


## Product datasheet

# Anti-Myosin light chain kinase / MLCK antibody ab55475

★★★★☆ 3 Abreviews 2 References 1 Image

### Overview

<b>Product name</b>	Anti-Myosin light chain kinase / MLCK antibody
<b>Description</b>	Mouse monoclonal to Myosin light chain kinase / MLCK
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Recombinant fragment <b>Predicted to work with:</b> Human 
<b>Immunogen</b>	Recombinant fragment: CTQCLQHPWL MKDTKNMEAK KLSKDRMKKY MARRKWQKTG NAVRAIGRLS SMAMISGLSG RKSSTGSPTS PLNAEKLESE EDVSQAFLEA VAEEKPHVKP , corresponding to amino acids 1710-1809 of Human Myosin light chain kinase <a href="#">Run BLAST with ExPASy</a> <a href="#">Run BLAST with NCBI</a>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: None PBS, pH 7.2
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

### Applications

Our [Abpromise guarantee](#) covers the use of **ab55475** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 1 - 5 µg/ml. This antibody has only been tested in WB against the recombinant fragment used as immunogen. We have no data on the detection of endogenous protein.

## Target

### Function

Calcium/calmodulin-dependent enzyme implicated in smooth muscle contraction via phosphorylation of myosin light chains (MLC). Also regulates actin-myosin interaction through a non-kinase activity (By similarity). Implicated in the regulation of endothelial as well as vascular permeability. 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.

### Tissue specificity

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. Telokin has been found in a wide variety of adult and fetal tissues.

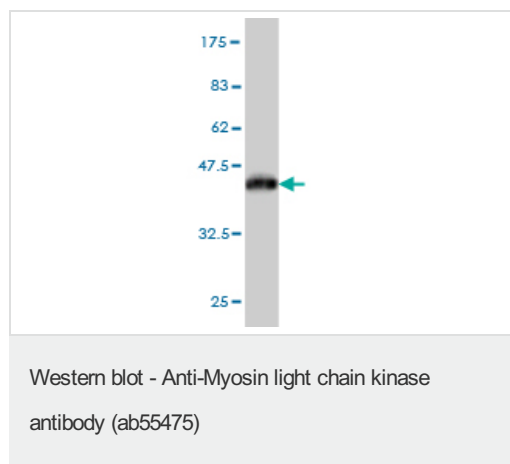
### Sequence similarities

Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.  
Contains 1 fibronectin type-III domain.  
Contains 9 Ig-like C2-type (immunoglobulin-like) domains.  
Contains 1 protein kinase domain.

### Post-translational modifications

MLCK is probably down-regulated by phosphorylation.  
The C-terminus is deglutamylated by AGTPBP1/CCP1, AGBL1/CCP4 and AGBL4/CCP6, leading to the formation of Myosin light chain kinase, smooth muscle, deglutamylated form. The consequences of C-terminal deglutamylation are unknown.

## Images



Western blot against tagged recombinant protein immunogen using ab55475 Myosin light chain kinase antibody at 1ug/ml. Predicted band size of immunogen is 37 kDa

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