



RayBiotech, Inc.

3607 Parkway Lane suite 100
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Hepatitis C Virus, multiple antigens

Catalog No.
228-10628

Source
Escherichia Coli.

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 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).

Description

The E.Coli derived 70 kDa recombinant protein contains sequences from 4 gene products (proteins) of the hepatitis C virus (HCV) were scanned by using 3 different PCR-based techniques in search of the most immunoreactive regions suitable for the development of a diagnostic test for the detection of anti-HCV in human sera. All PCR fragments were cloned with pGEX4-2T expression vector and expressed in E. coli as chimeric proteins with glutathione S-transferase. The most diagnostically relevant proteins identified in this study were then constructed into one recombinant antigen.

The protein contains the HCV nucleocapsid, NS3 genotype 1b, NS4 genotype 1b and 1a, and NS5 genotype 1b and 1a immunodominant regions.

Purification Method

HCV protein was purified by proprietary chromatographic technique.

Purity

HCV protein is >95% pure as determined by 10% PAGE (coomassie staining).

Formulation

50mM Na-PO₄, pH-8.5, 2.4mM EDTA, 5mM DTT and 0.1% SDS.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



RayBiotech, Inc.

3607 Parkway Lane suite 100
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Storage

HCV although stable at 4°C for 1 week, should be stored below -18°C.

Please prevent freeze thaw cycles.

Specificity

Immunoreactive with sera of HCV-infected individuals.

Applications

HCV Antigen is suitable for ELISA and Western blots, excellent antigen for detection of HCV with minimal specificity problems.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**