

Product datasheet for **RG204954**

NDUFV1 (NM_007103) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFV1 (NM_007103) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NDUFV1
Synonyms:	CI-51K; CI51KD; MC1DN4; UQOR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG204954 representing NM_007103
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGGCAACACGGCGGCTGCTCGGCTGGTGCCTTCCCGCGGGTATCTGTGCGTTTCAGCGGCGACA
 CGACAGCACCCAAGAAAACCTCATTGGCTCGCTGAAGGATGAAGACCGATTTTACCAACCTGTACGG
 CCGCCATGACTGGAGGCTGAAAGTTCCCTGAGTCGAGGTGACTGGTACAAGACAAGGAGATCCTGCTG
 AAGGGGCCGACTGGATCCTGGGCGAGATCAAGACATCGGGTTTGAGGGCCGTGGAGGCGCTGGCTTCC
 CCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTGAACGC
 AGACGAGGGGAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCCATGATCCTACAAGCTGTGGAA
 GGCTGCCTGGTGGGGGCGGGCCATGGGCGCCCGCTGCCTATATCTACATCCGAGGGGAATTCTACA
 ATGAGGCCCTCAAATCTGCAGGTGGCCATCCGAGAGGCCTATGAGGCAGGTCTGATTGGCAAGAATGCTTG
 TGCTCTGGCTATGATTTTGACGTGTTTGGTGGCGGGGCTGGGCCTACATCTGTGGAGAGGAGACA
 GCCTCATCGAGTCCATTGAGGGCAAGCAGGGCAAGCCCCGCTGAAGCCCCCTTCCCCGAGAGCTGG
 GAGTGTGGCTGCCCAACTGTGGCAACGTGGAGACAGTGGCAGTGTCCCCACAATCTGCCGCCG
 TGGAGGTACCTGGTTTGGCTGGCTTTGGCAGAGAACGCAACTCAGGCACCAAACTATTCAACATCTTGGC
 CATGTCAACCACCTTGCCTGTGGAGGAGGAGATGTCTGTGCCCTTGAAGAAGTATTGAGAAGCATG
 CTGGGGGTGTACGGGCGGCTGGGACAACCTCCTTGTGTGATCCCTGGCGGCTCGTCTACCCACTGAT
 CCCAAGTCTGTGTGTGAGACGGTGTGATGGACTTCGATGCGCTGGTGCAGGCACAGACAGGCCTGGGC
 ACAGTGGCGTGTGTCATGGACCGCTCGACGGACATCGTGAAGCCATCGCCCGCCTCATTGAGTTCT
 ATAAGCACGAGAGCTGTGGCCAGTGTACCCATGCCGTGAGGGTGTGGACTGGATGAACAAGGTGATGGC
 ACGTTTTCGTGAGGGGGATGCCCGCCGCGCCGAGATCGACTCCCTGTGGGAGATCAGCAAGCAGATAGAA
 GGCCATACGATTTGTGCTCTGGGTGACGGGCGCCCTGGCCTGTGACGGGTCTGATCCGCCACTTTCGGC
 CGGAGCTCGAGGAGCGGATGCAGCGTTTGCCAGCAGCATCAGGCCCGCAGGCTGCCTCT

ACCGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG204954 representing NM_007103
 Red=Cloning site Green=Tags(s)

MLATRRLLGWSLPARVSVRFSGDTTAPKTSFGSLKDEDRIFTNLYGRHDWRLKGSLSRGDWYKKEILL
 KGPDWILGEIKTSGLRGRGGAGFPTGLKWSFMNKPSDGRPKYL VVNADEGEPGTCKDREILRHPHKLLE
 GCLVGGGRAMGARAAYIYIRGEFYNEASNLQVAIREAYEAGLIGKNACGSGYDFDFVVRGAGAYICGEET
 ALIESIEGKQGKPRPKPPFPADVGVFGCPTTVANVETVAVSPTICRRGGTWFAGFGRERNSGTCLFNISG
 HVNHPCTVEEEMSVPLKELIEKHAGGVTGGWDLAVIPGGSSTPLIPKSVCEVLMDFDALVQAQTGLG
 TAAVIVMDRSTDIVKAIARLIEFYKHESGQCTPCREGVDWMNKVMARFVRGDARPAEIDSLWEISKQIE
 GHTICALGDGAAPVQGLIRHFRPELEERMQRFAQQHQARQAAS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_007103

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.

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_007103.4](#)

RefSeq Size: 1566 bp

RefSeq ORF: 1395 bp

Locus ID: 4723

UniProt ID: [P49821](#)

Cytogenetics: 11q13.2

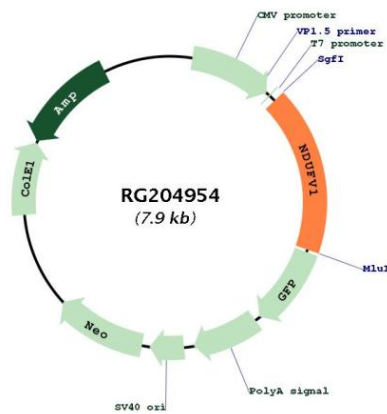
Domains: Complex1_51K

Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

Gene Summary: The mitochondrial respiratory chain provides energy to cells via oxidative phosphorylation and consists of four membrane-bound electron-transporting protein complexes (I-IV) and an ATP synthase (complex V). This gene encodes a 51 kDa subunit of the NADH:ubiquinone oxidoreductase complex I; a large complex with at least 45 nuclear and mitochondrial encoded subunits that liberates electrons from NADH and channels them to ubiquinone. This subunit carries the NADH-binding site as well as flavin mononucleotide (FMN)- and Fe-S-binding sites. Defects in complex I are a common cause of mitochondrial dysfunction; a syndrome that occurs in approximately 1 in 10,000 live births. Mitochondrial complex I deficiency is linked to myopathies, encephalomyopathies, and neurodegenerative disorders such as Parkinson's disease and Leigh syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Oct 2009]

Product images:



Circular map for RG204954