

p18 (N-20): sc-865



The Power to Question

BACKGROUND

The normal progression of cells through the cell cycle is under the control of the cyclin dependent protein kinases Cdk4 and Cdk6, which are subject to inhibition by the mitotic inhibitory protein p16. Isolated members of the p16 family have been designated p15 and p18. p15 expression is upregulated approximately 30-fold in TGF β -treated human keratinocytes. The gene encoding p15 has been mapped to chromosome 9p21 at a position adjacent to the p16 gene, at a site of frequent chromosomal abnormality in human tumors. It has been suggested that p15 may function as an effector of TGF β -mediated cell cycle arrest through inhibition of Cdk4 and Cdk6 kinase. The second p16-related protein, p18, interacts strongly with Cdk6 and to a lesser extent with Cdk4, but lacks apparent interaction with other Cdks. Recombinant p18 has been shown to inhibit cyclin D-Cdk6 kinase activity. In contrast to p21/p27 that form ternary complexes with cyclin-Cdks, only binary complexes of p15, p16 and p18 have been identified in association with Cdk4 and/or Cdk6.

CHROMOSOMAL LOCATION

Genetic locus: CDKN2C (human) mapping to 1p32; Cdkn2c (mouse) mapping to 4 C7.

SOURCE

p18 (N-20) is available as either rabbit (sc-865) or goat (sc-865-G) polyclonal affinity purified antibody raised against a peptide mapping at the N-terminus of p18 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-865 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p18 (N-20) is recommended for detection of p18 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p18 (N-20) is also recommended for detection of p18 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for p18 siRNA (h): sc-36145, p18 siRNA (m): sc-36146, p18 shRNA Plasmid (h): sc-36145-SH, p18 shRNA Plasmid (m): sc-36146-SH, p18 shRNA (h) Lentiviral Particles: sc-36145-V and p18 shRNA (m) Lentiviral Particles: sc-36146-V.

Molecular Weight of p18: 18 kDa.

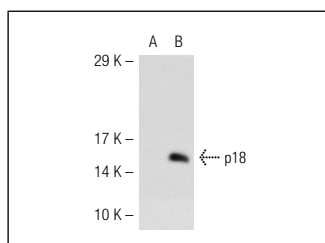
STORAGE

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

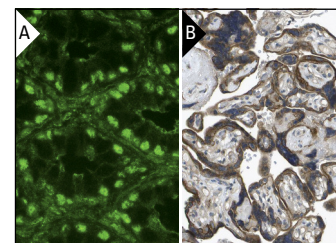
RESEARCH USE

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

DATA



p18 (N-20): sc-865. Western blot analysis of p18 expression in non-transfected: sc-117752 (A) and mouse p18 transfected: sc-125762 (B) 293T whole cell lysates.



p18 (N-20): sc-865. Immunofluorescence staining of normal mouse intestine frozen section showing nuclear and cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and membrane staining of decidua and trophoblastic cells (B).

SELECT PRODUCT CITATIONS

1. Tetsu, O., et al. 1998. Mel-18 negatively regulates cell cycle progression upon B cell antigen receptor stimulation through a cascade leading to c-Myc/Cdc25. *Immunity* 9: 439-448.
2. Arendt, T., et al. 1998. Neuronal expression of cycline dependent kinase inhibitors of the INK4 family in Alzheimer's disease. *J. Neural Transm.* 105: 949-960.
3. Chebel, A., et al. 2009. Telomere uncapping during *in vitro* T-lymphocyte senescence. *Aging Cell* 8: 52-64.
4. van der Watt, P.J., et al. 2009. The Karyopherin proteins, Crm1 and Karyopherin β 1, are overexpressed in cervical cancer and are critical for cancer cell survival and proliferation. *Int. J. Cancer* 124: 1829-1840.
5. Marsaud, V., et al. 2010. Cyclin K and cyclin D1b are oncogenic in myeloma cells. *Mol. Cancer* 9: 103.
6. Peres, J., et al. 2010. The highly homologous T-Box transcription factors, TBX2 and TBX3, have distinct roles in the oncogenic process. *Genes Cancer* 1: 272-282.
7. Pathria, G., et al. 2012. Inhibition of CRM1-mediated nucleocytoplasmic transport: triggering human melanoma cell apoptosis by perturbing multiple cellular pathways. *J. Invest. Dermatol.* 132: 2780-2790.
8. Kollmann, K., et al. 2013. A kinase-independent function of CDK6 links the cell cycle to tumor angiogenesis. *Cancer Cell* 24: 167-181.

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Try **p18 (118.2): sc-9965** or **p18 (H-7): sc-514580**, our highly recommended monoclonal alternatives to p18 (N-20).