

Product datasheet for **RG200029**

NDUFAF1 (NM_016013) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFAF1 (NM_016013) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NDUFAF1
Synonyms:	CGI-65; CGI65; CIA30; MC1DN11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200029 representing NM_016013 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTTGGTTCACAAATTGCTGCGTGGTACTTATTTTCTCAGAAAATTCTCTAAGCCAACTTCTGCCT
TGTATCCATTTTTGGGTATTCGCTTTGCAGAGTATCCAGTAGTCTTCAGAAACCAAGTGGCTTCTCCTGG
CAAAGCCTCCTCACAGAGGAAGACTGAAGGGGATTTGCAAGGAGATCACCAGAAAGAAGTTGCTTTGGAT
ATAACTTCTTCTGAGGAGAAGCCTGATGTTAGTTTCGATAAAGCAATTAGAGATGAAGCAATATACCATT
TTAGGCTTTTGAAGGATGAAATTGTGGATCATTGGAGAGGACCGGAAGGCCACCCTCTGCATGAGGTCTT
GCTGGAACAAGCCAAGGTTGCTGGCAATTCGGGGGAAAGAAGATTTGGATAAGTGACAGTACTTCT
GATAAGACGATTGGAGGCAGAAGTGAAGTGTTTTTGAAAATGGGCAAGAATAACCAAAGTGCACCTGCTAT
ATGGAACCTCTGAGCTCTGAGGCGCCTCAGGACGGGGAGTCTACCCGAAGTGGTACTGTGCAATGATATC
CAGGATTTCAAGGGGTGCTTTTGAGAGGAAGATGTCTTACGATTGGTCCCAGTTCAATACTCTGTATCTC
CGTGTACGTGGGGATGGTCGGCCTTGGATGGTGAATATCAAGGAGGACACAGATTTCTCCAGAGGACGA
ATCAGATGTATAGTTACTTCATGTTACCCCGGGGGACCCTACTGGCAGGAGGTCAAGATTCCTTTTTTC
CAAATTTTTCTTCTAATCGAGGAAGAATCCGGGATGTTCCAGCATGAGCTTCCGCTTGATAAGATCTCT
TCTATAGGATTCACCTTGGCTGATAAAGTGGATGGTCCATTCTTCTGGAGATAGATTTTATTGGCGTGT
TTACTGATCCAGCTCATACAGAAGAATTTGCCTATGAAAATTTCTCAGAGCTTAACCAAAGGCTTTTTAA
A

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200029 representing NM_016013
Red=Cloning site Green=Tags(s)

MALVHKLLRGTYFLRKFSKPTSALYPFLGIRFAEYSSSLQKPVASPGKASSQRKTEGDLQGDHQKEVALD
 ITSSEKPDVDFDKAIRDEAIYHFRLKDEIVDHWRGPEGHPLHEVLLLEQAKVVWQFRGKEDLDKWTVTS
 DKTIGGRSEVFLKMGKNNQSALLYGTLSEAPQDGESTRSGYCAMISRIIPRGAFERKMSYDWSQFNTLYL
 RVRGDGRPWMVNIKEDTDFQRTNQMYSYFMFTRGGPYWQEVKIPFSKFFF SNRGRIRDVQHELPLDKIS
 SIGFTLADKVDGPFPLEIDF IGVF TDP AHTEEFAYENSPELNPRLFK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016013

ORF Size: 981 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_016013.4](#)

RefSeq Size: 1474 bp

RefSeq ORF: 984 bp

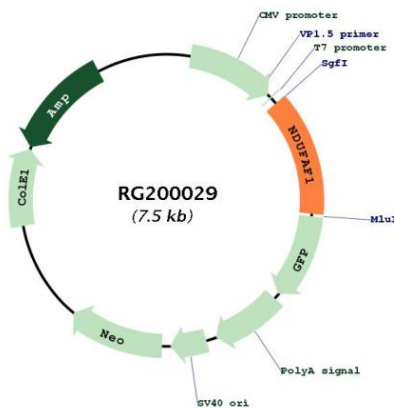
Locus ID: 51103

UniProt ID: [Q9Y375](#)

Cytogenetics: 15q15.1

Gene Summary: This gene encodes a complex I assembly factor protein. Complex I (NADH-ubiquinone oxidoreductase) catalyzes the transfer of electrons from NADH to ubiquinone (coenzyme Q) in the first step of the mitochondrial respiratory chain, resulting in the translocation of protons across the inner mitochondrial membrane. The encoded protein is required for assembly of complex I, and mutations in this gene are a cause of mitochondrial complex I deficiency. Alternatively spliced transcript variants have been observed for this gene, and a pseudogene of this gene is located on the long arm of chromosome 19. [provided by RefSeq, Dec 2011]

Product images:



Circular map for RG200029