

# Myf-6 (G-7): sc-514379

## 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.

## SOURCE

Myf-6 (G-7) is a mouse monoclonal antibody raised against amino acids 1-242 of Myf-6 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514379 X, 200 µg/0.1 ml.

Myf-6 (G-7) is available conjugated to agarose (sc-514379 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514379 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514379 PE), fluorescein (sc-514379 FITC), Alexa Fluor® 488 (sc-514379 AF488), Alexa Fluor® 546 (sc-514379 AF546), Alexa Fluor® 594 (sc-514379 AF594) or Alexa Fluor® 647 (sc-514379 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514379 AF680) or Alexa Fluor® 790 (sc-514379 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

Myf-6 (G-7) is recommended for detection of Myf-6 of human origin by Western Blotting (starting dilution 1:100, 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).

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

Myf-6 (G-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

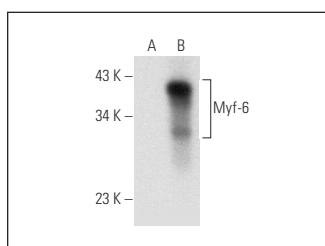
Molecular Weight of Myf-6: 30 kDa.

Positive Controls: Myf-6 (h2): 293T Lysate: sc-176122.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Myf-6 (G-7): sc-514379. Western blot analysis of Myf-6 expression in non-transfected: sc-117752 (A) and human Myf-6 transfected: sc-176122 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Jin, C.L., et al. 2020. mTORC1-mediated satellite cell differentiation is required for lysine-induced skeletal muscle growth. *J. Agric. Food Chem.* 68: 4884-4892.
- O'Brien, M.E., et al. 2020. Tumor necrosis factor- $\alpha$  regulates skeletal myogenesis by inhibiting SP1 interaction with *cis*-acting regulatory elements within the Fbxl2 gene promoter. *Mol. Cell. Biol.* 40: e00040-20.
- Kim, K., et al. 2020. Myogenic regulatory factors are key players in determining muscle mass and meat quality in Jeju native and Berkshire pigs. *Vet. Med. Sci.* E-published.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.