

## Product datasheet for RC235177

### MYBPC1 (NM\_001254721) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYBPC1 (NM_001254721) 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:	>RC235177 representing NM_001254721 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGAACCCTAAGAAAGAGGAAAATGAAGTGCCAGCCCCAGCCCCACCCCGGAAGAACCAAGTA  
AAGAGAAGGAGGCCGGAACCTACACCAGCAAAGACTGGACCCCTTGTGAAACTCCTCTGGGGAGGAACA  
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GGTTCAAAGGAAAATGGATGGACCTGGCCAGCAAAGCCGGGAAGCACCTTCAGCTGAAGGAAACCTTTGA  
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AGATGCGAGGTCACCTATAAGGATAAGTTTACAGCTGTTTCAATTTGATCTTGAAGTGCACGAATCTACTG  
GGACTACTCCAAACATTGACATCAGATCTGCTTCAAGAGAAGGGAGGTGAAGCAGCAGGAGGAAGAACC  
CCAGGTGGACGTATGGGAGTTGCTGAAGAACCGCAAACCCAGTGAGTACGAGAAGATCGCCTTCCAGTAT  
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ACACAGTGACAGTGATTGCAGGAAACAAGCTTCGTCTTGAGATCCCCATCAGCGGAGAACCACCTCCTAA  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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**Protein Sequence:**

>RC235177 representing NM\_001254721  
 Red=Cloning site Green=Tags(s)

MPEPTKKEENEVPAPAPPPEEPSKEKEAGTTPAKDWTLVETPPGEEQAKQNANSQLSILFIEKPQGGTVK  
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 FEHKGCQRILFINNCQMTDDSEYYVTAGDEKSTELFVREPPIMVTKQLEDTTAYCGERVELECEVSEDD  
 ANVKWFKNGEEIIPGPKSRYRIRVEGKKHILIEGATKADAAEYSVMTTGGQSSAKLSVDL KPLKILTPL  
 TDQTVNLKGEICLKCEISENIPGKWTKNGLPVQESDR LKVVHKGRIHKLVIANALTEDEGDYVFAPDAYN  
 VTLPAKVHVIDPPKIILDGLDADNTVTVIAGNKLRLIPIISGEP PPKAMWSRGDKAIMEGSGRIRTESYP  
 DSSTLVIDIAERDDSGVYHINLKNEAGEAHASIKVKVDFPDPPVAPTVEVGDW CIMNWEPPAYDGG S  
 PILGYFIERKKKQSSRWMLNFDLCKETTFEPKKMIEGVAYEV RIFAVNAIGISKPSMPSRPFVPLAVTS  
 PPTLLTVDSVTDTTVTRWRPPDHIGAAGLDGYVLEYCFEGTEDWIVANKDLIDKTKFTITGLPTDAKIF  
 VRVKAVNAAGASEPKYYSQPILVKEIIEPPKIRIPRHLKQTYIRRVGEAVNLVIPFQGKPRPEL TWKKDG  
 AEIDKNQINIRNSETDTIIFIRKAERSHSGKYDLQVKVDKFVETASIDIQIIDRPGPPQIVKIEDVWGEN  
 VALTWTWPKDDGNAAITGYTIQKADKKSMEWFTVIEHYHRTSATITELVIGNEYFRVFS ENMCGLSEDA  
 TMTKESAVIARDGKIYKNPVYEDFDFSEAMPFTQPLVNTYAIAGYNATLNC SVRGNPKPKITWMKNKVAI  
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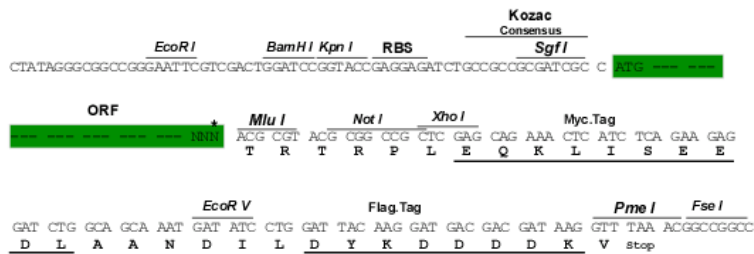
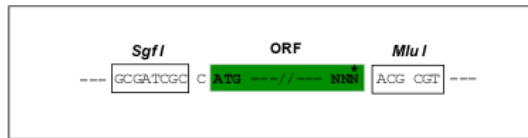
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

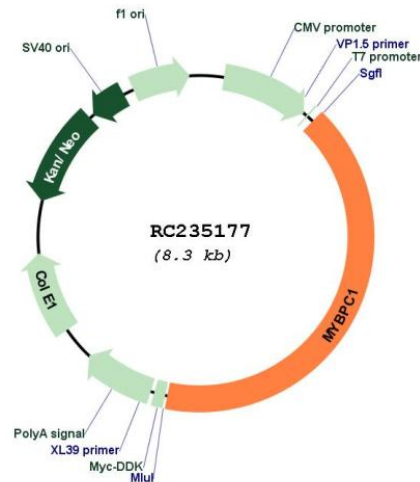
Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

## Plasmid Map:



ACCN: NM\_001254721

ORF Size: 3381 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\\_001254721.1](#), [NP\\_001241650.1](#)

RefSeq Size: 3862 bp

RefSeq ORF: 3384 bp

Locus ID: 4604

UniProt ID: [Q00872](#)

Cytogenetics: 12q23.2

**MW:** 127.5 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]