

Product datasheet for **MG222867**

Nmnat1 (NM_133435) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nmnat1 (NM_133435) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Nmnat1
Synonyms: 2610529L11Rik; 5730441G13Rik; D4Cole1e; nmnat
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG222867 representing NM_133435
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGACTCATCCAAGAAGACAGAGGTGGTTCTCCTGGCCTGTGGCTCTTTTAACCCCATACCAACATGC
 ACCTCAGGCTGTTCGAGCTGGCCAAGGACTATATGCATGCTACAGGAAAATACAGTGTATCAAAGGCAT
 TATCTACCGGTCGGTGATGCGTACAAGAAGAAAGGGCTATCCCAGCCCACCACCGAATCATCATGGCA
 GAACTTGCCACCAAGAACTCACACTGGGTGGAAGTGGATACGTGGGAAAGTCTTCAGAAGGAGTGGGTGG
 AGACTGTGAAGGTGCTCAGATACCATCAGGAGAAGCTGGCAACTGGCAGCTGCAGTTACCCACAAAGCTC
 ACCTGCACTGGAAAAGCCTGGGCGGAAGAGGAAGTGGGCTGATCAAAGCAAGATTCTAGCCACAGAAG
 CCCAAGAGCCCAACCAACAGGTGTGCCAAGGTGAAATTGCTGTGTGGGCGAGATTTACTGGAGTCTCT
 TCAGCGTGCCCAACTTGTGGAAGATGGAGGACATCACGCAATCGTGGCCAACCTTGGGCTCATCTGTAT
 CACTCGGGCTGGCAGTGACGCTCAGAAATTCATCTACGAGTCCGATGTGCTGTGGAGACATCAGAGCAAC
 ATCCACCTGGTGAACGAGTGGATACCAATGACATCTCGTCCACCAAGATCCGGAGGGCGCTCAGGAGGG
 GCCAGAGCATCCGCTACTTGGTACCGGACCTGGTCCAAGAGTACATTGAGAAGCATGAGCTGTACAACAC
 GGAGAGCGAAGGCAGGAATGCTGGGGTACCCTGGCTCCTCTGCAGAGGAACGCCGAGAGGCCAAGCAC
 AACCATTCACCTCTG

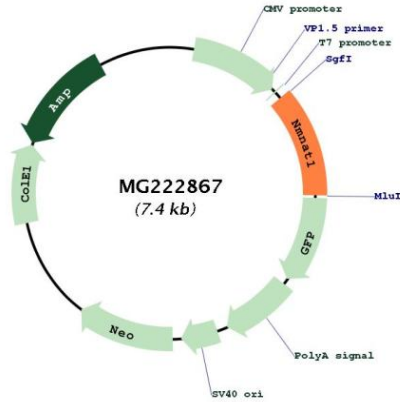
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_133435.2
RefSeq Size:	954 bp
RefSeq ORF:	858 bp
Locus ID:	66454
UniProt ID:	Q9EPA7
Cytogenetics:	4 E2
Gene Summary:	Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP (PubMed:15381699). Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate with the same efficiency (By similarity). Can use triazofurin monophosphate (TrMP) as substrate (By similarity). Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+) (By similarity). For the pyrophosphorolytic activity, prefers NAD(+) and NaAD as substrates and degrades NADH, nicotinic acid adenine dinucleotide phosphate (NADP) and nicotinamide guanine dinucleotide (NGD) less effectively (By similarity). Involved in the synthesis of ATP in the nucleus, together with PARP1, PARG and NUDT5 (By similarity). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (By similarity). Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+) (By similarity). Protects against axonal degeneration following mechanical or toxic insults (PubMed:15310905, PubMed:16914673). Delays axonal degeneration after axotomy. Results in a >10-fold increase in intact neurites 72 hours after injury (PubMed:16914673).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG222867