Recombinant Hepatitis C Virus Non Structural Protein3 (a.a. 1450-1643), Horseradish Peroxidase Labeled

DAG1412 Hepatitis C Virus

Lot. No. (See product label)

PRODUCT INFORMATION

Product overview	Recombinant HCV NS3 HRP Labeled protein containing the HCV NS3 immunodominant regions was expressed in E. coli and purified by proprietary chromatographic technique.
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.
Source	E. coli
Species	Hepatitis C Virus
Tag	N/A
Conjugate	HRP
Purity	>95% pure as determined by 10% PAGE (coomassie staining).
Characteristic	Immunoreactive with sera of HCV-infected individuals.
Applications	HCV NS3, HRP antigen is suitable for ELISA and Western blots, excellent antigen for detection of HCV with minimal specificity problems.
Usage	The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

PACKAGING

Storage	stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.
Buffer	25mM Tris-Hcl pH 8, 1mM EDTA, 1.5M urea and 50%glycerol.

BACKGROUND

Introduction	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 hosts 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).
Keywords	HCV NS-3 Genotype-1a; Hepatitis C Virus NS-3 Genotype-1a; NS3; Hepatitis C virus; HCV; HCV NS3 transactivated protein; NS 3; NS3; NS3P; p70; Serine protease/NTPase/helicase; Flaviviridae

45-16 Ramsey Road Shirley, NY 11967, USA
Tel: 631-624-4882 ·Fax:631-614-7828
E-mail: info@creative-diagnostics.com
www.creative-diagnostics.com

REFERENCES

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