SANTA CRUZ BIOTECHNOLOGY, INC.

SRMS (A-4): sc-374524

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

SRMS (A-4) 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 IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SRMS (A-4) is available conjugated to agarose (sc-374524 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374524 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374524 PE), fluorescein (sc-374524 FITC), Alexa Fluor® 488 (sc-374524 AF488), Alexa Fluor® 546 (sc-374524 AF546), Alexa Fluor® 594 (sc-374524 AF594) or Alexa Fluor® 647 (sc-374524 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374524 AF680) or Alexa Fluor® 790 (sc-374524 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SRMS (A-4) is recommended for detection of SRMS of 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 shRNA Plasmid (h): sc-63066-SH and SRMS shRNA (h) Lentiviral Particles: sc-63066-V.

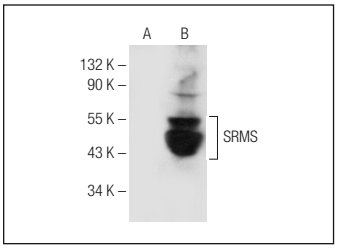
Molecular Weight of SRMS: 55 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Hep G2 cell lysate: sc-2227 or SRMS (h): 293T Lysate: sc-171184.

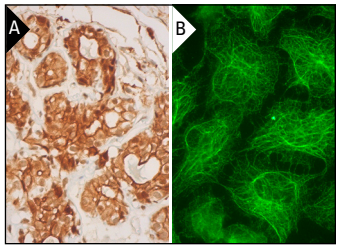
RECOMMENDED SUPPORT REAGENTS

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 (A-4): sc-374524. Western blot analysis of SRMS expression in non-transfected: sc-117752 (**A**) and human SRMS transfected: sc-171184 (**B**) 293T whole cell lysates.



SRMS (A-4): sc-374524. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic, membrane and nuclear staining of glandular cells (**A**). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization (**B**).

SELECT PRODUCT CITATIONS

1. Goel, R.K., et al. 2018. Phosphoproteomics analysis identifies novel candidate substrates of the nonreceptor tyrosine kinase, Src-related kinase lacking C-terminal regulatory tyrosine and N-terminal myristoylation sites (SRMS). Mol. Cell. Proteomics 17: 925-947.
2. Lam, S.K., et al. 2018. Inhibition of ornithine decarboxylase 1 facilitates pegylated arginase treatment in lung adenocarcinoma xenograft models. Oncol. Rep. 40: 1994-2004.
3. Park, J.M., et al. 2021. The nonreceptor tyrosine kinase SRMS inhibits autophagy and promotes tumor growth by phosphorylating the scaffolding protein FKBP51. PLoS Biol. 19: e3001281.

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.