

## Product datasheet

### Anti-Myosin Light Chain 2 antibody [EPR3741] ab92721

Recombinant RabMAb

★★★★★ 5 Abreviews 32 References 8 Images

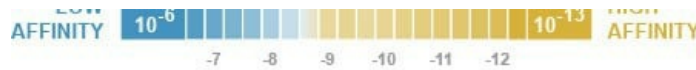
#### Overview

Product name	Anti-Myosin Light Chain 2 antibody [EPR3741]
Description	Rabbit monoclonal [EPR3741] to Myosin Light Chain 2
Host species	Rabbit
Tested applications	<b>Suitable for:</b> WB, IHC-P <b>Unsuitable for:</b> Flow Cyt
Species reactivity	<b>Reacts with:</b> Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: human heart, human skeletal muscle, mouse heart, rat heart lysates IHC: human cardiac muscle, mouse cardiac muscle, rat cardiac muscle
General notes	<p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K <sub>D</sub> )	K <sub>D</sub> = 2.78 x 10 <sup>-10</sup> M





[Learn more about K<sub>D</sub>](#)

<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3741
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab92721 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

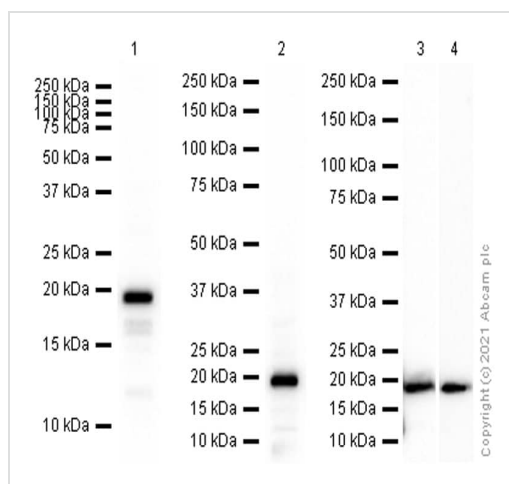
Application	Abreviews	Notes
WB	★★★★★ (4)	1/10000. Predicted molecular weight: 19 kDa.
IHC-P		1/600. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. The use of an HRP/AP polymerized secondary antibody is recommended.

**Application notes** Is unsuitable for Flow Cyt.

## Target

<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Contains 3 EF-hand domains.
<b>Post-translational modifications</b>	N-terminus is methylated by METTL11A/NTM1.

## Images



Western blot - Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

**All lanes :** Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721) at 1/10000 dilution (Purified)

**Lane 1 :** Human heart lysate

**Lane 2 :** Human skeletal muscle lysate

**Lane 3 :** Mouse heart lysate

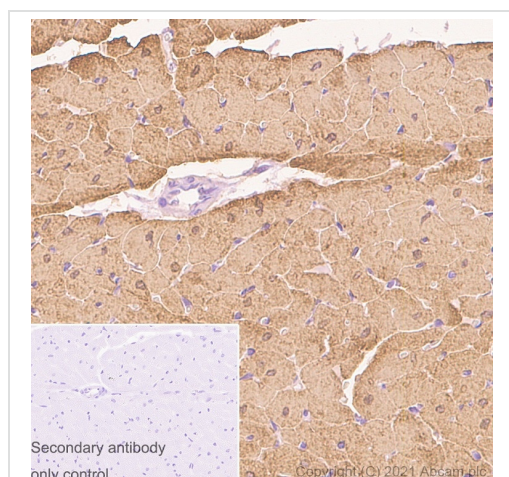
**Lane 4 :** Rat heart lysate

### Secondary

**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

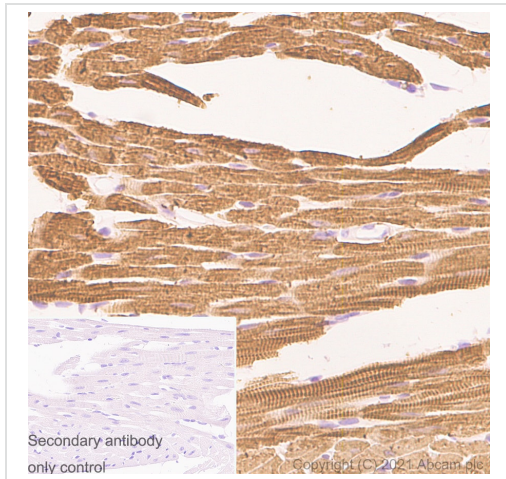
**Predicted band size:** 19 kDa

**Observed band size:** 19 kDa



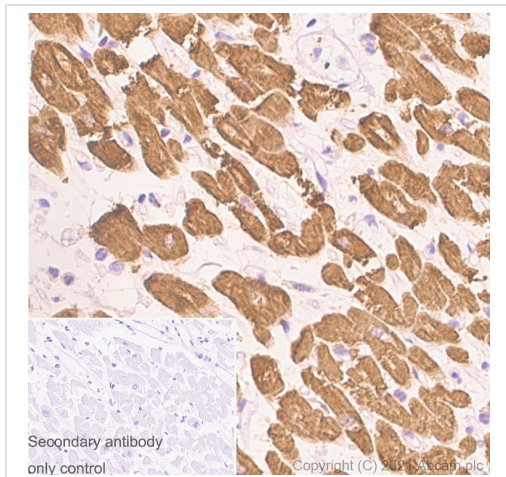
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat cardiac muscle tissue sections labeling Myosin Light Chain 2 with Purified ab92721 at 1/600 dilution (0.16 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control. M3



