



Rb Rabbit pAb

Catalog No	YP-Ab-18927
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB, IHC, IF, ELISA
Gene Name	RB1
Immunogen	The antiserum was produced against synthesized peptide derived from human Retinoblastoma. AA range:751-800
Specificity	Rb Polyclonal Antibody detects endogenous levels of Rb protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	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
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Exon 17 tumor GOS561 substitution mutation causes premature stop;GOS563 exon 17 substitution mutation causes premature stop;OSRC;Osteosarcoma;p15-Rb;P15RB;PP15;pp11;PPP1R13;pRb;Prepro retinoblastoma associated protein; Protein phosphatase 1 regulatory subunit 13;Rb;RB transcriptional corepressor 1;RB_HUMAN;RB1;RB1 gene;Retinoblastoma 1;Retinoblastoma susceptibility protein;Retinoblastoma-associated protein;p105-Rb;pp110
Observed Band	106kD
Calculated Molecular Weight	16kDa; 16kD(Calculated).
Cell Pathway	Nucleus . During keratinocyte differentiation, acetylation by KAT2B/PCAF is required for nuclear localization. .
Tissue Specificity	Expressed in the retina. Expressed in foreskin keratinocytes (at protein level)
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 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

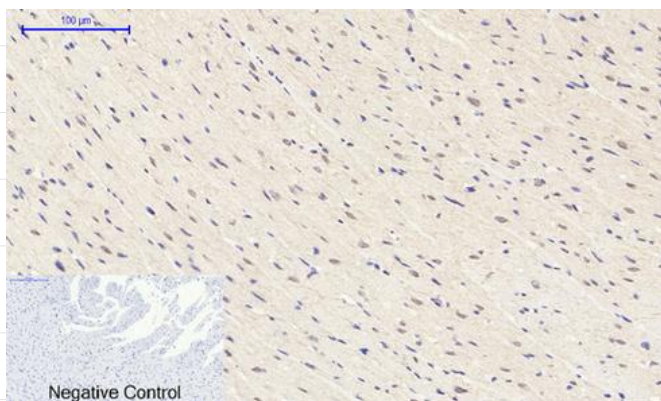
Avoid repeated freezing and thawing!

Usage suggestions

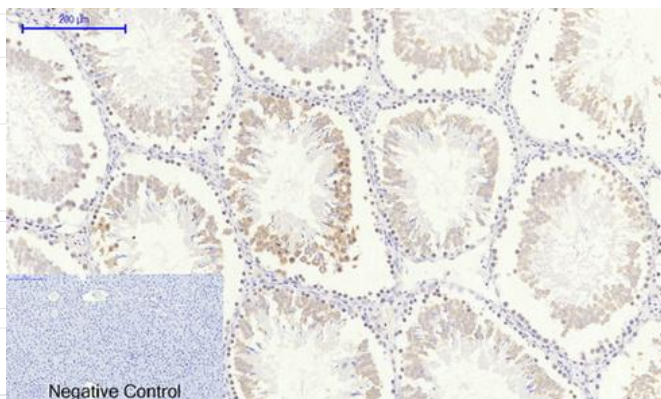
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



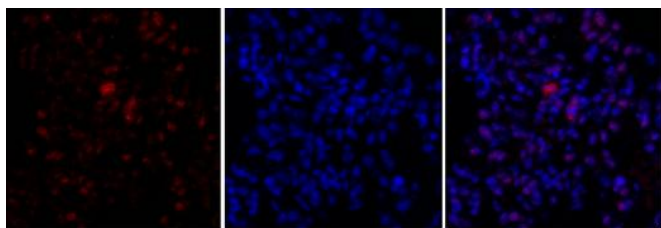
Products Images



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