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NMNAT3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14087C

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96T66
Other Accession	NP_835471.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34719
Calculated MW	28322
Antigen Region	150-178

Additional Information

Gene ID	349565
Other Names	Nicotinamide mononucleotide adenylyltransferase 3, NMN adenylyltransferase 3, Nicotinate-nucleotide adenylyltransferase 3, NaMN adenylyltransferase 3, Pyridine nucleotide adenylyltransferase 3, PNAT-3, NMNAT3
Target/Specificity	This NMNAT3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 150-178 amino acids from the Central region of human NMNAT3.
Dilution	WB~~1:1000 IHC-P~~1:100 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NMNAT3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NMNAT3 (HGNC:20989)
Function	Catalyzes the formation of NAD(+) from nicotinamide mononucleotide

(NMN) and ATP (PubMed:16118205, PubMed:17402747, PubMed:26616331). Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate with the same efficiency. Can use triazofurin monophosphate (TrMP) as substrate. Can also use GTP and ITP as nucleotide donors. Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+). For the pyrophosphorolytic activity, can use NAD(+), NADH, NaAD, nicotinic acid adenine dinucleotide phosphate (NHD), nicotinamide guanine dinucleotide (NGD) as substrates. Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+). Protects against axonal degeneration following injury (PubMed:16118205, PubMed:17402747). May be involved in the maintenance of axonal integrity (By similarity). Also functions as a stress-response chaperone protein that prevents toxic aggregation of proteins; this function may be independent of its NAD(+) synthesis activity (PubMed:18344983).

Cellular Location Mitochondrion

Tissue Location Expressed in lung and spleen with lower levels in placenta and kidney.

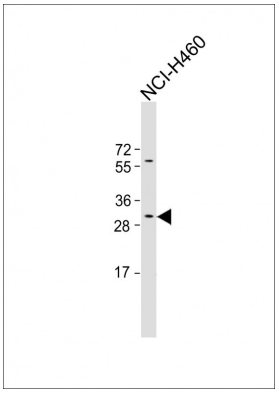
Background

The coenzyme NAD and its derivatives are involved in hundreds of metabolic redox reactions and are utilized in protein ADP-ribosylation, histone deacetylation, and in some Ca(2+) signaling pathways. NMNAT (EC 2.7.7.1) is a central enzyme in NAD biosynthesis, catalyzing the condensation of nicotinamide mononucleotide (NMN) or nicotinic acid mononucleotide (NaMN) with the AMP moiety of ATP to form NAD or NaAD (Zhang et al., 2003 [PubMed 12574164]).

References

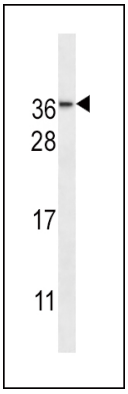
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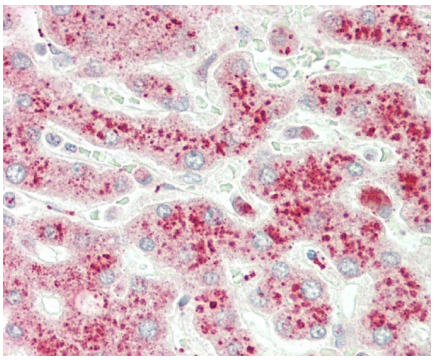
Images



All lanes: Anti-NMNAT3 Antibody (Center) at 1:1000 dilution + NCI-H460 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 30 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

NMNAT3 Antibody (Center) (Cat. #AP14087c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the NMNAT3 antibody detected the NMNAT3 protein (arrow).





Formalin-fixed and paraffin-embedded H.liver tissue reacted with NMNAT3 Antibody (Center) (Cat#AP14087c).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.