Recombinant human TPM1 protein

Catalog Number: ATGP0683

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-284aa

UniProt No.
P09493

NCBI Accession No.
NP_000357.3

Alternative Names
Tropomyosin alpha-1 chain, TPM1, CMD1Y, HTM-alpha, TMSA, Tropomyosin-1, Alpha-tropomyosin, Tropomyosin alpha-1 chain

PRODUCT SPECIFICATION

Molecular Weight
35.0 kDa (304aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher))

Concentration
0.25mg/ml (determined by BCA assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 50% glycerol, 0.2M NaCl,1mM EDTA, 0.1mM PMSF

Purity
> 90% 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

Description
TPM1 is a member of the tropomyosin family of highly conserved, widely distributed actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosin is composed of two alpha-helical chains arranged as a coiled-coil. It is polymerized end to end along the two grooves of actin filaments and provides stability to the filaments. TPM1 is one type of alpha helical chain that forms the predominant tropomyosin of striated muscle, where it also functions in association with the

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troponin complex to regulate the calcium-dependent interaction of actin and myosin during muscle contraction. Recombinant human TPM1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

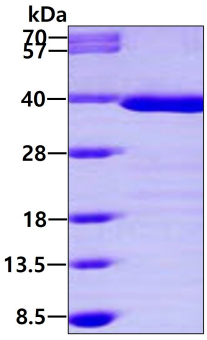
<MGSSHHHHHH SSGLVPRGSH> MDAIKKKMQM LKLDKENALD RAEQAEADKK AAEDRSKQLE DELVSLQKKL KGTEDELDKY SEALKDAQEK LELAEKKATD AEADVASLNR RIQLVEEELD RAQERLATAL QKLEEAEKAA DESERGMKVI ESRAQKDEEK MEIQEIQLKE AKHIAEDADR KYEEVARKLV IIESDLERAE ERAELSEGQV RQLEEQLRIM DQTLKALMAA EDKYSQKEDR YEEEIKVLSD KLKEAETRAE FAERSVTKLE KSIDDLEDEL YAQKLKYKAI SEELDHALND MTSM

General References

Lees-Miller JP.. (1991) Bioessays. 13(9):429-37.
Perry SV. (2001) J Muscle Res Cell Motil. 22(1):5-49.

DATA

SDS-PAGE



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