# Recombinant Human Troponin C/TNNC1 Protein (His Tag)

**Catalog No.** PKSH033520

***Note:*** Centrifuge before opening to ensure complete recovery of vial contents.

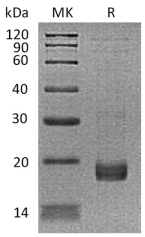
## Description

| | |
|---|---|
| **Synonyms** | CMD1Z;CMH13;TN-C;TNC;TNNC |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Met1-Glu161 |
| **Accession** | P63316 |
| **Calculated Molecular Weight** | 19.8 kDa |
| **Observed molecular weight** | 17-20 kDa |
| **Tag** | N-His |
| **Bioactivity** | Not validated for activity |

## Properties

| | |
|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. |
| **Shipping** | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C. |
| **Formulation** | Supplied as a 0.2 μm filtered solution of 20mM Tris-HCl, 100mM NaCl, 1mM DTT, 10% Glycerol, pH 8.0. |
| **Reconstitution** | Not Applicable |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

Troponin I, also known as TNI, is a 24 kDa component of a protein complex on striated muscle thin filaments.Troponin is the central regulatory protein of striated muscle contraction. Tn consists of three components: Tn-I which is the inhibitor of actomyosin ATPase, Tn-T which contains the binding site for tropomyosin and Tn-C. The binding of calcium to Tn-C abolishes the inhibitory action of Tn on actin filaments. Troponin I inhibits the calcium-dependent muscle contraction mediated by Troponins C and T. The expression of cardiac Troponin I (TNNI3) is restricted to cardiac muscle, while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TNNI1 and TNNI2(encoded by distinct genes) are expressed in skeletal muscle. Mutations of cardiac Troponin I are associated with heriditary cardiomyopathy. Human cardiac Troponin I shares 93% amino acid sequence identity with mouse and rat cardiac Troponin I.


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