

myogenin (h): 293T Lysate: sc-116551

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-MyoE 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

- Greenfeder, S.A., Nunes, P., Kwee, L., Labow, M., Chizzonite, R.A. and Ju, G. 1995. Molecular cloning and characterization of a second subunit of the Interleukin-1 receptor complex. *J. Biol. Chem.* 270: 13757-13765.
- Jensen, L.E. and Whitehead, A.S. 2003. Expression of alternatively spliced Interleukin-1 receptor accessory protein mRNAs is differentially regulated during inflammation and apoptosis. *Cell. Signal.* 15: 793-802.
- Smeets, R.L., van de Loo, F.A., Joosten, L.A., Arntz, O.J., Bennink, M.B., Loesberg, W.A., Dmitriev, I.P., Curiel, D.T., Martin, M.U. and van den Berg, W.B. 2003. Effectiveness of the soluble form of the Interleukin-1 receptor accessory protein as an inhibitor of Interleukin-1 in collagen-induced arthritis. *Arthritis Rheum.* 48: 2949-2958.
- Jensen, L.E. and Whitehead, A.S. 2004. The 3' untranslated region of the membrane-bound IL-1R acc confers tissue-specific destabilization. *J. Immunol.* 173: 6248-6258.
- Towne, J.E., Garka, K.E., Renshaw, B.R., Virca, G.D. and Sims, J.E. 2004. Interleukin (IL)-1F6, IL-1F8 and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NF κ B and MAPKs. *J. Biol. Chem.* 279: 13677-13688.
- Smeets, R.L., Joosten, L.A., Arntz, O.J., Bennink, M.B., Takahashi, N., Carlsen, H., Martin, M.U., van den Berg, W.B. and van de Loo, F.A. 2005. Soluble Interleukin-1 receptor accessory protein ameliorates collagen-induced arthritis by a different mode of action from that of Interleukin-1 receptor antagonist. *Arthritis Rheum.* 52: 2202-2211.
- Andre, R., Lerouet, D., Kimber, I., Pinteaux, E. and Rothwell, N.J. 2005. Regulation of expression of the novel IL-1 receptor family members in the mouse brain. *J. Neurochem.* 95: 324-330.
- Andre, R., Moggs, J.G., Kimber, I., Rothwell, N.J. and Pinteaux, E. 2006. Gene regulation by IL-1 β independent of IL-1R1 in the mouse brain. *Glia* 53: 477-483.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: MYOG (human) mapping to 1q32.1.

PRODUCT

myogenin (h): 293T Lysate represents a lysate of human myogenin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

myogenin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive myogenin antibodies. Recommended use: 10-20 μ l per lane.

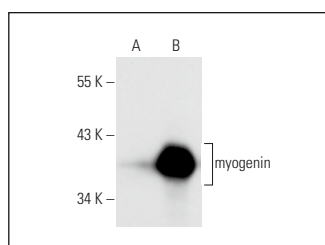
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

myogenin (5FD): sc-52903 is recommended as a positive control antibody for Western Blot analysis of enhanced human myogenin expression in myogenin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

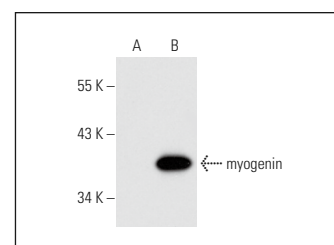
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



myogenin (5FD): sc-52903. Western blot analysis of myogenin expression in non-transfected: sc-117752 (A) and human myogenin transfected: sc-116551 (B) 293T whole cell lysates.



myogenin (D-10): sc-13137. Western blot analysis of myogenin expression in non-transfected: sc-117752 (A) and human myogenin transfected: sc-116551 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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