

Product datasheet for RC219648

Tropomyosin 2 (TPM2) (NM_003289) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tropomyosin 2 (TPM2) (NM_003289) 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:	>RC219648 representing NM_003289 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAAGCTGGACAAGGAGAACGCCATCGACCCGCCGAGC
AGGCCGAAGCCGACAAGAAGCAAGCTGAGGACCGCTGCAAGCAGCTGGAGGAGGAGCAGCAGGCCCTCCA
GAAGAAGCTGAAGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAAGGAGGCCAGGAGAAA
CTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGTGGCCTCCCTGAACCGCCGATTACAG
TGTTGAGGAGGAGCTGGACCGGCCAGGAGCGCCTGGCTACAGCCCTGCAGAAGCTGGAGGAGGCCGA
GAAGGCCGCTGATGAGAGCGAGAGGAATGAAGGTCATCGAAAACCGGCCATGAAGGATGAGGAGAAG
ATGGAAGTGCAGGAGATGCAGCTGAAGGAGGCCAAGCACATCGCTGAGGATTCAGACCGCAAATATGAAG
AGGTGGCCAGGAAGCTGGTATCCTGGAAGGAGAGCTGGAGCGCTCGGAGGAGAGGGCTGAGGTGGCCGA
GAGTAAATGTGGGGACCTAGAGGAGGAGCTGAAAATTGTTACCAACAATTGAAATCCCTGGAGGCCAG
GCGGACAAGTATCCACCAAGAAGATAAATATGAAGAGGAGATCAAAGTGTGGAGGAGAAGCTGAAGG
AGGCTGAGACCCGAGCAGAGTTTGCCGAGAGGTCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTAGA
AGATGAAGTCTATGCCCAGAAGATGAAGTACAAGGCCATTAGCGAGGAAGTGGACAACGCACTCAATGAC
ATCACCTCCCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC219648 representing NM_003289
Red=Cloning site Green=Tags(s)

MDAIIKKMQMLKLDKENAIDRAEQAEADKKQAEDRCKQLEEEQQALQKCLKGTEDEVEKYSESVKEAQEK
 LEQAEKKATDAEADVASLNRIQLVEEELDRAQERLATALQKLEEAKEADESERGMKVLENRAMKDEEK
 MELQEMQLKEAKHIAEDSDRKYEEVARKLVILEGELERSEERAEAESKCGDLEELKIVTNLKSLEAQ
 ADKYSTKEDKYEIEIKLLEEKLEAEETRAEFAERSVAKLEKTIIDLEDEVYAQKMKYKAI SEELDNALND
 ITSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKVV

Chromatograms: https://cdn.origene.com/chromatograms/mk6475_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003289

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003289.4](#)

RefSeq Size: 1327 bp

RefSeq ORF: 855 bp

Locus ID: 7169

UniProt ID: [P07951](#)

Cytogenetics: 9p13.3

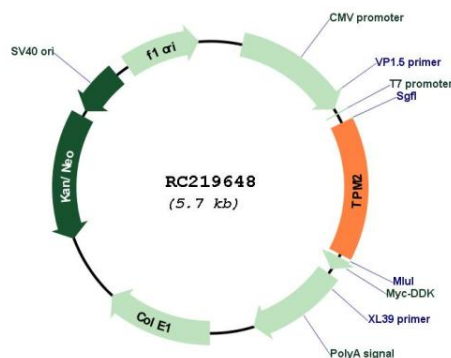
Domains: Tropomyosin

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

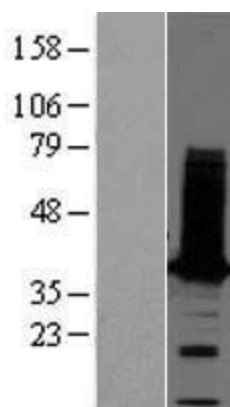
MW: 32.7 kDa

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 arthrogyrosis syndromes. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Mar 2009]

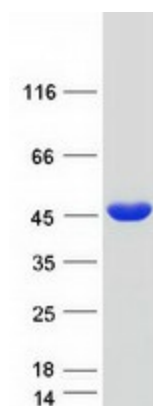
Product images:



Circular map for RC219648



Western blot validation of overexpression lysate (Cat# [LY418786]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219648 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPM2 protein (Cat# [TP319648]). The protein was produced from HEK293T cells transfected with TPM2 cDNA clone (Cat# RC219648) using MegaTran 2.0 (Cat# [TT210002]).