abcam

Product datasheet

Native Cardiac Troponin I protein ab9936

1 Abreviews 2 References 1 Image

Overview

Product name	Native Cardiac Troponin I protein
Protein length	Full length protein

Description

Nature	Native
Source	Native

Specifications

Our Abpromise guarantee covers the use of **ab9936** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Biological activity	SDS PAGE profile of a typical recombinant Troponin-I preparation (3.8ug) showed a major band at 24kDa and a minor band attributable to Troponin-I dimer. Please note: Troponin-I is very susceptible to proteolytic breakdown within cardiac tissue and it is difficult to isolate undegraded native human cardiac troponin-I. This product is greater than 70% intact and hence proteolytic fragments can be observed.
Form	Liquid
Additional notes	Native Human Cardiac Troponin-ISDS PAGE profile of a typical recombinant Troponin-I preparation (3.8ug) showed a major band at 24kDa and a minor band attributable to Troponin-I dimer. Please note: Troponin-I is very susceptible to proteolytic breakdown within cardiac tissue and it is difficult to isolate undegraded native human cardiac troponin-I. This product is greater than 70% intact and hence proteolytic fragments can be observed.

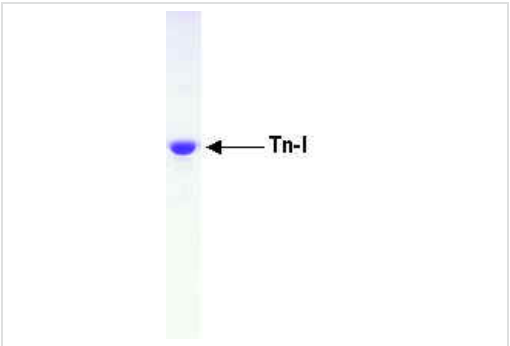
Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 48% Urea, 0.117% Beta mercaptoethanol, 0.79% Tris HCl, 0.0292% EDTA

General Info

Function	Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.
Involvement in disease	Defects in TNNI3 are the cause of cardiomyopathy familial hypertrophic type 7 (CMH7) [MIM:613690]. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death. Defects in TNNI3 are the cause of cardiomyopathy familial restrictive type 1 (RCM1) [MIM:115210]. RCM1 is an heart muscle disorder characterized by impaired filling of the ventricles with reduced diastolic volume, in the presence of normal or near normal wall thickness and systolic function. Defects in TNNI3 are the cause of cardiomyopathy dilated type 2A (CMD2A) [MIM:611880]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Defects in TNNI3 are the cause of cardiomyopathy dilated type 1FF (CMD1FF) [MIM:613286]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.
Sequence similarities	Belongs to the troponin I family.

Images



Western blot - Natural Cardiac Troponin I protein (ab9936)

Native Cardiac Troponin I protein (ab9936) at 2.7 µg (Coomassie blue staining of SDS gel)
Performed under reducing conditions.

Observed band size: 24 kDa
why is the actual band size different from the predicted?
Additional bands at: 48 kDa (possible dimer)

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