

## Product datasheet for **RG233015**

### NDUFS1 (NM\_001199982) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFS1 (NM_001199982) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NDUFS1
Synonyms:	CI-75k; CI-75Kd; MC1DN5; PRO1304
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG233015 representing NM\_001199982  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGGAAGGTGTGATGGAGTTCTTATTAGCAAATCACCCATTGGACTGTCCTATTTGTGACCAGGGAG  
 GTGAATGTGATCTGCAGGACCAGTCCATGATGTTTGAAAATGATAGGAGCCGATTTTTAGAGGGGAAGCG  
 TGCTGTGGAAGACAAGAACATTGGGCCATTGGTAAAGACCATCATGACAAGATGTATACAGTGTACTCGC  
 TGCATCAGGTTTGAAGTGAATGTCAGGAGTAGATGATTTGGGAACAACAGGCAGAGGAAATGATATGC  
 AAGTTGGCACATACATTGAAAAGATGTTTCATGTCTGAACTGTCTGGGAATATCATTGATATCTGCCCTGT  
 AGGTGCCCTAACCTCTAAGCCCTATGCCTTTACTGCCCGCCTTGGGAAACAAGAAAGACAGAATCCATT  
 GATGTAATGGATGCGGTTGGAAGTAATATTGTGGTTAGCACAAGAAGTGGAGAAGTATGAGGATTTTGC  
 CACGTATGCATGAGGACATCAATGAAGAGTGGATCTCTGATAAAAACCAGATTTGCCTATGATGGGCTAAA  
 ACGTCAAAGACTTACCGAGCCAATGGTCAGAAAATGAAAAAGGGCTTTTAACTATACTTCTTGGGAGGAT  
 GCCTCTCTCGCGTAGCTGGAATGTTGCAGAGTTTTCAAGGCAAAGATGTGGCAGCAATTGCAGGTGGCT  
 TGGTGGATGCTGAAGCCCTGGTAGCTCTCAAAGATTTGCTTAATAGAGTGGACTCTGACACCTTATGCAC  
 TGAAGAGGTTCTCCCACTGCAGGAGCTGGCACAGATTTGCGTTCCAATTATCTTCTAATACTACAATT  
 GCTGGTGTGGAAGAGGCAGATGTTGTTCTTCTGGTTGGTACAAACCCACGTTTTGAGGCACCACTGTTTA  
 ATGCTAGAATTCGAAAGAGCTGGCTGCATAATGACTTAAAAGTGGCCCTTATAGGCAGTCCAGTGGACCT  
 CACTTACACATATGACCACCTGGGAGACTCCCCAAAATCTTCAAGACATTGCTCGGGAAGCCATCCA  
 TTTAGCCAGGTCCTAAAGGAAGCTAAAAACCAATGGTGGTTTTAGGCAGTCTGCACTCCAAAGAAATG  
 ATGGAGCAGCAATTCTTGACGTGTTTCTAGCATTGCACAAAAGATTCCGATGACTAGTGGTGTACTGG  
 TGATTGGAAAGTTATGAATATCCTTCATAGGATTGCAAGTCAAGTAGCTGCTTTGGACCTTGGCTATAAG  
 CCTGGGTGGAAGCAATTCGGAAGAACCCTCCCAAGGTGCTGTTTCTCCTGGGAGCAGATGGAGGTTGTA  
 TCACACGACAGGATTTGCCAAAGGATTGTTTCATTATTTATCAAGGACATCATGGTATGTTGGGCTCC  
 CATAGCTGATGTTATTCTCCAGGAGCTGCTTACACAGAGAAGTCTGCTACATATGTCAACACTGAGGGT  
 AGAGCTCAGCAGACTAAGGTAGCAGTGACACCTCCTGGCTTGGCAAGAGAAGACTGGAAAATTATAAGAG  
 CACTCTCTGAGATTGCTGGAATGACTCTCCATATGATACTCTGGATCAAGTAAGGAACAGATTGGAAGA  
 AGTCTCTCCTAATCTTGTTCGATATGATGATATTGAAGGGCTAATTACTTCCAGCAAGCAATGAGCTC  
 TCAAAGCTAGTGAACCAGCAGCTTCTTGTGACCCACTTGTCCACCTCAGCTAACTATAAAAGACTTCT  
 ACATGACAGATCAATTAGCAGAGCCTCACAGACAATGGCCAAAATGTGTCAAAGCTGTACAGAGGGTGC  
 CCAGGCAGTAGAGGAACCATCCATATGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG233015 representing NM\_001199982  
 Red=Cloning site Green=Tags(s)

MWEGVMEFLLANHPLDCPICDQGGCEDLQDQSMFMGNDRSRFLEGKRAVEDKNIGPLVKTIMTRCIQCTR  
 CIRFASEIAGVDDL GTTGRGNDMQVGTYIEKFMSELSGNIIDICPVGALTSKPYAFTARPWETRKTESI  
 DVMDAVGSNIIVSTRTGEVMRILPRMHEDINEEWISDKTRFAYDGLKRQRLTEPMVRNEKGLLTYTSWED  
 ALSRVAGMLQSFQGGKDVAAIAGGLVDAEALVALKDLLNRVSDTLCTEEVFPTAGAGTDLRSNYLLNTTI  
 AGVEEADVLLVGTNPRFEAPLFNARIRKSWLHNDLKVALIGSPVDLTYTYDHLGDSPKILQDIASGSHP  
 FSQVLKEAKKPMVVLGSSALQRNDGAAIILAAVSSIAQKIRMTSGVTGDWKMNIHRIASQVAALDLGYK  
 PGVEAIRKNPPKVLFLGADGGCITRQDLPKDCFIIYQGHGHDVGAPIADVILPGAAYTEKSATYVNTGEG  
 RAQQTKVAVTPPLAREDWKIIIRALSEIAGMTLPYDTLDQVRNRL EEVSPNLVRYDDIEGANYFQQANEL  
 SKLVNQQLLADPLVPPQLTIKDFYMTDSISRASQTMKCVKAVTEGAQAVEEPSIC

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI



<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001199982.2</a>
<b>RefSeq Size:</b>	3196 bp
<b>RefSeq ORF:</b>	1851 bp
<b>Locus ID:</b>	4719
<b>UniProt ID:</b>	<a href="#">P28331</a>
<b>Cytogenetics:</b>	2q33.3
<b>Protein Pathways:</b>	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
<b>Gene Summary:</b>	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]