

## Product datasheet for **RG213583**

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

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MYLK2 (NM_033118) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYLK2
Synonyms:	KMLC; MLCK; MLCK2; skMLCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG213583 representing NM\_033118  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGACAGAAAATGGAGCAGTTGAGCTGGGAATTCAGAACCCATCAACAGACAAGGCACCTAAAGGTC  
 CCACAGGTGAAAGACCCCTGGCTGCAGGAAAGACCCCTGGCCCCCAGACCCAAAGAAAGCTCCGGATCC  
 ACCCACCTGAAGAAAGATGCCAAAGCCCTGCCTCAGAGAAAGGGATGGTACCCTGGCCCAACCTCA  
 ACTAGCAGCCAAGGCCCAAAGGAGAGGGTGACAGGGGCGGGGGCCCGGGAGGGCAGTCTGGGCCCC  
 CGGCAGCCCTGCCCAGCAGACTGCGACACCTGAGACCAGCGTCAAGAAGCCCAAGGCTGAGCAGGGAGC  
 CTCAGGCAGCCAGGATCCTGAAAGCCAGGGTGGCAAGAAGGCAGCAGAGGGCCAAGCAGCAGCCAGG  
 AGGGGCTCACCTGCTTTCTGCATAGCCCCAGCTGTCTGCCATCATCTCCAGTTCTGAGAAGCTGCTGG  
 CCAAGAAGCCCCAAGCGAGGCATCAGAGCTCACCTTTGAAGGGTGCCCATGACCCACAGCCCCACGGA  
 TCCAGGCCAGCCAAGGCAAGAAGGAAAGAACATCCTGGCAGAGAGCCAGAAGGAAGTGGGAGAGAAA  
 ACCCCAGGCCAGGCTGGCCAGGTAAGATGCAAGGGGACACCTCGAGGGGATTGAGTCCAGGCTGTT  
 CCTCAGAGAAATCCGAGGTGGGGCAGGCCCTCTGTCTCACAGCCAGGGAGGAGGACTGCTTCCAGATTTT  
 GGATGATTGCCCGCCACCTCCGGCCCCCTCCCTCACCGCATGGTGGAGCTGAGGACCGGGAATGTCAGC  
 AGTGAATTCAGTATGAACTCCAAGGAGGCGCTCGGAGGTGGCAAGTTTGGGGCAGTCTGTACCTGCATGG  
 AGAAAGCCACAGGCCCTCAAGCTGGCAGCCAAGGTCATCAAGAAACAGACTCCCAAAGACAAGGAAATGGT  
 GTTGCTGGAGATTGAGGTCATGAACCAGCTGAACCACCGCAATCTGATCCAGCTGTATGCAGCCATCGAG  
 ACTCCGCATGAGATCGTCTGTTCATGGAGTACATCGAGGGCGGAGAGCTCTTCGAGAGGATTGTGGATG  
 AGCATACCATCTGACCGAGGTGGACACCATGGTGTGGTTCAGGCAGATCTGTGACGGGATCCTCTTCAT  
 GCACAAGATGAGGGTTTTGCACCTGGACCTCAAGCCAGAGAACATCCTGTGTGTCAACACCACCGGGCAT  
 TTGGTGAAGATCATTGACTTTGGCTGGCAGGAGGTATAACCCCAACGAGAAGCTGAAGGTGAACCTTTG  
 GGACCCAGAGTTCTGTACCTGAGGTGGTGAATTATGACCAAATCTCCGATAAGACAGACATGTGGAG  
 TATGGGGGTGATCACCTACATGTGCTGAGCGGCCTCTCCCCCTTCTGGGAGATGATGACACAGAGACC  
 CTAACAACGTTCTATCTGGCAACTGGTACTTTGATGAAGAGACCTTTGAGGCCGTATCAGACGAGGCCA  
 AAGACTTTGTCTCAACCTCATCGTCAAGGACCAGAGGGCCCGGATGAACGCTGCCCAGTGTCTCGCCCA  
 TCCCTGGCTCAACAACCTGGCGGAGAAAGCCAAACGCTGTAACCGACGCCTTAAGTCCAGATCTTGCTT  
 AAGAAATACCTCATGAAGAGGCGCTGGAAGAAAACCTTATTGCTGTGACGCGTCCCAACCGCTTCAAGA  
 AGATCAGCAGCTCGGGGCACTGATGGCTCTGGGGTC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG213583 representing NM\_033118  
 Red=Cloning site Green=Tags(s)

MATENGAVELGIQNPSTDKAPKGPPTGERPLAAGKDPGPPDPKAPDPPTLKKDAKAPASEKGDGTLAQP  
 TSSQPKGEGDRGGPAEGSAGPPAALPQQTATPETSVKKPKAEQAGSGSQDPGKPRVGKAAEQAAAR  
 RGSFAPFLHSPSCPAIISSSEKLLAKKPPSEASELTFEGVPMTHSPTDRPAKAEEGKNILAESQKEVGEK  
 TPGQAGQAKMQGDTSRGIEFQAVPSEKSEVQALCLTAREEDCFQILDCCPPPPAPFPHRMVELRTGNVS  
 SEFSMNSKEALGGGKFGAVCTCMEKATGLKLAAKVIKKQTPKDKEMVLLIEVMNQLNHRNLIQLYAAIE  
 TPHEIVLFMEYIEGGELFERIVDEYHLTEVDTMVFRQICDILFMHKMRVLHLDLKPENILCVNTTGH  
 LVKIIDFGLARRYNPNEKLVNFGTPEFLSPEVNYDQISDKTDMWSMGVITYMLLSGLSPFLGDDDTET  
 LNNVLSGNWYFDEETFEAVSDEAKDFVSNLIVKQQRARMNAAQCLAHPWLNLAEKAKRCNRRLKSQILL  
 KKYLMKRWRKKNFIAVSAANRFKISSSGALMALGV

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-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:** 2683 bp

**RefSeq ORF:** 1791 bp

**Locus ID:** 85366

**UniProt ID:** [Q9H1R3](#)

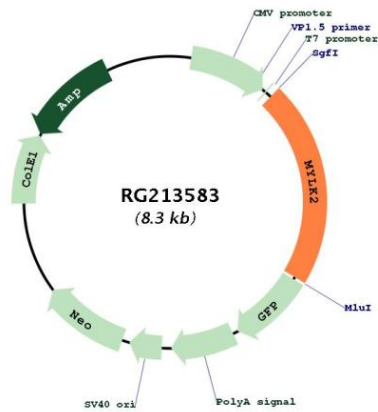
**Cytogenetics:** 20q11.21

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Calcium signaling pathway, Focal adhesion, Regulation of actin cytoskeleton, Vascular smooth muscle contraction

**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 RG213583