

Maspin (m): 293T Lysate: sc-121521

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

1. 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.
2. Zou, Z., et al. 1994. Maspin, a serpin with tumor-suppressing activity in human mammary epithelial cells. *Science* 263: 526-529.
3. Sheng, S., et al. 1994. Production, purification, and characterization of recombinant Maspin proteins. *J. Biol. Chem.* 269: 30988-30993.
4. Sheng, S., et al. 1996. Maspin acts at the cell membrane to inhibit invasion and motility of mammary and prostatic cancer cells. *Proc. Natl. Acad. Sci. USA* 93: 11669-11674.
5. Zhang, M., et al. 1997. Expression of Maspin in prostate cells is regulated by a positive Ets element and a negative hormonal responsive element site recognized by androgen receptor. *Proc. Natl. Acad. Sci. USA* 94: 5673-5678.
6. Whisstock, J., et al. 1998. An atlas of serpin conformations. *Trends Biochem. Sci.* 23: 63-67.
7. Bird, P.I. 1998. Serpins and regulation of cell death. *Results Probl. Cell Differ.* 24: 63-89.

CHROMOSOMAL LOCATION

Genetic locus: Serpinb5 (human) mapping to 1 E2.1.

PRODUCT

Maspin (m): 293T Lysate represents a lysate of mouse Maspin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Maspin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Maspin antibodies. Recommended use: 10-20 µl per lane.

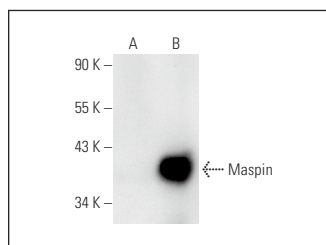
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Maspin (E-10): sc-166260 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Maspin expression in Maspin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Maspin (E-10): sc-166260. Western blot analysis of Maspin expression in non-transfected: sc-117752 (A) and mouse Maspin transfected: sc-121521 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.