

## Rb (phospho Thr821) Polyclonal Antibody

Catalog No: YP1137

**Reactivity:** Human; Mouse; Rat

**Applications:** IHC;IF;ELISA

Target: Rb

**Fields:** >> Endocrine resistance; >> Cell cycle; >> Cellular senescence; >> Cushing

syndrome;>>Hepatitis C;>>Hepatitis B;>>Human cytomegalovirus

infection;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1 infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Epstein-Barr virus infection;>>Pathways in cancer;>>Viral carcinogenesis;>>Chemical carcinogenesis - receptor activation;>>Pancreatic cancer;>>Glioma;>>Prostate cancer;>>Melanoma;>>Bladder cancer;>>Chronic myeloid leukemia;>>Small cell lung cancer;>>Non-small cell lung cancer;>>Breast cancer;>>Hepatocellular

carcinoma;>>Gastric cancer

Gene Name: RB1

Protein Name: Retinoblastoma-associated protein

P06400

P13405

**Human Gene Id:** 5925

**Human Swiss Prot** 

No:

Mouse Gene Id: 19645

**Mouse Swiss Prot** 

No:

Rat Gene Id: 24708

Rat Swiss Prot No: P33568

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

Retinoblastoma around the phosphorylation site of Thr821. AA range:791-840

**Specificity:** Phospho-Rb (T821) Polyclonal Antibody detects endogenous levels of Rb

protein only when phosphorylated at T821.



**Formulation:** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution:** IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other

applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 106kD

**Cell Pathway:** Stem cell pathway; Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;

Protein\_Acetylation

**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. [provided by RefSeq, Jul 2008],

**Function:** disease:Defects in RB1 are a cause of bladder cancer

[MIM:109800]., disease: Defects in RB1 are a cause of osteogenic sarcoma [MIM:259500]., disease: Defects in RB1 are the cause of childhood cancer retinoblastoma (RB) [MIM:180200]. RB is a congenital malignant tumor that arises from the nuclear layers of the retina. It occurs in about 1:20'000 live births and represents about 2% of childhood malignancies. It is bilateral in about 30% of cases. Although most RB appear sporadically, about 20% are transmitted as an autosomal dominant trait with incomplete penetrance. The diagnosis is usually made before the age of 2 years when strabismus or a gray to yellow reflex from pupil ("cat eye") is investigated., function: Key regulator of entry into cell division that acts as a tumor suppressor. Acts as a transcription repressor of E2F1 target

genes. The underphosphorylated, active form of RB1 interacts

Subcellular Location:

Nucleus . During keratinocyte differentiation, acetylation by KAT2B/PCAF is

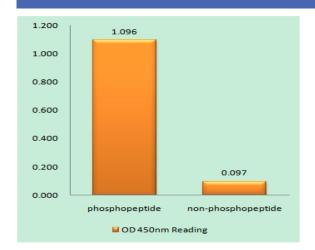
required for nuclear localization. .

**Expression :** Expressed in the retina. Expressed in foreskin keratinocytes (at protein level)

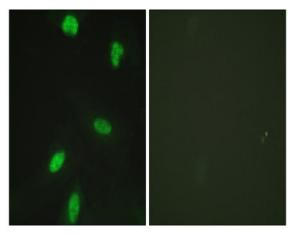
(PubMed:20940255).



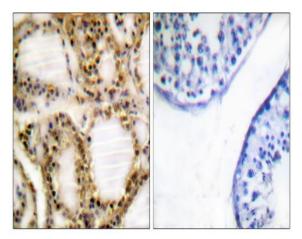
## **Products Images**



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Retinoblastoma (Phospho-Thr821) Antibody



Immunofluorescence analysis of HeLa cells, using Retinoblastoma (Phospho-Thr821) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human testis, using Retinoblastoma (Phospho-Thr821) Antibody. The picture on the right is blocked with the phospho peptide.