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Sos 1 (h): 293T Lysate: sc-129810

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 phosphorylation pathway.

REFERENCES

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5. Egan, S.E., Giddings, B.W., Brooks, M.W., Buday, L., Sizeland, A.M. and Weinberg, R.A. 1993. Association of Sos Ras exchange protein with GRB2 is implicated in tyrosine kinase signal transduction and transformation. *Nature* 363: 45-51.
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CHROMOSOMAL LOCATION

Genetic locus: SOS1 (human) mapping to 2p22.1.

PRODUCT

Sos 1 (h): 293T Lysate represents a lysate of human Sos 1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Sos 1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Sos 1 antibodies. Recommended use: 10-20 µl per lane.

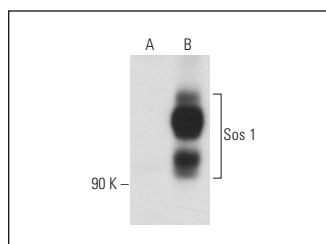
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Sos 1 (E-11): sc-55528 is recommended as a positive control antibody for Western Blot analysis of enhanced human Sos 1 expression in Sos 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

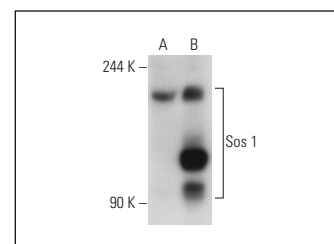
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Sos 1 (E-11): sc-55528. 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 (A-9): sc-17793. 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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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