

Product datasheet for RC202713

NDUFS4 (NM_002495) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NDUFS4 (NM_002495) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: NDUFS4
Synonyms: AQDQ; CI-18; CI-18 kDa; CI-AQDQ; MC1DN1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202713 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGGTCTCAATGTCAGTGGTACTGAGGCAGACGTTGTGGCGGAGAAGGGCAGTGGCTGTAGCTG
CCCTTTCCGTTCCAGGGTCCGACCAGGTCGTTGAGGACTTCCTCATGGAGATTGGCACAGGACCAGAC
TCAAGACACAACACTATAACAGTTGATGAAAAATTGGATCACTACTTAACTGGCGTCCAGAAGAG
CATATAAAAACTAGAAAAGTCAGGATCTTTGTTCTGCTCGCAATAACATGCAGTCTGGAGTAAACAACA
CAAAGAAATGGAAGATGGAGTTTGATACCAGGGAGCGATGGGAAAATCCTTTGATGGGTTGGGCATCAAC
GGCTGATCCCTTATCCAACATGGTTCTAACCTCAGTACTAAAGAAGATGCAGTTTCCTTTGCAGAAAAA
AATGGATGGAGCTATGACATTGAAGAGAGGAAGTTCCAAAACCAAGTCCAAGTCTTATGGTGCAAACT
TTTCTTGAACAAAAGAACAAGAGTATCCACAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202713 protein sequence
Red=Cloning site Green=Tags(s)

MAAVSMSVVLRLQTLWRRRAVAVAALSVSRVPTRSLRTSSWRLAQDQTQDTQLITVDEKLDITTLTGVPEE
HIKTRKVRIFVPARNNMQSGVNNTKKWKMEFDTRERWENPLMGWASTADPLSNMVLTFSTKEDAVSFAEK
NGWSYDIEERKVPKPKSKSYGANFVSWNKRTRVSTK

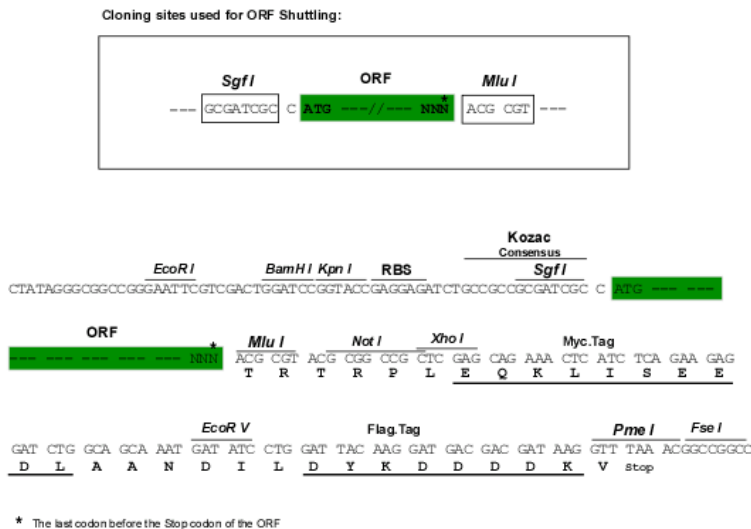
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6415_b06.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002495

ORF Size: 525 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_002495.4](#)

RefSeq Size: 676 bp

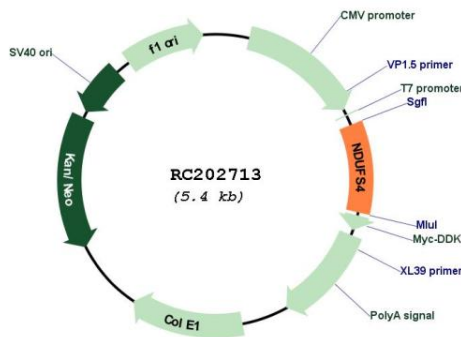
RefSeq ORF: 528 bp

Locus ID: 4724

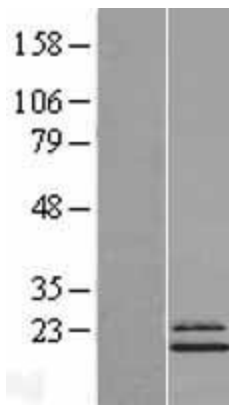
UniProt ID: [O43181](#)

Cytogenetics:	5q11.2
Domains:	ETC_CI_21
Protein Families:	Druggable Genome
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	20.1 kDa
Gene Summary:	This gene encodes an nuclear-encoded accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (complex I, or NADH:ubiquinone oxidoreductase). Complex I removes electrons from NADH and passes them to the electron acceptor ubiquinone. Mutations in this gene can cause mitochondrial complex I deficiencies such as Leigh syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]

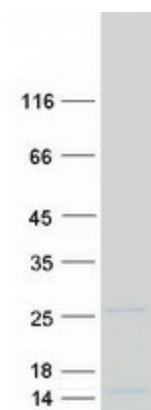
Product images:



Circular map for RC202713



Western blot validation of overexpression lysate (Cat# [LY419295]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202713 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NDUFS4 protein (Cat# [TP302713]). The protein was produced from HEK293T cells transfected with NDUFS4 cDNA clone (Cat# RC202713) using MegaTran 2.0 (Cat# [TT210002]).