

Product datasheet for **MR225821**

Mylk3 (NM_175441) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mylk3 (NM_175441) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mylk3
Synonyms:	D830007F02Rik; MLCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225821 representing NM_175441
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCAGGAGTTTCAGAGGAGGACCCAGAGGGTCTGGCCCCCAGGGTCTGCCAGCATTGGCGGGAGCCT
 GCTTAGCCACCATGGACAAAAAACTTAATGTGCTGACTGAGAAGGTCGACAGACTTTGCATTTCCAAGA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >MR225821 representing NM_175441
Red=Cloning site Green=Tags(s)

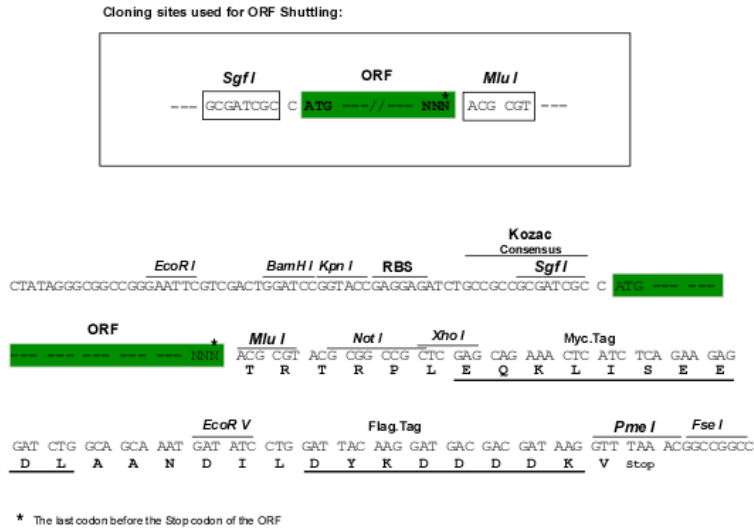
MSGVSEEDPEGLAPQGLPALGGA CLATMDKKNVLTEKVDRL LHFQEDVTEKLQCVCQGM DHEQDLHRL
EASRELSLAGSGSTPPTTAQA AWPEVLELVRAVRQEGAQH GARLEALFKMVVAVDRAITLVG STFQNSKV
ADFI MQGTVPGRKGS LADGPEENKEQAEVAGVKPNHVL TTGGVQADASRTLWEESQKEDIPVRTVEGLPL
IINTSLKGADLTQAGASLRQGV EVLGPGQVPLPTEAESRLPETASENTGATLELSVAIDRISEVLTSLKM
SQGGGQETSSSKPDCWLSEEAMRLSSGPLPQPLGPLTPDSDIHSGDALPRIPINMQEMATPGELLETSQSG
SPIGSAEAPGLGTVLEDQIPK GARPFPPLPKRSSNNGGMSAEEEEIGSGAEPMRG PSLATRDWRDET VGT
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VSQHEVLGGGRFGQVHRCTERSTGLALAAKIIKVKNVKDREDVKNEVNIMNQLSHVNL IQLYDAFESKSS
FTLIMEYVDGGELFD RITDEKYHLTELDVVL FTRQICEGVHYLHQHYILHLDLKPENILCVSQTGHQIKI
IDFGLARRYKPREKLVNFGTPEFLAPEVVNYEFVSFPTDMWSVGVITYMLLSGLSPFLGETDAETMNF I
VNCSWDFDADTFKGLSEEAKDFVSRLLVKEKSCRMSATQCLKHEWLSHLPKASGSNVRLRSQQLLQKYM
AQSKWKKHFHVVTAVNRLRKFP TCF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9009_f04.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_175441

ORF Size: 2385 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_175441.5](#), [NP_780650.2](#)

RefSeq Size: 3070 bp

RefSeq ORF: 2388 bp

Locus ID: 213435

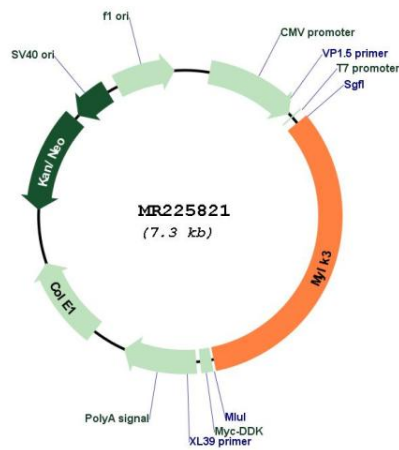
UniProt ID: [Q3UIZ8](#)

Cytogenetics: 8 C3

MW: 86.8 kDa

Gene Summary: Kinase that phosphorylates MYL2 in vitro. Has been proposed to be calmodulin-dependent (PubMed:17885681), although MYL2 phosphorylation has also been observed in the presence or absence of calmodulin (PubMed:18202317). Promotes sarcomere formation in cardiomyocytes and increases cardiomyocyte contractility.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225821