SANTA CRUZ BIOTECHNOLOGY, INC.

SRMS (H-143): sc-68341

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.

REFERENCES

1. Ullrich, A., et al. 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., et al. 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.
7. Lee, S.J., et al. 2006. Substitution mapping in dahl rats identifies two distinct blood pressure quantitative trait loci within 1.12 and 1.25 mb intervals on chromosome 3. Genetics 174: 2203-2213.
8. Chang, Y.M., et al. 2007. Nonreceptor tyrosine kinases in prostate cancer. Neoplasia 9: 90-100.

CHROMOSOMAL LOCATION

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

SOURCE

SRMS (H-143) is a rabbit polyclonal antibody raised against amino acids 1-143 mapping at the N-terminus 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.

APPLICATIONS

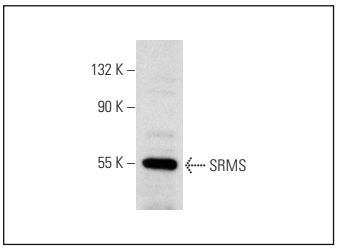
SRMS (H-143) is recommended for detection of SRMS of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and 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: MCF7 whole cell lysate: sc-2206, Hep G2 cell lysate: sc-2227 or SK-BR-3 cell lysate: sc-2218.

DATA



SRMS (H-143): sc-68341. Western blot analysis of SRMS expression in MCF7 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Goel, R.K., et al. 2013. The unique N-terminal region of SRMS regulates enzymatic activity and phosphorylation of its novel substrate docking protein 1. FEBS J. 280: 4539-4559.

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.

PROTOCOLS

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