For Research Use Only

Lamin A/C Polyclonal antibody

Catalog Number:10298-1-AP Featured Product 183 Publications

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Basic Information

Catalog Number:
10298-1-AP

Size:
150ul , Concentration: 700 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG0408

GenBank Accession Number:
BC003162

GeneID (NCBI):
4000

Full Name:
lamin A/C

Calculated MW:
65 kDa

Observed MW:
65 kDa, 70 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:2000-1:8000
IF 1:400-1:1600

Applications

Tested Applications:
FC, IF, IHC, IP, WB, ELISA

Cited Applications:
IF, IHC, IP, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse, monkey, duck

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 : A431 cells, HEK-293 cells, HUVEC cells, mouse ovary tissue, SKOV-3 cells, HeLa cells, A375 cells, C6 cells, NIH/3T3 cells

IP : HeLa cells, A375 cells

IHC : mouse heart tissue,

IF : HepG2 cells, HeLa 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 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
Qingyang Zhang	34551807	Mol Neurodegener	WB
Fengbo Tan	30218452	J Cell Biochem	WB
Yingjie Liu	34475402	Nat Commun	WB

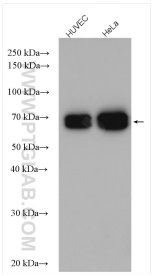
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

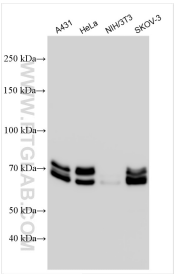
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

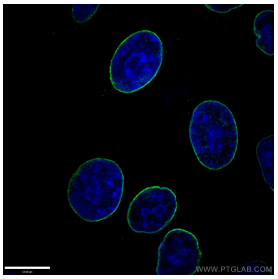
Selected Validation Data



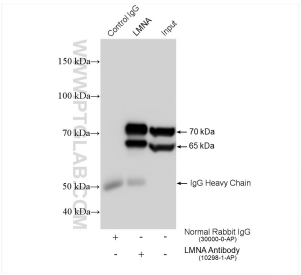
Various lysates were subjected to SDS PAGE followed by western blot with 10298-1-AP (Lamin A/C antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



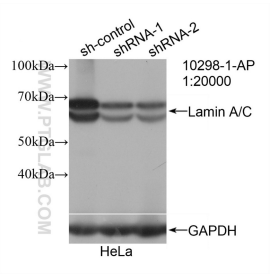
Various lysates were subjected to SDS PAGE followed by western blot with 10298-1-AP (Lamin A/C antibody) at dilution of 1:35000 incubated at room temperature for 1.5 hours.



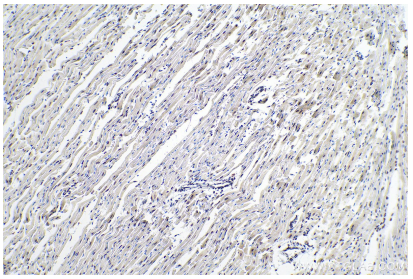
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using 10298-1-AP (Lamin A/C antibody) at dilution of 1:200 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



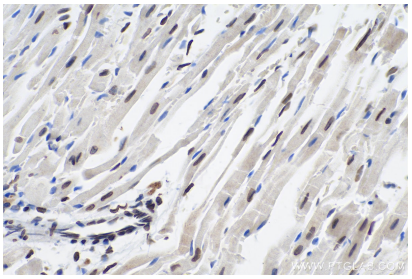
IP result of anti-Lamin A/C(IP:10298-1-AP, 4ug; Detection:10298-1-AP 1:50000) with HeLa cells lysate 1360 ug.



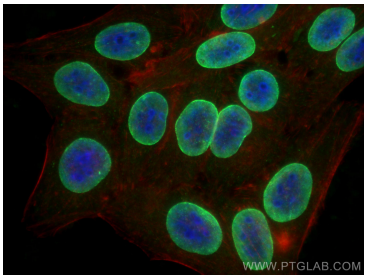
WB result of Lamin A/C antibody (10298-1-AP; 1:20000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Lamin A/C transfected HeLa cells.



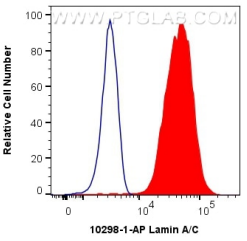
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 10298-1-AP (Lamin A/C antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 10298-1-AP (Lamin A/C antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Lamin A/C antibody (10298-1-AP) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



1X10^6 HEK-293T cells were intracellularly stained with 0.4 ug Anti-Human Lamin A/C (10298-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).