

MEF-2C (F-10): sc-365862

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: MEF2C (human) mapping to 5q14.3; Mef2c (mouse) mapping to 13 C3.

SOURCE

MEF-2C (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 113-145 within an internal region of MEF-2C of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-365862 X, 200 µg/0.1 ml.

MEF-2C (F-10) is available conjugated to agarose (sc-365862 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365862 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-365862 PE), fluorescein (sc-365862 FITC) or Alexa Fluor[®] 488 (sc-365862 AF488) or Alexa Fluor[®] 647 (sc-365862 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-365862 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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

STORAGE

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

PROTOCOLS

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

APPLICATIONS

MEF-2C (F-10) is recommended for detection of MEF-2C of mouse, rat and 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).

MEF-2C (F-10) is also recommended for detection of MEF-2C in additional species, including equine, canine, bovine and avian.

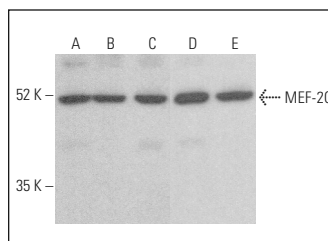
Suitable for use as control antibody for MEF-2C siRNA (h): sc-38062, MEF-2C siRNA (m): sc-38063, MEF-2C shRNA Plasmid (h): sc-38062-SH, MEF-2C shRNA Plasmid (m): sc-38063-SH, MEF-2C shRNA (h) Lentiviral Particles: sc-38062-V and MEF-2C shRNA (m) Lentiviral Particles: sc-38063-V.

MEF-2C (F-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MEF-2C: 45 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, SK-N-MC cell lysate: sc-2237 or HeLa whole cell lysate: sc-2200.

DATA



MEF-2C (F-10): sc-365862. Western blot analysis of MEF-2C expression in SK-N-MC (A), NIH/3T3 (B), HeLa (C), MCF7 (D) and Saos-2 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Debnath, I., et al. 2013. Bone marrow-induced MEF2C deficiency delays B-cell development and alters the expression of key B-cell regulatory proteins. *Int. Immunol.* 25: 99-115.
- Zhang, L., et al. 2014. Disruption of chaperone-mediated autophagy-dependent degradation of MEF2A by oxidative stress-induced lysosome destabilization. *Autophagy* 10: 1015-1035.
- Wei, X., et al. 2016. miR-378a-3p promotes differentiation and inhibits proliferation of myoblasts by targeting HDAC4 in skeletal muscle development. *RNA Biol.* 13: 1300-1309.
- Jiang, Y., et al. 2019. MEF2C/miR-133a-3p.1 circuit-stabilized AQP1 expression maintains endothelial water homeostasis. *FEBS Lett.* 593: 2566-2573.

RESEARCH USE

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