Recombinant Human Troponin C/TNNC1 Protein (His Tag)

Catalog Number: PKSH033520

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

| Description | |
|---------------|---|
| Species | Human |
| Source | E.coli-derived Human Troponin C/TNNC1 protein Met1-Glu161, with an N-terminal His |
| | |
| Calculated MW | 19.8 kDa |
| Observed MW | 17-20 kDa |
| Accession | P63316 |
| Bio-activity | Not validated for activity |
| Properties | |
| Purity | >95% as determined by reducing SDS-PAGE. |
| Concentration | Subject to label value. |
| 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 $< -20^{\circ}$ C. |
| Formulation | Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 100mM NaCl, 1mM DTT, |
| | 10% Glycerol, pH 8.0. |

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.