

Product datasheet for **RC223251**

Leiomodlin 3 (LMOD3) (NM_198271) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Leiomodlin 3 (LMOD3) (NM_198271) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Leiomodlin 3
Synonyms:	NEM10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC223251 representing NM_198271
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTCAGAGCACAGCAGAAATTCAGATCAAGAAGAACTTCTCGATGAGGAGATTAATGAAGATGAAATCT
 TGGCCAACTTGTCTGCTGAAGAAGTGAAGAAGTGCAGTCGGAATGGAAGTCATGGCCCTGACCCAG
 CCTTCCCGTGGGAATGATTCAGAAAGATCAAACTGACAAGCCACCGACAGGAAATTCATCATAAATCT
 CTTGTTGATTATGTATTGGGAAAAGGCATCCAGGCGCATGCTGGAAGAGGAACGAGTTCTGTCACTT
 TTGTGAAATCCGAGGAAAAGACTCAAGAAGAGCATGAAGAAATAGAAAAACGTAATAAAAAATATGCCCCA
 GTATTTAAAGAAAAGCTCAATAATGAAATAGTTGCAAAATAAGAGAAATCAAAGGCGAGCAGCAATATC
 CAAGAAACAGATGAAGAAGATGAAGAAGAAGATGATGATGATGACGACGAAGGAGAAGATGATGGTG
 AAGAGAGTGAAGAAACGAACAGAGAAGAGGAAGGCAAAGCAAAGGAACAAATTAGAAATTGTGAGAACAA
 CTGCCAGCAGGTAAGTGAAGAAGCATTCAAAGAACAGAGAGACAGACCAGAGGCCCAAGAACAAAGTGAG
 AAAAAAATATCGAAATTAGATCCTAAGAAGTTAGCTCTAGACACCAGCTTTTGAAGGTAAGTACAAGGC
 CTTGAGGAAACAGACAGACCTGGATGGGAGCTTGAGGAGAGTTAGGAAAAATGATCCTGACATGAAGGA
 ACTCAACCTGAACAACATTGAAAACATCCCCAAAGAAATGTTACTGGACTTTGTCAATGCAATGAAGAAA
 AACAGCAGATCAAAACATTAGTTTAGCAATGTGGGTGCAGATGAGAAATGTAGCATTTGCCTTGCTA
 ACATGTTGCGTGAAAATAGAAGCATCACCCTCTCAACATCGAGTCAATTTATCACAGGTAAAGGGAT
 TGTGGCCATCATGAGGTGTCTCCAGTTTAAAGAGCGCTAACTGAGCTTCGGTTTCAATCAGAGGCAC
 ATGTTGGGTCAACATGCTGAAATGGAATAGCCAGGCTTTGAAGGCAACAACACTCTCCTGAAGATGG
 GCTACCATTTTGAGCTTCCGGGTCCGAGATGGTGGTCACTAATCTGCTCACCAGGAATCAGGATAAACA
 AAGGCAGAAACGACAGGAAGAGCAAAAACAGCAGCAACTCAAGGAACAGAAGAAGCTGATAGCCATGTTA
 GAGAATGGGTTGGGGCTGCCCCCTGGGATGTGGGAGCTGTTGGGAGGACCAAGCCAGATTCCAGATGC
 AGGAATTCTTCCAGCCACCGCCACCTCGGCCTCCCAACCCCAAAATGTCCCTTTAGTCAACGCAGTGA
 AATGATGAAAAAGCCATCGCAGGCCCCGAAGTACAGGACAGACCCTGACTCCTTCCGGGTGGTGAAGCTG
 AAGAGAATCCAGCGCAAATCTCGGATGCCGGAAGCCAGAGAACCACCCGAGAAAACCAACCTCAAAGATG
 TCATCAAAACGCTCAAGCCAGTGCCGAGAAACAGGCCACCCCATTTGGTGGAAATCACTCCAGAGATCA
 GCTGCTAAACGACATTTCGTACAGCAGTGTGCCTATCTTAAACCTGTGCAACTGCCAAAAGAACTGGCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223251 representing NM_198271
 Red=Cloning site Green=Tags(s)

