

Product datasheet for **SC114726**

Mitofusin 2 (MFN2) (NM_014874) Human Untagged Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Mitofusin 2 (MFN2) (NM_014874) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Mitofusin 2 |
| Synonyms: | CMT2A; CMT2A2; CMT2A2A; CMT2A2B; CPRP1; HMSN6A; HSG; MARF |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF: >NCBI ORF sequence for NM_014874, the custom clone sequence may differ by one or more nucleotides

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ATGTCCTCTCTCTCTCGATGCAACTCTATCGTCACAGTCAAGAAAAATAAGAGACACATGGCTGAGG
TGAATGCATCCCCACTTAAGCACTTTGCTACTGCCAAGAAGAAGATCAATGGCATTGAGCAGCTGGG
GGCTACATCCAGGAGAGCGCCACCTTCCCTGAAGACACGTACAGGAATGCAGAAGTGGACCCCGTTACC
ACAGAAGAACAGTTCTGGACGTCAAAGGTTACCTATCCAAAGTGAGAGGCATCAGTGAGGTGCTGGCTC
GGAGGCACATGAAAGTGGCTTTTTTGGCCGGACGAGCAATGGGAAGAGCACCGTGATCAATGCCATGCT
CTGGGACAAAGTTCTGCCCTCTGGGATTGGCCACACCACCAATTGCTTCTCGGGTAGAGGGCACAGAT
GGCCATGAGGCCCTTCTCCTTACCAGGGCTCAGAGGAAAAGAGGAGTGCCAAGACTGTGAACCAGCTGG
CCCATGCCCTCCACCAGGACAAGCAGCTCCATGCCGCGAGCTAGTGAGTGTGATGTGGCCCAACTTAA
GTGCCACTTCTGAAGGATGACCTCGTTTTGATGGACAGCCCTGGTATTGATGTCACCACAGAGCTGGAC
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CAACCGCTGGGATGCATCTGCCCTCAGAGCCGAGTACATGGAGGAGGTGCGGCGGAGCAGATGGAGCGT
TGTACCAGCTTCTGGTGGATGAGCTGGGCGTGGTGGATCGATCCAGGCCGGGGACCGCATCTTCTTTG
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CGCAGAAGGCTTCAAGTGAGGATGTTTGTGTTTCAAGATTTTGGAGGAGATTTGAGGAGTGCATCTCC
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CAGATTACGGAGGAAGTGGAGAGGCAGGTGTCGACTGCAATGGCCGAGGAGATCAGGCCCTCTCTGTAC
TGGTGGACGATTACCAGATGGACTTCCACCCTTCTCCAGTAGTCCTCAAGGTTTATAAAGAAATGAGCTGCA
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CCAGGAAGACATTGAGTTCATTTCTCTCTCGGATGGACCATGCTGGTGAATAGTTTCTGGGCCCAAG
AACAGCCGTCGGGCTTGTGGCTACAATGACCAGGTCCAGCGTCCCATCCCTCTGACGCCAGCCAACC
CCAGCATGCCCCACTGCCACAGGGCTCGCTCACCCAGGAGGAGTTCATGGTTTCCATGGTTACCGGCT
GGCTCCTTGACATCCAGGACCTCCATGGGCATCTTGTGTTGGAGGAGTGGTGTGGAAGGCAGTGGG
TGGCGGCTCATTGCCCTCTCTTTGGGCTCTATGGCTCCTCTACGTCTATGAGCGTCTGACCTGGACCA
CCAAGGCCAAGGAGAGGGCTTCAAGCGCCAGTTTGTGGAGCATGCCAGCGAGAAGCTGCAGCTTGTGAT
CAGCTACACTGGCTCCAAGTGCAGCCACCAAGTCCAGCAGGAACTGTCTGGGACCTTTGCTCATCTGTGT
CAGCAAGTTGACGTACCCGGGAGAACCTGGAGCAGGAAATGCCCCTATGAACAAGAAAATGAGGTTT
TTGACTCACTTCCAGAGCAAAGCAAAGCTGCTCAGGAATAAAGCCGTTGGTTGGACAGTGAAGTCAACAT
GTTACACACCAGTACCTGCAGCCAGCAGATAG
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_014874 unedited
 NGGTTCGAATTTTGGTATACGAACCTCACTATAGGGCGGCCGCGATTTCGGCACCAGGGGAG
 GTGAAGTCAGGACTGGTGGAGTCAACACAGTCAATCAATAGCCAACTCAACCTGAGACA
 GGACAGAAGAGAACTCAGAATCTTTTTGTCTTTTGACTTCAGCCATGTCCATGATGCCT
 ACCCTGTGAAGATCTCTACCATCCAAAAACGCAATGTCCTGCTCTTCTCTCGATGCA
 ACTCTATCGTCACAGTCAAGAAAAATAAGAGACACATGGCTGAGGTGAATGCATCCCCAC
 TTAAGCACTTTGTCACTGCCAAGAAGAAGATCAATGGCATTMTTGAGCAGCTGGGGCCT
