

Product datasheet for **RG235173**

MYBPC1 (NM_001254722) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYBPC1 (NM_001254722) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYBPC1
Synonyms:	LCCS4; MYBPCC; MYBPCS; MYOTREM; ssMyBP-C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG235173 representing NM_001254722 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAGAACCCTAAGAAAGAGGACTGGACCCTTGTGAACTCCTCCTGGGAGGAACAAGCCAAGC
AGAATGCCAACTCCAGCTGTCCATCTTGTTCATTGAAAACTCAAGGAGGAACAGTGAAGTTGGTGA
AGATATCACCTTCATAGCCAAAGTCAAGGCTGAAGATCTTCTGAGAAAACCCACTATCAATGGTTCAAA
GGAAAATGGATGGACCTGGCCAGCAAAGCCGGGAAGCACCTTCAGCTGAAGGAAACCTTTGAGAGGCACA
GTCGGGTGTACACATTTGAGATGCAGATCATCAAGGCCAAAGATAAATTTGCAGGAAATTACAGATCGCA
GGTCACCTATAAGGATAAGTTTGACAGCTGTTCATTTGATCTTGAAGTGCACGAATCTACTGGGACTACT
CCAAACATTGACATCAGATCTGCTTTCAAGAGAAGTGGAGAAGTCAAGAGGATGCAGGAGAACTTGACT
TTAGTGGTCTCCTGAAACGTAGGGAGGTGAAGCAGCAGGAGGAAGAACCAGGTGGACGTATGGGAGTT
GCTGAAGAACGCGAAACCCAGTGAGTACGAGAAGATCGCCTTCCAGTATGGAATCACCGACTGCGCGGC
ATGCTCAAGCGACTCAAGCGCATGCGCAGAGAGGAGAAGAAGAGCGCAGCTTTTGCAAAAATTTGATC
CTGCATACAGGTTGACAAAGGAGGCAGAGTGAGGTTTGTGTGGAGCTGGCAGATCCAAAGTTGGAGGT
GAAATGGTATAAAAATGGTCAAGAAATTCGACCCAGTACCAAATACATCTTTGAACACAAAGGATGCCAG
AGAATCCTGTTTATCAATAACTGTCAGATGACAGATGATTCAGAGTATTATGTGACAGCCGGTGATGAGA
AATGTTCCACTGAGCTTTCGTAAGAGAGCCTCCAATTATGGTGACCAAACAGCTGGAAGATACAACCTGC
TTATTGTGGGAGAGAGTGAATTAGAATGTGAGGTGTCTGAAGATGATGCCAATGTAATAATGGTTAAAG
AATGGTGAAGAGATTATCCCTGGTCCAAAATCAAGATACCGAATTAGAGTTGAGGGTAAAAACACATCT
TGATCATAGAGGGAGCAACAAAGGCTGATGCTGCAGAATATTCAGTAATGACAACAGGAGGACAATCATC
TGCTAACTTAGTGTGACTTGAACCTCTGAAGATTTTGACACCTCTGACTGATCAGACTGTAATCTT
GGAAAAGAAATCTGCCTGAAGTGTGAAATCTCTGAAAACATACCAGGAAAATGGACTAAAAATGGCTAC
CTGTTCCAGGAGAGTGACCGTCTAAAGGTGGTTCACAAGGGAAGGATCCACAAGTTAGTGATGCCAATGC
CCTCACTGAAGATGAAGGTGATTATGTATTGCACCTGATGCCTACAATGTTACTCTGCCTGCCAAAGTT



