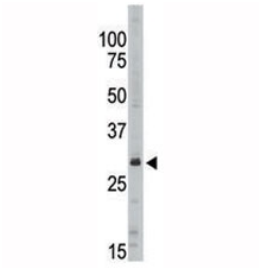
SIRT5 Antibody / NAD-Dependent Deacylase Antibody (F49521)

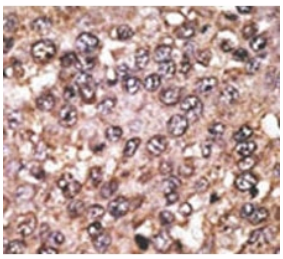
Catalog No.	Formulation	Size
F49521-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F49521-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q9NXA8
Applications	IHC (Paraffin): 1:50-1:100 Western blot: 1:1000
Limitations	This SIRT5 Antibody / NAD-Dependent Deacylase Antibody is available for research use only.



SIRT5 Antibody Jurkat Cell WB. Western blot analysis of Jurkat cell lysate detected a distinct SIRT5 immunoreactive band at approximately 30 kDa, consistent with the expected molecular weight of the mature mitochondrial protein following cleavage of its N-terminal targeting sequence. This SIRT5 Antibody, a NAD-Dependent Deacylase Antibody, is suitable for detecting endogenous SIRT5 in studies of mitochondrial metabolism, lysine deacylation, protein acylation and cellular energy homeostasis.



SIRT5 Antibody Human Hepatocarcinoma IHC. Immunohistochemical staining of FFPE human hepatocarcinoma tissue demonstrated moderate to strong SIRT5 expression with predominantly cytoplasmic staining in tumor cells and weaker nuclear staining in a subset of cells. Heat-induced epitope retrieval was performed prior to immunostaining with HRP-DAB detection. The staining pattern is consistent with the predominantly mitochondrial localization of this NAD-Dependent Deacylase, which regulates mitochondrial metabolism and protein acylation. This SIRT5 Antibody, a NAD-Dependent Deacylase Antibody, is suitable for immunohistochemical studies of metabolic regulation, mitochondrial function and liver cancer biology.

Description

SIRT5 Antibody / NAD-Dependent Deacylase Antibody recognizes Sirtuin 5 (SIRT5), a nicotinamide adenine dinucleotide (NAD)-dependent deacylase that regulates mitochondrial metabolism by removing succinyl, malonyl and glutaryl modifications from lysine residues on target proteins. Unlike several other sirtuin family members that function primarily as deacetylases, SIRT5 preferentially catalyzes the removal of larger acyl groups, making it a key regulator of post-translational protein acylation and metabolic enzyme activity. NSJ Bioreagents provides SIRT5 antibodies for studies of mitochondrial function, metabolic regulation and protein deacylation.

SIRT5 is expressed predominantly in mitochondria, where it regulates numerous metabolic pathways, including the urea cycle, tricarboxylic acid cycle, fatty acid oxidation and ketone body metabolism. Through deacylation of mitochondrial enzymes, SIRT5 maintains metabolic flexibility, supports ammonia detoxification and contributes to antioxidant defense. The enzyme also influences cellular responses to nutrient availability and metabolic stress, highlighting its importance in maintaining energy homeostasis across multiple tissues.

Altered SIRT5 expression has been implicated in cancer, cardiovascular disease, liver disease and neurodegenerative disorders. By regulating mitochondrial metabolism and oxidative stress, SIRT5 may influence tumor growth, cell survival and metabolic adaptation. Ongoing studies continue to investigate SIRT5 as a potential therapeutic target for disorders involving mitochondrial dysfunction, abnormal protein acylation and metabolic imbalance, expanding its importance across diverse areas of biomedical research.

A SIRT5 Antibody is a valuable reagent for detecting this NAD-dependent deacylase by Western blotting, immunohistochemistry, immunofluorescence, immunoprecipitation and related immunoassays. A NAD-Dependent Deacylase Antibody supports investigations of mitochondrial metabolism, lysine deacylation, protein acylation and cellular energy regulation.

For an overview of SIRT5 biology and its role in mitochondrial metabolism, visit our Sirtuin 5 Antibody / Mitochondrial Deacylase Antibody page.

Application Notes

Titration of the SIRT5 Antibody / NAD-Dependent Deacylase Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 263-292 from the human protein was used as the immunogen for this SIRT5 antibody.

Storage

Aliquot the SIRT5 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

SIRT5 antibody, Sirtuin 5 antibody, NAD-Dependent Deacylase antibody, SIR2 Like Protein 5 antibody

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