

Phospho-Rb (Ser807/811) Antibody

- Small 100 μ l
(10 western blots)
- Large 300 μ l
(30 western blots)

rev. 05/17/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

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

Support ■ 877-678-TECH (8324)
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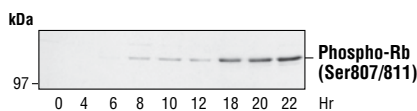
Web ■ www.cellsignal.com

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IHC-P Endogenous	H, R, Mk	110 kDa	Rabbit**

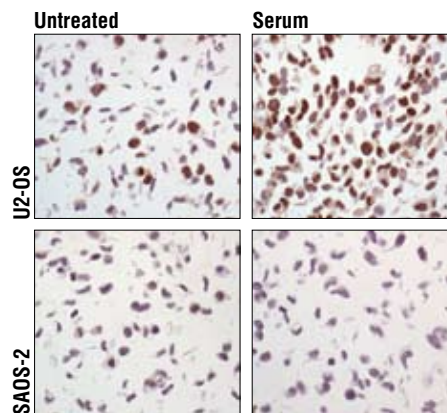
Background: The retinoblastoma tumor suppressor protein, Rb, regulates cell proliferation by controlling progression through the restriction point within the G₁-phase of the cell cycle (1). Rb has three functionally distinct binding domains and interacts with critical regulatory proteins including the E2F family of transcription factors, c-Abl tyrosine kinase and proteins with a conserved LXCXE motif (2–4). Cell cycle-dependent phosphorylation by CDKs inhibits Rb target binding, thus allowing cell cycle progression (5). Rb inactivation and subsequent cell cycle progression likely requires first 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) Antibody detects endogenous levels of Rb when phosphorylated at serine 807/811. The antibody may cross-react with Rb phosphorylated at Ser608.

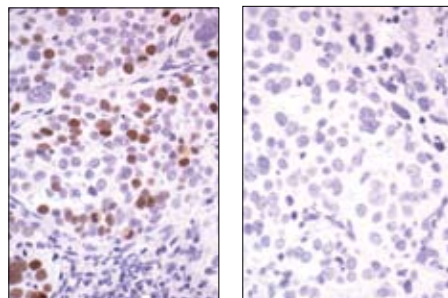
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser807/811 of human Rb. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from human fibroblasts synchronized by serum deprivation, using Phospho-Rb (Ser807/811) Antibody. Cells were synchronized for 24 hours then released by addition of serum and harvested at the times indicated. Cell cycle progression was verified by cyclin analysis and FACS. (Provided by John Boylan, Dupont/Merck, Delaware.)



Immunohistochemical analysis of untreated (left) or serum treated (right) U2-OS cells (upper) or SAOS-2 (Rb deficient) cells (lower), using Phospho-Rb (Ser807/811) Antibody.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, untreated (left) or λ phosphatase-treated (right), using Phospho-Rb (Ser807/811) Antibody.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Entrez-Gene ID #5925
Swiss-Prot Acc. #P06400

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

*Species cross-reactivity is determined by western blot.

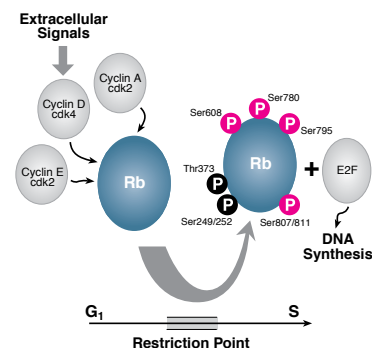
**Anti-rabbit secondary antibodies must be used to detect this antibody.

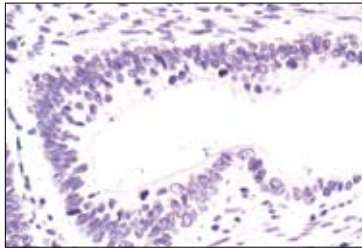
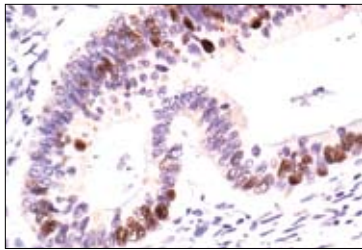
Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:200
Immunohistochemistry (Paraffin)	1:300
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS

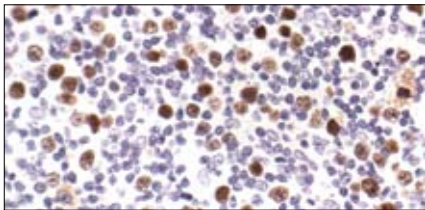
For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

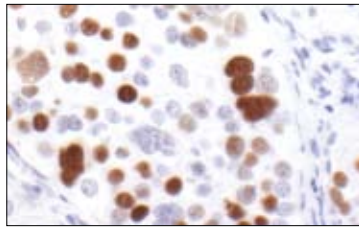




Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using Phospho-Rb (Ser807/811) Antibody in the presence of control peptide (upper) or antigen-specific peptide (lower).



Immunohistochemical analysis of paraffin-embedded human Non-Hodgkin's lymphoma, using Phospho-Rb (Ser807/811) Antibody.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using Phospho-Rb (Ser807/811) Antibody.

Background References:

- (1) Sherr, C.J. (1996) *Science* 274, 1672–1677.
- (2) Nevins, J.R. et al. (1992) *Science* 258, 424–429.
- (3) Welch, P.J. and Wang, J.Y. (1993) *Cell* 75, 779–790.
- (4) Hu, Q.J. et al. (1990) *EMBO J.* 9, 1147–1155.
- (5) Knudsen, E.S. and Wang, J.Y. (1997) *Mol. Cell. Biol.* 17, 5771–5783.
- (6) Lundberg, A.S. and Weinberg, R.A. (1998) *Mol. Cell. Biol.* 18, 753–761.
- (7) Connell-Crowley, L. et al. (1997) *Mol. Cell. Biol.* 8, 287–301.
- (8) Kitagawa, M. et al. (1996) *EMBO J.* 15, 7060–7069.
- (9) Geng, Y. et al. (2001) *Proc. Natl. Acad. Sci. USA* 98, 194–199.