abcam

Product datasheet

Anti-Desmin antibody - Cytoskeleton Marker ab15200

26 Abreviews 183 References 12 Images

Overview

Product name	Anti-Desmin antibody - Cytoskeleton Marker
Description	Rabbit polyclonal to Desmin - Cytoskeleton Marker
Host species	Rabbit
Tested applications	**Suitable for:** ICC, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Desmin aa 400 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: P17661
Positive control	ICC: ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (ab277612), C2C12, RMS13, and A431 cells. IHC-P: Human skeletal muscle, human and rat cardiac muscle.
General notes	The negative control used to test this Ab was: skin (squamous epithelial cells) was used as negative control tissue. **This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.** 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. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Immunogen affinity purified

Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab15200 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	★★★★☆ (2)	Use a concentration of 0.1 - 1 µg/ml.
IHC-P	★★★★★ (13)	1/200.

Target

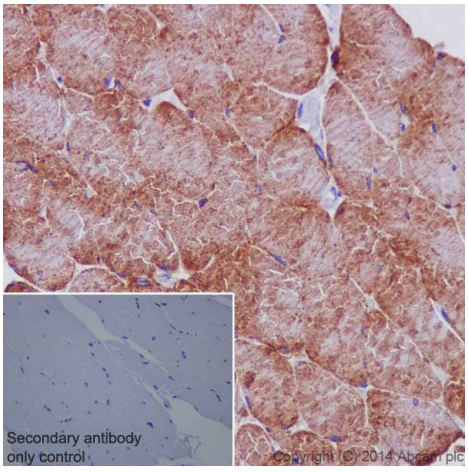
Function Desmin are class-III intermediate filaments found in muscle cells. In adult striated muscle they form a fibrous network connecting myofibrils to each other and to the plasma membrane from the periphery of the Z-line structures.

Involvement in disease Defects in DES are the cause of myopathy myofibrillar desmin-related (MFM-DES) [MIM:601419]; also known as desmin-related myopathy (DRM). A neuromuscular disorder characterized by skeletal muscle weakness associated with cardiac conduction blocks, arrhythmias, restrictive heart failure, and by myofibrillar destruction with intracytoplasmic accumulation of desmin-reactive deposits in cardiac and skeletal muscle cells.
Defects in DES are the cause of cardiomyopathy dilated type 1I (CMD1I) [MIM:604765]. 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 DES are the cause of neurogenic scapuloperoneal syndrome Kaeser type (Kaeser syndrome) [MIM:181400]. Kaeser syndrome is an autosomal dominant disorder with a peculiar scapuloperoneal distribution of weakness and atrophy. A large clinical variability is observed ranging from scapuloperoneal, limb grindle and distal phenotypes with variable cardiac or respiratory involvement. Facial weakness, dysphagia and gynaecomastia are frequent additional symptoms. Affected men seemingly bear a higher risk of sudden, cardiac death as compared to affected women. Histological and immunohistochemical examination of muscle biopsy specimens reveal a wide spectrum of findings ranging from near normal or unspecific pathology to typical, myofibrillar changes with accumulation of desmin.

Sequence similarities Belongs to the intermediate filament family.

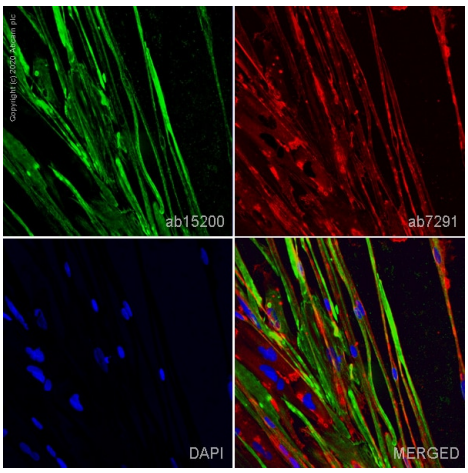
Cellular localization Cytoplasm.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunohistochemical analysis of paraffin-embedded on human skeletal muscle labeling Desmin with ab15200 at 1/200 dilution followed by goat anti-rabbit IgG H&L (HRP) (ab97051, 1/500). Counter stained with hematoxylin.



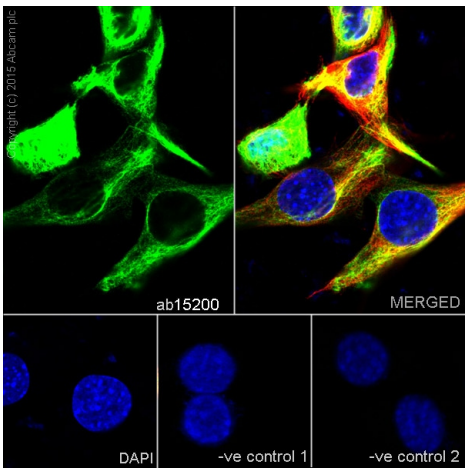
Immunocytochemistry - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunofluorescence staining of Desmin using ab15200 in ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (ab277612), which were differentiated for 10 days post induction.

The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab15200 at 0.1 µg/mL and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with ab150081, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150120, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown. Gamma is adjusted to 1.5 in all channels.

