

Product datasheet for **SC310590**

TNNT3 (NM_006757) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: TNNT3 (NM_006757) Human Untagged Clone
Tag: Tag Free
Symbol: TNNT3
Synonyms: beta-TnTF; DA2B2; TNNTF
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_006757 edited
 GAACCACTGGGAGGACAGTACGAGGGGCTGGTGGGCAGCCTGGGACTGGGTACACCCGG
 GGGCCTGGACAACACTGGCTCGTGGGGCTGAGGACTGAGGAGAGCCTGGCCAGCCGTGG
 CAGTTACAAGAGCCTAACCTGAGGGGCAGCAGAGTCTCAGGAAGAGATTCTGGGATAGG
 AAAAAGCTACCCCGTTGCCTGGAAGACAGCTATCTGCTGGAACCACCCACCTTACCA
 TGTCTGACGAGGAAGTTGAACAGGTGGAGGAGCAGTACGAAGAAGAAGAGGAAGCCAGG
 AGGAAGAGGAAGTTCAAGAAGACACCGCAGAGGAGGACGCGGAAGAGGAGAAACCGAGAC
 CCAAACACTACTGCTCCTAAGATCCCAGAAGGGGAGAAAGTGGACTTCGATGACATCCAGA
 AGAAGCGTCAGAACAAAGACCTAATGGAGCTCCAGGCCCTCATCGACAGCCACTTTGAAG
 CCCGGAAGAAGGAGGAGGAGGAGCTGGTCGCTCTCAAAGAGAGAATCGAGAAGCGCCGTG
 CAGAGAGAGCGGAGCAGCAGAGGATTTCGTGCAGAGAAGGAGAGGGAGCGCCAGAACAGAC
 TGGCGGAGGAAAAGGCCAGAAGGAGGAGGAGGATGCCAAGAGGAGGGCAGAGGACGACC
 TGAAGAAGAAGAAAGCTCTGTCTCCATGGGAGCCAACACTACAGCAGCTACCTGGCCAAGG
 CTGACCAGAAGAGAGGCAAGAAGCAGACAGCCCGGAAATGAAGAAGAAGATTCTGGCTG
 AGAGACGCAAGCCGCTCAACATCGATCACCTTGGTGAAGACAAACTGAGGGACAAGGCCA
 AGGAGCTCTGGGAGACCTGCACCAGCTGGAGATTGACAAGTTTCGAGTTTGGGGAGAAGC
 TGAAACGCCAGAAATATGACATCATGAATGTCCGGGCCAGAGTGCAGATGCTGGCCAAGT
 TCAGCAAGAAGGCTGGGACCCAGCCAAGGGCAAAGTCCGCGGGCGCTGGAAGTAGAGAG
 GCCAGAAAGGCCCTCGAGGCAGAGACCCTCCGCCCTTTGCACACCAGGGCCGCTCGTG
 GGACTCCACATCCTCCAGCCCCACAATCCTGTACAGGGGCTCCCTGACAGTCTGGGGGT
 GGAGAGGCCATCCCGGGCGTCCCCCGCTCTGTGTCCTTGCTGCCTTCATCCCCTGGGG
 CCTGTGAATAAGCTGCAGAACCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 AAAC



