

Myozenin 2 (H-50): sc-66990

BACKGROUND

The calcineurin-binding protein Myozenin 2, also designated calsarcin-1, is a member of the calsarcin protein family. Calcineurin is a calcium- and calmodulin-dependent protein phosphatase that is involved in controlling the slow fiber gene expression in skeletal muscle and hypertrophy of cardiac muscle. The calsarcins are sarcomeric proteins that couple calcineurin and muscle activity. In cardiac and skeletal muscle cells, Myozenin 2 binds calcineurin to α -actinin at the z-line of the sarcomere. During embryogenesis, Myozenin 1 and 2 are expressed in developing muscle. The Myozenin 2 gene maps to chromosome 4q26, and is expressed specifically in adult cardiac and slow-twitch skeletal muscle, while Myozenin 1 is only detected in fast skeletal muscle.

CHROMOSOMAL LOCATION

Genetic locus: MYOZ2 (human) mapping to 4q26; Myoz2 (mouse) mapping to 3 G1.

SOURCE

Myozenin 2 (H-50) is a rabbit polyclonal antibody raised against amino acids 51-100 mapping near the N-terminus of Myozenin 2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

Myozenin 2 (H-50) is recommended for detection of Myozenin 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Myozenin 2 (H-50) is also recommended for detection of Myozenin 2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Myozenin 2 siRNA (h): sc-45710, Myozenin 2 siRNA (m): sc-45711, Myozenin 2 shRNA Plasmid (h): sc-45710-SH, Myozenin 2 shRNA Plasmid (m): sc-45711-SH, Myozenin 2 shRNA (h) Lentiviral Particles: sc-45710-V and Myozenin 2 shRNA (m) Lentiviral Particles: sc-45711-V.

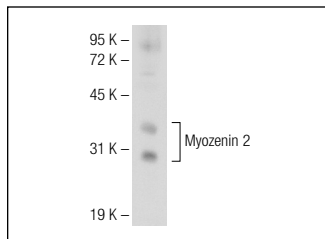
Molecular Weight of Myozenin 2: 34 kDa.

Positive Controls: mouse heart extract: sc-2254 or rat skeletal muscle extract: sc-364810.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Myozenin 2 (H-50): sc-66990. Western blot analysis of Myozenin 2 expression in mouse heart tissue extract.

SELECT PRODUCT CITATIONS

- Rahimov, F., et al. 2011. Gene expression profiling of skeletal muscles treated with a soluble activin type IIB receptor. *Physiol. Genomics* 43: 398-407.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Myozenin 2 (E-11): sc-377359** or **Myozenin 2 (B-4): sc-373876**, our highly recommended monoclonal alternatives to Myozenin 2 (H-50).