**Hep B cAg (C1-5): sc-23945**

**BACKGROUND**

Hep B (hepatitis B) virus is a member of a member of the hepadnavirus family that causes an inflammation of the liver, vomiting, jaundice and sometimes death. Hep 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 Hep B Virus (HBV). These three include: 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.

**REFERENCES**


**APPLICATIONS**

Hep B cAg (C1-5) is recommended for detection of an epitope corresponding to amino acids 74-80 of the core antigen 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 1:50-1:1500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with denatured Hep B cAg.

Molecular Weight of Hep B cAg: 21 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-51624 and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: 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 HbcAg multimers](Image)

**SOURCE**

Hep B cAg (C1-5) is a mouse monoclonal antibody raised against Hep B cAg.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with 0.1% sodium azide and 0.1% gelatin.

Hep B cAg (C1-5) is available conjugated to agarose (sc-23945 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23945 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23949 PE), fluorescein (sc-23945 FITC), Alexa Fluor® 488 (sc-23945 AF488), Alexa Fluor® 546 (sc-23945 AF546), Alexa Fluor® 594 (sc-23945 AF594) or Alexa Fluor® 647 (sc-23945 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23945 AF680) or Alexa Fluor® 790 (sc-23945 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

**SELECT PRODUCT CITATIONS**


**STORAGE**

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