

Desmin (H-76): sc-14026

BACKGROUND

Cytoskeletal intermediate filaments (IFs) constitute a diverse group of proteins that are expressed in a highly tissue-specific manner. IFs are constructed from two-chain α -helical coiled-coil molecules arranged on an imperfect helical lattice, and have been widely used as markers for distinguishing individual cell types within a tissue and identifying the origins of metastatic tumors. Vimentin is an IF general marker of cells originating in the mesenchyme. Vimentin and Desmin, a related class III IF, are both expressed during skeletal muscle development. Desmin, a 469 amino acid protein found near the Z line in sarcomeres, is expressed more frequently in adult differentiated state tissues. Desmin makes up attachments between the terminal Z-disc and membrane-associated proteins to form a force-transmitting system. Mutations in the gene encoding for Desmin are associated with adult-onset skeletal myopathy, sporadic disease and mild cardiac involvement.

CHROMOSOMAL LOCATION

Genetic locus: DES (human) mapping to 2q35; Des (mouse) mapping to 1 C4.

SOURCE

Desmin (H-76) is a rabbit polyclonal antibody raised against amino acids 15-90 mapping near the N-terminus of Desmin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Desmin (H-76) is recommended for detection of Desmin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Desmin (H-76) is also recommended for detection of Desmin in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Desmin siRNA (h): sc-29294, Desmin siRNA (m): sc-29295, Desmin shRNA Plasmid (h): sc-29294-SH, Desmin shRNA Plasmid (m): sc-29295-SH, Desmin shRNA (h) Lentiviral Particles: sc-29294-V and Desmin shRNA (m) Lentiviral Particles: sc-29295-V.

Molecular Weight of Desmin: 53 kDa.

Positive Controls: Desmin (m): 293T Lysate: sc-119754, SJRH30 cell lysate: sc-2287 or Sol8 cell lysate: sc-2249.

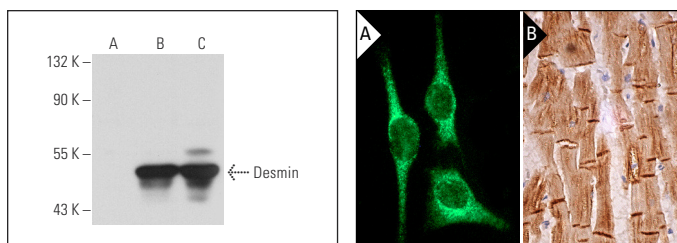
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Desmin (H-76): sc-14026. Western blot analysis of Desmin expression in non-transfected 293T: sc-117752 (A), mouse Desmin transfected 293T: sc-119754 (B) and SJRH30 (C) whole cell lysates.

Desmin (H-76): sc-14026. Immunofluorescence staining of methanol-fixed Sol8 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing Z discs and cytoplasmic staining of myocytes (B).

SELECT PRODUCT CITATIONS

- Yamaura, K., et al. 2004. Suppression of acute and chronic rejection by hepatocyte growth factor in a murine model of cardiac transplantation: induction of tolerance and prevention of cardiac allograft vasculopathy. *Circulation* 110: 1650-1657.
- Dubay, D.A., et al. 2004. Fascial fibroblast kinetic activity is increased during abdominal wall repair compared to dermal fibroblasts. *Wound Repair Regen.* 12: 539-545.
- Shi, S., et al. 2011. BMP antagonists enhance myogenic differentiation and ameliorate the dystrophic phenotype in a DMD mouse model. *Neurobiol. Dis.* 41: 353-360.
- Osonoi, M., et al. 2011. Fibroblasts have plasticity and potential utility for cell therapy. *Hum. Cell* 24: 30-34.
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- Adas, G., et al. 2011. Mesenchymal stem cells improve the healing of ischemic colonic anastomoses (experimental study). *Langenbecks Arch. Surg.* 396: 115-126.
- Karaoz, E., et al. 2012. Reduction of lesion in injured rat spinal cord and partial functional recovery of motility after bone marrow derived mesenchymal stem cell transplantation. *Turk. Neurosurg.* 22: 207-217.
- Dai, H.Y., et al. 2012. The roles of connective tissue growth factor and integrin-linked kinase in high glucose-induced phenotypic alterations of podocytes. *J. Cell. Biochem.* 113: 293-301.



Try **Desmin (RD301): sc-23879** or **Desmin (B-7): sc-271677**, our highly recommended monoclonal alternatives to Desmin (H-76). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Desmin (RD301): sc-23879**.