CATGTTATTGATCCTCCTAAGATCATCCTGGATGGTCTTGATGCTGACAACACAGTGACAGTGATTGCAG
 GAAACAAGCTTCGTCTTGAGATCCCCATCAGCGGAGAACCACCTCCTAAAGCCATGTGGAGCCGGGGAGA
 TAAGGCTATTATGGAAGGCAGTGGCCGGATAAAGACAGAACTTACCCTGATAGCAGCACTCTGGTCATT
 GATATAGCTGAAAGAGATGACTCTGGTGTTTACCACATCAATCTGAAAAACGAAGCTGGAGAGGCACATG
 CAAGCATCAAGGTTAAAGTTGTGGACTTCCCTGATCCTCCAGTGGCACCAGCTGTGACAGAGGTGGGAGA
 TGACTGGTGTATCATGAACTGGGAGCCTCCTGCCTACGACGGAGGCTCTCAATCCTAGGATATTTTATT
 GAGAGGAAGAAGAAACAAAGCTCCAGTGGATGAGGCTGAATTTTGATCTCTGCAAGAAACAACTTTTG
 AGCCCAAGAAGATGATTGAAGGTGGCCTATGAGGTCCGCATCTTTGCAGTCAATGCCATTGGCATCTC
 CAAGCCCAGTATGCCCTCCAGGCCCTTTTGTTCCTTTGGCTGTAACAAGCCCTCCTACTCTCTGACTGTG
 GACTCTGTCACTGACACGACTGTCACGATGAGGTGGCGCCCCCAGACCACATTGGTGCAGCAGGTTTAG
 ATGGCTATGTGCTAGAGTATTGCTTTGAAGGAAGTGGAGTGGATAGTTGCAACAAAGATCTGATTGA
 CAAGACGAAGTTCACCATCACAGGTCTGCCAACAGATGCAAGATCTTTGTGCGTGTGAAGGCTGTTAAT
 GCAGCTGGTGCCAGCGAGCCCAAGTACTATTCTCAGCCCATTCTCGTGAAGGAAATCATAGAACCTCCAA
 AGATTCGATTCCAAGACACCTGAAGCAAACCTATATCCGAGAGTTGGAGAAGCTGTCAATCTGGTTAT
 ACCTTTCCAGGAAAACCAAGACCAGAATTAACCTTGAAGAAGGATGGTGCAGAAATTGATAAGAATCAA
 ATAACATTTCGCAACTCTGAGACTGATACAATCATATTTATTAGAAAAGCAGAGAGGAGCCACTCTGGGA
 AATATGATCTGCAAGTCAAAGTGGACAAATTCGTGGAGACCGCATCAATTGACATCCAGATCATTGACCG
 TCCAGGTCACCCCAAAATGTGAAGATTGAGGATGTCTGGGGAGAAAATGTGCTCTCACATGGACTCCA
 CCAAGGATGATGGAAATGCTGCTATCACAGGCTATACCATTCAGAAGGCTGACAAGAAGAGCATGGAAT
 GGTACTGTGCTTGGAGCATTATCATCGAACCAAGTCCACCATTACTGAATTGGTCATAGGGAATGAATA
 TTACTTCCGGGTCTTTCTGAAAACATGTGTGGCCTCAGTGGAGTGGCACCATGACTAAAGAGAGTGCA
 GTGATCGCCAGGATGGTAAAATCTACAAAATCCAGTGTATGAAGACTTTGATTCTCAGAGGCACCCA
 TGTTTACTCAGCCTTTGGTTAACACCTATGCCATAGCTGGTTACAATGCCACCCTAACTGCAGCTGTGAG
 AGGAAATCCTAAGCCTAAAATAACCTGGATGAAAAACAAAGTTGCTATTGTGGATGATCCAAGATACAGG
 ATGTTGCAAGCAACAGGAGTCTGTACCCTGAAAATTCGCAAGCCAGCCCTATGATGGAGGCCTTACT
 GCTGCAAGCAGTCAATGACCTTGGGACAGTGGAGATTGAATGCAAACTGGAGGTGAAAGTGATATATCA
 AGGAGTAAATACCCCTGGACAACCAAGTCTTCTGGAGGGCAGCAACAGTATTGCACAATAAGGATTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG235173 representing NM_001254722
 Red=Cloning site Green=Tags(s)

