

# Anti-Phospho-Rb (S780) Rabbit Monoclonal Antibody

Catalog # ABO16673

## Product Information

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|--------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB                                                                                                                     |
| <b>Primary Accession</b> | <a href="#">P06400</a>                                                                                                 |
| <b>Host</b>              | Rabbit                                                                                                                 |
| <b>Isotype</b>           | Rabbit IgG                                                                                                             |
| <b>Reactivity</b>        | Human, Mouse                                                                                                           |
| <b>Clonality</b>         | Monoclonal                                                                                                             |
| <b>Format</b>            | Liquid                                                                                                                 |
| <b>Description</b>       | Anti-Phospho-Rb (S780) Rabbit Monoclonal Antibody . Tested in WB applications. This antibody reacts with Human, Mouse. |

## Additional Information

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| <b>Gene ID</b>             | 5925                                                                                                                                       |
| <b>Other Names</b>         | Retinoblastoma-associated protein, p105-Rb, p110-RB1, pRb, Rb, pp110, RB1                                                                  |
| <b>Calculated MW</b>       | 106159                                                                                                                                     |
| <b>Application Details</b> | WB 1:500-1:2000                                                                                                                            |
| <b>Source</b>              | Eukaryota                                                                                                                                  |
| <b>Contents</b>            | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.                        |
| <b>Clone Names</b>         | Clone: 31R44                                                                                                                               |
| <b>Immunogen</b>           | A synthesized peptide derived from human Phospho-Rb (S780)                                                                                 |
| <b>Purification</b>        | Affinity-chromatography                                                                                                                    |
| <b>Storage</b>             | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |

## Protein Information

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| <b>Name</b>     | RB1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Function</b> | Tumor suppressor that is a key regulator of the G1/S transition of the cell cycle (PubMed: <a href="#">10499802</a> ). The hypophosphorylated form binds transcription regulators of the E2F family, preventing transcription of E2F-responsive genes (PubMed: <a href="#">10499802</a> ). Both physically blocks E2Fs transactivating domain and recruits chromatin- modifying enzymes that actively repress transcription (PubMed: <a href="#">10499802</a> ). 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).

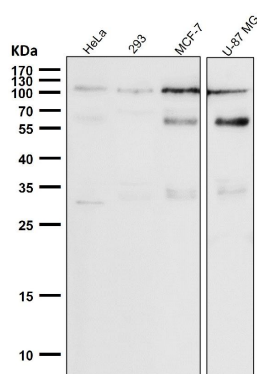
## Cellular Location

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}

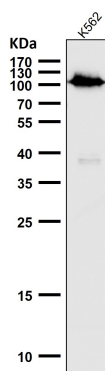
## Tissue Location

Expressed in the retina. Expressed in foreskin keratinocytes (at protein level) (PubMed:20940255)

## Images



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of Phospho-Rb (S780) expression in K562 cell lysate.

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