10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Desmin Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP14284b

Specification

Desmin Antibody (C-term) Blocking peptide - Product Information

Primary Accession P17661

Desmin Antibody (C-term) Blocking peptide - Additional Information

Gene ID 1674

Other Names
Desmin, DES

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Desmin Antibody (C-term) Blocking peptide - 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}

Desmin Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

Desmin Antibody (C-term) Blocking peptide - Images

Desmin Antibody (C-term) Blocking peptide - Background

This gene encodes a muscle-specific class III intermediatefilament. Homopolymers of this protein form a stableintracytoplasmic filamentous network connecting myofibrils to eachother and to the plasma membrane. Mutations in this gene areassociated with desmin-related myopathy, a familial cardiac andskeletal myopathy (CSM), and with distal myopathies. [provided byRefSeq].

Desmin Antibody (C-term) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)van Spaendonck-Zwarts, K., et al. Clin. Genet. (2010) In press :Zimmerman, R.S., et al. Genet. Med. 12(5):268-278(2010)Bar, H., et al. J. Mol. Biol. 397(5):1188-1198(2010)Levin, J., et al. J. Neuropathol. Exp. Neurol. 69(4):415-424(2010)