

Technical Data Sheet

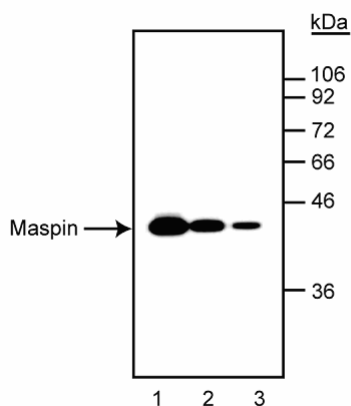
Purified Mouse Anti-Human Maspin

Product Information

Material Number:	554292
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G167-70
Immunogen:	Recombinant Human Maspin
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human
Target MW:	42 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Maspin is a 42 kDa protein that may play a role in human breast cancer by functioning as a tumor suppressor. Maspin is expressed in normal mammary epithelial cells, but there is a loss of expression in invasive breast cancer including lymph node and distant metastases. Further, maspin is not expressed in most mammary carcinoma cell lines. Mammary carcinoma cells transfected with recombinant maspin have a reduced ability to migrate through reconstituted basement membrane and lose their ability to form tumors in nude mice, providing support for maspin as a tumor suppressor protein. Maspin has homology to members of the serpin family of protease inhibitors, some of which have been implicated in the regulation of invasion and metastasis. Yet protease inhibitory activity has not been detected using recombinant maspin. It has been suggested that maspin, unlike most serpins, may be a ligand-binding serpin rather than a protease inhibitor. However, the question of whether or not maspin has protease inhibitor activity remains to be determined. G167-70 is specific for human maspin. It detects maspin as a 42 kD protein in western blots of normal human mammary epithelial cells. Many mammary tumor cell lines including MDA-MB-231 (ATCC HTB 26) and MDA-MB-435S (ATCC HTB 129) lack maspin expression and are suitable as negative controls. Purified recombinant human maspin from a yeast expression system was used as immunogen.



Western blot analysis of maspin in A-431 human epidermal carcinoma cell lysates. The G167-70 antibody was titrated between 1 µg/ml to 0.04 µg/ml (lanes 1-3) and identifies maspin at ~42 kD.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
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Recommended Assay Procedure:

Applications include western blot analysis (1-2 µg/ml). A-431 human epidermal carcinoma cells (ATCC CRL 1555) are recommended as a positive control for this application.

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611447	A431 Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

- Hopkins PC, Whisstock J. Function of maspin. *Science*. 1994; 265(5180):1893-1894.(Biology)
- Sheng S, Pemberton PA, Sager R. Production, purification, and characterization of recombinant maspin proteins. *J Biol Chem*. 1994; 269(49):30988-30993. (Immunogen)
- Zou Z, Anisowicz A, Hendrix MJ, et al. Maspin, a serpin with tumor-suppressing activity in human mammary epithelial cells. *Science*. 1994; 263(5146):526-529. (Biology)