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Anti-Desmin Rabbit Monoclonal Antibody

Rabbit Monoclonal Antibody
Catalog # ABV11825

Product Information

Application	WB, IHC
Primary Accession	P17661
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	53536

Additional Information

Gene ID	1674
Positive Control	WB: mouse heart tissue lysate; IHC: human heart tissue section
Application & Usage	IHC: 1:1000 -1:4000 dilution; WB: 1:1000 - 1:2000 dilution
Alias Symbol	DES
Other Names	Desmin, DES
Appearance	Colorless liquid
Formulation	In 50% Glycerol/PBS with 1% BSA and 0.09% sodium azide
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-Desmin Rabbit Monoclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

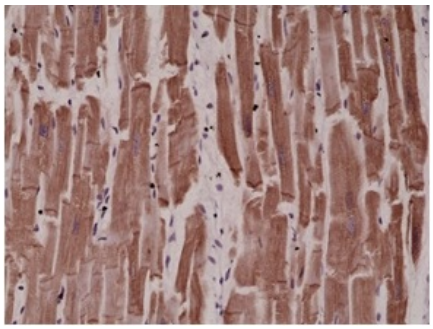
Name	DES
Function	Muscle-specific type III intermediate filament essential for proper muscular structure and function. Plays a crucial role in maintaining the structure of sarcomeres, inter-connecting the Z-disks and forming the myofibrils, linking them not only to the sarcolemmal cytoskeleton, but also to the nucleus and mitochondria, thus providing strength for the muscle fiber during activity (PubMed:25358400). In adult striated muscle they form a fibrous network connecting myofibrils to each other and to the plasma membrane from the periphery of the Z- line structures (PubMed:24200904, PubMed:25394388, PubMed:26724190). May act as a sarcomeric microtubule-anchoring protein: specifically associates with detyrosinated tubulin-alpha chains, leading to

	buckled microtubules and mechanical resistance to contraction. Required for nuclear membrane integrity, via anchoring at the cell tip and nuclear envelope, resulting in maintenance of microtubule-derived intracellular mechanical forces (By similarity). Contributes to the transcriptional regulation of the NKX2-5 gene in cardiac progenitor cells during a short period of cardiomyogenesis and in cardiac side population stem cells in the adult. Plays a role in maintaining an optimal conformation of nebulette (NEB) on heart muscle sarcomeres to bind and recruit cardiac alpha-actin (By similarity).
Cellular Location	Cytoplasm, myofibril, sarcomere, Z line. Cytoplasm Cell membrane, sarcolemma. Nucleus {ECO:0000250|UniProtKB:P31001}. Cell tip {ECO:0000250|UniProtKB:P31001}. Nucleus envelope {ECO:0000250|UniProtKB:P31001}. Note=Localizes in the intercalated disks which occur at the Z line of cardiomyocytes (PubMed:24200904, PubMed:26724190). Localizes in the nucleus exclusively in differentiating cardiac progenitor cells and premature cardiomyocytes (By similarity). PKP2 is required for correct anchoring of DES at the cell tip and nuclear envelope (By similarity) {ECO:0000250|UniProtKB:P31001, ECO:0000269|PubMed:24200904, ECO:0000269|PubMed:26724190}

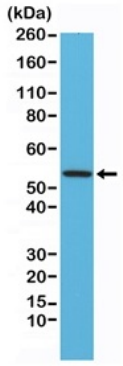
Background

Desmin are class-III intermediate filaments found in muscle cells. In adult striated muscle they form a fibrous network connecting myofibrils to each other and to the plasma membrane from the periphery of the Z-line structures.

Images



Immunohistochemical staining of formalin fixed and paraffin embedded human heart tissue sections using anti-Desmin monoclonal antibody at a1:4000 dilution.



Western blot of M.heart tissue lysates using anti-Desmin monoclonal antibody at 1:1000 dilution, showed a band of Desmin (~54kDa) expressed in M.heart.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.