

p16 (M-156): sc-1207

BACKGROUND

The progression of cells through the cell cycle is regulated by a family of protein kinases known as cyclin-dependent kinases (Cdks). The sequential activation of individual members of this family and their consequent phosphorylation of critical substrates promotes orderly progression through the cell cycle. The cyclins function as differentially expressed positive regulators of Cdks. Negative regulators of the cycle include the p53-inducible WAF1/Cip1 protein designated p21, Kip1 p27 and p16. The complexes formed by Cdk4 and the D-type cyclins have been strongly implicated in the control of cell proliferation during the G₁ phase. It has recently been shown that p16 binds to Cdk4 and inhibits the catalytic activity of the Cdk4/cyclin D complex. Moreover, the gene encoding p16 exhibits a high frequency of homozygous deletions and point mutations in established human tumor cell lines.

REFERENCES

- Hunter, T. 1993. Braking the cycle. *Cell* 75: 839-841.
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- El-Deiry, W.S., et al. 1993. WAF1, a potential mediator of p53 tumor suppression. *Cell* 75: 817-825.
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CHROMOSOMAL LOCATION

Genetic locus: Cdkn2a (mouse) mapping to 4 C4.

SOURCE

p16 (M-156) is a rabbit polyclonal antibody raised against amino acids 1-167 representing full length p16 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.

APPLICATIONS

p16 (M-156) is recommended for detection of p16 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 p16 siRNA (m): sc-36144, p16 shRNA Plasmid (m): sc-36144-SH and p16 shRNA (m) Lentiviral Particles: sc-36144-V.

Molecular Weight of p16: 16 kDa.

Positive Controls: Mouse Lac Z whole cell lysate, 3T3-L1 cell lysate: sc-2243 or MM-142 cell lysate: sc-2246.

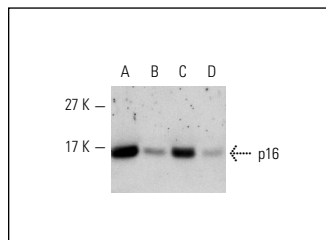
STORAGE

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



p16 (M-156): sc-1207. Western blot analysis of p16 expression in 3T3-L1 (A), MM-142 (B), mouse Lac Z (C) and WEHI-3 (D) cell lysates.

SELECT PRODUCT CITATIONS

- Serrano, M., et al. 1997. Oncogenic Ras provokes premature cell senescence associated with accumulation of p53 and p16-INK4a. *Cell* 88: 593-602.
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