

## Product datasheet for **MG219229**

### **Ndufs1 (NM\_001160040) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ndufs1 (NM_001160040) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ndufs1
Synonyms:	5830412M15Rik; 9930026A05Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG219229 representing NM\_001160040  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTAAGGATACCTATAAAAAGGGCCTTGATAGGCCCTTCTAATTCTCCTAAAGGATATGTTTCGCACAA  
 CTGGCACAGCAGCAAGTAACTTGATTGAAGTATTTGTTGATGGTCAGTCTGTCATGGTGAACCAGGAAC  
 CACTGTTCTGCAGGCTTTCGAGAAAGGTCGGCATGCAAATCCCTCGATTCTGTTACCATGAAAGGTTGTCT  
 GTTGCTGGAAATTGCAGGATGTGCCTGGTAGAGATTGAGAAAGCTCCAAAGGTTGTCTGCTTGTGCTA  
 TGCCTGTAAATGAAGGGCTGGAATATCTTGACAACTCGGAAAAATCTAAGAAAGCCAGAGAAGGTGTGAT  
 GGAGTTCTTATTAGCAAATCACCCATTGGATTGCCTATTTGTGACCAGGGAGGTGAATGTGATCTGCAG  
 GACCAGTCCATGATGTTTGAAGTGATAGGAGCCGATTTCTAGAGGGGAAGCGTGTGTGGAGGACAAGA  
 ACATTGGGCCCTAGTAAAGACCATCATGACTAGATGCATCCAGTGTACCCGGTGCATCAGGTTTGAAG  
 TGAGATTGCAGGAGTAGATGATTTGGGAACAACAGGAAGAGGAAATGACATGCAAGTTGGCACATACATT  
 GAAAAAATGTTTTATGCTGAACTGTCTGGGAATGTCATTGATATCTGCCCTGTAGGGGCCCTAACCTCTA  
 AGCCTTATGCCTTACTGCCCGCCTTGGGAAACAAGAAAGACAGAGTCCATTGATGTAATGGATGCAGT  
 GGGAAAGTAACTTGTGGTTAGCACAAGAACTGGAGAGGTAATGAGGATTTTGCCAAGAATGCATGAAGAT  
 ATTAATGAAGAATGGATCTCTGATAAAAACAGGTTTGCTTATGATGGACTAAAACGTCAAAGACTTACTG  
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 TTAGTAGCTCTGAAAGACTTGCTTAATAAAGTTGACTCTGACAACCTATGCACTGAAGAGATCTTCCCA  
 CTGAAGGAGCTGGTACAGACTTACGTTCCAATTATCTTCTCAATACCACAATTGCTGGTGGAAAGAGC  
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 CCAAAGGATTGTTTCAATGTTTATCAAGGACACCATGGTATGTTGGTGTCCCATGGCTGATGTTATTC  
 TCCAGGGGCTGCTTACACAGAAAAGTCTGCTACTTATGTCAATACTGAGGGCAGAGCTCAGCAAACCAA  
 AGTAGCAGTGACGCCCTCTGGCTTGGCAGGAGAACTGGAAAATCATAAGAGCTCTCTGAGATTGCA  
 GGTATCACTCTTCCATATGACACTCTGGATCAAGTAAGGAACCGTCTTGAAGAGGCTCTCTCCTAATCTGG  
 TTCGATATGATGATATTGAAGAACTAATTACTTTTCAGCAAGCAAGTGAAGTGGCAAGCTAGTAAACCA  
 GGAGGTTCTTGTGACCCACTCGTTCCACCTCAGCTAACTATAAAAGACTTCTATATGACAGACTCCATT  
 AGCAGAGCCTCACAGACAATGGCCAAGTGTGCAAGCTGTCACCGAGGGCGCTCAGGCAGTAGAGGAGC  
 CGTCCATATGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG219229 representing NM\_001160040  
 Red=Cloning site Green=Tags(s)

MLRIPIKRALIGLSNSPKGYVRTTGTAAASNLIEVFVDGQSVMEVPGTTVLQACEKVGMIIPRFCYHERLS  
 VAGNCRMCLVEIEKAPKVVAACAMPVMKGWNILTNSEKSKKAREGVMEFLLANHPLDCPICDQGGCEDLQ  
 DQSMFMGSDRSRFLLEGKRAVEDKNIGPLVKTIMTRCIQCTRCIRFASEIAGVDDLTTGRNDMQVGTIYI  
 EKMFMSSELSGNVIDICPVGALTSKPYAFTARPWETRKTESIDVMDAVGNSNIVVSTRTGEVMRILPRMHED  
 INEEWISDKTRFAYDGLKRQRLTEPMVRNEKGLLTYTSWEDALSRVAGMLQNFEQNAVAAIAGGLVDAEA  
 LVALKDLLNKVSDNLCTEEIFPTEGAGTDLRSNYLLNTTIAGVEEADVLLVGTNPRFEAPLFNARIRK  
 SWLHNDLKVALLIGSPVDLTYRYDHLGDSPKILQDIASGRHSFCEVLKDAKKPMVVLGSSALQRDDGAAAIL  
 VAVSNMVQKIRVTTGVAAEAWKVMNHLHRIASQVAALDLGYKPGVEAIRKNPPKMLFLLGADGGCITRQDL  
 PKDCFIVYQGHGHDVGAPMADVILPGAAYTEKSATYVNTTEGRAQQTKVAVTPPLAREDWKIIIRALSEIA  
 GITLPYDITLDQVRNRLEEVSPLVRYDDIEETNYFQQASELAKLVNQEVLADPLVPPQLTIKDFYMTDSI  
 SRASQTMKCVKAVTEGAQAVEEPSIC

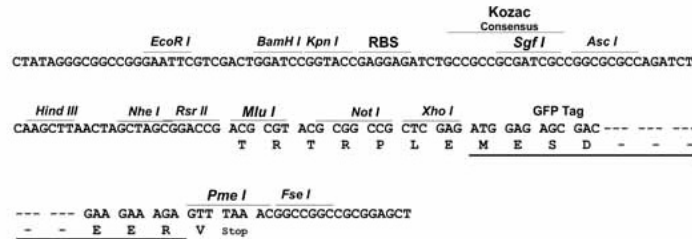
TRTRPLE - GFP Tag - V

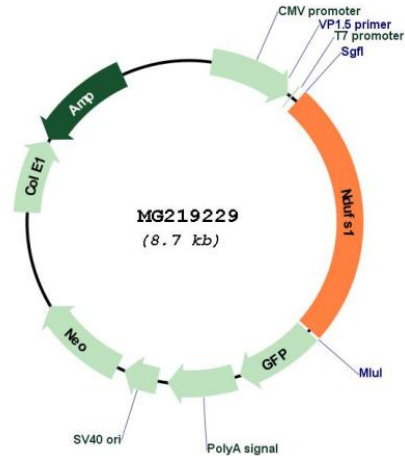
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_001160040

**ORF Size:** 2181 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\\_001160040.1](#), [NP\\_001153512.1](#)

**RefSeq Size:** 2832 bp

**RefSeq ORF:** 2184 bp

**Locus ID:** 227197

UniProt ID: [Q91VD9](#)

Cytogenetics: 1 C2

**Gene Summary:** Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal assembly required for catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone (By similarity). This 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 (By similarity). [UniProtKB/Swiss-Prot Function]