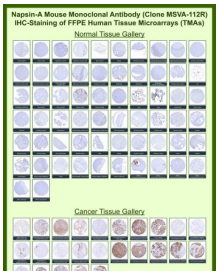
NAPSA Antibody for IHC / Napsin A Immunohistochemistry Antibody [clone MSVA-112R] (V6147)

Catalog No.	Formulation	Size
V6147-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6147-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-112R
UniProt	O96009
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This NAPSA Antibody for IHC / Napsin A Immunohistochemistry Antibody is available for research use only.



NAPSA Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Napsin A / NAPSA in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal NAPSA antibody clone MSVA-112R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates highly restricted cytoplasmic localization in lung alveolar epithelial cells, while most non-pulmonary tissues remain largely negative. Within tumor tissue microarrays, strong and diffuse cytoplasmic staining is observed in lung adenocarcinoma samples, supporting its role as a pulmonary epithelial marker and its utility in lung cancer classification. Evaluation across large TMA panels enables direct comparison of NAPSA expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported NAPSA expression profiles in the Human Protein Atlas.

Description

Napsin A (NAPSA) is a lysosomal aspartic protease primarily expressed in lung alveolar epithelial cells and renal tubular epithelium, where it functions in protein processing within secretory and lysosomal compartments. NAPSA Antibody for

IHC is widely used to detect Napsin A expression in formalin-fixed, paraffin-embedded tissues, supporting evaluation of epithelial differentiation and tumor classification. NAPSA antibody, also known as Napsin A antibody, is a well-established marker for lung adenocarcinoma and is frequently used in histopathology to distinguish primary lung tumors from metastatic carcinomas.

Napsin A is predominantly localized to the cytoplasm in granular structures corresponding to lysosomes and secretory vesicles, reflecting its role in surfactant protein processing in type II pneumocytes. In normal tissues, expression is strongest in lung and kidney, with limited distribution in other epithelial cell types. In tumor settings, NAPSA expression is highly characteristic of lung adenocarcinoma, where strong cytoplasmic staining is observed in tumor epithelial cells, while most squamous cell carcinomas and non-pulmonary tumors lack expression, providing valuable diagnostic contrast.

This NAPSA Antibody for IHC is uniquely positioned for detecting cytoplasmic Napsin A staining patterns in FFPE tissue sections, enabling clear visualization of epithelial tumor cell populations and supporting histological classification. The rabbit monoclonal recombinant format of clone MSVA-112R provides consistent performance and strong signal intensity, facilitating reliable detection of Napsin A in tissue microenvironments where precise cellular localization is critical.

In immunohistochemistry applications, NAPSA antibody staining typically appears as granular cytoplasmic signal in lung adenocarcinoma cells, often with diffuse distribution throughout tumor regions. This staining pattern aligns with the intracellular localization of Napsin A within lysosomal and secretory compartments and supports its role as a marker of pulmonary epithelial differentiation. In contrast, stromal components and non-expressing tissues generally remain negative, enhancing contrast and interpretability in complex tissue sections.

Beyond oncology, Napsin A expression also provides insight into epithelial cell biology and protease function within secretory pathways. Its involvement in surfactant protein maturation underscores its importance in lung physiology, while its restricted expression pattern makes it a useful marker for identifying specific epithelial cell populations. The NAPSA antibody therefore supports a wide range of research applications focused on tissue-specific protein expression, epithelial lineage tracing, and tumor microenvironment analysis.

Overall, NAPSA antibody reagents are valuable tools for immunohistochemical detection of Napsin A, offering clear cytoplasmic staining patterns that aid in the identification of lung adenocarcinoma and the study of epithelial differentiation in both normal and diseased tissues.

This antibody is part of a comprehensive NAPSA antibody collection developed to support Napsin A detection across IHC, WB, IF, and FACS applications in lung cancer and epithelial biology research.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the NAPSA Antibody for IHC / Napsin A Immunohistochemistry Antibody should be determined by the researcher.

2. This NAPSA/Napsin A antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant human Napsin-A protein fragment (amino acids 189-299) (exact sequence is proprietary) was used as the

immunogen for the NAPSA / Napsin A antibody.

Storage

NAPSA / Napsin A antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

Napsin A antibody, NAPSA immunohistochemistry antibody, Lung adenocarcinoma marker antibody, Aspartic protease Napsin A antibody

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