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Inspiration for Life Science

MONOCLONAL ANTIBODY

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Catalog No. 65-062EX

Anti-Hepatitis C Virus (HCV) NS5a protein (8926)

BACKGROUND

Hepatitis C virus (HCV) is a small (55-65 nm in size), enveloped, positive sense single-stranded RNA virus in the family *Flaviviridae* and the principal cause of parenteral non-A, non-B hepatitis. The virus genome consists of a single open reading frame of approximately 9,400 bases which encodes a single polyprotein of about 3,010 amino acids (1, 2, 3). The polyprotein is processed by host cell and viral proteases into four structural proteins (core, envelope1 and 2, and p7) and six non-structural proteins (NS2, 3, 4a, 4b, 5a, and 5b) necessary for viral replication. The primary function of **NS5a** is not known, but from the comparative studies with other viruses it is predicted to play a role in RNA replication.

Product type	Primary antibodies
Host	Mouse
Source	
Form	Purified monoclonal antibody (IgG) 1mg/ml in PBS, 50% glycerol, filter-sterilized
Volume	100μg
Concentration	
Specificity	Specific to human HCV NS5a protein
Antigen	A region of NS5a protein (the nucleotide sequence is shown in ref.4) of **HCV genotype 1b** expressed in *E.coli*.
Clone	8926
Isotype	Mouse IgG 2a kappa

Application notes

1.WB 2. Immunofluorescence staining

Other applications have not been tested.

Optimal dilutions/concentrations should be determined by the end user.

Swiss-Prot HCV protein

Storage

-20℃.

References

(This antibody is produced and used in ref.4)

1. Choo, Q-L. *et al*. (1989) “Isolation of a cDNA clone derived from a blood-borne non-A, non-B viral hepatitis genome. *Science* **244**, 359-362 PMID: 2523562
2. Kato,N. *et al*. (1990) “Molecular cloning of the human hepatitis C virus genome from Japanese patients with non-A, non-B hepatitis.” *Proc. Natl. Acad. Sci. USA* **87**, 9524-9528 PMID: 2175903
3. Takamizawa, A. *et al*. (1991) “Structure and organization of the hepatitis C virus genome isolated from human carriers.” *J.Virol*.**65**, 1105-1113 PMID: 1847440
4. Manabe,S. *et al.* (1994) “Production of nonstructural proteins of hepatitis C virus requires a putative viral protease encoded by N3.” *Virology* **198**, 636-644 PMID: 8291245

Related products

#65-051EX anti-HCV core antibody
65-056EX anti-HCV NS4a antibody
#65-066EX anti-HCV NS5b antibody

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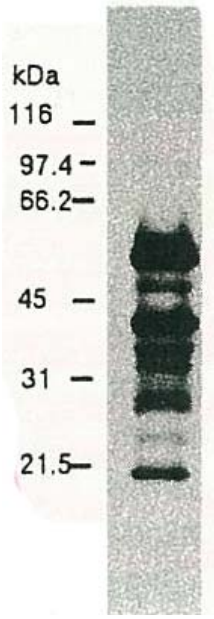

Fig.1 Western blotting of HCV NS5a protein.
Chimp liver cells were infected with recombinant vaccinia virus containing a HCV genome cDNA and were subjected to Western blotting using the anti-NS5a antibody. The multitude of NS5a-specific products must be the degraded products of NS5a protein (52 kD).

Fig.2 Detection of HCV NS5a protein by immuno-fluorescence antibody staining.
Chimp liver cells were infected with recombinant vaccinia virus containing a HCV genome cDNA.
After incubation for 48 hr, the cells were fixed with acetone and HCV NS5a protein was detected by indirect immunofluorescence staining using this antibody.

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