

# Recombinant Human TNNI3

**Cat. No.** TNNI3-31690TH    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human Cardiac Troponin I + T + C Complex. Purified subunits of recombinant Human Troponin I , Troponin T , and Troponin C are recomplexed in vitro under appropriate conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | 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). |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>           | >90% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage buffer</b>   | Preservative: None<br>Constituents: 50% Glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage</b>          | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | TNNI3 troponin I type 3 (cardiac) [ Homo sapiens ]                                                                                                                                                                                                                          |
| <b>Official Symbol</b>     | TNNI3                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>            | TNNI3; troponin I type 3 (cardiac); troponin I, cardiac; troponin I, cardiac muscle; CMH7; TNNC1;                                                                                                                                                                           |
| <b>Gene ID</b>             | 7137                                                                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>         | NM_000363                                                                                                                                                                                                                                                                   |
| <b>Protein Refseq</b>      | NP_000354                                                                                                                                                                                                                                                                   |
| <b>MIM</b>                 | 191044                                                                                                                                                                                                                                                                      |
| <b>Uniprot ID</b>          | P19429                                                                                                                                                                                                                                                                      |
| <b>Chromosome Location</b> | 19q13.4                                                                                                                                                                                                                                                                     |
| <b>Pathway</b>             | 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; |
| <b>Function</b>            | actin binding; calcium channel inhibitor activity; calcium-dependent protein binding; protein binding; protein domain specific binding;                                                                                                                                     |

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