

Desmuslin (M-300): sc-135343

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.

REFERENCES

- Mizuno, Y., et al. 2001. Desmuslin, an intermediate filament protein that interacts with α -dystrobrevin and Desmin. Proc. Natl. Acad. Sci. USA 98: 6156-6161.
- Mizuno, Y., et al. 2002. Genomic organization and single-nucleotide polymorphism map of Desmuslin, a novel intermediate filament protein on chromosome 15q26.3. BMC Genet. 2: 8.
- Mizuno, Y., et al. 2004. β -synemin localizes to regions of high stress in human skeletal myofibers. Muscle Nerve 30: 337-346.
- Jing, R., et al. 2005. Intermediate filament protein synemin is present in human reactive and malignant astrocytes and associates with ruffled membranes in astrocytoma cells. Glia 50: 107-120.
- Robson, R.M., et al. 2005. Muscle intermediate filament proteins. Methods Cell Biol. 78: 519-553.

CHROMOSOMAL LOCATION

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

SOURCE

Desmuslin (M-300) is a rabbit polyclonal antibody raised against amino acids 741-1040 mapping within an internal region of Desmuslin of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Desmuslin (M-300) is recommended for detection of Desmuslin isoforms 1 and 2 of mouse, rat and, to a lesser extent, 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).

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.

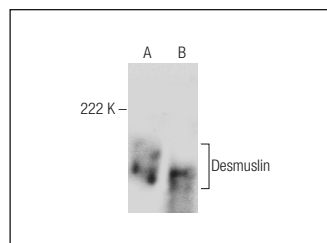
Molecular Weight of Desmuslin: 170 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Desmuslin (M-300): sc-135343. Western blot analysis of Desmuslin expression in human heart (A) and mouse skeletal muscle (B) tissue extracts.

RESEARCH USE

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

MONOS
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Try **Desmuslin (B-8): sc-376944** or **Desmuslin (A-8): sc-374484**, our highly recommended monoclonal alternatives to Desmuslin (M-300).