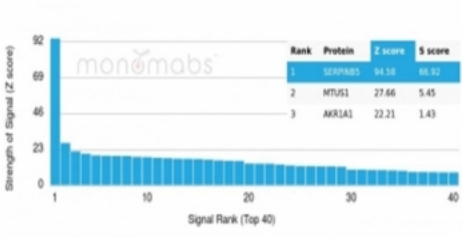
MASPIN Antibody / SERPINB5 [clone SERPINB5/4978] (V4579)

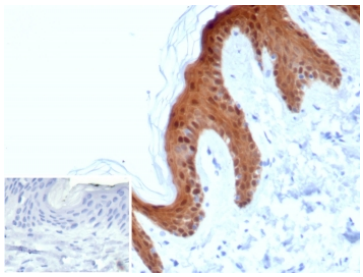
Catalog No.	Formulation	Size
V4579-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4579-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4579SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG
Clone Name	SERPINB5/4978
Purity	Protein A/G affinity
UniProt	P36952
Localization	Secreted, Extracellular space
Applications	1-2ug/ml1-2ug/ml for 30 min at RT
Limitations	This MASPIN antibody is available for research use only.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using MASPIN antibody (clone SERPINB5/4978). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



Immunohistochemistry analysis of MASPIN / SERPINB5 antibody in human skin. FFPE human skin tissue was stained with MASPIN / SERPINB5 antibody (clone SERPINB5/4978). HRP-DAB brown chromogenic signal is observed predominantly within the epidermis, showing strong cytoplasmic staining in keratinocytes with focal nuclear positivity. The staining is most prominent in the basal and suprabasal layers of the epidermis, consistent with epithelial expression of MASPIN. The dermal compartment shows minimal background staining. The inset negative control, in which PBS was used in place of the primary antibody, shows no specific brown staining. Nuclei are counterstained blue. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes followed by cooling prior to antibody incubation.

Description

MASPIN antibody, also known as SERPINB5 antibody, recognizes Serpin family B member 5, a non-inhibitory member of the serpin superfamily encoded by the SERPINB5 gene on chromosome 18q21.33. MASPIN is primarily localized to the cytoplasm and nucleus of epithelial cells and is widely expressed in tissues such as breast, prostate, lung, and skin. Unlike classical serine protease inhibitors, MASPIN does not function as a typical protease inhibitor but instead regulates epithelial differentiation, cell adhesion, and tumor suppression pathways.

MASPIN has been extensively studied as a tumor suppressor protein due to its ability to inhibit invasion, metastasis, and angiogenesis in various carcinoma models. SERPINB5 influences cell-matrix interactions and modulates integrin signaling, extracellular matrix remodeling, and apoptosis-related pathways. MASPIN antibody is frequently used in oncology research to evaluate epithelial lineage differentiation and to assess changes in expression during tumor progression. Differences in cytoplasmic versus nuclear localization have been associated with altered tumor behavior in certain malignancies.

Structurally, MASPIN belongs to the ovalbumin-like clade of serpins but lacks the reactive center loop configuration required for irreversible protease inhibition. Instead, SERPINB5 interacts with intracellular signaling molecules and extracellular matrix components to influence cell motility and survival. Epigenetic regulation, including promoter methylation, can contribute to reduced MASPIN expression in aggressive tumors.

Altered SERPINB5 expression has been reported in breast, prostate, lung, colorectal, and other epithelial cancers, where it is investigated as a potential prognostic biomarker. In normal tissues, MASPIN is typically restricted to epithelial compartments, supporting its use as an epithelial marker in research applications. Clone SERPINB5/4978 recognizes MASPIN and is suitable for detecting SERPINB5 expression in relevant research applications.

Application Notes

Optimal dilution of the MASPIN antibody should be determined by the researcher.

Immunogen

A recombinant fragment of human protein (within amino acids 1-200) was used as the immunogen for the MASPIN antibody.

Storage

Aliquot the MASPIN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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