

## Lamin A/C Rabbit monoclonal antibody

Catalog: MB66442

Host: Rabbit

Reactivity: Human, Mouse

### BackGround:

Lamins are components of the nuclear lamina, a fibrous layer on the nucleoplasmic side of the inner nuclear membrane, which is thought to provide a framework for the nuclear envelope and may also interact with chromatin. Lamin A and C are present in equal amounts in the lamina of mammals. Recruited by DNA repair proteins XRCC4 and IFFO1 to the DNA double-strand breaks (DSBs) to prevent chromosome translocation by immobilizing broken DNA ends.

Plays an important role in nuclear assembly, chromatin organization, nuclear membrane and telomere dynamics. Required for normal development of peripheral nervous system and skeletal muscle and for muscle satellite cell proliferation.

Required for osteoblastogenesis and bone formation.

Also prevents fat infiltration of muscle and bone marrow, helping to maintain the volume and strength of skeletal muscle and bone.

Required for cardiac homeostasis.

Prelamin-A/C can accelerate smooth muscle cell senescence. It acts to disrupt mitosis and induce DNA damage in vascular smooth muscle cells (VSMCs), leading to mitotic failure, genomic instability, and premature senescence.

### Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

### Molecular Weight:

~ 63, 74 kDa

### Swiss-Prot:

P02545

### Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

### Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/100), IF/ICC (1/50 - 1/100)

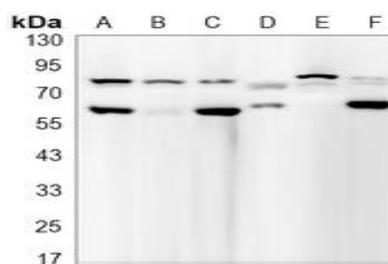
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

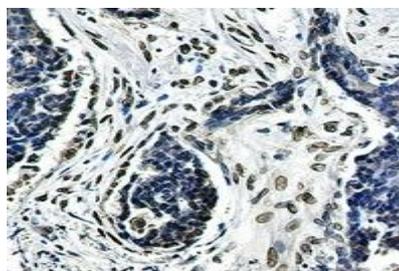
### Specificity:

Recognizes endogenous levels of Lamin A/C protein.

### DATA:



Western blot analysis of Lamin A/C expression in NIH3T3 (A), C2C12 (B), U251 (C), Lncap (D), A549 (E) whole cell lysates.



Immunohistochemical analysis of Lamin A/C staining in human breast carcinoma formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.23). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

### Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: [info@bioworld.com](mailto:info@bioworld.com)

Tel: 6123263284

Fax: 6122933841

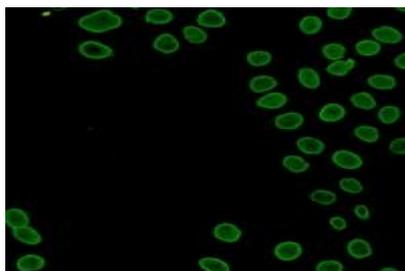
### Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: [info@biogot.com](mailto:info@biogot.com)

Tel: 0086-025-68037686

Fax: 0086-025-68035151



Immunofluorescent analysis of Lamin A/C staining in HeLa cells. For-

malin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

**Note:**

For research use only, not for use in diagnostic procedure.

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