SANTA CRUZ BIOTECHNOLOGY, INC.

Maspin (E-10): sc-166260

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

Maspin (E-10) is a mouse monoclonal antibody raised against amino acids 51-180 mapping near the N-terminus of Maspin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Maspin (E-10) 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), 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).

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.

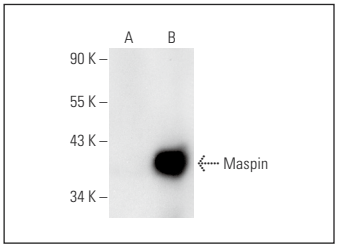
Molecular Weight of Maspin: 42 kDa.

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

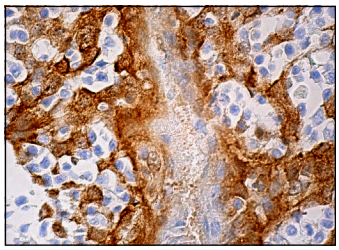
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

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.



Maspin (E-10): sc-166260. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Kim, M., et al. 2012. Maspin genetically and functionally associates with gastric cancer by regulating cell cycle progression. Carcinogenesis 33: 2344-2350.
2. Yi, H.M., et al. 2015. A five-variable signature predicts radioresistance and prognosis in nasopharyngeal carcinoma patients receiving radical radiotherapy. Tumour Biol. 37: 2941-2949.
3. Zhu, H., et al. 2015. Inhibition of IGFBP-2 improves the sensitivity of bladder cancer cells to cisplatin via upregulating the expression of Maspin. Int. J. Mol. Med. 36: 595-601.
4. Gu, H., et al. 2018. Highly expressed histone deacetylase 5 promotes the growth of hepatocellular carcinoma cells by inhibiting the TAp63-Maspin pathway. Am. J. Cancer Res. 8: 462-475.
5. Saied, E.M. and Alshenawy, H.A. 2018. Prostatic carcinogenesis: more insights. J. Microsc. Ultrastruct. 6: 11-16.
6. Mitra Ghosh, T., et al. 2021. Identification and characterization of key differentially expressed genes associated with metronomic dosing of topotecan in human prostate cancer. Front. Pharmacol. 12: 736951.

RESEARCH USE

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