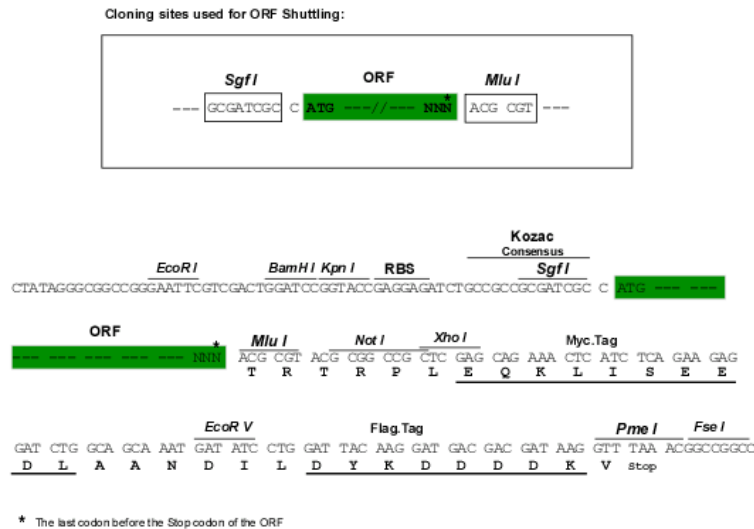
MSEHSRNSDQEELLDEEINDEILANLSAEELKELQSEMEVMAPDPSLPVGMIIQKDQTDKPPTGNFNHKS
 LDYMYWEKASRRMLEEERVVPTFVKSEKTQEEHEEIEKRKNMAQYLKEKLNNEIVANKRESKGSSNI
 QETDEEEDDEEDDDDEGEDDGESEETNREEEGKAKEQIRNCENNCQQVTDKAFKEQRDRPEAQEQSE
 KKISKLDPKKLALDTSFLKVSTRPSGNQTDLDGSLRRVRKNDPDMKELNLNNIENIPKEMLLDFVNAMKK
 NKHIKTFSLANVGADENAVAFALANMLRENRSITTLNIESNFITGKGIVAIMRCLQFNETLTELRFHNQRH
 MLGHAEMEIAILLKANNTLLKMGYHFELGPRMVVTNLLTRNQDKQRQKQEQKQQLKEQKKLIAML
 ENGLGLPPGMWELLGGPKPDSRMQEFFQPPPPRPPNPQNVFSSQRSEMMKKPSQAPKYRTDPDSFRVVKL
 KRIQRKSRMPEAREPPEKTNLKDVIKTLKPVPRNRPPLVEITPRDQLLNDIRHSSVAYLKPVLPELA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_198271

ORF Size: 1680 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_198271.5](#)

RefSeq Size: 4067 bp

RefSeq ORF: 1683 bp

Locus ID: 56203

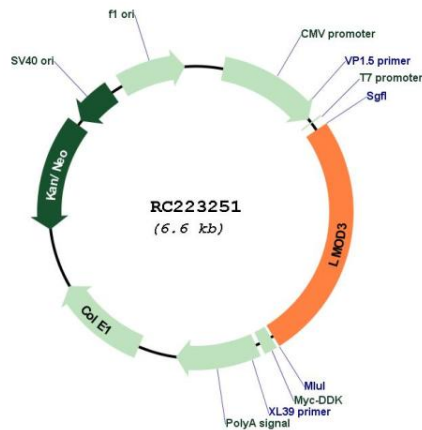
UniProt ID: [Q0VAK6](#)

Cytogenetics: 3p14.1

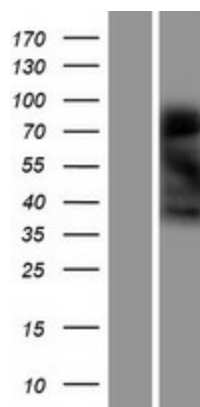
MW: 64.7 kDa

Gene Summary: The protein encoded by this gene is a member of the leiomodin family of proteins. This protein contains three actin-binding domains, a tropomyosin domain, a leucine-rich repeat domain, and a Wiskott-Aldrich syndrome protein homology 2 domain (WH2). Localization of this protein to the pointed ends of thin filaments has been observed, and there is evidence that this protein acts as a catalyst of actin nucleation, and is important to the organization of sarcomeric thin filaments in skeletal muscles. Mutations in this gene have been associated as one cause of Nemaline myopathy, as other genes have also been linked to this disorder. Nemaline myopathy is a disorder characterized by nonprogressive generalized muscle weakness and protein inclusions (nemaline bodies) in skeletal myofibers. Patients with mutations in this gene often present with a severe congenital form of the disorder. [provided by RefSeq, Jan 2015]

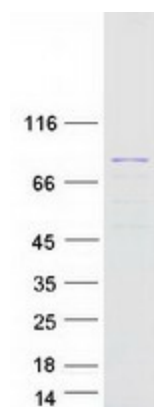
Product images:



Circular map for RC223251



Western blot validation of overexpression lysate (Cat# [LY404998]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223251 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LMOD3 protein (Cat# [TP323251]). The protein was produced from HEK293T cells transfected with LMOD3 cDNA clone (Cat# RC223251) using MegaTran 2.0 (Cat# [TT210002]).