

Product datasheet

Anti-Cardiac Troponin T antibody [1F11] ab10214

★★★★★ 5 Abreviews 33 References 3 Images

Overview

Product name	Anti-Cardiac Troponin T antibody [1F11]
Description	Mouse monoclonal [1F11] to Cardiac Troponin T
Host species	Mouse
Specificity	Suitable for use in Surface Plasmon Resonance Biosensing (PubMed: 20633583 and 20694813)
Tested applications	Suitable for: Flow Cyt, ELISA, WB, Sandwich ELISA, ICC, Other, ICC/IF, IHC-P
Species reactivity	Reacts with: Rat, Rabbit, Goat, Cow, Cat, Dog, Human, Pig, Fish
Immunogen	Free human cardiac troponin T
Epitope	Peptide 146-160.
General notes	<p>This product was changed from ascites to tissue culture supernatant on 30th May 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <p>Concentration varies from lot to lot and can be provided on request.</p> <p>Does not cross-react with skeletal muscle troponin T, cTnl or TnC.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium Azide Constituents: PBS, pH 7.4
Purity	Protein A purified
Purification notes	Purity tested by electrophoresis.
Primary antibody notes	Does not cross-react with skeletal muscle troponin T, cTnl or TnC.
Clonality	Monoclonal
Clone number	1F11
Myeloma	Sp2/0
Isotype	IgG2b

Applications

Applications

Our [Abpromise guarantee](#) covers the use of **ab10214** 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
Flow Cyt		Use at an assay dependent concentration. PubMed: 21278734 ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
AP		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
WB	★★★★★	Use at an assay dependent concentration. Predicted molecular weight: 35.4 kDa.
Sandwich ELISA		Use a concentration of 5 µg/ml. Can be paired for Sandwich ELISA with Rabbit polyclonal to Cardiac Troponin T (ab45932) . For sandwich ELISA, use this antibody as Capture at 5 µg/ml with Rabbit polyclonal to cardiac Troponin T (ab45932) as Detection.
ICC	★★★★☆	Use at an assay dependent concentration. Used at a dilution of 1/400 for 1 hr incubation on rat cardiomyocytes (see Abreview for further details).
Other		Use at an assay dependent concentration.
ICC/IF	★★★★★	Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. PubMed: 23066088

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.

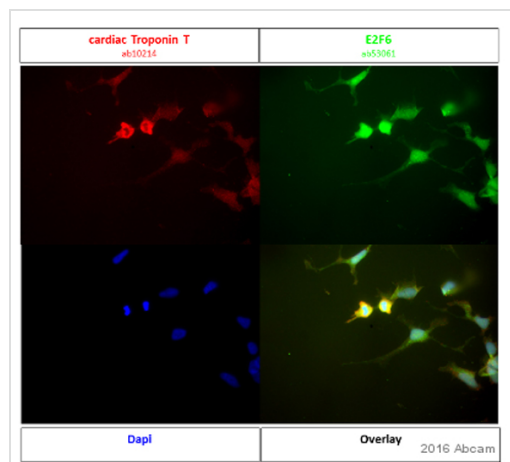
Involvement in disease

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.

Images

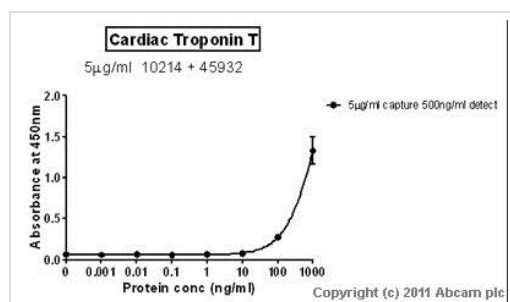


Immunocytochemistry/ Immunofluorescence - Anti-

Cardiac Troponin T antibody [1F11] (ab10214)

This image is courtesy of an anonymous Abreview

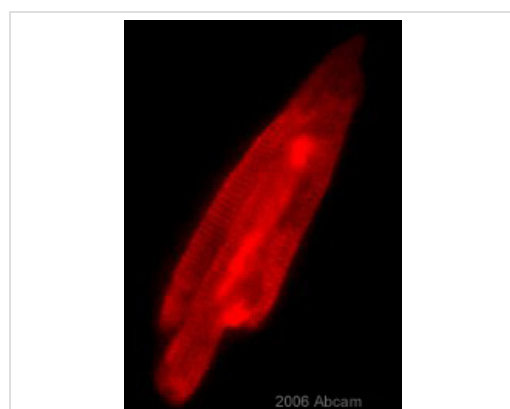
ab10214 staining human spontaneous differentiating iPSC by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with PFA, permeabilized with 0.25% Triton X-100 in PBS and blocked with 1% BSA for 30 minutes at 22°C. Samples were incubated with primary antibody (1/200 in PBS + 1% BSA) for 16 hours at 4°C. An undiluted Alexa Fluor® 594-conjugated Donkey anti-mouse IgG polyclonal was used as the secondary antibody.



Sandwich ELISA - Anti-Cardiac Troponin T antibody

[1F11] (ab10214)

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.



Immunocytochemistry - Anti-Cardiac Troponin T antibody [1F11] (ab10214)

ab10214 at a 1/400 dilution staining rat cardiomyocytes by immunocytochemistry. The cells were paraformaldehyde fixed and blocked with 2% serum. The antibody was incubated with the cells for 16 hours and then bound antibody was detected using an Alexa Fluor® 594 conjugated donkey Anti-Mouse IgG(H+L).

This image is courtesy of an Abreview submitted by **Yiqiang Zhang**.

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