Revision 1

Store at -20C

#13435

Lamin B1 (D9V6H) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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

Lamin B1 (D9V6H) Rabbit mAb recognizes endogenous levels of total lamin B1 protein. This antibody recognizes the 45 kDa lamin B1 carboxy terminal cleavage product produced during apoptosis.

Species predicted to react based on 100% sequence homology

Bovine, Dog, Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys415 of human lamin B1 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). 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

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

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Limited Uses

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