

Product datasheet for **RC227534**

TPM4 (NM_001145160) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TPM4 (NM_001145160) 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:	>RC227534 representing NM_001145160 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**C

ATGGAGGCCATCAAGAAGAAAATGCAGATGCTGAAGTTGGACAAGGAGAATGCCATCGACCGCGCGGAGC
 AGGCGGAGGCGGATAAGAAAGCCGCTGAGGACAAGTGCAAGCAGGTGGAGGAGGAGCTGACGCACCTCCA
 GAAGAACTAAAAGGGACAGAGGACGAGCTGGATAAATATTCGAGGACCTGAAGGACGCGCAGGAGAAG
 CTGGAGCTCACGAGAAGAAGGCCTCCGACGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGC
 TCGTTGAGGAGGAGTTGGACAGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGA
 AAAAGCTGCAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAG
 ATGGAGATTCAGGAGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGG
 AGGTAGCTCGTAAGCTGGTCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCAGGAGGTGTCTGA
 ACTAAATGTGGTGACCTGGAAGAAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCA
 TCTGAAAAGTATTCTGAAAAGGAGGACAAATATGAAGAAGAAATTAACTTCTGTCTGACAACTGAAAG
 AGGCTGAGACCCGTGCTGAATTTGCAGAGAGAACGGTTGCAAACTGGAAAAGACAATTGATGACCTGGA
 AGAGAACTTGCCAGGCCAAAGAAGAGAACGTGGGCTTACATCAGACACTGGATCAGACACTAAACGAA
 CTTAACTGTATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC227534 representing NM_001145160
 Red=Cloning site Green=Tags(s)

MEAIKKKMQLKLDKENAIDRAEQAEADKKAEDKCKQVEEELTHLQKKLKGTEDELDKYSEDLKDAQEK
 LELTEKKASDAEGDVAALNRRIQLVEEELDRAQERLATALQKLEEAKEADESERGMKVLENRAMKDEEK
 MEIQEMQLKEAKHIAEEADRYEEVARKLVILEGELERAEEAEVSELKCGDLEELKNVTNNLKSLEAA
 SEKYEKEDKYEIEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLKLEKLAQAKEENVGLHQTLDQTLNE
 LNCI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8049_c12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001145160

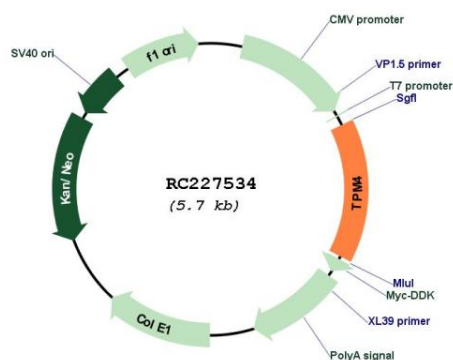
ORF Size: 852 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

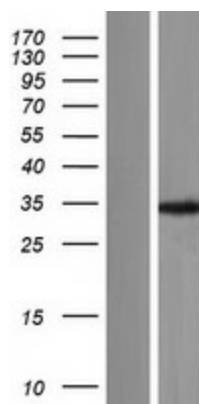
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001145160.2
RefSeq ORF:	855 bp
Locus ID:	7171
UniProt ID:	P67936
Cytogenetics:	19p13.12-p13.11
Protein Pathways:	Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)
MW:	32.5 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]

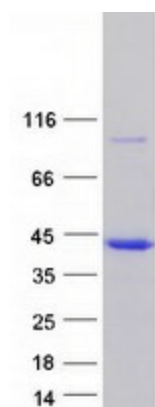
Product images:



Circular map for RC227534



Western blot validation of overexpression lysate (Cat# [LY428735]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227534 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPM4 protein (Cat# [TP327534]). The protein was produced from HEK293T cells transfected with TPM4 cDNA clone (Cat# RC227534) using MegaTran 2.0 (Cat# [TT210002]).