

MEF-2D (h): 293T Lysate: sc-116416

BACKGROUND

The myocyte enhancer factor-2 (MEF-2) family of transcription factors associate with corepressors 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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4. Slepak, T.I., et al. 2001. Control of cardiac-specific transcription by p300 through myocyte enhancer factor-2D. *J. Biol. Chem.* 276: 7575-7585.
5. Bryant, H., et al. 2002. Signal transduction and transcription factor modification during reactivation of Epstein-Barr virus from latency. *J. Virol.* 76: 10290-10298.
6. Han, A., et al. 2003. Sequence-specific recruitment of transcriptional corepressor Cabin-1 by myocyte enhancer factor-2. *Nature* 422: 730-734.
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8. Otani, K., et al. 2004. Calpain system regulates muscle mass and glucose transporter Glut4 turnover. *J. Biol. Chem.* 279: 20915-20920.
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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 for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: MEF2D (human) mapping to 1q22.

PRODUCT

MEF-2D (h): 293T Lysate represents a lysate of human MEF-2D transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

MEF-2D (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MEF-2D antibodies. Recommended use: 10-20 μ l per lane.

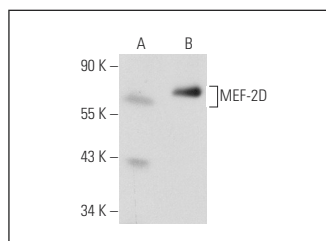
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MEF-2D (H-11): sc-271153 is recommended as a positive control antibody for Western Blot analysis of enhanced human MEF-2D expression in MEF-2D transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



MEF-2D (H-11): sc-271153. Western blot analysis of MEF-2D expression in non-transfected: sc-117752 (A) and human MEF-2D transfected: sc-116416 (B) 293T whole cell lysates.

RESEARCH USE

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