

## Product datasheet for RC201539

### NDUFA5 (NM\_005000) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NDUFA5 (NM\_005000) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** NDUFA5  
**Synonyms:** B13; CI-13kB; CI-13KD-B; NUFM; UQOR13  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC201539 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCGGGTGTGCTGAAGAAGACCACTGGCCTTGTGGGATTGGCTGTGTGCAATACTCCTCACGAGAGGC  
TAAGAATATTGTACACAAAGATTCTTGATGTTCTTGAGGAAATCCCTAAAAATGCAGCATATAGAAAGTA  
TACAGAACAGATTACAAATGAGAAGCTGGCTATGGTTAAAGCGGAACCAGATGTTAAAAAATTAGAAGAC  
CAACTTCAAGGCGTCAATTAGAAGAGGTGATTCTTCAGGCTGAACATGAACTAAATCTGGCAAGAAAAA  
TGAGGGAATGAAACTATGGGAGCCATTAGTGGAAAGAGCCTCTGCCGATCAGTGAAATGGCCAATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201539 protein sequence  
Red=Cloning site Green=Tags(s)

MAGVLKKTGLVGLAVCNTPHERLRILYTKILDVLEEIPKNAAYRKYTEQITNEKLAMVKAEPDVKKLED  
QLQGGQLEEVILQAEHELNLARKMREWKLWEPLVEEPPADQWKWPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6300\\_h04.zip](https://cdn.origene.com/chromatograms/mk6300_h04.zip)

**Restriction Sites:** SgfI-MluI

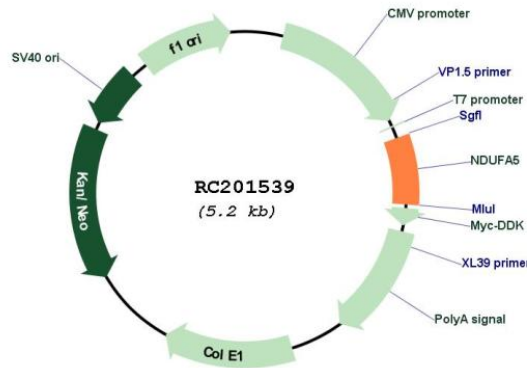


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Cloning Scheme:



Plasmid Map:



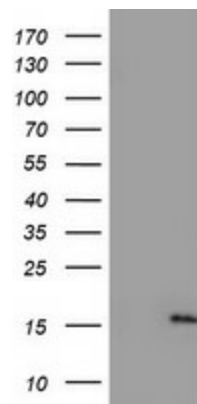
ACCN: NM\_005000

ORF Size: 348 bp

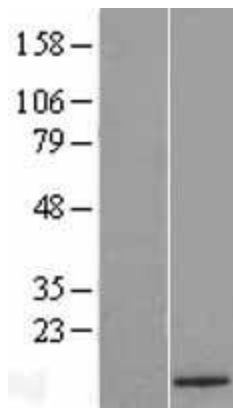
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
RefSeq:	<a href="#">NM_005000.5</a>
RefSeq Size:	5602 bp
RefSeq ORF:	351 bp
Locus ID:	4698
UniProt ID:	<a href="#">Q16718</a> , <a href="#">A0A024R745</a>
Domains:	ETC_CI_29_9
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	13.5 kDa
Gene Summary:	This nuclear gene encodes a conserved protein that comprises the B13 subunit of complex I of the mitochondrial respiratory chain. The encoded protein localizes to the inner mitochondrial membrane, where it is thought to aid in the transfer of electrons from NADH to ubiquinone. Alternative splicing results in multiple transcript variants. There are numerous pseudogenes of this gene on chromosomes 1, 3, 6, 8, 9, 11, 12, and 16. [provided by RefSeq, Apr 2014]

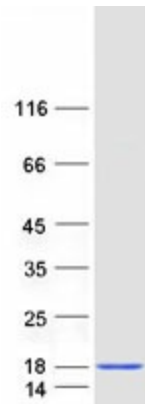
### Product images:



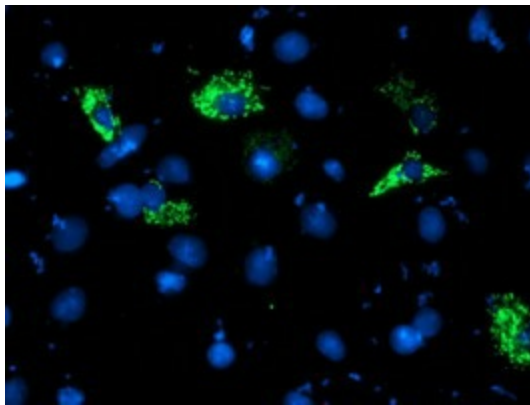
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NDUFA5 (Cat# RC201539, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NDUFA5 (Cat# [TA503881]). Positive lysates [LY417602] (100ug) and [LC417602] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417602]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201539 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NDUFA5 protein (Cat# [TP301539]). The protein was produced from HEK293T cells transfected with NDUFA5 cDNA clone (Cat# RC201539) using MegaTran 2.0 (Cat# [TT210002]).



Anti-NDUFA5 mouse monoclonal antibody ([TA503881]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY NDUFA5 (RC201539).