10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

LMNA(Lamin-A/C) Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21250c

Specification

LMNA(Lamin-A/C) Antibody (Center) - Product Information

Application	WB,E
Primary Accession	P02545
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit Ig
Calculated MW	74139

LMNA(Lamin-A/C) Antibody (Center) - Additional Information

Gene ID 4000

Other Names
Prelamin-A/C, Lamin-A/C, 70 kDa lamin, Renal carcinoma antigen NY-REN-32, LMNA, LMN1

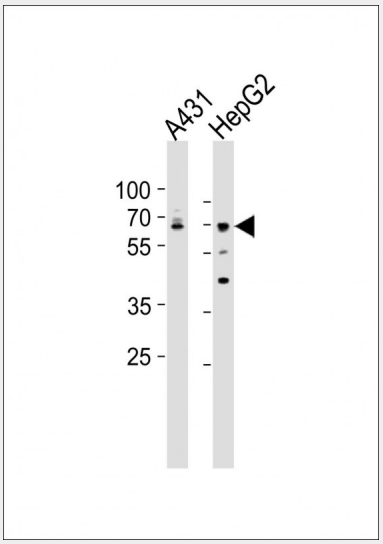
Target/Specificity
This LMNA(Lamin-A/C) antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 465-498 amino acids from the Central region of human LMNA(Lamin-A/C).

Dilution
WB~~1:1000

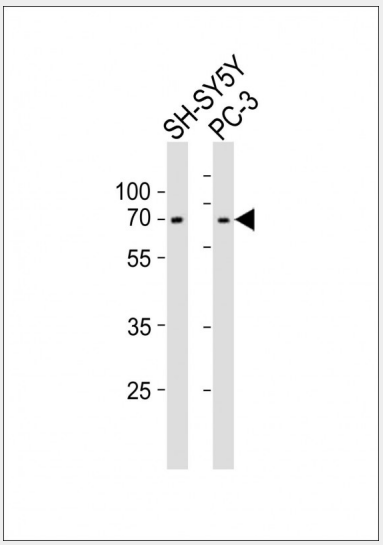
Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
LMNA(Lamin-A/C) Antibody (Center) is for research use only and not for use in



All lanes : Anti-LMNA(Lamin-A/C) Antibody (Center) at 1:500 dilution Lane 1: A431 whole cell lysates Lane 2: HepG2 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 74 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-LMNA(Lamin-A/C) Antibody (Center) at 1:1000 dilution Lane 1: SH-SY5Y whole cell lysates Lane 2: PC-3 whole cell

diagnostic or therapeutic procedures.

LMNA(Lamin-A/C) Antibody (Center) - Protein Information

Name LMNA

Synonyms LMN1

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 (PubMed:31548606). 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 (PubMed:10080180, PubMed:22431096, PubMed:10814726, PubMed:11799477, PubMed:18551513). Required for osteoblastogenesis and bone formation (PubMed:12075506, PubMed:15317753, PubMed:18611980). Also prevents fat infiltration of muscle and bone marrow, helping to maintain the volume

lysates Lysates/proteins at 20 µg per lane.
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution
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Blocking/Dilution buffer: 5% NFDM/TBST.

LMNA(Lamin-A/C) Antibody (Center) - 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. 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.

LMNA(Lamin-A/C) Antibody (Center) - References

McKeon F.D.,et al.Nature 319:463-468(1986).
Fisher D.Z.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:6450-6454(1986).
Sylvius N.,et al.J. Med. Genet. 42:639-647(2005).
Csoka A.B.,et al.Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

and strength of skeletal muscle and bone (PubMed:10587585). Required for cardiac homeostasis (PubMed:10580070, PubMed:12927431, PubMed:18611980, PubMed:23666920).

Cellular Location
Nucleus. Nucleus envelope. Nucleus lamina. Nucleus, nucleoplasm Nucleus matrix. Note=Farnesylation of prelamin-A/C facilitates nuclear envelope targeting and subsequent cleavage by ZMPSTE24/FACE1 to remove the farnesyl group produces mature lamin-A/C, which can then be inserted into the nuclear lamina. EMD is required for proper localization of non-farnesylated prelamin-A/C

Tissue Location
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.

LMNA(Lamin-A/C) Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

- Flow Cytomety
- Cell Culture