

Lamin B1 Monoclonal Antibody

CATALOG #:	3046-100
AMOUNT:	100 µg
LOT #:	_____
HOST:	Mouse
ISOTYPE:	IgG ₁ -Kappa
CLONE:	ZL-5
MOL. WEIGHT:	68 KDa
SPECIES REACTIVITY:	human, mouse, rat, chicken

ANTIBODY FORMULATION:

100 µg (200 µg/ml) in PBS containing 1 mg/ml BSA and 1.5 mM sodium azide and 50% glycerol.

STORAGE CONDITIONS:

Store at -20°C. For long term storage, aliquot and refreeze at -70°C. Avoid repeated freeze/thaw cycles.

DESCRIPTION:

Lamins are classified into A- and B- type isoforms. Specifically, four distinct lamin isoforms have been identified: A, B1, B2, and C. Lamin A and C are alternatively spliced products of a single gene, whereas lamin B1 and B2 are encoded by distinct genes. During mitosis, lamins are phosphorylated by p34^{cdc2} and solubilized prior to chromosome condensation and nuclear breakdown. A direct role for lamins in chromosome condensation is suggested by the fact that lamin B binds to specific DNA sequence motifs termed matrix attachment regions (MARs). MARs mediate the interaction of chromatin with the nuclear matrix. Importantly, some of the same processes that involve mitotic chromosome condensation and nuclear envelope breakdown are also activated during apoptosis. It appears that chromosome condensation during apoptosis is accompanied by degradation of lamin protein. Lamin degradation occurs prior to DNA fragmentation and this degradation is useful as an apoptotic marker.

SPECIFICITY:

The antibody recognizes the 68 kDa lamin B1 isoform. Reactivity with other lamin isoforms has not been detected.

APPLICATIONS AND USAGE:

Western blotting (0.5-2 µg/ml), immunoprecipitation (5 µg/ml), immuno-fluorescence (10-15 µg/ml), and ELISA (0.2-1 µg/ml). However, the optimal conditions should be determined individually.

NOTE: For research use only! Not to be used in human.

rev. 12/04

RELATED PRODUCTS:

Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents

Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit

Growth Factors and Cytokines

Monoclonal and Polyclonal Antibodies