

MEF-2A (H-300): sc-10794

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 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: MEF2A (human) mapping to 15q26.3; Mef2a (mouse) mapping to 7 C.

SOURCE

MEF-2A (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of MEF-2A 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-10794 X, 200 µg/0.1 ml.

APPLICATIONS

MEF-2A (H-300) is recommended for detection of MEF-2A 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-2A (H-300) is also recommended for detection of MEF-2A in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for MEF-2A siRNA (h): sc-35894, MEF-2A siRNA (m): sc-35895, MEF-2A shRNA Plasmid (h): sc-35894-SH, MEF-2A shRNA Plasmid (m): sc-35895-SH, MEF-2A shRNA (h) Lentiviral Particles: sc-35894-V and MEF-2A shRNA (m) Lentiviral Particles: sc-35895-V.

MEF-2A (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

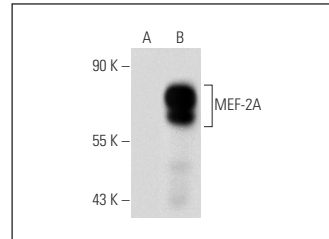
Molecular Weight of MEF-2A: 62 kDa.

Positive Controls: MEF-2A (h): 293 Lysate: sc-111308, HeLa whole cell lysate: sc-2200 or rat brain extract: sc-2392.

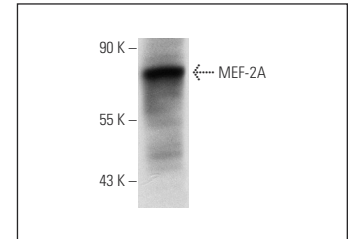
STORAGE

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

DATA



MEF-2A (H-300): sc-10794. Western blot analysis of MEF-2A expression in non-transfected: sc-110760 (A) and human MEF-2A transfected: sc-111308 (B) 293 whole cell lysates.



MEF-2A (H-300): sc-10794. Western blot analysis of MEF-2A expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

- Holmes, W.F., et al. 2003. Early events in the induction of apoptosis in ovarian carcinoma cells by CD437: activation of the p38 MAP kinase signal pathway. *Oncogene* 22: 6377-6386.
- Toro, R., et al. 2004. Cell-specific activation of the atrial natriuretic factor promoter by Pitx2 and MEF-2A. *J. Biol. Chem.* 279: 52087-52094.
- Maillet, M., et al. 2005. Functional studies of the 5'-untranslated region of human 5-HT4 receptor mRNA. *Biochem. J.* 387: 463-471.
- Goffin, V., et al. 2005. Transcription factor binding sites in the pol gene intragenic regulatory region of HIV-1 are important for virus infectivity. *Nucleic Acids Res.* 33: 4285-4310.
- Leupin, O., et al. 2007. Control of the SOST bone enhancer by PTH using MEF2 transcription factors. *J. Bone Miner. Res.* 22: 1957-1967.
- Camp, S., et al. 2008. Acetylcholinesterase expression in muscle is specifically controlled by a promoter-selective enhancer in the first intron. *J. Neurosci.* 28: 2459-2470.
- Tyson-Capper, A.J., et al. 2009. Interplay between polypyrimidine tract binding protein-associated splicing factor and human myometrial progesterone receptors. *J. Mol. Endocrinol.* 43: 29-41.
- Ishikawa, F., et al. 2010. Transcriptional induction of MMP-10 by TGF-β, mediated by activation of MEF2A and downregulation of class IIa HDACs. *Oncogene* 29: 909-919.

RESEARCH USE

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



Try **MEF-2A (B-4): sc-17785** or **MEF-2A (D-6): sc-55500**, our highly recommended monoclonal alternatives to MEF-2A (H-300).