

SRMS (D-17): sc-55310

BACKGROUND

Protein kinases comprise a large group of encoded factors that regulate cellular processes by catalyzing the transfer of a phosphate group to a hydroxyl acceptor in serine, threonine or tyrosine residues. SRMS (Src-related kinase lacking C-terminal regulatory tyrosine and N-terminal myristylation sites) also known as SRM, is a 488 amino acid nonreceptor tyrosine-protein kinase that may play a role in the differentiation/proliferation of keratinocytes. SRMS consists of one Src homology 3 (SH3) domain, one Src homology 2 (SH2) domain and one protein kinase domain. The SH3 region is a small protein domain present in a large group of proteins, generally existing in association with catalytic domains. SH3 domains are also often accompanied by SH2 domains which bind to tyrosine-phosphorylated regions of target proteins, frequently linking activated growth factors to putative signal transduction proteins. Deletion or mutation of SH3 domains generally activate the transforming potential of nonreceptor tyrosine kinases, suggesting that SH3 mediates negative regulation of an intrinsic transforming activity.

REFERENCES

1. Ullrich, A. and Schlessinger, J. 1990. Signal transduction by receptors with tyrosine kinase activity. *Cell* 61: 203-212.
2. Koch, C.A., et al. 1991. SH2 and SH3 domains: elements that control interactions of cytoplasmic signaling proteins. *Science* 252: 668-674.
3. Kohmura, N., et al. 1994. A novel nonreceptor tyrosine kinase, Srm: cloning and targeted disruption. *Mol. Cell. Biol.* 14: 6915-6925.
4. Hunter, T. 1995. Protein kinases and phosphatases: the yin and yang of protein phosphorylation and signaling. *Cell* 80: 225-236.
5. Vasioukhin, V. and Tyner, A.L. 1997. A role for the epithelial-cell-specific tyrosine kinase Sik during keratinocyte differentiation. *Proc. Natl. Acad. Sci. USA* 94: 14477-14482.
6. Haegebarth, A., et al. 2006. Protein tyrosine kinase 6 negatively regulates growth and promotes enterocyte differentiation in the small intestine. *Mol. Cell. Biol.* 26: 4949-4957.

CHROMOSOMAL LOCATION

Genetic locus: SRMS (human) mapping to 20q13.33.

SOURCE

SRMS (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SRMS of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-55310 P, (100 µg 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.

APPLICATIONS

SRMS (D-17) is recommended for detection of SRMS of human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SRMS siRNA (h): sc-63066, SRMS shRNA Plasmid (h): sc-63066-SH and SRMS shRNA (h) Lentiviral Particles: sc-63066-V.

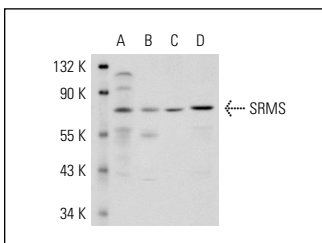
Molecular Weight of SRMS: 55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SRMS (D-17): sc-55310. Western blot analysis of SRMS expression in SK-BR-3 (A), SHP-77 (B), Hep G2 (C) and MCF7 (D) whole cell lysates.

RESEARCH USE

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

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Try **SRMS (A-4): sc-374524** or **SRMS (E-5): sc-376223**, our highly recommended monoclonal alternatives to SRMS (D-17).