

Product datasheet

Anti-Cardiac Troponin I antibody [MF4] (HRP) ab10239

1 References 1 Image

Overview

Product name	Anti-Cardiac Troponin I antibody [MF4] (HRP)
Description	Mouse monoclonal [MF4] to Cardiac Troponin I (HRP)
Host species	Mouse
Conjugation	HRP
Specificity	This antibody is reacting with free cardiac troponin I (cTnI) and cTnI forming complexes with other troponin components (In the presence of 5 mM EDTA). It is not affected by heparin, phosphorylation, oxidation and troponin complex formation. This antibody does not cross-react with skeletal muscle troponin I. Using multiple combinations of MAb antibodies with different epitope specificity as capture and multiple MAb as detection, the sensitivity of the sandwich ELISA can be increased 2-4 fold.
Tested applications	Suitable for: ELISA, WB, IHC-P
Species reactivity	Reacts with: Rat, Goat, Cow, Cat, Dog, Human, Pig Does not react with: Rabbit, Fish
Immunogen	free human cardiac troponin and/or native troponin complex.
Epitope	190-196 aa
Positive control	IHC-P: Human heart FFPE tissue sections.
General notes	Concentration varies from lot to lot and can be provided on request.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Preservative: 0.05% Proclin Constituents: PBS, pH 7.4
Purity	Protein A purified
Purification notes	Purity tested by electrophoresis.
Clonality	Monoclonal
Clone number	MF4
Myeloma	Sp2/0
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab10239** 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		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 24 kDa.
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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.

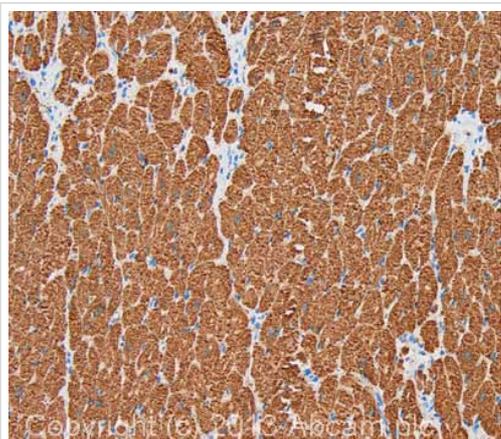
Defects in **TNNI3** are the cause of cardiomyopathy dilated type 2A (CMD2A) [MIM:611880]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.

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.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiac Troponin I antibody [MF4] (HRP) (ab10239)

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 ab10239, 5µg/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.

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.

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