

Lamin B1 Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	68, 45	Rabbit	#P20700	4001

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

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 *LMNA*. 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 *LMNB1* is correlated with pathogenesis of the neurological disorder adult-onset leukodystrophy (10).

Background References

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2. Goldberg, M. et al. (1999) *Crit Rev Eukaryot Gene Expr* 9, 285-93.
3. Yabuki, M. et al. (1999) *Physiol Chem Phys Med NMR* 31, 77-84.
4. Rao, L. et al. (1996) *J Cell Biol* 135, 1441-55.
5. Orth, K. et al. (1996) *J Biol Chem* 271, 16443-6.
6. Biamonti, G. et al. (1992) *Mol Cell Biol* 12, 3499-506.
7. Lin, F. and Worman, H.J. (1995) *Genomics* 27, 230-6.
8. Pollard, K.M. et al. (1990) *Mol Cell Biol* 10, 2164-75.
9. Chandler, J.M. et al. (1997) *Biochem J* 322 (Pt 1), 19-23.
10. Padiath, Q.S. et al. (2006) *Nat Genet* 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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