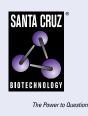
SANTA CRUZ BIOTECHNOLOGY, INC.

Hep B xAg (X36C): sc-57760



BACKGROUND

Hep B (hepatitus B) virus is a member of the Hepadnavirus family that causes an inflammation of the liver, vomiting, jaundice and, sometimes, death. Three major antigens make up different parts of the Hep B virus (HBV): surface antigen (Hep B sAg), an envelope glycoprotein found as membranous aggregates in the sera of individuals infected with HBV; e-antigen (Hep B eAg), which is typically associated with much higher rates of viral replication; and core antigen (Hep B cAg), which encloses the viral genome and makes up the assembled and unassembled variants of the capsid protein. Hep B cAg and Hep B eAg are used primarily in HBV diagnosis, whereas Hep B sAg is used for HBV prevention in vaccines. Hep B viral antigens are primarily expressed in liver. Hep B xAg represents the Hep B virus X protein which contributes to human hepatocellular carcinoma metastasis by the upregulation of matrix metalloproteinases.

REFERENCES

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- Pushko, P., et al. 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., et al. 1997. Differentiation of core gene products of the hepatitis B virus in infected liver tissue using monoclonal antibodies. J. Med. Virol. 53: 127-138.

SOURCE

Hep B xAg (X36C) is a mouse monoclonal antibody raised against baculovirus expressed recombinant Hep B xAg.

PRODUCT

Each vial contains 200 $\mu g\, lg G_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Hep B xAg (X36C) is available conjugated to agarose (sc-57760 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-57760 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-57760 PE), fluorescein (sc-57760 FITC), Alexa Fluor* 488 (sc-57760 AF488), Alexa Fluor* 546 (sc-57760 AF546), Alexa Fluor* 594 (sc-57760 AF594) or Alexa Fluor* 647 (sc-57760 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor* 680 (sc-57760 AF680) or Alexa Fluor* 790 (sc-57760 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Hep B xAg (X36C) is recommended for detection of x-antigen of Hep B origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Molecular Weight of Hep B xAg: 17 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

SELECT PRODUCT CITATIONS

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- Yoon, H. and Jang, K.L. 2022. Hepatitis B virus X protein and hepatitis C virus core protein cooperate to repress E-cadherin expression via DNA methylation. Heliyon 8: e09881.
- 9. Sozzi, V., et al. 2022. The *in vitro* replication phenotype of hepatitis B virus (HBV) splice variant Sp1. Virology 574: 65-70.
- Li, H., et al. 2023. Secreted LRPAP1 binds and triggers IFNAR1 degradation to facilitate virus evasion from cellular innate immunity. Signal Transduct. Target. Ther. 8: 374.

RESEARCH USE

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