

Product datasheet for **MG204325**

Nmnat2 (NM_175460) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nmnat2 (NM_175460) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Nmnat2
Synonyms: AI843915; D030041I09Rik; PNAT1; PNAT2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG204325 representing NM_175460
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGACCGAGACCACAAAGACCCACGTTATCCTGCTGGCCTGCGGCAGCTTCAATCCCATCACTAAAGGGC
ACATTCAGATGTTTCGAGAGAGCCAGGGATTATCTGCACAAGACTGGAAGATTTATTGTGATTGGCGGGAT
TGTCTCTCGGTCCATGACTCCTACGGAAAACAGGGCCTTGTGTCAAGTCGGCACCGTCTCATCATGTGT
CAGCTGGCTGTCCAGAATCCGACTGGATCAGGGTGGACCCATGGGAGTGCTATCAGGACACCTGGCAGA
CAACCTGCAGTGTGGAGCACCATCGAGACCTGATGAAGAGGGTGACCGGCTGCATCCTCTCCAACGT
CAACACACCTTCCATGACACCTGTGATCGGACAGCCACAGCATGAGAACCCAGCCATTTACCAGAAC
AGCAATGTGCCACCAAGCCCACTGCAGCCAAGATCTTGGGAAAGTGGGAGAAAGCCTCAGCCGGATCT
GCTGCGTCCGCCACCAAGTGGAGCGCTTCACTTTGTAGATGAGAACGCCAACCTGGGCACAGTGATGCG
GTATGAGGAGATCGAGCTGCGCATCTTGTGCTGTGTGGTAGTGACCTGCTGGAGTCTTCTGCATCCCA
GGACTCTGGAATGAGGCAGATATGGAAGTATTGTTGGGACTTTGGGATCGTCGTGGTACCCAGGGATG
CAGCGGACACAGACCGGATCATGAATCACTCCTCCATACTCCGCAAGTACAAAAACAACATCATGGTTGT
GAAGGATGATATCAACCATCCCATGTCTGTAGTCAGCTCCACCAAGAGCAGGCTGGCCCTGCAGCATGGG
GACGGCCATGTTGTGGATTACCTGTCCCAGCCAGTCATCGATTACATCCTCAAGAGTCAGCTGTACATCA
ACGCCTCGGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG204325 representing NM_175460
 Red=Cloning site Green=Tags(s)

MTETTKTHVILLACGSFNPIKGGHIQMFERARDYLHKTGRFIVIGGIVSPVHDSYGKQGLVSSRHLIMC
 QLAVQNSDWIRVDPWECYQDTWQTTCVLEHHRDLMKRVGTGILSNVNTPSMTPVIGQPQHENTQPIYQN
 SNVPTKPTAAKILGKVGESLSRICCVRPPVERFTFVDENANLGTVMRYEEIELRILLCCGSDLLESFCIP
 GLWNEADMEVIVGDFGI VVVPRDAADTRIMNHSSILRKYKNNIMVVKDDINHPMSVVSSTKSRLALQHG
 DGHVVYLSQPVIDYILKSQLYINASG

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_175460

ORF Size: 921 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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_175460.3](#), [NP_780669.1](#)

RefSeq Size: 4548 bp

RefSeq ORF: 924 bp

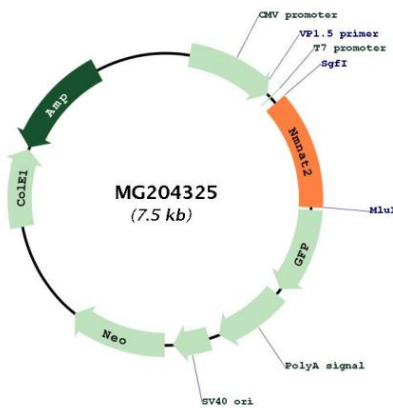
Locus ID: 226518

UniProt ID: [Q8BNJ3](#)

Cytogenetics: 1 G3

Gene Summary: Nicotinamide/nicotinate-nucleotide adenyltransferase that acts as an axon maintenance factor (PubMed:20126265, PubMed:23082226). Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP (By similarity). Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate but with a lower efficiency (By similarity). Cannot 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(+), NADH and NaAD as substrates and degrades nicotinic acid adenine dinucleotide phosphate (NADP) less effectively (By similarity). Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+) (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 (PubMed:20126265, PubMed:23082226).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG204325