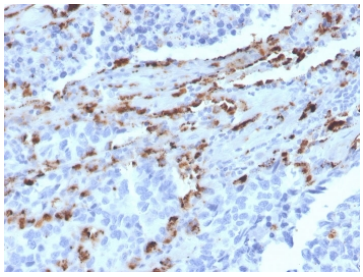
Napsin A Antibody / Protein Microarray Validated Antibody [clone NAPSA/3309] (V8243)

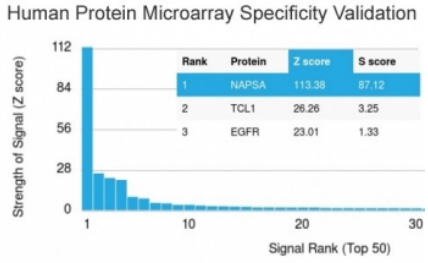
Catalog No.	Formulation	Size
V8243-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8243-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8243SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

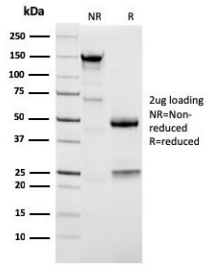
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	NAPSA/3309
Purity	Protein G affinity chromatography
UniProt	O96009
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Napsin A Antibody / Protein Microarray Validated Antibody is available for research use only.



Napsin A Antibody Lung Adenocarcinoma 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/3309, a protein microarray validated mouse monoclonal antibody, supports selective detection of Napsin A consistent with its role as a pulmonary epithelial differentiation marker. 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/3309 to its intended target, with NAPSA ranked as the top hit by signal intensity. The Z-score reflects the strength of binding relative to the array-wide mean signal, expressed as standard deviations above background, while the S-score represents the difference in Z-scores between the top-ranked target and the next highest protein, indicating relative specificity. The high Z- and S-scores observed for NAPSA support selective target recognition with minimal cross-reactivity across the proteome-scale panel.



SDS-PAGE analysis of purified, BSA-free Napsin A antibody (clone NAPSA/3309) as confirmation of integrity and purity.

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 pathways. Napsin A Antibody / Protein Microarray Validated Antibody is developed to support confident detection of Napsin A with an emphasis on specificity and reproducible target recognition in complex biological samples. Napsin A antibody, also referred to as NAPSA antibody, is widely used in studies of epithelial differentiation, lung biology, and intracellular protease function.

Napsin A is synthesized as an inactive precursor that undergoes proteolytic cleavage to generate its mature enzymatically active form, which can result in multiple detectable species depending on sample preparation and processing state. The protein is localized within lysosomal and secretory vesicles and plays a key role in surfactant protein maturation in type II pneumocytes. Expression is strongly enriched in lung and kidney tissues, with limited distribution in other organs, supporting its use as a lineage-associated epithelial marker.

This Napsin A Antibody / Protein Microarray Validated Antibody utilizes clone NAPSA/3309, a mouse monoclonal antibody evaluated using protein microarray-based specificity assessment. Protein microarray platforms assess antibody binding against large panels of proteins, enabling identification of antibodies that preferentially recognize their intended target while minimizing off-target interactions. This validation approach provides strong support for specificity while maintaining flexibility across multiple downstream applications.

The protein microarray validation of this antibody supports its use in experimental settings where selective target recognition is critical, particularly when analyzing complex lysates or heterogeneous tissue-derived samples. By reducing non-specific binding, this approach contributes to improved signal clarity and more reliable interpretation of experimental data, especially in assays where closely related proteins or background signal may otherwise complicate analysis.

In biological and disease contexts, Napsin A is strongly associated with pulmonary epithelial differentiation and is widely studied as a marker of lung adenocarcinoma. Its expression pattern provides meaningful insight into tissue origin and cellular identity, particularly in studies focused on tumor classification and epithelial lineage tracing. The use of a protein microarray validated antibody supports these investigations by providing confidence in the specificity of target detection across diverse experimental systems.

Overall, Napsin A antibody reagents supported by protein microarray validation offer reliable and selective detection of Napsin A, enabling accurate protein analysis and supporting studies of epithelial biology, protein processing, and disease-associated expression.

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 / Protein Microarray Validated 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 protein antibody, Aspartic protease Napsin A antibody, NAPSA specificity antibody