

Product datasheet for **RG201809**

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:	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:

>RG201809 representing NM_005572
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGACCCCGTCCAGCGGCGGCCACCCGAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCCA
 CCCGCATCACCCGGCTGCAGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGA
 CCGTGTGCGCTCGCTGGAACCGGAGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTC
 AGCCGCGAGGTGTCCGGCATCAAGGCCGCTACGAGGCCGAGCTCGGGATGCCCGCAAGACCCCTTGACT
 CAGTAGCCAAGGAGCGCGCCCGCTGCAGCTGGAGCTGAGCAAAGTGCCTGAGGAGTTTAAAGAGCTGAA
 AGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCTCAGGCTCGGCTGAAGACCTGGAGGCTCTG
 CTGAACTCCAAGGAGGCCGACTGAGCACTGCTCTCAGTGAAGCGCACGCTGGAGGGCGAGCTGCATG
 ATCTCGGGGCCAGGTGGCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAGAAGCAACTTCAGGATGAGAT
 GCTGCGGGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAAGTGGACTTCCAGAAGAATC
 TACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTATGAGACCCGACTGGTGGAGATTGACAATGGGAAGC
 AGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAAGTGCAGGGCCAGCATGAGGACCAGGTGGA
 GCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG
 AACAGCAACCTGGTGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTG
 CCCAGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACT
 GGCCCGTGAGCGGGACACCAGCCGGCGGCTGCTGGCGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCA
 AGGATGCAGCAGCAGCTGGACGAGTACCAGGACTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCC
 ACGCCTACCGCAAGCTCTTGGAGGGCAGGAGGAGGCTACGCCCTGTCACCCAGCCCTACCTCGCAGCG
 CAGCCCTGGCCGTGCTTCTCTCACTATCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAA
 CTGGAGTCCACTGAGAGCCGAGCAGCTTCTCACAGCACGCACGCACTAGCGGGCGCTGGCCGTGGAGG
 AGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTG
 GCAGATCAAGCGCCAGAATGGAGATGATCCCTTGTGACTTACCGGTTCCACCAAAAGTTACCCTGAAG
 GCTGGGCAAGTGGTACGATCTGGGCTGCAGGAGCTGGGGCCACCCACAGCCCCCTACCGACTGGTGT
 GGAAGGCACAGAACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTCATCACTCCACTGGGGAAGA
 AGTGGCCATGCGCAAGCTGGTGCCTCAGTGACTGTGGTTGAGGACGACGAGGATGAGGATGGAGATGAC
 CTGCTCCATCACACCACGTGAGTGGTAGCCGCCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201809 representing NM_005572
 Red=Cloning site Green=Tags(s)

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEV
 SREVSGIKAAYEALGDARKTLDSVAKERARLQLEL SKVREEFKELKARNTKKEGDLIAAARLKDLEAL
 LNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNI
 YSEELRETKRRHETRLVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAER
 NSNLVGAHEELQQSRIRIDSLSAQLSQLQQLAAKEAKLRDLEDLRLARERDTSRLLAEKEREMAEMRA
 RMQQQLDEYQELLDIKLALDMEIHAYRKLLLEGEEERLRLSPSPTSQRSRGRASSHSQTQGGGSVTKKRK
 LESTESRSSFSQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPKFTLK
 AGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCNSLRTALINSTGEEVAMRKLVRVSVTVVEDEDEDEDGDD
 LLHHHVS GSRR

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

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: 2032 bp

RefSeq ORF: 1719 bp

Locus ID: 4000

UniProt ID: [P02545](#)

Cytogenetics: 1q22

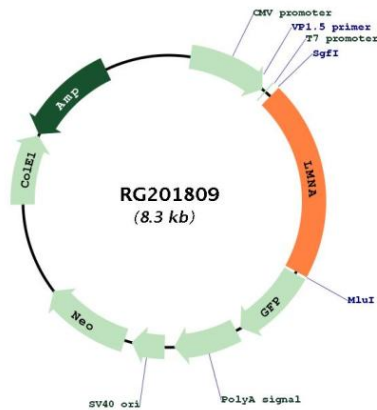
Domains: IF_tail, filament

Protein Families: Druggable Genome

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

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 RG201809