abcam

Product datasheet

Anti-Desmin antibody [Y66] - Cytoskeleton Marker ab32362

Recombinant RabMAb

12 Abreviews 151 References 18 Images

Overview

Product name	Anti-Desmin antibody [Y66] - Cytoskeleton Marker
Description	Rabbit monoclonal [Y66] to Desmin - Cytoskeleton Marker
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, Flow Cyt (Intra), ICC/IF **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Rat, Guinea pig, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Epitope	ab32362 reacts with an epitope located in the C terminal region of desmin.
Positive control	WB: Human skeletal muscle, fetal heart and fetal muscle tissue lysates. Mouse and rat heart tissue lysates. Guinea pig heart and muscle tissue lysates; ICC/IF: A673 and C2C12 cells, ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (**ab277612**); IHC-P: Human skeletal muscle, uterus and urinary bladder tissues; Flow Cyt (intra): C2C12 and HeLa cells.
General notes	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**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y66
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab32362 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	★★★★★ (2)	1/100000. Predicted molecular weight: 53 kDa.
IHC-P	★★★★☆ (4)	1/2000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.
Flow Cyt (Intra)		1/70. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (5)	1/100 - 1/1000.

Application notes Is unsuitable for IP.

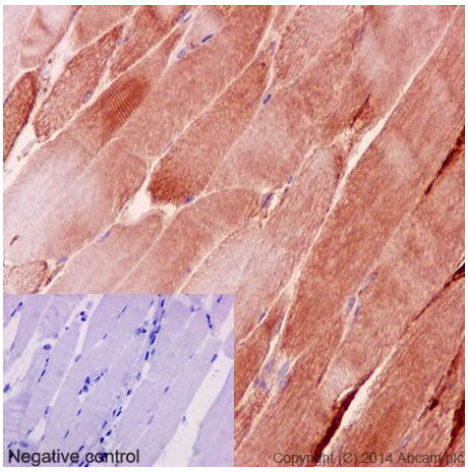
Target

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.

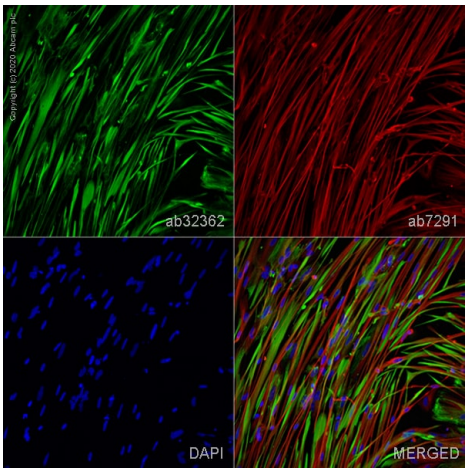
Sequence similarities	Belongs to the intermediate filament family.
Cellular localization	Cytoplasm.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skeletal muscle tissue labelling Desmin with purified ab32362 at 1/2000. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



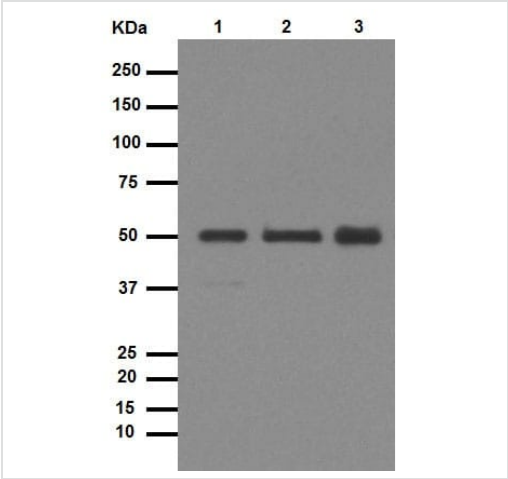
Immunocytochemistry/ Immunofluorescence - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunofluorescence staining of Desmin using ab32362 in ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (**ab277612**), which were differentiated for 10 days post induction.

The cells were fixed with 100% MeOH (5 min) 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 ab32362 at 0.02 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 ab32362 gave comparable results using 4% formaldehyde fixation (10 min).



