



Rabbit Anti-Cardiac Troponin T antibody

SL10648R

Product Name:	Cardiac Troponin T
Chinese Name:	心肌特异性肌钙蛋白T抗体
Alias:	Cardiac muscle troponin T; Cardiomyopathy dilated 1D (autosomal dominant); Cardiomyopathy hypertrophic 2; CMD1D; CMH2; CMPD2; cTnT; LVNC6; MGC3889; OTTHUMP00000033864; OTTHUMP00000033865; OTTHUMP00000033866; OTTHUMP00000033867; OTTHUMP00000033870; OTTHUMP00000218095; RCM3; TNNT 2; TNNT2; TNNT2_HUMAN; TnTC; Troponin T cardiac muscle; Troponin T type 2 (cardiac); Troponin T type 2 cardiac; Troponin T, cardiac muscle; Troponin T2; Troponin T2 cardiac.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestICC=1:100-500IF=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:	36kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Cardiac Troponin T:201-298/298
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

The protein encoded by this gene is the tropomyosin-binding subunit of the troponin complex, which is located on the thin filament of striated muscles and regulates muscle contraction in response to alterations in intracellular calcium ion concentration. Mutations in this gene have been associated with familial hypertrophic cardiomyopathy as well as with dilated cardiomyopathy. Transcripts for this gene undergo alternative splicing that results in many tissue-specific isoforms, however, the full-length nature of some of these variants has not yet been determined. [provided by RefSeq].

Function:

Troponin T is the tropomyosin-binding subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.

Subcellular Location:

Cytoplasm.

Tissue Specificity:

Heart. The fetal heart shows a greater expression in the atrium than in the ventricle, while the adult heart shows a greater expression in the ventricle than in the atrium. Isoform 6 predominates in normal adult heart. Isoforms 1, 7 and 8 are expressed in fetal heart. Isoform 7 is also expressed in failing adult heart.

DISEASE:

Cardiomyopathy, familial hypertrophic 2 (CMH2) [MIM:115195]: 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. Note=The disease is caused by mutations affecting the gene represented in this entry.

Cardiomyopathy, dilated 1D (CMD1D) [MIM:601494]: A disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Note=The disease is caused by mutations affecting the gene represented in this entry.

Cardiomyopathy, familial restrictive 3 (RCM3) [MIM:612422]: A heart 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. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

Belongs to the troponin T family.

SWISS:

P45379

Gene ID:

Product Detail:

7139

Database links:

[Entrez Gene: 493940](#)Cat

[Entrez Gene: 286816](#)Cow

[Entrez Gene: 403532](#)Dog

[Entrez Gene: 7139](#)Human

[Entrez Gene: 21956](#)Mouse

[Entrez Gene: 100622450](#)Pig

[Entrez Gene: 100009428](#)Rabbit

[Entrez Gene: 24837](#)Rat

[Oimim: 191045](#)Human

[SwissProt: P13789](#)Cow

[SwissProt: P45379](#)Human

[SwissProt: P50752](#)Mouse

[SwissProt: P09741](#)Rabbit

[SwissProt: P50753](#)Rat

[Unigene: 533613](#)Human

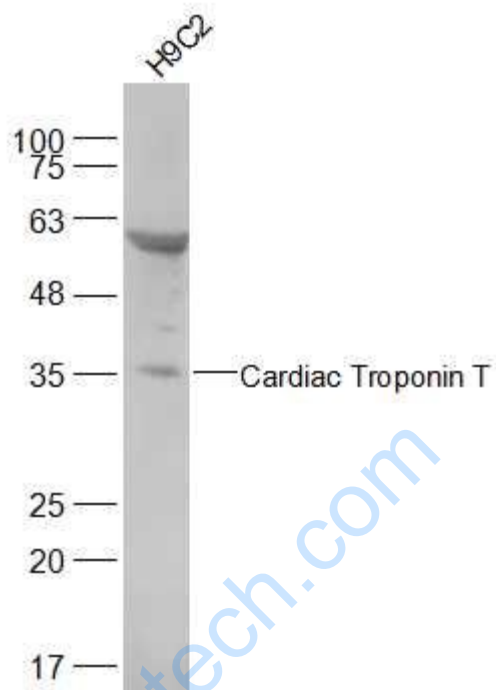
[Unigene: 247470](#)Mouse

[Unigene: 9965](#)Rat

Important Note:

