SANTA CRUZ BIOTECHNOLOGY, INC.

p15 (C-20): sc-612

SANTA CRUZ BIOTECHNOLOGY

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. An isolated member of the p16 family has been designated p15. p15 expression is upregulated approximately 30-fold in TGFβ-treated human keratinocytes, suggesting that p15 may act as an effector of TGFβ-mediated cell cycle arrest. The gene encoding p15 maps 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 TGFβ-mediated cell cycle arrest through inhibition of Cdk4 and Cdk6 kinases.

CHROMOSOMAL LOCATION

Genetic locus: CDKN2B (human) mapping to 9p21.3; Cdkn2b (mouse) mapping to 4 C4.

SOURCE

p15 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of p15 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-612 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p15 (C-20) is recommended for detection of p15 of mouse, rat and 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).

p15 (C-20) is also recommended for detection of p15 in additional species, including bovine.

Suitable for use as control antibody for p15 siRNA (h): sc-37624, p15 siRNA (m): sc-37625, p15 shRNA Plasmid (h): sc-37624-SH, p15 shRNA Plasmid (m): sc-37625-SH, p15 shRNA (h) Lentiviral Particles: sc-37624-V and p15 shRNA (m) Lentiviral Particles: sc-37625-V.

Molecular Weight of p15: 15 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, HeLa whole cell lysate: sc-2200 or JAR cell lysate: sc-2276.

RESEARCH USE

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

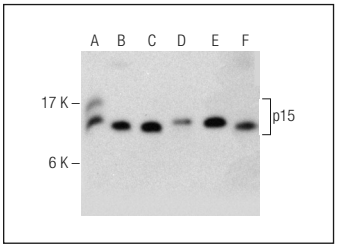
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

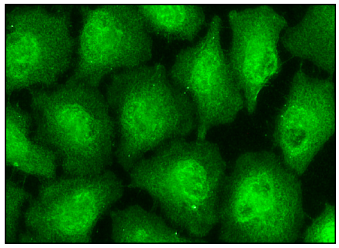
STORAGE

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

DATA



p15 (C-20): sc-612. Western blot analysis of p15 expression in U266 (**A**), LADMAC (**B**), KNRK (**C**), HeLa (**D**) and JAR (**E**) whole cell lysates and mouse thymus tissue extract (**F**).



p15 (C-20): sc-612. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Reynisdóttir, I. and Massagué, J. 1997. The subcellular locations of $p15^{INK4b}$ and $p27^{Kip1}$ coordinate their inhibitory interactions with Cdk4 and Cdk2. Genes Dev. 11: 492-503.
2. Alevizopoulos, K., et al. 1997. Cyclin E and c-Myc promote cell proliferation in the presence of $p16^{INK4a}$ and of hypophosphorylated retinoblastoma family proteins. EMBO J. 16: 5322-5333.
3. Zhang, S., et al. 2009. RhoA regulates G_1-S progression of gastric cancer cells by modulation of multiple INK4 family tumor suppressors. Mol. Cancer Res. 7: 570-580.
4. Marsaud, V., et al. 2010. Cyclin K and cyclin D1b are oncogenic in myeloma cells. Mol. Cancer 9: 103.
5. Hong, H.Y., et al. 2010. 14-3-3 σ and 14-3-3 ζ plays an opposite role in cell growth inhibition mediated by transforming growth factor-β 1. Mol. Cells 29: 305-309.
6. Kollmann, K., et al. 2011. c-JUN promotes Bcr-Abl-induced lymphoid leukemia by inhibiting methylation of the 5' region of Cdk6. Blood 117: 4065-4075.
7. Hömig-Hölzel, C., et al. 2011. Antagonistic TSC22D1 variants control BRAF(E600)-induced senescence. EMBO J. 30: 1753-1765.
8. Ren, G., et al. 2012. A micro-RNA connection in BRaf(V600E)-mediated premature senescence of human melanocytes. Int. J. Cell Biol. 2012: 913242.