Hep B cAg (10C6): sc-52408



The Power to Overtin

BACKGROUND

Hepatitus B virus is a member of a member of the *Hepadnavirus* family that causes an inflammation of the liver, vomiting, jaundice and, sometimes, death. Hepatitis B is one of the small number of known non-retroviral viruses that replicate their genome using reverse transcription. Three major antigens make up different parts of the hepatitis B virus (HBV): surface antigen (HBsAg), an envelope glycoprotein found as membranous aggregates in the sera of individuals infected with HBV; e antigen (HBeAg), which is typically associated with much higher rates of viral replication; and core antigen (HBcAg), which encloses the viral genome and makes up the assembled and unassembled variants of the capsid protein. HBcAg and HBeAg are used primarly in HBV diagnosis, whereas HBsAg is used for HBV prevention in vaccines. Hepatitis B viral antigens are primarily expressed in liver.

REFERENCES

- Bichko, V., Schodel, F., Nassal, M., Gren, E., Berzinsh, I., Borisova, G., Miska, S., Peterson, D.L., Gren, E., Pushko, P., et al. 1993. Epitopes recognized by antibodies to denatured core protein of hepatitis B virus. Mol. Immunol. 30: 221-231.
- Skrivelis, V., Steinberg, Y., Bichko, V., Gren, E. and Tsimanis, A. 1993. The structure of the variable regions of mouse monoclonal antibodies to hepatitis B virus core antigen. Scand. J. Immunol. 37: 637-643.
- 3. Pushko, P., Sallberg, M., Borisova, G., Ruden, U., Bichko, V., Wahren, B., Pumpens, P. and Magnius, L. 1994. Identification of hepatitis B virus core protein regions exposed or internalized at the surface of HBcAg particles by scanning with monoclonal antibodies. Virology 202: 912-920.
- Naoumov, N.V., Antonov, K.A., Miska, S., Bichko, V., Williams, R. and Will, H. 1997. Differentiation of core gene products of the hepatitis B virus in infected liver tissue using monoclonal antibodies. J. Med. Virol. 53: 127-138.
- Cao, T., Meuleman, P., Desombere, I., Sallberg, M. and Leroux-Roels, G. 2001. *In vivo* inhibition of anti-hepatitis B virus core antigen (HBcAg) immunoglobulin G production by HBcAg-specific CD4+ Th1-type T cell clones in a hu-PBL-NOD/SCID mouse model. J. Virol. 75: 11449-11456.
- Szkaradkiewicz, A., Jopek, A., Wysocki, J., Grzymislawski, M., Malecka, I. and Wozniak, A. 2003. HBcAg-specific cytokine production by CD4 T lymphocytes of children with acute and chronic hepatitis B. Virus Res. 97: 127-133.
- 7. Le Pogam, S., Chua, P.K., Newman, M. and Shih, C. 2005. Exposure of RNA templates and encapsidation of spliced viral RNA are influenced by the arginine-rich domain of human hepatitis B virus core antigen (HBcAg 165-173). J. Virol. 79: 1871-1887.

SOURCE

Hep B cAg (10C6) is a mouse monoclonal antibody raised against denatured recombinant Hep B cAg.

STORAGE

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

PRODUCT

Each vial contains 200 μg lgG_{2b} in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Hep B cAg (10C6) is available conjugated fluorescein (sc-52408 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

APPLICATIONS

Hep B cAg (10C6) is recommended for detection of an epitope corresponding to amino acids 138-145 of the core antigen of Hep B origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Molecular Weight of Hep B cAg: 28 kDa.

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.



See **Hep B sAg (1023): sc-53299** for Hep B sAg antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com