

Product datasheet for PH318513

Myosin light chain kinase (MYLK) (NM_053031) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	MYLK MS Standard C13 and N15-labeled recombinant protein (NP_444259)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC218513
Predicted MW:	16.7 kDa
Protein Sequence:	>RC218513 representing NM_053031 Red=Cloning site Green=Tags(s) MAMISGLSGRKSSTGSPSTPLNAEKLESEEDVSQAFLEAVAEKPHVKPYFSKTIIRDLEVVESGAARFDC KIEGYDPPEVVWFKDDQSIRESRHFQIDYDEDGNCSLIISDVCGDDDAKYTKAVNSLGEATCTAELIVE TMEEGEGEGEEEE TRTRPLEQKLI SEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_444259
RefSeq Size:	2676
RefSeq ORF:	462
Synonyms:	AAT7; KRP; MLCK; MLCK1; MLCK108; MLCK210; MMIHS; MMIHS1; MSTP083; MYLK1; smMLCK
Locus ID:	4638
UniProt ID:	Q15746 , Q05B97



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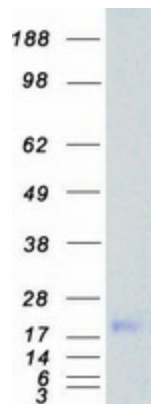
Cytogenetics: 3q21.1

Summary: This gene, a muscle member of the immunoglobulin gene superfamily, encodes myosin light chain kinase which is a calcium/calmodulin dependent enzyme. This kinase phosphorylates myosin regulatory light chains to facilitate myosin interaction with actin filaments to produce contractile activity. This gene encodes both smooth muscle and nonmuscle isoforms. In addition, using a separate promoter in an intron in the 3' region, it encodes telokin, a small protein identical in sequence to the C-terminus of myosin light chain kinase, that is independently expressed in smooth muscle and functions to stabilize unphosphorylated myosin filaments. A pseudogene is located on the p arm of chromosome 3. Four transcript variants that produce four isoforms of the calcium/calmodulin dependent enzyme have been identified as well as two transcripts that produce two isoforms of telokin. Additional variants have been identified but lack full length transcripts. [provided by RefSeq, Jul 2008]

Protein Families: Druggable Genome, Protein Kinase

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

Product images:



Coomassie blue staining of purified MYLK protein (Cat# [TP318513]). The protein was produced from HEK293T cells transfected with MYLK cDNA clone (Cat# [RC218513]) using MegaTran 2.0 (Cat# [TT210002]).