

## Product datasheet for **RG202714**

### NDUFB5 (NM\_002492) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NDUFB5 (NM\_002492) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** NDUFB5  
**Synonyms:** CISGDH; SGDH  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG202714 representing NM\_002492  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGCCATGAGTTTGTTCGGCGGGTTTCGGTTACTGCGGTGGCAGCTCTGTCTGGCCGGCCCTTG  
 GCACTCGCTCGGATTTGGGGCTTCTCACTCGTGGCTTCCGAAGGCTGCTGCTCCTGTTGACACAG  
 TGGAGACCATGGAAAAGACTATTTGTCATCAGACCTTCTAGATTCTATGACAGGCGTTTTTTGAAGTTA  
 TTGAGATTCTACATTGCATTGACTGGGATTCCAGTAGCAATTTTCATAACTCTGGTGAATGTATTCATTG  
 GTC AAGCTGAAGTACGAGAAATCCAGAAGGCTATGTCCAGAACACTGGGAATATTATAAGCATCCCAT  
 ATCAAGATGGATTGCCCGTAATTTCTATGATAGTCTGAAAAGATATATGAAAGAACAATGGCCGTCCTT  
 CAGATTGAAGCTGAAAAGGCTGAATTACGGGTAAGGAGCTGGAAGTGGCAAAATTGATGCATGTGAGAG  
 GAGATGGACCCTGGTATTACTATGAGACAATTGACAAGGAACCTATTGATCATTCTCCGAAAGCAACTCC  
 TGACAAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG202714 representing NM\_002492  
 Red=Cloning site Green=Tags(s)

MAAMSLRRVSVTAVAALSGRPLGTRLGFGGFLTRGFPKAAAPVRHSGDHGKRLFVIRPSRFYDRRFLKL  
 LRFYIALTGIPVAIFITLVNVFIGQAELAEIPEGYVPEHWEYKHPISRWIARNFYDSPEKIYERTMAVL  
 QIEAEKAEALRVKELEVRKLMHVRGDPWYYYETIDKELIDHSPKATPDN

**TRTRPLE** - GFP Tag - V

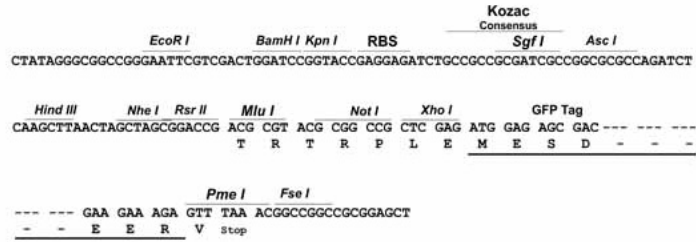
**Restriction Sites:** Sgfl-MluI



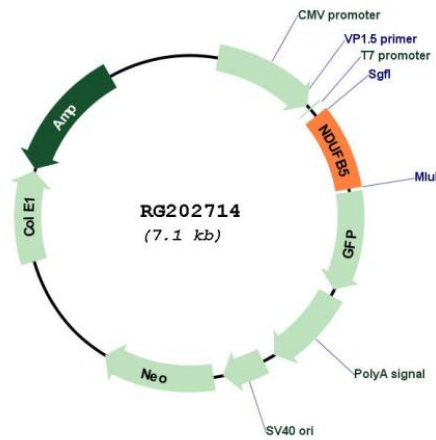
[View online »](#)

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_002492  
 ORF Size: 567 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_002492.4</a>
<b>RefSeq Size:</b>	1088 bp
<b>RefSeq ORF:</b>	570 bp
<b>Locus ID:</b>	4711
<b>UniProt ID:</b>	<a href="#">O43674</a>
<b>Cytogenetics:</b>	3q26.33
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	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]