Rb (Phospho Ser249) Rabbit pAb

CatalogNo: YP1184

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat	• WB,IHC,IF,ELISA

MW	Isotype
• 106kD (Calculated)	• IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000
IHC 1:50-300
IF 1:200-1:1000
ELISA 1:2000-20000

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human Retinoblastoma around the phosphorylation site of Ser249. AA range:221-270
Specificity	Phospho-Rb (S249) Polyclonal Antibody detects endogenous levels of Rb protein only when phosphorylated at S249.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):NGsPR

Target Information

Gene name RB1

Protein Name Retinoblastoma-associated protein

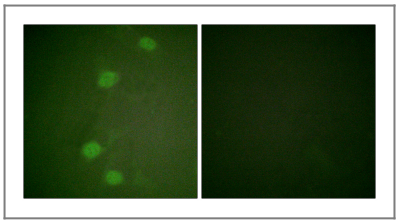
Organism	Gene ID	UniProt ID
Human	5925;	P06400;
Mouse	19645;	P13405;
Rat	24708;	P33568;

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

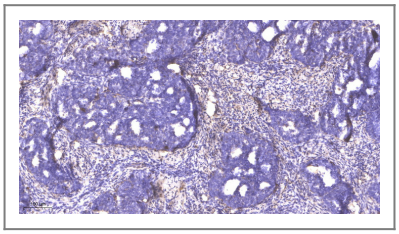
Tissue specificity Expressed in the retina. Expressed in foreskin keratinocytes (at protein level) (PubMed:20940255) .

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



Immunofluorescence analysis of HeLa cells, using Retinoblastoma (Phospho-Ser249) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human cervical carcinoma. 1, Antibody was diluted at 1:200 (4℃ overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 45min).

Contact information

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Please scan the QR code to access additional product information:
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