bs-2777R **[Primary Antibody]**

Rb Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5925 **SWISS:** P06400

Target: Rb

Immunogen: KLH conjugated synthetic peptide derived from human P105 RB: 51-150/928.

Purification: affinity purified by Protein A

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 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.

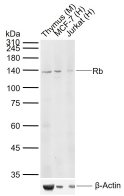
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

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

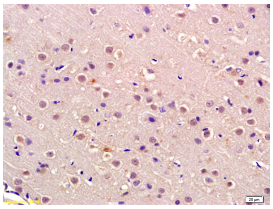
Predicted MW.: 102 kDa

Subcellular Location: Nucleus

VALIDATION IMAGES



Sample: Lane 1: Mouse Thymus tissue lysates Lane 2: Human MCF-7 cell lysates Lane 3: Human Jurkat cell lysates Primary: Anti-Rb (bs-2777R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 102 kDa Observed band size: 135 kDa



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-Rb Polyclonal Antibody, Unconjugated(bs-2777R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=8.755]** Sijie Wang. et al. PFKFB4 facilitates palbociclib resistance in oestrogen receptor-positive breast cancer by

enhancing stemness. CELL PROLIFERAT. 2022 Sep;:e13337 WB ;Human. 36127291

- **[IF=7.6]** Teng, I., et al. "Phospholipid-functionalized mesoporous silica nanocarriers for selective photodynamic therapy of cancer." Biomaterials (2013). WB ;Mouse. 23810081
- **[IF=4.6]** Yanping Ding. et al. Astragaloside IV confers neuroprotection against radiation-induced neuronal senescence via the ERK pathway. EXP NEUROL. 2024 Dec;:115135 WB ;Mouse,Rat. 39746463
- **[IF=2.58]** Huang, Xu, et al. "ICAM-1-Targeted Liposomes Loaded with Liver X Receptor Agonists Suppress PDGF-Induced Proliferation of Vascular Smooth Muscle Cells." Nanoscale Research Letters 12.1 (2017): 322. WB ;Mouse. 28472871
- **[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