

## Product datasheet for **RC224697**

### Mucolipin 3 (MCOLN3) (NM\_018298) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mucolipin 3 (MCOLN3) (NM_018298) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mucolipin 3
Synonyms:	TRP-ML3; TRPML3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC224697 representing NM\_018298  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGATCCTGAGGTAGTTGTGAGTAGCTGCAGCTCTCATGAAGAGGAAAATCGTGCATTTTAAACC  
 AGCAAACATCTCCATCTGAGGAGCTTCTATTAGAAGACCAGATGAGGCGAAAACCTCAAATTTTTTTCAT  
 GAATCCCTGTGAGAAGTTCTGGGCTCGAGGTAGAAAACCATGAAAACCTGCCATACAAATTTCAAAAATT  
 GCAATGGTGACTATCCAGCTGGTCTTATTTGGGCTAAGTAACCAGATGGTGGTAGCTTTCAAGGAAGAGA  
 AACTATAGCATTCAAACACCTTTTCTAAAAGGATATATGGACCGAATGGATGACACATATGCAGTGTA  
 CACACAAAGTGACGTGTATGATCAGTTAATCTTCGCAGTAAACCAGTACTTGCAGCTATACAATGTCTCC  
 GTTGGGAATCATGCTTATGAGAACAAGGTACCAAGCAATCTGCTATGGCAATCTGTCAGCACTTCTACA  
 AGCGAGGAAAACATCTACCCTGGAATGATACCTTTGACATCGATCCAGAAATGAAACTGAGTGTTCCTT  
 TGTGGAGCCAGATGAACCTTTTACATTTGGACACCAGCAGAAAATAAACTGAACTTAACACTGGACTTC  
 CACAGACTCCTAACAGTGGAGCTTCAGTTTAAACTGAAAGCCATTAATCTGCAGACAGTTTCGTCATCAAG  
 AACTCCCTGACTGTTATGACTTTACTCTGACTATAACATTTGACAACAAGGCCCATAGTGAAGAATTAA  
 AATAAGTTTAGATAATGACATTTCCATCAGAGAATGTAAGACTGGCATGTATCTGGATCAATTCAGAAG  
 AACACTCATTACATGATGATCTTTGATGCCTTTGTCTTCTGACTTGCTTGGTTTCATTAATCCTCTGCA  
 TTAGATCTGTGATTAGAGGACTTCAGCTTCAGCAGGAGTTTGTCAATTTTTTCTCCTCCATTATAAGAA  
 GGAAGTTTCTGTTTCTGATCAAATGGAATTTGTCAATGGATGGTACATTATGATTATTATTAGTGACATA  
 TTGACAATCATTGGATCAATTTAAAAATGGAATCCAAGCTAAGAGTCTAACTAGTTATGATGCTGTGA  
 GCATCTTCTTGGGACTTCTACCATGCTTGTGTGGCTTGGAGTCATCCGATACCTCGTTCCTTTGCAAA  
 GTACAACCTCCTATTTTGACCCTTCAGGCAGCGCTGCCAATGTCATCAGGTTCTGCTGCTGTGCAGCT  
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 TGAACATGGTCTCTGAGTGCCTTTTCTCTCTGATAAATGGAGATGATATGTTTGGCACGTTTGCAAAAAT  
 GCAGCAAAAAAGTTACTTAGTCTGGCTGTTTAGTAGAATTTACCTCTACTCATTATCAGCCTCTTTATA  
 TATATGATTTAAGTCTTTTCTTGCAGTATCAGTACATACACGAAACAATTAAGCAATACCAACAAG  
 ATGGCTTCCAGAGACTGAACTTCGTACATTTATATCAGAATGCAAGATCTACCAACTCTGGAAAATA  
 CAGATTAGAAGATGACCCTCCAGTATCTTTATTCTGCTGTTGAAAAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC224697 representing NM\_018298  
 Red=Cloning site Green=Tags(s)

MADPEVVVSSCSSHEENRCNFNQQTSPSEELLLEDQMRRLKFFFMNPCEKFWARGRKPWKLAIQILKI  
 AMVTIQLVLFGLSNQMVVAFKEENTIAFKHLFLKGYMDRMDDTYAVYTQSDVYDQLIFAVNQYLQLYNVS  
 VGNHAYENKGTKQSAMAIQHFYKRGNIYPGNDFDIDPEIETECFFVEPDEPFHIGTPAENKLNLTDF  
 HRLLTVELQFKLKAINLQTVRHQELPDCYDFTLTITFDNKAHSGRIKISLDNDISIRECKDWHVSGSIQK  
 NTHYMMIFDAFVILTCLVSLILCIRSVIRGLQLQQEFVNFLLHYKKEVSVSDQMEFVNGWYIMIIISDI  
 LTIIGSILKMEIQAKSLTSYDVCSILLGTSTMLVWLGVIRYLGFYKYNLLILTLQAALPNVIRFCCCAA  
 MIYLYGCFGWIVLGPYHDKFRSLNMVSECLFSLINGDDMFATFAKMQQKSYLVWLFSTRILYLSFISLFI  
 YMILSLFIALITDITYETIKYQQDGFPELRTFISECKDLPNSGKYRLEDDPPVSLFCCKK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6200\\_c06.zip](https://cdn.origene.com/chromatograms/mk6200_c06.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_018298

**ORF Size:** 1659 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\\_018298.9](#), [NP\\_060768.8](#)

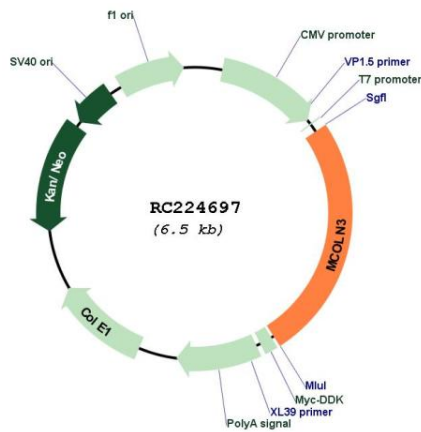
**RefSeq Size:** 2813 bp

**RefSeq ORF:** 1662 bp

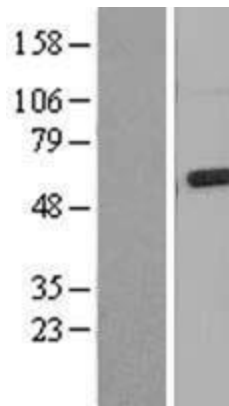
**Locus ID:** 55283

**UniProt ID:** [Q8TDD5](#)  
**Cytogenetics:** 1p22.3  
**Protein Families:** Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane  
**MW:** 64.1 kDa  
**Gene Summary:** This gene encodes one of members of the mucolipin cation channel proteins. Mutation studies of the highly similar protein in mice have shown that the protein is found in cochlea hair cells, and mutant mice show early-onset hearing loss and balance problems. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]

### Product images:



Circular map for RC224697



Western blot validation of overexpression lysate (Cat# [LY402663]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224697 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).