


Anti-Cardiac Troponin T antibody ab45932

★★★★★ [7 Abreviews](#) [97 References](#) [3 Images](#)

Overview

Product name	Anti-Cardiac Troponin T antibody
Description	Rabbit polyclonal to Cardiac Troponin T
Host species	Rabbit
Tested applications	Suitable for: IHC-P, Sandwich ELISA, WB
Species reactivity	Reacts with: Human Predicted to work with: Rat, Rabbit, Guinea pig, Cow, Cat, Dog  Does not react with: Mouse
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 50 - 150 of Human cardiac Troponin T. Read Abcam's proprietary immunogen policy (Peptide available as ab47005 .)
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 ab45932 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
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Sandwich ELISA		Use a concentration of 0.5 µg/ml. Can be paired for Sandwich ELISA with Mouse monoclonal [1F11] to Cardiac Troponin T (ab10214) . For sandwich ELISA, use this antibody as Detection at 0.5 µg/ml with Mouse monoclonal [1F11] to Cardiac Troponin T (ab10214) as Capture.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 40 kDa (predicted molecular weight: 36 kDa).

Target

Function

Troponin T is the tropomyosin-binding subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.

Tissue specificity

Heart. The fetal heart shows a greater expression in the atrium than in the ventricle, while the adult heart shows a greater expression in the ventricle than in the atrium. Isoform 6 predominates in normal adult heart. Isoforms 1, 7 and 8 are expressed in fetal heart. Isoform 7 is also expressed in failing adult heart.

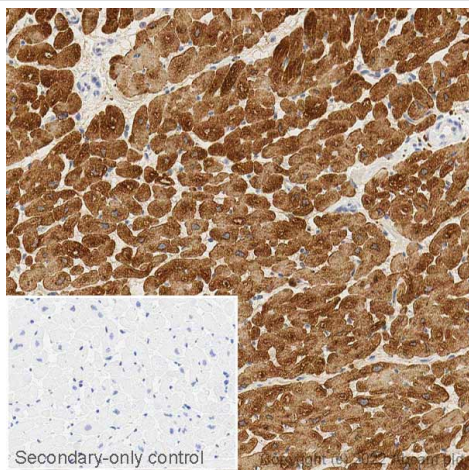
Involvement in disease

Defects in TNNT2 are the cause of cardiomyopathy familial hypertrophic type 2 (CMH2) [MIM:115195]. 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 TNNT2 are the cause of cardiomyopathy dilated type 1D (CMD1D) [MIM:601494]. 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 TNNT2 are the cause of cardiomyopathy familial restrictive type 3 (RCM3) [MIM:612422]. Restrictive cardiomyopathy is a heart 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.

Sequence similarities

Belongs to the troponin T family.

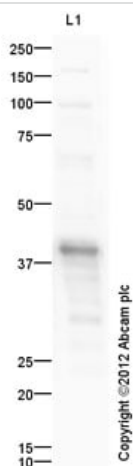
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody (ab45932)

IHC image of Cardiac Troponin T staining in a section of formalin-fixed paraffin-embedded normal human heart* 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 20mins. The section was then incubated with ab45932, 1ug/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. The inset secondary-only control image is taken from an identical assay without primary antibody.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-Cardiac Troponin T antibody (ab45932)

Anti-Cardiac Troponin T antibody (ab45932) at 1 µg/ml + Heart (Human) Whole Cell Lysate - fetal normal tissue at 10 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

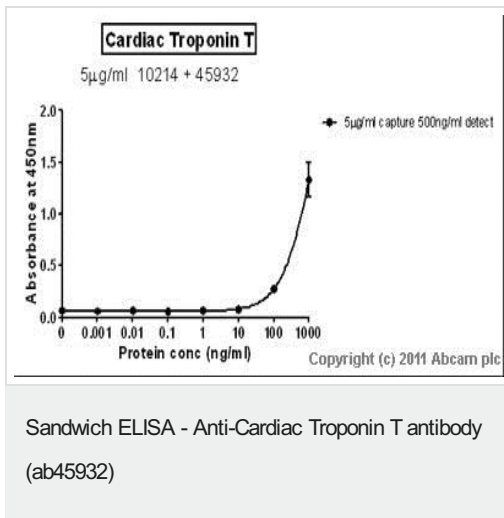
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 36 kDa

Observed band size: 40 kDa

Exposure time: 30 seconds



Standard Curve for Cardiac Troponin T (Analyte: Cardiac Troponin T protein (His tag) ([ab86685](#))); dilution range 1pg/ml to 1ug/ml using Capture Antibody Mouse monoclonal [1F11] to Cardiac Troponin T ([ab10214](#)) at 5ug/ml and Detector Antibody Rabbit polyclonal to cardiac Troponin T (ab45932) at 0.5ug/ml.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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