

Product datasheet for **MG200299**

Ndufa2 (NM_010885) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ndufa2 (NM_010885) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Ndufa2
Synonyms: AV000592; B8; C1-B8; CI-B8
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG200299 representing NM_010885
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTGCCGCTGCTAGCCGAGCGGTCGGCGCAAAGCTGGGGTTGCGTGAGATTCGCGTTCACCTTAT
GCCAGCGTTCGCCAGGCAGCCAGGGTGTGAGGGATTTTCATCGTCAACGGTACGTGGAGCTGAAGAAGGC
GCACCCCAACCTGCCATTCTGATCCGGAATGCTCGGAGGTGCAGCCCAAGCTTTGGGCCGCTATGCT
TTTGGCCAAGAGAAGACGGTGTCTCTGAACAATCTGAGTGCTGATGAGGTAACCAGAGCCATGCAGAATG
TGCTAAGCGGCAAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG200299 representing NM_010885
Red=Cloning site Green=Tags(s)
MAAAAASRAVGAKLGLREIRVHLCQRSPGSQGVRFIVQRYVELKKAHPNLPILIRECSEVQPKLWARYA
FGQEKTVSLNNLSADEVTRAMQNVLSGKA

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

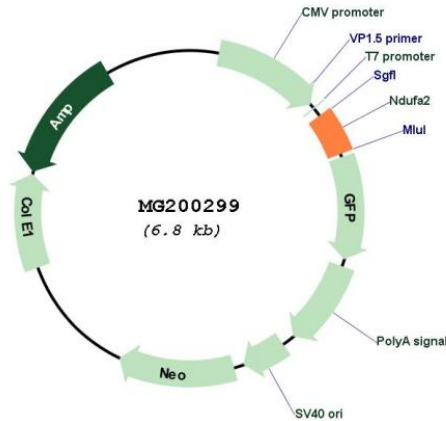


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Cloning Scheme:



Plasmid Map:



ACCN: NM_010885

ORF Size: 297 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.
RefSeq:	<u>NM_010885.5</u>
RefSeq Size:	530 bp
RefSeq ORF:	300 bp
Locus ID:	17991
UniProt ID:	<u>Q9CQ75</u>
Cytogenetics:	18 B2
Gene Summary:	<p>This gene encodes a subunit of the NADH-ubiquinone oxidoreductase (complex I) enzyme, which is a large, multimeric protein. It is the first enzyme complex in the mitochondrial electron transport chain and catalyzes the transfer of electrons from NADH to the electron acceptor ubiquinone. The proton gradient created by electron transfer drives the conversion of ADP to ATP. The human ortholog of this gene has been characterized, and its structure and redox potential is reported to be similar to that of thioredoxins. It may be involved in regulating complex I activity or assembly via assistance in redox processes. In humans, mutations in this gene are associated with Leigh syndrome, an early-onset progressive neurodegenerative disorder. A pseudogene of this gene is located on chromosome 5. [provided by RefSeq, May 2013]</p>