

Anti-Desmin Antibody Picoband™

Catalog Number: PB9105

About DES

DES, also called desmin, is a protein that in humans is encoded by the DES gene, and this gene is mapped to 2q35. DES is the muscle-specific member of the intermediate filament (IF) protein family. It is one of the earliest myogenic markers, both in heart and somites, and is expressed in satellite stem cells and replicating myoblasts. DES is very important in muscle cell architecture and structure since it connects many components of the cytoplasm. It may also play an important role in mitochondria function. What's more, DES provides attachments between the terminal Z disc and membrane-associated proteins to form a force-transmitting system that parallels the thin filaments at myotendinous junctions.

Overview

Product Name	Anti-Desmin Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Desmin Antibody Picoband™ catalog # PB9105. Tested in IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P17661

Technical Details

Immunogen	E.coli-derived human Desmin recombinant protein (Position: M1-T304). Human Desmin shares 97% amino acid (aa) sequence identity with both mouse and rat Desmin.
Predicted Reactive Species	Bovine, Horse, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat, By Heat Immunohistochemistry (Frozen Section), 2-5ug/ml, Rat Immunofluorescence, 5 ug/ml, Mouse, Rat

Anti-Desmin Antibody Picoband™ (PB9105) Images

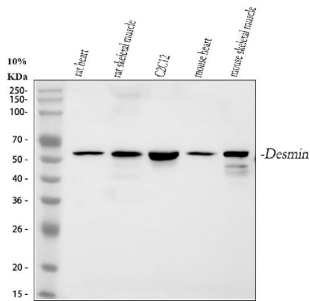


Figure 1. Western blot analysis of Desmin using anti-Desmin antibody (PB9105).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat heart tissue lysates,

Lane 2: rat skeletal muscle tissue lysates,

Lane 3: mouse C2C12 whole cell lysates,

Lane 4: mouse heart tissue lysates,

Lane 5: mouse skeletal muscle tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes.

Blocked the membrane with 5% non-fat milk/TBS for 1.5

hour at RT. The membrane was incubated with rabbit anti-

Desmin antigen affinity purified polyclonal antibody (Catalog

PB9105) at 0.5 ug/mL overnight at 4°C, then washed with

TBS-0.1%Tween 3 times with 5 minutes each and probed

with a goat anti-rabbit IgG-HRP secondary antibody at a

dilution of 1:5000 for 1.5 hour at RT. The signal is developed

using an Enhanced Chemiluminescent detection (ECL) kit

(Catalog # EK1002) with Tanon 5200 system. A specific

band was detected for Desmin at approximately 54 kDa. The

expected band size for Desmin is at 54 kDa.

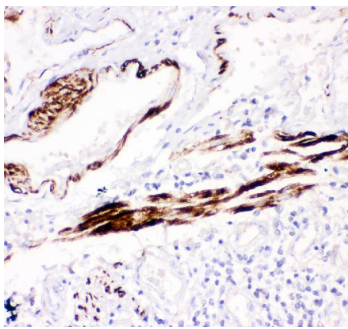


Figure 2. IHC analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval

was performed in EDTA buffer (pH 8.0, epitope retrieval

solution). The tissue section was blocked with 10% goat

serum. The tissue section was then incubated with 2 ug/ml

rabbit anti-Desmin Antibody (PB9105) overnight at 4°C.

Peroxidase Conjugated Goat Anti-rabbit IgG was used as

secondary antibody and incubated for 30 minutes at 37°C.

The tissue section was developed using HRP Conjugated

Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with

DAB as the chromogen.

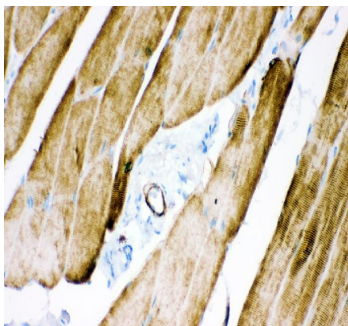


Figure 3. IHC analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in a paraffin-embedded section of rat skeletal muscle tissue. Heat mediated antigen retrieval

was performed in EDTA buffer (pH 8.0, epitope retrieval

solution). The tissue section was blocked with 10% goat

serum. The tissue section was then incubated with 2 ug/ml

rabbit anti-Desmin Antibody (PB9105) overnight at 4°C.

