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Rabbit Anti-Phospho-Cardiac Troponin I (Ser23 + Ser24) antibody

SL3458R

Product Name:	Phospho-Cardiac Troponin I (Ser23 + Ser24)
Chinese Name:	磷酸化钙调节蛋白-1抗体
Alias:	cardiac Troponin I (phospho S23 + S24); cardiac Troponin I (phospho Ser23 + Ser24); Phospho-Troponin I(Ser23/24); P-Troponin I(Ser23/24); troponin I type 3 (cardiac); cardiac muscle; Cardiac troponin I; Cardiomyopathy, familial hypertrophic, 7, included; CMD1FF; CMD2A; CMH7; cTnI; Familial hypertrophic cardiomyopathy 7; MGC116817; RCM1; Tn1; Tni; TNN I3; TNNC 1; TNNC1; TNNI3; TNNI3_HUMAN; Troponin I; Troponin I cardiac; Troponin I cardiac muscle; Troponin I cardiac muscle isoform; Troponin I type 3 cardiac; troponin I, cardiac 3; TroponinI.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	34kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Troponin I around the phosphorylation site of Ser23/24:RR(p-S)(p-S)NY
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year

	when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	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). [provided by RefSeq, Jul 2008] **Function:** Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity. **Subunit:** Binds to actin and tropomyosin. Interacts with TRIM63. Interacts with STK4/MST1. **Post-translational modifications:** Phosphorylated at Ser-42 and Ser-44 by PRKCE; phosphorylation increases myocardium contractile dysfunction (By similarity). Phosphorylated at Ser-23 and Ser-24 by PRKD1; phosphorylation reduces myofilament calcium sensitivity. Phosphorylated preferentially at Thr-31. Phosphorylation by STK4/MST1 alters its binding affinity to TNNC1 (cardiac Tn-C) and TNNT2 (cardiac Tn-T). **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. [DISEASE] 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.

Similarity:
Belongs to the troponin I family.

SWISS:
P13805

Gene ID:
7137

Database links:

Entrez Gene: 7137Human

Entrez Gene: 21954Mouse

Entrez Gene: 100049696Pig

Entrez Gene: 29248Rat

Omim: 191044Human

SwissProt: P19429Human

SwissProt: P48787Mouse

SwissProt: P23693Rat

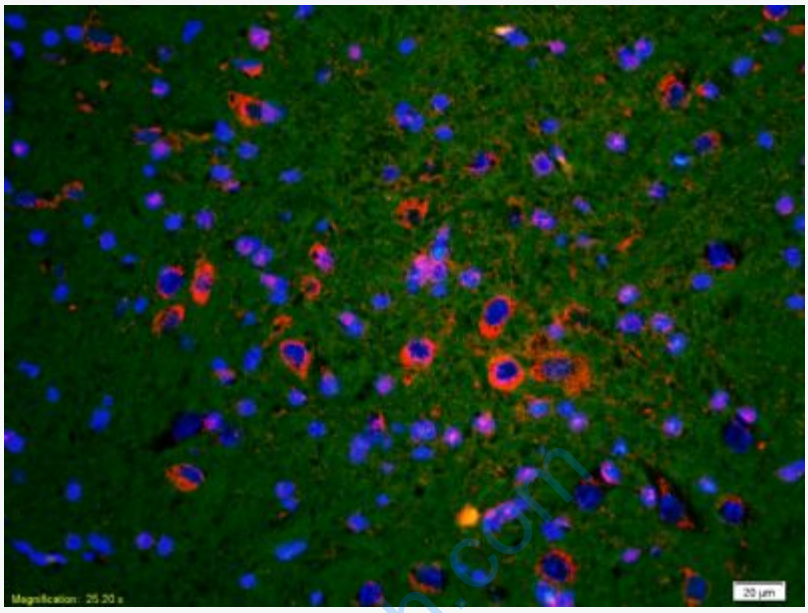
Unigene: 709179Human

Unigene: 27674Mouse

Unigene: 64141Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Calponin1是一种激动蛋白Binding protein，是平滑肌特有的一种蛋白，可以与肌动蛋白、原肌球蛋白和钙调素结合,具有抑制平滑肌细胞收缩的功能，主要用于平滑肌Tumour和乳腺等组织中的肌epithelial cells分布的研究。主要表达于The nucleus.

Picture:	 Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Phospho-Troponin I(Ser23/24) Polyclonal Antibody, Unconjugated(SL3458R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated (SL3458R)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei