



Anti-TNNT3 (aa 161-258) polyclonal antibody (DPAB-DC3090)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

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).

Immunogen

TNNT3 (NP_006748, 161 a.a. ~ 258 a.a) partial recombinant protein with GST tag. The sequence is
ADQKRGKKQTAREMKKKILAERRKPLNIDHLGEDKLRDKAKELWETLHQLEIDKFEFGEK
LKRQKYDITTLRSRIDQAQKHSKKAGTPAKGKVGGRWK

Source/Host

Mouse

Species Reactivity

Human

Conjugate

Unconjugated

Applications

WB (Recombinant protein), ELISA,

Size

50 µl

Buffer	50 % glycerol
Preservative	None
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	TNNT3 troponin T type 3 (skeletal, fast) [Homo sapiens (human)]
Official Symbol	TNNT3
Synonyms	TNNT3; troponin T type 3 (skeletal, fast); TNTF; troponin T, fast skeletal muscle; fTnT; beta TnTF; beta-TnTF; troponin-T3, skeletal, fast; fast skeletal muscle troponin T;
Entrez Gene ID	7140
Protein Refseq	NP_001036245
UniProt ID	P45378
Chromosome Location	11p15.5
Pathway	Muscle contraction;
Function	contributes_to actin binding; contributes_to calcium-dependent ATPase activity; calcium-dependent protein binding; contributes_to tropomyosin binding