

Desmin (Y-20): sc-7559

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 (Y-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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.

Blocking peptide available for competition studies, sc-7559 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-7559 AC, 500 μ g/0.25 ml agarose in 1 ml.

APPLICATIONS

Desmin (Y-20) 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 (Y-20) is also recommended for detection of Desmin in additional species, including equine, canine, bovine, porcine and avian.

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: Sol8 cell lysate: sc-2249 or SJRH30 cell lysate: sc-2287.

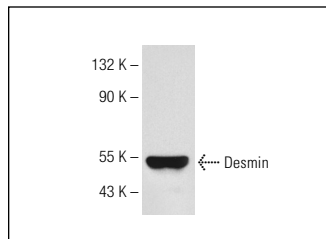
RESEARCH USE

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

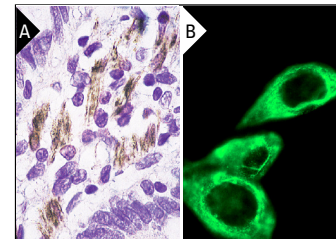
STORAGE

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

DATA



Desmin (Y-20): sc-7559. Western blot analysis of Desmin expression in Sol8 whole cell lysate.



Desmin (Y-20): sc-7559. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma showing cytoskeletal localization (A). Immunofluorescence staining of methanol-fixed Sol8 cells showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Du, X., et al. 2002. Impaired cardiac contractility response to hemodynamic stress in S100A1-deficient mice. *Mol. Cell. Biol.* 22: 2821-2829.
- Poon, E., et al. 2002. Association of syncoilin and desmin: linking intermediate filament proteins to the dystrophin-associated protein complex. *J. Biol. Chem.* 277: 3433-3439.
- Duan, Y.N., et al. 2011. Dynamics of Sept4 expression in fibrotic livers of mice infected with *Schistosoma japonicum*. *Parasitology* 138: 1003-1010.
- Cerecedo, D., et al. 2013. Haemostatic role of intermediate filaments in adhered platelets: importance of the membranous system stability. *J. Cell. Biochem.* 11: 2050-2060.
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- Duan, Y., et al. 2014. *Schistosoma japonicum* soluble egg antigens induce apoptosis and inhibit activation of hepatic stellate cells: a possible molecular mechanism. *Int. J. Parasitol.* 44: 217-224.
- Comeglio, P., et al. 2014. Opposite effects of tamoxifen on metabolic syndrome-induced bladder and prostate alterations: a role for GPR30/GPER? *Prostate* 74: 10-28.
- Zhu, D., et al. 2015. Expression of Septin4 in *Schistosoma japonicum*-infected mouse livers after praziquantel treatment. *Parasit. Vectors* 8: 19.
- Der Vartanian, A., et al. 2015. Protein O-fucosyltransferase 1 expression impacts myogenic C2C12 cell commitment via the notch signaling pathway. *Mol. Cell. Biol.* 35: 391-405.



Try **Desmin (RD301): sc-23879** or **Desmin (B-7): sc-271677**, our highly recommended monoclonal alternatives to Desmin (Y-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Desmin (RD301): sc-23879**.