

Product datasheet for **RG200616**

NDUFA1 (NM_004541) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NDUFA1 (NM_004541) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: NDUFA1
Synonyms: CI-MWFE; MC1DN12; MWFE; ZNF183
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG200616 representing NM_004541
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGGTTCGAGATTCTCCCGGACTCTCCGTCATGGCGTGTGCTTGTTGATTCCAGGACTGGCTACTG
 CGTACATCCACAGGTTCACTAACGGGGCAAGGAAAAAGGGTTGCTCATTTTGGGTATCACTGGAGTCT
 GATGGAAGAGATAGGCGCATCTCTGGAGTTGATCGTTACTATGTGTCAAAGGTTTGGAGAACATTGAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200616 representing NM_004541
 Red=Cloning site Green=Tags(s)

MWFEILPGLSVMGVCLLIPGLATAYIHRFTNGGKEKRVAFHFGYHWSLMERDRISGVDRIYVSKGLENID

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_004541

ORF Size: 210 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).

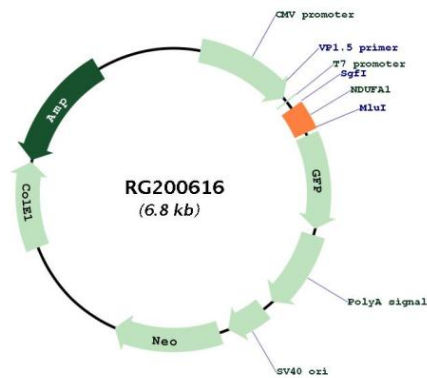
Reconstitution Method:

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_004541.4](#)

RefSeq Size:	479 bp
RefSeq ORF:	213 bp
Locus ID:	4694
UniProt ID:	O15239
Cytogenetics:	Xq24
Protein Families:	Transmembrane
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
Gene Summary:	The human NDUFA1 gene codes for an essential component of complex I of the respiratory chain, which transfers electrons from NADH to ubiquinone. It has been noted that the N-terminal hydrophobic domain has the potential to be folded into an alpha-helix spanning the inner mitochondrial membrane with a C-terminal hydrophilic domain interacting with globular subunits of complex I. The highly conserved two-domain structure suggests that this feature is critical for the protein function and might act as an anchor for the NADH:ubiquinone oxidoreductase complex at the inner mitochondrial membrane. However, the NDUFA1 peptide is one of about 31 components of the "hydrophobic protein" (HP) fraction of complex I which is involved in proton translocation. Thus the NDUFA1 peptide may also participate in that function. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200616