

## Product datasheet for **RG219652**

### TPM1 (NM\_001018007) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TPM1 (NM_001018007) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TPM1
Synonyms:	C15orf13; CMD1Y; CMH3; HEL-S-265; HTM-alpha; LVNC9; TMSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219652 representing NM_001018007 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAAGCTCGACAAGGAGAACGCCTTGGATCGAGCTGAGC  
AGGCGGAGGCCGACAAGAAGGCCGCGGAAGACAGGAGCAAGCAGCTCGAGGAGGACATCGCGCCAAGGA  
GAAGTTGCTGCGGGTGTGCGGAGGACGAGCGGGACCGGGTCTGGAGGAGCTGCACAAGCGGAGGACAGC  
CTCCTGGCCGCCAAGAGGCCGCCCAAGGCTGAAGCCGACGTAGCTTCTCTGAACAGACGCATCCAGC  
TGTTGAGGAAGAGTTGGATCGTGCCAGGAGCTCTGGCAACAGCTTTCAGAAAGCTGGAGGAAGCTGA  
GAAGGCAGCAGATGAGAGTGAGAGAGGCATGAAAGTCATTGAGAGTCGAGCCAAAAAGATGAAGAAAA  
ATGGAAATTCAGGAGATCCAAGTAAAGAGGCCAAGCACATTGCTGAAGATGCCGACCGCAATATGAAG  
AGGTGGCCGTAAGCTGGTCATCATTGAGAGCGACCTGGAACGTGCAGAGGAGCGGGCTGAGCTCTCAGA  
AGGCAATGTGCCGAGCTTGAAGAAGAATTGAAAAGTGTGACGAACAACCTGAAGTCACTGGAGGCTCAG  
GCTGAGAAGTACTCGCAGAAGGAAGACAGATATGAGGAAGAGATCAAGGTCCTTCCGACAAGCTGAAGG  
AGGCTGAGACTCGGGCTGAGTTTGGGAGAGGTCAGTAACTAAATGGAGAAAAGCATTGATGACTTAGA  
AGAGAAAGTGGCTCATGCCAAAGAAGAAAACCTTAGTATGCATCAGATGCTGGATCAGACTTTACTGGAG  
TTAAACAACATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG219652 representing NM\_001018007  
 Red=Cloning site Green=Tags(s)

MDAIIKKKMQMLKLDKENALDRAEQAEADKKAEDRSKQLEEDIAAKEKLLRVSEDERDRVLEELHKAEDS  
 LLAAEEAAAKAEADVASLNRIQLVEEELDRAQERLATALQKLEEAKEKADESERGMKVIESRAQKDEEK  
 MEIQEIQLKEAKHIAEDADRKYEEVARKLVIIIESDLERAEEAELSEGKCAELEELKTVTNNLKSLEAQ  
 AEKYSQKEDRYEEIEKVLSDKLKEAETRAEFAERSVTKLEKSIDDLEEKVAHAKEENLSMHQMLDQTLLE  
 LNNM

TRTRPLE - GFP Tag - V

**Restriction Sites:**

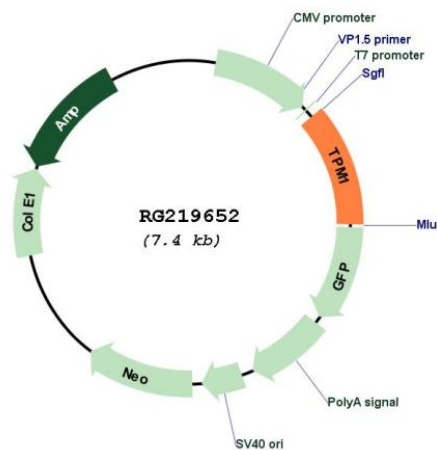
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001018007

**ORF Size:** 852 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001018007.2</a>
<b>RefSeq Size:</b>	1797 bp
<b>RefSeq ORF:</b>	855 bp
<b>Locus ID:</b>	7168
<b>UniProt ID:</b>	<a href="#">P09493</a>
<b>Cytogenetics:</b>	15q22.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)
<b>Gene Summary:</b>	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]