abcam

Product datasheet

Anti-Myosin Heavy Chain/MHC antibody [A4.1025] ab37484

Recombinant

3 References 11 Images

Overview

Product name	Anti-Myosin Heavy Chain/MHC antibody [A4.1025]
Description	Mouse monoclonal [A4.1025] to Myosin
Host species	Mouse
Tested applications	**Suitable for:** IHC-P, IHC-Fr, ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Full length native protein (purified). This information is considered to be commercially sensitive.
Positive control	WB: Human, mouse and rat skeletal muscle tissue lysates; Differentiated C2C12 whole cell lysate IHC-P: Human skeletal and cardiac muscle tissue. IHC-Fr: Mouse and rat skeletal muscle tissue. ICC/IF: Differentiated C2C12 cells.
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. 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**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	A4.1025
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab37484 in the following tested applications.

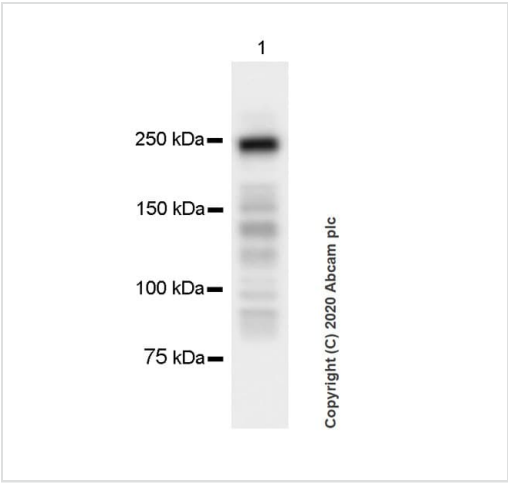
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 0.807 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		Use a concentration of 16.14 µg/ml. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
ICC/IF		Use a concentration of 3.228 µg/ml.
WB		Use a concentration of 0.1614 - 0.807 µg/ml. Detects a band of approximately 223 kDa (predicted molecular weight: 223 kDa).

Target

Function	Muscle contraction.
Sequence similarities	Contains 1 IQ domain. Contains 1 myosin head-like domain.
Domain	The rodlike tail sequence is highly repetitive, showing cycles of a 28-residue repeat pattern composed of 4 heptapeptides, characteristic for alpha-helical coiled coils. Each myosin heavy chain can be split into 1 light meromyosin (LMM) and 1 heavy meromyosin (HMM). It can later be split further into 2 globular subfragments (S1) and 1 rod-shaped subfragment (S2).
Cellular localization	Cytoplasm > myofibril. Thick filaments of the myofibrils.

Images



Western blot - Anti-Myosin antibody [A4.1025] (ab37484)

Anti-Myosin Heavy Chain/MHC antibody [A4.1025] (ab37484) at 0.1614 µg/ml + Human skeletal muscle tissue lysate at 20 µg

Secondary

Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

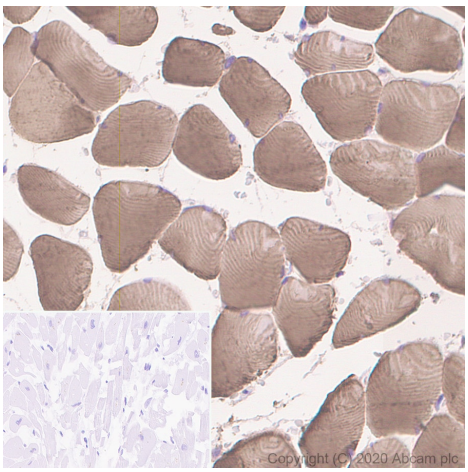
Predicted band size: 223 kDa

Observed band size: 223 kDa

Exposure time: 3 seconds

The extra bands under 223KDa were mainly caused by degradation (PMID: 3295257).

Blocking/Dilution buffer: 5% NFDM/TBST.

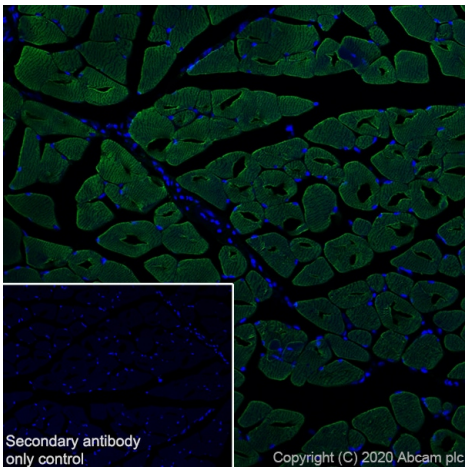


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin antibody [A4.1025] (ab37484)

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling Myosin (MYH1/2) with ab37484 at 0.807 µg/ml, followed by ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on human skeletal muscle. The section was incubated with ab37484 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

