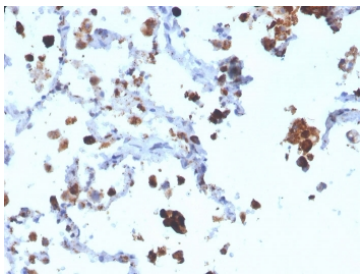
Napsin A Antibody / Pulmonary Epithelial Marker Antibody [clone NAPSA/3308] (V7604)

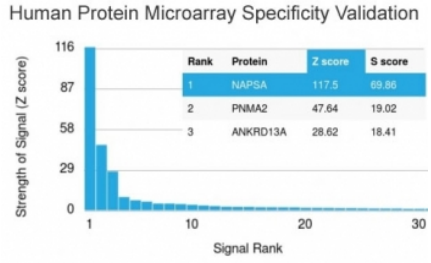
Catalog No.	Formulation	Size
V7604-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7604-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7604SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

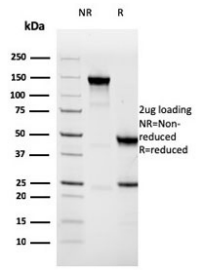
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	NAPSA/3308
Purity	Protein G affinity chromatography
UniProt	O96009
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Napsin A Antibody / Pulmonary Epithelial Marker Antibody is available for research use only.



Napsin A Antibody for IHC. Immunohistochemistry analysis of Napsin A (NAPSA) expression in FFPE human lung adenocarcinoma demonstrates granular cytoplasmic HRP-DAB brown staining in tumor epithelial cells with minimal background in surrounding stromal regions. Clone NAPSA/3308 highlights pulmonary epithelial cell populations consistent with the role of Napsin A as a lung epithelial marker, supporting identification of epithelial lineage within tumor tissue. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 minutes followed by cooling at RT for 20 minutes prior to staining.



Napsin A Antibody Protein Microarray Validation. Analysis of Napsin A (NAPSA) specificity using a human protein microarray containing more than 19,000 full-length human proteins demonstrates strong and selective binding of clone NAPSA/3308 to its intended target, with NAPSA ranked as the top hit by signal intensity. The Z-score reflects binding strength relative to the array-wide mean signal, expressed as standard deviations above background, while the S-score represents the difference between the top-ranked target and the next highest signal, indicating relative specificity. The high Z- and S-scores observed for NAPSA support selective target recognition with minimal cross-reactivity across a proteome-scale panel.



SDS-PAGE analysis of purified, BSA-free Napsin A antibody (clone NAPSA/3308) as confirmation of integrity and purity.

Description

Napsin A (NAPSA) is a lysosomal aspartic protease highly expressed in lung alveolar epithelial cells and renal tubular epithelium, where it functions in protein processing within secretory and lysosomal pathways. Napsin A Antibody / Pulmonary Epithelial Marker Antibody is designed to detect Napsin A in studies focused on epithelial cell identity and tissue-specific expression within pulmonary tissues. Napsin A antibody, also referred to as NAPSA antibody, is widely used as a marker of pulmonary epithelial differentiation and cellular origin in both normal and disease contexts.

Napsin A expression is strongly enriched in type II pneumocytes, specialized epithelial cells responsible for surfactant production and maintenance of alveolar structure. Its highly restricted expression pattern within the lung provides a reliable indicator of pulmonary epithelial lineage, particularly in tissues where distinguishing epithelial cell populations from stromal or inflammatory components is critical. This specificity supports its use as a robust marker for identifying epithelial cells within complex tissue microenvironments.

This Napsin A Antibody / Pulmonary Epithelial Marker Antibody utilizes clone NAPSA/3308, a mouse monoclonal antibody supported by microarray-based specificity data, providing confidence in selective target recognition across heterogeneous samples. This specificity is especially important when evaluating epithelial markers, where non-specific staining can compromise interpretation of cellular identity and tissue architecture.

Detection of Napsin A using this antibody reveals cytoplasmic expression patterns associated with lysosomal and secretory vesicles, consistent with its intracellular localization and enzymatic function. This staining pattern enables clear visualization of pulmonary epithelial cells and supports studies examining epithelial organization, tissue structure, and lineage-specific protein expression.

In disease contexts, Napsin A expression is frequently retained in lung adenocarcinoma, reflecting differentiation toward alveolar epithelial lineage. As a pulmonary epithelial marker, its detection provides meaningful insight into tumor origin and cellular identity, supporting investigations into tumor classification and epithelial differentiation. Its absence in most non-pulmonary tumors further enhances its value in distinguishing lung-derived epithelial cells from other tissue types.

Beyond oncology, the restricted and well-defined expression pattern of Napsin A supports its use in studies of normal lung biology, epithelial cell maintenance, and tissue-specific protein expression. Its role in surfactant-related processes links its expression directly to pulmonary function, reinforcing its importance as a marker of epithelial specialization.

Overall, Napsin A antibody reagents used as pulmonary epithelial marker antibodies provide reliable and specific

detection of Napsin A, supporting detailed studies of lung epithelial biology, tissue organization, and disease-associated cellular identity.

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.

Application Notes

Optimal dilution of the Napsin A Antibody / Pulmonary Epithelial Marker Antibody should be determined by the researcher.

Immunogen

Amino acids 189-299 from the human protein were used as the immunogen for the Napsin A antibody.

Storage

Store the Napsin A antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

NAPSA antibody, Napsin A epithelial marker antibody, Lung epithelial antibody, Aspartic protease Napsin A antibody