Rb (PT0829R) PT™ Rabbit mAb

CatalogNo: YM8588 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse

Applications
- WB,IF,IP,ELISA

MW
- 106kD (Calculated)

110kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT0829R

Immunogen Information

Immunogen	AA range：1-100
Specificity	Endogenous

Target Information

Gene name RB1

Protein Name Retinoblastoma-associated protein

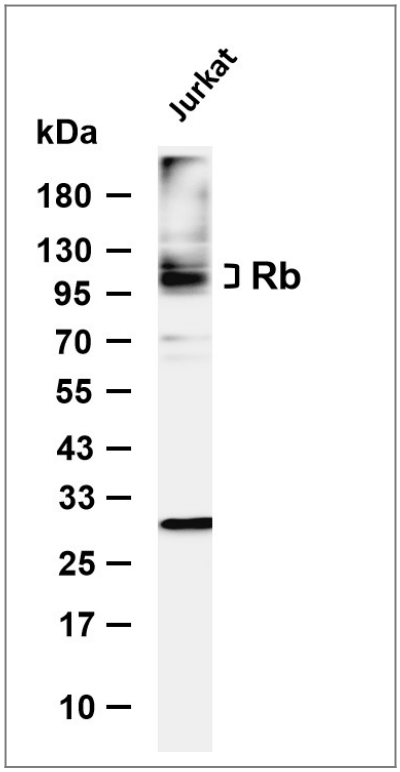
Organism	Gene ID	UniProt ID
Human	5925;	P06400;
Mouse	19645;	P13405;

Cellular Localization Nucleus . During keratinocyte differentiation, acetylation by KAT2B/PCAF is required for nuclear localization. .

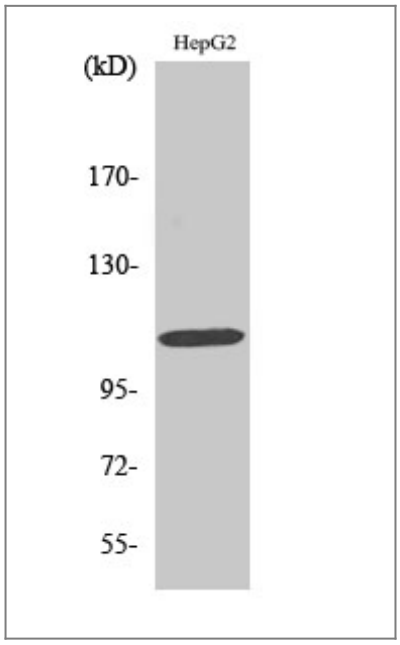
Tissue specificity Expressed in the retina. Expressed in foreskin keratinocytes (at protein level) (PubMed:20940255).

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 and sequesters the E2F1 transcription factor. The unphosphorylated form interacts with ARID3B, KDM5A, SUV39H1, MJD2A/JHDM3A and THOC1. Interacts with the N-terminal domain of TAF1. Interacts with AATF, DNMT1, LIN9, LMNA, SUV420H1, SUV420H2, PELP1 and TMPO-alpha. May interact with NDC80. Interacts with EID1 and UBR4. Interacts with ARID4A and KDM5B. Interacts with E4F1. Interacts with adenovirus E1A protein, HPV E7 protein and SV40 large T antigen.,tissue specificity:Expressed in the retina.,

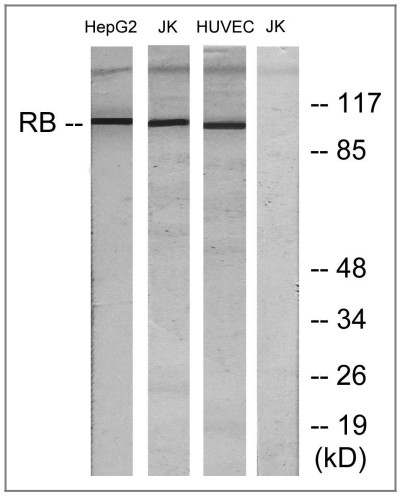
Validation Data



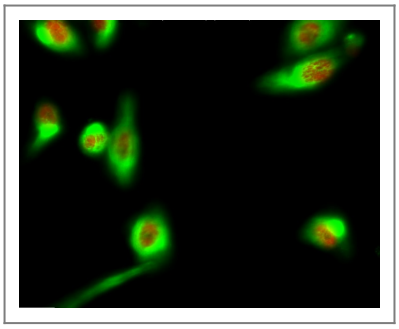
Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-Rb antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Jurkat Predicted band size: 106kDa Observed band size: 110kDa



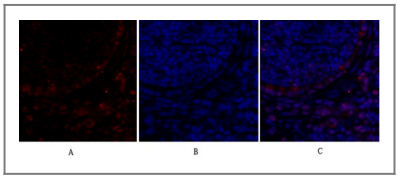
Western Blot analysis of various cells using Rb Antibody diluted at 1:1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Western blot analysis of lysates from HepG2, Jurkat, and HUVEC cells, using Retinoblastoma Antibody. The lane on the right is blocked with the synthesized peptide.



Immunofluorescence analysis of Hela cell. 1,Rb Antibody(red) was diluted at 1:200(4° overnight). Kif 7 Monoclonal Antibody(3F8)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



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

Contact information

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Please scan the QR code to access additional product information:
Rb (PT0829R) PT™ Rabbit mAb