

Product datasheet for **RC201133**

TPM4 (NM_003290) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TPM4 (NM_003290) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TPM4
Synonyms:	HEL-S-108
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201133 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGGCCGGCCTCAACTCCCTGGAGGCGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCAGGGCCTGCAGCGGGAGCTGGACGGCGAGCGGAGCGGCGGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCTTTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAGCTGCAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGGAGATGCAGCTCAAAGAGGCCAAGCATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGGTCATCCTGGAGGGTGAGCTGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAGAAGAAGCTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACAAATATGAAGAAGAAATTAACCTTCTGTCTGACAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAACGGTTGCAAACTGGAAGACAATTGATGACCTGGAAGAGAACTTGCCAGGCCAAAGAAGAGAACGTGGGCTTACATCAGACACTGGATCAGACACTAACGAACCTTAAGTGTATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201133 protein sequence
 Red=Cloning site Green=Tags(s)

MAGLNSLEAVKRRIQALQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLFEEELDRAQERL
 ATALQKLEEAKEAADESERGMKVIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGEL
 ERAEERAEVSELKCGDLEELKNVTNNLKSLEAASEKYEKEDKYEIEIKLLSDKLKEAETRAEFAERTV
 AKLEKTIDDLLEEKLAQAKEENVGLHQTL DQTLNELNCI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6389_g01.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_003290

ORF Size: 744 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_003290.3](#)

RefSeq Size: 2645 bp

RefSeq ORF: 747 bp

Locus ID: 7171

UniProt ID: [P67936](#)

Cytogenetics: 19p13.12-p13.11

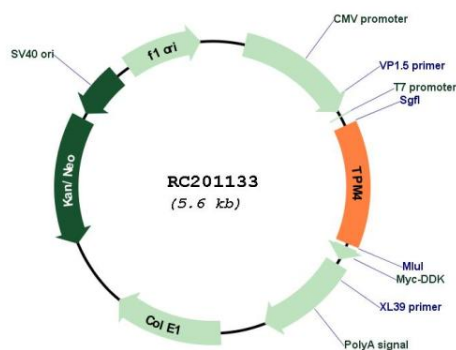
Domains: Tropomyosin

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

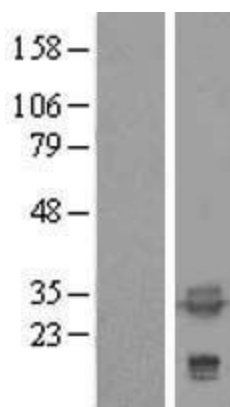
MW: 28.6 kDa

Gene Summary: This gene encodes a member of the tropomyosin family of actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosins are dimers of coiled-coil proteins that polymerize end-to-end along the major groove in most actin filaments. They provide stability to the filaments and regulate access of other actin-binding proteins. In muscle cells, they regulate muscle contraction by controlling the binding of myosin heads to the actin filament. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2009]

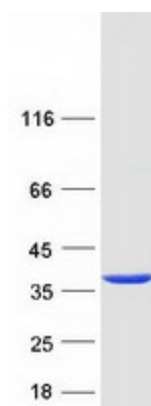
Product images:



Circular map for RC201133



Western blot validation of overexpression lysate (Cat# [LY418787]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201133 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPM4 protein (Cat# [TP301133]). The protein was produced from HEK293T cells transfected with TPM4 cDNA clone (Cat# RC201133) using MegaTran 2.0 (Cat# [TT210002]).