

Product datasheet for **RG236926**

TNNT3 (NM_001297646) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TNNT3 (NM_001297646) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TNNT3
Synonyms:	beta-TnTF; DA2B2; TNTF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG236926 representing NM_001297646. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTCTGACGAGGAAGTTGAACAGGTGGAGGAGCAGTACGAAGAAGAAGAGGAAGCCAGGAGGAAGAG
GAAGTTCAAGAAGAGGAGAAACCGAGACCCAACTCACTGCTCCTAAGATCCCAGAAGGGGAGAAAGTG
GACTTCGATGACATCCAGAAGAAGCGTCAGAACAAGACCTAATGGAGCTCCAGGCCCTCATCGACAGC
CACTTTGAAGCCCGAAGAAGGAGGAGGAGGAGCTGGTCGCTCTCAAAGAGAGAATCGAGAAGCGCCGT
GCAGAGAGAGCGGAGCAGCAGAGGATTCGTGCAGAGAAGGAGAGGGAGCGCCAGAACAGACTGGCGGAG
GAAAAGGCCAGAAGGGAGGAGGAGGATGCCAAGAGGAGGGCAGAGGACGACCTGAAGAAGAAGAAAGCT
CTGTCTTCCATGGGAGCCAACTACAGCAGCTACCTGGCCAAGGCTGACCAGAAGAGAGGCAAGAAGCAG
ACAGCCCGGAAAATGAAGAAGAAGATTCTGGCTGAGAGACGCAAGCCGCTCAACATCGATCACCTTGGT
GAAGACAACTGAGGGACAAGGCCAAGGAGCTCTGGGAGACCCTGCACCAGCTGGAGATTGACAAGTTTC
GAGTTTGGGGAGAAGCTGAAACGCCAGAAATATGACATCACACGCTCAGGAGCCGATTGACCAGGCC
CAGAAGCACAGCAAGAAGGCTGGGACCCAGCCAAAGGCAAAAGTCGGCGGGCGCTGGAAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG236926
 Blue=ORF Red=Cloning site Green=Tag(s)

MSDEEVEQVEEQYEEEEEAQEEEEVQEEKPRPKLTAPKIPEGEKVDFDDIQKKRQNKDLMELQALIDS
 HFEARKKEEEELVALKERIEKRAERAQQRIRAEKERERQNLAEEKARREEDAKRAEDDLKKKKA
 LSSMGANYSSYLAKADQKRGKKQTAREMKKKILAERRKPLNIDHLGEDKLRDKAKELWETLHQLEIDKF
 EFGKELKRQKYDITTLRSRIDQAQKHSKAGTPAKGKVGGRWK
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
 SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001297646

ORF Size: 750 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_001297646.2](#)

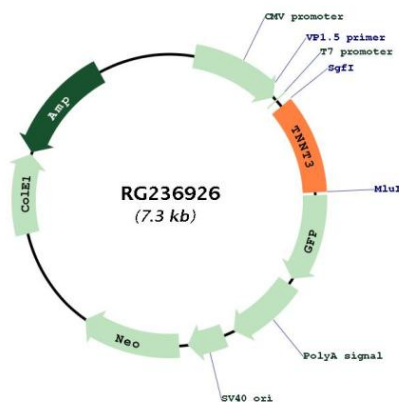
RefSeq Size: 1451 bp

RefSeq ORF: 753 bp

Locus ID: 7140
UniProt ID: [P45378](#)
Cytogenetics: 11p15.5
MW: 29.7 kDa

Gene Summary: The binding of Ca(2+) to the trimeric troponin complex initiates the process of muscle contraction. Increased Ca(2+) concentrations produce a conformational change in the troponin complex that is transmitted to tropomyosin dimers situated along actin filaments. The altered conformation permits increased interaction between a myosin head and an actin filament which, ultimately, produces a muscle contraction. The troponin complex has protein subunits C, I, and T. Subunit C binds Ca(2+) and subunit I binds to actin and inhibits actin-myosin interaction. Subunit T binds the troponin complex to the tropomyosin complex and is also required for Ca(2+)-mediated activation of actomyosin ATPase activity. There are 3 different troponin T genes that encode tissue-specific isoforms of subunit T for fast skeletal-, slow skeletal-, and cardiac-muscle. This gene encodes fast skeletal troponin T protein; also known as troponin T type 3. Alternative splicing results in multiple transcript variants encoding additional distinct troponin T type 3 isoforms. A developmentally regulated switch between fetal/neonatal and adult troponin T type 3 isoforms occurs. Additional splice variants have been described but their biological validity has not been established. Mutations in this gene may cause distal arthrogyrosis multiplex congenita type 2B (DA2B). [provided by RefSeq, Oct 2009]

Product images:



Circular map for RG236926