

## Product datasheet for **RC204007**

### Tropomyosin 2 (TPM2) (NM\_213674) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tropomyosin 2 (TPM2) (NM_213674) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tropomyosin 2
Synonyms:	AMCD1; DA1; DA2B; DA2B4; HEL-S-273; NEM4; TMSB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204007 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAAGCTGGACAAGGAGAACGCCATCGACCCGCCGAGC  
AGGCCGAAGCCGACAAGAAGCAAGCTGAGGACCGCTGCAAGCAGCTGGAGGAGGAGCAGCAGGCCCTCCA  
GAAGAAGCTGAAGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAAGGAGGCCAGGAGAAA  
CTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGTGGCCTCCCTGAACCGCCGATTACAG  
TGTTGAGGAGGAGCTGGACCGGCCAGGAGCGCTGGCTACAGCCCTGCAGAAGCTGGAGGAGGCCGA  
GAAGGCGGCTGATGAGAGCGAGAGGAATGAAGGTCATCGAAAACCGGCCATGAAGGATGAGGAGAAG  
ATGGAAGTGCAGGAGATGCAGCTGAAGGAGGCCAAGCACATCGCTGAGGATTCAGACCGCAATATGAAG  
AGGTGGCCAGGAAGCTGGTGATCCTGGAAGGAGAGCTGGAGCGCTCGGAGGAGAGGGCTGAGGTGGCCGA  
GAGCCGAGCCAGACAGCTGGAGGAGGAACCTCGAACCATGGACCAGGCCCTCAAGTCCCTGATGGCTCA  
GAGGAGGAGTATCCACCAAGAAGATAAATATGAAGAGGAGATCAAAGTGTGGAGGAGAAGCTGAAGG  
AGGCTGAGACCCGAGCAGAGTTTGCCGAGAGGTCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTAGA  
AGAGACCTTGCCAGTGCCAAGGAGGAGAACGTCGAGATTCACCAGACCTTGACCAGACCCTGTGGAA  
CTCAACAACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204007 protein sequence  
Red=Cloning site Green=Tags(s)

MDAIIKKKMQMLKLDKENAIDRAEQAEADKKQAEDRCKQLEEEQQALQKCLKGTEDEVEKYSESVKEAQEK  
 LEQAEKKATDAEADVASLNRRIQLVVEELDRAQERLATALQKLEEAKEAADESERGMKV IENRAMKDEEK  
 MELQEMQLKEAKHIAEDSDRKYEEVARKLVILEGELERSEERA EAVASRRARQLEEEELRTMDQALKSLMAS  
 EEEYSTKEDKYE EEEIKLLEEKLKEAETRAEFAERSVAKLEKTIDDL EETLASAKEENVEIHQTLDQTLLE  
 LNNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_213674

**ORF Size:** 852 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:**

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\\_213674.1](#), [NP\\_998839.1](#)

**RefSeq Size:** 1182 bp

**RefSeq ORF:** 855 bp

**Locus ID:** 7169

**UniProt ID:** [P07951](#)

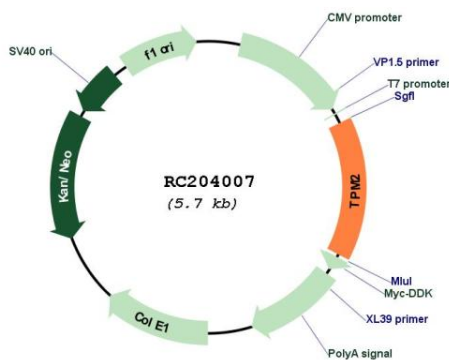
**Cytogenetics:** 9p13.3

**Protein Pathways:** Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

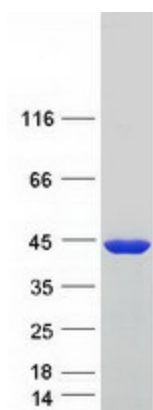
**MW:** 33 kDa

**Gene Summary:** This gene encodes beta-tropomyosin, a member of the actin filament binding protein family, and mainly expressed in slow, type 1 muscle fibers. Mutations in this gene can alter the expression of other sarcomeric tropomyosin proteins, and cause cap disease, nemaline myopathy and distal arthrogyryposis syndromes. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Mar 2009]

### Product images:



Circular map for RC204007



Coomassie blue staining of purified TPM2 protein (Cat# [TP304007]). The protein was produced from HEK293T cells transfected with TPM2 cDNA clone (Cat# RC204007) using MegaTran 2.0 (Cat# [TT210002]).