

Product datasheet for **SC118619**

NDUFB5 (NM_002492) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFB5 (NM_002492) Human Untagged Clone
Tag:	Tag Free
Symbol:	NDUFB5
Synonyms:	CISGDH; SGDH
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118619 sequence for NM_002492 edited (data generated by NextGen Sequencing)

```
ATGGCGCCATGAGTTTGTTCGGCGGGTTTCGGTACTGCGGTGGCAGCTCTGTCTGGC  
CGGCCCCCTTGGCACTCGCCTCGGATTTGGGGGCTTCTCCCTCGTGGCTTCCGAAGGCT  
GCTGCTCCTGTTTCGACACAGTGGAGACCATGGGAAAAGACTATTTGTCATCAGACCTTCT  
AGATTCTATGACAGGCGTTTTTTGAAGTTATTGAGATTCTACATTGCATTGACTGGGATT  
CCAGTAGCAATTTTCATAACTCTGGTGAATGTATTCATTGGTCAAGCTGAACTAGCAGAA  
ATTCCAGAAGGCTATGTCCAGAACTGGGAATATTATAAGCATCCCATATCAAGATGG  
ATTGCCCGTAATTTCTATGATAGTCCTGAAAAGATATATGAAAGAACAATGGCCGCCTT  
CAGATTGAAGCTGAAAAGGCTGAATTACGGGTAAGGAGCTGGAAGTGCGAAAATTGATG  
CATGTGAGAGGAGATGGACCCTGGTATTACTATGAGACAATTGACAAGGAAGCTTATTGAT  
CATTCTCCGAAAGCAACTCCTGACAATTAA
```

Clone variation with respect to NM_002492.3
100 a=>c



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002492 unedited
 GTAACACGACTTTACTATAGGCGGCCGCGACATTCGCACGAGGGCCATGGCGGCCATGAG
 TTTGTTGCGGCGGGTTTCGGTACTGCGGTGGCAGCTCTGTCTGGCCGGCCCTTGGCAC
 TCGCCTCGGATTTGGGGGCTTCCCTCGTGGCTTTCCGAAGGCTGCTGCTCCTGTTCCG
 ACACAGTGGAGACCATGGGAAAAGACTATTTGTCATCAGACCTTCTAGATTCTATGACAG
 GCGTTTTTTGAAGTTATTGAGATTCTACATTGCATTGACTGGGATTCCAGTAGCAATTTT
 CATAACTCTGGTGAATGTATTCATTGGTCAAGCTGAAGTGCAGAAAATCCAGAAGGCTA
 TGCCCAGAACACTGGGAATATTATAAGCATCCCATATCAAGATGGATTGCCCGTAATTT
 CTATGATAGTCCCTGAAAAGATATATGAAAGAACAATGGCCGTCCTTCAGATTGAAGCTGA
 AAAGGCTGAATTACGGGTAAAGGAGCTGGAAGTGCGAAAATTGATGCATGTGAGAGGAGA
 TGGACCCTGGTACTATGAGACAATTGACAAGGAACTATTGATCATTCTCCGAAAGC
 AACTCCTGACAATTAAGCATTTTTTTCTCAAATACANAGTATATTCTCTTTATTGGAAA
 ATAAATTAATAAATATATTCTGTATTTTTGCTCTCCGTGAAAAACAAAAGAGCCTCTGAC
 ATTACTGTCTCAGTGTGGNTCAGATTGAGGCTTTTGTGGAGGTTTGCCTTTCAC
 TCCCCAAGAAGGGTCAAAAATGTACTAATCAAACTGGAAAATAGAAAATTTGTGACTCC
 TAAATGGTACCACCTTGAAGTTAGGGTTATTTCTGACAAAGGCATTTTAGAAGCTAA
 TAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002492 unedited
 NCCTTCTGTGAACCGGNCGCAATCTNANGATCGGTTTTTTTTTTTTTTTTTTTTTTTTTTT
 AACTTTAAATTTGTTTACTGAGAATCTGTTTATTAAGGAGTTAACATTTTAGAGTTGGT
 TCAATACTTTATGGAACCTAAAATCCTGAGTTGCCCTCAATAATACAGACATCTACAGT
 ACAGGCATTTGTACAAAATACTATAATTACTGGTCTTAACATTATTAGACTTCTATAAC
 TTCCATTTGTGAGTAAATAAAACACTAACCTTTCAAAGTTGCTACAATTTTAGGAGTTC
 ACAAAATCCTATTTCTCCAGTTTTTATTAGTACATTTTAAACCTTCTTTGGGGACTGGAA
 GCCAAACTCCTCAACAAAAGCCTCAATCTGAACCAACTGAGAGACAGTAATGTGAGA
 GGCTCTTTTGTTCACGGAGAGCAAAAATACAGAATATATTTATTAATTTATTTTCCA
 ATAAAGAGAATATACTTTGTATTTGGAGAAAAAATGCTTAATTGTCAGGAGTTGCTTTC
 GGAGAATGATCAATAAGTTCCTGTCAATTGTCTCATAGTAATACCAGGGTCCATCTCCT
 CTCACATGCATCAATTTTCGCACCTCCAGCTCCTTTACCCGTAATTCAGCCTTTTCAGCT
 TCAATCTGAAAGACGGCCATTGTTCTTTTCATATATCTTTTCAGGACTATCATAGAAATTA
 CGGGCAATCCATCTTGATATGGGATGCTTATCATATTCCAGCGTCTGGGACATAGCCT
 TCCTGGAATTCGGTTAGTCCAGCTTGACCATTGGATACATTCACCACAACCTTTGAAAAT
 TGCTCCTGCATCCCCGCTCGGCATGGTGAATCCAATAACCTCCAAAACGCCTGGTTCT
 GATTTCTAAGGTTTCGGACGACAATATGCTTTTCCCATGGCGCGCAA

Restriction Sites:

NotI-NotI

ACCN:

NM_002492

Insert Size:

1110 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](#)

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_002492.2](#), [NP_002483.1](#)

RefSeq Size: 1088 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

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]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).