

Product datasheet for **RG201010**

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:	TurboGFP
Symbol:	Mucolipin 1
Synonyms:	MG-2; ML1; ML4; MLIV; MST080; MSTP080; TRP-ML1; TRPM-L1; TRPML1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG201010 representing NM_020533
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGACAGCCCCGGCGGGTCCGCGCGGCTCAGAGACCGAGCGGCTTCTGACCCCCAACCCCGGTATGGGA
 CCCAGGCGGGCCCTTACCGGCCCTCCGACACCCCAAGAGGAAGACCTTCGCGTCGCTCAATA
 CTTTTTATGAGTCCCTGCGACAAGTTTCGAGCCAAGGGCCGCAAGCCCTGCAAGCTGATGCTGCAAGTG
 GTCAAGATCCTGGTGGTACGGTGCAGCTCATCTGTTTGGGCTCAGTAATCAGCTGGTGTGACATTCC
 GGAAGAGAACCACATCGCCTTCCGACACCTTCTCCTGCTGGGCTACTCGGACGGAGCGGATGACACCTT
 CGCAGCCTACACGCGGGAGCAGCTGTACCAGGCCATCTTCCATGCTGTGGACCAGTACCTGGCGTTGCC
 GACGTGCTACTGGGCCGGTATGCGTATGTCGTTGGTGGGGTACCCTTGGACCAATGGCTCAGGGCTT
 CTCTCTGCCAGCGGACTACCACCGAGGCCACGTGGACCCGCCAACGACACATTTGACATTGATCCGAT
 GGTGGTACTGACTGCATCCAGTGGATCCCCCGAGCGGCCCTCCGCCCCAGCGAGATCTCACC
 CTCTTGGAAAGCAGCTCCAGTTACAAGAACCTCAGCTCAAATCCACAAGCTGGTCAATGTCACCATCC
 ACTTCCGGCTGAAGACCTAACCTCCAGAGCCTCATCAATAATGAGATCCCGGACTGCTATACCTTCAG
 CGTCTGATCACGTTTGACAACAAAGCACACAGTGGGCGGATCCCCATCAGCCTGGAGACCCAGGCCAC
 ATCCAGGAGTGAAGACCCAGTGTCTTCCAGCACGGAGACAACAGCTTCCGGCTCCTGTTTGACGTGG
 TGGTCATCCTCACCTGCTCCCTGCTTCTCCTCTGCGCCCGCTCACTCCTTCGAGGCTTCTGCTGCA
 GAACGAGTTTGTGGGTTTGTGGCGGACGGGGACGGGTATCAGCCTGTGGAGCGGCTGGAATTT
 GTCATCGAGGCCAAGAACCTGGCAGCTACGAGCTCTGCAGCATCCTCCTGGGCACCTCGAGCTGCTGGT
 GTGGGTGGGCGTGATCCGCTACCTGACCTTCTTCCACAACATAAATCCTCATCGCCACACTGCGGGTG
 GCCCTGCCAGCGTATGCGCTTCTGCTGCTGGTGTGCTATCTACCTGGGCTACTGCTTCTGTGGCT
 GGATCGTGTGGGCCCTATCATGTGAAGTTCCGCTCACTCTCCATGGTGTCTGAGTGCCTGTTCTCGCT
 CATCAATGGGACGACATGTTTGTGACGTTCCGCCCATGACAGCGCAGCAGGGCCGAGCAGCCTGGT
 TGGCTCTTCTCCAGCTTACTTTACTCTTATCAGCCTTTCATCTACATGGTGTGCTCAGCCTTTCA
 TCGCGCTATACCGCGCCTACGACACCATCAAGCATCCCGCGGCGCAGGGCAGAGGAGCGAGCT
 GCAGGCCATACATGCACAGTCCAGGACAGCCCCACCTCCGGCAAGTCCGCGCGGGAGCGGCTCGGCC
 TGCAGCCTTCTGCTGCTGCGAAGGGACCCCTCGGAGGAGCATTGCTGCTGGTGAAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG201010 representing NM_020533
 Red=Cloning site Green=Tags(s)

MTAPAGPRGSETERLLTPNPGYGTQAGPSPAPPTPPEEEDLRRRLKYFFMSPCDKFRAGKRPCKLMLQV
 VKILVVTVQLILFGLSNQLAVTFREENTIAFRHLFLLGYSDGADDTFAAYTREQLYQAIHFAVDQYLALP
 DVSLGRYAYVRGGDPWTNGSGLALCQRYYHRGHVDPANDTFDIDPMVVTDCIQVDPERPPPPSDDL
 LLESSSYKNLTLKFHKLNVNVIHFRLKINLQSLINNEIPDCYTFSVLITFDNKAHSGRIPISLETQAH
 IQECKHPSVVFQHGDNFRLLFDVVVILTCSLFLLCARSLLRGFLQNEFVGFMRQRGRVISLWERLEF
 VNGWYILLVTSVLTISGTIMKIGIEAKNLASYDVCSILLGTSTLLVWVGVIYRILTFHNYNIIATLRV
 ALPSVMRFCCCVAVIYLYGFCGWIVLGPYHVKFRSLSMVSECLFSLINGDDMFVTFAMQAQQGRSSLV
 WLFSQLYLYSFIISLFIYVLSLFIALITGAYDTIKHPGGAGAESESELQAYIAQCQDSPTSGKFRGSGSA
 CSLLCCCGRDPSEHSLLVN

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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.

RefSeq: [NM_020533.3](#)

RefSeq Size: 2051 bp

RefSeq ORF: 1743 bp

Locus ID: 57192

UniProt ID: [Q9GZU1](#)

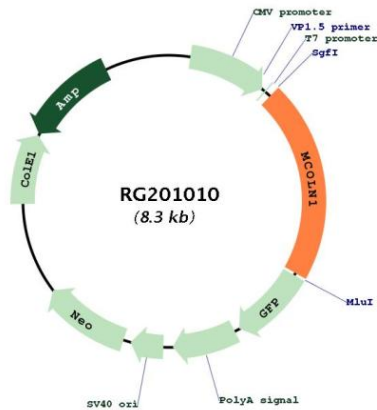
Cytogenetics: 19p13.2

Domains: ion_trans

Protein Families: Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane

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 RG201010