

Product datasheet for RC227002

MYL12B (NM_001144945) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MYL12B (NM_001144945) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: MYL12B
Synonyms: MLC-B; MRLC2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC227002 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATCCAATGTGTTTG
 CCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAGAGATGG
 CTTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCTT
 GATGCCATGATGAATGAGGCCAGGGCCATCAATTTACCATGTTCTGACCATGTTTGGTGAGAAGT
 TAAATGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCAC
 CATTGAGGAAGATTACCTAAGAGAGCTGCTGACAACCATGGGGATCGGTTTACAGATGAGGAAGTGGAT
 GAGCTGTACAGAGAAGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCTGTA
 AACATGGAGCCAAAGACAAAGATGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC227002 protein sequence
 Red=Cloning site Green=Tags(s)

MSSKKAKTTKTKRPQRATSNVAMFDQSQIQEFKEAFNMIDQNRDGFIDKEDLHDMLASLGNPTDAYL
 DAMMNEAPGPINFMTFLTMFGEKLNQDPEDVIRNAFACFDEEATGTIQEDYLRELLTTMGRDFTDEEVD
 ELYREAPIDKKNFNFIETRIILKHGAKDKDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

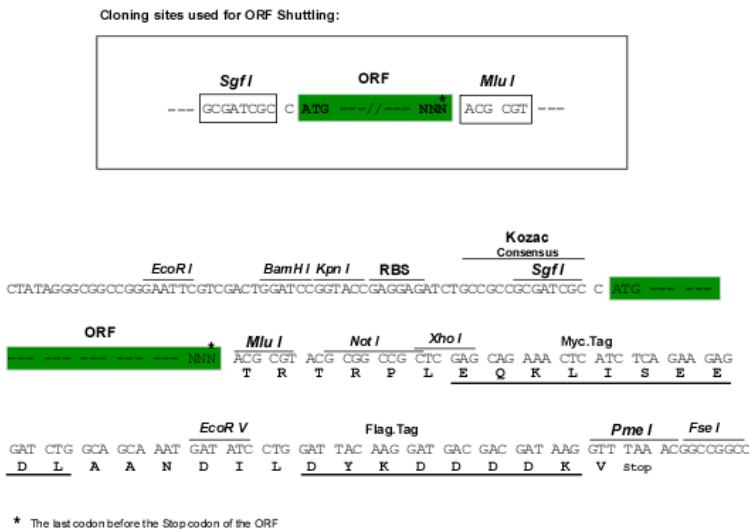
Chromatograms: https://cdn.origene.com/chromatograms/mk6083_a01.zip



[View online »](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001144945

ORF Size: 516 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_001144945.1](#), [NP_001138417.1](#)

RefSeq Size: 963 bp

RefSeq ORF: 519 bp

Locus ID: 103910

UniProt ID: [O14950](#)

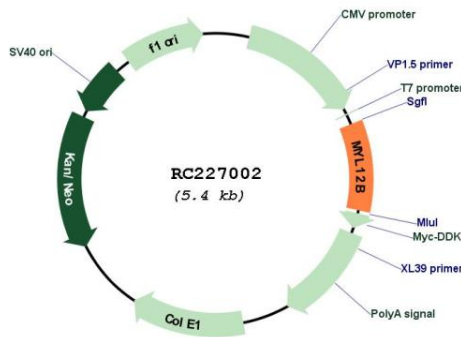
Cytogenetics: 18p11.31

Protein Pathways: Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Tight junction

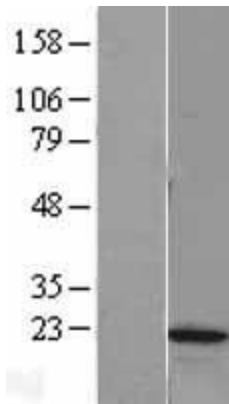
MW: 19.8 kDa

Gene Summary: The activity of nonmuscle myosin II (see MYH9; MIM 160775) is regulated by phosphorylation of a regulatory light chain, such as MRLC2. This phosphorylation results in higher MgATPase activity and the assembly of myosin II filaments (Iwasaki et al., 2001 [PubMed 11942626]). [supplied by OMIM, Mar 2008]

Product images:



Circular map for RC227002



Western blot validation of overexpression lysate (Cat# [LY428597]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227002 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).