Peroxidase Conjugated Goat Anti-rabbit IgG was used as

secondary antibody and incubated for 30 minutes at 37°C.

The tissue section was developed using HRP Conjugated

Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with

DAB as the chromogen.

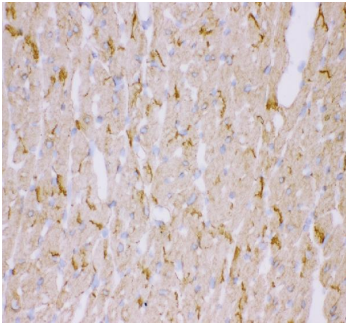


Figure 4. IHC analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in a frozen section of rat cardiac muscle tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Desmin Antibody (PB9105) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

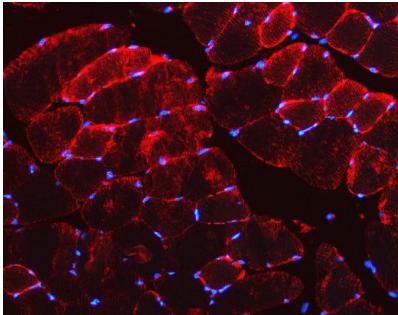


Figure 5. IF analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in a paraffin-embedded section of mouse skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Desmin Antibody (PB9105) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

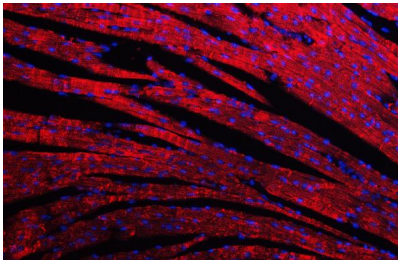


Figure 6. IF analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in a paraffin-embedded section of mouse heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Desmin Antibody (PB9105) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

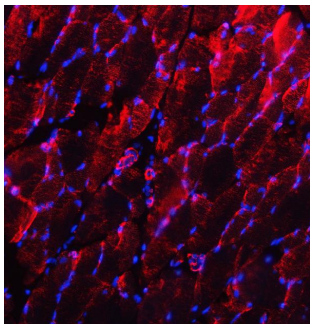


Figure 7. IF analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in a paraffin-embedded section of rat skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Desmin Antibody (PB9105) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

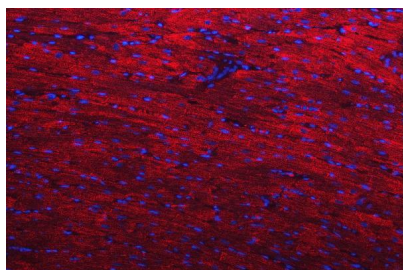


Figure 8. IF analysis of Desmin using anti-Desmin antibody (PB9105). Desmin was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Desmin Antibody (PB9105) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

21 Publications Citing This Product

1. PubMed ID: 25174394, Wei L, Yang J, Wang M, Xu Sn, Liang Hm, Zhou Q. Int J Mol Med. 2014 Nov;34(5):1257-67. Doi: 10.3892/ijmm.2014.1905. Epub 2014 Aug 19. Sodium Ferulate Lowers Portal Pressure In Rats With Secondary Biliary Cirrhosis Through The Rhoa/Rho-Kinase Signa...
2. PubMed ID: 26286600, Identification of apoptosis-related microRNAs and their target genes in myocardial infarction post-transplantation with skeletal myoblasts
3. PubMed ID: 22053192, Longxi P, Buwu F, Yuan W, Sinan G. Plos One. 2011;6(10):E26500. Doi: 10.1371/Journal.Pone.0026500. Epub 2011 Oct 28. Expression Of P53 In The Effects Of Artesunate On Induction Of Apoptosis And Inhibition Of Proliferation In Rat Primary Hepatic St...

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