

Recombinant Human Tropomyosin 3, His-tagged

Cat. No. TPM3-4853H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human TPM3 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-248 a.a.
Description	Tropomyosin alpha-3 chain, also known as TPM3, is member of the tropomyosin family of actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosins are dimers of coiled-coil proteins that polymerize end-to-end along the major groove in most actin filaments. They provide stability to the filaments and regulate access of other actin-binding proteins. Mutations in this gene result in autosomal dominant nemaline myopathy, and oncogenes formed by chromosomal translocations involving this locus are associated with cancer.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 0.1M NaCl.
Molecular Weight	31.6 kDa (272aa), confirmed by MALDI-TOF.
Purity	>90% by SDS-PAGE

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Concentration	0.5 mg/ml (determined by Bradford assay)
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MGSHMAGITT IEAVKRKIQV LQQQADDAEE RAERLQREVE GERRAREQAE AEVASLNRRI QLVEEELDRA QERLATALQK LEEAEKAADE SERGMKVIEN RALKDEEKME LQEIQLKEAK HIAEEADRKY EEVARKLVII EGDLETEREER AELAESRCRE MDEQIRLMDQ NLKCLSAEE KYSQKEDKYE EEIKILTDKL KEAETRAEFA ERSVAKLEKT IDDLKDLKC TKEEHLCTQR MLDQTLDDLN EM
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Pathways	Cardiac muscle contraction; Dilated cardiomyopathy; Hypertrophic cardiomyopathy (HCM); Muscle contraction; Pathways in cancer; Smooth Muscle Contraction; Striated Muscle Contraction; Thyroid cancer
GENE INFORMATION	
Gene Name	TPM3 tropomyosin 3 [Homo sapiens]
Official Symbol	TPM3
Synonyms	TPM3; tropomyosin 3; TM3; TRK; NEM1; TM-5; TM30; TM30nm; TPMsk3; hscp30; MGC3261; FLJ41118; MGC14582; MGC72094; OK/SW-cl.5; tropomyosin alpha-3 chain; hTM5; tropomyosin-3; tropomyosin-5; gamma-tropomyosin; tropomyosin gamma; OTTHUMP00000034016; OTTHUMP00000034018; OTTHUMP00000034019; OTTHUMP00000034020; OTTHUMP00000034021; OTTHUMP00000034171; OTTHUMP00000034172; OTTHUMP00000034173; OTTHUMP00000218067; OTTHUMP00000218071; cytoskeletal tropomyosin TM30; heat-stable cytoskeletal protein 30 kDa; Gamma-tropomyosin; Tropomyosin-3;

Tropomyosin-5	
Gene ID	7170
mRNA Refseq	NM_001043351
Protein Refseq	NP_001036816
MIM	191030
UniProt ID	P06753
Chromosome Location	1q21.2
Function	actin binding; molecular function
PDBrendering based on 1mv4.	