 ACATCCAGGAGAGCGCCACCTTCCTTGAAGACAGGTACAGGAATGCAGAACTGGACCCCG
 TTACCACAGAAGAACAGGTTCTGGACGTCAAAGGTTACCTATCCAAAGTGAAGGATCA
 GTGAGGTGCTGGCTCGGAGGCACATGAAAGTGGCTTTTTTTGGCCGACGAGCAATGGGA
 AGAGCACCGTGATCAATGCCATGCTCTGGGACAAAGTTCTGCCCTCTGGGATTGGCCACA
 CCACCAATTGCTTCTGCGGGTAGAGGGCACAGATGGCCATGAGGCCTTCTCCTTACC
 AGGGCTCAGAGGAAAAGAGGAGTGCCAAGACTGTGAACCAGCTGGCCATGCCCTCCACC
 AGGACAAGCAGCTCCATGCCGGCAGCCTAGTGAGTGTGATGTGGCCAACTCTAAGTGCC
 CACTTCTGAAGGATGACCTCGTTTTGATGGACAGNCCCTGGTATTGATGTCACCACAGAG
 CTGGACAGCTGGATTGACAAGTNTTGTCTGATGCTGATGNGTTTTGTGCTGGTGGCCACT
 AGAGTCANCCCTGAGC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_014874 unedited
 CTATGGACCCGCGCCGCAATCTAGNAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
 TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCCCAAGAGGATCCACCTGGGTTTTTTTT
 TTATTTCCCAATTTTGGACCATGGATCCGGGGTACCTCAGCCAAATCCTTCCCCTTAA
 ATCCTTCAAAAAACCTCCTTGGGTACCCCGTTTGGCCCCACCAAAGGACCTTAAAA
 CCACCATGGCCCCACCTTAAAAAGGCTTTGGCCATCCTTTTTTAAAAAGGGGCTCCC
 CCTCAGGGGAAAAAATTAATTTTCCGTTTGGAAAAACCCAAAAATTTTTTCTTTCCCC
 GGGGGCTCCTTAAAAAAATTTCTTGTCCCCCTAAAAAATTTTTTTTTTCAAAAAA
 CCCCAATTCTTGAAATGGGGGAACAGGAATTTCCCCTAACATGCTGGAAAGGGGCC
 TGGTCTTTAGGGCCCCCACCCCCGGGACACCCCCCCCCACCTTGCCCCCGGCAAG
 ACTCCCACCTTCCCCCAACCAAGGCCACACGGGGGCTCTTAACCCCCCGCTTCCA
 CCCCACGGGCCACACCCCTGATTGCGGGGCTCCCACATGGCGTGAGGGGGCGTTCCA
 TCCCCCTCAACCAGCCATCCGGCGCTGGCCNCCCCCCCCCACACAGCGGGGCC
 CCTTTCTGACCGATGCCATCTTNCGCACCGTACGCACTTACGCGTACTGTCTCTAT
 CATCATTATTTTCATACGCATTCTNGACCAATCCTCCCNTTCCCCCCCCGCTTCTCC
 GGCCCGCCACCTCTGTTTCCCCCACGCGCCACCCGTATATTTACACCCCGCACCCCC
 ACGCGTTCCTCTCTCCCNNNCNACCCTACCTCCCCGCGCCTCCGCCCCCATTTGGC
 CCCGCACCACCTCACTTACTNTCTCCACTTACTACCCCGTACAACCCACTCTCCCA
 CTCCCCCCT

Restriction Sites:

NotI-NotI

ACCN:

NM_014874

Insert Size:

3810 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_014874.2](#), [NP_055689.1](#)

RefSeq Size: 4546 bp

RefSeq ORF: 2274 bp

Locus ID: 9927

UniProt ID: [O95140](#)

Cytogenetics: 1p36.22

Domains: fzo_mitofusin

Protein Families: Transmembrane

Gene Summary: This gene encodes a mitochondrial membrane protein that participates in mitochondrial fusion and contributes to the maintenance and operation of the mitochondrial network. This protein is involved in the regulation of vascular smooth muscle cell proliferation, and it may play a role in the pathophysiology of obesity. Mutations in this gene cause Charcot-Marie-Tooth disease type 2A2, and hereditary motor and sensory neuropathy VI, which are both disorders of the peripheral nervous system. Defects in this gene have also been associated with early-onset stroke. Two transcript variants encoding the same protein have been identified. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1) represents the longer transcript. Both variants 1 and 2 encode the same protein.