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MYBPC3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12436a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q14896
Other Accession	P56741, O70468, NP_000247.2
Reactivity	Human, Rat, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31023
Calculated MW	140762
Antigen Region	189-218

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~~1:1000 IHC-P~~1:100~500 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.

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.

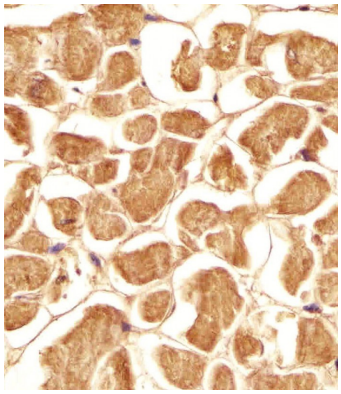
Background

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 exclussively 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.

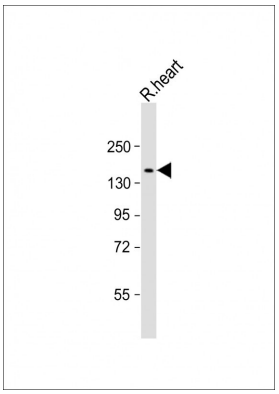
References

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)

Images



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 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Anti-MYBPC3 Antibody (N-term) at 1:2000 dilution + 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 :141kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

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

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