

# Sam 68 (C-20): sc-333

## 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  $\gamma$ 1. 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  $\gamma$ 1, Fyn and Ras GAP. SLM-2 is not tyrosine phosphorylated, nor does it appear to associate with GRB2, PLC  $\gamma$ 1, Fyn or Ras GAP, 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 (C-20) 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  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-333 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Sam 68 (C-20) 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  $\mu$ g per 100-500  $\mu$ g 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 (C-20) is also recommended for detection of Sam 68 in additional species, including equine, 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: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

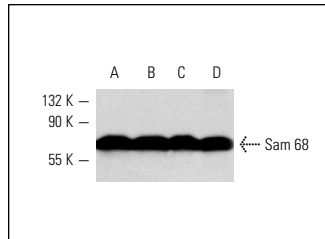
## STORAGE

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

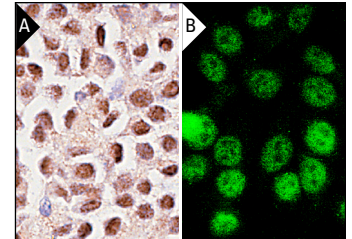
## RESEARCH USE

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

## DATA



Sam 68 (C-20): sc-333. Western blot analysis of Sam 68 expression in A-431 whole cell lysate (A), A-431 nuclear extract (B) and HeLa (C) and NIH/3T3 (D) whole cell lysates.



Sam 68 (C-20): sc-333. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor (A) and immunofluorescence staining of methanol-fixed HeLa cells (B) showing nuclear staining.

## SELECT PRODUCT CITATIONS

- Gilbert, C., et al. 2001. Evidence for a role for Sam 68 in the responses of human neutrophils to ligation of CD32 and to monosodium urate crystals. *J. Immunol.* 166: 4664-4671.
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- Sellier, C., et al. 2010. Sam68 sequestration and partial loss of function are associated with splicing alterations in FXTAS patients. *EMBO J.* 29: 1248-1261.
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- Sánchez-Jiménez, F., et al. 2011. Leptin receptor activation increases Sam68 tyrosine phosphorylation and expression in human trophoblastic cells. *Mol. Cell. Endocrinol.* 332: 221-227.
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- Borghese, F. and Michiels, T. 2011. The leader protein of cardioviruses inhibits stress granule assembly. *J. Virol.* 85: 9614-9622.
- Orr, S.J., et al. 2012. Proteomic and protein interaction network analysis of human T lymphocytes during cell-cycle entry. *Mol. Syst. Biol.* 8: 573.


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Try **Sam 68 (H-4): sc-514468** or **Sam 68 (C-7): sc-514404**, our highly recommended monoclonal alternatives to Sam 68 (C-20).