

## Product datasheet for **RC208533**

### Mitochondrial Translational Initiation Factor 3 (MTIF3) (NM\_152912) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mitochondrial Translational Initiation Factor 3 (MTIF3) (NM_152912) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mitochondrial Translational Initiation Factor 3
Synonyms:	IF3mt
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208533 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCTCTTTTTCTAAAGAGGTTAACTACAACTGTAAGTCTGAAAATAGTTGCATTAGATGTT  
TTGGTAAACACATCCTGCAAAAGACAGCACCAGCACAGTTGTCCCCTATTGCTTCTGCCCAAGACTCTC  
CTTCCTAATTCATGCAAAAGCCTTTAGTACCGCTGAAGACACCCAGAATGAAGGAAAAAAGATAAAAAAG  
AATAAAACAGCTTTTAGTAACGTTGGAAGAAAAATTAGTCAGCGAGTTATCACTTATTTGATGAGAAGG  
GCAATGATTTGGGAAACATGCACCGAGCAAATGTGATTAGACTTATGGATGAGCGAGACCTGCGACTGGT  
TCAAAGGAACACCAGCACAGAACCTGCAGAGTATCAGCTCATGACAGGATTGCAGATCCTCCAGGAGCGG  
CAGAGGCTGAGGGAGATGGAGAAGGCGAACCCCAAACTGGACCAACCCTGAGAAAGGAAGTATTTTGT  
CTTCAAATATTGGACAACATGATTTGGACAAAAGACTAAACAGATTGAGCAGTGGATTAAGAAAAACA  
CCTAGTCCAGATTACCATAAAGAAAGGAAAAATGTAGACGTGTCAGAAAATGAAATGGAGGAGATTTT  
CATCAAATACTCCAGACTATGCCTGGAATAGCTACATTCTCATCTAGGCCACAAGCTGTTCAAGGAGGAA  
AAGCTTTAATGTGTGTTCTTCGTGCTTTGAGCAAAAATGAGGAGAAGGCATATAAAGAACTCAAGAGAC  
CCAGGAAAGAGACACTTTGAACAAAGACCATGGAATGATAAGGAATCAAATGTTCTGCATCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208533 protein sequence  
 Red=Cloning site Green=Tags(s)

MAALFLKRLTLQTVKSENSCIRCFGKHILQKTAPAQLSPIASAPRLSFLIHAKAFSTAEDTQNEGKKIKK  
 NKTAFSNVGRKISQRVIHLEFDEKGNLGNMHRANVIRLMDERDLRLVQRNTSTEPAEYQLMTGLQILQER  
 QRLREMEKANPKTGPTLRKELILSSNIGQHDLDTKTKQIQWIKKKHLVQITIKKGKNDVYSENEMEEIF  
 HQILQTMPIATFSSRPQAVQGGKALMCVLRALSKNEEKAYKETQETQERDTLNKDHGNDKESNVLHQ

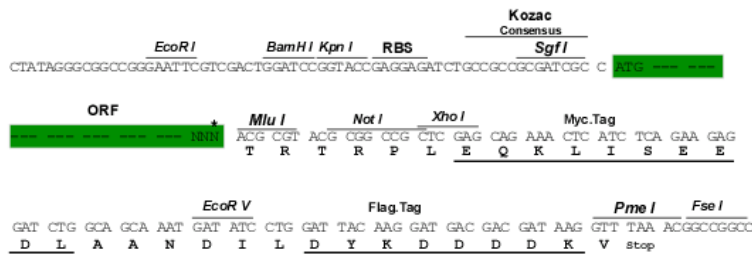
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6349\\_g12.zip](https://cdn.origene.com/chromatograms/mk6349_g12.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_152912

ORF Size: 834 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\\_152912.3](#), [NP\\_690876.2](#)

**RefSeq Size:** 1037 bp

**RefSeq ORF:** 837 bp

**Locus ID:** 219402

**UniProt ID:** [Q9H2K0](#)

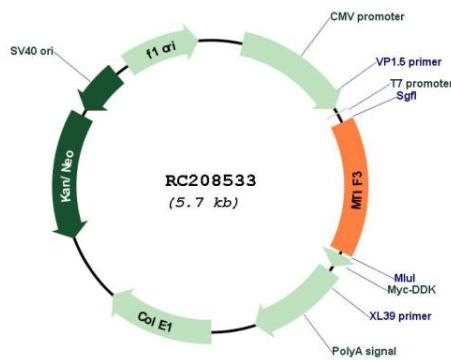
**Cytogenetics:** 13q12.2

**Domains:** IF3\_N

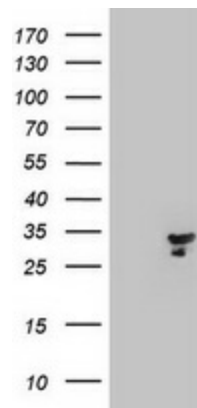
**MW:** 31.7 kDa

**Gene Summary:** This gene encodes a translation initiation factor that is involved in mitochondrial protein synthesis. Polymorphism in this gene is associated with the onset of Parkinson's disease. Alternate splicing results in multiple transcript variants. A pseudogene of this gene is found on chromosome 5. [provided by RefSeq, Oct 2009]

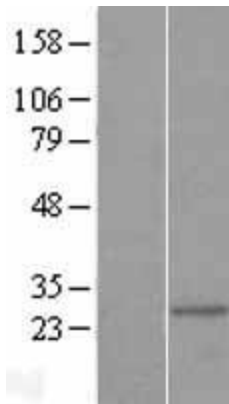
**Product images:**



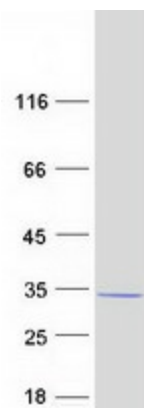
Circular map for RC208533



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MTIF3 (Cat# RC208533, 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-MTIF3 (Cat# [TA800421]). Positive lysates [LY407210] (100ug) and [LC407210] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY407210]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208533 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MTIF3 protein (Cat# [TP308533]). The protein was produced from HEK293T cells transfected with MTIF3 cDNA clone (Cat# RC208533) using MegaTran 2.0 (Cat# [TT210002]).