Revision 9

Store at -20C

#86846

Lamin A (133A2) Mouse mAb

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P, IF-IC	H	Endogenous	74	Mouse IgG3	#P02545	4000

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:500 - 1:2000
Immunofluorescence (Immunocytochemistry)	1:12800 - 1:25600

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 A (133A2) Mouse mAb recognizes endogenous levels of total lamin A protein. It also reacts with large fragments of lamin A (50 kDa) produced by caspase cleavage during apoptosis. This antibody does not cross-react with lamin C.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human lamin A 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).

Background References

1. Gruenbaum, Y. et al. (2000) *J Struct Biol* 129, 313-23.
2. Yabuki, M. et al. (1999) *Physiol Chem Phys Med NMR* 31, 77-84.
3. Goldberg, M. et al. (1999) *Crit Rev Eukaryot Gene Expr* 9, 285-93.
4. Orth, K. et al. (1996) *J Biol Chem* 271, 16443-6.
5. Oberhammer, F.A. et al. (1994) *J Cell Biol* 126, 827-37.
6. Rao, L. et al. (1996) *J Cell Biol* 135, 1441-55.

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 **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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