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Product datasheet for RC212414

Myosin (MYL5) (NM_002477) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin (MYL5) (NM_002477) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myosin
Synonyms:	MYLC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC212414 representing NM_002477
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGCAGGAAGACCAAGAAGAAGGAAGGGGGTGCCCTCCGGGCCCAGAGAGCCTCATCCAATGTCT
TCTCCAACTTTGAGCAGACTCAGATCCAGGAGTTCAAGGAGGCATTCACACTCATGGATCAGAACCGAGA
TGGCTTCATTGACAAGGAGGACCTGAAGGACACCTATGCCTCCCTGGGCAAGACCAACGTCAAGGACGAC
GAGCTGGACGCCATGCTCAAAGAGGCCTCGGGGCCCATCAACTTCACCATGTTTCTGAACCTGTTTGGGG
AGAAGCTGAGCGGTACCGACGCCGAGGAGACCATTCTTAACGCCTTCAAGATGCTGGACCCGGACGGGAA
AGGGAAAATCAACAAGGAGTACATCAAGCGTCTGCTGATGTCCCAGGCTGACAAGATGACGGCGGAAGAG
GTGGACCAGATGTTCCAGTTCGCCTCCATCGATGTGGCGGGCAACCTGGACTACAAGGCGCTCAGCTACG
TGATCACCCACGGGGAGGAGAAGGAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212414 representing NM_002477
Red=Cloning site Green=Tags(s)

MASRKTKKKEGGALRAQRASSNVFSNFEQTQIQEFKEAFTLMDQNRDGFIDKEDLKDTYASLGKTNVKDD
ELDAMLKEASGPINFTMFLNLFGEKLSGTDAEETILNAFKMLDPDGKGKINKEYIKRLLMSQADKMTAEE
VDQMFQFASIDVAGNLDYKALSYVITHGEEKEE

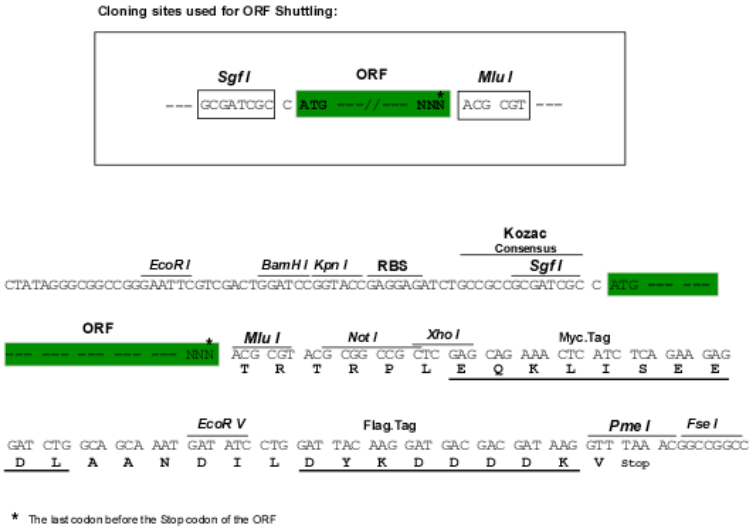
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6487_e09.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002477

ORF Size: 519 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_002477.1, NP_002468.1

RefSeq Size: 661 bp

RefSeq ORF: 522 bp

Locus ID: 4636

UniProt ID: Q02045

Cytogenetics: 4p16.3

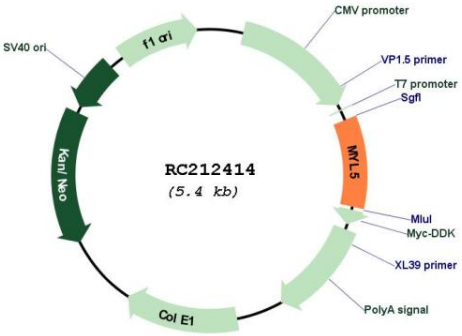
Domains: EFh

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

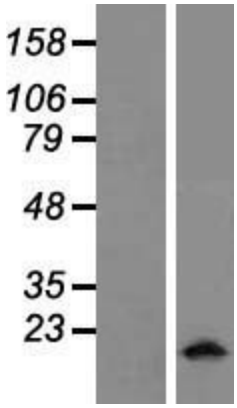
MW: 19.4 kDa

Gene Summary: This gene encodes one of the myosin light chains, a component of the hexameric ATPase cellular motor protein myosin. Myosin is composed of two heavy chains, two nonphosphorylatable alkali light chains, and two phosphorylatable regulatory light chains. This gene product, one of the regulatory light chains, is expressed in fetal muscle and in adult retina, cerebellum, and basal ganglia. [provided by RefSeq, Jul 2008]

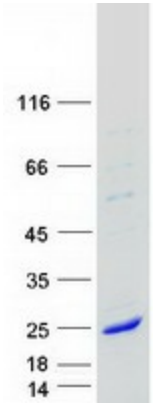
Product images:



Circular map for RC212414



Western blot validation of overexpression lysate (Cat# [LY419312]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212414 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MYL5 protein (Cat# [TP312414]). The protein was produced from HEK293T cells transfected with MYL5 cDNA clone (Cat# RC212414) using MegaTran 2.0 (Cat# [TT210002]).