

# SLMAP (D-3): sc-393393

## BACKGROUND

SLMAP (sarcolemmal membrane-associated protein) is a 828 amino acid single-pass type IV membrane protein. Localized to the sarcolemma in non-replicating cells, SLMAP relocates to centrosomes in a microtubule-dependent manner during cleavage in muscle tissues. SLMAP is thought to be involved in protein-protein interactions, as well as play a role in myoblast fusion. As a homodimeric integral membrane protein, SLMAP has two leucine zippers which form a 77 amino acid coiled-coil structure and contains one forkhead-associated (FHA) domain. Coiled-coil structures may be important for the regulation of neurotransmitter release, N-type calcium channels and membrane fusion, while FHA domains are involved in nuclear signaling. SLMAP exists as eight isoforms produced by alternative splicing.

## REFERENCES

1. Bennett, M.K., Calakos, N. and Scheller, R.H. 1992. Syntaxin: a synaptic protein implicated in docking of synaptic vesicles at presynaptic active zones. *Science* 257: 255-259.
2. Kutay, U., Hartmann, E. and Rapoport, T.A. 1993. A class of membrane proteins with a C-terminal anchor. *Trends Cell Biol.* 3: 72-75.
3. Franzini-Armstrong, C. and Jorgensen, A.O. 1994. Structure and development of E-C coupling units in skeletal muscle. *Annu. Rev. Physiol.* 56: 509-534.
4. Wigle, J.T., Demchyshyn, L., Pratt, M.A., Staines, W.A., Salih, M. and Tuana, B.S. 1997. Molecular cloning, expression, and chromosomal assignment of sarcolemmal-associated proteins. A family of acidic amphipathic  $\alpha$ -helical proteins associated with the membrane. *J. Biol. Chem.* 272: 32384-32394.
5. Wielowieyski, P.A., Sevinc, S., Guzzo, R., Salih, M., Wigle, J.T. and Tuana, B.S. 2000. Alternative splicing, expression, and genomic structure of the 3' region of the gene encoding the sarcolemmal-associated proteins (SLAPs) defines a novel class of coiled-coil tail-anchored membrane proteins. *J. Biol. Chem.* 275: 38474-38481.
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## CHROMOSOMAL LOCATION

Genetic locus: SLMAP (human) mapping to 3p14.3; SImap (mouse) mapping to 14 A3.

## SOURCE

SLMAP (D-3) is a mouse monoclonal antibody raised against amino acids 606-828 mapping at the C-terminus of SLMAP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

SLMAP (D-3) is recommended for detection of SLMAP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 SLMAP siRNA (h): sc-78464, SLMAP siRNA (m): sc-153600, SLMAP shRNA Plasmid (h): sc-78464-SH, SLMAP shRNA Plasmid (m): sc-153600-SH, SLMAP shRNA (h) Lentiviral Particles: sc-78464-V and SLMAP shRNA (m) Lentiviral Particles: sc-153600-V.

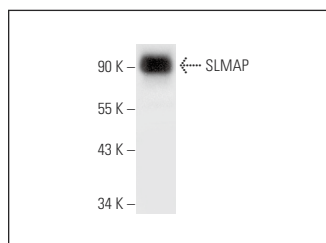
Molecular Weight of SLMAP: 95 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

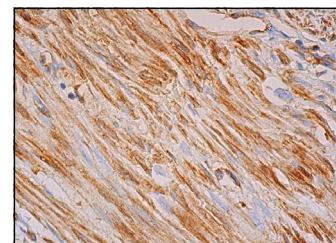
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



SLMAP (D-3): sc-393393. Western blot analysis of SLMAP expression in HeLa whole cell lysate.



SLMAP (D-3): sc-393393. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing cytoplasmic staining of smooth muscle cells.

## 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](http://www.scbt.com) for detailed protocols and support products.