

Product datasheet for **RG205932**

Myosin Light Chain 2 (MYL2) (NM_000432) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Myosin Light Chain 2 (MYL2) (NM_000432) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Myosin Light Chain 2
Synonyms: CMH10; MLC-2s/v; MLC2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG205932 representing NM_000432
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCACCTAAGAAAGCAAAGAAGAGAGCCGGGGCGCCAACCTCCAACGTGTTCTCCATGTTCGAACAGA
 CCCAAATCCAGGAATTTAAGGAGGCCTTCACTATCATGGACCAGAACAGGGATGGCTTCATTGACAAGAA
 CGATCTGAGAGACACCTTTGCTGCCCTTGGCGAGTGAACGTGAAAAATGAAGAAATTGATGAAATGATC
 AAGGAGGCTCCGGTCCAATTAACCTTTACTGTGTTCTCACAATGTTTGGGAGAACTTAAGGGAGCGG
 ACCCTGAGGAAACCATTCTCAACGCATTCAAAGTGTGGACCTGAAGGCAAAGGGTGTGAAGGCTGA
 TTACGTTCCGGGAAATGCTGACCACGCAGGCGGAGAGGTTTTCCAAGGAGGAGTTGACCAGATGTTCCGCC
 GCCTTCCCCCTGACGTGACTGGCAACTTGACTACAAGAACCTGGTGCACATCATCACCCACGGAGAAG
 AGAAGGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG205932 representing NM_000432
 Red=Cloning site Green=Tags(s)
 MAPKKAKKRAGGANSNVFSMFEQTQIQEFKEAFTIMDQNRDGFIDKNDLRDTFAALGRVNVKNEEIDEMI
 KEAPGPINFTVFLTMFGEKLGADPEETILNAFKVFDPEGKGVLKADYVREMLTTQAERFSKEEVDQMFA
 AFPPDVTGNLDYKNLVHIITHGEEKD

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:


ACCN: NM_000432

ORF Size: 498 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_000432.4](#)

RefSeq Size: 813 bp

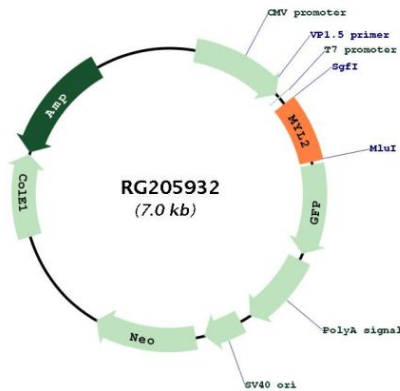
RefSeq ORF: 501 bp

Locus ID: 4633

UniProt ID: [P10916](#)

Cytogenetics:	12q24.11
Domains:	EFh
Protein Pathways:	Cardiac muscle contraction, Dilated cardiomyopathy, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Tight junction
Gene Summary:	Thus gene encodes the regulatory light chain associated with cardiac myosin beta (or slow) heavy chain. Ca ⁺ triggers the phosphorylation of regulatory light chain that in turn triggers contraction. Mutations in this gene are associated with mid-left ventricular chamber type hypertrophic cardiomyopathy. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG205932