

Sos 1 (C-23): sc-256



The Power to Question

BACKGROUND

The superfamily of GTP-binding proteins, of which Ras proteins are prototypes, has been implicated in a broad range of biological activities. Studies have identified a family of guanine nucleotide-releasing factors (GRFs) that activate Ras in mammalian cells and an "adapter" protein (SEM-5/GRB2) that appears to mediate the interaction of GRFs with activated receptor molecules. Ras-GRF p140 promotes nucleotide exchange on ras p21s but not on other members of the Ras gene superfamily. In addition, three mammalian homologs of the *Drosophila* Ras-GRF, son of sevenless (Sos), have been described. These include two from mouse, mSos 1 and mSos 2, and one from human, hSos. Vav p95 has been reported to function as a GRF in activation of Ras by the T cell receptor and has been reported to have a domain similar to that of Dbl p115, which is a GRF specific for Cdc42Hs. Subsequent to activation, Ras appears to interact with Raf, thereby activating the MAP kinase phosphorylation pathway.

CHROMOSOMAL LOCATION

Genetic locus: SOS1 (human) mapping to 2p22.1; Sos1 (mouse) mapping to 17 E3.

SOURCE

Sos 1 (C-23) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Sos 1 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.

Blocking peptide available for competition studies, sc-256 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Sos 1 (C-23) is recommended for detection of Sos 1 p170 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).

Sos 1 (C-23) is also recommended for detection of Sos 1 p170 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Sos 1 siRNA (h): sc-29486, Sos 1 siRNA (m): sc-36524, Sos 1 shRNA Plasmid (h): sc-29486-SH, Sos 1 shRNA Plasmid (m): sc-36524-SH, Sos 1 shRNA (h) Lentiviral Particles: sc-29486-V and Sos 1 shRNA (m) Lentiviral Particles: sc-36524-V.

Molecular Weight of Sos 1: 170 kDa.

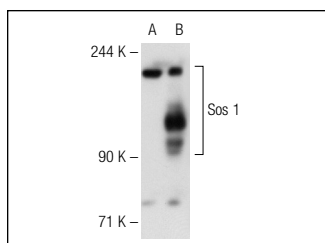
STORAGE

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

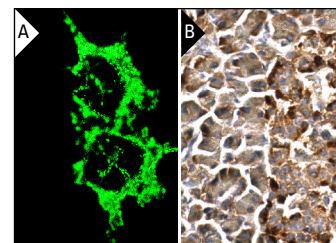
RESEARCH USE

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

DATA



Sos 1 (C-23): sc-256. Western blot analysis of Sos 1 expression in non-transfected: sc-117752 (A) and human Sos 1 transfected: sc-129810 (B) 293T whole cell lysates.



Sos 1 (C-23): sc-256. Immunofluorescence staining of methanol-fixed HeLa cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islet of langerhans and exocrine glandular cells (B).

SELECT PRODUCT CITATIONS

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- Scheving, L.A., et al. 2007. Dexamethasone modulates ErbB tyrosine kinase expression and signaling through multiple and redundant mechanisms in cultured rat hepatocytes. *Am. J. Physiol. Gastrointest. Liver Physiol.* 293: G552-G559.
- Tsyba, L., et al. 2008. Alternative splicing affecting the SH3A domain controls the binding properties of intersectin 1 in neurons. *Biochem. Biophys. Res. Commun.* 372: 929-934.
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- Calvo, F., et al. 2011. RasGRF suppresses Cdc42-mediated tumour cell movement, cytoskeletal dynamics and transformation. *Nat. Cell Biol.* 13: 819-826.
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Try **Sos 1 (A-9): sc-17793** or **Sos 1 (G-12): sc-376789**, our highly recommended monoclonal alternatives to Sos 1 (C-23).