SANTA CRUZ BIOTECHNOLOGY, INC.

MEF-2C (C-17): sc-13268

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The myocyte enhancer factor-2 (MEF-2) family of transcription factors associated with corepessors 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 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MEF-2C 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.

Blocking peptide available for competition studies, sc-13268 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-13268 X, 200 µg/0.1 ml.

APPLICATIONS

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

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.

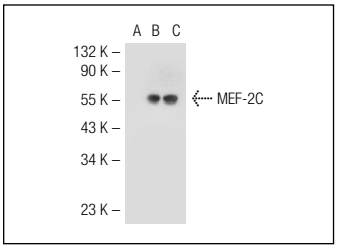
MEF-2C (C-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MEF-2C: 45 kDa.

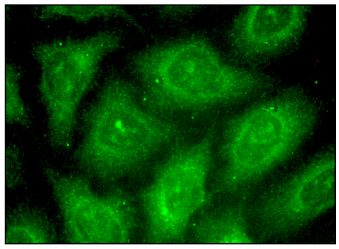
STORAGE

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

DATA



MEF-2C (C-17): sc-13268. Western blot analysis of MEF-2C expression in non-transfected 293T: sc-117752 (**A**), mouse MEF-2C transfected 293T: sc-121588 (**B**) and HeLa (**C**) whole cell lysates.



MEF-2C (C-17): sc-13268. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Bedelbaeva, K., et al. 2004. The MRL mouse heart healing response shows donor dominance in allogeneic fetal liver chimeric mice. Cloning Stem Cells 6: 352-363.
2. Margariti, A., et al. 2009. Splicing of HDAC7 modulates the SRF-myocardin complex during stem-cell differentiation towards smooth muscle cells. J. Cell Sci. 122: 460-470.
3. Crespo, F.L., et al. 2010. Mitochondrial reactive oxygen species mediate cardiomyocyte formation from embryonic stem cells in high glucose. Stem Cells 28: 1132-1142.
4. Schneider, M., et al. 2011. Cell-specific detection of microRNA expression during cardiomyogenesis by combined *in situ* hybridization and immunohistochemistry. J. Mol. Histol. 42: 289-299.
5. Agarwal, P., et al. 2011. The MADS box transcription factor MEF2C regulates melanocyte development and is a direct transcriptional target and partner of SOX10. Development 138: 2555-2565.
6. 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.

RESEARCH USE

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