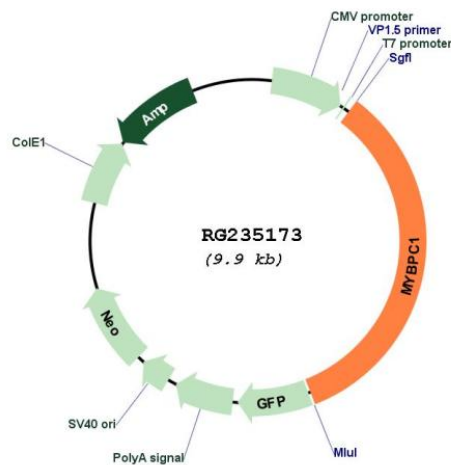
MPEPTKKEDWTLVETPPGEEQAKQNANSQLSILFIEKPQGGTVKVGEDITFIKVKAEADLLRKPTIKWFK
 GKWMDLASKAGKHLQLKETFERHSRVYTFEMQIIKAKDNFAGNYRCEVYKDKFDSCSFDLEVHSTGTT
 PNIDIRSAFKRSQEGEDAGELDFSGLLKRREVKQEEEEPQVDVWELLKNAKPSEYKIAFYQGITDLRG
 MLKRLKMRREKKSAFAKILDPAYQVDKGGVRFVVELADPKLEVWKYKNGQEIIRPSTKYIFEHKGCCQ
 RILFINNCQMTDDSEYYVTAGDEKSTELFVREPPIMVTKQLEDTTAYCGERVELECEVSEDDANVKWFK
 NGEEIIPGPKSRYRIRVEGKKHILIEGATKADAAEYSVMTTGGQSSAKLSVDLKLPLKILTPLTDQTVNL
 GKEICLKCEISENIPGKWTGNLVPQESDRLKVVHKGRIHKLVIANALTEDEGDYVFPDAYNVTLPAKV
 HVIDPPKIILDGLDADNTVTVIAGNKLRLIPIISGEPPPAMWSRGDKAIMEGSGRIRTESYPDSSTLVI
 DIAERDDSGVYHINLKNEAGEAHASIKVKVDFPDPVAVTVTEVGDDWCIMNWEPPAYDGGSPILGYFI
 ERKKKQSSRWMLNFDLCKETTFEPKMIIEGVAYEVRIFAVNAIGISKPSMPSRPFVPLAVTSPPTLLTV
 DSVTDTTVMRWRPPDHIGAAGLDGYVLEYCFEGTEDWIVANKDLIDKTKFTITGLPTDAKIFVRVKA
 VNAAGASEPKYYSQPILVKEIIEPPKIRIPRHLKQTYIRRVGEAVNLVIPFQGKPRPELTWKKDGA
 EDKNQINIRNSETDTIIFIRKAERSHSGKYDLQVKVDFVETASIDIQIIDRPGPPQIVKIEDVWGENVAL
 TWTPPKDDGNAAITGYTIQKADKKSMEWFTVIEHYHRTSATITELVIGNEYFRVFSNMCGLEDATMTKESA
 VIARDGKIYKNPYEDDFSEAPMFTQPLVNTYAIAGYNATLNCVSRGNPKPKITWMKNKVAIVDDPRYR
 MFSNQGVCTLEIRKPSPYDGGTYCCKAVNDLGTVEIECKLEVKVIYQGVNTPGQPVFLEGQQSLHNKDF

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001254722

ORF Size: 3360 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:	<ol style="list-style-type: none">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:	<u>NM_001254722.1, NP_001241651.1</u>
RefSeq Size:	3841 bp
RefSeq ORF:	3363 bp
Locus ID:	4604
UniProt ID:	<u>Q00872</u>
Cytogenetics:	12q23.2
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 arthrogyriposis type I. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2011]