

TNNT2

Reactivity: Human Mouse Rat

Tested applications: WB IHC

Recommended Dilution: WB 1:500 - 1:2000 IHC 1:50 - 1:200

Calculated MW: 36kDa

Observed MW: Refer to Figures

Immunogen:

Recombinant Protein of human TNNT2

Storage Buffer:

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Synonym:

TNNT2 ; Cardiac muscle troponin T; Troponin T; cardiac muscle; troponin T type 2 (cardiac); cTnT; TnTC

Catalog #: A1126

Antibody Type:

Polyclonal Antibody

Species: Rabbit

Gene ID: 7139

Isotype: IgG

Swiss Prot: P45379

Purity: Affinity purification

For research use only.

Background:

Troponin, working in conjunction with tropomyosin, functions as a molecular switch, regulating muscle contraction in response to changes in the intracellular Ca²⁺ concentration. Troponin consists of three subunits: the Ca²⁺-binding subunit troponin C (TnC), the tropomyosin-binding subunit troponin T (TnT), and the inhibitory subunit troponin I (TnI) (1). In response to -adrenergic stimulation of the heart, Ser23 and Ser24 of TnI (cardiac) are phosphorylated by PKA and PKC. This phosphorylation stimulates a conformational change of the regulatory domain of TnC, reduces the association between TnI and TnC, and decreases myofilament Ca²⁺ sensitivity by reducing the Ca²⁺ binding affinity of TnC (1-3). The tropomyosin binding subunit of the troponin complex TnT exists as different isoforms in slow skeletal muscle (ssTnT/TNNT1), fast skeletal muscle (fsTnT/TNNT3) and in cardiac muscle (cTnT/TNNT2). Each of these may also contain multiple alternatively spliced variants. Assays for measuring serum concentrations of cTnT, as well as cTnI, have been reported for analyzing cardiac injury.

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