

## Product datasheet for RC214299

### Cardiac Troponin T (TNNT2) (NM\_001001432) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cardiac Troponin T (TNNT2) (NM_001001432) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cardiac Troponin T
Synonyms:	CMD1D; CMH2; CMPD2; cTnT; LVNC6; RCM3; TnTC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214299 representing NM_001001432 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTGACATAGAAGAGGTGGTGAAGAGTACGAGGAGGAGGAGCAGGAAGAGCAGGAGGAGGCAGCGG  
AAGAGGATGCTGAAGCAGAGGCTGAGACCGAGGAGACCAGGGCAGAAGAAGATGAAGAAGAAGAGGAAGC  
AAAGGAGGCTGAAGATGGCCCAATGGAGGAGTCCAACCAAAGCCAGGTCGTTTCATGCCCAACTTGGTG  
CCTCCAAGATCCCCGATGGAGAGAGAGTGGACTTTGATGACATCCACCGAAGCGCATGGAGAAGGACC  
TGAATGAGTTGCAGGCGCTGATCGAGGCTCACTTTGAGAACAGGAAGAAAGAGGAGGAGGAGCTCGTTTC  
TCTCAAAGACAGGATCGAGAGACGTCGGGCAGAGCGGGCCGAGCAGCAGCGCATCCGGAATGAGCGGGAG  
AAGGAGCGGCAGAACCGCTGGCTGAAGAGAGGGCTCGACGAGAGGAGGAGGAGAACAGGAGGAAGGCTG  
AGGATGAGGCCCGGAAGAAGAAGGCTTTGTCCAACATGATGCATTTTGGGGTTACATCCAGAAGGCCCA  
GACAGAGCGGAAAAGTGGGAAGAGGCAGACTGAGCGGAAAAGAAGAAGATTCTGGCTGAGAGGAGG  
AAGGTGCTGGCCATTGACCACCTGAATGAAGATCAGCTGAGGGAGAAGGCCAAGGAGCTGTGGCAGAGCA  
TCTATAACTTGGAGGCAGAGAAGTTCGACCTGCAGGAGAAGTTCAAGCAGCAGAAATATGAGATCAATGT  
TCTCCGAAACAGGATCAACGATAACCGAAAGTCTCCAAGACCCGCGGGAAGGCTAAAGTACCCGGGCGC  
TGGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC214299 representing NM\_001001432  
Red=Cloning site Green=Tags(s)

MSDIEEVVEEYEEEEQEEQEEAAEEDAEAEAETEETRAEEDEEEEAKEAEDGPMEE SKPKPRSFMPNLV  
 PPKIPDGERVDFDDIHRKRMEKDLNELQALIEAHFENRKKEEELVSLKDRERRRAERAEQQRIRNERE  
 KERQNRLAEERARREEEENRRKADEARKKKALSNMMHFGGYIQKAQTERKSGKRQTEREKKKKILAERR  
 KVLAIDHLNEDQLREKAKELWQSIYNLEAEKFDLQEKFKQKYEINVLRNRINDNQKVSKTRGKAKVTGR  
 WK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8049\\_c01.zip](https://cdn.origene.com/chromatograms/mk8049_c01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001001432

**ORF Size:** 846 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\\_001001432.3](#)

**RefSeq Size:** 1114 bp

**RefSeq ORF:** 849 bp

**Locus ID:** 7139

**UniProt ID:** [P45379](#)

**Cytogenetics:** 1q32.1

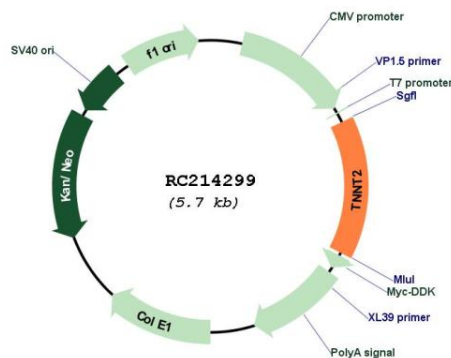
**Protein Families:** Druggable Genome

**Protein Pathways:** Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

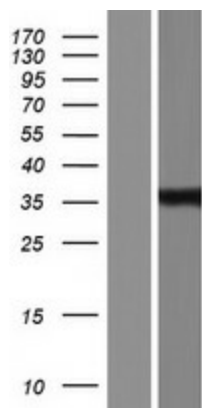
**MW:** 33.8 kDa

**Gene Summary:** The protein encoded by this gene is the tropomyosin-binding subunit of the troponin complex, which is located on the thin filament of striated muscles and regulates muscle contraction in response to alterations in intracellular calcium ion concentration. Mutations in this gene have been associated with familial hypertrophic cardiomyopathy as well as with dilated cardiomyopathy. Transcripts for this gene undergo alternative splicing that results in many tissue-specific isoforms, however, the full-length nature of some of these variants has not yet been determined. [provided by RefSeq, Jul 2008]

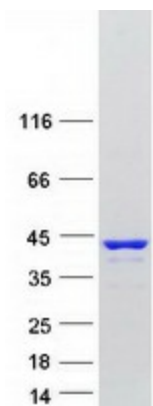
## Product images:



Circular map for RC214299



Western blot validation of overexpression lysate (Cat# [LY424351]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214299 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TNNT2 protein (Cat# [TP314299]). The protein was produced from HEK293T cells transfected with TNNT2 cDNA clone (Cat# RC214299) using MegaTran 2.0 (Cat# [TT210002]).