

# Hep B preS1 (KR127): sc-73587

## BACKGROUND

Hepatitis B virus is 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, preS1/preS2), 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 primarily in HBV diagnosis, whereas HBsAg is used for HBV prevention in vaccines. Hepatitis B viral antigens are primarily expressed in liver.

## REFERENCES

1. Bichko, V., et al. 1993. Epitopes recognized by antibodies to denatured core protein of hepatitis B virus. *Mol. Immunol.* 30: 221-231.
2. Skrivelis, V., et al. 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., 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.
4. 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.
5. Cao, T., et al. 2001. *In vivo* inhibition of anti-hepatitis B virus core antigen (HBcAg) immunoglobulin G production by HBcAg-specific CD4<sup>+</sup> Th1-type T cell clones in a hu-PBL-NOD/SCID mouse model. *J. Virol.* 75: 11449-11456.
6. Szkaradkiewicz, A., et al. 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., et al. 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.
8. Ong, H.T., et al. 2005. Genotyping of hepatitis B virus in Malaysia based on the nucleotide sequence of preS and S genes. *Microbes Infect.* 7: 494-500.

## SOURCE

Hep B preS1 (KR127) is a mouse monoclonal antibody raised against Hep B preS1.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

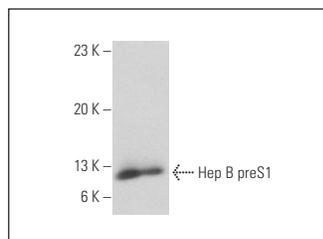
Hep B preS1 (KR127) is recommended for detection of preS1 region of Hep B origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HBV preS1: 13 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Hep B preS1 (KR127): sc-73587. Western blot analysis of recombinant Hep B preS1.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **Hep B preS1 (AP1): sc-57761** for Hep B preS1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.