

## AR50401PU-S

## Human MYL12B (1-172, His-tag) - Purified

### Alternate names:

MLC-2, MLC-2A, MLC20, MRLC2, MYLC2B, Myosin regulatory light chain 2-B, Myosin regulatory light chain 20 kDa, Myosin regulatory light chain MRLC2, SHUJUN-1, smooth muscle isoform

### Quantity:

0.1 mg

### Concentration:

1 mg/ml (determined by Bradford assay)

### Background:

Myosin, light chain 12B, regulatory, also known as MYL12B, is a hexameric ATPase cellular motor protein. Myosin is composed of two heavy chains, two nonphosphorylatable alkali light chains, and two phosphorylatable regulatory light chains. MYL12B regulates 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 Actin-activated myosin ATPase activity, thereby regulating contractile activity.

### Uniprot ID:

[O14950](#)

### NCBI:

[NP\\_001138417.1](#)

### GeneID:

[103910](#)

### Species:

Human

### Source:

E. coli

### Format:

**State:** Liquid purified protein

**Purity:** >90% by SDS - PAGE

**Buffer System:** 20 mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 40% glycerol, 2mM DTT

### Description:

Recombinant human MYL12B protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

#### AA Sequence:

MGSSHHHHHH SSGLVPRGSH MGSMSKKA KTKTTKKRPQ RATSNVFAMF DQSQIQEFKE  
AFNMIDQNRD GFIDKEDLHD MLASLGKNPT DAYLDAMMNE APGPINFTMF LTMFGKLNQ  
TDPEDVIRNA FACFDEEATG TIQEDYLREL LTTMGDRFTD EEVDLYREA PIDKKGNFNY  
IEFTRILKHG AKDKDD

**Molecular weight:** 22.3 kDa (196aa) confirmed by MALDI-TOF

### Storage:

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

### General Readings:

Kumar C C., et al. (1989) Biochemistry. 28:4027-4035. Kolodney M S., et al. (1999) J Physiol. 515: 87-92.

Pictures:

