abcam

Product datasheet

Anti-Cardiotin antibody [R2G] ab8962

2 References 5 Images

Overview

Product name	Anti-Cardiotin antibody [R2G]
Description	Mouse monoclonal [R2G] to Cardiotin
Host species	Mouse
Specificity	This antibody reacts with cardiotin, a mitochondrion-associated protein which is present in cardiomyocytes and skeletal muscle.
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Human, Pig, Zebrafish
Immunogen	Full length native protein (purified) corresponding to Chicken Cardiotin. Total protein extract of chicken gizzard
General notes	Mitochondrial membrane proteins have been shown to be involved in several cellular processes such as the regulation of apoptosis and the energy metabolism. Cardiotin antibodies, which are reactive with mitochondrial proteins, have proven to be early indicators of ischemia induced changes in the myocardium. 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	Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Monoclonal
Clone number	R2G

Myeloma	Sp2/0-Ag14
Isotype	IgM

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8962 in the following tested applications.

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

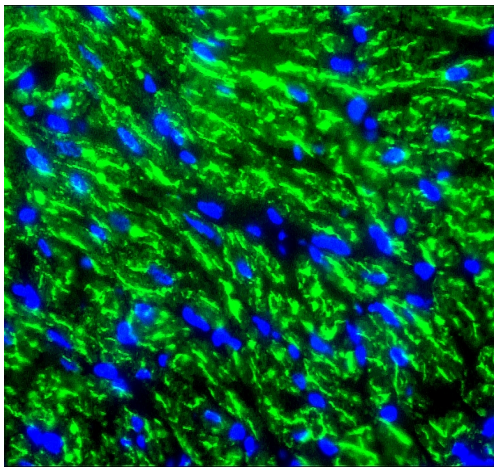
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration.
WB		1/25 - 1/500.

Target

Relevance

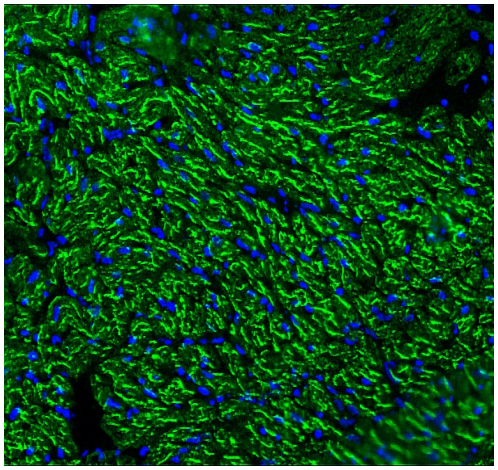
Cardiotin is a high molecular weight protein complex (300 kDa) located in the mitochondrial membrane. The cardiotin structure exists as subunits of 60 kDa and 100 kDa. Both subunits contain the same amino-terminal 14 amino-acid sequence, showing high homology to human skeletal muscle a-actinin, suggesting that the tetrameric configuration of the cardiotin protein structure is a transmembrane complex with the N-terminus at the cytoplasmic side of the membrane, able to interact with actin. During cardiac contractile dysfunction, the cardiotin distribution is affected in pathlogical cardiomyocytes i.e. chronic ischemic myocardium. This monoclonal antibody can be used in immunohistochemistry for the detection of a disturbed mitochondrial activity in cardiomyocytes i.e. during chronic ischemia or chronic atrial fibrillation.

Images



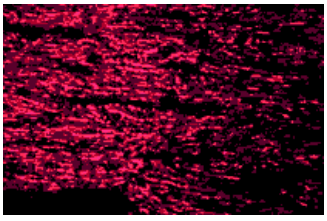
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiotin antibody [R2G] (ab8962)

Indirect immunofluorescence analysis of swine heart cells labelling cardiotin with ab8962.



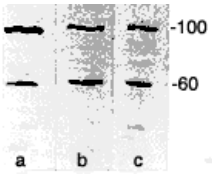
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiotin antibody [R2G] (ab8962)

Indirect immunofluorescence analysis of swine heart cells labelling cardiotin with ab8962.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiotin antibody [R2G] (ab8962)

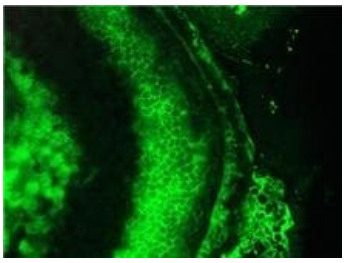
Human atrial cardiomyocytes stained with the monoclonal cardiotin antibody R2G.



Western blot - Anti-Cardiotin antibody [R2G] (ab8962)

Immunoblotting of the microsomal fraction of swine heart reveals the 100 kDa and 60 kDa cardiotin subunits after incubation with monoclonal antibodies (a) **ab8963** clone SR-2, (b) **ab8964** clone SR-3 and (c) ab8962 clone R2G.

Immunoblotting of the microsomal fraction of swine heart reveals the 100 kDa and 60 kDa cardiotin subunits after incubation with monoclonal antibodies (a) **ab8963** clone SR-2, (b) **ab8964** clone SR-3 and (c) ab8962 clone R2G.



Immunofluorescence staining of a 7 days old zebrafish embryo

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cardiotin antibody [R2G] (ab8962)

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