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p18 (m): 293T Lysate: sc-125762

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. Isolated members of the p16 family have been designated p15 and p18. p15 expression is upregulated approximately 30-fold in TGF β -treated human keratinocytes. 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 kinase. The second p16-related protein, p18, interacts strongly with Cdk6 and to a lesser extent with Cdk4, but lacks apparent interaction with other Cdk6. Recombinant p18 has been shown to inhibit cyclin D-Cdk6 kinase activity. In contrast to p21/p27 that form ternary complexes with cyclin-Cdks, only binary complexes of p15, p16 and p18 have been identified in association with Cdk4 and/or Cdk6.

REFERENCES

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3. Hunter, T., et al. 1994. Cyclins and cancer II: cyclin D and Cdk inhibitors come of age. *Cell* 79: 573-582.
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5. Hannon, G.J., et al. 1994. p15INK4B is a potential effector of TGF β -induced cell cycle arrest. *Nature* 371: 257-261.
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7. Hussussian, C.J., et al. 1994. Germline p16 mutations in familial melanoma. *Nature Genetics* 8: 15.
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CHROMOSOMAL LOCATION

Genetic locus: Cdkn2c (mouse) mapping to 4 C7.

PRODUCT

p18 (m): 293T Lysate represents a lysate of mouse p18 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

p18 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive p18 antibodies. Recommended use: 10-20 μ l per lane.

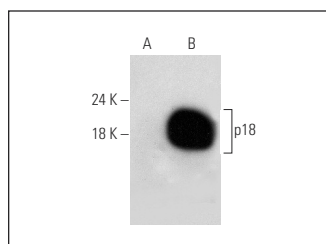
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

p18 (H-7): sc-514580 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse p18 expression in p18 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-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



p18 (H-7): sc-514580. Western blot analysis of p18 expression in non-transfected: sc-117752 (A) and mouse p18 transfected: sc-125762 (B) 293T whole cell lysates.

RESEARCH USE

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