

## Product datasheet for RC236251

### MRCL3 (MYL12A) (NM\_001303047) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MRCL3 (MYL12A) (NM\_001303047) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** MYL12A  
**Synonyms:** HEL-S-24; MLC-2B; MLCB; MRCL3; MRLC3; MYL2B  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC236251 representing NM\_001303047  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCGAGCAAAGAACAAGACCAAGACCAAGAAGCGCCCTCAGCGTGCAACATCCAATGTGTTTGCTA  
 TGTTTGACCAAGTACAGATTCAGGAGTTCAAAGAGGCCTCAACATGATTGATCAGAACAGAGATGGTTT  
 CATCGACAAGGAAGATTTGCATGATATGCTTGCTTCATTGGGGAAGAATCCAAGTATGAGTATCTAGAT  
 GCCATGATGAATGAGGCTCCAGGCCCATCAATTTACCATGTTCTCACCATGTTTGGTGAGAAGTTAA  
 ATGGCACAGATCCTGAAGATGTCATCAGAAATGCCTTTGCTTTGATGAAGAAGCAACTGGCACCAT  
 ACAGGAAGATTACTTGAGAGAGCTGCTGACAACCATGGGGATCGGTTTACAGATGAGGAAGTGGATGAG  
 CTGTACAGAGAAGCACCTATTGATAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAAC  
 ATGGAGCCAAAGACAAAGATGAC

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC236251 representing NM\_001303047  
 Red=Cloning site Green=Tags(s)

MSSKRTKTKTKRPRQATSNVFAFDQSQIQEFKEAFNMIDQNRDGFIDKEDLHDMLASLGKNPTDEYLD  
 AMMNEAPGPINF TMFL TMFGEKLNTPEDVIRNAFACFDEEATGTIQEDYLRELLTTMGDRFTDEEVE  
 LYREAPIDKKGNFNIEFTRILKHGAKDKDD

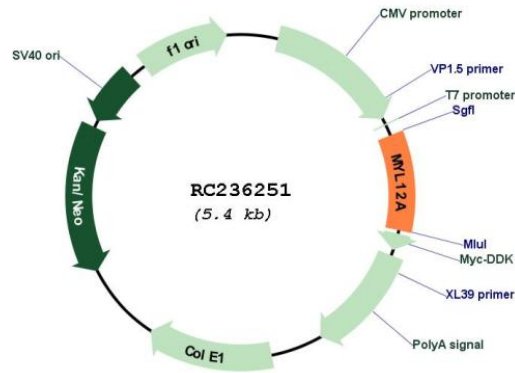
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001303047

**ORF Size:** 513 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001303047.1</a></u> , <u><a href="#">NP_001289976.1</a></u>
<b>RefSeq Size:</b>	1331 bp
<b>RefSeq ORF:</b>	516 bp
<b>Locus ID:</b>	10627
<b>UniProt ID:</b>	<u><a href="#">P19105</a></u>
<b>Cytogenetics:</b>	18p11.31
<b>Protein Pathways:</b>	Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Tight junction
<b>MW:</b>	20.2 kDa
<b>Gene Summary:</b>	This gene encodes a nonsarcomeric myosin regulatory light chain. This protein is activated by phosphorylation and regulates smooth muscle and non-muscle cell contraction. This protein may also be involved in DNA damage repair by sequestering the transcriptional regulator apoptosis-antagonizing transcription factor (AATF)/Che-1 which functions as a repressor of p53-driven apoptosis. Alternate splicing results in multiple transcript variants. A pseudogene of this gene is found on chromosome 8.[provided by RefSeq, Dec 2014]