


Anti-Cardiac Troponin I antibody ab47003

★★★★★ [17 Abreviews](#) [129 References](#) [5 Images](#)

Overview

Product name	Anti-Cardiac Troponin I antibody
Description	Rabbit polyclonal to Cardiac Troponin I
Host species	Rabbit
Tested applications	Suitable for: ELISA, WB, ICC/IF, IHC-Fr, Flow Cyt, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human, Pig Predicted to work with: Chimpanzee 
Immunogen	Synthetic peptide corresponding to Human Cardiac Troponin I aa 1-100 conjugated to keyhole limpet haemocyanin. (Peptide available as ab47002)
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab47003 in the following tested applications.

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

Application	Abreviews	Notes
ELISA	★★★★★ (1)	Use at an assay dependent concentration.
WB	★★★★★ (4)	Use a concentration of 1 µg/ml. Detects a band of approximately 26 kDa (predicted molecular weight: 24 kDa).
ICC/IF	★★★★★ (5)	Use at an assay dependent concentration.
IHC-Fr	★★★★★ (1)	Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. PubMed: 21909276 ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★★ (4)	1/100.

Target

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.

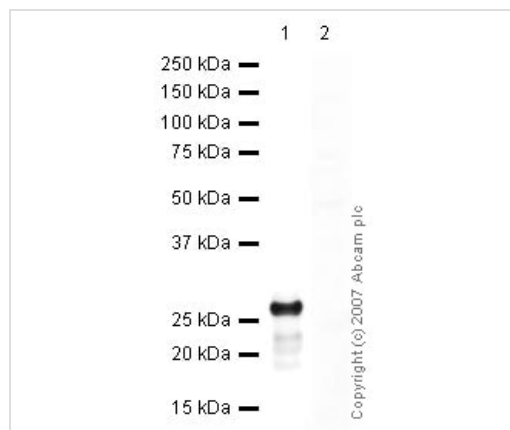
Defects in TNNI3 are the cause of cardiomyopathy familial restrictive type 1 (RCM1) [MIM:115210]. RCM1 is an heart muscle disorder characterized by impaired filling of the ventricles with reduced diastolic volume, in the presence of normal or near normal wall thickness and systolic function.

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.



Western blot - Anti-Cardiac Troponin I antibody (ab47003)

All lanes : Anti-Cardiac Troponin I antibody (ab47003) at 1 µg/ml

Lane 1 : Human heart tissue lysate - total protein ([ab29431](#))

Lane 2 : Human liver tissue lysate - total protein ([ab29889](#))

Lysates/proteins at 10 µg per lane.

