

Product datasheet for **RC232862**

Mucolipin 3 (MCOLN3) (NM_001253693) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mucolipin 3 (MCOLN3) (NM_001253693) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MCOLN3
Synonyms:	TRP-ML3; TRPML3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC232862 representing NM_001253693
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGATCCTGAGGTAGTTGTGAGTAGCTGCAGCTCTCATGAAGAGGAAAATCGCTGCAATTTTAAAC
 AGCAAACATCTCCATCTGAGGAGCTTCTATTAGAAGACCAGATGAGGCGAAAACCTCAAATTTTTTTCAT
 GAATCCCTGTGAGAAGTTCTGGGCTCGAGGTAGAAAACCATGAAAACCTGCCATACAAAATCTAAAAAT
 GCAATGGTGACTATCCAGTACTGCAGCTATACAATGTCTCCGTTGGGAATCATGCTTATGAGAACAAG
 GTACCAAGCAATCTGCTATGGCAATCTGTCAGCACTTCTACAAGCGAGGAAAACATCTACCCTGGAATGA
 TACCTTTGACATCGATCCAGAAATGAACTGAGTGTCTTTGTGGAGCCAGATGAACCTTTTCACATT
 GGGACACCAGCAGAAAATAAAGTAACTGAACTTAACACTGGACTTCCACAGACTCCTAACAGTGGAGCTTCAGT
 TTAAGTAAAAGCCATTAATCTGCAGACAGTTCGTCATCAAGAACTCCCTGACTGTTATGACTTTACTCT
 GACTATAACATTTGACAACAAGGCCATAGTGGAGAATTAATAAAGTTTAGATAATGACATTTCCATC
 AGAGAATGTAAGACTGGCATGTATCTGGATCAATTCAGAAGAACACTCATTACATGATGATCTTTGATG
 CCTTTGTCATTCTGACTTGTCTGGTTTCATTAATCCTCTGCATTAGATCTGTGATTAGAGGACTTCAGCT
 TCAGCAGGAGTTTGTCAATTTTTCTCCTCCATTATAAGAAGGAAGTTTCTGTTTCTGATCAAATGGAA
 TTTGTCAATGGATGGTACATTATGATTATTATTAGTGACATATTGACAATCATTGGATCAATTTAAAAA
 TGGAAATCCAAGTAAGAGTCTAACTAGTTATGATGTCTGTAGCATACTTCTGGGACTTCTACCATGCT
 CGTGTGGCTTGGAGTCATCCGATACCTCGGTTTCTTTGCAAAGTACAACCTCCTCATTTTGACCTTCAG
 GCAGCGCTGCCAATGTCATCAGGTTCTGCTGCTGTGCAGCTATGATTTACTTAGGTTACTGCTTCTGTG
 GATGGATCGTCTGGGGCCTTACCATGACAAGTTTCGTTCTCTGAACATGGTCTCTGAGTGCCTTTTCTC
 TCTGATAAATGGAGATGATATGTTTGCACGTTTGCAAAATGCAGCAAAAAGTTACTTAGTCTGGCTG
 TTTAGTAGAATTTACCTCTACTCATTATCAGCCTCTTTATATATAGATTTAAGTCTTTTTCATTGCAC
 TGATCACTGATACATACGAAACAATTAAGCAATACCAACAAGATGGCTTCCCAGAGACTGAACTTCGTAC
 ATTTATATCAGAATGCAAAGATCTACCAACTCTGAAAATACAGATTAGAAGATGACCTCCAGTATCT
 TTATTCTGCTGTTGTA AAAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC232862 representing NM_001253693
 Red=Cloning site Green=Tags(s)

MADPEVVSSCSSHEEENRCNCFNQQTSPSEELLLEDQMRRKLKFFFMNPCEKFWARGRPWKLAIQILKI
 AMVTIQYLLQYNVSVGNHAYENKGTKQSAMAICQHFYKRGNIYPGNDTFDIDPEIETECFFVEPDEPFHI
 GTPAENKLNLTDFHRLLTVELQFKLKAINLQTVRHQELPDCYDFLTITFDNKAHSGRIKISLNDNISI
 RECKDWHVSGSIQKNTHYMMIFDAFVILTCLVSLILCIRSVIRGLQLQEFVNFLLHYKKEVSVSDQME
 FVNGWYIMIIISDILTIIGSILKMEIQAKSLTSYDVCSILLGTSTMLVWLGVIRYLGFFAKYNLLILTLQ
 AALPNVIRFCCCAAMIYLGYCFGWIVLGPYHDKFRSLNMVSECLFSLINGDDMFATFAKMQQKSYLVWL
 FSRIYLYSIFSLFIYMILSLFIALITDTYETIKQYQDGFPELRTFISECKDLPNSGKYRLEDDPPVVS
 LFCCKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

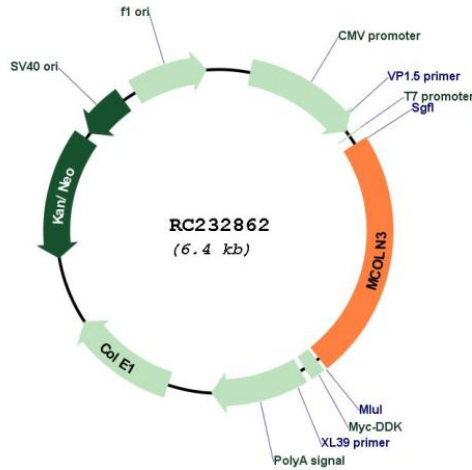
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001253693

ORF Size: 1491 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:	<ol style="list-style-type: none">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:	<u>NM_001253693.1, NP_001240622.1</u>
RefSeq Size:	2699 bp
RefSeq ORF:	1494 bp
Locus ID:	55283
UniProt ID:	<u>Q8TDD5</u>
Cytogenetics:	1p22.3
Protein Families:	Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane
MW:	58.2 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]