

Product datasheet for **RG203485**

NDUFS2 (NM_004550) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFS2 (NM_004550) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NDUFS2
Synonyms:	CI-49; MC1DN6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG203485 representing NM_004550
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCGCTGAGGGCTTTGTGCGGCTCCGGGGCGTCGCGGCCAGGTGCTGCGGCTGGGGCTGGAG
 TCCGATTGCCGATTACAGCCAGCAGAGGTGTCGCGCAGTGGCAGCCAGATGTGGAATGGGCACAGCAGTT
 TGGGGGAGCTGTTATGTACCCAAGCAAAGAAACAGCCACTGGAAGCCTCCACCTTGAATGATGTGGAC
 CCTCAAAGGACACAATTGTGAAGAACATTACCCTGAACCTTGGGCCCAACACCCAGCAGCGCATGGTG
 TCCTGCGACTAGTGATGGAATTGAGTGGGGAGATGGTGCAGGAGTGTATCCTCACATCGGGCTCCTGCA
 CCGAGGCACTGAGAAGCTCATTGAATAACAAGACCTATCTTCAGGCCCTCCATACTTTGACCGGCTAGAC
 TATGTGTCCATGATGTGAACGAACAGGCCTATTCTCTAGCTGTGGAGAAGTTGCTAAACATCCGGCCTC
 CTCTCGGGCACAGTGGATCCGAGTGTGTTGGAGAAATCACACGTTTGTGAACCACATCATGGCTGT
 GACCACACATGCCCTGGACCTTGGGGCCATGACCCCTTTCTTCTGGCTGTTTGAAGAAAGGGAGAAGATG
 TTTGAGTTCTACGAGCGAGTGTCTGGAGCCGAATGCATGCTGCTTATATCCGGCCAGGAGGAGTGCACC
 AGGACCTACCCCTTGGGCTTATGGATGACATTTATCAGTTTTCTAAGAATTCTCTCTTCGGCTTATGA
 GTTGGAGGAGTTGCTGACCAACAATAGGATCTGGCGAAATCGGACAATTGACATTGGGGTTGTAACAGCA
 GAAGAAGCACTTAACTATGGTTTTAGTGGAGTGTGCTTCGGGGCTCAGGCATCCAGTGGGACCTGCGGA
 AGACCCAGCCCTATGATGTTTACGACAGGTTGAGTTTGTGTTCTGTTGGTTCTCGAGGGGACTGCTA
 TGATAGGTACCTGTCCGGGTGGAGGAGATGCCAGTCCCTGAGAATTATCGCACAGTGTCTAAACAAG
 ATGCCTCCTGGGAGATCAAGGTTGATGATGCCAAAGTGTCTCCACCTAAGCGAGCAGAGATGAAGACTT
 CCATGGAGTCACTGATTCATCACTTTAAGTTGTATACTGAGGGCTACCAAGTTCCCTCAGGAGCCACATA
 TACTGCCATTGAGGCTCCAAGGGAGAGTTTGGGGTGTACTCTGGTGTCTGATGGCAGCAGCGCCCTTAT
 CGATGCAAGATCAAGGCTCCTGTTTTGCCATCTGGCTGGTTTGGACAAGATGTCTAAGGGACACATGT
 TGGCAGATGTCGTTGCCATCATAGGTACCCAAGATATTGTATTTGGAGAAGTAGATCGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG203485 representing NM_004550
 Red=Cloning site Green=Tags(s)

MAALRALCGFRGVAQVLRPGAGVRLPIQPSRQVQPDVEWAQQFGGAVMYPKETAHWKPPPWNDVD
 PPKDITIVKNITLNFQHPAAHGVRLVMELSGEMVRKCDPHIGLLHRGTEKLEIYKTYLQALPYFDRLD
 YVSMCNEQAYSLAVEKLLNIRPPRAQWIRVLFGEITRLLNHIMAVTTHALDLGAMTPFFWLFEEREKM
 FEFYERVSGARMHAAYIRPGGVHQDLPLGLMDDIYQFSKNFSLRLELEELLTNNRIWRNRTIDIGVVTA
 EEALNYGFSGVMLRSGIQWDLRKTQPYDVYDQVEFDVPVGSRGDCYDRYLCRVEEMRQSLRIIAQCLNK
 MPPGEIKVDDAKVSPPKRAEMKTSMESLIHHFKLYTEGYVPPGATYTAIEAPKGEFGVYLVSDGSSRPY
 RCKIKAPGFAHLAGLDKMSKGHMLADVVAIIGTQDIVFGEVDR

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_004550

ORF Size: 1389 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_004550.4](#)

RefSeq Size: 2061 bp

RefSeq ORF: 1392 bp

Locus ID: 4720

UniProt ID: [O75306](#)

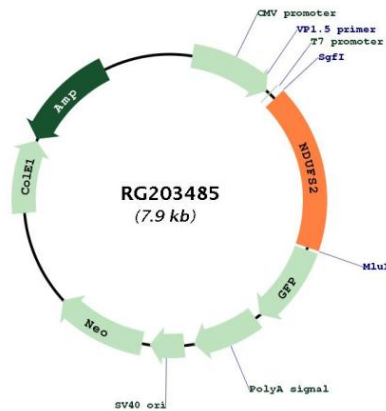
Cytogenetics: 1q23.3

Domains: complex1_49Kd

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

Gene Summary: The protein encoded by this gene is a core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (complex I). Mammalian mitochondrial complex I is composed of at least 43 different subunits, 7 of which are encoded by the mitochondrial genome, and the rest are the products of nuclear genes. The iron-sulfur protein fraction of complex I is made up of 7 subunits, including this gene product. Complex I catalyzes the NADH oxidation with concomitant ubiquinone reduction and proton ejection out of the mitochondria. Mutations in this gene are associated with mitochondrial complex I deficiency. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Oct 2009]

Product images:



Circular map for RG203485