

Product datasheet for **RG204970**

Lamin A (LMNA) (NM_170707) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lamin A (LMNA) (NM_170707) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lamin A
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-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG204970 representing NM_170707
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGACCCCGTCCCAGCGGCGGCCACCCGAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCCA
 CCCGCATCACCCGGCTGCAGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGA
 CCGTGTGCGCTCGCTGGAACCGGAGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTC
 AGCCGCGAGGTGTCCGGCATCAAGGCCGCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCCTTGACT
 CAGTAGCCAAGGAGCGCGCCCGCTGCAGCTGGAGCTGAGCAAAGTGCCTGAGGAGTTTAAAGAGCTGAA
 AGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCTCAGGCTCGGCTGAAGACCTGGAGGCTCTG
 CTGAACTCCAAGGAGGCCGACTGAGCACTGCTCTCAGTGAGAAGCGCACGCTGGAGGGCGAGCTGCATG
 ATCTCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAGAAGCAACTTCAGGATGAGAT
 GCTGCGGGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAAGTGGACTTCCAGAAGAATC
 TACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTATGAGACCCGACTGGTGGAGATTGACAATGGGAAGC
 AGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAAGTGCAGGCCAGCATGAGGACCAGGTGGA
 GCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG
 AACAGCAACCTGGTGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTG
 CCCAGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACT
 GGCCCGTGAGCGGGACACCAGCCGGCGGCTGCTGGCGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCA
 AGGATGCAGCAGCAGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCC
 ACGCTACCGCAAGCTCTTGAGGGCGAGGAGGAGGCTACGCTGTCCCCAGCCCTACCTCGCAGCG
 CAGCCGTGGCCGTGCTTCTCTCACTCATCCAGACACAGGGTGGGGGCAGCGTACAAAAAGCGCAAA
 CTGGAGTCCACTGAGAGCCGAGCAGCTTCTCACAGCACGCACGCACTAGCGGGCGCTGGCCGTGGAGG
 AGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTG
 GCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGACTTACCGTTCCACCAAAGTTACCCTGAAG
 GCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCACCCACAGCCCCCTACCGACTGGTGT
 GGAAGGCACAGAACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTCATCACTCCACTGGGGAAGA
 AGTGGCCATGCGCAAGCTGGTGCCTCAGTGACTGTGGTTGAGGACGACGAGGATGAGGATGGAGATGAC
 CTGCTCCATCACACCACGGCTCCCACTGCAGCAGCTCGGGGACCCCGCTGAGTACAACCTGCGCTCGC
 GCACCGTGTGTCGGGACCTGCGGGCAGCCTGCCGACAAGGCATCTGCCAGCGGCTCAGGAGCCCAGGT
 GGGCGGACCCATCTCTCTGGCTTTCTGCCTCCAGTGTACGGTCACTCGCAGTACCGCAGTGTGGGG
 GGCAGTGGGGTGGCAGCTTCGGGGACAATCTGGTCACCCGCTCTACCTCTGGGCAACTCCAGCCCC
 GAACCCAGAGCCCCAGAAGTGCAGCATCATG

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG204970 representing NM_170707
 Red=Cloning site Green=Tags(s)

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEV
 SREVSIGKAAEAEALGDARKTLDSVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEAL
 LNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNI
 YSEELRETKRRHETRLVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAER
 NSNLVGAHEELQQSRIRIDSLAQLSQLQKQLAAKEAKLRDLEDLARERDTSRLLAEKEREMAEMRA
 RMQQQLDEYQELLDIKLALDMEIHAYRKLLLEGEERLRLSPSPTSQRSRGRASSHSQTQGGGSVTKKRK
 LESTESRSSFSQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQSMGNWQIKRQNGDDPLLYRFPKFTLK
 AGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCNLSRTALINSTGEEVAMRKLVRVTVVEDDEDEDGDD
 LLHHHHGSHCSSGDPAEYNLRSRTVLCGTGQPADKASASGSGAQVGGPISSGSSASSVTVTRSYRSVG
 GSGGGSFGDNLVTRSYLLGNSSPRTQSPQNCSIM

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_170707

ORF Size: 1992 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_170707.4](#)

RefSeq Size: 3181 bp

RefSeq ORF: 1995 bp

Locus ID: 4000

UniProt ID: [P02545](#)

Cytogenetics: 1q22

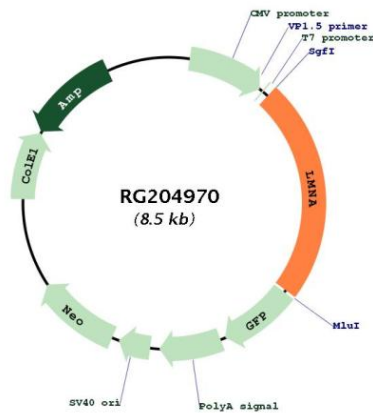
Protein Families: Druggable Genome

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

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]

Product images:



Circular map for RG204970