

# p19 ARF (m): 293T Lysate: sc-125763

## 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 p16<sup>INK4A</sup>, 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. Hunter, T. 1993. Braking the cycle. *Cell* 75: 839-841.
2. Sherr, C.J. 1993. Mammalian G<sub>1</sub> cyclins. *Cell* 73: 1059-1065.
3. Serrano, M., et al. 1993. A new regulatory motif in cell-cycle control coausing specific inhibition of cyclin D/CDK4. *Nature* 366: 704-707.
4. Kamb, A., et al. 1994. A cell cycle regulator potentially involved in genesis of many tumor types. *Science* 264: 436-440.
5. Mao, L., et al. 1995. A novel p16<sup>INK4A</sup> transcript. *Cancer Res.* 55: 2995-2997.
6. Quelle, D.E., et al. 1995. Alternative reading frames of the INK4a tumor suppressor gene encode two unrelated proteins capable of inducing cell cycle arrest. *Cell* 83: 993-1000.
7. Kamijo, T., et al. 1997. Tumor suppression at the mouse INK4A locus mediated by the alternative reading frame product p19<sup>ARF</sup>. *Cell* 91: 649-659.
8. Gardie, B., et al. 1998. Genomic alterations of the p19<sup>ARF</sup> encoding exons in T cell acute lymphoblastic leukemia. *Blood* 91: 1016-1020.

## CHROMOSOMAL LOCATION

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

## PRODUCT

p19 ARF (m): 293T Lysate represents a lysate of mouse p19 ARF transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

p19 ARF (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive p19 ARF antibodies. Recommended use: 10-20 µl per lane.

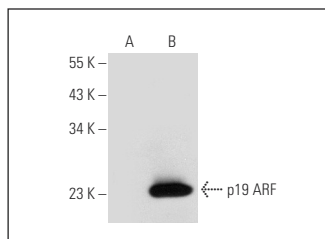
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

p19 ARF (5-C3-1): sc-32748 is recommended as a positive control antibody for Western Blot analysis of enhanced human p19 ARF expression in p19 ARF transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## DATA



p19 ARF (5-C3-1): sc-32748. Western blot analysis of p19 ARF expression in non-transfected: sc-117752 (A) and mouse p19 ARF transfected: sc-125763 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.