



Mouse Anti-HCV Core Protein Monoclonal Antibody Datasheet

Product Name: mAb anti-HCV Core Protein

Clone No.: B2

Catalogue No.: MO-I40015B

Quantity: 0.5 mg/vial

Description: Mouse monoclonal antibody to human hepatitis C virus (HCV) core protein

Purification: Protein G affinity purified

Product Type: Primary antibody

Target Protein: Human hepatitis C virus core protein

Immunogen: Synthetic peptides derived from HCV core protein

Fusion Myeloma: Sp2/0-Ag14

Specificity: React with recombinant core protein C + envelope protein M (residues 1-142 on HCV polyprotein) and synthetic core protein C (residues 1-61 on HCV polyprotein), and recombinant chimeric HCV polyprotein (60kDa).

Species Reactivity: Human hepatitis C virus, others not tested

Cross-Reactivity: No cross reaction with recombinant NS-3 protein (residues 1252-1477), synthetic NS-3 protein (residues 1378 - 1458) and synthetic NS-4a protein (residues 1689 -1735). It recognizes different antigenic determinants of HCV core protein.

Host / Isotype: Mouse, IgG1 Kappa

Formulation: Lyophilized from a solution in 0.01M PBS, pH 7.0

Reconstitution: Double distilled water is recommended to adjust the final concentration to 1.00mg/mL.

Storage: Store at -20°C

Research Area: Virology

Background: Hepatitis C virus (HCV) causes chronic hepatitis and liver cirrhosis in human through blood and body fluid transmission. HCV has a positive sense single RNA genome enclosed in the nucleocapsid made of Core Protein (Capsid Protein). The nucleocapsid is covered by an envelope made of lipoproteins (E1 and E2). The 9.6 kb HCV genome has a single open-reading frame, which is to be translated into a single polyprotein. HCV viral proteins are produced after processing the polyprotein. Genes for core protein and envelop proteins are located adjacently at the 5'-end of HCV genome, followed by genes for non-structural proteins including NS2, NS3, NS4A, NS4B, NS5, NS5A and NS5B.

Applications: **ELISA:** The mAb reacts with human hepatitis C virus core protein, and doesn't react with HCV non-structure protein.

Western Blot: The mAb, when used at concentration of 0.1-0.5µg/mL, will

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allow visualization of 0.1 µg/lane of recombinant core protein C + envelope protein M, 0.5 µg /lane synthetic core protein C, and 0.1µg /lane recombinant 60kDa chimeric HCV polyprotein. The mAb works on blots transferred from both reducing and non-reducing PAGE gel. The mAb recognizes in-vitro translated HCV core protein.

Immunofluorescent analysis:

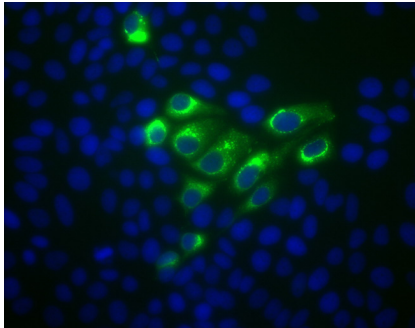


Figure: Confocal immunofluorescent analysis of human hepatitis C virus core protein using anti-HCV core protein mAb clone B2. (Photo provided by Dr. Rodney S. Russell, Faculty of Medicine, Memorial University of Newfoundland).

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