

Anti-Dystrophin/DMD Antibody Picoband™

Catalog Number: PB9276

About DMD

Dystrophin, also known as DMD, is a rod-shaped cytoplasmic protein, and a vital part of a protein complex that connects the cytoskeleton of a muscle fiber to the surrounding extracellular matrix through the cell membrane. It is mapped to Xp21.2-p21.1. This complex is variously known as the costamere or the dystrophin-associated protein complex. Many muscle proteins, such as alpha-dystrobrevin, syncoilin, synemin, sarcoglycan, dystroglycan, and sarcospan, colocalize with dystrophin at the costamere. Dystrophin is a protein located between the sarcolemma and the outermost layer of myofilaments in the muscle fiber (myofiber). It is a cohesive protein, linking actin filaments to another support protein that resides on the inside surface of each muscle fiber's plasma membrane (sarcolemma).

Overview

Product Name	Anti-Dystrophin/DMD Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Dystrophin/DMD Antibody Picoband™ catalog # PB9276. Tested in Flow Cytometry, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg 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	P11532

Technical Details

Immunogen	E.coli-derived human Dystrophin recombinant protein (Position: H3076-D3404). Human Dystrophin shares 100% amino acid (aa) sequence identity with mouse Dystrophin.
Predicted Reactive Species	Bovine, Canine, Chicken, 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), IHC(F) and ICC.
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, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Anti-Dystrophin/DMD Antibody Picoband™ (PB9276) Images

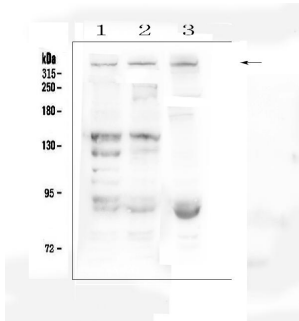


Figure 1. Western blot analysis of Dystrophin using anti-Dystrophin antibody (PB9276).

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 50ug of sample under reducing conditions.

Lane 1: human HEK293 whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: mouse HEPA1-6 whole cell lysates,

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Dystrophin antigen affinity purified polyclonal antibody (Catalog # PB9276) 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 1:10000 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 Dystrophin at approximately 427KD. The expected band size for Dystrophin is at 427KD.

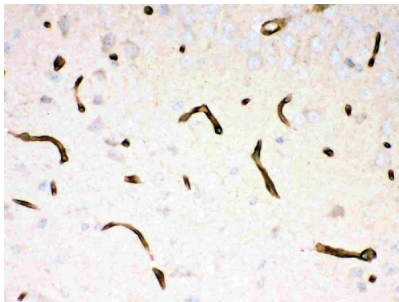


Figure 2. IHC analysis of Dystrophin using anti-Dystrophin antibody (PB9276).

Dystrophin was detected in paraffin-embedded section of Mouse Brain Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Dystrophin Antibody (PB9276) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

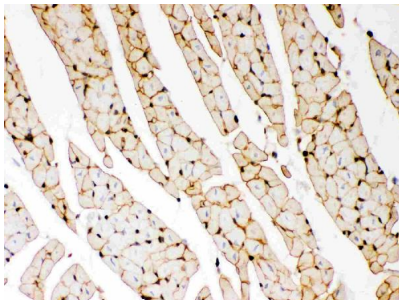
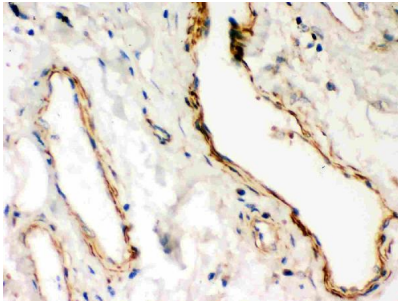


Figure 3. IHC analysis of Dystrophin using anti-Dystrophin antibody (PB9276).

Dystrophin was detected in paraffin-embedded section of Rat Cardiac Muscle Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Dystrophin Antibody (PB9276) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of Dystrophin using anti-Dystrophin



antibody (PB9276).

Dystrophin was detected in paraffin-embedded section of Human Lung Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Dystrophin Antibody (PB9276) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

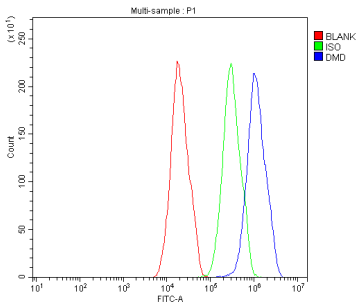


Figure 5. Flow Cytometry analysis of HepG2 cells using anti-Dystrophin antibody (PB9276).

Overlay histogram showing HepG2 cells stained with PB9276 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Dystrophin Antibody (PB9276, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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