OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC233112

NDUFS1 (NM_001199984) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFS1 (NM_001199984) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NDUFS1
Synonyms:	CI-75k; CI-75Kd; MC1DN5; PRO1304
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC233112 representing NM_001199984
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGGATCAGGGGGTCCTCGGGAACGCTGTCACGAATCAATATGTTAAGGATACCTGTAAGAAAGGCCT
TAGTAGGCCTTTCTAAGTCTCCTAAAGGATGTGTTCGAACAACTGCCACAGCAGCAAGCAACTTGATTGA
AGTATTTGTTGATGGTCAGTCTGTCATGGTGGAACCGGGAACGACCGTCCTCCAAGCTTGTGAGAAGGTT
GGCATGCAGATCCCTCGATTCTGTTATCATGAAAGGTTGTCTGTTGCTGGAAACTGCAGGATGTGCCTTG
TTGAAATTGAGAAAGCCCCTAAGGTTGTAGCTGCTTGTGCCATGCCAGTAATGAAGGGTTGGAATATCCT
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GACTGTCCTATTTGTGACCAGGGAGGTGAATGTGATCTGCAGGACCAGTCCATGATGTTTGGAAATGATA
GGAGCCGATTTTTAGAGGGGAAGCGTGCTGTGGAAGACAAGAACATTGGGCCATTGGTAAAGACCATCAT
GACAAGATGTATACAGTGTACTCGCTGCATCAGGTTTGCAAGTGAGATTGCAGGAGTAGATGATTTGGGA
ACAACAGGCAGAGGAAATGATATGCAAGTTGGCACATACATTGAAAAGATGTTCATGTCTGAACTGTCTG
GGAATATCATTGATATCTGCCCTGTAGGTGCCCTAACCTCTAAGCCCTATGCCTTTACTGCCCGGCCTTG
GGAAACAAGAAAGACAGAATCCATTGATGTAATGGATGCGGTTGGAAGTAATATTGTGGTTAGCACAAGA
ACTGGAGAAGTGATGAGGATTTTGCCACGTATGCATGAGGACATCAATGAAGAGTGGATCTCTGATAAAA
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TTTAACCTATACTTCTTGGGAGGATGCGCTCTCTCGCGTAGCTGGAATGTTGCAGAGTTTTCAAGGCAAA
GATGTGGCAGCAATTGCAGGTGGCTTGGTGGATGCTGAAGCCCTGGTAGCTCTCAAAGATTTGCTTAATA
GAGTGGACTCTGACACCTTATGCACTGAAGAGGTCTTCCCCACTGCAGGAGCTGGCACAGATTTGCGTTC
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CCACGTTTTGAGGCACCACTGTTTAATGCTAGAATTCGAAAGAGCTGGCTGCATAATGACTTAAAAGTGG
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TTCGGATGACTAGTGGTGTTACTGGTGATTGGAAAGTTATGAATATCCTTCATAGGATTGCAAGTCAAGT
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GACATCATGGTGATGTTGGGGCTCCCATAGCTGATGTTATTCTCCCAGGAGCTGCTTACACAGAGAAGTC
TGCTACATATGTCAACACTGAGGGTAGAGCTCAGCAGACTAAGGTAGCAGTGACACCTCCTGGCTTGGCA
AGAGAAGACTGGAAAATTATAAGAGCACTCTCTGAGATTGCTGGAATGACTCTTCCATATGATACTCTGG
ATCAAGTAAGGAACAGATTGGAAGAAGTCTCTCCTAATCTTGTTCGATATGATGATATTGAAGGGGCTAA
TTACTTCCAGCAAGCAAATGAGCTCTCAAAGCTAGTGAACCAGCAGCTTCTTGCTGACCCACTTGTTCCA
CCTCAGCTAACTATAAAAGACTTCTACATGACAGATTCAATTAGCAGAGCCTCACAGACAATGGCCAAAT
GTGTCAAAGCTGTCACAGAGGGTGCCCAGGCAGTAGAGGAACCATCCATATGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

