

Myozenin 1 (45): sc-136501

BACKGROUND

Myozenins, including Myozenin 1 (also known as MYOZ1, Calsarcin-2, or FATZ), Myozenin 2 and Myozenin 3, are a family of intracellular binding proteins that are involved in linking Z-disk proteins to the sarcomere. Expressed at high levels in cardiac and skeletal muscle and at lower levels in prostate, pancreas and heart, Myozenin 1 is a 299 amino acid nuclear protein that interacts with the Z-disk proteins, α -actinin, Filamin 2 and PP2B (calcineurin), and effectively forms a bridge between these proteins and muscle fibers. Via these interactions, Myozenin 1 couples striated muscle activity to protein activation and is thought to play a role in both Z-disk assembly and myofibrillogenesis. Due to the close involvement of Myozenin 1 with muscle formation, mutations in the gene encoding Myozenin 1 may be associated with muscular dystrophies and neuromuscular myopathies.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MYOZ1 (human) mapping to 10q22.2; Myoz1 (mouse) mapping to 14 A3.

SOURCE

Myozenin 1 (45) is a mouse monoclonal antibody raised against amino acids 57-212 of Myozenin 1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Myozenin 1 (45) is recommended for detection of Myozenin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Myozenin 1 siRNA (h): sc-90433, Myozenin 1 siRNA (m): sc-149767, Myozenin 1 shRNA Plasmid (h): sc-90433-SH, Myozenin 1 shRNA Plasmid (m): sc-149767-SH, Myozenin 1 shRNA (h) Lentiviral Particles: sc-90433-V and Myozenin 1 shRNA (m) Lentiviral Particles: sc-149767-V.

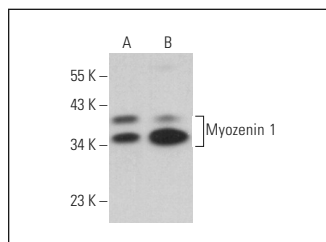
Molecular Weight of Myozenin 1: 32 kDa.

Positive Controls: C2C12 whole cell lysate: sc-364188, SJRH30 cell lysate: sc-2287 or mouse muscle tissue extract.

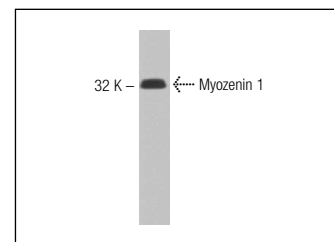
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

DATA



Myozenin 1 (45): sc-136501. Western blot analysis of Myozenin 1 expression in C2C12 (A) and SJRH30 (B) whole cell lysates.



Myozenin 1 (45): sc-136501. Western blot analysis of Myozenin 1 expression in mouse muscle tissue extract.

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. Not for resale.

PROTOCOLS

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