BACKGROUND

The Hep C (hepatitis C) 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. Hep C primarily replicates within hepatocytes in the liver, and circulating Hep C particles bind to receptors on the surface and enter these cells. Hep C replicates quickly, producing approximately one trillion particles each day in infected individuals. Hep C 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. Hep C infection results in chronic infections, liver cirrhosis and hepatocellular carcinoma in most people. The core protein of Hep C is well conserved among the different viral genotypes and may contribute to the hepatic fibrogenesis by up-regulating connective tissue growth factor and TGFβ1.

REFERENCES


SOURCE

Hep C cAg (C7-50) is a mouse monoclonal antibody raised against a conserved linear epitope mapping to amino acids 21-40 of Hep C cAg.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Hep C cAg (C7-50) is available conjugated to agarose (sc-57800AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-57800HRP), 200 µg/ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-57800PE), fluorescein (sc-57800FITC), Alexa Fluor® 488 (sc-57800AF488), Alexa Fluor® 546 (sc-57800AF546), Alexa Fluor® 594 (sc-57800AF594) or Alexa Fluor® 647 (sc-57800AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-57800AF680) or Alexa Fluor® 790 (sc-57800AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Hep C cAg (C7-50) is recommended for detection of the core antigen of Hep C transfected human and primate cell lines of Hepatitis C Virus by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Molecular Weight of Hep C cAg: 15 kDa.

STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

![Western blot analysis of human recombinant Hepatitis C virus (HCV) core antigen fusion protein.](image)

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.