

Product datasheet for **SC302119**

TPM1 (NM_001018005) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TPM1 (NM_001018005) Human Untagged Clone
Tag:	Tag Free
Symbol:	TPM1
Synonyms:	C15orf13; CMD1Y; CMH3; HEL-S-265; HTM-alpha; LVNC9; TMSA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_001018005 edited GGGAAAGTACATATCTGGGAGAAGCAGGCGGCTCCGCGCTCGCACTCCCGCTCCTCCGCC CGACCGCGCTCGCCCCGCGCTCCTGTGTCAGCCCCAGGGCCCTCGCCGCCGCCACC ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAAGCTCGACAAGGAGAACGCCTTGGAT CGAGCTGAGCAGGCGGAGGCCGACAAGAAGGCGCGGAAGACAGGAGCAAGCAGCTGGAA GATGAGCTGGTGTCACTGCAAAAAGAACTCAAGGGCACCGAAGATGAACTGGACAATAC TCTGAGGCTCTCAAAGATGCCAGGAGAAGCTGGAGCTGGCAGAGAAAAAGGCCACCGAT GCTGAAGCCGACGTAGCTTCTCTGAACAGACGCATCCAGCTGGTTGAGGAAGAGTTGGAT CGTGCCCAGGAGCGTCTGGCAACAGCTTTCAGAAAGCTGGAGGAAGCTGAGAAGGCAGCA GATGAGAGTGAGAGAGGCATGAAAGTCATTGAGAGTCGAGCCAAAAAGATGAAGAAAA ATGGAAATTCAGGAGATCCAAGTAAAGAGGCAAAGCACATTGCTGAAGATGCCGACCGC AAATATGAAGAGGTGGCCGTAAGCTGGTCATCATTGAGAGCGACCTGGAACGTGCAGAG GAGCGGGCTGAGCTCTCAGAAGGCAAATGTGCCGAGCTTGAAGAAGAATTGAAAAGTGTG ACGAACAACCTGAAGTCACTGGAGGCTCAGGCTGAGAAGTACTCGCAGAAGGAAGACAGA TATGAGGAAGAGATCAAGGTCCTTTCCGACAAGCTGAAGGAGGCTGAGACTCGGGCTGAG TTTGCGGAGAGGTCAGTAACTAAATTGGAGAAAAGCATTGATGACTTAGAAGACGAGCTG TACGCTCAGAACTGAAGTACAAAGCCATCAGCGAGGAGCTGGACCACGCTCTCAACGAT ATGACTTCCATATAA
Restriction Sites:	Please inquire
ACCN:	NM_001018005
Insert Size:	1000 bp



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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: The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001018005.1.

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_001018005.1](#), [NP_001018005.1](#)

RefSeq Size: 1246 bp

RefSeq ORF: 855 bp

Locus ID: 7168

UniProt ID: [P09493](#)

Cytogenetics: 15q22.2

Protein Families: Druggable Genome

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

Gene Summary:

This gene is a member of the tropomyosin family of highly conserved, widely distributed actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosin is composed of two alpha-helical chains arranged as a coiled-coil. It is polymerized end to end along the two grooves of actin filaments and provides stability to the filaments. The encoded protein is one type of alpha helical chain that forms the predominant tropomyosin of striated muscle, where it also functions in association with the troponin complex to regulate the calcium-dependent interaction of actin and myosin during muscle contraction. In smooth muscle and non-muscle cells, alternatively spliced transcript variants encoding a range of isoforms have been described. Mutations in this gene are associated with type 3 familial hypertrophic cardiomyopathy. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (Tpm1.1, also known as variant 1) represents the shortest transcript. It encodes the longest isoform (Tpm1.1st), also known as the fast skeletal muscle isoform.