



p-Desmin (Thr 16): sc-130593

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

- Li, Z.L., et al. 1989. Human desmin-coding gene: complete nucleotide sequence, characterization and regulation of expression during myogenesis and development. *Gene* 78: 243-254.
- Tidball, J.G., et al. 1992. Desmin at myotendinous junctions. *Exp. Cell Res.* 199: 206-212.
- Stewart, M. 1993. Intermediate filament structure and assembly. *Curr. Opin. Cell Biol.* 5: 3-11.
- 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., et al. 1995. Structural and biological consequences of increased Vimentin expression in simple epithelial cell types. *Cell Motil. Cytoskel.* 32: 10-25.
- Seshadri, R., et al. 1996. Vimentin expression is not associated with poor prognosis in breast cancer. *Intl. J. Cancer* 67: 353-356.
- Essa, T.M., et al. 1996. Vimentin expression in different types of breast carcinoma immunohistochemical study. *J. Egyptian Soc. Parasitol.* 26: 433-442.
- Chu, Y.W., et al. 1996. Experimental coexpression of Vimentin and keratin intermediate filaments in human melanoma cells augments motility. *Am. J. Pathol.* 148: 63-69.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 125660. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: DES (human) mapping to 2q35.

STORAGE

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

SOURCE

p-Desmin (Thr 16) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Thr 16 of Desmin of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-Desmin (Thr 16) is recommended for detection of Thr 16 phosphorylated Desmin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Desmin siRNA (h): sc-29294, Desmin shRNA Plasmid (h): sc-29294-SH and Desmin shRNA (h) Lentiviral Particles: sc-29294-V.

Molecular Weight of p-Desmin: 53 kDa.

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048.

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.