

Product datasheet for **RC220697**

LMOD2 (NM_207163) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LMOD2 (NM_207163) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LMOD2
Synonyms:	C-LMOD; CLMOD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220697 ORF sequence, **codon optimized**.
Due to the complexity of NM_207163, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

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

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCACATTCGGTTACCGCAGGGGGCTTAGCAAGTATGAATCCATTGACGAGGATGAGCTGCTCGCCA
 GTCTGAGCGCAGAGGAATTGAAGAACTCGAGCGAGAAGCTGGAGGATATCGAACCCGACCGGAATTTGCC
 CGTGGGACTGCGGCAGAAAAGCTTGACAGAGAAGACTCCAACCGTACTTTCTCCCGCAGGCTCTCATG
 GCCTACTGGGAGAAGAAAGCCAGAAGCTTCTGGAGAAAGAACGCCTGGGAGAGTGTGGCAAGGTGGCCG
 AAGATAAAGAGGAGTCCGAGGAAGAGCTCATATTTACAGAGTCTAACTCAGAAGTATCAGAAGAAGTCTA
 TACTGAAGAAGAGGAGGAGGAGTCTCAGGAAGAAGAAGAGGAAGAAGACTCCGATGAGGAGGAGAGAACT
 ATAGAAACTGCCAAGGAATTAACGGCACCGTGAATTACGATAGTGTCAACTCCGATAACAGCAAGCCGA
 AAATTTTCAAAGTCAAATCGAAAATATCAATCTGACCAATGGGTCTAACGGACGGAAACACGGAATCCCC
 TGCGGCTATCCATCCATGCGGCAATCCCACGGTAAATGAAGACGCATTGGACAAAATTAATCCAATGAT
 CCTGATACTACCGAGGTAACCTTAATAACATTGAAAACATTACCACACAGACCCCTACAAGATTCGCCG
 AGGCACTGAAAAGATAACACTGTCGTGAAAACATTTAGTTTGGCCAACACACATGCTGACGACAGCGCTGC
 AATGGCAATAGCTGAAATGCTCAAGGTGAATGAGCATATCACGAATGTTAATGTCGAGTCAAATTTATA
 ACGGGTAAAGGGATACTCGCCATAATGAGGGCTCTGCAGCAACAATACAGTCCTTACAGAGCTTCGGTTCC
 ACAATCAGAGGCACATCATGGGATCTCAGTTCGAAATGGAGATCGTCAAACCTTCTTAAAGAGAACCAC
 CCTGCTGAGACTCGGGTACCACTTTGAACTGCCAGGGCCCGCATGTCTATGACAAGCATCCTGACACGC
 AATATGGACAAGCAAAGGCAGAAGCGACTTCAGGAACAGAAGCAGCAGGAAGGATATGATGGTGGCCCGA
 ACCTTAGAACTAAAGTTTGGCAGAGGGGACACCCCTCATCATCTCCATACGTTAGCCCTAGGCATCCCC
 CTGGTCTTCCCCAAAACCTCCTAAGAAGGTGCAAACCGTCCGCTCACGGCCCTCTCCCGGTGGCGACA
 CCCCCGCCACCACCCTCGCCCCCTCCCCCTCCCCGAGTTCACAACGCCTTCCCCCTCTCCTCCTC
 CCCCCCCCCTCCCTTGCTGAAAAAAATTGATTACCCGCAATATCGCCGAGGTCATCAAACAACAGGA
 ATCAGCCCAAAGAGCACTCCAAAACGGACAAAAGAAGAAGGAAAAAAGGTAAGGAAAGCAGCCCAAC
 AGCATCTTGAAAGAGATTAACACAGCCTCCGGTCTGTGACGAGGAGAAGAGATGGAAGATTCCTCAAGAC
 CCAGCACACCCAGCGCAGCGCCACGAGAATCTCATGGAAGCGATAAGAGGCAGCTCAATCAAGCAGCT
 GAAGCGGGTCAAGTCCCAGAAGCACTGCGG

ACGCGTACGCGGCCGCTCGAGCAGAAA**ACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220697 representing NM_207163
 Red=Cloning site Green=Tags(s)

MSTFGYRRGLSKYESIDEDELLASLSAELKELERELEDIEPDRNLPVGLRQKSLTEKTPTGTFSREALM
 AYWEKESQKLEKERLGECKVAEDKEESEELIFTESNSEVSEEVYTEEEEEESQEEEEEDSDEEERT
 IETAKGINGTVNYDSVNSDNSKPKIFKSQIENINLTNGSNGRNTESPAAIHPCGNPTVIEDALDKIKSND
 PDTTEVNLNNIENITTQTLTRFAEALKDNTVVKTFSLANTHADDAAAMAIAEMLK VNEHITNVNVESNFI
 TGKGILAIMRALQHNTVLTFLRFHNQRHIMGSQVEMEIVKLLKENTLLRLGYHFELPGPRMSMSTILTR
 NMDKQRQKRLQEQQQEGYDGGPNLRTKVVQRGTPSSSPYVSPRHSPWSSPKLPKKVQTVRSRPLSPVAT
 PPPPPPPPPPPSSQRLPPPPPPPPPLPEKKLITRNI AEVIKQQESAQRALQNGQKKKKGKVKKQP
 N
 SILKEIKNSLRVQEKKMEDSSRPSTPQRS AHENLMEAIRGSSIKQLKRVEVPEALR

TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_207163

ORF Size: 1641 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_207163.1](#), [NM_207163.2](#), [NP_997046.1](#)

RefSeq Size: 2287 bp

RefSeq ORF: 1644 bp

Locus ID: 442721

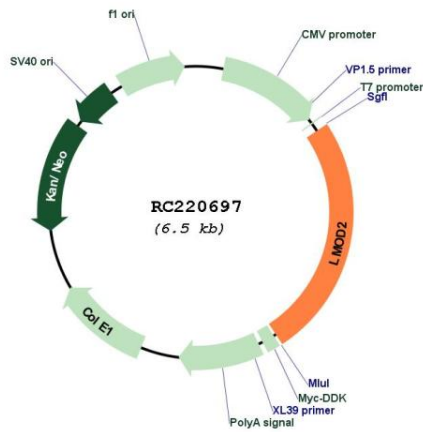
UniProt ID: [Q6P5Q4](#)

Cytogenetics: 7q31.32

MW: 61.7 kDa

Gene Summary: Mediates nucleation of actin filaments and thereby promotes actin polymerization (PubMed:18403713, PubMed:26370058, PubMed:25250574, PubMed:26417072). Plays a role in the regulation of actin filament length (By similarity). Required for normal sarcomere organization in the heart, and for normal heart function (PubMed:18403713). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC220697