

For Research Use Only

RB1 Polyclonal antibody

Catalog Number: 17218-1-AP

Featured Product

28 Publications



Basic Information

Catalog Number: 17218-1-AP	GenBank Accession Number: BC039060	Purification Method: Antigen affinity purification
Size: 150ul, Concentration: 300 ug/ml by Nanodrop and 140 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 5925	Recommended Dilutions: WB 1:500-1:1000
Source: Rabbit	UNIPROT ID: P06400	
Isotype: IgG	Full Name: retinoblastoma 1	
Immunogen Catalog Number: AG11035	Calculated MW: 928 aa, 106 kDa	
	Observed MW: 110 kDa	

Applications

Tested Applications: WB, ELISA	Positive Controls: WB : HT-1080 cells,
Cited Applications: WB	
Species Specificity: human	
Cited Species: human, zebrafish	

Background Information

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 residues near the C terminus of human RB1.

Notable Publications

Author	Pubmed ID	Journal	Application
Xiaoman Chen	30207732	Mol Pharm	WB
Hitoshi Gotoh	27601444	J Cereb Blood Flow Metab	WB
Qirui Ding	34786046	Am J Transl Res	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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Selected Validation Data



HT-1080 cells were subjected to SDS PAGE followed by western blot with 17218-1-AP (RB1 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.