Recombinant Human Troponin T Type 2 (Cardiac)

Cat. No. TNNT2-221H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TnT produced in*E.Coli*is a single, non-glycosylated, polypeptide chain. The TnT protein has a molecular mass of 40kDa. The TnT is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Description	A protein which in humans is encoded by the TNNT2 gene. The protein encoded by this gene is the tropomyosin-binding subunit of the troponin complex, which is located on the thin filament of striated muscles and regulates muscle contraction in response to alterations in intracellular calcium ion concentration. Mutations in this gene have been associated with familial hypertrophic cardiomyopathy as well as with restrictiveand dilated cardiomyopathy. Transcripts for this gene undergo alternative splicing that results in many tissue-specific isoforms, however, the full-length nature of some of these variants has not yet been determined. Mutations of this gene may be associated with mild or absent hypertrophy and predominant restrictive disease, with a high risk of sudden cardiac death. Advancement to dilated cardiomyopathy may be more rapid in patients with TNNT2 mutations than in those with myosin heavy chain mutations.
Physical Appearance	Sterile Filtered colourless liquid formualtion.
Formulation	Each mg of protein contains 50% glycerol.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	Greater than 90.0% as determined by: (a) Analysis by RP-HPLC. (b) Anion-exchange FPLC. (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.
Dimers And aggregates	Less than 1% as determined by silver-stained SDS-PAGE gel analysis.
Endotoxin	Endotoxin is less than 0.1 ng/μg of rHuTNC.
Applications	Immunoassays and western blot.
Stability	RHuTnT although stable at 10℃for 7 days, should be stored desiccated below -18℃. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	TNNT2 troponin T type 2 (cardiac) [Homo sapiens]
Synonyms	TNNT2; troponin T type 2 (cardiac); CMH2; RCM3; TnTC; cTnT; CMPD2; MGC3889; troponin T2, cardiac; cardiomyopathy, hypertrophic 2;Cardiac muscle troponin T; Troponin T, cardiac muscle; TnTc; CMD1D; Cardiac muscle troponin T; cardiomyopathy, dilated 1D (autosomal dominant); troponin T type 2 (cardiac); troponin T type 2, cardiac; troponin T, cardiac muscle
Gene ID	7139
mRNA Refseq	NM_000364
Protein Refseq	NP_000355
MIM	191045

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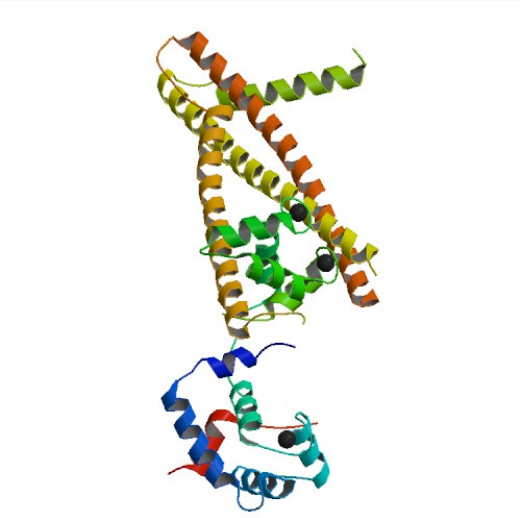
UniProt ID	P45379
Chromosome Location	1q32
Pathway	Muscle contraction; Cardiac muscle contraction; Hypertrophic cardiomyopathy (HCM)
Function	actin binding; structural constituent of cytoskeleton; tropomyosin binding; troponin C binding; troponin I binding
PDB rendering based on 1j1d.	

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