

## Product datasheet for PH323893

### TNNT3 (NM\_001042782) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	TNNT3 MS Standard C13 and N15-labeled recombinant protein (NP_001036247)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC223893
Predicted MW:	29.7 kDa
Protein Sequence:	>RC223893 protein sequence Red=Cloning site Green=Tags(s)  MSDEEVEQVEEQYEEEEAAQEEEEVQEEKPRPKLTAPKIPGEKVDFFDIQKKRQNKDLMELQALIDSH FEARKKEEELVALKERIEKRAERAQQRIRAERERQNLAEKARREEDAKRRAEDDLKKKALS SMGANYSYLAKADQKRGKQTAREMKKKILAERRKPLNIDHLGEDKLRDKAKELWETLHQLEIDKFEFG EKLKRQKYDITTLRSRIDQAQKHSKAGTPAKGKVGGRWK  TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_001036247</a>
RefSeq Size:	1193
RefSeq ORF:	750
Synonyms:	beta-TnTF; DA2B2; TNTF
Locus ID:	7140
UniProt ID:	<a href="#">P45378</a>



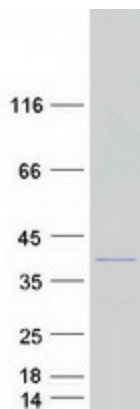
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Cytogenetics: 11p15.5

**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]

**Product images:**



Coomassie blue staining of purified TNNT3 protein (Cat# [TP323893]). The protein was produced from HEK293T cells transfected with TNNT3 cDNA clone (Cat# [RC223893]) using MegaTran 2.0 (Cat# [TT210002]).