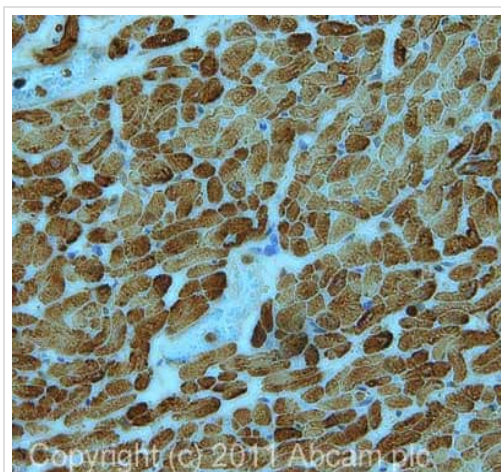
Secondary

All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

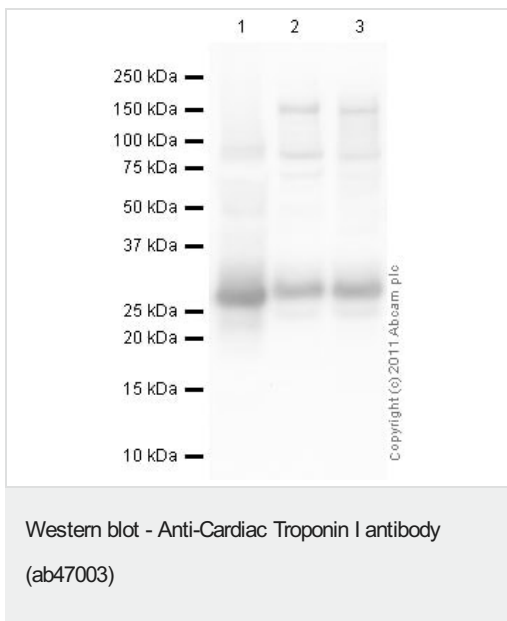
Predicted band size: 24 kDa

Observed band size: 26 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin I antibody (ab47003)

IHC image of Cardiac Troponin I staining in human heart formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab47003, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



All lanes : Anti-Cardiac Troponin I antibody (ab47003) at 1 µg/ml

Lane 1 : Human heart tissue lysate - total protein (**ab29431**)

Lane 2 : Heart (Mouse) Tissue Lysate

Lane 3 : Heart (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

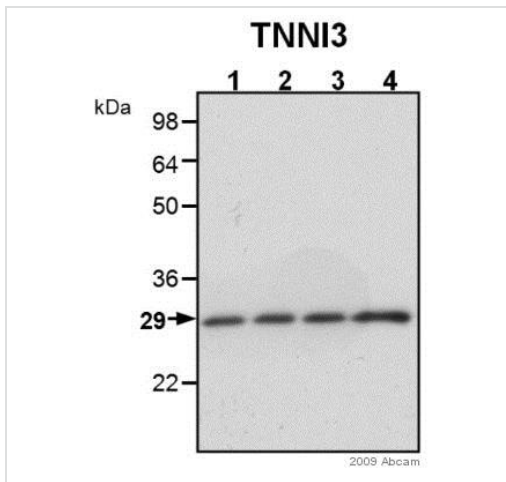
Performed under reducing conditions.

Predicted band size: 24 kDa

Observed band size: 26 kDa

Additional bands at: 160 kDa, 80 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 3 minutes



Western blot - Anti-Cardiac Troponin I antibody (ab47003)

This image is courtesy of an Abreview submitted by Dr. Mario Torrado

All lanes : Anti-Cardiac Troponin I antibody (ab47003) at 1/20000 dilution

All lanes : Pig Heart whole cell lysate

Lysates/proteins at 4 µg per lane.

Secondary

All lanes : An HRP-conjugated Goat anti-rabbit polyclonal at 1/20000 dilution

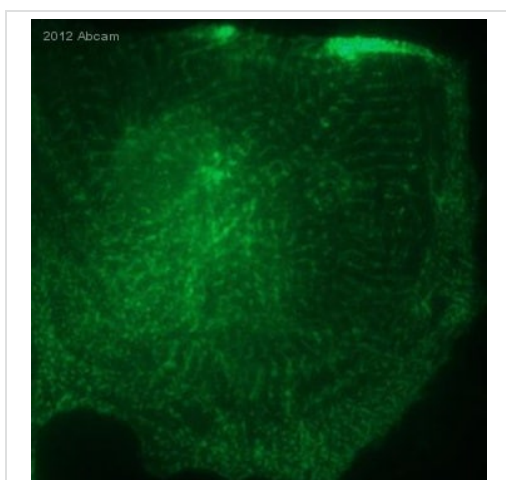
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 24 kDa

Observed band size: 29 kDa

Blocking Step: 20% Serum for 3 hours at 24°C



Immunocytochemistry/ Immunofluorescence - Anti-Cardiac Troponin I antibody (ab47003)

This image is courtesy of an anonymous Abreview

ab47003 staining Cardiac Troponin I in Human cardiomyocytes by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 1% BSA for 30 minutes at 20°C. Samples were incubated with primary antibody (1/200 in PBS + 1% BSA) for 1 hour at 20°C. An undiluted FITC-conjugated Goat anti-rabbit IgG polyclonal was used as the secondary antibody.

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