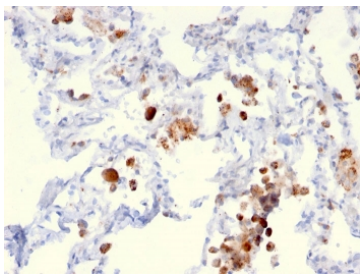
Napsin A Antibody / HuProt Microarray Validated Antibody [clone NAPSA/3306] (V8244)

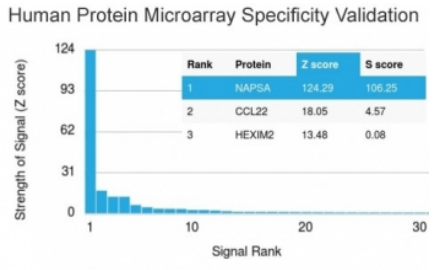
Catalog No.	Formulation	Size
V8244-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8244-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8244SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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/3306
Purity	Protein G affinity chromatography
UniProt	O96009
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Napsin A Antibody / HuProt Microarray Validated 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 distinct granular cytoplasmic HRP-DAB brown staining in tumor epithelial cells, with minimal background in surrounding stromal tissue. Clone NAPSA/3306, a HuProt microarray validated mouse monoclonal antibody, supports highly specific 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 HuProt Microarray Validation. Analysis of Napsin A (NAPSA) specificity using a HuProt microarray containing more than 19,000 full-length human proteins demonstrates highly selective binding of clone NAPSA/3306 to its intended target, with NAPSA ranked as the top signal by Z-score. 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 proteome-wide specificity with minimal cross-reactivity across a large panel of human proteins.

Description

Napsin A (NAPSA) is a lysosomal aspartic protease expressed primarily in lung alveolar epithelial cells and renal tubular epithelium, where it participates in protein processing within secretory and lysosomal pathways. Napsin A Antibody / HuProt Microarray Validated Antibody is designed to provide highly specific detection of Napsin A, supported by proteome-wide validation across thousands of human proteins. Napsin A antibody, also known as NAPSA antibody, is widely used in research focused on epithelial differentiation, lung biology, and tumor-associated protein expression.

Napsin A is produced as a precursor protein that undergoes proteolytic maturation to generate its active enzymatic form, with localization in intracellular vesicles and lysosomal compartments. Its expression is strongly enriched in lung and kidney tissues, reflecting its role in surfactant protein processing and epithelial cell function. This restricted expression profile contributes to its value as a marker of pulmonary epithelial identity and disease-associated differentiation.

This Napsin A Antibody / HuProt Microarray Validated Antibody incorporates clone NAPSA/3306, a mouse monoclonal antibody evaluated using HuProt microarray technology. HuProt arrays contain thousands of full-length human proteins, enabling comprehensive assessment of antibody binding specificity across the human proteome. This large-scale validation approach provides a higher level of stringency compared to standard protein microarrays by directly evaluating binding against a broad representation of native protein targets.

The HuProt microarray validation of this antibody supports applications requiring the highest level of specificity, particularly in experiments involving complex protein mixtures, closely related protease families, or low-abundance targets. By demonstrating selective binding to Napsin A across a proteome-wide panel, this approach minimizes the risk of cross-reactivity and supports highly confident interpretation of experimental results.

In biological research, Napsin A is closely associated with lung adenocarcinoma and epithelial differentiation, where its expression reflects alveolar lineage characteristics. Detection of Napsin A provides important insight into tissue origin and cellular identity, particularly in studies of tumor biology and pulmonary function. The use of a HuProt microarray validated antibody strengthens these analyses by ensuring high specificity in target detection across diverse sample types.

Overall, Napsin A antibody reagents supported by HuProt microarray validation provide highly specific and reliable detection of Napsin A, enabling precise protein analysis in applications where maximal specificity and confidence in target recognition are essential.

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 / HuProt 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, HuProt validated antibody

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