

Fast Skeletal Muscle Troponin T (TNNT3) Antibody

Catalogue No.:abx029224



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).

Target:	Fast Skeletal Muscle Troponin T (TNNT3)
Clonality:	Polyclonal
Reactivity:	Human
Tested Applications:	ELISA, WB
Host:	Rabbit
Recommended dilutions:	WB: 1/1000. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	KLH-conjugated synthetic peptide between 217-245 amino acids from the C-terminal region of human TNNT3.
lsotype:	lgG
Form:	Liquid
Purification:	Purified through a protein A column, followed by peptide affinity purification.

Datasheet Version: 3.0.0 Revision date: 29 Jun 2025



Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	P45378 (<u>UniProt</u> , <u>ExPASy</u>)
KEGG:	hsa:7140
String:	<u>9606.ENSP00000278317</u>
Molecular Weight:	Calculated MW: 31.8 kDa
Buffer:	PBS containing 0.09% sodium azide.
Specificity:	Predicted to react with Mouse and Rat TNNT3.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.