

Product datasheet for **RC201010**

Mucolipin 1 (MCOLN1) (NM_020533) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mucolipin 1 (MCOLN1) (NM_020533) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mucolipin 1
Synonyms:	MG-2; ML1; ML4; MLIV; MST080; MSTP080; TRP-ML1; TRPM-L1; TRPML1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201010 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACAGCCCCGGCGGGTCCGCGGGCTCAGAGACCGAGCGGCTTCTGACCCCCAACCCGGGTATGGGACCCAGGGCGGCCCTTACCGGCCCTCCGACACCCAGAGAGGAAAGACCTTCGCGCTCGTCTCAAATACCTTTTTCATGAGTCCCTGCGACAAGTTTCGAGCAAGGGCCGCAAGCCCTGCAAGCTGATGCTGCAAGTGTCAAGATCCTGGTGGTACGGTGCAGCTCATCTGTTGGGCTCAGTAATCAGCTGGTGTGACATTCCGGGAAGAGAACCACATCGCCTCCGACACCTTCTCTGCTGGGCTACTCGGACGGAGCGGATGACACCTTCGCAGCCTACACGCGGGAGCAGCTGTACCAGGCCATCTTCCATGCTGTGGACCAGTACCTGGCGTTGCCGTGACGTGCTACTGGGCCGGTATGCGTATGTCGGTGGGGTACCCTTGGACCAATGGCTCAGGGCTTCTCTCTGCCAGCGGACTACCACCGAGGCCACGTGGACCCGCCAACGACACATTTGACATTGATCCGATGGTGGTACTGACTGCATCCAGTGGATCCCCCGAGCGGCCCTCCGCCCCAGCGAGCATCTACCCTCTTGGAAAGCAGCTCCAGTTACAAGAACCTCAGCTCAAATCCACAAGCTGGTCAATGCACCATCCACTTCCGGCTGAAGACCTAACCTCCAGACCTCATCAATAATGAGATCCCGGACTGCTATACCTTCAGCGTCTGATCACGTTTGACAACAAAGCACACAGTGGGCGGATCCCCATCAGCCTGGAGACCCAGGCCACATCCAGGAGTGAAGACCCAGTGTCTCCAGCACGGAGACAACAGCTTCCGGCTCCTGTTGACGTGGTGGTATCCTCACCTGCTCCCTGCTCTCTGCGCCGCTCACTCCTTCGAGGCTTCTGCTGCAAAACGAGTTTGTGGGTTTGTGGCGGACGGGACGGGTATCAGCCTGTGGAGCGGCTGGAATTTGCAATGGCTGGTACATCTGCTCGTACCAGCGATGTGCTCACCATCTCGGGCACCATCATGAAGATCGCATCGAGGCCAAGAACCTGGCAGCTACGAGCTCTGCAGCATCCTCCTGGGCACCTCGACGCTGGTGTGGGTTGGCGCGTATCCGCTACCTGACCTTCTCCACAACATAAATCCTCATCGCCACACTGCGGGTGCCCTGCCAGCGTATGCGCTTCTGCTGCTGGTGTGCTATCTACCTGGGCTACTGCTTCTGTGGTGGATCGTGGGCCCTATCATGTGAAGTTCGCTCACTCTCCATGGTGTCTGAGTGCCTGTTCTCGTCAATCAATGGGACGACATGTTTGTGACGTTTCGCCCATGACAGGCGCAGGCGCCAGCAGCCTGGTGGGCTTCTCCAGCTTACTTTACTCTTATCAGCCTTTCATCTACATGGTGTGCTCAGCCTTTCAATCGCGCTATCACCAGCGCTACGACACCATCAAGCATCCCGCGGCGCAGGCGCAGAGGAGAGCGAGCTGCAGGCCATATCGACAGTCCAGGACAGCCCCACTCCGGCAAGTCCGCGCGGGAGCGGCTCGGCCGACGCTTCTGCTGCTGCGAAGGGACCCCTCGGAGGAGATTGCTGCTGGTGAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201010 protein sequence
 Red=Cloning site Green=Tags(s)

MTAPAGPRGSETERLLTPNPGYGTQAGPSPAPPTPEEEDLRRRLKYFFMSPCDKFRAGRKPCKLMLQV
 VKILVVTVQLILFGLSNQLAVTFREENTIAFRHLFLLGYSDGADDTFAAYTREQLYQAIHVAVDQYLALP
 DVSLGRYAYVRGGDPWTNGSGLALCQRYHRGHVDPANDTFIDPMVVTDCIQVDPPEPPPPSDDL
 LLESSSYKNLTLKFHKLNVNVIHFRLKINLQSLINNEIPDCYTFSVLITFDNKAHSGRIPISLETQAH
 IQECKHPSVVFQHDNSFRLFDVVVILTCSLFLLCARSLLRGFLQNEFVGFMRQRGRVISLWERLEF
 VNGWYIILLVTSVLTISGTIMKIGIEAKNLASYDVCSILLGTSTLLVWGVIRYLTFHNYNIIATLRV
 ALPSVMRFCCCVAVIYLYGFCGWIVLGPYHVKFRSLSMVSECLFSLINGDDMFVTFAMQAQQGRSSLV
 WLFSQLYLYSFLSIYMYLSLFIALITGAYDTIKHPGGAGAESEQLQAYIAQCQDSPTSGKFRRGSGSA
 CSLLCCGRDPSEHSLLVN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6198_g01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_020533

ORF Size: 1740 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_020533.3](#)

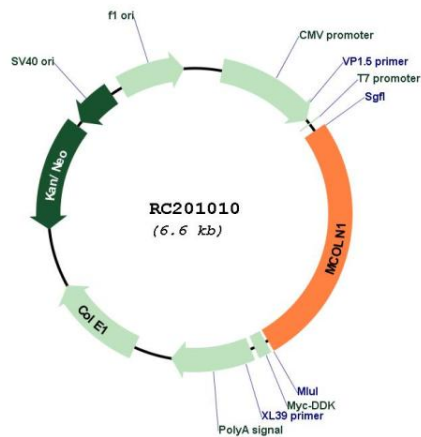
RefSeq Size: 2118 bp

RefSeq ORF: 1743 bp

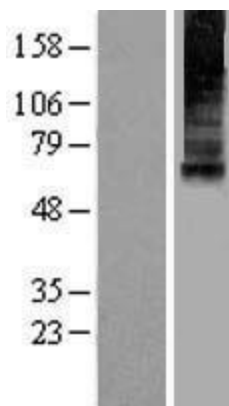
Locus ID: 57192

UniProt ID: [Q9GZU1](#)
Cytogenetics: 19p13.2
Domains: ion_trans
Protein Families: Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane
MW: 65 kDa
Gene Summary: This gene encodes a member of the transient receptor potential (TRP) cation channel gene family. The transmembrane protein localizes to intracellular vesicular membranes including lysosomes, and functions in the late endocytic pathway and in the regulation of lysosomal exocytosis. The channel is permeable to Ca(2+), Fe(2+), Na(+), K(+), and H(+), and is modulated by changes in Ca(2+) concentration. Mutations in this gene result in mucopolipidosis type IV. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RC201010



Western blot validation of overexpression lysate (Cat# [LY402793]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201010 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).