



## Rb Rabbit pAb

<b>Catalog No</b>	YP-Ab-18927
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human,Mouse
<b>Applications</b>	WB, IHC, IF, ELISA
<b>Gene Name</b>	RB1
<b>Protein Name</b>	Retinoblastoma-associated protein
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Retinoblastoma. AA range:751-800
<b>Specificity</b>	Rb Polyclonal Antibody detects endogenous levels of Rb protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB 1:500-1:2000; IHC 1:100-1:300; IF 1:200-1:1000; ELISA 1:20000; Not yet tested in other applications. Note:For IHC,wesuggest antigen retrieval with TE buffer pH 9.0
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	RB1 ;Retinoblastoma-associated protein ;p105-Rb ;pRb ;Rb ;pp110
<b>Observed Band</b>	106kD
<b>Calculated Molecular Weight</b>	
<b>Cell Pathway</b>	Nucleus . During keratinocyte differentiation, acetylation by KAT2B/PCAF is required for nuclear localization. .
<b>Tissue Specificity</b>	Expressed in the retina. Expressed in foreskin keratinocytes (at protein level)
<b>Function</b>	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 with E2F1 and represses its transcription activity, leading to cell cycle arrest. Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation. Recruits and targets histone methyltransferases SUV39H1, SUV420H1 and SUV420H2, leading to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Inhibits the intrinsic kinase activity of TAF1. In case of viral infections, interactions with SV40 large T antigen, HPV E7 protein or adenovirus E1A protein induce the disassembly of RB1-E2F1 complex thereby disrupting RB1's activity. online information: RB1 mutation db, online information: Retinoblastoma protein entry, PTM: Phosphorylated in G1, thereby releasing E2F1 which is then able to activate cell growth. Dephosphorylated at the late M phase. SV40 large T antigen, HPV E7 and adenovirus E1A bind to the underphosphorylated, active form of pRb. similarity: Belongs to the retinoblastoma protein (RB) family. subunit: Interacts with ATAD5 (By similarity). The hypophosphorylated form interacts with

## 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.

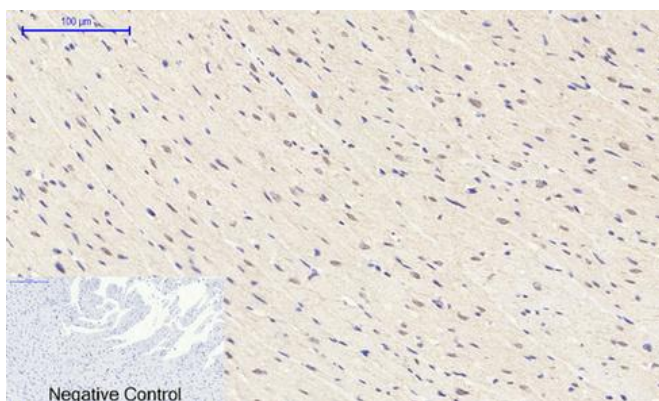
## matters needing attention

Avoid repeated freezing and thawing!

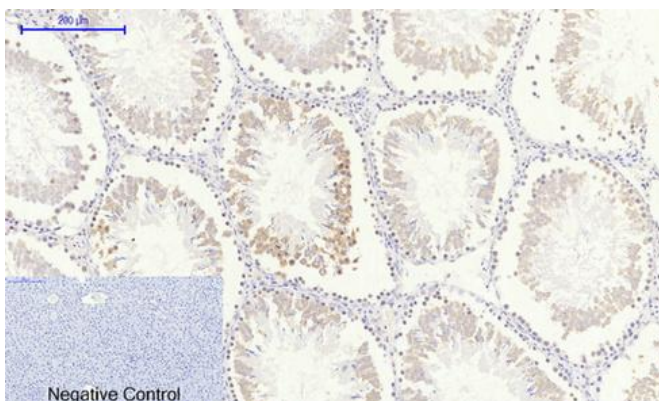
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

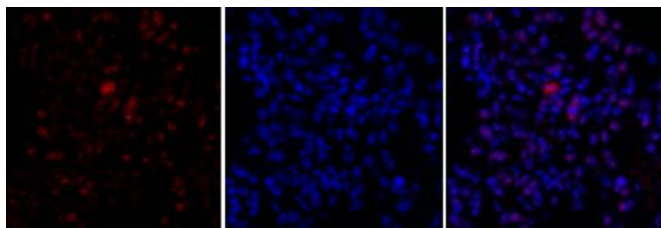
## Products Images



Immunohistochemical analysis of paraffin-embedded Rat-heart tissue. 1, Rb Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Rat-liver tissue. 1, Rb Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



A

B

C

Immunofluorescence analysis of rat-lung tissue. 1, Rb Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B