SANTA CRUZ BIOTECHNOLOGY, INC.

Myf-6 (C-19): sc-301

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Differentiation of myogenic cells is regulated by multiple positively and negatively acting factors. One well characterized family of helix-loop-helix (HLH) proteins known to play an important role in the regulation of muscle cell development includes MyoD, myogenin, Myf-5 and Myf-6 (also designated MRF-4 or herculin). Of interest, most muscle cells express either MyoD or Myf-5 in the committed state, but when induced to differentiate, all turn on expression of myogenin. MyoD transcription factors form heterodimers with products of a more widely expressed family of bHLH genes, the E family, which consists of at least three distinct genes: E2A, IF2 and HEB. MyoD-E heterodimers bind avidly to consensus (CANNTG) E box target sites that are functionally important elements in the upstream regulatory sequences of many muscle-specific terminal differentiation genes.

CHROMOSOMAL LOCATION

Genetic locus: MYF6 (human) mapping to 12q21.31; Myf6 (mouse) mapping to 10 D1.

SOURCE

Myf-6 (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Myf-6 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-301 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-301 X, 200 µg/0.1 ml.

APPLICATIONS

Myf-6 (C-19) is recommended for detection of Myf-6 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).

Myf-6 (C-19) is also recommended for detection of Myf-6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Myf-6 siRNA (h): sc-43521, Myf-6 siRNA (m): sc-43522, Myf-6 shRNA Plasmid (h): sc-43521-SH, Myf-6 shRNA Plasmid (m): sc-43522-SH, Myf-6 shRNA (h) Lentiviral Particles: sc-43521-V and Myf-6 shRNA (m) Lentiviral Particles: sc-43522-V.

Myf-6 (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Myf-6: 30 kDa.

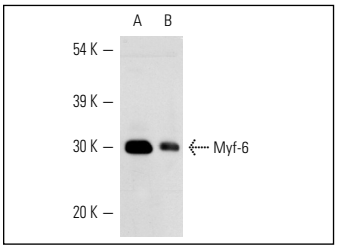
RESEARCH USE

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

STORAGE

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

DATA



Myf-6 (C-19): sc-301. Western blot analysis of Myf-6 expression in rat heart (**A**) and rat skeletal muscle (**B**) tissue extracts.

SELECT PRODUCT CITATIONS

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4. Kassar-Duchossoy, L., et al. 2005. Pax-3/Pax-7 mark a novel population of primitive myogenic cells during development. Genes Dev. 19: 1426-1431.
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10. Londhe, P., et al. 2011. γ interferon modulates myogenesis through the major histocompatibility complex class II transactivator, CIITA. Mol. Cell. Biol. 31: 2854-2866.
11. Fan, H., et al. 2011. Molecular mechanism underlying the differential MYF6 expression in postnatal skeletal muscle of Duroc and Pietrain breeds. Gene 486: 8-14.