

**BM6045P****Monoclonal Antibody to Cardiotin - Purified**

<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	<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 <math>\alpha</math>-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>
<b>Host / Isotype:</b>	Mouse / IgM
<b>Recommended Isotype Controls:</b>	SM13P
<b>Clone:</b>	SR-3
<b>Immunogen:</b>	100 kDa Cardiotin subunit.
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction <b>Buffer System:</b> PBS <b>Preservatives:</b> 0.09% Sodium Azide
<b>Applications:</b>	<b>Immunoblotting.</b> <b>Immunohistochemistry on Frozen Sections.</b> <u><b>Recommended Dilutions:</b></u> 1/100–1/200 for Immunohistochemistry with ABC as detection reagent and 1/100–1/500 for Immunoblotting. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	<p>This antibody SR-3 reacts with Cardiotin, a mitochondrion-associated protein, which is present in cardiomyocytes and skeletal muscle, but also in epithelial cells and tissues.</p> <p>In immunoblotting assays SR-3 recognizes the 300 kDa cardiotin protein complex and its 100 kDa and 60 kDa subunits.</p>
<b>Species Reactivity:</b>	<b>Tested:</b> Human and Porcine.
<b>Storage:</b>	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freeze-thaw cycles. Shelf life: One year from despatch.
<b>General Readings:</b>	<ol style="list-style-type: none"><li>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.</li><li>2. Schaart G, Moens L, Endert JM, Ramaekers FC. Biochemical characterization of cardiotin, a sarcoplasmic reticulum associated protein. FEBS Lett. 1997 Feb</li></ol>

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3. Ausma J, Wijffels M, van Eys G, Koide M, Ramaekers F, Allessie M, et al. Dedifferentiation of atrial cardiomyocytes as a result of chronic atrial fibrillation. *Am J Pathol.* 1997 Oct;151(4):985-97. PubMed PMID: 9327732.
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