Novocastra™ Lyophilized Mouse Monoclonal Antibody Hepatitis B virus (surface antigen)

Product Code: NCL-HBsAg-2

Intended Use
FOR RESEARCH USE ONLY.

Specificity
Hepatitis B virus surface antigen.

Clone
1044/341

Ig Class
IgG1

Antigen Used for Immunizations
Hepatitis B virus surface antigen particles.

Hybridoma Partner
Mouse myeloma (NS0).

Preparation
Lyophilized tissue culture supernatant containing 15 mM sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.

Effective on Frozen Tissue
Yes

Effective on Paraffin Wax Embedded Tissue
Yes

Recommendations on Use
Immunohistochemistry: Typical working dilution 1:100. Trypsin digestion of paraffin sections is recommended. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique. Western Blotting: Not evaluated.

Positive Controls
Immunohistochemistry: Known active hepatitis B infected liver tissue.

Staining Pattern
Cytoplasmic.

Storage and Stability
Store unopened lyophilized antibody at 4 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.

General Overview
Hepatitis B virus is one of an expanding list of hepatitis viruses. The complete infective virion is a 42 nm particle (Dane particle). It consists of a core of double-stranded DNA, a specific DNA polymerase and structural proteins. These are surrounded by an outer envelope of surface protein which is recognized serologically as Hepatitis B surface antigen (HBsAg). Hepatitis B virus surface antigen is found mainly in the cytoplasm of infected hepatocytes.

General References
Instructions for Use

Trypsin Digestion for Immunohistochemical Demonstration on Paraffin Sections

1. Preheat the following to 37 °C using a water bath:
   (i) 200 mL of TBS
   (ii) 200 mL of distilled water.
2. Dissolve 0.2 g Trypsin 250 and 0.2 g Calcium chloride in the 200 mL of TBS.
3. Once the Trypsin solution is at 37 °C, pH to 7.8 with 1 M sodium hydroxide.
4. Place rehydrated paraffin sections in the distilled water to preheat the sections to 37 °C for a minimum of 5 minutes.
5. Incubate sections in Trypsin solution at 37 °C. The time required will depend on the antibody and tissue, however, 30 minutes is usually sufficient.
6. Rinse sections in running tap water.
7. Proceed with immunohistochemistry protocol.

Reagents Required but not Supplied
50 mM Tris-buffered saline
Trypsin 250: Difco order code 0152–13 (available from Becton Dickinson).
Calcium chloride
1 M Sodium Hydroxide

* Trypsin containing chymotrypsin should always be used. The enzyme activities can vary from a supplier and between batches. Such variations may affect the incubation time required.