

## Product datasheet for **RR216245**

### Tpm2 (NM\_001301235) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
Product Name: Tpm2 (NM\_001301235) Rat Tagged ORF Clone  
Tag: Myc-DDK  
Symbol: Tpm2  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
Cell Selection: Neomycin  
ORF Nucleotide Sequence: >RR216245 representing NM\_001301235  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAAACTGGACAAGGAGAATGCCATCGACCGCGCAGAGC  
AGGCCGAAGCCGACAAGAAGCAAGCTGAAGACCGATGCAAGCAGCTGGAGGAAGAGCAGCAGGCCCTCCA  
GAAGAACTGAAGGGACAGAGGATGAGGTGAAAAGTATTCCGAGTCTGTGAAGGATGCCAGGAGAAA  
CTGGAGCAGGCCGAGAAGAAGGCCACCGATGCTGAAGCAGATGTGGCTTCTCTGAATCGACGCATTCAGC  
TCGTAGAGGAGGAGTTGGATCGGGCACAGGAGCGCCTGGCTACAGCCTTGCAAAAAGCTGGAGGAGGCTGA  
GAAAGCCGCTGATGAGAGCGAGAGAGGAATGAAGGTCAATTGAGAACCGGCCATGAAGGATGAGGAGAAG  
ATGGAGCTGCAGGAGATGCAGCTGAAAGAAGCCAAGCACATCGCTGAGGACTCAGACCGCAAATACGAGG  
AGGTGGCCAGGAAGCTGGTATCCTGGAAGGAGAGCTGGAGCGCTCTGAAGAGAGAGCCGAGGTGGCTGA  
GAGTAAATGTGGGACCTAGAGGAGGAGCTGAAAATTGTTACCAACAATTGAAATCTCTGGAAGCCCAA  
GCGGACAAGTATCCACCAAAGAGGACAAATACGAAGAAGAGATCAAACCTCTGGAGGAGAAGCTGAAGG  
AGGCTGAGACCCGAGCAGAGTTTGTGAAAGATCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTGGA  
AGATGAAGTCTATGCACAGAAGATGAAGTACAAGGCCATCAGCGAGGAGCTGGACAACCGCTCAATGAC  
ATCACTTCCCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR216245 representing NM\_001301235  
Red=Cloning site Green=Tags(s)

MDAIIKKMQMLKLDKENAIDRAEQAEADKKQAEDRCKQLEEEQQALQKCLKGTEDEVEKYSESVKDAQEK  
 LEQAEEKATDAEADVASLNRIQLVEEELDRAQERLATALQKLEEAKEKADESERGMKVIENRAMKDEEK  
 MELQEMQLKEAKHIAEDSDRKYEEVARKLVILEGELERSEERAEVAESKCGDLEELKIVTNLKSLEAQ  
 ADKYSTKEDKYEIEIKLLEEKLEAEETRAEFAERSVAKLEKTIDDEDEVYAQMKMYKAISEELDNLND  
 ITSL

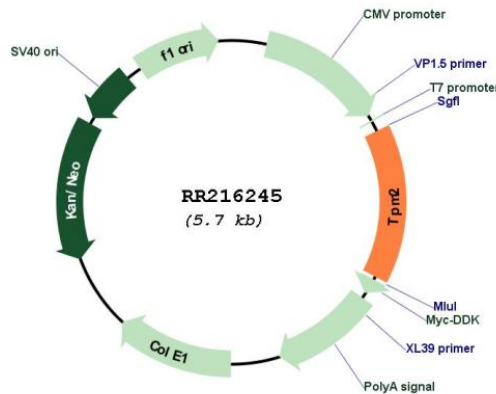
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001301235

<b>ORF Size:</b>	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_001301235.1</a> , <a href="#">NP_001288164.1</a>
<b>RefSeq Size:</b>	1278 bp
<b>RefSeq ORF:</b>	855 bp
<b>Locus ID:</b>	500450
<b>UniProt ID:</b>	<a href="#">P58775</a>
<b>Cytogenetics:</b>	5q22
<b>MW:</b>	32.8 kDa
<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]