

Product datasheet for **RC220212**

Tropomyosin 3 (TPM3) (NM_001043353) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tropomyosin 3 (TPM3) (NM_001043353) Human Tagged ORF Clone
Tag:	Myc-DDK
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)
ORF Nucleotide Sequence:	>RC220212 representing NM_001043353 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCTGGGATCACCACCATCGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATG
CAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGAGGGAGAAAGCGGGCCCGGAACAGGCTGAGGC
TGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTCTCAGGAGCGCCTG
GCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGAGAGGTATGAAGGTTA
TTGAAAACCGGCCTTAAAAGATGAAGAAAAGATGGAATCCAGGAAATCCAACCTCAAAGAAGCTAAGCA
CATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCATTGAAGGAGACTTG
GAACGCACAGAGAACGAGCTGAGCTGGCAGAGTCTAAGTGTCTGAGCTGGAGGAGGAGCTGAAGAATG
TCACCAACAACCTCAAGTCTCTTGGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGAGGA
AGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTCTGAGAGATCGGTA
GCCAAGCTGGAAGAAGACAATTGATGACCTGGAAGAGCGTCTCTACAGCCAACCTTGAGCGAAAACCGCTGC
TTTCTAATGAGCTGAAGCTAACGCTGCATGATCTGTGTGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC220212 representing NM_001043353
 Red=Cloning site Green=Tags(s)

MAGITTIEAVKRKIQVLQQADDAEERAERLQREVEGERRAREQAEAEVASLNRRIQLVEEELDRAQERL
 ATALQKLEEAEEKADESERGMKVIENRALKDEEKMELQEIQLKEAKHIAEEADRKYYEEVARKLVIIEGDL
 ERTEERAELAESKCSLEEEELKNVTNNLKSLEAQAEKYSQKEDKYEEIEKILTDKLKEAETRAEFAERSV
 AKLEKTIDDLEERLYSQLERNRLLSNELKLTLDLDCD

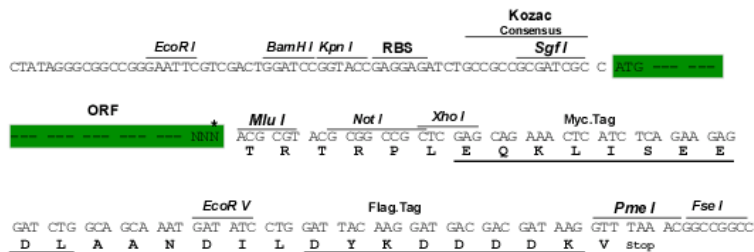
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1512_h07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001043353

ORF Size: 741 bp

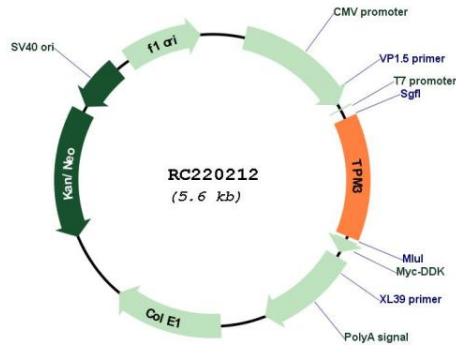
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

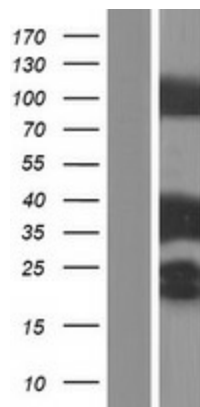
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	NM_001043353.2
RefSeq Size:	4539 bp
RefSeq ORF:	744 bp
Locus ID:	7170
UniProt ID:	P06753
Cytogenetics:	1q21.3
Protein Pathways:	Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Thyroid cancer
MW:	28.6 kDa
Gene Summary:	<p>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]</p>

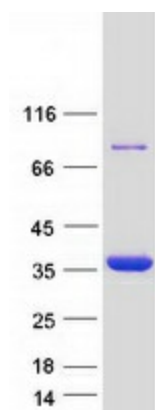
Product images:



Circular map for RC220212



Western blot validation of overexpression lysate (Cat# [LY420818]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220212 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPM3 protein (Cat# [TP320212]). The protein was produced from HEK293T cells transfected with TPM3 cDNA clone (Cat# RC220212) using MegaTran 2.0 (Cat# [TT210002]).