

Hepatitis C Virus Core, NS3, NS4, NS5 - Purified

Catalog No.: AR10604PU-N

Quantity: 0.5 mg

Concentration: 1.0 mg/ml

Background: HCV is a small 50nm, enveloped, single-stranded, positive sense RNAvirus in the family Flaviviridae. HCV has a high rate of replication with approximately one trillion particles produced each day in an infected individual. Due to lack of proofreading by the HCV RNA polymerase, the HCV has an exceptionally high mutation rate, a factor that may help it elude the host's immune response. Hepatitis C virus is classified into six genotypes(1-6) with several subtypes within each genotype. The preponderance and distribution of HCV genotypes varies globally. Genotype is clinically important in determining potential response to interferon-based therapy and the required duration of such therapy. Genotypes 1 and 4 are less responsive to interferon-based treatment than are the other genotypes (2, 3, 5 and 6).

Source: E. coli

Format: **State:** 50mM NaPO₄, pH 8.5, 2.4mM EDTA, 5mM DTT, 0.1% SDS
Purity: >95.0% pure as determined by 10% PAGE (coomassie staining).
Purification Method: S-Sepharose > Ceramic Hydroxyapatite > Affinity Purification.

Applications: Antigen in ELISA and Western blots, excellent antigen for detection of HCV with minimal specificity problems. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Description: *E.coli* derived recombinant protein contains the HCV nucleocapsid, NS3, NS4, and NS5 immunodominant regions. The *E.Coli* derived 70 kDa recombinant protein contains sequences from 4 gene products (proteins) of the hepatitis C virus (HCV) were scanned by using 3 different PCR-based techniques in search of the most immunoreactive regions suitable for the development of a diagnostic test for the detection of anti-HCV in human sera. All PCR fragments were cloned with pGEX4-2T expression vector and expressed in E. coli as chimeric proteins with glutathione S-transferase. The most diagnostically relevant proteins identified in this study were then constructed into one recombinant antigen.
Specificity: Immunoreactive with sera of HCV- infected individuals.

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.