

## Rb (Phospho Ser807/811) (PT0996R) PT™ Rabbit mAb

CatalogNo: YM8570 **Recombinant** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 106kD (Calculated)
- 106kD (Observed)

#### Isotype

- IgG, Kappa

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

### Recommended Dilution Ratios

IHC 1:200-1:1000

WB 1:1000-1:5000

IF 1:200-1:1000

ELISA 1:5000-1:20000

### Basic Information

**Clonality** Monoclonal

**Clone Number** PT0996R

### Immunogen Information

**Immunogen** The specific immunogen used to produce this antibody is proprietary information.

**Specificity** Rb (Phospho Ser807/811) Antibody detects endogenous levels of Rb protein only when phosphorylated at S807. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): YIsPL/LKsPY

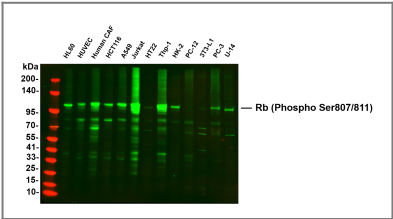
## | Target Information

|                       |                                                                                                                  |                        |                         |
|-----------------------|------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------|
| Gene name             | RB1                                                                                                              |                        |                         |
| Protein Name          | Retinoblastoma-associated protein                                                                                |                        |                         |
|                       | Organism                                                                                                         | Gene ID                | UniProt ID              |
|                       | Human                                                                                                            | <a href="#">5925;</a>  | <a href="#">P06400;</a> |
|                       | Mouse                                                                                                            | <a href="#">19645;</a> | <a href="#">P13405;</a> |
|                       | Rat                                                                                                              | <a href="#">24708;</a> | <a href="#">P33568;</a> |
| Cellular Localization | Nucleus . During keratinocyte differentiation, acetylation by KAT2B/PCAF is required for nuclear localization. . |                        |                         |
| Tissue specificity    | Expressed in the retina. Expressed in foreskin keratinocytes (at protein level) (PubMed:20940255).               |                        |                         |

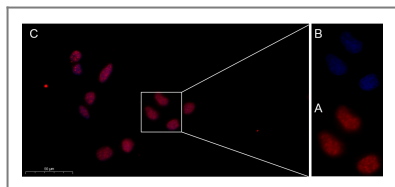
Function

Disease:Defects in RB1 are a cause of bladder cancer [MIM:109800].,Disease:Defects in RB1 are a cause of osteogenic sarcoma [MIM:259500].,Disease:Defects in RB1 are the cause of childhood cancer retinoblastoma (RB) [MIM:180200]. RB is a congenital malignant tumor that arises from the nuclear layers of the retina. It occurs in about 1:20'000 live births and represents about 2% of childhood malignancies. It is bilateral in about 30% of cases. Although most RB appear sporadically, about 20% are transmitted as an autosomal dominant trait with incomplete penetrance. The diagnosis is usually made before the age of 2 years when strabismus or a gray to yellow reflex from pupil ("cat eye") is investigated.,Function:Key regulator of entry into cell division that acts as a tumor suppressor. Acts as a transcription repressor of E2F1 target genes. The underphosphorylated, active form of RB1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. 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, SUV420H1 and SUV420H2, leading to epigenetic transcriptional repression. Controls histone H4 'Lys-20' trimethylation. Inhibits the intrinsic kinase activity of TAF1. In case of viral infections, interactions with SV40 large T antigen, HPV E7 protein or adenovirus E1A protein induce the disassembly of RB1-E2F1 complex thereby disrupting RB1's activity.,online information:RB1 mutation db,online information:Retinoblastoma protein entry,PTM:Phosphorylated in G1, thereby releasing E2F1 which is then able to activate cell growth. Dephosphorylated at the late M phase. SV40 large T antigen, HPV E7 and adenovirus E1A bind to the underphosphorylated, active form of pRb.,similarity:Belongs to the retinoblastoma protein (RB) family.,subunit:Interacts with ATAD5 (By similarity). The hypophosphorylated form interacts with and sequesters the E2F1 transcription factor. The unphosphorylated form interacts with ARID3B, KDM5A, SUV39H1, MJD2A/JHDM3A and THOC1. Interacts with the N-terminal domain of TAF1. Interacts with AATF, DNMT1, LIN9, LMNA, SUV420H1, SUV420H2, PELP1 and TMPO-alpha. May interact with NDC80. Interacts with EID1 and UBR4. Interacts with ARID4A and KDM5B. Interacts with E4F1. Interacts with adenovirus E1A protein, HPV E7 protein and SV40 large T antigen.,tissue specificity:Expressed in the retina.,

Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C over night with a 1:2500 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast cells Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 110kDa Observed band size: 110kDa



Immunofluorescence analysis of MCF7 . Picture A: Rb (Phospho Ser807/811) (PT0996R) Rabbit mAb (red). Picture B: DAPI (blue). Picture C: Merge of A+B

## Contact information

Orders: [order@immunoway.com](mailto:order@immunoway.com)  
Support: [tech@immunoway.com](mailto:tech@immunoway.com)  
Telephone: 877-594-3616 (Toll Free), 408-747-0185  
Website: <http://www.immunoway.com>  
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



Please scan the QR code to access additional product information:

**Rb (Phospho Ser807/811) (PT0996R) PT™ Rabbit mAb**

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