

Product datasheet for RC202076

MLC1SA (MYL6B) (NM_002475) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MLC1SA (MYL6B) (NM_002475) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: MLC1SA
Synonyms: MLC1SA
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202076 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCTCCCAAGAAGGATGTTCCCGTGAAGAAACCAGCAGGGCCCTCCATCTCCAAACCTGCTGCTAAGC
 CAGCAGCAGCAGGGGCTCCTCCAGCCAAGACAAAGCTGAGCCAGCTGTCCCCAGGCCCTCAGAAAAC
 CCAGGAGCCTCCAGTCGATCTCTCAAAGTGGTGATCGAGTTTAAACAAGGACCAGCTGGAGGAGTTCAAG
 GAGGCCTTCGAGCTGTTTGACCGAGTGGGGATGGCAAGATCCTGTACAGCCAGTGTGGGACGTGATGA
 GGGCCCTGGGCCAGAACCCACCAACGCCGAGGTGCTCAAGGTCCTGGGAAACCCAAGAGTGATGAGCT
 GAAGTCGCGCGCTGTGGACTTTGAGACTTTCCTGCCATGCTCCAGGCAGTGGCCAAGAACCAGGCCAA
 GGCACATATGAGGACTACTTGGAGGGTTTCGTGTGTTTGACAAGGAGGGGAACGGCAAAGTCATGGGAG
 CAGAGCTCAGACATGTTCTCACCACCTTGAGAGAAGATGACTGAGGAGGAGGTGGAGACCGTTCTGGC
 AGGACACGAGGACAGCAACGGCTGCATCAACTACGAGGCCTTCTTGAACACATCCTAAGCGTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202076 protein sequence
 Red=Cloning site Green=Tags(s)

MPPKDVVVKPAGPSSISKPAAKPAAAGAPPAKTAEPVVPQAPQKTQEPVVDLSKVVIEFNKDQLEEFK
 EAFELFDRVGDGKILYSQCGDVMRALGQNPTNAEVLKVLGNPKSDELKSRVDFETFLPMLQAVAKNRGQ
 GTYEDYLEGFRVFDKEGNGKVMGAELRHVLTTLGKMTTEEEVETVLAGHEDSNGCINYEAFLLKHLISV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6304_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002475

ORF Size: 624 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_002475.5](#)

RefSeq Size: 1008 bp

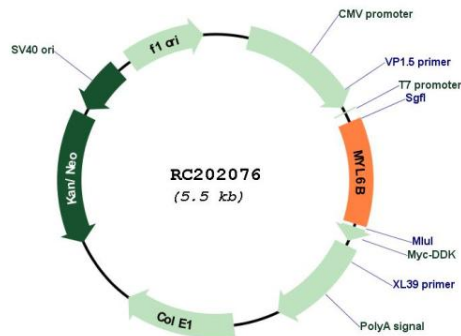
RefSeq ORF: 627 bp

Locus ID: 140465

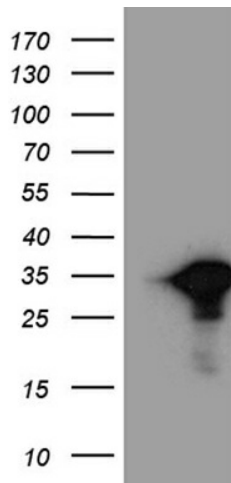
UniProt ID: [P14649](#)
Cytogenetics: 12q13.2
Domains: EFh
Protein Pathways: Vascular smooth muscle contraction
MW: 22.8 kDa

Gene Summary: Myosin is a hexameric ATPase cellular motor protein. It is composed of two heavy chains, two nonphosphorylatable alkali light chains, and two phosphorylatable regulatory light chains. This gene encodes a myosin alkali light chain expressed in both slow-twitch skeletal muscle and in nonmuscle tissue. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2010]

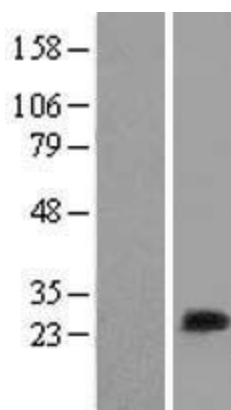
Product images:



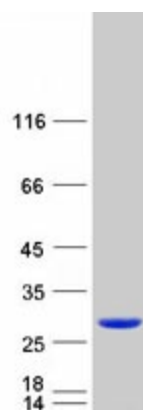
Circular map for RC202076



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MYL6B (Cat# RC202076, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MYL6B (Cat# [TA811146])(1:2000). Positive lysates [LY419310] (100ug) and [LC419310] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419310]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202076 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MYL6B protein (Cat# [TP302076]). The protein was produced from HEK293T cells transfected with MYL6B cDNA clone (Cat# RC202076) using MegaTran 2.0 (Cat# [TT210002]).