

SRMS (E-5): sc-376223

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

- Ullrich, A., et al. 1990. Signal transduction by receptors with tyrosine kinase activity. *Cell* 61: 203-212.
- Koch, C.A., et al. 1991. SH2 and SH3 domains: elements that control interactions of cytoplasmic signaling proteins. *Science* 252: 668-674.
- Kohmura, N., et al. 1994. A novel nonreceptor tyrosine kinase, Srm: cloning and targeted disruption. *Mol. Cell. Biol.* 14: 6915-6925.
- Hunter, T. 1995. Protein kinases and phosphatases: the yin and yang of protein phosphorylation and signaling. *Cell* 80: 225-236.

CHROMOSOMAL LOCATION

Genetic locus: SRMS (human) mapping to 20q13.33; Srms (mouse) mapping to 2 H4.

SOURCE

SRMS (E-5) is a mouse monoclonal antibody raised against amino acids 1-143 mapping at the N-terminus of SRMS of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SRMS (E-5) is available conjugated to agarose (sc-376223 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376223 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376223 PE), fluorescein (sc-376223 FITC), Alexa Fluor[®] 488 (sc-376223 AF488), Alexa Fluor[®] 546 (sc-376223 AF546), Alexa Fluor[®] 594 (sc-376223 AF594) or Alexa Fluor[®] 647 (sc-376223 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376223 AF680) or Alexa Fluor[®] 790 (sc-376223 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

SRMS (E-5) is recommended for detection of SRMS of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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 SRMS siRNA (h): sc-63066, SRMS siRNA (m): sc-63067, SRMS shRNA Plasmid (h): sc-63066-SH, SRMS shRNA Plasmid (m): sc-63067-SH, SRMS shRNA (h) Lentiviral Particles: sc-63066-V and SRMS shRNA (m) Lentiviral Particles: sc-63067-V.

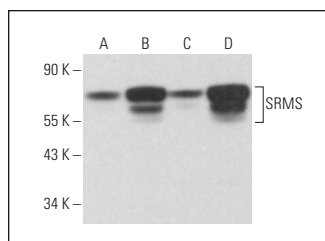
Molecular Weight of SRMS: 55 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, 3T3-L1 cell lysate: sc-2243 or BYDP whole cell lysate: sc-364368.

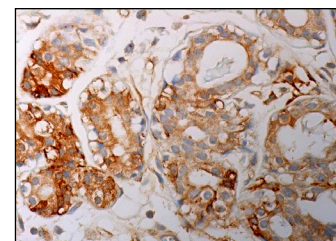
RECOMMENDED SUPPORT REAGENTS

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

DATA



SRMS (E-5): sc-376223. Western blot analysis of SRMS expression in NIH/3T3 (A), 3T3-L1 (B), BYDP (C) and BW5147 (D) whole cell lysates.



SRMS (E-5): sc-376223. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

- Posternak, G., et al. 2020. Functional characterization of a PROTAC directed against BRAF mutant V600E. *Nat. Chem. Biol.* 16: 1170-1178.

RESEARCH USE

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

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