Product datasheet

Anti-Desmin/DES Antibody (Clone#2B5)

Catalog Number: *M01948-3*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-Desmin/DES Antibody (Clone#2B5)
Gene Name	DES
Source	Mouse
Isotype	IgG2b
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, FCM
Contents	500 ug/ml antibody with PBS， 0.02% NaN3 , 1 mg BSA and 50% glycerol.
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.
concentration	500 ug/ml
Purification	protein G purified.
Observed MW	54KD
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Flow cytometry (FCM): 1-3 μg/1x10^6 cells (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℃ as supplied. 6 months 2 to 8℃ 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

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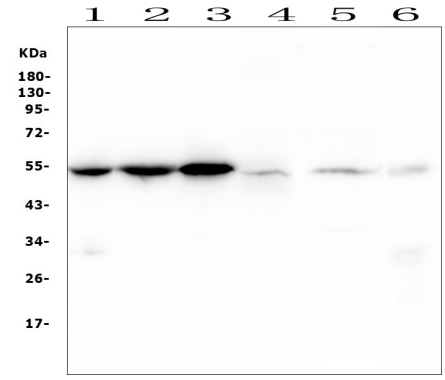

Figure 1. Western blot analysis of Desmin using anti-Desmin antibody (M01948-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat heart tissue lysates,
Lane 2: rat skeletal muscle tissue lysates,
Lane 3: mouse heart tissue lysates,
Lane 4: mouse skeletal muscle tissue lysates,
Lane 5: human K562 whole cell lysates,
Lane 6: rat liver tissue 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 mouse anti-Desmin antigen affinity purified monoclonal antibody (Catalog # M01948-3) 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for Desmin at approximately 54KD. The expected band size for Desmin is at 54KD.

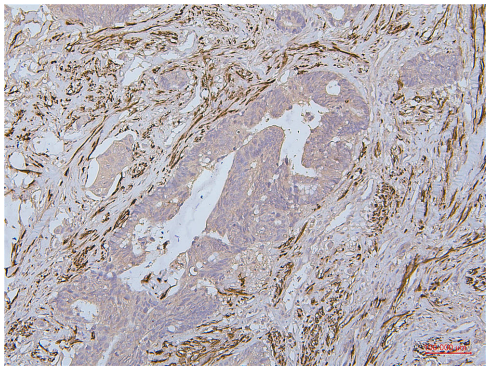

Figure 2. IHC analysis of Desmin using anti-Desmin antibody (M01948-3).
Desmin was detected in paraffin-embedded section of human colon cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml mouse anti-Desmin Antibody (M01948-3) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

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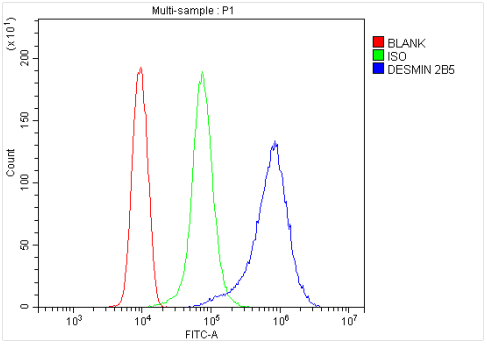

Figure 7. Flow Cytometry analysis of THP-1 cells using anti-Desmin antibody (M01948-3).
Overlay histogram showing THP-1 cells stained with M01948-3 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Desmin Antibody (M01948-3,1µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.