

# TNNT3 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a partial recombinant TNNT3. Catalog # AT4293a

#### **Product Information**

**Application** WB, E **Primary Accession** P45378 **Other Accession** NM 006757 Reactivity Human Host mouse Clonality monoclonal Isotype IgG1 Kappa **Clone Names** 1F12 Calculated MW 31825

#### **Additional Information**

**Gene ID** 7140

Other Names Troponin T, fast skeletal muscle, TnTf, Beta-TnTF, Fast skeletal muscle

troponin T, fTnT, TNNT3

**Target/Specificity** TNNT3 (NP\_006748, 161 a.a. ~ 258 a.a) partial recombinant protein with GST

tag. MW of the GST tag alone is 26 KDa.

**Dilution** WB~~1:500~1000 E~~N/A

**Format** Clear, colorless solution in phosphate buffered saline, pH 7.2.

**Storage** Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions** TNNT3 Antibody (monoclonal) (M02) is for research use only and not for use

in diagnostic or therapeutic procedures.

# Background

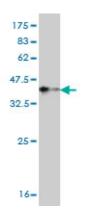
The binding of Ca(2+) to the trimeric troponin complex initiates the process of muscle contraction. Increased Ca(2+) concentrations produce a conformational change in the troponin complex that is transmitted to tropomyosin dimers situated along actin filaments. The altered conformation permits increased 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).

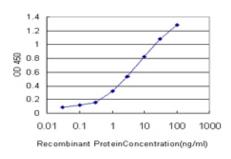
### References

1.Proteome dynamics during contractile and metabolic differentiation of bovine foetal muscle.Chaze T, Meunier B, Chambon C, Jurie C, Picard B.Animal (2009) doi:10.1017 /S1751731 109004315

## **Images**



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.52 KDa).



Detection limit for recombinant GST tagged TNNT3 is approximately 0.1ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.