

Product datasheet for **MR210400**

Mfn1 (NM_024200) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Mfn1 (NM_024200) Mouse Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Mfn1 |
| Synonyms: | 2310002F04Rik; 6330416C07Rik; D3Ertd265e; HR2; mKIAA4032 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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**ORF Nucleotide
Sequence:**

>MR210400 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCAGAAACGGTATCTCCACTGAAGCACTTCGTGCTGGCAAAGAAAGCCATCACTGCAATCTTCGGCC
 AGTTACTGGAGTTTGTTACTGAGGGCTCACATTTTGTGAAGCAACATACAGAAATCCAGAACTTGATCG
 AATAGCATCCGAGGATGATCTGGTGAAATACAGGGCTACAGAAACAAGCTTGCTGTCATTGGGGAGGTG
 CTGTCTCGGAGACATATGAAGGTGGCATTTCCTGGCAGGACAAGTAGTGGCAAGAGCTCTGTCATCAATG
 CAATGCTGTGGGATAAAGTCTCCCGAGCGGATTGGTACACAACCACTGCTTCTGAGTGTGAGGG
 GACCGATGGAGATAAAGCCTACCTTATGACCGAAGGGTCAGATGAAAAGAAAAGTGTGAAGACTGTTAAT
 CAGCTGGCCCATGCCCTCCATATGGATAAAGACTTGAAGCTGGTGTCTTGTGCATGATTTTGGCCCA
 AAGCAAAATGTGCCCTCTTGAGAGATGACCTGGTTTTAGTAGACAGCCAGGTACAGATGCACCACAGA
 GCTGGATATCTGGATTGATAAGTTTTGCCTTGATGCTGATGTCTTTGTTTTGGTTGCAAACCTCGGAATCA
 ACACTGATGAACCGGAGAAACATTTTTCCATTAAGGTGAATGAGCGGCTCTCCAAGCCCAACATCTTCA
 TTCTGAATAACCGTTGGGATGCTTCTGCTCGGAGCCGGAGTACATGGAGGATGTGCGCAGACAGACAT
 GGAGAGATGTCTTCACTTCTTGGTAGAAGAGCTCAAGGTTGTAAGTCCGTCGGAAGCTCGGAATCGGATC
 TTTTTGTTTTAGCAAGGAAGTTCTCACTCCAGAAAGCATAAAGCTCAGGGGATGCCAGAAGGTGGT
 GGGCACTTGCAAGGATTTCAAGCAAGATTACAGGAGTTTCAAATTTGAACAACTTTTGGAGAGTG
 TATCTCGCAGTCAGCAGTGAACAAAGTTTGAACAGCACACTATCAGAGCTAACAGATACTAGACACT
 GTGAAAAACATACTGGACTCAGTAAACGTGGCAGCAGCAGAGAAGAGGGTTTATCAATGGAAGAGAGGG
 AAGACCAATCGATAGACTGGACTTTTATCCGAAACCAGATGAACCTTTTAACTGGATGTTAAGAAAGAA
 GATCAAGGAGGTACGGAGGAGGTGGCAAACAAGGTTTCTTGTGCAATGACAGATGAAATTTGTGACTA
 TCTGTTTTGGTTGATGAGTTTTGTTCTGAGTTTATCCTACCCCAAGTGTACTGAAAGTGTATAAGAGTG
 AGTTAAATAAGCACATAGAAGATGGCATGGGAAGAAATTTGGCTGATCGGTGTACCAATGAAGTCAATGC
 CTCCATTCTTCAATCTCAGCAAGAAATCATCGAAAACCTGAAGCCACTACTTCCAGCTGGTATACAGAAT
 AAACCTCATACTTAATCCCTTGCAAAAAGTTTGACCTCAGCTATGATCTCAATTGCCACAAGCTGTGTT
 CGGATTTTCAAGAGGACATTGTGTTTCGGTTTTCCCTGGGCTGGTCTTCCCTGTACATCGATTCTGGG
 TTCCACAATGCACAGAGGGTGTGCTCGGGCTGTGAGAGCCATCTTTCAGTCCCTAGATCTTTAGCT
 TCAACTCTACTGCTCCTTCTAACCCAGCAGCCCGGATAATGCAGCCAGGAGGAGCTCATGATCACCC
 TGATCACAGGATTGGCGTCCCTCACGTCGAGAACCCTCCATGGGCATCATGTTGTTGGGGCGTGATTTG
 GAAAACAGTGGGCTGGAACATACTCTGTACCTTAAGTATGTACGGAGCTCTGTACCTTTATGAGAGG
 CTGACGTGGACGACCCGTGCGAAAGAGAGAGCGTTAAGCAGCAGTTTGTAACTATGCAACTGAGAAGC
 TGCAGATGATTGTGAGCTTACCAGTGCAACTGCAGCCACCAAGTACAGCAAGAAATGGCCACTACTTT
 TGCTCGACTGTGCCAACAAAGTTGATGTTACTCAGAAACATCTGGAAGAGGAAATGCAAGATTATCCAAA
 GAGATAGACCAACTGGAGAAAAACAGAACTCAAAGCTCTTAAGAAATAAAGCTATTCAACTTGAAA
 GTGAGCTGGAGAATTTTTCGAAGCAGTTTCTACACCCGAGCAGTGGAGAATCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210400 protein sequence
Red=Cloning site Green=Tags(s)

