



Anti-TNNC1 (Troponin I, cardiac muscle) Polyclonal Antibody

Category: Polyclonal Antibody

Catalog #: AB5 T p1

Antigen Synonym: TNNI3 (Cardiac troponin I)

Species Reactivity: Homo sapiens (human)

Immunogen/Specificity:

Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to N-terminal residues of human TNNC1 (Troponin I, cardiac muscle)

Description: Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity. TNNC1 (Troponin I, cardiac muscle) binds to actin and tropomyosin and interacts with TRIM63. Defects in TNNI3 are the cause of cardiomyopathy familial hypertrophic type 7 (CMH7). Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death. Defects in TNNI3 are the cause of cardiomyopathy familial restrictive type 1 (RCM1). RCM1 is an heart muscle disorder characterized by impaired filling of the ventricles with reduced diastolic volume, in the presence of normal or near normal wall thickness and systolic function.

Storage Buffer:

This antibody is stored in PBS, 0.01% sodium azide and 50% glycerol.

Preparation:

Purified by antigen-specific affinity chromatography.

Applications:

ELISA 1:2,000 to 1:5,000

Western Blotting (1µg/ml for 2 hrs)

Reference:

Armour,K.L., et al, Gene 131 (2), 287-292 (1993)

Hunkeler,N.M., et al, Circ. Res. 69 (5), 1409-1414 (1991)

Kedar,V., et al, Proc. Natl. Acad. Sci. U.S.A. 101 (52), 18135-18140 (2004)

Li,M.X., et al, Biochemistry 38 (26), 8289-8298 (1999)

Wang,X., et al, J. Biol. Chem. 277 (34), 31124-31133 (2002)

Niimura,H., et al, Circulation 105 (4), 446-451 (2002)

Mogensen,J., et al, J. Clin. Invest. 111 (2), 209-216 (2003)

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