

Maspin (C-8): sc-271694

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 downregulated 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.

CHROMOSOMAL LOCATION

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

SOURCE

Maspin (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 319-355 near the C-terminus of Maspin of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271694 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Maspin (C-8) is recommended for detection of Maspin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of Maspin: 42 kDa.

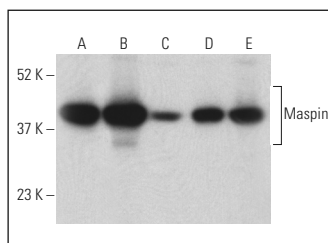
Positive Controls: HeLa whole cell lysate: sc-2200, SW480 cell lysate: sc-2219 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

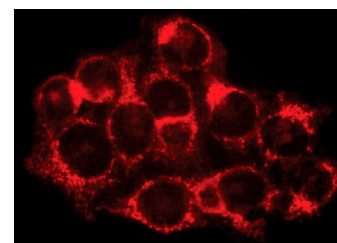
To ensure optimal results, the following support reagents are recommended:

- 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.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Maspin (C-8): sc-271694. Western blot analysis of Maspin expression in HeLa (A), A-431 (B), SW480 (C), Ca Ski (D) and PC-3 (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Maspin (C-8): sc-271694. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Drev, D., et al. 2017. Proteomic profiling identifies markers for inflammation-related tumor-fibroblast interaction. *Clin. Proteomics* 14: 33.
2. Fodor, K., et al. 2020. The targeted LHRH analog AEZS-108 alters expression of genes related to angiogenesis and development of metastasis in uveal melanoma. *Oncotarget* 11: 175-187.
3. Khorsandi, L. and Farasat, M. 2020. Zinc oxide nanoparticles enhance expression of Maspin in human breast cancer cells. *Environ. Sci. Pollut. Res. Int.* 27: 38300-38310.
4. Toptan, T., et al. 2020. Proteomic approach to discover human cancer viruses from formalin-fixed tissues. *JCI Insight* 5: e143003.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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.