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_006757 unedited
 GGGCGTTTCAGATTTTGTAAACGACTTCACTATAGGGCGGCACGCGCAATTCGGCACGAG
 GGAACACAGCTGGGAGGACAGTACGAGGGGCTGGTGGGCAGCCTGGGACTGGGTACACCG
 GGGGCTGGACAACACTGGCTCGTGGGGCTGAGGACTGAGGAGAGCCTGGCCAGCCGTG
 GCAGTTACAAGAGGCTTAACTGAGGGGACGAGAGTCTCAGGAAGAGATTCTGGGATAG
 GAAAAAGCTACCCCGTTGCCTGGAAGACAGCTATCTGCTGAAACCACCCACCTTCACC
 ATGTCTGACGAGGAAGTTGAACAGGTGGAGGAGCAGTACGAAGAAGAAGAGGAAGCCAG
 GAGGAAGAGGAAGTTCAAGAAGACACCGCAGAGGAGGACGCGGAAGAGGAAACCGAGA
 CCCAAACTCACTGCTCCTAAGATCCCAGAAGGGGAGAAAGTGGACTTCGATGACATCCAG
 AAGAAGCGTCAGAACAAGACCTAATGGAGCTCCAGGCCCTCATCGACAGCCACTTTGAA
 GCCCGGAAGAAGGAGGAGGAGGAGCTGGTGCCTCTCAAAGAGAGAATCGAGAAGCGCCGT
 GCAGAGAGAGCGGAGCAGCAGAGGATTCGTGCAGAGAAGGAGAGGGAGCGCCAGAACAGA
 CTGGCGGAGGAAAAGGCCAGAAAGGAGGAGGAGGATGCCAAGAGGAGGGCAGAGGACGAC
 CTGAAGAAGAAGAAGCTCTGTCTCCATGGGAGCCTACTACGACGCTACCTGGCCAAGG
 CTGACCAGAAGAGAGGCAAGAAGCAGACAGCCCGGAAATGAAGAAGAAGATTCTGGCTG
 AGAGACGAAGCCGCTCAACATCGATCACCTTTGGTGAAGACAACTGAGGGACAAGGCC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_006757 unedited
 NNGGGTTTTGACTAGNAACCGCGCCGCATNCTAGNGATCGATTTTTTTTTTTTTTTTTT
 TTTTTTTTTTTTTTTTTTTTTTGGGGTTCTGCAGCTTTATTACAGGCCCAAGGGATGA
 AAGCAGCAAGGACACAACCCCGGGACGCCCGGGATGGCTCTCCACCCCAAGGACTG
 TCAAGGAGCCCTGACAGGATTGTGGGGCTGGAGGATGTGGAGTCCCACGAACGGCCCT
 GGTGTGCAAAAAGCGGAGGGTCTCTGCCTCGAGGGGCTTTTTGGCCTCTACTTTCA
 ACGCCCGCGACTTTGCCCTGGCTGGGTCCCAACCTTCTTGCTGAACCTGGCCAACT
 CTGCACCTGGCCCGGACATTCATGAAGTCATATTTCTGGCGTTTCAACTTCTCCCAAA
 CTCGAACCTGTCAATCTCCAAGTGAAGGCTCCCAAACTCCTTGGCCTTGTCCCT
 CAATTTGTCTTACCAAAGTATCCATGTTGAACGGCTTGGCTCTTAAACAGAATCTT
 CTCTTTATTTCCCGGGTGTCTGCTTCTTGCCTCTCTTGGTCAACCTTGGCCAAGTA
 ACTGCTGTAATTGGCTCCCATGGAAGACAGAATTTCTTCTTCTCAAGTCGCTCTGG
 CCTCCTTGGCATCCTCCTCCTCCCTTCTGGCCTTTCTCCGCCAGTCTGTTCTGGCG
 CTCCTCTCCTTCTGACGAATCCTCTGGTGGTCCGCTCTCTCTGGACGGCGTCTC
 GATTCTCTTTGAGAGCGAACAATCTTCTCCTCCTTTCTTTCGGGCTTAAAATGGCT
 GTCGATGAAGGCCTGGGAGCTCCATTAAGTCTTTGGTCTGACGCTTCTTCTTGG

Restriction Sites:

Please inquire

ACCN:

NM_006757

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:

There are 26 nucleotide differences between the OriGene clone and the NCBI reference ORF. OriGene considers these to be polymorphisms and to reflect the natural differences between individuals. These result in the substitution of 10 amino acids. There is another published reference that contains an exact match to the sequence discrepancies, which supports the existence of these polymorphisms.

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_006757.1](#), [NP_006748.1](#)

RefSeq Size: 1000 bp

RefSeq ORF: 777 bp

Locus ID: 7140

UniProt ID: [P45378](#)

Cytogenetics: 11p15.5

Domains: Troponin

Gene Summary: The binding of Ca(2+) to the trimeric troponin complex initiates the process of muscle contraction. Increased Ca(2+) concentrations produce a conformational change in the troponin complex that is transmitted to tropomyosin dimers situated along actin filaments. The altered conformation permits increased interaction between a myosin head and an actin filament which, ultimately, produces a muscle contraction. The troponin complex has protein subunits C, I, and T. Subunit C binds Ca(2+) and subunit I binds to actin and inhibits actin-myosin interaction. Subunit T binds the troponin complex to the tropomyosin complex and is also required for Ca(2+)-mediated activation of actomyosin ATPase activity. There are 3 different troponin T genes that encode tissue-specific isoforms of subunit T for fast skeletal-, slow skeletal-, and cardiac-muscle. This gene encodes fast skeletal troponin T protein; also known as troponin T type 3. Alternative splicing results in multiple transcript variants encoding additional distinct troponin T type 3 isoforms. A developmentally regulated switch between fetal/neonatal and adult troponin T type 3 isoforms occurs. Additional splice variants have been described but their biological validity has not been established. Mutations in this gene may cause distal arthrogryposis multiplex congenita type 2B (DA2B). [provided by RefSeq, Oct 2009]

Transcript Variant: This variant (1) encodes isoform 1.