

## Recombinant Hepatitis C Virus NS4 Mosaic Genotype-3 VIRAL ANTIGEN

Catalog Number: PRP-259HCV

Quantity: 100 micrograms, 500 micrograms, 1 milligram

Format: 1.5 urea/25 mM tris-HCl pH 8.0/0.2% triton-X/50% glycerol

**Host:** E. coli

## **Background:**

Hepatitis C virus (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).

## **Specificity and Preparation:**

The recombinant protein contains the NS4 immunodominant regions consisting of amino acids 1691-1710, 1712-1733, and 1921-1940. The protein is expressed in *E. coli* with a GST-tag at the N-terminus, and purified using proprietary chromatographic techniques. This protein is >95% pure as determined by 10% PAGE (coomassie staining).

## **Usage and Storage:**

Reported to be effective for ELISA and immunoblotting (western blot), excellent antigen for detection of HCV with minimal specificity problems.

Store frozen for up to 5 years. The protein is stable for 1 month at room temperature. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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