#12586 Store at -20°C

Lamin B1 (D4Q4Z) Rabbit mAb

☑ 100 µl
(10 western blots)

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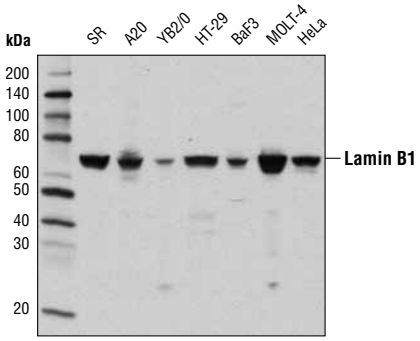
Entrez-Gene ID #4001
UniProt Acc. #P20700

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M, R, (Mk, Pg)	68, 25 kDa	Rabbit IgG**

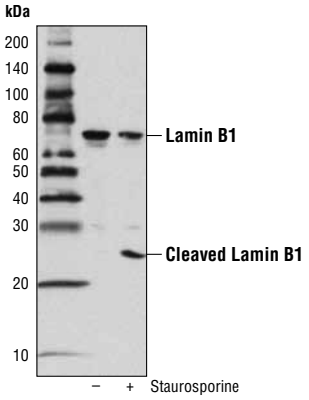
Background: Lamins are nuclear membrane structural components that are important in maintaining normal cell functions, such as cell cycle control, DNA replication, and chromatin organization (1-3). Lamins have been subdivided into types A and B. Type-A lamins consist of lamin A and C, which arise from 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).

Specificity/Sensitivity: Lamin B1 (D4Q4Z) Rabbit mAb recognizes endogenous levels of total lamin B1 protein. This antibody recognizes the 25 kDa lamin B1 amino terminal cleavage product produced during apoptosis.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu118 of human lamin B1 protein.



Western blot analysis of extracts from various cell lines using Lamin B1 (D4Q4Z) Rabbit mAb.



Western blot analysis of extracts from HeLa cells, untreated or treated with Staurosporine #9953 (1 µM, 3 hr), using Lamin B1 (D4Q4Z) Rabbit mAb.

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Gruenbaum, Y. et al. (2000) *J Struct Biol* 129, 313-23.
(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.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

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Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.