

#2896 Store at -20°C

# p18 INK4C (DCS118) Mouse mAb

✓ 100 µl  
(20 Western mini-blot)



**Orders** ■ 877-616-CELL (2355)  
orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
info@cellsignal.com  
**Web** ■ www.cellsignal.com

rev. 06/09/08

This product is for *in vitro* research use only and is not intended for use in humans or animals. This product is not intended for use as a therapeutic or in diagnostic procedures.

Entrez-Gene ID #1031  
Swiss-Prot Acc. #P42773

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 18 kDa	Source Mouse	Isotype IgG2a
-------------------------------------	--------------------------------	-------------------------	-----------------	------------------

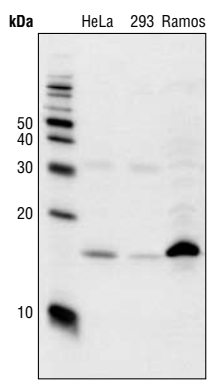
**Background:** Cyclin-dependent kinases (CDKs) are activated in part by forming complexes with cyclins. For example, CDK4 and CDK6 associate with the D-type cyclins and phosphorylate the retinoblastoma protein. This phosphorylation is a necessary event for cells to enter S-phase (1). The inhibitors of CDK4 (INK4) family include p15 INK4B, p16 INK4A, p18 INK4C and p19 INK4D. p18 has been shown to function as a haploinsufficient tumor suppressor *in vivo* (2). All INK4 proteins are composed of 32 amino acid ankyrin motifs and selectively inhibit CDK4/6 activity. Mutational analyses of p18 implicate the third and the amino-terminal portion of the fourth ankyrin repeat in mediating binding to CDK4/6 (3). The interaction of INK4 family members can be a binary complex with CDK4/6 or ternary complex with cyclin D-bound CDK4/6 and ultimately results in the inhibition of cell cycle progression (4,5).

**Specificity/Sensitivity:** The p18 INK4C (DCS118) Mouse mAb detects endogenous levels of p18 INK4C protein. The antibody does not cross-react with other proteins of the INK4 family.

**Source/Purification:** Monoclonal antibody is produced by immunizing mice with purified recombinant human p18 INK4C protein.

**Selected Application References:**  
Bartkova, J. et al. (2000) Cell cycle regulators in testicular cancer: loss of p18 INK4C marks progression from carcinoma in situ to invasive germ cell tumours. *Int. J. Cancer* 85 (3), 370–375. Applications: IHC-P (paraffin), Western Blotting.

**Background References:**  
(1) Lukas, J. et al. (1996) *Mol. Cell. Biol.* 16, 6917–6925.  
(2) Bai, F. et al. (2003) *Mol. Cell. Biol.* 23, 1269–1277.  
(3) Noh, S.J. et al. (1999) *Cancer Res.* 59, 558–564.  
(4) Guan, K.L. et al. (1994) *Genes Dev.* 8, 2939–2952.  
(5) Hirai, H. et al. (1995) *Mol. Cell. Biol.* 15, 2672–2681.



Western blot analysis of extracts from HeLa, 293 and Ramos cells, using p18 INK4C (DCS118) Mouse mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by Western blot.

\*\*Anti-mouse secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**  
Western blotting 1:1000  
Immunoprecipitation 1:50

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

- Companion Products:**  
 CDK4 (DCS156) Mouse mAb #2906  
 CDK6 (DCS83) Mouse mAb #3136  
 Cyclin D1 (DCS6) Mouse mAb #2926  
 Cyclin D3 (DCS22) Mouse mAb #2936  
 Phototope®-HRP Western Blot Detection System, Anti-mouse IgG, HRP-linked Antibody #7072  
 Anti-mouse IgG, HRP-linked Antibody #7076  
 Prestained Protein Marker, Broad Range (Premixed Format) #7720  
 Biotinylated Protein Ladder Detection Pack #7727  
 20X LumiGLO® Reagent and 20X Peroxide #7003

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebra fish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.