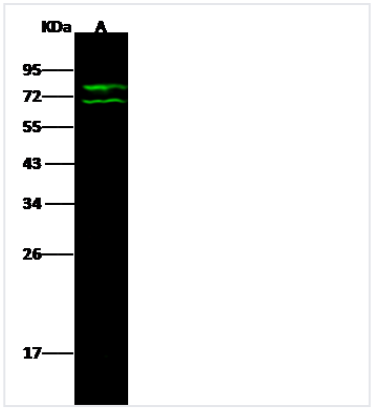
# LMNA Antibody – Rabbit Polyclonal

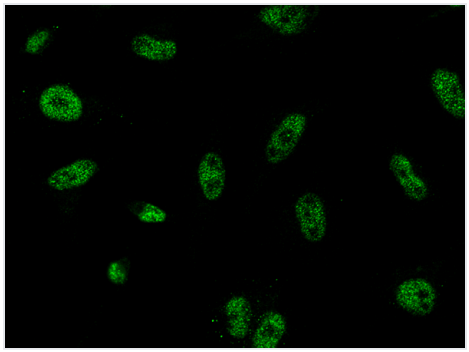
## PRODUCT OVERVIEW

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| **Product Name** | LMNA, Polyclonal Antibody |
| **Full Product Name** | Anti-LMNA Antibody, Rabbit Polyclonal |
| **Product Gene Name** | anti-LMNA antibody |
| **Product Synonym Names** | LMNA/lamins A Antibody, Rabbit PAb, Antigen Affinity Purified; lamin A/C; Anti-CDCD1 Antibody; Anti-CDDC Antibody; Anti-CMD1A Antibody; Anti-CMT2B1 Antibody; Anti-EMD2 Antibody; Anti-FPL Antibody; Anti-FPLD Antibody; Anti-FPLD2 Antibody; Anti-HGPS Antibody; Anti-IDC Antibody; Anti-LDP1 Antibody; Anti-LFP Antibody; Anti-LGMD1B Antibody; Anti-LMN1 Antibody; Anti-LMNC Antibody; Anti-LMNL1 Antibody; Anti-PRO1 Antibody |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human<br>Predicted to React with: Mouse, Rat (Species predicted to react based on 100% sequence homology) |
| **Form/Format** | Liquid; 0.2um filtered solution in PBS |
| **Purity/Purification** | Protein A & Antigen Affinity |
| **Specificity** | Human LMNA |
| **Preparation and Storage** | This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles. |
| **Molecular Weight** | 74,65kDa |
| **Chromosome Location** | Chromosome: 1; NC_000001.10 (156052369..156109880). Location: 1q22 |
| **OMIM** | 115200 |
| **3D Structure** | ModBase 3D Structure for P02545 |
| **Immunogen** | A synthetic peptide corresponding to the N-terminus of the Human LMNA/lamins A |
| **Conjugation** | Unconjugated |
| **Preparation** | Produced in rabbits immunized with a synthetic peptide corresponding to the N-terminus of the Human LMNA/lamins A, and purified by antigen affinity chromatography. |
| **Product Categories/Family for anti-LMNA antibody** | AKT Signaling Pathway |
| **Applications Tested/Suitable for anti-LMNA antibody** | Western Blot (WB), Immunocytochemistry (ICC), Immunofluorescence (IF) |
| **Application Notes for anti-LMNA antibody** | WB: 1:500-1:1000<br>ICC/IF: 1:1500-1:50,000 |
| **Related Product Information for anti-LMNA antibody** | Mutations of the LMNA gene encoding the lamin A and C nuclear envelope proteins cause an autosomal dominant form of dilated cardiomyopathy (DCM) with the atrioventricular block (AVB). LMNA mutations can also lead to several other disorders, collectively termed laminopathies, involving heart, fat, nerve, bone, and skin tissues, and some premature aging syndromes. Mutations of the LMNA gene have been shown to cause an autosomal dominant form of insulin resistance with familial partial lipodystrophy (PLD), frequently accompanied by diabetes. LMNA mutations are considered to be a rare cause of monogenic diabetes; however, they are probably sometimes misidentifiesd as type 2 diabetes (T2DM). |

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| **Other Notes** | Small volumes of anti-LMNA antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for LMNA purchase** | MBS8101750 is an antibody targeting LMNA. Also known as Anti-LMNA Antibody, Rabbit Polyclonal. Reactive in Human<br>Predicted to React with: Mouse, Rat (Species predicted to react based on 100% sequence homology). Host: Rabbit. |




**Western Blot (WB) of anti-LMNA antibody**
Anti-LMNA rabbit polyclonal antibody at 1:500 dilutionLane A: HeLa Whole Cell LysateLysates/proteins at 30 ug per lane.SecondaryGoat Anti- Rabbit IgG H&L (Dylight 800) at 1/10000 dilution.Developed using the Odyssey technique. Performed under reducing conditions.Predicted band size:74 kDaObserved band size:74 kDa(We are unsure as to the identity of these extra bands.)



