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

Catalog Number:PKSH033520



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

## **Description**

Synonyms CMD1Z;CMH13;TN-C;TNC;TNNC

SpeciesHumanExpression HostE.coli

SequenceMet1-Glu161AccessionP63316Calculated Molecular Weight19.8 kDaObserved molecular weight17-20 kDaTagN-His

### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin**  $< 1.0 \text{ EU per } \mu \text{g of the protein as determined by the LAL method.}$ 

Storage 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

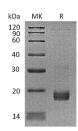
ice/gel packs. Upon receipt, store it immediately at < - 20°C.

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 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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