

Product datasheet for **RN202291**

Myl2 (NM_001035252) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Myl2 (NM_001035252) Rat Untagged Clone
Tag: Tag Free
Symbol: Myl2
Synonyms: Mlc-2; MLC-2s/v; Mlc2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN202291 representing NM_001035252
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCACCAAAGAAAGCCAAGAAGAGGTTAGAGGGCGGAAGCTCCAACGTGTTCTCCATGTTTGAGCAGA
CCCAGATCCAGGAGTTCAAGGAGGCCTTACAATCATGGACCAGAACAGAGACGGCTTCATTGACAAGAA
TGACCTAAGGGACACGTTTGCTGCCCTCGGACGAGTGAACGTGAAAAACGAAGAGATCGATGAGATGATC
AAAGAGGCTCCAGGTCCAATTAACCTCACTGTGTTCTCACCATGTTTGGGGAGAAACTAAAGGAGCTG
ACCCGGAGGAGACCATTCTCAACGCCTTAAGGTGTTTGACCCGAAGGCAAAGGGTCGCTGAAGGCCGA
CTATGTCCGGGAGATGCTGACCACGCAAGCAGAGAGGTTCTCAAAGAAGAGATCGACCAGATGTTGCGCA
GCTTTTCCCCTGACGTACCCGGCAACCTTGATTATAAGAATTTGGTTCACATCATCACCCACGGAGAAG
AGAAGGACTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001035252
Insert Size: 501 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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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:	<ol style="list-style-type: none">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:	<u>NM_001035252.2</u> , <u>NP_001030329.2</u>
RefSeq Size:	677 bp
RefSeq ORF:	501 bp
Locus ID:	363925
UniProt ID:	<u>P08733</u>
Cytogenetics:	12q16
Gene Summary:	Contractile protein that plays a role in heart development and function (By similarity). Following phosphorylation, plays a role in cross-bridge cycling kinetics and cardiac muscle contraction by increasing myosin lever arm stiffness and promoting myosin head diffusion; as a consequence of the increase in maximum contraction force and calcium sensitivity of contraction force. These events altogether slow down myosin kinetics and prolong duty cycle resulting in accumulated myosins being cooperatively recruited to actin binding sites to sustain thin filament activation as a means to fine-tune myofilament calcium sensitivity to force (PubMed:15331360). During cardiogenesis plays an early role in cardiac contractility by promoting cardiac myofibril assembly (By similarity).[UniProtKB/Swiss-Prot Function]