

## Product datasheet for **MG207415**

### **Ndufv1 (NM\_133666) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ndufv1 (NM_133666) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ndufv1
Synonyms:	CI-51kD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207415 representing NM\_133666  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTAGCGGCACGGCATTCTCGGCGGGTTGGTCCCGTGCGGGTATCTGTGCGTTTCAGCAGCGGCA  
 CGACAGCACCCAAGAAAACCTCATTGGCTCACTGAAGGATGAAGACCGGATCTTTACCAACCTGTATGG  
 GCGCCATGACTGGAGGCTGAAAGGTGCCCTGAGACGGGGTACTGGTACAAGACAAGGAGATCCTGCTG  
 AAGGGGCTGACTGGATCTGGGTGAGATGAAGACATCAGGTTTACGGGGCCGTGGTGGTCTGGCTTCC  
 CCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTGAATGC  
 TGACGAGGGAGAGCCAGGCACCTGTAAGGACCGAGAGATCATGCGTCATGACCCTACAAGCTGGTGGAA  
 GGCTGCCTTGTGGGAGGCCGGCCATGGGAGCCCGGGCCCTATATCTACATCCGAGGGGAATTCTACA  
 ACGAGGCCCTCAAATTTGCAGGTAGCTATCCGAGAGGCCTATGAAGCAGGTCTGATTGGCAAGAATGCTTG  
 TGCTCCGACTATGATTTTGTGTTTGTGGTGCCTGGGGCTGGGGCTACATCTGTGGAGAAGAGACG  
 GCATTATTGAATCCATTGAAGGCAAGCAGGGAAGCCACGCCTGAAGCCGCCCTTCCAGCAGATGTGG  
 GAGTGTGGATGCCCCACAACCTGTGGCAATGTGGAGACAGTGGCTGTGTCCCCACCATTGGCCGTCG  
 TGGGGACCTGGTTTGGCTGGCTTTGGCCGAGAACGCAATTCAGGTACCAAATGTTAACATCTCTGGC  
 CATGTCAACCACCCTGCACTGTGGAGGAAGAGATGTCTGTGCCACTGAAAGAGCTGATTGAGAAACATG  
 CTGGTGGTGTACAGGTGGCTGGGACAACCTCCTTGTGTGATTCTGGTGGCTCATCTACTCCACTGAT  
 TCCCAAATCTGTGTGTGAGACCGTGTAAATGGACTTCGATGCACTGGTGCAGGCTCAGACAGGCCTGGGC  
 ACGGCTGCAGTTATTGTTATGGATCGCTCGACAGACATTGTGAAAGCCATCGCTCGTCTCATTGAGTTCT  
 ACAAGCATGAGAGCTGTGGCCAGTGTACCCGTCGCCGTGAGGGCGTTGACTGGATGAACAAGGTGATGGC  
 CCGATTTGTGAAGGGAGATGCCCGGCCAGCTGAGATTGACTCCCTGTGGGAGATCAGCAAGCAGATAGAA  
 GGCCACACCATTGTGCTCTGGGTGATGGGGCTGCCTGGCCAGTACAGGGTCTGATCCGACATTTACGGC  
 CAGAGCTTGAGGATCGGATGCAACGGTTTGCCAGCAGCACCGGGCTGGCAGGCAGCCTCG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG207415 representing NM\_133666  
 Red=Cloning site Green=Tags(s)

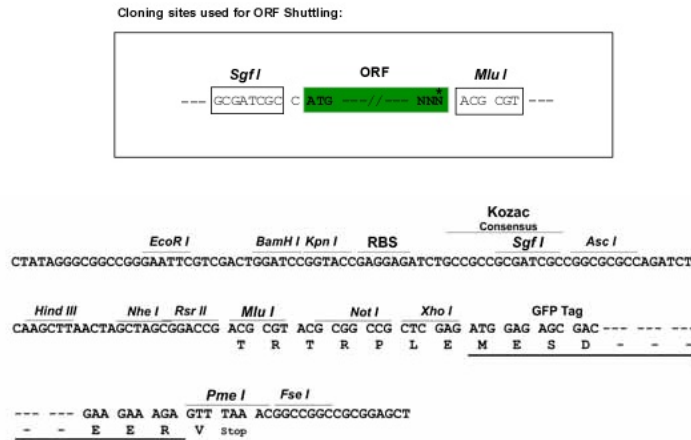
MLAARHFLGGLVPVRVSVRFSSGTTAPKTSFGSLKDEDRIFTNLYGRHDWRLKALRRGDWYKKEILL  
 KGPDWILGEMKTSGLRGRGGAGFPTGLKWSFMNKPSDGRPKYL VVNADEGEPGTCKDREIMRHPHKLVE  
 GCLVGGGRAMGARAAYIYIRGEFYNEASNLQVAIREAYEAGLIGKNACGSDYDFDFVVRGAGAYICGEET  
 ALIESIEGKQGKPRPKPPFPADVGVFGCPTTVANVETVAVSPTICRRGGTWFAGFGRERNSGKLFNISG  
 HVNHPCTVEEEMSVPKELIEKHAGGVTGGWDLAVIPGGSSTPLIPKSVCEVLMDFDALVQAQTGLG  
 TAAVIVMDRSTDIVKAIARLIEFYKHESGQCTPCREGVDWMNKVMARFVKGDARPAEIDSLWEISKQIE  
 GHTICALGDGAAPVQGLIRHFRPELEDQMRF AQQHRAWQAAS

**TRTRPLE** - GFP Tag - V

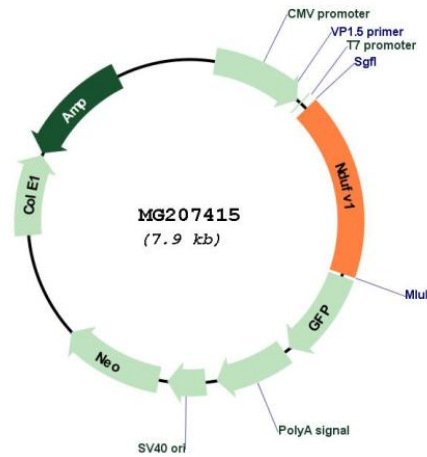
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_133666

ORF Size: 1392 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.

<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_133666.1</a>
<b>RefSeq Size:</b>	1572 bp
<b>RefSeq ORF:</b>	1395 bp
<b>Locus ID:</b>	17995
<b>UniProt ID:</b>	<a href="#">Q91YT0</a>
<b>Cytogenetics:</b>	19 A
<b>Gene Summary:</b>	<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. This gene is a core subunit and is conserved in prokaryotes and eukaryotes. The human ortholog of this protein has been characterized. It has consensus motifs for NADH, flavin mononucleotide, and iron-sulfur binding sites and participates in the oxidation of NADH as part of the dehydrogenase module of complex I. In humans, deficiencies in complex I are associated with myopathies, encephalomyopathies, and neurodegenerative disorders. [provided by RefSeq, Jun 2013]</p>