

Product datasheet for RC236175

NMNAT1 (NM_001297779) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NMNAT1 (NM_001297779) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: NMNAT1
Synonyms: LCA9; NMNAT; PNAT1; SHILCA
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC236175 representing NM_001297779
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAAAATCCGAGAAGACTGAAGTGGTTCTCCTTGCTGTGGTTCATTCAATCCCATACCAACATGC
ACCTCAGTTGTTTGAGCTGGCCAAGGACTACATGAATGGAACAGGAAGGTACACAGTTGTCAAAGGCAT
CATCTCTCTGTTGGTGATGCCTACAAGAAGAAAGGACTATTCTCTGCCTATCACGGGTCATCATGGCA
GAACTTGCTACCAAGAATTCTAAATGGGTGGAAGTTGATACATGGGAAAGCTTTCAGAAGGAGTGGAAAG
AGACTCTGAAGGTGCTAAGACACCATCAAGAGAAATTGGAGGCTAGTGACTGTGATCACCAGCAGAACTC
ACCTACTCTAGAAAGGCCTGGAAGGAAGAGGAAGTGGACTGAAACACAAGATTCTAGTCAAAGAAATCC
CTAGAGCCAAAAACAAAAGATGGAGTCTCGCTCTATCACCCAGGCTGGAGTGCAGTGGCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC236175 representing NM_001297779
 Red=Cloning site Green=Tags(s)

MENSEKTEVLLACGSFNPIITMHLRFLFELAKDYMNGTGRYTVVKGIIISPVGDAYKKKGLIPAYHRVIMA
ELATKNSKWVEVDTWESLQKEWKETLKVLRHHQEKLEASDCDHQQNSPTLERPGRKRKWTETQDSSQKKS
LEPKTKDGVSLYHPGWSAVA

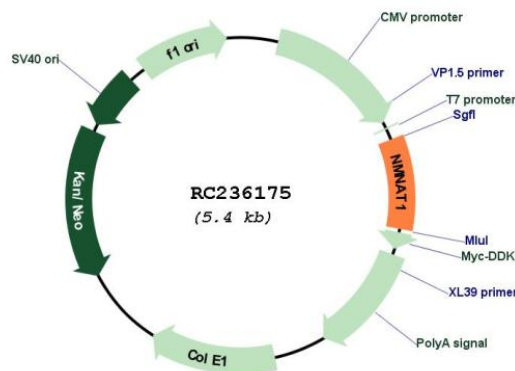
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



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Cloning Scheme:

Plasmid Map:


ACCN: NM_001297779

ORF Size: 480 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.

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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: | <u>NM_001297779.2</u> |
| RefSeq Size: | 1100 bp |
| RefSeq ORF: | 483 bp |
| Locus ID: | 64802 |
| Cytogenetics: | 1p36.22 |
| Protein Pathways: | Metabolic pathways, Nicotinate and nicotinamide metabolism |
| MW: | 18.8 kDa |
| Gene Summary: | This gene encodes an enzyme which catalyzes a key step in the biosynthesis of nicotinamide adenine dinucleotide (NAD). The encoded enzyme is one of several nicotinamide nucleotide adenylyltransferases, and is specifically localized to the cell nucleus. Activity of this protein leads to the activation of a nuclear deacetylase that functions in the protection of damaged neurons. Mutations in this gene have been associated with Leber congenital amaurosis 9. Alternative splicing results in multiple transcript variants. Pseudogenes of this gene are located on chromosomes 1, 3, 4, 14, and 15. [provided by RefSeq, Jul 2014] |