

## p15 (R-20): sc-611



The Power to Question

## BACKGROUND

p15 (PAF), also known as PAF, L5, OEATC1 (overexpressed in anaplastic thyroid carcinoma 1) or NS5ATP9, is a 111 amino acid protein that localizes to both the nucleus and the mitochondria. Highly expressed in colon and thymus with lower expression in liver, ovary, kidney, spleen, placenta and small intestine, p15 (PAF) interacts with the nuclear antigen PCNA and, through this interaction, is thought to protect cells from UV-induced cell death. The association of p15 (PAF) and PCNA is enhanced by UV treatment and is facilitated by the binding of ING1, a tumor suppressor that can induce apoptosis. Due to its ability to bind the apoptotic factor ING1 and subsequently decrease the rate of cell death, high levels of p15 (PAF) are found in several types of tumors, including esophageal and pancreatic cancer, suggesting an important role for p15 (PAF) in tumor progression.

## REFERENCES

1. Yu, P., et al. 2001. p15<sup>PAF</sup>, a novel PCNA associated factor with increased expression in tumor tissues. *Oncogene* 20: 484-489.
2. Mizutani, K., et al. 2005. Overexpressed in anaplastic thyroid carcinoma-1 (OEATC-1) as a novel gene responsible for anaplastic thyroid carcinoma. *Cancer* 103: 1785-1790.

## CHROMOSOMAL LOCATION

Genetic locus: CDKN2B (human) mapping to 9p21.3.

## SOURCE

p15 (R-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of p15 of human 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-611 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for ChIP application, sc-611 X, 200 µg/0.1 ml.

## APPLICATIONS

p15 (R-20) is recommended for detection of p15 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (h): sc-37624, p15 shRNA Plasmid (h): sc-37624-SH and p15 shRNA (h) Lentiviral Particles: sc-37624-V.

p15 (R-20) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of p15: 15 kDa.

Positive Controls: A549 cell lysate: sc-2413, HeLa whole cell lysate: sc-2200 or JAR cell lysate: sc-2276.

## SELECT PRODUCT CITATIONS

1. Arendt, T., et al. 1998. Neuronal expression of cyclin dependent kinase inhibitors of the INK4 family in Alzheimer's disease. *J. Neural Transm.* 105: 949-960.
2. Rutella, S., et al. 2001. T cell apoptosis induced by granulocyte colony-stimulating factor is associated with retinoblastoma protein phosphorylation and reduced expression of cyclin-dependent kinase inhibitors. *Exp. Hematol.* 29: 401-415.
3. Piboonniyom, S.O., et al. 2003. Abrogation of the retinoblastoma tumor suppressor checkpoint during keratinocyte immortalization is not sufficient for induction of centrosome-mediated genomic instability. *Cancer Res.* 63: 476-483.
4. Izsvak, Z., et al. 2004. Healing the wounds inflicted by sleeping beauty transposition by double-strand break repair in mammalian somatic cells. *Mol. Cell* 13: 279-90.
5. Nosedá, M., et al. 2004. Notch activation induces endothelial cell cycle arrest and participates in contact inhibition: role of p21Cip1 repression. *Mol. Cell. Biol.* 24: 8813-8822.
6. Guidoboni, M., et al. 2005. Retinoic acid inhibits the proliferative response induced by CD40 activation and interleukin-4 in mantle cell lymphoma. *Cancer Res.* 65: 587-595.
7. Suh, H.C., et al. 2008. Id1 immortalizes hematopoietic progenitors *in vitro* and promotes a myeloproliferative disease *in vivo*. *Oncogene* 27: 5612-5623.
8. Wu, W., et al. 2009. Antibody array analysis with label-based detection and resolution of protein size. *Mol. Cell. Proteomics* 8: 245-257.

## 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.

## PROTOCOLS

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



Try **p15/p16 (C-7): sc-377412** or **p15 (D-12): sc-271791**, our highly recommended monoclonal alternatives to p15 (R-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p15/p16 (C-7): sc-377412**.