

Basic Information

Product Name	Anti-Desmin/DES Antibody	
Gene Name	DES	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human,mouse,rat	
Tested Application	WB,IHC,IF	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human Desmin recombinant protein (Position: M1-T304). Human Desmin shares 97% amino acid (aa) sequences identity with both mouse and rat Desmin.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	54KD	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

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 be 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.

Selected Validation Data

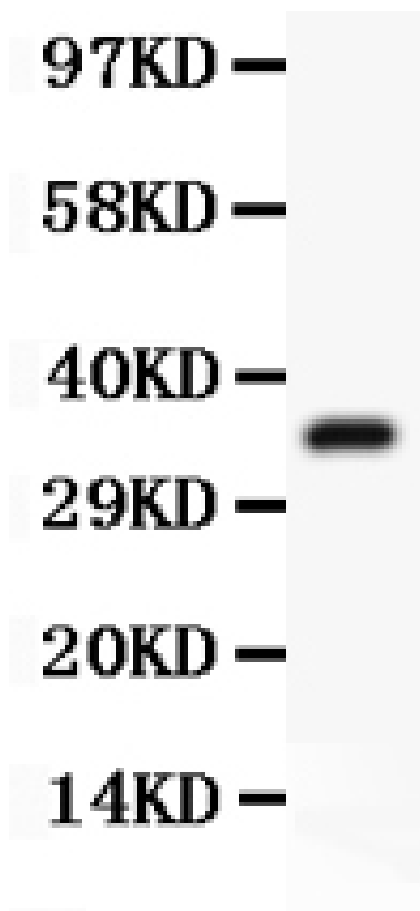


Figure 1. Western blot analysis of Desmin using anti-Desmin antibody (PB9105).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

lane 1: recombinant human Desmin protein 0.5ng.

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-Desmin antigen affinity purified polyclonal antibody (Catalog # PB9105) at 0.5 µg/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.

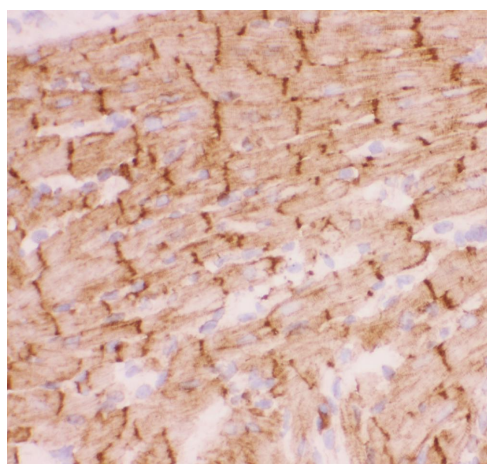


Figure 3. IHC analysis of Desmin using anti-Desmin antibody (PB9105).

Desmin was detected in frozen section of rat cardiac muscle tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Desmin Antibody (PB9105) 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.

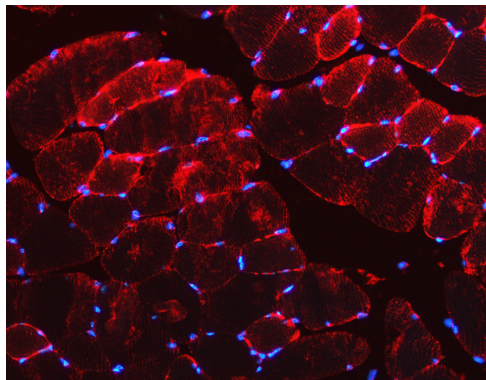


Figure 8. IF analysis of Desmin/DES using anti-Desmin/DES antibody (PB9105).

Desmin/DES was detected in a paraffin-embedded section of mouse skeletal muscle tissue. Cy3-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1032) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).