

Product datasheet for **RG214459**

NSUN2 (NM_017755) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NSUN2 (NM_017755) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NSUN2
Synonyms:	MISU; MRT5; SAKI; TRM4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG214459 representing NM_017755
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGCGCGGTGCGGGGTGCGGGCTCCAGCAACAGCAGCGGCCGGAGGACGCGGAGGATGGCGCCG
 AGGGTGGTGAAAGCGCGGCGAGGCGGGCTGGGAAGGAGGCTACCCGAGATCGTCAAGGAGAACAAGCT
 GTTCGAGCACTACTACCAGGAGCTCAAGATCGTGCCCGAGGGCGAGTGGGGCCAGTTCATGGACGCTCTC
 AGGGAGCCGCTCCCGCCACTTTAAGAATTACTGGTTACAAAAGCCACGAAAAGAGATTCTCCATTGCT
 TAAAGAACAAATATTTTAAGGAATTGGAGGACCTGGAGGTGGACGGTCAGAAAAGTTGAAGTTCACAGCC
 ACTGAGTTGGTATCCTGAAGAACTTGCCTGGCACACAAATTTAAGTCGAAAAATCTTGAGAAAATCGCCA
 CACTTGAAAAAGTTTCATCAGTTTCTAGTTAGTGAAACAGAATCTGGAAATATTAGTCGTCAGAAAGCTG
 TTAGCATGATCCCACTGCTCCTCAACGTGCGGCTCATCATAAGATCTTAGATATGTGTGCAGCACC
 TGGCTCAAAGACCACACAGTTAATTGAAATGCTACATGCCGACATGAATGTCCCTTTCCAGAGGGATTT
 GTTATTGCGAATGATGTGGACAACAAGCGCTGCTACCTGCTCGTCCATCAAGCCAAGAGGCTGAGCAGCC
 CCTGCATCATGGTGGTCAACCATGATGCCTCCAGCATACCCAGGCTCCAGATAGATGTGGACGGCAGGAA
 AGAGATCCTCTTCTATGATCGAATTTTATGTGATGTCCCTTGAGTGAGACGGCACTATGAGAAAAAC
 ATTGATGTTTGGAAAAAGTGGACCACCTTAAATAGCTTGAGCTACATGGCTTACAGCTGCGGATTGCAA
 CACGCGGGGCTGAACAGCTGGCTGAAGGTGAAGGATGGTGTATTCCACGTGTTCACTAAACCTATTGA
 GGATGAAGCAGTCATAGCATCTTACTGGAAAAAGTGAAGGTGCTTTGGAGCTTGCTGATGTGTCTAAT
 GAACTGCCAGGGCTGAAGTGGATGCCTGGAATCACACAGTGAAGGTAAAGACGAAAGATGGGCAGTGGT
 TTACAGACTGGGACGCTGTTCTCACAGCAGACACCCAGATCCGACCTACCATGTTCCCTCCGAAGGA
 CCCAGAAAAGCTGCAGGCCATGCACCTGGAGCGATGCCTTAGGATATTACCCCATCATCAGAATACTGGA
 GGGTTTTTTGTGGCAGTATTGGTGAAAAATCTTCAATGCCGTGGAATAAACGTCAGCCAAAGCTTCAGG
 GTAAATCTGCAGAGACCAGAGAAAGCACACAGCTGAGCCCTGCAGATCTCACAGAAGGGAACCCACAGA
 TCCCTCTAAGCTGGAAAGTCCGTCATTCACAGGAAGTGGTGACACAGAAATAGCTCATGCAACTGAGGAT
 TTAGAGAATAATGGCAGTAAGAAAGATGGCGTGTGTGGTCTCCTCCATCAAAGAAAATGAAGTTATTTG
 GATTTAAAGAAGATCCATTTGTATTTATTCCTGAAGATGACCCATTATTTCCACCTATTGAGAAATTTTA
 TGCTTTGGATCCTTCATTCCTCAAGGATGAATTTGTAACTCGGACTACAGAAGGGAAGAAAGGCAGCTC
 TACATGGTTTCTAAGGAGTTGCGGAATGTGCTGCTGAATAACAGTGAGAAGATGAAGGTTATTAACACGG
 GGATCAAAGTCTGGTGTAGAAATAACAGCGGTGAAGAGTTTGACTGTGCTTTCCGGCTGGCACAGGAGGG
 AATATATACATTGTATCCATTTATTAATCAAGAATTATTACTGTATCAATGGAAGATGTTAAGATACTG
 TTGACCCAGGAAAATCCCTTTTTAGAAAATCAGCAGTGAGACCTACAGTCAAGCAAAGGACCTGGCAA
 AGGGAAGCATCGTGCTGAAGTATGAACCAGATTCTGCGAATCCAGACGCTCTGCAGTGTCCCATCGTCTT
 ATGCGGATGGCGGGGAAAGGCCTCCATTCGAACCTTTGTGCCAAGAATGAACGGCTTCATTATCTCAGG
 ATGATGGGGCTGGAGGTATTGGGAGAAAAGAAGGAAGGGTTATCCTCACAATGAGAGTGCAGCCA
 GCACCGGACAGCCAGACAATGACGTGACTGAGGACAGAGAGCAGGAGAGCCCAACAGCCAGATGCAGA
 AGAGGCCAACAGTCCAGACGTGACAGCAGGCTGTGACCCGGCGGGGTCCATCCACCCCG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG214459 representing NM_017755
 Red=Cloning site Green=Tags(s)

