

Desmin (E-20): sc-34201

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.

REFERENCES

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- Gereben, B., et al. 1995. Species-specificity of glial vimentin as revealed by immunocytochemical studies with the Vim 3B4 and V9 monoclonal antibodies. *Neurobiology* 3: 151-164.
- Andreoli, J.M. and Trevor, K.T. 1995. Structural and biological consequences of increased vimentin expression in simple epithelial cell types. *Cell Motil. Cytoskel.* 32: 10-25.
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CHROMOSOMAL LOCATION

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

SOURCE

Desmin (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-34201 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Desmin (E-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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

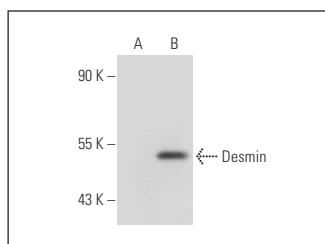
Desmin (E-20) is also recommended for detection of Desmin in additional species, including equine, canine, bovine and porcine.

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.

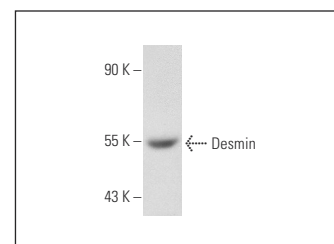
Molecular Weight of Desmin: 53 kDa.

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

DATA



Desmin (E-20): sc-34201. Western blot analysis of Desmin expression in non-transfected: sc-117752 (A) and mouse Desmin transfected: sc-119754 (B) 293T whole cell lysates.



Desmin (E-20): sc-34201. Western blot analysis of Desmin expression in SJRH30 whole cell lysate.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



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