**Immunofluorescence (IF) of anti-LMNA antibody**
Immunofluorescence staining of LMNA in HeLa cells. Cells were fixed with 4% PFA, permeabilzed with 0.3% Triton X-100 in PBS,blocked with 10% serum, and incubated with rabbit anti-human LMNA polyclonal antibody (1:5000) at 4 degree C overnight. Then cells were stained with the Alexa Fluor488-conjugated Goat Anti-rabbit IgG secondary antibody (green).Positive staining was localized to nucleus.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LMNA. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 383792150 |
| **NCBI GeneID** | 4000 |
| **NCBI Accession #** | NP_001244303.1 |
| **UniProt Primary Accession #** | P02545 |
| **UniProt Secondary Accession #** | P02546; Q5TCJ2; Q5TCJ3; Q969I8; Q96JA2; B4DI32; D3DVB0; E7EUI9 |
| **UniProt Related Accession #** | P02545 |
| **GenBank Nucleotide #** | NM_001257374.1 |
| **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; PRO1; CDCD1; CMD1A; FPLD2; LMNL1; CMT2B1; LGMD1B |
| **UniProt Protein Name** | Prelamin-A/C |
| **UniProt Synonym Protein Names** | 70 kDa lamin; Renal carcinoma antigen NY-REN-32 |
| **Protein Family** | Lamin |
| **UniProt Gene Name** | LMNA |
| **UniProt Synonym Gene Names** | LMN1 |
| **UniProt Entry Name** | LMNA_HUMAN |

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| **NCBI Protein Information** | lamin; 70 kDa lamin; prelamin-A/C; lamin A/C-like 1; renal carcinoma antigen NY-REN-32 |
| **NCBI Summary for LMNA** | 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] |
| **UniProt Comments for LMNA** | lamin A/C: nuclear lamins are intermediate filament proteins that constitute the lattice-like matrix at the inner face of the nuclear membrane that underlies the nuclear envelop. The lamins, highly conserved throughout evolution, are encoded by three genes in the human: LMNA, LMNB1, and LMNB2. The A-type lamins (lamin A/C) are developmentally regulated and are generally expressed in differentiated cells. The anchoring of chromatin to the nuclear lamina is involved in the control of gene expression and in DNA replication and repair. During mitosis, the nuclear lamina is reversibly disassembled as the lamin proteins are phosphorylated. Cleaved by caspase-6 during apoptosis into a 40-45 kDa and a28 kDa fragment.<br><br>Protein type: Cytoskeletal<br><br>Chromosomal Location of Human Ortholog: 1q22<br><br>Cellular Component: nucleoplasm; nuclear lamina; nuclear membrane; perinuclear region of cytoplasm; cytoplasm; lamin filament; intermediate filament; nuclear speck; nuclear envelope; nucleus; cytosol<br><br>Molecular Function: protein binding; structural molecule activity<br><br>Biological Process: muscle development; mitotic nuclear envelope reassembly; apoptosis; unfolded protein response; ventricular cardiac muscle cell development; mitotic nuclear envelope disassembly; regulation of cell migration; cellular protein metabolic process; unfolded protein response, activation of signaling protein activity; sterol regulatory element binding protein nuclear translocation; mitotic cell cycle; cell structure disassembly during apoptosis; establishment and/or maintenance of microtubule cytoskeleton polarity<br><br>Disease: Heart-hand Syndrome, Slovenian Type; Emery-dreifuss Muscular Dystrophy 2, Autosomal Dominant; Restrictive Dermopathy, Lethal; Muscular Dystrophy, Congenital, Lmna-related; Mandibuloacral Dysplasia With Type A Lipodystrophy; Emery-dreifuss Muscular Dystrophy 3, Autosomal Recessive; Charcot-marie-tooth Disease, Axonal, Type 2b1; Lipodystrophy, Familial Partial, Type 2; Hutchinson-gilford Progeria Syndrome; Cardiomyopathy, Dilated, 1a; Muscular Dystrophy, Limb-girdle, Type 1b; Cardiomyopathy, Dilated, With Hypergonadotropic Hypogonadism |
| **Research Articles on LMNA** | **1.** Human age-related nuclear cataract is not associated with LMNA gene mutations or truncation of lamin A. |
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