SANTA CRUZ BIOTECHNOLOGY, INC.

Sam 68 (S-331): sc-733

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sam 68 is a protein that 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.

CHROMOSOMAL LOCATION

Genetic locus: KHDRBS1 (human) mapping to 1p35.1; Khdrbs1 (mouse) mapping to 4 D2.2.

SOURCE

Sam 68 (S-331) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Sam 68 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.

Available as agarose conjugate for immunoprecipitation, sc-733 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

Sam 68 (S-331) is recommended for detection of Sam 68 of mouse, rat and 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), 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).

Sam 68 (S-331) is also recommended for detection of Sam 68 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Sam 68 siRNA (h): sc-29476, Sam 68 siRNA (m): sc-36451, Sam 68 shRNA Plasmid (h): sc-29476-SH, Sam 68 shRNA Plasmid (m): sc-36451-SH, Sam 68 shRNA (h) Lentiviral Particles: sc-29476-V and Sam 68 shRNA (m) Lentiviral Particles: sc-36451-V.

Molecular Weight of Sam 68: 68 kDa.

Positive Controls: Sam 68 (m): 293T Lysate: sc-125954, HeLa nuclear extract: sc-2120 or A-431 nuclear extract: sc-2122.

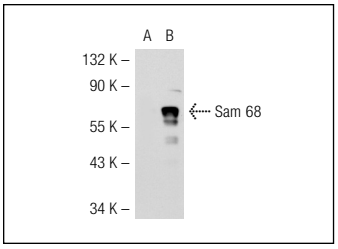
STORAGE

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

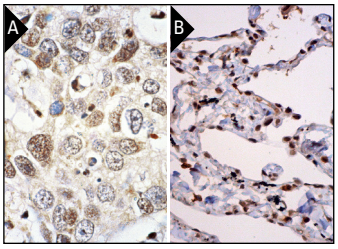
RESEARCH USE

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

DATA



Sam 68 (S-331): sc-733. Western blot analysis of Sam 68 expression in non-transfected: sc-117752 (**A**) and mouse Sam 68 transfected: sc-125954 (**B**) 293T whole cell lysates.



Sam 68 (S-331): sc-733. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear staining of pneumocytes and macrophages (**B**).

SELECT PRODUCT CITATIONS

1. Richard, S., et al. 1995. Association of p62, a multifunctional SH2- and SH3-domain-binding protein, with Src family tyrosine kinases, GRB2, and phospholipase C γ1. Mol. Cell. Biol. 15: 186-197.
2. Medema, J.P., et al. 1995. Calcium induces tyrosine phosphorylation of a novel p120GAP-associated protein of 65 kDa. Oncogene 11: 757-762.
3. Shen, Z., et al. 1999. Evidence for SH3 domain directed binding and phosphorylation of Sam 68 by Src. Oncogene 18: 4647-4653.
4. Jakymiw, A., et al. 2000. Identification and characterization of a novel Golgi protein, Golgin-67. J. Biol. Chem. 275: 4137-4144.
5. Christian, S.L., et al. 2002. The B cell antigen receptor regulates the transcriptional activator β-catenin via protein kinase C-mediated inhibition of glycogen synthase kinase-3. J. Immunol. 169: 758-769.
6. Gorla, L., et al. 2006. RET oncoproteins induce tyrosine phosphorylation changes of proteins involved in RNA metabolism. Cell. Signal. 18: 2272-2282.
7. Ferdous, A., et al. 2007. The role of the proteasomal ATPases and activator monoubiquitylation in regulating GAL4 binding to promoters. Genes Dev. 21: 112-123.

PROTOCOLS

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