MYBPC3 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	MYBPC3, Blocking Peptide
Full Product Name	MYBPC3 Blocking Peptide
Product Gene Name	MYBPC3 blocking peptide
Product Synonym Names	C protein cardiac muscle isoform; C-protein; cardiac muscle isoform; Cardiac MyBP C; Cardiac MyBP-C; cardiac-type; MYBPC3; myosin binding protein C cardiac; Myosin binding protein C cardiac type; Myosin-binding protein C; MYPC3_HUMAN
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	MYBPC3 peptide (MBS9627242) is used for blocking the activity of MYBPC3 antibody (MBS9608530)
Molecular Weight	140,762 Da
Chromosome Location	Chromosome: 11; NC_000011.9 (47352957..47374253, complement). Location: 11p11.2
OMIM	115197
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for MYBPC3 blocking peptide	Blocking/Control
Related Product Information for MYBPC3 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of MYBPC3 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MYBPC3 purchase	MBS9627242 is a blocking peptide targeting MYBPC3.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MYBPC3. It may not necessarily be applicable to this product.

NCBI GI #	148596957
NCBI GeneID	4607
NCBI Accession #	NP_000247.2

UniProt Primary Accession #	Q14896
UniProt Secondary Accession #	Q16410; Q6R2F7; Q9UE27; Q9UM53; A5PL00
UniProt Related Accession #	Q14896
GenBank Nucleotide #	NM_000256.3
NCBI Official Full Name	myosin-binding protein C, cardiac-type
NCBI Official Synonym Full Names	myosin binding protein C, cardiac
NCBI Official Symbol	MYBPC3
NCBI Official Synonym Symbols	FHC; CMH4; MYBP-C
UniProt Protein Name	Myosin-binding protein C, cardiac-type
UniProt Synonym Protein Names	C-protein, cardiac muscle isoform
Protein Family	Myosin-binding protein
UniProt Gene Name	MYBPC3
UniProt Synonym Gene Names	Cardiac MyBP-C
UniProt Entry Name	MYPC3_HUMAN
NCBI Protein Information	myosin-binding protein C, cardiac-type; C-protein, cardiac muscle isoform
NCBI Summary for MYBPC3	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. [provided by RefSeq, Jul 2008]
UniProt Comments for MYBPC3	MYBPC3: 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. Belongs to the immunoglobulin superfamily. MyBP family. Protein type: Myosin-binding Chromosomal Location of Human Ortholog: 11p11.2 Cellular Component: sarcomere; striated muscle thick filament; cytosol; A band Molecular Function: identical protein binding; ATPase activator activity; myosin binding; structural constituent of muscle; metal ion binding; titin binding; actin binding; myosin heavy chain binding Biological Process: heart morphogenesis; regulation of heart rate; positive regulation of ATPase activity; regulation of muscle filament sliding; regulation of striated muscle contraction; ventricular cardiac muscle morphogenesis; sarcomere organization; cell adhesion; myosin filament assembly; muscle filament sliding; cardiac muscle contraction Disease: Left Ventricular Noncompaction 10; Cardiomyopathy, Familial Hypertrophic, 4
Research Articles on MYBPC3	**1.** Our observations show that the combination of a missense (p.Glu258Lys) and a splice-site mutation (IVS25-1G>A) profoundly affects the clinical course.
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