# **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 1-166aa

**UniProt No.** P10916

NCBI Accession No. NP\_000423

### **Alternative Names**

Slow cardiac myosin regulatory light chain 2, MLC2, CMH10, DKFZp779C0562, Slow cardiac myosin regulatory light chain 2, MYL2, Slow cardiac myosin regulatory light chain 2 Cardiac myosin light chain-2, MLC 2v, MYL 2, Cardiac ventricular myosin light chain 2, RLC of myosin, Myosin light chain 2 regulatory cardiac slow, Myosin light polypeptide 2 regulatory cardiac slow, Myosin regulatory light chain 2 ventricular cardiac muscle isoform, Myosin regulatory light chain 2 ventricular of myosin,

# **PRODUCT SPECIFICATION**

### **Molecular Weight**

20.9 kDa (186aa) confirmed by MALDI-TOF

**Concentration** 0.5mg/ml (determined by Bradford assay)

#### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 40% glycerol, 5mM CaCl2

**Purity** > 95% by SDS-PAGE

#### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

# 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



### Description

Myosin, light chain 2 (MYL2) encodes the regulatory light chain associated with cardiac myosin beta heavy chain. It is an important protein involved in the regulation of myosin ATPase activity in smooth muscle and Ca+ triggers the phosphorylation of regulatory light chain that in turn triggers contraction. Mutations in MYL2 are associated with mid-left ventricular chamber type hypertrophic cardiomyopathy. Recombinant human MYL2 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

### **Amino acid Sequence**

<MGSSHHHHHH SSGLVPRGSH> MAPKKAKKRA GGANSNVFSM FEQTQIQEFK EAFTIMDQNR DGFIDKNDLR DTFAALGRVN VKNEEIDEMI KEAPGPINFT VFLTMFGEKL KGADPEETIL NAFKVFDPEG KGVLKADYVR EMLTTQAERF SKEEVDQMFA AFPPDVTGNL DYKNLVHIIT HGEEKD

#### **General References**

Macera MJ., et al. (1992) Genomics. 13(3):829-31 Poetter K., et al. (1996) Nat Genet. 13(1):63-9

## DATA





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