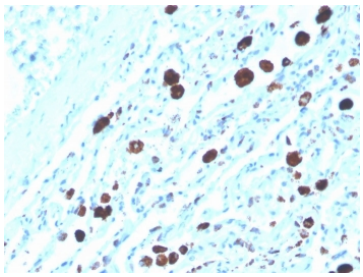
Napsin A Antibody Biotin Conjugate / NAPSA Detection Antibody [clone NAPSA/3308] (V7604BTN)

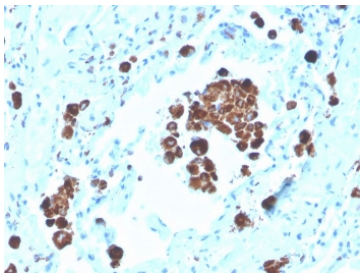
Catalog No.	Formulation	Size
V7604BTN	0.1 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	500 ul

Bulk quote request

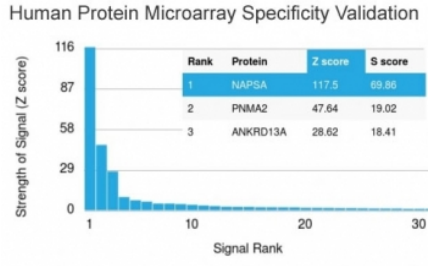
Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	NAPSA/3308
Purity	Protein G affinity chromatography
UniProt	O96009
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 2-4ug/ml for 30 minutes at RT
Limitations	This Napsin A Antibody Biotin Conjugate / NAPSA Detection Antibody is available for research use only.



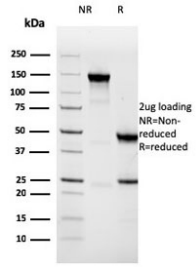
Napsin A Antibody Biotin Conjugate IHC Staining. Immunohistochemistry analysis of Napsin A (NAPSA) expression in FFPE human lung adenocarcinoma demonstrates distinct cytoplasmic HRP-DAB brown staining in tumor epithelial cells with minimal background in surrounding stromal regions. The biotin-conjugated format of clone NAPSA/3308 enables enhanced signal detection through streptavidin-based amplification, supporting sensitive visualization 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 20 minutes followed by cooling prior to staining.



IHC staining of FFPE human lung adenocarcinoma with biotin-conjugated Napsin A antibody (clone NAPSA/3308). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Napsin A antibody (clone NAPSA/3308). These results demonstrate the foremost specificity of the NAPSA/3308 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



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 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 Biotin Conjugate is designed for sensitive detection of Napsin A using streptavidin-based amplification systems, enabling enhanced signal generation in applications where target abundance may be limited. Napsin A antibody, also referred to as NAPSA antibody, is widely used in studies of epithelial differentiation, lung biology, and tumor-associated protein expression.

Napsin A is synthesized as an inactive precursor that undergoes proteolytic maturation to generate its active enzymatic form, which may contribute to variability in detectable signal depending on processing state and sample preparation. The protein is localized within lysosomal and secretory vesicles and is strongly enriched in lung and kidney tissues, with minimal expression in most other organs. This restricted distribution supports its use as a tissue-specific epithelial marker and a well-established indicator of lung adenocarcinoma differentiation.

This Napsin A Antibody Biotin Conjugate utilizes clone NAPSA/3308, a mouse monoclonal antibody directly conjugated to biotin to enable efficient interaction with streptavidin-based detection systems. Biotinylation allows flexible pairing with a variety of labeled streptavidin reagents, including enzyme- or fluorophore-conjugated formats, providing adaptability across multiple assay types without requiring secondary antibodies.

The biotin-conjugated format offers important advantages in applications requiring increased sensitivity and reduced background. Direct conjugation minimizes potential non-specific interactions associated with secondary antibody binding, while streptavidin-mediated amplification enhances signal intensity. This combination supports improved detection of Napsin A in low-abundance samples and enables clearer visualization of protein expression with strong signal-to-noise performance.

In addition, the use of a biotin conjugate can improve assay consistency by reducing variability introduced by secondary reagents, supporting more reproducible results across experiments. This is particularly beneficial in comparative studies or high-throughput workflows where uniform signal detection is important for accurate interpretation.

In biological and disease contexts, Napsin A is strongly associated with pulmonary epithelial differentiation and is widely used as a marker of lung adenocarcinoma. Its expression pattern provides meaningful insight into tissue origin and cellular identity, particularly in studies of tumor classification and epithelial lineage. The use of a biotin-conjugated Napsin A antibody supports these investigations by enabling sensitive and reliable detection across diverse experimental conditions.

Overall, Napsin A antibody biotin conjugate reagents provide enhanced sensitivity, reduced background, and flexible assay compatibility, supporting accurate detection of Napsin A in applications where signal strength and reproducibility are critical.

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 Biotin Conjugate / NAPSA Detection 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 (up to one month) or aliquot and store at -20oC (longer term).

Alternate Names

NAPSA antibody, Napsin A biotin antibody, Aspartic protease Napsin A antibody, Biotinylated NAPSA antibody

Copyright © NSJ Bioreagents. All rights reserved.