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Product datasheet for RG236175

NMNAT1 (NM_001297779) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NMNAT1 (NM_001297779) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NMNAT1
Synonyms:	LCA9; NMNAT; PNAT1; SHILCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG236175 representing NM_001297779.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAAAATTCCGAGAAGACTGAAGTGGTTCTCCTTGCTTGTGGTTCATTCAATCCCATCACCAACATG
CACCTCAGGTTGTTTGAGCTGGCCAAGGACTACATGAATGGAACAGGAAGGTACACAGTTGTCAAAGGC
ATCATCTCTCCTGTTGGTGATGCCTACAAGAAGAAAGGACTCATTCCTGCCTATCACCGGGTCATCATG
GCAGAACTTGCTACCAAGAATTCTAAATGGGTGGAAGTTGATACATGGGAAAGTCTTCAGAAGGAGTGG
AAAGAGACTCTGAAGGTGCTAAGACACCATCAAGAGAAATTGGAGGCTAGTGACTGTGATCACCAGCAG
AACTCACCTACTCTAGAAAGGCCTGGAAGGAAGAGGAAGTGGACTGAAACACAAGATTCTAGTCAAAAG
AAATCCCTAGAGCCAAAAACAAAAGATGGAGTCTCGCTCTATCACCCAGGCTGGAGTGCAGTGGCA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

Protein Sequence:

>Peptide sequence encoded by RG236175
Blue=ORF Red=Cloning site Green=Tag(s)

MENSEKTEVVLLACGSFNPITNMHLRLFELAKDYMNGTGRYTVVKGIISPVGDAYKKKGLIPAYHRVIM
AELATKNSKWVEVDTWESLQKEWKETLKVLRHHQEKLEASDCDHQQNSPTLERPGRKRKWTETQDSSQK
KSLEPKTKDGVSLYHPGWSAVA
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

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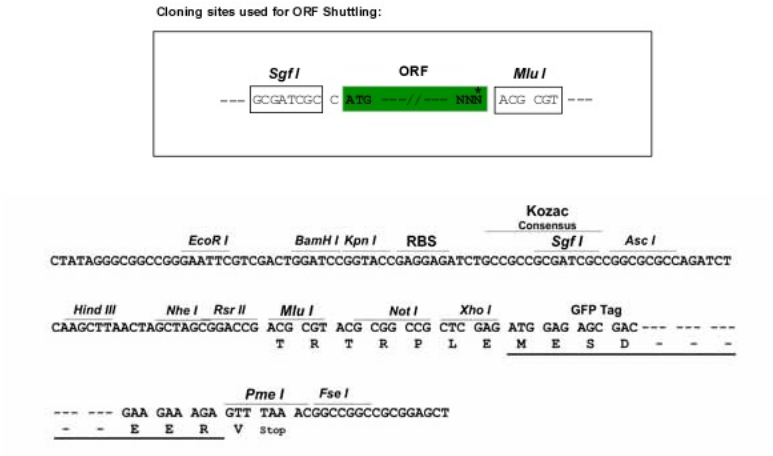
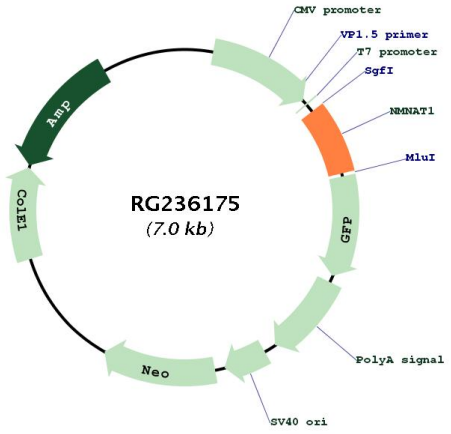
Cloning Scheme:



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.

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).
RefSeq:	NM_001297779.2
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]