



Cardiotin (R2G)

CATALOG NUMBER: MUB0307P
CLONE: R2G
SPECIES / ISOTYPE: mouse IgM
PRODUCT FORM: purified monoclonal antibody

BACKGROUND

Cardiotin is a high molecular weight protein complex (300 kDa) located in the mitochondria of cardiomyocytes and skeletal muscle. The cardiotin structure exists of subunits of 60 kDa and 100 kDa, probably in a tetrameric configuration. Both subunits contain the same amino-terminal 14 amino-acid sequence, showing high homology to human skeletal muscle α -actinin.

During cardiac contractile dysfunction and myocard cell differentiation, the cardiotin distribution is affected. Compared to other structural proteins, cardiotin is one of the first to respond to insults (ischemia, fibrillation) that influence the functional status of cardiomyocytes.

SOURCE

R2G is a mouse monoclonal IgM antibody derived by fusion of SP2/0-Ag14 mouse myeloma cells, with spleen cells from a mouse immunized with a total protein extract of chicken gizzard.

PRODUCT

Each vial contains 100 μ l purified monoclonal antibody in PBS containing 0.09% sodium azide.

SPECIFICITY

R2G reacts with cardiotin, a mitochondrion-associated protein, which is present in cardiomyocytes and skeletal muscle.

R2G is useful for immunohistochemistry on frozen and paraffin-embedded tissue and immunoblotting. In immunoblotting assays R2G reacts with the 300 kDa cardiotin protein complex and its 100 kDa and 60 kDa subunits. Recommended range is 1:25 – 1:100 for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent. Optimal antibody dilution for immunoblotting applications should be determined by titration.

SPECIES REACTIVITY

Human, monkey, swine, feline, canine, goat, hamster, mouse, rat, rabbit and Xenopus.

STORAGE

Store at 4°C, or in small aliquots at –20°C.

REFERENCES

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WARNING and CAUTION

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals.

This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water.

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in chick embryos without evidence of cell
fusion, Proc Natl Acad Sci USA 101, 9282-85

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