MGRRSRGRRLQQQRPEDAEDGAEGGGKRGEGWEGGYPEIVKENKLFHYYQELKIVPEGEWQFMDAL
 REPLPATLRITGYKSHAKEILHCLKNKYFKELEDLEVDGQKVEVPQPLSWYPEELAWHTNLSRKILRKSP
 HLEKFHQFLVSETESGNISRQEAVSMIPPLLLNVRPHKILDMCAAPGSKTTQLIEMHADMNVPFPEGF
 VIANDVDNKRKYLLVHQAKRLSSPCIMVVNHDASSIPRLQIDVDGRKEILFYDRILCDVPCSGDGTMRKN
 IDVWKKWTTLNSQLHGLQLRIATRGAQLAEGGRMVYSTCSLNPIDEAVIASLLEKSEGALELADVSN
 ELPGLKWPGITQWKVMTKDGQWFTDWDVPHSRHTQIRPTMFPPKDPEKLQAMHLERCLRILPHHQNTG
 GFFVAVLVKKSSMPWNKRQPKLQKSAETRESTQLSPADLTEGKPTDPSKLESPSFTGTGDTIEAHATED
 LENNGSKKDGVCPPPSKKMKLFGFKEDPFVFIPEDDPLFPPIEKFYALDPSFPRMNLTRTTEGKKRQL
 YMVSKELRNVLNNSEKMKVINTGIKVCRNNSGEEFDCAFLAQEGITYLPFINSRIITVSMEDVKIL
 LTQENPFPRKLSSETYSQAKDLAKGSIVLYEPDSANPDALQCPIVLCGWRGKASIRTFVPKNERLHYLR
 MMGLEVLGEKKKEGVILTNSAASTGQPDNDVTEGQRAGEPNSPDAEEANSPDVTAGCDPAGVHPPR

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017755

ORF Size: 2301 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_017755.6](#)

RefSeq Size: 3089 bp

RefSeq ORF: 2304 bp

Locus ID: 54888

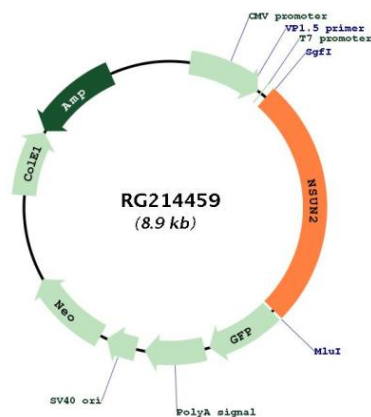
UniProt ID: [Q08J23](#)

Cytogenetics: 5p15.31

Domains: Nol1_Nop2_Sun

Gene Summary: This gene encodes a methyltransferase that catalyzes the methylation of cytosine to 5-methylcytosine (m5C) at position 34 of intron-containing tRNA(Leu)(CAA) precursors. This modification is necessary to stabilize the anticodon-codon pairing and correctly translate the mRNA. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.[provided by RefSeq, Mar 2011]

Product images:



Circular map for RG214459