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

Picture:



Sample:

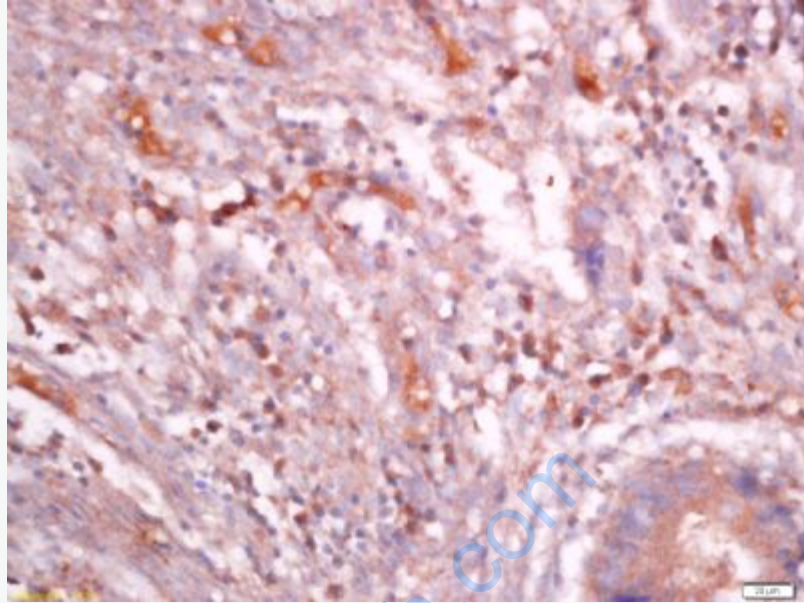
H9C2(Rat) Cell Lysate at 30 ug

Primary: Anti-alpha smooth muscle Actin (SL10648R) at 1/500 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 36 kD

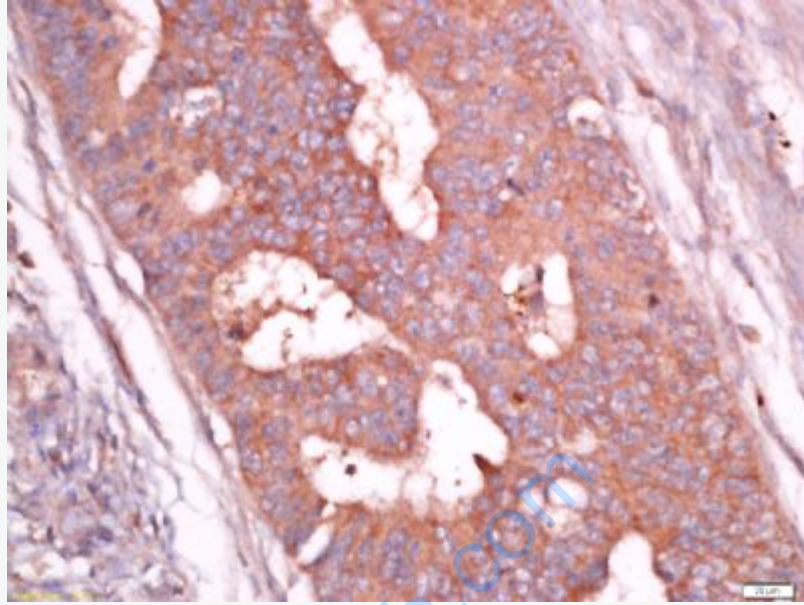
Observed band size: 36 kD



Tissue/cell: human colon cancer; 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;

