

Product datasheet for **RC213170**

Myosin (MYL4) (NM_002476) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin (MYL4) (NM_002476) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myosin
Synonyms:	ALC1; AMLC; GT1; PRO1957
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213170 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCCCAAGAAGCCTGAGCCTAAGAAGGAGGCAGCCAAGCCAGCTCCAGCTCCAGCTCCAGCCCCTG
CACCAGCCCCTGCCCCAGCTCCTGAGGCTCCCAAGGAACCTGCCTTTGACCCCAAGAGTGTAAGATAGA
CTTCACTGCCGACCAGATTGAAGAGTTCAAAGAGGCCTTTTCATTGTTTGACCGGACCCGACTGGAGAG
ATGAAGATCACCTACGGCAGTGCGGGATGTACTGCGGGCCCTGGGCCAGAACCCTACCAATGCCGAGG
TGCTGCGTGTGCTGGGCAAGCCCAAGCCTGAAGAGATGAATGTCAAGATGCTGGACTTTGAGACGTTCTT
GCCCATCCTGCAGCACATTTCCCGCAACAAGGAGCAGGGCACCTATGAGGACTTCGTGGAGGGCCTGCGT
GTCTTTGACAAGGAGAGCAATGGCACGGTCATGGGTGCTGAGCTTCGGCACGTCCTTGCCACCCTGGGAG
AGAAGATGACTGAGGCTGAAGTGGAGCAGCTGTTAGCTGGGCAAGAGGATGCCAATGGCTGCATCAATTA
TGAAGCCTTTGTCAAGCACATCATGTCAGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC213170 protein sequence Red=Cloning site Green=Tags(s)
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MAPKKPEPKKEAAKPAPAPAPAPAPAPAPEAPKEPAFDPKSVKIDFTADQIEEFKEAFSLFDRPTTGE
MKITYGQCGDVLRALGQNPTNAEVLRLVGPKPEEMNVKMLDFETFLPILQHISRNKEQTYEDFVEGLR
VFDKESNGTVMGAELRHVLATLGEKMTAEVEQLLAGQEDANGCINYEAFVKHIMSG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

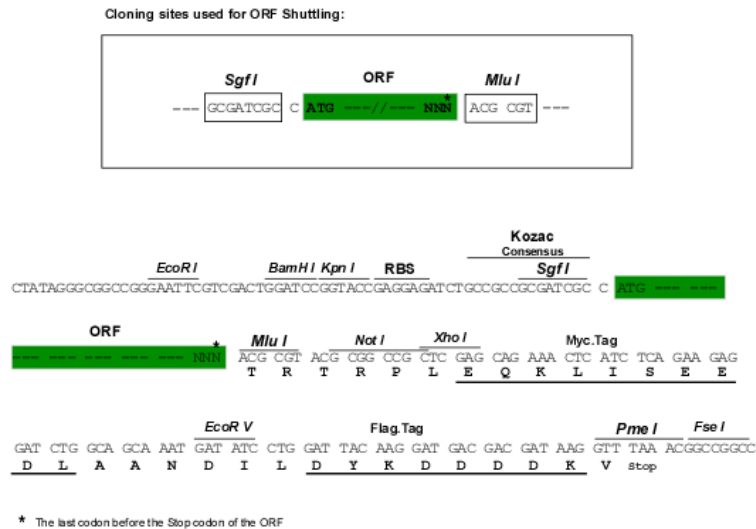


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Chromatograms: https://cdn.origene.com/chromatograms/mk6328_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002476

ORF Size: 591 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

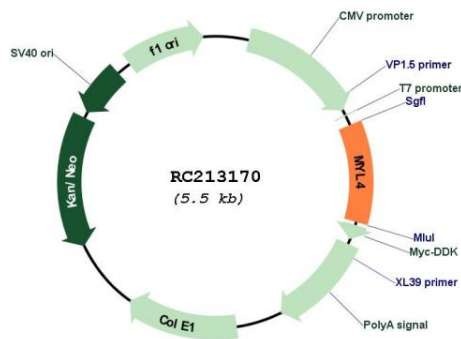
RefSeq: [NM_002476.2](#), [NP_002467.1](#)

RefSeq Size: 855 bp

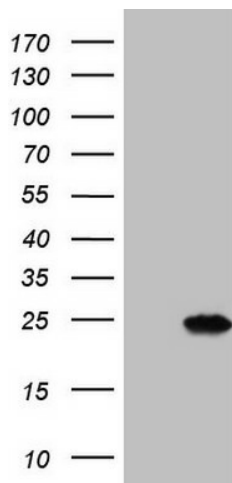
RefSeq ORF: 594 bp
 Locus ID: 4635
 UniProt ID: [P12829](#)
 Cytogenetics: 17q21.32
 MW: 21.6 kDa

Gene Summary: Myosin is a hexameric ATPase cellular motor protein. It is composed of two myosin heavy chains, two nonphosphorylatable myosin alkali light chains, and two phosphorylatable myosin regulatory light chains. This gene encodes a myosin alkali light chain that is found in embryonic muscle and adult atria. Two alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

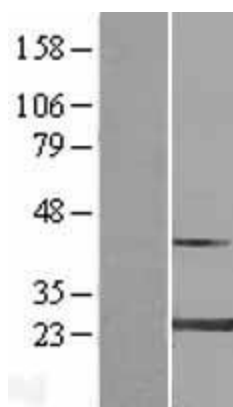
Product images:



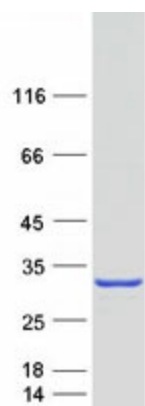
Circular map for RC213170



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MYL4 (Cat# RC213170, 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-MYL4 (Cat# [TA807579]). Positive lysates [LY419311] (100ug) and [LC419311] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419311]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213170 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MYL4 protein (Cat# [TP313170]). The protein was produced from HEK293T cells transfected with MYL4 cDNA clone (Cat# RC213170) using MegaTran 2.0 (Cat# [TT210002]).