The antibody ab15200 gave comparable results using MeOH fixation (100%, 5 min).

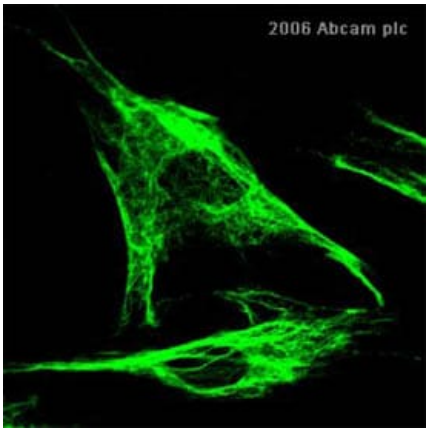


Immunocytochemistry - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunocytochemistry/Immunofluorescence analysis of C2C12 (mouse muscle) cells labelling Desmin with ab15200 at 1/500. Cells were fixed with 100% methanol. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/500) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

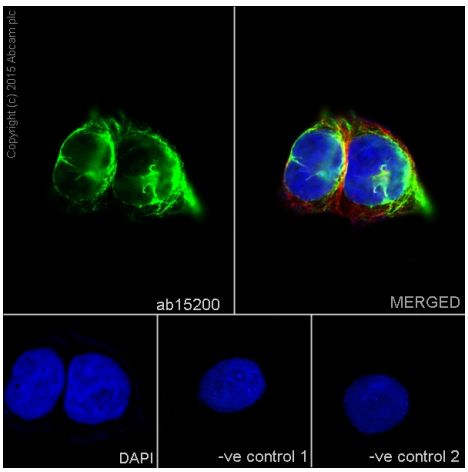


Immunocytochemistry - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

This image is courtesy of an Abreview submitted by Dr Mal Niladri

ab15200 staining rat differentiated skeletal muscle cells by ICC/IF.

Cultured differentiated skeletal muscle cells were harvested from Lewis rats, 2% paraformaldehyde treated for 15 min to fix the cells, and then permealized with Triton-X100 (0.1%) for 10 min. The cells were then incubated with ab15200 at 1/200 overnight at 4°C. The image was taken with a confocal laser scanning microscope and shows desmin expressing skeletal myocytes (green-cytoplasmic localization). Note that desmin forms short thickened filamentous structures in the cell cytoplasm, along with prominent spot-like cytoplasmic aggregates that are composed of densely packed filaments.

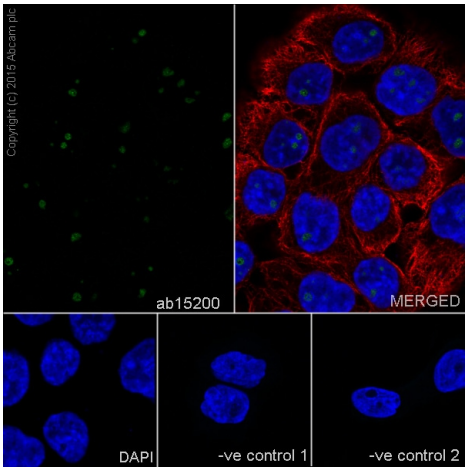


Immunocytochemistry - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunocytochemistry/Immunofluorescence analysis of RMS13 (human rhabdomyosarcoma) cells labelling Desmin with ab15200 at 1/500. Cells were fixed with 100% methanol. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/500) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

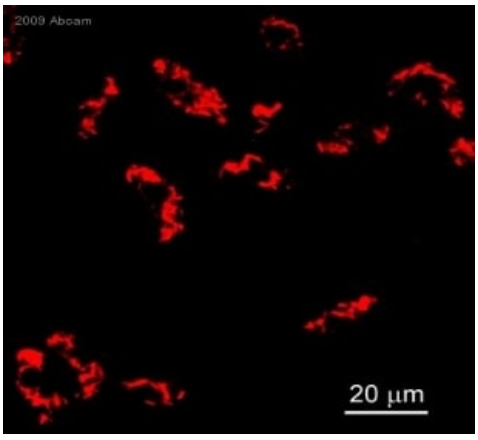


Immunocytochemistry - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunocytochemistry/Immunofluorescence analysis of A431 (human epidermoid carcinoma) cells (negative cell line) showing weak staining of Desmin with ab15200 at 1/500. Cells were fixed with 100% methanol. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/500) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

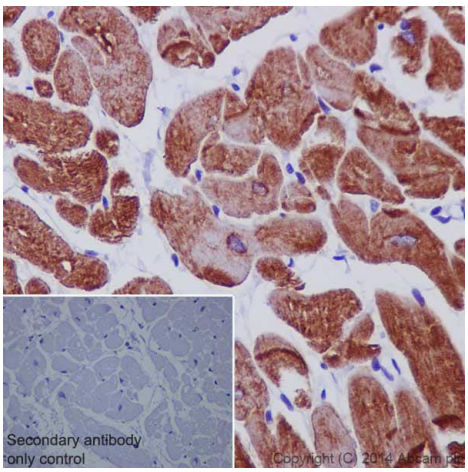
Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).



