Recombinant Human TPM3

Cat. No. TPM3-28H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Tropomyosin Alpha-3 Chain/TPM3 is produced with our E. coli expression system. The target protein is expressed with sequence (Met1-Met248) of Human TPM3.
Species	Human
Source	E.coli
ProteinLength	1-248 a.a.
Description	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.
Form	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4
AA Sequence	MAGITTIEAVKRKIQVLQQQADDAEERAERLQREVEGERRAREQAEAEVASLNRRIQ LVEEELDR AQERLATALQKLEEAEKAADESERGMKVIENRALKDEEKMELQEIQLKE AKHIAEEADRKYEEVA RKLVIIEGDLERTEERAELAESRCREMDEQIRLMDQNLKCL

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	SAAEEKYSQKEDKYEEEIKILTDK LKEAETRAEFAERSVAKLEKTIDDLEDKLKCTKE EHLCTQRMLDQTLLDLNEM
Endotoxin	Less than 0.1 ng/μg (1 IEU/μg).
Purity	Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name	TPM3 tropomyosin 3 [Homo sapiens (human)]
Official Symbol	TPM3
Synonyms	TPM3; tropomyosin 3; NEM1; tropomyosin alpha-3 chain; TRK; tropomyosin-3; tropomyosin-5; gamma-tropomyosin; tropomyosin gamma; cytoskeletal tropomyosin TM30; heat-stable cytoskeletal protein 30 kDa; TM3; TM5; CFTD; TM-5; TM30; hTM5; TM30nm; TPMsk3; hscp30; OK/SW-cl.5; MGC3261; FLJ41118; MGC14582; MGC72094
Gene ID	7170
mRNA Refseq	NM_001043351

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Protein Refseq	NP_001036816
MIM	191030
UniProt ID	P06753
Chromosome Location	1q21.2
Pathway	Adrenergic signaling in cardiomyocytes; Cardiac muscle contraction; Hypertrophic cardiomyopathy (HCM); Smooth Muscle Contraction
Function	actin binding; molecular_function

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