

Product datasheet for **RG238938**

Lamin A (LMNA) (NM_001282625) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Lamin A (LMNA) (NM_001282625) 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:

>RG238938 representing NM_001282625.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGAGACCCCGTCCCAGCGGCGGCCACCCGACGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCC
ACCCGCATCACCCGGCTGCAGGAGAAGGAGGACTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATC
GACCGTGTGCGCTCGCTGGAAACGGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTG
GTCAGCCGCGAGGTGTCCGGCATCAAGGCCGCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCTT
GACTCAGTAGCCAAGGAGCGCGCCGCTGACGCTGGAGCTGAGCAAAGTGCCTGAGGAGTTAAGGAG
CTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCTCAGGCTCGGCTGAAGGACTGGAG
GCTCTGCTGAACCTCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGAAGCGCACGCTGGAGGGCGAG
CTGCATGATCTGCGGGGCCAGGTGGCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAGAAGCAACTTCAG
GATGAGATGCTGCGGGCGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGGACTCCAG
AAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTGAC
AATGGGAAGCAGCGTGAGTTTGGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCCGGGCCAGCATGAG
GACCAGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAG
TCTGCTGAGAGGAACAGCAACCTGGTGGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATC
GACAGCCTCTCTGCCAGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGAC
CTGGAGGACTCACTGGCCCGTGAGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATG
GCCGAGATGCGGGCAAGGATGCAGCAGCAGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCC
CTGGACATGGAGATCCACGCCTACCGCAAGCTCTTGGAGGGCGAGGAGGAGGCTACGCCTGTCCCCC
AGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCTCTCACTCATCCAGACACAGGGTGGGGGCGAGC
GTACCAAAAAGCGCAAACCTGGAGTCCACTGAGAGCCGACGAGCTTCTACAGCACGCACGCACTAGC
GGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGCAAGTTTGTCCGGCTGCGCAACAAGTCCAATGAG
GACCAGTCCATGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGACTTACCGTTTC
CCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTACGATCTGGGCTGCAGGAGCTGGGGCCACCAC
AGCCCCCTACCGACTGGTGTGGAAGGCACAGAACCTGGGGCTGCGGGAACAGCCTGCGTACGGCT
CTCATCAACTCCACTGGGAAGAAGTGGCCATGCGCAAGCTGGTGCCTCAGTACTGTGGTTGAGGAC
GACGAGGATGAGGATGGAGATGACTGCTCCATCACCACCAGTGAAGTGGTAGCCGCCG
ACCGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238938
 Blue=ORF Red=Cloning site Green=Tag(s)

```
METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGRLRLRITESEEV
VSREVSGIKAAYEALGDARKTLDSVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLE
ALLNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQ
KNIYSEELRETKRRHETRLVEIDNGKQREFESRLADALQELRAQHEDQVEYKKELEKTYSAKLDNARQ
SAERNLNLVGAAHEELQQSRIRIDSLSAQLSQLQKQLAAKEAKLRDLEDSLARERDTSRLLAEKEREM
AEMRRMQQLDEYQELLDIKLALDMEIHAYRKLLEGEEERLRLSPSPTSQRSRGRASSHSQTQGGGS
VTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQSMGNWQIKRQNGDPLLTYRF
PPKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWCCGNSLRTALINSTGEEVAMRKLVRSVTVVED
DEDEDGDDLLHHHHVSGSRR
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGFSFTRTFLSLRDGGYSSVVDSDSHMHFSAIHPISILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

SgfI-MluI

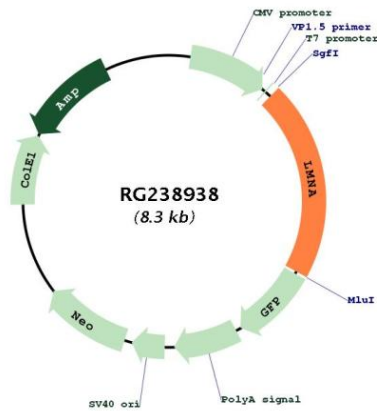
Cloning Scheme:


- ACCN:** NM_001282625
- 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).
- RefSeq:** [NM_001282625.2](#)
- RefSeq Size:** 2501 bp
- RefSeq ORF:** 1719 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)
- 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 RG238938