



# TNNT3 Monoclonal Antibody

|                    |  |
|--------------------|--|
| Catalog No         | BYmab-06323  |
| Isotype            | IgG  |
| Reactivity         | Human;Rat;Mouse;   |
| Applications       | WB   |
| Gene Name          | TNNT3  |
| Protein Name       | Troponin T, fast skeletal muscle (TnTf) (Beta-TnTF) (Fast skeletal muscle troponin T) (fTnT)   |
| Immunogen          | Synthesized peptide derived from part region of human protein  |
| Specificity        | TNNT3 Monoclonal Antibody detects endogenous levels of protein.  |
| Formulation        | Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.   |
| Source             | Monoclonal, Mouse,IgG  |
| Purification       | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.   |
| Dilution           | WB 1:500-2000  |
| Concentration      | 1 mg/ml  |
| Purity             | ≥90%   |
| Storage Stability  | -20°C/1 year   |
| Synonyms           |  |
| Observed Band      | 29kD   |
| Cell Pathway       | cytosol,troponin complex,  |
| Tissue Specificity | In fetal and adult fast skeletal muscles, with a higher level expression in fetal than in adult muscle.  |
| Function           | alternative products:Additional isoforms seem to exist,disease:Defects in TNNT3 are a cause of distal arthrogryposis type 2B (DA2B) [MIM:601680]; also known as arthrogryposis multiplex congenita, distal, type 2B (AMCD2B). DA2B is a form of inherited multiple congenital contractures. Affected individuals have vertical talus, ulnar deviation in the hands, severe camptodactyly, and a distinctive face characterized by a triangular shape, prominent nasolabial folds, small mouth and a prominent chin.,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.,similarity:Belongs to the troponin T family.,tissue specificity:In fetal and adult fast skeletal muscles, with a higher level expression in fetal than in adult muscle., |

Nanjing BYabscience technology Co.,Ltd



## Background

The binding of  $\text{Ca}^{2+}$  to the trimeric troponin complex initiates the process of muscle contraction. Increased  $\text{Ca}^{2+}$  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  $\text{Ca}^{2+}$  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  $\text{Ca}^{2+}$ -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; als

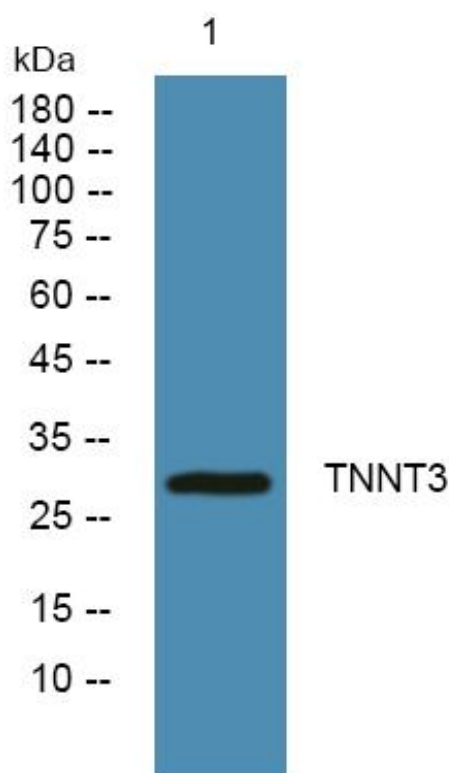
## matters needing attention

Avoid repeated freezing and thawing!

## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



Western Blot analysis of various cells using TNNT3 Monoclonal Antibody