

# Sprouty 2 (N-19): sc-18600

## BACKGROUND

Members of the Sprouty family (Sprouty 1-4) are inducible negative regulators of growth factors that act through tyrosine kinase receptors. Mammalian Sprouty homologs share a well conserved cysteine-rich C-terminal domain with their *Drosophila* counterpart. Both Sprouty 1 and 2 are anchored to membranes by palmitoylation, associate with caveolin-1 in perinuclear and vesicular structures and are phosphorylated on Serine residues. Upon stimulation, a subset is recruited to the leading edge of the plasma membrane. Sprouty 2 can associate with c-Cbl, a downregulator of RTK signaling, and inhibits the activities of several growth factors. Sprouty 2 also functions as a negative regulator of embryonic lung morphogenesis and growth. The well-conserved C-terminus of Sprouty contains two domains which are necessary for Sprouty 2 colocalization with microtubules and translocation to membrane ruffles. In addition, the C-terminus is required for the inhibition of cell migration and proliferation. In conclusion, members of Sprouty inhibit FGF and VEGF-mediated cell proliferation, suggesting that they may regulate angiogenesis in normal and disease processes.

## CHROMOSOMAL LOCATION

Genetic locus: SPRY2 (human) mapping to 13q31.1; Spry2 (mouse) mapping to 14 E2.3.

## SOURCE

Sprouty 2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Sprouty 2 of mouse 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-18600 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Sprouty 2 (N-19) is recommended for detection of Sprouty 2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sprouty 2 (N-19) is also recommended for detection of Sprouty 2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Sprouty 2 siRNA (h): sc-41037, Sprouty 2 siRNA (m): sc-41038, Sprouty 2 shRNA Plasmid (h): sc-41037-SH, Sprouty 2 shRNA Plasmid (m): sc-41038-SH, Sprouty 2 shRNA (h) Lentiviral Particles: sc-41037-V and Sprouty 2 shRNA (m) Lentiviral Particles: sc-41038-V.

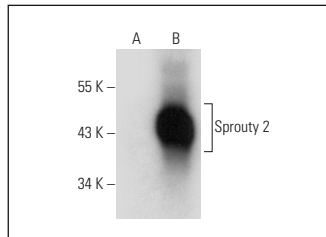
Molecular Weight of Sprouty 2: 35 kDa.

Positive Controls: C32 whole cell lysate: sc-2205, HeLa whole cell lysate: sc-2200 or Sprouty 2 (h2): 293T Lysate: sc-129840.

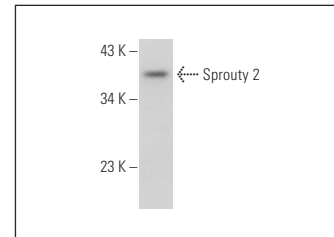
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Sprouty 2 (N-19): sc-18600. Western blot analysis of Sprouty 2 expression in non-transfected: sc-117752 (A) and human Sprouty 2 transfected: sc-129840 (B) 293T whole cell lysates.



Sprouty 2 (N-19): sc-18600. Western blot analysis of Sprouty 2 expression in HeLa whole cell lysates.

## SELECT PRODUCT CITATIONS

- Hausott, B., et al. 2009. Sprouty 2 down-regulation promotes axon growth by adult sensory neurons. *Mol. Cell. Neurosci.* 42: 328-340.
- Sun, J., et al. 2014. Carcinogenic metalloloid arsenic induces expression of mdig oncogene through JNK and STAT3 activation. *Cancer Lett.* 346: 257-263.

## 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.

## PROTOCOLS

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



Try **Sprouty 2 (SQ-5): sc-100862**, our highly recommended monoclonal alternative to Sprouty 2 (N-19).