MAETVSPLKHFVLAKKAITAIFGQLLEFVTEGSHFVEATYRNPELDRIASEDDLVEIQGYRNKLAVIGEVL
 LSRRHMKVAFFGRTSSGKSSVINAMLWDKVLPSGIGHTTNCFLSVEGTGDKAYLMTEGSDEKKSVKTVN
 QLAHALHMDKDLKAGCLVHVFWPKAKCALLRDDLVLVDSPGTDVTTLEDIWIWDFCLDADVFVLVANSES
 TLMNTEKHFFHKVNERLSKPNIFILNNRWDA SASEPEYMEDVRRQHMERCLHFLVEELKVVSPSEARNRI
 FFVSAKEVLSNRKHAQGMPEGGALAEQFQARLQEFQNFQTFEECISQSAVKTKFEQHTIRAKQILD
 YKNILDSVNVA AEKRVYSMEEREDQIDRLDFIRNQMNLLTLDVKKIKI E VTEEVANKVSCAMTDEICRL
 SVLVDFECSEFHPTPSVLKVKYSELNKHIEDGMGRNLADRCTNEVNASILQSQQEIIENLKPLLPAGIQN
 KLHTLIPCKKFDLSYDLNCHKLCSDFQEDIVFRFSLGWSSLVHRFLGSTNAQRVLLGLSEPIFQVPRSLA
 STPTAPSNPAAPDNAQEELMITLITGLASLTSRTSMGIIVVGGVIWKTGVGKLSVTVLSMYGALYLYER
 LTWTRAKERAFKQQFVNYATEKLQMIVSFTSANC SHVQVQEMATTFARLCQQVDVTQKHLEEEIARLSK
 EIDQLEKIQNNSKLLRNKAIQLESELENF SKQFLHPSSGES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_024200

ORF Size: 2226 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_024200.1](#), [NM_024200.2](#), [NM_024200.3](#), [NM_024200.4](#), [NP_077162.1](#)

RefSeq Size: 4531 bp

RefSeq ORF: 2226 bp

Locus ID: 67414

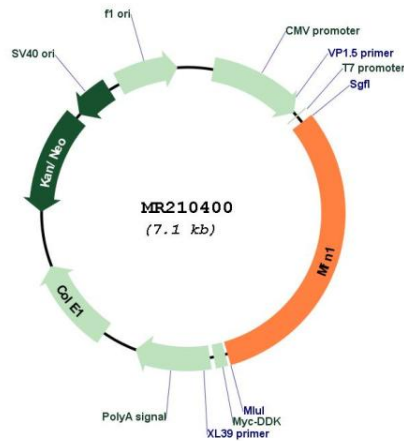
UniProt ID: [Q811U4](#)

Cytogenetics: 3 15.75 cM

MW: 83.7 kDa

Gene Summary: Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:12527753, PubMed:23921378, PubMed:24513856, PubMed:15297672). Membrane clustering requires GTPase activity (By similarity). It may involve a major rearrangement of the coiled coil domains (PubMed:15297672). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events (PubMed:12527753). Overexpression induces the formation of mitochondrial networks (in vitro). Has low GTPase activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210400