

## Product datasheet for **RC233085**

### **NDUFS1 (NM\_001199981) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NDUFS1 (NM_001199981) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NDUFS1
Synonyms:	CI-75k; CI-75Kd; MC1DN5; PRO1304
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>RC233085 representing NM\_001199981  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTTAAGGATACCTGTAAGAAAGCCTTAGTAGGCCTTCTAAGTCTCCTAAAGGATGTGTTTCAACAA  
CTGCCACAGCAGCAAGCAACTTGATTGAAGTATTTGTTGATGGTCAGTCTGTCATGGTGGAAACCGGGAAC  
GACCGTCTCCAAGTTGTAGCTGTTGTGCCATGCCAGTAATGAAGGGTTGGAATATCCTAACAACTCA  
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TGATGAGGATTTTGCACGTATGCATGAGGACATCAATGAAGAGTGGATCTCTGATAAAAACCAGATTTGC  
CTATGATGGGCTAAAACGTCAAAGACTTACCGAGCCAATGGTCAGAAATGAAAAAGGGCTTTTAACTTAT  
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CAATTGCAGGTGGCTTGGTGGATGCTGAAGCCCTGGTAGCTCTCAAAGATTTGCTTAATAGAGTGGACTC  
TGACACCTTATGCACTGAAGAGGTCTTCCCCTGCAGGAGCTGGCACAGATTTGCGTCCAATTTATCTT  
CTTAATACTACAATTGCTGGTGTGGAAGAGGCAGATGTTGTTCTCTGGTTGGTACAAACCCACGTTTTG  
AGGCACCACTGTTAATGCTAGAATTCGAAAGAGCTGGCTGCATAATGACTTAAAAGTGGCCCTTATAGG  
CAGTCCAGTGGACCTCACTTACACATATGACCACCTGGGAGACTCCCCAAAATTTCAAGACATTGCT  
TCGGGAAGCCATCCATTTAGCCAGTCTTAAAGGAAGCTAAAAACCAATGGTGGTTTTAGGCAGTCTG  
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CAGATGGAGGTTGTATCACACGACAGGATTTGCCAAAGGATTGTTTCATTATTTATCAAGGACATCATGG  
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GGAAAATTATAAGAGCACTCTCTGAGATTGCTGGAATGACTCTTCCATATGATACTCTGGATCAAGTAAG  
GAACAGATTGGAAGAAGTCTCTCCTAATCTTGTTGATATGATGATATTGAAGGGGCTAATTACTCCAG  
CAAGCAAATGAGCTCTCAAAGCTAGTGAACCAGCAGCTTCTTGCTGACCCACTTGTTCACCTCAGCTAA  
CTATAAAAGACTTCTACATGACAGATTCATTAGCAGAGCCTCACAGACAATGGCCAAATGTGTCAAAGC  
TGTACAGAGGGTGGCCAGGCAGTAGAGGAACCATCCATATGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC233085 representing NM\_001199981  
 Red=Cloning site Green=Tags(s)

MLRIPVRKALVGLSKSPKGCVRTTATAASNLIIEVFVDGQSVMEVPGTTVLQVVAACAMPVMKGWNILTNS  
 EKSKKAREGVMEFLLANHPLDCPICDQGGEDLQDQSMFMGNDRSRFLEKGRAVEDKNIGPLVKTIMTRC  
 IQCTRCIRFASEIAGVDDL GTTGRGNDMQVGTYIEKMFMSSELSGNIIDICPVGALTSKPYAFTARPWETR  
 KTESIDVMDAVGSNIIVVSTRTGEVMRILPRMHEDINEEWISDKTRFAYDGLKRQRLTEPMVRNEKGLLTY  
 TSWEDALSRVAGMLQSFQGDVAAIAGGLVDAEALVALKDLLNRVSDTLCTEEVFPTAGAGTDLRSNYL  
 LNTTIAGVVEADVLLVGTNPRFEAPLFNARIRKSWLHNDLKVALIGSPVDLTYTYDHLGDSPKILQDIA  
 SGSHPFQVLKEAKKPMVVLGSSALQRNDGAAIILAAVSSIAQKIRMTSGVTGDWKMVNIHRIASQVAAL  
 DLGYKPGVEAIRKNPPKVLFLGADGGCITRQDLPKDCFIIYQGHHDVGAPIADVILPGAAYTEKSATY  
 VNTEGRAQQTKVAVTPPLAREDWKIIRALSEIAGMTLPYDTLDQVRNRLEEVSPLVRYDDIEGANYFQ  
 QANELSKLVNQQLLADPLVPPQLTIKDFYMTDSISRASQTMACVKAVTEGAQAVEEPSIC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

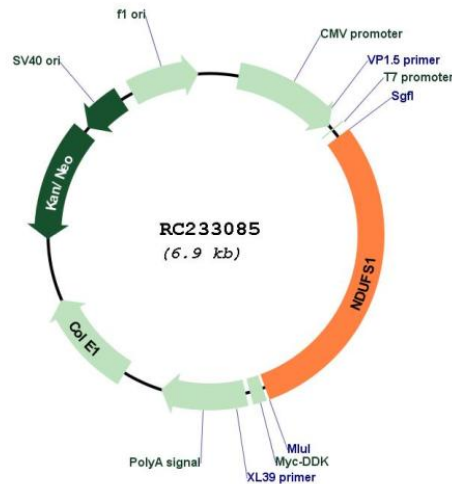
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



## Plasmid Map:



ACCN: NM\_001199981

ORF Size: 2073 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\\_001199981.2](#)

RefSeq Size: 3365 bp

RefSeq ORF:	2076 bp
Locus ID:	4719
UniProt ID:	<a href="#">P28331</a>
Cytogenetics:	2q33.3
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	75.8 kDa
Gene Summary:	<p>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]</p>