TPM3 cDNA Clone – Tropomyosin 3 (Human)

PRODUCT OVERVIEW

Product Name	TPM3, cDNA Clone
Full Product Name	TPM3 cDNA Clone
Product Gene Name	TPM3 cdna clone
Sequence	atgaaggtta ttgaaaaccg ggccttaaaa gatgaagaaa agatggaact ccaggaaatc caactcaaag aagctaagca cattgcagaa gaggcagata ggaagtatga agaggtggct cgtaagttgg tgatcattga aggagacttg gaacgcacag aggaacgagc tgagctggca gagtctaagt gttctgagct ggaggaggag ctgaagaatg tcaccaacaa cctcaagtct cttgaggctc aggcggagaa gtactctcaa aaagaagata aatatgagga agaaatcaag attcttactg ataaactcaa ggaggcagag acccgtgctg agtttgctga gagatcggta gccaagctgg aaaagacaat tgatgacctg gaagatgagc tctatgccca gaaactgaag tacaaggcca ttagcgagga gctggaccac gccctcaatg acatgacctc tatataa
Molecular Weight	18,603 Da
OMIM	164970
Vector	pENTR223.1 or pUC
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for TPM3 cdna clone	MBS1275893 is a cDNA clone targeting TPM3.
Other Notes	Small volumes of TPM3 cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TPM3. It may not necessarily be applicable to this product.

NCBI GI #	38541686
NCBI GeneID	7170
NCBI Accession #	BC062740
UniProt Secondary Accession #	P12324; Q2QD06; Q5VU58; Q5VU63; Q5VU66; Q5VU71; Q5VU72; Q8TCG3; Q969Q2; Q9NQH8; D3DV71
UniProt Related Accession #	P06753
NCBI Official Full Name	Homo sapiens tropomyosin 3, mRNA
NCBI Official Synonym Full Names	tropomyosin 3
NCBI Official Symbol	TPM3
NCBI Official Synonym Symbols	TM3; TM5; TRK; CFTD; NEM1; TM-5; TM30; CAPM1; TM30nm; TPMsk3; hscp30; HEL-189; HEL-S-82p; OK/SW-cl.5
UniProt Protein Name	Tropomyosin alpha-3 chain
UniProt Synonym Protein Names	Gamma-tropomyosin; Tropomyosin-3; Tropomyosin-5; hTM5
Protein Family	Tropomyosin
UniProt Gene Name	TPM3

UniProt Synonym Gene Names	hTM5
UniProt Entry Name	TPM3_HUMAN
NCBI Protein Information	tropomyosin alpha-3 chain
NCBI Summary for TPM3	This gene encodes a member of the tropomyosin family of actin-binding proteins. Tropomyosins are dimers of coiled-coil proteins that provide stability to actin filaments and regulate access of other actin-binding proteins. Mutations in this gene result in autosomal dominant nemaline myopathy and other muscle disorders. This locus is involved in translocations with other loci, including anaplastic lymphoma receptor tyrosine kinase (ALK) and neurotrophic tyrosine kinase receptor type 1 (NTRK1), which result in the formation of fusion proteins that act as oncogenes. There are numerous pseudogenes for this gene on different chromosomes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2013]
UniProt Comments for TPM3	TPM3: a cytoskeletal protein that binds to actin filaments in muscle and nonmuscle cells. Plays a central role, in association with the troponin complex, in the calcium dependent regulation of vertebrate striated muscle contraction. Smooth muscle contraction is regulated by interaction with caldesmon. In non-muscle cells is implicated in stabilizing cytoskeleton actin filaments. Defects in TPM3 are a cause of nemaline myopathy type 1 (NEM1). Three alternatively spliced isoforms have been described. Protein type: Actin-binding; Contractile; Cytoskeletal; Motility/polarity/chemotaxis; Motor; Oncoprotein Chromosomal Location of Human Ortholog: 1q21.2 Cellular Component: actin filament; cytoskeleton; cytosol; muscle thin filament tropomyosin; stress fiber Molecular Function: actin filament binding; protein binding; structural constituent of muscle Biological Process: actin filament organization; cell motility; muscle contraction; muscle filament sliding Disease: Myopathy, Congenital, With Fiber-type Disproportion; Nemaline Myopathy 1
Research Articles on TPM3	**1.** This work expands the phenotypic spectrum of TPM3-related disease and provides insights into the pathophysiological mechanisms of the actin-tropomyosin complex
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