

RB1 Polyclonal Antibody

Catalog number: 10048-2-Ig

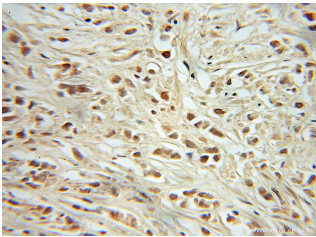
Size: 150 µg/150 µl

Source: Rabbit

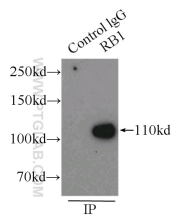
Isotype: IgG

Synonyms:

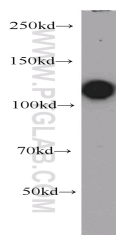
RB1; OSRC, p105 Rb, pp110, pRb, RB, RB1, retinoblastoma 1



Immunohistochemical of paraffin-embedded human prostate cancer using 10048-2-Ig(RB1 antibody) at dilution of 1:200 (under 10x lens)



IP Result of anti-RB1 (IP:10048-2-Ig, 3µg; Detection:10048-2-Ig 1:500) with A431 cells lysate 3000µg.



Jurkat cells were subjected to SDS PAGE followed by western blot with 10048-2-Ig(RB1 antibody) at dilution of 1:3000

Background

RB1, also named as pp110, pRb and p105 Rb, belongs to the retinoblastoma protein (RB) family. It is a key regulator of entry into cell division that acts as a tumor suppressor. RB1 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. It is directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation. It recruits and targets histone methyltransferases SUV39H1, SUV420H1 and SUV420H2, leading to epigenetic transcriptional repression. RB1 controls histone H4 'Lys-20' trimethylation and inhibits the intrinsic kinase activity of TAF1. It mediates transcriptional repression by SMARCA4/BRG1 by recruiting a histone deacetylase (HDAC) complex to the c-FOS promoter. In resting neurons, transcription of the c-FOS promoter is inhibited by BRG1-dependent recruitment of a phospho-RB1-HDAC1 repressor complex. Upon calcium influx, RB1 is dephosphorylated by calcineurin, which leads to release of the repressor complex. 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. This antibody is a rabbit polyclonal antibody raised against human RB1 fusion protein.

Applications

Tested applications:	ELISA, WB, IHC, IP
Cited applications:	IHC, WB
Species specificity:	Human, Mouse; other species not tested.
Cited species:	Human, mouse
Calculated RB1 MW:	110 kDa
Observed RB1 MW:	110kd
Positive WB detected in	Jurkat cells, A431 cells
Positive IP detected in	A431 cells
Positive IHC detected in	Human prostate cancer tissue, human lung cancer tissue
Recommended dilution:	WB: 1:1000-1:10000
	IP: 1:200-1:2000
	IHC: 1:20-1:200

Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

Immunogen:	Ag0006
GenBank accession number:	BC040540
Gene ID (NCBI):	5925
Full name:	Retinoblastoma 1

Product information

Purification method:	Protein A purification
Storage:	PBS with 0.1% sodium azide and 50% glycerol pH 7.3. Store at -20°C.