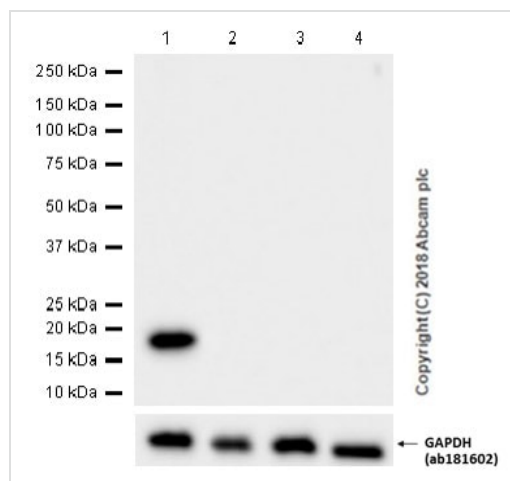
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cardiac muscle tissue sections labeling Myosin Light Chain 2 with Purified ab92721 at 1/600 dilution (0.16 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control. M3



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cardiac muscle tissue sections labeling Myosin Light Chain 2 with Purified ab92721 at 1/600 dilution (0.16 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control. M3



Western blot - Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

**All lanes :** Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721) at 1/1000 dilution

**Lane 1 :** Human fetal heart tissue lysate

**Lane 2 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 3 :** 293T (Human embryonic kidney epithelial cell), whole cell lysate

**Lane 4 :** MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

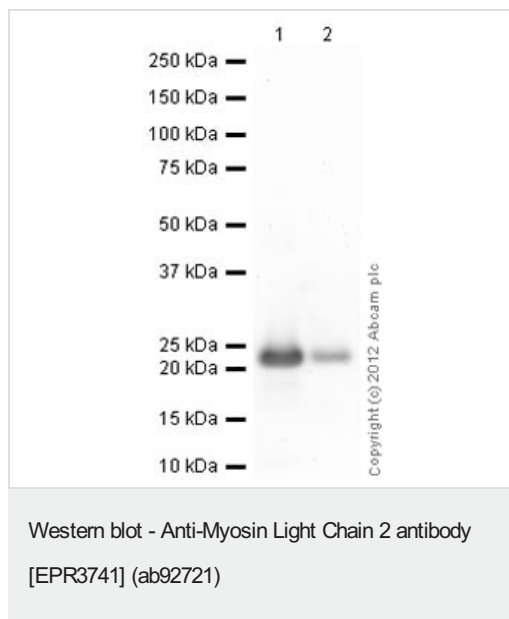
**Predicted band size:** 19 kDa

**Observed band size:** 19 kDa

**Exposure time:** 10 seconds

Blocking/Diluting buffer and concentration 5% NFDm/TBST

Myosin light chain-2 (MYL2, also called MLC-2) is an ~19kDa sarcomeric protein that belongs to the EF-hand calcium binding protein superfamily and exists as three major isoforms encoded by three distinct genes in mammalian striated muscle (PMID: 26074085). Although some cell lines are reported to be MYL2 positive, such as HeLa, 293T and MCF7 (PMID: 21487036, 21487036, 23093227), ab92721 only works in muscle and heart tissues according to our internal testing.



**All lanes :** Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721) at 1/10000 dilution

**Lane 1 :** Recombinant Human Myosin Light Chain 2 protein (**ab79185**) at 0.1 µg

**Lane 2 :** Recombinant Human Myosin Light Chain 2 protein (**ab79185**) at 0.01 µg

#### Secondary

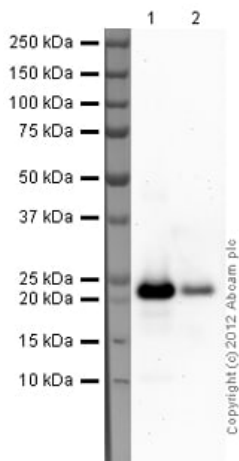
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 19 kDa

**Exposure time:** 4 minutes



Western blot - Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

**All lanes :** Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721) at 1/10000 dilution

**Lane 1 :** Recombinant Human Myosin Light Chain 2 protein (**ab79185**) at 0.1 µg

**Lane 2 :** Recombinant Human Myosin Light Chain 2 protein (**ab79185**) at 0.01 µg

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

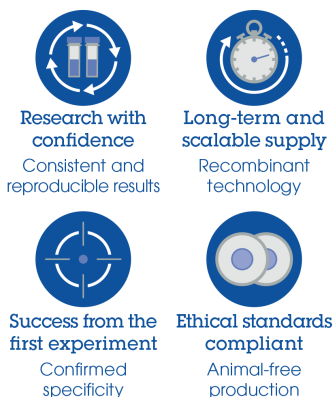
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 19 kDa

**Exposure time:** 8 minutes

### Why choose a recombinant antibody?



Anti-Myosin Light Chain 2 antibody [EPR3741] (ab92721)

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

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