

MRTF-A (H-140): sc-32909

BACKGROUND

Serum response factor (SRF) is a transcription factor that binds the serum response element (SRE), a sequence that mediates the transient response of many cellular genes to growth stimulation. SRF regulates the transient response of several muscle genes in response to growth factors and recruits accessory myogenic factors to activate these muscle genes. SRF is required for the formation of vertebrate mesoderm leading to the origin of the cardiovascular system. Myocardin, in association with SRF in cardiac muscle cells, activates cardiac muscle promoters. Myocardin-related transcription factor A (MRTF-A) interacts with SRF and stimulates its transcriptional activity.

CHROMOSOMAL LOCATION

Genetic locus: MKL1 (human) mapping to 22q13.1; Mkl1 (mouse) mapping to 15 E1.

SOURCE

MRTF-A (H-140) is a rabbit polyclonal antibody raised against amino acids 761-900 mapping near the C-terminus of MRTF-A 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.

APPLICATIONS

MRTF-A (H-140) is recommended for detection of Myocardin-related transcription factor A 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).

MRTF-A (H-140) is also recommended for detection of Myocardin-related transcription factor A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MRTF-A siRNA (h): sc-43944, MRTF-A siRNA (m): sc-149641, MRTF-A shRNA Plasmid (h): sc-43944-SH, MRTF-A shRNA Plasmid (m): sc-149641-SH, MRTF-A shRNA (h) Lentiviral Particles: sc-43944-V and MRTF-A shRNA (m) Lentiviral Particles: sc-149641-V.

Molecular Weight of MRTF-A: 160 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or A549 cell lysate: sc-2413.

STORAGE

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

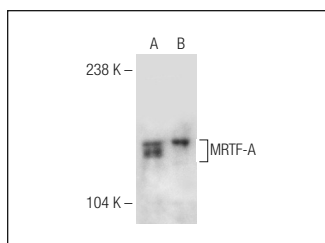
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

RESEARCH USE

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

DATA



MRTF-A (H-140): sc-32909. Western blot analysis of MRTF-A expression in HeLa (A) and A549 (B) nuclear extracts.

SELECT PRODUCT CITATIONS

- Kalita, K., et al. 2006. Role of megakaryoblastic acute leukemia-1 in ERK1/2-dependent stimulation of serum response factor-driven transcription by BDNF or increased synaptic activity. *J. Neurosci.* 26: 10020-10032.
- O'Sullivan, N.C., et al. 2010. Mkl transcription cofactors regulate structural plasticity in hippocampal neurons. *Cereb. Cortex* 20: 1915-1925.
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- Lee, S.M., et al. 2010. Activation and repression of cellular immediate early genes by serum response factor cofactors. *J. Biol. Chem.* 285: 22036-22049.
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- Wallace, M.A., et al. 2011. Striated muscle activator of Rho signalling (STARS) is a PGC-1 α /oestrogen-related receptor- α target gene and is upregulated in human skeletal muscle after endurance exercise. *J. Physiol.* 589: 2027-2039.
- Fang, F., et al. 2011. Myocardin-related transcription factor A mediates OxLDL-induced endothelial injury. *Circ. Res.* 108: 797-807.



Try **MRTF-A (G-7): sc-398675** or **MRTF-A (G-8): sc-390324**, our highly recommended monoclonal alternatives to MRTF-A (H-140). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **MRTF-A (G-7): sc-398675**.