Recombinant Rabbit Cardiac Troponin-C

Certificate of Analysis and Data Sheet

Source:	**Catalog No.**
E.Coli	PRO-323

Background:

Cardiac troponin C belongs to the EF-hand superfamily of calcium-binding proteins and plays an essential role in the regulation of muscle contraction and relaxation.

Description :

Recombinant Rabbit TNC produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 18,020 Dalton.
Recombinant Cardiac Troponin-C is purified by proprietary chromatographic techniques.

Physical Appearance:

Sterile Filtered lyophilized powder.

Formulation:

Lyophilized from (1mg/ml) solution containing 150mM NaCl, 10mM sodium phosphate, 0.5mM EDTA and 0.02% NaN3, (pH 7.0).

Solubility:

It is recommended to reconstitute the lyophilized TNC in sterile 18MÙ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:

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

Purity:

Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Dimers and aggregates:

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

Endotoxin:

Less than 0.1 ng/µg (IEU/µg) of Rabbit TNC.

Protein content:

Protein quantitation was carried out by:

1-10 mg/ml Bradford assay vs. BSA

Usage:

This material is offered for research, laboratory or further evaluation purposes.

Gene:

Name:TNNC1

Protein synonyms/aliases:

Troponin C, slow skeletal and cardiac muscles (TN-C).

Protein Family:

Belongs to the troponin C family.

Latest Publications:

1. Cardiac troponin C (TnC) and a site I skeletal TnC mutant alter Ca2+ versus crossbridge contribution to force in rabbit skeletal fibres.

J Physiol 2005 Feb 1;562(Pt 3):873-84

2. Proximity relationships between residue 117 of rabbit skeletal troponin-I and residues in troponin-C and actin.

Biophys J 2001 Jul;81(1):321-33

3. Intrinsic Ca2+ affinities of peptides: application of the kinetic method to analogs of calcium-binding site III of rabbit skeletal troponin C.

J Am Soc Mass Spectrom 2000 Sep;11(9):770-9

4. Residues 48 and 82 at the N-terminal hydrophobic pocket of rabbit skeletal muscle troponin-C photo-cross-link to Met121 of troponin-I.

Biochemistry 1999 May 18;38(20):6678-88

5. Localization of Cys133 of rabbit skeletal troponin-I with respect to troponin-C by resonance energy transfer.

Biophys J 1998 Jun;74(6):3111-9

6. Characterization of troponin-C interactions in skinned barnacle muscle: comparison with troponin-C from rabbit striated muscle.

J Muscle Res Cell Motil 1997 Dec;18(6):643-53