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MYL2 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22304c

Specification

MYL2 Antibody (Center) - Product Information

Application	**WB, IHC-P-Leica, IHC, FC,E**
Primary Accession	P10916
Other Accession	P02610, P51667, Q7M2V4, P08733
Reactivity	**Human, Mouse, Rat**
Predicted	**Chicken, Rabbit**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**18789**

MYL2 Antibody (Center) - Additional Information

Gene ID 4633

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

Target/Specificity
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.

Dilution
WB~~1:2000
IHC-P-Leica~~1:1000
IHC~~1:250
FC~~1:25

Format
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.

Storage
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.

Precautions
MYL2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

MYL2 Antibody (Center) - Protein Information

Name MYL2 (HGNC:7583)

Function Contractile protein that plays a role in heart development and function (PubMed:23365102, PubMed:32453731). 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}

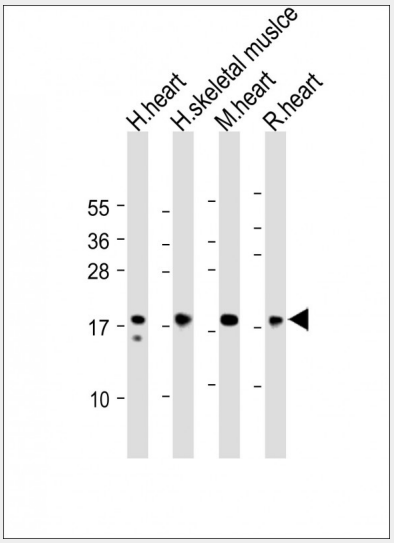
Tissue Location
Highly expressed in type I muscle fibers.

MYL2 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MYL2 Antibody (Center) - Images



All lanes : Anti-MYL2 Antibody (Center) at 1:2000 dilution Lane 1: Human heart lysate Lane 2: Human skeletal muslce 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.

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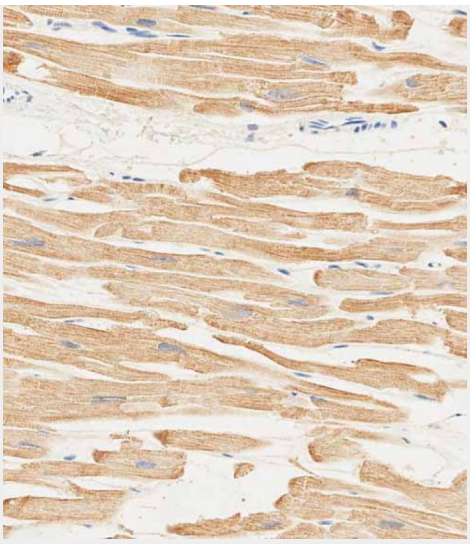
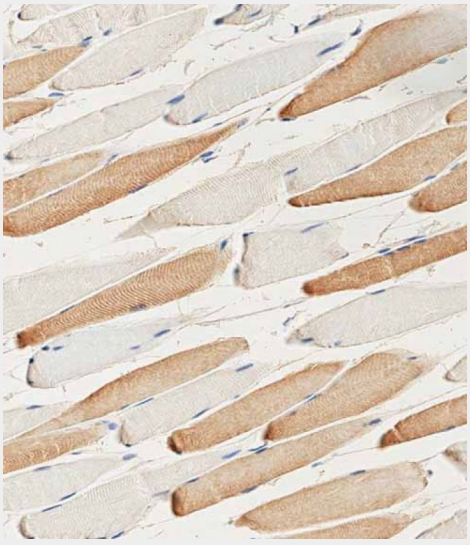
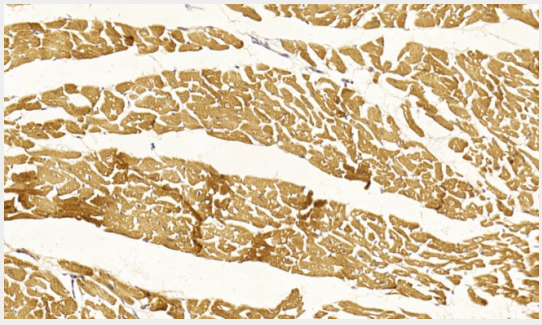


Immunohistochemical analysis of paraffin-embedded human heart tissue using AP22304c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:1000) for 1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



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.



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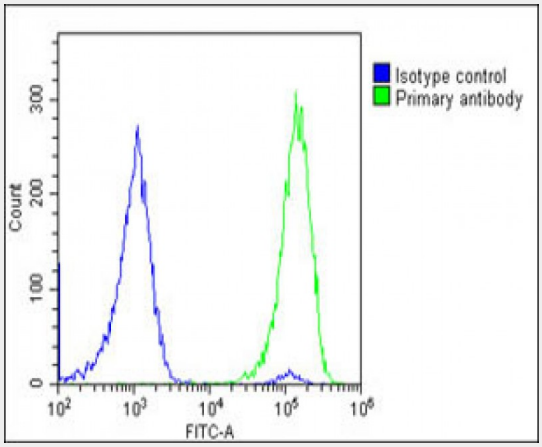
Immunohistochemical analysis of paraffin-embedded Human Myocardium section using Pink1(Cat#AP22304c). AP22304c was diluted at 1:250 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



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

MYL2 Antibody (Center) - 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).