

ARG55265 anti-Lamin A antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes Lamin A
Tested Reactivity	Hu, Ms, Rat
Tested Application	WB
Specificity	This antibody detects endogenous levels of Lamin A and does not cross-react with related proteins.
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Target Name	Lamin A
Species	Human
Immunogen	Purified recombinant fragment of Human Lamin A.
Conjugation	Un-conjugated
Alternate Names	HGPS; Renal carcinoma antigen NY-REN-32; LDP1; FPL; LMN1; CDCD1; LMNL1; CDDC; PRO1; EMD2; CMT2B1; 70 kDa lamin; LFP; Prelamin-A/C; LMNC; FPLD2; LGMD1B; IDC; FPLD; CMD1A

Application Instructions

Application table	Application	Dilution
	WB	1:1000

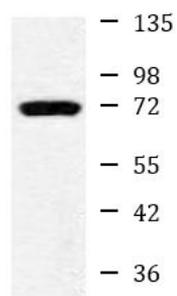
Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.4), 0.03% Proclin 300 and 50% Glycerol
Preservative	0.03% Proclin 300
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 16905 Mouse GeneID: 4000 Human Swiss-port # P02545 Human Swiss-port # P48678 Mouse
Gene Symbol	LMNA
Gene Full Name	lamin A/C
Background	<p>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. Lamin proteins are thought to be involved in nuclear stability, chromatin structure and gene expression. Vertebrate lamins consist of two types, A and B. Alternative splicing results in multiple transcript variants. 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. [provided by RefSeq, Apr 2012]</p>
Function	<p>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.</p> <p>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. [UniProt]</p>
Research Area	Controls and Markers antibody; Signaling Transduction antibody
Calculated Mw	74 kDa
PTM	<p>Increased phosphorylation of the lamins occurs before envelope disintegration and probably plays a role in regulating lamin associations.</p> <p>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.</p> <p>Sumoylation is necessary for the localization to the nuclear envelope.</p> <p>Farnesylation of prelamin-A/C facilitates nuclear envelope targeting.</p>
Cellular Localization	Nucleus. Nucleus envelope. Nucleus lamina. Nucleus > nucleoplasm [UniProt]



K562

ARG55265 anti-Lamin A antibody WB image

Western blot: K562 cell lysate stained with ARG55265 anti-Lamin A antibody at 1:1000 dilution.