HCV core nucleocapsid immunodominant regions, amino acids: 2-119. Hepatitis C Virus core proteins are purified by proprietary chromatographic techniques.

**Background:** The hepatitis C virus (HCV) core protein represents the first 191 amino acids of the viral precursor polyprotein and is cotranslationally inserted into the membrane of the endoplasmic reticulum (ER). Hepatitis C virus (HCV) core is a viral structural protein, it also participates in some cellular processes, including transcriptional regulation. However, the mechanisms of core-mediated transcriptional regulation remain poorly understood. Hepatitis C virus (HCV) core protein is thought to contribute to HCV pathogenesis through its interaction with various signal transduction pathways. In addition, HCV core antigen is a recently developed marker of hepatitis C infection. It is remarkably efficient at establishing persistent infection, suggesting that it has evolved one or more strategies aimed at evading the host immune response. T cell responses, including interferon-gamma production, are severely suppressed in chronic HCV patients. The HCV core protein has been previously shown to circulate in the bloodstream of HCV-infected patients and inhibit host immunity through an interaction with gC1qR.

**Specificity:** Immunoreactive with sera of HCV-infected individuals.

#### Selected References:

Kang *et al.* (2005) Proteomic profiling of cellular proteins interacting with the hepatitis C virus core protein. *Proteomics* **5**:2227.

Fukutomi *et al.* (2005) Hepatitis C virus core protein stimulates hepatocyte growth: Correlation with upregulation of wnt-1 expression. *Hepatology* **41**:1096.

Gaudy *et al.* (2005) Usefulness of the hepatitis C virus core antigen assay for screening of a population undergoing routine medical checkup. *J. Clin. Microbiol.* **43**:1722.

Lindh *et al.* (2005) Monitoring treatment response by the hepatitis C virus core antigen assay. *Eur. J. Clin. Microbiol. Infect. Dis.* **24**:230.

Boni *et al.* (2005) Hepatitis C Virus Core Protein Acts as a trans-Modulating Factor on Internal Translation Initiation of the Viral RNA. *J. Biol. Chem.* **280**:17737.