- DATASHEET -

[Primary Antibody]

Isotype: IgG

SWISS: P06400

Phospho-Rb (Thr821) Rabbit pAb

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Applications: WB (1:500-2000) ICC/IF (1:100)

> Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Cow, Horse)

Predicted MW.: ^{102 kDa}

Subcellular Location: Nucleus

Purification: affinity purified by Protein A

Target: Phospho-Rb (Thr821)

Host: Rabbit

Clonality: Polyclonal

GenelD: 5925

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20°C for one year. Avoid repeated

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human

Rb around the phosphorylation site of Thr821: LP(p-T)PT.

freeze/thaw cycles.

Background: The protein encoded by this gene is a negative regulator of the cell cycle and was the first tumor suppressor gene found. The encoded protein also stabilizes constitutive heterochromatin to maintain the overall chromatin structure. The active, hypophosphorylated form of the protein binds transcription factor E2F1. Defects in this gene are a cause of childhood cancer retinoblastoma (RB), bladder cancer, and osteogenic sarcoma.

Rb is a tumor suppressor gene which functions as a negative regulator of the cell cycle by interacting with transcription factors including E2F1, PU1, ATF2, UBF, Elf1 and cAbl. This ability of Rb to alter transcription is regulated by phosphorylation catalyzed by the cyclin dependent protein kinases (cdks). Rb is phosphorylated on serine and threonine, but not on tyrosine residues. It forms a complex with SV40 large T antigen, adenovirus E1A, and human papilloma virus 16E. Rb protein may act by regulating transcription and loss of its function leads to uncontrolled cell growth. Aberrations in the Rb gene have been implicated in cancers of breast, colon, prostate, kidney, nasopharynx, and leukemia.

- VALIDATION IMAGES



Sample: Lane 1: Mouse Thymus tissue lysates Lane 2: Rat Thymus tissue lysates Lane 3: Human MCF-7 cell lysates Lane 4: Human Jurkat cell lysates Primary: Anti-Phospho-Rb (Thr821) (bs-3452R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 102 kDa Observed band size: 125 kDa



MCF-7 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Phospho-Rb (Thr821)) polyclonal Antibody, Unconjugated (bs-3452R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

- SELECTED CITATIONS -

• [IF=2.8] Wen Yu Zhang. et al. AMPK regulates immature boar Sertoli cell proliferation through affecting CDK4/Cyclin D3 pathway and mitochondrial function. THERIOGENOLOGY. 2024 Aug;224:9 WB ;Pig. 38714024