abcam

Product datasheet

Anti-Cardiac Troponin T antibody ab115134

4 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, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Chimpanzee, Macaque monkey, Chinese hamster, Orangutan
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	This antibody gave a positive signal in the following tissue lysates: Mouse Heart; Rat Heart; Human Fetal Heart. IHC-P: FFPE human heart tissue sections, FFPE mouse heart tissue sections
General notes	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. 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

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 ab115134 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 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 40 kDa (predicted molecular weight: 36 kDa).

Target

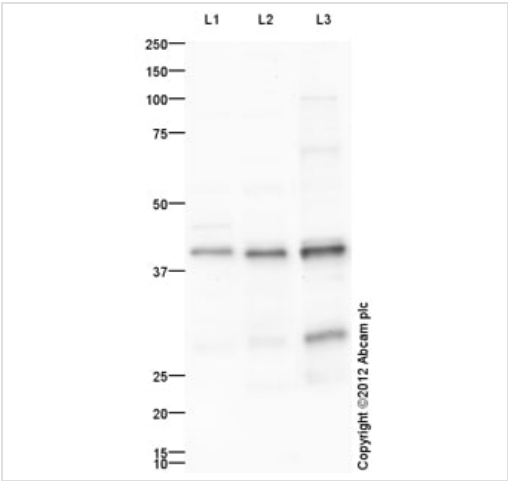
Function Troponin T is the tropomyosin-binding subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.

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



Western blot - Anti-Cardiac Troponin T antibody (ab115134)

All lanes : Anti-Cardiac Troponin T antibody (ab115134) at 1 µg/ml

Lane 1 : Heart (Mouse) Tissue Lysate
Lane 2 : Heart (Rat) Tissue Lysate
Lane 3 : Heart (Human) Whole Cell Lysate - fetal normal tissue

Lysates/proteins at 10 µg per lane.

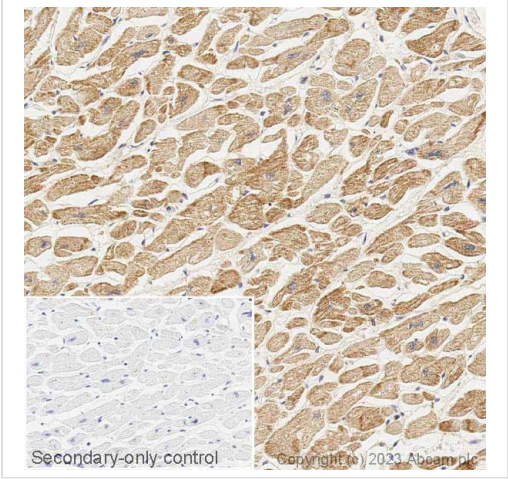
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 36 kDa
Observed band size: 40 kDa
Additional bands at: 29 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds



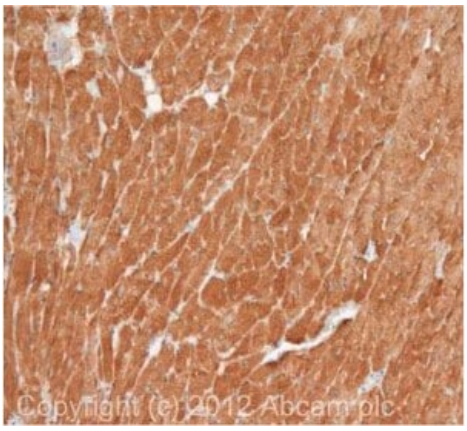
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody (ab115134)

IHC image of Cardiac Troponin T staining in a section of formalin-fixed paraffin-embedded human normal heart* performed on a Leica Biosystems BOND® RX instrument using the standard protocol. 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 ab115134, 5ug/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.

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.

*Tissue obtained from the Human Research Tissue Bank,

supported by the NIHR Cambridge Biomedical Research Centre



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin T antibody (ab115134)

IHC image of Cardiac Troponin T staining in mouse heart formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. 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 ab115134, 5µg/ml, for 15 mins at room temperature. A goat anti-rabbit biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors