

Product datasheet for RC200029

NDUFAF1 (NM_016013) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFAF1 (NM_016013) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NDUFAF1
Synonyms:	CGI-65; CGI65; CIA30; MC1DN11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200029 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTTGGTTCACAAATTGCTGCGTGGTACTTATTTTCTCAGAAAATTCTCTAAGCCAACTTCTGCCT
TGTATCCATTTTTGGGTATTCGCTTTCAGAGTATTCCAGTAGTCTTCAGAAACCAGTGGCTTCTCCTGG
CAAAGCCTCCTCACAGAGGAAGACTGAAGGGGATTTGCAAGGAGATCACCAGAAAGAAGTTGCTTTGGAT
ATAACTTCTTCTGAGGAGAAGCCTGATGTTAGTTTCGATAAAGCAATTAGAGATGAAGCAATATACCATT
TTAGGCTTTTGAAGGATGAAATTGTGGATCATTGGAGAGGACCGGAAGGCCACCCTCTGCATGAGGTCTT
GCTGGAACAAGCCAAGTTGTCTGGCAATTCGGGGGAAAGAAGATTTGGATAAGTGGACAGTACTTCT
GATAAGACGATTGGAGGCAGAAGTGAAGTGTTTTTGAAAATGGGCAAGAATAACCAAAGTGCACCTGCTAT
ATGGAACCTCTGAGCTCTGAGCGCCTCAGGACGGGGAGTCTACCCGAAGTGGTACTGTGCAATGATATC
CAGGATTTCAAGGGGTGCTTTTGGAGGAAGATGTCTTACGATTGGTCCCAGTTCATACTCTGTATCTC
CGTGTACGTGGGGATGGTCGGCCTTGGATGGTGAATATCAAGGAGGACACAGATTTCTCCAGAGGACGA
ATCAGATGTATAGTTACTTCATGTTACCCGCGGGGACCCTACTGGCAGGAGGTCAAGATTCCTTTTTTC
CAAATTTTTCTTCTAATCGAGGAAGAATCCGGGATGTTCCAGCATGAGCTTCCGCTTGATAAGATCTCT
TCTATAGGATTCACCTTGGCTGATAAAGTGGATGGTCCATTCTTCTGGAGATAGATTTTATTGGCGTGT
TTACTGATCCAGCTCATACAGAAGAATTTGCCTATGAAAATTTCTCAGAGCTTAACCAAAGGCTTTTTAA
A

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200029 protein sequence
Red=Cloning site Green=Tags(s)

MALVHKLLRGTYFLRKFSKPTSALYPFLGIRFAEYSSSLQKPVASPGKASSQRKTEGDLQGDHQKEVALD
 ITSSEKPDVDFDKAIRDEAIYHFRLKDEIVDHWRGPEGHPLHEVLLLEQAKVVWQFRGKEDLDKWTVTS
 DKTIGGRSEVFLKMGKNNQSALLYGTLSEAPQDGESTRSGYCAMISRIPRGAFAFERKMSYDWSQFNTLYL
 RVRGDGRPWMVNIKEDTDFQRTNQMYSYFMFTRGGPYWQEVKIPFSKFFFSNRGRIRDVQHELPLDKIS
 SIGFTLADKVDGPFPLEIDFIVFVTDPAHTEEFAYENSPELNPRLFK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6392_h12.zip

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_016013.4](#)

RefSeq Size: 1488 bp

RefSeq ORF: 984 bp

Locus ID: 51103

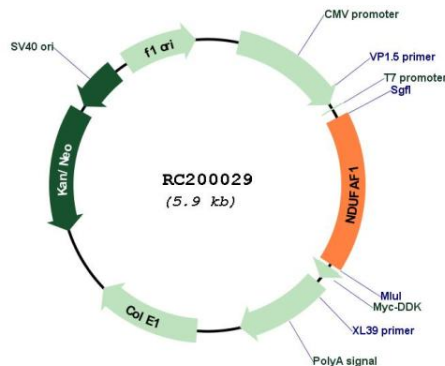
UniProt ID: [Q9Y375](#)

Cytogenetics: 15q15.1

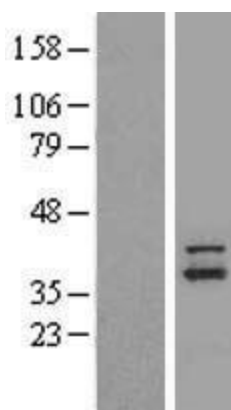
MW: 37.8 kDa

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]

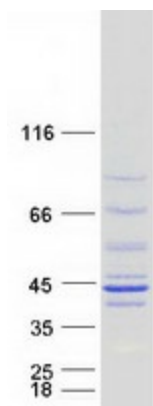
Product images:



Circular map for RC200029



Western blot validation of overexpression lysate (Cat# [LY414253]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200029 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NDUFAF1 protein (Cat# [TP300029]). The protein was produced from HEK293T cells transfected with NDUFAF1 cDNA clone (Cat# RC200029) using MegaTran 2.0 (Cat# [TT210002]).