

## Product datasheet for **RC213583**

### MYLK2 (NM\_033118) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYLK2 (NM_033118) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MYLK2
Synonyms:	KMLC; MLCK; MLCK2; skMLCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC213583 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGACAGAAATGGAGCAGTTGAGCTGGGAATTCAGAACCCTCAACAGACAAGGCACCTAAAGGTC  
 CCACAGGTGAAAGACCCCTGGCTGCAGGGAAAGACCCTGGCCCCCAGACCCAAAGAAAGCTCCGGATCC  
 ACCCACCTGAAGAAAGATGCCAAAGCCCTGCCTCAGAGAAAGGGGATGGTACCCTGGCCCAACCTCA  
 ACTAGCAGCCAAGGCCCAAAGGAGAGGGTGACAGGGGCGGGGGCCCGCGGAGGGCAGTCTGGGCCCC  
 CGGCAGCCCTGCCCAGCAGACTGCGACACCTGAGACCAGCGTCAAGAAGCCCAAGGCTGAGCAGGGAGC  
 CTCAGGCAGCCAGGATCTGAAAGCCAGGGTGGCAAGAAGGCAGCAGAGGGCCAAGCAGCAGCCAGG  
 AGGGGCTCACCTGCTTTCTGCATAGCCCCAGCTGTCTGCCATCATCTCCAGTTCTGAGAAGCTGCTGG  
 CCAAGAAGCCCCAAGCGAGGCATCAGAGCTCACCTTTGAAGGGTGCCCATGACCCACAGCCCCACGGA  
 TCCAGGCCAGCCAAGGCAGAAGAAGGAAAGAACATCCTGGCAGAGAGCCAGAAGGAAGTGGGAGAGAAA  
 ACCCCAGGCCAGGCTGGCCAGGCTAAGATGCAAGGGGACACCTCGAGGGGATTGAGTCCAGGCTGTT  
 CCTCAGAGAAATCCGAGGTGGGGCAGGCCCTCTGTCTCACAGCCAGGGAGGAGGACTGCTTCCAGATTT  
 GGATGATTGCCCGCCACCTCCGGCCCCCTCCCTCACCGCATGGTGGAGCTGAGGACCGGGAATGTCAGC  
 AGTGAATTCAGTATGAACTCCAAGGAGGCGCTCGGAGGTGGCAAGTTTGGGGCAGTCTGTACCTGCATGG  
 AGAAAGCCACAGGCCCTCAAGCTGGCAGCCAAGGTCATCAAGAAACAGACTCCCAAAGACAAGGAAATGGT  
 GTTGTGGAGATTGAGGTCATGAACCAGCTGAACCACCGCAATCTGATCCAGCTGTATGCAGCCATCGAG  
 ACTCCGCATGAGATCGTCTGTTCATGGAGTACATCGAGGGCGGAGAGCTCTTCGAGAGGATTGTGGATG  
 AGGACTACCATCTGACCGAGGTGGACACCATGGTGTGTCAGGCAGATCTGTGACGGGATCTCTTCAT  
 GCACAAGATGAGGGTTTTGCACCTGGACCTCAAGCCAGAGAACATCCTGTGTGCAACACCACCGGCAT  
 TTGGTGAAGATCATTGACTTTGGCCTGGCACGGAGGTATAACCCCAACGAGAAGCTGAAGGTGAACCTTTG  
 GGACCCAGAGTTCTGTACCTGAGGTGGTGAATTATGACCAAACTCCGATAAGACAGACATGTGGAG  
 TATGGGGGTGATCACCTACATGTGCTGAGCGGCCTCTCCCCCTTCTGGGAGATGATGACACAGAGACC  
 CTAACAACGTTCTATCTGGCAACTGGTACTTTGATGAAGAGACCTTTGAGGCCGTATCAGACGAGGCCA  
 AAGACTTTGTCTCAACCTCATCGTCAAGGACCAGAGGGCCCGGATGAACGCTGCCCAGTGTCTCGCCCA  
 TCCCTGGCTCAACAACCTGGCGGAGAAAGCCAAACGCTGTAACCGACGCCTTAAGTCCAGATCTTGCTT  
 AAGAAATACCTCATGAAGAGGCGCTGGAAGAAAACCTTATTGCTGTGACGCTGCCAACCGCTTCAAGA  
 AGATCAGCAGCTCGGGGCACTGATGGCTCTGGGGTC

