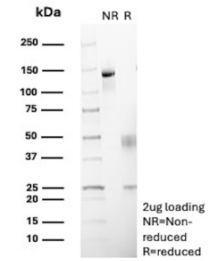
Serpin B5 Antibody / Mammary Protease Inhibitor [clone SERPINB5/12555] (V5971)

Catalog No.	Formulation	Size
V5971-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5971-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5971SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	SERPINB5/12555
UniProt	P36952
Localization	Cytoplasm, Extracellular space, Nucleus, Secreted
Applications	ELISA :
Limitations	This Serpin B5/Mammary Protease Inhibitor antibody is available for research use only.



SDS-PAGE Analysis of Purified Serpin B5/Mammary Protease Inhibitor antibody (clone SERPINB5/12555). Confirmation of Purity and Integrity of Antibody.

Description

Serpin B5 antibody, also known as Mammary Protease Inhibitor antibody, recognizes a cytoplasmic and nuclear protein encoded by the SERPINB5 gene on chromosome 18q21.33. Serpin B5, historically referred to as Mammary Serine Protease Inhibitor and commonly known as Maspin, is a member of the clade B serpin family. Unlike classical inhibitory serpins, Serpin B5 does not function as a conventional serine protease inhibitor. Instead, it regulates epithelial cell

differentiation, adhesion, migration, and apoptosis. Expression is primarily observed in epithelial tissues including breast, prostate, lung, and skin, where it contributes to epithelial integrity and tissue homeostasis.

Serpin B5 has been widely studied as a tumor suppressor protein in breast and other epithelial cancers. Reduced or lost expression has been associated with increased tumor invasiveness and metastatic potential in certain carcinoma models. Mammary Protease Inhibitor antibody is frequently used in oncology research to evaluate epithelial differentiation status and to assess subcellular localization patterns that may correlate with tumor behavior. Both cytoplasmic and nuclear staining patterns have been reported, and differential localization has been investigated in relation to prognosis in specific tumor types.

Structurally, Serpin B5 belongs to the ovalbumin-like subgroup of serpins but lacks the canonical reactive center loop required for irreversible protease inhibition. Instead, it interacts with components of the extracellular matrix and intracellular signaling molecules, influencing integrin signaling, cell-matrix adhesion, and apoptotic pathways. Epigenetic regulation, including promoter methylation, has been described as a mechanism contributing to reduced SERPINB5 expression in aggressive malignancies.

In normal tissues, Serpin B5 expression is typically restricted to epithelial compartments, making it a useful marker for epithelial lineage studies. Clone SERPINB5/12555 recognizes Serpin B5 and is suitable for detecting Mammary Protease Inhibitor expression in relevant research applications.

Application Notes

Optimal dilution of the Serpin B5/Mammary Protease Inhibitor antibody should be determined by the researcher.

Immunogen

A recombinant fragment (around amino acids 1-200) of human SERPINB5 protein (exact sequence is proprietary) was used as the immunogen for the Serpin B5/Mammary Protease Inhibitor antibody.

Storage

Serpin B5/Mammary Protease Inhibitor antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.