Hepatocyte marker (Hep Par 1)

ANTISERUM: Dako (M7158). Mouse monoclonal antibody. Clone: OCH1E5. Isotype: IgG1k

IMMUNOGEN: Formalin-fixed human liver.

INTRODUCTION: This monoclonal antibody was developed for immunohistochemical staining of formalin-fixed, paraffin-embedded tissues. The antigen recognized by the antibody has not been yet characterized. By native slot blot technique, this antibody localizes to the mitochondrial fraction of rat liver following sucrose gradient centrifugation (Dr. William Coleman, personal communication).

REACTIVITY ACCORDING TO MANUFACTURER: This antibody recognizes a formalin-resistant antigen expressed by human hepatocytes. Normal tissues: It reacts with human liver tissue giving a distinct, granular cytoplasmic staining of hepatocytes. Bile ducts or nonparenchymal liver cells are not stained. Tumor cells: This antibody stains the majority of hepatocellular carcinomas, including fibrolamellar variants. It fails to react with a wide variety of other malignancies excluding some gastrointestinal tumors.

STAINING PROCEDURE ACCORDING TO MANUFACTURER: For formalin-fixed tissues antigen retrieval such as heating in citrate buffer pH 6.0 is mandatory. For increased sensitivity use high pH antigen retrieval buffer. This type of buffer increases the endogenous biotin staining. Therefore EnVision + method is recommended. Recommended dilution with EnVision + is 1/25-1/50. For frozen sections: APAAP method is recommended at 1/25-1/50 of the primary antibody.

WORKING DILUTION: 1/200. Pretreatment with steamer (EDTA buffer, pH 6.0).

METHOD: ENVISION+/PO 1h, . RT

CELLS/TISSUES STAINED (canine tissues): Numerous granules all over the cytoplasm of hepatocytes in all three zones. No staining of other structures including bile duct epithelium, stromal cells, vessels and Kupffer cells. No nuclear staining. It may be sensitive to fixation (study pending). prolonged fixation does not affect staining apparently. Combined with cytokeratin 7 for characterization of hepatocellular and cholangiocellular canine tumors (Ramos-Vara et al., 2001).

REFERENCES:


Ramos-Vara JA, Miller MA, Johnson GC: Immunohistochemical characterization of canine hyperplastic lesions and hepatocellular and biliary neoplasms with monoclonal antibody Hepatocyte Paraffin 1 (Hep Par 1) and a monoclonal antibody to cytokeratin 7. Vet Pathol 38:636-643, 2001

Wennerberg AE, Nalesnik MA, Coleman WB: Hepatocyte Paraffin 1: a monoclonal antibody that reacts with hepatocytes and can be used for differential diagnosis of hepatic tumors. Am J Pathol 143:1050-1054, 1993