

Product datasheet for **RG214180**

Cardiac Troponin T (TNNT2) (NM_000364) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cardiac Troponin T (TNNT2) (NM_000364) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cardiac Troponin T
Synonyms:	CMD1D; CMH2; CMPD2; cTnT; LVNC6; RCM3; TnTC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214180 representing NM_000364 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTGACATAGAAGAGGTGGTGAAGAGTACGAGGAGGAGGAGCAGGAAGAAGCAGCTGTTGAAGAAG
AGGAGGACTGGAGAGAGGACGAAGACGAGCAGGAGGAGGCCAGCGGAAGAGGATGCTGAAGCAGAGGCTGA
GACCGAGGAGACCAGGGCAGAAGAAGATGAAGAAGAAGAGGAAGCAAAGGAGGCTGAAGATGGCCCAATG
GAGGAGTCCAAACCAAAGCCCAGGTCGTTTCATGCCCAACTTGGTGCCTCCAAGATCCCCGATGGAGAGA
GAGTGGACTTTGATGACATCCACCGGAAGCGCATGGAGAAGGACCTGAATGAGTTGCAGGCGCTGATCGA
GGCTCACTTTGAGAACAGGAAGAAAGAGGAGGAGGAGCTCGTTTCTCTCAAAGACAGGATCGAGAGACGT
CGGGCAGAGCGGGCCGAGCAGCAGCGCATCCGGAATGAGCGGGAGAAGGAGCGGCAGAACCCTGGCTG
AAGAGAGGGCTCGACGAGAGGAGGAGGAGAACAGGAGGAAGGCTGAGGATGAGGCCCGGAAGAAGAAGGC
TTTGTCCAACATGATGCATTTTGGGGTTACATCCAGAAGACAGAGCGGAAAAGTGGGAAGAGGCAGACT
GAGCGGAAAAGAAGAAGAAGATTCTGGCTGAGAGGAGGAAGGTGCTGGCCATTGACCACCTGAATGAAG
ATCAGCTGAGGGAGAAGGCCAAGGAGCTGTGGCAGAGCATCTATAACTTGGAGGCAGAGAAGTTCGACCT
GCAGGAGAAGTTCAAGCAGCAGAAATATGAGATCAATGTTCTCCGAAACAGGATCAACGATAACCCAGAAA
GTCTCCAAGACCCGCGGAAGGCTAAAGTCACCGGGCGCTGAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG214180 representing NM_000364
 Red=Cloning site Green=Tags(s)

```
MSDIEEVVEEYEEEEQEEAAVEEEEDWREDEDEQEEAAEEDAEAEATEETEETRAEEDEEEEAKEAEDGPM
EESKPKPRSFMPNLVPPKIPDGERVDFDDIHRKRMEKDLNELQALIEAHFENRKKEEEELVSLKDRIERR
RAERAEQQRIRNEREKERQNRLAEERARREEENRRKAEDEARKKKALSNMMHFGGYIQKTERKSGKRQT
EREKKKKILAERRKVLAIIDLNEDQLREKAKELWQSIYNLEAEKFDLQEKFKQKYEINVLRNRINDNQK
VSKTRGKAKVTGRWK
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000364

ORF Size: 885 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_000364.4](#)

RefSeq Size: 1153 bp

RefSeq ORF: 888 bp

Locus ID: 7139

UniProt ID: [P45379](#)

Cytogenetics: 1q32.1

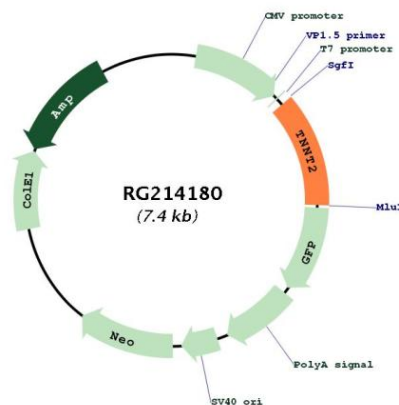
Domains: Troponin

Protein Families: Druggable Genome

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

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 RG214180