

Cardiac Troponin I/TNNC1 Rabbit pAb

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Catalog # AP52153

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P19429
Reactivity	Rat, Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24008
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CTn1
Epitope Specificity	131-210/210
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
DISEASE	Defects in TNNI3 are the cause of familial hypertrophic cardiomyopathy type 7 (CMH7) [MIM:613690]. 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 familial restrictive cardiomyopathy type 1 (RCM1) [MIM:115210]. RCM1 is a 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. Defects in TNNI3 are the cause of cardiomyopathy dilated type 2A (CMD2A) [MIM:611880]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Defects in TNNI3 are the cause of cardiomyopathy dilated type 1FF (CMD1FF) [MIM:613286]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Troponin I (TnI), along with troponin T (TnT) and troponin C (TnC), is one of 3 subunits that form the troponin complex of the thin filaments of striated muscle. TnI is the inhibitory subunit; blocking actin-myosin interactions and thereby mediating striated muscle relaxation. The TnI subfamily contains three genes: TnI-skeletal-fast-twitch, TnI-skeletal-slow-twitch, and TnI-cardiac. This gene encodes the TnI-cardiac protein and is exclusively expressed in cardiac muscle tissues. Mutations in this gene cause familial hypertrophic cardiomyopathy type 7 (CMH7) and familial restrictive cardiomyopathy (RCM).

Additional Information

Gene ID	7137
Other Names	Troponin I, cardiac muscle, Cardiac troponin I, TNNI3, TNNC1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=2ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TNNI3
Synonyms	TNNC1
Function	Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.

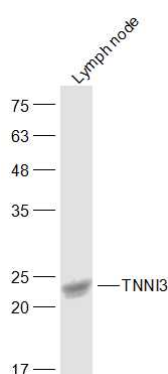
Background

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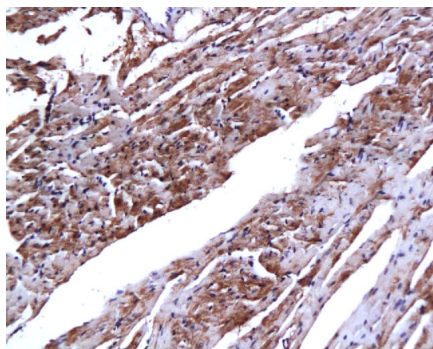
References

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Bhavsar P.K.,et al.Genomics 35:11-23(1996).
Mittmann K.,et al.FEBS Lett. 273:41-45(1990).

Images



Sample:
Lymph node(Rat) Cell Lysate at 40 ug
Primary: Anti-TNNI3 (AP52153) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 24 kD
Observed band size: 24 kD



Tissue/cell: mouse heart tissue; 4%
Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling
bathing for 15min; Block endogenous peroxidase by 3%
Hydrogen peroxide for 30min; Blocking buffer (normal
goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-CTn1/Troponin I/TNNC1 Polyclonal
Antibody, Unconjugated(AP52153) 1:200, overnight at
4°C, followed by conjugation to the secondary
antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.