

**Phospho-Rb-like-1(S975) Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3232a**

**Specification**

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**Phospho-Rb-like-1(S975) Antibody - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P28749</a>
Other Accession	<a href="#">Q64701</a> , <a href="#">D3ZS28</a>
Reactivity	<b>Human</b>
Predicted	<b>Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>

**Phospho-Rb-like-1(S975) Antibody - Additional Information**

**Gene ID** 5933

**Other Names**

Retinoblastoma-like protein 1, 107 kDa retinoblastoma-associated protein, p107, pRb1, RBL1

**Target/Specificity**

This Rb-like-1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S975 of human Rb-like-1.

**Dilution**

WB~~1:250  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho-Rb-like-1(S975) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-Rb-like-1(S975) Antibody - Protein Information**

**Name** RBL1

**Function** Key regulator of entry into cell division (PubMed:[17671431](#)). Directly involved in heterochromatin formation by maintaining overall chromatin structure and, in particular, that of

constitutive heterochromatin by stabilizing histone methylation (By similarity). Recruits and targets histone methyltransferases KMT5B and KMT5C, leading to epigenetic transcriptional repression (By similarity). Controls histone H4 'Lys-20' trimethylation (By similarity). Probably acts as a transcription repressor by recruiting chromatin-modifying enzymes to promoters (By similarity). Potent inhibitor of E2F-mediated trans-activation (PubMed:[8319904](#)). May act as a tumor suppressor (PubMed:[8319904](#)).

#### Cellular Location

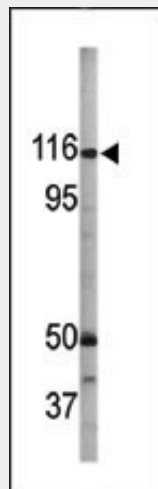
Nucleus.

#### Phospho-Rb-like-1(S975) Antibody - Protocols

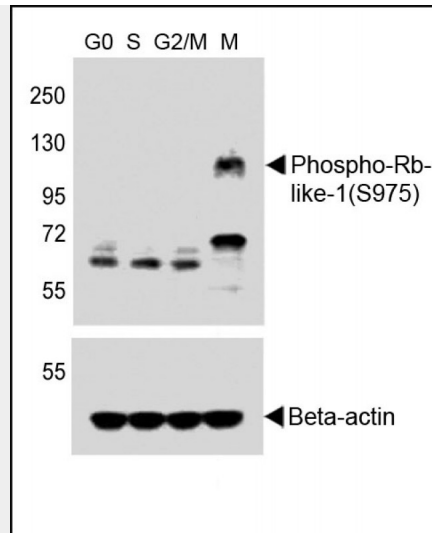
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

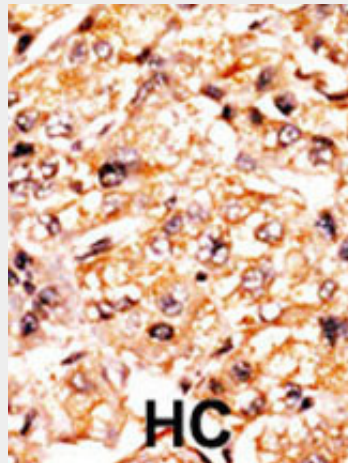
#### Phospho-Rb-like-1(S975) Antibody - Images



The anti-Phospho-Rb-like-1-S975 Pab (Cat. #AP3232a) is used in Western blot to detect Phospho-Rb-like-1-S975 in A2058 tissue lysate



All lanes : Anti-Phospho-Rb-like-1(S975) Antibody (upper) at 1:250 dilution + HeLa whole cell lysates, Beta-actin (lower) Lane 1: G0-phase serum-deprived 24h Lane 2: S-phase hydroxycarbamide 5mM, 24h Lane 3: G2/M-phase etoposide 5mM, 24h Lane 4: M-phase, nocodazole, 150ng/ml 20h Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 121 kDa Blocking/Dilution buffer: 5% NFD/MTBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

### Phospho-Rb-like-1(S975) Antibody - Background

RB-like 1 is similar in sequence and possibly function to the product of the retinoblastoma 1 (RB1) gene. The RB1 gene product is a tumor suppressor protein that appears to be involved in cell cycle regulation, as it is phosphorylated in the S to M phase transition and is dephosphorylated in the G1 phase of the cell cycle. Both the RB1 protein and RB-like 1 can form a complex with adenovirus E1A protein and SV40 large T-antigen, with the SV40 large T-antigen binding only to the unphosphorylated form of each protein. In addition, both proteins can inhibit the transcription of cell cycle genes containing E2F binding sites in their promoters. Due to the sequence and biochemical similarities with the RB1 protein, it is thought that RB-like 1 may also be a tumor suppressor.

### Phospho-Rb-like-1(S975) Antibody - References

Rodier, G., et al., J. Cell Biol. 168(1):55-66 (2005).  
Barbie, T.U., et al., Proc. Natl. Acad. Sci. U.S.A. 100(26):15601-15606 (2003).  
Joaquin, M., et al., J. Biol. Chem. 278(45):44255-44264 (2003).  
Cicchillitti, L., et al., J. Biol. Chem. 278(21):19509-19517 (2003).  
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