

## anti- HCV NS5a protein antibody, monoclonal (8926), FITC conjugated

65-064 50 µg

**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.

### Applications

1. Western blotting
2. Immunofluorescence staining
- Other applications have not been tested

**Immunogen:** A region of NS5a protein of **HCV genotype 1b** (ref.4) expressed in *E. coli*

**Conjugate:** **FITC conjugated**, [FITC] / [IgG] = 4.8

**Isotype:** Mouse IgG 2a kappa

**Form:** Purified monoclonal antibody (IgG) 1.4 mg/ml in PBS, 50% glycerol, filter-sterilized

**Specificity:** Specific to human HCV NS5a protein of genotype 1b. Not tested in other genotypes.

**Storage:** Shipped at 4°C and stored at -20°C

**Data Link:** Swiss-Prot [HCV protein](#)

**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:** #65-061 anti-HCV NS5a antibody, #65-063 anti-HCV NS5a antibody biotin conjugated

To be continued.....

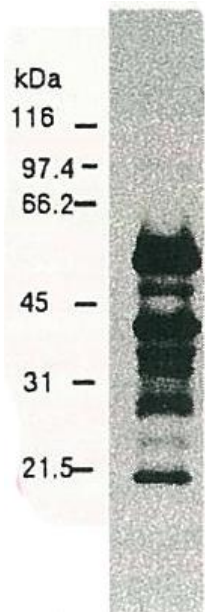


Fig.1 Western blotting of HCV NS5a protein. Chimpanzee liver cells were infected with recombinant vaccinia virus containing a HCV genome cDNA and were subjected to Western blotting using the anti-NS5a antibody. The multitude of NS5a-specific products must be the degraded products of NS5a protein (52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

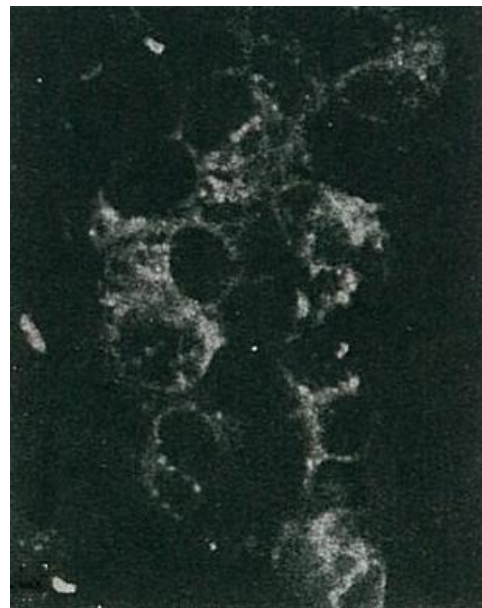


Fig.2 Detection of HCV NS5a protein by immunofluorescence antibody staining. Chimpanzee liver cells were infected with recombinant vaccinia virus containing a HCV genome cDNA. After incubation for 48 hr, the cells were fixed with acetone and HCV NS5a protein was detected by indirect immunofluorescence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