

Myf-5 (S-14): sc-31947

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.

REFERENCES

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- Hollenberg, S.M., et al. 1993. Use of a conditional Myo D transcription factor in studies of Myo D *trans*-activation and muscle determination. *Proc. Natl. Acad. Sci. USA* 90: 8028-8032.

CHROMOSOMAL LOCATION

Genetic locus: MYF5 (human) mapping to 12q21.31; Myf5 (mouse) mapping to 10 D1.

SOURCE

Myf-5 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Myf-5 of human origin.

STORAGE

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

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-31947 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-31947 X, 200 µg/0.1 ml.

APPLICATIONS

Myf-5 (S-14) 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), 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-5 (S-14) 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 (S-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Myf-5: 32 kDa.

Positive Controls: Rat skeletal muscle extract: sc-364810.

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) 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.

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.