SANTA CRUZ BIOTECHNOLOGY, INC.

SLM-1 (S-15): sc-9472

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BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sam 68 is phosphorylated on tyrosine and functions as a substrate for Src family tyrosine kinases during mitosis. Sam 68 also associates with several SH2 and SH3 domain-containing signaling proteins, such as GRB2 and PLC γ1. Originally cloned as Ras GAP-associated p62, further investigations have shown that Sam 68 and Ras GAP-associated p62 are not antigenically related, nor are they encoded by the same gene. Like Sam 68, the Sam 68-like mammalian proteins, SLM-1 and SLM-2, demonstrate RNA binding activity. Also like Sam 68, SLM-1 is tyrosine phosphorylated and functions as an adapter protein for signaling molecules, including GRB2, PLC γ1, Fyn and RasGAP. SLM-2 is not tyrosine phosphorylated, nor does it appear to associate with GRB2, PLC γ1, Fyn or RasGAP, indicating that SLM-2 may not be an adapter protein for these proteins.

REFERENCES

1. Fumagalli, S., Totty, N.F., Hsuan, J.J. and Courtneidge, S.A. 1994. A target for Src in mitosis. Nature 368: 871-874.

2. Maa, M.C., Leu, T.H., Trandel, B.J., Chang, J.H. and Parsons, S.J. 1994. A protein that is highly related to GTPase-activating protein-associated p62 complexes with phospholipase C gamma. Mol. Cell. Biol. 14: 5466-5473.

3. Richard, S., Yu,D., Blumer, K.J., Hausladen, D., Olszowy, M.W., Connelly, P.A. and Shaw, A.S. 1995. Association of p62, a multifunctional SH2- and SH3-domain-binding protein, with src family tyrosine kinases, Grb2, and phospholipase C gamma-1. Mol. Cell. Biol. 15: 186-197.

4. Lock, P., Fumagalli, S., Polakis, P., McCormick, F. and Courtneidge, S.A. 1996. The human p62 cDNA encodes Sam68 and not the RasGAP-associated p62 protein. Cell 84: 23-24.

5. Guitard, E., Barlat, I., Maurier, F., Schweighoffer, F. and Tocque, B. 1998. Sam68 is a Ras-GAP-associated protein in mitosis. Biochem. Biophys. Res. Comm. 245: 562-566.

6. Di Fruscio, M., Chen, T. and Richard, S. 1999. Characterization of Sam68-like mammalian proteins SLM-1 and SLM-2: SLM-1 is a Src substrate during mitosis. Proc. Natl. Acad. Sci. USA 96: 2710-2715.

CHROMOSOMAL LOCATION

Genetic locus: Khdrbs2 (mouse) mapping to 1 B.

SOURCE

SLM-1 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SLM-1 of mouse 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-9472 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

SLM-1 (S-15) is recommended for detection of SLM-1 of mouse and rat 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).

SLM-1 (S-15) is also recommended for detection of SLM-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SLM-1 siRNA (m): sc-40921, SLM-1 shRNA Plasmid (m): sc-40921-SH and SLM-1 shRNA (m) Lentiviral Particles: sc-40921-V.

Molecular Weight of SLM-1: 64 kDa.

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.

STORAGE

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

PROTOCOLS

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