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Anti-RB1 / Retinoblastoma / RB Antibody (aa196-245)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18051

Product Information

Application	WB, IHC-P, E
Primary Accession	P06400
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	106159

Additional Information

Gene ID	5925
Alias Symbol	RB1
Other Names	RB1, p105-Rb, Osteosarcoma, PRb, Retinoblastoma, Retinoblastoma 1, OSRC, RB, Pp110
Target/Specificity	Retinoblastoma Antibodyantibody detects endogenous levels of Retinoblastoma.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-RB1 / Retinoblastoma / RB Antibody (aa196-245) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RB1
Function	Tumor suppressor that is a key regulator of the G1/S transition of the cell cycle (PubMed:10499802). The hypophosphorylated form binds transcription regulators of the E2F family, preventing transcription of E2F-responsive genes (PubMed:10499802). Both physically blocks E2Fs transactivating domain and recruits chromatin- modifying enzymes that actively repress transcription (PubMed:10499802). Cyclin and CDK-dependent phosphorylation of RB1 induces its dissociation from E2Fs, thereby activating transcription of E2F responsive genes and triggering entry into S phase (PubMed:10499802). RB1 also promotes the G0-G1 transition upon phosphorylation and activation by CDK3/cyclin-C (PubMed:15084261). 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, KMT5B and KMT5C, leading

	to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Inhibits the intrinsic kinase activity of TAF1. 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 (By similarity).
Cellular Location	Nucleus. Cytoplasm {ECO:0000250|UniProtKB:P13405}. Note=During keratinocyte differentiation, acetylation by KAT2B/PCAF is required for nuclear localization (PubMed:20940255). Localizes to the cytoplasm when hyperphosphorylated (By similarity). {ECO:0000250|UniProtKB:P13405, ECO:0000269|PubMed:20940255}
Tissue Location	Expressed in the retina. Expressed in foreskin keratinocytes (at protein level) (PubMed:20940255)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.