

Product datasheet for **RC200807**

Lamin B2 (LMNB2) (NM_032737) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Lamin B2 (LMNB2) (NM_032737) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Lamin B2 |
| Synonyms: | EPM9; LAMB2; LMN2; MCPH27 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide
Sequence:

>RC200807 representing NM_032737, **codon optimized.**

Due to the complexity of NM_032737, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAATACGACTACTATAGGGCGGCCGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGTCACCCCGAGCCCGGTAGAGAAGGGAGCAGAGAAGGCCCGCGCTGCCGCTACCATGGCCACC
CCCCTGCCAGGCCGAGCCGGTGGGCCGCCACCCATTGTCACCAACCAGACTGAGCAGACTGCAAGAA
AAGGAAGAGCTTCGGAAGTGAACGATCGCTTGGCCACTATATTGATAGGGTGAGAGACTGGAAGT
GAGAACGACAGACTGCTCCTTAAGATCTCAGAGAAAGAAGAGGTAACAAC TAGGGAAGTTAGCGGGATC
AAAGCCTGTACGAATCAGAACTGCCGACGCACGAGAGTTCTTGACGAAACAGCACGCGAGAGAGCC
AGGTTGCAGATTGAAATAGGTAATGAGAGCAGAATTGGACGAAGTAAATAAGAGCGCTAAAAACGG
GAGGGAGAGTTGACTGTGGCCAAAGGTCGCGTTAAGGATCTGGAATCTTTGTTTCATCGGTCTGAAGTG
GAGCTGGCAGCCGCGCTGAGCGCAAAAAGAGGATTGGAATCTGACGTGGCGGAACGAGAGCCAGCTG
GCCAAGGCCGAAGATGGACACGCTGTCGCCAAAAAACAACCTGGAGAAAGAGACTGATGAGGGTCGAC
CTGAAAAACAGATGCCAGTCCCTGCAGGAGGAGCTGGACTTCCGGAAGAGTGTGTTTCAGGAGGAGGTG
CGGGAGACGCGCGCGGCACGAGCGCGCCTGGTGGAGGTGGACAGCAGCCGCCAGCAGGAGTACGAC
TTCAAGATGGCACAGGCGCTGGAGGAGCTGCGGAGCCAGCAGCAGCAAGTGGCGCTCTACAAGCTG
GAGCTGGAGCAGACCTACCAGGCCAAGCTGGACAGCGCAAGCTGAGCTCTGACCAGAACGACAAGGCG
GCCAGTGCAGCTCGCGAGGAGCTGAAGGAGGCCCGCATGCGCCTGGAGTCCCTCAGCTACCAGCTCTCC
GGCTCCAGAAGCAGGCCAGTGGCCTGAAGATCGCATTTCGGGAGCTGGAGGAGCCATGGCCGGGAG
CGGGACAAGTTCCGGAAGATGCTGGACGCCAAGGAGCAGGAGATGACGGAGATGCGGGACGTGATGCAG
CAGCAGCTGGCCGAGTACCAGGAGCTGCTGGACGTGAAGCTGGCCCTGGACATGGAGATCAACGCCATC
CGGAAGCTCCTGGAGGGCGAGGAGGAGGCTGAAGCTGTCCCCAGCCATCCTCGCGCTCACCGTC
TCACGAGCCACCTCGAGCAGCAGCGCAGCTTGTCCGCCACCGGGCGCCTGGGCCGAGTAAAGCGGAAG
CGGCTGGAGGTGGAGGAGCCCTTGGCAGCGGCCAAGCGTCTGGGCACGGGCACGGGTGGCAGCGGT
GGCTTCCACCTGGCCAGCAGGCTCGGCCTCGGGTAGCGTCAGCATCGAGGAGATCGACCTGGAGGGC
AAGTTTGTGAGCTCAAGAACAACCTCGGACAAGGATCAGTCTCTGGGAACTGGAGAATCAAGAGGCAG
GTCTTGGAGGGGAGGAGATCGCCTACAAGTTCACGCCAAGTACATCCTGCGCGCCGGCCAGATGGTC
ACGGTGTGGGCAGCTGGTGGGGGGTGGCCACAGCCCCCTCGACGCTGGTGTGGAAGGGCCAGAGC
AGCTGGGGCACGGCGAGAGCTTCCGCACCGTCTGGTTAACGCGGATGGCGAGGAAGTGGCCATGAGG
ACTGTGAAGAAGTCTCGGTGATGCGTGAGAATGAGAATGGGGAGGAAGAGGAGGAGGAAGCCGAGTTT
GGCGAGGAGGATCTTTCCACCAACAGGGGGACCCGAGGACCACCTCAAGAGGCTGCTACGTGATG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Protein Sequence: >Peptide sequence encoded by RC200807
 Blue=ORF Red=Cloning site Green=Tag(s)

