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NMNAT1 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12956

Product Information

Application	WB
Primary Accession	Q9HAN9
Other Accession	NM_022787, NP_073624
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Goat, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Zebrafish, Pig, Chicken, Guinea Pig, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31932

Additional Information

Gene ID	64802
Alias Symbol	NMNAT, PNAT-1, PNAT1
Other Names	Nicotinamide mononucleotide adenylyltransferase 1, NMN adenylyltransferase 1, 2.7.7.1, Nicotinate-nucleotide adenylyltransferase 1, NaMN adenylyltransferase 1, 2.7.7.18, NMNAT1, NMNAT
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 100 ul of distilled water. Final anti-NMNAT1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	NMNAT1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

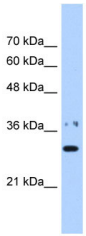
Name	NMNAT1 (HGNC:17877)
Synonyms	NMNAT
Function	Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP (PubMed:17402747). Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate with the same efficiency (PubMed:17402747). Can use triazofurin monophosphate (TrMP) as substrate (PubMed:17402747). Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+) (PubMed:17402747). For the pyrophosphorolytic activity, prefers NAD(+) and NaAD as substrates and

	degrades NADH, nicotinic acid adenine dinucleotide phosphate (NHD) and nicotinamide guanine dinucleotide (NGD) less effectively (PubMed:17402747). Involved in the synthesis of ATP in the nucleus, together with PARP1, PARG and NUDT5 (PubMed:27257257). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (PubMed:27257257). Also acts as a cofactor for glutamate and aspartate ADP-ribosylation by directing PARP1 catalytic activity to glutamate and aspartate residues on histones (By similarity). Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+) (PubMed:17402747). Protects against axonal degeneration following mechanical or toxic insults (By similarity). Neural protection does not correlate with cellular NAD(+) levels but may still require enzyme activity (By similarity).
Cellular Location	Nucleus
Tissue Location	Widely expressed with highest levels in skeletal muscle, heart and kidney. Also expressed in the liver pancreas and placenta. Widely expressed throughout the brain

References

Schweiger M.,et al.FEBS Lett. 492:95-100(2001).
Emanuelli M.,et al.J. Biol. Chem. 276:406-412(2001).
Fernando F.S.,et al.Gene 284:23-29(2002).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Gregory S.G.,et al.Nature 441:315-321(2006).

Images



WB Suggested Anti-NMNAT1 Antibody Titration: 0.25µg/ml
Positive Control: HepG2 cell lysate

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