

## Product datasheet for **RG212414**

### 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:** TurboGFP  
**Symbol:** Myosin  
**Synonyms:** MYLC2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG212414 representing NM\_002477  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGCAGGAAGACCAAGAAGAAGGAAGGGGTGCCCTCCGGGCCAGAGAGCCTCATCCAATGTCT  
TCTCCAACCTTTGAGCAGACTCAGATCCAGGAGTTCAGGAGGCATTACACTCATGGATCAGAACCAGAG  
TGGCTTCATTGACAAGGAGGACCTGAAGGACACCTATGCCTCCCTGGCAAGACCAACGTCAGGACGAC  
GAGCTGGACGCCATGCTCAAAGAGGCCTCGGGGCCATCAACTTCACCATGTTTCTGAACCTGTTGGGG  
AGAAGCTGAGCGGTACCGACGCCGAGGAGACCATTCTTAACGCCCTCAAGATGCTGGACCCGGACGGAA  
AGGGAAAATCAACAAGGAGTACATCAAGCGTCTGCTGATGTCCCAGGCTGACAAGATGACGGCGGAAGAG  
GTGGACCAGATGTTCCAGTTCGCCTCCATCGATGTGGCGGCAACCTGGACTACAAGCGCTCAGCTACG  
TGATCACCCACGGGGAGGAGAAGGAGGAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

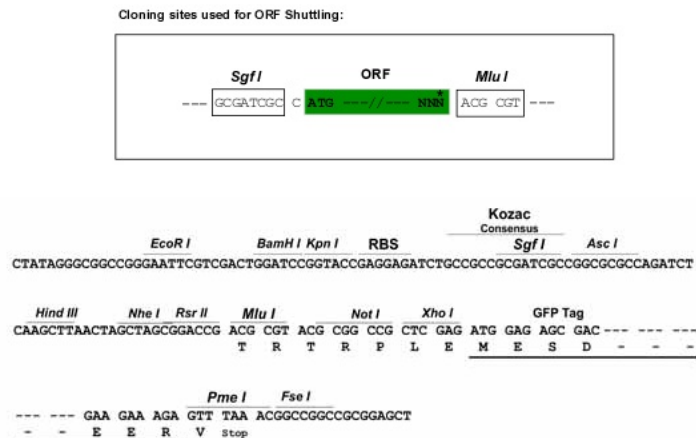
**Protein Sequence:** >RG212414 representing NM\_002477  
Red=Cloning site Green=Tags(s)

MASRKTKKKEGGALRAQRASSNVFSNFEQTQIQEFKEAF TLMQNRDGFIDKEDLKDTYASLGKTNVKDD  
ELDAMLKEASGPINFTMFLNLFGEKLSGTDAEETILNAFKMLDPDGKGINKEYIKRLLMSQADKMTAE  
VDQMFQFASIDVAGNLDYKALSYVITHGEEKEE

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-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](#)

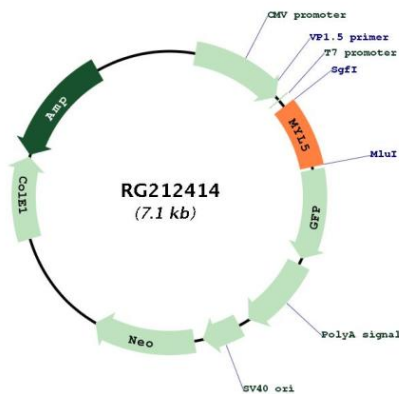
**Cytogenetics:** 4p16.3

**Domains:** EFh

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

**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 RG212414