

## Product datasheet

# Anti-Dystrophin antibody [EPR21189] ab218198

Recombinant RabMAb

★★★★★ 2 Abreviews 6 Images

### Overview

<b>Product name</b>	Anti-Dystrophin antibody [EPR21189]
<b>Description</b>	Rabbit monoclonal [EPR21189] to Dystrophin
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat
<b>Immunogen</b>	Synthetic peptide within Mouse Dystrophin aa 3650 to the C-terminus. The exact sequence is proprietary. Database link: <a href="#">P11531</a>
<b>Positive control</b>	IHC-P: Mouse cardiac muscle and skeletal muscle tissue; rat colon tissue.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise<sup>™</sup> guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own</p>

labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR21189
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab218198** 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	★★★★★	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/50. Positive membrane staining of cardiomyocytes on mouse and Rat heart tissue section (PMID: 26430202).

## Target

<b>Function</b>	Anchors the extracellular matrix to the cytoskeleton via F-actin. Ligand for dystroglycan. Component of the dystrophin-associated glycoprotein complex which accumulates at the neuromuscular junction (NMJ) and at a variety of synapses in the peripheral and central nervous systems and has a structural function in stabilizing the sarcolemma. Also implicated in signaling events and synaptic transmission.
<b>Tissue specificity</b>	Expressed in muscle fibers accumulating in the costameres of myoplasm at the sarcolemma. Expressed in brain, muscle, kidney, lung and testis. Isoform 5 is expressed in heart, brain, liver, testis and hepatoma cells. Most tissues contain transcripts of multiple isoforms, however only isoform 5 is detected in heart and liver.
<b>Involvement in disease</b>	Defects in DMD are the cause of Duchenne muscular dystrophy (DMD) [MIM:310200]. DMD is

the most common form of muscular dystrophy; a sex-linked recessive disorder. It typically presents in boys aged 3 to 7 year as proximal muscle weakness causing waddling gait, toe-walking, lordosis, frequent falls, and difficulty in standing up and climbing up stairs. The pelvic girdle is affected first, then the shoulder girdle. Progression is steady and most patients are confined to a wheelchair by age of 10 or 12. Flexion contractures and scoliosis ultimately occur. About 50% of patients have a lower IQ than their genetic expectations would suggest. There is no treatment.

Defects in DMD are the cause of Becker muscular dystrophy (BMD) [MIM:300376]. BMD resembles DMD in hereditary and clinical features but is later in onset and more benign.

Defects in DMD are a cause of cardiomyopathy dilated X-linked type 3B (CMD3B) [MIM:302045]; also known as X-linked dilated cardiomyopathy (XLCM). 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.

### Sequence similarities

Contains 2 CH (calponin-homology) domains.

Contains 22 spectrin repeats.

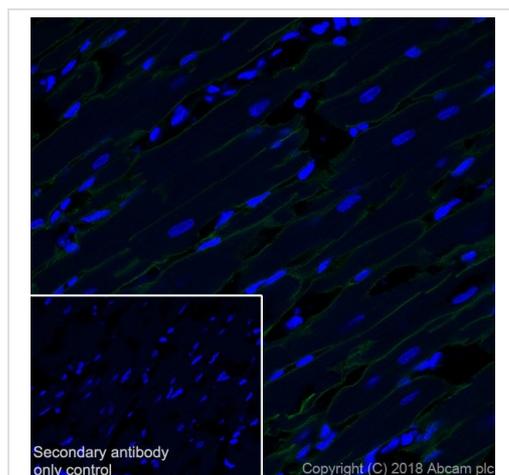
Contains 1 WW domain.

Contains 1 ZZ-type zinc finger.

### Cellular localization

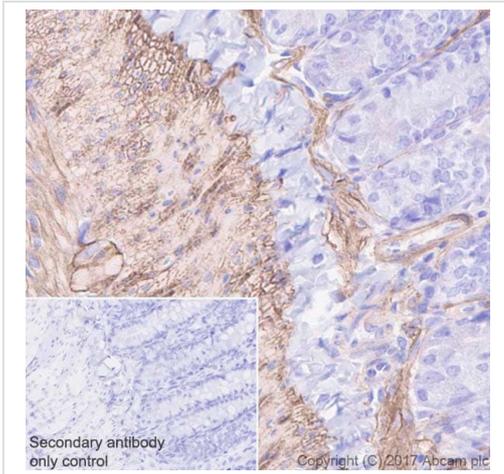
Cell membrane > sarcolemma. Cytoplasm > cytoskeleton.

