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#2026

## Phospho-Lamin A/C (Ser22) Antibody



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	69, 78	Rabbit	#P02545	4000

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Phospho-Lamin A/C (Ser22) Antibody detects endogenous levels of lamin A/C only when phosphorylated at Ser22.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser22 of human lamin A/C protein.	
<b>Background</b>	<p>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).</p> <p>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).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Gruenbaum, Y. et al. (2000) <i>J Struct Biol</i> 129, 313-23.</li> <li>Yabuki, M. et al. (1999) <i>Physiol Chem Phys Med NMR</i> 31, 77-84.</li> <li>Goldberg, M. et al. (1999) <i>Crit Rev Eukaryot Gene Expr</i> 9, 285-93.</li> <li>Orth, K. et al. (1996) <i>J Biol Chem</i> 271, 16443-6.</li> <li>Oberhammer, F.A. et al. (1994) <i>J Cell Biol</i> 126, 827-37.</li> <li>Rao, L. et al. (1996) <i>J Cell Biol</i> 135, 1441-55.</li> <li>Lowery, D.M. et al. (2007) <i>EMBO J</i> 26, 2262-73.</li> <li>Molina, H. et al. (2007) <i>Proc Natl Acad Sci USA</i> 104, 2199-204.</li> <li>Beausoleil, S.A. et al. (2006) <i>Nat Biotechnol</i> 24, 1285-92.</li> <li>Nousiainen, M. et al. (2006) <i>Proc Natl Acad Sci USA</i> 103, 5391-6.</li> <li>Beausoleil, S.A. et al. (2004) <i>Proc Natl Acad Sci USA</i> 101, 12130-5.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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