

MEF-2B (C-6): sc-376504

BACKGROUND

The myocyte enhancer factor-2 (MEF-2) family of transcription factors associate with co-repressors or co-activators to regulate development and function of T cells, neuronal cells, and muscle cells. Four family members, termed MEF-2A, -2B, -2C, and -2D, arise from alternatively spliced transcripts. 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. The MEF-2 family represents a second class of DNA binding regulatory proteins. Each of these proteins binds to the MEF-2 target DNA sequence present in the regulatory regions of many muscle-specific genes.

REFERENCES

1. Hidaka, K., et al. 1995. The MEF2B homologue differentially expressed in mouse embryonal carcinoma cells. *Biochem. Biophys. Res. Commun.* 213: 555-560.
2. Hobson, G.M., et al. 1995. Regional chromosomal assignments for four members of the MADS domain transcription enhancer factor 2 (MEF2) gene family to human chromosomes 15q26, 19p12, 5q14, and 1q12-q23. *Genomics* 29: 704-711.
3. Zhao, M., et al. 1999. Regulation of the MEF2 family of transcription factors by p38. *Mol. Cell. Biol.* 19: 21-30.
4. Allen, M.P., et al. 2000. Myocyte enhancer factors-2B and -2C are required for adhesion related kinase repression of neuronal gonadotropin releasing hormone gene expression. *J. Biol. Chem* 275: 39662-39670.

CHROMOSOMAL LOCATION

Genetic locus: MEF2B (human) mapping to 19p13.11; Mef2b (mouse) mapping to 8 B3.3.

SOURCE

MEF-2B (C-6) is a mouse monoclonal antibody raised against amino acids 207-285 mapping within an internal region of MEF-2B of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-376504 X, 200 µg/0.1 ml.

MEF-2B (C-6) is available conjugated to agarose (sc-376504 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376504 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376504 PE), fluorescein (sc-376504 FITC), Alexa Fluor® 488 (sc-376504 AF488), Alexa Fluor® 546 (sc-376504 AF546), Alexa Fluor® 594 (sc-376504 AF594) or Alexa Fluor® 647 (sc-376504 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376504 AF680) or Alexa Fluor® 790 (sc-376504 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MEF-2B (C-6) is recommended for detection of MEF-2B 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).

Suitable for use as control antibody for MEF-2B siRNA (h): sc-38060, MEF-2B siRNA (m): sc-38061, MEF-2B shRNA Plasmid (h): sc-38060-SH, MEF-2B shRNA Plasmid (m): sc-38061-SH, MEF-2B shRNA (h) Lentiviral Particles: sc-38060-V and MEF-2B shRNA (m) Lentiviral Particles: sc-38061-V.

MEF-2B (C-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

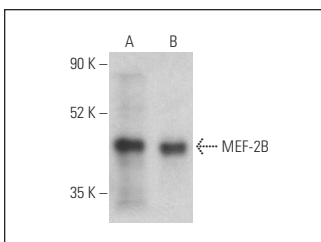
Molecular Weight of MEF-2B: 25 kDa.

Positive Controls: Daudi cell lysate: sc-2415, F9 cell lysate: sc-2245 or mouse heart extract: sc-2254.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MEF-2B (C-6): sc-376504. Western blot analysis of MEF-2B expression in Daudi (A) and F9 (B) whole cell lysates.

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.

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