

Rabbit Anti-heavy chain cardiac Myosin antibody

SL0259R

Product Name heavy chain cardiac Myosin

Chinese Name 心肌肌球蛋白重链抗体

Alias

MYH6 + MYH7; MYH6 / MYH7; Alpha MHC; ASD3; CMD1S; CMH1; MGC138376; MGC138378; MPD1; MYH 6; MYH 7; MYH6; MYH7; MYHC A; MYHC; MYHC B; MyHC-alpha; MyHC-beta; MYHCA; MYHCB; Myosin heavy chain cardiac muscle alpha isoform; Myosin heavy chain cardiac muscle beta isoform; Myosin heavy polypeptide 7 cardiac muscle beta; MYH6_HUMAN; MYH7_HUMAN; heavy chain cardiac Myosin.

Research Area

Cardiovascular immunology

Immunogen Species

Rabbit

Clonality

Polyclonal

React Species

Rat (predicted:Human,Mouse,Chicken,Dog,Pig,Cow,Rabbit)

Applications

IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight

213kDa

Cellular localization

cytoplasmic

Form

Liquid

Concentration

1mg/ml

immunogen

KLH conjugated synthetic peptide derived from the middle of human MyHC-beta: 1101-1200/1938

Lsotype

IgG

Purification

affinity purified by Protein A

Buffer

1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

**Solution****Storage**

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

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

PubMed

[PubMed](#)

Cardiac muscle myosin is a hexamer consisting of two heavy chain subunits, two light chain subunits, and two regulatory subunits. This gene encodes the alpha heavy chain subunit of cardiac myosin. The gene is located 4kb downstream of the gene encoding the beta heavy chain subunit of cardiac myosin. Mutations in this gene cause familial hypertrophic cardiomyopathy and atrial septal defect 3. [provided by RefSeq, Mar 2010].

Function:

Muscle contraction.

Subunit:

Muscle myosin is a hexameric protein that consists of 2 heavy chain subunits (MHC), 2 alkali light chain subunits (MLC) and 2 regulatory light chain subunits (MLC-2).

Subcellular Location:

Cytoplasm, myofibril. Note=Thick filaments of the myofibrils.

**Product
Detail****DISEASE:**

Atrial septal defect 3 (ASD3) [MIM:614089]: A congenital heart malformation characterized by incomplete closure of the wall between the atria resulting in blood flow from the left to the right atria. Note=The disease is caused by mutations affecting the gene represented in this entry.

Cardiomyopathy, familial hypertrophic 14 (CMH14) [MIM:613251]: 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 1EE (CMD1EE) [MIM:613252]: 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.

Sick sinus syndrome 3 (SSS3) [MIM:614090]: The term 'sick sinus syndrome' encompasses a variety of conditions caused by sinus node dysfunction. The most common clinical manifestations are syncope, presyncope, dizziness, and fatigue. Electrocardiogram typically shows sinus bradycardia, sinus arrest, and/or sinoatrial block. Episodes of atrial tachycardias coexisting with sinus bradycardia

('tachycardia-bradycardia syndrome') are also common in this disorder. SSS occurs most often in the elderly associated with underlying heart disease or previous cardiac surgery, but can also occur in the fetus, infant, or child without heart disease or other contributing factors. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry (PubMed:21378987). The lifetime risk of being diagnosed with sick sinus syndrome is higher for carriers of variant p.Arg721Trp than for non-carriers (PubMed:21378987).

Similarity:

Contains 1 IQ domain.

Contains 1 myosin head-like domain.

