

Rb (32G8): sc-69790

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 G₁/S with transcriptional machinery. During G₁, 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.

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

Rb (32G8) is a mouse monoclonal antibody raised against recombinant Rb of human origin.

PRODUCT

Each vial contains IgG_{2a} in 100 μ l of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rb (32G8) is recommended for detection of Rb of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 μ l per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

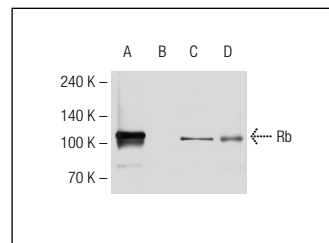
Suitable for use as control antibody for Rb siRNA (h): sc-29468, Rb siRNA (m): sc-29469, Rb shRNA Plasmid (h): sc-29468-SH, Rb shRNA Plasmid (m): sc-29469-SH, Rb shRNA (h) Lentiviral Particles: sc-29468-V and Rb shRNA (m) Lentiviral Particles: sc-29469-V.

Molecular Weight (predicted) of Rb: 106 kDa.

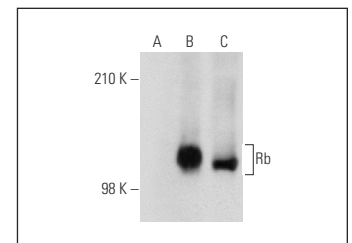
Molecular Weight (observed) of Rb: 107-140 kDa.

Positive Controls: Rb (h2): 293T Lysate: sc-159907, ARPE-19 whole cell lysate: sc-364357 or SK-N-MC cell lysate: sc-2237.

DATA



Rb (32G8): sc-69790. Western blot analysis of Rb expression in U-2 OS (A), Saos-2 (B), SK-N-MC (C) and 293T (D) whole cell lysates.



Rb (32G8): sc-69790. Western blot analysis of Rb expression in non-transfected 293T: sc-117752 (A), human Rb transfected 293T: sc-159907 (B) and ARPE-19 (C) whole cell lysates.

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 or our catalog for detailed protocols and support products.



See **Rb (IF8): sc-102** for Rb antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.