

## Product datasheet for RC214241

### Cardiac Troponin T (TNNT2) (NM\_001001430) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cardiac Troponin T (TNNT2) (NM_001001430) 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:	>RC214241 representing NM_001001430 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTGACATAGAAGAGGTGGTGAAGAGTACGAGGAGGAGGAGCAGGAAGAAGCAGCTGTTGAAGAGC  
AGGAGGAGGCAGCGGAAGAGGATGCTGAAGCAGAGGCTGAGACCGAGGAGACCAGGGCAGAAGAAGATGA  
AGAAGAAGAGGAAGCAAAGGAGGCTGAAGATGGCCCAATGGAGGAGTCCAAACCAAGCCCAGGTCGTTT  
ATGCCCAACTTGGTGCCTCCCAAGATCCCCGATGGAGAGAGAGTGGACTTTGATGACATCCACCGGAAGC  
GCATGGAGAAGGACCTGAATGAGTTGCAGGCGCTGATCGAGGCTCACTTTGAGAACAGGAAGAAAGAGGA  
GGAGGAGCTCGTTTCTCTCAAAGACAGGATCGAGAGACGTCGGGCAGAGCGGGCCGAGCAGCAGCGCATC  
CGAATGAGCGGGAGAAGGAGCGGCAGAACCGCCTGGCTGAAGAGAGGGCTCGACGAGAGGAGGAGAGA  
ACAGGAGGAAGGCTGAGGATGAGGCCCGGAAGAAGAAGGCTTTGTCCAACATGATGCATTTTGGGGTTA  
CATCCAGAAGCAGGCCAGACAGAGCGGAAAAGTGGGAAGAGGCAGACTGAGCGGAAAAGAAGAAGAAG  
ATTCTGGCTGAGAGGAGGAAGGTGCTGGCCATTGACCACCTGAATGAAGATCAGCTGAGGGAGAAGGCCA  
AGGAGCTGTGGCAGAGCATCTATAACTTGGAGGCAGAGAAGTTCGACCTGCAGGAGAAGTTCAAGCAGCA  
GAAATATGAGATCAATGTTCTCCGAAACAGGATCAACGATAACCCAGAAAGTCTCCAAGACCCGCGGAAG  
GCTAAAGTCACCGGGCGCTGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC214241 representing NM\_001001430  
Red=Cloning site Green=Tags(s)

MSDIEEVVEEYEEEEQEEAAVEEQEEAAEEDAEAEAEETEETRAEEDEEEEAKEAEDGPMEESEKPKPRSF  
 MPNLVPPKIPDGERVDFDDIHRKRMEKDLNELQALIEAHFENRKKEEEEELVSLKDRIERRAERAEQORI  
 RNEREKERQNRLAEERARREEENRRKAEDAERKKKALSNMMHFGGYIQKQAQTERKSGKRQTEREKKKK  
 ILAERRKVLAIIDLHNLQDLREKAKELWQSIYNLEAEKFDLQEKFKQKYEINVLNRNRINDNQKVSSTRGK  
 AKVTGRWK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8049\\_f06.zip](https://cdn.origene.com/chromatograms/mk8049_f06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001001430

**ORF Size:** 864 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\\_001001430.3](#)

**RefSeq Size:** 1132 bp

**RefSeq ORF:** 867 bp

**Locus ID:** 7139

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

**Cytogenetics:** 1q32.1

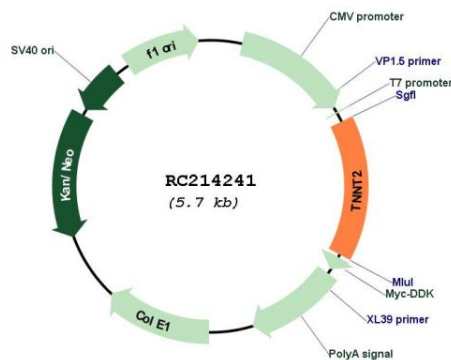
**Protein Families:** Druggable Genome

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

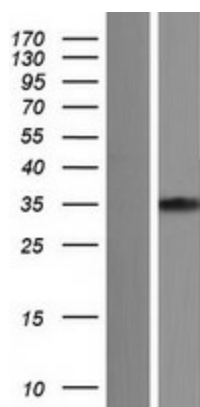
**MW:** 34.4 kDa

**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]

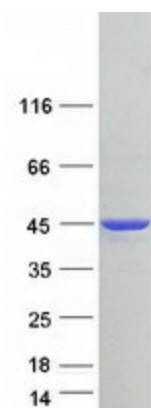
## Product images:



Circular map for RC214241



Western blot validation of overexpression lysate (Cat# [LY424349]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214241 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TNNT2 protein (Cat# [TP314241]). The protein was produced from HEK293T cells transfected with TNNT2 cDNA clone (Cat# RC214241) using MegaTran 2.0 (Cat# [TT210002]).