**ACGCGT**ACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC213583 protein sequence  
 Red=Cloning site Green=Tags(s)

MATENGAVELGIQNPSTDKAPKGPPTGERPLAAGKDPGPPDPKAPDPPTLKKDAKAPASEKGDGTLAQPS  
 TSSQGPKEGDRGGGPAEGSAGPPAALPQQTATPETSVKKPKAEQASGSQDPGKPRVGGKAAEQQAAR  
 RGSPAFLHSPSCPAIISSSEKLLAKKPPSEASELTFEGVPMTHSPTDRPAKAEEGKNILAESQKEVGEK  
 TPGQAGQAKMQGDTSRGIEFQAVPSEKSEVQALCLTAREEDCFQILDCCPPPPAPFPHRMVELRTGNVS  
 SEFSMNSKEALGGGKFGAVCTCMEKATGLKLAAKVIKKQTPKDKEMVLLIEVMNQLNHRNLIQLYAAIE  
 TPHEIVLFMEYIEGGELFERIVDEHYL TEVDTMVFRQICDGILFMHKMRVHLHDLKPENILCVNTTGH  
 LVKIIDFGLARRYNPNEKLVNFGTPEFLSPEVNYDQISDKTDMWSMGVITYMLLSGLSPFLGDDDET  
 LNNVLSGNWFDEETFEAVSDEAKDFVSNLIVKQQRARMNAQAQLAHPWLNLAEKAKRCNRRLKSQILL  
 KKYLKRRWKNFIAVSAANRFKKISSSGALMALGV

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6600\\_f03.zip](https://cdn.origene.com/chromatograms/mk6600_f03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_033118

**ORF Size:** 1788 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\\_033118.4](#)

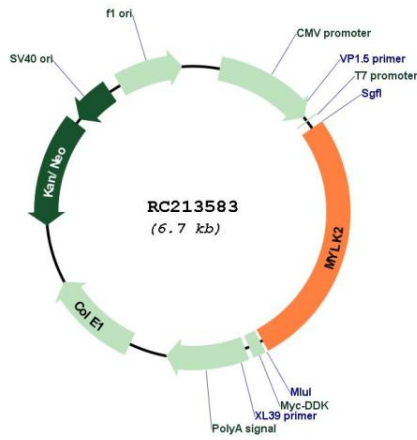
**RefSeq Size:** 2793 bp

**RefSeq ORF:** 1791 bp

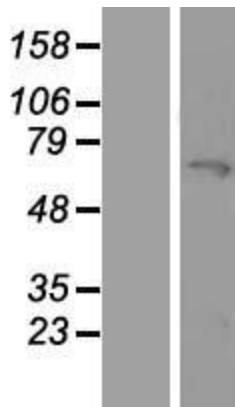
**Locus ID:** 85366

**UniProt ID:** [Q9H1R3](#)  
**Cytogenetics:** 20q11.21  
**Protein Families:** Druggable Genome, Protein Kinase  
**Protein Pathways:** Calcium signaling pathway, Focal adhesion, Regulation of actin cytoskeleton, Vascular smooth muscle contraction  
**MW:** 64.7 kDa  
**Gene Summary:** This gene encodes a myosin light chain kinase, a calcium/calmodulin dependent enzyme, that is exclusively expressed in adult skeletal muscle. [provided by RefSeq, Jul 2008]

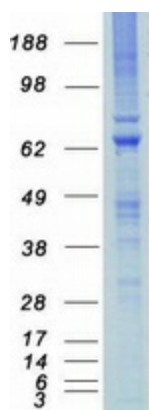
### Product images:



Circular map for RC213583



Western blot validation of overexpression lysate (Cat# [LY409723]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213583 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MYLK2 protein (Cat# [TP313583]). The protein was produced from HEK293T cells transfected with MYLK2 cDNA clone (Cat# RC213583) using MegaTran 2.0 (Cat# [TT210002]).