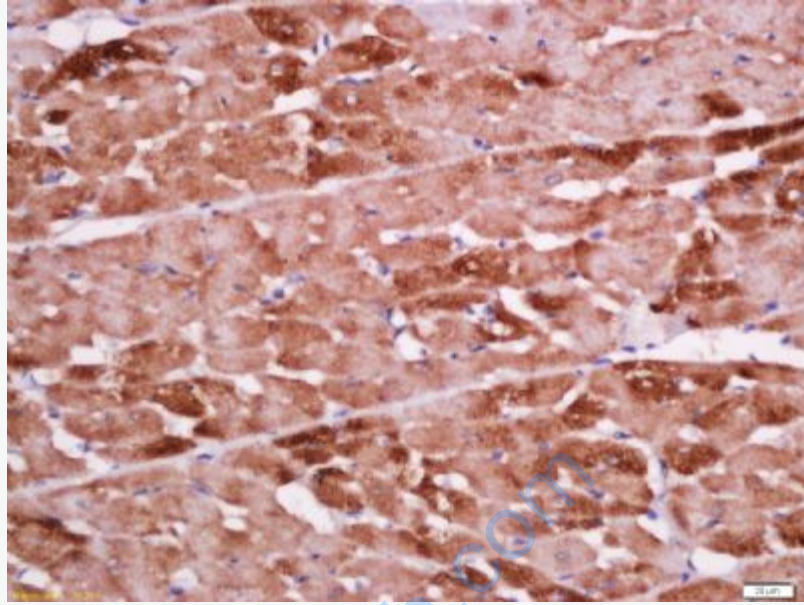
Incubation: Anti-TNNT2 Polyclonal Antibody, Unconjugated(SL10648R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



