

# Hep B Pol (8D5): sc-81591

## BACKGROUND

The hepatitis B polymerase (Hep B Pol) protein is an enzyme that facilitates the transcription of the hepatitis B RNA genome into the dsDNA found within the forming viral capsids. Hep B Pol performs multiple functions, as it possesses the ability to copy both DNA and RNA templates as well as to excise the RNA strand from a DNA-RNA heteroduplex. Hep B Pol is encapsidated by a continuous core shell together with pregenomic (pg) RNA. It is here that reverse transcription is initiated by the Hep B Pol protein binding to the  $\epsilon$  loop of the pgRNA. The reaction is primed by the Hep B Pol protein covalently binding to a negative (-) sense DNA strand which is extended into a complete strand followed by synthesis of the positive + strand. The Hep B Pol protein is activated by HSP 70 and HSP 40 garnered from the host cell and can be inactivated by a variety of reverse transcriptase inhibitors. Hep B Pol contains a terminal protein domain (TP) which is specific to Hepadnaviruses.

## REFERENCES

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## SOURCE

Hep B Pol (8D5) is a mouse monoclonal antibody raised against recombinant hepatitis B polymerase.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</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 Pol (8D5) is recommended for detection of amino acids 225-250 corresponding to the spacer region of Hepatitis B polymerase of Hepatitis B origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Hep B Pol: 95 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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).  
 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## 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 Pol (2C8): sc-81590** for Hep B Pol antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.