

p19 ARF (M-60): sc-22784

BACKGROUND

The progression of cells through the cell cycle is regulated by a family of proteins designated cyclin-dependent kinases (Cdks). Sequential activation of individual members of this family and their consequent phosphorylation of critical substrates, promote orderly progression through the cell cycle. The protein p16INK4A, identified as a negative regulator of the cell cycle, has been shown to bind to and inhibit the activity of the Cdk4/cyclin D complex. p19 ARF, which is unrelated to p16, arises from transcription of an alternative reading frame of the p16 gene. Like p16, p19 ARF has been shown to induce cell cycle arrest. Mice lacking p19 ARF but expressing functional p16 have been shown to develop tumors early in life. Further studies have indicated that p19 ARF may be disrupted in a large percentage of human T cell acute lymphoblastic leukemias.

REFERENCES

1. Sherr, C.J. 1993. Mammalian G1 cyclins. *Cell* 73: 1059-1065.
2. Hunter, T. 1993. Braking the cycle. *Cell* 75: 839-841.
3. Serrano, M., et al. 1993. A new regulatory motif in cell-cycle control causing specific inhibition of cyclin D/Cdk4. *Nature* 366: 704-707.

CHROMOSOMAL LOCATION

Genetic locus: Cdkn2a (mouse) mapping to 4 C4.

SOURCE

p19 ARF (M-60) is a rabbit polyclonal antibody raised against amino acids 6-65 mapping near the N-terminus of p19 ARF of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 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.

APPLICATIONS

p19 ARF (M-60) is recommended for detection of p19 ARF of mouse 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).

Suitable for use as control antibody for p19 ARF siRNA (m): sc-270046, p19 ARF shRNA Plasmid (m): sc-270046-SH and p19 ARF shRNA (m) Lentiviral Particles: sc-270046-V.

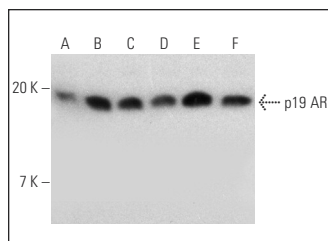
Molecular Weight of p19 ARF: 19 kDa.

Positive Controls: C3H/10T1/2 cell lysate: sc-3801, 3T3-L1 cell lysate: sc-2243 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



p19 ARF (M-60): sc-22784. Western blot analysis of p19 ARF expression in C3H/10T1/2 (A), NIH/3T3 (B), 3T3-L1 (C), MH-S (D), AMJ2-C8 (E) and I-11.15 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, H. and Watford, W. 2007. Ewing sarcoma gene EWS is essential for meiosis and B lymphocyte development. *J. Clin. Invest.* 117: 1314-1323.
2. Tzatsos, A., et al. 2009. Ndy1/KDM2B immortalizes mouse embryonic fibroblasts by repressing the Ink4a/ARF locus. *Proc. Natl. Acad. Sci. USA* 106: 2641-2646.

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.



Try **p19 ARF (5-C3-1): sc-32748** or **p19 ARF (12-A1-1): sc-32749**, our highly recommended monoclonal alternatives to p19 ARF (M-60). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p19 ARF (5-C3-1): sc-32748**.