

# Maspin (H-130): sc-22762

## BACKGROUND

Maspin is structurally a serine protease inhibitor (serpin) that was initially isolated from normal human mammary epithelial cells. Serpins are a family of proteins that inhibit chymotrypsin-like serine proteinases. Serpins control activated proteinases and several are involved in the regulation of cell death. Maspin is found in the extracellular matrix and at the plasma membrane. Maspin has been shown to act at the cell surface to block cell motility and inhibit invasion of breast and prostate cancer cells. Maspin is present in normal mammary epithelial cells but is absent in many tumor cell lines, yet no major structural alterations of the Maspin gene have been identified in tumor cells. Similarly, Maspin is expressed in normal prostate cells and down-regulated or absent in prostate tumor cells.

## REFERENCES

- Tomasetto, C., et al. 1993. Specificity of gap junction communication among human mammary cells and connexin transfectants in culture. *J. Cell Biol.* 122: 157-167.
- Zou, Z., et al. 1994. Maspin, a serpin with tumor-suppressing activity in human mammary epithelial cells. *Science* 263: 526-529.

## CHROMOSOMAL LOCATION

Genetic locus: SERPINB5 (human) mapping to 18q21.33; Serpinb5 (mouse) mapping to 1 E2.1.

## SOURCE

Maspin (H-130) is a rabbit polyclonal antibody raised against amino acids 51-180 mapping near the N-terminus of Maspin of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Maspin (H-130) is recommended for detection of Maspin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Maspin (H-130) is also recommended for detection of Maspin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Maspin siRNA (h): sc-35860, Maspin siRNA (m): sc-35859, Maspin shRNA Plasmid (h): sc-35860-SH, Maspin shRNA Plasmid (m): sc-35859-SH, Maspin shRNA (h) Lentiviral Particles: sc-35860-V and Maspin shRNA (m) Lentiviral Particles: sc-35859-V.

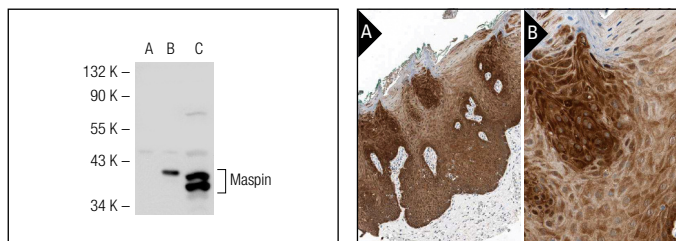
Molecular Weight of Maspin: 42 kDa.

Positive Controls: Maspin (m): 293T Lysate: sc-121521, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Maspin (H-130): sc-22762. Western blot analysis of Maspin expression in non-transfected 293T: sc-117752 (A), mouse Maspin transfected 293T: sc-121521 (B) and A-431 (C) whole cell lysates.

Maspin (H-130): sc-22762. Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining of surface epithelial cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

- Spink, B.C., et al. 2006. Inhibition of MCF-7 breast cancer cell proliferation by MCF-10A breast epithelial cells in coculture. *Cell Biol. Int.* 30: 227-238.
- Luo, J.L., et al. 2007. Nuclear cytokine-activated IKK $\alpha$  controls prostate cancer metastasis by repressing Maspin. *Nature* 446: 690-694.
- Rossiter, H.B., et al. 2008. Doxycycline treatment prevents alveolar destruction in VEGF-deficient mouse lung. *J. Cell. Biochem.* 104: 525-535.
- Rau, K.M., et al. 2011. Prognostic effects and regulation of activin A, maspin, and the androgen receptor in upper urinary tract urothelial carcinoma. *Anticancer Res.* 31: 1713-1720.
- Alameda, J.P., et al. 2011. Increased IKK $\alpha$  expression in the basal layer of the epidermis of transgenic mice enhances the malignant potential of skin tumors. *PLoS ONE* 6: e21984.
- Huang, W.C., et al. 2012. Hepatitis B virus X protein induces IKK $\alpha$  nuclear translocation via Akt-dependent phosphorylation to promote the motility of hepatocarcinoma cells. *J. Cell. Physiol.* 227: 1446-1454.
- Cao, J.Y., et al. 2012. Changes in the nasopharyngeal carcinoma nuclear proteome induced by the EBNA1 protein of Epstein-Barr virus reveal potential roles for EBNA1 in metastasis and oxidative stress responses. *J. Virol.* 86: 382-394.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Maspin (C-8): sc-271694** or **Maspin (E-10): sc-166260**, our highly recommended monoclonal alternatives to Maspin (H-130).