Human myosin light chain kinase,MLCK ELISA Kit

Product Code	CSB-E09048h
Abbreviation	MYLK
Target Name	myosin light chain kinase
Uniprot No.	Q15746
Alias	DKFZp686I10125, FLJ12216, KRP, MLCK, MLCK1, MLCK108, MLCK210, MSTP083, MYLK1, smMLCK, OTTHUMP00000180642|myosin, light polypeptide kinase|smooth muscle myosin light chain kinase
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates, cell lysates
Detection Range	0.78 ng/mL-50 ng/mL
Sensitivity	0.195 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	MYLK
Tag Info	quantitative
Protein Description	Sandwich

Description

The human myosin light chain kinase (MLCK) Elisa kit is suitable for the quantitative measurement of human MLCK in serum, plasma, cell lysates, or tissue homogenates. This assay employs the sandwich enzyme immunoassay technique and enzyme-substrate chromogenic reaction. The color develops positively to the amount of MLCK in samples. The color development is stopped and the intensity of the color is measured. This kit displays many advantages, including high sensitivity, strong specificity, and lot-to-lot consistency.

MLCK (MYLK) is a Ca^{2+}/CaM-dependent Ser/Thr-kinase that phosphorylates the regulatory light chain (RLC) of the motor protein myosin-II. MLCK plays an important role in maintaining the equilibrium by phosphorylating myosin light chain (MLC), thereby inducing actomyosin contractility and weakening endothelial cell–cell adhesion. MLCK plays numerous roles in regulating cellular function based on the multi-faceted role of myosin in cell biology. MLCK is activated by numerous physiological factors and inflammatory or angiogenic mediators, causing vascular hyperpermeability. MLCK functions in cytoskeleton

	organization, cytokinesis, and aggregation in a kinase-independent manner.
Target Details	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.
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