Immunocytochemistry - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

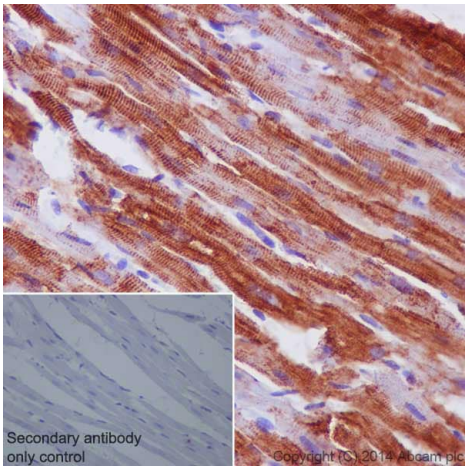
This image is courtesy of an anonymous abreview.

ab15200 staining Desmin in rat Smooth muscle cells from mesenteric artery by Immunocytochemistry/ Immunofluorescence. Cells were fixed with 4% paraformaldehyde in PSS for 4 min at 4°C and permeabilized with 0.3% Triton x100 before blocking with 2% BSA was done for 30 minutes at 20°C. Samples were incubated with primary antibody (1/300 in PSS with 2%BSA and 0.3% Triton X-100) for 14 hours at 4°C. An MFP 555-conjugated donkey polyclonal to rabbit IgG was used as secondary antibody at 1/400 dilution.



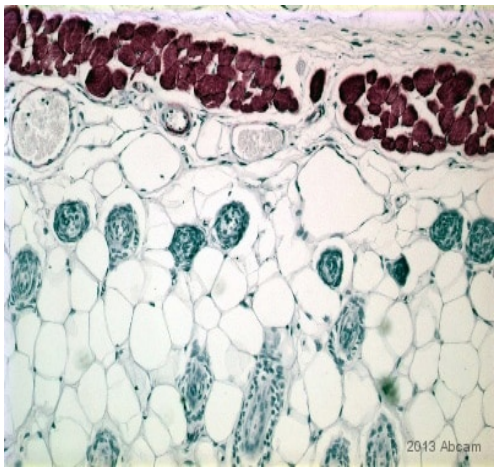
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunohistochemical analysis of paraffin-embedded on human cardiac muscle labeling Desmin with ab15200 at 1/200 dilution followed by goat anti-rabbit IgG H&L (HRP) (ab97051, 1/500). Counter stained with hematoxylin.



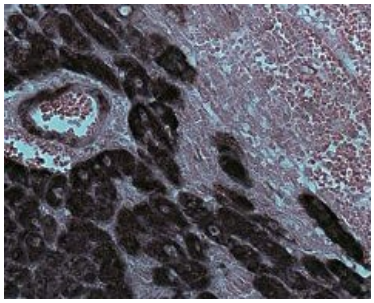
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Immunohistochemical analysis of paraffin-embedded on rat cardiac muscle labeling Desmin with ab15200 at 1/200 dilution followed by goat anti-rabbit IgG H&L (HRP) (ab97051, 1/500). Counter stained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)
This image is courtesy of an anonymous abreview.

ab15200 staining Desmin in Mouse skin tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 5% serum for 1 hour at room temperature; antigen retrieval was enzymatic. Samples were incubated with primary antibody (1/800 in blocking buffer) for 16 hours at 4°C.
An undiluted HRP-conjugated Horse anti-rabbit IgG polyclonal was used as the secondary antibody.

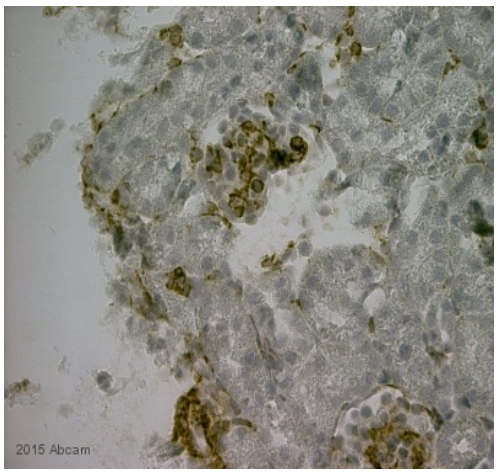


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

Ab15200 positively staining desmin in formaldehyde fixed mouse heart tissue (1/200). Ab15200 was used in conjunction with goat anti rabbit (biotin).

The reviewer reported no difference in the quality of staining obtained when enzymatic epitope unmasking was preformed.

This image is an edited version of an image submitted courtesy of an Abreview by **Khaled Chatila** on **11 October 2005**. For further information relating to the protocol please refer to the Abreview.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody - Cytoskeleton Marker (ab15200)

This image is courtesy of an anonymous abreview.

Immunohistochemical analysis of PFA-fixed paraffin-embedded murine nephric tissue, labelling Desmin with ab15200 at a dilution of 1/250 incubated for 18 hours at 4°C. Heat mediated antigen retrival was with citrate buffer. Blocking was with Dako serum-free protein block at 100% incubated for 1 hour at 23°C. Secondary was a donkey anti-rabbit polyclonal HRP conjugate at 1/200.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors