

## Product datasheet for **RN216140**

### Tpm1 (NM\_001034075) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Tpm1 (NM\_001034075) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Tpm1  
**Synonyms:** Alpha-tm; Tma2; Tmsa  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN216140 representing NM\_001034075  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCGGGTAGCAGCTCGCTGGAGGCGGTGCGGAGAAAGATCCGGAGCCTGCAGGAACAGGCAGATGCCG  
CGGAGGAGCGTGC GGCCAGCCTGCAGCGAGAGCTGGACCAGGAGCGGAAGCTGCGGGAAACCGCTGAAGC  
TGACGTAGCATCTCTGAACAGACGCATCCAGCTGGTTGAGGAGGAGTTGGATCGCGCTCAGGAGCGTCTG  
GCCACAGCTCTACAGAAGCTGGAGGAGGCTGAGAAGGCTGCAGATGAGAGTGAGAGAGGCATGAAAGTCA  
TTGAAAGCCGAGCCAAAAAGATGAAGAAAAGATGGAGATTCCAGGAGATCCAGCTGAAAGAGGCCAAGCA  
CATTGCTGAAGATGCTGACCGAAAGTATGAAGAGGTGGCCGTAAGCTGGTCATCATCGAGAGCGATCTG  
GAGCGTGC GGAGGAGAGGGCTGAGCTCTCGGAAGGCAAAATGTGCCGAGCTTGAAGAAGAGTTGAAAACGG  
TGACGAACAACCTGAAGTCACTGGAGGCTCAGGCTGAGAAGTACTCTCAGAAAAGAAGACAAGTATGAAGA  
GGAGATCAAGTTCTCTCTGACAAGCTGAAGGAGGCTGAGACCCGGGCTGAGTTTGCAGAGAGATCAGTA  
ACCAAATTGGAGAAAAGCATTGATGACTTAGAAGACGAGCTGTATGCTCAGAAACTGAAGTACAAGGCCA  
TCAGCGAGGAGCTGGACCACGCTCTCAACGATATGACTTCCATA**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001034075  
**Insert Size:** 747 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u>NM_001034075.1, NP_001029247.1</u>
<b>RefSeq Size:</b>	1182 bp
<b>RefSeq ORF:</b>	747 bp
<b>Locus ID:</b>	24851
<b>UniProt ID:</b>	<u>P04692</u>
<b>Cytogenetics:</b>	8q24
<b>Gene Summary:</b>	<p>This gene is a member of the tropomyosin family and encodes a protein that heterodimerizes with a beta subunit, binding actin in both muscle and nonmuscle cells. In both smooth and striated muscle cells, it plays a role in calcium dependent-regulation of muscle contraction. In nonmuscle cells, it stabilizes cytoskeleton actin filaments. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (Tpm1.13, also known as variant 9) has multiple differences in the coding region, compared to variant 1. These differences result in an isoform (Tpm1.13) that is shorter and has distinct N- and C- termini compared to isoform a. Isoform Tpm1.13 is the same length as isoforms Tpm1.8cy and Tpm1.9cy but is the product of alternate splicing and contains short regions of sequence differences.</p>