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TNNT3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17019b

Specification

TNNT3 Antibody (C-term) Blocking Peptide - Product Information

Primary 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 complexinitiates the process of muscle contraction.

Increased Ca(2+)concentrations produce a conformational change in the troponincomplex that is transmitted to tropomyosin dimers situated alongactin filaments. The altered conformation permits increasedinteraction between a myosin head and an actin filament which,ultimately, produces a muscle contraction. The troponin complex hasprotein subunits C, I, and T. Subunit C binds Ca(2+) and subunit Ibinds to actin and inhibits actin-myosin interaction. Subunit Tbinds the troponin complex to the tropomyosin complex and is alsorequired for Ca(2+)-mediated activation of actomyosin ATPaseactivity. There are 3 different troponin T genes that encodetissue-specific isoforms of subunit T for fast skeletal-, slowskeletal-, and cardiac-muscle. This gene encodes fast skeletaltroponin T protein; also known as troponin T type 3. Alternativesplicing results in multiple transcript variants encodingadditional distinct troponin T type 3 isoforms. A developmentallyregulated switch between fetal/neonatal and adult troponin T type 3isoforms occurs. Additional splice variants have been described buttheir biological validity has not been established. Mutations inthis gene may cause distal arthrogryposis multiplex congenita type2B (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)