

# p-Rb (Ser 807/811): sc-16670

## BACKGROUND

Pediatric cancer retinoblastoma and the formation of other human tumors can be attributed to mutations in the retinoblastoma tumor suppressor gene (Rb). The Rb protein regulates differentiation, apoptosis and cell cycle control by coordinating the cell cycle at G<sub>1</sub>-S with transcriptional machinery. During G<sub>1</sub>, cyclin D-dependent kinase-mediated phosphorylation of Rb at Ser 795 marks the conversion of Rb from a transcriptionally repressive, hypophosphorylated state to an inactive, phosphorylated state, which may be sustained through mitosis by differential phosphorylation of up to 16 putative serine or threonine residues, including Ser 249/Thr 252, Thr 373, Thr 356, Ser 780, Ser 807/Ser 811, and Thr 821/Thr 826. Hypophosphorylated Rb represses the transcription of genes controlling the cell cycle through direct protein-protein interactions and through the recruitment of histone deacetylase.

## CHROMOSOMAL LOCATION

Genetic locus: RB1 (human) mapping to 13q14.2; Rb1 (mouse) mapping to 14 D3.

## SOURCE

p-Rb (Ser 807/811) is available as either goat (sc-16670) or rabbit (sc-16670-R) affinity purified polyclonal antibody raised against a short amino acid sequence containing Ser 807 and Ser 811 dually phosphorylated Rb 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.

Blocking peptide available for competition studies, sc-16670 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p-Rb (Ser 807/811) is recommended for detection of Ser 807 and Ser 811 dually phosphorylated Rb 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).

p-Rb (Ser 807/811) is also recommended for detection of correspondingly dually phosphorylated Rb in additional species, including avian.

Suitable for use as control antibody for Rb siRNA (h): sc-29468, Rb siRNA (m): sc-29469, Rb shRNA Plasmid (h): sc-29468-SH, Rb shRNA Plasmid (m): sc-29469-SH, Rb shRNA (h) Lentiviral Particles: sc-29468-V and Rb shRNA (m) Lentiviral Particles: sc-29469-V.

Molecular Weight (predicted) of p-Rb: 106 kDa.

Molecular Weight (observed) of p-Rb: 107-140 kDa.

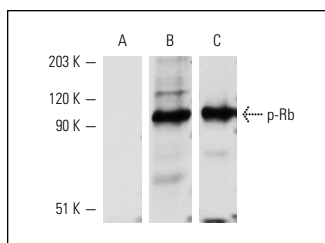
## STORAGE

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



Western blot analysis of Rb phosphorylation in SK-LMS-1 whole cell lysate. Blots were probed with p-Rb (Ser 807/811)-R: sc-16670-R pre-incubated with cognate phosphorylated peptide (A) or non-phosphorylated peptide (B) and Rb (IFB): sc-102 (C).

## SELECT PRODUCT CITATIONS

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