

## Product datasheet for **SC336987**

### Lamin A (LMNA) (NM\_001282626) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lamin A (LMNA) (NM_001282626) Human Untagged Clone
Tag:	Tag Free
Symbol:	LMNA
Synonyms:	CDCD1; CDDC; CMD1A; CMT2B1; EMD2; FPL; FPLD; FPLD2; HGPS; IDC; LDP1; LFP; LGMD1B; LMN1; LMNC; LMNL1; MADA; PRO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



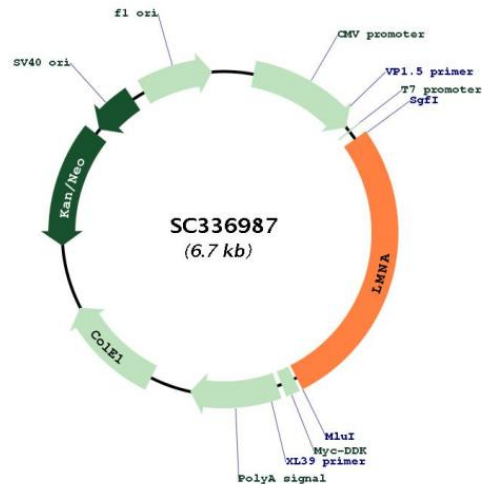
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**Fully Sequenced ORF:** >SC336987 representing NM\_001282626.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGATCGCC
ATGGAGACCCCGTCCCAGCGCGGCCACCCGACGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCC
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GACCGTGTGCGCTCGCTGGAAACGGAGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTG
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TCTGCCAGCGGCTCAGGAGCCCAGAGCCCCAGAAGTGCAGCATCATGTAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGGC
  
```

**Restriction Sites:** SgfI-MluI

**Plasmid Map:**


**ACCN:** NM\_001282626

**Insert Size:** 1845 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001282626.1](#)

**RefSeq Size:** 3089 bp

**RefSeq ORF:** 1845 bp

**Locus ID:** 4000

**UniProt ID:** [P02545](#)

**Cytogenetics:** 1q22

**Protein Families:** Druggable Genome

**Protein Pathways:** Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

**MW:** 69.2 kDa

**Gene Summary:** 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]

Transcript Variant: This variant (7) uses an alternate 3' exon structure and thus differs in the 3' coding region and 3' UTR, compared to variant 1. This results in a shorter isoform (A-delta50, also known as progerin) with a distinct C-terminus when compared to isoform prelamin A. Although this isoform has been linked to Hutchinson-Gilford progeria syndrome, it is also found in unaffected individuals and thought to be linked to cellular terminal differentiation and physiological aging (see PubMed IDs: 12702809, 16645051, and 18060063).