

Product datasheet for **RG220058**

MYBPC2 (NM_004533) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYBPC2 (NM_004533) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYBPC2
Synonyms:	fsMyBP-C; MYBPC; MYBPCF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220058 representing NM_004533 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGAGGCCAAAACCAGCGGCCAAAAGGCCCCAAAGGCCAAAGATGCCCCAAAGGAGCCCCAAGG
AGGCTCCCCCTAAGGAGGCTCCTGCAGAGGCCCCAAAGAAGCCCCACCCGAGGACCAGTCCCCGACTGC
AGAGGAGCCCACCGCGTTTTCTGAAGAAGCCGGACTCCGTCTCAGTGGAGACTGGGAAGGACGCAGTG
GTCGTGGCCAAGGTGAACGGGAAGGAGCTCCAGACAAACCGACCATCAAGTGGTTCAAGGGGAAGTGGC
TGGAGCTGGGAGCAAGAGTGGCGCCCGTCTCCTTCAAGGAGTCCCACAACCTCCGCCAGCAATGTGTA
CACCGTGGAGCTGCACATTGGGAAGGTGGTACTGGGGACCGTGGGTATTACCGCCTCGAGGTCAAAGCC
AAGGACACCTGTGACAGCTGTGGCTTCAACATCGATGTGGAGGCACCCCGTCAAGGATGCCTCTGGGCAGA
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GTTGAAGAAGAGGGAGGTGGTGGAGGAGGAGAAGAAGAAAAGAAAGATGACGATGACCTAGGCATC
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GCATCACCGACCTCCGGGCATGCTGAAGCGGCTGAAAAGGCTAAGGTGAGGTCAAGAAGAGTGCAGC
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CCTCTTGAAGACCAGCAGGTGTTGTGGGTGACCGGTGGAAATGGCAGTGGAGGTGTCAGAAGAGGGTG
CCCAGGTGATGTGGATGAAAGATGGTGTGGAAGTACTCGGGAGGATTCTTCAAGGCCCGTACCCTT
CAAGAAGGACGGGAAGCGCCACATCCTCATCTTCTCAGACGTGGTCCAGGAGGACAGGGTCTGATCAG
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ACATCGCGGATCTGACGGTGAAGGCCTCAGAACAAGCTGTGTTCAAGTGCAGGTTCTGATGAGAAAGT
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AGGTTCCACAAGCTGGTATCGATGACGTCCGCCCCGAGGATGAGGGAGACTACACGTTTGTGCCTGACG
 GCTACGCCCTGTGCTCTCGGCCAAGCTCAACTTCTGGAAATCAAGGTGGAGTACGTTCCCAAGCAAGA
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 ACCCGAAGCCGAAGGTGGTCTGGATGAAGAACAAGATGGAATCCGTGAAGATCCCAAGTTCCTGATAAC
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 CGGGCCGTCAACGAGCTGGGCGAGGCGCTGGCTGAGTGAAGCTGGAGGTCCGAGTGCCGCGAG

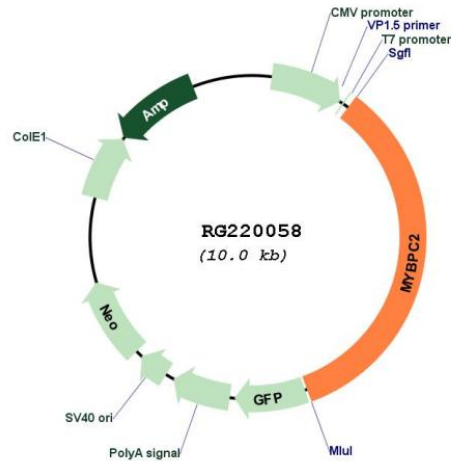
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220058 representing NM_004533
 Red=Cloning site Green=Tags(s)

MPEAKPAAKKAPKGDAPKGAPKEAPPKEAPAEAPKEAPPEDQSPTAEPTGVFLKKPDSVSVETGKDAV
 VVAKVNGKELPDKPTIKWFKGKWLLELGSKSGARFSFKESHNSASNVYTVELHIGKVVLDGRGYRLEVKA
 KDTCDSCGFNIDVEAPQDASGQSLSEFKRTSEKSSDTAGELDFSGLLKKREVVEEKKKKKDDDLGI
 PPEIWELLKGAKKSEYEKIAFQYGITDLRGLKRLKAKVEVKSSAAFTKKLDPAYQVDRGNKIKLMVEI
 SDPDLTLKWFKNQEIKPSSKYVFENVGKKRILTINKCTLADDAAYEVAVKDEKCFTELFVKEPPVLIVT
 PLEDQQVVFVGDVEMAVEVSEEGAQVMWMDGVELTREDSEFKARYRFFKDKGRHILIFSDVVQEDRGRYQ
 VITNNGQCEAELIVEEKQLEVLQDIADLTVKASEQAVFKCEVSDEKVTGKWKYKNGVEVRPSKRITISHVG
 RFHKLVIDDVRPEDEGDYTFVPDGYALS SAKLNFLIEIKVEYVPKQEPPIHLDCSGKTSENAIVVAGN
 KLRLDVSITGEPVATWLGDEVFTTTEGRTRIEKRVDCSSFVIESAQREDEGRYTIKVTNPVGEDVAS
 IFLQVVDVDPPEAVRITSVGEDWAILVWEPPMYDGGKPVVGYLVERKKKGSQRWMLNFEVFTETTYES
 TKMIEGILYEMRVFAVNAIGVSQPSMNTKPFMPIAPTSEPLHLIVEDVDTTTTLKWRPPNRIGAGGIDG
 YLVEYCLEGSEEWVANTEPVERCGFTVKNLPTGARILFRVVGNIAGRTEPATLAQPVTIREIAEPPKI
 RLPRHLRQTYIRKVGQNLNLVVPFQGGKPRPVVWTKGGAPLDTSRVHVRTSDFDTVFFVRQAARSDSGEY
 ELSVQIENMKDTATIRIRVVEKAGPPINVMVKEVWGTNALVEWQAPKDDGNSEIMGYFVQKADKKTMEWF
 NUYERNRHTSCTVSDLIVGNEYFRVYTENICGLSDSPGVSKNTARILKTGITFKPFYKEHDFRMAPKF
 LTPLIDRVVAGYSAALNCAVRGHPKPKVVMKNKMEIREDPKFLITNYQVLTNLIRRPSFPDAGTYTC
 RAVNELGEALAECKLEVRVPQ

TRTRPLE – GFP Tag – V

Plasmid Map:


ACCN: NM_004533

ORF Size: 3423 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_004533.2](#), [NP_004524.2](#)

RefSeq Size: 3572 bp

RefSeq ORF: 3426 bp

Locus ID: 4606

UniProt ID: [Q14324](#)

Cytogenetics: 19q13.33

Domains: ig, IGc2, IG, FN3

Gene Summary: This gene encodes a member of the myosin-binding protein C family. This family includes the fast-, slow- and cardiac-type isoforms, each of which is a myosin-associated protein found in the cross-bridge-bearing zone (C region) of A bands in striated muscle. The protein encoded by this locus is referred to as the fast-type isoform. Mutations in the related but distinct genes encoding the slow-type and cardiac-type isoforms have been associated with distal arthrogryposis, type 1 and hypertrophic cardiomyopathy, respectively. [provided by RefSeq, Jul 2012]