

Product datasheet for RC202714

NDUFB5 (NM_002492) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NDUFB5 (NM_002492) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: NDUFB5
Synonyms: CISGDH; SGDH
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202714 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGCCATGAGTTTGTGGCGGGTTTCGGTTACTGCGGTGGCAGCTCTGTCTGGCCGCCCTTG
 GCACTCGCTCGGATTTGGGGCTTCTCACTCGTGGCTTCCGAAGGCTGCTGCTCCTGTTGACACAG
 TGGAGACCATGGAAAAGACTATTTGTCATCAGACCTTCTAGATTCTATGACAGGCGTTTTTTGAAGTTA
 TTGAGATTCTACATTGCATTGACTGGGATCCAGTAGCAATTTTCATAACTCTGGTGAATGTATTCATTG
 GTCAGCTGAAGTACGAGAAATCCAGAAGGCTATGTCCAGAACACTGGGAATATTATAAGCATCCCAT
 ATCAAGATGGATTGCCCGTAATTTCTATGATAGTCTGAAAAGATATATGAAAGAACAATGGCCGTCCTT
 CAGATTGAAGCTGAAAAGGCTGAATTACGGGTAAGGAGCTGGAAGTGGGAAAATTGATGCATGTGAGAG
 GAGATGGACCCTGGTATTACTATGAGACAATTGACAAGGAACCTATTGATCATTCTCCGAAAGCAACTCC
 TGACAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202714 protein sequence
 Red=Cloning site Green=Tags(s)

MAAMSLRRVSVTAVAALSGRPLGTRLGFGGFLTRGFPKAAAPVRHSGDHGKRLFVIRPSRFYDRRFLKL
 LRFYIALTGIPVAIFITLVNVFIGQAEIAEIPGYVPEHWEYKHPISRWIARNFYDSPEKIYERTMAVL
 QIEAEKAEALRVKELEVRKLMHVRGDPWYYYETIDKELIDHSPKATPDN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

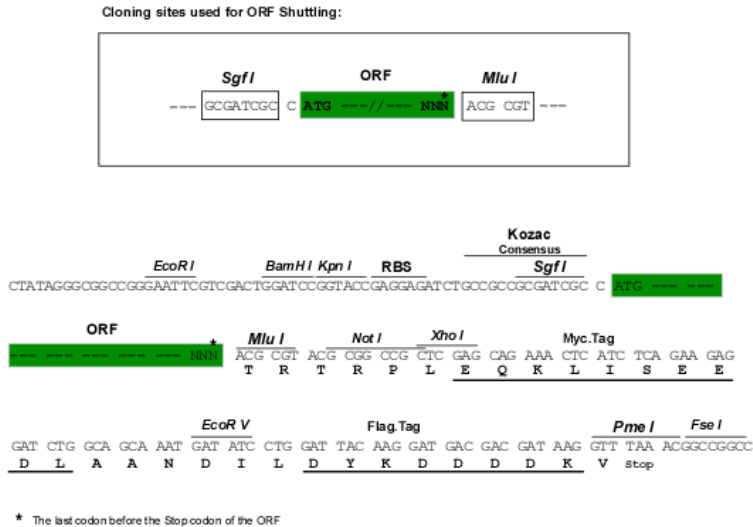


[View online »](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6415_h06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002492

ORF Size: 567 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_002492.4](#)

RefSeq Size: 1076 bp

RefSeq ORF: 570 bp

Locus ID: 4711

UniProt ID: [O43674](#)

Cytogenetics: 3q26.33

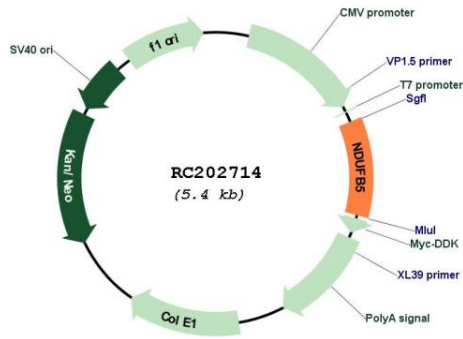
Protein Families: Transmembrane

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

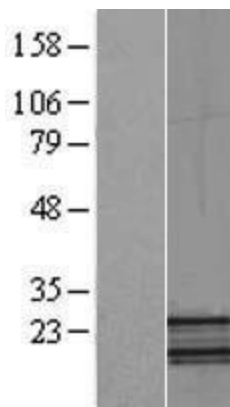
MW: 21.8 kDa

Gene Summary: The protein encoded by this gene is a subunit of the multisubunit NADH:ubiquinone oxidoreductase (complex I). Mammalian complex I is composed of 45 different subunits. It locates at the mitochondrial inner membrane. This protein has NADH dehydrogenase activity and oxidoreductase activity. It transfers electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2011]

Product images:



Circular map for RC202714



Western blot validation of overexpression lysate (Cat# [LY419292]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202714 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).