

# Myf-5 (C-20): sc-302

## 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 include Myo D, myogenin, Myf-5 and Myf-6 (also designated MRF-4 or herculin). Of interest, most muscle cells express either Myo D or Myf-5 in the committed state, but when induced to differentiate, all turn on expression of myogenin. Myo D 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. Myo D-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: MYF5 (human) mapping to 12q21.31; Myf5 (mouse) mapping to 10 D1.

## SOURCE

Myf-5 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Myf-5 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-302 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-302 X, 200 µg/0.1 ml.

## APPLICATIONS

Myf-5 (C-20) is recommended for detection of Myf-5 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).

Myf-5 (C-20) is also recommended for detection of Myf-5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Myf-5 siRNA (h): sc-35988, Myf-5 siRNA (m): sc-35989, Myf-5 shRNA Plasmid (h): sc-35988-SH, Myf-5 shRNA Plasmid (m): sc-35989-SH, Myf-5 shRNA (h) Lentiviral Particles: sc-35988-V and Myf-5 shRNA (m) Lentiviral Particles: sc-35989-V.

Myf-5 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

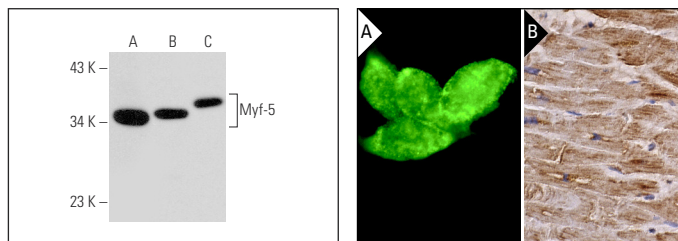
Molecular Weight of Myf-5: 32 kDa.

Positive Controls: human skeletal muscle extract: sc-363776, A549 cell lysate: sc-2413 or A-431 whole cell lysate: sc-2201.

## STORAGE

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

## DATA



Myf-5 (C-20): sc-302. Western blot analysis of Myf-5 expression in human skeletal muscle tissue extract (A) and A549 (B) and A431 (C) whole cell lysates.

Myf-5 (C-20): sc-302. Immunofluorescence staining of methanol-fixed SJRH30 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes (B).

## SELECT PRODUCT CITATIONS

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- Martinez-Bello, V.E., et al. 2012. Three weeks of erythropoietin treatment hampers skeletal muscle mitochondrial biogenesis in rats. *J. Physiol. Biochem.* 68: 593-601.
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- Charan, R.A., et al. 2012. Adeno-associated virus serotype 8 (AAV8) delivery of recombinant A20 to skeletal muscle reduces pathological activation of nuclear factor NF $\kappa$ B in muscle of mdx mice. *Mol. Med.* 18: 1527-1535.

## RESEARCH USE

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