

For Research Use Only

# Lamin A/C Recombinant monoclonal antibody

Catalog Number: 81042-1-RR

Featured Product

4 Publications



## Basic Information

Catalog Number:

81042-1-RR

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0408

GenBank Accession Number:

BC003162

GeneID (NCBI):

4000

ENSEMBL Gene ID:

ENSG00000160789

UNIPROT ID:

P02545

Full Name:

lamin A/C

Calculated MW:

65 kDa

Observed MW:

65-70 kDa

Purification Method:

Protein A purification

CloneNo.:

5I16

Recommended Dilutions:

WB: 1:20000-1:100000

IHC: 1:3000-1:12000

IF/ICC: 1:500-1:2000

## Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

Positive Controls:

WB : HepG2 cells, RAW 264.7 cells, HeLa cells, HUVEC cells, A431 cells, SKOV-3 cells, HSC-T6 cells, NIH/3T3 cells, C6 cells

IHC : mouse heart tissue, human colon tissue

IF/ICC : HepG2 cells,

## Background Information

Lamin A/C is also named as LMNA, or LMN1. The lamin family of proteins make up the matrix and are highly conserved in evolution. During mitosis, the lamina matrix is reversibly disassembled as the lamin proteins are phosphorylated. Lamin proteins are thought to be involved in nuclear stability, chromatin structure and gene expression. The lack of lamin A/C can be as a novel marker for undifferentiated embryonic stem cells and lamin A/C expression is as an early indicator of differentiation (PMID: 16179429). Mutations in this gene lead to several diseases: Emery-Dreifuss muscular dystrophy, familial partial lipodystrophy, limb girdle muscular dystrophy, dilated cardiomyopathy, Charcot-Marie-Tooth disease, and Hutchinson-Gilford progeria syndrome. This protein has 4 isoforms produced by alternative splicing with the molecular weight of 74 kDa, 65 kDa, 70 kDa and 64 kDa. This antibody can recognize 4 isoforms of Lamin A/C.

## Notable Publications

Author	Pubmed ID	Journal	Application
Peter Krüger	40429989	Int J Mol Sci	WB,IF
Hao Zhang	40250791	Cancer Lett	WB
Jing Xie	39575386	Front Pharmacol	WB

## Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

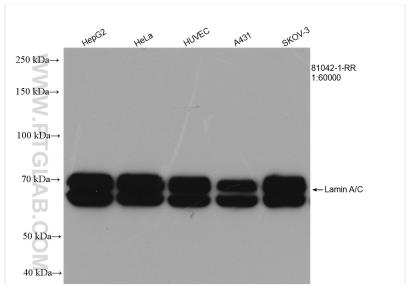
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

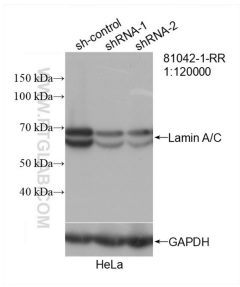
W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

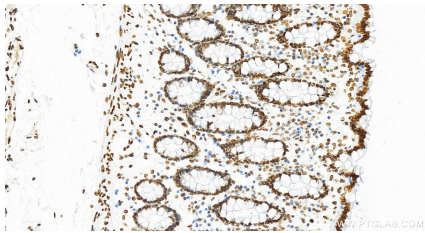
Selected Validation Data



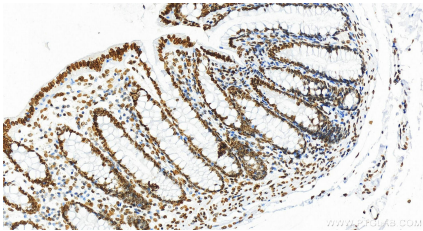
Various lysates were subjected to SDS PAGE followed by western blot with 81042-1-RR (Lamin A/C antibody) at dilution of 1:60000 incubated at room temperature for 1.5 hours.



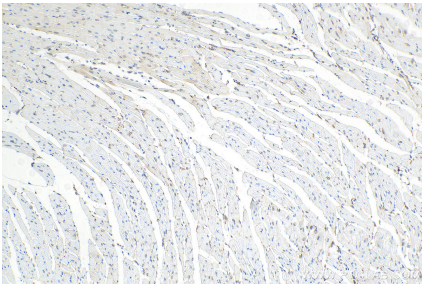
WB result of Lamin A/C antibody (81042-1-RR; 1:120000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Lamin A/C transfected HeLa cells.



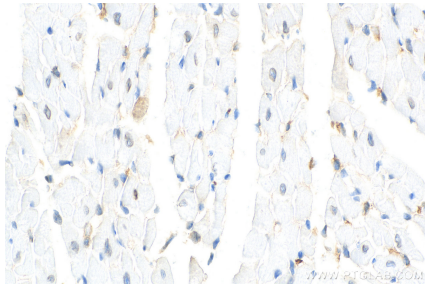
Immunohistochemical analysis of paraffin-embedded human normal colon slide using 81042-1-RR (Lamin A/C antibody) at dilution of 1:12000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



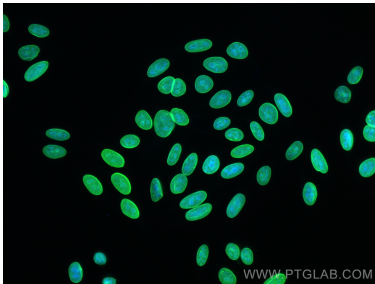
Immunohistochemical analysis of paraffin-embedded human normal colon slide using 81042-1-RR (Lamin A/C antibody) at dilution of 1:12000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



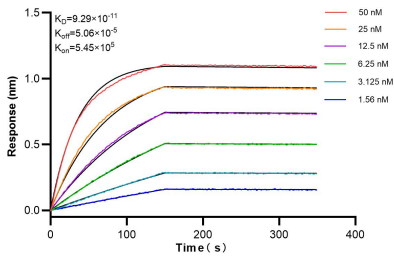
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 81042-1-RR (Lamin A/C antibody) at dilution of 1:6000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 81042-1-RR (Lamin A/C antibody) at dilution of 1:6000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed HepG2 cells using Lamin A/C antibody (81042-1-RR, Clone: 5I16) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Biolayer interferometry (BLI) kinetic assays of 81042-1-RR against Human Lamin A/C were performed. The affinity constant is 92.9 pM.