abcam

Product datasheet

Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] ab11083

14 Abreviews 99 References 4 Images

Overview

Product name	Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D]
Description	Mouse monoclonal [NOQ7.5.4D] to Slow Skeletal Myosin Heavy chain
Host species	Mouse
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Rat, Rabbit **Predicted to work with:** Sheep, Goat, Chicken, Guinea pig, Hamster, Cow, Cat, Dog, Human, Pig
Immunogen	Full length native protein (purified) corresponding to Human Slow Skeletal Myosin Heavy chain. Human skeletal muscle myosin purified from myofibrils.
Positive control	IHC-P: Rabbit tongue tissue. WB: Rat skeletal muscle tissue extract.
General notes	This product was changed from ascites to tissue culture supernatant on 25th October 2016. The following lot(s) is/are from ascites and is still in stock as of 25th October 2016- GR201056, GR231200, GR285981. Lot numbers other than GR201056, GR231200, GR285981will be from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly. Storage in frost-free freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. 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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
Purity	Proprietary Purification
Purification notes	Purified from Tissue culture supernatant.
Clonality	Monoclonal
Clone number	NOQ7.5.4D
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab11083 in the following tested applications.

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

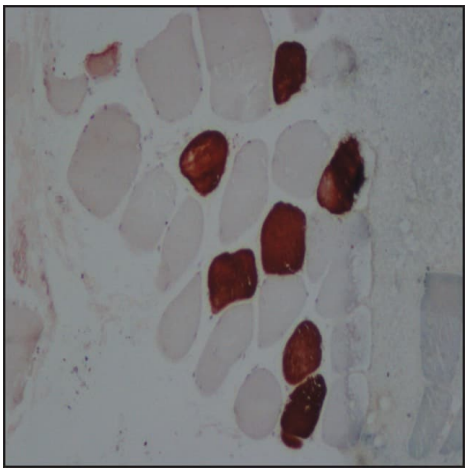
Application	Abreviews	Notes
IHC-P	★★★★★ (5)	Use a concentration of 2.5 - 5 µg/ml. Perform enzymatic antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★ (1)	Use a concentration of 1.25 - 2.5 µg/ml. Detects a band of approximately 200 kDa (predicted molecular weight: 200 kDa).

Target

Function	Muscle contraction.
Tissue specificity	Both wild type and variant Gln-403 are detected in skeletal muscle (at protein level).
Involvement in disease	Defects in MYH7 are the cause of cardiomyopathy familial hypertrophic type 1 (CMH1) [MIM:192600]. 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 MYH7 are the cause of myopathy myosin storage (MYOMS) [MIM:608358]. In this disorder, muscle biopsy shows type 1 fiber predominance and increased interstitial fat and connective tissue. Inclusion bodies consisting of the beta cardiac myosin heavy chain are present in the majority of type 1 fibers, but not in type 2 fibers. Defects in MYH7 are the cause of scapuloperoneal myopathy MYH7-related (SPMM) [MIM:181430]; also known as scapuloperoneal syndrome myopathic type. SPMM is a progressive muscular atrophia beginning in the lower legs and affecting the shoulder region earlier and more severely than distal arm. Defects in MYH7 are a cause of cardiomyopathy dilated type 1S (CMD1S) [MIM:613426]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Defects in MYH7 are the cause of myopathy distal type 1 (MPD1) [MIM:160500]. MPD1 is a muscular disorder characterized by early-onset selective weakness of the great toe and ankle dorsiflexors, followed by weakness of the finger extensors. Mild proximal weakness occasionally develops years later after the onset of the disease.

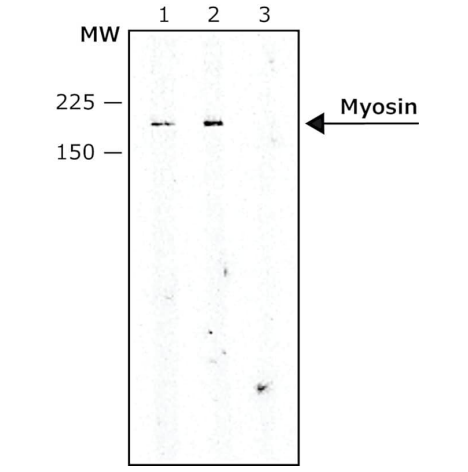
Sequence similarities	Contains 1 IQ domain. Contains 1 myosin head-like domain.
Domain	The rodlike tail sequence is highly repetitive, showing cycles of a 28-residue repeat pattern composed of 4 heptapeptides, characteristic for alpha-helical coiled coils. Each myosin heavy chain can be split into 1 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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] (ab11083)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rabbit tomgue tissue staining Skeletal Myosin Heavy chain using ab11083 at 2.5 µg/mL.



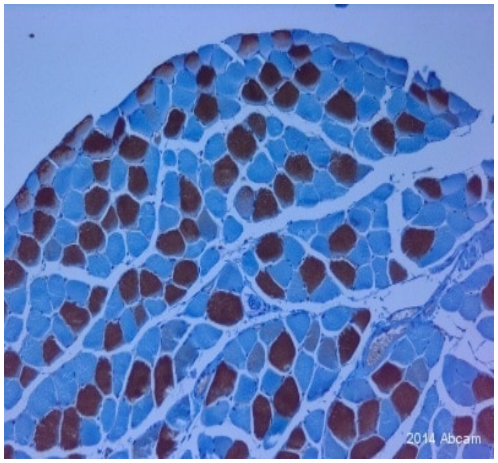
Western blot - Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] (ab11083)

Lane 1 : Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] (ab11083) at 1.25 µg/ml
Lane 2 : Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] (ab11083) at 2.5 µg/ml
Lane 3 : Negative control antibody

All lanes : Rat skeletal muscle

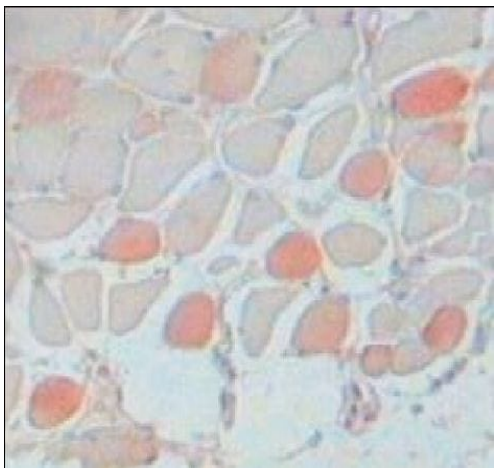
Secondary
All lanes : Anti-Mouse IgG (Fac-specific)-peroxidase conjugate at 1/5000 dilution

Predicted band size: 200 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] (ab11083)

ab11083 at 1/500 dilution, staining Slow Skeletal Myosin Heavy chain in mouse tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin embedded sections).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Slow Skeletal Myosin Heavy chain antibody [NOQ7.5.4D] (ab11083)

ab11083 at 1/4000 dilution, staining Slow Skeletal Myosin Heavy chain in rabbit tongue tissue section by Immunohistochemistry (Formalin/PFA-fixed paraffin embedded sections).

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