

Product datasheet for **RG234467**

Lamin A (LMNA) (NM_001257374) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lamin A (LMNA) (NM_001257374) 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:

>RG234467 representing NM_001257374
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAACTCTGAGGGCTGCAATACCAAGAAGGAGGGTACCTGATAGCTGCTCAGGCTCGGCTGAAGG
 ACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGAAGCGCACGCTGGA
 GGGCGAGCTGCATGATCTGCGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAGAAGCAA
 CTTCAGGATGAGATGCTGCGGGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGAACTGGACT
 TCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGAT
 TGACAATGGGAAGCAGCGTGAGTTTGAAGAGCGGCTGGCGGATGCGCTGCAGGAAGTGGGGCCAGCAT
 GAGGACCAGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATCTGCCAAGCTGGACAATGCCAGGC
 AGTCTGCTGAGAGGAACAGCAACCTGGTGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCAT
 CGACAGCCTCTCTGCCAGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGAC
 CTGGAGGACTCACTGGCCCGTGAGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGG
 CCGAGATGCGGGCAAGGATGCAGCAGCAGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCT
 GGACATGGAGATCCACGCCTACCGCAAGCTCTTGGAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGC
 CCTACCTCGCAGCGCAGCCGTGGCCGTCTTCTCTCACTCATCCAGACACAGGCTGGGGCCAGCGTCA
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 ATCCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTCATCAAC
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 CAACCTGCGCTCGCGCACCGTGTGTGCGGGACCTGCGGGCAGCCTGCCGACAAGGCATCTGCCAGCGGC
 TCAGGAGCCAGGTGGGCGGACCCATCTCTCTGGCTCTTCTGCCTCCAGTGTACGGTCACTCGCAGCT
 ACCGCAGTGTGGGGGAGTGGGGTGGCAGCTTCGGGGACAATCTGGTACCCGCTCTACCTCTGGG
 CAACTCCAGCCCCGAACCCAGAGCCCCAGAAGTGCAGCATCATACAAGAGATGGGAATGAGGTGGGAG
 GTGGAAGAAGGGAGAAGAAGGTGAGTTTGAAGCTGCCTTCCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

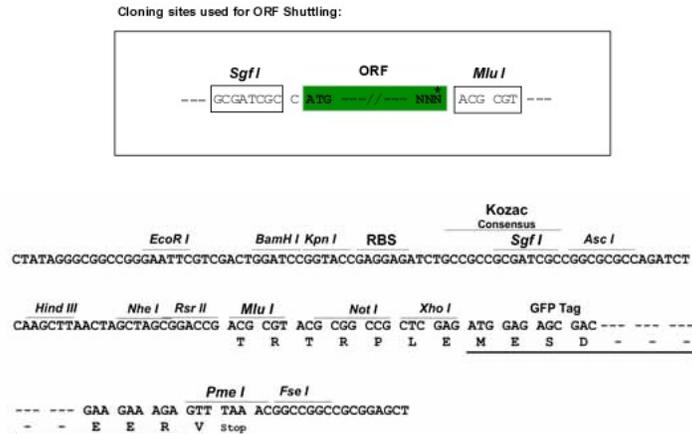
>RG234467 representing NM_001257374
 Red=Cloning site Green=Tags(s)

MGNSEGCNTKKEGDLIAAARLKDLEALLNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQ
 LQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETRLVEIDNGKQREFESRLADALQELRAQH
 EDQVEQYKKELEKTYSAKLDNARQSAERNLNLVGAHEELQQSRIRIDSLSAQLSQLQKQLAAKEAKLRD
 LEDSLARERDTSRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHAYRKLLEGEERLRLSPS
 PTSQRSRGRASSHSQTQGGSVTKKRKLESTESRSSFQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQ
 SMGNWQIKRQNGDDPLLTYRFPKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCNSLRTALIN
 STGEEVAMRKLVRVTVVEDDEDGDDLLHHHGHSHCSSGDPAEYNLRSRTVLCGTCGQPADKASASG
 SGAQVGGPISSGSSASSVTVTRSYRSVGGSGGSGFDNLVTRSYLLGNSSPRTQSPQNCIIQEMGRWE
 VEEGRKRVLSLCLP

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001257374

ORF Size: 1722 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_001257374.3](#)

RefSeq Size: 2074 bp

RefSeq ORF: 1725 bp

Locus ID: 4000

UniProt ID: [P02545](#)

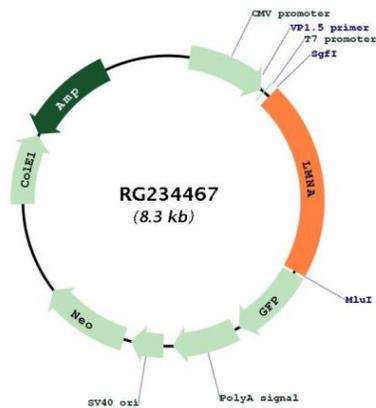
Cytogenetics: 1q22

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 RG234467