SANTA CRUZ BIOTECHNOLOGY, INC.

SLM-2 (E-9): sc-398664

SANTA CRUZ 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., et al. 1994. A target for Src in mitosis. Nature 368: 871-874.
2. Maa, M.C., et al. 1994. A protein that is highly related to GTPase-activating protein-associated p62 complexes with phospholipase Cγ. Mol. Cell. Biol. 14: 5466-5473.
3. Richard, S., et al. 1995. Association of p62, a multifunctional SH2- and SH3-domain-binding protein, with Src family tyrosine kinases, GRB2, and phospholipase Cγ-1. Mol. Cell. Biol. 15: 186-197.
4. Lock, P., et al. 1996. The human p62 cDNA encodes Sam 68 and not the RasGAP-associated p62 protein. Cell 84: 23-24.
5. Guitard, E., et al. 1998. Sam 68 is a Ras-GAP-associated protein in mitosis. Biochem. Biophys. Res. Commun. 245: 562-566.
6. Di Fruscio, M., et al. 1999. Characterization of Sam 68-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: KHDRBS3 (human) mapping to 8q24.23.

SOURCE

SLM-2 (E-9) is a mouse monoclonal antibody raised against amino acids 177-242 mapping within an internal region of SLM-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

SLM-2 (E-9) is recommended for detection of SLM-2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLM-2 siRNA (h): sc-40922, SLM-2 shRNA Plasmid (h): sc-40922-SH and SLM-2 shRNA (h) Lentiviral Particles: sc-40922-V.

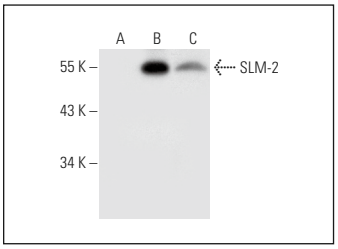
Molecular Weight of SLM-2: 55 kDa.

Positive Controls: SLM-2 (h): 293T Lysate: sc-115279, human fetal brain tissue extract or IMR-32 nuclear extract: sc-2148.

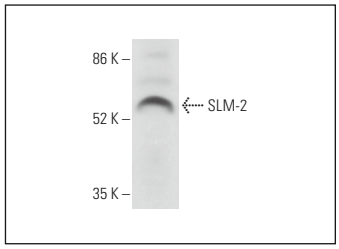
RECOMMENDED SUPPORT REAGENTS

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.

DATA



SLM-2 (E-9): sc-398664. Western blot analysis of SLM-2 expression in non-transfected: sc-117752 (**A**) and human SLM-2 transfected: sc-115279 (**B**) 293T whole cell lysates and IMR-32 nuclear extract (**C**).



SLM-2 (E-9): sc-398664. Western blot analysis of SLM-2 expression in human fetal brain tissue extract.

RESEARCH USE

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