

Product datasheet for **RG221318**

Troponin T1 (TNNT1) (NM_003283) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Troponin T1 (TNNT1) (NM_003283) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Troponin T1
Synonyms:	ANM; NEM5; STNT; TNT; TNTS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221318 representing NM_003283 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGACACCGAGGAGCAGGAATATGAGGAGGAGCAGCCGGAAGAGGAGGCTGCGGACGAGGAGGAGG
AAGCCCCGAAGAGCCGGAGCCGGTGGCAGAGCCAGAAGAGGAACGCCCCAAACCAAGCCGCCCGTGTT
GCCTCCTTTGATCCCGCAAAGATCCCAGAAGGGGAGCGCGTTGACTTCGATGACATCCACCGCAAGCGC
ATGGAGAAAGACCTGCTGGAGCTGCAGACTCATCGATGTACATTCGAGCAGCGGAAGAAGGAGGAAG
AGGAGCTGGTTGCCTTGAAGGAGCGCATTGAGCGGCGCCGGTCAGAGAGAGCCGAGCAACAGCGCTTCAG
AACTGAGAAGGAACGCGAACGTCAGGCTAAGCTGGCGGAGGAGAAGATGAGGAAGGAAGAGGAAGAGGCC
AAGAAGCGGGCAGAGGATGATGCCAAGAAAAGAAGGTGCTGTCCAACATGGGGGCCATTTTGGCGGCT
ACCTGGTCAAGGCAGAACAGAAGCGTGGTAAGCGGCAGACGGGGCGGGAGATGAAGGTGCGCATCCTCTC
CGAGCGTAAGAAGCCTCTGGACATTGACTACATGGGGGAGGAACAGCTCCGGGCCCGGTCTGCCTGGCTG
CCTCCATCACAGCCCTCTGCCCTGCCAGGGAGAAAGCCAGGAGCTGTCGGACTGGATCCACCAGCTGG
AGTCTGAGAAGTTCGACCTGATGGCGAAGCTGAAACAGCAGAAATATGAGATCAACGTGCTGTACAACCG
CATCAGCCACGCCAGAAGTTCGGAAGGGGCGAGGAAGGGCCGCGTTGGAGGCCGCTGGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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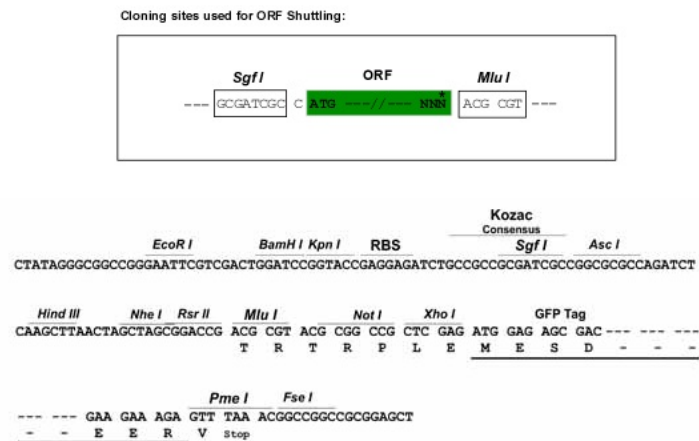
Protein Sequence: >RG221318 representing NM_003283
 Red=Cloning site Green=Tags(s)

MSDTEEQEYEEEEQPEEEAADEEEEEAPEEPEPVAEPEEERPKPSRPVVPPLIPPKIPEGERVDFDDIHRKR
 MEKDLLEQLTLIDVHFQQRKKEEEELVALKERIERRRSERAEQQRFRTEKERERQAKLAEEKMRKEEEEA
 KKRAEDDAKKKKVLSNMGAHFGGYLVKAEQKRGKRQTGREMKVRILSERKKPLDIDYMGEQLRARSOWL
 PPSQPSCPAREKAQELSDWIHQLESEKFDLMAKLLKQKYEINVLYNRISHAQKFRKGAGKGRVGGRWK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003283

ORF Size: 834 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_003283.3](#), [NP_003274.2](#)

RefSeq Size: 980 bp

RefSeq ORF: 837 bp

Locus ID: 7138

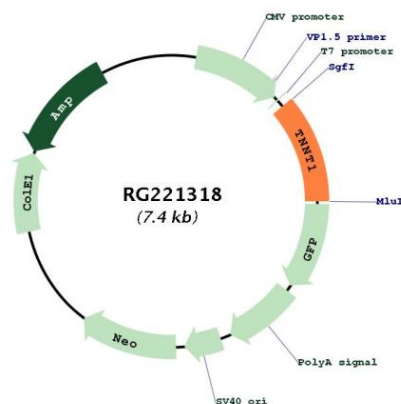
UniProt ID: [P13805](#)

Cytogenetics: 19q13.42

Protein Families: Druggable Genome

Gene Summary: This gene encodes a protein that is a subunit of troponin, which is a regulatory complex located on the thin filament of the sarcomere. This complex regulates striated muscle contraction in response to fluctuations in intracellular calcium concentration. This complex is composed of three subunits: troponin C, which binds calcium, troponin T, which binds tropomyosin, and troponin I, which is an inhibitory subunit. This protein is the slow skeletal troponin T subunit. Mutations in this gene cause nemaline myopathy type 5, also known as Amish nemaline myopathy, a neuromuscular disorder characterized by muscle weakness and rod-shaped, or nemaline, inclusions in skeletal muscle fibers which affects infants, resulting in death due to respiratory insufficiency, usually in the second year. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG221318