

## **Lamin B1 Antibody**



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

Applications: W	Reactivity: H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 68, 45	Source/Isotype: Rabbit	UniProt ID: #P20700	Entrez-Gene Id: 4001
Product Usage Information		<b>Application</b> Western Blotting			<b>Dilution</b> 1:1000	
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 $\mu$ g/ml BSA and 50% glycerol. Store at – 20°C. Do not aliquot the antibody.				
Specificity/Sensitivity		Lamin B1 Antibody recognizes endogenous levels of total lamin B1 protein.				
Species predicted to react based on 100% sequence homology		Monkey, Bovine, Dog, Pig				
Source / Purification		Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys415 of human lamin B1 protein. Antibodies are purified by protein A and peptide affinity chromatography.				
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). Lamins have been subdivided into types A and B. Type-A lamins consist of lamin A and C, which arise from alternative splicing of the lamin A gene <i>LMNA</i> . Lamin A and C are cleaved by caspases into large (41-50 kDa) and small (28 kDa) fragments, which can be used as markers for apoptosis (4,5). Type-B lamins consist of lamin B1 and B2, encoded by separate genes (6-8). Lamin B1 is also cleaved by caspases during apoptosis (9). Research studies have shown that duplication of the lamin B1 gene <i>LMNB1</i> is correlated with pathogenesis of the neurological disorder adult-onset leukodystrophy (10).				
Background References		1. Gruenbaum, Y. et al. (2000) <i>J Struct Biol</i> 129, 313-23. 2. Goldberg, M. et al. (1999) <i>Crit Rev Eukaryot Gene Expr</i> 9, 285-93. 3. Yabuki, M. et al. (1999) <i>Physiol Chem Phys Med NMR</i> 31, 77-84. 4. Rao, L. et al. (1996) <i>J Cell Biol</i> 135, 1441-55. 5. Orth, K. et al. (1996) <i>J Biol Chem</i> 271, 16443-6. 6. Biamonti, G. et al. (1992) <i>Mol Cell Biol</i> 12, 3499-506. 7. Lin, F. and Worman, H.J. (1995) <i>Genomics</i> 27, 230-6. 8. Pollard, K.M. et al. (1990) <i>Mol Cell Biol</i> 10, 2164-75. 9. Chandler, J.M. et al. (1997) <i>Biochem J</i> 322 ( Pt 1), 19-23. 10. Padiath, Q.S. et al. (2006) <i>Nat Genet</i> 38, 1114-23.				

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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