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Polyclonal Antibody to PTPN14 - Aff - Purified

Catalog No.: 15-288-21498A

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

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.

Host / Isotype: Chicken

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 containing 0.09% sodium azide as preservative

Applications: Suitable for Immunohistochemistry on frozen sections (1/25-1/50 with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent), Immunoblotting (1/25-1/250) and Flow cytometry (1/25-1/50).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: SR-4 recognizes exclusively the 300 kDa cardiotin protein complex by Immunoblotting.
Species: Human and swine.
Others not tested.

Storage: Store the antibody (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 References:
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2. Schaart, G., Moens, L., Endert, J. M., and Ramaekers, F. C. (1997). Biochemical characterization of cardiotin, a sarcoplasmic reticulum associated protein, FEBS Lett 403, 168-72.
3. Ausma, J., Wijffels, M., van Eys, G., Koide, M., Ramaekers, F., Allessie, M., and Borgers,

M. (1997). Dedifferentiation of atrial cardiomyocytes as a result of chronic atrial fibrillation, Am J Pathol 151, 985-97.
4. Dispersyn, G. D., Geuens, E., Ver Donck, L., Ramaekers, F. C., and Borgers, M. (2001). Adult rabbit cardiomyocytes undergo hibernation-like dedifferentiation when co-cultured with cardiac fibroblasts, Cardiovasc Res 51, 230-40.
5. Ausma, J., Litjens, N., Lenders, M-H., Duimel, H., Mast, F., Wouters, L., Ramaekers, F., Allessie, M., and Borgers, M. (2001). Time course of atrial fibrillation-induced cellular structural remodeling in atria of the goat, J Mol Cell Cardiol 33, 2083-94.
6. Dispersyn, G. D., Mesotten, L., Meuris, B., Maes, A., Mortelmans, L., Flameng, W., Ramaekers, F. C., and Borgers, M. (2002). Dissociation of cardiomyocyte apoptosis and dedifferentiation in infarct border zones, Eur Heart J in press.
7. Ausma, J., van der Velden, H. M., Lenders, M. H., van Ankeren, E. P., Jongsma, 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