SANTA CRUZ BIOTECHNOLOGY, INC.

Hep C NS4 (5D4/10E7): sc-52859

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 host's immune system. Hep C infection results in chronic infections, liver cirrhosis, and hepatocellular carcinoma in most people. Hep C NS3 (nonstructural protein 3) has both protease and helicase activities and is essential for Hep C replication and proliferation. Hep C NS4 (nonstructural protein 4) augments the proteolytic activity of Hep C NS3 through protein-protein interaction.

REFERENCES

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SOURCE

Hep C NS4 (5D4/10E7) is a mouse monoclonal antibody raised against a chimeric polyprotein corresponding to at least 90 amino acids of the NS4 region of Chinese Hep C strains.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Hep C NS4 (5D4/10E7) is recommended for detection of NS4 region of Hep C by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with core or other non-structural regions.

Molecular Weight of Hep C NS4a: 8 kDa.

Molecular Weight of Hep C NS4b: 27 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

1. Russelli, G., Pizzillo, P., Iannolo, G., Barbera, F., Tuzzolino, F., Liotta, R., Traina, M., Vizzini, G., Gridelli, B., Badami, E. and Conaldi, P.G. 2017. HCV replication in gastrointestinal mucosa: potential extra-hepatic viral reservoir and possible role in HCV infection recurrence after liver transplantation. PLoS ONE 12: e0181683.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.