10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NMNAT2 Rabbit pAb

NMNAT2 Rabbit pAb
Catalog # AP57466

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BZQ4
Reactivity	Rat
Predicted	Pig, Dog, Human, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34439
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NMNAT2
Epitope Specificity	1-100/307
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Golgi apparatus.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene product belongs to the nicotinamide mononucleotide adenylyltransferase (NMNAT) enzyme family, members of which catalyze an essential step in NAD (NADP) biosynthetic pathway. Unlike the other human family member, which is localized to the nucleus, and is ubiquitously expressed; this enzyme is cytoplasmic, and is predominantly expressed in the brain. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	23057
Other Names	Nicotinamide/nicotinic acid mononucleotide adenylyltransferase 2, NMN/NaMN adenylyltransferase 2, 2.7.7.1, 2.7.7.18, Nicotinamide mononucleotide adenylyltransferase 2, NMN adenylyltransferase 2, Nicotinate-nucleotide adenylyltransferase 2, NaMN adenylyltransferase 2, NMNAT2 (HGNC:16789)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

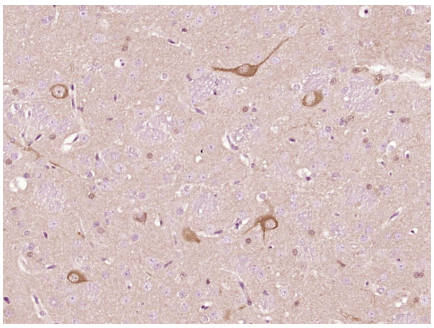
Protein Information

Name	NMNAT2 (HGNC:16789)
Function	Nicotinamide/nicotinate-nucleotide adenylyltransferase that acts as an axon maintenance factor (By similarity). Axon survival factor required for the maintenance of healthy axons: acts by delaying Wallerian axon degeneration, an evolutionarily conserved process that drives the loss of damaged axons (By similarity). Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP (PubMed:16118205, PubMed:17402747). Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate but with a lower efficiency (PubMed:16118205, PubMed:17402747). Cannot use triazofurin monophosphate (TrMP) as substrate (PubMed:16118205, PubMed:17402747). Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+) (PubMed:16118205, PubMed:17402747). For the pyrophosphorolytic activity prefers NAD(+), NADH and NaAD as substrates and degrades nicotinic acid adenine dinucleotide phosphate (NHD) less effectively (PubMed:16118205, PubMed:17402747). Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+) (PubMed:16118205, PubMed:17402747). Also acts as an activator of ADP-ribosylation by supporting the catalytic activity of PARP16 and promoting mono-ADP-ribosylation of ribosomes by PARP16 (PubMed:34314702). May be involved in the maintenance of axonal integrity (By similarity).
Cellular Location	Golgi apparatus membrane; Lipid-anchor {ECO:0000250|UniProtKB:Q8BNJ3}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q8BNJ3}; Lipid-anchor {ECO:0000250|UniProtKB:Q8BNJ3}. Cytoplasm. Cell projection, axon {ECO:0000250|UniProtKB:Q8BNJ3}. Note=Delivered to axons with Golgi-derived cytoplasmic vesicles. {ECO:0000250|UniProtKB:Q8BNJ3}
Tissue Location	Highly expressed in brain, in particular in cerebrum, cerebellum, occipital lobe, frontal lobe, temporal lobe and putamen. Also found in the heart, skeletal muscle, pancreas and islets of Langerhans.

Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Images



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NMNAT2) Polyclonal Antibody, Unconjugated (AP57466) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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