

Product datasheet for **AP20331PU-M**

Rb (RB1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections: 1/50-1/200. Immunofluorescence: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of Rb protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 89, 106 kDa
Gene Name:	RB transcriptional corepressor 1
Database Link:	Entrez Gene 19645 Mouse Entrez Gene 24708 Rat Entrez Gene 5925 Human P06400



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Background:

Pediatric cancer retinoblastoma and the formation of other human tumors can be attributed to mutations in the retinoblastoma tumor suppressor gene. The retinoblastoma tumor suppressor gene product, known as Rb or pRb, regulates differentiation, apoptosis and cell cycle control by coordinating the cell cycle, at G1/S, with transcriptional machinery that includes the heterodimeric E2F family. During G1, cyclin D (D1, 2, 3)-dependent kinase-mediated phosphorylation of Rb at Ser 795 marks the conversion of Rb from a transcriptionally repressive, hypophosphorylated state to an inactive, phosphorylated state, which may be sustained through mitosis by differential phosphorylation of up to 16 putative serine or threonine residues, including Ser 249/Thr 252, Thr 373, Thr 356, Ser 780, Ser 807/Ser 811 and Thr 821/Thr 826. Hypophosphorylated Rb represses the transcription of genes controlling cell cycle through direct protein-protein interactions, by binding and inactivating the promoters of transcription factors, and through recruitment of histone deacetylase, which deacetylates promoter regions and enhances nucleosome formation, thereby masking transcription enhancing cis elements.

Synonyms:

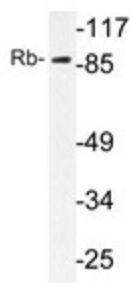
Retinoblastoma 1, Rb, p105-Rb, pRb, pp110, OSRC

Protein Families:

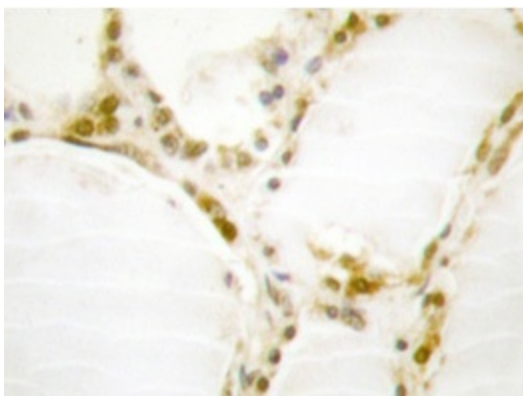
Druggable Genome, Transcription Factors

Protein Pathways:

Bladder cancer, Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Prostate cancer, Small cell lung cancer

Product images:


Western blot analysis of Rb antibody (Cat.-No.: [AP20331PU-N]) in extracts from HeLa cells.



Immunohistochemistry analysis of Rb antibody (Cat.-No.: [AP20331PU-N]) in paraffin-embedded human thyroid gland tissue.