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MYLK3 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP7965a

Specification

MYLK3 Antibody (N-term) Blocking peptide - Product Information

Primary Accession	Q32MK0
Other Accession	Q96DV1

MYLK3 Antibody (N-term) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP7965a was selected from the N-term region of human MLCK . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MYLK3 Antibody (N-term) Blocking peptide - 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..

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MYLK3 Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

MYLK3 Antibody (N-term) Blocking peptide - Images

MYLK3 Antibody (N-term) Blocking peptide - 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) Blocking peptide - References

Blume-Jensen P, et al. Nature 2001. 411: 355.Cantrell D, J. Cell Sci. 2001. 114: 1439.Jhiang S Oncogene 2000. 19: 5590.Manning G, et al. Science 2002. 298: 1912.Moller, D, et al. Am. J. Physiol. 1994. 266: C351-C359.Robertson, S. et al. Trends Genet. 2000. 16: 368.Robinson D, et al. Oncogene 2000. 19: 5548.Van der Ven, P, et al. Hum. Molec. Genet. 1993. 2: 1889.Vanhaesebroeck, B, et al. Biochem. J. 2000. 346: 561.Van Weering D, et al. Recent Results Cancer Res. 1998. 154: 271.