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NMNAT1 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI12956

Specification

NMNAT1 antibody - N-terminal region - Product Information

Application	**WB**
Primary Accession	Q9HAN9
Other Accession	NM_022787, NP_073624
Reactivity	**Human, Mouse, Rat, Rabbit, Goat, Horse, Bovine, Guinea Pig, Dog**
Predicted	**Human, Mouse, Rat, Pig, Chicken, Horse, Guinea Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**32kDa KDa**

NMNAT1 antibody - N-terminal region - 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.

NMNAT1 antibody - N-terminal region - 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

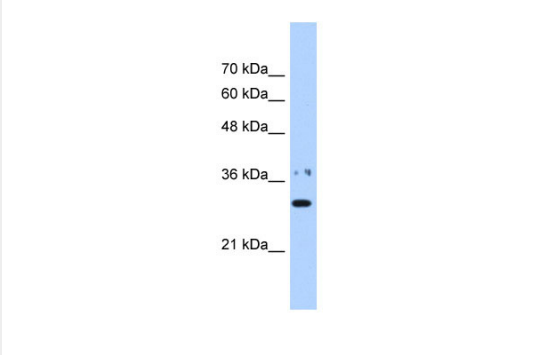
Tissue Location
Widely expressed with highest levels in skeletal muscle, heart and kidney. Also expressed in the liver pancreas and placenta. Widely expressed throughout the brain

NMNAT1 antibody - N-terminal region - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NMNAT1 antibody - N-terminal region - Images



WB Suggested Anti-NMNAT1 Antibody Titration: 0.25µg/ml

Positive Control: HepG2 cell lysate

NMNAT1 antibody - N-terminal region - References

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Emanuelli M.,et al.J. Biol. Chem. 276:406-412(2001).
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