

Product datasheet for **RC201809**

Lamin A (LMNA) (NM_005572) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lamin A (LMNA) (NM_005572) Human Tagged ORF Clone
Tag:	Myc-DDK
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-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201809 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGACCCCGTCCCAGCGGCGGCCACCCGAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCCA
 CCCGCATCACCCGGCTGCAGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGA
 CCGTGTGCGCTCGCTGGAACCGGAGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGT
 AGCCGCGAGGTGTCCGGCATCAAGGCCGCTACGAGGCCGAGCTCGGGATGCCGCAAGACCCCTTGACT
 CAGTAGCCAAGGAGCGCGCCCGCTGCAGCTGGAGCTGAGCAAAGTGCCTGAGGAGTTTAAAGAGCTGAA
 AGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCTCAGGCTCGGCTGAAGACCTGGAGGCTCTG
 CTGAACCTCAAGGAGGCCGACTGAGCACTGCTCTCAGTGAGAAGCGCACGCTGGAGGGCGAGCTGCATG
 ATCTCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAGAAGCAACTTCAGGATGAGAT
 GCTGCGGGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAAGTGGACTTCCAGAAGAATC
 TACAGTGAGGAGCTGCGTGAGACCAAGCGCGTATGAGACCCGACTGGTGGAGATTGACAATGGGAAGC
 AGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAAGTGCAGGGCCAGCATGAGGACCAGGTGGA
 GCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG
 AACAGCAACCTGGTGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTG
 CCCAGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACT
 GGCCCGTGAGCGGGACACCAGCCGGCGGCTGCTGGCGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCA
 AGGATGCAGCAGCAGCTGGACGAGTACCAGGACTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCC
 ACGCCTACCGCAAGCTCTTGAGGGCGAGGAGGAGGCTACGCCTGTCCCCAGCCCTACCTCGCAGCG
 CAGCCCTGGCCGTGCTTCTCTCACTATCCAGACACAGGGTGGGGGCGAGCGTACCAAAAAGCGCAAA
 CTGGAGTCCACTGAGAGCCGAGCAGCTTCTCACAGCACGCACGCACTAGCGGGCGCTGGCCGTGGAGG
 AGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTG
 GCAGATCAAGCGCCAGAATGGAGATGATCCCTTGTGACTTACCGGTTCCACCAAAAGTTACCCTGAAG
 GCTGGGCAAGTGGTACGATCTGGGCTGCAGGAGCTGGGGCCACCCACAGCCCCCTACCGACTGGTGT
 GGAAGGCACAGAACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTCATCACTCCACTGGGGAAGA
 AGTGGCCATGCGCAAGCTGGTGCCTCAGTGACTGTGGTTGAGGACGACGAGGATGAGGATGGAGATGAC
 CTGCTCCATCACACCACGTGAGTGGTAGCCGCCG

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201809 protein sequence
 Red=Cloning site Green=Tags(s)

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEV
 SREVSGIKAAEYELGDARKTLDSVAKERARLQLEL SKVREEFKELKARNTKKEGDLIAAQARLKDLEAL
 LNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNI
 YSEELRETKRRHETRLVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAER
 NSNLVGAHEELQQSRIRIDSLSAQLSQLQKQLAAKEAKLRDLEDLARERDTSRLLAEKEREMAEMRA
 RMQQQLDEYQELLDIKLALDMEIHAYRKLLLEGEERLRLSPSPTSQRSRGRASSHSQTQGGGSVTKKRK
 LESTESRSSFSQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPKF^{FLK}
 AGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCNSLRTALINSTGEEVAMRKLVRSVTVVEDEDEDEDGDD
 LLHHHHVSGSRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6581_f04.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_005572

ORF Size: 1716 bp

OTI Disclaimer: 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_005572.4](#)

RefSeq Size: 2077 bp

RefSeq ORF: 1719 bp

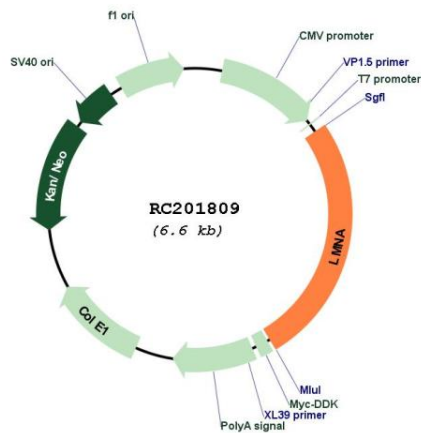
Locus ID: 4000

UniProt ID: [P02545](#)

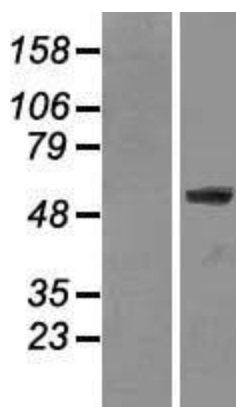
Cytogenetics: 1q22

Domains:	IF_tail, filament
Protein Families:	Druggable Genome
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)
MW:	65.1 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]

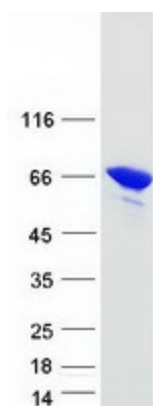
Product images:



Circular map for RC201809



Western blot validation of overexpression lysate (Cat# [LY417216]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201809 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LMNA protein (Cat# [TP301809]). The protein was produced from HEK293T cells transfected with LMNA cDNA clone (Cat# RC201809) using MegaTran 2.0 (Cat# [TT210002]).