

Recombinant Human Myosin Light Chain Kinase 3, GST-tagged, Active

Cat. No. MYLK3-366H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human MYLK3 was expressed by baculovirus in <i>Sf9</i> insect cells using an N-terminal GST tag. MW = 135 kDa.
Species	Human
Source	Sf9 Cells
Description	MYLK3 (or myosin light chain kinase 3) plays a key role in rate of cross-bridge recruitment in cardiac myocytes. MYLK3 is upregulated in failing human myocardia and expression of MYLK3 correlates with the pulmonary arterial pressure of patients with heart failure. Knockdown of MYLK3 with small interfering RNAs in cultured rat cardiomyocytes decreases Myl2 phosphorylation and impairs epinephrine-induced activation of sarcomere reassembly. Recombinant murine MYLK3 shows specificity for Myl2 (Mlc2v) and the phosphorylation is calcium- and calmodulin-dependent.
Sequence	Full-length.
Applications	Kinase Assay, Western Blot.
Storage And Stability	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

GENE INFORMATION

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Gene Name	MYLK3 myosin light chain kinase 3 [Homo sapiens]
Synonyms	MYLK3; myosin light chain kinase 3; MLCK; MLCK2; caMLCK; MGC126319; MGC126320; MLC kinase; cardiac-MyBP-C associated Ca/CaM kinase; EC 2.7.11.18; caMLCK; Cardiac-MyBP-C-associated Ca/CaM kinase
Gene ID	91807
mRNA Refseq	NM_182493
Protein Refseq	NP_872299
MIM	612147
UniProt ID	Q32MK0
Chromosome Location	16q11.2
Pathway	Calcium signaling pathway; Focal adhesion; Regulation of actin cytoskeleton; Vascular smooth muscle contraction
Function	ATP binding; magnesium ion binding; myosin light chain kinase activity; nucleotide binding; transferase activity

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