

BM6052P**Monoclonal Antibody to Cardiotin - Purified**

Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	<p>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.</p> <p>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.</p>
Host / Isotype:	Mouse / IgM
Recommended Isotype Controls:	SM13P
Clone:	SR-4
Immunogen:	Derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from a BALB/c mouse immunized with cardiotin.
Format:	State: Liquid purified Ig fraction Buffer System: PBS Preservatives: 0.09% Sodium Azide
Applications:	Immunoblotting: 1/25-1/250. Flow Cytometry: 1/25-1/50. Immunohistochemistry on Frozen Sections: 1/25-1/50 with ABC as detection reagent. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	<p>This antibody SR-4 reacts with Cardiotin, a mitochondrion-associated protein, which is present in cardiomyocytes and skeletal muscle, but also in epithelial cells and tissues.</p> <p>SR-4 recognizes exclusively the 300 kDa Cardiotin protein complex by Immunoblotting.</p>
Species Reactivity:	Tested: Human and Swine.
Storage:	Store undiluted at 2-8°C for one month or (in small aliquots) at -20°C for longer. Avoid repeated freeze-thaw cycles. Shelf life: one year from despatch.
General Readings:	<ol style="list-style-type: none">1. Schaart G, van der Ven PF, Ramaekers FC. Characterization of cardiotin, a structural component in the myocard. Eur J Cell Biol. 1993 Oct;62(1):34-48. PubMed PMID: 8269977.2. Schaart G, Moens L, Endert JM, Ramaekers FC. Biochemical characterization of cardiotin, a sarcoplasmic reticulum associated protein. FEBS Lett. 1997 Feb

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6. Dispersyn GD, Mesotten L, Meuris B, Maes A, Mortelmans L, Flameng W, et al. Dissociation of cardiomyocyte apoptosis and dedifferentiation in infarct border zones. *Eur Heart J.* 2002 Jun;23(11):849-57. PubMed PMID: 12042006.
7. Ausma, J., van der Velden, H. M., Lenders, M. H., van Ankeren, E. P., Jongasma, H. J., Ramaekers, F. C., Borgers, M., and Allessie, M. A. (2003). Reverse structural and gap-junctional remodeling after prolonged atrial fibrillation in the goat. *Circulation*

Pictures:

Immunohistochemistry on Frozen Section of Rabbit heart.

