

Product datasheet for **RC214459**

NSUN2 (NM_017755) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NSUN2 (NM_017755) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NSUN2
Synonyms:	MISU; MRT5; SAKI; TRM4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC214459 representing NM_017755
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCGGGCGGTTCGGGGTTCGGGGCTCCAGCAACAGCAGCGGCCGGAGGACGGGAGGATGGCGCCG
 AGGGTGGTGGAAAGCGCGCGAGGCGGGCTGGGAAGGAGGCTACCCCGAGATCGTCAAGGAGAACAAGCT
 GTTCGAGCACTACTACCAGGAGCTCAAGATCGTCCCGAGGGCGAGTGGGGCCAGTTCATGGACGCTCTC
 AGGGAGCCGCTCCCGCCACTTTAAGAATTACTGGTTACAAAAGCCACGCAAAAGAGATTCTCCATTGCT
 TAAAGAACAAATATTTAAGGAATTGGAGGACCTGGAGGTGGACGGTCAGAAAAGTTGAAGTTCACAGCC
 ACTGAGTTGGTATCCTGAAGAACTTGCCTGGCACACAAATTTAAGTCGAAAAATCTTGAGAAAATCGCCA
 CACTTGGAAAAGTTTCATCAGTTTCTAGTTAGTAAACAGAATCTGGAAATATTAGTCGCAAGAAGCTG
 TTAGCATGATCCCACTGCTCCTCAAGTGCAGGCTCATCATAAGATCTTAGATATGTGTGCAGCACC
 TGGCTCAAAGACCACACAGTTAATTGAAATGCTACATGCCGACATGAATGTCCCTTTCCAGAGGGATTT
 GTTATTGCGAATGATGTGGACAACAAGCGCTGCTACCTGCTCGTCCATCAAGCCAAGAGGCTGAGCAGCC
 CCTGCATCATGGTGGTCAACCATGATGCCTCCAGCATACCCAGGCTCCAGATAGATGTGGACGGCAGGAA
 AGAGATCCTCTTCTATGATCGAATTTTATGTGATGTCCCTTGCAGTGGAGACGGCACTATGAGAAAAAC
 ATTGATGTTTGGAAAAAGTGGACCACCTTAAATAGCTTGCAGCTACATGGCTTACAGCTGCGGATTGCAA
 CACGCGGGGCTGAACAGCTGGCTGAAGGTGGAAGGATGGTGTATTCCACGTGTTCACTAAACCCTATTGA
 GGATGAAGCAGTCATAGCATCTTACTGGAAAAAGTGAAGGTGCTTTGGAGCTTGCTGATGTGTCTAAT
 GAATGCCAGGGCTGAAGTGGATGCCTGGAATCACACAGTGAAGGTAATGACGAAAGATGGGACAGTGGT
 TTACAGACTGGGACGCTGTTCCACAGCAGACACCCAGATCCGACCTACCATGTTCCCTCCGAAGGA
 CCCAGAAAAGCTGCAGGCCATGCACCTGGAGCGATGCCTTAGGATATTACCCCATCATCAGAATACTGGA
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 TTAGAGAATAATGGCAGTAAGAAAGATGGCGTGTGTGGTCTCCTCCATCAAAGAAAATGAAGTTATTTG
 GATTTAAGAAGATCCATTTGTATTTATCCTGAAGATGACCCATTATTTCCACCTATTGAGAAATTTTA
 TGCTTTGGATCCTTCATCCCAAGGATGAATTTGTTAACTCGGACTACAGAAGGGAAGAAAAGGCAGCTC
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 ATGATGGGGCTGGAGGATTGGGAGAAAAGAAGAAGGAAGGGTTATCCTCACAAATGAGAGTGCAGCCA
 GCACCGGACAGCCAGACAATGACGTGACTGAGGGACAGAGAGCAGGAGAGCCCAACAGCCAGATGCAGA
 AGAGGCCAACAGTCCAGACGTGACAGCAGGCTGTGACCCGGCGGGGTCCATCCACCCCGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214459 representing NM_017755
Red=Cloning site Green=Tags(s)

MRRRSRGRRLQQQRPEDAEDGAEGGGKRGEGWEGGYEIVKENKLFHYHQELKIVPEGEWQFMDAL
 REPLPATLRITGYKSHAKEILHCLKNKYFKELEDLEVDGQKVEVPQPLSWYPEELAWHTNLSRKILRKSP
 HLEKHFHQFLVSETESGNI SRQEAVSMIPPLLLNVRPHHKILDMCAAPGSKTTQLIEMLHADMNVPFPEGF
 VIANDVDNKRCYLLVHQAKRLSSPCIMVNVHDASSIPRLQIDVDGRKEILFYDRILCDVPCSGDGTMRKN
 IDVWKKWTTLNSLQLHGLQLRIATRGAQLAEGGRMVYSTCSLNPIDEAVIASLLEKSEGALELADVSN
 ELPGLKWPGITQWKVMTKDGQWFTDWDVAPHSRHTQIRPTMFPKDPKELQAMHLERCLRILPHHQNTG
 GFFVAVLVKSSMPWNRQPKLQGKSAETRESTQLSPADLTEGKPTDPSKLESPSFTGTGDTEIAHATED
 LENNGSKKDGVCPPPSKMKLFGFKEDPFVFIPEDDPLFPPIEKFYALDPSFPRMNLTRTTEGKKRQL
 YMVSKELRNVLNNSEMKVINTGIKVVCRNNSGEEFDCAFRLAQEGIYTLYPFINSRIITVSMEDVKIL
 LTQENPFPRKLSSETYSQAKDLAKGSIVLKYEPDSANPDALQCPIVLCGWRGKASIRTFVPKNERLHYLR
 MMGLEVLGEKKKEGVILTNSAASTGQPDNDVTEGQRAGEPNSPDAEEANSPDVTAGCDPAGVHPPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6205_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017755

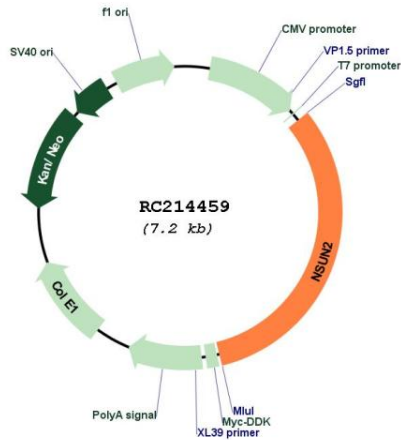
ORF Size: 2301 bp

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](#)

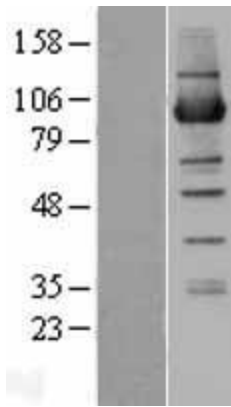
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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.
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
MW:	86.3 kDa
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]

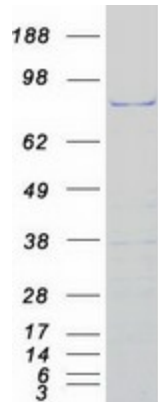
Product images:



Circular map for RC214459



Western blot validation of overexpression lysate (Cat# [LY402617]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214459 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NSUN2 protein (Cat# [TP314459]). The protein was produced from HEK293T cells transfected with NSUN2 cDNA clone (Cat# RC214459) using MegaTran 2.0 (Cat# [TT210002]).