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Product datasheet for SC323498

MYLK2 (NM_033118) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYLK2 (NM_033118) Human Untagged Clone
Tag:	Tag Free
Symbol:	MYLK2
Synonyms:	KMLC; MLCK; MLCK2; skMLCK
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC323498 sequence for NM_033118 edited (data generated by NextGen Sequencing)

ATGGCGACAGAAAATGGAGCAGTTGAGCTGGGAATTCAGAACCCATCAACAGACAAGGCA
CCTAAAGGTCCCACAGGTGAAAGACCCCTGGCTGCAGGGAAAGACCCTGGCCCCCCAGAC
CCAAAGAAAGCTCCGGATCCACCCACCCTGAAGAAAGATGCCAAAGCCCCTGCCTCAGAG
AAAGGGGATGGTACCCTGGCCCAACCCTCAACTAGCAGCCAAGGCCCCAAAGGAGAGGGT
GACAGGGGCGGGGGGCCCGCGGAGGGCAGTGCTGGGCCCCCGGCAGCCCTGCCCCAGCAG
ACTGCGACACCTGAGACCAGCGTCAAGAAGCCCAAGGCTGAGCAGGGAGCCTCAGGCAGC
CAGGATCCTGGAAAGCCCAGGGTGGGCAAGAAGGCAGCAGAGGGCCAAGCAGCAGCCAGG
AGGGGCTCACCTGCCTTTCTGCATAGCCCCAGCTGTCCTGCCATCATCTCCAGTTCTGAG
AAGCTGCTGGCCAAGAAGCCCCCAAGCGAGGCATCAGAGCTCACCTTTGAAGGGGTGCCC
ATGACCCACAGCCCCACGGATCCCAGGCCAGCCAAGGCAGAAGAAGGAAAGAACATCCTG
GCAGAGAGCCAGAAGGAAGTGGGAGAGAAAACCCCAGGCCAGGCTGGCCAGGCTAAGATG
CAAGGGGACACCTCGAGGGGGATTGAGTTCCAGGCTGTTCCCTCAGAGAAATCCGAGGTG
GGGCAGGCCCTCTGTCTCACAGCCAGGGAGGAGGACTGCTTCCAGATTTTGGATGATTGC
CCGCCACCTCCGGCCCCCTTCCCTCACCGCATGGTGGAGCTGAGGACCGGGAATGTCAGC
AGTGAATTCAGTATGAACTCCAAGGAGGCGCTCGGAGGTGGCAAGTTTGGGGCAGTCTGT
ACCTGCATGGAGAAAGCCACAGGCCTCAAGCTGGCAGCCATGGTCATCAAGAAACAGACT
CCCAAAGACAAGGAAATGGTGTTGCTGGAGATTGAGGTCATGAACCAGCTGAACCACCGC
AATCTGATCCAGCTGTATGCAGCCATCGAGACTCCGCATGAGATCGTCCTGTTCATGGAG
TACATCGAGGGCGGAGAGCTCTTCGAGAGGATTGTGGATGAGGACTACCATCTGACCGAG
GTGGACACCATGGTGTTTGTCAGGCAGATCTGTGACGGGATCCTCTTCATGCACAAGATG
AGGGTTTTGCACCTGGACCTCAAGCCAGAGAACATCCTGTGTGTCAACACCACCGGGCAT
TTGGTGAAGATCATTGACTTTGGCCTGGCACGGAGGTATAACCCCAACGAGAAGCTGAAG
GTGAACTTTGGGACCCCAGAGTTCCTGTCACCTGAGGTGGTGAATTATGACCAAATCTCC
GATAAGACAGACATGTGGAGTATGGGGGTGATCACCTACATGCTGCTGAGCGGCCTCTCC
CCCTTCCTGGGAGATGATGACACAGAGACCCTAAACAACGTTCTATCTGGCAACTGGTAC
TTTGATGAAGAGACCTTTGAGGCCGTATCAGACGAGGCCAAAGACTTTGTCTCCAACCTC
ATCGTCAAGGACCAGAGGGCCCGGATGAACGCTGCCCAGTGTCTCGCCCATCCCTGGCTC
AACAACCTGGCGGAGAAAGCCAAACGCTGTAACCGACGCCTTAAGTCCCAGATCTTGCTT
AAGAAATACCTCATGAAGAGGCGCTGGAAGAAAAACTTCATTGCTGTCAGCGCTGCCAAC
CGCTTCAAGAAGATCAGCAGCTCGGGGGCACTGATGGCTCTGGGGGTCTGA

Clone variation with respect to NM_033118.3
941 a=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_033118 unedited
ACCGCCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCTCCTGAGCAGCC
GCTGGGAGACAGACGGCAACCAGGTTGCCCCTCTTTGCTCCAGCTAGAAAGACTTGAGTTAGACAAGCAG
CAGCACACGCCTCCCTACCTCATGGCGACAGAAAATGGAGCAGTTGAGCTGGGAATTCAGAACCCATCAA
CAGACAAGGCACCTAAAGGTCCCACAGGTGAAAAGACCCCTGGCTGCAGGGAAAAGACCCTGGCCCCCCC
AGAACCCAAAGAAAGCTCCGGATCCCACCCCACCCCTGAAAGAAAAGAATGCCAAAGCCCCCTGCCTCAA
GAGAAAAGGGGATGGTACCCTTGCCCCACCCCTCCACTCTAGCCAGCCCAAGGCCCCCAAAGGAAGAGGG
TGAACAGGGGCCGGGGGGGGCCCGGCGGGAGGGACATGGCTGGGCCCCCGGGCAGCCTGGCCCCAGCAAA
CTGGAACCCTGGAAACCAAGCGTAGAAAGCCCAGGGCTAAGCAGGGGACCCTCAGGCACCCGATATCCTG
GAAAGCCCAGGGTGGGCAAAAAGCGCACAAAGGCCCACGCACACCCGAGAGGGGCTCATGGGTTTTTCGC
AAACCCACTGTGTTGTGCTATCTTCTCGTTTCTAGAAATGCTGTGCCAAGACACCCCGCGAAGGGTCTCA
GCTCTCCACTTTAGAGTGCCCCGAACCCCACGCGCACGGTATCACGCGCGCAGAGGAGAAGAGGAGACTC
TTCTGAAACCCATGAGGATGTGAAAAACACCGCAGCTGTCGCATAATATACGGGGACACTCTGGGAGTGT
AATGCGGTCCTCAGATCACTCAGTGCGAGCGCTGCTCACACGAGAGAGACTCGCATAGGTGTATCCGC

Kinase Domain Sequence:	>SC323498 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation AYTARRGYRGCSTCGGAGGTGGCAGTTTGGGGCAGTCTGTACCTGCATGGAGAAAGCCACAGGCCTCAAG CTGGCAGCCATGGTCATCAAGAAACAGACTCCCAAAGACAAGGAAATGGTGTTGCTGGAGATTGAGGTCA TGAACCAGCTGAACCACCGCAATCTGATCCAGCTGTATGCAGCCATCGAGACTCCGCATGAGATCGTCCT GTTCATGGAGTACATCGAGGGCGGAGAGCTCTTCGAGAGGATTGT
Restriction Sites:	Please inquire
ACCN:	NM_033118
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
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_033118.2, NP_149109.1
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]