MSPPPSPGRRREQRRPRAAATMATPLPGRAGGPATPLSPTRL SRLQEKEELRELNDRLAHYIDRVRALEL
 ENDRLLLLKISEKEEVTREVSGIKALYESELADARRVLD ETARERARLQIEIGKLRAELDEVNKSAKKR
 EGELTVAQGRVKDLESLFHRSEVELAAALSDKRGLESDVAELRAQLAKAEDGHAVAKKQLEKETLMRVD
 LENRCQSLQEELDFRKS VFEEEVRETRRRRHERRLVEVDSSRQQEYDFKMAQALEELRSQHDEQVRLYKL
 ELEQTYQAKLDSAKLSSDQNDKAASAAREELKEARMRLESLSYQLSGLQKQASAAEDRIREEEAMAGE
 RDKFRKMLDAKEQEMTMRDVMQQLAEYQELLDVKLALDMEINAYRKLLEGEERLKLSPSPSSRVTV
 SRATSSSSGSLSATGRLGRSKRKRLEVEEPLGSGPSVLGTGTGGSGGFHLAQQASASGSVSIEEIDLEG
 KFYQLKNNSDKDQSLGNWRIKRQVLEGEEIAYKFTPKYILRAGQMVTVWAAGAGVAHSPSTLVWKGQS
 SWGTGESFRTVLVNADGEEVAMRTVKKSSVMRENENGE EEEEEAEFGEDLFHQQGDPRTRSGCYVM
 TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Recombinant protein using RC200807 also available, [TP300807](#)

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

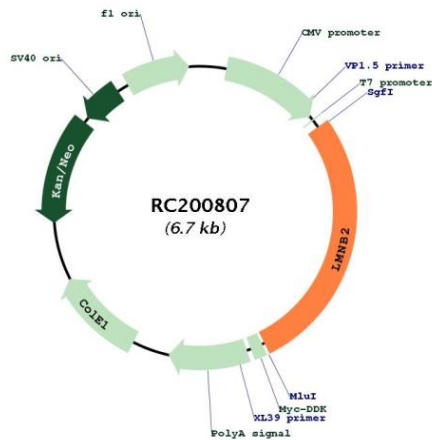


ACCN: NM_032737

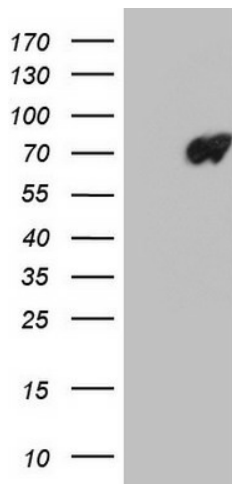
ORF Size: 1860 bp

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|-------------------------------|--|
| OTI Disclaimer: | <p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p> |
| OTI Annotation: | <p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p> |
| Components: | <p>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).</p> |
| Reconstitution Method: | <ol style="list-style-type: none">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. |
| Note: | <p>Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.</p> |
| RefSeq Size: | 4644 bp |
| RefSeq ORF: | 1863 bp |
| Locus ID: | 84823 |
| UniProt ID: | Q03252 |
| Cytogenetics: | 19p13.3 |
| Domains: | IF_tail, filament |
| MW: | 69.9 kDa |
| Gene Summary: | <p>This gene encodes a B type nuclear lamin. 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. Mutations in this gene are associated with acquired partial lipodystrophy. [provided by RefSeq, May 2012]</p> |

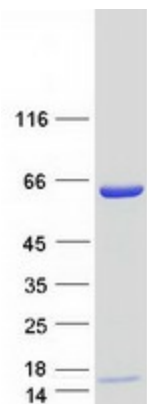
Product images:



Circular map for RC200807



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LMNB2 (Cat# RC200807, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LMNB2 (Cat# [TA803691]). Positive lysates [LY409970] (100ug) and [LC409970] (20ug) can be purchased separately from OriGene.



Coomassie blue staining of purified LMNB2 protein (Cat# [TP300807]). The protein was produced from HEK293T cells transfected with LMNB2 cDNA clone (Cat# RC200807) using MegaTran 2.0 (Cat# [TT210002]).