Rb
Polyclonal ANTIBODY
Catalog Number: 17218-1-AP

Basic Information
Catalog Number: 17218-1-AP
Size: 21 μg/150 μl
Source: Rabbit
Isotype: IgG
Purification Method: Antigen affinity purification
Immunogen Catalog Number: AG11035
GenBank Accession Number: BC050800
GeneID (NCBI): 5925
Full Name: retinoblastoma 1
Calculated MW: 928aa, 106 kDa
Observed MW: 110 kDa
Recommended Dilutions: WB 1:500-1:1000

Applications
Tested Applications: WB, ELISA
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 SUVAR1, SUVAR2 and SUVAR3, leading to epigenetic transcriptional repression. RB1 contains histone H4 Lys-20 trimethylation and inhibits the intrinsic kinase activity of TAF1. It mediates transcriptional repression by SNARAIL1/HIRA1 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
Hitoshi Gotoh
DeLong Meng
Zili Zhang

Pubmed ID
27601444
25669971
29229770

Journal
J Cereb Blood Flow Metab
Oncotarget
Development

Application
WB
WB
WB

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

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