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Cleaved Lamin A (Small Subunit) (30H5) Mouse mAb

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

Applications: W, IF-IC	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 28	Source/Isotype: Mouse IgG1	UniProt ID: #P02545	Entrez-Gene Id: 4000
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Product Usage Information

Application

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100

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

Cleaved Lamin A (Small Subunit) (30H5) Mouse mAb detects endogenous levels of the small fragment of lamin A (and lamin C) resulting from cleavage at aspartic acid 230. The antibody does not cross-react with full length lamin A or C.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to amino-terminal residues surrounding Asp230 of human lamin A.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

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

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