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Product datasheet for RG216642

TNNT3 (NM_006757) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TNNT3 (NM_006757) 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:

>RG216642 representing NM_006757
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTGACGAGGAAGTTGAACAGGTGGAGGAGCAGTACGAAGAAGAAGAGGAAGCCCAGGAGGAAGAGG
AAGTTCAAGAAGACACCGCAGAGGAGGACGCGGAAGAGGAGAAACCGAGACCCAAACTCACTGCTCCTAA
GATCCCAGAAGGGGAGAAAGTGGACTTCGATGACATCCAGAAGAAGCGTCAGAACAAAGACCTAATGGAG
CTCCAGGCCCTCATCGACAGCCACTTTGAAGCCCGGAAGAAGGAGGAGGAGGAGCTGGTCGCTCTCAAAG
AGAGAATCGAGAAGCGCCGTGCAGAGAGAGCGGAGCAGCAGAGGATTCGTGCAGAGAAGGAGAGGGAGCG
CCAGAACAGACTGGCGGAGGAAAAGGCCAGAAGGGAGGAGGAGGATGCCAAGAGGAGGGCAGAGGACGAC
CTGAAGAAGAAGAAAGCTCTGTCTTCCATGGGAGCCAACTACAGCAGCTACCTGGCCAAGGCTGACCAGA
AGAGAGGCAAGAAGCAGACAGCCCGGGAAATGAAGAAGAAGATTCTGGCTGAGAGACGCAAGCCGCTCAA
CATCGATCACCTTGGTGAAGACAAACTGAGGGACAAGGCCAAGGAGCTCTGGGAGACCCTGCACCAGCTG
GAGATTGACAAGTTCGAGTTTGGGGAGAAGCTGAAACGCCAGAAATATGACATCATGAATGTCCGGGCCA
GAGTGCAGATGCTGGCCAAGTTCAGCAAGAAGGCTGGGACCCCAGCCAAGGGCAAAGTCGGCGGGCGCTG
GAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

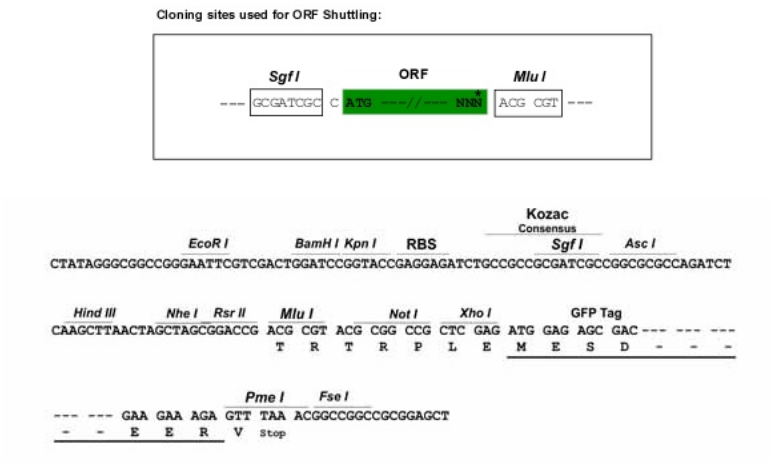
>RG216642 representing NM_006757
Red=Cloning site Green=Tags(s)

MSDEEVEQVEEQYEEEEEAQEEEEVQEDTAEEDAEEEKPRPKLTAPKIPEGEKVDFDDIQKKRQNKDLME
LQALIDSHFEARKKEEEELVALKERIEKRRAERAEQQRIRAEKERERQNRLAEEKARREEEDAKRRAEDD
LKKKKALSSMGANYSSYLAKADQKRGKKQTAREMKKKILAERRKPLNIDHLGEDKLRDKAKELWETLHQL
EIDKFEFGEKLKRQKYDIMNVRARVQMLAKFSKKAGTPAKGKVGGRWK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006757

ORF Size: 774 bp

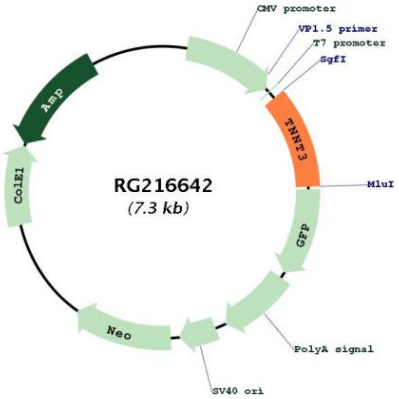
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_006757.1, NP_006748.1
RefSeq Size:	1217 bp
RefSeq ORF:	777 bp
Locus ID:	7140
UniProt ID:	P45378
Cytogenetics:	11p15.5
Domains:	Troponin
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 arthrogryposis multiplex congenita type 2B (DA2B). [provided by RefSeq, Oct 2009]

Product images:



Circular map for RG216642