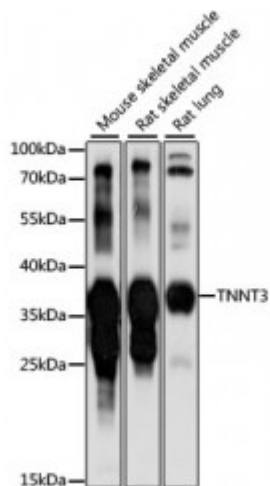


Anti-TNNT3 Antibody



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).

Model STJ117518

Host Rabbit

Reactivity Mouse, Rat

Applications WB

Immunogen Recombinant fusion protein containing a sequence corresponding to amino acids 147-256 of human TNNT3 (NP_001036246.1).

Gene ID	7140
Gene Symbol	TNNT3
Dilution range	WB 1:200 - 1:2000
Tissue Specificity	In fetal and adult fast skeletal muscles, with a higher level expression in fetal than in adult muscle
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Troponin T fast skeletal muscle TnTf Beta-TnTF Fast skeletal muscle troponin T fTnT
Molecular Weight	31.825 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:11950OMIM:600692Reactome:R-HSA-390522
Alternative Names	Troponin T fast skeletal muscle TnTf Beta-TnTF Fast skeletal muscle troponin T fTnT
Function	Troponin T is the tropomyosin-binding subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity