Product datasheet for RC236252

MRCL3 (MYL12A) (NM_001303048) Human Tagged ORF Clone

Product data:

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Product Type:	Expression Plasmids
Product Name:	MRCL3 (MYL12A) (NM_001303048) 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:	>RC236252 representing NM_001303048 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCGAGCAAAAGAACAAAGACCAAGACCAAGAAGCGCCCTCAGCGTGCAACATCCAATGTGTTTGCTA TGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAGAGATGGTTT CATCGACAAGGAAGATTTGCATGATATGCTTGCTTCATTGGGGAAGAATCCAACTGATGAGTATCTAGAT GCCATGATGAATGAGGCTCCAGGCCCCATCAATTTTCACCATGTTCCTCACCATGTTTGGTGAGAAGTTAA ATGGCACAGATCCTGAAGATGTCATCAGAAATGCCTTTGCTTGCTTTGATGAAGAAGCAACTGGCACCAT ACAGGAAGATTACTTGAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAG CTGTACAGAGAAGCACCTATTGATAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAAC ATGGAGCCAAAGACAAAGATGAC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RC236252 representing NM_001303048 Red=Cloning site Green=Tags(s) MSSKRTKTKTKKRPQRATSNVFAMFDQSQIQEFKEAFNMIDQNRDGFIDKEDLHDMLASLGKNPTDEYLD AMMNEAPGPINFTMFLTMFGEKLNGTDPEDVIRNAFACFDEEATGTIQEDYLRELLTTMGDRFTDEEVDE LYREAPIDKKGNFNYIEFTRILKHGAKDKDD TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Restriction Sites:	SgfI-MluI

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Cloning Scheme:

Plasmid Map:
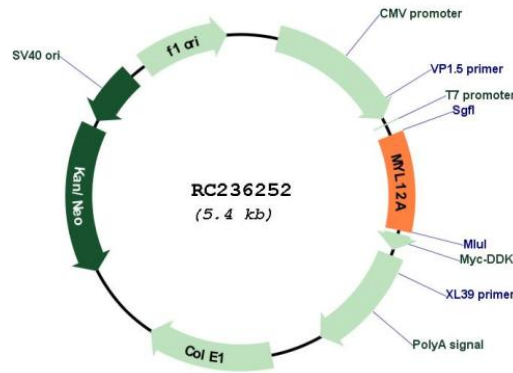
ACCN:	NM_001303048
ORF Size:	513 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its 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.

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_001303048.1, NP_001289977.1
RefSeq Size:	974 bp
RefSeq ORF:	516 bp
Locus ID:	10627
UniProt ID:	P19105
Cytogenetics:	18p11.31
Protein Pathways:	Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Tight junction
MW:	20.2 kDa
Gene Summary:	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]