p15 INK4B (h): 293T Lysate: sc-129373



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 INK4A. An isolated member of the p16 INK4A family has been designated p15 INK4B (also designated, p15, INK4B, CDK4I, TP15, or MTS2). p15 INK4B expression is upregulated approximately 30-fold in TGF β -treated human keratinocytes, suggesting that p15 INK4B may act as an effector of TGF β -mediated cell cycle arrest. The gene encoding p15 INK4B (CDKN2B) has been mapped to chromosome 9p21.3 at a position adjacent to the p16 INK4A gene at a site of frequent chromosomal abnormality in human tumors. It has been suggested that p15 INK4B may function as an effector of TGF β -mediated cell cycle arrest through inhibition of Cdk4 and Cdk6 kinases.

REFERENCES

- Hannon, G.J., et al. 1994. p15 INK4B is a potential effector of TGFβ-induced cell cycle arrest. Nature 371: 257-261.
- Kamb, A., et al. 1994. A cell cycle regulator potentially involved in genesis of many tumor types. Science 264: 436-440.
- 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.
- 4. Chen, H., et al. 2002. Hypermethylation of the p15 INK4B gene in acute leukemia and myelodysplastic syndromes. Chin. Med. J. 115: 987-990.
- Kiyota, A., et al. 2002. Anti-epidermal growth factor receptor monoclonal and p15 INK4B and induces G₁ arrest in oral squamous carcinoma cell lines. Oncology 63: 92-98.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600431. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Huang, W., et al. 2005. Histone deacetylase 3 represses p15 INK4B and p21WAF1/Cip1 transcription by interacting with Sp1. Biochem. Biophys. Res. Commun. 339: 165-171.
- 8. Hutter, G., et al. 2005. Differential effect of epigenetic alterations and genomic deletions of Cdk inhibitors (p16 INK4A, p15 INK4B, p14 ARF) in mantle cell lymphoma. Genes Chromosomes Cancer 45: 203-210.
- Shimamoto, T., et al. 2005. Methylation of p15 INK4B and E-cadherin genes is independently correlated with poor prognosis in acute myeloid leukemia. Leuk. Res. 29: 653-659.

CHROMOSOMAL LOCATION

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

PRODUCT

p15 INK4B (h): 293T Lysate represents a lysate of human p15 INK4B transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

p15 INK4B (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive p15 INK4B antibodies. Recommended use: 10-20 μ l per lane

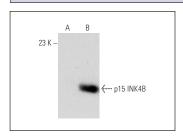
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

p15 INK4B (D-12): sc-271791 is recommended as a positive control antibody for Western Blot analysis of enhanced human p15 INK4B expression in p15 INK4B transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



p15 INK4B (D-12): sc-271791. Western blot analysis of p15 INK4B expression in non-transfected: sc-117752 (A) and human p15 INK4B transfected: sc-129373 (B) 293T whole cell lysates.

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.

RESEARCH USE

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

PROTOCOLS

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

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