

Product Datasheet

Myosin Light Chain 2 Antibody

Catalog No: CY5708

Reactivity: Human Mouse Rat

Isotype: Rabbit IgG

Applications: WB IHC IP



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Information

UniProt ID: P10916

All Names: MYL2; MLC2; Myosin light chain 2; MLC-2; RLC of myosin; CMH10; MLC-2v;

Form: Liquid

Storage instructions: Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Purity: Affinity-chromatography

Immunogen: A synthesized peptide

Molecular Wt.: 18 kDa

Application

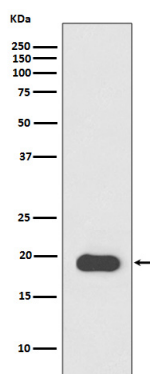
WB: 1:1000~1:5000

IHC: 1:50~1:200

IP: 1:50

Background

Myosin is composed of six polypeptide chains: two identical heavy chains and two pairs of light chains. Myosin light chain 2 (MLC2), also known as myosin regulatory light chain (MRLC), RLC, or LC20, has many isoforms depending on its distribution. In smooth muscle, MLC2 is phosphorylated at Thr18 and Ser19 by myosin light chain kinase (MLCK) in a Ca^{2+} /calmodulin-dependent manner (1). This phosphorylation is correlated with myosin ATPase activity and smooth muscle contraction (2). ROCK also phosphorylates Ser19 of smooth muscle MLC2, which regulates the assembly of stress fibers (3). Phosphorylation of smooth muscle MLC2 at Ser1/Ser2 and Ser9 by PKC and cdc2 has been reported to inhibit myosin ATPase activity (4,5). Phosphorylation by cdc2 controls the timing of cytokinesis (5). Transgenic mice lacking phosphorylation sites on the cardiac muscle isoform show morphological and functional abnormalities (6).



Western blot analysis of Myosin Light Chain 2 expression in Mouse heart lysate.

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