

## Product datasheet for **TP750154**

### Cardiac Troponin I (TNNI3) (NM\_000363) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human troponin I type 3 (cardiac) (cTnI), full length, with N-terminal His tag, expressed in E.coli, 100ug
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	A DNA sequence encoding human full-length TNNI3
Tag:	N-His
Predicted MW:	23.8 kDa
Concentration:	Concentration is determined by spectrophotometrically $\square$ A280 $\square$
Purity:	> 90% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from 0.01 M HCl, reconstitute with Tris/urea buffer (20 mM Tris, pH 7.5, 7 M urea, 5 mM EDTA, 15 mM $\beta$ -mercaptoethanol)
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -20°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<a href="#">NP_000354</a>
Locus ID:	7137
UniProt ID:	<a href="#">P19429</a> , <a href="#">Q6FGX2</a>
RefSeq Size:	2073
Cytogenetics:	19q13.42
RefSeq ORF:	630
Synonyms:	CMD1FF; CMD2A; CMH7; cTnI; RCM1; TNNC1



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**Summary:**

Troponin I (TnI), along with troponin T (TnT) and troponin C (TnC), is one of 3 subunits that form the troponin complex of the thin filaments of striated muscle. TnI is the inhibitory subunit; blocking actin-myosin interactions and thereby mediating striated muscle relaxation. The TnI subfamily contains three genes: TnI-skeletal-fast-twitch, TnI-skeletal-slow-twitch, and TnI-cardiac. This gene encodes the TnI-cardiac protein and is exclusively expressed in cardiac muscle tissues. Mutations in this gene cause familial hypertrophic cardiomyopathy type 7 (CMH7) and familial restrictive cardiomyopathy (RCM). Troponin I is useful in making a diagnosis of heart failure, and of ischemic heart disease. An elevated level of troponin is also now used as indicator of acute myocardial injury in patients hospitalized with moderate/severe Coronavirus Disease 2019 (COVID-19). Such elevation has also been associated with higher risk of mortality in cardiovascular disease patients hospitalized due to COVID-19. [provided by RefSeq, Aug 2020]

**Protein Families:**

Druggable Genome, ES Cell Differentiation/IPS, Stem cell - Pluripotency

**Protein Pathways:**

Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)