

MEF-2D (P-17): sc-13921

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 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-13921 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-13921 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MEF-2D (P-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), immunohistochemistry (including paraffin-embedded sections) (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 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.

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

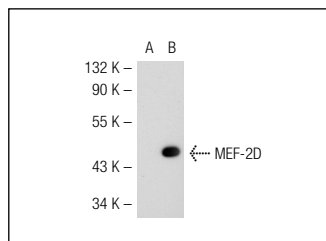
Molecular Weight of MEF-2D: 56 kDa.

Positive Controls: MEF-2D (m): 293T Lysate: sc-121589.

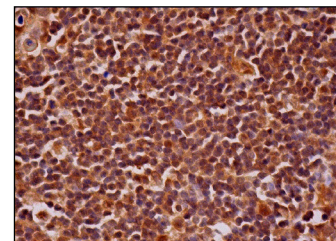
STORAGE

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

DATA



MEF-2D (P-17): sc-13921. Western blot analysis of MEF-2D expression in non-transfected: sc-117752 (A) and mouse MEF-2D transfected: sc-121589 (B) 293T whole cell lysates.



MEF-2D (P-17): sc-13921. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear and cytoplasmic staining of cells in germinal and non-germinal centers.

SELECT PRODUCT CITATIONS

1. Kasler, H. and Verdin, E. 2007. Histone deacetylase 7 functions as a key regulator of genes involved in both positive and negative selection of thymocytes. *Mol. Cell. Biol.* 27: 5184-5200.
2. Girón, M,D., et al. 2008. The glucose-lowering agent sodium tungstate increases the levels and translocation of GLUT4 in L6 myotubes through a mechanism associated with ERK1/2 and MEF2D. *Diabetologia* 51: 1285-1295.
3. Zhang, M., et al. 2013. Loss of MEF2D expression inhibits differentiation and contributes to oncogenesis in rhabdomyosarcoma cells. *Mol. Cancer* 12: 150.

RESEARCH USE

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

PROTOCOLS

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



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