Human Hepsin Antibody

Monoclonal Mouse IgG_1 Clone # 506230

Catalog Number: MAB47761

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Hepsin in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 506230
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Hepsin Ser46-Leu417 Accession # P05981
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

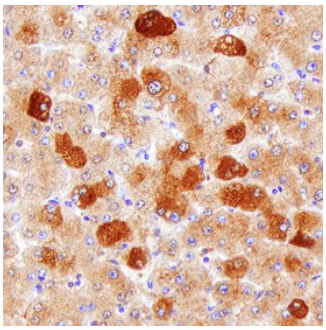
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



Hepsin in Human Liver. Hepsin was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human Hepsin Monoclonal Antibody (Catalog # MAB47761) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific labeling was localized to the cytoplasm of hepatocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Hepsin, also known as TMPRSS1, is a Type II membrane protein with an extracellular serine protease domain (1). It is most highly expressed in liver but is also present in many other tissues; most notably lung, kidney, and skeletal muscle (2). A soluble form of Hepsin lacking the transmembrane domain has been identified (3). Hepsin is capable of activating Factor VII and may initiate blood coagulation at the cell surface (4). Hepsin is over-expressed in various human tumors including prostate (5) and is considered to be a biomarker for prostate cancer (6). Recombinant human (rh) Hepsin was expressed as a secreted, soluble protein lacking its cytosolic and transmembrane domains. The D161E and R162K mutations were introduced into the prosequence to improve expression of the rhHepsin.

References:

1. Leytus, S.P. *et al.* (1988) Biochemistry **27**:1067.
2. Tsuji, A. *et al. (*1991) J. Biol. Chem. **266**:16948.
3. Li, Y. *et al.* (2005) Biomed. Biochim. Acta **1681**:157.
4. Kazama, Y. *et al.* (1995) J. Biol. Chem. **270**:66.
5. Dhanasekaran, S.M. *et al.* (2001) Nature **412**:822.
6. Wu, Q. and G. Parry (2007) Front. Biosci. **12**:5052.

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