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MYLK3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7965A

Specification

MYLK3 Antibody (N-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	Q32MK0
Other Accession	Q96DV1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**40-69**

MYLK3 Antibody (N-term) - Additional Information

Gene ID 91807

Other Names
Myosin light chain kinase 3, Cardiac-MyBP-C-associated Ca/CaM kinase, Cardiac-MLCK, MYLK3, MLCK

Target/Specificity
This MYLK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 40-69 amino acids from the N-terminal region of human MYLK3.

Dilution
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MYLK3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MYLK3 Antibody (N-term) - Protein Information

Name MYLK3

Synonyms MLCK

Function Kinase that phosphorylates MYL2 in vitro. Promotes sarcomere formation in cardiomyocytes and increases cardiomyocyte contractility (By similarity).

Cellular Location
Cytoplasm.

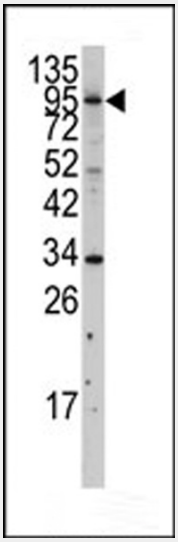
Tissue Location
Restricted to heart..

MYLK3 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MYLK3 Antibody (N-term) - Images



Western blot analysis of anti-MYLK3 Antibody (N-term) (Cat. #AP7965a) in A375 cell line lysates (35ug/lane). MYLK3 (arrow) was detected using the purified Pab.

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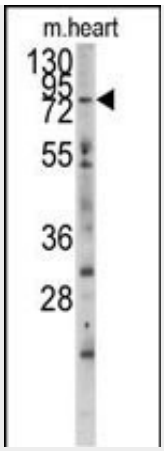
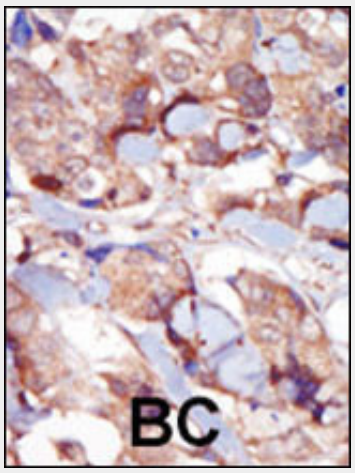
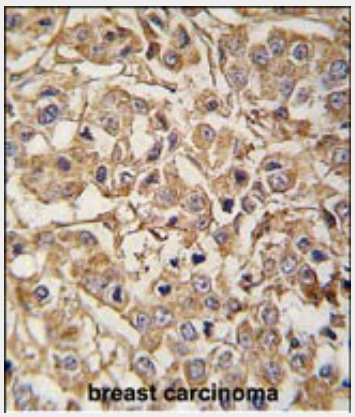


Western blot analysis of anti-MYLK3 Antibody (N-term) (Cat. #AP7965a) in mouse heart tissue lysates (35ug/lane). MYLK3(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with MYLK3 antibody (N-term) (Cat.#AP7965a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

MYLK3 Antibody (N-term) - Background

MLCK, a member of the Ser/Thr protein kinase family, is a calcium/calmodulin-dependent enzyme responsible for smooth muscle contraction via phosphorylation of a specific serine in the N-terminus of myosin light chains (MLC), an event that facilitates myosin interaction with actin filaments. It is a central determinant in the development of vascular permeability and tissue edema formation. In the nervous system it has been shown to control the growth initiation of astrocytic processes in culture and to participate in transmitter release at synapses formed between cultured sympathetic ganglion cells. MLCK acts as a critical participant in signaling sequences that result in fibroblast apoptosis. Smooth muscle and non-muscle isozymes are expressed in a wide variety of adult and fetal tissues and in cultured endothelium with qualitative expression appearing to be neither tissue- nor development-specific. Non-muscle isoform 2 is the dominant splice variant expressed in various tissues. The Telokin isoform, which binds calmodulin, has been found in a wide variety of adult and fetal tissues. MLCK is probably down-regulated by phosphorylation. The protein contains 1 fibronectin type III domain and 9 immunoglobulin-like C2-type domains.

MYLK3 Antibody (N-term) - References

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Cantrell D, J. Cell Sci. 2001. 114: 1439.
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Van Weering D, et al. Recent Results Cancer Res. 1998. 154: 271.

MYLK3 Antibody (N-term) - Citations

- null C57BL/6J mice do not
- Cardiac-Directed Expression of Adenylyl Cyclase Catalytic Domain Reverses Cardiac Dysfunction Caused by Sustained Beta-Adrenergic Receptor Stimulation.
- Interferon Stimulated Gene 15 upregulation precedes the development of blood brain barrier disruption and cerebral edema after traumatic brain injury in young mice.
- Albumin causes increased myosin light chain kinase expression in astrocytes via p38 mitogen-activated protein kinase.