

# MYBPC1 Antibody

Catalog # ASC11435

## Product Information

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| Application           | WB, IF, E                                                                                                                                                                                                       |
| Primary Accession     | <a href="#">Q00872</a>                                                                                                                                                                                          |
| Other Accession       | <a href="#">NP_002456</a> , <a href="#">45976288</a>                                                                                                                                                            |
| Reactivity            | Human, Mouse, Rat                                                                                                                                                                                               |
| Host                  | Rabbit                                                                                                                                                                                                          |
| Clonality             | Polyclonal                                                                                                                                                                                                      |
| Isotype               | IgG                                                                                                                                                                                                             |
| Calculated MW         | 128294                                                                                                                                                                                                          |
| Concentration (mg/ml) | 1 mg/mL                                                                                                                                                                                                         |
| Conjugate             | Unconjugated                                                                                                                                                                                                    |
| Application Notes     | MYBPC1 antibody can be used for detection of MYBPC1 by Western blot at 1 $\mu$ g/mL. Antibody can also be used for immunofluorescence starting at 20 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL. |

## Additional Information

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| Gene ID                  | 4604                                                                                                                                                                                                                                           |
| Other Names              | Myosin-binding protein C, slow-type, Slow MyBP-C, C-protein, skeletal muscle slow isoform, MYBPC1, MYBPCS                                                                                                                                      |
| Target/Specificity       | MYBPC1; At least five isoforms of MYBPC1 are known to exist. MYBPC1 antibody is predicted not to cross-react with other MYBPC family members                                                                                                   |
| Reconstitution & Storage | MYBPC1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Precautions              | MYBPC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                              |

## Protein Information

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| Name     | MYBPC1                                                                                                                                                                                                                                                                                                                                                                                                                |
| Synonyms | MYBPCS                                                                                                                                                                                                                                                                                                                                                                                                                |
| Function | Thick filament-associated protein located in the crossbridge region of vertebrate striated muscle a bands. Slow skeletal protein that binds to both myosin and actin (PubMed: <a href="#">31025394</a> , PubMed: <a href="#">31264822</a> ). In vitro, binds to native thin filaments and modifies the activity of actin-activated myosin ATPase. May modulate muscle contraction or may play a more structural role. |

## Background

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**MYBPC1 Antibody:** Myosin binding protein C (MYBPC) is a component of the thick filament of striated muscle, with the slow-type isoform designated MYBPC1. Both the fast-type (MYBPC2) and slow-type MYBPC protein contains seven immunoglobulin C2 motifs and three fibronectin type-III repeats. Multiple isoforms of MYBPC1 are known to exist, and are present in varying amounts in different skeletal muscles. It is thought that the MYBPC1 slow subfamily may play important roles in the assembly and stabilization of sarcomeric M- and A-bands and regulate the contractile properties of the actomyosin filaments.

## References

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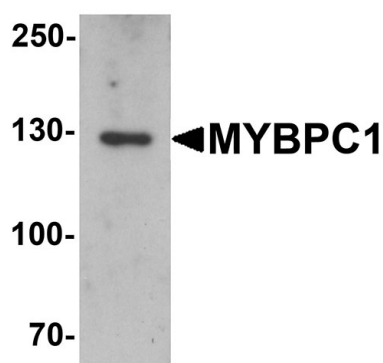
Furst DO, Vinkemeir U and Weber K. Mammalian skeletal muscle C-protein: purification from bovine muscle, binding to titin and the characterization of a full-length human cDNA. *J. Cell Sci.* 1992; 102:769-78.

Weber FE, Vaughan KT, Reiaich FC, et al. Complete sequence of human fast-type and slow-type muscle myosin-binding-protein C (MyBP-C). Differential expression, conserved domain structure and chromosome assignment. *Eur. J. Biochem.* 1993; 216:661-9.

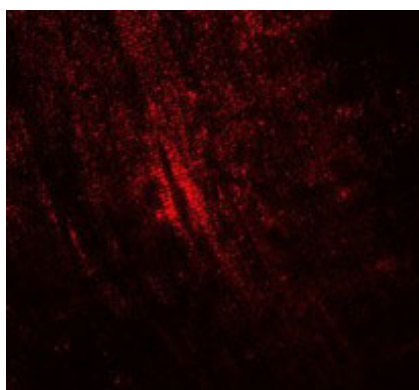
Ackermann MA and Kontogianni-Konstantopoulous A. Myosin binding protein-C slow: an intricate subfamily of proteins. *J. Biomed. Biotech.* 2010; 2010:652065.

## Images

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Western blot analysis of MYBPC1 in rat skeletal muscle tissue lysate with MYBPC1 antibody at 1 µg/mL.



Immunofluorescence of MYBPC1 in mouse skeletal muscle cells with MYBPC1 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.