# Product datasheet

## Anti-Desmin antibody ab15200

### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Desmin antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to Desmin</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IHC-Fr, IHC - Wholesmount, Flow Cyt, ICC/IF, WB, IHC-P, ICC</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human Desmin aa 400 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: P17661</td>
</tr>
<tr>
<td>Positive control</td>
<td>ICC/IF: RMS13 and C2C12 cells. WB: Human placenta tissue lysate. IHC-P: Human skeletal muscle and human and rat cardiac muscle tissue.</td>
</tr>
<tr>
<td>General notes</td>
<td>The negative control used to test this Ab was: skin(squamous epithelial cells)was used as negative control tissue.</td>
</tr>
</tbody>
</table>

### Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>pH: 7.40</td>
</tr>
<tr>
<td></td>
<td>Preservative: 0.1% Sodium azide</td>
</tr>
<tr>
<td></td>
<td>Constituents: 0.0268% PBS, 1% BSA</td>
</tr>
<tr>
<td>Purity</td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
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</tbody>
</table>

### Applications

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.
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.
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/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/Immunofluorescence - Anti-Desmin antibody (ab15200)

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

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/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).

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.
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.

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.
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.

Immunohistochemical analysis of whole mount mouse retinal tissue labelling Desmin with ab15200 at a concentration of 1/250 incubated for 18 hours at 4°C. A polyclonal Donkey anti-rabbit conjugated Alexa fluor® 488 secondary 1/200.

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.
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 performed.

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.

ab15200 at a 1/200 dilution staining mouse aortic root tissue sections by Immunohistochemistry (Frozen sections). The tissue was paraformaldehyde fixed and blocked with 10% serum then incubated with antibody for 30 minutes. Bound antibody was detected using a biotinylated goat anti-rabbit antibody.

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 retrieval 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.
Western blot - Anti-Desmin antibody (ab15200) at 1 µg/ml + Human placenta tissue lysate - total protein (ab29745) at 10 µg

Secondary
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Predicted band size: 52 kDa
Observed band size: 55 kDa
why is the actual band size different from the predicted?
Additional bands at: 72 kDa (possible non-specific binding)

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