

Store at -20C
#8180

Phospho-Rb (Ser780) (D59B7) Rabbit mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	110	Rabbit IgG	#P06400	5925

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:200
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.	
Specificity / Sensitivity	Phospho-Rb (Ser780) (D59B7) Rabbit mAb recognizes endogenous levels of Rb protein only when phosphorylated at Ser780.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser780 of human Rb protein.	
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 <i>in vitro</i> (6-8) and cyclin D1 is required for Ser780 phosphorylation <i>in vivo</i> (9).	
Background References	<ol style="list-style-type: none"> 1. Sherr, C.J. (1996) <i>Science</i> 274, 1672-7. 2. Nevins, J.R. (1992) <i>Science</i> 258, 424-9. 3. Welch, P.J. and Wang, J.Y. (1993) <i>Cell</i> 75, 779-90. 4. Hu, Q.J. et al. (1990) <i>EMBO J</i> 9, 1147-55. 5. Knudsen, E.S. and Wang, J.Y. (1997) <i>Mol Cell Biol</i> 17, 5771-83. 6. Lundberg, A.S. and Weinberg, R.A. (1998) <i>Mol Cell Biol</i> 18, 753-61. 7. Connell-Crowley, L. et al. (1997) <i>Mol Biol Cell</i> 8, 287-301. 8. Kitagawa, M. et al. (1996) <i>EMBO J</i> 15, 7060-9. 9. Geng, Y. et al. (2001) <i>Proc Natl Acad Sci USA</i> 98, 194-9. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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