

Product datasheet for **RG236143**

Tropomyosin 3 (TPM3) (NM_001278191) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tropomyosin 3 (TPM3) (NM_001278191) Human Tagged ORF Clone
Tag:	TurboGFP
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-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG236143 representing NM_001278191. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGAAGGTTATTGAAAACCGGCCCTTAAAAGATGAAGAAAAGATGGAACCTCCAGGAAATCCAACCTCAA
GAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCATT
GAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTTCTGAGCTGGAGGAG
GAGCTGAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAA
GATAAATATGAGGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTT
GCTGAGAGATCGGTAGCCAAGCTGGAAAAGACAATTGATGACCTGGAAGATAAACTGAAATGCACCCAAA
GAGGAGCACCTCTGTACACAAAGGATGCTGGACCAGACCCTGCTTGACCTGAATGAGATG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

Protein Sequence: >Peptide sequence encoded by RG236143
Blue=ORF Red=Cloning site Green=Tag(s)

```
MKVIENRALKDEEKMELQEIQKAKHIAEEADRKYEEVARKLVIIIEGDLERTEERAELAESKCELEE
ELKNVTNNLKSLEAQAQEKYSQKEDKYEEEEIKILTDKLKEATRAEFAERSVAKLEKTIDDLKDKCTK
EEHLCTQRMLDQTLDDLNEM
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
SVIFTDKIIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKAIAHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites: SgfI-MluI



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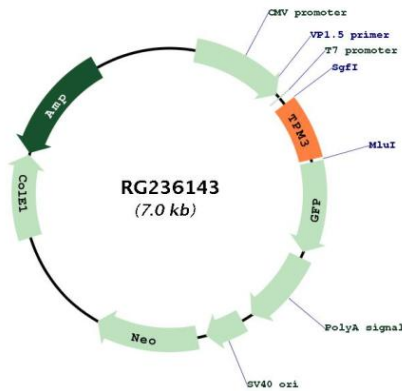
Cloning Scheme:


- ACCN:** NM_001278191
- ORF Size:** 474 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).
- RefSeq:** [NM_001278191.2](#)
- RefSeq Size:** 3058 bp
- RefSeq ORF:** 477 bp
- Locus ID:** 7170
- UniProt ID:** [P06753](#)
- Cytogenetics:** 1q21.3
- Protein Pathways:** Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Thyroid cancer
- MW:** 19.1 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 RG236143