

# MYL2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP22304c

## Product Information

---

<b>Application</b>	WB, FC, IHC-P-Leica, E
<b>Primary Accession</b>	<a href="#">P10916</a>
<b>Other Accession</b>	<a href="#">P02610</a> , <a href="#">P51667</a> , <a href="#">Q7M2V4</a> , <a href="#">P08733</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Predicted</b>	Chicken, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB56979
<b>Calculated MW</b>	18789

## Additional Information

---

<b>Gene ID</b>	4633
<b>Other Names</b>	Myosin regulatory light chain 2, ventricular/cardiac muscle isoform, MLC-2, MLC-2v, MYL2
<b>Target/Specificity</b>	This MYL2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 42-75 amino acids from the Central region of human MYL2.
<b>Dilution</b>	WB~~1:2000 FC~~1:25 IHC-P-Leica~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	MYL2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## 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 myofibril 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.

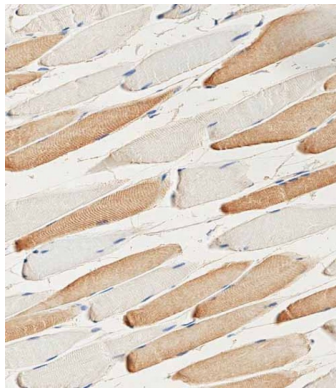
## References

---

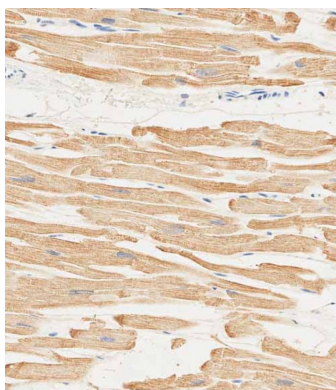
Libera L.D.,et al.Nucleic Acids Res. 17:2360-2360(1989).  
Wu Q.L.,et al.Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.  
Margossian S.S.,et al.Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.  
Wadgaonkar R.,et al.Cell. Mol. Biol. Res. 39:13-26(1993).  
Kovalyov L.I.,et al.Electrophoresis 16:1160-1169(1995).

## Images

---

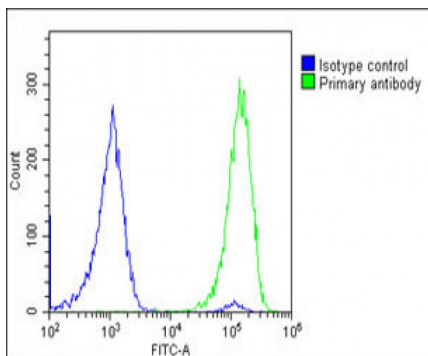


Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue using AP22304c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody (1:1000) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

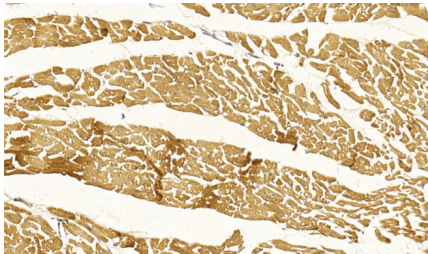


Immunohistochemical analysis of paraffin-embedded human heart tissue using AP22304c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:1000) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

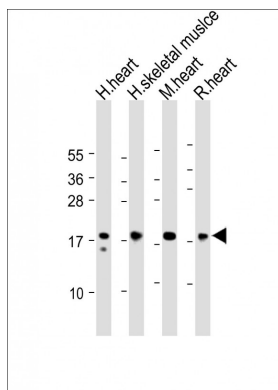
Overlay histogram showing U-2 OS cells stained with AP22304c(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody



(AP22304c, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Immunohistochemical analysis of paraffin-embedded Human Myocardium section using Pink1(Cat#AP22304c). AP22304c was diluted at 1:250 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



All lanes : Anti-MYL2 Antibody (Center) at 1:2000 dilution  
 Lane 1: Human heart lysate Lane 2: Human skeletal muscle lysate Lane 3: Mouse heart lysate Lane 4: Rat heart lysate  
 Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 19 kDa  
 Blocking/Dilution buffer: 5% NFDm/TBST.

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