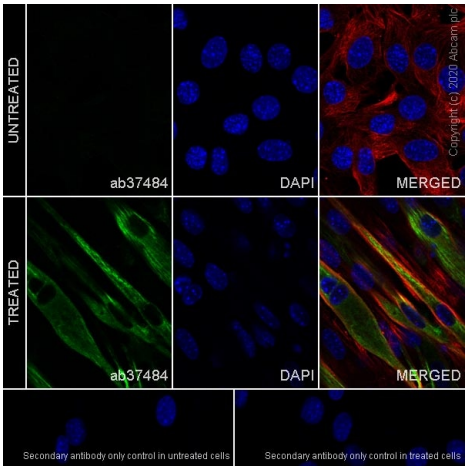


Immunohistochemistry (Frozen sections) - Anti-Myosin antibody [A4.1025] (ab37484)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse skeletal muscle tissue labeling Myosin (MYH1/2) with ab37484 at 16.14 µg/ml followed by **ab150113** Goat Anti-mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on mouse skeletal muscle is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150113** Goat Anti-mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

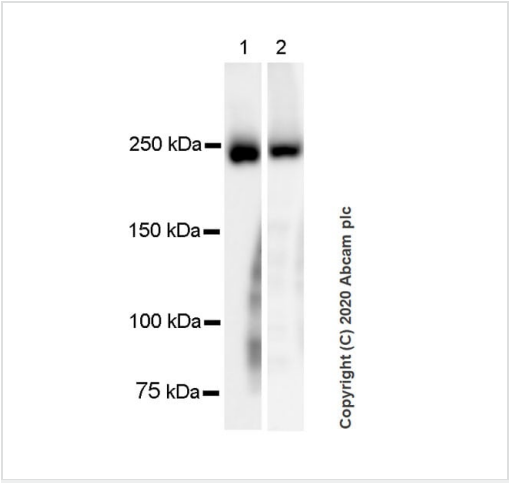
Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Immunocytochemistry/ Immunofluorescence - Anti-Myosin Heavy Chain/MHC antibody [A4.1025] (ab37484)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized C2C12 cells labelling Myosin (MYH1/2) with ab37484 at 3.228 µg/ml, followed by **ab150113** Goat Anti-mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2µg/ml) (Green). Confocal image showing cytoplasmic staining in differentiated (treated) C2C12 cells. **ab179513** Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution (2.5µg/ml), followed by **ab150080** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/500 dilution (4µg/ml) (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: **ab150113** Goat Anti-mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2µg/ml).



Western blot - Anti-Myosin antibody [A4.1025] (ab37484)

All lanes : Anti-Myosin Heavy Chain/MHC antibody [A4.1025] (ab37484) at 0.807 µg/ml

Lane 1 : Mouse skeletal muscle tissue lysate
Lane 2 : Rat skeletal muscle tissue lysate

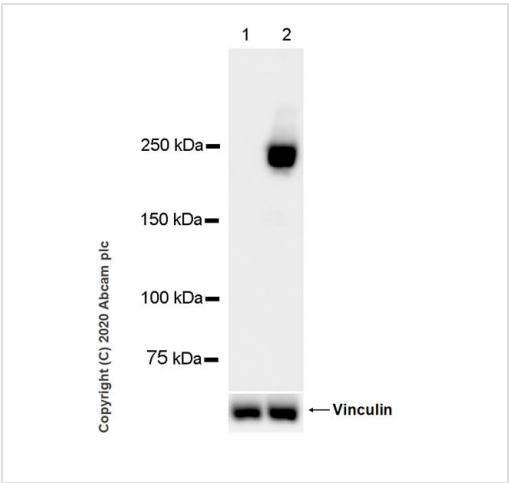
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 223 kDa
Observed band size: 223 kDa

Exposure times: Lane 1: 3 secs; Lane 2: 1 sec.

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Myosin antibody [A4.1025] (ab37484)

All lanes : Anti-Myosin Heavy Chain/MHC antibody [A4.1025] (ab37484) at 0.807 µg/ml

Lane 1 : C2C12 (mouse myoblasts) whole cell lysate
Lane 2 : Differentiated C2C12 whole cell lysate

Lysates/proteins at 20 µg per lane.

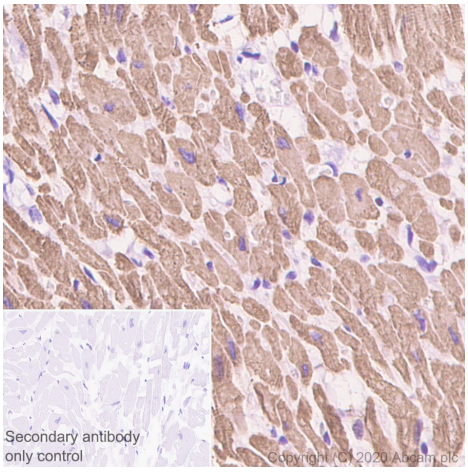
Secondary
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 223 kDa
Observed band size: 223 kDa

Exposure time: 3 seconds

The expression profile observed is consistent with what has been described in the literature (PMID: 26010876).

