SANTA CRUZ BIOTECHNOLOGY, INC.

MEF-2B (H-165): sc-98594

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

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3. Zhao M, et al. 1999. Regulation of the MEF-2 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.
5. Han, A., et al. 2003. Sequence-specific recruitment of transcriptional co-repressor Cabin1 by myocyte enhancer factor-2. Nature 422: 730-734.
6. Suzuki, E., et al. 2004. Myocyte enhancer factor 2 mediates vascular inflammation via the p38-dependent pathway. Circ. Res. 95: 42-49.
7. Wang, X., et al. 2004. Regulation of hepatic stellate cell activation and growth by transcription factor myocyte enhancer factor 2. Gastroenterology 127: 1174-1188.
8. Han, A., et al. 2005. Mechanism of recruitment of class II histone deacetylases by myocyte enhancer factor-2. J. Mol. Biol. 345: 91-102.

CHROMOSOMAL LOCATION

Genetic locus: MEF2B (human) mapping to 19p13.11.

SOURCE

MEF-2B (H-165) is a rabbit polyclonal antibody raised against amino acids 201-365 mapping at the C-terminus of MEF-2B of human origin.

STORAGE

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

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-98594 X, 200 µg/0.1 ml.

APPLICATIONS

MEF-2B (H-165) is recommended for detection of MEF-2B of 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).

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

MEF-2B (H-165) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MEF-2B: 25 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.