

# myomesin-2 (E-5): sc-515638

## BACKGROUND

Myomesin-1 and myomesin-2 are components of the vertebrate myofibrillar M band and are associated with Titin, Myosin and Connectin. The myomesin proteins are responsible for the formation of a head structure on one end of the Titin string that connects the Z and M bands of the sarcomere. Myomesin-1 and -2 have unique N-terminal domains and are expressed mainly in skeletal muscle.

## REFERENCES

1. Grove, B.K., et al. 1984. A new 185,000-dalton skeletal muscle protein detected by monoclonal antibodies. *J. Cell Biol.* 98: 518-524.
2. Vinkemeier, U., et al. 1993. The globular head domain of titin extends into the center of the sarcomeric M band. cDNA cloning, epitope mapping and immunoelectron microscopy of two titin-associated proteins. *J. Cell Sci.* 106: 319-330.
3. Speel, E.J., et al. 1998. Assignment of the human gene for the sarcomeric M-band protein myomesin (MYOM1) to 18p11.31-p11.32. *Genomics* 54: 184-186.
4. Agarkova, I., et al. 2000. A novel marker for vertebrate embryonic heart, the EH-myomesin isoform. *J. Biol. Chem.* 275: 10256-10264.
5. Porter, J.D., et al. 2003. Postnatal suppression of myomesin, muscle creatine kinase and the M-line in rat extraocular muscle. *J. Exp. Biol.* 206: 3101-3112.
6. Hornemann, T., et al. 2003. Muscle-type creatine kinase interacts with central domains of the M-band proteins myomesin and M-protein. *J. Mol. Biol.* 332: 877-887.

## CHROMOSOMAL LOCATION

Genetic locus: MYOM2 (human) mapping to 8p23.3.

## SOURCE

myomesin-2 (E-5) is a mouse monoclonal antibody raised against amino acids 913-977 mapping within an internal region of myomesin-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

myomesin-2 (E-5) is available conjugated to agarose (sc-515638 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515638 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515638 PE), fluorescein (sc-515638 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515638 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515638 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515638 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515638 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515638 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515638 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

myomesin-2 (E-5) is recommended for detection of myomesin-2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for myomesin-2 siRNA (h): sc-60020, myomesin-2 shRNA Plasmid (h): sc-60020-SH and myomesin-2 shRNA (h) Lentiviral Particles: sc-60020-V.

Molecular Weight of myomesin-2: 165 kDa.

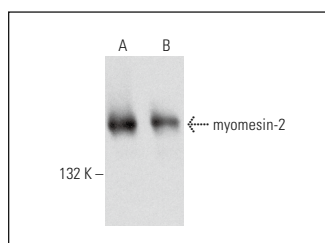
Positive Controls: human heart extract: sc-363763 or human skeletal muscle extract: sc-363776.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



myomesin-2 (E-5): sc-515638. Western blot analysis of myomesin-2 expression in human heart (A) and human skeletal muscle (B) tissue extracts.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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