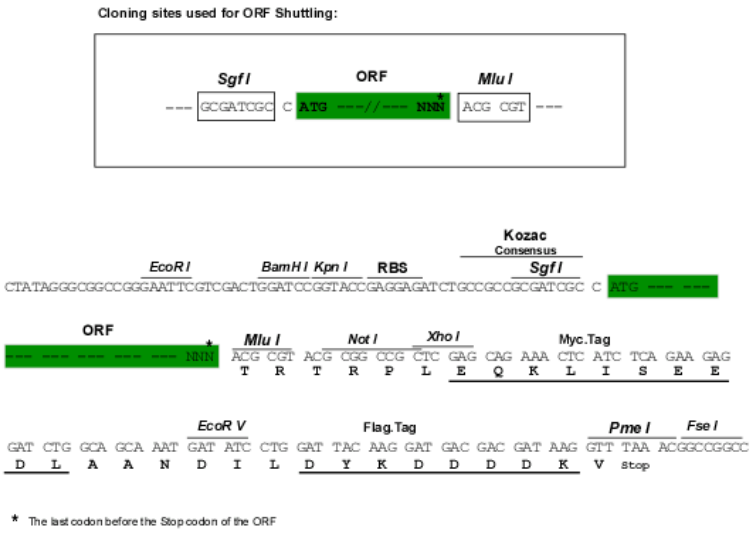
>RC233112 representing NM_001199984
Red=Cloning site Green=Tags(s)

MRIRGSSGTLSRINMLRIPVRKALVGLSKSPKGCVRTTATAASNLIEVFVDGQSVMVEPGTTVLQACEKV
GMQIPRFCYHERLSVAGNCRMCLVEIEKAPKVVAACAMPVMKGWNILTNSEKSKKAREGVMEFLLANHPL
DCPICDQGGECDLQDQSMMFGNDRSRFLEGKRAVEDKNIGPLVKTIMTRCIQCTRCIRFASEIAGVDDLG
TTGRGNDMQVGTYIEKMFMSELSGNIIDICPVGALTSKPYAFTARPWETRKTESIDVMDAVGSNIVVSTR
TGEVMRILPRMHEDINEEWISDKTRFAYDGLKRQRLTEPMVRNEKGLLTYTSWEDALSRVAGMLQSFQGK
DVAAIAGGLVDAEALVALKDLLNRVDSDTLCTEEVFPTAGAGTDLRSNYLLNTTIAGVEEADVVLLVGTN
PRFEAPLFNARIRKSWLHNDLKVALIGSPVDLTYTYDHLGDSPKILQDIASGSHPFSQVLKEAKKPMVVL
GSSALQRNDGAAILAAVSSIAQKIRMTSGVTGDWKVMNILHRIASQVAALDLGYKPGVEAIRKNPPKVLF
LLGADGGCITRQDLPKDCFIIYQGHHGDVGAPIADVILPGAAYTEKSATYVNTEGRAQQTKVAVTPPGLA
REDWKIIRALSEIAGMTLPYDTLDQVRNRLEEVSPNLVRYDDIEGANYFQQANELSKLVNQQLLADPLVP
PQLTIKDFYMTDSISRASQTMAKCVKAVTEGAQAVEEPSIC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001199984

ORF Size: 2223 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.

RefSeq: NM_001199984.1, NP_001186913.1

RefSeq Size: 3393 bp

RefSeq ORF: 2226 bp

Locus ID: 4719

UniProt ID: P28331

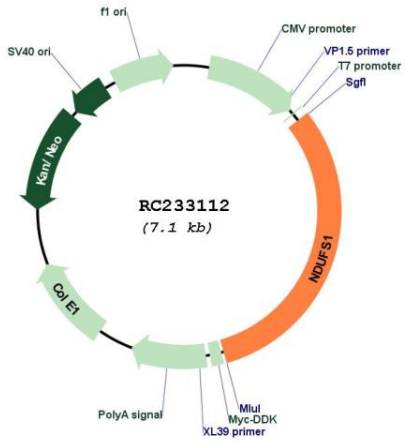
Cytogenetics: 2q33.3

Protein Pathways: Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

MW: 81.4 kDa

Gene Summary: The protein encoded by this gene belongs to the complex I 75 kDa subunit family. Mammalian complex I is composed of 45 different subunits. It locates at the mitochondrial inner membrane. This protein has NADH dehydrogenase activity and oxidoreductase activity. It transfers electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. This protein is the largest subunit of complex I and it is a component of the iron-sulfur (IP) fragment of the enzyme. It may form part of the active site crevice where NADH is oxidized. Mutations in this gene are associated with complex I deficiency. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2011]

Product images:



Circular map for RC233112