

Desmin (RD301): sc-23879

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 (RD301) is a mouse monoclonal antibody raised against cytoskeletal desmin extract from gizzard of chicken origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Desmin (RD301) is available conjugated to agarose (sc-23879 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23879 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23879 PE), fluorescein (sc-23879 FITC), Alexa Fluor[®] 488 (sc-23879 AF488), Alexa Fluor[®] 546 (sc-23879 AF546), Alexa Fluor[®] 594 (sc-23879 AF594) or Alexa Fluor[®] 647 (sc-23879 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-23879 AF680) or Alexa Fluor[®] 790 (sc-23879 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Desmin (RD301) is recommended for detection of Desmin of mouse, rat, human, hamster, canine, porcine, rabbit and avian origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:200), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

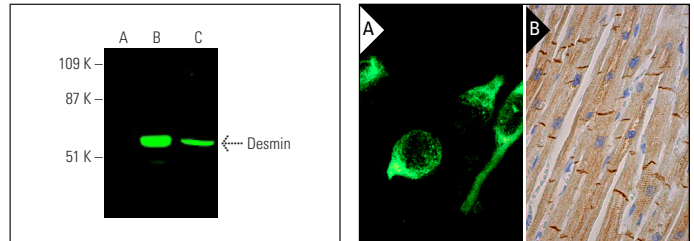
Molecular Weight of Desmin: 53 kDa.

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

STORAGE

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

DATA



Desmin (RD301): sc-23879. Near-infrared western blot analysis of Desmin expression in non-transfected 293T: sc-117752 (A), mouse Desmin transfected 293T: sc-119754 (B) and Sol8 (C) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

Desmin (RD301): sc-23879. Immunofluorescence staining of methanol-fixed SJRH30 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing intercalated discs and cytoplasmic staining of myocytes (B).

SELECT PRODUCT CITATIONS

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- Pallari, H.M., et al. 2011. Nestin as a regulator of Cdk5 in differentiating myoblasts. *Mol. Biol. Cell* 22: 1539-1549.
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- Kang, H.W., et al. 2016. A 3D bioprinting system to produce human-scale tissue constructs with structural integrity. *Nat. Biotechnol.* 34: 312-319.
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RESEARCH USE

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