

PRODUCT INFORMATION



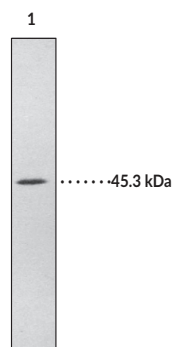
Hepsin Polyclonal Antibody (aa 241-260)

Item No. 100022

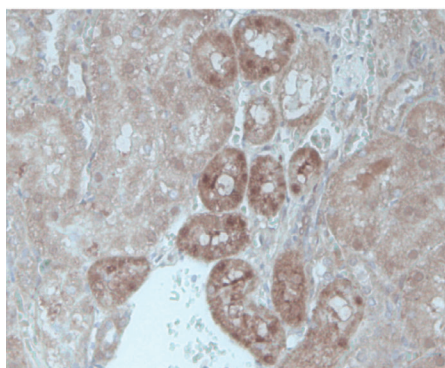
Overview and Properties

Contents:	This vial contains peptide affinity-purified polyclonal antibody lyophilized from 500 μ l.
Immunogen:	Synthetic peptide from the internal region of human hepsin
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P05981
Form:	Lyophilized
Storage:	-20°C (as supplied)
Stability:	\geq 3 years
Storage Buffer:	TBS, pH 7.4, with 5 mg/ml BSA when reconstituted in 500 μ l double distilled water
Host:	Rabbit
Applications:	Immunohistochemistry (IHC) (formalin-fixed paraffin-embedded tissue) and Western blot (WB); the recommended starting dilution for IHC (formalin-fixed paraffin-embedded tissue) is 1:200 to 1:100 and 1:200 for WB. Antigen retrieval results in higher background staining and is therefore not recommended. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

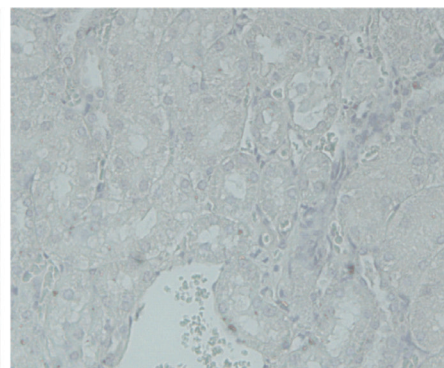
Images



Lane 1: K562 cell lysate (25 μ g)



Left Panel: 10 μ g/ml Hepsin Polyclonal Antibody (Item No. 100022) followed by anti-rabbit secondary with NovaRed and finally hematoxylin stain development.



Right Panel: Anti-rabbit secondary alone with NovaRed and hematoxylin stain development steps.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Hepsin is a type II membrane-associated protein that has an extracellular proteolytic domain and exhibits low sequence homology to other known proteases.^{1,2} Hepsin overexpression is observed in prostate, breast, kidney, and ovarian cancers and due to low homology to other known proteases may provide a unique target for pharmacological therapy.³⁻⁷ Hepsin is necessary for cell growth *in vitro* and may play a role in metastatic expansion by factor VII activation.⁸⁻¹⁰ The observed molecular mass of hepsin by immunoblotting is 45.3 kDa. Cloning and characterization of mouse and rat hepsin indicate 88% overall homology with human hepsin.¹⁰⁻¹² Northern blotting reveals high levels of hepsin transcripts in liver.^{2,7} Cayman Chemical's Hepsin Polyclonal Antibody can be used for WB and IHC (formalin-fixed paraffin-embedded tissue) analysis for hepsin on samples of human origin. Other applications for use of this antibody have not yet been tested.

References

1. Tsuji, A., Torres-Rosado, A., Arai, T., *et al.* Hepsin, a cell membrane-associated protease. Characterization, tissue distribution, and gene localization. *J. Biol. Chem.* **266**(25), 16948-16953 (1991).
2. Leytus, S.P., Kurachi, K., Hagen, F.S., *et al.* A novel trypsin-like serine protease (hepsin) with a putative transmembrane domain expressed by human liver and hepatoma cells. *Biochemistry* **27**(3), 1067-1074 (1988).
3. Dhanasekaran, S.M., Barrette, T.R., Ghosh, D., *et al.* Delineation of prognostic biomarkers in prostate cancer. *Nature* **412**(6849), 822-826 (2001).
4. Magee, J.A., Araki, T., Patil, S., *et al.* Expression profiling reveals hepsin overexpression in prostate cancer. *Cancer Res.* **61**(15), 5692-5696 (2001).
5. Welsh, J.B., Sapinoso, L.M., Su, A.I., *et al.* Analysis of gene expression identifies candidate markers and pharmacological targets in prostate cancer. *Cancer Res.* **61**(16), 5974-5978 (2001).
6. Zacharski, L.R. Expression of the factor VII activating protease, hepsin, *in situ* in renal cell carcinoma. *Thromb. Haemost.* **79**(4), 876-877 (1998).
7. Tanimoto, H., Yan, Y., Clarke, J., *et al.* Hepsin, a cell surface serine protease identified in hepatoma cells, is overexpressed in ovarian cancer. *Cancer Res.* **57**(14), 2884-2887 (1997).
8. Torres-Rosado, A., O'Shea, K.S., Tsuji, A., *et al.* Hepsin, a putative cell-surface protease, is required for mammalian cell growth. *Proc. Natl. Acad. Sci. U.S.A.* **90**(15), 7181-7185 (1993).
9. Kazama, Y., Hamamoto, T., Foster, D.C., *et al.* Hepsin, a putative membrane-associated serine protease, activates human factor VII and initiates a pathway of blood coagulation on the cell surface leading to thrombin formation. *J. Biol. Chem.* **270**(1), 66-72 (1995).
10. Vu, T.K.H., Liu, R.W., Haaksman, C.J., *et al.* Identification and cloning of the membrane-associated serine protease, hepsin, from mouse preimplantation embryos. *J. Biol. Chem.* **272**(50), 31315-31320 (1997).
11. Kawamura, S., Kurachi, S., Deyashiki, Y., *et al.* Complete nucleotide sequence, origin of isoform and functional characterization of the mouse hepsin gene. *Eur. J. Biochem.* **262**(3), 755-764 (1999).
12. Farley, D., Reymond, F., and Nick, H. Cloning and sequence analysis of rat hepsin, a cell surface serine proteinase. *Biochim. Biophys. Acta* **1173**(3), 350-352 (1993).

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