Troponin 1 Type 2, Fast Skeletal (TNNI2) ELISA Kit for Pigeon

PRODUCT OVERVIEW

Product Name	Troponin I Type 2, Fast Skeletal (TNNI2), ELISA Kit
Full Product Name	Pigeon Troponin I Type 2, Fast Skeletal ELISA Kit
Product Gene Name	TNNI2 elisa kit
Species Reactivity	Pigeon
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	31,825 Da
OMIM	600692
3D Structure	ModBase 3D Structure for P45378
Related Product Information for TNNI2 elisa kit	MBS096086 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Troponin I Type 2, Fast Skeletal (TNNI2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing TNNI2. The ELISA analytical biochemical technique of the MBS096086 kit is based on TNNI2 antibody-TNNI2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect TNNI2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, TNNI2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of TNNI2 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TNNI2. It may not necessarily be applicable to this product.

NCBI GI #	112789538
NCBI GeneID	7140
NCBI Accession #	NP_001036246.1
UniProt Primary Accession #	P45378
UniProt Secondary Accession #	Q12975; Q12976; Q12977; Q12978; Q17RG9; A8MQ76; A8MSW1; B3KPX3; B7WP64; B7ZL26; B7ZVV9
UniProt Related Accession #	P45378
GenBank Nucleotide #	NM_001042781.2
NCBI Official Full Name	troponin T, fast skeletal muscle isoform 2
NCBI Official Synonym Full Names	troponin T type 3 (skeletal, fast)
NCBI Official Symbol	TNNT3
NCBI Official Synonym Symbols	TNTF
UniProt Protein Name	Troponin T, fast skeletal muscle
UniProt Synonym Protein Names	Beta-TnTF; Fast skeletal muscle troponin T
Protein Family	Troponin

UniProt Gene Name	TNNT3
UniProt Synonym Gene Names	TnTf; fTnT
UniProt Entry Name	TNNT3_HUMAN
NCBI Protein Information	troponin T, fast skeletal muscle; fTnT; beta TnTF; beta-TnTF; troponin-T3, skeletal, fast; fast skeletal muscle troponin T
NCBI Summary for TNNI2	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]
UniProt Comments for TNNI2	TNNT3: Troponin T is the tropomyosin-binding subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity. Defects in TNNT3 are a cause of distal arthrogryposis type 2B (DA2B); also known as arthrogryposis multiplex congenita, distal, type 2B (AMCD2B). DA2B is a form of inherited multiple congenital contractures. Affected individuals have vertical talus, ulnar deviation in the hands, severe camptodactyly, and a distinctive face characterized by a triangular shape, prominent nasolabial folds, small mouth and a prominent chin. Belongs to the troponin T family. 7 isoforms of the human protein are produced by alternative splicing. Protein type: Motility/polarity/chemotaxis; Motor Chromosomal Location of Human Ortholog: 11p15.5 Cellular Component: troponin complex; cytosol Molecular Function: troponin C binding; troponin I binding; tropomyosin binding; actin binding; calcium-dependent protein binding; calcium-dependent ATPase activity Biological Process: skeletal muscle contraction; regulation of ATPase activity; metabolic process; regulation of striated muscle contraction; muscle filament sliding Disease: Arthrogryposis, Distal, Type 2b
Research Articles on TNNI2	**1.** Data show that a missense mutation at nucleotide position 187 in exon 9 of the TNNT3 gene was identified in all affected individuals in the family.
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