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California Bioscience

Product Datasheet

Product Name	Cardiac Troponin I Human Recombinant
Cata No	CB500945
Source	*Escherichia Coli.*
Synonyms	Troponin I cardiac muscle, Cardiac troponin I, TNNI3, TNNC1, CMH7, RCM1, cTnI, CMD2A, MGC116817.

Description

Troponin I (TnI), troponin T (TnT) and troponin C (TnC) form the troponin complex of the thin filaments of striated muscle. TnI is acts as the inhibitory subunit by blocking actin-myosin interactions and thereby mediating striated muscle relaxation. The TnI subfamily contains 3 genes: TnI-skeletal-fast-twitch, TnI-skeletal-slow-twitch, and TnI-cardiac. The TNNI3 gene encodes the TnI-cardiac protein and is exclusively expressed in cardiac muscle tissues. Mutations in the TNNI3 gene cause familial hypertrophic cardiomyopathy type 7 (CMH7) and familial restrictive cardiomyopathy (RCM).

Recombinant Human TNI produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 24,016 Dalton.
The TNI is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered colorless liquid formulation.

Purity

Greater than 98.0% as determined by both:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

TNI solution containing 6M Urea 50mM Tris PH 8.

Stability

Lyophilized TNI although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution TNI should be stored at 4℃ between 2-7 days and for future use below
-18℃.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.