Western blot - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

All lanes : Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362) at 1/500000 dilution (purified)

Lane 1 : Human skeletal muscle tissue lysate
Lane 2 : Human fetal heart tissue lysate
Lane 3 : Human fetal muscle tissue lysate

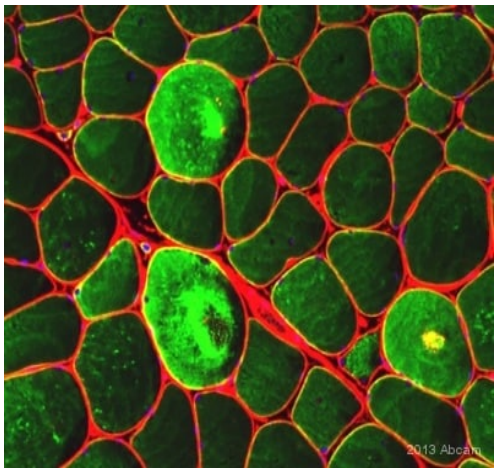
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 53 kDa
Observed band size: 53 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

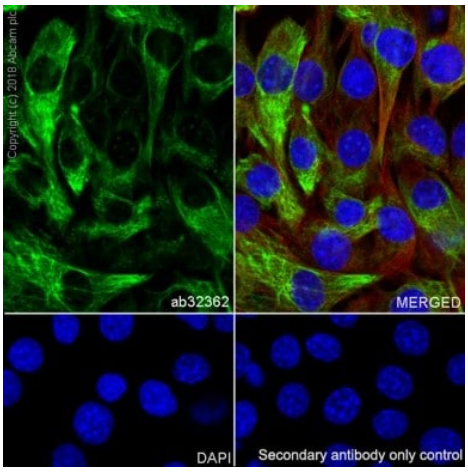
Diluting buffer and concentration: 5% NFDM /TBST.



Immunocytochemistry/ Immunofluorescence - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

This image is courtesy of an anonymous Abreview

Unpurified ab32362 staining Desmin (green) in Human skeletal muscle cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with methacarn and blocked with 10% serum for 20 minutes at 22°C. Samples were incubated with primary antibody (1/150) for 12 hours. An Alexa Fluor® 488-conjugated Goat anti-rabbit IgG polyclonal (1/200) was used as the secondary antibody. Blue - DAPI-nuclei. Red - WGA. 40X objective.

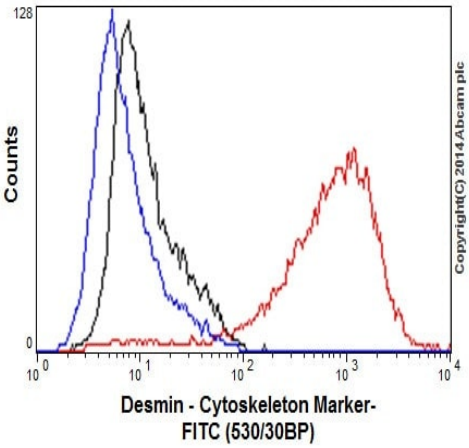


Immunocytochemistry/ Immunofluorescence - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunocytochemistry/Immunofluorescence analysis of C2C12 (Mouse myoblasts myoblast) cells labeling Desmin with ab32362 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.

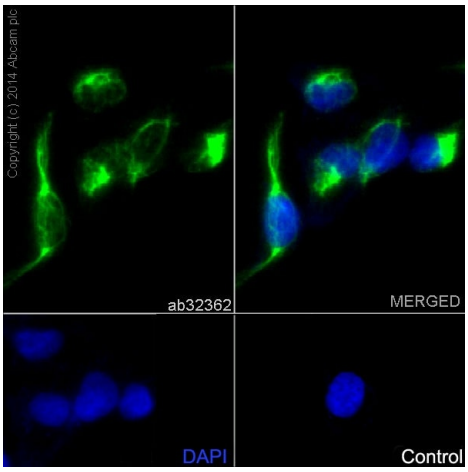
ab195889, Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 was used as counterstain antibody.

Confocal image showing cytoplasmic staining on C2C12 cell line.



Flow Cytometry (Intracellular) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

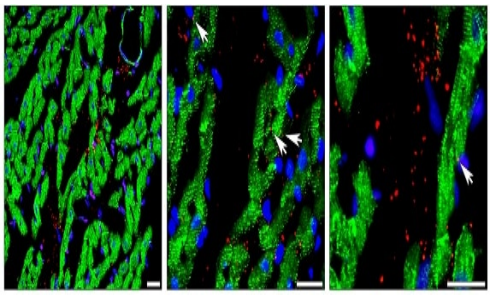
Intracellular Flow Cytometry analysis of C2C12 cells labelling Desmin with purified ab32362 at 1/70 (red). Cells were fixed with 2% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Immunocytochemistry/ Immunofluorescence - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

