

Rabbit Lamin A/C Polyclonal Antibody | anti-LMNA antibody

Phospho-Lamin A/C (Ser392) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA30967	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

Lamin A/C; Polyclonal Antibody; Phospho-Lamin A/C (Ser392) Antibody; 70 kDa lamin; Cardiomyopathy dilated 1A (autosomal dominant); CDCD1; CDDC; CMD1A; CMT2B1; EMD2; FPL; FPLD; FPLD2; HGPS; IDC; Lamin A; Lamin A/C like 1; Lamin; Lamin C; Lamin A/C; LDP1; LFP; LGMD1B; Limb girdle muscular dystrophy 1B (autosomal dominant); LMN 1; LMN A; LMN C; LMN1; LMNA; LMNA_HUMAN; LMNC; LMNL1; Prelamin A/C; PRO1; Renal carcinoma antigen NY REN 32; Renal carcinoma antigen NY-REN-32; Renal carcinoma antigen NYREN32; anti-LMNA antibody

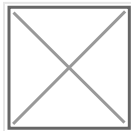
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-Lamin A/C (Ser392) antibody detects endogenous levels of Lamin A/C only when phosphorylated at Serine 392
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	574
Applicable Applications for anti-LMNA antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:1000 IF/ICC: 1:100-1:500
Immunogen	A synthesized peptide derived from human Lamin A/C around the phosphorylation site of Serine 392
Subcellular Location	Nucleus. Nucleus Envelope. 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 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.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Rabbit, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Rabbit (100%), Chicken (91%), Xenopus (82%)
Conjugation	Unconjugated
Epitope	Phospho Ser392

IMAGES



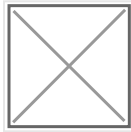
IHC (Immunohistochemistry)
AAA30967 at 1/100 staining rat liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30967 at 1/100 staining rat spleen tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30967 at 1/100 staining rat gastric tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30967 at 1/100 staining rat uterine tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30967 at 1/100 staining human liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30967 at 1/100 staining human appendiceal tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-LMNA antibody	Description: The nuclear lamina consists of a two-dimensional matrix of proteins located next to the inner nuclear membrane. 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. 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. 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 and strength of skeletal muscle and bone (PubMed:10587585). Required for cardiac homeostasis (PubMed:10580070, PubMed:12927431, PubMed:18611980, PubMed:23666920). Subunit Structure: Homodimer of lamin A and lamin C. Interacts with lamin-associated polypeptides IA, IB and TMPO-alpha, RB1 and with emerin. Interacts with SREBF1, SREBF2, SUN2 and TMEM43. Interacts with TMEM201 (By similarity). Proteolytically processed isoform A interacts with NARF. Interacts with SUN1. Prelamin-A/C interacts with EMD. Interacts with MLIP. Interacts with DMPK; may regulate nuclear envelope stability. Interacts with SUV39H1; the interaction increases stability of SUV39H1. Interacts with SYNE2. Post-translational Modifications: Increased phosphorylation of the lamins occurs before envelope disintegration and probably plays a role in regulating lamin associations. Proteolytic cleavage of the C-terminal of 18 residues of prelamin-A/C results in the production of lamin-A/C. The prelamin-A/C maturation pathway includes farnesylation of CAAX motif, ZMPSTE24/FACE1 mediated cleavage of the last three amino acids, methylation of the C-terminal cysteine and endoproteolytic removal of the last 15 C-terminal amino acids. Proteolytic cleavage requires prior farnesylation and methylation, and absence of these blocks cleavage. Sumoylation is necessary for the localization to the nuclear envelope. Farnesylation of prelamin-A/C facilitates nuclear envelope targeting. Similarity: Belongs to the intermediate filament family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	383792150
NCBI GeneID	4000
NCBI Accession #	NP_001244303.1
NCBI GenBank Nucleotide #	NM_001257374.2
UniProt Accession #	P02545; P02546; Q5I6Y4; Q5I6Y6; Q5TCJ2; Q5TCJ3; Q6UYC3; Q969I8; B4DI32; D3DVB0; D6RAQ3; E7EUI9
Molecular Weight	Observed: 74; 65 kDa Predicted: 75 kDa
NCBI Official Full Name	lamin isoform D
NCBI Official Synonym Full Names	lamin A/C
NCBI Official Symbol	LMNA
NCBI Official Synonym Symbols	FPL; IDC; LFP; CDDC; EMD2; FPLD; HGPS; LDP1; LMN1; LMNC; MADA; PRO1; CDCD1; CMD1A; FPLD2; LMNL1; CMT2B1; LGMD1B
NCBI Protein Information	lamin
UniProt Protein Name	Prelamin-A/C
UniProt Gene Name	LMNA
UniProt Synonym Gene Names	LMN1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/lamin-a-c-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-elisa/30967>