Revision 1

#2035 Store at -20C

Cleaved Lamin A (Small Subunit) Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P, IF-IC	H M R	Endogenous	28	Rabbit	#P02545	4000

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:100
Immunofluorescence (Immunocytochemistry)	1:200

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

Cleaved Lamin A (Small Subunit) Antibody detects the small fragment of lamin A (and lamin C) resulting from cleavage at aspartic acid 230 by caspase-6. The antibody does not cross-react with full length lamin A or lamin C.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino-terminal residues surrounding Asp230 in human lamin A. 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). 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

WB: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)
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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Limited Uses

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