

**MYBPC3 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP12436a**

**Specification**

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**MYBPC3 Antibody (N-term) - Product Information**

|                   |   |
|-------------------|---|
| Application       | WB, IHC-P,E   |
| Primary Accession | <a href="#">Q14896</a>  |
| Other Accession   | <a href="#">P56741</a> , <a href="#">Q70468</a> , <a href="#">NP_000247.2</a> |
| Reactivity        | Human, Mouse, Rat   |
| Predicted         | Rat   |
| Host              | Rabbit  |
| Clonality         | Polyclonal  |
| Isotype           | Rabbit IgG  |
| Antigen Region    | 189-218   |

**MYBPC3 Antibody (N-term) - Additional Information**

**Gene ID** 4607

**Other Names**

Myosin-binding protein C, cardiac-type, Cardiac MyBP-C, C-protein, cardiac muscle isoform, MYBPC3

**Target/Specificity**

This MYBPC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 189-218 amino acids from the N-terminal region of human MYBPC3.

**Dilution**

WB~~1:2000

IHC-P~~1:25

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MYBPC3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MYBPC3 Antibody (N-term) - Protein Information**

**Name** MYBPC3

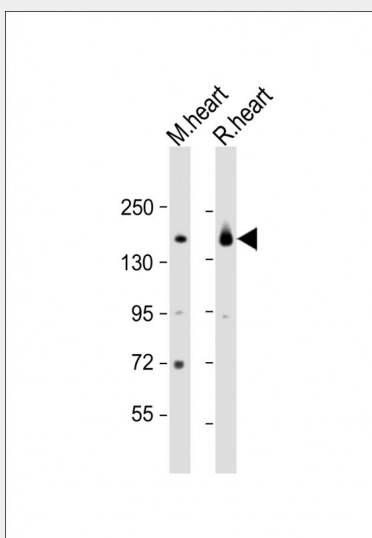
**Function** Thick filament-associated protein located in the crossbridge region of vertebrate striated muscle a bands. In vitro it binds MHC, F- actin and native thin filaments, and modifies the activity of actin- activated myosin ATPase. It may modulate muscle contraction or may play a more structural role.

### **MYBPC3 Antibody (N-term) - Protocols**

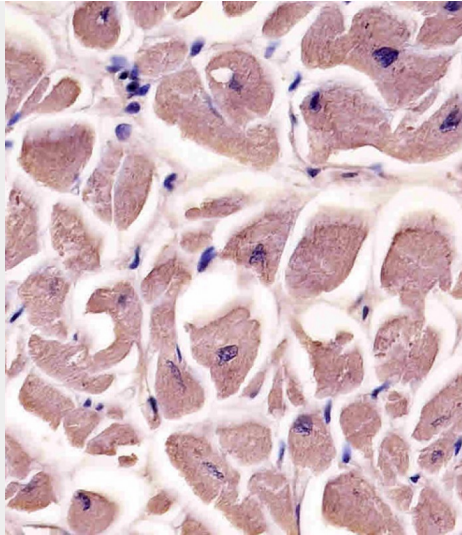
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

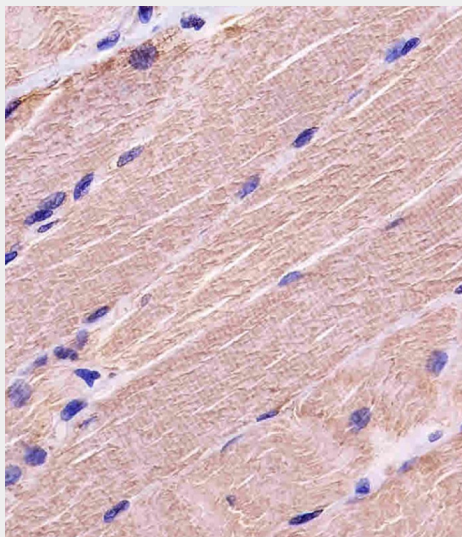
### **MYBPC3 Antibody (N-term) - Images**



All lanes : Anti-MYBPC3 Antibody (N-term) at 1:2000 dilution Lane 1: mouse heart lysate Lane 2: rat heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 141 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP12436A staining MYBPC3 in human heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AP12436A staining MYBPC3 in human skeletal muscle tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

### **MYBPC3 Antibody (N-term) - Background**

MYBPC3 encodes the cardiac isoform of myosin-binding protein C. Myosin-binding protein C is a myosin-associated protein found in the cross-bridge-bearing zone (C region) of A bands in striated muscle. MYBPC3, the cardiac isoform, is expressed exclusively in heart muscle. Regulatory phosphorylation of the cardiac isoform in vivo by cAMP-dependent protein kinase (PKA) upon adrenergic stimulation may be linked to modulation of cardiac

contraction. Mutations in MYBPC3 are one cause of familial hypertrophic cardiomyopathy.

#### **MYBPC3 Antibody (N-term) - References**

Millat, G., et al. Clin. Chim. Acta 411 (23-24), 1983-1991 (2010) :

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)

Millat, G., et al. Eur J Med Genet 53(5):261-267(2010)

Zimmerman, R.S., et al. Genet. Med. 12(5):268-278(2010)

Brion, M., et al. Ann. Clin. Lab. Sci. 40(3):285-289(2010)

#### **MYBPC3 Antibody (N-term) - Citations**

- [Functional characterization of human myosin-binding protein C3 variants associated with hypertrophic cardiomyopathy reveals exon-specific cardiac phenotypes in zebrafish model](#)