

DATASHEET

RB1 (Phospho-T821) Rabbit Polyclonal Antibody

CAT. NO. APA11034

KEY FEATURES

Target	RB1 (Phospho-T821)	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Tumor suppressor that is a key regulator of the G1/S transition of the cell cycle . The hypophosphorylated form binds transcription regulators of the E2F family, preventing transcription of E2F-responsive genes . Both physically blocks E2Fs transactivating domain and recruits chromatin-modifying enzymes that actively repress transcription . 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 . RB1 also promotes the G0-G1 transition upon phosphorylation and activation by CDK3/cyclin-C . Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of constitutive heterochromatin by stabilizing histone methylation.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:200
IF/ICC	1:100 - 1:500

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to RB1 (Phospho-T821)
Specificity	Recognizes endogenous levels of RB1 protein only when phosphorylated at T821.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding T821 of human RB1 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 106 kD; Observed: 120 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	Retinoblastoma-associated protein; p105-Rb; pRb; Rb; pp110
Gene Symbol	RB1
Entrez Gene	5925(Human); 19645(Mouse); 24708(Rat)
SwissProt	P06400(Human); P13405(Mouse); P33568(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

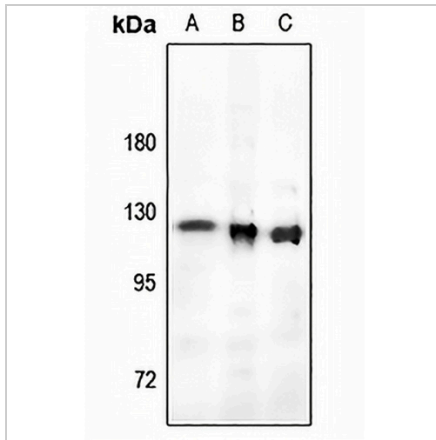
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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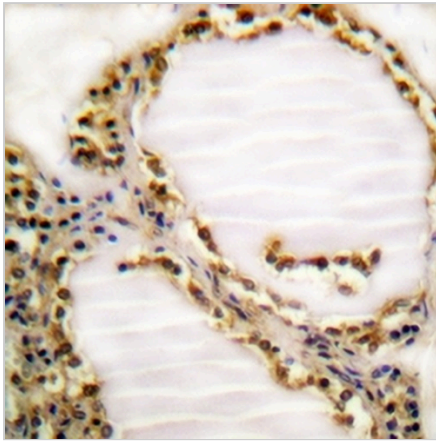
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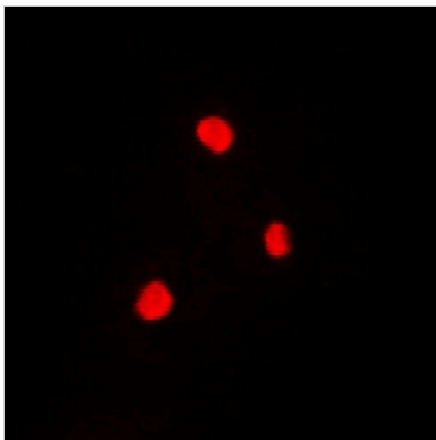
DATA



Western blot analysis of RB1 (Phospho-T821) expression in HuT78 (A), Myla2059 (B), MCF7 (C) whole cell lysates. (Predicted band size: 106 kD; Observed band size: 120 kD)



Immunohistochemical analysis of RB1 (Phospho-T821) staining in human testis formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of RB1 (Phospho-T821) staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.