Blocking/Dilution buffer: 5% NFDM/TBST.

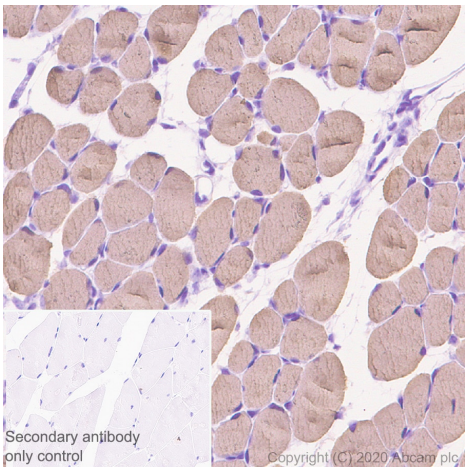


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin antibody [A4.1025] (ab37484)

Immunohistochemical analysis of paraffin-embedded human cardiac muscle tissue labeling Myosin (MYH1/2) with ab37484 at 0.807 µg/ml, followed by ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on human cardiac muscle. The section was incubated with ab37484 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

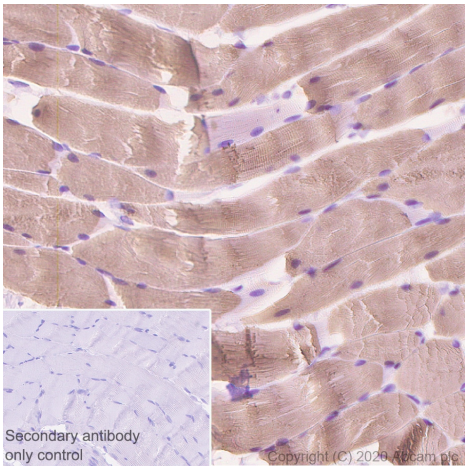


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin antibody [A4.1025] (ab37484)

Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue labeling Myosin (MYH1/2) with ab37484 at 0.807 µg/ml, followed by ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on mouse skeletal muscle. The section was incubated with ab37484 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

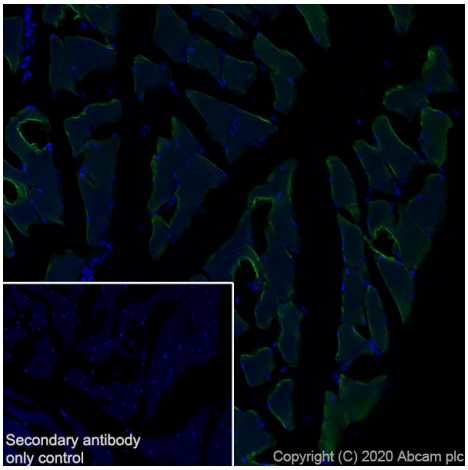


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myosin antibody [A4.1025] (ab37484)

Immunohistochemical analysis of paraffin-embedded rat skeletal muscle tissue labeling Myosin (MYH1/2) with ab37484 at 0.807 µg/ml, followed by ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**). Cytoplasmic staining on rat skeletal muscle. The section was incubated with ab37484 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Goat Anti-mouse IgG H&L (HRP polymer) (**ab214879**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

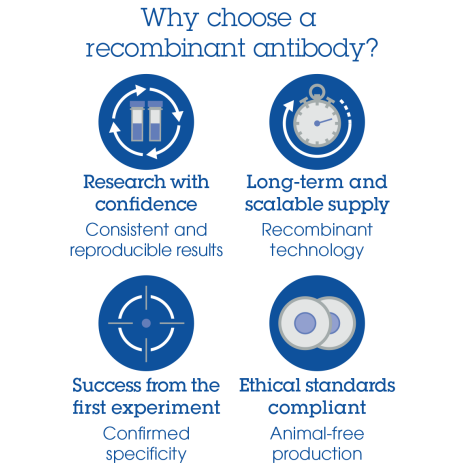


Immunohistochemistry (Frozen sections) - Anti-Myosin antibody [A4.1025] (ab37484)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat skeletal muscle tissue labeling Myosin (MYH1/2) with ab37484 at 16.14 µg/ml followed by **ab150113** Goat Anti-mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on rat skeletal muscle is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150113** Goat Anti-mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Anti-Myosin antibody [A4.1025] (ab37484)

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