

**MYL2 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1265a****Specification**

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**MYL2 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P10916</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	19kDa KDa

**Description**

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 an 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.

**Immunogen**

Purified recombinant fragment of MYL2 expressed in E. Coli. <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide. <br />

**MYL2 Antibody - Additional Information**

**Gene ID** 4633

**Other Names**

Myosin regulatory light chain 2, ventricular/cardiac muscle isoform, MLC-2, MLC-2v, MYL2

**Dilution**

WB~~1/500 - 1/2000

E~~N/A

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MYL2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**MYL2 Antibody - Protein Information**

**Name** MYL2 ([HGNC:7583](#))

### Function

Contractile protein that plays a role in heart development and function (PubMed:<a href="http://www.uniprot.org/citations/23365102" target="\_blank">23365102</a>, PubMed:<a href="http://www.uniprot.org/citations/32453731" target="\_blank">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).

### Cellular Location

Cytoplasm, myofibril, sarcomere, A band {ECO:0000250|UniProtKB:P08733}

### Tissue Location

Highly expressed in type I muscle fibers.

## MYL2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## MYL2 Antibody - Images

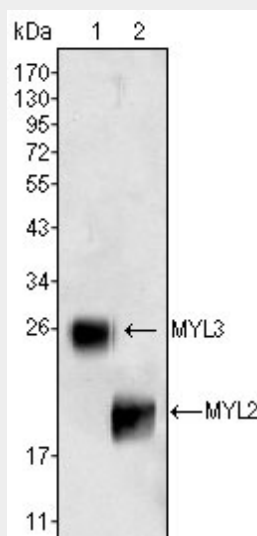


Figure 1: Western blot analysis using MYL3 (1) and MYL2 (2) mouse mAb against rat fetal heart tissue lysate.

## **MYL2 Antibody - References**

1. DNA Seq. 2003 Oct;14(5):339-50.
2. Oncogene. 2002 Aug 29;21(38):5852-60.