

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Hepsin in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 506220
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Hepsin Ile163-Leu417 Accession # P05981
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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
Western Blot	1 µg/mL	Recombinant Human Hepsin (Catalog # 4776-SE) under non-reducing conditions only
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Hepsin (Catalog # 4776-SE), see our available Western blot detection antibodies

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.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

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, 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 overexpressed in various human tumors, including prostate (5), and is considered to be a biomarker for prostate cancer (6). rhHepsin 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 recombinant human Hepsin.

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 Parry, G. (2007) *Front. Biosci.* **12**:5052.