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Product datasheet for RG222246

MYLK3 (NM_182493) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYLK3 (NM_182493) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYLK3
Synonyms:	caMLCK; MLCK; MLCK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RG222246 representing NM_182493
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCAGGAACCTCCAAGGAGAGTCTGGGGCATGGGGGGCTGCCAGGGTTGGGCAAGACCTGCTTAACAA
CCATGGACACAAAGCTGAACATGCTGAACGAGAAGGTGGACCAGCTCCTGCACTTCCAAGAAGATGTCAC
AGAGAAGTTGCAGAGCATGTGCCGAGACATGGGCCACCTGGAGCGGGGCCTGCACAGGCTGGAGGCCTCC
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TGGAGCTGGTGAGGGCCATGCAGCAGGATGCGGCCCAGCACGGTGCCAGGCTGGAGGCCCTCTTCAGGAT
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TAGCTCAAAGAAAATGGAAGAAACATTTCTATGTGGTGACTGCTGCCAACAGGTTAAGGAAATTTCCAAC
TTCTCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG222246 representing NM_182493
Red=Cloning site Green=Tags(s)

MSGTSKESLGHGGLPGLGKTCLTTMDTKLNMLNEKVDQLLHFQEDVTEKLQSMCRDMGHLERGLHRLEAS
RAPGPGGADGVPHIDTQAGWPEVLELVRAMQQDAAQHGARLEALFRMVAAVDRAIALVGATFQKSKVADF
LMQGRVPWRRGSPGDSPEENKERVEEEGGKPKHVLSTSGVQSDAREPGEESQKADVLEGTAERLPPIRAS
GLGADPAQAVVSPGQGDGVPGPAQAFPGHLPLPTKVEAKAPETPSENLRTGLELAPAPGRVNVVSPSLEV
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PAPPAPFEHRVVSVKETSISAGYEVCQHEVLGGGRFGQVHRCTEKSTGLPLAAKIIKVKSAKDREDVKNE
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YILHLDLKPENILCVNQTGHQIKIIDFGLARRYKPREKLKVNFGTPEFLAPEVVNYEFVSFPTDMWSVGV
ITYMLLSGLSPFLGETDAETMNFIVNCSWDFDADTFEGLSEEAKDFVSRLLVKEKSCRMSATQCLKHEWL
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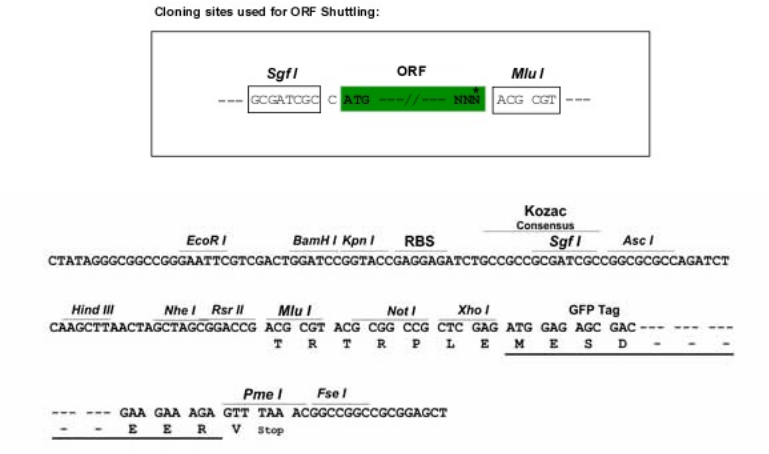
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

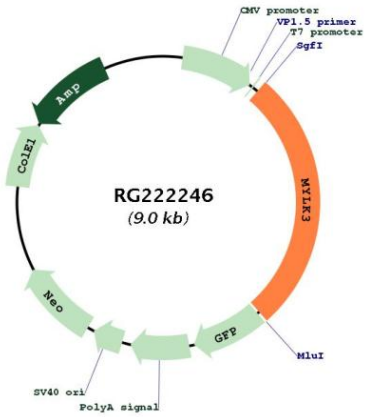
Cloning Scheme:



ACCN:	NM_182493
ORF Size:	2457 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_182493.3
RefSeq Size:	7998 bp
RefSeq ORF:	2460 bp
Locus ID:	91807
UniProt ID:	Q32MK0
Cytogenetics:	16q11.2
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Calcium signaling pathway, Focal adhesion, Regulation of actin cytoskeleton, Vascular smooth muscle contraction
Gene Summary:	Phosphorylation of cardiac myosin heavy chains (see MYH7B, MIM 609928) and light chains (see MYL2, MIM 160781) by a kinase, such as MYLK3, potentiates the force and rate of cross-bridge recruitment in cardiac myocytes (Chan et al., 2008 [PubMed 18202317]).[supplied by OMIM, Jul 2008]

Product images:



Circular map for RG222246