Recombinant Hepatitis C Virus NS-4a+b Antigen (a.a. 1658-1863)

Cat.No:DAG572

Lot. No. (See product label)

PRODUCT INFOMATION

Storage	Short term (up to 2 months) store at 2-8oC. Long term, aliquot and store at -80oC. Avoid multiple freeze/thaw cycles.
Antigen Description	Hepatitis C virus (HCV) is a small (55-65 nm in size), enveloped, positive sense single strand RNA virus in the family Flaviviridae. The structure of the hepatitis C virus consists of a core of genetic material (RNA), surrounded by an icosahedral protective shell of protein, and further encased in a lipid (fatty) envelope of cellular origin. Two viral envelope glycoproteins, E1 and E2, are embedded in the lipid envelope. Hepatitis C virus has a positive sense RNA genome that consists of a single open reading frame of 9600 nucleoside bases. At the 5" and 3" ends of the RNA are the UTR regions, which are not translated into proteins but are important to translation and replication of the viral RNA. The 5" UTR has a ribosome binding site (IRES - Internal Ribosomal Entry Site) that starts the translation of a 3000 amino acid containing protein that is later cut by cellular and viral proteases into 10 active structural and non-structural smaller proteins. NS4A is a non-structural viral protein that binds to a portion of HCV protease, inhibits HCV replication.
Source	E. coli.
Buffer	8M urea, 20mM Tris-HCl, pH 8.0, 10mM beta-mercaptoethanol
Concentration	1mg/ml (OD280nm)
Applications	Suitable in ELISA and Western blot. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.
Molecular weight	19kDa
Form	Purified, Liquid
Preservative	None
Purity	>95% pure (SDS-PAGE)
Key words	HCV; HCV NS4-a+b; HCV NS4; HCV NS4a; HCV NSb; Hepatitis C Virus nonstructural antigen 4; Non structural protein 4A; Non structural protein 4B; NS4A; NS4B; p27; p8; Flaviviridae; Hepacivirus

Background

Introduction	HCV is a positive, single-stranded RNA virus in the Flaviviridae family. The genome is approximately 10,000 nucleotides and encodes a single polyprotein of about 3,000 amino acids. The polyprotein is processed by host cell and viral proteases into three major structural proteins and several non structural proteins necessary for viral replication. Hepatitis C virus (HCV) causes most cases of non-A, non-B hepatitis and results in most HCV infected people developing chronic infections, liver cirrhosis and hepatocellular carcinoma.

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