



Recombinant HCV type 1a Nonstructural Protein 3 (a.a. 1192-1459) [GST] (DAG2338)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	The E.coli derived recombinant protein contains the HCV NS3 immunodominant regions, amino acids 1192-1459. The protein is fused to a GST tag at N-Terminus.
Antigen Description	The polyprotein is processed by host cell and viral proteases into three major structural proteins including NS3, and several non-structural proteins necessary for viral replication. The NS3 part of the polyprotein displays three enzymatic activities: serine protease, NTPase and RNA helicase. The NS3 serine proteinase (NS3P) is a non-structural hepatitis C protein responsible for proteolytic processing of other non-structural proteins; because of this, it is also the most extensively studied protein of the Hepatitis C genome. It is responsible for proteolytic processing of the entire downstream region of the HC polyprotein, catalyzing cleavage at the NS3/NS4a, NS4a/NS4b, NS4b/NS5a, and NS5a/NS5b sites to release the mature NS3, NS4a, NS4b, NS5a, and NS5b proteins. For proper function, NS3 requires NS4a as a cofactor, but, interestingly enough, NS3 also cleaves the NS4a protein. The molecular weight of the monomer NS3P is 70 kDa.
Species	HCV
Purity	> 95%, based on SDS PAGE
Conjugate	GST
Applications	WB standard, antibody ELISA, immunogen, etc.
Format	Each vial contains 100 µg of lyophilized protein in 1.5M urea, 25mM Tris-HCl pH-8, 0.2% Triton-X 50% Glycerol.
Concentration	N/A
Size	100 µg, 500 µg

Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction

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. 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. 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.

Keywords

HCV NS3 transactivated protein; NS 3; NS3; NS3P; p70; Serine protease/NTPase/helicase; Hepatitis C Virus NS3; Flaviviridae; Hepacivirus; Hepatitis C virus; HCV NS-3; HCV NS3 Genotype 1a; Hepatitis C Virus NS3 Genotype 1a