

Anti-Desmin Antibody (Monoclonal, DE-U-10)

Catalog # ABO10427

Product Information

Application	WB, IHC-P
Primary Accession	P48675
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Format	Lyophilized
Description	Mouse IgG monoclonal antibody for Desmin , desmin (DES) detection. Tested with WB, IHC-P in Human;mouse;rat;rabbit. No cross reactivity with other proteins.
Reconstitution	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Additional Information

Gene ID	64362
Other Names	Desmin, Des
Calculated MW	53457
Application Details	Immunohistochemistry(Paraffin-embedded Section), 2-4 μ g/ml, Human, mouse, rat, rabbit, By Heat Western blot, 2 μ g/ml, Human, mouse, rat, rabbit
Subcellular Localization	Cytoplasm, myofibril, sarcomere, Z line . Cytoplasm . Cell membrane, sarcolemma . Localizes in the intercalated disks which occur at the Z line of cardiomyocytes. .
Source	Eukaryota
Protein Name	Desmin
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN ₃ as preservative.
Clone Names	DE-U-10
Immunogen	Desmin from pig stomach.
Purification	Ascites
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the intermediate filament family.

Protein Information

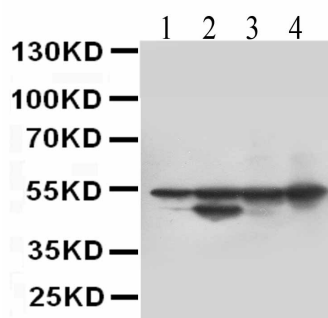
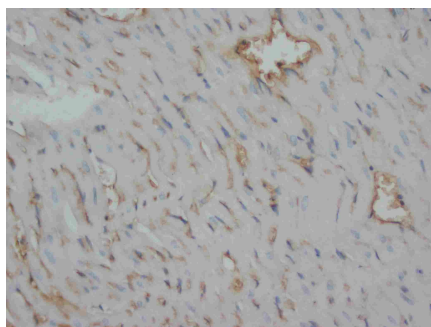
Name	Des
Function	Muscle-specific type III intermediate filament essential for proper muscular structure and function. Plays a crucial role in maintaining the structure of sarcomeres, inter-connecting the Z-disks and forming the myofibrils, linking them not only to the sarcolemmal cytoskeleton, but also to the nucleus and mitochondria, thus providing strength for the muscle fiber during activity. 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. 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 nebulin (NEB) on heart muscle sarcomeres to bind and recruit cardiac alpha-actin.
Cellular Location	Cytoplasm, myofibril, sarcomere, Z line. Cytoplasm {ECO:0000250 UniProtKB:P17661}. Cell membrane, sarcolemma {ECO:0000250 UniProtKB:P17661}. 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. Localizes in the nucleus exclusively in differentiating cardiac progenitor cells and premature cardiomyocytes. Interacts with ASB2; the interaction targets DES for proteasomal degradation (By similarity). PKP2 is required for correct anchoring of DES at the cell tip and nuclear envelope (By similarity). {ECO:0000250 UniProtKB:P17661, ECO:0000250 UniProtKB:P31001}

Background

Desmin belongs to the type III family of intermediate filaments, a class of cytoskeletal elements. DES gene encodes desmin, a muscle-specific cytoskeletal protein found in smooth, cardiac, and heart muscles. Tidball(1992) found that desmin was codistributed with actin thin filaments within the cellular processes of myotendinous junctions in frog skeletal muscle. DES gene contains 9 exons and spans about 8.4 kb. By in situ hybridization, Viegas-Pequignot et al.(1989) localized the gene to 2q35. Desmin mutation responsible for idiopathic dilated cardiomyopathy.

Images

Anti-Desmin antibody (monoclonal), ABO10427,
IHC(P)IHC(P): Rat Cardiac Muscle Tissue



Anti-Desmin antibody (monoclonal), ABO10427, Western blotting
 All lanes: Anti Desmin (ABO10427) at 0.5ug/ml
 Lane 1: Rat Skeletal Muscle Tissue Lysate at 50ug
 Lane 2: Rat Cardiac Muscle Tissue Lysate at 50ug
 Lane 3: Mouse Skeletal Muscle Tissue Lysate at 50ug
 Lane 4: Mouse Cardiac Muscle Tissue Lysate at 50ug
 Predicted bind size: 53KD
 Observed bind size: 53KD

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