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Desmin Antibody

Rabbit mAb
Catalog # AP90265

Product Information

Application	WB, IHC, IF, ICC, IHF
Primary Accession	P17661
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	CMD1I; CSM1; CSM2; DES; DESM; Desmin; intermediate filament protein
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	53536

Additional Information

Dilution	WB: 1:10000~1:20000 IHC: 1:100~1:500 ICC/IF: 1:50~1:100
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Desmin
Description	Desmin a 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. Mutations in this gene are associated with desmin-related myopathy, a familial cardiac and skeletal myopathy (CSM), and with distal myopathies.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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}

Images

Image not found : 202311/AP90265-wb.jpg	Western blot analysis of Desmin expression in (1) Mouse heart tissue lysate; (2) Rat heart tissue lysate.
Image not found : 202311/AP90265-IHC.jpg	Immunohistochemical analysis of paraffin-embedded human prostate, using Desmin Antibody.
Image not found : 202311/AP90265-wb6.jpg	Overexpression of the 14-3-3γ protein in uterine leiomyoma cells results in growth retardation and increased apoptosis. -Cellular Signalling