

## Product datasheet for **MG227591**

### Lmna (NM\_019390) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lmna (NM_019390) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lmna
Synonyms:	Dhe
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227591 representing NM\_019390  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGAAACGCGAGGGCCCAACACCAAGAAGGAGGGGACTTGTGGCTGCGCAGGCCCGCTCAAGG  
 ACCTCGAGGCTCTTCTCAACTCCAAGGAAGCTGCCCTGAGCACTGCTCTCAGTGAGAAGCGCACATTGGA  
 GGGCGAGCTCCATGACCTGCGGGGGCAGGTAGCCAAGCTTGAGGCGGCCCTGGGAGAGGCTAAGAAGCAG  
 CTTCAGGATGAGATGCTGAGGCGAGTGGATGCTGAGAACAGGCTACAGACGCTGAAGGAGGAGCTTGACT  
 TCCAGAAGAACATTTACAGCGAGGAAGCTGCGTGAGACCAAGCGCCGGCATGAGACGCGGCTTGTGGAGAT  
 CGATAACGGGAAGCAGCGAGAGTTTGAAGAGCGGCTGGCAGATGCCCTGCAGGAGCTGCGGGCTCAGCAT  
 GAGGACCAGGTGGAACAGTATAAGAAGGAGCTAGAAAAGACATACTCCGCCAAGCTGGATAATGCCAGGC  
 AGTCTGCTGAGAGGAACAGCAACCTCGTGGGGCTGCCCATGAGGAACTGCAGCAGTCTCGAATCCGCAT  
 TGACAGCCTCTCGGCCAGCTCAGCCAGCTCCAAAAGCAGTTGGCAGCCAAGGAGGCAAAGCTGCGTGAC  
 CTGGAGGACTCGCTGGCCGTGAGCGCGATACCAAGCCGGCGCCTGCTGGCTGAGAAAAGAGCGAGAGATGG  
 CGGAGATGCGGGCGAGGATGCAGCAGCAGCTGGACGAGTACCAGGAGCTGCTGGACATCAAGCTGGCCCT  
 GGACATGGAGATCCATGCCTATCGAAAGCTGCTGGAGGGCGAGGAGGAGAGGCTGCGCCTGTCCCCAGC  
 CCTACCTCGCAGCGCAGCCGTGGCCGCGCTCCTCCCCTCATCCAGTCTCAGGGTGGAGGCAGCGTCA  
 CAAAAAGCGCAAGCTGGAGTCTCCGAGAGCCGGAGCAGCTTCTCGCAGCATGCTCGACTAGCGGGCG  
 TGTGGCGGTAGAGGAAGTCGATGAAGAGGAAAGTTCTGCGGCTGCGCAACAAGTCCAACGAGGACCAG  
 TCCATGGCAACTGGCAGATCAGGCGTCAGAATGGTACGATCCTTTGATGACCTATCGCTTCCCACCGA  
 AGTTACCCCTAAAGGCTGGGCAGGTGGTACGATCTGGGCTTCCAGGAGCTGGGGCCACCCATAGCCCCC  
 TACTGACTTGGTGTGAAGGCGCAGAACACCTGGGGCTGTGGGAGCAGCCTTCGCACCGCTCTCATCAAC  
 TCCACTGGAGAAGAAGTGGCCATGCGCAAGCTGGTGCCTCACTGACCATGGTTGAGGACAATGAGGATG  
 ACGACGAGGATGGAGAAGAGCTCCTCCATCACCACCGTGTGAGTGGCAGCCGCCG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG227591 representing NM\_019390  
 Red=Cloning site Green=Tags(s)

MGNAEGRNTKKEGDLAAQARLKDLEALLNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQ  
 LQDEMLRRVDAENRLQTLKEELDFQKNIYSEELRETKRRHETRLVEIDNGKQREFESRLADALQELRAQH  
 EDQVEQYKKELEKTYSAKLDNARQSAERNL VGAAHEELQQSRIRIDSLSAQLSQLQKQLAAKEAKLRD  
 LEDSLARERDTSRRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHAYRKLLEGEERLRLSPS  
 PTSQRSRGRASSHSSQSQGGGSVTKKRKLESSESRSSFQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQ  
 SMGNWQIRRQNGDDPLMTYRFPKFTLKAGQVVTI WASGAGATHSPPTDLVWKAQNTWGCGSSLRTALIN  
 STGEEVAMRKLVRSLTMVEDNEDDEDGEELLHHRVSGSRR

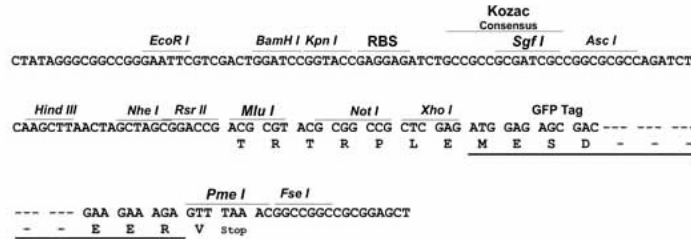
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

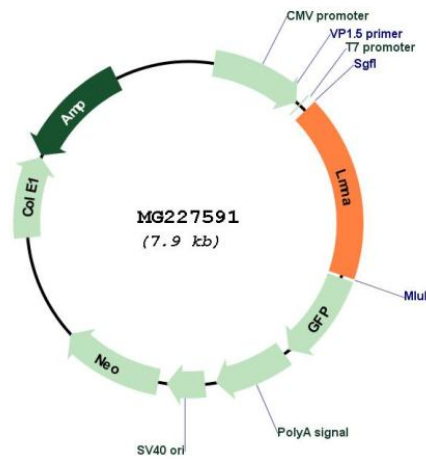
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_019390

ORF Size: 1386 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](mailto: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\\_019390.3](#)

**RefSeq Size:** 1523 bp

**RefSeq ORF:** 1389 bp

**Locus ID:** 16905

**UniProt ID:** [P48678](#)

**Cytogenetics:** 3 38.84 cM

**Gene Summary:**

This gene encodes a protein that is a member of the lamin family. Nuclear lamins, intermediate filament-like proteins, are the major components of the nuclear lamina, a protein meshwork associated with the inner nuclear membrane. This meshwork is thought to maintain the integrity of the nuclear envelope, participate in chromatin organization, and regulate gene transcription. Vertebrate lamins consist of two types, A and B. This protein is an A-type and is proposed to be developmentally regulated. In mouse deficiency of this gene is associated with muscular dystrophy. Mouse lines with different mutations in this gene serve as pathophysiological models for several human laminopathies. In humans, 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. Alternative splicing results in multiple transcript variants that encode different protein isoforms. [provided by RefSeq, May 2013]