RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Mouse Anti Hepatitis C Virus (HCV) E2

Catalog No.	Species	Isotype
MD-05-0203	Virus	Mouse IgG1

Background

The hepatitis C virus (HCV) is a small, enveloped, single-stranded, positive sense RNA virus belonging to the family Flaviviridae. Transmission of the virus occurs when blood from an infected individual enters the body of an uninfected individual. HCV primarily replicates within hepatocytes in the liver, and circulating HCV particles bind to receptors on the surface and enter these cells. HCV replicates quickly, producing approximately one trillion particles each day in infected individuals. HCV RNA polymerase has no proofreading function, so the virus has an exceptionally high mutation rate which may help it elude the immune system of the host. HCV infection results in chronic infections, liver cirrhosis and hepatocellular carcinoma in most people. The transmembrane (TM) domains of hepatitis C virus (HCV) envelope glycoproteins E1 and E2 play multiple functions during the biogenesis of the E1E2 heterodimer. E1 and E2 also play an important role in cell entry.

Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	.			1:20 – 1:200
Western Blotting	.			1:10 – 1:50
IFA	.			1:10 – 1:50
Flow Cytometry			.	
Neutralization			.	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

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Specificity

This antibody recognizes Specific for HCV E2.

Formulation

0.1mg/ml purified liquid in 0.01M PBS, pH 7.2 with 0.1% Sodium azide.

Preparation

Monoclonal Antibody to Hepatitis C Virus (HCV) E2 is prepared from mouse ascites using recombinant HCV E2, genotype 1b as its immunogen , and purified by Protein A chromatography.

Purity

Greater than 90%.

Storage

Upon receipt, aliquot and store at –20°C.
Please avoid freeze-thaw cycles.

Reference

1) Watashi, K. and Shimotohno, K. 2003. The roles of hepatitis C virus proteins in a novel action mechanism of the HCV Core Protein on gene regulation by nuclear hormone receptors. Cancer Sci. 94: 937-943.
2) Acosta-Rivero, N., Rodriguez, A., Musacchio, A., Falcón, V., Suarez, V.M., Chavez, L., Morales-Grillo, J. and Duenas-Carrera, S. 2004. Nucleic acid binding properties and intermediates of HCV core protein multimerization in Pichia pastoris. Biochem. Biophys. Res. Commun. 323: 926-931.
3) Sansonno, D., Lauletta, G. and Dammacco, F. 2004. Detection and quantitation of HCV core protein in single hepatocytes by means of laser capture microdissection and enzyme-linked immunosorbent assay. J. Viral Hepat. 11: 27-32.