

Myosin Light Chain 2

rev. 07/26/16
Cat#: ET1611-13

Product Type: Recombinant rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat, Zebra fish

Applications: WB, IHC, IP

Molecular Wt.: 19 kDa

Description: Encoded by the MYL2 gene, myosin regulatory light chain 2, ventricular/cardiac muscle isoform, also designated MLC-2 or MLC2v, is part of a hexameric complex of two heavy chains and four light chains predominantly expressed in adult cardiac ventricle muscle. Myosin regulatory light chain 2 binds calcium and has been shown to be a useful molecular marker for cardiac chamber specification. The co-expression of myosin regulatory light chain 7 (MYL7) and myosin regulatory light chain 2 in the outflow tract and atrioventricular canal, together with the single expression in the atrial (MYL7) and ventricular (MYL2) myocardium, permits the delineation of their boundaries. At the amino acid level there is 96% homology between the human and mouse myosin regulatory light chain sequences. Mutations in MYL2 are correlated with mid-left ventricular chamber type hypertrophic cardiomyopathy (MVC2) as well as familial hypertrophic cardiomyopathy type 10 (CMH10).

Immunogen:

Recombinant protein.

Positive control:

Mouse liver tissue, mouse brain tissue, mouse heart tissue.

Subcellular location:

Cytoplasm.

Database links:

SwissProt: P10916 (Human) P51667 (Mouse) P08733 (Rat)

Recommended Dilutions:

WB: 1:1,000-1:5,000

IHC: 1:50-1:200

Storage Buffer:

1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction:

Store at +4° C after thawing. Aliquot store at -20° C or -80° C. Avoid repeated freeze / thaw cycles.

Purity:

ProA affinity purified.

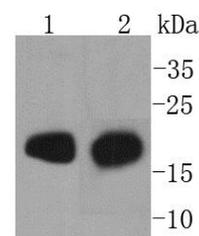


Fig1: Western blot analysis of Myosin Light Chain 2 on different lysates using anti-Myosin Light Chain 2 antibody at 1/1,000 dilution.

Positive control:

Lane 1: Mouse liver

Lane 2: Mouse brain

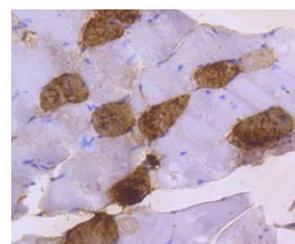


Fig2: Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue using anti-Myosin Light Chain 2 antibody. Counter stained with hematoxylin.

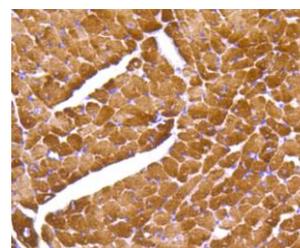


Fig3: Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-Myosin Light Chain 2 antibody. Counter stained with hematoxylin.

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Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry
Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish
B=bovine Dg=dog Pg=pig Sc=S.

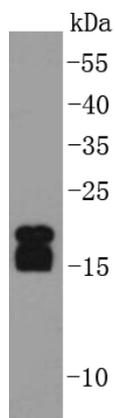


Fig4: Western blot analysis of zebra fish lysates using anti-Myosin Light Chain 2 antibody.

Background References

1. Suliman, HB. et al. 2016. Heme Oxygenase-1/Carbon Monoxide System and Embryonic Stem Cell Differentiation and Maturation into Cardiomyocytes. *Antioxidants & redox signaling*. 24: 345-60.
2. Harmelink, C. et al. 2013. Myocardial Mycn is essential for mouse ventricular wall morphogenesis. *Dev. Biol.* 373: 53-63.

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