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Phospho-Lamin A/C (Ser22) Antibody

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

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 69, 78	Source/Isotype: Rabbit	UniProt ID: #P02545	Entrez-Gene Id: 4000
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

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.

Specificity/Sensitivity

Phospho-Lamin A/C (Ser22) Antibody detects endogenous levels of lamin A/C only when phosphorylated at Ser22.

Source / Purification

Polyclonal antibodies are 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 *in vivo* 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

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- Orth, K. et al. (1996) *J Biol Chem* 271, 16443-6.
- Oberhammer, F.A. et al. (1994) *J Cell Biol* 126, 827-37.
- Rao, L. et al. (1996) *J Cell Biol* 135, 1441-55.
- Lowery, D.M. et al. (2007) *EMBO J* 26, 2262-73.
- Molina, H. et al. (2007) *Proc Natl Acad Sci USA* 104, 2199-204.
- Beausoleil, S.A. et al. (2006) *Nat Biotechnol* 24, 1285-92.
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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

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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