

MEF-2B (G-14): sc-30244



The Power to Question

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.

REFERENCES

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2. Hobson, G.M., Krahe, R., Garcia, E., Siciliano, M.J. and Funanage, V.L. 1995. Regional chromosomal assignments for four members of the MADS domain transcription enhancer factor 2 (MEF-2) gene family to human chromosomes 15q26, 19p12, 5q14, and 1q12-q23. *Genomics* 29:704-711.
3. Zhao, M., New, L., Kravchenko, V.V., Kato, Y., Gram, H., di Padova, F., Olson, E.N., Ulevitch, R.J. and Han, J. 1999. Regulation of the MEF-2 family of transcription factors by p38. *Mol. Cell Biol.* 19: 21-30.
4. Han, A., Pan, F., Stroud, J.C., Youn, H.D., Liu, J.O., Chen, L. 2003. Sequence-specific recruitment of transcriptional co-repressor Cabin1 by myocyte enhancer factor-2. *Nature* 422: 730-734.

CHROMOSOMAL LOCATION

Genetic locus: MEF2B (human) mapping to 19p12; Mef2b (mouse) mapping to 8 C1.

SOURCE

MEF-2B (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MEF-2B 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-30244 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-30244 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

MEF-2B (G-14) is recommended for detection of MEF-2B 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for MEF-2B siRNA (h): sc-38060 and MEF-2B siRNA (m): sc-38061.

MEF-2B (G-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

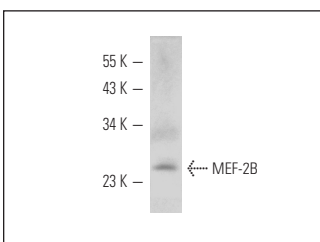
Molecular Weight of MEF-2B: 25 kDa.

Positive Controls: mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MEF-2B (G-14): sc-30244. Western blot analysis of MEF-2B expression in mouse heart tissue extract.

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 or our catalog for detailed protocols and support products.