

# Myosin Light Chain 2 Rabbit mAb

Catalog # AP75768

## Product Information

---

<b>Application</b>	WB, IHC-P
<b>Primary Accession</b>	<a href="#">P10916</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	18789

## Additional Information

---

<b>Gene ID</b>	4633
<b>Other Names</b>	MYL2
<b>Dilution</b>	WB~~1:1000-1:5000 IHC-P~~N/A
<b>Format</b>	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

---

<b>Name</b>	MYL2 ( <a href="#">HGNC:7583</a> )
<b>Function</b>	Contractile protein that plays a role in heart development and function (PubMed: <a href="#">23365102</a> , PubMed: <a href="#">32453731</a> ). 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 (By similarity). During cardiogenesis plays an early role in cardiac contractility by promoting cardiac myofibril assembly (By similarity).
<b>Cellular Location</b>	Cytoplasm, myofibril, sarcomere, A band {ECO:0000250 UniProtKB:P08733}
<b>Tissue Location</b>	Highly expressed in type I muscle fibers.

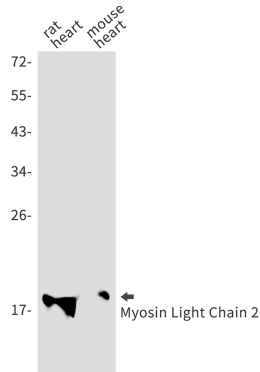
## Background

---

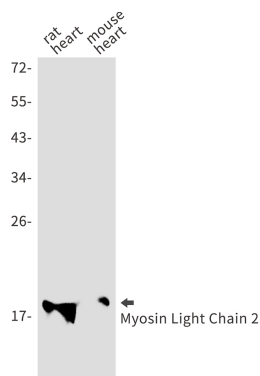
MYL2(myosin, light chain 2, regulatory, cardiac, slow), also known as MLC-2, MLC2v. Entrez protein NP\_000423. MYL2 associated with cardiac myosin beta (or slow) heavy chain. Ca<sup>+</sup> triggers the phosphorylation of regulatory light chain that in turn triggers contraction. It is a hexamer of two heavy chains and four light chains that is predominantly expressed in adult cardiac ventricle muscle. Mutations in MYL2 are associated with mid-left ventricular chamber type hypertrophic cardiomyopathy.

## Images

---



Western blot analysis of Myosin Light Chain 2 in rat heart, mouse heart lysates using MYL2 antibody.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.