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Myosin Light Chain 2 Rabbit mAb

Catalog # AP75768

Product Information

Application	WB, IHC-P
Primary Accession	P10916
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	18789

Additional Information

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

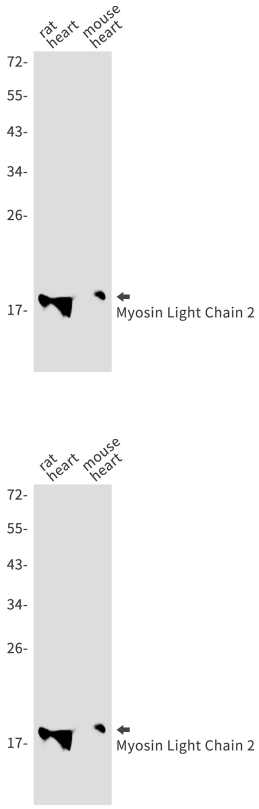
Protein Information

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.

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+ 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.

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'.