10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

op18 Antibody

Catalog # ASC10545

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P16949
Other Accession	AAH82228, 51895905
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	17303
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Op18 antibody can be used for detection of op18 by Western blot at 0.5 - 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	3925
Other Names	Stathmin, Leukemia-associated phosphoprotein p18, Metablastin, Oncoprotein 18, Op18, Phosphoprotein p19, pp19, Prosolin, Protein Pr22, pp17, STMN1, C1orf215, LAP18, OP18
Target/Specificity	STMN1;
Reconstitution & Storage	op18 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	op18 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	STMN1
Synonyms	C1orf215, LAP18, OP18
Function	Involved in the regulation of the microtubule (MT) filament system by destabilizing microtubules. Prevents assembly and promotes disassembly of microtubules. Phosphorylation at Ser-16 may be required for axon formation during neurogenesis. Involved in the control of the learned and innate fear (By similarity).

Cellular Location	Cytoplasm, cytoskeleton.
Tissue Location	Ubiquitous. Expression is strongest in fetal and adult brain, spinal cord, and cerebellum, followed by thymus, bone marrow, testis, and fetal liver. Expression is intermediate in colon, ovary, placenta, uterus, and trachea, and is readily detected at substantially lower levels in all other tissues examined. Lowest expression is found in adult liver. Present in much greater abundance in cells from patients with acute leukemia of different subtypes than in normal peripheral blood lymphocytes, non-leukemic proliferating lymphoid cells, bone marrow cells, or cells from patients with chronic lymphoid or myeloid leukemia.

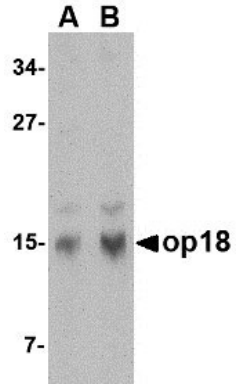
Background

op18 Antibody: Op18 belongs to the stathmin family of genes and encodes a ubiquitous cytosolic phosphoprotein that may function as an intracellular relay integrating several signaling pathways such as those involved in cell proliferation and differentiation. Op18 has also been shown to be involved in the regulation of the microtubule filament system by destabilizing microtubules, thereby preventing assembly and promoting the disassembly of microtubules. More recently, op18 has been implicated as a potential target of the ASK1-p38 MAP kinase cascade, suggesting that the ASK1-p38 cascade may regulate microtubule dynamics through op18. Op18 is highly expressed in a wide variety of human malignancies, including leukemia, prostate cancer, ovarian carcinoma, and breast carcinoma, suggesting that op18 may be an ideal target for anti-cancer therapeutics.

References

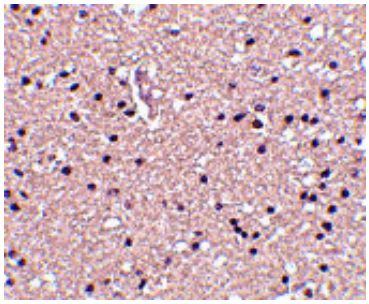
Curmi PA, Gavet O, Charbaut E, et al. Stathmin and its phosphoprotein family: general properties, biochemical and functional interaction with tubulin. Cell Structure and Function1999; 24:345-57.
Belmont LD and Mitchison TJ. Identification of a protein that interacts with tubulin dimers and increases catastrophe rate of microtubules. Cell1996; 84:623-31.
Mizumura K, Takeda K, Hashimoto S, et al. Identification of op18/stathmin as a potential target of ASK1-p38 MAP kinase cascade. J. Cell Physiol.2006; 206:363-70.
Mistry SJ and Atweh GF. Role of stathmin in the regulation of the mitotic spindle. Mount Sinai J. Med.2002; 69:299-304.

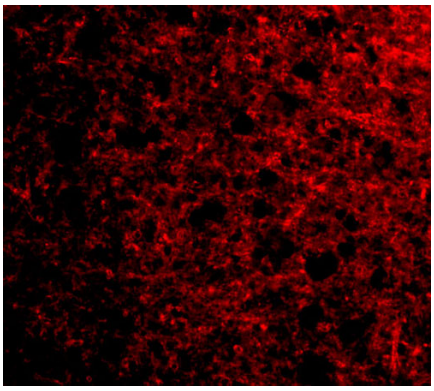
Images



Western blot analysis of op18 in human brain tissue lysate with op18 antibody at (A) 0.5 and (B) 1 µg/mL.

Immunohistochemistry of op18 in human brain tissue with op18 antibody at 2.5 µg/mL.





Immunofluorescence of op18 in human brain tissue with op18 antibody at 20 µg/mL.