

Product datasheet for **RG214299**

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:	TurboGFP
Symbol:	TNNT2
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:	>RG214299 representing NM_001001432 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG214299 representing NM_001001432
 Red=Cloning site Green=Tags(s)

MSDIEEVVEEYEEEEQEEQEEAAEEDAEEAEAEETEETRAEEDEEEEAKEAEDGPMEESEKPKPRSFMPNLV
 PPKIPDGERVDFDDIHRKRMEKDLNELQALIEAHFENRKKEEELVSLKDRRIERRAERAEQQRIRNERE
 KERQNRLAEERARREEEENRRKAEDEARKKKALSNMMHFGGYIQKAQTERKSGKRQTEREKKKKILAERR
 KVLAIIDLHNLNEDQLREKAKELWQSIYNLEAEKFDLQEKFKQKYEINVLNRNRINDNQKVSCTRKAKAVTGR
 WK

TRTRPLE - GFP Tag - V

Restriction Sites:

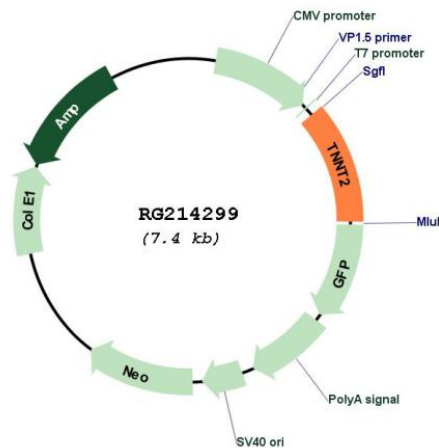
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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:	<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_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)
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]