SANTA CRUZ BIOTECHNOLOGY, INC.

Sos 1 (25): sc-136235

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, m Sos 1 and m Sos 2, and one from human, h Sos. 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 phosphoryl-ation pathway.

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

Sos 1 (25) is a mouse monoclonal antibody raised against amino acids 1-109 of Sos 1 of mouse origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136235 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

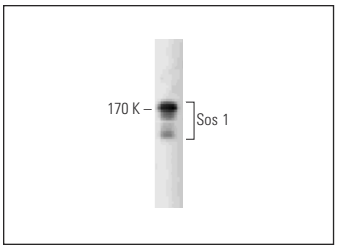
Sos 1 (25) is recommended for detection of Sos 1 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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.

Positive Controls: 3611-RF whole cell lysate: sc-2215, K-562 whole cell lysate: sc-2203 or PC-12 cell lysate: sc-2250.

DATA



Sos 1 (25): sc-136235. Western blot analysis of Sos 1 expression in PC-12 whole cell lysate.

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. Not for resale.

PROTOCOLS

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