


Product datasheet

Anti-Myosin light chain kinase/MLCK antibody [EP1458Y] - BSA and Azide free ab238429

Recombinant RabMAb

2 Images

Overview

Product name	Anti-Myosin light chain kinase/MLCK antibody [EP1458Y] - BSA and Azide free
Description	Rabbit monoclonal [EP1458Y] to Myosin light chain kinase/MLCK - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IHC-P Unsuitable for: IP
Species reactivity	Reacts with: Mouse, Rat Predicted to work with: Human 
Immunogen	Synthetic peptide within Human Myosin light chain kinase/MLCK aa 1850-1950 (C terminal). The exact sequence is proprietary.
Positive control	IHC-P: Human smooth muscle tissue.
General notes	ab238429 is the carrier-free version of ab76092 This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Ab238429 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

Maxpar® is a trademark of Fluidigm Canada Inc.

Previously labeled as Myosin light chain kinase.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1458Y
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab238429** 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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. Use of HRP-conjugated or polymerized HRP secondary antibodies, stronger signals have been found using the polymerized HRP secondary.

Application notes Is unsuitable for IP.

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.

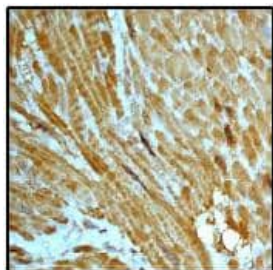
Sequence similarities

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin light chain kinase/MLCK antibody [EP1458Y] - BSA and Azide free (ab238429)

Immunohistochemical analysis of paraffin embedded human smooth muscle, using [ab76092](#), at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab76092](#)).

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Myosin light chain kinase/MLCK antibody
[EP1458Y] - BSA and Azide free (ab238429)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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