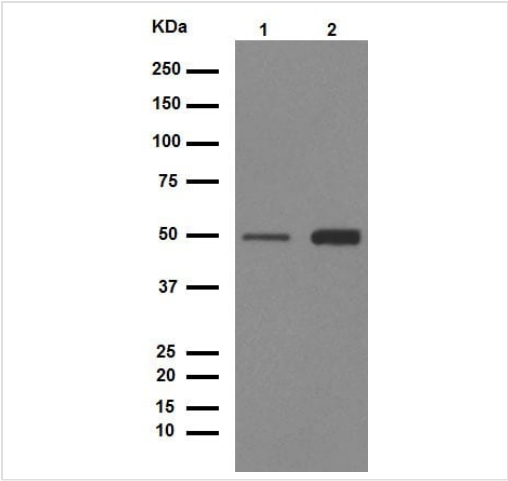
Immunocytochemistry/Immunofluorescence analysis of A673 cells labelling Desmin with purified ab32362 at 1/50. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/50) and secondary antibody, **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunofluorescent analysis of Human mitochondria injected rabbit hearts sections stained for Desmin (Green) using ab32362. MTCO2, the human-specific mitochondrial marker was stained in red, and the nuclei was stained using the DNA stain DAPI (blue).



Western blot - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

All lanes : Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362) at 1/500000 dilution (purified)

Lane 1 : Mouse heart tissue lysate
Lane 2 : Rat heart tissue lysate

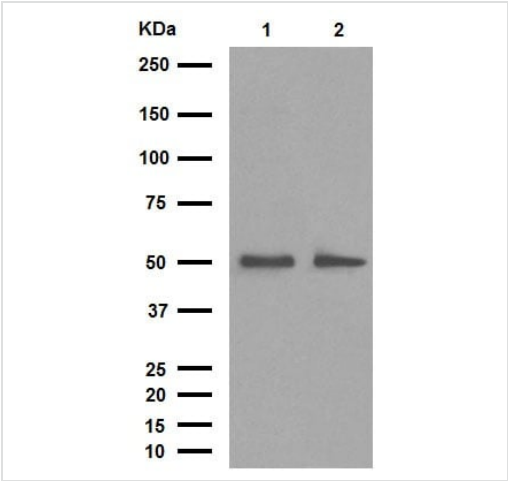
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 53 kDa
Observed band size: 53 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Western blot - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

All lanes : Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362) at 1/100000 dilution

Lane 1 : Guinea pig heart tissue lysate
Lane 2 : Guinea pig muscle tissue lysate

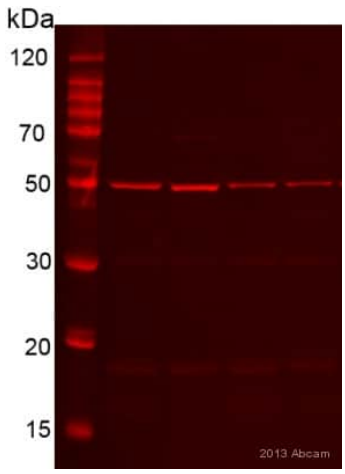
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 53 kDa
Observed band size: 53 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Western blot - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

This image is courtesy of an anonymous Abreview

All lanes : Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362) at 1/500 dilution (unpurified)

All lanes : Human skeletal muscle whole tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

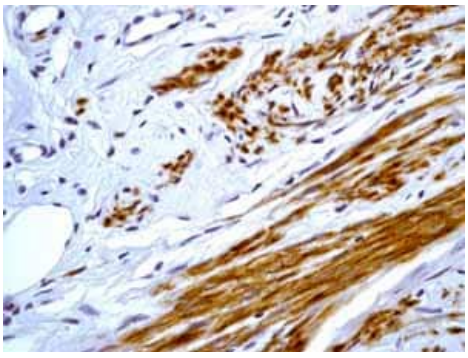
All lanes : IRDye® 680-conjugated anti-rabbit at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 53 kDa
Observed band size: 53 kDa

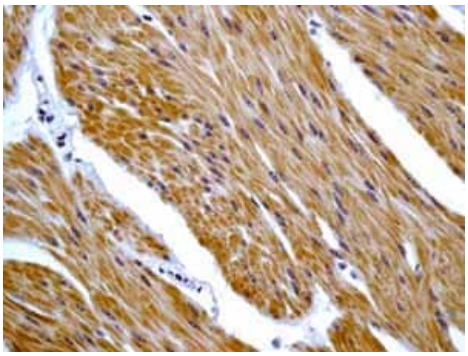
Exposure time: 50 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of normal human uterus tissue labelling Desmin with unpurified ab32362.

