

Op18 (N-20): sc-10899

BACKGROUND

Op18 (for Oncoprotein 18, also designated stathmin, prosolin or metablastin) is a conserved, tubulin-associated, intracellular phosphoprotein. Many different phosphorylated forms of Op18 are observed, and it is expressed as two different isoforms. Op18 is considered a critical regulator of microtubulin dynamics and is downregulated by p53. It serves as a transducing protein, via phosphorylation, for a variety of cell signaling pathways and involved in both mitosis and differentiation. Op18 is present in many cancers, including breast carcinomas, and is highly expressed in acute leukemias of different subtypes.

REFERENCES

1. Beretta, L., et al. 1989. Identification of two distinct isoforms of stathmin and characterization of their respective phosphorylated forms. *J. Biol. Chem.* 264: 9932-9938.
2. Sobel, A. 1991. Stathmin: a relay phosphoprotein for multiple signal transduction? *Trends Biochem. Sci.* 16: 301-315.
3. Roos, G., et al. 1993. Expression of Oncoprotein 18 in human leukemias and lymphomas. *Leukemia* 7: 1538-1546.
4. Belmont, L.D. and Mitchison, T.J. 1996. Identification of a protein that interacts with tubulin dimers and increases the catastrophe rate of microtubules. *Cell* 84: 623-631.
5. Jourdain, L., et al. 1997. Stathmin: a tubulin-sequestering protein which forms a ternary T2S complex with two tubulin molecules. *Biochemistry* 36: 10817-10821.

SOURCE

Op18 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Op18 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-10899 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Op18 (N-20) is recommended for detection of Op18 and other stathmin family members, including stathmin-like protein RB3 and SCG10-like protein 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).

Op18 (N-20) is also recommended for detection of Op18 and other stathmin family members, including stathmin-like protein RB3 and SCG10-like protein in additional species, including equine, canine, bovine, porcine and avian.

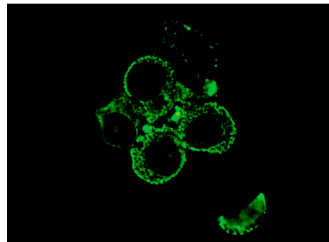
Molecular Weight of Op18: 19 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, SK-MEL-28 cell lysate: sc-2236.

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



Op18 (N-20): sc-10899. Immunofluorescence staining of methanol-fixed Jurkat cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Niethammer, P., et al. 2004. Stathmin-tubulin interaction gradients in motile and mitotic cells. *Science* 303: 1862-1866.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **Op18 (A-4): sc-48362** or **Op18 (E-3): sc-55531**, our highly recommended monoclonal alternatives to Op18 (N-20).