

**NMNAT1 Antibody (C-Term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21921b**

### Specification

#### NMNAT1 Antibody (C-Term) - Product Information

Application	WB,E
Primary Accession	<a href="#">Q9HAN9</a>
Other Accession	<a href="#">Q0VD50</a>
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	31932

#### NMNAT1 Antibody (C-Term) - Additional Information

##### Gene ID 64802

##### 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

##### Target/Specificity

This NMNAT1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 171-201 amino acids from human NMNAT1.

##### Dilution

WB~~1:1000

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

NMNAT1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### NMNAT1 Antibody (C-Term) - 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 triazofuran 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

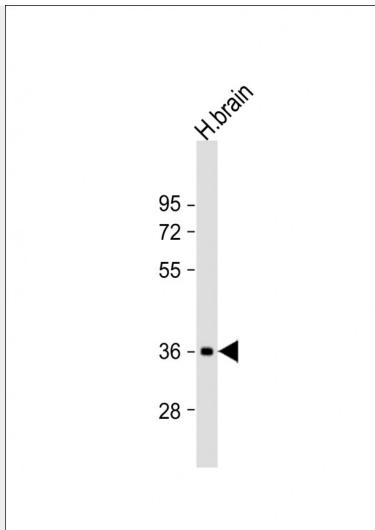
Widely expressed with highest levels in skeletal muscle, heart and kidney. Also expressed in the liver pancreas and placenta. Widely expressed throughout the brain

## NMNAT1 Antibody (C-Term) - Protocols

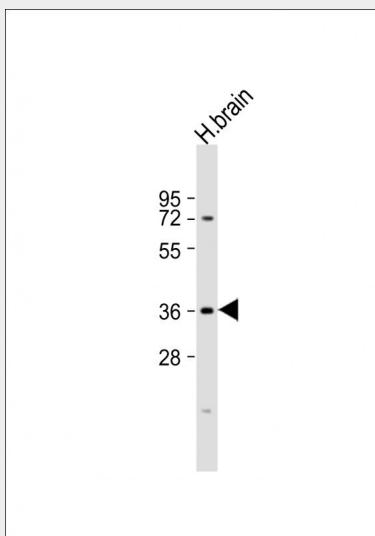
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## NMNAT1 Antibody (C-Term) - Images



Anti-NMNAT1 Antibody (C-Term) at 1:2000 dilution + human brain lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 32 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-NMNAT1 Antibody (C-Term) at 1:1000 dilution + human brain lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 32 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### **NMNAT1 Antibody (C-Term) - Background**

Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP. Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate with the same efficiency. Can use triazofuran monophosphate (TrMP) as substrate. Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+). 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. Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NAADP(+). Protects against axonal degeneration following mechanical or toxic insults.

### **NMNAT1 Antibody (C-Term) - References**

Schweiger M., et al. FEBS Lett. 492:95-100(2001).

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