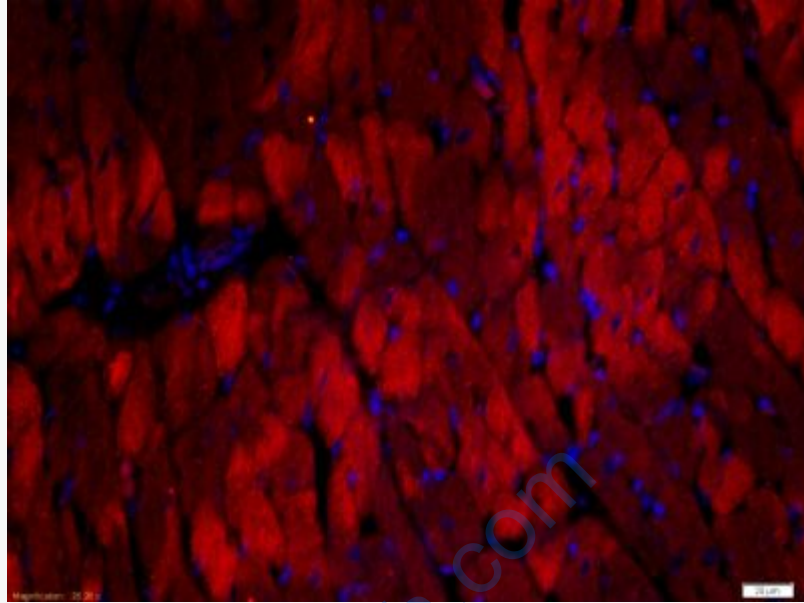
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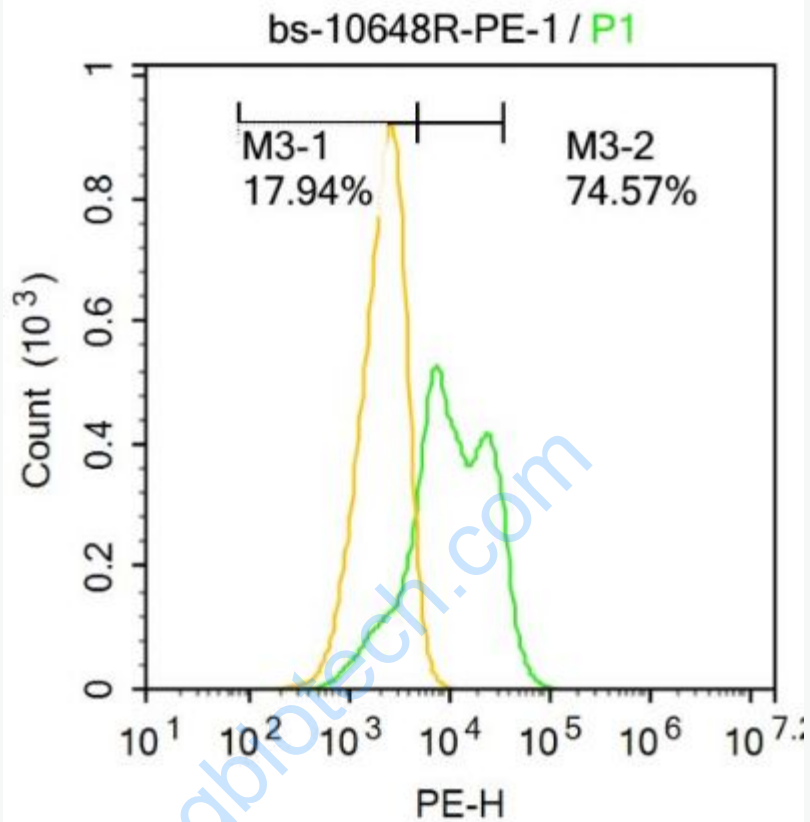
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Tissue/cell: rat heart tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-TNNT2 Polyclonal Antibody, Unconjugated(SL10648R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat heart 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°C for 20 min;
Incubation: Anti-TNNT2 Polyclonal Antibody, Unconjugated(SL10648R) 1:500,
overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3
conjugated(SL10648R)used at 1:200 dilution for 40 minutes at 37°C.
DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei



Blank control:U-2OS.

Primary Antibody (green line): Rabbit Anti-TNNT2 antibody (SL10648R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

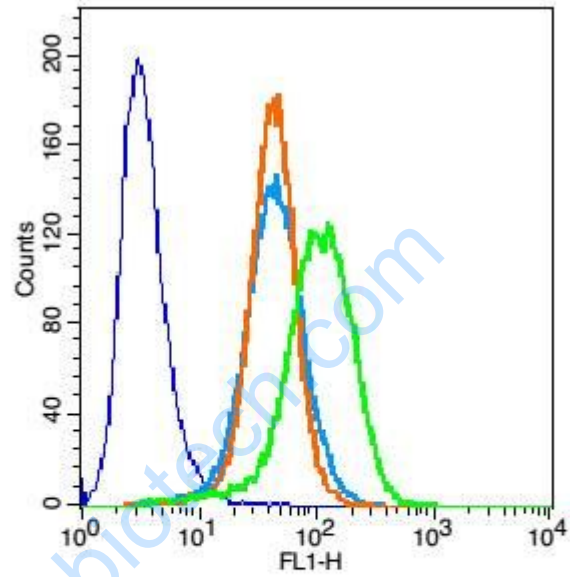
Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at-20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature.

The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Key	Name	Parameter	Gate
—	H9C2-blank.022	FL1-H	G1
—	bs-0295G-FITC-H9C2-2.026	FL1-H	G1
—	bs-0295P-(FITC)-H9C2-2.027	FL1-H	G1
—	bs-10648R-(FITC)-H9C2-2.028	FL1-H	G1

Positive control: H9C2 cells

Concentration: $2\mu\text{g}/10^6$ cells

Incubation conditions: Avoid light , 30 minutes on the ice.