

MYL3 Antibody
Mouse Monoclonal Antibody to MYL3
Catalog # AO1275b**Specification**

MYL3 Antibody - Product Information

Application	WB, IHC, E
Primary Accession	P08590
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
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.

MYL3 Antibody - 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.

MYL3 Antibody - Protein Information

Name MYL3 ([HGNC:7584](#))

Function

Regulatory light chain of myosin. Does not bind calcium.

MYL3 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MYL3 Antibody - Images

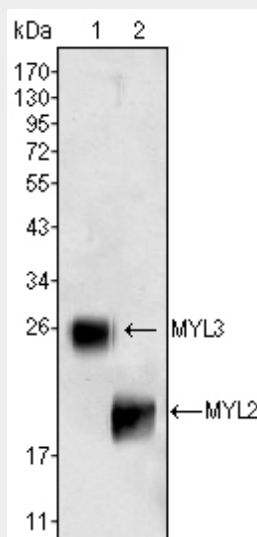


Figure 1: Western blot analysis using MYL3 (1) and MYL2 (2) mouse mAb against rat fetal heart tissues lysate.

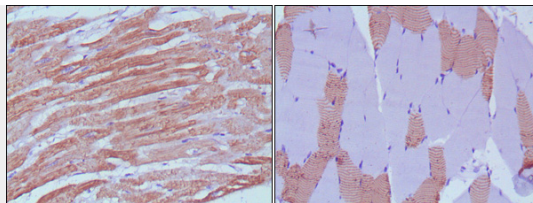


Figure 2: Immunohistochemical analysis of paraffin-embedded human skeletal muscle (left) and cardiac muscle (right) using MYL3 mouse mAb with DAB staining.

MYL3 Antibody - 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.