



Mouse Monoclonal Antibody **Lamin A/C** conjugated to Sepharose Beads

CatalogNo: **ANT8246-M**

Size 200ul

Storage Store at 4 °C for frequent use

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified beads. It is useful for immunoprecipitation.

Lamin A/C (ANT0001R) Rabbit mAb

Formulation: Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg ANaN3.

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat,

Applications

- WB, IHC, IF, IP, ELISA

MW

- 74kD, 63kD (Calculated)
- 74kD, 63kD (Observed)

Isotype

- IgG, Kappa

Recommended Dilution Ratios

IP

Basic Information

Clonality

Monoclonal

Clone Number ANT0001R

Immunogen Information

Specificity Endogenous

Gene name LMNA LMN1

Protein Name Prelamin-A/C [Cleaved into: Lamin-A/C (70 kDa lamin) (Renal carcinoma antigen NYREN-32)]

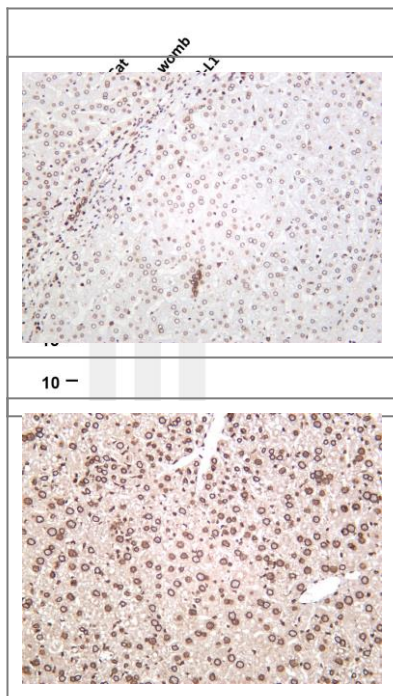
Organism	Gene ID	UniProt ID
Human	4000 ;	P02545 ;
Mouse	16905 ;	P48678 ;

Cellular Localization Nucleus

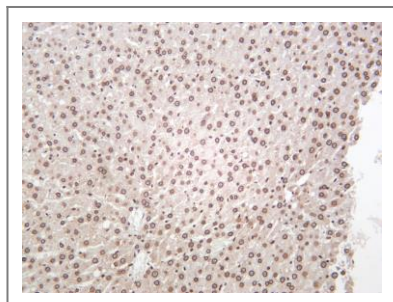
Tissue specificity In the arteries, prelamin-A/C accumulation is not observed in young healthy vessels but is prevalent in medial vascular smooth muscle cells (VSMCs) from aged individuals and in atherosclerotic lesions, where it often colocalizes with senescent and degenerate VSMCs. Prelamin-A/C expression increases with age and disease. In normal aging, the accumulation of prelamin-A/C is caused in part by the down-regulation of ZMPSTE24/FACE1 in response to oxidative stress.

Function 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.

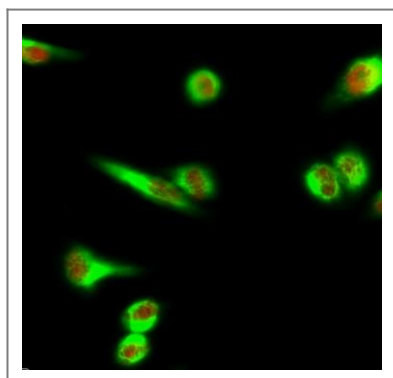
Validation Data



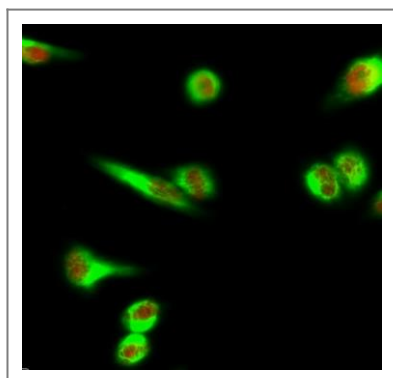
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Lamin A /C (ANT0001R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HaCat Lane 2: Rat womb Lane 3: 3T3-L1 Predicted band size: 74,63kDa Observed band size: 74,63kDa Human liver was stained with anti-Lamin A/C (ANT0001R) rabbit antibody



Mouse liver was stained with anti-Lamin A/C (ANT0001R) rabbit antibody



Rat liver was stained with anti-Lamin A/C (ANT0001R) rabbit antibody



Immunofluorescence analysis of HeLa cell. 1, Lamin A/C Antibody (red) was diluted at 1:200 (4° overnight). Galectin-3 Monoclonal Antibody (6G2) (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog: RS3611 was diluted at 1:1000 (room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog: RS3208 was diluted at 1:1000 (room temperature, 50min).

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