

## Product datasheet for **RC235183**

### MYBPC1 (NM\_001254723) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYBPC1 (NM_001254723) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MYBPC1
Synonyms:	LCCS4; MYBPCC; MYBPCS; MYOTREM; ssMyBP-C
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC235183 representing NM_001254723 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGAACCCTAAGAAAGAGGATGAAGAGGAAGTCTCCCCGCTAGCGCCTTGCTCCAGACTGGA  
CCCTTGTGCGAACTCCTCTGGGAGGAACAAGCCAAGCAGAATGCCAACTCCAGCTGTCCATCTTGT  
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CAAGGCCAAAGATAAATTTGCAGGAAATACAGATGCGAGGTCACCTATAAGGATAAGTTTGACAGCTGT  
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ATGGTCTTGATGCTGACAACACAGTGACAGTGATTGCAGGAAACAAGCTTCGTCTTGAGATCCCCATCAG  
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**Protein Sequence:**

>RC235183 representing NM\_001254723  
 Red=Cloning site Green=Tags(s)

MPEPTKKEDEEEVSPPSALPPDWTLVETPPGEEQAKQNANSQLSILFIEKPQGGTVKVGEDITFIAKVKA  
 EDLLRKPTIKWFKGKWMDLASKAGHLQLKETFERHSRVYTFEMQIIKAKDNFAGNYRCEVYTKDFDSC  
 SFDLEVEHSTGTPNIDIRSAFKRSGEGQEDAGELDFSGLLKRREVKKQEEEPQVDVWELLKNAKPSEYE  
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 EVSEDDANVKWFKNGEEIIPGPKSRYRIRVEGKHHILIEGATKADAAEYSVMTTGGQSSAKLSVDLKLPL  
 KILTPLTDQTVNLGKEICLKCEISENIPGKWTKNGLPVQESDRLKVVHKGRHKLVIANALTEDEGDYVF  
 APDAYNVTLPAKVHVIDPPKIILDGLDADNTVTVIAGNKLRLIPIISGEPKAMWSRGDKAIMEGSGRI  
 RTESYPDSSTLVIDIAERDDSGVYHINLKNEAGEAHASIKVKVDFDPPVPAPTVEVGDDWCIMNWEPP  
 AYDGGSPILGYFIERKKKQSSRWMLNFDLCKETTFEPKMIIEGVAYEVRIFAVNAIGISKPSMPSRPFV  
 PLAVTSPPTLLTVDSVTDTTVTMRWRPPDHIGAAGLDGYVLEYCFEGTEDWIVANKDLIDKTKFTITGLP  
 TDAKIFVRVKAVNAAGASEPKYYSQPILVKEIIEPPKIRIPRHLKQTYIRRVGEAVNLVIPFQGGKPRPEL  
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 GLSEDATMTKESAVIARDGKIYKNPVYEDFDFSEAPMFTQPLVNTYAIAGYNATLNCVSRGNPKPKITWM  
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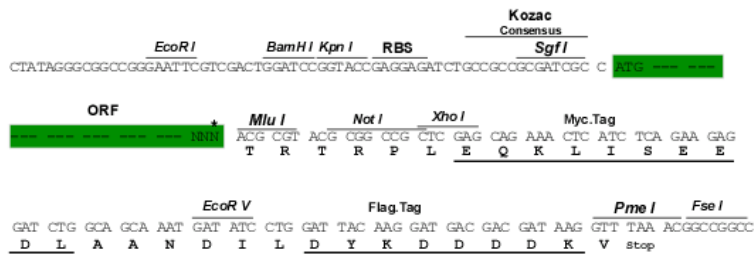
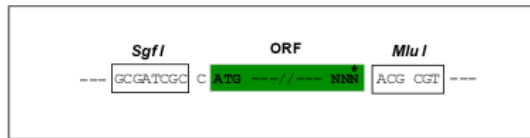
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

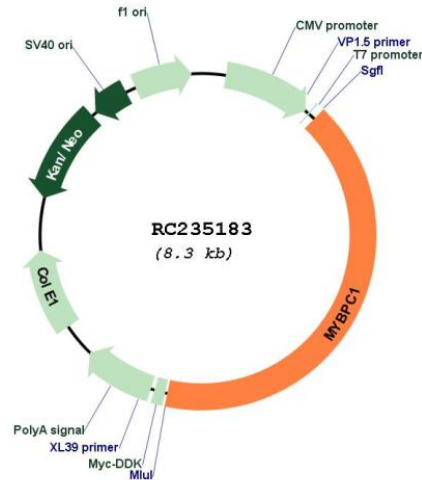
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_001254723

ORF Size: 3417 bp

**OTI Disclaimer:** 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001254723.1](#), [NP\\_001241652.1](#)

RefSeq Size: 3778 bp

RefSeq ORF: 3420 bp

Locus ID: 4604

UniProt ID: [Q00872](#)

Cytogenetics: 12q23.2

**MW:** 128.8 kDa

**Gene Summary:** This gene encodes a member of the myosin-binding protein C family. Myosin-binding protein C family members are myosin-associated proteins found in the cross-bridge-bearing zone (C region) of A bands in striated muscle. The encoded protein is the slow skeletal muscle isoform of myosin-binding protein C and plays an important role in muscle contraction by recruiting muscle-type creatine kinase to myosin filaments. Mutations in this gene are associated with distal arthrogryposis type I. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2011]