

## Product datasheet for RC209904

### OriGene Technologies, Inc.

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## Tropomyosin 3 (TPM3) (NM\_153649) Human Tagged ORF Clone

#### **Product data:**

**Product Type: Expression Plasmids** 

**Product Name:** Tropomyosin 3 (TPM3) (NM\_153649) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: Tropomyosin 3

Synonyms: CAPM1; CFTD; HEL-189; HEL-S-82p; hscp30; NEM1; OK/SW-cl.5; TM-5; TM3; TM5; TM30;

TM30nm: TPM3nu: TPMsk3: TRK

Mammalian Cell

Selection:

Neomycin

Vector: pCMV6-Entry (PS100001) E. coli Selection: Kanamycin (25 ug/mL)

**ORF Nucleotide** >RC209904 representing NM\_153649

Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

CAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGAGGGAGAAAGGCGGGCCCGGGAACAGGCTGAGGC TGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAGGAGCGCCTG GCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGAGGTATGAAGGTTA TTGAAAACCGGGCCTTAAAAGATGAAGAAAGATGGAACTCCAGGAAATCCAACTCAAAGAAGCTAAGCA CATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCATTGAAGGAGACTTG TGGACCAGAACCTGAAGTGTCTGAGTGCTGCTGAAGAAAAGTACTCTCAAAAAGAAGATAAATATGAGGA AGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTA GCCAAGCTGGAAAAGACAATTGATGACCTGGAAGATAAACTGAAATGCACCAAAGAGGAGCACCTCTGTA

CACAAAGGATGCTGGACCAGACCCTGCTTGACCTGAATGAGATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA



#### Tropomyosin 3 (TPM3) (NM\_153649) Human Tagged ORF Clone - RC209904

**Protein Sequence:** >RC209904 representing NM\_153649

Red=Cloning site Green=Tags(s)

MAGITTIEAVKRKIQVLQQQADDAEERAERLQREVEGERRAREQAEAEVASLNRRIQLVEEELDRAQERL ATALQKLEEAEKAADESERGMKVIENRALKDEEKMELQEIQLKEAKHIAEEADRKYEEVARKLVIIEGDL ERTEERAELAESRCREMDEQIRLMDQNLKCLSAAEEKYSQKEDKYEEEIKILTDKLKEAETRAEFAERSV AKLEKTIDDLEDKLKCTKEEHLCTQRMLDQTLLDLNEM

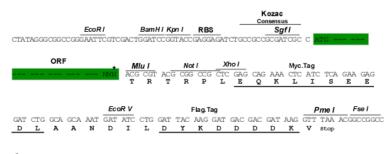
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: <a href="https://cdn.origene.com/chromatograms/mg3672">https://cdn.origene.com/chromatograms/mg3672</a> a01.zip

**Restriction Sites:** Sgfl-Mlul

Cloning Scheme: Cloning sites used for ORF Shuttling:





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_153649

ORF Size: 744 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: <u>NM 153649.4</u>

**RefSeq Size:** 3212 bp RefSeq ORF: 747 bp

 Locus ID:
 7170

 UniProt ID:
 P06753

 Cytogenetics:
 1q21.3

**Domains:** Tropomyosin

**Protein Pathways:** Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM),

Pathways in cancer, Thyroid cancer

MW: 28.9 kDa

**Gene Summary:** This gene encodes a member of the tropomyosin family of actin-binding proteins.

Tropomyosins are dimers of coiled-coil proteins that provide stability to actin filaments and regulate access of other actin-binding proteins. Mutations in this gene result in autosomal

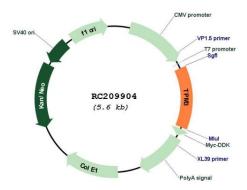
dominant nemaline myopathy and other muscle disorders. This locus is involved in

translocations with other loci, including anaplastic lymphoma receptor tyrosine kinase (ALK) and neurotrophic tyrosine kinase receptor type 1 (NTRK1), which result in the formation of fusion proteins that act as oncogenes. There are numerous pseudogenes for this gene on different chromosomes. Alternative splicing results in multiple transcript variants. [provided

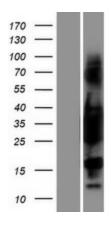
by RefSeq, May 2013]



# **Product images:**

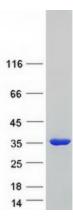


Circular map for RC209904



Western blot validation of overexpression lysate (Cat# [LY420816]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC216840] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).





Coomassie blue staining of purified TPM3 protein (Cat# [TP309904]). The protein was produced from HEK293T cells transfected with TPM3 cDNA clone (Cat# RC209904) using MegaTran 2.0 (Cat# [TT210002]).