

# Phospho-Rb (Ser807/811) (D20B12) XP<sup>®</sup> Rabbit mAb (PE Conjugate)

www.cellsignal.com

**Support:** 877-678-TECH (8324)  
info@cellsignal.com

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Entrez-Gene ID** #5925  
**UniProt ID** #P06400

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**For Research Use Only. Not For Use In Diagnostic Procedures.**

**Applications**  
F  
Endogenous

**Species Cross-Reactivity\***  
H, M, R, Mk

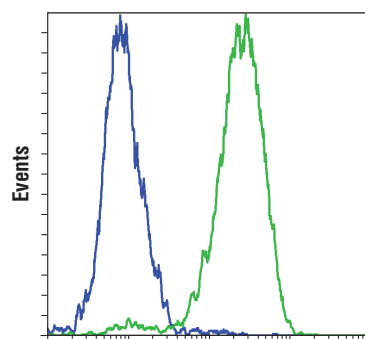
**Isotype**  
Rabbit IgG

**Description:** This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Rb (Ser807/811) (D20B12) XP<sup>®</sup> Rabbit mAb #8516.

**Background:** The retinoblastoma tumor suppressor protein Rb regulates cell proliferation by controlling progression through the restriction point within the G1-phase of the cell cycle (1). Rb has three functionally distinct binding domains and interacts with critical regulatory proteins including the E2F family of transcription factors, c-Abl tyrosine kinase, and proteins with a conserved LXCXE motif (2-4). Cell cycle-dependent phosphorylation by a CDK inhibits Rb target binding and allows cell cycle progression (5). Rb inactivation and subsequent cell cycle progression likely requires an initial phosphorylation by cyclin D-CDK4/6 followed by cyclin E-CDK2 phosphorylation (6). Specificity of different CDK/cyclin complexes has been observed *in vitro* (6-8) and cyclin D1 is required for Ser780 phosphorylation *in vivo* (9).

**Specificity/Sensitivity:** Phospho-Rb (Ser807/811) (D20B12) XP<sup>®</sup> Rabbit mAb (PE Conjugate) recognizes endogenous levels of Rb protein only when phosphorylated at Ser807, Ser811, or at both sites. This antibody does not cross-react with Rb phosphorylated at Ser608.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser807/811 of human Rb protein.



**Phospho-Rb (Ser807/811) (PE Conjugate)**

Flow cytometric analysis of BT-549 (blue) and Jurkat (green) cells using Phospho-Rb (Ser807/811) (D20B12) XP<sup>®</sup> Rabbit mAb (PE Conjugate).

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

**\*Species cross-reactivity other than human is determined by western blot using the unconjugated antibody.**

**Recommended Antibody Dilutions:**

Flow Cytometry 1:50

**For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com)**

**Background References:**

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- (5) Knudsen, E.S. and Wang, J.Y. (1997) *Mol Cell Biol* 17, 5771-83.
- (6) Lundberg, A.S. and Weinberg, R.A. (1998) *Mol Cell Biol* 18, 753-61.
- (7) Connell-Crowley, L. et al. (1997) *Mol Biol Cell* 8, 287-301.
- (8) Kitagawa, M. et al. (1996) *EMBO J* 15, 7060-9.
- (9) Geng, Y. et al. (2001) *Proc Natl Acad Sci USA* 98, 194-9.

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