

Desmuslin (A-8): sc-374484

BACKGROUND

Cytoskeletal intermediate filaments constitute a diverse group of proteins that are expressed in a highly tissue-specific manner. Intermediate filaments are composed of two-chain, α -helical, coiled-coil molecules arranged on an imperfect helical lattice. They are widely used as markers for distinguishing individual cell types within a tissue and identifying the origins of metastatic tumors. Desmuslin is a type-VI intermediate filament which may act as a mechanical support to the muscle fibers by forming a linkage between the extracellular matrix via the Z-disk and the dystrophin-associated protein complex (DAPC). The Desmuslin protein interacts with desmin as well as α -dystrobrevin and is mainly expressed in heart and skeletal muscle, but can also be detected in brain. Desmuslin contains a conserved rod domain, a short N-terminal domain and a long C-terminal domain.

CHROMOSOMAL LOCATION

Genetic locus: SYNM (human) mapping to 15q26.3; Synm (mouse) mapping to 7 C.

SOURCE

Desmuslin (A-8) is a mouse monoclonal antibody raised against amino acids 741-1040 mapping within an internal region of Desmuslin of human origin.

PRODUCT

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

Desmuslin (A-8) is available conjugated to agarose (sc-374484 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374484 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374484 PE), fluorescein (sc-374484 FITC), Alexa Fluor® 488 (sc-374484 AF488), Alexa Fluor® 546 (sc-374484 AF546), Alexa Fluor® 594 (sc-374484 AF594) or Alexa Fluor® 647 (sc-374484 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374484 AF680) or Alexa Fluor® 790 (sc-374484 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Desmuslin (A-8) is recommended for detection of Desmuslin isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Desmuslin siRNA (h): sc-60525, Desmuslin siRNA (m): sc-60526, Desmuslin shRNA Plasmid (h): sc-60525-SH, Desmuslin shRNA Plasmid (m): sc-60526-SH, Desmuslin shRNA (h) Lentiviral Particles: sc-60525-V and Desmuslin shRNA (m) Lentiviral Particles: sc-60526-V.

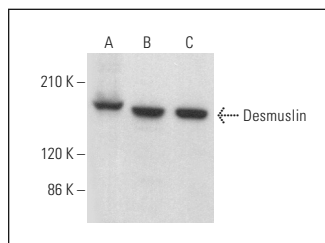
Molecular Weight of Desmuslin: 170 kDa.

Positive Controls: L6 whole cell lysate: sc-364196, RAW 264.7 whole cell lysate: sc-2211 or BC₃H1 cell lysate: sc-2299.

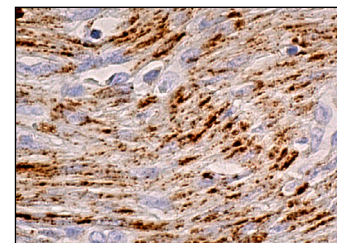
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Desmuslin (A-8): sc-374484. Western blot analysis of Desmuslin expression in BC₃H1 (A), L6 (B) and RAW 264.7 (C) whole cell lysates.



Desmuslin (A-8): sc-374484. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing cytoplasmic staining of smooth muscle cells.

SELECT PRODUCT CITATIONS

- Paul, M. and Skalli, O. 2016. Synemin: molecular features and the use of proximity ligation assay to study its interactions. *Methods Enzymol.* 568: 537-555.
- Deville, S.S., et al. 2020. c-Abl tyrosine kinase is regulated downstream of the cytoskeletal protein synemin in head and neck squamous cell carcinoma radioresistance and DNA repair. *Int. J. Mol. Sci.* 21: 7277.
- Langer, H.T., et al. 2020. Generation of desminopathy in rats using CRISPR-Cas9. *J. Cachexia Sarcopenia Muscle* 11: 1364-1376.
- Nin, D.S., et al. 2021. GAGE mediates radio resistance in cervical cancers via the regulation of chromatin accessibility. *Cell Rep.* 36: 109621.
- Mayca Pozo, F., et al. 2021. MYO10 drives genomic instability and inflammation in cancer. *Sci. Adv.* 7: eabg6908.

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.

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