Anti- HCV NS4a protein antibody, mouse monoclonal (S4-13), FITC conjugated

65-059 50 µg

Shipping and Storage: Shipped at 4℃ or -20℃ and store at -20℃.

Immunogen: A region of NS4 protein (the nucleotide sequence is shown in Ref.) of **HCV genotype 1b** expressed in *E.coli*.

Form: 1.4 mg/ml in PBS- with 50% glycerol, filter-sterilized

Conjugate: FITC conjugated, [FITC] / [IgG] = 7~15

Isotype: Mouse IgG2b κ

Reactivity: Specific to human HCV NS4a protein of genotype 1b. It does not react with genotypes 1a, and 2a.

Epitope: The epitope of this antibody was mapped to the N-terminal region of the NS4 protein (**NS4a**).

Applications

1. Western blotting
2. Immunofluorescence staining
3. ELISA

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. NS3 serine proteinase is responsible for proteolytic processing of other non-structural proteins. **NS4a protein** (54 amino acids) forms a comlex with NS3 and functions as a cofactor for NS3 protease activity.

Data Link: Swiss-Prot HCV protein

References: **This antibody is descrived and used in the following publication.**

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

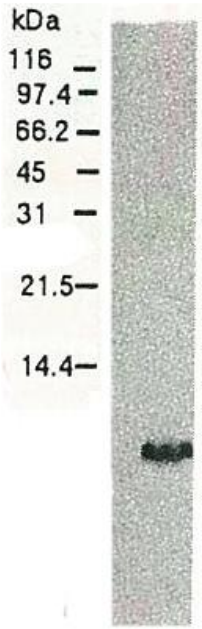

Fig.1 Western blotting of HCV NS4a protein.
Chimp liver cells were infected with recombinant vaccinia virus containing a HCV genome cDNA and were subjected to Western blotting using anti-NS4a antibody. The protein detected with this antibody is 6 kD. This small NS4 protein (NS4a) was produced from the N-terminal region of the NS4 protein.

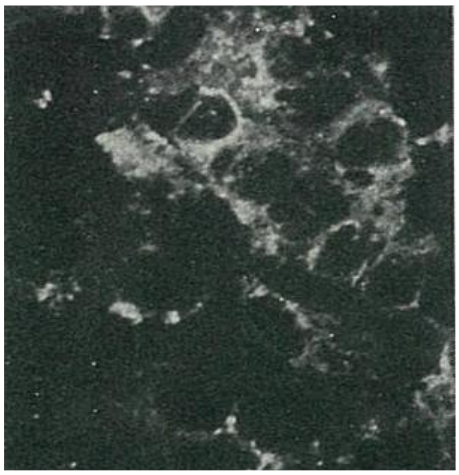

Fig.2 Detection of HCV NS4a protein by immuno-fluorescence staining.
Chimp liver cells were infected with recombinant vaccinia virus containing a HCV genome cDNA.
After incubation for 48 hr, the cells were fixed with acetone and HCV NS4a protein was detected by indirect immunofluorescence staining.

Related products:

65-052 Anti- HCV core protein antibody, monoclonal (H6-29)
65-053 Anti- HCV core protein antibody, mouse monoclonal (H6-29), biotin conjugated
65-054 Anti- HCV core protein antibody, mouse monoclonal (H6-29), FITC-conjugated
65-057 Anti-HCV NS4 antibody, mouse monoclonal
65-058 Anti- HCV NS4a protein antibody, monoclonal (S4-13), biotin conjugated
65-062 Anti- HCV NS5a protein antibody, mouse monoclonal (8926)
65-063 Anti- HCV NS5a protein antibody, monoclonal (8926), Biotin conjugated
65-064 Anti- HCV NS5a protein antibody, monoclonal (8926), FITC conjugated
65-067 Anti- HCV NS5b protein antibody, mouse monoclonal (NS5B-6)
65-068 Anti- HCV NS5b protein antibody, mouse monoclonal (NS5B-6), biotin conjugated
65-069 Anti- HCV NS5b protein antibody, mouse monoclonal (NS5B-6), FITC conjugated