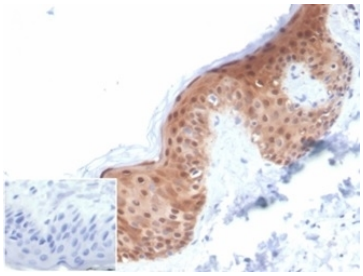
SERPINB5 Antibody / MASPIN [clone SERPINB5/4972] (V9413)

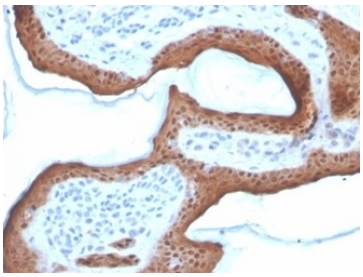
Catalog No.	Formulation	Size
V9413-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9413-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9413SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

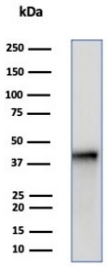
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SERPINB5/4972
Purity	Protein A/G affinity
UniProt	P36952
Localization	Secreted, Extracellular space
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This SERPINB5 antibody is available for research use only.



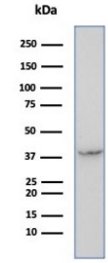
Immunohistochemistry analysis of SERPINB5 antibody in human skin. FFPE human skin tissue shows strong cytoplasmic and nuclear HRP-DAB brown staining in stratified squamous epithelial cells, with prominent signal in suprabasal keratinocytes. The underlying dermis is largely negative. The negative control inset, using PBS in place of primary antibody, shows no specific staining, confirming assay specificity. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9, 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to antibody incubation.



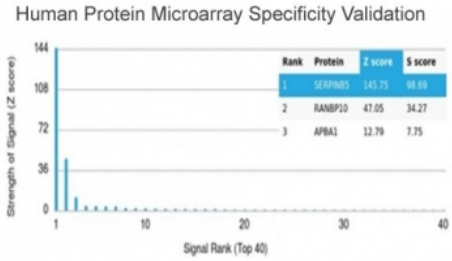
IHC staining of FFPE human skin tissue with SERPINB5 antibody (clone SERPINB5/4972). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Western blot testing of human PC3 cell lysate using SERPINB5 antibody (clone SERPINB5/4972). Predicted molecular weight: 42~45 kDa.



Western blot testing of human SW732 cell lysate using SERPINB5 antibody (clone SERPINB5/4972). Predicted molecular weight: 42~45 kDa.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SERPINB5 antibody (clone SERPINB5/4972). These results demonstrate the foremost specificity of the SERPINB5/4972 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) 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 the targets on the 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-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

SERPINB5 antibody, also known as Maspin antibody, recognizes Serpin family B member 5, a non-inhibitory member of the serine protease inhibitor superfamily commonly referred to as mammary serine protease inhibitor. SERPINB5 is encoded by the human SERPINB5 gene and is primarily localized to the cytoplasm and nucleus of epithelial cells, where it participates in regulation of cell adhesion, differentiation, apoptosis, and tumor suppression pathways. Unlike many classical serpins, SERPINB5 lacks typical protease inhibitory activity and instead exerts context-dependent regulatory effects on epithelial integrity and cellular stress responses.

SERPINB5 is highly expressed in normal stratified squamous epithelium, including skin, breast epithelium, and other glandular tissues. In the epidermis, expression is often strongest in suprabasal layers, reflecting its association with epithelial differentiation. A SERPINB5 antibody is frequently used in research investigating epithelial homeostasis, cell polarity, and extracellular matrix interactions. Maspin has been reported to influence integrin signaling, modulate interactions with components of the basement membrane, and contribute to regulation of cell motility.

Functionally, SERPINB5 has been described as a tumor suppressor in several epithelial cancers, including breast,

prostate, lung, and head and neck carcinomas. Altered subcellular localization - cytoplasmic versus nuclear - has been associated with differences in clinical behavior in certain tumor types. Because of this dual localization pattern, a SERPINB5 antibody can provide valuable information regarding both expression level and intracellular distribution in tissue sections.

SERPINB5 is a member of the clade B serpin family and shares structural homology with other intracellular serpins, although it does not form stable inhibitory complexes with target proteases. Its activity has been linked to regulation of apoptosis, angiogenesis inhibition, and modulation of cellular responses to oxidative stress. Research also suggests roles in embryonic development and tissue remodeling, particularly in epithelial-rich organs. Given its epithelial-restricted pattern in most normal tissues and its altered expression in malignancy, SERPINB5 antibody staining is commonly applied in studies of epithelial tumors, differentiation markers, and mechanisms of tumor progression. This clone is a monoclonal antibody suitable for detecting SERPINB5 expression in relevant research applications.

Application Notes

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

Immunogen

A portion of amino acids1-200 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.