

TNNT3 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17019b**Specification**

TNNT3 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P45378](#)**TNNT3 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 7140**Other Names**

Troponin T, fast skeletal muscle, TnTf, Beta-TnTF, Fast skeletal muscle troponin T, fTnT, TNNT3

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TNNT3 Antibody (C-term) Blocking Peptide - Protein Information**Name** TNNT3**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.

Tissue Location

In fetal and adult fast skeletal muscles, with a higher level expression in fetal than in adult muscle

TNNT3 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

TNNT3 Antibody (C-term) Blocking Peptide - Images**TNNT3 Antibody (C-term) Blocking Peptide - Background**

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).

TNNT3 Antibody (C-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Turnbull, C., et al. Nat. Genet. 42(6):504-507(2010) Vihola, A., et al. Acta Neuropathol. 119(4):465-479(2010) Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)