Hepatocyte Antibody for IHC / Hepatocyte Differentiation Marker Immunohistochemistry Antibody [clone MSVA-OCE5] (V6051)

Catalog No.	Formulation	Size
V6051-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6051-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MSVA-OCE5
Purity	Protein G affinity
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1:100-1:200
Limitations	This Hepatocyte Antibody for IHC / Hepatocyte Differentiation Marker Immunohistochemistry Antibody is available for research use only.



Hepatocyte Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of hepatocyte differentiation marker expression in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant mouse monoclonal hepatocyte antibody clone MSVA-OCE5. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong cytoplasmic localization in normal liver hepatocytes with uniform labeling across hepatic cores, while non-hepatic tissues show minimal to absent staining, supporting high specificity. Within tumor tissue microarrays, robust staining is observed in hepatocellular carcinoma, whereas most non-hepatic malignancies demonstrate little to no reactivity, providing clear contrast for determining tumor origin. Evaluation across large TMA panels enables direct comparison of hepatocyte marker expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported hepatocyte-specific expression profiles in the Human Protein Atlas.

Description

Hepatocyte differentiation markers are essential for identifying liver-specific cell populations and confirming hepatocellular origin in tissue sections. Hepatocyte Antibody for IHC is optimized for detection of hepatocyte lineage cells in formalin-fixed, paraffin-embedded (FFPE) tissues and is widely used in immunohistochemistry for liver pathology, tumor classification, and differentiation analysis. Because hepatocytes exhibit a highly specialized protein expression profile, hepatocyte-specific antibodies provide powerful tools for distinguishing primary liver tumors from metastatic carcinomas in diagnostic workflows.

In immunohistochemistry, hepatocyte antibody, also referred to as hepatocyte differentiation marker antibody or liver marker antibody, produces strong cytoplasmic HRP-DAB brown staining with a characteristic granular distribution reflecting hepatocellular protein expression. In FFPE human tissue microarrays (TMAs), staining is highly restricted to hepatocytes, with uniform and intense labeling observed across liver cores. This consistent pattern across large-scale TMA panels highlights both the specificity and reproducibility of the antibody, while non-hepatic tissues including epithelial, stromal, and lymphoid compartments show minimal to absent staining, supporting excellent signal-to-background performance.

Hepatocyte Antibody for IHC is particularly valuable in cancer tissue microarray analysis, where it provides clear identification of hepatocellular carcinoma (HCC). In TMA panels containing diverse tumor types, strong cytoplasmic staining is consistently observed in hepatocellular carcinoma, reflecting preserved hepatocyte differentiation. In contrast, the majority of non-hepatic malignancies, including metastatic adenocarcinomas, demonstrate little to no staining, creating a sharp diagnostic contrast that is critical for determining tumor origin, especially in liver lesions of unknown primary.

The use of standardized FFPE tissue microarrays enables side-by-side comparison of staining across hundreds of normal and malignant tissue samples, reinforcing confidence in staining consistency and interpretation. Across these TMA datasets, the antibody demonstrates stable performance, clear hepatocyte-specific localization, and minimal non-specific reactivity, making it highly suitable for high-throughput immunohistochemistry studies and biomarker validation.

Functionally, hepatocyte-specific proteins are involved in key liver processes including metabolism, detoxification, bile production, and protein synthesis. Their restricted expression to hepatocytes underlies the diagnostic strength of hepatocyte antibodies in immunohistochemistry. Overall, Hepatocyte Antibody for IHC provides robust, high-contrast cytoplasmic staining in FFPE tissue microarrays, supporting accurate identification of hepatocyte differentiation and reliable discrimination of hepatocellular carcinoma from non-hepatic tumors.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the Hepatocyte Antibody for IHC / Hepatocyte Differentiation Marker Immunohistochemistry Antibody should be determined by the researcher.

2. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent)

Immunogen

Extract of a formalin-fixed, rejected-allograft of a human liver was used as the immunogen for the Hepatocyte Differentiation Marker / Hepatocyte antibody.

Storage

Hepatocyte Differentiation Marker / Hepatocyte antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

Hepatocyte marker antibody, Hepatocyte differentiation antibody, Liver cell marker antibody, Hepatocyte-specific antigen antibody, Hepatic differentiation marker antibody

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