

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

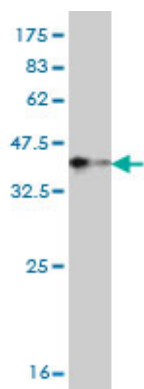
The binding of Ca(2+) to the trimeric troponin complex initiates the process of muscle contraction. Increased Ca(2+) concentrations produce a conformational change in the troponin complex that is transmitted to tropomyosin dimers situated along actin filaments. The altered conformation permits increased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

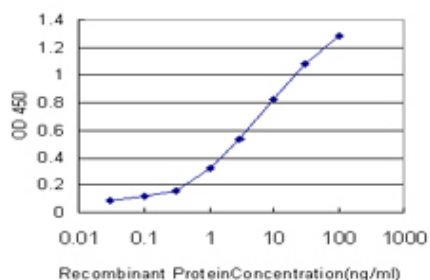
References

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/S1751731109004315

Images



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



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

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