# Native Human Troponin T Type 2 (Cardiac)

**Cat. No.** TNNT2-4655H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Human Cardiac Troponin T produced from Human Cardiac Tissue, having a molecular weight of approximately 35 kDa. The Cardiac troponin-T is purified using a combination of ion-exchange and affinity chromatography steps. |
| **Species** | Human |
| **Source** | Human Cardiac |
| **Description** | Troponin-T is one of three subunits that form the troponin complex of the thin filaments of striated muscle, it regulates muscle contraction in response to alterations in intracellular calcium ion concentration. TnTc is expressed only in the heart and has proved to be a specific biomarker for heart disease. Mutations in TNNT2 are associated with familial hypertrophic cardiomyopathy as well as with dilated cardiomyopathy. Alternative splicing results in many tissue-specific isoforms. |
| **Form** | Sterile Filtered colourless liquid formualtion. |
| **Purity** | Greater than 98.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. |
| **Storage** | Human TnT although stable at 10°C for 7 days, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles. |
| **Storage Buffer** | Human Cardiac Troponin T in 6M Urea, 250mM NaCl, 50mM Tris-HCl, 15mM -mercaptoethanol, 1mM EDTA, pH-7.2. |

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## GENE INFORMATION

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| **Gene Name** | TNNT2 troponin T type 2 (cardiac) [ Homo sapiens ] |
| **Official Symbol** | TNNT2 |
| **Synonyms** | TNNT2; troponin T type 2 (cardiac); cardiomyopathy, hypertrophic 2 , CMH2, troponin T2, cardiac; troponin T, cardiac muscle; troponin T2, cardiac; cardiac muscle troponin T; cardiomyopathy, hypertrophic 2; cardiomyopathy, dilated 1D (autosomal dominant); |
| **Gene ID** | 7139 |
| **mRNA Refseq** | NM_000364 |
| **Protein Refseq** | NP_000355 |
| **MIM** | 191045 |
| **UniProt ID** | P45379 |
| **Chromosome Location** | 1q32 |
| **Pathway** | Cardiac muscle contraction, organism-specific biosystem; Cardiac muscle contraction, conserved biosystem; Dilated cardiomyopathy, organism-specific biosystem; Dilated cardiomyopathy, conserved biosystem; Hypertrophic cardiomyopathy (HCM), organism-specific biosystem; Hypertrophic cardiomyopathy (HCM), conserved biosystem; Muscle contraction, organism-specific biosystem; |
| **Function** | contributes_to ATPase activity; actin binding; tropomyosin binding; troponin C |

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| | binding; troponin I binding; |

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