SANTA CRUZ BIOTECHNOLOGY, INC.

Desmuslin (A-8): sc-374484

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 µg 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 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374484 HRP), 200 µg/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 µg/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 µg/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 µg per 100-500 µg 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.

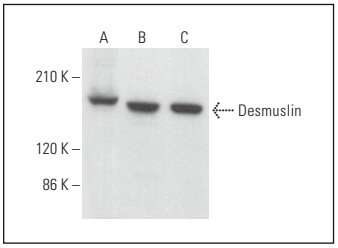
Molecular Weight of Desmuslin: 170 kDa.

Positive Controls: L6 whole cell lysate: sc-364196, RAW 264.7 whole cell lysate: sc-2211 or BC_3H1 cell lysate: sc-2299.

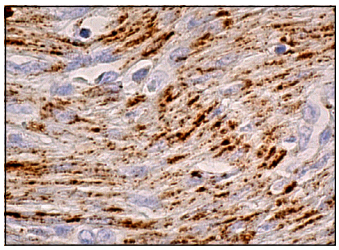
STORAGE

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

DATA



Desmuslin (A-8): sc-374484. Western blot analysis of Desmuslin expression in BC_3H1 (**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

1. 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.
2. 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.
3. Langer, H.T., et al. 2020. Generation of desminopathy in rats using CRISPR-Cas9. J. Cachexia Sarcopenia Muscle 11: 1364-1376.
4. Nin, D.S., et al. 2021. GAGE mediates radio resistance in cervical cancers via the regulation of chromatin accessibility. Cell Rep. 36: 109621.
5. Mayca Pozo, F., et al. 2021. MYO10 drives genomic instability and inflammation in cancer. Sci. Adv. 7: eabg6908.
6. Skelton, L.A., et al. 2023. Retinal gliosis and phenotypic diversity of intermediate filament induction and remodeling upon acoustic blast overpressure (ABO) exposure to the rat eye. Exp. Eye Res. 234: 109585.

RESEARCH USE

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

PROTOCOLS

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

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