SANTA CRUZ BIOTECHNOLOGY, INC.

MYL7 (H-60): sc-66967

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Encoded by the MYL7 gene, myosin regulatory light chain 7, also designated myosin regulatory light chain 2, atrial isoform (MLC-2a), is part of a hexameric complex of two heavy chains and four light chains predominantly expressed in adult atrial muscle. Myosin regulatory light chain 7 binds calcium and has been shown to be a useful molecular marker for cardiac chamber specification. The co-expression of myosin regulatory light chain 7 and myosin light chain 2 (MLC2v) in the outflow tract and atrioventricular canal, together with the single expression in the atrial (MYL7) and ventricular (MYL2) myocardium, permits the delineation of their boundaries. At the amino acid level there is 95% homology between the human and mouse myosin regulatory light chain 7 sequences.

CHROMOSOMAL LOCATION

Genetic locus: MYL7 (human) mapping to 7p13; Myl7 (mouse) mapping to 11 A1.

SOURCE

MYL7 (H-60) is a rabbit polyclonal antibody raised against amino acids 101-160 mapping near the C-terminus of myosin regulatory light chain 7 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.

STORAGE

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

APPLICATIONS

MYL7 (H-60) is recommended for detection of myosin regulatory light chain 7 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MYL7 (H-60) is also recommended for detection of myosin regulatory light chain 7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MYL7 siRNA (h): sc-45410, MYL7 siRNA (m): sc-45411, MYL7 shRNA Plasmid (h): sc-45410-SH, MYL7 shRNA Plasmid (m): sc-45411-SH, MYL7 shRNA (h) Lentiviral Particles: sc-45410-V and MYL7 shRNA (m) Lentiviral Particles: sc-45411-V.

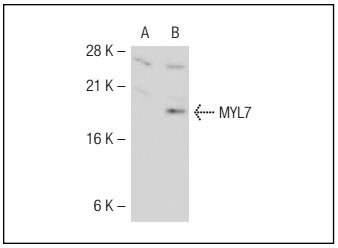
Molecular Weight of MYL7: 19 kDa.

Positive Controls: MYL7 (h): 293T Lysate: sc-114113.

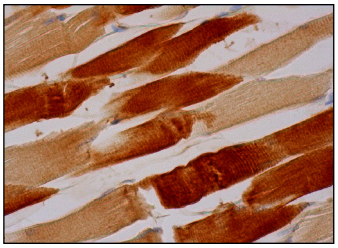
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



MYL7 (H-60): sc-66967. Western blot analysis of MYL7 expression in non-transfected: sc-117752 (**A**) and human MYL7 transfected: sc-114113 (**B**) 293T whole cell lysates.



MYL7 (H-60): sc-66967. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **MYL7 (B-10): sc-365255** or **MYL7 (D-9): sc-515026**, our highly recommended monoclonal alternatives to MYL7 (H-60).