

Product datasheet for SC315414

Tropomyosin 3 (TPM3) (NM_001043353) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tropomyosin 3 (TPM3) (NM_001043353) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tropomyosin 3
Synonyms:	CAPM1; CFTD; HEL-189; HEL-S-82p; hscp30; NEM1; OK/SW-cl.5; TM-5; TM3; TM5; TM30; TM30nm; TPM3nu; TPMsk3; TRK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC315414 representing NM_001043353. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**
 ATGGCTGGGATCACCACCATCGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGAT
 GCAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGAGGGAGAAAGCGGGCCCGGAACAGGCTGAG
 GCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAGGAGCGC
 CTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGAGAGGTATGAAG
 GTTATTGAAAACCGGCCTTAAAGATGAAGAAAAGATGGAACCTCAGGAAATCCAACCTAAAGAAGCT
 AAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCATTGAAGGA
 GACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTCTGAGCTGGAGGAGGAGCTG
 AAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAA
 TATGAGGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAG
 AGATCGGTAGCCAAGCTGGAAGAACAATTGATGACCTGGAAGAGCGTCTCTACAGCCAACCTTGAGCGA
 AACCGCTGCTTTCTAATGAGCTGAAGCTAACGCTGCATGATCTGTGTGACT**GTA**
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001043353
Insert Size:	744 bp


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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001043353.1</u>
RefSeq Size:	4539 bp
RefSeq ORF:	744 bp
Locus ID:	7170
UniProt ID:	<u>P06753</u>
Cytogenetics:	1q21.3
Protein Pathways:	Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Thyroid cancer
MW:	28.8 kDa

Gene Summary:

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]

Transcript Variant: This variant (Tpm3.4, also known as variant 5) lacks an exon and contains an alternate exon in the central coding region, and uses an alternate splice site in the 3' coding region, compared to variant Tpm3.1. The encoded isoform (Tpm3.4cy, also known as isoform 5 or Tm5NM4) is shorter and has a distinct C-terminus, compared to isoform Tpm3.1cy. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.