

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MyBPC3 in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant mouse MyBPC3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human MyBPC3 Arg1001-Lys1103 Accession # Q14896
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MyBPC3 (MYosin Binding Protein C3; also cardiac MyBP-C, and C-protein, cardiac muscle isoform) is a 150-165 kDa member of the MyBP family, immunoglobulin superfamily of molecules. MyBP-C is expressed in striated muscle and exists in three isoforms; C1, C2, and C3. C1 and C2 are associated with slow and fast skeletal muscle, and may coexist in the same myofiber. The C3 isoform is cardiac specific, and is found in the two dark C-zones that flank the M line of the sarcomere A-band. The A-band contains both actin and myosin, and MyBPC3 forms structures that cross-link the resident actin and myosin filaments. MyBPC3 is reported to interact with titin and light meromyosin with its C-terminus, and actin plus myosin heavy chain with its N-terminus. Human MyBPC3 is 1273 amino acids (aa) in length. It contains one N-terminal I-set Ig-like domain (aa 12-94), a C2-type Ig-like domain (aa 153-256) followed by a phosphorylated myosin-binding region (aa 258-352), four C2-type Ig-like domains (aa 362-770) and three FN type III repeats interspersed with two C2-type Ig-like domains (aa 771-1273). There is one potential alternative start site at Met348. Over aa 1001-1103, human MyBPC3 shares 89% aa identity with mouse MyBPC3.

PRODUCT SPECIFIC NOTICES

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