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Product datasheet for RN214703

Nmnat2 (NM_001048042) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Nmnat2 (NM_001048042) Rat Untagged Clone

Tag: Tag Free

Symbol: Nmnat2

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

Cell Selection: Neomycin

Fully Sequenced ORF:

>RN214703 representing NM_001048042
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCGAGACCACAAAGACCCACGTTATCCTGCTGGCCTGCGGCAGCTTCAATCCCATCACTAAAGGGC
ACATTCAGATGTTCGAAAGAGCCAGGGATTATCTGCACAAGACTGGAAGATTTATTGTGATTGGTGGTAT
TGTCTCTCCAGTCCACGACTCCTATGGAAAACAGGGTCTTGTGTCAAGTCGGCACCGTCTCATCATGTGT
CAGCTGGCTGTCCAAAATTCTGACTGGATCAGGGTGGACCCATGGGAGTGCTACCAGGACACCTGGCAGA
CAACCTGCAGTGTGTTAGAGCACCATCGAGACCTCATGAAGAGGGTGACCGGCTGCATCCTCTCCAACGT
CAACACGCCTTCCATGACACCTGTGATTGGACAGCCACAACACGAGAACACCCAGCCCATTTACCAGAAC
AGCAATGTGCCCACCAAGCCCACTGCAGCCAAGATCTTGGGAAAGGTGGGAGAGAGCCTCGGCCGGATCT
GCTGTGTCCGTCCACCCGTGGAGCGCTTCACTTTTGTAGATGAGAACGCCAACCTGGGCACAGTGATGCG
GTATGAGGAGATCGAGCTGCGCATCTTGCTGCTGTGCGGTAGTGACCTGCTGGAGTCCTTCTGCATCCCA
GGACTCTGGAATGAGGCAGATATGGAAGTGATTGTTGGGGATTTTGGGATTGTGGTGGTGCCCCGGGATG
CAGCGGACGCAGACCGAATCATGAATCACTCCTCAATACTCCGCAAATACAAAAACAACATCATGGTAGT
GAAGGATGACATCAACCATCCCATGTCTGTAGTCAGCTCCACCAAAAGCAGGCTGGCCCTGCAGCATGGG
GATGGCCACGTTGTGGATTACCTGTCCCAGCCGGTCATCGACTACATCCTCAAGAGTCAGCTGTACATCA
ATGCCTCGGGCTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001048042

Insert Size: 924 bp

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OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001048042.1, NP_001041507.1

RefSeq Size: 1239 bp

RefSeq ORF: 924 bp

Locus ID: 289095

UniProt ID: Q0HA29

Cytogenetics: 13q21

Gene Summary: Nicotinamide/nicotinate-nucleotide adenylyltransferase that acts as an axon maintenance factor (By similarity). Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP. Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate but with a lower efficiency. Cannot use triazofurin monophosphate (TrMP) as substrate. Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+). For the pyrophosphorolytic activity prefers NAD(+), NADH and NaAD as substrates and degrades nicotinic acid adenine dinucleotide phosphate (NHD) less effectively. 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 (By similarity).[UniProtKB/Swiss-Prot Function]