


Product datasheet

Anti-heavy chain Myosin/MYH3 antibody ab124205

★★★★★ [4 Abreviews](#) [17 References](#) [3 Images](#)

Overview

Product name	Anti-heavy chain Myosin/MYH3 antibody
Description	Rabbit polyclonal to heavy chain Myosin/MYH3
Host species	Rabbit
Specificity	Replenishment batches of our polyclonal antibody, ab124205 are tested in IHC-P. Previous batches were additionally validated in WB. This application is still expected to work and is covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, ab264038 .
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Rabbit, Chicken, Dog, Pig 
Immunogen	Synthetic peptide corresponding to Human heavy chain Myosin/MYH3 aa 100-200 conjugated to keyhole limpet haemocyanin.
Positive control	This antibody gave a positive signal in Human, Mouse and Rat Skeletal Muscle tissue lysates. IHC: Mouse Skeletal Muscle.
General notes	<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&As</p>

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124205 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)	Use a concentration of 1 µg/ml. Detects a band of approximately 223 kDa (predicted molecular weight: 223 kDa).
IHC-P		Use a concentration of 1 µg/ml.

Target

Function Muscle contraction.

Involvement in disease Defects in MYH3 are the cause of distal arthrogryposis type 2A (DA2A) [MIM:193700]; also known as Freeman-Sheldon syndrome (FSS). Distal arthrogryposis is a clinically and genetically heterogeneous group of disorders characterized by bone anomalies and joint contractures of the hands and feet, causing medially overlapping fingers, clenched fists, ulnar deviation of fingers, camptodactyly and positional foot deformities. It is a disorder of primary limb malformation without primary neurologic or muscle disease. DA2A is the most severe form of distal arthrogryposis. Affected individuals have contractures of the orofacial muscles, characterized by microstomia with pouting lips, H-shaped dimpling of the chin, deep nasolabial folds, and blepharophimosis. Dysphagia, failure to thrive, growth deficit, and life-threatening respiratory complications (caused by structural anomalies of the oropharynx and upper airways) are frequent. Inheritance is autosomal dominant.

Defects in MYH3 are the cause of distal arthrogryposis type 2B (DA2B) [MIM:601680]; also known as Sheldon-Hall syndrome (SHS) or arthrogryposis multiplex congenita distal type 2B (AMCD2B). DA2B is a form of inherited multiple congenital contractures. Affected individuals have vertical talus, ulnar deviation in the hands, severe camptodactyly, and a distinctive face characterized by a triangular shape, prominent nasolabial folds, small mouth and a prominent chin. DA2B is the most common of the distal arthrogryposis syndromes. It is similar to DA2A but the facial contractures are less dramatic.

Sequence similarities Contains 1 IQ domain.
Contains 1 myosin head-like domain.

Developmental stage Abundantly present in fetal skeletal muscle and not present or barely detectable in heart and adult skeletal muscle.

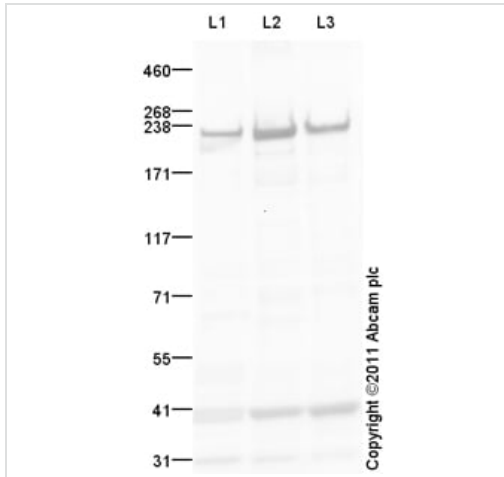
Domain The rodlike tail sequence is highly repetitive, showing cycles of a 28-residue repeat pattern composed of 4 heptapeptides, characteristic for alpha-helical coiled coils.
Each myosin heavy chain can be split into 1 light meromyosin (LMM) and 1 heavy meromyosin

(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-heavy chain Myosin/MYH3 antibody (ab124205)

All lanes : Anti-heavy chain Myosin/MYH3 antibody (ab124205) at 1 µg/ml

Lane 1 : Human skeletal muscle tissue lysate - total protein ([ab29330](#))

Lane 2 : Skeletal Muscle (Mouse) Tissue Lysate

Lane 3 : Skeletal Muscle (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Developed using the ECL technique.

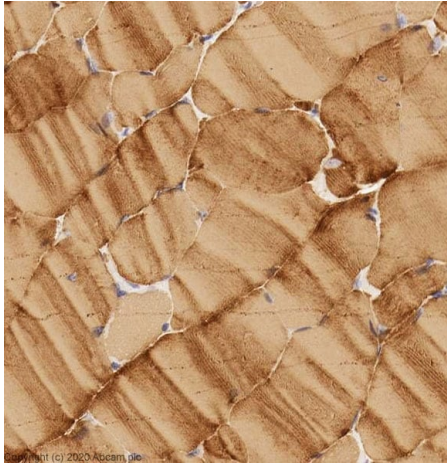
Performed under reducing conditions.

Predicted band size: 223 kDa

Observed band size: 223 kDa

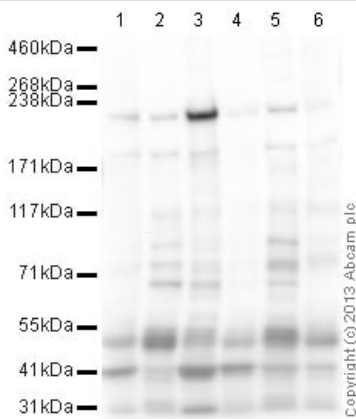
Additional bands at: 40 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-heavy chain Myosin/MYH3 antibody (ab124205)

IHC image of Anti-heavy chain Myosin/MYH3 antibody staining in a section of formalin-fixed paraffin-embedded mouse skeletal muscle performed on a Leica BOND™ system using the standard protocol. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab124205, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Western blot - Anti-heavy chain Myosin/MYH3 antibody (ab124205)

All lanes : Anti-heavy chain Myosin/MYH3 antibody (ab124205) at 1 µg/ml

Lane 1 : Skeletal Muscle (Human) Tissue Lysate - fetal normal tissue

Lane 2 : Human heart tissue lysate - total protein ([ab29431](#))

Lane 3 : Human skeletal muscle tissue lysate - total protein ([ab29330](#))

Lane 4 : Human small intestine tissue lysate - total protein ([ab29276](#))

Lane 5 : Heart (Human) Tissue Lysate - fetal normal tissue

Lane 6 : Human skin tissue lysate - total protein ([ab30166](#))

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 223 kDa

Observed band size: 223 kDa

Additional bands at: 190 kDa, 40 kDa, 50 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds

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