

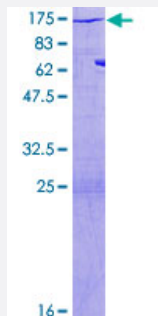
Full-Length

MYLK (Human) Recombinant Protein (P01)

Catalog # H00004638-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human MYLK full-length ORF (ENSP00000355024, 1 a.a. - 992 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MDFRANLQRQVKPKTVSEEERKVHSPQQVDFRSVLAKKGTSKTPVPEKVPVPPKPA TPDFRSVL
GGKKKLPAENGSSSAETLNAKAVESSKPLSNAQPSGPLKPVGNAKPAETLKPMGNAKPAETLK
PMGNAKPDENLKSASKEELKKDVKNDEVNCKRGHAGTTDNEKRSESQGTAPAFKQKLQDVHVA
EGKLLLLQCQVSSDPPATIWTNLGKTLKTTKFILSQEGLCSVSIEKALPEDRGLYKCVAKNDAG
QAECSQVTVDDAPASENTKAPEMKSRRPKSSLPPVLGTESDATVKKKPAPKTPPKAAMPPQII
QFPEDQKVRAGESVELFGKVTGTQPITCTWMKFRKQIQESEHMKVENSENGSKLTILAAEQEHC
GCYTLLVENKLGSRQAQVNLTVVDKPDPPAGTPCASDIRSSSLTSWYGSSYDGGSAVQSYSIEI
WDSANKTWKELATCRSTSFNVQDLLPDHEYKFRVRainvygtsepsqeseLTTVGEKPEEPKDE
VEVSDDDEKEPEVDYRTVTINTEQKVSDFYDIEERLGSgkfgqvfrLVEKKTRKvwagkffkays
AKEKENIRQEISIMNCLHHPKLVCVDAFEKANIVMVLEIVSGGELFERIIDEFELTERECIKYMR
QISEGVEYIHKQGMVHLDLKPENIMCVNKTGTRIKLIDFGLARRLENAGSLKVLFGTPEFVAPEVINYE
PIGYATDMWSIGVICYLVSGLSPFMGDNDNETLANVTSATWDFDDEAFDEISDDAKDFISNLLKKD
MKNRLDCTQCLQHPWLMKDTKNMEAKKLSKDRMKKYMARRKWQKTGNVRAIGRLSSMAMISG
LSGRKSSTGSPTSPLNAEKLESEEDVSQAFLEAVAEKPHVKPYFSKTIRDLEVVEGSAARFDC
KIEGYDPDEVVWFKDDQSIRESRHFQIDYDEDGNCSLIISDVCGDDDAKYTCKAVNSLGEATCTAE
LIVETMEEGEGEGEGEEEE

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

136.6

Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — MYLK

Entrez GeneID	4638
GeneBank Accession#	ENST00000361290
Protein Accession#	ENSP00000355024
Gene Name	MYLK
Gene Alias	DKFZp686i10125, FLJ12216, KRP, MLCK, MLCK1, MLCK108, MLCK210, MSTP083, MYLK1, smMLCK
Gene Description	myosin light chain kinase
Omim ID	600922
Gene Ontology	Hyperlink

Gene Summary

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. [provided by RefSeq]

Other Designations

OTTHUMP00000180642|OTTHUMP00000180643|myosin, light polypeptide kinase|smooth muscle myosin light chain kinase

Pathway

- [Calcium signaling pathway](#)
- [Focal adhesion](#)
- [Regulation of actin cytoskeleton](#)
- [Vascular smooth muscle contraction](#)

Disease

- [Asthma](#)
- [Cardiovascular Diseases](#)
- [Coronary Artery Disease](#)
- [Critical Illness](#)
- [Diabetes Mellitus](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Heart Defects](#)
- [Hypertension](#)
- [Kidney Failure](#)
- [Puerperal Disorders](#)

- [Respiratory Distress Syndrome](#)
- [Rhabdomyolysis](#)
- [Sepsis](#)
- [Streptococcal Infections](#)
- [Wounds and Injuries](#)