

Op18 (53): sc-136010

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., et al. 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.
6. Bieche, I., et al. 1998. Overexpression of the stathmin gene in a subset of human breast cancer. *Br. J. Cancer* 78: 701-709.
7. Ahn, J., et al. 1999. Downregulation of the stathmin/Op18 and FKBP25 genes following p53 induction. *Oncogene* 18: 5954-5958.

CHROMOSOMAL LOCATION

Genetic locus: STMN1 (human) mapping to 1p36.11; Stmn1 (mouse) mapping to 4 D3.

SOURCE

Op18 (53) is a mouse monoclonal antibody raised against amino acids 38-147 of Op18 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2b} in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

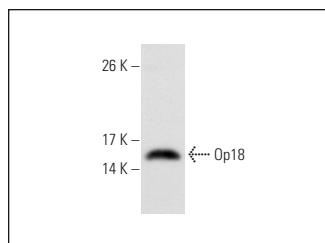
Op18 (53) is recommended for detection of Op18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Op18 siRNA (h): sc-36127, Op18 siRNA (m): sc-36128, Op18 shRNA Plasmid (h): sc-36127-SH, Op18 shRNA Plasmid (m): sc-36128-SH, Op18 shRNA (h) Lentiviral Particles: sc-36127-V and Op18 shRNA (m) Lentiviral Particles: sc-36128-V.

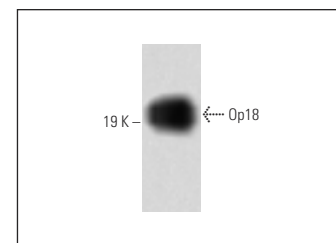
Molecular Weight of Op18: 19 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or PC-12 cell lysate: sc-2250.

DATA



Op18 (53): sc-136010. Western blot analysis of Op18 expression in K-562 whole cell lysate.



Op18 (53): sc-136010. Western blot analysis of Op18 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Müller, T., et al. 2013. A ternary complex consisting of AICD, FE65, and TIP60 down-regulates Stathmin1. *Biochim. Biophys. Acta* 1834: 387-394.

RESEARCH USE

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