

#13448 Store at -20°C

Phospho-Lamin A/C (Ser22) (D2B2E) 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	Endogenous	69,78	Rabbit IgG	#P02545	4000

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:100
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-Lamin A/C (Ser22) (D2B2E) Rabbit mAb recognizes endogenous levels of lamin A/C protein only when phosphorylated at Ser22.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser22 of human lamin A/C protein.	
Background	Lamins are nuclear membrane structural components that are important in maintaining normal cell functions such as cell cycle control, DNA replication, and chromatin organization (1-3). Lamin A/C is cleaved by caspase-6 and serves as a marker for caspase-6 activation. During apoptosis, lamin A/C is specifically cleaved into a large (41-50 kDa) and a small (28 kDa) fragment (3,4). The cleavage of lamins results in nuclear dysregulation and cell death (5,6). ~Phosphorylation of lamin A/C at Ser22 was identified <i>in vivo</i> in several cell lines by mass spectrometry analysis in proteomic screens. The surrounding sequence is a typical MAPK/CDK phosphorylation motif, which implicates a role in the cell cycle and mitosis (7-11).	
Background References	1. Gruenbaum, Y. et al. (2000) <i>J Struct Biol</i> 129, 313-23. 2. Yabuki, M. et al. (1999) <i>Physiol Chem Phys Med NMR</i> 31, 77-84. 3. Goldberg, M. et al. (1999) <i>Crit Rev Eukaryot Gene Expr</i> 9, 285-93. 4. Orth, K. et al. (1996) <i>J Biol Chem</i> 271, 16443-6. 5. Oberhammer, F.A. et al. (1994) <i>J Cell Biol</i> 126, 827-37. 6. Rao, L. et al. (1996) <i>J Cell Biol</i> 135, 1441-55. 7. Lowery, D.M. et al. (2007) <i>EMBO J</i> 26, 2262-73. 8. Molina, H. et al. (2007) <i>Proc Natl Acad Sci U S A</i> 104, 2199-204. 9. Beausoleil, S.A. et al. (2006) <i>Nat Biotechnol</i> 24, 1285-92. 10. Nousiainen, M. et al. (2006) <i>Proc Natl Acad Sci U S A</i> 103, 5391-6. 11. Beausoleil, S.A. et al. (2004) <i>Proc Natl Acad Sci U S A</i> 101, 12130-5.	

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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