



Datasheet for ABIN7183872  
**anti-MYLK antibody**



[Go to Product page](#)

1 Image

Overview

Quantity:	100 µL
Target:	MYLK
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MYLK antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	Synthesized peptide derived from internal of Human MYLK.
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Target Details

Target:	MYLK
Alternative Name:	MYLK ( <a href="#">MYLK Products</a> )
Background:	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. 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<sup>2+</sup> 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.

Potier M.-C., *Genomics* 29:562-570(1995).

Garcia J.G.N., *Am. J. Respir. Cell Mol. Biol.* 16:489-494(1997).

Lazar V.L., *Genomics* 57:256-267(1999).

Aliases: deglutamylated form antibody, DKFZp686i10125 antibody, EC 2.7.11.18 antibody, FLJ12216 antibody, Kinase related protein antibody, Kinase-related protein antibody, KRP antibody, MLCK antibody, MLCK1 antibody, MLCK108 antibody, MLCK210 antibody, MSTP083 antibody, MYLK antibody, MYLK\_HUMAN antibody, MYLK1 antibody, Myosin light chain kinase antibody, Myosin light polypeptide kinase antibody, OTTHUMP00000180642 antibody, OTTHUMP00000180643 antibody, s mMLCK antibody, smooth muscle antibody, Smooth muscle myosin light chain kinase antibody, Telokin antibody

## Target Details

UniProt: [Q15746](#)

## Application Details

Application Notes: WB:1:500-1:3000,

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: Rabbit IgG in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

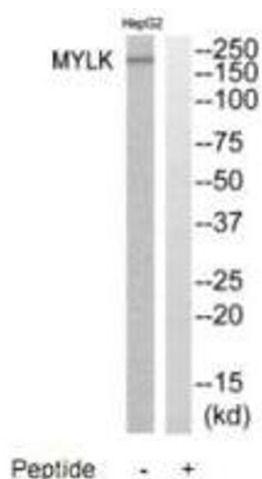
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C, -80 °C

Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

## Images



### Western Blotting

**Image 1.** Western blot analysis of extracts from HepG2 cells, using MYLK antibody.