

Product datasheet for **RR210760**

Tpm2 (NM_001024345) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tpm2 (NM_001024345) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tpm2
Synonyms:	MGC109519
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RR210760 representing NM_001024345 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGCCATCAAGAAGAAGATGCAGATGCTGAACTGGACAAGGAGAATGCCATCGACCCGCGCAGAGC
AGGCCGAAGCCGACAAGAAGCAAGCTGAAGACCGATGCAAGCAGCTGGAGGAAGAGCAGCAGGCCCTCCA
GAAGAACTGAAGGGGACAGAGGATGAGGTGGAAGTATTCCGAGTCTGTGAAGGATGCCCAGGAGAAA
CTGGAGCAGGCCGAGAAGAAGGCCACCGATGCTGAAGCAGATGTGGCTTCTCTGAATCGACGCATTACAG
TCGTAGAGGAGGAGTTGGATCGGGCACAGGAGCGCCTGGCTACAGCCTTGCAAAAGCTGGAGGAGGCTGA
GAAAGCCGCTGATGAGAGCGAGAGAGGAATGAAGGTCATTGAGAACCAGGCGCATGAAGGATGAGGAGAAG
ATGGAGCTGCAGGAGATGCAGCTGAAAGAAGCCAAGCACATCGCTGAGGACTCAGACCGCAAATACGAGG
AGGTGGCCAGGAAGCTGGTGATCCTGGAAGGAGAGCTGGAGCGCTCTGAAGAGAGAGCCGAGGTGGCTGA
GAGCCGAGCCAGGCAGCTGGAGGAGGAGCTTCAACCATGGACCAGGCTCTCAAGTCGCTGATAGCCTCA
GAGGAGGAGTATTCCACCAAGAGGACAATAACGAAGAAGAGATCAAACCTCTGGAGGAGAAGCTGAAGG
AGGCTGAGACCCGAGCAGAGTTTGGCTGAAAGATCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTGGA
AGAGACTTTGGCTAGTGCCAAGGAAGAGAACGTGGAGATTACCAGACCTTGACCAGACCTTCTGGAA
CTCAACAACCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR210760 representing NM_001024345
 Red=Cloning site Green=Tags(s)

MDAIIKKKMQMLKLDKENAIDRAEQAEADKKQAEDRCKQLEEEQQALQKCLKGTEDEVEKYSESVKDAQEK
 LEQAEEKKATDAEADVASLNRRIQLVVEELDRAQERLATALQKLEEAKEKADESERGMKV IENRAMKDEEK
 MELQEMQLKEAKHIAEDSDRKYEEVARKLVILEGELERSEERA EAVASRRARQLEEEELRTMDQALKSLIAS
 EEEYSTKEDKYEIEIKLLEEKLEAEETRAEFAERSVAKLEKTIDDL EETLASAKEENVEIHQTLDQTLLE
 LNNL

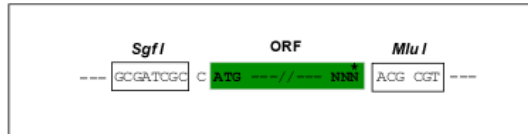
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001024345

ORF Size: 852 bp

OTI Disclaimer: 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: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001024345.2](#), [NP_001019516.1](#)

RefSeq Size: 1116 bp

RefSeq ORF: 855 bp

Locus ID: 500450

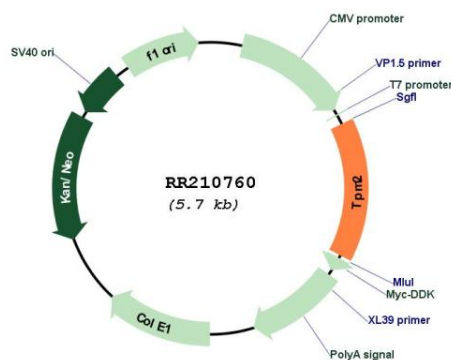
UniProt ID: [P58775](#)

Cytogenetics: 5q22

MW: 33 kDa

Gene Summary: 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]

Product images:



Circular map for RR210760