Revision 9

#68591 Store at -20C

Lamin B1 (119D5-F1) Mouse 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:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-IC	H	Endogenous	Mouse IgG1	#P20700	4001

Product Usage Information

Application	Dilution
Immunofluorescence (Immunocytochemistry)	1:400 - 1:1600

Storage

Supplied at 1 mg/mL in PBS containing 0.09% sodium azide. Store at -20°C. *This product will freeze at -20°C so it is recommended to aliquot into single-use vials to avoid multiple freeze/thaw cycles.* A slight precipitate may be present, but will not interfere with antibody performance. This product is stable for 36 months when stored at -20C.

Specificity / Sensitivity

Lamin B1 (119D5-F1) Mouse mAb recognizes endogenous levels of total Lamin B1 by immunofluroescence. Testing by immunofluorescence was validated for human cells. Reactivity is expected in other species, including mouse and rat.

Source / Purification

Monoclonal antibody is produced by immunizing animals with purified rat liver lamins.

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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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.
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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).

Applications Key

IF-IC: Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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