## Images



Immunohistochemical (Frozen sections) analysis of rat heart tissue using ab218198 (1/50 dilution) to stain Dystrophin. [ab150077](#) AlexaFluor®488 Goat anti-Rabbit (1/500) secondary used. DAPI used as a nuclear counter stain. Heat-mediated antigen retrieval using [ab94681](#) (Tris/EDTA buffer, pH 9.0). Fixative 4% PFA, Permeabilisation with 0.2% Triton X-100.

Immunohistochemistry (Frozen sections) - Anti-Dystrophin antibody [EPR21189] (ab218198)

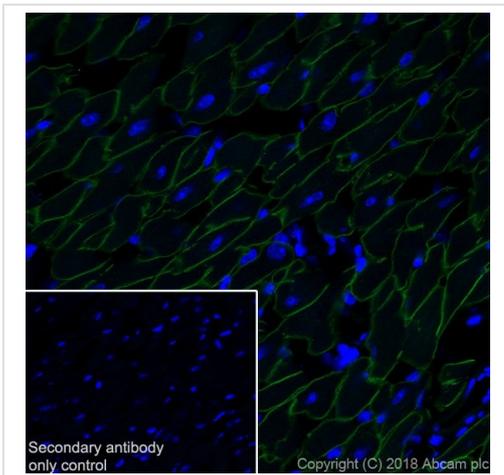


Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling Dystrophin with ab218198 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and cytoplasmic staining in smooth muscle of rat colon (PMID: 18806224) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

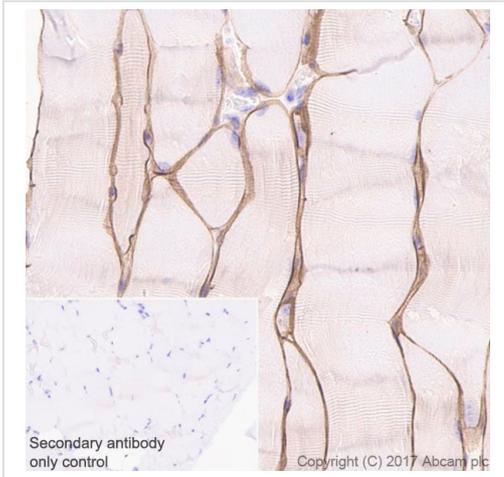
Perform heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dystrophin antibody [EPR21189] (ab218198)



Immunohistochemical (Frozen sections) analysis of mouse heart tissue using ab218198 (1/50 dilution) to stain Dystrophin. [ab150077](#) AlexaFluor@488 Goat anti-Rabbit (1/500) secondary used. DAPI used as a nuclear counter stain. Heat-mediated antigen retrieval using [ab94681](#) (Tris/EDTA buffer, pH 9.0). Fixative 4% PFA, Permeabilisation with 0.2% Triton X-100.

Immunohistochemistry (Frozen sections) - Anti-Dystrophin antibody [EPR21189] (ab218198)

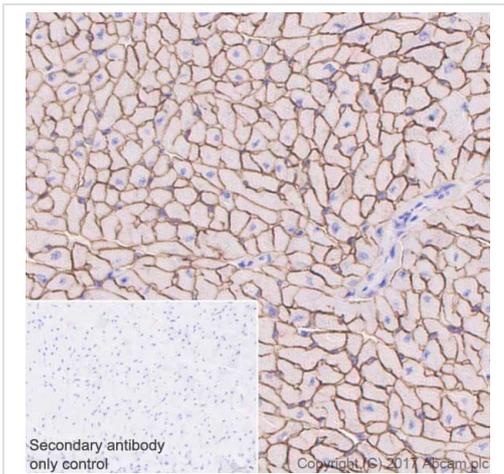


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dystrophin antibody [EPR21189] (ab218198)

Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue labeling Dystrophin with ab218198 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on mouse skeletal muscle (PMID: 24793134) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dystrophin antibody [EPR21189] (ab218198)

Immunohistochemical analysis of paraffin-embedded mouse cardiac muscle tissue labeling Dystrophin with ab218198 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on mouse cardiac muscle (PMID: 24793134) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Dystrophin antibody [EPR21189] (ab218198)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

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- Extensive multi-media technical resources to help you
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