

# p14 ARF (C-18): sc-8613



The Power to Question

## BACKGROUND

The progression of cells through the cell cycle is regulated by a family of proteins designated cyclin-dependent kinases (Cdk). Sequential activation of individual members of this family and their consequent phosphorylation of critical substrates promotes orderly progression through the cell cycle. Multiple proteins are encoded by the tumor suppressor gene CDKN2A (MTS1/p16<sup>INK4a</sup>) via translation of alternate reading frames, resulting in the production of the p19 ARF protein in mice and the p14 ARF protein in humans. p14 ARF induces an increase in MDM2 and p21 levels and leads to cell cycle arrest in both G<sub>1</sub> and G<sub>2</sub>/M. p14 ARF is negatively regulated by p53 and is known to bind directly to MDM2. CDKN2A also encodes the mitotic protein p16, which binds to and inhibits the Cdk4/cyclin D complex.

## CHROMOSOMAL LOCATION

Genetic locus: CDKN2A (human) mapping to 9p21.3.

## SOURCE

p14 ARF (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of p14 ARF of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8613 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p14 ARF (C-18) is recommended for detection of p14 ARF of human 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 p14 ARF/p16 siRNA (h): sc-37622, p14 ARF/p16 shRNA Plasmid (h): sc-37622-SH and p14 ARF/p16 shRNA (h) Lentiviral Particles: sc-37622-V.

Molecular Weight of p14 ARF: 14 kDa.

Positive Controls: Saos-2 cell lysate: sc-2235, BJAB whole cell lysate: sc-2207 or HeLa whole cell lysate: sc-2200.

## STORAGE

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

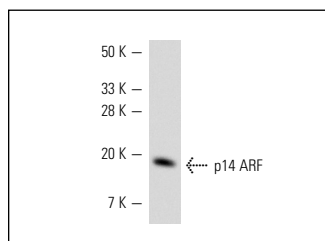
## PROTOCOLS

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

## RESEARCH USE

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

## DATA



p14 ARF (C-18): sc-8613. Western blot analysis of p14 ARF expression in Saos-2 whole cell lysate.

## SELECT PRODUCT CITATIONS

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- Amente, S., et al. 2007. p14 ARF interacts with N-Myc and inhibits its transcriptional activity. *FEBS Lett.* 581: 821-825.
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- de Carne Trecesson, S., et al. 2011. Escape from p21-mediated oncogene-induced senescence leads to cell dedifferentiation and dependence on anti-apoptotic Bcl-x<sub>L</sub> and MCL1 proteins. *J. Biol. Chem.* 286: 12825-12838.



Try **p14 ARF (ARF 4C6/4): sc-53392** or **p14 ARF (14P02): sc-73434**, our highly recommended monoclonal alternatives to p14 ARF (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p14 ARF (ARF 4C6/4): sc-53392**.