SWISS:

P12883

Gene ID:

4624

Database links:

[Entrez Gene: 4624](#) Human

[Entrez Gene: 4625](#) Human

[Entrez Gene: 140781](#) Mouse

[Entrez Gene: 17888](#) Mouse

[Entrez Gene: 29556](#) Rat

[Entrez Gene: 29557](#) Rat

[Entrez Gene: 282714](#) Cow

[Omim: 160710](#) Human

[SwissProt: P12883](#) Human

[SwissProt: P13533](#) Human

[SwissProt: Q02566](#) Mouse

[SwissProt: Q91Z83](#) Mouse

[SwissProt: P02563](#) Rat

[SwissProt: P02564](#) Rat

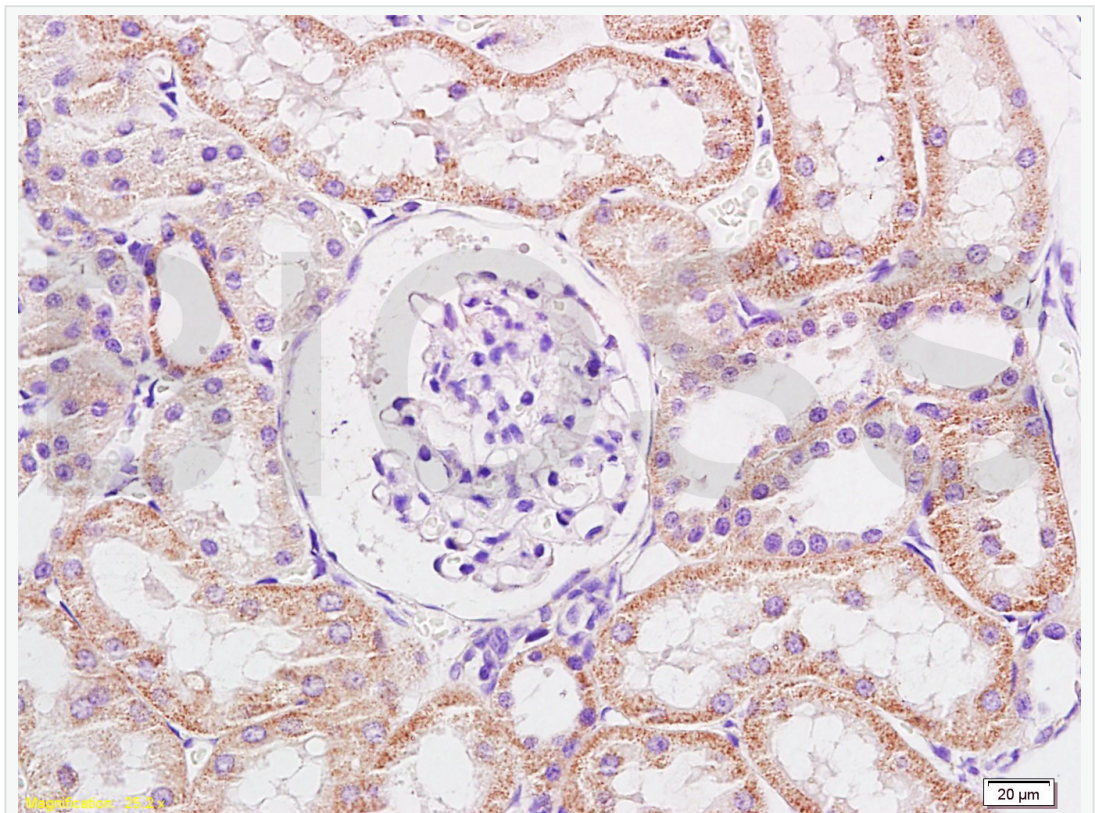
[Unigene: 929](#) Human

[Unigene: 319176](#) Mouse

[Unigene: 127778](#) Rat

心肌肌球蛋白(cardiac myosin, CM)亦称肌凝蛋白,它是粗肌丝的主要成分,也是心肌细胞存在最多的结构蛋白。CM由一条重链(MHC)和两条轻链(MLC)两种亚单位组成,轻链分为轻链I(MLC-I)和轻链II(MLC-II)。CM在功能上与骨骼肌相似,但在氨基酸组织及结构上有差别。

Product Picture



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, 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;



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Incubation: Anti-SM-MHC Polyclonal Antibody, Unconjugated(SL0259R) 1:400,
overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023)
and DAB(C-0010) staining