

Product datasheet for **MR225267**

Mcoln2 (NM_026656) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mcoln2 (NM_026656) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mcoln2
Synonyms:	3300002C04Rik; AI549968; C86638; TRPML2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225267 representing NM_026656
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCCGGAGACGAGGAGACGCTGGACCTGCCTGCGTGGAAACCGCGTCCCGACCTGACTTGGGGTCCCC
 ACCACAGATCTGCGATGGCGTCTCTCGATTCTGAGGTGAGGGAAGAGTGTCTGAGGGAAGACCTGAAGTT
 CTACTTCATGAGTCCCTGTGAGAAGTACCGAGCCAGACGTCAGATCCCGTGGAAACTGGGCTTGCAGATA
 TTGAAGATAGTCATGGTAACCACACAGCTTGTTCGGTTTGGCTTAAGTAACCAAGTTGGTGGTGGCTTTCA
 AAGAAGATAAACTGTTGCTTTTAAAGCACTTGTTTTTGAAAGGATTTTCTGGAGTTGATGAAGATGACTA
 CAGCTGTAGCATATACTCAGGAGAACACCTATGAGAGCATCTTTTTTGTATAAAGCAGTATCGTCAT
 CTGAAGAATATTTCCCTGGCAACCCTTGGTTATGGAGAAAGTGAAGACAATAGAAGTGGCTTGAAGGTCT
 GTAAGCAGCACTACAAGACAGGGCCATGTTTTCTTAACGAGACCCTGAACATTGACAGTGACATTGA
 GACAGACTGCATTACCTGGACCTCAGGTGCTCACCACGGAACCCGAGGACTGGGCACAGACATCTTTC
 TTCAGGCTGGATTTTATCGGCTCGTGAAGTTGATATCTCCTTTGCCCTCAAAGGAATTGACCTACAGG
 CAGTTCATTCCCAGAGATACCGGACTGTTACCTCTTTCAGAATACGATTACCTTCGACAACACAGCCCA
 CAGTGGGAAAATCAAAATCTATCTCAACAGCGAGGCCAACATCGAAGAGTGTAAAAACATGAACATATCT
 GGGTCTACTCAGAGAAGCACTCACTACCTCGTGTGGTGTGATGTGTTTCGTCATTATGATCTGCCTGGCAT
 CCCTTATCCTGTGCACGAGATCCATTGTTCTTGTCTGAGGCTGAGGAAGAGATTTCTAAACTTCTTCT
 GGAGAAGTACAAACAGCGCGTGTGTGGCGCTGACCAGTGGGAATTCGCAACGGATGGTACGTCTGGTC
 ACTATCAGCGACCTCATGACAATAATTGGATCCATATTGAAGATGGAAATCAAAGCCAAGAAGCTCACAA
 AGTATGACGTGTGCAGCATCTTGTCTGGGACGTCGACGCTCTTTGTCTGGGTTGGAGTCATCAGATATCT
 GGGTTACTTTTCAGACGTACAACGTGCTCATTTTAAACCATGCAAGCCTCACTGCCCAAAGTCTCCGGTTC
 TGTGCTTGCCTGGCATGATCTACCTGGGTACACCTTCTGCGGCTGGATTGTCTTAGGACCGTACCACG
 AGAAGTTTGAAAACCTGAACATAGTCGCTGAATGCCTGTTTTCTGCTGCAACGGCGATGACATGTTTGC
 CACGTTTCGCTCAGATCCAGCAGAAGAGCATTCTGGTGTGGCTGTTACGCCCTCTACCTGTATTCTTT
 ATCAGCCTATTCTTTACATGGTCTCAGCCTCTTCATCGCGCTCATACCGACTCTTACCACACCATTA
 AGAAGTACCAGCAGCATGGGTTTCTGAAACAGATCTGCAGAAATTCCTGAAGGAGAGCGGAAGCAAAGA
 TGGGTACCAGAAGCAGCCATCGGCCTTGTGCTCCTGCCTGCTGTCTGAGGAGGAGAAGAAGCAATGAC
 CACTTGATTCTCATTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR225267 representing NM_026656
 Red=Cloning site Green=Tags(s)

MPGDEETLDLPAWNRVPLDWTGPHRSAMASLDSEVREECLREDLKFYFMSPCEKYRARRQIPWKLGLQI
 LKIVMVTQLVRFGLSNQLVFAFKEDNTVAFKHLFLKGFSGVDEDDYSYSCSIYQENTYESIFFAIKQYRH
 LKNISLATLGYGESEDNRTGLKVCKQHYKTGAMFSSNETLNIDSDIETDCIHLDLQVLTTEPEDWAQTSF
 FRLDFYRLVQVDISFALKGIDLQAVHSREIPDCYLFQNTITFDNTAHSKGIKIYLNSEANIEECKNMNIS
 GSTQRSTHYLLVDFVIMICLASLILCTRSIVLALRLRKRFLNFFLEKYQRVCGADQWEFVNGWYVLLV
 TISDLMTIIGSILKMEIKAKKL TNYDVCSILLGTSTLFWVWGVIRYLYGFQTYNVLILTMQASLPKVLRF
 CACAGMIYLYGTYFCGWIVLGPYHEKFENLNIVAECLFSLVNGDDMFATFAQIQQKSILVWLF SRLYLVSF
 ISLFIYMVLSLFIALITDSYHTIKKYQQHGFETDLQKFLKESGSKDGYQKQPSALLSCLCCLRRRRSND
 HLILID

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1790_h09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_026656

ORF Size: 1698 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

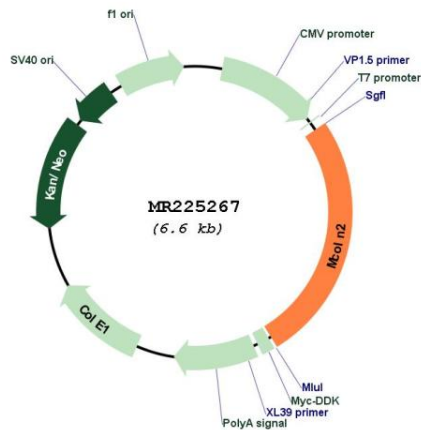
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_026656.5](#)
RefSeq Size: 2519 bp
RefSeq ORF: 1701 bp
Locus ID: 68279
UniProt ID: [Q8K595](#)
Cytogenetics: 3 H2
MW: 65.9 kDa

Gene Summary: Nonselective cation channel probably playing a role in the regulation of membrane trafficking events. Acts as Ca(2+)-permeable cation channel with inwardly rectifying activity (PubMed:19763610). May activate ARF6 and be involved in the trafficking of GPI-anchored cargo proteins to the cell surface via the ARF6-regulated recycling pathway (By similarity). May play a role in immune processes. In adaptive immunity, TRPML2 and TRPML1 may play redundant roles in the function of the specialized lysosomes of B cells (PubMed:17050035). In the innate immune response, may play a role in the regulation of chemokine secretion and macrophage migration (PubMed:26432893). Through a possible and probably tissue-specific heteromerization with MCOLN1 may be at least in part involved in many lysosome-dependent cellular events.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225267