

P15RS (FF-8): sc-81849

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 p15^{INK4b} 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.

CHROMOSOMAL LOCATION

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

SOURCE

P15RS (FF-8) is a mouse monoclonal antibody raised against recombinant P15RS of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

P15RS (FF-8) 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), immunohistochemistry (including paraffin-embedded sections) (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 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.

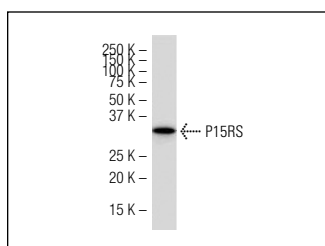
Molecular Weight of P15RS: 36 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or Jurkat whole cell lysate: sc-2204.

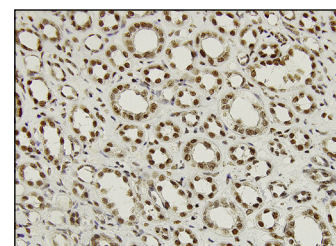
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



P15RS (FF-8): sc-81849. Western blot analysis of P15RS expression in A-431 whole cell lysate.



P15RS (FF-8): sc-81849. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Ren, F., et al. 2014. Characterization of a monoclonal antibody against CREPT, a novel protein highly expressed in tumors. *Monoclon. Antib. Immunodiagn. Immunother.* 33: 401-408.
2. Patidar, P.L., et al. 2016. The Kub5-Hera/RPRD1B interactome: a novel role in preserving genetic stability by regulating DNA mismatch repair. *Nucleic Acids Res.* 44: 1718-1731.

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 for detailed protocols and support products.