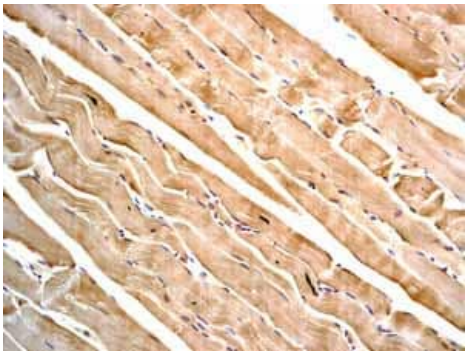
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of normal human urinary bladder tissue labelling Desmin with unpurified ab32362.

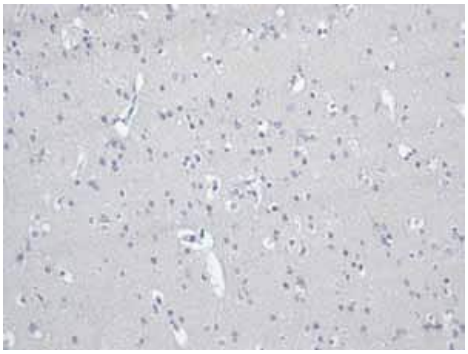
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of human skeletal muscle tissue labelling Desmin with unpurified ab32362.

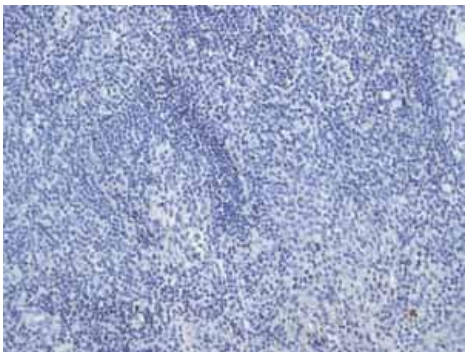
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of normal human brain tissue. Unpurified ab32362 shows negative staining.

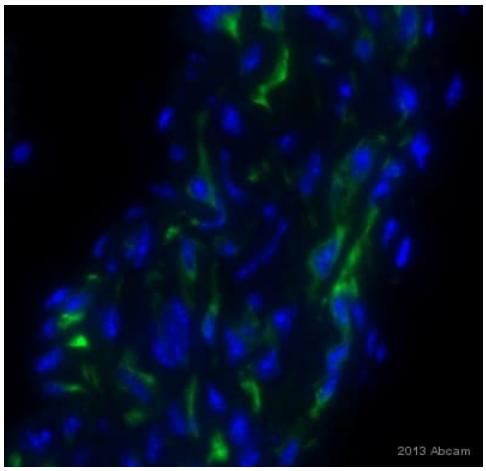
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of normal human tonsil tissue. Unpurified ab32362 shows negative staining.

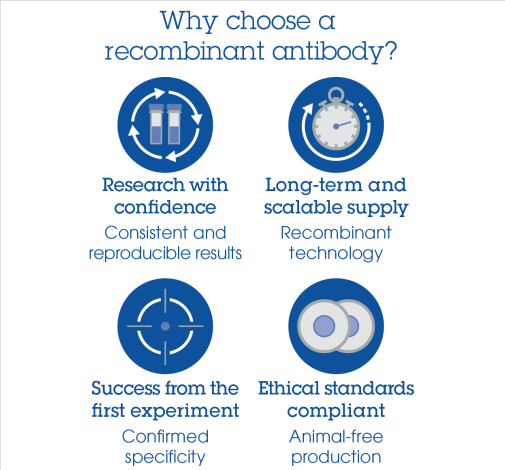
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Desmin antibody [Y66] - Cytoskeleton Marker (ab32362)

This image is courtesy of an anonymous Abreview

Unpurified ab32362 staining Desmin (green) in Mouse aorta smooth muscle cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formalin and blocked with 10% serum for 20 minutes at 22°C. Samples were incubated with primary antibody (1/150) for 1 hour at 22°C. An Alexa Fluor® 488-conjugated Goat anti-rabbit IgG polyclonal (1/200) was used as the secondary antibody. Blue - nuclei.



Anti-Desmin antibody [Y66] - Cytoskeleton Marker

(ab32362)

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