

MEF-2D (C-17): sc-13922

BACKGROUND

The myocyte enhancer factor-2 (MEF-2) family of transcription factors associated with co-repressors or co-activators to regulate development and function of T cells, neuronal cells and muscle cells. Four family members arise from alternatively spliced transcripts, termed MEF-2A, -2B, -2C and -2D. These members bind as homo- and heterodimers to the MEF-2 site in the promoter region of affected genes. Differential regulation in the expression of the four transcripts implies functional distinction for each during embryogenesis and development. The process of differentiation from mesodermal precursor cells to myoblasts has led to the discovery of a variety of tissue-specific factors that regulate muscle gene expression. The myogenic basic helix-loop-helix proteins, including MyoD, myogenin, Myf-5 and MRF4, are one class of identified factors. A second family of DNA binding regulatory proteins is the myocyte-specific enhancer factor-2 (MEF-2) family. Each of these proteins binds to the MEF-2 target DNA sequence present in the regulatory regions of many muscle-specific genes.

CHROMOSOMAL LOCATION

Genetic locus: MEF2D (human) mapping to 1q22; Mef2d (mouse) mapping to 3 F1.

SOURCE

MEF-2D (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MEF-2D 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13922 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-13922 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MEF-2D (C-17) is recommended for detection of MEF-2D 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).

MEF-2D (C-17) is also recommended for detection of MEF-2D in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MEF-2D siRNA (h): sc-38064, MEF-2D siRNA (m): sc-38065, MEF-2D shRNA Plasmid (h): sc-38064-SH, MEF-2D shRNA Plasmid (m): sc-38065-SH, MEF-2D shRNA (h) Lentiviral Particles: sc-38064-V and MEF-2D shRNA (m) Lentiviral Particles: sc-38065-V.

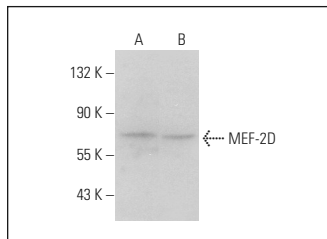
Molecular Weight of MEF-2D: 56 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138 or Daudi cell lysate: sc-2415.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



MEF-2D (C-17): sc-13922. Western blot analysis of MEF-2D expression in NIH/3T3 nuclear extract (A) and Daudi whole cell lysate (B).

SELECT PRODUCT CITATIONS

- Meissner, J.D., Chang, K.C., Kubis, H.P., Nebreda, A.R., Gros, G. and Scheibe, R.J. 2007. The p38 α / β mitogen-activated protein kinases mediate recruitment of CREB-binding protein to preserve fast myosin heavy chain II δ / ξ gene activity in myotubes. *J. Biol. Chem.* 282: 7265-7275.
- Meissner, J.D., Umeda, P.K., Chang, K.C., Gros, G. and Scheibe, R.J. 2007. Activation of the β myosin heavy chain promoter by MEF-2D, MyoD, p300, and the calcineurin/NFATc1 pathway. *J. Cell. Physiol.* 211: 138-148.
- Zhou, D., Strakovsky, R.S., Zhang, X. and Pan, Y.X. 2012. The skeletal muscle Wnt pathway may modulate Insulin resistance and muscle development in a diet-induced obese rat model. *Obesity* 20: 1577-1584.

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.


 MONOS
Satisfaction
Guaranteed

Try **MEF-2D (H-11): sc-271153** or **MEF-2D (9): sc-136196**, our highly recommended monoclonal alternatives to MEF-2D (C-17).