

DES / Desmin Antibody (clone 10H7D2)
Mouse Monoclonal Antibody
Catalog # ALS11797**Specification**

DES / Desmin Antibody (clone 10H7D2) - Product Information

Application	IHC
Primary Accession	P17661
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	54kDa KDa

DES / Desmin Antibody (clone 10H7D2) - Additional Information**Gene ID** 1674**Other Names**

Desmin, DES

Target/Specificity

Ni-NTA purified truncated recombinant Desmin expressed in E. Coli strain BL21 (DE3)

Reconstitution & Storage

+4°C or -20°C, Avoid repeated freezing and thawing.

Precautions

DES / Desmin Antibody (clone 10H7D2) is for research use only and not for use in diagnostic or therapeutic procedures.

DES / Desmin Antibody (clone 10H7D2) - 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 dephosphorylated tubulin- α 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 (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}

Volume

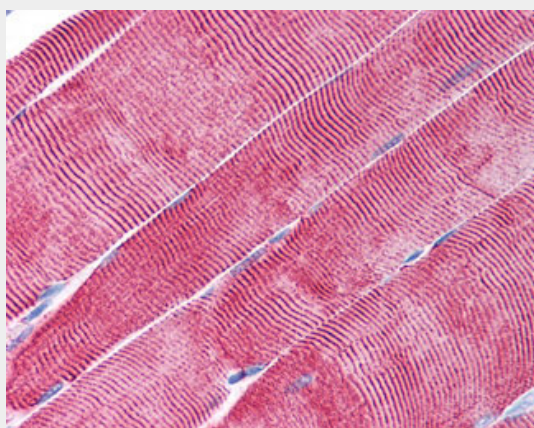
50 µl

DES / Desmin Antibody (clone 10H7D2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DES / Desmin Antibody (clone 10H7D2) - Images



Anti-DES / Desmin antibody IHC of human skeletal muscle.

DES / Desmin Antibody (clone 10H7D2) - 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.

DES / Desmin Antibody (clone 10H7D2) - References

- Li Z.,et al.Gene 78:243-254(1989).
Li Z.,et al.J. Biol. Chem. 266:6562-6570(1991).
Vicart P.,et al.Hum. Genet. 98:422-429(1996).
Goldfarb L.G.,et al.Nat. Genet. 19:402-403(1998).
Li D.,et al.Circulation 100:461-464(1999).