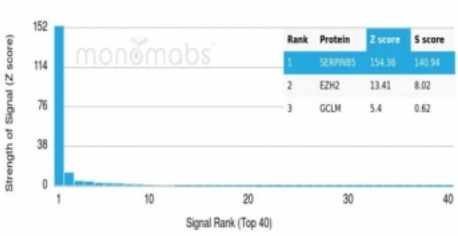
SERPINB5 Antibody / Maspin [clone SERPINB5/4974] (V5543)

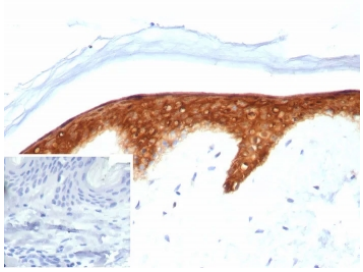
Catalog No.	Formulation	Size
V5543-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5543-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5543SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

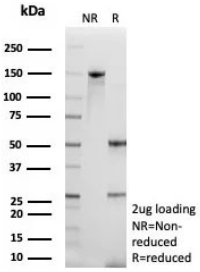
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	SERPINB5/4974
Purity	Protein A/G affinity
UniProt	P36952
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This SERPINB5 antibody is available for research use only.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SERPINB5 antibody (clone SERPINB5/4974). These results demonstrate the foremost specificity of the SERPINB5/4974 mAb. Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (clone MAb) (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.



IHC staining of FFPE human skin tissue with SERPINB5 antibody (clone SERPINB5/4974). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free SERPINB5 antibody (clone SERPINB5/4974) as confirmation of integrity and purity.

Description

SERPINB5 antibody, also known as Maspin antibody, recognizes a non-inhibitory member of the serpin superfamily encoded by the SERPINB5 gene on chromosome 18q21.33. SERPINB5, commonly referred to as Maspin, is primarily localized to the cytoplasm and nucleus of epithelial cells. Unlike many serpins, Maspin does not function as a classical protease inhibitor but instead regulates cell adhesion, migration, apoptosis, and differentiation. It is widely expressed in normal epithelial tissues including breast, prostate, lung, and skin, where it contributes to epithelial homeostasis.

SERPINB5 has been characterized as a tumor suppressor protein due to its role in inhibiting tumor invasion and metastasis. Maspin modulates cell-matrix interactions, influences integrin signaling pathways, and affects extracellular matrix remodeling. SERPINB5 antibody is commonly used in cancer research to evaluate epithelial differentiation and to study changes in Maspin expression during tumor progression. Altered localization, such as nuclear versus cytoplasmic distribution, has been associated with differences in tumor behavior and clinical outcome.

Structurally, Maspin belongs to the ovalbumin clade of serpins but lacks key residues required for classical protease inhibitory activity. Instead, it interacts with components of the extracellular matrix and intracellular signaling pathways to influence cell motility and apoptosis. SERPINB5 expression is often reduced or lost in aggressive carcinomas, while preserved or increased expression may correlate with less invasive phenotypes in certain tumor types.

In addition to oncology applications, Maspin participates in epithelial differentiation and tissue remodeling processes. Its dual cytoplasmic and nuclear localization makes it useful for studying subcellular distribution patterns in epithelial biology. Clone SERPINB5/4974 recognizes SERPINB5 and is suitable for detecting Maspin expression in relevant research applications.

Application Notes

Optimal dilution of the SERPINB5 antibody should be determined by the researcher.

Immunogen

A recombinant fragment of human SERPINB5 protein (within amino acids 1-200) was used as the immunogen for the SERPINB5 antibody.

Storage

Aliquot the SERPINB5 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.