

# Recombinant human MYLPF protein

Catalog Number: ATGP1097

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-169aa

### UniProt No.

Q96A32

### NCBI Accession No.

NP\_037424

### Alternative Names

Myosin regulatory light chain 2 skeletal muscle isoform, Myosin regulatory light chain 2, skeletal muscle isoform, MRLC2, MYL11, Fast skeletal myosin light chain 2, MLC2B

## PRODUCT SPECIFICATION

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### Molecular Weight

21.2 kDa (189aa) confirmed by MALDI-TOF

### Concentration

0.25mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 100mM NaCl

### Purity

> 85% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Myosin regulatory light chains, including MRCL3, MYLPF and MYL9, regulate contraction in smooth muscle and non-muscle cells via phosphorylation by myosin light chain kinase (MLCK). Phosphorylation of myosin regulatory light chains, catalyzed by MLCK in the presence of calcium and calmodulin, increases the actin-activated myosin ATPase activity, thereby regulating the contractile activity. MYLPF is critically important for fast and slow skeletal muscle development. Recombinant human MYLPF protein, fused to His-tag at N-terminus, was expressed in E.

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coli and purified by using conventional chromatography techniques.

### Amino acid Sequence

MGSSHHHHHH SGLVPRGSH MAPKRAKRRT VEGGSSSVFS MFDQTQIQEF KEAFTVIDQN RDGIIDKEDL RDTFAAMGRL  
NVKNEELDAM MKEASGPINF TVFLTMFGEK LKGADPEDVI TGAFKVLDP E GKGTIKKKFL EELLTTQCDR FSQEEIKNMW  
AAFPPDVGGN VDYKNICYVI THGDAKDQE

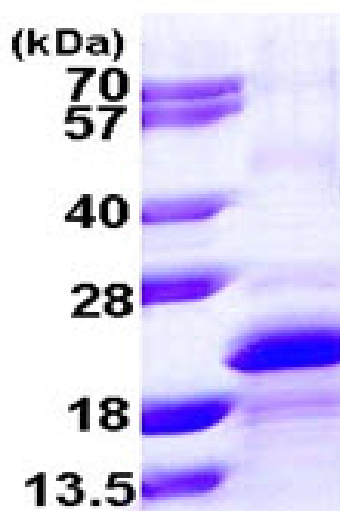
### General References

Wang Y, et al. (2007) FASEB J. 21(9):2205-14.

Gittings W, et al. (2011) J Muscle Res Cell Motil. 31(5-6):337-48.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)