

Product datasheet for **RC221318**

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:	Myc-DDK
Symbol:	Troponin T1
Synonyms:	ANM; NEM5; STNT; TNT; TNTS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221318 representing NM_003283 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGACACCGAGGAGCAGGAATATGAGGAGGAGCAGCCGGAAGAGGAGGCTGCGGAGGAGGAGGAGG
AAGCCCCGAAGAGCCGGAGCCGGTGGCAGAGCCAGAAGAGGAACGCCCCAAACCAAGCCGCCCGTGTT
GCCTCCTTTGATCCCGCAAAGATCCCAGAAGGGGAGCGCTTGACTTCGATGACATCCACCGCAAGCGC
ATGGAGAAAGACCTGCTGGAGCTGCAGACTCATCGATGTACATTCGAGCAGCGGAAGAAGGAGGAAG
AGGAGCTGGTTGCCTTGAAGGAGCGCATTGAGCGGCGCCGGTCAGAGAGAGCCGAGCAACAGCGCTTCAG
AACTGAGAAGGAACGCGAACGTCAGGCTAAGCTGGCGGAGGAGAAGATGAGGAAGGAAGAGGAAGAGGCC
AAGAAGCGGGCAGAGGATGATGCCAAGAAAAGAAGGTGCTGTCCAACATGGGGGCCATTTTGGCGGCT
ACCTGGTCAAGGCAGAACAGAAGCGTGGTAAGCGGCAGACGGGGCGGGAGATGAAGGTGCGCATCCTCTC
CGAGCGTAAGAAGCCTCTGGACATTGACTACATGGGGGAGGAACAGCTCCGGGCCCGGTCTGCCTGGCTG
CCTCCATCACAGCCCTCTGCCCTGCCAGGGAGAAAGCCAGGAGCTGTCGGACTGGATCCACCAGCTGG
AGTCTGAGAAGTTCGACCTGATGGCGAAGCTGAAACAGCAGAAATATGAGATCAACGTGCTGTACAACCG
CATCAGCCACGCCAGAAGTTCGGAAGGGGGCAGGGAAGGGCCCGCTTGAGGCCGCTGGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC221318 representing NM_003283
Red=Cloning site Green=Tags(s)

MSDTEEQEYEEEEQPEEEAAEEEEEAPEEPEPVAEPEEERPKPSRPVVPPLIPPKIPEGERVDFDDIHRKR
 MEKDLLELQTLIDVHFQQRKKEEELVALKERIERRRSERAEQQRFRTEKERERQAKLAEKMRKEEEEA
 KKRAEDDAKKKKVLSNMGAHFGGYLVKAEQKRGKRQTGREMKVRILSERKKPLDIDYMGEEQLRARS
 AWLPPSQPSCPAREKAQELSDWIHQLESEKFDLMAKLLKQKYEINVLYNRISHAQKFRKGAGKGRVGGRWK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6288_c06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_003283

ORF Size: 834 bp

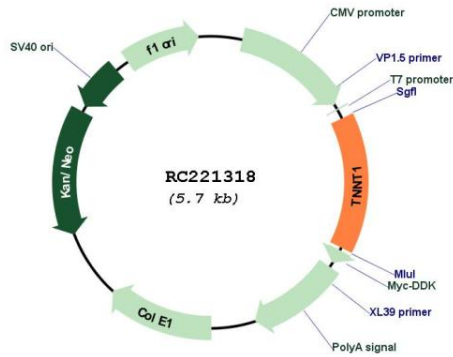
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

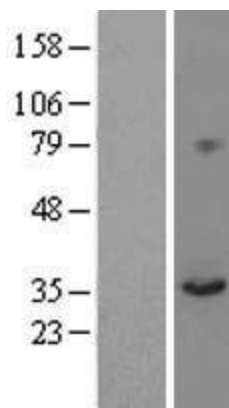
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_003283.6
RefSeq Size:	980 bp
RefSeq ORF:	837 bp
Locus ID:	7138
UniProt ID:	P13805
Cytogenetics:	19q13.42
Protein Families:	Druggable Genome
MW:	32.8 kDa
Gene Summary:	<p>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]</p>

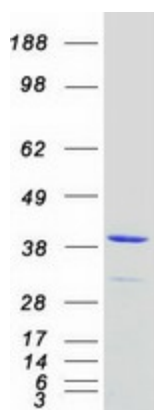
Product images:



Circular map for RC221318



Western blot validation of overexpression lysate (Cat# [LY418790]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221318 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TNNT1 protein (Cat# [TP321318]). The protein was produced from HEK293T cells transfected with TNNT1 cDNA clone (Cat# RC221318) using MegaTran 2.0 (Cat# [TT210002]).