

Recombinant Hepatitis C Virus Non Structural Protein 5-Biotin, GST-tagged

DAG1440 *Hepatitis C Virus*
Lot. No. (See product label)

PRODUCT INFORMATION

| | |
|----------------------------|--|
| Product overview | Recombinant HCV NS5 protein fused to a GST tag at N-terminus was expressed in <i>E. coli</i> and purified by proprietary chromatographic technique. |
| Antigen Description | NS5 (non structural protein 5) may play a role in the viral RNA replication of the Hepatitis C Virus. NS5A is a ~56 kDa pleiotropic protein with key roles in both viral RNA replication and modulation of the physiology of the host cell. Its exact role is not currently known. NS5B (non-structural protein 5B) is an RNA-dependant RNA polymerase responsible for replication of the hepatitis C viral genome, and is currently a principal target for chemotherapeutic inhibition of HCV replication |
| Source | <i>E. coli</i> |
| Species | Hepatitis C Virus |
| Tag | GST |
| Conjugate | Biotin |
| Purity | >95% pure as determined by 10% PAGE (coomassie staining). |
| Characteristic | Immunoreactive with sera of HCV-infected individuals. |
| Applications | HCV NS5 Biotin 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 | 1.5 M urea; 25 mM Tris-HCl pH 8.0; 0.2% Triton-X; 50% Glycerol. |

BACKGROUND

| | |
|---------------------|--|
| Introduction | HCV is a small 50nm, enveloped, single-stranded, positive sense RNA virus 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 NS5; Hepatitis virus NS5A; Non structural protein 5A; NS5A; p56; NS5B; HCV-2 NS5; Hepatitis C Virus NS5, genotype 2; Flaviviridae; Hepacivirus |

REFERENCES

1. Tellinghuisen TL, Paulson MS, Rice CM. The NS5A protein of bovine viral diarrhea virus contains an essential zinc-binding site similar to that of the hepatitis C virus NS5A protein. *J Virol.* Aug 2006; 80(15):7450-8.

