

P15RS (H-57): sc-292529

BACKGROUND

The normal progression of cells through the cell cycle is under the control of the cyclin dependent protein kinases (Cdks), which are subject to inhibition by the mitotic inhibitory INK4 family. p15 is a member of the INK4 family and acts as a cyclin dependent kinase inhibitor to prevent Cdk kinase activation. P15RS (cyclin dependent kinase 2B-inhibitor-related protein), a 213 amino acid protein that contains an RPR domain, is involved in the regulation of nuclear pre-mRNA, which suggests that P15RS acts as a negative regulator of the G₁ phase of the cell cycle. The expression of P15RS is unregulated in cells that overexpress p15, further suggesting a role for P15RS in cell cycle regulation. The gene that encodes P15RS is located on chromosome 18q12.2.

REFERENCES

1. Quesnel, B., et al. 1998. Methylation of the p15(INK4b) gene in myelodysplastic syndromes is frequent and acquired during disease progression. *Blood* 91: 2985-2990.
2. Staller, P., et al. 2001. Repression of p15INK4b expression by Myc through association with Miz-1. *Nat. Cell Biol.* 3: 392-399.
3. Liu, J., et al. 2002. Identification and characterization of P15RS, a novel P15(INK4b) related gene on G₁/S progression. *Biochem. Biophys. Res. Commun.* 299: 880-885.
4. Tanaka, T.S., et al. 2002. Gene expression profiling of embryo-derived stem cells reveals candidate genes associated with pluripotency and lineage specificity. *Genome Res.* 12: 1921-1928.
5. Daskalakis, M., et al. 2002. Demethylation of a hypermethylated P15/INK4B gene in patients with myelodysplastic syndrome by 5-Aza-2'-deoxycytidine (decitabine) treatment. *Blood* 100: 2957-2964.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610347. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Jasavala, R., et al. 2007. Identification of putative androgen receptor interaction protein modules: cytoskeleton and endosomes modulate androgen receptor signaling in prostate cancer cells. *Mol. Cell. Proteomics* 6: 252-271.

CHROMOSOMAL LOCATION

Genetic locus: RPRD1A (human) mapping to 18q12.2; Rprd1a (mouse) mapping to 18 A2.

SOURCE

P15RS (H-57) is a rabbit polyclonal antibody raised against amino acids 115-171 mapping within an internal region of P15RS 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.

STORAGE

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

APPLICATIONS

P15RS (H-57) is recommended for detection of P15RS 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).

P15RS (H-57) is also recommended for detection of P15RS in additional species, including equine, canine and bovine.

Suitable for use as control antibody for P15RS siRNA (h): sc-76024, P15RS siRNA (m): sc-141521, P15RS shRNA Plasmid (h): sc-76024-SH, P15RS shRNA Plasmid (m): sc-141521-SH, P15RS shRNA (h) Lentiviral Particles: sc-76024-V and P15RS shRNA (m) Lentiviral Particles: sc-141521-V.

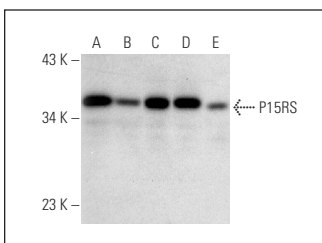
Molecular Weight of P15RS: 36 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, Jurkat whole cell lysate: sc-2204 or HCT-116 whole cell lysate: sc-364175.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



P15RS (H-57): sc-292529. Western blot analysis of P15RS expression in Jurkat (A), A-431 (B), HCT-116 (C), PC-12 (D) and RT-4 (E) whole cell lysates.

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.