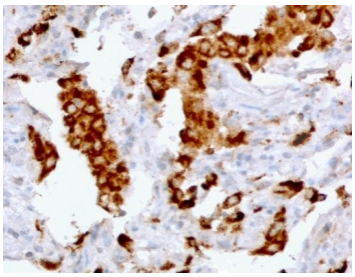
NAPSA Antibody / Lysosomal Protease Antibody [clone NPSNA-2R] (V3781)

Catalog No.	Formulation	Size
V3781-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3781-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3781SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3781IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	NPSNA-2R
Purity	Protein A affinity chromatography
UniProt	O96009
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Prediluted IHC Only Format : incubate for 30 min at RT (1)
Limitations	This NAPSA Antibody / Lysosomal Protease Antibody is available for research use only.



NAPSA Antibody Human Lung Adenocarcinoma IHC. Immunohistochemistry analysis of Napsin A (NAPSA) expression in FFPE human lung adenocarcinoma demonstrates strong granular cytoplasmic HRP-DAB brown staining in tumor epithelial cells with minimal background in surrounding stromal regions. Clone NPSNA-2R highlights Napsin A localization within lysosomal compartments consistent with its role as a lysosomal aspartic protease in epithelial protein processing. 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.

Description

Napsin A (NAPSA) is a lysosomal aspartic protease expressed primarily in lung alveolar epithelial cells and renal tubular epithelium, where it functions in protein degradation and processing within acidic intracellular compartments. NAPSA Antibody / Lysosomal Protease Antibody is designed to detect Napsin A in studies focused on protease activity, lysosomal function, and intracellular protein turnover. NAPSA antibody (clone NPSNA-2R), also known as Napsin A antibody, is widely used in investigations of enzyme-mediated protein degradation and epithelial cell biology.

Napsin A belongs to the aspartic protease family, a class of enzymes that catalyze protein cleavage under acidic conditions within lysosomes and related organelles. Its enzymatic activity contributes to the breakdown and processing of proteins, supporting cellular homeostasis and regulated protein turnover. This functional role makes NAPSA a key target in studies examining intracellular degradation pathways and enzyme activity.

Within epithelial cells, Napsin A is localized to lysosomal compartments where it participates in the controlled degradation and processing of proteins. In lung tissue, its activity is linked to the maturation of proteins involved in surfactant production, connecting lysosomal protease function with specialized epithelial processes. Its expression in renal tubular cells further supports its role in epithelial protein handling and degradation.

NAPSA antibody reagents used as lysosomal protease antibodies enable detection of Napsin A within intracellular compartments, supporting analysis of protease localization, enzyme activity, and lysosome-associated processes. This is particularly valuable in studies investigating protein turnover, degradation pathways, and intracellular enzyme function under physiological and disease conditions.

The expression of Napsin A is highly restricted to lung and kidney tissues, providing a defined biological context for studying lysosomal protease activity in epithelial systems. Its compartmentalized localization and enzymatic function make it a useful marker for examining intracellular protein degradation mechanisms and tissue-specific protease activity.

Overall, NAPSA antibody reagents used as lysosomal protease antibodies provide detailed insight into enzyme function, lysosomal biology, and protein degradation pathways, supporting research into epithelial physiology and protease-mediated regulation.

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 NAPSA Antibody / Lysosomal Protease Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A recombinant fragment from the human protein (amino acids 189-299) was used as the immunogen for the recombinant

Napsin A/NAPSA antibody.

Storage

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

Alternate Names

Napsin A antibody, NAPSA lysosomal enzyme antibody, Aspartic protease antibody, NAPSA intracellular protease antibody

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