SANTA CRUZ BIOTECHNOLOGY, INC.

# p15 (M-20): sc-1429

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*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. A member of the p16 family has been designated p15. p15 expression is upregulated approximately 30-fold in TGF β-treated human keratinocytes, suggesting that p15 may act as an effector of TGF β-mediated cell cycle arrest. The gene encoding p15 has been mapped to chromosome 9p21.3 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 kinases.

## REFERENCES


1. Sherr, C.J. 1994. $G_1$ phase progression: cycling on cue. Cell 79: 551-555.
2. Hunter, T., et al. 1994. Cyclins and cancer II: cyclin D and Cdk inhibitors come of age. Cell 79: 573-582.
3. Reynisdóttir, I., et al. 1997. The subcellular locations of $p15^{INK4b}$ and $p27^{Kip1}$ coordinate their inhibitory interactions with Cdk4 and Cdk2. Genes Dev. 11: 492-503.


## CHROMOSOMAL LOCATION

Genetic locus: Cdkn2b (mouse) mapping to 4 C4.

## SOURCE

p15 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of p15 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.

Blocking peptide available for competition studies, sc-1429 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p15 (M-20) is recommended for detection of p15 of mouse and rat 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 p15 siRNA (m): sc-37625, p15 shRNA Plasmid (m): sc-37625-SH and p15 shRNA (m) Lentiviral Particles: sc-37625-V.

Molecular Weight of p15: 15 kDa.

Positive Controls: mouse thymus extract: sc-2406.

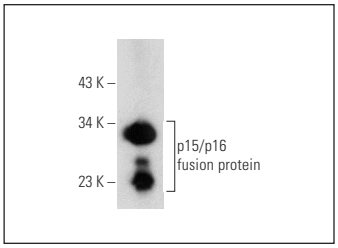
## STORAGE

Store at 4° 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




p15 (M-20): sc-1429. Western blot analysis of human recombinant p15/p16 fusion protein.

## SELECT PRODUCT CITATIONS


1. Hinz, M., et al. 1999. NFκB function in growth control: regulation of cyclin D1 expression and $G_0/G_1$-to-S-Phase transition. Mol. Cell. Biol. 19: 2690-2698.
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4. Schmidt, M, et al. 2001. Deregulated c-Myb expression in murine myeloid leukemias prevents the up-regulation of $p15^{INK4b}$ normally associated with differentiation. Oncogene 20: 6205-6214.
5. Haviernik, P., et al. 2003. Consistent inactivation of $p19^{Arf}$ but not $p15^{Ink4b}$ in murine myeloid cells transformed *in vivo* by deregulated c-Myc. Oncogene 22: 1600-1610.
6. Lecomte, C., et al. 2005. Similar tumor suppressor gene alteration profiles in asbestos-induced murine and human mesothelioma. Cell Cycle 4: 1862-1869.
7. Niculescu, M.D., et al. 2006. Dietary choline deficiency alters global and gene-specific DNA methylation in the developing hippocampus of mouse fetal brains. FASEB J. 20: 43-49.
8. Weber, S., et al. 2009. PRMT1-mediated arginine methylation of PIAS1 regulates STAT1 signaling. Genes Dev. 23: 118-132.
9. Iizuka, D., et al. 2010. DNA copy number aberrations and disruption of the $p16^{Ink4a/Rb}$ pathway in radiation-induced and spontaneous rat mammary carcinomas. Radiat. Res. 174: 206-215.



MONOS Satisfaction Guaranteed

Try **p15/p16 (C-7): sc-377412**, our highly recommended monoclonal alternative to p15 (M-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p15/p16 (C-7): sc-377412**.