


## Product datasheet

# Anti-Myosin Light Chain 2 antibody ab48003

★★★★★ [1 Abreviews](#) [15 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-Myosin Light Chain 2 antibody
<b>Description</b>	Rabbit polyclonal to Myosin Light Chain 2
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab48003 is directed against the regulatory light chain of smooth and non muscle myosin. The antibody detects both unphosphorylated and monophosphorylated forms of the protein.
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB, ELISA, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Chicken, Cow, Dog, Pig, Xenopus laevis, Zebrafish 
<b>Immunogen</b>	Synthetic peptide: GANSNVFSMFEQTQIQ , corresponding to amino acids 12/27 of Human Myosin Light Chain 2 <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<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: 0.01% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab48003 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
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration. PubMed: 23704920
WB		1/500 - 1/2000. Predicted molecular weight: 19 kDa.
ELISA		Use at an assay dependent concentration.
IHC-P		Use a concentration of 2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## Target

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### Involvement in disease

Defects in MYL2 are the cause of cardiomyopathy familial hypertrophic type 10 (CMH10) [MIM:608758]. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death. Defects in MYL2 are the cause of cardiomyopathy familial hypertrophic with mid-left ventricular chamber type 2 (MVC2) [MIM:608758]. MVC2 is a very rare variant of familial hypertrophic cardiomyopathy, characterized by mid-left ventricular chamber thickening.

### Sequence similarities

Contains 3 EF-hand domains.

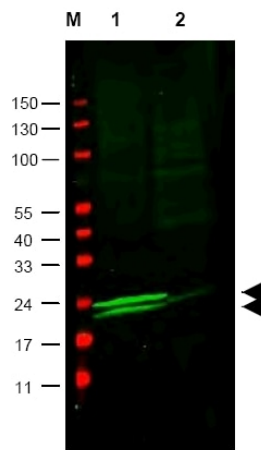
### Post-translational modifications

N-terminus is methylated by METTL11A/NTM1.

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## Images

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Western blot - Anti-Myosin Light Chain 2 antibody (ab48003)

**All lanes :** Anti-Myosin Light Chain 2 antibody (ab48003) at 1/600 dilution

**Lane 1 :** Vascular myosin (rat aorta), loaded with 35 µg of lysate

**Lane 2 :** Cardiac myosin (mouse heart, loaded with 35 µg of lysate)

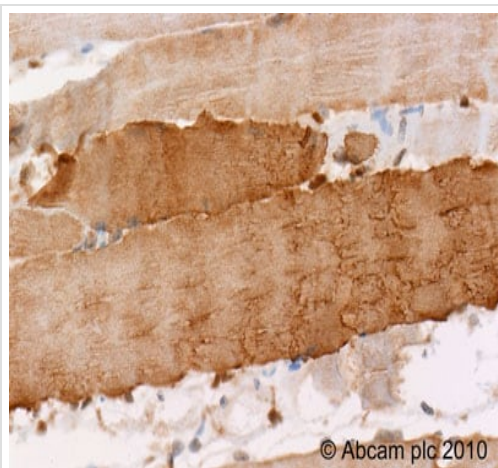
#### Secondary

**All lanes :** 1:10,000 dilution of IRDye800™ conjugated Gt-a-Rabbit IgG [H&L]

**Predicted band size:** 19 kDa

**Observed band size:** 19,24 kDa

Arrowheads indicate the detection of both monophosphorylated (upper) and unphosphorylated (lower) forms of the protein.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin Light Chain 2 antibody (ab48003)

ab48003 (2µg/ml) staining Myosin Light Chain 2 in human skeletal muscle using an automated system (DAKO Autostainer Plus).

Using this protocol there is strong staining of cell cytoplasm.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H<sub>2</sub>O<sub>2</sub> in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX.

Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended.

Signal amplification may be required.

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

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