

# Son of Sevenless (dN-15): sc-15820

## BACKGROUND

*Drosophila melanogaster* is a proven and effective model for studying developmental and cellular processes common to higher eukaryotes. Approximately 13,600 genes have been elucidated from more than 120 megabases of euchromatin, and they are organized among the chromosomes 2, 3, 4, X and Y, with the Y chromosome being predominately heterochromatic. *Drosophila* genes can be categorized based on the type of protein for which they encode and are represented by six major classifications including intracellular signaling proteins, transmembrane proteins, RNA binding proteins, secreted factors, transcription regulators (basic helix-loop-helix, homeodomain containing, zinc finger containing, and chromatin associated) or other functional proteins. Among these proteins, SoS (Son of Sevenless) is a guanine nucleotide exchange factor that functions in signaling pathways through activated sevenless and other receptor tyrosine kinases.

## REFERENCES

1. Simon, M.A., et al. 1991. Ras1 and a putative guanine nucleotide exchange factor perform crucial steps in signaling by the Sevenless protein tyrosine kinase. *Cell* 67: 701-716.
2. Bonfini, L., et al. 1992. The Son of Sevenless gene product: a putative activator of Ras. *Science* 255: 603-606.
3. Ashburner, M., et al. 1999. An exploration of the sequence of a 2.9-Mb region of the genome of *Drosophila melanogaster*: the Adh region. *Genetics* 153: 179-219.
4. Adams, M.D., et al. 2000. The genome sequence of *Drosophila melanogaster*. *Science* 287: 2185-2195.
5. Fritz, J.L., et al. 2000. Calmodulin and Son of Sevenless dependent signaling pathways regulate midline crossing of axons in the *Drosophila* CNS. *Development* 127: 1991-2000.
6. The Interactive Fly. <http://sdb.bio.purdue.edu/fly/aimain/1aahome.htm>.  
<http://sdb.bio.purdue.edu/fly/aimain/6biochem.htm>.
7. LocusLink Report. (LocusID:34790). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## SOURCE

Son of Sevenless (dN-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Son of Sevenless of *Drosophila melanogaster* 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-15820 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Son of Sevenless (dN-15) is recommended for detection of Son of Sevenless of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.