

Product datasheet for **SC300037**

MYBPC3 (NM_000256) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYBPC3 (NM_000256) Human Untagged Clone
Tag:	Tag Free
Symbol:	MYBPC3
Synonyms:	CMD1MM; CMH4; cMyBP-C; FHC; LVNC10; MYBP-C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000256, the custom clone sequence may differ by one or more nucleotides

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ATGCCTGAGCCGGGAAGAAGCCAGTCTCAGCTTTTAGCAAGAAGCCACGGTCAGTGGA
GTGGCCGCAGGCAGCCCTGCCGTGTTTCGAGGCCGAGACAGAGCGGCAGGAGTGAAGGTG
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GAGGACCAGCTGGTGTGGTGGGCGAGCGGTGGAGTTTGTGAGTGTGAAGTATCGGAGGAG
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TACCGTTCAAGAAGGACGGGCAGAGACACCACCTGATCATCAACGAGGCCATGCTGGAG
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 AGAAAGCCCTGCCCTTTGACGGGGCATCTATGTCTGCAGGGCCACCACTTACAGGGC
 GAGGCACGGTGTGAGTCCCGCTGGAGGTGCGAGTGCCTCAGTGA

Restriction Sites:

Please inquire

ACCN:

NM_000256

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_000256.2](#), [NP_000247.1](#)

RefSeq Size: 4200 bp

RefSeq ORF: 3825 bp

Locus ID: 4607

UniProt ID: [Q14896](#)

Cytogenetics: 11p11.2

Protein Families: Druggable Genome

Protein Pathways: Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

Gene Summary:

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. [provided by RefSeq, Jul 2008]