

## Product datasheet for RN216245

### Tpm2 (NM\_001301235) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Tpm2 (NM\_001301235) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Tpm2  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN216245 representing NM\_001301235  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAAACTGGACAAGGAGAATGCCATCGACCGCGCAGAGC  
AGGCCGAAGCCGACAAGAAGCAAGCTGAAGACCGATGCAAGCAGCTGGAGGAAGAGCAGCAGGCCCTCCA  
GAAGAACTGAAGGGGACAGAGGATGAGGTGAAAAGTATTCCGAGTCTGTGAAGGATGCCAGGAGAAA  
CTGGAGCAGGCCGAGAAGAAGGCCACCGATGCTGAAGCAGATGTGGCTTCTCTGAATCGACGCATTGAGC  
TCGTAGAGGAGGAGTTGGATCGGGCACAGGAGCGCCTGGCTACAGCCTTGCAAAAAGCTGGAGGAGGCTGA  
GAAAGCCGCTGATGAGAGCGAGAGAGGAATGAAGGTCATTGAGAACCGGCCATGAAGGATGAGGAGAAG  
ATGGAGCTGCAGGAGATGCAGCTGAAAGAAGCCAAGCACATCGCTGAGGACTCAGACCGCAAATACGAGG  
AGGTGGCCAGGAAGCTGGTATCCTGGAAGGAGAGCTGGAGCGCTCTGAAGAGAGAGCCGAGGTGGCTGA  
GAGTAAATGTGGGACCTAGAGGAGGAGCTGAAAATTGTTACCAACAATTGAAATCTCTGGAAGCCCAA  
GCGGACAAGTATCCACCAAAGAGGACAAATACGAAGAAGAGATCAAACCTCTGGAGGAGAAGCTGAAGG  
AGGCTGAGACCCGAGCAGAGTTTGTGAAAGATCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTGGA  
AGATGAAGTCTATGCACAGAAGATGAAGTACAAGGCCATCAGCGAGGAGCTGGACAACCGCTCAATGAC  
ATCACTTCCCT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001301235  
**Insert Size:** 855 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><a href="#">NM_001301235.1</a></u> , <u><a href="#">NP_001288164.1</a></u>
<b>RefSeq Size:</b>	1278 bp
<b>RefSeq ORF:</b>	855 bp
<b>Locus ID:</b>	500450
<b>UniProt ID:</b>	<u><a href="#">P58775</a></u>
<b>Cytogenetics:</b>	5q22
<b>Gene Summary:</b>	Binds to actin filaments in muscle and non-muscle cells (PubMed:7568216, PubMed:22812662). Plays a central role, in association with the troponin complex, in the calcium dependent regulation of vertebrate striated muscle contraction (PubMed:22812662). Smooth muscle contraction is regulated by interaction with caldesmon. In non-muscle cells is implicated in stabilizing cytoskeleton actin filaments. The non-muscle isoform may have a role in agonist-mediated receptor internalization (By similarity).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (Tpm2.2, also known as variant 1) represents the longer transcript and encodes isoform Tpm2.2st (also known as isoform 1), which has the same protein size as isoform Tpm2.1sm/cy.