

Datasheet for ABIN6654097

anti-MYLK antibody[Go to Product page](#)**1** Image

Overview

Quantity:	100 µL
Target:	MYLK
Reactivity:	Human
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This MYLK antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	A synthetic peptide from human Myosin light chain kinase was used as the immunogen for the MLCK antibody.
Clone:	G-13
Isotype:	IgG
Purification:	Protein A affinity

Target Details

Target:	MYLK
Alternative Name:	MYLK / MLCK (MYLK Products)
Background:	Calcium/calmodulin-dependent myosin light chain kinase implicated in smooth muscle contraction via phosphorylation of myosin light chains (MLC). Also regulates actin-myosin interaction through a non-kinase activity. Phosphorylates PTK2B/PYK2 and myosin light-chains.

Target Details

Involved in the inflammatory response (e.g. apoptosis, vascular permeability, leukocyte diapedesis), cell motility and morphology, airway hyperreactivity and other activities relevant to asthma. Required for tonic airway smooth muscle contraction that is necessary for physiological and asthmatic airway resistance. Necessary for gastrointestinal motility. Implicated in the regulation of endothelial as well as vascular permeability, probably via the regulation of cytoskeletal rearrangements. 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. Critical participant in signaling sequences that result in fibroblast apoptosis. Plays a role in the regulation of epithelial cell survival. Required for epithelial wound healing, especially during actomyosin ring contraction during purse-string wound closure. Mediates RhoA- dependent membrane blebbing. Triggers TRPC5 channel activity in a calcium-dependent signaling, by inducing its subcellular localization at the plasma membrane. Promotes cell migration (including tumor cells) and tumor metastasis. PTK2B/PYK2 activation by phosphorylation mediates ITGB2 activation and is thus essential to trigger neutrophil transmigration during acute lung injury (ALI). May regulate optic nerve head astrocyte migration. Probably involved in mitotic cytoskeletal regulation. Regulates tight junction probably by modulating ZO-1 exchange in the perijunctional actomyosin ring. Mediates burn-induced microvascular barrier injury, triggers endothelial contraction in the development of microvascular hyperpermeability by phosphorylating MLC. Essential for intestinal barrier dysfunction. Mediates Giardia spp.- mediated reduced epithelial barrier function during giardiasis intestinal infection via reorganization of cytoskeletal F-actin and tight junctional ZO-1. Necessary for hypotonicity-induced Ca(2+) entry and subsequent activation of volume-sensitive organic osmolyte/anion channels (VSOAC) in cervical cancer cells. Responsible for high proliferative ability of breast cancer cells through anti-apoptosis. .

UniProt: [Q15746](#)

Application Details

Application Notes: Optimal dilution of the MLCK antibody should be determined by the researcher.\. Western Blot: 0.5-1 µg/mL,IHC (FFPE): 1-2 µg/mL

Restrictions: For Research Use only

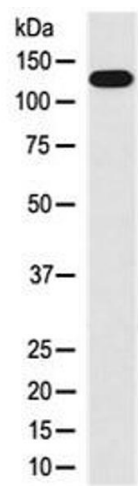
Handling

Buffer: Antibody in PBS with 0.02 % sodium azide and 50 % glycerol

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store the MLCK antibody at -20°C.

Images



Western Blotting

Image 1. Western blot testing of human HUVEC cell lysate with MLCK antibody at 0.5ug/ml. Predicted molecular weight: isoforms from 197-211 kDa and ~110 kDa, observed here at ~140 kDa.