

## Product datasheet for **RG207184**

### Mitofusin 1 (MFN1) (NM\_033540) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mitofusin 1 (MFN1) (NM_033540) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mitofusin 1
Synonyms:	hfzo1; hfzo2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG207184 representing NM\_033540  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCAGAACCTGTTTCTCCACTGAAGCACTTTGTGCTGGCTAAGAAGGCGATTACTGCAATCTTTGACC  
 AGTTACTGGAGTTTGTACTGAAGGATCACATTTTGTGAAGCAACATATAAGAATCCGGAACCTGATCG  
 AATAGCCACTGAAGATGATCTGGTAGAAATGCAAGGATATAAAGACAAGCTTTCCATCATTGGTGAGGTG  
 CTATCTCGGAGACACATGAAGGTGGCATTTTTTGGCAGGACAAGCAGTGGGAAGAGCTCTGTTATCAATG  
 CAATGTTGTGGGATAAAGTTCTCCCTAGTGGGATTGGCCATATAACCAATTGCTTCTAAGTGTGAAGG  
 AACTGATGGAGATAAAGCCTATCTTATGACAGAAGGATCAGATGAAAAAAGAGTGTGAAGACAGTTAAT  
 CAACTGGCCCATGCCCTTACATGGACAAAGATTTGAAAGCTGGTGTCTTGTACGTGTGTTTTGGCCAA  
 AAGCAAAATGTGCCCTTGTAGAGATGACCTGGTGTAGTAGACAGTCCAGGCACAGATGCTACTACAGA  
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 ACCTAATGAATACGGAAAAACACTTTTTTTCACAAGGTGAATGAGCGGCTTCCAAAGCCTAATTTTTCA  
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 GGAAAGATGCCTGCATTTCTTGGTGGAGGAGCTCAAAGTTGTAATGCTTTAGAAGCACAGAATCGTATC  
 TTCTTTGTTTCAGCAAAGGAAGTTCTTAGTGCTAGAAAGCAAAAAGCACAGGGGATGCCAGAAAGTGGTG  
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 TATCTCGCAGTCAGCAGTAAAAACAAAGTTGCAACAGCACACTATCAGAGCTAACAGATACTAGCTACT  
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 TCTGTTTTGGTTGATGAATTTTGTTCAGAGTTTTCATCCTAATCCAGATGTATAAAAATATATAAAGTG  
 AATTAATAAGCACATAGAGGATGGTATGGGAAGAAATTTGGCTGATCGATGCACCGATGAAGTAAACGC  
 CTTAGTGCTTCAGACCCAGCAAGAAATTTGAAAATTTGAAGCCATTACTTCCAGCTGGTATACAGGAT  
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 CTGAGCTGGACCCCATGCCAAGGAGCGAGCCTTTAAACAGCAGTTTGTAAACTATGCAACTGAAAAAC  
 TGAGGATGATTGTTAGCTCCACGAGTGCAACTGCAGTCACCAAGTAAAAACAACAAATAGCTACCACTTT  
 TGCTCGCCTGTGCCAACAAAGTTGATATTACTCAAAAACAGCTGGAAGAAGAAATTTGCTAGATTACCCAAA  
 GAAATAGATCAGTTGGAGAAAAACAAAACAATCAAAGCTCTTAAGAAATAAAGCTGTTCAACTTGAAA  
 ATGAGCTGGAGAATTTACTAAGCAGTTTCTACCTTCAAGCAATGAAGAATCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

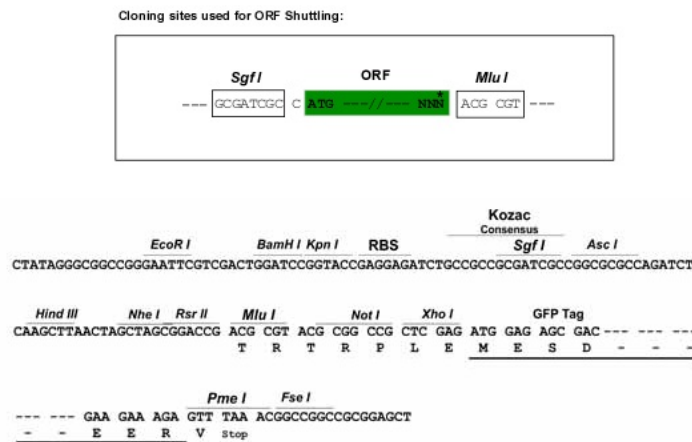
**Protein Sequence:** >RG207184 representing NM\_033540  
 Red=Cloning site Green=Tags(s)

MAEPVSPLKHFVLAKKAITAIFDQLLEFVTEGSHFVEATYKNPELDRIATEDDLVEMQGYKDKLSIIGEV  
 LSRRHMKVAFFGRTSSGKSSVINAMLWDKVLPSGIGHITNCFLSVEGTGDKAYLMTEGSDEKKS SVKTVN  
 QLAHALHMDKDLKAGCLVRVFWPKAKCALLRDDLVLDSPGTDVTTTELDSWIDKFCLDADVFVLVANSES  
 TLMNTEKHFFHFKVNERLSKPNIFILNNRWDA SASEPEYMEDVRRQHMERCLHFLVEELKVVNALEAQNRI  
 FFVSAKEVLSARKQKAQMPESGVALAEGFHARLQEFQNFQIIFEECISQSAVKTKFEQHTIRAKQILAT  
 YKNIMDSVNLAAEDKRHYSVEEREDQIDRLDFIRNQMNLLTLDVKKIKEVTEEVANKVSCAMTDEICRL  
 SVLVDFECSEFHNPDLVKIYKSELNKHIEDGMGRNLADRCTDEVNALVLQTQQEIIENLKPLLPAGIQD  
 KLHTLIPCKKFDLSYNLNYHKLCSDFQEDIVFRFSLGWSSLVHRFLGPRNAQRVLLGLSEPIFQLPRSLA  
 STPTAPTTPATPDNASQEELMITLVTGLASVTSRTSMGIIIVGGVIWKTIGWKLLSVSLTMYGALYLYER  
 LSWTTHAKERAFKQQFVNYATEKLRMIVSSTSANC SHQVKQIATTFARLCQQVDITQKQLEEEIARLPK  
 EIDQLEKIQNNSKLLRNKAVQLENELENF TKQFLPSSNEES

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_033540

**ORF Size:** 2223 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\\_033540.3](#)

**RefSeq Size:** 3527 bp

**RefSeq ORF:** 2226 bp

**Locus ID:** 55669

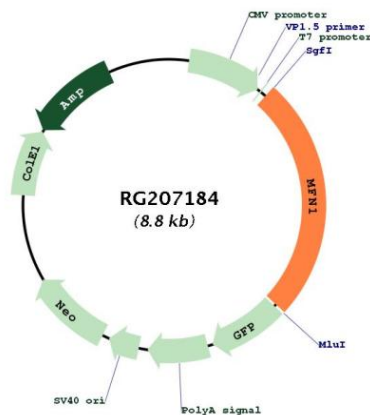
**UniProt ID:** [Q8IWA4](#)

**Cytogenetics:** 3q26.33

**Domains:** fzo\_mitofusin

**Gene Summary:** The protein encoded by this gene is a mediator of mitochondrial fusion. This protein and mitofusin 2 are homologs of the Drosophila protein fuzzy onion (Fzo). They are mitochondrial membrane proteins that interact with each other to facilitate mitochondrial targeting. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG207184