



SLMAP (S-20): sc-104016

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., et al. 1992. Syntaxin: a synaptic protein implicated in docking of synaptic vesicles at presynaptic active zones. *Science* 257: 255-259.
2. Kutay, U., et al. 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., et al. 1997. Molecular cloning, expression, and chromosomal assignment of sarcolemmal-associated proteins. A family of acidic amphipathic α -helical proteins associated with the membrane. *J. Biol. Chem.* 272: 32384-32394.
5. Wielowieyski, P.A., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

SLMAP (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SLMAP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-104016 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SLMAP (S-20) is recommended for detection of SLMAP isoforms 1, 2, 3, 6 and 7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with SLMAP isoforms 4, 5 or 8.

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: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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