

MYH3 (Q-16): sc-324154

BACKGROUND

Actin is a highly conserved protein that is expressed in all eukaryotic cells. Actin filaments can form both stable and labile structures, and are crucial components of microvilli and the contractile apparatus of muscle cells. Myosin is a hexamer of two heavy chains (MHC) and four light chains (MLC) that interact with actin to generate the force for diverse cellular movements, including cytokinesis, phagocytosis and muscle contraction. MYH3 (Myosin heavy chain 3), also known as muscle embryonic Myosin heavy chain or SMHCE, is a 1,940 amino acid that localizes to the thick filaments of myofibrils. While highly expressed in fetal skeletal muscle, MYH3 is barely detectable in adult skeletal muscle. Defects in the gene encoding MYH3, which maps to human chromosome 17p13.1, are the cause of distal arthrogyposis type 2B (DA2B).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MYH3 (human) mapping to 17p13.1; Myh3 (mouse) mapping to 11 B3.

SOURCE

MYH3 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MYH3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-324154 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

MYH3 (Q-16) is recommended for detection of MYH3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other MYH family members.

MYH3 (Q-16) is also recommended for detection of MYH3 in additional species, including equine and bovine.

Suitable for use as control antibody for MYH3 siRNA (h): sc-93798, MYH3 siRNA (m): sc-149742, MYH3 shRNA Plasmid (h): sc-93798-SH, MYH3 shRNA Plasmid (m): sc-149742-SH, MYH3 shRNA (h) Lentiviral Particles: sc-93798-V and MYH3 shRNA (m) Lentiviral Particles: sc-149742-V.

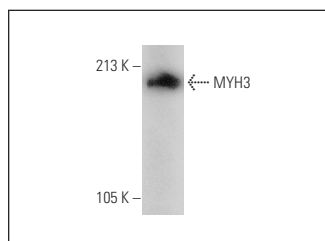
Molecular Weight of MYH3: 200 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MYH3 (Q-16): sc-324154. Western blot analysis of MYH3 expression in mouse skeletal 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.

MONOS
Satisfaction
Guaranteed

Try **MYH3 (F1.652): sc-53091** or **MYH (B-5): sc-376157**, our highly recommended monoclonal alternatives to MYH3 (Q-16).