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MYL3 Antibody

Mouse Monoclonal Antibody to MYL3
Catalog # AO1275b

Product Information

Application	WB, IHC, E
Primary Accession	P08590
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7C1
Isotype	Mouse IgG1
Calculated MW	21932
Description	Myosins are a large superfamily of motor proteins that move along actin filaments, while hydrolyzing ATP. Myosin is the major component of thick muscle filaments, and is a long asymmetric molecule containing a globular head and a long tail. The molecule consists of two heavy chains and four light chains. Activation of smooth and cardiac muscle primarily involves pathways which increase calcium and myosin phosphorylation resulting in contraction. Myosin light chain phosphatase acts to regulate muscle contraction by dephosphorylating activated myosin light chain. MYL3 encodes myosin light chain 3, an alkali light chain also referred to in the literature as both the ventricular isoform and the slow skeletal muscle isoform. Human myosin light chain has clinical application as a cardiac marker. Mutations in MYL3 have been identified as a cause of mid-left ventricular chamber type hypertrophic cardiomyopathy.
Immunogen	Purified recombinant fragment of MYL3 expressed in E. Coli.

Additional Information

Gene ID	4634
Other Names	Myosin light chain 3, Cardiac myosin light chain 1, CMLC1, Myosin light chain 1, slow-twitch muscle B/ventricular isoform, MLC1SB, Ventricular/slow twitch myosin alkali light chain, MYL3
Target/Specificity	Purified recombinant fragment of MYL3 expressed in E. Coli.
Dilution	WB~~1:500~~2000 IHC~~1:200~~1000 E~~N/A
Format	Ascitic fluid containing 0.03% sodium azide.
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MYL3 Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

Protein Information

Name	MYL3 (HGNC:7584)
Function	Regulatory light chain of myosin. Does not bind calcium.

References

1. Xie B, et al. Biophys Chem. 2003 Oct 1;106(1):57-66.

2. Haase H, et al. FASEB J. 2006 May;20(7):865-73.

Images

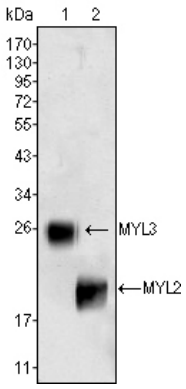

Figure 1: Western blot analysis using MYL3 (1) and MYL2 (2) mouse mAb against rat fetal heart tissues lysate.

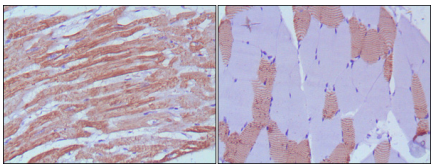

Figure 2: Immunohistochemical analysis of paraffin-embedded human skeletal muscle (left) and cardiac muscle (right) using MYL3 mouse mAb with DAB staining.